MAD JUNE 2016

PROJECT ID: 1003-10-74
WITH: 1003-10-75, 1003-10-77, 1003-10-78, 1003-10-82

COUNTY: ROCK

03

ORDER OF SHEETS

Section No.	1	Title
Section No.	2	Typical Sections and Details
Section No.	3	Estimate of Quantities
Section No.	3	Miscellaneous Quantities
Section No.	4	Right of Way Plat
Section No.	5	Plan and Profile
Section No.	6	Standard Detail Drawings
Section No.	7	Sign Plates
Section No.	8	Structure Plans
Section No.	9	Computer Earthwork Data
Section No.	9	Cross Sections

TOTAL SHEETS = 254

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

ILLINOIS STATE LINE - MADISON

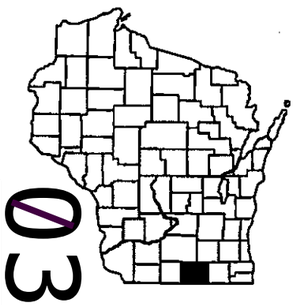
CREEK ROAD BRIDGE B-53-0316

IH 39

ROCK COUNTY

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
1003-10-74	———	—

STATE PROJECT NUMBER
1003-10-74

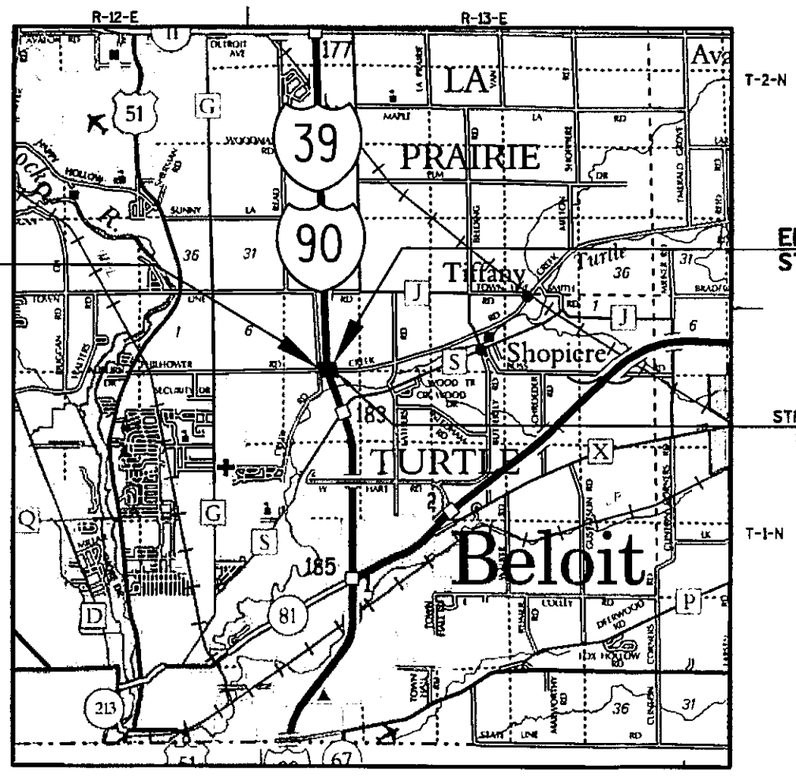


N

DESIGN DESIGNATION

A.A.D.T.	(2015)	=	800
A.A.D.T.	(2035)	=	1,050
D.H.V.	(2035)	=	128
D.D.		=	60/40
T.	(% A.A.D.T.)	=	7.2%
DESIGN SPEED		=	50 MPH
ESALS		=	124,100

BEGIN PROJECT 1003-10-74
STA. 3+00.00'CK'
Y = 227,462.42'
X = 503,182.61'



END PROJECT 1003-10-74
STA. 28+00.00'CK'

STRUCTURE B-53-316
STA 17+45.53'CK'

LAYOUT
SCALE 0 1 MI

TOTAL NET LENGTH OF CENTERLINE = 0.000 MI

COORDINATES SHOWN ON THIS PLAN ARE REFERENCED TO THE WISCONSIN COUNTY COORDINATE SYSTEM (WCCS) ROCK COUNTY, NAD 83 (2007)
ELEVATIONS SHOWN ON THIS PLAN ARE REFERENCED TO NAVD88 (2007)

CONVENTIONAL SYMBOLS

PLAN		PROFILE	
CORPORATE LIMITS		GRADE LINE	
PROPERTY LINE		ORIGINAL GROUND	
LOT LINE		MARSH OR ROCK PROFILE (To be noted as such)	ROCK
LIMITED HIGHWAY EASEMENT		SPECIAL DITCH	LABEL
EXISTING RIGHT OF WAY		GRADE ELEVATION	95.36
PROPOSED OR NEW R/W LINE		CULVERT (Profile View)	
SLOPE INTERCEPT		UTILITIES	
REFERENCE LINE		ELECTRIC	E
EXISTING CULVERT		FIBER OPTIC	FO
PROPOSED CULVERT (Box or Pipe)		GAS	G
COMBUSTIBLE FLUIDS	CAUTION	SANITARY SEWER	SAN
		STORM SEWER	SS
MARSH AREA		TELEPHONE	T
		WATER	W
		UTILITY PEDESTAL	
WOODED OR SHRUB AREA		POWER POLE	
		TELEPHONE POLE	

ACCEPTED FOR
TOWN OF TURTLE
3-18-16 (Date) (Town of Turtle Chair)

ORIGINAL PLANS PREPARED BY
AECOM

WISCONSIN
SCOTT R. STEVENSON
E-43799
MENOMONEE FALLS, WI
PROFESSIONAL ENGINEER

3/1/16 (Date) (Signature)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor	COMBS & ASSOCIATES
Designer	AECOM
Project Manager	STEVE MARSHALL
Regional Examiner	JAMES BUSCHKOPF
Regional Supervisor	KIMBERLY SCHAUDER
C.O. Examiner	

APPROVED FOR THE DEPARTMENT
DATE: 3/7/2016 (Signature)

E

2

GENERAL NOTES

THE LOCATIONS OF EXISTING UTILITY INSTALLATIONS AS SHOWN ON THE PLANS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT AREA THAT ARE NOT SHOWN.

BE AWARE THAT ALL EXISTING UNDERGROUND AND ABOVE GROUND STRUCTURES AND FACILITIES WITHIN THE SCOPE OF THIS PROJECT MAY NOT BE LOCATED IN THE PLANS. THE CONTRACTOR IS FULLY RESPONSIBLE FOR LOCATING AND AVOIDING ALL UNDERGROUND AND ABOVE GROUND STRUCTURES AND FACILITIES.

CROSS DRAIN PIPE ELEVATIONS, LENGTHS AND LOCATIONS AS SHOWN ON THE PLANS, SHALL BE ADJUSTED TO FIT THE EXISTING FIELD CONDITIONS, AS DIRECTED BY THE ENGINEER.

EXCAVATION BELOW SUBGRADE (EBS), FOR REMOVAL OF UNSUITABLE MATERIAL, AS SHOWN ON THE PLANS IS MEASURED AND PAID FOR AS EXCAVATION COMMON. EXACT LOCATIONS FOR REMOVING UNSUITABLE MATERIAL WILL BE DETERMINED BY THE ENGINEER.

SALVAGED TOPSOIL, SEEDING, MULCHING, AND FERTILIZER HAVE BEEN COMPUTED BY A DIRECT MEASUREMENT ON THE CROSS SECTIONS PLUS FIVE (5) FEET BEYOND THE TOE OF SLOPE.

RADII, ELEVATIONS, AND DIMENSIONS ARE GIVEN AT THE PAVEMENT EDGES, UNLESS OTHERWISE NOTED IN THE PLANS.

THE CONTRACTOR SHALL NOT OPERATE BEYOND THE SLOPE INTERCEPTS AS SHOWN IN THE PLANS WHEN ADJACENT TO WETLANDS OR ENVIRONMENTALLY SENSITIVE AREAS.

THE CONTRACTOR'S PAVING OPERATIONS SHALL BE CONSISTENT WITH THE PLAN TYPICAL SECTIONS AND CONSTRUCTED TO PREVENT HMA LONGITUDAL JOINTS FROM BEING LOCATED WITHIN A DRIVING, TURNING, PASSING, OR PARKING LANE.

ADJUST TRAFFIC CONTROL DEVICE LOCATIONS TO FIT FIELD CONDITIONS AS DIRECTED BY THE ENGINEER.

EROSION CONTROL ITEMS SHOWN IN THE MISCELLANEOUS QUANTITIES ARE AT SUGGESTED LOCATIONS. THE ENGINEER MAY MODIFY LOCATIONS TO FIT FIELD CONDITIONS.

WETLANDS, WATERWAYS, AND OTHER ENVIRONMENTALLY SENSITIVE AREAS SHALL BE PROTECTED AT ALL TIMES. DO NOT STORE EQUIPMENT OR MATERIALS NEAR THESE SITES UNLESS APPROVED BY THE ENGINEER.

THE HMA PAVEMENT WEIGHT CALCULATIONS ARE BASED ON A UNIT WEIGHT OF 112 LBS/SY/IN OF DEPTH.

THE BASE AGGREGATE DENSE (BAD) CALCULATIONS ARE BASED ON A UNIT WEIGHT OF 2.1 TONS/CY FOR 3/4-INCH BAD, 2.0 TONS/CY FOR 1 1/4-INCH BAD, AND 2.2 TONS/CY FOR 3-INCH BAD

4-INCH HMA PAVEMENT

LAYER	THICKNESS	GRADATION	BID ITEM
UPPER	1.75-INCHES	12.5mm	4 LT 58-28 S
LOWER	2.25-INCHES	19.0mm	3 LT 58-28 S

2-INCH HMA PAVEMENT

LAYER	THICKNESS	GRADATION	BID ITEM
UPPER	2.00-INCHES	12.5mm	4 HT 64-28 H

5-INCH HMA PAVEMENT

LAYER	THICKNESS	GRADATION	BID ITEM
UPPER	5.00-INCHES	19.0mm	3 HT 58-28 S

ABBREVIATIONS

AP	ACCESS POINT/ DRIVEWAY CONNECTION
AR	ACCESS RIGHTS
AC.	ACRES
ET.AL.	AND OTHERS
℄ OR C/L	CENTERLINE
CMCP	CORRUGATED METAL CULVERT PIPE
C.P.R.C.	CULVERT PIPE REINFORCED CONCRETE
CSM	CERTIFIED SURVEY MAP
COR.	CORNER
D	DEGREE OF CURVE
D.D.	DIRECTION DISTRIBUTION
D.H.V.	DESIGN HOUR VOLUME
DOC.	DOCUMENT
E.	EAST
EASE.	EASEMENT
EL OR ELEV	ELEVATION
E.S.A.L.	EQUIVALENT SINGLE AXLE LOAD
EXIST.	EXISTING
H.E.	HIGHWAY EASEMENT
HMA	HOT MIX ASPHALT
IP OR I.P.	IRON PIN
L	LENGTH OF CURVE
LN	LANE
LT. OR LT	LEFT
MAX.	MAXIMUM
MIN.	MINIMUM
MON.	MONUMENT
MP	ROADWAY MILEAGE
N.	NORTH
P.	PAGE
PLE	PERMANENT LIMITED EASEMENT
PL	PROPERTY LINE
RCCP	REINFORCED CONCRETE CULVERT PIPE
(RDD.)	RECORDED AS
R	RADIUS
℄ OR R/L	REFERENCE LINE
ROR	RELEASE OF RIGHTS
REM.	REMAINING
RT OR RT.	RIGHT
R/W	RIGHT-OF-WAY
S.	SOUTH
S.E.	SUPEREVELVATION
SEC.	SECTION
SF	SQUARE FEET
STA.	STATION
T	TANGENT
TLE	TEMPORARY LIMITED EASEMENT
T. %	TRUCK (PERCENT OF)
V.	VOLUME
W.	WEST

UTILITIES

ALLIANT ENERGY - ELECTRICITY
JASON HOGAN
SUITE 1000
4902 N BILTMORE LN
MADISON, WI 53718
(608) 458-4871
jasonhogan@alliantenergy.com

ROCK ENERGY COOPERATIVE - ELECTRICITY
LYNN MAIER
P.O. BOX 1758
JANESVILLE, WI 53547-1758
(608) 752-4550
lynnm@rock.coop

AT&T WISCONSIN - COMMUNICATION LINE
CAROL ANASON
316 W. WASHINGTON AVE.
MADISON, WI 53703
(608) 252-2385
CELL (608) 475-2799
ca2624@att.com

DIGGERS HOTLINE
Dial 811 or (800) 242-8511
www.DiggersHotline.com

CONTROL

DESC.	NORTHING	EASTING	ELEV.
CP SPIKE	227444.69	504054.09	818.27
CP	227437.63	504538.02	815.71
DISK B-53-41	227447.24	504505.03	836.61
CP SPIKE	227445.66	505060.46	822.52

WISDOT

WisDOT DESIGN PROJECT MANAGER
STEVE MARSHALL
111 INTERSTATE BLVD.
EDGERTON, WI 53534-9399
PHONE: (608) 884-7134
steve.marshall@dot.wi.gov

WisDOT CONSTRUCTION PROJECT MANAGER
EMMANUEL YARTEY
111 INTERSTATE BLVD.
EDGERTON, WI 53534-9399
PHONE: (608) 884-7131
emmanuel.yartey@dot.wi.gov

DESIGN CONTACT

SCOTT STEVENSON
AECOM
1555 N. RIVERCENTER DRIVE
SUITE 214
MILWAUKEE, WI 53212
PHONE: (414) 944-6162
scott.stevenson@aecom.com

WISDNR

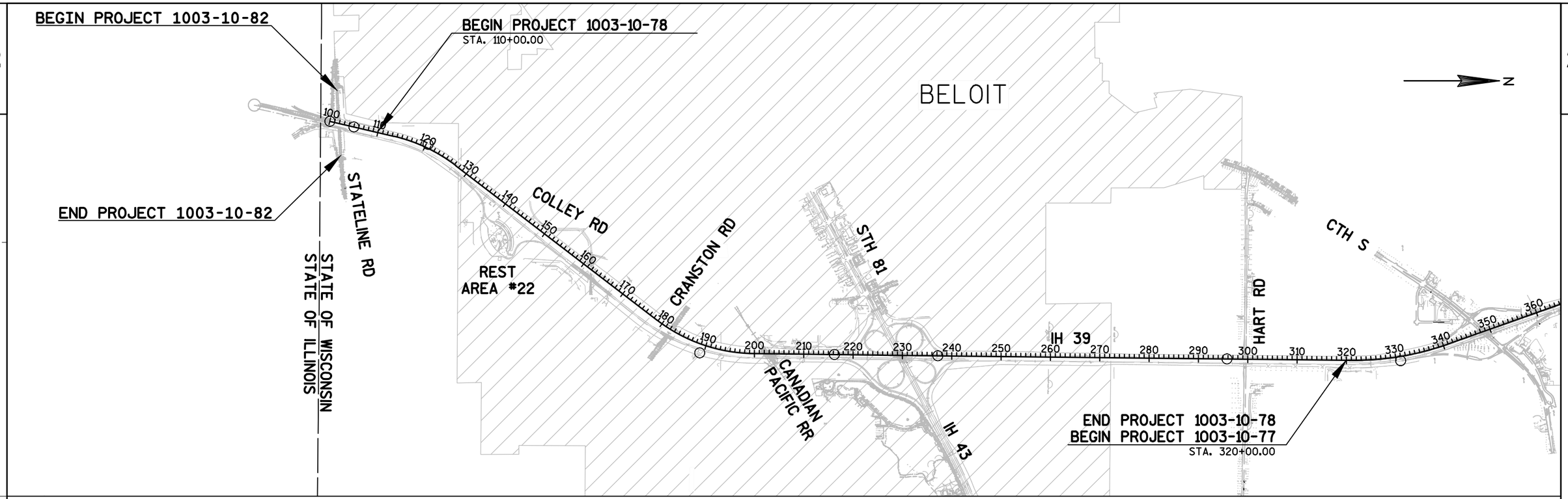
WISCONSIN DEPARTMENT OF NATURAL RESOURCES
(SOUTH CENTRAL REGION)
ROCK COUNTY
LAURA BUB
3911 FISH HATCHERY RD
FITCHBURG, WI 53711-5397
PHONE: (608) 275-3485
laura.bub@wisconsin.gov

TOWN OF TURTLE

HIGHWAY SUPERINTENDNET
DAVE BOMKAMP
6916 S COUNTY ROAD J
BELOIT, WI 53511
PHONE: (608) 289-3358
turtlehwymb@aol.com

DETAIL SHEET INDEX

GENERAL NOTES
TYPICAL SECTIONS
CONSTRUCTION DETAILS
INTERSECTION DETAIL
EROSION CONTROL
PERMANENT SIGNING
PAVEMENT MARKING
TRAFFIC CONTROL
FENCE DETAIL
ALIGNMENT DIAGRAM



NOTE:

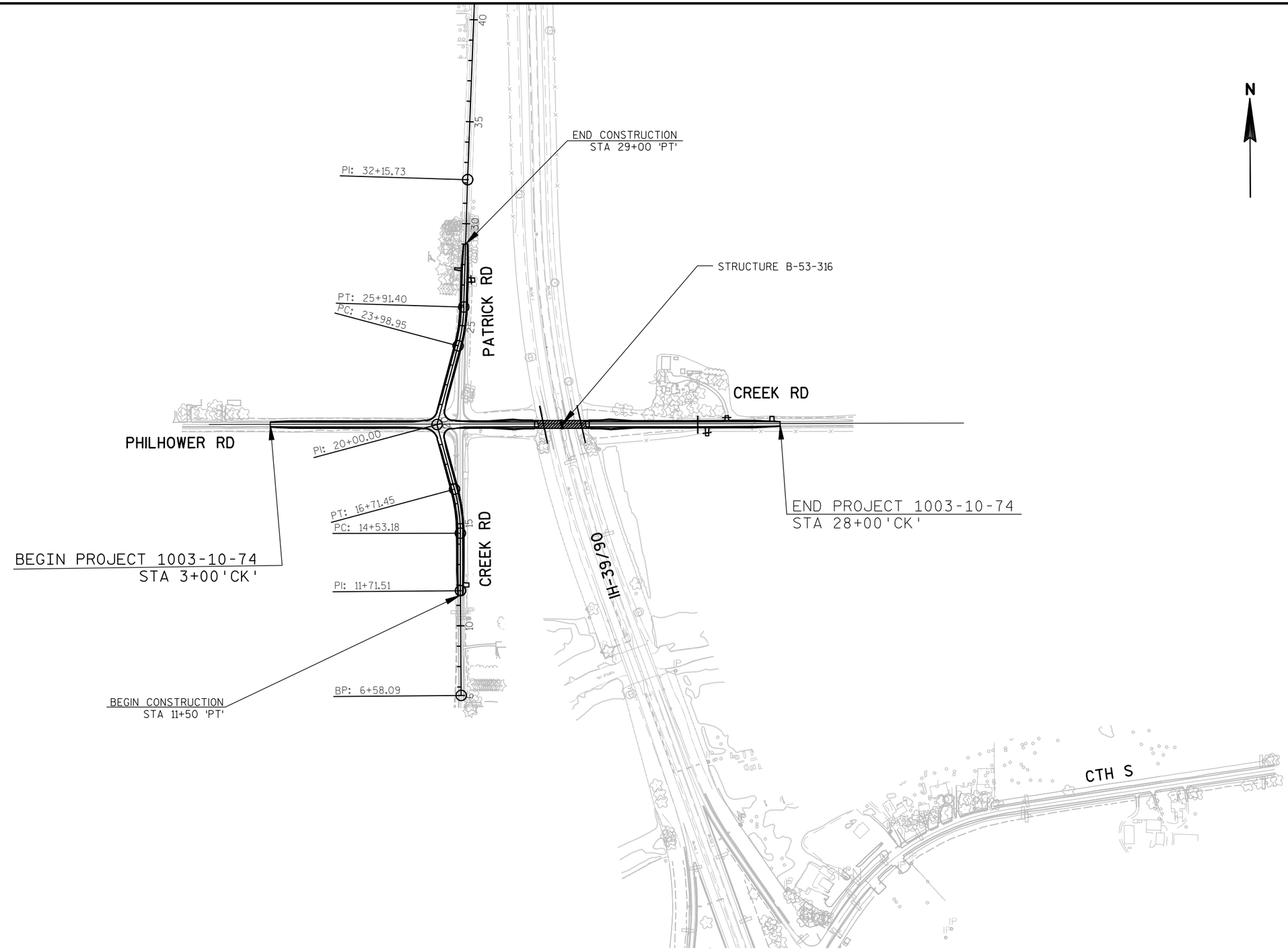
THIS SHEET PROVIDES AN OVERVIEW OF THE LOCATION OF THE FOLLOWING 5 TIED PROJECTS:

1003-10-74
1003-10-75
1003-10-77
1003-10-78
1003-10-82

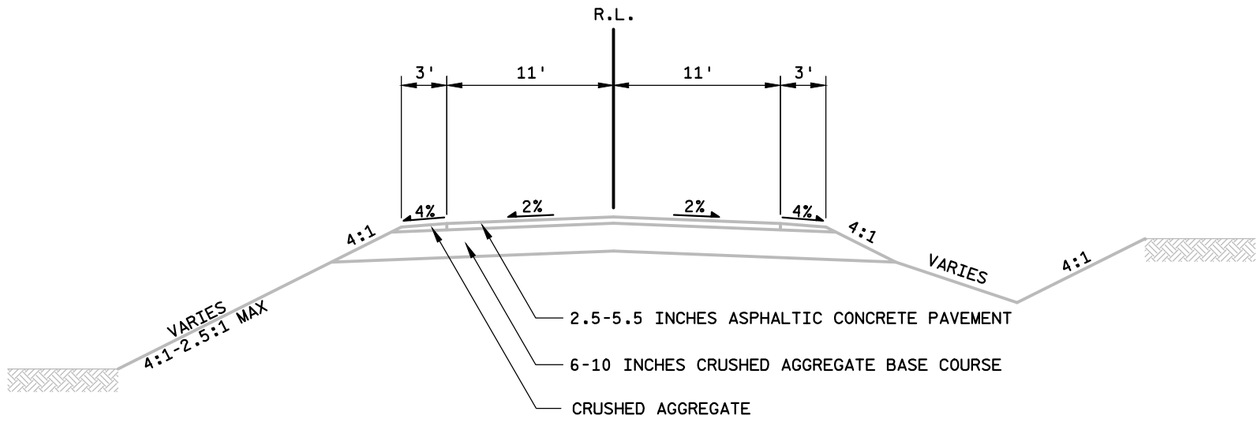
SEE THE PLANS OF THE CORRESPONDING PROJECT I.D. FOR MORE INFORMATION.

PROJECT NO: 1003-10-74	HWY: IH 39	COUNTY: ROCK	PROJECT OVERVIEW - 5 TIED PROJECTS	SHEET 3	E

2



PROJECT NO:1003-10-74	HWY:IH 39	COUNTY:ROCK	PROJECT OVERVIEW	SHEET 4	E

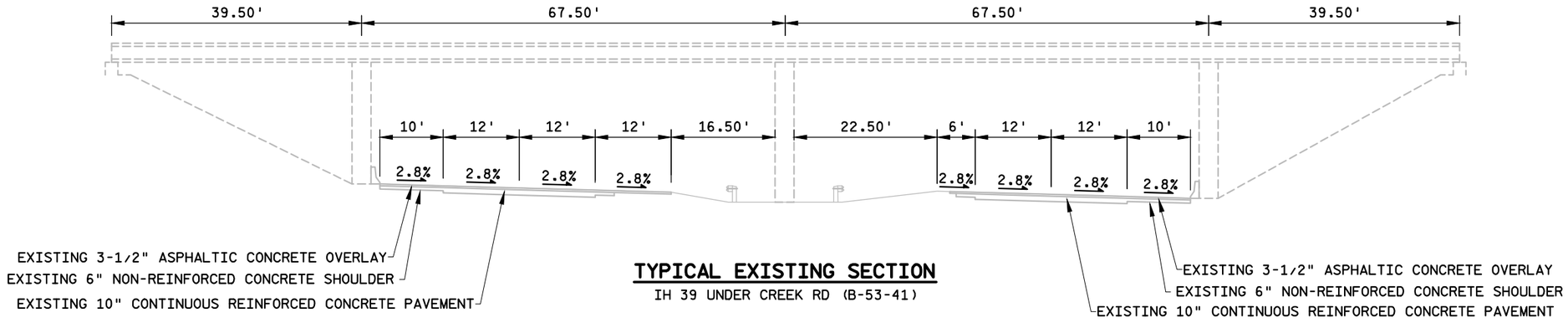


EXISTING TYPICAL SECTION

CREEK RD, PHILHOWER RD, PATRICK RD
STA. 3+00'CK' - STA. 28+00'CK'
STA. 11+50'PT' - STA. 29+00'PT'

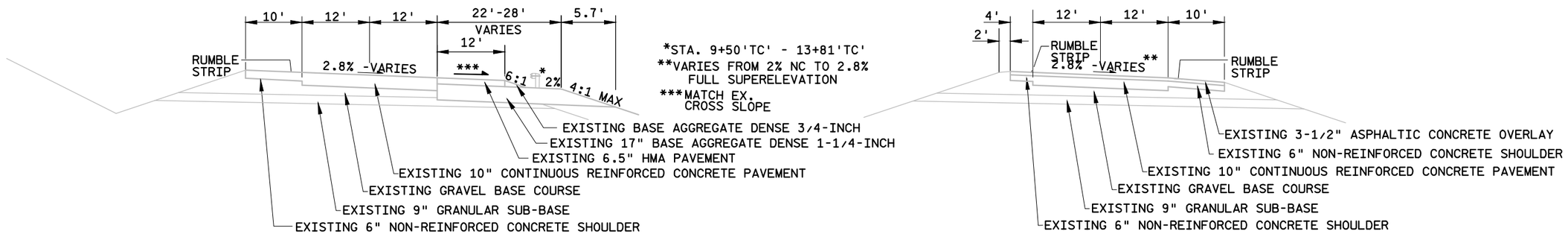
PAVEMENT CORE LOG

CORE NO	STATION	OFFSET FROM ℄	ASPHALT DEPTH IN INCHES	CRUSHED AGG. BASE COURSE-DEPTH IN INCHES
SR-19	7+00'CK'	6.9 LT	5.0	6
SR-20	13+00'CK'	7.1 RT	3.0	10
SR-21	25+15'PT'	3.4 LT	4.5	8.5
SR-22	14+76'PT'	3.7 RT	4.0	6
SR-23	22+00'CK'	7.0 LT	2.5	8.5
SR-24	27+00'CK'	8.4 RT	5.5	6



TYPICAL EXISTING SECTION

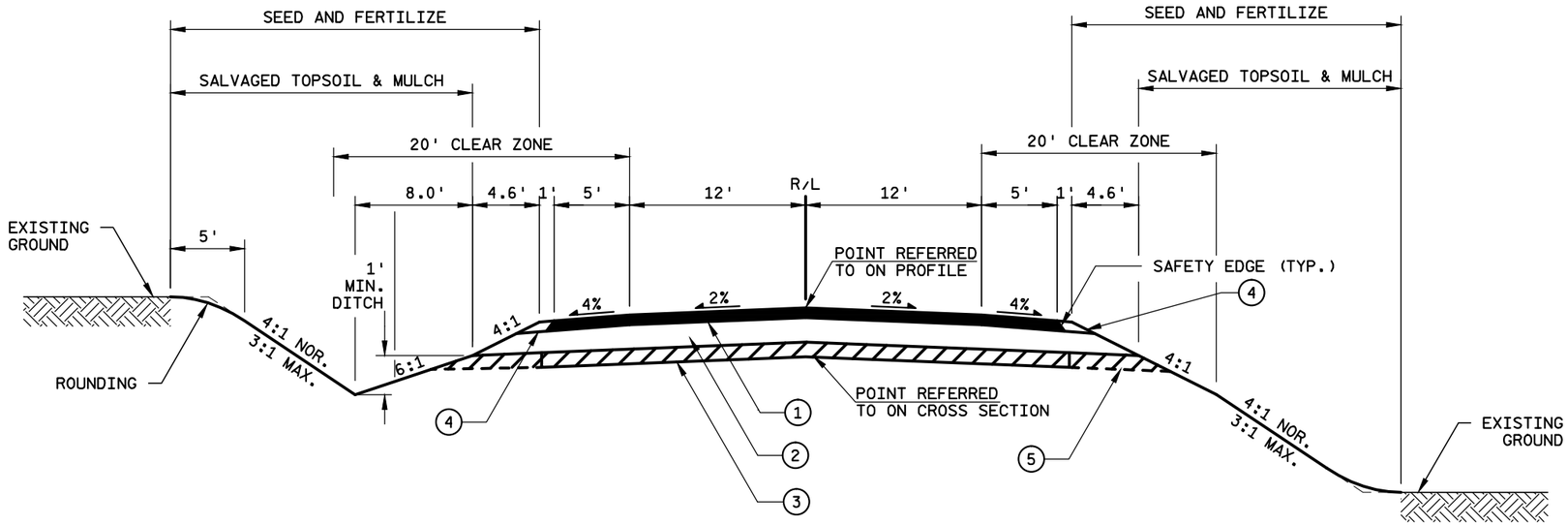
IH 39 UNDER CREEK RD (B-53-41)



TYPICAL EXISTING SECTION

IH 39
STA. 4+80'TC' - 26+19'TC'

PROJECT NO: 1003-10-74	HWY: IH 39	COUNTY: ROCK	TYPICAL SECTION: IH 39 (EXISTING)	SHEET 6	E



TYPICAL FINISHED SECTION

CREEK RD, PHILHOWER RD
STA. 3+00'CK' - STA. 16+11.83'CK'
STA. 18+46.39'CK' - STA. 28+00'CK'

PATRICK RD.
STA. 11+50'PT' - STA. 13+09'PT'
STA. 18+15'PT' - STA. 22+55'PT'
STA. 27+35'PT' - STA. 29+00'PT'

LEGEND

1. 4-INCHES NEW CONSTRUCTION:
   1.75-INCHES HMA PAVEMENT 4 LT 58-28 S (UPPER LAYER)
   2.25-INCHES HMA PAVEMENT 3 LT 58-28 S (LOWER LAYER)
2. 10-INCHES BASE AGGREGATE DENSE 1¼-INCH
3. 6-INCHES BASE AGGREGATE DENSE 3-INCH
4. 4-INCHES BASE AGGREGATE DENSE ¾-INCH
5. CONSTRUCT RELIEF TRENCHES AT 250' INTERVALS & AT DITCH SAG POINTS (SEE CONSTRUCTION DETAIL)

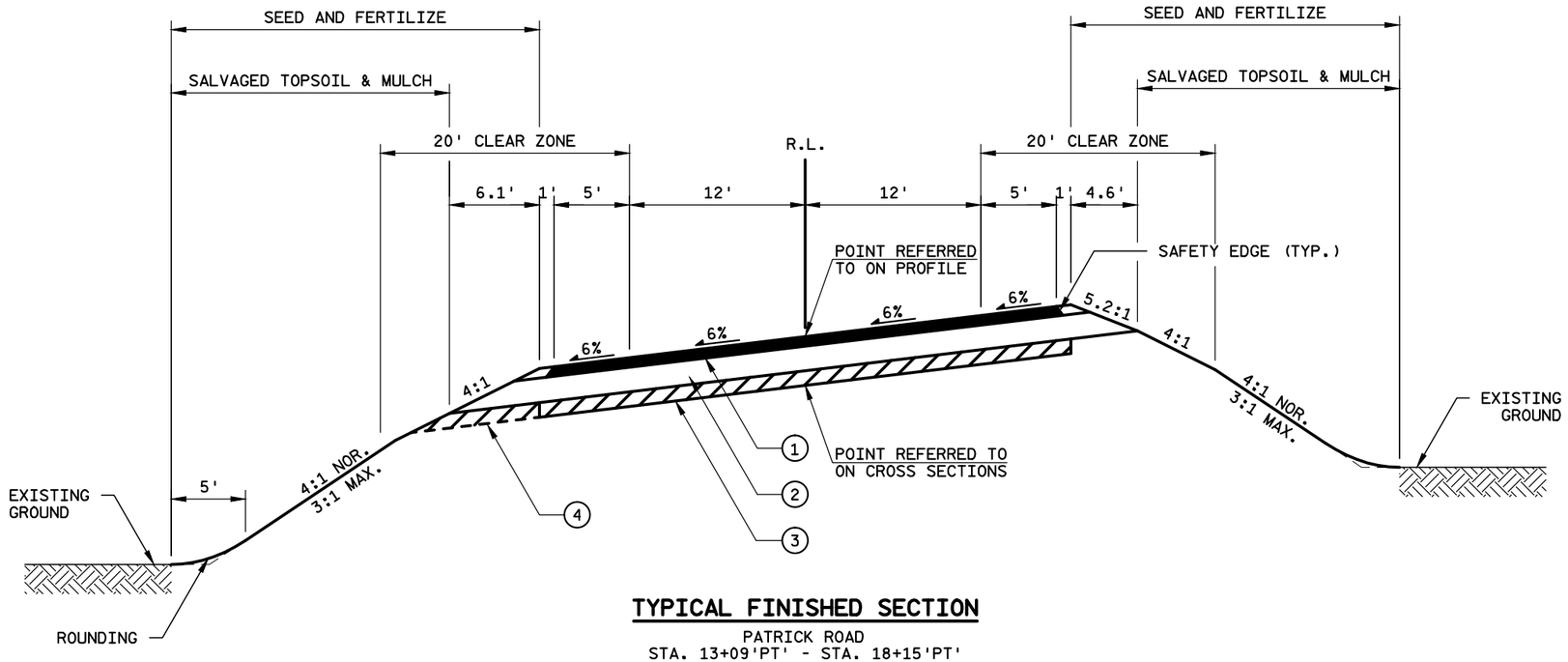
2

CURVE S.E. DATA
P.I. STA. 15+62.94'PT'

13+09.18'PT'	-2.00%	Normal Crown
13+57.18'PT'	0.00%	Zero Cross Slope
14+05.18'PT'	2.00%	Remove Crown
15.01.18'PT'	6.00%	Full Super
16+23.46'PT'	6.00%	Full Super
17+19.46'PT'	2.00%	Remove Crown
17+67.46'PT'	0.00%	Zero Cross Slope
18+15.46'PT'	-2.00%	Normal Crown

CURVE S.E. DATA
P.I. STA. 24+95.60'PT'

22+54.94'PT'	-2.00%	Normal Crown
22+02.94'PT'	0.00%	Zero Cross Slope
23+50.94'PT'	2.00%	Remove Crown
24+46.94'PT'	6.00%	Full Super
25+43.41'PT'	6.00%	Full Super
26+39.41'PT'	2.00%	Remove Crown
26+87.41'PT'	0.00%	Zero Cross Slope
27+35.41'PT'	-2.00%	Normal Crown



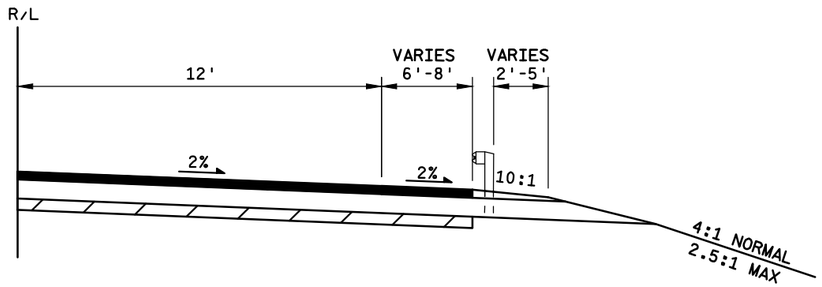
TYPICAL FINISHED SECTION

PATRICK ROAD
STA. 13+09'PT' - STA. 18+15'PT'
STA. 22+55'PT' - STA. 27+35'PT'

LEGEND

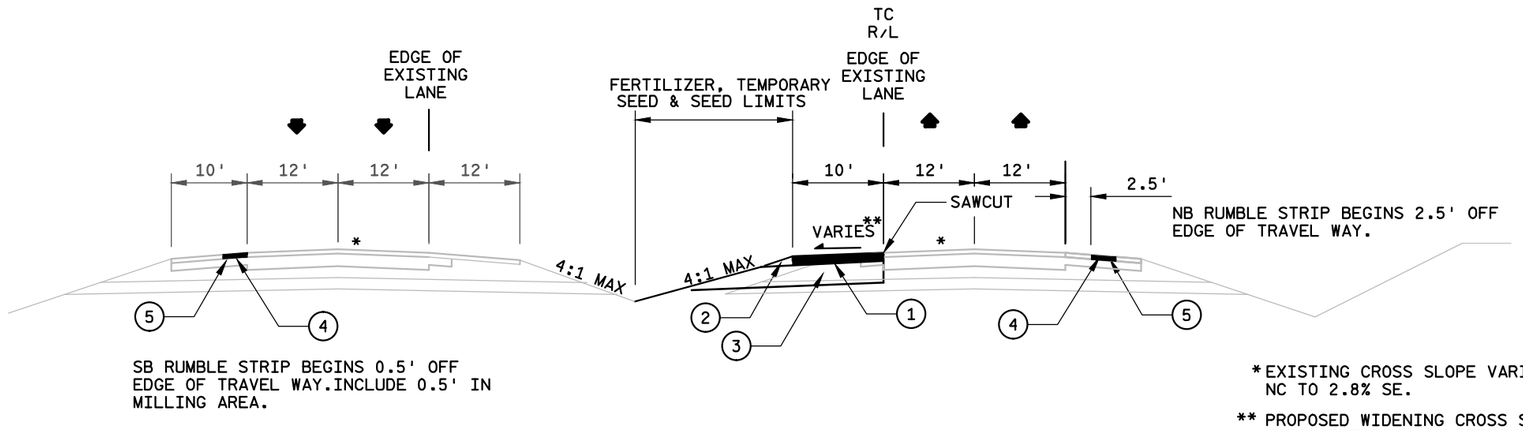
1. 4-INCHES NEW CONSTRUCTION:
   1.75-INCHES HMA PAVEMENT 4 LT 58-28 S (UPPER LAYER)
   2.25-INCHES HMA PAVEMENT 3 LT 58-28 S (LOWER LAYER)
2. 10-INCHES BASE AGGREGATE DENSE 1¼-INCH
3. 6-INCHES BASE AGGREGATE DENSE 3-INCH
4. CONSTRUCT RELIEF TRENCHES AT 250' INTERVALS & AT DITCH SAG POINTS (SEE CONSTRUCTION DETAIL)

2



MIDWEST GUARDRAIL SYSTEM FOR STRUCTURE APPROACHES

STA. 14+83'CK' TO STA. 15+88'CK' (LT)
STA. 14+91'CK' TO STA. 15+96'CK' (RT)
STA. 18+64'CK' TO STA. 19+67'CK' (LT)
STA. 18+70'CK' TO STA. 19+75'CK' (RT)



* EXISTING CROSS SLOPE VARIES FROM 2% NC TO 2.8% SE.

** PROPOSED WIDENING CROSS SLOPE TO MATCH EXISTING CONDITIONS.

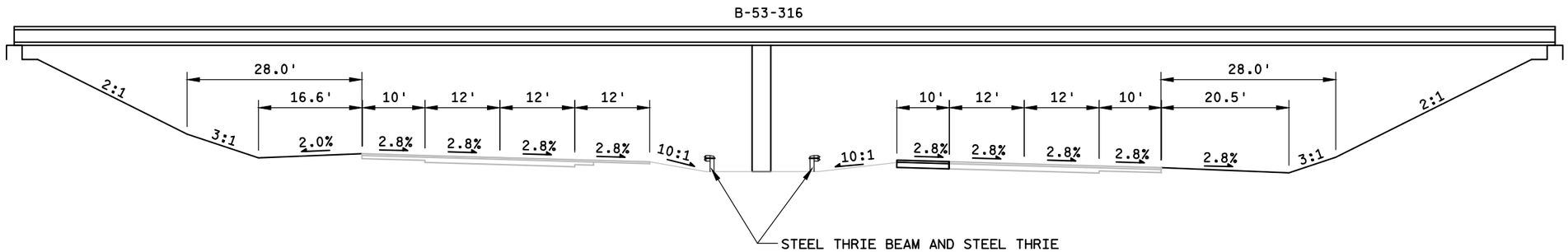
IH 39 WIDENING TYPICAL FINISHED SECTION

STA. 1+79'TC' - STA. 22+39'TC'

LEGEND

1. 5" HMA PAVEMENT 3 HT 58-28 S
2. BASE AGGREGATE DENSE 3/4-INCH
3. 12" BASE AGGREGATE DENSE 1 1/4-INCH
4. REMOVING 2" ASPHALTIC SURFACE MILLING
5. 2" HMA PAVEMENT 4 HT 58-28 H

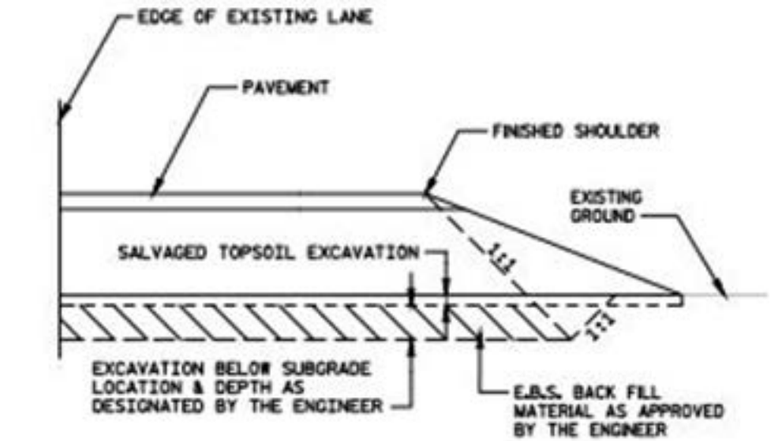
2



TYPICAL INTERIM FINISHED SECTION

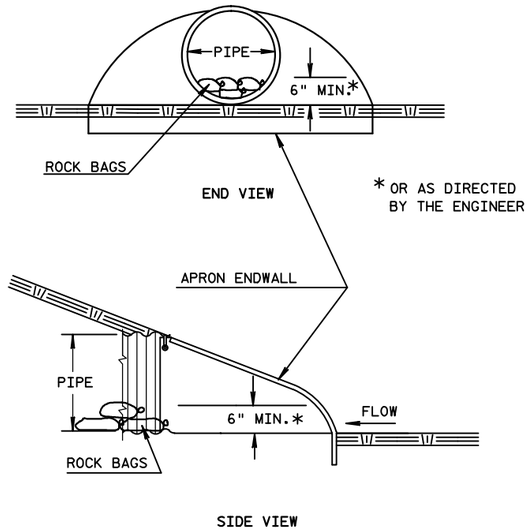
IH 39 UNDER CREEK RD (B-53-316)
PRIOR TO COMPLETION OF FUTURE MAINLINE RECONSTRUCTION

PROJECT NO: 1003-10-74	HWY: IH 39	COUNTY: ROCK	TYPICAL SECTION: IH 39 UNDER CREEK RD BRIDGE (FINISHED)	SHEET 11	E



DETAIL FOR EXCAVATION BELOW SUBGRADE (E.B.S.)

THIS DETAIL TO BE USED FOR REMOVAL OF UNSUITABLE MATERIAL.

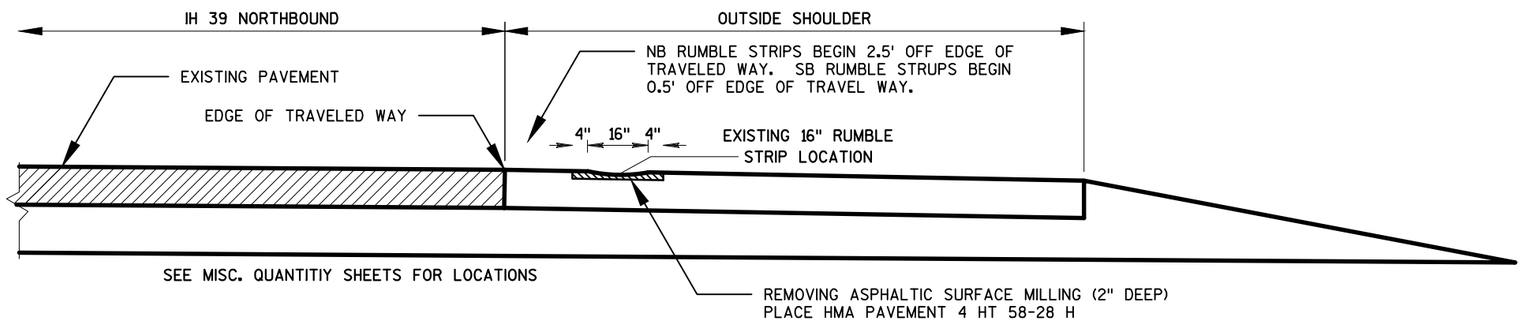


CULVERT PIPE CHECK

RUNOFF COEFFICIENT TABLE

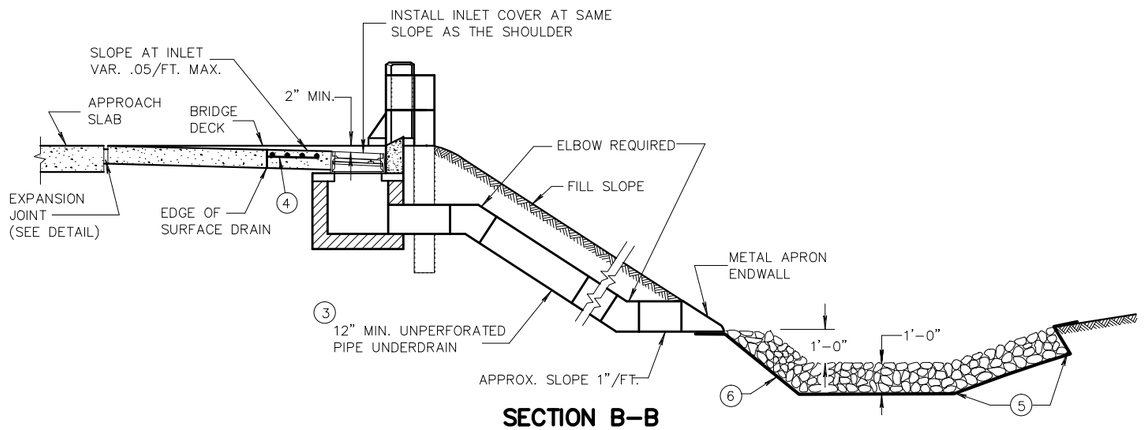
	HYDROLOGIC SOIL GROUP											
	A			B			C			D		
	SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)		
LAND USE:	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER
ROW CROPS	.08 .22	.16 .30	.22 .38	.12 .26	.20 .34	.27 .44	.15 .30	.24 .37	.33 .50	.19 .34	.28 .41	.38 .56
MEDIAN STRIP-TURF	.19 .24	.20 .26	.24 .30	.19 .25	.22 .28	.26 .33	.20 .26	.23 .30	.30 .37	.20 .27	.25 .32	.30 .40
SIDE SLOPE-TURF			.25 .32			.27 .34			.28 .36			.30 .38
PAVEMENT:												
ASPHALT	.70 - .95											
CONCRETE	.80 - .95											
BRICK	.70 - .80											
DRIVES, WALKS	.75 - .85											
ROOFS	.75 - .95											
GRAVEL ROADS, SHOULDERS	.40 - .60											

TOTAL PROJECT AREA = 10.448 ACRES
TOTAL AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES = 2.962 ACRES

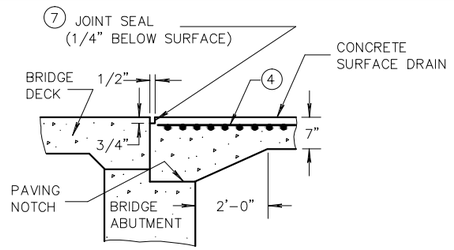


SECTION VIEW - NORTHBOUND

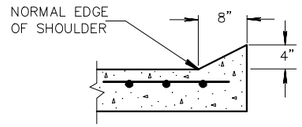
REMOVING ASPHALTIC SURFACE MILLING



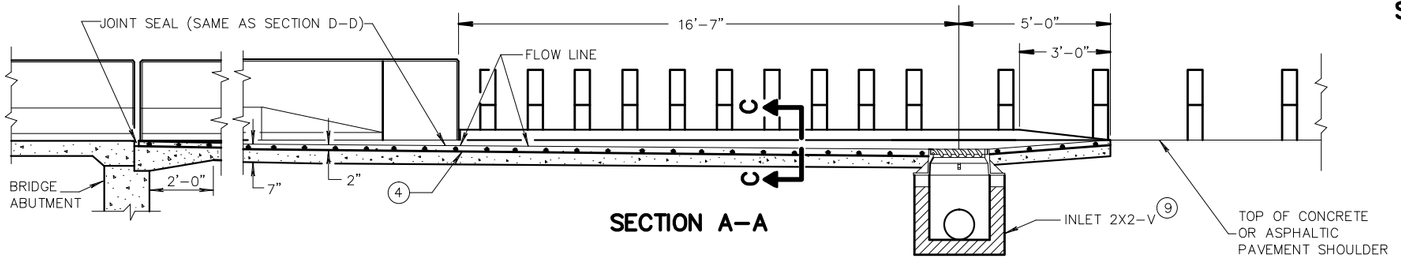
SECTION B–B



SECTION D–D



SECTION C–C



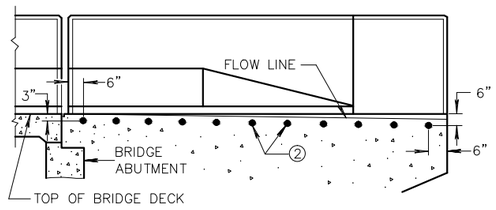
SECTION A–A

GENERAL NOTES

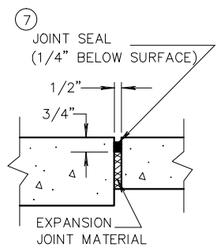
DETAILS OF CONSTRUCTION, MATERIALS, AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

ALL STEEL REINFORCEMENT SHALL BE EMBEDDED 2 INCHES CLEAR UNLESS OTHERWISE SHOWN OR NOTED.

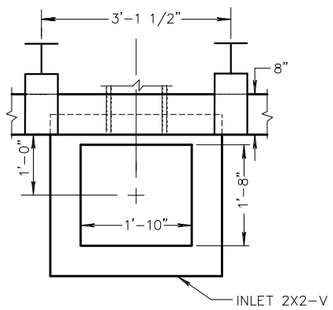
1. NO. 4 X 2'–0" TIE BARS SPACED AT 3'–0" CENTERS TO BE USED ONLY WHEN ADJACENT TO P.C. CONCRETE.
2. NO. 4 X 2'–0" TIE BARS SPACED AT 12" CENTERS TO BE PLACED BY BRIDGE CONTRACTOR, OR DRILLED TIE BARS PLACED AS DIRECTED BY THE ENGINEER.
3. THE PIPE UNDERDRAIN MAY BE ANY ONE OF THE SIX MATERIALS LISTED IN THE STANDARD SPECIFICATIONS SECTION 612.2 EXCEPT DRAIN TILE.
4. MINIMUM REINFORCEMENT SHALL BE 6" X 6" – W4.0 X W4.0 OR NO. 3 BARS LONGITUDINAL AND TRANSVERSE SPACING 12" C–C.
5. LIMITS OF ADDITIONAL RIPRAP WHEN SPECIAL DITCH IS REQUIRED.
6. GEOTEXTILE FABRIC, TYPE 'R' OR TYPE 'HR', DEPENDENT ON RIPRAP TYPE
7. HOT POURED SEALANT UNLESS OTHERWISE SPECIFIED.
8. THIS DIMENSION MAY VARY DEPENDING ON THE SPACING OF POSTS FOR THE STEEL PLATE BEAM GUARD. THE TYPICAL LOCATION FOR THE SURFACE DRAIN IS WHERE THE POST SPACING IS 3'–1 1/2".
9. SEE CURRENT STANDARD DETAIL DRAWINGS 8A5 AND 8C7 FOR DETAILS.
10. SEE CURRENT STANDARD DETAIL DRAWING 14B45 FOR MGS POST SPACING DETAILS.



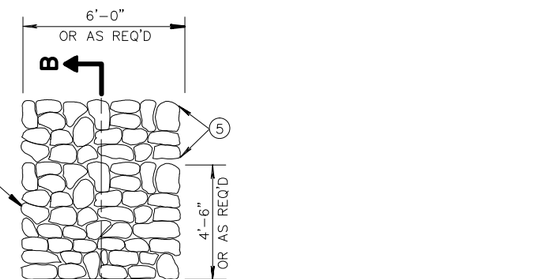
LOCATION OF TIE BARS IN WINGWALL

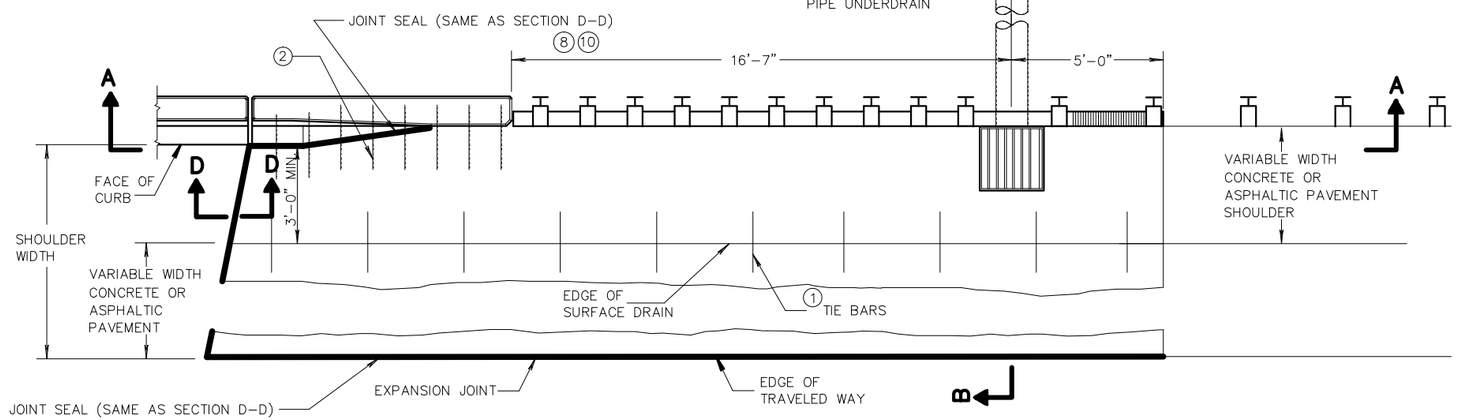


EXPANSION JOINT DETAIL



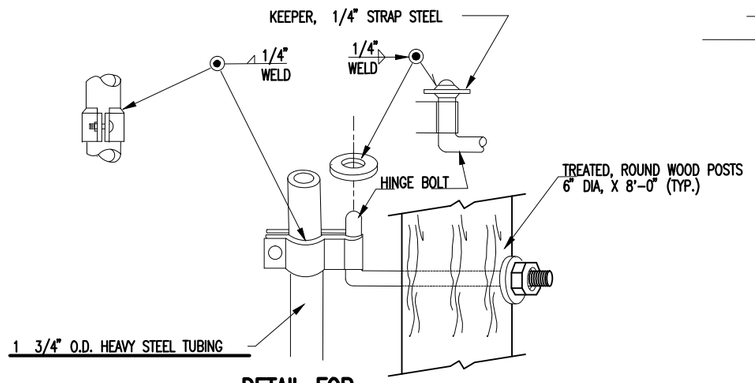
PLAN VIEW



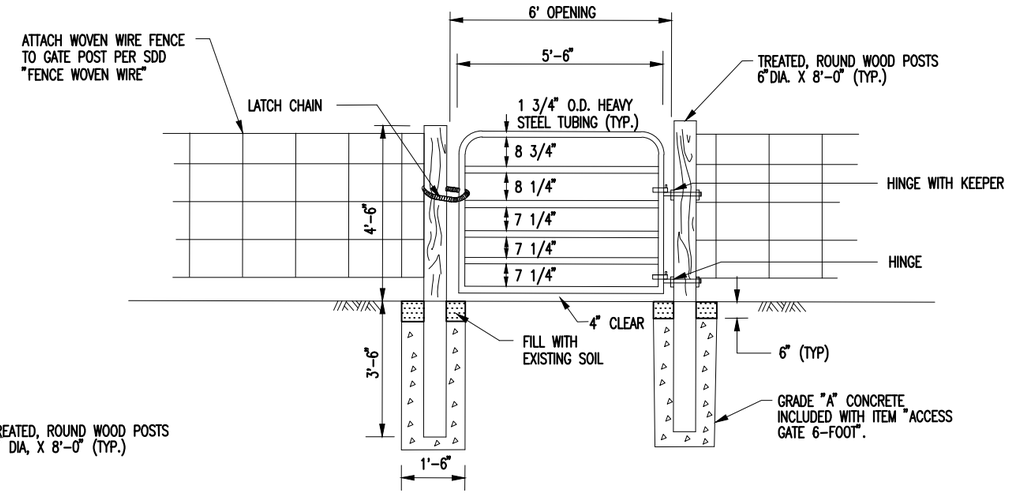


PLAN VIEW

PROJECT NO: 1003-10-74	HWY: IH 39	COUNTY: DANE & ROCK	CONCRETE SURFACE DRAIN DETAIL	SHEET 14	E

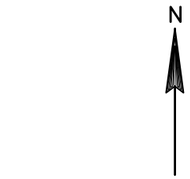


DETAIL FOR
WRAP-AROUND HINGE WITH KEEPER



ACCESS GATE 6-FOOT

(CONTINUOUS FENCE LOCATION)



NOTES:
KEEPER TO BE ATTACHED TO TOP HINGE OF EACH GATE ONLY.

KEEPER SHALL BE FITTED AFTER THE GATE IS HUNG IN PLACE.

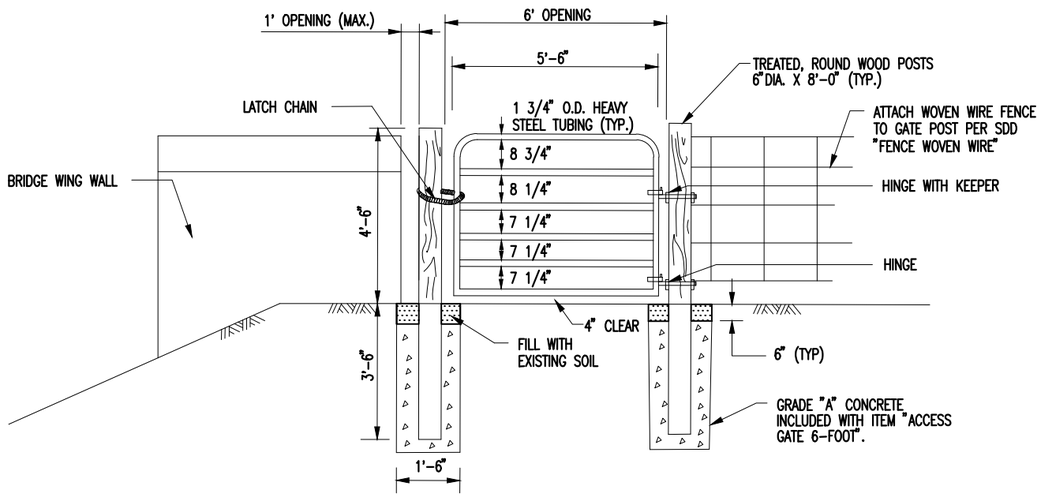
KEEPER TO BE OF SUCH DIMENSIONS TO PROVIDE CLEARANCE FOR LATERAL SWING.

DRILL HOLE IN KEEPER OF SUFFICIENT DIAMETER TO PROVIDE SNUG FIT OVER HINGE BOLT.

ALL FIELD WELDED SURFACES SHALL BE PRIMED WITH PREMIXED RUSTPROOF PAINT, THEN TWO FIELD COATS OF ENAMEL PAINT SHALL BE APPLIED.

KEYED LOCK TO BE SUPPLIED BY OTHERS (WISDOT)

SEE MISCELLANEOUS QUANTITIES FOR APPROXIMATE LOCATIONS. LOCATION SHALL BE ADJUSTED TO FIT FIELD CONDITIONS OR AS DIRECTED BY THE ENGINEER.



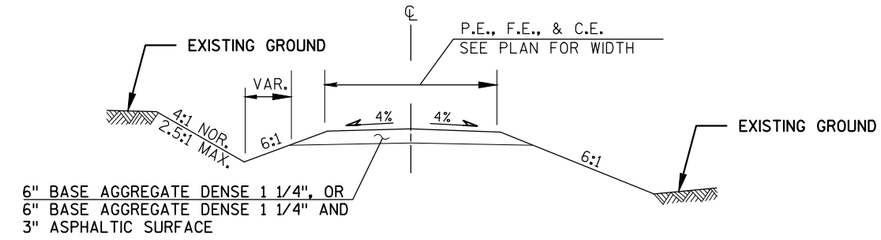
ACCESS GATE 6-FOOT

(BRIDGE ABUTMENT LOCATION)

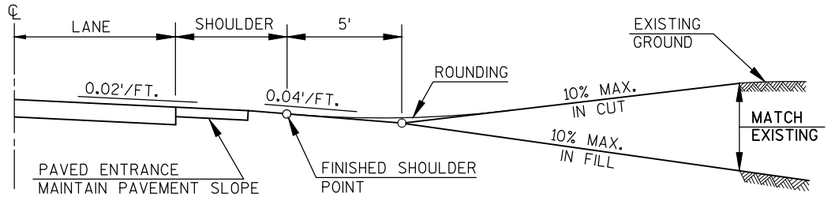
PROJECT NO: 1003-10-74	HWY: IH 39	COUNTY: ROCK	CONSTRUCTION DETAIL: ACCESS GATE 6-FOOT	SHEET	E

FILE NAME : L:\WORK\IH-39-SOUTH-SEGMENT\000_CAD\001_DRAWINGS\1003-10-74_CREEK RD\90%\021009_CD.DWG PLOT DATE : 4/29/2015 8:32 AM PLOT BY : SCHNEIDER, MICHAEL (MILWAUKEE) PLOT SCALE : 1 IN:2 FT
WISDOT/CADDS SHEET 42

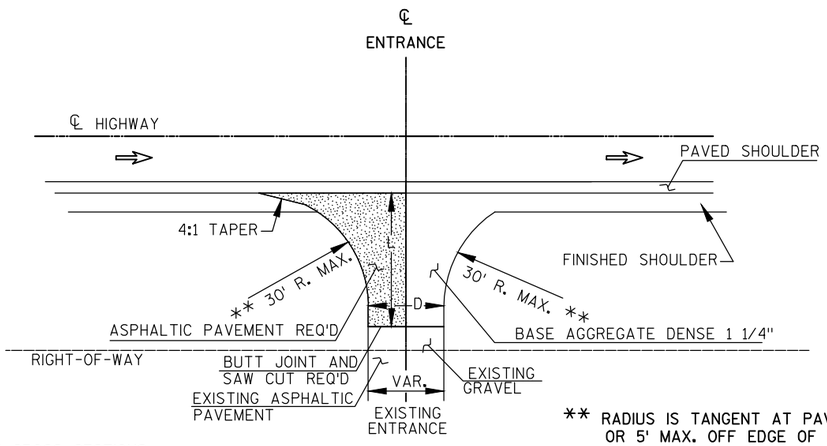
2



TYPICAL CROSS SECTION



PROFILE VIEW



L=SEE CROSS SECTIONS

** RADIUS IS TANGENT AT PAVED SHOULDER EDGE OR 5' MAX. OFF EDGE OF MAIN LINE PAVEMENT WHICH EVER IS LESS.

D=DRIVEWAY WIDTH (SEE PLAN)

PLAN VIEW

DRIVEWAY DETAIL
(PE's, FE's & CE'S)

2

N

POST #1
14+83'CK',
20' LT

M.G.S.

6'

P.C.S.

CREEK ROAD

15'CK'

16'CK'

C.P.A.S.

P.C.S.

6'

M.G.S.

POST #1
14+91'CK',
20.0' RT

STRUCTURE
B-53-316

17'CK'

18'CK'

+70
INLET REQUIRED SEE
CONSTRUCTION DETAIL

M.G.S.

6'

P.C.S.

C.S.D.

19'CK'

20'CK'

24'

C.P.A.S.

P.C.S.

C.S.D.

6'

M.G.S.

+78
INLET REQUIRED SEE
CONSTRUCTION DETAIL

POST #1
19+67 'CK',
20' LT

+20.0
17.0' LT

POST #1
19+75'CK',
20' RT

+20.1
17.0' RT

LEGEND

C.P.A.S.	=	CONCRETE PAVEMENT APPROACH SLAB (SEE SDD)
C.S.D.	=	CONCRETE SURFACE DRAIN (SEE CONSTRUCTION DETAIL)
M.G.S.	=	MIDWEST GUARDRAIL SYSTEM (SEE SDD) (INCLUDES GUARDRAIL, TERMINAL, AND THRIE BEAM TRANSITION)
P.C.S.	=	PAVED CONCRETE SHOULDER

PROJECT NO: 1003-10-74	HWY: IH 39	COUNTY: ROCK	CONSTRUCTION DETAIL - CONCRETE PAVEMENT APPROACH SLAB	SHEET 17	E

2

N

STEEL THRIE BEAM
BULLNOSE TERMINAL
STA 383+16.87 'NB', 13.82' LT

STEEL THRIE BEAM, TYP

ROW

ROW

PULL BOX STEEL
24X36 INCH
STA 15+91 'CK', 22' LT

PULL BOX STEEL
24X36 INCH
STA 18+59 'CK', 22' LT

15'CK'

20'CK'

CREEK ROAD

PULL BOX STEEL
24X36 INCH
STA 15+99 'CK', 22' RT

PULL BOX STEEL
24X36 INCH
STA 18+67 'CK', 22' RT

ROW

ROW

STEEL THRIE BEAM
BULLNOSE TERMINAL
STA 381+43.78 'NB', 20.67' LT

IH 39/90 SB

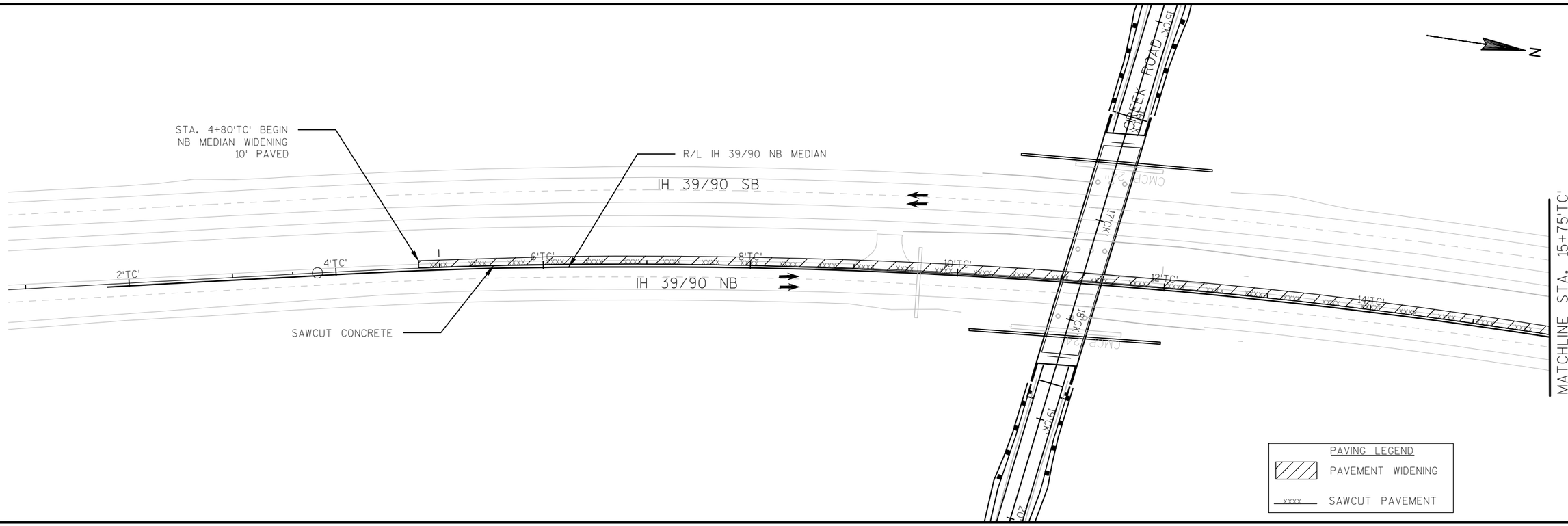
IH 39/90 NB

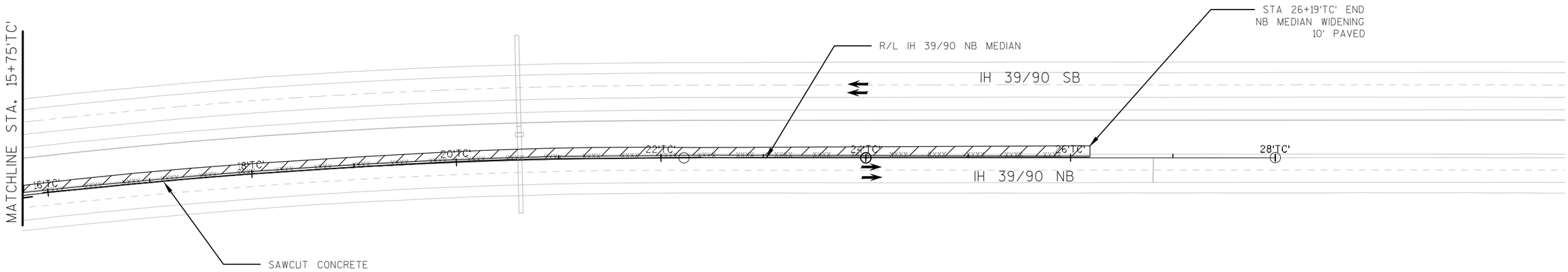
380

PROJECT NO: 1003-10-74	HWY: IH 39	COUNTY: ROCK	CONSTRUCTION DETAILS: MISCELLANEOUS ROADWAY ITEMS	SHEET	E

FILE NAME : L:\WORK\IH-39-SOUTH-SEGMENT\000_CAD\001_DRAWINGS\1003-10-74_CREEK RD\90%\021012_CD.DWG PLOT DATE : 4/30/2015 4:56 PM PLOT BY : STEVENSON, SCOTT PLOT NAME : PLOT SCALE : 1:50_XREF

WISDOT/CADDS SHEET 42

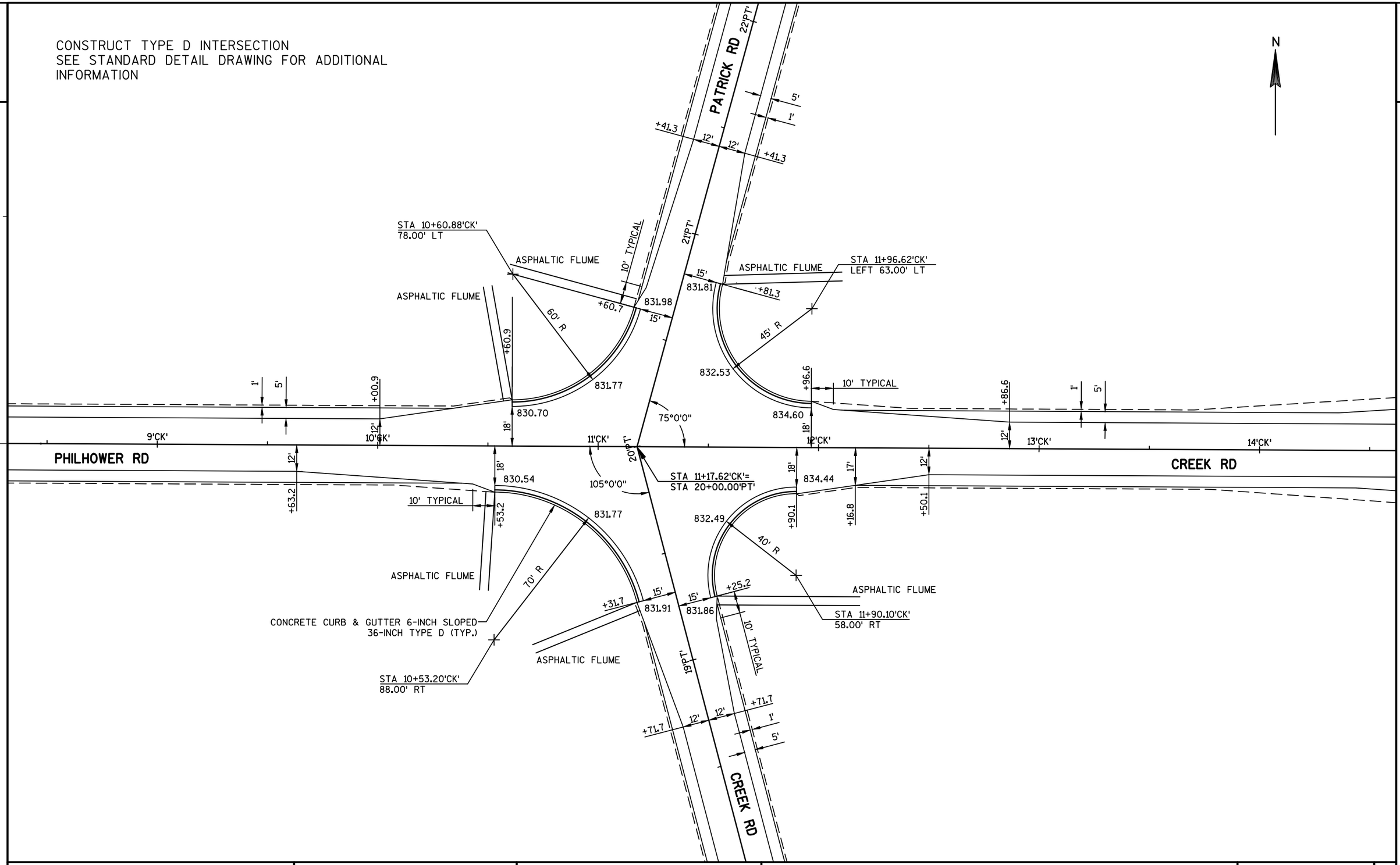




PROJECT NO: 1003-10-74	HWY: IH 39	COUNTY: ROCK	IH 39 NB MEDIAN WIDENING DETAIL	SHEET 19	E

2

CONSTRUCT TYPE D INTERSECTION
SEE STANDARD DETAIL DRAWING FOR ADDITIONAL INFORMATION



PROJECT NO: 1003-10-74	HWY: IH 39	COUNTY: ROCK	INTERSECTION DETAIL: PATRICK ROAD	SHEET	E

2

2

N

R/L "PT"

STA. 383+00 - 384+10, LT
REMOVE GUARDRAIL

STA. 26+00'PT' - STA. 29+00'PT'
CLEAR AND GRUB

SLOPE INTERCEPTS (TYP.)

R/L "CK"

STA. 381+98' - STA. 383+26', LT
REMOVE FENCE

R/L IH 39/90

STA. 15+04'CK'- STA.15+99'CK', RT
REMOVE GUARD RAIL

STA. 14+92'CK'- STA.15+93'CK', LT
REMOVE GUARD RAIL

STA. 381+28' - STA. 382+75', RT
REMOVE FENCE

STA. 382+42
REMOVE OLD STRUCTURE
B-53-41

STA. 21+00'CK' - STA. 26+00'CK'
CLEAR AND GRUB

STA. 18+64'CK'- STA.19+53'CK', LT
REMOVE GUARD RAIL

STA. 23+95'CK', LT
REMOVE SMALL CULVERT PIPE
18"CMCP

STA. 24+40'CK', RT
REMOVE SMALL CULVERT PIPE
12" CMCP

STA. 25+39'CK', LT
REMOVE SMALL CULVERT PIPE
12" CMCP

STA. 18+43'CK'- STA. 28+00'CK', RT
REMOVE FENCE

STA. 18+69'CK' - STA. 19+65'CK', RT
REMOVE GUARDRAIL

REMOVE CONCRETE BARRIER
STA. 381+52 - 382+42 LT
STA. 382+27 - 383+01 RT

STA. 380+43 - 381+53, RT
REMOVE GUARDRAIL (EXISTING BULL NOSE)

STA. 381+46 - 383+13, LT
REMOVE GUARDRAIL

PATRICK ROAD

PHILHOWER ROAD

CREEK ROAD

S CREEK ROAD

IH 39/90 SB

IH 39/90 NB

R/W

30'PT

25'PT

15'PT

20'CK'

5'CK'

10'CK'

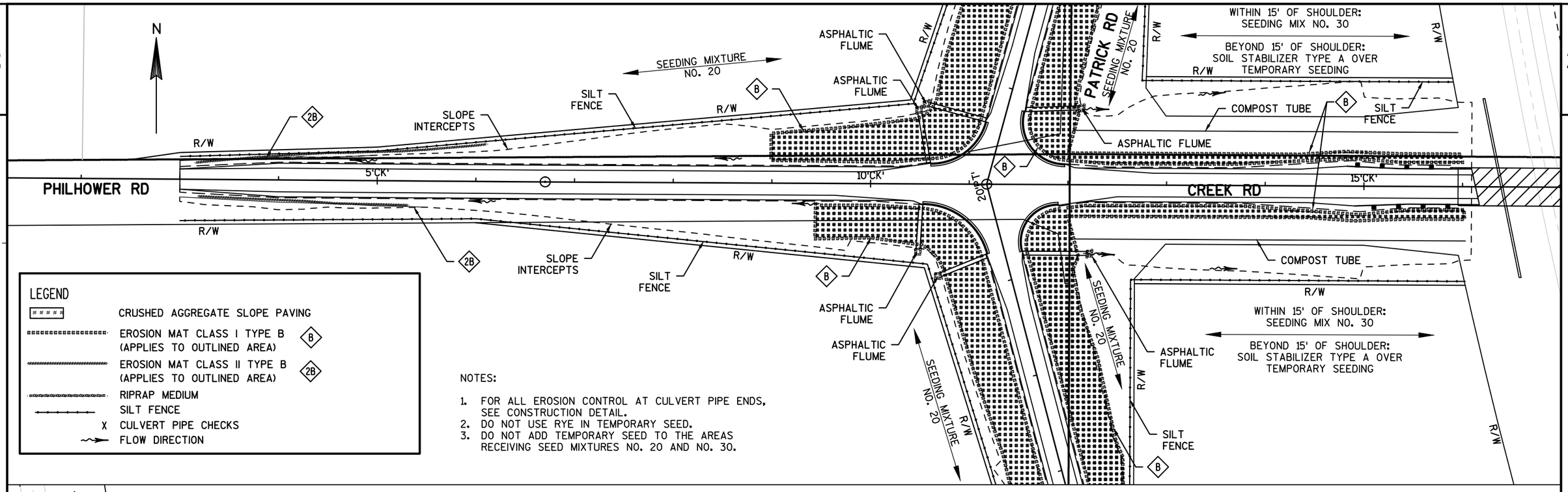
15'CK'

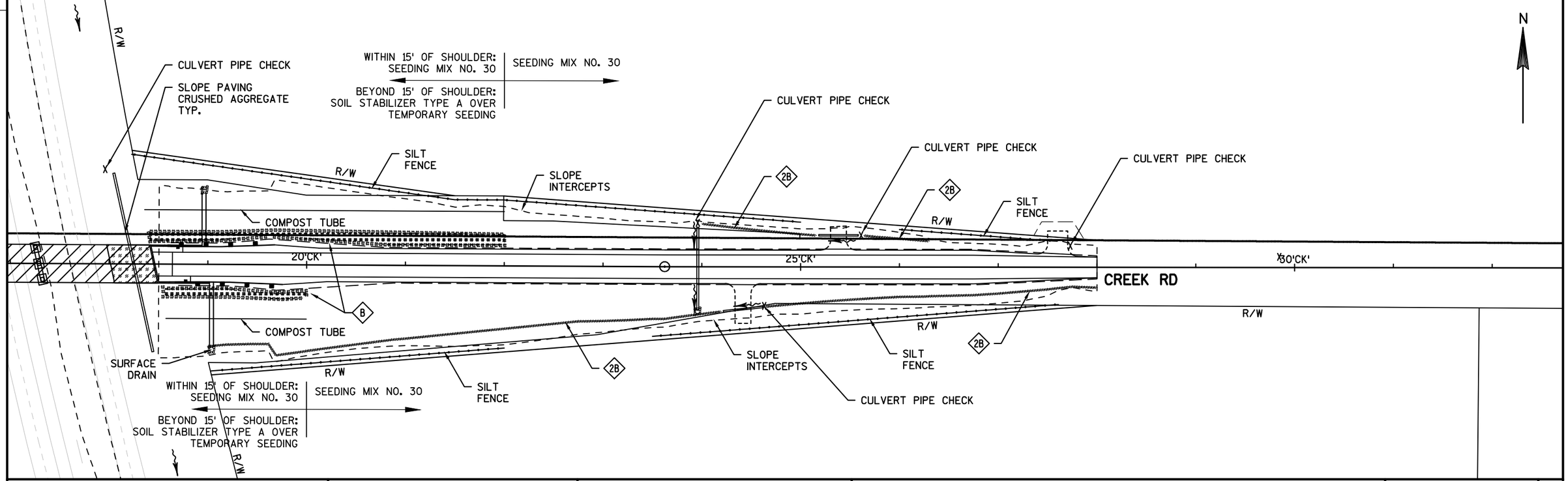
20'CK'

25'CK'

30'CK'

PROJECT NO: 1003-10-74	HWY: IH 39	COUNTY: ROCK	REMOVAL DETAILS	SHEET 21	E





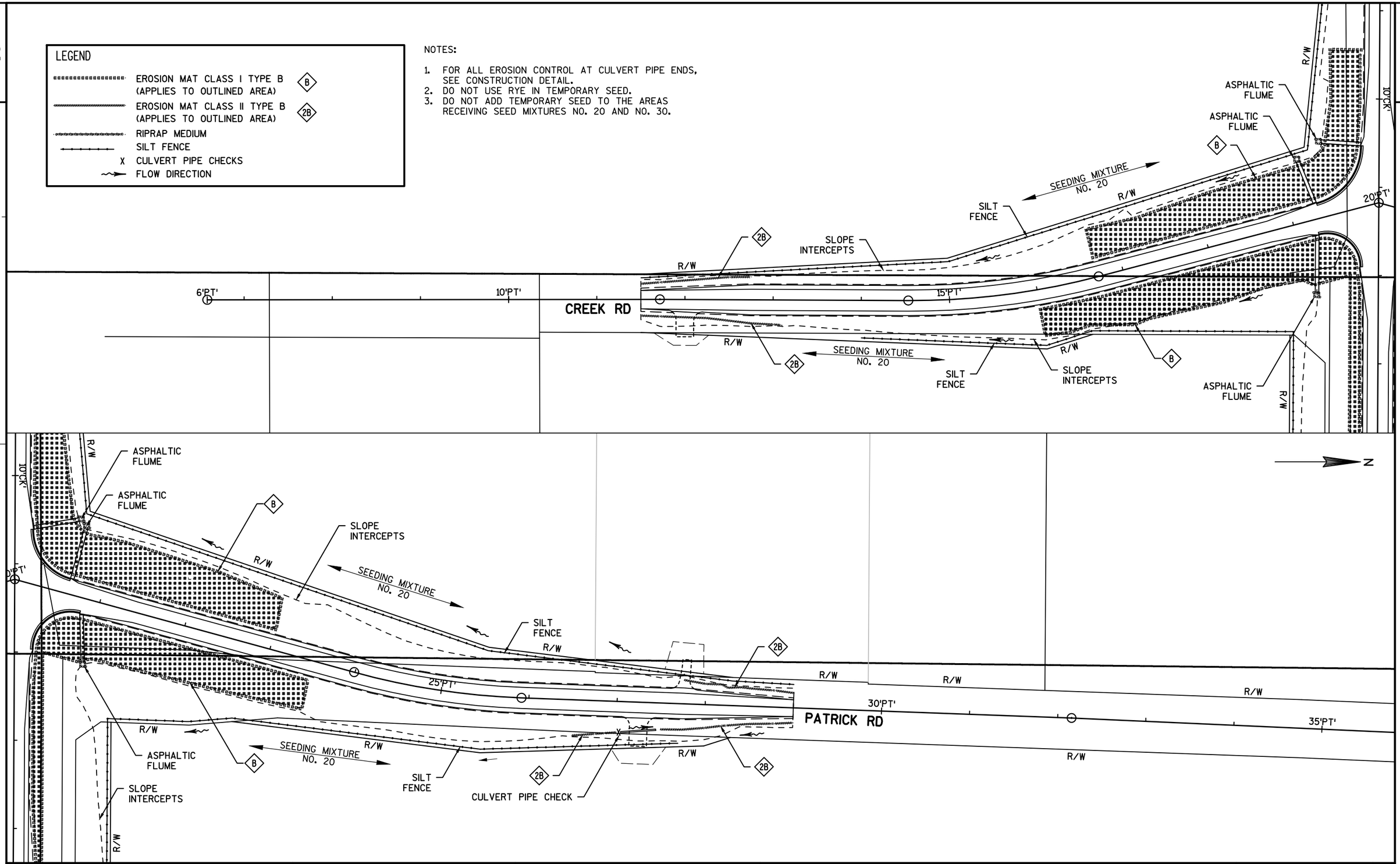
PROJECT NO: 1003-10-74	HWY: IH 39	COUNTY: ROCK	EROSION CONTROL	SHEET 22	E

LEGEND

- EROSION MAT CLASS I TYPE B (APPLIES TO OUTLINED AREA) — B
- EROSION MAT CLASS II TYPE B (APPLIES TO OUTLINED AREA) — 2B
- RIPRAP MEDIUM
- SILT FENCE
- X CULVERT PIPE CHECKS
- FLOW DIRECTION

NOTES:

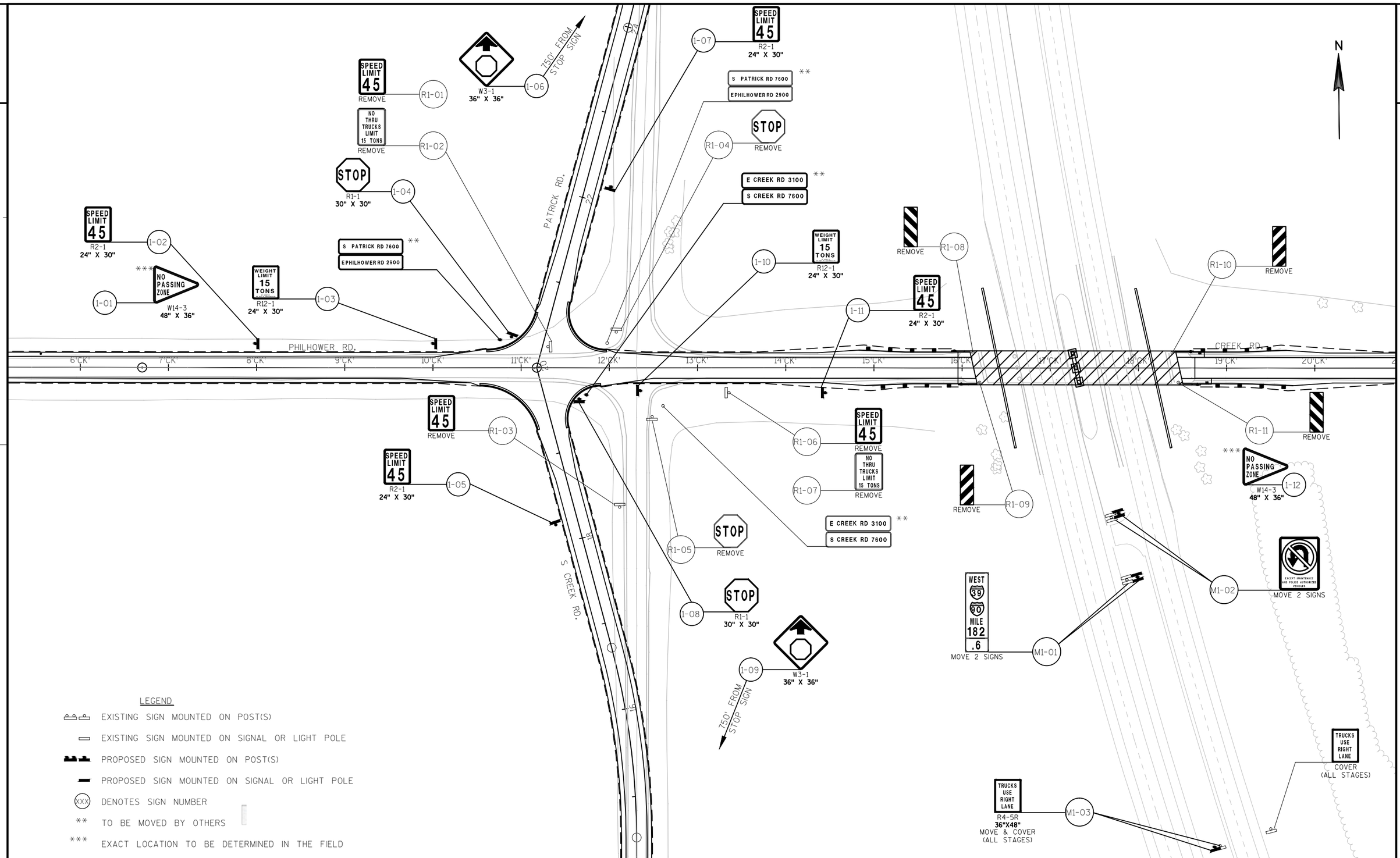
1. FOR ALL EROSION CONTROL AT CULVERT PIPE ENDS, SEE CONSTRUCTION DETAIL.
2. DO NOT USE RYE IN TEMPORARY SEED.
3. DO NOT ADD TEMPORARY SEED TO THE AREAS RECEIVING SEED MIXTURES NO. 20 AND NO. 30.



PROJECT NO: 1003-10-74	HWY: IH 39	COUNTY: ROCK	EROSION CONTROL	SHEET 23	E

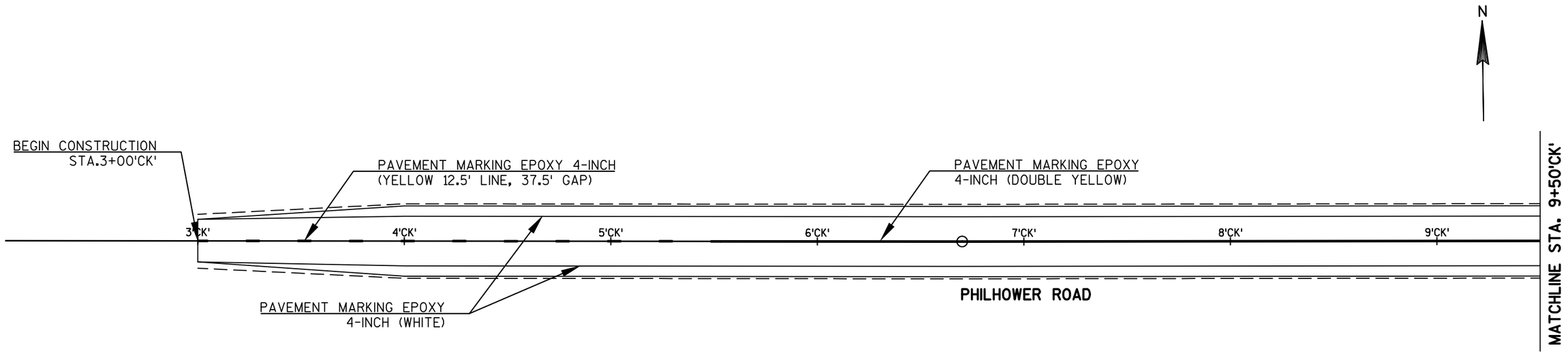
FILE NAME : L:\WORK\IH-39-SOUTH-SEGMENT\000_CAD\001_DRAWINGS\1003-10-74_CREEK RD\90%\022002_EC.DWG PLOT DATE : 4/6/2016 6:21 PM PLOT BY : MROZ, ZACHARY T. PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

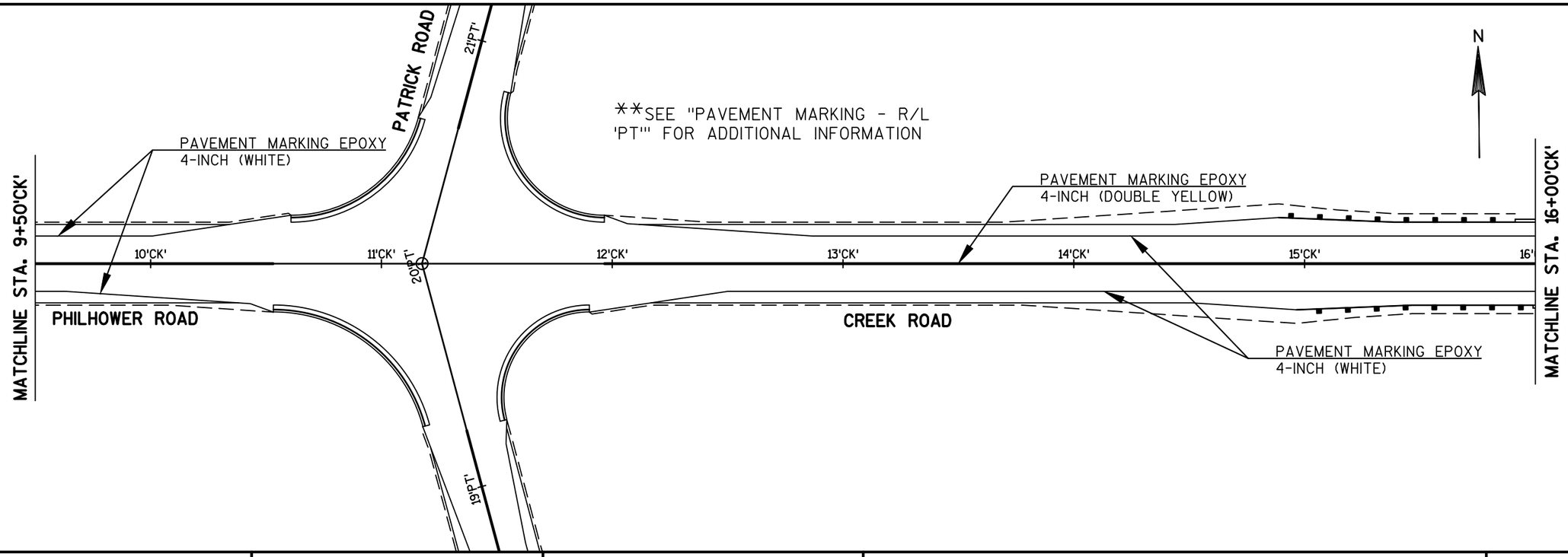


PROJECT NO: 1003-10-74	HWY: IH 39	COUNTY: ROCK	PERMANENT SIGNING	SHEET 24	E

2



*FINAL LOCATION OF DOUBLE YELLOW NO PASSING MARKINGS WILL BE DETERMINED UNDER BID ITEM LOCATE NO-PASSING ZONES. LOCATION MAY BE OUTSIDE PROJECT LIMITS.

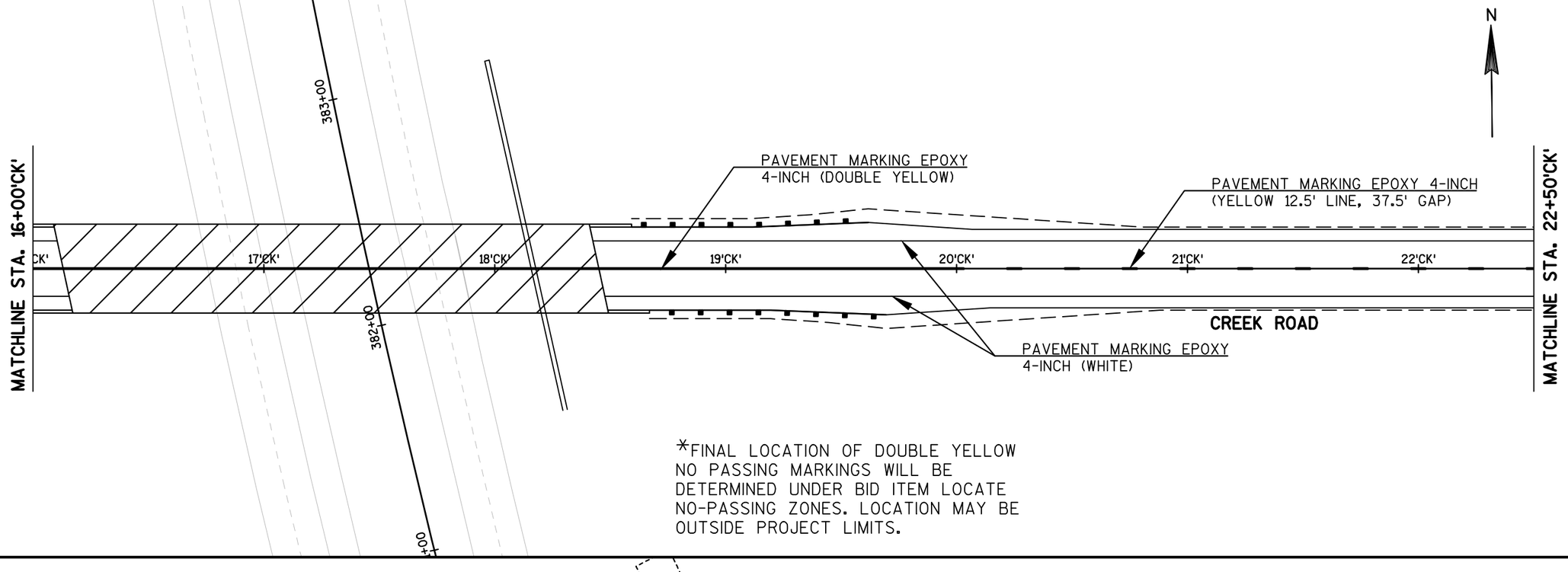


PROJECT NO: 1003-10-74	HWY: IH 39	COUNTY: ROCK	PAVEMENT MARKING - R/L "CK"	SHEET	E

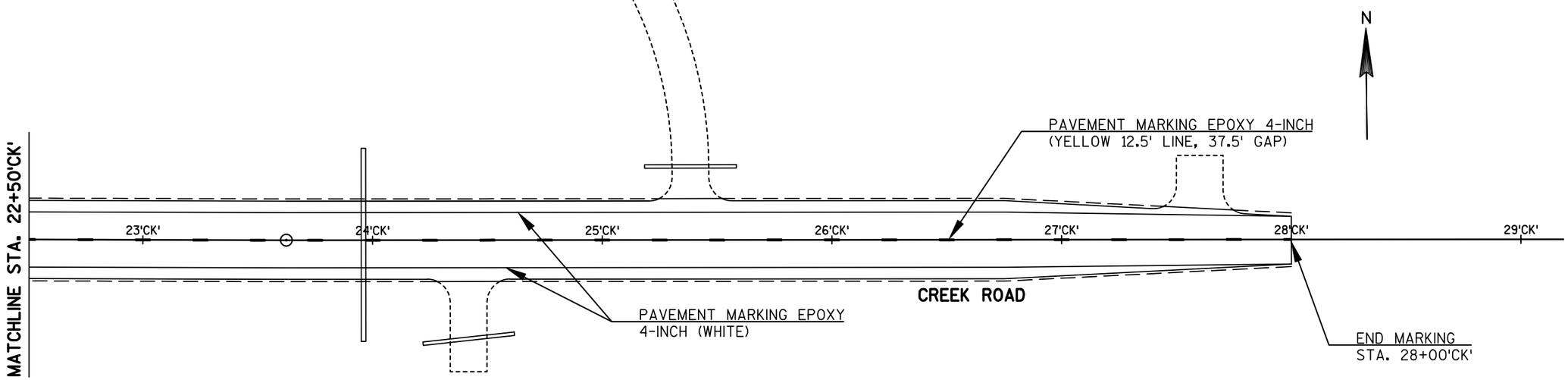
FILE NAME : L:\WORK\IH-39-SOUTH-SEGMENT\000_CAD\001_DRAWINGS\1003-10-74_CREEK RD\90%\024501_PM.DWG PLOT DATE : 4/29/2015 8:44 AM PLOT BY : SCHNEIDER, MICHAEL (MILWAUKEE) PLOT SCALE : 1 IN:50 FT

WISDOT/CADDS SHEET 44

2



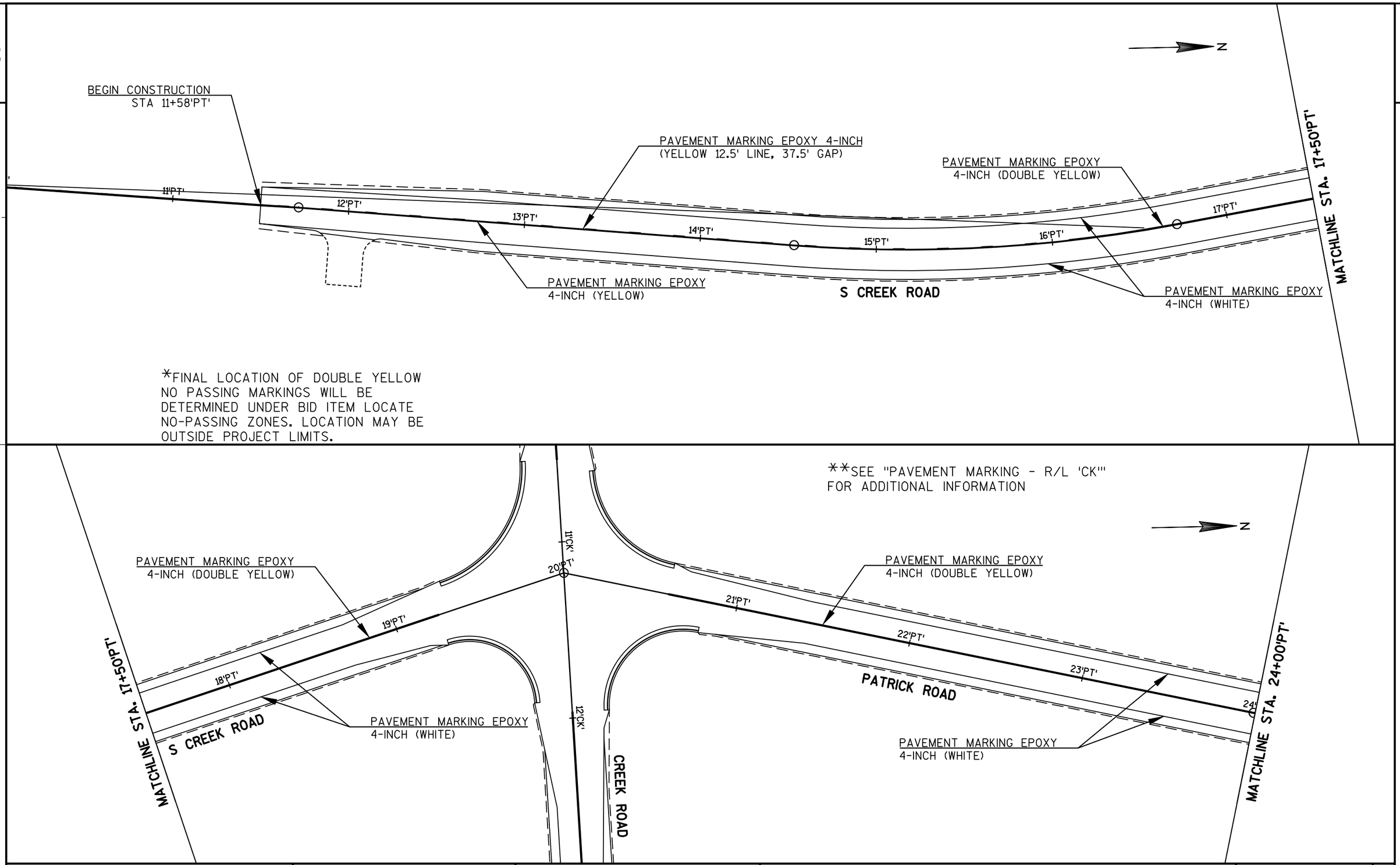
*FINAL LOCATION OF DOUBLE YELLOW NO PASSING MARKINGS WILL BE DETERMINED UNDER BID ITEM LOCATE NO-PASSING ZONES. LOCATION MAY BE OUTSIDE PROJECT LIMITS.



PROJECT NO: 1003-10-74	HWY: IH 39	COUNTY: ROCK	PAVEMENT MARKING - R/L 'CK'	SHEET	E

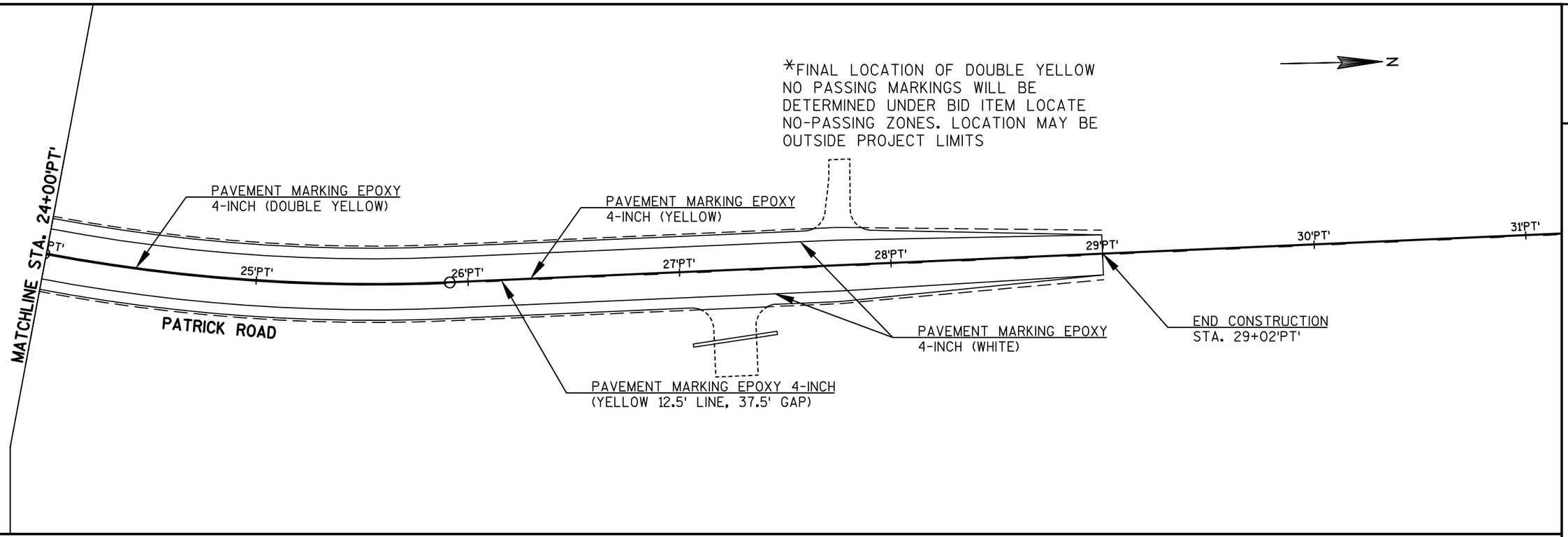
FILE NAME : L:\WORK\IH-39-SOUTH-SEGMENT\000_CAD\001_DRAWINGS\1003-10-74_CREEK RD\90%\024501_PM.DWG PLOT DATE : 4/29/2015 8:44 AM PLOT BY : SCHNEIDER, MICHAEL (MILWAUKEE) PLOT SCALE : 1 IN:50 FT
WISDOT/CADDS SHEET 44

2



PROJECT NO:1003-10-74	HWY:IH 39	COUNTY:ROCK	PAVEMENT MARKING - R/L 'PT'	SHEET 27	E

FILE NAME : L:\WORK\IH-39-SOUTH-SEGMENT\000_CAD\001_DRAWINGS\1003-10-74_CREEK RD\90%\024501_PM.DWG PLOT DATE : 4/11/2016 4:49 PM PLOT BY : STEVENSON, SCOTT PLOT NAME : PLOT SCALE : 1 IN:50 FT
WISDOT/CADDS SHEET 44



2

PROJECT NO: 1003-10-74	HWY: IH 39	COUNTY: ROCK	PAVEMENT MARKING - R/L 'PT'	SHEET 28	E

FILE NAME : L:\WORK\IH-39-SOUTH-SEGMENT\000_CAD\001_DRAWINGS\1003-10-74_CREEK RD\90%\024501_PM.DWG PLOT DATE : 4/11/2016 4:49 PM PLOT BY : STEVENSON, SCOTT PLOT NAME : PLOT SCALE : 1 IN:50 FT
WISDOT/CADDS SHEET 44

GENERAL TRAFFIC CONTROL NOTES

ALL SIGNS ARE 48" x 48" UNLESS NOTED OTHERWISE.

"WO" SIGNS ARE THE SAME AS "W" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

THE EXACT LOCATION OR SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

ALL SIGNS IN CONFLICT WITH THE STATUS OF THE CONTROL ZONE INCLUDING PRE-EXISTING SIGNING IN THE VICINITY SHALL BE COVERED OR REMOVED AS SPECIFIED IN THE PLANS AND/OR THE SPECIAL PROVISIONS OR AS DIRECTED BY THE ENGINEER.

TWO (2) TYPE A WARNING LIGHTS SHALL BE INSTALLED ON ALL TYPE III BARRICADES.

ADVANCE WARNING SIGNS TO BE IN PLACE DURING ALL TRAFFIC CONTROL STAGES.

NO ACCESS BY CONSTRUCTION VEHICLES FROM LIVE LANES OF IH 39/90 TRAFFIC WILL BE ALLOWED DURING DAY-TIME HOURS.

TRAFFIC CONTROL INDEX OF SHEETS

TRAFFIC CONTROL GENERAL NOTES & STAGING SUMMARY
TRAFFIC CONTROL DETAILS - ROAD CLOSURE
TRAFFIC CONTROL STAGING SEQUENCE
TRAFFIC CONTROL IH 39 DETAILS

LEGEND

- TRAFFIC DIRECTION ARROW
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM W/ TYPE C STEADY BURN LIGHT
- TRAFFIC CONTROL SIGN
- TYPE III BARRICADE
- TYPE III BARRICADE W/ SIGN
- FLASHING ARROW BOARD
- WORK ZONE
- TEMPORARY PAVEMENT MARKING EPOXY 4-INCH YELLOW (A)
- TEMPORARY PAVEMENT MARKING EPOXY 4-INCH WHITE (B)
- PCMS — PORTABLE CHANGEABLE MESSAGE SIGN

TRAFFIC CONTROL - STAGING SUMMARY

STAGE 1
TRAFFIC CONTROL:
NIGHT-TIME - SEE STAGE 1 & PLAN DETAIL 'FREEWAY LANE CLOSURE FOR OUTSIDE SHOULDER WORK (NIGHT-TIME OPERATION)'
DAY-TIME - SEE PLAN DETAIL 'FREEWAY LANE SHIFT FOR OUTSIDE WORK (DAY-TIME OPERATION)'

CONSTRUCTION (NIGHT-TIME):
- REMOVING ASPHALTIC SURFACE MILLING
- REMOVING RUMBLE STRIPS STA. 376+00'NB' TO 389+00'NB' OUTSIDE)
- PLACE HMA PAVEMENT

STAGE 2
TRAFFIC CONTROL:
NIGHT-TIME - SEE STAGE 2 & PLAN DETAIL 'FREEWAY LANE CLOSURE FOR MEDIAN WIDENING (NIGHT-TIME OPERATION)
DAY-TIME - SEE PLAN DETAIL 'FREEWAY LANE SHIFT FOR MEDIAN WIDENING (DAY-TIME OPERATION)'

CONSTRUCTION (NIGHT-TIME):
- PLACE CONCRETE BARRIER TEMPORARY
- COMMON EXCAVATION
- PLACE BASE AGGREGATE DENSE
- PLACE HMA PAVEMENT
- PAVEMENT MARKING

STAGE 3
TRAFFIC CONTROL:
NIGHT-TIME - SEE STAGE 3 & PLAN DETAIL 'FREEWAY LANE CLOSURE FOR MEDIAN WORK (NIGHT-TIME OPERATION)
DAY-TIME - SEE PLAN DETAIL 'FREEWAY LANE SHIFT FOR MEDIAN WORK (DAY-TIME OPERATION)

CONSTRUCTION (NIGHT-TIME):
- BRIDGE DECK/PARAPET REMOVAL
- PLACE CONCRETE BARRIER TEMPORARY
- REMOVE BULLNOSE AND GUARDRAIL SYSTEM

STAGE 4
TRAFFIC CONTROL:
NIGHT-TIME - SEE STAGE 3 & PLAN DETAIL 'FREEWAY LANE CLOSURE FOR OUTSIDE STRUCTURE WORK (NIGHT-TIME OPERATION)'
DAY-TIME - SEE PLAN DETAIL 'FREEWAY LANE SHIFT FOR OUTSIDE WORK (DAY-TIME OPERATION)'

CONSTRUCTION (DAY-TIME OR NIGHT-TIME):
- BRIDGE DECK/PARAPET REMOVAL

STAGE 5
TRAFFIC CONTROL:
NIGHT-TIME - SEE STAGE 5
DAY-TIME - SEE STAGE 5

CONSTRUCTION (NIGHT-TIME):
- CONCRETE GIRDER REMOVAL

STAGE 6
TRAFFIC CONTROL:
NIGHT-TIME - SEE STAGE 6 & PLAN DETAIL 'FREEWAY LANE CLOSURE FOR MEDIAN WORK (NIGHT-TIME OPERATION)'
DAY-TIME - SEE PLAN DETAIL 'FREEWAY MEDIAN WORK (DAY-TIME OPERATION)'

CONSTRUCTION (NIGHT-TIME):
- BRIDGE PIER REMOVAL (MIDDLE PIER)
- BRIDGE FOOTING REMOVAL (MIDDLE FOOTING)

STAGE 7
TRAFFIC CONTROL:
NIGHT-TIME - SEE STAGE 7 & PLAN DETAIL 'FREEWAY LANE CLOSURE FOR OUTSIDE STRUCTURE WORK (NIGHT-TIME OPERATION)'
DAY-TIME - SEE PLAN DETAIL 'FREEWAY LANE SHIFT FOR OUTSIDE WORK (DAY-TIME OPERATION)'

CONSTRUCTION (DAY-TIME):
- REMOVE OUTSIDE DECK, GIRDERS, PIERS, BARRIER, FOOTINGS, AND ABUTMENTS
- PLACE HMA PAVEMENT-SHOULDER REPAIR (OUTSIDE)
- PLACE CONCRETE BARRIER TEMPORARY PRECAST (OUTSIDE)
- INSTALL 48" C.P.R.C.

STAGE 8
TRAFFIC CONTROL:
NIGHT-TIME - SEE STAGE 8 & PLAN DETAIL 'FREEWAY LANE CLOSURE FOR MEDIAN WORK (NIGHT-TIME OPERATION)'
DAY-TIME - SEE PLAN DETAIL 'FREEWAY MEDIAN WORK (DAY-TIME OPERATION)'

CONSTRUCTION (NIGHT-TIME):
- MEDIAN PIER CONSTRUCTION
- ABUTMENT CONSTRUCTION

STAGE 9
TRAFFIC CONTROL:
NIGHT-TIME - SEE STAGE 9
DAY-TIME - SEE STAGE 9

CONSTRUCTION (NIGHT-TIME):
- INSTALL CONCRETE GIRDERS

STAGE 10
TRAFFIC CONTROL:
NIGHT-TIME - SEE STAGE 10 & PLAN DETAIL 'FREEWAY LANE CLOSURE FOR MEDIAN WORK (NIGHT-TIME OPERATION)'
DAY-TIME - SEE PLAN DETAIL 'FREEWAY LANE SHIFT FOR MEDIAN WORK (DAY-TIME OPERATION)'

CONSTRUCTION (NIGHT-TIME):
- INSTALL DECK OVERHANG
- PLACE CONCRETE BARRIER TEMPORARY

STAGE 11
TRAFFIC CONTROL:
NIGHT-TIME - SEE STAGE 11 & PLAN DETAIL 'FREEWAY LANE CLOSURE FOR OUTSIDE STRUCTURE WORK (NIGHT-TIME OPERATION)'
DAY-TIME - SEE PLAN DETAIL 'FREEWAY LANE SHIFT FOR OUTSIDE WORK (DAY-TIME OPERATION)'

CONSTRUCTION (NIGHT-TIME):
- INSTALL DECK OVERHANG

STAGE 12
TRAFFIC CONTROL:
NIGHT-TIME - SEE STAGE 12
DAY-TIME - SEE STAGE 12

CONSTRUCTION (NIGHT-TIME):
- PLACE BRIDGE DECK

STAGE 13
TRAFFIC CONTROL:
NIGHT-TIME - SEE STAGE 13 & PLAN DETAIL 'FREEWAY LANE CLOSURE FOR MEDIAN WORK (NIGHT-TIME OPERATION)'
DAY-TIME - SEE PLAN DETAIL 'FREEWAY LANE SHIFT FOR MEDIAN WORK (DAY-TIME OPERATION)'

CONSTRUCTION (NIGHT-TIME):
- FORM AND FALSEWORK STRIPPING (INSIDE LANES AND MEDIAN)

STAGE 14
TRAFFIC CONTROL:
NIGHT-TIME - SEE STAGE 14 & PLAN DETAIL 'FREEWAY LANE CLOSURE FOR OUTSIDE STRUCTURE WORK (NIGHT-TIME OPERATION)'
DAY-TIME - SEE PLAN DETAIL 'FREEWAY LANE SHIFT FOR OUTSIDE WORK (DAY-TIME OPERATION)'

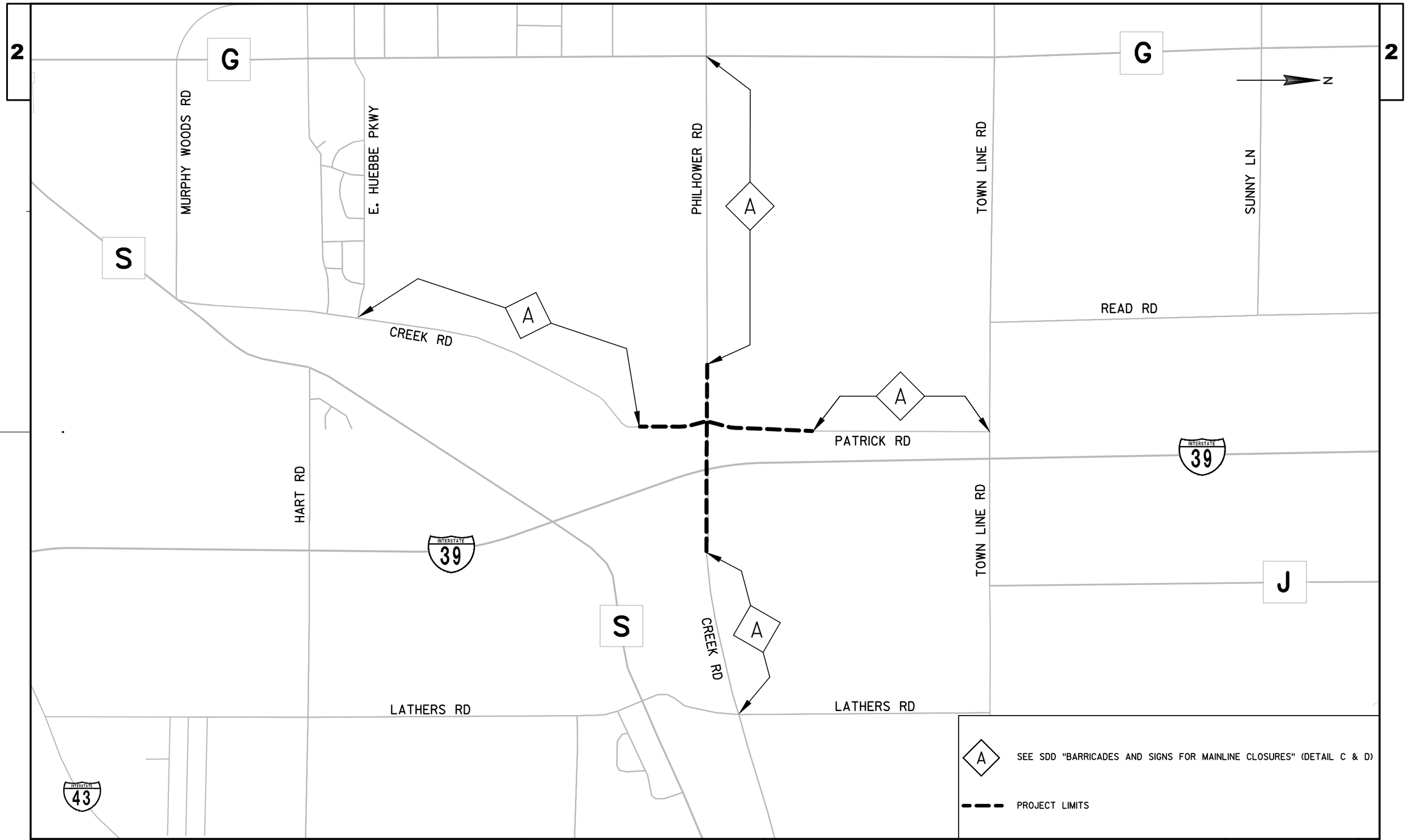
CONSTRUCTION (NIGHT-TIME):
- FORM AND FALSEWORK STRIPPING (OUTSIDE LANES)

STAGE 15A
TRAFFIC CONTROL:
NIGHT-TIME - SEE STAGE 15A & PLAN DETAIL 'FREEWAY LANE CLOSURE FOR OUTSIDE STRUCTURE WORK (NIGHT-TIME OPERATION)'
DAY-TIME - SEE PLAN DETAIL 'FREEWAY LANE SHIFT FOR OUTSIDE WORK (DAY-TIME OPERATION)'

CONSTRUCTION (NIGHT-TIME):
- CONCRETE STAINING (OUTSIDE LANES & ABUTMENTS)

STAGE 15B
TRAFFIC CONTROL:
NIGHT-TIME - SEE STAGE 15B & PLAN DETAIL 'FREEWAY LANE CLOSURE FOR MEDIAN WORK (NIGHT-TIME OPERATION)'
DAY-TIME - SEE PLAN DETAIL 'FREEWAY LANE SHIFT FOR MEDIAN WORK (DAY-TIME OPERATION)'

CONSTRUCTION (NIGHT-TIME):
- CONCRETE STAINING (INSIDE LANES & PIER)



PROJECT NO: 1003-10-74	HWY: IH 39	COUNTY: ROCK	TRAFFIC CONTROL DETAILS - ROAD CLOSURE	SHEET E

FILE NAME : L:\WORK\IH-39-SOUTH-SEGMENT\000_CAD\001_DRAWINGS\1003-10-74_CREEK RD\90%\025002_TC.DWG PLOT DATE : 4/29/2015 8:44 AM PLOT BY : SCHNEIDER, MICHAEL (MILWAUKEE) PLOT SCALE : 1 IN:1700 FT
WISDOT/CADDS SHEET 42

2

LEGEND

- TYPE III BARRICADE WITH ATTACHED SIGN
- SIGN ON PERMENENT SUPPORT
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- TRAFFIC CONTROL DRUM
- FLASHING ARROW BOARD
- (A) TYPE "A" WARNING LIGHT (FLASHING)
- REMOVING PAVEMENT MARKING
- DIRECTION OF TRAFFIC
- WORK AREA
- PCMS TRAFFIC CONTROL SIGN PORTABLE CHANGEABLE MESSAGE

GENERAL NOTES

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

THE SPACING BETWEEN SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND TO PROVIDE A MINIMUM OF 200 FEET, (500 FEET DESIREABLE) DISTANCE TO EXISTING SIGNS.

THIS LANE CLOSURE IS TYPICAL FOR CLOSING RIGHT LANE – REVERSE FOR CLOSING LEFT LANE.

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED.

"WO" IS THE SAME AS "W" EXCEPT THE BACKGROUND IS ORANGE.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER. NO WARNING LIGHTS SHALL BE WORKING ON "COVERED" OR "DOWNED" SIGNS.

CONSIDER GEOMETRICS WHEN LOCATING SIGNS AND ARROW BOARD SO THE DRIVER HAS A CLEAR VIEW OF THE ARROW BOARD AND LANE CLOSURE DRUMS FOR A MINIMUM 1500 FEET IN FRONT OF DRUMS.

FOR A LANE CLOSURE THAT IS IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS, THE ADVANCED WARNING SIGNS MAY BE MOUNTED ON PORTABLE SUPPORTS.

REMOVE PAVEMENT MARKINGS IF LANE CLOSURE IS TO BE IN PLACE FOR LONGER THAN 4 OR MORE DAYS AND NIGHTS.

WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

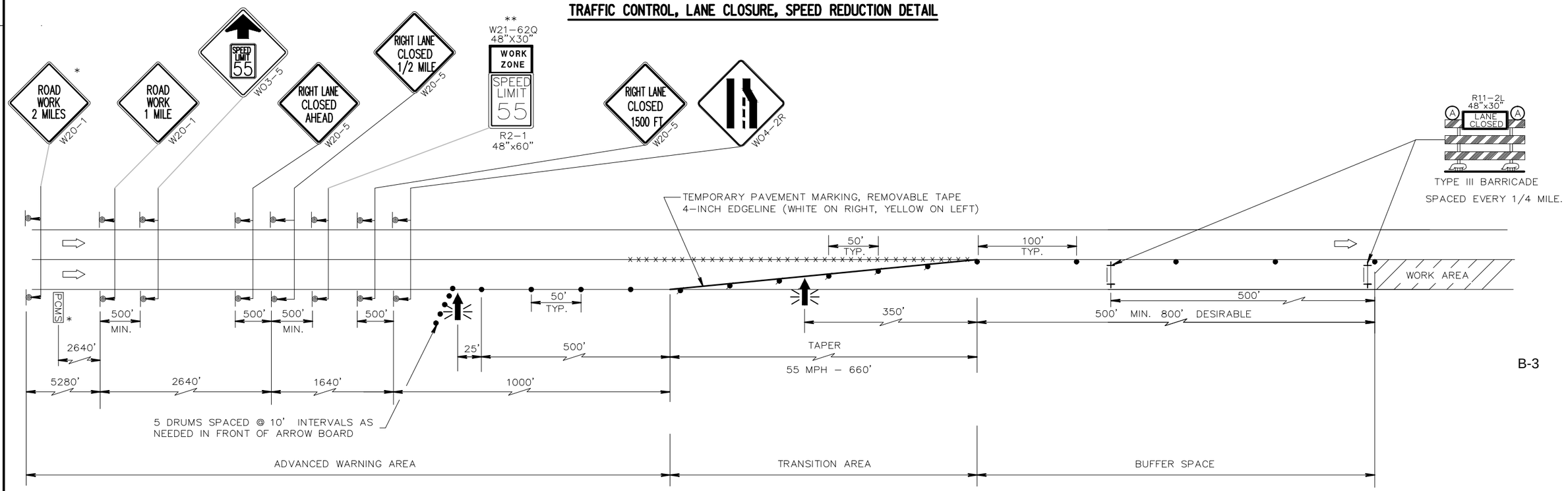
IF THE HORIZONTAL ALIGNMENT IS SUCH THAT A CURVE MAY REQUIRE ADDITIONAL DELINEATION, THE DEVICE SPACING MAY BE DECREASED TO 50 FEET.

ADJUSTMENTS IN BUFFER SPACE NEED TO BE INCORPORATED WHEN THE LANE CLOSURE OCCURS NEAR AN INTERCHANGE EXIT OR ENTRANCE RAMP. THE LANE CLOSURE MUST MUST TAKE PLACE FAR ENOUGH IN ADVANCE OF AN EXIT OR ENTRANCE RAMP TO STILL ALLOW FOR ADEQUATE BUFFER SPACE. THE MINIMUM LENGTH OF THE BUFFER SPACE BEFORE AN EXIT RAMP SHOULD BE 1/2 THE LENGTH OF THE TRANSITION AREA. THE ENTRANCE RAMP SHOULD BE FOLLOWED BY THE ORIGINAL BUFFER SPACE LENGTH OF 800 FEET DESIRABLE PRIOR TO ANOTHER TRAFFIC CONTROL CHANGE SUCH AS A CROSSOVER MANEUVER.

** A SPEED LIMIT SIGN SHALL BE LOCATED 1500 FEET BEYOND THE END OF THE ACCELERATION LANE OF EACH ENTRANCE RAMP. THERE SHOULD BE A SPEED LIMIT SIGN INCORPORATED A MINIMUM OF EVERY 2 OR 3 MILES. INCLUDE A 65 MPH RESUME SPEED LIMIT SIGN 200 FEET MINIMUM (500 FEET DESIREABLE) BEYOND THE "END OF ROADWORK" SIGN.

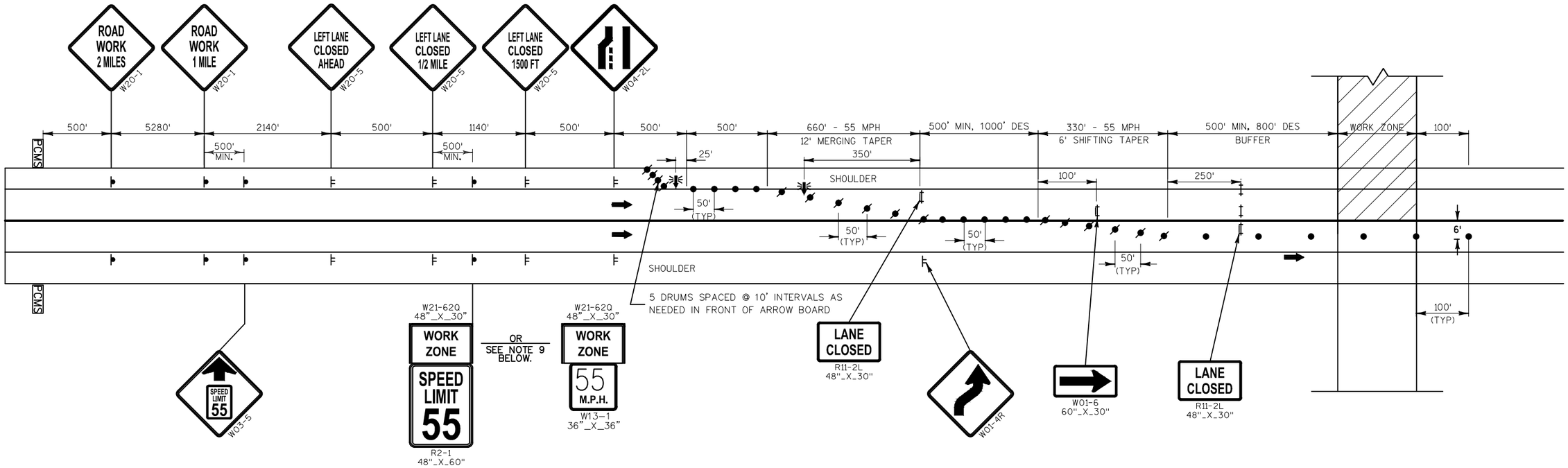
* OPTIONAL – USE WHEN WARRANTED BY ROADWAY GEOMETRICS OR TRAFFIC VOLUMES.

TRAFFIC CONTROL, LANE CLOSURE, SPEED REDUCTION DETAIL



B-3

PROJECT NO:1003-10-74	HWY: IH 39	COUNTY: ROCK	TRAFFIC CONTROL, LANE CLOSURE, SPEED REDUCTION	SHEET 31	E



NOTES:

1) THE EXACT NUMBER, LOCATION AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS DIRECTED BY THE ENGINEER.

2) ALL DRUMS IN TAPERS SHALL HAVE A WARNING LIGHT, TYPE C (STEADY BURN).

3) ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.

4) "WO" SIGNS ARE THE SAME AS "W" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

5) MOUNT ALL PORTABLE TRAFFIC CONTROL SIGNS AT A MINIMUM HEIGHT OF 5 FEET, MEASURED FROM THE BOTTOM OF THE SIGN, ABOVE THE EDGE OF PAVEMENT.

6) ALL SHORT TERM LANE CLOSURE SIGNS SHALL BE REMOVED OR COVERED AND ALL ARROWBOARDS AND DEVICES REMOVED BEYOND THE SHOULDER WHEN THE WORK IS NOT IN PROGRESS AND THE LANE IS RESTORED TO A SAFE OPERATING CONDITION.

7) UTILIZE NIGHT TIME CLOSURE FOR ALL BRIDGE CONSTRUCTION ACTIVITIES. HOURS FOR NIGHT TIME CLOSURE SHALL ADHERE TO THE SPECIAL PROVISIONS OR AS DIRECTED BY THE ENGINEER.

8) DETAIL IS TYPICAL FOR NB AND SB DIRECTIONS. LEFT LANE CLOSURE IS SHOWN. REVERSE FOR CLOSING RIGHT LANE.

9) CONTACT RICH CANNON, I-39/90 TRAFFIC MANAGEMENT ENGINEER, AT (608) 884-1160 TO DETERMINE APPLICABLE SIGN ASSEMBLY.

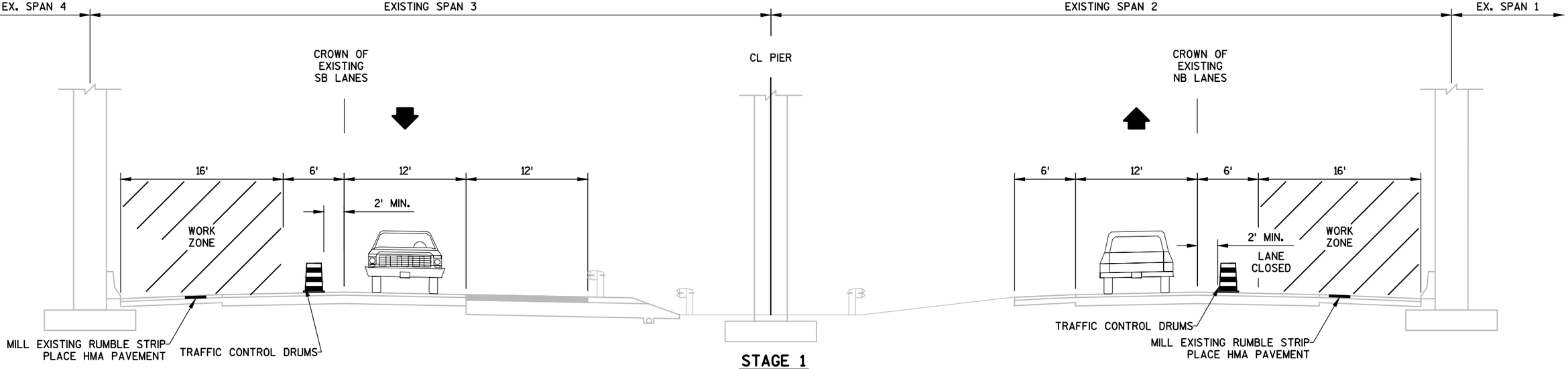
LEGEND

- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH LIGHT TYPE C
- WORK ZONE
- SIGN ON TEMPORARY SUPPORT
- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL BARRICADE TYPE III WITH LIGHT TYPE A AND ATTACHED SIGN
- TRAFFIC CONTROL BARRICADE TYPE III WITH LIGHT TYPE A
- TRAFFIC CONTROL ARROW BOARD
- DIRECTION OF TRAFFIC
- PCMS TRAFFIC CONTROL SIGN PORTABLE CHANGEABLE MESSAGE

B-4

TRAFFIC CONTROL LANE CLOSURE WITH SHIFT ONTO SHOULDER

PROJECT NO: 1003-10-74	HWY: IH 39	COUNTY: ROCK	TRAFFIC CONTROL LANE CLOSURE WITH SHIFT ONTO SHOULDER	SHEET 32	E



STAGE 1

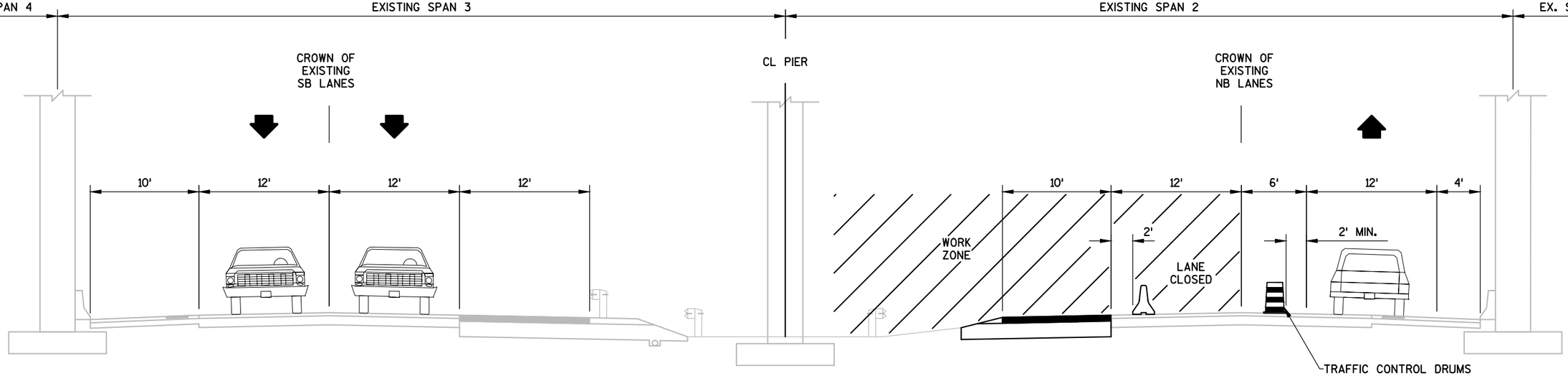
(NIGHT-TIME OPERATION)*

TRAFFIC CONTROL

SEE 'TRAFFIC CONTROL, LANE CLOSURE, SPEED REDUCTION DETAIL'
SEE TRAFFIC CONTROL DETAIL, 'FREEWAY LANE CLOSURE FOR OUTSIDE SHOULDER WORK (NIGHT-TIME OPERATION)'
*FOR DAY-TIME, SEE TRAFFIC CONTROL DETAIL, 'FREEWAY LANE SHIFT FOR OUTSIDE WORK (DAY-TIME OPERATION)'

CONSTRUCTION

REMOVING ASPHALTIC SURFACE MILLING (RUMBLE STRIP)
PLACE HMA PAVEMENT



STAGE 2

(NIGHT-TIME OPERATION)*

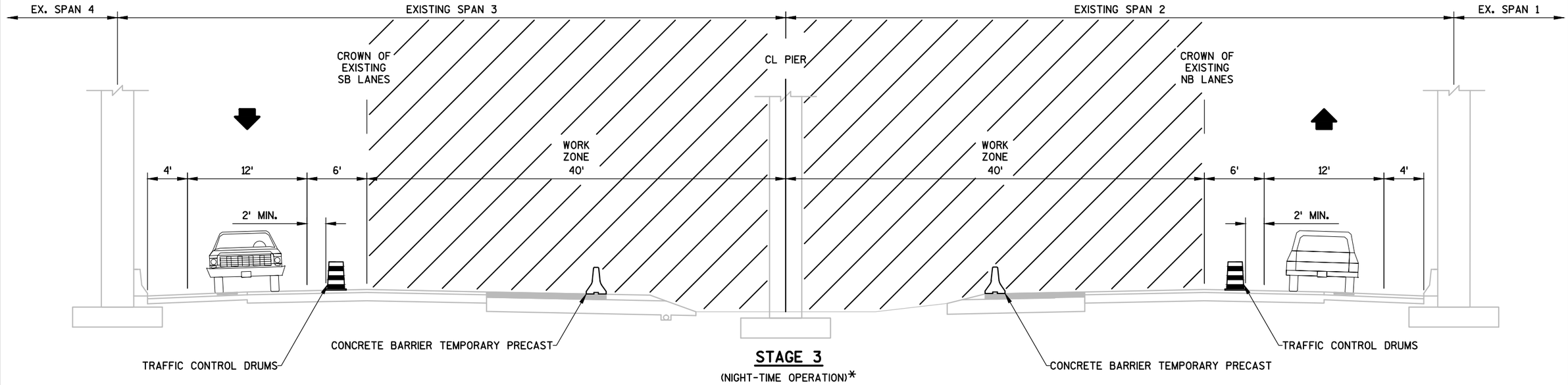
TRAFFIC CONTROL

SEE 'TRAFFIC CONTROL, LANE CLOSURE, SPEED REDUCTION DETAIL'
SEE TRAFFIC CONTROL DETAIL, 'FREEWAY LANE SHIFT FOR MEDIAN WIDENING (NIGHT-TIME OPERATION)'
*FOR DAY-TIME, SEE TRAFFIC CONTROL DETAIL, 'FREEWAY LANE SHIFT FOR MEDIAN WIDENING (DAY-TIME OPERATION)'

CONSTRUCTION

PLACE NORTHBOUND CONCRETE BARRIER TEMPORARY PRECAST (INSIDE LANE)
COMMON EXCAVATION
PLACE BASE AGGREGATE DENSE
PLACE HMA PAVEMENT
PAVEMENT MARKING

PROJECT NO:1003-10-74	HWY: IH 39	COUNTY: ROCK	TRAFFIC CONTROL - STAGE 1 & 2	SHEET 33	E



STAGE 3

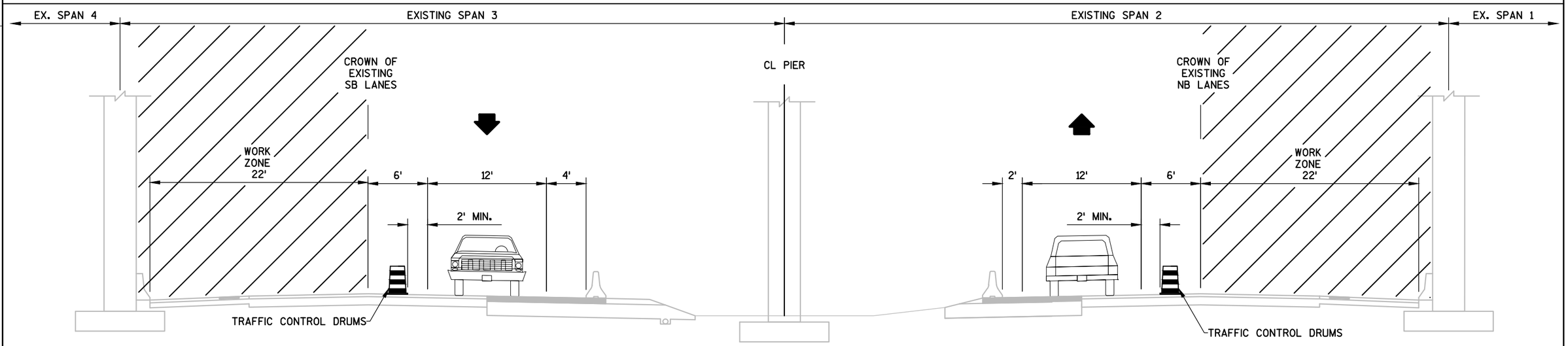
(NIGHT-TIME OPERATION)*

TRAFFIC CONTROL

SEE 'TRAFFIC CONTROL, LANE CLOSURE , SPEED REDUCTION DETAIL'
SEE TRAFFIC CONTROL DETAIL, 'FREEWAY LANE CLOSURE FOR MEDIAN WORK (NIGHT-TIME OPERATION)'
*FOR DAY-TIME, SEE TRAFFIC CONTROL DETAIL, 'FREEWAY LANE SHIFT FOR MEDIAN WORK (DAY-TIME OPERATION)'

CONSTRUCTION

PLACE SOUTHBOUND CONCRETE BARRIER TEMPORARY PRECAST (MEDIAN)
MOVE NORTHBOUND CONCRETE BARRIER TEMPORARY PRECAST (MEDIAN)
REMOVE BULLNOSE AND GUARDRAIL SYSTEM
BRIDGE DECK/PARAPET REMOVAL



STAGE 4

(NIGHT-TIME OPERATION)*

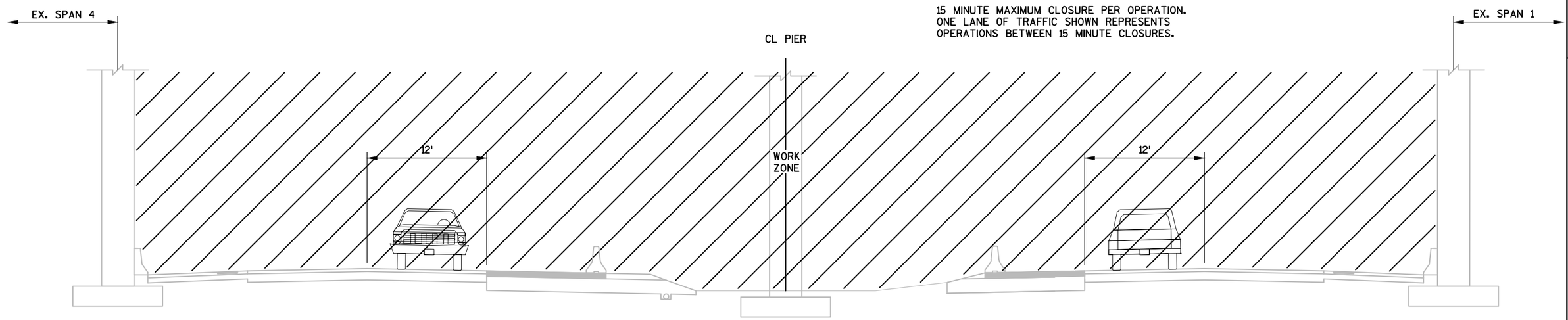
TRAFFIC CONTROL

SEE 'TRAFFIC CONTROL, LANE CLOSURE, SPEED REDUCTION DETAIL'
SEE TRAFFIC CONTROL DETAIL, 'FREEWAY LANE CLOSURE FOR OUTSIDE STRUCTURE WORK (NIGHT-TIME OPERATION)'
*FOR DAY-TIME, SEE TRAFFIC CONTROL DETAIL, 'FREEWAY LANE SHIFT FOR OUTSIDE WORK (DAY-TIME OPERATION)'

CONSTRUCTION

BRIDGE DECK/PARAPET REMOVAL

PROJECT NO:1003-10-74	HWY:IH 39	COUNTY:ROCK	TRAFFIC CONTROL - STAGE 3 & 4	SHEET 34	E



STAGE 5

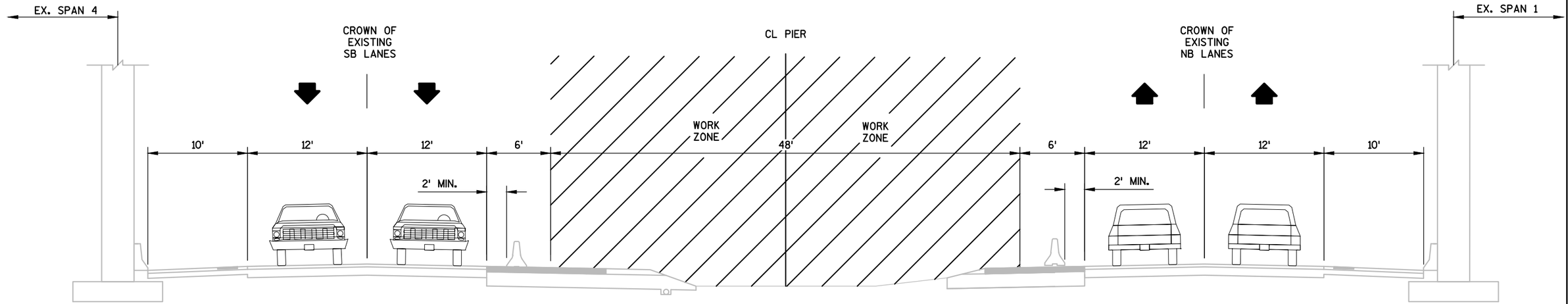
(NIGHT-TIME OPERATION)

TRAFFIC CONTROL

ROLLING CLOSURE

CONSTRUCTION

CONCRETE GIRDER REMOVAL



STAGE 6

(DAY-TIME OPERATION)*

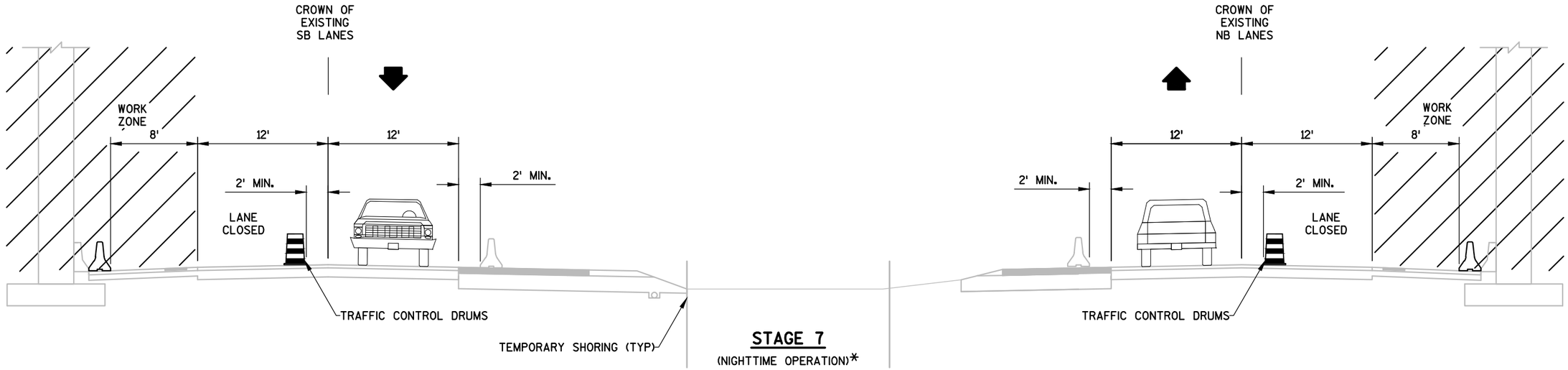
TRAFFIC CONTROL

SEE TRAFFIC CONTROL DETAIL, 'FREEWAY MEDIAN WORK (DAY-TIME OPERATION)'
*FOR NIGHT-TIME, SEE TRAFFIC CONTROL DETAIL, 'FREEWAY LANE CLOSURE FOR MEDIAN WORK (NIGHT-TIME OPERATION)'

CONSTRUCTION

BRIDGE PIER REMOVAL (MIDDLE PIER)
BRIDGE FOOTING REMOVAL (MIDDLE FOOTING)

PROJECT NO:1003-10-74	HWY:IH 39	COUNTY:ROCK	TRAFFIC CONTROL - STAGE 5 & 6	SHEET 35	E



STAGE 7

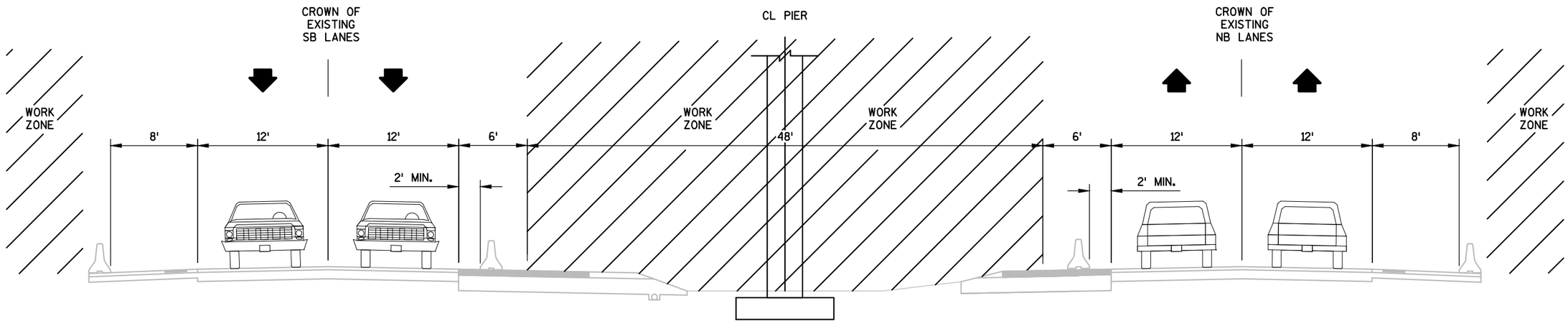
(NIGHTTIME OPERATION)*

TRAFFIC CONTROL

SEE 'TRAFFIC CONTROL, LANE CLOSURE, SPEED REDUCTION DETAIL'
SEE TRAFFIC CONTROL DETAIL, FREEWAY LANE CLOSURE - EXTERIOR LANES (NIGHTTIME OPERATION)
*FOR DAYTIME, SEE TRAFFIC CONTROL DETAIL, FREEWAY TRAFFIC FOR SUB-STRUCTURE WORK (DAYTIME OPERATION) SHEET 10.

CONSTRUCTION

REMOVE OUTSIDE DECK, GIRDERS, PIERS, BARRIER, FOOTINGS, AND ABUTMENTS
PLACE HMA PAVEMENT-SHOULDER REPAIR (OUTSIDE)
PLACE CONCRETE BARRIER TEMPORARY PRECAST (OUTSIDE)



STAGE 8

(DAYTIME OPERATION)*

TRAFFIC CONTROL

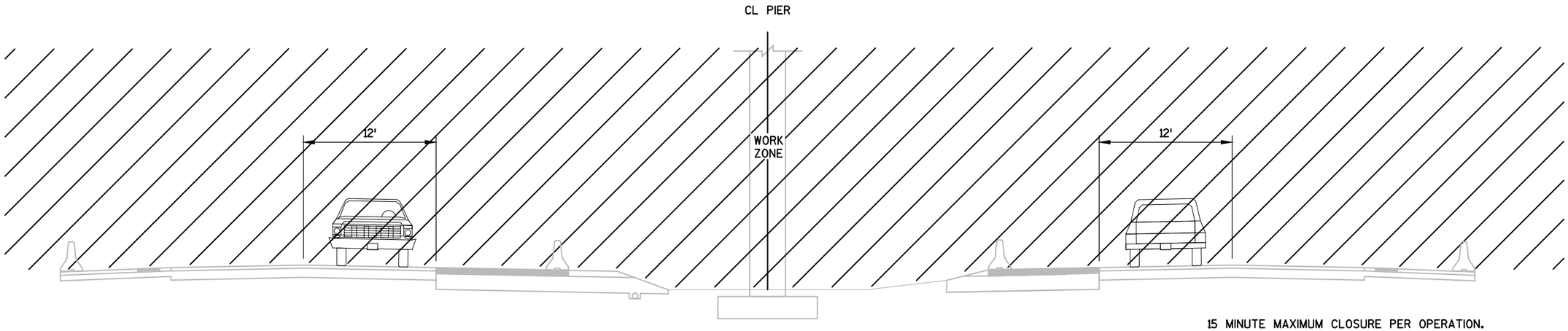
SEE TRAFFIC CONTROL DETAIL, FREEWAY TRAFFIC FOR SUB-STRUCTURE WORK (DAYTIME OPERATION)
*FOR NIGHTTIME, SEE TRAFFIC CONTROL DETAIL, FREEWAY LANE CLOSURE - INTERIOR LANES (NIGHTTIME OPERATION) AND FREEWAY LANE CLOSURE - EXTERIOR LANES (NIGHTTIME OPERATION) FOR ACCESS TO WORK ZONE

CONSTRUCTION

MEDIAN PIER CONSTRUCTION
ABUTMENT CONSTRUCTION

PROJECT NO: 1003-10-74	HWY: IH 39	COUNTY: ROCK	PLAN: TRAFFIC CONTROL - STAGING SEQUENCE	SHEET E

FILE NAME : L:\WORK\IH-39-SOUTH-SEGMENT\000_CAD\001_DRAWINGS\1003-10-74_CREEK RD\90%\CREEK TMP\CREEK TRAFFIC CONTROL STAGING TYPICAL SECTIONS.DWG 2/9/2015 10:33 AM PLOT BY : STEVENSON, SCOTT PLOT NAME : ---------- PLOT SCALE : 1 IN:10 FT WISDOT/CADD SHEET 42



STAGE 9

(NIGHTTIME OPERATION)

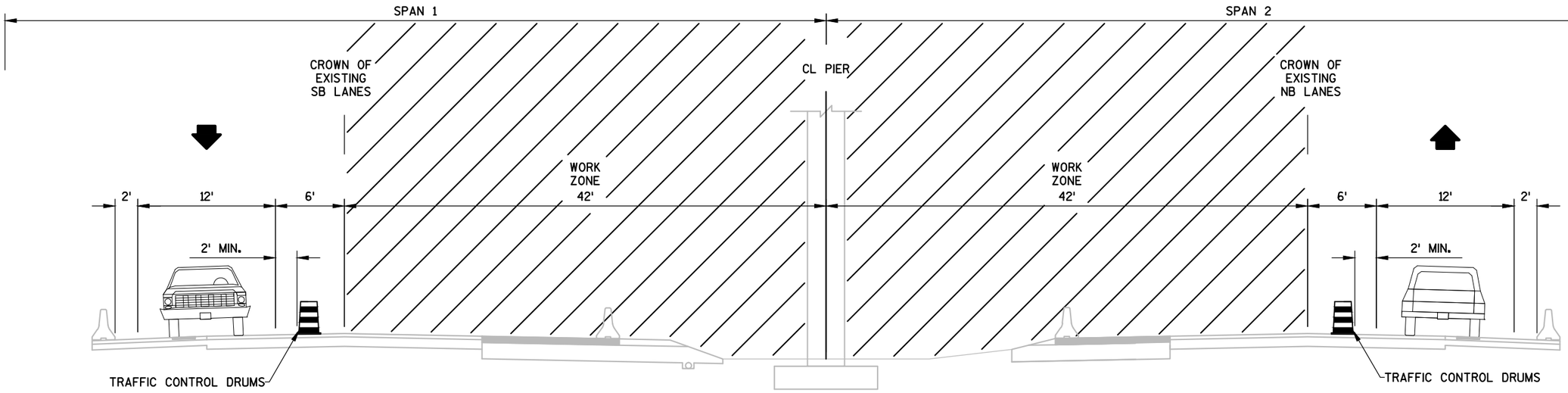
15 MINUTE MAXIMUM CLOSURE PER OPERATION.
ONE LANE OF TRAFFIC SHOWN REPRESENTS OPERATIONS BETWEEN 15 MINUTE CLOSURES.

TRAFFIC CONTROL

ROLLING CLOSURE

CONSTRUCTION

INSTALL CONCRETE GIRDERS



STAGE 10

(NIGHTTIME OPERATION)*

TRAFFIC CONTROL

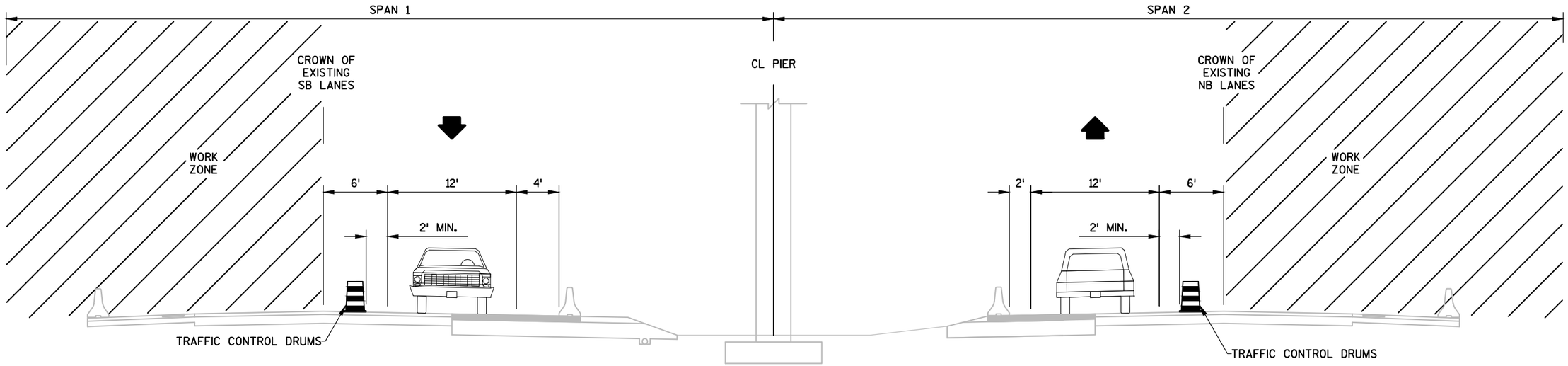
SEE 'TRAFFIC CONTROL, LANE CLOSURE, SPEED REDUCTION DETAIL'
SEE TRAFFIC CONTROL DETAIL, FREEWAY LANE SHIFT W/INTERIOR LANE CLOSURE (NIGHTTIME OPERATION)
*FOR DAYTIME, SEE TRAFFIC CONTROL DETAIL, FREEWAY LANE SHIFT TO OUTSIDE (DAYTIME OPERATION) SHEET 10.

CONSTRUCTION

INSTALL DECK OVERHANG

PROJECT NO: 1003-10-74	HWY: IH 39	COUNTY: ROCK	PLAN: TRAFFIC CONTROL - STAGING SEQUENCE	SHEET	E

FILE NAME : L:\WORK\IH-39-SOUTH-SEGMENT\000_CAD\001_DRAWINGS\1003-10-74_CREEK RD\90%\CREEK TMP\CREEK TRAFFIC CONTROL STAGING TYPICAL SECTIONS.DWG 2/9/2015 10:33 AM PLOT BY : STEVENSON, SCOTT PLOT NAME : _____ PLOT SCALE : 1 IN:10 FT WISDOT/CADDS SHEET 42



STAGE 11

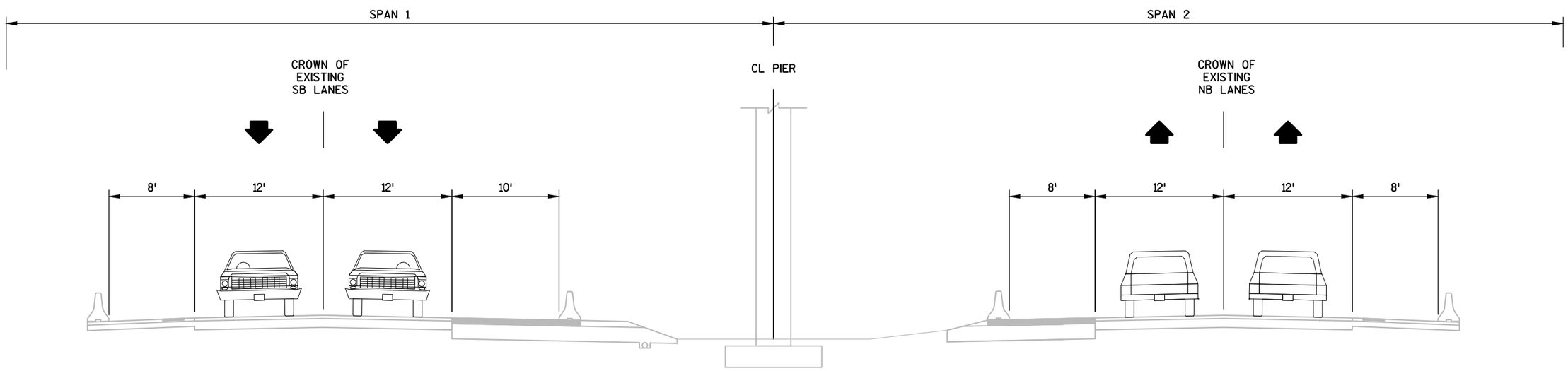
(NIGHTTIME OPERATION)*

TRAFFIC CONTROL

SEE 'TRAFFIC CONTROL, LANE CLOSURE, SPEED REDUCTION DETAIL'
SEE TRAFFIC CONTROL DETAIL, FREEWAY LANE SHIFT W/EXTERIOR LANE CLOSURE (NIGHTTIME OPERATION)
*FOR DAYTIME, SEE TRAFFIC CONTROL DETAIL, FREEWAY LANE SHIFT TO INSIDE (DAYTIME OPERATION) SHEET 10.

CONSTRUCTION

INSTALL DECK OVERHANG



STAGE 12

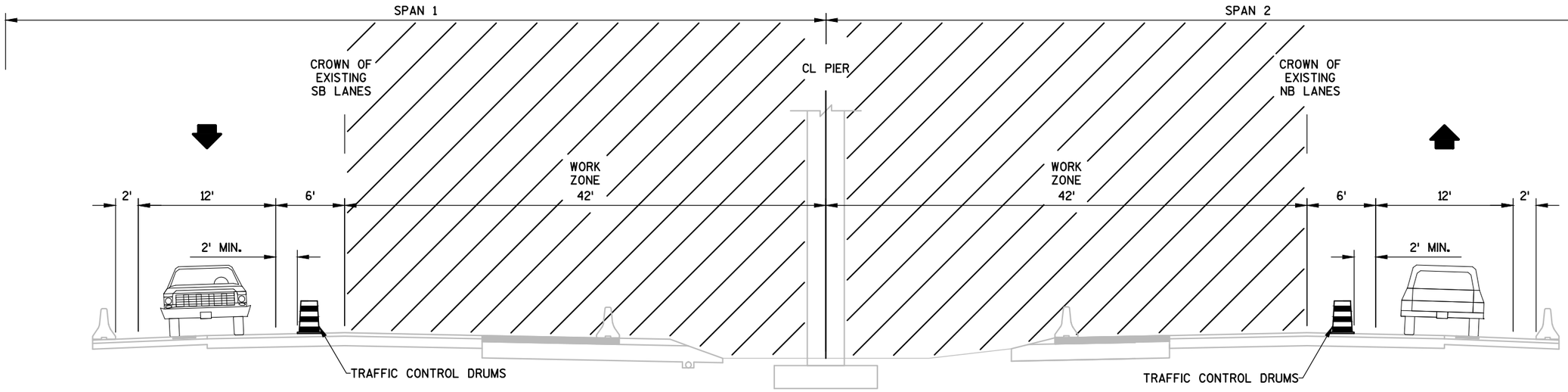
TRAFFIC CONTROL

ALL LANES OPEN

CONSTRUCTION

PLACE BRIDGE DECK

PROJECT NO: 1003-10-74	HWY: IH 39	COUNTY: ROCK	PLAN: TRAFFIC CONTROL - STAGING SEQUENCE	SHEET	E



STAGE 13

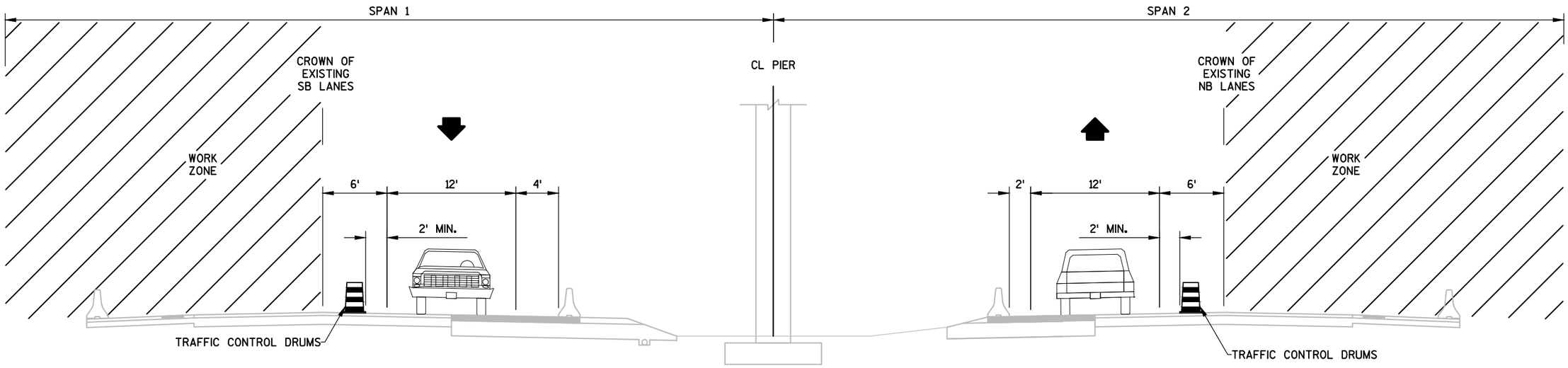
(NIGHTTIME OPERATION)*

TRAFFIC CONTROL

SEE 'TRAFFIC CONTROL, LANE CLOSURE, SPEED REDUCTION DETAIL'
SEE TRAFFIC CONTROL DETAIL, FREEWAY LANE SHIFT W/INTERIOR LANE CLOSURE (NIGHTTIME OPERATION)
*FOR DAYTIME, SEE TRAFFIC CONTROL DETAIL, FREEWAY LANE SHIFT TO OUTSIDE (DAYTIME OPERATION) SHEET 10.

CONSTRUCTION

FORM AND FALSEWORK STRIPPING (INSIDE LANES AND MEDIAN)



STAGE 14

(NIGHTTIME OPERATION)*

TRAFFIC CONTROL

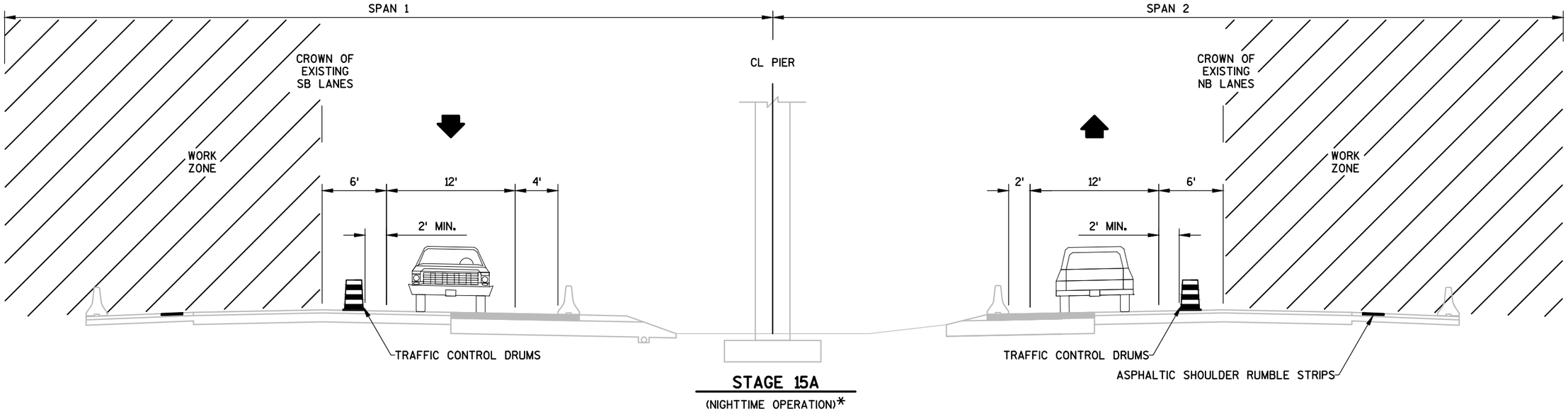
SEE 'TRAFFIC CONTROL, LANE CLOSURE, SPEED REDUCTION DETAIL'
SEE TRAFFIC CONTROL DETAIL, FREEWAY LANE SHIFT W/EXTERIOR LANE CLOSURE (NIGHTTIME OPERATION)
*FOR DAYTIME, SEE TRAFFIC CONTROL DETAIL, FREEWAY LANE SHIFT TO INSIDE (DAYTIME OPERATION) SHEET 10.

CONSTRUCTION

FORM AND FALSEWORK STRIPPING (OUTSIDE LANES)

PROJECT NO: 1003-10-73	HWY: IH 39	COUNTY: ROCK	PLAN: TRAFFIC CONTROL - STAGING SEQUENCE	SHEET E

FILE NAME : L:\WORK\IH-39-SOUTH-SEGMENT\000_CAD\001_DRAWINGS\1003-10-74_CREEK RD\90%\CREEK TMP\CREEK TRAFFIC CONTROL STAGING TYPICAL SECTIONS.DWG 2/9/2015 10:33 AM PLOT BY : STEVENSON, SCOTT PLOT NAME : ---------- PLOT SCALE : 1 IN:10 FT WISDOT/CADD SHEET 42



STAGE 15A

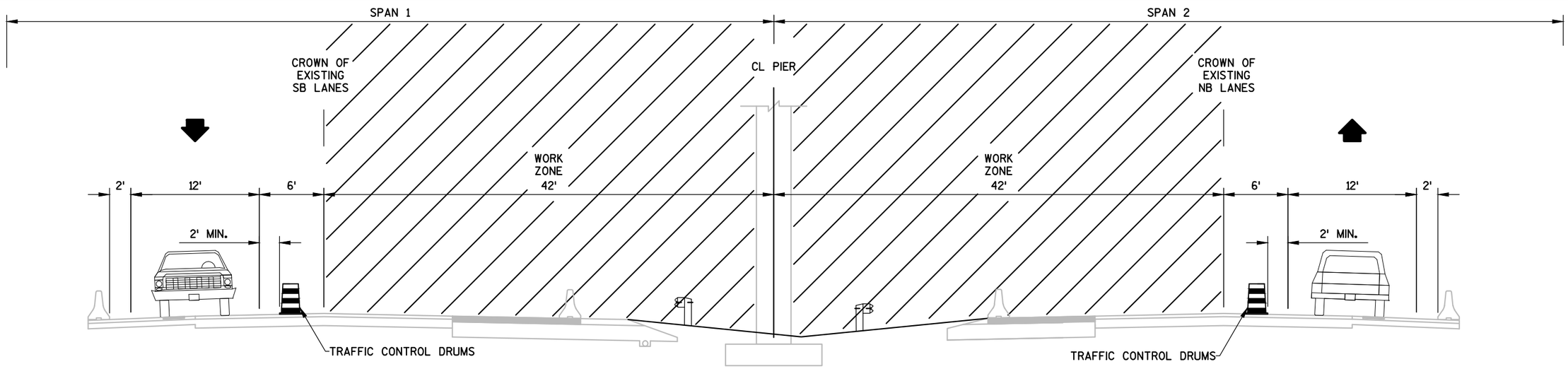
(NIGHTTIME OPERATION)*

TRAFFIC CONTROL

SEE 'TRAFFIC CONTROL, LANE CLOSURE, SPEED REDUCTION DETAIL'
SEE TRAFFIC CONTROL DETAIL, FREEWAY LANE SHIFT W/EXTERIOR LANE CLOSURE (NIGHTTIME OPERATION)
*FOR DAYTIME, SEE TRAFFIC CONTROL DETAIL, FREEWAY LANE SHIFT TO INSIDE (DAYTIME OPERATION) SHEET 10.

CONSTRUCTION

CONCRETE STAINING (OUTSIDE LANES & ABUTMENTS)



STAGE 15B

(NIGHTTIME OPERATION)*

TRAFFIC CONTROL

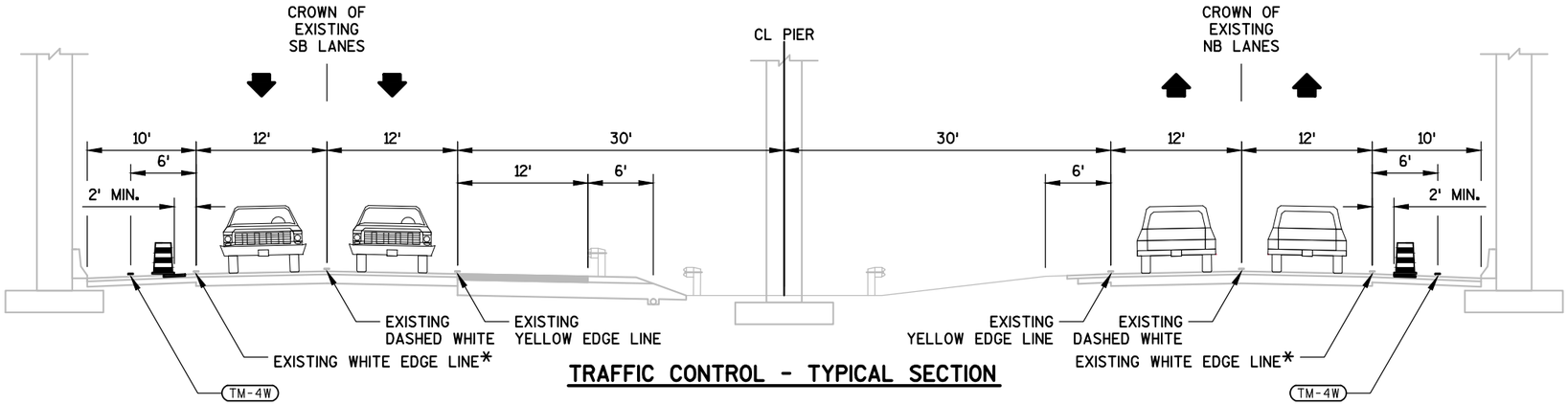
SEE 'TRAFFIC CONTROL, LANE CLOSURE, SPEED REDUCTION DETAIL'
SEE TRAFFIC CONTROL DETAIL, FREEWAY LANE SHIFT W/INTERIOR LANE CLOSURE (NIGHTTIME OPERATION)
*FOR DAYTIME, SEE TRAFFIC CONTROL DETAIL, FREEWAY LANE SHIFT TO OUTSIDE (DAYTIME OPERATION) SHEET 10.

CONSTRUCTION

CONCRETE STAINING (INSIDE LANES & PIER)

PROJECT NO: 1003-10-74	HWY: IH 39	COUNTY: ROCK	PLAN: TRAFFIC CONTROL - STAGING SEQUENCE	SHEET E

FILE NAME : L:\WORK\IH-39-SOUTH-SEGMENT\000_CAD\001_DRAWINGS\1003-10-74_CREEK RD\90%\CREEK TMP\CREEK TRAFFIC CONTROL STAGING TYPICAL SECTIONS.DWG 2/9/2015 10:33 AM PLOT BY : STEVENSON, SCOTT PLOT NAME : ---------- PLOT SCALE : 1 IN:10 FT WISDOT/CADD SHEET 42



TRAFFIC CONTROL - TYPICAL SECTION

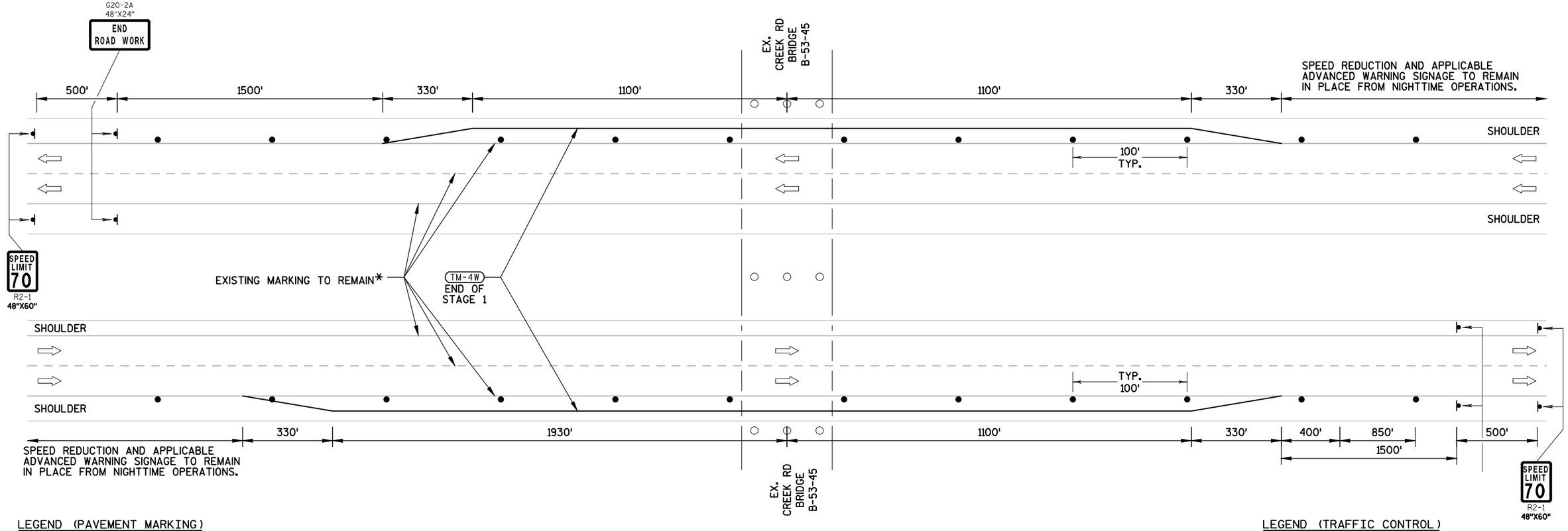
TRAFFIC CONTROL NOTES

SEE "FREEWAY LANE CLOSURE FOR SHOULDER WORK (NIGHTTIME OPERATION)" FOR ADDITIONAL NOTES.

NO ACCESS TO WORK ZONE FOR DELIVERY OR REMOVAL OF MATERIAL AND EQUIPMENT.

TEMPORARY PAVEMENT MARKING 4-INCH WHITE PLACED ALONG SHOULDERS AT END OF STAGE 1 & REMOVED UPON COMPLETION OF PROJECT.

*ASSUMES EDGE LINES WILL NOT BE IMPACTED AS THE RESULT OF RUMBLE STRIP MILLING; RE-MARK IF NECESSARY.



LEGEND (PAVEMENT MARKING)

RT-4W	TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (WHITE)
RT-4Y	TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (YELLOW)
TM-4W	TEMPORARY PAVEMENT MARKING EPOXY 4-INCH (WHITE)
TM-4Y	TEMPORARY PAVEMENT MARKING EPOXY 4-INCH (YELLOW)
E4W	PAVEMENT MARKING EPOXY 4-INCH (WHITE)
E4Y	PAVEMENT MARKING EPOXY 4-INCH (YELLOW)
E4W-LL	PAVEMENT MARKING EPOXY 4-INCH (WHITE) (LANE LINE) (12.5' LINE, 37.5' GAP)

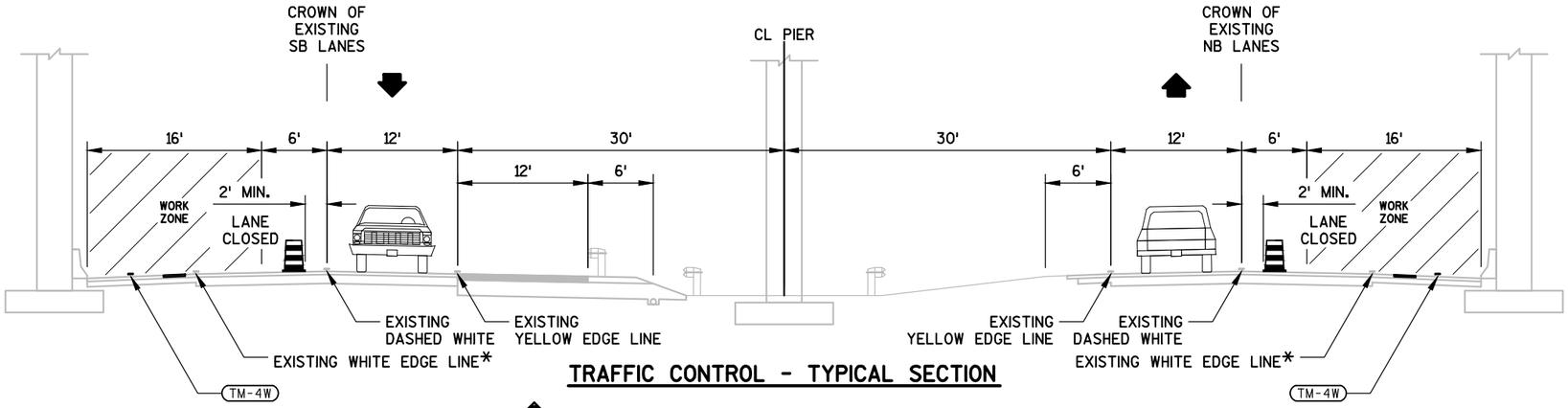
FREEWAY TRAFFIC FOR SHOULDER WORK (DAYTIME OPERATION)

THIS DETAIL COMPLEMENTS THE "FREEWAY LANE CLOSURE FOR SHOULDER WORK (NIGHTTIME OPERATION)" DETAIL

LEGEND (TRAFFIC CONTROL)

	TYPE III BARRICADE WITH/WITHOUT SIGN
	TRAFFIC CONTROL DRUM WITH/WITHOUT WARNING LIGHT, TYPE C
	SIGN ON PERMANENT/TEMPORARY SUPPORT
	CONCRETE BARRIER TEMPORARY PRECAST
CC	CRASH CUSHION TEMPORARY
PCMS	TRAFFIC CONTROL SIGNS PCMS
	WORK ZONE

PROJECT NO: 1003-10-74	HWY: IH 39	COUNTY: ROCK	TRAFFIC CONTROL FOR SHOULDER WORK (DAYTIME)	SHEET 41	E



TRAFFIC CONTROL - TYPICAL SECTION

TRAFFIC CONTROL NOTES

THE EXACT NUMBER, LOCATION AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS DIRECTED BY THE ENGINEER.

FOR NIGHTTIME OPERATION ALL DRUMS IN TAPERS SHALL HAVE A WARNING LIGHT, TYPE C (STEADY BURN).

ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.

"WO" SIGNS ARE THE SAME AS "W" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

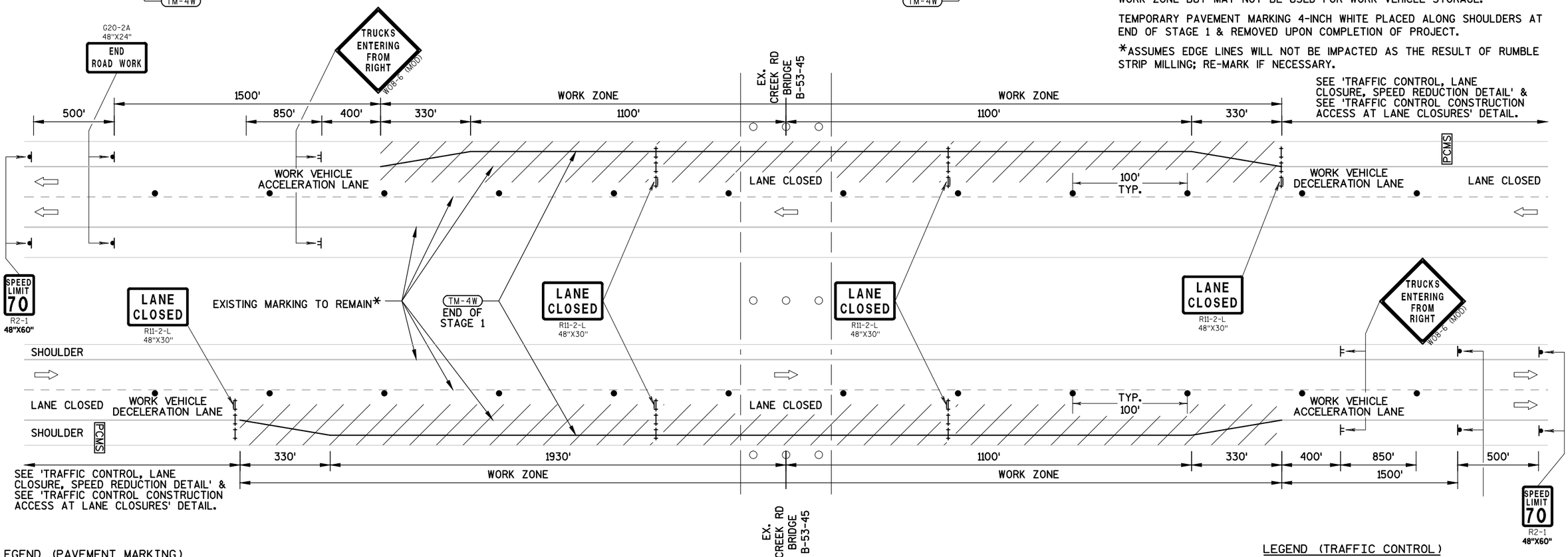
ALL SHORT TERM LANE CLOSURE SIGNS SHALL BE REMOVED OR COVERED AND ALL ARROWBOARDS AND DEVICES REMOVED BEYOND THE SHOULDER WHEN THE WORK IS NOT IN PROGRESS AND THE LANE IS RESTORED TO A SAFE OPERATING CONDITION.

CONSIDER GEOMETRICS WHEN LOCATING SIGNS AND ARROWBOARDS SO THE DRIVER HAS A CLEAR VIEW OF THE ARROWBOARD AND LANE CLOSURE DRUMS FOR A MINIMUM 1500' IN FRONT OF DRUMS.

THE CLOSED TRAFFIC LANE MAY BE USED FOR ACCESS TO AND FROM THE WORK ZONE BUT MAY NOT BE USED FOR WORK VEHICLE STORAGE.

TEMPORARY PAVEMENT MARKING 4-INCH WHITE PLACED ALONG SHOULDERS AT END OF STAGE 1 & REMOVED UPON COMPLETION OF PROJECT.

*ASSUMES EDGE LINES WILL NOT BE IMPACTED AS THE RESULT OF RUMBLE STRIP MILLING; RE-MARK IF NECESSARY.



LEGEND (PAVEMENT MARKING)

RT-4W	TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (WHITE)
RT-4Y	TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (YELLOW)
TM-4W	TEMPORARY PAVEMENT MARKING EPOXY 4-INCH (WHITE)
TM-4Y	TEMPORARY PAVEMENT MARKING EPOXY 4-INCH (YELLOW)
E4W	PAVEMENT MARKING EPOXY 4-INCH (WHITE)
E4Y	PAVEMENT MARKING EPOXY 4-INCH (YELLOW)
E4W-LL	PAVEMENT MARKING EPOXY 4-INCH (WHITE) (LANE LINE) (12.5' LINE, 37.5' GAP)

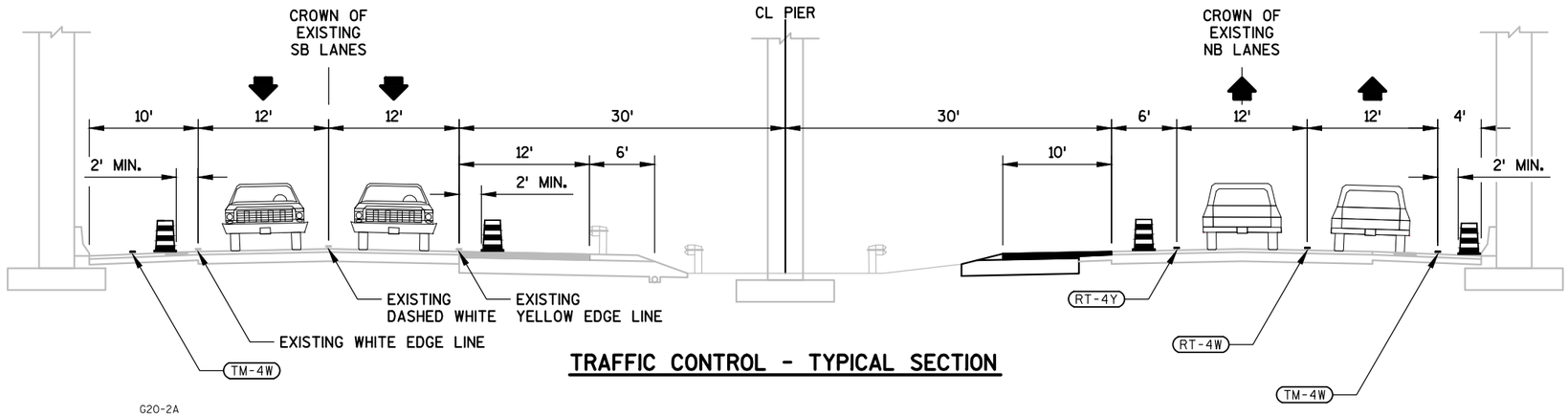
LEGEND (TRAFFIC CONTROL)

	TYPE III BARRICADE WITH/WITHOUT SIGN
	TRAFFIC CONTROL DRUM WITH/WITHOUT WARNING LIGHT, TYPE C
	SIGN ON PERMANENT/TEMPORARY SUPPORT
	CONCRETE BARRIER TEMPORARY PRECAST
CC	CRASH CUSHION TEMPORARY
PCMS	TRAFFIC CONTROL SIGNS PCMS
	WORK ZONE

FREEWAY LANE CLOSURE FOR SHOULDER WORK (NIGHTTIME OPERATION)

THIS DETAIL COMPLEMENTS THE "FREEWAY TRAFFIC FOR SHOULDER WORK (DAYTIME OPERATION)" DETAIL

PROJECT NO: 1003-10-74	HWY: IH 39	COUNTY: ROCK	TRAFFIC CONTROL LANE CLOSURE FOR SHOULDER WORK (NIGHTTIME)	SHEET 42	E

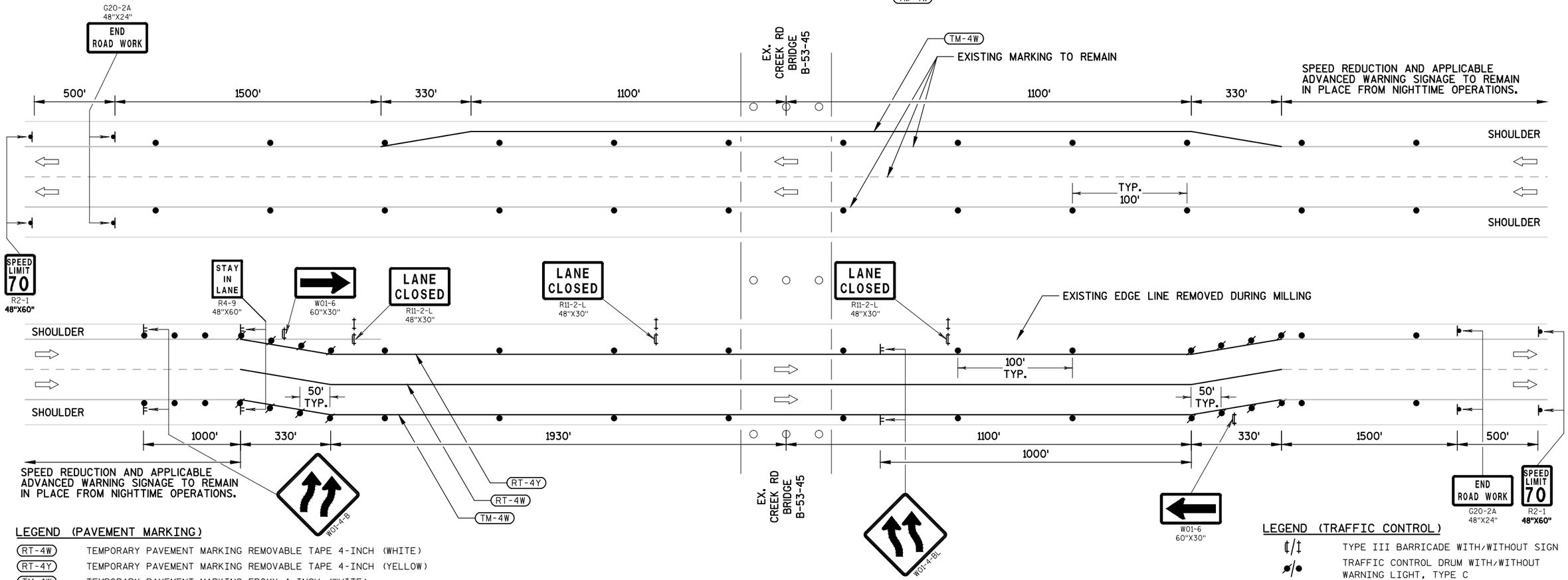


TRAFFIC CONTROL - TYPICAL SECTION

TRAFFIC CONTROL NOTES

SEE "FREEWAY LANE CLOSURE FOR NORTHBOUND MEDIAN WIDENING (NIGHTTIME OPERATION)" FOR ADDITIONAL NOTES

NO ACCESS TO WORK ZONE FOR DELIVERY OR REMOVAL OF MATERIAL AND EQUIPMENT



LEGEND (PAVEMENT MARKING)

RT-4W	TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (WHITE)
RT-4Y	TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (YELLOW)
TM-4W	TEMPORARY PAVEMENT MARKING EPOXY 4-INCH (WHITE)
TM-4Y	TEMPORARY PAVEMENT MARKING EPOXY 4-INCH (YELLOW)
E4W	PAVEMENT MARKING EPOXY 4-INCH (WHITE)
E4Y	PAVEMENT MARKING EPOXY 4-INCH (YELLOW)
E4W-LL	PAVEMENT MARKING EPOXY 4-INCH (WHITE) (LANE LINE) (12.5' LINE, 37.5' GAP)

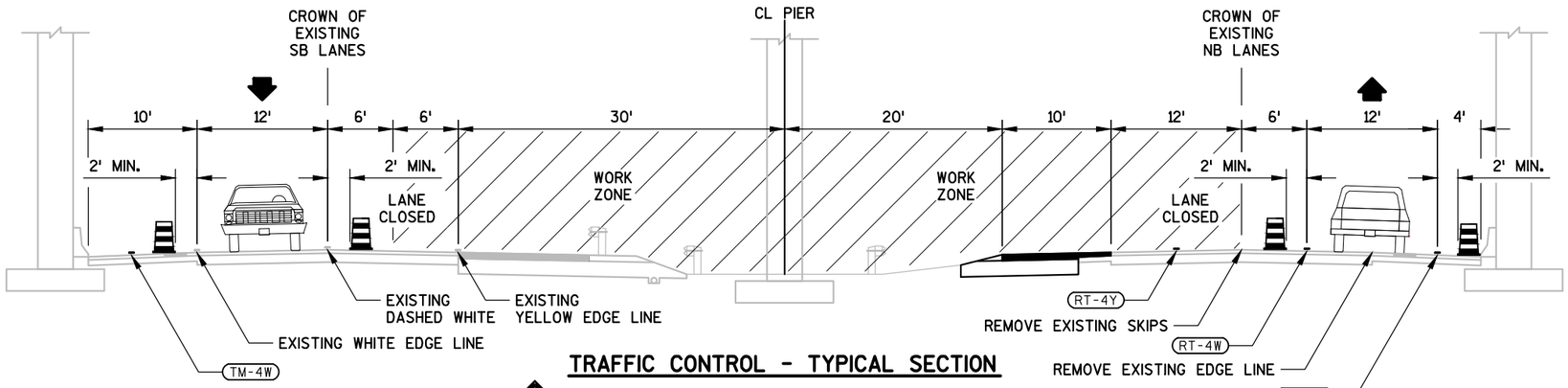
LEGEND (TRAFFIC CONTROL)

⇵/↕	TYPE III BARRICADE WITH/WITHOUT SIGN
⁄/●	TRAFFIC CONTROL DRUM WITH/WITHOUT WARNING LIGHT, TYPE C
⊧/F	SIGN ON PERMANENT/TEMPORARY SUPPORT
	CONCRETE BARRIER TEMPORARY PRECAST
CC	CRASH CUSHION TEMPORARY
PCMS	TRAFFIC CONTROL SIGNS PCMS
	WORK ZONE

FREEWAY LANE SHIFT FOR NORTHBOUND MEDIAN WIDENING (DAYTIME OPERATION)

THIS DETAIL COMPLEMENTS THE "FREEWAY LANE CLOSURE FOR NORTHBOUND MEDIAN WIDENING (NIGHTTIME OPERATION)" DETAIL

PROJECT NO: 1003-10-74	HWY: IH 39	COUNTY: ROCK	TRAFFIC CONTROL LANE SHIFT FOR MEDIAN WIDENING (DAYTIME)	SHEET 43	E



TRAFFIC CONTROL - TYPICAL SECTION

TRAFFIC CONTROL NOTES

THE EXACT NUMBER, LOCATION AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS DIRECTED BY THE ENGINEER.

FOR NIGHTTIME OPERATION ALL DRUMS IN TAPERS SHALL HAVE A WARNING LIGHT, TYPE C (STEADY BURN).

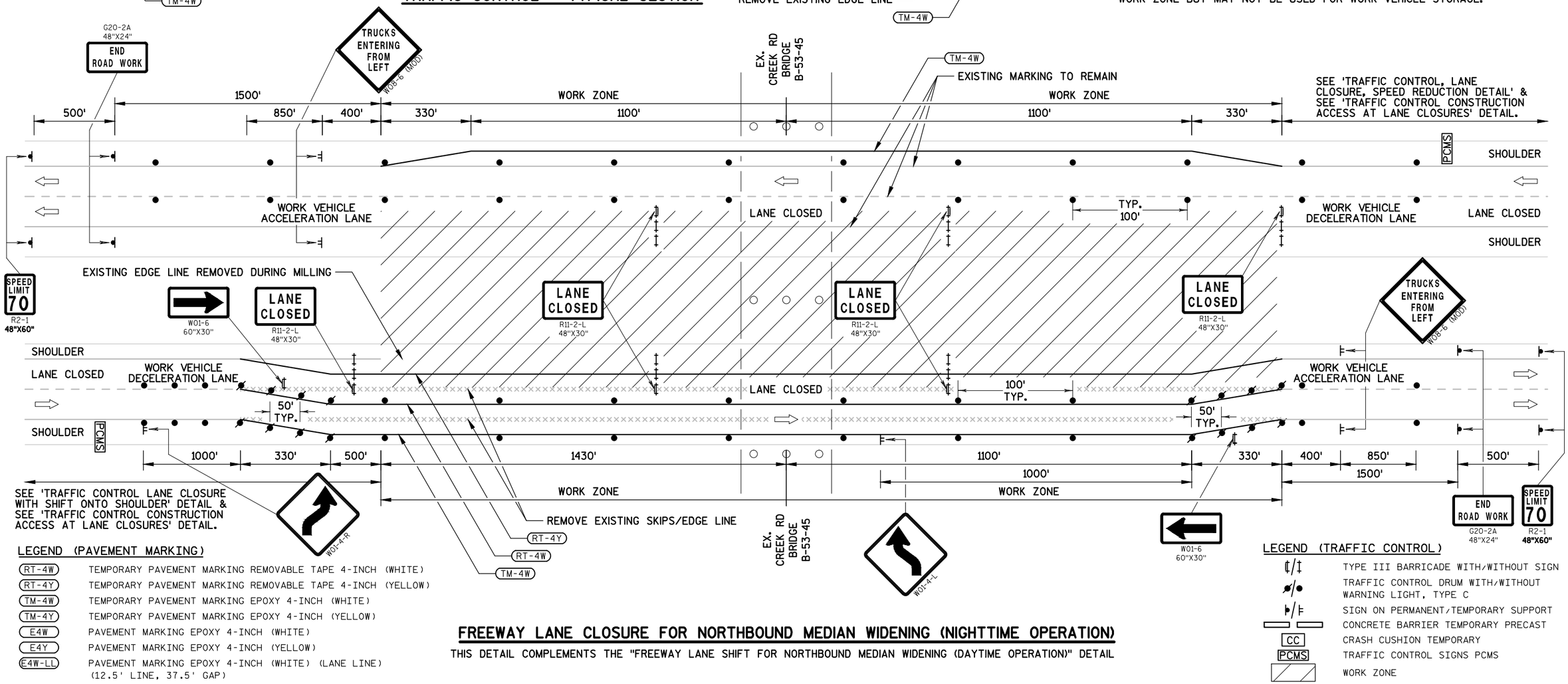
ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.

"WO" SIGNS ARE THE SAME AS "W" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

ALL SHORT TERM LANE CLOSURE SIGNS SHALL BE REMOVED OR COVERED AND ALL ARROWBOARDS AND DEVICES REMOVED BEYOND THE SHOULDER WHEN THE WORK IS NOT IN PROGRESS AND THE LANE IS RESTORED TO A SAFE OPERATING CONDITION.

CONSIDER GEOMETRICS WHEN LOCATING SIGNS AND ARROWBOARDS SO THE DRIVER HAS A CLEAR VIEW OF THE ARROWBOARD AND LANE CLOSURE DRUMS FOR A MINIMUM 1500' IN FRONT OF DRUMS.

THE CLOSED TRAFFIC LANE MAY BE USED FOR ACCESS TO AND FROM THE WORK ZONE BUT MAY NOT BE USED FOR WORK VEHICLE STORAGE.



LEGEND (PAVEMENT MARKING)

RT-4W	TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (WHITE)
RT-4Y	TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (YELLOW)
TM-4W	TEMPORARY PAVEMENT MARKING EPOXY 4-INCH (WHITE)
TM-4Y	TEMPORARY PAVEMENT MARKING EPOXY 4-INCH (YELLOW)
E4W	PAVEMENT MARKING EPOXY 4-INCH (WHITE)
E4Y	PAVEMENT MARKING EPOXY 4-INCH (YELLOW)
E4W-LL	PAVEMENT MARKING EPOXY 4-INCH (WHITE) (LANE LINE) (12.5' LINE, 37.5' GAP)

LEGEND (TRAFFIC CONTROL)

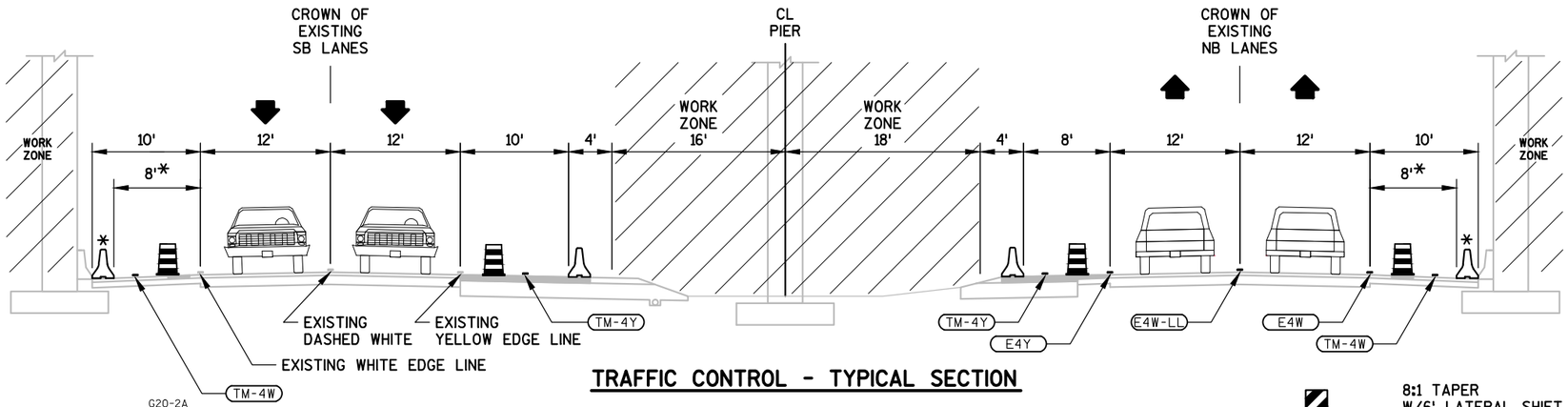
	TYPE III BARRICADE WITH/WITHOUT SIGN
	TRAFFIC CONTROL DRUM WITH/WITHOUT WARNING LIGHT, TYPE C
	SIGN ON PERMANENT/TEMPORARY SUPPORT
	CONCRETE BARRIER TEMPORARY PRECAST
CC	CRASH CUSHION TEMPORARY
PCMS	TRAFFIC CONTROL SIGNS PCMS
	WORK ZONE

FREEWAY LANE CLOSURE FOR NORTHBOUND MEDIAN WIDENING (NIGHTTIME OPERATION)

THIS DETAIL COMPLEMENTS THE "FREEWAY LANE SHIFT FOR NORTHBOUND MEDIAN WIDENING (DAYTIME OPERATION)" DETAIL

PROJECT NO: 1003-10-74	HWY: IH 39	COUNTY: ROCK	TRAFFIC CONTROL LANE CLOSURE FOR MEDIAN WIDENING (NIGHTTIME)	SHEET 44	E

2



TRAFFIC CONTROL - TYPICAL SECTION

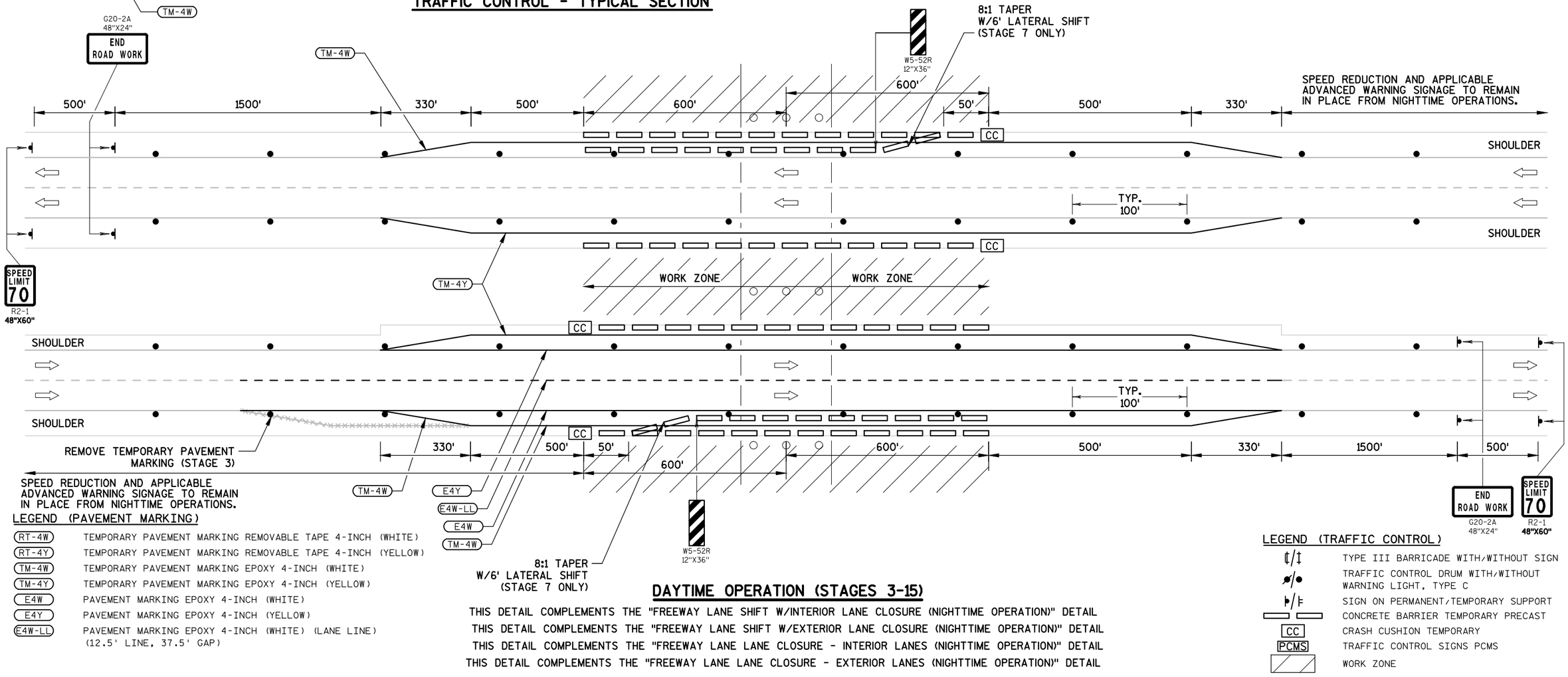
TRAFFIC CONTROL NOTES

SEE "FREEWAY LANE SHIFT W/INTERIOR LANE CLOSURE (NIGHTTIME OPERATION)" FOR ADDITIONAL NOTES

SEE "FREEWAY LANE SHIFT W/EXTERIOR LANE CLOSURE (NIGHTTIME OPERATION)" FOR ADDITIONAL NOTES

NO ACCESS TO WORK ZONE FOR DELIVERY OR REMOVAL OF MATERIAL AND EQUIPMENT

*EXISTING CONCRETE BARRIER PROTECTION REPLACED WITH CONCRETE BARRIER TEMPORARY PRECAST IN STAGE 7. REDUCED TO 2' SHOULDER DURING REMOVAL OF EXISTING BARRIER/PIER/FOOTING (STAGE 7 ONLY).



SPEED REDUCTION AND APPLICABLE ADVANCED WARNING SIGNAGE TO REMAIN IN PLACE FROM NIGHTTIME OPERATIONS.

LEGEND (PAVEMENT MARKING)

RT-4W	TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (WHITE)
RT-4Y	TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (YELLOW)
TM-4W	TEMPORARY PAVEMENT MARKING EPOXY 4-INCH (WHITE)
TM-4Y	TEMPORARY PAVEMENT MARKING EPOXY 4-INCH (YELLOW)
E4W	PAVEMENT MARKING EPOXY 4-INCH (WHITE)
E4Y	PAVEMENT MARKING EPOXY 4-INCH (YELLOW)
E4W-LL	PAVEMENT MARKING EPOXY 4-INCH (WHITE) (LANE LINE) (12.5' LINE, 37.5' GAP)

DAYTIME OPERATION (STAGES 3-15)

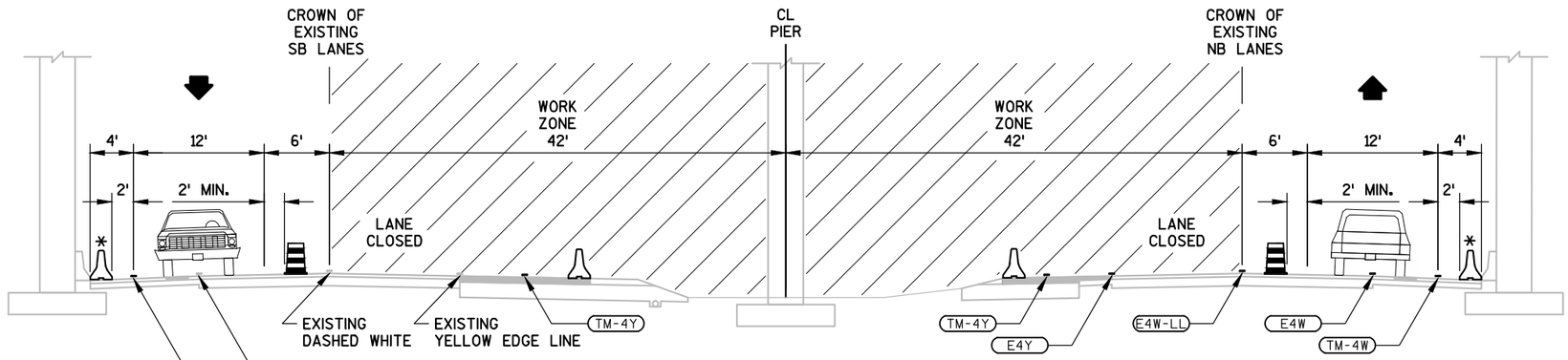
THIS DETAIL COMPLEMENTS THE "FREEWAY LANE SHIFT W/INTERIOR LANE CLOSURE (NIGHTTIME OPERATION)" DETAIL
THIS DETAIL COMPLEMENTS THE "FREEWAY LANE SHIFT W/EXTERIOR LANE CLOSURE (NIGHTTIME OPERATION)" DETAIL
THIS DETAIL COMPLEMENTS THE "FREEWAY LANE LANE CLOSURE - INTERIOR LANES (NIGHTTIME OPERATION)" DETAIL
THIS DETAIL COMPLEMENTS THE "FREEWAY LANE LANE CLOSURE - EXTERIOR LANES (NIGHTTIME OPERATION)" DETAIL

LEGEND (TRAFFIC CONTROL)

	TYPE III BARRICADE WITH/WITHOUT SIGN
	TRAFFIC CONTROL DRUM WITH/WITHOUT WARNING LIGHT, TYPE C
	SIGN ON PERMANENT/TEMPORARY SUPPORT
	CONCRETE BARRIER TEMPORARY PRECAST
CC	CRASH CUSHION TEMPORARY
PCMS	TRAFFIC CONTROL SIGNS PCMS
	WORK ZONE

PROJECT NO: 1003-10-74	HWY: IH 39	COUNTY: ROCK	TRAFFIC CONTROL DAYTIME OPERATION (STAGES 3-15)	SHEET	E

FILE NAME : L:\WORK\IH-39-SOUTH-SEGMENT\CREEK ROAD\CREEK ROAD TMP\IH 39 UNDER CREEK_TC.DWG PLOT DATE : 4/11/2016 3:40 PM PLOT BY : STEVENSON, SCOTT PLOT NAME : PLOT SCALE : 1 IN:200 FT
WISDOT/CADDS SHEET 42



TRAFFIC CONTROL - TYPICAL SECTION

TRAFFIC CONTROL NOTES

THE EXACT NUMBER, LOCATION AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS DIRECTED BY THE ENGINEER.

FOR NIGHTTIME OPERATION ALL DRUMS IN TAPERS SHALL HAVE A WARNING LIGHT, TYPE C (STEADY BURN).

ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.

"WO" SIGNS ARE THE SAME AS "W" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

ALL SHORT TERM LANE CLOSURE SIGNS SHALL BE REMOVED OR COVERED AND ALL ARROWBOARDS AND DEVICES REMOVED BEYOND THE SHOULDER WHEN THE WORK IS NOT IN PROGRESS AND THE LANE IS RESTORED TO A SAFE OPERATING CONDITION.

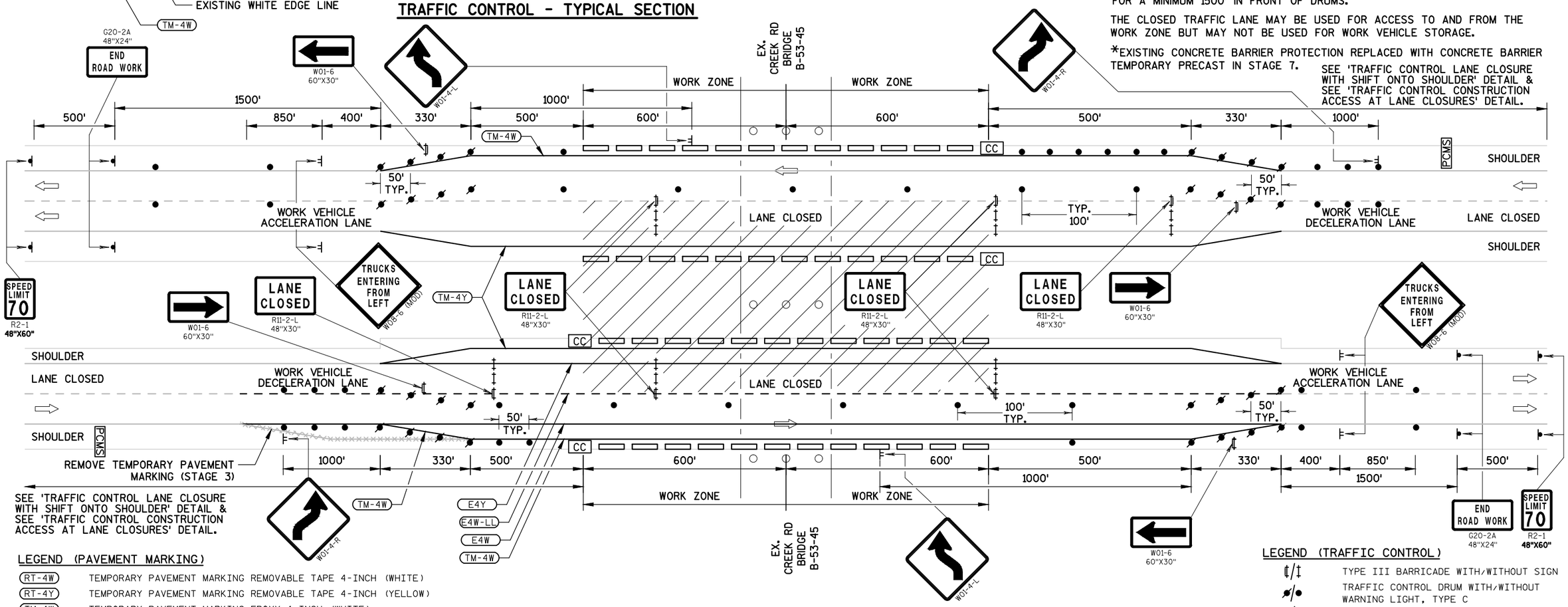
IF LANE CLOSURE IS MORE THAN 1 MILE, PLACE A TYPE III BARRICADE APPROXIMATELY EVERY 1000' ACROSS THE CLOSED LANE TO HELP ENFORCE THE DRUM LINE.

CONSIDER GEOMETRICS WHEN LOCATING SIGNS AND ARROWBOARDS SO THE DRIVER HAS A CLEAR VIEW OF THE ARROWBOARD AND LANE CLOSURE DRUMS FOR A MINIMUM 1500' IN FRONT OF DRUMS.

THE CLOSED TRAFFIC LANE MAY BE USED FOR ACCESS TO AND FROM THE WORK ZONE BUT MAY NOT BE USED FOR WORK VEHICLE STORAGE.

*EXISTING CONCRETE BARRIER PROTECTION REPLACED WITH CONCRETE BARRIER TEMPORARY PRECAST IN STAGE 7.

SEE 'TRAFFIC CONTROL LANE CLOSURE WITH SHIFT ONTO SHOULDER' DETAIL & SEE 'TRAFFIC CONTROL CONSTRUCTION ACCESS AT LANE CLOSURES' DETAIL.



SEE 'TRAFFIC CONTROL LANE CLOSURE WITH SHIFT ONTO SHOULDER' DETAIL & SEE 'TRAFFIC CONTROL CONSTRUCTION ACCESS AT LANE CLOSURES' DETAIL.

LEGEND (PAVEMENT MARKING)

RT-4W	TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (WHITE)
RT-4Y	TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (YELLOW)
TM-4W	TEMPORARY PAVEMENT MARKING EPOXY 4-INCH (WHITE)
TM-4Y	TEMPORARY PAVEMENT MARKING EPOXY 4-INCH (YELLOW)
E4W	PAVEMENT MARKING EPOXY 4-INCH (WHITE)
E4Y	PAVEMENT MARKING EPOXY 4-INCH (YELLOW)
E4W-LL	PAVEMENT MARKING EPOXY 4-INCH (WHITE) (LANE LINE) (12.5' LINE, 37.5' GAP)

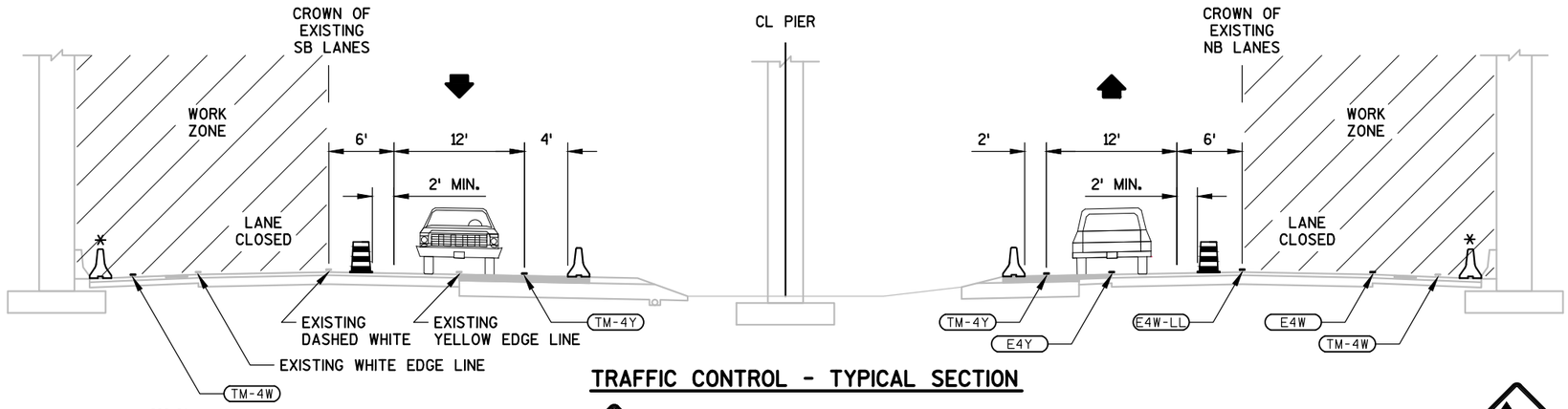
LEGEND (TRAFFIC CONTROL)

	TYPE III BARRICADE WITH/WITHOUT SIGN
	TRAFFIC CONTROL DRUM WITH/WITHOUT WARNING LIGHT, TYPE C
	SIGN ON PERMANENT/TEMPORARY SUPPORT
	CONCRETE BARRIER TEMPORARY PRECAST
CC	CRASH CUSHION TEMPORARY
PCMS	TRAFFIC CONTROL SIGNS PCMS
	WORK ZONE

FREEWAY LANE SHIFT W/INTERIOR LANE CLOSURE (NIGHTTIME OPERATION)

THIS DETAIL COMPLEMENTS THE "DAYTIME OPERATION (STAGES 3-15)" DETAIL

PROJECT NO: 1003-10-74	HWY: IH 39	COUNTY: ROCK	TRAFFIC CONTROL SHIFT W/INTERIOR LANE CLOSURE (NIGHTTIME)	SHEET 46	E



TRAFFIC CONTROL - TYPICAL SECTION

TRAFFIC CONTROL NOTES

THE EXACT NUMBER, LOCATION AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS DIRECTED BY THE ENGINEER.

FOR NIGHTIME OPERATION ALL DRUMS IN TAPERS SHALL HAVE A WARNING LIGHT, TYPE C (STEADY BURN).

ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.

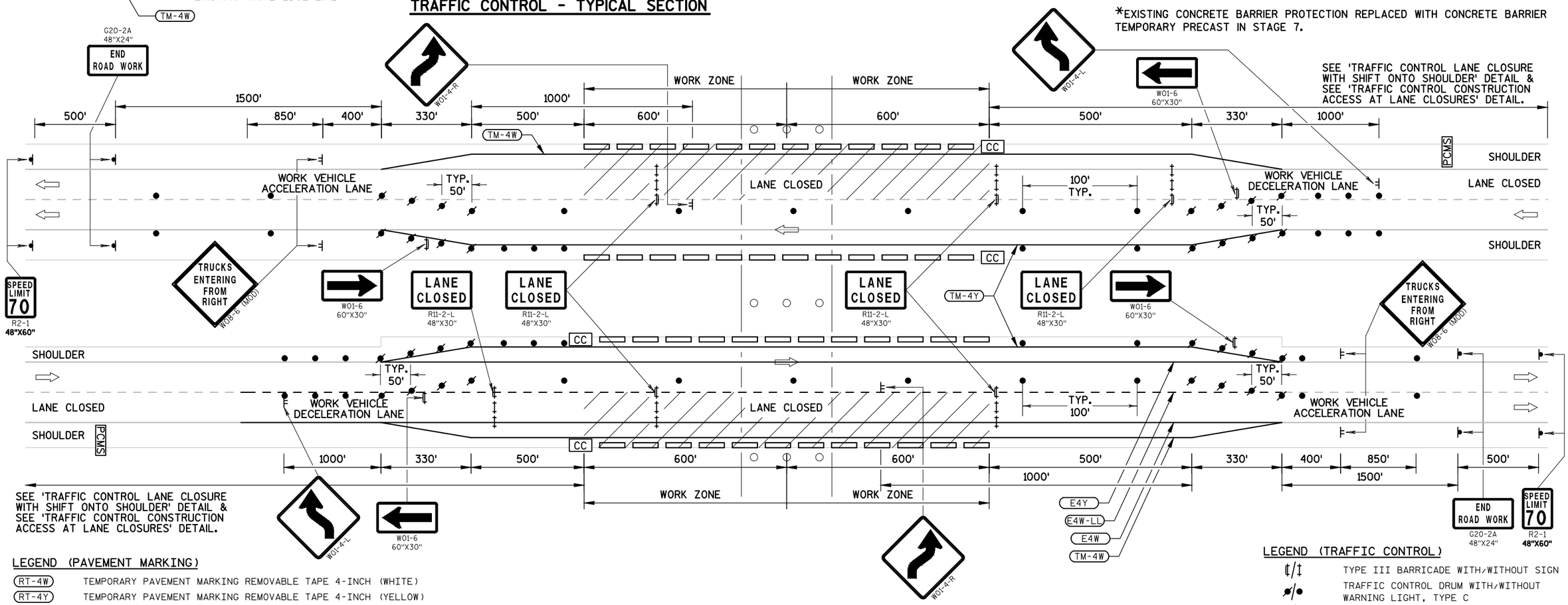
"WO" SIGNS ARE THE SAME AS "W" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

ALL SHORT TERM LANE CLOSURE SIGNS SHALL BE REMOVED OR COVERED AND ALL ARROWBOARDS AND DEVICES REMOVED BEYOND THE SHOULDER WHEN THE WORK IS NOT IN PROGRESS AND THE LANE IS RESTORED TO A SAFE OPERATING CONDITION.

CONSIDER GEOMETRICS WHEN LOCATING SIGNS AND ARROWBOARDS SO THE DRIVER HAS A CLEAR VIEW OF THE ARROWBOARD AND LANE CLOSURE DRUMS FOR A MINIMUM 1500' IN FRONT OF DRUMS.

THE CLOSED TRAFFIC LANE MAY BE USED FOR ACCESS TO AND FROM THE WORK ZONE BUT MAY NOT BE USED FOR WORK VEHICLE STORAGE.

*EXISTING CONCRETE BARRIER PROTECTION REPLACED WITH CONCRETE BARRIER TEMPORARY PRECAST IN STAGE 7.



LEGEND (PAVEMENT MARKING)

RT-4W	TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (WHITE)
RT-4Y	TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (YELLOW)
TM-4W	TEMPORARY PAVEMENT MARKING EPOXY 4-INCH (WHITE)
TM-4Y	TEMPORARY PAVEMENT MARKING EPOXY 4-INCH (YELLOW)
E4W	PAVEMENT MARKING EPOXY 4-INCH (WHITE)
E4Y	PAVEMENT MARKING EPOXY 4-INCH (YELLOW)
E4W-LL	PAVEMENT MARKING EPOXY 4-INCH (WHITE) (LANE LINE) (12.5' LINE, 37.5' GAP)

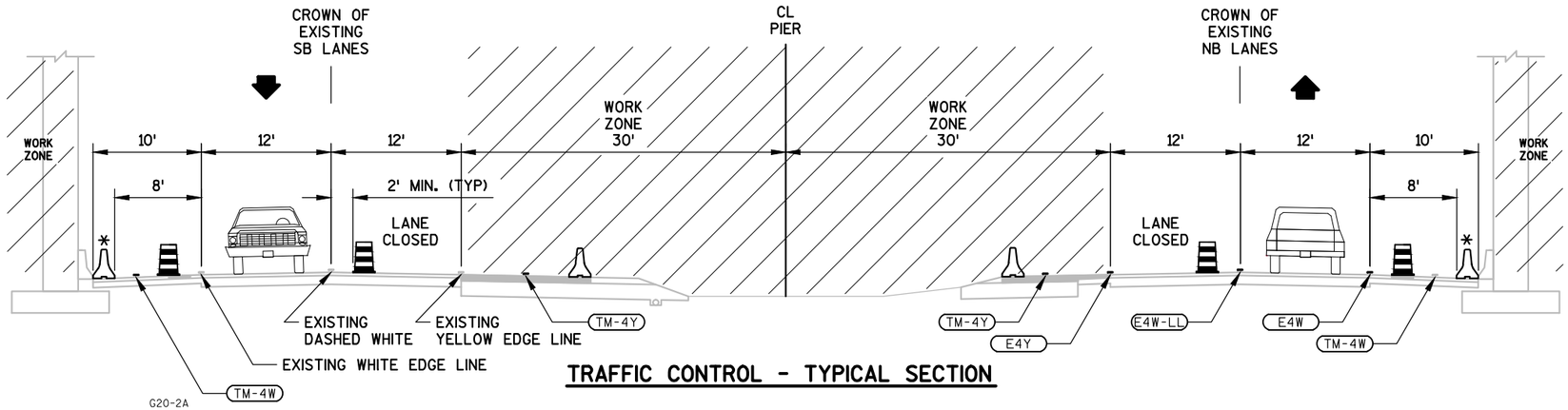
LEGEND (TRAFFIC CONTROL)

	TYPE III BARRICADE WITH/WITHOUT SIGN
	TRAFFIC CONTROL DRUM WITH/WITHOUT WARNING LIGHT, TYPE C
	SIGN ON PERMANENT/TEMPORARY SUPPORT
	CONCRETE BARRIER TEMPORARY PRECAST
CC	CRASH CUSHION TEMPORARY
PCMS	TRAFFIC CONTROL SIGNS PCMS
	WORK ZONE

FREEWAY LANE SHIFT W/EXTERIOR LANE CLOSURE (NIGHTTIME OPERATION)

THIS DETAIL COMPLEMENTS THE "DAYTIME OPERATION (STAGES 3-15)" DETAIL

PROJECT NO: 1003-10-74	HWY: IH 39	COUNTY: ROCK	TRAFFIC CONTROL SHIFT W/EXTERIOR LANE CLOSURE (NIGHTTIME)	SHEET 47	E



TRAFFIC CONTROL - TYPICAL SECTION

TRAFFIC CONTROL NOTES

THE EXACT NUMBER, LOCATION AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS DIRECTED BY THE ENGINEER.

FOR NIGHTIME OPERATION ALL DRUMS IN TAPERS SHALL HAVE A WARNING LIGHT, TYPE C (STEADY BURN).

ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.

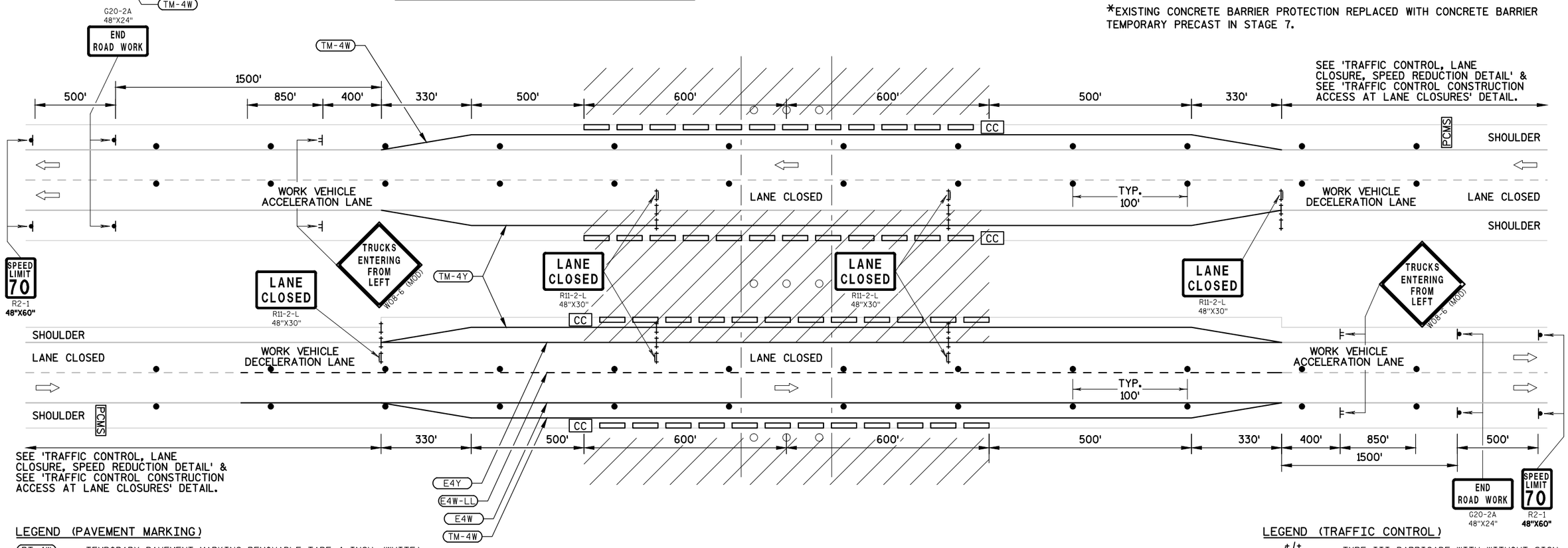
"WO" SIGNS ARE THE SAME AS "W" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

ALL SHORT TERM LANE CLOSURE SIGNS SHALL BE REMOVED OR COVERED AND ALL ARROWBOARDS AND DEVICES REMOVED BEYOND THE SHOULDER WHEN THE WORK IS NOT IN PROGRESS AND THE LANE IS RESTORED TO A SAFE OPERATING CONDITION.

CONSIDER GEOMETRICS WHEN LOCATING SIGNS AND ARROWBOARDS SO THE DRIVER HAS A CLEAR VIEW OF THE ARROWBOARD AND LANE CLOSURE DRUMS FOR A MINIMUM 1500' IN FRONT OF DRUMS.

THE CLOSED TRAFFIC LANE MAY BE USED FOR ACCESS TO AND FROM THE WORK ZONE BUT MAY NOT BE USED FOR WORK VEHICLE STORAGE.

*EXISTING CONCRETE BARRIER PROTECTION REPLACED WITH CONCRETE BARRIER TEMPORARY PRECAST IN STAGE 7.



LEGEND (PAVEMENT MARKING)

RT-4W	TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (WHITE)
RT-4Y	TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (YELLOW)
TM-4W	TEMPORARY PAVEMENT MARKING 4-INCH (WHITE)
TM-4Y	TEMPORARY PAVEMENT MARKING 4-INCH (YELLOW)
E4W	PAVEMENT MARKING EPOXY 4-INCH (WHITE)
E4Y	PAVEMENT MARKING EPOXY 4-INCH (YELLOW)
E4W-LL	PAVEMENT MARKING EPOXY 4-INCH (WHITE) (LANE LINE) (12.5' LINE, 37.5' GAP)

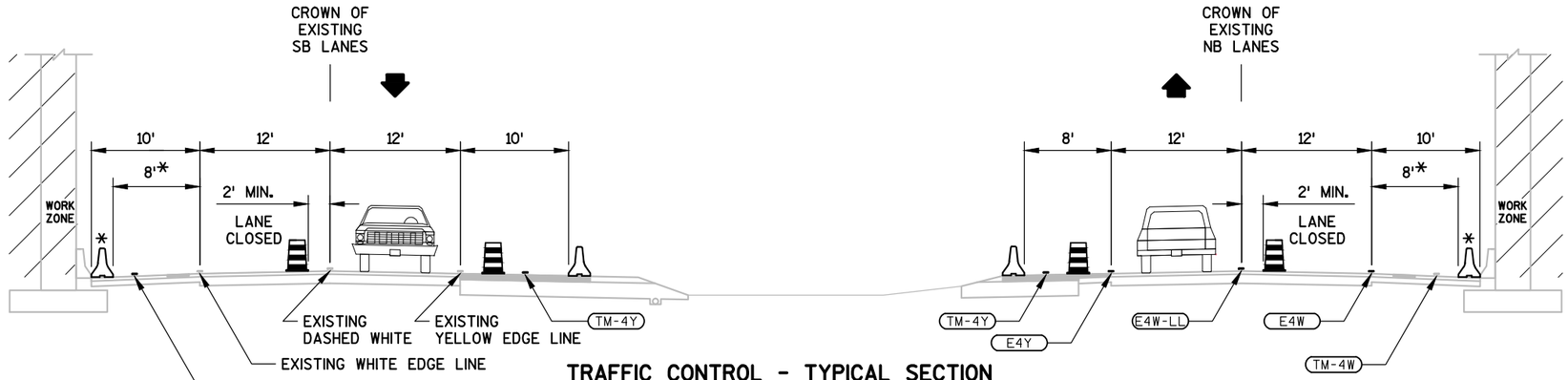
LEGEND (TRAFFIC CONTROL)

	TYPE III BARRICADE WITH/WITHOUT SIGN
	TRAFFIC CONTROL DRUM WITH/WITHOUT WARNING LIGHT, TYPE C
	SIGN ON PERMANENT/TEMPORARY SUPPORT
	CONCRETE BARRIER TEMPORARY PRECAST
CC	CRASH CUSHION TEMPORARY
PCMS	TRAFFIC CONTROL SIGNS PCMS
	WORK ZONE

FREEWAY LANE CLOSURE - INTERIOR LANES (NIGHTTIME OPERATION)

THIS DETAIL COMPLEMENTS THE "DAYTIME OPERATION (STAGES 3-15)" DETAIL

PROJECT NO: 1003-10-75	HWY: IH 39	COUNTY: ROCK	TRAFFIC CONTROL LANE CLOSURE - INTERIOR LANES (NIGHTTIME)	SHEET 48	E



TRAFFIC CONTROL - TYPICAL SECTION

TRAFFIC CONTROL NOTES

THE EXACT NUMBER, LOCATION AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS DIRECTED BY THE ENGINEER.

FOR NIGHTIME OPERATION ALL DRUMS IN TAPERS SHALL HAVE A WARNING LIGHT, TYPE C (STEADY BURN).

ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.

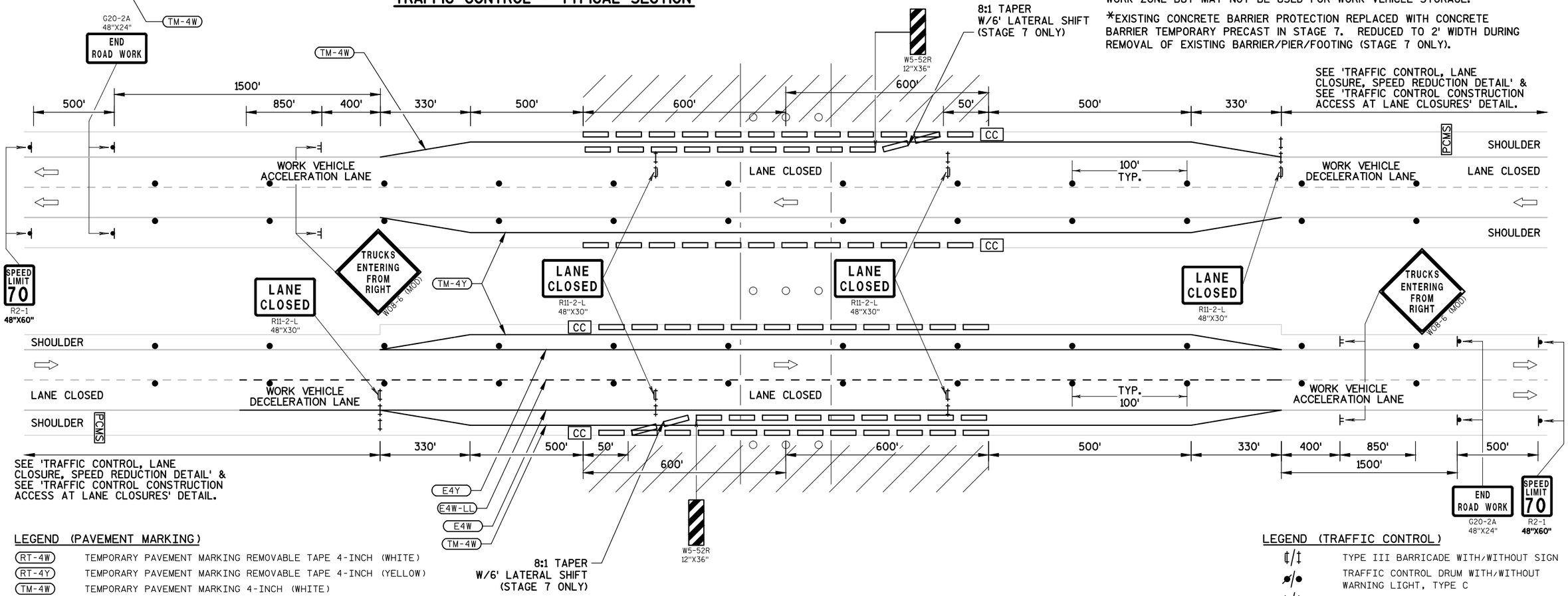
"WO" SIGNS ARE THE SAME AS "W" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

ALL SHORT TERM LANE CLOSURE SIGNS SHALL BE REMOVED OR COVERED AND ALL ARROWBOARDS AND DEVICES REMOVED BEYOND THE SHOULDER WHEN THE WORK IS NOT IN PROGRESS AND THE LANE IS RESTORED TO A SAFE OPERATING CONDITION.

CONSIDER GEOMETRICS WHEN LOCATING SIGNS AND ARROWBOARDS SO THE DRIVER HAS A CLEAR VIEW OF THE ARROWBOARD AND LANE CLOSURE DRUMS FOR A MINIMUM 1500' IN FRONT OF DRUMS.

THE CLOSED TRAFFIC LANE MAY BE USED FOR ACCESS TO AND FROM THE WORK ZONE BUT MAY NOT BE USED FOR WORK VEHICLE STORAGE.

*EXISTING CONCRETE BARRIER PROTECTION REPLACED WITH CONCRETE BARRIER TEMPORARY PRECAST IN STAGE 7. REDUCED TO 2' WIDTH DURING REMOVAL OF EXISTING BARRIER/PIER/FOOTING (STAGE 7 ONLY).



LEGEND (PAVEMENT MARKING)

RT-4W	TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (WHITE)
RT-4Y	TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (YELLOW)
TM-4W	TEMPORARY PAVEMENT MARKING 4-INCH (WHITE)
TM-4Y	TEMPORARY PAVEMENT MARKING 4-INCH (YELLOW)
E4W	PAVEMENT MARKING EPOXY 4-INCH (WHITE)
E4Y	PAVEMENT MARKING EPOXY 4-INCH (YELLOW)
E4W-LL	PAVEMENT MARKING EPOXY 4-INCH (WHITE) (LANE LINE) (12.5' LINE, 37.5' GAP)

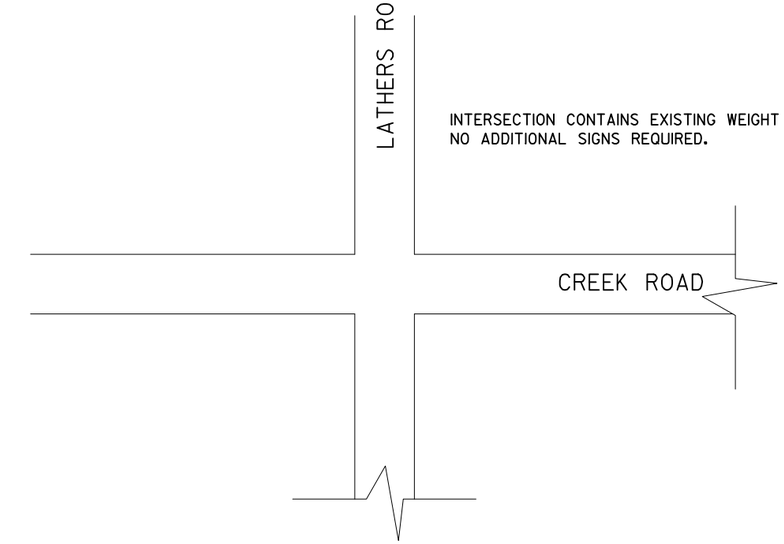
LEGEND (TRAFFIC CONTROL)

	TYPE III BARRICADE WITH/WITHOUT SIGN
	TRAFFIC CONTROL DRUM WITH/WITHOUT WARNING LIGHT, TYPE C
	SIGN ON PERMANENT/TEMPORARY SUPPORT
	CONCRETE BARRIER TEMPORARY PRECAST
CC	CRASH CUSHION TEMPORARY
PCMS	TRAFFIC CONTROL SIGNS PCMS
	WORK ZONE

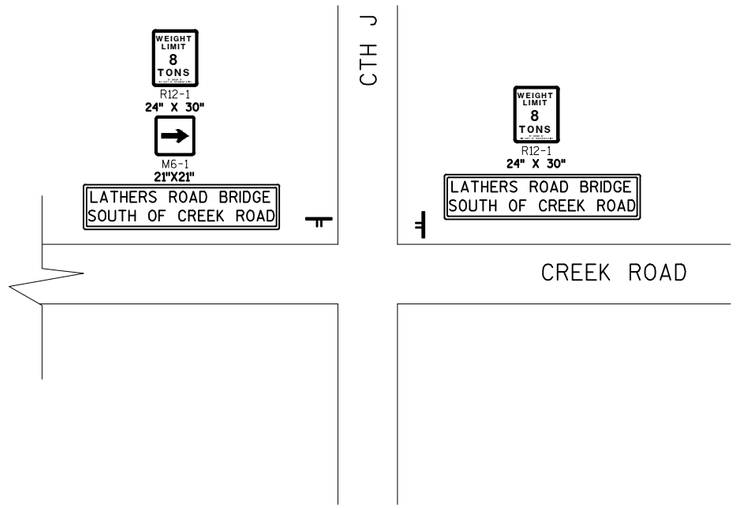
FREEWAY LANE CLOSURE - EXTERIOR LANES (NIGHTTIME OPERATION)

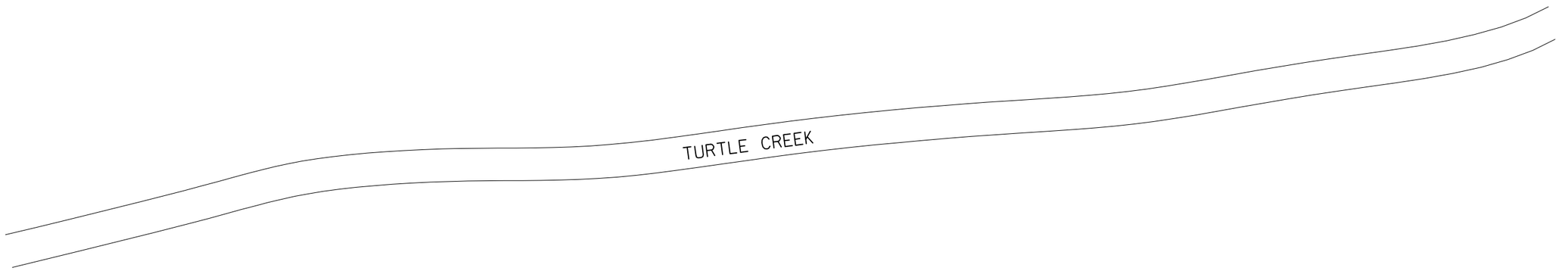
THIS DETAIL COMPLEMENTS THE "DAYTIME OPERATION (STAGES 3-15)" DETAIL

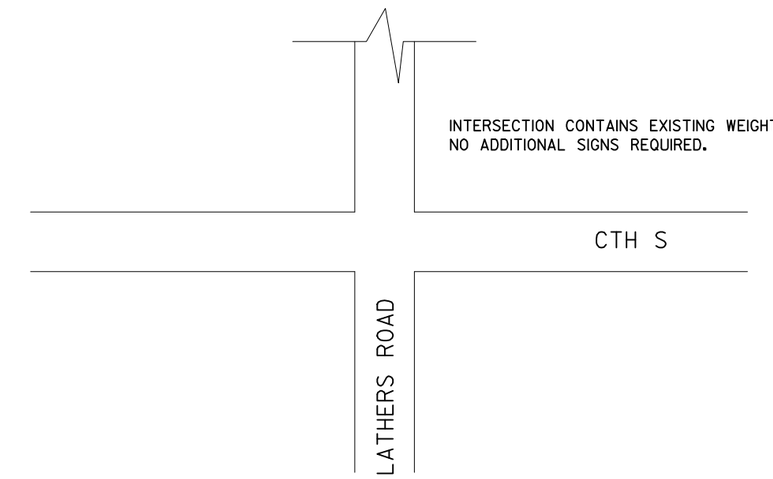
PROJECT NO: 1003-10-74	HWY: IH 39	COUNTY: ROCK	TRAFFIC CONTROL LANE CLOSURE - EXTERIOR LANES (NIGHTTIME)	SHEET 49	E



INTERSECTION CONTAINS EXISTING WEIGHT LIMIT SIGNS.
NO ADDITIONAL SIGNS REQUIRED.







INTERSECTION CONTAINS EXISTING WEIGHT LIMIT SIGNS.
NO ADDITIONAL SIGNS REQUIRED.

WEIGHT LIMIT SIGNING

PROJECT NO: 1003-10-74	HWY: IH 39	COUNTY: ROCK	PLAN: TRAFFIC CONTROL	SHEET	E

FILE NAME : L:\WORK\IH-39-SOUTH-SEGMENT\000_CAD\001_DRAWINGS\1003-10-74_CREEK RD\90%\CREEK TMP\CREEK TRAFFIC CONTROL EXHIBITS-1.DWG PLOT DATE : 4/6/2015 9:11 AM PLOT BY : STEVENSON, SCOTT PLOT NAME : PLOT SCALE : 0.004921

2

2

N

IH 39/90 SB

IH 39/90 NB

+98.2'CK'
73.1' LT

+07.2'CK'
39.4' LT

+14.5'CK'
16.9' LT

+14.1'CK'
23.8' LT

+29.2'CK'
68.2' RT
MATCH EXISTING

+38.3'CK'
18.3' RT

14'CK'

16'CK'

18'CK'

20'CK'

CREEK ROAD

T265
934.000

+97.8'CK'
61.2' RT

+22.2'CK'
17.5' RT

+01.1'CK'
76.4' RT

+43.3'CK'
17.9' RT

ACCESS GATE 6-FT
STA 18+43.3 'CK', 18.01' RT

+76.9'CK'
66.3' RT
MATCH EXISTING

18" CPRC

PROJECT NO: 1003-10-74	HWY: IH 39	COUNTY: ROCK	FENCE DETAILS	SHEET	E

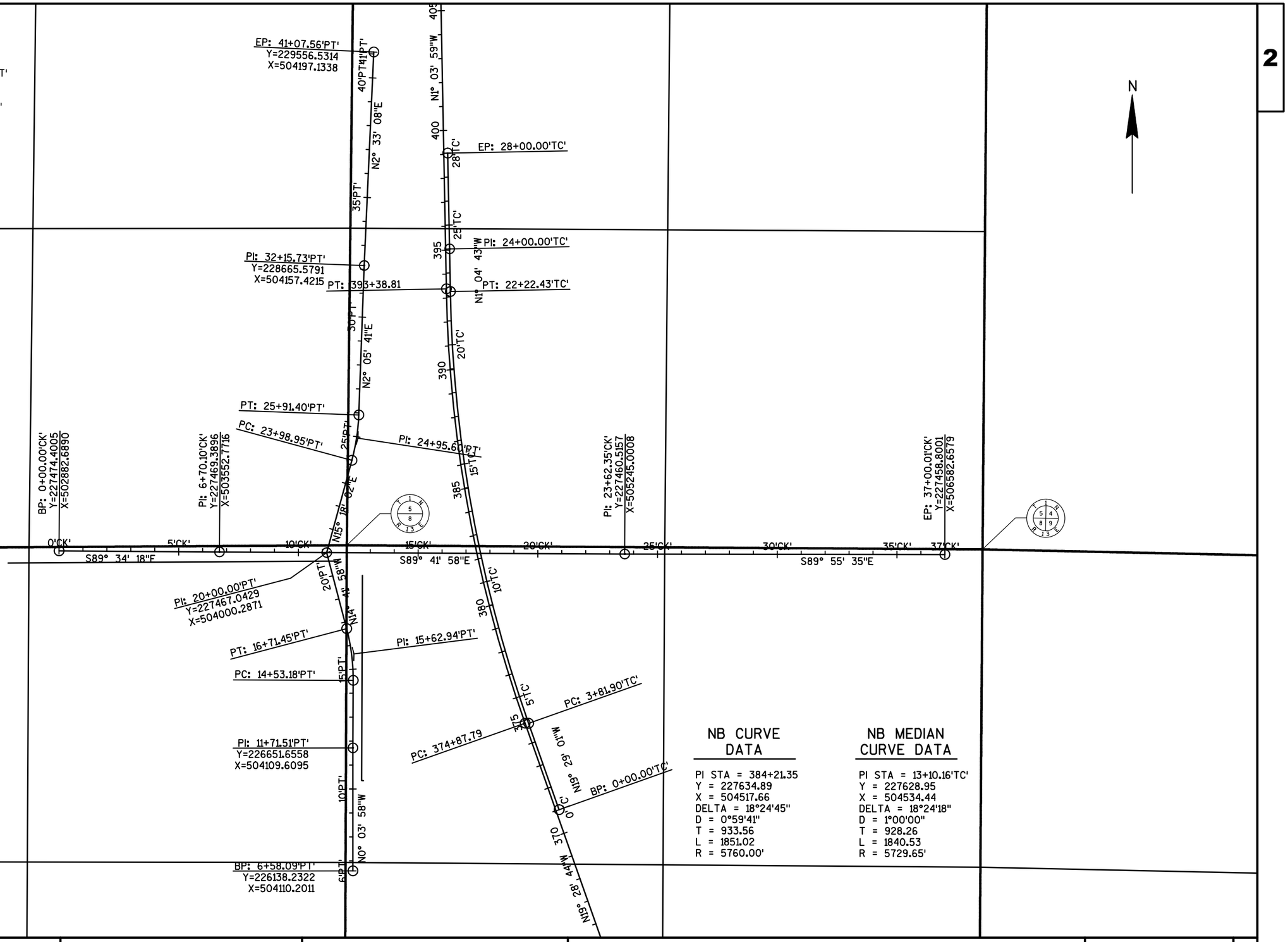
FILE NAME : L:\WORK\IH-39-SOUTH-SEGMENT\000_CAD\001_DRAWINGS\1003-10-74_CREEK RD\90%\027101_FN.DWG
PLOT DATE : 4/29/2015 9:39 AM
PLOT BY : SCHNEIDER, MICHAEL
PLOT NAME :
PLOT SCALE : 1 IN:50 FT_XREF
WISDOT/CADDS SHEET 41

2

PATRICK RD CURVE DATA

P.I. = 15+62.94'PT'
Y = 227043.08
X = 504111.51
DELTA = 14°50'39"
D = 6°51'42"
T = 109.76'
L = 218.27'
R = 835.00'
E = 7.18'
S.E. = 6.0%
R.O. = 192'

P.I. = 24+95.60'PT'
Y = 227945.08
X = 504131.07
DELTA = 13°12'20"
D = 6°51'42"
T = 96.65'
L = 192.45'
R = 835.00'
E = 5.58'
S.E. = 6.0%
R.O. = 192'



NB CURVE DATA

PI STA = 384+21.35
Y = 227634.89
X = 504517.66
DELTA = 18°24'45"
D = 0°59'41"
T = 933.56
L = 1851.02
R = 5760.00'

NB MEDIAN CURVE DATA

PI STA = 13+10.16'TC'
Y = 227628.95
X = 504534.44
DELTA = 18°24'18"
D = 1°00'00"
T = 928.26
L = 1840.53
R = 5729.65'

PROJECT NO: 1003-10-74	HWY: IH 39	COUNTY: ROCK	ALIGNMENT DIAGRAM	SHEET E

DATE 13APR16 E S T I M A T E O F Q U A N T I T I E S

LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	1003-10-74 QUANTITY
0010	201.0105	Clearing	STA	8.000	8.000
0020	201.0205	Grubbing	STA	8.000	8.000
0030	203.0100	Removing Small Pipe Culverts	EACH	5.000	5.000
0040	203.0200	Removing Old Structure (station) 001. STA. 17+29'CK'	LS	1.000	1.000
0070	203.0225.S	Debris Containment (structure) 001. B-53-41	LS	1.000	1.000
0100	204.0100	Removing Pavement	SY	1,031.000	1,031.000
0120	204.0120	Removing Asphaltic Surface Milling	SY	952.000	952.000
0130	204.0157	Removing Concrete Barrier	LF	150.000	150.000
0140	204.0165	Removing Guardrail	LF	1,119.000	1,119.000
0150	204.0170	Removing Fence	LF	914.000	914.000
0220	205.0100	Excavation Common	CY	5,995.000	5,995.000
0230	206.1000	Excavation for Structures Bridges (structure) 001. B-53-316	LS	1.000	1.000
0260	210.0100	Backfill Structure	CY	498.000	498.000
0290	213.0100	Finishing Roadway (project) 002. 1003-10-74	EACH	1.000	1.000
0330	305.0110	Base Aggregate Dense 3/4-Inch	TON	613.000	613.000
0340	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	11,650.000	11,650.000
0350	305.0130	Base Aggregate Dense 3-Inch	TON	7,630.000	7,630.000
0360	312.0110	Select Crushed Material	TON	3,800.000	3,800.000
0380	415.0080	Concrete Pavement 8-Inch	SY	62.000	62.000
0390	415.0410	Concrete Pavement Approach Slab	SY	166.000	166.000
0440	455.0605	Tack Coat	GAL	625.000	625.000
0450	460.2000	Incentive Density HMA Pavement	DOL	2,030.000	2,030.000
0460	460.5223	HMA Pavement 3 LT 58-28 S	TON	1,230.000	1,230.000
0470	460.5224	HMA Pavement 4 LT 58-28 S	TON	960.000	960.000
0490	460.7223	HMA Pavement 3 HT 58-28 S	TON	865.000	865.000
0510	460.7424	HMA Pavement 4 HT 58-28 H	TON	115.000	115.000
0520	465.0105	Asphaltic Surface	TON	64.000	64.000
0530	465.0315	Asphaltic Flumes	SY	28.000	28.000
0540	502.0100	Concrete Masonry Bridges	CY	599.000	599.000
0550	502.3200	Protective Surface Treatment	SY	938.000	938.000
0560	502.3210	Pigmented Surface Sealer	SY	231.000	231.000
0570	503.0146	Prestressed Girder Type I 45W-Inch	LF	1,397.000	1,397.000
0580	505.0400	Bar Steel Reinforcement HS Structures	LB	9,970.000	9,970.000
0590	505.0600	Bar Steel Reinforcement HS Coated Structures	LB	95,610.000	95,610.000
0600	506.2605	Bearing Pads Elastomeric Non-Laminated	EACH	24.000	24.000
0610	506.4000	Steel Diaphragms (structure) 001. B-53-316	EACH	20.000	20.000
0670	516.0500	Rubberized Membrane Waterproofing	SY	26.000	26.000
0680	517.1010.S	Concrete Staining (structure) 001. B-53-316	SF	8,500.000	8,500.000
0730	521.1012	Apron Endwalls for Culvert Pipe Steel 12-Inch	EACH	2.000	2.000
0750	522.0118	Culvert Pipe Reinforced Concrete Class III 18-Inch	LF	84.000	84.000
0760	522.0124	Culvert Pipe Reinforced Concrete Class III 24-Inch	LF	64.000	64.000
0790	522.0148	Culvert Pipe Reinforced Concrete Class III 48-Inch	LF	340.000	340.000
0880	522.1018	Apron Endwalls for Culvert Pipe Reinforced Concrete 18-Inch	EACH	6.000	6.000

3

DATE 13APR16 E S T I M A T E O F Q U A N T I T I E S

LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	1003-10-74 QUANTITY
0890	522.1024	Apron Endwalls for Culvert Pipe Reinforced Concrete 24-Inch	EACH	2.000	2.000
0920	522.1048	Apron Endwalls for Culvert Pipe Reinforced Concrete 48-Inch	EACH	4.000	4.000
0950	550.2126	Piling CIP Concrete 12 3/4 X 0.375-Inch	LF	3,270.000	3,270.000
0960	601.0553	Concrete Curb & Gutter 4-Inch Sloped 36-Inch Type D	LF	335.000	335.000
0970	601.0557	Concrete Curb & Gutter 6-Inch Sloped 36-Inch Type D	LF	328.000	328.000
0980	603.8000	Concrete Barrier Temporary Precast Delivered	LF	5,088.000	5,088.000
0990	603.8125	Concrete Barrier Temporary Precast Installed	LF	5,088.000	5,088.000
1000	604.0500	Slope Paving Crushed Aggregate	SY	348.000	348.000
1010	606.0200	Riprap Medium	CY	20.000	20.000
1060	611.0654	Inlet Covers Type V	EACH	2.000	2.000
1070	611.3220	Inlets 2x2-FT	EACH	2.000	2.000
1120	612.0212	Pipe Underdrain Unperforated 12-Inch	LF	110.000	110.000
1130	612.0406	Pipe Underdrain Wrapped 6-Inch	LF	200.000	200.000
1150	614.0150	Anchor Assemblies for Steel Plate Beam Guard	EACH	4.000	4.000
1160	614.0220	Steel Thrie Beam Bullnose Terminal	EACH	2.000	2.000
1170	614.0230	Steel Thrie Beam	LF	125.000	125.000
1190	614.0905	Crash Cushions Temporary	EACH	4.000	4.000
1200	614.2300	MGS Guardrail 3	LF	375.000	375.000
1220	614.2500	MGS Thrie Beam Transition	LF	157.600	157.600
1230	614.2610	MGS Guardrail Terminal EAT	EACH	4.000	4.000
1250	616.0100	Fence Woven Wire (height) 001. 6-Ft	LF	1,075.000	1,075.000
1300	618.0100	Maintenance And Repair of Haul Roads (project) 002. 1003-10-74	EACH	1.000	1.000
1340	619.1000	Mobilization	EACH	0.200	0.200
1360	624.0100	Water	MGAL	1,200.000	1,200.000
1370	625.0500	Salvaged Topsoil	SY	45,940.000	45,940.000
1380	627.0200	Mulching	SY	2,500.000	2,500.000
1390	628.1504	Silt Fence	LF	7,860.000	7,860.000
1400	628.1520	Silt Fence Maintenance	LF	7,860.000	7,860.000
1410	628.1905	Mobilizations Erosion Control	EACH	1.000	1.000
1420	628.1910	Mobilizations Emergency Erosion Control	EACH	2.000	2.000
1430	628.2004	Erosion Mat Class I Type B	SY	2,811.000	2,811.000
1440	628.2023	Erosion Mat Class II Type B	SY	2,624.000	2,624.000
1450	628.6505	Soil Stabilizer Type A	ACRE	2.100	2.100
1460	628.6510	Soil Stabilizer Type B	ACRE	5.000	5.000
1480	628.7010	Inlet Protection Type B	EACH	2.000	2.000
1510	628.7504	Temporary Ditch Checks	LF	100.000	100.000
1520	628.7555	Culvert Pipe Checks	EACH	40.000	40.000
1530	628.7560	Tracking Pads	EACH	2.000	2.000
1540	629.0205	Fertilizer Type A	CWT	28.900	28.900
1560	630.0120	Seeding Mixture No. 20	LB	502.000	502.000
1570	630.0130	Seeding Mixture No. 30	LB	348.000	348.000
1590	630.0200	Seeding Temporary	LB	1,242.000	1,242.000
1640	634.0618	Posts Wood 4x6-Inch X 18-FT	EACH	12.000	12.000
1700	637.2210	Signs Type II Reflective H	SF	90.000	90.000
1720	638.2102	Moving Signs Type II	EACH	5.000	5.000
1730	638.2602	Removing Signs Type II	EACH	11.000	11.000
1740	638.3000	Removing Small Sign Supports	EACH	9.000	9.000

3

DATE 13APR16 E S T I M A T E O F Q U A N T I T I E S

LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	1003-10-74 QUANTITY
1750	638.4000	Moving Small Sign Supports	EACH	3.000	3.000
1770	642.5201	Field Office Type C	EACH	0.200	0.200
1790	643.0200	Traffic Control Surveillance and Maintenance (project) 002. 1003-10-74	DAY	277.000	277.000
1830	643.0300	Traffic Control Drums	DAY	14,672.000	14,672.000
1840	643.0420	Traffic Control Barricades Type III	DAY	2,544.000	2,544.000
1850	643.0705	Traffic Control Warning Lights Type A	DAY	2,612.000	2,612.000
1870	643.0715	Traffic Control Warning Lights Type C	DAY	5,123.000	5,123.000
1880	643.0800	Traffic Control Arrow Boards	DAY	266.000	266.000
1890	643.0900	Traffic Control Signs	DAY	7,158.000	7,158.000
1900	643.0910	Traffic Control Covering Signs Type I	EACH	2.000	2.000
1910	643.1050	Traffic Control Signs PCMS	DAY	140.000	140.000
1930	645.0120	Geotextile Fabric Type HR	SY	120.000	120.000
1940	646.0106	Pavement Marking Epoxy 4-Inch	LF	14,714.000	14,714.000
1980	646.0600	Removing Pavement Markings	LF	36,800.000	36,800.000
1990	648.0100	Locating No-Passing Zones	MI	2.000	2.000
2000	649.0400	Temporary Pavement Marking Removable Tape 4-Inch	LF	8,700.000	8,700.000
2020	649.0403	Temporary Pavement Marking Epoxy 4-Inch	LF	81,415.000	81,415.000
2050	652.0125	Conduit Rigid Metallic 2-Inch	LF	48.000	48.000
2060	652.0225	Conduit Rigid Nonmetallic Schedule 40 2-Inch	LF	1,120.000	1,120.000
2080	653.0135	Pull Boxes Steel 24x36-Inch	EACH	4.000	4.000
2100	653.0222	Junction Boxes 18x12x6-Inch	EACH	4.000	4.000
2140	690.0150	Sawing Asphalt	LF	84.000	84.000
2150	690.0250	Sawing Concrete	LF	2,140.000	2,140.000
2160	715.0415	Incentive Strength Concrete Pavement	DOL	500.000	500.000
2170	715.0502	Incentive Strength Concrete Structures	DOL	3,594.000	3,594.000
2180	SPV.0035	Special 001. Roadway Embankment	CY	102,263.000	102,263.000
2190	SPV.0060	Special 001. Baseline CPM Progress Schedule	EACH	0.200	0.200
2200	SPV.0060	Special 002. CPM Progress Schedule Updates and Accepted Revisions	EACH	2.000	2.000
2210	SPV.0060	Special 003. Access Gate 6-Foot	EACH	2.000	2.000
2290	SPV.0090	Special 003. Traffic Control Gawk Screen Furnished	LF	400.000	400.000
2300	SPV.0090	Special 004. Traffic Control Gawk Screen Installed	LF	400.000	400.000
2310	SPV.0090	Special 005. Compost Tube	LF	1,300.000	1,300.000
2360	SPV.0090	Special 750. Fence Chain Link Polymer-Coated 6-Ft.	LF	549.000	549.000
2370	SPV.0105	Special 001. Survey Project 1003-10-74	LS	1.000	1.000

3

3

CLEARING AND GRUBBING

LOCATION	201.0105 CLEARING STA	201.0205 GRUBBING STA
STA. 21+00 'CK' - STA. 26+00 'CK'	5	5
STA. 26+00 'PT' - STA. 29+00 'PT'	3	3
TOTAL	8	8

REMOVING ASPHALTIC SURFACE MILLING

ALL ITEMS SHOWN
CATEGORY 1000

STATION	-	STATION	LOCATION	204.0120 REMOVING ASPHALTIC SURFACE MILLING (SY)
4+80 'TC'	-	26+19 'TC'	NB SHOULDER	476
4+80 'TC'	-	26+19 'TC'	SB SHOULDER	476
				952

3

REMOVING SMALL PIPE CULVERTS

STATION	LOCATION	ESTIMATED LENGTH (FT)	ESTIMATED DIA. (IN)	203.0100 REMOVING SMALL PIPE CULVERTS (EACH)
17+22'PT'	RT	33	12	1
22+18'PT'	RT	34	12	1
23+95'CK'	LT/RT	48	18	1
24+40'CK'	LT	34	12	1
25+39'CK'	RT	52	12	1
			TOTAL	5

REMOVING GUARDRAIL AND REMOVING FENCE

STATION	-	STATION	LT/RT	204.0165 REMOVING GUARDRAIL (LF)	204.0170 REMOVING FENCE (LF)
14+92'CK'	-	15+93'CK'	LT	95	--
15+04'CK'		15+99'CK'	RT	87	--
18+64'CK'	-	19+53'CK'	LT	86	--
18+69'CK'	-	19+65'CK'	RT	95	--
19+68'CK'	-	26+99'CK'	RT	--	604
16+06'CK'	-	16+13'CK'	LT	--	57
16+01'CK'	-	16+23'CK'	RT	--	65
18+15'CK'	-	18+38'CK'	LT	--	102
18+43'CK'	-	18+98'CK'	RT	--	86
380+43	-	380+84	RT	78	--
380+84	-	383+82	LT	300	--
381+46	-	383+14	MEDIAN	300	--
383+00	-	384+10	LT	78	--
			TOTAL	1,119	914

REMOVING PAVEMENT

STATION	-	STATION		204.0100 REMOVING PAVEMENT (SY)
15+94'CK'	-	16+16'CK'	LT/RT	40
18+41'CK'	-	18+65'CK'	LT/RT	40
4+80 'TC	-	26+19 'TC'	LT	951
			TOTAL	1,031

REMOVING CONCRETE BARRIER

STATION	-	STATION	COMMENTS	204.0157 REMOVING CONCRETE BARRIER (LF)
381+52	-	382+42	LT	75
382+27	-	383+01	RT	75
			CATEGORY 1000 TOTALS	150
			PROJECT TOTALS	150

Division	From/To Station	Location	Excavation Common (CY) (1) 205.0100		Fill (CY)	Roadway Embankment (CY) (2) SPV.0035.010	Mass Ordinate +/- (3)	Comment:
			Cut (CY)	EBS (CY)				
1	3+00 'CK' -16+09 'CK'	PHILHOWER RD & CREEK RD	422	200	46,540	46,540	-46,118	
	18+46 'CK' - 28+00 'CK'	CREEK RD	1,478	200	6,642	6,642	-5,164	
	11+50 'PT' - 28+50 'PT'	CREEK RD & PATRICK RD	630	200	48,659	48,659	-48,029	
	4+80 'TC' - 26+09 'TC'	IH-39	1,565	1,300	422	422	1,143	
Project 1003-10-74 - Division 1 Subtotal			4,095	1,900	102,263	102,263	-98,168	
Project 1003-10-74 Totals			**5,995**			**102,263**		

1) Excavation Common = Cut + EBS Excavation. Item number 205.0100.
2) Roadway Embankment = (Fill)
3) The Mass Ordinate is calculated by division. A positive quantity indicates an excess of material within the Division and a negative quantity indicates a shortage of material within the Division. Structure Excavation is not included in this calculation.

ALL ITEMS SHOWN
CATEGORY 1000

3

BASE AGGREGATE DENSE

STATION	-	STATION	LOCATION	305.0110 BASE AGGREGATE DENSE 3/4-INCH (TON)	305.0120 BASE AGGREGATE DENSE 1 1/4-INCH (TON)	305.0130 BASE AGGREGATE DENSE 3-INCH (TON)	312.0110 SELECT CRUSHED MATERIAL (TON)
3+00'CK'	-	10+38'CK'	CREEK ROAD	90	2,010	1,380	0
10+38'CK	-	12+17'CK'	CREEK ROAD INTERSECTION	10	900	540	0
12+17'CK'	-	15+95'CK'	CREEK ROAD	60	1,210	820	0
18+64'CK'	-	28+00'CK'	CREEK ROAD	180	3,900	2,640	0
11+50'PT	-	19+22'PT'	PATRICK ROAD	100	670	580	0
20+81'PT'		29+00'PT'	PATRICK ROAD	100	480	470	0
372+78	-	393+44	IH 39 NB MEDIAN	73	2340	--	--
			DRIVEWAYS	--	140	--	--
			UNDISTRIBUTED	--	--	1200	3800
			CATEGORY 1000 TOTALS	613	11,650	7,630	3,800
			PROJECT TOTALS	613	11,650	7,630	3,800

CONCRETE PAVEMENT

STATION	-	STATION	LOCATION	415.0080 CONCRETE PAVEMENT 8-INCH (SY)	415.0410 CONCRETE PAVEMENT APPROACH SLAB (SY)
15+94'CK'	-	16+16'CK'	LT/RT	32	84
18+41'CK'	-	18+65'CK'	LT/RT	30	82
			TOTAL	62	166

ALL ITEMS SHOWN
CATEGORY 1000

3

LOCATION	PAVEMENT DEPTH (INCHES)	465.0105 ASPHALTIC SURFACE (TON)	460.5223 HMA PAVEMENT 3 LT 58-28 S (TON)	460.5224 HMA PAVEMENT 4 LT 58-28 S (TON)	460.7223 HMA PAVEMENT 3 HT 58-28 S (TON)	460.7424 HMA PAVEMENT 4 HT 58-28 H (TON)	455.0605 TACK COAT (GAL)
CREEK RD.	4	31	690	540	--	--	270
PATRICK RD.	4	33	540	420	--	--	210
IH 39 NB MEDIAN	5	--	--	--	865	--	120
IH 39 NB - RUMBLESTRIP OVERLAY	2	--	--	--	--	55	10
IH 39 SB - RUMBLESTRIP OVERLAY	2	--	--	--	--	60	15
TOTAL	EGORY 1000 TOTALS	64	1,230	960	865	115	625

STORM SEWER & CULVERT PIPE SUMMARY

STATION	LOCATION	522.0118 CULVERT PIPE REINFORCED CONCRETE CLASS III 18-INCH (LF)	522.0124 CULVERT PIPE REINFORCED CONCRETE CLASS III 24-INCH (LF)	522.0148 CULVERT PIPE REINFORCED CONCRETE CLASS III 48-INCH (LF)	522.0118 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 18-INCH (EACH)	522.1024 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 24-INCH (EACH)	522.1048 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 48-INCH (EACH)
11+00'TC'	RT	--	--	160	--	--	2
11+00'TC'	LT	--		180	--	--	2
18+18'CK'	LT	--	--	--	--	--	--
23+96'CK'	LT/RT	--	64	--	--	2	
24+42 'CK'	RT	30	--	--	2	--	--
25+18'CK'	LT	24	--	--	2	--	--
27+25'PT'	RT	30	--	--	2	--	--
	TOTALS	84	64	340	6	2	4

STATION	LOCATION	521.1012 APRON ENDWALLS FOR CULVERT PIPE STEEL 12-INCH (EACH)	611.0654 INLET COVERS TYPE V (EACH)	611.3220 INLETS 2X2-FT (EACH)	612.0212 PIPE UNDERDRAIN UNPERFORATED 12-INCH (LF)	628.7010 INLET PROTECTION TYPE B (EACH)
18+70 'CK'	LT	1	1	1	55	1
18+78 'CK'	RT	1	1	1	55	1
	TOTALS	2	2	2	110	2

628.7555
CULVERT PIPE
CHECKS

STATION	LOCATION	(EACH)
24+00 'CK'	LT	10
24+75'CK'	RT	10
25+40 'CK'	LT	10
27+75 'CK'	LT	10
	TOTALS	40

CONCRETE CURB & GUTTER

STATION	LOC.	601.0557 CONCRETE CURB & GUTTER 4-INCH SLOPED 36-INCH TYPE D (LF)
10+53'CK' - 11+21'CK	LT/RT	171
11+50'CK' - 11+97'CK'	LT/RT	157
TOTAL		328
PROJECT TOTALS		328

ALL ITEMS SHOWN
CATEGORY 1000

TRAFFIC CONTROL - CONCRETE BARRIER

ROADWAY			LOC.	603.8000 CONCRETE BARRIER TEMPORARY PRECAST DELIVERED (LF)	603.8125 CONCRETE BARRIER TEMPORARY PRECAST INSTALLED (LF)	614.0905 CRASH CUSHION TEMPORARY (EACH)
IH 39 - STAGE 2						
376+02	-	388+74	RT.	1,272	1,272	1
IH 39 - STAGE 3						
376+02	-	388+74	LT	1,272	1,272	1
376+02	-	388+74	RT	--	--	--
IH 39 - STAGE 4						
376+02	-	388+74	LT.	--	--	--
376+02	-	388+74	RT	--	--	--
IH 39 - STAGE 5						
376+02	-	388+74	LT.	--	--	--
376+02	-	388+74	RT	--	--	--
IH 39 - STAGE 6						
376+02	-	388+74	LT.	--	--	--
376+02	-	388+74	RT	--	--	--
IH 39 - STAGE 7						
376+02	-	388+74	LT.	1,272	1,272	1
376+02	-	388+74	RT	1,272	1,272	1
IH 39 - STAGE 8						--
376+02	-	388+74	LT.	--	--	--
376+02	-	388+74	RT	--	--	--
IH 39 - STAGE 9						
376+02	-	388+74	LT.	--	--	--
376+02	-	388+74	RT	--	--	--
IH 39 - STAGE 10						
376+02	-	388+74	LT.	--	--	--
376+02	-	388+74	RT	--	--	--
IH 39 - STAGE 11						
376+02	-	388+74	LT.	--	--	--
376+02	-	388+74	RT	--	--	--
IH 39 - STAGE 12						
376+02	-	388+74	LT.	--	--	--
376+02	-	388+74	RT	--	--	--
IH 39 - STAGE 13						
376+02	-	388+74	LT.	--	--	--
376+02	-	388+74	RT	--	--	--
IH 39 - STAGE 14						
376+02	-	388+74	LT.	--	--	--
376+02	-	388+74	RT	--	--	--
IH 39 - STAGE 15A						
376+02	-	388+74	LT.	--	--	--
376+02	-	388+74	RT	--	--	--
IH 39 - STAGE 15B						
376+02	-	388+74	LT.	--	--	--
376+02	-	388+74	RT	--	--	--
CATEGORY 1000 TOTALS				5,088	5,088	4
PROJECT TOTALS				5,088	5,088	4

ALL ITEMS SHOWN
CATEGORY 1000

3

GUARDRAIL

STATION	-	STATION	LOCATION	614.2300 MGS GUARDRAIL 3 (LF)	614.2500 MGS THRIE BEAM TRANSITION (LF)	614.2610 MGS GUARDRAIL TERMINAL EAT (EACH)	614.0220 MGS STEEL THRIE BEAM BULL NOSE TERMINAL (EACH)	614.0230 STEEL THRIE BEAM (LF)
14+92'CK'	-	15+91.'CK'	LT	75	39.3	1	--	--
15+04'CK'		15+99.'CK'	RT	75	39.3	1	--	--
18+59.'CK'	-	19+54.'CK'	LT	75	39.3	1	--	--
18+69.'CK'	-	19+65.'CK'	RT	75	39.3	1	--	--
380+52	-	381+25	lt	75				
381+46	-	383+14	LT	--	--	--	2	125
			TOTALS	375	157.6	4	2	125

FENCE

STATION	-	STATION	LOCATION	616.0100 FENCE WOVEN WIRE 6-FT (LF)	SPV.0060.003 ACCESS GATE 6-FOOT (EACH)
16+06'CK'	-	16+13'CK'	RT	62	1
16+01'CK'	-	16+23'CK'	LT	65	--
18+98'CK'	-	28+00 'CK'	RT	862	--
18+43'CK'	-	18+98'CK'	RT	86	1
			TOTAL	1,075	2
			PROJECT TOTALS	1,075	2

3

SALVAGED TOPSOIL, MULCHING, FERTILIZER, SEEDING, & TEMPORARY SEEDING

STATION	-	STATION	LOCATION	625.0500 SALVAGED TOPSOIL (SY)	629.0205 FERTILIZER TYPE A (CWT)	630.0120 SEEDING MIXTURE NO. 20 (LB)	630.0130 SEEDING MIXTURE NO. 30 (LB)	630.0200 SEEDING TEMPORARY (LB)	627.0200 MULCHING (SY)
3+00'CK'	-	11+00'CK'	LT	2,548	1.6	69	--	69	
3+00'CK'	-	11+00'CK'	RT	2,546	1.6	69	--	69	
12+00'CK	-	16+61'CK'	LT	3,290	2.1	--	10	89	
12+00'CK	-	16+61'CK'	RT	3,000	1.9	--	10	81	
18+40'CK'	-	22+00'CK	LT	2,293	1.4	--	9	62	
18+54'CK'	-	20+00'CK	RT	1,169	0.7	--	3	32	
20+00'CK'	-	28+00'CK	RT	4,023	2.5	--	72	109	
22+00'CK'	-	28+00'CK	LT	1,741	1.1	--	31	47	
11+50'PT'	-	19+96'PT	LT	2,893	1.8	78	--	78	
11+50'PT'	-	19+96'PT	RT	3,115	2.0	84	--	84	
20+04'PT	-	29+00'PT'	LT	3,661	2.3	99	--	99	
20+04'PT	-	29+00'PT'	RT	3,812	2.4	103	--	103	
1+79'TC'	-	22+39'TC'	MEDIAN	11,850	7.5	--	213	320	
UNDISTRIBUTED									2,500
			TOTAL	45,940	28.9	502	348	1,242	2,500
			PROJECT TOTALS	45,940	28.9	502	348	1,242	2,500

ALL ITEMS SHOWN
CATEGORY 1000

ASPHALTIC FLUME

ALL ITEMS SHOWN
CATEGORY 1000

3

3

465.0315
ASPHALTIC
FLUMES

LOCATION	SY
10+40 'CK' RT	5
10+50 'CK LT	5
11+00 'CK' RT	5
11+20 'CK' LT	5
11+40 'CK' RT	4
11+50 'CK' LT	4
TOTAL	28

MOBILIZATION

	619.1000 MOBILIZATION EACH	628.1905 MOBILIZATION EROSION CONTROL EACH	628.1910 MOBILIZATION EMERGENCY EROSION CONTROL EACH
PROJECT 1003-10-74	0.2	1	2
TOTALS	0.2	1	2

EROSION CONTROL ITEMS

STATION	- STATION	LOCATION	628.1504 SILT FENCE (LF)	628.1520 SILT FENCE MAINTENANCE (LF)	628.2004 EROSION MAT CLASS I TYPE B (SY)	628.2033 EROSION MAT CLASS II TYPE B (SY)	628.6505 SOIL STABILIZER TYPE A (ACRE)	628.6510 SOIL STABILIZER TYPE B (ACRE)	606.0200 RIPRAP MEDIUM (CY)	645.0120 GEOTEXTILE FABRIC TYPE HR (SY)	628.7504 TEMPORARY DITCH CHECKS (LF)	628.7560 TRACKING PADS (EACH)	624.0100 WATER (MGAL)	SPV.0090.005 COMPOST TUBE (LF)
3+00'CK'	- 10+42'CK'	LT	745	745	--	265	--	--	--	--	--	--	--	--
3+00'CK'	- 10+58'CK'	RT	760	760	--	191	--	--	--	--	--	--	--	--
10+40'CK'		RT	--	--	--	--	--	--	2	10	--	--	--	--
10+50'CK'		LT	--	--	--	--	--	--	2	10	--	--	--	--
11+00'CK'		RT	--	--	--	--	--	--	2	10	--	--	--	--
11+20'CK'		LT	--	--	--	--	--	--	2	10	--	--	--	--
11+40'CK'		RT	--	--	--	--	--	--	2	10	--	--	--	--
11+50'CK		LT	--	--	--	--	--	--	2	10	--	--	--	--
10+50'CK'	12+23'CK'	LT/RT	--	--	--	--	--	--	4	20	--	--	--	--
12+78'CK'	- 15+89'CK'	LT	775	775	--	--	--	--	--	--	--	--	--	--
12+64'CK'	- 16+03'CK'	RT	311	311	--	--	--	--	--	--	--	--	--	--
14+77'CK'	- 19+60'CK'	LT/RT	--	--	--	--	--	--	--	--	--	--	--	--
18+22'CK'	- 24+99'CK'	LT	681	681	--	156	--	--	2	10	--	--	--	--
19+03'CK'	- 22+00'CK'	RT	298	298	--	705	--	--	--	--	--	--	--	--
25+99'CK'	- 27+59'CK'	LT.	161	161	--	89	--	--	--	--	--	--	--	--
23+50'CK'	- 27+61'CK'	RT	413	413	--	449	--	--	--	--	--	--	--	--
11+50'PT'	- 19+36.'PT'	LT	775	775	--	56	--	--	--	--	--	--	--	--
14+00'PT'	- 18+69'PT'	RT	493	493	--	107	--	--	--	--	--	--	--	--
20+59'PT'	- 28+99'PT'	LT	830	830	--	113	--	--	--	--	--	--	--	--
21+51'PT'	- 27+70'PT'	RT	641	641	--	179	--	--	--	--	--	--	--	--
9+00'CK'	- 12+00'CK'	LT	--	--	1013	--	--	--	--	--	--	--	--	--
9+45'CK'	- 12+00'CK'	RT	--	--	768	--	--	--	--	--	--	--	--	--
16+00'PT'	- 19+62'PT'	RT	--	--	1919	--	--	--	--	--	--	--	--	--
16+71'PT'	- 19+66'PT'	LT	--	--	1616	--	--	--	--	--	--	--	--	--
20+31'PT'	- 23+01'PT'	LT	--	--	1753	--	--	--	--	--	--	--	--	--
20+39'PT'	- 23+53'PT'	RT	--	--	1737	--	--	--	--	--	--	--	--	--
12+00'CK'	- 16+00'CK'	LT	--	--	534	--	0.6	--	--	--	--	--	--	390
12+00'CK'	- 16+05'CK'	RT	--	--	544	--	0.5	--	--	--	--	--	--	400
18+40'CK'	- 22+00'CK'	LT	--	--	506	--	0.4	--	--	--	--	--	--	365
18+54'CK'	- 20+00'CK'	RT	--	--	171	--	0.2	--	--	--	--	--	--	145
UNDISTRIBUTED			977	977	2,640	578	0.4	5	2	30	100	2	1,200	--
		TOTAL	7,860	7,860	2,811	2,624	2.1	5	20	120	100	2	1,200	1,300
		PROJECT TOTALS	7,860	7,860	2,811	2,624	2.1	5	20	120	100	2	1,200	1,300

TRAFFIC CONTROL - DRUMS, BARRICADES, WARNING LIGHTS, ARROW BOARDS, AND SIGNS

ROADWAY	DAYS IN SERVICE	643.0300 DRUMS NO.	(DAYS)	643.0420 BARRICADES TYPE III NO.	(DAYS)	643.0715 WARNING LIGHTS TYPE C NO.	(DAYS)	643.0705 WARNING LIGHTS TYPE A NO.	(DAYS)	643.0800 TRAFFIC CONTROL ARROW BOARDS NO.	(DAYS)	643.0900 SIGNS NO.	(DAYS)	643.1050 TRAFFIC CONTROL SIGNS PCMS NO.	(DAYS)
CREEK ROAD	93	--	--	24	2,232	--	--	24	2,232	--	--	25	2325	--	--
IH 39 - STAGE 1 NIGHTTIME	2	141	282	6	12	75	150	8	16	2	4	30	60	2	4
IH 39 - STAGE 2 ADV. WARNING/DAYTIME	5	158	790	4	20	82	410	8	40	2	10	36	180	2	10
IH 39 - STAGE 3 ADV. WARNING/NIGHTTIME	4	206	824	8	32	61	244	8	32	4	16	71	284	2	8
IH 39 - STAGE 4 NIGHTTIME	3	212	636	8	24	85	255	8	24	4	12	75	225	2	6
IH 39 - STAGE 5 ADV. WARNING/NIGHTTIME	4	--	--	--	--	--	--	--	--	--	--	--	--	--	--
IH 39 - STAGE 6 ADV. WARNING/DAYTIME	2	17	34	--	--	9	--	--	--	1	--	16	--	--	--
IH 39 - STAGE 7 ADV. WARNING/NIGHTTIME	3	212	636	4	12	85	255	4	12	4	12	75	225	2	6
IH 39 - STAGE 8 ADV. WARNING/DAYTIME	24	17	408	--	--	9	--	--	--	1	--	16	--	--	--
IH 39 - STAGE 9 9A & 9B	4	--	--	--	--	--	--	--	--	--	--	--	--	--	--
IH 39 - STAGE 10. ADV. WARNING/NIGHTTIME	4	206	824	4	16	61	244	8	32	4	16	71	284	2	8
IH 39 - STAGE 11 ADV. WARNING/NIGHTTIME	4	212	848	4	16	85	340	8	32	4	16	75	300	2	8
IH 39 - STAGE 12 ADV. WARNING/DAYTIME NIGHTTIME	12	--	--	--	--	--	--	--	--	--	--	--	--	--	--
IH 39 - STAGE 13 ADV. WARNING/DAYTIME NIGHTTIME	1	206	206	4	4	61	61	12	12	4	4	71	71	2	2
IH 39 - STAGE 14 ADV. WARNING/DAYTIME NIGHTTIME	1	212	212	4	4	85	85	8	8	4	4	75	75	2	2
IH 39 - STAGE 15A ADV. WARNING/DAYTIME NIGHTTIME	19	212	4,028	4	76	85	1,615	4	76	4	76	75	1425	2	38
IH 39 - STAGE 15B ADV. WARNING/DAYTIME NIGHTTIME	24	206	4,944	4	96	61	1,464	4	96	4	96	71	1704	2	48
CATEGORY 1000 TOTALS			14,672		2,544		5,123		2,612		266		7,158		140
PROJECT TOTALS			14,672		2,544		5,123		2,612		266		7,158		140

ALL ITEMS SHOWN
CATEGORY 1000

MOVING SIGNS TYPE II, MOVING SMALL SIGN SUPPORTS, & REMOVING SIGNS

ALL ITEMS SHOWN
CATEGORY 1000

SIGN NUMBER	CODE	SIGN MESSAGE	LOCATION	638.2102 MOVING SIGNS TYPE II (EACH)	638.4000 MOVING SMALL SIGN SUPPORTS (EACH)	638.2602 REMOVING SIGNS TYPE II (EACH)	638.3000 REMOVING SMALL SIGN SUPPORTS (EACH)	DESCRIPTION
PROJECT ID 1003-10-74								
R1-01	R2-1	SPEED LIMIT 45 MPH	11+33'CK' LT	--	--	1	1	SPEED LIMIT 45 MPH
R1-02	--	NO THRU TRUCKS	11+33'CK' LT	--	--	1	--	NO THRU TRUCKS
R1-03	R2-1	SPEED LIMIT 45 MPH	18+23'PT' RT	--	--	1	1	SPEED LIMIT 45 MPH
R1-04	R1-1		20+62'PT' RT	--	--	1	1	STOP
R1-05	R1-1		19+12'PT' RT	--	--	1	1	STOP
R1-06	R2-1	SPEED LIMIT 45 MPH	13+33'CK' RT	--	--	1	1	SPEED LIMIT 45 MPH
R1-07	--	NO THRU TRUCKS	13+33'CK' RT	--	--	1	--	NO THRU TRUCKS
R1-08	W5-52L		16+13'CK' LT	--	--	1	1	BRIDGE HASH MARKS
R1-09	W5-52R		16+20'CK' RT	--	--	1	1	BRIDGE HASH MARKS
R1-10	W5-52L		18+39'CK' LT	--	--	1	1	BRIDGE HASH MARKS
R1-11	W5-52R		18+45'CK' LT	--	--	1	1	BRIDGE HASH MARKS
M1-01	M1-1	39, 90 MILE 182.6	384+28 RT	2	1	--	--	39, 90 MILE 182.6
M1-02	R3-4		380+55 RT	2	1	--	--	NO U TURN
M1-03	R4-5R	TRUCKS USE RT LANE	376+59 LT	1	1	--	--	TRUCKS USE RT LANE
			CATEGORY 1000 TOTALS	5	3	11	9	
			PROJECT TOTALS	5	3	11	9	

TRAFFIC CONTROL COVERINGS SIGNS

STAGE	LOCATION	643.0910 TRAFFIC CONTROL COVERING SIGNS TYPE I (EACH)	COMMENTS
ALL	377+00 NB IH 39 RT	1	TRUCKS USE RIGHT LANE
ALL	377+00 NB IH 39 LT	1	TRUCKS USE RIGHT LANE
	TOTALS	2	

PERMANENT SIGNING

SIGN NUMBER	CODE	SIGN MESSAGE	TYPE II SIGN SIZE W (IN)	X	H (IN)	LOCATION	634.0618 POSTS WOOD 4"X6"X18' (EACH)	637.2210 SIGNS TYPE II REFLECTIVE H (SF)	DESCRIPTION
PROJECT ID 1003-10-74									
1-01	W14-3		48	X	36	5+48'CK' LT	1	12	
1-02	R2-1	SPEED LIMIT 45 MPH	24	X	36	7+98'CK' LT	1	6	
1-03	R12-1	WEIGHT LIMIT 15 TONS	24	X	30	10+00'CK' LT	1	5	
1-04	R1-1		30	X	30	10+89'CK' LT	1	7	
1-05	R2-1	SPEED LIMIT 45 MPH	24	X	36	18+22'PT' LT	1	6	
1-06	W3-1		36	X	36	27+76'PT' LT	1	9	
1-07	R2-1	SPEED LIMIT 45 MPH	24	X	36	22+20'PT' RT	1	6	
1-08	R1-1		30	X	30	11+66'CK' RT	1	7	
1-09	W3-1		36	X	36	12+03'PT' RT	1	9	
1-10	R12-1	WEIGHT LIMIT 15 TONS	24	X	30	12+35'CK; RT	1	5	
1-11	R2-1	SPEED LIMIT 45 MPH	24	X	36	14+45'CK'RT	1	6	
1-12	W14-3		48	X	36	20+00'CK' RT	1	12	
						CATEGORY 1000 TOTALS	12	90	
						PROJECT TOTALS	12	90	

PAVEMENT MARKING

STATION	-	STATION	LOCATION	646.0106 EPOXY 4-INCH YELLOW (LF)	646.0106 EPOXY 4-INCH WHITE (LF)	646.0600 REMOVING PAVEMENT MARKINGS (LF)	COMMENTS
3+00'CK'	-	10+53'CK'	CREEK RD	1,169	1,479	--	
11+96'CK'	-	28+00'CK	CREEK RD	2,141	3,178	--	
8+00'PT'	-	19+25'PT'	PATRICK RD	1,697	1,544	--	
20+60'PT'	-	32+00'PT'	PATRICK RD	1,856	1,649	--	
372+00'NB'	-	394+00'NB'	NB IH 39	--	--	24,100	NB TOTAL
346+00'NB'	-	406+00'NB'	SB IH 39	--	--	12,700	SB TOTAL
			CATEGORY 1000 TOTALS	6,864	7,850	36,800	
			TOTAL FOR 646.0106	14,714			
			PROJECT TOTALS	14,714		36,800	

TEMPORARY PAVEMENT MARKING

STATION	-	STATION	LOCATION	649.0403 TEMPORARY PAVEMENT MARKING EPOXY 4-INCH YELLOW (LF)	649.0403 TEMPORARY PAVEMENT MARKING EPOXY 4-INCH WHITE (LF)	COMMENTS
IH 39 - STAGE 2						
346+30'NB'	-	405+78	RT.	5948	--	STAGE 2
374+13'NB'	-	405+78'NB'	RT.	--	3165	
372+70'NB'	-	393+75'NB'	RT.	2105	--	CLOSED LANE
IH 39 - STAGE 3						
346+30'NB'	-	405+78'NB'	RT.	5948	--	
374+13'NB'	-	405+78'NB'	RT.	--	3165	
372+70'NB'	-	393+75'NB'	RT.	2105	--	CLOSED NB LANE
359+00'NB'	-	417+79'NB'	LT.	5879	--	
359+00'NB'	-	392+00'NB'	LT.	--	3300	SOUTHBOUND
370+99'NB'	-	392+00'NB'	LT.	2101	--	CLOSED SB LANE
IH 39 - STAGE 4						
346+27'NB'	-	405+78'NB'	RT.	--	5854	
372+69'NB'	-	393+75'NB'	RT.	--	2105	CLOSED NB LANE
372+69'NB'	-	405+78'NB'	RT.	3308	--	
359+09'NB'	-	366+70'NB'	LT.	--	1530	SB GORE EDGELINE
35900'NB'	-	392+00'NB'	LT.	3300	--	
370+99'NB'	-	392+00'NB'	LT.	--	2100	CLOSED SB LANE
361+04'NB'	-	417+79'NB'	LT.	--	5677	
IH 39 - STAGE 10,13,15B						
346+29'NB'	-	405+78'NB	RT.	5948	--	
374+13'NB'	-	405+78'NB'	RT.	--	3165	
372+70'NB'	-	393+75'NB'	RT.	2105	--	CLOSED NB LANE
359+00'NB'	-	417+79'NB'	LT.	5879	--	
361+04'NB	-	392+00'NB'	LT.	--	3096	
370+99'NB'	-	392+00'NB'	LT.	--	2101	SB CLOSED SB LANE
359+09'NB'	-	366+70'NB'	LT.	--	761	SB GORE EDGELINE
359+00'NB'	-	366+70'NB'	LT.	--	770	
			CATEGORY 1000 TOTALS	44,626	36,789	
			TOTAL	81,415		
			PROJECT TOTALS		81,415	

ALL ITEMS SHOWN
CATEGORY 1000

TEMPORARY PAVEMENT MARKING

LOCATION	649.0400 TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH YELLOW (LF)	WHITE (LF)
IH 39 - STAGE 2	1450	1450
IH 39 - STAGE 3	1450	1450
IH 39 - STAGE 13	1450	1450
TOTAL		8,700

SAWING

STATION	-	STATION	LOCATION	690.0150 SAWING ASPHALT (LF)	690.0250 SAWING CONCRETE (LF)
4+80 'TC'	-	26+19 'TC'	LT/RT		2140
3+00'CK'			LT/RT	21	
28+00'CK'			LT/RT	21	
11+50'PT'			LT/RT	21	
28+00'PK'			LT/RT	21	
			TOTAL	84	2,140

FIELD OFFICE TYPE C

	642.5201 FIELD OFFICE TYPE C EACH
1003-10-74	0.2
TOTALS	0.2

PULL BOXES

LOCATION	653.0135 PULL BOXES STEEL 24X36-INCH EACH
15+91'CK'	1
15+99'CK'	1
18+59'CK'	1
18+67'CK'	1
TOTAL	4

GAWK SCREEN

LOCATION	SPV.0090.003 TRAFFIC CONTROL GAWK SCREEN FURNISHED LF	SPV.0090.004 TRAFFIC CONTROL GAWK SCREEN INSTALLED LF
10+00 'TC' - 14+00 'TC'	400	400
TOTAL	400	400

ALL ITEMS SHOWN
CATEGORY 1000

TPP:86

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

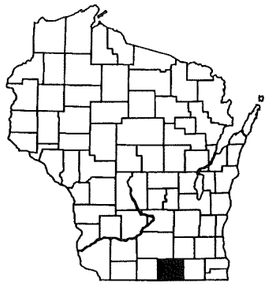
TRANSPORTATION PROJECT PLAT TITLE SHEET

PROJECT NO. 1003-10-29

ILLINOIS STATE LINE - MADISON (CREEK ROAD BRIDGE/APPRS B-53-0041)

I39/90

ROCK COUNTY



THE NOTES, CONVENTIONAL SYMBOLS, AND ABBREVIATIONS ARE ASSOCIATED WITH EACH TRANSPORTATION PROJECT PLAT FOR PROJECT 1003-10-29

NOTES:

DISTANCES SHOWN FROM THE RIGHT-OF-WAY LINE TO BUILDINGS ARE APPROXIMATE ONLY.

POSITIONS AND BEARINGS SHOWN ON THIS PLAT ARE REFERENCED TO THE WISCONSIN COUNTY COORDINATES, ROCK COUNTY, NAD83 (2007) IN U.S. SURVEY FEET. VALUES SHOWN ARE GRID COORDINATES, GRID BEARINGS AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

ALL NEW RIGHT-OF-WAY MONUMENTS ARE TYPE 2 AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT.

RIGHT-OF-WAY BOUNDARIES ARE DEFINED WITH COURSES OF THE PERIMETER OF THE HIGHWAY LANDS REFERENCED TO THE U.S. PUBLIC LAND SURVEY SYSTEM OR OTHER "SURVEYS OF PUBLIC RECORD".

PROPERTY LINES SHOWN ON THIS PLAT ARE DRAWN FROM DATA DERIVED FROM MAPS AND DOCUMENTS OF PUBLIC RECORD AND/OR EXISTING OCCUPATIONAL LINES. THIS PLAT MAY NOT BE A TRUE REPRESENTATION OF EXISTING PROPERTY LINES, EXCLUDING RIGHT-OF-WAY LINES, AND SHOULD NOT BE USED AS A SUBSTITUTE FOR AN ACCURATE FIELD SURVEY.

ALL RIGHT-OF-WAY LINES DEPICTED IN NON-ACQUISITION AREAS ARE INTENDED TO RE-ESTABLISH EXISTING RIGHT-OF-WAY LINES AS DETERMINED FROM PREVIOUS PROJECTS, OTHER RECORDED DOCUMENTS, OR FROM CENTERLINE OF EXISTING PAVEMENT.

EXISTING HIGHWAY RIGHT-OF-WAY SHOWN HEREIN IS BASED ON THE FOLLOWING POINTS OF REFERENCE:
EXISTING HIGHWAY RIGHT-OF-WAY FOR IH-39/90 IS ESTABLISHED FROM PREVIOUS PROJECT I-90-3(2)171 & 1001-01-24.
EXISTING ACCESS CONTROL ALONG IH-39/90 IS ESTABLISHED FROM PREVIOUS PROJECT I-90-3(2)171.
EXISTING HIGHWAY RIGHT-OF-WAY FOR PHILHOWER ROAD IS ESTABLISHED FROM CSM, VOLUME 6, PAGE 307, AS DOCUMENT 856363.
EXISTING RIGHT-OF-WAY FOR PHILHOWER ROAD IS ESTABLISHED FROM PREVIOUS PROJECT 1001-01-24, & TOWN OF BELOIT ROAD RECORDS, PAGE 102.
EXISTING RIGHT-OF-WAY FOR CREEK ROAD IS ESTABLISHED FROM PREVIOUS PROJECT 1001-01-24, I-90-3(2)171, & TOWN OF BELOIT ROAD RECORDS, PAGE 102.
EXISTING HIGHWAY RIGHT-OF-WAY FOR PATRICK ROAD IS ESTABLISHED FROM PREVIOUS PROJECT 1001-01-24, & CSM, VOLUME 4, PAGE 181, AS DOCUMENT 822226 AND TOWN OF BELOIT ROAD RECORDS, PAGE 104.

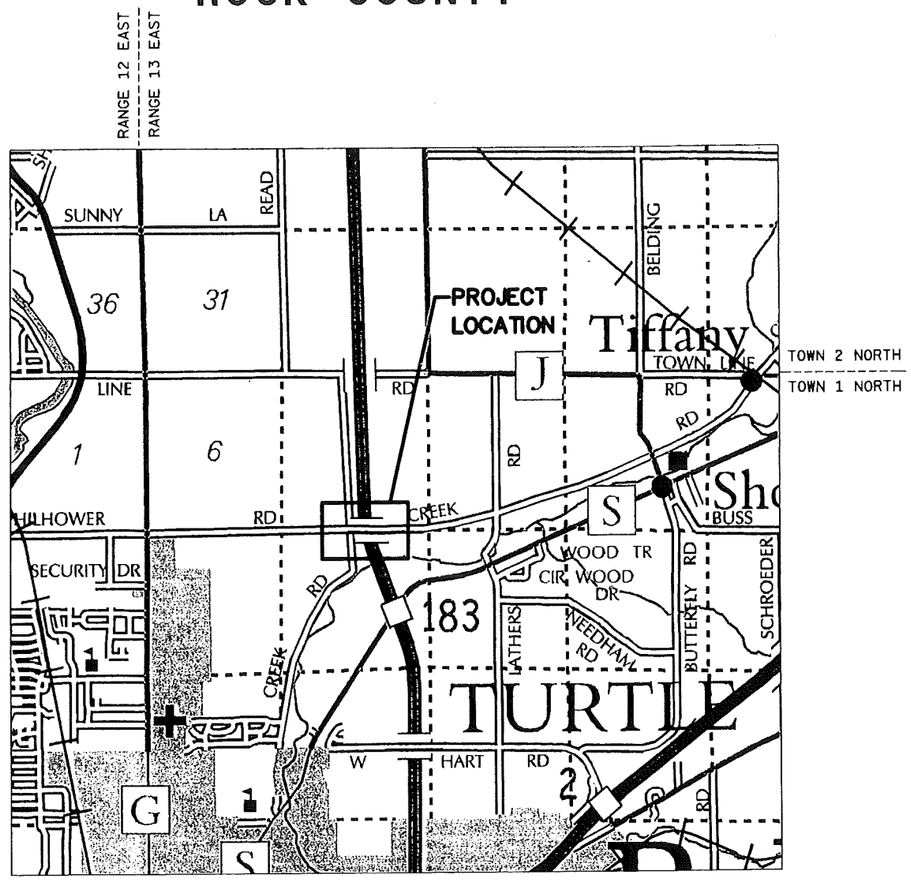
FOR THE LATEST ACCESS/DRIVEWAY INFORMATION, CONTACT THE PLANNING UNIT OF THE WISCONSIN DEPARTMENT OF TRANSPORTATION SOUTHWEST REGION OFFICE IN MADISON.

DIMENSIONING FOR THE NEW RIGHT-OF-WAY IS MEASURED ALONG AND PERPENDICULAR TO NEW REFERENCE LINES.

FOR THE LATEST ACCESS/DRIVEWAY INFORMATION, CONTACT THE PLANNING UNIT OF THE WISCONSIN DEPARTMENT OF TRANSPORTATION SOUTHWEST REGION OFFICE IN MADISON.

PARCEL IDENTIFICATION NUMBERS MAY NOT POINT TO ALL AREAS OF ACQUISITION, AS NOTED ON THE SCHEDULE OF LANDS & INTERESTS REQUIRED.

A **TEMPORARY LIMITED EASEMENT** (TLE) IS A RIGHT FOR CONSTRUCTION PURPOSES, AS DEFINED HEREIN, INCLUDING THE RIGHT TO OPERATE NECESSARY EQUIPMENT THEREON AND THE RIGHT OF INGRESS AND EGRESS, AS LONG AS REQUIRED FOR SUCH PUBLIC PURPOSE, INCLUDING THE RIGHT TO PRESERVE, PROTECT, REMOVE, OR PLANT THEREON ANY VEGETATION THAT THE HIGHWAY AUTHORITIES MAY DEEM NECESSARY OR DESIRABLE. ALL TLES EXPIRE AT THE COMPLETION OF THE CONSTRUCTION PROJECT FOR WHICH THIS INSTRUMENT IS GIVEN.



LAYOUT
SCALE 0 0.5 MI.

CONVENTIONAL ABBREVIATIONS

ACCESS POINT/ DRIVEWAY CONNECTION	AP	RELEASE OF RIGHTS	ROR
ACCESS RIGHTS	AR	REMAINING	REM.
ACRES	AC	RIGHT-OF-WAY	R/W
AND OTHERS	ET.AL.	SECTION	SEC
CENTERLINE	C/L	STATION	STA
CERTIFIED SURVEY MAP	CSM	TEMPORARY LIMITED EASEMENT	TLE
CORNER	COR.	VOLUME	V.
DOCUMENT	DOC.		
EASEMENT	EASE.		
HIGHWAY EASEMENT	H.E.		
LAND CONTRACT	LC		
MONUMENT	MON.		
PAGE	P.		
PERMANENT LTD EASEMENT	PLE		
PROPERTY LINE	PL		
RECORDED AS	(100')		
REFERENCE LINE	R/L		
NORTH BOUND	NB		
SOUTH BOUND	SB		
DIRECTION AHEAD	D.A.		
DIRECTION BACK	D.B.		

CURVE DATA

LONG CHORD	LCH
LONG CHORD BEARING	LCB
RADIUS	R
DEGREE OF CURVE	D
CENTRAL ANGLE, DELTA	DELTA
LENGTH OF CURVE	L
TANGENT	TAN
POINT OF CURVATURE	PC
POINT OF INTERSECTION	PI
POINT OF TANGENCY	PT
TANGENT	T

CONVENTIONAL SYMBOLS

FOUND IRON PIPE/PIN I.P. (3/4" UNLESS NOTED)
R/W MONUMENT (FOUND) ⊙ (SET)
R/W STANDARD (FOUND) △ (SET)
SIGN
SECTION CORNER MONUMENT
SECTION CORNER SYMBOL
FEE (HATCH VARIES)
TEMPORARY LIMITED EASEMENT
PERMANENT LIMITED EASEMENT
R/W BOUNDARY POINT 100
PARCEL NUMBER (1)
UTILITY NUMBER (241)
SIGN NUMBER (OFF PREMISE) (2-3)
BUILDING
CONTROL STATION
TLE POINT NUMBER (E9)

PROPOSED R/W LINE
EXISTING H.E. LINE
PROPERTY LINE
LOT & TIE LINES
SLOPE INTERCEPTS
CORPORATE LIMITS
NO ACCESS (BY PREVIOUS ACQ/CONTROL)
ACCESS RESTRICTED (BY ACQUISITION)
NO ACCESS (BY STATUTORY AUTHORITY)
SECTION LINE
QUARTER LINE
SIXTEENTH LINE
EXISTING CENTERLINE
PROPOSED REFERENCE LINE
PARALLEL OFFSET

CONVENTIONAL UTILITY SYMBOLS

WATER	—W—	
GAS	—G—	
TELEPHONE	—T—	
OVERHEAD TRANSMISSION LINES	—OH—	
ELECTRIC	—E—	
CABLE TELEVISION	—TV—	
FIBER OPTIC	—FO—	
SANITARY SEWER	—SAN—	
STORM SEWER	—SS—	
	NON COMPENSABLE	COMPENSABLE
POWER POLE		
TELEPHONE POLE		
TELEPHONE PEDESTAL		
ELECTRIC TOWER		
ELECTRIC METER (NON-COMPENSABLE)		

TPP NUMBER 1003-10-29-4.01
SHEET 2 OF 2

FILE NAME : T:\PROJECTS\2012_PROJECTS\112-026 AECOM (SUPPLEMENTAL FIELD)\TPP\EXPORTS\CO_130911_DRAFTPLAT 10031029.DWG PLOT DATE : 9/19/2013 4:05 PM PLOT BY : ACAD PLOT NAME :

1003-10-29

TPP85

TRANSPORTATION PROJECT PLAT NO: 1003-10-29 - 4.01

THAT PART OF LOT 1 OF C.S.M., DOC. NO. 822226, THAT PART OF THE SE 1/4 OF THE SW 1/4, THE SW 1/4 OF THE SE 1/4. AND THE SE 1/4 OF THE SE 1/4 OF SECTION 5, AND PART OF THE NE 1/4 OF THE NW 1/4, THE NW 1/4 OF THE NE 1/4, AND THE NE 1/4 OF THE NE 1/4 OF SECTION 8, ALL BEING IN T 1 N, R 13 E, TOWN OF TURTLE, ROCK COUNTY, WISCONSIN.

RELOCATION ORDER IH 39/90 ILLINOIS STATE LINE - MADISON (CREEK ROAD BRIDGE/APPRS B-53-0041) ROCK COUNTY

TO PROPERLY ESTABLISH, LAY OUT, WIDEN, ENLARGE, EXTEND, CONSTRUCT, RECONSTRUCT, IMPROVE, OR MAINTAIN A PORTION OF THE HIGHWAY DESIGNATED ABOVE, THE STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION DEEMS IT NECESSARY TO RELOCATE OR CHANGE SAID HIGHWAY AND ACQUIRE CERTAIN LANDS AND INTERESTS OR RIGHTS IN LANDS FOR THE ABOVE NAMED PROJECT.

TO EFFECT THIS CHANGE, PURSUANT TO AUTHORITY GRANTED UNDER SECTION 84.02 (3), 84.09, AND 84.30 WISCONSIN STATUTES, THE DEPARTMENT OF TRANSPORTATION HEREBY ORDERS THAT:

1. THAT PORTION OF SAID HIGHWAY AS SHOWN ON THIS PLAT IS LAID OUT AND ESTABLISHED TO THE LINES AND WIDTHS AS SO SHOWN FOR THE ABOVE PROJECT.
2. THE LANDS OR INTERESTS OR RIGHTS IN LANDS AS SHOWN ON THIS PLAT ARE REQUIRED BY THE DEPARTMENT FOR THE ABOVE PROJECT AND SHALL BE ACQUIRED IN THE NAME OF THE STATE OF WISCONSIN, PURSUANT TO THE PROVISIONS OF SECTION 84.09 (1) OR (2), WISCONSIN STATUTES.

TLE Point Station Offset Table		
Point #	Station	Offset
150	27+53.00'PT'	38.54'
151	27+61.00'PT'	70.00'
152	27+96.00'PT'	68.00'
153	27+97.00'PT'	34.71'
154	27+57.00'PT'	49.87'
155	27+43.00'PT'	70.00'
156	27+06.00'PT'	70.00'
157	26+95.00'PT'	54.01'
158	24+93.00'CK'	49.84'
159	25+02.00'CK'	115.00'

TLE Point Station Offset Table		
Point #	Station	Offset
160	25+33.00'CK'	130.00'
161	25+68.00'CK'	44.34'
162	27+36.00'CK'	32.01'
163	27+44.00'CK'	46.00'
164	27+76.00'CK'	46.00'
165	27+87.00'CK'	28.27'
166	12+27.00'PT'	40.44'
167	12+13.00'PT'	52.00'
168	11+87.00'PT'	52.00'
169	11+65.00'PT'	38.21'

R/W Point Station Offset Table		
Point #	Station	Offset
101	2+50.00'CK'	19.40'
102	3+00.00'CK'	27.00'
103	5+00.00'CK'	34.00'
104	10+40.00'CK'	85.00'
105	25+50.00'PT'	55.00'
106	28+30.00'PT'	31.84'
107	28+30.00'PT'	36.16'
108	28+00.00'PT'	47.00'
109	25+50.00'PT'	65.00'
110	22+80.00'PT'	90.60'
111	22+34.18'PT'	107.27'
112	12+78.99'CK'	110.00'
113	15+89.37'CK'	110.00'
114	18+22.80'CK'	115.00'
115	21+50.00'CK'	70.69'

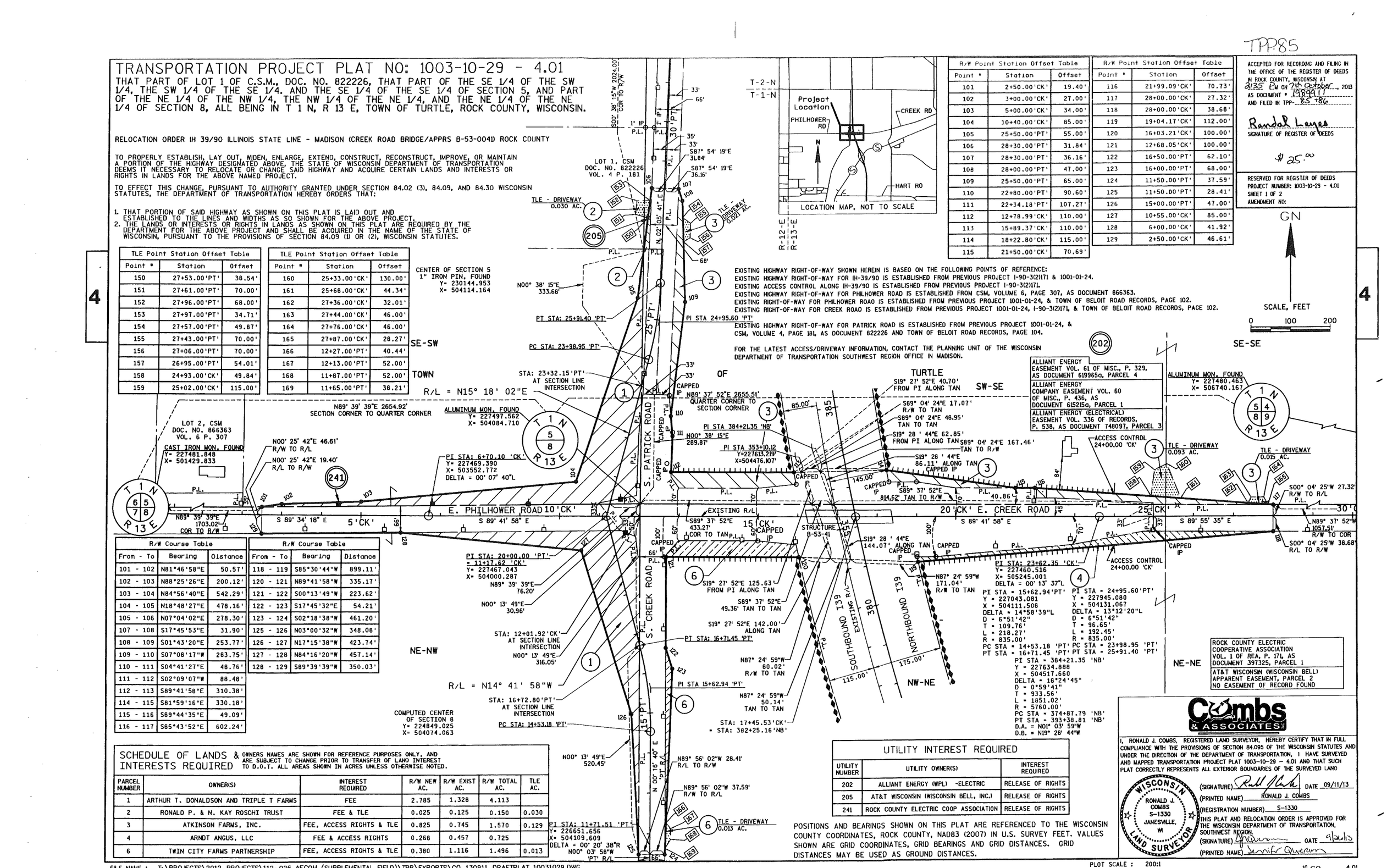
R/W Point Station Offset Table		
Point #	Station	Offset
116	21+99.09'CK'	70.73'
117	28+00.00'CK'	27.32'
118	28+00.00'CK'	38.68'
119	19+04.17'CK'	112.00'
120	16+03.21'CK'	100.00'
121	12+68.05'CK'	100.00'
122	16+50.00'PT'	62.10'
123	16+00.00'PT'	68.00'
124	11+50.00'PT'	37.59'
125	11+50.00'PT'	28.41'
126	15+00.00'PT'	47.00'
127	10+55.00'CK'	85.00'
128	6+00.00'CK'	41.92'
129	2+50.00'CK'	46.61'

ACCEPTED FOR RECORDING AND FILING IN THE OFFICE OF THE REGISTER OF DEEDS IN ROCK COUNTY, WISCONSIN AT 2:35 PM ON 24th October, 2013 AS DOCUMENT # 1989911 AND FILED IN TPP- 85 786

Randal Lanes
SIGNATURE OF REGISTER OF DEEDS

$ 25.00

RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER: 1003-10-29 - 4.01
SHEET 1 OF 2
AMENDMENT NO:



R/W Course Table		
From - To	Bearing	Distance
101 - 102	N81°46'58"E	50.57'
102 - 103	N88°25'26"E	200.12'
103 - 104	N84°56'40"E	542.29'
104 - 105	N18°48'27"E	478.16'
105 - 106	N07°04'02"E	278.30'
107 - 108	S17°45'53"E	31.90'
108 - 109	S01°43'20"E	253.77'
109 - 110	S07°08'17"W	283.75'
110 - 111	S04°41'27"E	48.76'
111 - 112	S02°09'07"W	88.48'
112 - 113	S89°41'58"E	310.38'
114 - 115	S81°59'16"E	330.18'
115 - 116	S89°44'35"E	49.09'
116 - 117	S85°43'52"E	602.24'

R/W Course Table		
From - To	Bearing	Distance
118 - 119	S85°30'44"W	899.11'
120 - 121	N89°41'58"W	335.17'
121 - 122	S00°13'49"W	223.62'
122 - 123	S17°45'32"E	54.21'
123 - 124	S02°18'38"W	461.20'
125 - 126	N03°00'32"W	348.08'
126 - 127	N17°15'38"W	423.74'
127 - 128	N84°16'20"W	457.14'
128 - 129	S89°39'39"W	350.03'

SCHEDULE OF LANDS & INTERESTS REQUIRED

OWNERS NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY, AND ARE SUBJECT TO CHANGE PRIOR TO TRANSFER OF LAND INTEREST TO D.O.T. ALL AREAS SHOWN IN ACRES UNLESS OTHERWISE NOTED.

PARCEL NUMBER	OWNER(S)	INTEREST REQUIRED	R/W NEW AC.	R/W EXIST AC.	R/W TOTAL AC.	TLE AC.
1	ARTHUR T. DONALDSON AND TRIPLE T FARMS	FEE	2.785	1.328	4.113	
2	RONALD P. & N. KAY ROSCHI TRUST	FEE & TLE	0.025	0.125	0.150	0.030
3	ATKINSON FARMS, INC.	FEE, ACCESS RIGHTS & TLE	0.825	0.745	1.570	0.129
4	ARNDT ANGUS, LLC	FEE & ACCESS RIGHTS	0.268	0.457	0.725	
6	TWIN CITY FARMS PARTNERSHIP	FEE, ACCESS RIGHTS & TLE	0.380	1.116	1.496	0.013

UTILITY INTEREST REQUIRED

UTILITY NUMBER	UTILITY OWNER(S)	INTEREST REQUIRED
202	ALLIANT ENERGY (WPL) -ELECTRIC	RELEASE OF RIGHTS
205	AT&T WISCONSIN (WISCONSIN BELL, INC.)	RELEASE OF RIGHTS
241	ROCK COUNTY ELECTRIC COOP ASSOCIATION	RELEASE OF RIGHTS

POSITIONS AND BEARINGS SHOWN ON THIS PLAT ARE REFERENCED TO THE WISCONSIN COUNTY COORDINATES, ROCK COUNTY, NAD83 (2007) IN U.S. SURVEY FEET. VALUES SHOWN ARE GRID COORDINATES, GRID BEARINGS AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

Combs & ASSOCIATES

I, RONALD J. COMBS, REGISTERED LAND SURVEYOR, HEREBY CERTIFY THAT IN FULL COMPLIANCE WITH THE PROVISIONS OF SECTION 84.095 OF THE WISCONSIN STATUTES AND UNDER THE DIRECTION OF THE DEPARTMENT OF TRANSPORTATION, I HAVE SURVEYED AND MAPPED TRANSPORTATION PROJECT PLAT 1003-10-29 - 4.01 AND THAT SUCH PLAT CORRECTLY REPRESENTS ALL EXTERIOR BOUNDARIES OF THE SURVEYED LAND

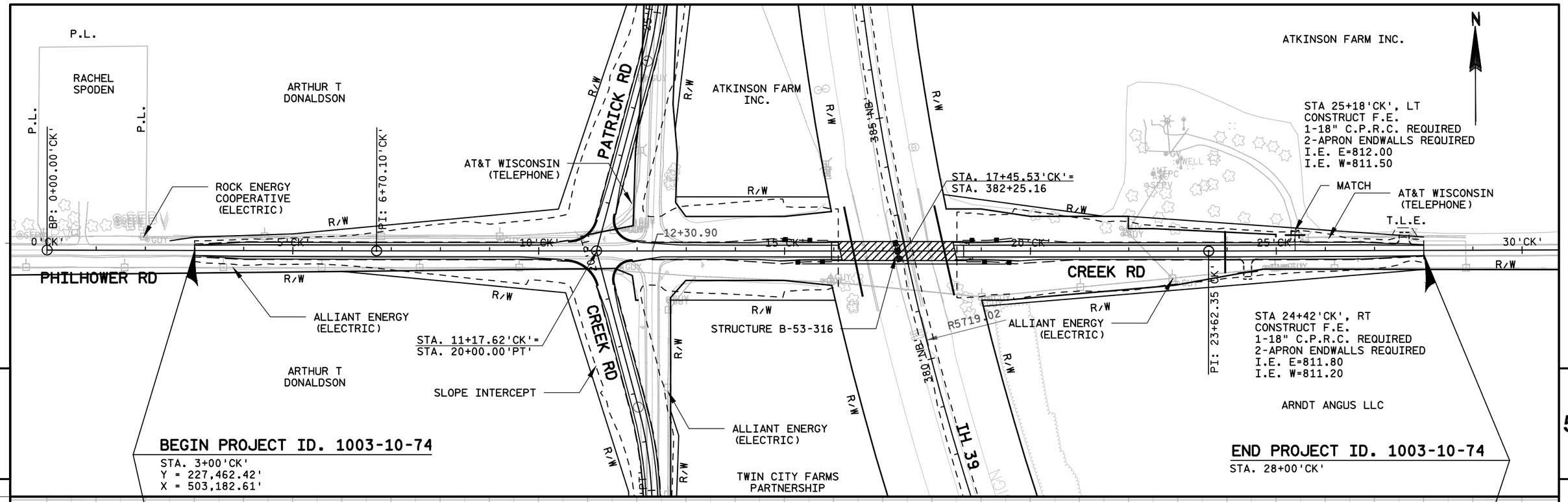
WISCONSIN RONALD J. COMBS S-1330 JANESVILLE, WI LAND SURVEYOR

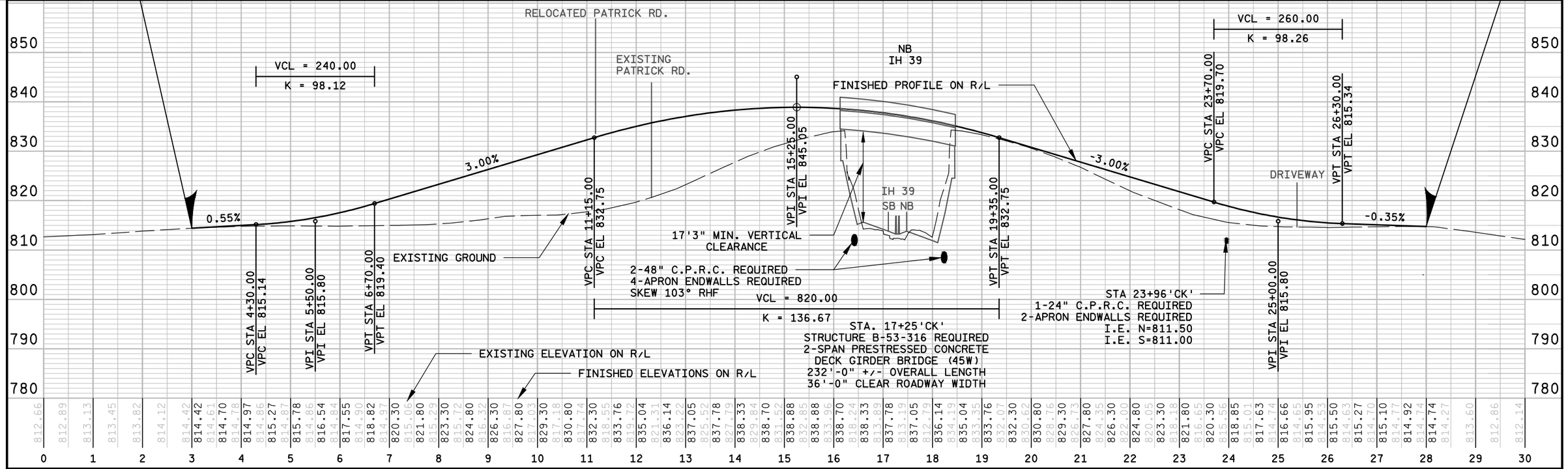
(SIGNATURE) _____ DATE 09/11/13
(PRINTED NAME) RONALD J. COMBS
(REGISTRATION NUMBER) S-1330

THIS PLAT AND RELOCATION ORDER IS APPROVED FOR THE WISCONSIN DEPARTMENT OF TRANSPORTATION, SOUTHWEST REGION.
(SIGNATURE) _____ DATE 9/26/13
(PRINTED NAME) Jennifer Queram

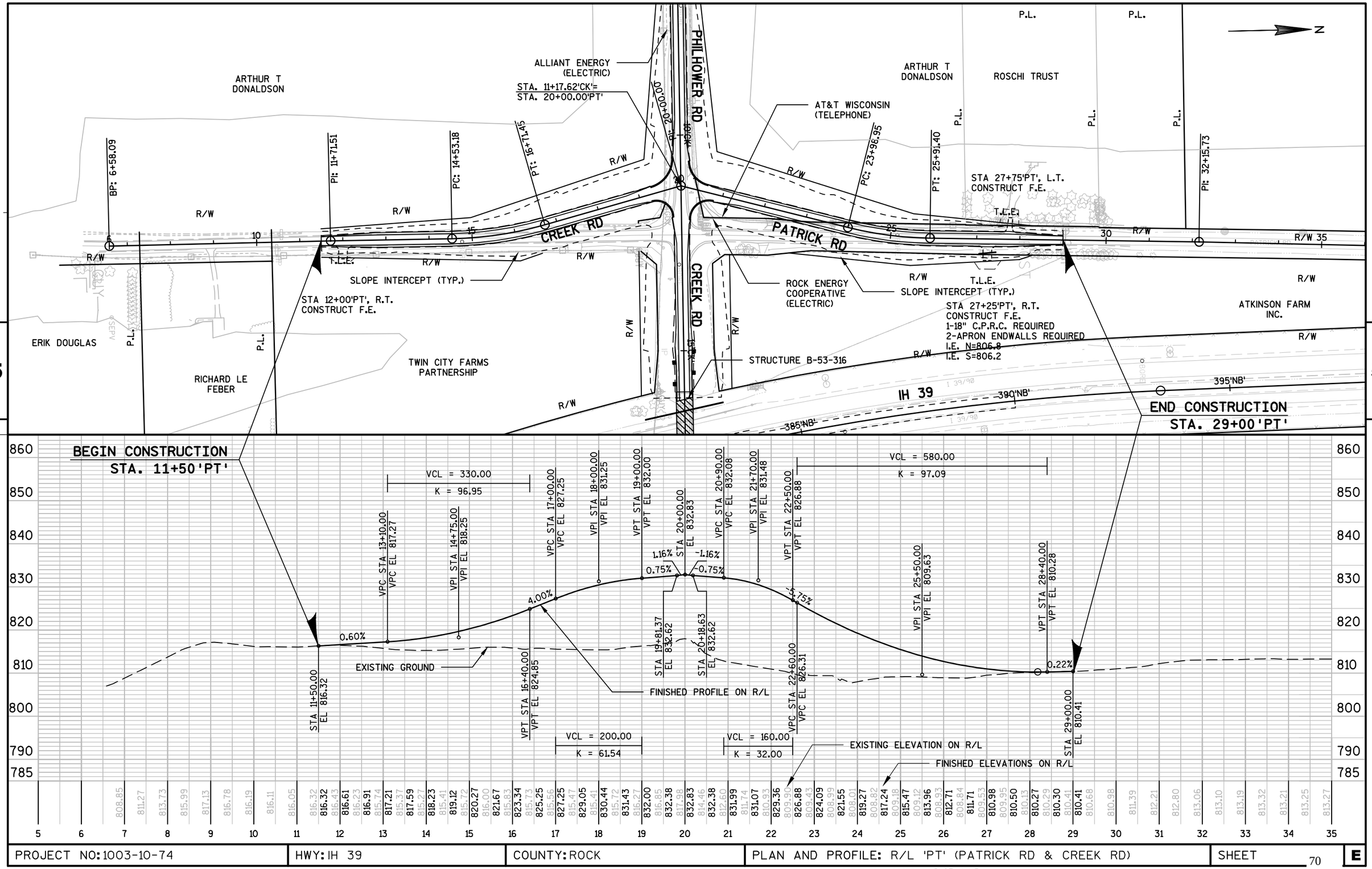
FILE NAME : T:\PROJECTS\2012_PROJECTS\112-026 AECOM (SUPPLEMENTAL FIELD)\TPP\EXPORTS\CO_130911_DRAFTPLAT 10031029.DWG
APPRAISAL PLAT DATE : 09/11/13

PLOT SCALE : 200:1





PROJECT NO: 1003-10-74	HWY: IH 39	COUNTY: ROCK	PLAN AND PROFILE: R/L 'CK' (CREEK RD & PHILHOWER RD)	SHEET 69	E

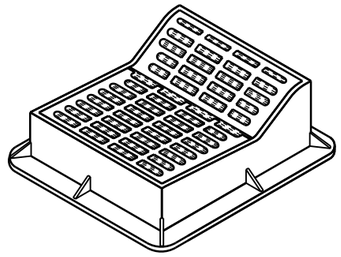


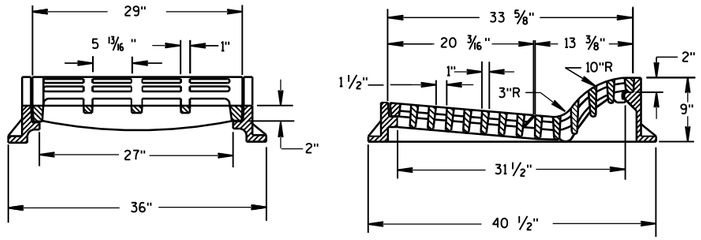
PROJECT NO: 1003-10-74	HWY: IH 39	COUNTY: ROCK	PLAN AND PROFILE: R/L 'PT' (PATRICK RD & CREEK RD)	SHEET 70	E

Standard Detail Drawing List

08A05-19C	INLET COVERS TYPE F, HM, HM-S, S, T, V, HM-GJ, & HM-GJ-S
08C07-01	INLETS 2X2-FT, 2X2.5-FT, 2X3-FT AND 2.5X3-FT
08D01-18	CONCRETE CURB, CONCRETE CURB AND GUTTER AND TIES
08D04-05	CONCRETE SURFACE DRAINS & ASPHALTIC FLUMES
08E08-03	TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS
08E09-06	SILT FENCE
08E10-02	INLET PROTECTION TYPE A, B, C AND D
08F01-11	APRON ENDWALLS FOR CULVERT PIPE
09A01-13A	AT-GRADE SIDE ROAD INTERSECTION, TYPES "B1", "B2", "C" AND D AND TEE INTERSECTION BYPASS LANE
09B02-09	CONDUIT
09B04-11	PULL BOX
12A03-10	NAME PLATE (STRUCTURES)
13B02-08A	CONCRETE PAVEMENT APPROACH SLAB
14B07-14A	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-14B	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-14C	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-14D	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-14E	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-14F	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-14G	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-14H	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B08-02A	CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS
14B08-02B	CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS
14B08-02C	CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS
14B08-02D	CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS
14B08-02E	CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS
14B20-11A	STEEL THRIE BEAM STRUCTURE APPROACH
14B26-03A	STEEL THRIE BEAM BULLNOSE TERMINAL
14B26-03B	STEEL THRIE BEAM BULLNOSE TERMINAL
14B26-03C	STEEL THRIE BEAM BULLNOSE TERMINAL
14B26-03D	STEEL THRIE BEAM BULLNOSE TERMINAL
14B26-03E	STEEL THRIE BEAM BULLNOSE TERMINAL
14B29-01	SAFETY EDGE
14B42-03A	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-03B	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-03C	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B44-02A	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B44-02B	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B44-02C	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B45-04A	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-04B	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-04C	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-04D	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-04E	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-04F	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-04G	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-04H	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-04I	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-04J	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-04K	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-04L	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
15B01-08A	FENCE WOVEN WIRE
15B01-08B	FENCE WOVEN WIRE
15C02-06A	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-06B	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C03-03	BARRICADES AND SIGNS FOR SIDEROAD CLOSURES
15C08-16A	PAVEMENT MARKING (MAINLINE)
15D12-05B	TRAFFIC CONTROL, LANE CLOSURE, SPEED REDUCTION
15D27-02	TRAFFIC CONTROL, SHOULDER CLOSURE ON DIVIDED ROADWAY, SPEEDS GREATER THAN 40 MPH

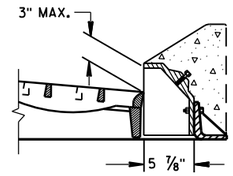
6





TYPE "F"

USE WITH TYPES A & D CONCRETE CURB & GUTTER, 36 INCH.



ALTERNATIVE CURB BOX FOR TYPE "HM" COVER

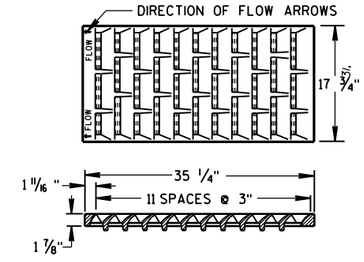
USE WITH TYPES G & J CONCRETE CURB & GUTTER, 30 INCH
NOTED AS TYPE HM-GJ ON DRAINAGE TABLE

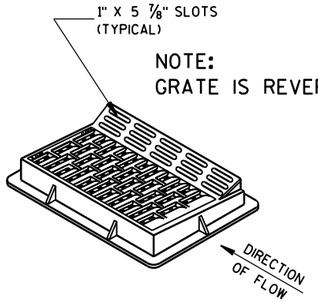
NOTE:
SPECIAL GRATE FOR THE
TYPE "H" COVER MAY ALSO BE
USED FOR THE TYPE "HM-GJ" COVER
NOTED AS TYPE HM-GJ-S ON DRAINAGE TABLE

GENERAL NOTES

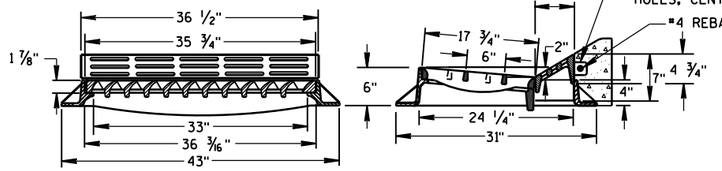
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

DETAIL DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR INLET COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.





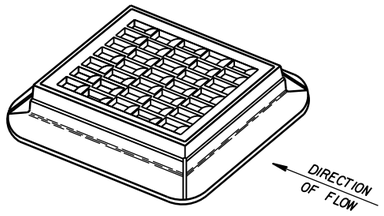
NOTE:
GRATE IS REVERSIBLE.

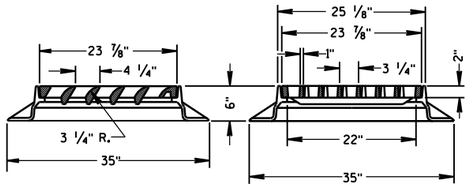


TYPE "HM"

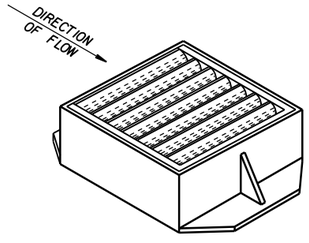
USE WITH TYPES A & D CONCRETE CURB & GUTTER, 36 INCH.

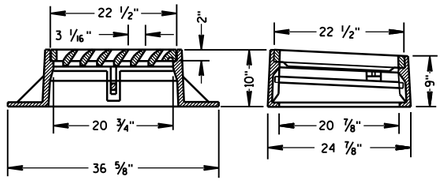
NOTE:
SPECIAL GRATE FOR THE
TYPE "H" COVER MAY ALSO BE
USED FOR THE TYPE "HM" COVER
NOTED AS TYPE HM-S ON DRAINAGE TABLE



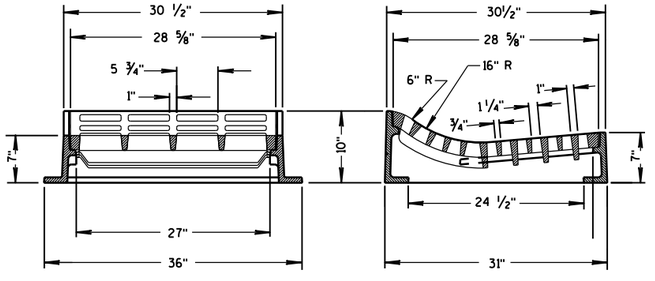


TYPE "S"



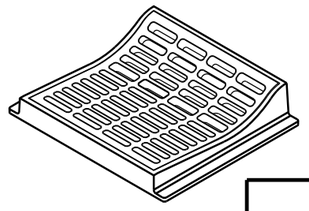


TYPE "V"



TYPE "T"

USE WITH TYPES R & T CONCRETE CURB & GUTTER, 36 INCH.



INLET COVERS
TYPE F, HM, HM-S, S, T, V, HM-GJ, & HM-GJ-S

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
11/27/2013
DATE

/S/ Jerry H. Zogg
ROADWAY STANDARDS ENGINEER

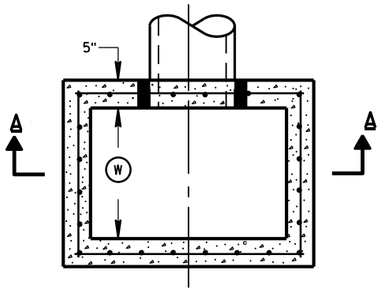
FHWA

6

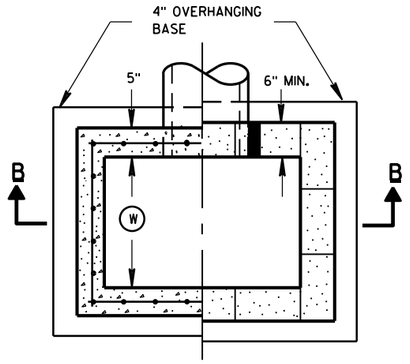
S.D.D. 8 A 5-19c

6

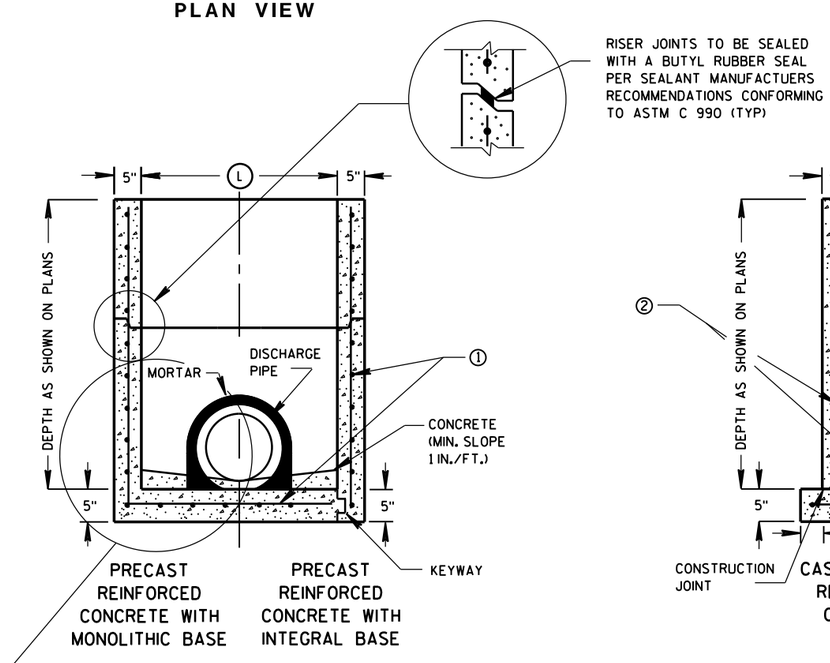
S.D.D. 8 A 5-19c



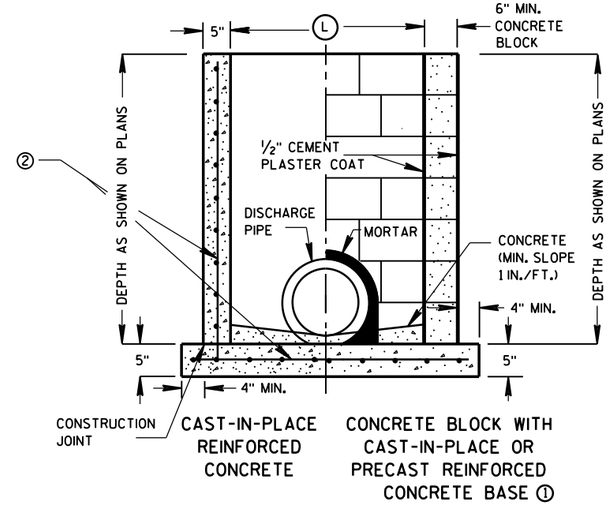
PLAN VIEW



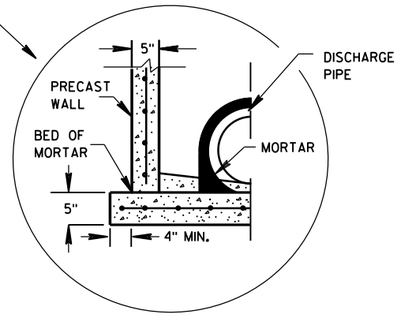
PLAN VIEW



SECTION A-A



SECTION B-B



SEPARATE PRECAST REINFORCED CONCRETE BASE OPTION

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

UNLESS OTHERWISE AUTHORIZED IN WRITING BY THE ENGINEER, THE CONTRACTOR SHALL NOT ORDER AND DELIVER PRECAST INLET UNITS REQUIRED FOR THE PROJECT UNTIL A LIST OF SIZES IS FURNISHED BY THE ENGINEER.

DETAILED DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR UNDERGROUND DRAINAGE STRUCTURES SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

ALL PRECAST INLET UNITS SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF ASTM C 913.

ALL DRAINAGE STRUCTURES ARE DESIGNATED ON THE PLANS AS "MANHOLES 3X3-L", "CATCH BASINS 4-B", "INLETS 2X3-H", ETC. THE FIRST NUMBERS DESIGNATES THE SIZE OF THE STRUCTURE, AND THE FOLLOWING LETTER DESIGNATES THE TYPE OF COVER TO BE USED TO COMPRISE THE COMPLETE UNIT.

BASES SHALL BE PLACED ON A BED OF MATERIAL AT LEAST 6 INCHES IN DEPTH, WHICH MEETS THE REQUIREMENTS OF GRANULAR BACKFILL. THIS BEDDING SHALL BE COMPACTED AND PROVIDE UNIFORM SUPPORT FOR THE ENTIRE AREA OF THE BASE.

ALL BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2 INCHES CLEAR UNLESS OTHERWISE SHOWN OR NOTED.

PRECAST REINFORCED RISERS SHALL HAVE A TONGUE AND GROOVE JOINT WITH TONGUE UP OR DOWN.

4" OVERHANGING BASES ARE REQUIRED FOR CAST-IN-PLACE REINFORCED CONCRETE AND CONCRETE BLOCK INSTALLATIONS.
4" OVERHANG IS REQUIRED WHEN SEPARATE PRECAST BASE IS PROVIDED.
OVERHANG IS NOT REQUIRED ON PRECAST STRUCTURES WITH AN INTEGRAL OR MONOLITHIC BASE.

MAXIMUM INSIDE PIPE DIAMETER DETERMINED BY 3 INCH CLEARANCE ON EACH SIDE OF THE OUTSIDE WALL OF THE PIPE. SEE DETAIL "A". ASSUMES PIPE ENTERS PERPENDICULAR TO THE STRUCTURE.

① FOR PRECAST INLETS PROVIDE REINFORCING STEEL IN ACCORDANCE TO ASTM C 913.

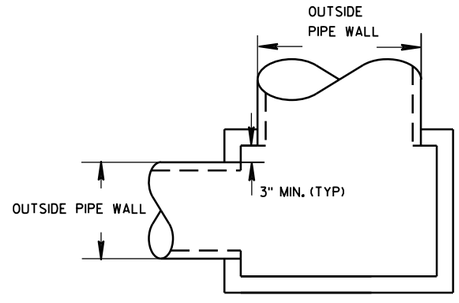
② CONTRACTOR TO PROVIDE DRAWING(S) STAMPED BY A PROFESSIONAL ENGINEER FOR STEEL REINFORCING DESIGN FOR CAST-IN-PLACE STRUCTURES.

INLET COVER MATRIX

INLET SIZE		INLET COVER TYPE	ALL A'S	ALL B'S	BW	F	ALL H'S	S	T	V	WM
	WIDTH (W) (FT)	LENGTH (L) (FT)									
2X2-FT	2	2	X	X				X		X	
2X2.5-FT	2	2.5			X			X	X	X	X
2X3-FT	2	3					X				
2.5X3-FT	2.5	3				X					

PIPE MATRIX

INLET SIZE	MAXIMUM INSIDE PIPE DIAMETER	
	WIDTH (IN)	LENGTH (IN)
2X2-FT	12	12
2X2.5-FT	12	18
2X3-FT	12	24
2.5X3-FT	18	24



DETAIL "A"

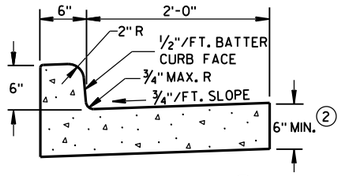
INLETS 2X2-FT, 2X2.5-FT, 2X3-FT AND 2.5X3-FT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

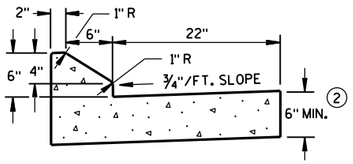
APPROVED
6/5/2012
DATE
FHWA

/S/ Jerry H. Zogg
ROADWAY STANDARDS DE ENGINEER

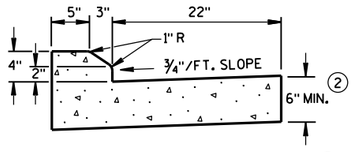
6
S.D.D. 8 C 7-1



TYPES A & D ①

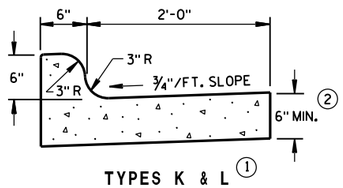


6" SLOPED CURB TYPES G & J ①

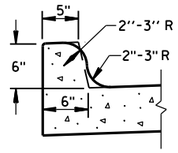


4" SLOPED CURB TYPES G & J ①

CONCRETE CURB & GUTTER 30"

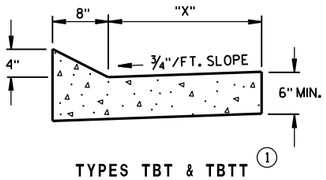


TYPES K & L ①



OPTIONAL CURB SHAPE FOR TYPES K & L ①

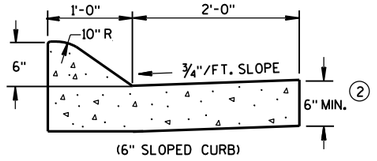
CONCRETE CURB & GUTTER 30"



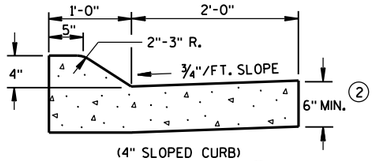
TYPES TBT & TBTT ①

CONCRETE CURB & GUTTER

TBT & TBTT	"X"
30"	22"
36"	28"

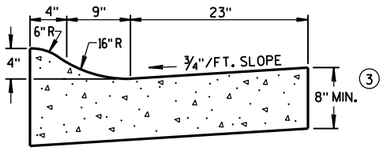


(6" SLOPED CURB)



(4" SLOPED CURB)

TYPES A & D ①



4" SLOPED CURB TYPES R & T ① ④

CONCRETE CURB & GUTTER 36"

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

PAVEMENT TIES AND TIE BARS SHALL BE EPOXY COATED IN CONFORMANCE WITH SUBSECTION 505.2.6.2 OF THE STANDARD SPECIFICATIONS.

INTEGRAL CURB & GUTTER SHALL CONFORM TO THE DETAILS SHOWN FOR CONCRETE CURB & GUTTER INCLUDING THE TRANSVERSE GUTTER SLOPE. A LONGITUDINAL CONSTRUCTION JOINT IS NOT REQUIRED WITH INTEGRAL CURB AND GUTTER.

WHERE THE TRANSVERSE JOINTS IN THE PAVEMENT ARE REQUIRED TO BE SEALED, THE JOINTS IN THE INTEGRAL CURB AND GUTTER SHALL BE SEALED TO THE FACE OF CURB WITH THE SAME TYPE OF SEALANT. THE COST OF FURNISHING AND INSTALLING THIS SEALANT SHALL BE INCIDENTAL TO THE ITEM CONCRETE CURB AND GUTTER.

UNLESS OTHERWISE SHOWN ON THE TYPICAL CROSS SECTIONS, THE BASE AGGREGATE AND COMMON EXCAVATION LIMITS ARE 2'-0" BEHIND THE BACK OF CURBS.

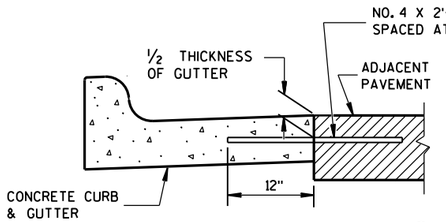
① TIE BARS ARE REQUIRED FOR CURB AND GUTTER TYPES A, G, K, R AND TBTT.

② THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 6" MINIMUM GUTTER THICKNESS IS MAINTAINED.

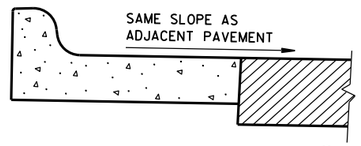
③ THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 8" MINIMUM GUTTER THICKNESS IS MAINTAINED.

④ THE FACE OF CURB IS 6" FROM THE BACK OF CURB.

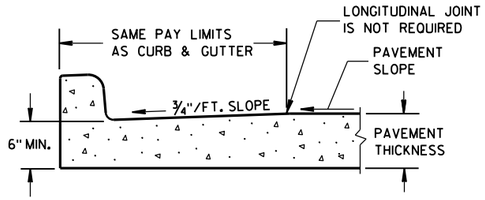
⑤ WHEN REVERSE SLOPE GUTTER IS REQUIRED, THE LOCATION(S) WILL BE SHOWN ELSEWHERE IN THE PLAN.



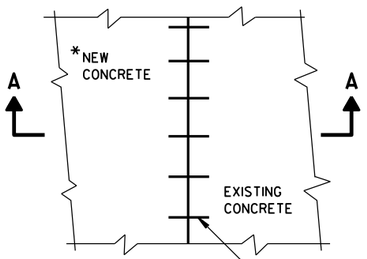
TYPICAL TIE BAR LOCATION ①



REVERSE SLOPE GUTTER ⑤
(TYPICAL FOR ALL CURB & GUTTER TYPES)

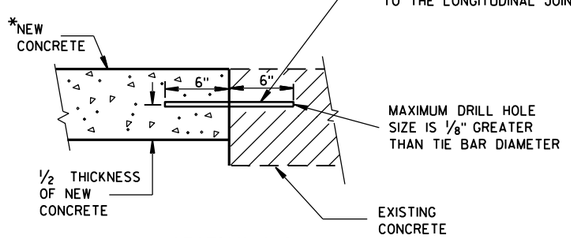


PARTIAL SECTION OF PAVEMENT
WITH INTEGRAL CURB & GUTTER



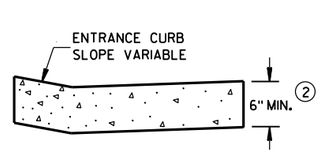
PLAN VIEW

*NEW CURB & GUTTER, SURFACE DRAINS, CONCRETE PAVEMENT OR OTHER NEW CONCRETE.

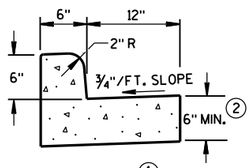


SECTION A-A

TIE BARS DRILLED
INTO EXISTING PAVEMENT

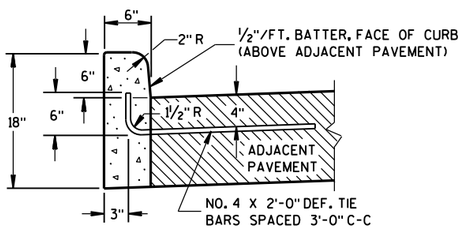


DRIVEWAY ENTRANCE CURB
(WHEN DIRECTED BY THE ENGINEER)

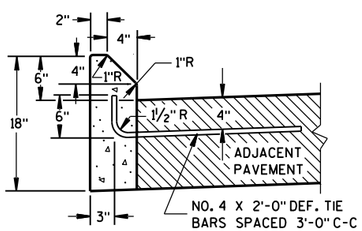


① TYPES A & D

CONCRETE CURB & GUTTER 18"

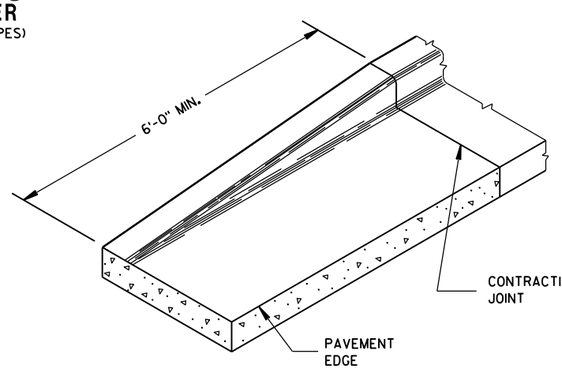


① TYPES A & D



① TYPES G & J

CONCRETE CURB



END SECTION CURB & GUTTER

CONCRETE CURB, CONCRETE CURB & GUTTER AND TIES

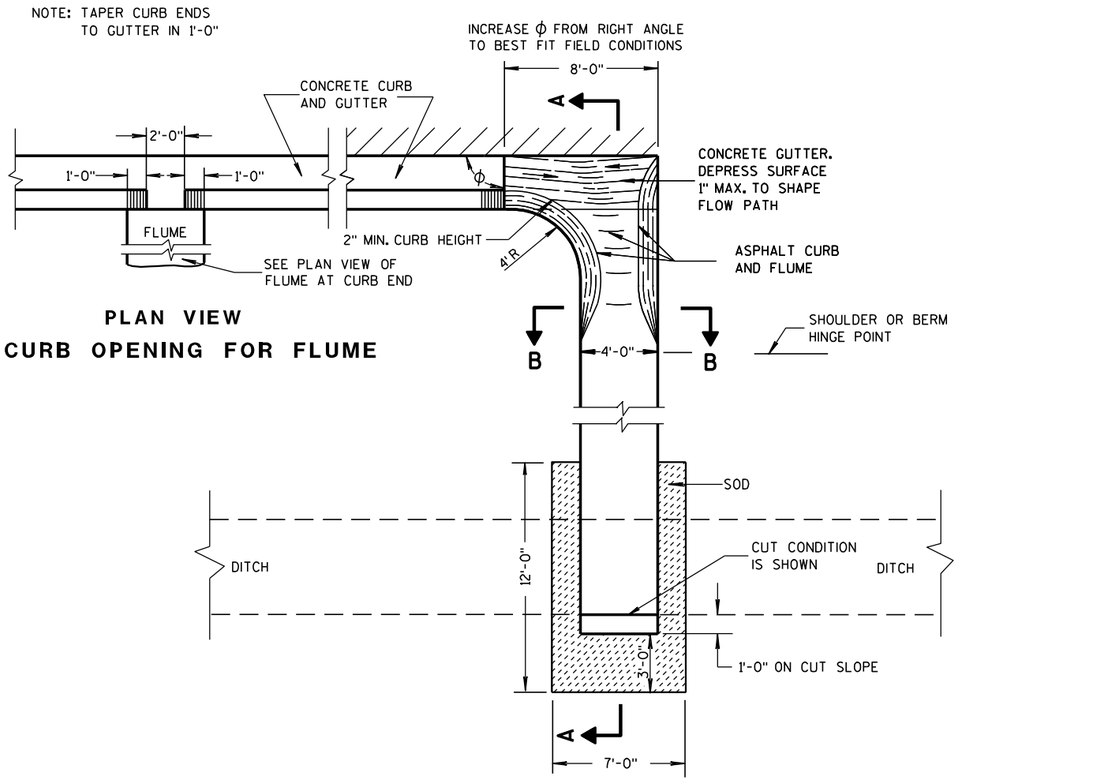
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June, 2015 — DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA

6

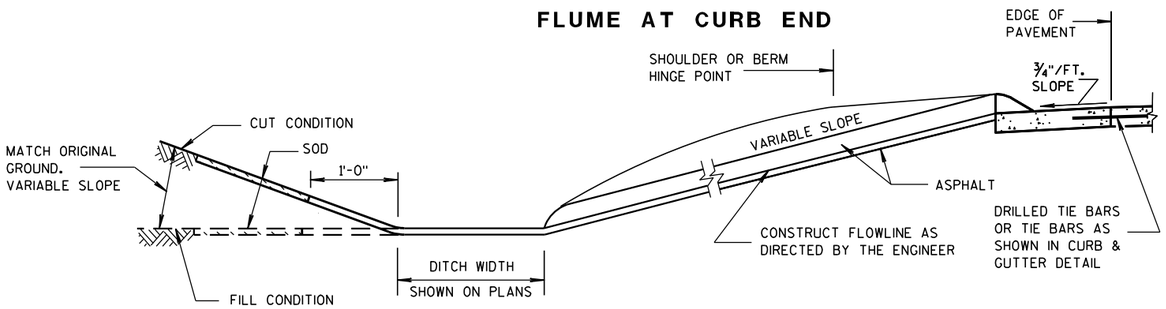
S.D.D. 8 D 1-18

ASPHALTIC FLUME

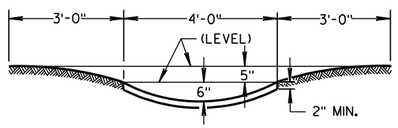


PLAN VIEW
CURB OPENING FOR FLUME

PLAN VIEW
FLUME AT CURB END



SECTION A-A



SECTION B-B

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

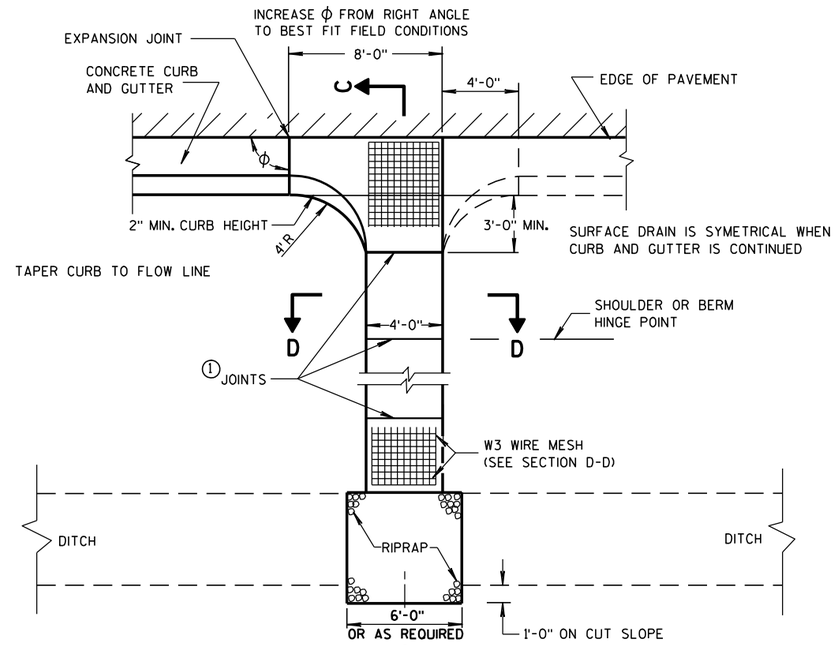
WELDED STEEL WIRE FABRIC SHALL BE IN ACCORDANCE WITH AASHTO SPECIFICATION M55.

① JOINTS SHALL BE $\frac{1}{8}$ TO $\frac{1}{4}$ INCH WIDE BY $1\frac{1}{2}$ INCHES DEEP AND SPACED AT UNIFORM INTERVALS OF APPROXIMATELY 4 FEET.

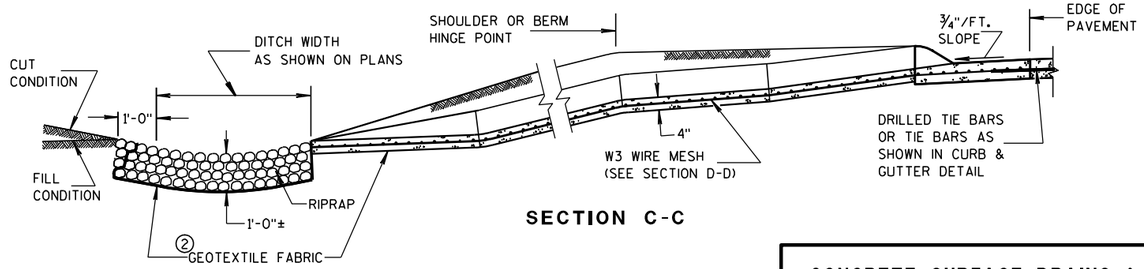
② GEOTEXTILE FABRIC TYPE "R" SHALL UNDERLAY THE FULL LENGTH AND WIDTH OF THE CONCRETE SURFACE DRAIN AND RIPRAP.

③ CONCRETE SURFACE DRAIN WITHOUT CURB AND GUTTER MAY BE USED ON BACKSLOPES WHEN SPECIFIED

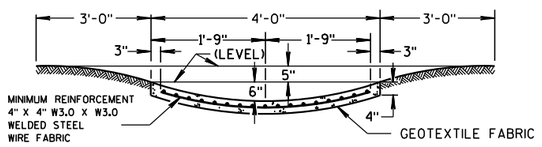
③ CONCRETE SURFACE DRAIN



PLAN VIEW



SECTION C-C



SECTION D-D

CONCRETE SURFACE DRAINS & ASPHALTIC FLUMES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
9-4-08 DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS ENGINEER
75
MENT
FHWA

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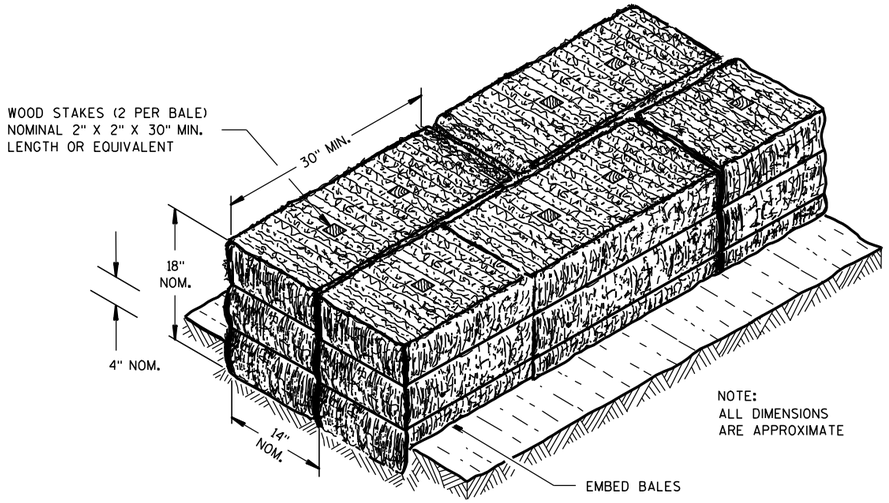
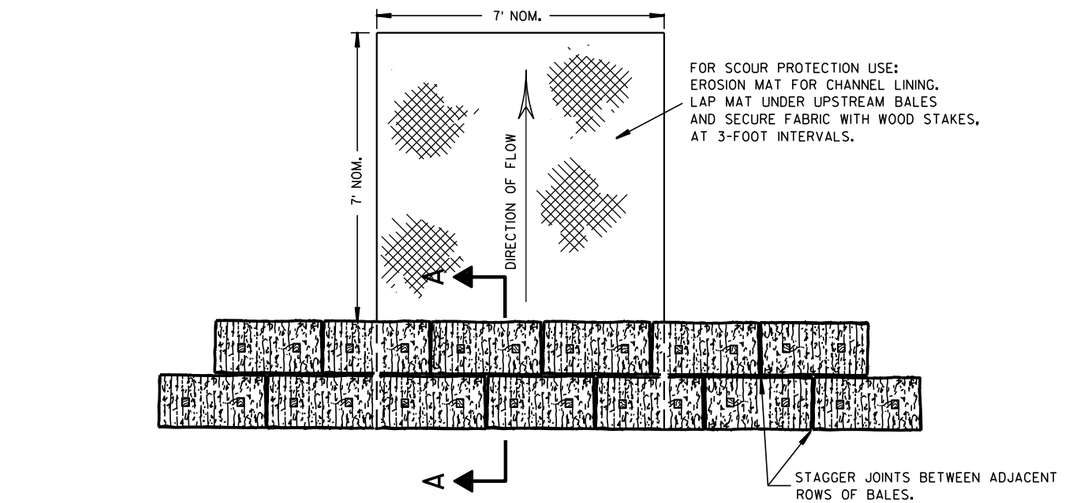
S.D.D. 8 D 4-5

6

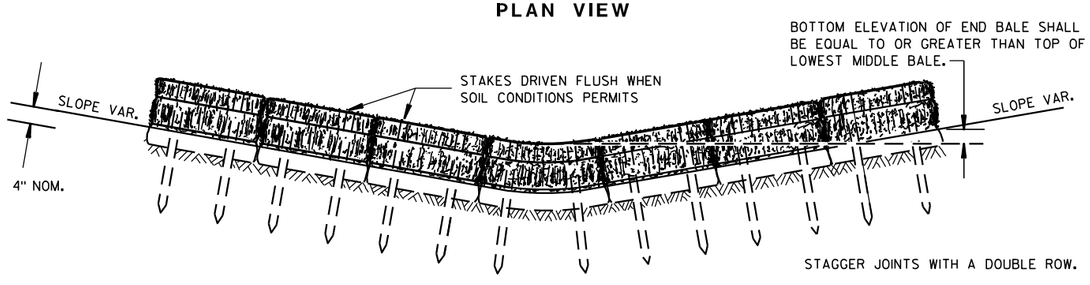
S.D.D. 8 D 4-5



SECTION A-A



PLAN VIEW



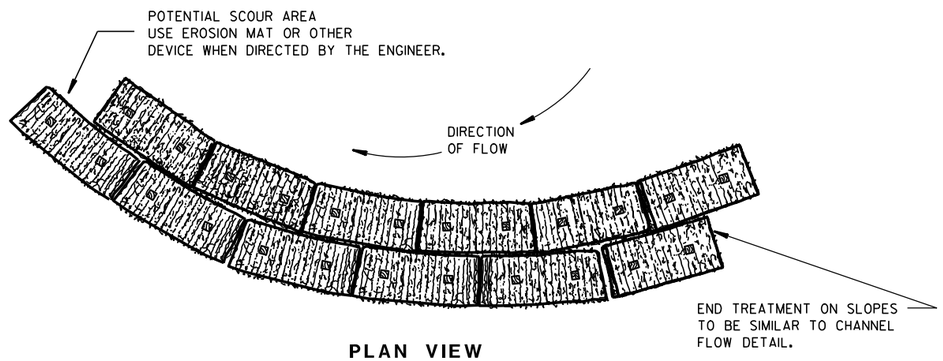
FRONT ELEVATION

TEMPORARY DITCH CHECK USING EROSION BALES ①

GENERAL NOTES

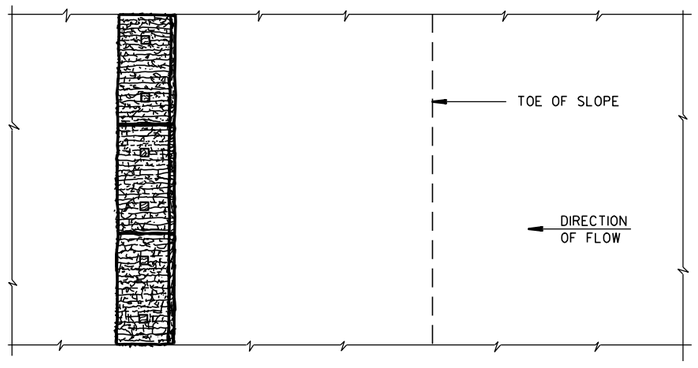
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

① TEMPORARY DITCH CHECKS EITHER EROSION BALES OR MANUFACTURED SHALL BE PAID FOR UNDER THE BID ITEM OF TEMPORARY DITCH CHECK. THE DEPARTMENT WILL NOT PAY FOR TEMPORARY DITCH CHECKS CONSTRUCTED OF A SINGLE ROW OF EROSION BALES.

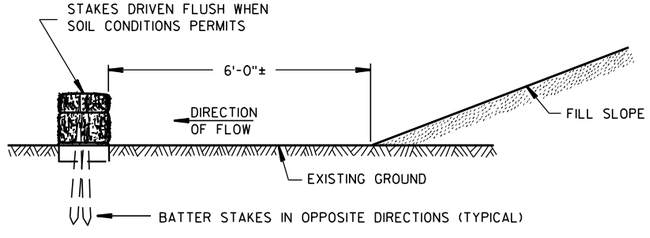


PLAN VIEW

WHEN ALTERING THE DIRECTION OF FLOW



PLAN VIEW



FRONT ELEVATION

WHEN EXISTING GROUND SLOPES AWAY FROM FILL SLOPE

EROSION BALES FOR SHEET FLOW

TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

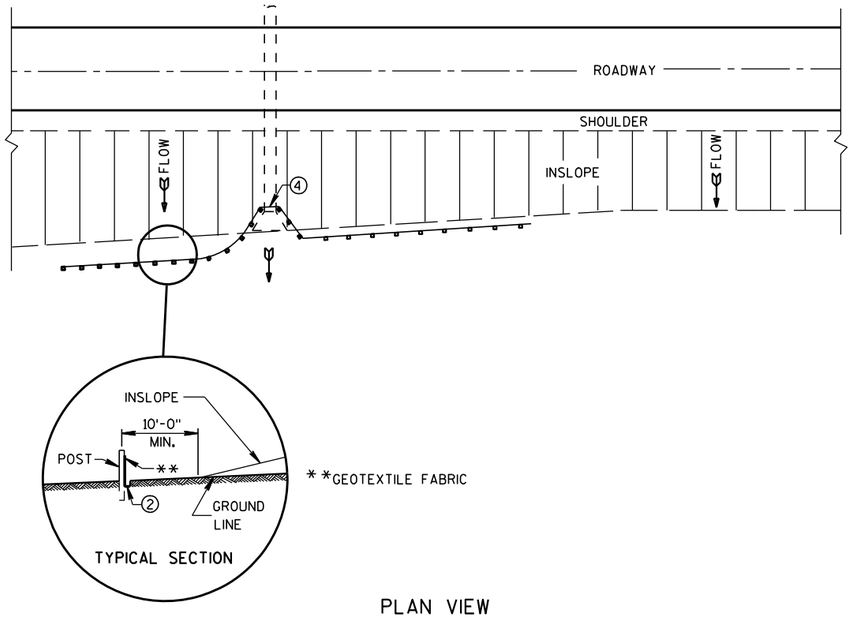
6/04/02 — DATE

/S/ Beth Cannestra — CHIEF ROADWAY DEVELOPMENT ENGINEER

FHWA

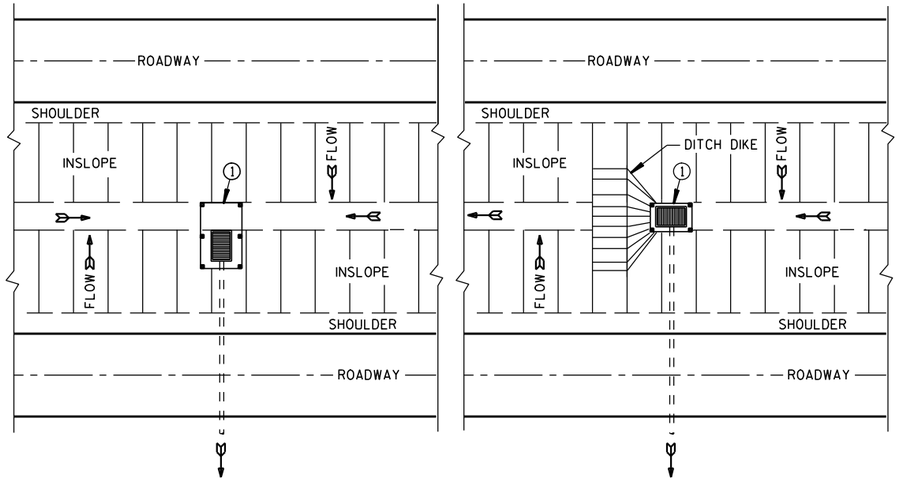
6

S.D.D. 8 E 8-3



PLAN VIEW

TYPICAL APPLICATION OF SILT FENCE



PLAN VIEW

SILT FENCE AT MEDIAN SURFACE DRAINS

GENERAL NOTES

DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

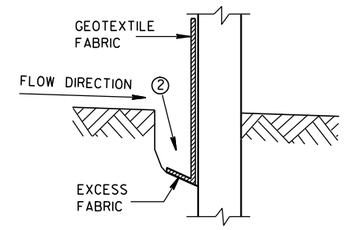
① HORIZONTAL BRACE REQUIRED WITH 2" X 4" WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS.

② FOR MANUAL INSTALLATIONS THE TRENCH SHALL BE A MINIMUM OF 4" WIDE & 6" DEEP TO BURY AND ANCHOR THE GEOTEXTILE FABRIC. FOLD MATERIAL TO FIT TRENCH AND BACKFILL & COMPACT TRENCH WITH EXCAVATED SOIL.

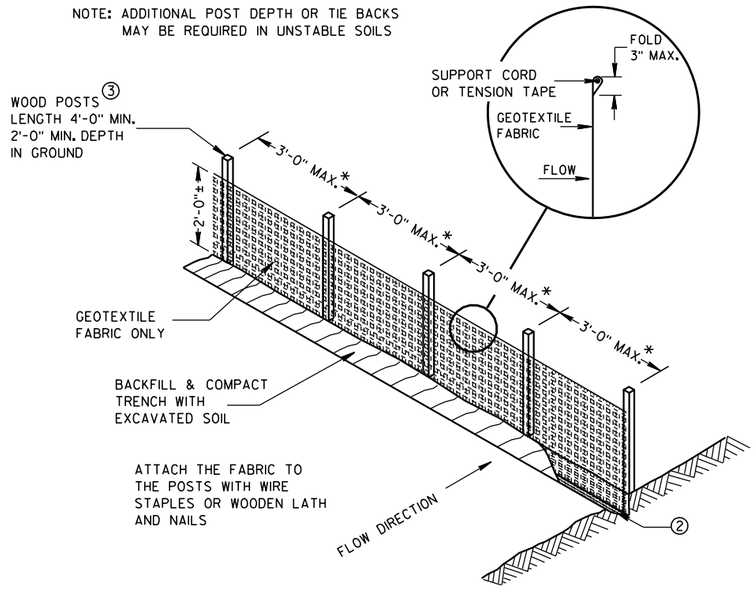
③ WOOD POSTS SHALL BE A MINIMUM SIZE OF 1⅛" X 1⅛" OF OAK OR HICKORY.

④ SILT FENCE TO EXTEND ACROSS THE TOP OF THE PIPE.

⑤ CONSTRUCT SILT FENCE FROM A CONTINUOUS ROLL IF POSSIBLE BY CUTTING LENGTHS TO AVOID JOINTS. IF A JOINT IS NECESSARY USE ONE OF THE FOLLOWING TWO METHODS; A) OVERLAP THE END POSTS AND TWIST, OR ROTATE, AT LEAST 180 DEGREES, B) HOOK THE END OF EACH SILT FENCE LENGTH.

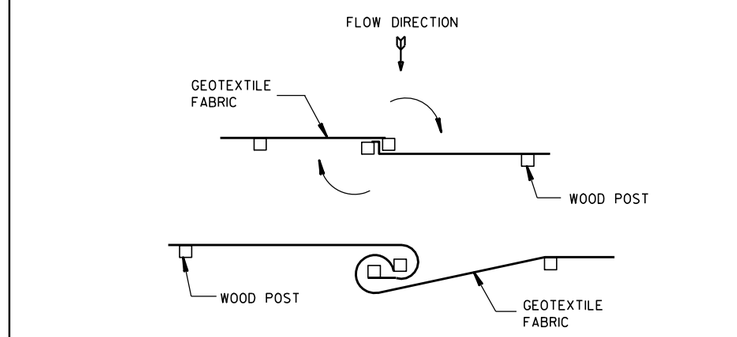


TRENCH DETAIL

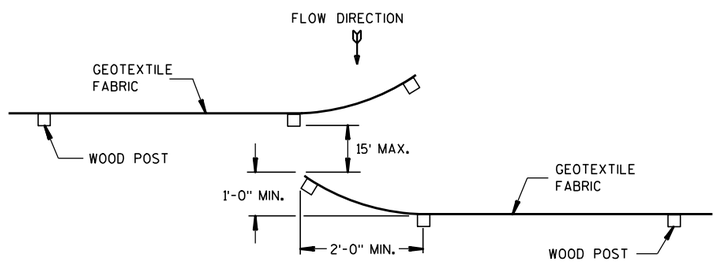


*NOTE: 8'-0" POST SPACING ALLOWED IF A WOVEN GEOTEXTILE FABRIC IS USED.

SILT FENCE

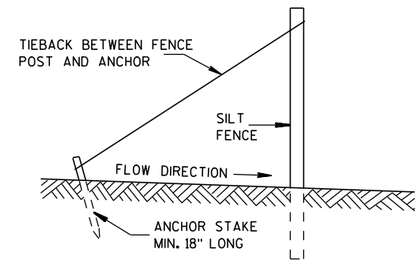


TWIST METHOD



HOOK METHOD

JOINING TWO LENGTHS OF SILT FENCE ⑤



SILT FENCE TIE BACK

(WHEN REQUIRED BY THE ENGINEER)

SILT FENCE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

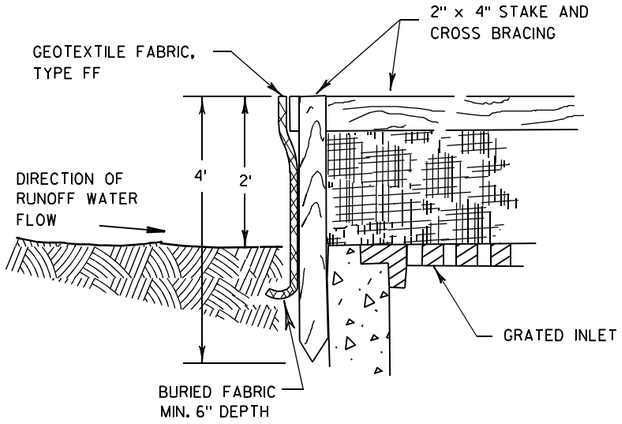
APPROVED
4-29-05 DATE
/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

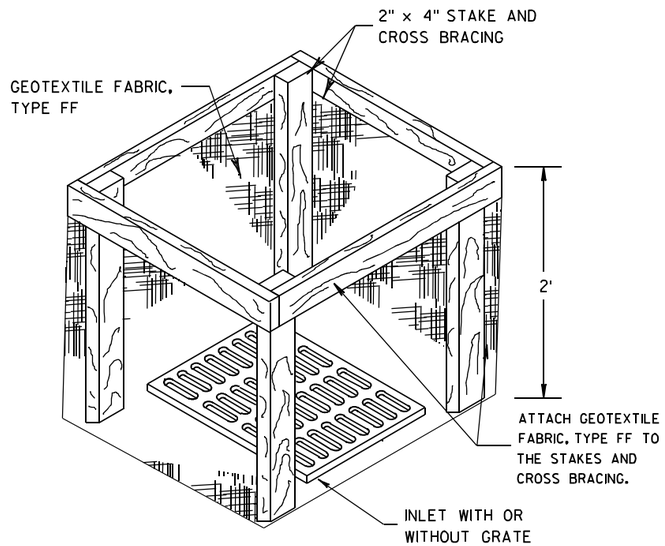
6

S.D.D. 8 E 9-6

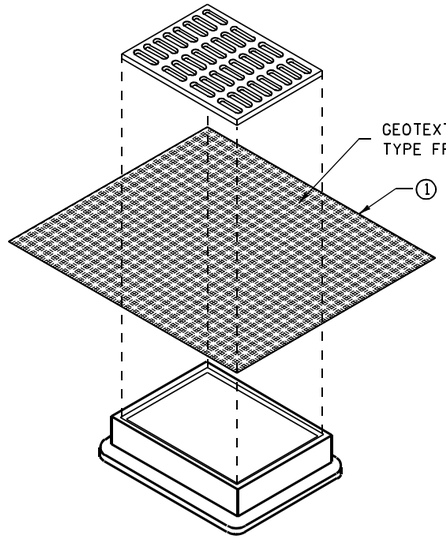
6

S.D.D. 8 E 9-6



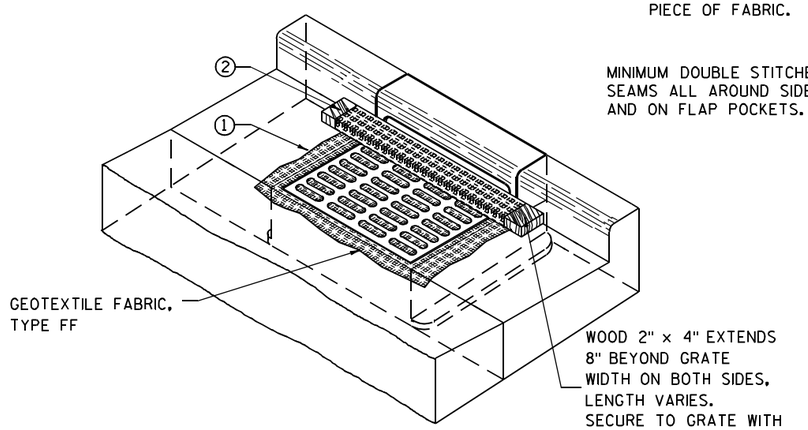


INLET PROTECTION, TYPE A

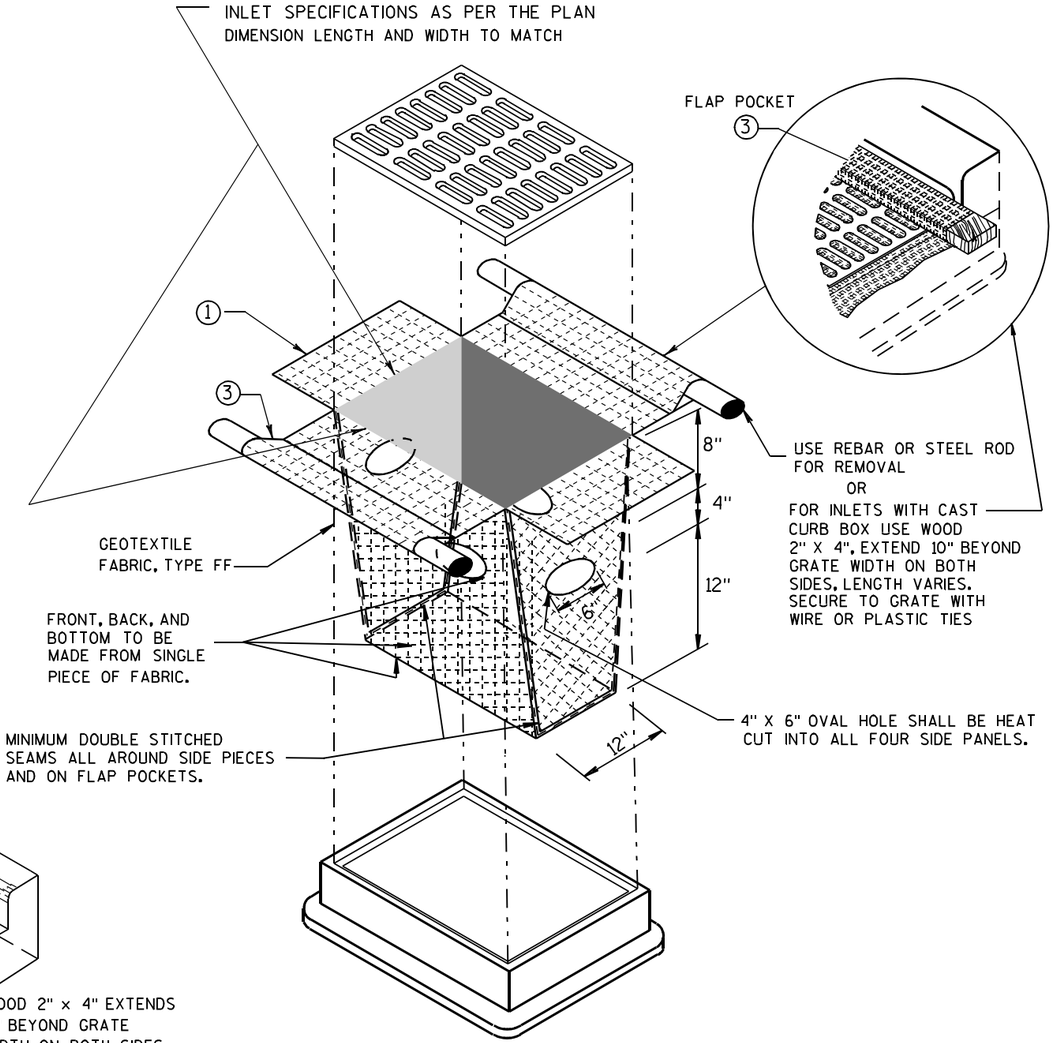


INLET PROTECTION, TYPE B
(WITHOUT CURB BOX)

(CAN BE INSTALLED IN ANY INLET WITHOUT A CURB BOX)



INLET PROTECTION, TYPE C (WITH CURB BOX)



INLET PROTECTION, TYPE D

(CAN BE INSTALLED IN ANY INLET TYPE WITH
OR WITHOUT A CURB BOX AS PER NOTE ②)

GENERAL NOTES

INLET PROTECTION DEVICES SHALL BE MAINTAINED OR REPLACED AT THE DIRECTION OF THE ENGINEER.

MANUFACTURED ALTERNATIVES APPROVED AND LISTED ON THE DEPARTMENT'S EROSION CONTROL PRODUCT ACCEPTABILITY LIST MAY BE SUBSTITUTED.

WHEN REMOVING OR MAINTAINING INLET PROTECTION, CARE SHALL BE TAKEN SO THAT THE SEDIMENT TRAPPED ON THE GEOTEXTILE FABRIC DOES NOT FALL INTO THE INLET. ANY MATERIAL FALLING INTO THE INLET SHALL BE REMOVED IMMEDIATELY.

① FINISHED SIZE, INCLUDING FLAP POCKETS WHERE REQUIRED, SHALL EXTEND A MINIMUM OF 10" AROUND THE PERIMETER TO FACILITATE MAINTENANCE OR REMOVAL.

② FOR INLET PROTECTION, TYPE C (WITH CURB BOX), AN ADDITIONAL 18" OF FABRIC IS WRAPPED AROUND THE WOOD AND SECURED WITH STAPLES. THE WOOD SHALL NOT BLOCK THE ENTIRE HEIGHT OF THE CURB BOX OPENING.

③ FLAP POCKETS SHALL BE LARGE ENOUGH TO ACCEPT WOOD 2X4.

INSTALLATION NOTES

TYPE B & C

TRIM EXCESS FABRIC IN THE FLOW LINE TO WITHIN 3" OF THE GRATE.

THE CONTRACTOR SHALL DEMONSTRATE A METHOD OF MAINTENANCE, USING A SEWN FLAP, HAND HOLDS OR OTHER METHOD TO PREVENT ACCUMULATED SEDIMENT FROM ENTERING THE INLET.

TYPE D

DO NOT INSTALL INLET PROTECTION TYPE D IN INLETS SHALLOWER THAN 30", MEASURED FROM THE BOTTOM OF THE INLET TO THE TOP OF THE GRATE.

TRIM EXCESS FABRIC IN THE FLOW LINE TO WITHIN 3" OF THE GRATE.

THE INSTALLED BAG SHALL HAVE A MINIMUM SIDE CLEARANCE, BETWEEN THE INLET WALLS AND THE BAG, MEASURED AT THE BOTTOM OF THE OVERFLOW HOLES, OF 3". WHERE NECESSARY THE CONTRACTOR SHALL CINCH THE BAG, USING PLASTIC ZIP TIES, TO ACHIEVE THE 3" CLEARANCE. THE TIES SHALL BE PLACED AT A MAXIMUM OF 4" FROM THE BOTTOM OF THE BAG.

INLET PROTECTION
TYPE A, B, C, AND D

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

10/16/02
DATE

/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER

FHWA

6

S.D.D. 8 E 10-2

6

S.D.D. 8 E 10-2

METAL APRON ENDWALLS

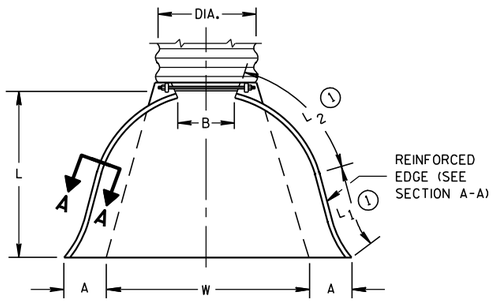
PIPE DIA. (IN.)	MIN. THICK. (Inches) STEEL	MIN. THICK. (Inches) ALUM.	DIMENSIONS (Inches) A (±1")	B (MAX.)	H (±1")	L (±1 1/2")	L1 ①	L2 ①	W (±2")	APPROX. SLOPE	BODY
12	.064	.060	6	6	6	21	12	17 1/2	24	2 1/2 to 1	1 Pc.
15	.064	.060	7	8	6	26	14	21 3/4	30	2 1/2 to 1	1 Pc.
18	.064	.060	8	10	6	31	15	28 1/4	36	2 1/2 to 1	1 Pc.
21	.064	.060	9	12	6	36	18	29 5/8	42	2 1/2 to 1	1 Pc.
24	.064	.075	10	13	6	41	18	37 1/4	48	2 1/2 to 1	1 Pc.
30	.079	.075	12	16	8	51	18	52 1/4	60	2 1/2 to 1	1 Pc.
36	.079	.105	14	19	9	60	24	59 3/4	72	2 1/2 to 1	2 Pc.
42	.109	.105	16	22	11	69	24	75 5/8	84	2 1/2 to 1	2 Pc.
48	.109	.105	18	27	12	78	24	81	90	2 1/4 to 1	3 Pc.
54	.109	.105	18	30	12	84	30	85 1/2	102	2 1/4 to 1	3 Pc.
60	.109×	.105×	18	33	12	87	—	—	114	2 to 1	3 Pc.
66	.109×	.105×	18	36	12	87	—	—	120	2 to 1	3 Pc.
72	.109×	.105×	18	39	12	87	—	—	126	2 to 1	3 Pc.
78	.109×	.105×	18	42	12	87	—	—	132	1 1/2 to 1	3 Pc.
84	.109×	.105×	18	45	12	87	—	—	138	1 1/2 to 1	3 Pc.
90	.109×	.105×	18	37	12	87	—	—	144	1 1/2 to 1	3 Pc.
96	.109×	.105×	18	35	12	87	—	—	150	1 1/2 to 1	3 Pc.

× EXCEPT CENTER PANEL SEE GENERAL NOTES

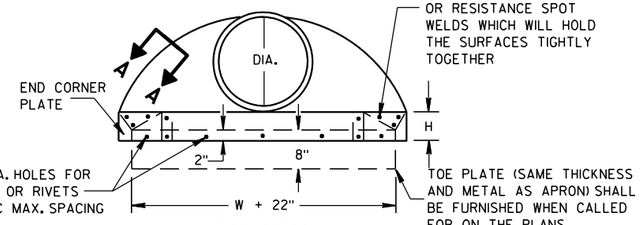
REINFORCED CONCRETE APRON ENDWALLS

PIPE DIA. (IN.)	DIMENSIONS (Inches) T	A	B	C	D	E	G	APPROX. SLOPE
12	2	4	24	48 7/8	72 1/8	24	2	3 to 1
15	2 1/4	6	27	46	73	30	2 1/4	3 to 1
18	2 1/2	9	27	46	73	36	2 1/2	3 to 1
21	2 3/4	9	36	37 1/2	73 1/2	42	2 3/4	3 to 1
24	3	9 1/2	43 1/2	30	73 1/2	48	3	3 to 1
27	3 1/4	10 1/2	49 1/2	24	73 1/2	54	3 1/4	3 to 1
30	3 1/2	12	54	19 3/4	73 1/2	60	3 1/2	3 to 1
36	4	15	63	34 3/4	97 3/4	72	4	3 to 1
42	4 1/2	21	63	35	98	78	4 1/2	3 to 1
48	5	24	72	26	98	84	5	3 to 1
54	5 1/2	27	65	* 33 1/4 - ** 35	* 98 1/4 - ** 100	90	5 1/2	2 2/5 to 1
60	6	* 30 - ** 35	60	39	99	96	5	2 to 1
66	6 1/2	* 24 - ** 30	* 72 - ** 78	* 21 - ** 27	99	102	5 1/2	2 to 1
72	7	* 24 - ** 36	78	21	99	108	6	2 to 1
78	7 1/2	* 24 - ** 36	78	21	99	114	6 1/2	2 to 1
84	8	36	90 1/2	21	111 1/2	120	6 1/2	1 1/2 to 1
90	8 1/2	41	87 1/2	24	111 1/2	132	6 1/2	1 1/2 to 1

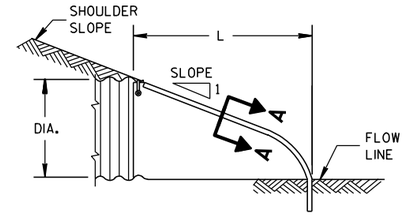
*MINIMUM
**MAXIMUM



PLAN VIEW

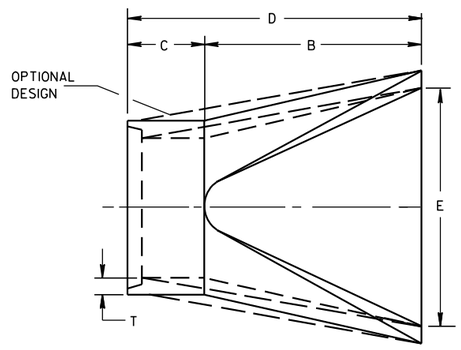


END VIEW

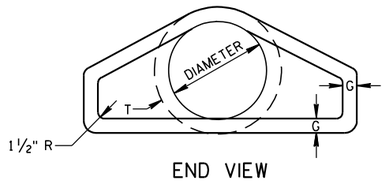


SIDE ELEVATION

METAL ENDWALLS



PLAN



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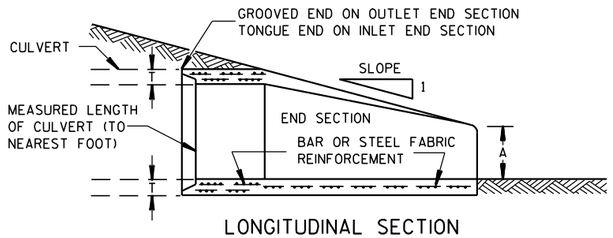
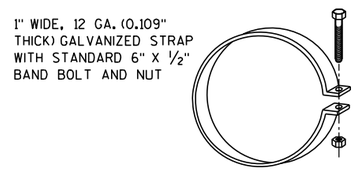


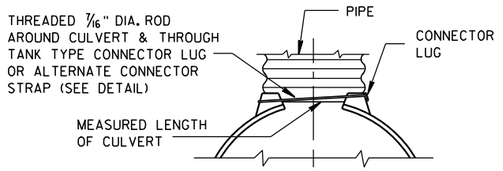
LONGITUDINAL SECTION

CONCRETE ENDWALLS

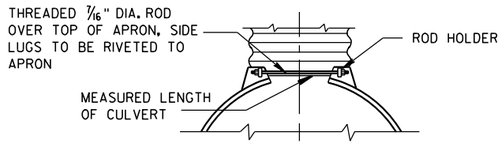


ALTERNATE FOR TYPE 1 CONNECTION

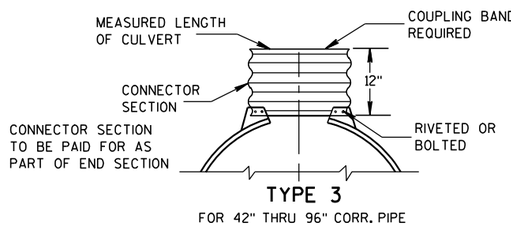
END SECTION CONNECTOR STRAP



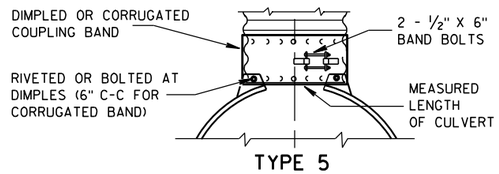
TYPE 1
FOR 12" THRU 24" CORR. PIPE



TYPE 2
FOR 30" THRU 96" CORR. PIPE



TYPE 3
FOR 42" THRU 96" CORR. PIPE



TYPE 5
ALTERNATE FOR:
ALL SIZES CORRUGATED CIRCULAR PIPE

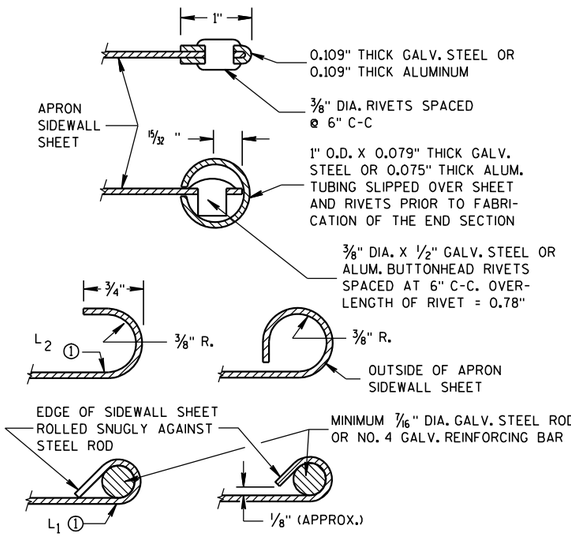
NOTE: DIMPLED BAND FITS OVER OUTSIDE OF ENDWALL. AND CORRUGATED BAND FITS INSIDE ENDWALL. DIMPLED BAND MAY BE USED WITH HELICALLY CORRUGATED PIPE.

FOR CIRCUMFERENTIALLY CORRUGATED PIPE USE ENDWALL CONNECTION DETAILS 1, 2, 3 OR 5 AS APPLICABLE.

FOR HELICALLY CORRUGATED PIPE USE ENDWALL CONNECTION DETAILS 1, 2 OR 5.

FOR HELICALLY CORRUGATED PIPES WITH TWO CIRCUMFERENTIAL CORRUGATIONS AT EACH END USE ENDWALL CONNECTION DETAILS 1, 2 OR 3.

CONNECTION DETAILS



SECTION A-A

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

CONCRETE CULVERT ENDWALLS MAY NOT BE USED WITH GALVANIZED STEEL OR ALUMINUM CULVERT PIPE OR VISE VERSA. GALVANIZED STEEL OR ALUMINUM ENDWALLS SHALL NORMALLY BE INSTALLED ON CULVERT PIPE OF THE SAME METAL.

ALL THREE PIECE STEEL APRON ENDWALLS FOR 60" DIAMETER PIPE AND LARGER SHALL HAVE 0.109" SIDES AND 0.138" CENTER PANELS. ALL THREE PIECE ALUMINUM APRON ENDWALLS FOR 60" DIAMETER PIPE AND LARGER SHALL HAVE 0.105" SIDES AND 0.134" CENTER PANELS. THE WIDTH OF CENTER PANELS SHALL BE GREATER THAN 20 PERCENT OF THE PIPE PERIMETER.

LAP SEAMS SHALL BE TIGHTLY JOINED BY GALVANIZED RIVETS OR BOLTS FOR STEEL UNITS AND ALUMINUM RIVETS AND BOLTS FOR ALUMINUM UNITS. FOR THE 60" THROUGH 96" DIAMETER APRON ENDWALL SIZES, THE REINFORCED EDGES AND CENTER PANEL SEAMS SHALL BE FURTHER REINFORCED WITH GALVANIZED STEEL OR ALUMINUM STIFFENER ANGLES. THE ANGLES SHALL BE ATTACHED BY GALVANIZED NUTS AND BOLTS FOR STEEL UNITS AND ALUMINUM NUTS AND BOLTS FOR ALUMINUM UNITS.

WHERE TWO OR MORE PIPES WITH APRON ENDWALLS ARE LAID ADJACENT TO EACH OTHER, THEY SHALL BE SEPARATED BY A DISTANCE SUFFICIENT TO PROVIDE A MINIMUM CLEARANCE OF 6 INCHES BETWEEN APRON ENDWALLS.

① FOR PIPE SIZES UP TO 60" DIAMETER, A 180° ROLLED EDGE MAY BE USED INSTEAD OF STEEL ROD REINFORCEMENT. SEE SECTION A-A.

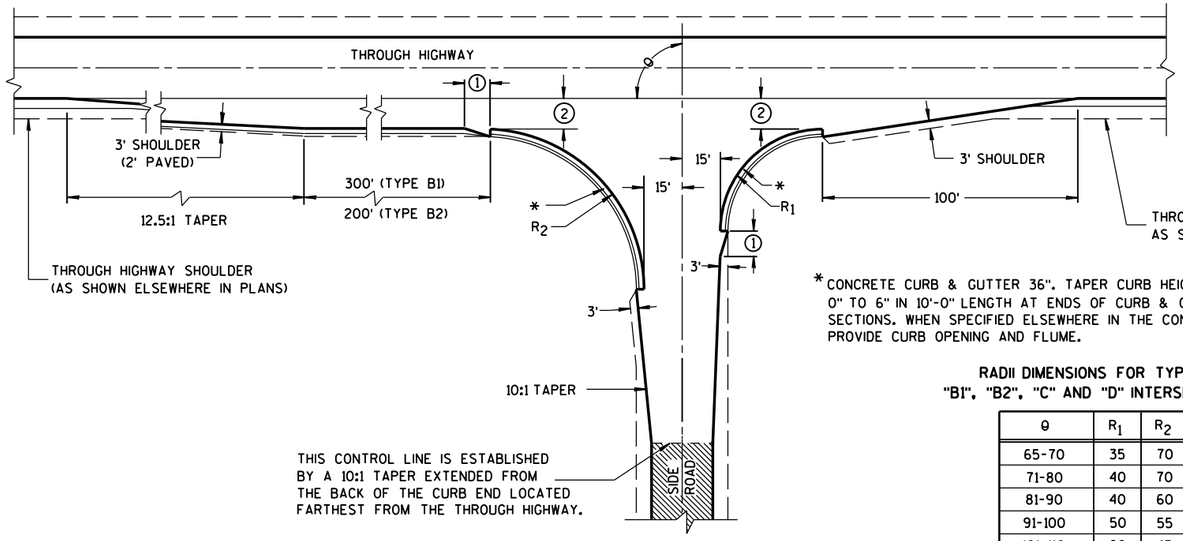
APRON ENDWALLS FOR CULVERT PIPE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
11/30/94 DATE
/S/ Rory L. Rhinesmith
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

6

S.D.D. 8 F 1-11

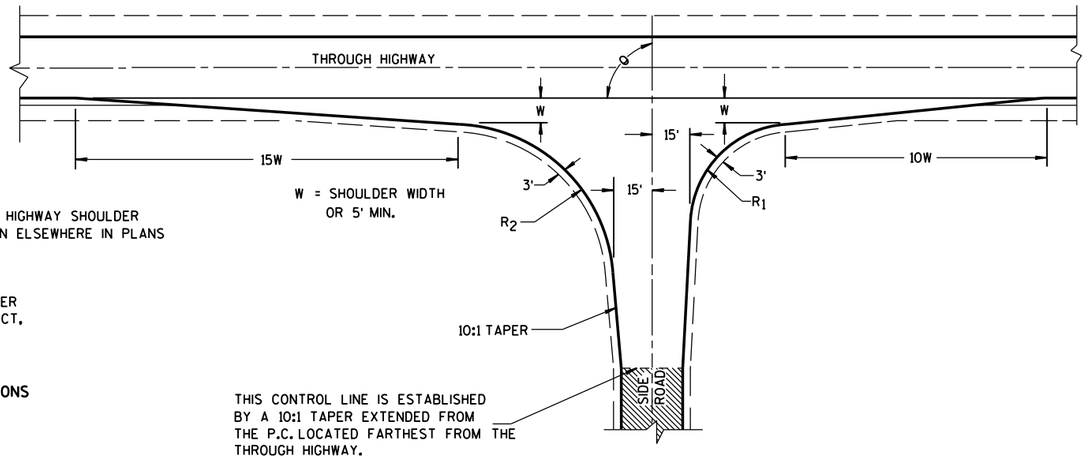


TYPE "B1" AND "B2"

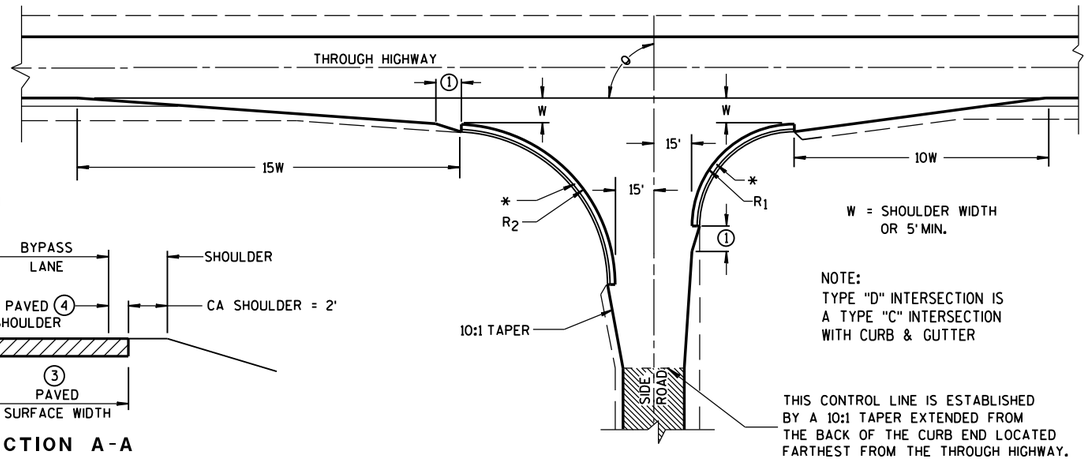
*CONCRETE CURB & GUTTER 36". TAPER CURB HEIGHT 0" TO 6" IN 10'-0" LENGTH AT ENDS OF CURB & GUTTER SECTIONS. WHEN SPECIFIED ELSEWHERE IN THE CONTRACT, PROVIDE CURB OPENING AND FLUME.

RADII DIMENSIONS FOR TYPES "B1", "B2", "C" AND "D" INTERSECTIONS

θ	R_1	R_2
65-70	35	70
71-80	40	70
81-90	40	60
91-100	50	55
101-110	60	45



TYPE "C"



TYPE "D"

GENERAL NOTES

DESIGNS MAY BE USED INTERCHANGEABLY IN COMBINATION OR SEPARATELY FOR ANY ONE COMPLETE INTERSECTION DEPENDING UPON INTERSECTION ANGLE AND SURFACING OF EACH APPROACH ROADWAY.

SIDE ROAD SURFACING NOTE

WHEN THE SIDE ROAD IS NOT PRESENTLY PAVED, PAVEMENT SHALL BE PLACED TO THE LIMITS SHOWN UNLESS OTHERWISE PROVIDED IN THE CONTRACT. WHERE THE CONSTRUCTION LIMITS ARE BEYOND THE PAVING LIMITS, CRUSHED AGGREGATE SURFACING SHALL BE PLACED BETWEEN THE PAVING LIMITS AND CONSTRUCTION LIMITS.

WHEN THE SIDE ROAD IS PRESENTLY PAVED, NEW PAVEMENT SHALL BE PLACED TO THE LIMITS OF DESIGN AS SHOWN AND BEYOND, IF NECESSARY, TO MEET EXISTING PAVEMENT.

WHEN THE SIDE ROAD IS THE CONSTRUCTION PROJECT, THE INTERSECTION SURFACING SHALL BE THE SAME AS FOR THE PROJECT.

EXISTING PAVED SURFACE

BYPASS LANE

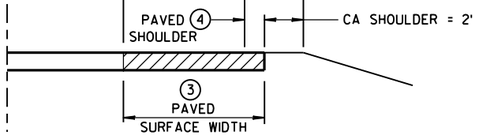
(1) 10-FT TYPICAL.

(2) 12-FT** PLUS ADDITIONAL WIDTH FOR BIKE LANE IF SHOWN ELSEWHERE IN THE PLAN.

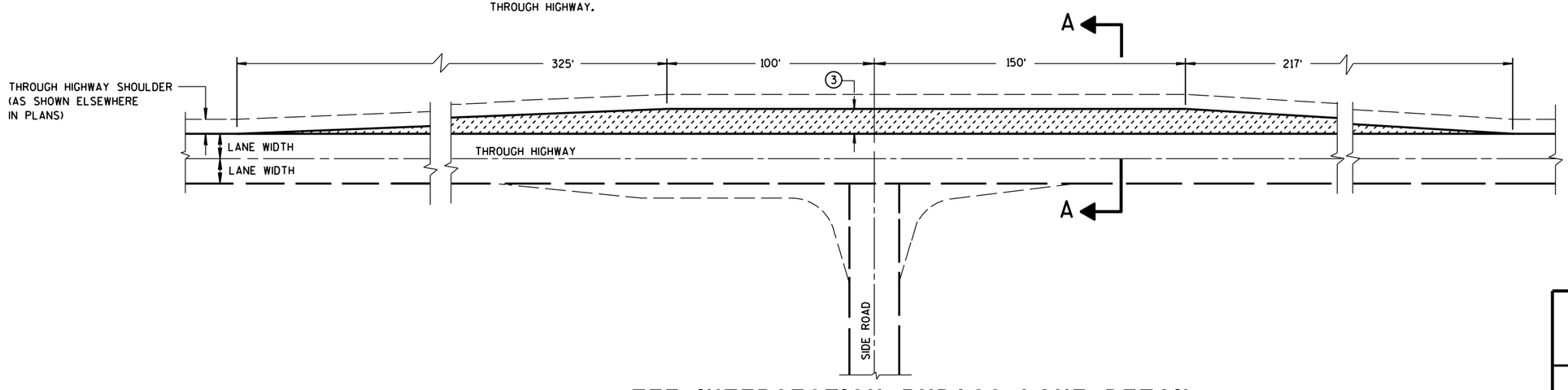
**10-FT MAY BE USED ON TYPE B2 ON RESURFACING PROJECTS IF SPECIFIED IN THE CONTRACT.

(3) BYPASS LANE PAVED SURFACE WIDTH OUTSIDE OF TRAVEL LANE
-ASPHALT = 12-FT PLUS PAVED SHOULDER WIDTH.
-PC CPNCRETE = 13-FT PLUS PAVED SHOULDER WIDTH.

(4) BYPASS LANE PAVED SHOULDER WIDTH = THE GREATER OF 1-FT OR THE PAVED SHOULDER WIDTH OF THE THROUGH HIGHWAY.



SECTION A-A
(SHOWING BYPASS LANE AND SHOULDER)

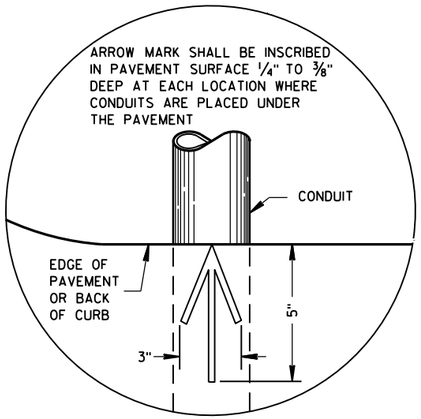


TEE INTERSECTION BYPASS LANE DETAIL

AT-GRADE SIDE ROAD INTERSECTION, TYPES "B1", "B2", "C" AND "D" AND TEE INTERSECTION BYPASS LANE

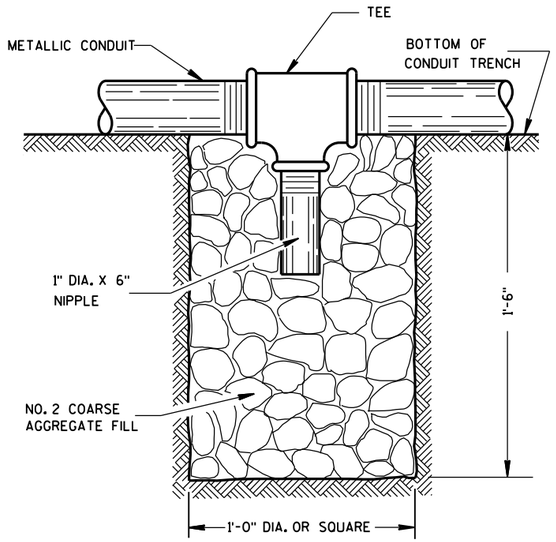
STATE OF WISCONSIN
DEPARTMENT OF TRANSPO

6
S.D.D. 9 A 1-13a



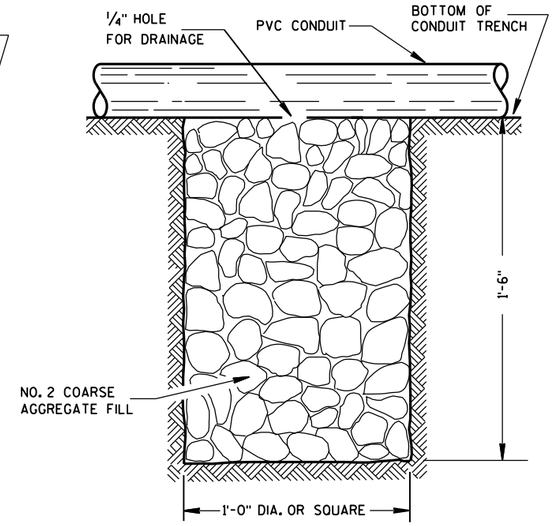
PLAN VIEW

ARROW MARK



NOTE: INSTALL AT LOCATIONS WHERE METALLIC CONDUITS CANNOT BE PITCHED TO DRAIN INTO A PULL BOX.

DRAIN SUMP FOR METALLIC CONDUIT



NOTE: INSTALL AT LOCATIONS WHERE PVC CONDUITS CANNOT BE PITCHED TO DRAIN INTO A PULL BOX.

DRAIN SUMP FOR PVC CONDUIT

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

METALLIC (STANDARD SPECIFICATION 652.2.2) OR NONMETALLIC (STANDARD SPECIFICATION 652.2.3) CONDUIT SHALL BE FURNISHED AND PLACED AS SHOWN.

DEPTH OF CONDUIT INSTALLED BELOW THE TRAVELED WAY SHALL BE 24 INCHES MINIMUM AND 36 INCHES MAXIMUM.

DEPTH OF CONDUIT INSTALLED THAT IS NOT BELOW THE TRAVELED WAY SHALL BE 18 INCHES MINIMUM AND 36 INCHES MAXIMUM.

ANY EXCEPTION TO THE MAXIMUM DEPTH SHALL BE ONLY WITH THE WRITTEN APPROVAL OF THE ENGINEER.

THE TRENCH SHALL NOT BE BACKFILLED PRIOR TO INSPECTION OF THE CONDUIT.

ALL METALLIC CONDUIT RACEWAY ENDS SHALL BE REAMED AND THREADED.

ALL METALLIC CONDUIT IN WHICH WIRE OR CABLE IS TO BE INSTALLED SHALL BE BUSHED WITH APPROVED THREADED BUSHINGS BEFORE INSTALLATION OF THE WIRE OR CABLE.

ALL METALLIC CONDUITS IN WHICH WIRE OR CABLE IS NOT TO BE INSTALLED SHALL BE CAPPED WITH THREADED PROTECTIVE CAPS, AS APPROVED BY THE ENGINEER.

ALL NONMETALLIC CONDUIT SHALL BE CAPPED OR PLUGGED IMMEDIATELY AFTER INSTALLATION AND SHALL REMAIN CAPPED OR PLUGGED UNTIL WIRE/CABLES ARE INSTALLED.

NONMETALLIC CONDUITS IN WHICH WIRE OR CABLE IS NOT BEING INSTALLED SHALL REMAIN CAPPED OR PLUGGED.

BENDING OF PVC ELECTRICAL CONDUIT SHALL BE ACCOMPLISHED BY USING A BLANKET OR EMERSION TYPE TANK DESIGNED FOR THE PURPOSE OF BENDING PVC ELECTRICAL CONDUIT.

ALL CUT ENDS SHALL BE TRIMMED INSIDE AND OUTSIDE TO REMOVE ALL ROUGH EDGES ON NONMETALLIC CONDUIT. (SEE NEC 347.5)

WHEN REQUIRED TO CONNECT NONMETALLIC CONDUIT TO METALLIC CONDUIT, ONLY U.L. LISTED ADAPTER FITTINGS SHALL BE USED.

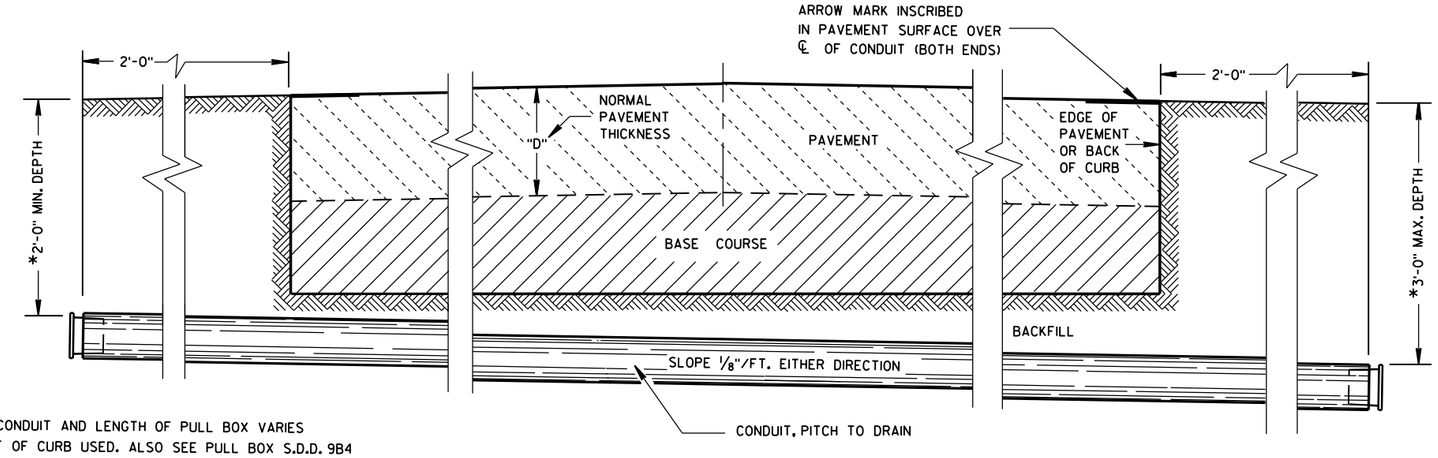
PRIOR TO CONDUIT ACCEPTANCE, CONDUIT CAPS OR PLUGS SHALL BE REMOVED, AND THE CAPS, PLUGS AND CONDUIT ENDS SHALL BE THOROUGHLY CLEANED AND THEN THE CAPS OR PLUGS REINSTALLED TO ENSURE THAT THE CAPS OR PLUGS CAN BE EASILY REMOVED IN THE FUTURE.

ALL CONDUIT BEING FURNISHED AND INSTALLED SHALL HAVE THE U.L. LABEL FIRMLY ATTACHED.

CONDUIT RUNS SHALL BE THE SAME SIZE OF CONDUIT FROM ONE END TO THE OTHER (FROM PULL BOX TO PULL BOX-OR-JUNCTION BOX TO JUNCTION BOX-OR-BASE TO BASE, ETC.).

TRACER WIRE SHALL BE INSTALLED AS STATED IN THE STANDARD SPECIFICATION, ITEM 652.3.1.1.

ALL CONDUIT RUNS SHALL BE STRAIGHT (WITHOUT BENDS) FROM PULL BOX TO PULL BOX, PULL BOX TO BASE AND BASE TO BASE AS SHOWN ON THE PLANS.



*DEPTH OF CONDUIT AND LENGTH OF PULL BOX VARIES WITH HEIGHT OF CURB USED. ALSO SEE PULL BOX S.D.D. 9B4

SIDE ELEVATION

DETAIL FOR CONDUIT UNDER PAVED HIGHWAYS

CONDUIT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June, 2015 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL
FHWA

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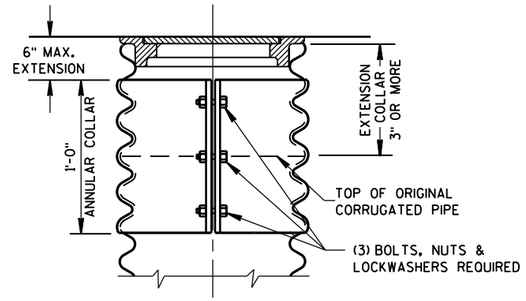
S.D.D. 9 B 2-9

TABLE OF NOMINAL DIMENSIONS AND WEIGHTS

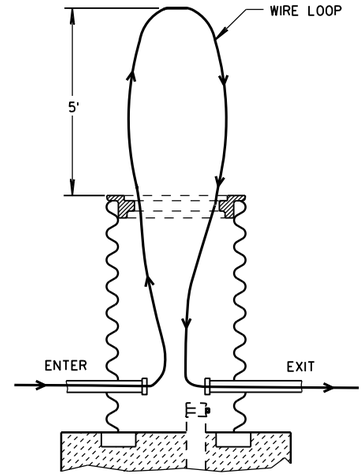
DIMENSION IN INCHES		CORRUGATED STEEL PIPE								
PIPE DIAMETER (INSIDE)	A	12	12	12	18	18	18	24	24	24
PIPE LENGTH **	B	24	30	36	24	30	36	36	42	48
WALL THICKNESS	C	0.064	0.064	0.064	0.064	0.064	0.064	0.064	0.064	0.064
COVER	D	10 1/4	10 1/4	10 1/4	16 1/4	16 1/4	16 1/4	22 1/4	22 1/4	22 1/4
FRAME	E	14 1/2	14 1/2	14 1/2	20 1/2	20 1/2	20 1/2	26 1/2	26 1/2	26 1/2
FRAME	F	8 1/2	8 1/2	8 1/2	14 1/2	14 1/2	14 1/2	20 1/2	20 1/2	20 1/2
FRAME	G	11 1/2	11 1/2	11 1/2	17 1/2	17 1/2	17 1/2	23 1/2	23 1/2	23 1/2
WEIGHT IN POUNDS *										
FRAME AND COVER		60	60	60	110	110	110	155	155	155

* THE ACTUAL WEIGHT OF THE MANHOLE FRAME AND COVER MAY VARY WITHIN 5 PERCENT PLUS OR MINUS OF THE WEIGHTS SHOWN.

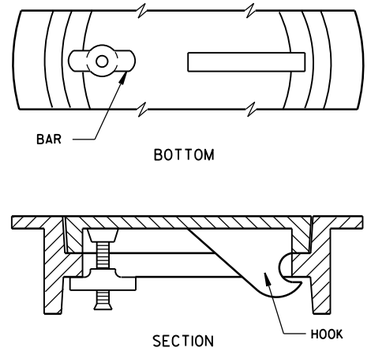
** NORMALLY USED LENGTHS. THE PROJECT ENGINEER SHALL DETERMINE IF PIPE LENGTHS, OTHER THAN THOSE SPECIFIED, SHALL BE USED, TO A MAXIMUM OF 48" (CONTINUOUS LENGTH, NON-SPLICED). THE ADDITIONAL LENGTH SHALL BE INCIDENTAL TO THE PULL BOX BID PRICE.



CORRUGATED PIPE EXTENDER

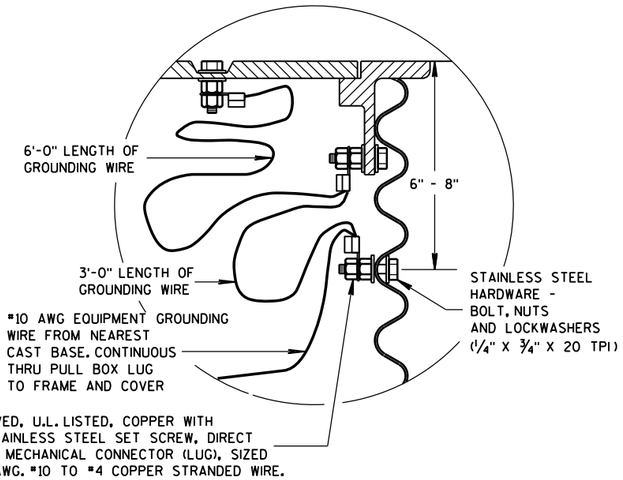


MEASUREMENT DETAIL FOR WIRE/CABLE IN THE PULL BOX

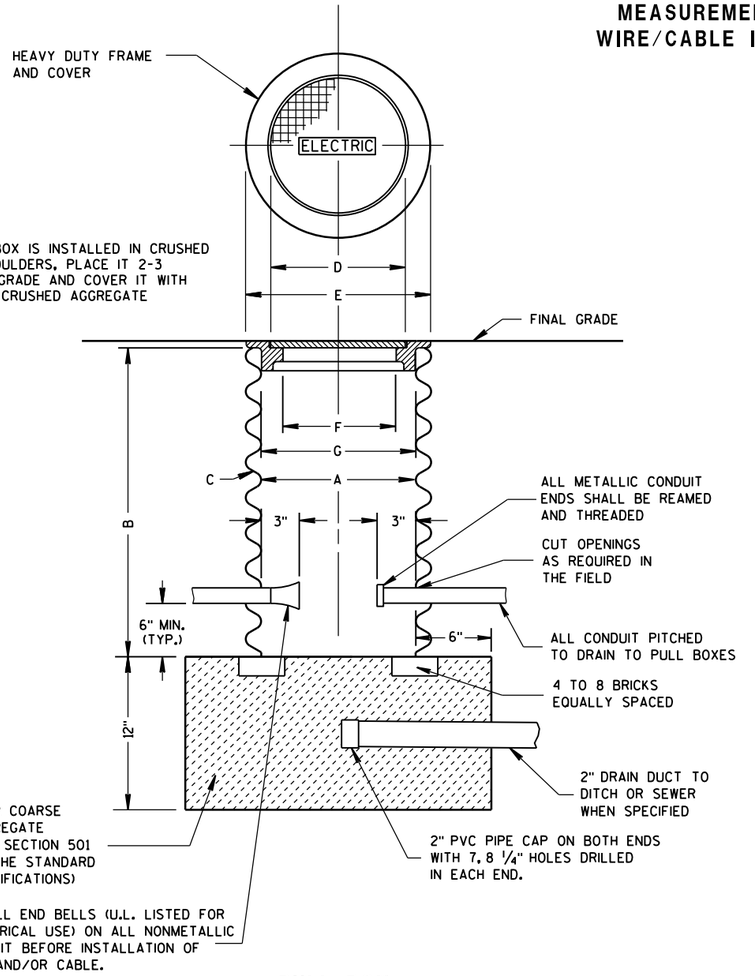


ALTERNATE COVER (LOCKING)

TIGHTENING BAR TYPE



EQUIPMENT GROUNDING LUG AND LOCATION IN STEEL PULL BOXES



PULL BOX

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

ALL FRAMES AND COVERS SHALL BE HEAVY DUTY TYPE, SUITABLE FOR VEHICULAR TRAFFIC LOADS.

PULL BOXES LOCATED IN THE ROADWAYS SHALL HAVE LOCKING COVERS.

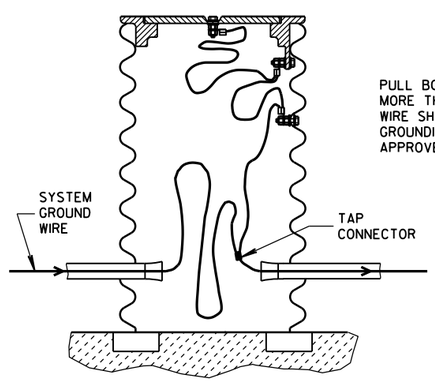
ENTRANCE HOLES INTO PULL BOXES SHALL BE CUT WITH A CIRCULAR HOLE SAW OR HYDRAULIC CONDUIT PUNCH. HOLE SIZE SHALL BE THE OUTSIDE DIAMETER OF THE CONDUIT THAT IS TO FIT IN THE OPENING PLUS NO MORE THAN 1/4".

THE CONTRACTOR SHALL NOT INSTALL WIRE IN ANY PULL BOX UNTIL ITS INSTALLATION HAS BEEN INSPECTED AND ACCEPTED BY THE ENGINEER.

GROUNDING LUGS (MECHANICAL CONNECTORS) SHALL BE U.L. LISTED AND APPROVED FOR USE WITH COPPER WIRE.

ALL METALLIC CONDUIT IN WHICH WIRE AND/OR CABLE IS TO BE INSTALLED, SHALL BE BUSHED BEFORE INSTALLATION OF THE WIRE AND/OR CABLE.

WHEN PULL BOXES ARE INSTALLED FOR FUTURE USE, DO NOT INSTALL THE EQUIPMENT GROUNDING LUG. THE EQUIPMENT GROUNDING LUG, THE EQUIPMENT GROUNDING ELECTRODE AND THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE REQUIRED AND INSTALLED UNDER A FUTURE WIRING CONTRACT.



PULL BOX TO NEAREST BASE DISTANCE MORE THAN 20 FEET. PULL BOX GROUND WIRE SHALL CONNECT AT SYSTEM GROUNDING WIRE. USE DEPARTMENT APPROVED TAP CONNECTOR.

EQUIPMENT GROUNDING LUG AND LOCATION IN STEEL PULL BOXES

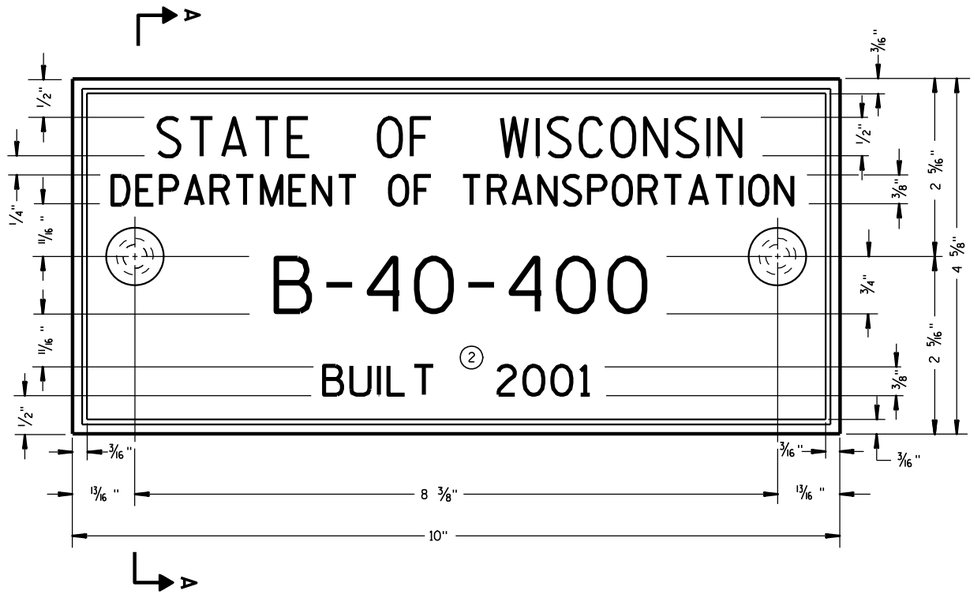
PULL BOX

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Sept. 2014 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL
FHWA

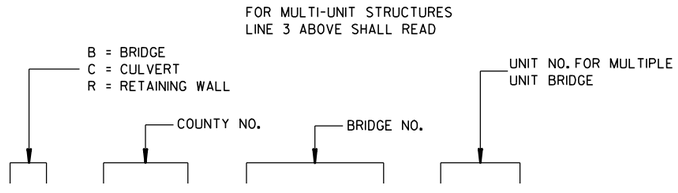
6

S.D.D. 9 B 4-11



TYPICAL NAME PLATE

(BRIDGES, CULVERTS, AND RETAINING WALLS)



NUMBERING DESIGNATION
MULTI-UNIT STRUCTURES

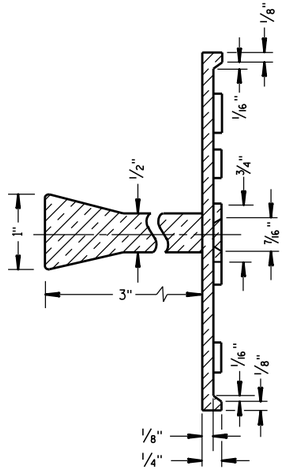
GENERAL NOTES

NAME PLATES TO BE INSTALLED ON BRIDGES, CULVERTS, AND RETAINING WALLS SHALL CONFORM TO THE REQUIREMENTS OF SECTION 502.3.11 OF THE STANDARD SPECIFICATIONS.

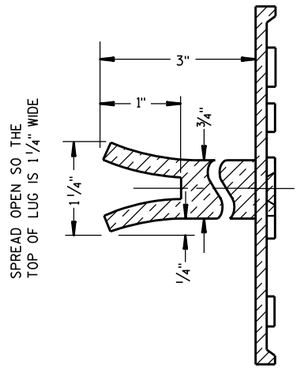
THE BRIDGE NUMBER AND YEAR BUILT SHOWN ON THIS DRAWING ARE EXAMPLES ONLY. SEE CONSTRUCTION PLANS FOR INDIVIDUAL NUMBERING AND YEAR BUILT.

(1) EPOXY RESIN SHALL BE FROM AN APPROVED MANUFACTURER AND USED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.

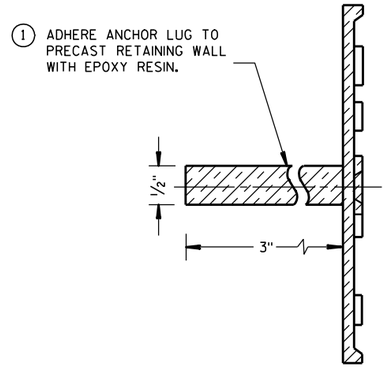
(2) REHABILITATION OF AN EXISTING STRUCTURE SHOULD USE THE DATE OF ORIGINAL STRUCTURE CONSTRUCTION.



SECTION A-A



ALTERNATE LUG



ALTERNATE LUG

(FOR ATTACHMENT TO PRECAST STRUCTURES)

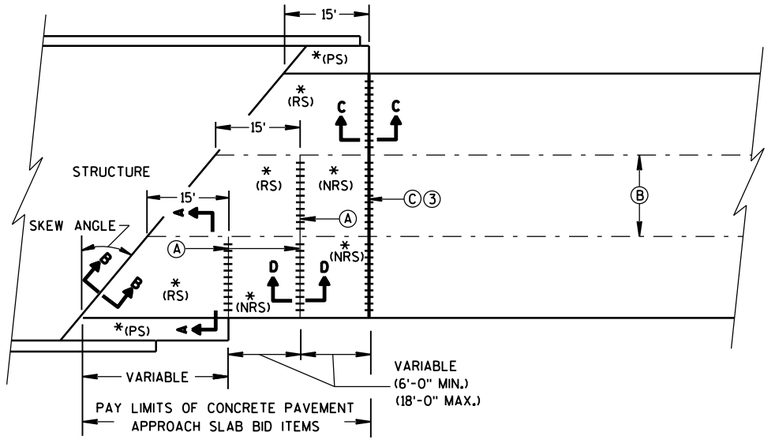
NAME PLATE (STRUCTURES)	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED	
3/26/10 DATE	/S/ Scot Beck -- CHIEF STRUCTURAL DEVELOP ENGINEER
FHWA	

6

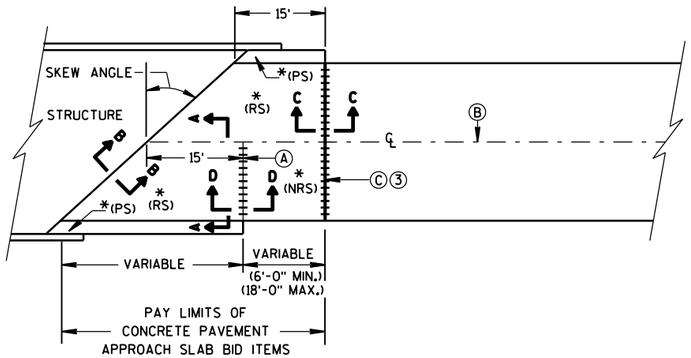
S.D.D. 12 A 3-10

6

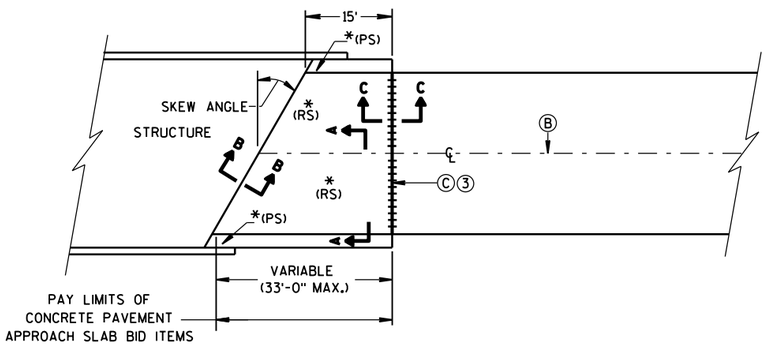
S.D.D. 12 A 3-10



SKEWED APPROACH
(PAVEMENT MORE THAN 2 LANES)



SKEWS >20°
(PAVEMENT WIDTH ≤30')



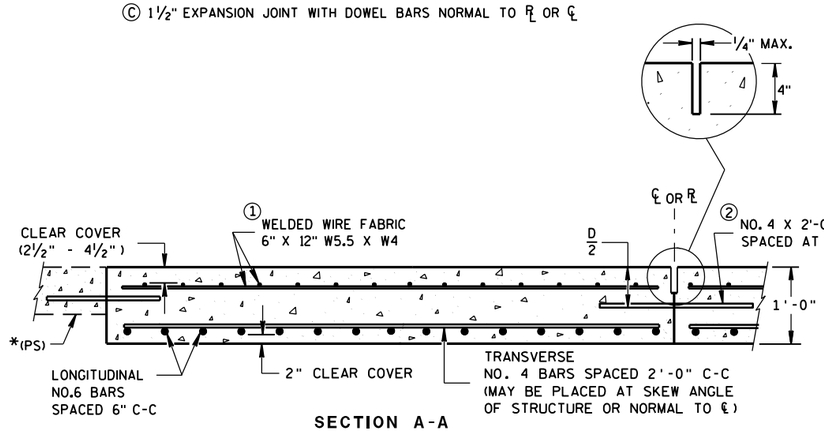
SKEWS ≤20°
(PAVEMENT WIDTH ≤30')

APPROACH SLAB AND ADJACENT PAVEMENT

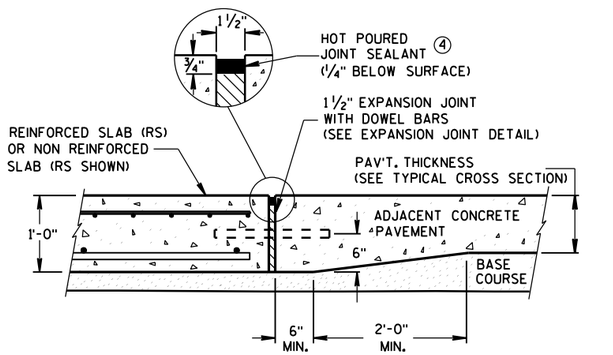
*(RS) = REINFORCED CONCRETE SLAB
*(PS) = PAVED CONCRETE SHOULDER OR CONCRETE DRAINAGE SLAB
(SEE DETAILS ELSEWHERE IN THE PLAN)
*(NRS) = NON-REINFORCED CONCRETE SLAB

***STANDARD DOWEL BAR DIAMETER
(SEE SDD 13C11, & SDD 13C13)

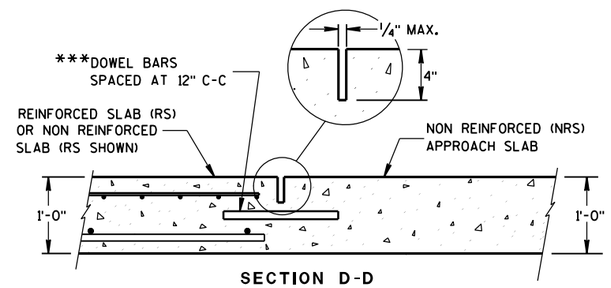
Ⓐ STANDARD CONTRACTION JOINT NORMAL TO ℄ OR ℄
Ⓑ STANDARD LONGITUDINAL JOINT WITH TIE BARS.
Ⓒ 1½" EXPANSION JOINT WITH DOWEL BARS NORMAL TO ℄ OR ℄



SECTION A-A
REINFORCEMENT POSITIONING DETAIL



SECTION C-C
TRANSITION DETAIL
APPROACH SLAB TO ADJACENT PAVEMENT



SECTION D-D
CONTRACTION JOINT

GENERAL NOTES

THE CONTRACTOR MAY SPLICE NO. 6 BARS IN THE APPROACH SLAB FOR SKEWED STRUCTURES ONLY. STAGGER SPLICES WITH A MAXIMUM OF ONE SPLICE PER BAR. THE LENGTH OF LAP IS 20 INCHES.

TACK WELD DOWEL BARS TO THE BASKETS ON ALTERNATE ENDS.

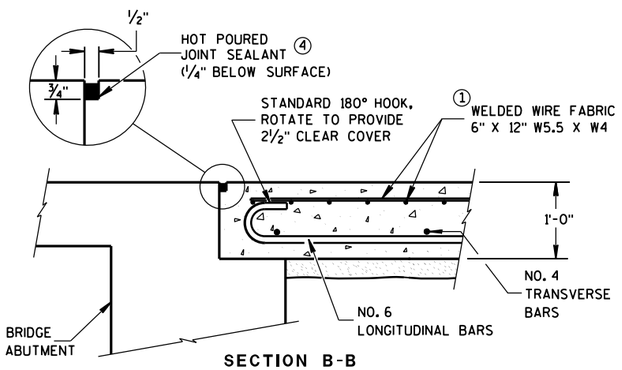
① THE CONTRACTOR MAY USE NO. 4 BARS SPACED AT 2'-0" C-C IN BOTH THE LONGITUDINAL AND TRANSVERSE DIRECTIONS FOR TOP REINFORCEMENT AS AN ALTERNATIVE TO THE WELDED WIRE FABRIC.

② THE CONTRACTOR MAY OMIT TIE BARS BETWEEN REINFORCED SLABS WHERE SLAB REINFORCEMENT BARS EXTEND ACROSS THE CENTERLINE OR REFERENCE LINE.

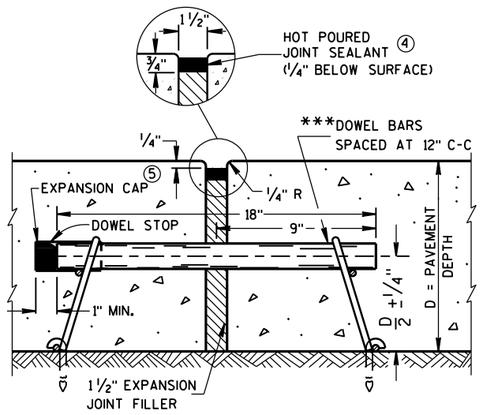
③ DO NOT CONSTRUCT AN EXPANSION JOINT OR INSTALL DOWEL BARS WHEN ABUTTING AN HMA PAVEMENT.

④ USE A JOINT SEALANT MEETING THE REQUIREMENTS OF ASTM D6690.

⑤ PLACE EXPANSION CAP ON THE END OF THE DOWEL THAT IS NOT TACK WELDED TO THE BASKET. DO NOT FORCE DOWEL BAR PAST THE DOWEL STOP.



SECTION B-B
BEND DETAIL
BOTTOM REINFORCEMENT



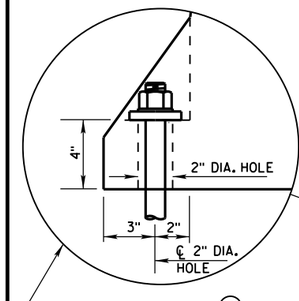
EXPANSION JOINT DETAIL

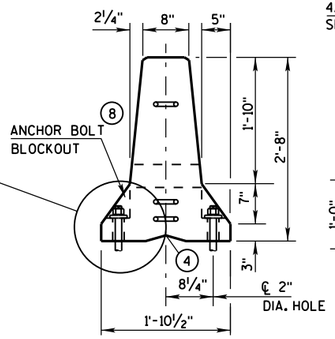
CONCRETE PAVEMENT APPROACH SLAB

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

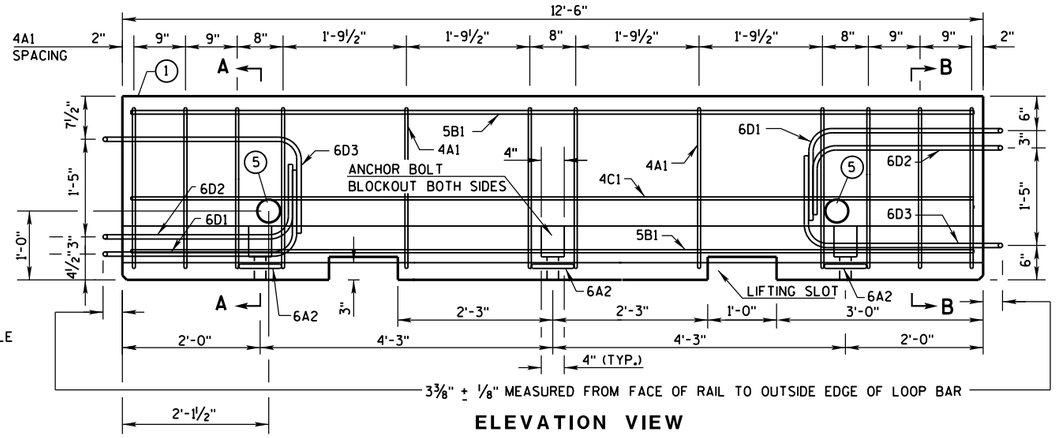
APPROVED
June, 2015
DATE
/S/ Peter Kemp, P.E.
PAVEMENT SUPE
FHWA

6
S.D.D. 13 B 2-8a

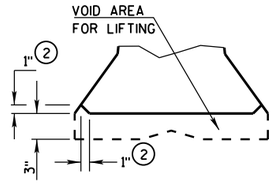




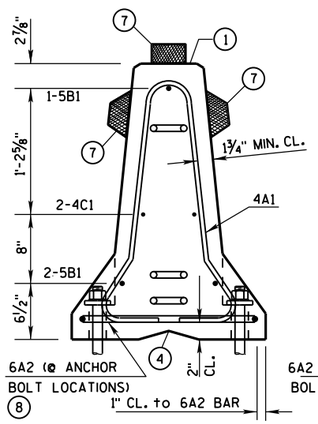
END VIEW



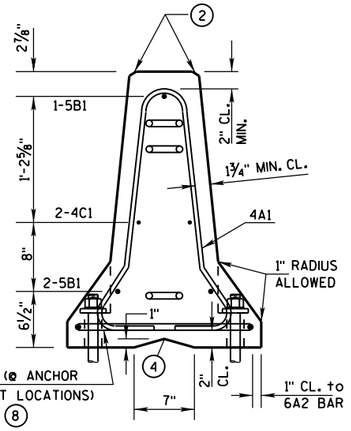
ELEVATION VIEW



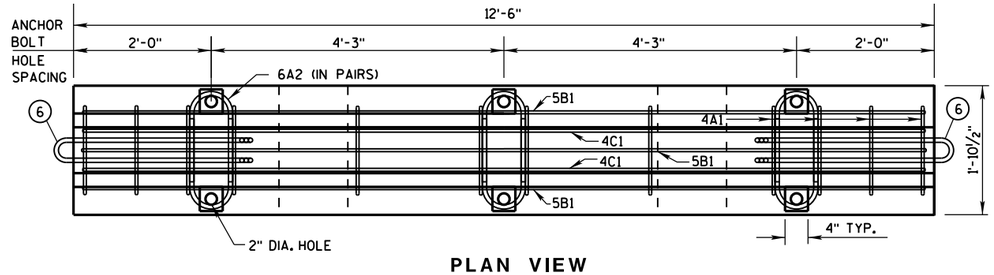
DETAIL "B"
LIFTING SLOT DETAIL



SECTION A-A
(STIRRUP PLACEMENT)

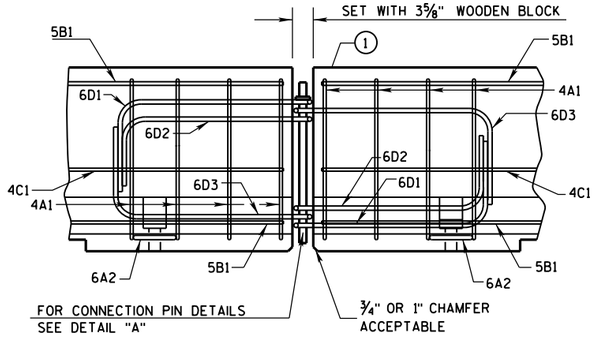


SECTION B-B
(STIRRUP PLACEMENT)

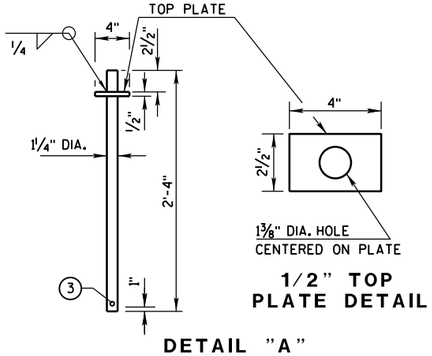


PLAN VIEW

DETAILS OF BARRIER SECTION

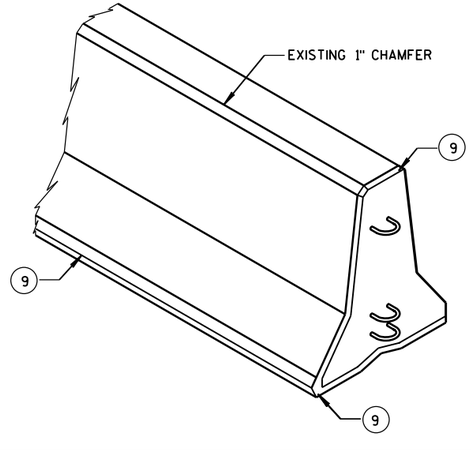


DETAILS OF BARRIER CONNECTION



1/2" TOP
PLATE DETAIL

DETAIL "A"
CONNECTION PIN
(A36 STEEL (10.9 LB EACH))



GENERAL NOTES

THESE GENERAL NOTES APPLY TO SHEETS 14B7-14(a) THRU 14B7-14(h).

DO NOT INTERMIX CONCRETE BARRIER TEMPORARY PRCAST, 12'-6" (CBTP12.5) WITH OTHER TEMPORARY CONCRETE BARRIERS.

USE ASTM A-615, GRADE 60, DEFORMED STEEL BARS FOR BARS 4A1, 6A2, 5B1 AND 4C1 IN THE BARRIER SECTION AND FOR 4V1, 4V2, 4V3, 4V4, 4V5, 4V6, 4F1, 4F2 AND 5F3 IN THE BARRIER TAPER SECTION.

LOOP BARS 6D1, 6D2 AND 6D3 SHALL BE ¾" SMOOTH STEEL BARS WITH A MINIMUM YIELD STRENGTH OF 60 KSI, A TENSILE STRENGTH OF NOT LESS THAN 1.25 TIMES THE YIELD STRENGTH BUT A MINIMUM OF 80 KSI, A MINIMUM 14% ELONGATION IN 8 INCHES AND PASSING A 180 DEGREE BEND TEST USING A 3-½" PIN BEND DIAMETER FOR BEND TESTS. THE LOOPS SHALL BE INSTALLED WITHIN ⅛" OF THE PLAN DIMENSION.

CONSTRUCT LIFTING SLOTS AS SPECIFIED ON THE PLANS TO FACILITATE THE DRAINAGE OF WATER AFTER INSTALLATION.

PLACE BARRIER ON A PAVED SURFACE. REMOVE ALL LOOSE DIRT AND SAND FROM THE ROADWAY SURFACE PRIOR TO PLACEMENT OF THE BARRIER.

INSTALL MECHANICAL OR ADHESIVE ANCHORS PER MANUFACTURER'S RECOMMENDATIONS. PROVIDE MANUFACTURER'S INFORMATION TO PROJECT ENGINEER.

(1) MARK ONE END OF EACH BARRIER PERMANENTLY BY FORMING INTO THE BARRIER THE FOLLOWING INFORMATION:
- a. TYPE: WI CBTP
- b. MANUFACTURER
- c. DATE MANUFACTURED (MONTH AND YEAR)

(2) 1" CHAMFER TO PREVENT SPALLING.

(3) A ⅜" HOLE IN THE CONNECTION PIN, AT THE LOCATION SHOWN, IS ACCEPTABLE, BUT NOT REQUIRED..

(4) "V" NOTCH IS OPTIONAL.

(5) THE 4" DIAMETER, 11 GAUGE STEEL, ROUND MECHANICAL TUBING SLEEVE FOR LIFTING (OPTIONAL).

(6) NEVER USE LOOP BARS (6D1, 6D2 OR 6D3) TO LIFT, MOVE OR REPOSITION THE BARRIER.

(7) USE DELINEATORS CONFORMING TO SECTION 633 OF THE STANDARD SPECIFICATIONS. CONTRACTOR MAY USE ALTERNATE SHAPES AND HOUSING. INSTALL DELINEATORS ACCORDING TO MANUFACTURES INSTRUCTION. INSTALL YELLOW REFLECTORS WHEN BARRIER IS LOCATED TO THE LEFT OF TRAFFIC AND WHITE REFLECTORS WHEN BARRIER IS LOCATED TO THE RIGHT OF TRAFFIC. SPACE DELINEATORS A MAXIMUM OF 25 FEET APART. PROVIDE TOP MOUNTED DELINEATORS IN ADDITION TO THE SIDE MOUNTED DELINEATORS ON ALL BARRIER INSTALLATIONS LOCATED ON A CURVED ALIGNMENT LONGER THAN 200 FEET AND ON BARRIERS USED TO SEPARATE OPPOSING TRAFFIC.

(8) SEE SHEET D FOR ANCHORING CRITERIA.

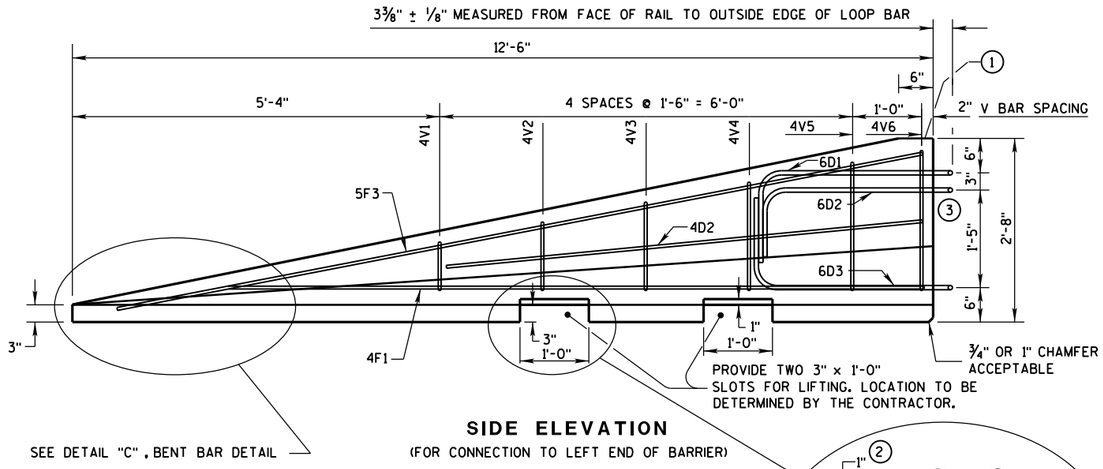
(9) 1" CHAMFER OPTIONAL.

CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"

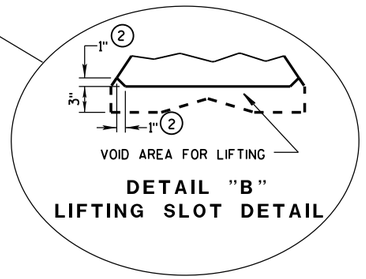
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

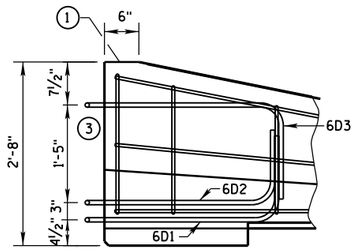
S.D.D. 14 B 7-14a



SIDE ELEVATION
(FOR CONNECTION TO LEFT END OF BARRIER)



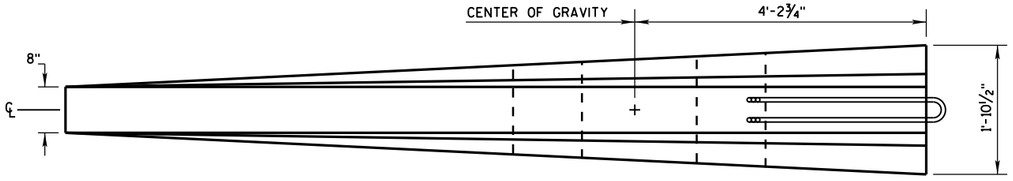
DETAIL "B"
LIFTING SLOT DETAIL



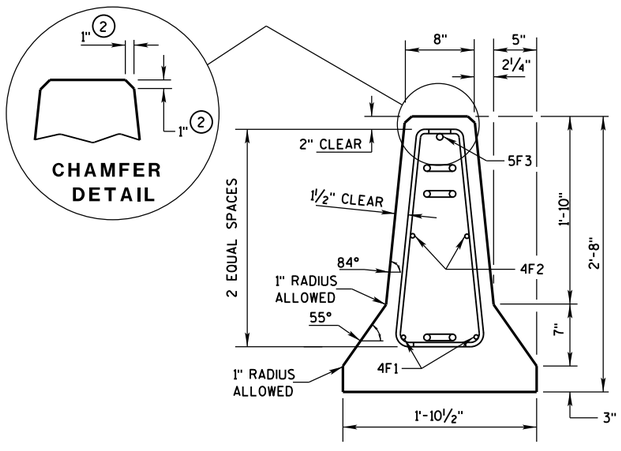
SIDE ELEVATION
LOOP BAR ASSEMBLY INVERTED
FOR OPPOSITE END.
(FOR CONNECTION TO RIGHT END OF BARRIER)

GENERAL NOTES

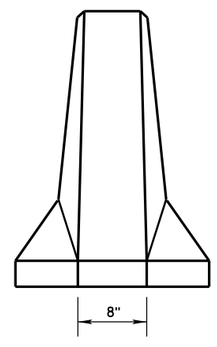
1. MARK ONE END OF EACH BARRIER PERMANENTLY BY FORMING INTO THE BARRIER THE FOLLOWING INFORMATION:
   a. TYPE WICBTP
   b. MANUFACTURER
   c. DATE MANUFACTURED (MONTH AND YEAR)
2. 1" CHAMFER TO PREVENT SPALLING.
3. NEVER USE LOOP BARS (6D1, 6D2 OR 6D3) TO LIFT, MOVE OR REPOSITION THE BARRIER.



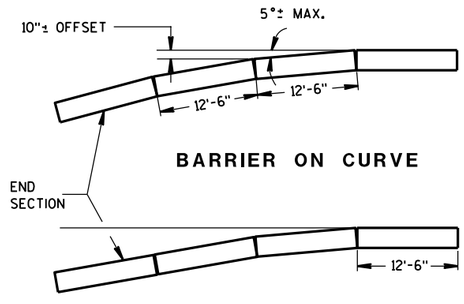
PLAN VIEW



END SECTION



FRONT ELEVATION



BARRIER ON CURVE

FLARE AT BARRIER END

POSTED SPEED, (MPH)	FLARE RATE
40 OR LESS	6:1
45 OR GREATER	8:1

DETAILS OF BARRIER TAPER SECTION

CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

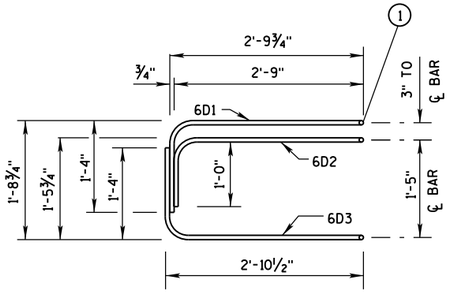
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6
S.D.D. 14 B 7-14b

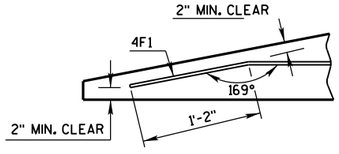
BARRIER TAPER SECTION BILL OF MATERIALS

(PER 12'-6" BARRIER TAPER SECTION)

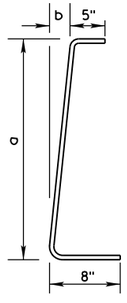
BAR	BAR SIZE	NO. OF BARS	LENGTH FT.
4V1	4	2	1'-11"
4V2	4	2	2'-2"
4V3	4	2	2'-6"
4V4	4	2	2'-9"
4V5	4	2	3'-2"
4V6	4	2	3'-4"
4F1	4	2	12'-0"
4F2	4	2	7'-6"
5F3	5	1	11'-9"
LOOP ASSEMBLY			
6D1	6	1	8'-5"
6D2	6	1	7'-7"
6D3	6	1	8'-6"



ELEVATION
LOOP BAR ASSEMBLY



DETAIL "C"
BENT BAR DETAIL



BAR	a	b
V1	10"	1"
V2	1'-1"	1¼"
V3	1'-5"	1⅝"
V4	1'-8"	1⅞"
V5	2'-0½"	2⅜"
V6	2'-3"	2¾"

4V BARS
2 AT EACH SIZE REQUIRED
FOR STIRRUP ASSEMBLY

TAPER BARRIER SECTION

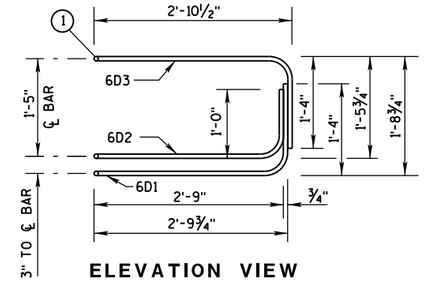
GENERAL NOTES

(1) NEVER USE LOOP BARS (6D1, 6D2 OR 6D3) TO LIFT, MOVE OR REPOSITION THE BARRIER.

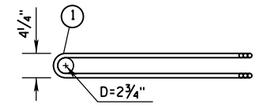
BARRIER SECTION BILL OF MATERIALS

(PER 12'-6" BARRIER SECTION)

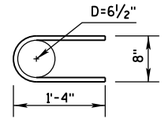
BAR	BAR SIZE	NO. OF BARS	LENGTH FT.
4A1	4	12	6'-0"
6A2	6	6	2'-11"
5B1	5	3	12'-2"
4C1	4	2	12'-2"
LOOP ASSEMBLY			
6D1	6	2	8'-5"
6D2	6	2	7'-7"
6D3	6	2	8'-6"



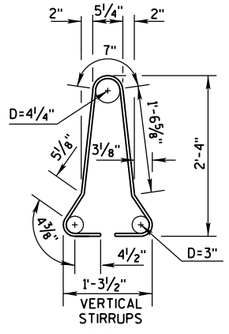
ELEVATION VIEW



PLAN VIEW
LOOP BAR ASSEMBLY
(MARKED END SHOWN, INVERT FOR OTHER END)



6A2



4A1

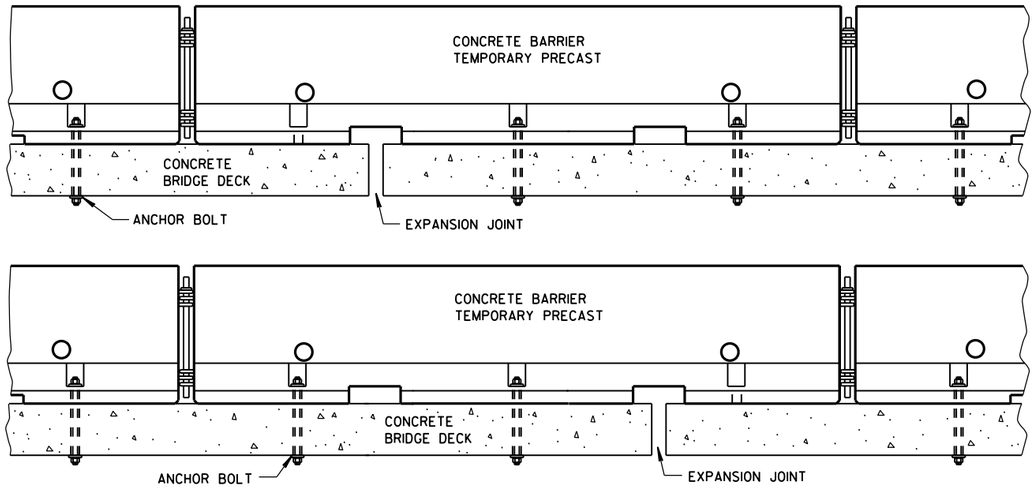
BARRIER SECTION

CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

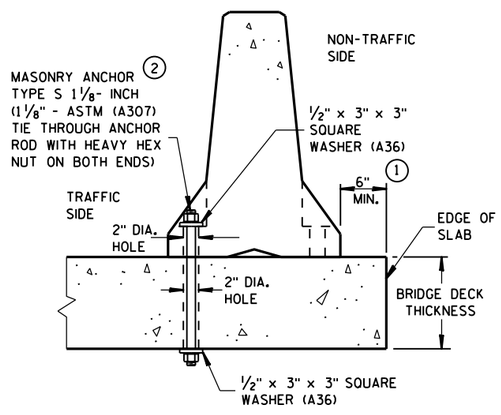
6

S.D.D. 14 B 7-14c



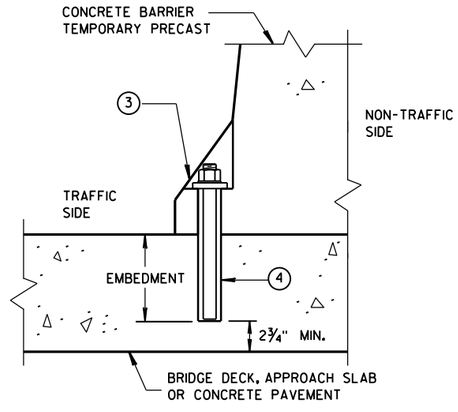
TREATMENT AT BRIDGE DECK EXPANSION JOINTS

(NO SINGLE CONCRETE BARRIER SECTION SHALL BE ANCHORED TO BOTH THE BRIDGE DECK AND THE APPROACH SLAB. ALL ANCHOR BOLT LOCATIONS SHALL BE ANCHORED TO THE DECK IN ACCORDANCE WITH THE DETAIL. NO MORE THAN ONE ANCHOR BOLT SHALL BE ELIMINATED FROM A BARRIER SECTION WHEN SPANNING AN EXPANSION JOINT.)



THROUGH BOLTED ANCHOR INSTALLATION ON BRIDGE DECK

(DO NOTUSE ON CONCRETE BRIDGE DECK WITH ASPHALT OVERLAY)



REMOVABLE ADHESIVE BONDED ANCHOR INSTALLATION ON CONCRETE BRIDGE DECK, CONCRETE APPROACH SLAB, OR CONCRETE PAVEMENT ②

(DO NOT USE ON CONCRETE WITH AN ASPHALTIC OVERLAY)

GENERAL NOTES

① CONCRETE BARRIER TEMPORARY PRECAST, 12'-6" SHALL BE ANCHORED IF:
THE DISTANCE TO A 2 FOOT OR GREATER DROPOFF THAT IS STEEPER THAN 3H : 1V, FOR EXAMPLE THE EDGE OF A BRIDGE DECK OR A DROPOFF AT THE EDGE OF PAVEMENT, IS LESS THAN 4 FEET FROM THE SIDE OF THE BARRIER CLOSEST TO THE DROPOFF AND THE POSTED SPEED IS 45 MPH OR GREATER, OR

THE DISTANCE TO A 2 FOOT OR GREATER DROPOFF THAT IS STEEPER THAN 3H : 1V, FOR EXAMPLE THE EDGE OF A BRIDGE DECK OR A DROPOFF AT THE EDGE OF PAVEMENT, IS LESS THAN 2 FEET FROM THE SIDE OF THE BARRIER CLOSEST TO THE DROPOFF AND THE POSTED SPEED IS 40 MPH OR LESS.

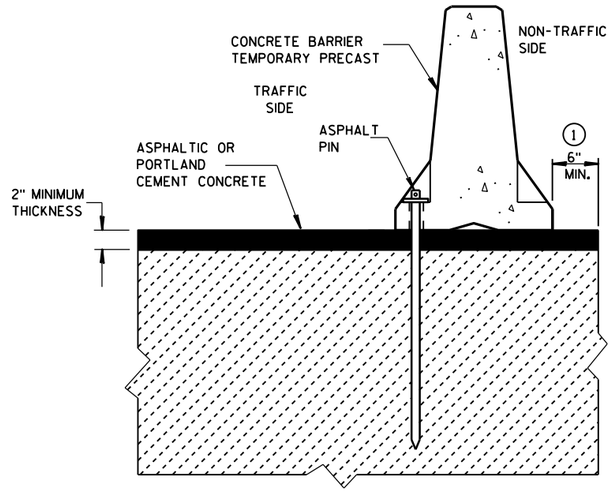
② ANCHORING IS INCIDENTAL TO CONCRETE BARRIER TEMPORARY PRECAST.

WITH THE APPROVAL OF THE ENGINEER, REMOVABLE ADHESIVE BONDED ANCHOR BOLT INSTALLATION MAY BE USED IN LIEU OF THROUGH BOLTED ANCHOR INSTALLATION. THE ADHESIVE BONDED ANCHOR BOLT MUST BE REMOVABLE. USE ASTM (A307) MASONRY ANCHORS TYPE S 1⅛-INCH, EMBEDDED TO A DEPTH SUFFICIENT TO DEVELOP THE ULTIMATE CAPACITY OF THE ANCHOR BOLT AND PROVIDE DOCUMENTATION TO CONFIRM THIS.

UPON REMOVAL OR RELOCATION OF THE BARRIER UNITS, REMOVE ALL ANCHOR BOLTS AND COMPLETELY FILL IN THE REMAINING HOLES IN CONCRETE BRIDGE DECKS, CONCRETE APPROACH SLABS AND CONCRETE PAVEMENTS THAT ARE TO REMAIN, WITH A NON-SHRINK COMMERICAL GROUT OR MATERIAL IDENTIFIED ON THE CURRENT WISDOT APPROVED PRODUCTS LIST.

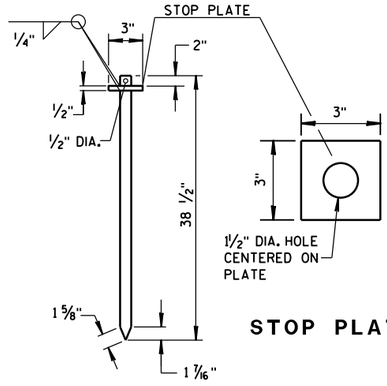
③ 1⅛" DIAMENTER A307 THREADED ROD, ½" X 3" X 3" SQUARE PLATE WASHER WITH ASTM A36 STEEL, ASTM A563A HEAVY HEX NUT.

④ ADHESIVE ANCHORS WITH A MINIMUM BOND STRENGTH OF 1,800 PSI AND 5¼" EMBEDMENT. SEE 603.2 AND 603.3.1.2 OF THE WISCONSIN STANDARD SPECIFICATIONS FOR MORE INFORMATION ON ADHESIVE ANCHORS.



STAKE DOWN INSTALLATION FOR ASPHALTIC OR PORTLAND CEMENT CONCRETE SURFACE

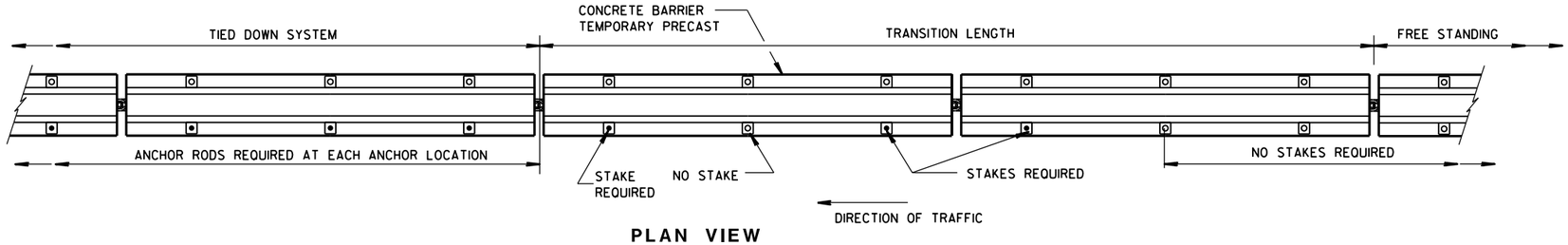
(STAKING IS INCIDENTAL TO CONCRETE BARRIER TEMPORARY PRECAST)



STOP PLATE

ASPHALT PIN

(ASTM A36 STEEL)



PLAN VIEW

FREE STANDING TRANSITION TO TIED-DOWN SYSTEM

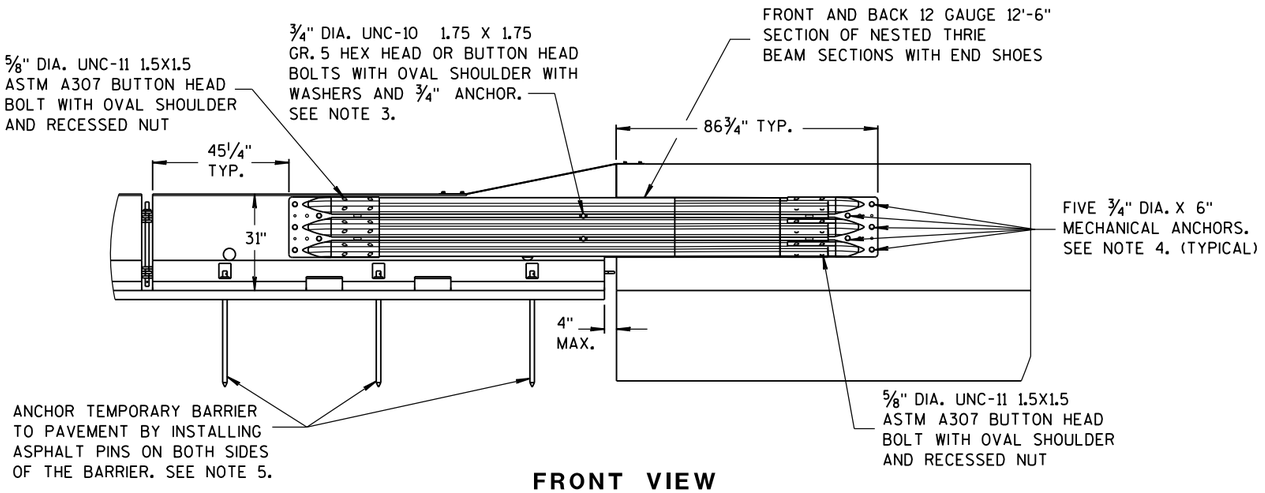
(PLACE TRANSITION IN A TANGENT SECTION OF BARRIER PARALLEL TO THE ROADWAY. IF TRANSITION OCCURS ON STRUCTURAL SLAB, ANCHOR AS SHOWN.)

CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

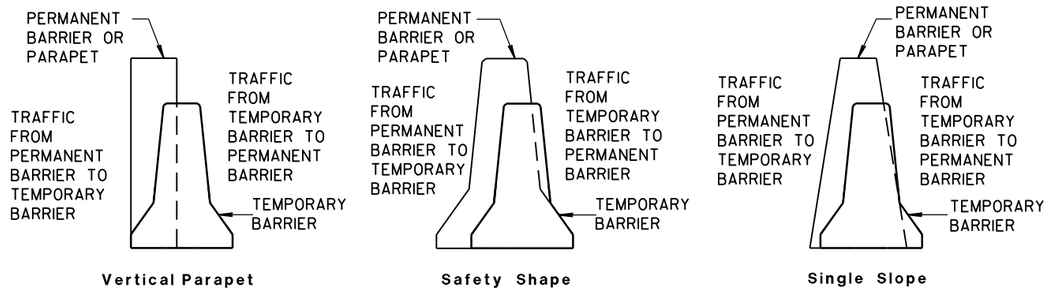
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6

S.D.D. 14 B 7-14d



FRONT VIEW

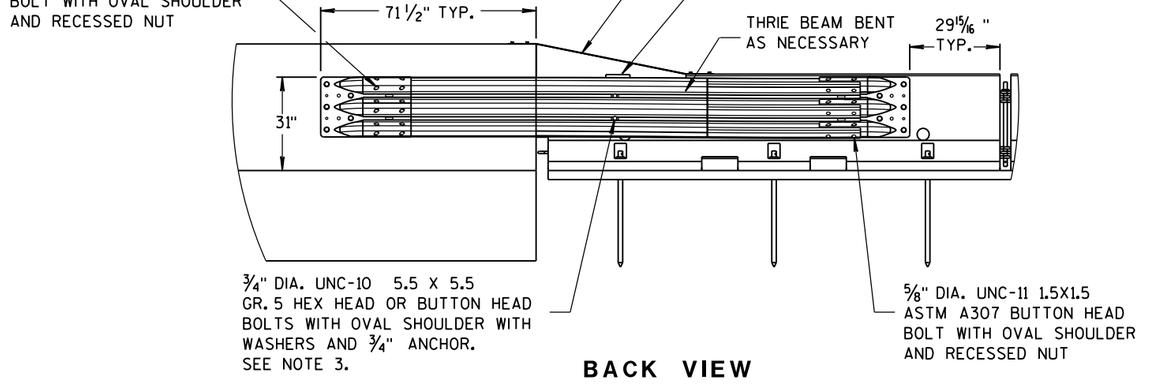


TEMPORARY BARRIER PLACEMENT FOR BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM

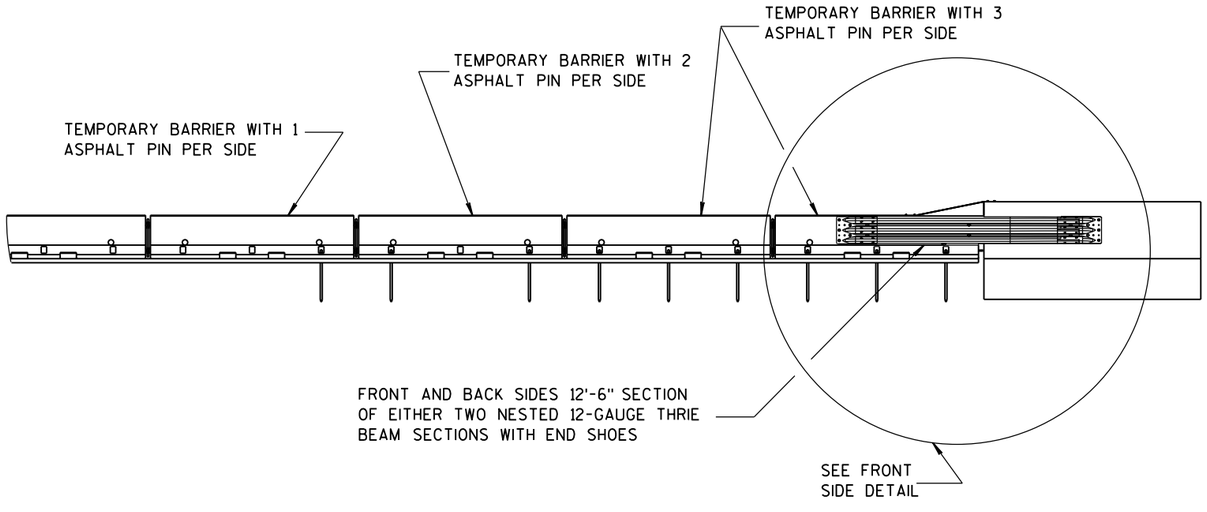
NOTES

NESTED THRIE BEAM IS REQUIRED ON BOTH SIDES OF THE TEMPORARY BARRIER FOR ALL INSTALLATIONS.

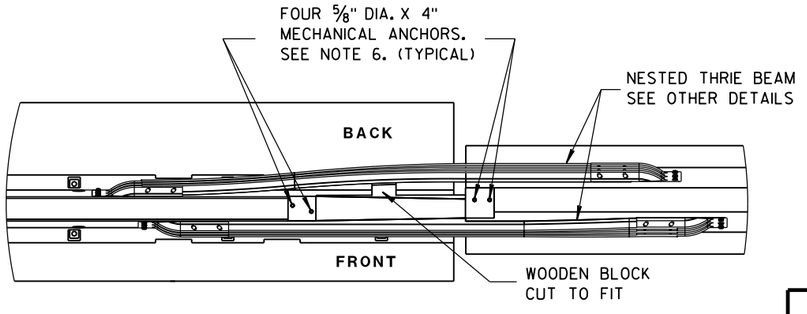
1. CAP END PLATE PLACED FLUSH WITH UPSTREAM END OF PERMANENT BARRIER OR PARAPET.
2. THRIE BEAM PIECES ARE OFFSET 15 1/4" TO PREVENT INTERFERENCE FROM THE ANCHORS ON OPPOSING SIDES.
3. MINIMUM MECHANICAL OR ADHESIVE ANCHOR STRENGTH REQUIREMENTS: ULTIMATE TENSILE LOAD 9.48 KIPS AND ULTIMATE SHEAR LOAD 10.48 KIPS.
4. MINIMUM MECHANICAL OR ADHESIVE ANCHOR STRENGTH REQUIREMENTS: ULTIMATE TENSILE LOAD 17.9 KIPS AND ULTIMATE SHEAR LOAD 21.96 KIPS.
5. MAY BE USED ON CONCRETE OR ASPHALT PAVEMENTS. ASPHALT OPTION SHOWN. FOR CONCRETE OPTION SEE OTHER DETAILS.
6. MINIMUM MECHANICAL OR ADHESIVE ANCHOR STRENGTH REQUIREMENTS: ULTIMATE TENSILE LOAD 12.14 KIPS AND ULTIMATE SHEAR LOAD 17.5 KIPS.



BACK VIEW



FRONT VIEW



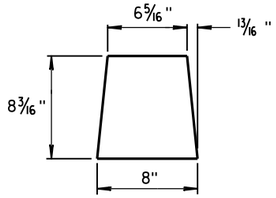
PLAN VIEW

BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM

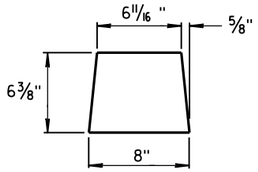
CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPO

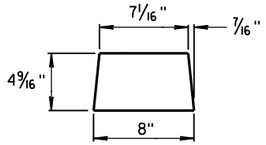
6
S.D.D. 14 B 7-14e



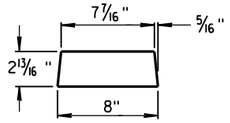
GUSSET 1



GUSSET 2

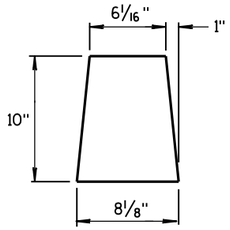


GUSSET 3

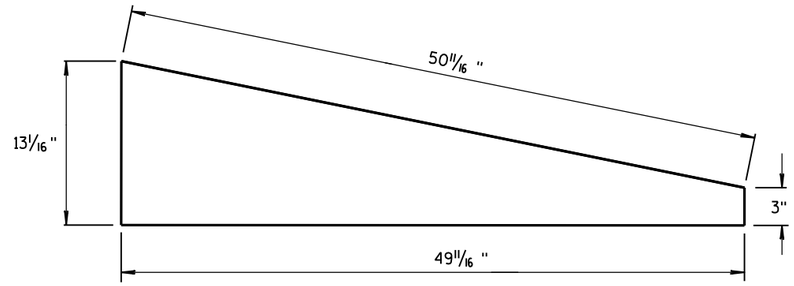


GUSSET 4

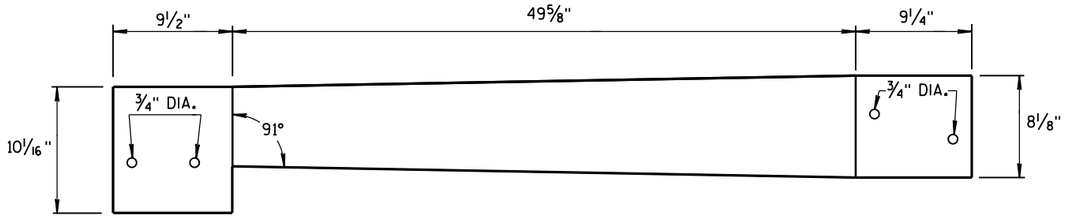
GUSSETS

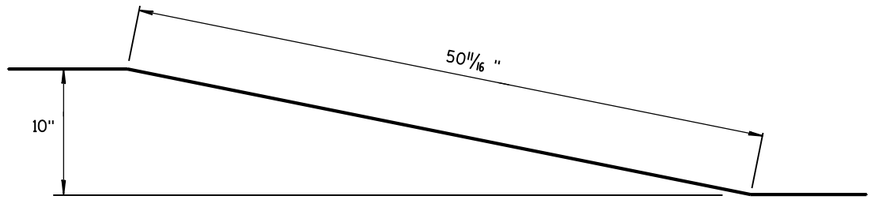


END PLATE



SIDE PLATE

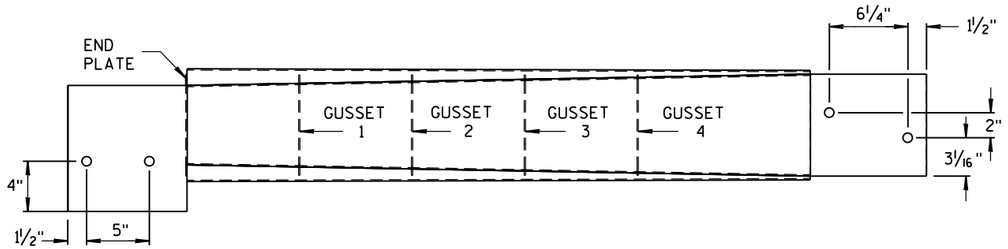


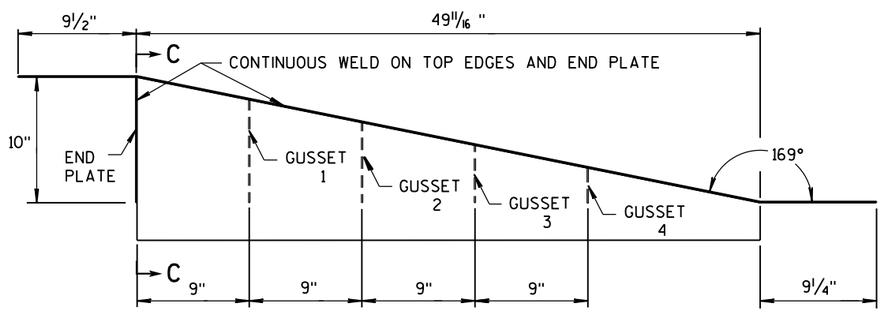


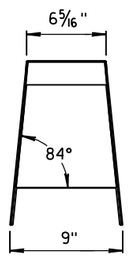
TOP PLATE

SIDE, TOP AND END PLATES FOR CAP FROM TEMPORARY CONCRETE BARRIER TO 42" PERMANENT CONCRETE BARRIER

SIDE PLATES, TOP PLATE, END PLATE AND GUSSETS ARE 12 GAUGE ASTM A36 GALVANIZED STEEL.







SECTION C-C

NOTES

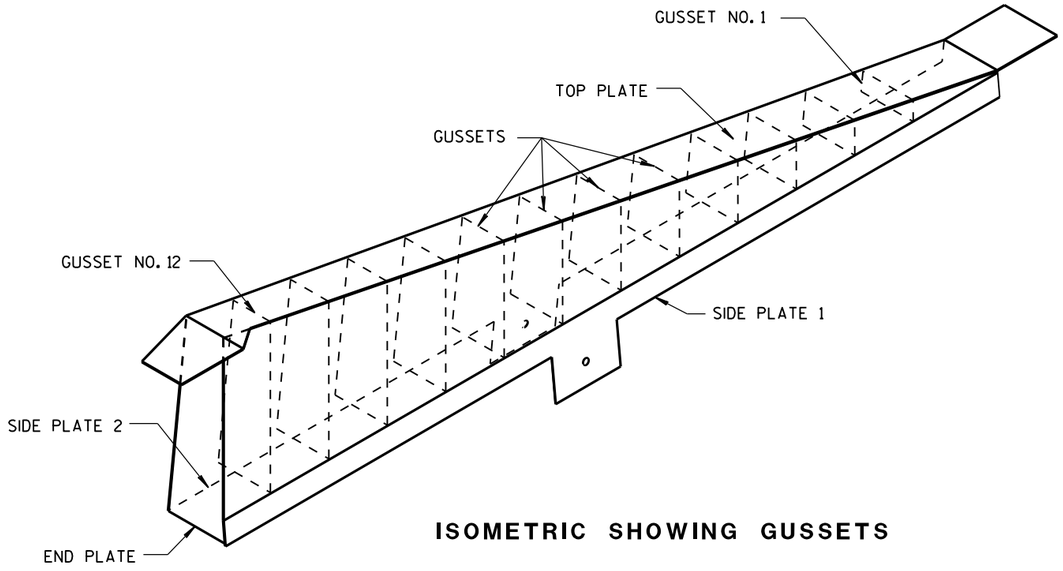
1. FOUR GUSSETS AND END PLATE ARE STITCH WELDED ON THREE SIDES.
2. TWO TRIANGULAR SIDE PLATES ARE STITCH WELDED TO TOP PLATE, END PLATE, AND GUSSETS.

CAP DETAILS FOR TEMPORARY CONCRETE BARRIER TO 42" PERMANENT CONCRETE BARRIER

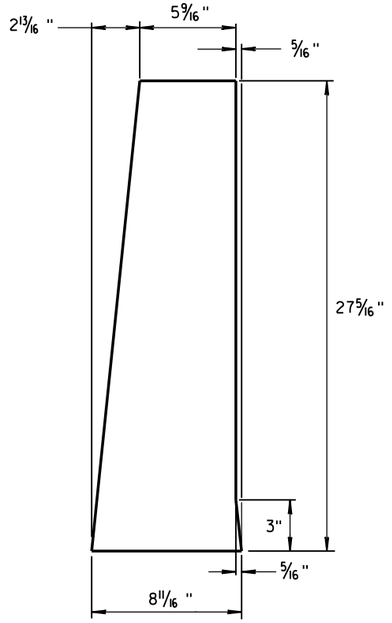
CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6
S.D.D. 14 B 7-14f

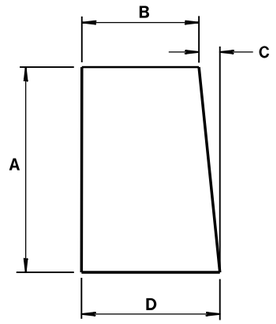


ISOMETRIC SHOWING GUSSETS



END PLATE

1/8" STEEL PLATE



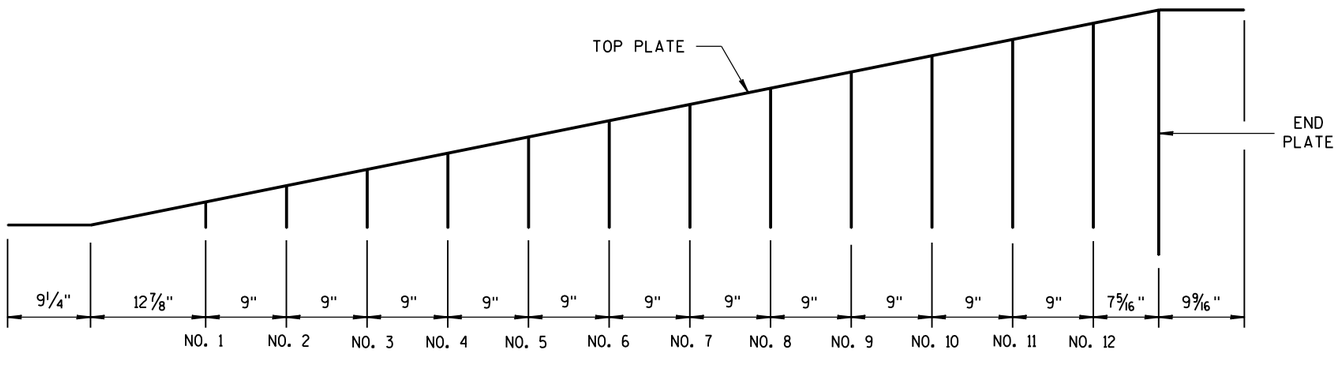
GUSSETS 1 - 12

ALL GUSSETS 1/8" STEEL PLATE

GUSSET DIMENSIONS				
GUSSET NO.	A	B	C	D
1	2 7/8"	7 3/4"	1/4"	8
2	4 11/16 "	7 9/16 "	1/2"	8
3	6 1/2"	7 3/8"	11/16 "	8 1/16 "
4	8 5/16 "	7 3/16 "	7/8"	8 1/16 "
5	10 1/8"	7"	1 1/16 "	8 1/16 "
6	11 15/16 "	6 13/16 "	1 1/4"	8 1/16 "
7	13 3/4"	6 5/8"	1 7/16 "	8 1/16 "
8	15 9/16 "	6 7/16 "	1 9/16 "	8 1/16 "
9	17 3/8"	6 1/4"	1 13/16 "	8 1/16 "
10	19 3/16 "	6 1/16 "	1 15/16 "	8 1/16 "
11	21"	5 7/8"	2 3/16 "	8 1/16 "
12	22 13/16 "	5 11/16 "	2 5/16 "	8 1/16 "

SIDE PLATES, TOP PLATE, END PLATE AND GUSSETS ARE 12 GAUGE ASTM A36 STEEL AND GALVANIZED.

GUSSETS AND END PLATE ARE STITCH WELDED ON 3 SIDES. TWO TRIANGULAR SIDE PLATES ARE STITCH WELDED TO TOP PLATE, END PLATE AND GUSSETS.



GUSSET LOCATION

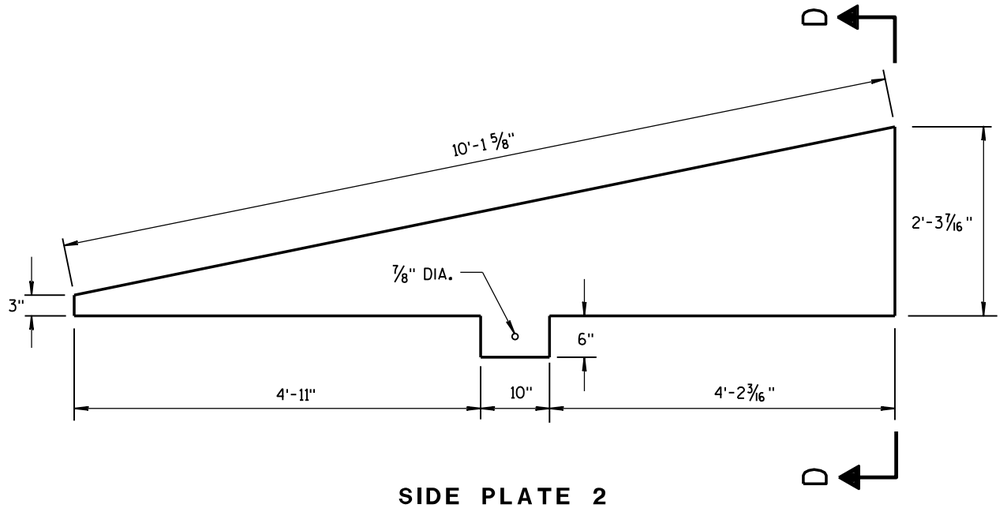
CAP DETAILS FOR TEMPORARY CONCRETE BARRIER TO 56" PERMANENT CONCRETE BARRIER

CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

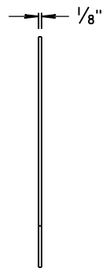
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

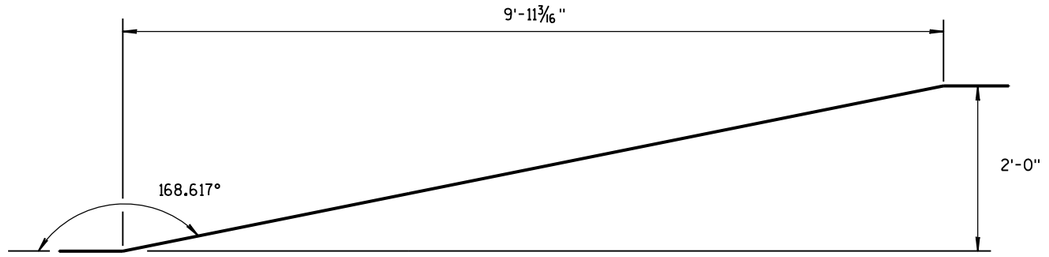
S.D.D. 14 B 7-14g



SIDE PLATE 2

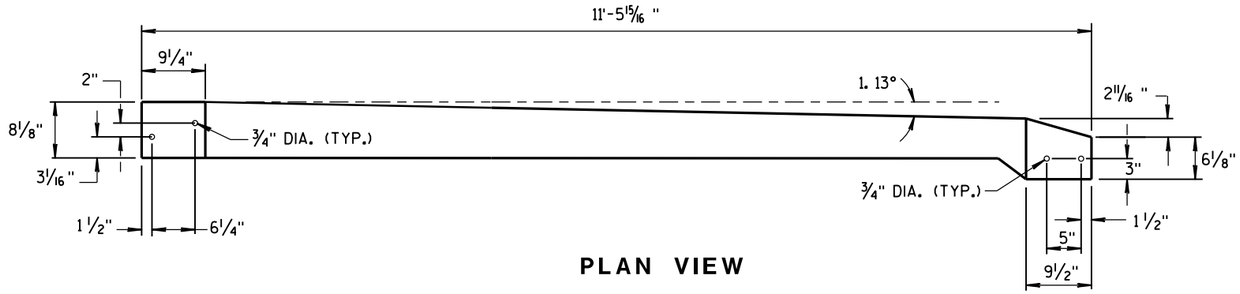


END VIEW



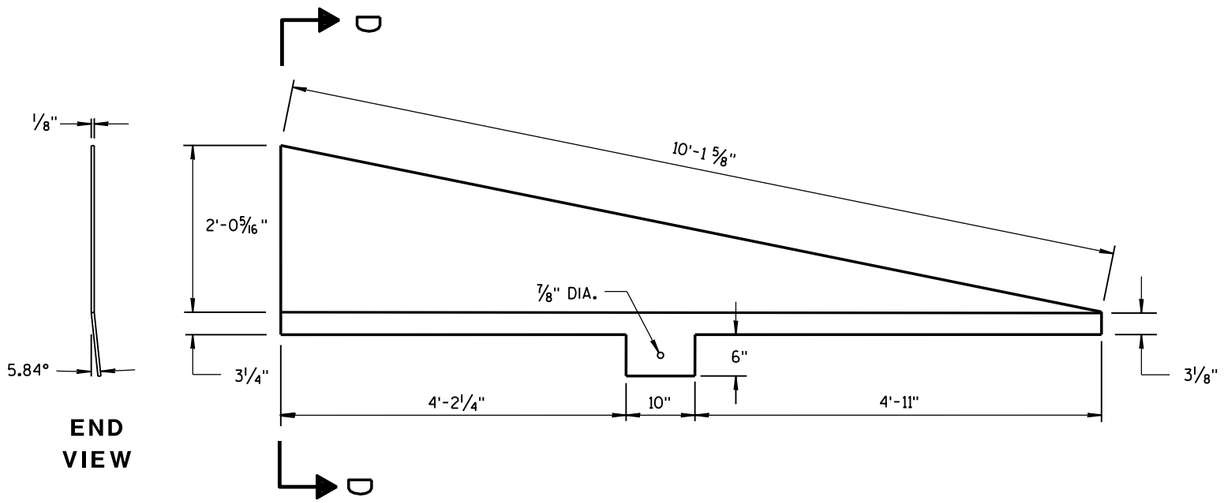
SIDE VIEW

TOP PLATE



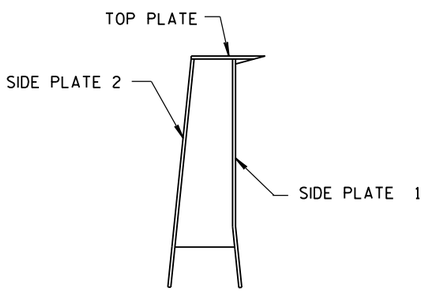
PLAN VIEW

TOP PLATE



END VIEW

SIDE PLATE 1



SECTION D-D

CAP DETAILS FOR TEMPORARY CONCRETE BARRIER TO 56" PERMANENT CONCRETE BARRIER

CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

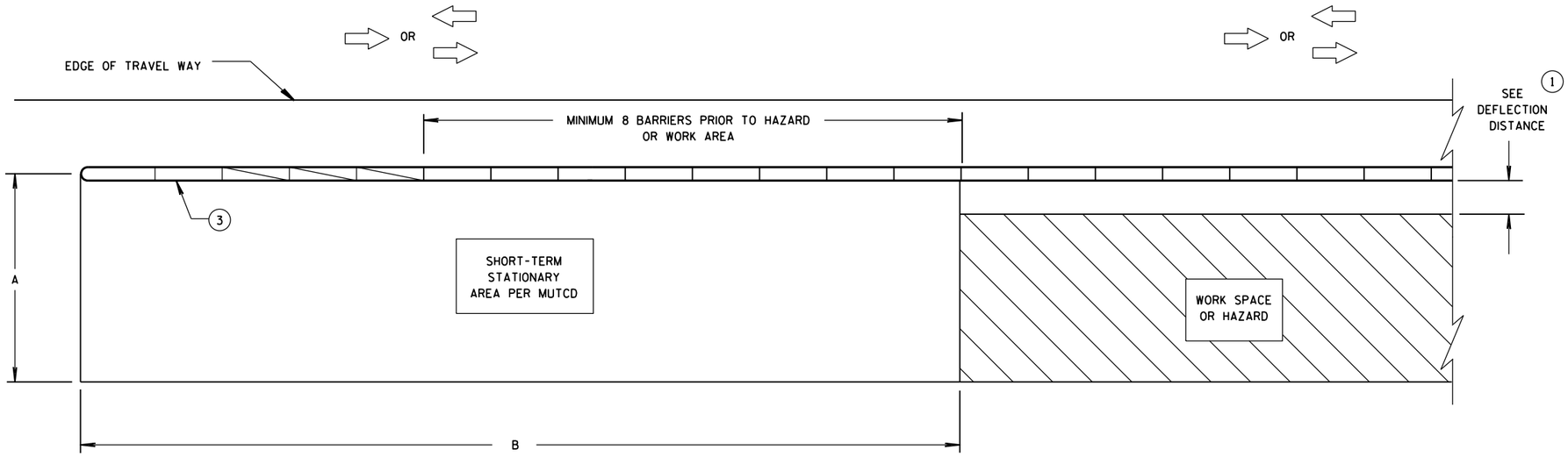
APPROVED
June 2014 — DATE
/S/ Jerry H. Zoda — ROADWAY STANDARDS ENGINEER
FHWA

6

S.D.D. 14 B 7-14h

6

S.D.D. 14 B 7-14h



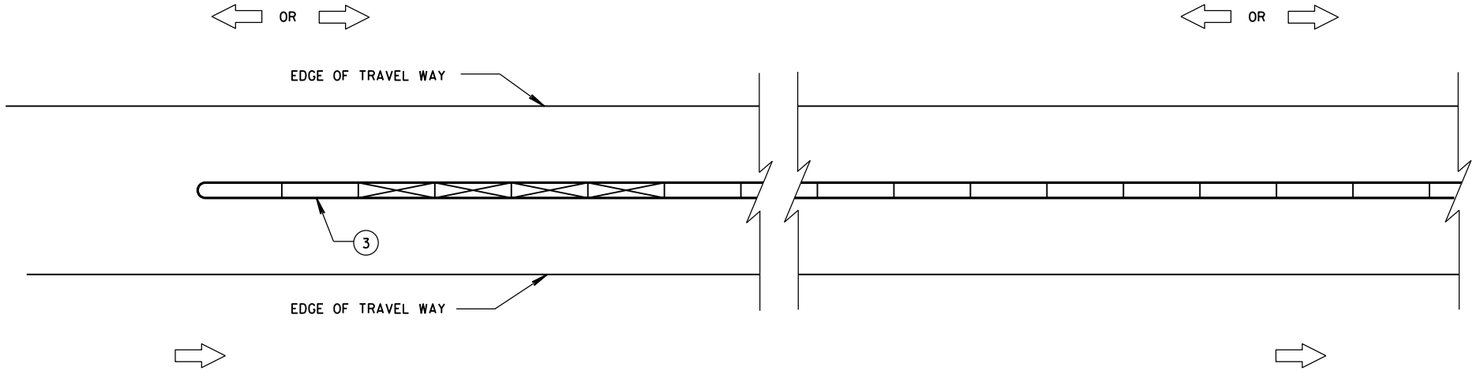
CRASH CUSHION/SAND BARREL ARRAY AND TEMPORARY BARRIER INSTALLATION FOR TRAFFIC ON ONE SIDE OF BARRIER

DIMENSION A TABLE (2)

FACILITY	POSTED SPEED MPH	DIMENSION A	
		MIN. FT	MAX. FT
FREEWAY/EXPRESSWAY	ALL	15	20
NON-FREEWAY/EXPRESSWAY	GREATER THAN OR EQUAL TO 45	10	15
NON-FREEWAY/EXPRESSWAY	LESS THAN 45	8	10
AADT LESS THAN 1,500	ALL	8	10

DIMENSION B TABLE (2)

POSTED SPEEDS MPH	DIMENSION B FT
20	115
25	155
30	200
35	250
40	305
45	360
50	425
55	495
60	570
65	645



CRASH CUSHION/SAND BARREL ARRAY AND TEMPORARY BARRIER INSTALLATION FOR TRAFFIC ON BOTH SIDES OF BARRIER

LEGEND

- DIRECTION OF TRAVEL
- CRASH CUSHION OR SAND BARREL ARRAY
- SEE FREE STANDING TRANSITION TO TIED-DOWN SYSTEM DETAILS
- SEE BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM DETAILS
- 3 PINS PLACED ON TRAFFIC SIDE OF BARRIER
- PERMANENT CONCRETE BARRIER OR CONCRETE PARAPET
- FREE STANDING TEMPORARY BARRIER

GENERAL NOTES

SEE STANDARD DETAIL DRAWING 14B7 FOR MORE INFORMATION.

DETAILS PROVIDE A GENERAL LAYOUT OF TEMPORARY CONCRETE BARRIER, CRASH CUSHIONS, SAND BARREL ARRAYS AND TIE DOWN TRANSITIONS. DETAILS PROVIDED MAY NOT FIT ALL POSSIBLE SITUATIONS OR SITE CONDITIONS. SEE OTHER SECTIONS OF THE CONTRACT OR PROJECT ENGINEER FOR MORE DETAILS.

ADDITIONAL TEMPORARY BARRIER MAY BE REQUIRED TO PROTECT TRAVELING PUBLIC FROM HAZARDS, CONTRACTOR'S OPERATIONS OR TO CONTROL TRAFFIC.

TEMPORARY BARRIER MAY BE REQUIRED TO BE ANCHORED TO PAVEMENT OR BRIDGE DECK.

FOR DETAILS ON CRASH CUSHION OR SAND BARREL ARRAYS SEE OTHER SECTIONS OF THE PLAN AND MANUFACTURE'S DETAILS.

SLOPES LEADING TO TEMPORARY BARRIER, CRASH CUSHION OR SAND BARREL ARRAY ARE 10:1 OR LESS.

(1) FOR DEFLECTION INFORMATION SEE STANDARD DETAIL DRAWING 14B7.

(2) VALUES PROVIDED MAY NOT FIT ALL POSSIBLE SITUATIONS OR SITE CONDITIONS. SEE OTHER SECTIONS OF THE CONTRACT OR PROJECT ENGINEER FOR MORE DETAILS.

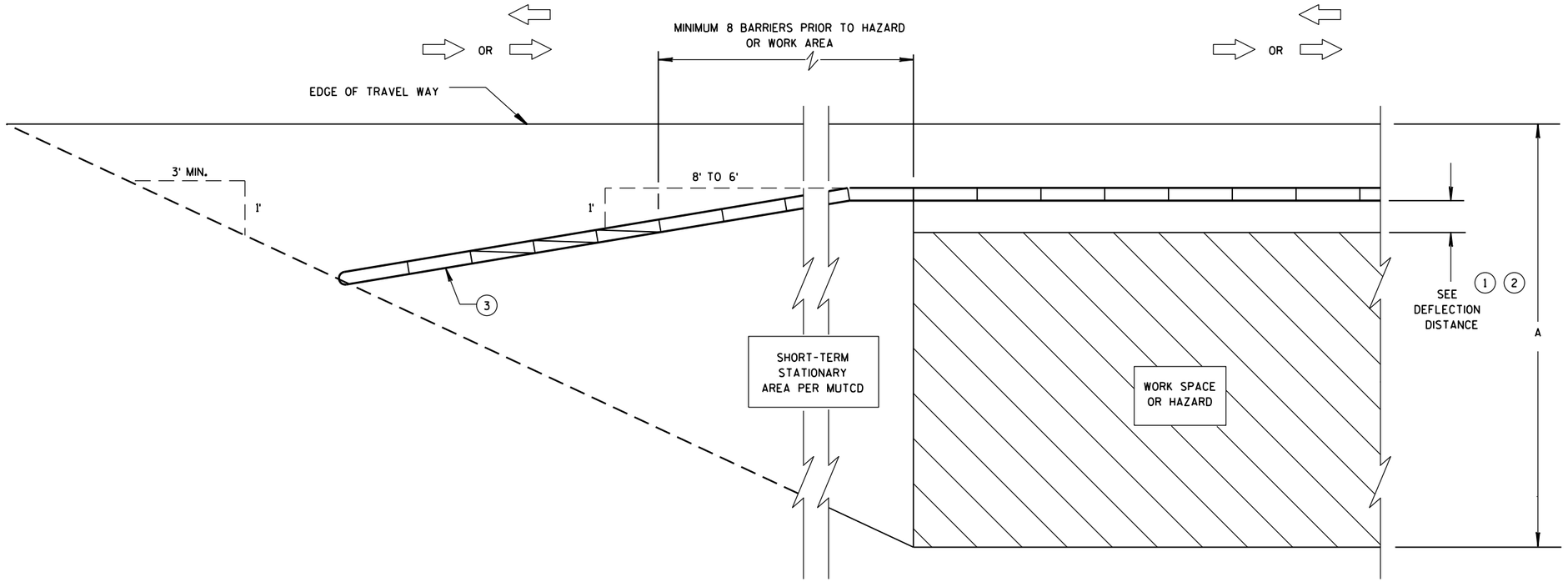
(3) ANCHOR TEMPORARY BARRIER ACCORDING TO CRASH CUSHION OR SAND BARREL MANUFACTURER'S RECOMMENDATIONS. IF MANUFACTURER'S RECOMMENDATIONS ARE NOT PROVIDED, ANCHOR 3 PINS ON TRAFFIC SIDE.

CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS

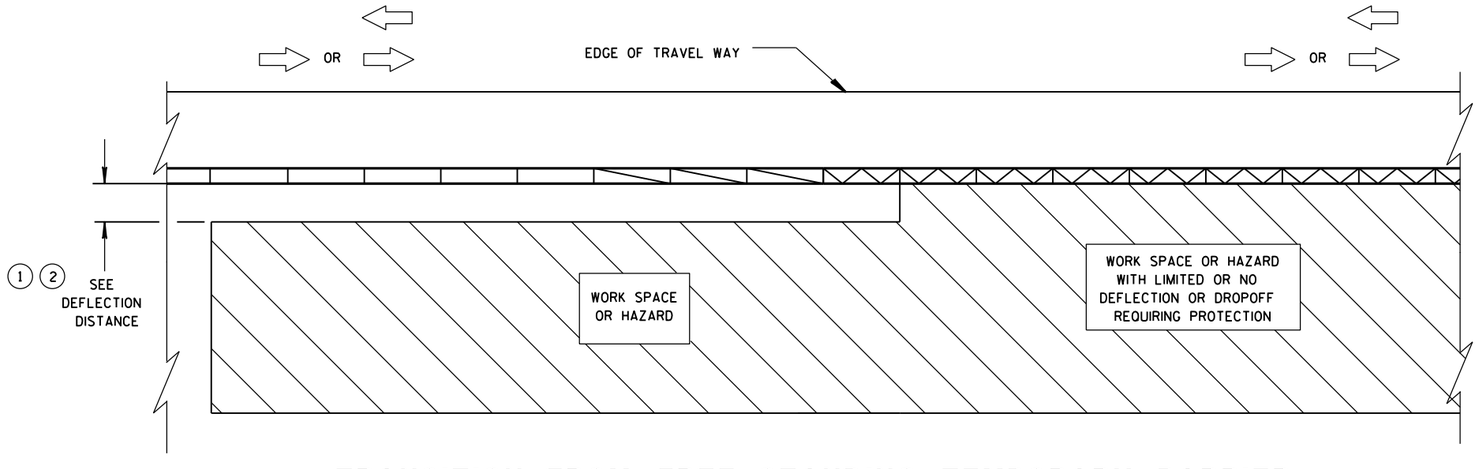
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

S.D.D. 14 B 8-2a



CRASH CUSHION/SAND BARREL ARRAY AND TEMPORARY BARRIER INSTALLATION FOR TRAFFIC ON ONE SIDE - FLARED INSTALLATION



TRANSITION FROM FREE STANDING TEMPORARY BARRIER TO ANCHORED BARRIER

LEGEND

- DIRECTION OF TRAVEL
- CRASH CUSHION OR SAND BARREL ARRAY
- SEE FREE STANDING TRANSITION TO TIED-DOWN SYSTEM DETAILS
- SEE BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM DETAILS
- 3 PINS PLACED ON TRAFFIC SIDE OF BARRIER
- PERMANENT CONCRETE BARRIER OR CONCRETE PARAPET
- FREE STANDING TEMPORARY BARRIER

CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS

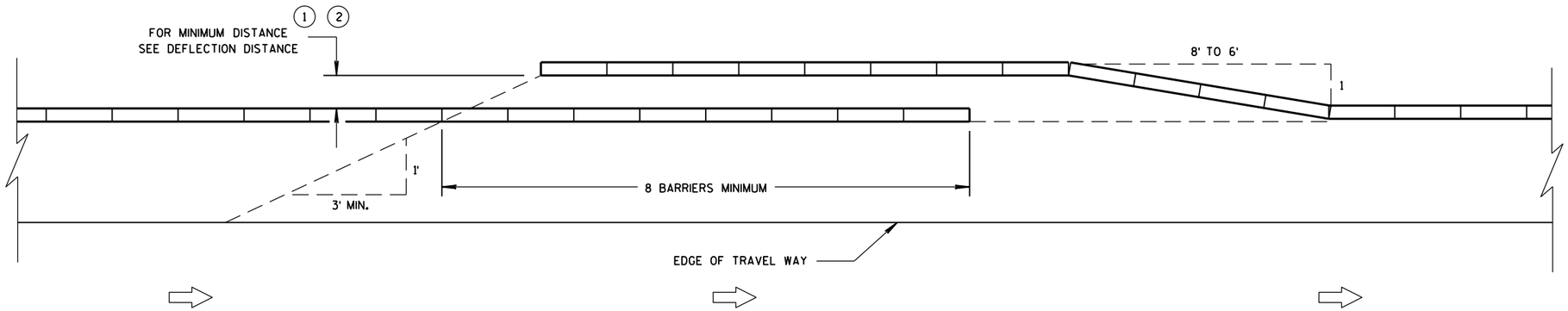
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6

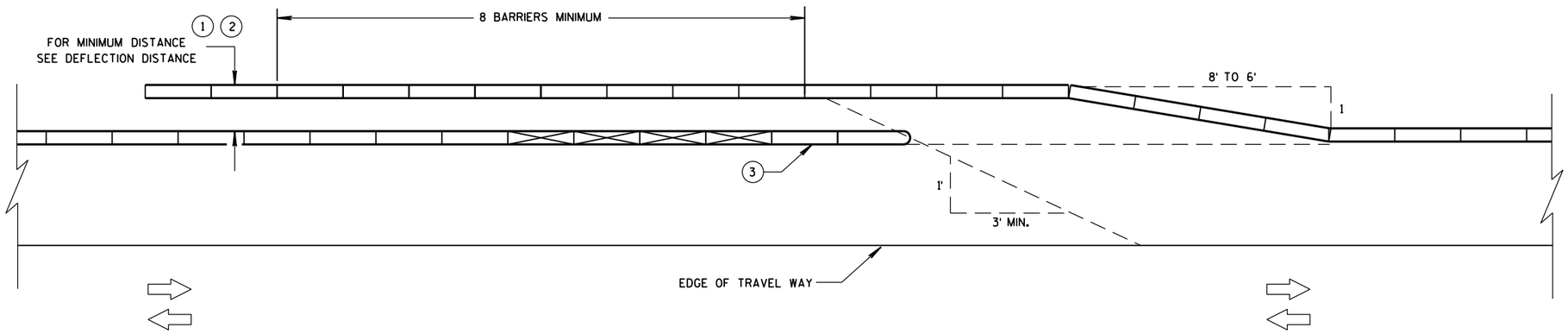
S.D.D. 14 B 8-2b

6

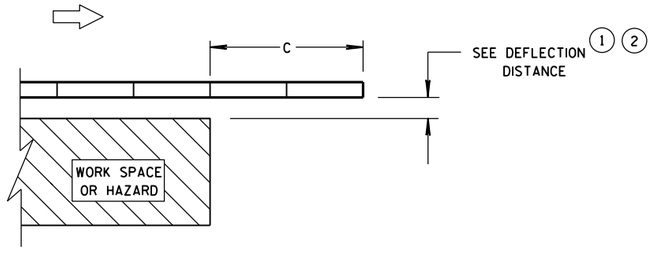
S.D.D. 14 B 8-2b



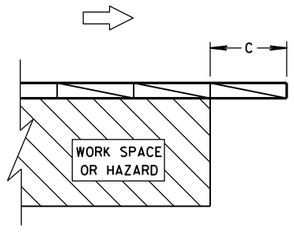
TEMPORARY BARRIER OVERLAP - ONE-WAY TRAFFIC



TEMPORARY BARRIER OVERLAP - TWO-WAY TRAFFIC



ENDING TEMPORARY BARRIER DOWNSTREAM - UNANCHORED



ENDING TEMPORARY BARRIER DOWNSTREAM - ANCHORED

LEGEND

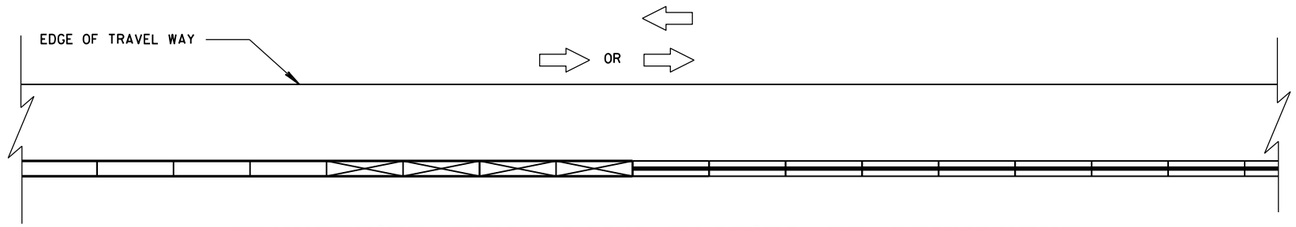
- DIRECTION OF TRAVEL
- CRASH CUSHION OR SAND BARREL ARRAY
- SEE FREE STANDING TRANSITION TO TIED-DOWN SYSTEM DETAILS
- SEE BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM DETAILS
- 3 PINS PLACED ON TRAFFIC SIDE OF BARRIER
- PERMANENT CONCRETE BARRIER OR CONCRETE PARAPET
- FREE STANDING TEMPORARY BARRIER

CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS

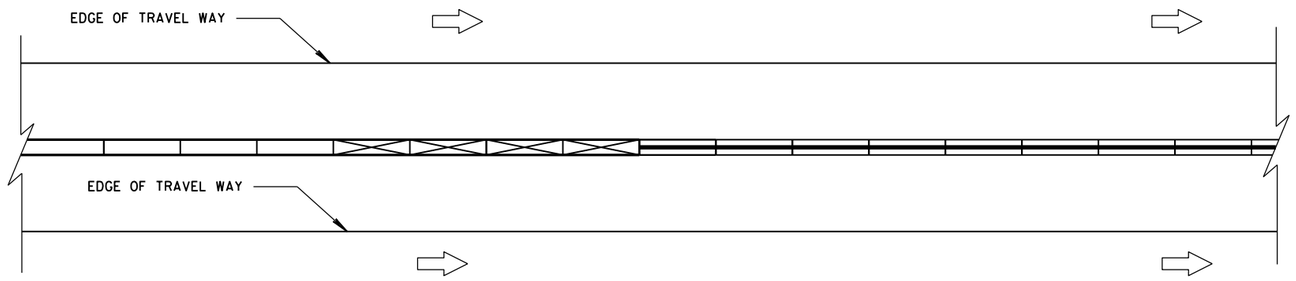
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

S.D.D. 14 B 8-2c



CONNECTING TEMPORARY BARRIER TO PERMANENT
CONCRETE BARRIER-TRAFFIC ON ONE SIDE



CONNECTING TEMPORARY BARRIER TO PERMANENT
CONCRETE BARRIER-TRAFFIC ON BOTH SIDES

LEGEND

DIRECTION OF TRAVEL

CRASH CUSHION OR
SAND BARREL ARRAY

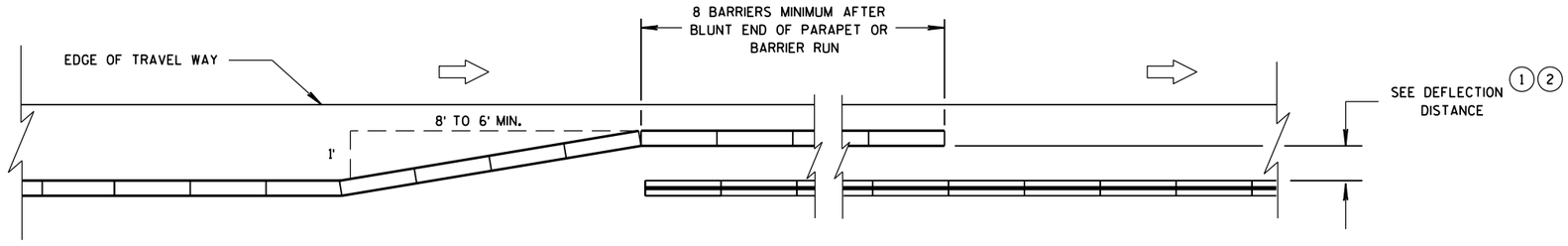
SEE FREE STANDING TRANSITION
TO TIED-DOWN SYSTEM DETAILS

SEE BI-DIRECTIONAL TRANSITION
TO TIED-DOWN SYSTEM DETAILS

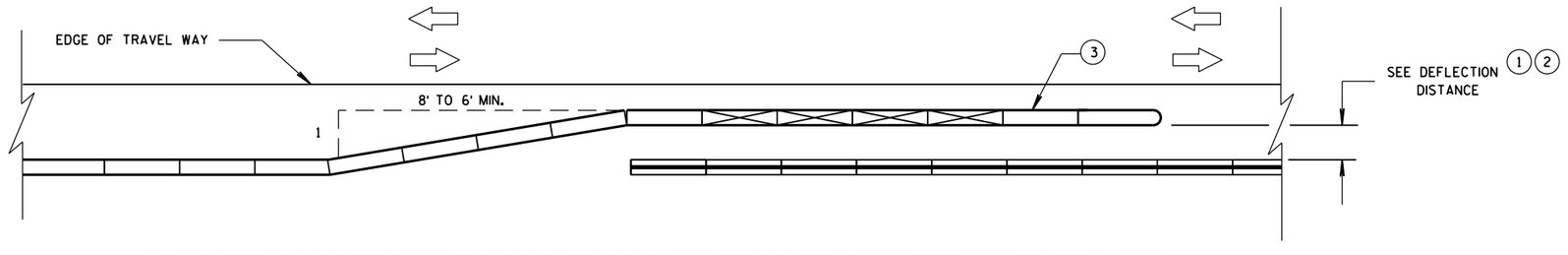
3 PINS PLACED ON
TRAFFIC SIDE OF BARRIER

PERMANENT CONCRETE BARRIER
OR CONCRETE PARAPET

FREE STANDING TEMPORARY
BARRIER



OVERLAPPING TEMPORARY BARRIER AND PERMANENT BARRIER -
ONE WAY TRAFFIC



OVERLAPPING TEMPORARY BARRIER AND PERMANENT BARRIER -
TWO WAY TRAFFIC

CRASH CUSHION/SAND BARREL
ARRAY AND OTHER TEMPORARY
BARRIER LAYOUT DETAILS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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S.D.D. 14 B 8-2d

LEGEND

DIRECTION OF TRAVEL

CRASH CUSHION OR SAND BARREL ARRAY

SEE FREE STANDING TRANSITION TO TIED-DOWN SYSTEM DETAILS

SEE BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM DETAILS

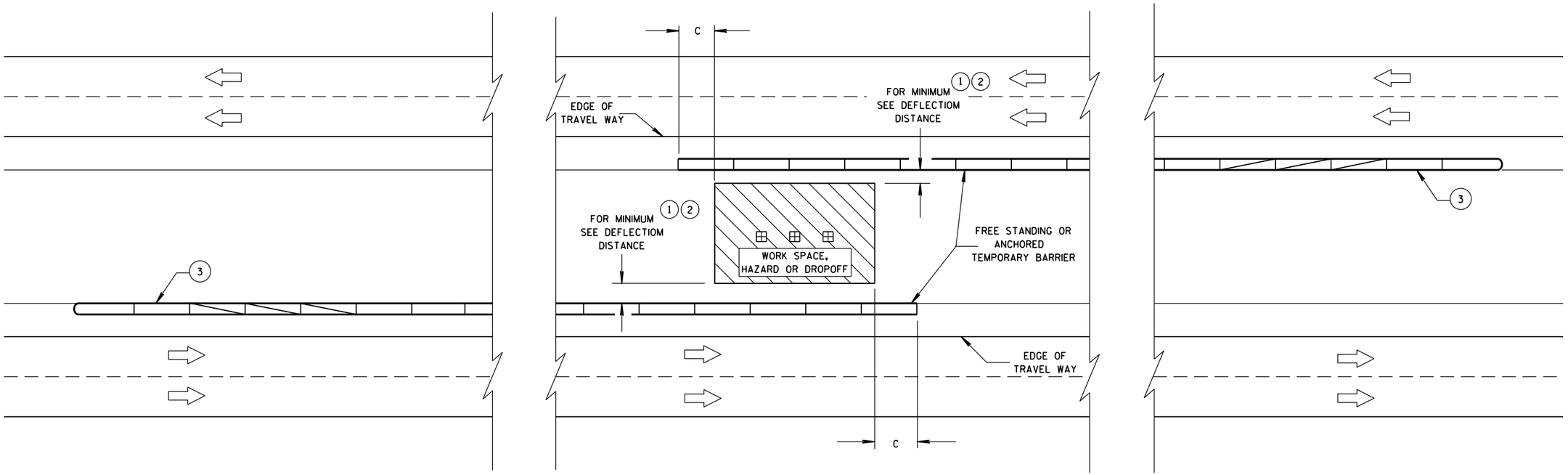
3 PINS PLACED ON TRAFFIC SIDE OF BARRIER

PERMANENT CONCRETE BARRIER OR CONCRETE PARAPET

FREE STANDING TEMPORARY BARRIER

DIMENSION C TABLE (2)

AVAILABLE DEFLECTION DISTANCE	MINIMUM LENGTH OF BARRIER BEYOND HAZARD FT
GREATER THAN 8'	12.5
LESS THAN OR EQUAL TO 8' BUT GREATER THAN 4'	50
LESS THAN OR EQUAL TO 4'	100



CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June, 2015
DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS ENGINNER
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FHWA

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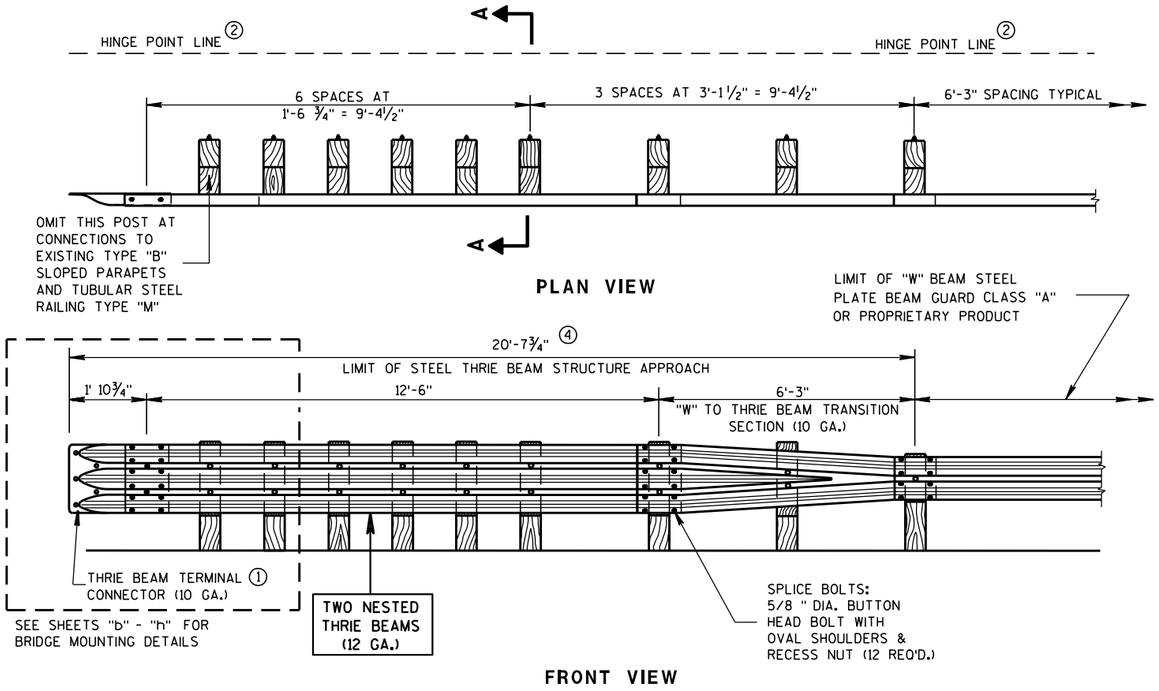
S.D.D. 14 B 8-2e



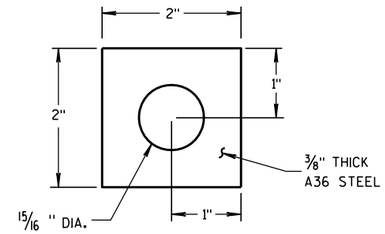


PLATE WASHER DETAIL

GENERAL NOTES

BOLT THE THRIE BEAM TO ALL POSTS AND BLOCKOUTS. DRILL OR PUNCH BOLT HOLES IN THE BEAM IF THE POST SPACING IS LESS THAN 6'-3".

DO NOT USE STEEL POSTS AND NOTCHED PLASTIC BLOCKOUTS IN THE STEEL THRIE BEAM STRUCTURAL APPROACH AND THE TRANSITION SECTION OF STEEL PLATE BEAM GUARD, CLASS "A" INSTALLATIONS.

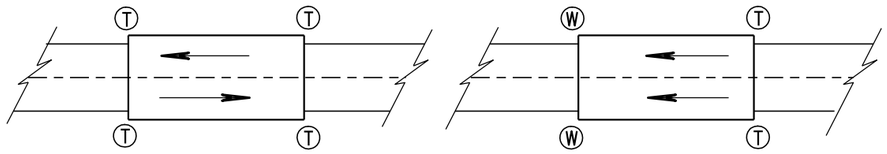
IF ROCK IS ENCOUNTERED, REMOVE ROCK TO FULL DEPTH OF POST PLUS 2 1/2" , AND 12" DIAMETER AROUND POST. SEE 14B15 FOR MORE DETAILS.

① BRIDGE RAILING TYPE "W" DOES NOT REQUIRE A TERMINAL CONNECTOR.

② MINIMUM EMBEDMENT SHALL BE 4'-0". WHERE EXISTING CONDITIONS DO NOT PERMIT THE APPROPRIATE EARTHWORK SHOWN ON THE PLAN TYPICAL SECTIONS OR DETAILS, THE ENGINEER MAY ALLOW THE REDUCTION OR ELIMINATION OF THE 2 FOOT DISTANCE TO THE HINGE POINT. OTHERWISE BUILD AS THE PLAN SHOWS OR AS THE ENGINEER DIRECTS. IF THE 2 FOOT DISTANCE TO THE HINGE POINT IS REDUCED OR ELIMINATED, INCREASE THE POST EMBEDMENT DEPTH TO 4'-6" OR MORE.

③ POST BOLTS ARE 5/8" DIAMETER ASTM A307 BUTTON HEAD BOLT. A POST BOLT REQUIRES A 5/8" DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX AND A 5/8" DIAMETER F844 FLAT WASHER. LENGTH OF POST BOLT MAY VARY.

④ ALL WOOD POSTS MUST BE 6" X 8" AND AT LEAST 7'-0" LONG.



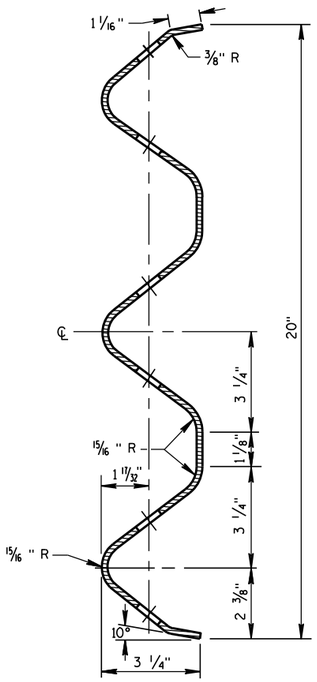
TWO WAY TRAFFIC

ONE WAY TRAFFIC

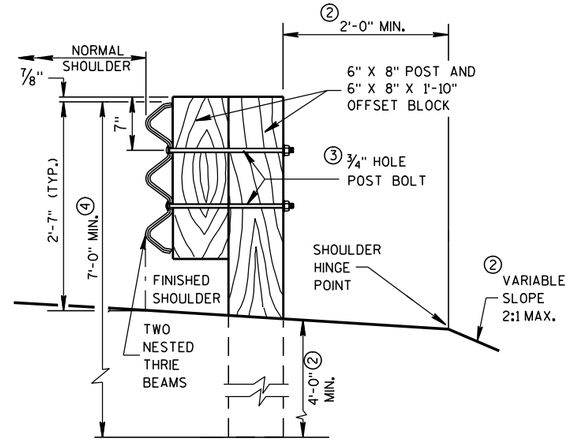
T THRIE BEAM CONNECTION

W W-BEAM CONNECTION WHEN REQUIRED

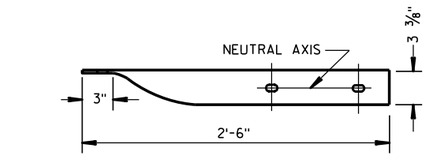
TYPICAL LOCATIONS OF THRIE BEAM AND W-BEAM CONNECTIONS TO BRIDGE

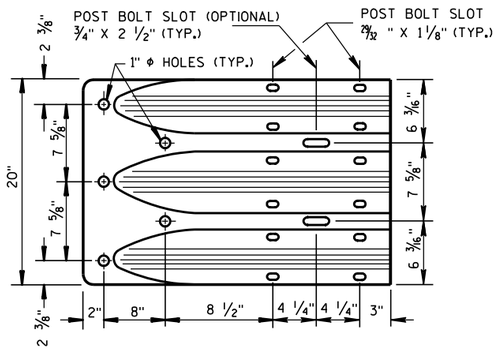


SECTION THRU THRIE BEAM RAIL ELEMENT

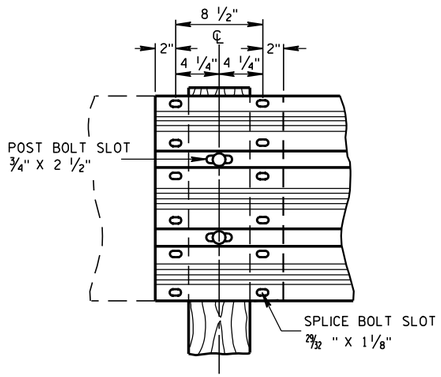


SECTION A-A





THRIE BEAM TERMINAL CONNECTOR



THRIE BEAM SPLICE

STEEL THRIE BEAM STRUCTURE APPROACH

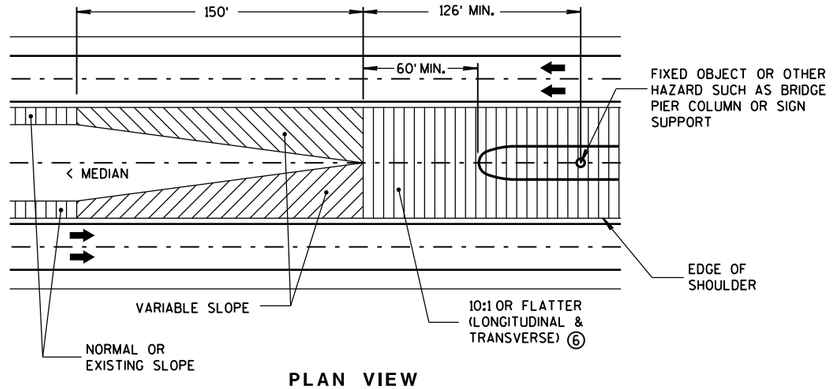
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

8/31/2012 — DATE

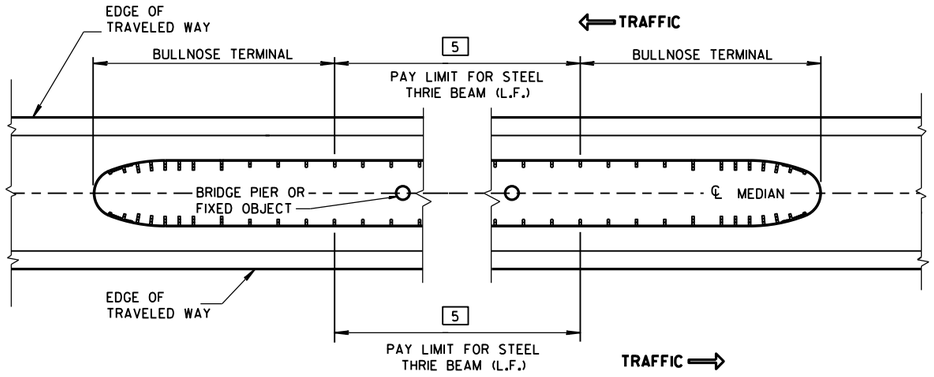
/S/ Jerry H. Zogg — ROADWAY STANDARDS ENGINEER

FHWA

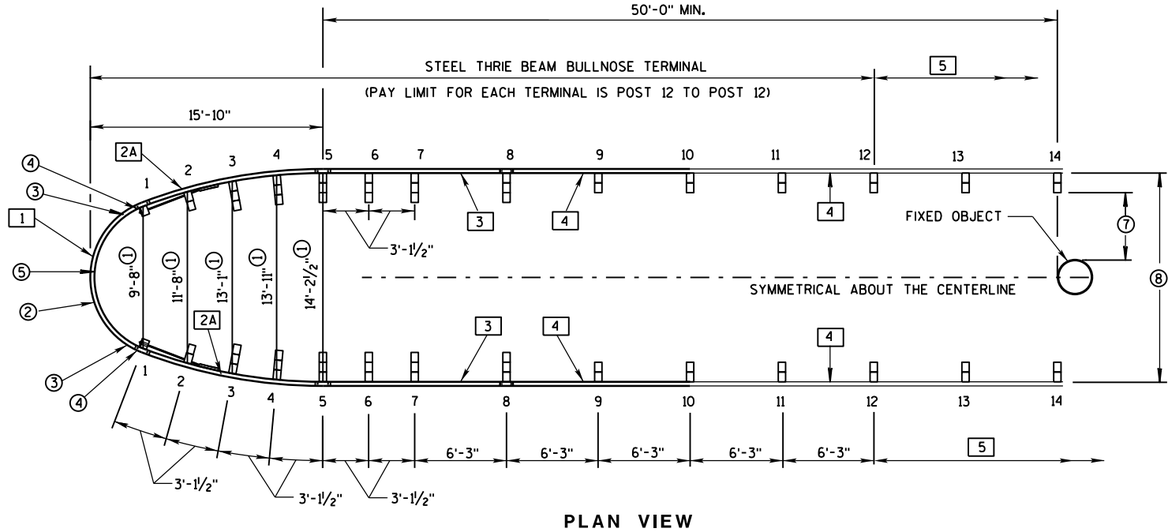


PLAN VIEW

GRADING AT BULLNOSE
(ALL INSTALLATIONS)

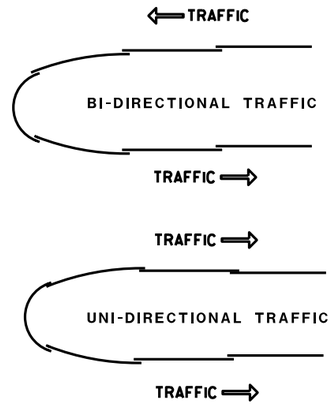


MEDIAN HAZARD PROTECTION PAY LIMITS



PLAN VIEW

TYPICAL BULLNOSE LAYOUT



LAPPING DETAIL
(ALL INSTALLATIONS)

GENERAL NOTES

SEE STANDARD DETAIL DRAWINGS 14 B 26a-e.

PUNCHING, DRILLING, CUTTING OR WELDING IS NOT PERMITTED ON ANY GALVANIZED THRIE BEAM ACCESSORY OR TERMINAL ACCESSORY.

OTHER ANCHOR CABLE ASSEMBLIES HAVING 40,000 LBS. MIN. BREAKING STRENGTH MAY BE USED.

FOR POSTS 2 THROUGH 14, IF POST CANNOT BE INSTALLED AT SPECIFIED LOCATION 1 EXTRA STANDARD WOOD BLOCK MAY BE ADDED.

THE USE OF STEEL POSTS ON THE BULLNOSE IS NOT ALLOWED.

BOLTS AND ALL NECESSARY HARDWARE SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A 153.

ALL THRIE BEAM SHALL BE 12-GAUGE.

IF ROCK IS ENCOUNTERED, REMOVE ROCK TO FULL DEPTH OF POST PLUS 2½" AND 12" DIAMETER AROUND POST. SEE SDD 14B15 OR SDD 14B42 FOR MORE INFORMATION.

[1] SLOTTED THRIE BEAM RAIL NO. 1. (POST 1 TO POST 1)

[2A] SLOTTED THRIE BEAM RAIL NO. 2A. (POST 1 TO POST 5)

[3] SLOTTED THRIE BEAM RAIL NO. 3. (POST 5 TO POST 8)

[4] UNBENT STANDARD THRIE-BEAM RAIL NO.4. (POST 8 TO POST 10 & POST 10 TO POST 12)

[5] BEYOND POST 12: CONSTRUCT STEEL THRIE BEAM - USE UNBENT STANDARD THRIE BEAM RAIL NO. 5.

① DIMENSIONS ARE FROM BACK OF RAIL TO BACK OF RAIL WHERE RAIL IS BOLTED TO POST OR BLOCK.

② U-BOLT CABLE CLIPS (3 PER CABLE) SPACED OUT ON NOSE, TO HOLD CABLE TO BACKSIDE OF THE RAIL.

③ NOSE CABLE W/SWAGGED END BUTTONS.

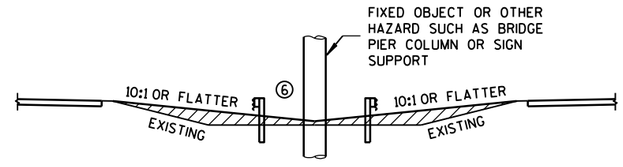
④ NOSE CABLE ANCHOR PLATE (BACKSIDE OF SPLICE).

⑤ THE SLACK IN THE NOSE CABLES SHALL BE EVENLY DISTRIBUTED BETWEEN THE CABLE CLIP FASTENERS AND POST NO. 1 ON EITHER SIDE OF THE NOSE.

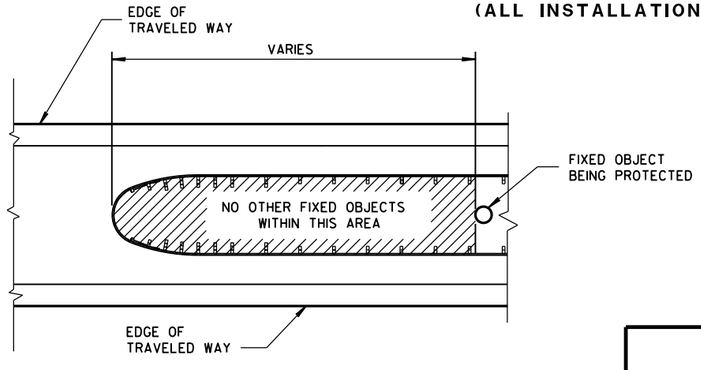
⑥ PROVIDE SUITABLE DRAINAGE WHEN MEDIAN GRADING IMPEDES NORMAL FLOW.

⑦ 2'-6" MINIMUM LATERAL DISTANCE BETWEEN BACK OF POST AND FACE OF FIXED OBJECT.

⑧ MAXIMUM WIDTH OF SYSTEM IS 14'-2½" MEASURED FROM BACK OF RAIL TO BACK OF RAIL WHERE RAIL IS BOLTED TO A POST OR BLOCK.



MEDIAN GRADING SECTION
(ALL INSTALLATIONS)

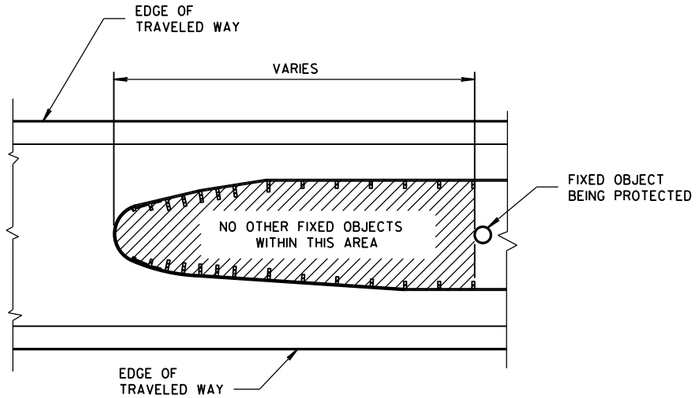


HAZARD FREE AREA INSIDE BULLNOSE

STEEL THRIE BEAM BULLNOSE TERMINAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPO

6
S.D.D. 14 B 26-3a



HAZARD FREE
AREA INSIDE BULLNOSE

GENERAL NOTES

SEE STANDARD DETAIL DRAWINGS 14 B 26a-e.

FOR POSTS 2 THROUGH 14, IF POST CANNOT BE INSTALLED AT SPECIFIED LOCATION 1 EXTRA STANDARD WOOD BLOCK MAY BE ADDED.

[1] SLOTTED THRIE BEAM RAIL NO. 1. (POST 1 TO POST 1)

[2A] SLOTTED THRIE BEAM RAIL NO. 2A, (POST 1 TO POST 5)

[2B] SLOTTED THRIE BEAM RAIL NO. 2B, (POST 1 TO POST 5)

[3] SLOTTED THRIE BEAM RAIL NO. 3. (POST 5 TO POST 8)

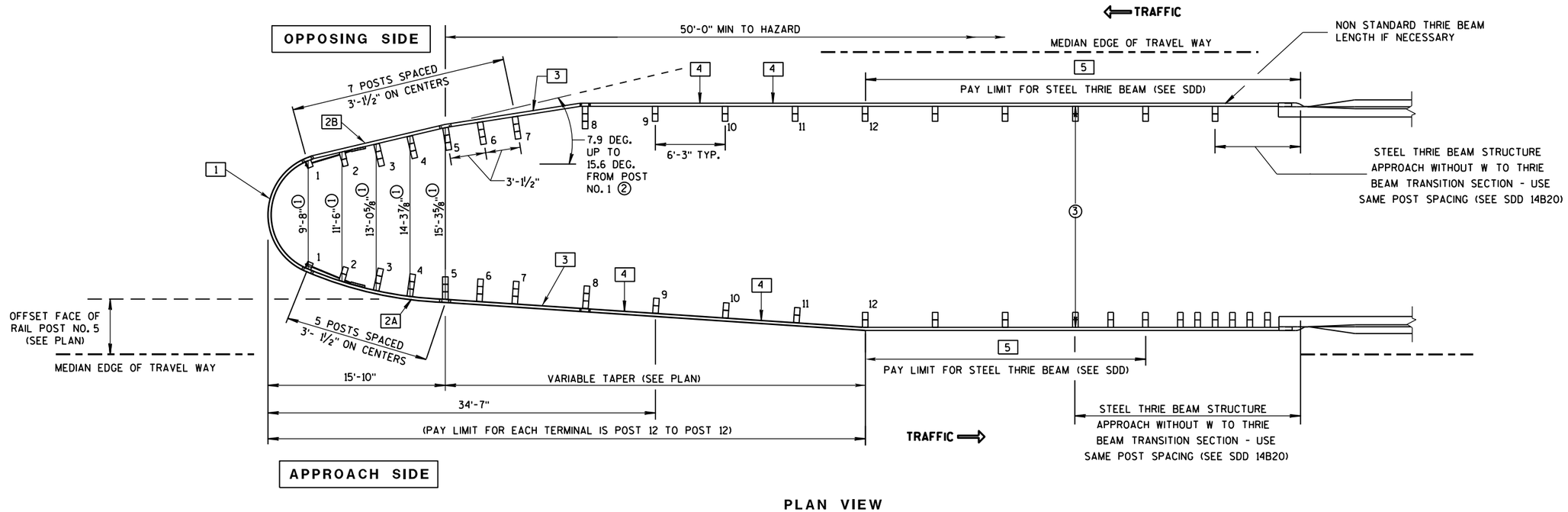
[4] UNBENT STANDARD THRIE-BEAM RAIL NO. 4, (POST 8 TO POST 10 & POST 10 TO POST 12)

[5] BEYOND POST 12: CONSTRUCT STEEL THRIE BEAM - USE UNBENT STANDARD THRIE BEAM RAIL NO. 5.

① DIMENSIONS ARE FROM BACK OF RAIL TO BACK OF RAIL WHERE RAIL IS BOLTED TO POST.

② TAPER BEGINNING AT POST NO. 1 MUST CONTINUE TO POST NO. 5. PAST POST NO. 5 TAPER MAY END OR BE EXTENDED UP TO 15.6 DEGREES TO FIT VARIABLE MEDIAN WIDTHS. (SEE PLAN)

③ FOR MEDIANS WIDER THAN 14'-2½" MEASURED FROM BACK OF RAIL TO BACK OF RAIL WHERE RAIL IS BOLTED TO A POST OR BLOCK.



PLAN VIEW

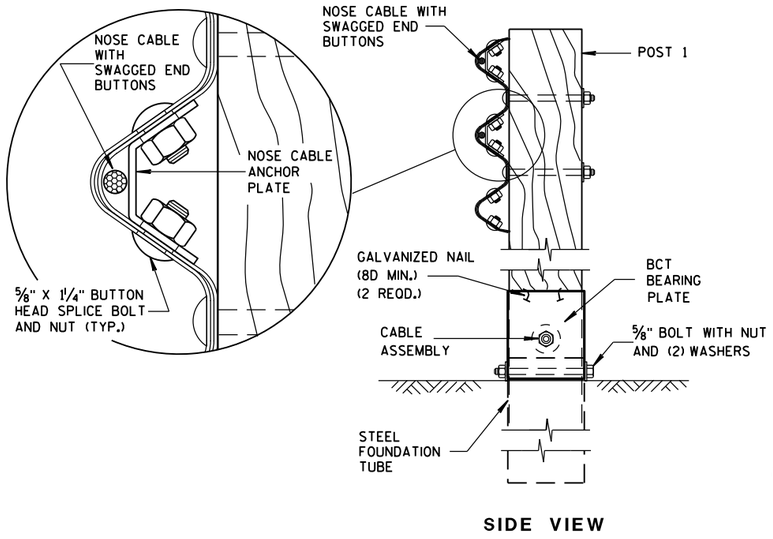
WIDENED BULLNOSE DESIGN

(INSTALLATION AT TWIN BRIDGES WITH BI-DIRECTIONAL TRAFFIC SHOWN)

STEEL THRIE BEAM
BULLNOSE TERMINAL

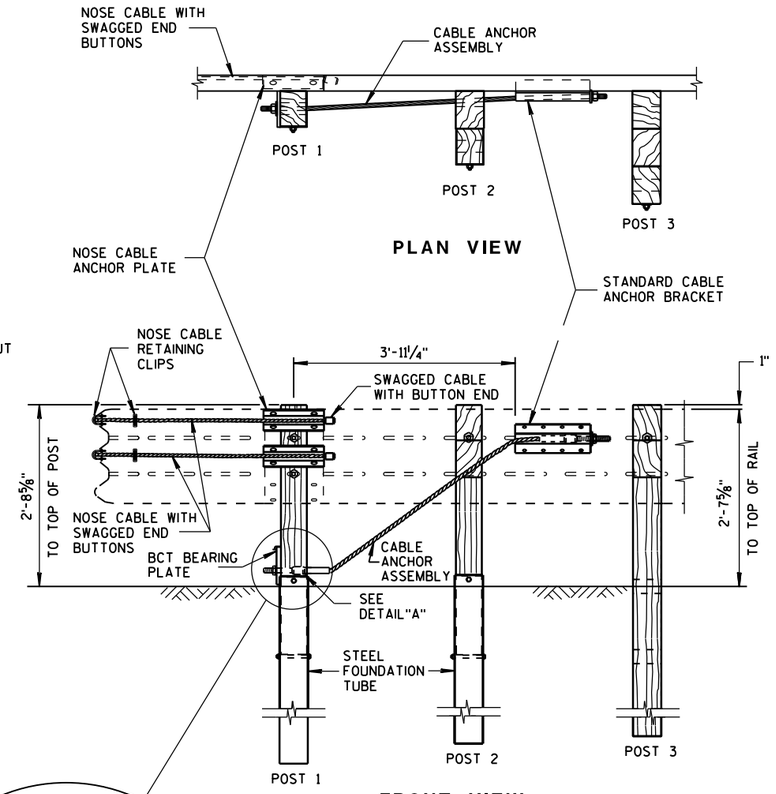
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6
S.D.D. 14 B 26-3b



SIDE VIEW

NOSE CABLE ASSEMBLY AT POST NO. 1



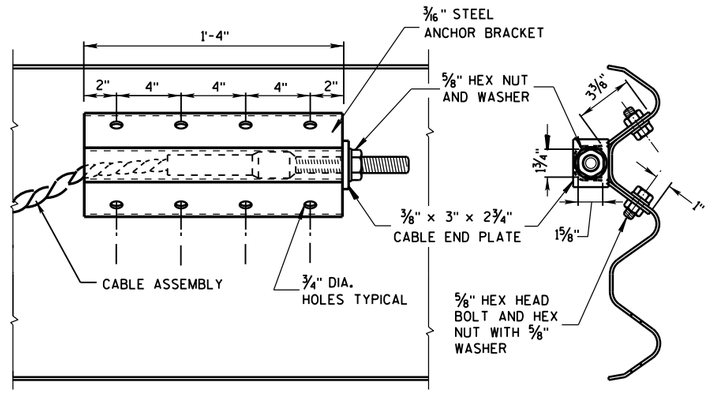
PLAN VIEW

FRONT VIEW

NOSE CABLE ANCHOR AND STANDARD BRACKET ASSEMBLY

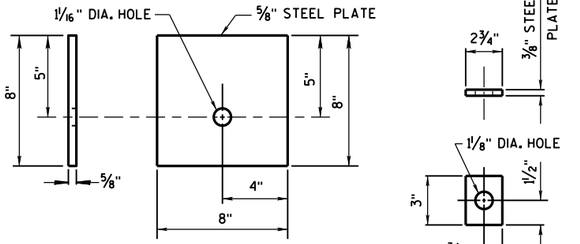
GENERAL NOTES

SEE STANDARD DETAIL DRAWINGS 14 B 26a-e.



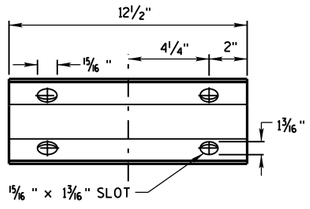
FRONT VIEW END VIEW

DETAILS OF CABLE ANCHOR BRACKET

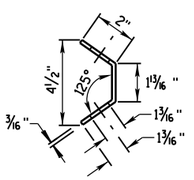


BCT BEARING PLATE

CABLE END PLATE



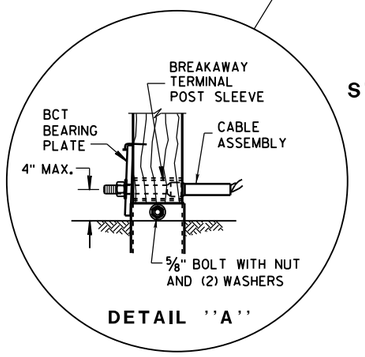
ELEVATION VIEW



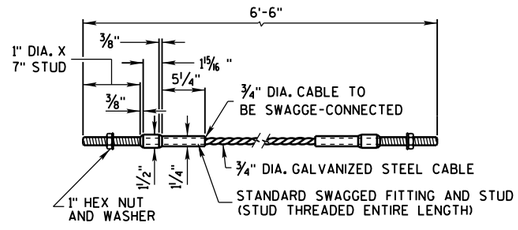
END VIEW

NOSE CABLE ANCHOR PLATE

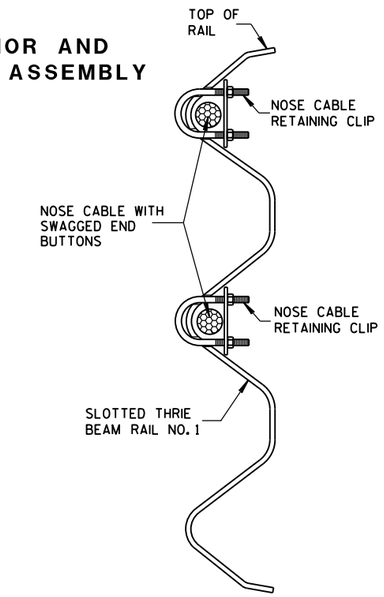
NOTE: 12 1/2" x 5 13/16" x 3/16" STEEL PLATE (A306)



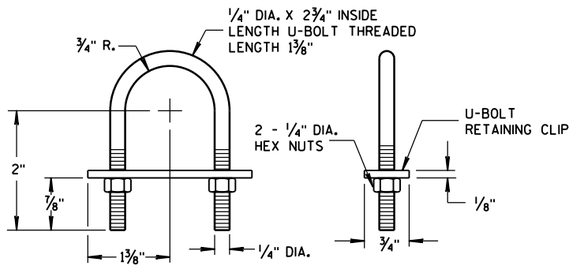
DETAIL ''A''



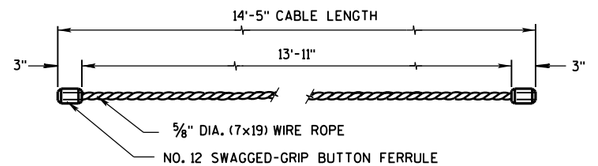
DETAILS OF CABLE ANCHOR ASSEMBLY



PLACEMENT OF NOSE CABLE RETAINING CLIP



NOSE CABLE RETAINING CLIP



NOSE CABLE WITH SWAGGED END BUTTONS

TO PULL OFF SWAGGED GRIP BUTTON FERRULE FROM WIRE ROPE REQUIRES A FORCE EQUAL TO 98% OF THE WIRE ROPE'S BREAKING STRENGHT.

STEEL THRIE BEAM BULLNOSE TERMINAL

STATE OF WISCONSIN
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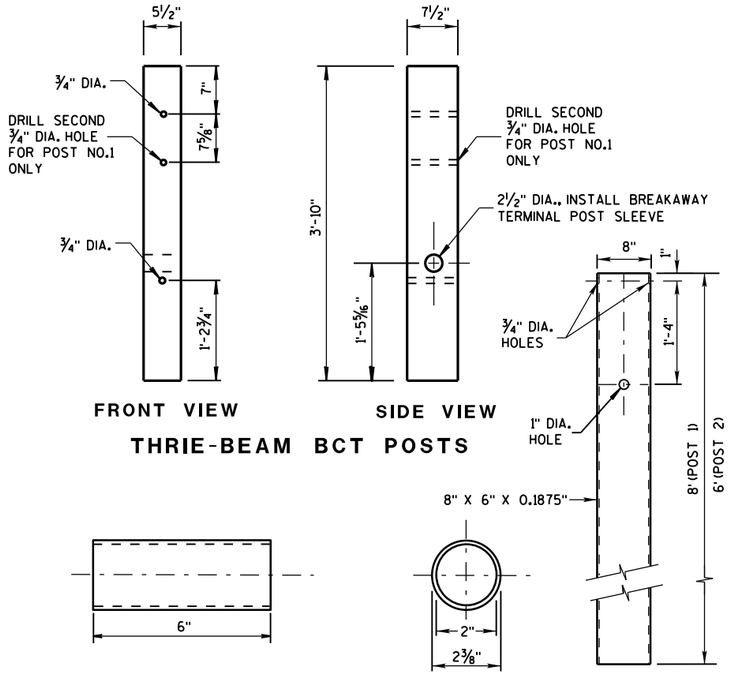
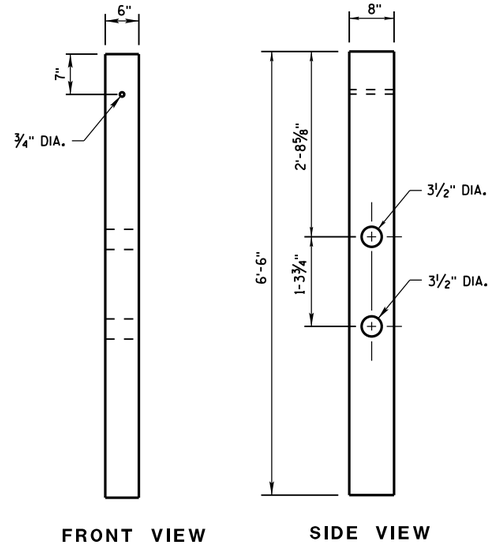
S.D.D. 14 B 26-3c



THRIE-BEAM BCT POSTS

BREAKAWAY TERMINAL POST SLEEVE

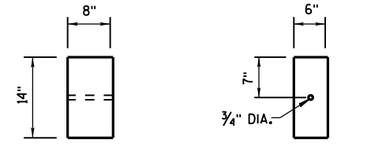
STEEL FOUNDATION TUBE



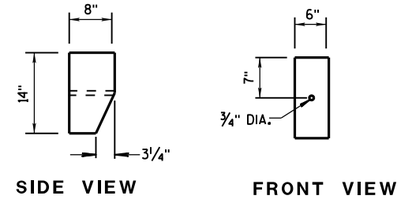
THRIE-BEAM CRT WOOD POSTS

GENERAL NOTES

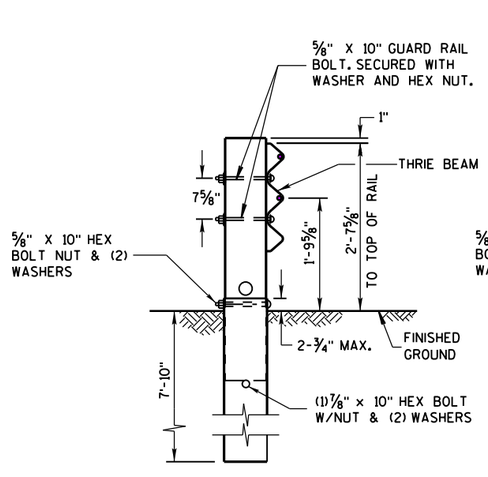
SEE STANDARD DETAIL DRAWINGS 14 B 26a-e.



STANDARD WOOD BLOCK

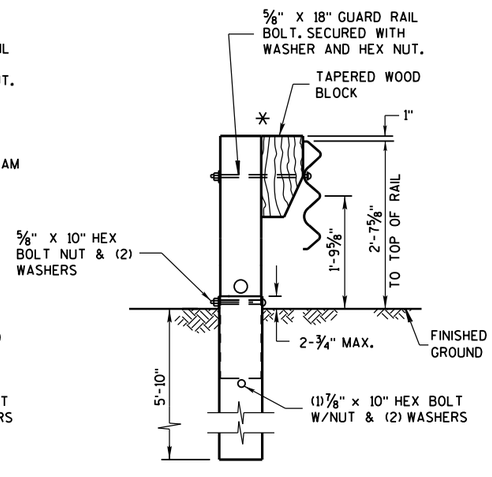


TAPERED WOOD BLOCK



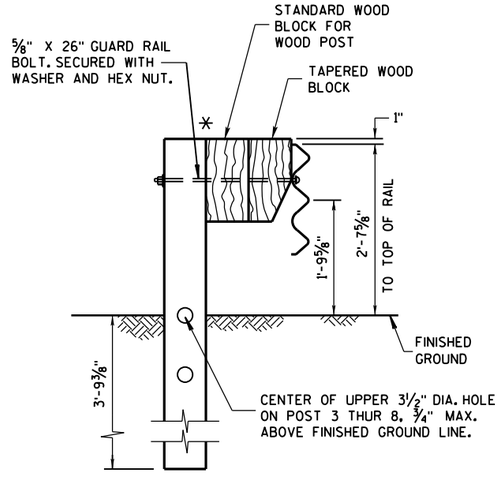
THRIE-BEAM BCT POST
(WITH 8'-0" FOUNDATION TUBE)

POST NO. 1



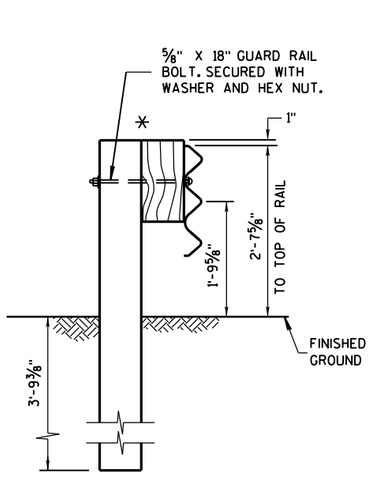
THRIE-BEAM BCT POST
(WITH 6'-0" FOUNDATION TUBE AND 1'-2" TAPERED BLOCK)

POST NO. 2



THRIE-BEAM CRT POST
(6'-6" LONG POST WITH 1'-2" BLOCK AND 1'-2" TAPERED BLOCK)

POST NO. 3,4,5,6,7, & 8



THRIE-BEAM POST
(6'-6" LONG POST WITH 1'-2" BLOCK)

POST NO. 9,10,11,& 12

(ALSO USE FOR STEEL THRIE BEAM BEYOND POST 12)

* IF NEEDED DUE TO AN UNDERGROUND OBSTACLE ADD 1 ADDITIONAL STANDARD BLOCKOUT TO POST.

STEEL THRIE BEAM BULLNOSE TERMINAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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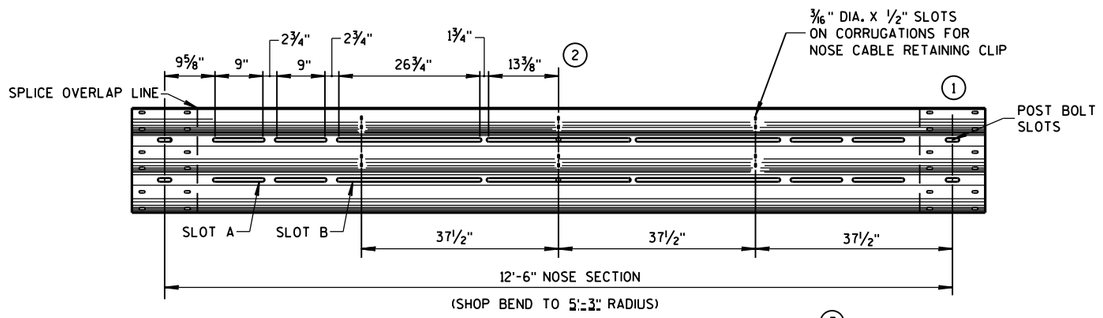
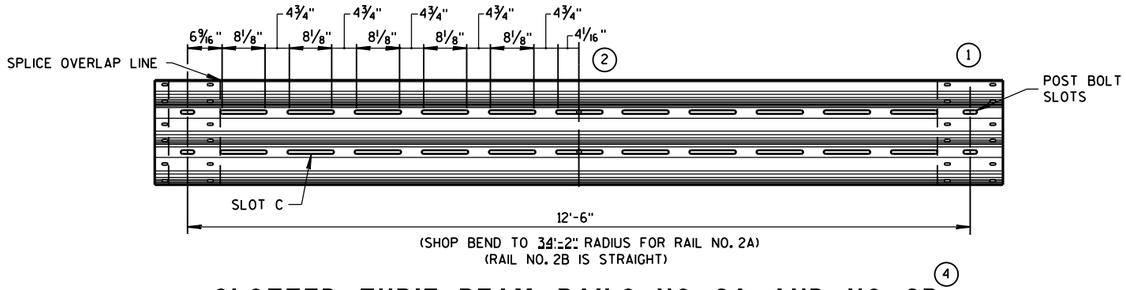
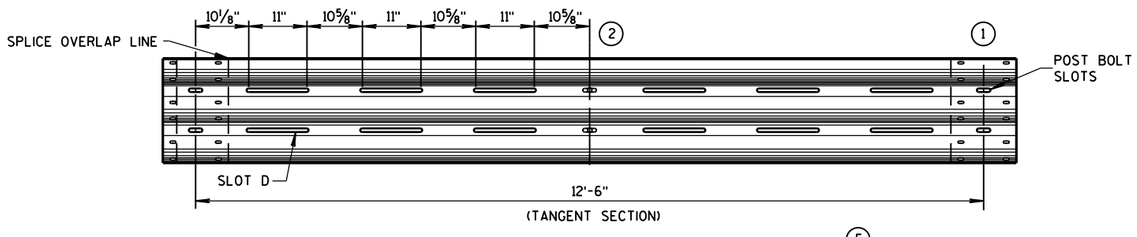
S.D.D. 14 B 26-3d



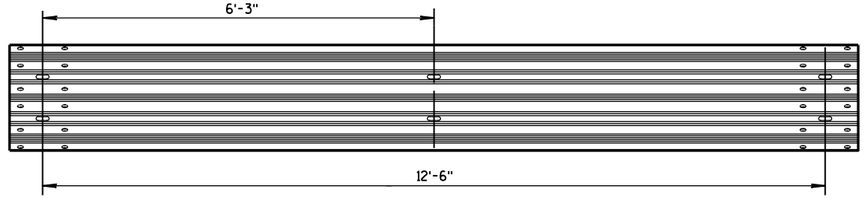
SLOTTED THRIE BEAM RAIL NO. 1 (3)



SLOTTED THRIE BEAM RAILS NO. 2A AND NO. 2B (4)



SLOTTED THRIE BEAM RAIL NO. 3 (5)



UNBENT STANDARD THRIE BEAM RAIL NO. 4 AND NO. 5

GENERAL NOTES

SEE STANADRD DETAIL DRAWINGS 14 B 26a-e.

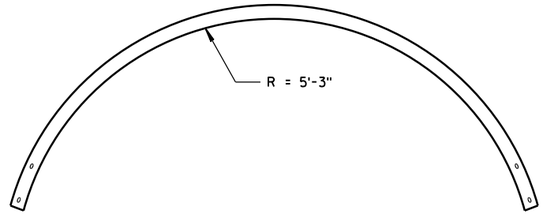
(1) SLOTTED THRIE BEAM RAIL DIMENSIONS SHOWN ARE BEFORE BENDING TO THE RADIUS SHOWN.

(2) SLOT SIZE AND SPACING SYMMETRIC.

(3) SLOTTED THRIE BEAM RAIL NO. 1, 12'-6", SHOP BEND TO R=5'-3".

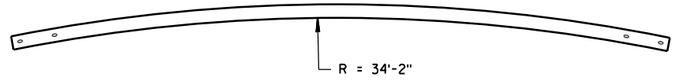
(4) SLOTTED THRIE BEAM RAIL NO. 2A, 12'-6", SHOP BEND TO R=34'-2".
SLOTTED THRIE BEAM RAIL NO. 2B, 12'-6", RAIL IS STRAIGHT.

(5) SLOTTED THRIE BEAM RAIL NO. 3, 12'-6", TANGENT.



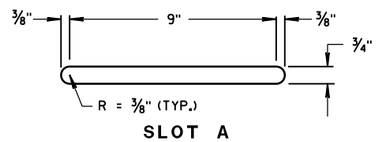
PLAN VIEW

SLOTTED THRIE BEAM RAIL NO. 1

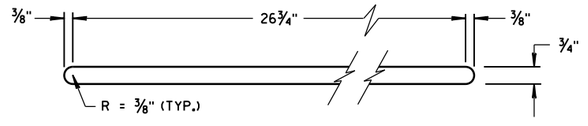


PLAN VIEW

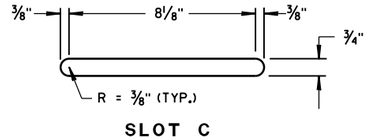
SLOTTED THRIE BEAM RAIL NO. 2A



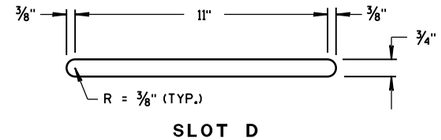
SLOT A



SLOT B



SLOT C



SLOT D

SLOT DETAILS

STEEL THRIE BEAM
BULLNOSE TERMINAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2014 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA

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S.D.D. 14 B 26-3e

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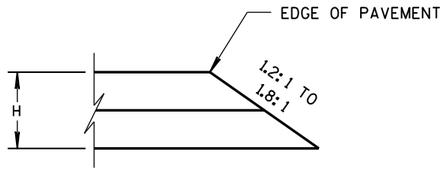
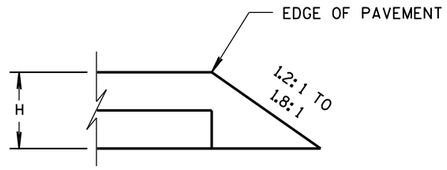
S.D.D. 14 B 26-3e



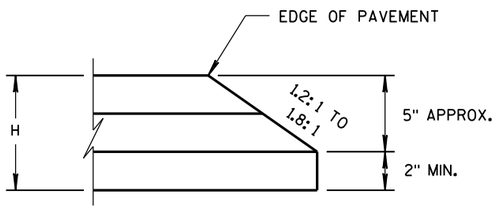
CONSTRUCTED WITH FINAL TWO LAYERS

FOR H 5" OR LESS



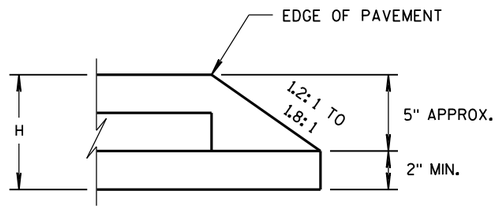
CONSTRUCTED WITH FINAL LAYER

FOR H 5" OR LESS



CONSTRUCTED WITH FINAL TWO LAYERS

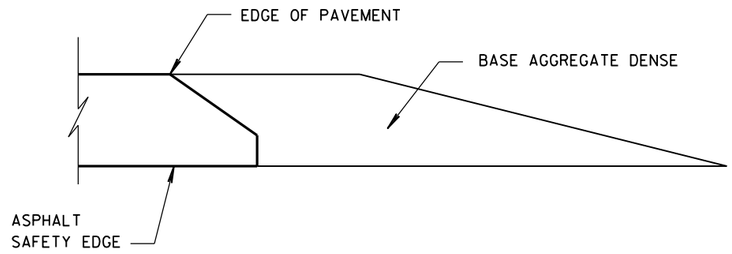
FOR H GREATER THAN 5"



CONSTRUCTED WITH FINAL LAYER

FOR H GREATER THAN 5"

HMA PAVEMENT AND HMA OVERLAYS



FINISHED SHOULDER AGGREGATE PLACEMENT

6

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S.D.D. 14 B 29-1

S.D.D. 14 B 29-1

SAFETY EDGE SM

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

11/30/2012
DATE

/S/ Jerry H. Zoda
ROADWAY STANDARDS DEVELOPMENT ENGINEER

FHWA

GENERAL NOTES

(1) WOOD OR STEEL POSTS (w6X9 OR w6X8.5) MAY BE USED. DO NOT INTERMIX WOOD AND STEEL POSTS. INSTALL STEEL POSTS WITH HOLES ON APPROACHING TRAFFIC SIDE.

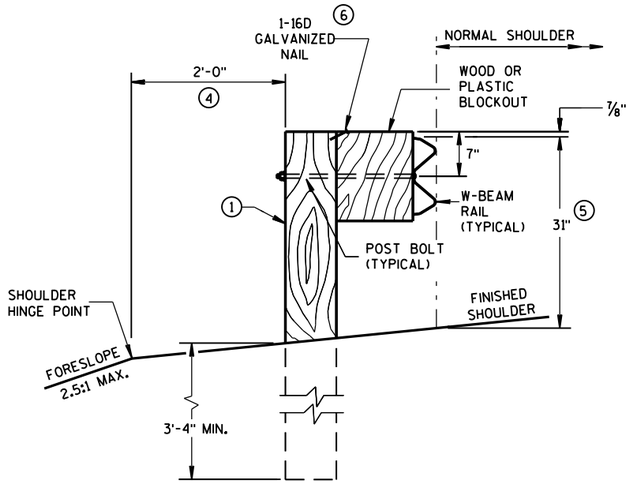
(2) USE WOOD OR APPROVED PLASTIC BLOCKOUTS. WOOD BLOCKOUTS MAY BE CONSTRUCTED OUT OF TWO OR MORE WOOD BLOCKOUTS. SEE ALTERNATE WOOD BLOCKOUT DETAIL. DIMENSIONS OF APPROVED PLASTIC BLOCKOUTS MAY VARY.

(3) IF ROCK IS ENCOUNTERED DURING EXCAVATION, PROVIDE A HOLE 12 INCHES IN DIAMETER EXTENDING 20 INCHES DEEP INTO THE ROCK. PLACE APPROXIMATELY 2½ INCHES OF GRANULAR MATERIAL IN THE BOTTOM OF THE HOLE. CUT THE POSTS THE TO LENGTH AMD INSTALL. BACKFILL WITH EXCAVATED MATERIAL AND COMPACT. BACKFILL IS TO BE FREE OF LARGE ROCKS.

(4) WHEN THE DISTANCE FROM BACK OF POST TO SHOULDER HINGE POINT IS LESS THAN 2 FEET INSTALL LONGER POST AT HALF POST SPACING (K).

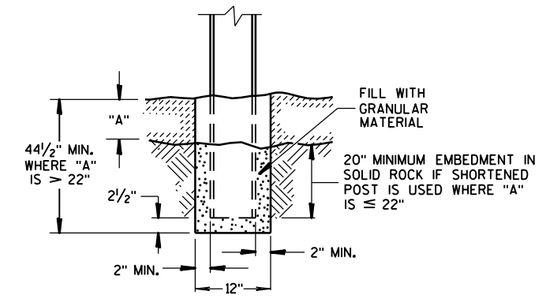
(5) FOR NEW MGS INSTALLATION TOP OF W-BEAM RAIL TOLERANCE IS ± 1". FOR EXISTING MGS INSTALLATION TOP OF W-BEAM IS BETWEEN 27¾" TO 32".

(6) WHEN USING STEEL POST AND WOOD BLOCKOUTS INSTALL FOUR 16D GALVANIZED NAILS. INSTALL NAILS AT THE BACK CORNERS OF THE BLOCK AND BEND THE NAILS OVER THE FLANGE OF THE STEEL POST.



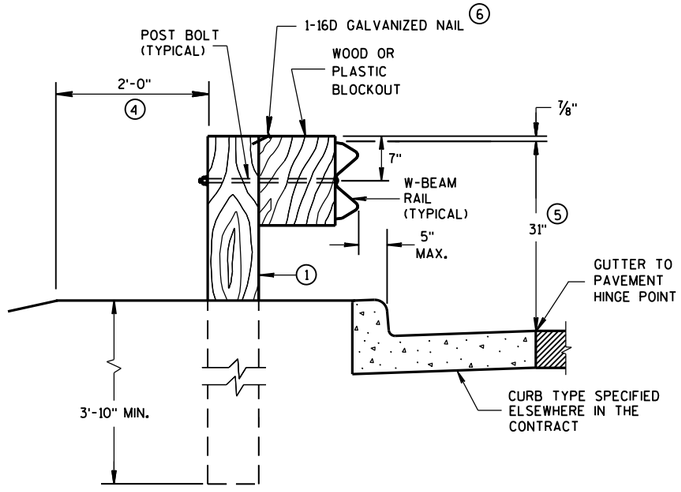
END VIEW

LOCATED ALONG A ROADWAY SHOULDER
STANDARD INSTALLATION



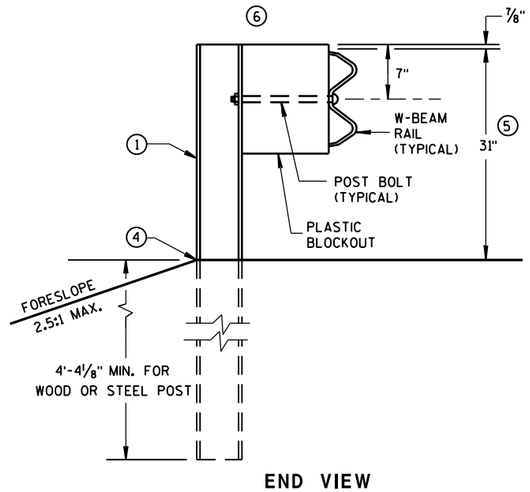
END VIEW

SETTING STEEL OR WOOD POST IN ROCK (3)



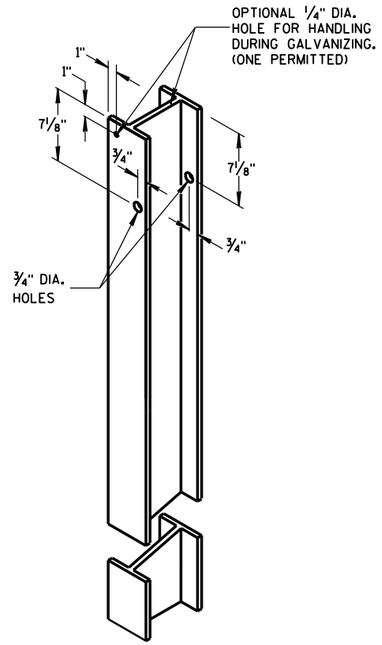
END VIEW

LOCATED ALONG A CURBED ROADWAY

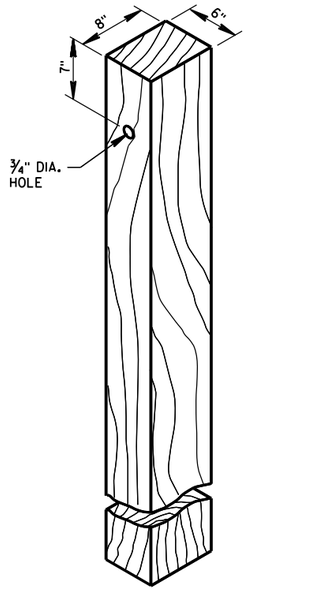


END VIEW

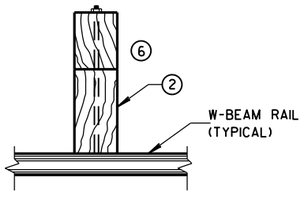
MGS LONGER POST AT HALFPOST SPACING W BEAM (K)



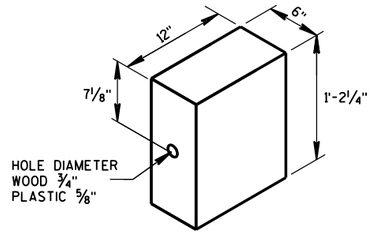
STEEL POST &
HOLE PUNCHING DETAIL
(w6X9) (1)



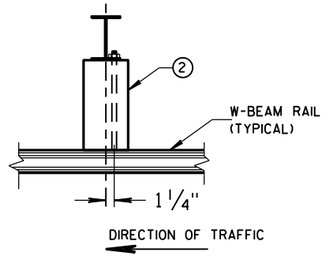
WOOD POST
(6" X 8") NOMINAL (1)



PLAN VIEW
WOOD POST,
BLOCKOUT & BEAM



WOOD OR
PLASTIC BLOCKOUT (2)



PLAN VIEW
STEEL POST,
PLASTIC BLOCKOUT & BEAM

MIDWEST GUARDRAIL SYSTEM
(MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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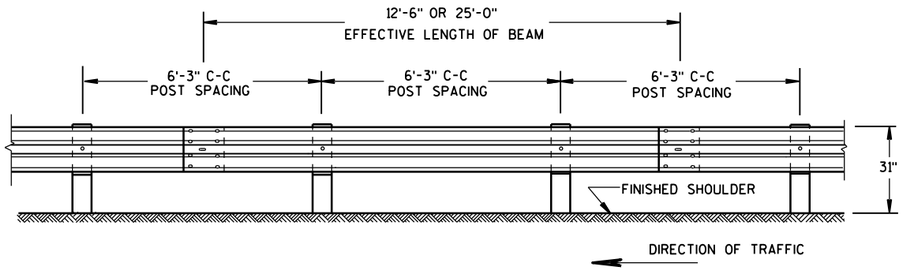
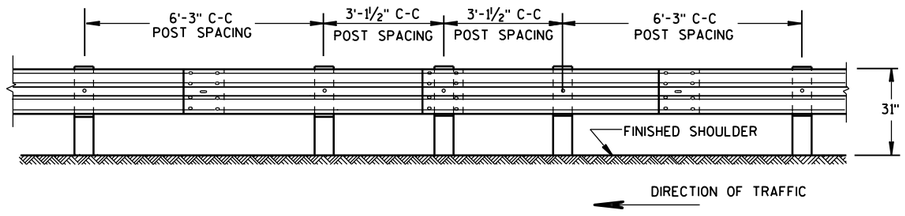
S.D.D. 14 B 42-3a



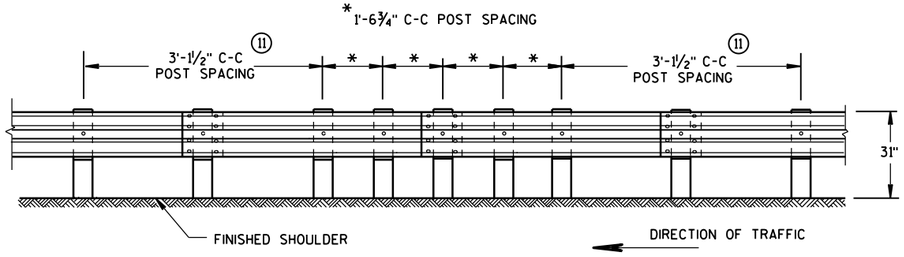
FRONT VIEW

POST SPACING STANDARD INSTALLATION



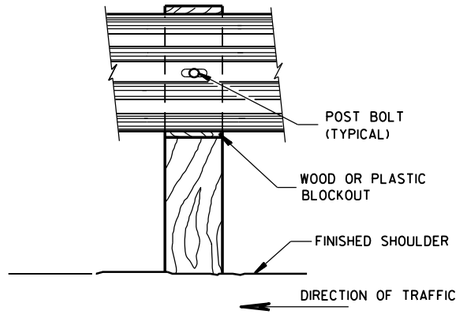
FRONT VIEW

HALF POST SPACING (HS) AND HALF POST SPACING WITH LONGER POSTS (K)

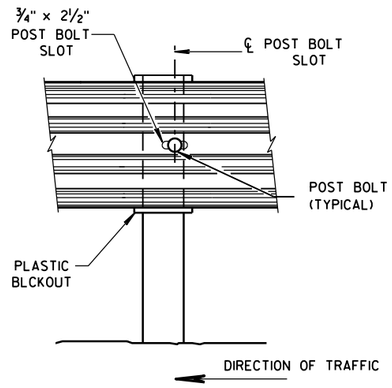


FRONT VIEW

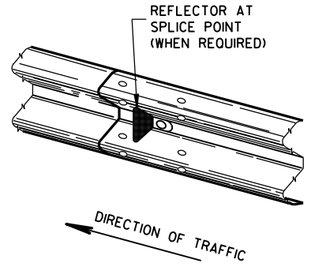
QUARTER POST SPACING (QS)

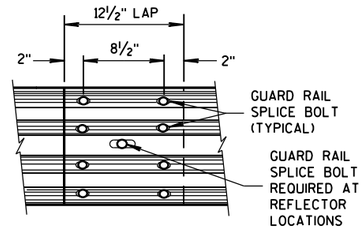


FRONT VIEW AT WOOD POST



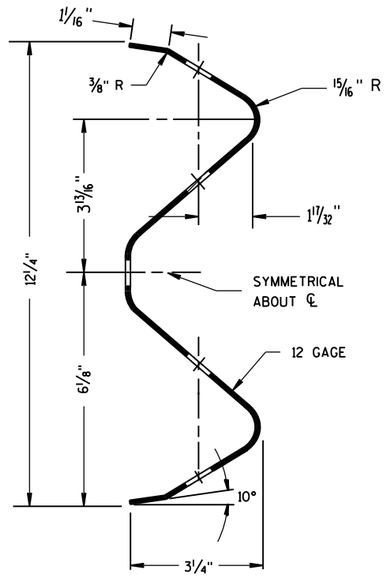
FRONT VIEW AT STEEL POST



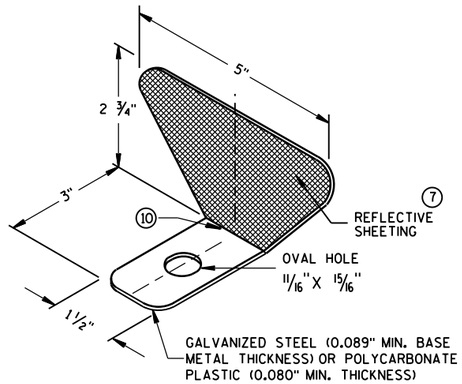


FRONT VIEW

MID-SPAN BEAM SPLICE



SECTION THRU W-BEAM RAIL



ONE SIDED REFLECTOR DETAIL AND TYPICAL INSTALLATION ⑦

GENERAL NOTES

⑦ PROVIDE SILVER REFLECTIVE SHEETING ON ALL REFLECTORS EXCEPT THOSE LOCATED ALONG THE LEFT EDGE OF ONE-WAY ROADWAYS, WHICH SHALL BE PROVIDED WITH YELLOW REFLECTIVE SHEETING. SHEETING IS TYPE H. SEE STANDARD SPECIFICATION 637.

⑧ DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL. RAIL SPLICE LOCATIONS ARE THE ONLY ACCEPTABLE LOCATIONS FOR REFLECTORS.

⑨ REVERSE EVERY OTHER REFLECTOR FOR 2-WAY VISIBILITY. THE CONTRACTOR MAY FURNISH TWO-SIDED REFLECTORS IN LIEU OF ONE-SIDED REFLECTORS.

⑩ PROVIDE AN ANGLE OF BEND OF 90° ± 1° FOR TWO-SIDED REFLECTORS.

⑪ 25 FEET OF HALF POST SPACING IS REQUIRED ON APPROACH AND DEPARTURE ENDS OF QUARTER POST SPACING.

POST BOLTS ARE A ⅝" DIAMETER ASTM A307 GUARDRAIL BOLT. A POST BOLT REQUIRES ⅝" DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX NUT AND ⅝" DIAMETER F844 FLAT WASHER. POST BOLTS MAY BE LONGER IF MULTIPLE BLOCKOUTS ARE BEING USED.

GUARD RAIL SPLICE BOLTS ARE A ⅝" DIAMETER ASTM A307 GUARDRAIL HEAD BOLT. A GUARDRAIL SPLICE BOLT REQUIRES ⅝" DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX NUT.

REFLECTOR SPACING ⑧

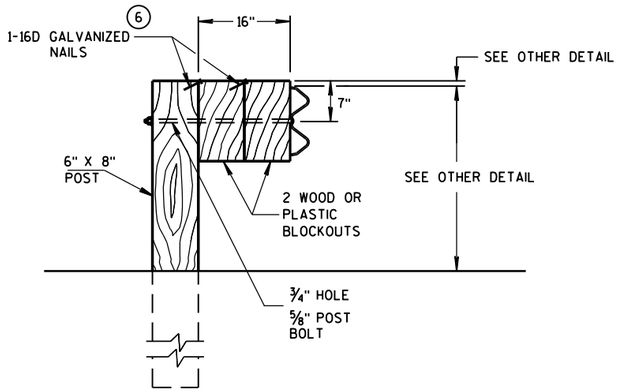
	BEAM GUARD LENGTH	REFLECTOR SPACING	NO. SURFACES REFLECTORIZED	MIN. NO. REFLECTORS
ONE WAY TRAFFIC	< 200' > 200'	50' C-C 100' C-C	1 1	3
TWO WAY TRAFFIC	< 200' > 200'	25' C-C 50' C-C	1 ⑨ 1	6
TWO WAY TRAFFIC	< 200' > 200'	50' C-C 100' C-C	2 2 ⑩	3

MIDWEST GUARDRAIL SYSTEM
(MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

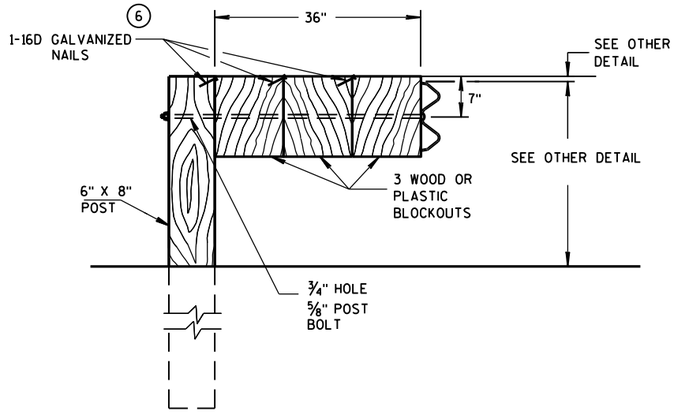
6

S.D.D. 14 B 42-3b



DETAIL FOR 16" BLOCKOUT DEPTH

IT IS ACCEPTABLE TO USE BLOCKOUTS UP TO 16" DEEP TO INCREASE THE POST OFFSET TO AVOID UNDERGROUND OBSTACLES. THERE IS NO LIMIT TO THE NUMBER OF POSTS THAT CAN HAVE ADDITIONAL BLOCKOUTS UP TO 16" DEEP.

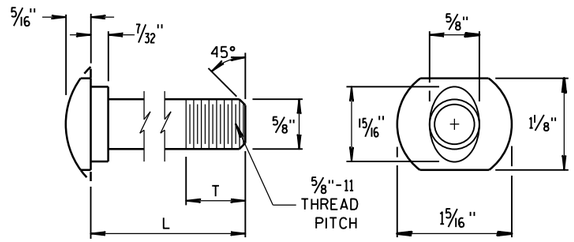


DETAIL FOR 36" BLOCKOUT DEPTH

NOTES: UNDER SPECIAL CIRCUMSTANCES, SUCH AS AVOIDING OBSTACLES THAT ARE NOT RELOCATED, IT IS ACCEPTABLE TO INSTALL ADDITIONAL BLOCKOUTS TO OBTAIN UP TO 36" DEPTH FOR ONE OR TWO POSTS IN A SECTION OF GUARDRAIL.

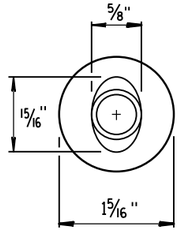
DO NOT USE 16" OR 36" BLOCKOUTS IF IT CAUSES THE POST TO BE DRIVEN BEYOND SHOULDER HINGE POINT OR CAUSES A FIXED OBJECT TO BE WITHIN THE DEFLECTION DISTANCE OF THE BARRIER.

NOTE: 1. ALL FILLETS SHALL HAVE A MINIMUM RADIUS OF 1/16".
2. IF THE BOLT EXTENDS MORE THAN 1/4" FROM THE NUT THE BOLT SHOULD BE TRIMMED BACK.

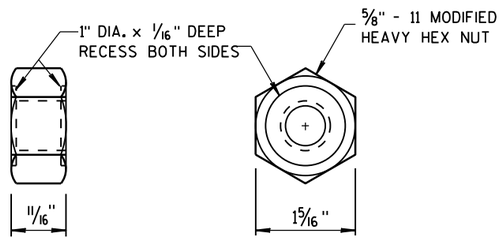


POST BOLT TABLE

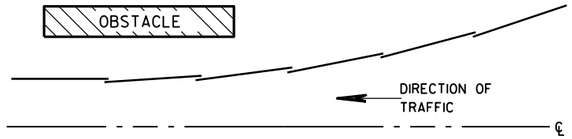
L	T (MIN.)
1¼"	1⅛"
2"	1¾"
10"	4"
14"	4 1/16"
18"	4"
21"	4 1/16"
25"	4"



ALTERNATE BOLT HEAD

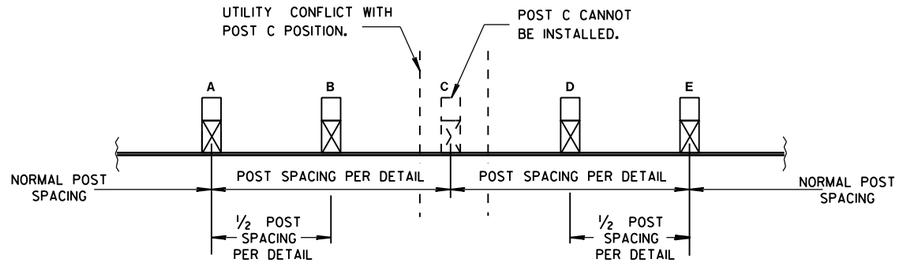


POST BOLT AND RECESS NUT

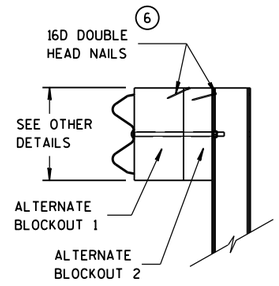


PLAN VIEW

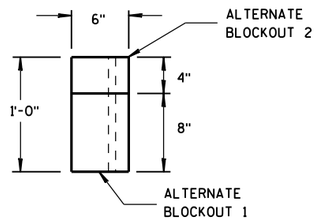
BEAM LAPPING DETAIL



POST DRIVING FOR CONTINUOUS UNDERGROUND OBSTRUCTION



SIDE VIEW



TOP VIEW

ALTERNATE WOOD BLOCKOUT DETAIL

MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2014
DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS ENGINEER
FHWA

6
S.D.D. 14 B 42-3c

GENERAL NOTES

(A) THE SLOPE IN THE AREA BOUNDED BY THE GRADELINE, THE HINGE POINT LINE (HPL), AND THE CLEAR ZONE LIMITS (CZL) SHALL BE 4:1 OR FLATTER.

(B) AFTER FINAL ASSEMBLY, RECHECK CABLE TO BE SURE IT IS TAUT AND HAS NOT RELAXED.

(C) DIFFERENT MANUFACTURES REQUIRE DIFFERENT PERFORATED W-BEAM RAIL END PANELS. SEE MANUFACTURES INFORMATION.

(D) THE TOP OF THE STEEL TUBE ON POST 1 AND POST 2 SHALL NOT BE MORE THAN 3" ABOVE THE FINISH GROUND ELEVATION.

(F) ATTACH ALUMINUM SHEET TO E.A.T. HEAD USING 4 STAINLESS STEEL SELF-TAPPING SCREWS. ONE SCREW PER CORNER.

(G) ½" DIAMETER X 3" LONG LAG BOLT AND WASHER.

(H) HARDWARE VARIES BETWEEN DIFFERENT MANUFACTURES. SEE MANUFACTURE'S DRAWING FOR INFORMATION.

(I) DIMENSIONS MAY VARY. SEE MANUFACTURE'S INFORMATION.

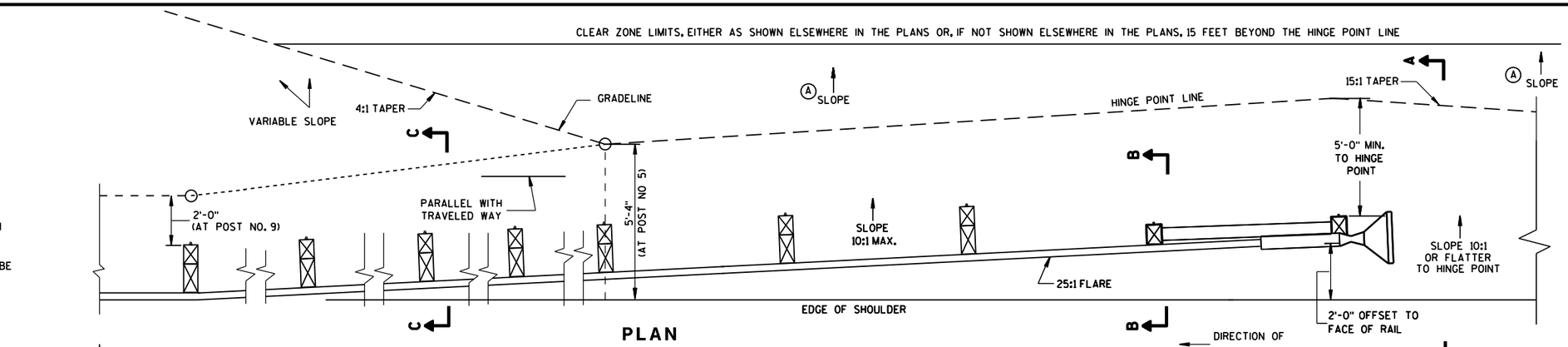
SEE SDD 14B42 FOR MORE INFORMATION.

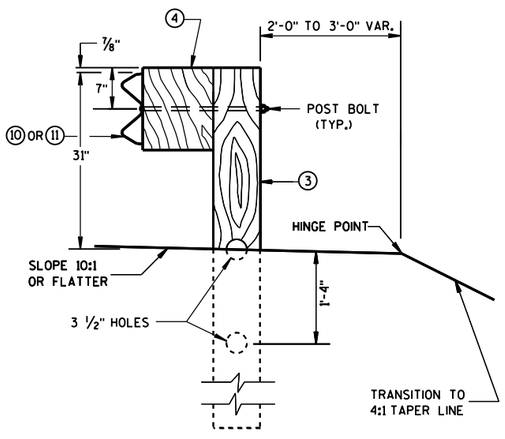
* DO NOT ATTACH BLOCKOUTS TO POSTS 1 AND 2.

DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL.

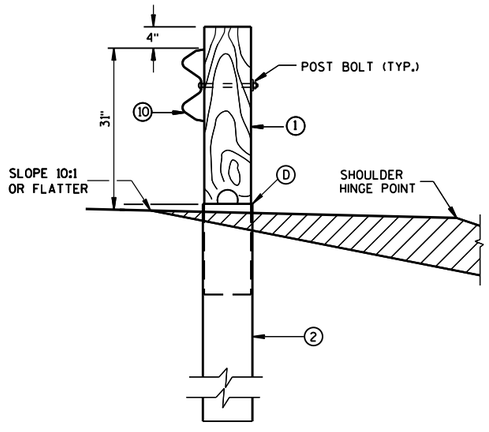
W-BEAM RAIL SPLICES ARE LOCATED AT POST NUMBER 3, AND BETWEEN POST 5 AND 6, BETWEEN POSTS 7 AND 8, AND MIDDLE OF THE SPAN AFTER POST 9.

THE CENTER OF THE UPPER 3½" DIAMETER HOLE ON POST NUMBER 3 THROUGH POST 9 IS TO BE FLUSH WITH THE GROUND LINE UP TO A MAXIMUM OF 2" ABOVE GROUND LINE.

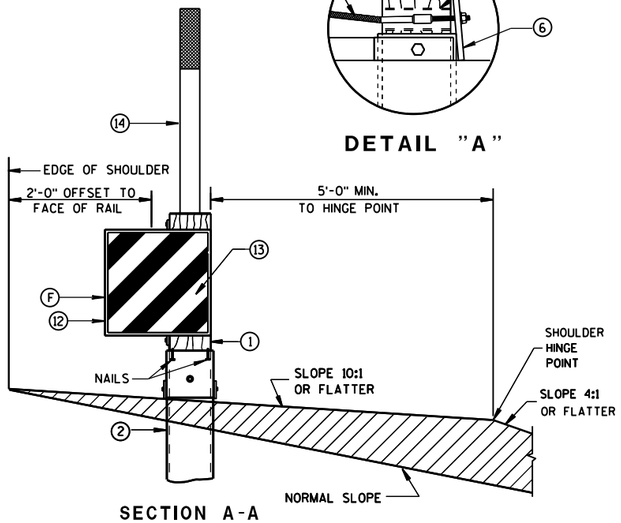




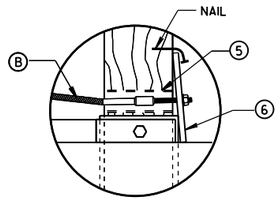
SECTION C-C
TYPICAL AT POST NOS. 3-9



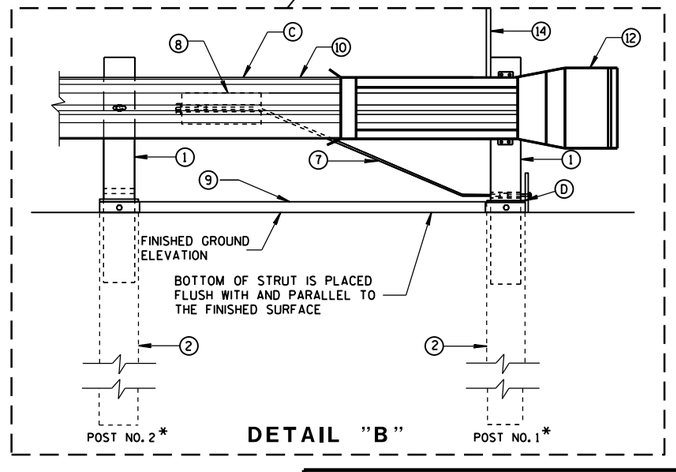
SECTION B-B
TYPICAL AT POST NO. 2*



SECTION A-A
TYPICAL AT POST NO. 1*



DETAIL "A"



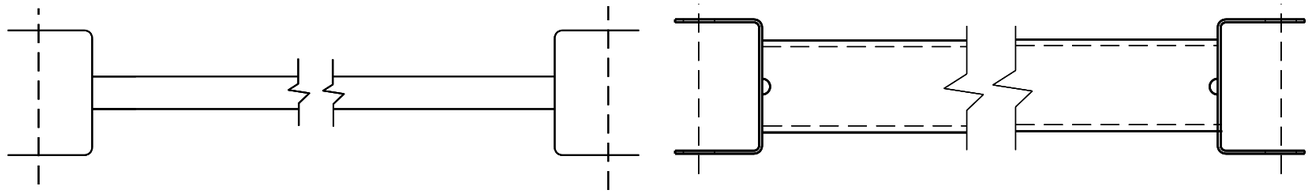
DETAIL "B"

MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL
(MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPO

S.D.D. 14 B 44-2a

S.D.D. 14 B 44-2a

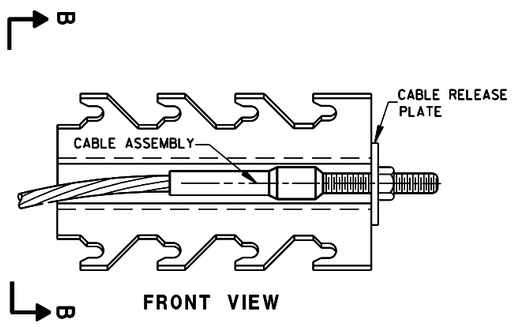


⑨ Ⓗ

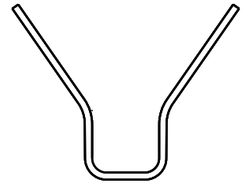
GENERIC GROUND STRUT

BILL OF MATERIALS

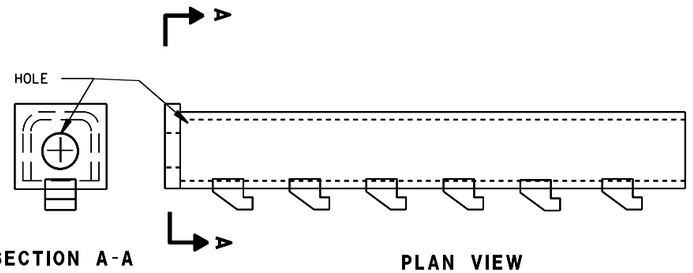
PART NO.	DESCRIPTION MATERIALS PROVIDED BY MGS EAT MANUFACTURER. SEE MANUFACTURER'S DETAILS FOR MORE INFORMATION.
①	WOOD BREAKAWAY POST
②	6" X 8" X 0.188", 6'-0" LONG FOUNDATION TUBE AT POSTS 1 AND 2
③	WOOD CRT
④	WOOD BLOCKOUT
⑤	PIPE SLEEVE
⑥	BEARING PLATE
⑦	BCT CABLE ASSEMBLY
⑧	ANCHOR CABLE BOX
⑨	GROUND STRUT
⑩	PERFORATED W-BEAM RAIL END PANEL, 12'-6" LONG.
⑪	STANDARD W-BEAM RAIL. MULTIPLE SECTIONS REQUIRED. SECTIONS VARY IN LENGTH.
⑫	END SECTION EAT
⑬	0.040" ALUMINUM SHEET WITH REFLECTIVE SHEETING TYPE F PER SECTION 637 OF THE STANDARD SPECIFICATIONS
⑭	EAT MARKER POST - YELLOW (SEE APPROVED PRODUCTS LIST)



FRONT VIEW



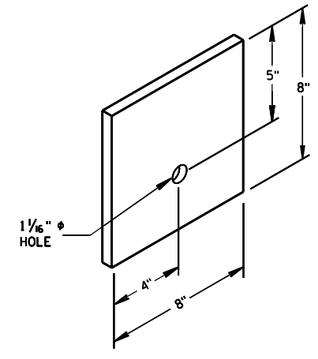
SECTION B-B



SECTION A-A

PLAN VIEW

GENERIC ANCHOR CABLE BOX ⑧ Ⓗ



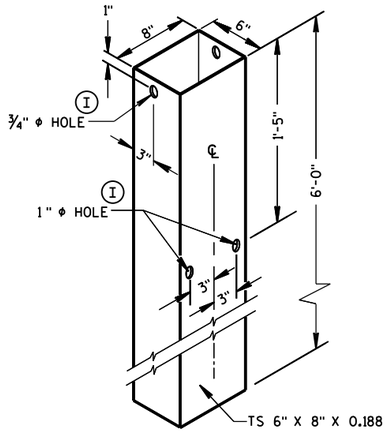
BEARING PLATE ⑥

MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL
(MGS)

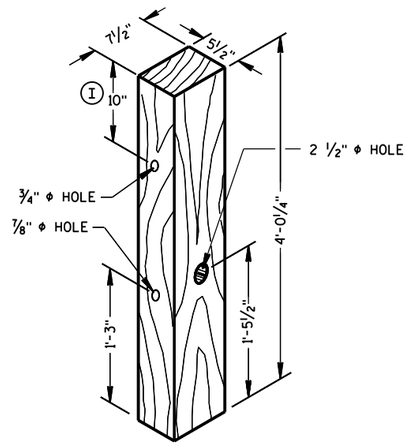
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6

S.D.D. 14 B 44-2b

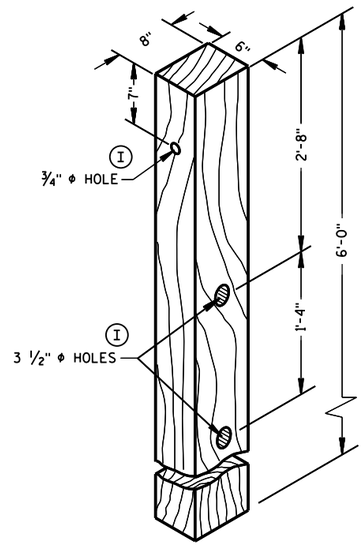


FOUNDATION TUBE (2)



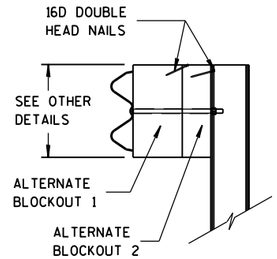
POSTS NUMBER 1 AND 2

WOOD BREAKAWAY POST (1)

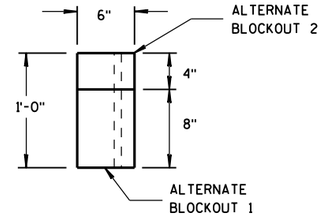


POSTS NUMBER 3-9

WOOD CRT POST (3)

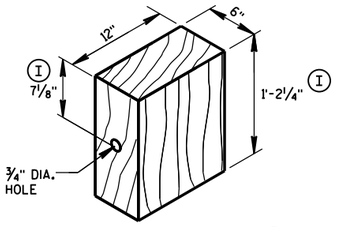


SIDE VIEW



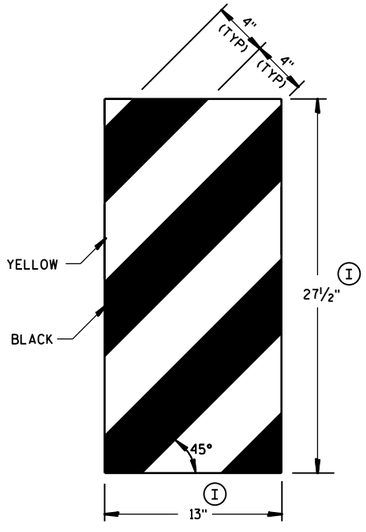
TOP VIEW

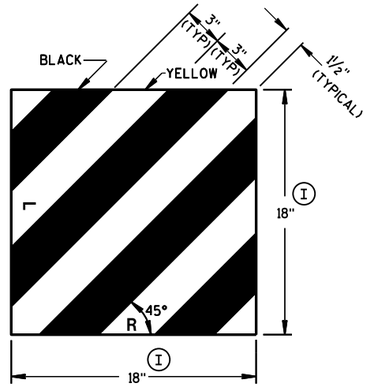
ALTERNATE WOOD BLOCKOUT DETAIL



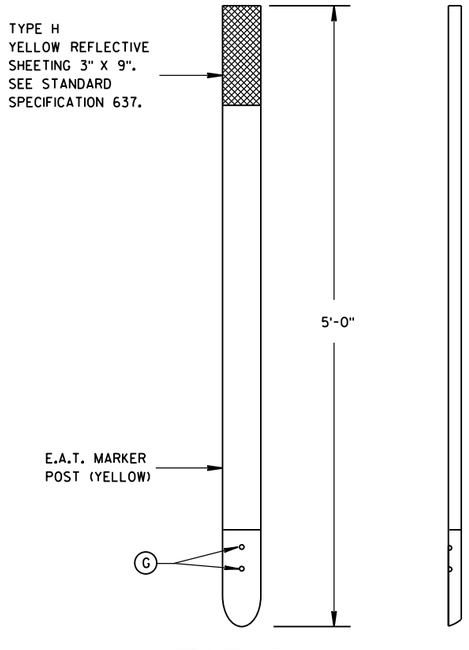
WOOD BLOCKOUT (4)

REQ'D. AT ALL POSTS EXCEPT POST NO'S 1 & 2





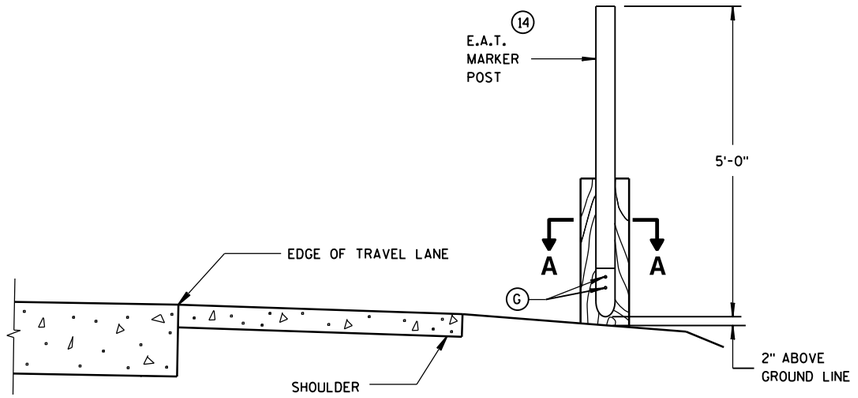
GENERIC REFLECTIVE SHEETING (13) (H)



FRONT VIEW

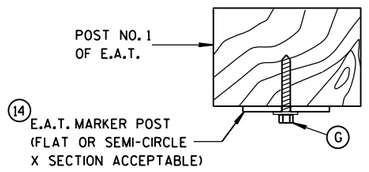
SIDE VIEW

E.A.T. MARKER POST (14)



TYPICAL INSTALLATION OF E.A.T. MARKER POST BACKSIDE OF POST NO. 1

(E.A.T. AND RAIL REMOVED FOR CLARITY)



SECTION A-A

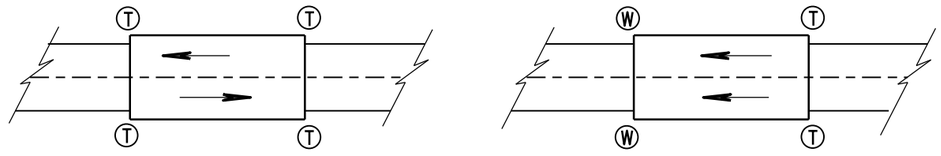
MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2014 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS ENGINEER
FHWA

6

S.D.D. 14 B 44-2c



TWO WAY TRAFFIC

ONE WAY TRAFFIC

Ⓣ THRIE BEAM CONNECTION

Ⓦ W-BEAM CONNECTION WHEN REQUIRED

TYPICAL LOCATIONS OF THRIE BEAM AND W-BEAM CONNECTIONS TO BRIDGE

GENERAL NOTES

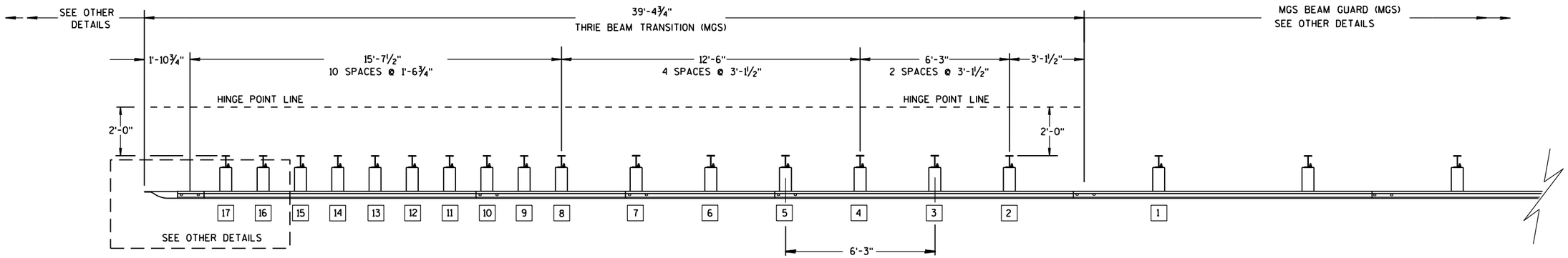
IF ROCK IS ENCOUNTERED, REMOVE ROCK TO FULL DEPTH OF POST PLUS 2½", AND 12" DIAMETER AROUND POST. SEE 14B42 FOR MORE DETAILS.

TRANSITION USES STEEL POSTS ONLY.

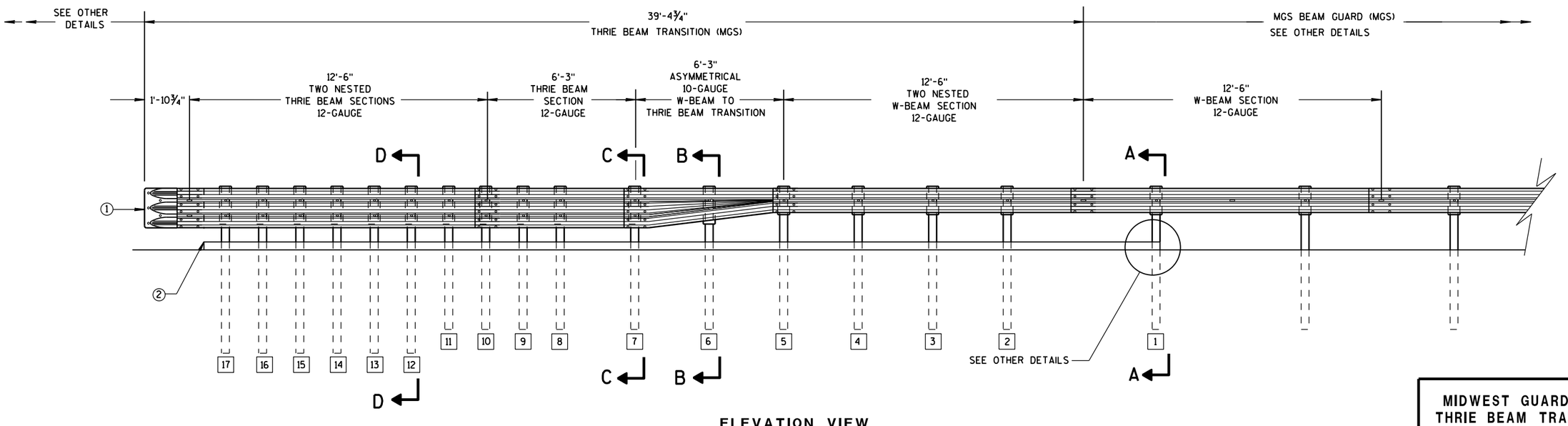
SEE STANDARD DETAIL DRAWING 14 B 42 FOR MORE INFORMATION.

① BRIDGE RAILING TYPE "W" DOES NOT REQUIRE A TERMINAL CONNECTOR.

② OPTIONAL CURB AND GUTTER OR DRAINAGE FEATURE SEE PLAN FOR INFORMATION.



PLAN VIEW



ELEVATION VIEW

MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6

S.D.D. 14 B 45-4a

6

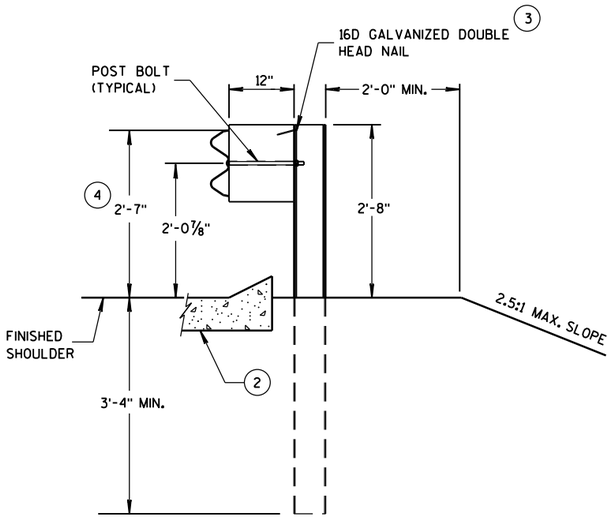
S.D.D. 14 B 45-4a

GENERAL NOTES

(2) OPTIONAL CURB AND GUTTER OR DRAINAGE_FEATURE SEE PLAN FOR INFORMATION.

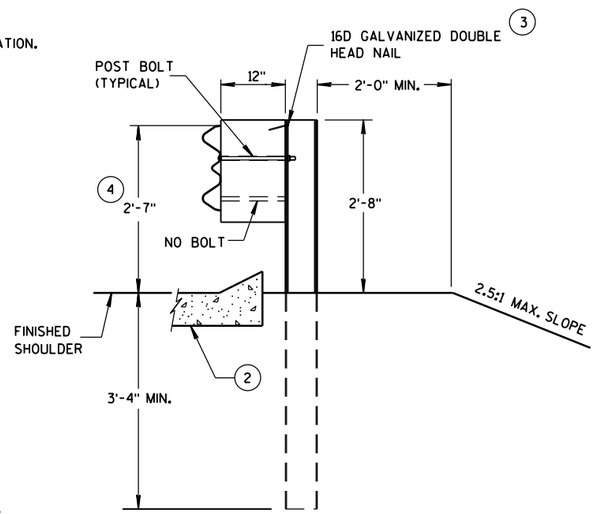
(3) WHEN USING STEEL POSTS AND WOOD BLOCKOUTS INSTALL FOUR 10D GALVANIZED NAILS. INSTALL NAILS AT THE BACK CORNERS OF THE BLOCK AND BEND THE NAILS OVER THE FLANGE OF THE STEEL POST.

(4) TOLERANCE FOR TOP OF W-BEAM RAIL IS ± 1".



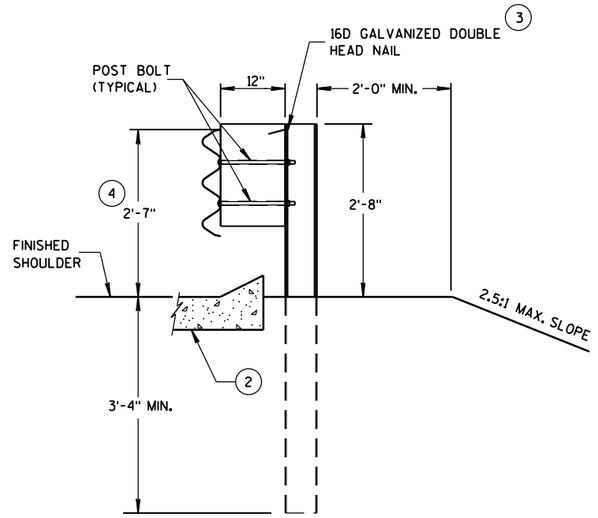
SECTION A-A

POSTS 1-5



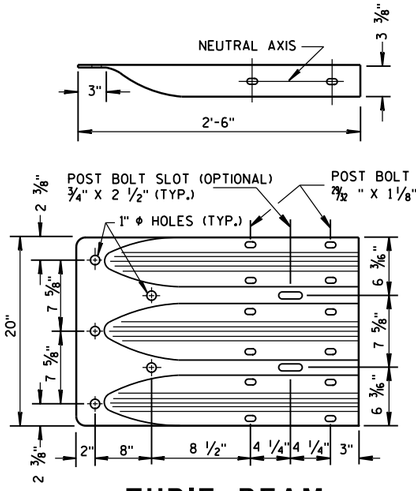
SECTION B-B

POST 6



SECTION C-C

POSTS 7-11



THRIE BEAM TERMINAL CONNECTOR

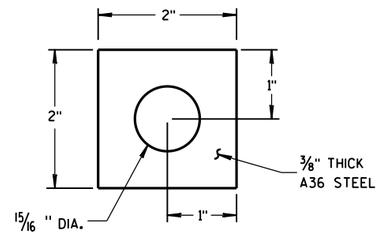
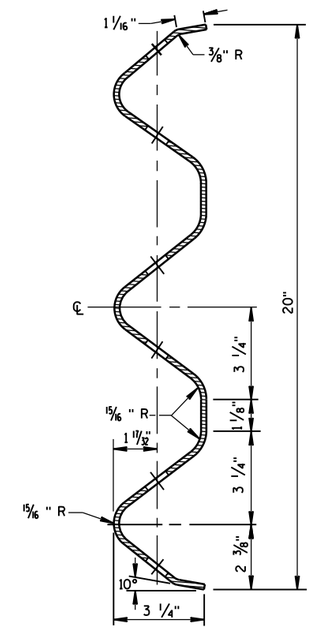
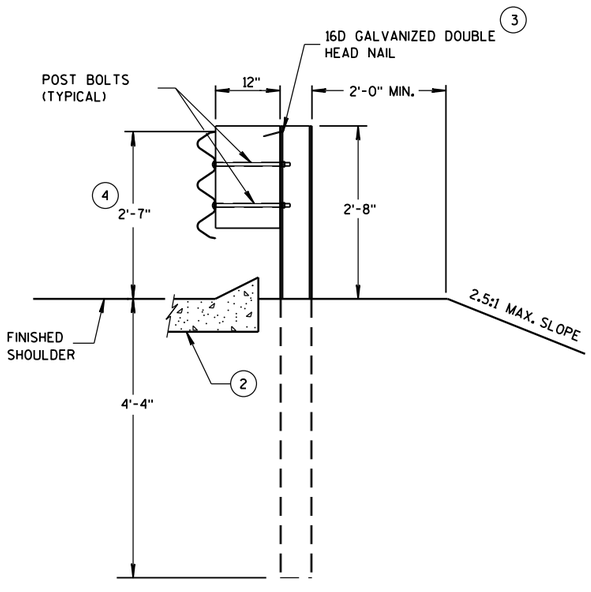


PLATE WASHER DETAIL

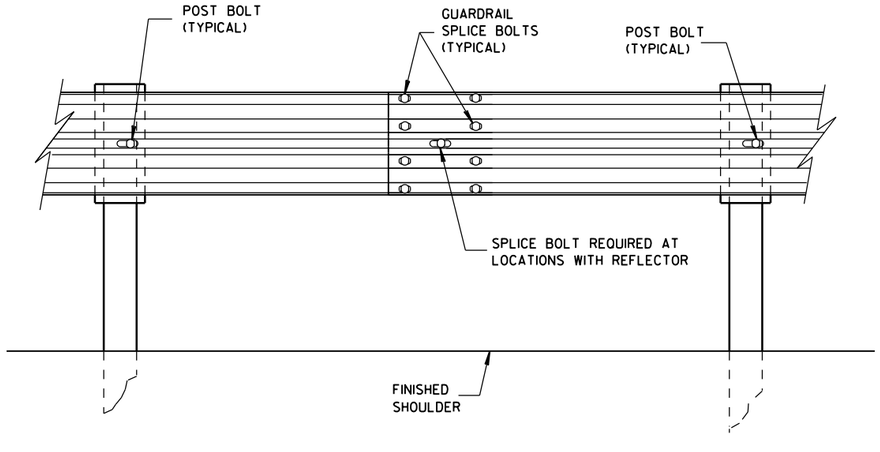


SECTION THRU THRIE BEAM RAIL ELEMENT



SECTION D-D

POSTS 12-17



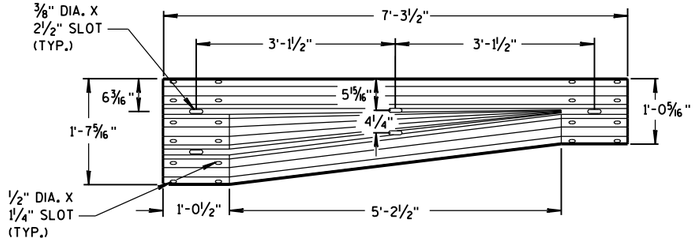
SPLICE DETAIL

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

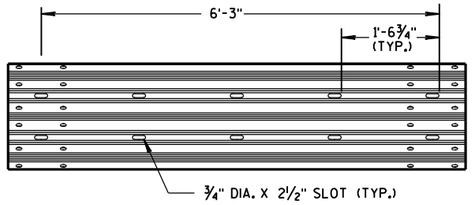
STATE OF WISCONSIN
DEPARTMENT OF TRANSPO

6

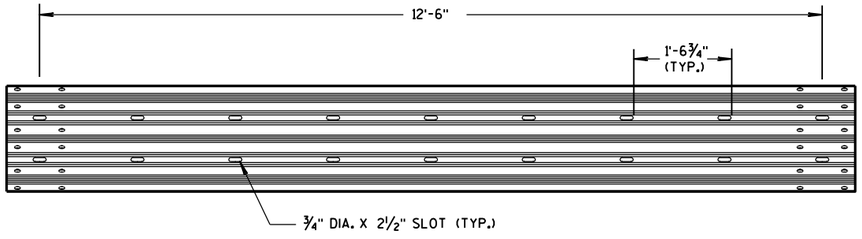
S.D.D. 14 B 45-4b



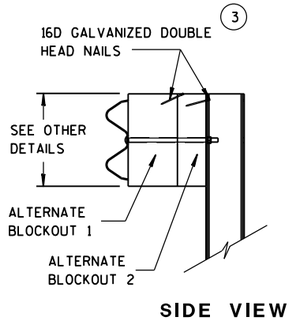
W-BEAM TO THRIE BEAM TRANSITION SECTION



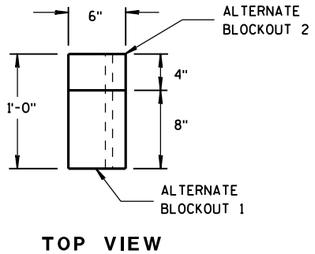
6'-3" THRIE BEAM SECTION



12'-6" THRIE BEAM SECTION

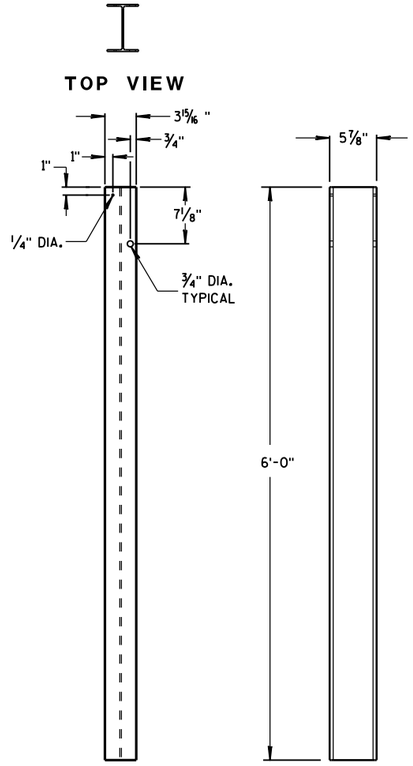


SIDE VIEW

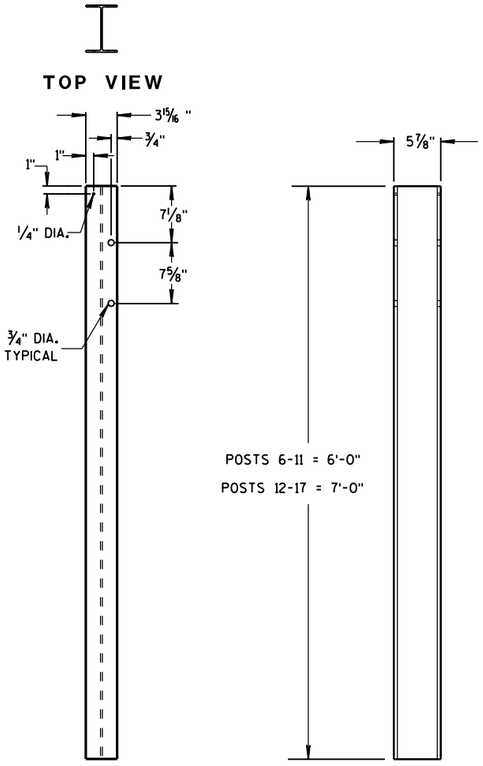


TOP VIEW

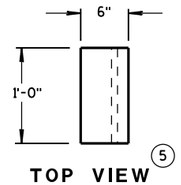
ALTERNATE WOOD BLOCKOUT DETAIL



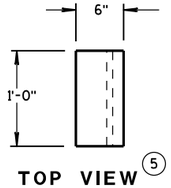
STEEL POSTS 1-5



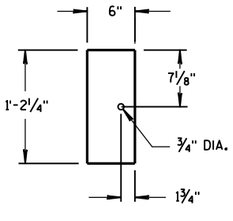
STEEL POSTS 6-17



TOP VIEW (5)

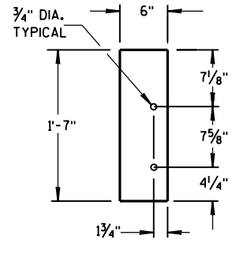


TOP VIEW (5)



FRONT VIEW

BLOCKOUT POSTS 1-5



FRONT VIEW

BLOCKOUT POSTS 6-17

GENERAL NOTES

STEEL POSTS ARE W6X9 OR W6X8.5.

BOLT HOLES FOR POST ARE ON FRONT AND OF SIDE OF POST.

(3) WHEN USING STEEL POSTS AND WOOD BLOCKOUTS INSTALL FOUR 16D GALVANIZED NAILS. INSTALL NAILS AT THE BACK CORNERS OF THE BLOCK AND BEND THE NAILS OVER THE FLANGE OF THE STEEL POST.

(5) WOOD BLOCKS MAY BE CONSTRUCTED OUT OF 2 WOOD BLOCKS. SEE ALTERNATE WOOD BLOCK DETAIL.

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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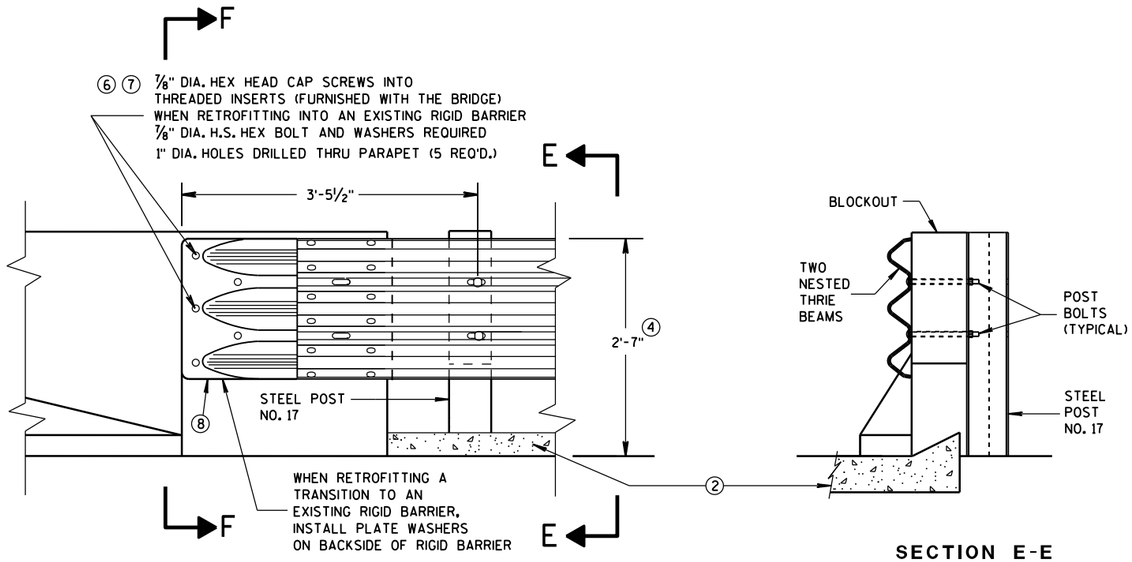
S.D.D. 14 B 45-4c



FRONT VIEW

SECTION E-E

THRIE BEAM CONNECTION TO BRIDGE PARAPET WITH SQUARE ENDS

GENERAL NOTES

THESE ARE TYPICAL CONNECTION DETAILS. ADJUST THE POSTION OF CONNECTIONS TO EXISTING BRIDGES TO FIT THE ACTUAL BRIDGE AND SITE DIMENSIONS.

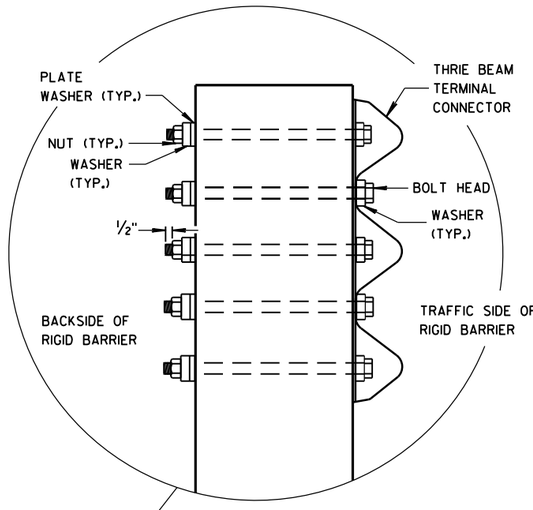
② OPTIONAL CURB AND GUTTER OR DRAINAGE FEATURE SEE PLAN FOR INFORMATION.

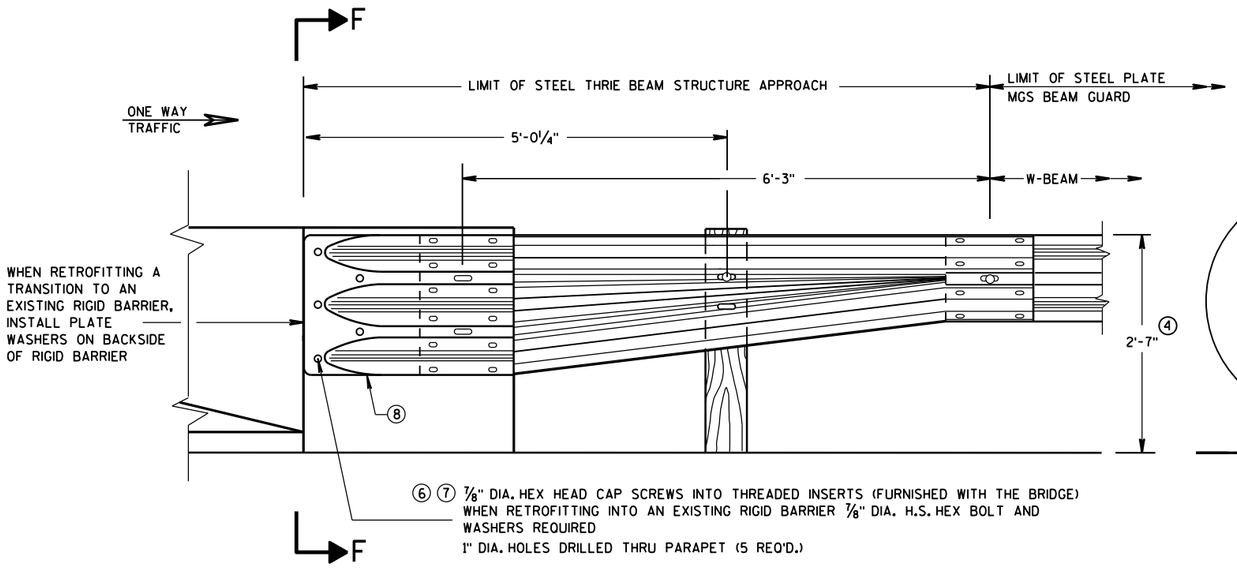
④ TOLERANCE FOR TOP OF BEAM IS ± 1".

⑥ DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

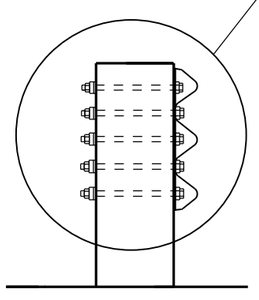
⑦ BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE. BOLTS THAT EXTEND THROUGH THE PARAPET AND OUT THE BACK FACE REQUIRE A HARDENED ROUND STEEL WASHER THAT IS 2" O.D. X 5/8" THICK AND ONE PLATE WASHER. REPAIR ANY DAMAGED CONCRETE FROM BOLT INSTALLATION.

⑧ THE RECESS FOR A W-BEAM CONNECTION, WHICH EXISTS ON SOME PARAPETS OF THIS TYPE, SHALL BE FILLED WITH A TREATED TIMBER BLOCKOUT. BLOCKOUT SIZE IS 1'-6" X 2'-0" X 3 1/2".

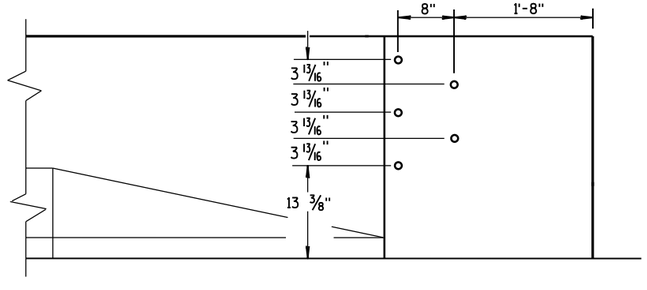




FRONT VIEW



SECTION F-F



DRILL HOLE LOCATION

W BEAM TRANSITION AND CONNECTION TO BRIDGE PARAPETS WITH SQUARE ENDS

(USE ONLY ON THE TRAFFIC EXIT END OF ONE WAY BRIDGES)

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June, 2015 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA

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S.D.D. 14 B 45-4d

6

S.D.D. 14 B 45-4d

GENERAL NOTES

THESE ARE TYPICAL CONNECTION DETAILS. ADJUST THE POSTION OF CONNECTIONS TO EXISTING BRIDGES TO FIT THE ACTUAL BRIDGE AND SITE DIMENSIONS.

(2) OPTIONAL CURB AND GUTTER OR DRAINAGE FEATURE SEE PLAN FOR INFORMATION.

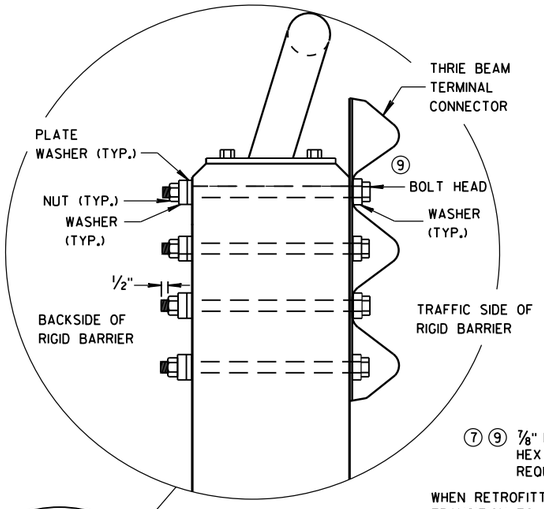
(4) TOLERANCE FOR TOP OF BEAM IS ± 1".

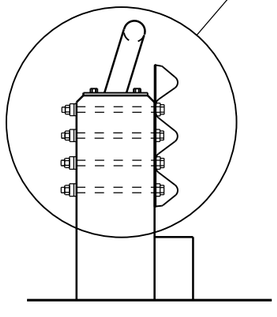
(6) DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

(7) BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE. BOLTS THAT EXTEND THROUGH THE PARAPET AND OUT THE BACK FACE REQUIRE A HARDENED ROUND STEEL WASHER THAT IS 2" O.D. X 5/8" THICK AND ONE PLATE WASHER. REPAIR ANY DAMAGED CONCRETE FROM BOLT INSTALLATION.

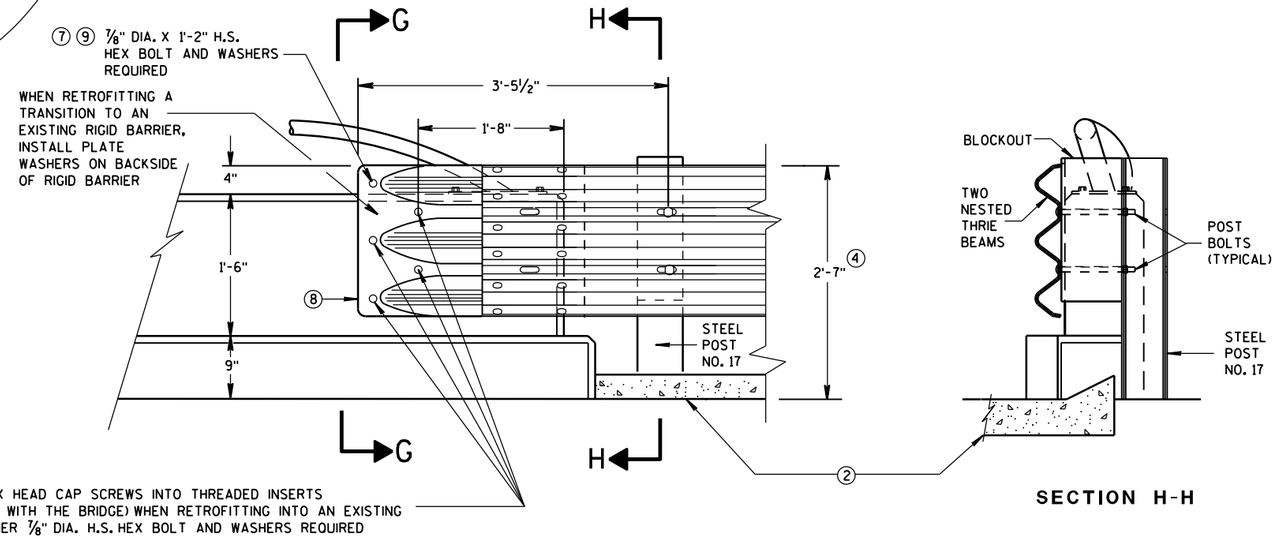
(8) THE RECESS FOR A W-BEAM CONNECTION, WHICH EXISTS ON SOME PARAPETS OF THIS TYPE, SHALL BE FILLED WITH A TREATED TIMBER BLOCKOUT. BLOCKOUT SIZE IS 1'-6" X 2'-0" X 3 1/2".

(9) BOLT, NUT AND WASHERS NOT REQUIRED FOR THIS LOCATION WHEN RETROFITTING AN EXISTING PAPAPET AND THE HOLE IS EITHER ABOVE PARAPET OR WITHIN 4 INCHES OF THE EDGE OF PARAPET.





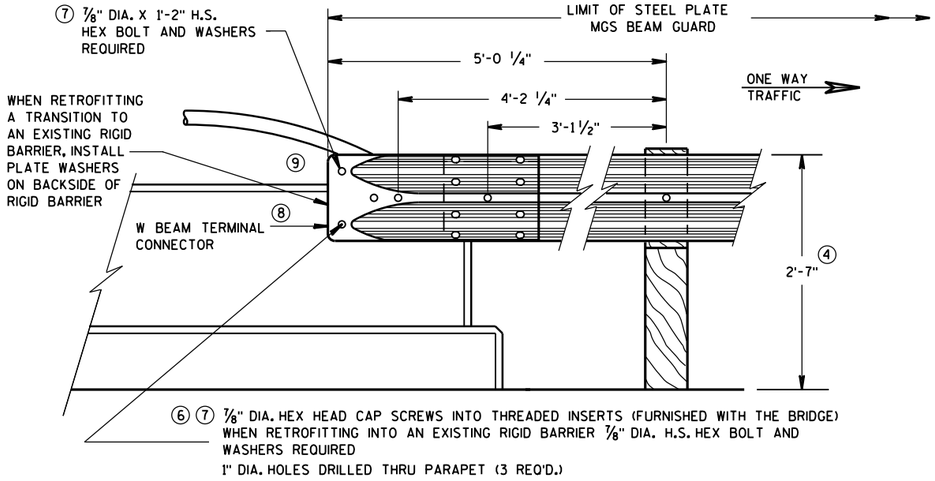
SECTION G-G



FRONT VIEW

SECTION H-H

THRIE BEAM CONNECTION TO VERTICAL FACED PARAPETS



FRONT VIEW

W BEAM CONNECTION TO VERTICAL FACE PARAPET

(USE ONLY ON THE TRAFFIC EXIT END OF ONE WAY BRIDGES)

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June, 2015 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS DEVELOPMENT ENGINEER
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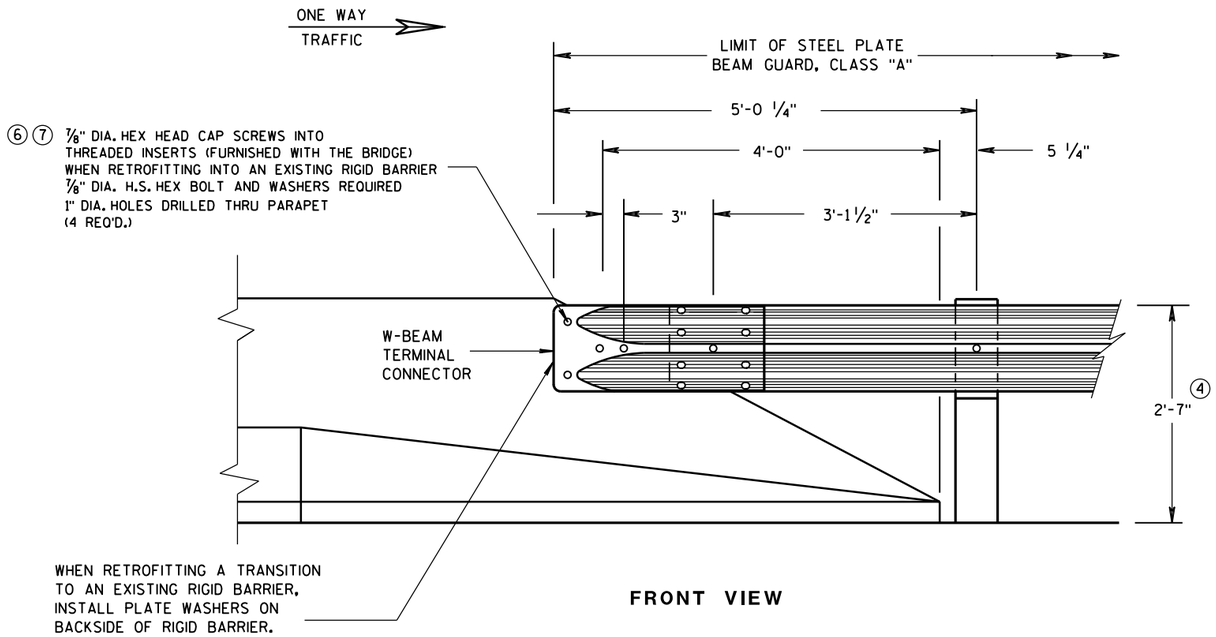


FRONT VIEW

W BEAM CONNECTION TO PARAPETS WITH SLOPED ENDS

(USE ONLY AT TRAFFIC EXIT END OF ONE WAY BRIDGE)

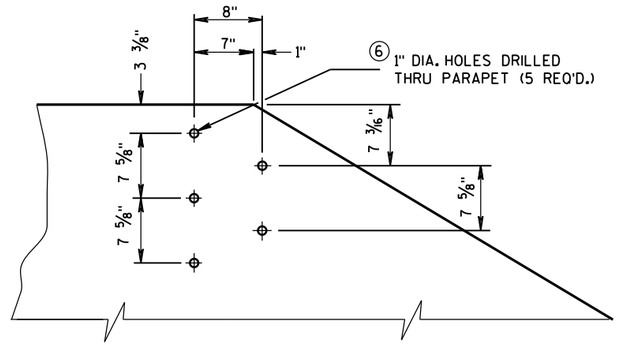
GENERAL NOTES

② OPTIONAL CURB AND GUTTER OR DRAINAGE FEATURE SEE PLAN FOR INFORMATION.

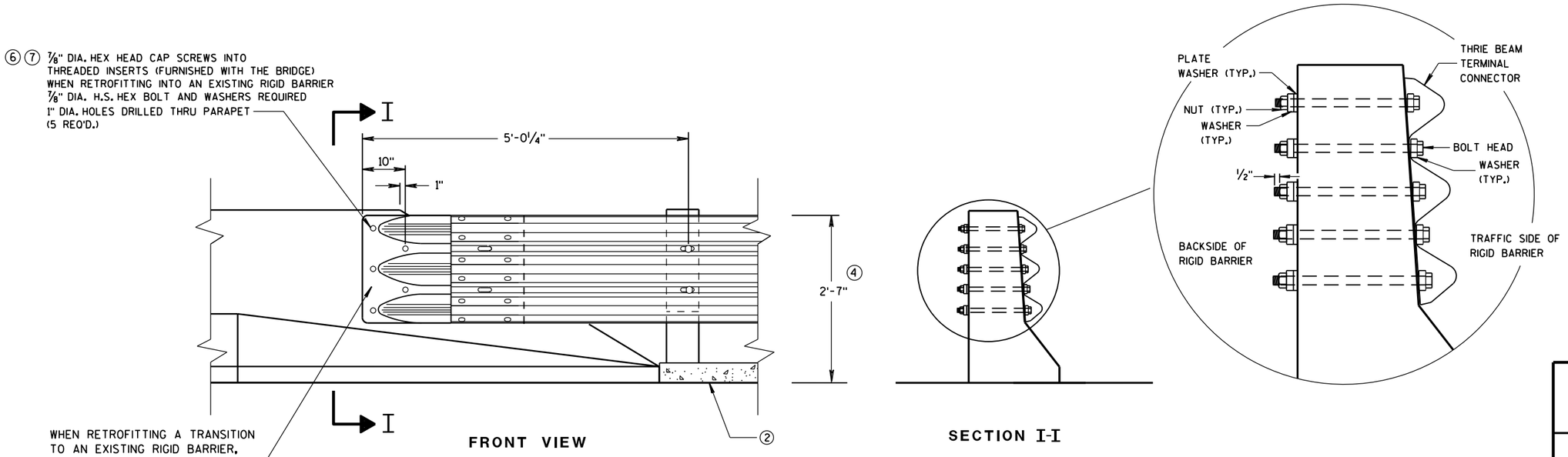
④ TOLERANCE FOR TOP OF BEAM IS ± 1".

⑥ DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

⑦ BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE. BOLTS THAT EXTEND THROUGH THE PARAPET AND OUT THE BACK FACE REQUIRE A HARDENED ROUND STEEL WASHER THAT IS 2" O.D. X 5/8" THICK AND ONE PLATE WASHER. REPAIR ANY DAMAGED CONCRETE FROM BOLT INSTALLATION.



DRILL HOLE LOCATION AND PATTERN
FOR THRIE BEAM CONNECTION



FRONT VIEW

SECTION I-I

THRIE BEAM CONNECTION TO BRIDGE PARAPETS WITH SLOPED ENDS

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June, 2015 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS DEVELOPMENT ENGINEER
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S.D.D. 14 B 45-4f

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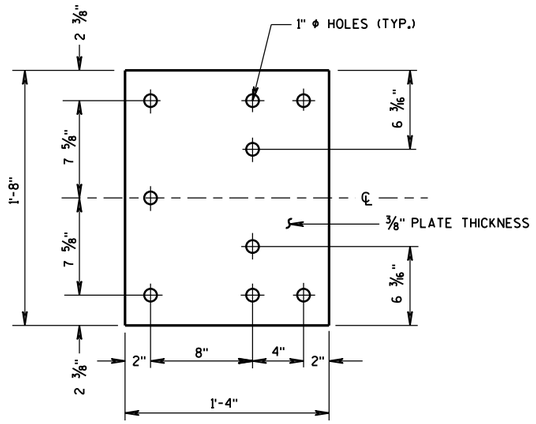
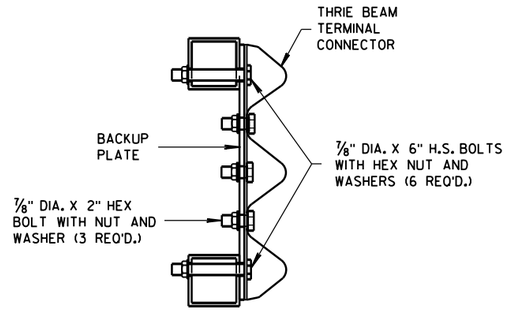
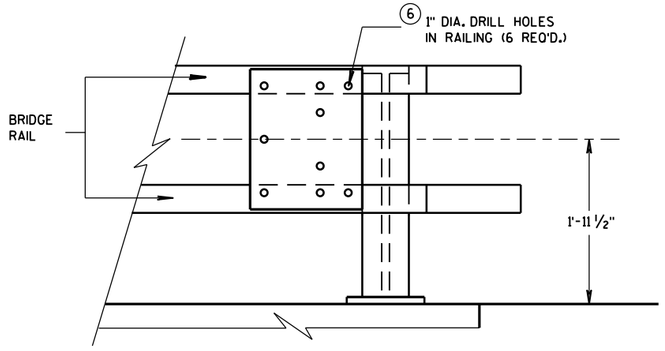
S.D.D. 14 B 45-4f



BACK-UP PLATE DETAIL



SECTION J-J

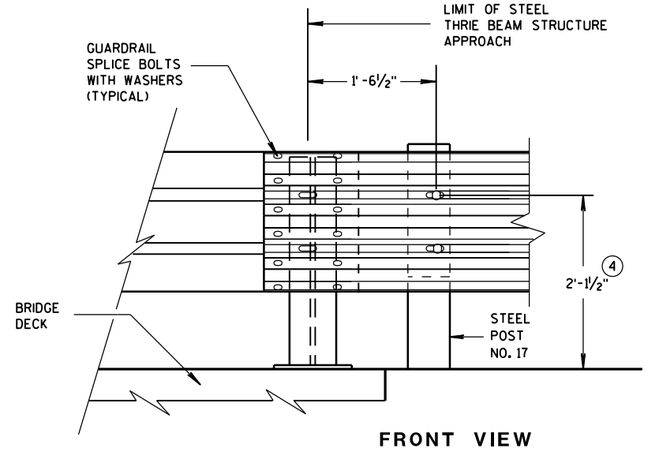


BACK-UP PLATE MOUNTING ONTO BRIDGE RAILING

GENERAL NOTES

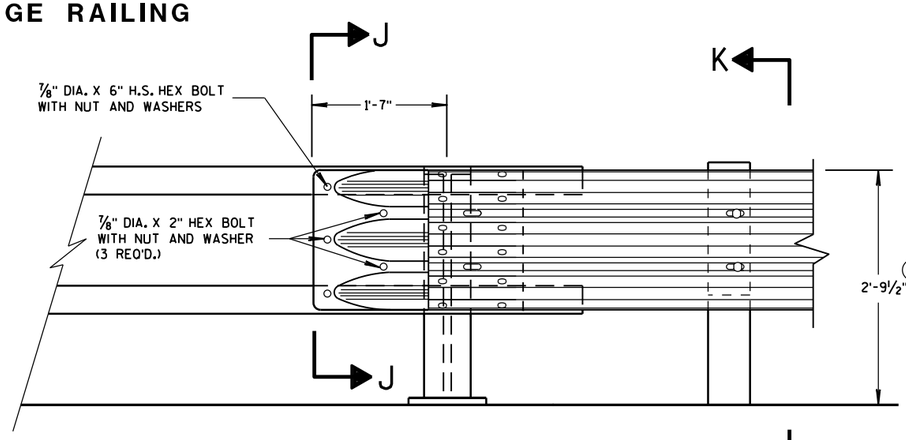
4 TOLERANCE FOR TOP OF BEAM IS ± 1".

6 DRILLING HOLES THROUGH THE PAPRPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

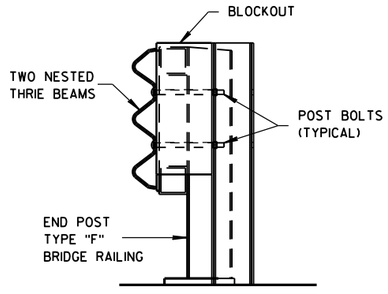


FRONT VIEW

THRIE BEAM CONNECTION TO STEEL RAILING TYPE "W"



FRONT VIEW



SECTION K-K

THRIE BEAM CONNECTION TO TUBULAR RAILING TYPE "F"

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June, 2015 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA

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S.D.D. 14 B 45-4g

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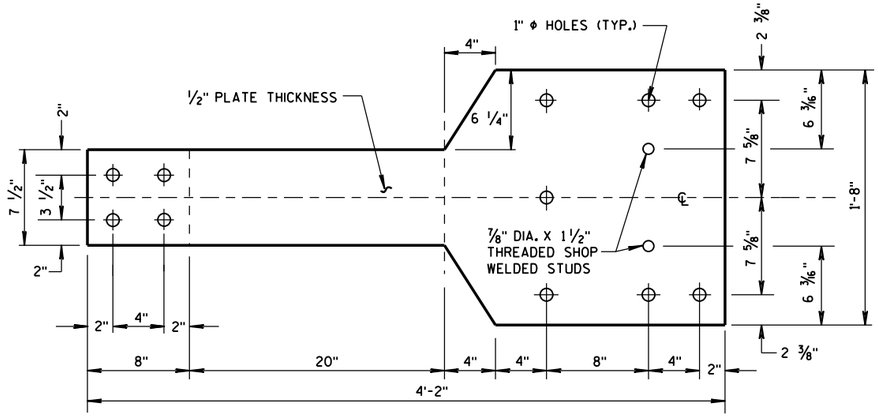
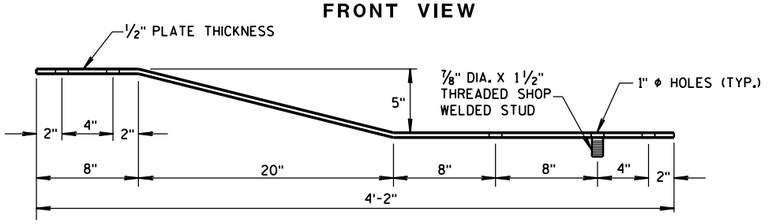
S.D.D. 14 B 45-4g

GENERAL NOTES

(4) TOLERANCE FOR TOP OF W-BEAM RAIL IS ± 1".

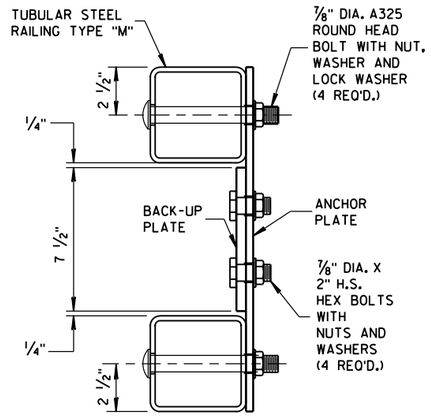


FRONT VIEW

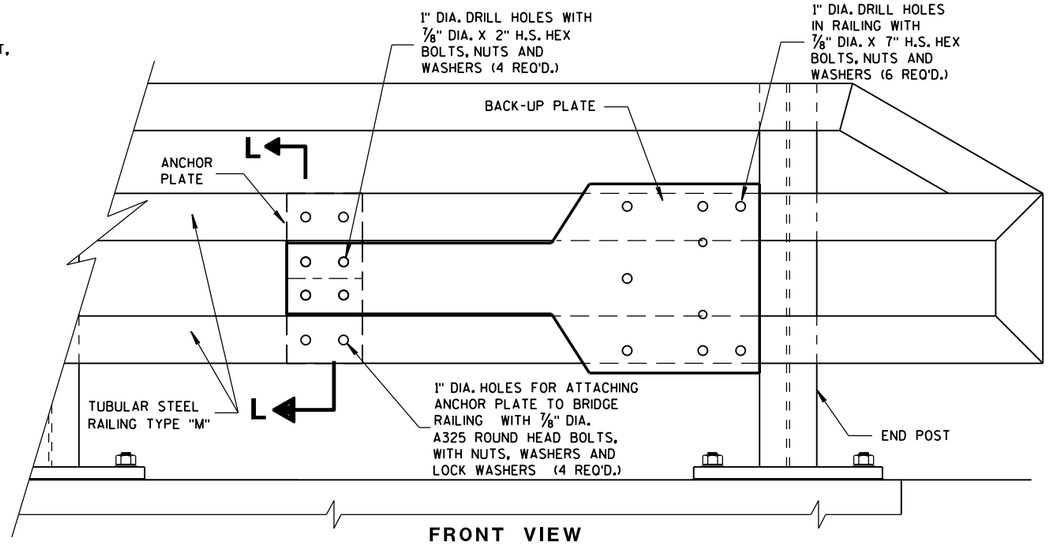


PLAN VIEW

BACK-UP PLATE DETAIL, TYPE "M"

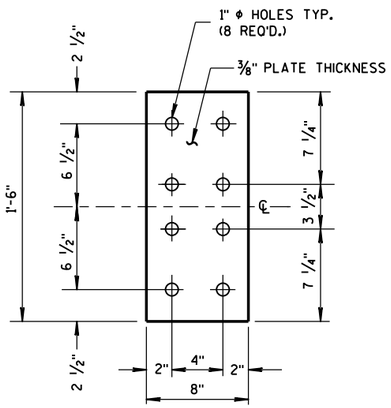


SECTION L-L



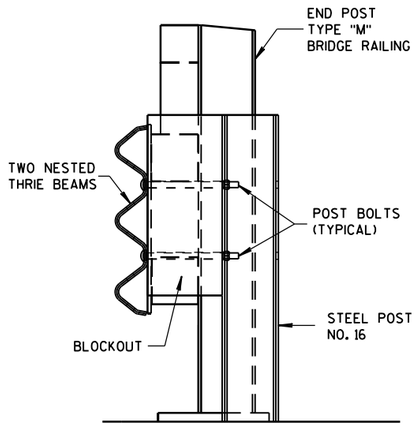
FRONT VIEW

ANCHOR AND BACK-UP PLATE MOUNTING TO BRIDGE RAILING, TYPE "M"

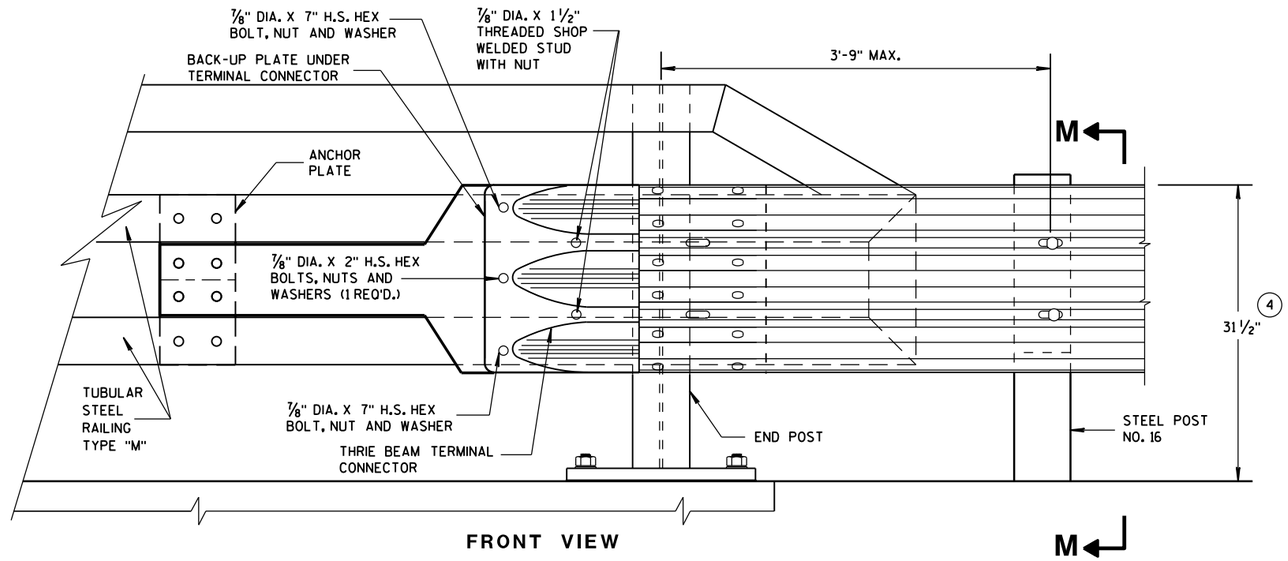


FRONT VIEW

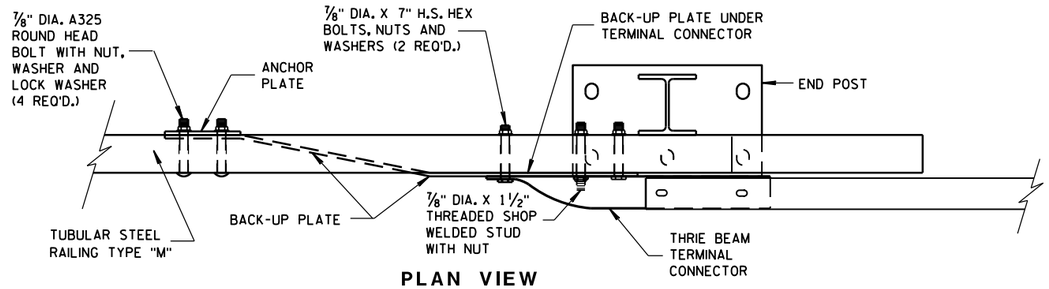
ANCHOR PLATE DETAIL, TYPE "M"



SECTION M-M



FRONT VIEW



PLAN VIEW

THRIE BEAM CONNECTION TO TUBULAR RAILING, TYPE "M"

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June, 2015 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA

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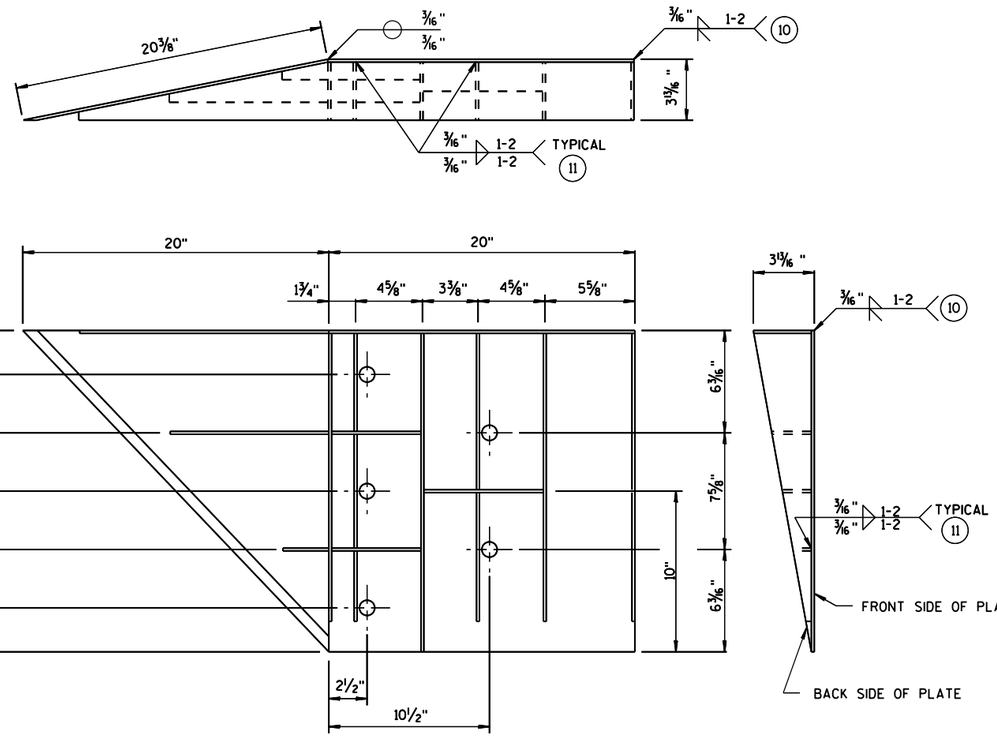

WELDING INSTRUCTION

(VIEWED FROM BACK SIDE OF PLATE)

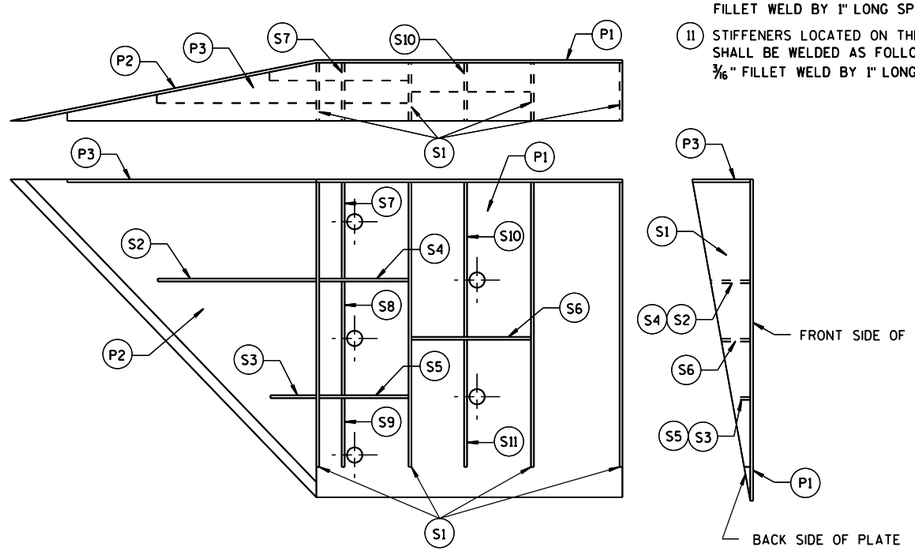

PLATE AND STIFFENER IDENTIFICATION

(VIEWED FROM BACK SIDE OF PLATE)

GENERAL NOTES

COVER PLATE PANELS ARE 3/16" THICK.

ALL STIFFENERS ARE 1/4" THICK.

CONNECTOR PLATE SHALL BE FABRICATED FROM ASTM GRADE A36 STEEL AND GALVANIZED.

FOR GALVANIZED REQUIREMENTS, SEE SECTION 614 OF THE STANDARD SPECIFICATIONS.

ALL HOLE DIAMETERS SHALL BE 1".

FOR OPPOSITE SIDE INSTALLATION MIRROR DRAWINGS.

(10) STIFFENERS LOCATED AT THE OUTSIDE EDGES OF THE COVER PLATES SHALL BE WELDED AS FOLLOWS:
SINGLE BEVEL GROOVE WELD ON EXTERNAL SIDES AND 3/16" FILLET WELD BY 1" LONG SPACED AT 2" ON INTERNAL SIDES.

(11) STIFFENERS LOCATED ON THE INSIDE OF THE COVER PLATE SHALL BE WELDED AS FOLLOWS:
3/16" FILLET WELD BY 1" LONG SPACED AT 2".

CONNECTOR PLATE DIMENSION (PER ASSEMBLY)

PLATE	QUANTITY	SHAPE	SIZE (A x B x C x D)	THICKNESS
P1	1		20" x 20"	3/16"
P2	1		20" x 20" x 28 9/16"	3/16"
P3	1		39" x 3 5/8" x 20" x 19 5/16"	3/16"
S1	4		18 7/16" x 3 3/8" x 18 3/4"	1/4"
S2	1		10 1/4" x 2 7/16" x 10 3/8" x 1/2"	1/4"
S3	1		3" x 1 1/16" x 3 1/8" x 1/2"	1/4"
S4	1		6 1/8" x 2 7/16"	1/4"
S5	1		6 1/8" x 1 1/16"	1/4"
S6	1		7 3/4" x 1 3/4"	1/4"
S7	1		2 9/16" x 6" x 3 5/8" x 5 7/8"	1/4"
S8	1		1 5/32" x 7 1/2" x 2 1/2" x 7 3/8"	1/4"
S9	1		6 1/16" x 6 3/16" x 1 1/32"	1/4"
S10	1		1 7/8" x 9 7/8" x 3 5/8" x 9 11/16"	1/4"
S11	1		8 1/2" x 8 3/4" x 1 13/16"	1/4"

SINGLE SLOPE CONNECTION PLATE

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

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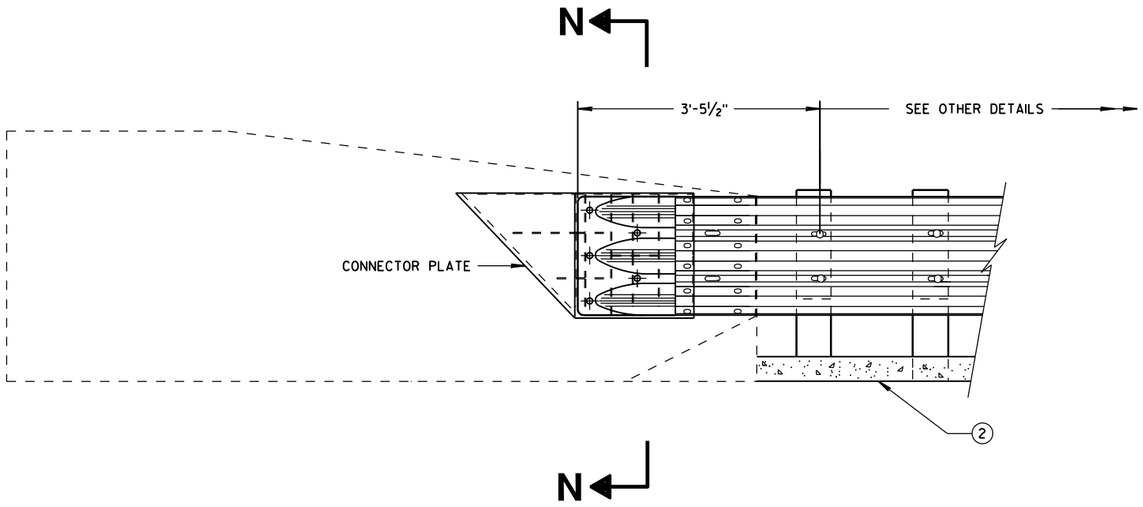
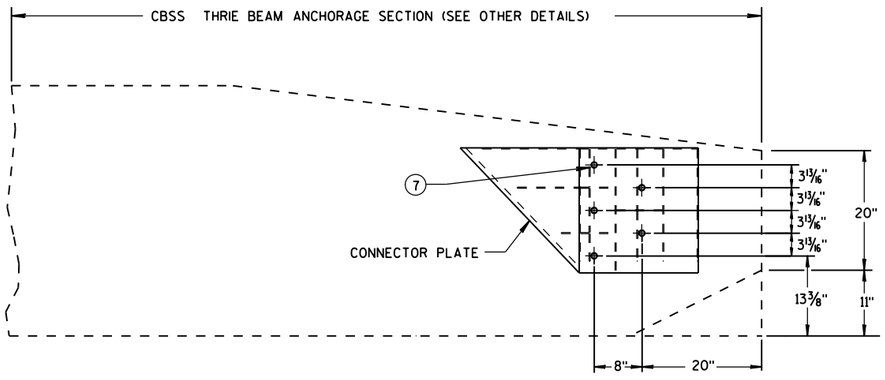


THRIE BEAM CONNECTION TO SINGLE SLOPE BARRIER



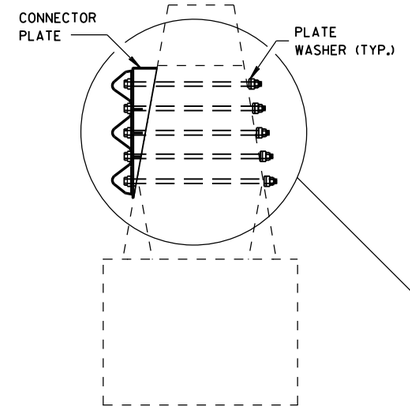
SINGLE SLOPE CONNECTION PLATE PLACEMENT

GENERAL NOTES

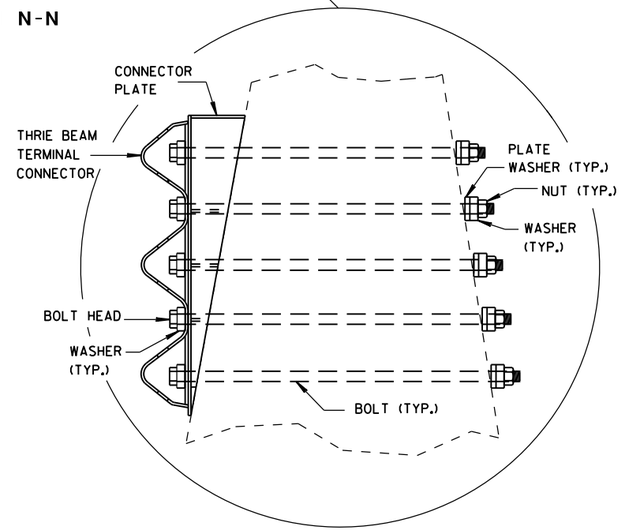
CONNECTOR PLATE, DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

(2) OPTIONAL CURB AND GUTTER OR DRAINAGE FEATURE SEE PLAN FOR INFORMATION.

(7) BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE. BOLTS THAT EXTEND THROUGH THE PARAPET AND OUT THE BACK FACE REQUIRE A HARDENED ROUND STEEL WASHER THAT IS 2" O.D. X 5/8" THICK AND ONE PLATE WASHER. REPAIR ANY DAMAGED CONCRETE FROM BOLT INSTALLATION.



SECTION N-N



MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
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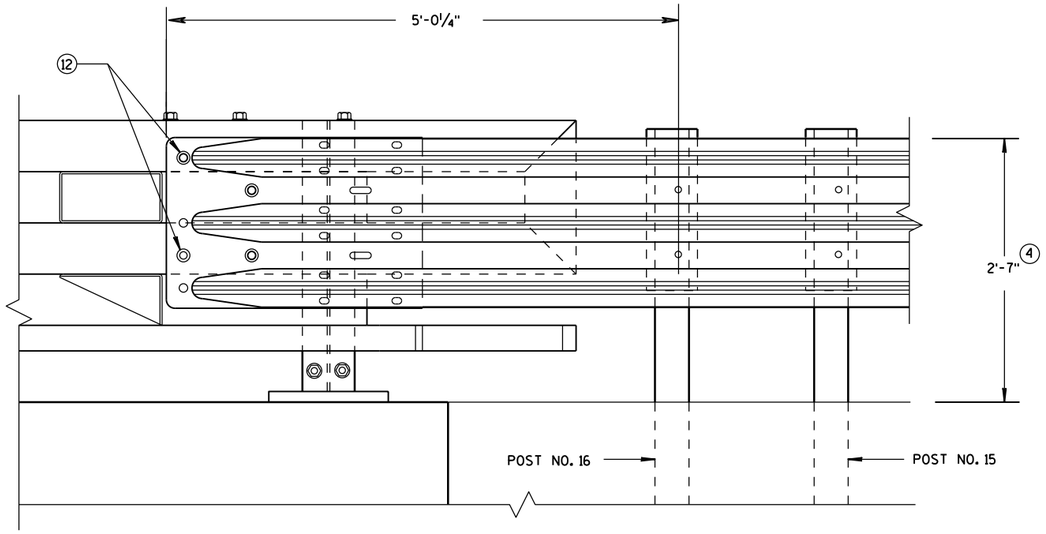
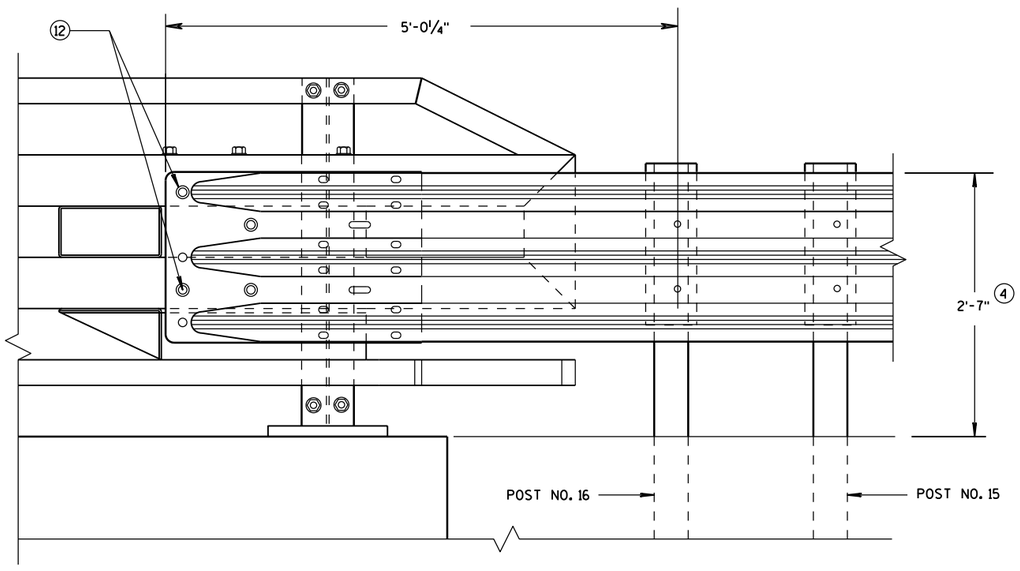


ELEVATION OF DETAIL AT NY3 END POST

THRIE BEAM RAIL ATTACHMENT



ELEVATION OF DETAIL AT NY4 END POST

THRIE BEAM RAIL ATTACHMENT

GENERAL NOTES

(4) TOLERANCE FOR TOP OF BEAM IS ± 1".

(12) BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE. ON BACKSIDE OF PARAPET ONE ROUND WASHER, AND NUT REQUIRED. BOLT THREAD IS TO EXTEND ½-INCH BEYOND NUT.

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
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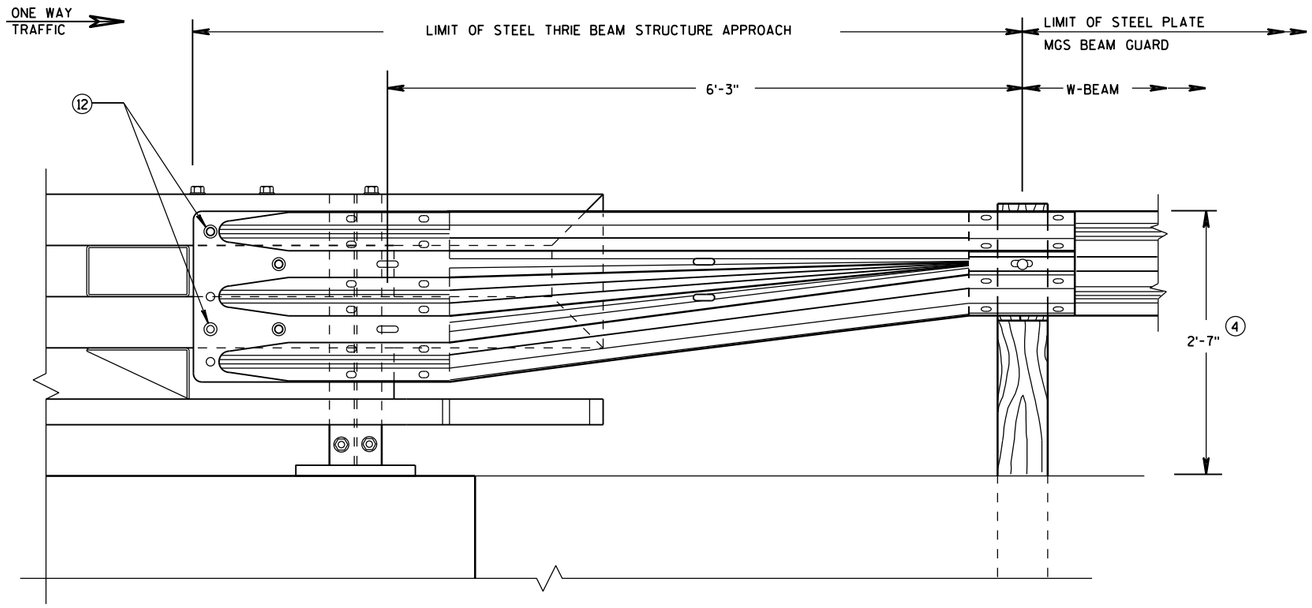


FRONT VIEW

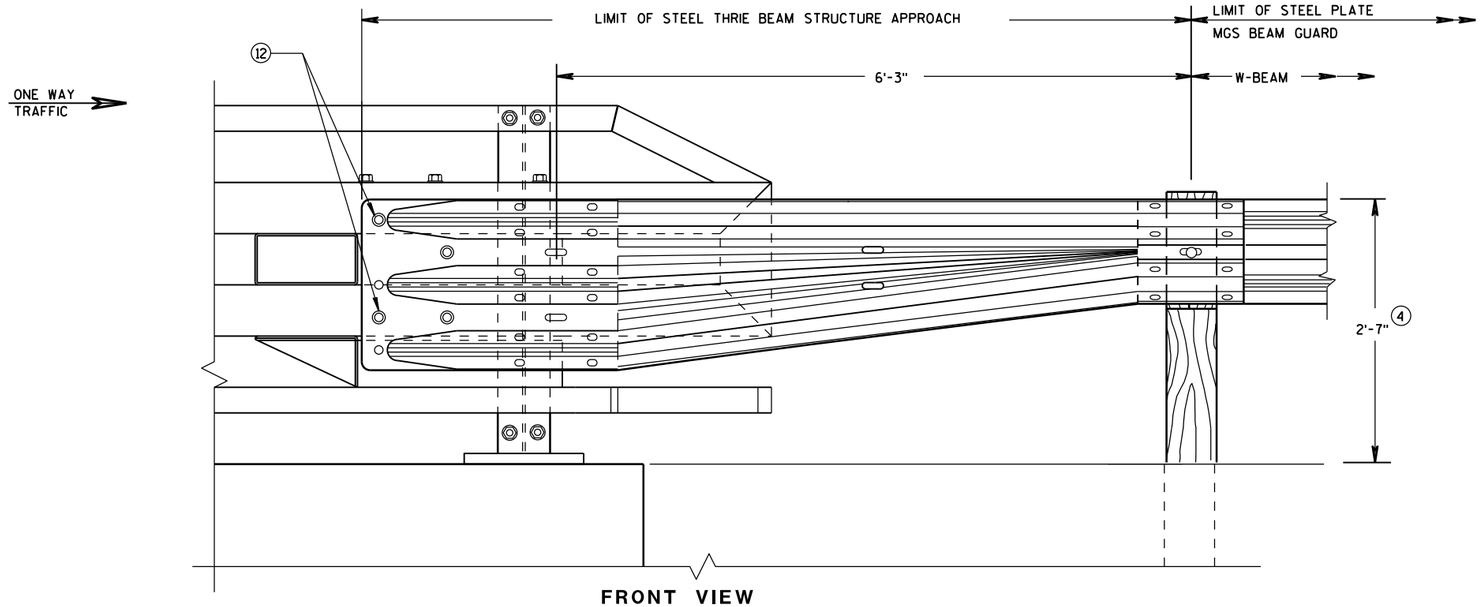
W BEAM TRANSITION AND CONNECTION TO BRIDGE RAILING TYPE "NY3"

(USE ONLY ON THE TRAFFIC EXIT END OF ONE WAY BRIDGES)

GENERAL NOTES

(4) TOLERANCE FOR TOP OF BEAM IS ± 1".

(12) BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE. ON BACKSIDE OF PARAPET ONE ROUND WASHER, AND NUT REQUIRED. BOLT THREAD IS TO EXTEND ½-INCH BEYOND NUT.



FRONT VIEW

W BEAM TRANSITION AND CONNECTION TO BRIDGE RAILING TYPE "NY4"

(USE ONLY ON THE TRAFFIC EXIT END OF ONE WAY BRIDGES)

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
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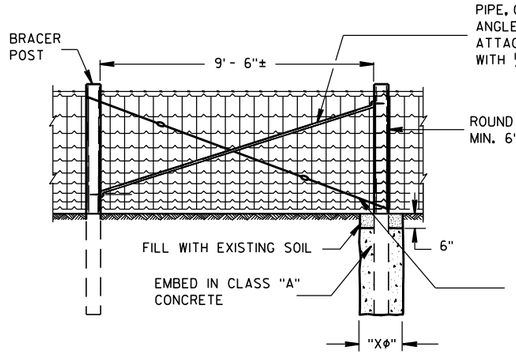
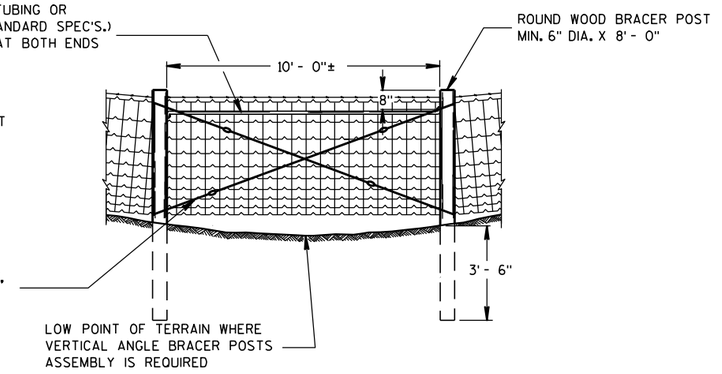
NOTE: PULL OR STRETCHER POST ASSEMBLIES SHALL BE PLACED MIDWAY BETWEEN END POSTS AND CORNER POSTS WHERE A RUN OF FENCE EXCEEDS 660' BUT IS LESS THAN 1,320'. FOR RUNS OF FENCE IN EXCESS OF 1,320' MAXIMUM SPACING OF PULL OR STRETCHER POST ASSEMBLIES SHALL BE 660'± C-C.

ILLUSTRATION SHOWS POSITION OF STANDARD STEEL BRACE, DOUBLE STRAND GALVANIZED WIRE, AND THE POST TO BE EMBEDDED IN CONCRETE WHEN WIRE FENCE IS INSTALLED FROM LEFT TO RIGHT. THE BRACES SHALL BE POSITIONED ON THE OPPOSITE DIAGONALS AND THE OPPOSITE POST SHALL BE EMBEDDED IN CONCRETE WHEN WIRE FENCE IS INSTALLED FROM RIGHT TO LEFT.



PULL OR STRETCHER POSTS ASSEMBLY



VERTICAL ANGLE BRACER POSTS ASSEMBLY

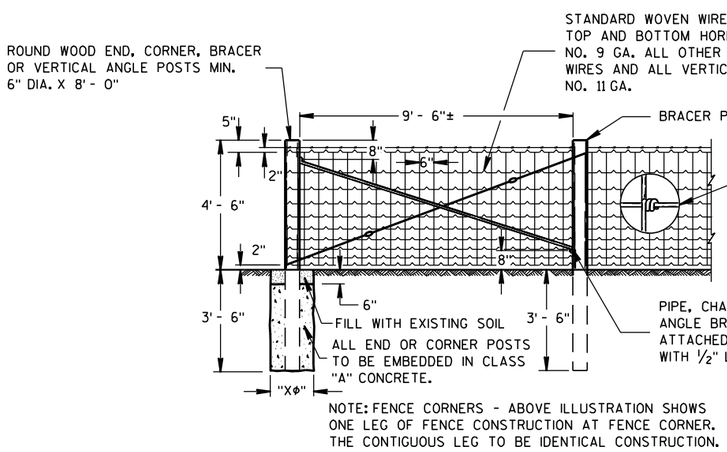
GENERAL NOTES

"XΦ" = DIAMETER OF THE POST PLUS 12".

FENCE STAPLES SHOULD NEVER BE DRIVEN VERTICALLY INTO WOOD POSTS (WITH BOTH LEGS PARALLEL WITH THE WOOD GRAIN). DOING SO CAN SEPARATE THE GRAIN AND SIGNIFICANTLY REDUCE THE HOLDING POWER. ROTATING THE STAPLES SLIGHTLY OFF VERTICAL STRADDLES THE GRAIN AND PROVIDES MORE RESISTANCE TO PULL-OUT.

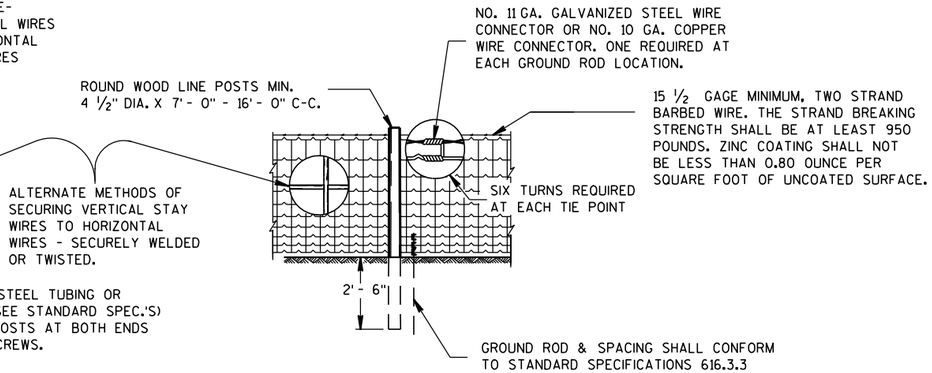
DO NOT STAPLE WIRE TIGHT TO THE LINE POSTS. ALLOW MOVEMENT OF WIRE FOR EXPANSION AND CONTRACTION. STAPLE ARRANGEMENT SHALL BE THE SAME FOR ALL OTHER POSTS EXCEPT THAT THEY SHALL BE DRIVEN TIGHT TO POSTS. ALL STAPLES SHALL BE 2" X 9 GAGE AND SHALL BE MANUFACTURED FROM GALVANIZED WIRE OR HOT DIP GALVANIZED AFTER FORMING. STAPLES SHALL HAVE SLASH-CUT POINTS.

FENCE SHALL BE LOCATED 3'-0" INSIDE THE RIGHT OF WAY LINE UNLESS OTHERWISE INDICATED ON THE PLANS.



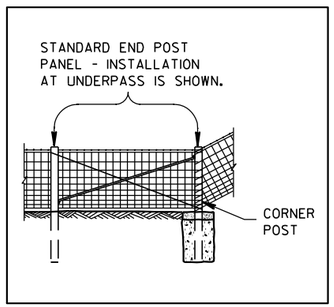
NOTE: FENCE CORNERS - ABOVE ILLUSTRATION SHOWS ONE LEG OF FENCE CONSTRUCTION AT FENCE CORNER. THE CONTIGUOUS LEG TO BE IDENTICAL CONSTRUCTION.

END OR CORNER POSTS ASSEMBLY

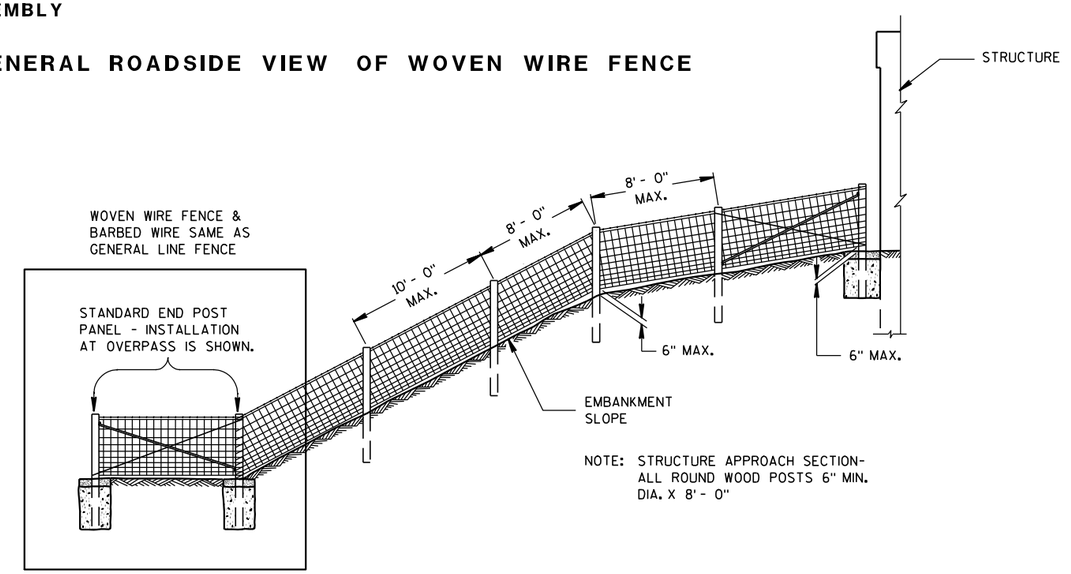


LINE FENCE CONSTRUCTION

GENERAL ROADSIDE VIEW OF WOVEN WIRE FENCE



ALTERNATE FENCE DESIGN AT STRUCTURE



NOTE: STRUCTURE APPROACH SECTION- ALL ROUND WOOD POSTS 6" MIN. DIA. X 8' - 0"

FENCE DESIGN AT STRUCTURE APPROACH

FENCE WOVEN WIRE

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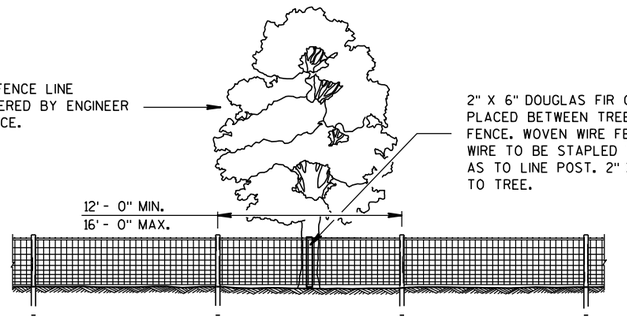
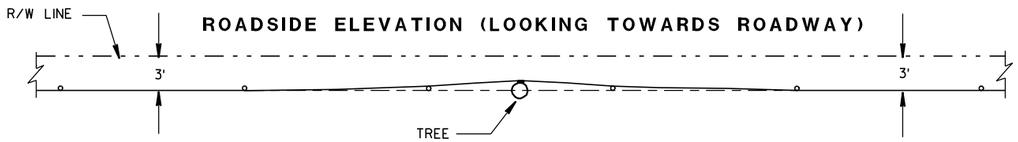
NOTE: TREE IN NORMAL FENCE LINE SPECIFICALLY ORDERED BY ENGINEER TO REMAIN IN PLACE.

2" X 6" DOUGLAS FIR OR SO. YELLOW PINE PLACED BETWEEN TREE AND WOVEN WIRE FENCE. WOVEN WIRE FENCE AND BARBED WIRE TO BE STAPLED TO 2" X 6" LIKE AS TO LINE POST. 2" X 6" NOT FASTENED TO TREE.

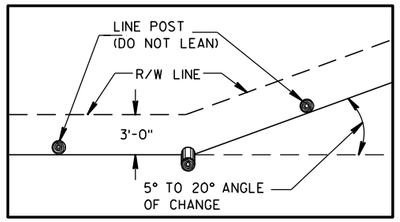


ROADSIDE ELEVATION (LOOKING TOWARDS ROADWAY)

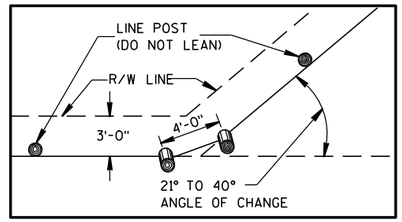


PLAN VIEW

FENCE DESIGN AT TREES REMAINING IN NORMAL FENCE LINE



PLAN VIEW
SINGLE POST CORNER

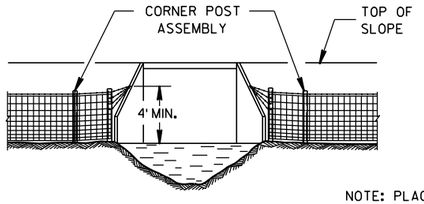


PLAN VIEW
DOUBLE POST CORNER

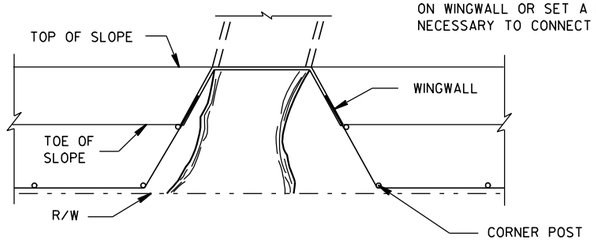
RIGHT OF WAY LINE CHANGE 40° AND LESS

NOTE: SINGLE AND DOUBLE POSTS SHALL BE A MIN. 6" DIA. X 8'-0" WITH A LEAN OF 4" TOWARD THE OUTSIDE OF THE CURVE.

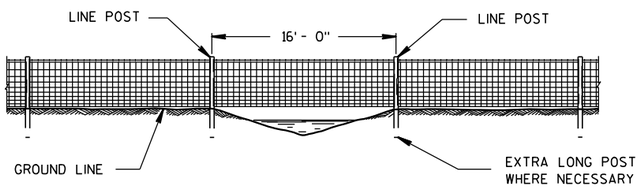
WHEN THE RIGHT OF WAY LINE CHANGE IS MORE THAN 40° USE THE CORNER OR STRETCHER POSTS ASSEMBLY.



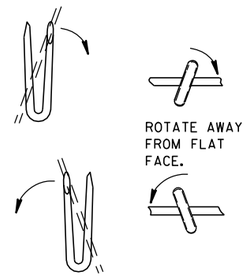
NOTE: PLACE A MINIMUM OF 4 STRANDS OF BARBED WIRE, 6" MAXIMUM CENTERS IN FAN SHAPE CONNECTED TO AN EYE BOLT ON WINGWALL OR SET A LONE POST WHEN NECESSARY TO CONNECT BARBED WIRE.



FENCE INSTALLATION TO WINGWALLS

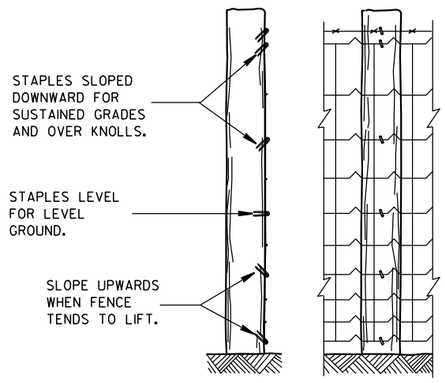


FENCE CONSTRUCTION OVER STREAM COURSES OF 15 FT. OR LESS IN WIDTH



LINE POST

NOTE: WHEN POSTS ARE DRIVEN THE SMALL END SHALL BE DOWN.

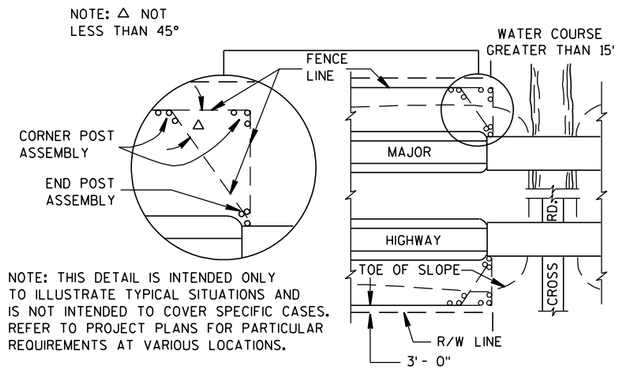


END ELEVATION

FARM SIDE ELEVATION

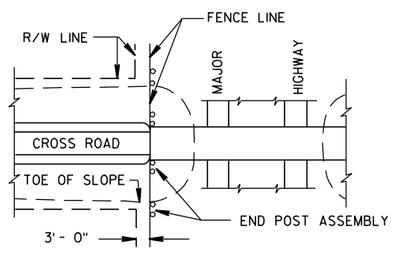
FENCE MOUNTING DETAIL

NOTE: △ NOT LESS THAN 45°



NOTE: THIS DETAIL IS INTENDED ONLY TO ILLUSTRATE TYPICAL SITUATIONS AND IS NOT INTENDED TO COVER SPECIFIC CASES. REFER TO PROJECT PLANS FOR PARTICULAR REQUIREMENTS AT VARIOUS LOCATIONS.

PLAN VIEW
MAJOR HIGHWAY OVERPASS OR STREAM COURSE CROSSING OF GREATER THAN 15 FT. IN WIDTH



PLAN VIEW
MAJOR HIGHWAY UNDERPASS

FENCE LOCATION AT STRUCTURES

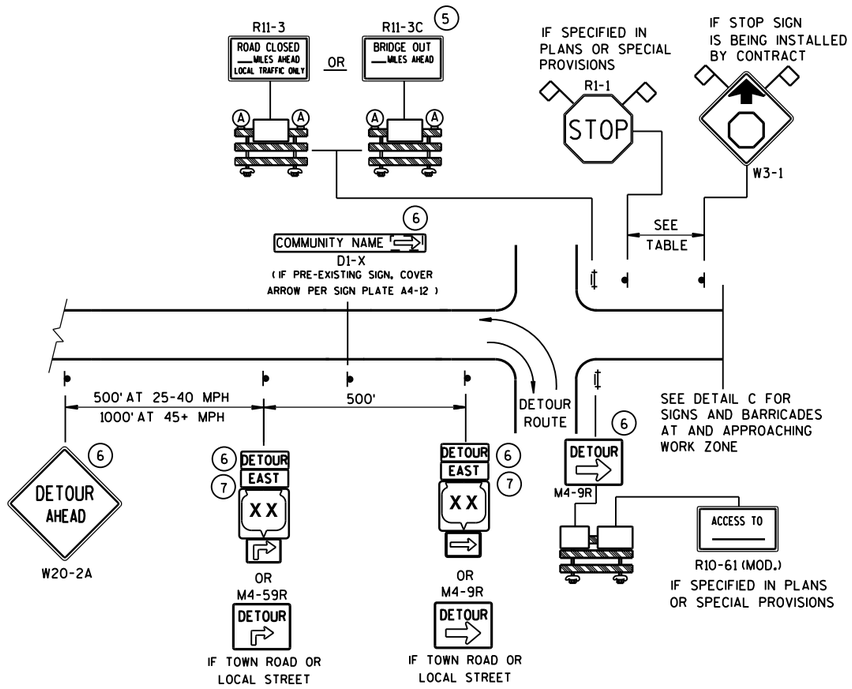
FENCE WOVEN WIRE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
4/4/2008
DATE
/S/ Jerry H. [illegible]
ROADWAY STANDARDS [illegible] ENGINEER
FHWA

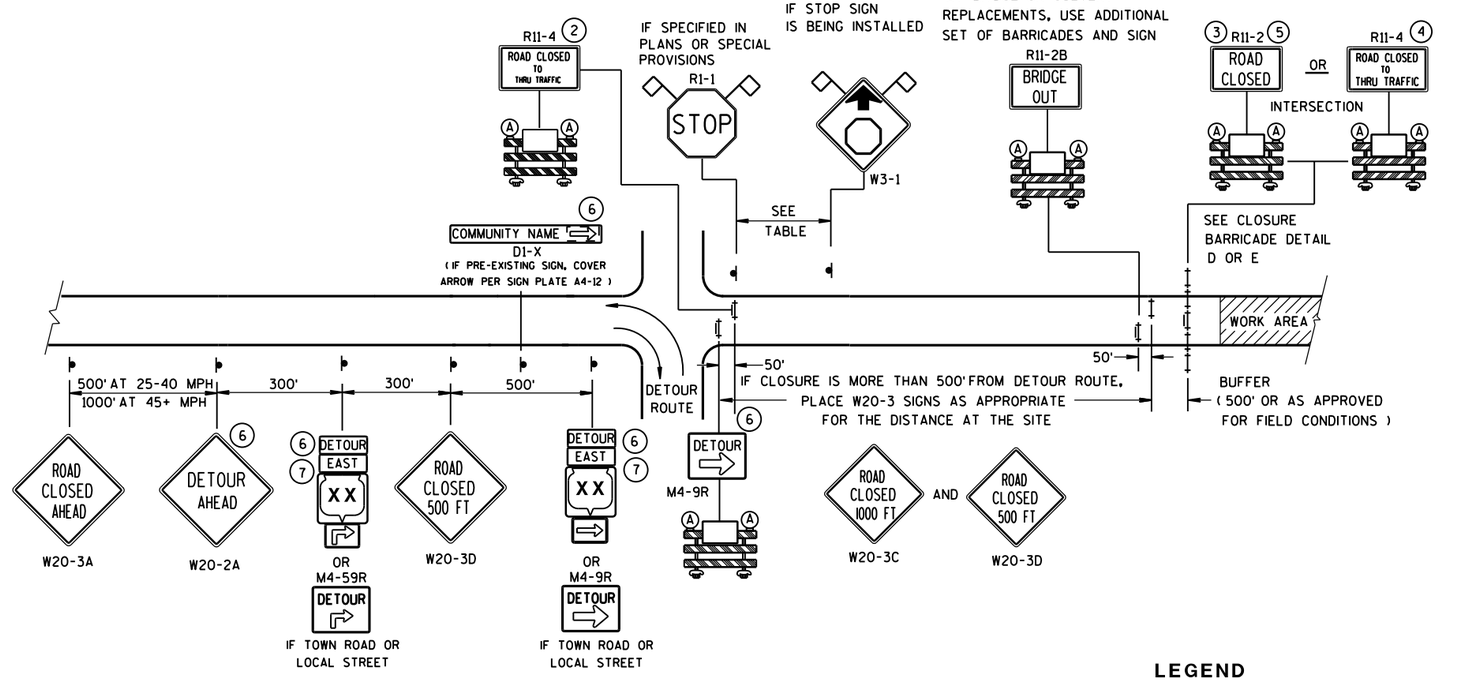
6

S.D.D. 15 B 1-8b



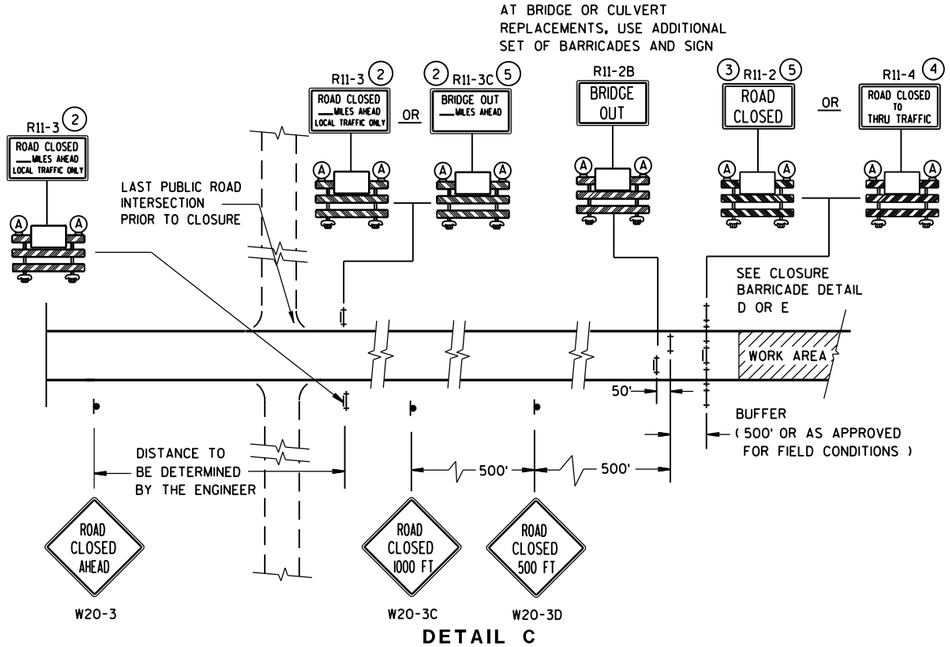
DETAIL A
MAINLINE CLOSURE WITH POSTED DETOUR

WORK ZONE GREATER THAN ½ MILE FROM DETOUR ROUTE (1000 FEET IF URBAN)



DETAIL B
MAINLINE CLOSURE WITH POSTED DETOUR

WORK ZONE LESS THAN ½ MILE FROM DETOUR ROUTE (1000 FEET IF URBAN)



DETAIL C
MAINLINE CLOSURE, NO POSTED DETOUR

SPEED LIMIT (MPH)	"STOP AHEAD" ADVANCE WARNING DISTANCE (FT)
25	200
30	200
35	350
40	350
45	500
50	550
55	750

SEE SDD 15C2-SHEET "**b**"
FOR GENERAL NOTES
AND FOOTNOTES (1) THROUGH (7)

LEGEND

- SIGN ON PERMANENT SUPPORT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- (A) TYPE "A" WARNING LIGHT (FLASHING)
- WORK AREA
- DETOUR / EAST — M4-8 / M3-X
- XX — M1-4; COUNTY XX — M1-5A; XX — M1-6
- M05-1 OR M06-1
- FLAGS, 16" X 16" MIN., (ORANGE)

BARRICADES AND SIGNS FOR MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

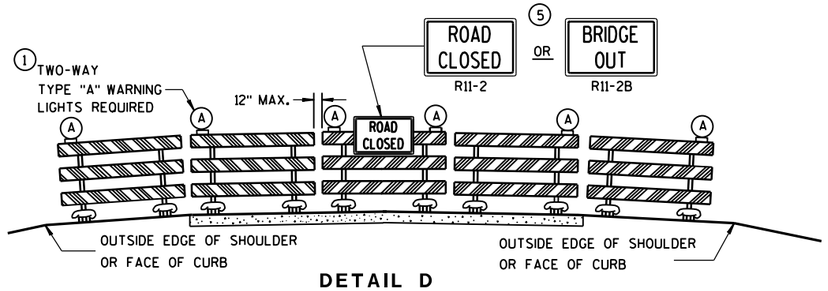
Sept. 2015 — DATE
/S/ Peter Amakobe Atepe
STATEWIDE WORK ZONE TRAFFIC SAFETY ENGINEER
FHWA

6

S.D.D. 15 C 2-6a

6

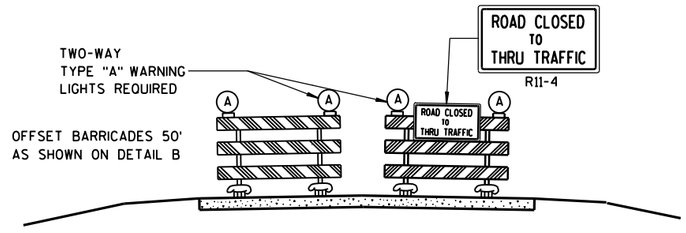
S.D.D. 15 C 2-6a



DETAIL D

ROAD CLOSURE BARRICADE DETAIL

APPROACH VIEW



DETAIL E

LANE CLOSURE BARRICADE DETAIL

APPROACH VIEW

SEE SDD 15C2-SHEET "**a**" FOR LEGEND

GENERAL NOTES

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND BARRICADES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A DESIRABLE MINIMUM OF 200 FEET CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

BARRICADES THAT MUST BE MOVED FOR A WORK OPERATION SHALL BE IMMEDIATELY RE-ESTABLISHED UPON COMPLETION OF THE OPERATION OR, FOR CONTINUING OPERATIONS, AT THE END OF EACH WORKING DAY.

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

ALL TYPE III BARRICADES SHALL HAVE RAILS REFLECTORIZED ON BOTH FACES. STRIPES SHALL BE PROPERLY SLOPED DOWN TOWARD THE TRAFFIC SIDE OR AS SHOWN IN THE ROAD CLOSURE BARRICADE DETAIL D FOR FULL ROAD CLOSURES.

TYPE "A" LOW-INTENSITY FLASHING WARNING LIGHTS SHALL BE VISIBLE ON BOTH SIDES OF THE BARRICADE.

THE R11-2, R11-3, M4-9, R11-4 AND R10-61 SIGNS PLACED ON BARRICADES SHALL COVER NO MORE THAN THE TOP RAIL. THE SIGNS SHALL NOT COVER ANY PORTION OF THE MIDDLE OR BOTTOM RAILS.

"WO AND "MO" SIGNS ARE THE SAME AS "W" AND "M" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

ALL SIGNS SHALL BE 48" X 48" UNLESS OTHERWISE NOTED BELOW:
- R11-2 SHALL BE 48" X 30".
- R11-3, R11-4 AND R10-61 SHALL BE 60" X 30".
- M4-9 SHALL BE 30" X 24".
- M3-X SHALL BE 24" X 12". (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS.)
- M4-8 SHALL BE 24" X 12". (30" X 15" IF NEEDED TO MATCH EXISTING SIGNS.)
- M1-4, M1-5A, AND M1-6 SHALL BE 24" X 24". (36" X 36" IF NEEDED TO MATCH EXISTING SIGNS.)
- M05-1 AND M06-1 SHALL BE 21" X 21". (30" X 30" IF NEEDED TO MATCH EXISTING SIGNS.)
- D1-X SHALL BE AS SHOWN ON SPECIFIC PROJECT SIGNING DETAIL SHEETS.
- R1-1 SHALL BE 36" X 36".

(1) TWO WARNING LIGHTS SHALL BE PROVIDED ON THE CENTER BARRICADE AND A MINIMUM OF ONE WARNING LIGHT SHALL BE PROVIDED ON EACH OF THE OTHER BARRICADES WITHIN THE ROADWAY LIMITS. SPACING OF THE WARNING LIGHTS SHALL BE UNIFORM TO THE EDGE OF ROADWAY AS SHOWN (APPROX. 8-FOOT LIGHT SPACING).

(2) THESE SIGNS AND BARRICADES ARE NOT REQUIRED IF ROAD CLOSURE BEGINS AT INTERSECTION.

(3) FOR ROAD CLOSURE WITHOUT LOCAL ACCESS TO PROJECT, SEE ROAD CLOSURE BARRICADE DETAIL D.

(4) FOR ROAD CLOSURE WITH LOCAL ACCESS TO PROJECT, SEE LANE CLOSURE BARRICADE DETAIL E.

(5) FOR BRIDGE OR CULVERT REPLACEMENTS, SUBSTITUTE "BRIDGE OUT" INSTEAD OF "ROAD CLOSED" ON R11-2 AND R11-3 SIGNS.

(6) INSTALL DETOUR AND COMMUNITY GUIDE SIGNS AND ARROWS ONLY IF SPECIFIED IN THE CONTRACT. IF THERE ARE EXISTING ROUTE MARKER ASSEMBLIES THAT WILL REMAIN IN PLACE, ADJUST THE LOCATION OF THE DETOUR ROUTE SIGNS TO CORRESPOND WITH THE EXISTING ASSEMBLIES. MODIFY EXISTING SIGNS WHERE POSSIBLE. SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS. IF DETOUR SIGNS ARE BEING INSTALLED BY OTHERS, PLACE THE CONTRACTED TRAFFIC CONTROL SIGNS TO ALLOW FOR PLACEMENT OF ALL WARNING, DETOUR AND GUIDE SIGNS AS SHOWN.

(7) "EAST" CARDINAL DIRECTION MARKERS AND RIGHT TURN ARROWS ARE SHOWN. USE OTHER CARDINAL DIRECTIONS AND ARROWS AS APPROPRIATE.

BARRICADES AND SIGNS FOR MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

Sept. 2015 — DATE

/S/ Peter Amakobe Atepe
STATEWIDE WORK ZO[illegible] FIC
SAFETY ENGI[illegible]

FHWA

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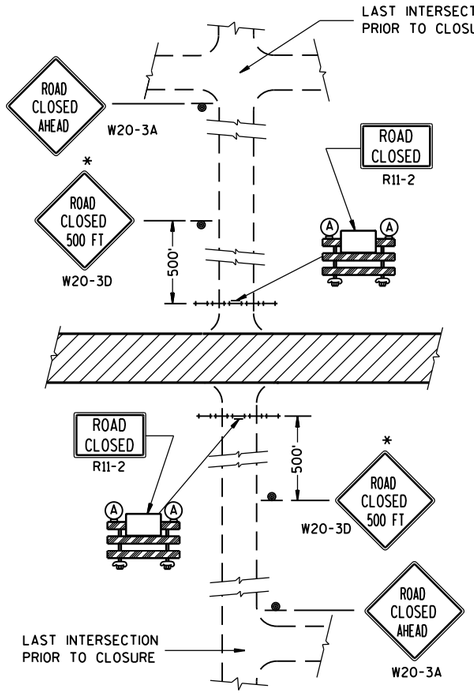
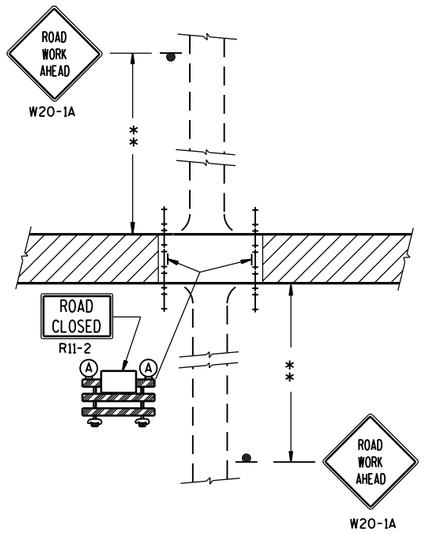
S.D.D. 15 C 2-6b



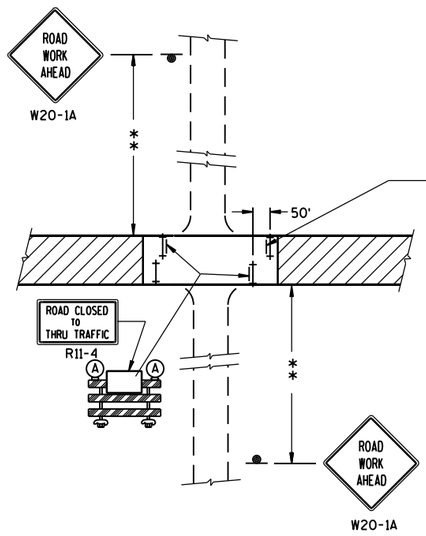
DETAIL 1

(NO ACCESS TO PROJECT)



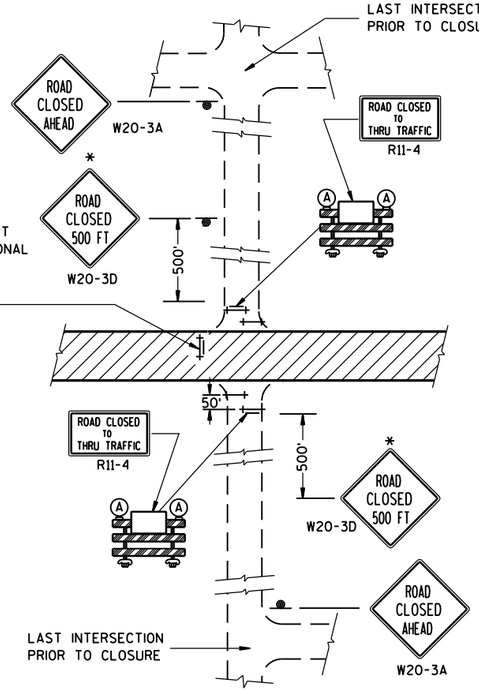
DETAIL 2

(PUBLIC CROSS-TRAFFIC MAINTAINED.
NO ACCESS TO PROJECT).



DETAIL 3

(PUBLIC CROSS-TRAFFIC MAINTAINED. CONTRACTOR, LOCAL BUSINESS AND RESIDENT ACCESS).



DETAIL 4

(CONTRACTOR, LOCAL BUSINESS AND
RESIDENT ACCESS TO PROJECT)

GENERAL NOTES

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND BARRICADES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A DESIRABLE MINIMUM OF 200 FEET CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

IF A "STOP" SIGN MUST BE REMOVED FOR A WORK OPERATION, A TEMPORARY "STOP" SIGN SHALL BE PLACED PRIOR TO THE SIGN REMOVAL, OR A FLAGGER SHALL BE PROVIDED UNTIL THE SIGN IS RE-ESTABLISHED.

BARRICADES THAT MUST BE MOVED FOR A WORK OPERATION SHALL BE IMMEDIATELY RE-ESTABLISHED UPON COMPLETION OF THE OPERATION OR, FOR CONTINUING OPERATIONS, AT THE END OF EACH WORKING DAY.

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

ALL TYPE III BARRICADES SHALL HAVE RAILS REFLECTORIZED ON BOTH FACES. STRIPES SHALL BE PROPERLY SLOPED DOWN TOWARD THE TRAFFIC SIDE OR AS SHOWN IN THE ROAD CLOSURE BARRICADE DETAIL D FOR FULL ROAD CLOSURES.

TYPE "A" LOW-INTENSITY FLASHING WARNING LIGHTS SHALL BE VISIBLE ON BOTH SIDES OF THE BARRICADE.

THE R11-2, R11-3 AND R11-4 SIGNS PLACED ON BARRICADES SHALL COVER NO MORE THAN THE TOP RAIL. THE SIGNS SHALL NOT COVER ANY PORTION OF THE MIDDLE OR BOTTOM RAILS.

ALL SIGNS SHALL BE 48" X 48" UNLESS OTHERWISE NOTED BELOW:
R11-2 SHALL BE 48" X 30".
R11-4 AND R11-3 SHALL BE 60" X 30".

*OMIT THE "ROAD CLOSED 500 FT." SIGN IF THE LAST INTERSECTION IS 500 FT. OR LESS FROM THE WORK ZONE.

**500' MAX. OR AT LAST INTERSECTION WHICHEVER IS CLOSER.

LEGEND

- SIGN ON PERMANENT SUPPORT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- (A) TYPE "A" WARNING LIGHT (FLASHING)
- WORK AREA

BARRICADES AND SIGNS FOR SIDEROAD CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Sept. 2015 — DATE
/S/ Peter Amakobe Atepe
STATEWIDE WORK ZO[illegible]FIC SAFETY ENGI[illegible]
FHWA

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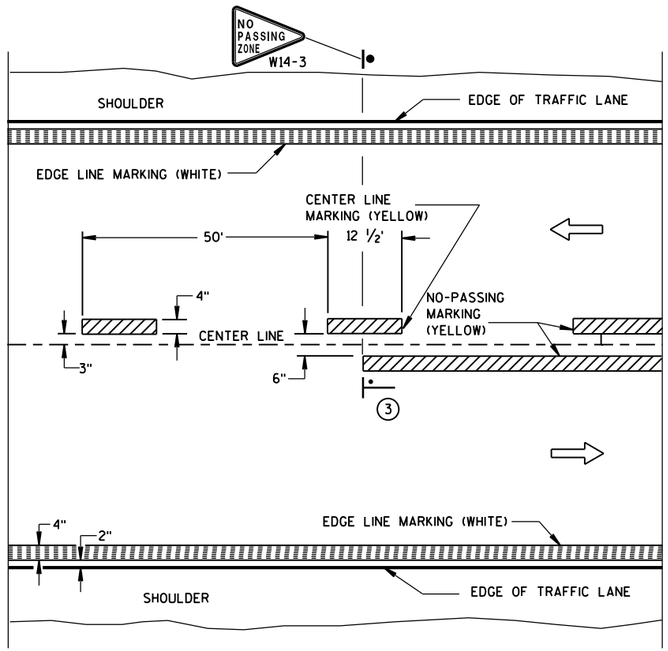
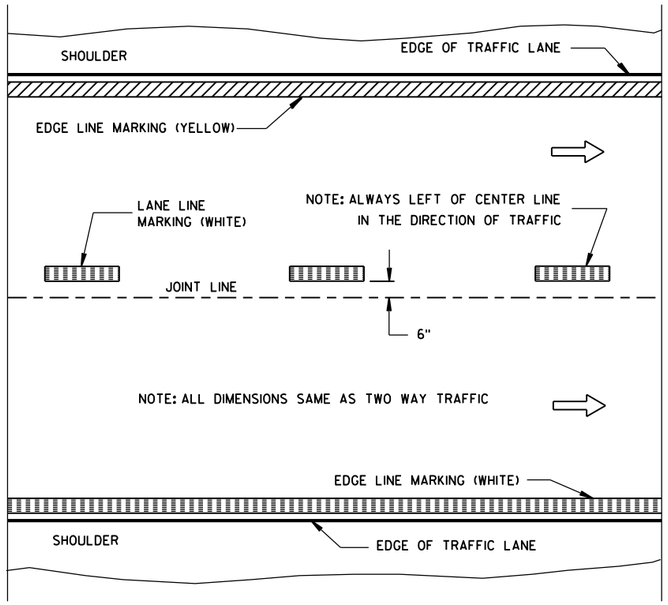
S.D.D. 15 C 3-3

6

S.D.D. 15 C 3-3

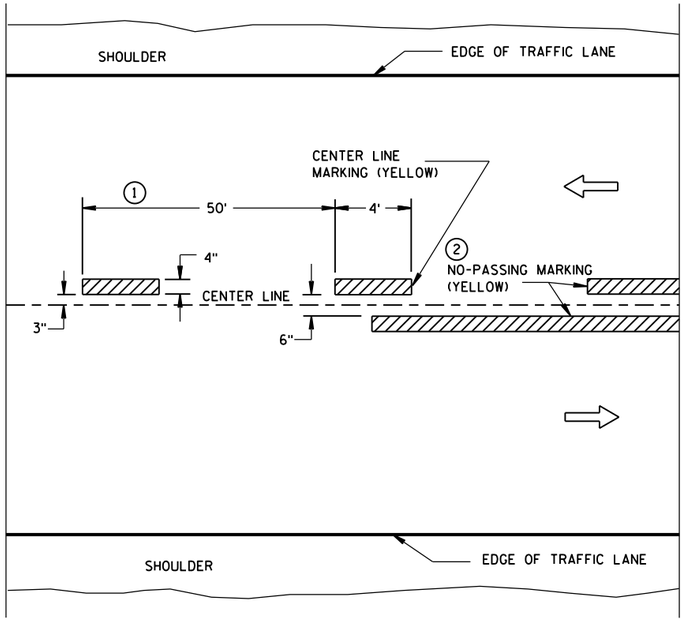


TWO WAY TRAFFIC

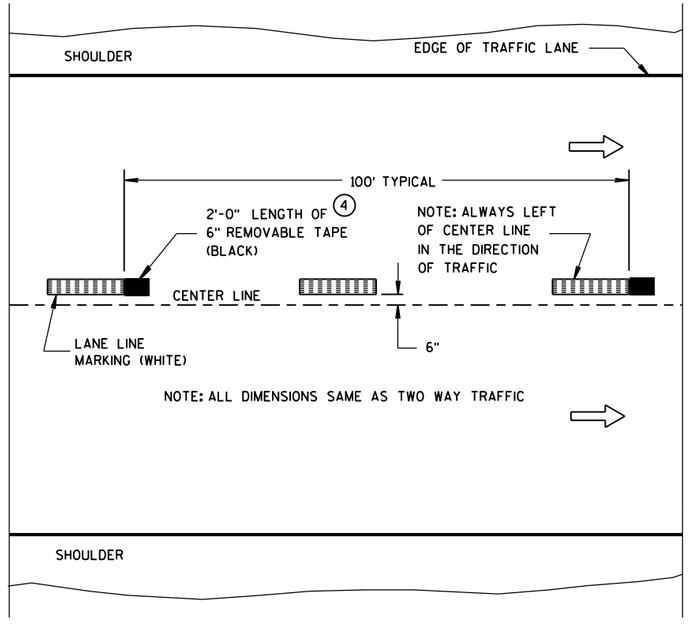


ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING



TWO WAY TRAFFIC



ONE WAY TRAFFIC

TEMPORARY (INTERMEDIATE) PAVEMENT MARKING

(SHOWS CYCLE FOR TEMPORARY CENTER LINE OR TEMPORARY LANE LINE MARKING)

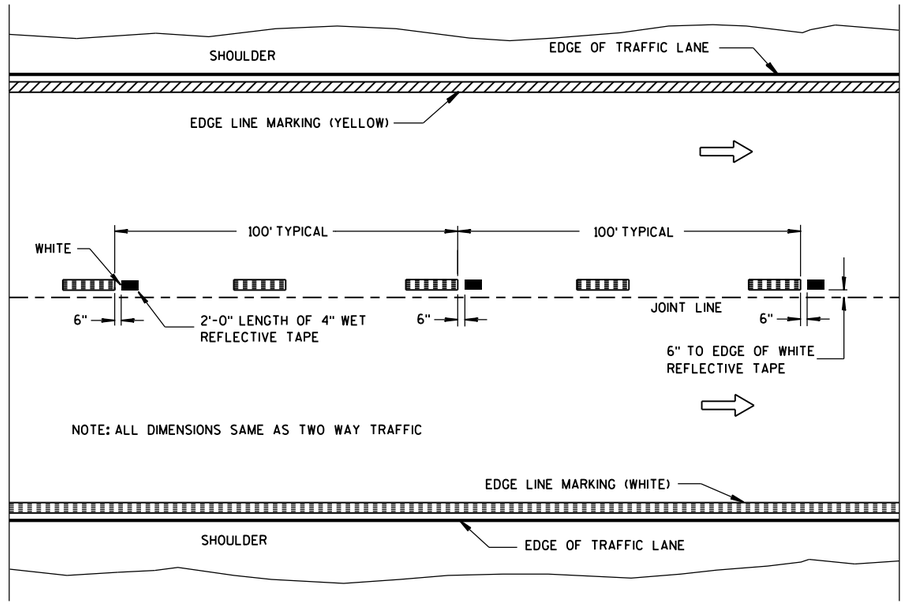
GENERAL NOTES

DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO STANDARD SPECIFICATIONS AND SPECIAL PROVISIONS.

1. HALF CYCLE LENGTHS (25'±) WITH 2' MINIMUM STRIPE LENGTHS SHALL BE PROVIDED ON ROADWAYS (INCLUDING TEMPORARY TRAVELED WAYS) WITH REVERSE CURVATURE, CURVATURE OF OVER 5 DEGREES OR WHEN DIRECTED BY THE ENGINEER TO MARK UNUSUAL ALIGNMENT OF THE TRAVELED WAY.
2. NO PASSING ZONE TEMPORARY PAVEMENT MARKING IS REQUIRED TO BE PLACED, WHERE APPROPRIATE, ALONG WITH CENTERLINE TEMPORARY PAVEMENT MARKING WHEN A SAME DAY PERMANENT PAVEMENT MARKING ITEM IS INCLUDED IN THE CONTRACT.
3. NO PASSING ZONE MARKINGS ARE PLACED ACCORDING TO "T" MARKINGS. IF EXISTING NO PASSING ZONE W14-3 SIGNS ARE BEYOND 50 FEET IN EITHER DIRECTION, THE SIGNS SHALL BE MOVED TO THE "T" MARKINGS.
4. CONCRETE ONLY.

NOTE

ARROW SYMBOL (⇨) SHOWS DIRECTION OF TRAVEL



WET REFLECTIVE TAPE SUPPLEMENT TO
SPRAYED OR NON WET REFLECTIVE TAPE LANE LINE

LEGEND

"T" MARKING

POST MOUNTED SIGN

PAVEMENT MARKING (MAINLINE)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

5-13-2013
DATE

/S/ Travis Feltes
STATE TRAFFIC E

FHWA

6

S.D.D. 15 C 8-16a

6

S.D.D. 15 C 8-16a

LEGEND

- TYPE III BARRICADE WITH ATTACHED SIGN
- SIGN ON PERMENENT SUPPORT
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- TRAFFIC CONTROL DRUM
- FLASHING ARROW BOARD
- (A) TYPE "A" WARNING LIGHT (FLASHING)
- REMOVING PAVEMENT MARKING
- DIRECTION OF TRAFFIC
- WORK AREA

GENERAL NOTES

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

THE SPACING BETWEEN SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND TO PROVIDE A MINIMUM OF 200 FEET, (500 FEET DESIREABLE) DISTANCE TO EXISTING SIGNS.

THIS LANE CLOSURE IS TYPICAL FOR CLOSING RIGHT LANE - REVERSE FOR CLOSING LEFT LANE.

ALL SIGNS ARE 48"×48" UNLESS OTHERWISE NOTED.

"WO" IS THE SAME AS "W" EXCEPT THE BACKGROUND IS ORANGE.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER. NO WARNING LIGHTS SHALL BE WORKING ON "COVERED" OR "DOWNED" SIGNS.

CONSIDER GEOMETRICS WHEN LOCATING SIGNS AND ARROW BOARD SO THE DRIVER HAS A CLEAR VIEW OF THE ARROW BOARD AND LANE CLOSURE DRUMS FOR A MINIMUM 1500 FEET IN FRONT OF DRUMS.

FOR A LANE CLOSURE THAT IS IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS, THE ADVANCED WARNING SIGNS MAY BE MOUNTED ON PORTABLE SUPPORTS.

REMOVE PAVEMENT MARKINGS IF LANE CLOSURE IS TO BE IN PLACE FOR LONGER THAN 4 OR MORE DAYS AND NIGHTS.

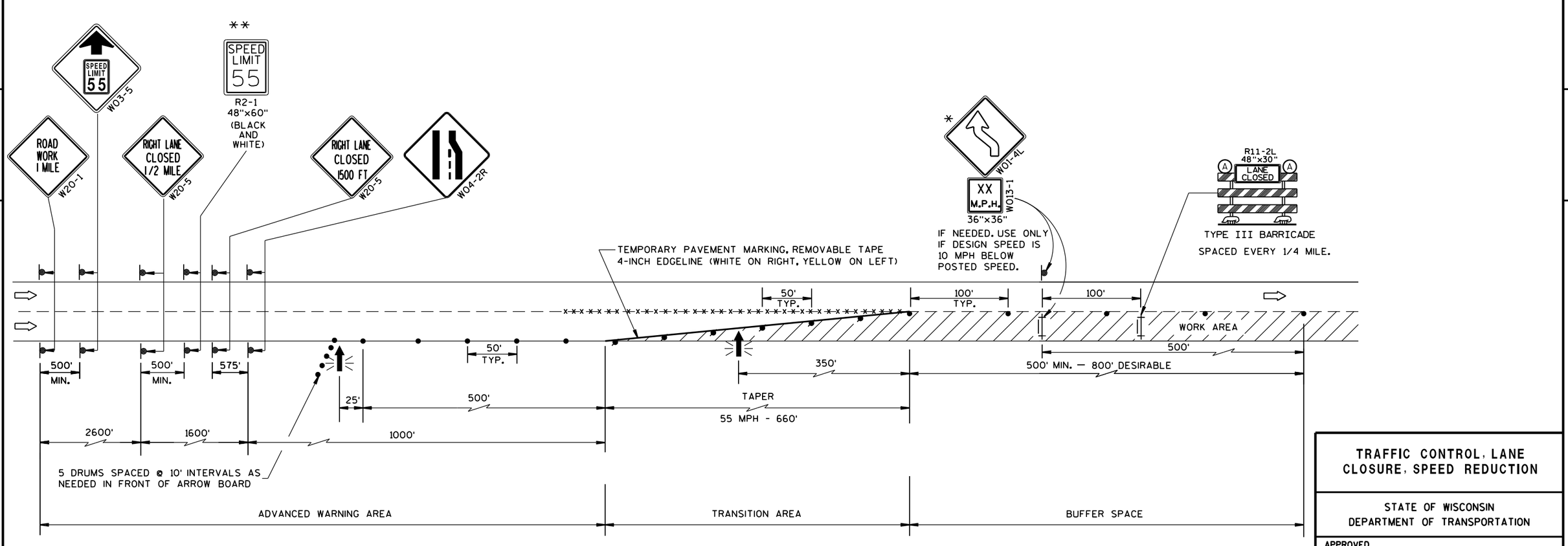
WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

IF THE HORIZONTAL ALIGNMENT IS SUCH THAT A CURVE MAY REQUIRE ADDITIONAL DELINEATION, THE DEVICE SPACING MAY BE DECREASED TO 50 FEET.

ADJUSTMENTS IN BUFFER SPACE NEED TO BE INCORPORATED WHEN THE LANE CLOSURE OCCURS NEAR AN INTERCHANGE EXIT OR ENTRANCE RAMP. THE LANE CLOSURE MUST MUST TAKE PLACE FAR ENOUGH IN ADVANCE OF AN EXIT OR ENTRANCE RAMP TO STILL ALLOW FOR ADEQUATE BUFFER SPACE. THE MINIMUM LENGTH OF THE BUFFER SPACE BEFORE AN EXIT RAMP SHOULD BE 1/2 THE LENGTH OF THE TRANSITION AREA. THE ENTRANCE RAMP SHOULD BE FOLLOWED BY THE ORIGINAL BUFFER SPACE LENGTH OF 800 FEET DESIRABLE PRIOR TO ANOTHER TRAFFIC CONTROL CHANGE SUCH AS A CROSSOVER MANEUVER.

* THE LEFT REVERSE CURVE SIGN (WO1-4L) IS ONLY REQUIRED WHEN THIS DETAIL IS USED IN COMBINATION WITH "SINGLE LANE CROSSOVER" DETAIL.

** A SPEED LIMIT SIGN SHALL BE LOCATED 1500 FEET BEYOND THE END OF THE ACCELERATION LANE OF EACH ENTRANCE RAMP. THERE SHOULD BE A SPEED LIMIT SIGN INCORPORATED A MINIMUM OF EVERY 2 OR 3 MILES. INCLUDE A 65 MPH RESUME SPEED LIMIT SIGN 200 FEET MINIMUM (500 FEET DESIREABLE) BEYOND THE "END OF ROADWORK" SIGN.



TRAFFIC CONTROL, LANE CLOSURE, SPEED REDUCTION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Feb. 2015 — DATE
/S/ Travis Feltes — STATE TRAFFIC ENGINEER
FHWA

S.D.D. 15 D 12-5b

S.D.D. 15 D 12-5b

LEGEND

- TRAFFIC CONTROL DRUM
- SIGN ON PERMANENT SUPPORT
- DIRECTION OF TRAFFIC
- FLASHING ARROW BOARD
- WORK AREA

GENERAL NOTES

THIS DETAIL IS TYPICAL FOR CLOSING THE RIGHT SHOULDER. FOR CLOSING THE LEFT SHOULDER, REVERSE THE TRAFFIC CONTROL.

THIS DETAIL MAY BE USED FOR DIVIDED ROADWAYS WITH ANY NUMBER OF TRAVEL LANES.

THE EXACT NUMBER, LOCATION AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.

SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE FHWA'S MANUAL OF STANDARD HIGHWAY SIGNS OR THE WISCONSIN STANDARD SIGN PLATES.

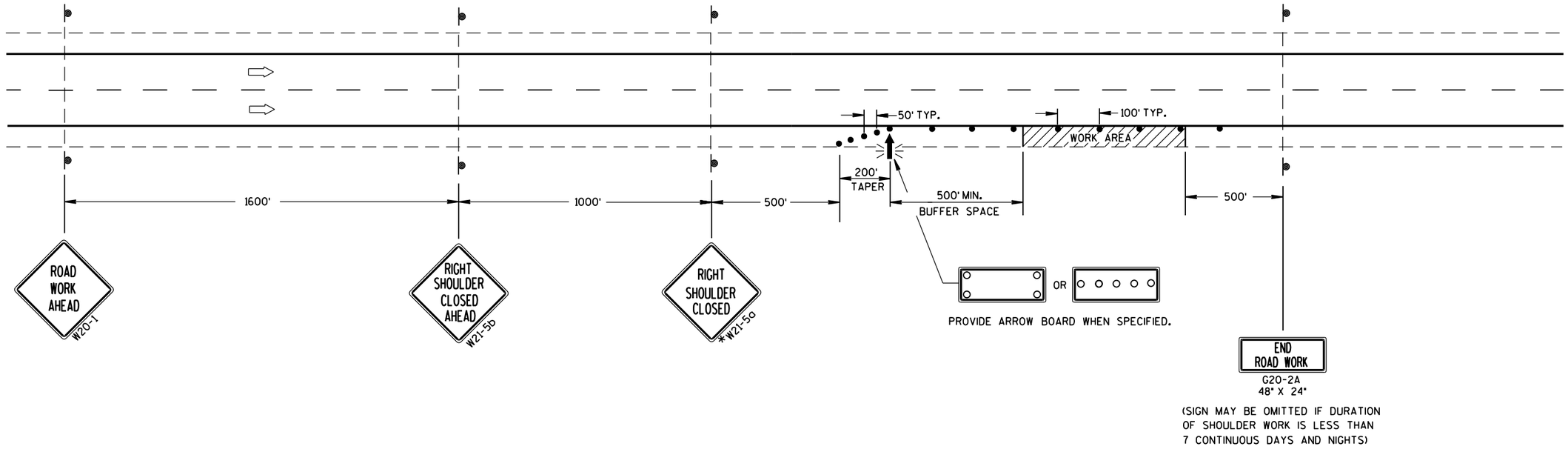
SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

CHANNELIZING DEVICES PLACED ADJACENT TO THE WORK AREA SHALL BE PULLED BACK FROM THE TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

WHEN A RAMP INTERSECTS THE FACILITY ON WHICH THE WORK IS BEING PERFORMED, ADDITIONAL TRAFFIC CONTROLS SHALL BE PROVIDED AS SPECIFIED IN THE PLANS AND/OR THE SPECIAL PROVISIONS OR AS APPROVED BY THE ENGINEER.

*FOR SHORT DURATION SHOULDER WORK OF LESS THAN ONE HOUR, THE W21-5a SIGN MAY BE OMITTED.



TRAFFIC CONTROL SHOULDER CLOSURE ON DIVIDED ROADWAY, SPEEDS GREATER THAN 40 MPH

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

8/2013 — DATE

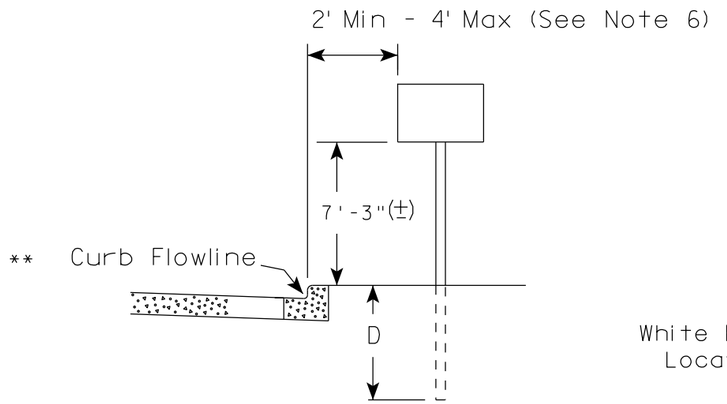
/S/ Travis Feltes — STATE TRAFFIC ENGINEER

FHWA

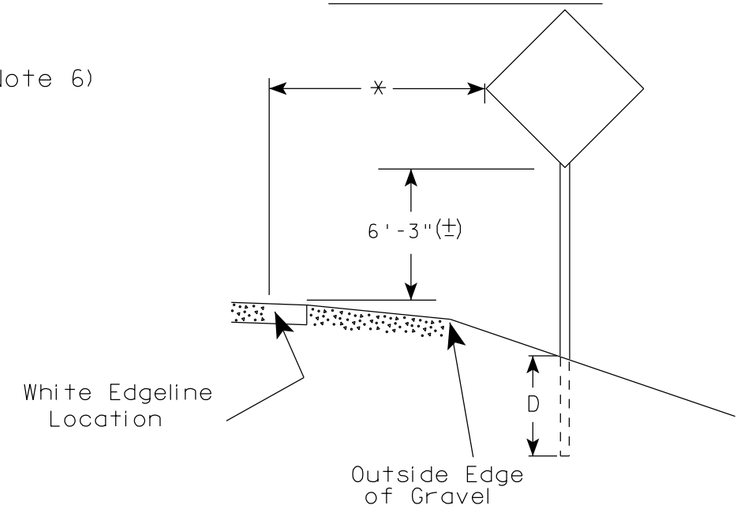
6

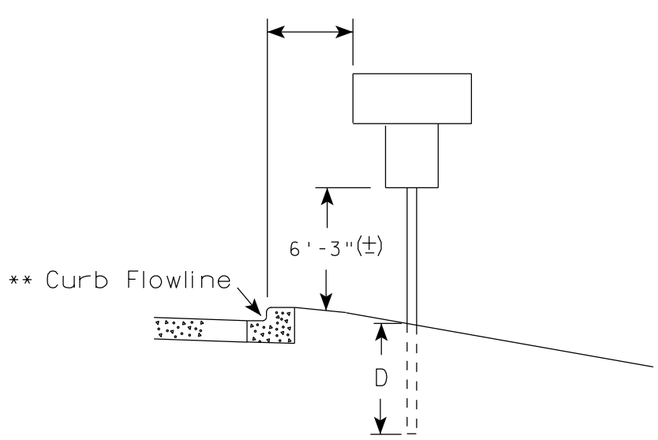
S.D.D. 15 D 27-2

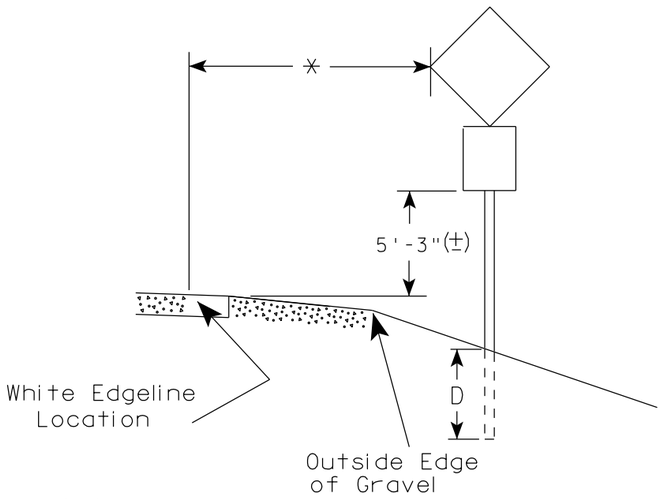
URBAN AREA



RURAL AREA (See Note 2)







GENERAL NOTES

1. Signs wider than 4 feet or 20 sq.ft or larger, shall be mounted on multiple posts. Refer to plate A4-4.
2. If signs are mounted on barrier wall, see A4-10 sign plate.
3. For expressways and freeways, mounting height is 7'- 3" (±) or 6'-3" (±) depending upon existence of a sub-sign.
4. Minimum mounting height for J assemblies (A2-1S) is 7'-3" (±) or 6'-3" (±) per urban or rural detail respectively.
5. Minimum mounting height for signs mounted on traffic signal poles is 5'- 3" (±).
6. Offset distance shall be consistent with existing signs or consistent throughout length of project.
7. The (±) tolerance for mounting height is 3 inches.
8. Folding signs shall be mounted at a height of 5'-3" (±) or as directd by the Engineer.
9. The Double Arrow sign (W12-1) shall be mounted at a height of 2'-3" (±). The Chevron sign (W1-8), Roundabout Chevron panel (R6-4B), Enhanced Reference Markers, Clearance Markers (W5-52), Mile Markers (D10 series), In Road Object Markers (W5-54) & End of Road Markers (W5-56) shall be mounted at a height of 4'-3" (±).

POST EMBEDMENT DEPTH

Area of Sign Installation (Sq. Ft.)	D (Min)
20 or Less	4'
Greater than 20	5'

** The existence of curb and gutter does not in itself mandate the vertical clearance illustrated. That height is typically measured where there is sidewalk adjacent to the roadway or parking is permitted. In the absence of sidewalk vertical clearance is measured from the top of the curb. Offset of signs is measured from the flow line.

* 6 feet from edge of a paved shoulder or 12 feet from the edge of pavement (edge line location) or 2 feet from outside edge of gravel, whichever is greater unless directed by project engineer.

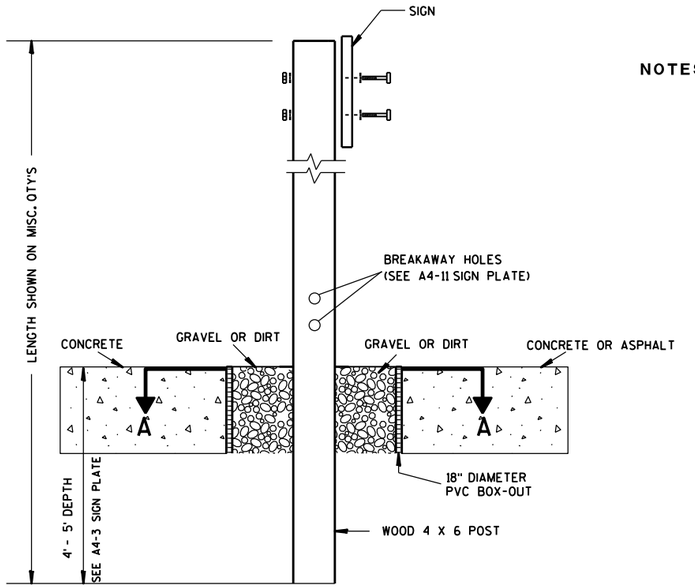
TYPICAL INSTALLATION OF PERMANENT TYPE II SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 7/23/15 PLATE NO. A4-3.20

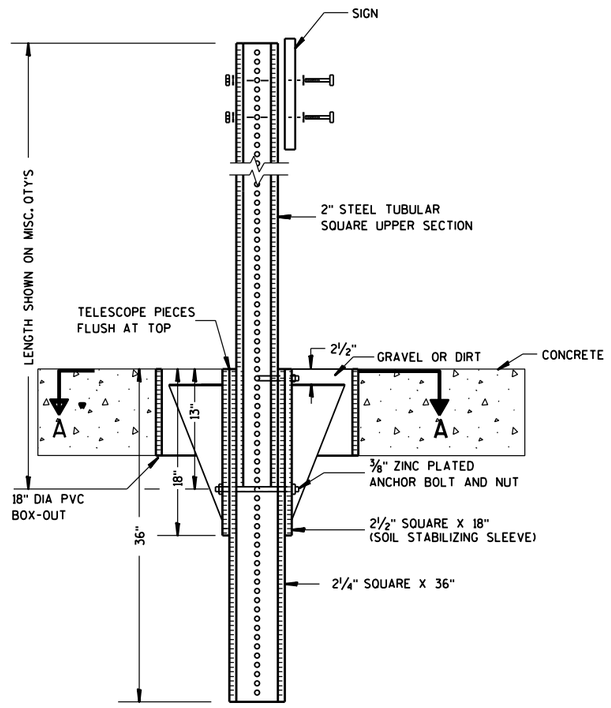
PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E



ELEVATION VIEW

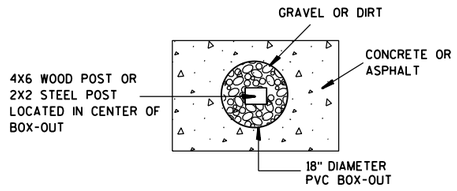
DETAIL OF WOOD 4 X 6 SIGN POST IN BOX-OUT

NOTES:
1. ALL MATERIAL TO BE APPROVED BY ENGINEER PRIOR TO INSTALLATION
2. SEE SIGN PLATE A4-8 FOR SIGN HARDWARE REQUIREMENTS
3. 18 INCH X 18 INCH SQUARE BOX-OUTS MAY BE USED FOR INSTALLATIONS IN EXISTING CONCRETE OR ASPHALT LOCATIONS.



ELEVATION VIEW

DETAIL OF STEEL 2 X 2 SIGN POST IN BOX-OUT



PLAN VIEW

FOR NEW CONCRETE/ASPHALT INSTALLATIONS

SIGN POST BOX-OUTS A4-3B

WISCONSIN DEPT OF TRANSPORTATION

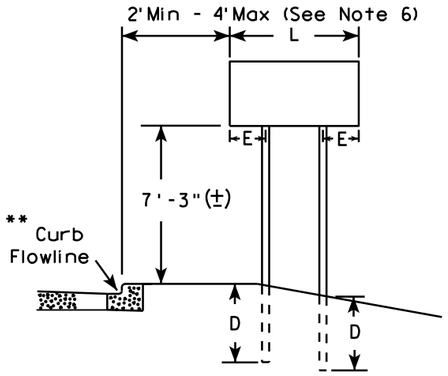
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 1/27/14 PLATE NO. A4-3B.1

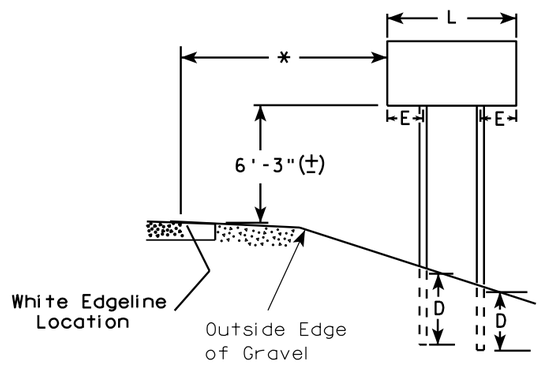
PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

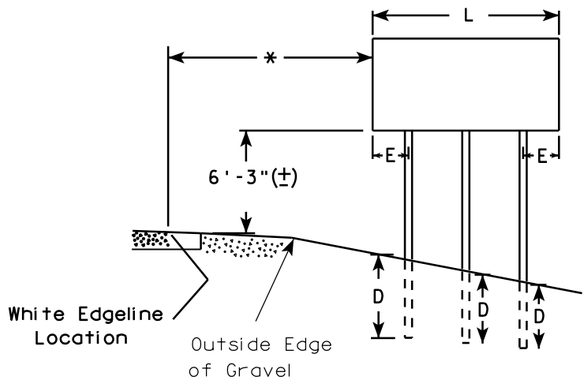
FILE NAME : C:\CAEFiles\Projects\tr_stdplate\A43B.DGN PLOT DATE : 27-JAN-2014 09:48 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 13.659812:1.000000 WISDOT/CADDS SHEET 42

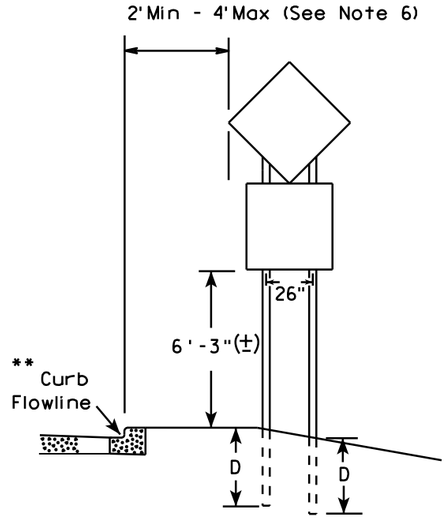
URBAN AREA



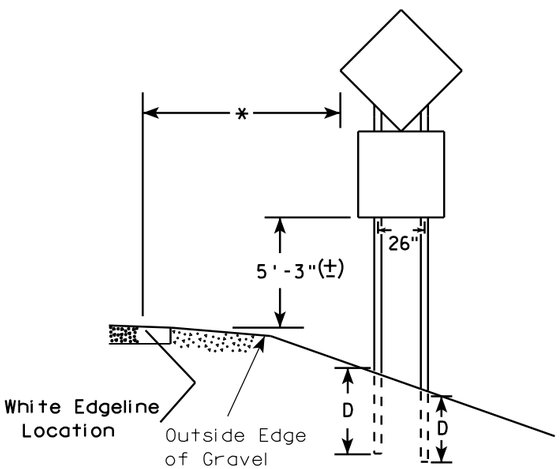
RURAL AREA (See Note 3)







48" DIAMOND WARNING SIGN



48" DIAMOND WARNING SIGN

GENERAL NOTES

1. For 3 or 4 post installations, individual post spacing shall be greater than 3'-6".
2. See tables below for required number of posts.
3. For expressways and freeways, mounting height is 7'-3" (±) or 6'-3" (±) depending upon existence of sub-sign.
4. The (±) tolerance for mounting height is 3 inches.
5. Minimum mounting height for J assemblies (A2-1S) is 7'-3" (±) or 6'-3" (±) per urban or rural detail respectively.
6. Offset distance shall be consistent with existing signs or consistent throughout length of project.
7. Folding signs shall be mounted at a height of 5'-3" (±) or as directed by the engineer.
8. The Double Arrow sign (W12-1) shall be mounted at a height of 2'-3" (±). The Chevron sign (W1-8), Roundabout Chevron panel (R6-4B), Clearance Markers (W5-52), Mile Markers (D10 series), In Road Object Markers (W5-54) & End of Road Markers (W5-56) shall be mounted at a height of 4"-3" (±).

* 6 feet from edge of a paved shoulder or 12 feet from the edge of pavement (edge line location) or 2 feet from outside edge of gravel, whichever is greater unless directed by project engineer.

** The existence of curb and gutter does not in itself mandate the vertical clearance illustrated. That height is typically measured where there is sidewalk adjacent to the roadway or parking is permitted. In the absence of sidewalk vertical clearance is measured from the top of the curb. Offset of signs is measured from the flow line.

*** See A4-3 sign plate for signs 4' or less in width and less than 20 S.F. in area.

SIGN SHAPE OTHER THAN DIAMOND (TWO POSTS REQUIRED)	
L	E
Greater than 48" Less than 60"	12"
60" to 120"	L/5

***

SIGN SHAPE OTHER THAN DIAMOND (THREE POSTS REQUIRED)	
L	E
Greater than 120" less than 168"	12"

SIGN SHAPE OTHER THAN DIAMOND (FOUR POSTS REQUIRED)	
L	E
168" and greater	12"

POST EMBEDMENT DEPTH

Area of Sign Installation (Sq. Ft.)	D (Min)
20 or Less	4'
Greater than 20	5'

TYPICAL INSTALLATION OF TYPE II SIGNS ON MULTIPLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 7/23/15 PLATE NO. A4-4 14

133

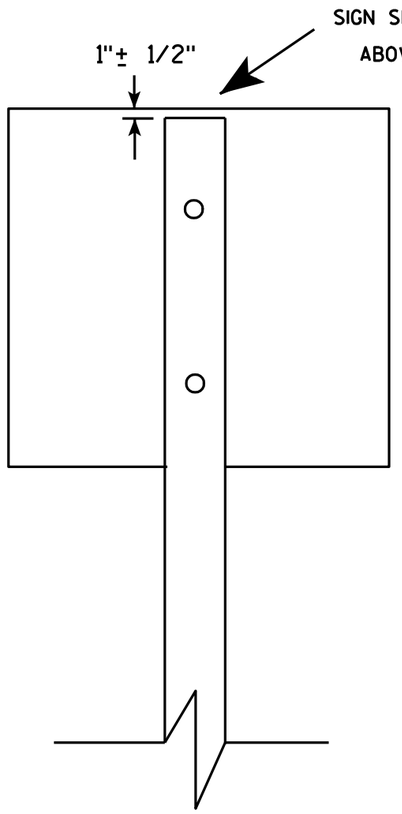
PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

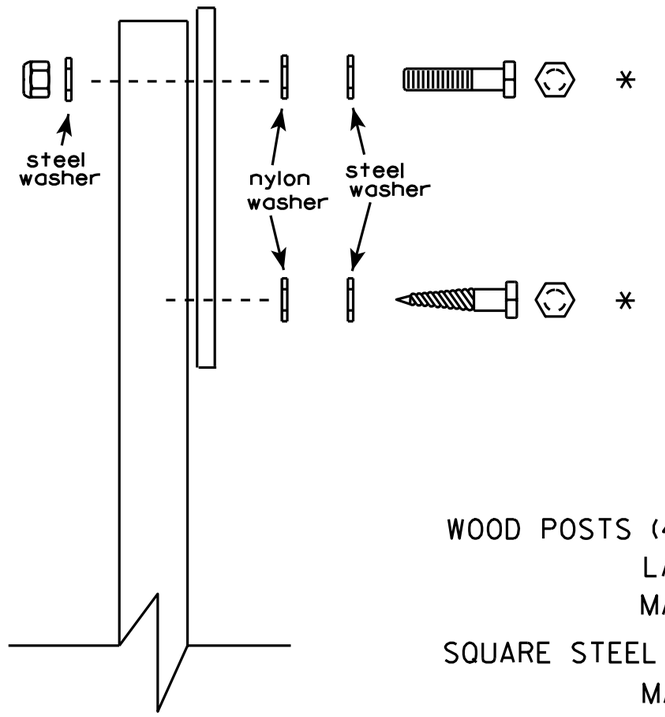
FILE NAME : C:\CAEfiles\Projects\tr_stdplate\A44.DGN PLOT DATE : 23-JUL-2015 15:23 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 107.021305:1.000000

WISDOT/CADDS SHEET 42

7

7





Nuts, bolts and lags used for mounting signs shall have hexagonal heads and shall be either :

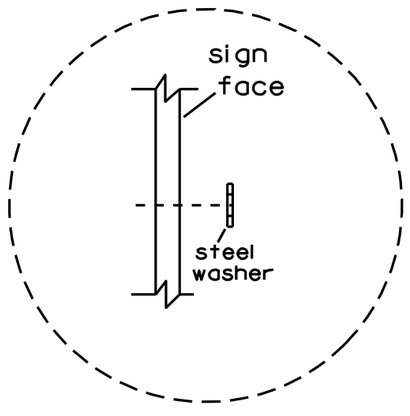
a. Hot dip galvanized in accordance with ASTM Designation: A 153, Class D, or SC 3
b. Electro-galvanized in accordance with ASTM Designation : B 633, TYPE III, SC 3.

Threads on bolts and nuts shall be manufactured with sufficient allowance for the cadmium plate or galvanized coating to permit the nuts to run freely on the bolts.

WOOD POSTS (4" x 4" or 4" x 6")
LAG SCREWS - 3/8" X 3"
MACHINE BOLTS - 5/16" X 6-1/2" or 7" Length w/ nuts

SQUARE STEEL POSTS (2" x 2")
MACHINE BOLTS - 3/8" X 3-1/4" Length w/ nuts
RIVETS - 9/32 " (6605-9-6) BULB-TITE, TRI-FOLD, ALUMINUM BODY/MANDREL
O.D. FLANGE .720-.765 INCH, GRIP RANGE .042-.375 INCH

WASHERS (ALL POSTS) -
1-1/4" O.D. X 3/8" I.D. X 1/16" STEEL
1-1/4" O.D. X 3/8" I.D. X .080 NYLON for all Type H signs.



Washer Placement when Sign Has Other Than Type H or Type F Face

* Two different fastening systems are shown for illustration purposes. On any individual sign, either one or the other system shall be used. Actual number of fasteners per sign varies with the sign area, but normally there are two. For a single post installation, all signs greater than 9 sq. ft. require the use of 3 fasteners.

ATTACHMENT OF SIGNS TO POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/23/10 PLATE NO. A4-8.7

7

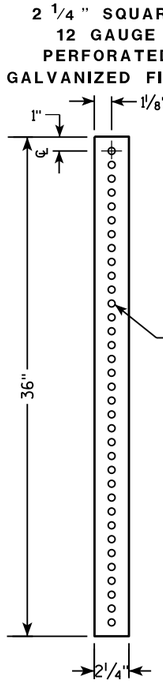
7

PROJECT NO:

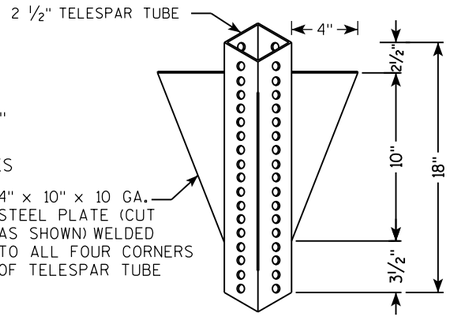
SHEET NO: 134 E

TELESCOPIC TUBING ANCHORS
TWO PIECE SYSTEM

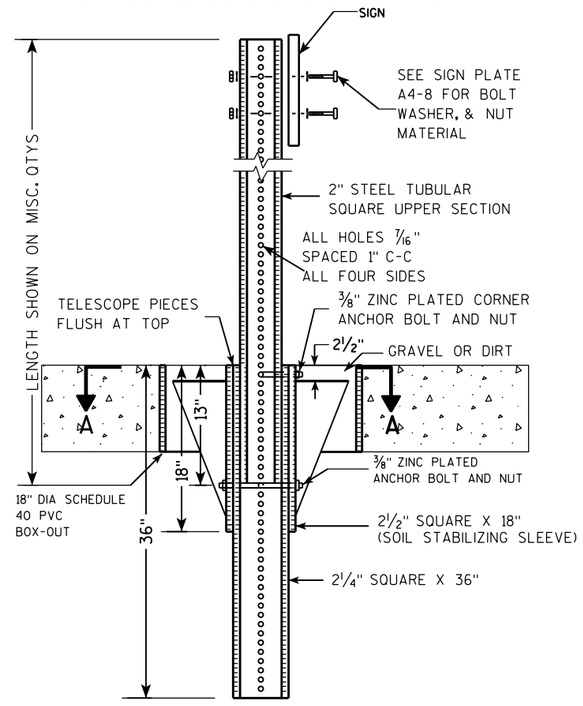
2 1/4 " SQUARE
12 GAUGE
PERFORATED
GALVANIZED FINISH



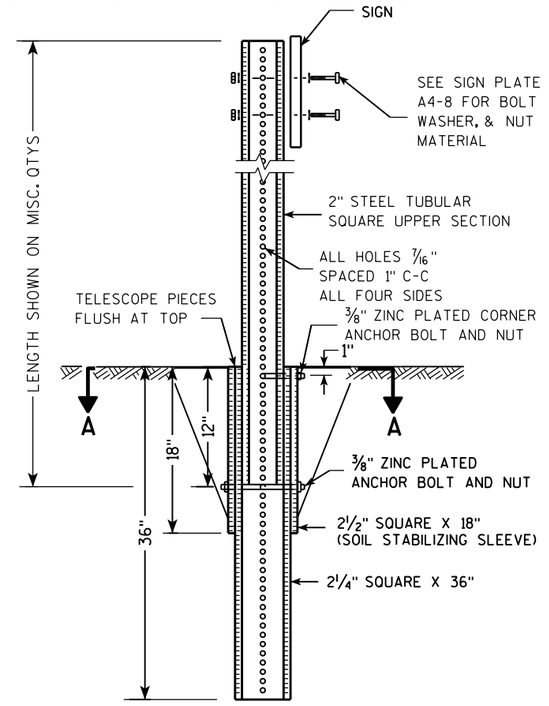
2 1/2 " SQUARE
12 GAUGE
OMNI-DIRECTIONAL
PERFORATED
SOIL STABILIZING SLEEVE
GALVANIZED FINISH

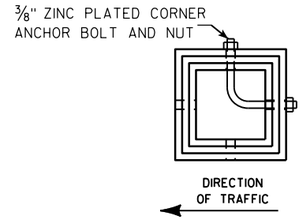


DETAIL OF TUBULAR STEEL SIGN POST
(IN POURED CONCRETE OR ASPHALT)



DETAIL OF TUBULAR STEEL SIGN POST
(IN LOCATIONS OTHER THAN POURED CONCRETE OR ASPHALT)





SECTION A-A

Area of Sign Installation (Sq. Ft.)	Number of Required Posts
9 or less	1
Greater than 9 less than or equal to 18	2
Greater than 18 less than or equal to 27	3

Signs wider than 3 feet or larger than 9 sq. ft shall be mounted on multiple posts (see above table).

TUBULAR STEEL
SIGN POST
A4-9

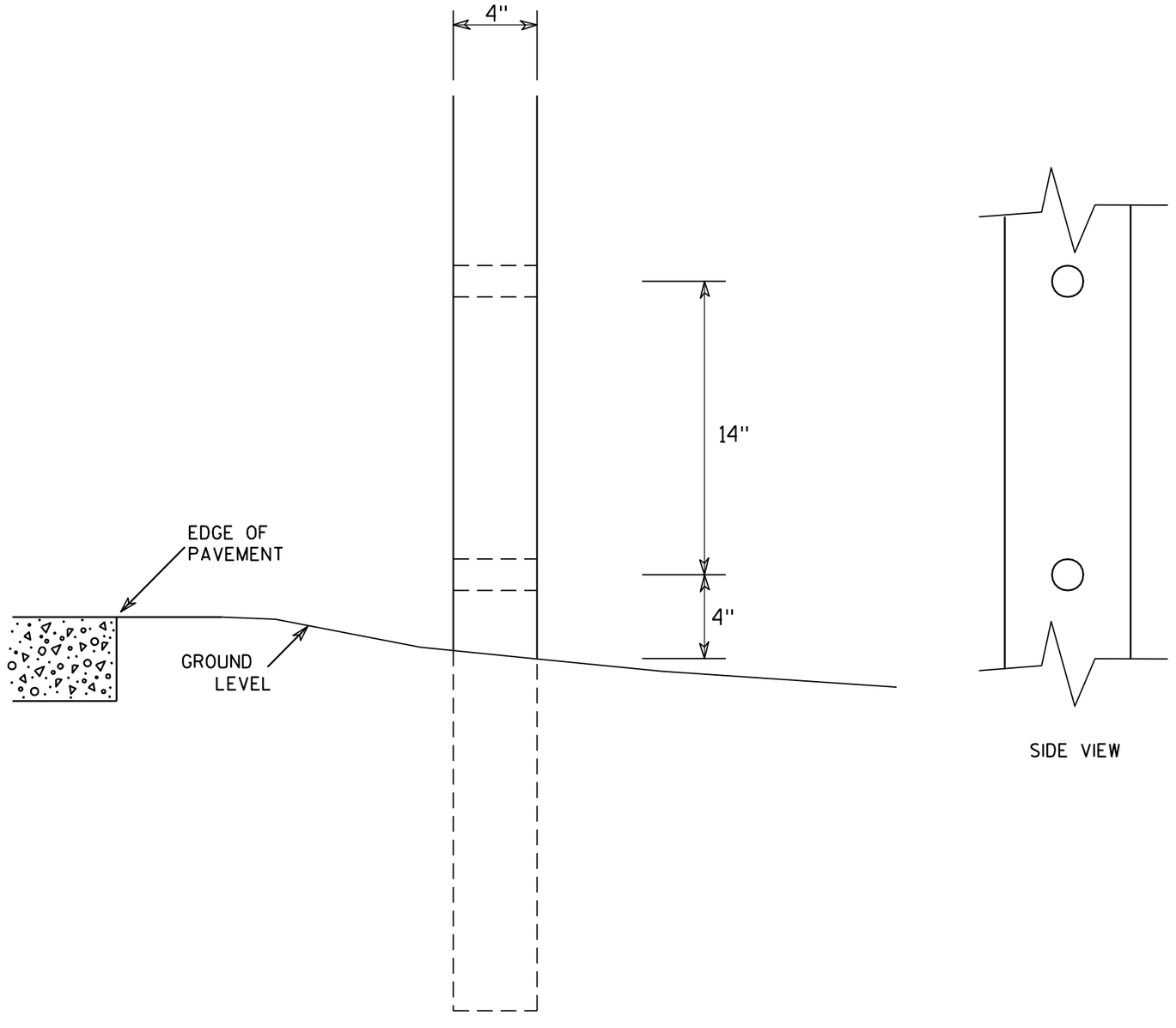
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/05/15 PLATE A4-9.9

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\A49.DGN PLOT DATE : 05-FEB-2015 17:09 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 13.659812:1.000000
WISDOT/CADDS SHEET 42



SIDE VIEW

GENERAL NOTES

1. All 4 x 6 Wood Posts shall be modified by having two 1½" diameter holes drilled perpendicular to the roadway centerline.

7

7

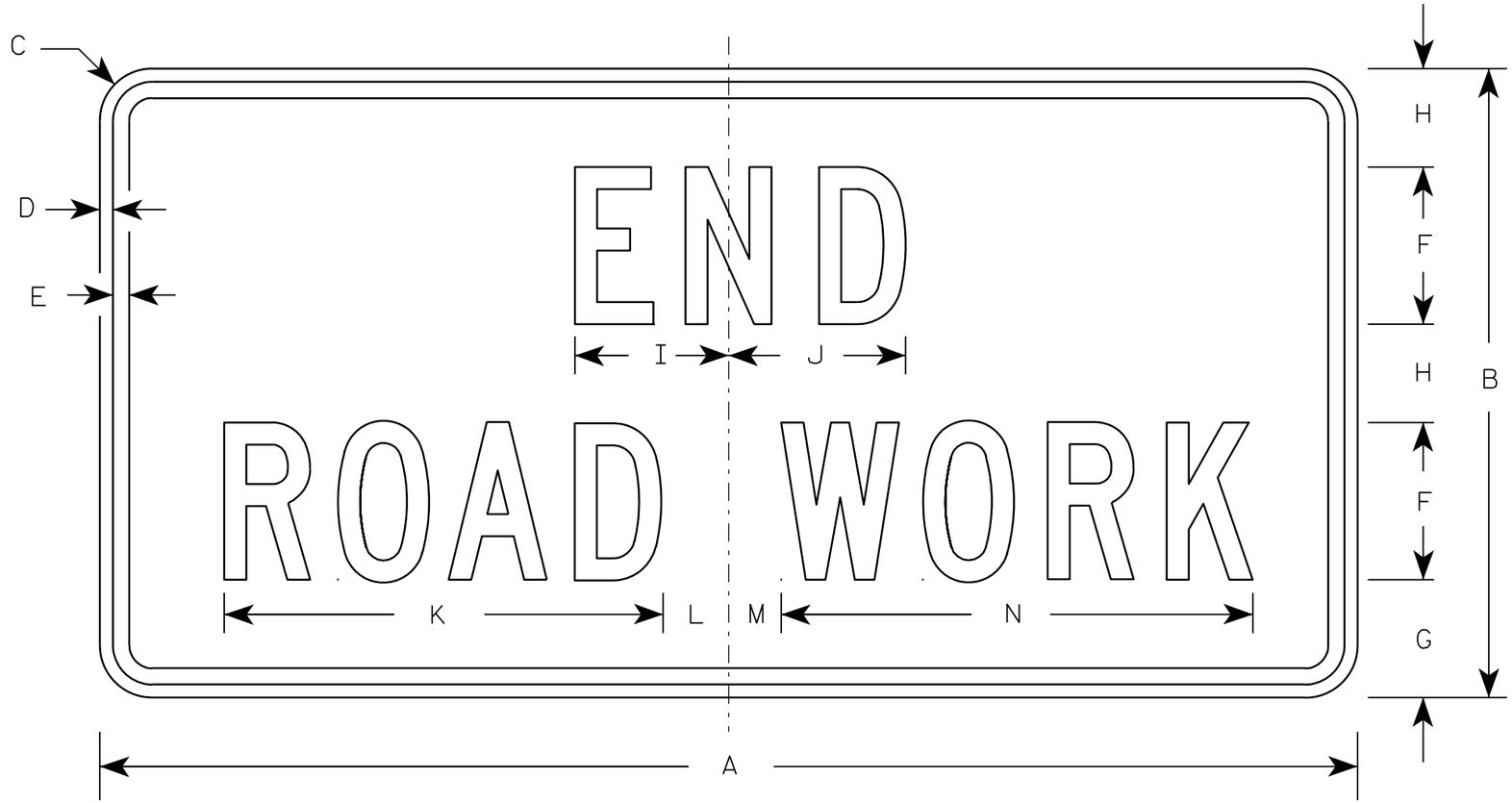
4 X 6 WOOD POST MODIFICATIONS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Chester J Spang for State Traffic Engineer

DATE 3/27/97 PLATE NO. A4-11.2

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 136	E



G20-2A

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

Metric equivalent for this sign is:

SIZE	
1	900 mm X 450 mm
2	1200 mm X 600 mm
3	1200 mm X 600 mm
4	1200 mm X 600 mm
5	1200 mm X 600 mm

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.	Area m2
1	36	18	1 1/8	3/8	1/2	4	3 3/4	2 1/2	4 1/8	4 1/8	11 1/8	2	1	12 1/8													4.5	0.41
2	48	24	1 1/2	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0	0.72
3	48	24	1 1/2	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0	0.72
4	48	24	1 1/2	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0	0.72
5	48	24	1 1/2	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0	0.72

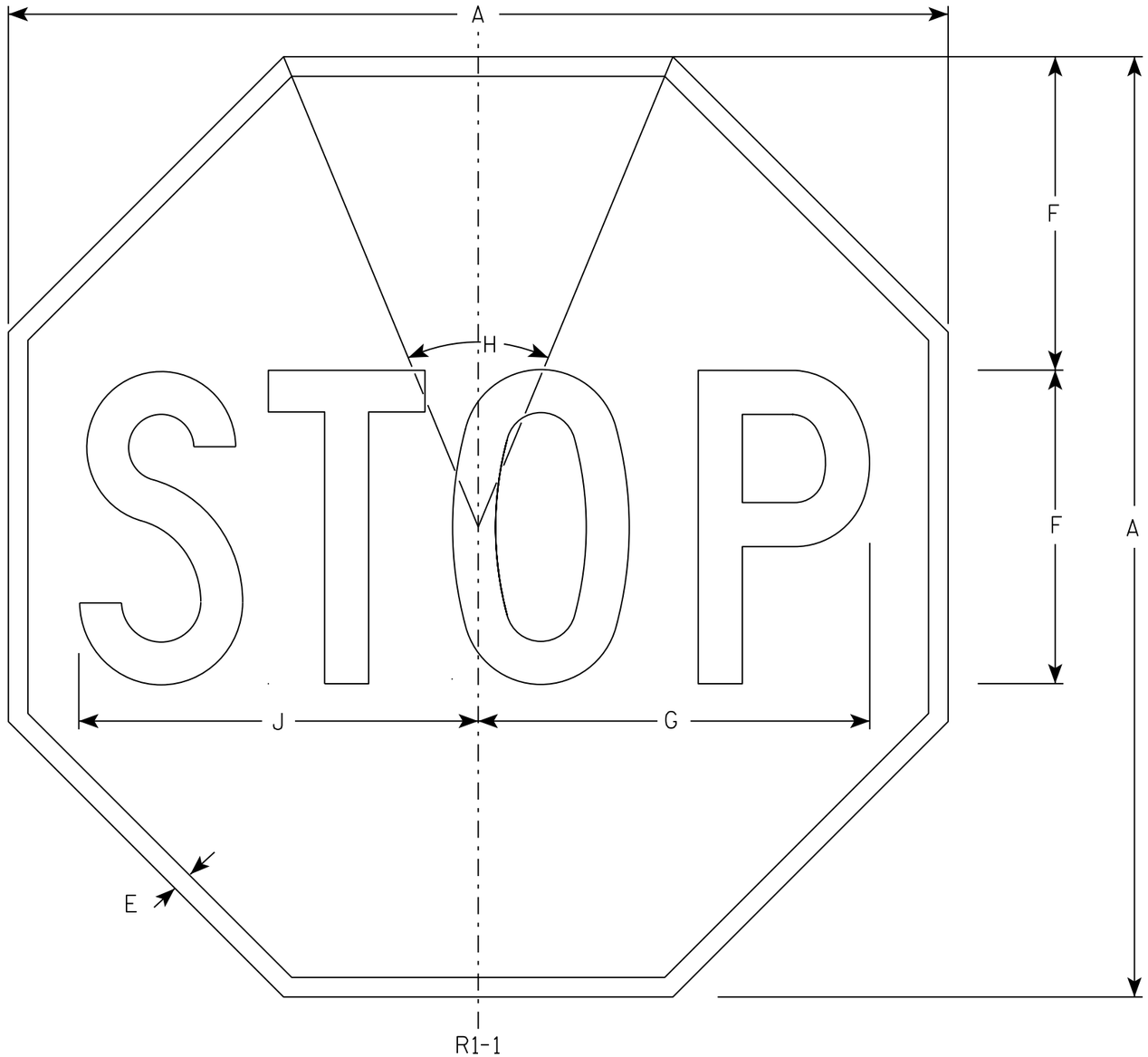
STANDARD SIGN
G20-2A

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 9/30/09 PLATE NO. G20-2A.8

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 137	E



NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Red
   Message - White
3. Message Series - C

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	30				5/8	10	12 1/2	45°		12 3/4																	5.18
2S	30				5/8	10	12 1/2	45°		12 3/4																	5.18
2M	36				3/4	12	15	45°		15 3/8																	7.46
3	36				3/4	12	15	45°		15 3/8																	7.46
4	48				1	16	20	45°		20 1/2																	13.25
5	48				1	16	20	45°		20 1/2																	13.25
6	18				3/8	6	7 3/4	45°		7 3/4																	1.86
7	12				1/4	4	5	45°		5 1/8																	0.78

STANDARD SIGN
R1-1

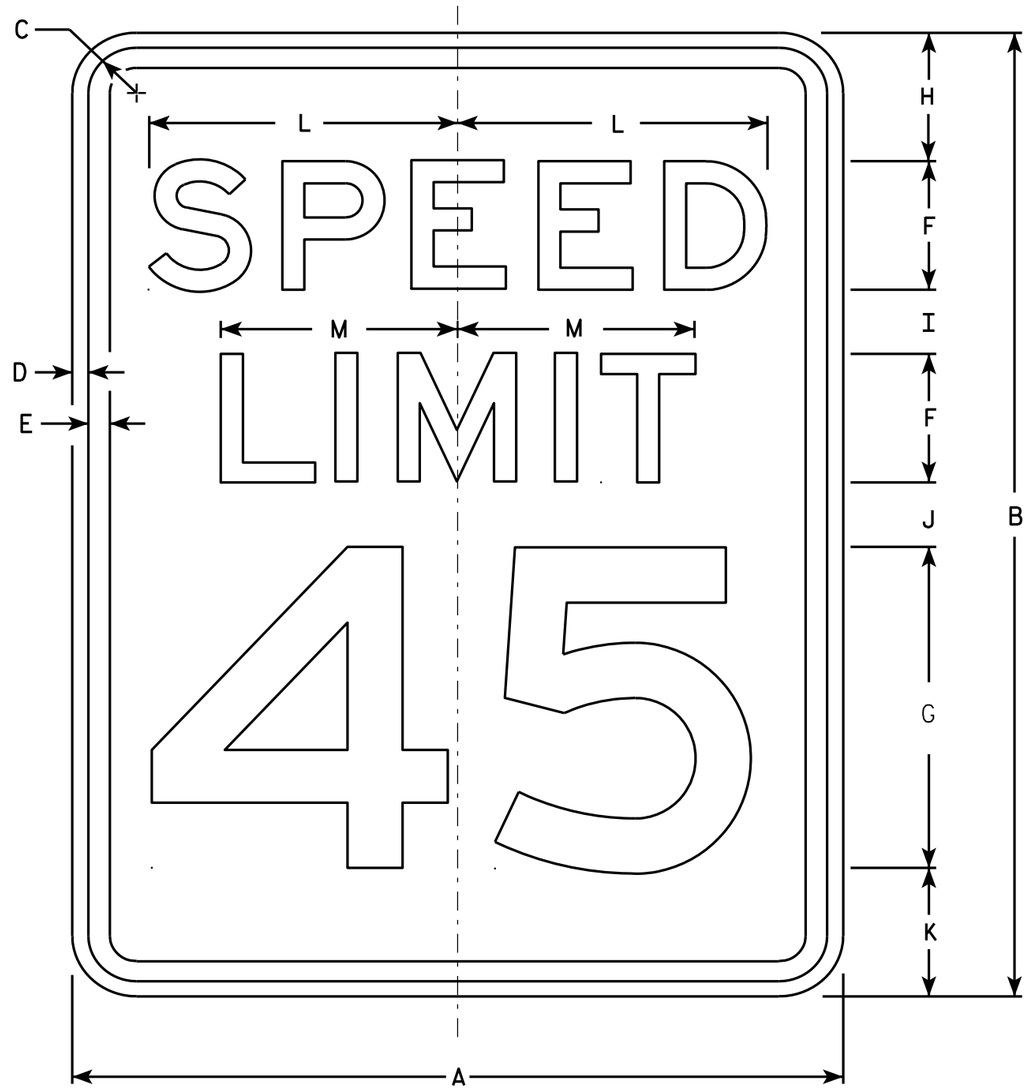
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/12/15 PLATE R1-1.13

PROJECT NO:	HWY:	COUNTY:		SHEET NO: E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\R11.DGN PLOT DATE : 01-DEC-2015 18:07 PLOT BY : $$ plotuser $$ PLOT NAME : PLOT SCALE : 4.378143:1.000000



R2-1

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - E
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Substitute appropriate numerals and optically adjust spacing to achieve proper balance.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	18	24	1 1/8	3/8	1/2	3	8	3	2	2	3	7 1/4	5 1/2														3.0
2S	24	30	1 1/8	3/8	1/2	4	10	3	2 1/4	3 3/8	3 3/8	9 5/8	7 3/8														5.0
2M	30	36	1 3/8	1/2	5/8	5	12	5	2 1/2	2 1/2	4	12	9 1/4														7.5
3	36	48	1 3/8	1/2	5/8	6	14	6	5	5	6	14 3/8	11														12.0
4	36	48	1 3/8	1/2	5/8	6	14	6	5	5	6	14 3/8	11														12.0
5	48	60	2 1/4	3/4	1	8	20	6	4 1/2	6 3/4	6 3/4	19 1/4	14 5/8														20.0

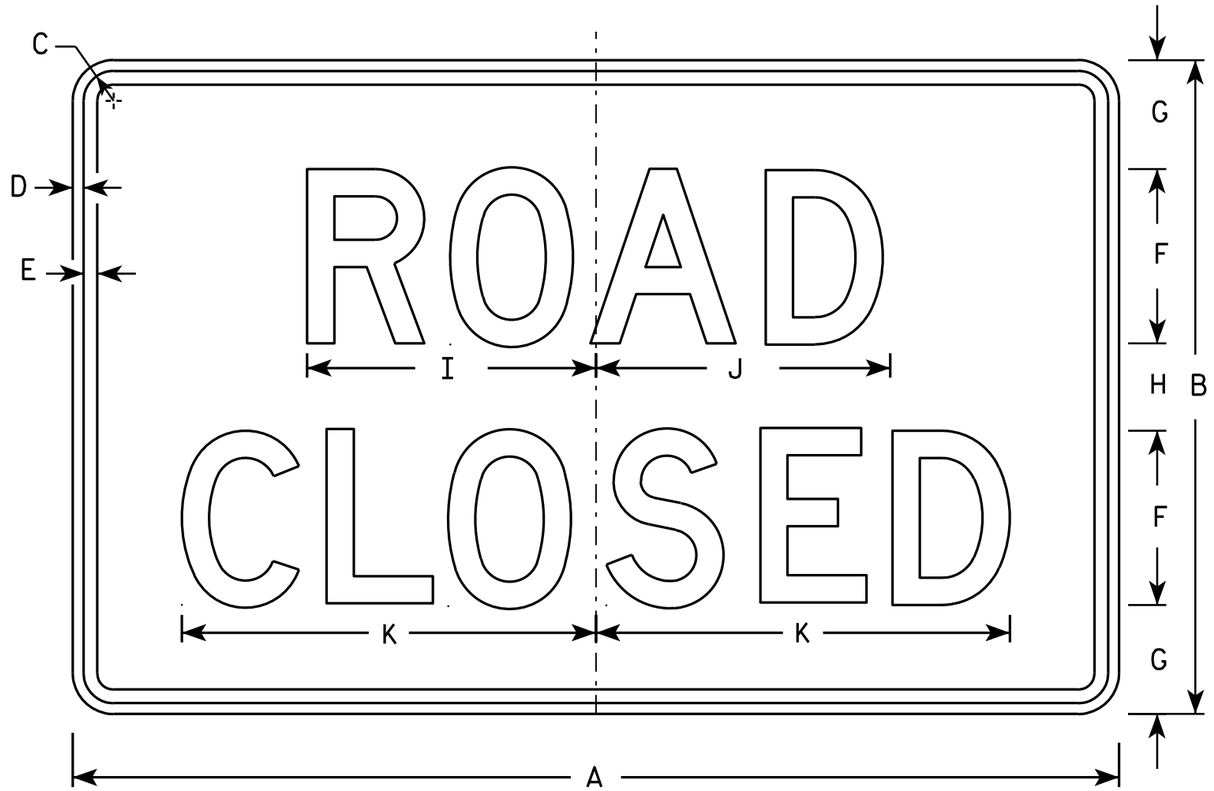
STANDARD SIGN
R2-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/26/10 PLATE NO. R2-1.13

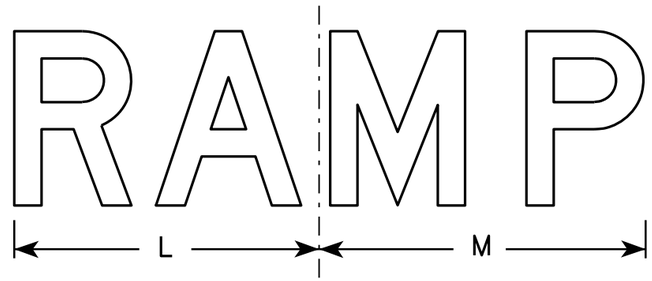
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 139 | E



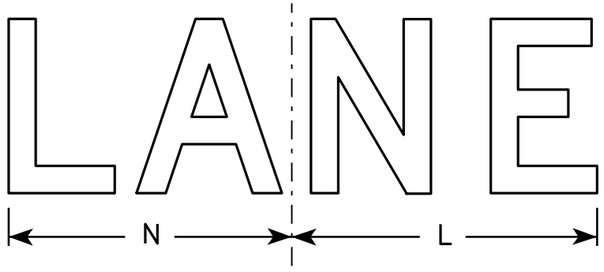
R11-2

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Modify the message as required.



R11-2R



R11-2L

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	48	30	1 3/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13													10.0
2M	48	30	1 3/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13													10.0
3	48	30	1 3/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13													10.0
4	48	30	1 3/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13													10.0
5	48	30	1 3/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13													10.0

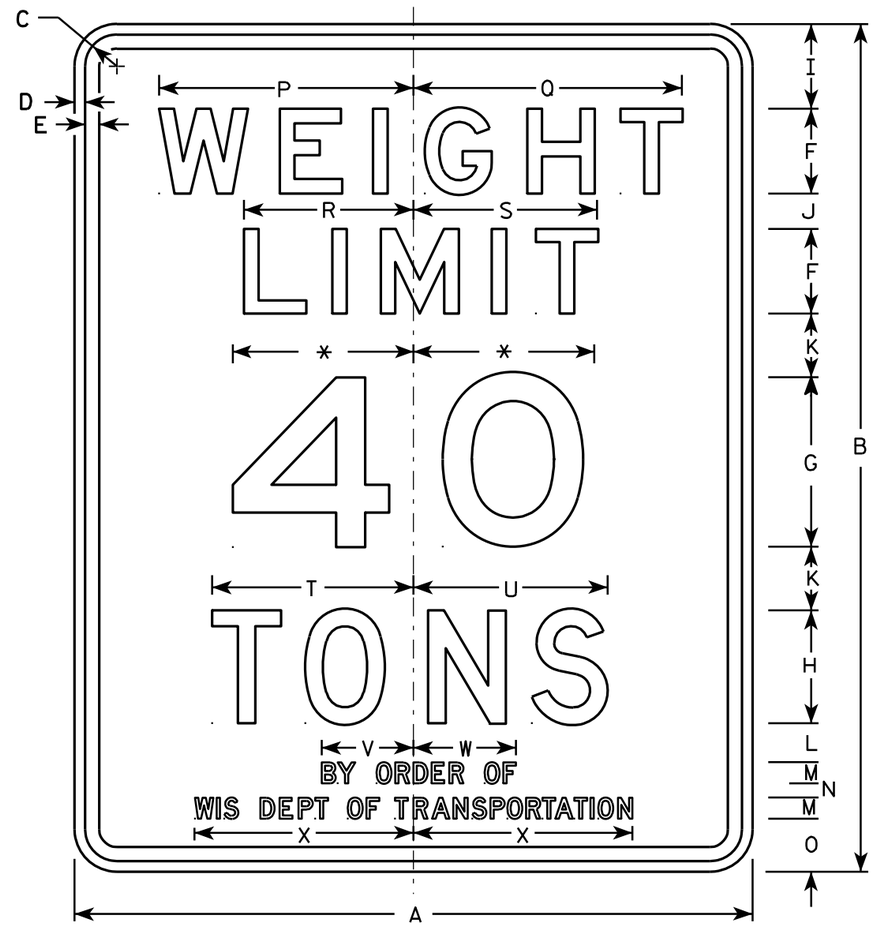
STANDARD SIGN
R11-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 4/1/11 PLATE NO. R11-2.10

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 140	E



R12-1

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - See note 5
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Lines 1, 2 & 3 are series E
   Lines 4, 5, & 6 are series D.
6. Substitute appropriate numeral and optically adjust spacing to achieve proper balance.
7. Substitute name of county or town on County Trunk and Town Highways respectively. Community name on City or Village Streets including Connecting Highways is optional.

* Varies (see note 6)

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24	30	1 1/8	3/8	1/2	3	6	4	3	1 1/4	2 1/4	1 3/8	3/4	1/2	1 7/8	9	9 1/2	6	6 1/2	7 1/8	6 7/8	3 1/4	3 5/8	7 3/4			5.0
2S	24	30	1 1/8	3/8	1/2	3	6	4	3	1 1/4	2 1/4	1 3/8	3/4	1/2	1 7/8	9	9 1/2	6	6 1/2	7 1/8	6 7/8	3 1/4	3 5/8	7 3/4			5.0
2M	24	30	1 1/8	3/8	1/2	3	6	4	3	1 1/4	2 1/4	1 3/8	3/4	1/2	1 7/8	9	9 1/2	6	6 1/2	7 1/8	6 7/8	3 1/4	3 5/8	7 3/4			5.0
3	36	48	1 3/8	1/2	5/8	6	10	8	4 1/2	2 1/2	2 1/4	1 1/2	3/4	1/2	3	13 1/2	14 1/4	9	9 3/4	10 5/8	10 1/4	3 1/4	3 5/8	7 3/4			12.0
4	48	60	2 1/4	3/4	1	6	12	8	6	2 1/2	4 1/2	2 3/4	1 1/2	1	3 3/4	18	19	12	13	14 1/4	13 3/4	6 1/2	7 1/4	15 1/2			20.0
5																											

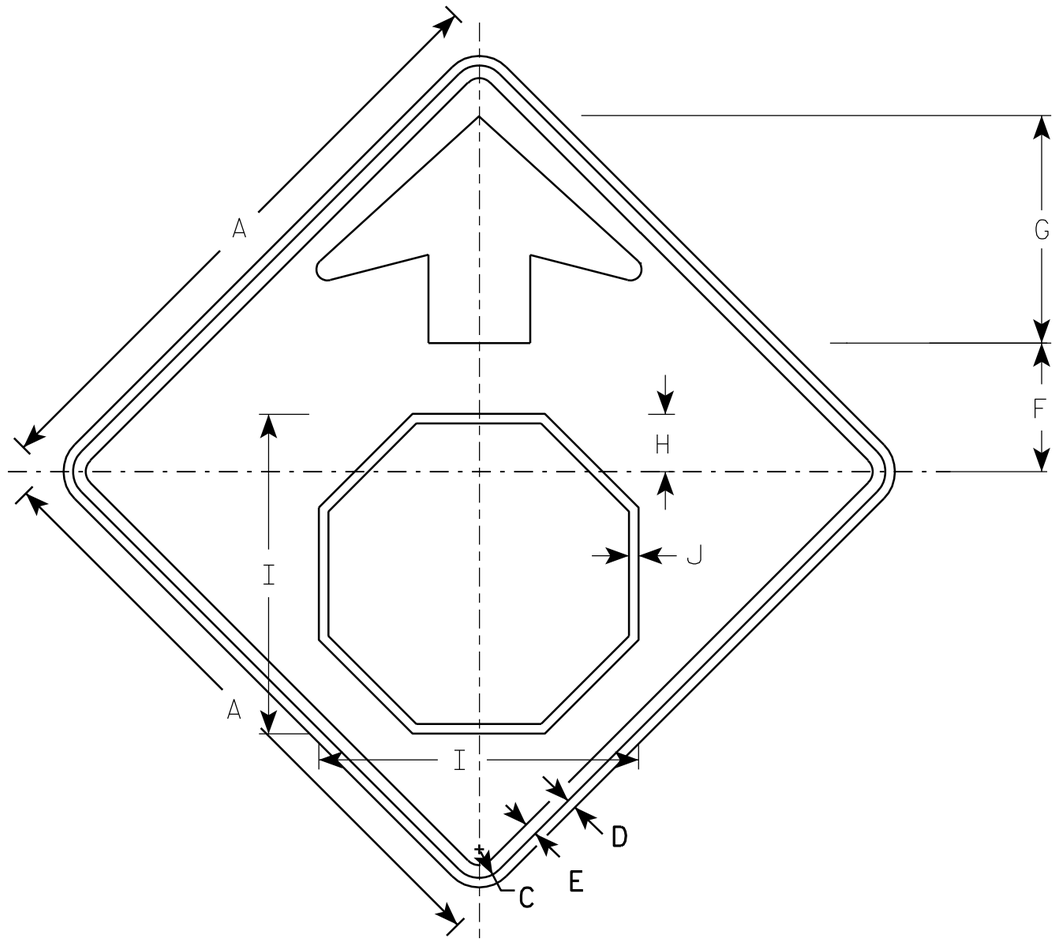
STANDARD SIGN
R12-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 4/1/11 PLATE NO. R12-1.8

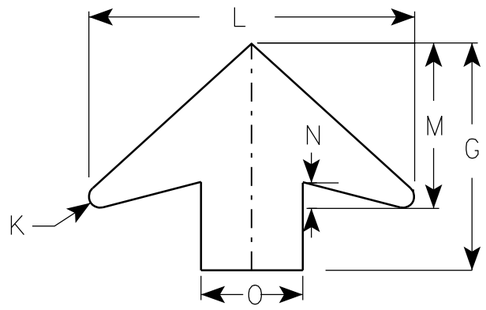
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 141 | E



W3-1

NOTES

1. All Signs Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - YELLOW
   Arrow & Border - BLACK
   Stop Symbol - WHITE BORDER ON RED BACKGROUND



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	30		1 3/8	1/2	5/8	6 1/4	11 1/4	2 7/8	15 3/4	1/2	1/2	16	8	1 1/4	5												6.25
2S	36		1 5/8	5/8	3/4	7 1/2	13 1/2	3 1/2	19	5/8	5/8	19 1/4	9 3/4	1 5/8	6												9.0
2M	36		1 5/8	5/8	3/4	7 1/2	13 1/2	3 1/2	19	5/8	5/8	19 1/4	9 3/4	1 5/8	6												9.0
3	36		1 5/8	5/8	3/4	7 1/2	13 1/2	3 1/2	19	5/8	5/8	19 1/4	9 3/4	1 5/8	6												9.0
4	48		2 1/4	3/4	1	10	17 7/8	4 1/2	25 1/8	3/4	7/8	25 5/8	13	2	8												16.0
5	48		2 1/4	3/4	1	10	17 7/8	4 1/2	25 1/8	3/4	7/8	25 5/8	13	2	8												16.0

STANDARD SIGN
W3-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

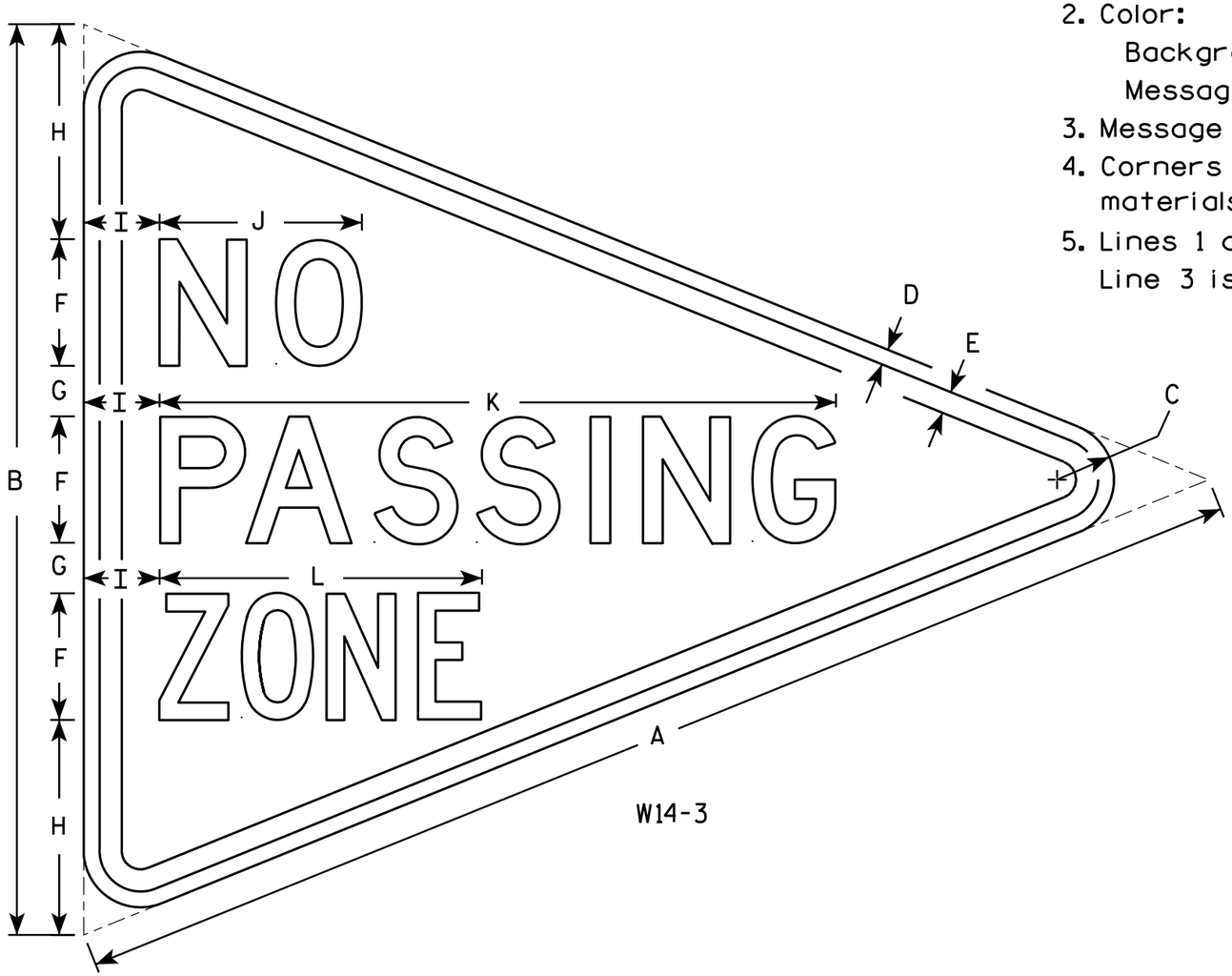
DATE 6/7/10 PLATE NO. W3-1.12

PROJECT NO:

SHEET NO: 142 E

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow
   Message - Black
3. Message Series - See note 5
4. Corners and borders shall be rounded on all base materials for this sign.
5. Lines 1 and 2 are Series D.
   Line 3 is series C.



W14-3

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	O	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	48	36	2 1/4	5/8	7/8	5	2	8 1/2	3	8	26 3/4	12 3/4															6.0
2M	48	36	2 1/4	5/8	7/8	5	2	8 1/2	3	8	26 3/4	12 3/4															6.0
3	64	48	3	3/4	1 1/4	6	3	12	4	10 3/4	33 5/8	16 1/2															10.7
4																											
5																											

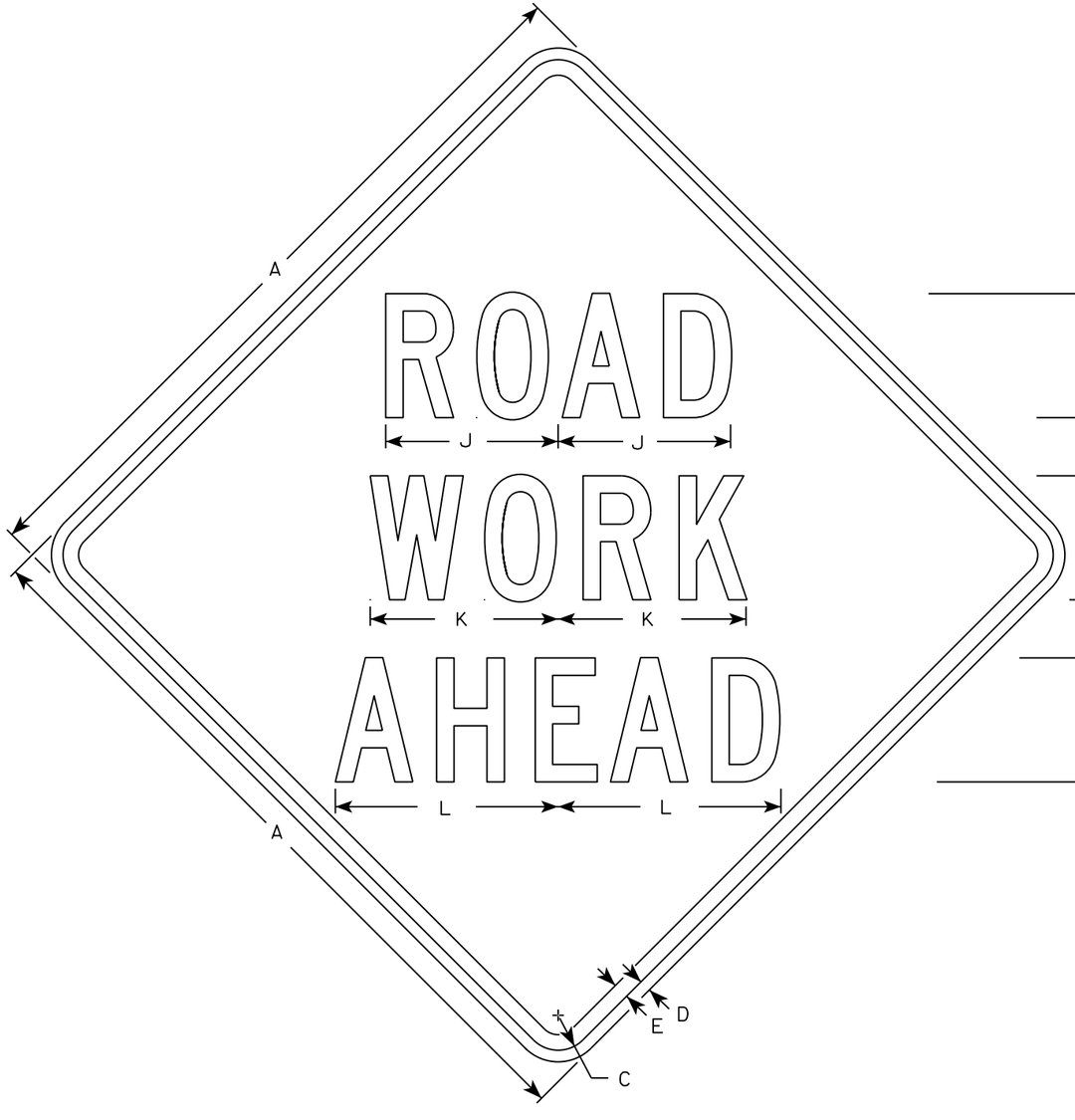
STANDARD SIGN
W14-3

WISCONSIN DEPT OF TRANSPORTATION

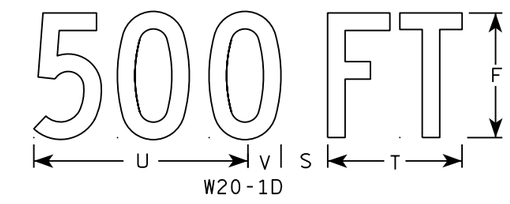
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 6/7/10 PLATE NO. W14-3.9

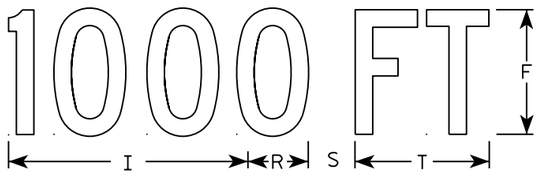
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 143	E



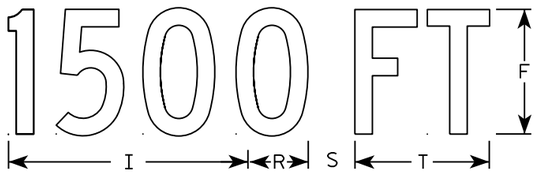
W20-1A



W20-1D

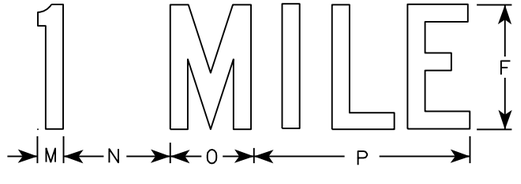


W20-1C

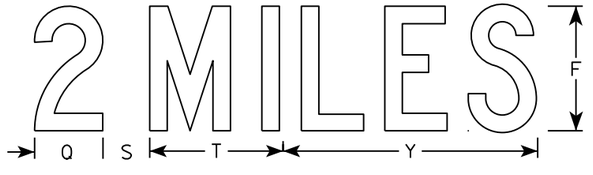


W20-1B

W20-1G



W20-1F



W20-1E

NOTES

1. Sign is Type II - Type F Reflective
2. Color:
   Background - Orange
   Message - Black
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 3/8	1/2	5/8	5	2 5/8	3 1/4	10 1/8	7	7 5/8	8 7/8	1 1/8	4 1/2	3 1/2	9		2 1/2	2 1/4	5 5/8	9	1 3/8	8	1 3/4	10 3/4	6	9.0
2S	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
2M	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
3	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
4	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
5	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0

STANDARD SIGN
W20-1A, B, C, D, F & G

WISCONSIN DEPT OF TRANSPORTATION

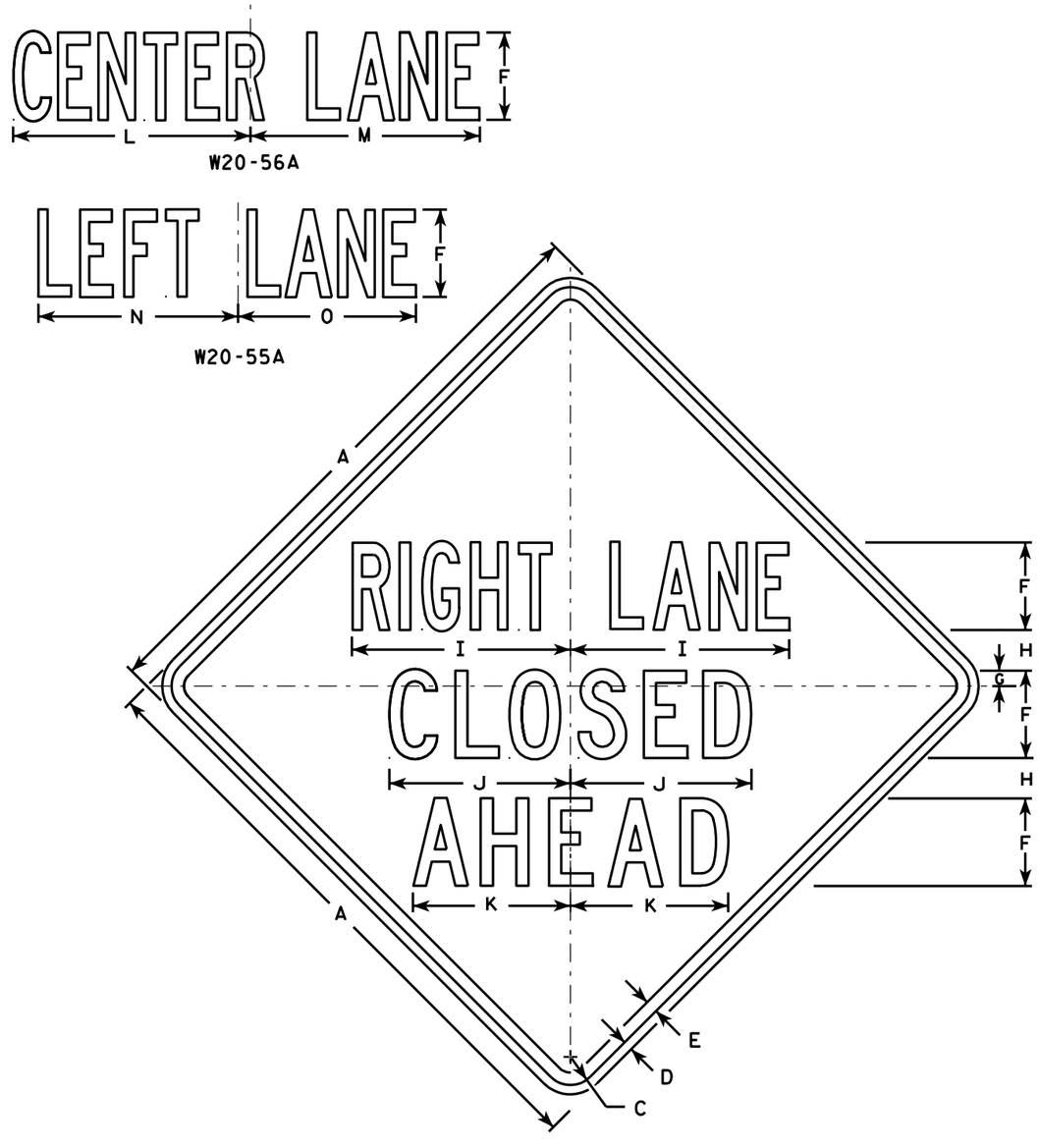
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/07/15 PLATE NO. W20-1.10

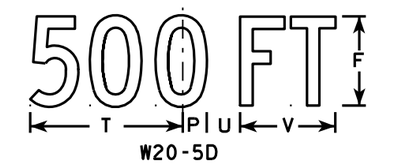
PROJECT NO:

SHEET NO: E

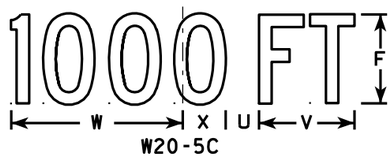
FILE NAME : C:\CAEfiles\Projects\tr_stdplate\W201.DGN PLOT DATE : 01-DEC-2015 18:24 PLOT BY : $$ plotuser $$



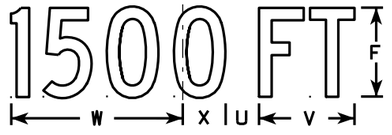
W20-5A



W20-5D



W20-5C



W20-5B

W20-5G

W20-5F

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Message Series - See Note 5
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. " _____ LANE" is Series B.
   All other copy is Series C.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36	6	1 5/8	5/8	3/4	5	1/8	2 1/2	13 1/8	10 3/4	9 1/2	14 1/4	13 5/8	12	12	1 3/8	1 1/8	4 1/2	3 1/2	9	1 1/8	5 5/8	10 1/8	2 1/2	1 3/4	8	9.0
2S	48	8	2 1/4	3/4	1	7	1 1/4	3 1/4	17 1/2	14 3/8	12 5/8	19	18 3/8	16	14 1/4	1 7/8	1 1/2	6	4 5/8	12	2 5/8	7 1/2	13 1/2	3 3/8	2 3/8	10 5/8	16.0
2M	48	8	2 1/4	3/4	1	7	1 1/4	3 1/4	17 1/2	14 3/8	12 5/8	19	18 3/8	16	14 1/4	1 7/8	1 1/2	6	4 5/8	12	2 5/8	7 1/2	13 1/2	3 3/8	2 3/8	10 5/8	16.0
3	48	8	2 1/4	3/4	1	7	1 1/4	3 1/4	17 1/2	14 3/8	12 5/8	19	18 3/8	16	14 1/4	1 7/8	1 1/2	6	4 5/8	12	2 5/8	7 1/2	13 1/2	3 3/8	2 3/8	10 5/8	16.0
4	48	8	2 1/4	3/4	1	7	1 1/4	3 1/4	17 1/2	14 3/8	12 5/8	19	18 3/8	16	14 1/4	1 7/8	1 1/2	6	4 5/8	12	2 5/8	7 1/2	13 1/2	3 3/8	2 3/8	10 5/8	16.0
5	48	8	2 1/4	3/4	1	7	1 1/4	3 1/4	17 1/2	14 3/8	12 5/8	19	18 3/8	16	14 1/4	1 7/8	1 1/2	6	4 5/8	12	2 5/8	7 1/2	13 1/2	3 3/8	2 3/8	10 5/8	16.0

STANDARD SIGN
W20-5A, B, C, D, F & G

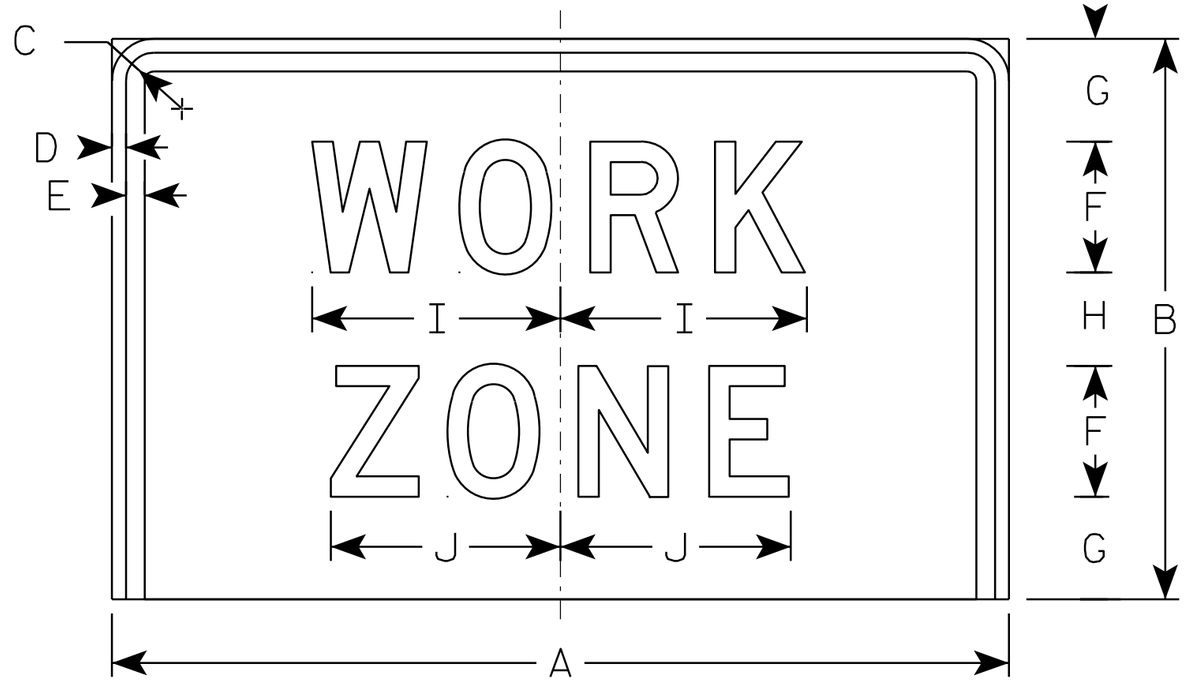
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/18/11 PLATE NO. W20-5.11

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 145	E

FILE NAME : C:\Users\PROJECTS\tr_stdplate\W205.DGN PLOT DATE : 18-MAR-2011 12:15 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 11.918087:1.000000
WISDOT/CADDS SHEET 42



W21-620

NOTES

1. Sign is Type II - Type F - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Message Series - D

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	48	30	2 1/4	3/4	1	7	5 1/2	5	13 1/4	12 1/4																	10.0
2M	48	30	2 1/4	3/4	1	7	5 1/2	5	13 1/4	12 1/4																	10.0
3																											
4																											
5																											

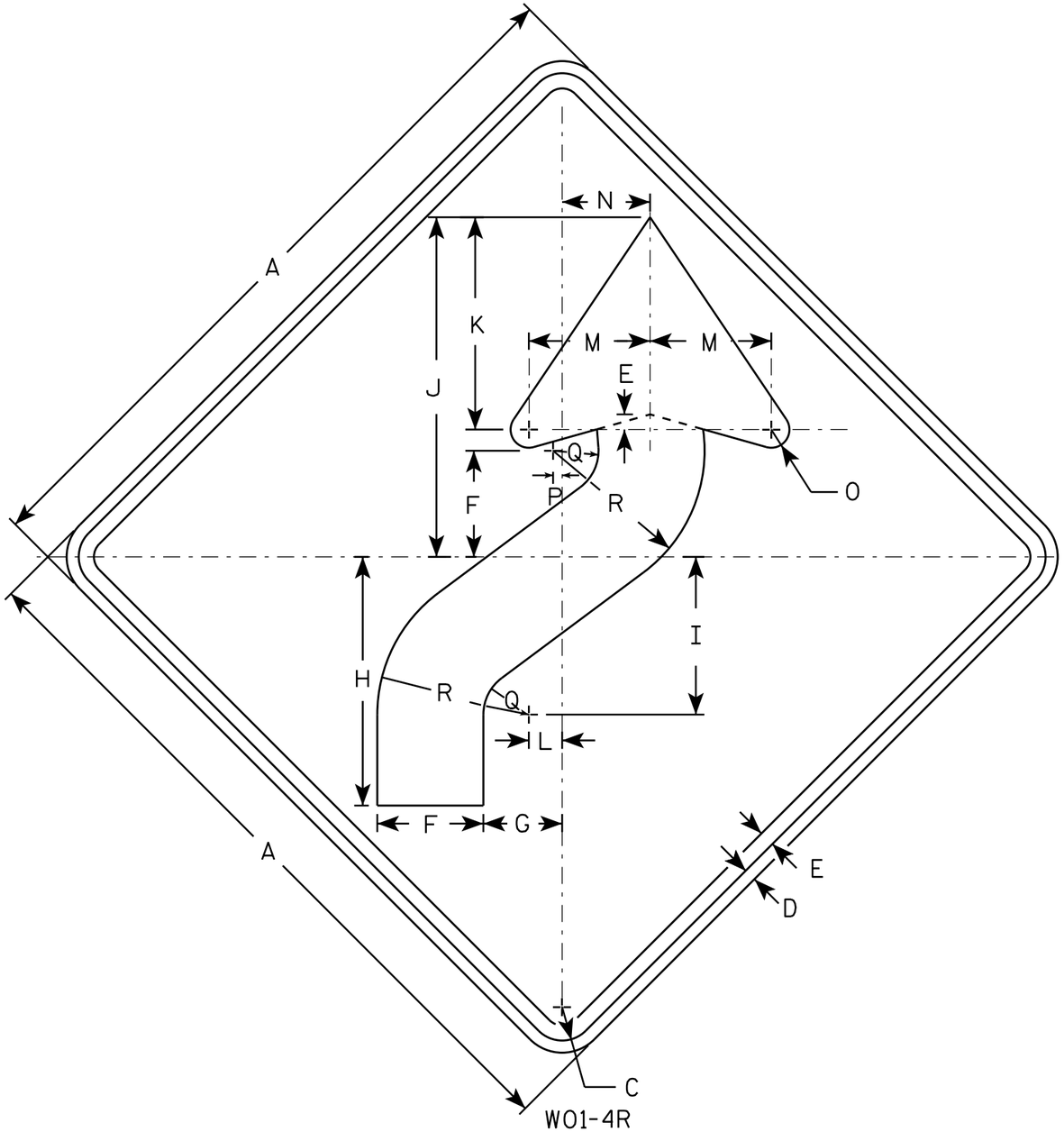
STANDARD SIGN
W21-620

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/21/11 PLATE NO. W21-620.2

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 146	E



W01-4R

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. W01-4L is the same as W01-4R except the arrow is reversed along the vertical centerline.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 5/8	5/8	3/4	5 1/4	4	12 3/8	7 7/8	16 7/8	10 1/2	1 5/8	6	4 1/2	1	1/2	2 1/4	7 1/2									9.0
2S	48		2 1/4	3/4	1	7	5 1/4	16 1/2	10 1/2	22 1/2	14	2 1/4	8	6	1 1/4	5/8	3	10									16.0
2M	48		2 1/4	3/4	1	7	5 1/4	16 1/2	10 1/2	22 1/2	14	2 1/4	8	6	1 1/4	5/8	3	10									16.0
3	48		2 1/4	3/4	1	7	5 1/4	16 1/2	10 1/2	22 1/2	14	2 1/4	8	6	1 1/4	5/8	3	10									16.0
4	48		2 1/4	3/4	1	7	5 1/4	16 1/2	10 1/2	22 1/2	14	2 1/4	8	6	1 1/4	5/8	3	10									16.0
5	48		2 1/4	3/4	1	7	5 1/4	16 1/2	10 1/2	22 1/2	14	2 1/4	8	6	1 1/4	5/8	3	10									16.0

STANDARD SIGN
W01-4

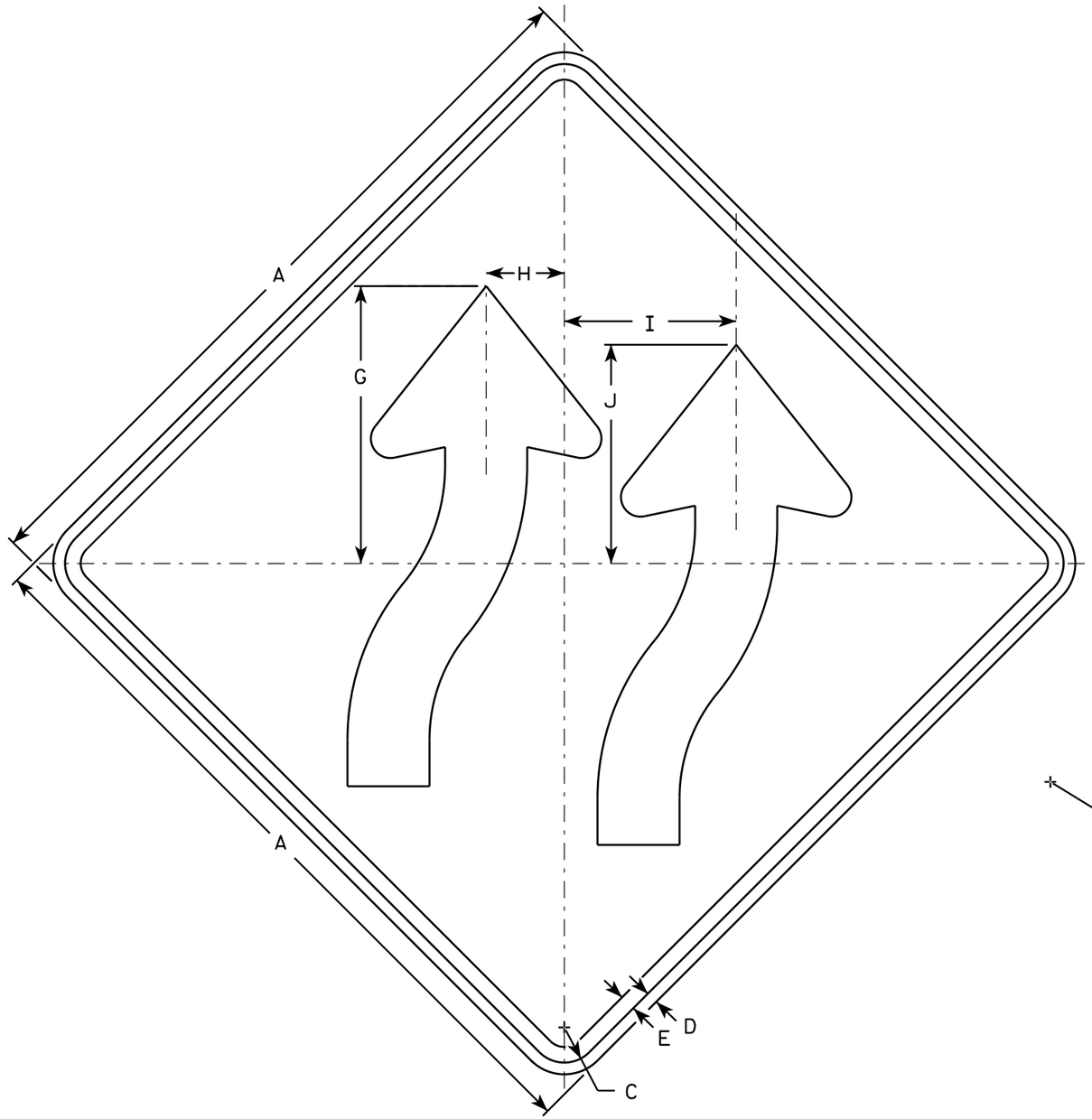
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

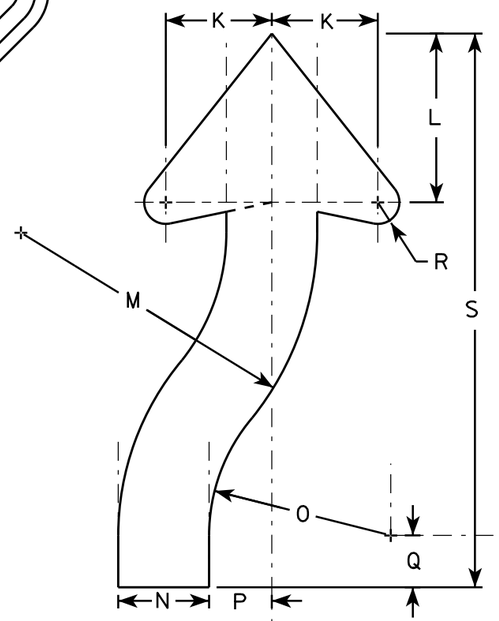
DATE 11/18/13 PLATE NO W01-4.1

PROJECT NO: | HWY: | COUNTY: | SHEET NO: E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\W014.DGN PLOT DATE : 28-FEB-2014 11:35 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 6.755110:1.000000
WISDOT/CADDS SHEET 42



W01-4bR



NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. W01-4bL is the same as W014-bR exept arrows are reversed along the vertical centerline

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 5/8	5/8	3/4		13 3/8	3 3/4	8 1/4	10 1/2	4 5/8	7 3/8	12 7/8	3 7/8	7 7/8	2 3/4	2 1/4	7/8	24								9.0
2S	48		2 1/4	3/4	1		17 3/4	5	11	14	6 1/8	9 3/4	17 1/8	5 1/4	10 1/2	3 5/8	3	1 1/4	32								16.0
2M	48		2 1/4	3/4	1		17 3/4	5	11	14	6 1/8	9 3/4	17 1/8	5 1/4	10 1/2	3 5/8	3	1 1/4	32								16.0
3	48		2 1/4	3/4	1		17 3/4	5	11	14	6 1/8	9 3/4	17 1/8	5 1/4	10 1/2	3 5/8	3	1 1/4	32								16.0
4	48		2 1/4	3/4	1		17 3/4	5	11	14	6 1/8	9 3/4	17 1/8	5 1/4	10 1/2	3 5/8	3	1 1/4	32								16.0
5	48		2 1/4	3/4	1		17 3/4	5	11	14	6 1/8	9 3/4	17 1/8	5 1/4	10 1/2	3 5/8	3	1 1/4	32								16.0

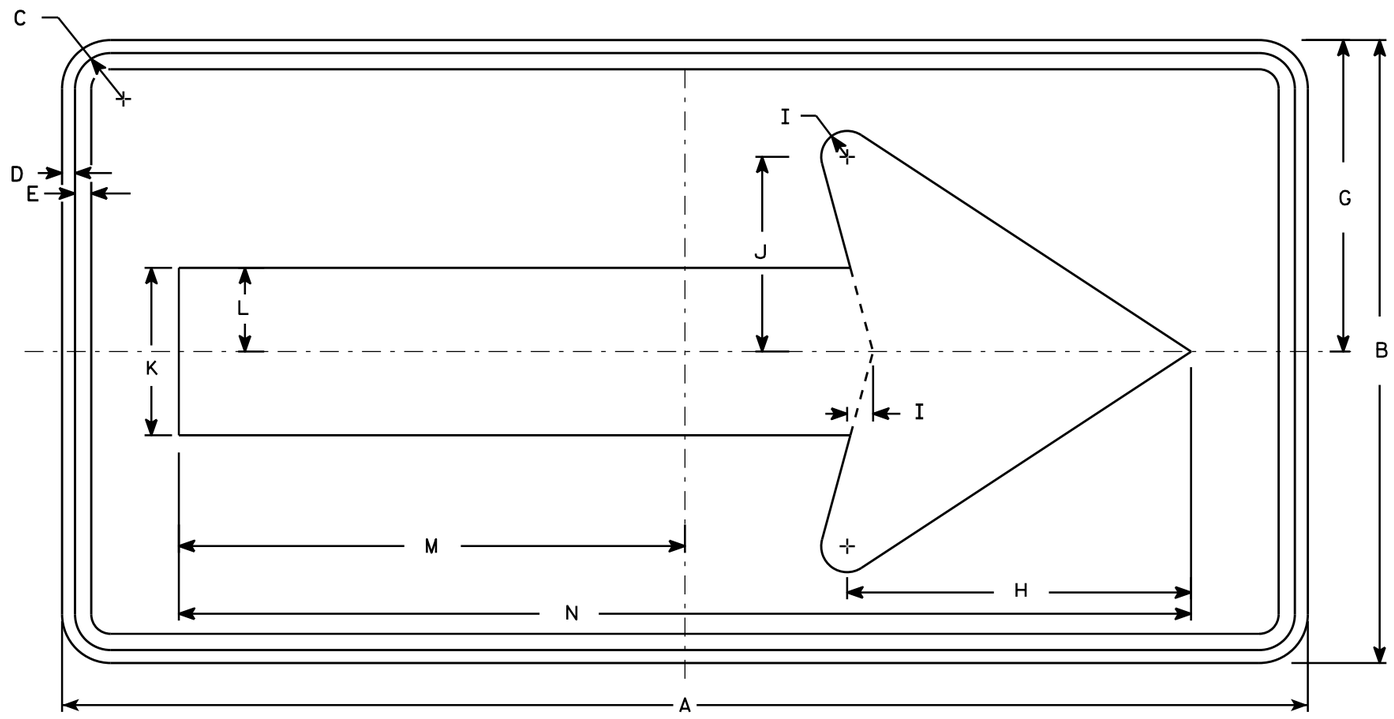
STANDARD SIGN
W01-4b

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/18/13 PLATE NO. W01-4b.1

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E



W01-6

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	48	24	1 3/8	1/2	5/8		12	13 1/4	1	7 1/2	6 1/2	3 1/4	19 1/2	39													8.0
2M	48	24	1 3/8	1/2	5/8		12	13 1/4	1	7 1/2	6 1/2	3 1/4	19 1/2	39													8.0
3	60	30	1 3/8	1/2	5/8		15	16 1/4	1 1/4	9 1/4	8	4	24 3/8	48 3/4													12.5
4	60	30	1 3/8	1/2	5/8		15	16 1/4	1 1/4	9 1/4	8	4	24 3/8	48 3/4													12.5
5	60	30	1 3/8	1/2	5/8		15	16 1/4	1 1/4	9 1/4	8	4	24 3/8	48 3/4													12.5

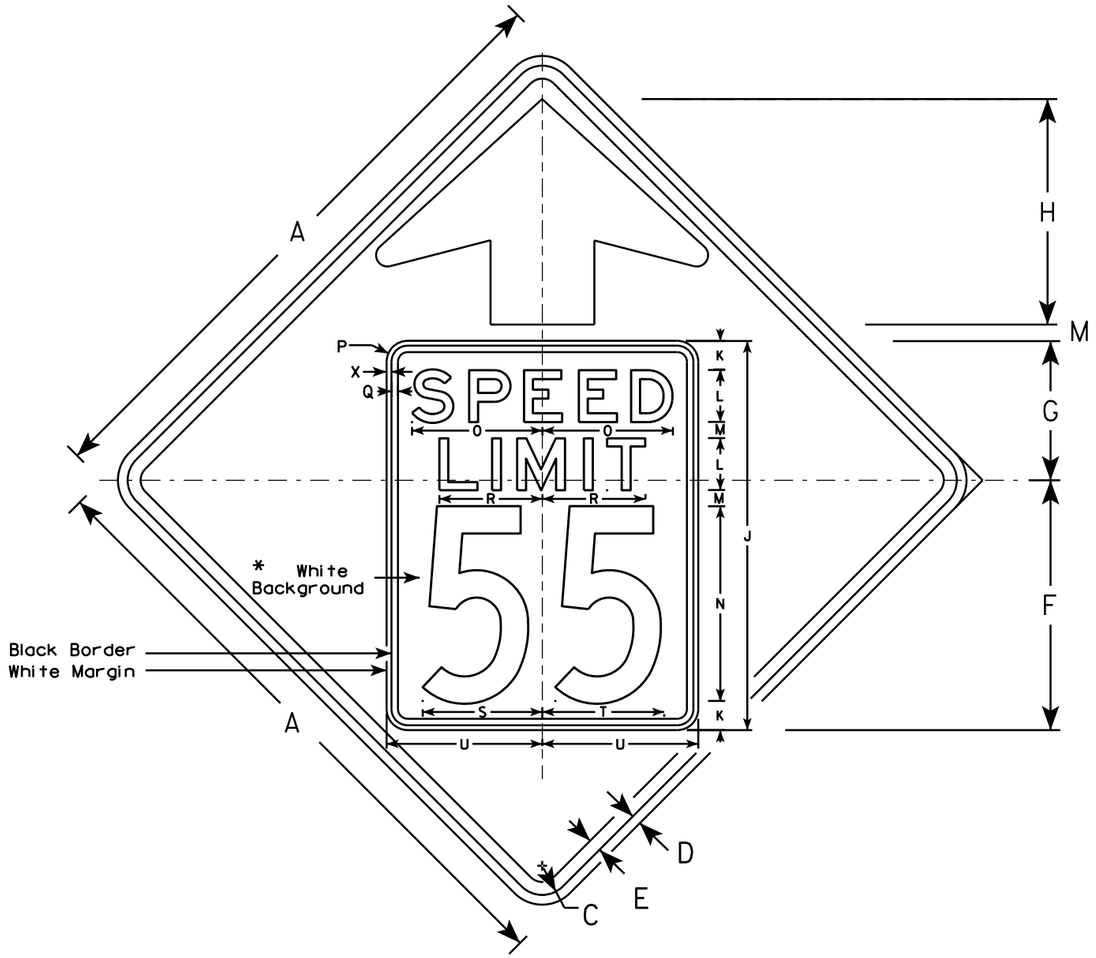
STANDARD SIGN
W01-6

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/18/13 PLATE W01-6.1

PROJECT NO: | HWY: | COUNTY: | SHEET NO: E

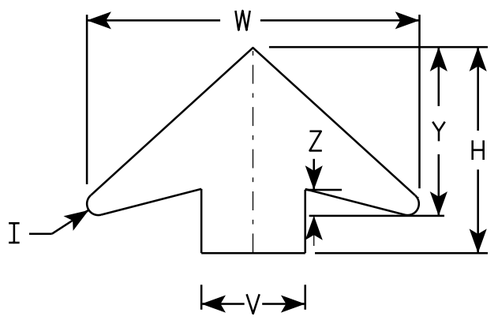


W03-5

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color: *
   Background - ORANGE*
   Message - BLACK
3. Message Series - C for numbers Series E for wording
4. Substitute appropriate numerals and optically adjust spacing to achieve proper balance

*Speed Limit Sign shall have a White Background



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 5/8	5/8	3/4	14 1/2	9 1/2	11 1/2	5/8	24	2	3	1	12	7 1/8	1 1/2	3/8	5 3/4	7 1/4	7 1/8	9	6	19 1/4	3/8	9 3/4	1 5/8	9.0
2S	48		2 1/4	3/4	1	19 1/4	10 3/4	17 3/8	7/8	30	2 1/4	4	1 1/4	15	10	1 5/8	1/2	8	9 1/4	9 3/8	12	8	25 5/8	3/8	13	2	16.0
2M	48		2 1/4	3/4	1	19 1/4	10 3/4	17 3/8	7/8	30	2 1/4	4	1 1/4	15	10	1 5/8	1/2	8	9 1/4	9 3/8	12	8	25 5/8	3/8	13	2	16.0
3	48		2 1/4	3/4	1	19 1/4	10 3/4	17 3/8	7/8	30	2 1/4	4	1 1/4	15	10	1 5/8	1/2	8	9 1/4	9 3/8	12	8	25 5/8	3/8	13	2	16.0
4	48		2 1/4	3/4	1	19 1/4	10 3/4	17 3/8	7/8	30	2 1/4	4	1 1/4	15	10	1 5/8	1/2	8	9 1/4	9 3/8	12	8	25 5/8	3/8	13	2	16.0
5	48		2 1/4	3/4	1	19 1/4	10 3/4	17 3/8	7/8	30	2 1/4	4	1 1/4	15	10	1 5/8	1/2	8	9 1/4	9 3/8	12	8	25 5/8	3/8	13	2	16.0

STANDARD SIGN
W03-5

WISCONSIN DEPT OF TRANSPORTATION

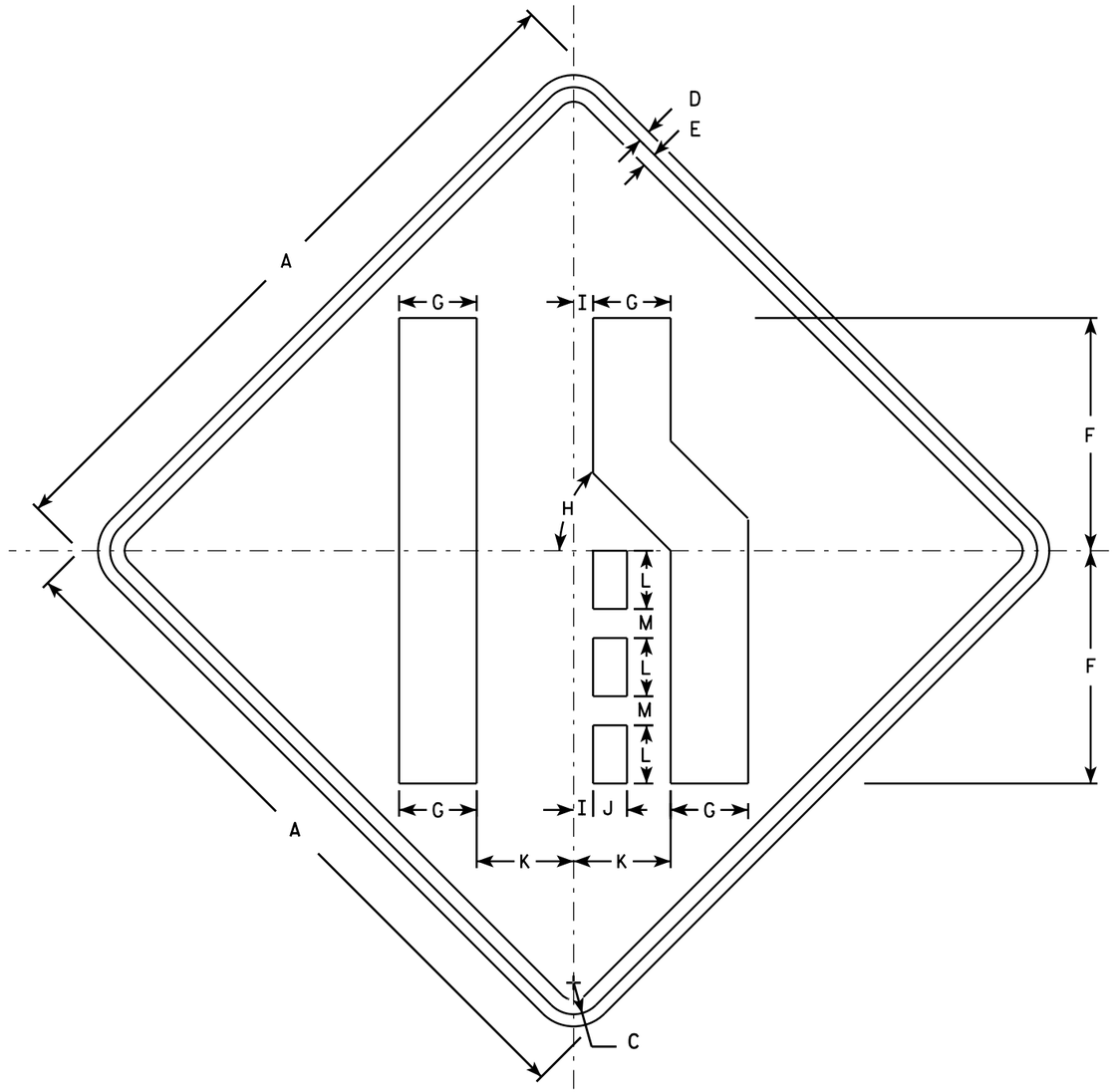
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/20/13 PLATE W03-5.1

PROJECT NO: SHEET NO: E

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\W035.DGN PLOT DATE : 20-NOV-2013 11:32 PLOT BY : mscsja

WISDOT/CADDS SHEET 42



W04-2R

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. W04-2L is the same as W04-2R except the symbol is reversed along the vertical centerline.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 5/8	5/8	3/4	12	4	45°	1	1 3/4	5	3	1 1/2														9.0
2S	48		2 1/4	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0
2M	48		2 1/4	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0
3	48		2 1/4	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0
4	48		2 1/4	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0
5	48		2 1/4	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0

STANDARD SIGN
W04-2

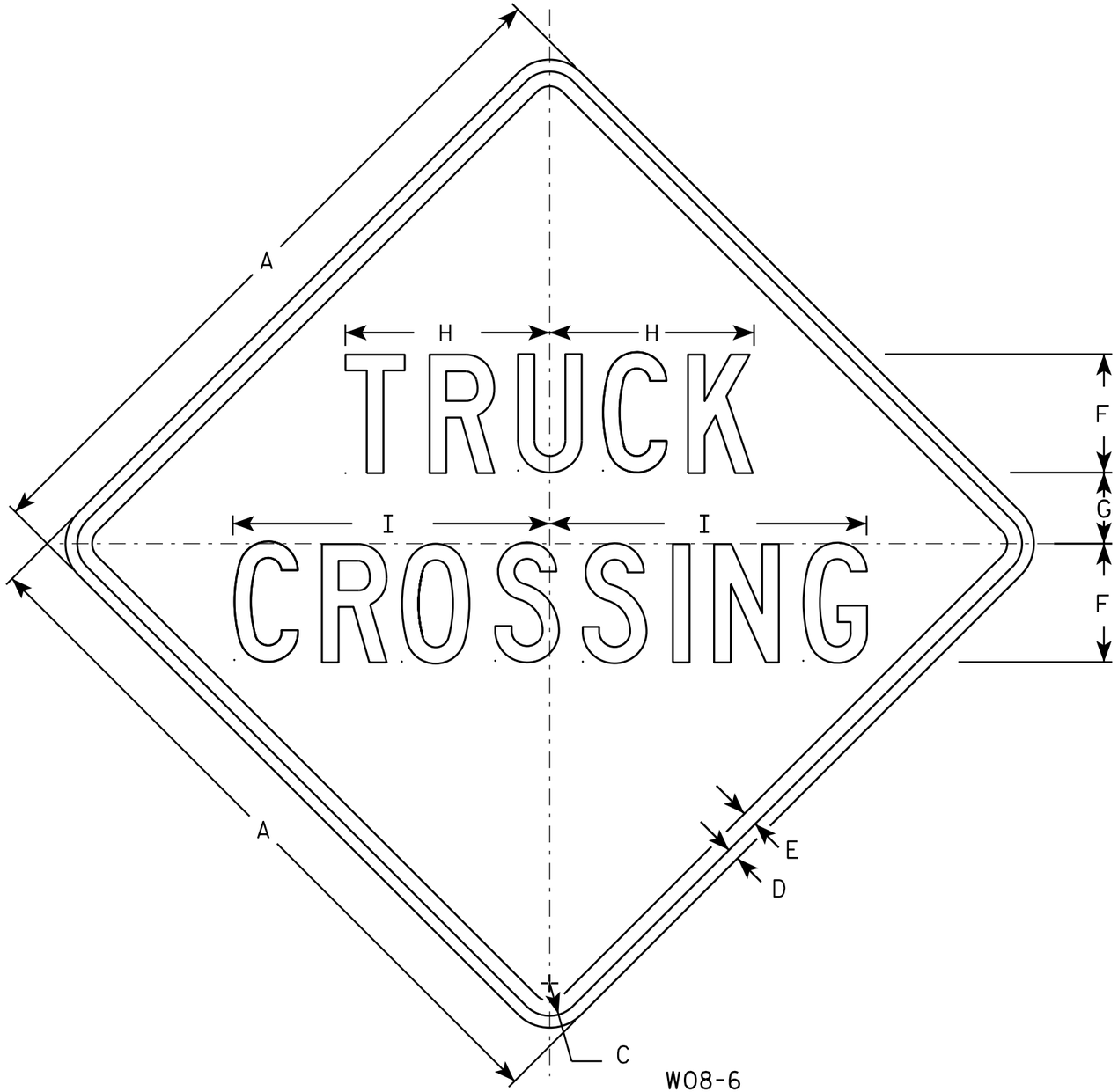
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/20/13 PLATE 151 W04-2.1

PROJECT NO:

SHEET NO: E



W08-6

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 5/8	5/8	3/4	6	3 1/2	10 3/8	16																		9.0
2S	48		2 1/4	3/4	1	8	5	13 3/4	21 1/4																		16.0
2M	48		2 1/4	3/4	1	8	5	13 3/4	21 1/4																		16.0
3	48		2 1/4	3/4	1	8	5	13 3/4	21 1/4																		16.0
4	48		2 1/4	3/4	1	8	5	13 3/4	21 1/4																		16.0
5	48		2 1/4	3/4	1	8	5	13 3/4	21 1/4																		16.0

STANDARD SIGN
W08-6

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/20/13 PLATE 152 of 28-6.1

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

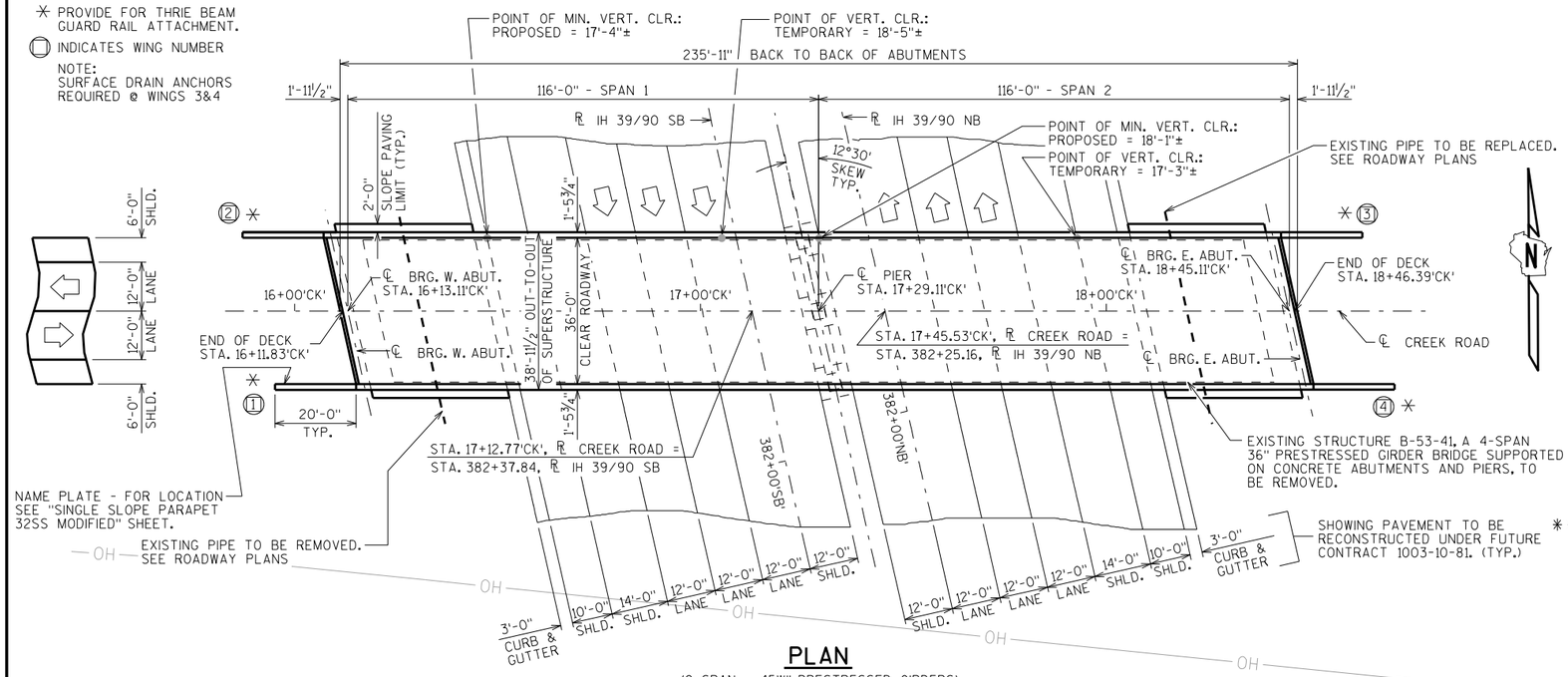
STATE PROJECT NUMBER

1003-10-74

✳ PROVIDE FOR THRIE BEAM GUARD RAIL ATTACHMENT.

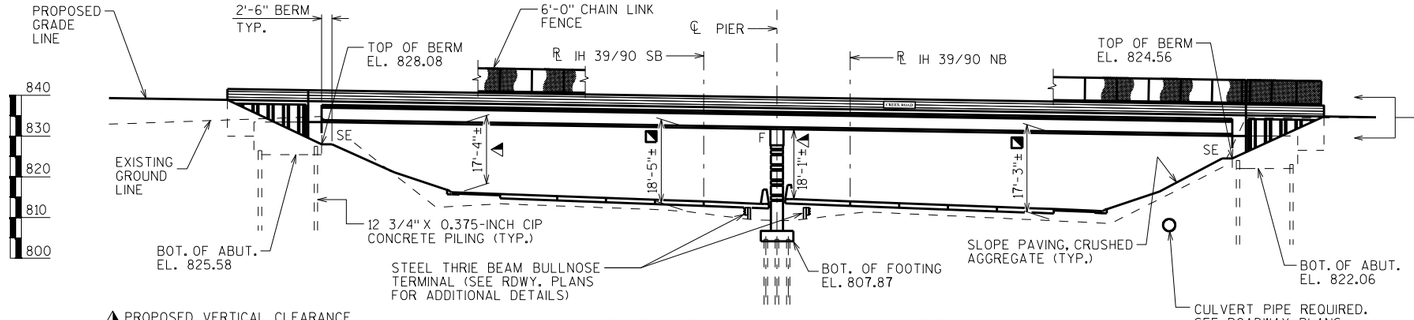
(n) INDICATES WING NUMBER

NOTE: SURFACE DRAIN ANCHORS REQUIRED @ WINGS 3&4



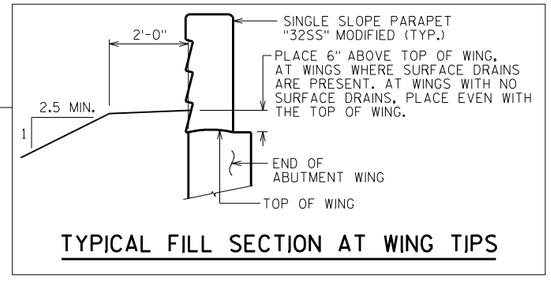
PLAN

(2 SPAN - 45W" PRESTRESSED GIRDERS)

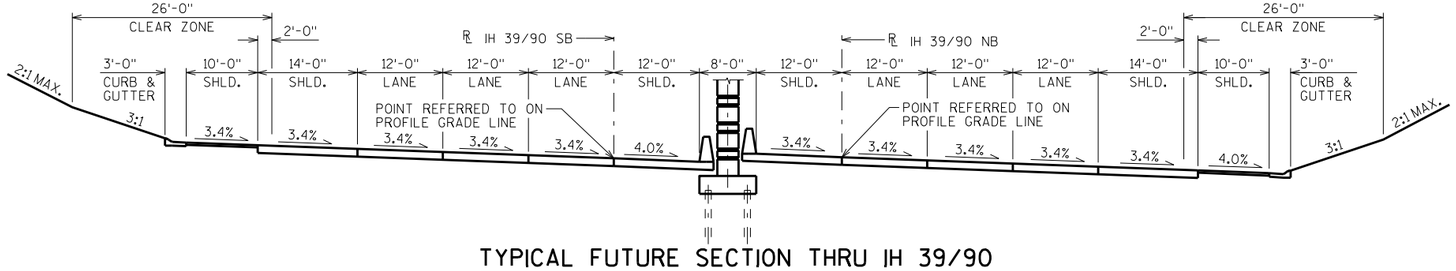


ELEVATION - LOOKING NORTH

(NORMAL TO IH 39/90, LOOKING NORTH)



TYPICAL FILL SECTION AT WING TIPS



TYPICAL FUTURE SECTION THRU IH 39/90

(NORMAL TO IH 39/90, LOOKING NORTH)
(FOR INFORMATION ONLY - IH 39/90 TO BE RECONSTRUCTED UNDER FUTURE CONTRACT 1003-10-81)

DESIGN DATA

LIVE LOAD:

DESIGN LOADING: HL-93
INVENTORY RATING FACTOR: RF = 1.13
OPERATING RATING FACTOR: RF = 1.47
WISCONSIN STANDARD PERMIT VEHICLE (WIS.-SPV): 250 (KIPS)

STRUCTURE IS DESIGNED FOR A FUTURE WEARING SURFACE OF 20 POUNDS PER SQUARE FOOT.

MATERIAL PROPERTIES:

CONCRETE MASONRY SLAB — f'c = 4,000 P.S.I. ALL OTHER — f'c = 3,500 P.S.I.
BAR STEEL REINFORCEMENT, GRADE 60 — fy = 60,000 P.S.I.
45W" PRESTRESSED GIRDERS, CONCRETE MASONRY STRANDS- 0.6" DIA. WITH ULTIMATE TENSILE STRENGTH OF 270,000 P.S.I. — f'c = 8,000 P.S.I.

FOUNDATION DATA

ABUTMENTS TO BE SUPPORTED ON 12 3/4" X 0.375-INCH CIP CONCRETE PILING, DRIVEN TO A REQUIRED DRIVING RESISTANCE OF 180 TONS ✳✳ PER PILE AS DETERMINED BY THE MODIFIED GATES DYNAMIC FORMULA. ESTIMATED 55 FEET LONG AT WEST ABUTMENT & 30 FEET AT EAST ABUTMENT.

PIER TO BE SUPPORTED ON 12 3/4" X 0.375-INCH CIP CONRETE PILING, DRIVEN TO A REQUIRED DRIVING RESISTANCE OF 180 TONS ✳✳ PER PILE AS DETERMINED BY THE MODIFIED GATES DYNAMIC FORMULA. ESTIMATED 75 FEET LONG.

✳✳ THE FACTORED AXIAL RESISTANCE OF PILES IN COMPRESSION USED FOR DESIGN IS THE REQUIRED DRIVING RESISTANCE MULTIPLIED BY A RESISTANCE FACTOR OF 0.5 USING MODIFIED GATES DYNAMIC FORMULA TO DETERMINE DRIVEN PILE CAPACITY.

TRAFFIC VOLUME

IH 39/90 (NB & SB)	CREEK ROAD
A.D.T.=81,300 (2040)	A.D.T.=1,050 (2035)
R.D.S.=70 M.P.H.	R.D.S.=50 M.P.H.

LIST OF DRAWINGS

1. GENERAL PLAN
2. CROSS SECTION & QUANTITIES
3. SUBSURFACE EXPLORATION
4. WEST ABUTMENT
5. WEST ABUTMENT DETAILS
6. EAST ABUTMENT
7. EAST ABUTMENT DETAILS
8. PIER
9. PIER DETAILS
10. PIER ALTERNATE
11. 45W" PRESTRESSED GIRDER DETAILS 1
12. 45W" PRESTRESSED GIRDER DETAILS 2
13. STEEL DIAPHRAGM
14. SUPERSTRUCTURE
15. SUPERSTRUCTURE DETAILS 1
16. SUPERSTRUCTURE DETAILS 2
17. SINGLE SLOPE PARAPET 32SS MODIFIED
18. CONDUIT DETAILS
19. CHAIN LINK FENCE DETAILS
20. SLOPE PAVING (CRUSHED AGGREGATE)
21. AESTHETIC DETAILS

STRUCTURE DESIGN CONTACTS:
ALEXANDER CRABTREE (608) 266-3686
LAURA SHADEWALD (608) 267-9592

NO.	DATE	REVISION	BY

Plans Prepared By WISDOT
BUREAU OF STRUCTURES

ACCEPTED William C. Dreher LLS 3/16/16
CHIEF STRUCTURES DESIGN ENGINEER — DATE

STRUCTURE B-53-316

CREEK ROAD OVER IH 39/90 NB & SB

COUNTY	TOWN/~~CITY/VILLAGE~~
ROCK	TURTLE

DESIGN SPEC. AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS

DESIGNED BY	DESIGN CK'D.	DRAWN BY	PLANS CK'D.
BLB	PMM	ARC	PMM

GENERAL PLAN

SHEET 1 OF 21

153

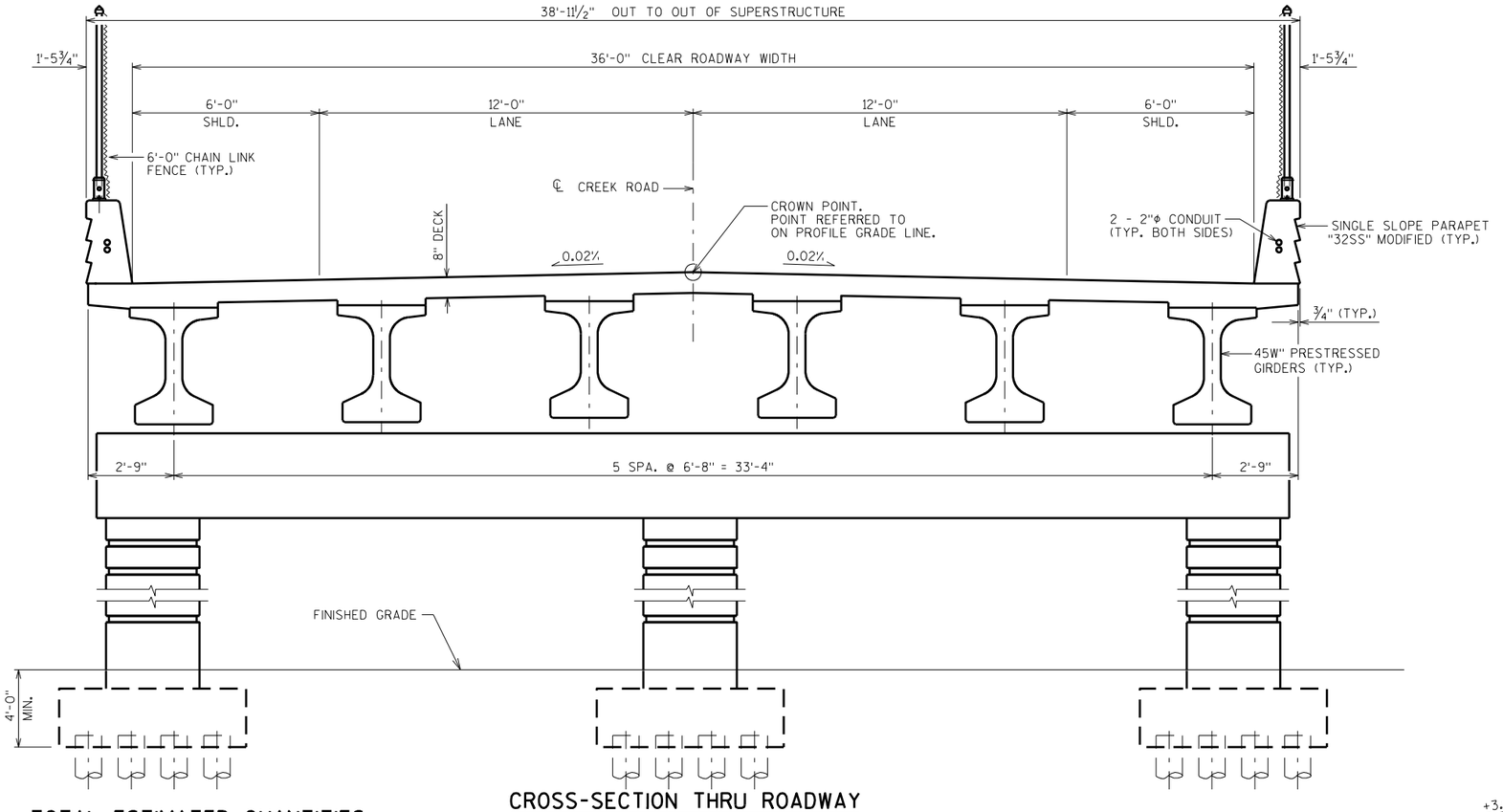
I.D. 1003-10-01

DATE: JAN. 2016

SCALE = 18

8

8



CROSS-SECTION THRU ROADWAY

(LOOKING EAST)

TOTAL ESTIMATED QUANTITIES

BID ITEM NUMBER	BID ITEMS	UNIT	SUPER.	WEST ABUT.	EAST ABUT.	PIER	TOTALS
203.0200	REMOVING OLD STRUCTURE STA. 17+29'CK'	LS	———	———	———	———	1
203.0225.S	DEBRIS CONTAINMENT B-53-41	LS	———	———	———	———	1
206.1000	EXCAVATION FOR STRUCTURES BRIDGES B-53-316	LS	———	———	———	———	1
210.0100	BACKFILL STRUCTURE	CY	———	248	250	———	498
502.0100	CONCRETE MASONRY BRIDGES	CY	356	83	83	77	599
502.3200	PROTECTIVE SURFACE TREATMENT	SY	938	———	———	———	938
502.3210	PIGMENTED SURFACE SEALER	SY	231	———	———	———	231
503.0146	PRESTRESSED GIRDER TYPE I 45W-INCH	LF	1,397	———	———	———	1,397
505.0400	BAR STEEL REINFORCEMENT HS STRUCTURES	LB	———	3,770	3,880	2,320	9,970
505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB	76,230	4,440	4,510	10,430	95,610
506.2605	BEARING PADS ELASTOMERIC NON-LAMINATED	EACH	———	6	6	12	24
506.4000	STEEL DIAPHRAGMS B-53-316	EACH	20	———	———	———	20
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	———	13	13	———	26
517.1010.S	CONCRETE STAINING B-53-316	SF	6,001	651	639	1,209	8,500
550.2126	PILING CIP CONCRETE 12 3/4 X 0.375-INCH	LF	———	660	360	2,250	3,270
604.0500	SLOPE PAVING CRUSHED AGGREGATE	SY	———	174	174	———	348
612.0406	PIPE UNDERDRAIN WRAPPED 6-INCH	LF	———	100	100	———	200
614.0150	ANCHOR ASSEMBLIES FOR STEEL PLATE BEAM GUARD	EACH	4	———	———	———	4
652.0125	CONDUIT RIGID METALLIC 2-INCH	LF	48	———	———	———	48
652.0225	CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH	LF	1,120	———	———	———	1,120
653.0222	JUNCTION BOXES 18X12X6-INCH	EACH	4	———	———	———	4
SPV.0090	FENCE CHAIN LINK POLYMER COATED 6-FT	LF	549	———	———	———	549
	NON-BID ITEMS						
	FILLER	SIZE	———	———	———	———	½" & ¾"

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2" CLEAR UNLESS OTHERWISE SHOWN OR NOTED.

THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE.

AT THE BACKFACE OF ABUTMENT ALL VOLUME WHICH CANNOT BE PLACED BEFORE ABUTMENT CONSTRUCTION AND IS NOT OCCUPIED BY THE NEW STRUCTURE SHALL BE BACKFILLED WITH STRUCTURE BACKFILL.

ELASTOMERIC BEARING PADS NEED NOT BE INDIVIDUALLY MOLDED PROVIDED THE CUT EDGES ARE SMOOTH AND TRUE.

THE GRADATION OF THE STRUCTURE BACKFILL SHALL MEET THE REQUIREMENTS OF SECTION 209.2.2 OF THE STANDARD SPECIFICATIONS FOR GRADE 1 MATERIAL.

PROTECTIVE SURFACE TREATMENT TO BE APPLIED TO THE ENTIRE TOP OF DECK SURFACE. PIGMENTED SURFACE SEALER TO BE APPLIED TO THE FRONT FACE AND THE TOP OF THE PARAPETS, INCLUDING PARAPETS ON ABUTMENT WINGS.

THE EXISTING GROUND LINE SHALL BE USED AS THE UPPER LIMITS OF EXCAVATION AT THE PIER.

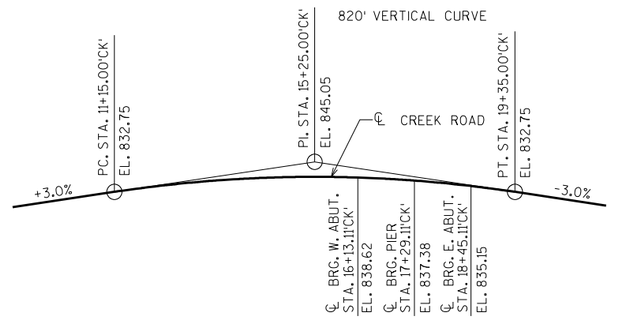
THE SLOPE OF THE FILL IN FRONT OF THE ABUTMENTS SHALL BE COVERED WITH A SLOPE PAVING CRUSHED AGGREGATE MATERIAL TO THE EXTENT SHOWN ON THE "GENERAL PLAN" & "SLOPE PAVING (CRUSHED AGGREGATE)" SHEETS, AS WELL AS THE ABUTMENT DETAILS.

CONCRETE STAINING IS REQUIRED ON THE BRIDGE. SEE "AESTHETIC DETAILS" SHEET FOR DETAILS.

IF TOUCH UP STAINING/PAINTING IS REQUIRED AFTER INSTALLATION IS COMPLETE, ALL TOUCH UP STAINING/PAINTING IS TO BE DONE TO THE SATISFACTION OF THE FIELD ENGINEER AT NO ADDITIONAL COST.

THE RUSTICATIONS IN THE ABUTMENTS, PIER, AND BACK FACES OF THE PARAPETS ARE INCLUDED IN THE BID ITEM "CONCRETE MASONRY BRIDGES".

FORMING LETTERING INCLUDED IN THE BID ITEM "CONCRETE MASONRY BRIDGES".



PROFILE GRADE LINE CREEK ROAD

FUTURE PROFILE GRADE LINE IH 39/90 NB

(FOR INFORMATION ONLY - IH 39/ 90 TO BE RECONSTRUCTED UNDER FUTURE CONTRACT 1003-10-81)

STATE PROJECT NUMBER

1003-10-74

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-53-316

DRAWN BY ARC | PLANS CK'D. PMM

CROSS SECTION & QUANTITIES

SHEET 2

154

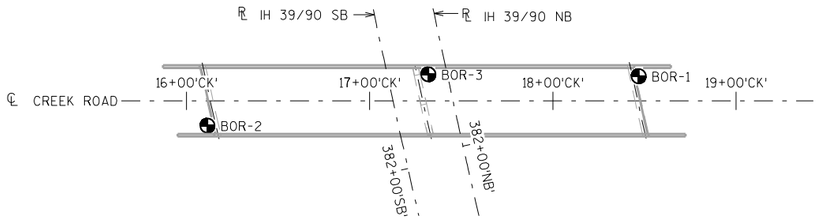
SCALE = 2.25

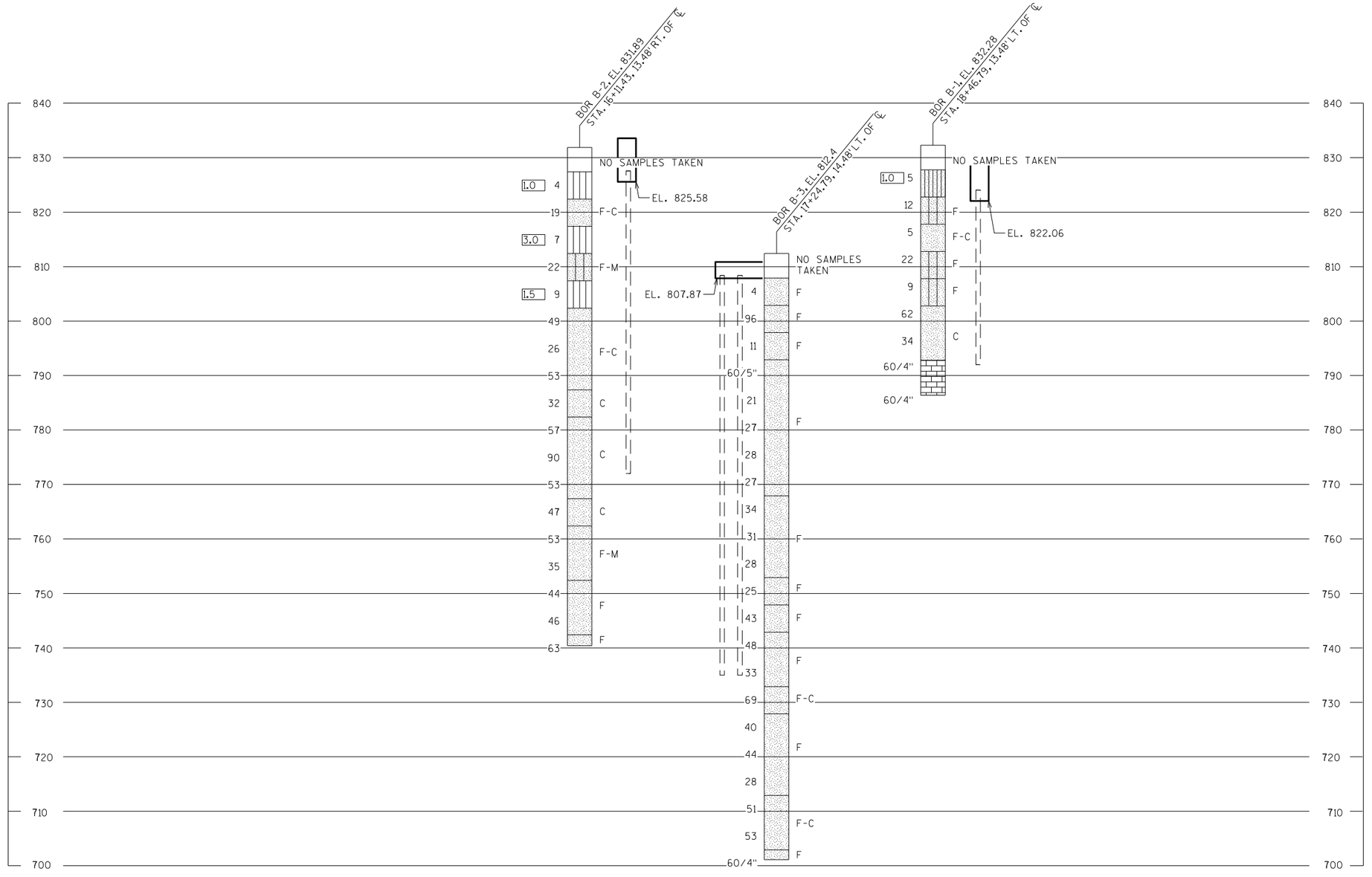
8

8

ILLINOIS STATE LINE - MADISON
SOUTH DANE COUNTY LINE TO UP RR

BORING #	DATE COMPLETED	NORTHING (Y)	EASTING (X)
1	8/1/2013	227481.6587	504731.99
2	8/2/2013	227457.1045	504494.0502
3	9/6/2013	227487.5729	504583.816
BORINGS COMPLETED BY: AMERICAN ENGINEERING TESTING			
REPORT COMPLETED BY: WISDOT			
ALL COORDINATES REFERENCED TO WCCS NAD 83(91) ROCK COUNTY			





8

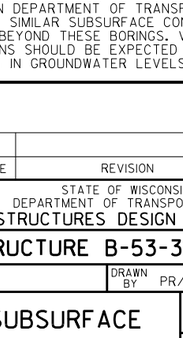
STATE PROJECT NUMBER

1003-10-74

MATERIAL SYMBOLS

ASPHALT	TOPSOIL	PEAT
CONCRETE	FILL	GRAVEL
SAND	CLAY	SILT
BOULDERS OR COBBLES	LIMESTONE	BEDROCK (UNKNOWN)
SHALE	SANDSTONE	IGNEOUS/ META

LEGEND OF BORING



(1) UNCONFINED STRENGTH, AS DETERMINED BY A POCKET PENETROMETER (TSF)

(2) UNLESS OTHERWISE, SPECIFIED THE SPT 'N' VALUE IS BASED ON AASHTO T-206, STANDARD PENETRATION TEST. THE SPT 'N' VALUE PRESENTED HAS NOT BEEN CORRECTED FOR OVERBURDEN PRESSURE OR HAMMER EFFICIENCY.

GROUND WATER ELEVATION

- AT TIME OF DRILLING
- END OF DRILLING
- AFTER DRILLING

ABBREVIATIONS

F-FINE M-MEDIUM C-COARSE ST-SHELBY TUBE

SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

BORINGS WERE COMPLETED AT POINTS APPROXIMATELY AS INDICATED ON THIS DRAWING TO OBTAIN INFORMATION CONCERNING THE CHARACTER OF SUBSURFACE MATERIALS FOUND AT THE SITE. BECAUSE THE INVESTIGATED DEPTHS ARE LIMITED AND THE AREA OF THE BORINGS IS VERY SMALL IN RELATION TO THE ENTIRE SITE, THE WISCONSIN DEPARTMENT OF TRANSPORTATION DOES NOT WARRANT SIMILAR SUBSURFACE CONDITIONS BELOW, BETWEEN, OR BEYOND THESE BORINGS. VARIATIONS IN SOIL CONDITIONS SHOULD BE EXPECTED AND FLUCTUATIONS IN GROUNDWATER LEVELS MAY OCCUR.

8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-53-316

DRAWN BY PR/ARC | PLANS CK'D. PMM

SUBSURFACE EXPLORATION

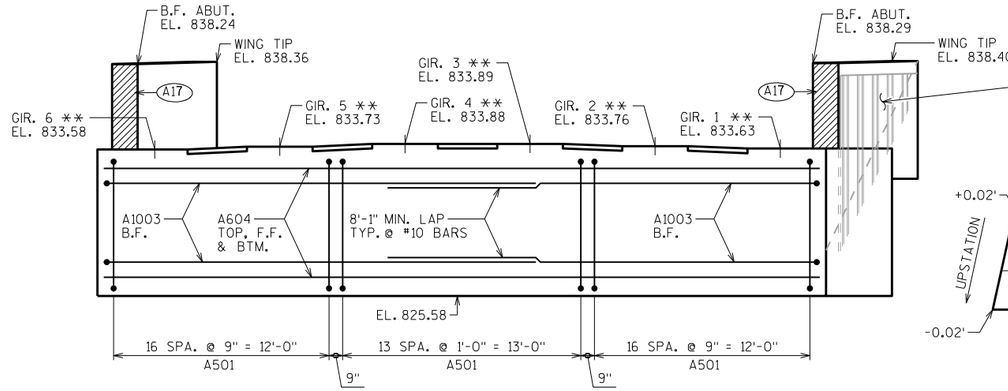
SHEET 3

155

SCALE = 10

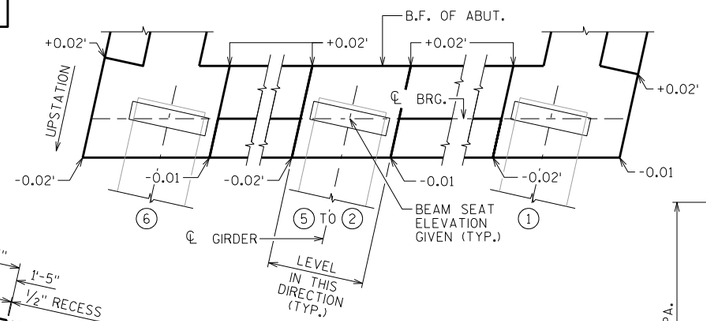
STATE PROJECT NUMBER

1003-10-74

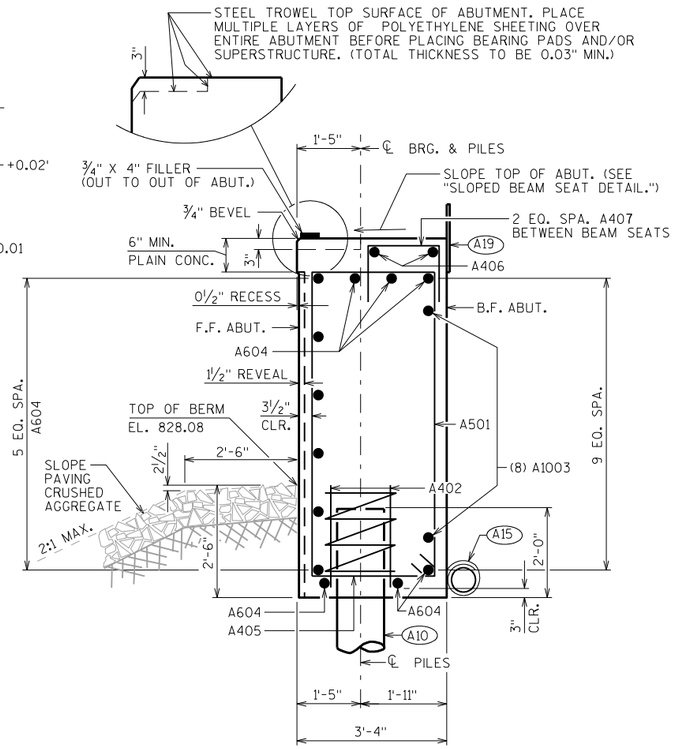


ELEVATION LOOKING WEST

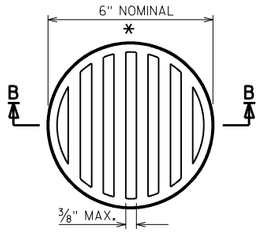
NOTE: SEE "AESTHETIC DETAILS" SHEET FOR RUSTICATION & CONCRETE STAINING DETAILS.



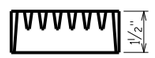
SLOPED BEAM SEAT DETAIL



SECTION THRU BODY



RODENT SHIELD DETAIL



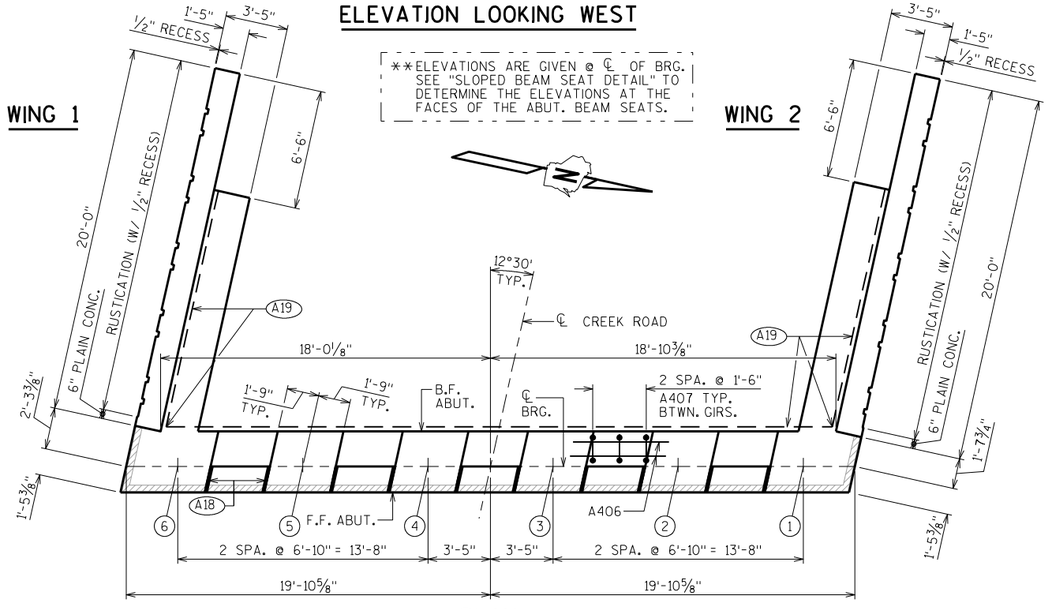
SECTION B-B

* DIMENSIONS ARE APPROXIMATE. THE GRATE IS SIZED TO FIT INTO A PIPE COUPLING. ORIENT SO SLOTS ARE VERTICAL.

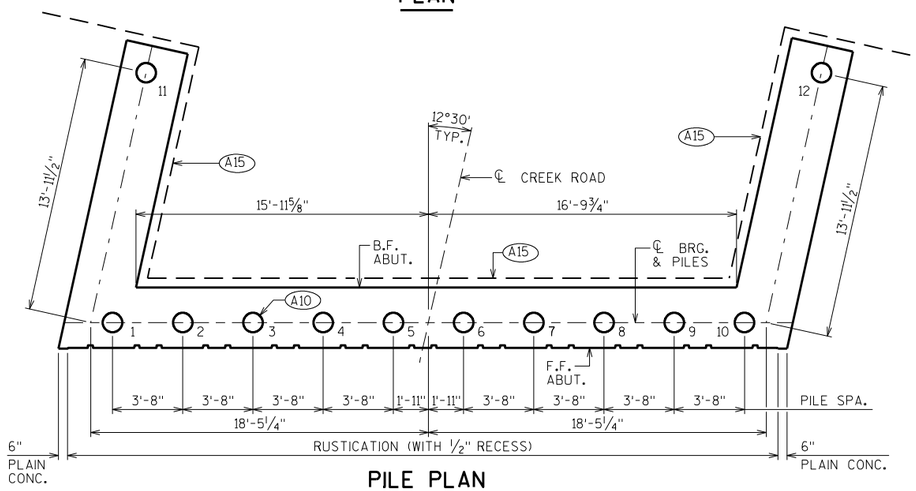
THE RODENT SHIELD, PIPE COUPLING AND SCREWS SHALL BE INCLUDED WITH THE BID ITEM "PIPE UNDERDRAIN WRAPPED 6-INCH".

THE RODENT SHIELD SHALL BE A PVC GRATE SIMILAR TO THIS DETAIL. THE GRATE IS COMMERCIALLY AVAILABLE AS A FLOOR STRAINER. A PIPE COUPLING IS REQUIRED FOR THE ATTACHMENT OF THIS SHIELD TO THE EXPOSED END OF THE PIPE UNDERDRAIN. THE SHIELD SHALL BE FASTENED TO THE PIPE COUPLING WITH TWO OR MORE NO. 10 X 1-INCH STAINLESS STEEL SHEET METAL SCREWS.

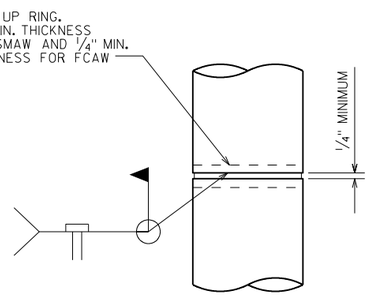
**ELEVATIONS ARE GIVEN @ ℄ OF BRG. SEE "SLOPED BEAM SEAT DETAIL" TO DETERMINE THE ELEVATIONS AT THE FACES OF THE ABUT. BEAM SEATS.



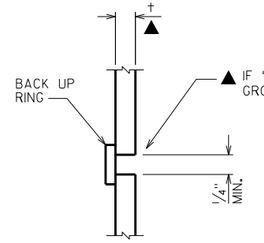
PLAN



PILE PLAN



CAST-IN-PLACE 'PIPE PILE'



C.I.P. PILE WELD DETAIL

PILE DETAILS

(A10) SUPPORT ABUTMENT ON 12 3/4" DIA. CAST-IN-PLACE CONCRETE PILING, ESTIMATED 55 FEET LONG WITH A REQUIRED DRIVING RESISTANCE OF 180 TONS PER PILE.

(A15) PIPE UNDERDRAIN WRAPPED (6-INCH). SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. RODENT SHIELD REQUIRED.

(A17) 1/2" FILLER (INCLUDED IN WING LENGTH): SEAL ALL EXPOSED HORIZ. & VERT. SURFACES OF 1/2" FILLER WITH NON-STAINING AND NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD 1/8" BELOW SURFACE OF CONCRETE). EXTEND SEALER 3" BELOW GUTTER LINE AT INSIDE FACE. COLOR OF JOINT SEALER SHALL MATCH THE ADJACENT CONCRETE STAINING COLOR AND MUST BE APPROVED BY THE ENGINEER.

(A18) 3/4" CORK FILLER UP VERT. BEAM SEAT FACES THAT RUN PARALLEL WITH GIRDER.

(A19) 18" (RMW) RUBBERIZED MEMBRANE WATERPROOFING SEAL ALL HORIZ. & VERT. JOINTS AT BACKFACE.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-53-316

DRAWN BY ARC | PLANS CK'D. PMM

WEST ABUTMENT

SHEET 4

156

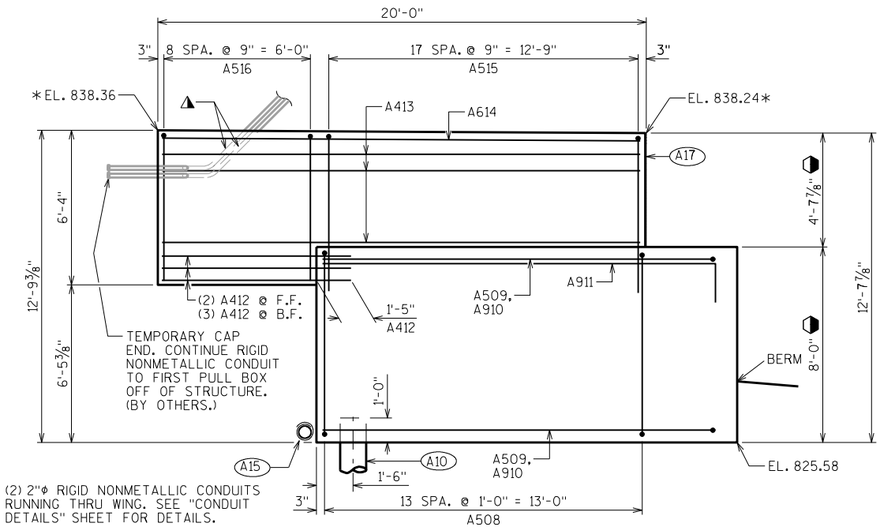
SCALE = 4

8

8

STATE PROJECT NUMBER

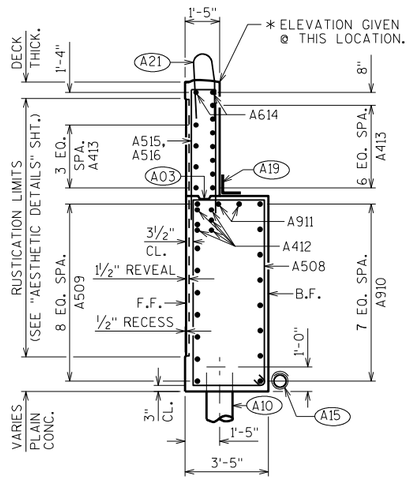
1003-10-74



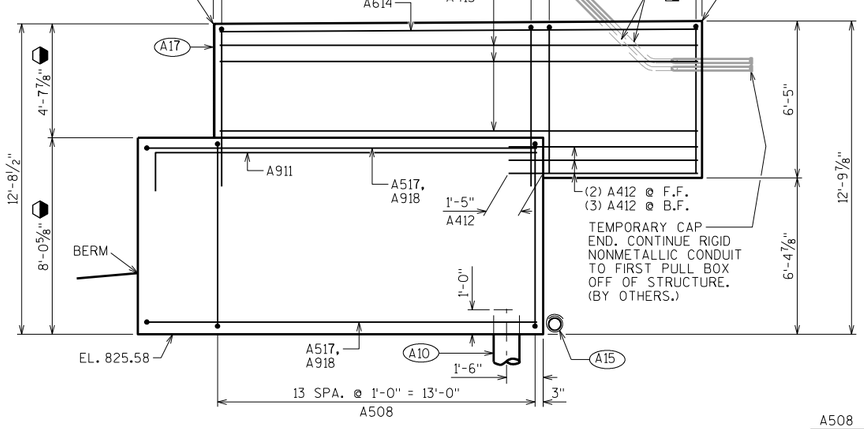
▲ (2) 2"ø RIGID NONMETALLIC CONDUITS RUNNING THRU WING. SEE "CONDUIT DETAILS" SHEET FOR DETAILS.

⬢ DIMENSIONS SHOWN ARE BASED ON ELEVATIONS NOTED AT ℄ OF BEARING. SEE "SLOPED BEAM SEAT DETAIL" ON "WEST ABUTMENT" SHEET FOR CHANGE IN ELEVATION.

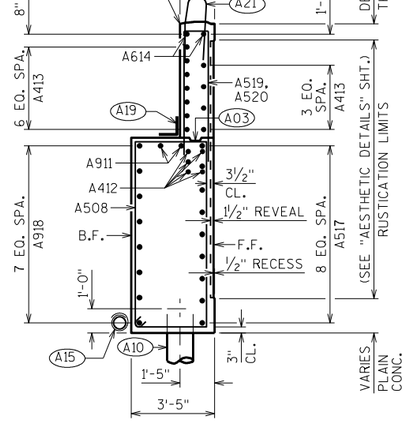
WING 1 ELEVATION



WING 1 SECTION



WING 2 ELEVATION



WING 2 SECTION

BILL OF BARS

NOTE: THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE.

BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
A501		48	21'-0"	X		BODY-STIRRUPS
A402		20	2'-3"			PILES-2 PER PILE
A1003		16	25'-0"	X		BODY-HORIZ.-B.F.
A604		12	39'-1"			BODY-HORIZ.-TOP, BTM. & F.F.
A405		10	28'-0"	X		PILES-1 PER PILE
A406		10	5'-3"			BODY-HORIZ.-BTWN. BEAM SEATS
A407		15	3'-11"	X		BODY-VERT.-BTWN. BEAM SEATS
A508	X	28	21'-8"	X		WING 1&2-STIRRUPS
A509	X	9	16'-6"			WING 1-HORIZ.-F.F.-LOWER
A910	X	8	17'-3"	X		WING 1-HORIZ.-B.F.-LOWER
A911	X	4	17'-4"	X		WING 1&2-HORIZ.-TOP-LOWER
A412	X	10	7'-9"			WING 1&2-HORIZ.-B.F. & F.F.-TOP-LOWER
A413	X	22	19'-8"			WING 1&2-HORIZ.-B.F. & F.F.-UPPER
A614	X	4	19'-8"			WING 1&2-HORIZ.-B.F. & F.F.-TOP-UPPER
A515	X	18	13'-10"	X		WING 1-VERT.-UPPER
A516	X	9	12'-6"	X		WING 1-VERT.-UPPER-TIP
A517	X	9	16'-1"			WING 2-HORIZ.-F.F.-LOWER
A918	X	8	17'-9"	X		WING 2-HORIZ.-B.F.-LOWER
A519	X	18	14'-0"	X		WING 2-VERT.-UPPER
A520	X	9	12'-8"	X		WING 2-VERT.-UPPER-TIP

(A03) OPTIONAL CONST. JOINT: KEYWAY FORMED BY BEVELED 2 X 6. (18" R.M.W. @ B.F.).

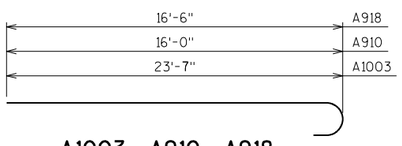
(A10) SUPPORT ABUTMENT ON 12 3/4" DIA. CAST-IN-PLACE CONCRETE PILING, ESTIMATED 55 FEET LONG WITH A REQUIRED DRIVING RESISTANCE OF 180 TONS PER PILE.

(A15) PIPE UNDERDRAIN WRAPPED (6-INCH). SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. RODENT SHIELD REQUIRED. (SEE "WEST ABUTMENT" FOR DETAILS.)

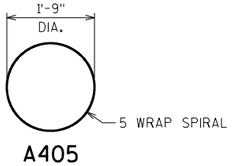
(A17) 1/2" FILLER (INCLUDED IN WING LENGTH): SEAL ALL EXPOSED HORIZ. & VERT. SURFACES OF 1/2" FILLER WITH NON-STAINING AND NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD 1/8" BELOW SURFACE OF CONCRETE). EXTEND SEALER 3" BELOW GUTTER LINE AT INSIDE FACE. COLOR OF JOINT SEALER SHALL MATCH THE ADJACENT CONCRETE STAINING COLOR AND MUST BE APPROVED BY THE ENGINEER.

(A19) 18" (RMW) RUBBERIZED MEMBRANE WATERPROOFING. SEAL ALL HORIZ. & VERT. JOINTS AT BACKFACE.

(A21) FOR PPT. BARS & DIMENSIONS, SEE "MODIFIED SINGLE SLOPE PARAPET 32SS" SHEET FOR DETAILS.



A1003, A910, A918



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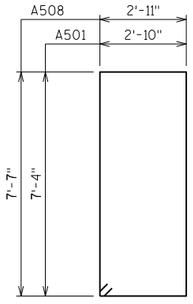
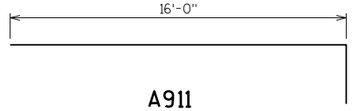


A501, A508



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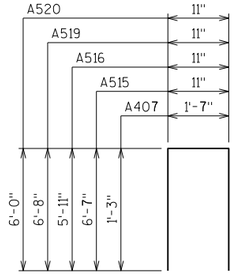


A407, A515, A516
A519, A520

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-53-316

DRAWN BY ARC | PLANS CK'D. PMM

WEST ABUTMENT DETAILS

SHEET 5

157

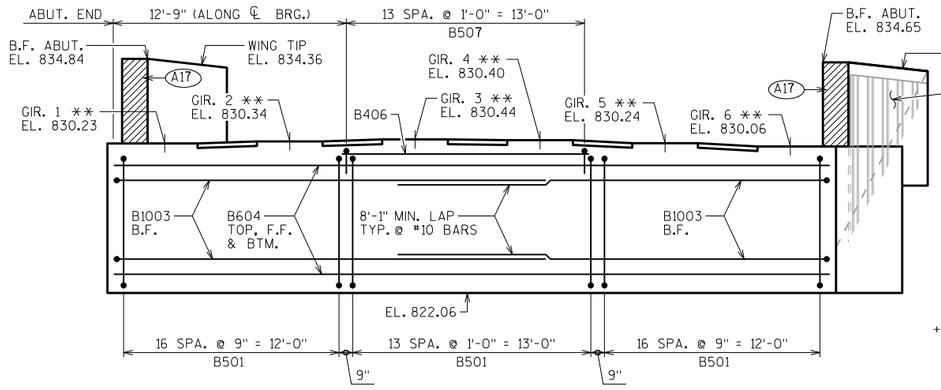
SCALE = 3

8

8

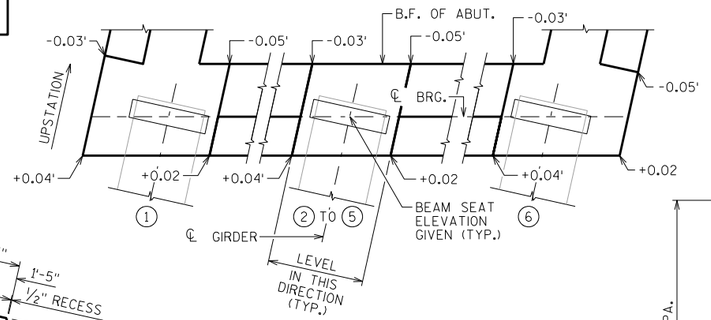
STATE PROJECT NUMBER

1003-10-74

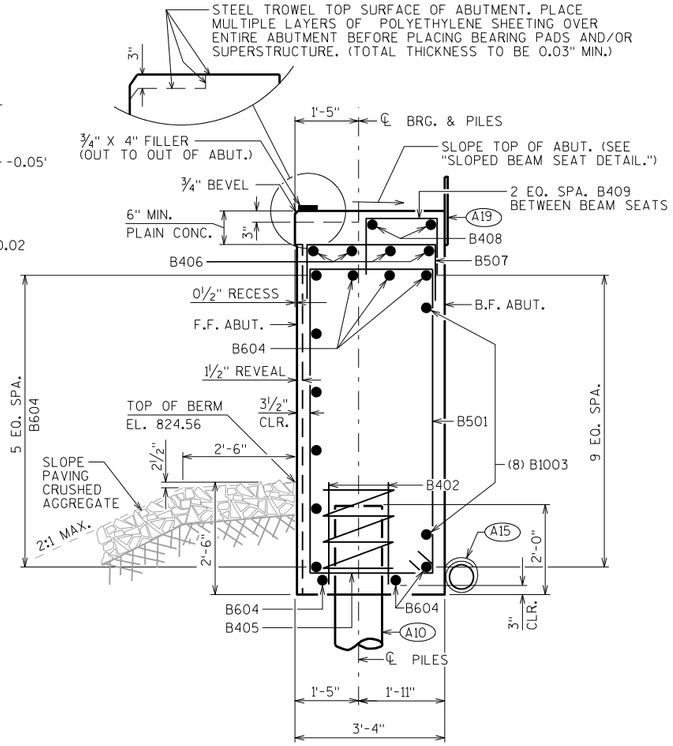


ELEVATION LOOKING WEST

NOTE: SEE "AESTHETIC DETAILS" SHEET FOR RUSTICATION & CONCRETE STAINING DETAILS.



SLOPED BEAM SEAT DETAIL



SECTION THRU BODY

WING 3

WING 4

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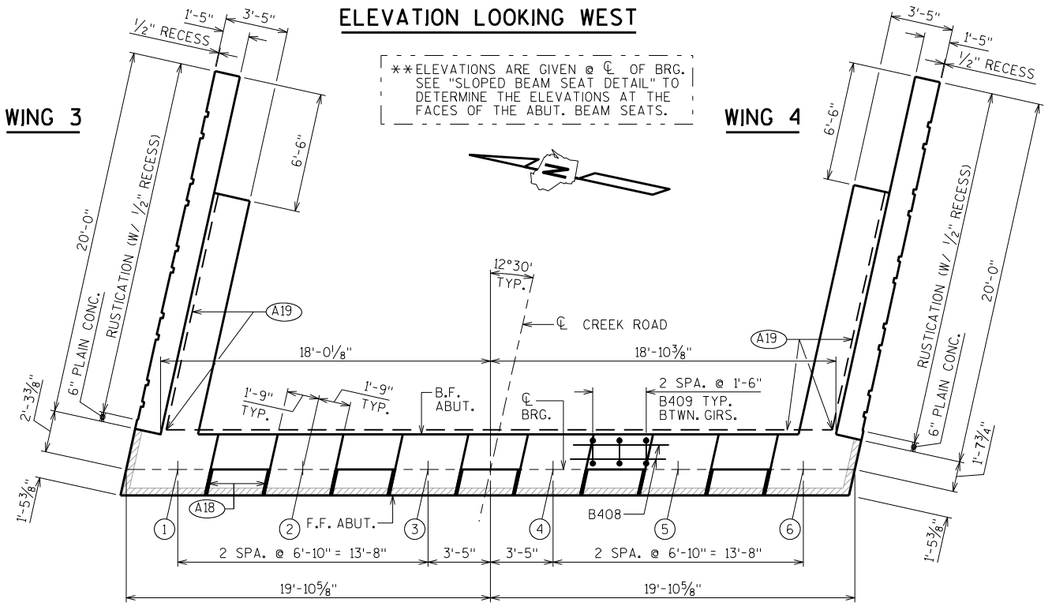
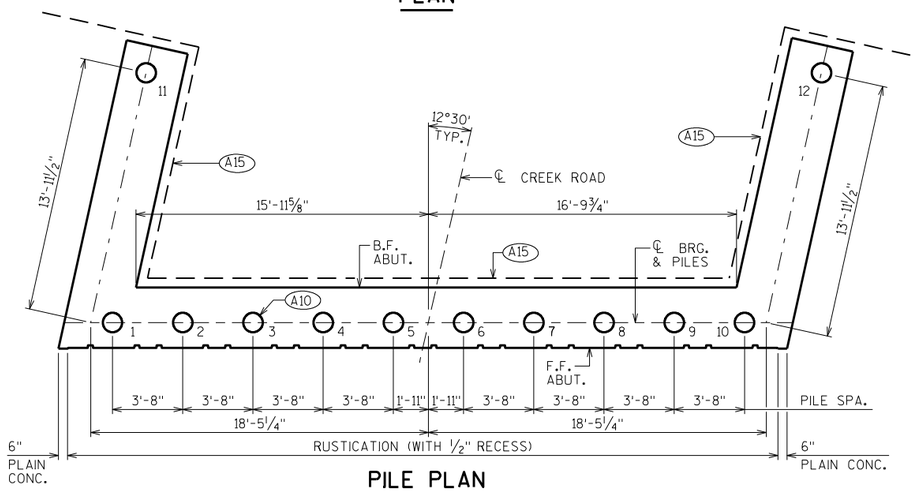
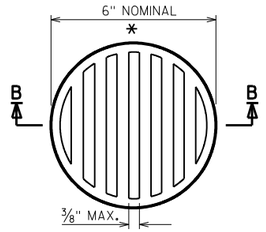


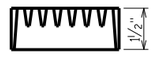
PLAN



PILE PLAN



RODENT SHIELD DETAIL



SECTION B-B

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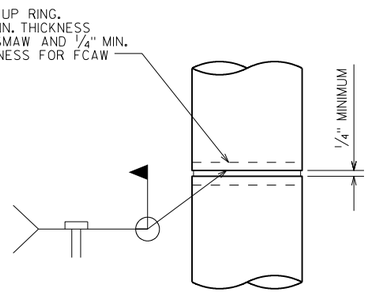
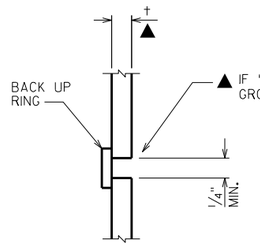


CAST-IN-PLACE 'PIPE PILE'



C.I.P. PILE WELD DETAIL

PILE DETAILS

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-53-316

DRAWN BY ARC | PLANS CK'D. PMM

EAST ABUTMENT

SHEET 6

158

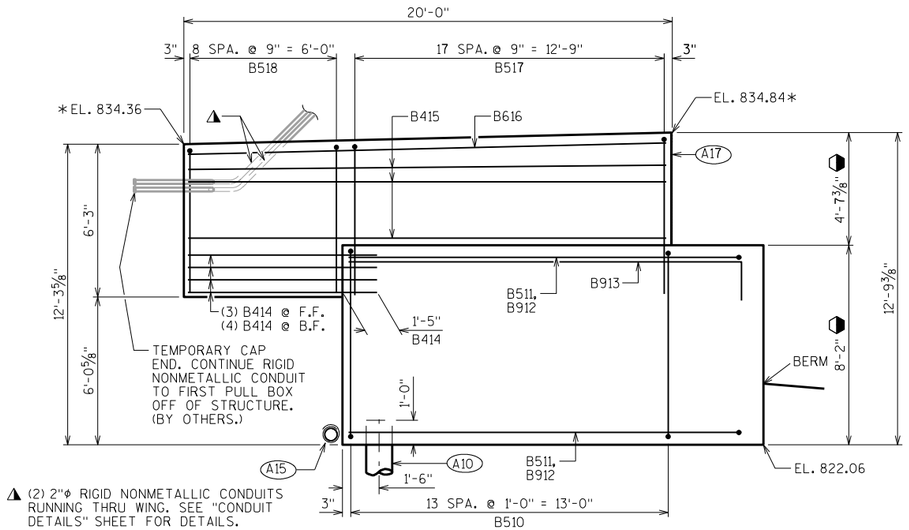
SCALE = 4

8

8

STATE PROJECT NUMBER

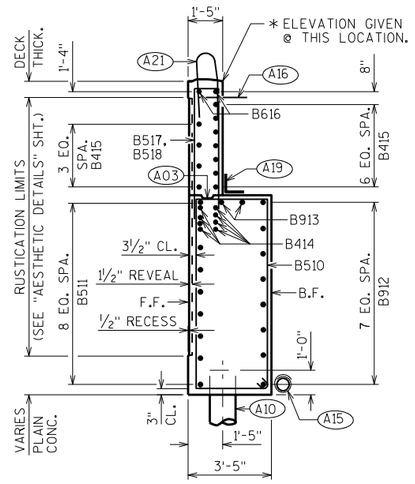
1003-10-74



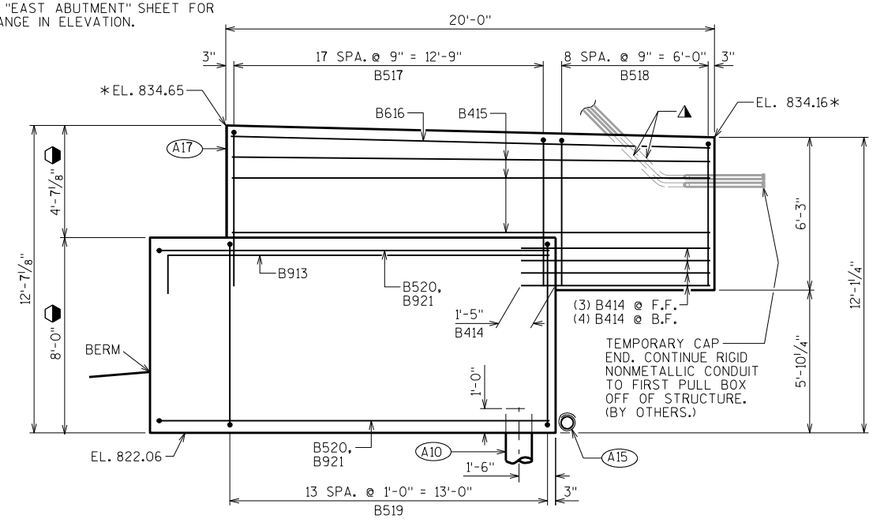
△ (2) 2"ϕ RIGID NONMETALLIC CONDUITS RUNNING THRU WING. SEE "CONDUIT DETAILS" SHEET FOR DETAILS.

◑ DIMENSIONS SHOWN ARE BASED ON ELEVATIONS NOTED AT ℄ OF BEARING. SEE "SLOPED BEAM SEAT DETAIL" ON "EAST ABUTMENT" SHEET FOR CHANGE IN ELEVATION.

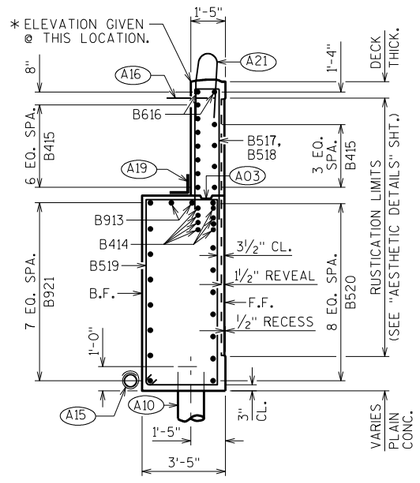
WING 3 ELEVATION



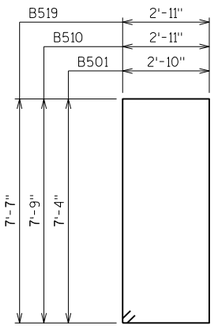
WING 3 SECTION



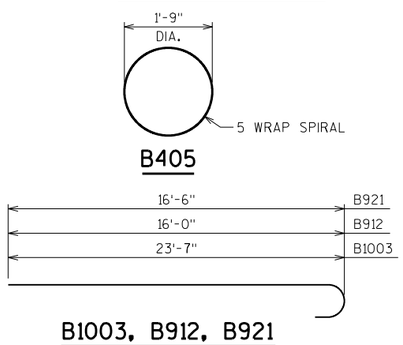
WING 4 ELEVATION



WING 4 SECTION

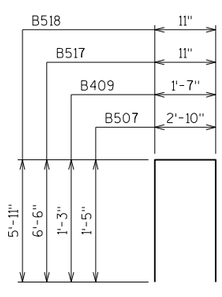


B501, B510, B519

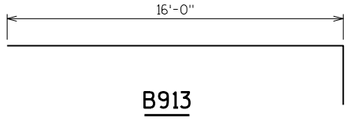


B405

B1003, B912, B921



B507, B409, B517, B518



B913

BILL OF BARS

NOTE: THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE.

BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
B501		48	21'-0"	X		BODY-STIRRUPS
B402		20	2'-3"			PILES-2 PER PILE
B1003		16	25'-0"	X		BODY-HORIZ.-B.F.
B604		12	39'-1"			BODY-HORIZ.-TOP, BTM. & F.F.
B405		10	28'-0"	X		PILES-1 PER PILE
B406		4	13'-4"			BODY-HORIZ.-TOP
B507		14	5'-5"	X		BODY-VERT.-TOP
B408		10	5'-3"			BODY-HORIZ.-BTWN. BEAM SEATS
B409		15	3'-11"	X		BODY-VERT.-BTWN. BEAM SEATS
B510	X	14	22'-0"	X		WING 3-STIRRUPS
B511	X	9	16'-6"			WING 3-HORIZ.-F.F.-LOWER
B912	X	8	17'-3"	X		WING 3-HORIZ.-B.F.-LOWER
B913	X	4	17'-4"	X		WING 3&4-HORIZ.-TOP-LOWER
B414	X	14	7'-9"			WING 3&4-HORIZ.-B.F. & F.F.-TOP-LOWER
B415	X	22	19'-8"			WING 3&4-HORIZ.-B.F. & F.F.-UPPER
B616	X	4	19'-8"			WING 3&4-HORIZ.-B.F. & F.F.-TOP-UPPER
B517	X	36	13'-8"	X		WING 3&4-VERT.-UPPER
B518	X	18	12'-6"	X		WING 3&4-VERT.-UPPER-TIP
B519	X	14	21'-8"	X		WING 4-STIRRUPS
B520	X	9	16'-1"			WING 4-HORIZ.-F.F.-LOWER
B921	X	8	17'-9"	X		WING 4-HORIZ.-B.F.-LOWER
B422	X	42	2'-0"			WING 3&4-HORIZ.-SURFACE DRAIN ANCHORS

(A03) OPTIONAL CONST. JOINT: KEYWAY FORMED BY BEVELED 2 X 6. (18" R.M.W. @ B.F.).

(A10) SUPPORT ABUTMENT ON 12 3/4" DIA. CAST-IN-PLACE CONCRETE PILING, ESTIMATED 30 FEET LONG WITH A REQUIRED DRIVING RESISTANCE OF 180 TONS PER PILE.

(A15) PIPE UNDERDRAIN WRAPPED (6-INCH). SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. RODENT SHIELD REQUIRED. (SEE "EAST ABUTMENT" FOR DETAILS.)

(A16) B422 BARS SPACED @ 1'-0" CTRS. EMBED 1'-0" INTO WING CONC. LOCATE 3" DOWN FROM TOP OF WING @ BACKFACE TO 6" DOWN @ WING TIP. (DRILLED IN EPOXY ANCHORED #4 BARS 2'-0" LONG MAY BE USED.) COST TO BE INCLUDED WITH BID ITEM "BAR STEEL REINFORCEMENT HS COATED BRIDGES".

(A17) 1/2" FILLER (INCLUDED IN WING LENGTH): SEAL ALL EXPOSED HORIZ. & VERT. SURFACES OF 1/2" FILLER WITH NON-STAINING AND NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD 1/8" BELOW SURFACE OF CONCRETE). EXTEND SEALER 3" BELOW GUTTER LINE AT INSIDE FACE. COLOR OF JOINT SEALER SHALL MATCH THE ADJACENT CONCRETE STAINING COLOR AND MUST BE APPROVED BY THE ENGINEER.

(A19) 18" (RMW) RUBBERIZED MEMBRANE WATERPROOFING. SEAL ALL HORIZ. & VERT. JOINTS AT BACKFACE.

(A21) FOR PPT. BARS & DIMENSIONS, SEE "MODIFIED SINGLE SLOPE PARAPET 32SS" SHEET FOR DETAILS.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-53-316

DRAWN BY ARC | PLANS CK'D. PMM

EAST ABUTMENT DETAILS

SHEET 7

159

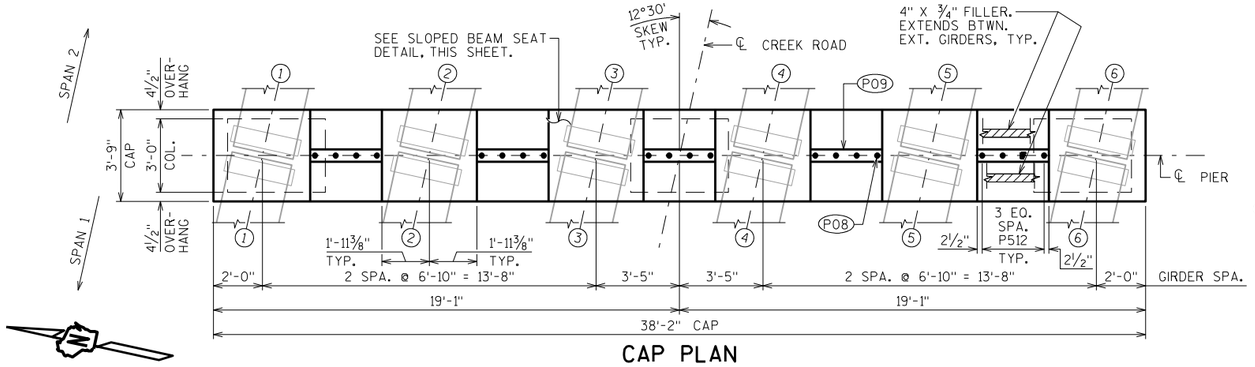
SCALE = 3

8

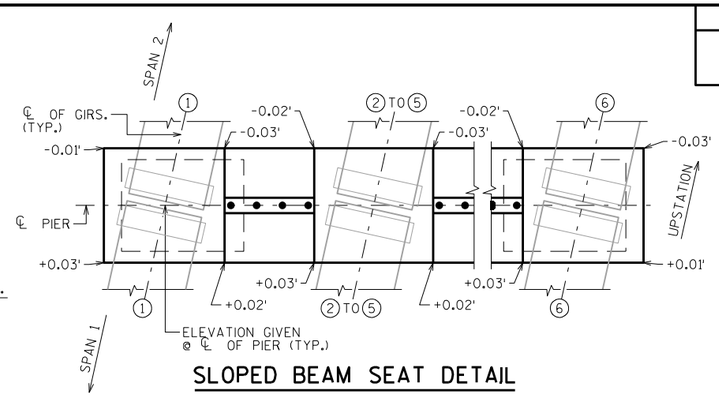
8

STATE PROJECT NUMBER

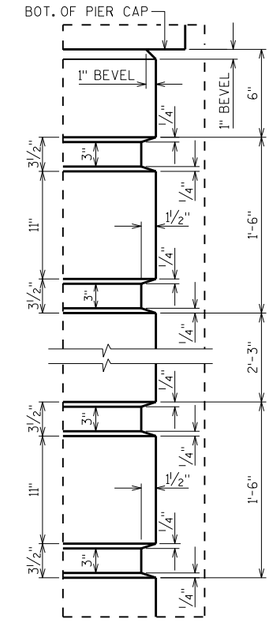
1003-10-74



CAP PLAN



SLOPED BEAM SEAT DETAIL



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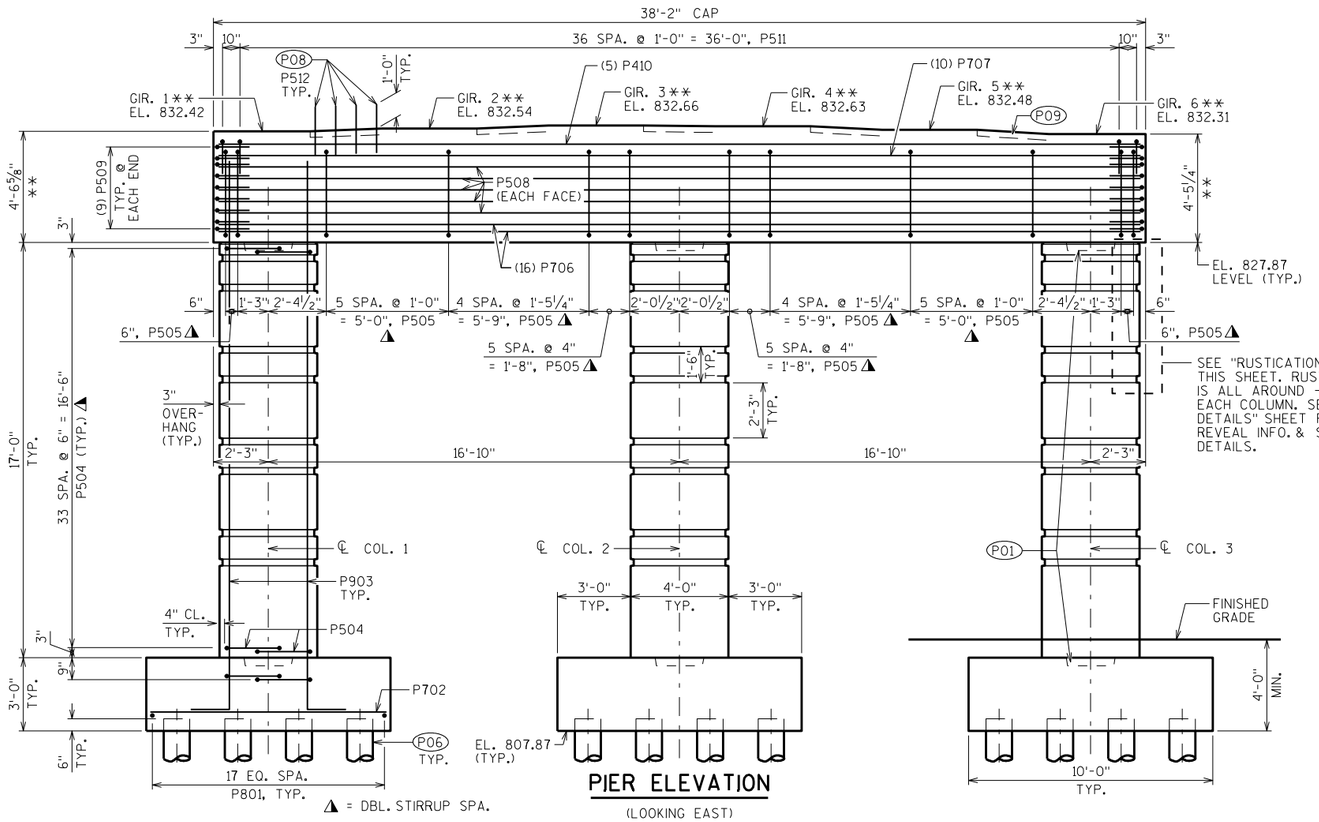


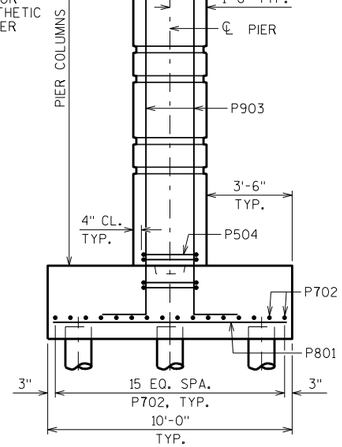
PIER ELEVATION

(LOOKING EAST)

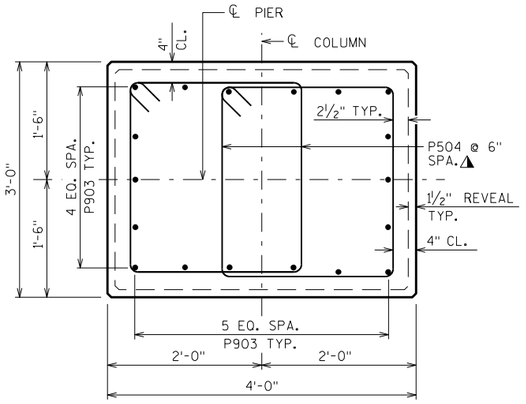
◭ = DBL. STIRRUP SPA.

** = DIMS./ELEVATIONS ARE GIVEN @ ℄ OF PIER

NOTE: SEE "PIER DETAILS" SHEET FOR TYPICAL PILE & REINF. PLAN FOR FOOTINGS.



END VIEW



SECTION THRU COLUMN (TYP.)

(P01) 1'-3" X 2'-0" X 4" DEEP CONSTRUCTION JOINT FORMED BY BEVELED KEYWAY.

(P06) SUPPORT PIER ON 12 3/4" DIA. CAST-IN-PLACE CONCRETE PILING, ESTIMATED 75 FEET LONG WITH A REQUIRED DRIVING RESISTANCE OF 180 TONS PER PILE.

(P08) P512 BARS BTWEEN BEAM SEATS. MAY BE PLACED AFTER CONCRETE IS POURED BUT BEFORE INITIAL SET HAS TAKEN PLACE. (EMBED 1'-0" INTO CONCRETE.)

(P09) KEYED CONSTRUCTION JOINT FORMED BY BEVELED 2" X 6", BETWEEN BEAM SEATS.

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DRAWN BY ARC | PLANS CK'D. PMM

PIER

SHEET 8

160

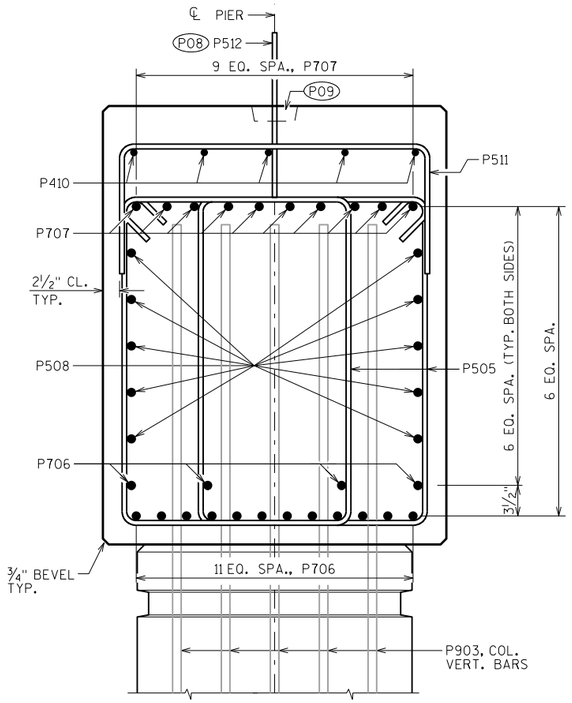
8

8

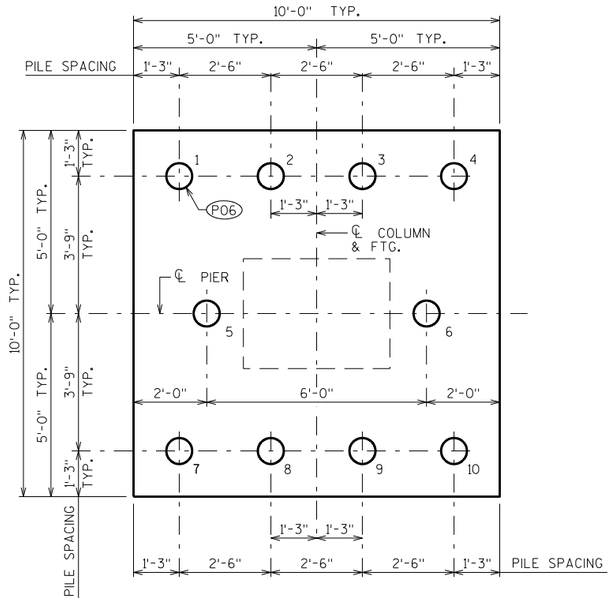
SCALE = 3

STATE PROJECT NUMBER

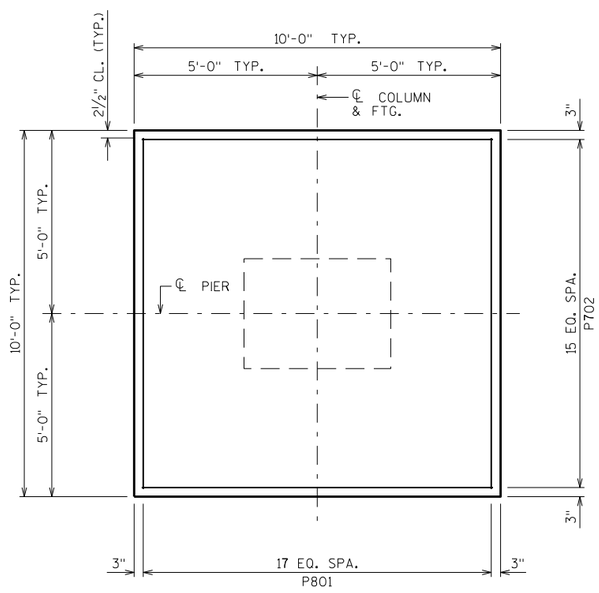
1003-10-74



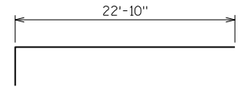
TYP. SECTION THRU PIER CAP



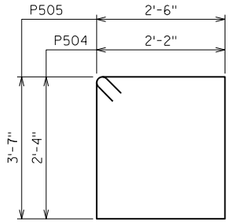
TYP. PILE PLAN FOR EACH FOOTING



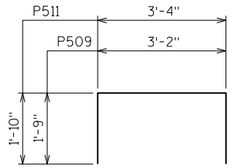
TYP. REINF. PLAN FOR EACH FTG.



P903



P504, P505



P509, P511

BILL OF BARS

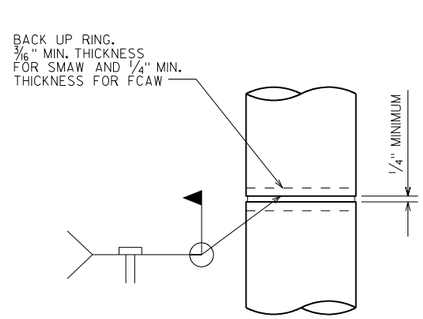
NOTE: THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE.

BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	LOCATION
P801		54	9'-7"		FOOTING-HORIZ.-BOT. MAT
P702		48	9'-7"		FOOTING-HORIZ.-BOT. MAT
P903	X	54	24'-2"	X	FOOTING/COLUMN-VERT.
P504	X	210	9'-8"	X	COLUMN-STIRRUPS
P505	X	68	12'-10"	X	CAP-STIRRUPS
P706	X	16	37'-9"		CAP-HORIZ.-BOT.
P707	X	10	37'-9"		CAP-HORIZ.-TOP
P508	X	10	37'-9"		CAP-HORIZ.-SIDES
P509	X	18	6'-5"	X	CAP-HORIZ.-ENDS
P410	X	5	37'-9"		CAP-HORIZ.-TOP
P511	X	39	6'-9"	X	CAP-VERT.-TOP
P512	X	20	2'-0"		CAP-DOWEL BARS

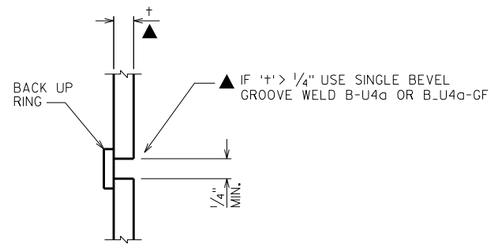
(P06) SUPPORT PIER ON 12 3/4" DIA. CAST-IN-PLACE CONCRETE PILING, ESTIMATED 75 FEET LONG WITH A REQUIRED DRIVING RESISTANCE OF 180 TONS PER PILE.

(P08) P512 BARS BTWEEN BEAM SEATS. MAY BE PLACED AFTER CONCRETE IS POURED BUT BEFORE INITIAL SET HAS TAKEN PLACE. (EMBED 1'-0" INTO CONCRETE.)

(P09) KEYED CONSTRUCTION JOINT FORMED BY BEVELED 2" X 6", BETWEEN BEAM SEATS.



CAST-IN-PLACE 'PIPE PILE'



C.I.P. PILE WELD DETAIL

PILE DETAILS

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-53-316

DRAWN BY ARC | PLANS CK'D. PMM

PIER DETAILS

SHEET 9

161

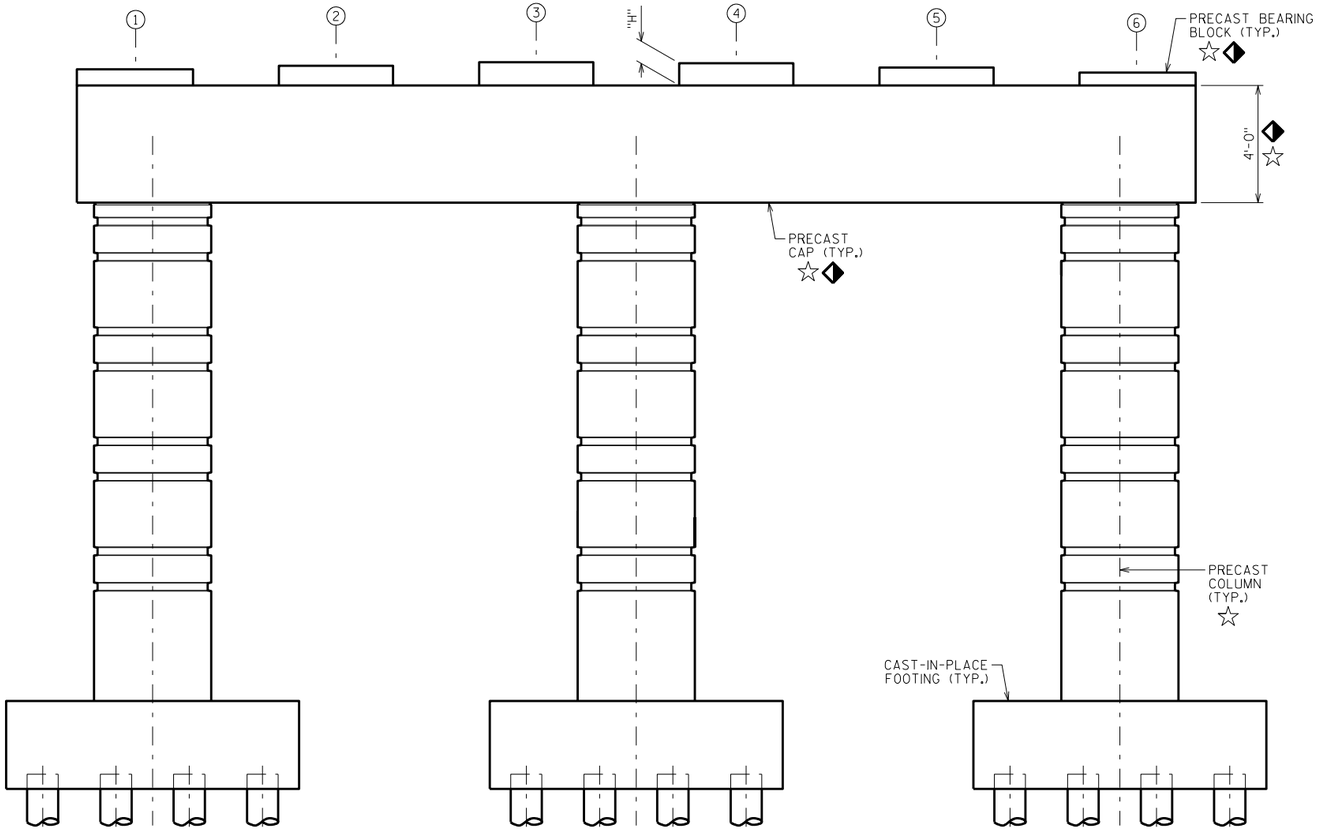
SCALE = 3

8

8

STATE PROJECT NUMBER

1003-10-74



ELEVATION OF OPTIONAL PRECAST PIER

(LOOKING EAST)

FOR INFORMATION ONLY
CONTACT DAVE KIEKBUSCH (608) 266-5084 OR
JAMES LUEBKE (608) 266-5098 FOR PRECAST DETAILS

☆ THE CONTRACTOR MAY FURNISH A PRECAST PIER (CAP, COLUMNS & BEARING BLOCK ELEMENTS) IN LIEU OF THE CAST-IN-PLACE PIER WITH THE ACCEPTANCE OF THE SHOP DRAWINGS BY THE STRUCTURES DESIGN SECTION. CONTACT DAVE KIEKBUSCH (608-266-5084) OR JAMES LUEBKE (608-266-5098) FOR PRECAST PIER MEMBER STANDARDS. THE PRECAST PIER SHALL CONFORM TO PRECAST DETAILS IN CHAPTER 7 STANDARDS OF THE CURRENT WISCONSIN DOT BRIDGE MANUAL AND SPECIAL PROVISIONS RELATED TO PRECAST ELEMENTS WITH THE EXCEPTION OF METHOD OF PAYMENT. PAYMENT FOR THE PRECAST PIER SHALL BE BASED ON THE QUANTITES AND PRICES BID FOR THE ITEMS LISTED IN THE "TOTAL ESTIMATED QUANTITIES".

◆ IF THE CONTRACTOR CHOOSES TO FURNISH PRECAST PIER MEMBERS, THE CAP HEIGHT SHALL BE 4'-0". THE REMAINING DIFFERENCE BETWEEN THE BEAM SEAT ELEVATIONS (GIVEN @ ℄ OF PIER) AND THE TOP OF THE 4'-0" CAP WILL BE THE "H" DIMENSION OF THE PRECAST BEARING BLOCKS. THE GIRDER'S PRECAST BEARING BLOCKS ARE TO BE SLOPED, AS SHOWN IN THE "SLOPED BEAM SEAT DETAIL," ON THE "PIER" PLAN SHEET.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-53-316

DRAWN BY ARC | PLANS CK'D. PMM

PIER ALTERNATE

SHEET 10

162

8

8

SCALE = 2.5

STATE PROJECT NUMBER

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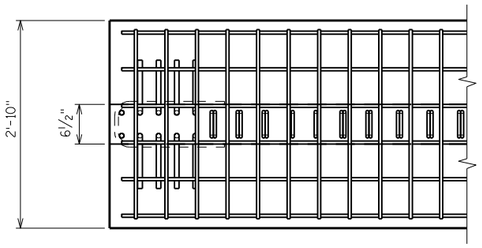
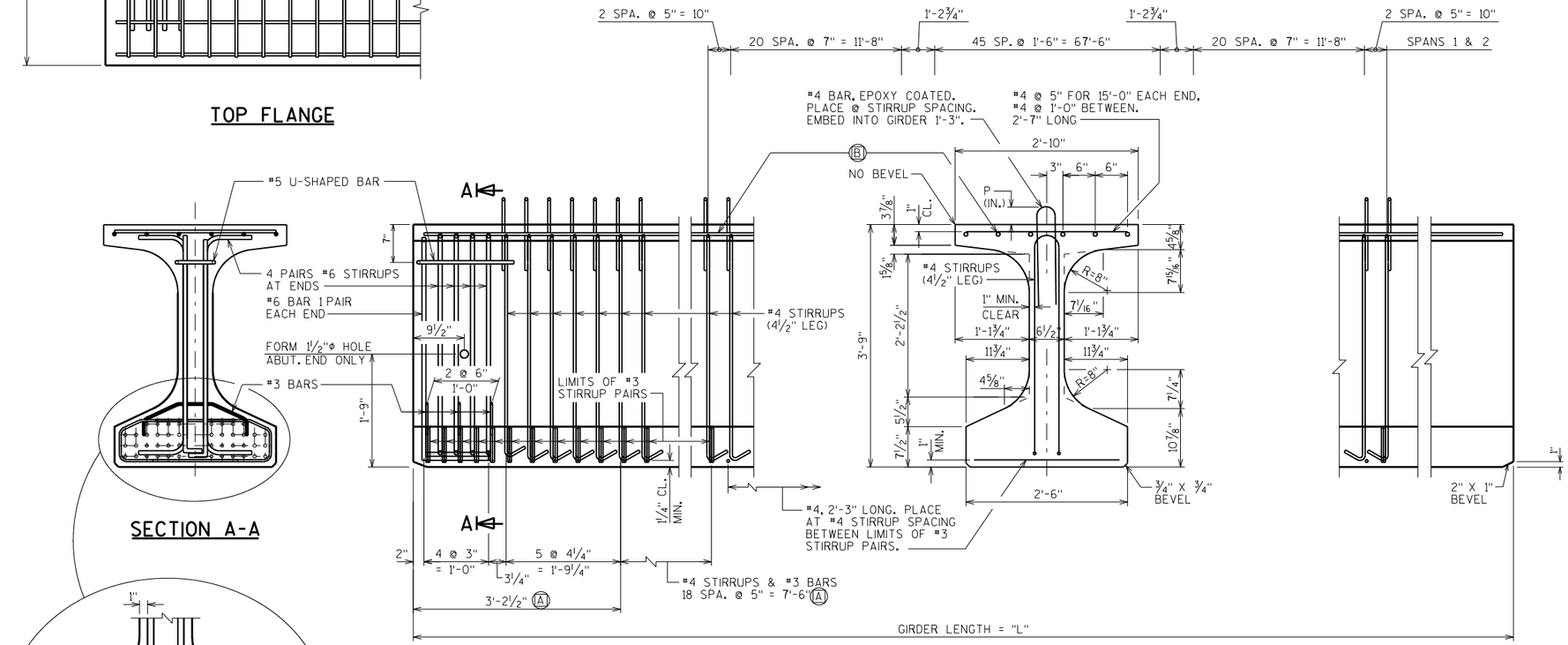
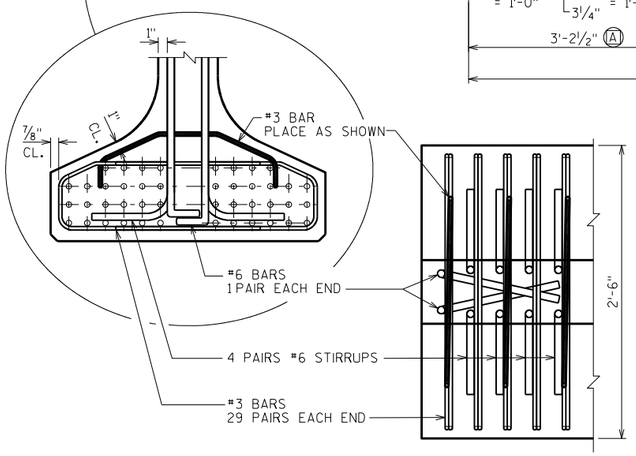


TOP FLANGE



SECTION A-A



BOTTOM FLANGE

SIDE VIEW & TYP. SECTION IN SPAN

Ⓐ DETAIL TYP. AT EACH END

Ⓑ 6 #4 BARS, FULL LENGTH, MIN. LAP = 1'-11"

NOTES

TOP OF GIRDER TO BE ROUGH FLOATED AND BROOMED TRANSVERSELY, EXCEPT THE OUTSIDE 8" OF THE GIRDER, WHICH SHALL RECEIVE A SMOOTH FINISH. AN APPROVED CONCRETE SEALER SHALL BE APPLIED TO ALL SMOOTH SURFACES INCLUDING THE OUTSIDE 8" OF THE TOP FLANGE.

DO NOT APPLY CONCRETE SEALER TO SURFACES RECEIVING APPLICATION OF CONCRETE STAINING.

THE GIRDERS SHALL BE PROVIDED WITH A SUITABLE LIFTING DEVICE FOR HANDLING AND ERECTING THE GIRDERS.

STRANDS SHALL BE FLUSH WITH THE END OF GIRDER. FOR GIRDER ENDS EMBEDDED COMPLETELY IN CONCRETE, ENDS OF STRANDS SHALL BE COATED WITH NON-BITUMINOUS JOINT SEALER. FOR GIRDER ENDS THAT ARE FINALLY EXPOSED, COAT THE GIRDER ENDS, EXPOSED STRAND ENDS AND ALL NON-BONDING SURFACES WITHIN 2 FEET OF THE GIRDER ENDS WITH A NON-PIGMENTED EPOXY CONFORMING TO AASHTO M-235 TYPE III, CLASS B OR C. THE EPOXY SHALL BE APPLIED AT LEAST 3 DAYS AFTER MOIST CURING HAS CEASED AND PRIOR TO APPLICATION OF THE SEALER.

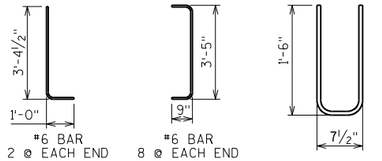
ALL GIRDERS SHALL BE CAST FULL LENGTH AS SHOWN.

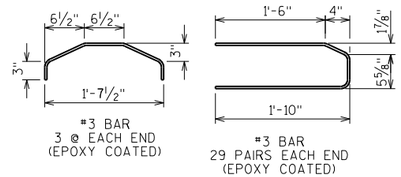
SPACING SHOWN FOR #4 STIRRUPS IS FOR GRADE 60 REINFORCEMENT.

AN ALTERNATE EQUIVALENT OF WELDED WIRE FABRIC (WWF) ASTM A497 MAY BE SUBSTITUTED FOR THE STIRRUP REINFORCEMENT SHOWN, UPON APPROVAL OF THE STRUCTURES DEVELOPMENT SECTION.

PRESTRESSING STRANDS SHALL BE 0.6" DIA. -7 WIRE LOW-RELAXATION STRANDS WITH AN ULTIMATE STRENGTH OF 270,000 psi.

FOR DIAPHRAGM INSERT & CONNECTION DETAILS SEE "STEEL DIAPHRAGM" SHEET.





* MINIMUM CYLINDER STRENGTH OF CONCRETE @ TIME OF TRANSFER OF PRESTRESS FORCE.

GIRDER DATA

SPAN	GIRDER	GIRDER LENGTH "L"	DEAD LOAD DEFL. (IN.)									CONC. STRGTH. f'c (p.s.i.)	"P" 1ST ⅓ OF GIRDER	"P" MID ⅓ OF GIRDER	"P" END ⅓ OF GIRDER	DIA. OF STRAND (IN.)	DRAPED PATTERN						UNDRAPED PATTERN	
			1/10	2/10	3/10	4/10	5/10	6/10	7/10	8/10	9/10						TOTAL NO. OF STRANDS	f'ci (P.S.I.)	(IN.) "A"	"B" MIN.	"B" MAX.	"C"	TOTAL NO. OF STRANDS	f'ci (P.S.I.)
1	1-6	116.38	0.9	1.7	2.3	2.7	2.8	2.7	2.3	1.7	0.9	8,000	7"	7"	7"	0.60	38	6,400	40.0	13.75	16.75	5.0	--	--
2	1-6	116.38	0.9	1.7	2.3	2.7	2.8	2.7	2.3	1.7	0.9	8,000	7"	7"	7"	0.60	38	6,400	40.0	13.75	16.75	5.0	--	--

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-53-316

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45W" PRESTRESSED GIRDER DETAILS 1

SHEET 11

163

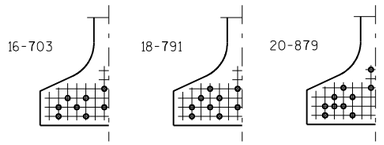
SCALE = 1

8

8

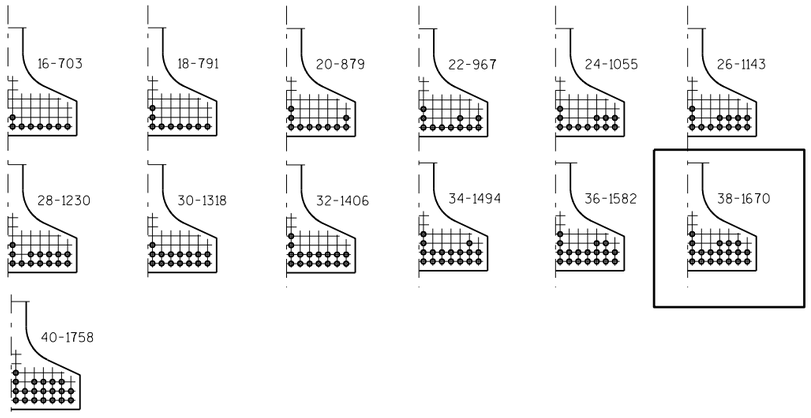
STATE PROJECT NUMBER

1003-10-74



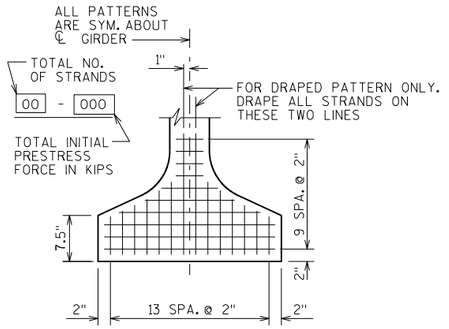
STANDARD ARRANGEMENTS TO RAISE CENTER OF GRAVITY TO AVOID DRAPING OF STRANDS

0.6"Φ STRANDS

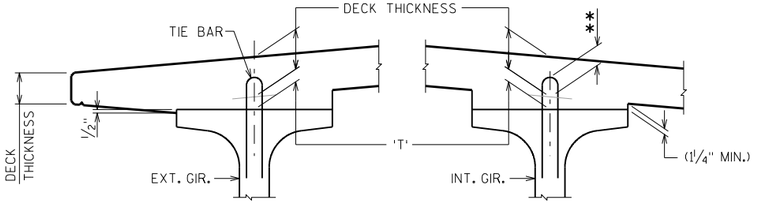


ARRANGEMENT AT ℄ SPAN - FOR GIRDERS WITH DRAPED STRANDS

0.6"Φ STRANDS



TYP. STRAND PATTERN



SLAB HAUNCH DETAIL

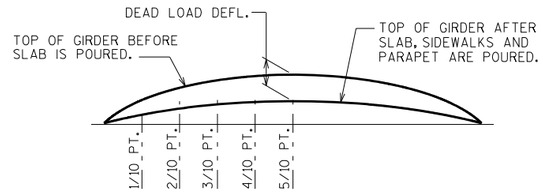
IF 1¼" MINIMUM HAUNCH HEIGHT AT EDGE OF GIRDER CANNOT BE MAINTAINED, THE GRADE LINE MAY BE REVISED BY THE ENGINEER AT THE OPTION OF THE CONTRACTOR, THE PLAN DECK THICKNESS SHALL BE HELD. NOTIFY THE STRUCTURES SECTION IF THE GRADE LINE IS RAISED FROM THE PLAN PROFILE BY MORE THAN ½" OR,

** IF 3" MINIMUM DECK EMBEDMENT OF TIE BAR CANNOT BE OBTAINED.

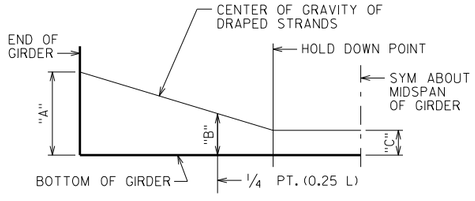
TO DETERMINE 'T', ELEV. OF TOP OF GIR'S. AT ℄ OF SUBSTRUCTURE UNITS & AT 1/10 POINTS OF EACH SPAN SHALL BE TAKEN. THEN FOLLOW THIS PROCESS:

TOP OF DECK ELEV. AT FINAL GRADE
- TOP OF GIRDER ELEVATION
+ DEAD LOAD DEFLECTION
- DECK THICKNESS
= HAUNCH HEIGHT 'T'

NOTE: AN AVERAGE HAUNCH ('T') OF 2½" WAS USED IN THE QUANTITY "CONCRETE MASONRY BRIDGES".



DEAD LOAD DEFLECTION DIAGRAM



DRAPED STRAND PROFILE

*THE THEORETICAL INITIAL CAMBER VALUE AT THE TIME OF STRAND RELEASE AT MIDSPAN MULTIPLIED BY A FACTOR OF 1.4 TO ACCOUNT FOR CAMBER GROWTH FROM THE TIME OF STRAND RELEASE TO JOBSITE PLACEMENT.

SPAN	CAMBER (IN.)*
1	4.44
2	4.44

THESE VALUES ARE NOT TO BE USED IN DETERMINING 'T'. USE ACTUAL GIRDER SHOTS.

THESE VALUES ARE FOR INFORMATIONAL PURPOSES ONLY.

8

8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-53-316

DRAWN BY ARC | PLANS CK'D. PMM

45W" PRESTRESSED GIRDER DETAILS 2

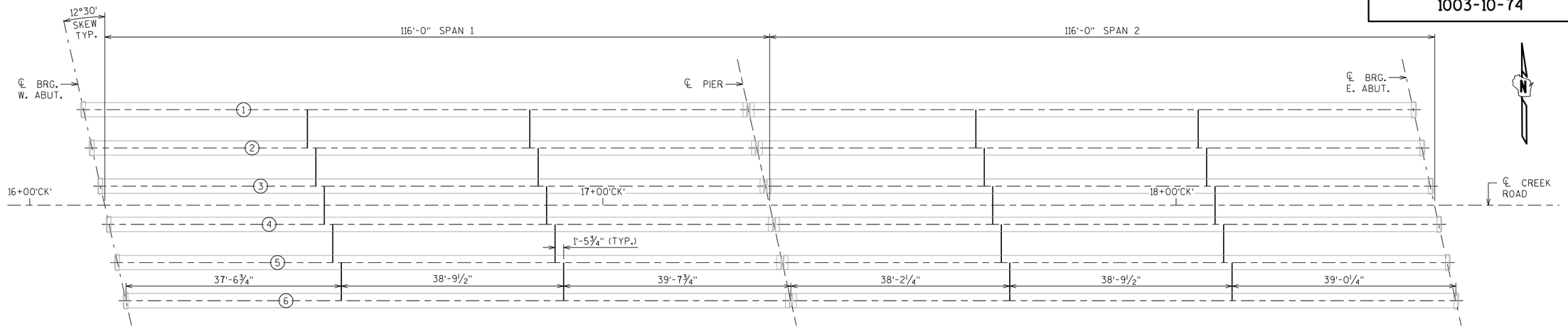
SHEET 12

164

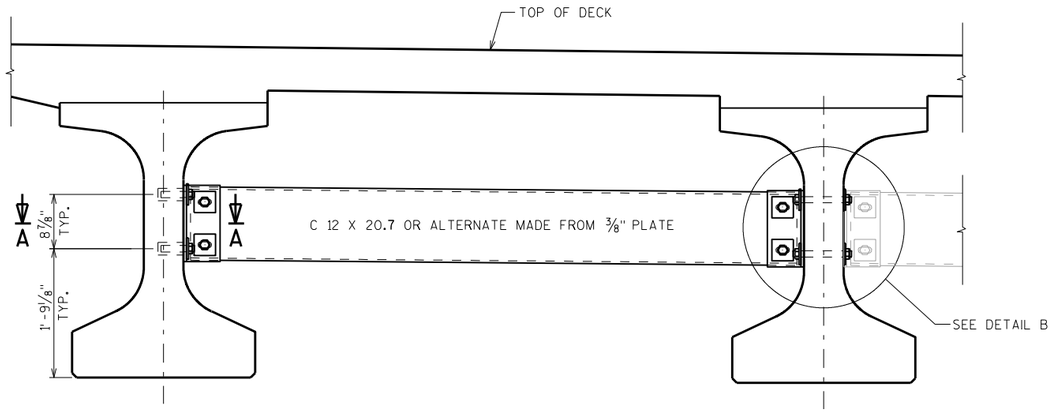
SCALE = 1

STATE PROJECT NUMBER

1003-10-74



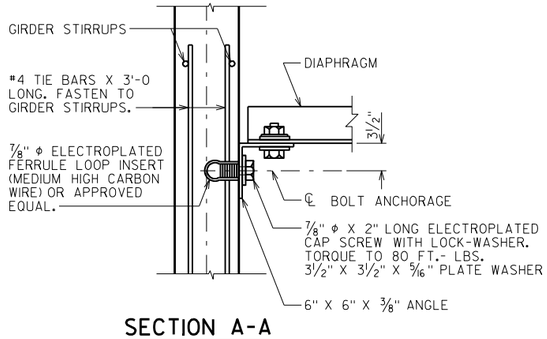
PLAN



EXTERIOR GIRDER

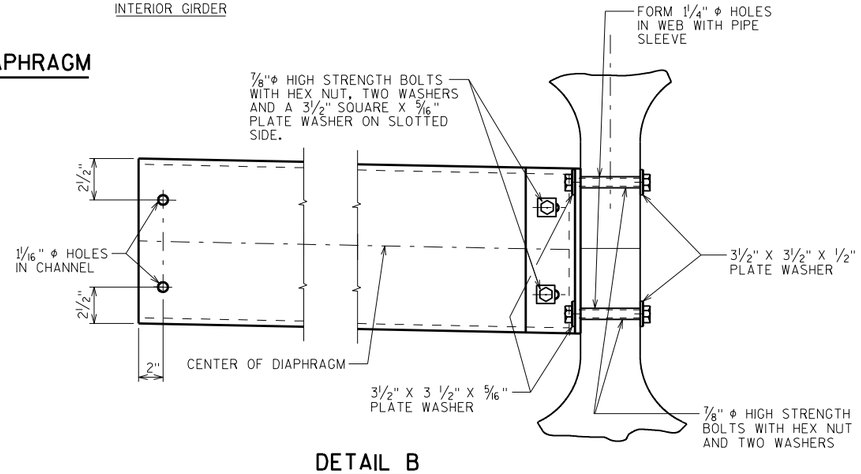
INTERIOR GIRDER

PART TRANSVERSE SECTION AT DIAPHRAGM

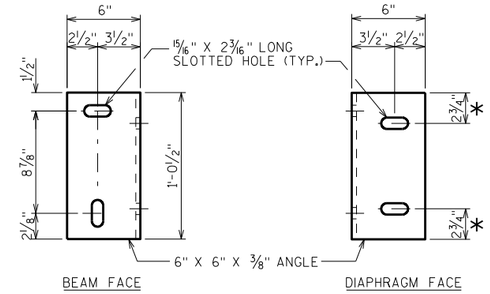


SECTION A-A

(FOR EXTERIOR ATTACHMENT)

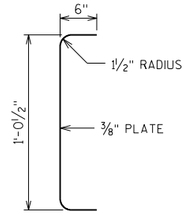


DETAIL B



DIAPHRAGM SUPPORT

* 2½" FOR ALTERNATE PLATE DIAPHRAGM



SECTION THRU ALTERNATE DIAPHRAGM

NOTES

ALL DIAPHRAGM MATERIAL NOT EMBEDDED IN THE CONCRETE GIRDER SHALL BE PAID FOR AT THE UNIT PRICE BID FOR "STEEL DIAPHRAGMS B-53-316", EACH.

EACH DIAPHRAGM BETWEEN GIRDERS SHALL CONSTITUTE ONE UNIT.

ALL DIAPHRAGM STRUCTURAL STEEL SHALL BE ASTM A709 GRADE 36. ALL BOLTS, NUTS AND WASHERS SHALL BE ASTM A325 TYPE 1.

ALL DIAPHRAGM STRUCTURAL STEEL SHOWN SHALL BE HOT-DIPPED GALVANIZED. ALL BOLTS, NUTS AND WASHERS SHALL BE HOT-DIPPED GALVANIZED IN ACCORDANCE WITH ASTM A153 CLASS C. GALVANIZED NUTS SHALL BE TAPPED OVERSIZED IN ACCORDANCE WITH THE REQUIREMENTS OF ASTM A563 AND SHALL MEET THE REQUIREMENTS OF SUPPLEMENTARY REQUIREMENT S1 OF ASTM A563, LUBRICANT AND TEST FOR COATED NUTS.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-53-316

DRAWN BY ARC | PLANS CK'D. PMM

STEEL DIAPHRAGM

SHEET 13

165

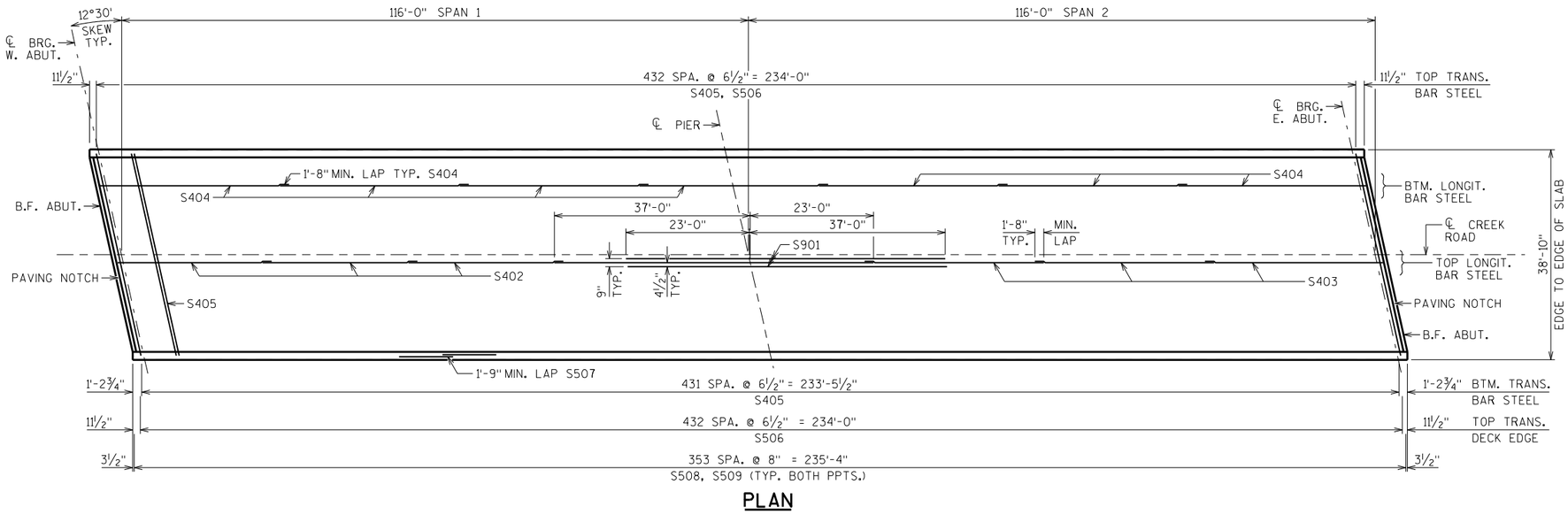
SCALE = 1

8

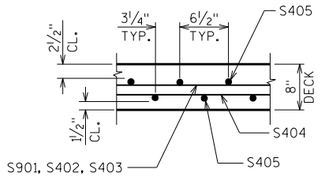
8

STATE PROJECT NUMBER

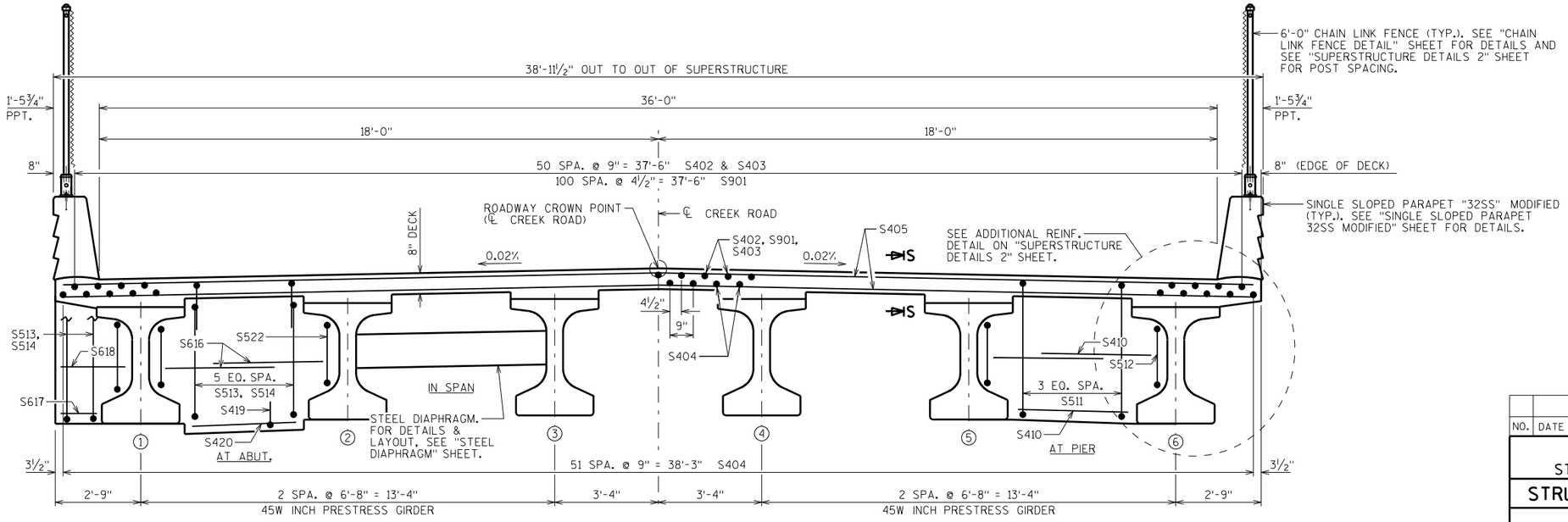
1003-10-74



PLAN



SECTION S-S



CROSS SECTION THRU ROADWAY

(LOOKING EAST)

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-53-316

DRAWN BY ARC | PLANS CK'D. PMM

SUPERSTRUCTURE

SHEET 14

166

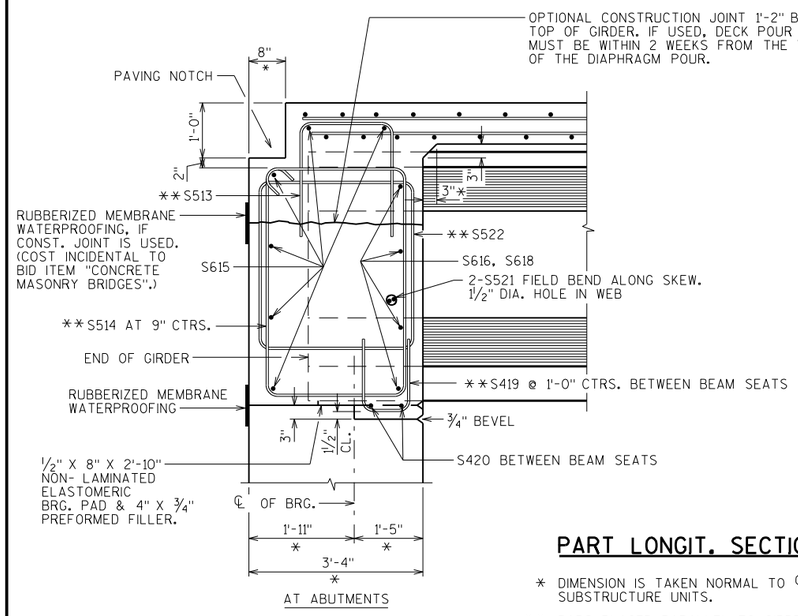
SCALE = 12.0

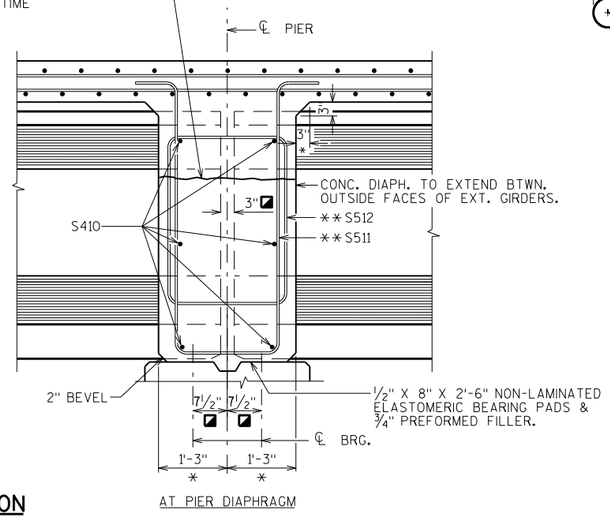
8

8

STATE PROJECT NUMBER

1003-10-74



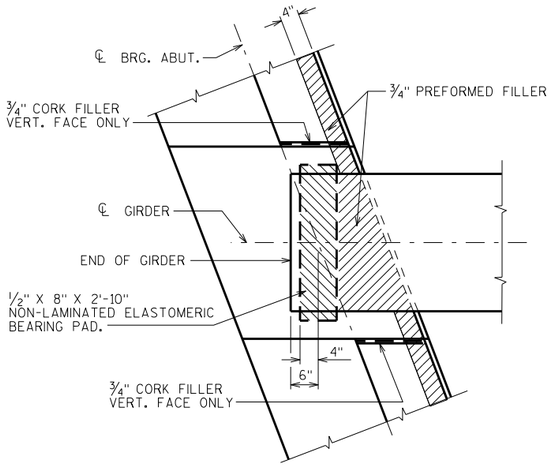


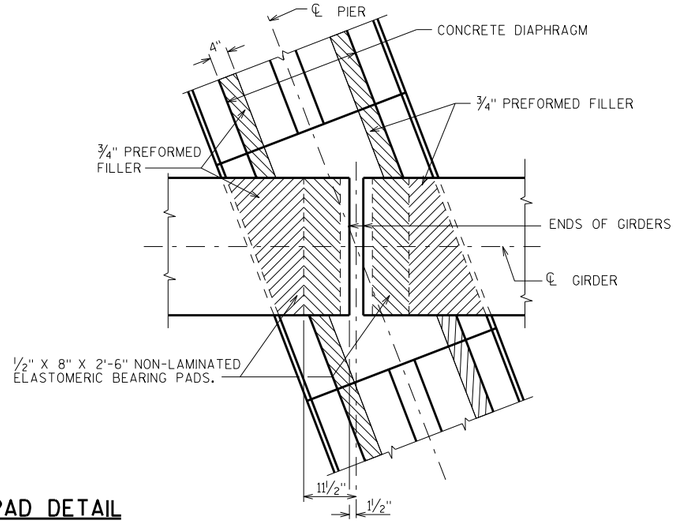
PART LONGIT. SECTION

* DIMENSION IS TAKEN NORMAL TO ℄ SUBSTRUCTURE UNITS.

** BARS PLACED PARALLEL TO GIRDERS SPACING PERPENDICULAR TO ℄ GIRDERS

◪ DIMENSION IS TAKEN PARALLEL TO ℄ OF GIRDER.

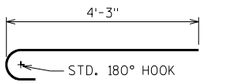




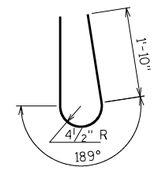
BEARING PAD DETAIL

TOP OF DECK ELEVATIONS

	W. ABUT.	1/10	2/10	3/10	4/10	5/10	6/10	7/10	8/10	9/10	PIER	1/10	2/10	3/10	4/10	5/10	6/10	7/10	8/10	9/10	E. ABUT.
LT. E.O.D.	838.28	838.20	838.12	838.02	837.92	837.80	837.68	837.54	837.39	837.24	837.07	836.90	836.72	836.52	836.32	836.10	835.88	835.64	835.40	835.15	834.88
GIR. 1	838.31	838.23	838.14	838.05	837.94	837.82	837.70	837.56	837.42	837.26	837.10	836.92	836.74	836.54	836.34	836.12	835.90	835.67	835.42	835.17	834.90
GIR. 2	838.43	838.35	838.26	838.17	838.06	837.94	837.82	837.68	837.53	837.38	837.21	837.03	836.85	836.65	836.44	836.23	836.00	835.77	835.52	835.27	835.00
GIR. 3	838.55	838.48	838.39	838.29	838.18	838.06	837.93	837.79	837.65	837.49	837.32	837.14	836.96	836.76	836.55	836.33	836.11	835.87	835.62	835.37	835.10
CROWN	838.62	838.54	838.45	838.35	838.24	838.12	837.99	837.85	837.70	837.54	837.38	837.20	837.01	836.81	836.60	836.39	836.16	835.92	835.67	835.42	835.15
GIR. 4	838.54	838.46	838.37	838.27	838.16	838.04	837.91	837.78	837.63	837.47	837.30	837.12	836.93	836.73	836.52	836.31	836.08	835.84	835.59	835.33	835.07
GIR. 5	838.40	838.32	838.23	838.13	838.02	837.90	837.76	837.62	837.47	837.31	837.14	836.96	836.77	836.57	836.36	836.14	835.91	835.68	835.43	835.17	834.90
GIR. 6	838.26	838.18	838.08	837.98	837.87	837.75	837.61	837.47	837.32	837.16	836.99	836.81	836.61	836.41	836.20	835.98	835.75	835.51	835.26	835.00	834.73
RT. E.O.D.	838.23	838.15	838.05	837.95	837.84	837.72	837.58	837.44	837.29	837.13	836.96	836.77	836.58	836.38	836.17	835.95	835.72	835.48	835.23	834.97	834.70



S506



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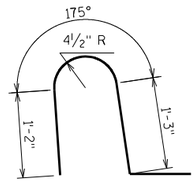

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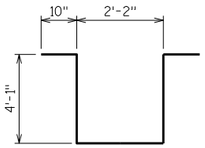

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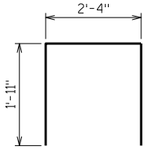

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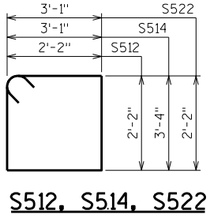
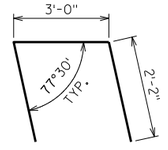
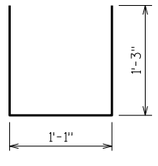


S512, S514, S522



S618



S419

BILL OF BARS

NOTE: THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE.

BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
S901	X	101	60'-0"			LONGITUDINAL CONTINUITY
S402	X	153	28'-5"			LONGITUDINAL TOP
S403	X	153	33'-1"			LONGITUDINAL TOP
S404	X	364	34'-11"			LONGITUDINAL BOTTOM
S405	X	865	39'-5"			TRANSVERSE - TOP & BOTTOM
S506	X	866	4'-10"	X		TRANSVERSE - DECK EDGE
S507	X	84	35'-3"			PARAPET - HORIZONTAL
S508	X	708	5'-0"	X		PARAPET - VERTICAL
S509	X	708	4'-5"	X		PARAPET - VERTICAL
S410	X	50	3'-11"			PIER DIAPHRAGM
S511	X	20	11'-6"	X		PIER DIAPHRAGM
S512	X	10	9'-4"	X		PIER DIAPHRAGM
S513	X	68	5'-11"	X		ABUT. DIAPHRAGM - VERTICAL
S514	X	68	13'-6"	X		ABUT. DIAPHRAGM - VERTICAL
S615	X	12	39'-5"			ABUT. DIAPHRAGM - HORIZ.
S616	X	70	3'-11"			ABUT. DIAPHRAGM - HORIZ.
S617	X	4	1'-2"			ABUT. DIAPHRAGM - END - HORIZ.
S618	X	12	7'-0"	X		ABUT. DIAPHRAGM - END - HORIZ.
S419	X	40	3'-5"	X		ABUT. DIAPHRAGM - VERTICAL
S420	X	20	2'-10"			ABUT. DIAPHRAGM - HORIZ.
S521	X	24	6'-0"			ABUT. DIAPHRAGM - HORIZ.
S522	X	24	11'-2"	X		ABUT. DIAPHRAGM - VERTICAL

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-53-316

DRAWN BY ARC | PLANS CK'D. PMM

SUPERSTRUCTURE DETAILS 1

SHEET 15

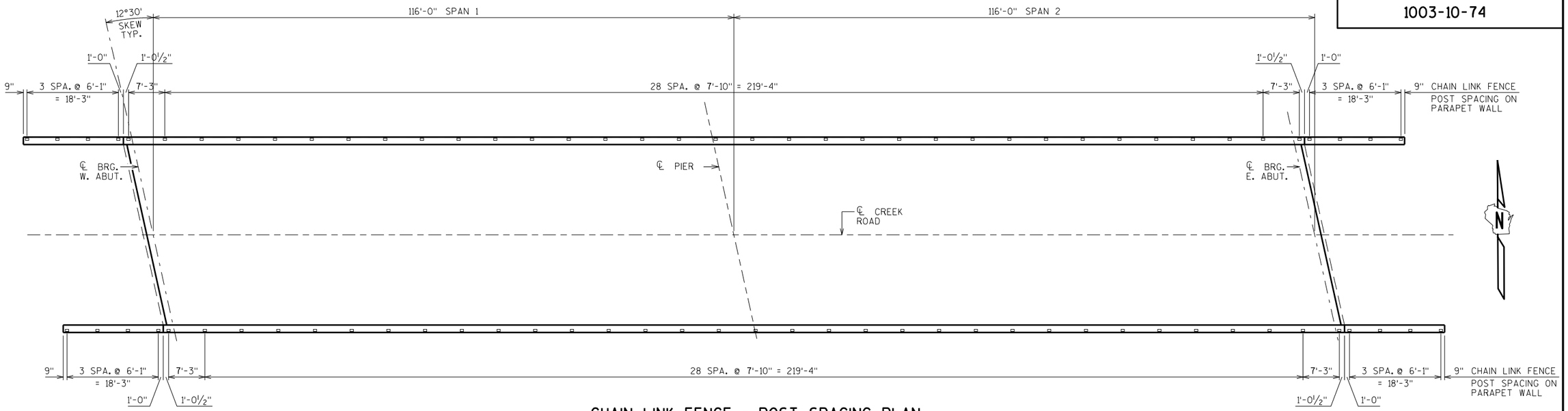
167

SCALE = 1.333

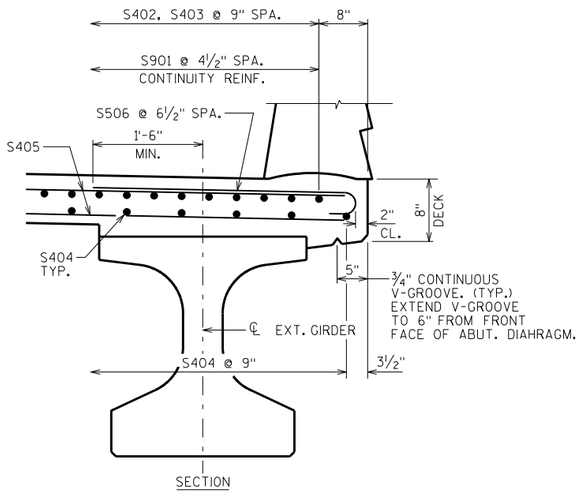
8

8

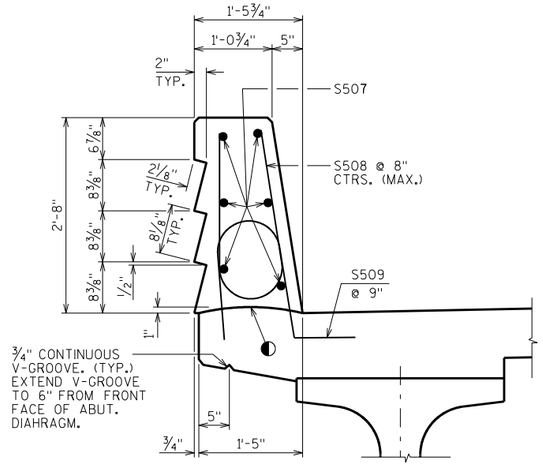
STATE PROJECT NUMBER
1003-10-74



CHAIN LINK FENCE - POST SPACING PLAN



ADDITIONAL REINF. DETAIL



SECTION THRU PARAPET ON BRIDGE

◐ CONST. JOINT - STRIKE OFF AS SHOWN

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-53-316

DRAWN BY ARC | PLANS CK'D. PMM

SUPERSTRUCTURE DETAILS 2

SHEET 16

168

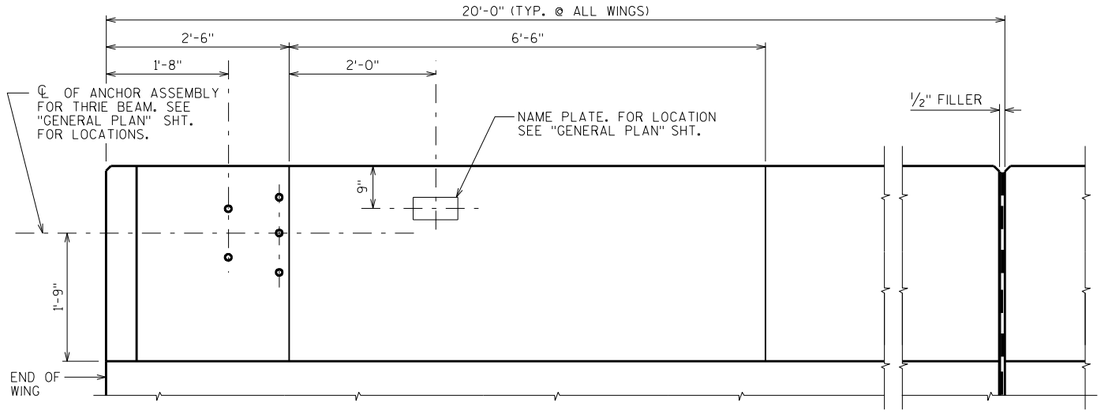
SCALE = 10.0

8

8

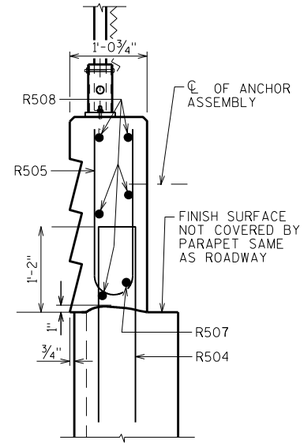
STATE PROJECT NUMBER

1003-10-74

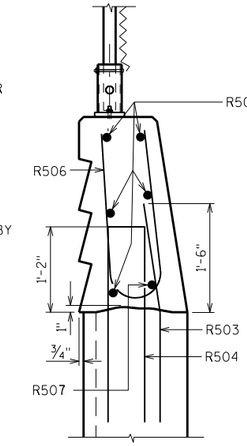


INSIDE ELEVATION

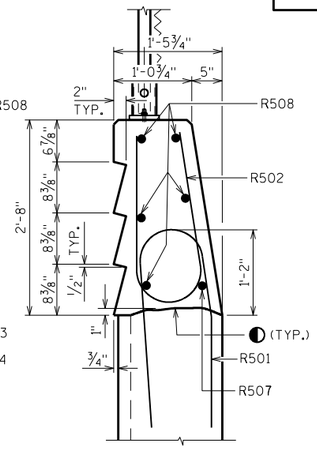
(CHAIN LINK FENCE NOT SHOWN FOR CLARITY)



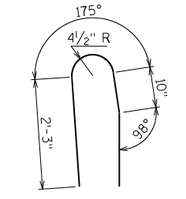
SECTION A-A



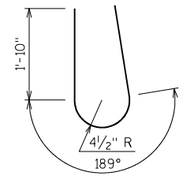
SECTION B-B



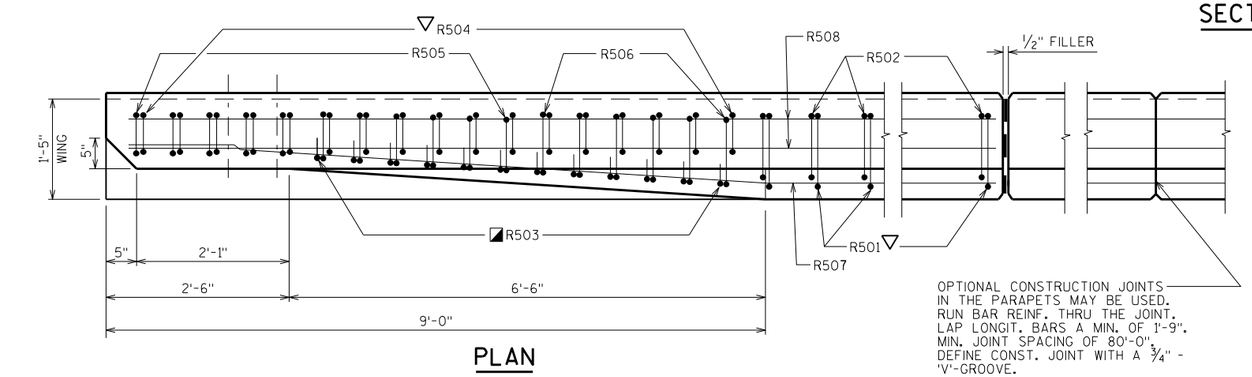
SECTION C-C



R501



R502



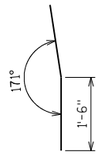
PLAN

OPTIONAL CONSTRUCTION JOINTS IN THE PARAPETS MAY BE USED. RUN BAR REINF. THRU THE JOINT. LAP LONGIT. BARS A MIN. OF 1'-9". MIN. JOINT SPACING OF 80'-0". DEFINE CONST. JOINT WITH A ¾" - 'V'-GROOVE.

BILL OF BARS

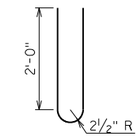
(FOR ABUTMENT PARAPETS)

BAR MARK	COAT	WEST ABUT.	EAST ABUT.	LENGTH	BENT	LOCATION
R501	X	36	36	5'-10"	X	PARAPET VERT.
R502	X	36	36	5'-0"	X	PARAPET VERT.
R503	X	24	24	3'-0"	X	PARAPET VERT.
R504	X	34	34	5'-7"	X	PARAPET VERT.
R505	X	22	22	4'-9"	X	PARAPET VERT.
R506	X	12	12	4'-10"	X	PARAPET VERT.
R507	X	2	2	19'-6"	X	PARAPET HORIZ.
R508	X	10	10	19'-6"		PARAPET HORIZ.

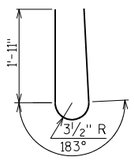


R503

R504



R505



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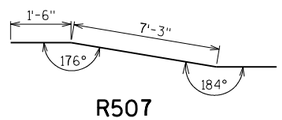
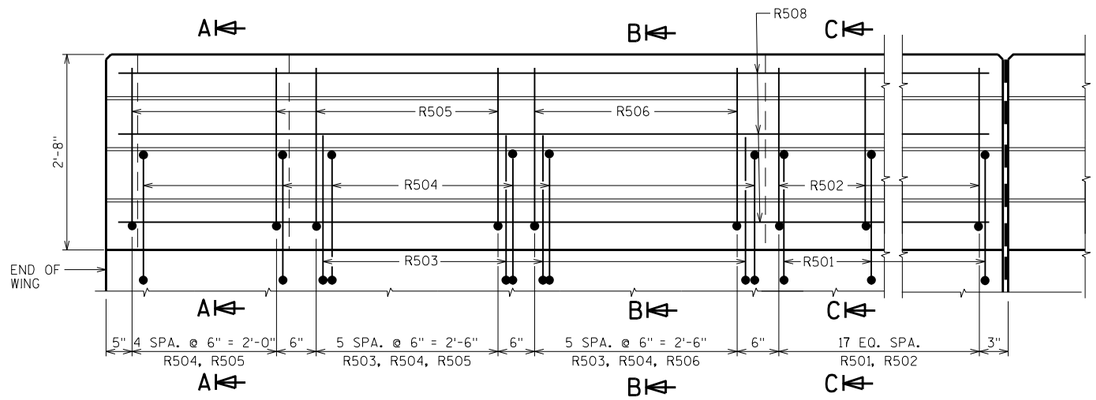
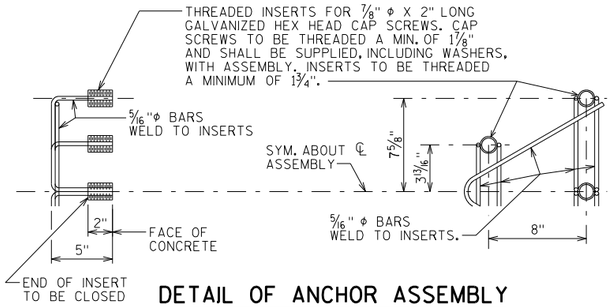


R507



OUTSIDE ELEVATION



DETAIL OF ANCHOR ASSEMBLY

NOTE: HEX HEAD CAP SCREWS & WASHERS TO BE GALVANIZED IN ACCORDANCE WITH AASHTO M232 CLASS C.

ASSEMBLY SHALL BE BID ITEM "ANCHOR ASSEMBLIES FOR STEEL PLATE BEAM GUARD", EACH.

◐ CONST. JOINT - STRIKE OFF AS SHOWN.

◪ R503 BARS MAY BE PLACED AFTER CONCRETE IS POURED BUT BEFORE INITIAL SET HAS TAKEN PLACE. USE CARE TO PLACE R503 BARS CORRECTLY ALONG TRANSITION OF PARAPET.

▽ R501 AND R504 BARS TO BE TIED TO WING STEEL BEFORE WING IS POURED.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-53-316

DRAWN BY ARC | PLANS CK'D. PMM

SINGLE SLOPE PARAPET 32SS MODIFIED

SHEET 17

169

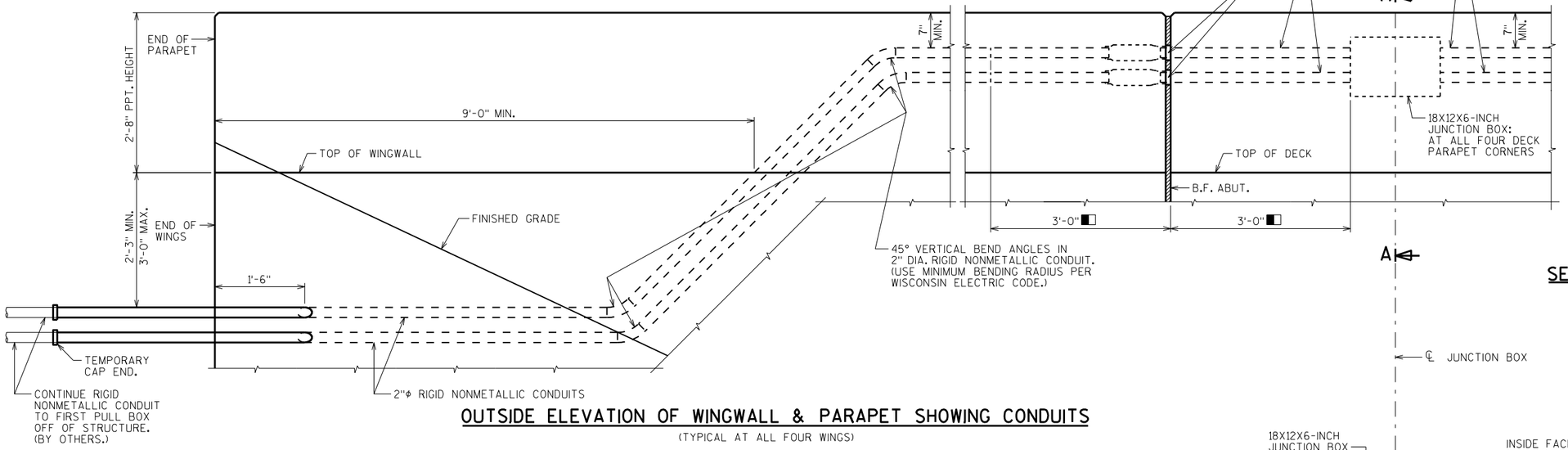
SCALE = 1

8

8

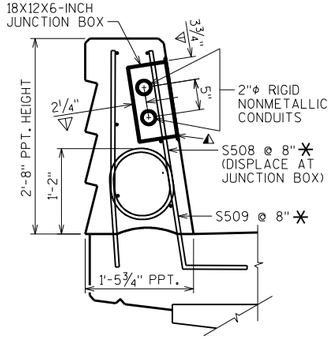
STATE PROJECT NUMBER

1003-10-74

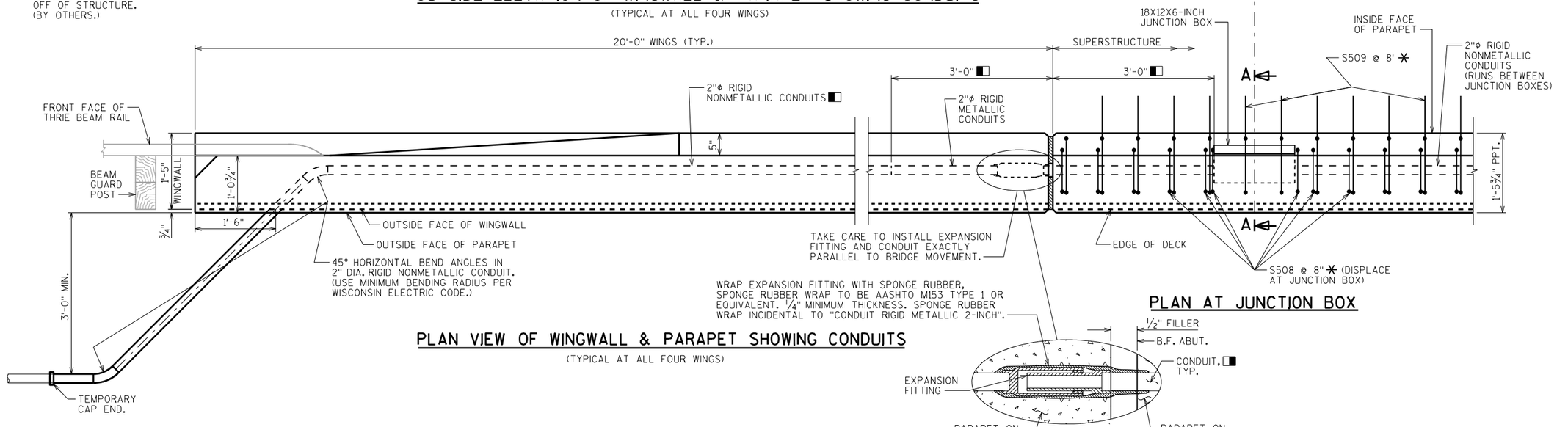


OUTSIDE ELEVATION OF WINGWALL & PARAPET SHOWING CONDUITS

(TYPICAL AT ALL FOUR WINGS)



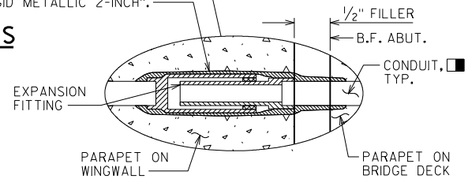
SECTION A-A (AT JUNCTION BOX)



PLAN VIEW OF WINGWALL & PARAPET SHOWING CONDUITS

(TYPICAL AT ALL FOUR WINGS)

WRAP EXPANSION FITTING WITH SPONGE RUBBER, SPONGE RUBBER WRAP TO BE AASHTO M153 TYPE 1 OR EQUIVALENT. 1/4" MINIMUM THICKNESS. SPONGE RUBBER WRAP INCIDENTAL TO "CONDUIT RIGID METALLIC 2-INCH".



PLAN AT JUNCTION BOX

■ USE 2"ϕ RIGID NONMETALLIC CONDUIT EXCEPT AT EXPANSION FITTING. AT EXPANSION FITTING, USE 2"ϕ RIGID METALLIC CONDUIT 3'-0" INTO PARAPET ON DECK AND WING SIDES OF THE B.F. ABUT.

⚠ CUT OUT 1"± OF GASKET AT BOTTOM OF JUNCTION BOX COVER TO ALLOW FOR DRAINAGE.

▽ LOCATION OF CONDUIT IS MEASURED FROM OUTSIDE EDGE OF JUNCTION BOX.

✳ SEE "SUPERSTRUCTURE DETAILS 1" SHEET, FOR ADDITIONAL BAR STEEL DETAILS.

NOTES

BID ITEMS SHALL BE:

"JUNCTION BOXES 18X12X6-INCH", EACH.
"CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH"
"CONDUIT RIGID METALLIC 2-INCH"

APPROVED MANUFACTURERS - JUNCTION BOXES:
SEE APPROVED MATERIAL LIST.

APPROVED MANUFACTURER OR EQUIVALENT - EXPANSION FITTING:
O-Z/GEDNEY TYPE AX-200 AND BONDING JUMPER (4" TOTAL CONDUIT MOVEMENT).

EXPANSION FITTINGS, ANGLES AND ADAPTER FITTINGS TO BE INCIDENTAL TO "CONDUIT RIGID METALLIC 2-INCH".

WHEN CONNECTING NONMETALLIC CONDUIT TO METALLIC CONDUIT, ONLY ADAPTER FITTINGS U.L. OR NRTL LISTED FOR ELECTRICAL USE SHALL BE USED.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-53-316

DRAWN BY ARC | PLANS CK'D. PMM

CONDUIT DETAILS

SHEET 18

170

8

8

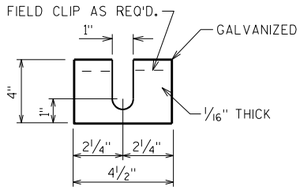
SCALE = 1.0

STATE PROJECT NUMBER

1003-10-74

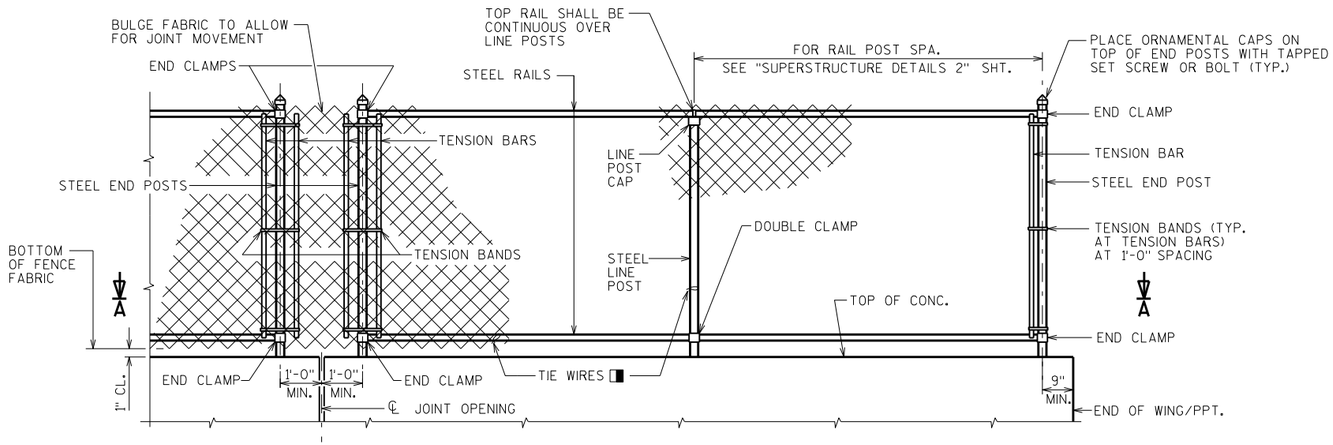
FENCE MEMBER SIZE & WEIGHT

STEEL FENCE MEMBER	OUTSIDE DIAMETER (INCHES)	WEIGHT (LB/FT)
RAILS	1.660	2.27
END POST	2.875	5.80
OVERHANG POST	2.875	5.80
LINE POST	2.375	3.65
POST SLEEVE	4.000	9.12



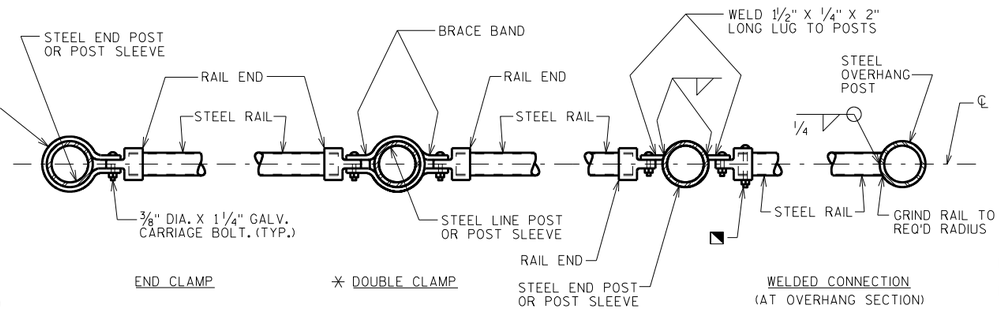
POST SHIM DETAILS

SHIMS REQUIRED ONLY WHEN END POSTS AND LINE POSTS ARE WELDED TO BASE PLATES. PROVIDE 4 SHIMS PER POST. USE WHERE REQUIRED FOR ALIGNMENT.



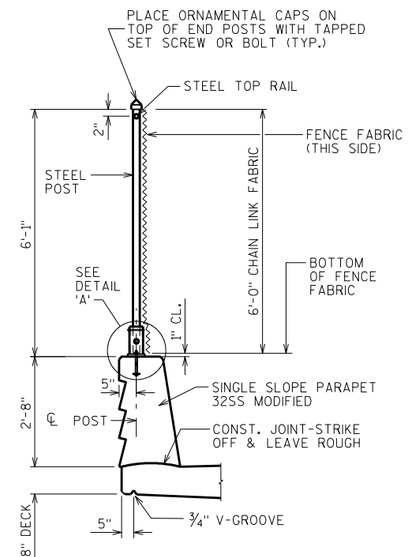
FENCE PART ELEVATION

VIEWING FABRIC SIDE

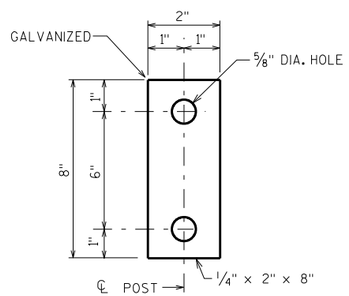


SECTION A-A

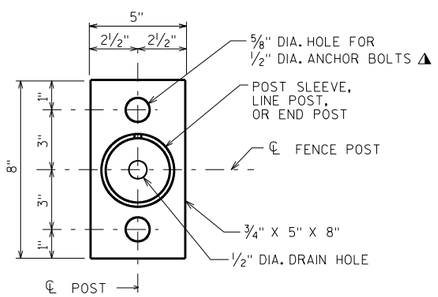
NOTE: PLACE ALL BOLT HEADS ON SIDE OF FENCE ADJACENT TO PEDESTRIANS



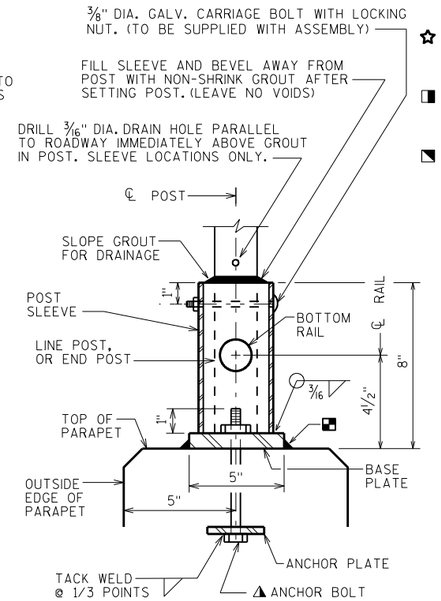
SECTION THRU FENCE



ANCHOR PLATE



BASE PLATE



DETAIL 'A'

UNIT SHALL BE GALVANIZED AFTER FABRICATION

NOTE: IN LIEU OF USING THE POST SLEEVE, THE FENCE POST MAY BE WELDED TO THE BASE PLATE.

GENERAL NOTES

POSTS ARE TO BE SET VERTICAL.

ALL FENCE COMPONENTS SHALL BE GALVANIZED STEEL WITH A COLORED POLYMER-COATING ON THE OUTSIDE.

FABRIC SHALL CONFORM TO ASTM F668, CLASS 2B. STEEL RAILS, POSTS AND POST SLEEVES SHALL CONFORM TO ASTM F1083, STANDARD WEIGHT PIPE (SCHEDULE 40). FITTINGS SHALL CONFORM TO ASTM F626. SEE THE "BRIDGE SPECIAL PROVISIONS" FOR ADDITIONAL DETAILS.

THE COLOR OF POLYMER-COATING FOR THIS STRUCTURE SHALL BE FEDERAL COLOR #30140 (BROWN) IN ACCORDANCE WITH ASTM F934.

THE BID ITEM SHALL BE "FENCE CHAIN LINK POLYMER-COATED 6-FT.", LF.

COMPLETE ANY REQUIRED WELDING OF COMPONENTS BEFORE GALVANIZING.

POST BASE PLATES SHALL BE FLAT WITH ALL SURFACES SMOOTH AND FREE FROM WARP AND ALL EDGES SMOOTH, STRAIGHT AND VERTICAL. ALL PLATE CUTS SHALL BE MACHINE OR MACHINE FLAME CUT.

BASE PLATES, ANCHOR PLATES AND SHIMS SHALL BE ASTM A709, GRADE 36.

ALL POST SPACINGS ARE MEASURED HORIZONTALLY ALONG THE C/L OF THE POST.

◪ CAULK AROUND PERIMETER OF BASE PLATE AND FILL PORTION OF SLOTTED HOLE AROUND ANCHOR BOLT IN SHIM WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER.

✳ ALTERNATE TO DOUBLE CLAMP: USE LINE RAIL CLAMP (BOULEVARD) OR 180° BRACE BAND, WHICH MAY BE USED WHEN THE POSTS ARE EITHER BOLTED TO THE POST SLEEVES OR DIRECTLY WELDED TO THE BASE PLATE.

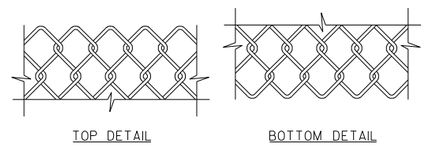
◭ 1/2" DIA. X 6 7/8" LONG GALVANIZED HEX BOLT WITH NUT & WASHER. TYPE "S", 1/2" DIA. CONCRETE MASONRY ANCHORS MAY BE SUBSTITUTED FOR 1/2" DIA. BOLTS. ANCHOR PLATE NOT REQUIRED WHEN TYPE "S" ANCHORS ARE USED. SEE ☆

☆ MASONRY ANCHOR TYPE S 1"2-INCH. EMBED 6" IN CONCRETE. ANCHOR, WASHER, AND NUT SHALL BE GALVANIZED.

◨ ATTACH FABRIC TO RAILS, AND TO POSTS WITHOUT TENSION BANDS, WITH TIE WIRES (ROUND, 9-GAGE) SPACED AT 1'-0".

◹ BOLT RAIL TO RAIL END TO SECURE OVERHANG SECTION. ALTERNATE IS TO WELD RAIL DIRECTLY TO END POST.

MINIMUM LENGTH OF TOP RAIL BETWEEN SPLICES SHALL BE 20'-0". LOCATE SPLICES NEAR 1/4 POINT OF POST SPACING.



TOP DETAIL BOTTOM DETAIL

FENCE FABRIC

FENCE FABRIC WOVEN OF 9-GAGE WIRE IN 2" DIAMOND PATTERN MESH WITH BOTH THE TOP AND BOTTOM SELVAGES KNUCKLED.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-53-316

DRAWN BY ARC | PLANS CK'D. PMM

CHAIN LINK FENCE DETAILS

SHEET 19

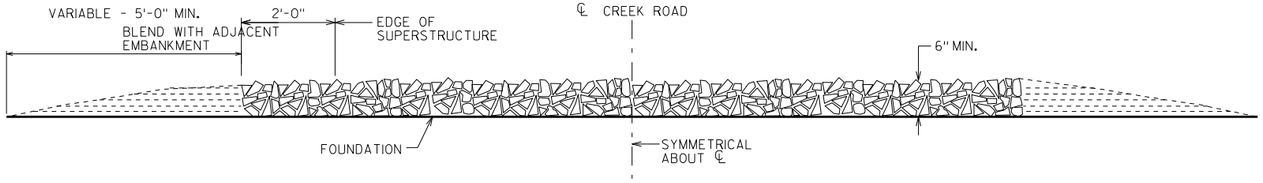
171

SCALE = 5.333

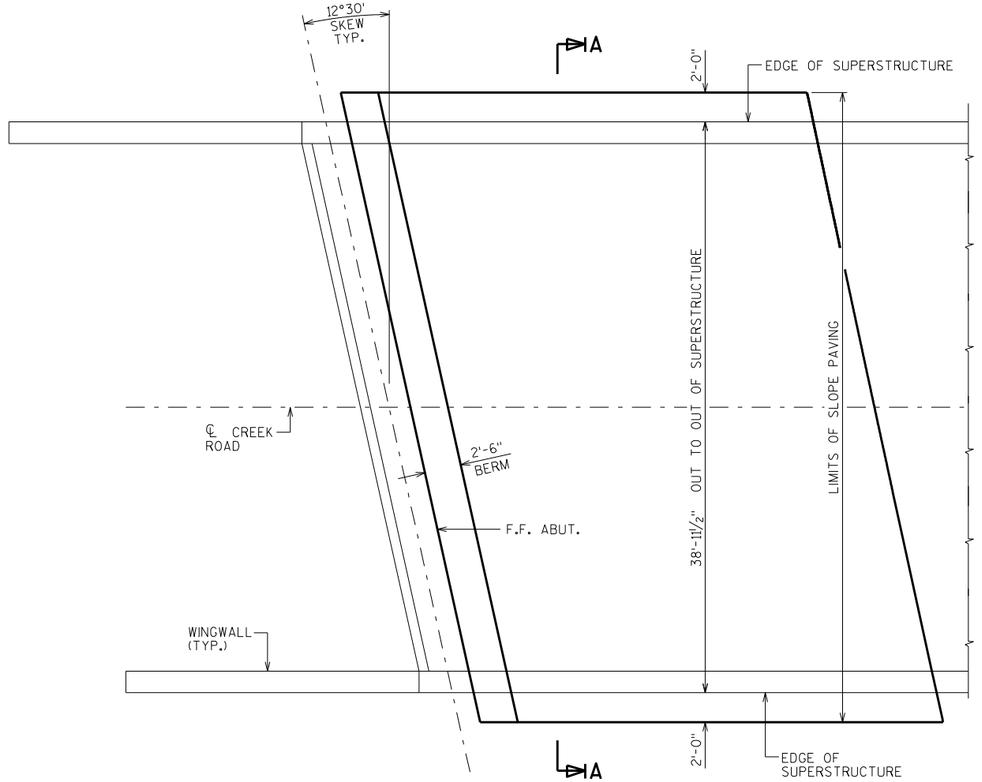
8

8

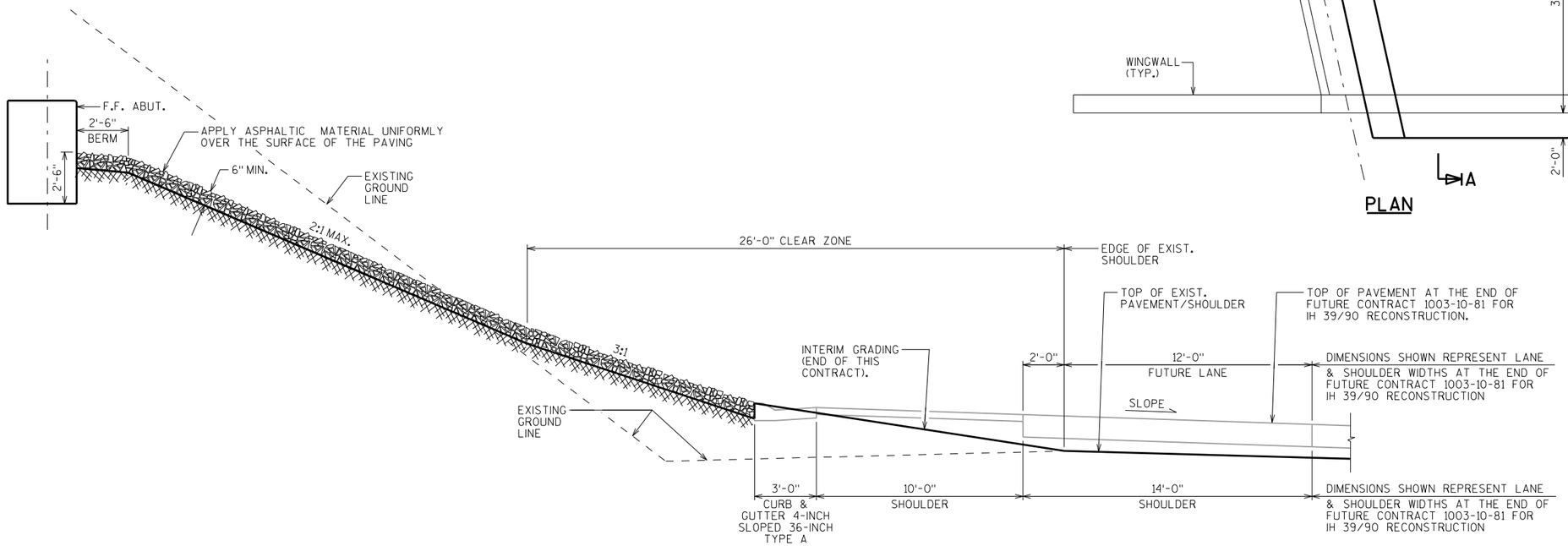
STATE PROJECT NUMBER
1003-10-74



SECTION A-A



PLAN



STANDARD CROSS SECTION THRU CRUSHED AGGREGATE AT ABUTMENTS

ROUND STONE WILL NOT BE ACCEPTED

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS.

WOOD FORMS MAY BE LEFT IN PLACE WHEN OF A QUALITY ACCEPTABLE TO THE ENGINEER.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-53-316

DRAWN BY ARC | PLANS CK'D. PMM

SLOPE PAVING (CRUSHED AGGREGATE)

SHEET 20

172

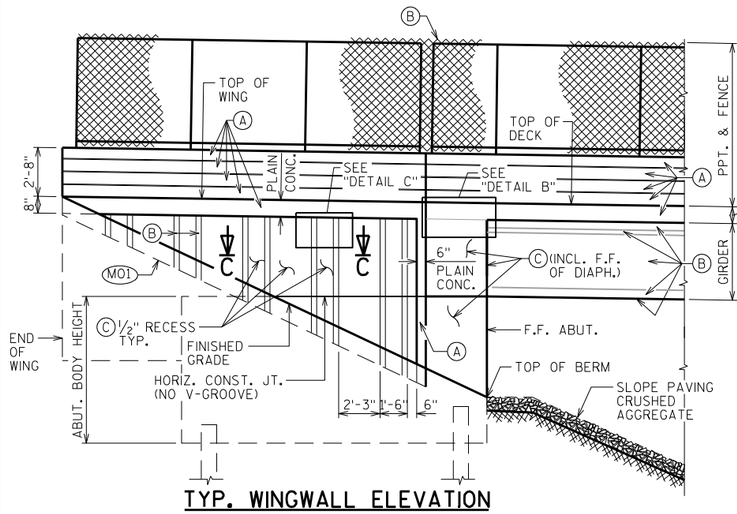
SCALE = 1.0

8

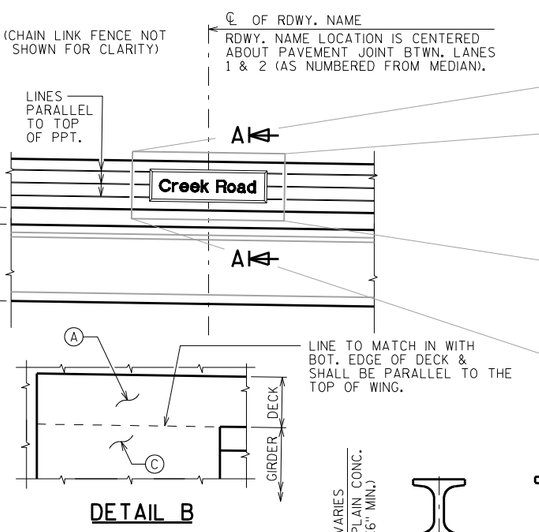
8

STATE PROJECT NUMBER

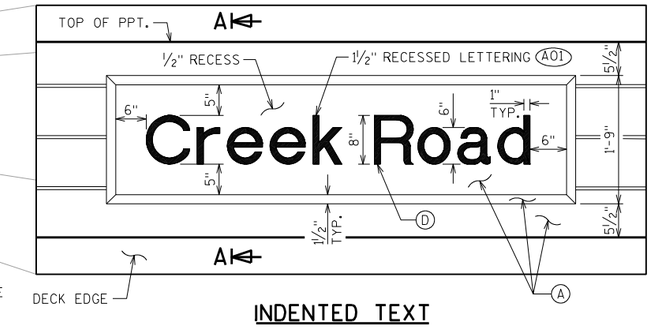
1003-10-74



TYP. WINGWALL ELEVATION

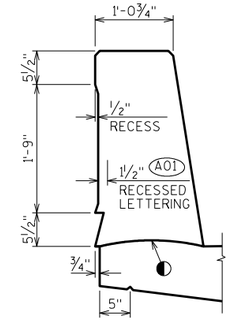


DETAIL B



INDENTED TEXT

(TYP. @ BOTH SIDES ON EXTERIOR FACE OF PPT. ONLY)



SECTION A-A

(CHAIN LINK FENCE NOT SHOWN)

◐ CONST. JOINT - STRIKE OFF AS SHOWN

CONCRETE STAINING SCHEDULE

MARK	FEDERAL COLOR #	LOCATION
A	36642	PARAPET, EDGE OF DECK & WINGWALLS
B	30140	EXTERIOR GIRDER & REVEALS
C	30372	PIER, ABUTMENT & WINGWALL
D	27038	ROADWAY NAME LETTERING

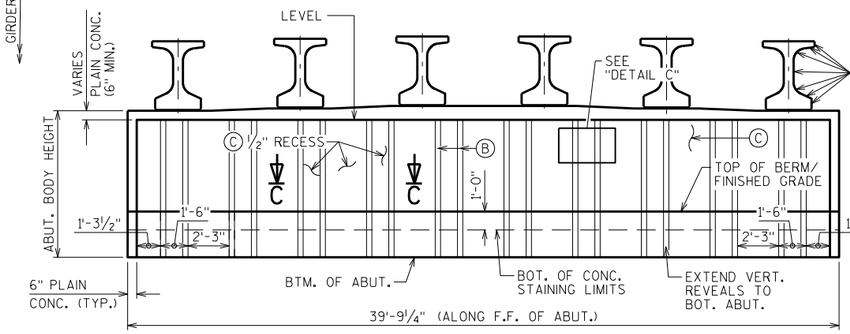
LEGEND

A01 LETTERING SHALL BE HELVETICA. (8" UPPER CASE & 6" LOWER CASE)

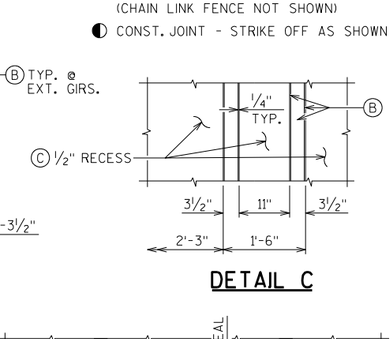
M01 EXTEND VERTICAL REVEALS & STAIN 1'-0" BELOW FINISHED GRADE.

◕ INSIDE & TOP SURFACES OF PARAPET SHALL NOT BE STAINED. A PIGMENTED SURFACE SEALER SHALL BE APPLIED TO THE FRONT FACE & TOP OF THE PARAPETS, INCLUDING PARAPETS ON ABUTMENT WINGS.

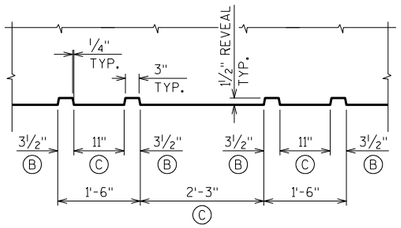
✱ PROTECTIVE SURFACE TREATMENT TO BE APPLIED TO THE ENTIRE TOP OF DECK SURFACE.



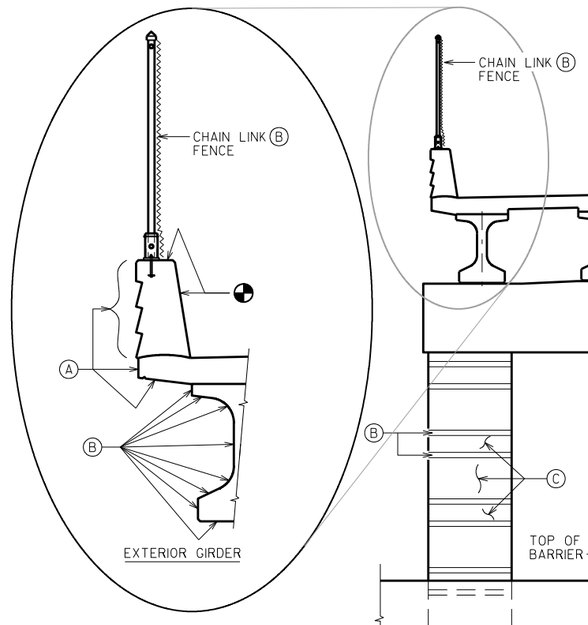
TYP. ABUTMENT ELEVATION VIEW



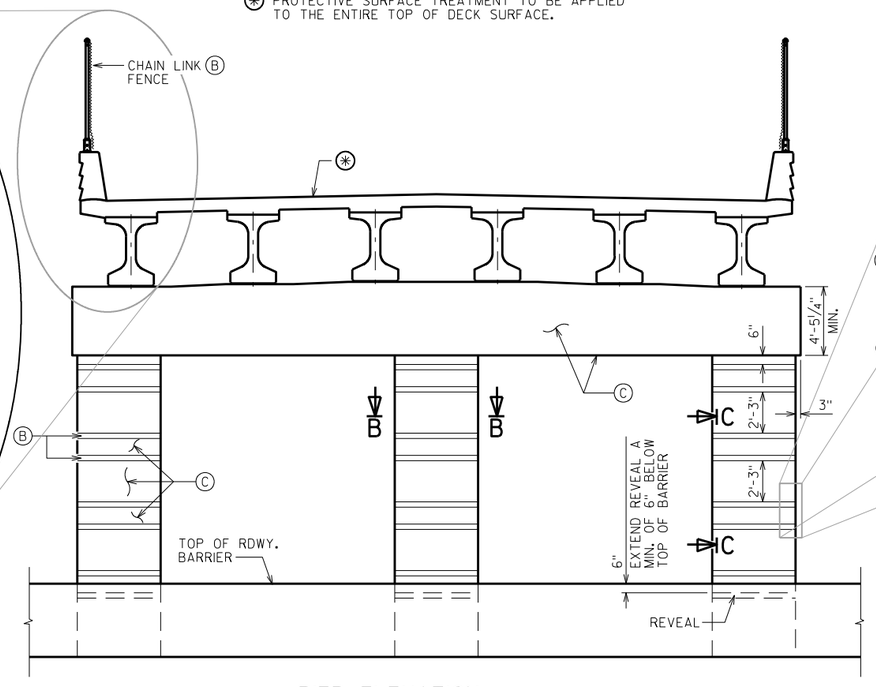
DETAIL C



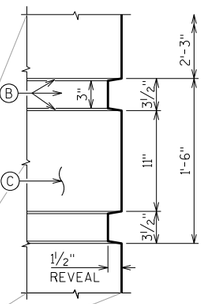
SECTION C-C

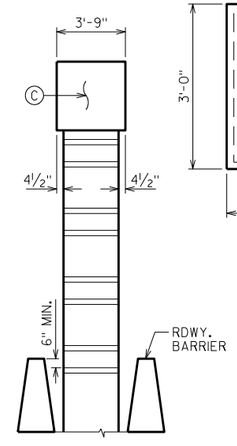


EXTERIOR GIRDER

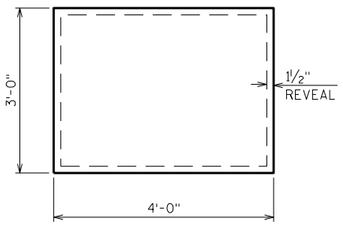


PIER ELEVATION





PIER END VIEW



SECTION B-B

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-53-316

DRAWN BY ARC | PLANS CK'D. PMM

AESTHETIC DETAILS

SHEET 21

173

SCALE = 4.0

8

8

PROJECT ID 1003-10-74
PHILHOWER RD & CREEK RD

STATION	Real Station	Distance	AREA (SF)			Incremental Vol (CY) (Unadjusted)			Cumulative Vol (CY)			Mass Ordinate
			Cut	Fill	EBS	Cut	Fill	EBS	Cut	Fill	EBS	
2+50	250.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3+00	300.00	50.00	49.64	0.00	0.00	45.96	0.00	0.00	45.96	0.00	0.00	45.96
3+50	350.00	50.00	51.24	0.14	0.00	93.41	0.13	0.00	139.37	0.13	0.00	139.24
4+00	400.00	50.00	48.19	1.29	0.00	92.06	1.32	0.00	231.44	1.45	0.00	229.98
4+50	450.00	50.00	36.48	3.28	0.00	78.40	4.23	0.00	309.83	5.69	0.00	304.15
5+00	500.00	50.00	18.14	11.30	0.00	50.57	13.50	0.00	360.41	19.19	0.00	341.22
5+50	550.00	50.00	0.00	32.41	0.00	16.80	40.47	0.00	326.63	59.66	0.00	266.97
6+00	600.00	50.00	0.67	90.89	0.00	0.62	114.17	0.00	361.02	173.82	0.00	187.20
6+50	650.00	50.00	0.07	166.96	0.00	0.68	238.75	0.00	361.71	412.57	0.00	-50.87
6+70	670.00	20.00	0.07	205.53	0.00	0.05	137.96	0.00	361.76	550.53	0.00	-188.77
7+00	700.00	50.00	0.00	225.63	0.00	0.09	369.21	0.00	361.80	781.78	0.00	-419.99
7+50	750.00	50.00	0.00	391.74	0.00	0.00	571.64	0.00	361.80	1353.42	0.00	-991.63
8+00	800.00	50.00	0.00	516.47	0.00	0.00	840.94	0.00	361.80	2194.36	0.00	-1832.56
8+50	850.00	50.00	0.35	639.16	0.00	0.32	1070.03	0.00	362.12	3264.39	0.00	-2902.27
9+00	900.00	50.00	0.46	713.49	0.00	0.75	1252.45	0.00	362.87	4516.84	0.00	-4153.97
9+50	950.00	50.00	0.83	834.04	0.00	1.20	1432.90	0.00	364.06	5949.74	0.00	-5585.68
9+63	963.00	13.00	1.57	874.59	0.00	0.58	411.34	0.00	364.64	6361.07	0.00	-5996.43
10+00	1000.00	37.00	2.56	944.40	0.00	2.83	1246.35	0.00	367.47	7607.42	0.00	-7239.95
10+34	1034.00	34.00	3.09	912.36	0.00	3.56	1169.07	0.00	371.03	8776.49	0.00	-8405.46
10+50	1050.00	16.00	2.46	1045.53	0.00	1.64	580.12	0.00	372.67	9356.61	0.00	-8983.93
10+60	1060.00	10.00	4.27	1059.63	0.00	1.24	389.84	0.00	373.92	9746.45	0.00	-9372.53
11+00	1100.00	40.00	0.00	3187.63	0.00	3.16	3146.12	0.00	377.08	12892.57	0.00	-12515.49
11+50	1150.00	50.00	0.00	3986.45	0.00	0.00	6642.67	0.00	377.08	19535.24	0.00	-19158.16
11+90	1190.00	40.00	0.00	2984.76	0.00	0.00	5163.86	0.00	377.08	24699.10	0.00	-24322.02
12+00	1200.00	10.00	0.00	2346.15	0.00	0.00	987.21	0.00	377.08	25686.30	0.00	-25309.22
12+16	1216.00	16.00	0.00	1391.42	0.00	0.00	1107.43	0.00	377.08	26793.73	0.00	-26416.65
12+50	1250.00	34.00	0.00	1276.98	0.00	0.00	1680.10	0.00	377.08	28473.83	0.00	-28096.76
12+86	1286.00	36.00	0.00	1598.46	0.00	0.00	1916.96	0.00	377.08	30390.79	0.00	-30013.72
13+00	1300.00	14.00	0.00	1605.88	0.00	0.00	830.75	0.00	377.08	31221.55	0.00	-30844.47
13+50	1350.00	50.00	0.00	1661.02	0.00	0.00	3024.91	0.00	377.08	34246.45	0.00	-33869.38
13+78	1378.00	28.00	0.00	1602.14	0.00	0.00	1692.01	0.00	377.08	35938.46	0.00	-35561.39
14+00	1400.00	22.00	0.00	1603.43	0.00	0.00	1305.97	0.00	377.08	37244.44	0.00	-36867.36
14+35	1435.00	35.00	0.00	1571.99	55.00	0.00	2058.14	35.65	377.08	39302.58	35.65	-38925.50
14+50	1450.00	15.00	0.00	1562.59	54.00	0.00	870.72	30.28	377.08	40173.30	65.93	-39796.22
15+00	1500.00	50.00	4.45	1154.59	54.00	4.12	2515.91	100.00	381.20	42689.20	165.93	-42308.01
15+35	1535.00	35.00	5.03	981.82	0.00	6.15	1384.71	35.00	387.34	44073.91	200.93	-43686.57
15+50	1550.00	15.00	6.98	937.82	0.00	3.34	533.23	0.00	390.68	44607.15	200.93	-44216.47
15+87	1587.00	37.00	7.01	877.37	0.00	9.58	1243.74	0.00	400.26	45850.89	200.93	-45450.62
16+00	1600.00	13.00	8.12	842.24	0.00	3.64	413.98	0.00	403.91	46264.87	200.93	-45860.96
16+09	1609.00	9.00	0.00	0.00	0.00	1.35	140.37	0.00	405.26	46405.24	200.93	-45999.98
						422.11	46543.20	200.93				

PROJECT ID 1003-10-74

PHILHOWER RD & CREEK RD - STATION 18+46 TO STATION 28+00

STATION	Real Station	Distance	AREA (SF)			Incremental Vol (CY) (Unadjusted)			Cumulative Vol (CY)			Mass Ordinate
			Cut	Fill	EBS	Cut	Fill	EBS	Cut	Fill	EBS	
18+46	1846.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
18+50	1850.00	4.00	39.94	390.38	0.00	2.96	57.83	0.00	2.96	57.83	0.00	-54.88
18+70	1870.00	20.00	55.85	292.41	0.00	35.48	252.89	0.00	38.44	310.72	0.00	-272.28
19+00	1900.00	30.00	47.40	274.69	0.00	57.36	315.06	0.00	95.80	625.77	0.00	-529.98
19+22	1922.00	22.00	45.85	274.96	0.00	37.99	223.93	0.00	133.79	849.71	0.00	-715.92
19+40	1940.00	18.00	54.23	345.50	0.00	33.36	206.82	0.00	167.15	1056.53	0.00	-889.38
19+50	1950.00	10.00	50.78	524.80	0.00	19.45	161.17	0.00	153.23	1217.69	0.00	-1064.46
19+75	1975.00	25.00	48.50	90.89	0.00	45.96	285.04	0.00	213.11	1502.73	0.00	-1289.62
20+00	2000.00	25.00	36.52	377.29	0.00	39.36	216.75	0.00	252.47	1719.48	0.00	-1467.01
20+50	2050.00	50.00	27.56	284.22	0.00	59.33	612.51	0.00	311.81	2331.99	0.00	-2020.19
21+00	2100.00	100.00	36.84	218.56	0.00	124.59	1086.51	0.00	377.06	2805.99	0.00	-2428.93
22+00	2200.00	100.00	45.63	257.89	0.00	152.72	882.31	0.00	529.79	3688.31	0.00	-3158.52
22+50	2250.00	50.00	34.56	257.39	0.00	74.25	477.11	0.00	604.04	4165.42	0.00	-3561.38
23+00	2300.00	50.00	26.30	267.31	0.00	56.35	485.83	0.00	660.39	4651.25	0.00	-3990.86
23+50	2350.00	50.00	17.82	263.66	0.00	40.85	491.64	0.00	701.24	5142.89	0.00	-4441.65
23+62	2362.00	12.00	16.60	251.08	0.00	7.65	114.39	0.00	708.89	5257.27	0.00	-4548.38
24+00	2400.00	38.00	13.25	197.20	0.00	21.01	315.46	0.00	729.90	5572.73	0.00	-4842.83
24+50	2450.00	50.00	29.00	79.31	0.00	39.12	256.03	0.00	769.02	5828.76	0.00	-5059.74
25+00	2500.00	50.00	30.73	48.50	0.00	55.31	118.34	0.00	824.32	5947.10	0.00	-5122.78
25+50	2550.00	50.00	51.69	8.64	0.00	76.31	52.91	0.00	900.64	6000.01	0.00	-5099.37
26+00	2600.00	50.00	53.15	3.36	0.00	97.07	11.11	0.00	997.71	6011.12	0.00	-5013.41
26+50	2650.00	50.00	50.26	3.54	0.00	95.75	6.39	0.00	1093.46	6017.51	0.00	-4924.05
27+00	2700.00	50.00	45.45	3.07	0.00	88.62	6.12	0.00	1182.08	6023.63	0.00	-4841.55
27+50	2750.00	50.00	45.46	1.14	0.00	84.18	3.90	0.00	1266.26	6027.53	0.00	-4761.27
28+00	2800.00	50.00	49.48	0.00	0.00	87.91	1.06	0.00	1354.16	6028.58	0.00	-4674.42
28+50	2850.00	50.00	0.00	0.00	0.00	45.81	0.00	0.00	1399.98	6028.58	0.00	-4628.60
						1478.76	6641.09	0.00				

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PROJECT NO: 1003-10-74	HWY: IH-39	COUNTY: ROCK	CROSS SECTIONS: EARTHWORK DATA	SHEET	E

FILE NAME : L:\WORK\IH-39-SOUTH-SEGMENT\000_CAD\001_DRAWINGS\1003-10-74_CREEK RD\90%\EARTHWORK.DWG PLOT DATE : 5/1/2015 8:51 AM PLOT BY : STEVENSON, SCOTT PLOT NAME : PLOT SCALE : 1 IN:10 FT

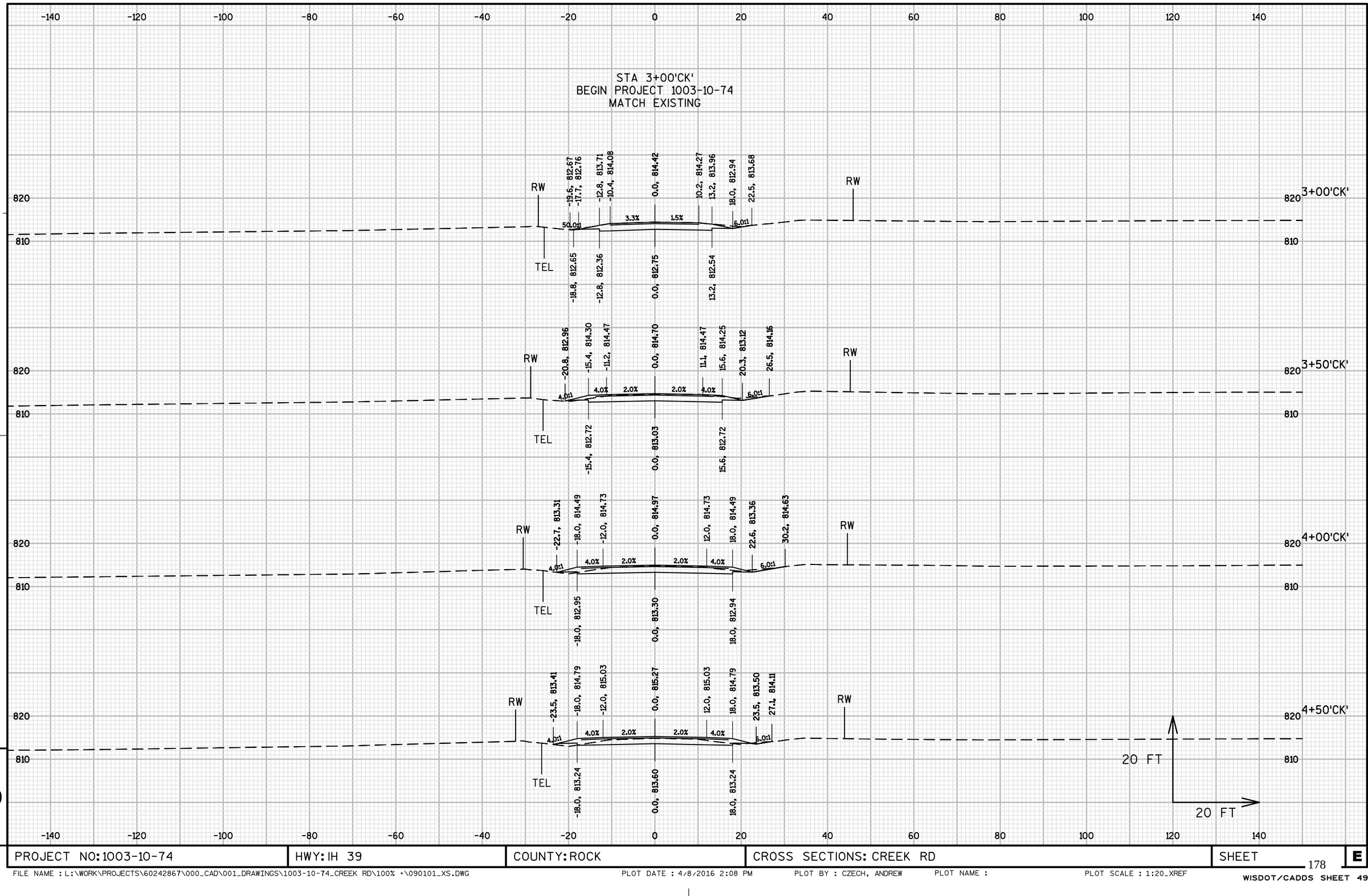
WISDOT/CADDS SHEET 49

PROJECT ID 1003-10-74
CREEK ROAD & PATRICK RD STATION 11+00 TO STATION 29+00

STATION	Real Station	Distance	AREA (SF)			Incremental Vol (CY) (Unadjusted)			Cumulative Vol (CY)			Mass Ordinate
			Cut	Fill	EBS	Cut	Fill	EBS	Cut	Fill	EBS	
11+00	1100.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11+50	1150.00	50.00	56.16	0.00	0.00	52.00	0.00	0.00	52.00	0.00	0.00	52.00
11+71	1171.00	21.00	63.02	0.00	0.00	46.35	0.00	0.00	98.35	0.00	0.00	98.35
12+00	1200.00	29.00	58.24	0.00	0.00	65.12	0.00	0.00	163.47	0.00	0.00	163.47
12+50	1250.00	50.00	37.21	0.24	0.00	88.38	0.22	0.00	251.85	0.22	0.00	251.63
13+00	1300.00	50.00	3.41	20.14	0.00	37.61	18.87	0.00	289.46	19.09	0.00	270.37
13+50	1350.00	50.00	0.00	71.85	0.00	3.16	85.18	0.00	292.62	104.27	0.00	188.35
14+00	1400.00	50.00	0.00	124.75	0.00	2.10	133.79	0.00	253.95	152.88	0.00	101.07
14+50	1450.00	50.00	0.00	167.60	0.00	0.00	270.69	0.00	289.46	423.58	0.00	-134.12
15+00	1500.00	50.00	0.00	217.53	0.00	0.00	356.60	0.00	289.46	780.18	0.00	-490.72
15+50	1550.00	50.00	0.00	305.07	0.00	0.00	483.89	0.00	289.46	1264.07	0.00	-974.61
16+00	1600.00	50.00	0.00	470.79	0.00	0.00	613.20	0.00	289.46	1393.38	0.00	-1103.92
16+50	1650.00	50.00	0.00	647.84	0.00	0.00	1035.77	0.00	289.46	2429.15	0.00	-2139.69
16+71	1671.00	21.00	0.00	713.49	50.00	0.00	529.41	19.44	289.46	2958.56	19.44	-2669.10
17+00	1700.00	29.00	0.00	847.55	50.00	0.00	838.34	53.70	289.46	3796.89	73.14	-3507.43
17+19	1719.00	19.00	0.00	949.65	50.00	0.00	632.35	35.19	289.46	4429.24	108.33	-4139.78
17+50	1750.00	31.00	0.00	1007.25	50.00	0.00	1123.41	57.41	289.46	5552.65	165.74	-5263.19
17+67	1767.00	17.00	0.00	1059.35	0.00	0.00	650.60	15.74	289.46	6203.24	181.48	-5913.78
18+00	1800.00	33.00	0.00	1144.23	0.00	0.00	1346.63	0.00	289.46	7549.88	181.48	-7260.42
18+50	1850.00	50.00	0.00	1229.34	0.00	0.00	2197.75	0.00	289.46	9747.63	181.48	-9458.17
19+00	1900.00	50.00	0.00	1500.67	0.00	0.00	2527.79	0.00	289.46	12275.41	181.48	-11985.95
19+15	1915.00	15.00	0.00	1833.48	0.00	0.00	926.15	0.00	289.46	13201.57	181.48	-12912.11
19+50	1950.00	35.00	0.00	2085.63	0.00	0.00	2540.16	0.00	289.46	15741.73	181.48	-15452.27
20+00	2000.00	50.00	0.00	2894.63	0.00	0.00	4611.35	0.00	289.46	20353.08	181.48	-20063.62
20+50	2050.00	50.00	0.00	2546.23	0.00	0.00	5037.83	0.00	289.46	25390.91	181.48	-25101.46
20+81	2081.00	31.00	0.00	1856.25	0.00	0.00	2527.35	0.00	289.46	27918.26	181.48	-27628.80
21+00	2100.00	19.00	0.00	1578.98	0.00	0.00	1208.69	0.00	289.46	29126.96	181.48	-28837.50
21+50	2150.00	50.00	0.00	1752.66	0.00	0.00	3084.85	0.00	289.46	32211.81	181.48	-31922.35
22+00	2200.00	50.00	0.00	1584.56	0.00	0.00	3090.02	0.00	289.46	35301.83	181.48	-35012.37
22+50	2250.00	50.00	0.00	1302.56	0.00	0.00	2673.26	0.00	289.46	37975.09	181.48	-37685.63
23+00	2300.00	50.00	0.00	1120.56	0.00	0.00	2243.63	0.00	289.46	40218.72	181.48	-39929.26
23+50	2350.00	50.00	0.00	920.55	0.00	0.00	1889.92	0.00	289.46	42108.63	181.48	-41819.17
24+00	2400.00	50.00	0.00	750.56	0.00	0.00	1547.32	0.00	289.46	43655.96	181.48	-43366.50
24+50	2450.00	50.00	0.00	574.23	0.00	0.00	1226.66	0.00	289.46	44882.61	181.48	-44593.15
25+00	2500.00	50.00	0.00	450.23	0.00	0.00	948.57	0.00	289.46	45831.19	181.48	-45541.73
25+50	2550.00	50.00	0.00	364.55	0.00	0.00	754.43	0.00	289.46	46585.61	181.48	-46296.15
26+00	2600.00	50.00	0.00	303.52	0.00	0.00	618.58	0.00	289.46	47204.20	181.48	-46914.74
26+50	2650.00	50.00	0.34	211.61	0.00	0.31	476.97	0.00	289.77	47681.17	181.48	-47391.39
27+00	2700.00	50.00	10.44	93.27	0.00	9.98	282.30	0.00	299.76	47963.47	181.48	-47663.71
27+50	2750.00	50.00	41.95	19.43	0.00	48.51	104.35	0.00	348.27	48067.82	181.48	-47719.55
28+00	2800.00	50.00	54.89	1.98	0.00	89.67	19.82	0.00	437.93	48087.64	181.48	-47649.71
28+50	2850.00	50.00	49.20	0.00	0.00	96.38	1.83	0.00	534.31	48089.47	181.48	-47555.16
29+00	2900.00	50.00	0.00	0.00	0.00	45.56	0.00	0.00	579.87	48089.47	181.48	-47509.61
						585.13	48658.54	181.48				

PROJECT ID 1003-10-74
IH-39

STATION	Real Station	Distance	AREA (SF)			Incremental Vol (CY) (Unadjusted)			Cumulative Vol (CY)			Mass Ordinate
			Cut	Fill	EBS	Cut	Fill	EBS	Cut	Fill	EBS	
4+80	480	0.00	23.71	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5+00	500.00	20.00	22.79	0	0.00	17.22	0.00	0.00	17.22	0.00	0.00	17.22
5+50	550.00	50.00	25.12	0	0.00	44.36	0.00	0.00	61.58	0.00	0.00	61.58
6+00	600.00	50.00	22.28	0	0.00	43.89	0.00	0.00	105.47	0.00	0.00	105.47
6+50	650.00	50.00	18.4	0	0.00	34.07	0.00	0.00	139.55	0.00	0.00	139.55
7+00	700.00	50.00	21.25	0	0.00	36.71	0.00	0.00	176.26	0.00	0.00	176.26
7+50	750.00	50.00	19.61	0	0.00	37.83	0.00	0.00	214.09	0.00	0.00	214.09
8+00	800.00	50.00	18.83	0.03	0.00	35.59	0.03	0.00	249.69	0.03	0.00	249.66
8+50	850.00	50.00	16.73	0.46	0.00	32.93	0.45	0.00	282.61	0.48	0.00	282.13
9+00	900.00	50.00	13.16	1.56	0.00	24.37	2.89	0.00	306.98	3.37	0.00	303.61
9+50	950.00	50.00	34.96	0	0.00	44.56	1.44	0.00	351.54	4.81	0.00	346.72
10+00	1000.00	50.00	15.26	7.35	50.00	46.50	6.81	46.30	398.04	11.62	46.30	386.42
10+50	1050.00	50.00	16.53	9.07	50.00	30.61	16.80	92.59	428.65	28.42	138.89	400.23
11+00	1100.00	50.00	17.56	6.12	50.00	31.56	14.06	92.59	460.21	42.48	231.48	417.73
11+50	1150.00	50.00	19.79	9.61	50.00	34.58	14.56	92.59	494.80	57.05	324.07	437.75
12+00	1200.00	50.00	9.3	14.65	50.00	36.49	5.65	28.94	531.29	62.70	353.01	468.59
12+50	1250.00	50.00	8.54	10.17	50.00	16.52	22.98	92.59	547.81	85.68	445.60	462.12
13+00	1300.00	50.00	8.51	10.23	50.00	15.79	18.89	92.59	563.59	104.57	538.19	459.02
13+50	1350.00	50.00	9.46	18.8	50.00	17.52	34.81	92.59	581.11	139.39	630.78	441.73
14+00	1400.00	50.00	10.45	18.17	50.00	19.35	33.65	92.59	600.46	173.03	723.37	427.43
14+50	1450.00	50.00	18.89	17.41	50.00	27.17	32.94	92.59	627.63	205.98	815.96	421.65
15+00	1500.00	50.00	21.05	19.23	50.00	36.98	33.93	92.59	664.61	239.90	908.55	424.71
15+50	1550.00	50.00	20.32	12.43	50.00	38.31	29.31	92.59	702.92	269.22	1001.14	433.70
16+00	1600.00	50.00	20.17	14.07	40.00	37.49	24.54	83.33	740.41	293.76	1084.47	446.65
16+50	1650.00	50.00	21.44	18.99	40.00	38.53	30.61	74.07	778.94	324.37	1158.54	454.57
17+00	1700.00	50.00	19.78	14.46	0.00	38.17	30.97	37.04	817.10	355.34	1195.58	461.76
17+50	1750.00	50.00	18.56	14.63	0.00	35.50	26.94	0.00	852.60	382.27	1195.58	470.33
18+00	1800.00	50.00	21.56	15.16	0.00	37.15	27.58	0.00	889.75	409.86	1195.58	479.89
18+50	1850.00	50.00	21.99	13.39	0.00	40.32	26.44	0.00	930.07	436.29	1195.58	493.78
19+00	1900.00	50.00	21.74	14.53	0.00	40.49	25.85	0.00	970.56	462.14	1195.58	508.42
19+50	1950.00	50.00	21.32	17.48	0.00	39.87	29.64	0.00	1010.44	491.78	1195.58	518.65
20+00	2000.00	50.00	21.19	19.6	0.00	32.31	28.09	0.00	1042.75	519.87	1195.58	522.87
20+50	2050.00	50.00	21.35	11.69	0.00	39.39	28.97	0.00	1082.13	548.84	1195.58	533.29
21+00	2100.00	50.00	21.02	10.41	0.00	39.23	20.46	0.00	1121.37	569.31	1195.58	552.06
21+50	2150.00	50.00	20.83	10.37	0.00	38.75	19.24	0.00	1160.12	588.55	1195.58	571.57
22+00	2200.00	50.00	20.03	11.03	0.00	37.09	20.43	0.00	1197.21	608.97	1195.58	588.24
22+50	2250.00	50.00	21.95	13.64	0.00	40.65	25.26	0.00	1237.86	634.23	1195.58	603.62
23+00	2300.00	50.00	22.98	9.22	0.00	42.56	17.07	0.00	1280.41	651.31	1195.58	629.11
23+50	2350.00	50.00	23.56	7.24	0.00	43.63	13.41	0.00	1324.04	664.71	1195.58	659.33
24+00	2400.00	50.00	22.48	7.03	0.00	42.63	13.21	0.00	1366.67	677.93	1195.58	688.75
24+50	2450.00	50.00	21.39	8.23	0.00	40.62	14.13	0.00	1407.29	692.06	1195.58	715.24
25+00	2500.00	50.00	21.35	7.01	0.00	39.57	14.11	0.00	1446.87	706.17	1195.58	740.70
25+50	2550.00	50.00	20.95	6.26	0.00	39.17	12.29	0.00	1486.03	718.45	1195.58	767.58
26+00	2600.00	50.00	21.21	5.37	0.00	39.04	10.77	0.00	1525.07	729.22	1195.58	795.85
26+19	2619.00	19.00	21.26	4.73	0.00	14.94	3.55	0.00	1540.01	732.78	1195.58	807.24
26+50	2650.00	31.00	20.8	4.09	0.00	24.15	5.06	0.00	1564.16	737.84	1195.58	826.32
			0	0								
						1564.16	737.84	1195.60				



PROJECT NO: 1003-10-74	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: CREEK RD	SHEET E

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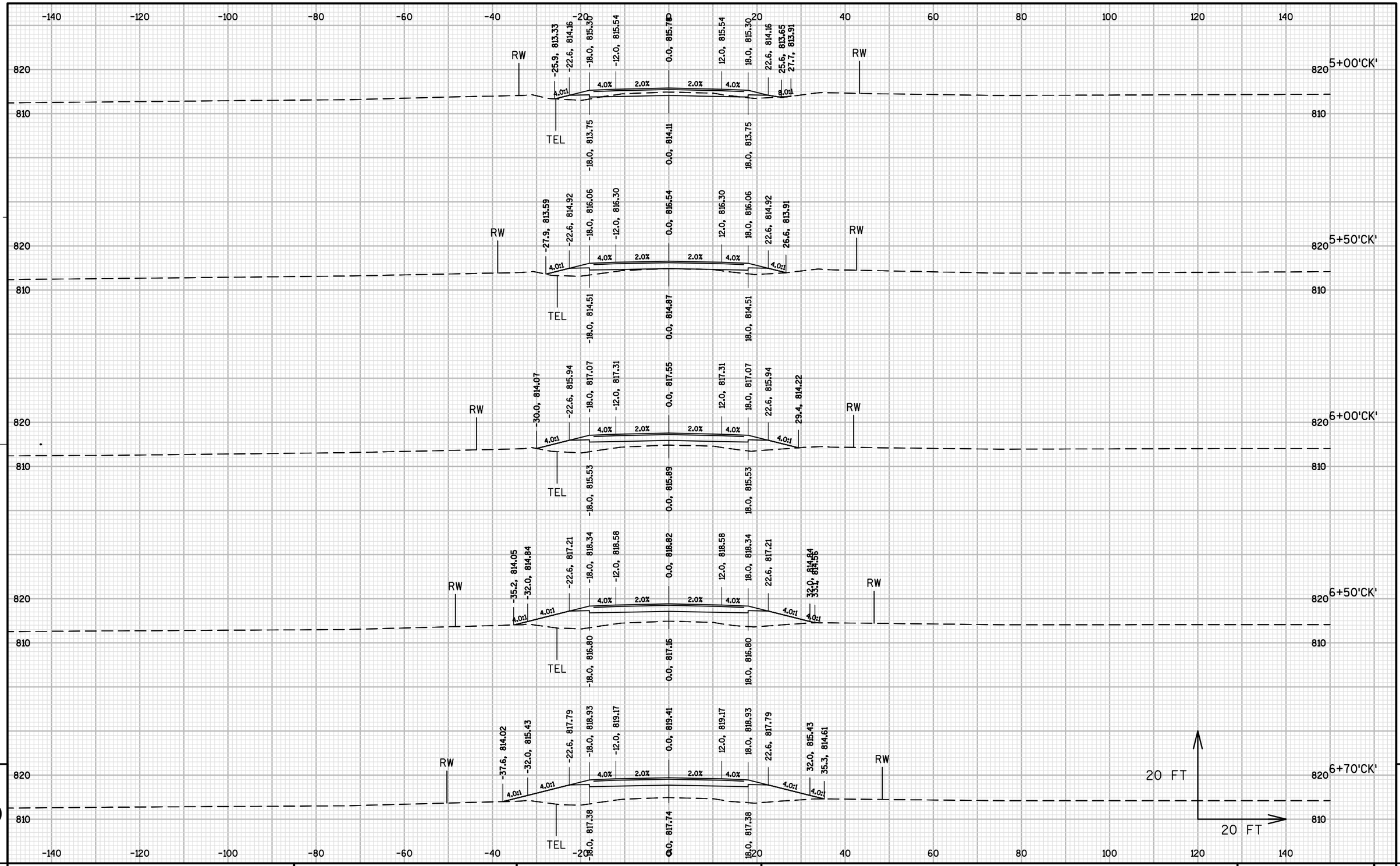
WISDOT/CADDS SHEET 49



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PROJECT NO: 1003-10-74	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: CREEK RD	SHEET E

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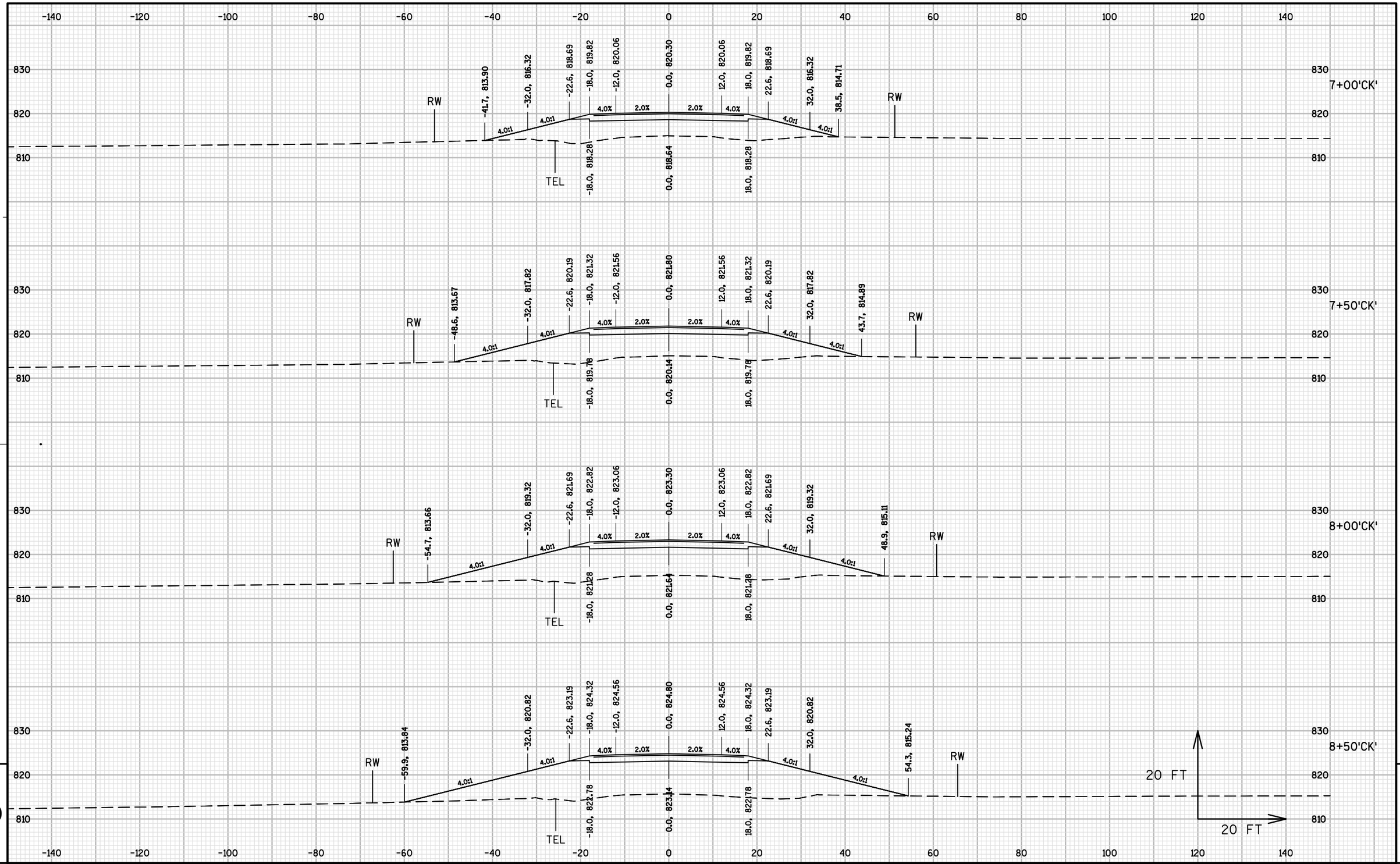

PROJECT NO: 1003-10-74	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: CREEK RD	SHEET	E

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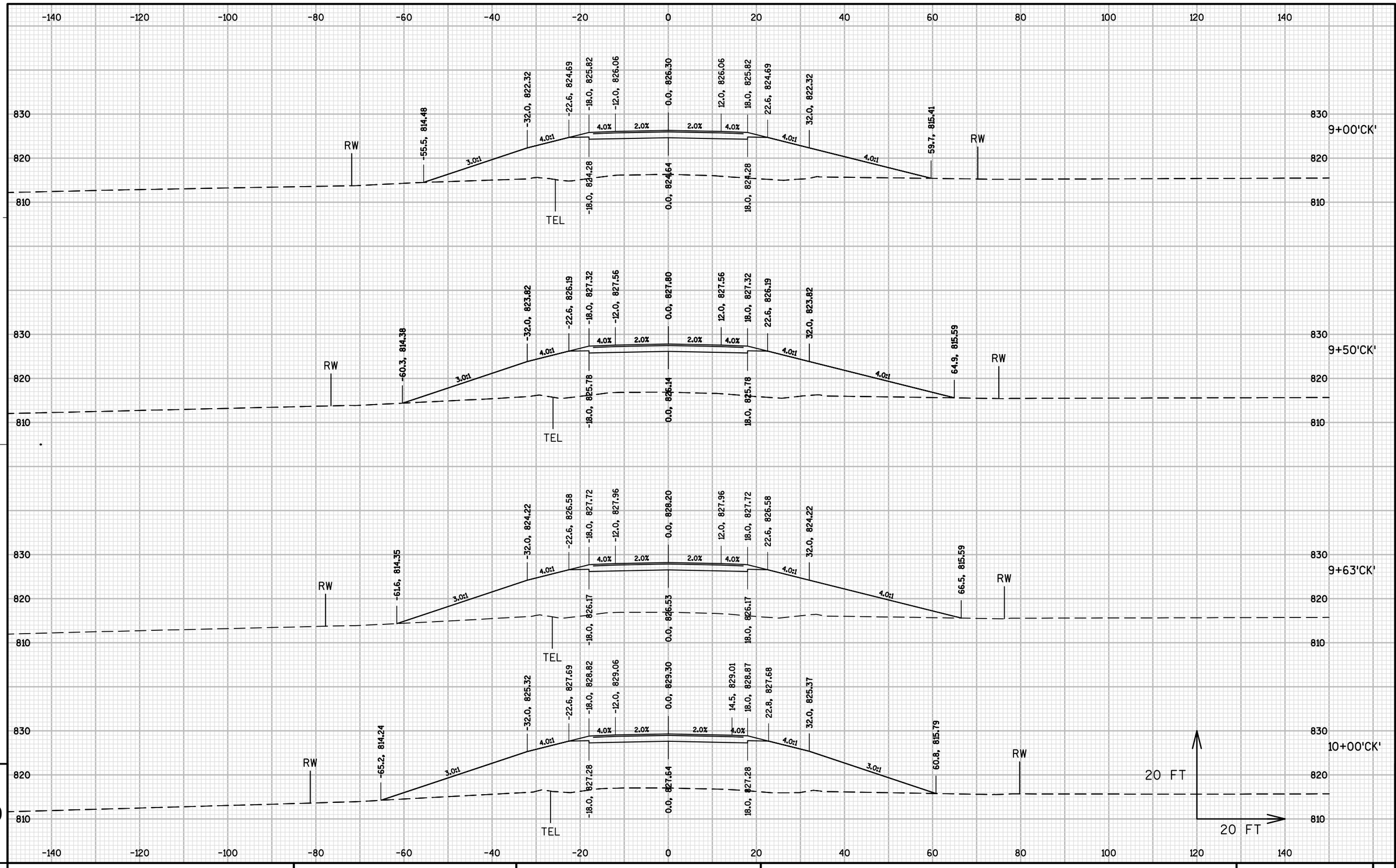
WISDOT/CADDS SHEET 49



PROJECT NO: 1003-10-74	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: CREEK RD	SHEET	E

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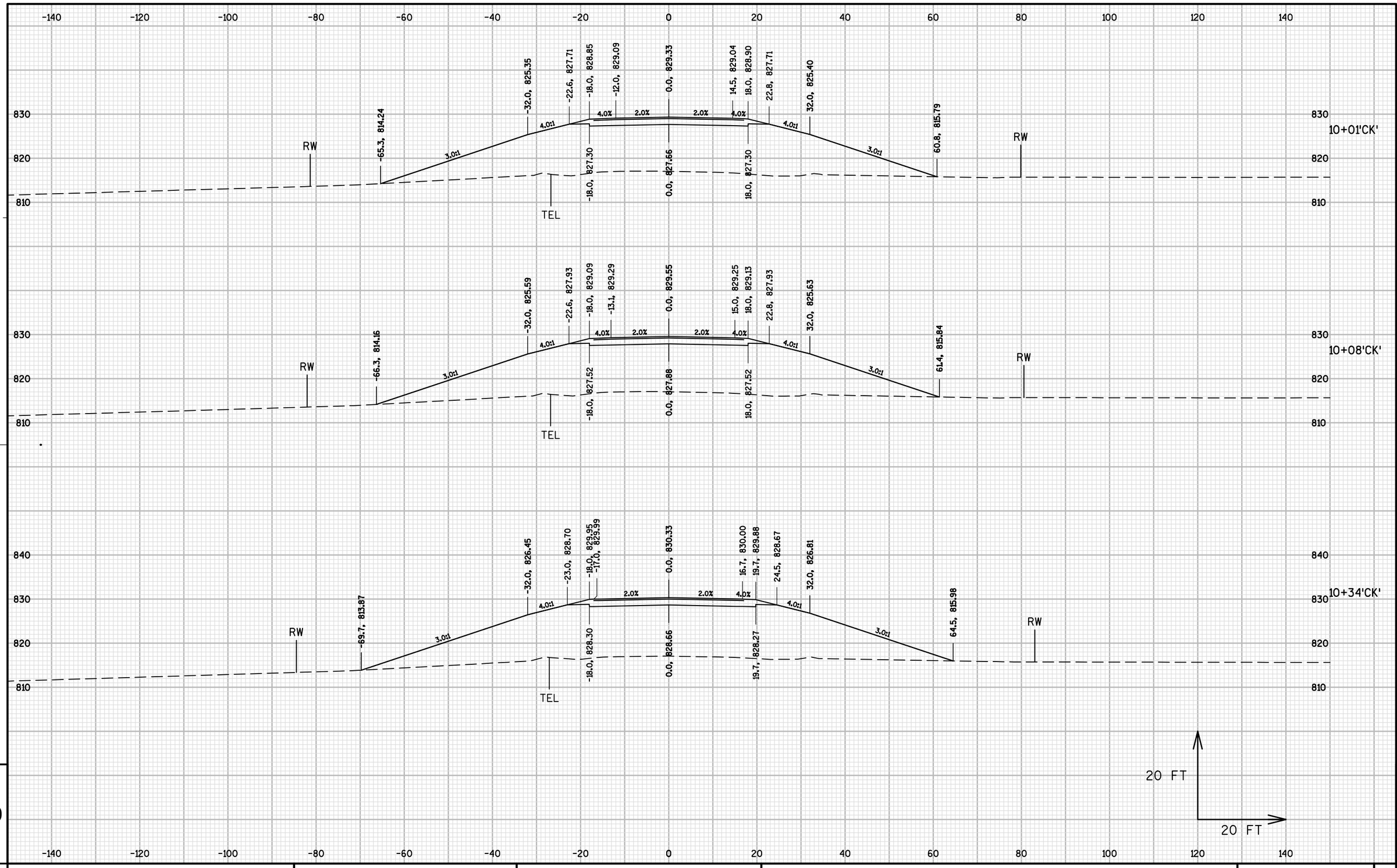
WISDOT/CADDS SHEET 49



PROJECT NO: 1003-10-74	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: CREEK RD	SHEET E

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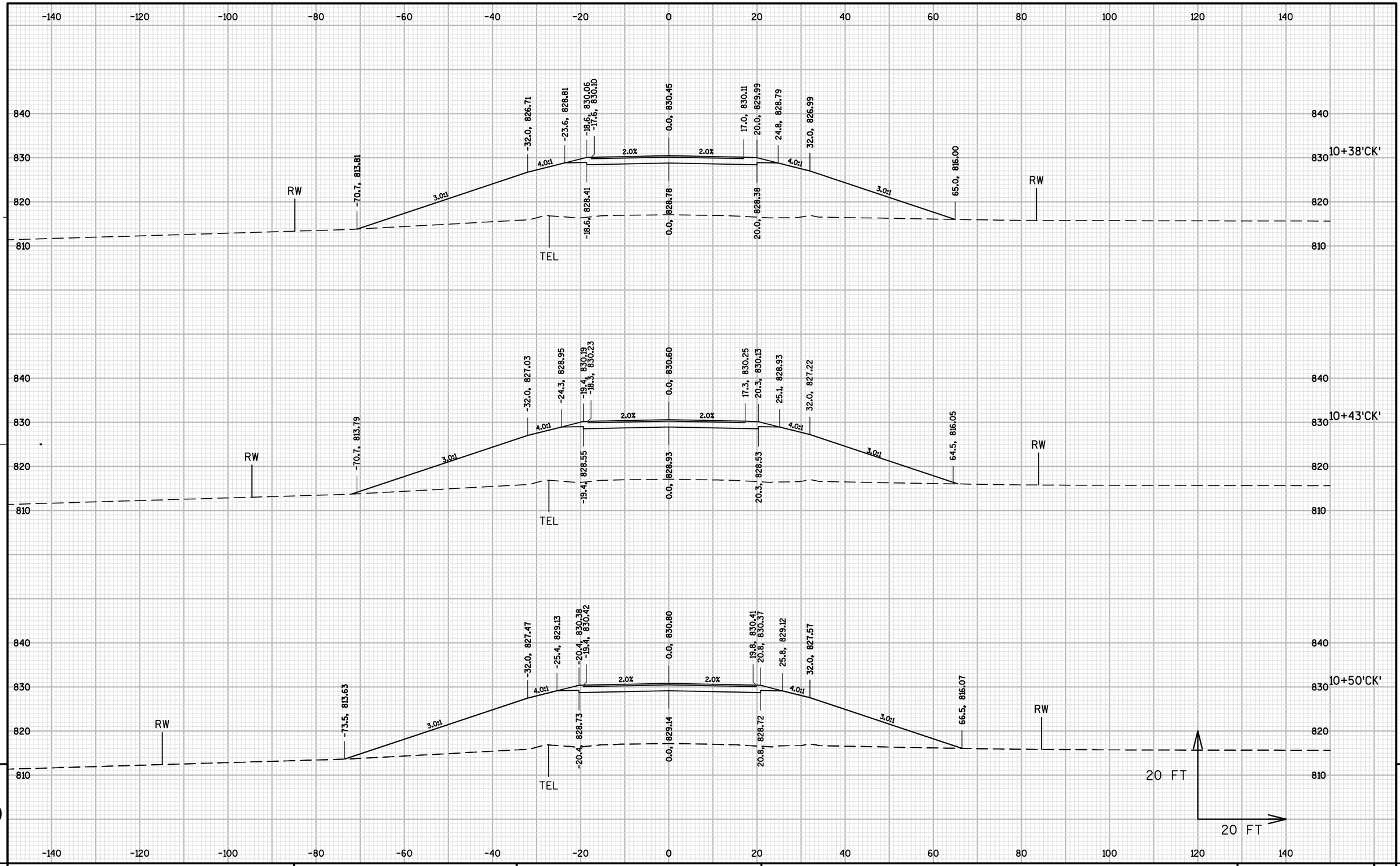

PROJECT NO: 1003-10-74	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: CREEK RD	SHEET	E

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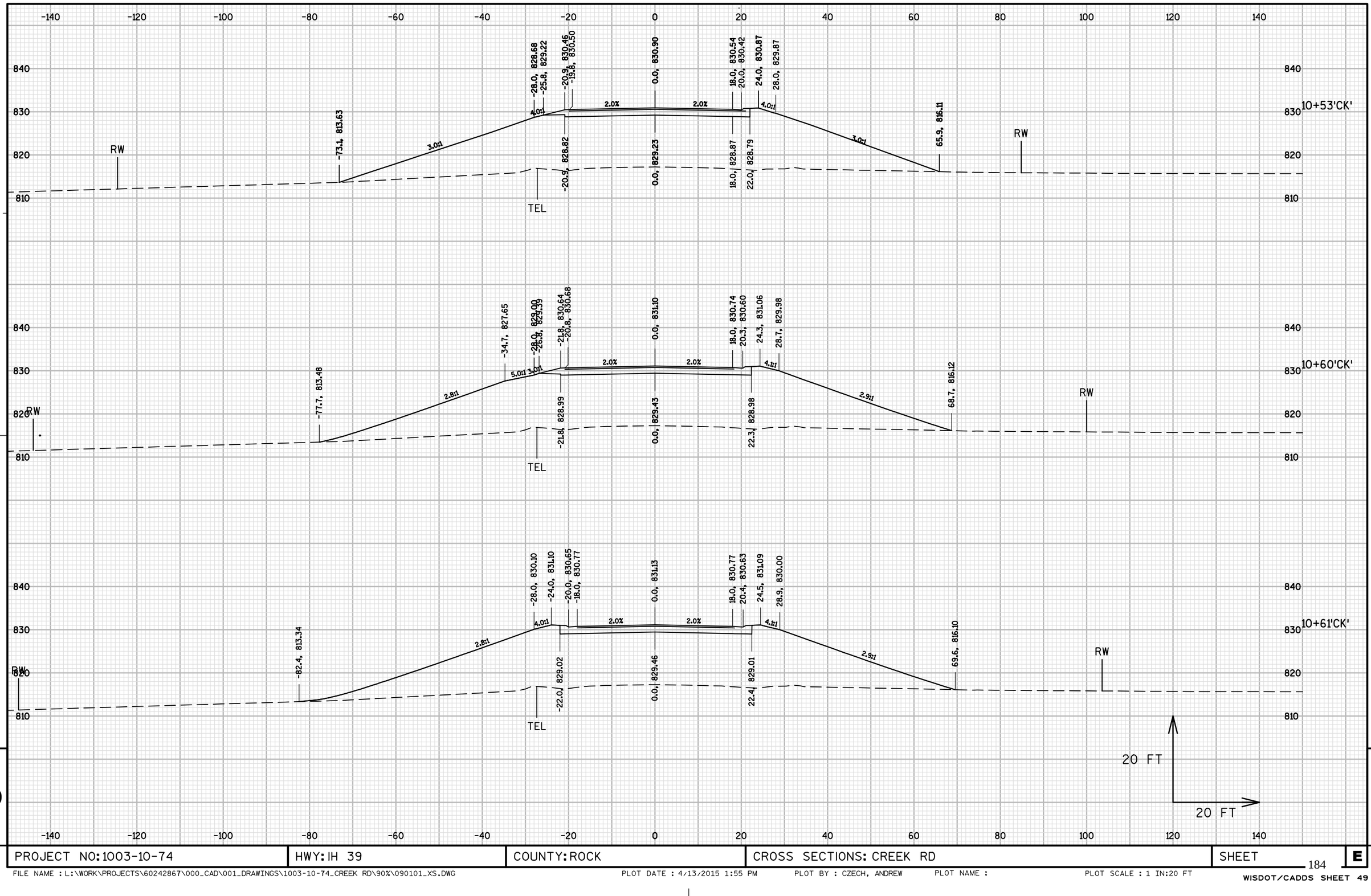

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PROJECT NO: 1003-10-74	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: CREEK RD	SHEET	E

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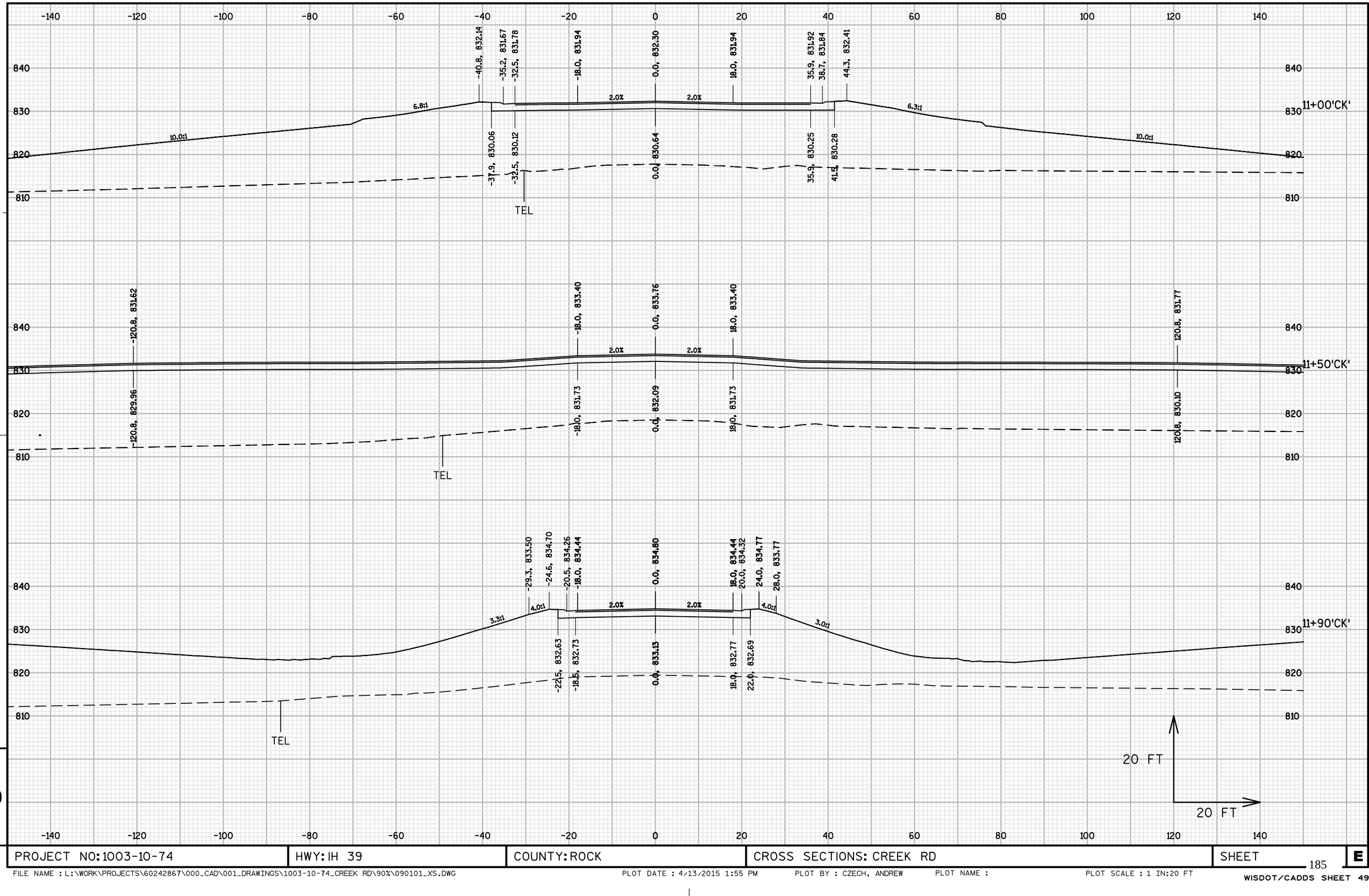

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PROJECT NO: 1003-10-74	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: CREEK RD	SHEET E

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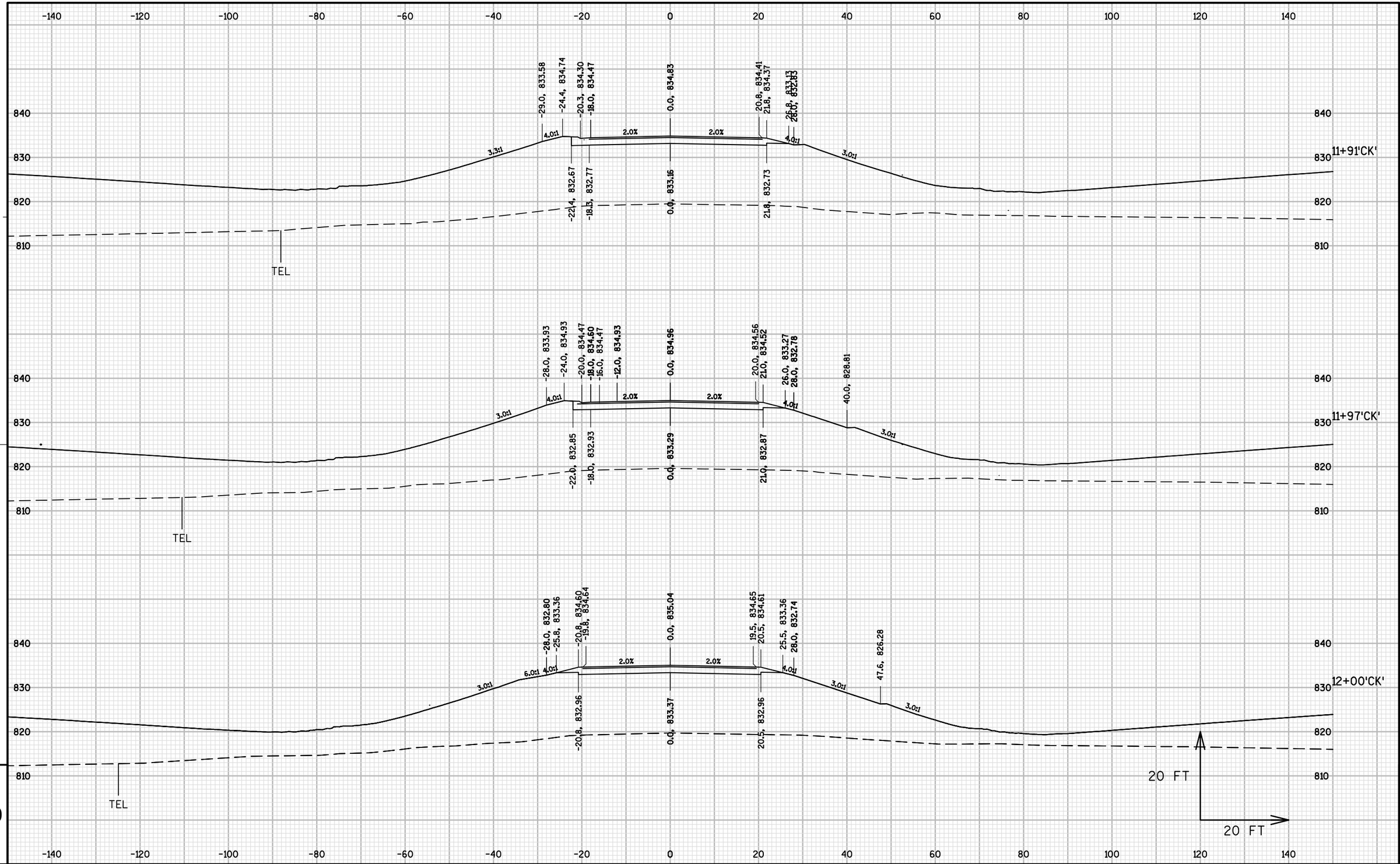
WISDOT/CADDS SHEET 49



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PROJECT NO: 1003-10-74	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: CREEK RD	SHEET E

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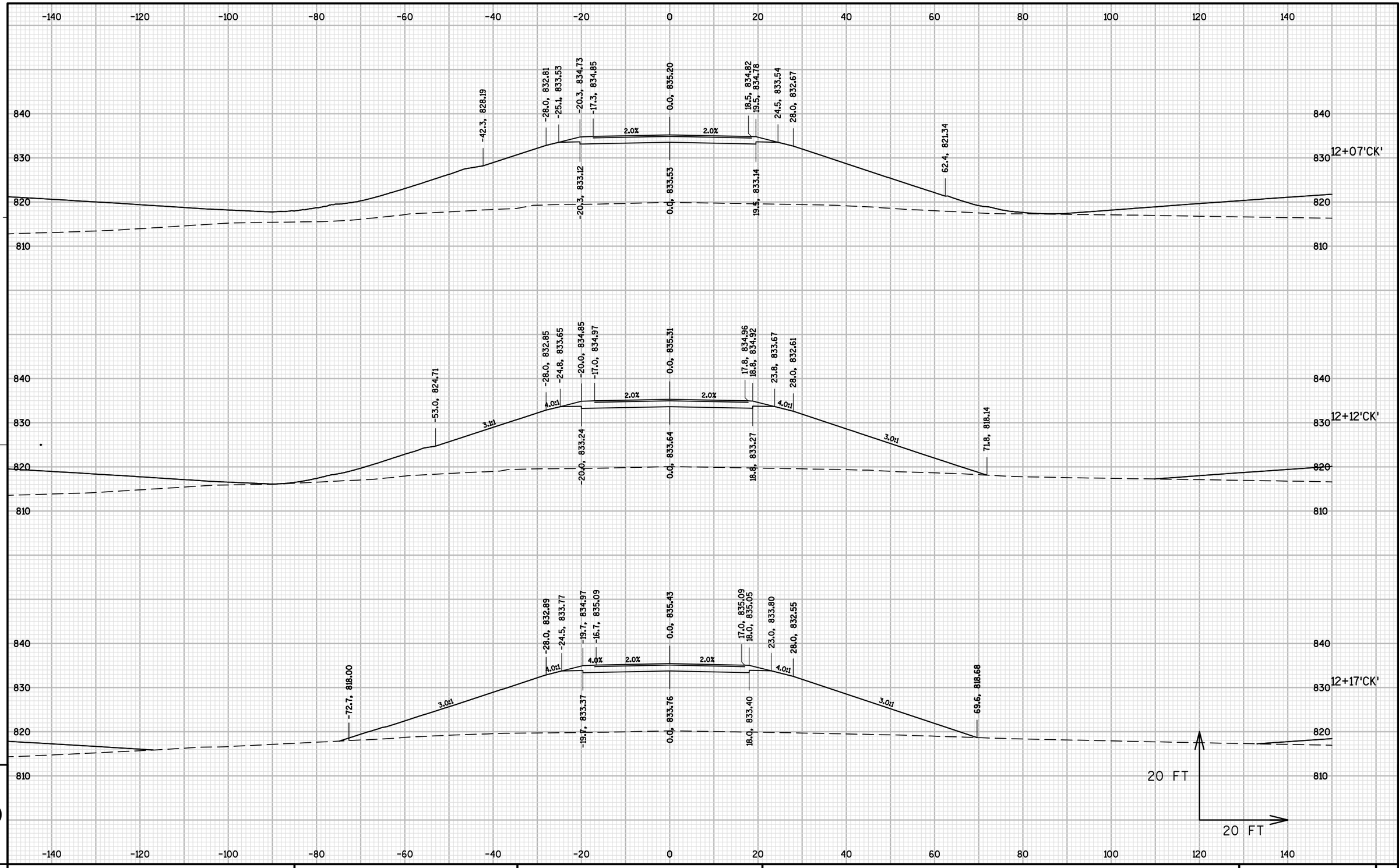
WISDOT/CADDS SHEET 49



PROJECT NO: 1003-10-74	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: CREEK RD	SHEET	E

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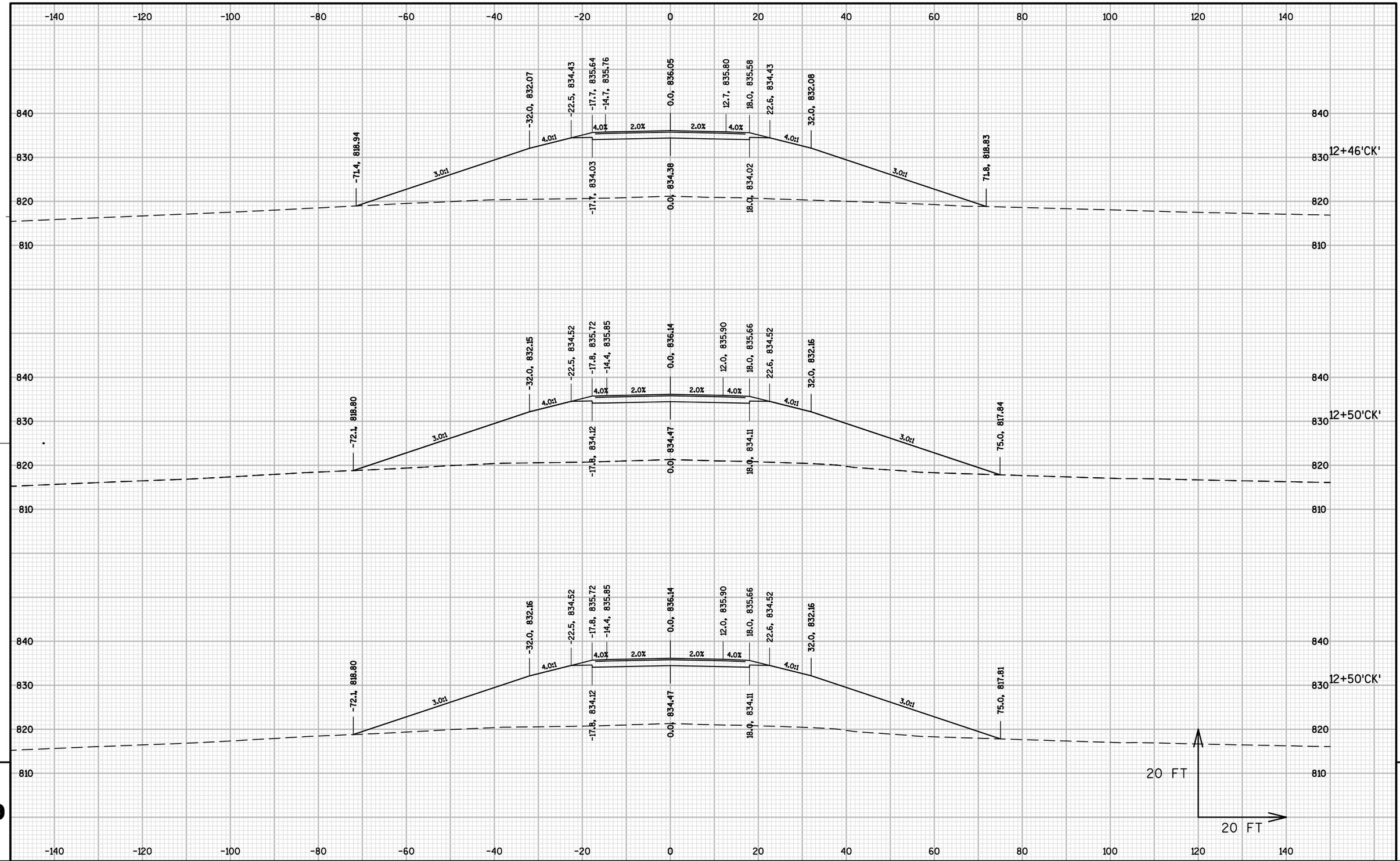
WISDOT/CADDS SHEET 49



PROJECT NO: 1003-10-74	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: CREEK RD	SHEET	E

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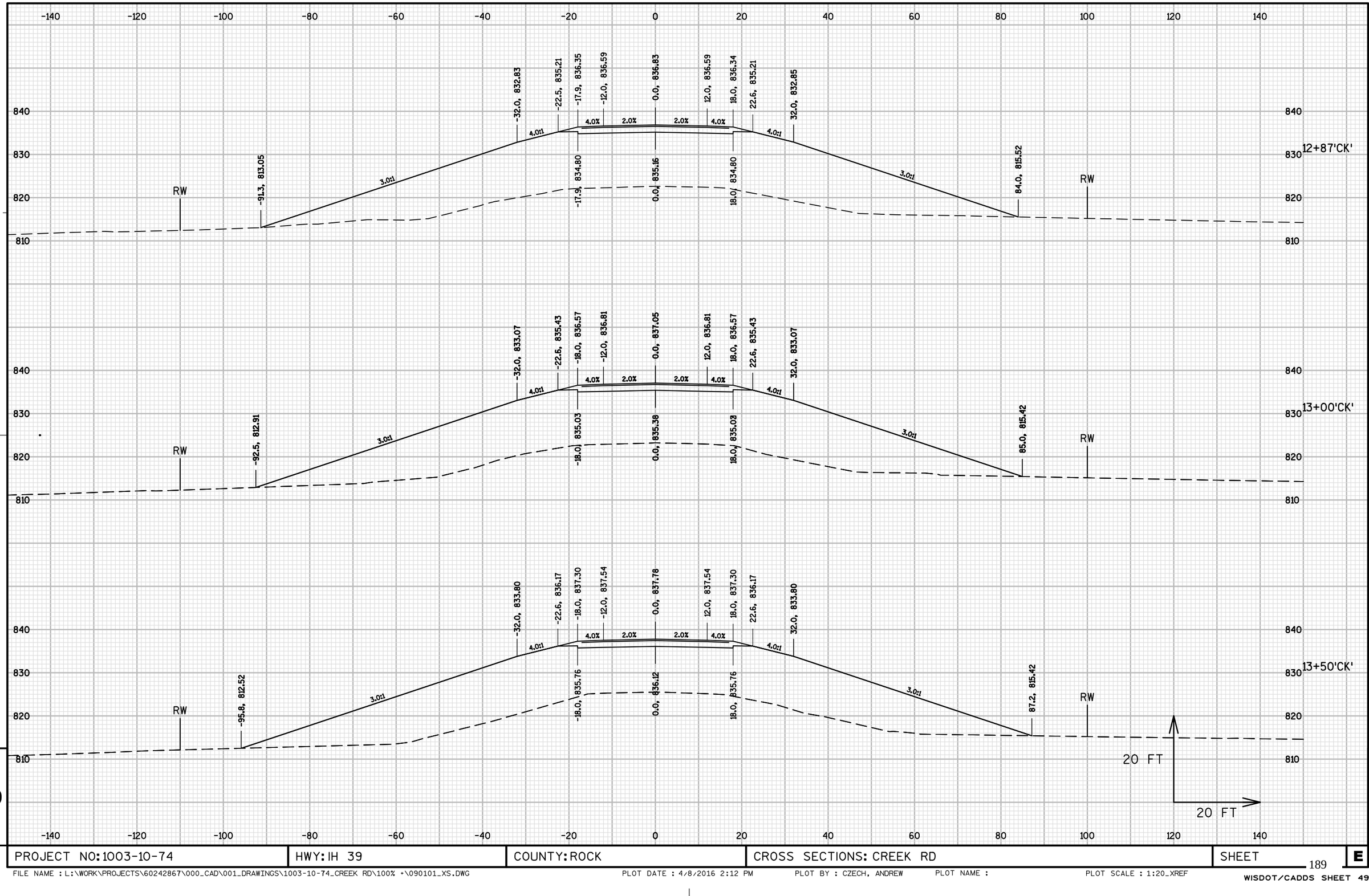
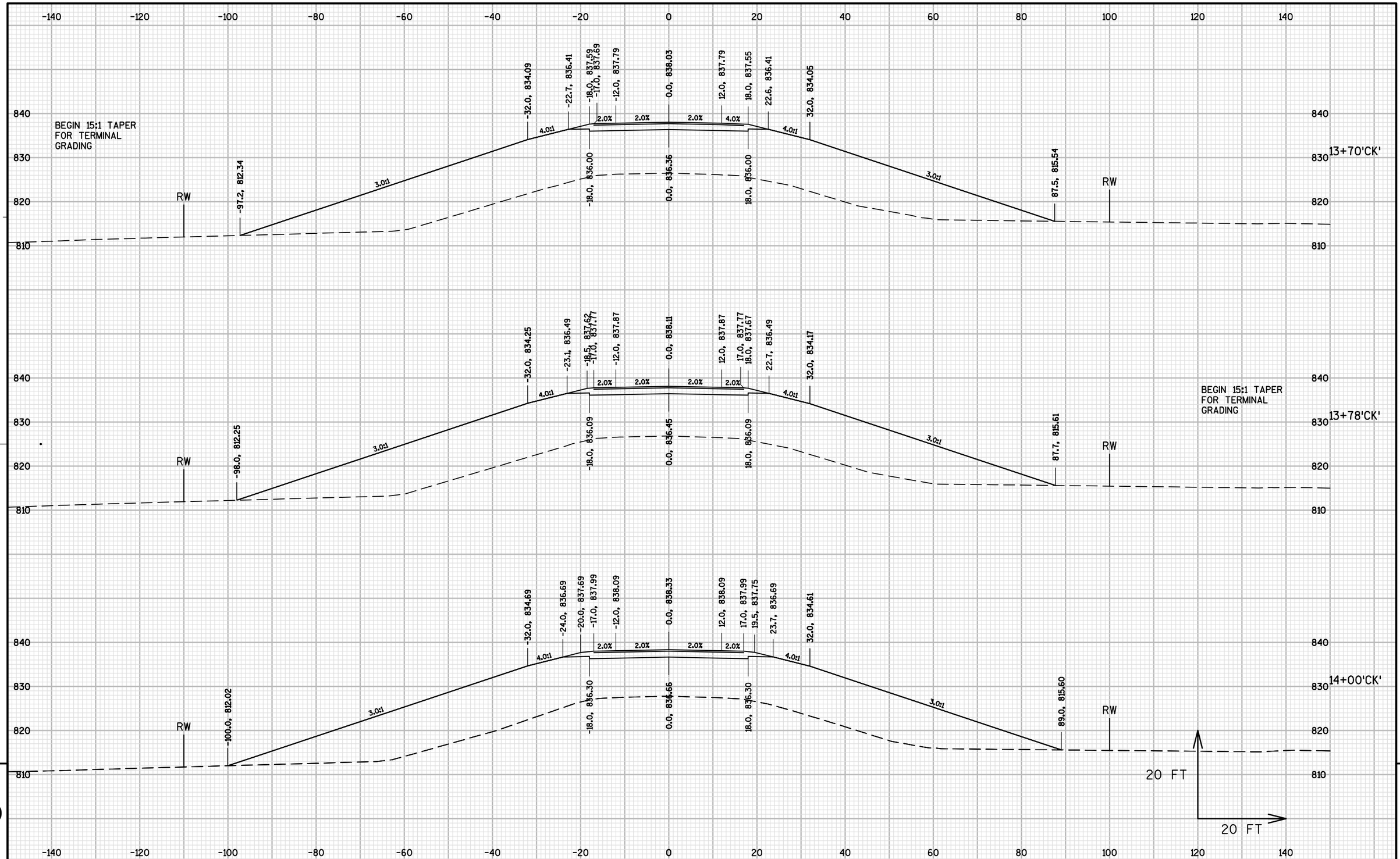


PROJECT NO: 1003-10-74	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: CREEK RD	SHEET E

FILE NAME : L:\WORK\PROJECTS\60242867\000_CAD\001_DRAWINGS\1003-10-74_CREEK RD\100% +\090101_XS.DWG PLOT DATE : 4/8/2016 2:12 PM PLOT BY : CZECH, ANDREW PLOT NAME : PLOT SCALE : 1:20_XREF



PROJECT NO: 1003-10-74	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: CREEK RD	SHEET	E

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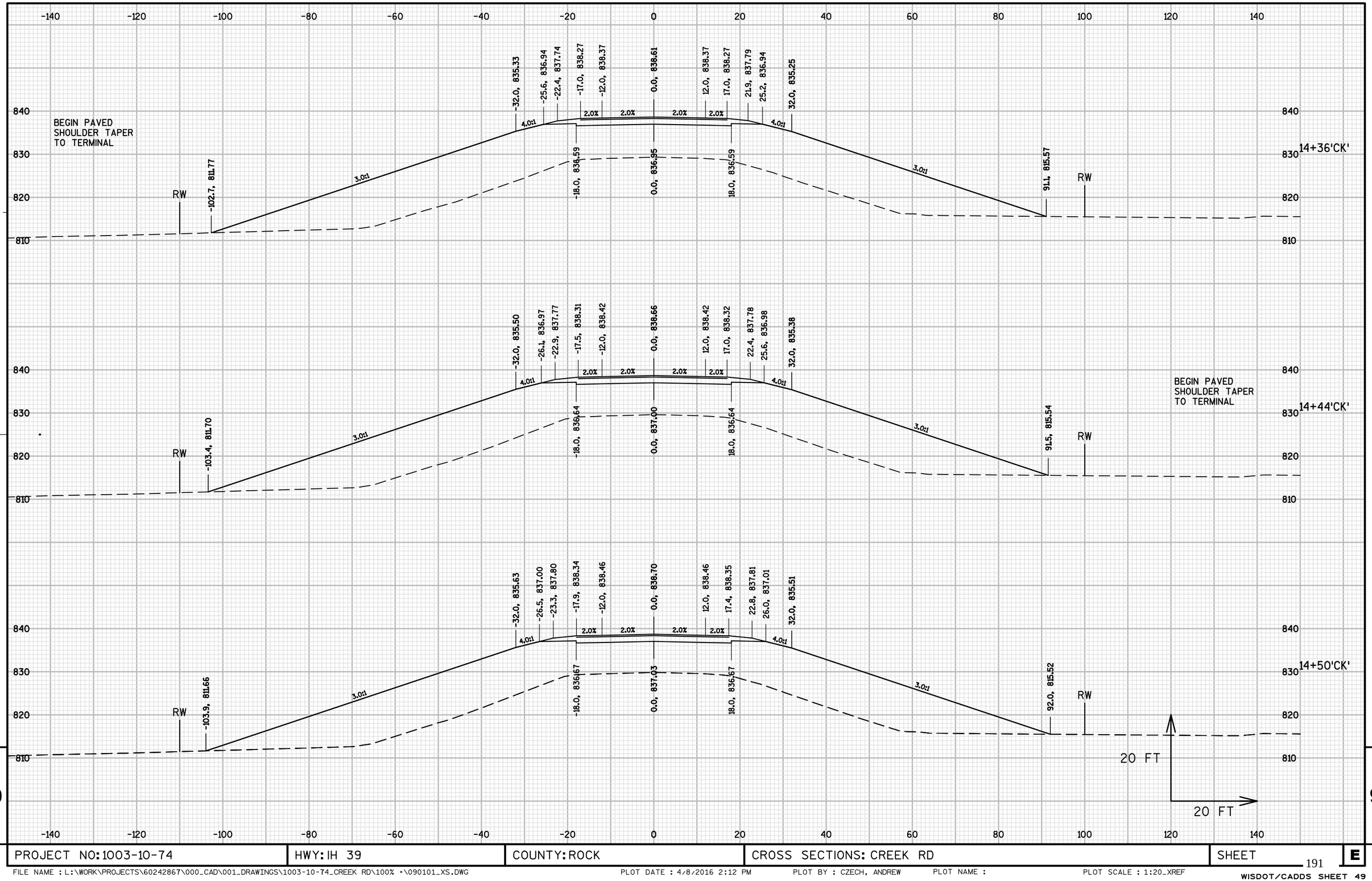

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PROJECT NO: 1003-10-74	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: CREEK RD	SHEET	E

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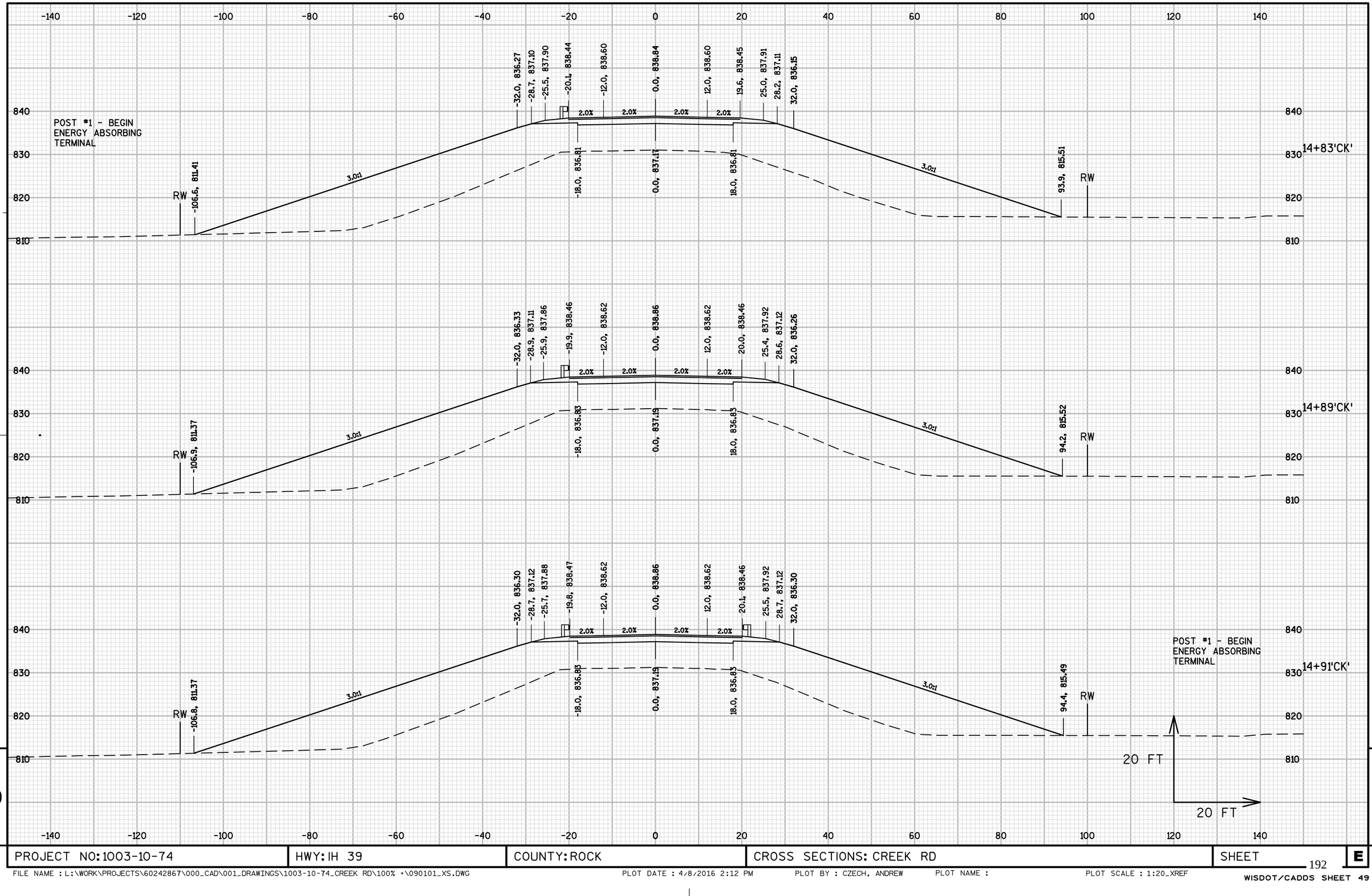

PROJECT NO: 1003-10-74	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: CREEK RD	SHEET E

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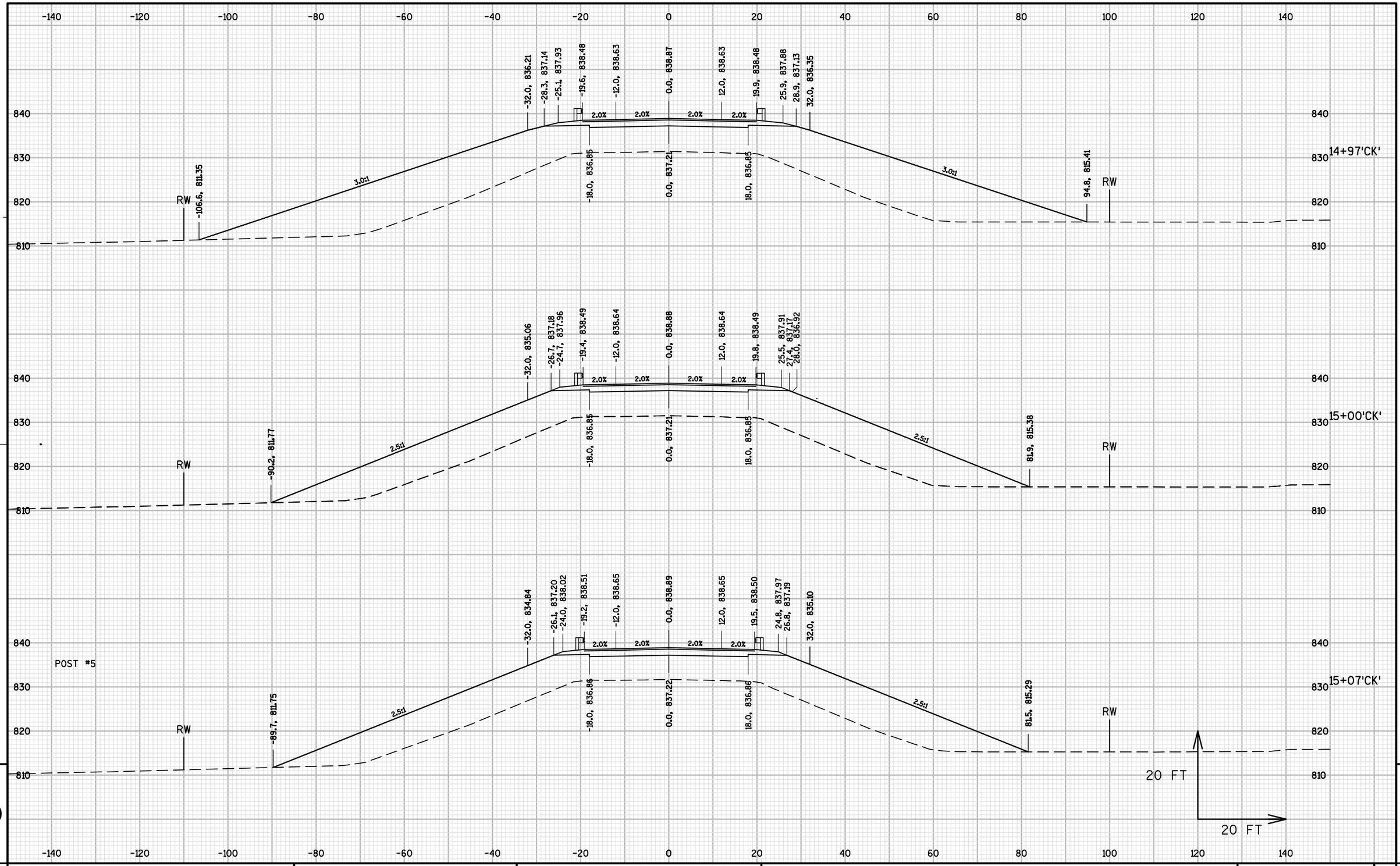
WISDOT/CADDS SHEET 49



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PROJECT NO: 1003-10-74	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: CREEK RD	SHEET E

FILE NAME : L:\WORK\PROJECTS\60242867\000_CAD\001_DRAWINGS\1003-10-74_CREEK RD\100% +\090101_XS.DWG PLOT DATE : 4/8/2016 2:13 PM PLOT BY : CZECH, ANDREW PLOT NAME : PLOT SCALE : 1:20_XREF
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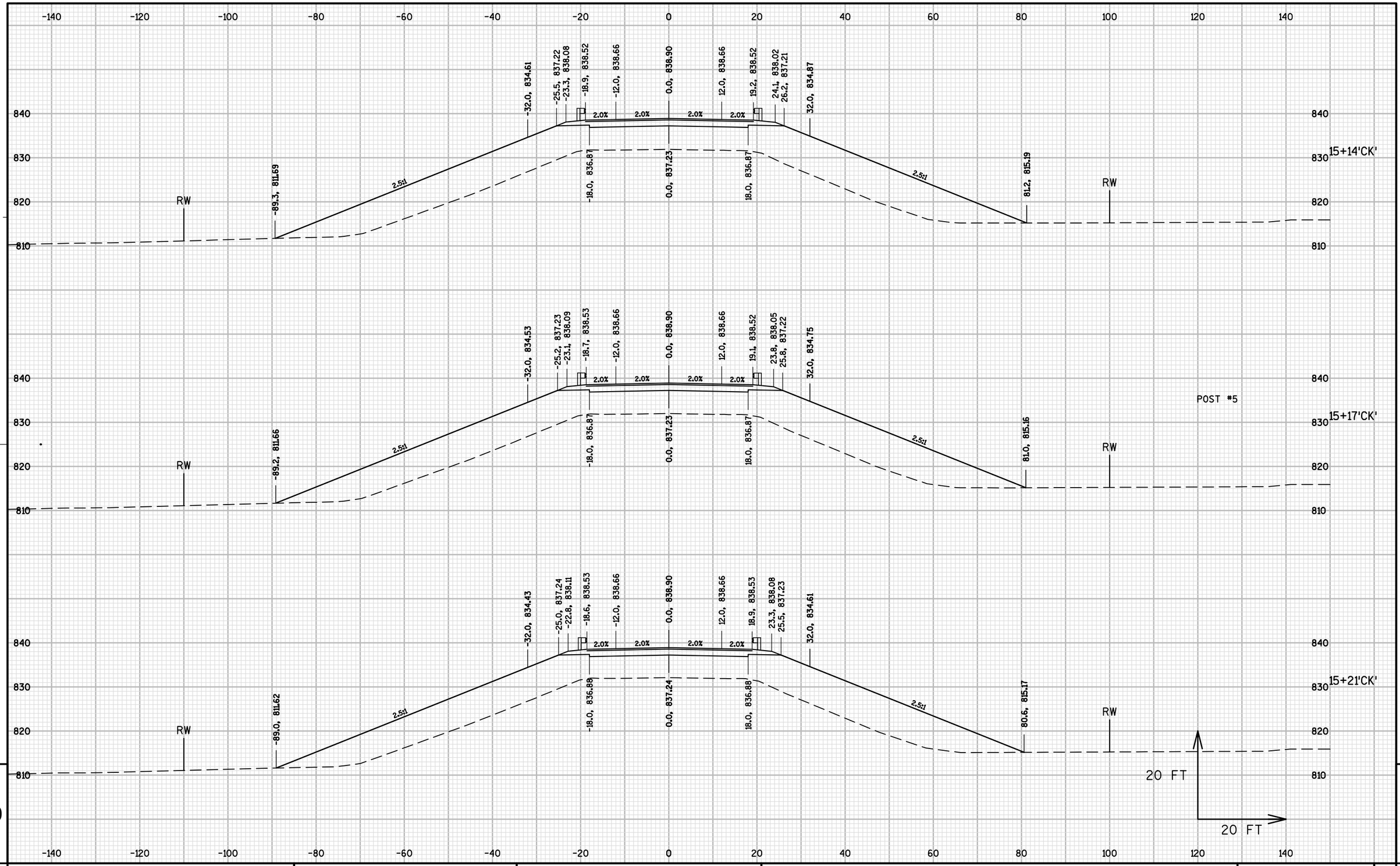

PROJECT NO: 1003-10-74	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: CREEK RD	SHEET	E

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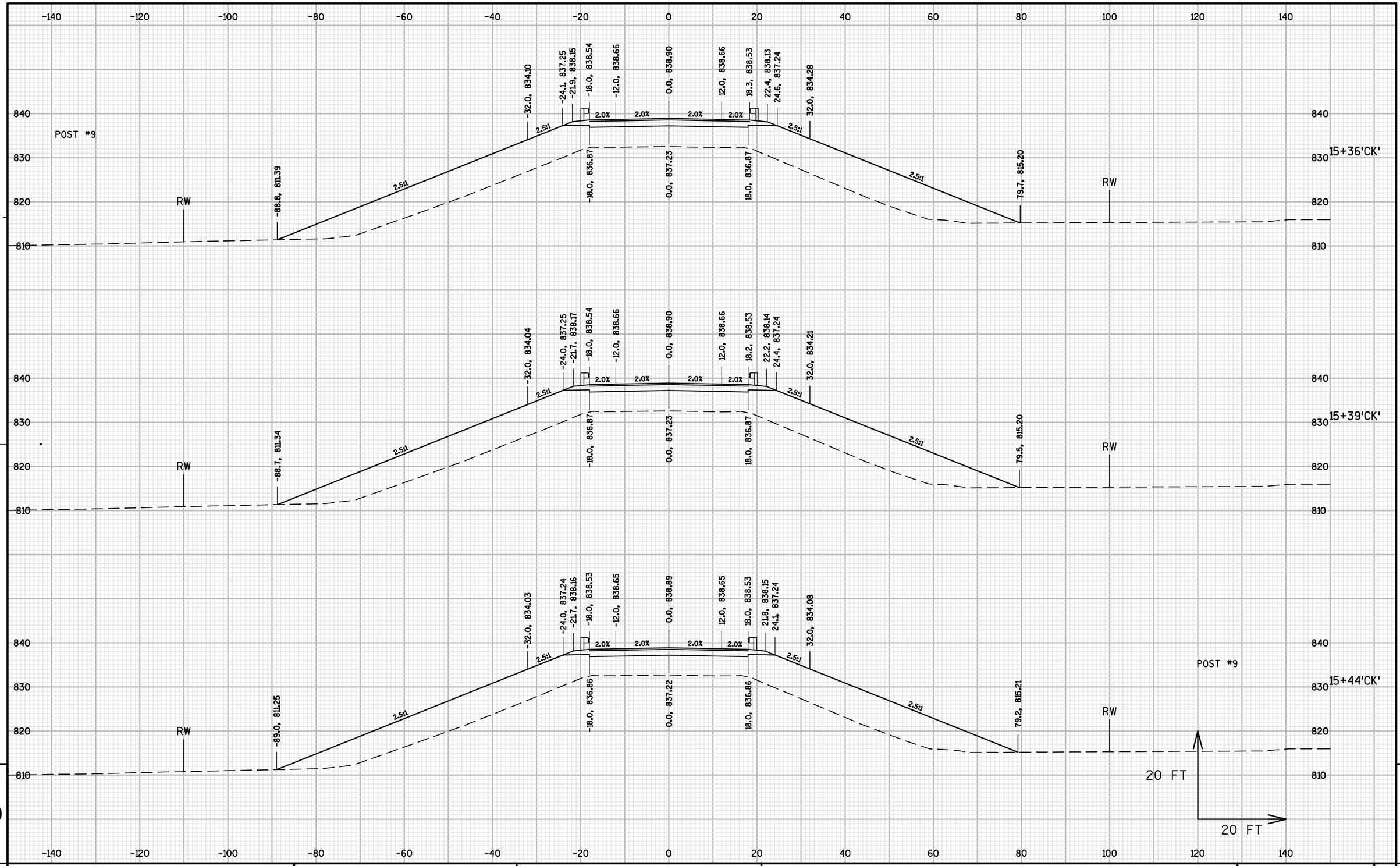

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PROJECT NO: 1003-10-74	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: CREEK RD	SHEET	E

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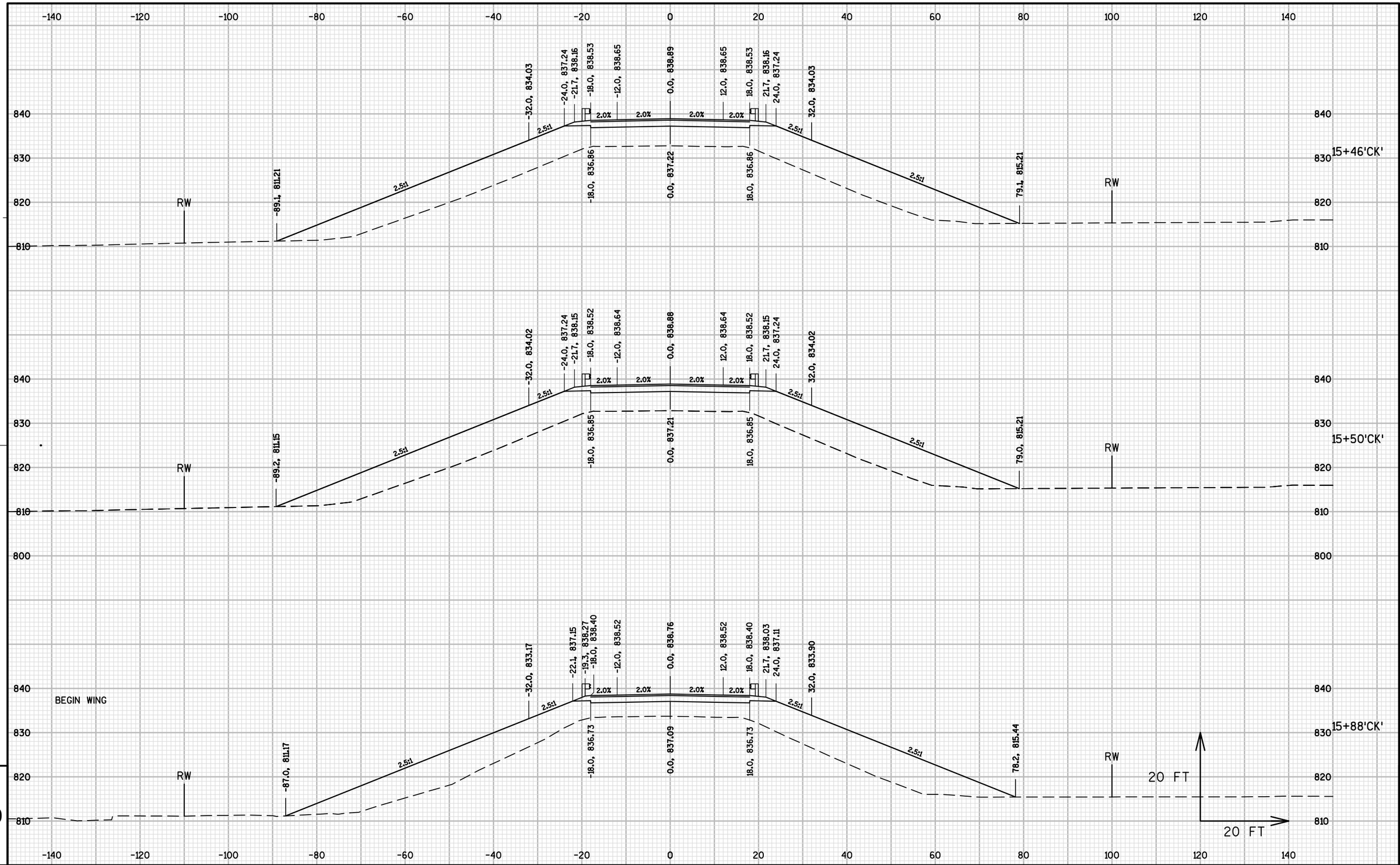

PROJECT NO: 1003-10-74	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: CREEK RD	SHEET	E

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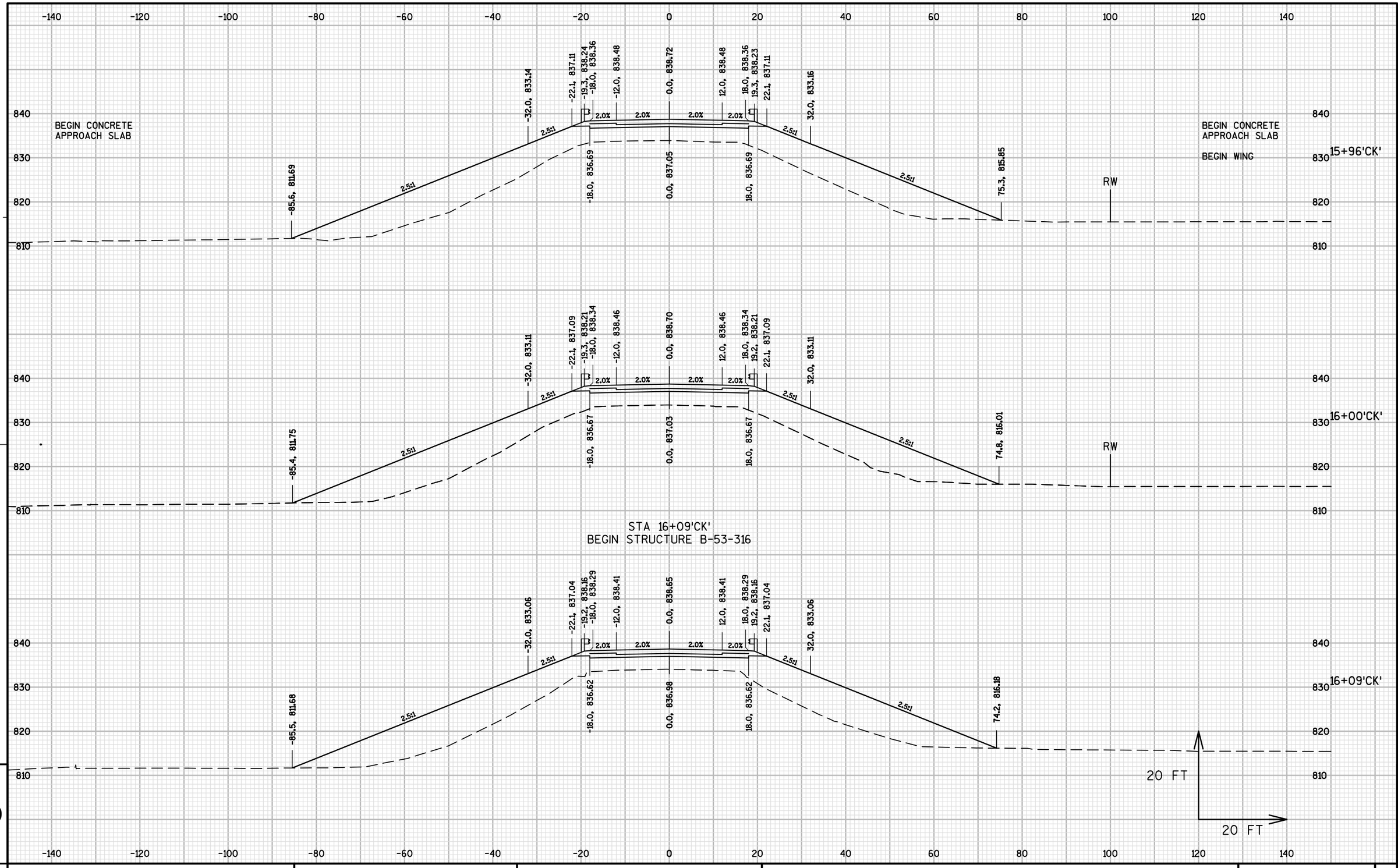

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PROJECT NO: 1003-10-74	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: CREEK RD	SHEET	E

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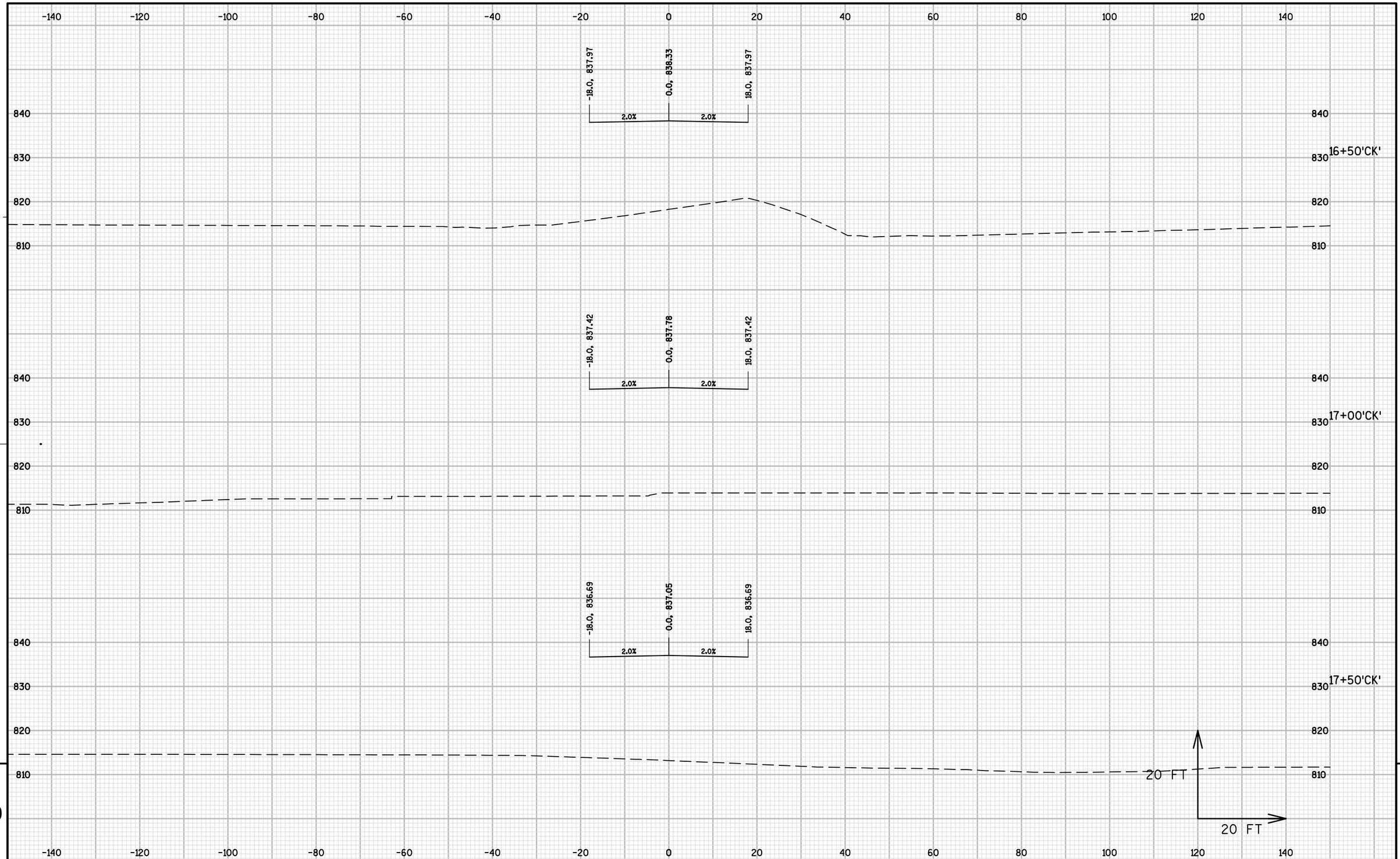

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PROJECT NO: 1003-10-74	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: CREEK RD	SHEET	E

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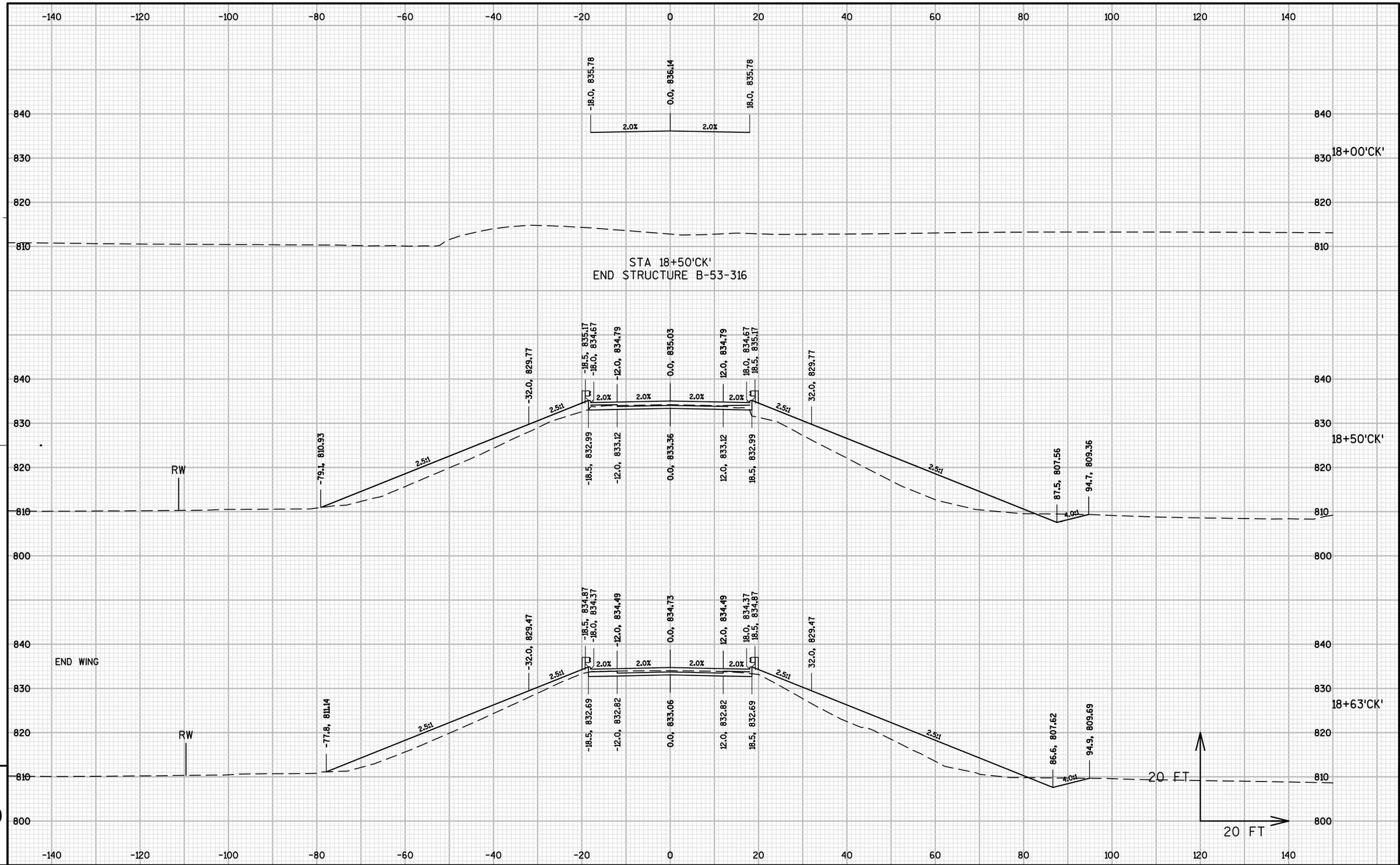

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PROJECT NO: 1003-10-74	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: CREEK RD	SHEET	E

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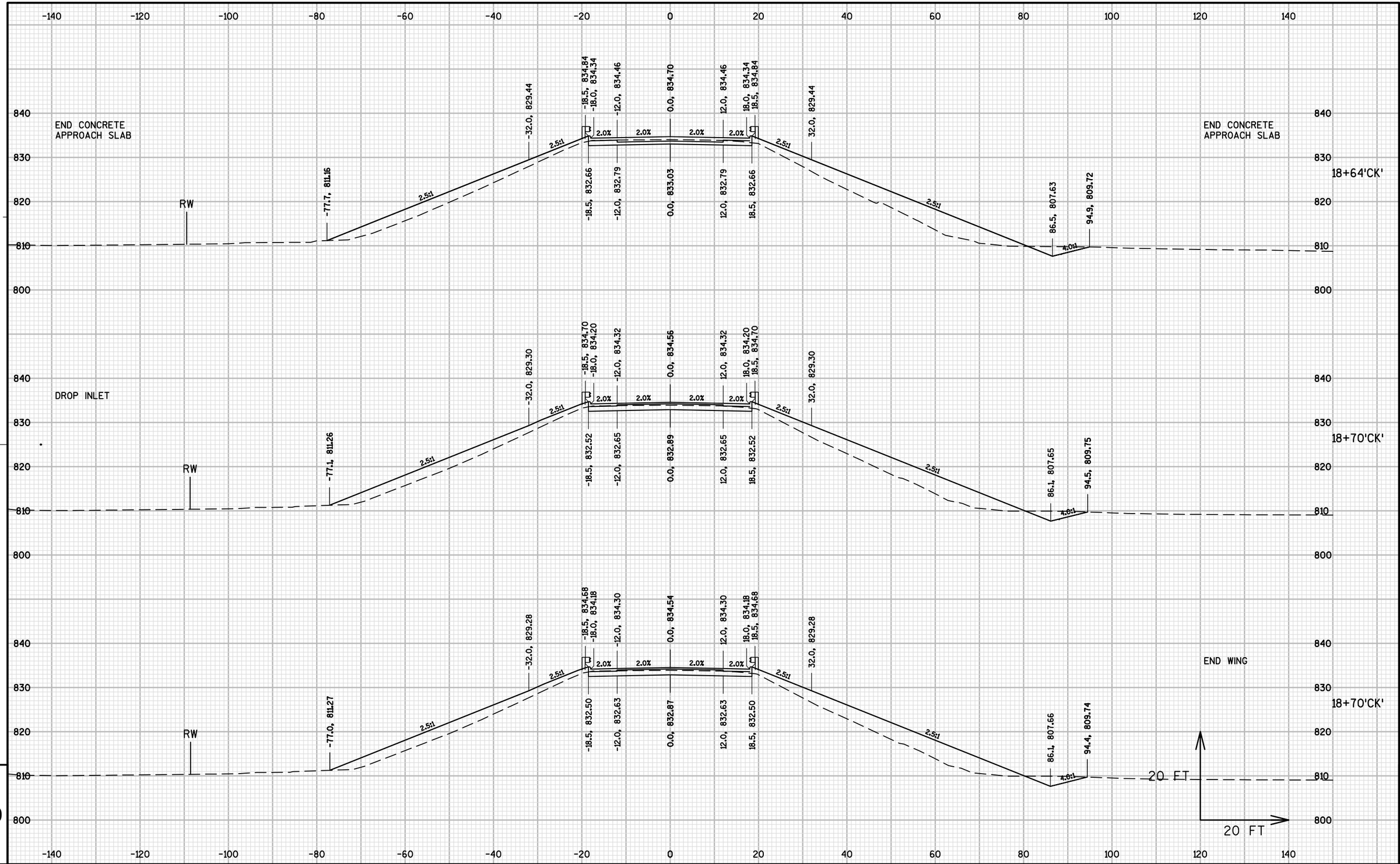

PROJECT NO: 1003-10-74	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: CREEK RD	SHEET 200	E

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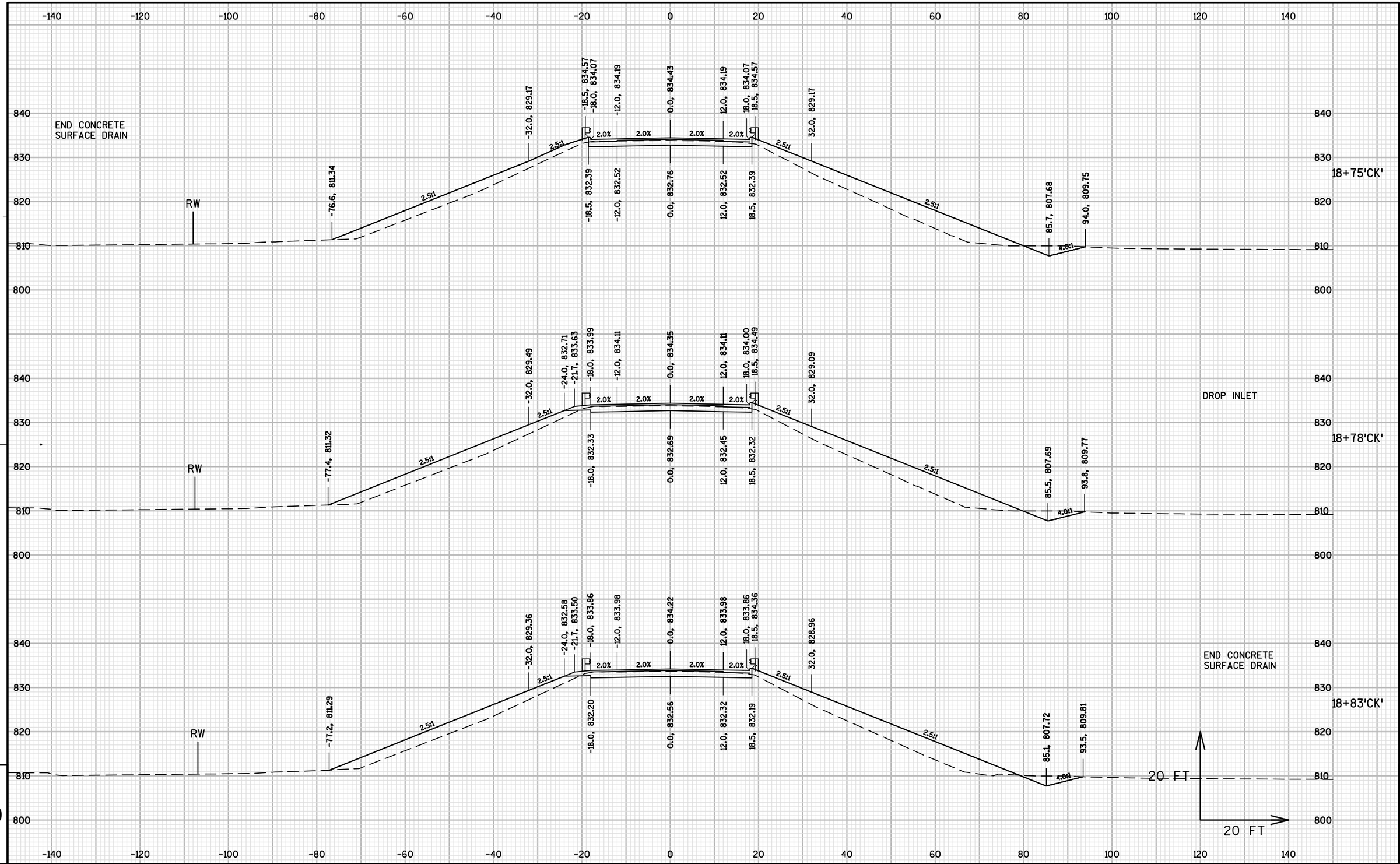

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PROJECT NO: 1003-10-74	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: CREEK RD	SHEET	E

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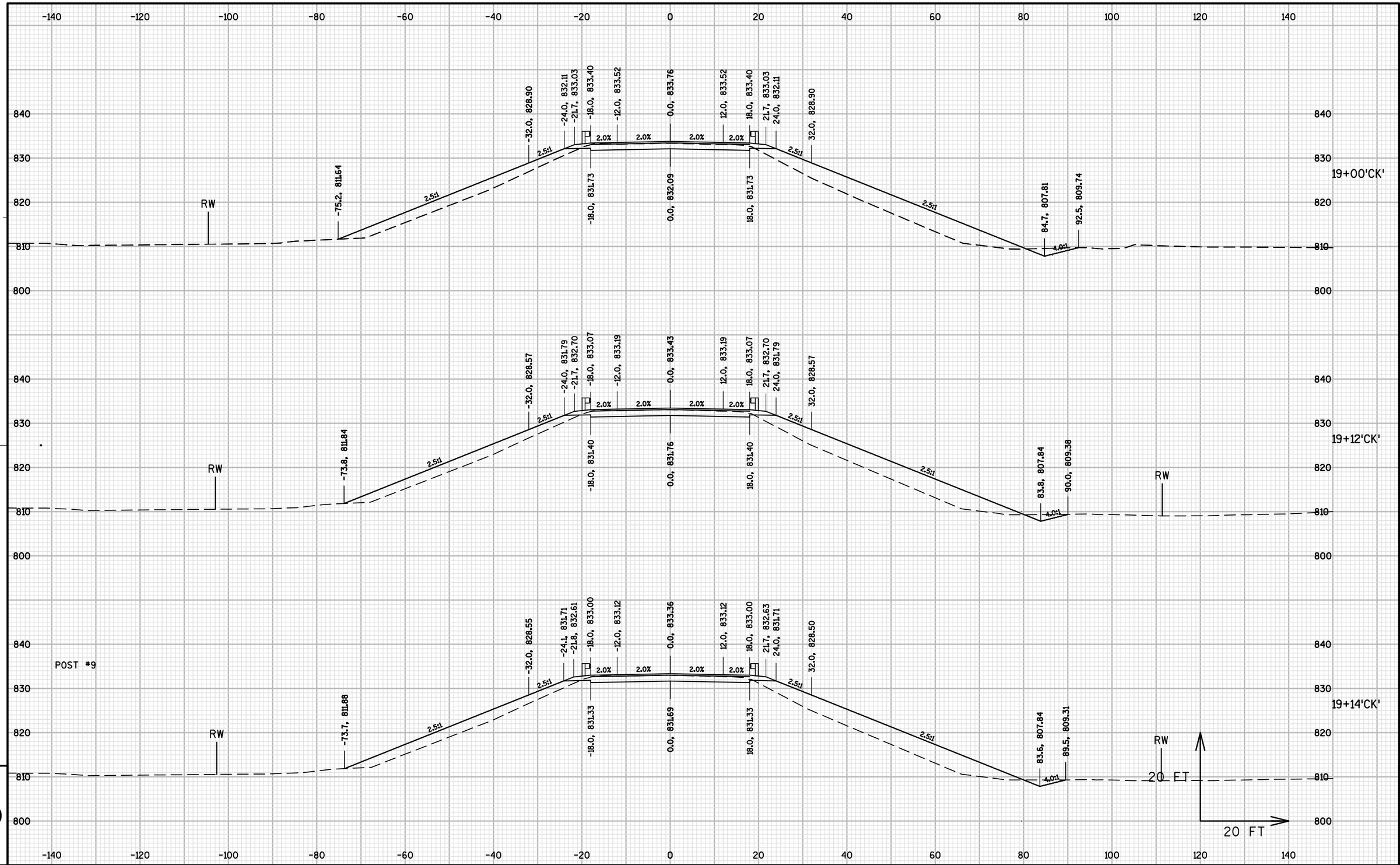

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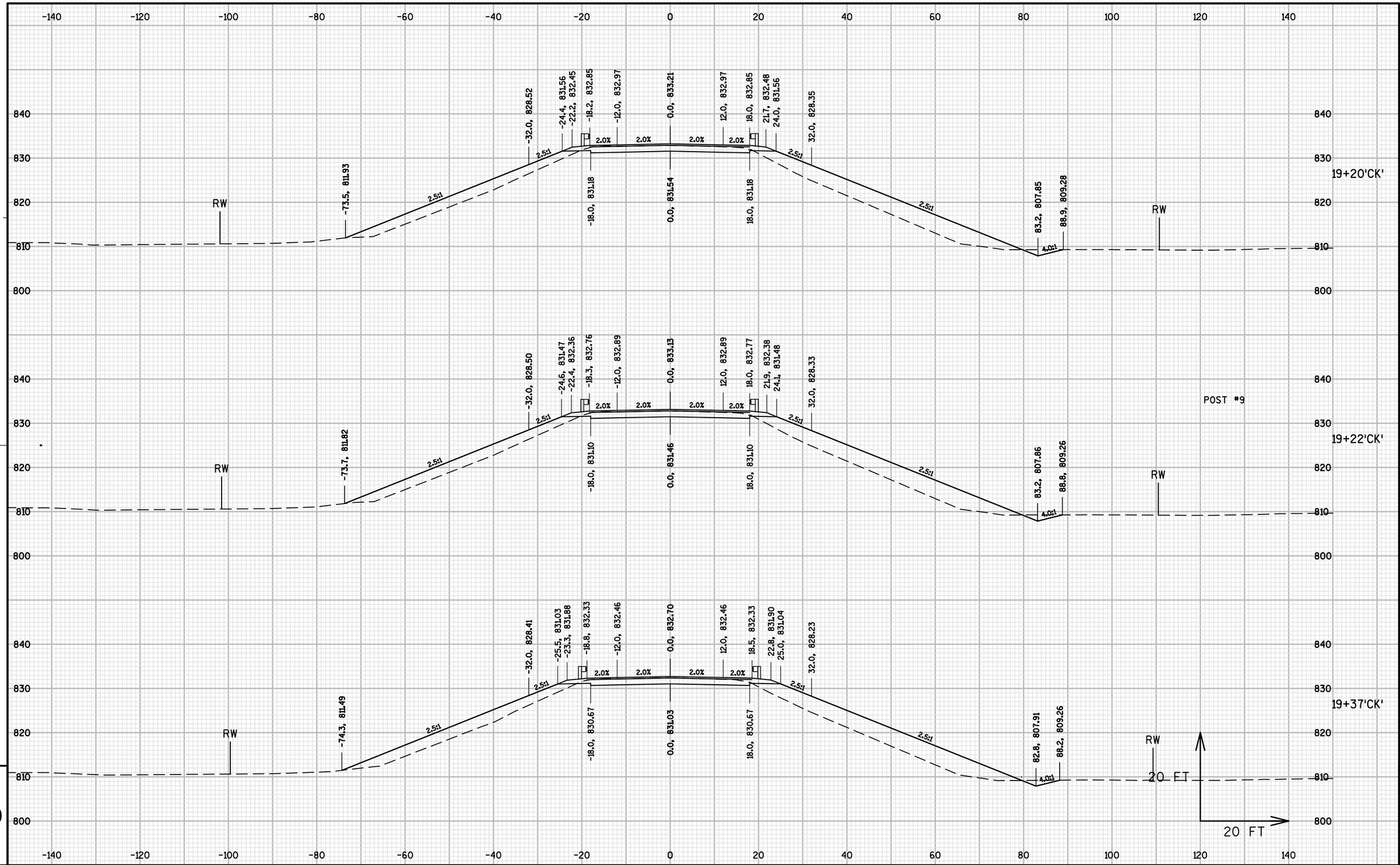

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PROJECT NO: 1003-10-74	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: CREEK RD	SHEET	E

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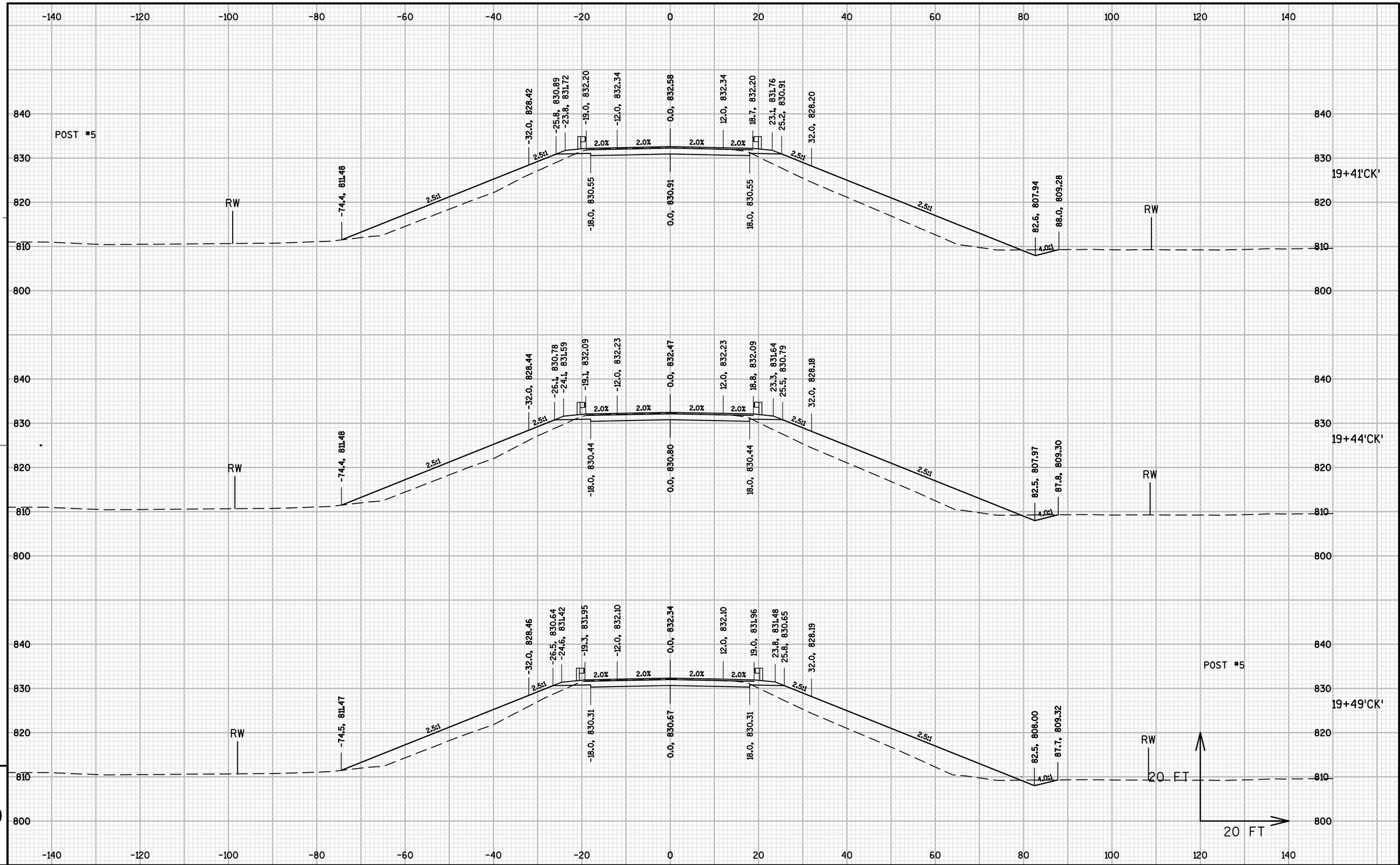

PROJECT NO: 1003-10-74	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: CREEK RD	SHEET E

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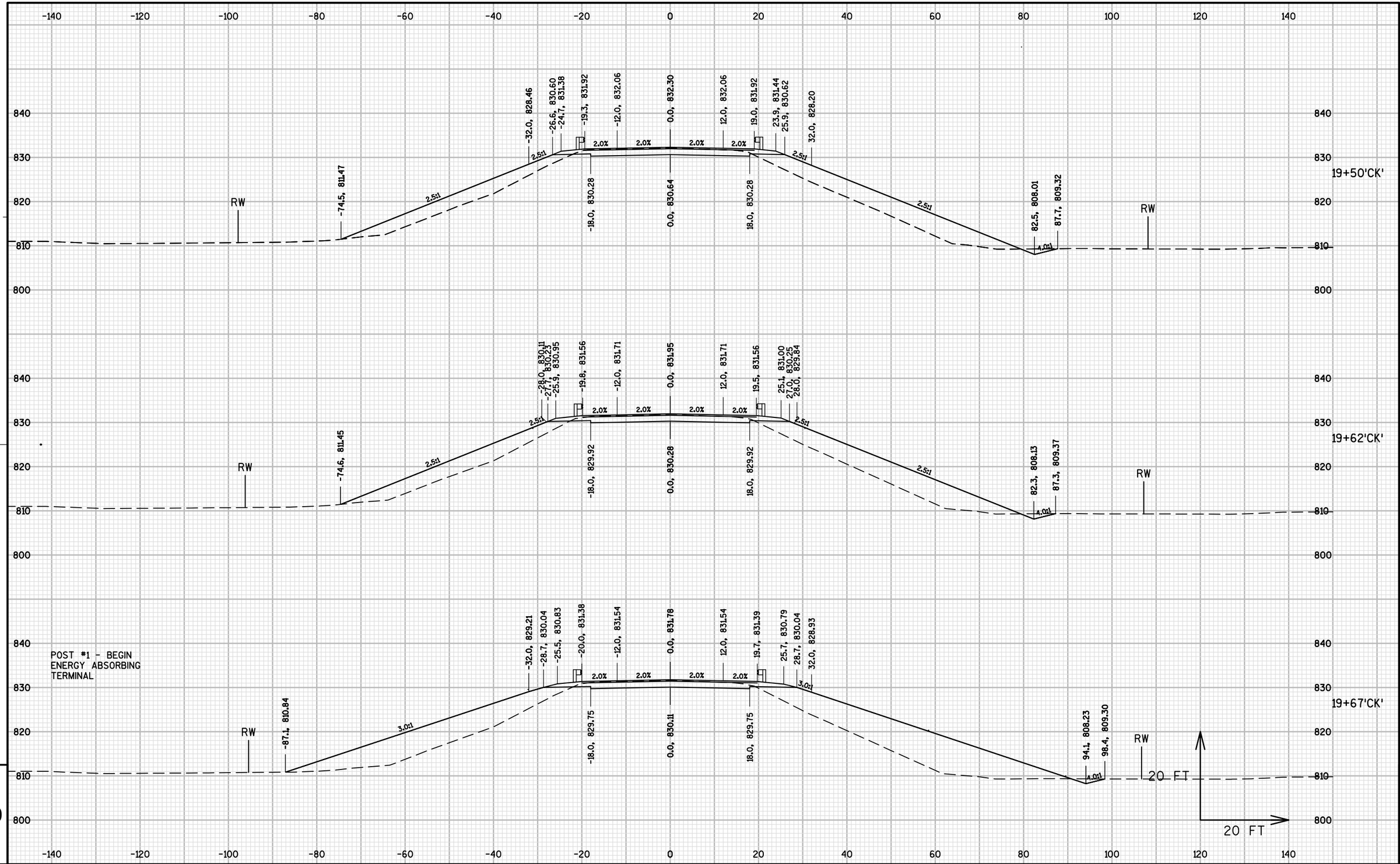
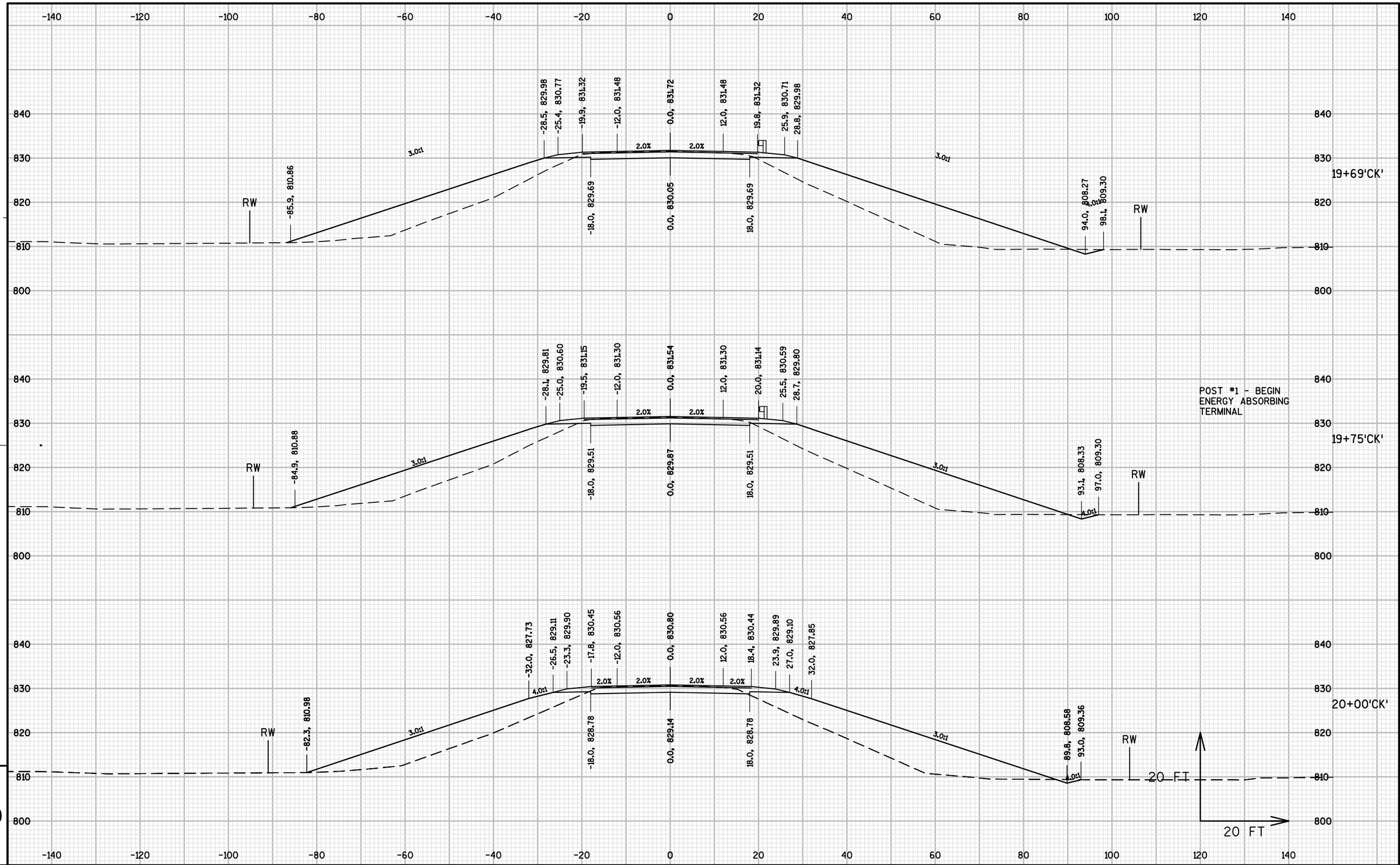


PROJECT NO: 1003-10-74	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: CREEK RD	SHEET E

FILE NAME : L:\WORK\PROJECTS\60242867\000_CAD\001_DRAWINGS\1003-10-74_CREEK RD\100% +\090101_XS.DWG PLOT DATE : 4/8/2016 2:16 PM PLOT BY : CZECH, ANDREW PLOT NAME : PLOT SCALE : 1:20_XREF



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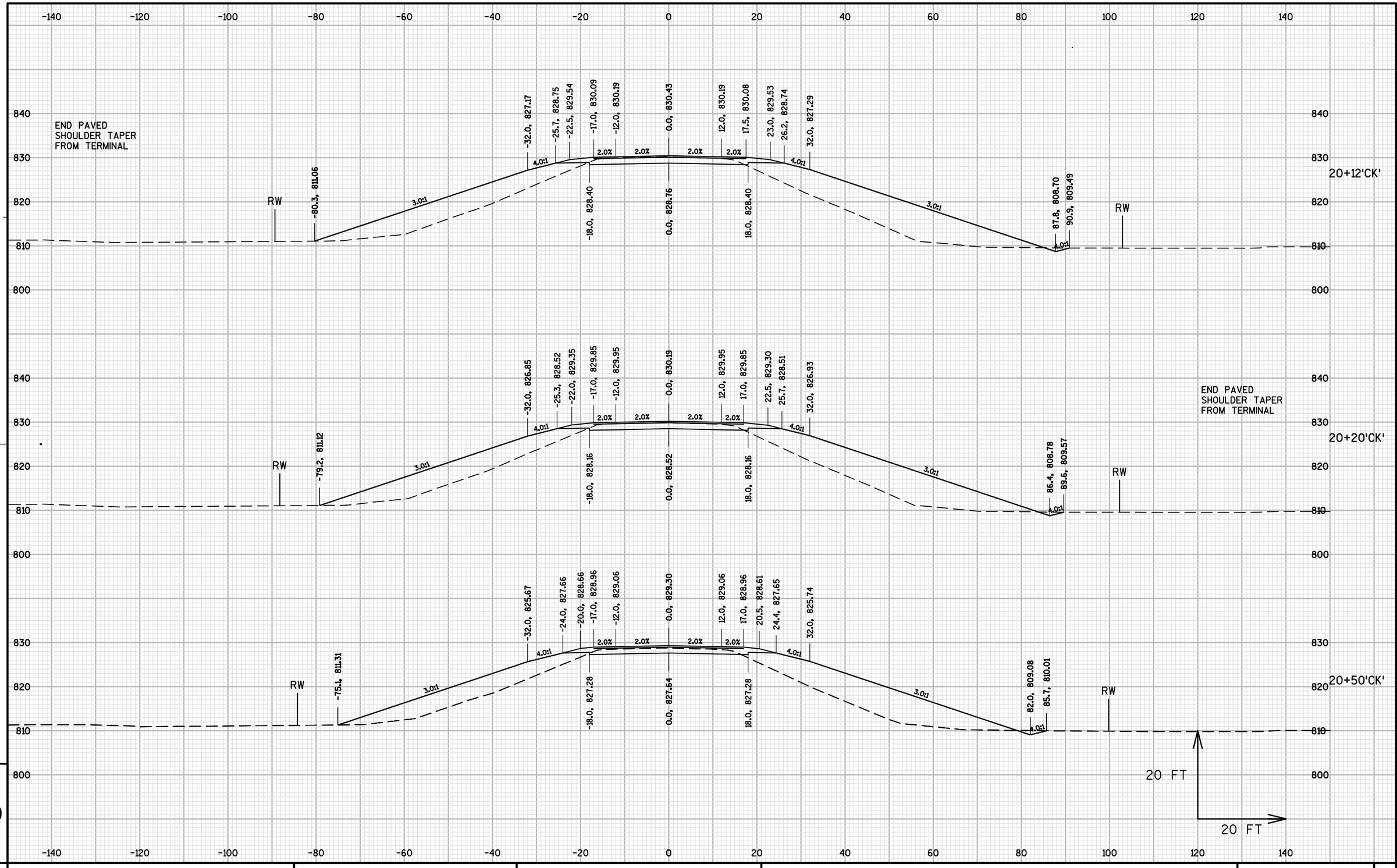
PROJECT NO: 1003-10-74	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: CREEK RD	SHEET	E

FILE NAME : L:\WORK\PROJECTS\60242867\000_CAD\001_DRAWINGS\1003-10-74_CREEK RD\100% +\090101_XS.DWG PLOT DATE : 4/8/2016 2:16 PM PLOT BY : CZECH, ANDREW PLOT NAME : PLOT SCALE : 1:20_XREF
WISDOT/CADDS SHEET 49



PROJECT NO: 1003-10-74	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: CREEK RD	SHEET	E

FILE NAME : L:\WORK\PROJECTS\60242867\000_CAD\001_DRAWINGS\1003-10-74_CREEK RD\100% +\090101_XS.DWG
PLOT DATE : 4/8/2016 2:17 PM
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PLOT NAME :
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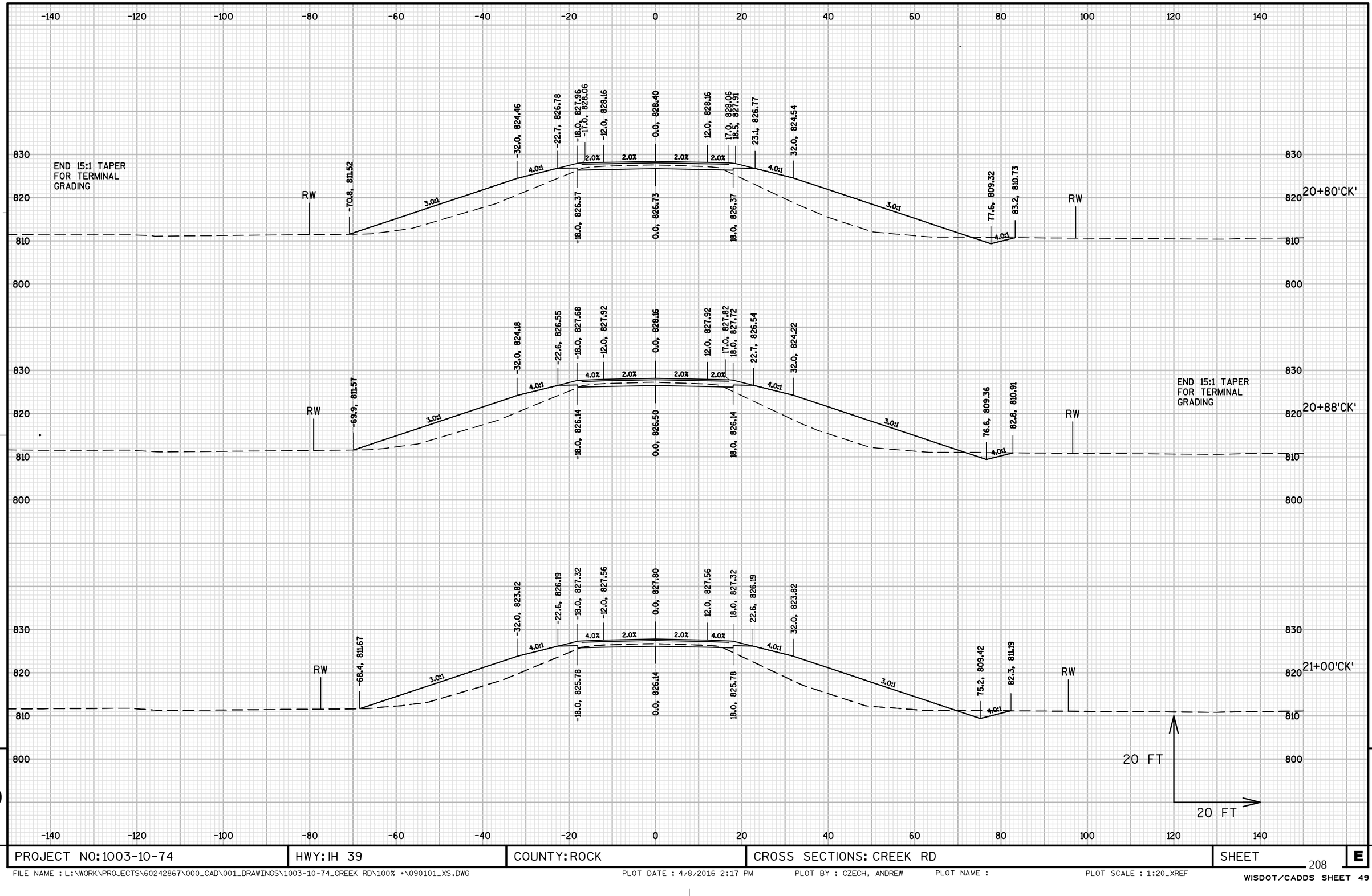
WISDOT/CADDS SHEET 49



PROJECT NO: 1003-10-74	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: CREEK RD	SHEET	E

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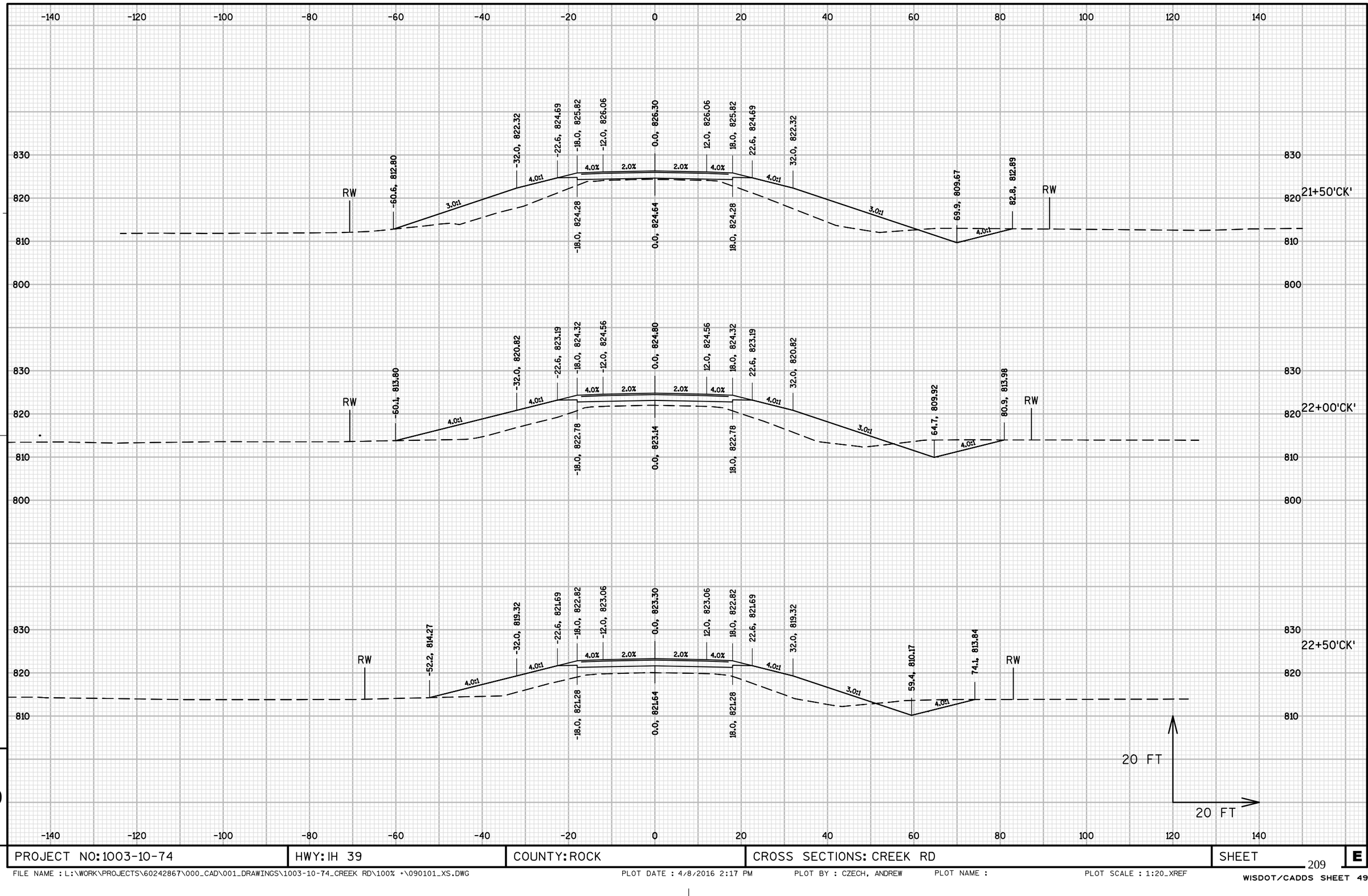
WISDOT/CADDS SHEET 49



PROJECT NO: 1003-10-74	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: CREEK RD	SHEET	E

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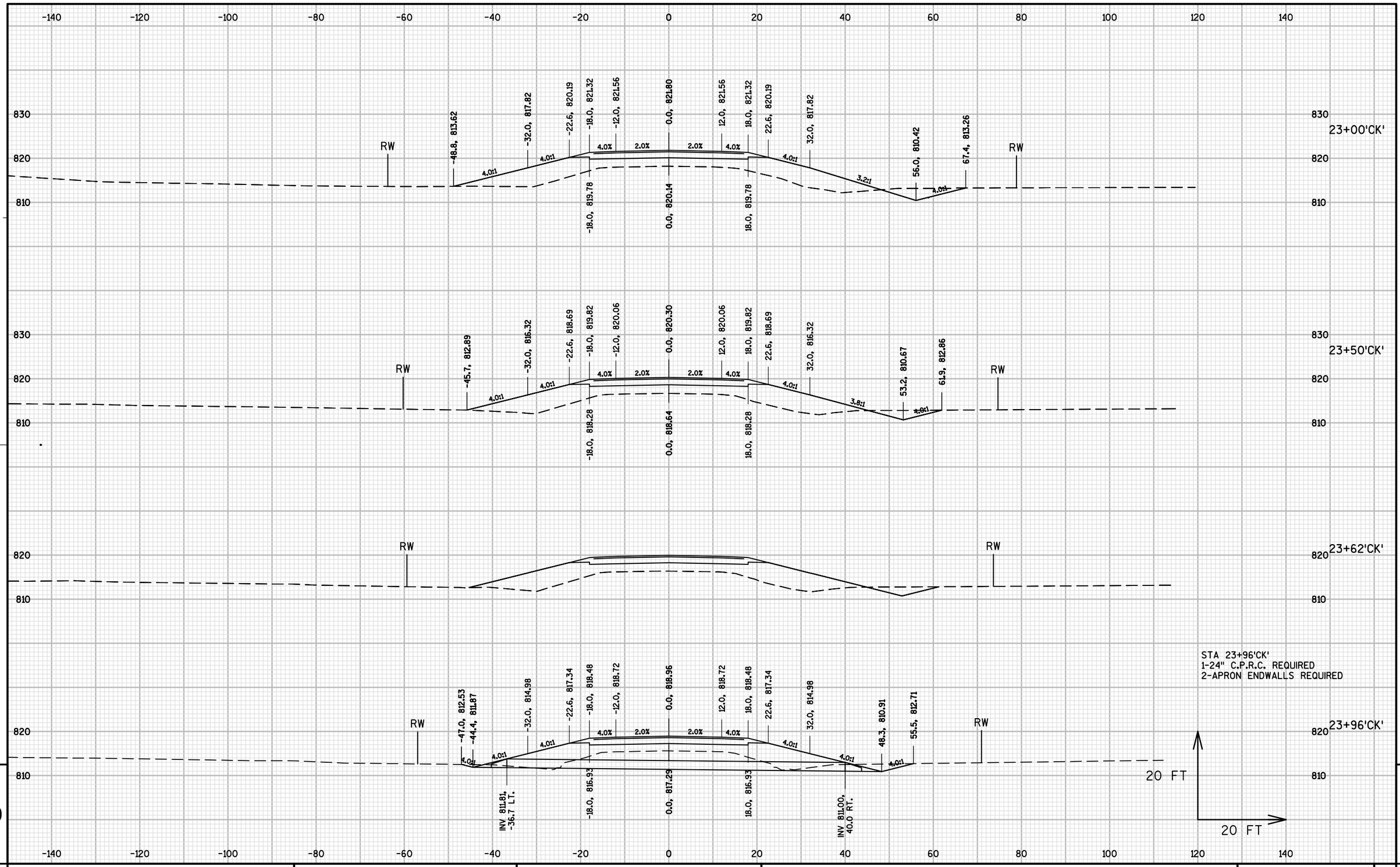

PROJECT NO: 1003-10-74	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: CREEK RD	SHEET E

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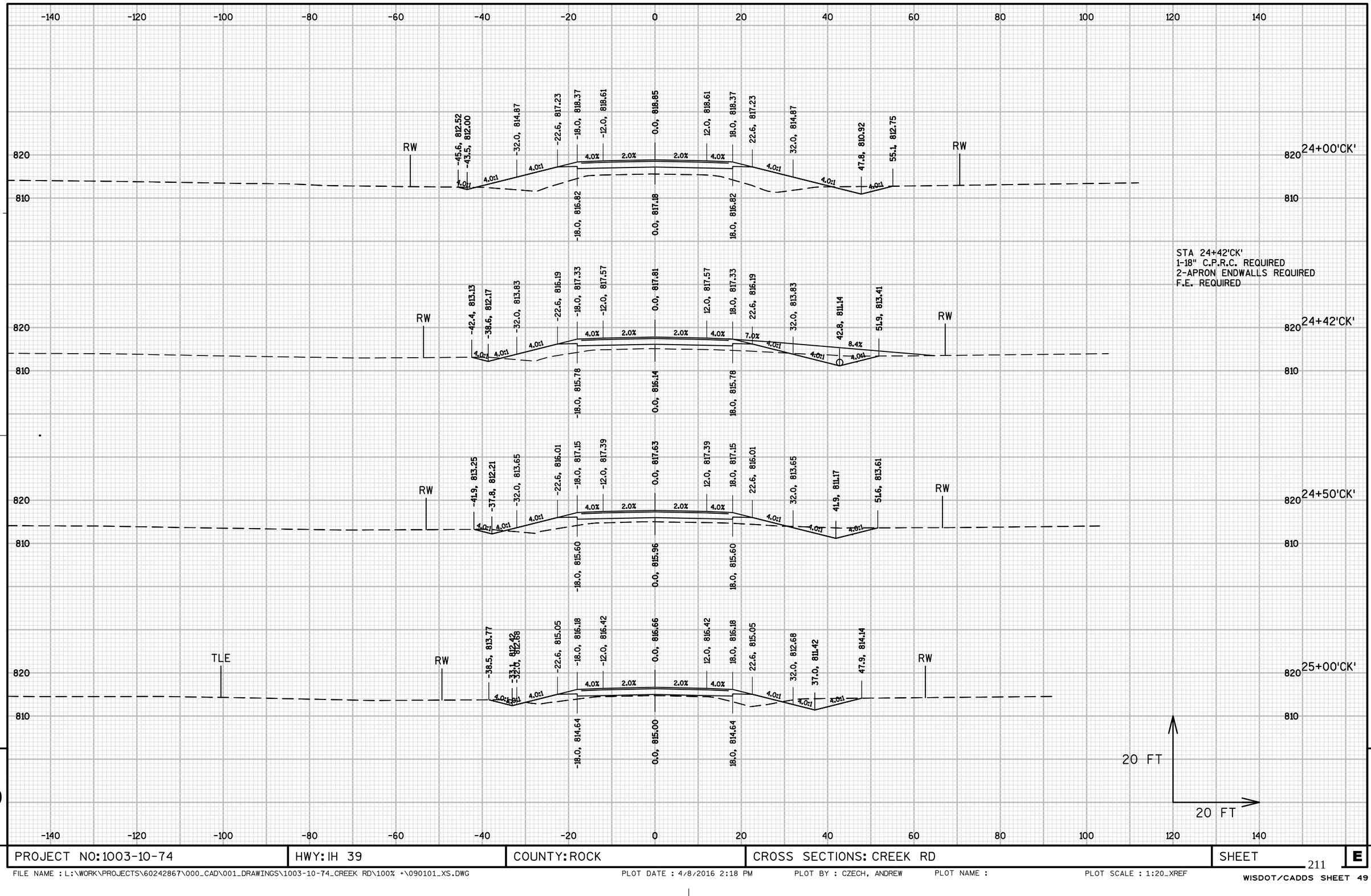

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PROJECT NO: 1003-10-74	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: CREEK RD	SHEET E

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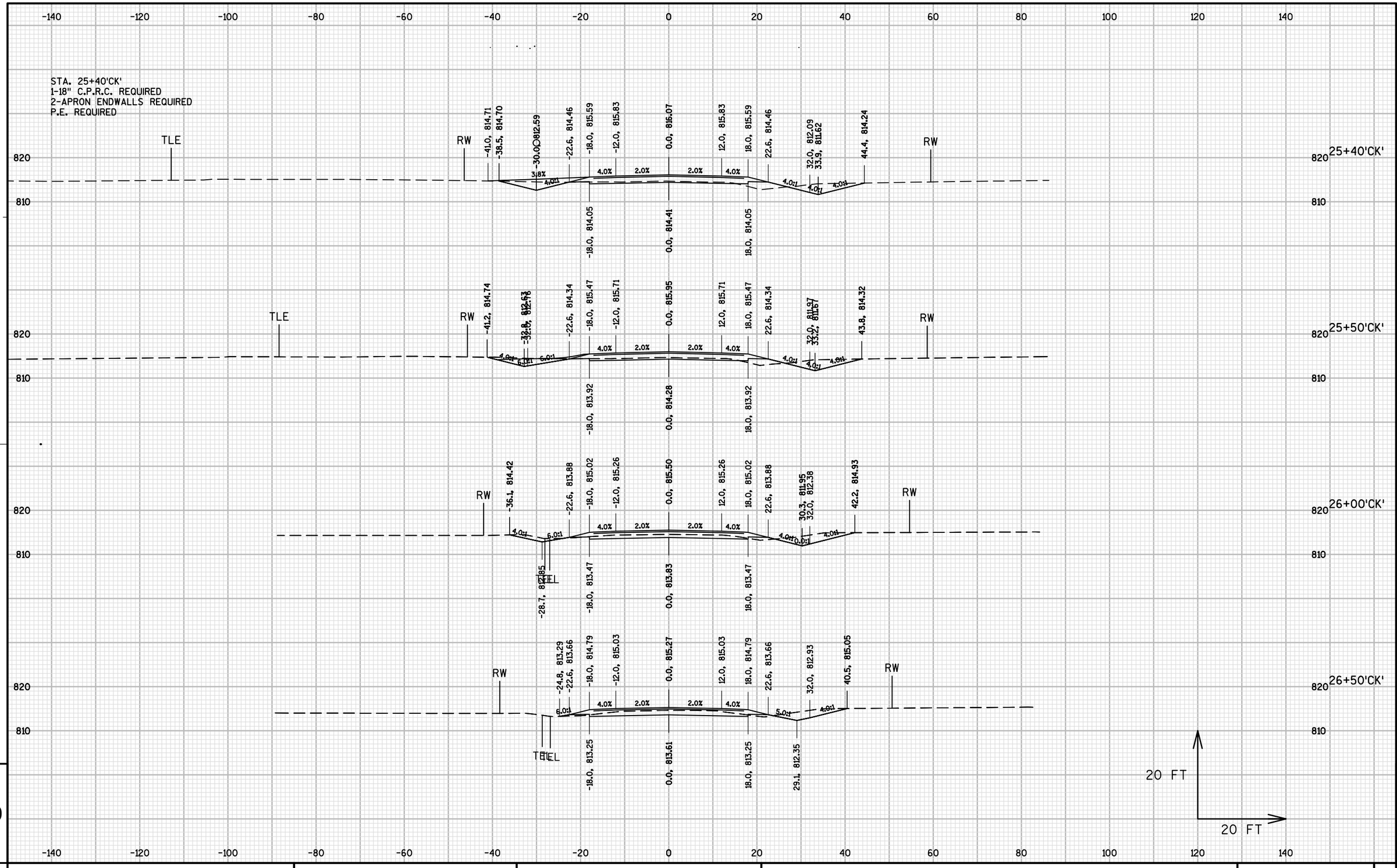
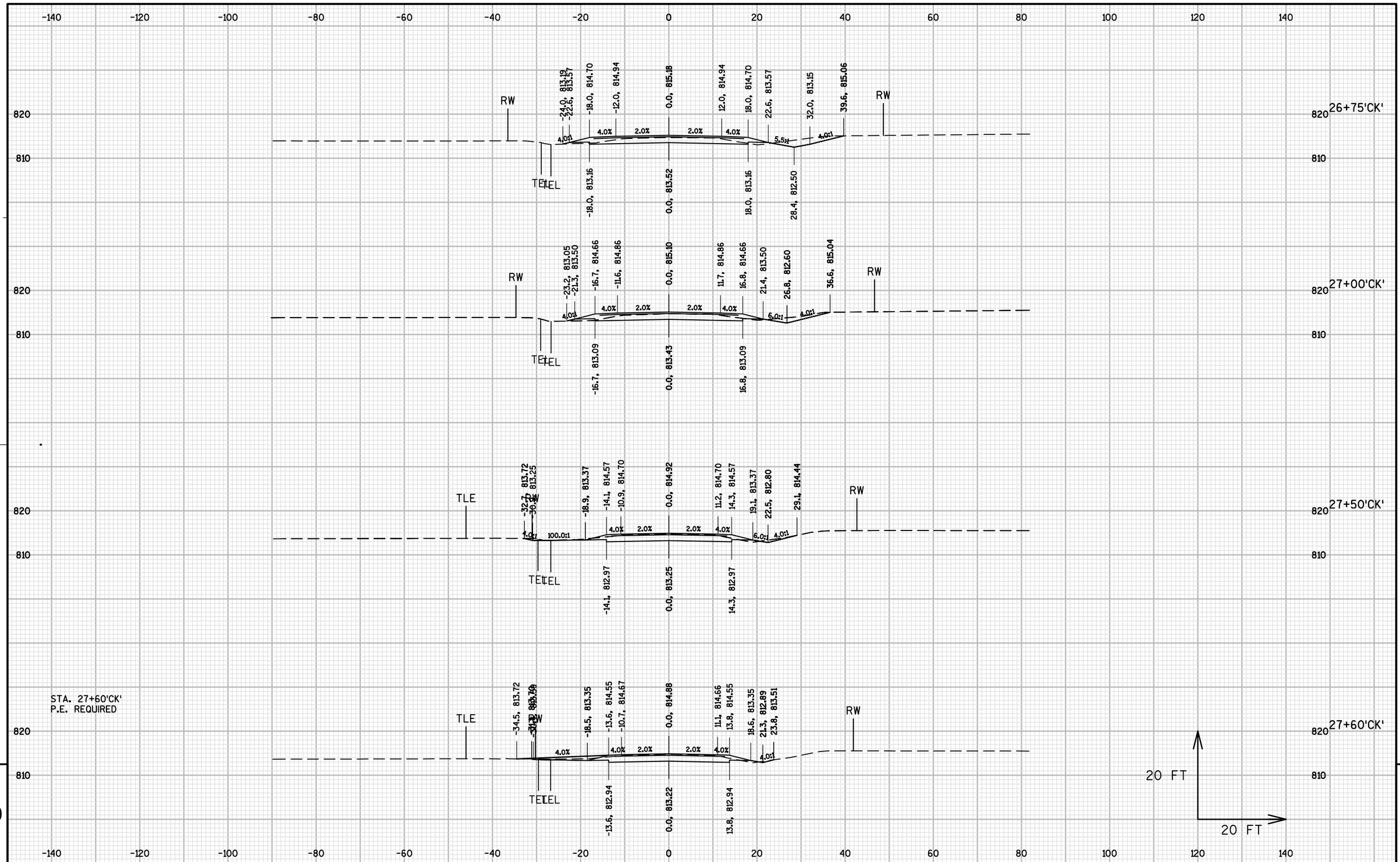
WISDOT/CADDS SHEET 49

STA. 25+40'CK'
1-18" C.P.R.C. REQUIRED
2-APRON ENDWALLS REQUIRED
P.E. REQUIRED



PROJECT NO: 1003-10-74	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: CREEK RD	SHEET	E

FILE NAME : L:\WORK\PROJECTS\60242867\000_CAD\001_DRAWINGS\1003-10-74_CREEK RD\100% +\090101_XS.DWG PLOT DATE : 4/8/2016 2:18 PM PLOT BY : CZECH, ANDREW PLOT NAME : PLOT SCALE : 1:20_XREF
WISDOT/CADDS SHEET 49



PROJECT NO: 1003-10-74	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: CREEK RD	SHEET	E

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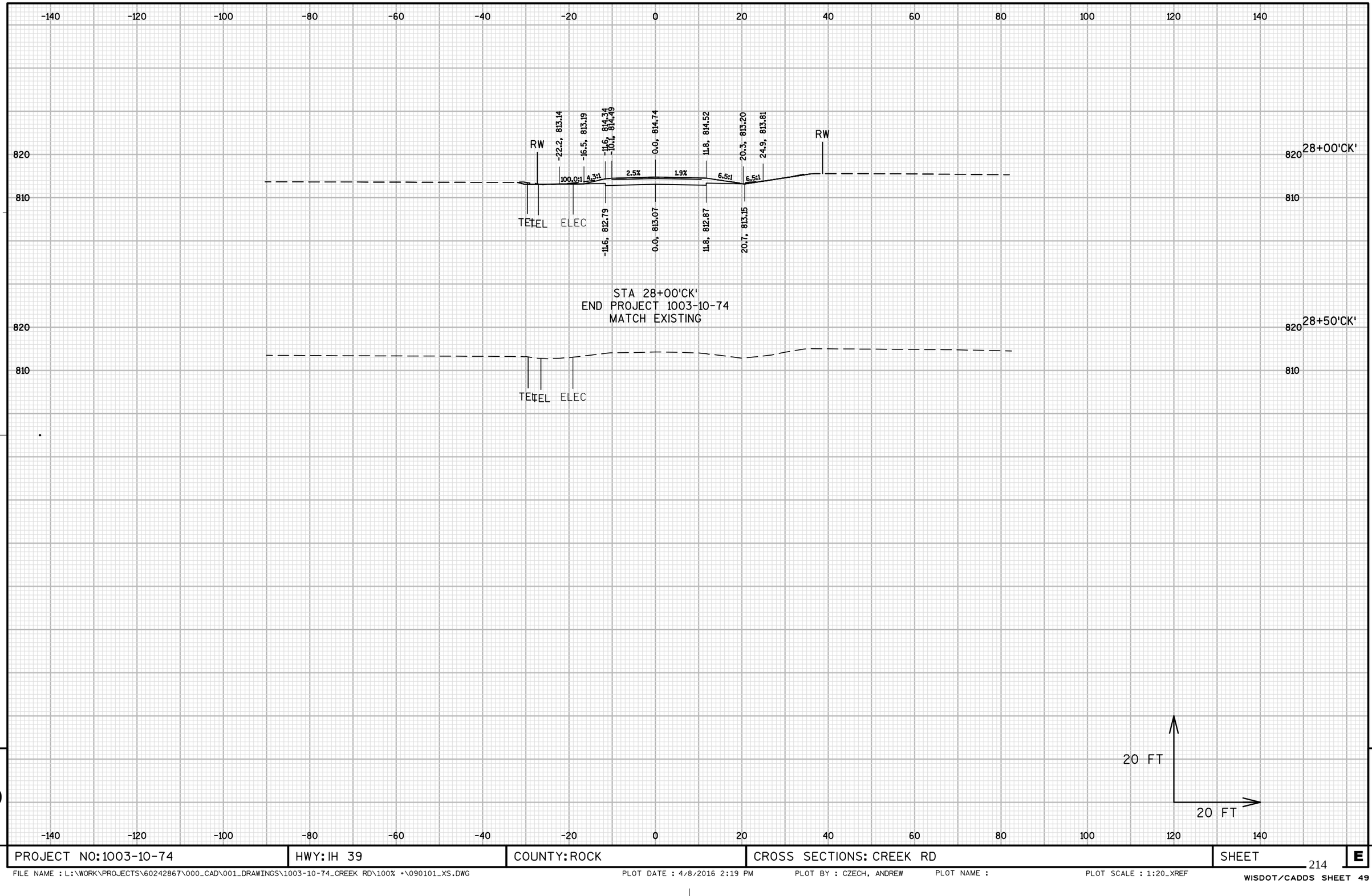
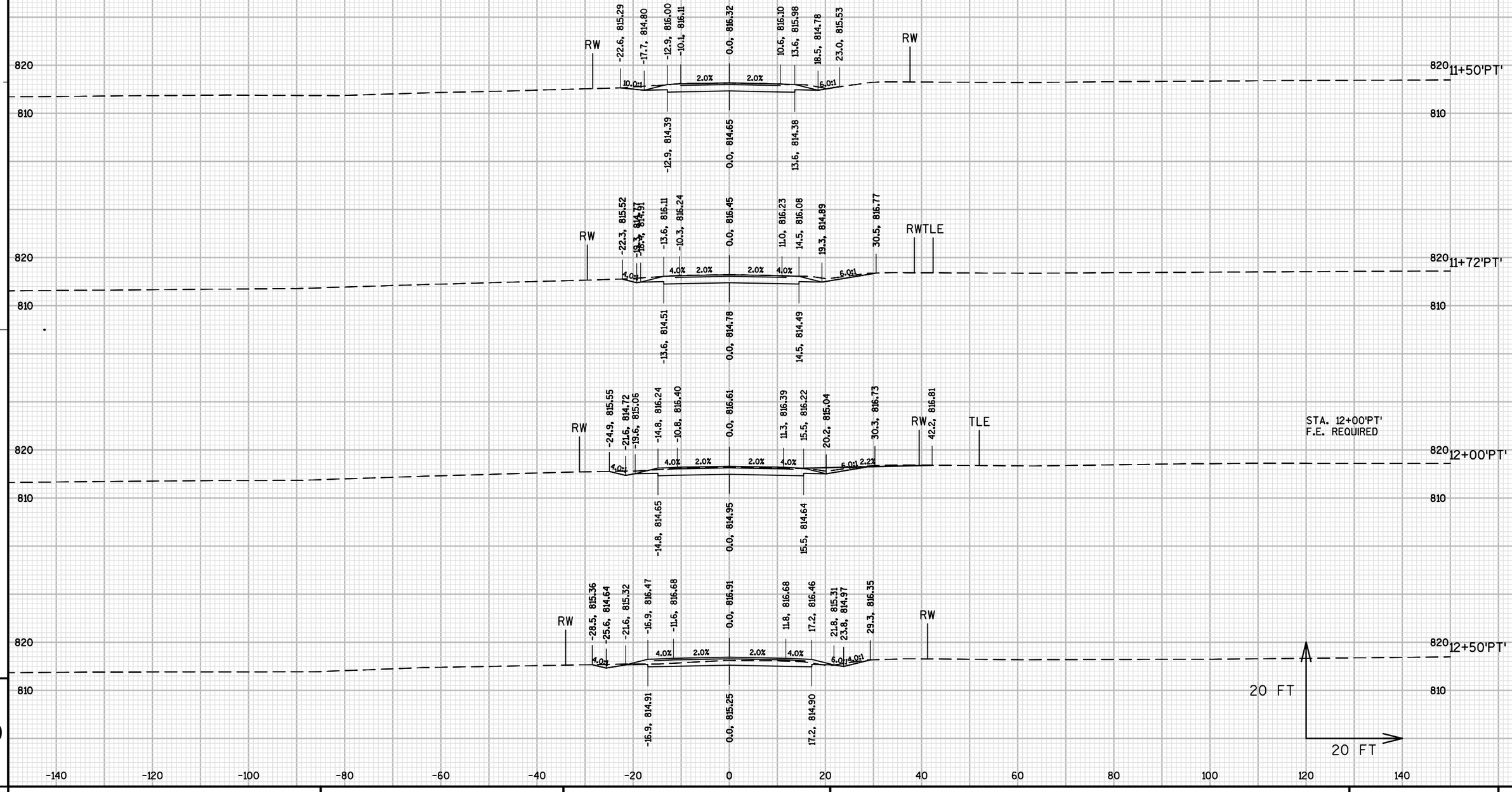
WISDOT/CADDS SHEET 49



PROJECT NO: 1003-10-74	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: CREEK RD	SHEET	E

FILE NAME : L:\WORK\PROJECTS\60242867\000_CAD\001_DRAWINGS\1003-10-74_CREEK RD\100% +\090101_XS.DWG PLOT DATE : 4/8/2016 2:19 PM PLOT BY : CZECH, ANDREW PLOT NAME : PLOT SCALE : 1:20_XREF

STA 11+50'PT'
BEGIN CONSTRUCTION
MATCH EXISTING



PROJECT NO: 1003-10-74	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: PATRICK RD	SHEET E

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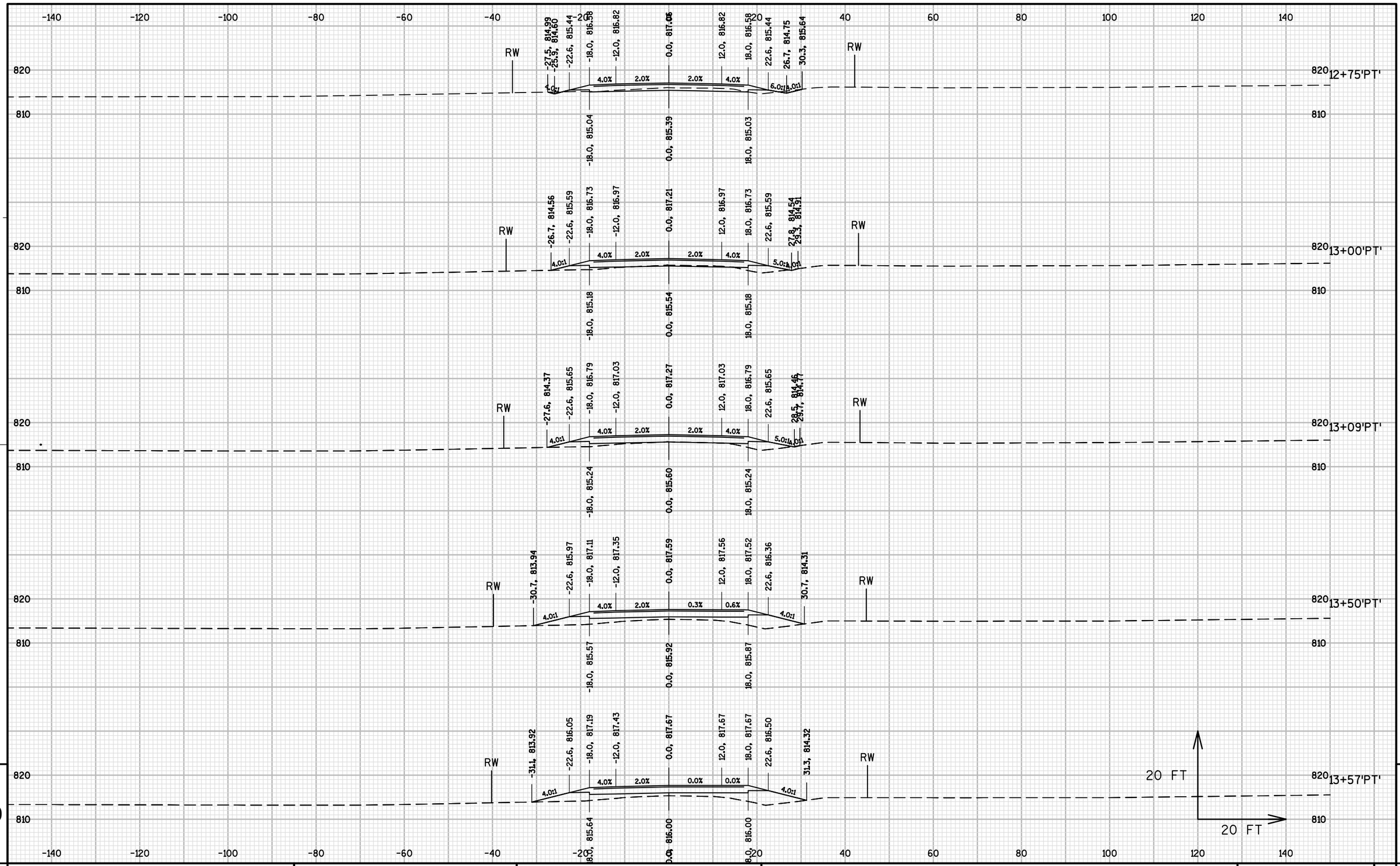

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PROJECT NO: 1003-10-74	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: PATRICK RD	SHEET	E

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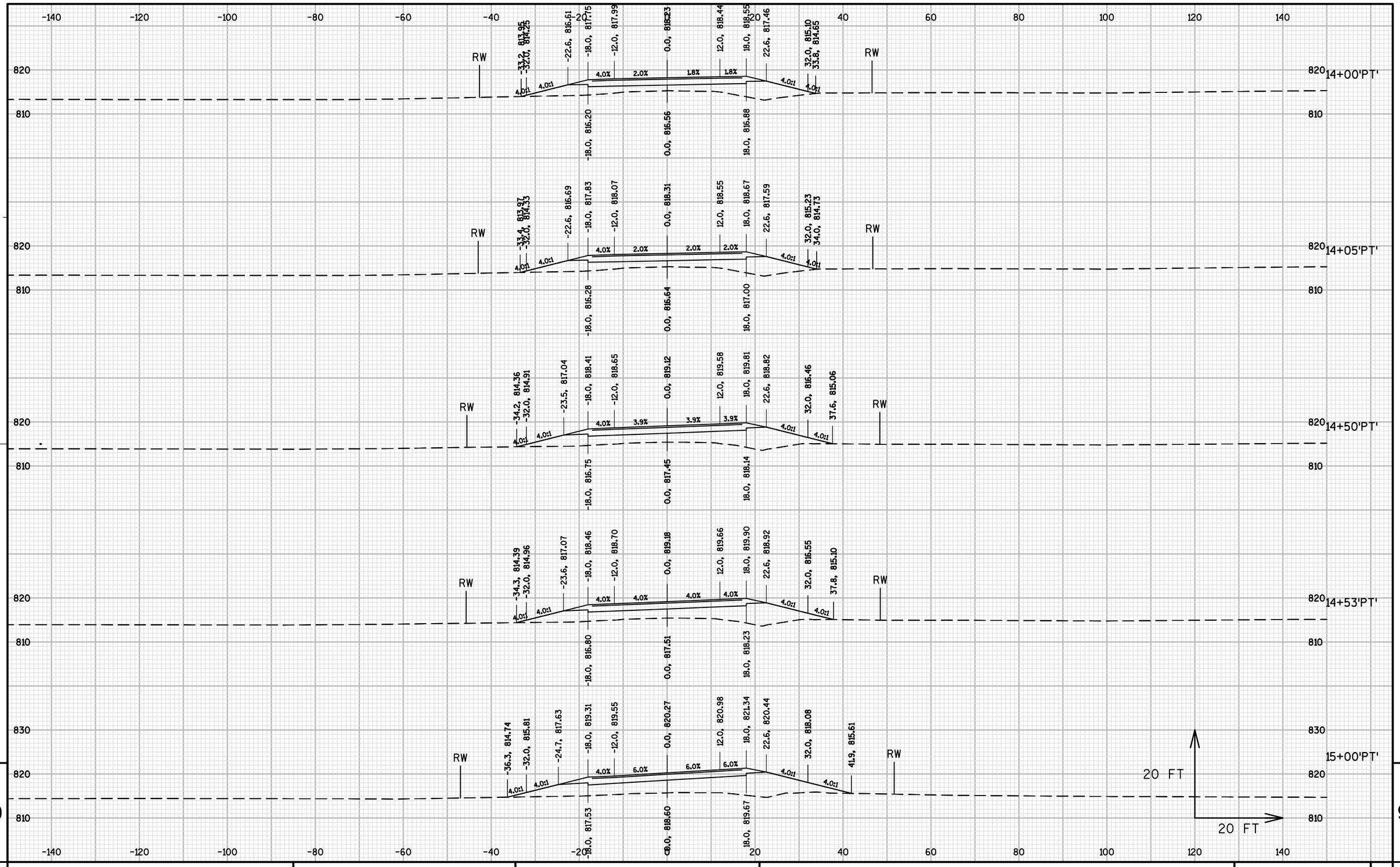
WISDOT/CADDS SHEET 49



PROJECT NO: 1003-10-74	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: PATRICK RD	SHEET E

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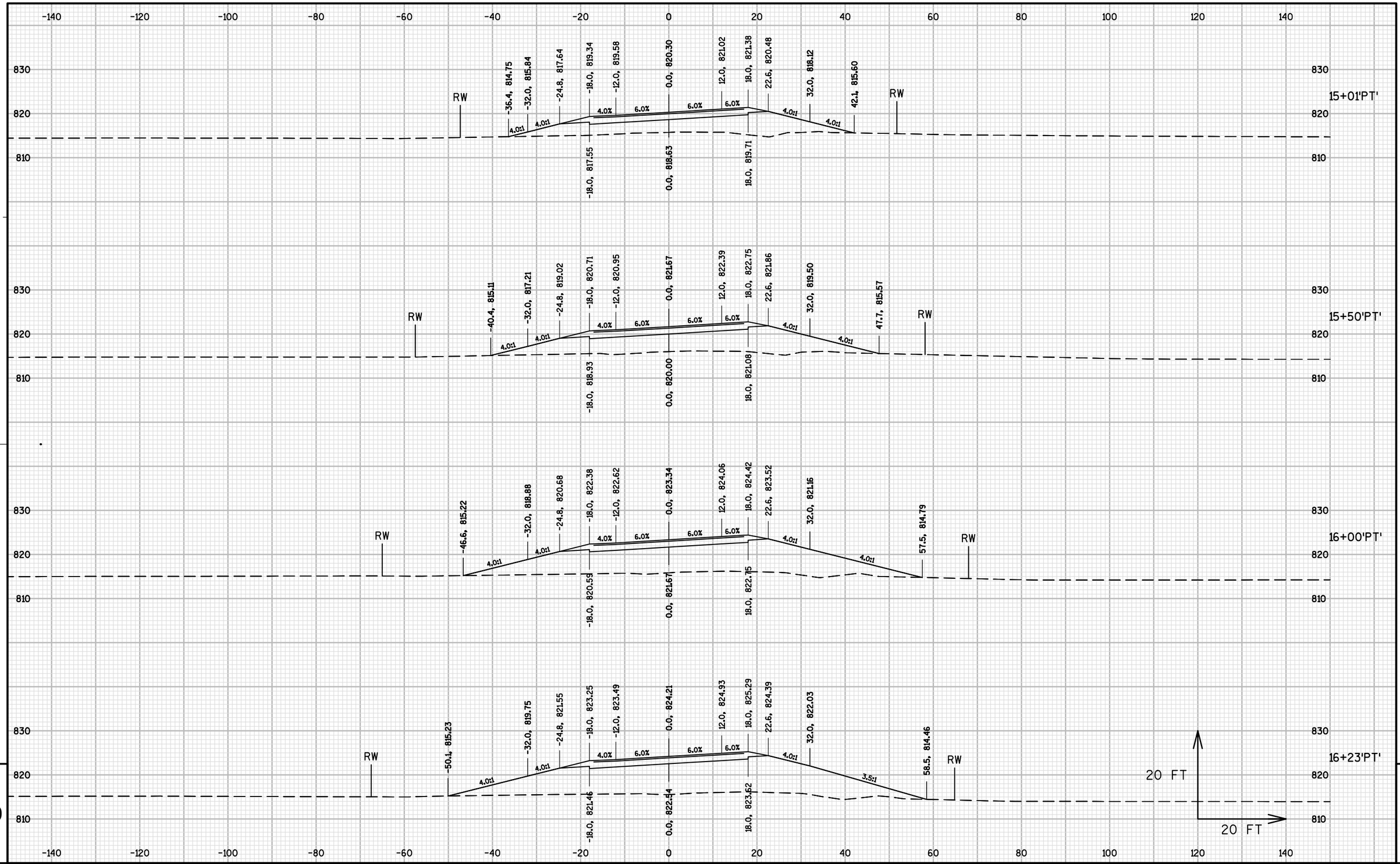

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PROJECT NO: 1003-10-74	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: PATRICK RD	SHEET	E

FILE NAME : L:\WORK\PROJECTS\60242867\000_CAD\001_DRAWINGS\1003-10-74_CREEK RD\100% +\090101_XS.DWG PLOT DATE : 4/8/2016 2:20 PM PLOT BY : CZECH, ANDREW PLOT NAME : PLOT SCALE : 1:20_XREF

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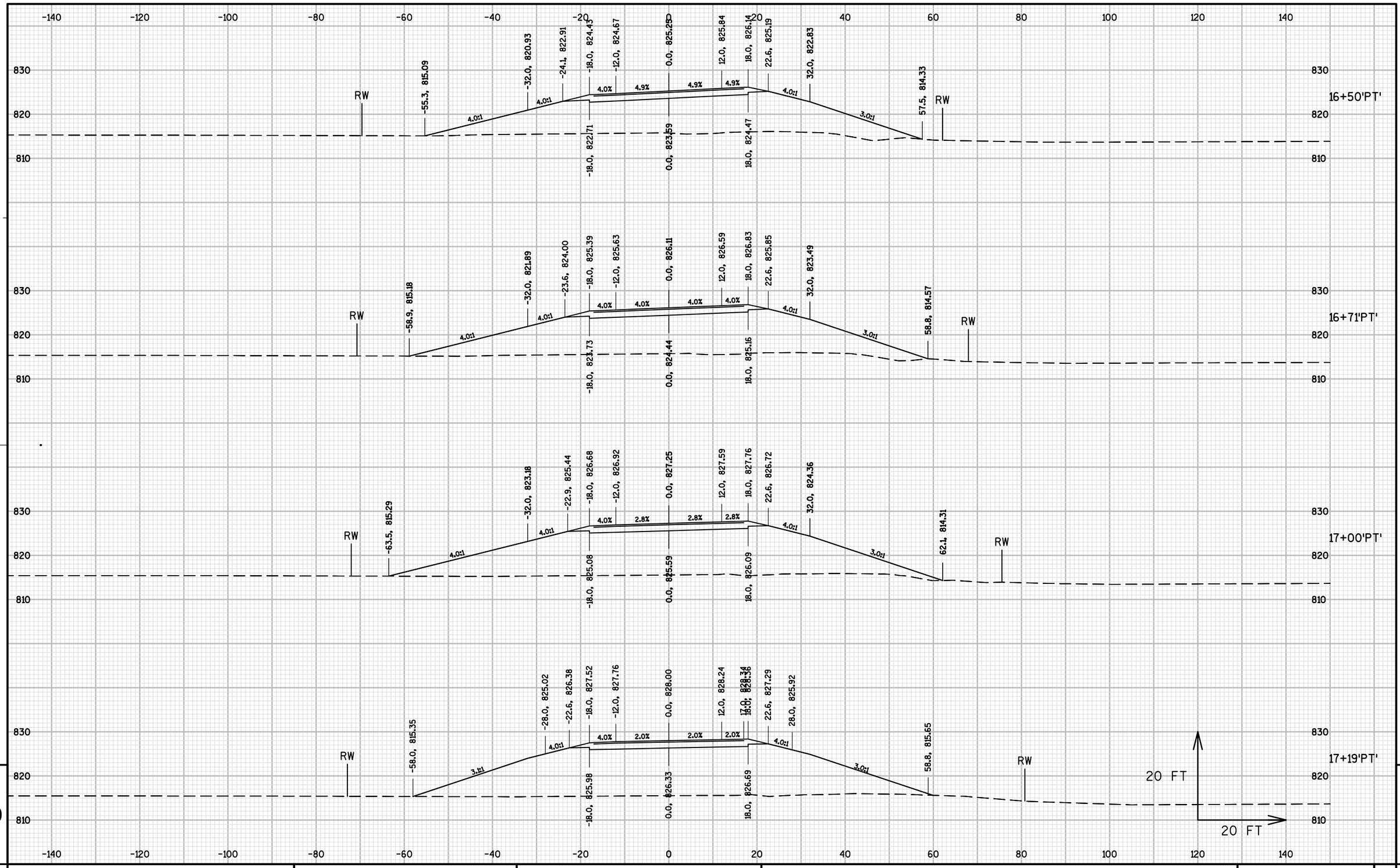

PROJECT NO: 1003-10-74	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: PATRICK RD	SHEET	E

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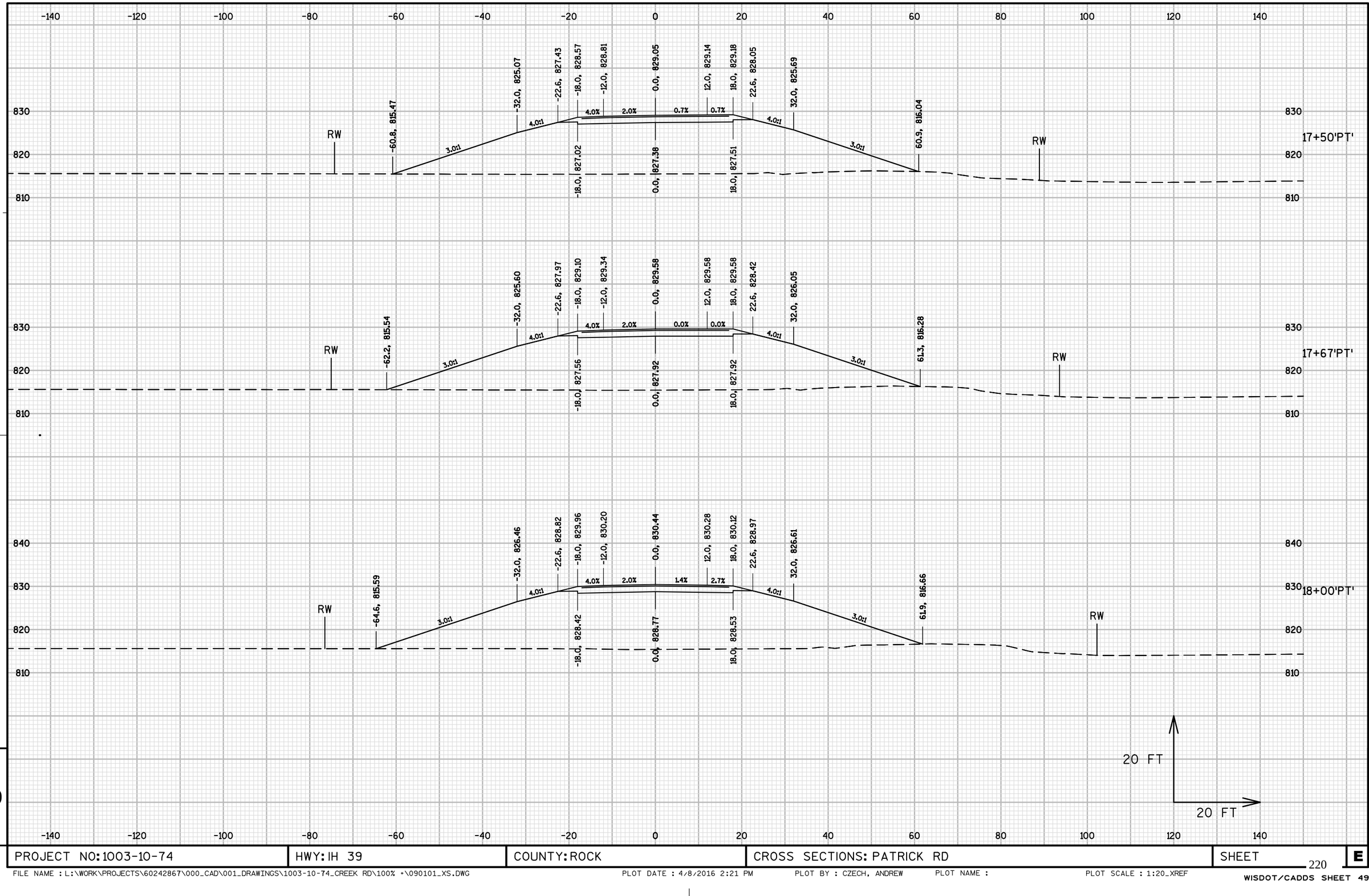

PROJECT NO: 1003-10-74	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: PATRICK RD	SHEET	E

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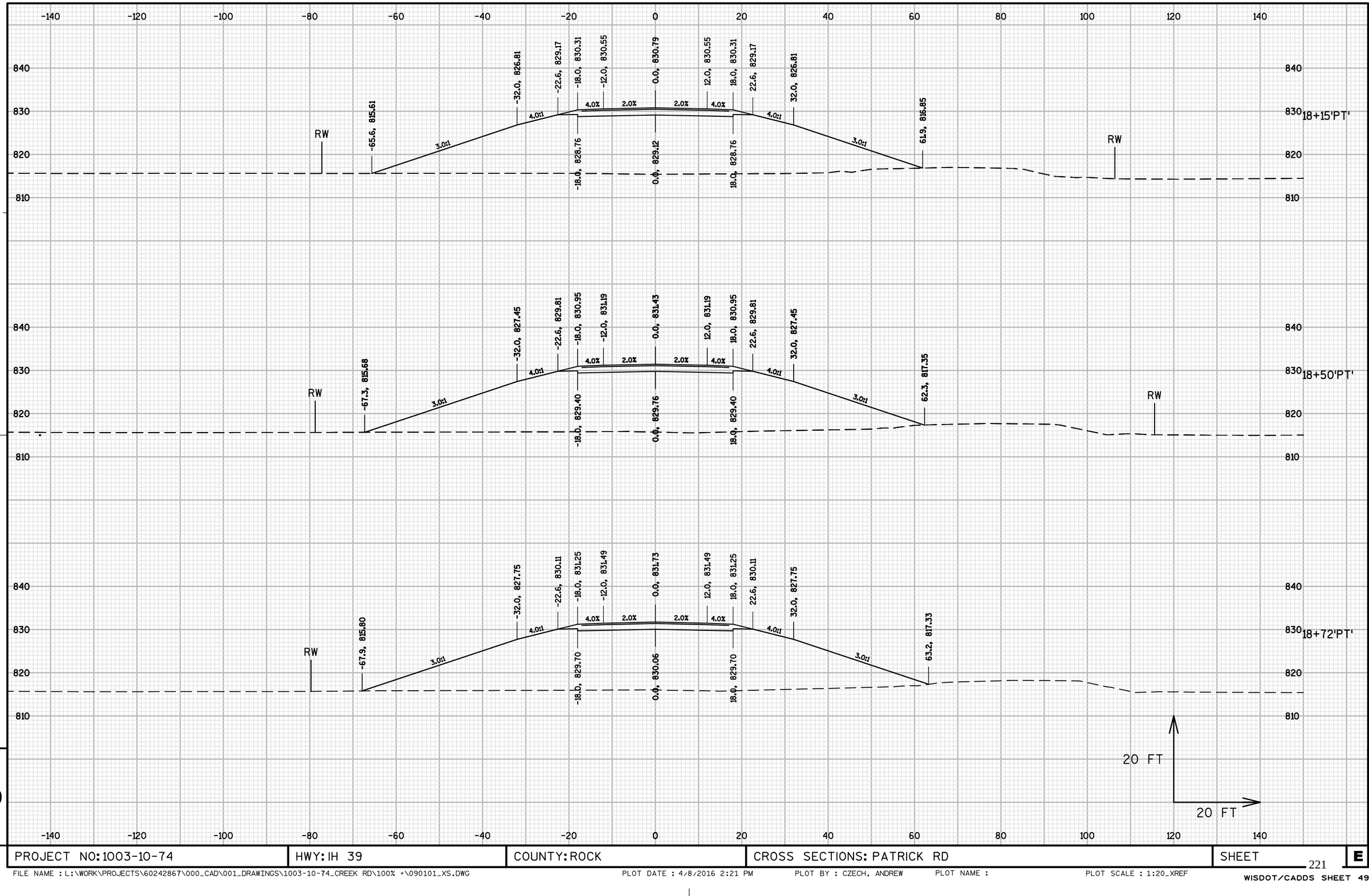

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PROJECT NO: 1003-10-74	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: PATRICK RD	SHEET	E

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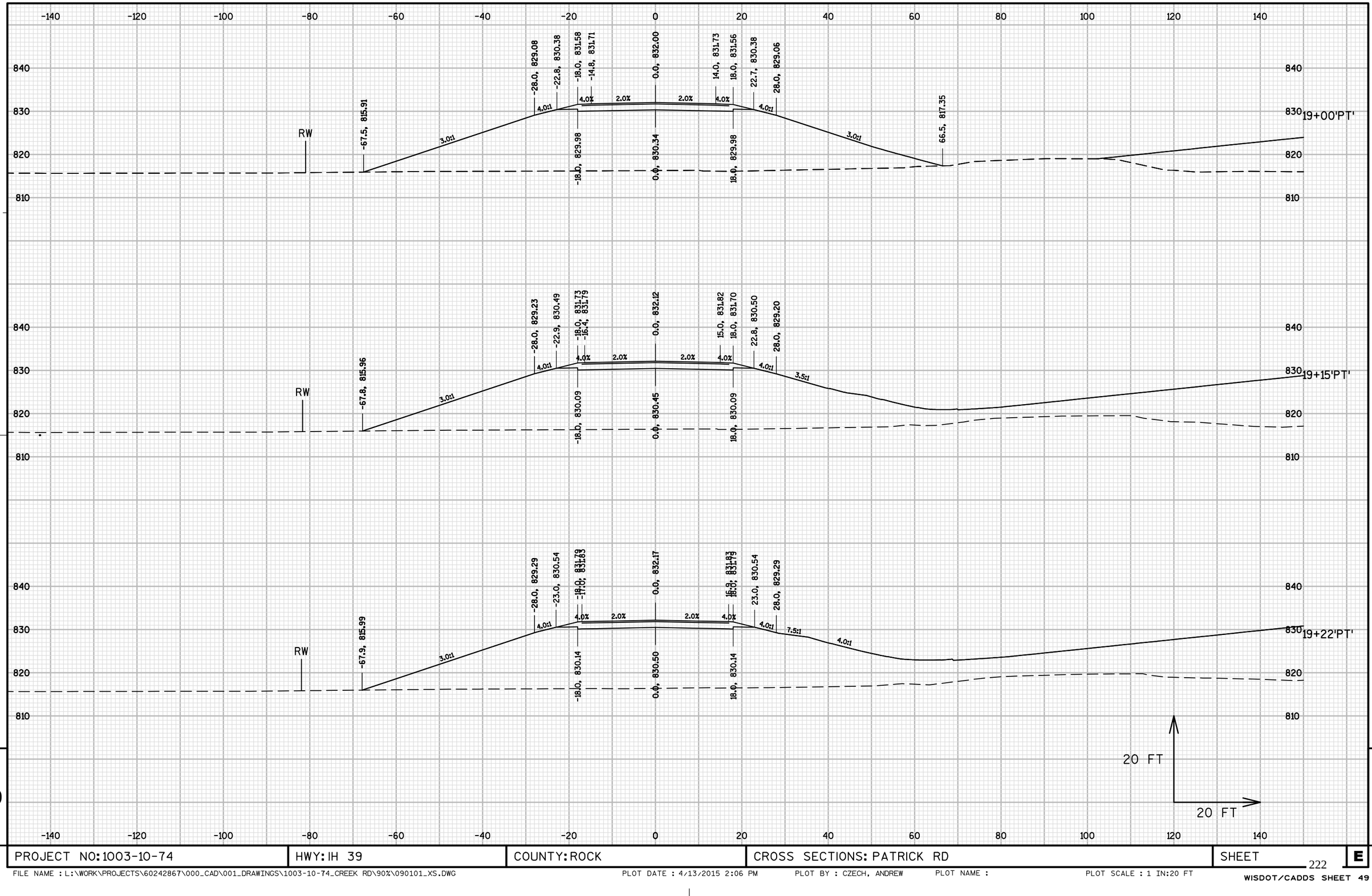

PROJECT NO: 1003-10-74	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: PATRICK RD	SHEET	E

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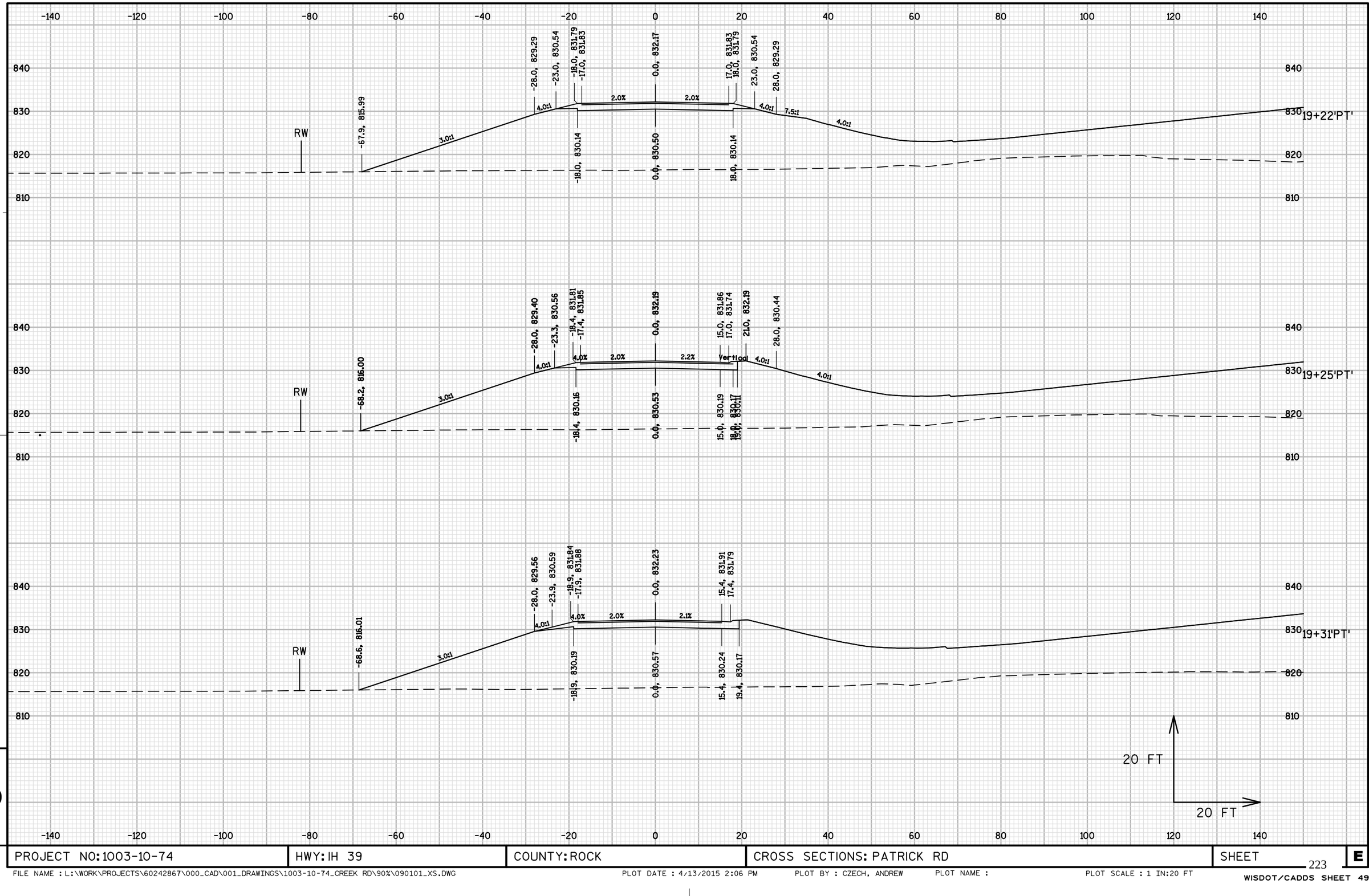

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PROJECT NO: 1003-10-74	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: PATRICK RD	SHEET	E

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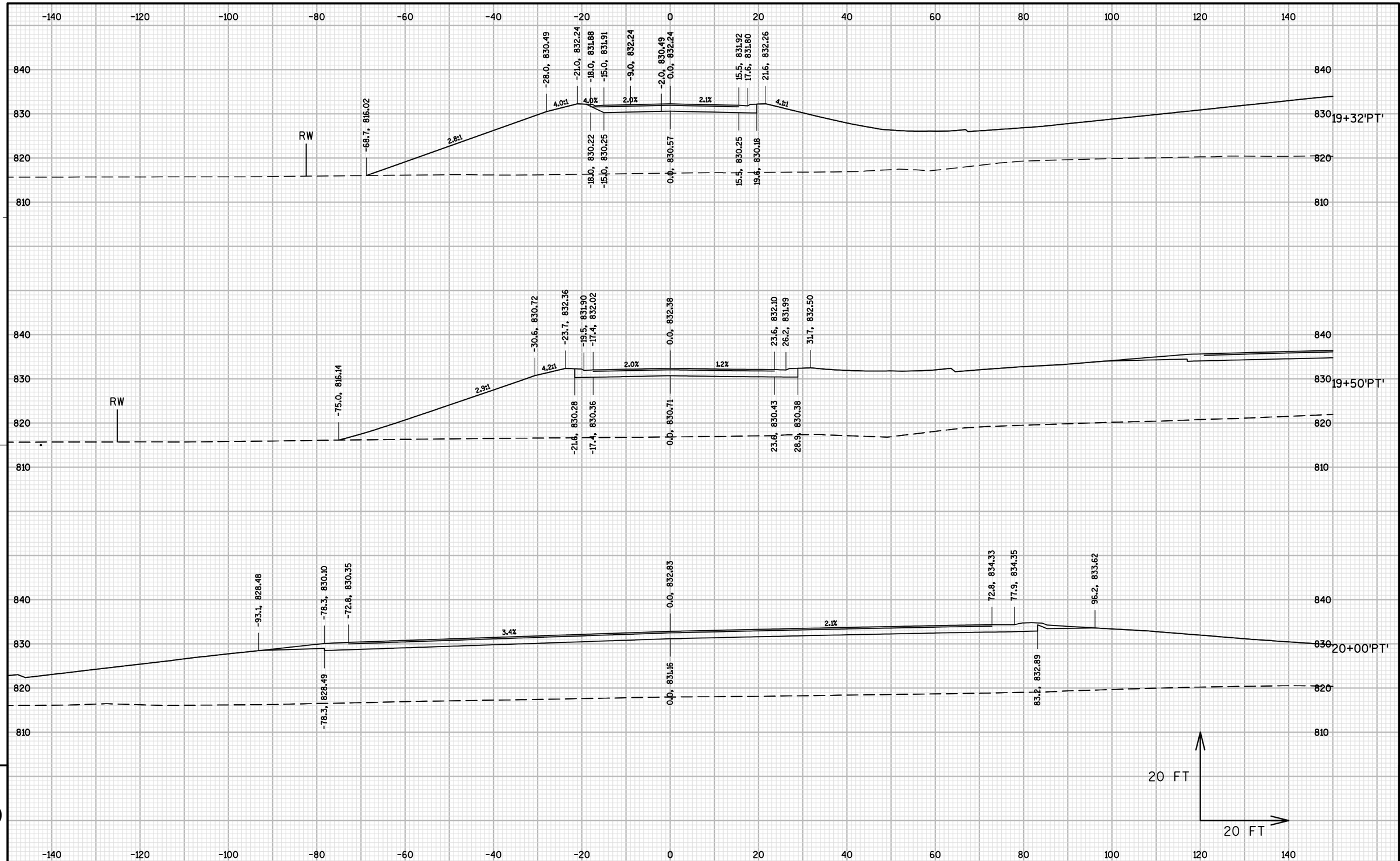

PROJECT NO: 1003-10-74	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: PATRICK RD	SHEET E

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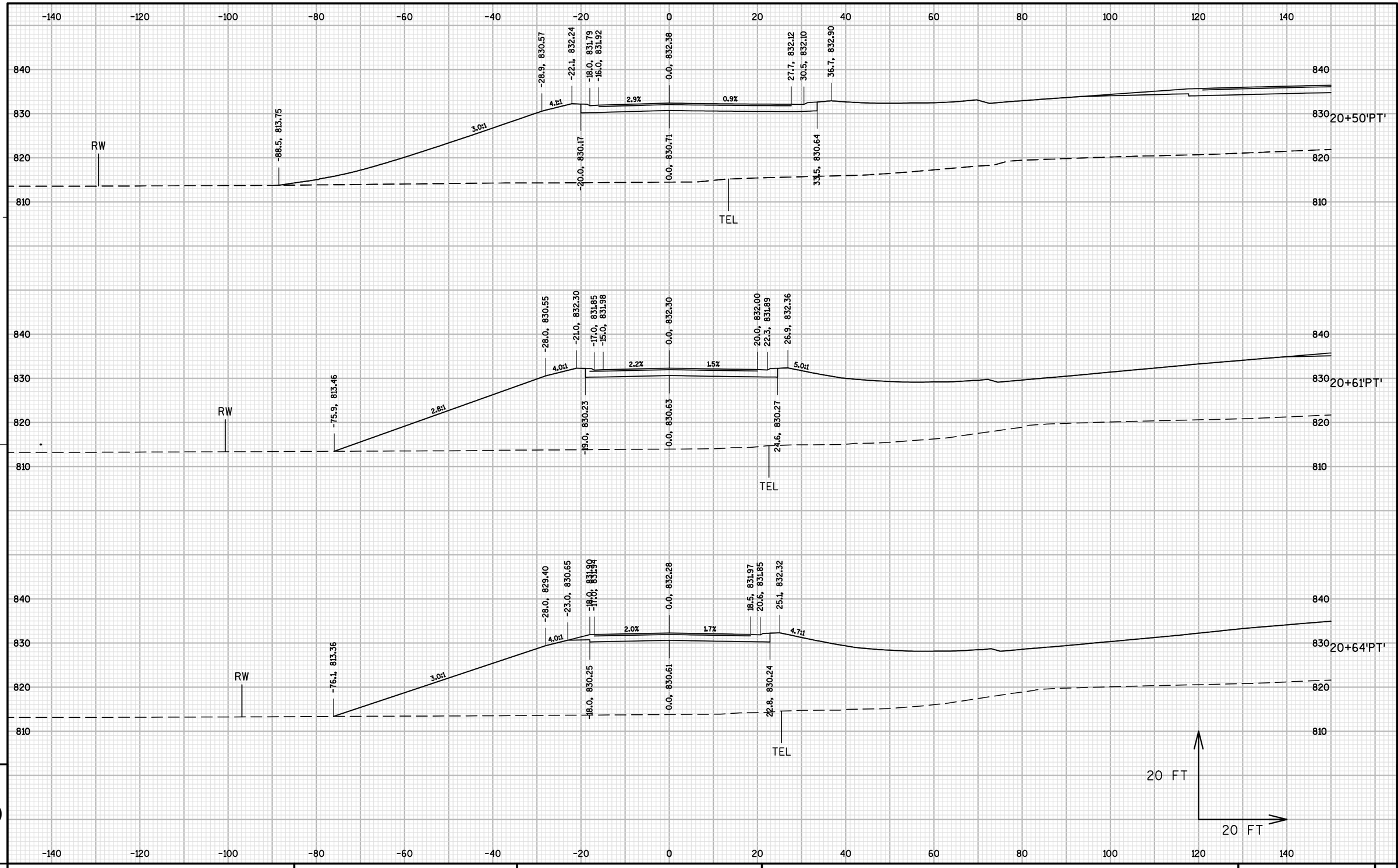

PROJECT NO: 1003-10-74	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: PATRICK RD	SHEET	E

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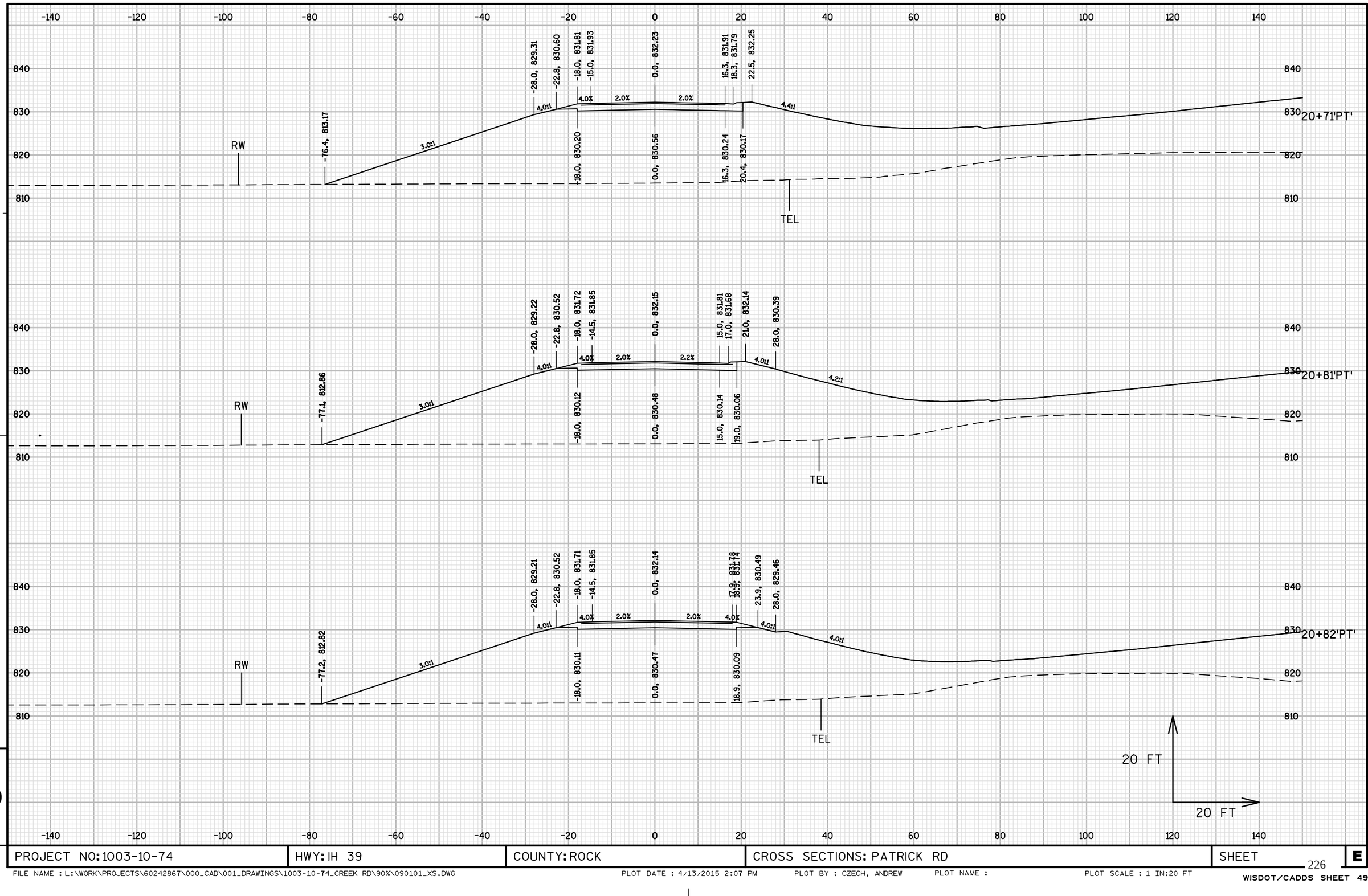

PROJECT NO: 1003-10-74	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: PATRICK RD	SHEET	E

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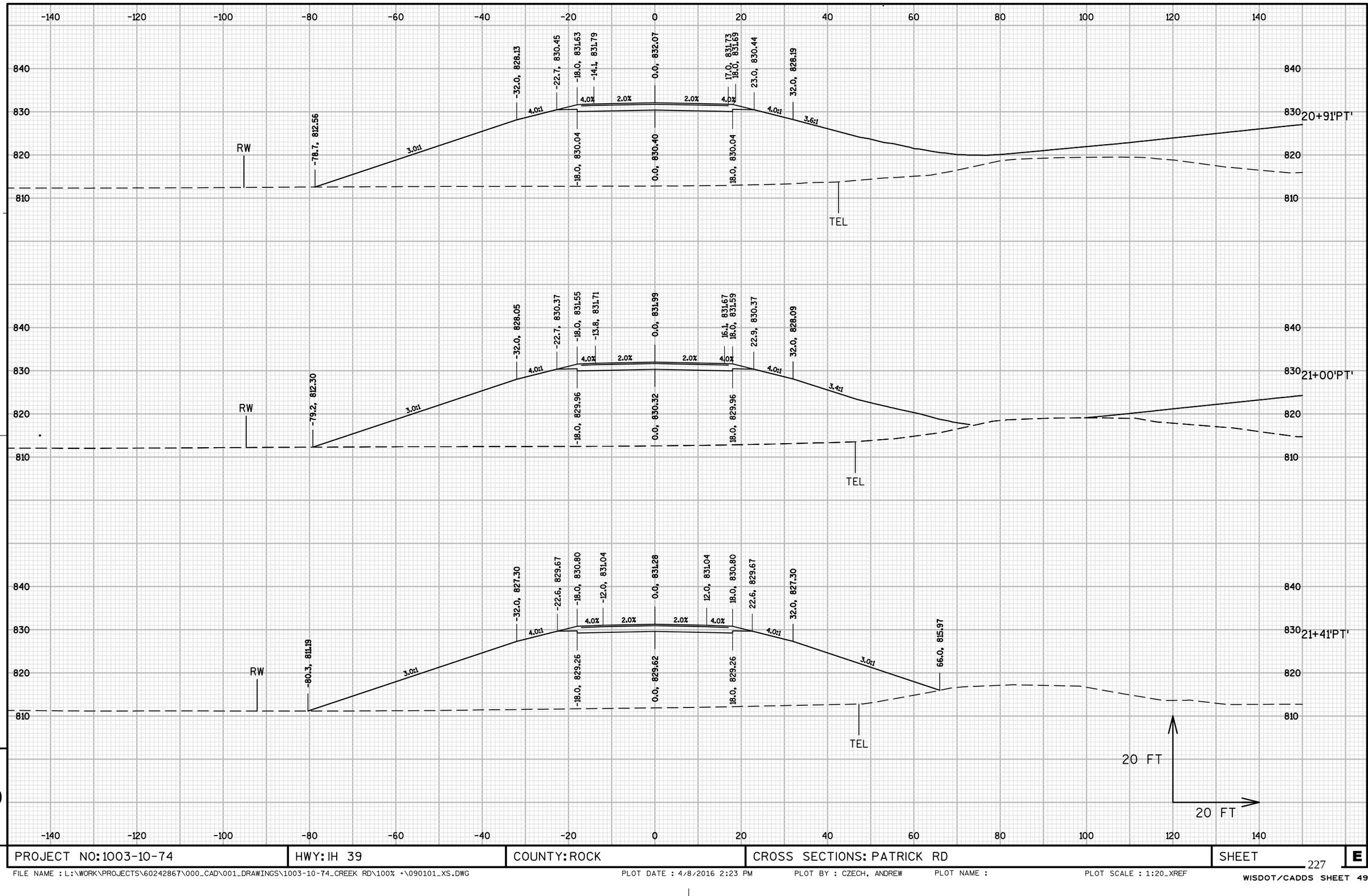

PROJECT NO: 1003-10-74	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: PATRICK RD	SHEET	E

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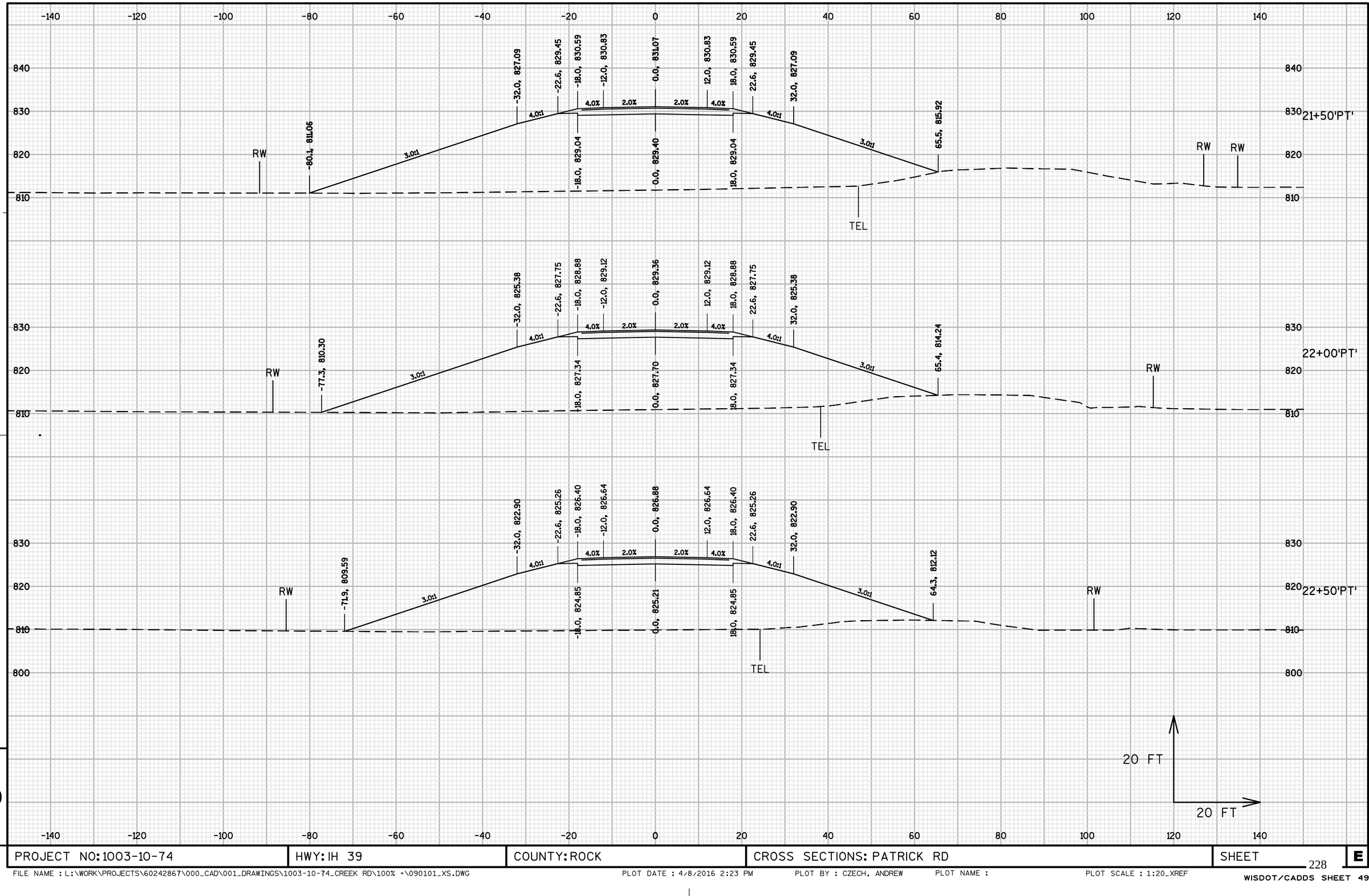

PROJECT NO: 1003-10-74	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: PATRICK RD	SHEET	E

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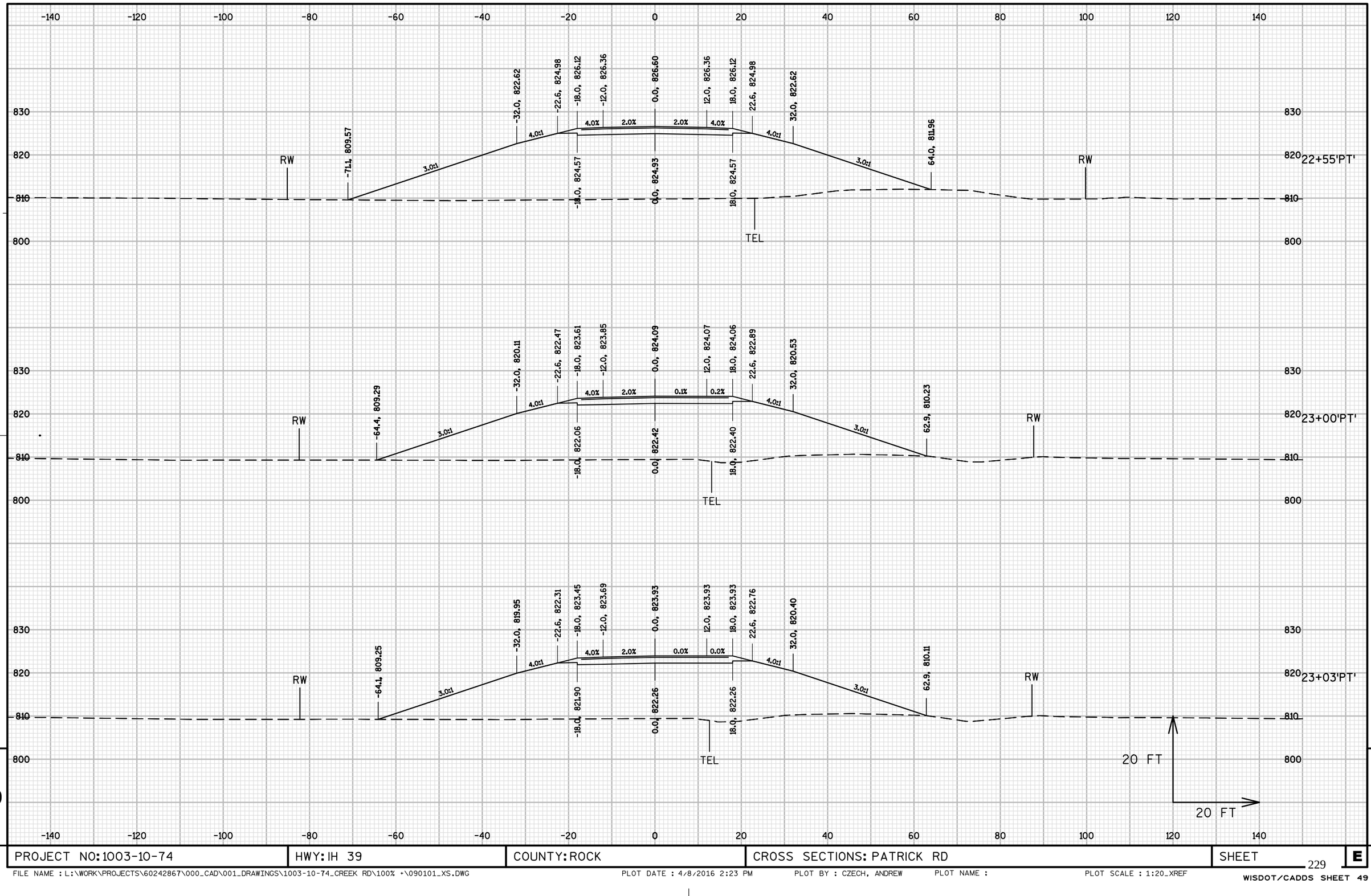

PROJECT NO: 1003-10-74	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: PATRICK RD	SHEET E

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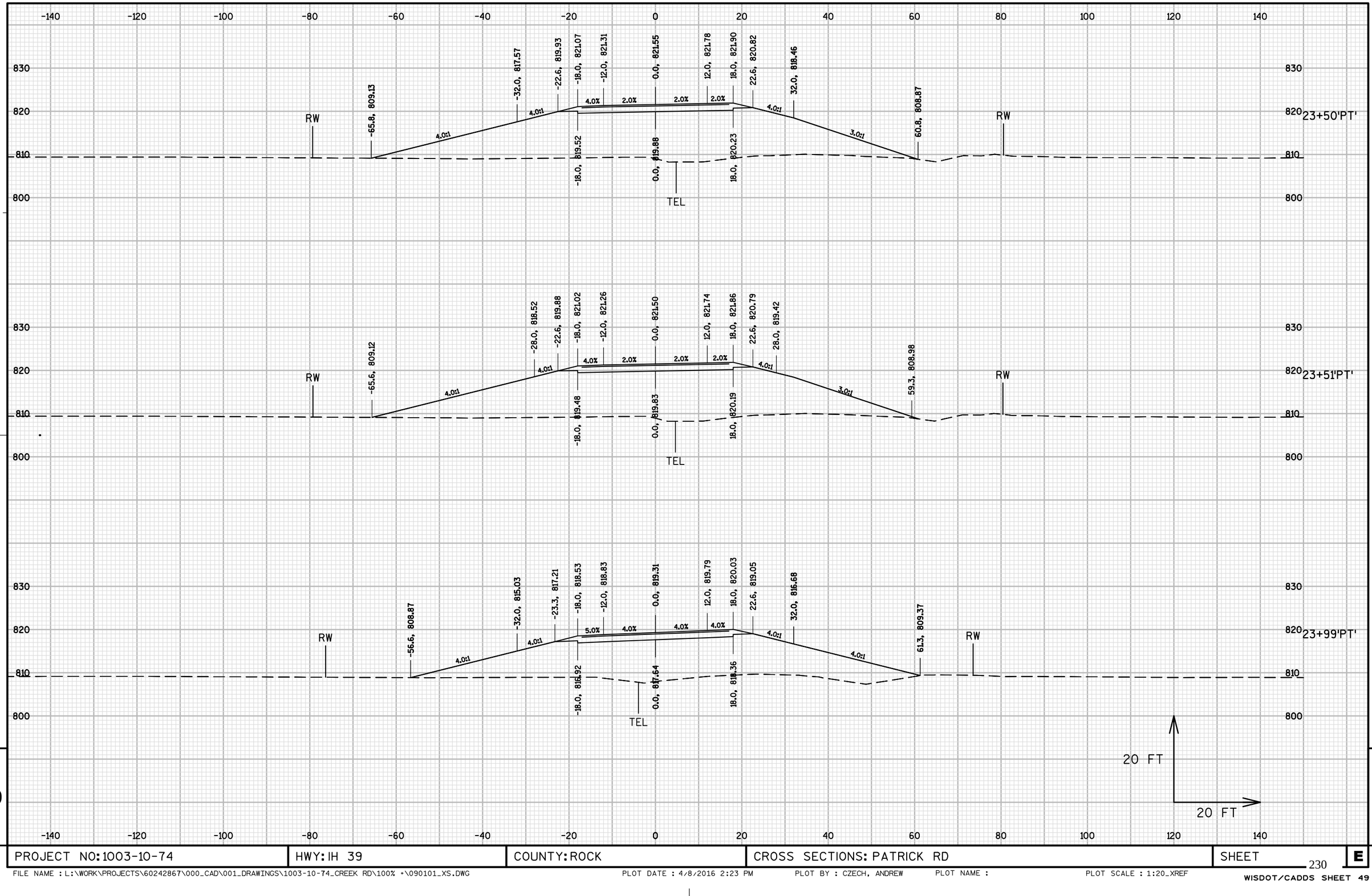
WISDOT/CADDS SHEET 49



PROJECT NO: 1003-10-74	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: PATRICK RD	SHEET	E

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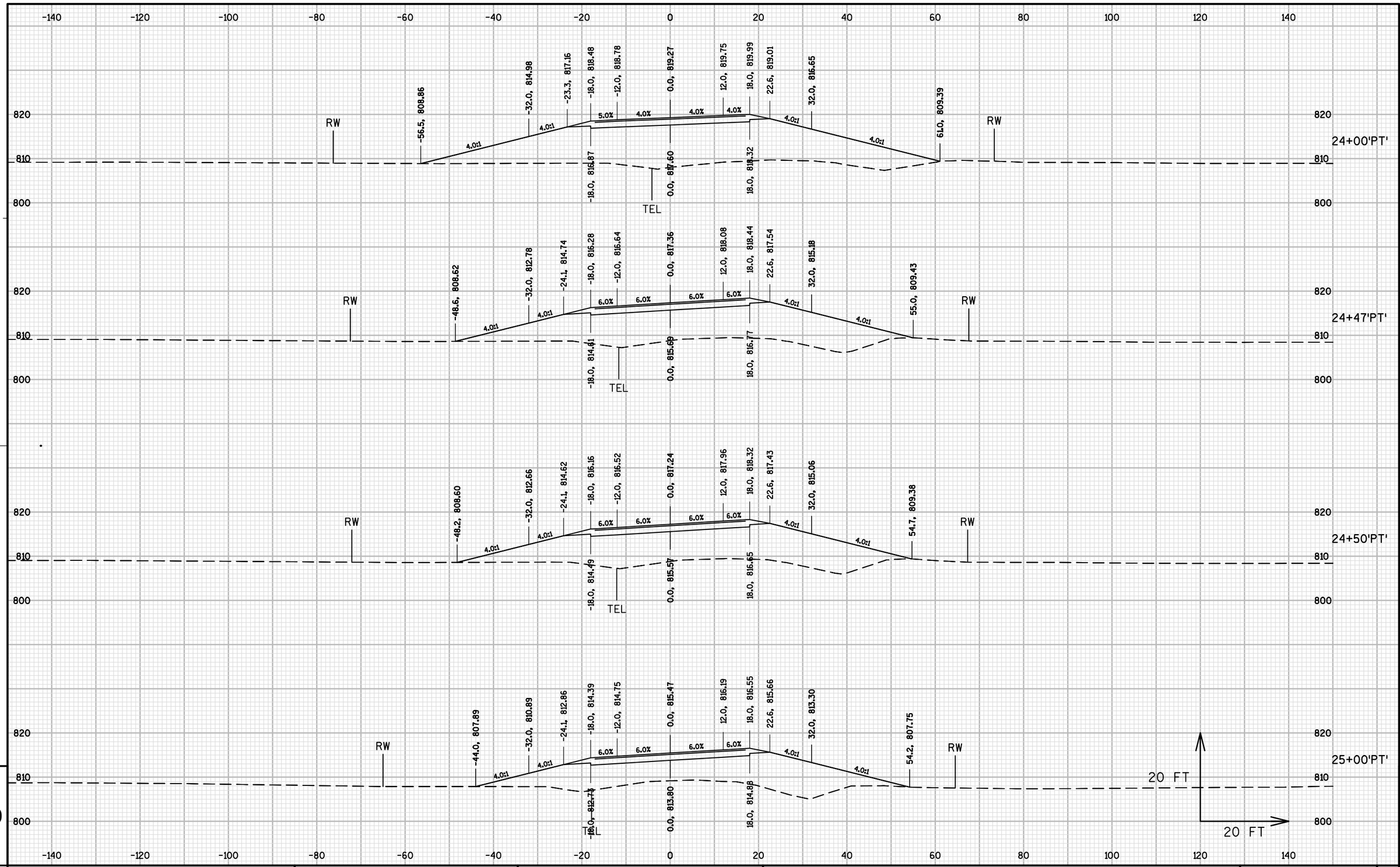
WISDOT/CADDS SHEET 49



PROJECT NO: 1003-10-74	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: PATRICK RD	SHEET	E

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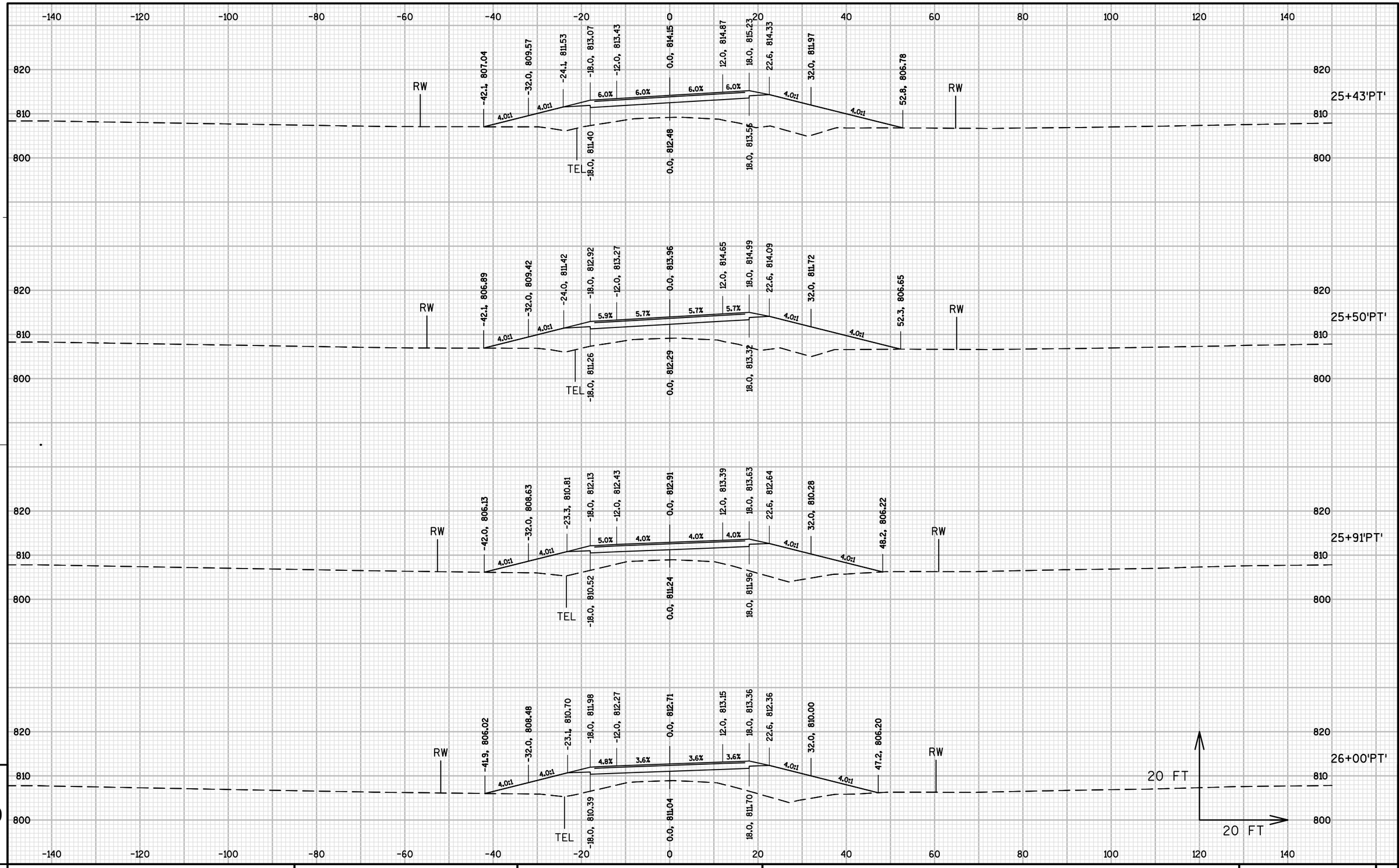

PROJECT NO: 1003-10-74	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: PATRICK RD	SHEET	E

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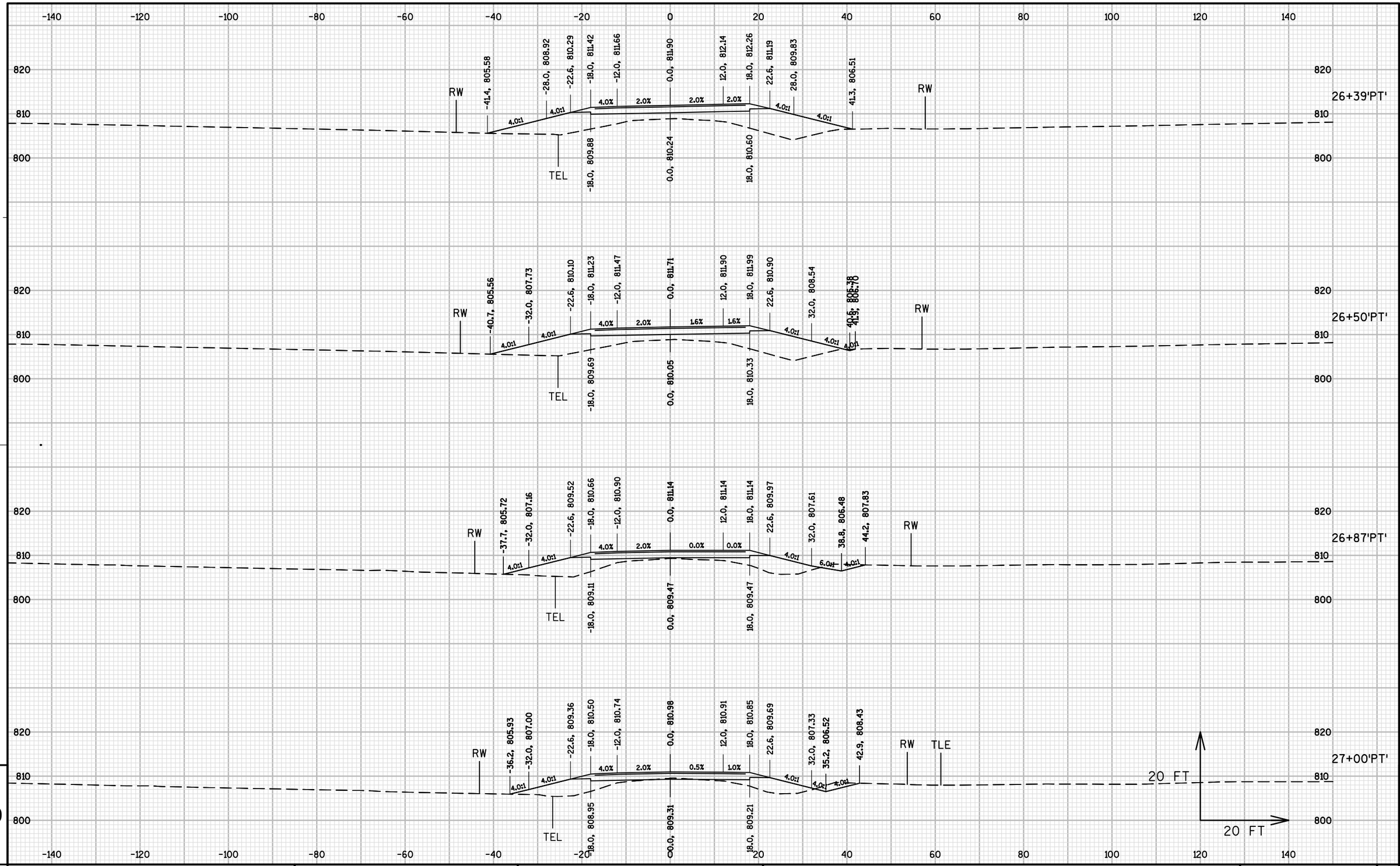
WISDOT/CADDS SHEET 49



PROJECT NO: 1003-10-74	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: PATRICK RD	SHEET E

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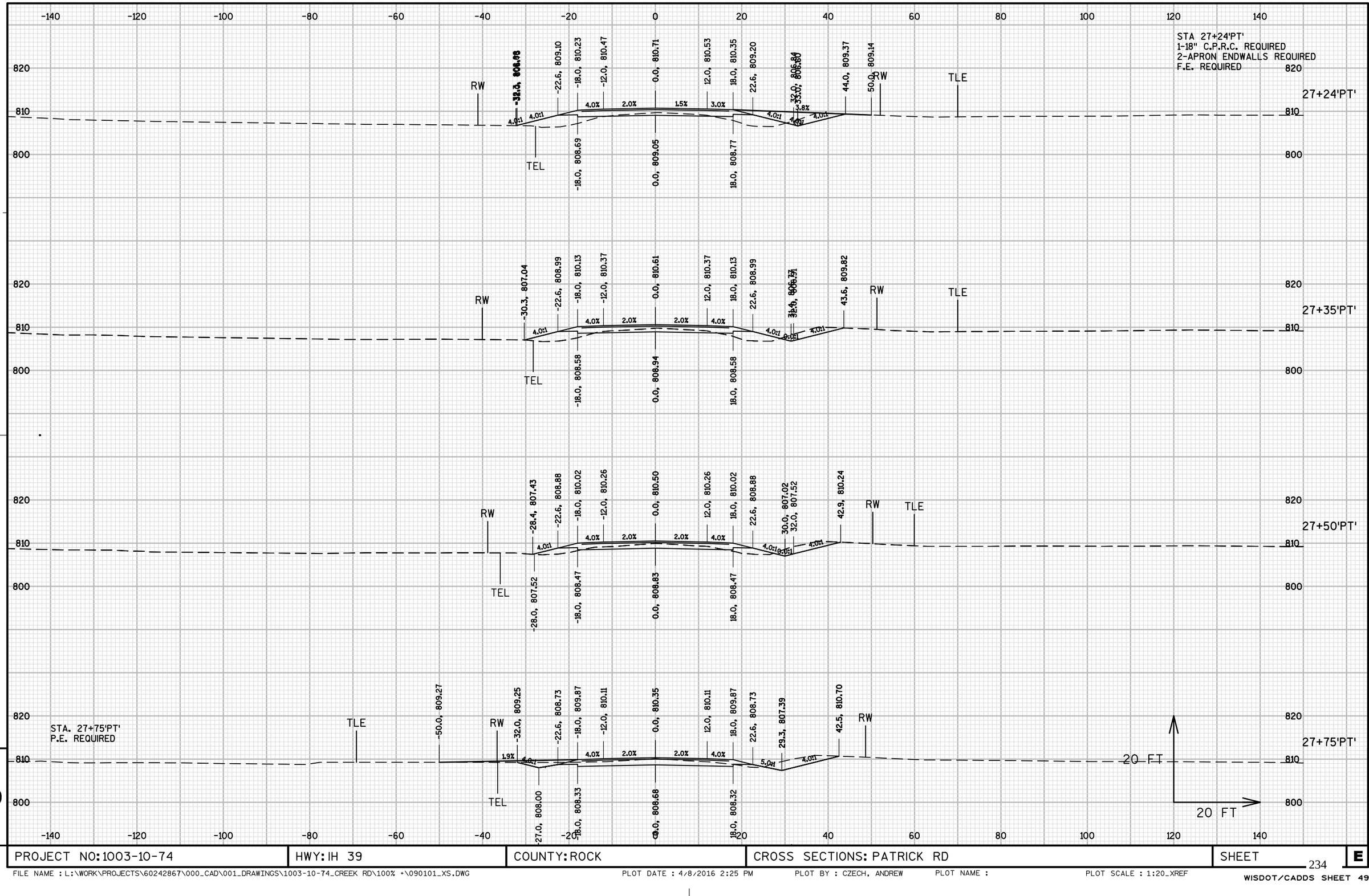

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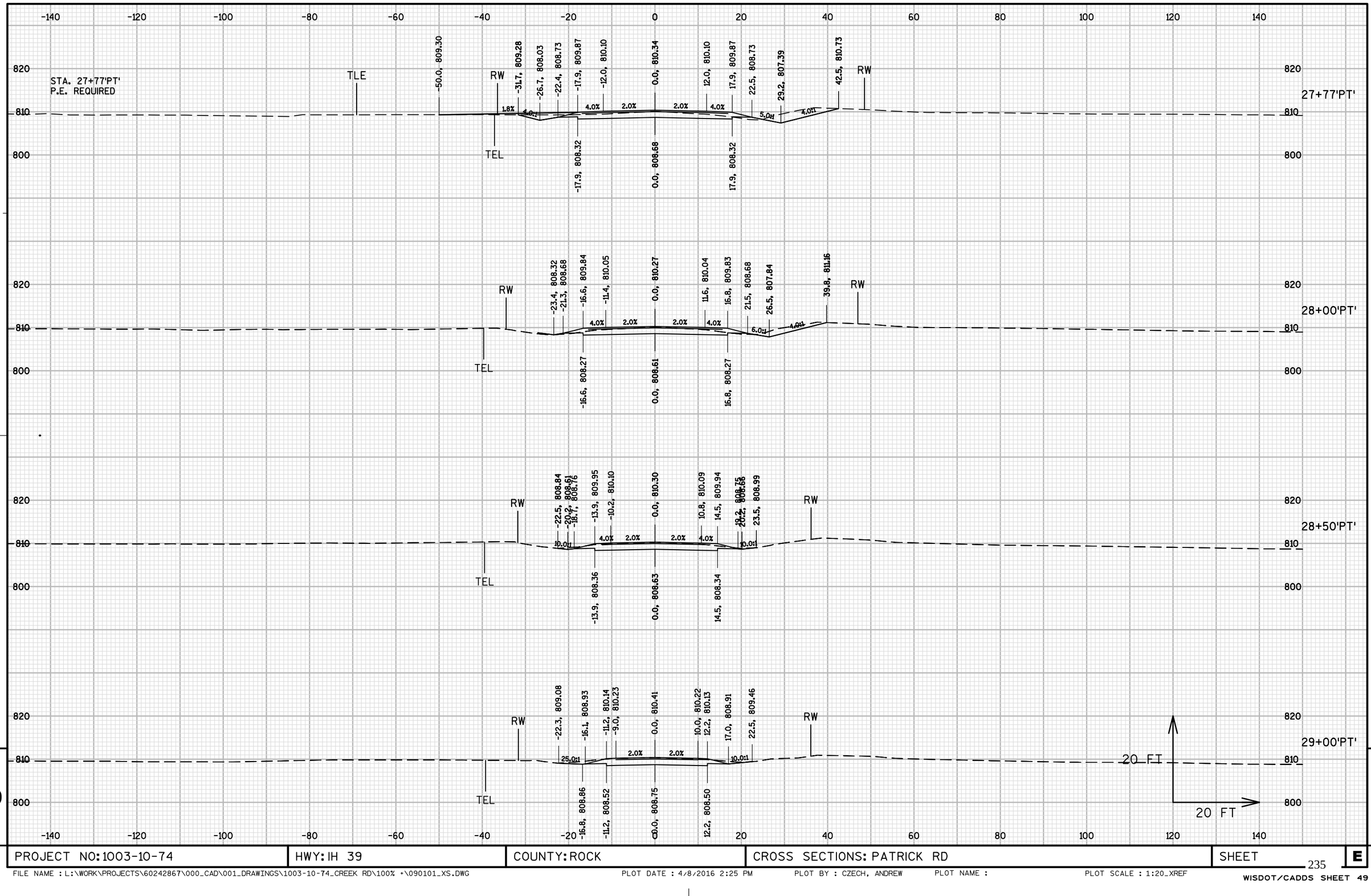
PROJECT NO: 1003-10-74	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: PATRICK RD	SHEET	E

9

FILE NAME : L:\WORK\PROJECTS\60242867\000_CAD\001_DRAWINGS\1003-10-74_CREEK RD\100% +\090101_XS.DWG PLOT DATE : 4/8/2016 2:25 PM PLOT BY : CZECH, ANDREW PLOT NAME : PLOT SCALE : 1:20_XREF



PROJECT NO: 1003-10-74	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: PATRICK RD	SHEET E

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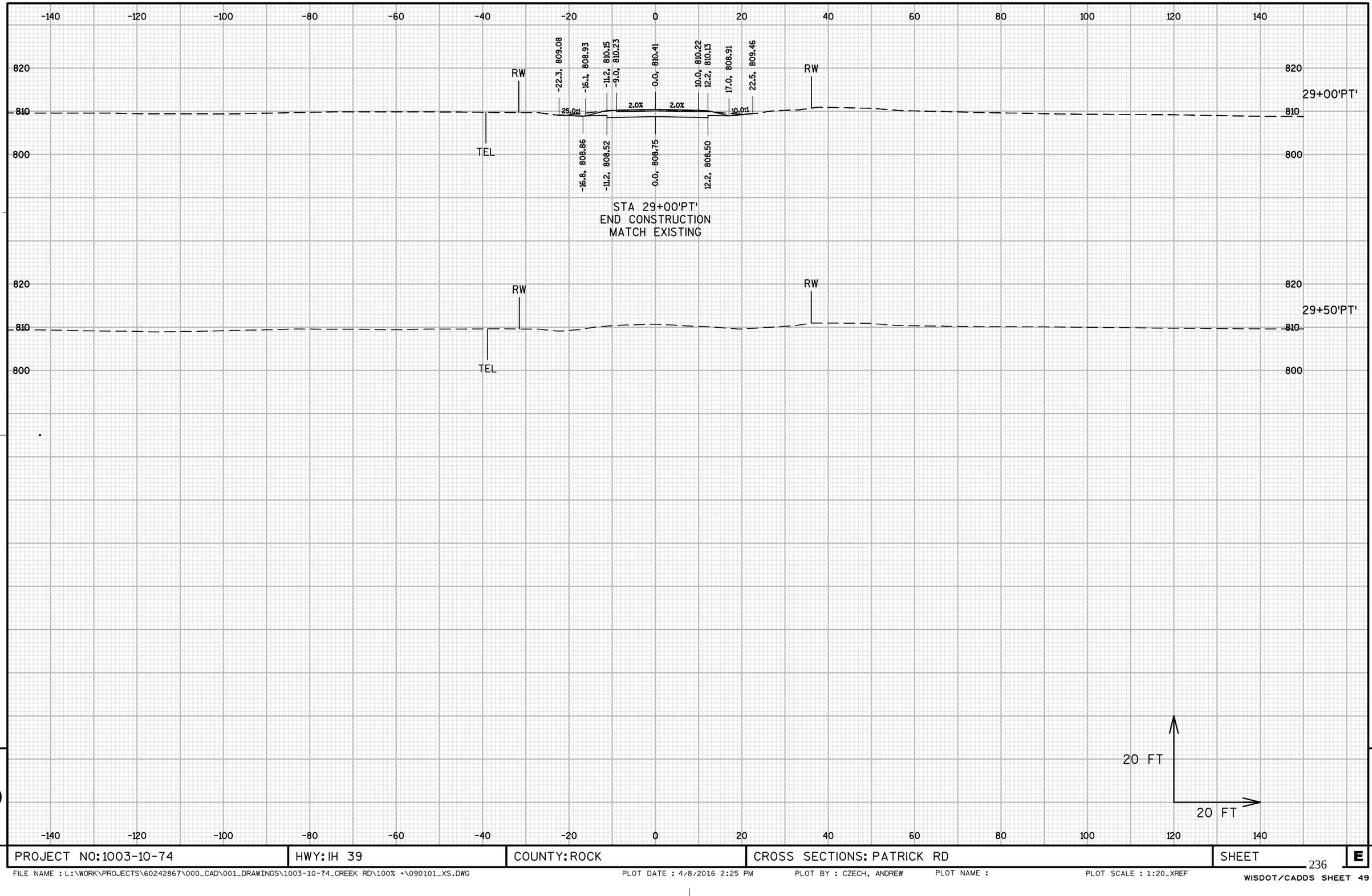
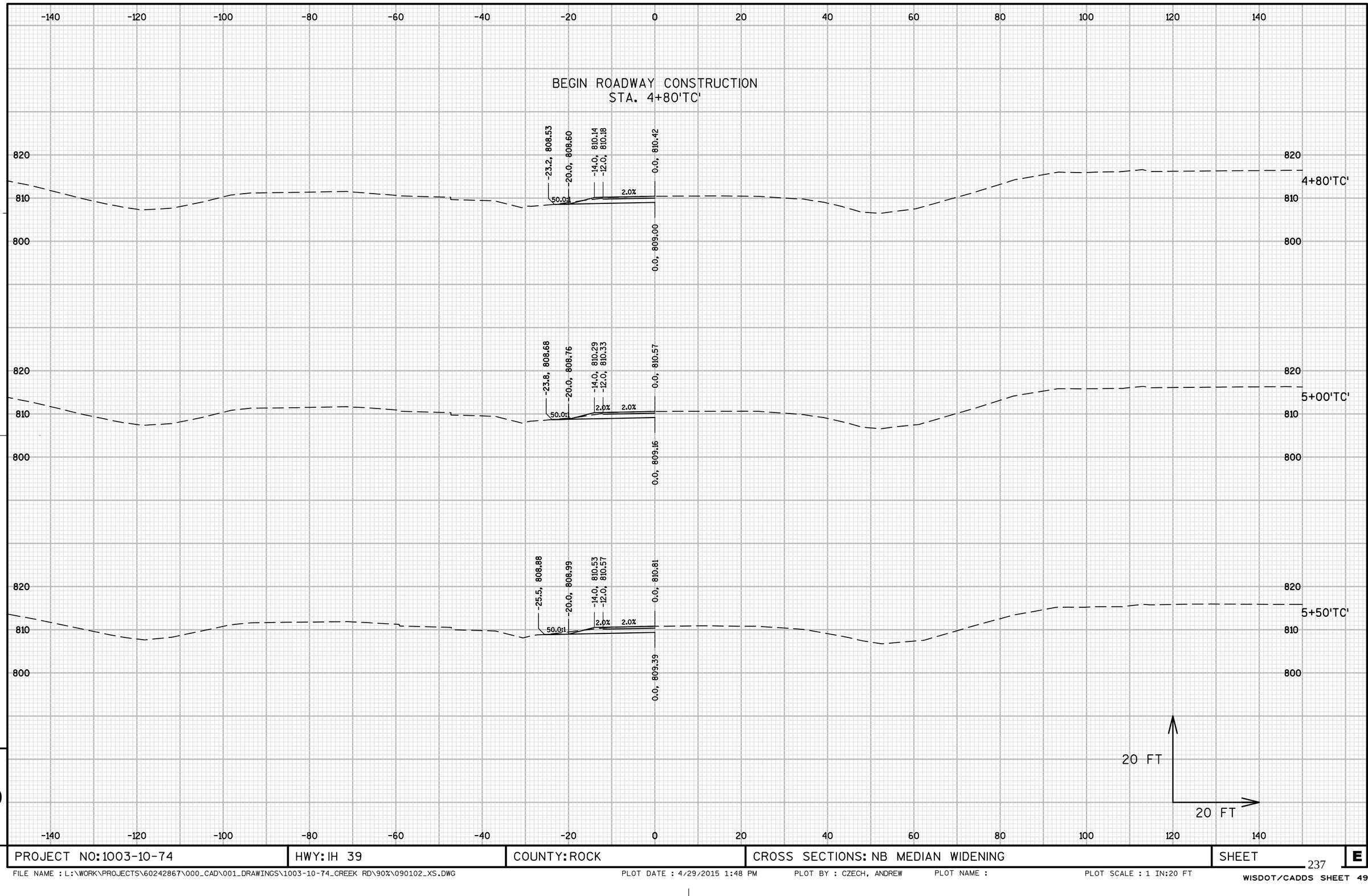


PROJECT NO: 1003-10-74	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: PATRICK RD	SHEET E

FILE NAME : L:\WORK\PROJECTS\60242867\000_CAD\001_DRAWINGS\1003-10-74_CREEK RD\100% +\090101_XS.DWG PLOT DATE : 4/8/2016 2:25 PM PLOT BY : CZECH, ANDREW PLOT NAME : PLOT SCALE : 1:20_XREF
WISDOT/CADDS SHEET 49

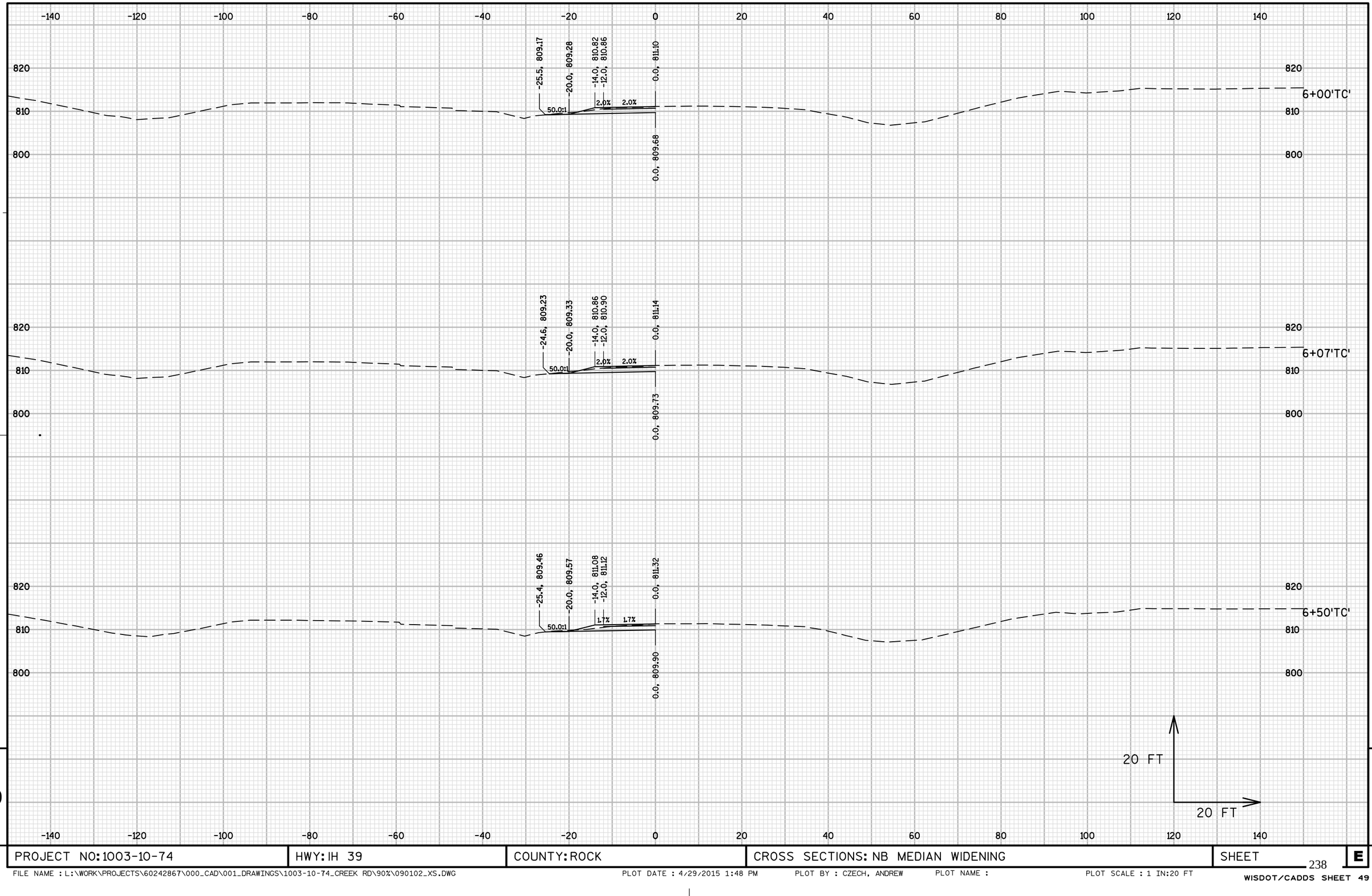
BEGIN ROADWAY CONSTRUCTION
STA. 4+80'TC'



PROJECT NO: 1003-10-74	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: NB MEDIAN WIDENING	SHEET	E

FILE NAME : L:\WORK\PROJECTS\60242867\000_CAD\001_DRAWINGS\1003-10-74_CREEK RD\90%\090102_XS.DWG PLOT DATE : 4/29/2015 1:48 PM PLOT BY : CZECH, ANDREW PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 49



PROJECT NO: 1003-10-74	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: NB MEDIAN WIDENING	SHEET	E

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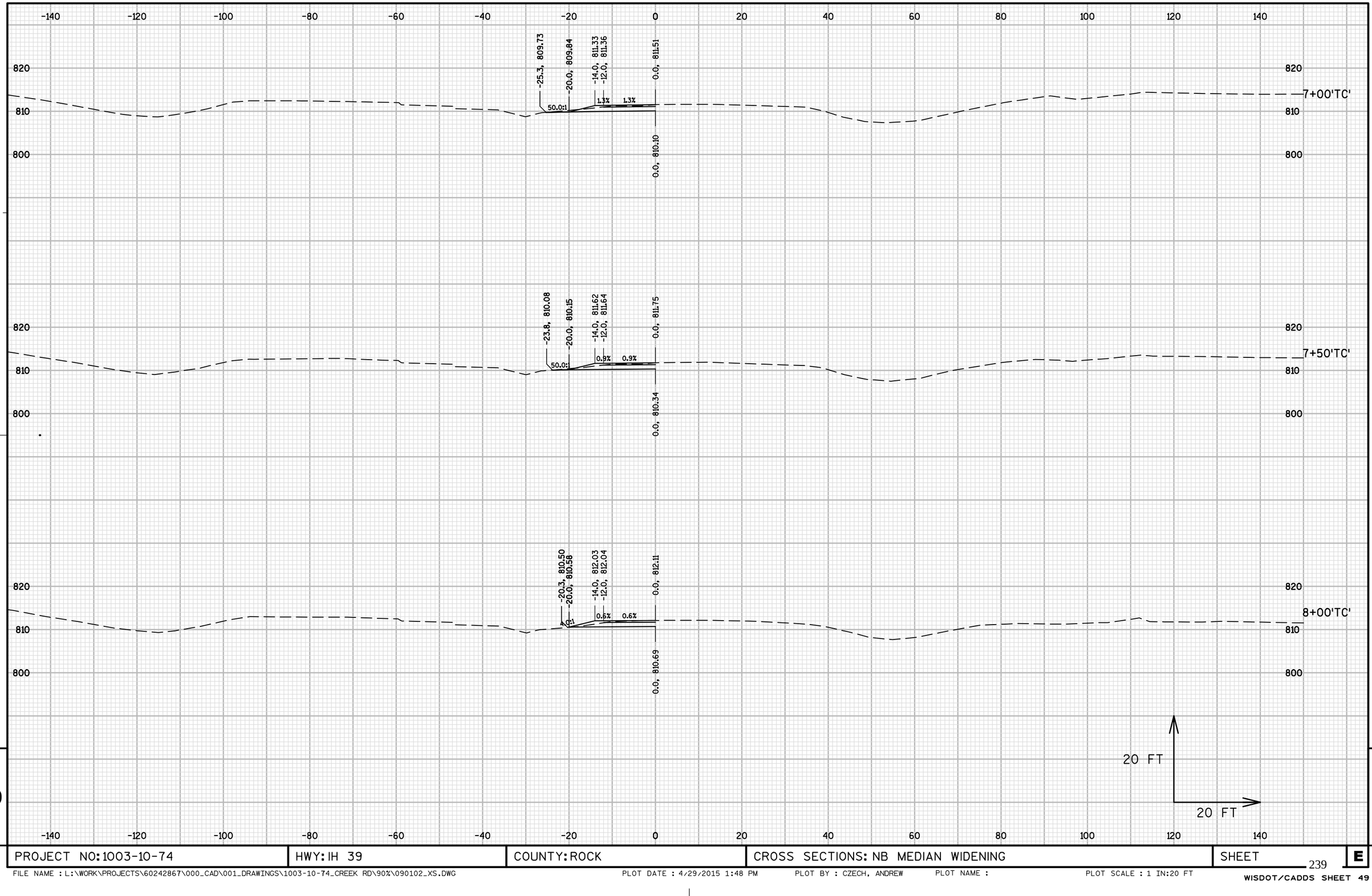

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PROJECT NO: 1003-10-74	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: NB MEDIAN WIDENING	SHEET	E

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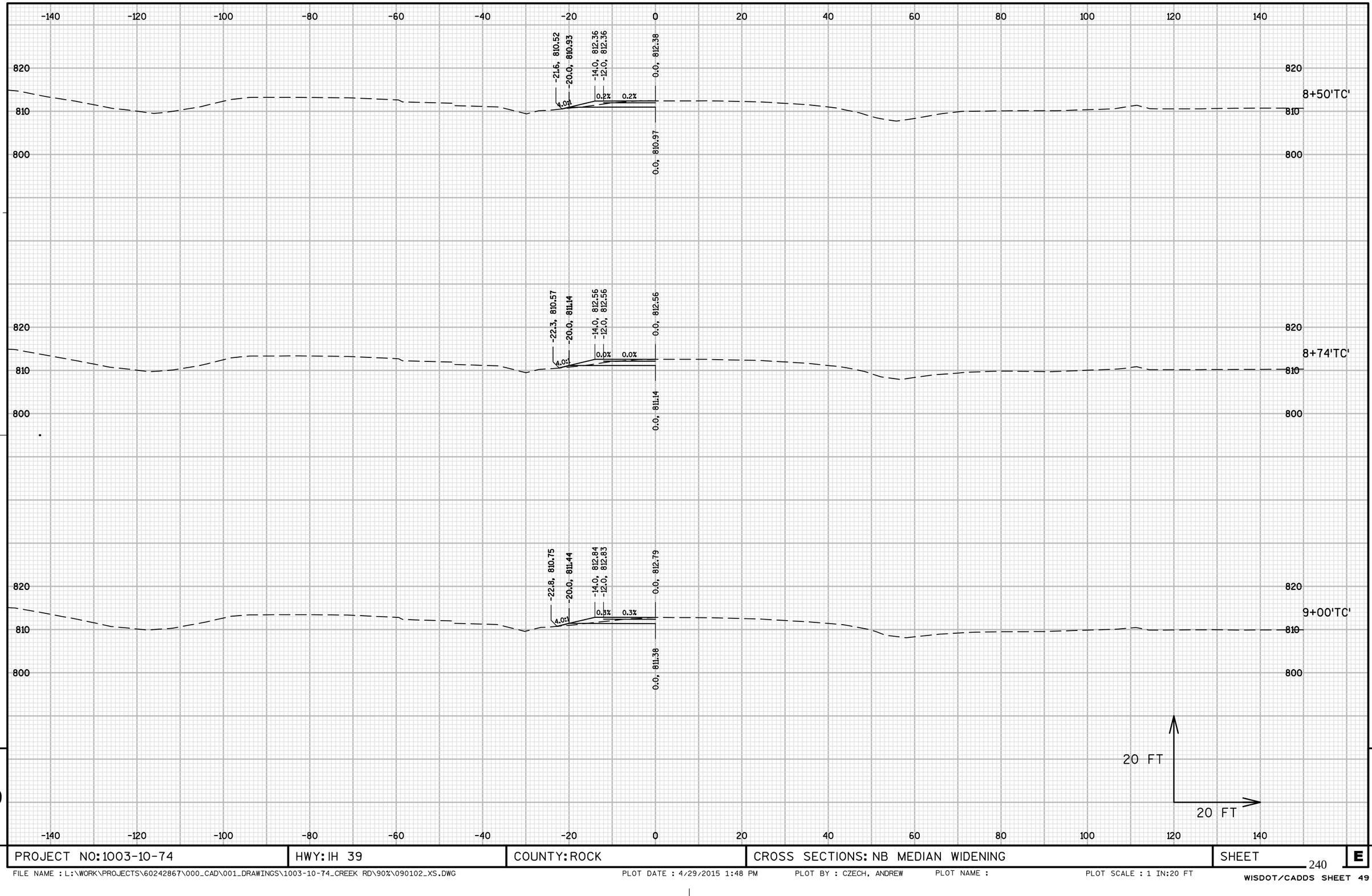

9 9

PROJECT NO: 1003-10-74	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: NB MEDIAN WIDENING	SHEET	E

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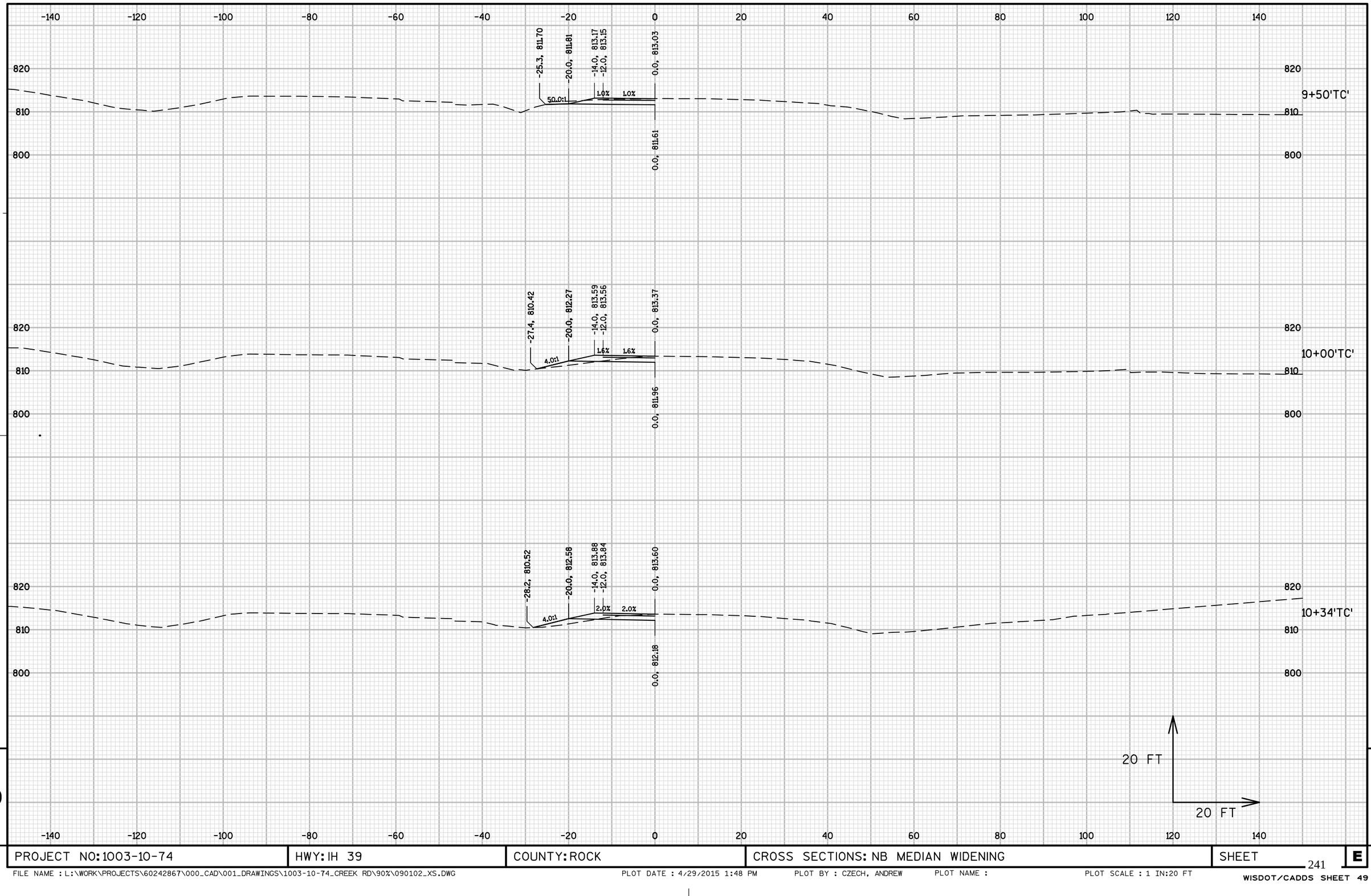

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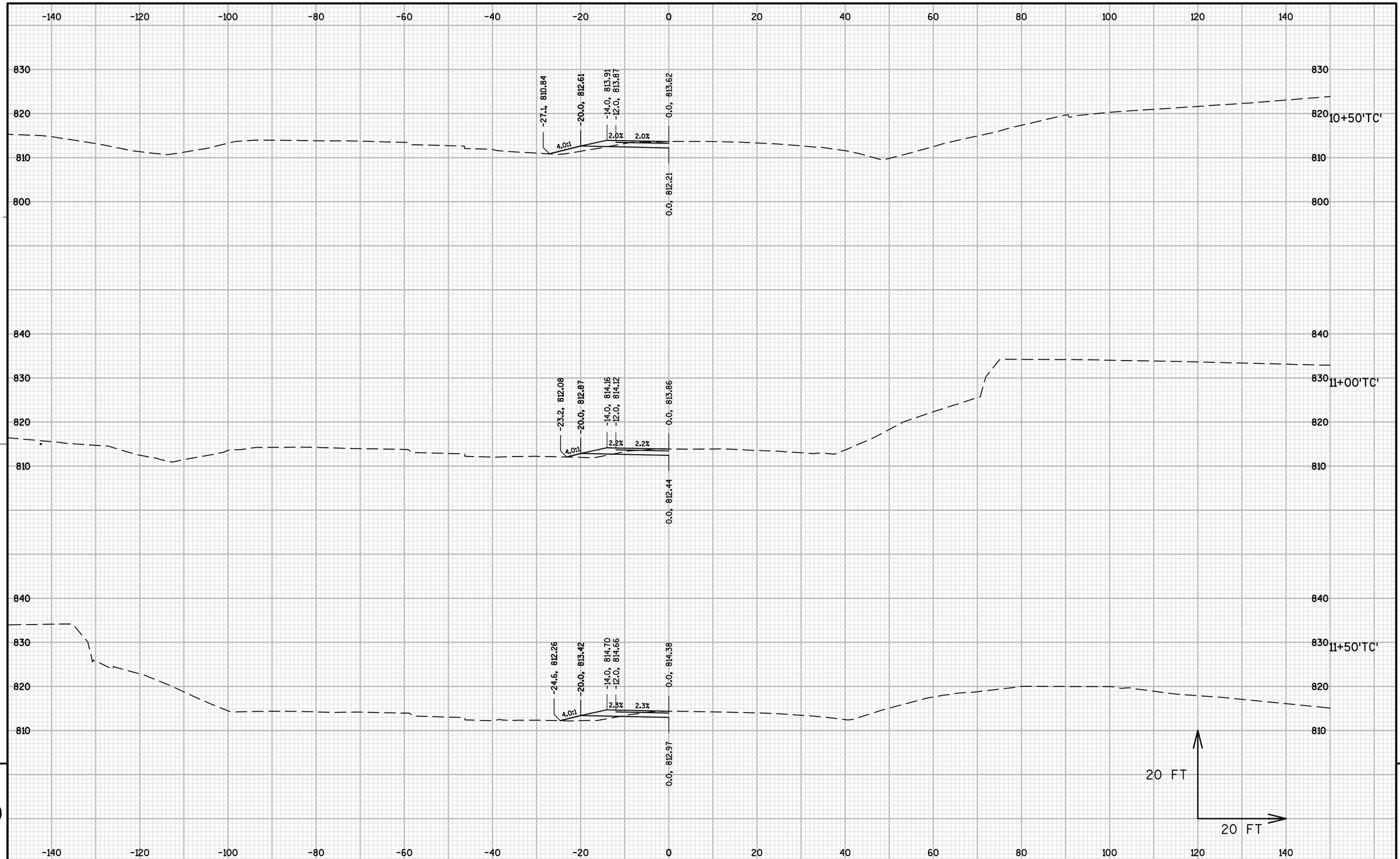

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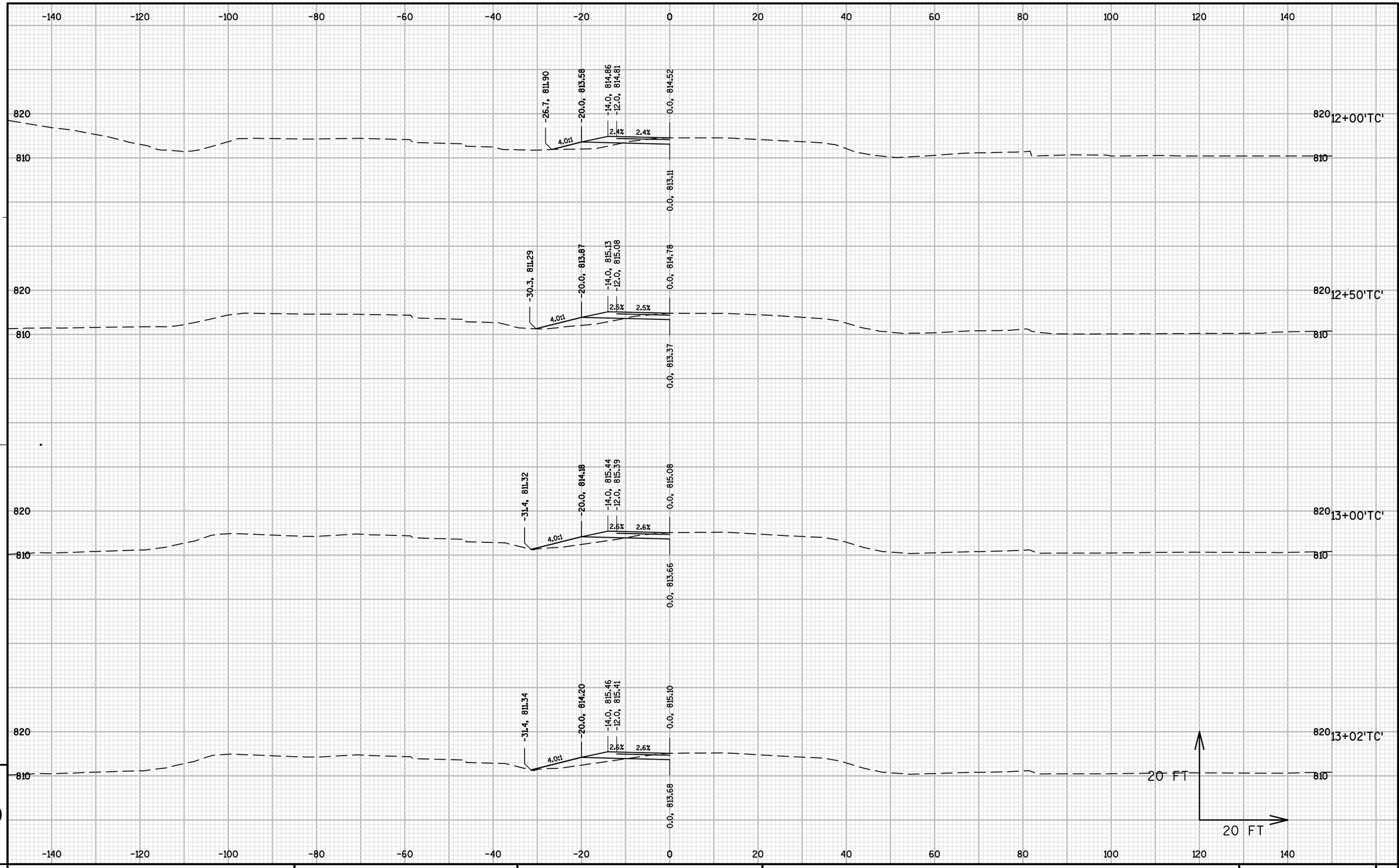
WISDOT/CADDS SHEET 49



9 9

PROJECT NO: 1003-10-74	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: NB MEDIAN WIDENING	SHEET	E

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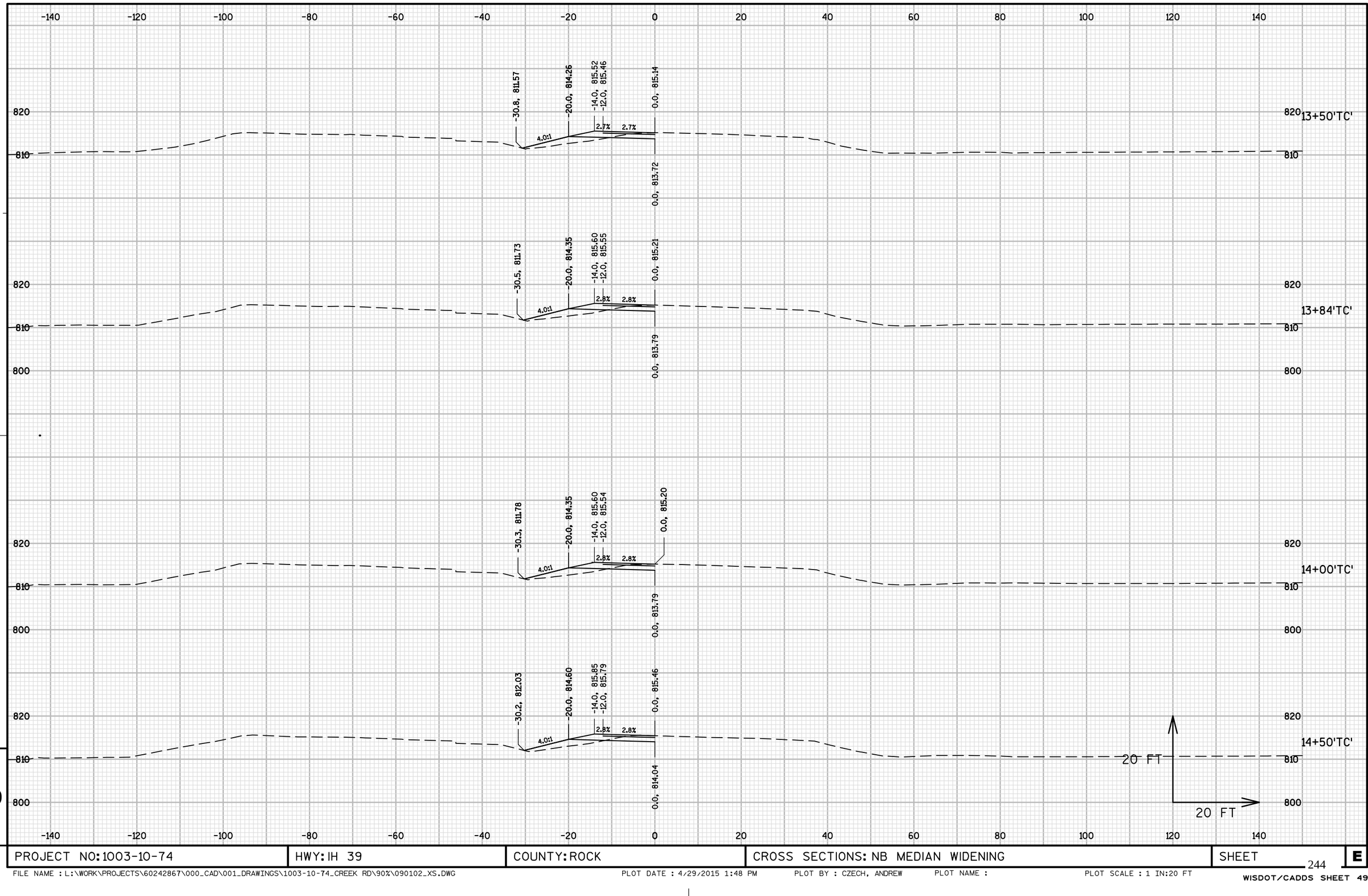

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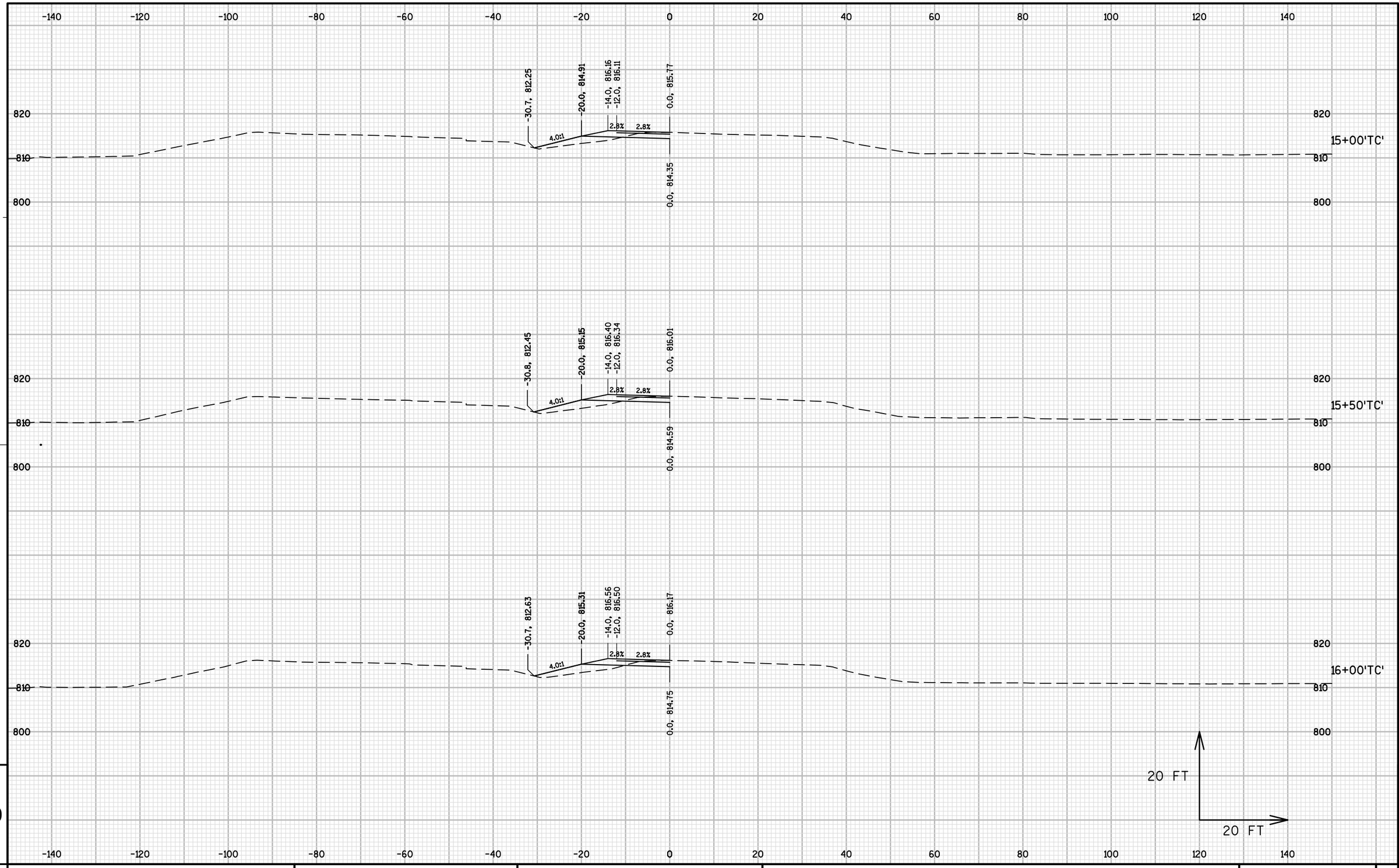

PROJECT NO: 1003-10-74	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: NB MEDIAN WIDENING	SHEET	E

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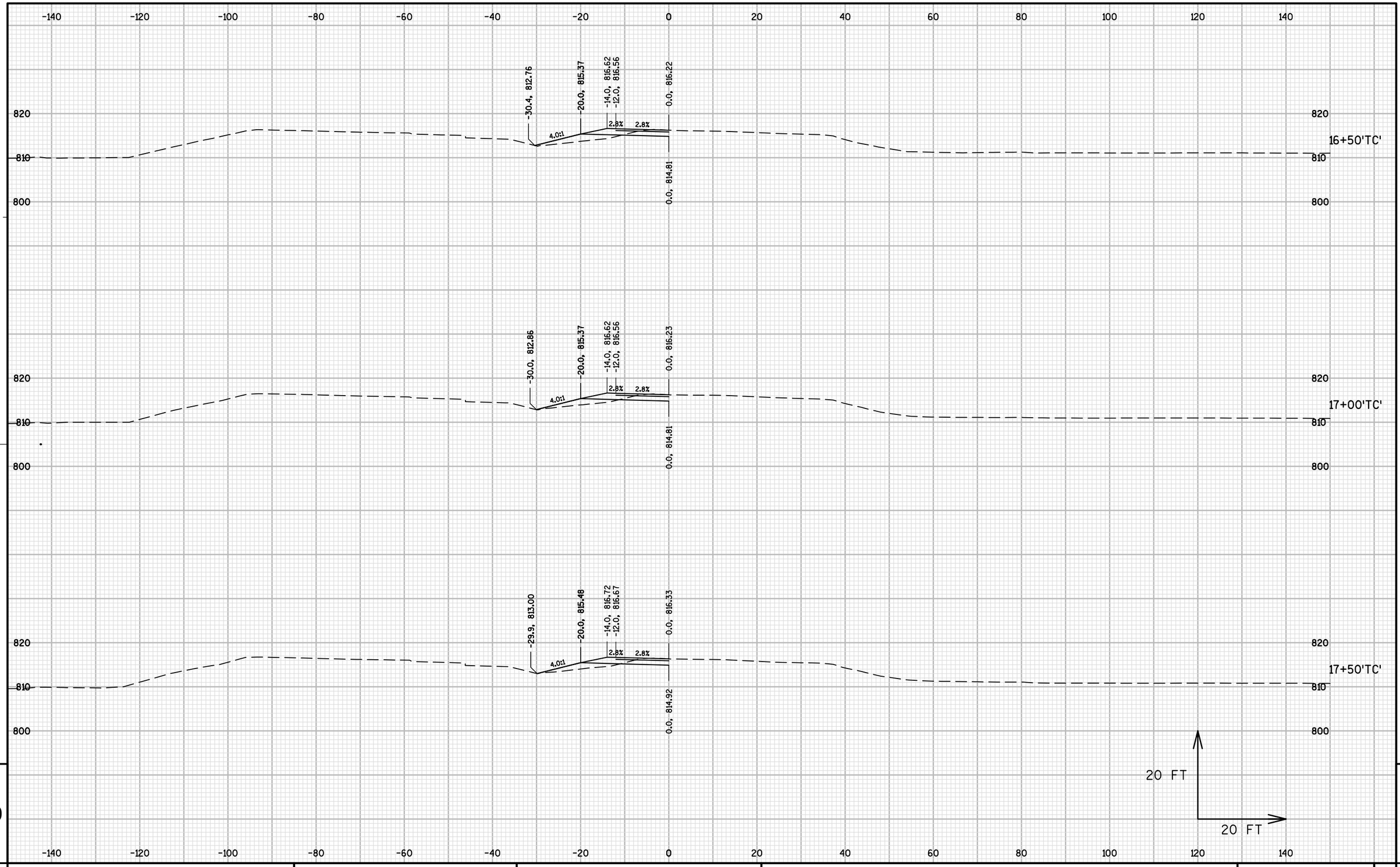

9 9

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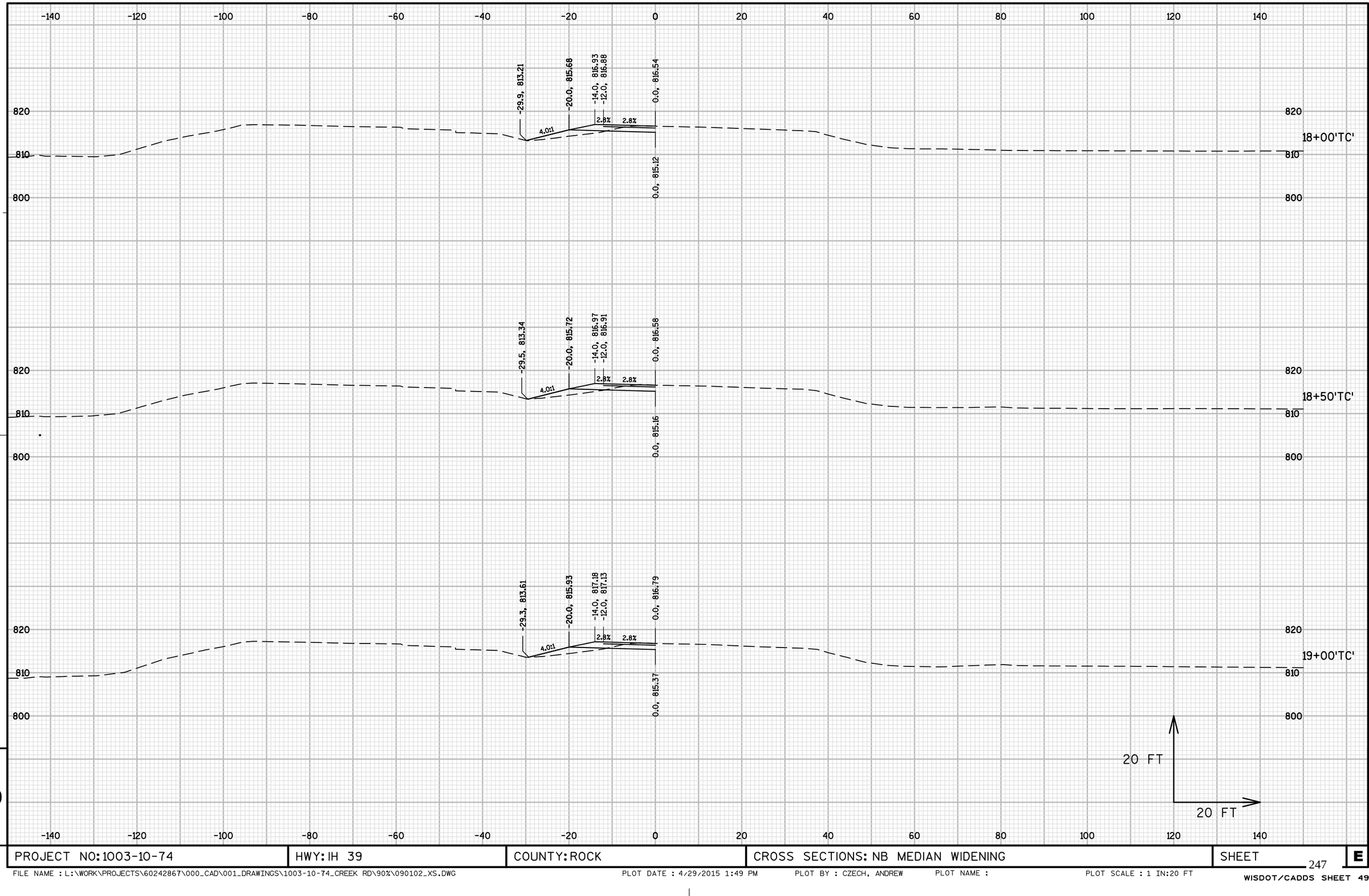

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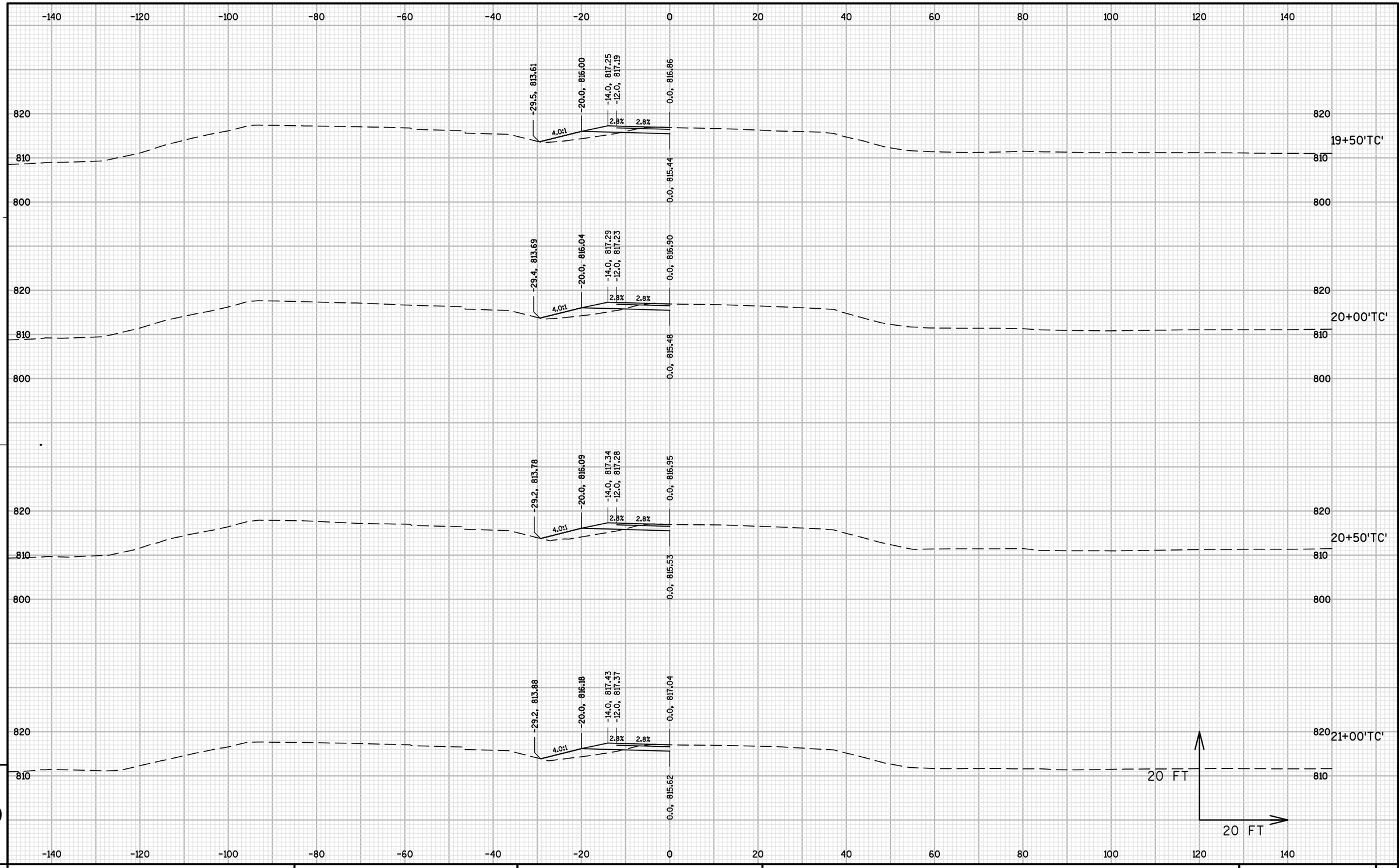

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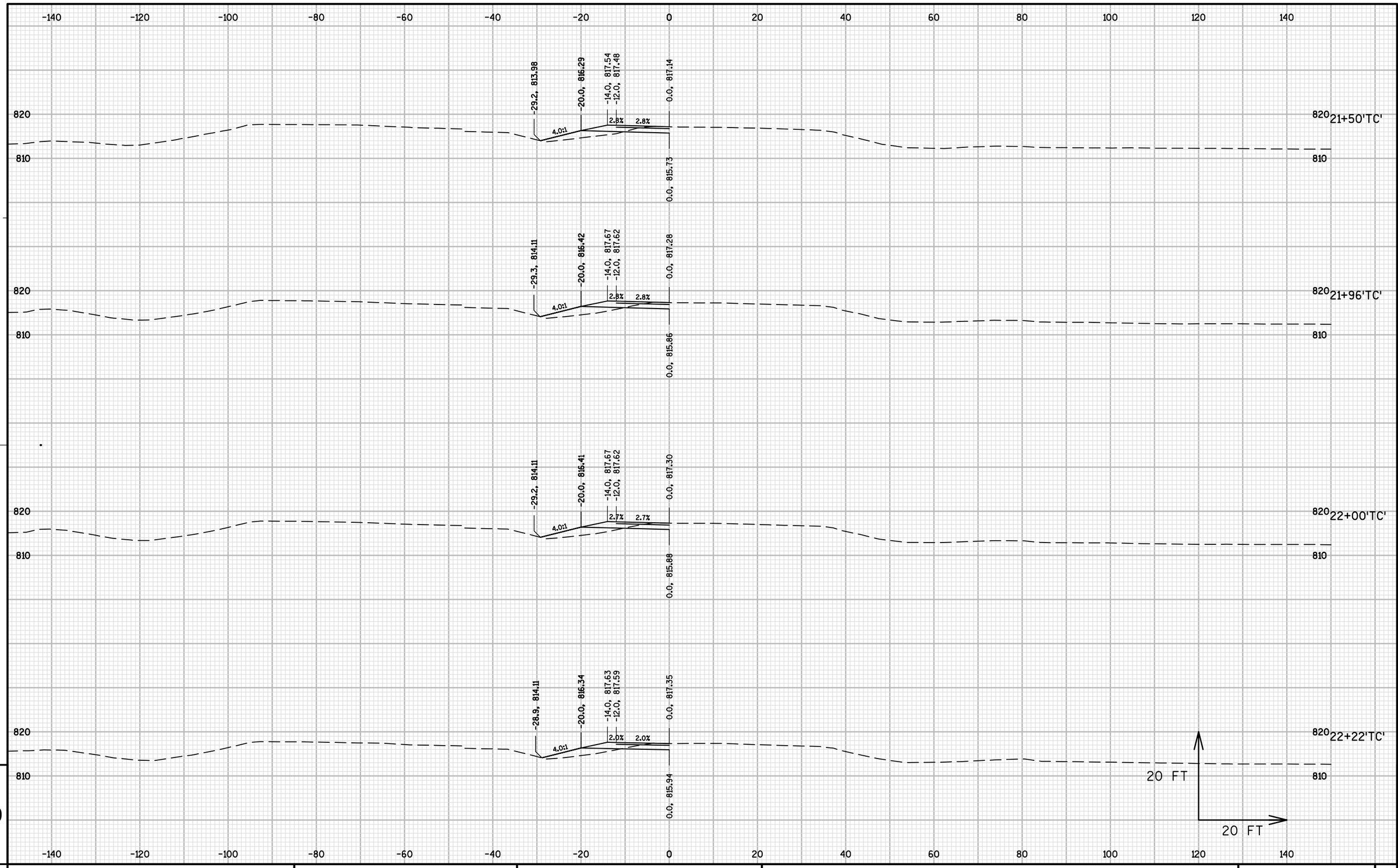

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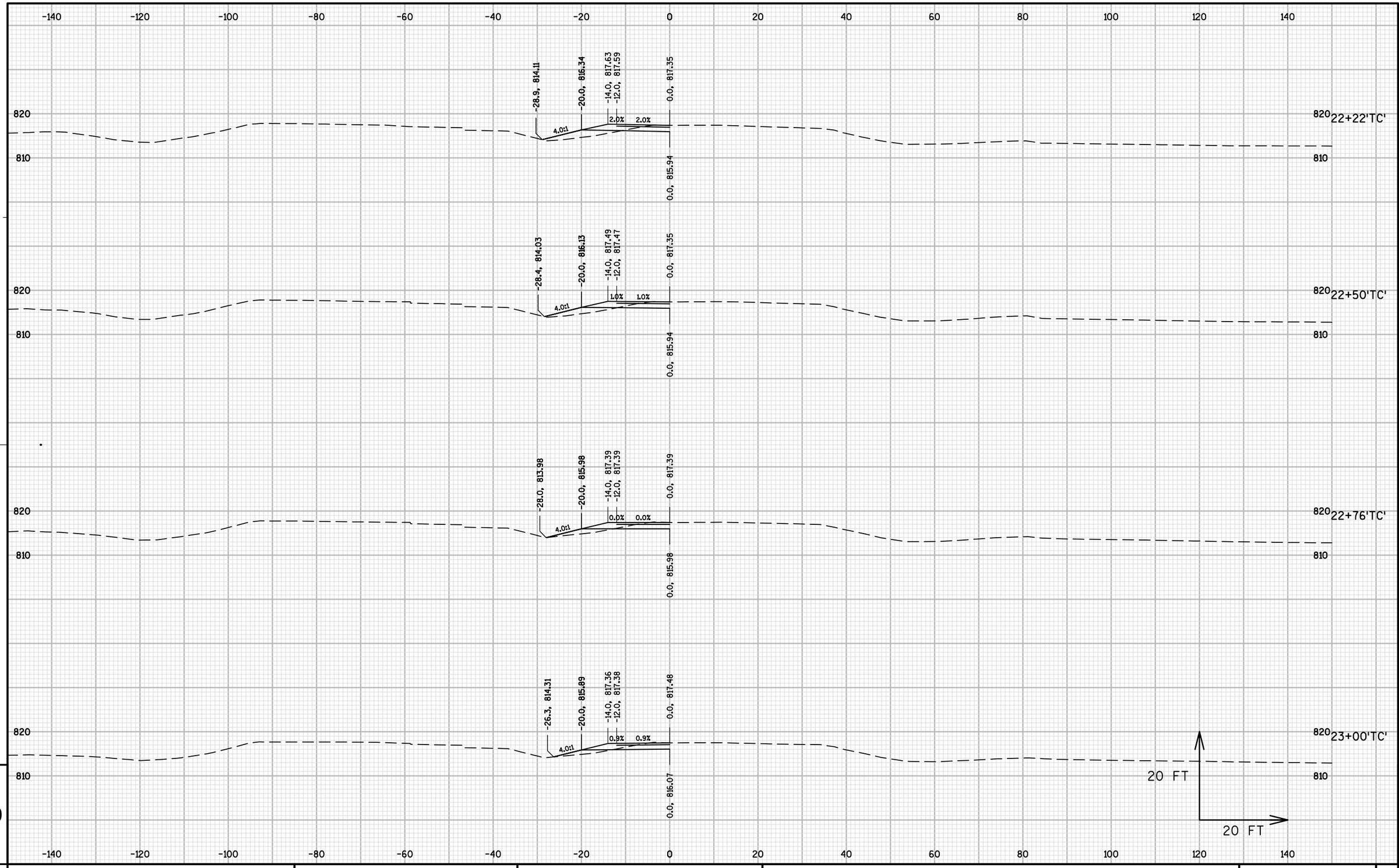

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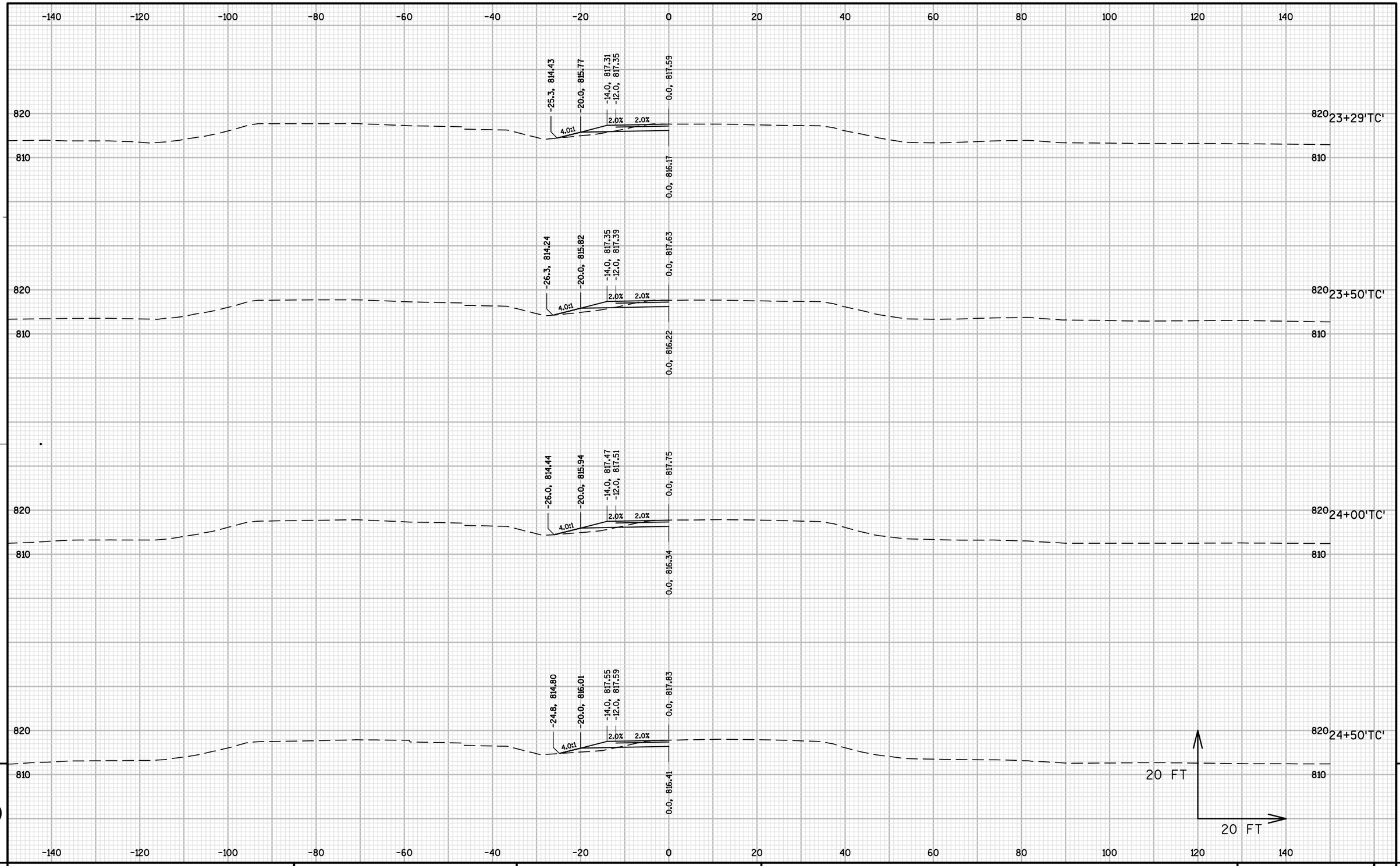

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PROJECT NO: 1003-10-74	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: NB MEDIAN WIDENING	SHEET	E

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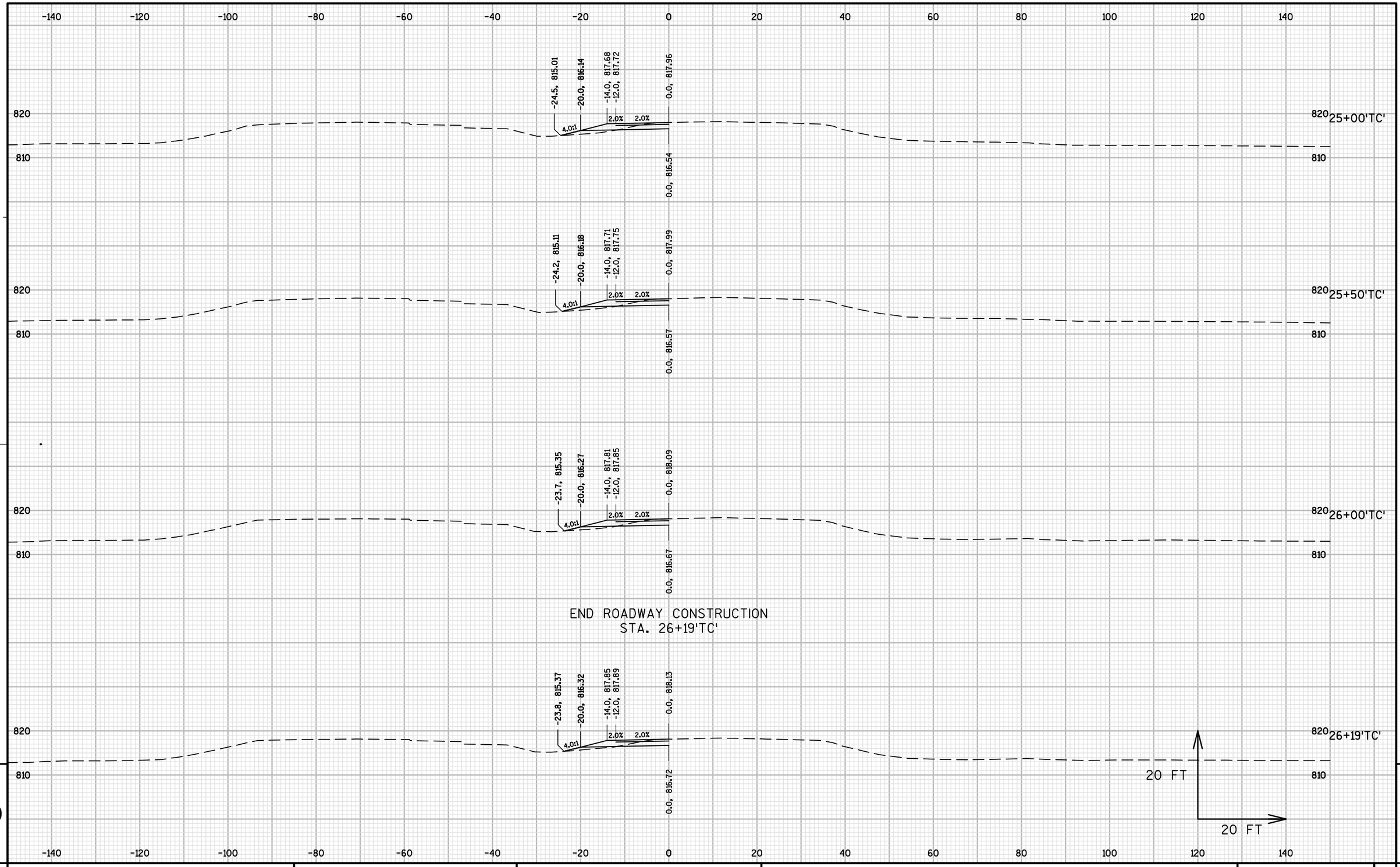

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FILE NAME : L:\WORK\PROJECTS\60242867\000_CAD\001_DRAWINGS\1003-10-74_CREEK RD\90%\090102_XS.DWG PLOT DATE : 4/29/2015 1:49 PM PLOT BY : CZECH, ANDREW PLOT NAME : PLOT SCALE : 1 IN:20 FT
WISDOT/CADDS SHEET 49

Notes

Wisconsin Department of Transportation

Dedicated people creating transportation solutions
through innovation and exceptional service.

http://www.dot.wisconsin.gov

MAD JUNE 2016

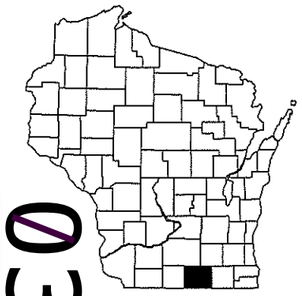
PROJECT ID: 1003-10-75
WITH: N/A

COUNTY: ROCK

ORDER OF SHEETS

Section No.	1	Title
Section No.	2	Typical Sections and Details
Section No.	3	Estimate of Quantities
Section No.	3	Miscellaneous Quantities
Section No.	4	Right of Way Plat
Section No.	5	Plan and Profile
Section No.	6	Standard Detail Drawings
~~Section No.~~	~~7~~	~~Sign Plates~~
Section No.	8	Structure Plans
Section No.	9	Computer Earthwork Data
Section No.	9	Cross Sections

TOTAL SHEETS = 190



03

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

ILLINOIS STATE LINE - MADISON

WOODMAN ROAD BRIDGE B-53-0319

IH 39
ROCK COUNTY

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
1003-10-75	———	—

STATE PROJECT NUMBER

1003-10-75

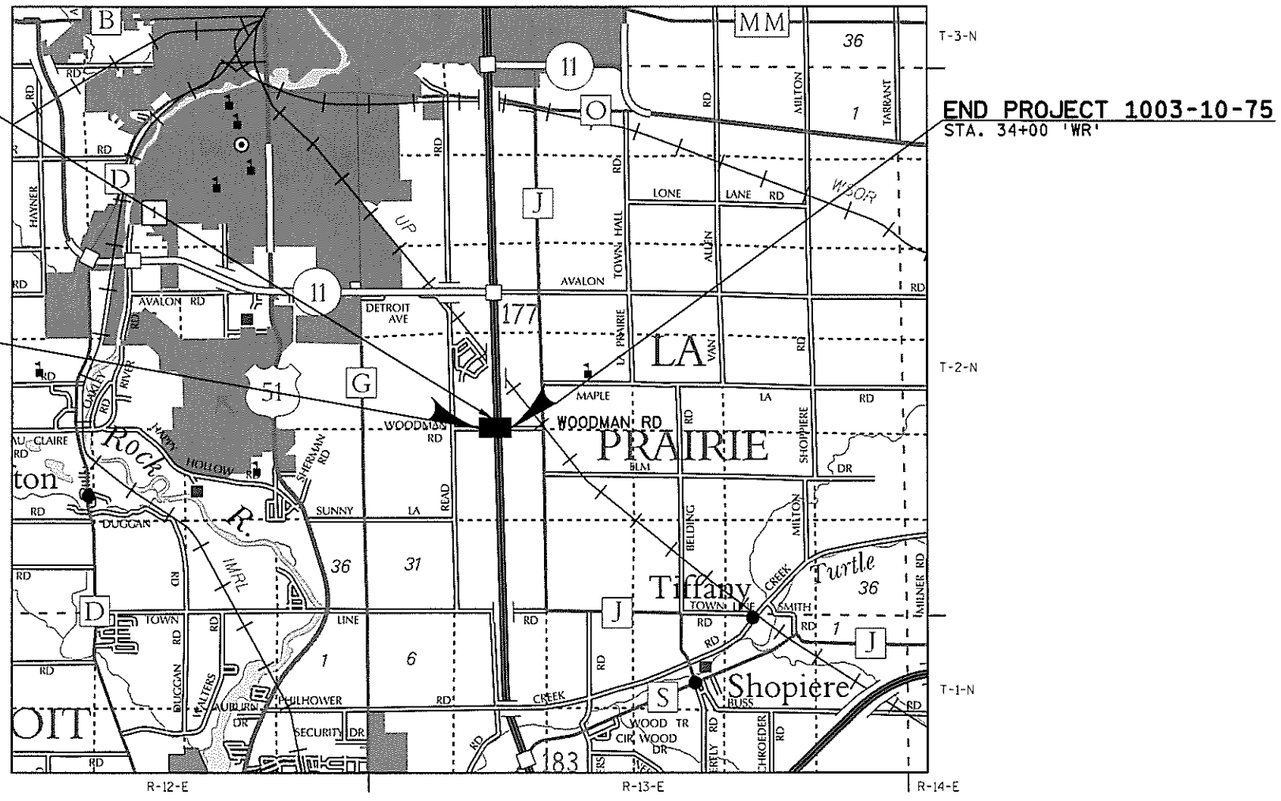
DESIGN DESIGNATION

A.A.D.T.	2015	=	120
A.A.D.T.	2035	=	160
D.H.V.	2012	=	29 VPH
D.D.		=	60/40
T. (% AADT)		=	2.9%
DESIGN SPEED		=	60 MPH
ESALS		=	7,300

BEGIN PROJECT 1003-10-75
STA. 14+00 'WR'
Y: 243679.42
X: 503633.15

STRUCTURE B-53-319
STA 19+69.99'WR'

END PROJECT 1003-10-75
STA. 34+00 'WR'



LAYOUT
SCALE 0 1/2 MI.

TOTAL NET LENGTH OF CENTERLINE = 0.000 MI.

COORDINATES ON THIS PLAN ARE REFERENCED TO THE WISCONSIN COUNTY COORDINATE SYSTEM (WCCS), ROCK COUNTY - NAD 83.

ELEVATIONS SHOWN ON THIS PLAN ARE REFERENCED TO NAVD88 (2007)

CONVENTIONAL SYMBOLS

PLAN		PROFILE	
CORPORATE LIMITS		GRADE LINE	
PROPERTY LINE		ORIGINAL GROUND	
LOT LINE		MARSH OR ROCK PROFILE (To be noted as such)	ROCK
LIMITED HIGHWAY EASEMENT		SPECIAL DITCH	LABEL
EXISTING RIGHT OF WAY		GRADE ELEVATION	95.36
PROPOSED OR NEW R/W LINE		CULVERT (Profile View)	
SLOPE INTERCEPT		UTILITIES	
REFERENCE LINE		ELECTRIC	E
EXISTING CULVERT		FIBER OPTIC	FO
PROPOSED CULVERT (Box or Pipe)		GAS	G
COMBUSTIBLE FLUIDS	CAUTION	SANITARY SEWER	SAN
		STORM SEWER	SS
MARSH AREA		TELEPHONE	T
		WATER	W
		UTILITY PEDESTAL	
WOODED OR SHRUB AREA		POWER POLE	
		TELEPHONE POLE	

ACCEPTED FOR
TOWN OF LA PRAIRIE

3/1/2016 (DATE)

ATA (CHAIRMAN, TOWN BOARD)

ORIGINAL PLANS PREPARED BY

KSA K. SINGH & ASSOCIATES, INC.
Engineers, Scientists and Environmental Consultants

WISCONSIN
MOAZ A. KHAN
E-43764
WAUKESHA
WIS.
PROFESSIONAL ENGINEER

3/1/2016 (Date) _____ (Signature)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor	COMBS & ASSOCIATES
Designer	K. SINGH & ASSOCIATES, INC.
Project Manager	STEVE MARSHALL
Regional Examiner	JIM BUSCHKOPF
Regional Supervisor	KIMBERLY SCHAUDER
C.O. Examiner	

APPROVED FOR THE DEPARTMENT

DATE: 3/7/2016 _____ (Signature)

E

GENERAL NOTES

THE LOCATION OF EXISTING UTILITY INSTALLATIONS AS SHOWN ON THE PLANS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT AREA THAT ARE NOT SHOWN.

BE AWARE THAT ALL EXISTING UNDERGROUND AND ABOVE GROUND STRUCTURES AND FACILITIES WITHIN THE SCOPE OF THIS PROJECT MAY NOT BE LOCATED IN THE PLANS. THE CONTRACTOR IS FULLY RESPONSIBLE FOR LOCATING AND AVOIDING ALL UNDERGROUND AND ABOVE GROUND STRUCTURES AND FACILITIES.

CROSS DRAIN PIPES ELEVATIONS, LENGTHS AND LOCATIONS AS SHOWN ON THE PLANS, SHALL BE ADJUSTED TO FIT THE EXISTING FIELD CONDITIONS, AS DIRECTED BY THE ENGINEER.

EXISTING PIPE CULVERT SIZES AND CONCRETE BOX CULVERT SIZES SHOWN ARE APPROXIMATE AND THE CONTRACTOR SHALL BASE THE BID ON THE ACTUAL FIELD CONDITIONS.

RADII, ELEVATIONS, AND DIMENSIONS ARE GIVEN AT THE PAVEMENT EDGES, UNLESS OTHERWISE NOTED IN THE PLANS.

THE CONTRACTOR'S PAVING OPERATIONS SHALL BE CONSISTENT WITH PLAN TYPICAL SECTIONS AND CONSTRUCTED TO PREVENT HMA LONGITUDINAL JOINTS FROM BEING LOCATED WITHIN A DRIVING LANE.

ADJUST TRAFFIC CONTROL DEVICE LOCATIONS TO FIT FIELD CONDITIONS AS DIRECTED BY THE ENGINEER.

EROSION CONTROL ITEMS SHOWN IN THE MISCELLANEOUS QUANTITIES ARE AT SUGGESTED LOCATIONS. THE ENGINEER MAY MODIFY LOCATIONS TO FIT FIELD CONDITIONS.

WETLANDS, WATERWAYS, AND OTHER ENVIRONMENTALLY SENSITIVE AREAS SHALL BE PROTECTED AT ALL TIMES. DO NOT STORE EQUIPMENT OR MATERIALS NEAR THESE SITES UNLESS APPROVED BY THE ENGINEER.

THE HMA PAVEMENT WEIGHT CALCULATIONS ARE BASED ON A UNIT WEIGHT OF 115 LBS/SY/IN OF DEPTH.

3.5-INCH HMA PAVEMENT ON WOODMAN ROAD SHALL BE CONSTRUCTED IN TWO (2) LAYERS AS FOLLOWS:

LAYER	DEPTH (INCHES)	AGGREGATE SIZE (mm)	HMA PAVEMENT
UPPER	1.75-INCH	12.50 mm NOMINAL SIZE AGGREGATE	4 LT 58-28 S
LOWER	1.75-INCH	12.50 mm NOMINAL SIZE AGGREGATE	4 LT 58-28 S

6.5-INCH HMA PAVEMENT SHALL BE CONSTRUCTED IN TWO (2) LAYERS AS FOLLOWS:

LAYER	DEPTH (INCHES)	AGGREGATE SIZE (mm)	HMA PAVEMENT
UPPER	2.5-INCH	12.50 mm OR 19.0 mm NOMINAL SIZE AGGREGATE	4 HT 58-28 H
LOWER	4.0-INCH	25.0 mm NOMINAL SIZE AGGREGATE	2 HT 58-28 S

3.5-INCH HMA PAVEMENT ON IH 39 SHOULDERS SHALL BE CONSTRUCTED IN ONE (1) LAYER AS FOLLOWS:

DEPTH (INCHES)	AGGREGATE SIZE (mm)	HMA PAVEMENT
3.5-INCH	19.0 mm NOMINAL SIZE AGGREGATE	3 HT 58-28 H

WISDOT

WisDOT I-39/90 DESIGN PROJECT MANAGER
STEVE MARSHALL
111 INTERSTATE BLVD.
EDGERTON, WI 53534
PHONE: (608)884-7134
steve.marshall@dot.wi.gov

WisDOT I-39/90 CONSTRUCTION PROJECT MANAGER
EMMANUEL YARTEY
111 INTERSTATE BLVD.
EDGERTON, WI 53534
PHONE: (608)884-7131
emmanuel.yartey@dot.wi.gov

DESIGN CONTACT

MOAZ KHAN
3636 NORTH 124TH STREET
WAUWATOSA, WI 53222
(262)821-1171
mkhan@ksaconsultants.com

UTILITIES

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JASON HOGAN
SUITE 1000
4902 N BILTMORE LN
MADISON, WI 53511
(608) 458-4871
jasonhogan@alliantenergy.com

AT&T WISCONSIN - COMMUNICATION LINE
CAROL ANASON
316 W. WASHINGTON AVE.
MADISON, WI 53703
(608) 252-2385
ca2624@att.com

ROCK ENERGY COOPERATIVE - ELECTRICITY
LYNN MAIER
P.O. BOX 1758
JANESVILLE, WI 53547-1758
(608) 752-4550
lynnm@rock.coop

OTHER CONTACTS

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ROCK COUNTY HIGHWAY COMMISSIONER
BENJAMIN J. COOPMAN
3715 NEWVILLE ROAD
JANESVILLE, WI 53545
coopman@co.rock.wi.us

TOWN OF LaPRAIRIE

ALLAN ARNDT
CHAIR
LaPRAIRIE GRANDGE HALL
3610 SOUTH LaPRAIRIE-TOWN HALL ROAD
JANESVILLE, WI 53546
(608) 752-1263

DNR LIAISON

WISCONSIN DEPARTMENT OF
NATURAL RESOURCES
(SOUTH CENTRAL REGION)
ROCK COUNTY:
LAURA BUB
3911 FISH HATCHERY RD
FITHBURG, WI 53711-5397
PHONE: (608)275-3485
laura.bub@wisconsin.gov

ABBREVIATIONS

AP	ACCESS POINT/ DRIVEWAY CONNECTION
AR	ACCESS RIGHTS
AC.	ACRES
ET.AL.	AND OTHERS
℄ OR C/L	CENTERLINE
CMCP	CORRUGATED METAL CULVERT PIPE
CSM	CERTIFIED SURVEY MAP
COR.	CORNER
D	DEGREE OF CURVE
D.D.	DIRECTION DISTRIBUTION
D.H.V.	DESIGN HOUR VOLUME
DOC.	DOCUMENT
E.	EAST
EASE.	EASEMENT
EL OR ELEV	ELEVATION
E.S.A.L.	EQUIVALENT SINGLE AXLE LOAD
EXIST.	EXISTING
H.E.	HIGHWAY EASEMENT

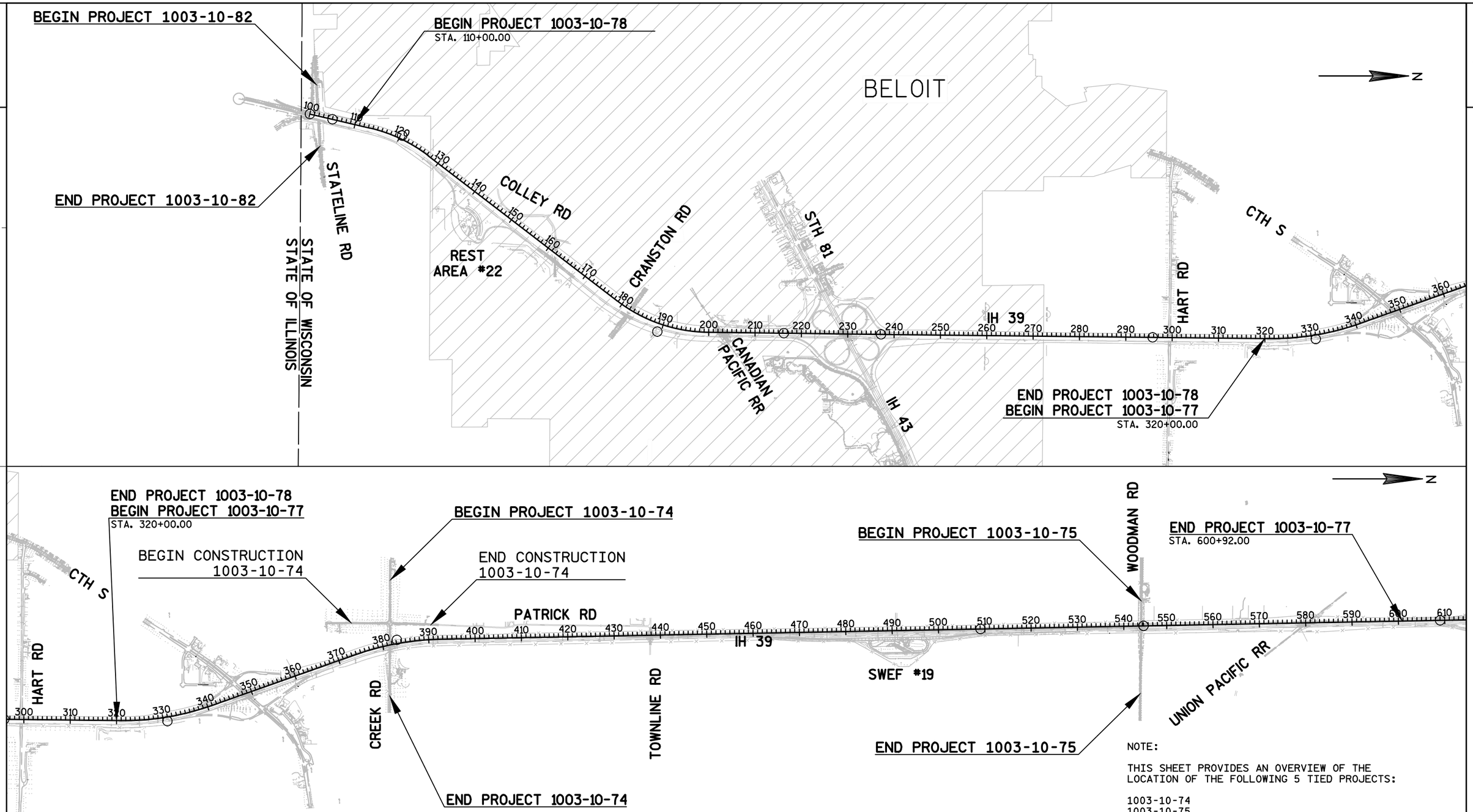
ABBREVIATIONS CONT.

HMA	HOT MIX ASPHALT
IP OR I.P.	IRON PIN
L	LENGTH OF CURVE
LN	LANE
LT. OR LT	LEFT
MAX.	MAXIMUM
MIN.	MINIMUM
MON.	MONUMENT
MP	ROADWAY MILEAGE
N.	NORTH
P.	PAGE
PLE	PERMANENT LIMITED EASEMENT
PL	PROPERTY LINE
RCCP	REINFORCED CONCRETE CULVERT PIPE
RD.	ROAD
(100')	RECORDED AS
R	RADIUS
℞ OR R/L	REFERENCE LINE
ROR	RELEASE OF RIGHTS
REM.	REMAINING

ABBREVIATIONS CONT.

RT OR RT.	RIGHT
R/W	RIGHT-OF-WAY
S.	SOUTH
S.E.	SUPEREVELVATION
SEC.	SECTION
SF	SQUARE FEET
STA.	STATION
T	TANGENT
TLE	TEMPORARY LIMITED EASEMENT
T. %	TRUCK (PERCENT OF)
V.	VOLUME
W.	WEST

DIGGERS HOTLINE
Dial 811 or (800) 242-8511
www.DiggersHotline.com



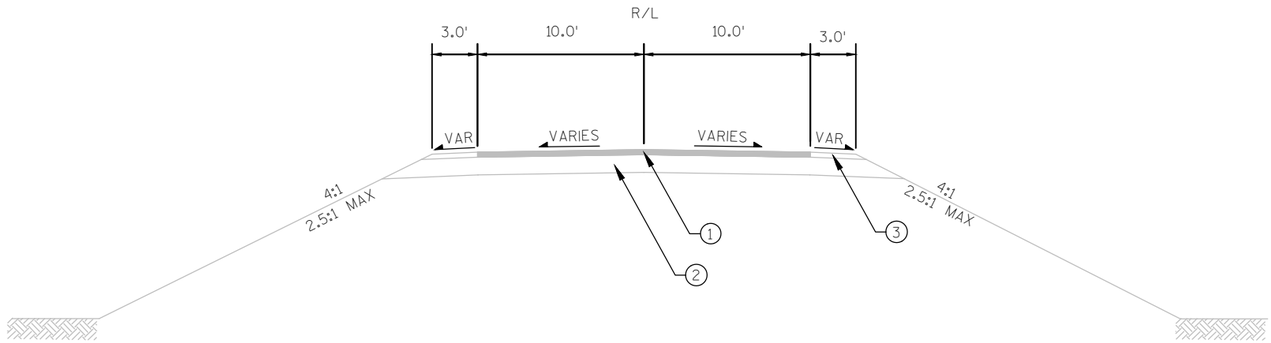
NOTE:

THIS SHEET PROVIDES AN OVERVIEW OF THE LOCATION OF THE FOLLOWING 5 TIED PROJECTS:

1003-10-74
1003-10-75
1003-10-77
1003-10-78
1003-10-82

SEE THE PLANS OF THE CORRESPONDING PROJECT I.D. FOR MORE INFORMATION.

PROJECT NO: 1003-10-75	HWY: IH 39	COUNTY: ROCK	PROJECT OVERVIEW - 5 TIED PROJECTS	SHEET 3	E



EXISTING TYPICAL SECTION

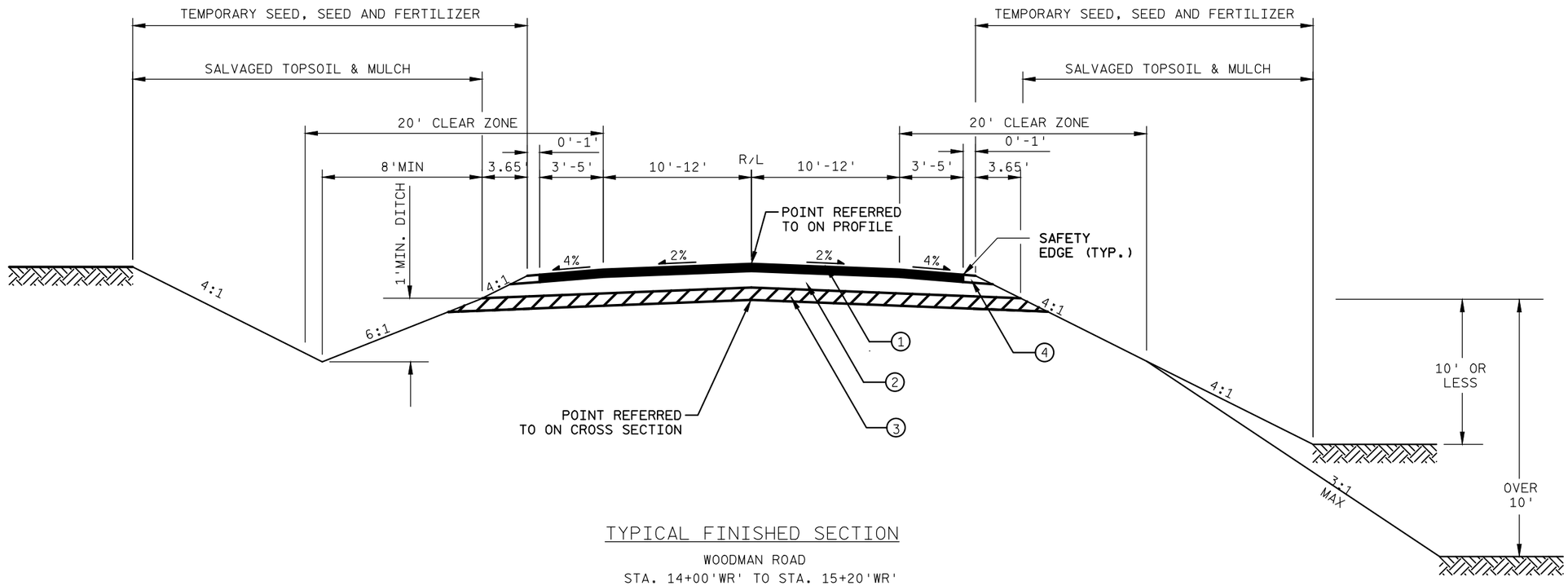
WOODMAN ROAD
STA 14+00 'WR' - STA 34+00 'WR'

LEGEND

(1) VARIES 2.5"-8" ASPHALT PAVEMENT (SEE BORING LOG)
(2) 6"-8" CRUSHED STONE BASE COURSE (SEE BORING LOG)
(3) AGGREGATE SHOULDER

BORING LOG TABLE

STATION	OFFSET FROM CENTERLINE	DIRECTION	BORING	ASPHALT THICKNESS (INCHES)	BASE COURSE THICKNESS (INCHES)	TOTAL THICKNESS (INCHES)
7+88 'WR'	8.5'	LT	SR-25	8	6	14
14+88 'WR'	6.3'	RT	SR-26	2.5	8	10.5
24+88 'WR'	6.8'	LT	SR-27	6	6	12
30+88 'WR'	6.6'	RT	SR-28	3	7	10

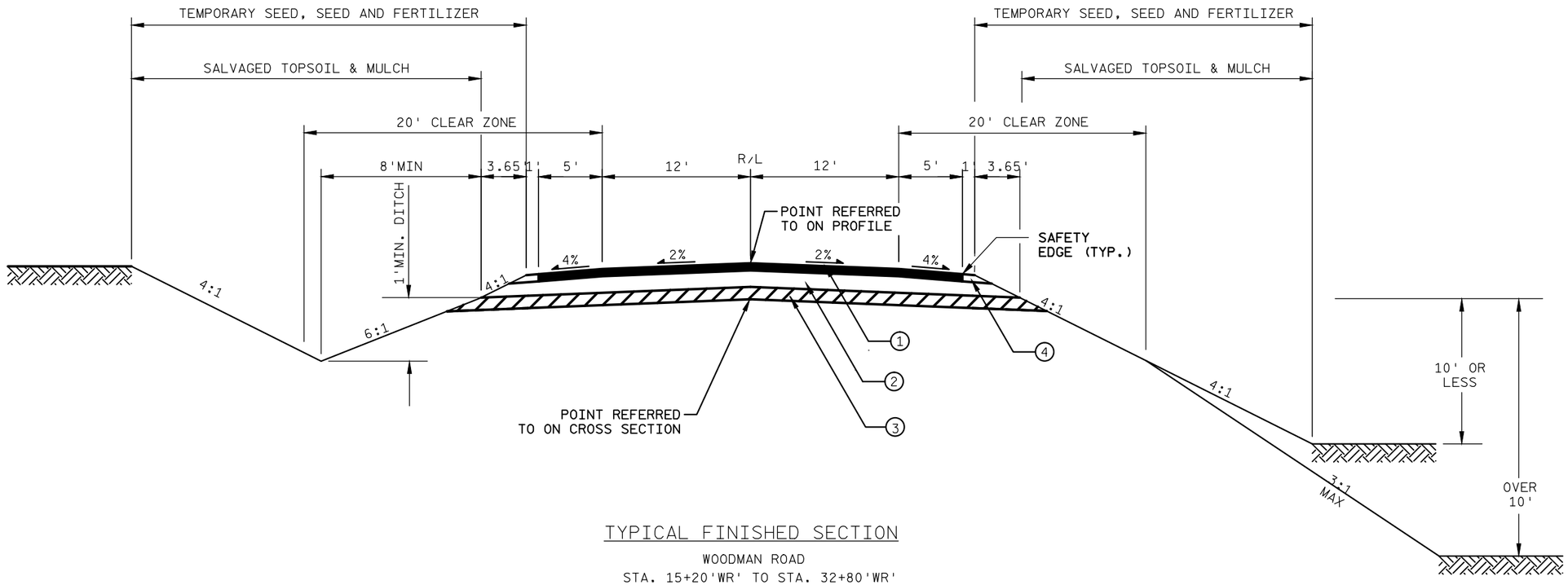


TYPICAL FINISHED SECTION

WOODMAN ROAD
STA. 14+00'WR' TO STA. 15+20'WR'
STA. 32+80'WR' TO STA. 34+00'WR'

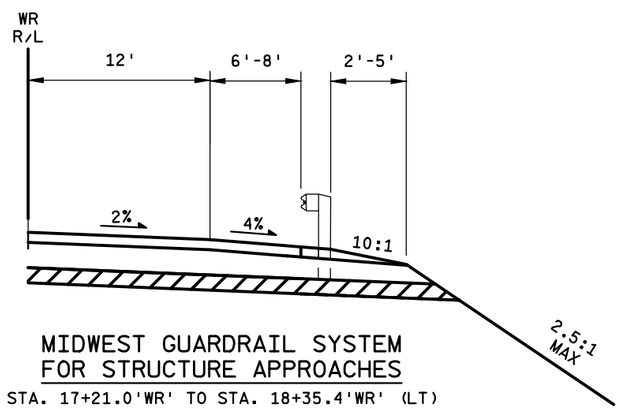
LEGEND

1. 3.5" NEW CONSTRUCTION:
   1.75" HMA PAVEMENT 4 LT 58-28 S (UPPER LAYER)
   1.75" HMA PAVEMENT 4 LT 58-28 S (LOWER LAYER)
2. 8" BASE AGGREGATE DENSE 1¼-INCH
3. 6" BASE AGGREGATE DENSE 3-INCH
4. BASE AGGREGATE DENSE 3/4-INCH



TYPICAL FINISHED SECTION

WOODMAN ROAD
STA. 15+20'WR' TO STA. 32+80'WR'



MIDWEST GUARDRAIL SYSTEM FOR STRUCTURE APPROACHES

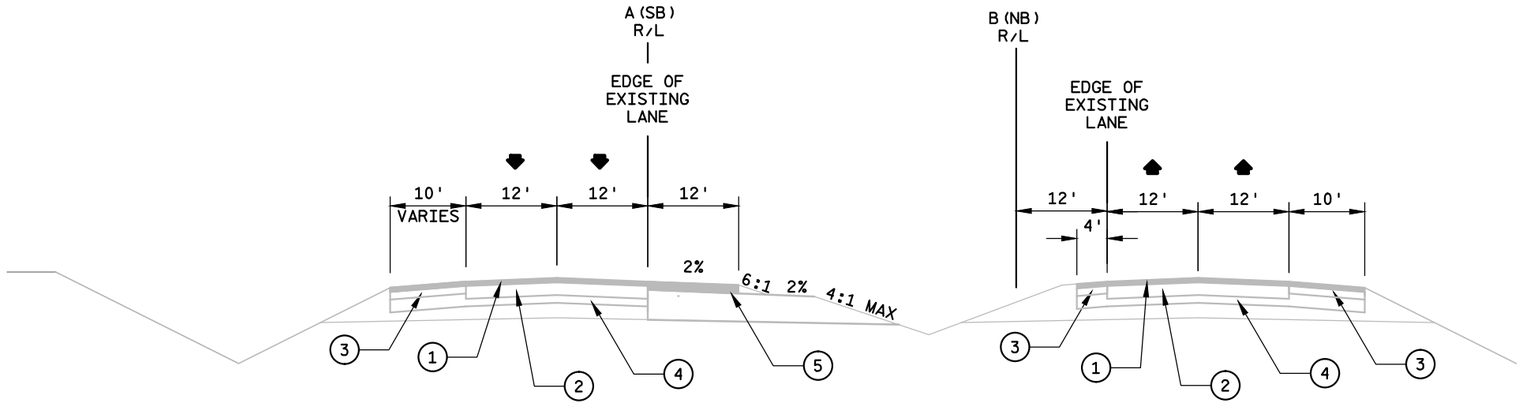
STA. 17+21.0'WR' TO STA. 18+35.4'WR' (LT)
STA. 16+80.4'WR' TO STA. 18+35.4'WR' (RT)
STA. 21+04.6'WR' TO STA. 22+59.6'WR' (LT)
STA. 21+04.6'WR' TO STA. 22+19.0'WR' (RT)

LEGEND

1. 3.5" NEW CONSTRUCTION:
   1.75" HMA PAVEMENT 4 LT 58-28 S (UPPER LAYER)
   1.75" HMA PAVEMENT 4 LT 58-28 S (LOWER LAYER)
2. 8" BASE AGGREGATE DENSE 1¼-INCH
3. 6" BASE AGGREGATE DENSE 3-INCH
4. BASE AGGREGATE DENSE 3/4-INCH

PROJECT NO: 1003-10-75	HWY: IH 39	COUNTY: ROCK	TYPICAL SECTIONS	SHEET 6 E

FILE NAME : P:\8394 IH 39 AECOM\TRANSPORTATION\CAD\WOODMAN\SHEETSET\020302_TS_WOODMAN.DWG PLOT DATE : 4/06/2016 6:31 PM PLOT BY : MOAZ KHAN PLOT NAME : ---------- PLOT SCALE : 1 IN: 10 FT WISDOT/CADDS SHEET 42

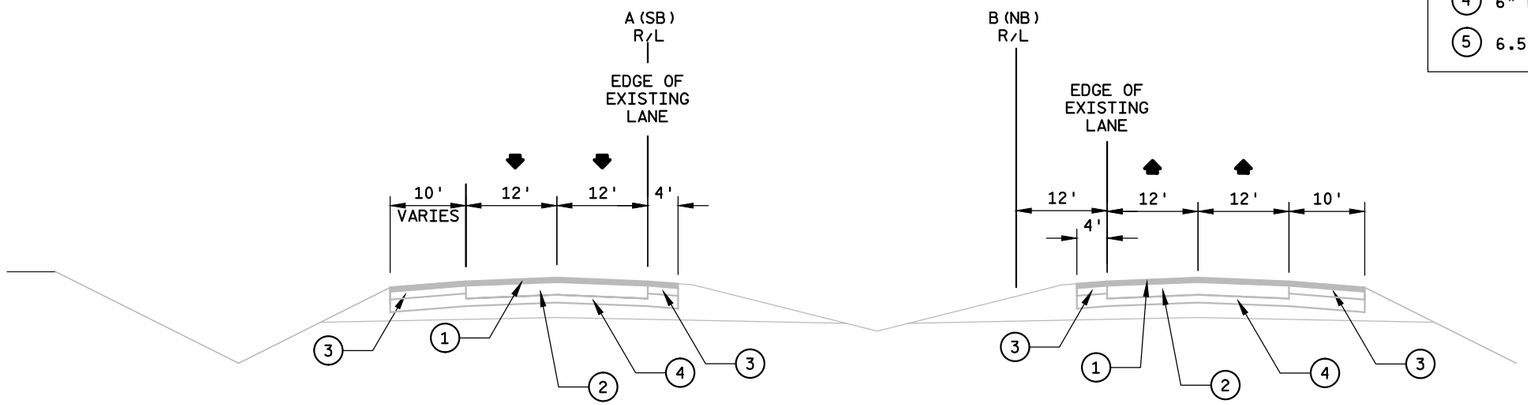


IH 39 EXISTING TYPICAL SECTION

STA. 532+30 A - STA. 542+75 A
STA. 532+30 B - STA. 542+75 B

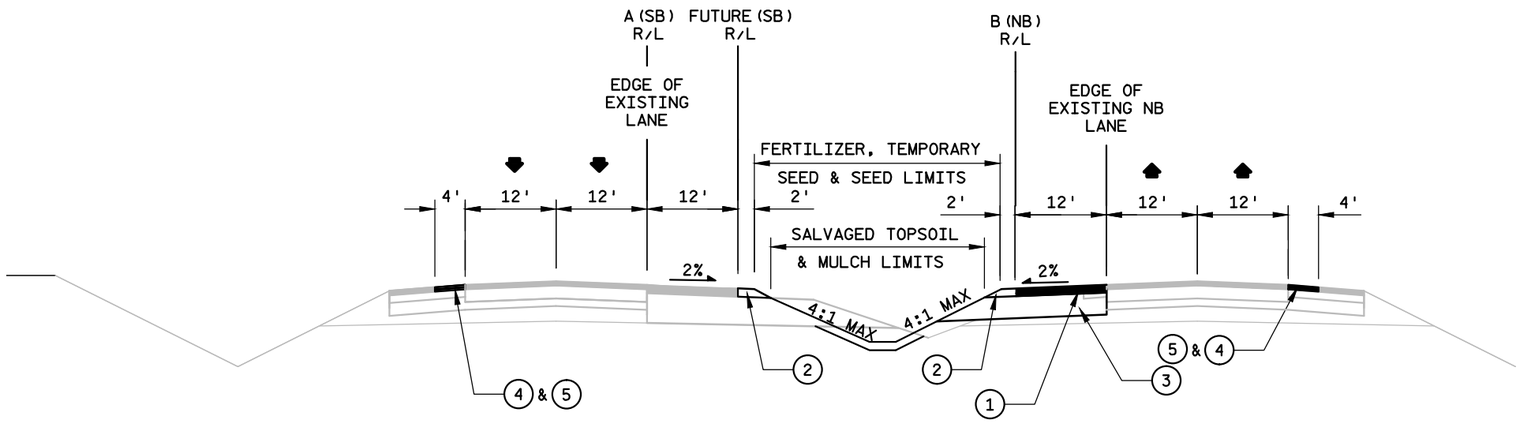
LEGEND

1. 3.5" HMA PAVEMENT
2. 10" CONTINUOUSLY REINFORCED CONCRETE
3. 6" NON-REINFORCED CONCRETE
4. 6" BASE AGGREGATE
5. 6.5" HMA PAVEMENT



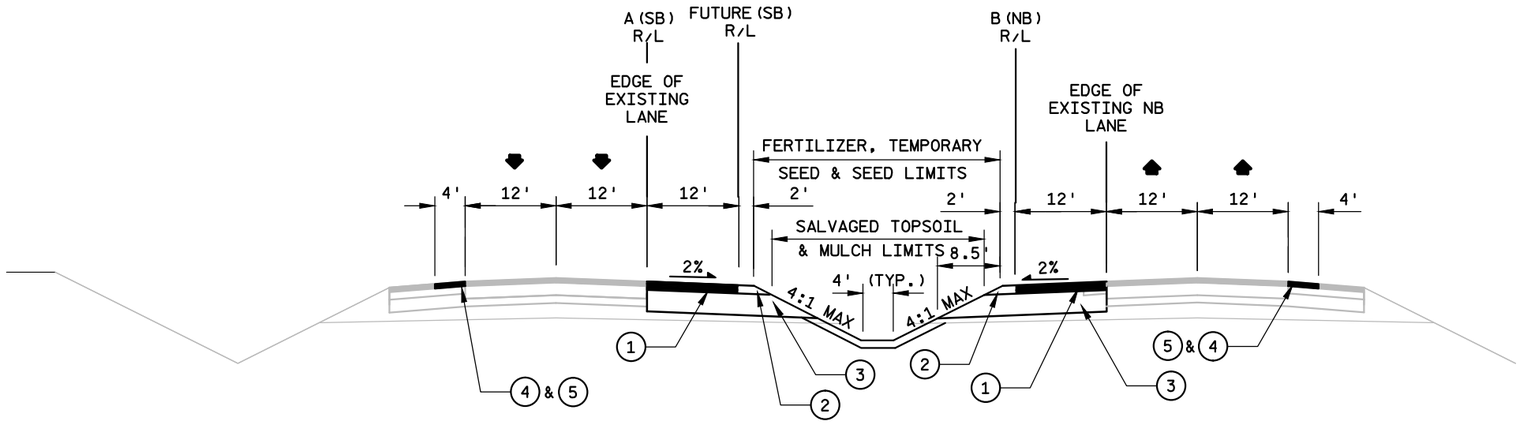
IH 39 EXISTING TYPICAL SECTION

STA. 542+75 A - STA. 556+60 A
STA. 542+75 B - STA. 556+60 B



IH 39 WIDENING TYPICAL SECTION

STA. 532+30 A - STA. 542+75 A
STA. 532+30 B - STA. 542+75 B

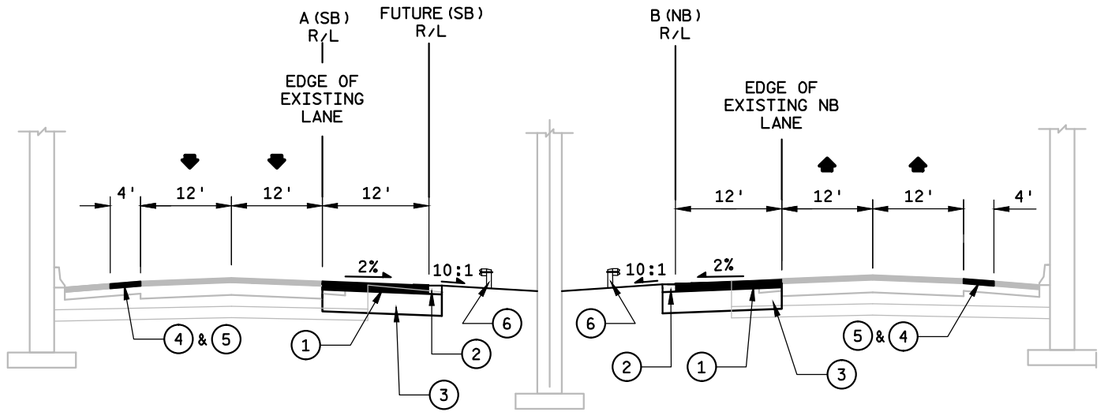


IH 39 WIDENING TYPICAL SECTION

STA. 542+75 A - STA. 543+62.37 A
STA. 545+31.53 A - STA. 556+60 A
STA. 542+75 B - STA. 543+62.37 B
STA. 545+31.53 B - STA. 556+60 B

LEGEND

1. 6.5" NEW CONSTRUCTION (STAGE 2):
   2.5" HMA PAVEMENT 4 HT 58-28 H (UPPER LAYER)
   4.0" HMA PAVEMENT 2 HT 58-28 S (LOWER LAYER)
2. BASE AGGREGATE DENSE 3/4-INCH (STAGE 2)
3. 17" BASE AGGREGATE DENSE 1 1/4-INCH (STAGE 2)
4. REMOVING 3.5" ASPHALTIC SURFACE MILLING (STAGE 1)
5. 3.5" NEW CONSTRUCTION (STAGE 1):
   3.5" HMA PAVEMENT 3 HT 58-28 H (SINGLE LAYER)

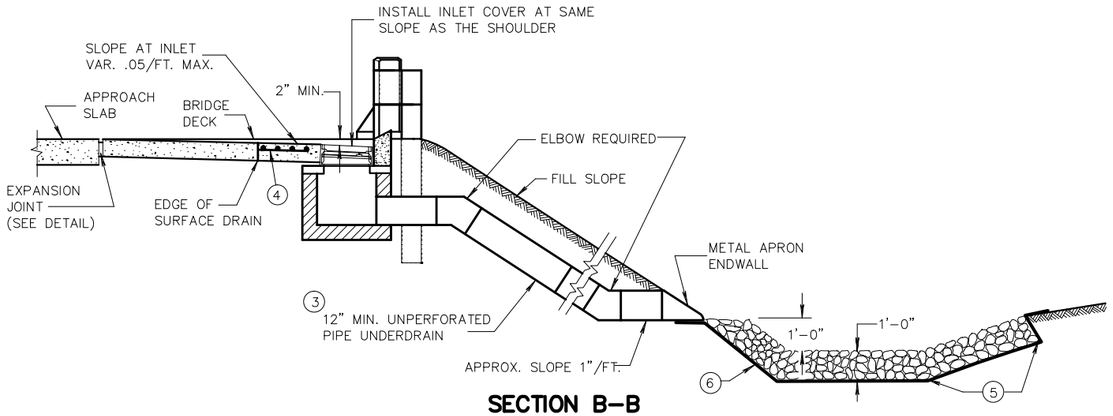


IH 39 WIDENING TYPICAL SECTION

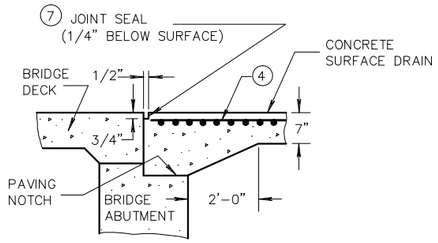
STA. 543+62.37 A - STA. 545+31.53 A
STA. 543+62.37 B - STA. 545+31.53 B

LEGEND

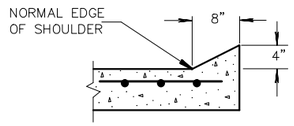
1. 6.5" NEW CONSTRUCTION (STAGE 2):
   2.5" HMA PAVEMENT 4 HT 58-28 H (UPPER LAYER)
   4.0" HMA PAVEMENT 2 HT 58-28 S (LOWER LAYER)
2. BASE AGGREGATE DENSE 3/4-INCH (STAGE 2)
3. 17" BASE AGGREGATE DENSE 1 1/4-INCH (STAGE 2)
4. REMOVING 3.5" ASPHALTIC SURFACE MILLING (STAGE 1)
5. 3.5" NEW CONSTRUCTION (STAGE 1):
   3.5" HMA PAVEMENT 3 HT 58-28 H (SINGLE LAYER)
6. STEEL THRIE BEAM AND STEEL THRIE BEAM BULLNOSE TERMINAL (AT PROJECT END AFTER STAGE 14)



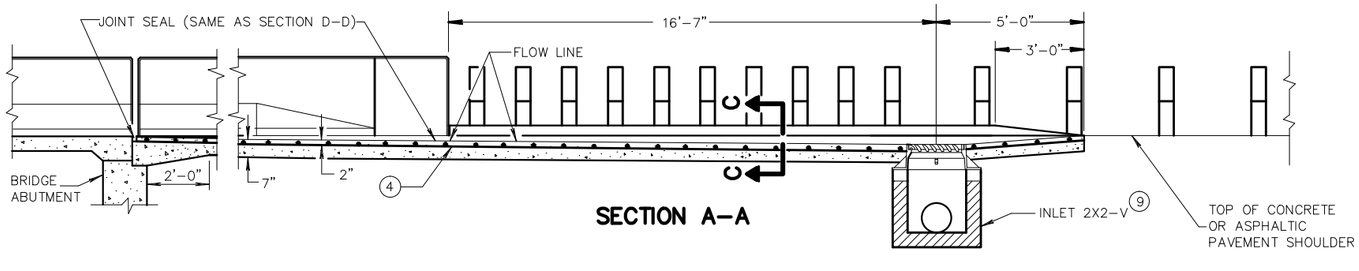
SECTION B–B



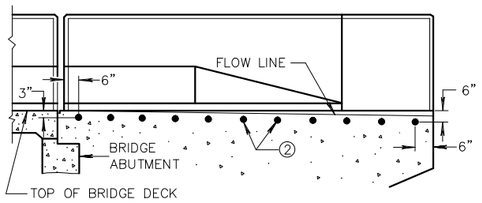
SECTION D–D



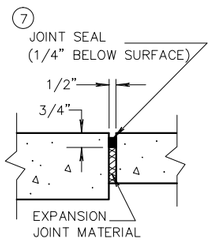
SECTION C–C



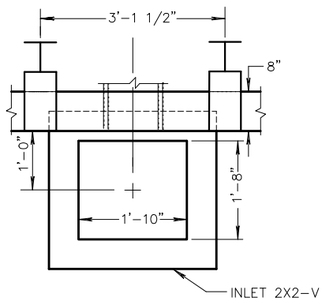
SECTION A–A



LOCATION OF TIE BARS IN WINGWALL



EXPANSION JOINT DETAIL



PLAN VIEW

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS, AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

ALL STEEL REINFORCEMENT SHALL BE EMBEDDED 2 INCHES CLEAR UNLESS OTHERWISE SHOWN OR NOTED.

(1) NO. 4 X 2'–0" TIE BARS SPACED AT 3'–0" CENTERS TO BE USED ONLY WHEN ADJACENT TO P.C. CONCRETE.

(2) NO. 4 X 2'–0" TIE BARS SPACED AT 12" CENTERS TO BE PLACED BY BRIDGE CONTRACTOR, OR DRILLED TIE BARS PLACED AS DIRECTED BY THE ENGINEER.

(3) THE PIPE UNDERDRAIN MAY BE ANY ONE OF THE SIX MATERIALS LISTED IN THE STANDARD SPECIFICATIONS SECTION 612.2 EXCEPT DRAIN TILE.

(4) MINIMUM REINFORCEMENT SHALL BE 6" X 6" – W4.0 X W4.0 OR NO. 3 BARS LONGITUDINAL AND TRANSVERSE SPACING 12" C–C.

(5) LIMITS OF ADDITIONAL RIPRAP WHEN SPECIAL DITCH IS REQUIRED.

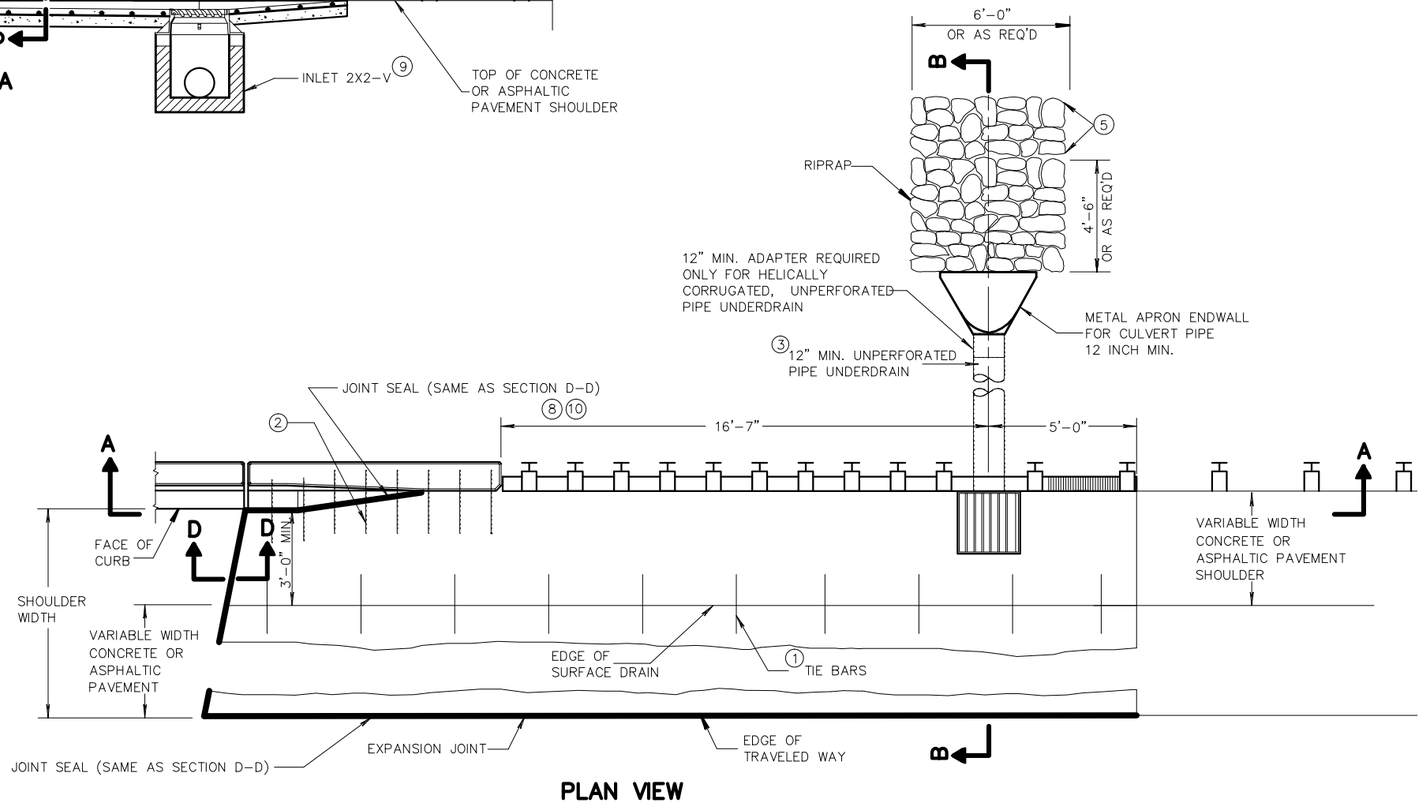
(6) GEOTEXTILE FABRIC, TYPE 'R' OR TYPE 'HR', DEPENDENT ON RIPRAP TYPE

(7) HOT POURED SEALANT UNLESS OTHERWISE SPECIFIED.

(8) THIS DIMENSION MAY VARY DEPENDING ON THE SPACING OF POSTS FOR THE STEEL PLATE BEAM GUARD. THE TYPICAL LOCATION FOR THE SURFACE DRAIN IS WHERE THE POST SPACING IS 3'–1 1/2".

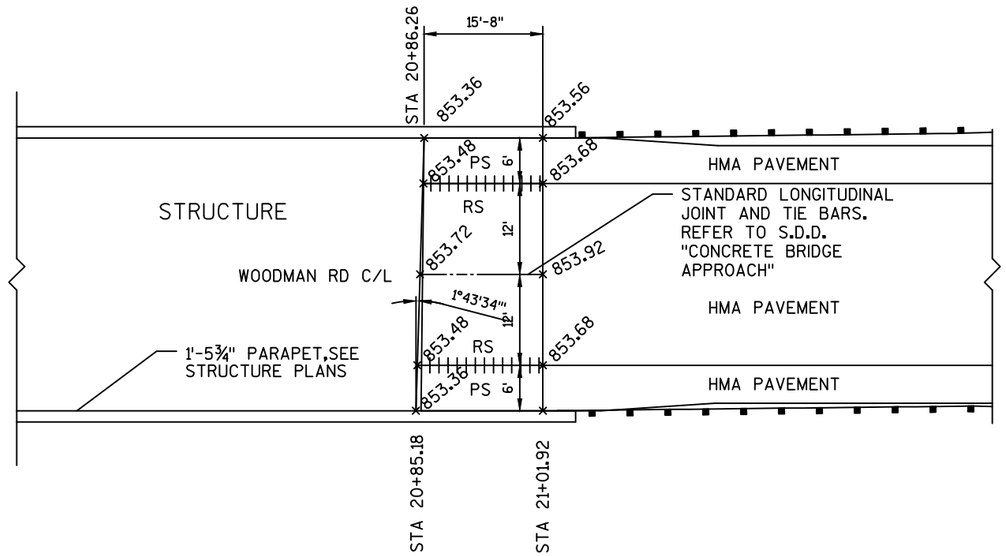
(9) SEE CURRENT STANDARD DETAIL DRAWINGS 8A5 AND 8C7 FOR DETAILS.

(10) SEE CURRENT STANDARD DETAIL DRAWING 14B45 FOR MGS POST SPACING DETAILS.



PLAN VIEW

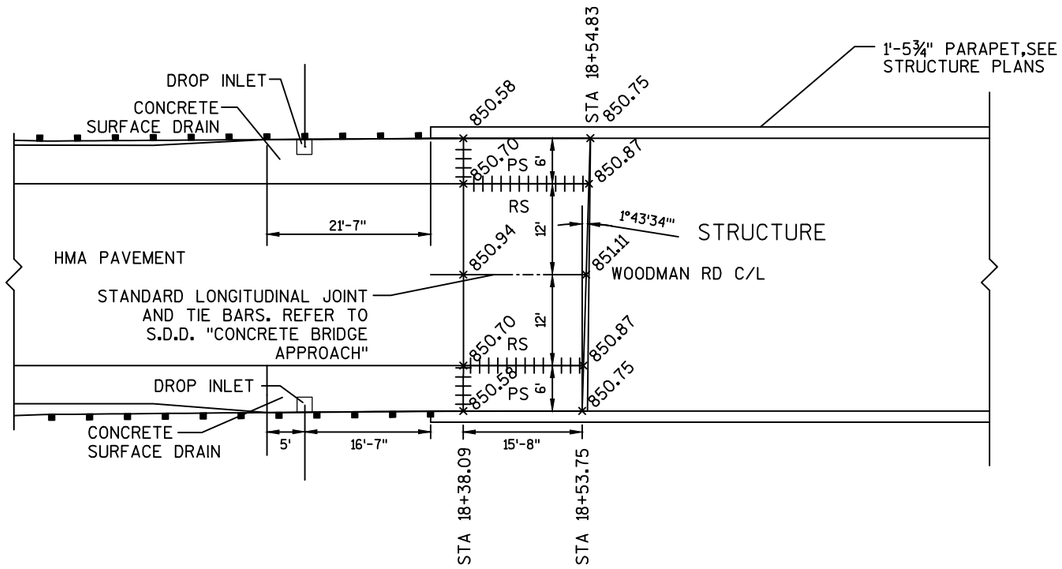
PROJECT NO: 1003-10-75	HWY: IH 39	COUNTY: ROCK	CONSTRUCTION DETAIL: CONCRETE SURFACE DRAIN DETAIL	SHEET 10	E



EAST APPROACH

PS = PAVED CONCRETE SHOULDER
RS = REINFORCED CONCRETE SLAB

SEE S.D.D. 13 B 2-8a
FOR FURTHER DETAILS



WEST APPROACH

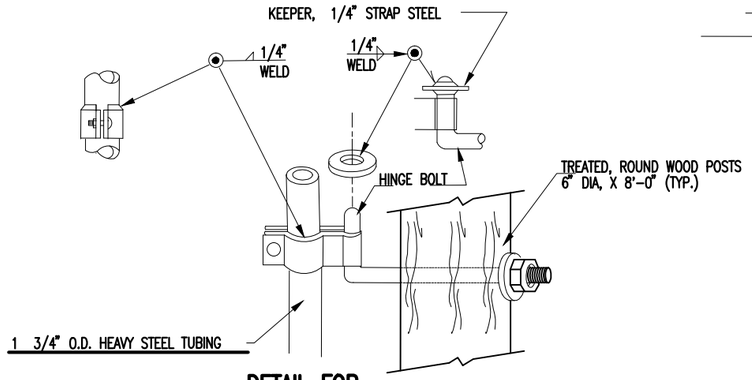
WOODMAN ROAD:
CONCRETE BRIDGE APPROACH DETAILS

PROJECT NO:1003-10-75	HWY: IH 39	COUNTY: ROCK	CONSTRUCTION DETAIL: CONCRETE BRIDGE APPROACH	SHEET 11	E

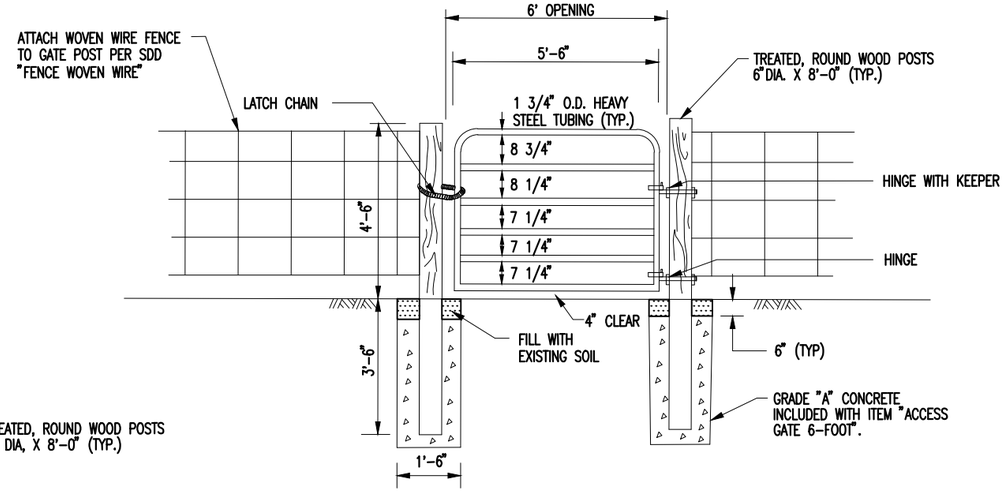
RUNOFF COEFFICIENT TABLE

	HYDROLOGIC SOIL GROUP											
	A			B			C			D		
	SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)		
LAND USE:	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER
ROW CROPS	.08 .22	.16 .30	.22 .38	.12 .26	.20 .34	.27 .44	.15 .30	.24 .37	.33 .50	.19 .34	.28 .41	.38 .56
MEDIAN STRIP-TURF	.19 .24	.20 .26	.24 .30	.19 .25	.22 .28	.26 .33	.20 .26	.23 .30	.30 .37	.20 .27	.25 .32	.30 .40
SIDE SLOPE-TURF			.25 .32			.27 .34			.28 .36			.30 .38
PAVEMENT:												
ASPHALT	.70 - .95											
CONCRETE	.80 - .95											
BRICK	.70 - .80											
DRIVES, WALKS	.75 - .85											
ROOFS	.75 - .95											
GRAVEL ROADS, SHOULDERS	.40 - .60											

TOTAL PROJECT AREA = 10.00 ACRES
TOTAL AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES = 8.18 ACRES



DETAIL FOR WRAP-AROUND HINGE WITH KEEPER



ACCESS GATE 6-FOOT
(CONTINUOUS FENCE LOCATION)

NOTES:
KEEPER TO BE ATTACHED TO TOP HINGE OF EACH GATE ONLY.

KEEPER SHALL BE FITTED AFTER THE GATE IS HUNG IN PLACE.

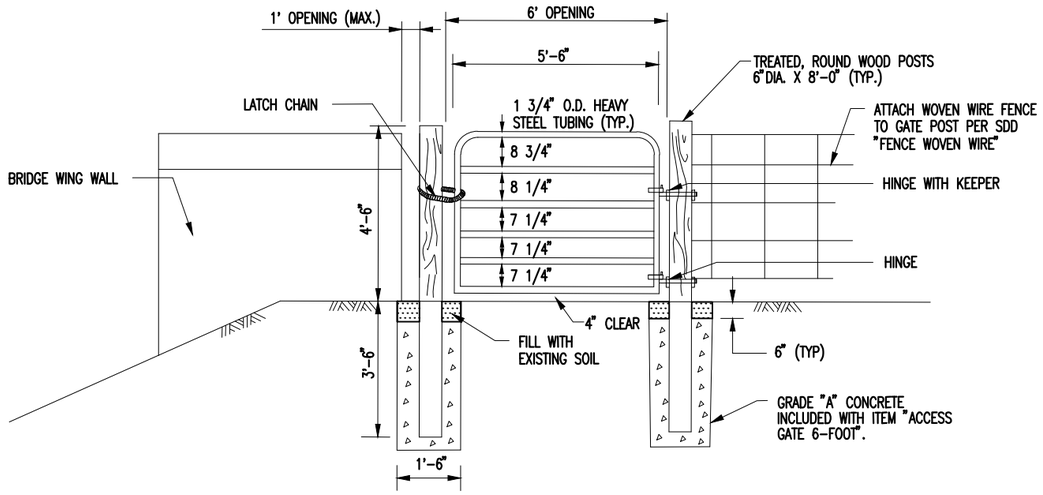
KEEPER TO BE OF SUCH DIMENSIONS TO PROVIDE CLEARANCE FOR LATERAL SWING.

DRILL HOLE IN KEEPER OF SUFFICIENT DIAMETER TO PROVIDE SNUG FIT OVER HINGE BOLT.

ALL FIELD WELDED SURFACES SHALL BE PRIMED WITH PREMIXED RUSTPROOF PAINT, THEN TWO FIELD COATS OF ENAMEL PAINT SHALL BE APPLIED.

KEYED LOCK TO BE SUPPLIED BY OTHERS (WISDOT)

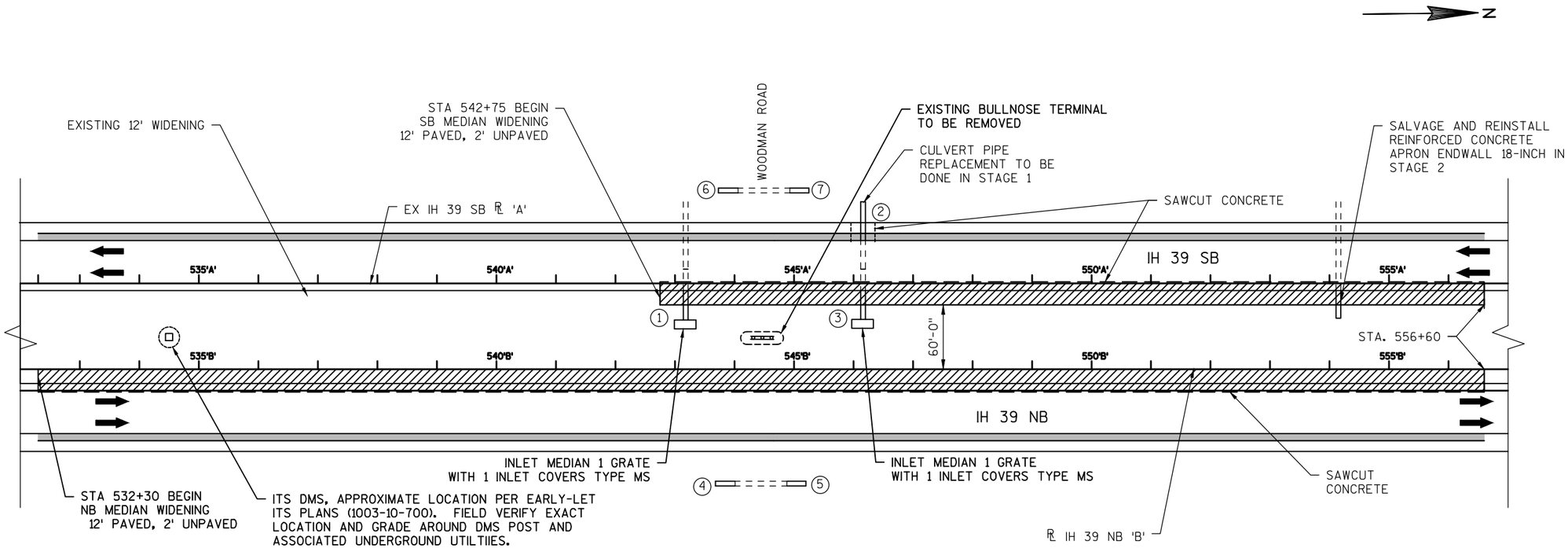
SEE MISCELLANEOUS QUANTITIES FOR APPROXIMATE LOCATIONS. LOCATION SHALL BE ADJUSTED TO FIT FIELD CONDITIONS OR AS DIRECTED BY THE ENGINEER.



ACCESS GATE 6-FOOT
(BRIDGE ABUTMENT LOCATION)

PROJECT NO: 1003-10-75	HWY: IH 39	COUNTY: ROCK	CONSTRUCTION DETAIL: ACCESS GATE 6-FOOT	SHEET 13	E

2



CULVERT PIPE EXTENSION/REPLACEMENT TABLE

PIPE. NO.	STATION	SIZE	START OFFSET	END OFFSET	LENGTH
1	543+18 A	18"	4.57	15.57	11'
2	546+16 A	18"	-35.40	-56.00	21'
3	546+16 A	18"	8.95	16.70	8'
4	543+68 - 544+01 B	24"	65.49	65.61	33'
5	544+88 - 545+20 B	24"	65.95	66.08	32'
6	543+73 - 544+06 A	24"	-63.57	-63.49	33'
7	544+93 - 545+25 A	24"	-63.27	-63.19	32'

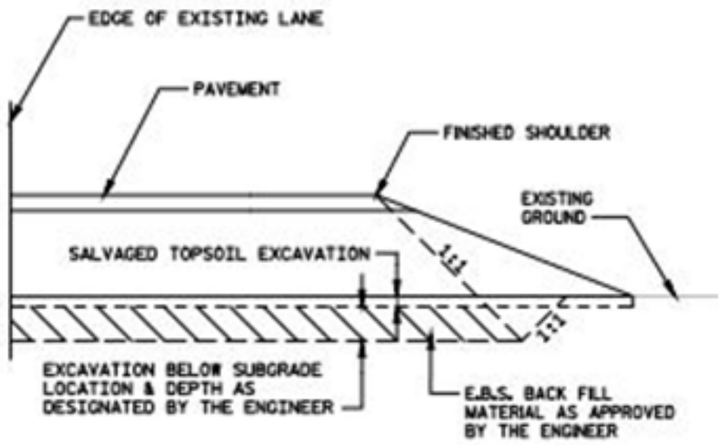
SHOULDER WIDENING AND RE-PAVING PLAN

PAVING LEGEND

PAVEMENT WIDENING

RE-PAVING SHOULDER

NOTE:
CULVERT PIPE EXTENSIONS 1,3 AND NEW
CULVERT PIPE 2 ARE REINFORCED CONCRETE
CLASS IV 18-INCH (522.0318).
CULVERT PIPE EXTENSIONS 4-7 ARE
CORRUGATED STEEL 24-INCH (521.0124).



DETAIL FOR EXCAVATION BELOW SUBGRADE (E.B.S.)

THIS DETAIL TO BE USED FOR REMOVAL OF UNSUITABLE MATERIAL.

PROJECT NO:1003-10-75	HWY: IH 39	COUNTY: ROCK	CONSTRUCTION DETAIL: EXCAVATION BELOW SUBGRADE	SHEET 15	E

STEEL THRIE BEAM
BULLNOSE TERMINAL
STA 545+31.53. 'A', 23.66' RT

STEEL THRIE BEAM, TYP

STA 544+93 - 545+25 'A' LT
1-24" 32 LF CPCS REQUIRED
1 APRON ENDWALL REQUIRED

END 42" CLASS III C.P.R.C.
INV. ELEVATION = 824.21'
STA 545+26 'A', 78' LT

GUARDRAIL POST 9
STA 17+67.90 'WR', 18' LT

GUARDRAIL POST 5
STA 17+42.90 'WR', 19' LT

GUARDRAIL POST 1
STA 17+17.90 'WR', 20' LT

CAUTION

ALLIANT GAS

R/W

15+00'WR'

545'A'

545'B'

20+00'WR'

STA 544+88 - 545+20 'B' RT
1-24" 32 LF CPCS REQUIRED
1 APRON ENDWALL REQUIRED

END 42" CLASS III C.P.R.C.
INV. ELEVATION = 824.21'
STA 545+20 'B', 81' RT

ACCESS GATE 6-FT
STA 20+86.19 'WR', 19.26 LT

PULL BOX STEEL
24X42 INCH
STA 21+07 'WR', 24' LT/RT

GUARDRAIL POST 9
STA 22+09.63 'WR', 18' LT

GUARDRAIL POST 5
STA 22+34.63 'WR', 19' LT

GUARDRAIL POST 1
STA 22+59.63 'WR', 20' LT

℄ WOODMAN ROAD

R/W

25+00'WR'

WOODMAN ROAD

GUARDRAIL POST 1
STA 16+80.40 'WR', 20' RT

GUARDRAIL POST 5
STA 17+05.40 'WR', 19' RT

GUARDRAIL POST 9
STA 17+30.40 'WR', 18' RT

R/W

GUARDRAIL POST 1
STA 22+22.15 'WR', 20' RT

GUARDRAIL POST 5
STA 21+97.15 'WR', 19' RT

GUARDRAIL POST 9
STA 21+72.15 'WR', 18' RT

R/W

PULL BOX STEEL
24X42 INCH
STA 18+33 'WR', 24' LT/RT

ACCESS GATE 6-FT
STA 18+53.81 'WR', 19.24' RT

FENCE WOVENWIRE 4-FT, TYP.

BEGIN 42" CLASS III C.P.R.C.
IINV. ELEVATION = 824.71'
STA 543+74 'A', 78' LT

STA 543+73 - 544+06 'A' LT
1-24" 33 LF CPCS REQUIRED
1 APRON ENDWALL REQUIRED

STEEL THRIE BEAM
BULLNOSE TERMINAL
STA 543+62. 'A', 11.64' RT

℄ IH 39 SB

540'A'

540'B'

IH-39/90

BEGIN 42" CLASS III C.P.R.C.
INV. ELEVATION = 824.71'
STA 543+67 'B', 81' RT

STA 543+68 - 544+01 'B' RT
1-24" 33 LF CPCS REQUIRED
1 APRON ENDWALL REQUIRED

℄ IH 39 NB

SALVAGE AND REINSTALL
HIGH TENSION CABLE
GUARD AND TERMINAL
STA 538+09 - 543+18 'B', 6' LT

PROJECT NO: 1003-10-75	HWY: IH 39	COUNTY: ROCK	CONSTRUCTION DETAILS: MISCELLANEOUS ROADWAY ITEMS	SHEET 16 E

2

N

REMOVING GUARDRAIL
STA 545+13 - 546+23 'A', LT

REMOVING GUARDRAIL
STA 543+63 - 545+30 'A', RT

REMOVING CONCRETE BARRIER
543+78 - 544+60 'B', RT

REMOVING GUARDRAIL
STA 20+75 - 25+76 'WR', LT

℄ WOODMAN ROAD

CLEARING & GRUBBING, TYP.

REMOVING GUARDRAIL
STA 16+13 - 18+65 'WR', LT

R/W

545'A'

545'B'

15+00'WR'

20+00'WR'

25+00'WR'

WOODMAN ROAD

CMCP 15"

REMOVING FENCE
STA 15+25 - 18+62 'WR'
60' LT/RT

REMOVING GUARDRAIL
STA 14+77 - 18+66 'WR', RT

REMOVE MANHOLE
18+52 'WR', 18' RT

REMOVING CONCRETE BARRIER
544+34 - 545+15 'A', LT

REMOVE CONCRETE
BASE EXISTING
STA 543+49.07 'A', 57.68' LT

℄ IH 39 SB

540'A'

540'B'

IH-39/90

STA 19+86.00 'WR' =
STA 544+46.28 'NB'

REMOVING GUARD RAIL
542+70 - 543+80, 'B', RT

℄ IH 39 NB

REMOVING GUARD RAIL
20+75 - 24+97, 'WR', RT

REMOVE SMALL
PIPE CULVERT
STA 22+90 'WR'
24" CMCP

PROJECT NO: 1003-10-75	HWY: IH 39	COUNTY: ROCK	CONSTRUCTION DETAILS: REMOVALS DETAIL	SHEET 17 E

2

N

BEGIN PROJECT
STA 14+00 'WR'

R/W

15+00 'WR'

WOODMAN ROAD

MATCH LINE 19+50

R/W

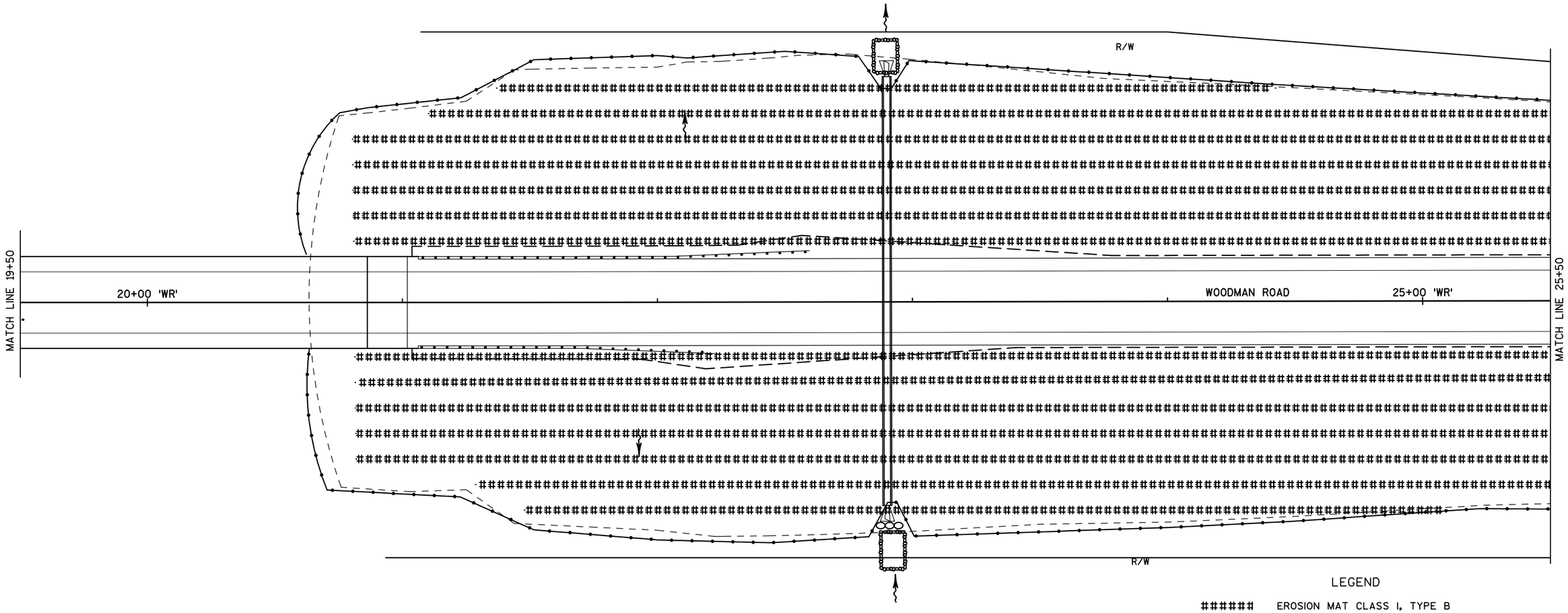
LEGEND

######	EROSION MAT CLASS I, TYPE B
—•—•—	SILT FENCE
—o—o—o—	RIPRAP MEDIUM
- - -	SLOPE INTERCEPT
~~→	SURFACE WATER FLOW
OOO	CULVERT PIPE CHECK

PROJECT NO:1003-10-75	HWY:IH 39	COUNTY:ROCK	EROSION CONTROL	SHEET 18	E

2

N



LEGEND

- EROSION MAT CLASS I, TYPE B
- SILT FENCE
- RIPRAP MEDIUM
- SLOPE INTERCEPT
- SURFACE WATER FLOW
- CULVERT PIPE CHECK

PROJECT NO: 1003-10-75	HWY: IH 39	COUNTY: ROCK	EROSION CONTROL	SHEET 19	E

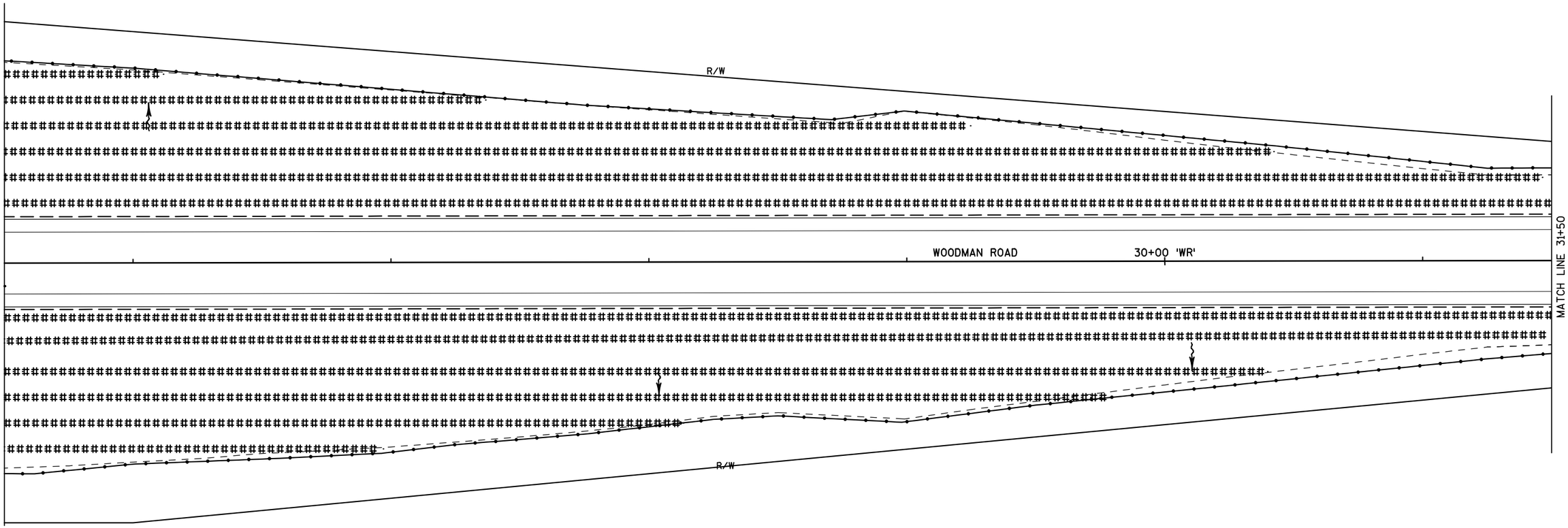
FILE NAME : P:\8394 IH 39 AECOM\TRANSPORTATION\CAD\WOODMAN\SHEETSET\022001_EC.DWG PLOT DATE : 4/7/2016 10:44 PM PLOT BY : MOAZ KHAN PLOT NAME : PLOT SCALE : 1:40_XREF

WISDOT/CADDS SHEET 42

2

2

N



LEGEND

######	EROSION MAT CLASS I, TYPE B
—•—•—	SILT FENCE
—o—o—o—	RIPRAP MEDIUM
_ _ _ /	SLOPE INTERCEPT
~~→	SURFACE WATER FLOW
OOO	CULVERT PIPE CHECK

PROJECT NO: 1003-10-75	HWY: IH 39	COUNTY: ROCK	EROSION CONTROL	SHEET	E

FILE NAME : P:\8394 IH 39 AECOM\TRANSPORTATION\CAD\WOODMAN\SHEETSET\022001_EC.DWG PLOT DATE : 4/7/2016 10:44 PM PLOT BY : MOAZ KHAN PLOT NAME : PLOT SCALE : 1:40_XREF

WISDOT/CADDS SHEET 42

2

2

N

END PROJECT
STA 34+00 'WR'

R/W

WOODMAN ROAD

35+00 'WR'

MATCH LINE 31+50

R/W

LEGEND

######	EROSION MAT CLASS I, TYPE B
	SILT FENCE
	RIPRAP MEDIUM
	SLOPE INTERCEPT
	SURFACE WATER FLOW
	CULVERT PIPE CHECK

PROJECT NO: 1003-10-75	HWY: IH 39	COUNTY: ROCK	EROSION CONTROL	SHEET	E

FILE NAME : P:\8394 IH 39 AECOM\TRANSPORTATION\CAD\WOODMAN\SHEETSET\022001_EC.DWG PLOT DATE : 4/7/2016 10:44 PM PLOT BY : MOAZ KHAN PLOT NAME : PLOT SCALE : 1:40_XREF

WISDOT/CADDS SHEET 42

2

N

530'A'

IH 39

535'A'

MATCH LINE 536+00

MATCH LINE 536+00

18" CPRC

IH 39

540'A'

MATCH LINE 542+00

N

LEGEND

EROSION MAT CLASS I, TYPE B

SILT FENCE

RIPRAP MEDIUM

SURFACE WATER FLOW

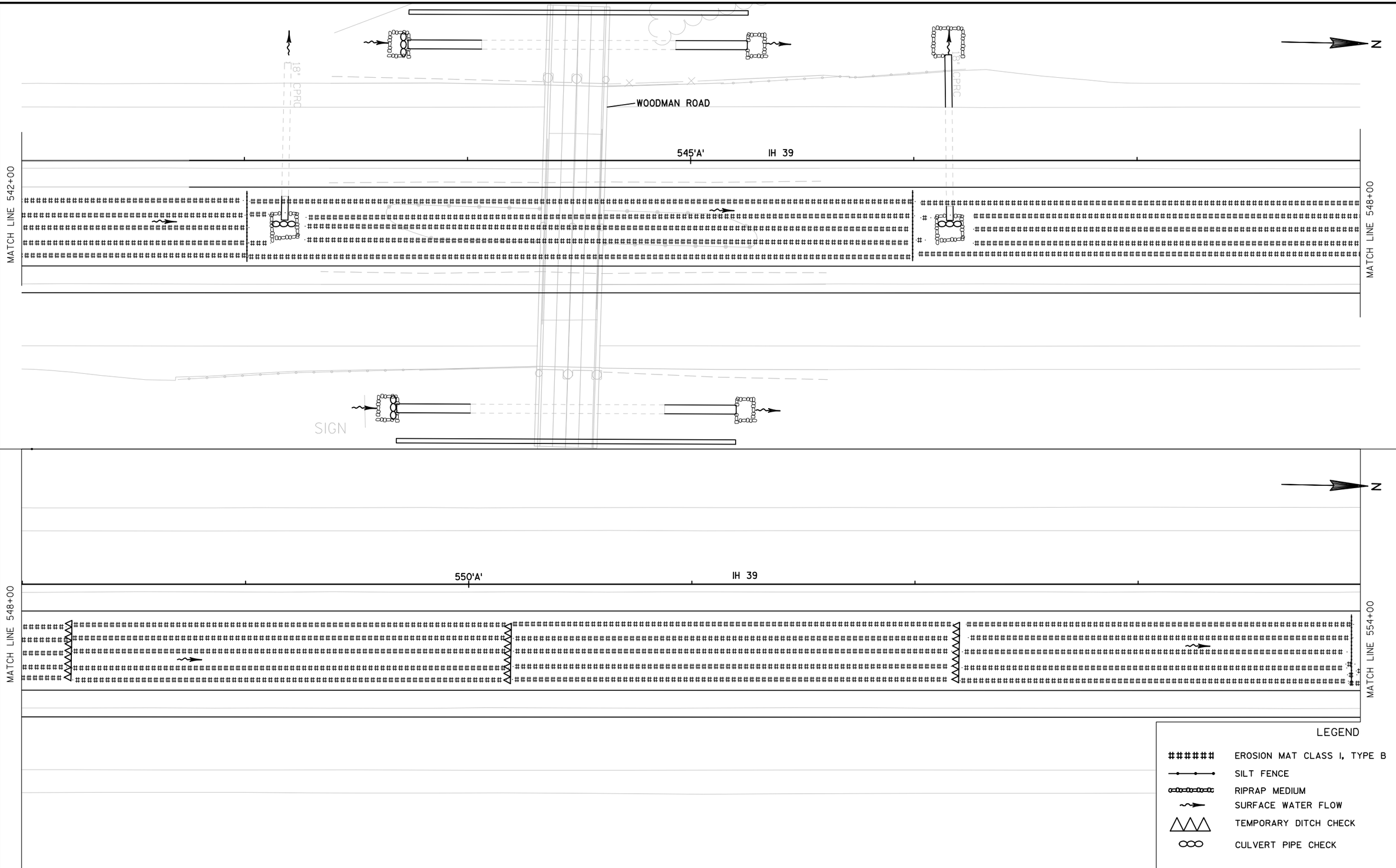
TEMPORARY DITCH CHECK

CULVERT PIPE CHECK

PROJECT NO: 1003-10-75	HWY: IH 39	COUNTY: ROCK	EROSION CONTROL	SHEET	E

FILE NAME : P:\8394 IH 39 AECOM\TRANSPORTATION\CAD\WOODMAN\SHEETSET\022002_EC_IH39_.DWG PLOT DATE : 4/8/2016 12:52 AM PLOT BY : MOAZ KHAN PLOT NAME : PLOT SCALE : 1:40_XREF

WISDOT/CADDS SHEET 42



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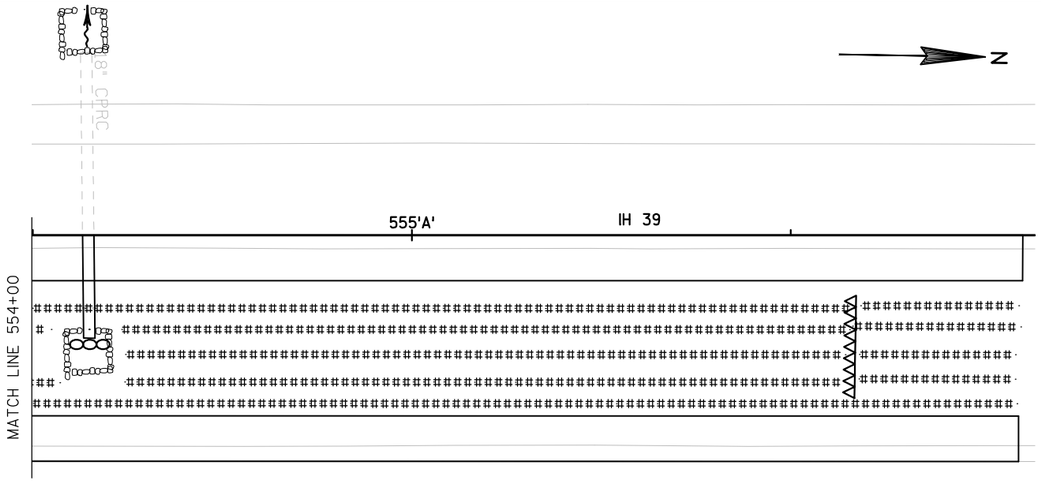
PROJECT NO: 1003-10-75	HWY: IH 39	COUNTY: ROCK	EROSION CONTROL	SHEET 23	E

FILE NAME : P:\8394 IH 39 AECOM\TRANSPORTATION\CAD\WOODMAN\SHEETSET\022002_EC_IH39_.DWG PLOT DATE : 4/8/2016 12:53 AM PLOT BY : MOAZ KHAN PLOT NAME : PLOT SCALE : *********

WISDOT/CADDS SHEET 42



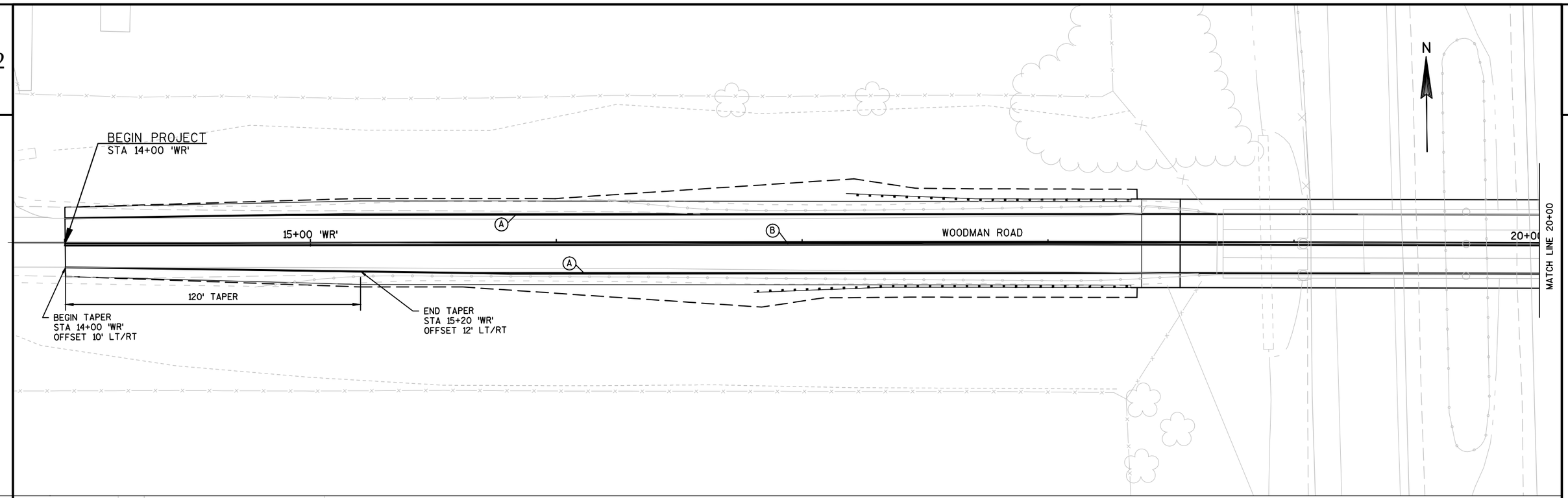
LEGEND

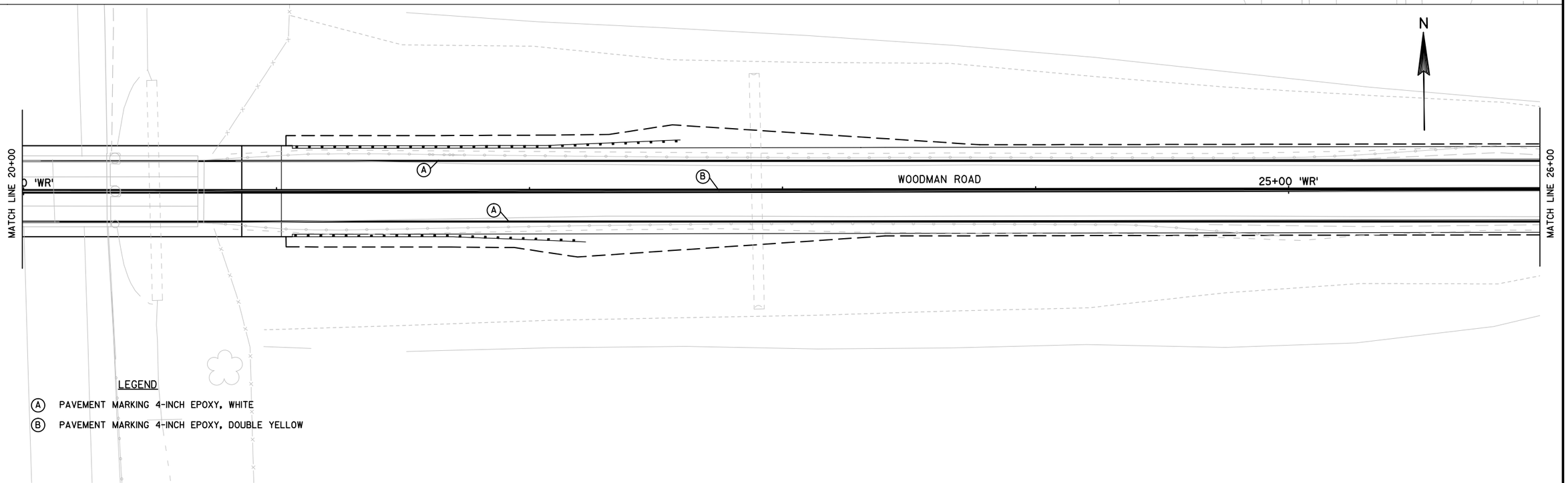
######	EROSION MAT CLASS I, TYPE B
	SILT FENCE
	RIPRAP MEDIUM
	SURFACE WATER FLOW
	TEMPORARY DITCH CHECK
	CULVERT PIPE CHECK

2

PROJECT NO: 1003-10-75	HWY: IH 39	COUNTY: ROCK	EROSION CONTROL	SHEET	E

FILE NAME : P:\8394 IH 39 AECOM\TRANSPORTATION\CAD\WOODMAN\SHEETSET\022002_EC_IH39_.DWG PLOT DATE : 4/8/2016 12:53 AM PLOT BY : MOAZ KHAN PLOT NAME : PLOT SCALE : *********
WISDOT/CADDS SHEET 42





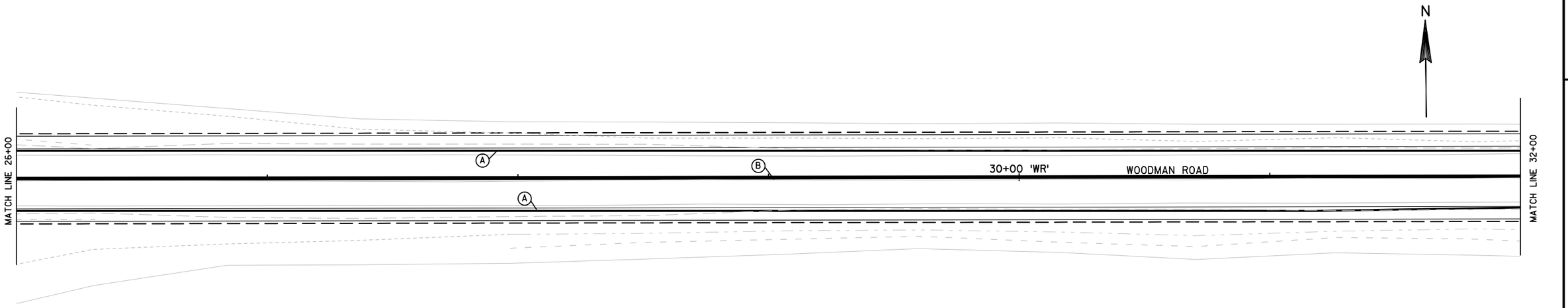
LEGEND

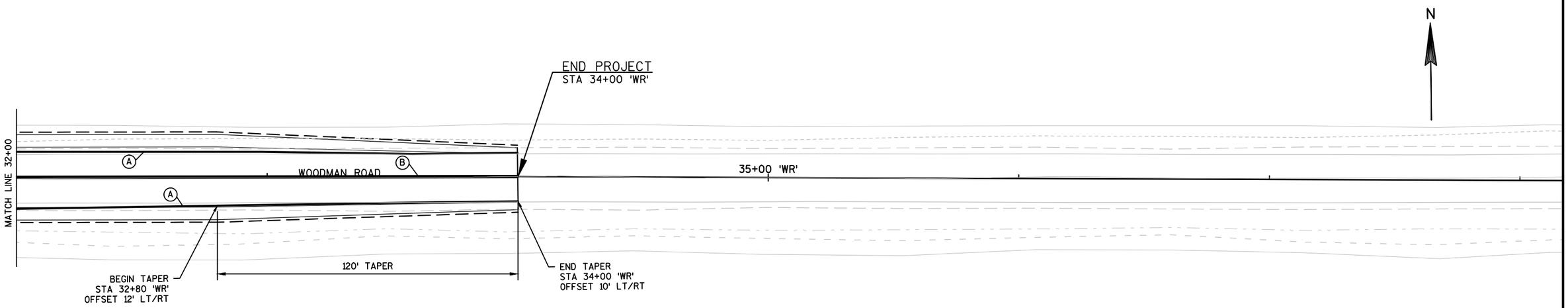
(A) PAVEMENT MARKING 4-INCH EPOXY, WHITE

(B) PAVEMENT MARKING 4-INCH EPOXY, DOUBLE YELLOW

PROJECT NO: 1003-10-75	HWY: IH 39	COUNTY: ROCK	PAVEMENT MARKING AND SIGNING	SHEET 25	E

2





LEGEND

(A) PAVEMENT MARKING 4-INCH EPOXY, WHITE

(B) PAVEMENT MARKING 4-INCH EPOXY, DOUBLE YELLOW

PROJECT NO: 1003-10-75	HWY: IH 39	COUNTY: ROCK	PAVEMENT MARKING AND SIGNING	SHEET	E

FILE NAME : P:\8394 IH 39 AECOM\TRANSPORTATION\CAD\WOODMAN\SHEETSET\024501_PM_.DWG PLOT DATE : 2/09/2016 12:17 PM PLOT BY : MOAZ KHAN PLOT NAME : PLOT SCALE : 1:40_XREF

WISDOT/CADDS SHEET 42

2

LEGEND

- TYPE III BARRICADE WITH ATTACHED SIGN
- SIGN ON PERMENENT SUPPORT
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- TRAFFIC CONTROL DRUM
- FLASHING ARROW BOARD
- (A) TYPE "A" WARNING LIGHT (FLASHING)
- REMOVING PAVEMENT MARKING
- DIRECTION OF TRAFFIC
- WORK AREA
- PCMS TRAFFIC CONTROL SIGN PORTABLE CHANGEABLE MESSAGE

GENERAL NOTES

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

THE SPACING BETWEEN SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND TO PROVIDE A MINIMUM OF 200 FEET, (500 FEET DESIREABLE) DISTANCE TO EXISTING SIGNS.

THIS LANE CLOSURE IS TYPICAL FOR CLOSING RIGHT LANE - REVERSE FOR CLOSING LEFT LANE.

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED.

"WO" IS THE SAME AS "W" EXCEPT THE BACKGROUND IS ORANGE.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER. NO WARNING LIGHTS SHALL BE WORKING ON "COVERED" OR "DOWNED" SIGNS.

CONSIDER GEOMETRICS WHEN LOCATING SIGNS AND ARROW BOARD SO THE DRIVER HAS A CLEAR VIEW OF THE ARROW BOARD AND LANE CLOSURE DRUMS FOR A MINIMUM 1500 FEET IN FRONT OF DRUMS.

FOR A LANE CLOSURE THAT IS IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS, THE ADVANCED WARNING SIGNS MAY BE MOUNTED ON PORTABLE SUPPORTS.

REMOVE PAVEMENT MARKINGS AND PLACE TEMPORARY PAVEMENT MARKINGS IF LANE CLOSURE IS TO BE IN PLACE FOR LONGER THAN 4 OR MORE DAYS AND NIGHTS.

WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

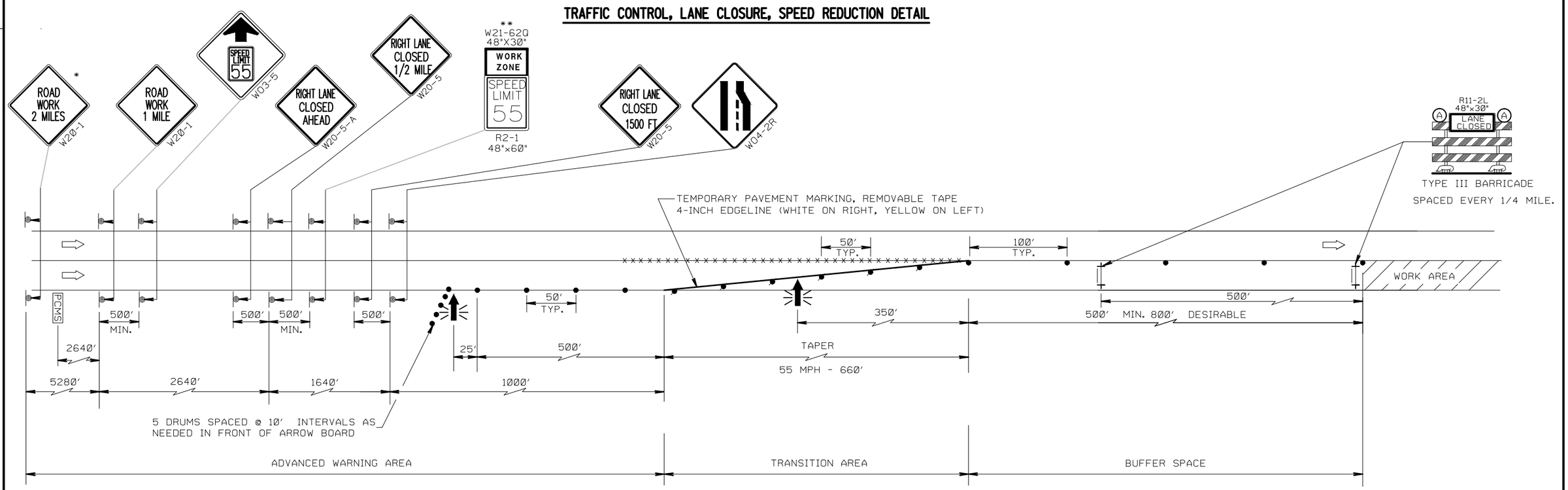
IF THE HORIZONTAL ALIGNMENT IS SUCH THAT A CURVE MAY REQUIRE ADDITIONAL DELINEATION, THE DEVICE SPACING MAY BE DECREASED TO 50 FEET.

ADJUSTMENTS IN BUFFER SPACE NEED TO BE INCORPORATED WHEN THE LANE CLOSURE OCCURS NEAR AN INTERCHANGE EXIT OR ENTRANCE RAMP. THE LANE CLOSURE MUST MUST TAKE PLACE FAR ENOUGH IN ADVANCE OF AN EXIT OR ENTRANCE RAMP TO STILL ALLOW FOR ADEQUATE BUFFER SPACE. THE MINIMUM LENGTH OF THE BUFFER SPACE BEFORE AN EXIT RAMP SHOULD BE 1/2 THE LENGTH OF THE TRANSITION AREA. THE ENTRANCE RAMP SHOULD BE FOLLOWED BY THE ORIGINAL BUFFER SPACE LENGTH OF 800 FEET DESIRABLE PRIOR TO ANOTHER TRAFFIC CONTROL CHANGE SUCH AS A CROSSOVER MANEUVER.

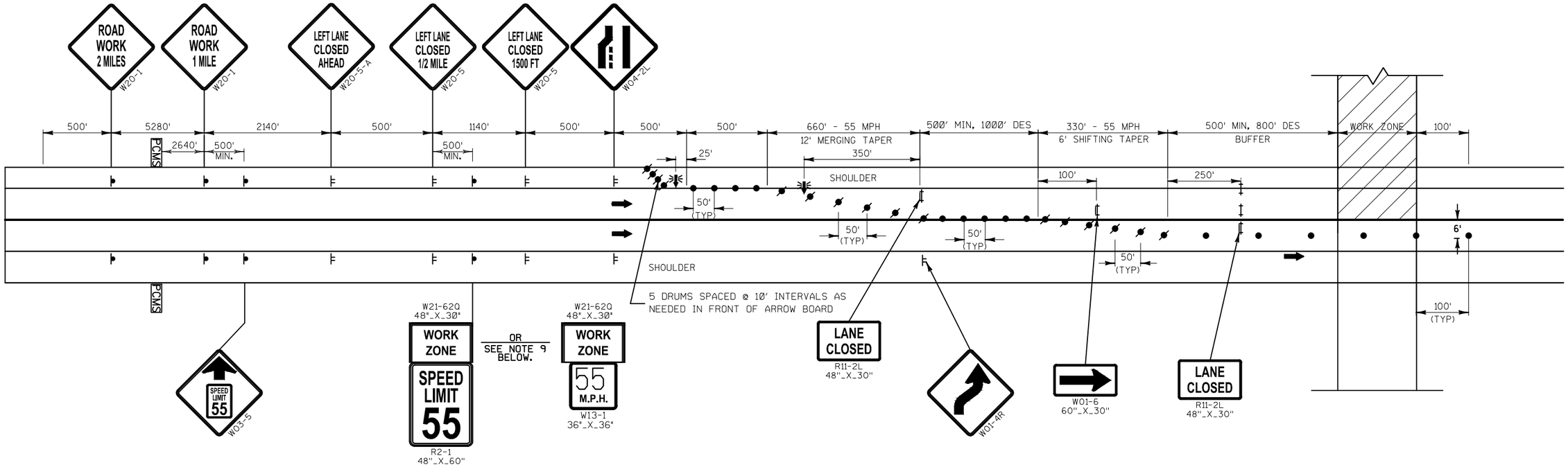
** A SPEED LIMIT SIGN SHALL BE LOCATED 1500 FEET BEYOND THE END OF THE ACCELERATION LANE OF EACH ENTRANCE RAMP. THERE SHOULD BE A SPEED LIMIT SIGN INCORPORATED A MINIMUM OF EVERY 2 OR 3 MILES. INCLUDE A 70 MPH RESUME SPEED LIMIT SIGN 200 FEET MINIMUM (500 FEET DESIREABLE) BEYOND THE "END OF ROADWORK" SIGN.

* OPTIONAL - USE WHEN WARRANTED BY ROADWAY GEOMETRICS OR TRAFFIC VOLUMES.

TRAFFIC CONTROL, LANE CLOSURE, SPEED REDUCTION DETAIL



PROJECT NO:1003-10-75	HWY: IH 39	COUNTY: ROCK	TRAFFIC CONTROL, LANE CLOSURE, SPEED REDUCTION	SHEET 27	E



NOTES:

1) THE EXACT NUMBER, LOCATION AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS DIRECTED BY THE ENGINEER.

2) ALL DRUMS IN TAPERS SHALL HAVE A WARNING LIGHT, TYPE C (STEADY BURN).

3) ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.

4) "WO" SIGNS ARE THE SAME AS "W" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

5) MOUNT ALL PORTABLE TRAFFIC CONTROL SIGNS AT A MINIMUM HEIGHT OF 5 FEET, MEASURED FROM THE BOTTOM OF THE SIGN, ABOVE THE EDGE OF PAVEMENT.

6) ALL SHORT TERM LANE CLOSURE SIGNS SHALL BE REMOVED OR COVERED AND ALL ARROWBOARDS AND DEVICES REMOVED BEYOND THE SHOULDER WHEN THE WORK IS NOT IN PROGRESS AND THE LANE IS RESTORED TO A SAFE OPERATING CONDITION.

7) UTILIZE NIGHT TIME CLOSURE FOR ALL BRIDGE CONSTRUCTION ACTIVITIES. HOURS FOR NIGHT TIME CLOSURE SHALL ADHERE TO THE SPECIAL PROVISIONS OR AS DIRECTED BY THE ENGINEER.

8) DETAIL IS TYPICAL FOR NB AND SB DIRECTIONS. LEFT LANE CLOSURE IS SHOWN. REVERSE FOR CLOSING RIGHT LANE.

9) CONTACT RICH CANNON, I-39/90 TRAFFIC MANAGEMENT ENGINEER, AT (608) 884-1160 TO DETERMINE APPLICABLE SIGN ASSEMBLY.

LEGEND

- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH LIGHT TYPE C
- WORK ZONE
- SIGN ON TEMPORARY SUPPORT
- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL BARRICADE TYPE III WITH LIGHT TYPE A AND ATTACHED SIGN
- TRAFFIC CONTROL BARRICADE TYPE III WITH LIGHT TYPE A
- TRAFFIC CONTROL ARROW BOARD
- DIRECTION OF TRAFFIC
- PCMS TRAFFIC CONTROL SIGN PORTABLE CHANGEABLE MESSAGE

TRAFFIC CONTROL LANE CLOSURE WITH SHIFT ONTO SHOULDER

PROJECT NO: 1003-10-75	HWY: IH 39	COUNTY: ROCK	TRAFFIC CONTROL LANE CLOSURE WITH SHIFT ONTO SHOULDER	SHEET 28	E

FILE NAME : P:\8394 IH 39 AECOM\TRANSPORTATION\CAD\WOODMAN\DESIGN\CORRIDOR DETAILS\TC LANE CLOSURE WITH SHIFT ONTO SHOULDER.DWG PLOT DATE : 4/8/2016 6:43 AM PLOT BY : MOAZ KHAN PLOT NAME : PLOT SCALE : 1 IN:200 FT
WISDOT/CADDS SHEET 42

2

PCMS

FOR CONSTRUCTION TRAFFIC EXITING LIVE TRAFFIC LANES

W01-6
48"_X_24"

TYPE III BARRICADE

100'

END OF
WORK ZONE

500'

750'

FOR CONSTRUCTION TRAFFIC RE-ENTERING LIVE TRAFFIC LANES

TRUCKS
ENTERING
FROM
RIGHT

W08-6
(MOD)

NOTE:
SPACING AND LOCATIONS OF DEVICES IN THE FIELD
SUBJECT TO REVIEW AND APPROVAL BY THE ENGINEER

SEE OTHER TRAFFIC CONTROL DETAILS AND STANDARD
DETAIL DRAWINGS FOR LANE CLOSURE DETAILS

PORTABLE MESSAGE SIGN MESSAGES SHOULD READ:

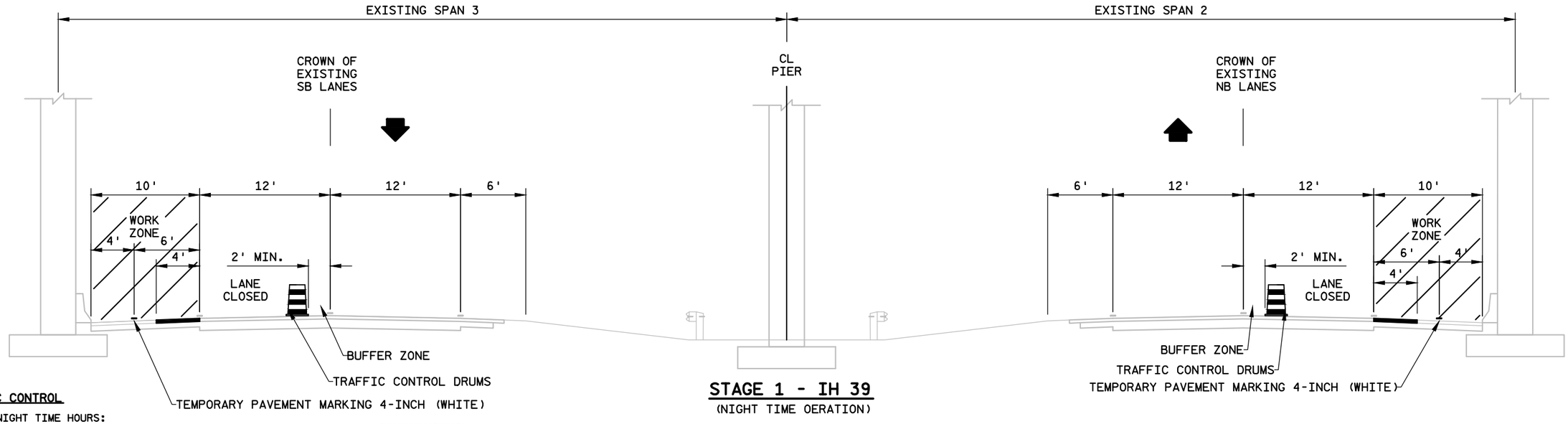
FRAME 1	FRAME 2
TRUCKS EXITING RIGHT	TRAFFIC STAY LEFT

LEGEND

- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL SIGN
- IH 39 TRAFFIC
- CONSTRUCTION TRAFFIC
- WORK ZONE
- PCMS — PORTABLE CHANGEABLE MESSAGE BOARD

TRAFFIC CONTROL DETAIL FOR CONSTRUCTION ACCESS AT LANE CLOSURES

NIGHT USE ONLY



STAGE 1 - IH 39
(NIGHT TIME OERATION)

TRAFFIC CONTROL

DURING NIGHT TIME HOURS:

MAINTAIN ONE NORTHBOUND TRAFFIC LANE USING EXISTING MEDIAN LANE OF THE NORTHBOUND ROADWAY. CLOSE OUTSIDE LANE AND SHOULDER OF THE NORTHBOUND ROADWAY

MAINTAIN ONE SOUTHBOUND TRAFFIC LANE USING EXISTING MEDIAN LANE OF THE SOUTHBOUND ROADWAY. CLOSE OUTSIDE LANE AND SHOULDER OF THE SOUTHBOUND ROADWAY.

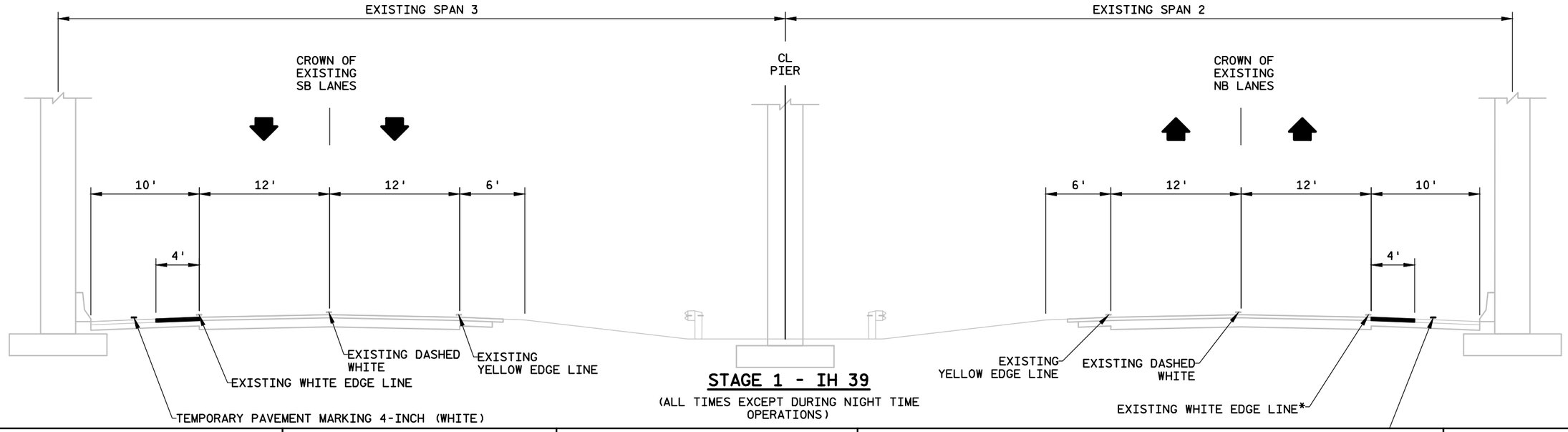
OPEN TO TWO TRAFFIC LANES PER DIRECTION ALL OTHER TIMES.

CONSTRUCTION

WILL 4' WIDTH OF EXISTING 3.5" ASPHALT PAVEMENT ON THE OUTSIDE SHOULDERS OF THE NORTHBOUND AND SOUTHBOUND ROADWAYS OF IH 39.

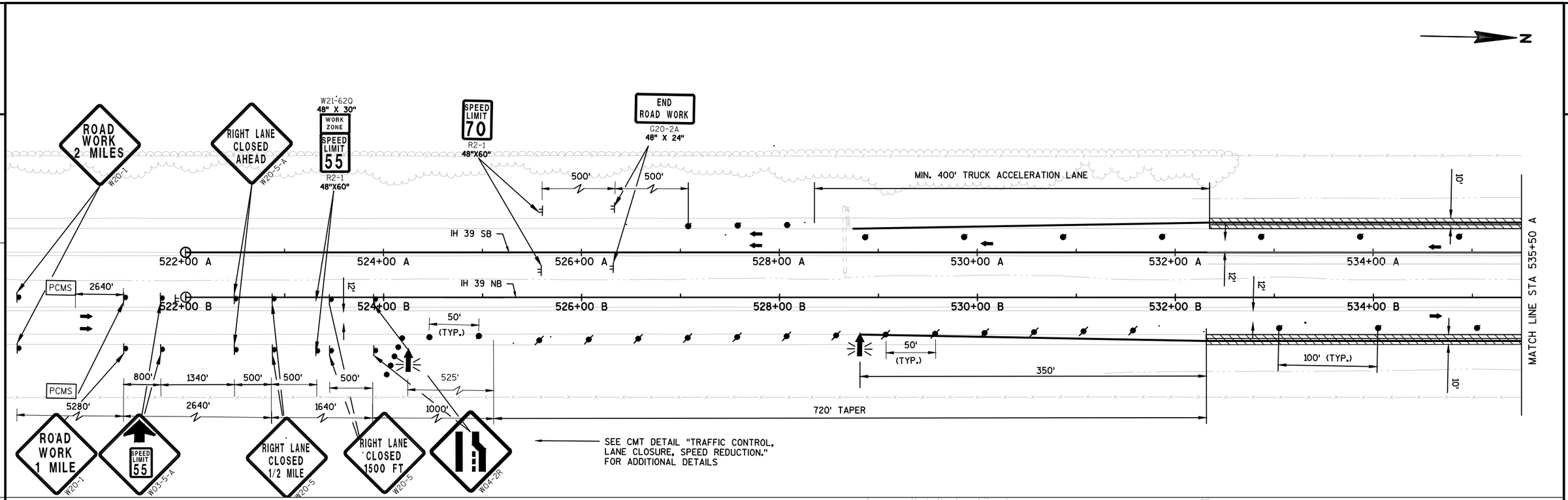
OVERLAY NEW 4-FOOT WIDE PAVED OUTSIDE SHOULDERS, PLACE 3.5" HMA PAVEMENT TYPE E-30. SEE TEMPORARY WIDENING TYPICALS FOR DETAILS NOT SHOWN.

TEMPORARY PAVEMENT MARKING - OUTSIDE SHOULDERS (END OF STAGE 1)

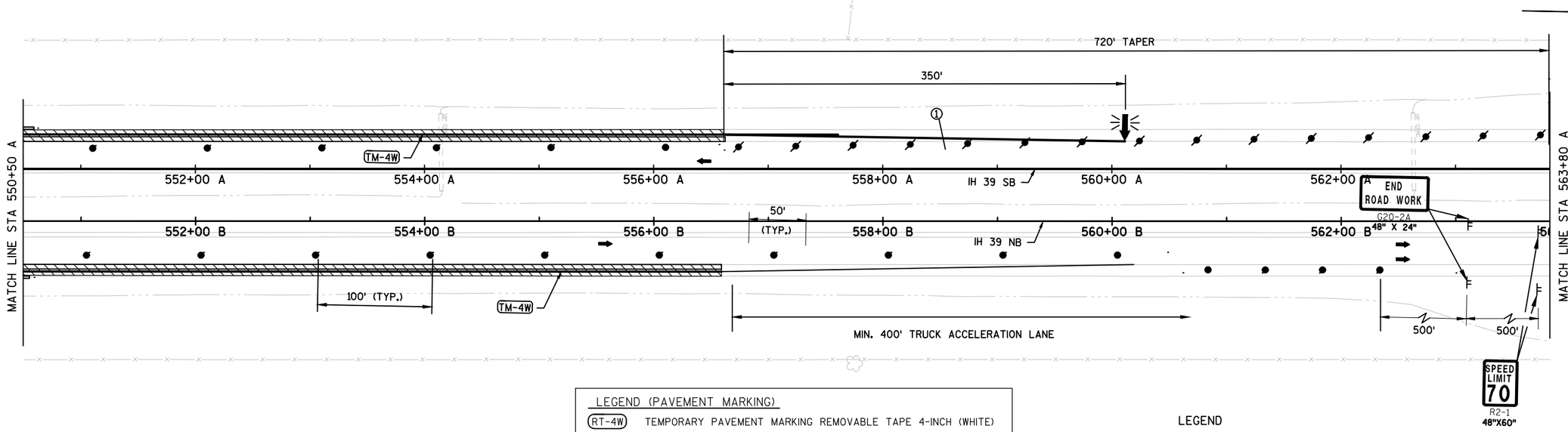


STAGE 1 - IH 39
(ALL TIMES EXCEPT DURING NIGHT TIME OPERATIONS)

PROJECT NO: 1003-10-75	HWY: IH 39	COUNTY: ROCK	TRAFFIC CONTROL: TYPICAL SECTIONS	SHEET 30	E



PROJECT NO: 1003-10-75	HWY: IH 39	COUNTY: ROCK	TRAFFIC CONTROL: STAGE 1	SHEET 31	E

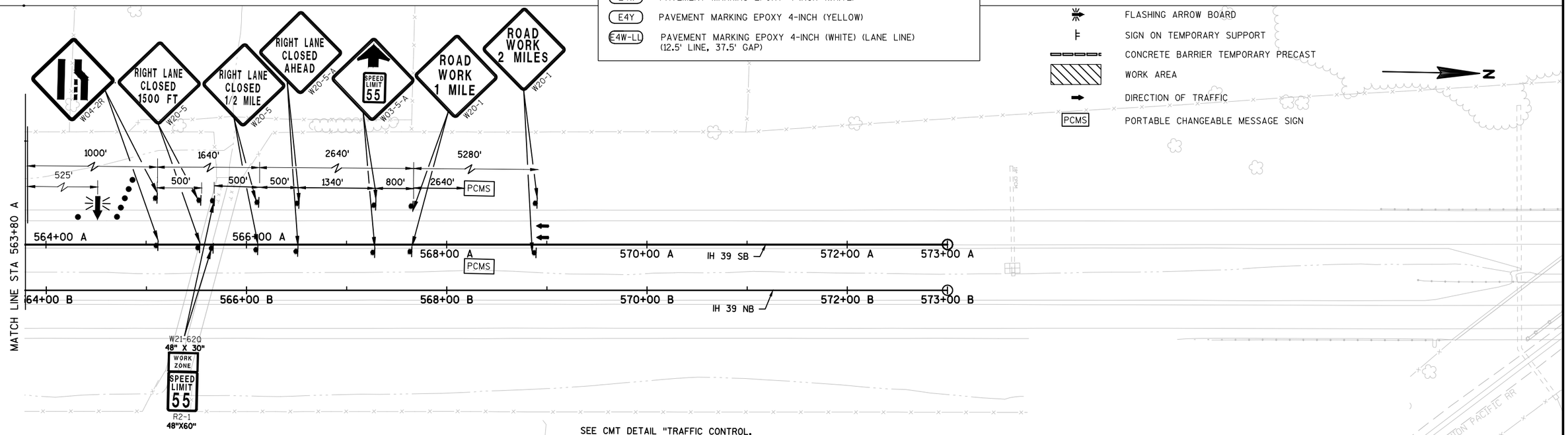


LEGEND (PAVEMENT MARKING)

RT-4W	TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (WHITE)
RT-4Y	TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (YELLOW)
TM-4W	TEMPORARY PAVEMENT MARKING 4-INCH (WHITE)
TM-4Y	TEMPORARY PAVEMENT MARKING 4-INCH (YELLOW)
E4W	PAVEMENT MARKING EPOXY 4-INCH (WHITE)
E4Y	PAVEMENT MARKING EPOXY 4-INCH (YELLOW)
E4W-LL	PAVEMENT MARKING EPOXY 4-INCH (WHITE) (LANE LINE) (12.5' LINE, 37.5' GAP)

LEGEND

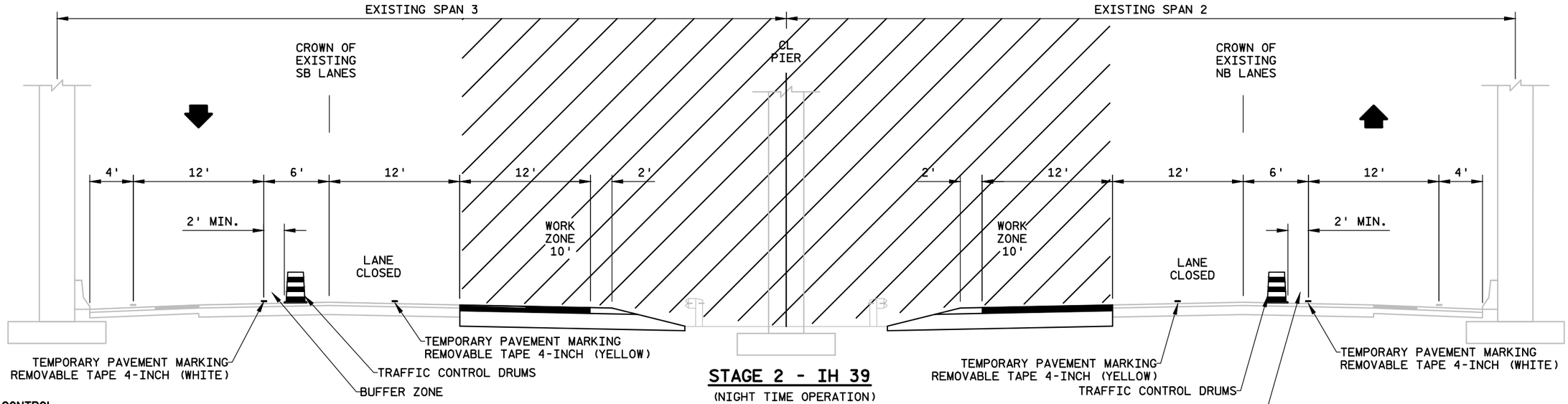
- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON TEMPORARY SUPPORT
- CONCRETE BARRIER TEMPORARY PRECAST
- WORK AREA
- DIRECTION OF TRAFFIC
- PCMS — PORTABLE CHANGEABLE MESSAGE SIGN



SEE CMT DETAIL "TRAFFIC CONTROL, LANE CLOSURE, SPEED REDUCTION" FOR ADDITIONAL DETAILS

PROJECT NO: 1003-10-75	HWY: IH 39	COUNTY: ROCK	TRAFFIC CONTROL: STAGE 1	SHEET	E

FILE NAME : P:\8394 IH 39 AECOM\TRANSPORTATION\CAD\WOODMAN\SHEETSET\026002_S1.DWG PLOT DATE : 4/8/2016 9:05 AM PLOT BY : MOAZ KHAN PLOT NAME : PLOT SCALE : 1:100_XREF
WISDOT/CADDS SHEET 42



STAGE 2 - IH 39

(NIGHT TIME OPERATION)

TRAFFIC CONTROL

DURING NIGHT TIME HOURS:

MAINTAIN ONE NORTHBOUND TRAFFIC LANE USING OUTSIDE SHOULDER AND LANE OF THE NORTHBOUND ROADWAY. CLOSE MEDIAN LANE AND SHOULDER OF THE NORTHBOUND ROADWAY

MAINTAIN ONE SOUTHBOUND TRAFFIC LANE USING OUTSIDE SHOULDER AND LANE OF THE SOUTHBOUND ROADWAY. CLOSE MEDIAN LANE AND SHOULDER OF THE SOUTHBOUND ROADWAY.

OPEN TO TWO TRAFFIC LANES PER DIRECTION ALL OTHER TIMES.

CONSTRUCTION

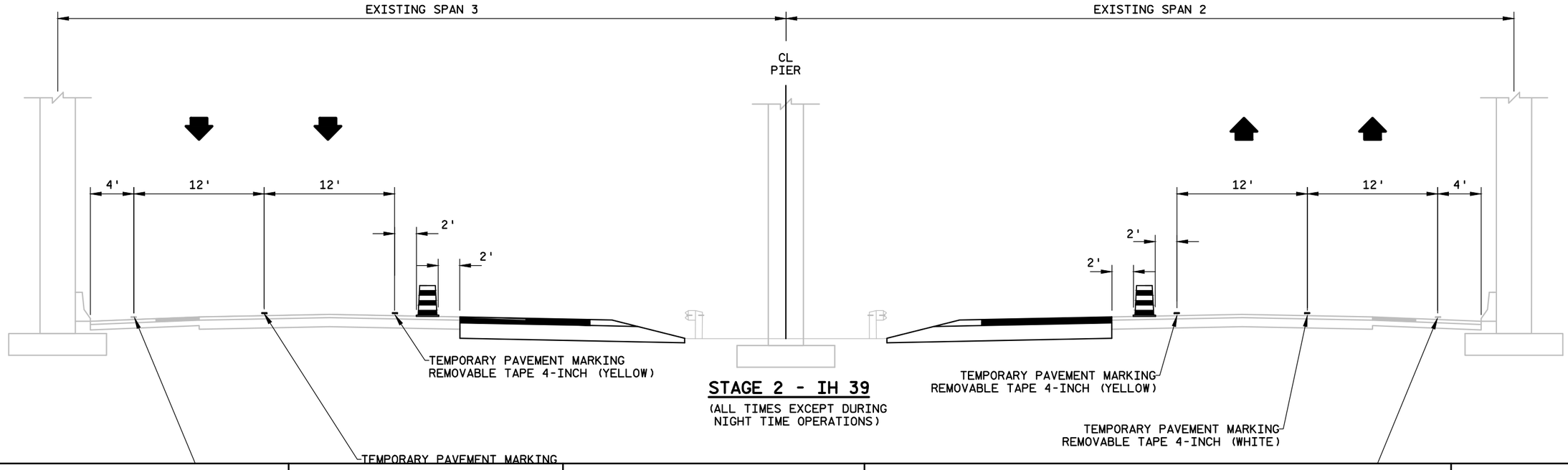
REMOVE PAVEMENT MARKINGS, CENTERLINE WHITE SKIP-DASH AND WHITE EDGE LINES ON BOTH NB AND SB IH 39.

PLACE TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH.

REMOVE EXISTING MEDIAN SHOULDER PAVEMENT AND BASE ON THE NORTHBOUND AND SOUTHBOUND ROADWAYS OF IH 39. BEGIN DECK AND PARAPET REMOVAL IN MEDIAN AREA.

GRADE AND WIDEN MEDIAN.

CONSTRUCT NEW 12-FOOT WIDE PAVED SHOULDERS, PLACE 17" OF BASE AGGREGATE DENSE 1 1/4-INCH AND PLACE 12-FOOT WIDE 6.5" HMA PAVEMENT TYPE E-30, PLACE 2-FOOT WIDE 6.5" BASE AGGREGATE DENSE 3/4-INCH. SEE TEMPORARY WIDENING TYPICALS FOR DETAILS NOT SHOWN.

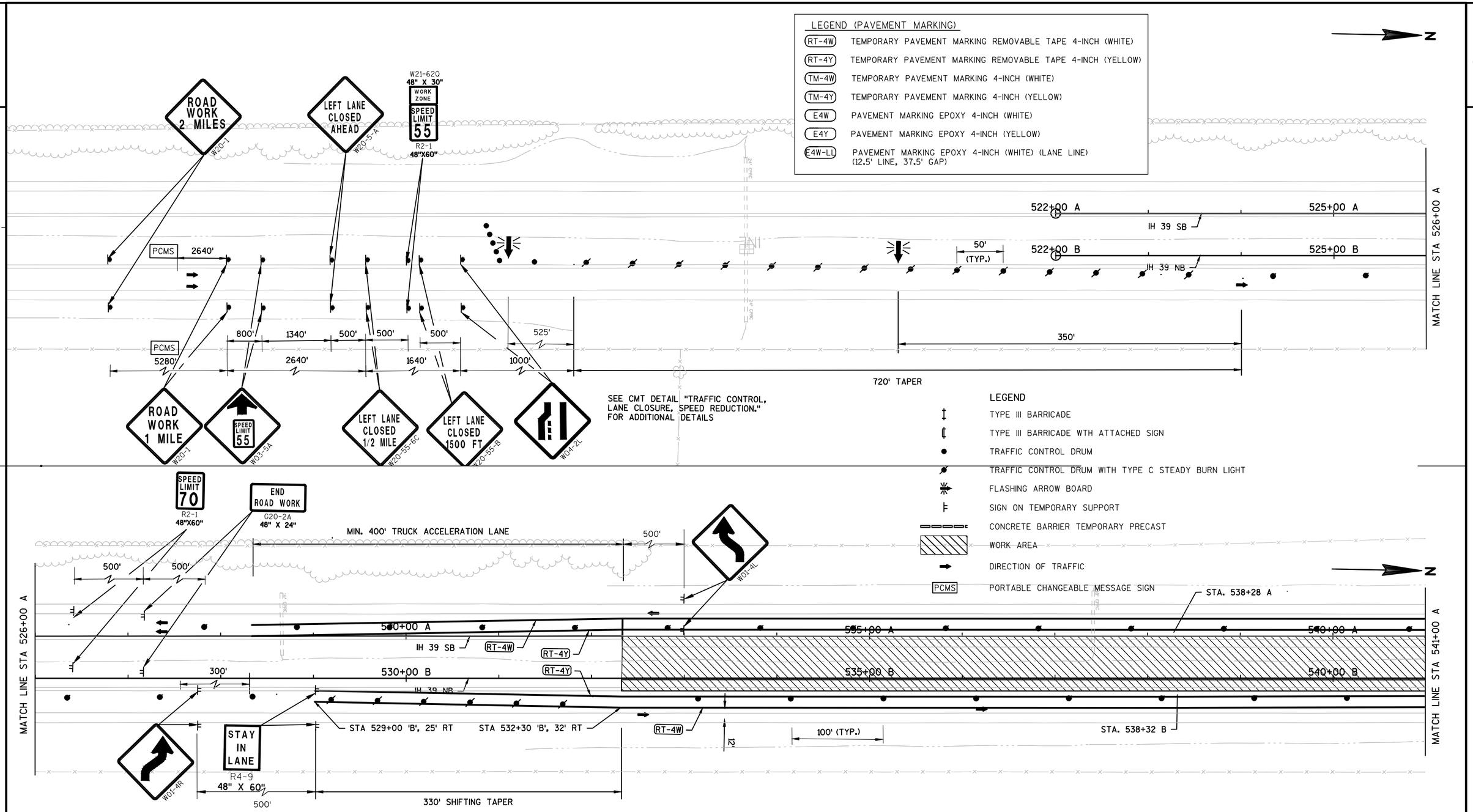


STAGE 2 - IH 39

(ALL TIMES EXCEPT DURING NIGHT TIME OPERATIONS)

PROJECT NO: 1003-10-75	HWY: IH 39	COUNTY: ROCK	TRAFFIC CONTROL: TYPICAL SECTIONS	SHEET 33	E

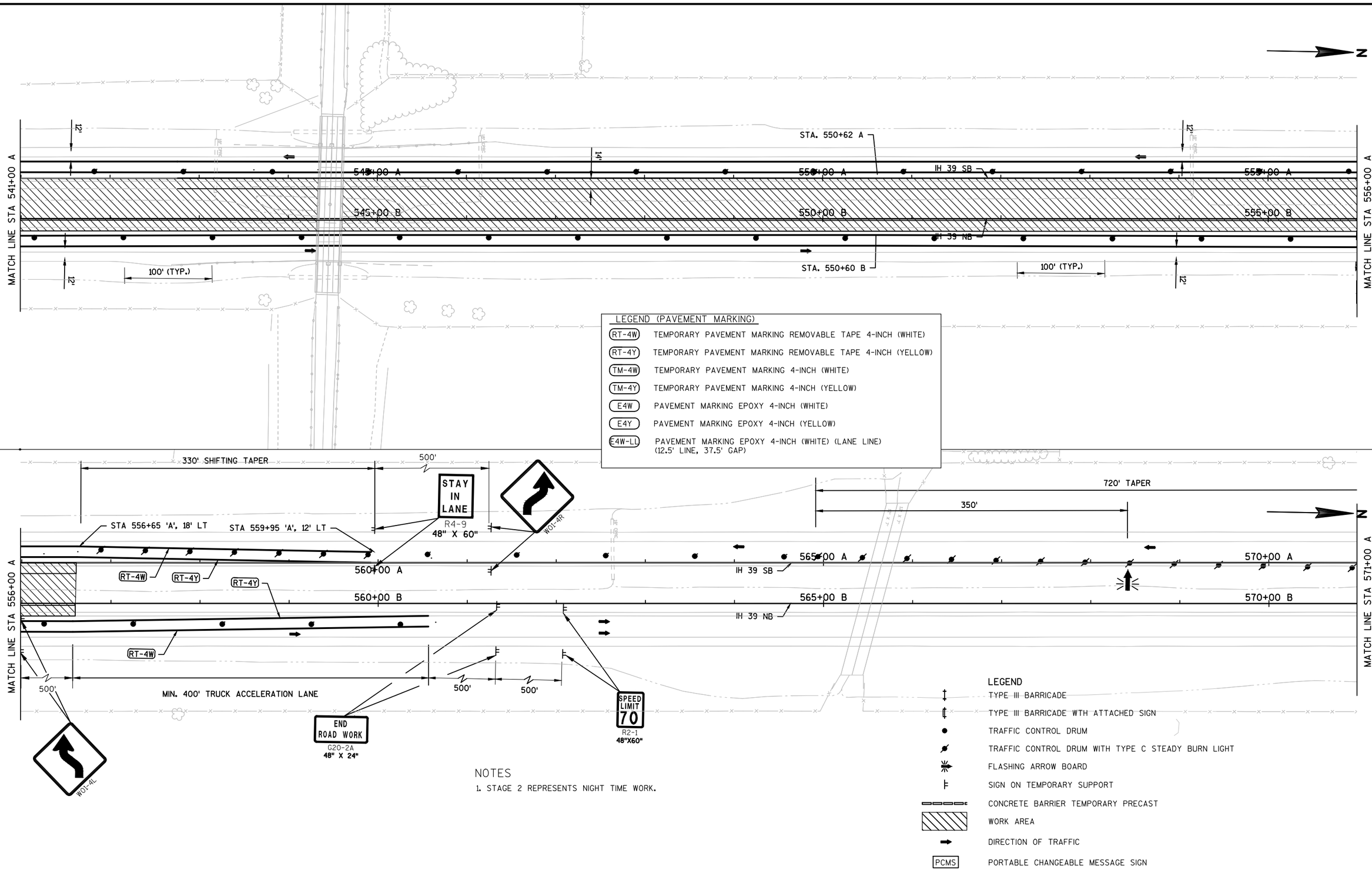
FILE NAME : P:\8394 IH 39 AECOM\TRANSPORTATION\CAD\WOODMAN\SHEETSET\026001_S_TS.DWG PLOT DATE : 4/26/2013 2:33 PM PLOT BY : MOAZ KHAN PLOT NAME : ---------- PLOT SCALE : 1 IN:10 FT WISDOT/CADDS SHEET 42



NOTES

1. STAGE 2 REPRESENTS NIGHT TIME WORK.

PROJECT NO: 1003-10-75	HWY: IH 39	COUNTY: ROCK	TRAFFIC CONTROL: STAGE 2	SHEET 34	E



NOTES

1. STAGE 2 REPRESENTS NIGHT TIME WORK.

PROJECT NO: 1003-10-75	HWY: IH 39	COUNTY: ROCK	TRAFFIC CONTROL: STAGE 2	SHEET	E

FILE NAME : P:\8394 IH 39 AECOM\TRANSPORTATION\CAD\WOODMAN\SHEETSET\026002_S2.DWG PLOT DATE : 4/8/2016 9:06 AM PLOT BY : MOAZ KHAN PLOT NAME : PLOT SCALE : 1:100_XREF

LEGEND (PAVEMENT MARKING)

RT-4W	TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (WHITE)
RT-4Y	TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (YELLOW)
TM-4W	TEMPORARY PAVEMENT MARKING 4-INCH (WHITE)
TM-4Y	TEMPORARY PAVEMENT MARKING 4-INCH (YELLOW)
E4W	PAVEMENT MARKING EPOXY 4-INCH (WHITE)
E4Y	PAVEMENT MARKING EPOXY 4-INCH (YELLOW)
E4W-LL	PAVEMENT MARKING EPOXY 4-INCH (WHITE) (LANE LINE) (12.5' LINE, 37.5' GAP)

N

W04-2L

LEFT LANE CLOSED 1500 FT W20-55-B

LEFT LANE CLOSED 1/2 MILE W20-55-6C

LEFT LANE CLOSED AHEAD W20-5-A

SPEED LIMIT 55 W03-5A

ROAD WORK 1 MILE W20-1

ROAD WORK 2 MILES W20-1

525' 1000' 1640' 2640' 5280'

500' 500' 1340' 800' 2640'

PCMS

PCMS

MATCH LINE STA 571+00 A

573+00 A

IH 39 SB

573+00 B

IH 39 NB

W21-62Q
48" X 30"
WORK ZONE
SPEED LIMIT 55
R2-1
48"X60"

SEE CMT DETAIL "TRAFFIC CONTROL, LANE CLOSURE, SPEED REDUCTION" FOR ADDITIONAL DETAILS

UNION PACIFIC RR

NOTES

1. STAGE 2 REPRESENTS NIGHT TIME WORK.

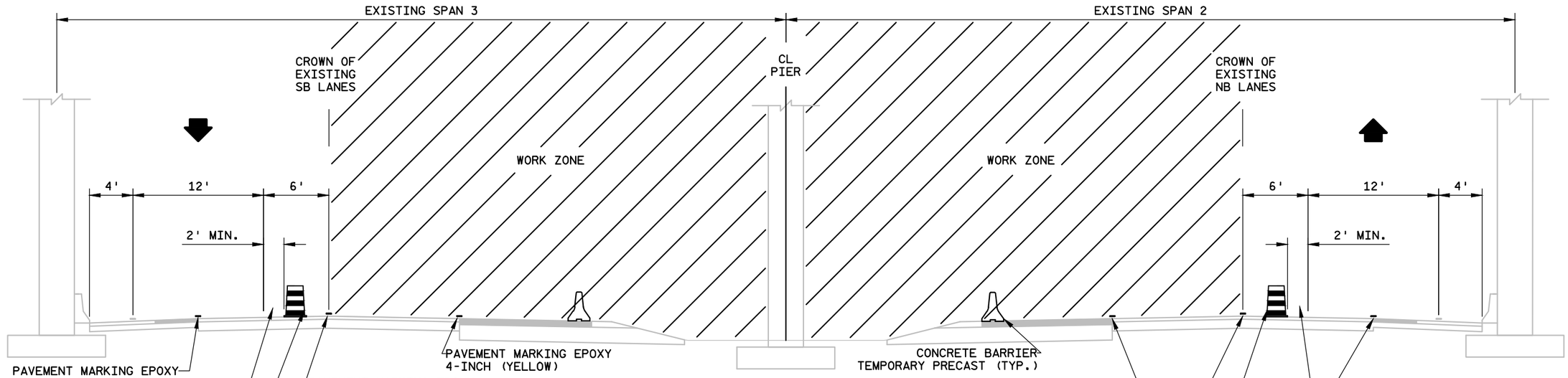
LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WTH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON TEMPORARY SUPPORT
- CONCRETE BARRIER TEMPORARY PRECAST
- WORK AREA
- DIRECTION OF TRAFFIC
- PCMS — PORTABLE CHANGEABLE MESSAGE SIGN

PROJECT NO: 1003-10-75	HWY: IH 39	COUNTY: ROCK	TRAFFIC CONTROL: STAGE 2	SHEET	E

FILE NAME : P:\8394 IH 39 AECOM\TRANSPORTATION\CAD\WOODMAN\SHEETSET\026003_S2.DWG PLOT DATE : 4/8/2016 9:06 AM PLOT BY : MOAZ KHAN PLOT NAME : PLOT SCALE : 1:100_XREF

WISDOT/CADDS SHEET 42



STAGE 3 - IH 39

(NIGHT TIME OPERATION)

TRAFFIC CONTROL

DURING NIGHT TIME HOURS:

MAINTAIN ONE NORTHBOUND TRAFFIC LANE USING OUTSIDE SHOULDER AND LANE OF THE NORTHBOUND ROADWAY. CLOSE MEDIAN LANE AND SHOULDER OF THE NORTHBOUND ROADWAY.

MAINTAIN ONE SOUTHBOUND TRAFFIC LANE USING OUTSIDE SHOULDER AND LANE OF THE SOUTHBOUND ROADWAY. CLOSE MEDIAN AND SHOULDER OF THE SOUTHBOUND ROADWAY.

OPEN TO TWO TRAFFIC LANES PER DIRECTION ALL OTHER TIMES.

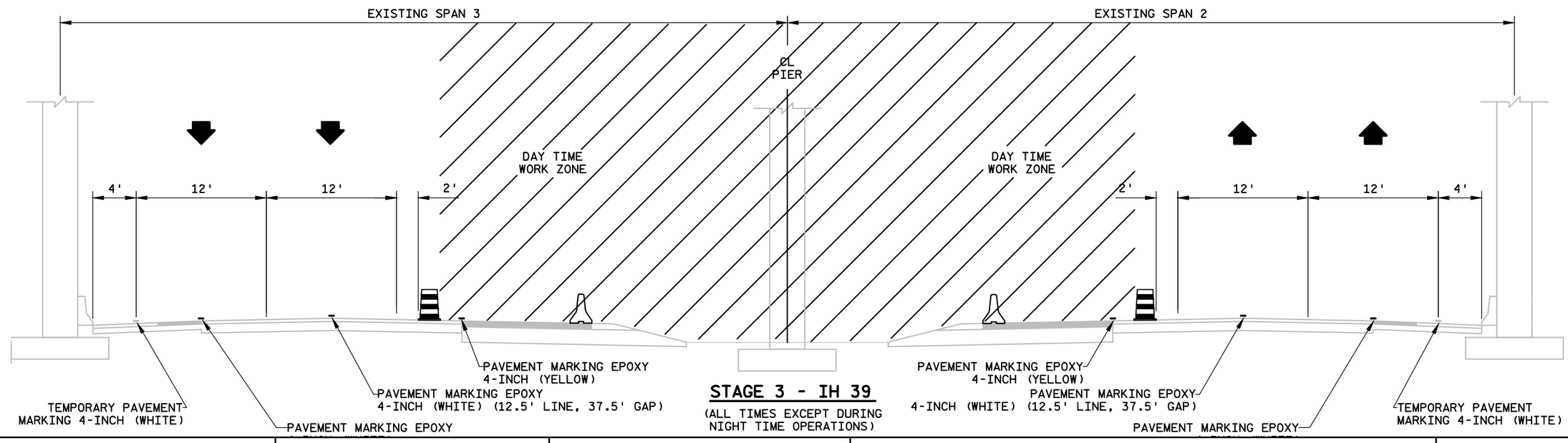
CONSTRUCTION

PLACE PAVEMENT MARKING EPOXY 4-INCH

PLACE TEMPORARY PRECAST CONCRETE BARRIER.

REMOVE EXISTING BEAM GUARD IN THE MEDIAN.

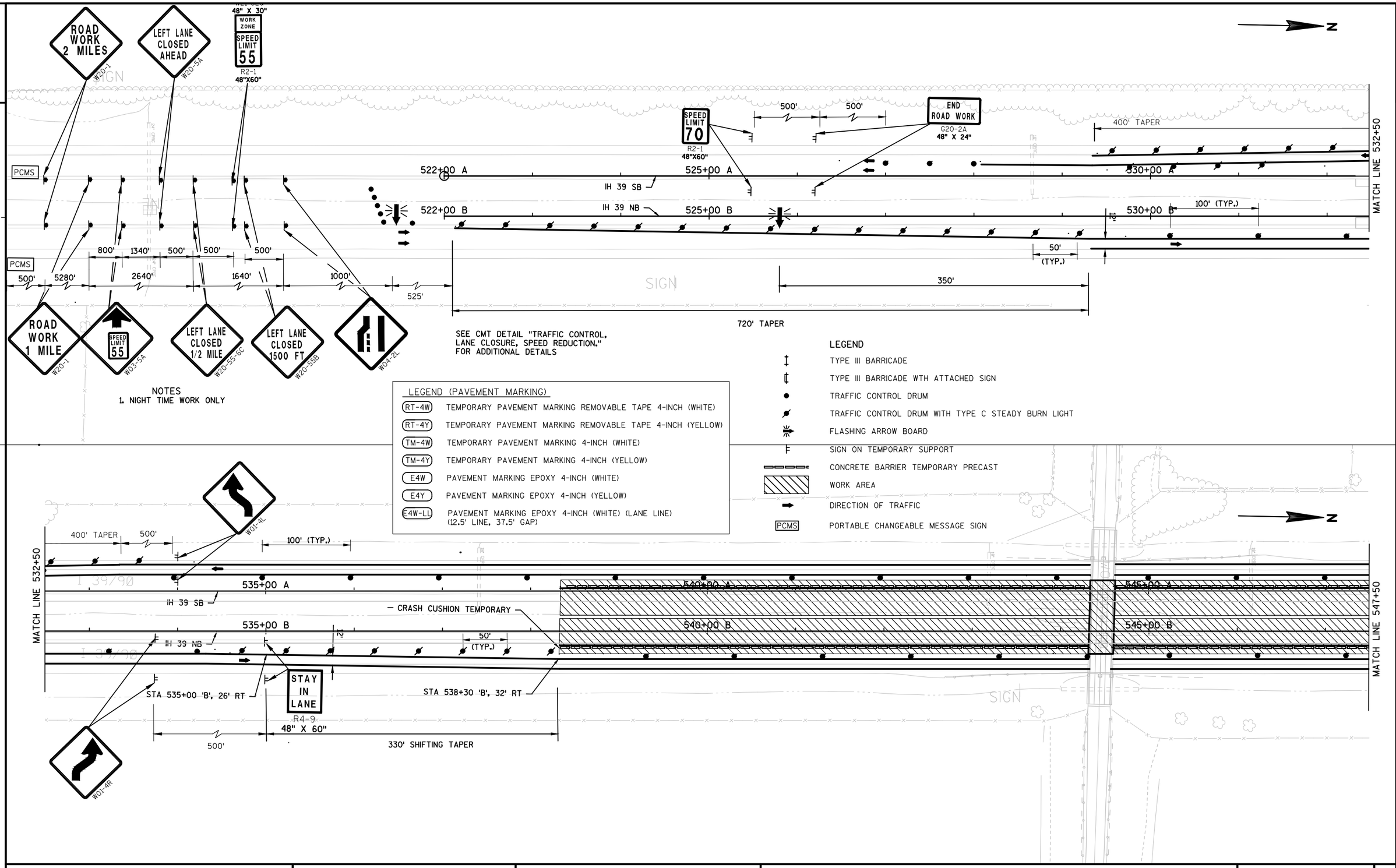
REMOVE EXISTING BRIDGE DECK AND PARAPETS TO THE APPROXIMATE LIMITS AS SHOWN ON THE PLANS.



STAGE 3 - IH 39

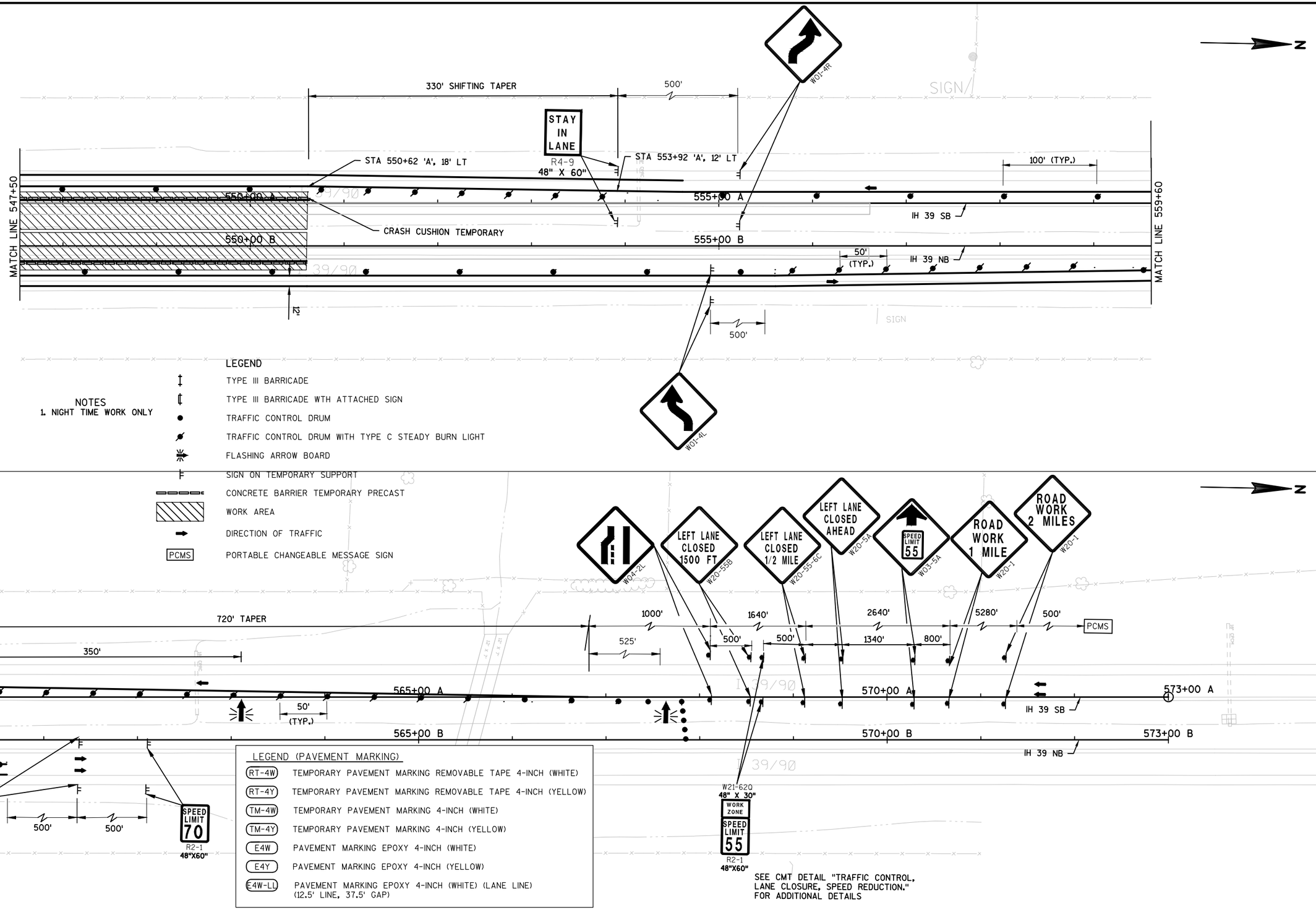
(ALL TIMES EXCEPT DURING NIGHT TIME OPERATIONS)

PROJECT NO: 1003-10-75	HWY: IH 39	COUNTY: ROCK	TRAFFIC CONTROL: TYPICAL SECTIONS	SHEET 37	E



PROJECT NO: 1003-10-75	HWY: IH 39	COUNTY: ROCK	TRAFFIC CONTROL: STAGE 3	SHEET	E

FILE NAME : P:\8394 IH 39 AECOM\TRANSPORTATION\CAD\WOODMAN\SHEETSET\026001_S3.DWG PLOT DATE : 4/8/2016 9:06 AM PLOT BY : MOAZ KHAN PLOT NAME : PLOT SCALE : 1:100_XREF



LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WTH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON TEMPORARY SUPPORT
- CONCRETE BARRIER TEMPORARY PRECAST
- WORK AREA
- DIRECTION OF TRAFFIC
- PCMS — PORTABLE CHANGEABLE MESSAGE SIGN

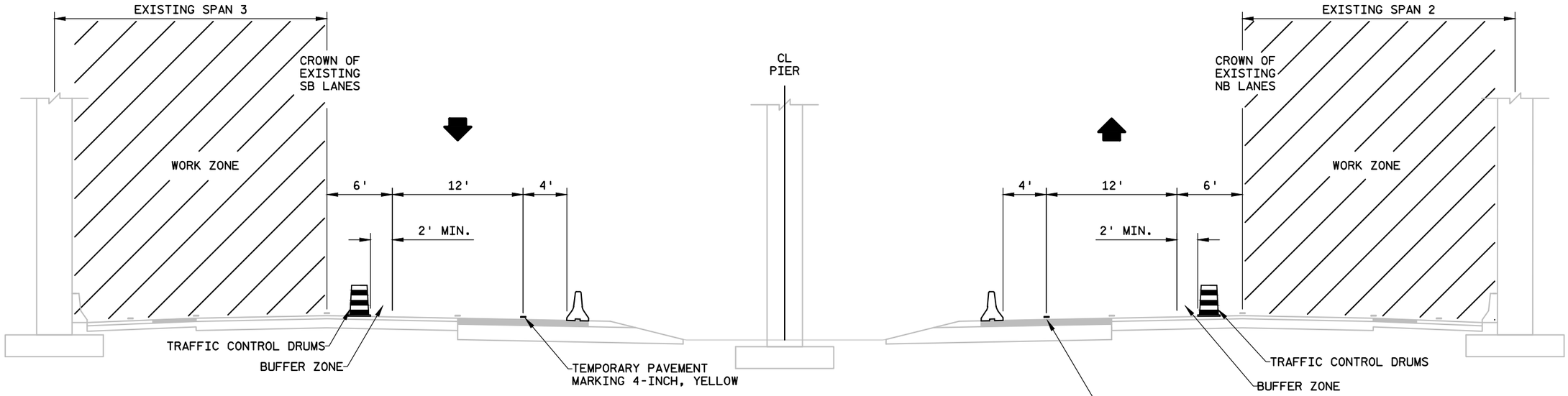
NOTES
1. NIGHT TIME WORK ONLY

LEGEND (PAVEMENT MARKING)

RT-4W	TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (WHITE)
RT-4Y	TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (YELLOW)
TM-4W	TEMPORARY PAVEMENT MARKING 4-INCH (WHITE)
TM-4Y	TEMPORARY PAVEMENT MARKING 4-INCH (YELLOW)
E4W	PAVEMENT MARKING EPOXY 4-INCH (WHITE)
E4Y	PAVEMENT MARKING EPOXY 4-INCH (YELLOW)
E4W-LL	PAVEMENT MARKING EPOXY 4-INCH (WHITE) (LANE LINE) (12.5' LINE, 37.5' GAP)

SEE CMT DETAIL "TRAFFIC CONTROL, LANE CLOSURE, SPEED REDUCTION." FOR ADDITIONAL DETAILS

PROJECT NO: 1003-10-75	HWY: IH 39	COUNTY: ROCK	TRAFFIC CONTROL: STAGE 3	SHEET 39	E



STAGE 4 - IH 39

(NIGHT TIME OPERATION)

TRAFFIC CONTROL

DURING NIGHT TIME HOURS:

MAINTAIN ONE NORTHBOUND TRAFFIC LANE USING EXISTING MEDIAN LANE AND SHOULDER OF THE NORTHBOUND ROADWAY. CLOSE OUTSIDE LANE AND SHOULDER OF THE NORTHBOUND ROADWAY.

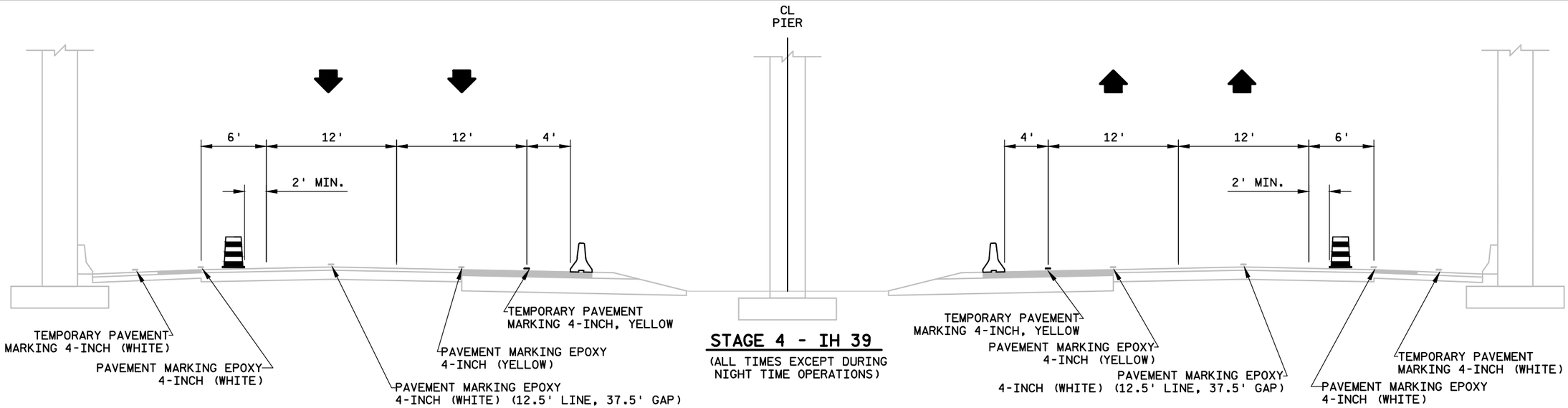
MAINTAIN ONE SOUTHBOUND TRAFFIC LANE USING EXISTING MEDIAN LANE AND SHOULDER OF THE SOUTHBOUND ROADWAY. CLOSE OUTSIDE LANE AND SHOULDER OF THE SOUTHBOUND ROADWAY.

OPEN TO TWO TRAFFIC LANES PER DIRECTION ALL OTHER TIMES.

CONSTRUCTION

TEMPORARY PAVEMENT MARKING 4-INCH (MEDIAN SHOULDERS).

REMOVE EXISTING BRIDGE DECK AND PARAPETS TO THE APPROXIMATE LIMITS AS SHOWN IN THE PLANS.

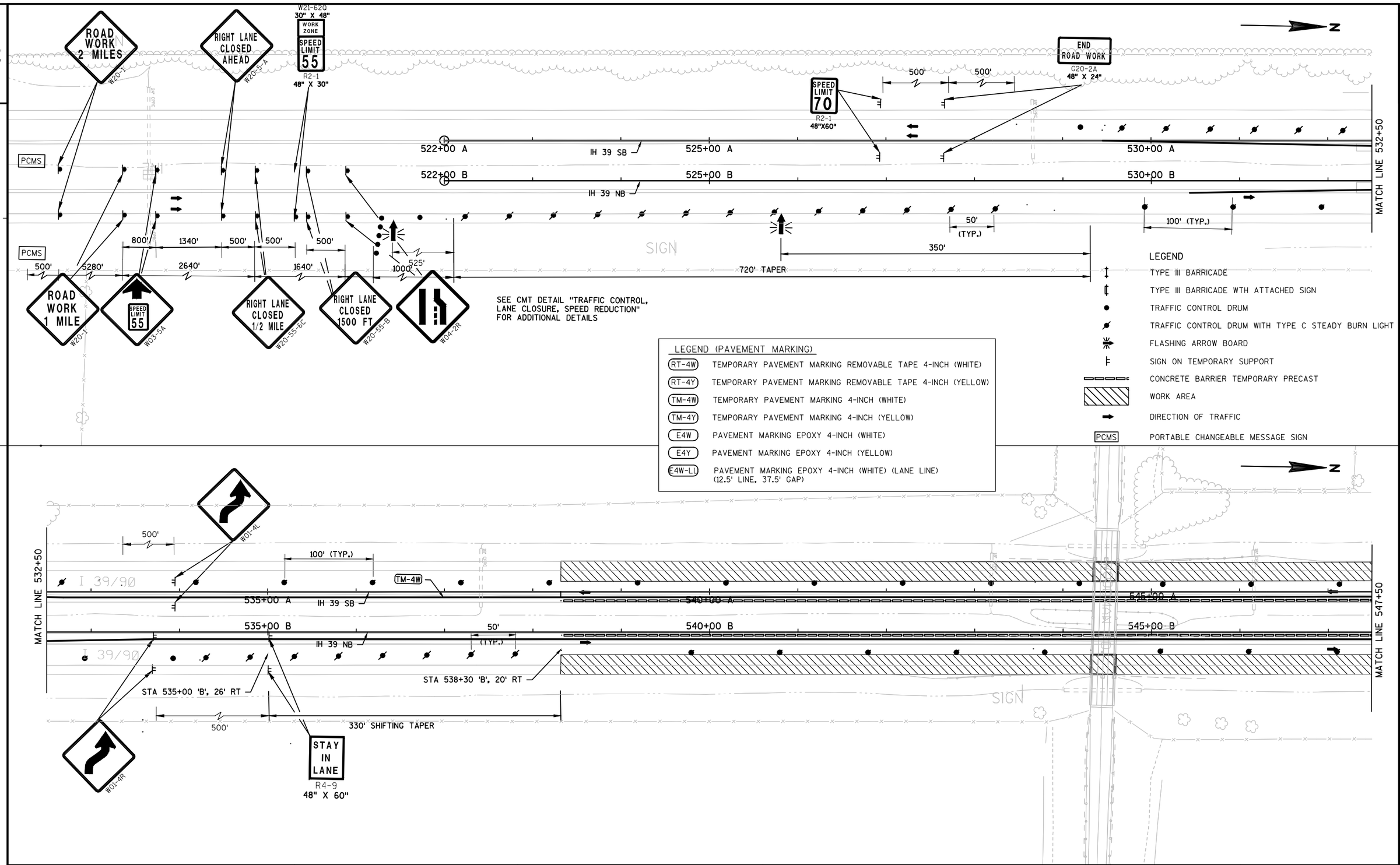


STAGE 4 - IH 39

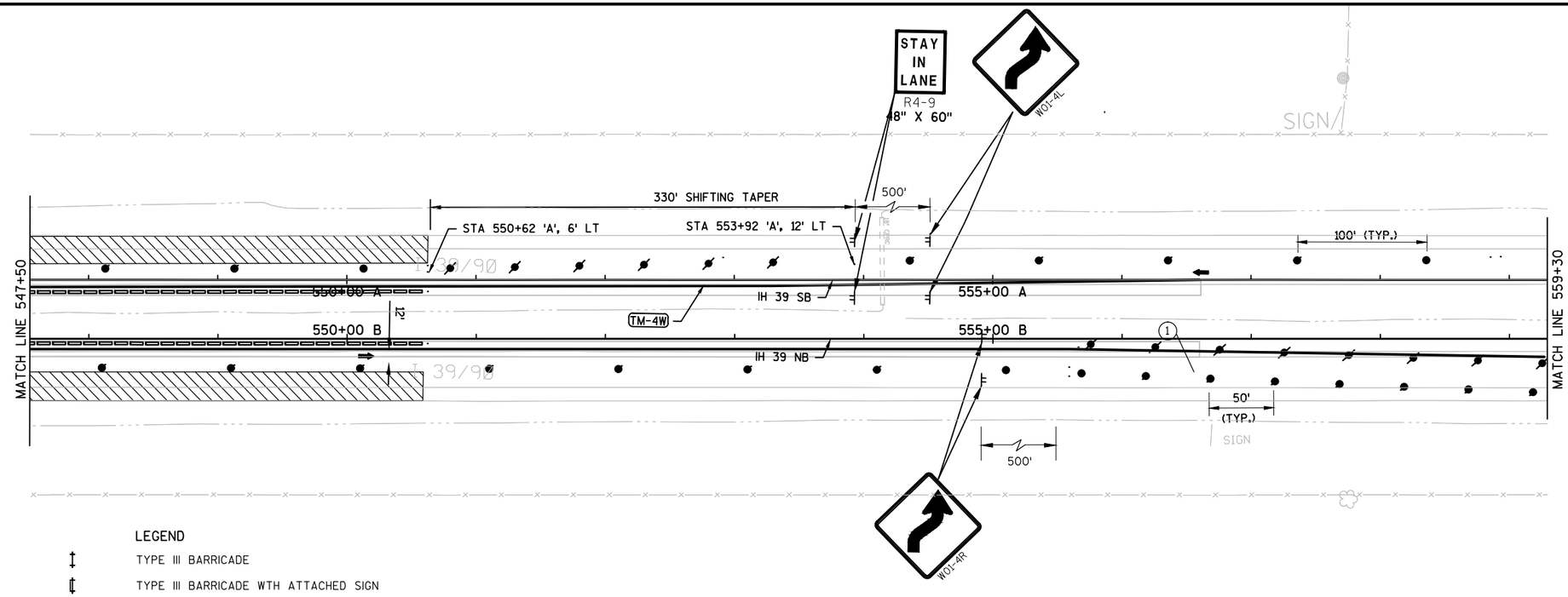
(ALL TIMES EXCEPT DURING NIGHT TIME OPERATIONS)

PROJECT NO: 1003-10-75	HWY: IH 39	COUNTY: ROCK	TRAFFIC CONTROL: TYPICAL SECTIONS	SHEET	E

FILE NAME : P:\8394 IH 39 AECOM\TRANSPORTATION\CAD\WOODMAN\SHEETSET\026001_S_TS.DWG PLOT DATE : 4/26/2013 2:33 PM PLOT BY : MOAZ KHAN PLOT NAME : PLOT SCALE : 1 IN:10 FT WISDOT/CADDS SHEET 42

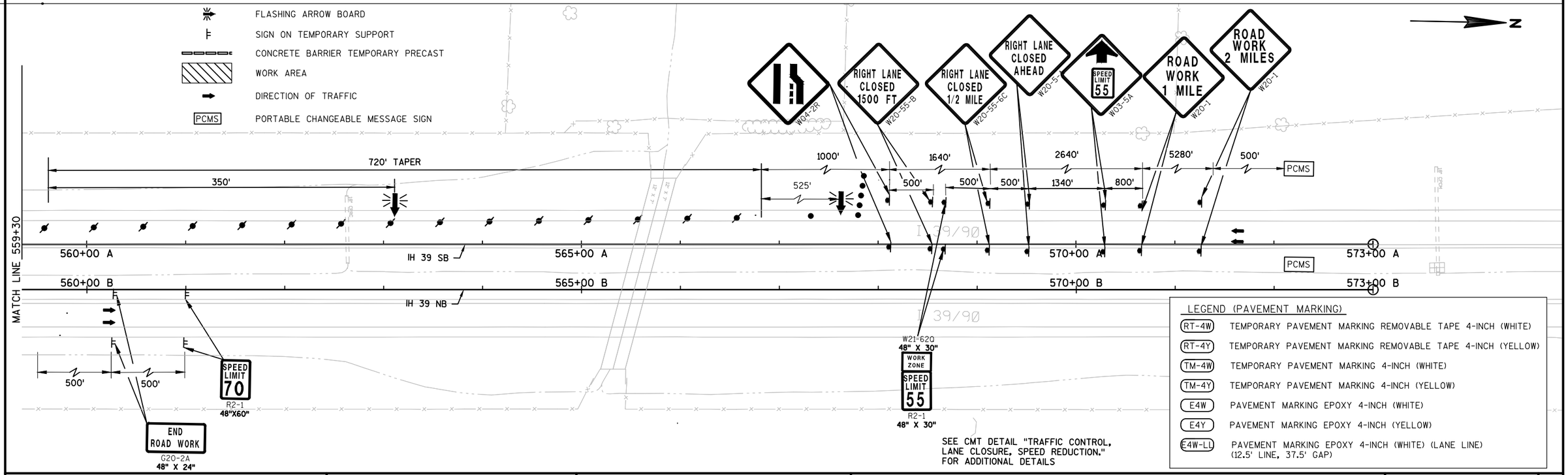


PROJECT NO: 1003-10-75	HWY: IH 39	COUNTY: ROCK	TRAFFIC CONTROL: STAGE 4	SHEET 41	E



LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WTH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON TEMPORARY SUPPORT
- CONCRETE BARRIER TEMPORARY PRECAST
- WORK AREA
- DIRECTION OF TRAFFIC
- PCMS — PORTABLE CHANGEABLE MESSAGE SIGN



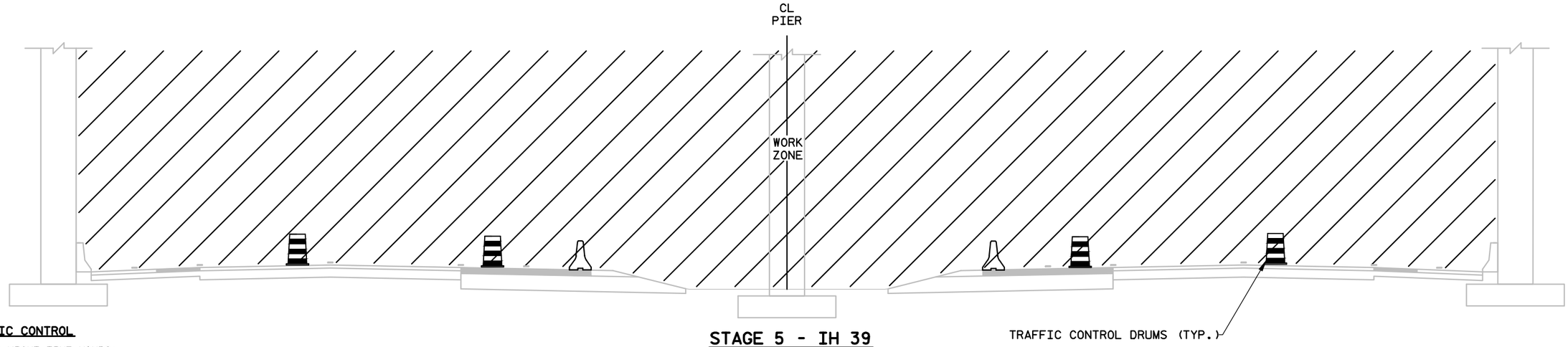
SEE CMT DETAIL "TRAFFIC CONTROL, LANE CLOSURE, SPEED REDUCTION." FOR ADDITIONAL DETAILS

LEGEND (PAVEMENT MARKING)

RT-4W	TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (WHITE)
RT-4Y	TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (YELLOW)
TM-4W	TEMPORARY PAVEMENT MARKING 4-INCH (WHITE)
TM-4Y	TEMPORARY PAVEMENT MARKING 4-INCH (YELLOW)
E4W	PAVEMENT MARKING EPOXY 4-INCH (WHITE)
E4Y	PAVEMENT MARKING EPOXY 4-INCH (YELLOW)
E4W-LL	PAVEMENT MARKING EPOXY 4-INCH (WHITE) (LANE LINE) (12.5' LINE, 37.5' GAP)

PROJECT NO: 1003-10-75	HWY: IH 39	COUNTY: ROCK	TRAFFIC CONTROL: STAGE 4	SHEET	E

FILE NAME : P:\8394 IH 39 AECOM\TRANSPORTATION\CAD\WOODMAN\SHEETSET\026002_S4.DWG PLOT DATE : 4/8/2016 9:07 AM PLOT BY : MOAZ KHAN PLOT NAME : PLOT SCALE : 1:100_XREF
WISDOT/CADDS SHEET 42



STAGE 5 - IH 39
(NIGHT TIME OPERATION)
(ROLLING CLOSURES)

TRAFFIC CONTROL

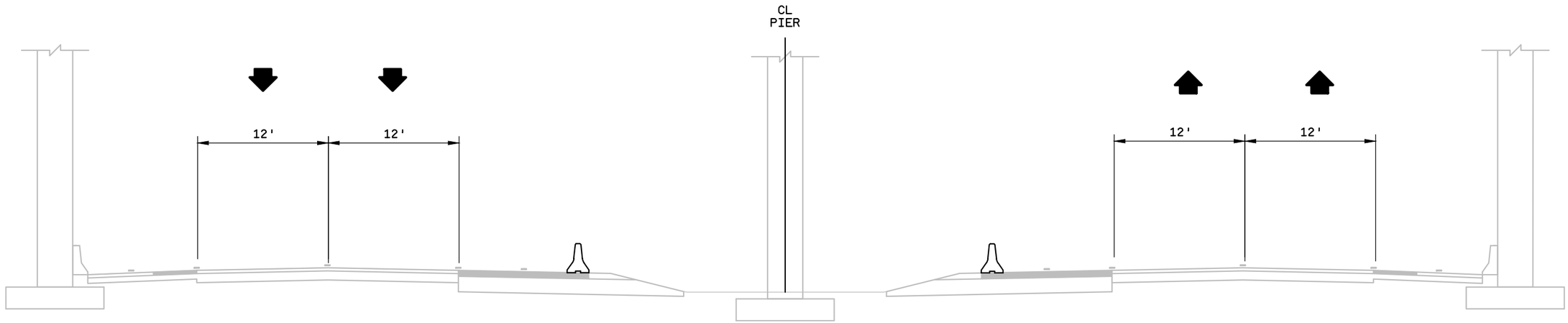
DURING NIGHT TIME HOURS:

ROLLING CLOSURE OF THE SOUTHBOUND AND NORTHBOUND ROADWAYS WILL BE ALLOWED AS SHOWN ABOVE. COMPLETE CLOSURE OF ANY ROADWAY IS LIMITED TO 15 MINUTES MAXIMUM.

OPEN TO TWO TRAFFIC LANES PER DIRECTION ALL OTHER TIMES.

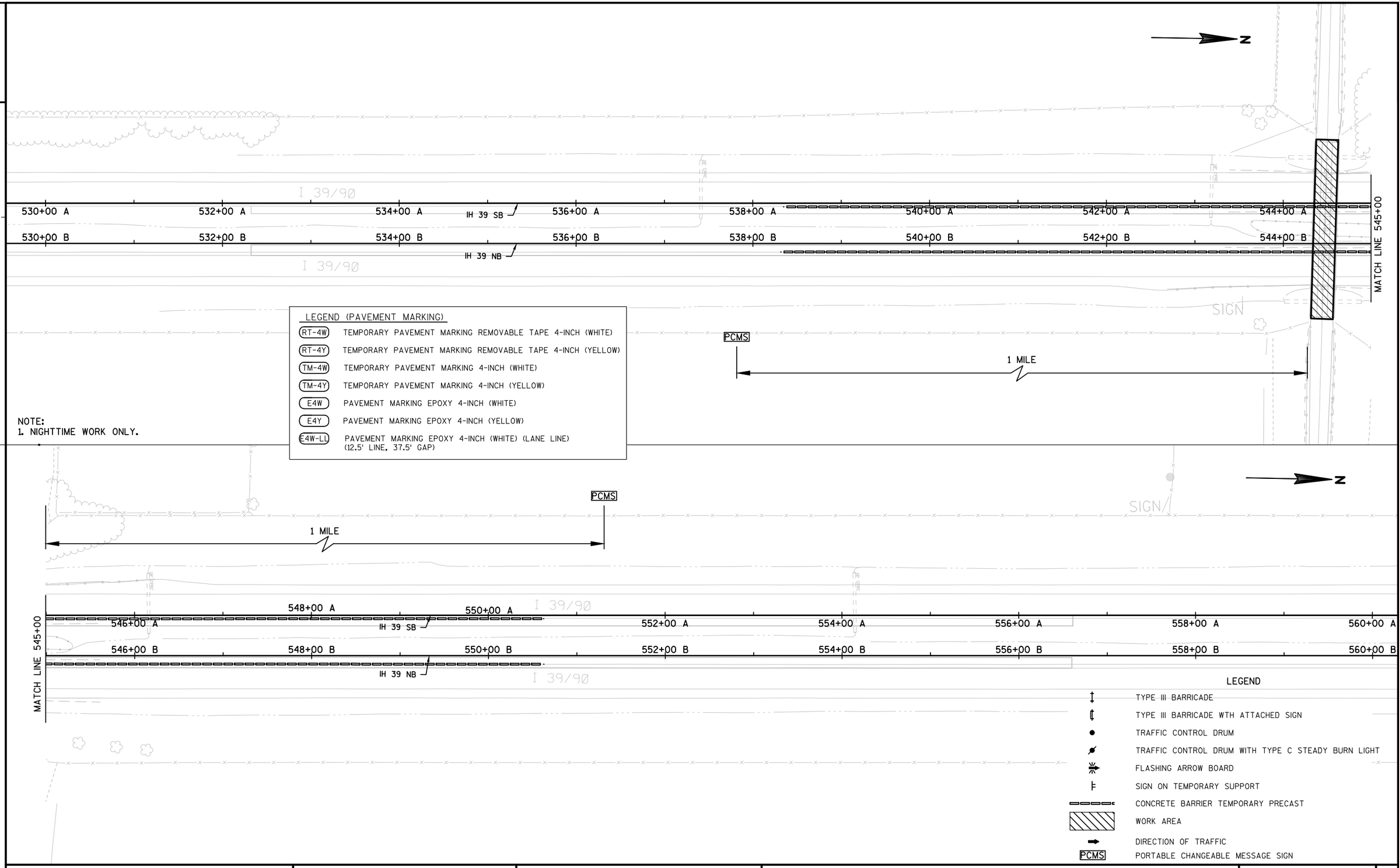
CONSTRUCTION

REMOVE EXISTING GIRDERS, SEE TRAFFIC ARTICLE FOR NIGHT TIME ROLLING CLOSURE AND REQUIREMENTS.



STAGE 5 - IH 39
(ALL TIMES EXCEPT DURING NIGHT TIME OPERATIONS)

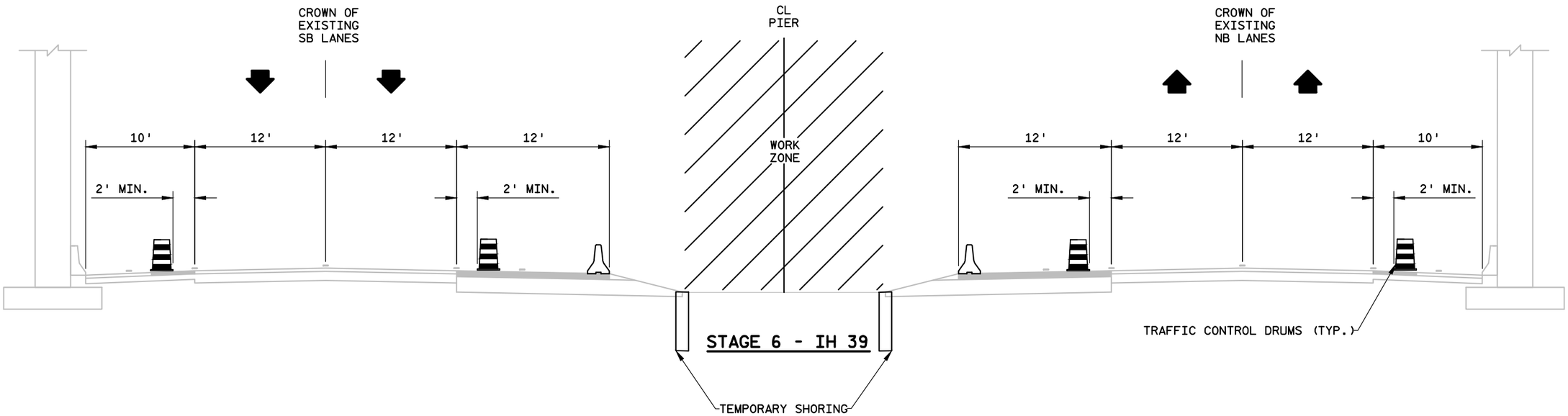
2



2

PROJECT NO: 1003-10-75	HWY: IH 39	COUNTY: ROCK	TRAFFIC CONTROL: STAGE 5	SHEET 44	E

2



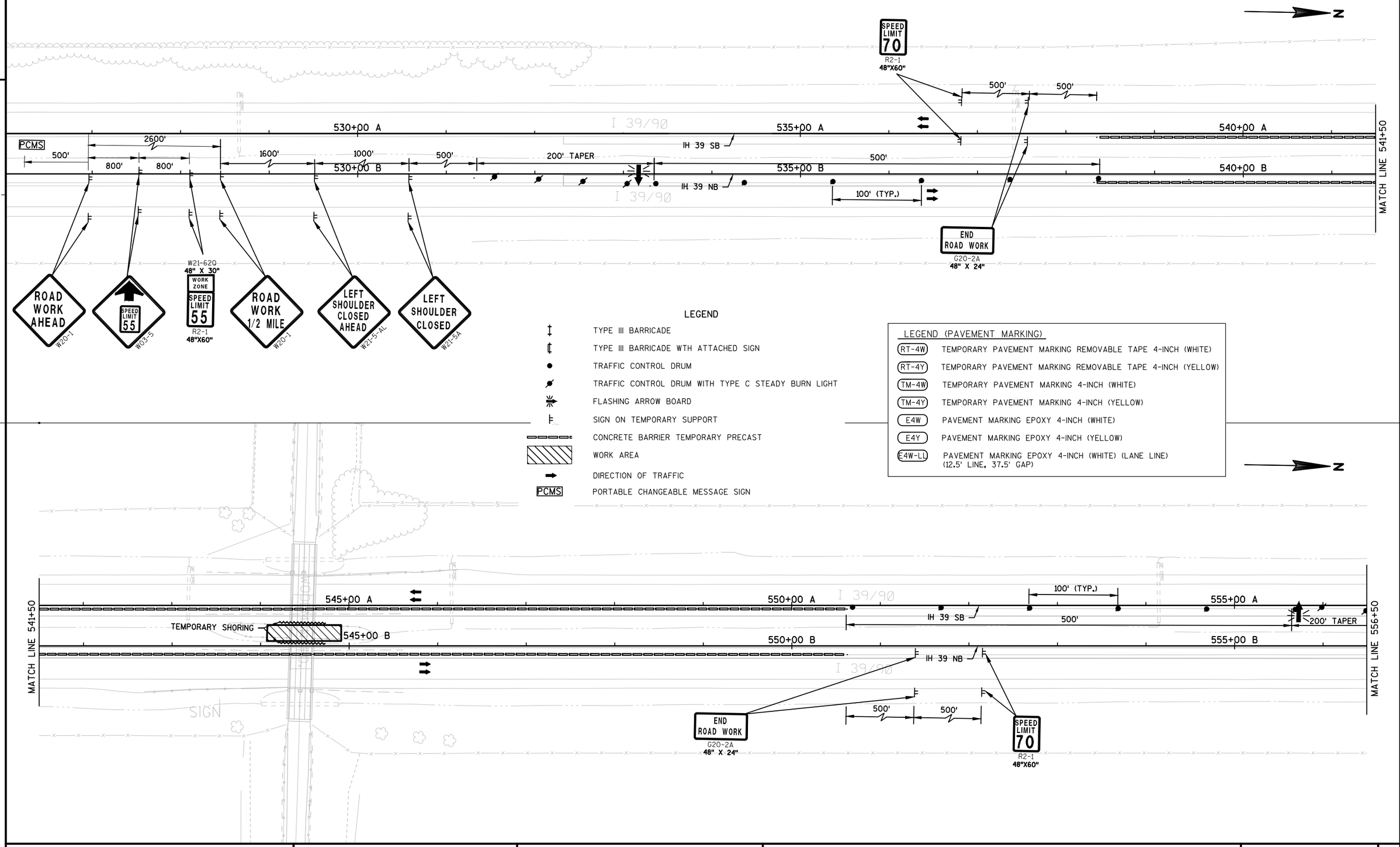
TRAFFIC CONTROL

MAINTAIN TWO TRAFFIC LANES PER DIRECTION.

CONSTRUCTION

REMOVE EXISTING MIDDLE PIER AND FOUNDATION.

PROJECT NO: 1003-10-75	HWY: IH 39	COUNTY: ROCK	TRAFFIC CONTROL: TYPICAL SECTIONS	SHEET 45	E



LEGEND

‡	TYPE III BARRICADE
‡	TYPE III BARRICADE WTH ATTACHED SIGN
●	TRAFFIC CONTROL DRUM
	TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
	FLASHING ARROW BOARD
	SIGN ON TEMPORARY SUPPORT
	CONCRETE BARRIER TEMPORARY PRECAST
	WORK AREA
➡	DIRECTION OF TRAFFIC
PCMS	PORTABLE CHANGEABLE MESSAGE SIGN

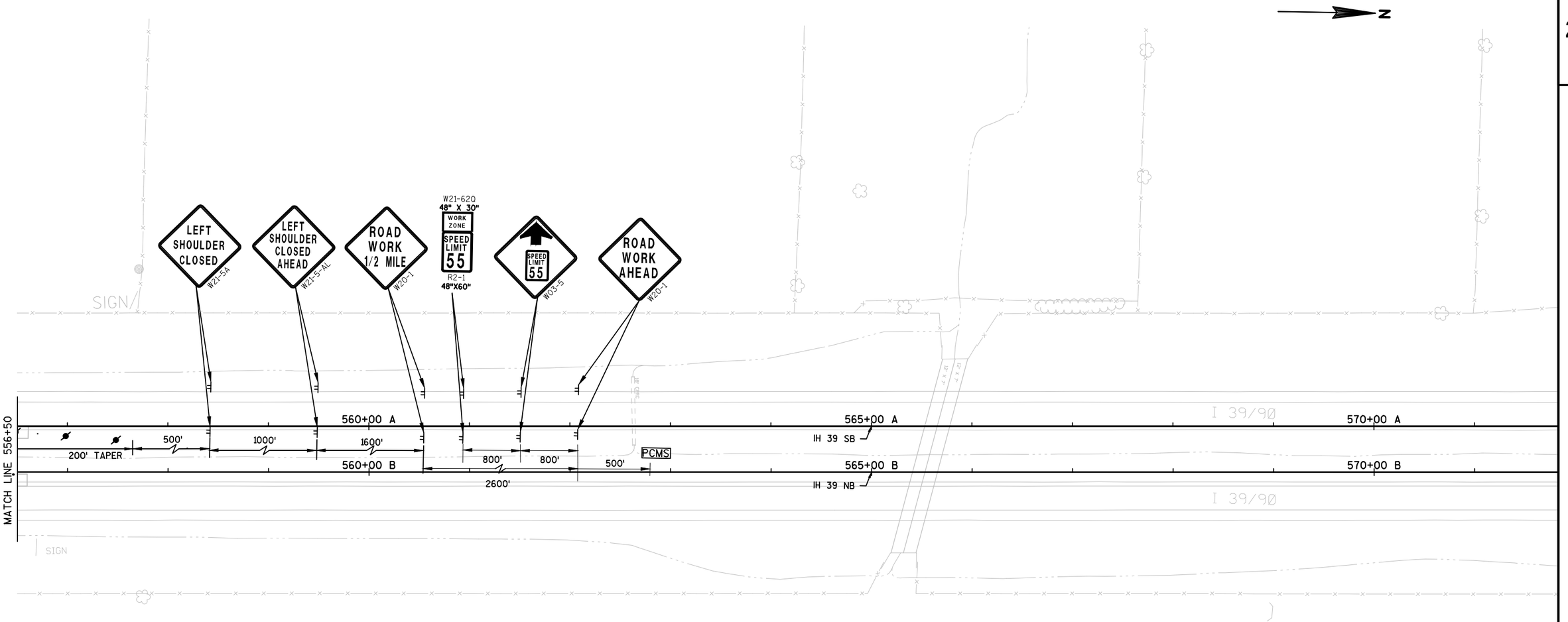
LEGEND (PAVEMENT MARKING)

RT-4W	TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (WHITE)
RT-4Y	TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (YELLOW)
TM-4W	TEMPORARY PAVEMENT MARKING 4-INCH (WHITE)
TM-4Y	TEMPORARY PAVEMENT MARKING 4-INCH (YELLOW)
E4W	PAVEMENT MARKING EPOXY 4-INCH (WHITE)
E4Y	PAVEMENT MARKING EPOXY 4-INCH (YELLOW)
E4W-LL	PAVEMENT MARKING EPOXY 4-INCH (WHITE) (LANE LINE) (12.5' LINE, 37.5' GAP)

PROJECT NO: 1003-10-75	HWY: IH 39	COUNTY: ROCK	TRAFFIC CONTROL: STAGE 6	SHEET	E

FILE NAME : P:\8394 IH 39 AECOM\TRANSPORTATION\CAD\WOODMAN\SHEETSET\026001_S6.DWG PLOT DATE : 4/8/2016 9:08 AM PLOT BY : MOAZ KHAN PLOT NAME : PLOT SCALE : 1:100_XREF
WISDOT/CADDS SHEET 42

2



LEGEND (PAVEMENT MARKING)

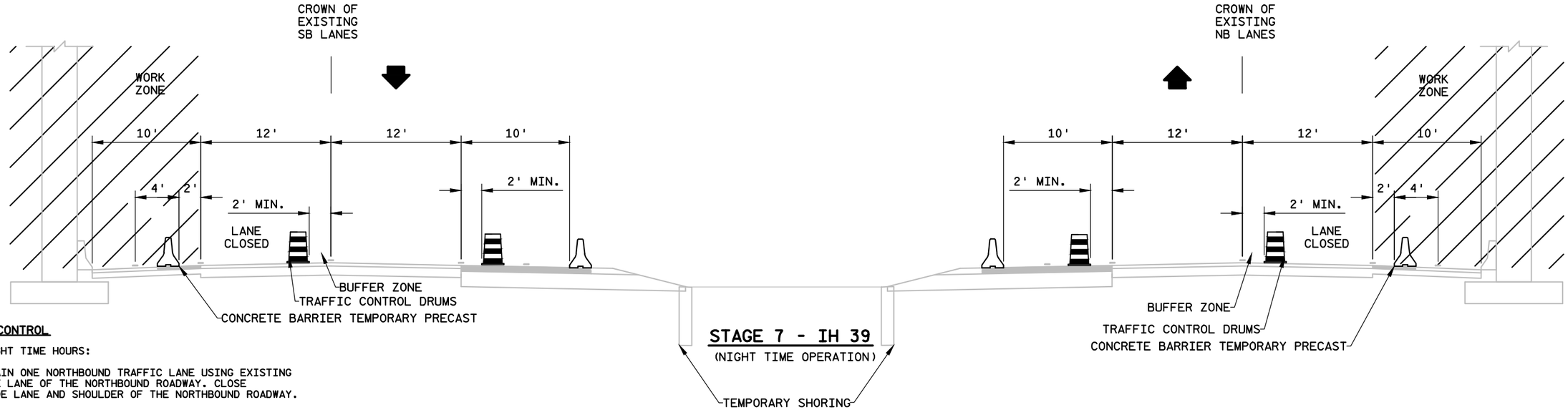
RT-4W	TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (WHITE)
RT-4Y	TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (YELLOW)
TM-4W	TEMPORARY PAVEMENT MARKING 4-INCH (WHITE)
TM-4Y	TEMPORARY PAVEMENT MARKING 4-INCH (YELLOW)
E4W	PAVEMENT MARKING EPOXY 4-INCH (WHITE)
E4Y	PAVEMENT MARKING EPOXY 4-INCH (YELLOW)
E4W-LL	PAVEMENT MARKING EPOXY 4-INCH (WHITE) (LANE LINE) (12.5' LINE, 37.5' GAP)

LEGEND

	TYPE III BARRICADE
	TYPE III BARRICADE WTH ATTACHED SIGN
	TRAFFIC CONTROL DRUM
	TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
	FLASHING ARROW BOARD
	SIGN ON TEMPORARY SUPPORT
	CONCRETE BARRIER TEMPORARY PRECAST
	WORK AREA
	DIRECTION OF TRAFFIC
PCMS	PORTABLE CHANGEABLE MESSAGE SIGN

PROJECT NO: 1003-10-75	HWY: IH 39	COUNTY: ROCK	TRAFFIC CONTROL: STAGE 6	SHEET 47	E

FILE NAME : P:\8394 IH 39 AECOM\TRANSPORTATION\CAD\WOODMAN\SHEETSET\026002_S6.DWG PLOT DATE : 4/8/2016 9:08 AM PLOT BY : MOAZ KHAN PLOT NAME : PLOT SCALE : **********



TRAFFIC CONTROL

DURING NIGHT TIME HOURS:

MAINTAIN ONE NORTHBOUND TRAFFIC LANE USING EXISTING INSIDE LANE OF THE NORTHBOUND ROADWAY. CLOSE OUTSIDE LANE AND SHOULDER OF THE NORTHBOUND ROADWAY.

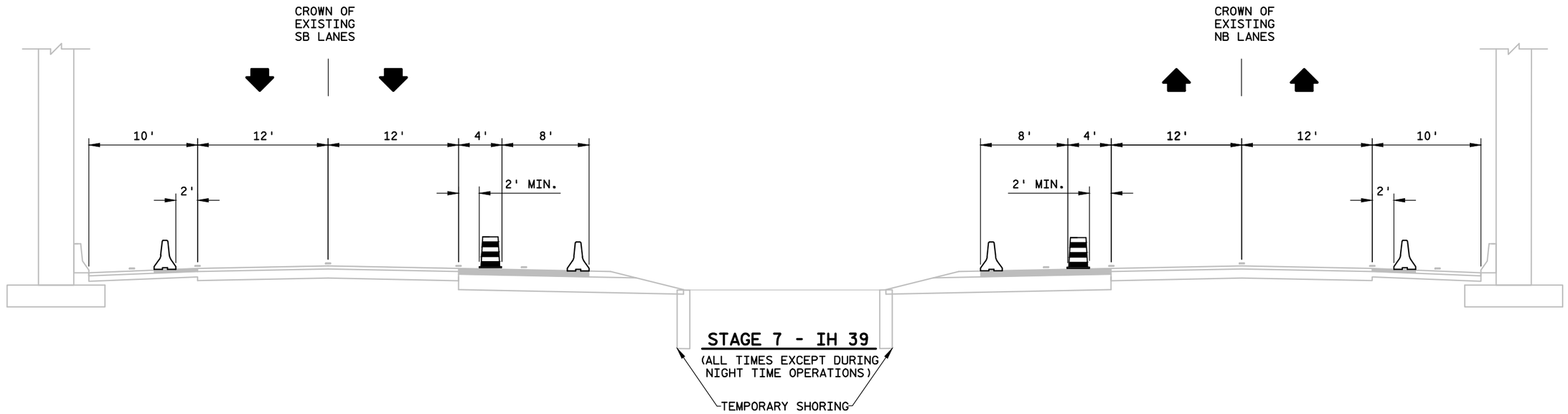
MAINTAIN ONE SOUTHBOUND TRAFFIC LANE USING EXISTING INSIDE LANE OF THE SOUTHBOUND ROADWAY. CLOSE OUTSIDE LANE AND SHOULDER OF THE SOUTHBOUND ROADWAY.

OPEN TO TWO TRAFFIC LANES PER DIRECTION ALL OTHER TIMES.

CONSTRUCTION

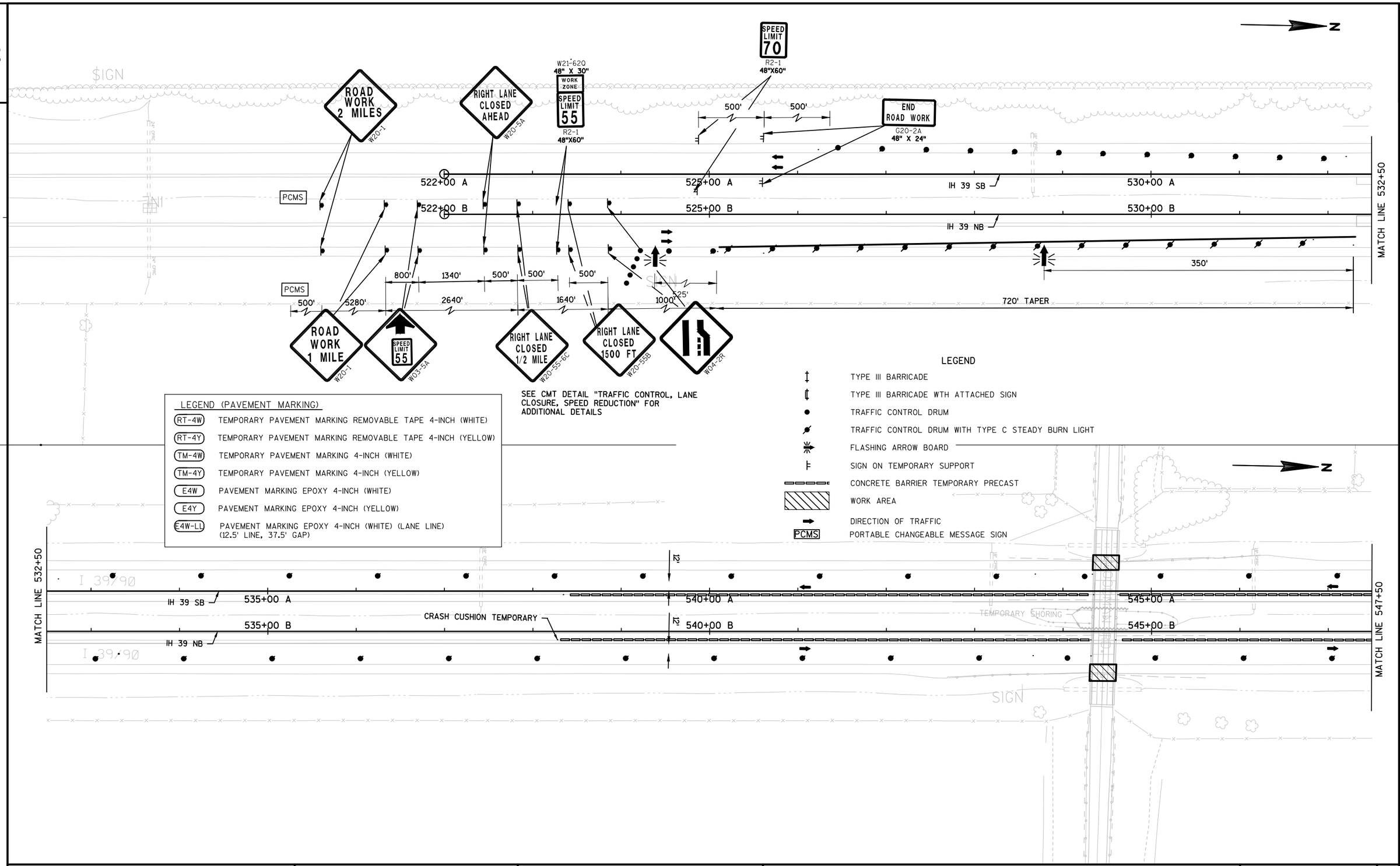
PLACE CONCRETE BARRIER TEMPORARY PRECAST (OUTSIDE)

REMOVE EXISTING OUTSIDE PIERS AND ABUTMENTS.



PROJECT NO: 1003-10-75	HWY: IH 39	COUNTY: ROCK	TRAFFIC CONTROL: TYPICAL SECTIONS	SHEET	E

FILE NAME : P:\8394 IH 39 AECOM\TRANSPORTATION\CAD\WOODMAN\SHEETSET\026001_S_TS.DWG PLOT DATE : 4/26/2013 2:33 PM PLOT BY : MOAZ KHAN PLOT NAME : ---------- PLOT SCALE : 1 IN:10 FT WISDOT/CADDS SHEET 42



LEGEND (PAVEMENT MARKING)

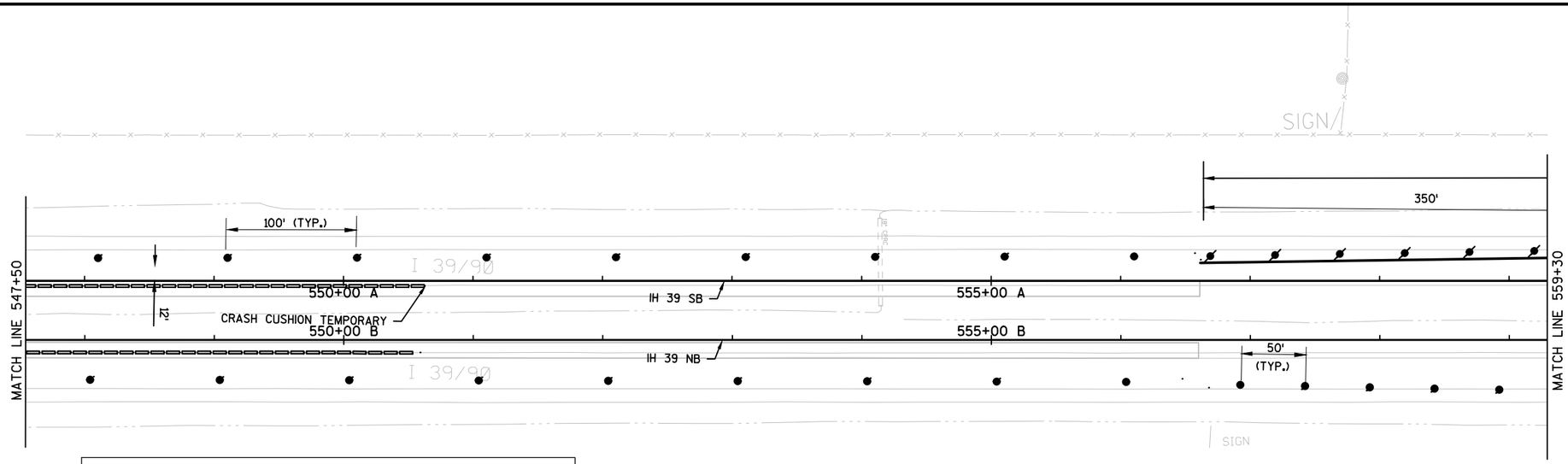
RT-4W	TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (WHITE)
RT-4Y	TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (YELLOW)
TM-4W	TEMPORARY PAVEMENT MARKING 4-INCH (WHITE)
TM-4Y	TEMPORARY PAVEMENT MARKING 4-INCH (YELLOW)
E4W	PAVEMENT MARKING EPOXY 4-INCH (WHITE)
E4Y	PAVEMENT MARKING EPOXY 4-INCH (YELLOW)
E4W-LL	PAVEMENT MARKING EPOXY 4-INCH (WHITE) (LANE LINE) (12.5' LINE, 37.5' GAP)

SEE CMT DETAIL "TRAFFIC CONTROL, LANE CLOSURE, SPEED REDUCTION" FOR ADDITIONAL DETAILS

LEGEND

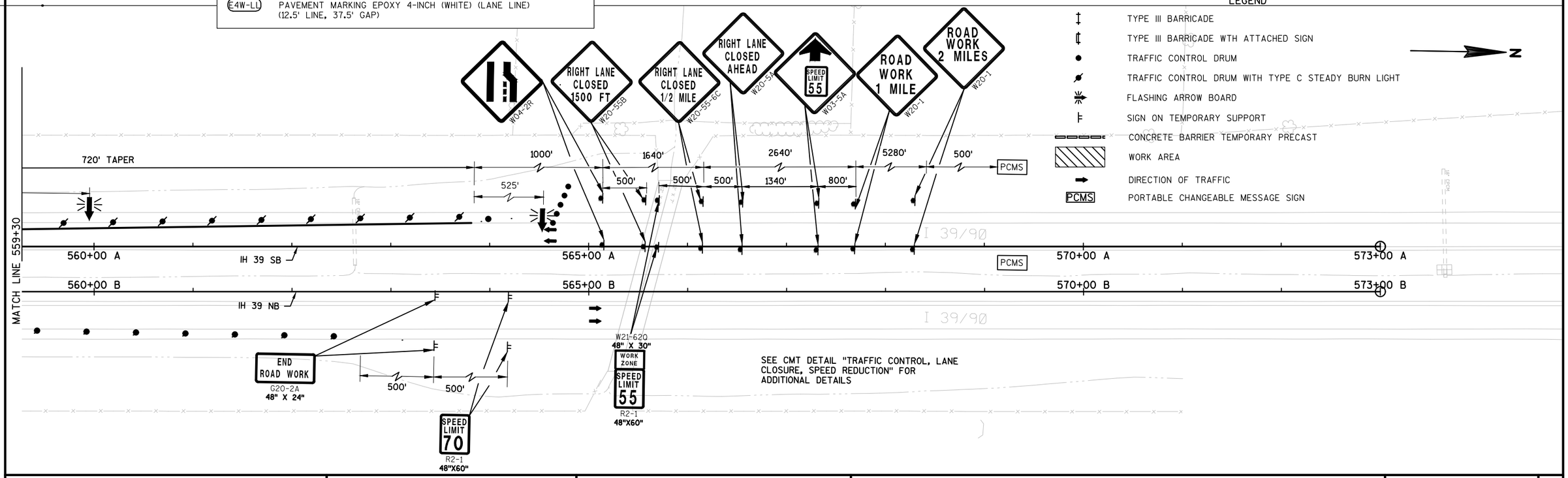
- TYPE III BARRICADE
- TYPE III BARRICADE WTH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON TEMPORARY SUPPORT
- CONCRETE BARRIER TEMPORARY PRECAST
- WORK AREA
- DIRECTION OF TRAFFIC
- PCMS — PORTABLE CHANGEABLE MESSAGE SIGN

PROJECT NO: 1003-10-75	HWY: IH 39	COUNTY: ROCK	TRAFFIC CONTROL: STAGE 7	SHEET 49	E



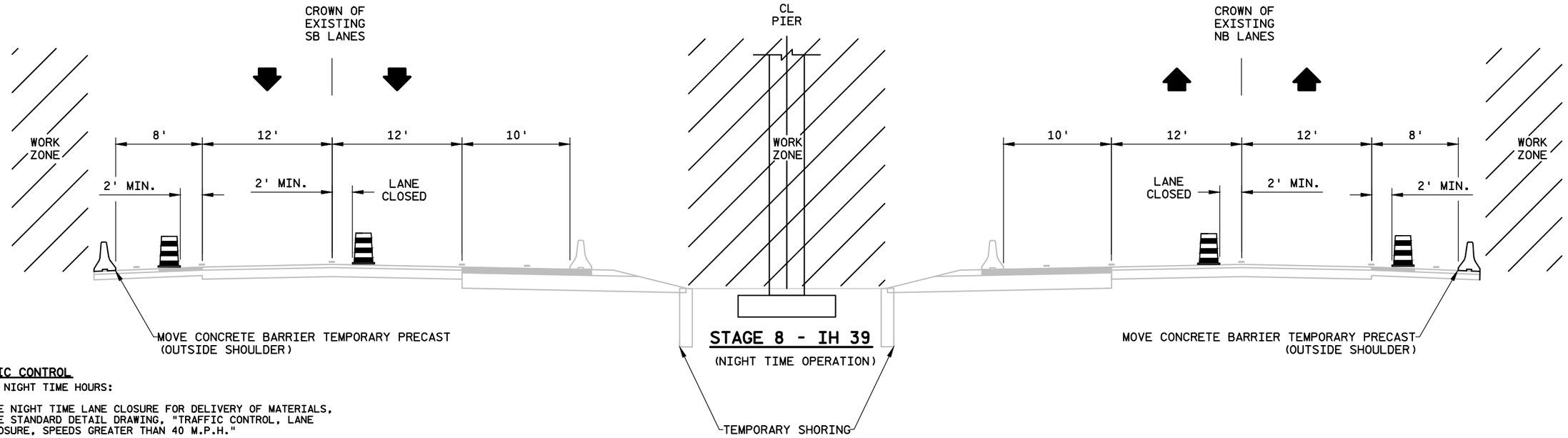
LEGEND (PAVEMENT MARKING)

RT-4W	TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (WHITE)
RT-4Y	TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (YELLOW)
TM-4W	TEMPORARY PAVEMENT MARKING 4-INCH (WHITE)
TM-4Y	TEMPORARY PAVEMENT MARKING 4-INCH (YELLOW)
E4W	PAVEMENT MARKING EPOXY 4-INCH (WHITE)
E4Y	PAVEMENT MARKING EPOXY 4-INCH (YELLOW)
E4W-LL	PAVEMENT MARKING EPOXY 4-INCH (WHITE) (LANE LINE) (12.5' LINE, 37.5' GAP)



PROJECT NO: 1003-10-75	HWY: IH 39	COUNTY: ROCK	TRAFFIC CONTROL: STAGE 7	SHEET	E

FILE NAME : P:\8394 IH 39 AECOM\TRANSPORTATION\CAD\WOODMAN\SHEETSET\026002_S7.DWG
PLOT DATE : 4/8/2016 9:10 AM
PLOT BY : MOAZ KHAN
PLOT NAME :
PLOT SCALE : 1:100_XREF
WISDOT/CADDS SHEET 42



TRAFFIC CONTROL

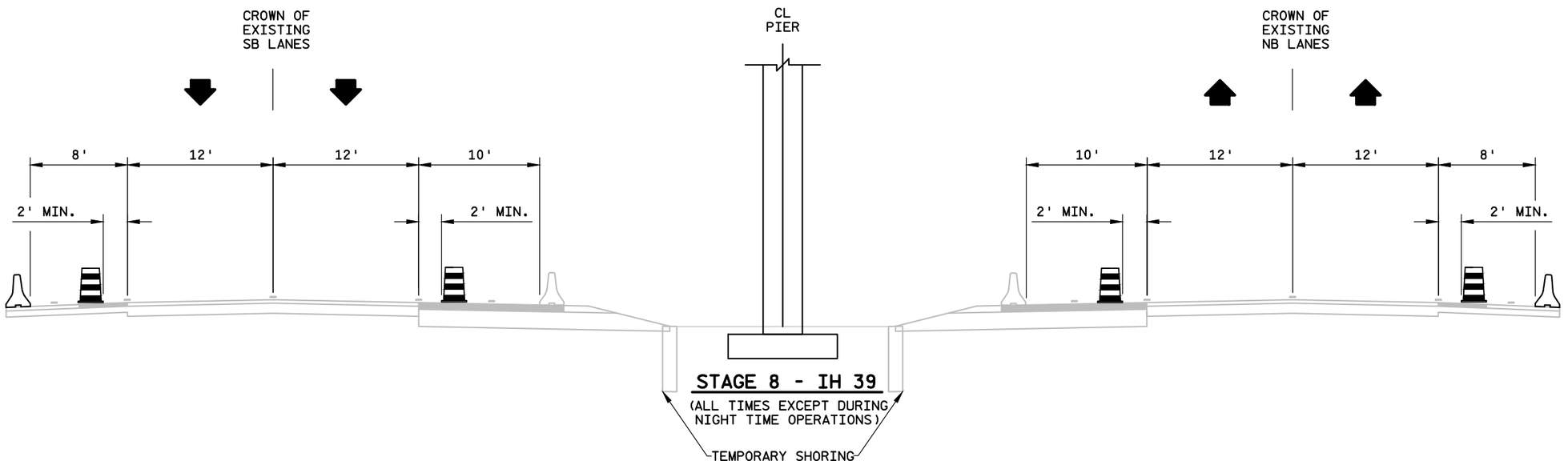
DURING NIGHT TIME HOURS:

USE NIGHT TIME LANE CLOSURE FOR DELIVERY OF MATERIALS, SEE STANDARD DETAIL DRAWING, "TRAFFIC CONTROL, LANE CLOSURE, SPEEDS GREATER THAN 40 M.P.H."

OPEN TO TWO TRAFFIC LANES PER DIRECTION ALL OTHER TIMES.

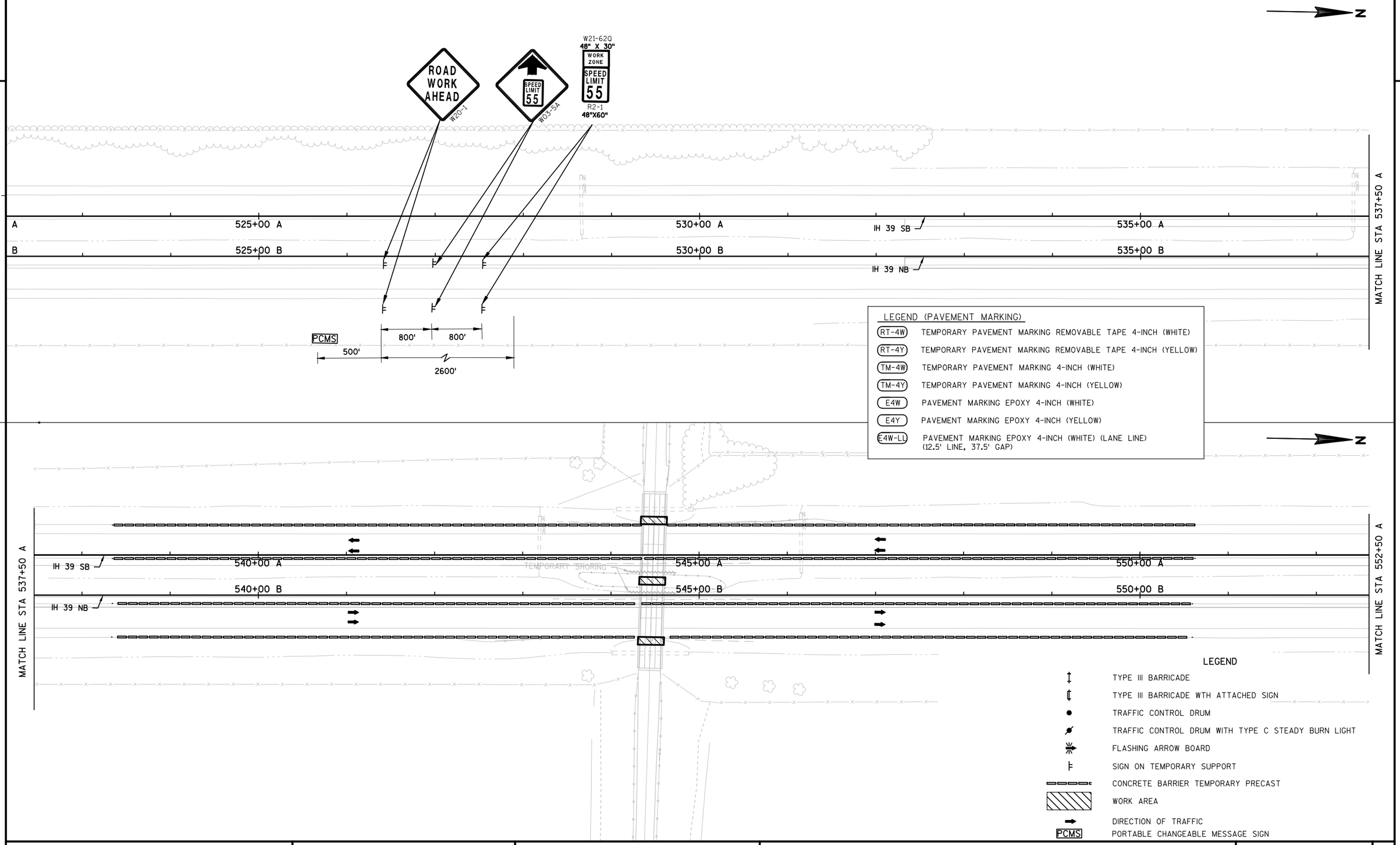
CONSTRUCTION

CONSTRUCT MEDIAN PIER. CONSTRUCT ABUTMENTS.



PROJECT NO: 1003-10-75	HWY: IH 39	COUNTY: ROCK	TRAFFIC CONTROL: TYPICAL SECTIONS	SHEET	E

FILE NAME : P:\8394 IH 39 AECOM\TRANSPORTATION\CAD\WOODMAN\SHEETSET\026001_S_TS.DWG PLOT DATE : 4/26/2013 2:33 PM PLOT BY : MOAZ KHAN PLOT NAME : ---------- PLOT SCALE : 1 IN:10 FT WISDOT/CADDS SHEET 42



PROJECT NO:1003-10-75	HWY:IH 39	COUNTY:ROCK	TRAFFIC CONTROL: STAGE 8	SHEET 52	E

2

N

MATCH LINE STA 552+50 A

555+00 A

555+00 B

IH 39 SB

IH 39 NB

560+00 A

560+00 B

565+00 A

565+00 B

2600'

500'

PCMS

800'

800'

W21-62Q
48" X 30"
WORK ZONE
SPEED LIMIT 55
R2-1
48"X60"

SPEED LIMIT 55
W03-5A

ROAD WORK AHEAD
W20-1

LEGEND (PAVEMENT MARKING)

RT-4W	TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (WHITE)
RT-4Y	TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (YELLOW)
TM-4W	TEMPORARY PAVEMENT MARKING 4-INCH (WHITE)
TM-4Y	TEMPORARY PAVEMENT MARKING 4-INCH (YELLOW)
E4W	PAVEMENT MARKING EPOXY 4-INCH (WHITE)
E4Y	PAVEMENT MARKING EPOXY 4-INCH (YELLOW)
E4W-LL	PAVEMENT MARKING EPOXY 4-INCH (WHITE) (LANE LINE) (12.5' LINE, 37.5' GAP)

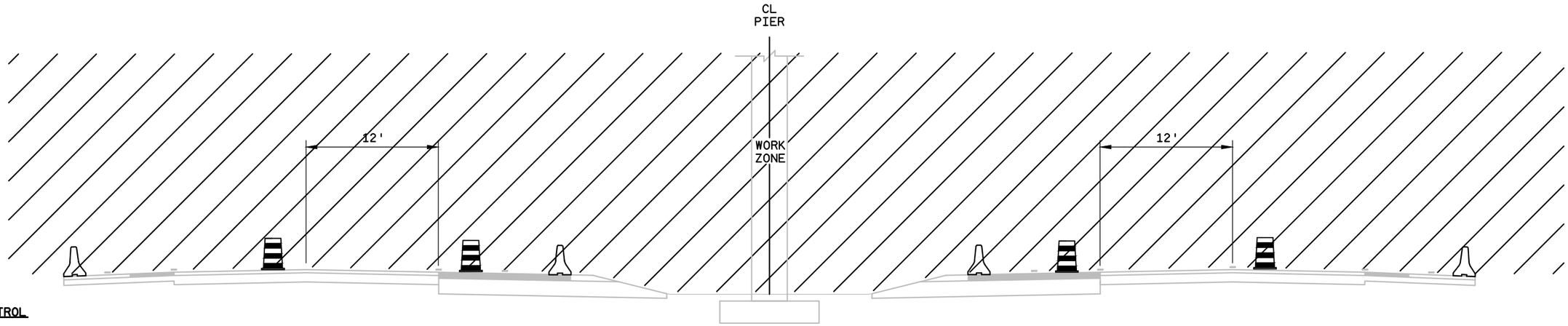
LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WTH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON TEMPORARY SUPPORT
- CONCRETE BARRIER TEMPORARY PRECAST
- WORK AREA
- DIRECTION OF TRAFFIC
- PCMS — PORTABLE CHANGEABLE MESSAGE SIGN

PROJECT NO: 1003-10-75	HWY: IH 39	COUNTY: ROCK	TRAFFIC CONTROL: STAGE 8	SHEET	E

FILE NAME : P:\8394 IH 39 AECOM\TRANSPORTATION\CAD\WOODMAN\SHEETSET\026002_S8.DWG PLOT DATE : 4/8/2016 9:10 AM PLOT BY : MOAZ KHAN PLOT NAME : PLOT SCALE : 1:100_XREF

WISDOT/CADDS SHEET 42



STAGE 9 - IH 39
(NIGHT TIME OPERATION)

TRAFFIC CONTROL

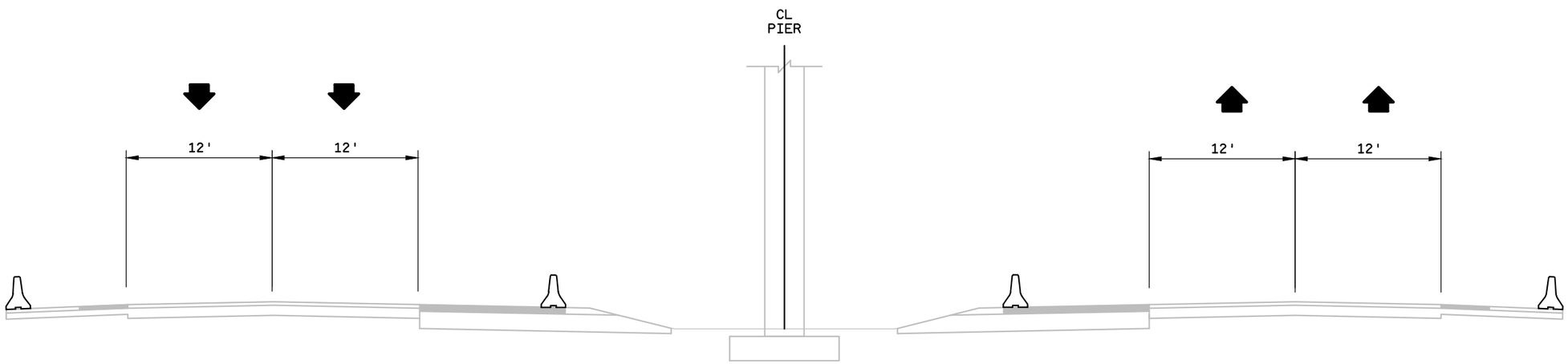
DURING NIGHT TIME HOURS:

ROLLING CLOSURE OF THE SOUTHBOUND AND NORTHBOUND ROADWAYS WILL BE ALLOWED AS SHOWN ABOVE. COMPLETE CLOSURE OF ANY ROADWAY IS LIMITED TO 15 MINUTES MAXIMUM.

OPEN TO TWO TRAFFIC LANES PER DIRECTION ALL OTHER TIMES.

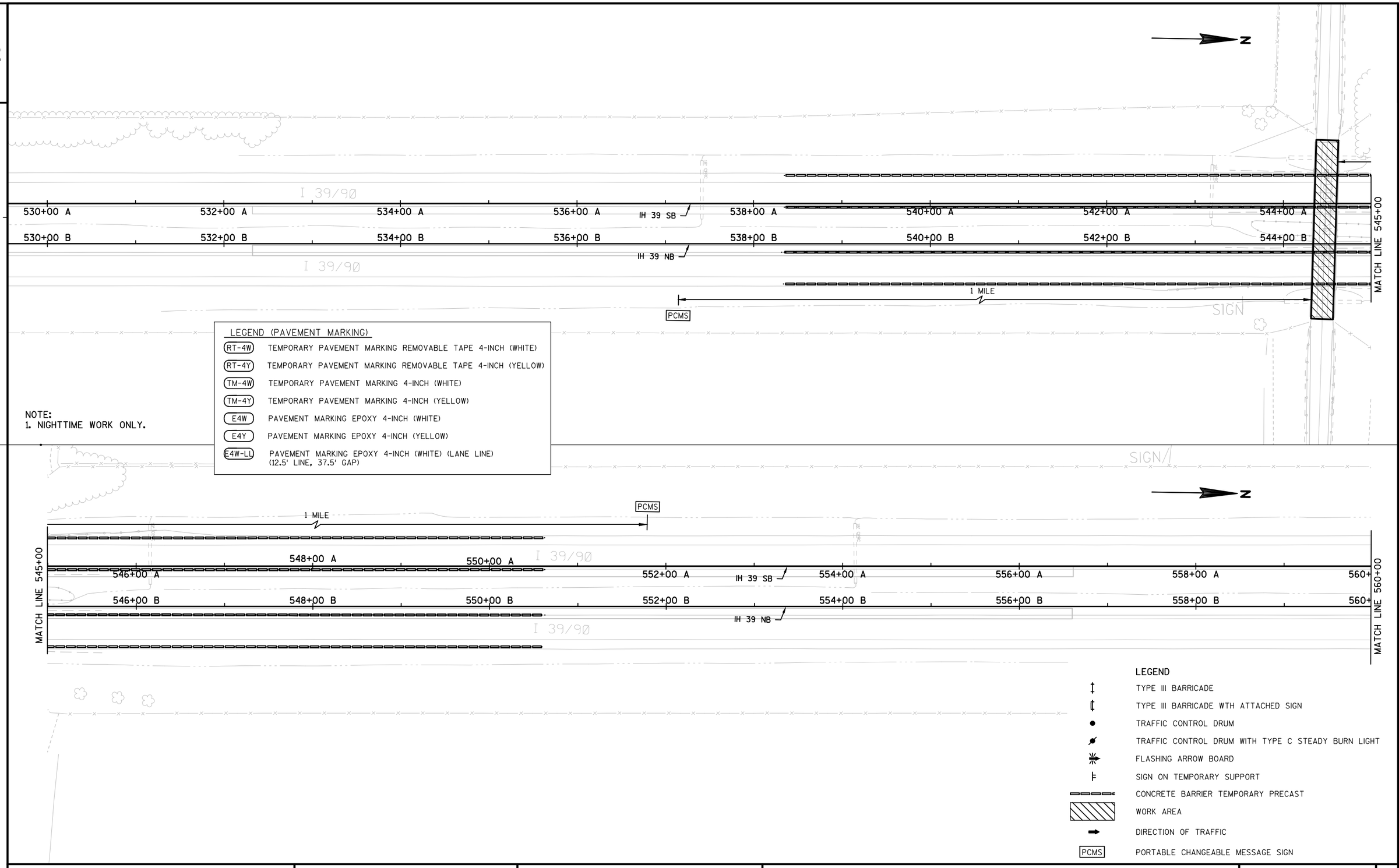
CONSTRUCTION

ERECT CONCRETE GIRDERS, SEE TRAFFIC ARTICLE FOR NIGHT TIME ROLLING CLOSURE AND REQUIREMENTS.



STAGE 9 - IH 39
(ALL TIMES EXCEPT DURING NIGHT TIME OPERATIONS)

PROJECT NO: 1003-10-75	HWY: IH 39	COUNTY: ROCK	TRAFFIC CONTROL: TYPICAL SECTIONS	SHEET 54	E



LEGEND (PAVEMENT MARKING)

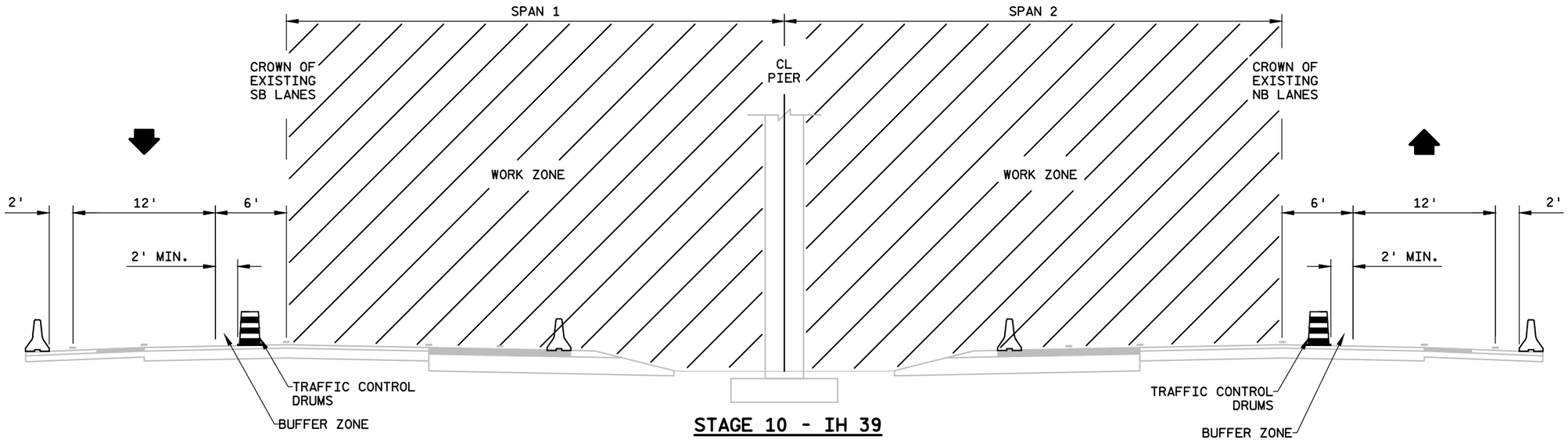
RT-4W	TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (WHITE)
RT-4Y	TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (YELLOW)
TM-4W	TEMPORARY PAVEMENT MARKING 4-INCH (WHITE)
TM-4Y	TEMPORARY PAVEMENT MARKING 4-INCH (YELLOW)
E4W	PAVEMENT MARKING EPOXY 4-INCH (WHITE)
E4Y	PAVEMENT MARKING EPOXY 4-INCH (YELLOW)
E4W-LL	PAVEMENT MARKING EPOXY 4-INCH (WHITE) (LANE LINE) (12.5' LINE, 37.5' GAP)

NOTE:
1. NIGHTTIME WORK ONLY.

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WTH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON TEMPORARY SUPPORT
- CONCRETE BARRIER TEMPORARY PRECAST
- WORK AREA
- DIRECTION OF TRAFFIC
- PCMS — PORTABLE CHANGEABLE MESSAGE SIGN

PROJECT NO: 1003-10-75	HWY: IH 39	COUNTY: ROCK	TRAFFIC CONTROL: STAGE 9	SHEET 55	E



STAGE 10 - IH 39

(NIGHT TIME OPERATION)

TRAFFIC CONTROL

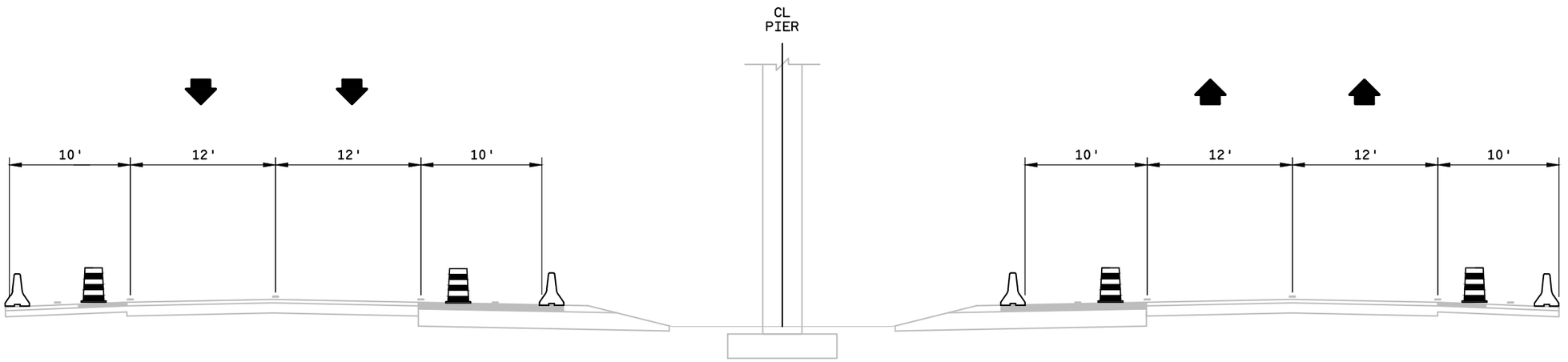
DURING NIGHT TIME HOURS:

CLOSE INSIDE LANES AND SHOULDERS.

OPEN TO TWO TRAFFIC LANES PER DIRECTION ALL OTHER TIMES.

CONSTRUCTION

FORM DECK TO THE APPROXIMATE LIMITS AS SHOWN ON THE PLANS.

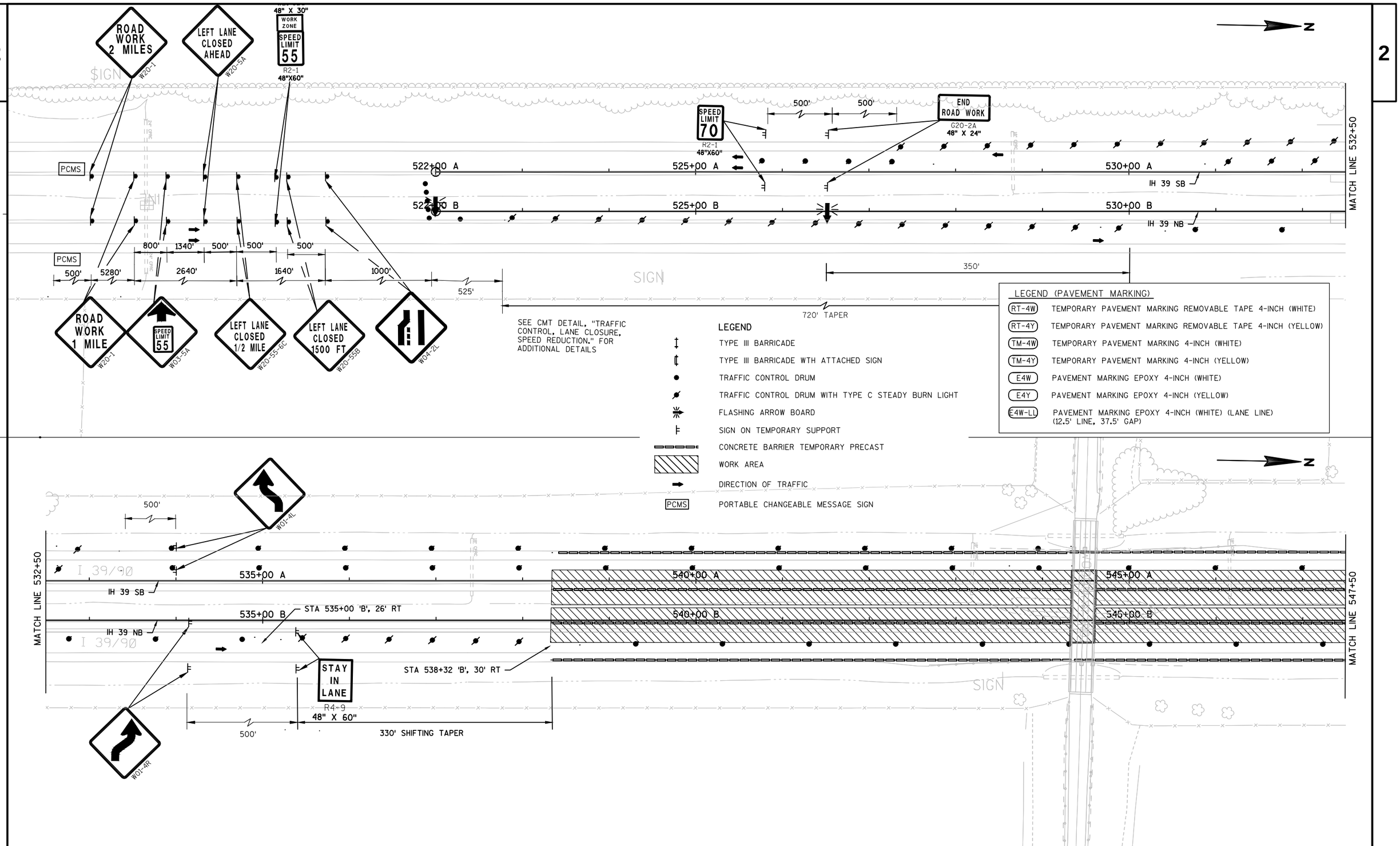


STAGE 10 - IH 39

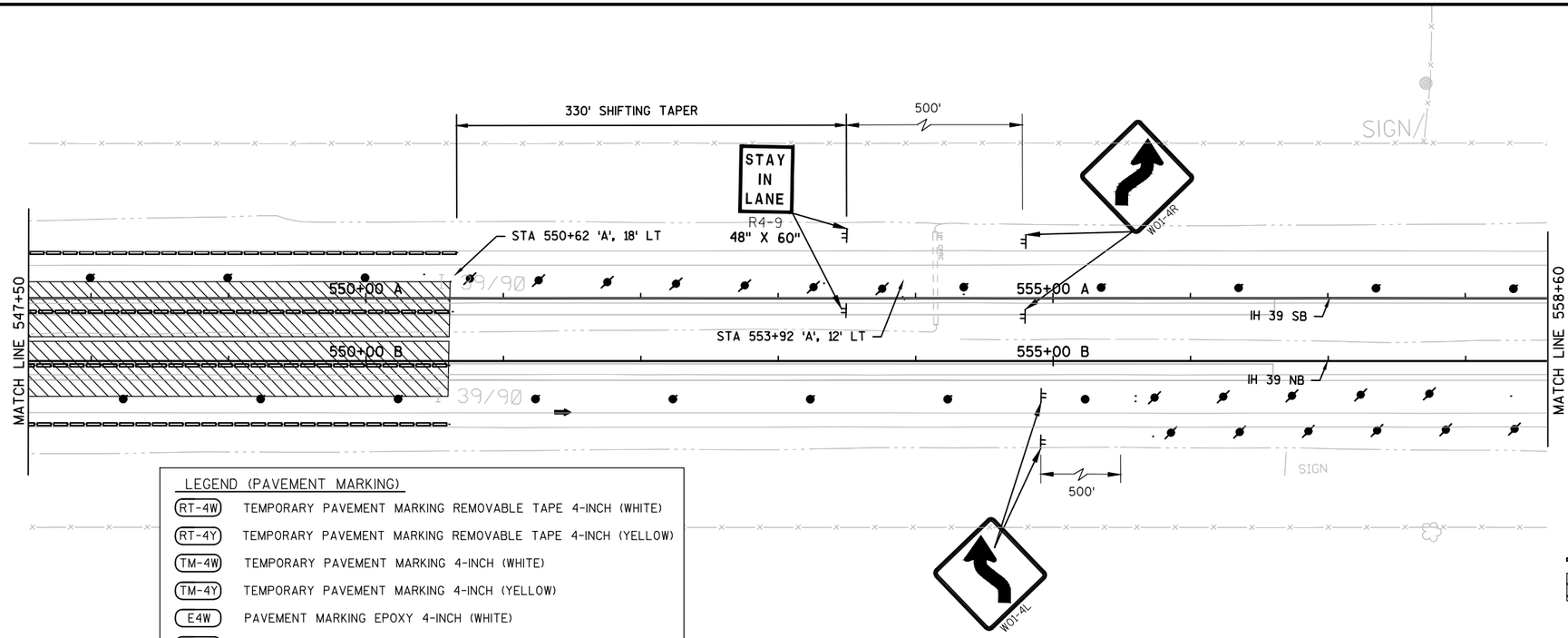
(ALL TIMES EXCEPT DURING NIGHT TIME OPERATIONS)

PROJECT NO: 1003-10-75	HWY: IH 39	COUNTY: ROCK	TRAFFIC CONTROL: TYPICAL SECTIONS	SHEET	E

FILE NAME : P:\8394 IH 39 AECOM\TRANSPORTATION\CAD\WOODMAN\SHEETSET\026001_S_TS.DWG PLOT DATE : 4/26/2013 2:33 PM PLOT BY : MOAZ KHAN PLOT NAME : ---------- PLOT SCALE : 1 IN:10 FT WISDOT/CADDS SHEET 42



PROJECT NO: 1003-10-75	HWY: IH 39	COUNTY: ROCK	TRAFFIC CONTROL: STAGE 10	SHEET 57	E

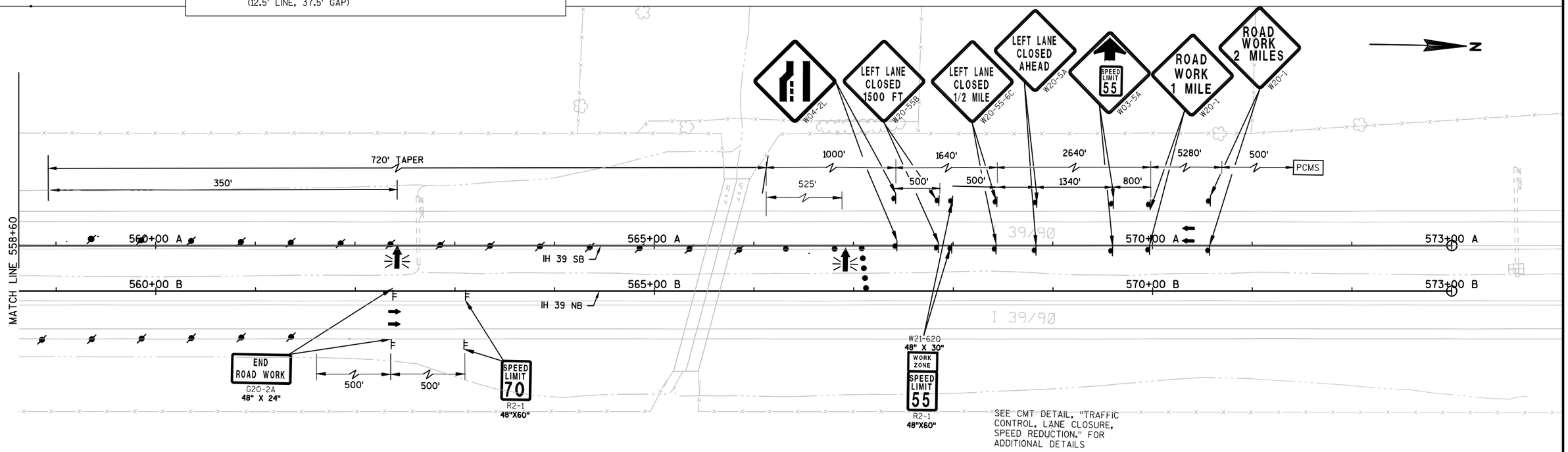


LEGEND (PAVEMENT MARKING)

RT-4W	TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (WHITE)
RT-4Y	TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (YELLOW)
TM-4W	TEMPORARY PAVEMENT MARKING 4-INCH (WHITE)
TM-4Y	TEMPORARY PAVEMENT MARKING 4-INCH (YELLOW)
E4W	PAVEMENT MARKING EPOXY 4-INCH (WHITE)
E4Y	PAVEMENT MARKING EPOXY 4-INCH (YELLOW)
E4W-LL	PAVEMENT MARKING EPOXY 4-INCH (WHITE) (LANE LINE) (12.5' LINE, 37.5' GAP)

LEGEND

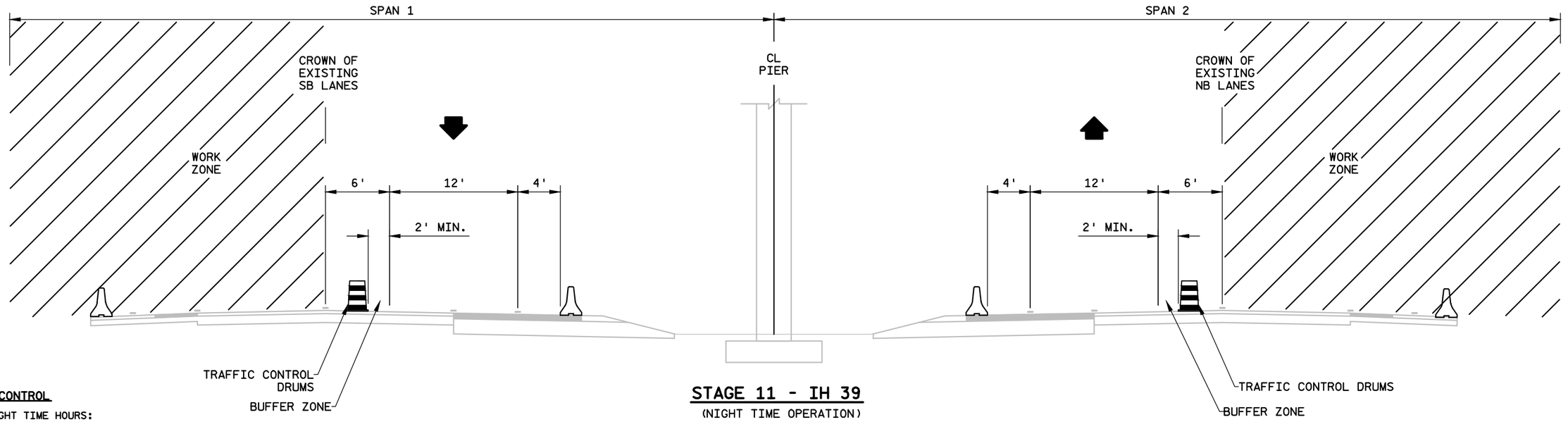
	TYPE III BARRICADE
	TYPE III BARRICADE WTH ATTACHED SIGN
	TRAFFIC CONTROL DRUM
	TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
	FLASHING ARROW BOARD
	SIGN ON TEMPORARY SUPPORT
	CONCRETE BARRIER TEMPORARY PRECAST
	WORK AREA
	DIRECTION OF TRAFFIC
PCMS	PORTABLE CHANGEABLE MESSAGE SIGN



SEE CMT DETAIL, "TRAFFIC CONTROL, LANE CLOSURE, SPEED REDUCTION." FOR ADDITIONAL DETAILS

PROJECT NO: 1003-10-75	HWY: IH 39	COUNTY: ROCK	TRAFFIC CONTROL: STAGE 10	SHEET	E

FILE NAME : P:\8394 IH 39 AECOM\TRANSPORTATION\CAD\WOODMAN\SHEETSET\026002_S10.DWG
PLOT DATE : 4/8/2016 9:12 AM
PLOT BY : MOAZ KHAN
PLOT NAME :
PLOT SCALE : 1:100_XREF
WISDOT/CADDS SHEET 42



STAGE 11 - IH 39
(NIGHT TIME OPERATION)

TRAFFIC CONTROL

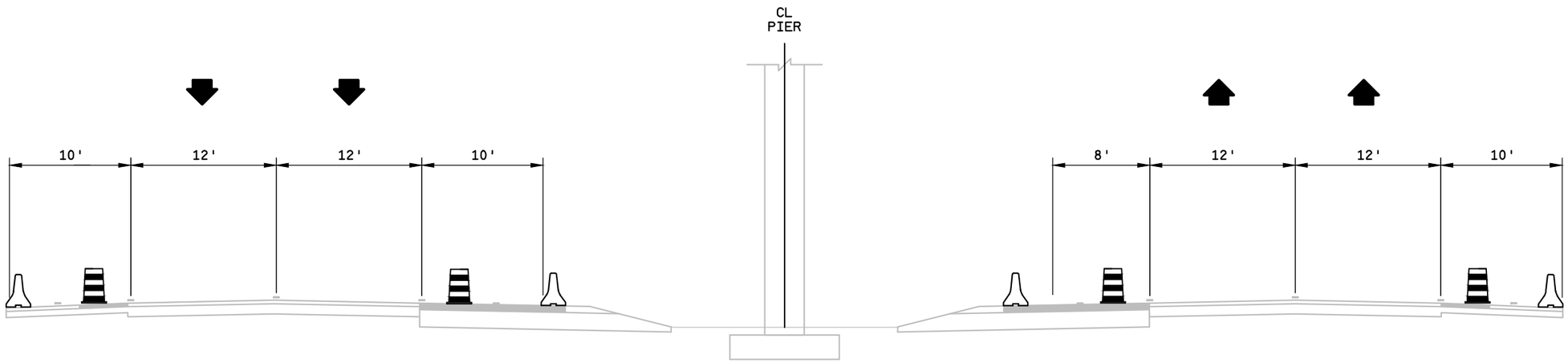
DURING NIGHT TIME HOURS:

CLOSE OUTSIDE LANES AND SHOULDERS.

OPEN TO TWO TRAFFIC LANES PER DIRECTION ALL OTHER TIMES.

CONSTRUCTION

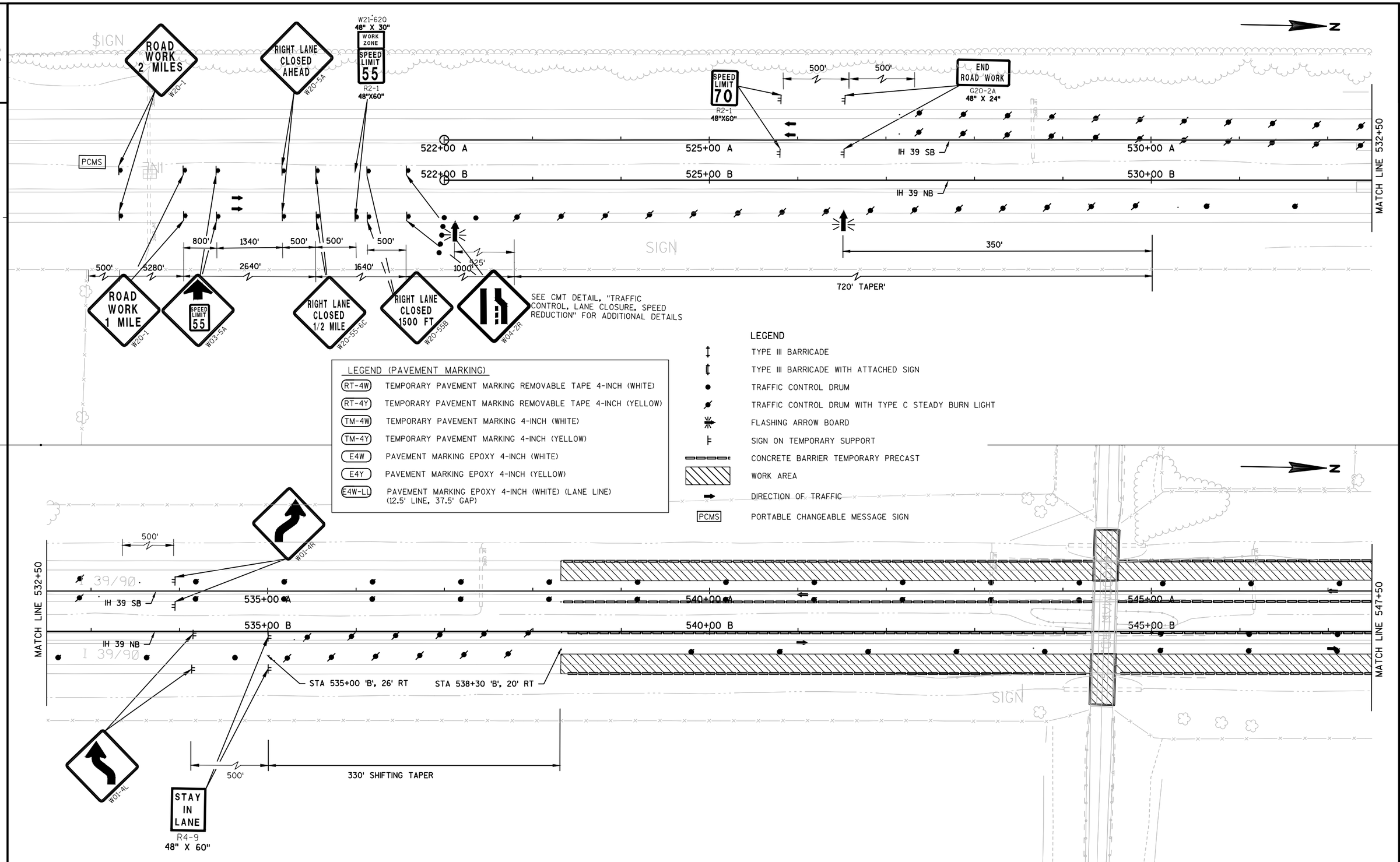
FORM DECK TO THE APPROXIMATE LIMITS AS SHOWN ON THE PLANS.



STAGE 11 - IH 39
(ALL TIMES EXCEPT DURING
NIGHT TIME OPERATIONS)

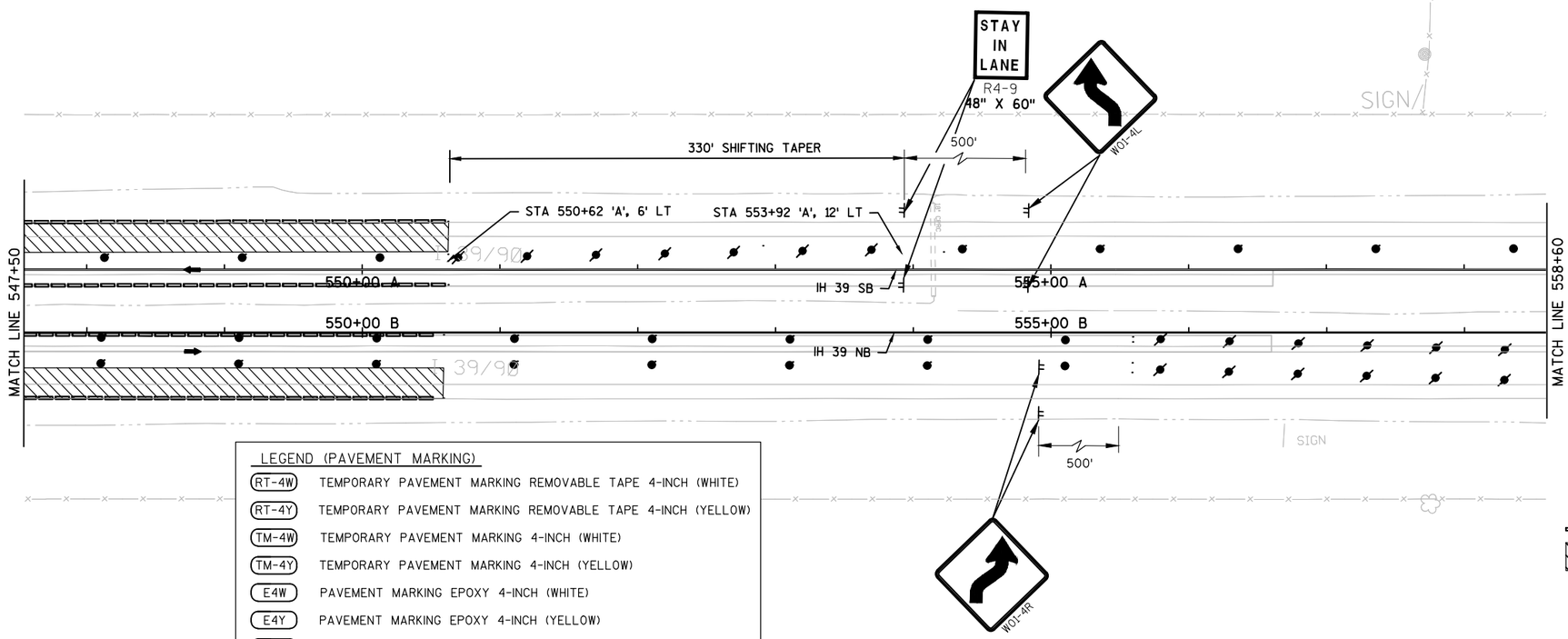
PROJECT NO: 1003-10-75	HWY: IH 39	COUNTY: ROCK	TRAFFIC CONTROL: TYPICAL SECTIONS	SHEET	E

FILE NAME : P:\8394 IH 39 AECOM\TRANSPORTATION\CAD\WOODMAN\SHEETSET\026001_S_TS.DWG PLOT DATE : 4/26/2013 2:33 PM PLOT BY : MOAZ KHAN PLOT NAME : ---------- PLOT SCALE : 1 IN:10 FT WISDOT/CADDS SHEET 42



PROJECT NO: 1003-10-75	HWY: IH 39	COUNTY: ROCK	TRAFFIC CONTROL: STAGE 11	SHEET 60	E

2

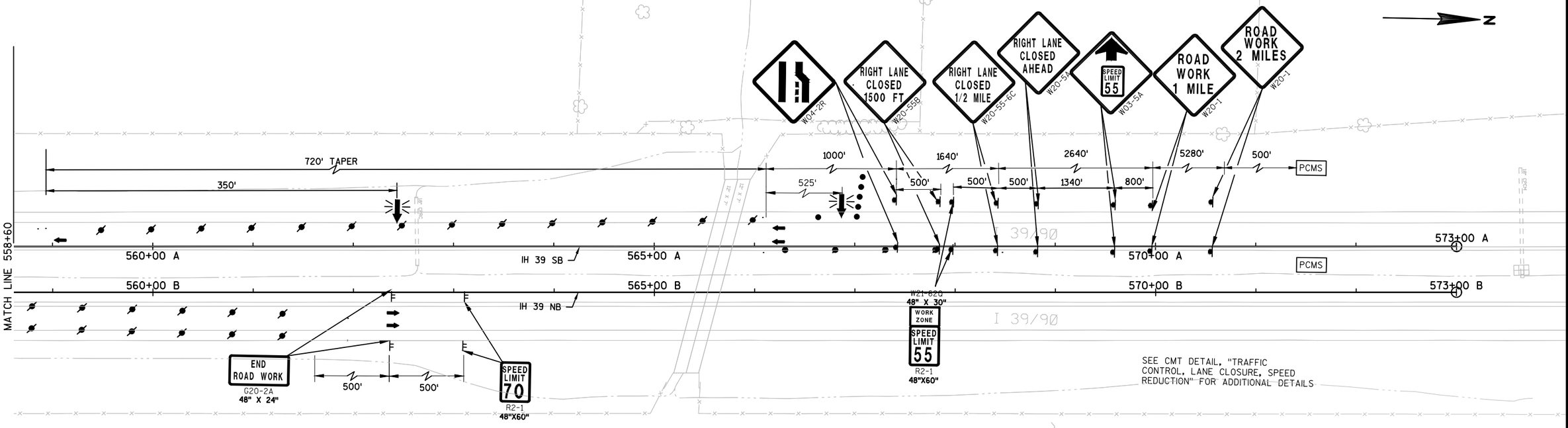


LEGEND (PAVEMENT MARKING)

RT-4W	TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (WHITE)
RT-4Y	TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (YELLOW)
TM-4W	TEMPORARY PAVEMENT MARKING 4-INCH (WHITE)
TM-4Y	TEMPORARY PAVEMENT MARKING 4-INCH (YELLOW)
E4W	PAVEMENT MARKING EPOXY 4-INCH (WHITE)
E4Y	PAVEMENT MARKING EPOXY 4-INCH (YELLOW)
E4W-LL	PAVEMENT MARKING EPOXY 4-INCH (WHITE) (LANE LINE) (12.5' LINE, 37.5' GAP)

LEGEND

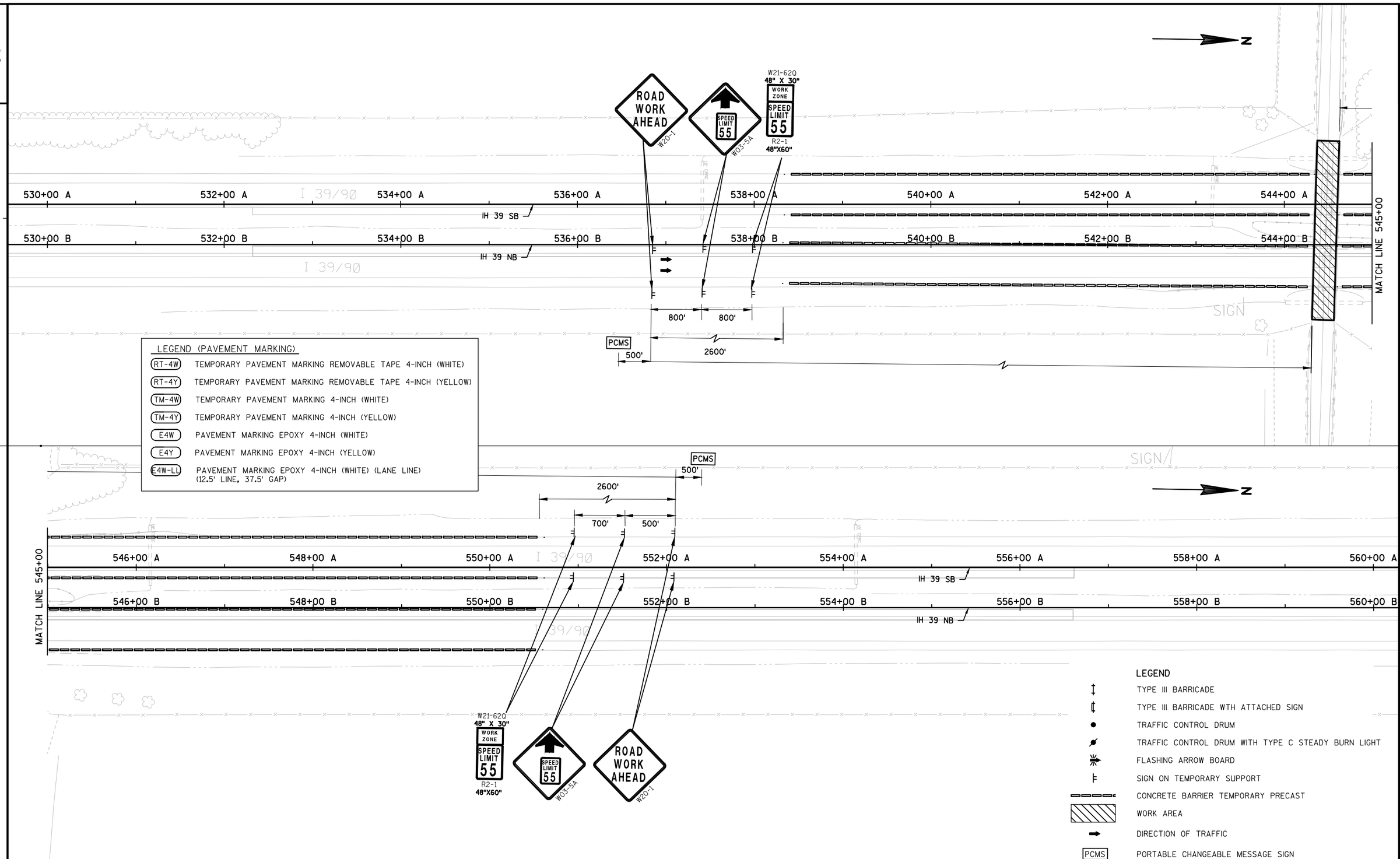
- TYPE III BARRICADE
- TYPE III BARRICADE WTH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON TEMPORARY SUPPORT
- CONCRETE BARRIER TEMPORARY PRECAST
- WORK AREA
- DIRECTION OF TRAFFIC
- PCMS — PORTABLE CHANGEABLE MESSAGE SIGN



PROJECT NO: 1003-10-75	HWY: IH 39	COUNTY: ROCK	TRAFFIC CONTROL: STAGE 11	SHEET	E

FILE NAME : P:\8394 IH 39 AECOM\TRANSPORTATION\CAD\WOODMAN\SHEETSET\026002_S11.DWG PLOT DATE : 4/8/2016 9:13 AM PLOT BY : MOAZ KHAN PLOT NAME : PLOT SCALE : 1:100_XREF

2



LEGEND (PAVEMENT MARKING)

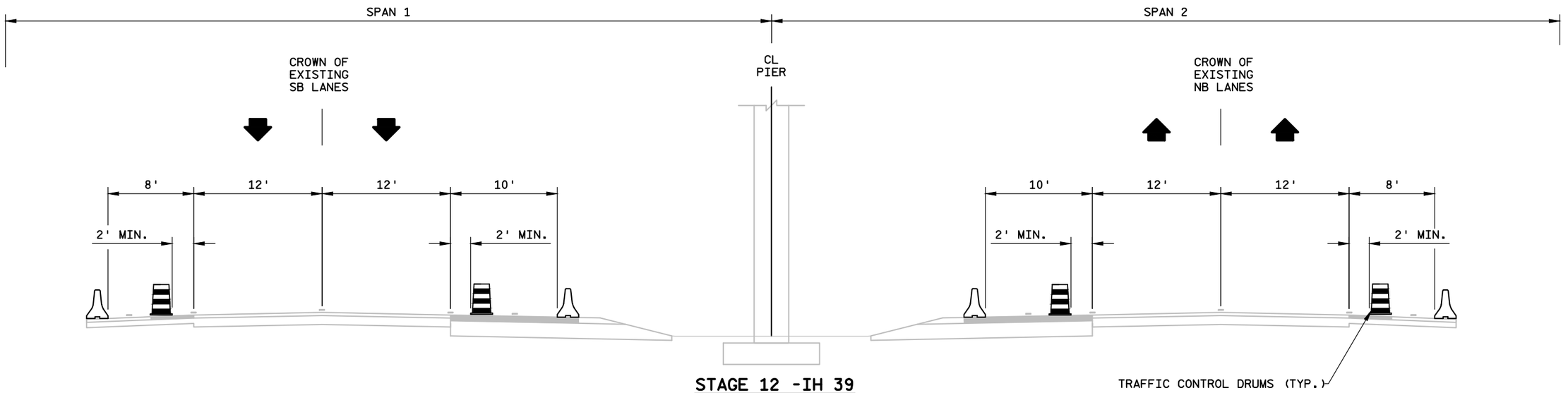
RT-4W	TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (WHITE)
RT-4Y	TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (YELLOW)
TM-4W	TEMPORARY PAVEMENT MARKING 4-INCH (WHITE)
TM-4Y	TEMPORARY PAVEMENT MARKING 4-INCH (YELLOW)
E4W	PAVEMENT MARKING EPOXY 4-INCH (WHITE)
E4Y	PAVEMENT MARKING EPOXY 4-INCH (YELLOW)
E4W-LL	PAVEMENT MARKING EPOXY 4-INCH (WHITE) (LANE LINE) (12.5' LINE, 37.5' GAP)

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WTH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON TEMPORARY SUPPORT
- CONCRETE BARRIER TEMPORARY PRECAST
- WORK AREA
- DIRECTION OF TRAFFIC
- PCMS — PORTABLE CHANGEABLE MESSAGE SIGN

PROJECT NO: 1003-10-75	HWY: IH 39	COUNTY: ROCK	TRAFFIC CONTROL: STAGE 12	SHEET	E

FILE NAME : P:\8394 IH 39 AECOM\TRANSPORTATION\CAD\WOODMAN\SHEETSET\026001_S12.DWG PLOT DATE : 4/8/2016 9:13 AM PLOT BY : MOAZ KHAN PLOT NAME : PLOT SCALE : 1:100_XREF
WISDOT/CADDS SHEET 42



STAGE 12 -IH 39

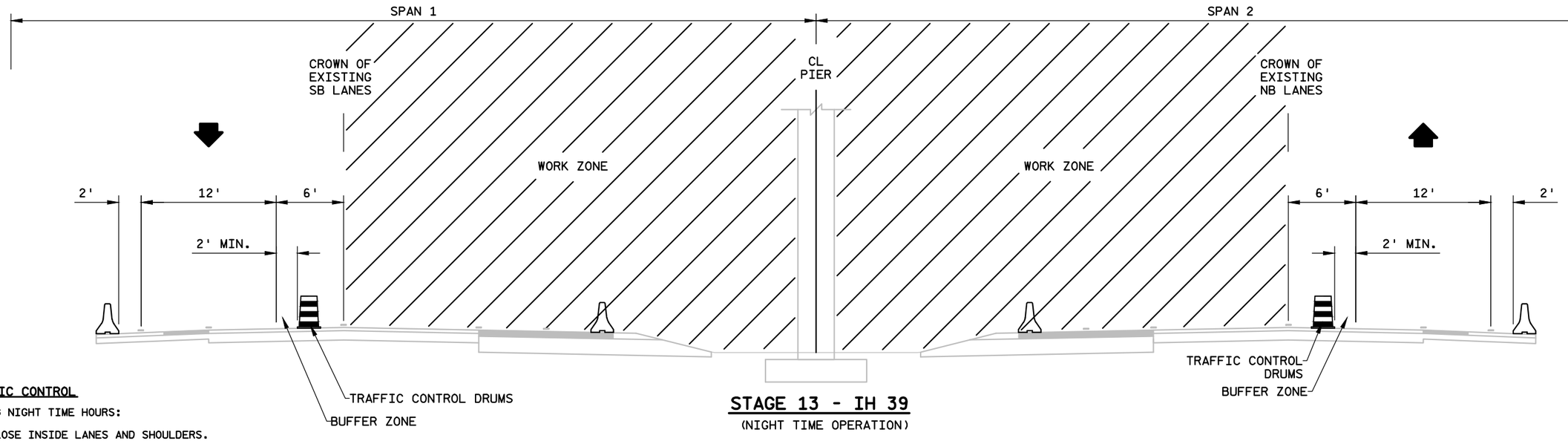
TRAFFIC CONTROL

MAINTAIN TWO TRAFFIC LANES PER DIRECTION.

CONSTRUCTION

PLACE STEEL AND POUR DECK.

PROJECT NO: 1003-10-75	HWY: IH 39	COUNTY: ROCK	TRAFFIC CONTROL: TYPICAL SECTIONS	SHEET 63	E



TRAFFIC CONTROL

DURING NIGHT TIME HOURS:

CLOSE INSIDE LANES AND SHOULDERS.

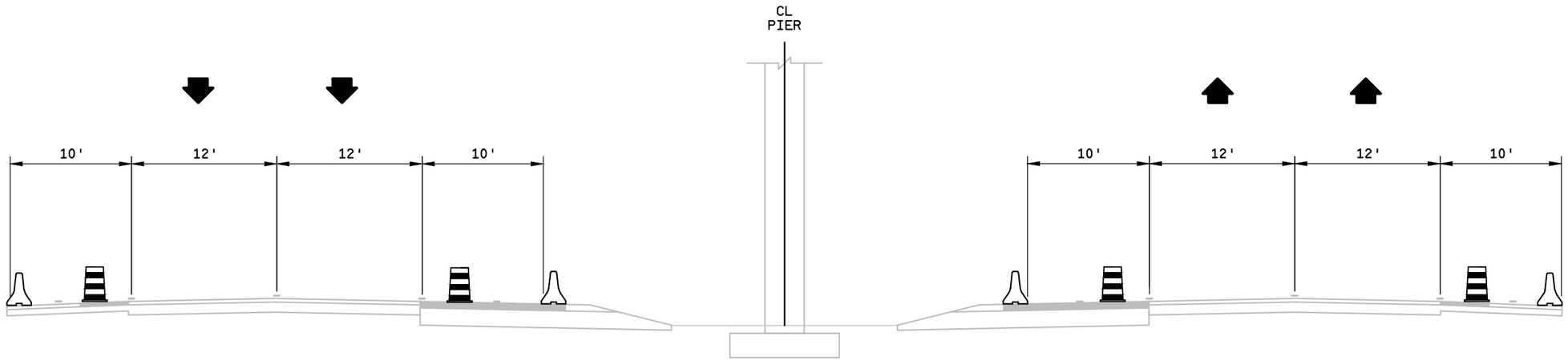
OPEN TO TWO TRAFFIC LANES PER DIRECTION ALL OTHER TIMES.

CONSTRUCTION

REMOVE FORMS AND FALSEWORK STRIPPING TO THE APPROXIMATE LIMITS AS SHOWN ON THE PLANS (INSIDE LANES AND MEDIAN).

STAGE 13 - IH 39

(NIGHT TIME OPERATION)

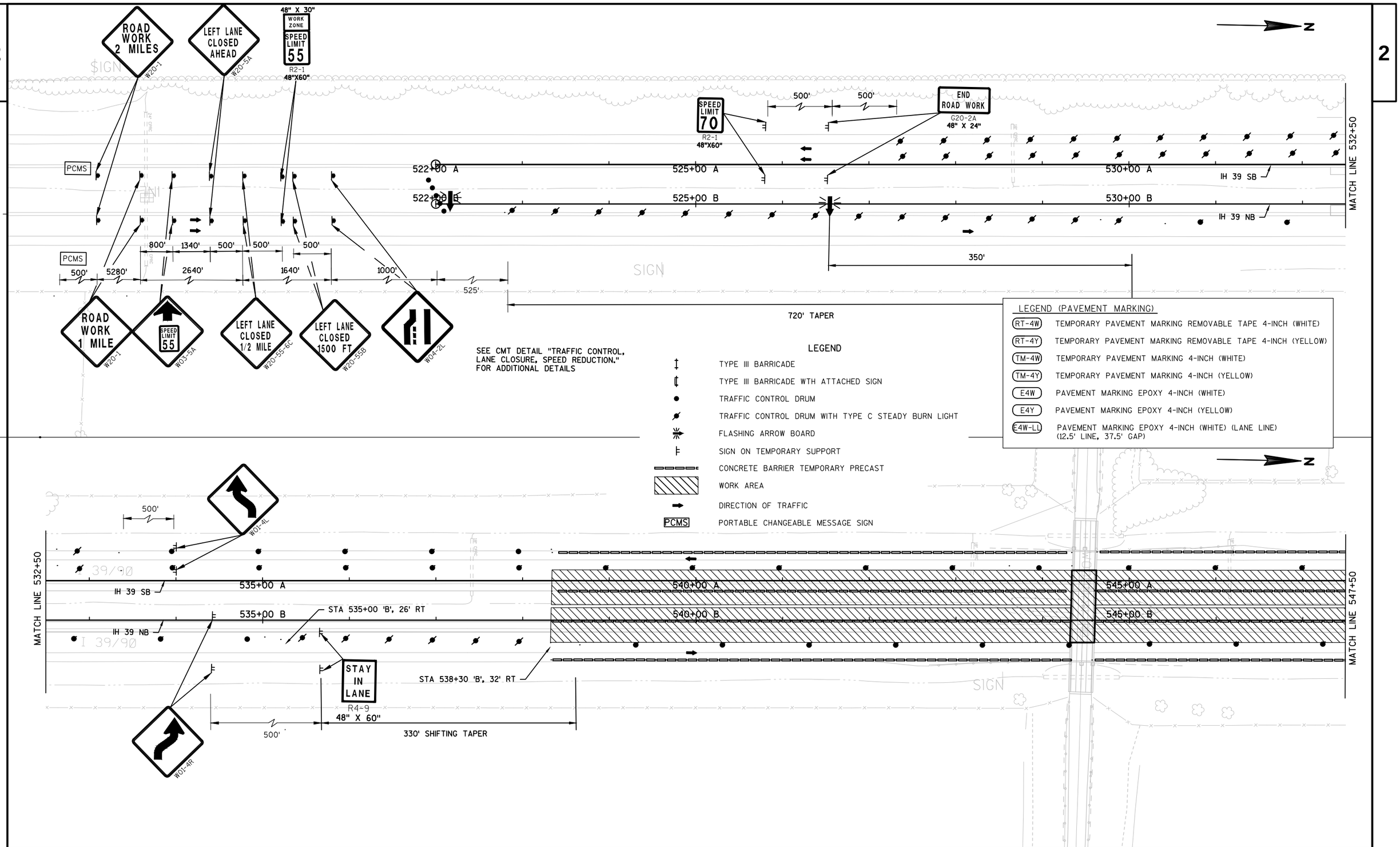


STAGE 13 - IH 39

(ALL TIMES EXCEPT DURING NIGHT TIME OPERATIONS)

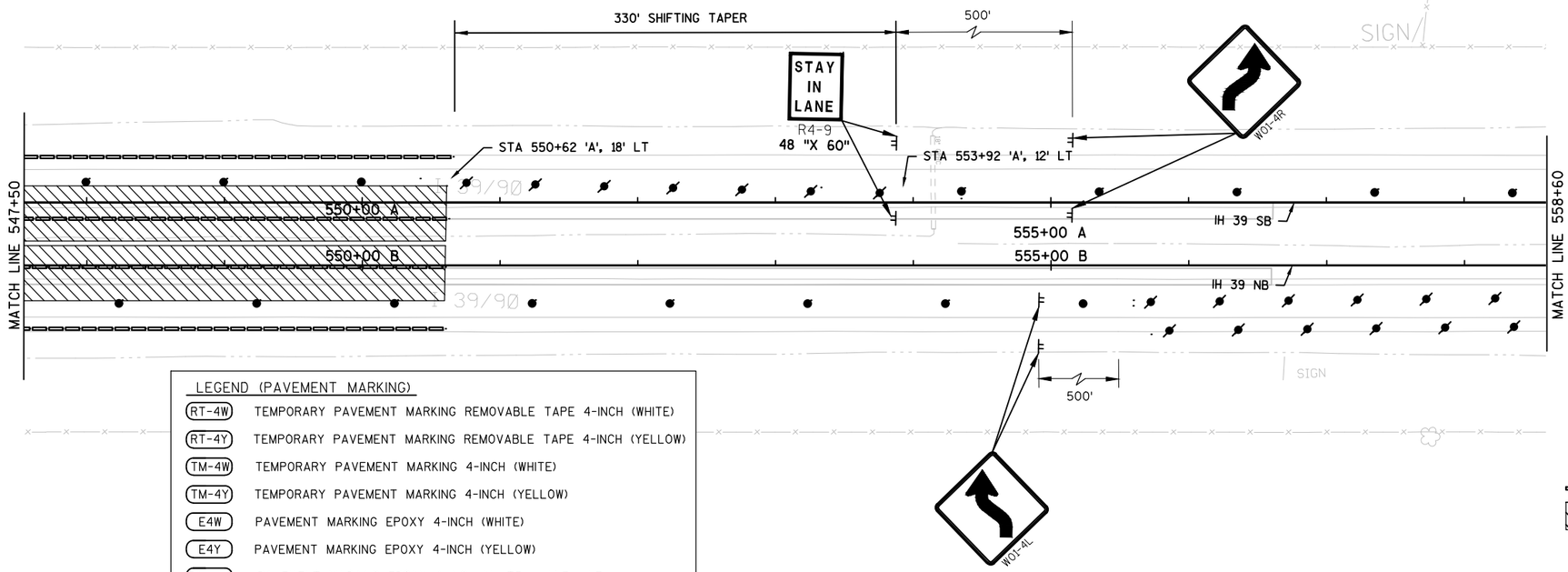
PROJECT NO: 1003-10-75	HWY: IH 39	COUNTY: ROCK	TRAFFIC CONTROL: TYPICAL SECTIONS	SHEET	E

FILE NAME : P:\8394 IH 39 AECOM\TRANSPORTATION\CAD\WOODMAN\SHEETSET\026001_S_TS.DWG PLOT DATE : 4/26/2013 2:33 PM PLOT BY : MOAZ KHAN PLOT NAME : ---------- PLOT SCALE : 1 IN:10 FT WISDOT/CADDS SHEET 42



PROJECT NO: 1003-10-75	HWY: IH 39	COUNTY: ROCK	TRAFFIC CONTROL: STAGE 13	SHEET	E

FILE NAME : P:\8394 IH 39 AECOM\TRANSPORTATION\CAD\WOODMAN\SHEETSET\026001_S13.DWG PLOT DATE : 4/8/2016 9:14 AM PLOT BY : MOAZ KHAN PLOT NAME : PLOT SCALE : 1:100_XREF
WISDOT/CADDS SHEET 42

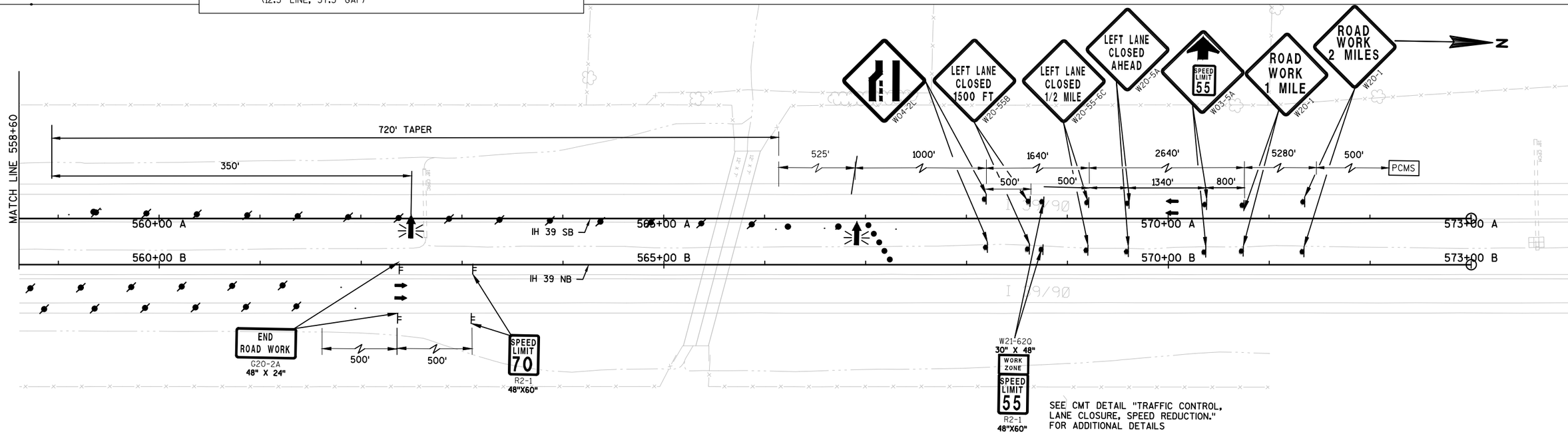


LEGEND (PAVEMENT MARKING)

RT-4W	TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (WHITE)
RT-4Y	TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (YELLOW)
TM-4W	TEMPORARY PAVEMENT MARKING 4-INCH (WHITE)
TM-4Y	TEMPORARY PAVEMENT MARKING 4-INCH (YELLOW)
E4W	PAVEMENT MARKING EPOXY 4-INCH (WHITE)
E4Y	PAVEMENT MARKING EPOXY 4-INCH (YELLOW)
E4W-LL	PAVEMENT MARKING EPOXY 4-INCH (WHITE) (LANE LINE) (12.5' LINE, 37.5' GAP)

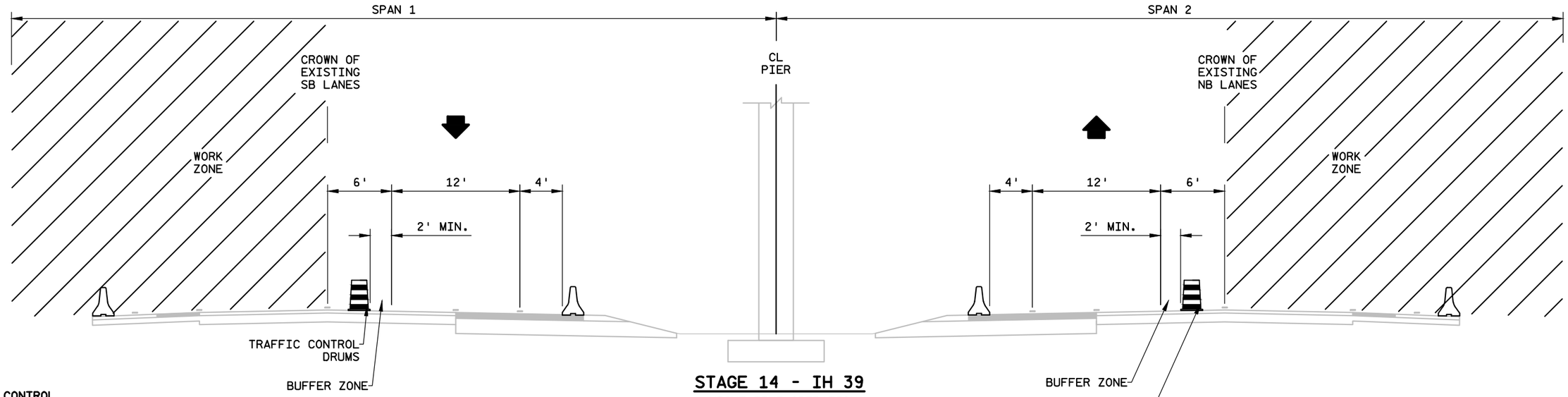
LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WTH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON TEMPORARY SUPPORT
- CONCRETE BARRIER TEMPORARY PRECAST
- WORK AREA
- DIRECTION OF TRAFFIC
- PCMS — PORTABLE CHANGEABLE MESSAGE SIGN



PROJECT NO: 1003-10-75	HWY: IH 39	COUNTY: ROCK	TRAFFIC CONTROL: STAGE 13	SHEET	E

FILE NAME : P:\8394 IH 39 AECOM\TRANSPORTATION\CAD\WOODMAN\SHEETSET\026002_S13.DWG PLOT DATE : 4/8/2016 9:14 AM PLOT BY : MOAZ KHAN PLOT NAME : PLOT SCALE : 1:100_XREF



STAGE 14 - IH 39
(NIGHT TIME OPERATION)

TRAFFIC CONTROL

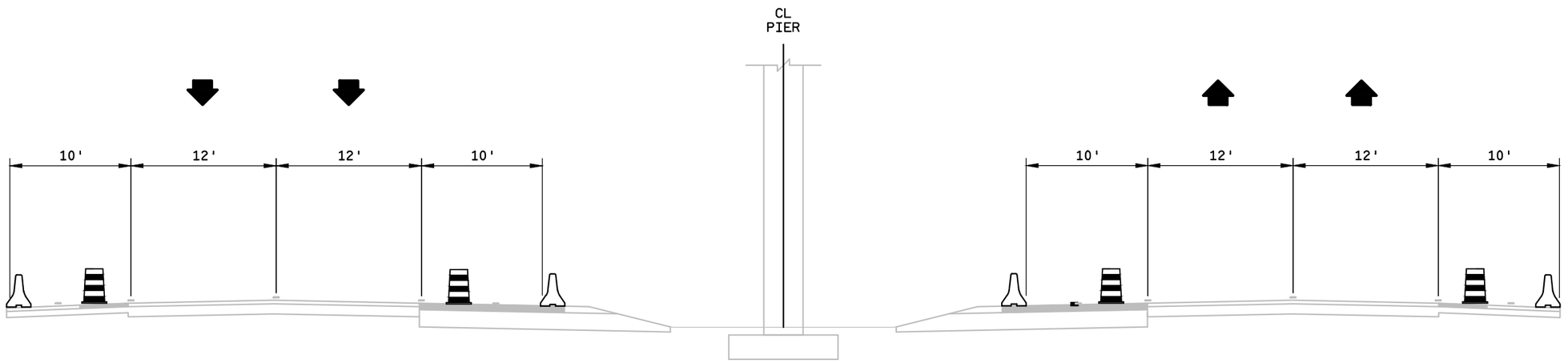
DURING NIGHT TIME HOURS:

CLOSE OUTSIDE LANES AND SHOULDERS.

OPEN TO TWO TRAFFIC LANES PER DIRECTION ALL OTHER TIMES.

CONSTRUCTION

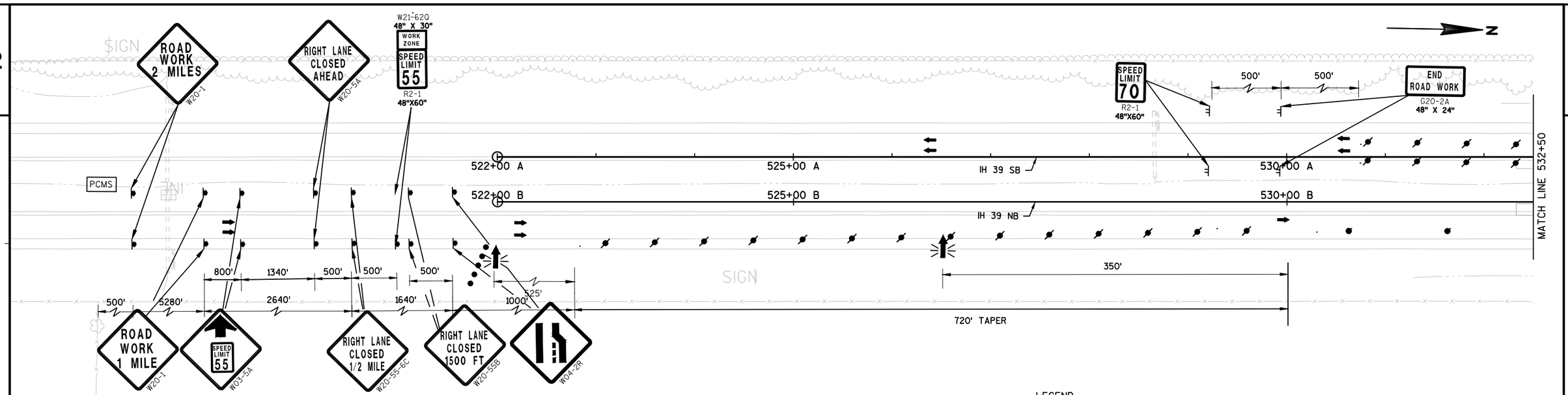
REMOVE FORMS AND FALSEWORK STRIPPING TO THE APPROXIMATE LIMITS AS SHOWN ON THE PLANS (OUTSIDE LANES).



STAGE 14 - IH 39
(ALL TIMES EXCEPT DURING NIGHT TIME OPERATIONS)

PROJECT NO: 1003-10-75	HWY: IH 39	COUNTY: ROCK	TRAFFIC CONTROL: TYPICAL SECTIONS	SHEET ___	E

FILE NAME : P:\8394 IH 39 AECOM\TRANSPORTATION\CAD\WOODMAN\SHEETSET\026001_S_TS.DWG PLOT DATE : 4/26/2013 2:33 PM PLOT BY : MOAZ KHAN PLOT NAME : ---------- PLOT SCALE : 1 IN:10 FT WISDOT/CADDS SHEET 42



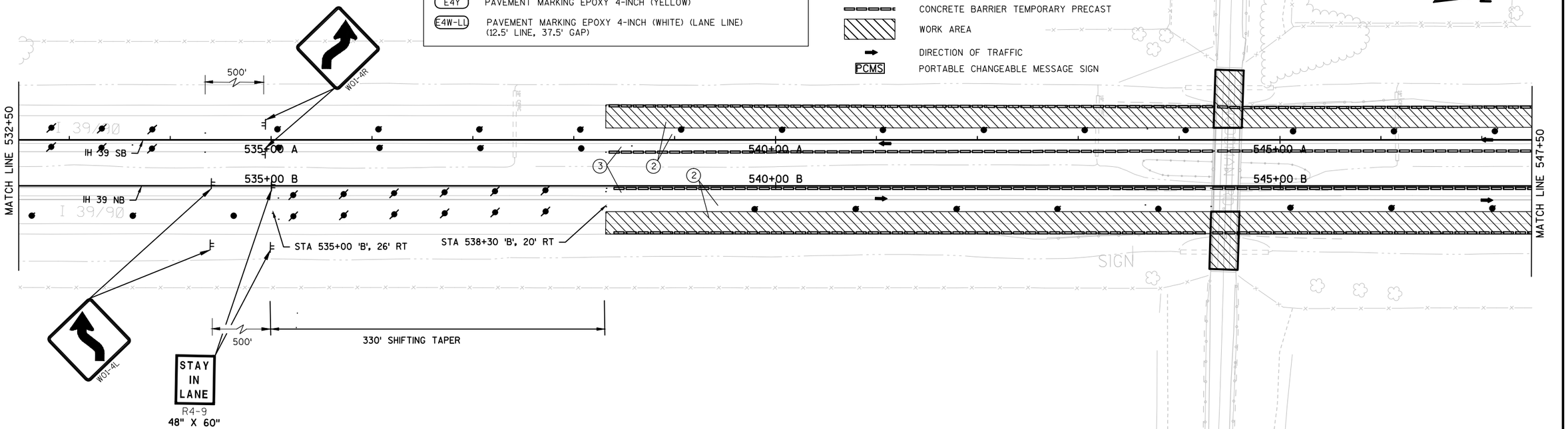
SEE CMT DETAIL, "TRAFFIC CONTROL, LANE CLOSURE, SPEED REDUCTION" FOR ADDITIONAL DETAILS

LEGEND (PAVEMENT MARKING)

RT-4W	TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (WHITE)
RT-4Y	TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (YELLOW)
TM-4W	TEMPORARY PAVEMENT MARKING 4-INCH (WHITE)
TM-4Y	TEMPORARY PAVEMENT MARKING 4-INCH (YELLOW)
E4W	PAVEMENT MARKING EPOXY 4-INCH (WHITE)
E4Y	PAVEMENT MARKING EPOXY 4-INCH (YELLOW)
E4W-LL	PAVEMENT MARKING EPOXY 4-INCH (WHITE) (LANE LINE) (12.5' LINE, 37.5' GAP)

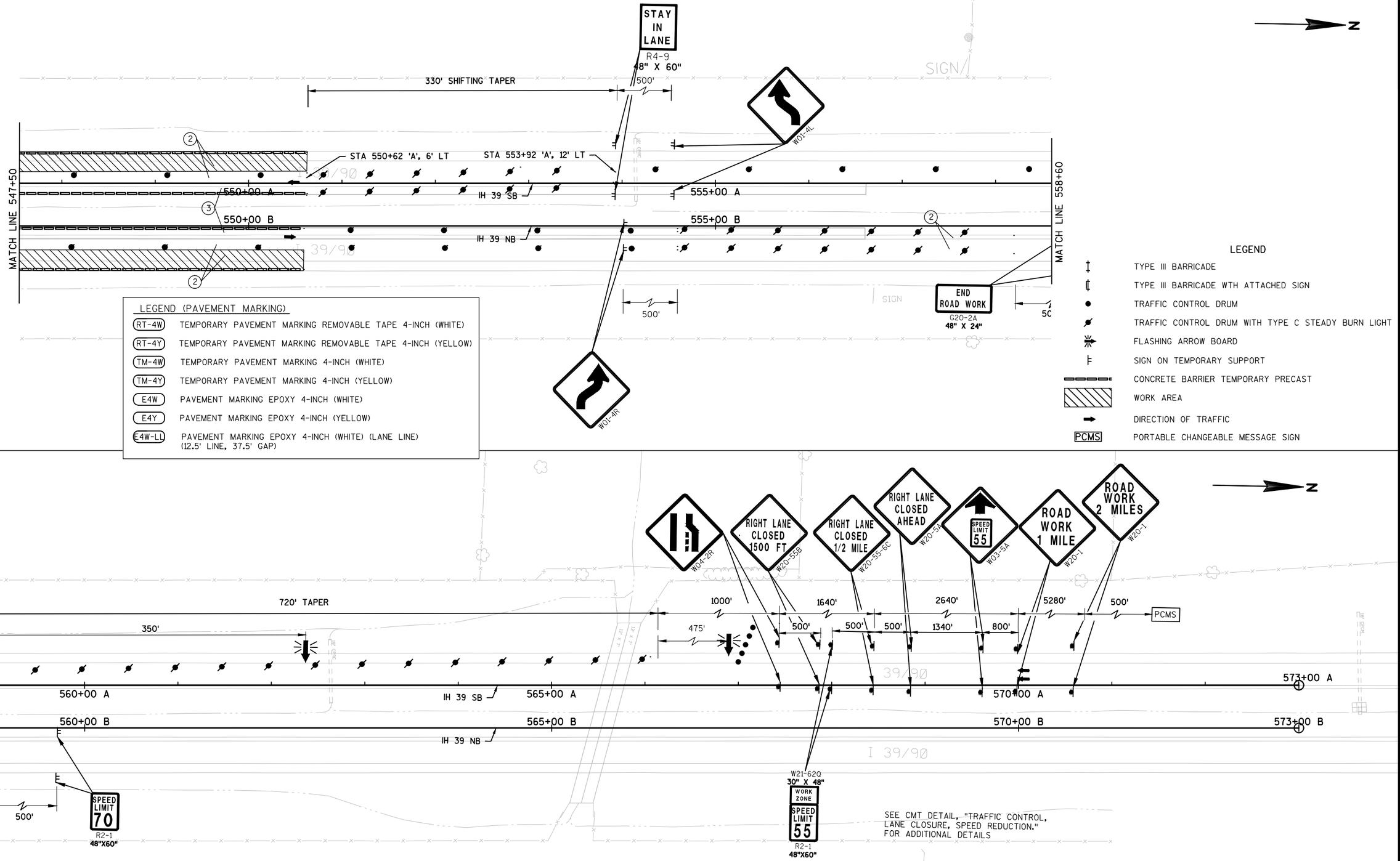
LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WTH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON TEMPORARY SUPPORT
- CONCRETE BARRIER TEMPORARY PRECAST
- WORK AREA
- DIRECTION OF TRAFFIC
- PCMS — PORTABLE CHANGEABLE MESSAGE SIGN

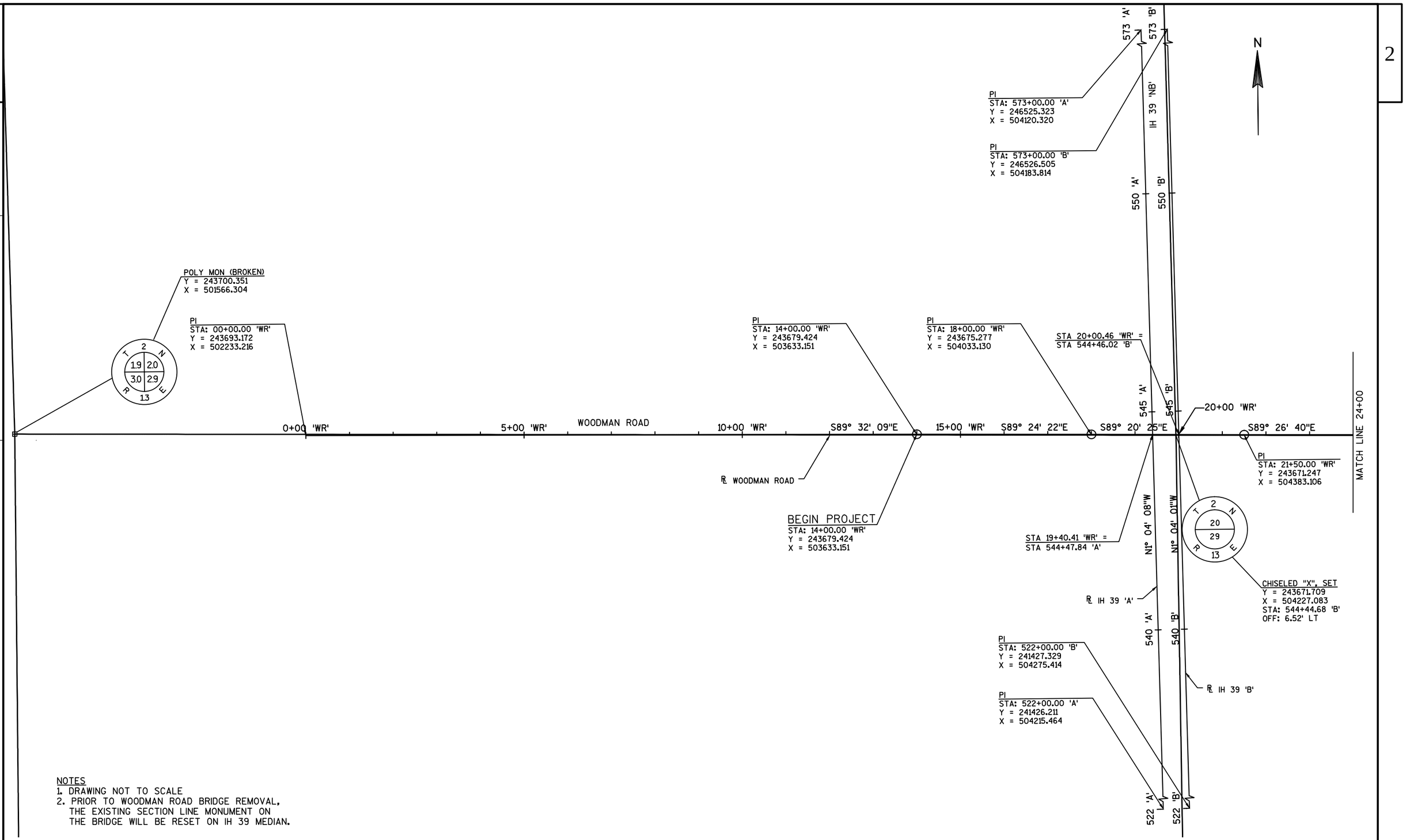


PROJECT NO: 1003-10-75	HWY: IH 39	COUNTY: ROCK	TRAFFIC CONTROL: STAGE 14	SHEET	E

FILE NAME : P:\8394 IH 39 AECOM\TRANSPORTATION\CAD\WOODMAN\SHEETSET\026001_S14.DWG PLOT DATE : 4/8/2016 9:14 AM PLOT BY : MOAZ KHAN PLOT NAME : PLOT SCALE : 1:100_XREF



PROJECT NO: 1003-10-75	HWY: IH 39	COUNTY: ROCK	TRAFFIC CONTROL: STAGE 14	SHEET 69	E



NOTES
1. DRAWING NOT TO SCALE
2. PRIOR TO WOODMAN ROAD BRIDGE REMOVAL, THE EXISTING SECTION LINE MONUMENT ON THE BRIDGE WILL BE RESET ON IH 39 MEDIAN.

PROJECT NO:1003-10-75	HWY: IH 39	COUNTY: ROCK	ALIGNMENT PLAN	SHEET 70	E

2

2

N

PK NAIL FOUND
Y = 243643.107
X = 506887.875

T 2 N
2.0 2.1
2.9 2.8
R 1.3 E

PI
STA: 34+00.00 'WR'
Y = 243659.125
X = 505633.047

MATCH LINE 24+00

25+00 'WR' WOODMAN ROAD 30+00 'WR' S89° 26' 40"E 35+00 'WR' S89° 07' 44"E 39+70 'WR'

℄ WOODMAN ROAD

END PROJECT
STA: 34+00.00 'WR'

PROJECT NO: 1003-10-75	HWY: IH 39	COUNTY: ROCK	ALIGNMENT PLAN	SHEET 71	E

DATE 13APR16 E S T I M A T E O F Q U A N T I T I E S

LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	1003-10-75 QUANTITY
0010	201.0105	Clearing	STA	5.000	5.000
0020	201.0205	Grubbing	STA	5.000	5.000
0030	203.0100	Removing Small Pipe Culverts	EACH	2.000	2.000
0060	203.0200	Removing Old Structure (station) 003. STATION 19+66.99 'WR'	LS	1.000	1.000
0090	203.0225.S	Debris Containment (structure) 003. B-53-38	LS	1.000	1.000
0100	204.0100	Removing Pavement	SY	1,696.000	1,696.000
0120	204.0120	Removing Asphaltic Surface Milling	SY	2,160.000	2,160.000
0130	204.0157	Removing Concrete Barrier	LF	163.000	163.000
0140	204.0165	Removing Guardrail	LF	2,162.000	2,162.000
0150	204.0170	Removing Fence	LF	642.000	642.000
0180	204.0210	Removing Manholes	EACH	1.000	1.000
0220	205.0100	Excavation Common	CY	8,579.000	8,579.000
0250	206.1000	Excavation for Structures Bridges (structure) 003. B-53-319	LS	1.000	1.000
0260	210.0100	Backfill Structure	CY	480.000	480.000
0300	213.0100	Finishing Roadway (project) 003. 1003-10-75	EACH	1.000	1.000
0330	305.0110	Base Aggregate Dense 3/4-Inch	TON	784.000	784.000
0340	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	12,015.000	12,015.000
0350	305.0130	Base Aggregate Dense 3-Inch	TON	3,224.000	3,224.000
0370	415.0070	Concrete Pavement 7-Inch	SY	42.000	42.000
0390	415.0410	Concrete Pavement Approach Slab	SY	84.000	84.000
0410	416.1010	Concrete Surface Drains	CY	6.000	6.000
0440	455.0605	Tack Coat	GAL	341.000	341.000
0450	460.2000	Incentive Density HMA Pavement	DOL	2,390.000	2,390.000
0470	460.5224	HMA Pavement 4 LT 58-28 S	TON	1,305.000	1,305.000
0480	460.7222	HMA Pavement 2 HT 58-28 S	TON	1,180.000	1,180.000
0500	460.7423	HMA Pavement 3 HT 58-28 H	TON	440.000	440.000
0510	460.7424	HMA Pavement 4 HT 58-28 H	TON	740.000	740.000
0540	502.0100	Concrete Masonry Bridges	CY	615.000	615.000
0550	502.3200	Protective Surface Treatment	SY	930.000	930.000
0560	502.3210	Pigmented Surface Sealer	SY	230.000	230.000
0570	503.0146	Prestressed Girder Type I 45W-Inch	LF	1,616.000	1,616.000
0580	505.0400	Bar Steel Reinforcement HS Structures	LB	9,710.000	9,710.000
0590	505.0600	Bar Steel Reinforcement HS Coated Structures	LB	94,860.000	94,860.000
0600	506.2605	Bearing Pads Elastomeric Non-Laminated	EACH	28.000	28.000
0630	506.4000	Steel Diaphragms (structure) 003. B-53-319	EACH	24.000	24.000
0650	511.1200	Temporary Shoring (structure) 003. B-53-319	SF	950.000	950.000
0670	516.0500	Rubberized Membrane Waterproofing	SY	26.000	26.000
0700	517.1010.S	Concrete Staining (structure) 003. B-53-319	SF	8,110.000	8,110.000
0710	520.8000	Concrete Collars for Pipe	EACH	7.000	7.000
0720	521.0124	Culvert Pipe Corrugated Steel 24-Inch	LF	130.000	130.000
0730	521.1012	Apron Endwalls for Culvert Pipe Steel 12-Inch	EACH	2.000	2.000
0740	521.1024	Apron Endwalls for Culvert Pipe Steel 24-Inch	EACH	4.000	4.000
0770	522.0130	Culvert Pipe Reinforced Concrete Class III 30-Inch	LF	168.000	168.000
0780	522.0142	Culvert Pipe Reinforced Concrete Class III 42-Inch	LF	305.000	305.000

3

DATE 13APR16 E S T I M A T E O F Q U A N T I T I E S

LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	1003-10-75 QUANTITY
0800	522.0318	Culvert Pipe Reinforced Concrete Class IV 18-Inch	LF	40.000	40.000
0880	522.1018	Apron Endwalls for Culvert Pipe Reinforced Concrete 18-Inch	EACH	1.000	1.000
0900	522.1030	Apron Endwalls for Culvert Pipe Reinforced Concrete 30-Inch	EACH	2.000	2.000
0940	524.0618	Apron Endwalls for Culvert Pipe Salvaged 18-Inch	EACH	1.000	1.000
0950	550.2126	Piling CIP Concrete 12 3/4 X 0.375-Inch	LF	1,825.000	1,825.000
0980	603.8000	Concrete Barrier Temporary Precast Delivered	LF	5,040.000	5,040.000
0990	603.8125	Concrete Barrier Temporary Precast Installed	LF	10,080.000	10,080.000
1000	604.0500	Slope Paving Crushed Aggregate	SY	353.000	353.000
1010	606.0200	Riprap Medium	CY	59.000	59.000
1050	611.0642	Inlet Covers Type MS	EACH	2.000	2.000
1060	611.0654	Inlet Covers Type V	EACH	2.000	2.000
1070	611.3220	Inlets 2x2-FT	EACH	2.000	2.000
1090	611.3901	Inlets Median 1 Grate	EACH	2.000	2.000
1120	612.0212	Pipe Underdrain Unperforated 12-Inch	LF	86.000	86.000
1130	612.0406	Pipe Underdrain Wrapped 6-Inch	LF	260.000	260.000
1150	614.0150	Anchor Assemblies for Steel Plate Beam Guard	EACH	4.000	4.000
1160	614.0220	Steel Thrie Beam Bullnose Terminal	EACH	2.000	2.000
1170	614.0230	Steel Thrie Beam	LF	125.000	125.000
1190	614.0905	Crash Cushions Temporary	EACH	4.000	4.000
1200	614.2300	MGS Guardrail 3	LF	175.000	175.000
1220	614.2500	MGS Thrie Beam Transition	LF	118.200	118.200
1230	614.2610	MGS Guardrail Terminal EAT	EACH	4.000	4.000
1260	616.0100	Fence Woven Wire (height) 002. 4-Ft	LF	288.000	288.000
1310	618.0100	Maintenance And Repair of Haul Roads (project) 003. 1003-10-75	EACH	1.000	1.000
1340	619.1000	Mobilization	EACH	0.200	0.200
1350	621.0100	Landmark Reference Monuments	EACH	4.000	4.000
1360	624.0100	Water	MGAL	1,660.000	1,660.000
1370	625.0500	Salvaged Topsoil	SY	33,874.000	33,874.000
1380	627.0200	Mulching	SY	375.000	375.000
1390	628.1504	Silt Fence	LF	4,858.000	4,858.000
1400	628.1520	Silt Fence Maintenance	LF	4,858.000	4,858.000
1410	628.1905	Mobilizations Erosion Control	EACH	2.000	2.000
1420	628.1910	Mobilizations Emergency Erosion Control	EACH	2.000	2.000
1430	628.2004	Erosion Mat Class I Type B	SY	33,874.000	33,874.000
1470	628.7005	Inlet Protection Type A	EACH	2.000	2.000
1480	628.7010	Inlet Protection Type B	EACH	2.000	2.000
1510	628.7504	Temporary Ditch Checks	LF	349.000	349.000
1520	628.7555	Culvert Pipe Checks	EACH	6.000	6.000
1540	629.0205	Fertilizer Type A	CWT	21.340	21.340
1550	630.0110	Seeding Mixture No. 10	LB	122.000	122.000
1580	630.0175	Seeding Mixture No. 75	LB	336.000	336.000
1590	630.0200	Seeding Temporary	LB	916.000	916.000
1770	642.5201	Field Office Type C	EACH	0.200	0.200
1800	643.0200	Traffic Control Surveillance and Maintenance (project) 003. 1003-10-75	DAY	120.000	120.000
1830	643.0300	Traffic Control Drums	DAY	7,222.000	7,222.000
1840	643.0420	Traffic Control Barricades Type III	DAY	1,716.000	1,716.000

3

DATE 13APR16 E S T I M A T E O F Q U A N T I T I E S

LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	1003-10-75 QUANTITY
1850	643.0705	Traffic Control Warning Lights Type A	DAY	576.000	576.000
1870	643.0715	Traffic Control Warning Lights Type C	DAY	2,230.000	2,230.000
1880	643.0800	Traffic Control Arrow Boards	DAY	236.000	236.000
1890	643.0900	Traffic Control Signs	DAY	3,956.000	3,956.000
1910	643.1050	Traffic Control Signs PCMS	DAY	308.000	308.000
1930	645.0120	Geotextile Fabric Type HR	SY	348.000	348.000
1940	646.0106	Pavement Marking Epoxy 4-Inch	LF	19,660.000	19,660.000
1980	646.0600	Removing Pavement Markings	LF	17,700.000	17,700.000
2000	649.0400	Temporary Pavement Marking Removable Tape 4-Inch	LF	12,640.000	12,640.000
2020	649.0403	Temporary Pavement Marking Epoxy 4-Inch	LF	11,500.000	11,500.000
2050	652.0125	Conduit Rigid Metallic 2-Inch	LF	48.000	48.000
2060	652.0225	Conduit Rigid Nonmetallic Schedule 40 2-Inch	LF	1,130.000	1,130.000
2090	653.0140	Pull Boxes Steel 24x42-Inch	EACH	4.000	4.000
2100	653.0222	Junction Boxes 18x12x6-Inch	EACH	4.000	4.000
2140	690.0150	Sawing Asphalt	LF	39.000	39.000
2150	690.0250	Sawing Concrete	LF	3,815.000	3,815.000
2160	715.0415	Incentive Strength Concrete Pavement	DOL	500.000	500.000
2170	715.0502	Incentive Strength Concrete Structures	DOL	3,648.000	3,648.000
2180	SPV.0035	Special 001. Roadway Embankment	CY	46,493.000	46,493.000
2190	SPV.0060	Special 001. Baseline CPM Progress Schedule	EACH	0.200	0.200
2200	SPV.0060	Special 002. CPM Progress Schedule Updates and Accepted Revisions	EACH	2.000	2.000
2210	SPV.0060	Special 003. Access Gate 6-Foot	EACH	2.000	2.000
2220	SPV.0060	Special 004. Salvage Terminal High-Tension Cable TL-3, Gibraltar	EACH	3.000	3.000
2230	SPV.0060	Special 005. Reinstall Terminal High-Tension Cable TL-3, Gibraltar	EACH	3.000	3.000
2270	SPV.0090	Special 001. Salvage High-Tension Cable TL-3, Socketed Gibraltar	LF	1,017.000	1,017.000
2280	SPV.0090	Special 002. Reinstall High-Tension Cable TL-3, Socketed Gibraltar	LF	1,017.000	1,017.000
2360	SPV.0090	Special 750. Fence Chain Link Polymer-Coated 6-Ft.	LF	546.000	546.000
2380	SPV.0105	Special 002. Survey Project 1003-10-75	LS	1.000	1.000

3

From / To Station	Location	Common Excavation (CY) (1) 205.0100		Fill (CY)	Roadway Embankment (CY) (4) SPV.0035.001	Mass Ordinate + / - (5)	Comment:
		Cut (CY) (2)	EBS (CY) (3)				
14+00 - 18+36	Woodman Road	888	0	3741	3741	-2853	
21+05 - 34+00	Woodman Road	253	0	39040	39040	-38787	
		1141	0	42781	42781	-41640	
532+50 - 555+00	IH 39	4590	2848	864	3712	3726	
		4590	2848	864	3712	3726	
		5731	2848	43645			
		Total Common Excavation:	8579		46493		

1) Common Excavation is the sum of the Cut and EBS Excavation columns. Item number 205.0100.
2) Cut volume includes concrete and asphaltic surface material.
3) EBS Excavation to be backfilled with Roadway Embankment.
4) Roadway Embankment = (Fill + EBS Excavation)Salvaged/Unusable Pavement Material
Depending on selections:
5) The Mass Ordinate + or - Qty calculated for the Division. Plus quantity indicates an excess of material within the Division. Minus indicates a shortage of material within the Division.
Mass Ordinate = Cut - Fill. The Mass Ordinate is for information purposes only as Common Excavation and Roadway Embankment are not balanced for quantity purposes and does not guarantee the quality of Common Excavation, and if it can be reused onsite.

FILE NAME : P://8394 IH 39 AECOM/TRANSPORTATION/CADD/WOODMAN/SHEETSET/030201_mq.ppt PLOT DATE : 4/8/2016 5:26:24 PM PLOT BY : AJAY SINGH PLOT NAME : 030201_mq PLOT SCALE : 1:1

CLEARING AND GRUBBING

CATEGORY			LOCATION	201.0105 CLEARING STA	201.0205 GRUBBING STA
1000	WOODMAN ROAD				
	STA	STA			
	16+00 -	19+00	LT	3	3
	18+00 -	19+00	RT	1	1
	20+00 -	21+00	RT	1	1
				5	5

REMOVING GUARDRAIL

CATEGORY	STATION	LOCATION	204.0165 REMOVING GUARDRAIL LF	REMARKS
1000	WOODMAN ROAD			
	14+77 - 18+66	RT	389	
	16+13 - 18+65	LT	253	
	20+75 - 24+97	RT	422	
	20+75 - 25+76	LT	528	
	IH 39 MAINLINE			
	543+63 A- 545+30 A	RT	351	
	542+70 B - 543+80 B	RT	110	
	545+13 A - 546+23 A	LT	110	
	TOTAL		**2,162**	

3

REMOVING SMALL PIPE CULVERTS

CATEGORY	STATION	LOCATION	SIZE INCHES	LENGTH FEET	203.0100 REMOVING SMALL PIPE CULVERT EACH
1000	WOODMAN ROAD				
	22+90	-	24	93	1
	IH 39 MAINLINE				
	546+16'A'	-	18	21	1
	TOTAL				2

PAVEMENT REMOVAL

CATEGORY	STATION		204.0100 REMOVING PAVEMENT SY	204.0120 REMOVING ASPHALTIC SURFACE MILING SY
1000	IH 39 MAINLINE			
	532+30 A - 556+60 A	LT	-	1080
	542+75 A - 556+60 A	RT	616	-
	532+30 B - 556+60 B	LT	1,080	-
	532+30 B - 556+60 B	RT	-	1080
	TOTAL		1,696	2160

FILE NAME : P://8394 IH 39 AECOM/TRANSPORTATION/CADD/WOODMAN/SHEETSET/030201_mq.ppt PLOT DATE : 4/7/2016 4:32:44 PM PLOT BY : AJAY SINGH PLOT NAME : 030201_mq PLOT SCALE : 1:1

REMOVING CONCRETE BARRIER

CATEGORY	STATION	LOCATION	204.0157 REMOVING CONCRETE BARRIER LF
010	IH 39 MAINLINE		
	543+78 B - 544+60 B	RT	82
	544+34 A - 545+15 A	LT	81
	TOTAL		**163**

REMOVING FENCE

CATEGORY	STATION	LOCATION	204.0170 REMOVING FENCE LF
1000	WOODMAN ROAD		
	15+25 - 18+62	LT	331
	15+25 - 18+62	RT	311
	TOTAL		642

REMOVING MANHOLES

CATEGORY	STATION	LOCATION	204.0210 REMOVING MANHOLES EACH
1000	WOODMAN ROAD		
	18+52	18' RT	1
	TOTAL		1

3

FILE NAME : P://8394 IH 39 AECOM/TRANSPORTATION/CADD/WOODMAN/SHEETSET/030201_mq.ppt PLOT DATE : 4/7/2016 4:32:44 PM PLOT BY : AJAY SINGH PLOT NAME : 030201_mq PLOT SCALE : 1:1

FINISHING ROADWAY

CATEGORY	STATION	213.0100 FINISHING ROADWAY EACH
1000	WOODMAN ROAD	
	14+00 - 34+00	1
	TOTAL	1

BASE AGGREGATE ITEMS

CATEGORY	STATION	LOCATION	305.0110 BASE AGGREGATE DENSE 3/4-INCH TON	305.0120 BASE AGGREGATE DENSE 1-1/4 INCH TON	305.0130 BASE AGGREGATE DENSE 3-INCH TON	624.0100 WATER MGAL
1000	WOODMAN ROAD					
	14+00 - 18+38.33		46	1,000	836	180
	21+01.67 - 34+00		88	2,845	2,388	509
	IH 39 MAINLINE					
	532+30 A - 542+75 A	MEDIAN	140	-	-	140
	542+75 A - 556+60 A	MEDIAN	185	2,966	-	302
	532+33 B - 556+60 B	MEDIAN	325	5,204	-	529
	TOTAL		784	12,015	3,224	1,660

CONCRETE ITEMS

CATEGORY	STATION	LOCATION	415.0070 CONCRETE PAVEMENT 7-INCH SY	415.0410 CONCRETE PAVEMENT APPROACH SLAB SY	416.1010 CONCRETE SURFACE DRAIN CY	715.0415 INCENTIVE STRENGTH CONCRETE PAVEMENT DOL
1000	WOODMAN ROAD					
	18+16.17 - 18+37.75	LT & RT	-	-	6	
	18+38.33 - 18+54	LT & RT	21	42	-	250
	20+86 - 21+01.67	LT & RT	21	42	-	250
	TOTAL		42	84	6	500

ASPHALTIC ITEMS

CATEGORY	STATION	LOCATION	455.0605 TACK COAT GAL	460.2000 INCENTIVE DENSITY HMA PAVEMENT DOL	460.5224 HMA PAVEMENT 4 LT 58-28 S TON	460.7222 HMA PAVEMENT 2 HT 58-28 S TON	460.7423 HMA PAVEMENT 3 HT 58-28 H TON	460.7424 HMA PAVEMENT 4 HT 58-28 H TON	REMARKS
1000	WOODMAN ROAD								
	14+00 - 18+33	LT & RT	40	220	330	-	-	-	-
	21+06 - 34+00	LT&RT	120	630	975	-	-	-	-
	IH 39 MAINLINE								
	542+75 A - 556+60 A	RT	46	450	-	430	-	270	MEDIAN
	532+30 A - 556+60 A	LT	27	150	-	-	220	-	OUTSIDE SHOULDER
	532+30 B - 556+60 B	LT	81	790	-	750	-	470	MEDIAN
	532+30 B - 556+60 B	RT	27	150	-	-	220	-	OUTSIDE SHOULDER
	TOTAL		341	2,390	1,305	1,180	440	740	

STORM SEWER AND CULVERT SUMMARY

CATEGORY	STATION		521.1012 APRON ENDWALLS FOR CULVERT PIPE STEEL 12-INCH EACH	521.1024 APRON ENDWALLS FOR CULVERT PIPE STEEL 24-INCH EACH	522.1018 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 18-INCH EACH	522.1030 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 30-INCH EACH	INLET ELEV. FT	DISCH ELEV	SLOPE	520.8000 CONCRETE COLLARS FOR PIPE EACH	521.0124 CULVERT PIPE CORRUGATED STEEL 24-INCH LF	522.0130 CULVERT PIPE REINFORCED CONCRETE CLASS III 30-INCH LF	522.0142 CULVERT PIPE REINFORCED CONCRETE CLASS III 42-INCH LF	522.0318 CULVERT PIPE REINFORCED CONCRETE CLASS IV 18-INCH LF	524.0618 APRON ENDWALLS FOR CULVERT PIPE SALVAGED 18-INCH EACH	611.0642 INLET COVERS TYPE MS EACH	611.0654 INLET COVERS TYPE V EACH	611.3220 INLETS 2x2-FT EACH	611.3901 INLETS MEDIAN 1 GRATE EACH	612.0212 PIPE UNDERDRAIN UNPERFORATED 12-INCH LF	REMARKS
1000	WOODMAN ROAD																				
	22+90	LT &RT	-	-	-	-	831.59	830.93	0.39%	-	-	168	-	-	-	-	-	-	-	-	
	22+90	79.8' RT	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	22+90	88.3' LT	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	18+16.15	LT & RT	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	2	-	86	
	18+16.15	68.8' RT	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	18+16.15	66.9' LT	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	IH 39 MAINLINE																				
	543+18 A	RT	-	-	-	-	827.82	827.52	0.90%	1	-	-	-	11		1	-	-	1	-	EXTENSION
	543+67 B - 545+20	RT	-	-	-	-	824.71	824.21	0.33%	-	-	-	153	-	-	-	-	-	-	-	
	543+68 B - 544+01	RT	-	1	-	-	826.27	826.14	0.40%	1	33	-	-	-	-	-	-	-	-	-	EXTENSION
	544+88 B - 545+20	RT	-	1	-	-	825.80	825.77	0.40%	1	32	-	-	-	-	-	-	-	-	-	EXTENSION
	543+74 A - 545+26	LT	-	-	-	-	824.71	824.21	0.33%	-	-	-	152	-	-	-	-	-	-	-	
	543+73 A - 544+06	LT	-	1	-	-	826.39	826.26	0.40%	1	33	-	-	-	-	-	-	-	-	-	EXTENSION
	544+93 A - 545+25	LT	-	1	-	-	825.92	825.79	0.40%	1	32	-	-	-	-	-	-	-	-	-	EXTENSION
	546+16 A	LT	-	-	1	-	826.01	825.77	1.62%	-	-	-	-	21	-	-	-	-	-	-	REPLACEMENT
	546+16 A	RT	-	-	-	-	825.47	825.32	0.70%	1	-	-	-	8		1	-	-	1	-	EXTENSION
	554+15 A	RT	-	-	-	-	822.16	821.66	1.10%	1	-	-	-		1	-	-	-	-	-	EXTESNION
TOTAL			2	4	1	2				7	130	168	305	40	1	2	2	2	2	86	

BEAM GUARD ITEMS

CATEGORY	STATION	LOCATION	614.0220 STEEL THRIE BEAM BULLNOSE TERMINAL EACH	614.0230 STEEL THRIE BEAM LF	614.2300 MGS GUARDRAIL 3 LF	614.2500 MGS THRIE BEAM TRANSITION LF	614.2610 MGS GUARDRAIL TERMINAL EAT EACH
1000	WOODMAN ROAD						
	16+80.4 - 17+33.5	RT	-	-	-	-	1
	17+17.9 - 17+71.0	LT	-	-	-	-	1
	17+33.5 - 17+96.0	RT	-	-	62.5	-	-
	17+71.0 - 17+96.0	LT	-	-	25.0	-	-
	17+96.0 - 18+35.4	RT	-	-	-	39.4	-
	17+96.0 - 18+35.4	LT	-	-	-	39.4	-
	21+04.6 - 21+44.0	RT	-	-	-	39.4	-
	21+04.6 - 22+44.0	LT	-	-	-	39.4	-
	21+44.0 - 21+69.0	RT	-	-	25.0	-	-
	21+44.0 - 22+06.5	LT	-	-	62.5	-	-
	21+69.0 - 22+22.1	RT	-	-	-	-	1
	22+06.5 - 22+59.6	LT	-	-	-	-	1
	IH 39 MAINLINE						
	543+62.37 A -544+15.70 A	RT	1	-	-	-	-
	544+15.70 A - 544+78.20 A	RT	-	125	-	-	-
	544+78.20 A - 545+31.53 A	RT	1	-	-	-	-
	TOTAL		2	125	175.0	118.2	4

FENCE ITEMS

CATEGORY	STATION	LOCATION	616.0100 FENCE WOVEN WIRE (4-FT) LF
1000	WOODMAN RD		
	18+53.84	RT	64
	18+53.66	LT	66
	20+86.34	RT	75
	20+86.16	LT	83
	TOTAL		288

3

MAINTENANCE AND REPAIR OF HAUL ROADS

CATEGORY	LOCATION	618.0100 MAINTENANCE AND REPAIR OF HAUL ROADS EACH
1000	WOODMAN RD	1
	TOTAL	1

MOBILIZATION

CATEGORY	LOCATION	619.1000 MOBILIZATION EACH
1000	WOODMAN RD & IH 39 MAINLINE	0.2
	TOTAL	0.2

LANDMARK MONUMENTS

FOR REMOVAL OF S CORNER OF SEC 20, T 2N, R 13 E

CATEGORY	LOCATION	621.0100 LANDMARK REFERENCE MONUMENTS EACH
1000	WOODMAN RD	4
	TOTAL	4

3

EROSION MATERIALS

CATEGORY	STATION	LOCATION	606.0200 RIPRAP MEDIUM CY	628.2004 EROSION MAT CLASS 1 TYPE B SY	628.1504 SILT FENCE LF	628.1520 SILT FENCE MAINTENANCE LF	628.7005 INLET PROTECTION TYPE A EACH	628.7010 INLET PROTECTION TYPE B EACH	628.7504 TEMPORARY DITCH CHECK LF	628.7555 CULVERT PIPE CHECKS EACH	630.0200 SEEDING TEMPORARY LB	645.0120 GEOTEXTILE FABRIC TYPE HR SY
1000	WOODMAN ROAD											
	14+00 - 18+33	LT & RT	-	6,318	2,778	2,778	-	-	-	-	171	-
	18+16.15	LT & RT	10	-	-	-	2	2	-	-	-	28
	22+90	LT & RT	9	-	-	-	-	-	-	1	-	26
	21+06 - 34+00	LT & RT	-	13,577	1,015	1,015	-	-	-	-	367	-
1000	IH 39 MAINLINE											
	532+33 A - 556+61 A		-	7,204	-	-	-	-	-	-	195	-
	532+44 A		-	-	-	-	-	-	31	-	-	-
	534+44 A		-	-	-	-	-	-	31	-	-	-
	536+44 A		-	-	-	-	-	-	31	-	-	-
	539+43 A		-	-	-	-	-	-	31	-	-	-
	541+42 A		-	-	-	-	-	-	31	-	-	-
	543+01 A		-	-	31	31	-	-	-	-	-	-
	543+18 A	RT	5	-	-	-	-	-	-	1	-	15
	543+68 B	RT	5	-	-	-	-	-	-	1	-	15
	543+73 A	LT	5	-	-	-	-	-	-	1	-	15
	545+20 B	RT	5	-	-	-	-	-	-	-	-	15
	545+25 A	LT	5	-	-	-	-	-	-	-	-	15
	545+99 A		-	-	31	31	-	-	-	-	-	-
	546+18 A	RT	5	-	-	-	-	-	-	1	-	15
	546+18 A	LT	5	-	-	-	-	-	-	-	-	15
	548+21 A		-	-	-	-	-	-	31	-	-	-
	550+19 A		-	-	-	-	-	-	31	-	-	-
	552+20 A		-	-	-	-	-	-	31	-	-	-
	553+95 A		-	-	31	31	-	-	-	-	-	-
	554+15 A	RT	5	-	-	-	-	-	-	1	-	15
	556+16 A		-	-	-	-	-	-	31	-	-	-
	SUB-TOTAL			27,099	3,886	3,886	2	2	279	6	733	174
	25% UNDISTRIBUTED QUANTITY			6,775	972	972			70		183	
	TOTAL		59	33,874	4,858	4,858	2	2	349	6	916	348

FINISHING ITEMS

CATEGORY	STATION	LOCATION	625.0500 SALVAGED TOPSOIL SY	627.0200 MULCHING SY	629.0205 FERTILIZER TYPE A CWT	630.0110 SEEDING MIXTURE NO. 10 LB	630.0175 SEEDING MIXTURE NO. 75 LB
1000	WOODMAN ROAD						
	14+00 - 18+33	RT & LT	6,318	100	3.98	-	85
	21+06 - 34+00	RT & LT	13,577	100	8.55	-	183
	IH 39 MAINLINE						
	532+30 A - 556+60 A	RT	7,204	100	4.54	97	-
	SUB-TOTAL		27,099	300	17.07	97	269
	25% UNDISTRIBUTED QUANTITIES		6,775	75	4.27	24	67
	TOTAL		33,874	375	21.34	122	336

MOBILIZATION EROSION CONTROL

CATEGORY	LOCATION	628.1905 MOBILIZATIONS EROSION CONTROL EACH
1000	WOODMAN RD	1
	IH 39 MAINLINE	1
	TOTAL	2

EMERGENCY MOBILIZATION EROSION CONTROL

CATEGORY	LOCATION	628.1910 MOBILIZATIONS EMERGENCY EROSION CONTROL EACH
1000	WOODMAN RD	1
	IH 39 MAINLINE	1
	TOTAL	2

FILE NAME : P://8394 IH 39 AECOM/TRANSPORTATION/CADD/WOODMAN/SHEETSET/030201_mq.ppt PLOT DATE : 4/7/2016 4:32:45 PM PLOT BY : AJAY SINGH PLOT NAME : 030201_mq PLOT SCALE : 1:1

3

TRAFFIC CONTROL

CATEGORY	LOCATION	643.0200 TRAFFIC CONTROL SURVEILLANCE AND MAINTENANCE DAYS
1000	WOODMAN RD & IH 39 MAINLINE	120
	TOTAL	120

PAVEMENT MARKING WOODMAN

CATEGORY	STATION			LOCATION	646.0106 EPOXY 4-INCH WHITE LF	646.0106 EPOXY 4-INCH YELLOW LF	
1000	WOODMAN ROAD						
	14+00	-	34+00	LT	2,000	-	
	14+00	-	34+00	RT	2,000	-	
	14+00	-	34+00		-	4,000	
					4,000	4,000	TOTAL 8,000 (1)

(1) Additional Quantity shown under "PERMANENT/TEMPORARY PAVEMENT MARKING IH 39".

3

TRAFFIC CONTROL ITEMS

CATEGORY	STAGE	LOCATION	DURATION DAYS	643.0300 TRAFFIC CONTROL DRUMS EACH	643.0300 DAYS	643.0420 TRAFFIC CONTROL BARRICADES TYPE III EACH	643.0420 DAYS	643.0705 TRAFFIC CONTROL WARNING LIGHTS TYPE A EACH	643.0705 DAYS	643.0715 TRAFFIC CONTROL WARNING LIGHTS TYPE C EACH	643.0715 DAYS	643.0800 TRAFFIC CONTROL ARROW ARROW BOARDS EACH	643.0800 DAYS	614.0905 CRASH CUSHION TEMPORARY EACH	603.8000 CONCRETE BARRIER TEMPORARY PRECAST DELIVERED LF	603.8125 CONRETE BARRIER TEMPORARY PRECAST INSTALLED LF	643.0900 TRAFFIC CONTROL SIGNS EACH	643.0900 DAYS	643.1050 TRAFFIC CONTROL SIGNS PCMS EACH	643.1050 DAYS
1000		WOODMAN RD																		
		14+00 - 34+00	48	--	--	16	768	--	--	--	--	--	--	--	--	--	14	672	--	--
		IH 39 MAINLINE																		
	1	522+00 A - 567+00 A	11	124	1,364	6	66	6	66	30	330	4	44	--	--	--	40	440	4	44
	2	522+00 A - 567+00 A	17	138	2,346	16	272	12	204	42	714	4	68	2	2,520	2,520	52	884	4	68
	3	522+00 A - 567+00 A	4	118	472	16	64	12	48	44	176	4	16	--	--	--	52	208	4	16
	4	522+00 A - 567+00 A	4	116	464	16	64	12	48	44	176	4	16	--	--	2,520	52	208	4	16
	5	522+00 A - 567+00 A	2	6	12	--	--	--	--	8	16	--	--	--	--	--	12	24	4	8
	6	522+00 A - 567+00 A	4	20	80	--	--	--	--	--	--	4	16	--	--	--	40	160	4	16
	7	522+00 A - 567+00 A	3	106	318	6	18	6	18	30	90	4	12	--	--	--	40	120	4	12
	8	522+00 A - 567+00 A	13	20	260	16	208	--	--	--	--	--	--	2	2,520	2,520	24	312	4	52
	9	522+00 A - 567+00 A	3	6	18	--	--	--	--	8	24	--	--	--	--	--	12	36	4	12
	10	522+00 A - 567+00 A	5	118	590	16	80	12	60	44	220	4	20	--	--	2,520	52	260	4	20
	11	522+00 A - 567+00 A	5	118	590	16	80	12	60	44	220	4	20	--	--	--	52	260	4	20
	12	522+00 A - 567+00 A	5	--	--	--	--	--	--	--	--	--	--	--	--	--	12	60	--	--
	13	522+00 A - 567+00 A	3	118	354	16	48	12	36	44	132	4	12	--	--	--	52	156	4	12
	14	522+00 A - 567+00 A	3	118	354	16	48	12	36	44	132	4	12	--	--	--	52	156	4	12
		TOTAL			7,222		1,716		576		2,230		236	4	5,040	10,080		3,956		308

PERMANENT/TEMPORARY PAVEMENT MARKING IH 39

CATEGORY	STATION	LOCATION	646.0106 PAVEMENT MARKING EPOXY 4-INCH LF	649.0403 TEMPORARY PAVEMENT MARKING EPOXY 4-INCH LF	649.0400 TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH LF	646.0600 REMOVE PAVEMENT MARKINGS LF
1000	STAGE 1					
	528+30 A - 559+90 A	LT		3,160		
	529+00 B - 560+60 B	RT		3,160		
	STAGE 2					
	528+30 A - 559+90 A	LT			6,320	3,950
	529+00 B - 560+60 B	RT			6,320	3,950
	STAGE 3					
	528+30 A - 554+20 A	LT	5,830			570
	534+70 B - 560+60 B	RT	5,830			570
	STAGE 4					
	528+30 A - 554+20 A	LT		2,590		
	534+70 B - 560+60 B	RT		2,590		
	AT PROJECT END					
	528+30 A - 554+20 A	LT		-		2,830
	534+70 B - 560+60 B	RT		-		5,830
	TOTAL		11,660 (1)	11,500	12,640	17,700

(1) Additional Quantity shown under "PAVEMENT MARKING WOODMAN".

PULL BOXES

CATEGORY	STATION	LOCATION	653.0140 PULL BOXES STEEL 24x42-INCH EACH
0010	WOODMAN RD		
	18+33.00	24' RT	1
	18+33.00	24' LT	1
	21+07.00	24' RT	1
	21+07.00	24' LT	1
	TOTAL		4

SAWCUTTING ITEMS

CATEGORY	STATION	LOCATION	690.0150 SAWING ASPHALT LF	690.0250 SAWING CONCRETE LF
010	WOODMAN ROAD			
	14+00		20	-
	34+00		19	-
	IH 39 MAINLINE			
	542+75 A - 556+60 A (SB MEDIAN)	RT	-	1,385
	532+30 B - 556+60 B (NB MEDIAN)	LT		2,430
	TOTAL		39	3,815

FIELD OFFICE TYPE C

CATEGORY	LOCATION	642.5201 FIELD OFFICE TYPE C EACH
1000	WOODMAN RD & IH 39 MAINLINE	0.2
	TOTAL	0.2

3

SALVAGE & REINSTALL CABLE GUARD

CATEGORY	STATION	LOCATION	SPV.0060.004 SALVAGE TERMINAL HIGH-TENSION CABLE TL-3, GIBRALTAR EACH	SPV.0090.001 SALVAGE HIGH-TENSION CABLE TL-3, SOCKETED GIBRALTAR LF	SPV.0060.005 REINSTALL TERMINAL HIGH-TENSION CABLE TL-3 GIBRALTAR EACH	SPV.0090.002 REINSTALL HIGH-TENSION CABLE TL-3, SOCKETED, GIBRALTAR LF
1000	IH 39 MAINLINE					
	532+30A - 537+38	RT	-	508	-	508
	537+38A	RT	1	-	1	-
	538+09B - 543+18B	LT	-	509	-	509
	538+09B	LT	1	-	1	-
	543+18	LT	1	-	1	-
	TOTAL		3	1017	3	1017

CPM PROGRESS SCHEDULE ITEMS

CATEGORY	LOCATION	SPV.0060.001 BASELINE CPM PROGRESS SCHEDULE EACH	SPV.0060.002 CPM PROGRESS SCHEDULE UPDATES AND ACCEPTED REVISIONS EACH
1000	IH 39 MAINLINE &WOODMAN RD	0.2	2
	TOTAL	0.2	2

ACCESS GATE

CATEGORY	STATION	LOCATION	SPV.0060.003 ACCESS GATE 6-FOOT EACH
1000	WOODMAN RD		
	18+53.81	RT	1
	20+86.19	LT	1
	TOTAL		2

SURVEY PROJECT

CATEGORY	LOCATION	SPV.0105.002 SURVEY PROJECT 1003-10-75 LS
1000	IH 39 MAINLINE & WOODMAN RD	1
	TOTAL	1

FILE NAME : P://8394 IH 39 AECOM/TRANSPORTATION/CADD/WOODMAN/SHEETSET/030201_mq.ppt PLOT DATE : 4/8/2016 5:26:24 PM PLOT BY : AJAY SINGH PLOT NAME : 030201_mq PLOT SCALE : 1:1

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

TRANSPORTATION PROJECT PLAT TITLE SHEET

PROJECT NO. 1003-11-20

ILLINOIS STATE LINE - MADISON (WOODMAN ROAD BRIDGE/APPRS B-53-0038)

I39/90

ROCK COUNTY

4

THE NOTES, CONVENTIONAL SYMBOLS, AND ABBREVIATIONS ARE ASSOCIATED WITH EACH TRANSPORTATION PROJECT PLAT FOR PROJECT 1003-11-20

NOTES:

DISTANCES SHOWN FROM THE RIGHT-OF-WAY LINE TO BUILDINGS ARE APPROXIMATE ONLY.

PARCEL IDENTIFICATION NUMBERS MAY NOT POINT TO ALL AREAS OF ACQUISITION AS NOTED ON THE SCHEDULE OF LANDS & INTERESTS REQUIRED.

POSITIONS AND BEARINGS SHOWN ON THIS PLAT ARE REFERENCED TO THE WISCONSIN COUNTY COORDINATES, ROCK COUNTY, NAD83 (2007) IN U.S. SURVEY FEET. VALUES SHOWN ARE GRID COORDINATES, GRID BEARINGS AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

RIGHT-OF-WAY BOUNDARIES ARE DEFINED WITH COURSES OF THE PERIMETER OF THE HIGHWAY LANDS REFERENCED TO THE U.S. PUBLIC LAND SURVEY SYSTEM OR OTHER "SURVEYS OF PUBLIC RECORD".

DIMENSIONING FOR THE NEW RIGHT-OF-WAY IS MEASURED ALONG AND PERPENDICULAR TO NEW REFERENCE LINES.

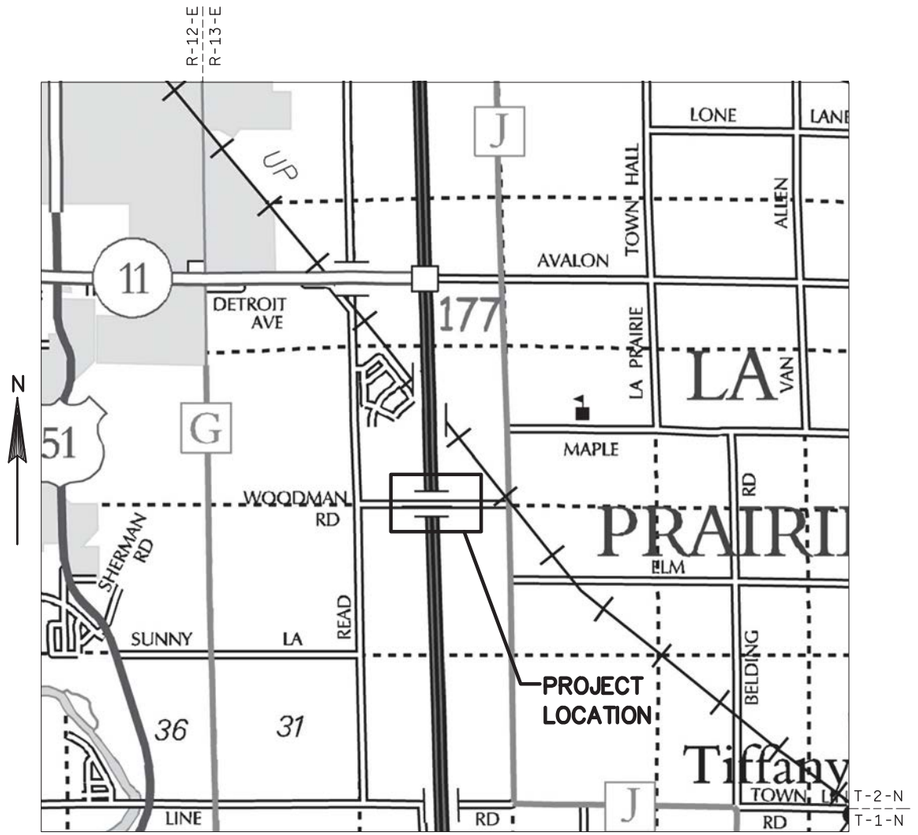
PROPERTY LINES SHOWN ON THIS PLAT ARE DRAWN FROM DATA DERIVED FROM MAPS AND DOCUMENTS OF PUBLIC RECORD AND/OR EXISTING OCCUPATIONAL LINES. THIS PLAT MAY NOT BE A TRUE REPRESENTATION OF EXISTING PROPERTY LINES, EXCLUDING RIGHT-OF-WAY LINES, AND SHOULD NOT BE USED AS A SUBSTITUTE FOR AN ACCURATE FIELD SURVEY.

ALL RIGHT-OF-WAY LINES DEPICTED IN NON-ACQUISITION AREAS ARE INTENDED TO RE-ESTABLISH EXISTING RIGHT-OF-WAY LINES AS DETERMINED FROM PREVIOUS PROJECTS, OTHER RECORDED DOCUMENTS, OR FROM CENTERLINE OF EXISTING PAVEMENT.

ALL NEW RIGHT-OF-WAY MONUMENTS ARE TYPE 2 MONUMENTS (TYPICALLY 3/4" X 24" REBAR) AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT.

EXISTING HIGHWAY RIGHT-OF-WAY SHOWN HEREIN IS BASED ON THE FOLLOWING POINTS OF REFERENCE: EXISTING HIGHWAY RIGHT-OF-WAY FOR IH-39/90 IS ESTABLISHED FROM PREVIOUS PROJECT I-90-3(2)171. EXISTING ACCESS CONTROL ALONG IH-39/90 IS ESTABLISHED FROM PREVIOUS PROJECT I-90-3(2)171. EXISTING RIGHT-OF-WAY FOR WOODMAN ROAD IS ESTABLISHED FROM PREVIOUS PROJECT I-90-3(2)171 AND GOVERNMENT LAND LINES.

FOR THE LATEST ACCESS/DRIVEWAY INFORMATION, CONTACT THE PLANNING UNIT OF THE WISCONSIN DEPARTMENT OF TRANSPORTATION SOUTHWEST REGION OFFICE IN MADISON.



LAYOUT

SCALE 0 0.5 MI.

CONVENTIONAL ABBREVIATIONS

ACCESS POINT/ DRIVEWAY CONNECTION	AP	RELEASE OF RIGHTS	ROR
ACCESS RIGHTS	AR	REMAINING	REM.
ACRES	AC	RIGHT-OF-WAY	R/W
AND OTHERS	ET.AL.	SECTION	SEC
CENTERLINE	C/L	STATION	STA
CERTIFIED SURVEY MAP	CSM	TEMPORARY LIMITED EASEMENT	TLE
CORNER	COR.	VOLUME	V.
DOCUMENT	DOC.		
EASEMENT	EASE.		
HIGHWAY EASEMENT	H.E.		
LAND CONTRACT	LC		
MONUMENT	MON.		
PAGE	P.		
PERMANENT LTD EASEMENT	PLE		
PROPERTY LINE	PL		
RECORDED AS	(100')		
REFERENCE LINE	R/L		
NORTH BOUND	NB		
SOUTH BOUND	SB		

NAME OF A REGISTER OF DEEDS BOOK SET REA

CURVE DATA

LONG CHORD	LCH
LONG CHORD BEARING	LCB
RADIUS	R
DEGREE OF CURVE	D
CENTRAL ANGLE, DELTA	DELTA
LENGTH OF CURVE	L
TANGENT	TAN
POINT OF CURVATURE	PC
POINT OF INTERSECTION	PI
POINT OF TANGENCY	PT
TANGENT	T

CONVENTIONAL SYMBOLS

FOUND IRON PIPE/PIN I.P (3/4" UNLESS NOTED)

R/W MONUMENT (FOUND) (SET)

R/W STANDARD (FOUND) (SET)

SIGN SIGN

SECTION CORNER MONUMENT

SECTION CORNER SYMBOL (T.N. R.E. 5 2 3 2 5 4 T.N. R.E.)

FEE (HATCH VARIES)

TEMPORARY LIMITED EASEMENT

PERMANENT LIMITED EASEMENT

R/W BOUNDARY POINT

PARCEL NUMBER 100 1

UTILITY NUMBER (241)

SIGN NUMBER (OFF PREMISE) 2-1

BUILDING

CONTROL STATION

PROPOSED R/W LINE

EXISTING H.E. LINE

PROPERTY LINE

LOT & TIE LINES

SLOPE INTERCEPTS

CORPORATE LIMITS

NO ACCESS (BY PREVIOUS ACQ/CONTROL)

ACCESS RESTRICTED (BY ACQUISTION)

NO ACCESS (BY STATUTORY AUTHORITY)

SECTION LINE

QUARTER LINE

SIXTEENTH LINE

EXISTING CENTERLINE

PROPOSED REFERENCE LINE

PARALLEL OFFSET

CONVENTIONAL UTILITY SYMBOLS

		NON COMPENSABLE	COMPENSABLE
WATER	W		
GAS	G		
TELEPHONE	T		
OVERHEAD TRANSMISSION LINES	OH		
ELECTRIC	E		
CABLE TELEVISION	TV		
FIBER OPTIC	FO		
SANITARY SEWER	SAN		
STORM SEWER	SS		
POWER POLE			
TELEPHONE POLE			
TELEPHONE PEDESTAL			
ELECTRIC TOWER			

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TPP NUMBER 1003-11-20
SHEET 2 OF 2

FILE NAME : T:\PROJECTS\2012_PROJECTS\112-026 AECOM (SUPPLEMENTAL FIELD)\TPP\EXPORTS\CO_130830_DRAFTPLAT 10031120.DWG PLOT DATE : 8/30/2013 12:44 PM PLOT BY : ACAD PLOT NAME :

1003-11-20 - 4.00

TRANSPORTATION PROJECT PLAT NO: 1003-11-20 - 4.01

THAT PART OF THE SE 1/4 OF THE SW 1/4, AND THE SW 1/4 OF THE SE 1/4 OF SECTION 20, ALSO THAT PART OF THE NE 1/4 OF THE NW 1/4, AND THE NW 1/4 OF THE NE 1/4 OF SECTION 29, ALL BEING IN T 2 N, R 13 E, TOWN OF LA PRAIRIE, ROCK COUNTY, WISCONSIN.

RELOCATION ORDER IH 39/90 ILLINOIS STATE LINE - MADISON (WOODMAN ROAD BRIDGE/APPRS B-53-0038) ROCK COUNTY

TO PROPERLY ESTABLISH, LAY OUT, WIDEN, ENLARGE, EXTEND, CONSTRUCT, RECONSTRUCT, IMPROVE, OR MAINTAIN A PORTION OF THE HIGHWAY DESIGNATED ABOVE, THE STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION DEEMS IT NECESSARY TO RELOCATE OR CHANGE SAID HIGHWAY AND ACQUIRE CERTAIN LANDS AND INTERESTS OR RIGHTS IN LANDS FOR THE ABOVE NAMED PROJECT.

TO EFFECT THIS CHANGE, PURSUANT TO AUTHORITY GRANTED UNDER SECTION 84.02 (3) AND 84.09, WISCONSIN STATUTES, THE DEPARTMENT OF TRANSPORTATION HEREBY ORDERS THAT:

1. THAT PORTION OF SAID HIGHWAY AS SHOWN ON THIS PLAT IS LAID OUT AND ESTABLISHED TO THE LINES AND WIDTHS AS SO SHOWN FOR THE ABOVE PROJECT.
2. THE LANDS OR INTERESTS OR RIGHTS IN LANDS AS SHOWN ON THIS PLAT ARE REQUIRED BY THE DEPARTMENT FOR THE ABOVE PROJECT AND SHALL BE ACQUIRED IN THE NAME OF THE STATE OF WISCONSIN, PURSUANT TO THE PROVISIONS OF SECTION 84.09 (1) OR (2), WISCONSIN STATUTES.

POSITIONS AND BEARINGS SHOWN ON THIS PLAT ARE REFERENCED TO THE WISCONSIN COUNTY COORDINATES, ROCK COUNTY, NAD83 (2007) IN U.S. SURVEY FEET. VALUES SHOWN ARE GRID COORDINATES, GRID BEARINGS AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

ACCEPTED FOR RECORDING AND FILING IN THE OFFICE OF THE REGISTER OF DEEDS IN ROCK COUNTY, WISCONSIN AT ------ ...M ON ----------, 2013
AS DOCUMENT # ----------
AND FILED IN TPP-----------

SIGNATURE OF REGISTER OF DEEDS

RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER: 1003-11-20 - 4.01
SHEET 1 OF 2
AMENDMENT NO:

R/W Point Station Offset Table		
Point #	Station	Offset
100	14+00.00'WR'	0.62'
101	14+00.00'WR'	59.38'
102	14+50.00'WR'	66.00'
103	17+50.00'WR'	84.00'
104	18+22.76'WR'	83.96'
105	21+07.22'WR'	106.00'
106	24+00.00'WR'	106.00'
107	32+00.00'WR'	44.00'
108	33+00.00'WR'	32.56'
109	33+00.00'WR'	33.44'
110	26+00.00'WR'	100.00'
111	20+93.45'WR'	100.00'
112	18+30.18'WR'	85.00'
113	17+25.00'WR'	85.00'
114	14+00.00'WR'	60.62'

R/W Course Table		
From - To	Bearing	Distance
101 - 102	N82°57'17"E	50.44'
102 - 103	N87°03'34"E	300.54'
103 - 104	S89°25'25"E	73.00'
105 - 106	S89°20'39"E	292.77'
106 - 107	S84°54'50"E	802.40'
107 - 108	S82°49'07"E	100.65'
109 - 110	S85°13'22"W	703.16'
110 - 111	N89°20'42"W	506.56'
112 - 113	N89°27'32"W	104.93'
113 - 114	N85°12'59"W	325.91'
114 - 101	N00°29'35"E	120.00'

PI STA: 18+00.00
Y= 243675.278
X= 504033.130
DELTA= 10° 00' 00" R

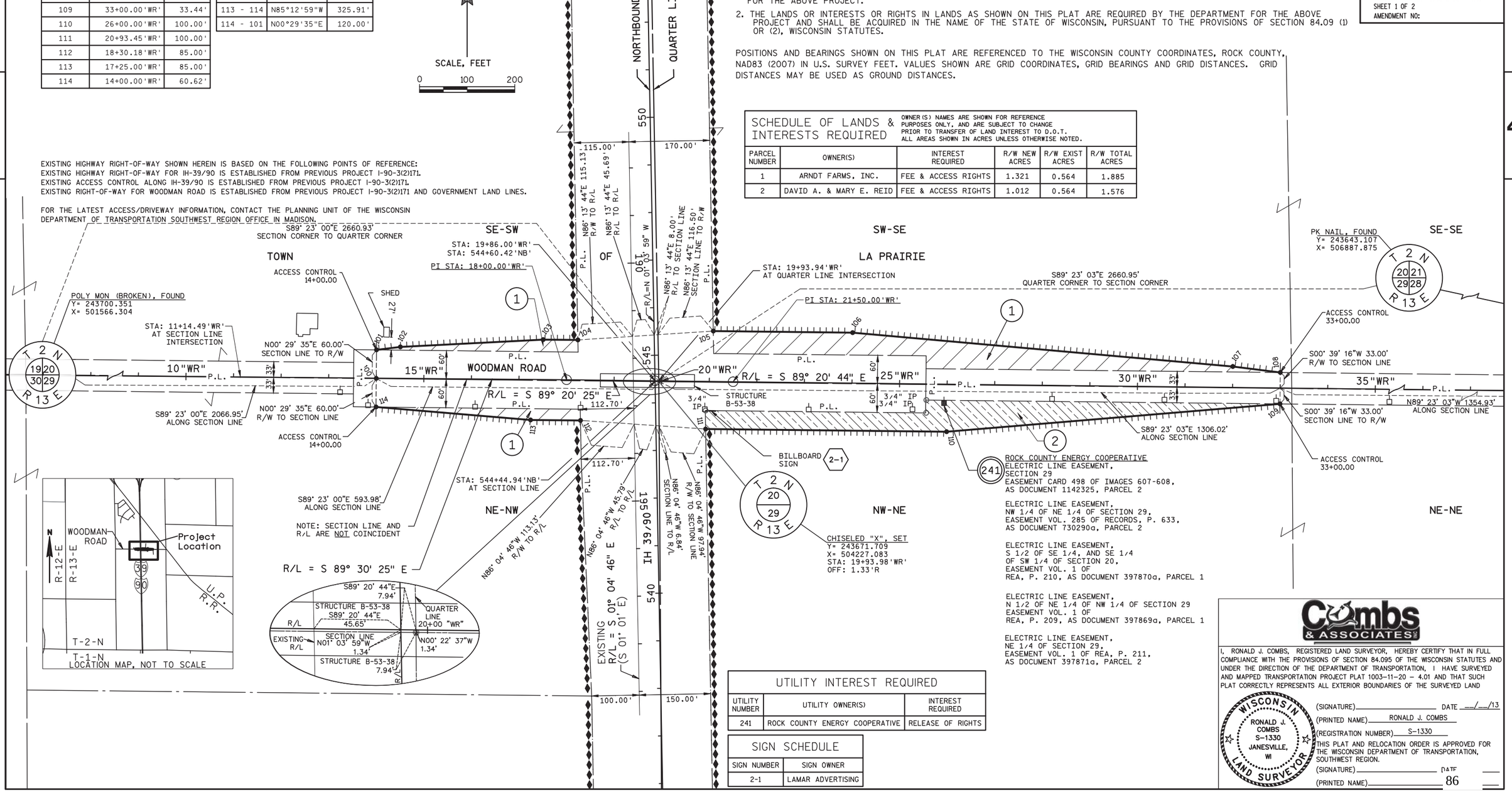
PI STA: 21+50.00
Y= 243671.247
X= 504383.107
DELTA= 00° 00' 19" L

GN

SCALE, FEET
0 100 200

EXISTING HIGHWAY RIGHT-OF-WAY SHOWN HEREIN IS BASED ON THE FOLLOWING POINTS OF REFERENCE:
EXISTING HIGHWAY RIGHT-OF-WAY FOR IH-39/90 IS ESTABLISHED FROM PREVIOUS PROJECT I-90-3(2)171.
EXISTING ACCESS CONTROL ALONG IH-39/90 IS ESTABLISHED FROM PREVIOUS PROJECT I-90-3(2)171.
EXISTING RIGHT-OF-WAY FOR WOODMAN ROAD IS ESTABLISHED FROM PREVIOUS PROJECT I-90-3(2)171 AND GOVERNMENT LAND LINES.

FOR THE LATEST ACCESS/DRIVEWAY INFORMATION, CONTACT THE PLANNING UNIT OF THE WISCONSIN DEPARTMENT OF TRANSPORTATION SOUTHWEST REGION OFFICE IN MADISON.



SCHEDULE OF LANDS & INTERESTS REQUIRED	OWNER(S) NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY, AND ARE SUBJECT TO CHANGE PRIOR TO TRANSFER OF LAND INTEREST TO D.O.T. ALL AREAS SHOWN IN ACRES UNLESS OTHERWISE NOTED.				
PARCEL NUMBER	OWNER(S)	INTEREST REQUIRED	R/W NEW ACRES	R/W EXIST ACRES	R/W TOTAL ACRES
1	ARNDT FARMS, INC.	FEE & ACCESS RIGHTS	1.321	0.564	1.885
2	DAVID A. & MARY E. REID	FEE & ACCESS RIGHTS	1.012	0.564	1.576

UTILITY INTEREST REQUIRED		
UTILITY NUMBER	UTILITY OWNER(S)	INTEREST REQUIRED
241	ROCK COUNTY ENERGY COOPERATIVE	RELEASE OF RIGHTS

SIGN SCHEDULE	
SIGN NUMBER	SIGN OWNER
2-1	LAMAR ADVERTISING

Combs & ASSOCIATES

I, RONALD J. COMBS, REGISTERED LAND SURVEYOR, HEREBY CERTIFY THAT IN FULL COMPLIANCE WITH THE PROVISIONS OF SECTION 84.095 OF THE WISCONSIN STATUTES AND UNDER THE DIRECTION OF THE DEPARTMENT OF TRANSPORTATION, I HAVE SURVEYED AND MAPPED TRANSPORTATION PROJECT PLAT 1003-11-20 – 4.01 AND THAT SUCH PLAT CORRECTLY REPRESENTS ALL EXTERIOR BOUNDARIES OF THE SURVEYED LAND

WISCONSIN RONALD J. COMBS S-1330 JANESVILLE, WI LAND SURVEYOR

(SIGNATURE)_____ DATE __/__/13
(PRINTED NAME) RONALD J. COMBS
(REGISTRATION NUMBER) S-1330

THIS PLAT AND RELOCATION ORDER IS APPROVED FOR THE WISCONSIN DEPARTMENT OF TRANSPORTATION, SOUTHWEST REGION.

(SIGNATURE)_____ DATE ____
(PRINTED NAME)_____

FILE NAME : T:\PROJECTS\2012_PROJECTS\112-026 AECOM (SUPPLEMENTAL FIELD)\TPP\EXPORTS\CO_130830_DRAFTPLAT 10031120.DWG
APPRAISAL PLAT DATE : ----------
PLOT SCALE : 200:1

DATE:	REVISED:
AUGUST 6, 2013	

TRANSPORTATION PROJECT PLAT NO: 1003-11-20 - 4.02

RELOCATION ORDER IH 39/90 ILLINOIS STATE LINE - MADISON (WOODMAN ROAD BRIDGE/APPRS B-53-0038) ROCK COUNTY

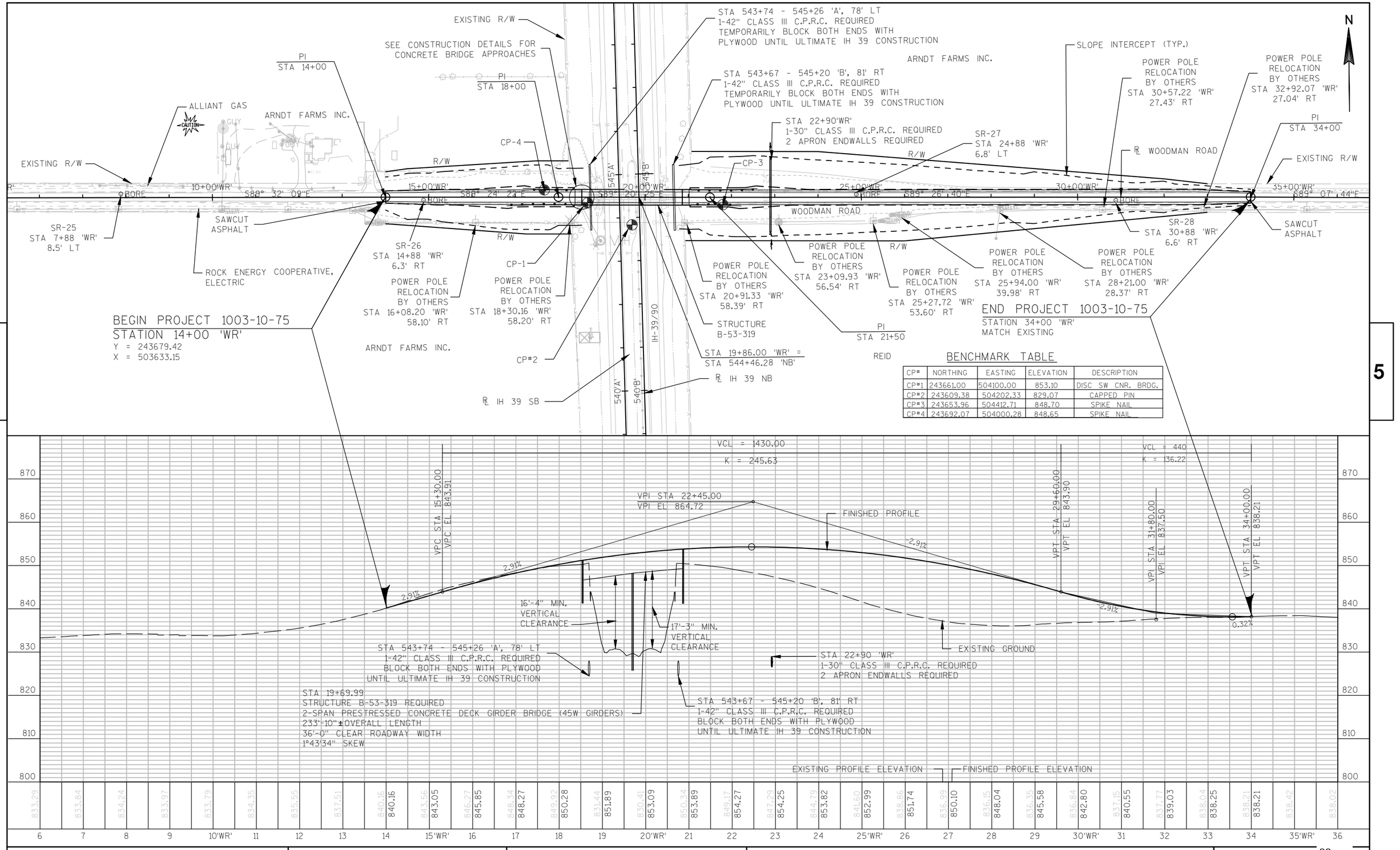
POSITIONS AND BEARINGS SHOWN ON THIS PLAT ARE REFERENCED TO THE WISCONSIN COUNTY COORDINATES, ROCK COUNTY, NAD83 (2007) IN U.S. SURVEY FEET. VALUES SHOWN ARE GRID COORDINATES, GRID BEARINGS AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

4

R/W Point Coordinate Table		
Point #	Y	X
100	243678.103	503633.139
101	243738.100	503633.656
102	243744.287	503683.711
103	243759.705	503983.855
104	243758.970	504056.853
105	243777.735	504341.552
106	243774.385	504634.301
107	243703.251	505433.541
108	243690.669	505533.404
109	243624.673	505532.650
110	243566.114	504831.935
111	243571.905	504325.411
112	243589.935	504062.330
113	243590.926	503957.401
114	243618.105	503632.623

4

FILE NAME : T:\PROJECTS\2012_PROJECTS\112-026 AECOM (SUPPLEMENTAL FIELD)\TPP\EXPORTS\CO_130830_DRAFTPLAT 10031120.DWG
APPRAISAL PLAT DATE : ----------

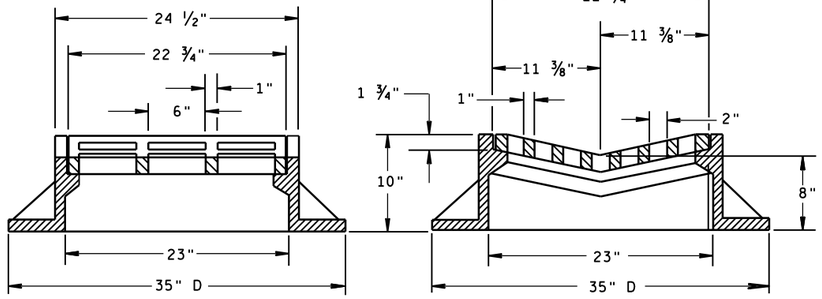


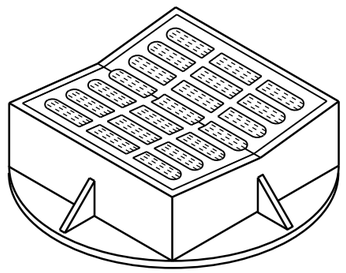
PROJECT NO: 1003-10-75	HWY: IH 39	COUNTY: ROCK	PLAN & PROFILE: WOODMAN ROAD	SHEET 88 E

Standard Detail Drawing List

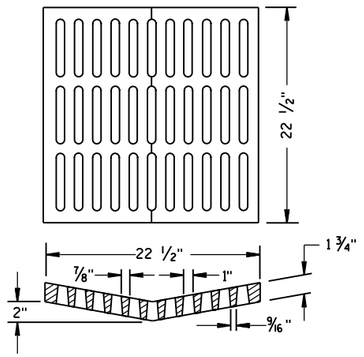
08A05-19B	INLET COVERS TYPE B, B-A, C, MS, MS-A, & WM
08A05-19C	INLET COVERS TYPE F, HM, HM-S, S, T, V, HM-GJ, & HM-GJ-S
08C07-01	INLETS 2X2-FT, 2X2.5-FT, 2X3-FT AND 2.5X3-FT
08C08-01	INLETS MEDIAN 1 AND 2 GRATE
08D03-06	CONCRETE SURFACE DRAINS DROP INLET TYPE AT STRUCTURES
08E08-03	TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS
08E09-06	SILT FENCE
08E10-02	INLET PROTECTION TYPE A, B, C AND D
08F01-11	APRON ENDWALLS FOR CULVERT PIPE
09B02-09	CONDUIT
09B04-11	PULL BOX
12A04-03	STRUCTURE IDENTIFICATION PLAQUES, RAMP GATES, SIGN BRIDGES & OVERHEAD SIGN SUPPORTS & TRAFFIC SIGNALS
13B02-08A	CONCRETE PAVEMENT APPROACH SLAB
13B02-08B	STRUCTURAL APPROACH SLAB AND CONCRETE PAVEMENT APPROACH SLAB
14B07-14A	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-14B	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-14C	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-14D	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-14E	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-14F	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-14G	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-14H	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B08-02A	CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS
14B08-02B	CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS
14B08-02C	CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS
14B08-02D	CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS
14B08-02E	CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS
14B26-03A	STEEL THRIE BEAM BULLNOSE TERMINAL
14B26-03C	STEEL THRIE BEAM BULLNOSE TERMINAL
14B26-03D	STEEL THRIE BEAM BULLNOSE TERMINAL
14B26-03E	STEEL THRIE BEAM BULLNOSE TERMINAL
14B29-01	SAFETY EDGE
14B42-03A	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-03B	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-03C	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B44-02A	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B44-02B	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B44-02C	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B45-04A	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-04B	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-04C	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-04D	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-04E	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
15B01-08A	FENCE WOVEN WIRE
15B01-08B	FENCE WOVEN WIRE
15C08-16A	PAVEMENT MARKING (MAINLINE)
15D12-05B	TRAFFIC CONTROL, LANE CLOSURE, SPEED REDUCTION
15D27-02	TRAFFIC CONTROL, SHOULDER CLOSURE ON DIVIDED ROADWAY, SPEEDS GREATER THAN 40 MPH
16A01-06	LANDMARK REFERENCE MONUMENTS AND COVERS

6



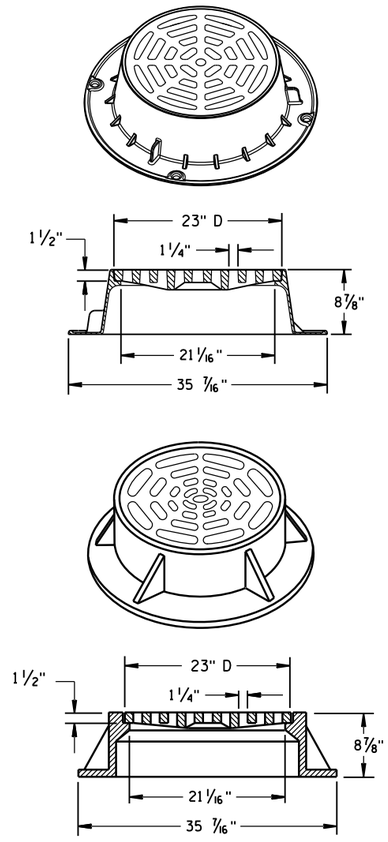


TYPE "B"



ALTERNATIVE GRATE FOR TYPE "B" COVER

USE WHERE PEDESTRIAN OR BICYCLE TRAFFIC IS POSSIBLE.
NOTED AS TYPE B-A ON THE DRAINAGE TABLE



TYPE "C"

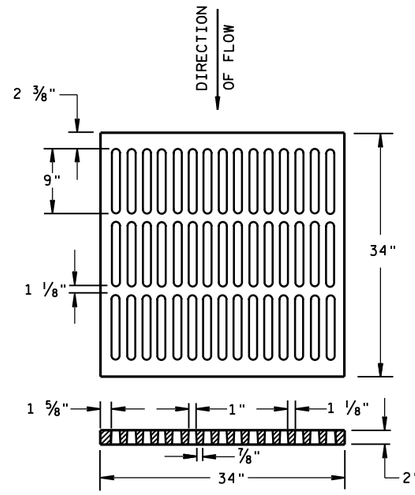
NOTE: EITHER CASTING IS ACCEPTABLE

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

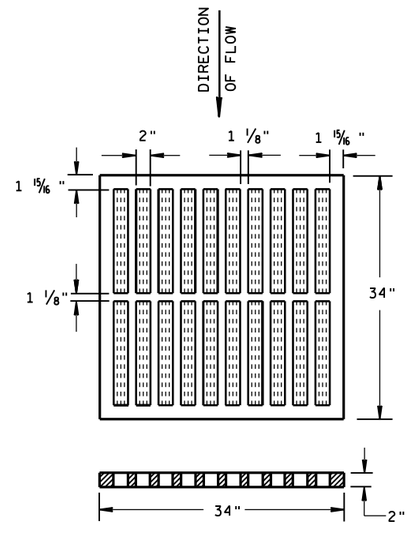
DETAIL DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR CATCH BASIN, MANHOLE AND INLET COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

ROUND FRAMES AND COVERS SHALL HAVE CONTINUOUSLY MACHINED BEARING SURFACES TO PREVENT ROCKING AND RATTLING.



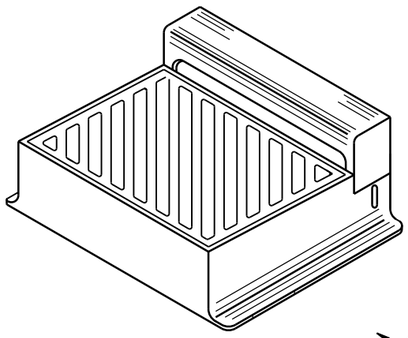
ALTERNATIVE TYPE "MS"

USE WHERE PEDESTRIAN OR BICYCLE TRAFFIC IS PERMITTED
NOTED AS TYPE MS-A ON THE DRAINAGE TABLE

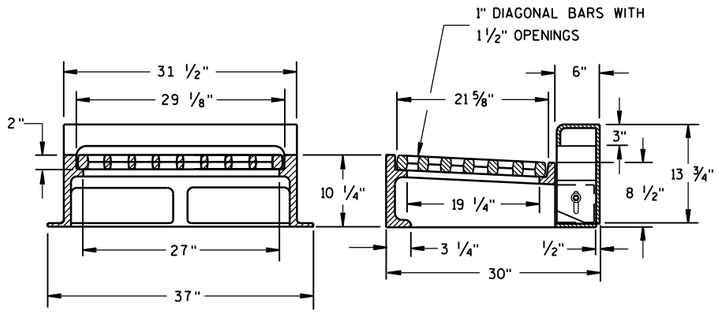


TYPE "MS"

USE ON FREEWAYS AND EXPRESSWAYS
NOTED AS TYPE MS ON DRAINAGE TABLE



DIAGONAL SLOTS, SHALL BE ORIENTED TO THE DIRECTION OF FLOW AS ILLUSTRATED. GRATES ARE MANUFACTURED TO BE REVERSIBLE.



NOTE: CURB BOX HEIGHT ADJUSTABLE 6" TO 9"

TYPE "WM"

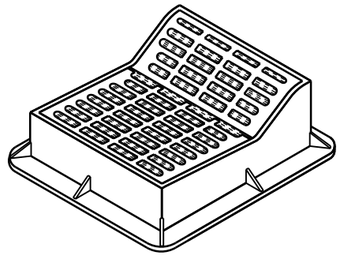
INLET COVERS
TYPE B, B-A, C, MS, MS-A, & WM

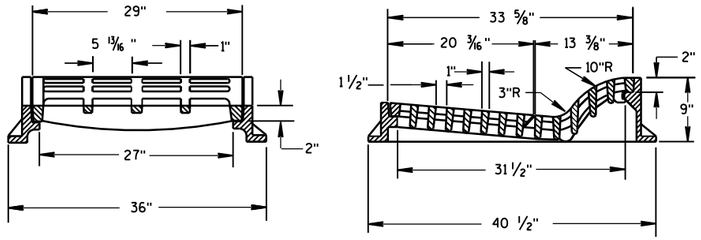
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
11/27/2013 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS ENGINEER
FHWA

6

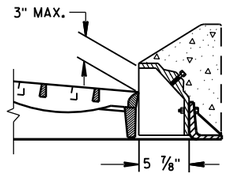
S.D.D. 8 A 5-19b





TYPE "F"

USE WITH TYPES A & D CONCRETE CURB & GUTTER, 36 INCH.



ALTERNATIVE CURB BOX FOR TYPE "HM" COVER

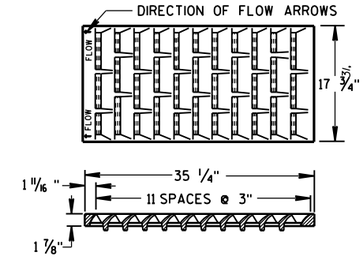
USE WITH TYPES G & J CONCRETE CURB & GUTTER, 30 INCH
NOTED AS TYPE HM-GJ ON DRAINAGE TABLE

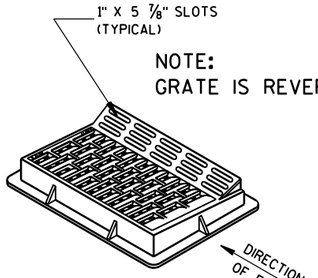
NOTE:
SPECIAL GRATE FOR THE
TYPE "H" COVER MAY ALSO BE
USED FOR THE TYPE "HM-GJ" COVER
NOTED AS TYPE HM-GJ-S ON DRAINAGE TABLE

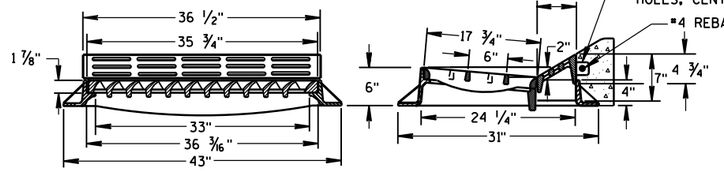
GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

DETAIL DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR INLET COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.



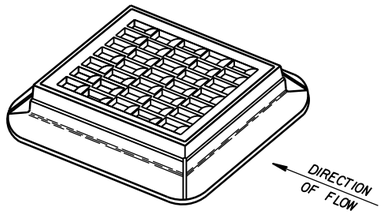


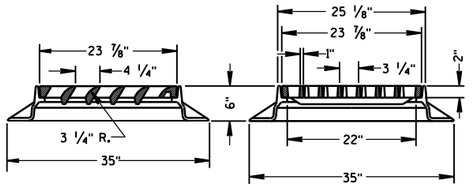


TYPE "HM"

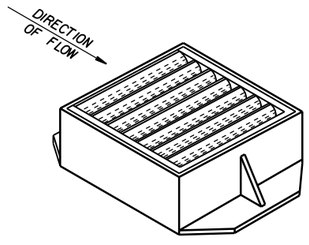
USE WITH TYPES A & D CONCRETE CURB & GUTTER, 36 INCH.

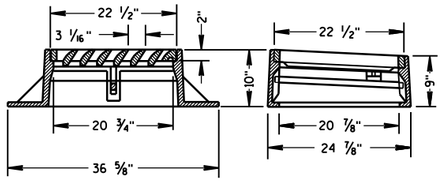
NOTE:
SPECIAL GRATE FOR THE
TYPE "H" COVER MAY ALSO BE
USED FOR THE TYPE "HM" COVER
NOTED AS TYPE HM-S ON DRAINAGE TABLE



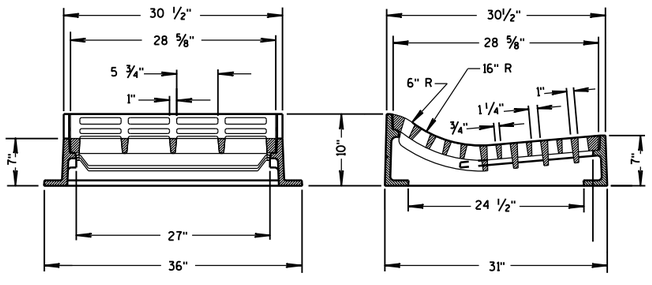


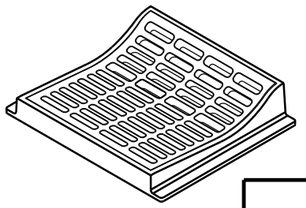
TYPE "S"





TYPE "V"





TYPE "T"

USE WITH TYPES R & T CONCRETE CURB & GUTTER, 36 INCH.

INLET COVERS
TYPE F, HM, HM-S, S, T, V, HM-GJ, & HM-GJ-S

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
11/27/2013
DATE

/S/ Jerry H. Zogg
ROADWAY STANDARDS ENGINEER

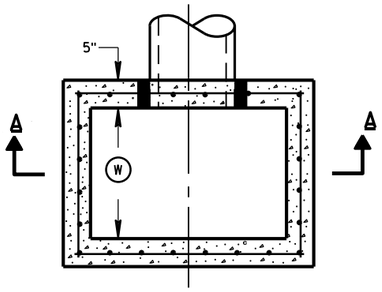
FHWA

6

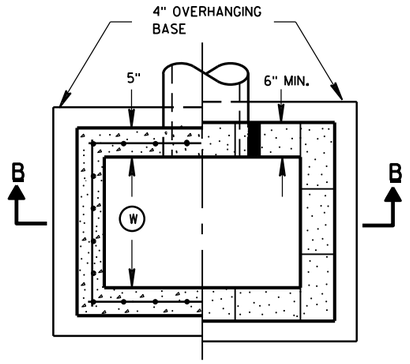
S.D.D. 8 A 5-19c

6

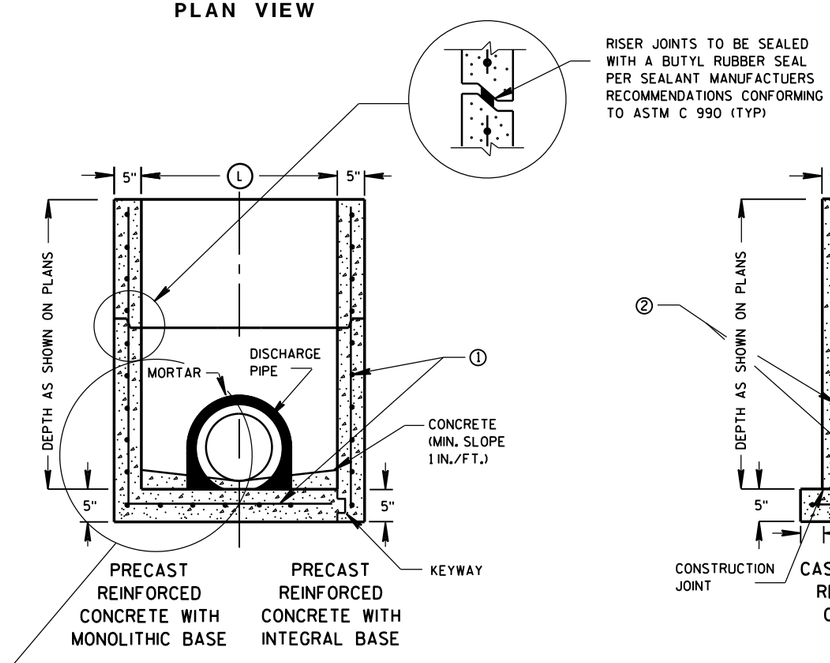
S.D.D. 8 A 5-19c



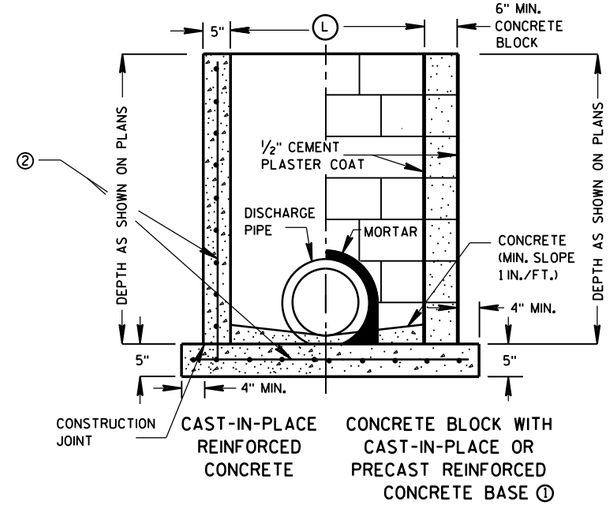
PLAN VIEW



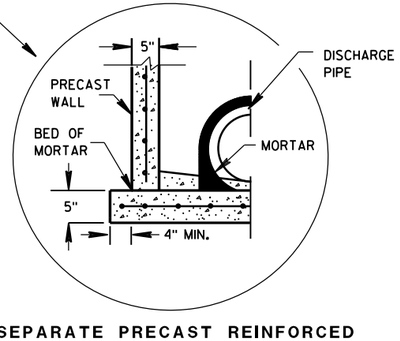
PLAN VIEW



SECTION A-A



SECTION B-B



SEPARATE PRECAST REINFORCED CONCRETE BASE OPTION

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

UNLESS OTHERWISE AUTHORIZED IN WRITING BY THE ENGINEER, THE CONTRACTOR SHALL NOT ORDER AND DELIVER PRECAST INLET UNITS REQUIRED FOR THE PROJECT UNTIL A LIST OF SIZES IS FURNISHED BY THE ENGINEER.

DETAILED DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR UNDERGROUND DRAINAGE STRUCTURES SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

ALL PRECAST INLET UNITS SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF ASTM C 913.

ALL DRAINAGE STRUCTURES ARE DESIGNATED ON THE PLANS AS "MANHOLES 3X3-L", "CATCH BASINS 4-B", "INLETS 2X3-H", ETC. THE FIRST NUMBERS DESIGNATES THE SIZE OF THE STRUCTURE, AND THE FOLLOWING LETTER DESIGNATES THE TYPE OF COVER TO BE USED TO COMPRISE THE COMPLETE UNIT.

BASES SHALL BE PLACED ON A BED OF MATERIAL AT LEAST 6 INCHES IN DEPTH, WHICH MEETS THE REQUIREMENTS OF GRANULAR BACKFILL. THIS BEDDING SHALL BE COMPACTED AND PROVIDE UNIFORM SUPPORT FOR THE ENTIRE AREA OF THE BASE.

ALL BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2 INCHES CLEAR UNLESS OTHERWISE SHOWN OR NOTED.

PRECAST REINFORCED RISERS SHALL HAVE A TONGUE AND GROOVE JOINT WITH TONGUE UP OR DOWN.

4" OVERHANGING BASES ARE REQUIRED FOR CAST-IN-PLACE REINFORCED CONCRETE AND CONCRETE BLOCK INSTALLATIONS.
4" OVERHANG IS REQUIRED WHEN SEPARATE PRECAST BASE IS PROVIDED.
OVERHANG IS NOT REQUIRED ON PRECAST STRUCTURES WITH AN INTEGRAL OR MONOLITHIC BASE.

MAXIMUM INSIDE PIPE DIAMETER DETERMINED BY 3 INCH CLEARANCE ON EACH SIDE OF THE OUTSIDE WALL OF THE PIPE. SEE DETAIL "A". ASSUMES PIPE ENTERS PERPENDICULAR TO THE STRUCTURE.

① FOR PRECAST INLETS PROVIDE REINFORCING STEEL IN ACCORDANCE TO ASTM C 913.

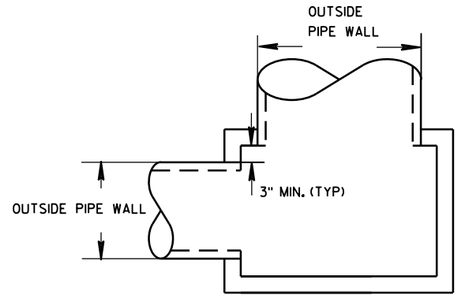
② CONTRACTOR TO PROVIDE DRAWING(S) STAMPED BY A PROFESSIONAL ENGINEER FOR STEEL REINFORCING DESIGN FOR CAST-IN-PLACE STRUCTURES.

INLET COVER MATRIX

INLET SIZE		INLET COVER TYPE	ALL A'S	ALL B'S	BW	F	ALL H'S	S	T	V	WM
	WIDTH (W) (FT)	LENGTH (L) (FT)									
2X2-FT	2	2	X	X				X		X	
2X2.5-FT	2	2.5			X			X	X	X	X
2X3-FT	2	3					X				
2.5X3-FT	2.5	3				X					

PIPE MATRIX

INLET SIZE	MAXIMUM INSIDE PIPE DIAMETER	
	WIDTH (IN)	LENGTH (IN)
2X2-FT	12	12
2X2.5-FT	12	18
2X3-FT	12	24
2.5X3-FT	18	24



DETAIL "A"

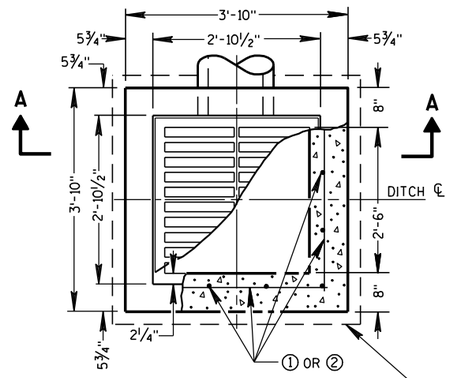
INLETS 2X2-FT, 2X2.5-FT, 2X3-FT AND 2.5X3-FT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

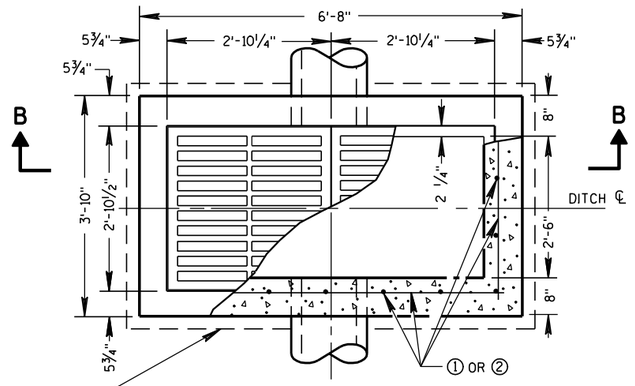
APPROVED
6/5/2012
DATE
FHWA

/S/ Jerry H. Zogg
ROADWAY STANDARDS DE
ENGINEER

6
S.D.D. 8 C 7-1

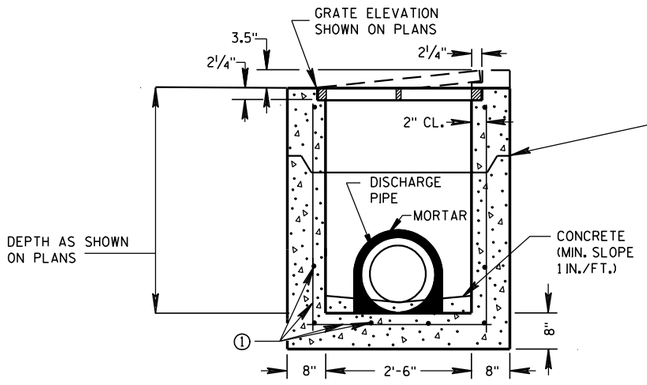


PLAN VIEW

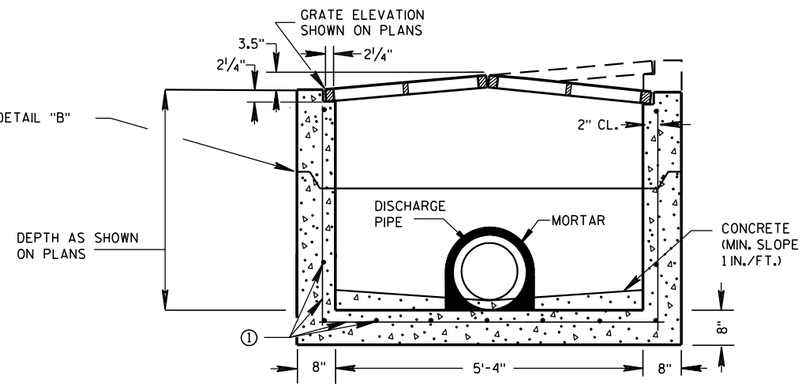


PLAN VIEW

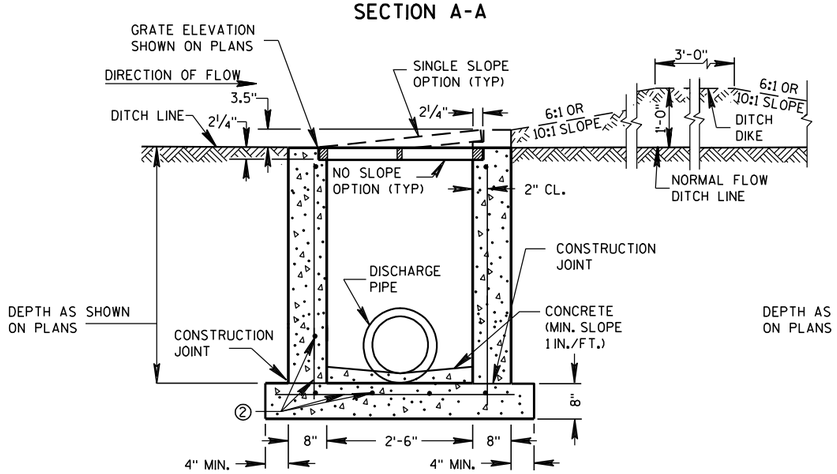
4" OVERHANGING BASE ON REINFORCED CAST-IN-PLACE CONCRETE INLETS



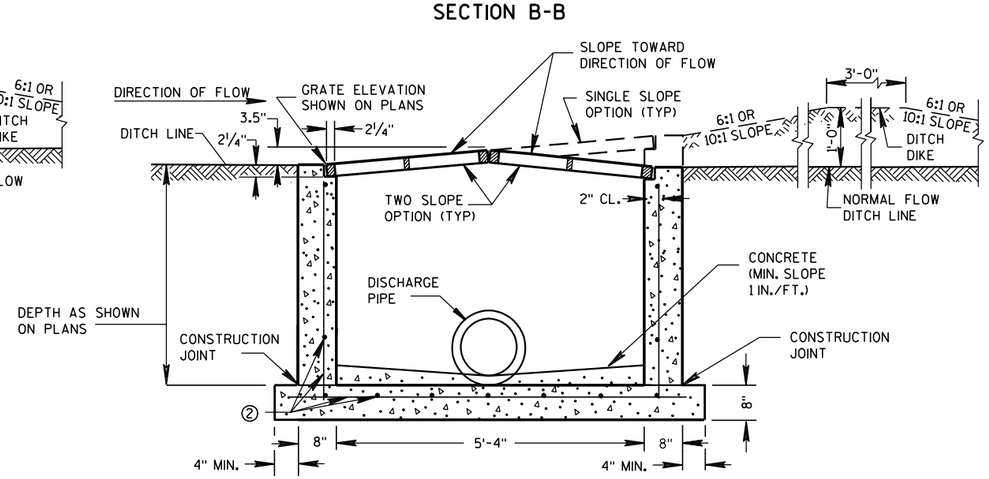
PRECAST REINFORCED CONCRETE SECTION A-A



PRECAST REINFORCED CONCRETE SECTION B-B



REINFORCED CAST-IN-PLACE CONCRETE SECTION A-A



REINFORCED CAST-IN-PLACE CONCRETE SECTION B-B

INLETS MEDIAN 1 GRATE

INLETS MEDIAN 2 GRATE

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

UNLESS OTHERWISE AUTHORIZED IN WRITING BY THE ENGINEER, THE CONTRACTOR SHALL NOT ORDER AND DELIVER PRECAST INLET UNITS REQUIRED FOR THE PROJECT UNTIL A LIST OF SIZES IS FURNISHED BY THE ENGINEER.

DETAILED DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR INLETS WHICH MAY INCLUDE PRECAST REINFORCED CONCRETE INLETS, SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

ALL MEDIAN INLETS ARE DESIGNATED ON THE PLANS AS "INLETS, 1G-MS", ETC. THE FIRST NUMBER AND LETTER DESIGNATE THE TYPE OF STRUCTURE, AND THE FOLLOWING LETTERS DESIGNATE THE TYPE OF COVER TO BE USED TO COMPRISE THE COMPLETE UNIT.

ALL BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2 INCHES CLEAR UNLESS OTHERWISE SHOWN OR NOTED.

PRECAST REINFORCED RISERS SHALL HAVE A TONGUE AND GROOVE JOINT WITH TONGUE UP OR DOWN.

ALL PRECAST INLET UNITS SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF ASTM C 913.

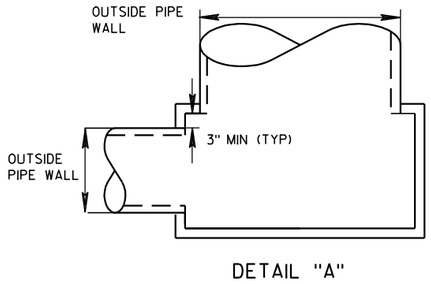
MAXIMUM INSIDE PIPE DIAMETER DETERMINED BY 3" CLEARANCE ON EACH SIDE OF THE OUTSIDE WALL OF THE PIPE. SEE DETAIL "A". ASSUMES PIPE ENTERS PERPENDICULAR TO THE STRUCTURE.

① FOR PRECAST INLETS PROVIDE REINFORCING STEEL IN ACCORDANCE TO ASTM C 913.

② CONTRACTOR TO PROVIDE DRAWING(S) STAMPED BY A PROFESSIONAL ENGINEER FOR STEEL REINFORCING DESIGN FOR CAST-IN-PLACE STRUCTURES.

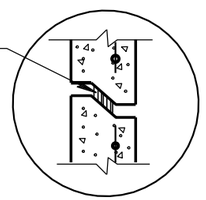
PIPE MATRIX

	MAXIMUM INSIDE PIPE DIAMETER	
INLET SIZE	WIDTH (IN)	LENGTH (IN)
1 GRATE	18	18
2 GRATE	18	42



DETAIL "A"

JOINTS TO BE SEALED WITH A BUTYL RUBBER SEAL PER SEALANT MANUFACTURERS RECOMMENDATIONS CONFORMING TO ASTM C 990 (TYP)



DETAIL "B"

INLETS MEDIAN 1 AND 2 GRATE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

6/5/2012
DATE

/S/ Jerry H. Zogg
ROADWAY STANDARDS ENGINEER

FHWA

6

S.D.D. 8 C 8-1

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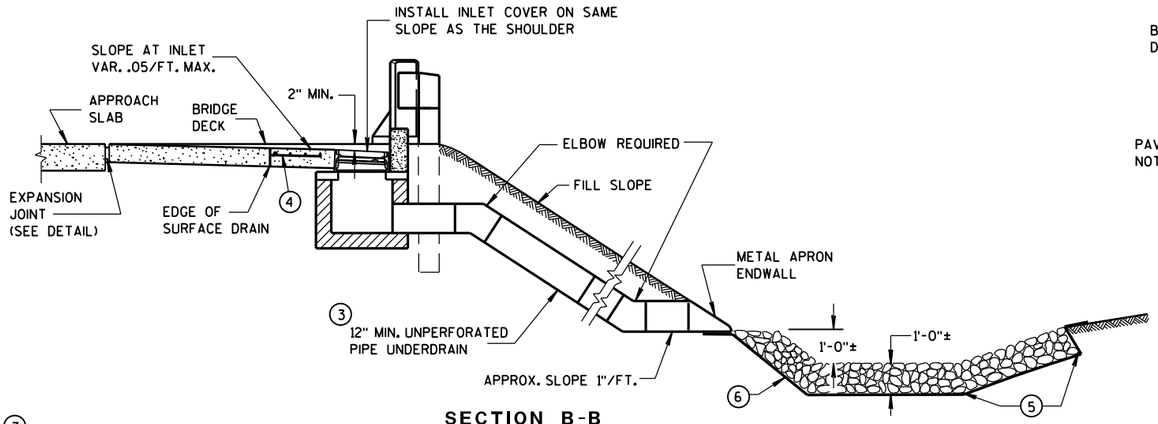
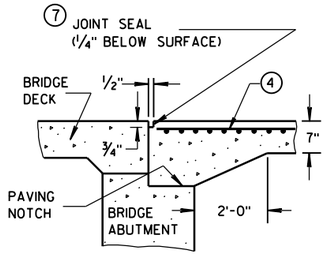
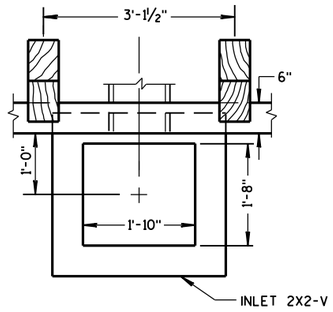
S.D.D. 8 C 8-1



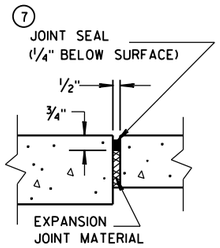
SECTION B-B



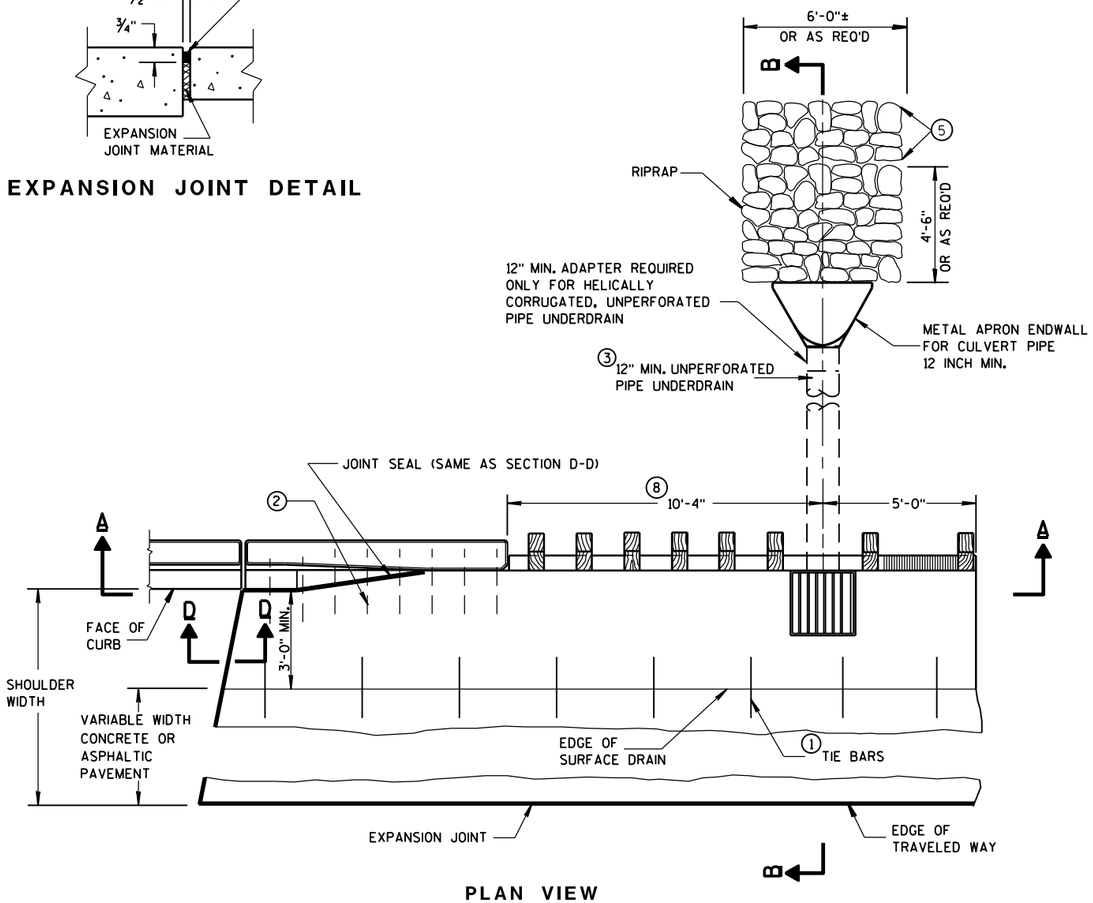
SECTION D-D



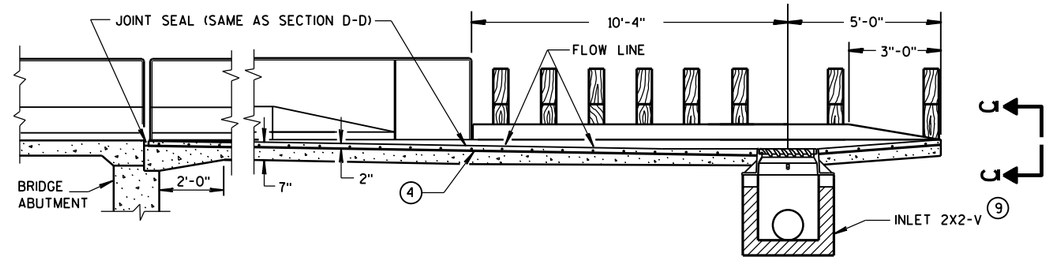
PLAN VIEW



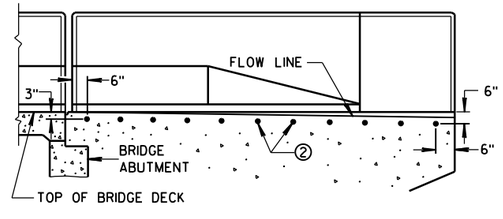
EXPANSION JOINT DETAIL



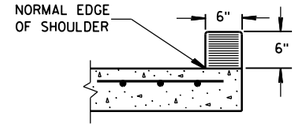
PLAN VIEW



SECTION A-A



LOCATION OF TIE BARS IN WINGWALL



SECTION C-C

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS, AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

ALL STEEL REINFORCEMENT SHALL BE EMBEDDED 2 INCHES CLEAR UNLESS OTHERWISE SHOWN OR NOTED.

(1) NO. 4 X 2'-0" TIE BARS SPACED AT 3'-0" CENTERS TO BE USED ONLY WHEN ADJACENT TO P.C. CONCRETE.

(2) NO. 4 X 2'-0" TIE BARS SPACED AT 12" CENTERS TO BE PLACED BY BRIDGE CONTRACTOR, OR DRILLED TIE BARS PLACED AS DIRECTED BY THE ENGINEER.

(3) THE PIPE UNDERDRAIN MAY BE ANY ONE OF THE SIX MATERIALS LISTED IN THE STANDARD SPECIFICATIONS SECTION 612.2 EXCEPT DRAIN TILE.

(4) MINIMUM REINFORCEMENT SHALL BE 6" X 6" - W4.0 X W4.0 OR NO. 3 BARS LONGITUDINAL AND TRANSVERSE SPACING 12" C-C.

(5) LIMITS OF ADDITIONAL RIPRAP WHEN SPECIAL DITCH IS REQUIRED.

(6) GEOTEXTILE FABRIC, TYPE 'R'

(7) HOT POURED SEALANT UNLESS OTHERWISE SPECIFIED.

(8) THIS DIMENSION MAY VARY DEPENDING ON THE SPACING OF POSTS FOR THE STEEL PLATE BEAM GUARD. THE TYPICAL LOCATION FOR THE SURFACE DRAIN IS WHERE THE POST SPACING WIDENS TO 3'-1½".

(9) SEE CURRENT STANDARD DETAIL DRAWINGS 8A5 AND 8C7 FOR DETAILS.

CONCRETE SURFACE DRAINS DROP INLET TYPE AT STRUCTURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

9/4/08 DATE

/S/ Jerry H. Zogg
ROADWAY STANDARDS ENGINEER

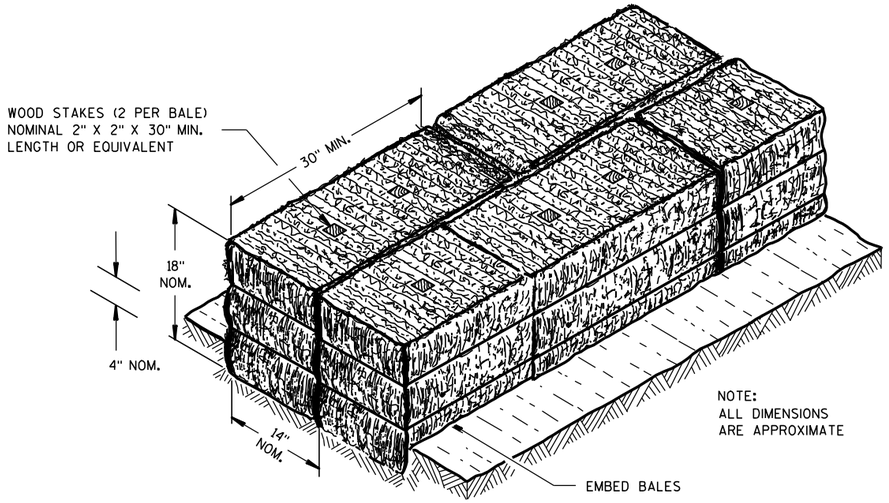
FHWA

6

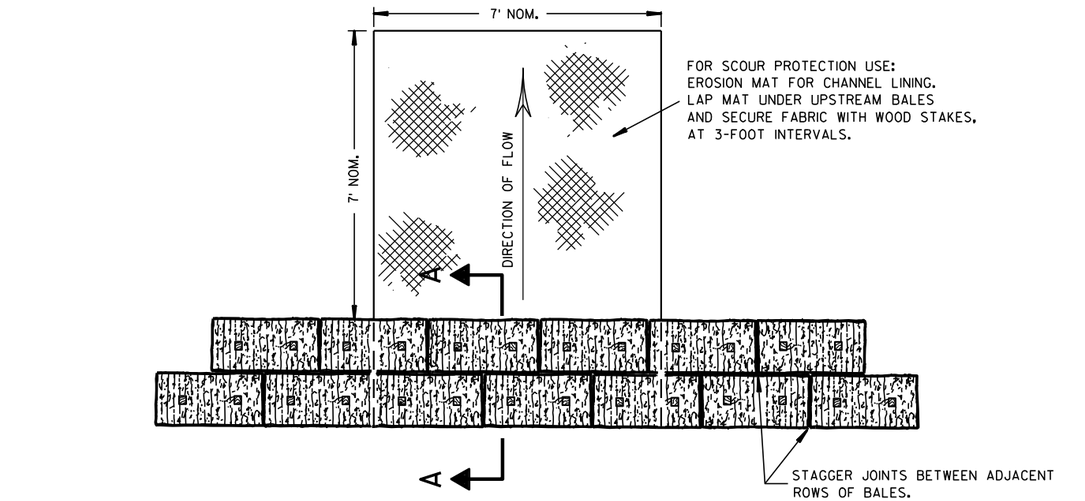
SDD 8 D 3-6

6

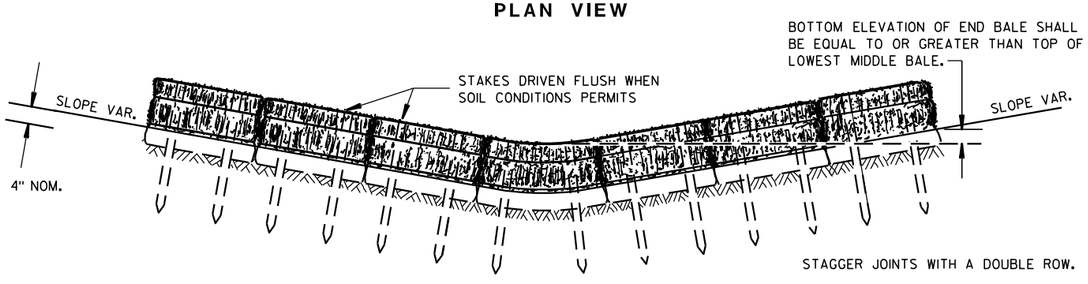
SDD 8 D 3-6



SECTION A-A



PLAN VIEW



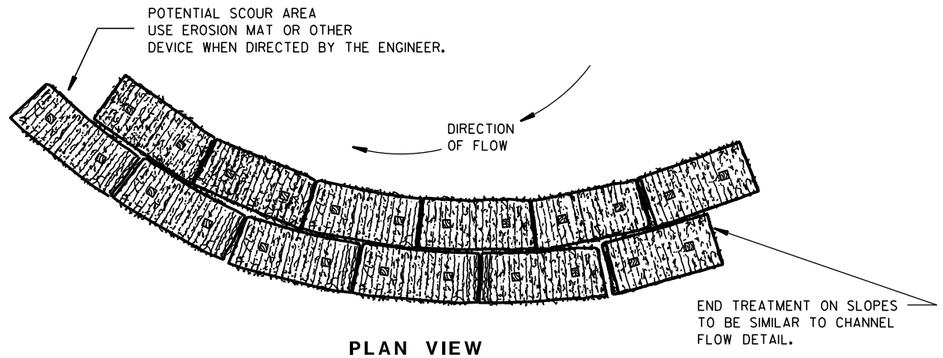
FRONT ELEVATION

TEMPORARY DITCH CHECK USING EROSION BALES (1)

GENERAL NOTES

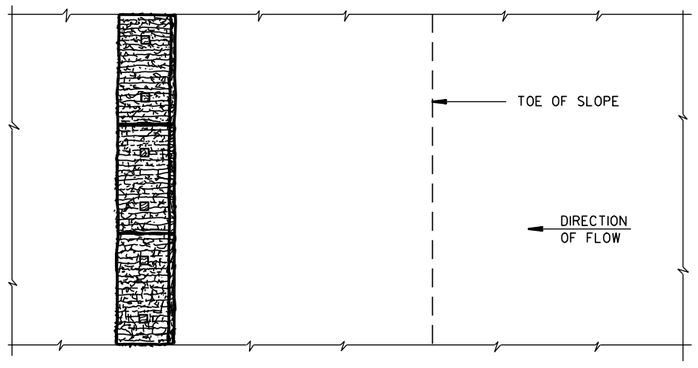
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

(1) TEMPORARY DITCH CHECKS EITHER EROSION BALES OR MANUFACTURED SHALL BE PAID FOR UNDER THE BID ITEM OF TEMPORARY DITCH CHECK. THE DEPARTMENT WILL NOT PAY FOR TEMPORARY DITCH CHECKS CONSTRUCTED OF A SINGLE ROW OF EROSION BALES.

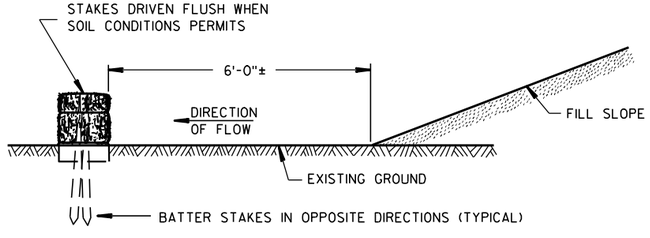


PLAN VIEW

WHEN ALTERING THE DIRECTION OF FLOW



PLAN VIEW



FRONT ELEVATION

WHEN EXISTING GROUND SLOPES AWAY FROM FILL SLOPE

EROSION BALES FOR SHEET FLOW

TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

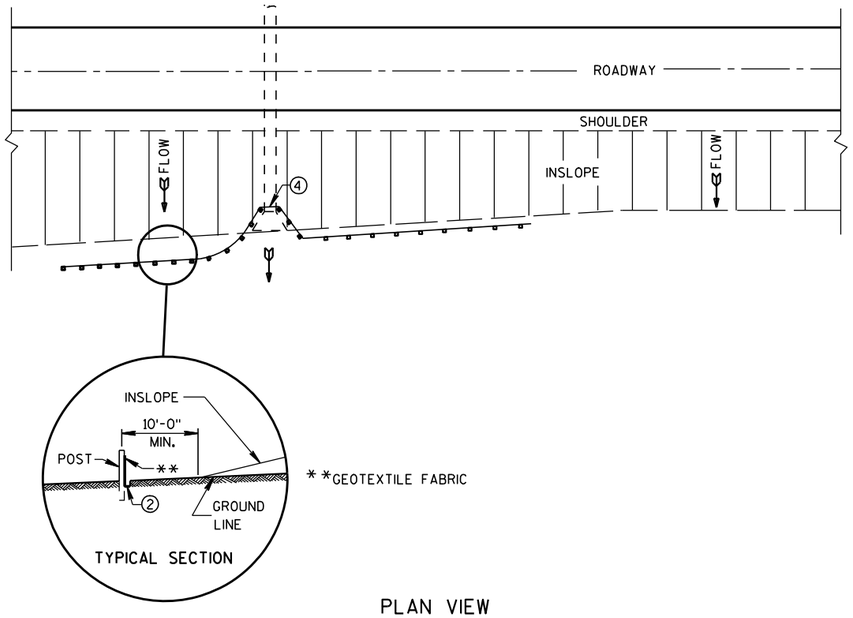
6/04/02 — DATE

/S/ Beth Cannestra — CHIEF ROADWAY DEVELOPMENT ENGINEER

FHWA

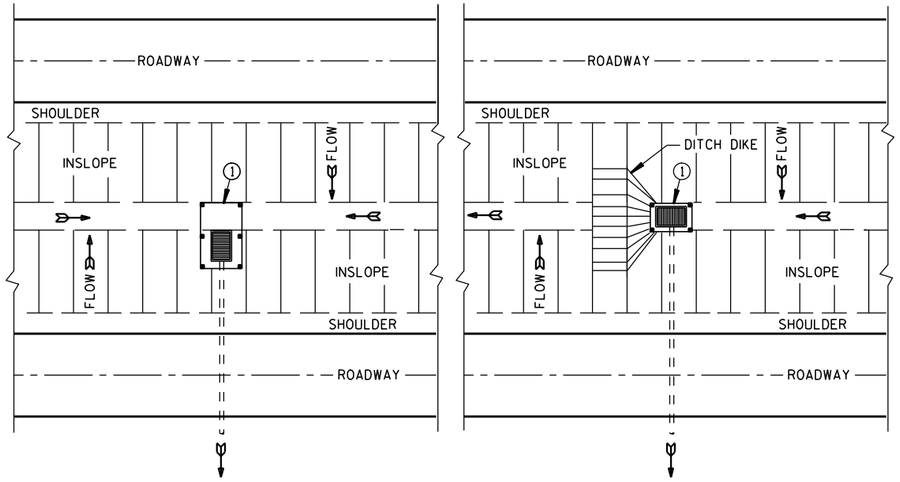
6

S.D.D. 8 E 8-3



PLAN VIEW

TYPICAL APPLICATION OF SILT FENCE



PLAN VIEW

SILT FENCE AT MEDIAN SURFACE DRAINS

GENERAL NOTES

DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

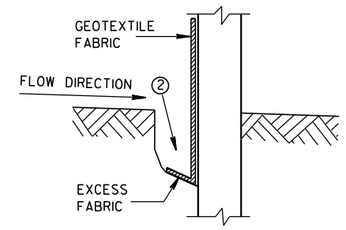
① HORIZONTAL BRACE REQUIRED WITH 2" X 4" WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS.

② FOR MANUAL INSTALLATIONS THE TRENCH SHALL BE A MINIMUM OF 4" WIDE & 6" DEEP TO BURY AND ANCHOR THE GEOTEXTILE FABRIC. FOLD MATERIAL TO FIT TRENCH AND BACKFILL & COMPACT TRENCH WITH EXCAVATED SOIL.

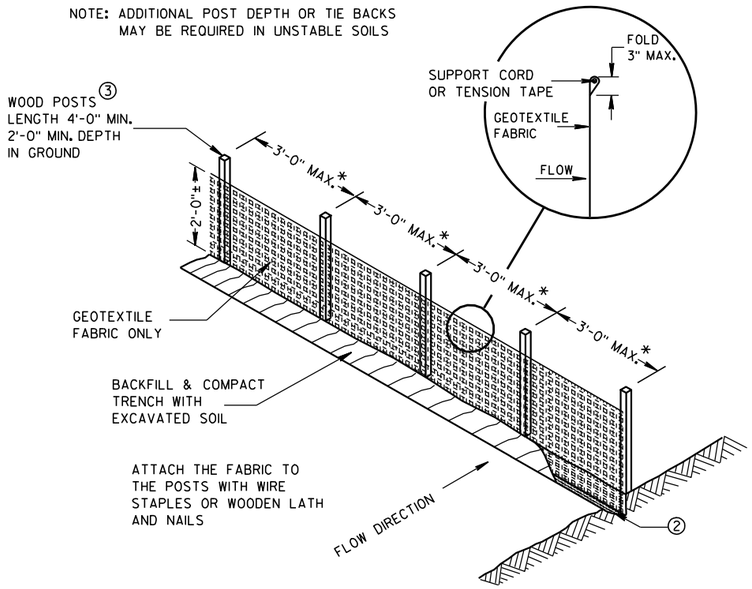
③ WOOD POSTS SHALL BE A MINIMUM SIZE OF 1⅛" X 1⅛" OF OAK OR HICKORY.

④ SILT FENCE TO EXTEND ACROSS THE TOP OF THE PIPE.

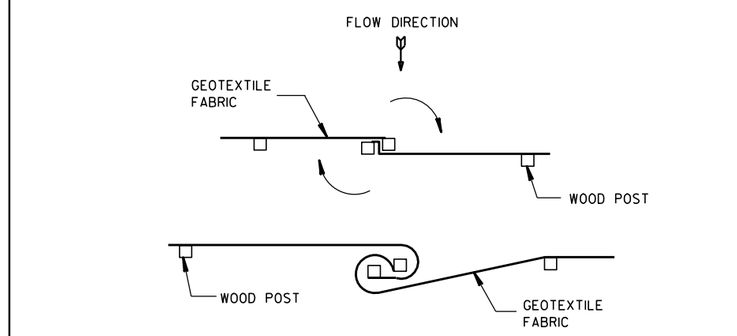
⑤ CONSTRUCT SILT FENCE FROM A CONTINUOUS ROLL IF POSSIBLE BY CUTTING LENGTHS TO AVOID JOINTS. IF A JOINT IS NECESSARY USE ONE OF THE FOLLOWING TWO METHODS; A) OVERLAP THE END POSTS AND TWIST, OR ROTATE, AT LEAST 180 DEGREES, B) HOOK THE END OF EACH SILT FENCE LENGTH.



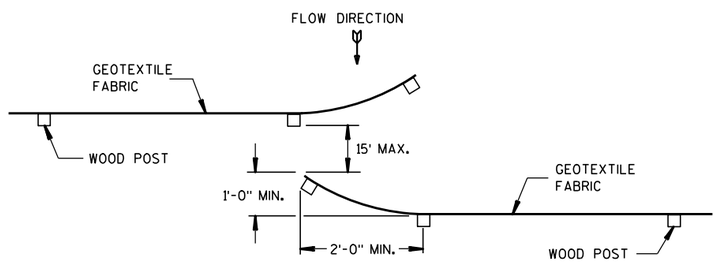
TRENCH DETAIL



SILT FENCE

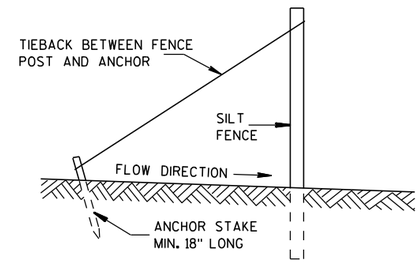


TWIST METHOD



HOOK METHOD

JOINING TWO LENGTHS OF SILT FENCE ⑤



SILT FENCE TIE BACK

(WHEN REQUIRED BY THE ENGINEER)

SILT FENCE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
4-29-05 DATE
/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

6

S.D.D. 8 E 9-6

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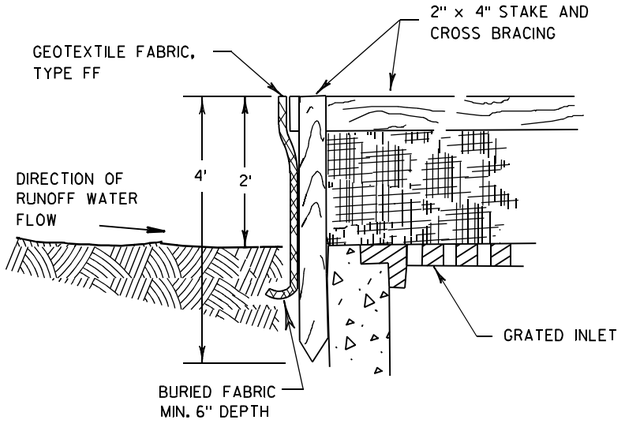
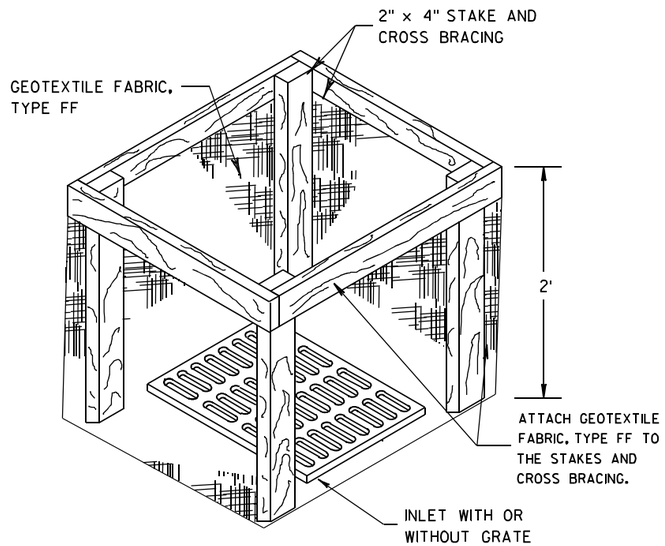
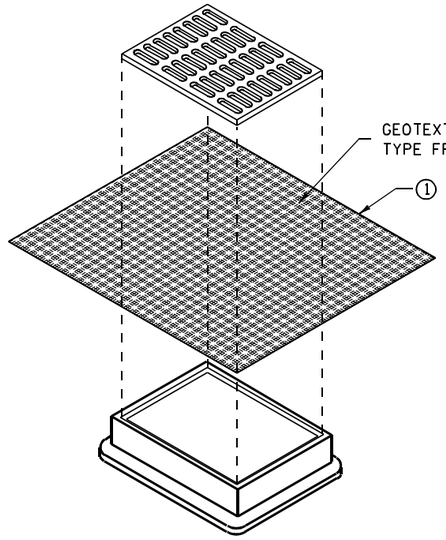
S.D.D. 8 E 9-6



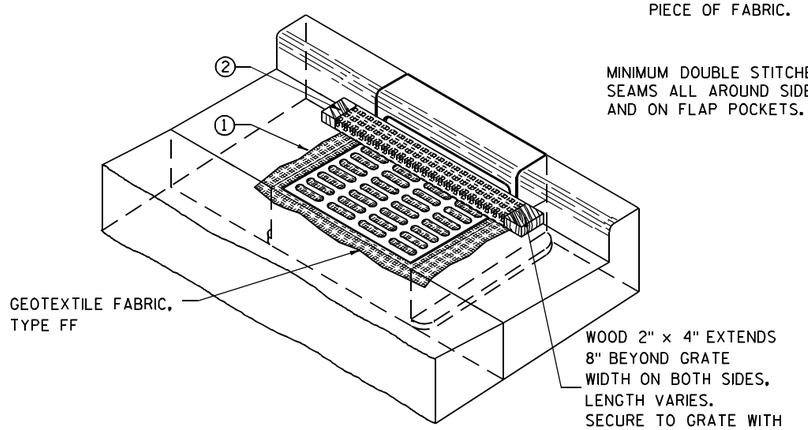


INLET PROTECTION, TYPE A

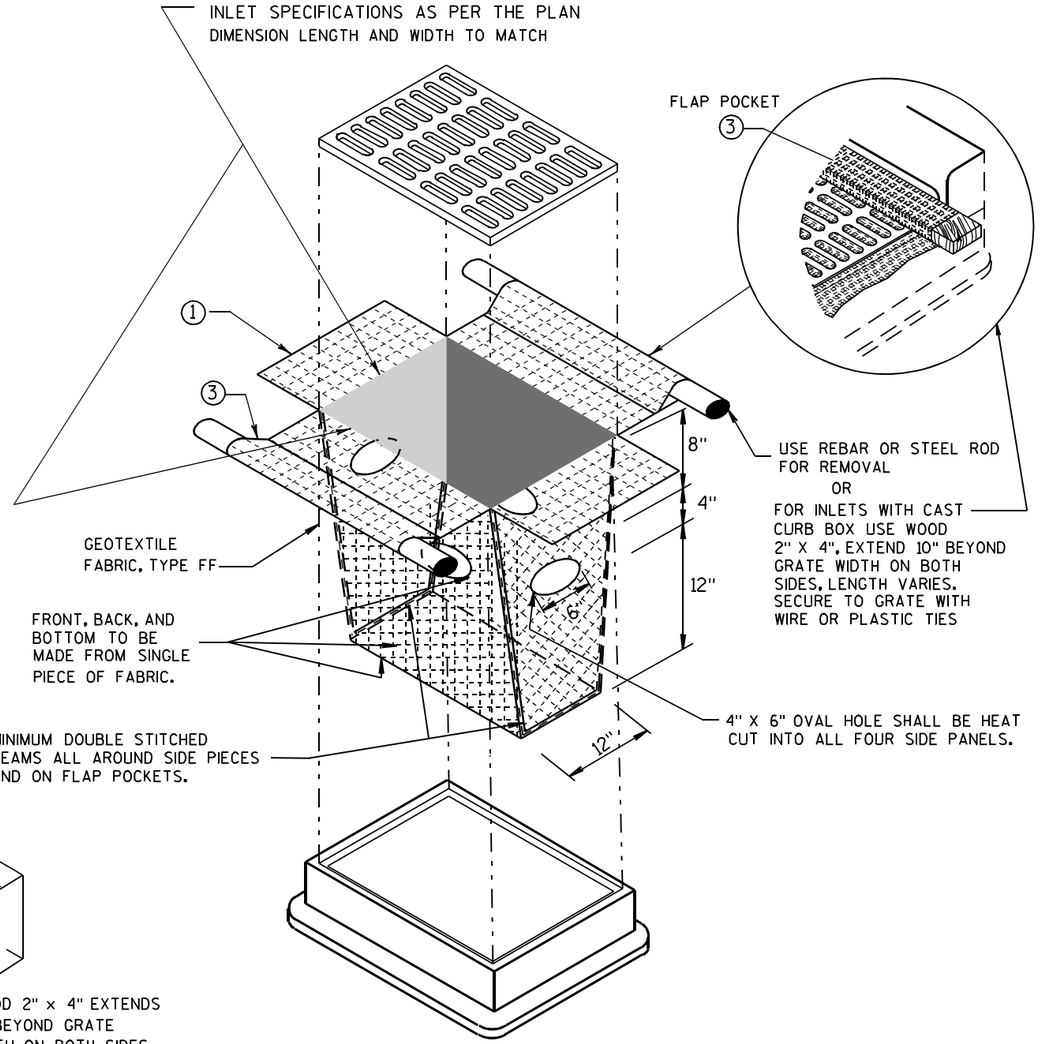


INLET PROTECTION, TYPE B
(WITHOUT CURB BOX)

(CAN BE INSTALLED IN ANY INLET WITHOUT A CURB BOX)



INLET PROTECTION, TYPE C (WITH CURB BOX)



INLET PROTECTION, TYPE D

(CAN BE INSTALLED IN ANY INLET TYPE WITH
OR WITHOUT A CURB BOX AS PER NOTE ②)

GENERAL NOTES

INLET PROTECTION DEVICES SHALL BE MAINTAINED OR REPLACED AT THE DIRECTION OF THE ENGINEER.

MANUFACTURED ALTERNATIVES APPROVED AND LISTED ON THE DEPARTMENT'S EROSION CONTROL PRODUCT ACCEPTABILITY LIST MAY BE SUBSTITUTED.

WHEN REMOVING OR MAINTAINING INLET PROTECTION, CARE SHALL BE TAKEN SO THAT THE SEDIMENT TRAPPED ON THE GEOTEXTILE FABRIC DOES NOT FALL INTO THE INLET. ANY MATERIAL FALLING INTO THE INLET SHALL BE REMOVED IMMEDIATELY.

① FINISHED SIZE, INCLUDING FLAP POCKETS WHERE REQUIRED, SHALL EXTEND A MINIMUM OF 10" AROUND THE PERIMETER TO FACILITATE MAINTENANCE OR REMOVAL.

② FOR INLET PROTECTION, TYPE C (WITH CURB BOX), AN ADDITIONAL 18" OF FABRIC IS WRAPPED AROUND THE WOOD AND SECURED WITH STAPLES. THE WOOD SHALL NOT BLOCK THE ENTIRE HEIGHT OF THE CURB BOX OPENING.

③ FLAP POCKETS SHALL BE LARGE ENOUGH TO ACCEPT WOOD 2X4.

INSTALLATION NOTES

TYPE B & C

TRIM EXCESS FABRIC IN THE FLOW LINE TO WITHIN 3" OF THE GRATE.

THE CONTRACTOR SHALL DEMONSTRATE A METHOD OF MAINTENANCE, USING A SEWN FLAP, HAND HOLDS OR OTHER METHOD TO PREVENT ACCUMULATED SEDIMENT FROM ENTERING THE INLET.

TYPE D

DO NOT INSTALL INLET PROTECTION TYPE D IN INLETS SHALLOWER THAN 30", MEASURED FROM THE BOTTOM OF THE INLET TO THE TOP OF THE GRATE.

TRIM EXCESS FABRIC IN THE FLOW LINE TO WITHIN 3" OF THE GRATE.

THE INSTALLED BAG SHALL HAVE A MINIMUM SIDE CLEARANCE, BETWEEN THE INLET WALLS AND THE BAG, MEASURED AT THE BOTTOM OF THE OVERFLOW HOLES, OF 3". WHERE NECESSARY THE CONTRACTOR SHALL CINCH THE BAG, USING PLASTIC ZIP TIES, TO ACHIEVE THE 3" CLEARANCE. THE TIES SHALL BE PLACED AT A MAXIMUM OF 4" FROM THE BOTTOM OF THE BAG.

INLET PROTECTION
TYPE A, B, C, AND D

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
10/16/02
DATE
/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

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S.D.D. 8 E 10-2

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S.D.D. 8 E 10-2

METAL APRON ENDWALLS

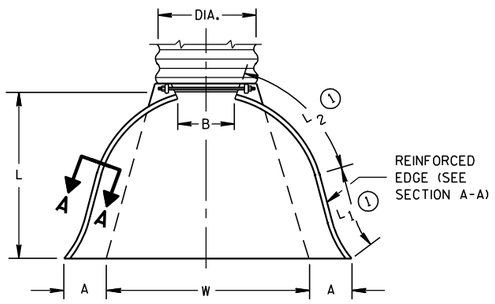
PIPE DIA. (IN.)	MIN. THICK. (Inches) STEEL	MIN. THICK. (Inches) ALUM.	DIMENSIONS (Inches) A (±1")	B (MAX.)	H (±1")	L (±1 1/2")	L1 ①	L2 ①	W (±2")	APPROX. SLOPE	BODY
12	.064	.060	6	6	6	21	12	17 1/2	24	2 1/2 to 1	1 Pc.
15	.064	.060	7	8	6	26	14	21 3/4	30	2 1/2 to 1	1 Pc.
18	.064	.060	8	10	6	31	15	28 1/4	36	2 1/2 to 1	1 Pc.
21	.064	.060	9	12	6	36	18	29 5/8	42	2 1/2 to 1	1 Pc.
24	.064	.075	10	13	6	41	18	37 1/4	48	2 1/2 to 1	1 Pc.
30	.079	.075	12	16	8	51	18	52 1/4	60	2 1/2 to 1	1 Pc.
36	.079	.105	14	19	9	60	24	59 3/4	72	2 1/2 to 1	2 Pc.
42	.109	.105	16	22	11	69	24	75 5/8	84	2 1/2 to 1	2 Pc.
48	.109	.105	18	27	12	78	24	81	90	2 1/4 to 1	3 Pc.
54	.109	.105	18	30	12	84	30	85 1/2	102	2 1/4 to 1	3 Pc.
60	.109×	.105×	18	33	12	87	—	—	114	2 to 1	3 Pc.
66	.109×	.105×	18	36	12	87	—	—	120	2 to 1	3 Pc.
72	.109×	.105×	18	39	12	87	—	—	126	2 to 1	3 Pc.
78	.109×	.105×	18	42	12	87	—	—	132	1 1/2 to 1	3 Pc.
84	.109×	.105×	18	45	12	87	—	—	138	1 1/2 to 1	3 Pc.
90	.109×	.105×	18	37	12	87	—	—	144	1 1/2 to 1	3 Pc.
96	.109×	.105×	18	35	12	87	—	—	150	1 1/2 to 1	3 Pc.

× EXCEPT CENTER PANEL SEE GENERAL NOTES

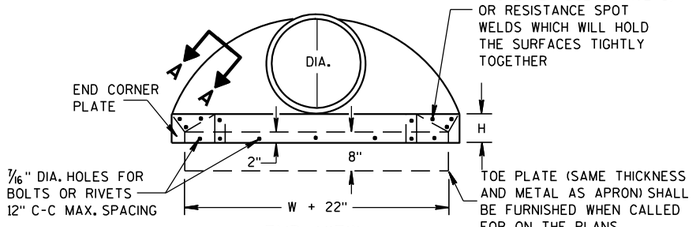
REINFORCED CONCRETE APRON ENDWALLS

PIPE DIA. (IN.)	DIMENSIONS (Inches) T	A	B	C	D	E	G	APPROX. SLOPE
12	2	4	24	48 7/8	72 1/8	24	2	3 to 1
15	2 1/4	6	27	46	73	30	2 1/4	3 to 1
18	2 1/2	9	27	46	73	36	2 1/2	3 to 1
21	2 3/4	9	36	37 1/2	73 1/2	42	2 3/4	3 to 1
24	3	9 1/2	43 1/2	30	73 1/2	48	3	3 to 1
27	3 1/4	10 1/2	49 1/2	24	73 1/2	54	3 1/4	3 to 1
30	3 1/2	12	54	19 3/4	73 1/2	60	3 1/2	3 to 1
36	4	15	63	34 3/4	97 3/4	72	4	3 to 1
42	4 1/2	21	63	35	98	78	4 1/2	3 to 1
48	5	24	72	26	98	84	5	3 to 1
54	5 1/2	27	65	* 33 1/4 - ** 35	* 98 1/4 - ** 100	90	5 1/2	2 2/5 to 1
60	6	* 30 - ** 35	60	39	99	96	5	2 to 1
66	6 1/2	* 24 - ** 30	* 72 - ** 78	* 21 - ** 27	99	102	5 1/2	2 to 1
72	7	* 24 - ** 36	78	21	99	108	6	2 to 1
78	7 1/2	* 24 - ** 36	78	21	99	114	6 1/2	2 to 1
84	8	36	90 1/2	21	111 1/2	120	6 1/2	1 1/2 to 1
90	8 1/2	41	87 1/2	24	111 1/2	132	6 1/2	1 1/2 to 1

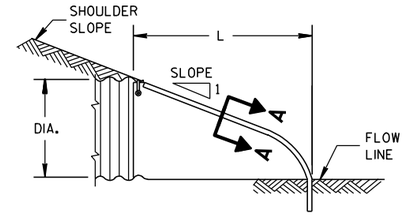
* MINIMUM
** MAXIMUM



PLAN VIEW

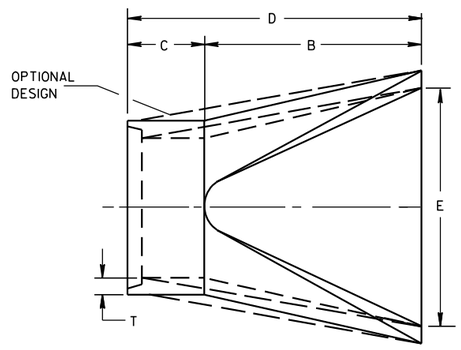


END VIEW

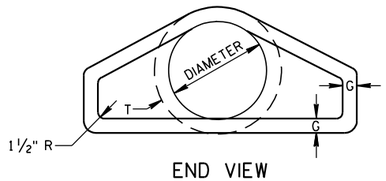


SIDE ELEVATION

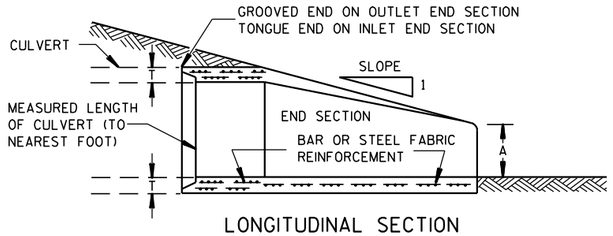
METAL ENDWALLS



PLAN

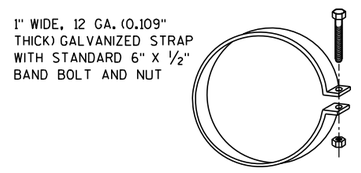


END VIEW



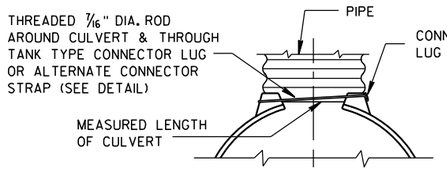
LONGITUDINAL SECTION

CONCRETE ENDWALLS

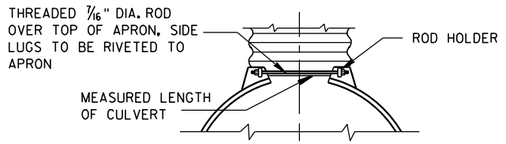


ALTERNATE FOR TYPE 1 CONNECTION

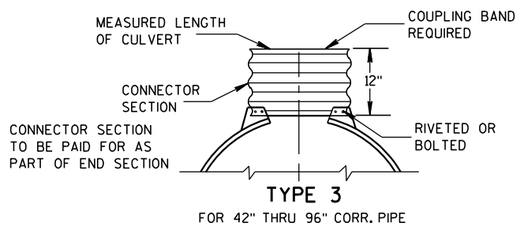
END SECTION CONNECTOR STRAP



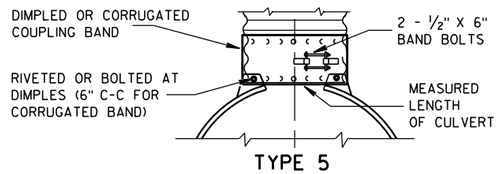
TYPE 1
FOR 12" THRU 24" CORR. PIPE



TYPE 2
FOR 30" THRU 96" CORR. PIPE



TYPE 3
FOR 42" THRU 96" CORR. PIPE



TYPE 5
ALTERNATE FOR:
ALL SIZES CORRUGATED CIRCULAR PIPE

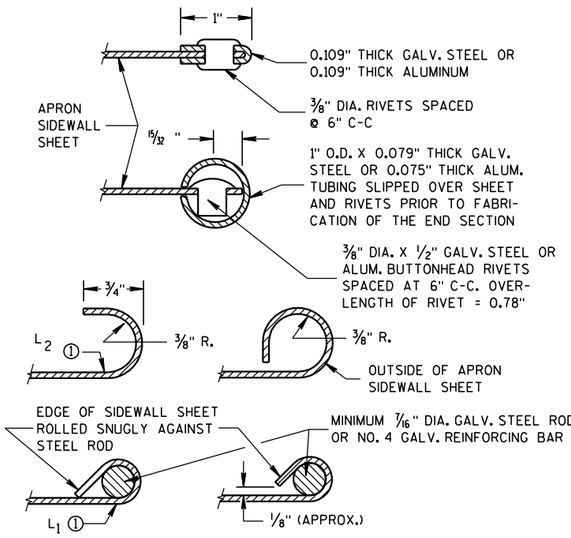
NOTE: DIMPLED BAND FITS OVER OUTSIDE OF ENDWALL. AND CORRUGATED BAND FITS INSIDE ENDWALL. DIMPLED BAND MAY BE USED WITH HELICALLY CORRUGATED PIPE.

FOR CIRCUMFERENTIALLY CORRUGATED PIPE USE ENDWALL CONNECTION DETAILS 1, 2, 3 OR 5 AS APPLICABLE.

FOR HELICALLY CORRUGATED PIPE USE ENDWALL CONNECTION DETAILS 1, 2 OR 5.

FOR HELICALLY CORRUGATED PIPES WITH TWO CIRCUMFERENTIAL CORRUGATIONS AT EACH END USE ENDWALL CONNECTION DETAILS 1, 2 OR 3.

CONNECTION DETAILS



SECTION A-A

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

CONCRETE CULVERT ENDWALLS MAY NOT BE USED WITH GALVANIZED STEEL OR ALUMINUM CULVERT PIPE OR VISE VERSA. GALVANIZED STEEL OR ALUMINUM ENDWALLS SHALL NORMALLY BE INSTALLED ON CULVERT PIPE OF THE SAME METAL.

ALL THREE PIECE STEEL APRON ENDWALLS FOR 60" DIAMETER PIPE AND LARGER SHALL HAVE 0.109" SIDES AND 0.138" CENTER PANELS. ALL THREE PIECE ALUMINUM APRON ENDWALLS FOR 60" DIAMETER PIPE AND LARGER SHALL HAVE 0.105" SIDES AND 0.134" CENTER PANELS. THE WIDTH OF CENTER PANELS SHALL BE GREATER THAN 20 PERCENT OF THE PIPE PERIMETER.

LAP SEAMS SHALL BE TIGHTLY JOINED BY GALVANIZED RIVETS OR BOLTS FOR STEEL UNITS AND ALUMINUM RIVETS AND BOLTS FOR ALUMINUM UNITS. FOR THE 60" THROUGH 96" DIAMETER APRON ENDWALL SIZES, THE REINFORCED EDGES AND CENTER PANEL SEAMS SHALL BE FURTHER REINFORCED WITH GALVANIZED STEEL OR ALUMINUM STIFFENER ANGLES. THE ANGLES SHALL BE ATTACHED BY GALVANIZED NUTS AND BOLTS FOR STEEL UNITS AND ALUMINUM NUTS AND BOLTS FOR ALUMINUM UNITS.

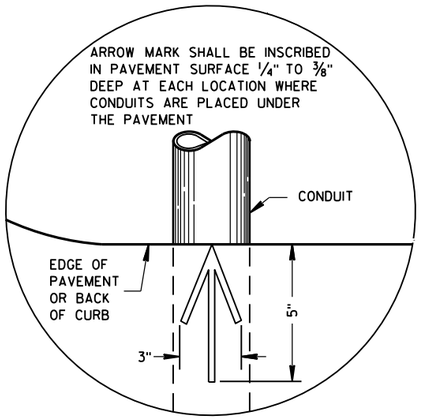
WHERE TWO OR MORE PIPES WITH APRON ENDWALLS ARE LAID ADJACENT TO EACH OTHER, THEY SHALL BE SEPARATED BY A DISTANCE SUFFICIENT TO PROVIDE A MINIMUM CLEARANCE OF 6 INCHES BETWEEN APRON ENDWALLS.

① FOR PIPE SIZES UP TO 60" DIAMETER, A 180° ROLLED EDGE MAY BE USED INSTEAD OF STEEL ROD REINFORCEMENT. SEE SECTION A-A.

APRON ENDWALLS FOR CULVERT PIPE

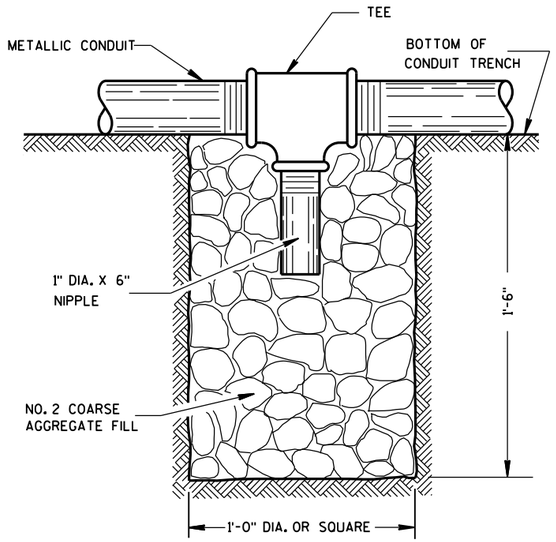
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
11/30/94 DATE
/S/ Rory L. Rhinesmith
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA



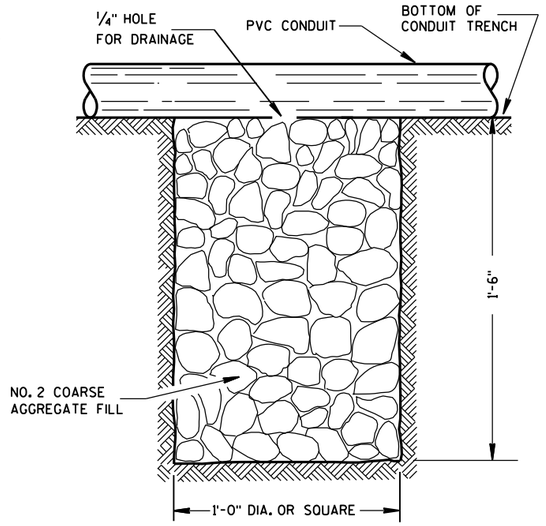
PLAN VIEW

ARROW MARK



NOTE: INSTALL AT LOCATIONS WHERE METALLIC CONDUITS CANNOT BE PITCHED TO DRAIN INTO A PULL BOX.

DRAIN SUMP FOR METALLIC CONDUIT



NOTE: INSTALL AT LOCATIONS WHERE PVC CONDUITS CANNOT BE PITCHED TO DRAIN INTO A PULL BOX.

DRAIN SUMP FOR PVC CONDUIT

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

METALLIC (STANDARD SPECIFICATION 652.2.2) OR NONMETALLIC (STANDARD SPECIFICATION 652.2.3) CONDUIT SHALL BE FURNISHED AND PLACED AS SHOWN.

DEPTH OF CONDUIT INSTALLED BELOW THE TRAVELED WAY SHALL BE 24 INCHES MINIMUM AND 36 INCHES MAXIMUM.

DEPTH OF CONDUIT INSTALLED THAT IS NOT BELOW THE TRAVELED WAY SHALL BE 18 INCHES MINIMUM AND 36 INCHES MAXIMUM.

ANY EXCEPTION TO THE MAXIMUM DEPTH SHALL BE ONLY WITH THE WRITTEN APPROVAL OF THE ENGINEER.

THE TRENCH SHALL NOT BE BACKFILLED PRIOR TO INSPECTION OF THE CONDUIT.

ALL METALLIC CONDUIT RACEWAY ENDS SHALL BE REAMED AND THREADED.

ALL METALLIC CONDUIT IN WHICH WIRE OR CABLE IS TO BE INSTALLED SHALL BE BUSHED WITH APPROVED THREADED BUSHINGS BEFORE INSTALLATION OF THE WIRE OR CABLE.

ALL METALLIC CONDUITS IN WHICH WIRE OR CABLE IS NOT TO BE INSTALLED SHALL BE CAPPED WITH THREADED PROTECTIVE CAPS, AS APPROVED BY THE ENGINEER.

ALL NONMETALLIC CONDUIT SHALL BE CAPPED OR PLUGGED IMMEDIATELY AFTER INSTALLATION AND SHALL REMAIN CAPPED OR PLUGGED UNTIL WIRE/CABLES ARE INSTALLED.

NONMETALLIC CONDUITS IN WHICH WIRE OR CABLE IS NOT BEING INSTALLED SHALL REMAIN CAPPED OR PLUGGED.

BENDING OF PVC ELECTRICAL CONDUIT SHALL BE ACCOMPLISHED BY USING A BLANKET OR EMERSION TYPE TANK DESIGNED FOR THE PURPOSE OF BENDING PVC ELECTRICAL CONDUIT.

ALL CUT ENDS SHALL BE TRIMMED INSIDE AND OUTSIDE TO REMOVE ALL ROUGH EDGES ON NONMETALLIC CONDUIT. (SEE NEC 347.5)

WHEN REQUIRED TO CONNECT NONMETALLIC CONDUIT TO METALLIC CONDUIT, ONLY U.L. LISTED ADAPTER FITTINGS SHALL BE USED.

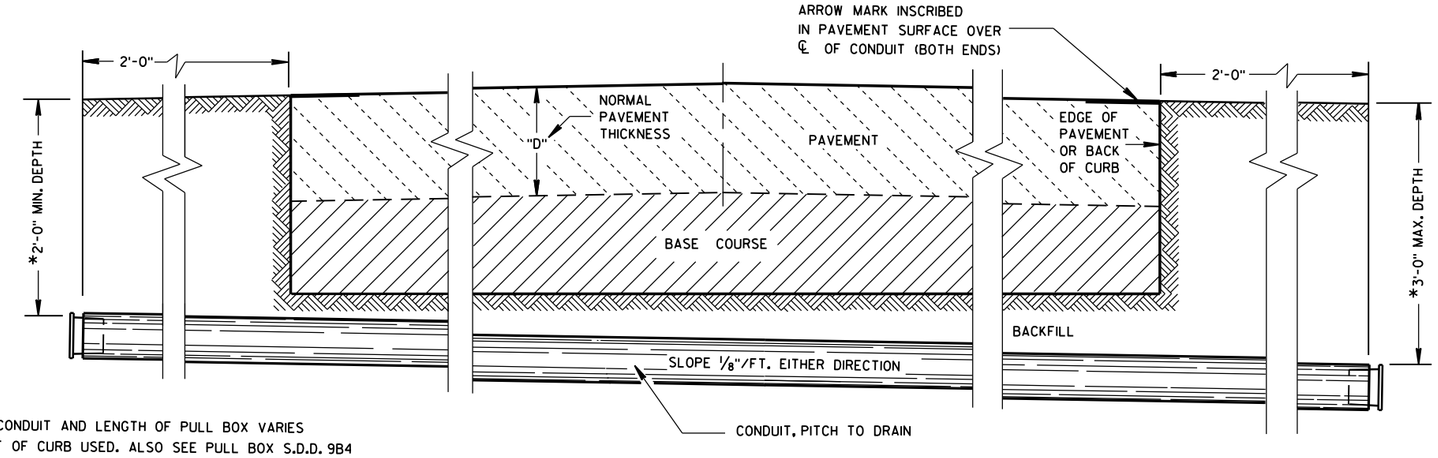
PRIOR TO CONDUIT ACCEPTANCE, CONDUIT CAPS OR PLUGS SHALL BE REMOVED, AND THE CAPS, PLUGS AND CONDUIT ENDS SHALL BE THOROUGHLY CLEANED AND THEN THE CAPS OR PLUGS REINSTALLED TO ENSURE THAT THE CAPS OR PLUGS CAN BE EASILY REMOVED IN THE FUTURE.

ALL CONDUIT BEING FURNISHED AND INSTALLED SHALL HAVE THE U.L. LABEL FIRMLY ATTACHED.

CONDUIT RUNS SHALL BE THE SAME SIZE OF CONDUIT FROM ONE END TO THE OTHER (FROM PULL BOX TO PULL BOX-OR-JUNCTION BOX TO JUNCTION BOX-OR-BASE TO BASE, ETC.).

TRACER WIRE SHALL BE INSTALLED AS STATED IN THE STANDARD SPECIFICATION, ITEM 652.3.1.1.

ALL CONDUIT RUNS SHALL BE STRAIGHT (WITHOUT BENDS) FROM PULL BOX TO PULL BOX, PULL BOX TO BASE AND BASE TO BASE AS SHOWN ON THE PLANS.



*DEPTH OF CONDUIT AND LENGTH OF PULL BOX VARIES WITH HEIGHT OF CURB USED. ALSO SEE PULL BOX S.D.D. 9B4

SIDE ELEVATION

DETAIL FOR CONDUIT UNDER PAVED HIGHWAYS

CONDUIT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June, 2015 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL
FHWA

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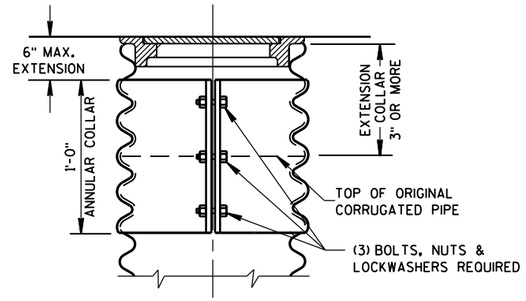
S.D.D. 9 B 2-9

TABLE OF NOMINAL DIMENSIONS AND WEIGHTS

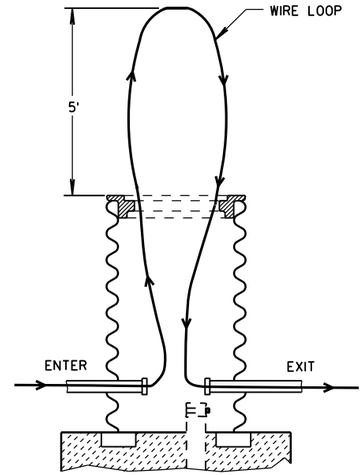
DIMENSION IN INCHES		CORRUGATED STEEL PIPE								
PIPE DIAMETER (INSIDE)	A	12	12	12	18	18	18	24	24	24
PIPE LENGTH **	B	24	30	36	24	30	36	36	42	48
WALL THICKNESS	C	0.064	0.064	0.064	0.064	0.064	0.064	0.064	0.064	0.064
COVER	D	10 1/4	10 1/4	10 1/4	16 1/4	16 1/4	16 1/4	22 1/4	22 1/4	22 1/4
FRAME	E	14 1/2	14 1/2	14 1/2	20 1/2	20 1/2	20 1/2	26 1/2	26 1/2	26 1/2
FRAME	F	8 1/2	8 1/2	8 1/2	14 1/2	14 1/2	14 1/2	20 1/2	20 1/2	20 1/2
FRAME	G	11 1/2	11 1/2	11 1/2	17 1/2	17 1/2	17 1/2	23 1/2	23 1/2	23 1/2
WEIGHT IN POUNDS *										
FRAME AND COVER		60	60	60	110	110	110	155	155	155

* THE ACTUAL WEIGHT OF THE MANHOLE FRAME AND COVER MAY VARY WITHIN 5 PERCENT PLUS OR MINUS OF THE WEIGHTS SHOWN.

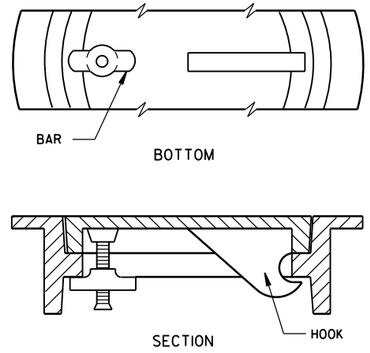
** NORMALLY USED LENGTHS. THE PROJECT ENGINEER SHALL DETERMINE IF PIPE LENGTHS, OTHER THAN THOSE SPECIFIED, SHALL BE USED, TO A MAXIMUM OF 48" (CONTINUOUS LENGTH, NON-SPLICED). THE ADDITIONAL LENGTH SHALL BE INCIDENTAL TO THE PULL BOX BID PRICE.



CORRUGATED PIPE EXTENDER

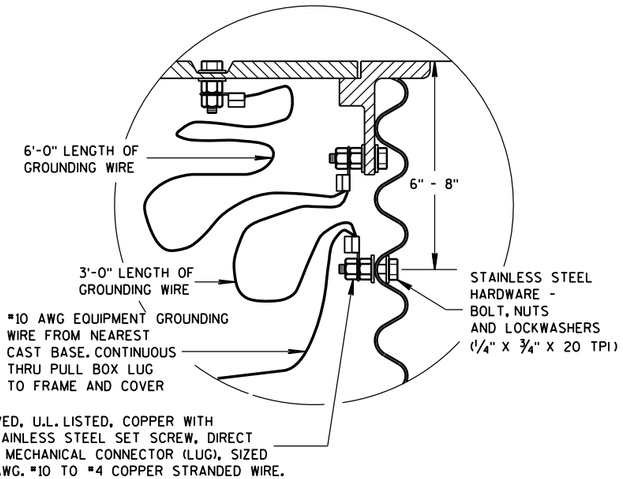


MEASUREMENT DETAIL FOR WIRE/CABLE IN THE PULL BOX

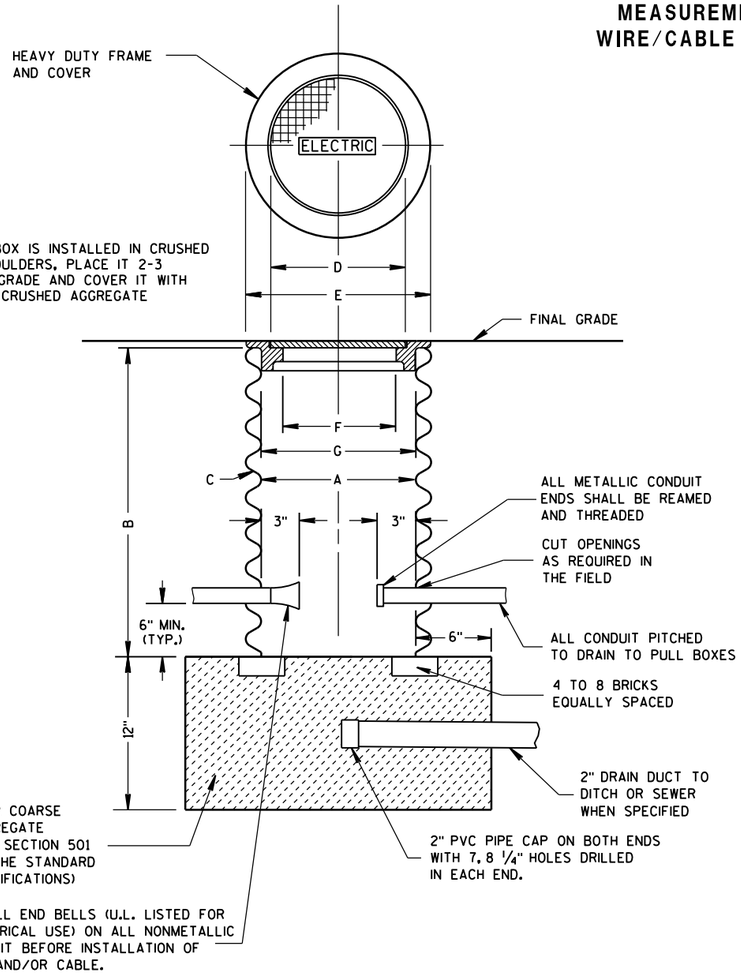


ALTERNATE COVER (LOCKING)

TIGHTENING BAR TYPE



EQUIPMENT GROUNDING LUG AND LOCATION IN STEEL PULL BOXES



PULL BOX

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

ALL FRAMES AND COVERS SHALL BE HEAVY DUTY TYPE, SUITABLE FOR VEHICULAR TRAFFIC LOADS.

PULL BOXES LOCATED IN THE ROADWAYS SHALL HAVE LOCKING COVERS.

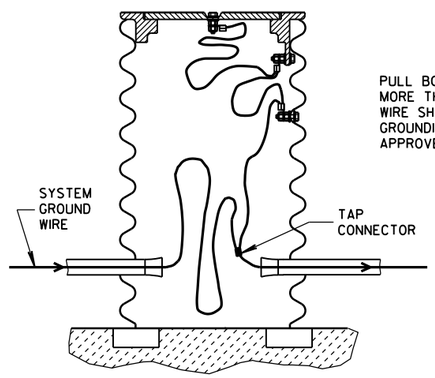
ENTRANCE HOLES INTO PULL BOXES SHALL BE CUT WITH A CIRCULAR HOLE SAW OR HYDRAULIC CONDUIT PUNCH. HOLE SIZE SHALL BE THE OUTSIDE DIAMETER OF THE CONDUIT THAT IS TO FIT IN THE OPENING PLUS NO MORE THAN 1/4".

THE CONTRACTOR SHALL NOT INSTALL WIRE IN ANY PULL BOX UNTIL ITS INSTALLATION HAS BEEN INSPECTED AND ACCEPTED BY THE ENGINEER.

GROUNDING LUGS (MECHANICAL CONNECTORS) SHALL BE U.L. LISTED AND APPROVED FOR USE WITH COPPER WIRE.

ALL METALLIC CONDUIT IN WHICH WIRE AND/OR CABLE IS TO BE INSTALLED, SHALL BE BUSHED BEFORE INSTALLATION OF THE WIRE AND/OR CABLE.

WHEN PULL BOXES ARE INSTALLED FOR FUTURE USE, DO NOT INSTALL THE EQUIPMENT GROUNDING LUG. THE EQUIPMENT GROUNDING LUG, THE EQUIPMENT GROUNDING ELECTRODE AND THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE REQUIRED AND INSTALLED UNDER A FUTURE WIRING CONTRACT.



PULL BOX TO NEAREST BASE DISTANCE MORE THAN 20 FEET. PULL BOX GROUND WIRE SHALL CONNECT AT SYSTEM GROUNDING WIRE. USE DEPARTMENT APPROVED TAP CONNECTOR.

EQUIPMENT GROUNDING LUG AND LOCATION IN STEEL PULL BOXES

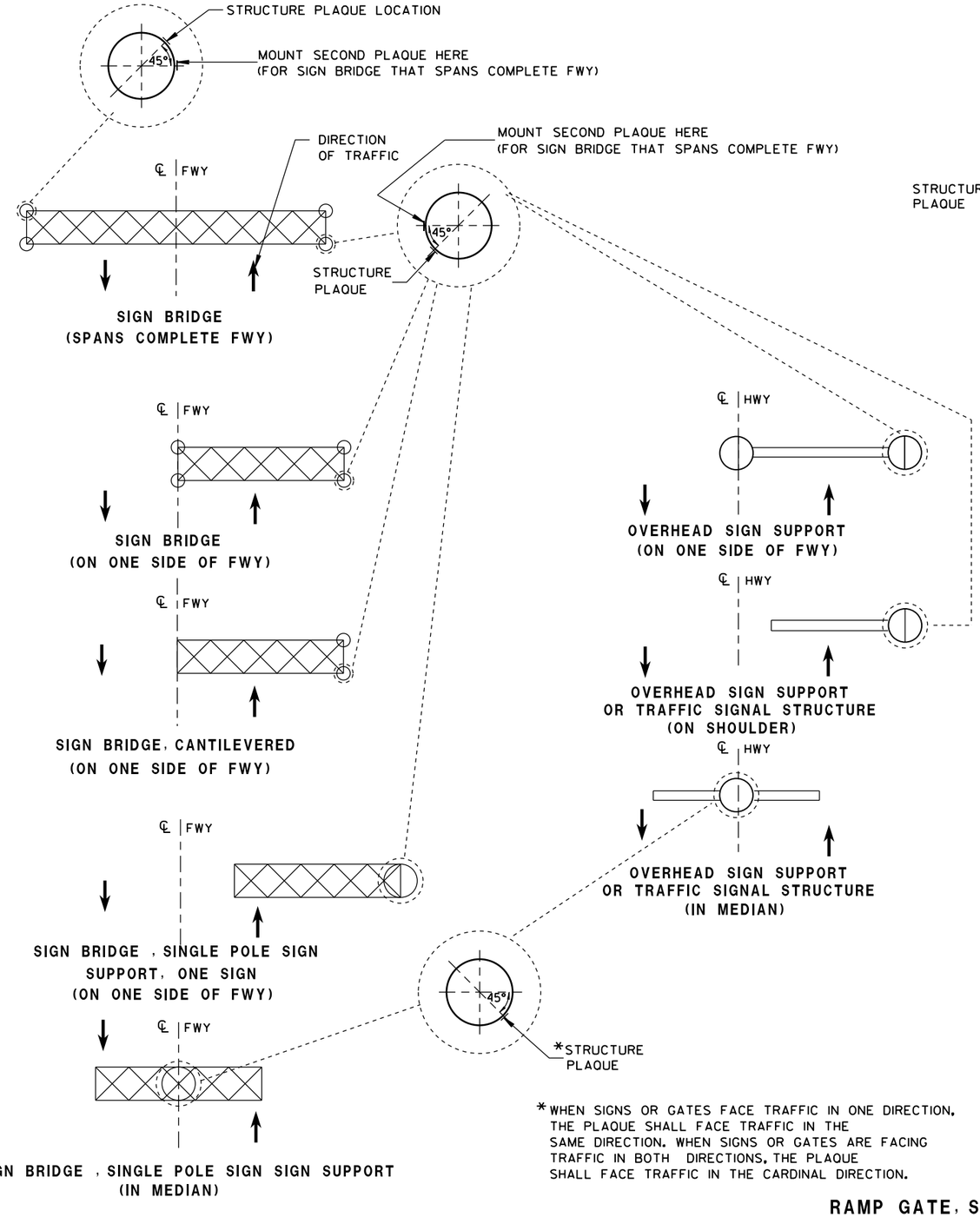
PULL BOX

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Sept. 2014 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL
FHWA

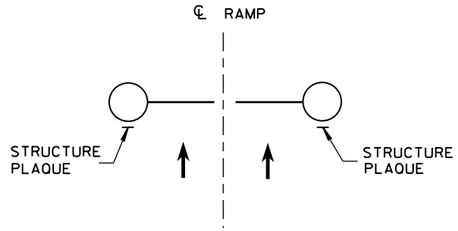
6

S.D.D. 9 B 4-11

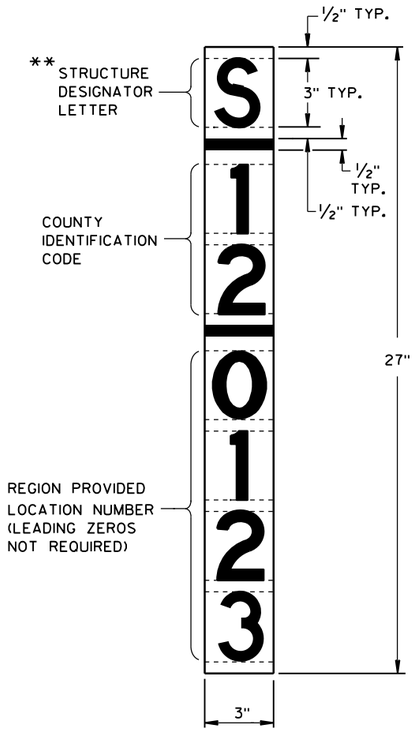


*WHEN SIGNS OR GATES FACE TRAFFIC IN ONE DIRECTION, THE PLAQUE SHALL FACE TRAFFIC IN THE SAME DIRECTION. WHEN SIGNS OR GATES ARE FACING TRAFFIC IN BOTH DIRECTIONS, THE PLAQUE SHALL FACE TRAFFIC IN THE CARDINAL DIRECTION.

LOCATION OF RAMP GATE, SIGN BRIDGE, OVERHEAD SIGN SUPPORT & TRAFFIC SIGNAL STRUCTURE PLAQUES



RAMP GATE
(ACROSS FWY ON-RAMP)



** LETTER "G" UTILIZED FOR RAMP GATES. LETTER "S" UTILIZED FOR SIGN BRIDGES, OVERHEAD SIGN SUPPORTS, AND TRAFFIC SIGNALS.

RAMP GATE, SIGN BRIDGE, OVERHEAD SIGN SUPPORT AND TRAFFIC SIGNAL STRUCTURE PLAQUE FOR SIGN BRIDGES AND OVERHEAD SIGN SUPPORT WHICH ARE NOT STRUCTURE MOUNTED

GENERAL NOTES

DETAILS OF CONSTRUCTION AND WORKMANSHIP NOT SHOWN IN THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

PLAQUES SHALL BE INCIDENTAL TO ALL NEW INSTALLATIONS.

IF THE PROPOSED SIGN BRIDGE OR OVERHEAD SIGN SUPPORT IS REPLACING AN EXISTING SIGN BRIDGE OR OVERHEAD SIGN SUPPORT, A NEW IDENTIFICATION PLAQUE WILL BE REQUIRED.

FASTEN TOP, CENTER AND BOTTOM OF PLAQUE TO POLE OR OTHER LOCATION AS FOLLOWS:

GALVANIZED STEEL SHAFT - 3 STAINLESS STEEL POP RIVETS

A588 STEEL SHAFT - SHIM FOR DRAINAGE WITH STAINLESS WASHERS; FASTEN WITH STAINLESS SELF-TAPPING SCREWS

ALUMINUM SHAFTS - 3 ALUMINUM POP RIVETS

MOUNTING HEIGHT SHALL BE APPROXIMATELY 5.0' ABOVE CURB OR SHOULDER. ADJUST IF IT IS KNOWN THAT REQUIRED TRAFFIC SIGNS WILL OBSTRUCT.

PLAQUE MATERIALS:

BASE - SHEET ALUMINUM, 0.060" THICK.

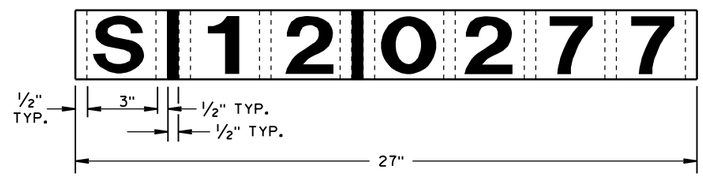
FACE - WHITE, SELF-ADHESIVE VINYL SHEETING, NON-RETROREFLECTIVE

LINES - BLACK, ½" WIDE, SELF-ADHESIVE

CHARACTERS:- BLACK, SELF ADHESIVE, SERIES "D", SIZE AS SHOWN.

FOR SIGN BRIDGES, STRUCTURE MOUNTED, THE STRUCTURE PLAQUE SHALL BE MOUNTED HORIZONTALLY AS SHOWN ON THE DRAWING. THE STRUCTURE PLAQUE SHALL BE MOUNTED HORIZONTALLY TO THE BACK OF THE SIGN, BETWEEN THE ALUMINUM EXTRUSIONS, NEAR THE TOP LEFT HAND CORNER OF THE SIGN. THE BASE MATERIAL SHALL BE OMITTED AND THE FACE ADHERED DIRECTLY TO THE ALUMINUM SURFACE. PRIOR TO ADHERING THE MATERIAL, THE ALUMINUM SURFACE SHALL BE SMOOTH, CLEAN AND DRY.

WHERE SIGN BRIDGE ILLUMINATION IS PROVIDED, THE STRUCTURE MUST ALSO HAVE A SIGN BRIDGE CIRCUIT PLAQUE AS SHOWN IN THE ELECTRICAL DETAILS.



IDENTIFICATION PLAQUE FOR SIGN BRIDGE, STRUCTURE MOUNTED

STRUCTURE IDENTIFICATION PLAQUES, RAMP GATES, SIGN BRIDGES, OVERHEAD SIGN SUPPORTS, & TRAFFIC SIGNALS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
12/4/2012 — DATE
/S/ Travis Feltes — STATE TRAFFIC ENGINEER
FHWA

6

S.D.D. 12 A 4-3

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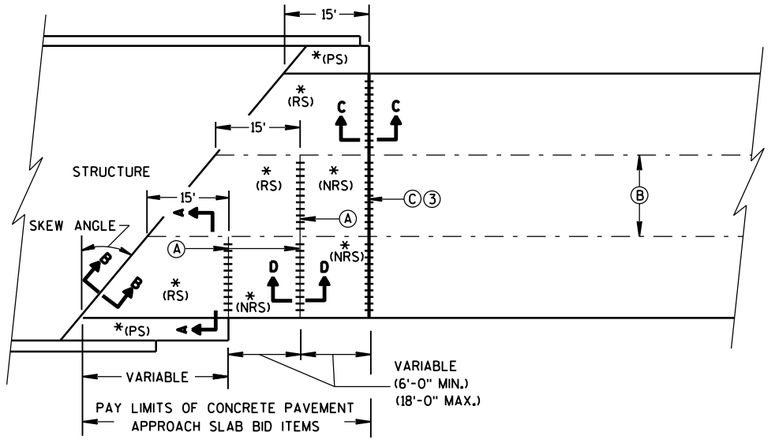
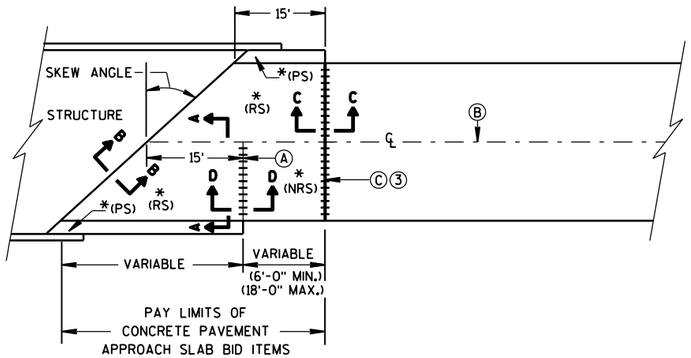
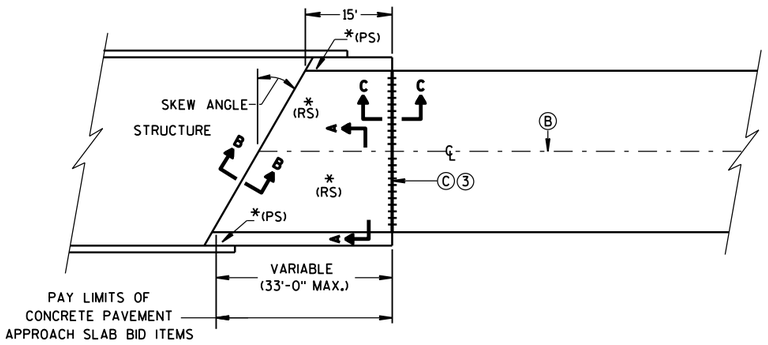
S.D.D. 12 A 4-3



SKEWED APPROACH
(PAVEMENT MORE THAN 2 LANES)



SKEWS >20°
(PAVEMENT WIDTH ≤30')



SKEWS ≤20°
(PAVEMENT WIDTH ≤30')

APPROACH SLAB AND ADJACENT PAVEMENT

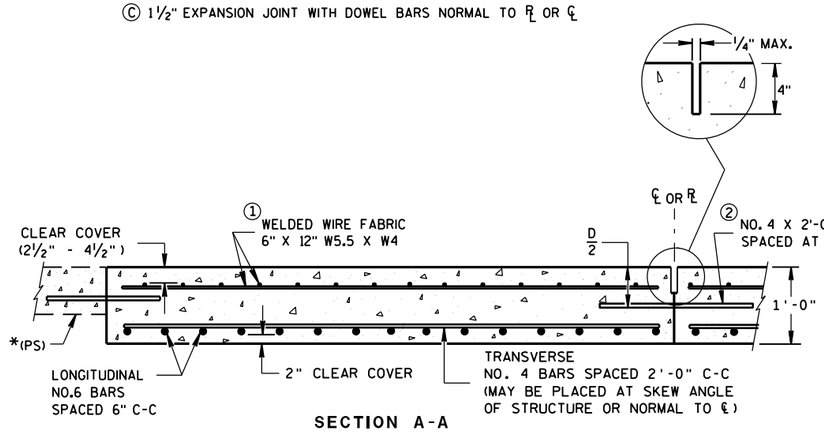
*(RS) = REINFORCED CONCRETE SLAB
*(PS) = PAVED CONCRETE SHOULDER OR CONCRETE DRAINAGE SLAB
(SEE DETAILS ELSEWHERE IN THE PLAN)
*(NRS) = NON-REINFORCED CONCRETE SLAB

***STANDARD DOWEL BAR DIAMETER
(SEE SDD 13C11, & SDD 13C13)

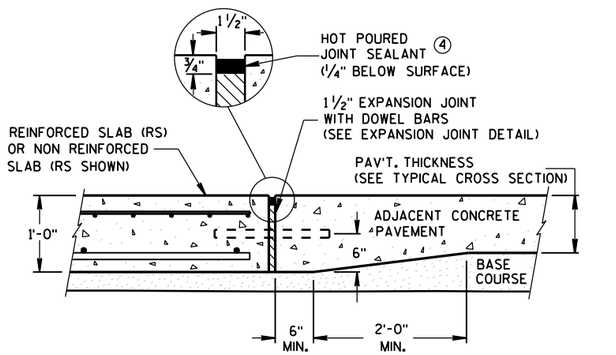
Ⓐ STANDARD CONTRACTION JOINT NORMAL TO ℄ OR ℄

Ⓑ STANDARD LONGITUDINAL JOINT WITH TIE BARS.

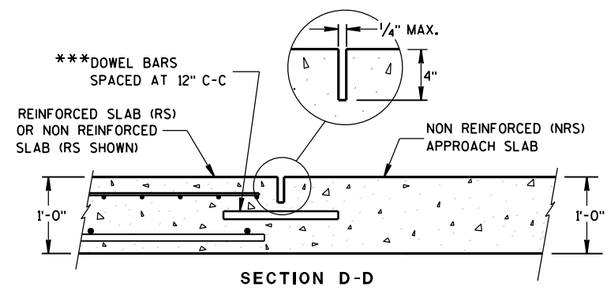
Ⓒ 1½" EXPANSION JOINT WITH DOWEL BARS NORMAL TO ℄ OR ℄



SECTION A-A
REINFORCEMENT POSITIONING DETAIL



SECTION C-C
TRANSITION DETAIL
APPROACH SLAB TO ADJACENT PAVEMENT



SECTION D-D
CONTRACTION JOINT

GENERAL NOTES

THE CONTRACTOR MAY SPLICE NO. 6 BARS IN THE APPROACH SLAB FOR SKEWED STRUCTURES ONLY. STAGGER SPLICES WITH A MAXIMUM OF ONE SPLICE PER BAR. THE LENGTH OF LAP IS 20 INCHES.

TACK WELD DOWEL BARS TO THE BASKETS ON ALTERNATE ENDS.

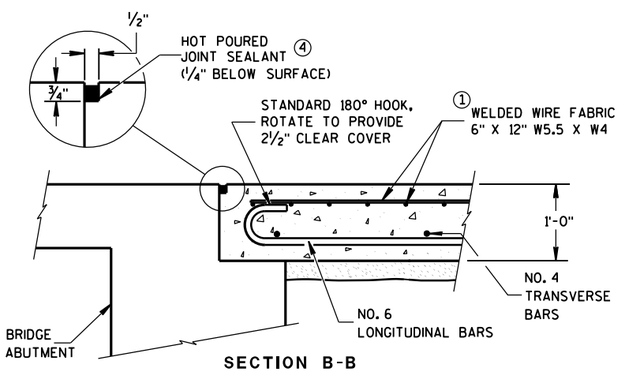
① THE CONTRACTOR MAY USE NO. 4 BARS SPACED AT 2'-0" C-C IN BOTH THE LONGITUDINAL AND TRANSVERSE DIRECTIONS FOR TOP REINFORCEMENT AS AN ALTERNATIVE TO THE WELDED WIRE FABRIC.

② THE CONTRACTOR MAY OMIT TIE BARS BETWEEN REINFORCED SLABS WHERE SLAB REINFORCEMENT BARS EXTEND ACROSS THE CENTERLINE OR REFERENCE LINE.

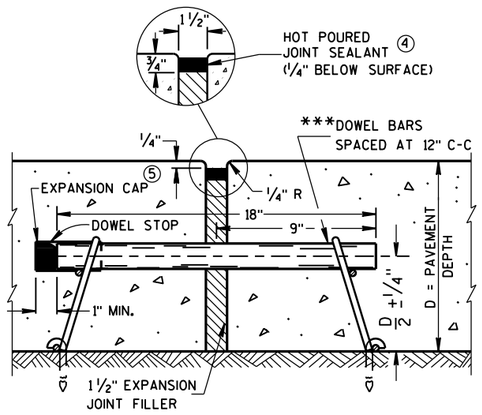
③ DO NOT CONSTRUCT AN EXPANSION JOINT OR INSTALL DOWEL BARS WHEN ABUTTING AN HMA PAVEMENT.

④ USE A JOINT SEALANT MEETING THE REQUIREMENTS OF ASTM D6690.

⑤ PLACE EXPANSION CAP ON THE END OF THE DOWEL THAT IS NOT TACK WELDED TO THE BASKET. DO NOT FORCE DOWEL BAR PAST THE DOWEL STOP.



SECTION B-B
BEND DETAIL
BOTTOM REINFORCEMENT



EXPANSION JOINT DETAIL

CONCRETE PAVEMENT APPROACH SLAB

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June, 2015
DATE
/S/ Peter Kemp, P.E.
PAVEMENT SUPER
FHWA

6

S.D.D. 13 B 2-8a

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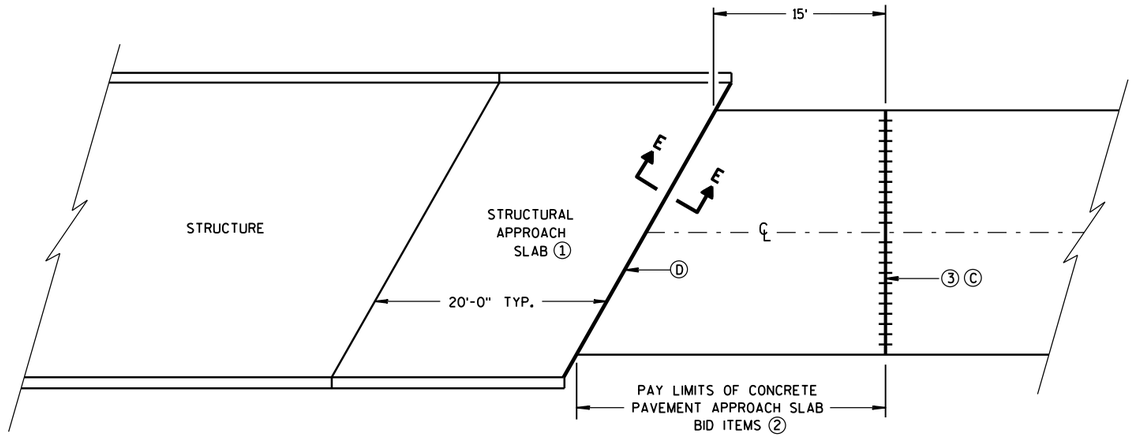
S.D.D. 13 B 2-8a



GENERAL NOTES

ALL PROJECTS THAT INVOLVE A STRUCTURAL APPROACH SLAB WILL ALSO HAVE A CONCRETE PAVEMENT APPROACH SLAB.

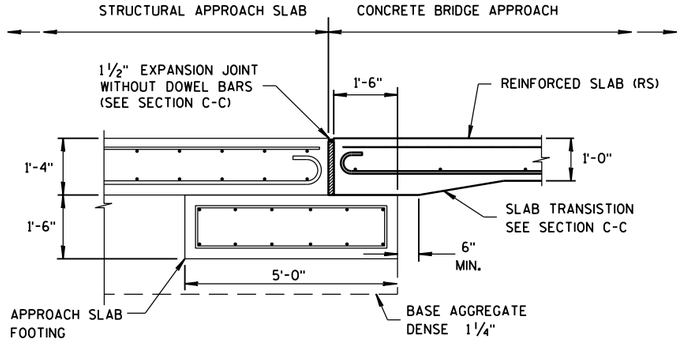
① SEE BRIDGE PLAN.

② CONFORM TO SHEET 13 B 2(A) FOR CONCRETE PAVEMENT APPROACH SLAB DETAILS.

③ DO NOT CONSTRUCT AN EXPANSION JOINT OR INSTALL DOWEL BARS WHEN ABUTTING AN HMA PAVEMENT.

Ⓒ 1½" EXPANSION JOINT WITH DOWEL BARS NORMAL TO ℄ OR ℄

Ⓓ 1½" EXPANSION JOINT (NO DOWELS)



SECTION E-E

FOOTING DETAIL

STRUCTURAL APPROACH SLAB TO CONCRETE BRIDGE APPROACH

STRUCTURAL APPROACH SLAB AND CONCRETE PAVEMENT APPROACH SLAB

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

June, 2015
DATE

/S/ Peter Kemp, P.E.
PAVEMENT SUPEF

FHWA

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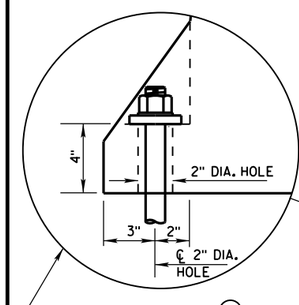
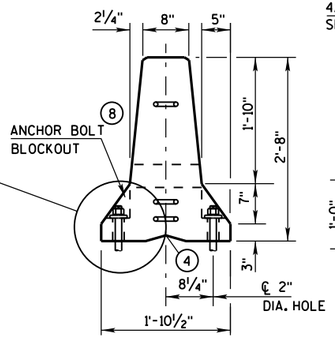
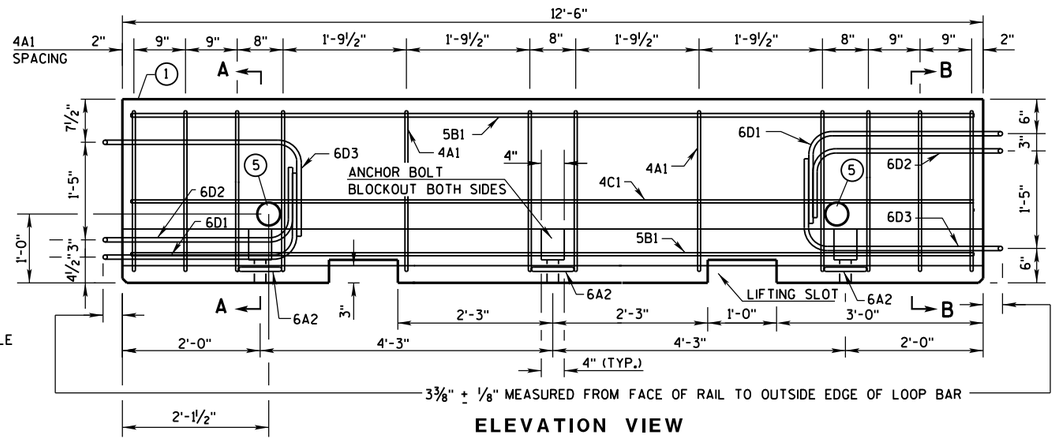
S.D.D. 13 B 2-8b

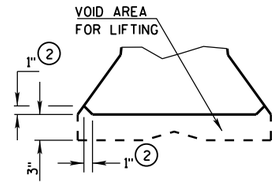




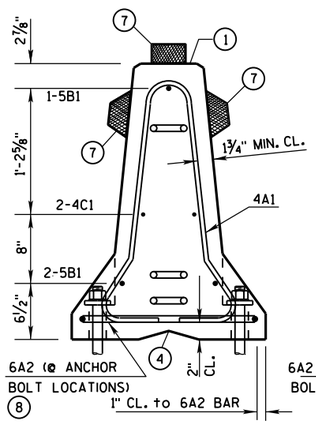
END VIEW



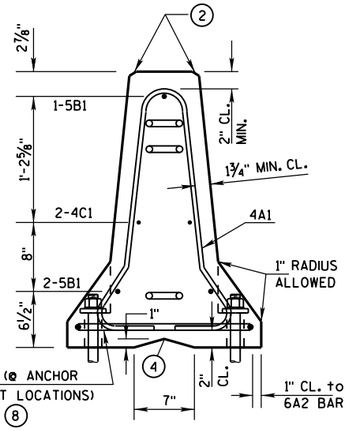
ELEVATION VIEW



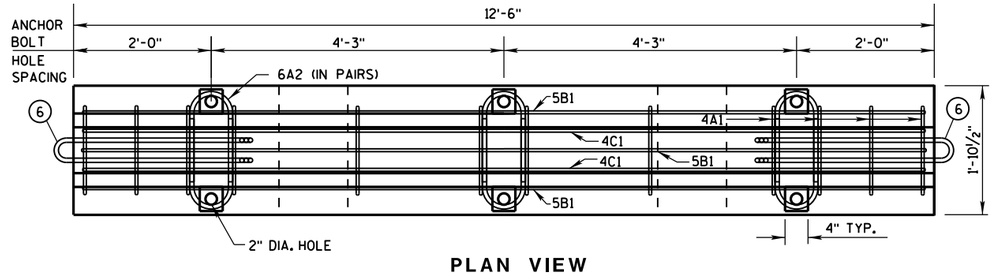
DETAIL "B"
LIFTING SLOT DETAIL



SECTION A-A
(STIRRUP PLACEMENT)

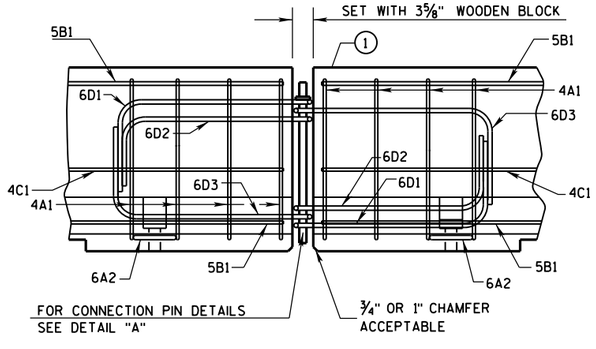


SECTION B-B
(STIRRUP PLACEMENT)

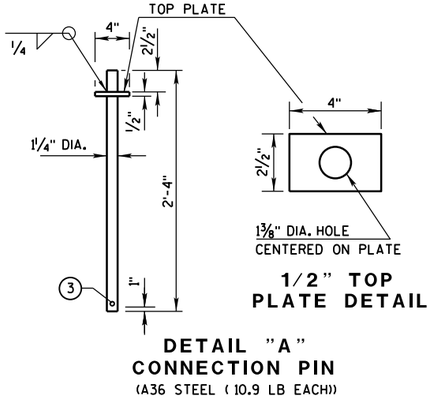


PLAN VIEW

DETAILS OF BARRIER SECTION

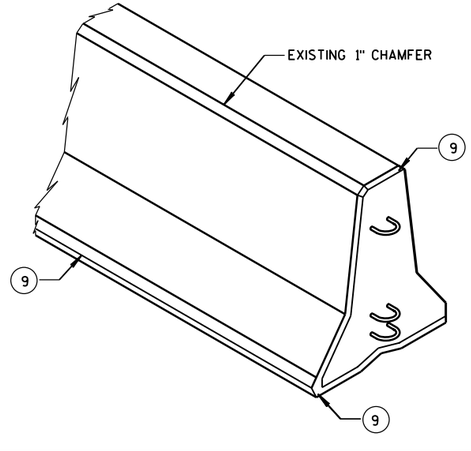


DETAILS OF BARRIER CONNECTION



1/2" TOP
PLATE DETAIL

DETAIL "A"
CONNECTION PIN
(A36 STEEL (10.9 LB EACH))



GENERAL NOTES

THESE GENERAL NOTES APPLY TO SHEETS 14B7-14(a) THRU 14B7-14(h).

DO NOT INTERMIX CONCRETE BARRIER TEMPORARY PRCAST, 12'-6" (CBTP12.5) WITH OTHER TEMPORARY CONCRETE BARRIERS.

USE ASTM A-615, GRADE 60, DEFORMED STEEL BARS FOR BARS 4A1, 6A2, 5B1 AND 4C1 IN THE BARRIER SECTION AND FOR 4V1, 4V2, 4V3, 4V4, 4V5, 4V6, 4F1, 4F2 AND 5F3 IN THE BARRIER TAPER SECTION.

LOOP BARS 6D1, 6D2 AND 6D3 SHALL BE ¾" SMOOTH STEEL BARS WITH A MINIMUM YIELD STRENGTH OF 60 KSI, A TENSILE STRENGTH OF NOT LESS THAN 1.25 TIMES THE YIELD STRENGTH BUT A MINIMUM OF 80 KSI, A MINIMUM 14% ELONGATION IN 8 INCHES AND PASSING A 180 DEGREE BEND TEST USING A 3-½" PIN BEND DIAMETER FOR BEND TESTS. THE LOOPS SHALL BE INSTALLED WITHIN ⅛" OF THE PLAN DIMENSION.

CONSTRUCT LIFTING SLOTS AS SPECIFIED ON THE PLANS TO FACILITATE THE DRAINAGE OF WATER AFTER INSTALLATION.

PLACE BARRIER ON A PAVED SURFACE. REMOVE ALL LOOSE DIRT AND SAND FROM THE ROADWAY SURFACE PRIOR TO PLACEMENT OF THE BARRIER.

INSTALL MECHANICAL OR ADHESIVE ANCHORS PER MANUFACTURER'S RECOMMENDATIONS. PROVIDE MANUFACTURER'S INFORMATION TO PROJECT ENGINEER.

(1) MARK ONE END OF EACH BARRIER PERMANENTLY BY FORMING INTO THE BARRIER THE FOLLOWING INFORMATION:
- a. TYPE: WI CBTP
- b. MANUFACTURER
- c. DATE MANUFACTURED (MONTH AND YEAR)

(2) 1" CHAMFER TO PREVENT SPALLING.

(3) A ⅜" HOLE IN THE CONNECTION PIN, AT THE LOCATION SHOWN, IS ACCEPTABLE, BUT NOT REQUIRED..

(4) "V" NOTCH IS OPTIONAL.

(5) THE 4" DIAMETER, 11 GAUGE STEEL, ROUND MECHANICAL TUBING SLEEVE FOR LIFTING (OPTIONAL).

(6) NEVER USE LOOP BARS (6D1, 6D2 OR 6D3) TO LIFT, MOVE OR REPOSITION THE BARRIER.

(7) USE DELINEATORS CONFORMING TO SECTION 633 OF THE STANDARD SPECIFICATIONS. CONTRACTOR MAY USE ALTERNATE SHAPES AND HOUSING. INSTALL DELINEATORS ACCORDING TO MANUFACTURES INSTRUCTION. INSTALL YELLOW REFLECTORS WHEN BARRIER IS LOCATED TO THE LEFT OF TRAFFIC AND WHITE REFLECTORS WHEN BARRIER IS LOCATED TO THE RIGHT OF TRAFFIC. SPACE DELINEATORS A MAXIMUM OF 25 FEET APART. PROVIDE TOP MOUNTED DELINEATORS IN ADDITION TO THE SIDE MOUNTED DELINEATORS ON ALL BARRIER INSTALLATIONS LOCATED ON A CURVED ALIGNMENT LONGER THAN 200 FEET AND ON BARRIERS USED TO SEPARATE OPPOSING TRAFFIC.

(8) SEE SHEET D FOR ANCHORING CRITERIA.

(9) 1" CHAMFER OPTIONAL.

CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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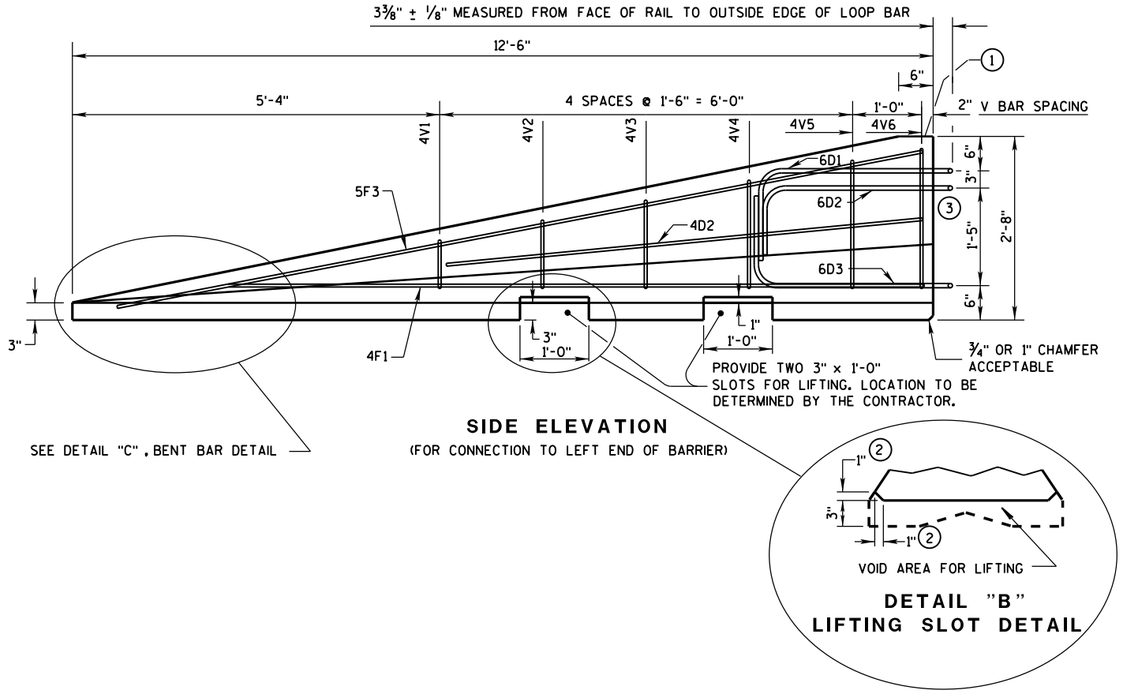
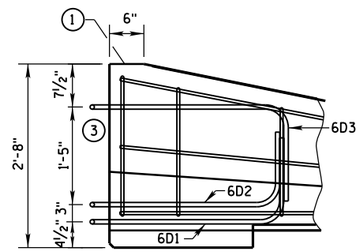
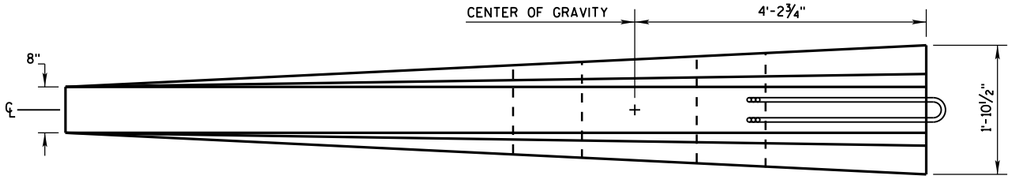
S.D.D. 14 B 7-14a

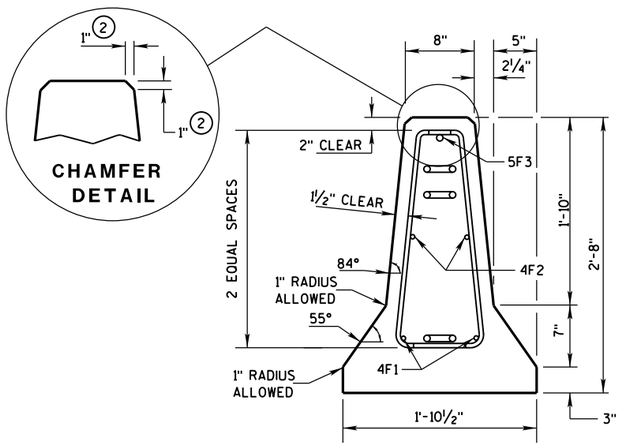


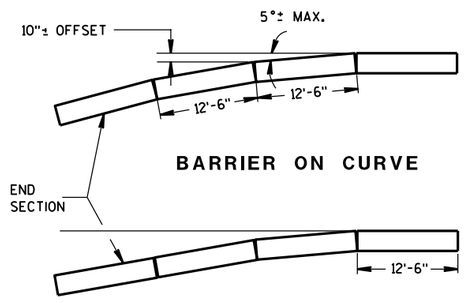


GENERAL NOTES

1. MARK ONE END OF EACH BARRIER PERMANENTLY BY FORMING INTO THE BARRIER THE FOLLOWING INFORMATION:
   a. TYPE WICBTP
   b. MANUFACTURER
   c. DATE MANUFACTURED (MONTH AND YEAR)
2. 1" CHAMFER TO PREVENT SPALLING.
3. NEVER USE LOOP BARS (6D1, 6D2 OR 6D3) TO LIFT, MOVE OR REPOSITION THE BARRIER.







POSTED SPEED, (MPH)	FLARE RATE
40 OR LESS	6:1
45 OR GREATER	8:1

DETAILS OF BARRIER TAPER SECTION

CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

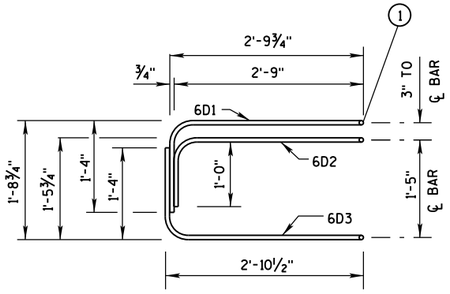
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6
S.D.D. 14 B 7-14b

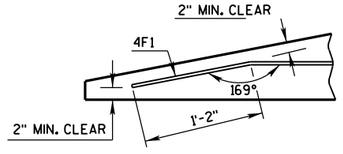
BARRIER TAPER SECTION BILL OF MATERIALS

(PER 12'-6" BARRIER TAPER SECTION)

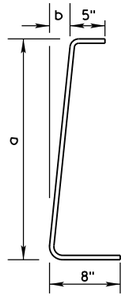
BAR	BAR SIZE	NO. OF BARS	LENGTH FT.
4V1	4	2	1'-11"
4V2	4	2	2'-2"
4V3	4	2	2'-6"
4V4	4	2	2'-9"
4V5	4	2	3'-2"
4V6	4	2	3'-4"
4F1	4	2	12'-0"
4F2	4	2	7'-6"
5F3	5	1	11'-9"
LOOP ASSEMBLY			
6D1	6	1	8'-5"
6D2	6	1	7'-7"
6D3	6	1	8'-6"



ELEVATION
LOOP BAR ASSEMBLY



DETAIL "C"
BENT BAR DETAIL



BAR	a	b
V1	10"	1"
V2	1'-1"	1¼"
V3	1'-5"	1⅝"
V4	1'-8"	1⅞"
V5	2'-0½"	2⅜"
V6	2'-3"	2¾"

4V BARS
2 AT EACH SIZE REQUIRED
FOR STIRRUP ASSEMBLY

TAPER BARRIER SECTION

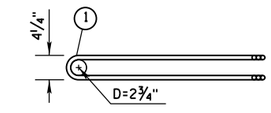
GENERAL NOTES

(1) NEVER USE LOOP BARS (6D1, 6D2 OR 6D3) TO LIFT, MOVE OR REPOSITION THE BARRIER.

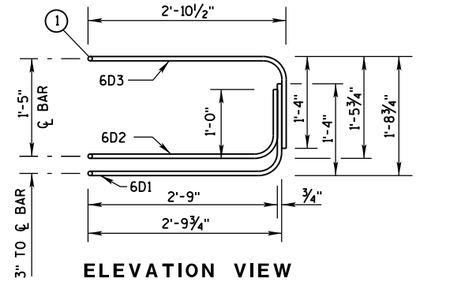
BARRIER SECTION BILL OF MATERIALS

(PER 12'-6" BARRIER SECTION)

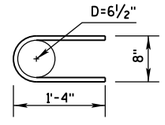
BAR	BAR SIZE	NO. OF BARS	LENGTH FT.
4A1	4	12	6'-0"
6A2	6	6	2'-11"
5B1	5	3	12'-2"
4C1	4	2	12'-2"
LOOP ASSEMBLY			
6D1	6	2	8'-5"
6D2	6	2	7'-7"
6D3	6	2	8'-6"



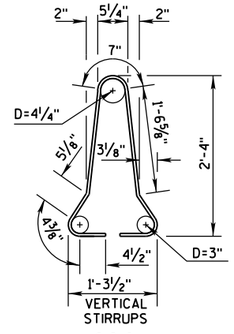
PLAN VIEW
LOOP BAR ASSEMBLY
(MARKED END SHOWN, INVERT FOR OTHER END)



ELEVATION VIEW



6A2



4A1

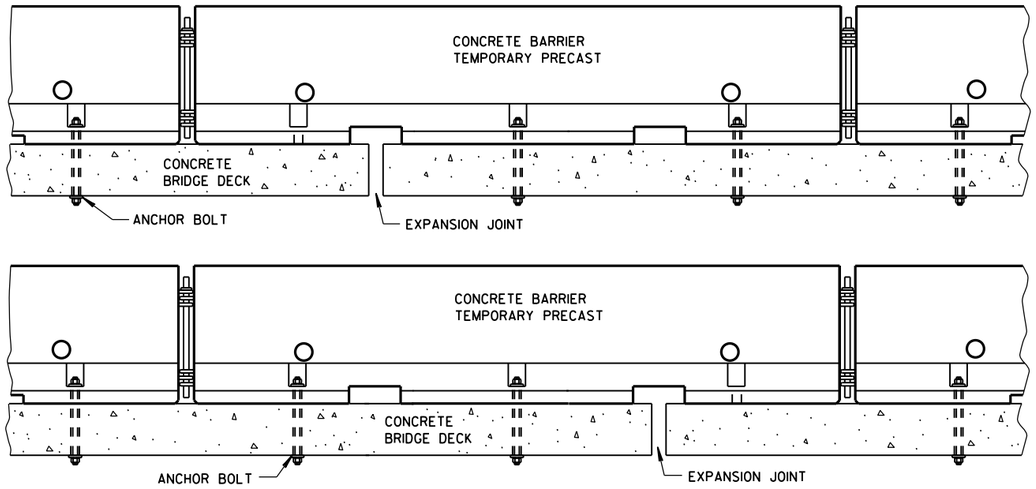
BARRIER SECTION

CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

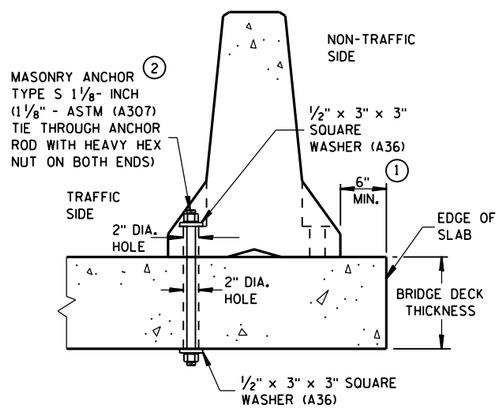
6

S.D.D. 14 B 7-14c



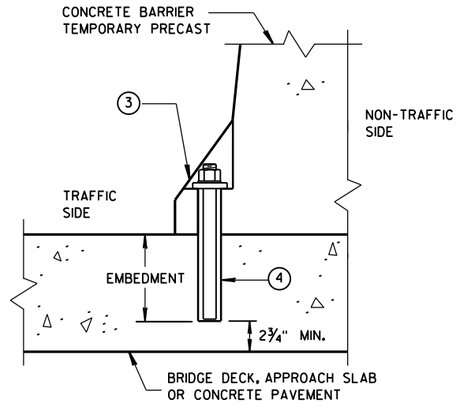
TREATMENT AT BRIDGE DECK EXPANSION JOINTS

(NO SINGLE CONCRETE BARRIER SECTION SHALL BE ANCHORED TO BOTH THE BRIDGE DECK AND THE APPROACH SLAB. ALL ANCHOR BOLT LOCATIONS SHALL BE ANCHORED TO THE DECK IN ACCORDANCE WITH THE DETAIL. NO MORE THAN ONE ANCHOR BOLT SHALL BE ELIMINATED FROM A BARRIER SECTION WHEN SPANNING AN EXPANSION JOINT.)



THROUGH BOLTED ANCHOR INSTALLATION ON BRIDGE DECK

(DO NOTUSE ON CONCRETE BRIDGE DECK WITH ASPHALT OVERLAY)



REMOVABLE ADHESIVE BONDED ANCHOR ② INSTALLATION ON CONCRETE BRIDGE DECK, CONCRETE APPROACH SLAB, OR CONCRETE PAVEMENT

(DO NOT USE ON CONCRETE WITH AN ASPHALTIC OVERLAY)

GENERAL NOTES

① CONCRETE BARRIER TEMPORARY PRECAST, 12'-6" SHALL BE ANCHORED IF:
THE DISTANCE TO A 2 FOOT OR GREATER DROPOFF THAT IS STEEPER THAN 3H : 1V, FOR EXAMPLE THE EDGE OF A BRIDGE DECK OR A DROPOFF AT THE EDGE OF PAVEMENT, IS LESS THAN 4 FEET FROM THE SIDE OF THE BARRIER CLOSEST TO THE DROPOFF AND THE POSTED SPEED IS 45 MPH OR GREATER, OR

THE DISTANCE TO A 2 FOOT OR GREATER DROPOFF THAT IS STEEPER THAN 3H : 1V, FOR EXAMPLE THE EDGE OF A BRIDGE DECK OR A DROPOFF AT THE EDGE OF PAVEMENT, IS LESS THAN 2 FEET FROM THE SIDE OF THE BARRIER CLOSEST TO THE DROPOFF AND THE POSTED SPEED IS 40 MPH OR LESS.

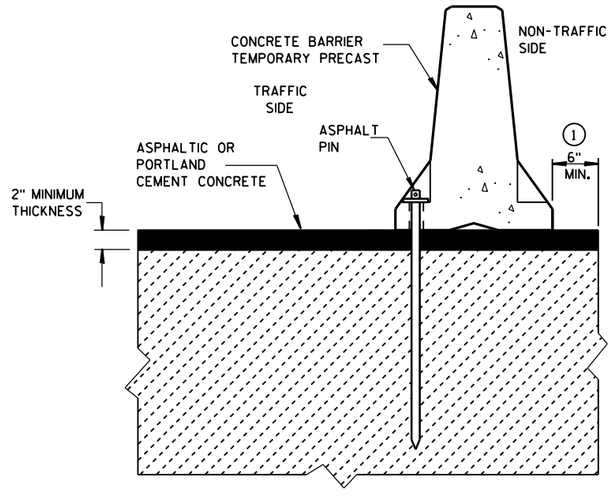
② ANCHORING IS INCIDENTAL TO CONCRETE BARRIER TEMPORARY PRECAST.

WITH THE APPROVAL OF THE ENGINEER, REMOVABLE ADHESIVE BONDED ANCHOR BOLT INSTALLATION MAY BE USED IN LIEU OF THROUGH BOLTED ANCHOR INSTALLATION. THE ADHESIVE BONDED ANCHOR BOLT MUST BE REMOVABLE. USE ASTM (A307) MASONRY ANCHORS TYPE S 1⅛-INCH, EMBEDDED TO A DEPTH SUFFICIENT TO DEVELOP THE ULTIMATE CAPACITY OF THE ANCHOR BOLT AND PROVIDE DOCUMENTATION TO CONFIRM THIS.

UPON REMOVAL OR RELOCATION OF THE BARRIER UNITS, REMOVE ALL ANCHOR BOLTS AND COMPLETELY FILL IN THE REMAINING HOLES IN CONCRETE BRIDGE DECKS, CONCRETE APPROACH SLABS AND CONCRETE PAVEMENTS THAT ARE TO REMAIN, WITH A NON-SHRINK COMMERICAL GROUT OR MATERIAL IDENTIFIED ON THE CURRENT WISDOT APPROVED PRODUCTS LIST.

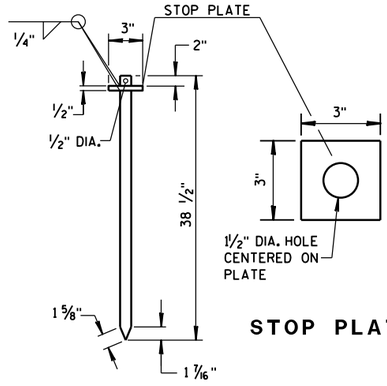
③ 1⅛" DIAMENTER A307 THREADED ROD, ½" X 3" X 3" SQUARE PLATE WASHER WITH ASTM A36 STEEL, ASTM A563A HEAVY HEX NUT.

④ ADHESIVE ANCHORS WITH A MINIMUM BOND STRENGTH OF 1,800 PSI AND 5¼" EMBEDMENT. SEE 603.2 AND 603.3.1.2 OF THE WISCONSIN STANDARD SPECIFICATIONS FOR MORE INFORMATION ON ADHESIVE ANCHORS.

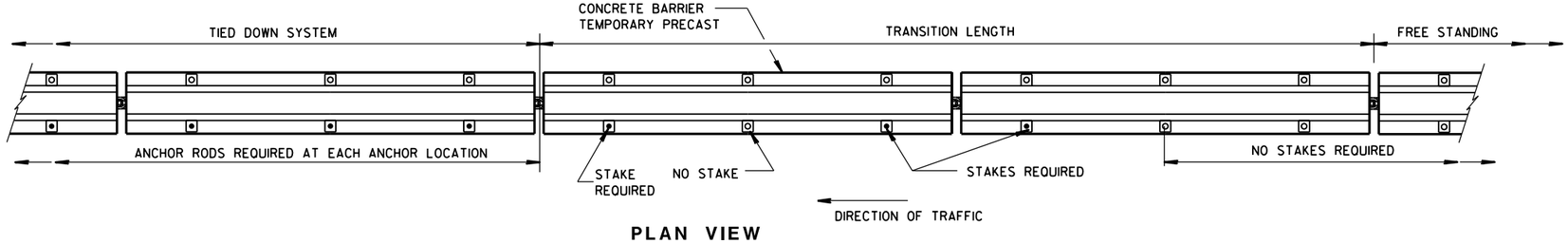


STAKE DOWN INSTALLATION FOR ASPHALTIC OR PORTLAND CEMENT CONCRETE SURFACE

(STAKING IS INCIDENTAL TO CONCRETE BARRIER TEMPORARY PRECAST)



STOP PLATE



PLAN VIEW

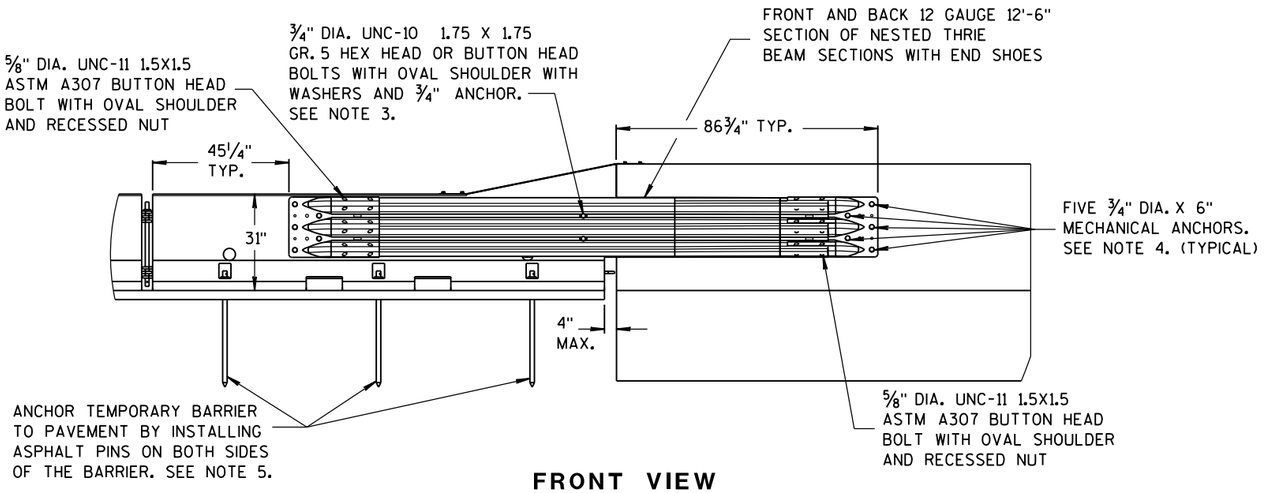
FREE STANDING TRANSITION TO TIED-DOWN SYSTEM

(PLACE TRANSITION IN A TANGENT SECTION OF BARRIER PARALLEL TO THE ROADWAY. IF TRANSITION OCCURS ON STRUCTURAL SLAB, ANCHOR AS SHOWN.)

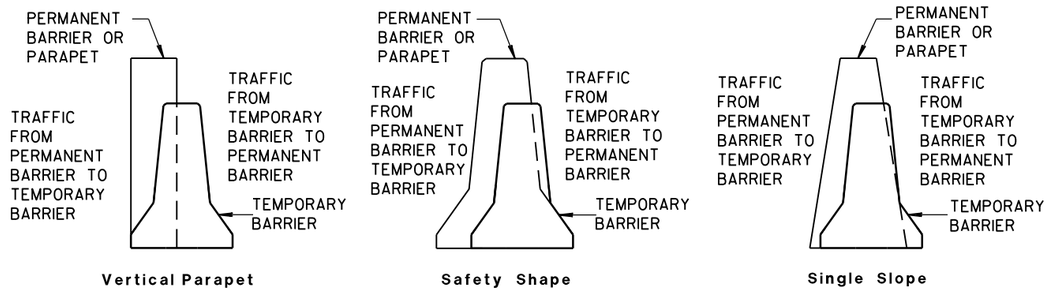
CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6
S.D.D. 14 B 7-14d



FRONT VIEW

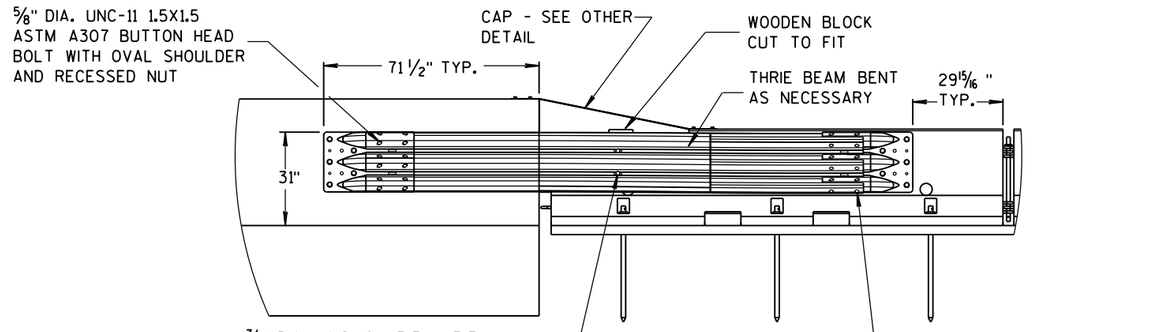


TEMPORARY BARRIER PLACEMENT FOR BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM

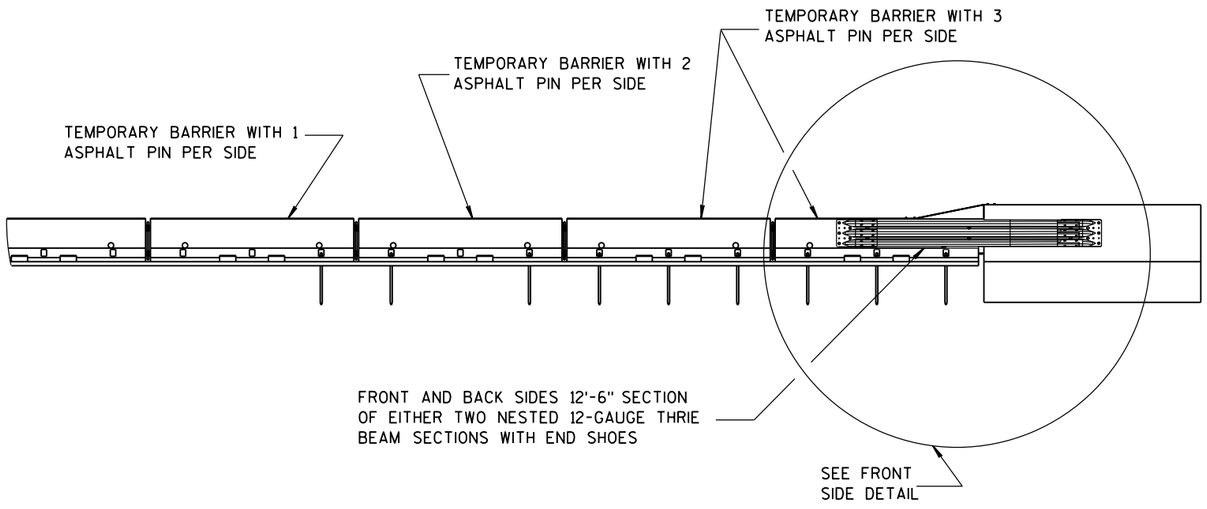
NOTES

NESTED THRIE BEAM IS REQUIRED ON BOTH SIDES OF THE TEMPORARY BARRIER FOR ALL INSTALLATIONS.

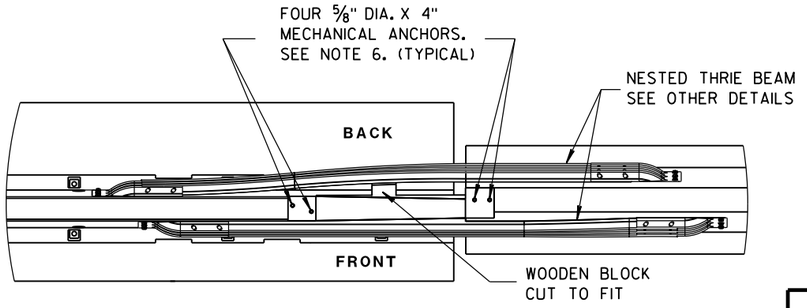
1. CAP END PLATE PLACED FLUSH WITH UPSTREAM END OF PERMANENT BARRIER OR PARAPET.
2. THRIE BEAM PIECES ARE OFFSET 15 1/4" TO PREVENT INTERFERENCE FROM THE ANCHORS ON OPPOSING SIDES.
3. MINIMUM MECHANICAL OR ADHESIVE ANCHOR STRENGTH REQUIREMENTS: ULTIMATE TENSILE LOAD 9.48 KIPS AND ULTIMATE SHEAR LOAD 10.48 KIPS.
4. MINIMUM MECHANICAL OR ADHESIVE ANCHOR STRENGTH REQUIREMENTS: ULTIMATE TENSILE LOAD 17.9 KIPS AND ULTIMATE SHEAR LOAD 21.96 KIPS.
5. MAY BE USED ON CONCRETE OR ASPHALT PAVEMENTS. ASPHALT OPTION SHOWN. FOR CONCRETE OPTION SEE OTHER DETAILS.
6. MINIMUM MECHANICAL OR ADHESIVE ANCHOR STRENGTH REQUIREMENTS: ULTIMATE TENSILE LOAD 12.14 KIPS AND ULTIMATE SHEAR LOAD 17.5 KIPS.



BACK VIEW



FRONT VIEW



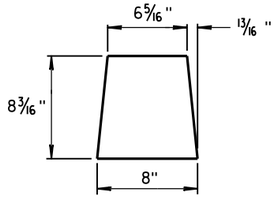
PLAN VIEW

BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM

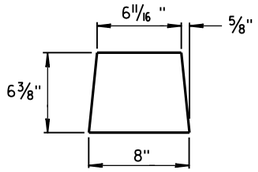
CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPO

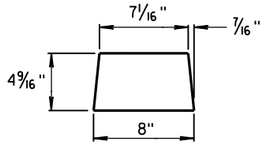
6
S.D.D. 14 B 7-14e



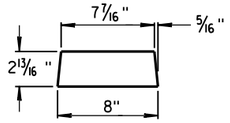
GUSSET 1



GUSSET 2

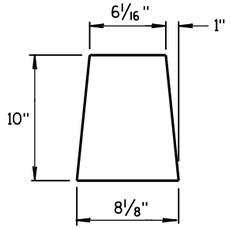


GUSSET 3

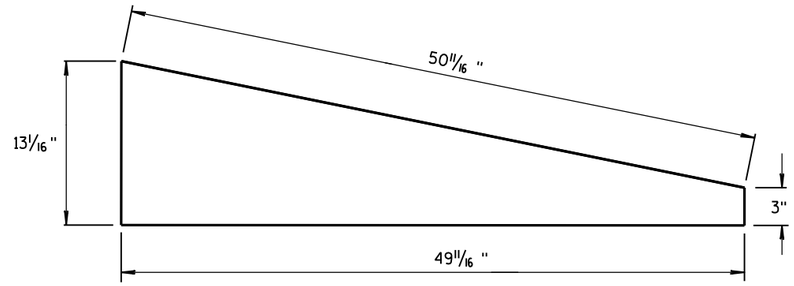


GUSSET 4

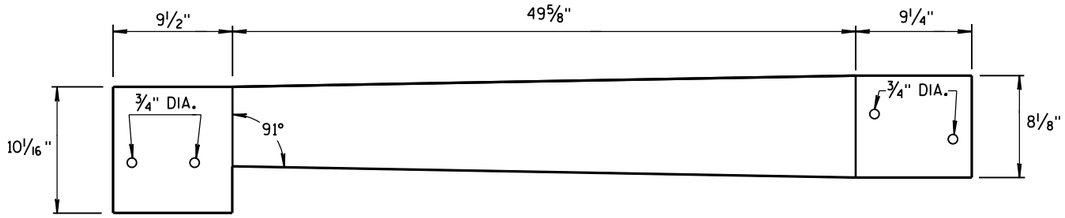
GUSSETS

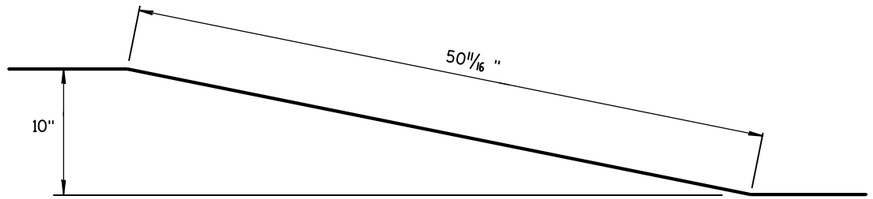


END PLATE



SIDE PLATE

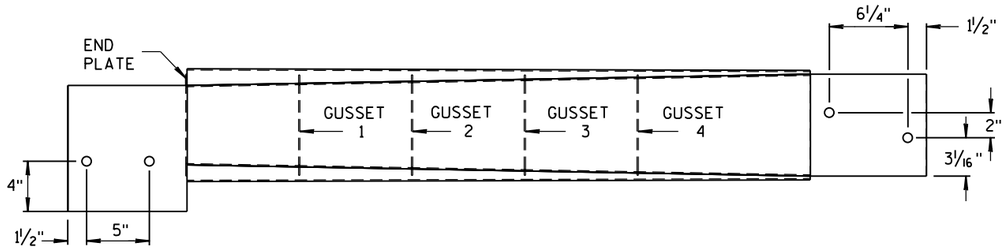


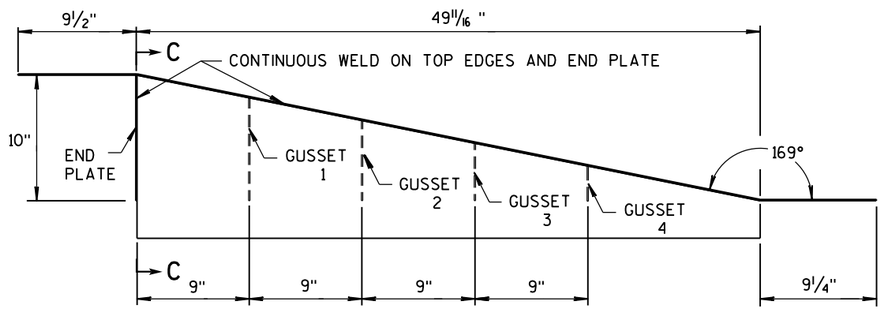


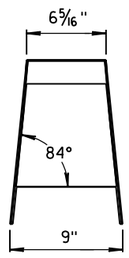
TOP PLATE

SIDE, TOP AND END PLATES FOR CAP FROM TEMPORARY CONCRETE BARRIER TO 42" PERMANENT CONCRETE BARRIER

SIDE PLATES, TOP PLATE, END PLATE AND GUSSETS ARE 12 GAUGE ASTM A36 GALVANIZED STEEL.







SECTION C-C

NOTES

1. FOUR GUSSETS AND END PLATE ARE STITCH WELDED ON THREE SIDES.
2. TWO TRIANGULAR SIDE PLATES ARE STITCH WELDED TO TOP PLATE, END PLATE, AND GUSSETS.

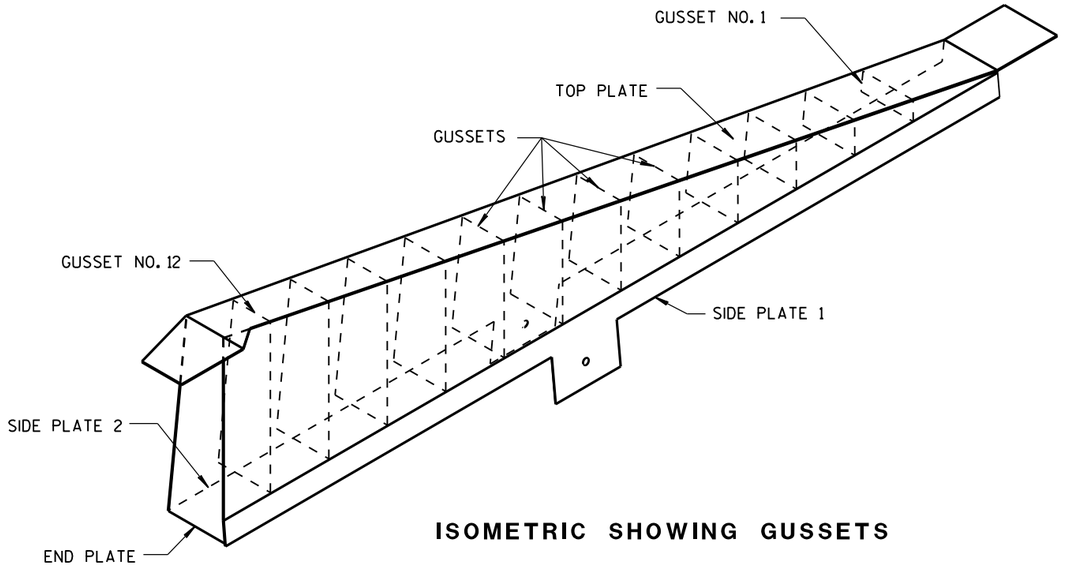
CAP DETAILS FOR TEMPORARY CONCRETE BARRIER TO 42" PERMANENT CONCRETE BARRIER

CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

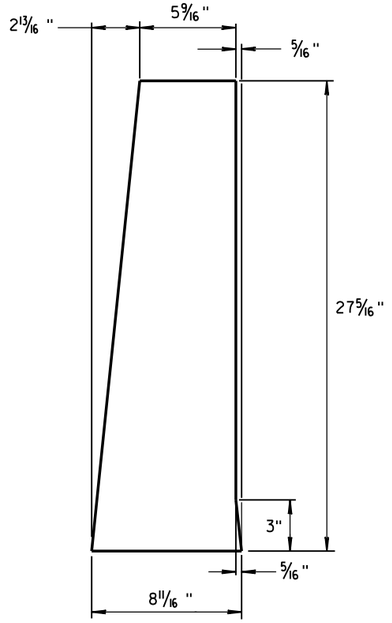
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6

S.D.D. 14 B 7-14f

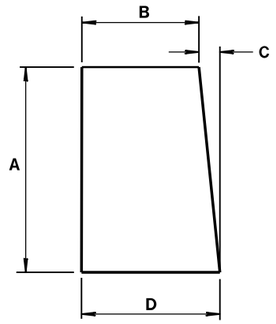


ISOMETRIC SHOWING GUSSETS



END PLATE

1/8" STEEL PLATE



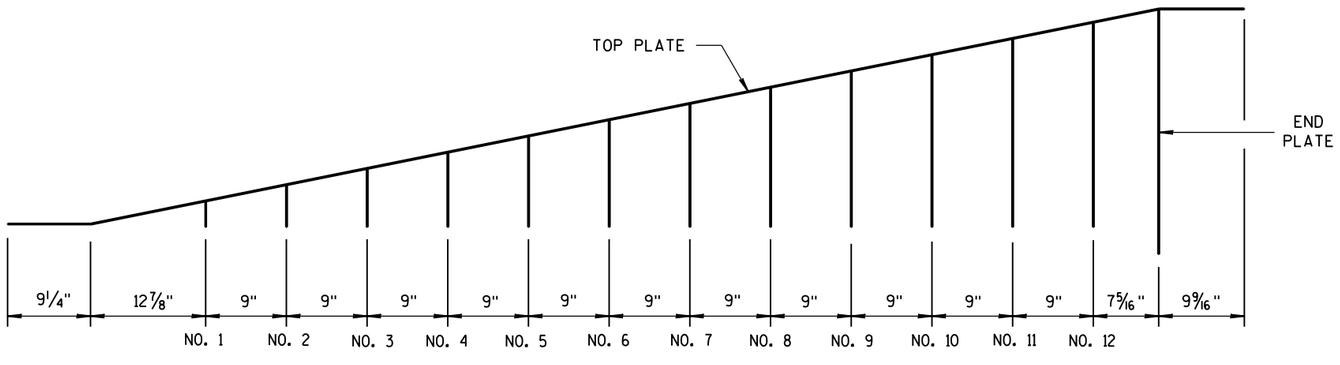
GUSSETS 1 - 12

ALL GUSSETS 1/8" STEEL PLATE

GUSSET DIMENSIONS				
GUSSET NO.	A	B	C	D
1	2 7/8"	7 3/4"	1/4"	8
2	4 11/16 "	7 9/16 "	1/2"	8
3	6 1/2"	7 3/8"	11/16 "	8 1/16 "
4	8 5/16 "	7 3/16 "	7/8"	8 1/16 "
5	10 1/8"	7"	1 1/16 "	8 1/16 "
6	11 15/16 "	6 13/16 "	1 1/4"	8 1/16 "
7	13 3/4"	6 5/8"	1 7/16 "	8 1/16 "
8	15 9/16 "	6 7/16 "	1 9/16 "	8 1/16 "
9	17 3/8"	6 1/4"	1 13/16 "	8 1/16 "
10	19 3/16 "	6 1/16 "	1 15/16 "	8 1/16 "
11	21"	5 7/8"	2 3/16 "	8 1/16 "
12	22 13/16 "	5 11/16 "	2 5/16 "	8 1/16 "

SIDE PLATES, TOP PLATE, END PLATE AND GUSSETS ARE 12 GAUGE ASTM A36 STEEL AND GALVANIZED.

GUSSETS AND END PLATE ARE STITCH WELDED ON 3 SIDES. TWO TRIANGULAR SIDE PLATES ARE STITCH WELDED TO TOP PLATE, END PLATE AND GUSSETS.



GUSSET LOCATION

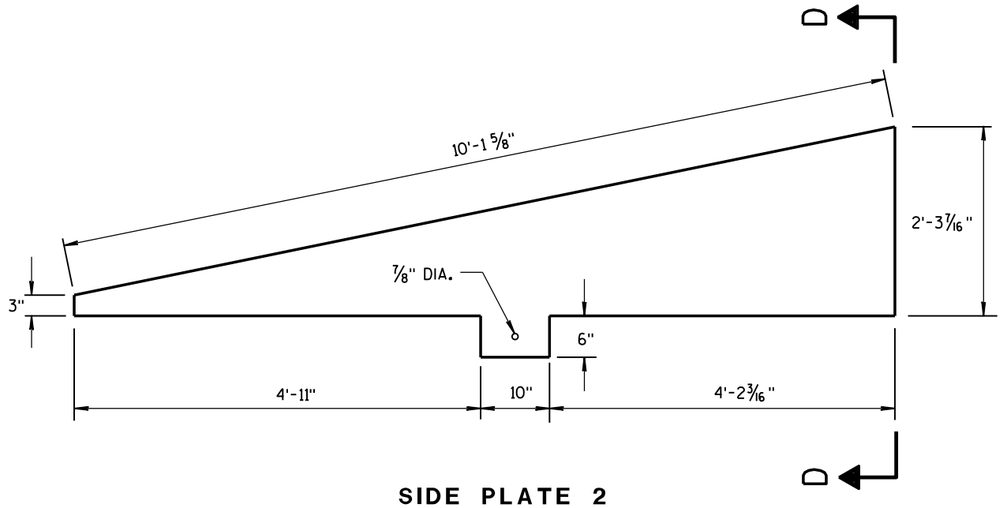
CAP DETAILS FOR TEMPORARY CONCRETE BARRIER TO 56" PERMANENT CONCRETE BARRIER

CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

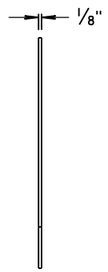
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6

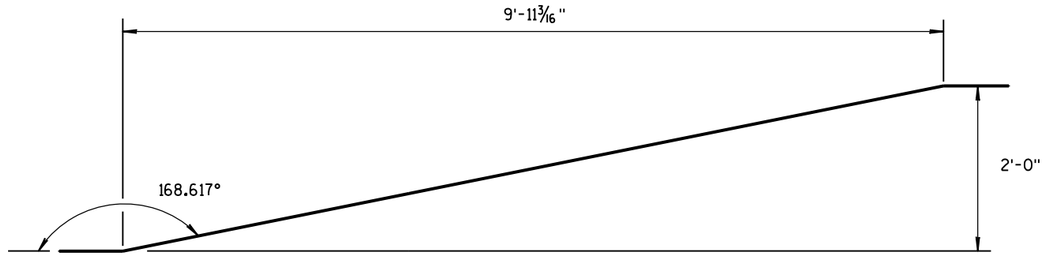
S.D.D. 14 B 7-14g



SIDE PLATE 2

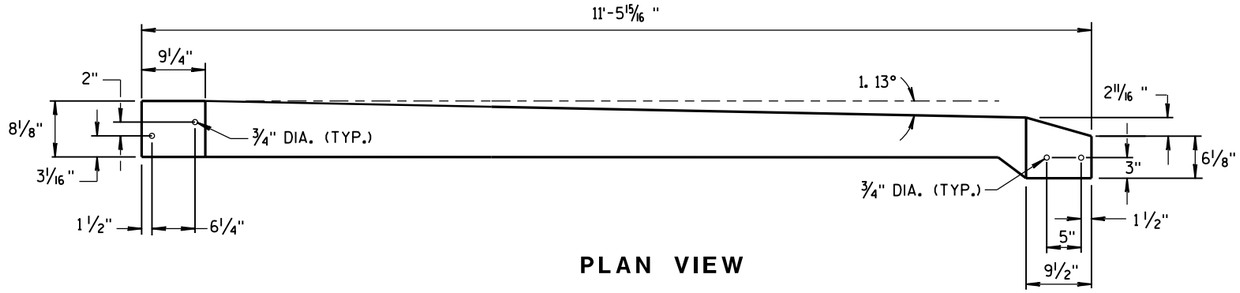


END VIEW



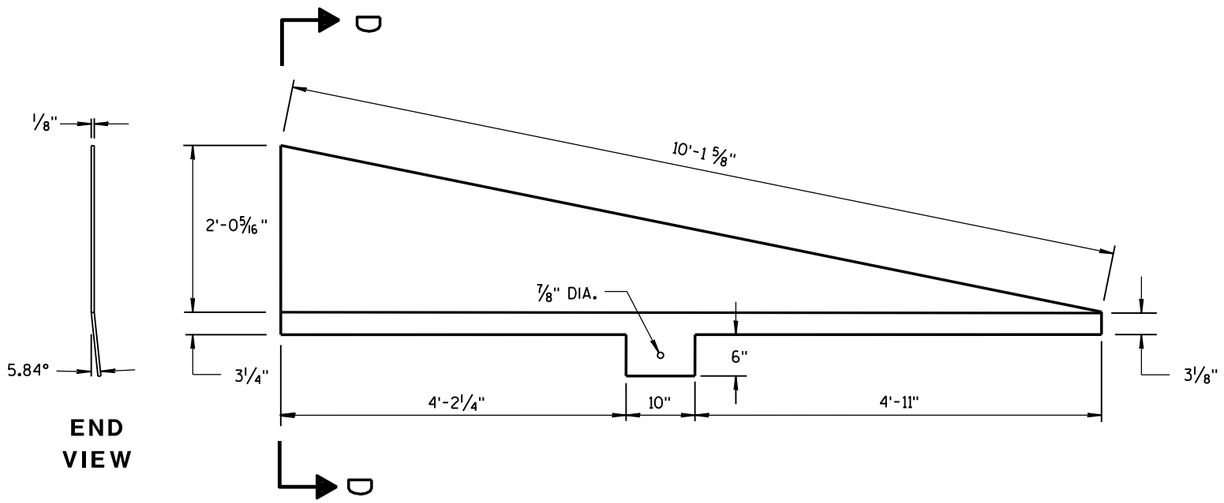
SIDE VIEW

TOP PLATE



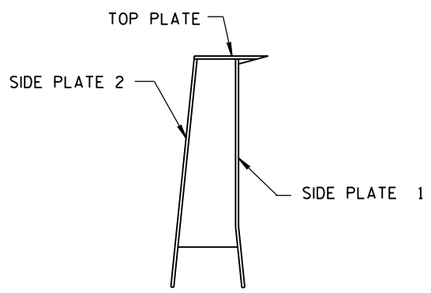
PLAN VIEW

TOP PLATE



END VIEW

SIDE PLATE 1



SECTION D-D

CAP DETAILS FOR TEMPORARY CONCRETE BARRIER TO 56" PERMANENT CONCRETE BARRIER

CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

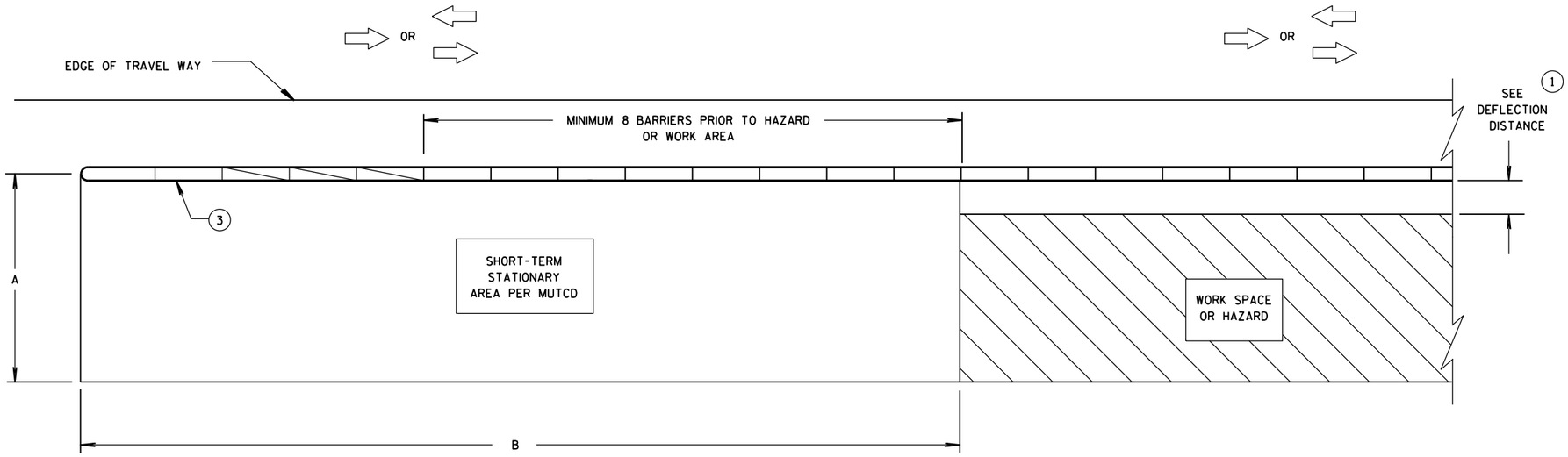
APPROVED
June 2014 — DATE
/S/ Jerry H. Zoda — ROADWAY STANDARD DEVELOPMENT ENGINEER
FHWA

6

S.D.D. 14 B 7-14h

6

S.D.D. 14 B 7-14h



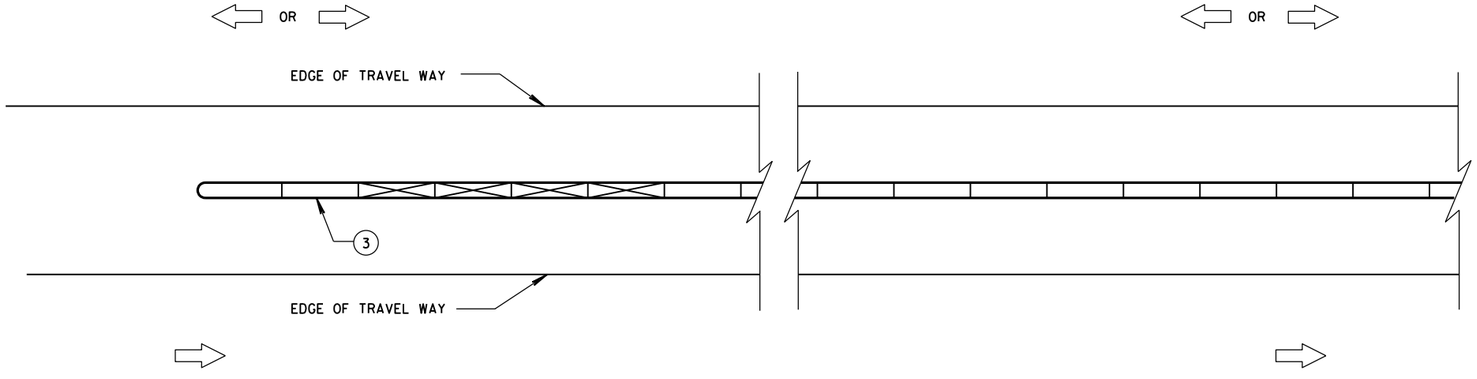
CRASH CUSHION/SAND BARREL ARRAY AND TEMPORARY BARRIER INSTALLATION FOR TRAFFIC ON ONE SIDE OF BARRIER

DIMENSION A TABLE (2)

FACILITY	POSTED SPEED MPH	DIMENSION A	
		MIN. FT	MAX. FT
FREEWAY/EXPRESSWAY	ALL	15	20
NON-FREEWAY/EXPRESSWAY	GREATER THAN OR EQUAL TO 45	10	15
NON-FREEWAY/EXPRESSWAY	LESS THAN 45	8	10
AADT LESS THAN 1,500	ALL	8	10

DIMENSION B TABLE (2)

POSTED SPEEDS MPH	DIMENSION B FT
20	115
25	155
30	200
35	250
40	305
45	360
50	425
55	495
60	570
65	645



CRASH CUSHION/SAND BARREL ARRAY AND TEMPORARY BARRIER INSTALLATION FOR TRAFFIC ON BOTH SIDES OF BARRIER

LEGEND

- DIRECTION OF TRAVEL
- CRASH CUSHION OR SAND BARREL ARRAY
- SEE FREE STANDING TRANSITION TO TIED-DOWN SYSTEM DETAILS
- SEE BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM DETAILS
- 3 PINS PLACED ON TRAFFIC SIDE OF BARRIER
- PERMANENT CONCRETE BARRIER OR CONCRETE PARAPET
- FREE STANDING TEMPORARY BARRIER

GENERAL NOTES

SEE STANDARD DETAIL DRAWING 14B7 FOR MORE INFORMATION.

DETAILS PROVIDE A GENERAL LAYOUT OF TEMPORARY CONCRETE BARRIER, CRASH CUSHIONS, SAND BARREL ARRAYS AND TIE DOWN TRANSITIONS. DETAILS PROVIDED MAY NOT FIT ALL POSSIBLE SITUATIONS OR SITE CONDITIONS. SEE OTHER SECTIONS OF THE CONTRACT OR PROJECT ENGINEER FOR MORE DETAILS.

ADDITIONAL TEMPORARY BARRIER MAY BE REQUIRED TO PROTECT TRAVELING PUBLIC FROM HAZARDS, CONTRACTOR'S OPERATIONS OR TO CONTROL TRAFFIC.

TEMPORARY BARRIER MAY BE REQUIRED TO BE ANCHORED TO PAVEMENT OR BRIDGE DECK.

FOR DETAILS ON CRASH CUSHION OR SAND BARREL ARRAYS SEE OTHER SECTIONS OF THE PLAN AND MANUFACTURE'S DETAILS.

SLOPES LEADING TO TEMPORARY BARRIER, CRASH CUSHION OR SAND BARREL ARRAY ARE 10:1 OR LESS.

(1) FOR DEFLECTION INFORMATION SEE STANDARD DETAIL DRAWING 14B7.

(2) VALUES PROVIDED MAY NOT FIT ALL POSSIBLE SITUATIONS OR SITE CONDITIONS. SEE OTHER SECTIONS OF THE CONTRACT OR PROJECT ENGINEER FOR MORE DETAILS.

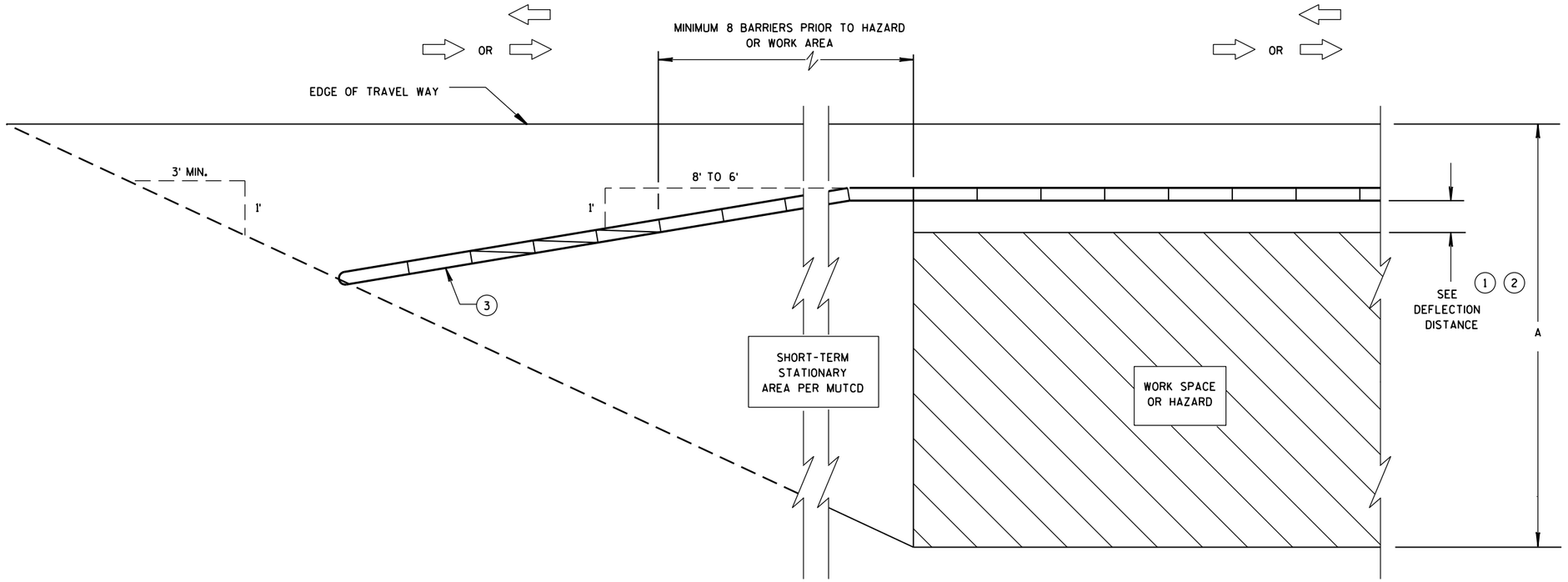
(3) ANCHOR TEMPORARY BARRIER ACCORDING TO CRASH CUSHION OR SAND BARREL MANUFACTURER'S RECOMMENDATIONS. IF MANUFACTURER'S RECOMMENDATIONS ARE NOT PROVIDED, ANCHOR 3 PINS ON TRAFFIC SIDE.

CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS

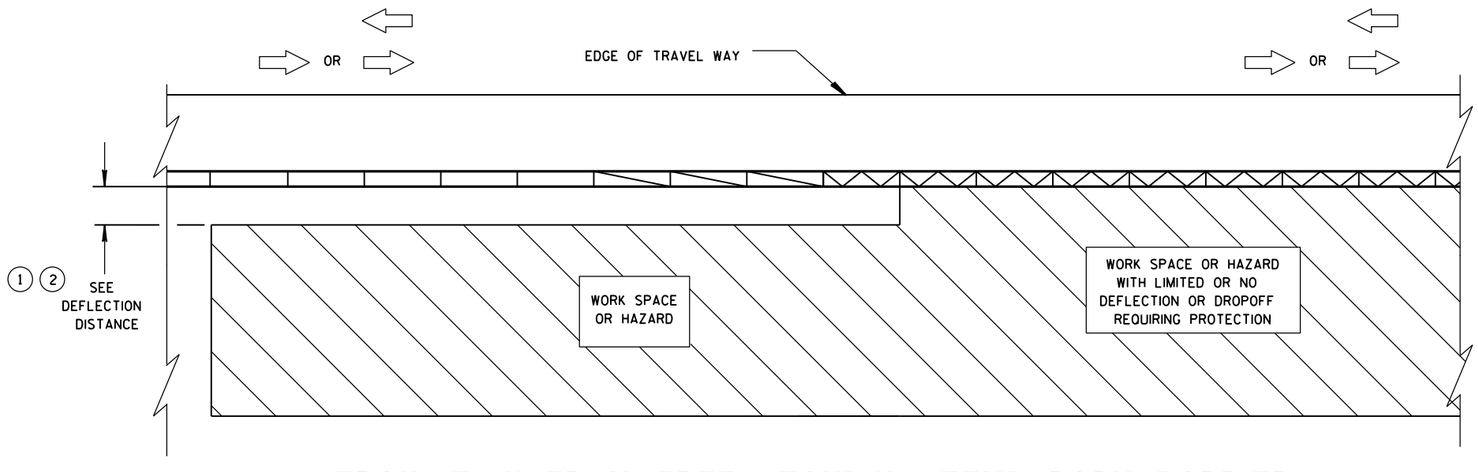
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6

S.D.D. 14 B 8-2a



CRASH CUSHION/SAND BARREL ARRAY AND TEMPORARY BARRIER INSTALLATION FOR TRAFFIC ON ONE SIDE - FLARED INSTALLATION



TRANSITION FROM FREE STANDING TEMPORARY BARRIER TO ANCHORED BARRIER

LEGEND

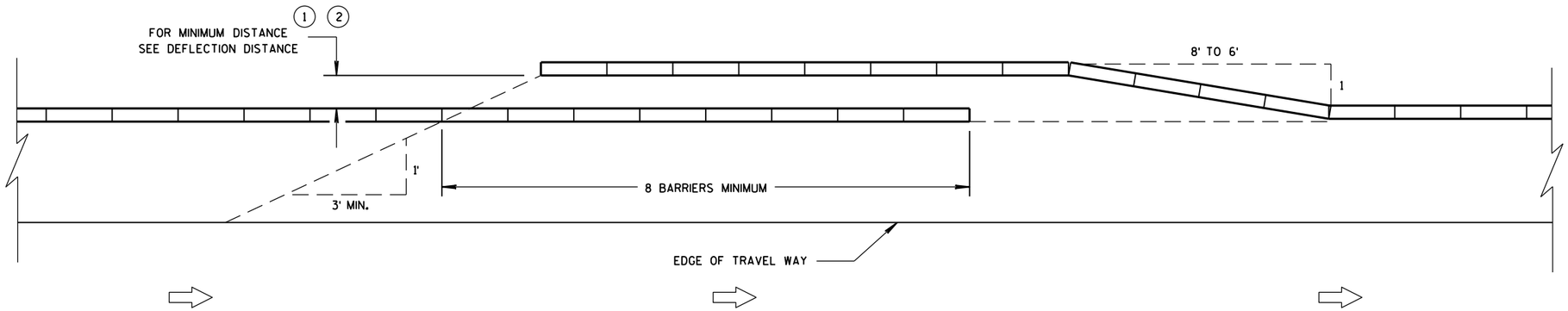
- DIRECTION OF TRAVEL
- CRASH CUSHION OR SAND BARREL ARRAY
- SEE FREE STANDING TRANSITION TO TIED-DOWN SYSTEM DETAILS
- SEE BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM DETAILS
- 3 PINS PLACED ON TRAFFIC SIDE OF BARRIER
- PERMANENT CONCRETE BARRIER OR CONCRETE PARAPET
- FREE STANDING TEMPORARY BARRIER

CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS

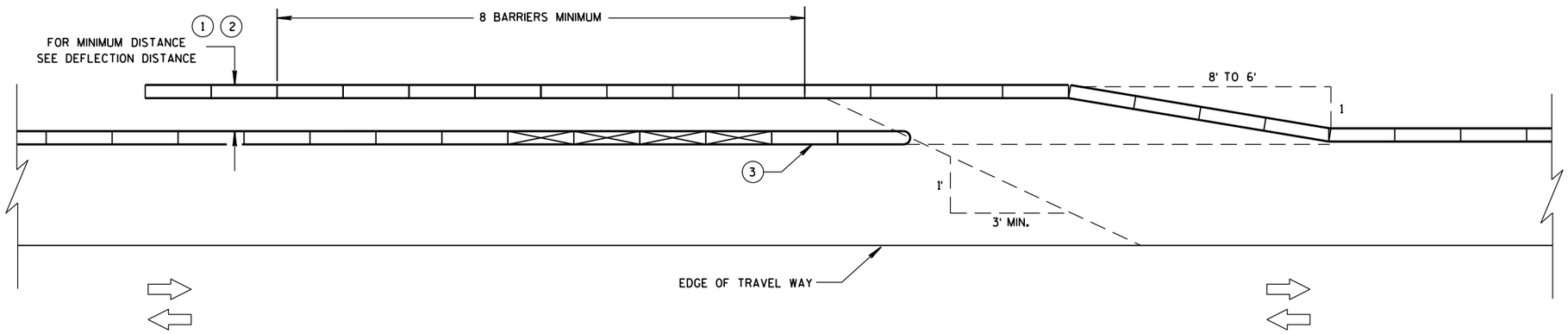
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6

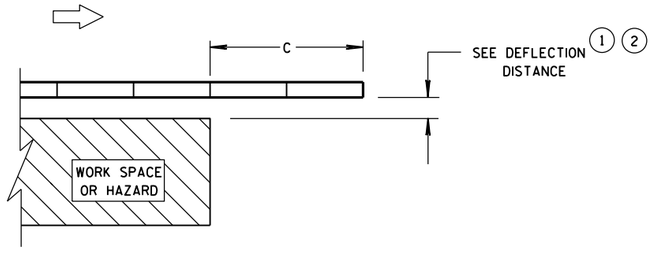
S.D.D. 14 B 8-2b



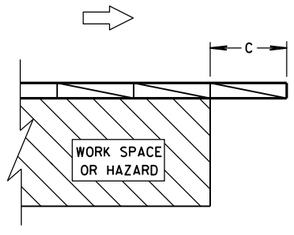
TEMPORARY BARRIER OVERLAP - ONE-WAY TRAFFIC



TEMPORARY BARRIER OVERLAP - TWO-WAY TRAFFIC



ENDING TEMPORARY BARRIER DOWNSTREAM - UNANCHORED



ENDING TEMPORARY BARRIER DOWNSTREAM - ANCHORED

LEGEND

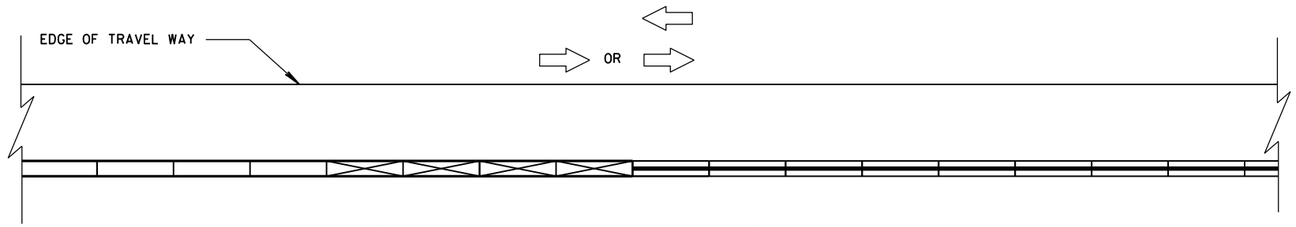
- DIRECTION OF TRAVEL
- CRASH CUSHION OR SAND BARREL ARRAY
- SEE FREE STANDING TRANSITION TO TIED-DOWN SYSTEM DETAILS
- SEE BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM DETAILS
- 3 PINS PLACED ON TRAFFIC SIDE OF BARRIER
- PERMANENT CONCRETE BARRIER OR CONCRETE PARAPET
- FREE STANDING TEMPORARY BARRIER

CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS

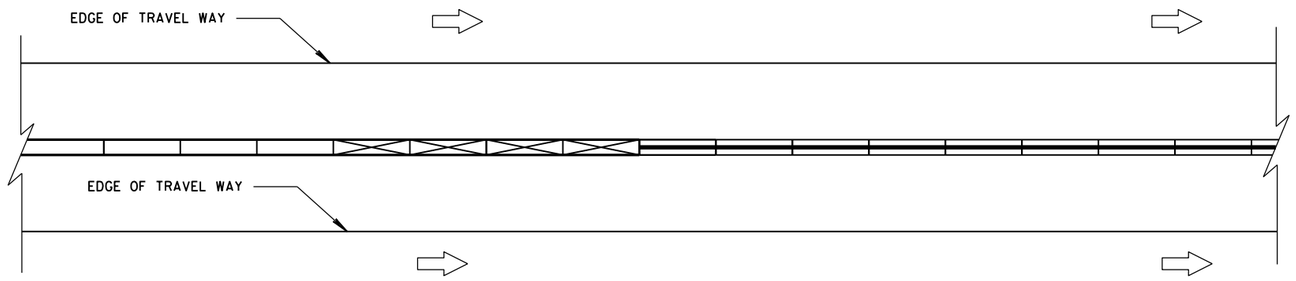
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

S.D.D. 14 B 8-2c



CONNECTING TEMPORARY BARRIER TO PERMANENT
CONCRETE BARRIER-TRAFFIC ON ONE SIDE



CONNECTING TEMPORARY BARRIER TO PERMANENT
CONCRETE BARRIER-TRAFFIC ON BOTH SIDES

LEGEND

DIRECTION OF TRAVEL

CRASH CUSHION OR
SAND BARREL ARRAY

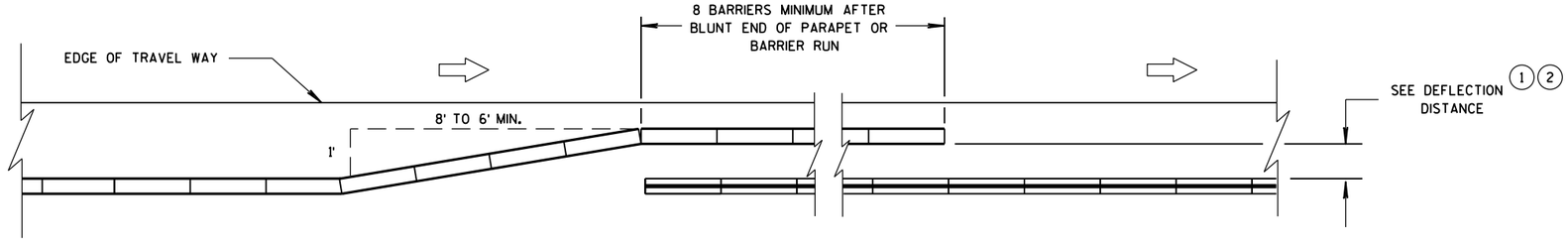
SEE FREE STANDING TRANSITION
TO TIED-DOWN SYSTEM DETAILS

SEE BI-DIRECTIONAL TRANSITION
TO TIED-DOWN SYSTEM DETAILS

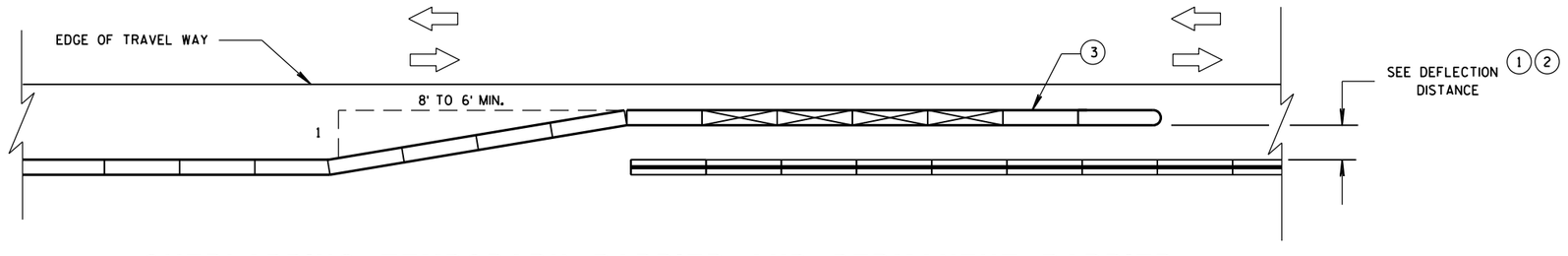
3 PINS PLACED ON
TRAFFIC SIDE OF BARRIER

PERMANENT CONCRETE BARRIER
OR CONCRETE PARAPET

FREE STANDING TEMPORARY
BARRIER



OVERLAPPING TEMPORARY BARRIER AND PERMANENT BARRIER -
ONE WAY TRAFFIC



OVERLAPPING TEMPORARY BARRIER AND PERMANENT BARRIER -
TWO WAY TRAFFIC

CRASH CUSHION/SAND BARREL
ARRAY AND OTHER TEMPORARY
BARRIER LAYOUT DETAILS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6

S.D.D. 14 B 8-2d

LEGEND

DIRECTION OF TRAVEL

CRASH CUSHION OR SAND BARREL ARRAY

SEE FREE STANDING TRANSITION TO TIED-DOWN SYSTEM DETAILS

SEE BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM DETAILS

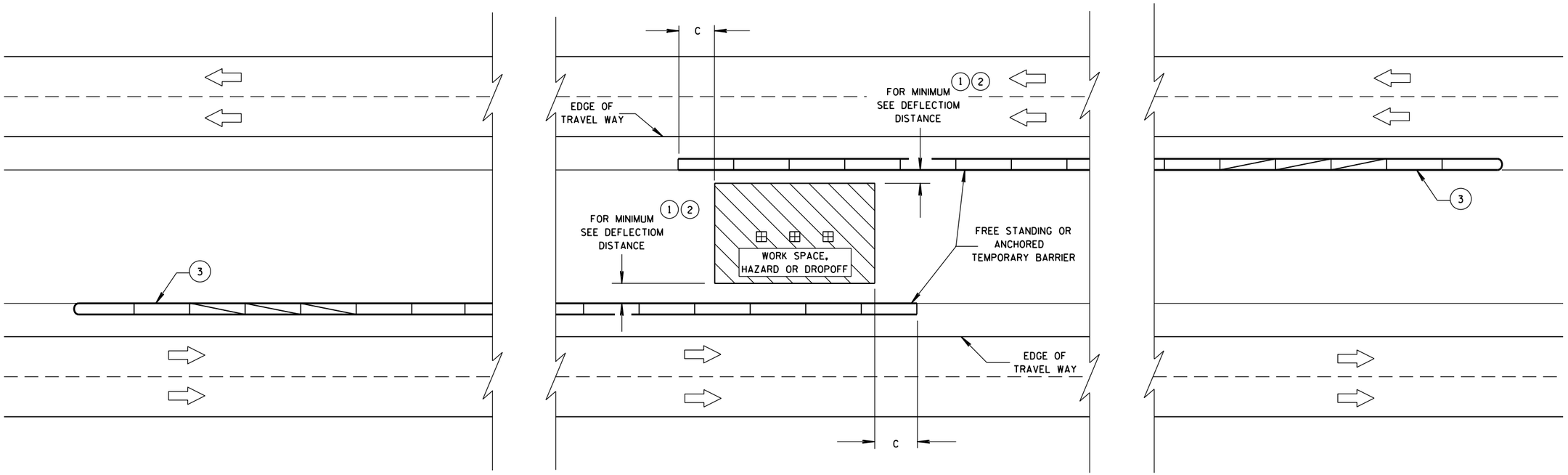
3 PINS PLACED ON TRAFFIC SIDE OF BARRIER

PERMANENT CONCRETE BARRIER OR CONCRETE PARAPET

FREE STANDING TEMPORARY BARRIER

DIMENSION C TABLE (2)

AVAILABLE DEFLECTION DISTANCE	MINIMUM LENGTH OF BARRIER BEYOND HAZARD FT
GREATER THAN 8'	12.5
LESS THAN OR EQUAL TO 8' BUT GREATER THAN 4'	50
LESS THAN OR EQUAL TO 4'	100



CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June, 2015
DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS ENGINNER
FHWA

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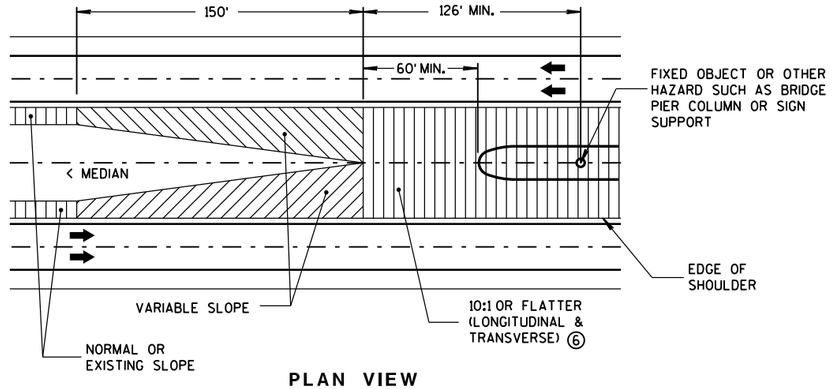
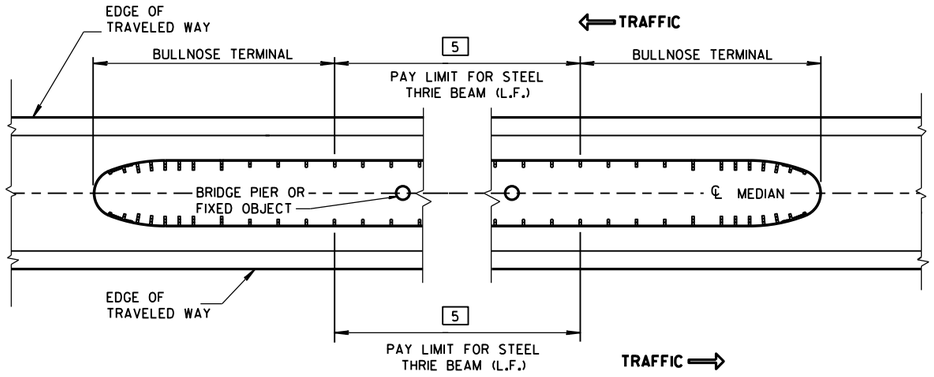
S.D.D. 14 B 8-2e

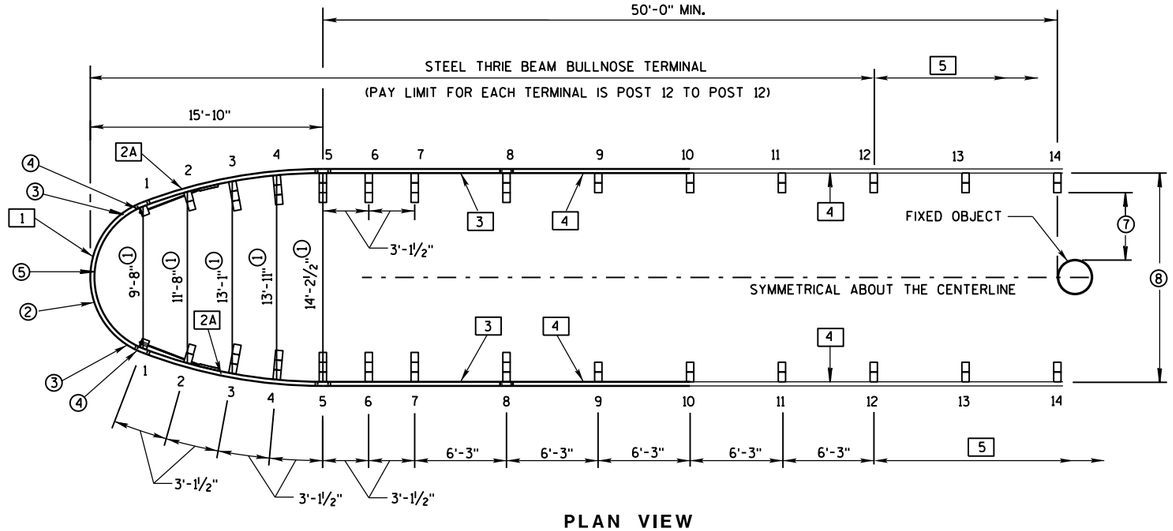


PLAN VIEW

GRADING AT BULLNOSE
(ALL INSTALLATIONS)

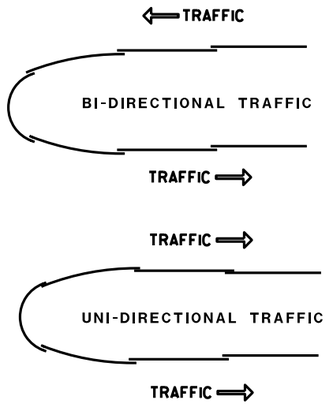


MEDIAN HAZARD PROTECTION PAY LIMITS



PLAN VIEW

TYPICAL BULLNOSE LAYOUT



LAPPING DETAIL
(ALL INSTALLATIONS)

GENERAL NOTES

SEE STANDARD DETAIL DRAWINGS 14 B 26a-e.

PUNCHING, DRILLING, CUTTING OR WELDING IS NOT PERMITTED ON ANY GALVANIZED THRIE BEAM ACCESSORY OR TERMINAL ACCESSORY.

OTHER ANCHOR CABLE ASSEMBLIES HAVING 40,000 LBS. MIN. BREAKING STRENGTH MAY BE USED.

FOR POSTS 2 THROUGH 14, IF POST CANNOT BE INSTALLED AT SPECIFIED LOCATION 1 EXTRA STANDARD WOOD BLOCK MAY BE ADDED.

THE USE OF STEEL POSTS ON THE BULLNOSE IS NOT ALLOWED.

BOLTS AND ALL NECESSARY HARDWARE SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A 153.

ALL THRIE BEAM SHALL BE 12-GAUGE.

IF ROCK IS ENCOUNTERED, REMOVE ROCK TO FULL DEPTH OF POST PLUS 2½" AND 12" DIAMETER AROUND POST. SEE SDD 14B15 OR SDD 14B42 FOR MORE INFORMATION.

[1] SLOTTED THRIE BEAM RAIL NO. 1. (POST 1 TO POST 1)

[2A] SLOTTED THRIE BEAM RAIL NO. 2A. (POST 1 TO POST 5)

[3] SLOTTED THRIE BEAM RAIL NO. 3. (POST 5 TO POST 8)

[4] UNBENT STANDARD THRIE-BEAM RAIL NO.4. (POST 8 TO POST 10 & POST 10 TO POST 12)

[5] BEYOND POST 12: CONSTRUCT STEEL THRIE BEAM - USE UNBENT STANDARD THRIE BEAM RAIL NO. 5.

① DIMENSIONS ARE FROM BACK OF RAIL TO BACK OF RAIL WHERE RAIL IS BOLTED TO POST OR BLOCK.

② U-BOLT CABLE CLIPS (3 PER CABLE) SPACED OUT ON NOSE, TO HOLD CABLE TO BACKSIDE OF THE RAIL.

③ NOSE CABLE W/SWAGGED END BUTTONS.

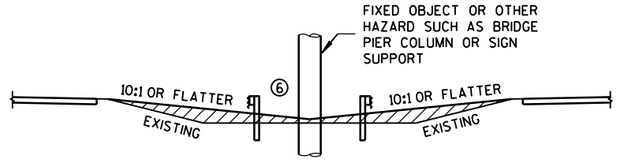
④ NOSE CABLE ANCHOR PLATE (BACKSIDE OF SPLICE).

⑤ THE SLACK IN THE NOSE CABLES SHALL BE EVENLY DISTRIBUTED BETWEEN THE CABLE CLIP FASTENERS AND POST NO. 1 ON EITHER SIDE OF THE NOSE.

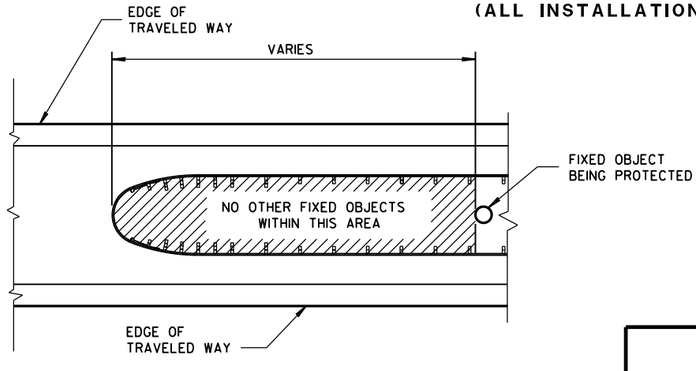
⑥ PROVIDE SUITABLE DRAINAGE WHEN MEDIAN GRADING IMPEDES NORMAL FLOW.

⑦ 2'-6" MINIMUM LATERAL DISTANCE BETWEEN BACK OF POST AND FACE OF FIXED OBJECT.

⑧ MAXIMUM WIDTH OF SYSTEM IS 14'-2½" MEASURED FROM BACK OF RAIL TO BACK OF RAIL WHERE RAIL IS BOLTED TO A POST OR BLOCK.



MEDIAN GRADING SECTION
(ALL INSTALLATIONS)

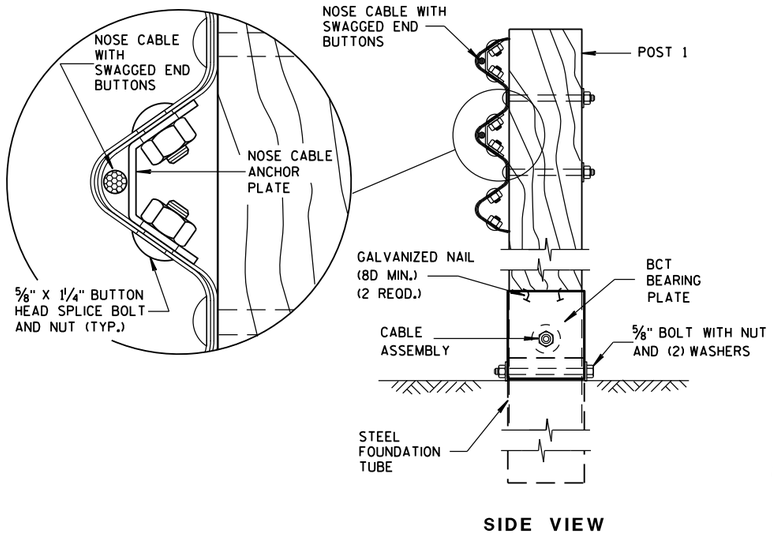


HAZARD FREE AREA INSIDE BULLNOSE

STEEL THRIE BEAM BULLNOSE TERMINAL

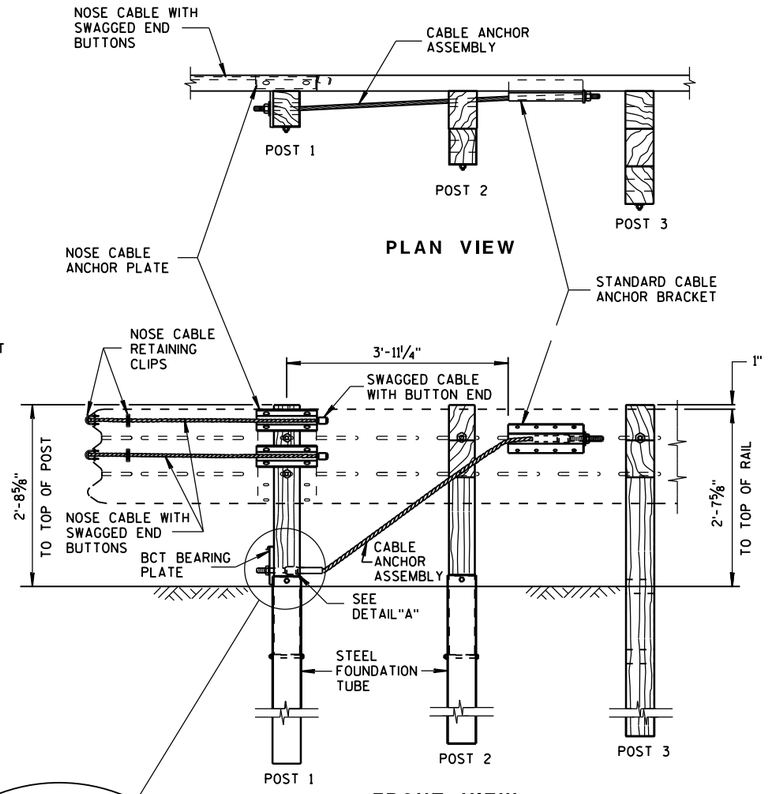
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6
S.D.D. 14 B 26-3a



SIDE VIEW

NOSE CABLE ASSEMBLY AT POST NO. 1



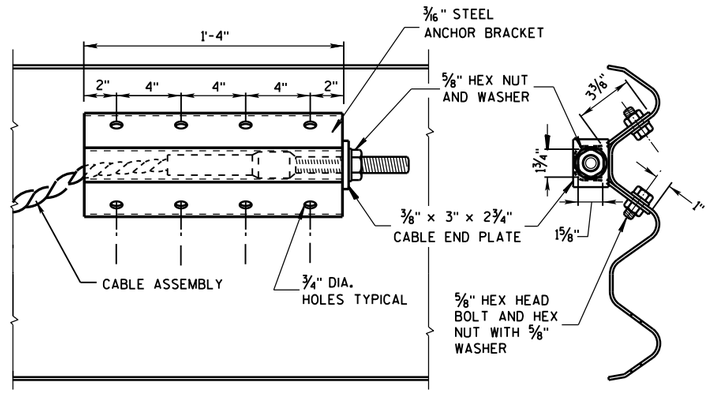
PLAN VIEW

FRONT VIEW

NOSE CABLE ANCHOR AND STANDARD BRACKET ASSEMBLY

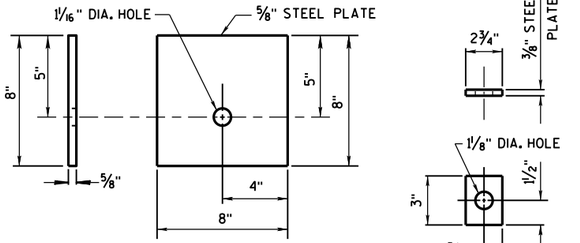
GENERAL NOTES

SEE STANDARD DETAIL DRAWINGS 14 B 26a-e.



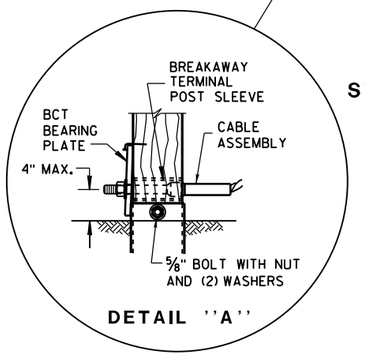
FRONT VIEW END VIEW

DETAILS OF CABLE ANCHOR BRACKET

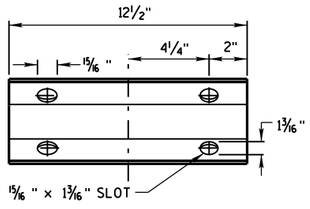


BCT BEARING PLATE

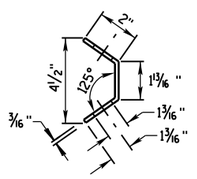
CABLE END PLATE



DETAIL ''A''



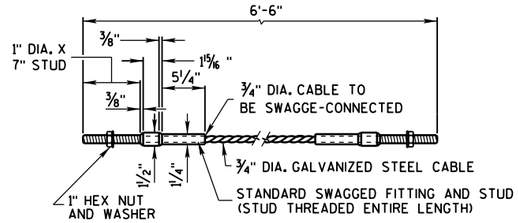
ELEVATION VIEW



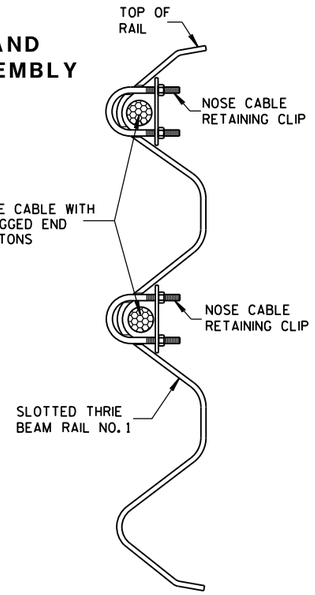
END VIEW

NOSE CABLE ANCHOR PLATE

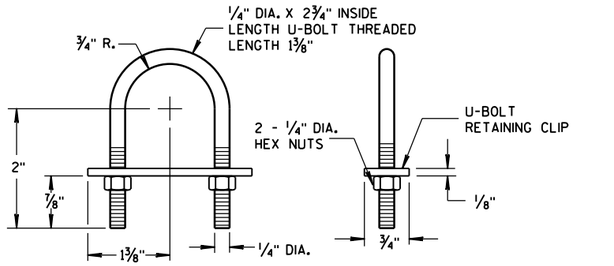
NOTE: 12 1/2" x 5 13/16" x 3/16" STEEL PLATE (A306)



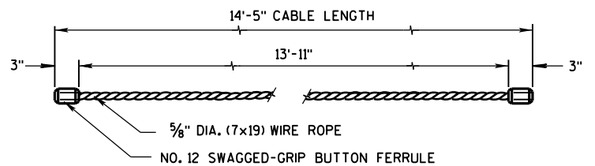
DETAILS OF CABLE ANCHOR ASSEMBLY



PLACEMENT OF NOSE CABLE RETAINING CLIP



NOSE CABLE RETAINING CLIP



NOSE CABLE WITH SWAGGED END BUTTONS

TO PULL OFF SWAGGED GRIP BUTTON FERRULE FROM WIRE ROPE REQUIRES A FORCE EQUAL TO 98% OF THE WIRE ROPE'S BREAKING STRENGHT.

STEEL THRIE BEAM BULLNOSE TERMINAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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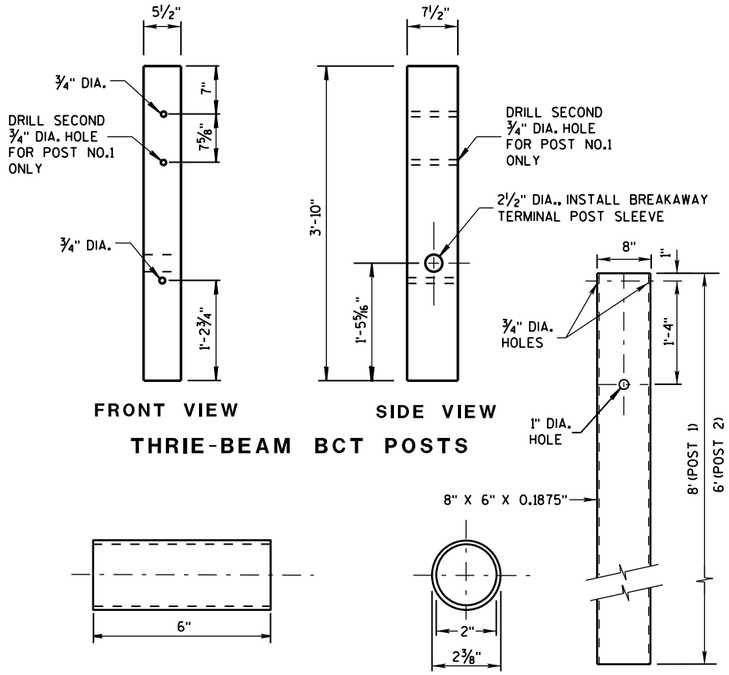
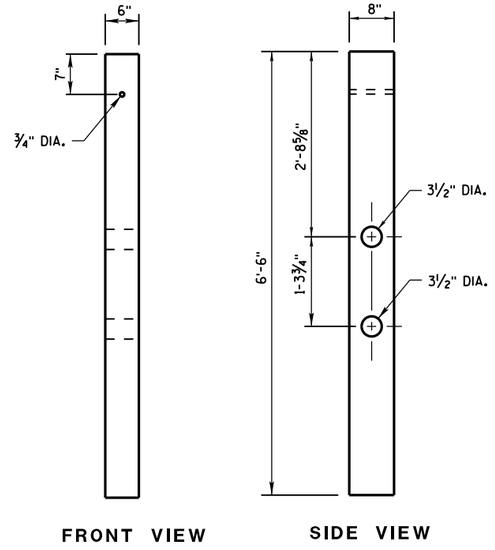
S.D.D. 14 B 26-3c



THRIE-BEAM BCT POSTS

BREAKAWAY TERMINAL POST SLEEVE

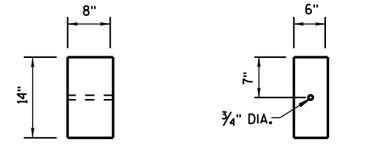
STEEL FOUNDATION TUBE



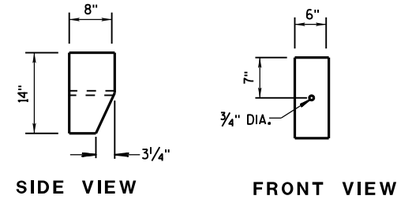
THRIE-BEAM CRT WOOD POSTS

GENERAL NOTES

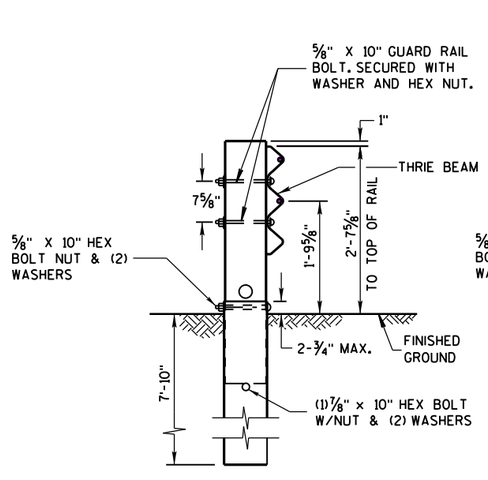
SEE STANDARD DETAIL DRAWINGS 14 B 26a-e.



STANDARD WOOD BLOCK

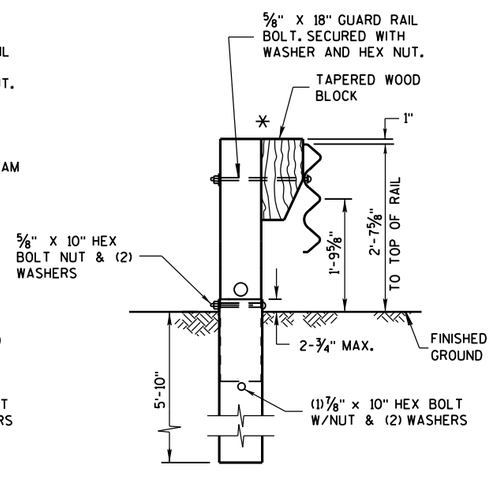


TAPERED WOOD BLOCK



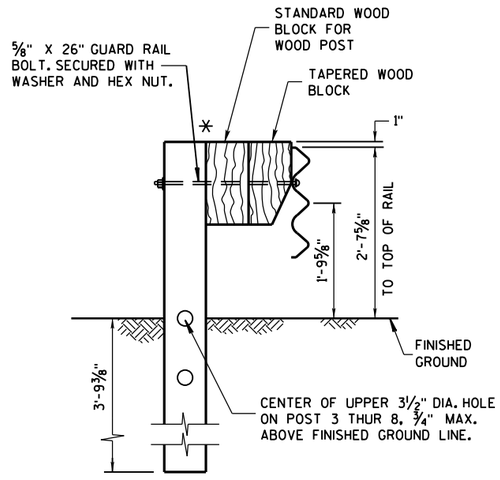
THRIE-BEAM BCT POST
(WITH 8'-0" FOUNDATION TUBE)

POST NO. 1



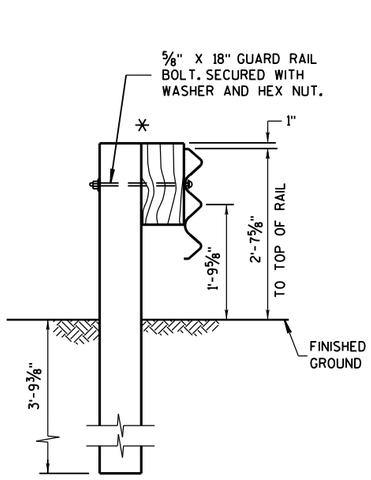
THRIE-BEAM BCT POST
(WITH 6'-0" FOUNDATION TUBE AND 1'-2" TAPERED BLOCK)

POST NO. 2



THRIE-BEAM CRT POST
(6'-6" LONG POST WITH 1'-2" BLOCK AND 1'-2" TAPERED BLOCK)

POST NO. 3,4,5,6,7, & 8



THRIE-BEAM POST
(6'-6" LONG POST WITH 1'-2" BLOCK)

POST NO. 9,10,11,& 12
(ALSO USE FOR STEEL THRIE BEAM BEYOND POST 12)

* IF NEEDED DUE TO AN UNDERGROUND OBSTACLE ADD 1 ADDITIONAL STANDARD BLOCKOUT TO POST.

STEEL THRIE BEAM BULLNOSE TERMINAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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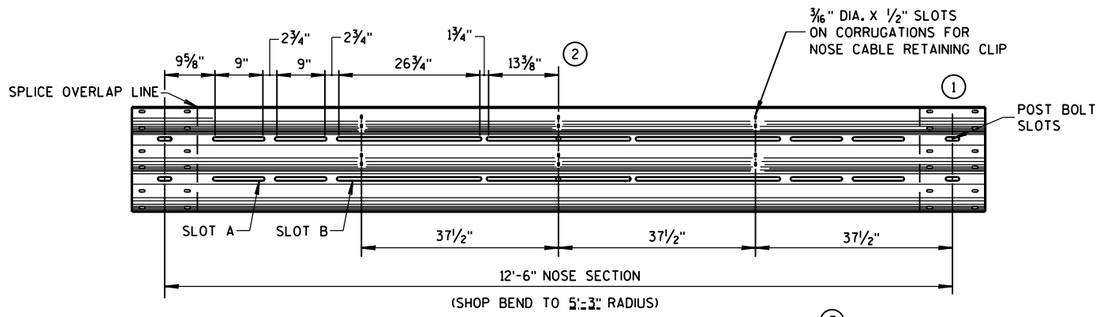
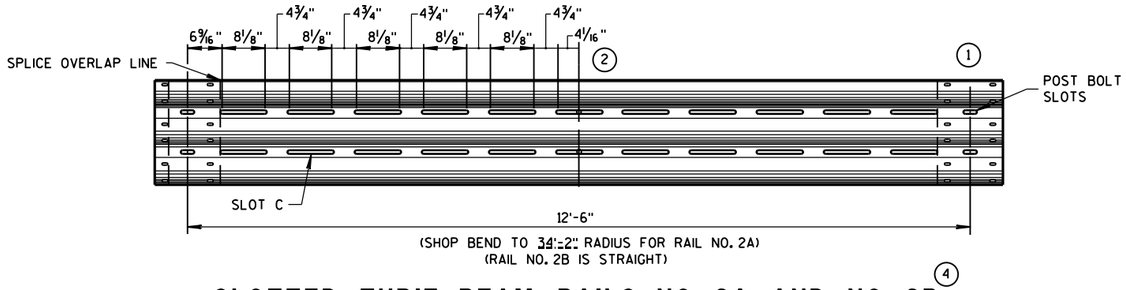
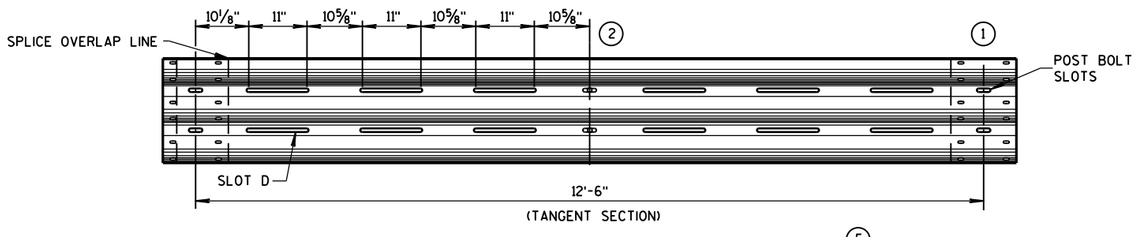
S.D.D. 14 B 26-3d



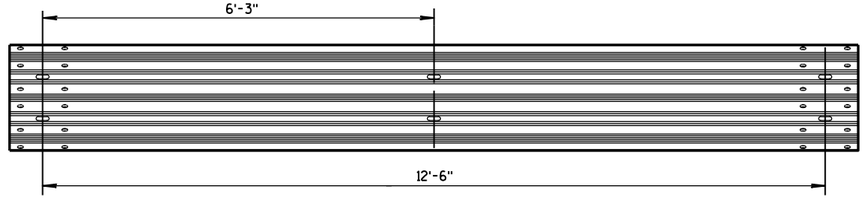
SLOTTED THRIE BEAM RAIL NO. 1 (3)



SLOTTED THRIE BEAM RAILS NO. 2A AND NO. 2B (4)



SLOTTED THRIE BEAM RAIL NO. 3 (5)



UNBENT STANDARD THRIE BEAM RAIL NO. 4 AND NO. 5

GENERAL NOTES

SEE STANADRD DETAIL DRAWINGS 14 B 26a-e.

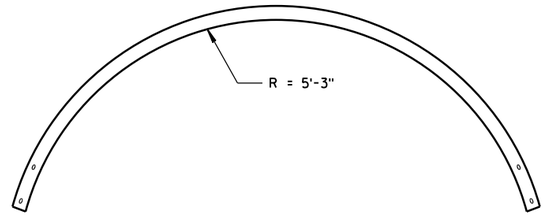
(1) SLOTTED THRIE BEAM RAIL DIMENSIONS SHOWN ARE BEFORE BENDING TO THE RADIUS SHOWN.

(2) SLOT SIZE AND SPACING SYMMETRIC.

(3) SLOTTED THRIE BEAM RAIL NO. 1, 12'-6", SHOP BEND TO R=5'-3".

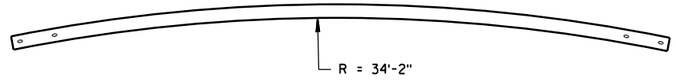
(4) SLOTTED THRIE BEAM RAIL NO. 2A, 12'-6", SHOP BEND TO R=34'-2".
SLOTTED THRIE BEAM RAIL NO. 2B, 12'-6", RAIL IS STRAIGHT.

(5) SLOTTED THRIE BEAM RAIL NO. 3, 12'-6", TANGENT.



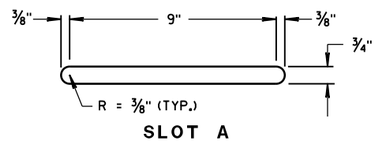
PLAN VIEW

SLOTTED THRIE BEAM RAIL NO. 1

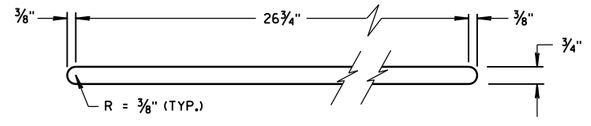


PLAN VIEW

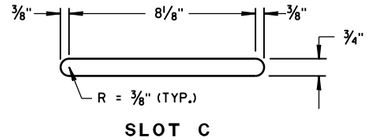
SLOTTED THRIE BEAM RAIL NO. 2A



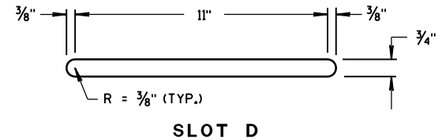
SLOT A



SLOT B



SLOT C



SLOT D

SLOT DETAILS

STEEL THRIE BEAM
BULLNOSE TERMINAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2014 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA

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S.D.D. 14 B 26-3e

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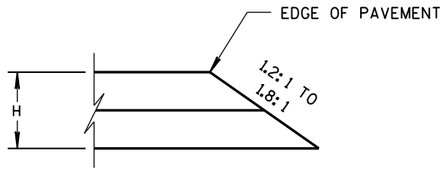
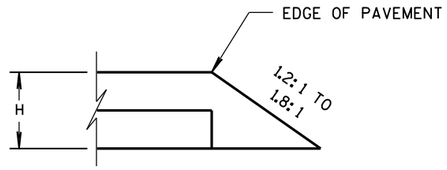
S.D.D. 14 B 26-3e



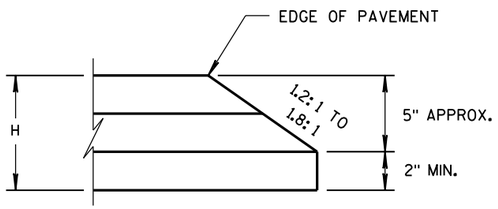
CONSTRUCTED WITH FINAL TWO LAYERS

FOR H 5" OR LESS



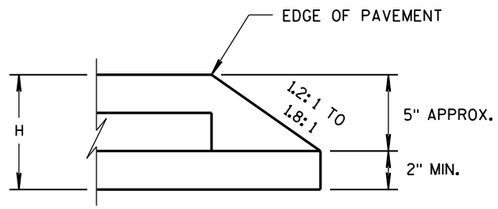
CONSTRUCTED WITH FINAL LAYER

FOR H 5" OR LESS



CONSTRUCTED WITH FINAL TWO LAYERS

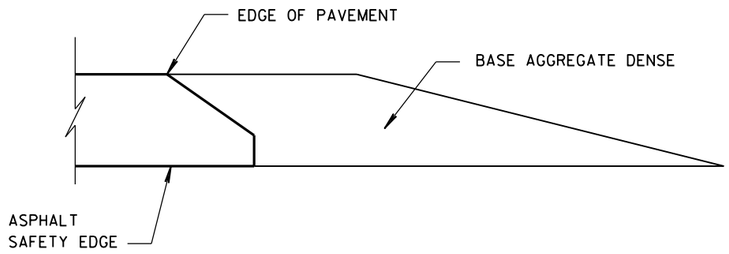
FOR H GREATER THAN 5"



CONSTRUCTED WITH FINAL LAYER

FOR H GREATER THAN 5"

HMA PAVEMENT AND HMA OVERLAYS



FINISHED SHOULDER AGGREGATE PLACEMENT

6

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S.D.D. 14 B 29-1

S.D.D. 14 B 29-1

SAFETY EDGE SM

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

11/30/2012
DATE

/S/ Jerry H. Zoda
ROADWAY STANDARDS DEVELOPMENT ENGINEER

FHWA

GENERAL NOTES

1. WOOD OR STEEL POSTS (w6X9 OR w6X8.5) MAY BE USED. DO NOT INTERMIX WOOD AND STEEL POSTS. INSTALL STEEL POSTS WITH HOLES ON APPROACHING TRAFFIC SIDE.

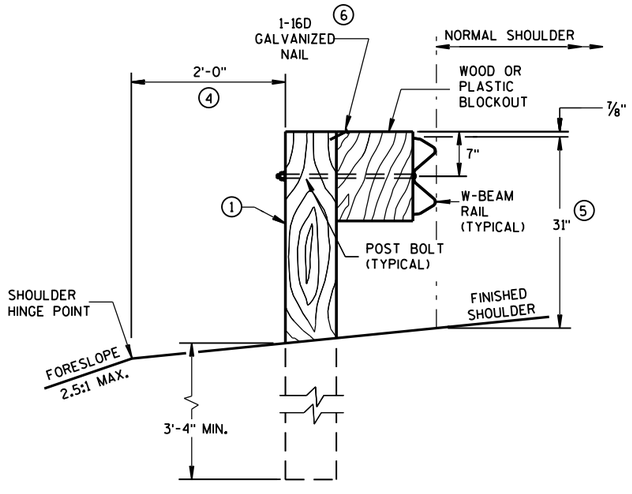
2. USE WOOD OR APPROVED PLASTIC BLOCKOUTS. WOOD BLOCKOUTS MAY BE CONSTRUCTED OUT OF TWO OR MORE WOOD BLOCKOUTS. SEE ALTERNATE WOOD BLOCKOUT DETAIL. DIMENSIONS OF APPROVED PLASTIC BLOCKOUTS MAY VARY.

3. IF ROCK IS ENCOUNTERED DURING EXCAVATION, PROVIDE A HOLE 12 INCHES IN DIAMETER EXTENDING 20 INCHES DEEP INTO THE ROCK. PLACE APPROXIMATELY 2½ INCHES OF GRANULAR MATERIAL IN THE BOTTOM OF THE HOLE. CUT THE POSTS THE TO LENGTH AMD INSTALL. BACKFILL WITH EXCAVATED MATERIAL AND COMPACT. BACKFILL IS TO BE FREE OF LARGE ROCKS.

4. WHEN THE DISTANCE FROM BACK OF POST TO SHOULDER HINGE POINT IS LESS THAN 2 FEET INSTALL LONGER POST AT HALF POST SPACING (K).

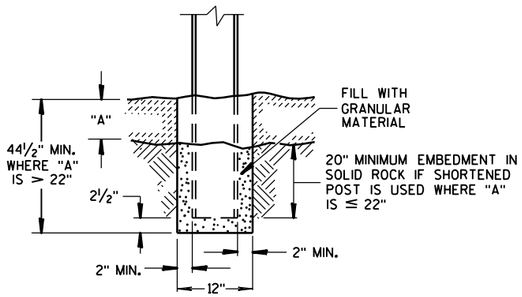
5. FOR NEW MGS INSTALLATION TOP OF W-BEAM RAIL TOLERANCE IS ± 1". FOR EXISTING MGS INSTALLATION TOP OF W-BEAM IS BETWEEN 27¾" TO 32".

6. WHEN USING STEEL POST AND WOOD BLOCKOUTS INSTALL FOUR 16D GALVANIZED NAILS. INSTALL NAILS AT THE BACK CORNERS OF THE BLOCK AND BEND THE NAILS OVER THE FLANGE OF THE STEEL POST.



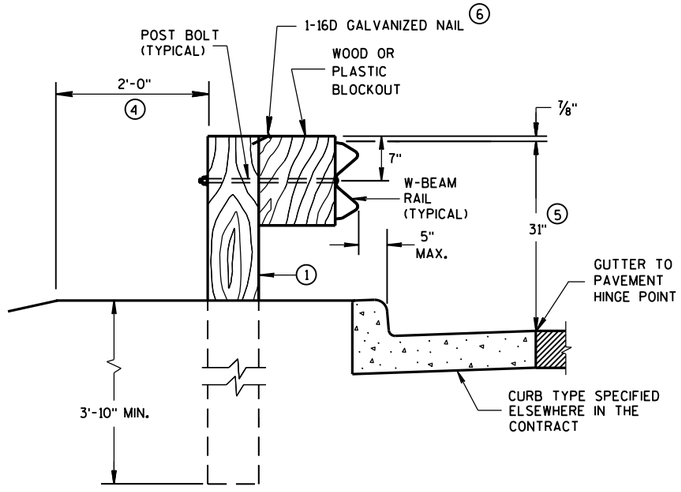
END VIEW

LOCATED ALONG A ROADWAY SHOULDER
STANDARD INSTALLATION



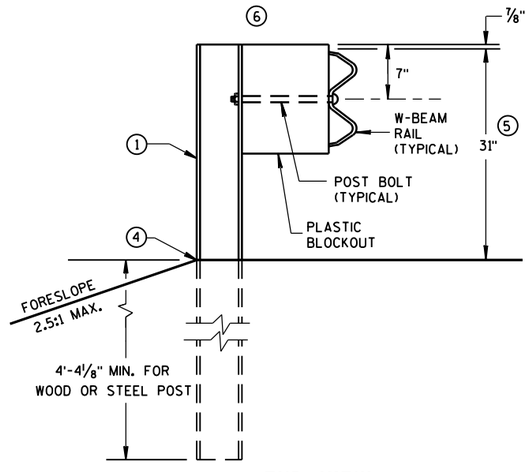
END VIEW

SETTING STEEL OR WOOD POST IN ROCK 3



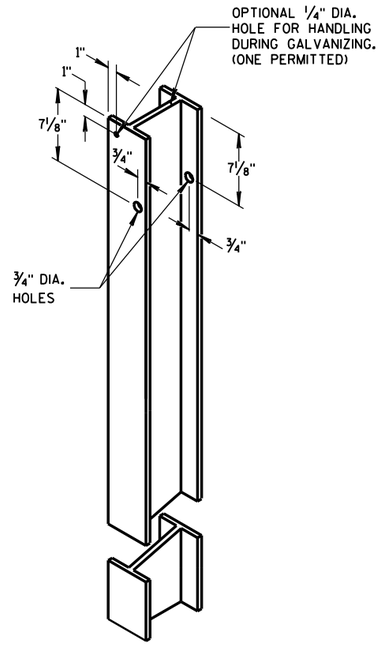
END VIEW

LOCATED ALONG A CURBED ROADWAY

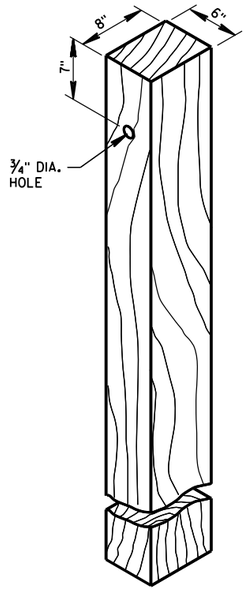


END VIEW

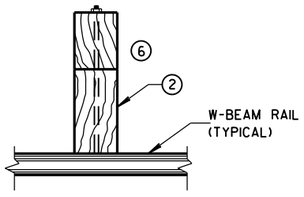
MGS LONGER POST AT HALFPOST SPACING W BEAM (K)



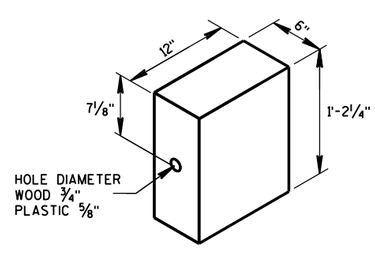
STEEL POST &
HOLE PUNCHING DETAIL
(w6X9) 1



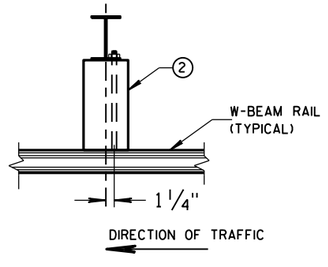
WOOD POST
(6" X 8") NOMINAL 1



PLAN VIEW
WOOD POST,
BLOCKOUT & BEAM



WOOD OR
PLASTIC BLOCKOUT 2



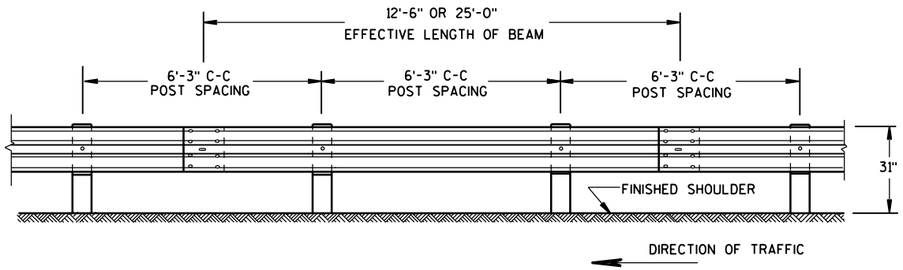
PLAN VIEW
STEEL POST,
PLASTIC BLOCKOUT & BEAM

MIDWEST GUARDRAIL SYSTEM
(MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

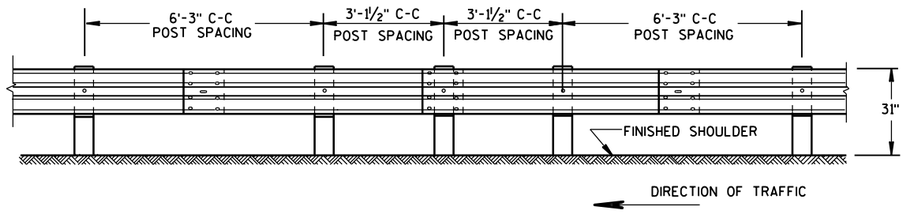
6

S.D.D. 14 B 42-3a



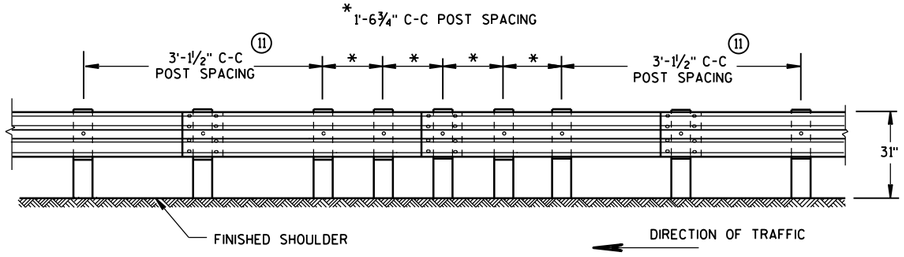
FRONT VIEW

POST SPACING STANDARD INSTALLATION



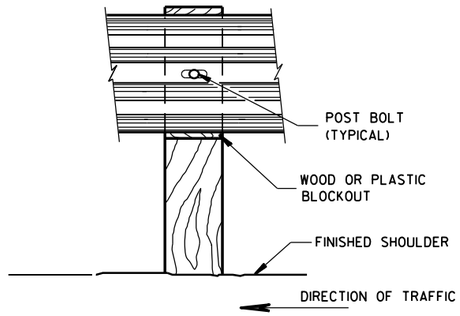
FRONT VIEW

HALF POST SPACING (HS) AND HALF POST SPACING WITH LONGER POSTS (K)

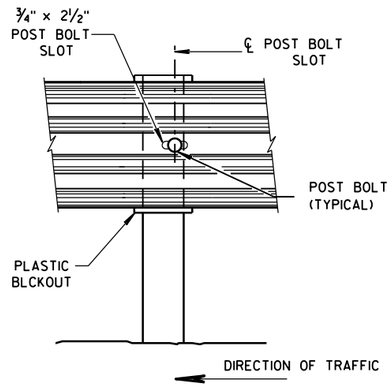


FRONT VIEW

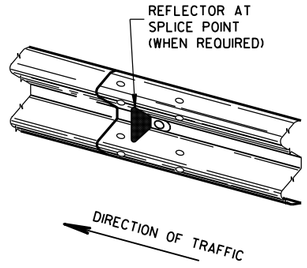
QUARTER POST SPACING (QS)

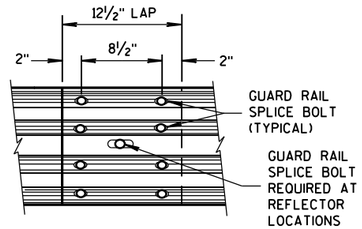


FRONT VIEW AT WOOD POST



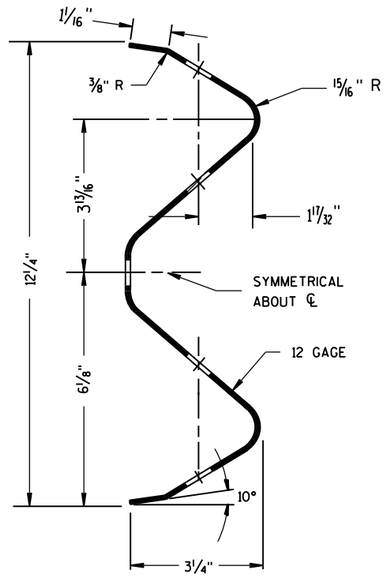
FRONT VIEW AT STEEL POST



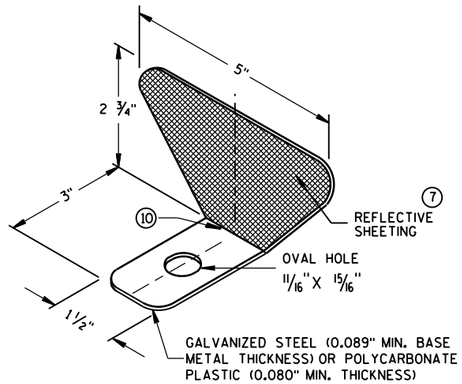


FRONT VIEW

MID-SPAN BEAM SPLICE



SECTION THRU W-BEAM RAIL



GENERAL NOTES

⑦ PROVIDE SILVER REFLECTIVE SHEETING ON ALL REFLECTORS EXCEPT THOSE LOCATED ALONG THE LEFT EDGE OF ONE-WAY ROADWAYS, WHICH SHALL BE PROVIDED WITH YELLOW REFLECTIVE SHEETING. SHEETING IS TYPE H. SEE STANDARD SPECIFICATION 637.

⑧ DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL. RAIL SPLICE LOCATIONS ARE THE ONLY ACCEPTABLE LOCATIONS FOR REFLECTORS.

⑨ REVERSE EVERY OTHER REFLECTOR FOR 2-WAY VISIBILITY. THE CONTRACTOR MAY FURNISH TWO-SIDED REFLECTORS IN LIEU OF ONE-SIDED REFLECTORS.

⑩ PROVIDE AN ANGLE OF BEND OF 90° ± 1° FOR TWO-SIDED REFLECTORS.

⑪ 25 FEET OF HALF POST SPACING IS REQUIRED ON APPROACH AND DEPARTURE ENDS OF QUARTER POST SPACING.

POST BOLTS ARE A ⅝" DIAMETER ASTM A307 GUARDRAIL BOLT. A POST BOLT REQUIRES ⅝" DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX NUT AND ⅝" DIAMETER F844 FLAT WASHER. POST BOLTS MAY BE LONGER IF MULTIPLE BLOCKOUTS ARE BEING USED.

GUARD RAIL SPLICE BOLTS ARE A ⅝" DIAMETER ASTM A307 GUARDRAIL HEAD BOLT. A GUARDRAIL SPLICE BOLT REQUIRES ⅝" DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX NUT.

REFLECTOR SPACING ⑧

	BEAM GUARD LENGTH	REFLECTOR SPACING	NO. SURFACES REFLECTORIZED	MIN. NO. REFLECTORS
ONE WAY TRAFFIC	< 200'	50' C-C	1	3
	> 200'	100' C-C	1	
TWO WAY TRAFFIC	< 200'	25' C-C	1 ⑨	6
	> 200'	50' C-C	1	
TWO WAY TRAFFIC	< 200'	50' C-C	2	3
	> 200'	100' C-C	2 ⑩	

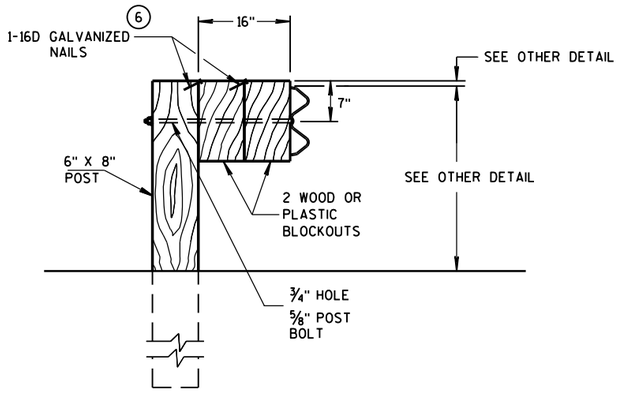
ONE SIDED REFLECTOR DETAIL AND TYPICAL INSTALLATION ⑦

MIDWEST GUARDRAIL SYSTEM
(MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPO

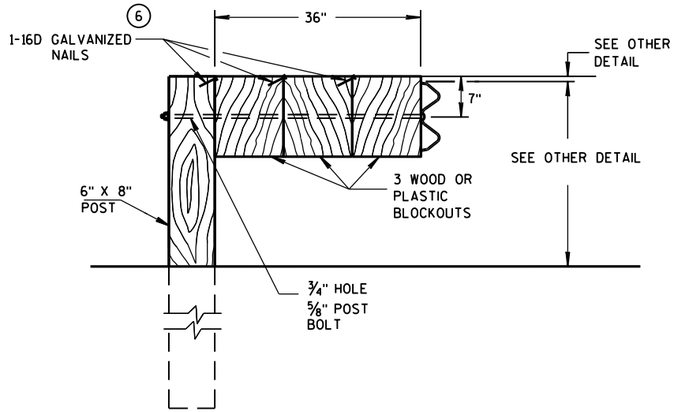
6

S.D.D. 14 B 42-3b



DETAIL FOR 16" BLOCKOUT DEPTH

IT IS ACCEPTABLE TO USE BLOCKOUTS UP TO 16" DEEP TO INCREASE THE POST OFFSET TO AVOID UNDERGROUND OBSTACLES. THERE IS NO LIMIT TO THE NUMBER OF POSTS THAT CAN HAVE ADDITIONAL BLOCKOUTS UP TO 16" DEEP.

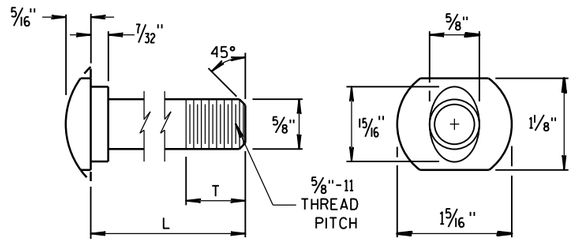


DETAIL FOR 36" BLOCKOUT DEPTH

NOTES: UNDER SPECIAL CIRCUMSTANCES, SUCH AS AVOIDING OBSTACLES THAT ARE NOT RELOCATED, IT IS ACCEPTABLE TO INSTALL ADDITIONAL BLOCKOUTS TO OBTAIN UP TO 36" DEPTH FOR ONE OR TWO POSTS IN A SECTION OF GUARDRAIL.

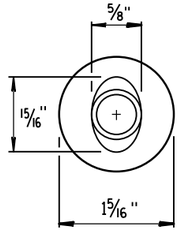
DO NOT USE 16" OR 36" BLOCKOUTS IF IT CAUSES THE POST TO BE DRIVEN BEYOND SHOULDER HINGE POINT OR CAUSES A FIXED OBJECT TO BE WITHIN THE DEFLECTION DISTANCE OF THE BARRIER.

NOTE: 1. ALL FILLETS SHALL HAVE A MINIMUM RADIUS OF 1/16".
2. IF THE BOLT EXTENDS MORE THAN 1/4" FROM THE NUT THE BOLT SHOULD BE TRIMMED BACK.

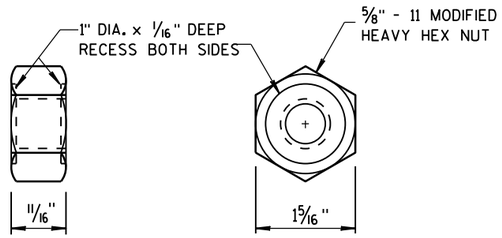


POST BOLT TABLE

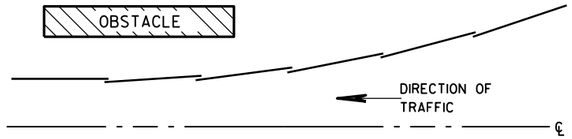
L	T (MIN.)
1 1/4"	1 1/8"
2"	1 3/4"
10"	4"
14"	4 1/16"
18"	4"
21"	4 1/16"
25"	4"



ALTERNATE BOLT HEAD

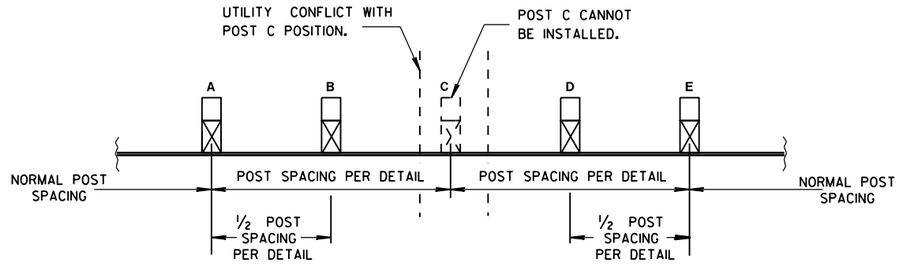


POST BOLT AND RECESS NUT

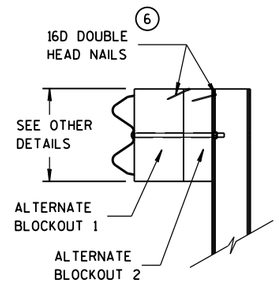


PLAN VIEW

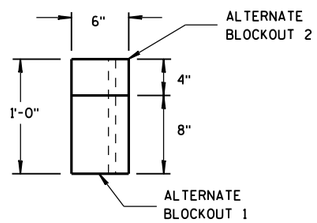
BEAM LAPPING DETAIL



POST DRIVING FOR CONTINUOUS UNDERGROUND OBSTRUCTION



SIDE VIEW



TOP VIEW

ALTERNATE WOOD BLOCKOUT DETAIL

MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2014 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA

6
S.D.D. 14 B 42-3c

GENERAL NOTES

(A) THE SLOPE IN THE AREA BOUNDED BY THE GRADELINE, THE HINGE POINT LINE (HPL), AND THE CLEAR ZONE LIMITS (CZL) SHALL BE 4:1 OR FLATTER.

(B) AFTER FINAL ASSEMBLY, RECHECK CABLE TO BE SURE IT IS TAUT AND HAS NOT RELAXED.

(C) DIFFERENT MANUFACTURES REQUIRE DIFFERENT PERFORATED W-BEAM RAIL END PANELS. SEE MANUFACTURES INFORMATION.

(D) THE TOP OF THE STEEL TUBE ON POST 1 AND POST 2 SHALL NOT BE MORE THAN 3" ABOVE THE FINISH GROUND ELEVATION.

(F) ATTACH ALUMINUM SHEET TO E.A.T. HEAD USING 4 STAINLESS STEEL SELF-TAPPING SCREWS. ONE SCREW PER CORNER.

(G) ½" DIAMETER X 3" LONG LAG BOLT AND WASHER.

(H) HARDWARE VARIES BETWEEN DIFFERENT MANUFACTURES. SEE MANUFACTURE'S DRAWING FOR INFORMATION.

(I) DIMENSIONS MAY VARY. SEE MANUFACTURE'S INFORMATION.

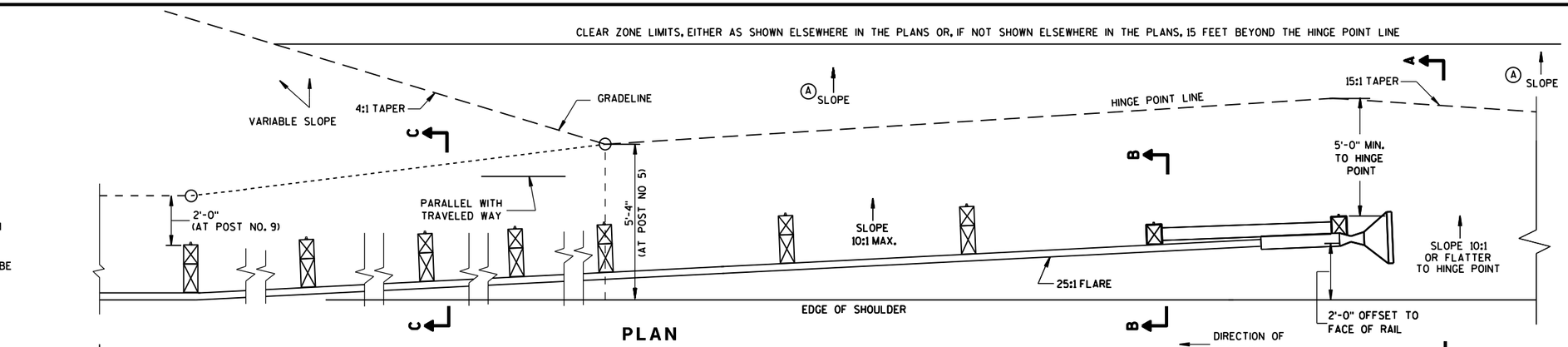
SEE SDD 14B42 FOR MORE INFORMATION.

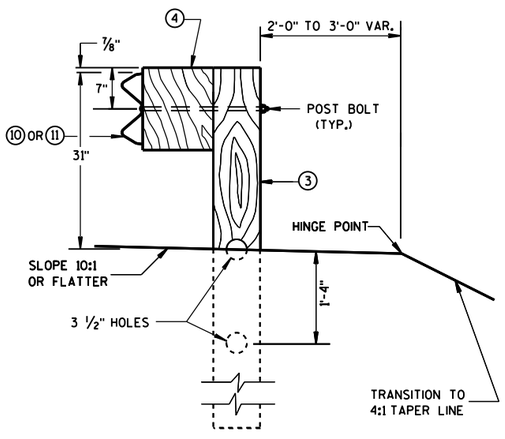
* DO NOT ATTACH BLOCKOUTS TO POSTS 1 AND 2.

DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL.

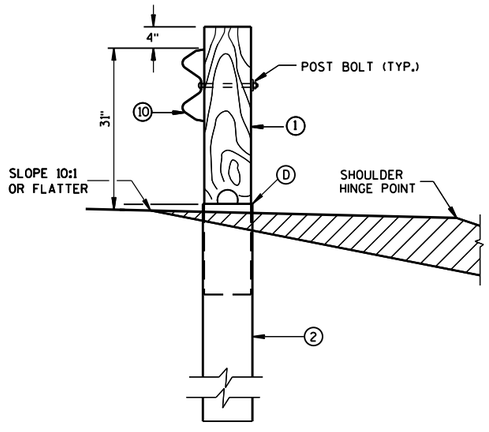
W-BEAM RAIL SPLICES ARE LOCATED AT POST NUMBER 3, AND BETWEEN POST 5 AND 6, BETWEEN POSTS 7 AND 8, AND MIDDLE OF THE SPAN AFTER POST 9.

THE CENTER OF THE UPPER 3½" DIAMETER HOLE ON POST NUMBER 3 THROUGH POST 9 IS TO BE FLUSH WITH THE GROUND LINE UP TO A MAXIMUM OF 2" ABOVE GROUND LINE.

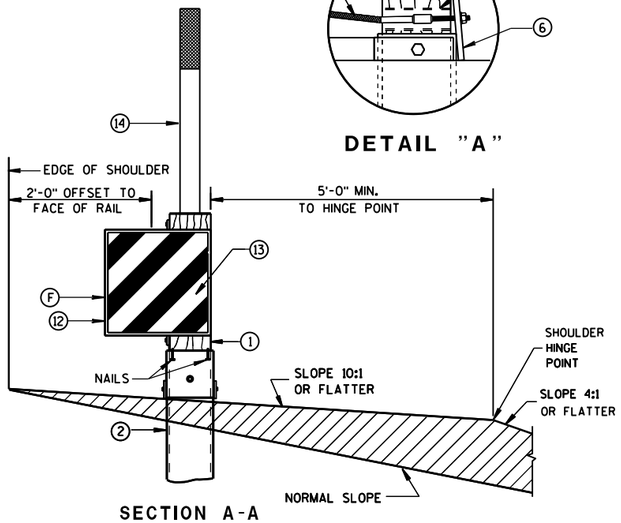




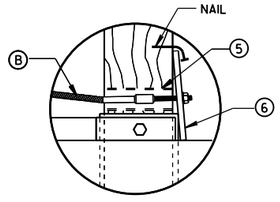
SECTION C-C
TYPICAL AT POST NOS. 3-9



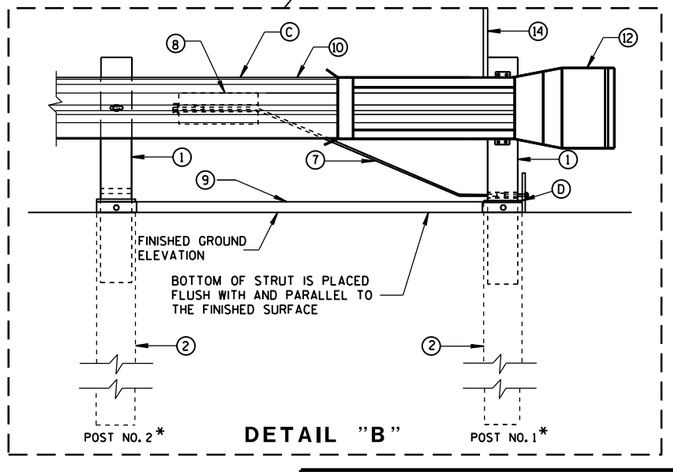
SECTION B-B
TYPICAL AT POST NO. 2*



SECTION A-A
TYPICAL AT POST NO. 1*



DETAIL "A"



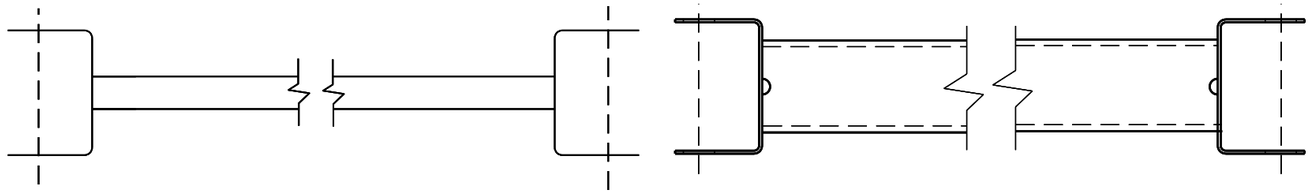
DETAIL "B"

MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPO

S.D.D. 14 B 44-2a

S.D.D. 14 B 44-2a

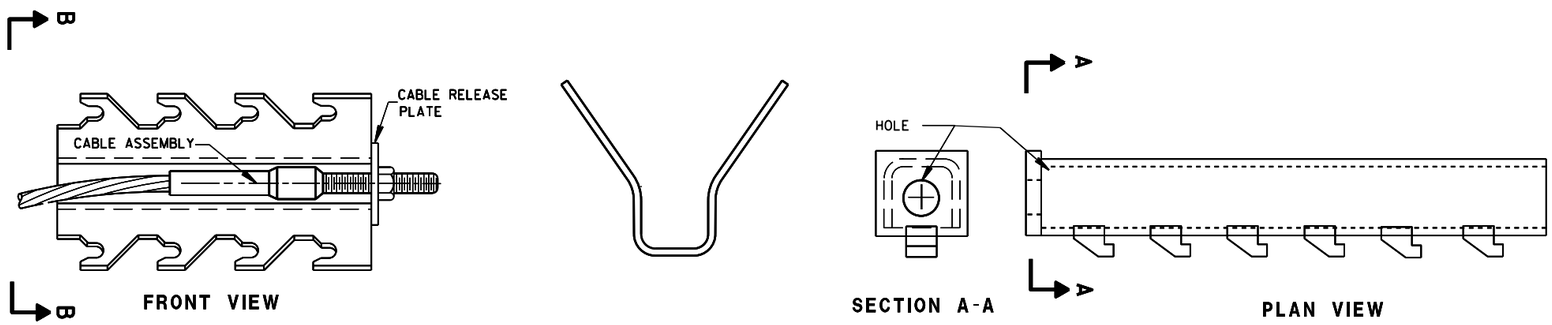


⑨ Ⓗ

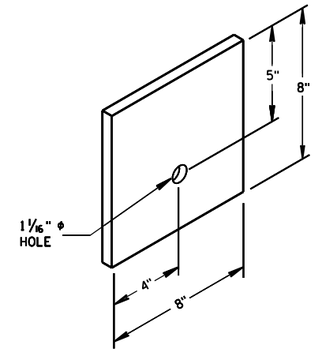
GENERIC GROUND STRUT

BILL OF MATERIALS

PART NO.	DESCRIPTION MATERIALS PROVIDED BY MGS EAT MANUFACTURER. SEE MANUFACTURER'S DETAILS FOR MORE INFORMATION.
①	WOOD BREAKAWAY POST
②	6" X 8" X 0.188", 6'-0" LONG FOUNDATION TUBE AT POSTS 1 AND 2
③	WOOD CRT
④	WOOD BLOCKOUT
⑤	PIPE SLEEVE
⑥	BEARING PLATE
⑦	BCT CABLE ASSEMBLY
⑧	ANCHOR CABLE BOX
⑨	GROUND STRUT
⑩	PERFORATED W-BEAM RAIL END PANEL, 12'-6" LONG.
⑪	STANDARD W-BEAM RAIL. MULTIPLE SECTIONS REQUIRED. SECTIONS VARY IN LENGTH.
⑫	END SECTION EAT
⑬	0.040" ALUMINUM SHEET WITH REFLECTIVE SHEETING TYPE F PER SECTION 637 OF THE STANDARD SPECIFICATIONS
⑭	EAT MARKER POST - YELLOW (SEE APPROVED PRODUCTS LIST)



GENERIC ANCHOR CABLE BOX ⑧ Ⓗ

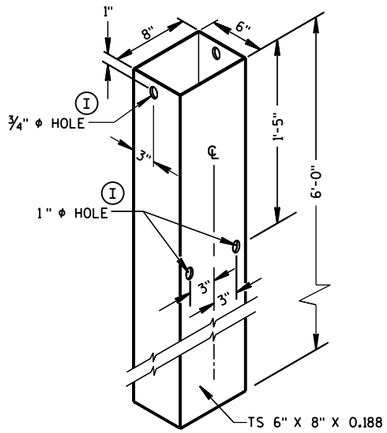


BEARING PLATE ⑥

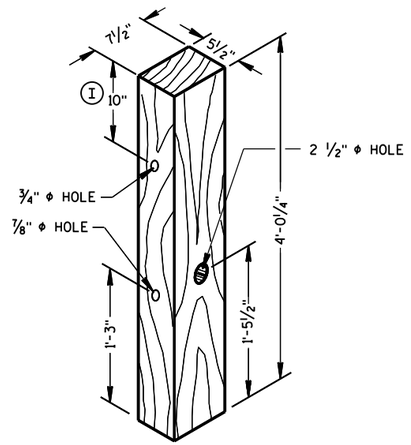
MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL
(MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6
S.D.D. 14 B 44-2b

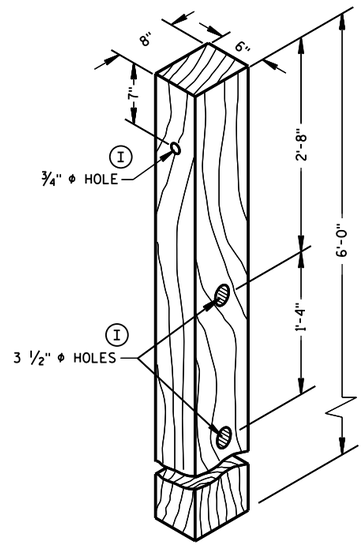


FOUNDATION TUBE (2)



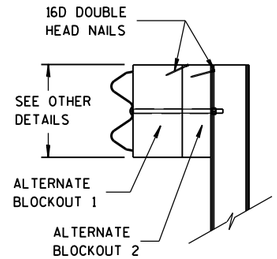
POSTS NUMBER 1 AND 2

WOOD BREAKAWAY POST (1)

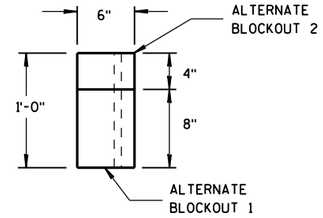


POSTS NUMBER 3-9

WOOD CRT POST (3)

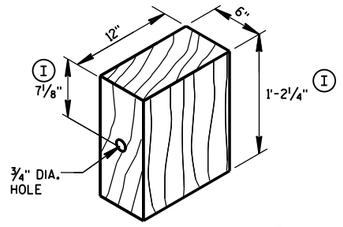


SIDE VIEW



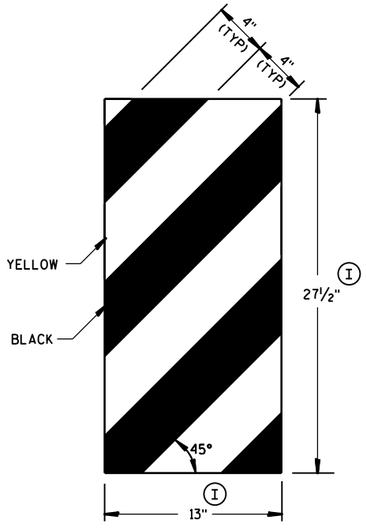
TOP VIEW

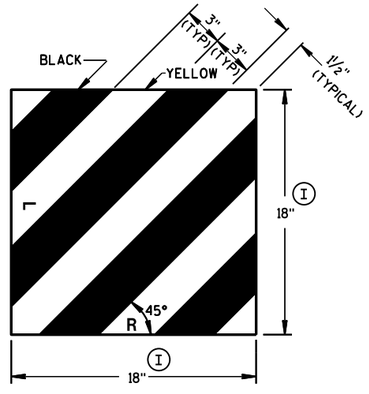
ALTERNATE WOOD BLOCKOUT DETAIL



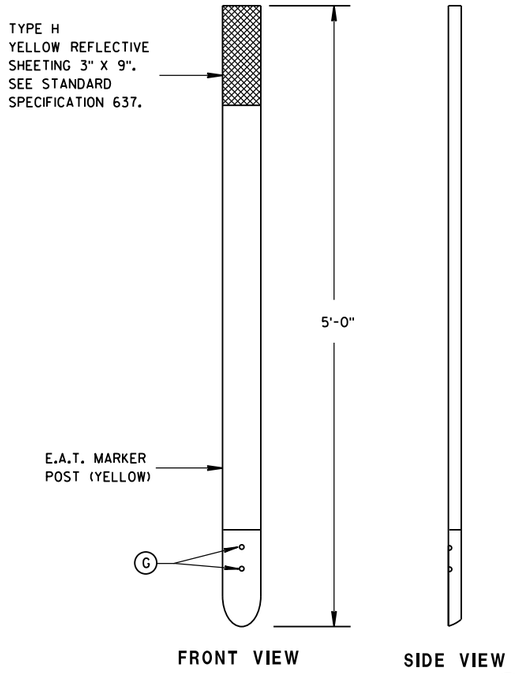
WOOD BLOCKOUT (4)

REQ'D. AT ALL POSTS EXCEPT POST NO'S 1 & 2





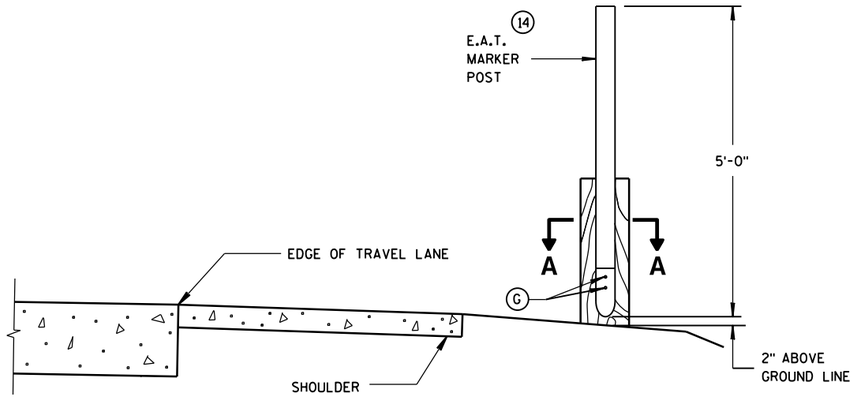
GENERIC REFLECTIVE SHEETING (13) (H)



FRONT VIEW

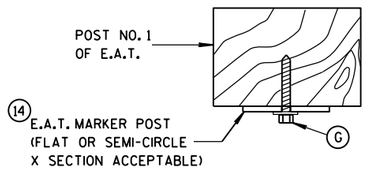
SIDE VIEW

E.A.T. MARKER POST (14)



TYPICAL INSTALLATION OF E.A.T. MARKER POST BACKSIDE OF POST NO. 1

(E.A.T. AND RAIL REMOVED FOR CLARITY)



SECTION A-A

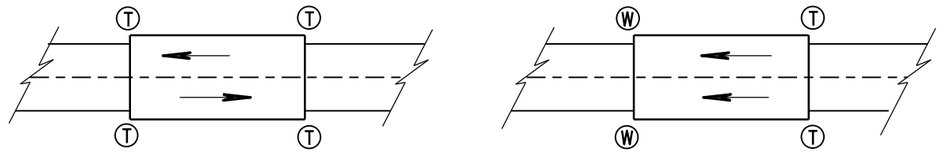
MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2014
DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS ENGINEER
FHWA

6

S.D.D. 14 B 44-2c



TWO WAY TRAFFIC

ONE WAY TRAFFIC

Ⓣ THRIE BEAM CONNECTION

Ⓦ W-BEAM CONNECTION WHEN REQUIRED

TYPICAL LOCATIONS OF THRIE BEAM AND W-BEAM CONNECTIONS TO BRIDGE

GENERAL NOTES

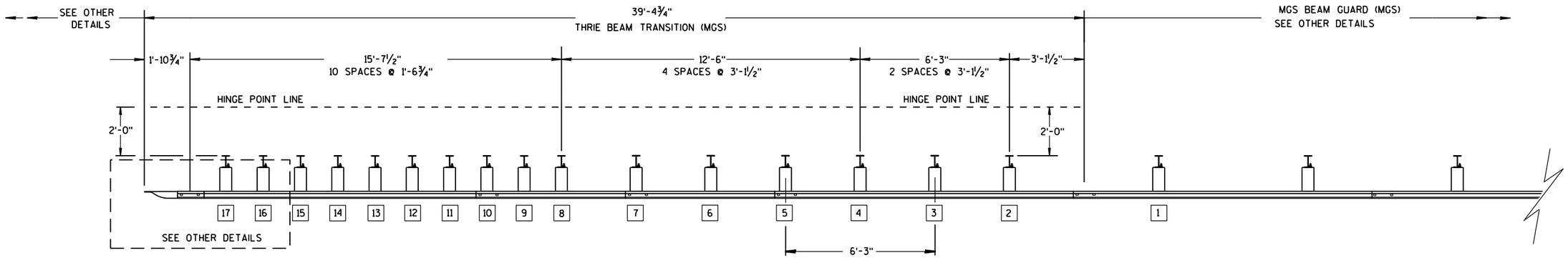
IF ROCK IS ENCOUNTERED, REMOVE ROCK TO FULL DEPTH OF POST PLUS 2½", AND 12" DIAMETER AROUND POST. SEE 14B42 FOR MORE DETAILS.

TRANSITION USES STEEL POSTS ONLY.

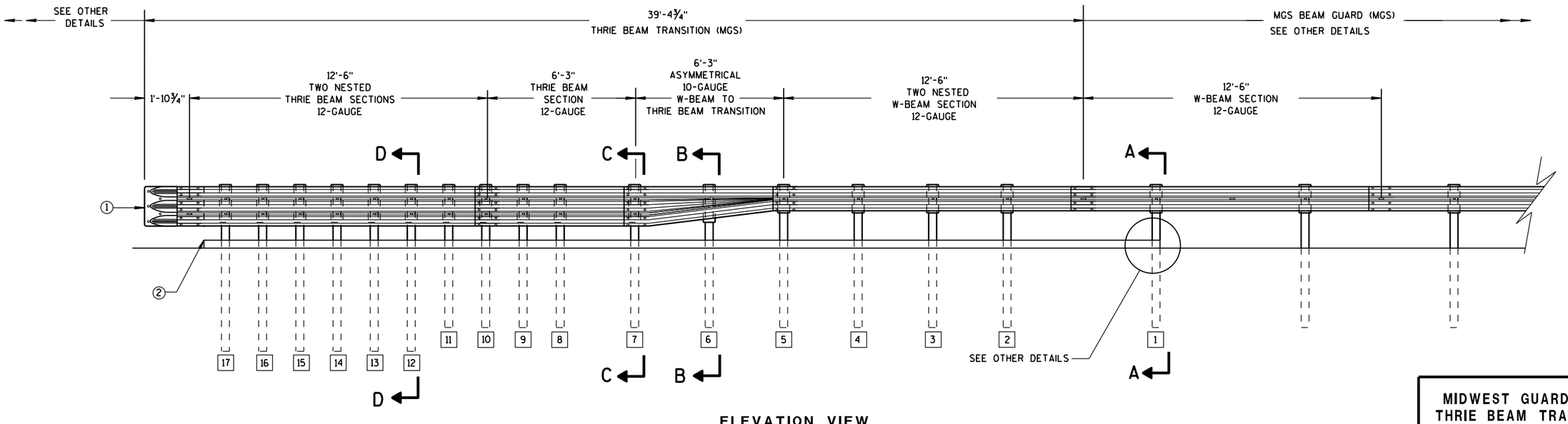
SEE STANDARD DETAIL DRAWING 14 B 42 FOR MORE INFORMATION.

① BRIDGE RAILING TYPE "W" DOES NOT REQUIRE A TERMINAL CONNECTOR.

② OPTIONAL CURB AND GUTTER OR DRAINAGE FEATURE SEE PLAN FOR INFORMATION.



PLAN VIEW



ELEVATION VIEW

MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6

S.D.D. 14 B 45-4a

6

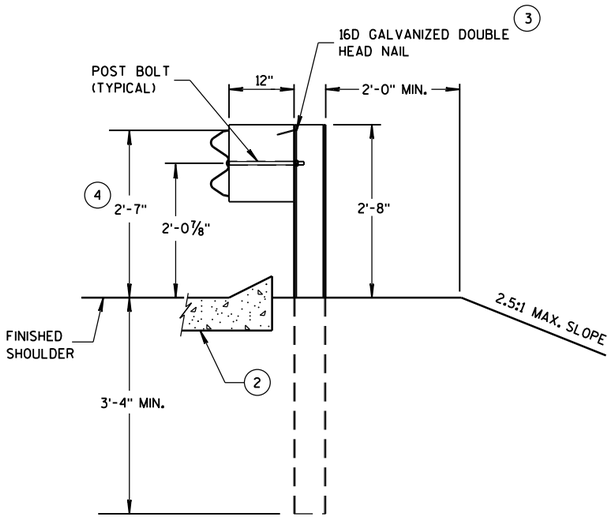
S.D.D. 14 B 45-4a

GENERAL NOTES

(2) OPTIONAL CURB AND GUTTER OR DRAINAGE_FEATURE SEE PLAN FOR INFORMATION.

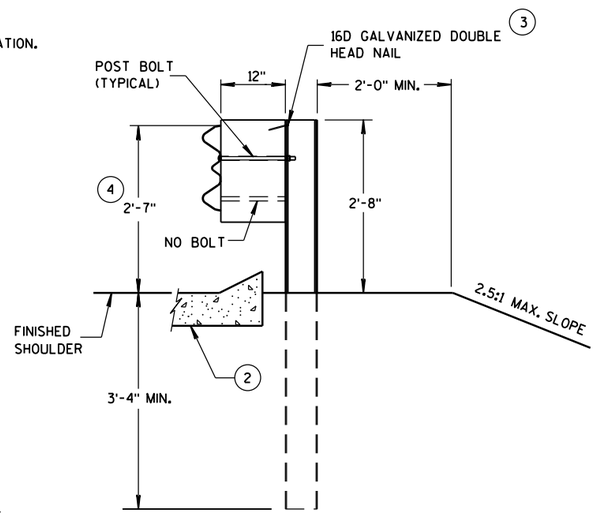
(3) WHEN USING STEEL POSTS AND WOOD BLOCKOUTS INSTALL FOUR 10D GALVANIZED NAILS. INSTALL NAILS AT THE BACK CORNERS OF THE BLOCK AND BEND THE NAILS OVER THE FLANGE OF THE STEEL POST.

(4) TOLERANCE FOR TOP OF W-BEAM RAIL IS ± 1".



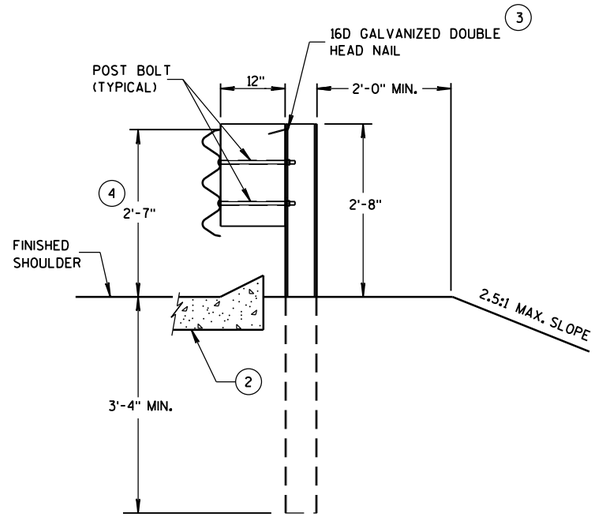
SECTION A-A

POSTS 1-5



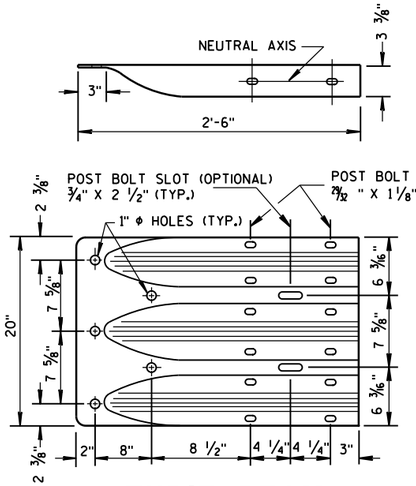
SECTION B-B

POST 6



SECTION C-C

POSTS 7-11



THRIE BEAM TERMINAL CONNECTOR

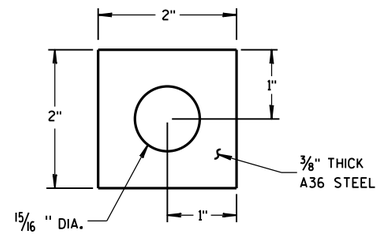
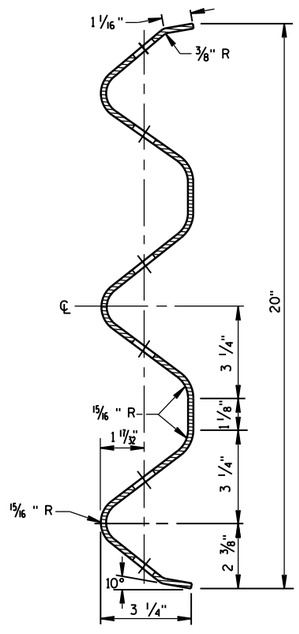
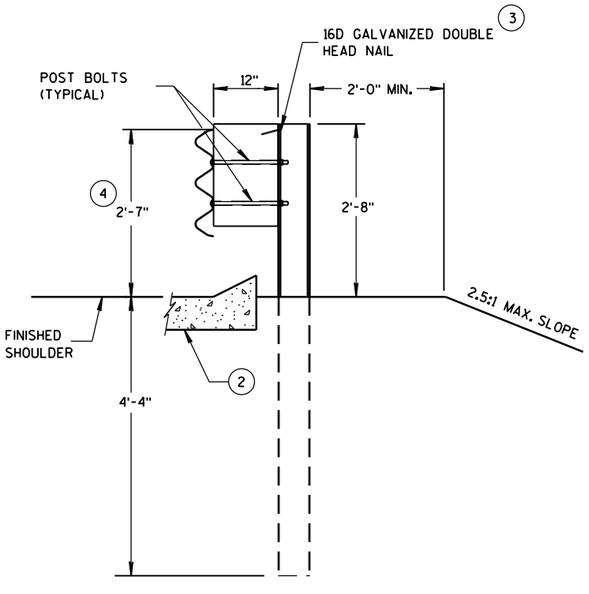


PLATE WASHER DETAIL

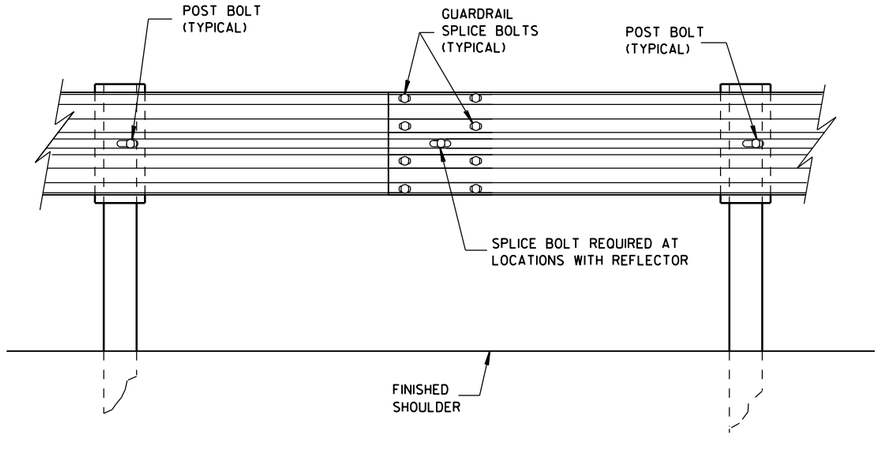


SECTION THRU THRIE BEAM RAIL ELEMENT



SECTION D-D

POSTS 12-17



SPLICE DETAIL

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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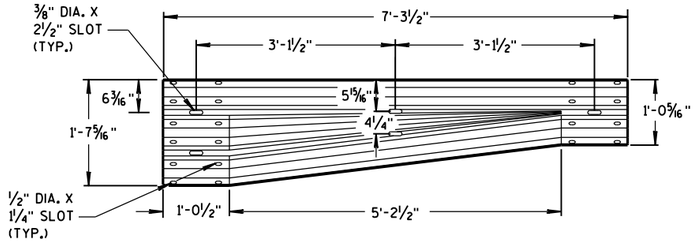
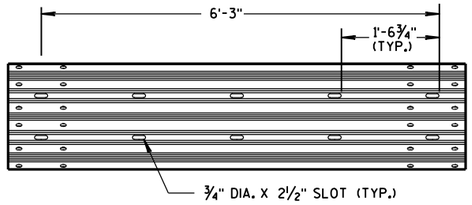
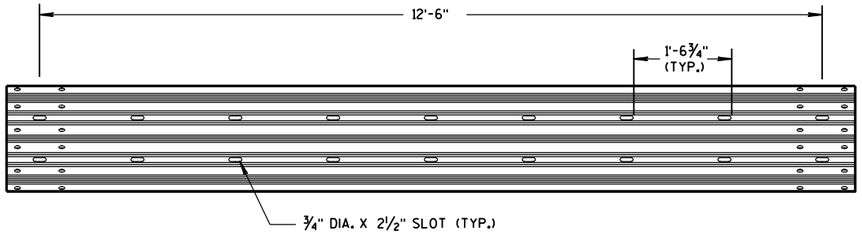
S.D.D. 14 B 45-4b



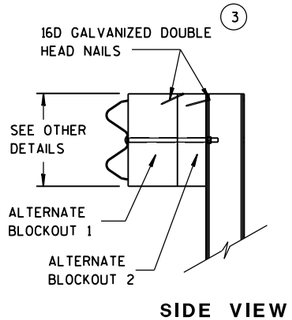
W-BEAM TO THRIE BEAM TRANSITION SECTION



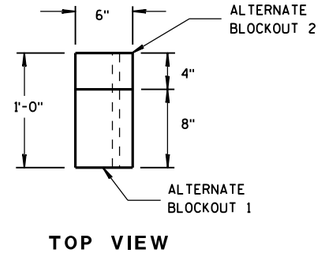
6'-3" THRIE BEAM SECTION



12'-6" THRIE BEAM SECTION

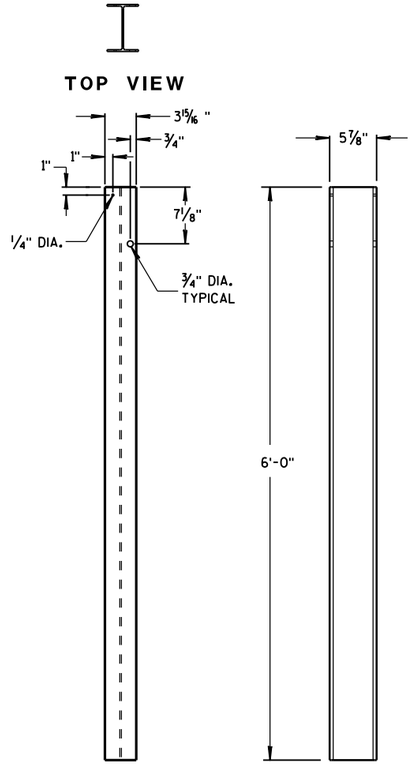


SIDE VIEW

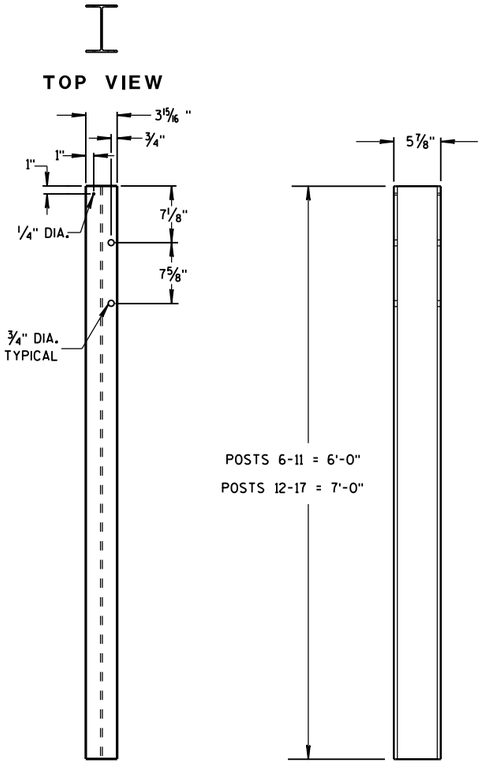


TOP VIEW

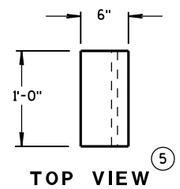
ALTERNATE WOOD BLOCKOUT DETAIL



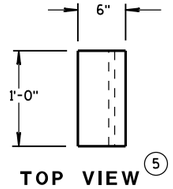
STEEL POSTS 1-5



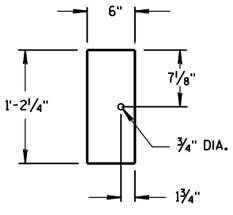
STEEL POSTS 6-17



TOP VIEW (5)

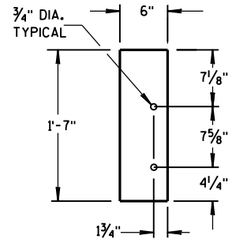


TOP VIEW (5)



FRONT VIEW

BLOCKOUT POSTS 1-5



FRONT VIEW

BLOCKOUT POSTS 6-17

GENERAL NOTES

STEEL POSTS ARE W6X9 OR W6X8.5.

BOLT HOLES FOR POST ARE ON FRONT AND OF SIDE OF POST.

(3) WHEN USING STEEL POSTS AND WOOD BLOCKOUTS INSTALL FOUR 16D GALVANIZED NAILS. INSTALL NAILS AT THE BACK CORNERS OF THE BLOCK AND BEND THE NAILS OVER THE FLANGE OF THE STEEL POST.

(5) WOOD BLOCKS MAY BE CONSTRUCTED OUT OF 2 WOOD BLOCKS. SEE ALTERNATE WOOD BLOCK DETAIL.

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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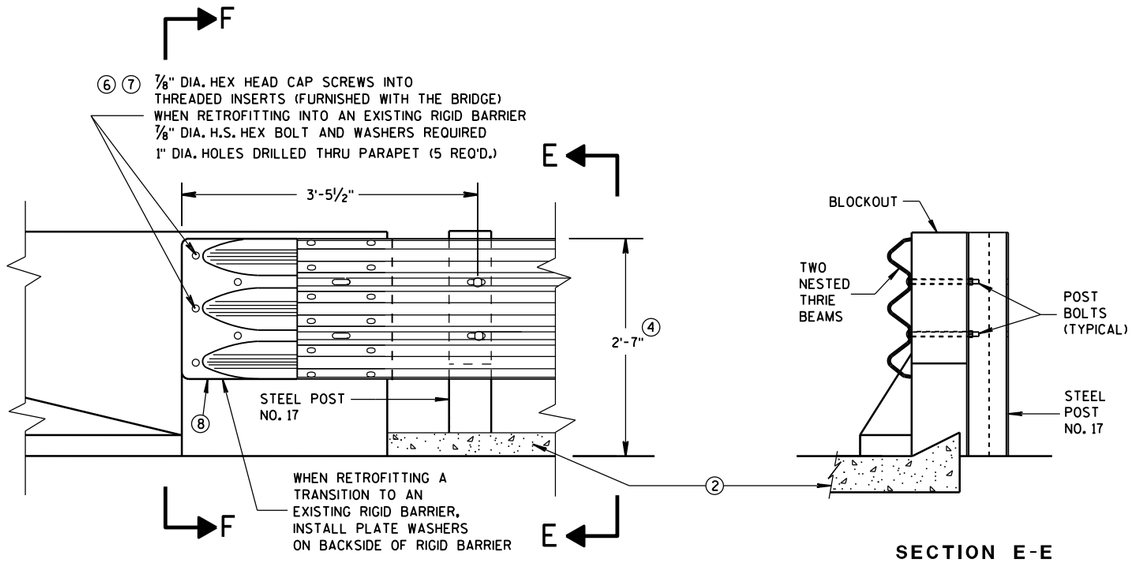


FRONT VIEW

SECTION E-E

THRIE BEAM CONNECTION TO BRIDGE PARAPET WITH SQUARE ENDS

GENERAL NOTES

THESE ARE TYPICAL CONNECTION DETAILS. ADJUST THE POSTION OF CONNECTIONS TO EXISTING BRIDGES TO FIT THE ACTUAL BRIDGE AND SITE DIMENSIONS.

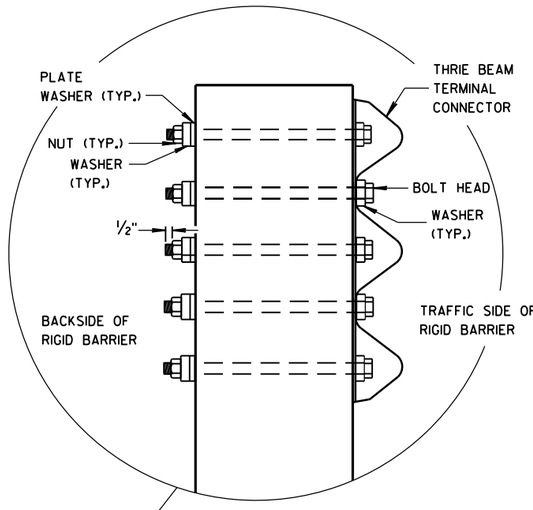
② OPTIONAL CURB AND GUTTER OR DRAINAGE FEATURE SEE PLAN FOR INFORMATION.

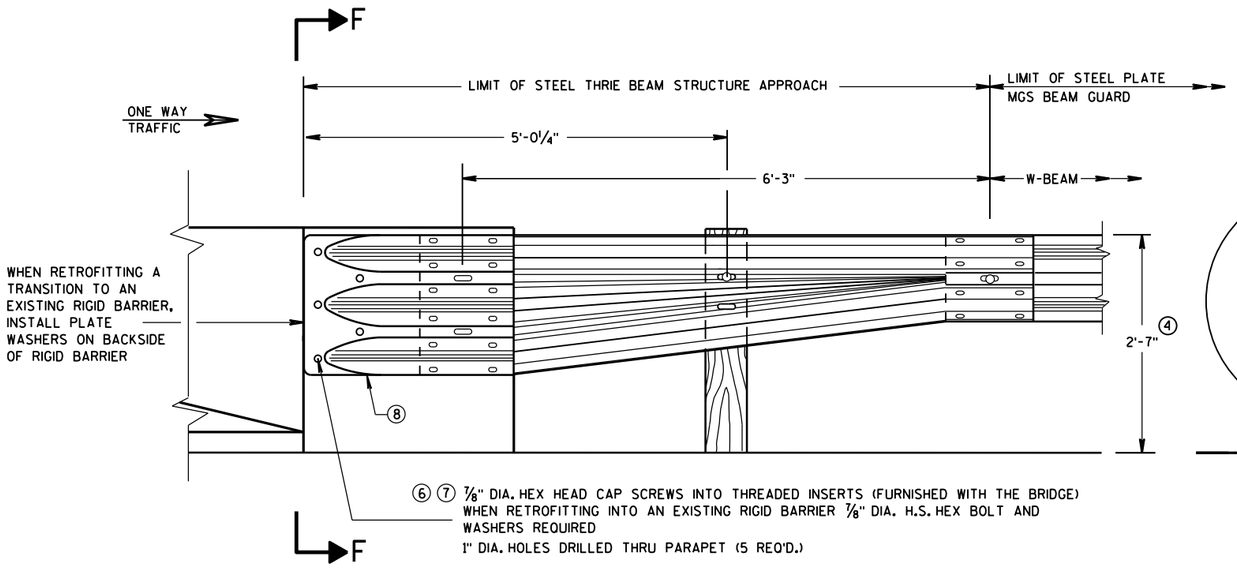
④ TOLERANCE FOR TOP OF BEAM IS ± 1".

⑥ DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

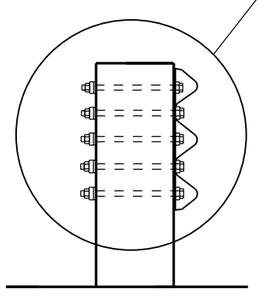
⑦ BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE. BOLTS THAT EXTEND THROUGH THE PARAPET AND OUT THE BACK FACE REQUIRE A HARDENED ROUND STEEL WASHER THAT IS 2" O.D. X 5/8" THICK AND ONE PLATE WASHER. REPAIR ANY DAMAGED CONCRETE FROM BOLT INSTALLATION.

⑧ THE RECESS FOR A W-BEAM CONNECTION, WHICH EXISTS ON SOME PARAPETS OF THIS TYPE, SHALL BE FILLED WITH A TREATED TIMBER BLOCKOUT. BLOCKOUT SIZE IS 1'-6" X 2'-0" X 3 1/2".

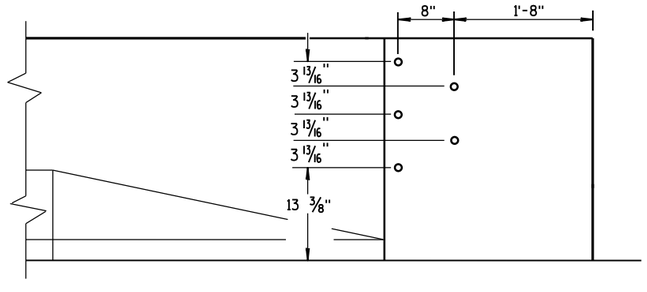




FRONT VIEW



SECTION F-F



DRILL HOLE LOCATION

W BEAM TRANSITION AND CONNECTION TO BRIDGE PARAPETS WITH SQUARE ENDS

(USE ONLY ON THE TRAFFIC EXIT END OF ONE WAY BRIDGES)

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June, 2015
DATE
FHWA

/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT ENGINEER

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S.D.D. 14 B 45-4d

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S.D.D. 14 B 45-4d

GENERAL NOTES

THESE ARE TYPICAL CONNECTION DETAILS. ADJUST THE POSTION OF CONNECTIONS TO EXISTING BRIDGES TO FIT THE ACTUAL BRIDGE AND SITE DIMENSIONS.

(2) OPTIONAL CURB AND GUTTER OR DRAINAGE FEATURE SEE PLAN FOR INFORMATION.

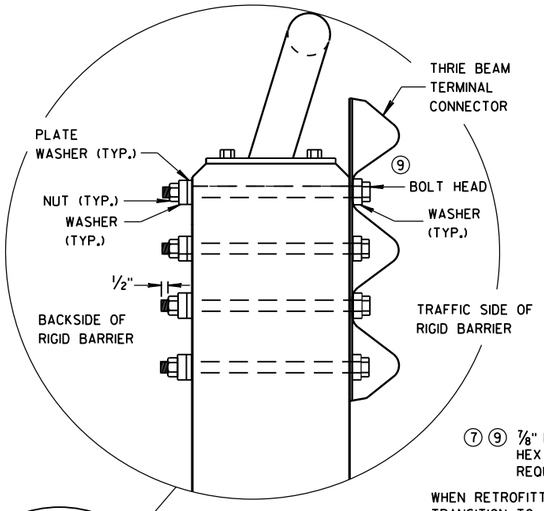
(4) TOLERANCE FOR TOP OF BEAM IS ± 1".

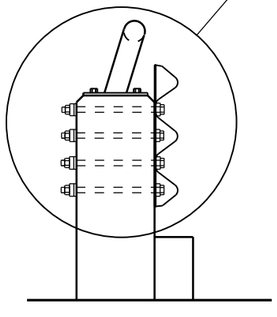
(6) DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

(7) BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE. BOLTS THAT EXTEND THROUGH THE PARAPET AND OUT THE BACK FACE REQUIRE A HARDENED ROUND STEEL WASHER THAT IS 2" O.D. X 5/8" THICK AND ONE PLATE WASHER. REPAIR ANY DAMAGED CONCRETE FROM BOLT INSTALLATION.

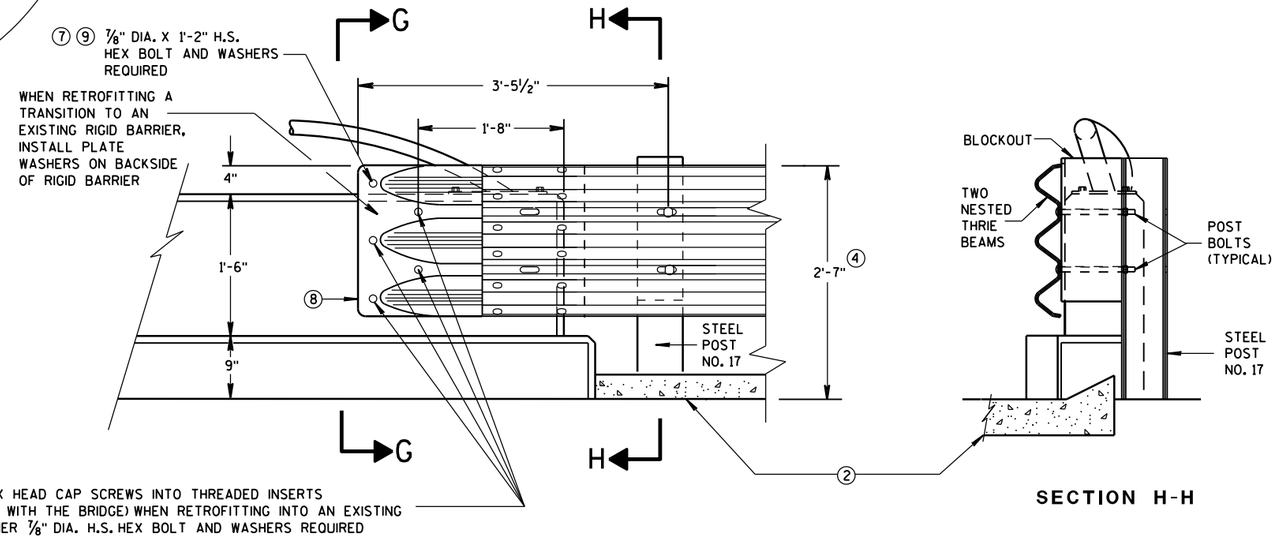
(8) THE RECESS FOR A W-BEAM CONNECTION, WHICH EXISTS ON SOME PARAPETS OF THIS TYPE, SHALL BE FILLED WITH A TREATED TIMBER BLOCKOUT. BLOCKOUT SIZE IS 1'-6" X 2'-0" X 3 1/2".

(9) BOLT, NUT AND WASHERS NOT REQUIRED FOR THIS LOCATION WHEN RETROFITTING AN EXISTING PAPAPET AND THE HOLE IS EITHER ABOVE PARAPET OR WITHIN 4 INCHES OF THE EDGE OF PARAPET.





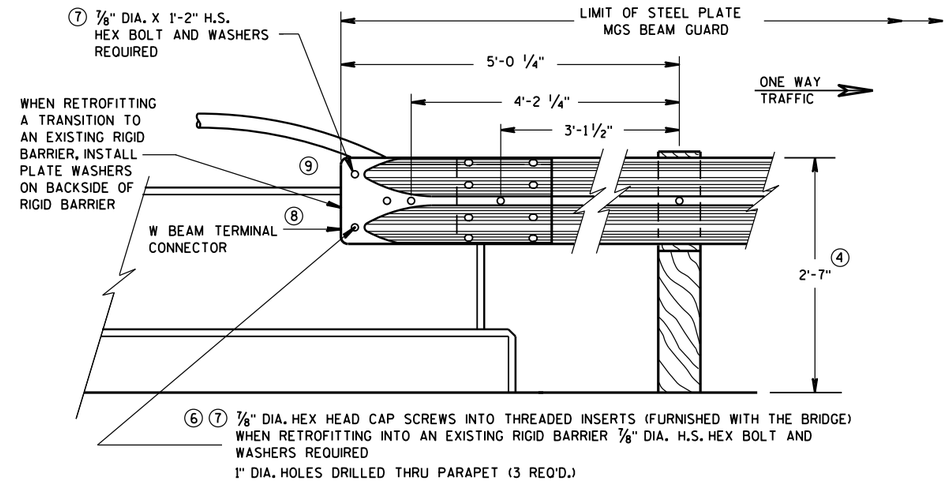
SECTION G-G



FRONT VIEW

SECTION H-H

THRIE BEAM CONNECTION TO VERTICAL FACED PARAPETS



FRONT VIEW

W BEAM CONNECTION TO VERTICAL FACE PARAPET

(USE ONLY ON THE TRAFFIC EXIT END OF ONE WAY BRIDGES)

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June, 2015 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA

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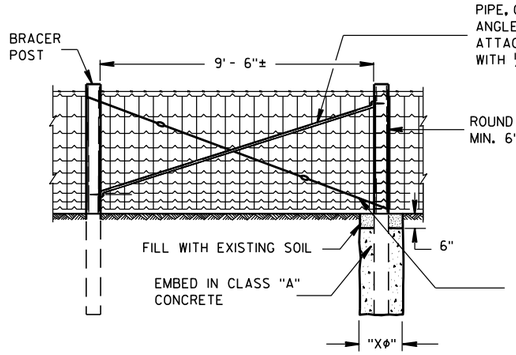
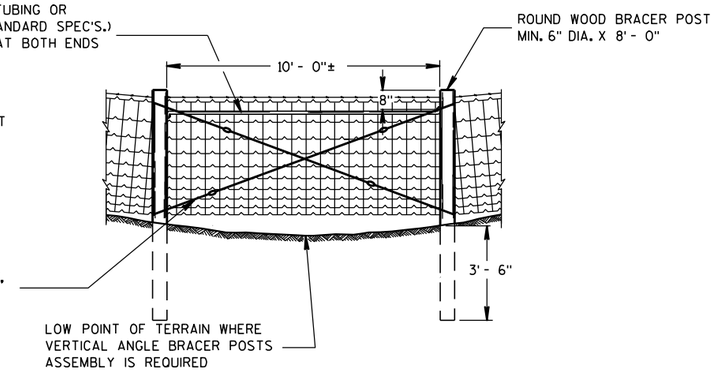
NOTE: PULL OR STRETCHER POST ASSEMBLIES SHALL BE PLACED MIDWAY BETWEEN END POSTS AND CORNER POSTS WHERE A RUN OF FENCE EXCEEDS 660' BUT IS LESS THAN 1,320'. FOR RUNS OF FENCE IN EXCESS OF 1,320' MAXIMUM SPACING OF PULL OR STRETCHER POST ASSEMBLIES SHALL BE 660'± C-C.

ILLUSTRATION SHOWS POSITION OF STANDARD STEEL BRACE, DOUBLE STRAND GALVANIZED WIRE, AND THE POST TO BE EMBEDDED IN CONCRETE WHEN WIRE FENCE IS INSTALLED FROM LEFT TO RIGHT. THE BRACES SHALL BE POSITIONED ON THE OPPOSITE DIAGONALS AND THE OPPOSITE POST SHALL BE EMBEDDED IN CONCRETE WHEN WIRE FENCE IS INSTALLED FROM RIGHT TO LEFT.



PULL OR STRETCHER POSTS ASSEMBLY



VERTICAL ANGLE BRACER POSTS ASSEMBLY

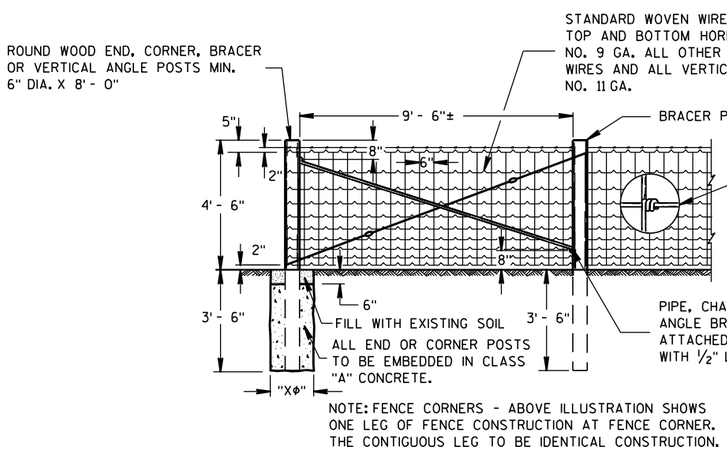
GENERAL NOTES

"XΦ" = DIAMETER OF THE POST PLUS 12".

FENCE STAPLES SHOULD NEVER BE DRIVEN VERTICALLY INTO WOOD POSTS (WITH BOTH LEGS PARALLEL WITH THE WOOD GRAIN). DOING SO CAN SEPARATE THE GRAIN AND SIGNIFICANTLY REDUCE THE HOLDING POWER. ROTATING THE STAPLES SLIGHTLY OFF VERTICAL STRADDLES THE GRAIN AND PROVIDES MORE RESISTANCE TO PULL-OUT.

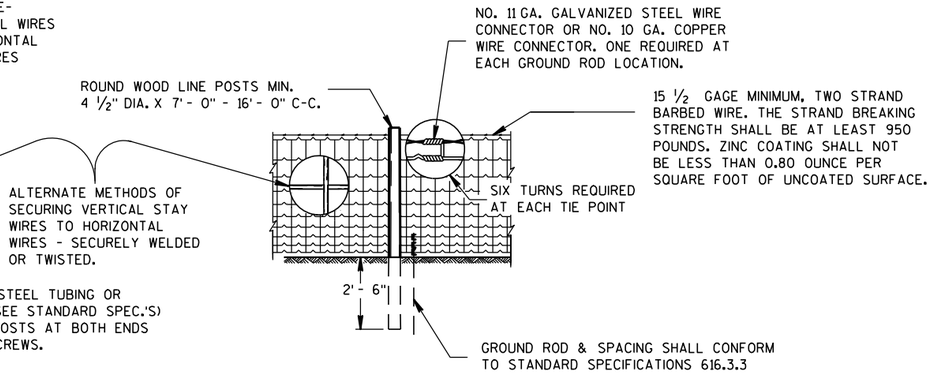
DO NOT STAPLE WIRE TIGHT TO THE LINE POSTS. ALLOW MOVEMENT OF WIRE FOR EXPANSION AND CONTRACTION. STAPLE ARRANGEMENT SHALL BE THE SAME FOR ALL OTHER POSTS EXCEPT THAT THEY SHALL BE DRIVEN TIGHT TO POSTS. ALL STAPLES SHALL BE 2" X 9 GAGE AND SHALL BE MANUFACTURED FROM GALVANIZED WIRE OR HOT DIP GALVANIZED AFTER FORMING. STAPLES SHALL HAVE SLASH-CUT POINTS.

FENCE SHALL BE LOCATED 3'-0" INSIDE THE RIGHT OF WAY LINE UNLESS OTHERWISE INDICATED ON THE PLANS.



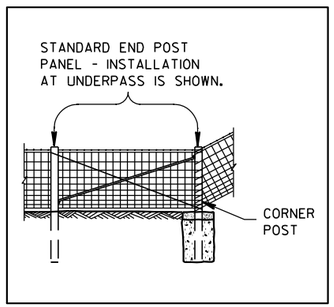
NOTE: FENCE CORNERS - ABOVE ILLUSTRATION SHOWS ONE LEG OF FENCE CONSTRUCTION AT FENCE CORNER. THE CONTIGUOUS LEG TO BE IDENTICAL CONSTRUCTION.

END OR CORNER POSTS ASSEMBLY

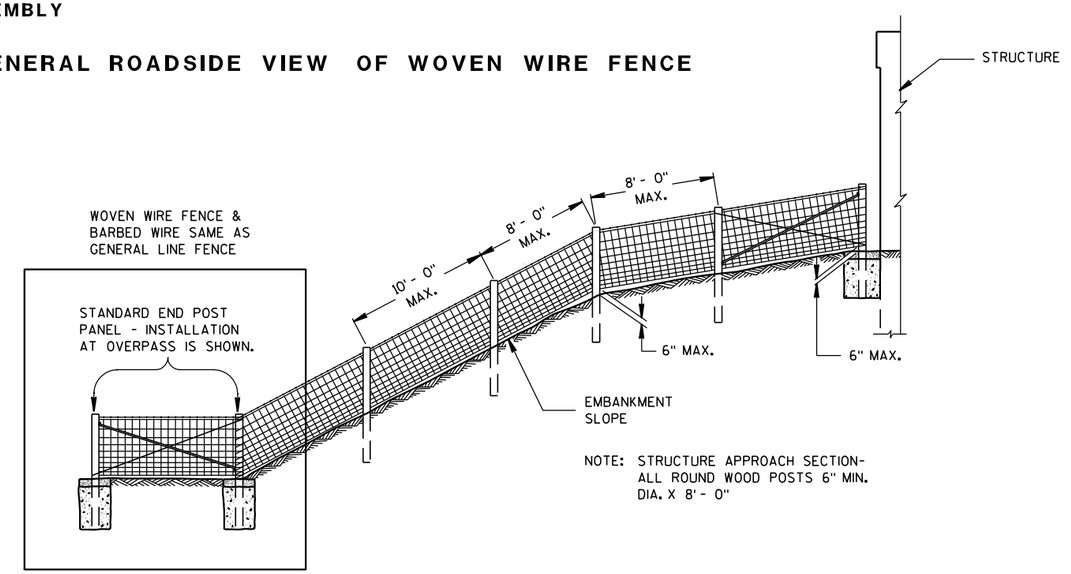


LINE FENCE CONSTRUCTION

GENERAL ROADSIDE VIEW OF WOVEN WIRE FENCE



ALTERNATE FENCE DESIGN AT STRUCTURE



NOTE: STRUCTURE APPROACH SECTION- ALL ROUND WOOD POSTS 6" MIN. DIA. X 8' - 0"

FENCE DESIGN AT STRUCTURE APPROACH

FENCE WOVEN WIRE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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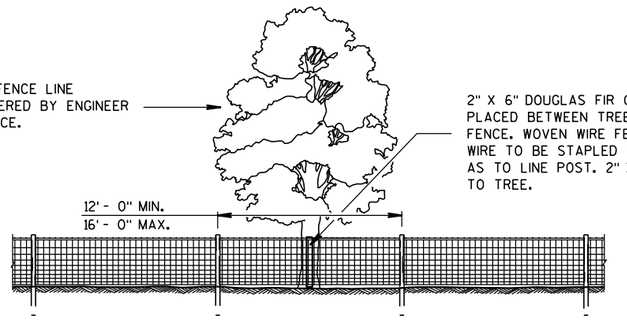
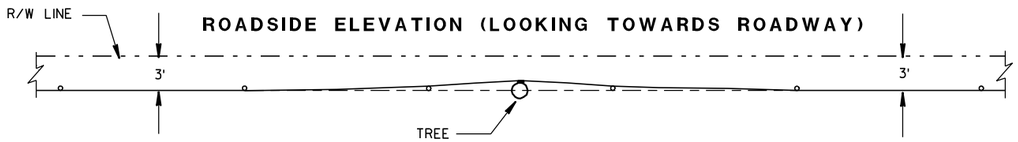
NOTE: TREE IN NORMAL FENCE LINE SPECIFICALLY ORDERED BY ENGINEER TO REMAIN IN PLACE.

2" X 6" DOUGLAS FIR OR SO. YELLOW PINE PLACED BETWEEN TREE AND WOVEN WIRE FENCE. WOVEN WIRE FENCE AND BARBED WIRE TO BE STAPLED TO 2" X 6" LIKE AS TO LINE POST. 2" X 6" NOT FASTENED TO TREE.

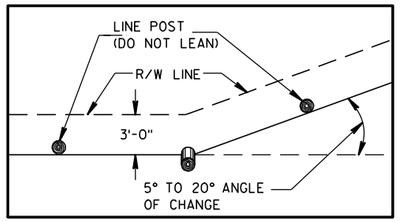


ROADSIDE ELEVATION (LOOKING TOWARDS ROADWAY)

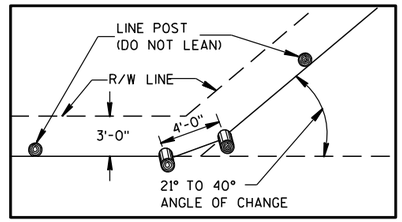


PLAN VIEW

FENCE DESIGN AT TREES REMAINING IN NORMAL FENCE LINE



PLAN VIEW
SINGLE POST CORNER

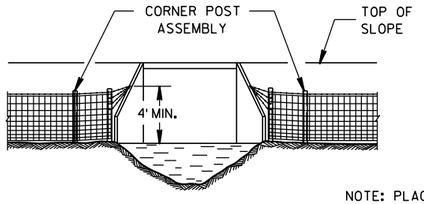


PLAN VIEW
DOUBLE POST CORNER

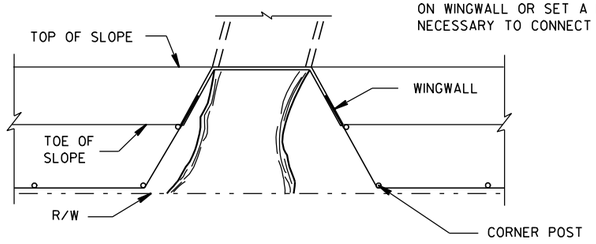
RIGHT OF WAY LINE CHANGE 40° AND LESS

NOTE: SINGLE AND DOUBLE POSTS SHALL BE A MIN. 6" DIA. X 8'-0" WITH A LEAN OF 4" TOWARD THE OUTSIDE OF THE CURVE.

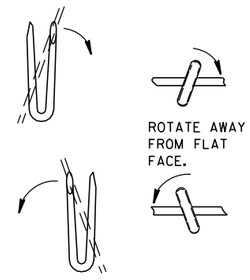
WHEN THE RIGHT OF WAY LINE CHANGE IS MORE THAN 40° USE THE CORNER OR STRETCHER POSTS ASSEMBLY.



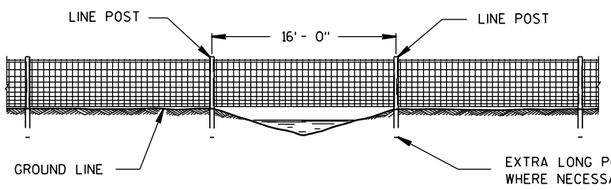
NOTE: PLACE A MINIMUM OF 4 STRANDS OF BARBED WIRE, 6" MAXIMUM CENTERS IN FAN SHAPE CONNECTED TO AN EYE BOLT ON WINGWALL OR SET A LONE POST WHEN NECESSARY TO CONNECT BARBED WIRE.



FENCE INSTALLATION TO WINGWALLS

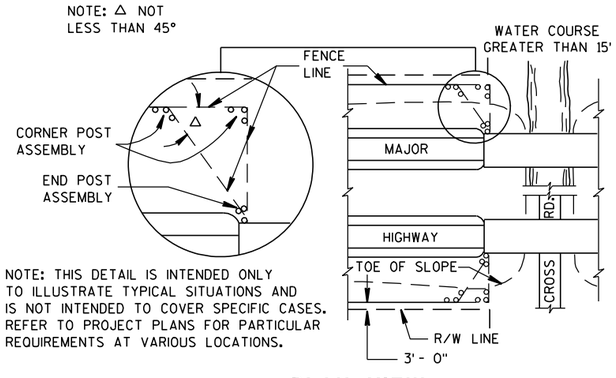


LINE POST



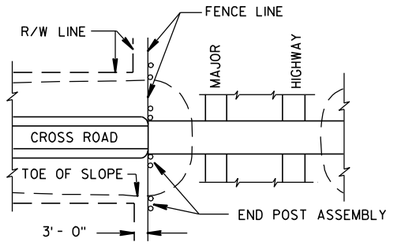
FENCE CONSTRUCTION OVER STREAM COURSES OF 15 FT. OR LESS IN WIDTH

NOTE: △ NOT LESS THAN 45°



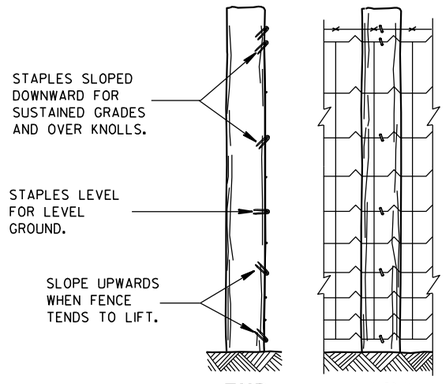
NOTE: THIS DETAIL IS INTENDED ONLY TO ILLUSTRATE TYPICAL SITUATIONS AND IS NOT INTENDED TO COVER SPECIFIC CASES. REFER TO PROJECT PLANS FOR PARTICULAR REQUIREMENTS AT VARIOUS LOCATIONS.

PLAN VIEW
MAJOR HIGHWAY OVERPASS OR STREAM COURSE CROSSING OF GREATER THAN 15 FT. IN WIDTH



PLAN VIEW
MAJOR HIGHWAY UNDERPASS

NOTE: WHEN POSTS ARE DRIVEN THE SMALL END SHALL BE DOWN.



END ELEVATION — FARM SIDE ELEVATION

FENCE MOUNTING DETAIL

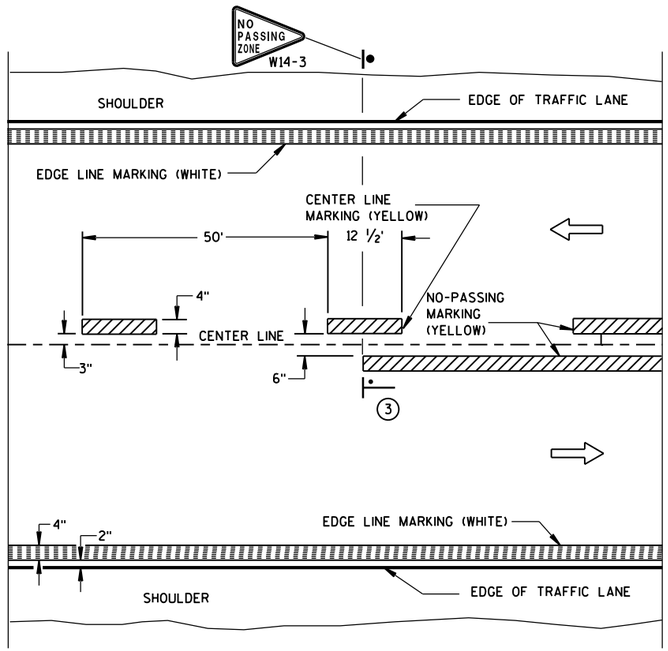
FENCE LOCATION AT STRUCTURES

FENCE WOVEN WIRE

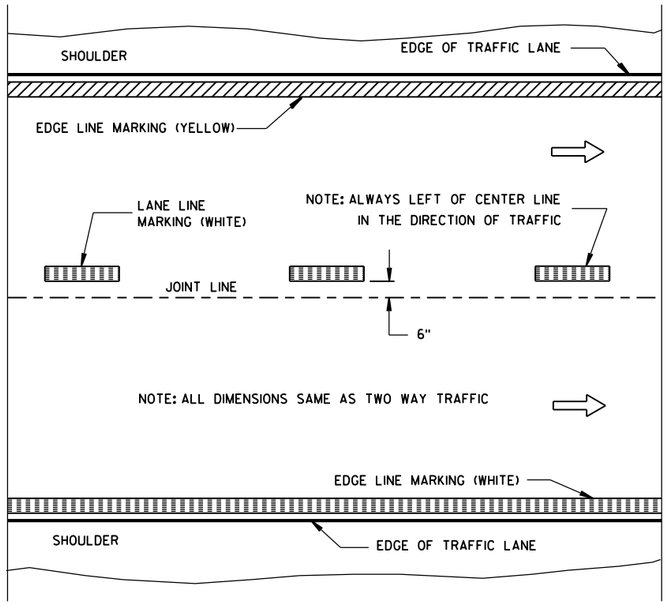
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
4/4/2008
DATE
/S/ Jerry H. [illegible]
ROADWAY STANDARDS [illegible] ENGINEER
FHWA

6
S.D.D. 15 B 1-8b

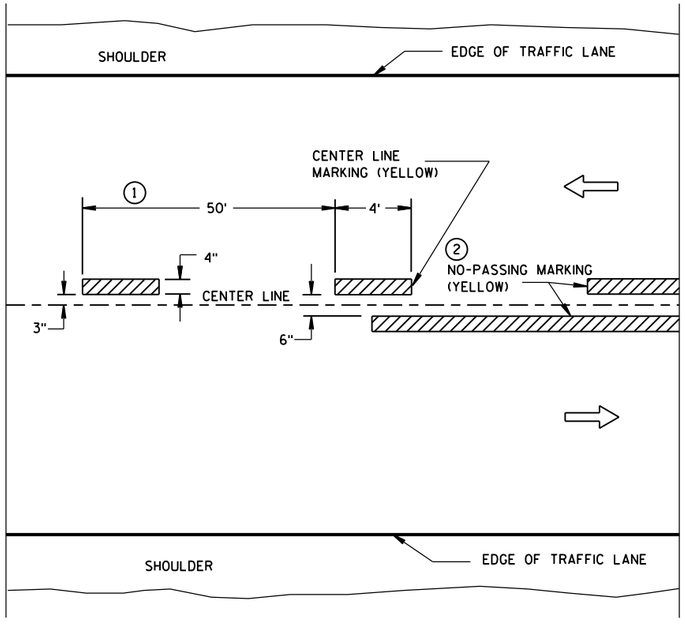


TWO WAY TRAFFIC

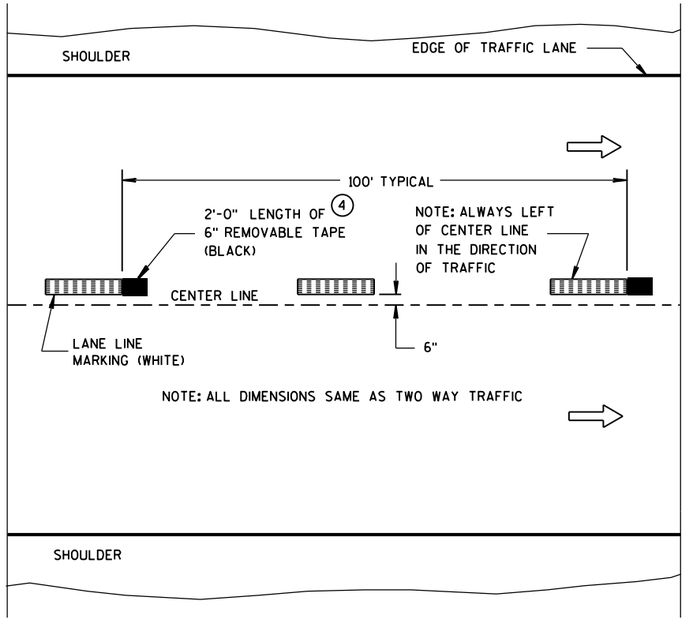


ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING



TWO WAY TRAFFIC



ONE WAY TRAFFIC

TEMPORARY (INTERMEDIATE) PAVEMENT MARKING

(SHOWS CYCLE FOR TEMPORARY CENTER LINE OR TEMPORARY LANE LINE MARKING)

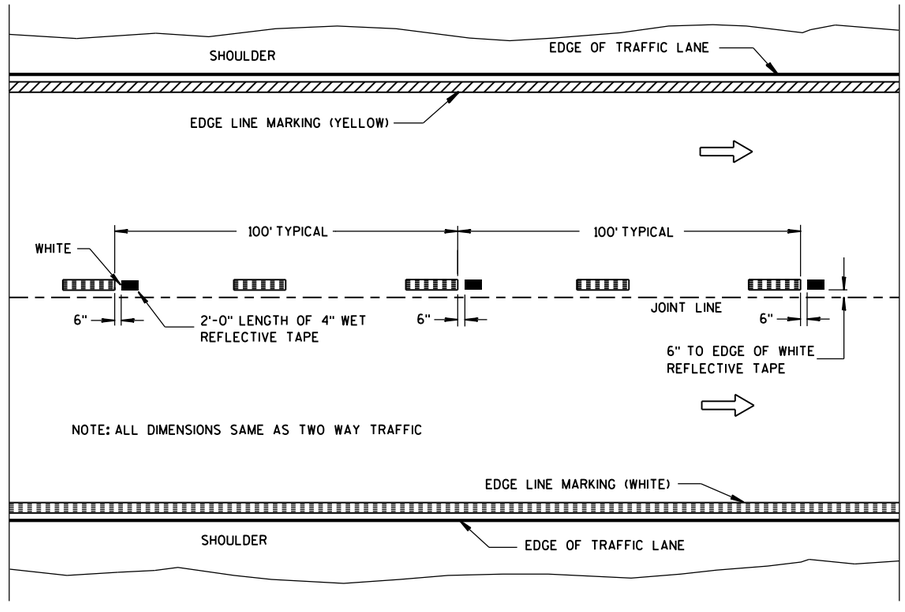
GENERAL NOTES

DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO STANDARD SPECIFICATIONS AND SPECIAL PROVISIONS.

1. HALF CYCLE LENGTHS (25'±) WITH 2' MINIMUM STRIPE LENGTHS SHALL BE PROVIDED ON ROADWAYS (INCLUDING TEMPORARY TRAVELED WAYS) WITH REVERSE CURVATURE, CURVATURE OF OVER 5 DEGREES OR WHEN DIRECTED BY THE ENGINEER TO MARK UNUSUAL ALIGNMENT OF THE TRAVELED WAY.
2. NO PASSING ZONE TEMPORARY PAVEMENT MARKING IS REQUIRED TO BE PLACED, WHERE APPROPRIATE, ALONG WITH CENTERLINE TEMPORARY PAVEMENT MARKING WHEN A SAME DAY PERMANENT PAVEMENT MARKING ITEM IS INCLUDED IN THE CONTRACT.
3. NO PASSING ZONE MARKINGS ARE PLACED ACCORDING TO "T" MARKINGS. IF EXISTING NO PASSING ZONE W14-3 SIGNS ARE BEYOND 50 FEET IN EITHER DIRECTION, THE SIGNS SHALL BE MOVED TO THE "T" MARKINGS.
4. CONCRETE ONLY.

NOTE

ARROW SYMBOL (⇨) SHOWS DIRECTION OF TRAVEL



WET REFLECTIVE TAPE SUPPLEMENT TO
SPRAYED OR NON WET REFLECTIVE TAPE LANE LINE

LEGEND

"T" MARKING

POST MOUNTED SIGN

PAVEMENT MARKING (MAINLINE)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

5-13-2013 — DATE

/S/ Travis Feltes — STATE TRAFFIC E

FHWA

6

S.D.D. 15 C 8-16a

6

S.D.D. 15 C 8-16a

LEGEND

- TYPE III BARRICADE WITH ATTACHED SIGN
- SIGN ON PERMENENT SUPPORT
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- TRAFFIC CONTROL DRUM
- FLASHING ARROW BOARD
- (A) TYPE "A" WARNING LIGHT (FLASHING)
- REMOVING PAVEMENT MARKING
- DIRECTION OF TRAFFIC
- WORK AREA

GENERAL NOTES

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

THE SPACING BETWEEN SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND TO PROVIDE A MINIMUM OF 200 FEET, (500 FEET DESIREABLE) DISTANCE TO EXISTING SIGNS.

THIS LANE CLOSURE IS TYPICAL FOR CLOSING RIGHT LANE - REVERSE FOR CLOSING LEFT LANE.

ALL SIGNS ARE 48"×48" UNLESS OTHERWISE NOTED.

"WO" IS THE SAME AS "W" EXCEPT THE BACKGROUND IS ORANGE.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER. NO WARNING LIGHTS SHALL BE WORKING ON "COVERED" OR "DOWNED" SIGNS.

CONSIDER GEOMETRICS WHEN LOCATING SIGNS AND ARROW BOARD SO THE DRIVER HAS A CLEAR VIEW OF THE ARROW BOARD AND LANE CLOSURE DRUMS FOR A MINIMUM 1500 FEET IN FRONT OF DRUMS.

FOR A LANE CLOSURE THAT IS IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS, THE ADVANCED WARNING SIGNS MAY BE MOUNTED ON PORTABLE SUPPORTS.

REMOVE PAVEMENT MARKINGS IF LANE CLOSURE IS TO BE IN PLACE FOR LONGER THAN 4 OR MORE DAYS AND NIGHTS.

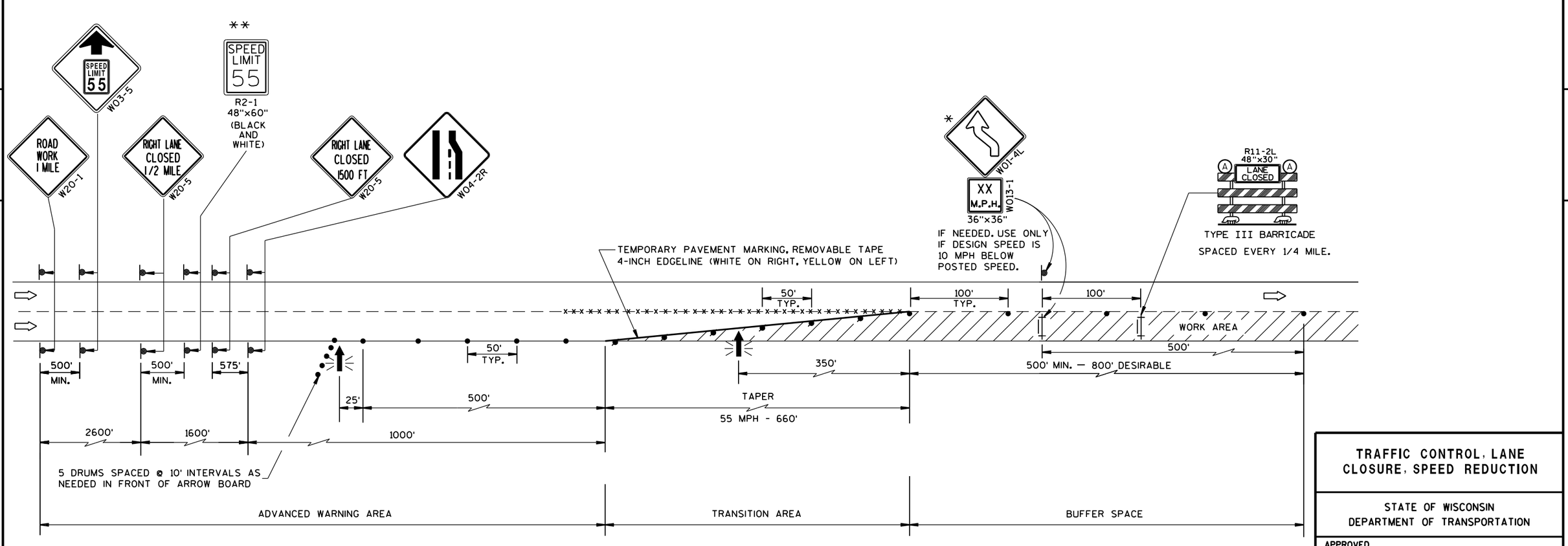
WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

IF THE HORIZONTAL ALIGNMENT IS SUCH THAT A CURVE MAY REQUIRE ADDITIONAL DELINEATION, THE DEVICE SPACING MAY BE DECREASED TO 50 FEET.

ADJUSTMENTS IN BUFFER SPACE NEED TO BE INCORPORATED WHEN THE LANE CLOSURE OCCURS NEAR AN INTERCHANGE EXIT OR ENTRANCE RAMP. THE LANE CLOSURE MUST MUST TAKE PLACE FAR ENOUGH IN ADVANCE OF AN EXIT OR ENTRANCE RAMP TO STILL ALLOW FOR ADEQUATE BUFFER SPACE. THE MINIMUM LENGTH OF THE BUFFER SPACE BEFORE AN EXIT RAMP SHOULD BE 1/2 THE LENGTH OF THE TRANSITION AREA. THE ENTRANCE RAMP SHOULD BE FOLLOWED BY THE ORIGINAL BUFFER SPACE LENGTH OF 800 FEET DESIRABLE PRIOR TO ANOTHER TRAFFIC CONTROL CHANGE SUCH AS A CROSSOVER MANEUVER.

* THE LEFT REVERSE CURVE SIGN (WO1-4L) IS ONLY REQUIRED WHEN THIS DETAIL IS USED IN COMBINATION WITH "SINGLE LANE CROSSOVER" DETAIL.

** A SPEED LIMIT SIGN SHALL BE LOCATED 1500 FEET BEYOND THE END OF THE ACCELERATION LANE OF EACH ENTRANCE RAMP. THERE SHOULD BE A SPEED LIMIT SIGN INCORPORATED A MINIMUM OF EVERY 2 OR 3 MILES. INCLUDE A 65 MPH RESUME SPEED LIMIT SIGN 200 FEET MINIMUM (500 FEET DESIREABLE) BEYOND THE "END OF ROADWORK" SIGN.



TRAFFIC CONTROL, LANE CLOSURE, SPEED REDUCTION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Feb. 2015 — DATE
/S/ Travis Feltes — STATE TRAFFIC ENGINEER
FHWA

S.D.D. 15 D 12-5b

S.D.D. 15 D 12-5b

LEGEND

- TRAFFIC CONTROL DRUM
- SIGN ON PERMANENT SUPPORT
- DIRECTION OF TRAFFIC
- FLASHING ARROW BOARD
- WORK AREA

GENERAL NOTES

THIS DETAIL IS TYPICAL FOR CLOSING THE RIGHT SHOULDER. FOR CLOSING THE LEFT SHOULDER, REVERSE THE TRAFFIC CONTROL.

THIS DETAIL MAY BE USED FOR DIVIDED ROADWAYS WITH ANY NUMBER OF TRAVEL LANES.

THE EXACT NUMBER, LOCATION AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.

SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE FHWA'S MANUAL OF STANDARD HIGHWAY SIGNS OR THE WISCONSIN STANDARD SIGN PLATES.

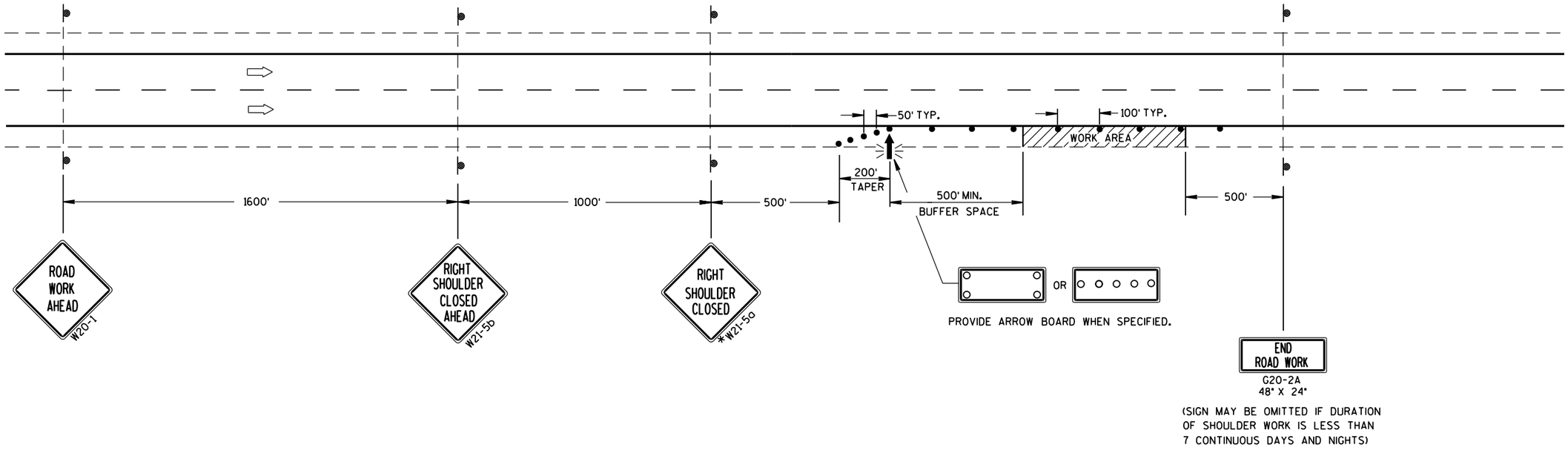
SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

CHANNELIZING DEVICES PLACED ADJACENT TO THE WORK AREA SHALL BE PULLED BACK FROM THE TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

WHEN A RAMP INTERSECTS THE FACILITY ON WHICH THE WORK IS BEING PERFORMED, ADDITIONAL TRAFFIC CONTROLS SHALL BE PROVIDED AS SPECIFIED IN THE PLANS AND/OR THE SPECIAL PROVISIONS OR AS APPROVED BY THE ENGINEER.

*FOR SHORT DURATION SHOULDER WORK OF LESS THAN ONE HOUR, THE W21-5a SIGN MAY BE OMITTED.



TRAFFIC CONTROL SHOULDER CLOSURE ON DIVIDED ROADWAY, SPEEDS GREATER THAN 40 MPH

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

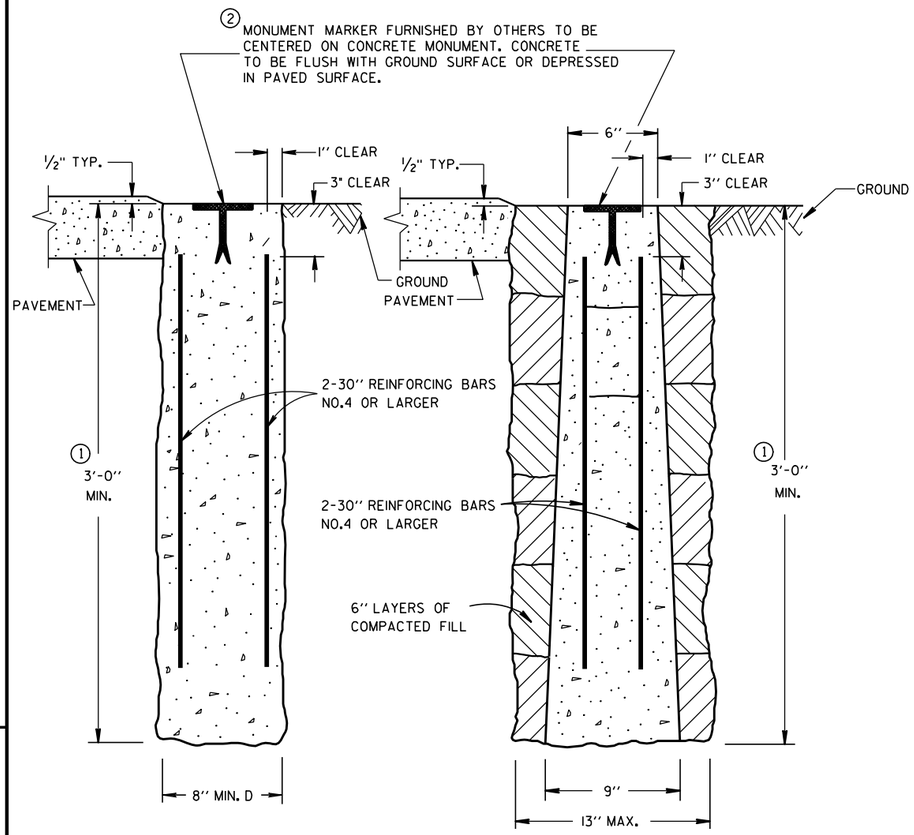
8/2013 DATE

/S/ Travis Feltes
STATE TRAFFIC ENGINEER

FHWA

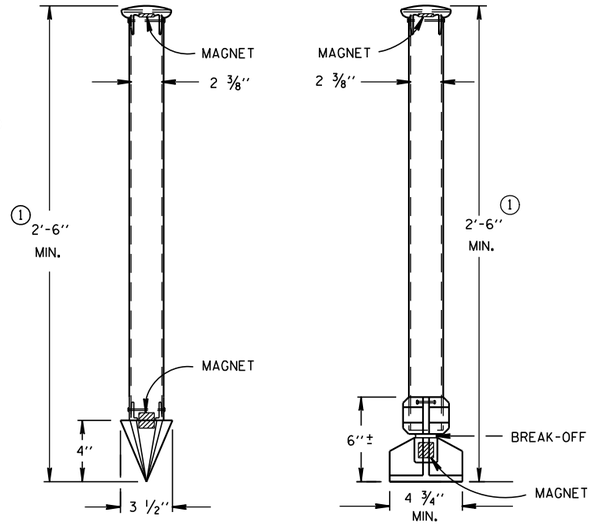
6

S.D.D. 15 D 27-2



CAST-IN-PLACE PRECAST

CONCRETE MONUMENTS
TYPE A



ALUMINUM MONUMENTS
(INCLUDES MARKER)

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

DETAILED DRAWINGS OF PROPOSED ALTERNATE DESIGNS FOR METAL MONUMENTS OR MONUMENT COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL.

INSTALLED METAL MONUMENTS MUST BE EASILY DETECTED WITH A DIP NEEDLE. INSERT PERMANENT MAGNETS SHALL BE ATTACHED NEAR THE TOP AND BOTTOM OF THOSE MONUMENTS CONSTRUCTED OF A METAL ALLOY WHICH IS NOT ATTRACTIVE TO A DIP NEEDLE.

THE CAST IRON MONUMENT COVER SHALL BE A "NON-ROCKING" TYPE. ADJUSTMENT OF THE COVER TO GRADE MAY BE ACCOMPLISHED BY THE USE OF MORTAR AND BRICK, OR BY EITHER PRECAST OR CAST-IN-PLACE REINFORCED CONCRETE GRADE RINGS.

MONUMENTS SHALL BE LOCATED AND PLACED AT THE DIRECTION OF THE ENGINEER.

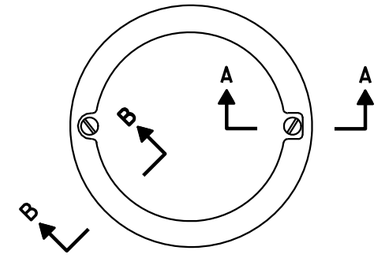
ALUMINUM MONUMENTS AND MONUMENT COVERS SHALL BE MADE FROM AN ALUMINUM AND MAGNESIUM ALLOY AS DETERMINED BY THE MANUFACTURER.

THE MONUMENT COVERS DETAILED ON THIS DRAWING ARE NOT EQUAL ALTERNATES. MONUMENT COVERS SHALL BE CAST IRON UNLESS ALUMINUM IS SPECIFIED ELSEWHERE IN THE CONTRACT.

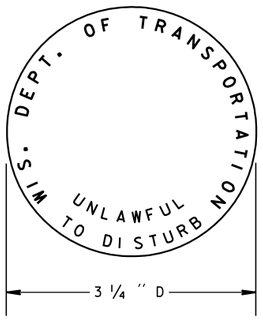
MONUMENT SHALL BE CAST-IN-PLACE CONCRETE UNLESS PRECAST CONCRETE OR ALUMINUM MONUMENTS ARE SPECIFIED IN THE CONTRACT OR PERMITTED BY THE ENGINEER.

① MINIMUM LENGTH SHALL BE 4'-0" FOR MONUMENTS INSTALLED IN PAVED AREAS.

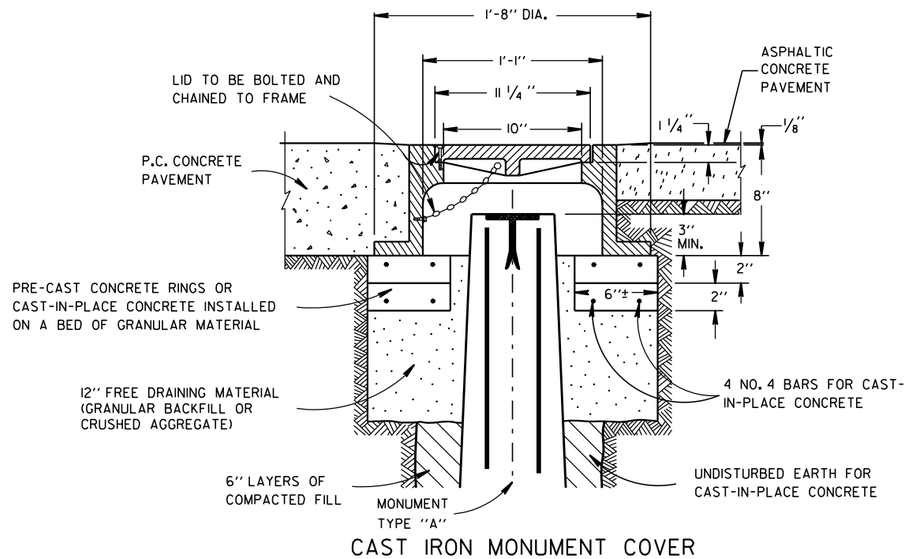
② AN OFFICIAL COUNTY MONUMENT MARKER SUPPLIED BY A COUNTY MAY BE REQUIRED FOR SOME SECTION CORNERS AND WITNESS MONUMENTS INSTEAD OF THIS WIS DOT MARKER.



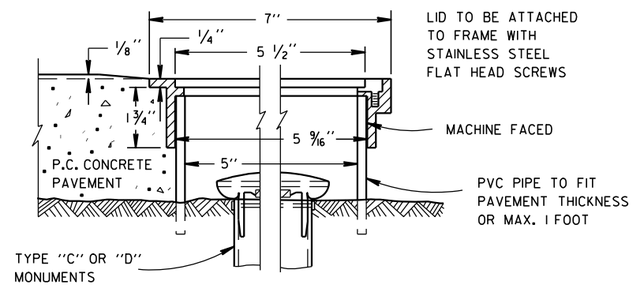
TOP VIEW



② WIS DOT MONUMENT MARKER LOGO
FOR TYPES "A", "C" & "D"



CAST IRON MONUMENT COVER
(APPROXIMATE WEIGHT - 95 LBS.)



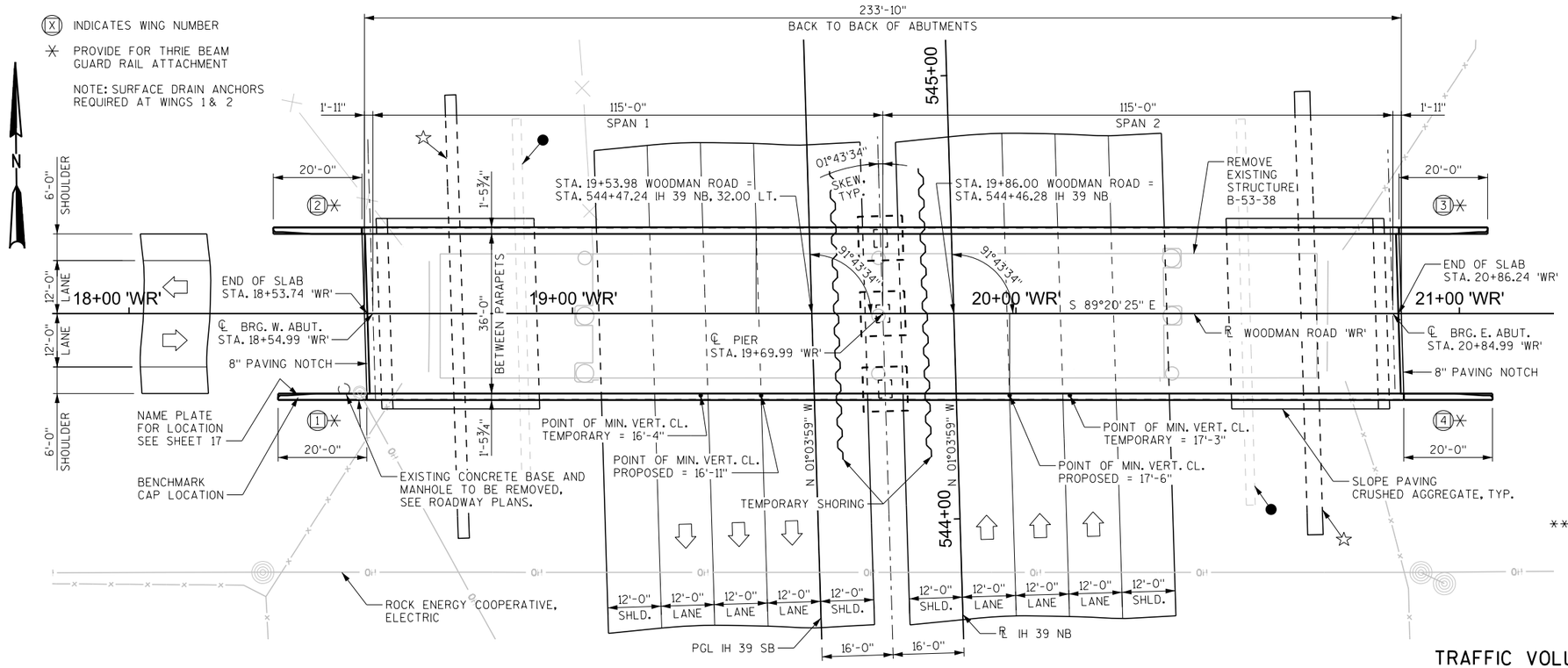
SECTION B-B SECTION A-A
ALUMINUM MONUMENT COVER
(APPROXIMATE WEIGHT 2 LBS)
(FOR CONCRETE PAVEMENT ONLY)

LANDMARK REFERENCE MOUNMENTS AND COVERS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
9/22/1999 DATE
/S/ Rory L. Rhinesmith
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

6
S.D.D. 16 A 1-6

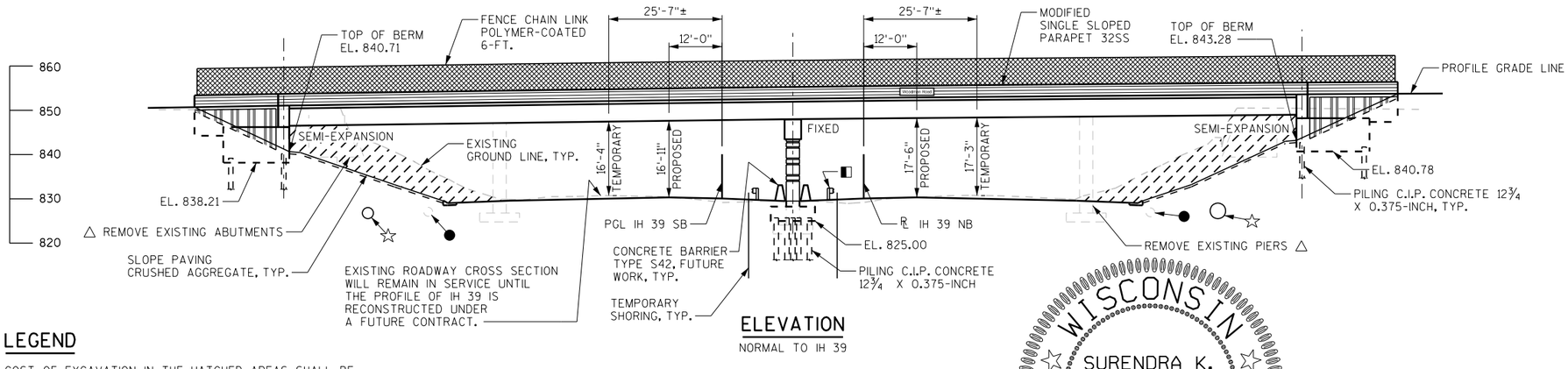


PLAN

2-SPAN - 45W" PRESTRESSED GIRDERS
(SHOWING IH 39 TO BE RECONSTRUCTED UNDER A FUTURE CONTRACT)

BENCHMARK

NO.	STA/OFFSET	DESCRIPTION	ELEV.
CP 204L	19+70.95 'WR' 63'-8" RT.	CAPPED REBAR	829.07



ELEVATION

NORMAL TO IH 39

LEGEND

- COST OF EXCAVATION IN THE HATCHED AREAS SHALL BE CONSIDERED "EXCAVATION COMMON". SEE ROADWAY PLANS.
- △ THERE ARE NO EXISTING PILES ACCORDING TO B-53-38 PLANS.
- ● EXISTING 24" DIA. CORRUGATED METAL CULVERT PIPE TO BE REMOVED. SEE ROADWAY PLANS.
- ☆ PROPOSED REINFORCED CONCRETE CULVERT PIPES (30" DIA. AT W. ABUT. AND 42" DIA. AT E. ABUT.) TO BE PLACED PRIOR TO CONSTRUCTION OF SLOPE PAVING. SEE ROADWAY PLANS.
- ◧ BULLNOSE REQUIRED. SEE ROADWAY PLANS.

DESIGN DATA

LIVE LOAD:

DESIGN LOADING = HL-93
INVENTORY RATING FACTOR = 1.12
OPERATING RATING FACTOR = 1.60
WISONSIN STANDARD PERMIT VEHICLE (WIS.-SPV) RATING = 250 KIPS

STRUCTURE IS DESIGNED FOR A FUTURE WEARING SURFACE OF 20 PSF.

ULTIMATE DESIGN STRESSES:

CONCRETE MASONRY, SUPERSTRUCTURE.....f'c = 4,000 P.S.I.
CONCRETE MASONRY, SUBSTRUCTURE.....f'c = 3,500 P.S.I.
CONCRETE MASONRY, ALL OTHER.....f'c = 3,500 P.S.I.

HIGH STRENGTH BAR STEEL REINFORCEMENT GRADE 60.....fy = 60,000 P.S.I.

45W" PRESTRESSED GIRDERS, CONCRETE MASONRY.....f'c = 8,000 P.S.I.
STRANDS - 0.6" DIA. WITH ULTIMATE TENSILE STRENGTH OF 270,000 P.S.I.

FOUNDATION DATA

ABUTMENTS TO BE SUPPORTED ON 12¾" X 0.375" C.I.P. PILING DRIVEN TO A REQUIRED DRIVING RESISTANCE OF 210 TONS** PER PILE AS DETERMINED BY THE MODIFIED GATES FORMULA.
ESTIMATED 30'-0" LONG (W. ABUT.)
ESTIMATED 35'-0" LONG (E. ABUT.)

PIER TO BE SUPPORTED ON 12¾" X 0.375" C.I.P. PILING DRIVEN TO A REQUIRED DRIVING RESISTANCE OF 210 TONS** PER PILE AS DETERMINED BY THE MODIFIED GATES FORMULA.
ESTIMATED 35'-0" LONG.

** THE FACTORED AXIAL RESISTANCE OF PILES IN COMPRESSION USED FOR DESIGN IS THE REQUIRED DRIVING RESISTANCE MULTIPLIED BY A RESISTANCE FACTOR OF 0.5 USING MODIFIED GATES TO DETERMINE DRIVEN PILE CAPACITY.

TRAFFIC VOLUME

WOODMAN ROAD	IH 39
A.D.T. = 115 (2014)	A.D.T. = 57,640 (2020)
A.D.T. = 170 (2040)	A.D.T. = 81,300 (2040)
R.D.S. = 60 MPH	R.D.S. = 70 MPH

LIST OF DRAWINGS

1. GENERAL PLAN
2. CROSS SECTIONS & PROFILES
3. QUANTITIES & GENERAL NOTES
4. SUBSURFACE EXPLORATION
5. WEST ABUTMENT
6. WEST ABUTMENT DETAILS
7. EAST ABUTMENT
8. EAST ABUTMENT DETAILS
9. PIER
10. PIER DETAILS
11. PIER ALTERNATE
12. 45W" PRESTRESSED GIRDER DETAILS 1
13. 45W" PRESTRESSED GIRDER DETAILS 2
14. STEEL DIAPHRAGM
15. SUPERSTRUCTURE CROSS SECTION
16. SUPERSTRUCTURE PLAN
17. SUPERSTRUCTURE DETAILS
18. MODIFIED SINGLE SLOPE PARAPET 32SS
19. PARAPET "SS32" ELECTRICAL WORK
20. CHAIN LINK FENCE DETAILS
21. SLOPE PAVING CRUSHED AGGREGATE
22. AESTHETIC DETAILS 1
23. AESTHETIC DETAILS 2

WISCONSIN PROFESSIONAL ENGINEER
SURENDRA K. GUPTA
E-41327
AMES, IA
2-29-2016

STRUCTURES DESIGN CONTACTS
BRIDGE OFFICE:
WILLIAM DREHER, P.E. (608) 266-8489
CONSULTANT:
SUREN GUPTA, P.E. (262) 821-1171

STATE PROJECT NUMBER
1003-10-75

NO.	DATE	REVISION	BY

KSA K. Singh & Associates, Inc.
Engineers, Scientists and Environmental Consultants

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
ACCEPTED William C. Dreher SDR 04/14/16
CHIEF STRUCTURES DESIGN ENGINEER DATE

STRUCTURE B-53-319

WOODMAN ROAD OVER IH 39

COUNTY	TOWN
ROCK	LA PRAIRIE

DESIGN SPEC.
AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS

DESIGNED BY	DESIGN CK'D.	DRAWN BY	PLANS CK'D.
YC	NLD	DRJ	YC

GENERAL PLAN

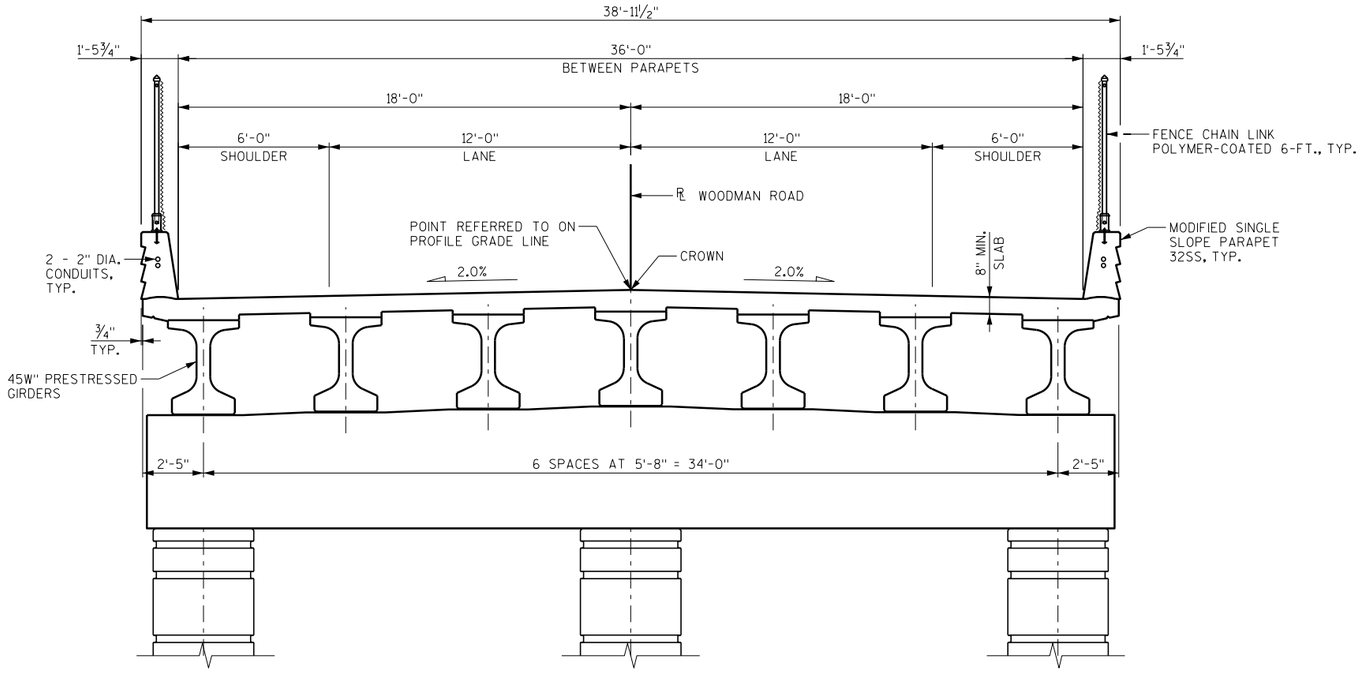
SHEET 1 OF 23
139

8

8

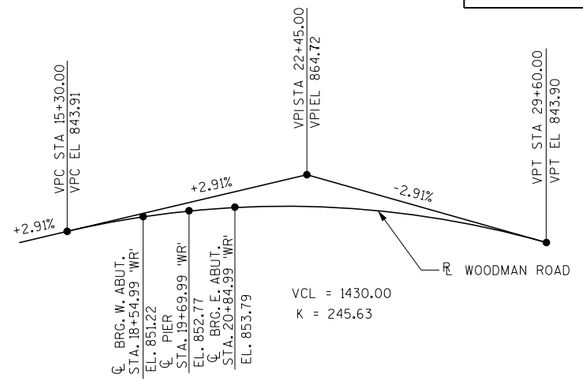
STATE PROJECT NUMBER

1003-10-75

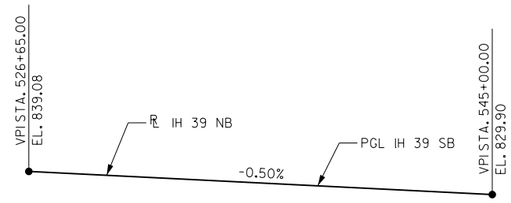


CROSS SECTION THRU ROADWAY

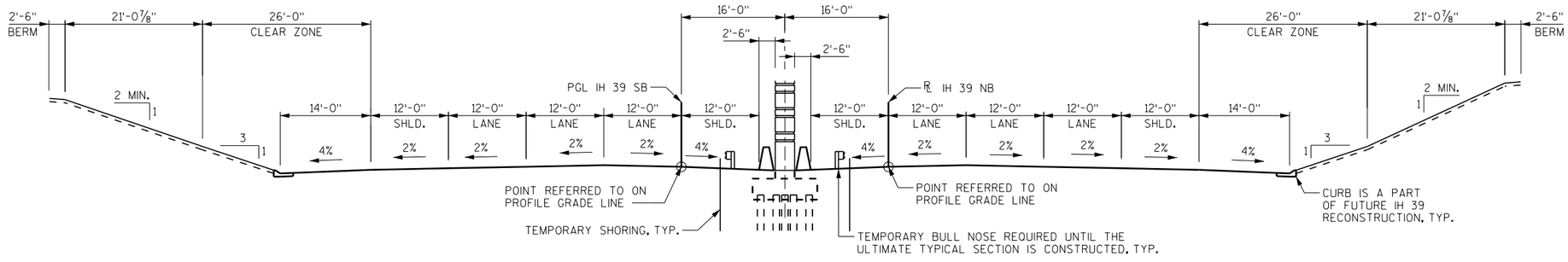
LOOKING EAST



PROFILE GRADE LINE - WOODMAN ROAD

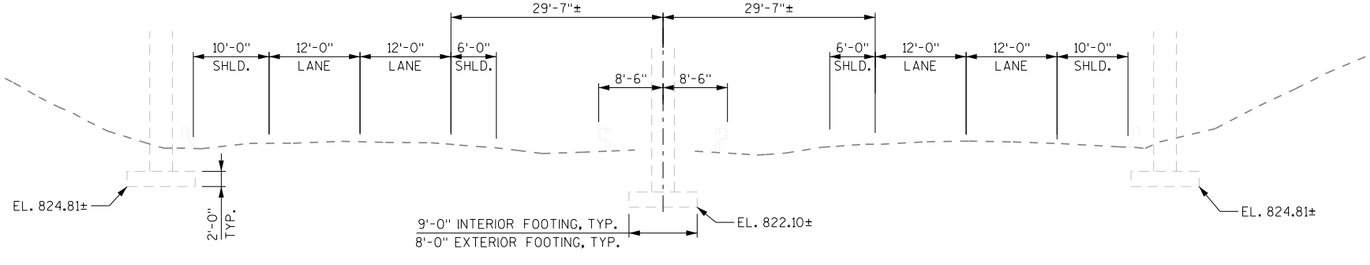


FUTURE PROFILE GRADE LINE - IH 39 NB & SB



TYPICAL FUTURE SECTION THRU IH 39

IH 39 TO BE RECONSTRUCTED UNDER A FUTURE CONTRACT



EXISTING SECTION THRU IH 39

THE ELEVATIONS AND DIMENSIONS OF THE EXISTING PIERS ARE BASED ON B-53-38 PLANS.

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NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-53-319

DRAWN BY NLD | PLANS CK'D. YC

CROSS SECTIONS & PROFILES

SHEET 2 OF 23
140

STATE PROJECT NUMBER

1003-10-75

TOTAL ESTIMATED QUANTITIES

BID ITEM NUMBER	BID ITEM	UNIT	WEST ABUTMENT	PIER	EAST ABUTMENT	SUPER-STRUCTURE	TOTAL
203.0200	REMOVING OLD STRUCTURE STATION 19+66.99 'WR'	LS	-	-	-	-	1
203.0225.S	DEBRIS CONTAINMENT B-53-38	LS	-	-	-	-	1
206.1000	EXCAVATION FOR STRUCTURES BRIDGES B-53-319	LS	-	-	-	-	1
210.0100	BACKFILL STRUCTURE	CY	240	-	240	-	480
502.0100	CONCRETE MASONRY BRIDGES	CY	82	82	82	369	615
502.3200	PROTECTIVE SURFACE TREATMENT	SY	-	-	-	930	930
502.3210	PIGMENTED SURFACE SEALER	SY	17	-	17	196	230
503.0146	PRESTRESSED GIRDER TYPE I 45W-INCH	LF	-	-	-	1,616	1,616
505.0400	BAR STEEL REINFORCEMENT HS STRUCTURES	LB	3,710	2,290	3,710	-	9,710
505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB	4,560	12,540	4,510	73,250	94,860
506.2605	BEARING PADS ELASTOMERIC NON-LAMINATED	EACH	7	14	7	-	28
506.4000	STEEL DIAPHRAGMS B-53-319	EACH	-	-	-	24	24
511.1200	TEMPORARY SHORING B-53-319	SF	-	950	-	-	950
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	13	-	13	-	26
517.1010.S	CONCRETE STAINING B-53-319	SF	680	1,030	680	5,720	8,110
550.2126	PILING CIP CONCRETE 12 3/4 X 0.375-INCH	LF	390	980	455	-	1,825
604.0500	SLOPE PAVING CRUSHED AGGREGATE	SY	174	-	179	-	353
612.0406	PIPE UNDERDRAIN WRAPPED 6-INCH	LF	130	-	130	-	260
614.0150	ANCHOR ASSEMBLIES FOR STEEL PLATE BEAM GUARD	EACH	2	-	2	-	4
652.0125	CONDUIT RIGID METALLIC 2-INCH	LF	12	-	12	24	48
652.0225	CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH	LF	110	-	110	910	1,130
653.0222	JUNCTION BOXES 18X12X6-INCH	EACH	-	-	-	4	4
SPV.0090.750	FENCE CHAIN LINK POLYMER-COATED 6-FT.	LF	39	-	39	468	546
	NON BID ITEMS						
	FILLER	SIZE	-	-	-	-	1/2" & 3/4"

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

ALL STATIONS AND ELEVATIONS ARE IN FEET.

THE FIRST DIGIT OF A THREE DIGIT AND THE FIRST TWO DIGITS OF A FOUR DIGIT BAR MARK SIGNIFIES THE BAR SIZE.

BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2" CLEAR UNLESS OTHERWISE SHOWN OR NOTED.

THE WISCONSIN DEPARTMENT OF TRANSPORTATION WILL FURNISH THE CONTRACTOR WITH THE BENCHMARK CAP TO BE INSTALLED AS SHOWN ON THE PLANS.

THE HAUNCH CONCRETE QUANTITY IS BASED ON THE AVERAGE HAUNCH VALUE SHOWN ON THE PRESTRESSED GIRDER DETAILS SHEET.

THE SLOPE OF THE FILL IN FRONT OF THE ABUTMENTS SHALL BE COVERED WITH CRUSHED AGGREGATE SLOPE PAVING TO THE EXTENT SHOWN ON SHEET 1 AND IN THE ABUTMENT DETAILS.

AT THE BACKFACE OF ABUTMENT, ALL VOLUME WHICH CANNOT BE PLACED BEFORE ABUTMENT CONSTRUCTION AND IS NOT OCCUPIED BY THE NEW STRUCTURE SHALL BE BACKFILLED WITH STRUCTURE BACKFILL.

ELASTOMERIC BEARING PADS NEED NOT BE INDIVIDUALLY MOLDED PROVIDED THE CUT EDGES ARE SMOOTH AND TRUE.

THE PROPOSED FINISHED PROFILE AROUND THE ABUTMENTS SHALL BE THE UPPER LIMITS OF EXCAVATION AT THE ABUTMENTS.

THE EXISTING GROUND LINE SHALL BE USED AS THE UPPER LIMITS OF EXCAVATION AT THE PIER.

THE GRADATION OF THE STRUCTURE BACKFILL SHALL MEET THE REQUIREMENTS OF SECTION 209.2.2 OF THE STANDARD SPECIFICATIONS FOR GRADE 1 MATERIAL.

THE EXISTING STRUCTURE, B-53-38, A 4-SPAN PRESTRESSED CONCRETE DECK GIRDER STRUCTURE WITH AN OVERALL WIDTH OF 28'-0" AND AN OVERALL LENGTH OF 205'-10" IS TO BE REMOVED.

VARIATIONS TO THE NEW GRADE LINE OVER 1/4" MUST BE SUBMITTED BY THE FIELD ENGINEER TO THE BUREAU OF STRUCTURES SECTION FOR REVIEW.

IF TOUCH UP STAINING/PAINTING IS REQUIRED AFTER INSTALLATION IS COMPLETE, ALL TOUCH UP STAINING/PAINTING IS TO BE DONE TO THE SATISFACTION OF THE FIELD ENGINEER AT NO ADDITIONAL COST.

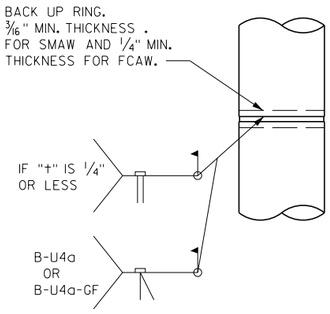
PROTECTIVE SURFACE TREATMENT TO BE APPLIED TO THE ENTIRE TOP OF DECK SURFACE.

PIGMENTED SURFACE SEALER TO BE APPLIED TO THE FRONT FACE AND TOP OF THE PARAPETS.

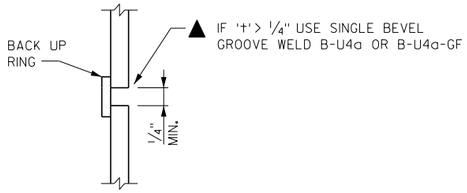
THE RUSTICATIONS IN THE ABUTMENTS AND PIER ARE INCLUDED IN THE BID ITEM "CONCRETE MASONRY BRIDGES".

THE RUSTICATIONS IN THE BACK FACES OF THE PARAPETS ARE INCLUDED IN THE BID ITEM "CONCRETE MASONRY BRIDGES".

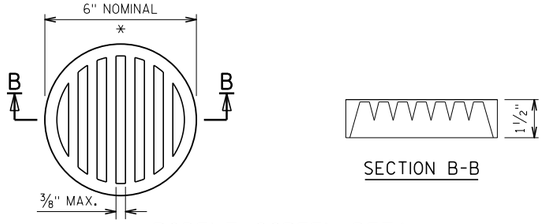
FORMING LETTERING INCLUDED IN THE BID ITEM "CONCRETE MASONRY BRIDGES".



CAST-IN-PLACE 'PIPE PILE'



CIP PILE WELD DETAIL



RODENT SCREEN DETAIL

* DIMENSIONS ARE APPROXIMATE. THE GRATE IS SIZED TO INTO A PIPE COUPLING. ORIENT SCREEN SO SLOTS ARE VERTICAL.

THE RODENT SCREEN, PIPE COUPLING AND SCREWS SHALL BE CONSIDERED INCLUDED WITH THE BID ITEM "PIPE UNDERDRAIN WRAPPED 6-INCH".

THE RODENT SCREEN SHALL BE A PVC GRATE SIMILAR TO THIS DETAIL. THE GRATE IS COMMERCIALLY AVAILABLE AS A FLOOR STRAINER. A PIPE COUPLING IS REQUIRED FOR THE ATTACHMENT OF THIS SCREEN TO THE EXPOSED END OF THE PIPE UNDERDRAIN. THE SCREEN SHALL BE FASTENED TO THE PIPE COUPLING WITH TWO OR MORE NO. 10 x 1-INCH STAINLESS STEEL SHEET METAL SCREWS.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-53-319

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QUANTITIES & GENERAL NOTES

SHEET 3 OF 23

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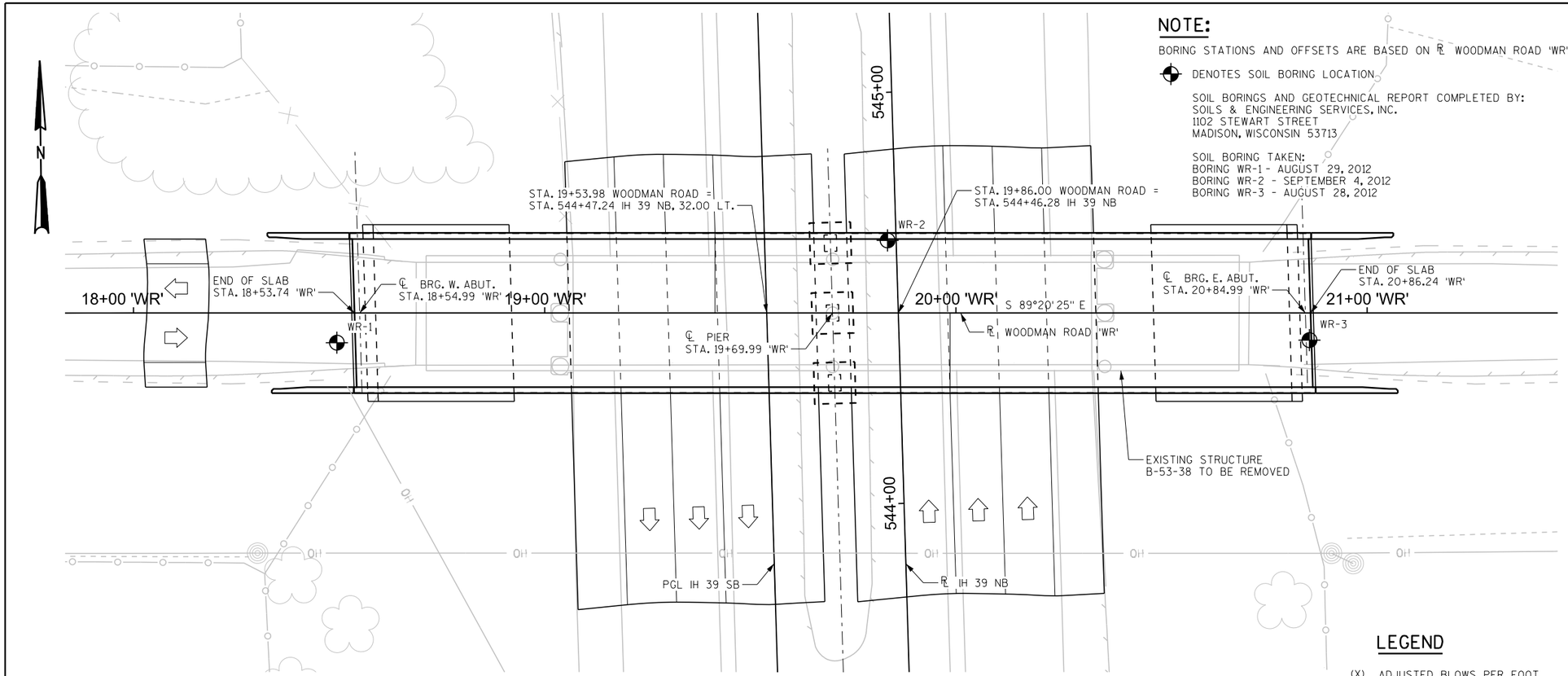


NOTE:

BORING STATIONS AND OFFSETS ARE BASED ON ℄ WOODMAN ROAD 'WR'.

⊕ DENOTES SOIL BORING LOCATION.

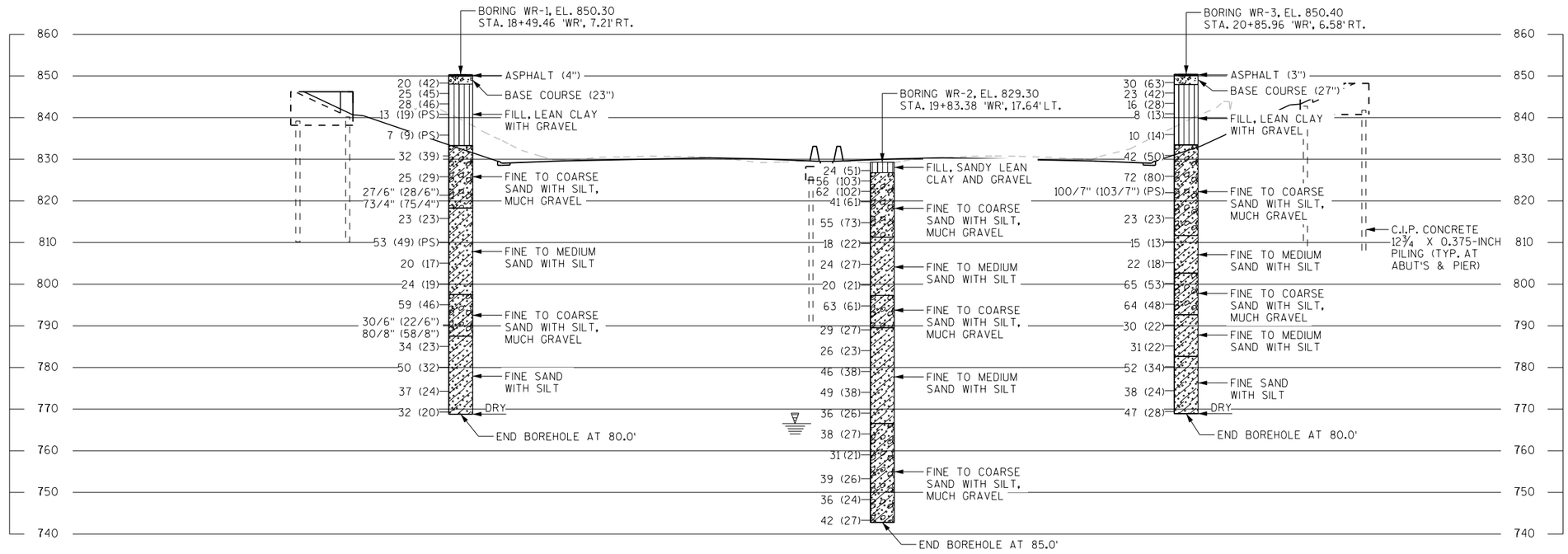
SOIL BORINGS AND GEOTECHNICAL REPORT COMPLETED BY:
SOILS & ENGINEERING SERVICES, INC.
1102 STEWART STREET
MADISON, WISCONSIN 53713

SOIL BORING TAKEN:
BORING WR-1 - AUGUST 29, 2012
BORING WR-2 - SEPTEMBER 4, 2012
BORING WR-3 - AUGUST 28, 2012

LEGEND

(X) ADJUSTED BLOWS PER FOOT

(PS) PUSHED STONE



STATE PROJECT NUMBER

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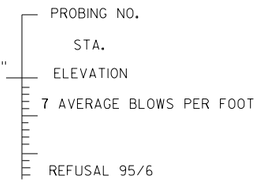
ABBREVIATIONS

F — FINE M — MEDIUM C — COARSE
WS — WEATHERED SO — SOUND

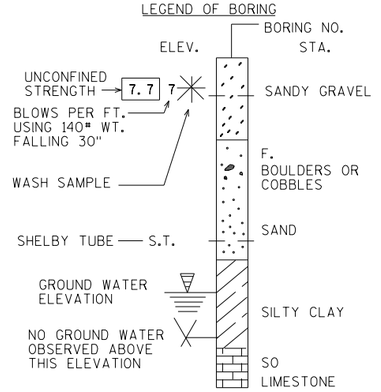
MATERIAL SYMBOLS

TOPSOIL, SILT, SANDSTONE
SAND, PEAT, LIMESTONE
GRAVEL, CLAY, IGNEOUS ROCK

LEGEND OF PROBING



LEGEND OF BORING



UNLESS OTHERWISE SPECIFIED, THE BLOWS PER FOOT AT THE LOCATIONS INDICATED ARE BASED ON DRIVING A 2" O.D. X 1.4" I.D. SPLIT SPOON SAMPLER WITH A 140# HAMMER HAVING A FREE FALL OF 30". THE BLOW COUNT IS TAKEN IN UNDISTURBED SOIL IMMEDIATELY BELOW A CASED OR OPEN HOLE ELIMINATING SIDE FRICTION ON THE DRIVE PIPE.

SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

TO OBTAIN RELATIVE DATA CONCERNING THE CHARACTER OF MATERIAL IN AND UPON WHICH THE FOUNDATION MIGHT BE BUILT, BORINGS AND/OR SOUNDINGS WERE MADE AT POINTS APPROXIMATELY AS INDICATED ON THIS DRAWING. THE DATA PRESENTED HEREIN REPRESENTS THE FINDINGS OF THE SUBSURFACE EXPLORATIONS MADE. HOWEVER, BECAUSE THE DEPTHS INVESTIGATED ARE LIMITED AND THE AREA OF THE BORINGS AND/OR SOUNDINGS IS VERY SMALL IN RELATION TO THE ENTIRE AREA, THE WISCONSIN DEPARTMENT OF TRANSPORTATION DOES NOT WARRANT CONDITIONS BELOW THE DEPTHS INVESTIGATED OR THAT THE CLASSIFICATION OF MATERIAL ENCOUNTERED IN THESE INVESTIGATIONS IS NECESSARILY TYPICAL OF THE ENTIRE SITE.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-53-319

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SUBSURFACE EXPLORATION

SHEET 4 OF 23
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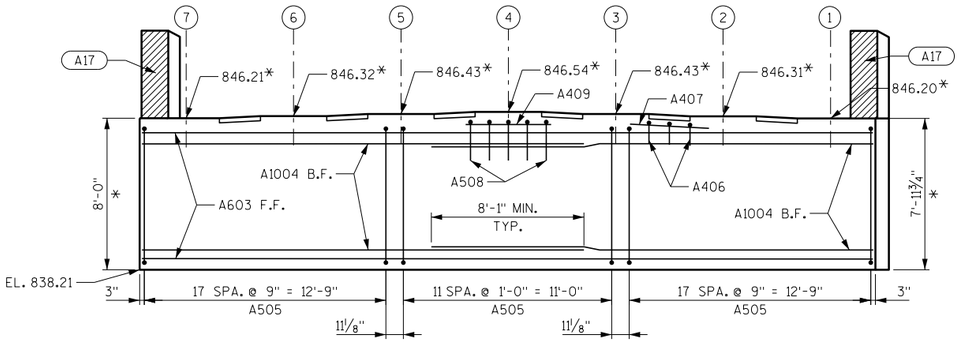
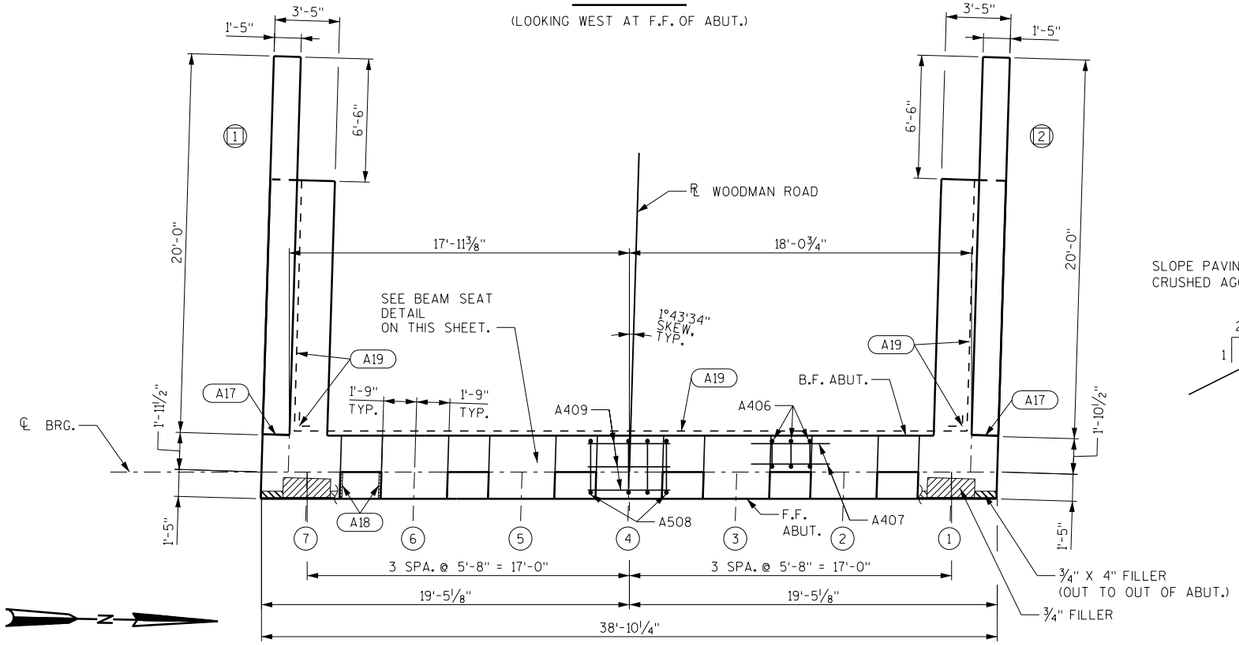
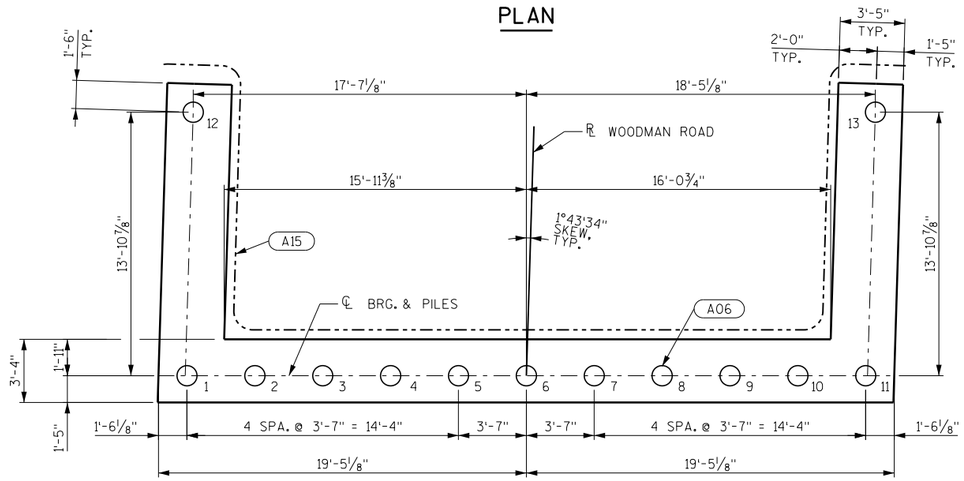


ELEVATION

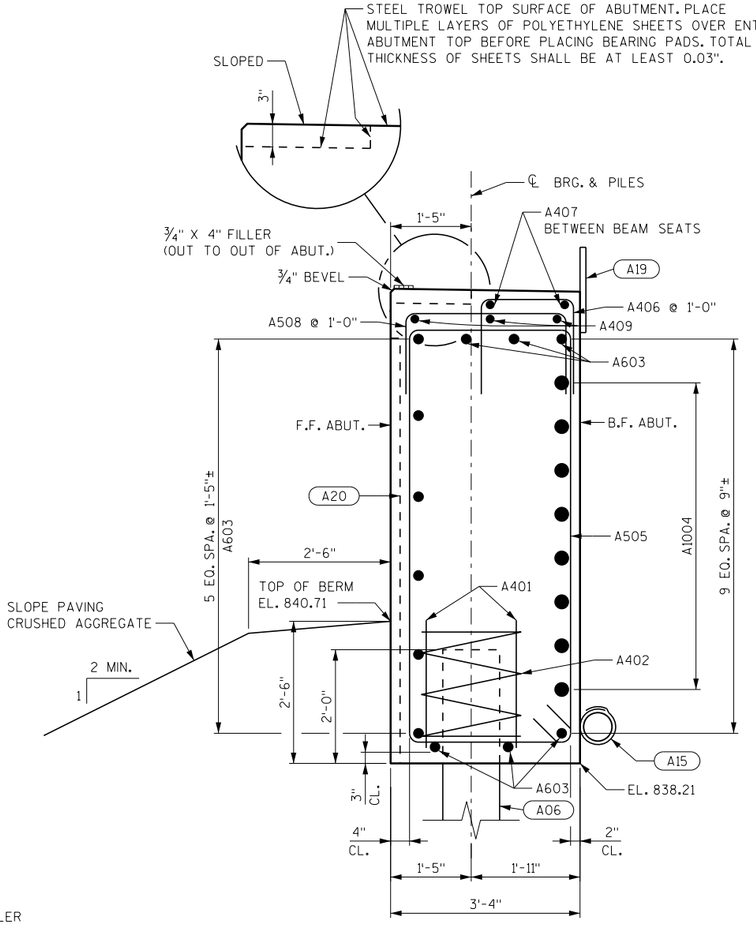
(LOOKING WEST AT F.F. OF ABUT.)



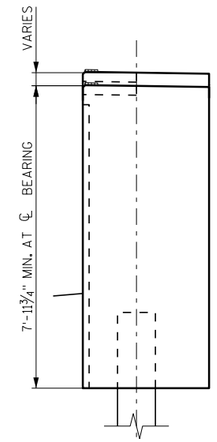
PLAN



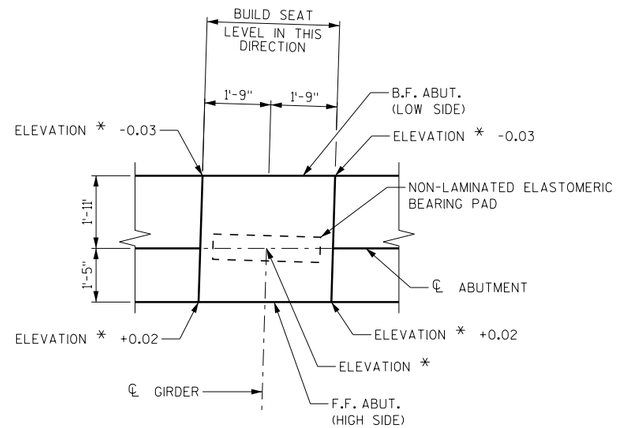
PILE PLAN



SECTION THRU ABUTMENT BODY



SECTION THRU ABUTMENT BODY



SLOPED BEAM SEAT DETAIL - WEST ABUTMENT

(SHOWN AT INTERIOR GIRDER, EXTERIOR GIRDER SIMILAR)

LEGEND

- (A06) SUPPORT ABUTMENT ON C.I.P. 12¾ X 0.375-INCH PILING, ESTIMATED 30'-0" LONG WITH A REQUIRED DRIVING RESISTANCE OF 210 TONS PER PILE. FOR PILE SPLICE DETAIL, SEE SHEET 3.
- (A15) PIPE UNDERDRAIN WRAPPED 6-INCH. SLOPE 0.5% MINIMUM TO SUITABLE DRAINAGE. RODENT SCREEN REQUIRED. SEE SHEET 3 FOR DETAILS.
- (A17) ½" FILLER (INCLUDED IN WING LENGTH): SEAL ALL EXPOSED HORIZ. & VERT. SURFACES OF ½" FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD ⅛" BELOW SURF ACE OF CONCRETE). EXTEND SEALER 3" BELOW GUTTER LINE AT INSIDE FACE.
- (A18) ¾" CORK FILLER UP VERTICAL BEAM SEAT FACES THAT RUN PARALLEL WITH GIRDER.
- (A19) 18" (RMW) RUBBERIZED MEMBRANE WATERPROOFING. SEAL ALL HORIZONTAL AND VERTICAL JOINTS AT BACK FACE.
- (A20) FOR RUSTICATION PATTERN LIMITS ON FRONT FACE, SEE "AESTHETIC DETAILS 1" SHEET.
- (X) WING NUMBER
- (X) GIRDER NUMBER
- * ELEVATIONS & DIMENSIONS ARE GIVEN AT ℄ OF BEARING.
- F.F. FRONT FACE
- B.F. BACK FACE

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
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STRUCTURE B-53-319

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WEST ABUTMENT

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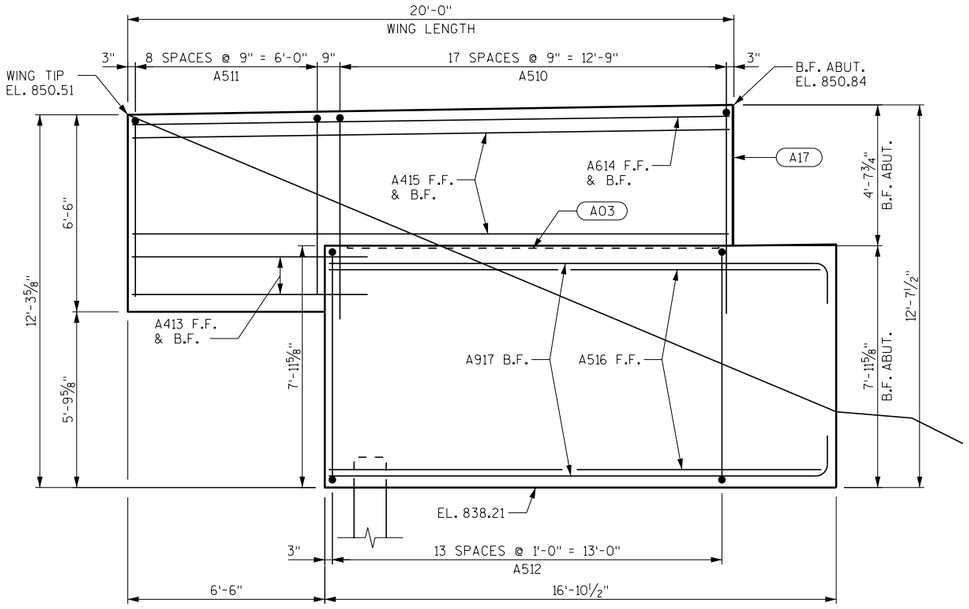
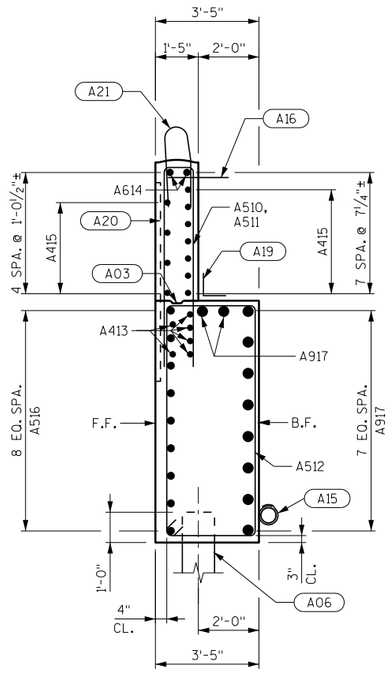


WING 1 ELEVATION



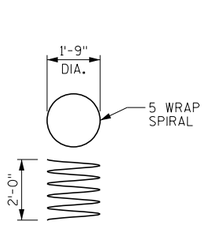
SECTION THRU WING BODY

BILL OF BARS

THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE.
BAR DIMENSIONS ARE OUT TO OUT OF BAR.

UNCOATED: 3,710 LBS
COATED: 3,460 LBS

BAR MARK	COAT	NO. REQ'D	LENGTH	BENT	BAR SERIES	LOCATION
A401		22	2'- 3"			PILES-2 PER BODY PILE
A402		11	28'- 0"	X		PILES-1 PER BODY PILE
A603		12	38'- 6"			BODY-HORIZ.-F.F.-B.F.
A1004		16	23'- 4"			BODY-HORIZ.-B.F.
A505		48	20'- 10"	X		BODY STIRRUPS
A406		18	4'- 7"	X		BODY-VERT.-BTWN. BEAM SEATS
A407		12	4'- 4"			BODY-HORIZ.-BTWN. BEAM SEATS
A508		5	5'- 3"	X		BODY-VERT.-UNDER GIR. 4
A409		3	4'- 4"			BODY-HORIZ.-UNDER GIR. 4
A510	X	36	14'- 2"	X		WINGS 1 & 2-VERT.
A511	X	18	13'- 0"	X		WINGS 1 & 2-VERT.
A512	X	28	21'- 6"	X		WINGS 1 & 2 STIRRUPS
A413	X	12	7'- 9"			WINGS 1 & 2-HORIZ.-F.F.-B.F.
A614	X	4	19'- 8"			WINGS 1 & 2-HORIZ.-F.F.-B.F.
A415	X	22	19'- 8"			WINGS 1 & 2-HORIZ.-F.F.-B.F.
A516	X	18	16'- 5"			WINGS 1 & 2-HORIZ.-F.F.
A917	X	20	18'- 0"	X		WINGS 1 & 2-HORIZ.-B.F.
A418	X	40	2'- 0"			SURFACE DRAIN ANCHORS



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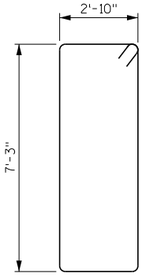

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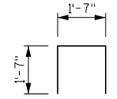

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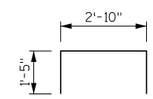

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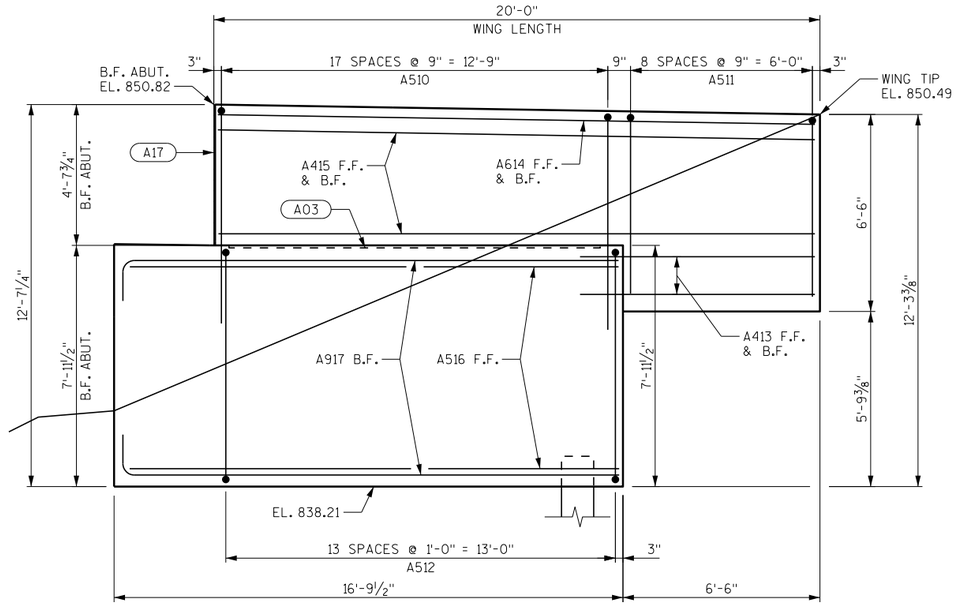
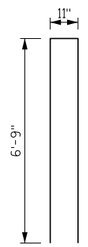


WING 2 ELEVATION



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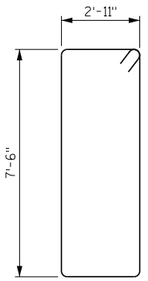

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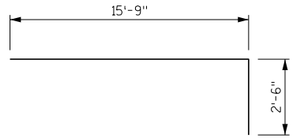

A917

LEGEND

(A03) OPTIONAL CONST. JOINT: KEYWAY FORMED BY BEVELED 2 x 6. (18" R.M.W. @ B.F. IF JOINT IS USED.) NO "V" GROOVE @ F.F., SEE SHT. 22.

(A06) SUPPORT ABUTMENT ON C.I.P. 12¾ X 0.375-INCH PILING, ESTIMATED 30'-0" LONG WITH A REQUIRED DRIVING RESISTANCE OF 210 TONS PER PILE. FOR PILE SPLICE DETAIL, SEE SHEET 3.

(A15) PIPE UNDERDRAIN WRAPPED 6-INCH. SLOPE 0.5% MINIMUM TO SUITABLE DRAINAGE. RODENT SCREEN REQUIRED. SEE SHEET 3 FOR DETAILS.

(A16) A418 BARS SPACED AT 1'-0" CTRS. EMBED 1'-0" INTO WING CONC. LOCATE 3" DOWN FROM TOP OF WING AT BACKFACE TO 6" DOWN AT WING TIP. (DRILLED IN EPOXY ANCHORED #4 BARS 2'-0" LONG MAY BE USED. COST INCIDENTAL TO BID ITEM "BAR STEEL REINFORCEMENT HS COATED STRUCTURES".)

(A17) ½" FILLER (INCLUDED IN WING LENGTH): SEAL ALL EXPOSED HORIZ. & VERT. SURFACES OF ½" FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD ⅛" BELOW SURF ACE OF CONCRETE). EXTEND SEALER 3" BELOW GUTTER LINE AT INSIDE FACE.

(A19) 18" (RMW) RUBBERIZED MEMBRANE WATERPROOFING. SEAL ALL HORIZONTAL AND VERTICAL JOINTS AT BACK FACE.

(A20) FOR RUSTICATION PATTERN LIMITS ON FRONT FACE, SEE "AESTHETIC DETAILS 1" SHEET.

(A21) FOR PPT. BARS & DIMENSION, SEE PARAPET SHT. 18.

F.F. FRONT FACE
B.F. BACK FACE

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-53-319

DRAWN BY VJD | PLANS CK'D. YC

WEST ABUTMENT DETAILS

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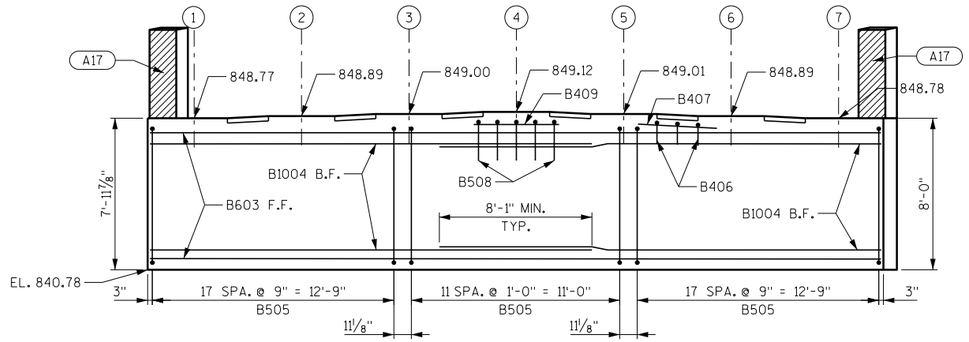
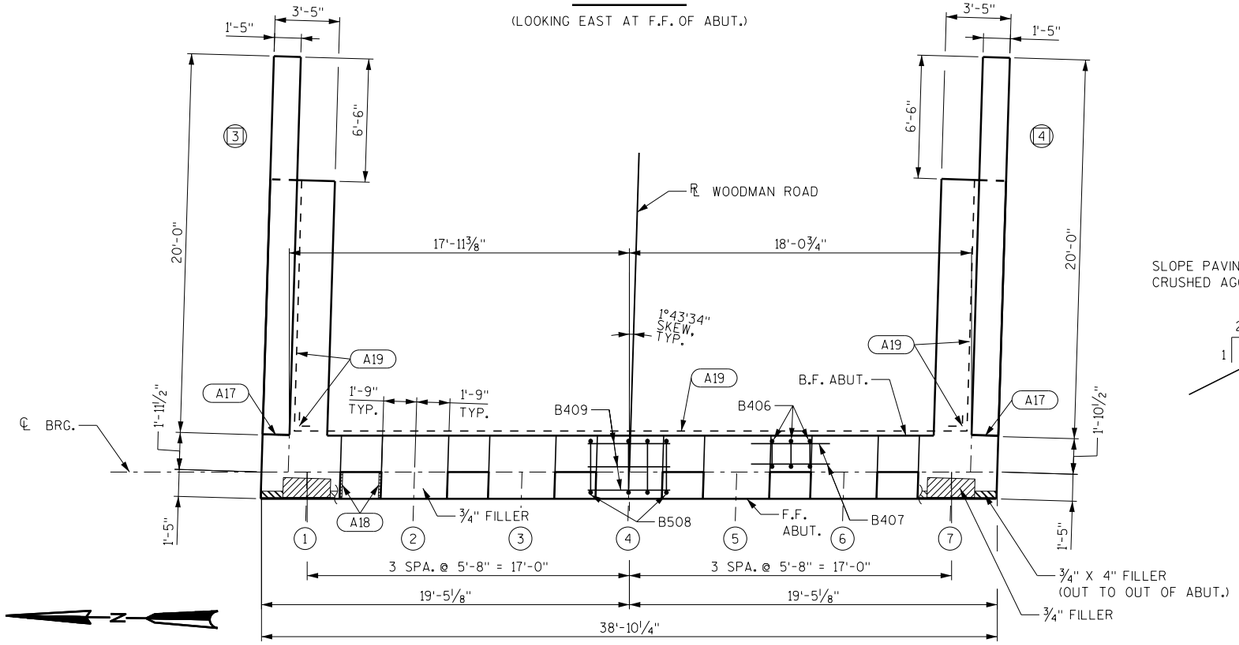
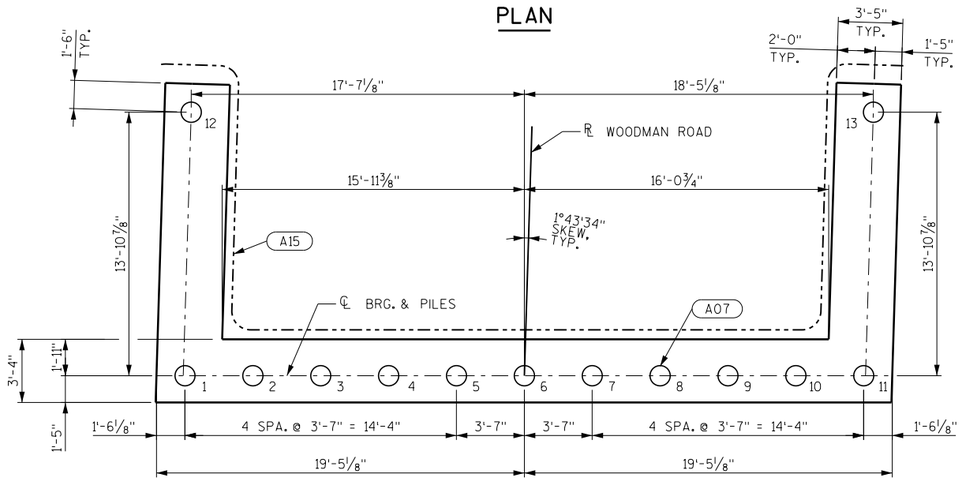


ELEVATION

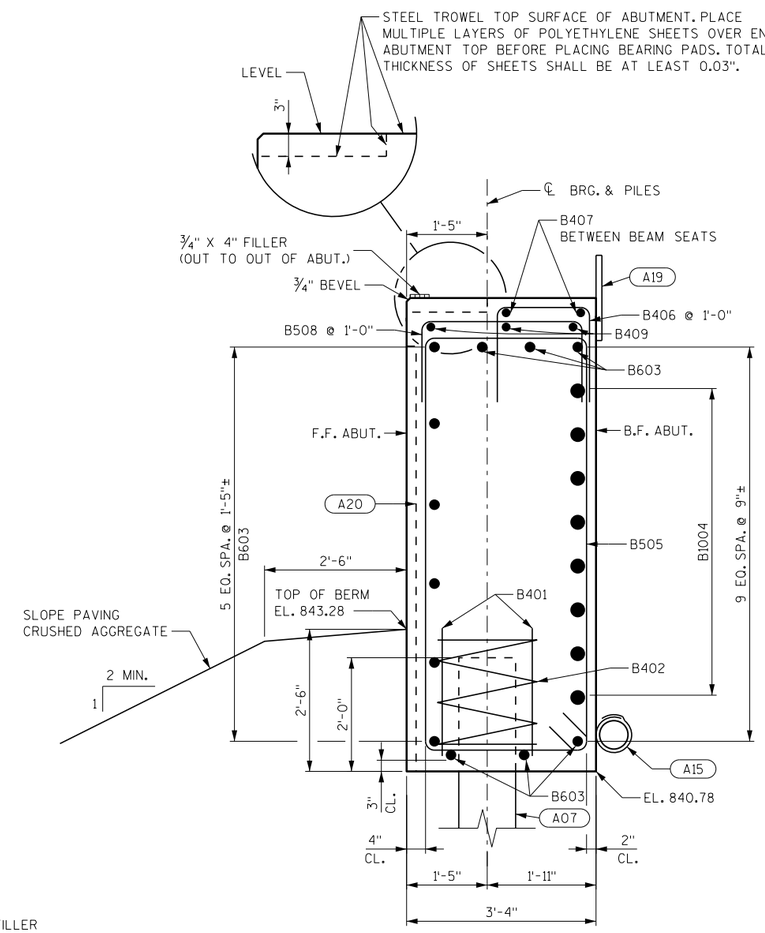
(LOOKING EAST AT F.F. OF ABUT.)



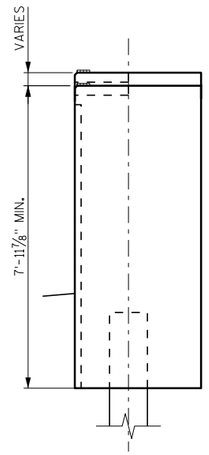
PLAN



PILE PLAN



SECTION THRU ABUTMENT BODY



SECTION THRU ABUTMENT BODY

LEGEND

- (A07) SUPPORT ABUTMENT ON C.I.P. 12¾ X 0.375-INCH PILING, ESTIMATED 35'-0" LONG WITH A REQUIRED DRIVING RESISTANCE OF 210 TONS PER PILE. FOR PILE SPLICE DETAIL, SEE SHEET 3.
- (A15) PIPE UNDERDRAIN WRAPPED 6-INCH. SLOPE 0.5% MINIMUM TO SUITABLE DRAINAGE. RODENT SCREEN REQUIRED. SEE SHEET 3 FOR DETAILS.
- (A17) ½" FILLER (INCLUDED IN WING LENGTH): SEAL ALL EXPOSED HORIZ. & VERT. SURFACES OF ½" FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD ⅛" BELOW SURF ACE OF CONCRETE). EXTEND SEALER 3" BELOW GUTTER LINE AT INSIDE FACE.
- (A18) ¾" CORK FILLER UP VERTICAL BEAM SEAT FACES THAT RUN PARALLEL WITH GIRDER.
- (A19) 18" (RMW) RUBBERIZED MEMBRANE WATERPROOFING. SEAL ALL HORIZONTAL AND VERTICAL JOINTS AT BACK FACE.
- (A20) FOR RUSTICATION PATTERN LIMITS ON FRONT FACE, SEE "AESTHETIC DETAILS 1" SHEET.
- (X) WING NUMBER
- (X) GIRDER NUMBER
- F.F. FRONT FACE
- B.F. BACK FACE

STATE PROJECT NUMBER

1003-10-75

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-53-319

DRAWN BY VJD | PLANS CK'D. YC

EAST ABUTMENT

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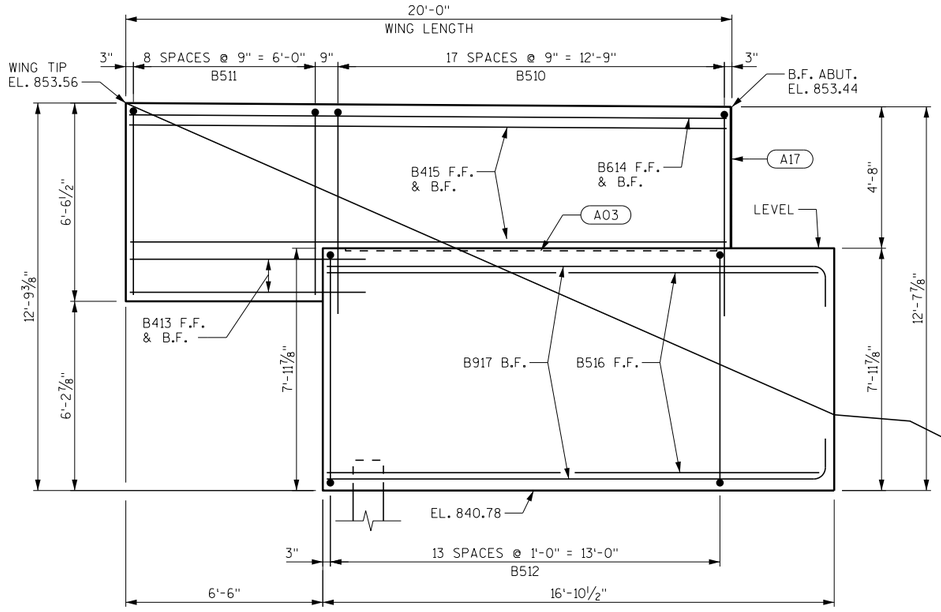
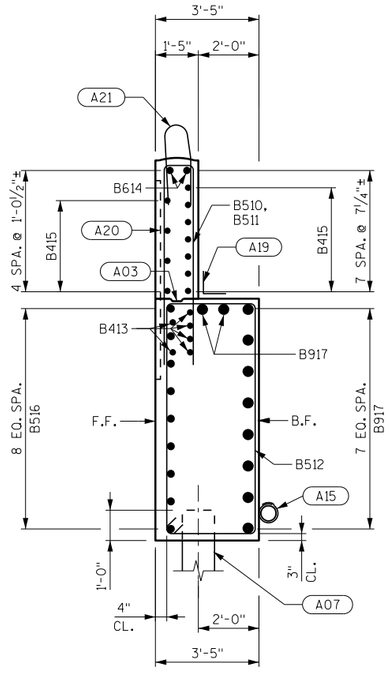


WING 3 ELEVATION



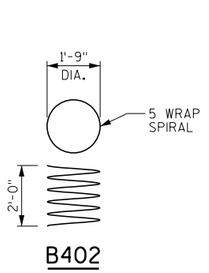
SECTION THRU WING BODY

BILL OF BARS

THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE.
BAR DIMENSIONS ARE OUT TO OUT OF BAR.

UNCOATED: 3,710 LBS
COATED: 3,410 LBS

BAR MARK	COAT	NO. REQ'D	LENGTH	BENT	BAR SERIES	LOCATION
B401		22	2'- 3"			PILES-2 PER BODY PILE
B402		11	28'- 0"	X		PILES-1 PER BODY PILE
B603		12	38'- 6"			BODY-HORIZ.-F.F.-B.F.
B1004		16	23'- 4"			BODY-HORIZ.-B.F.
B505		48	20'- 10"	X		BODY STIRRUPS
B406		18	4'- 7"	X		BODY-VERT.-BTWN. BEAM SEATS
B407		12	4'- 4"			BODY-HORIZ.-BTWN. BEAM SEATS
B508		5	5'- 3"	X		BODY-VERT.-UNDER GIR. 4
B409		3	4'- 4"			BODY-HORIZ.-UNDER GIR. 4
B510	X	36	14'- 2"	X		WINGS 3 & 4-VERT.
B511	X	18	13'- 0"	X		WINGS 3 & 4-VERT.
B512	X	28	21'- 6"	X		WINGS 3 & 4 STIRRUPS
B413	X	12	7'- 9"			WINGS 3 & 4-HORIZ.-F.F.-B.F.
B614	X	4	19'- 8"			WINGS 3 & 4-HORIZ.-F.F.-B.F.
B415	X	22	19'- 8"			WINGS 3 & 4-HORIZ.-F.F.-B.F.
B516	X	18	16'- 5"			WINGS 3 & 4-HORIZ.-F.F.
B917	X	20	18'- 0"	X		WINGS 3 & 4-HORIZ.-B.F.



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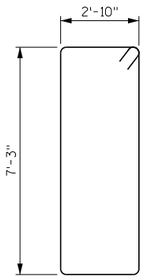

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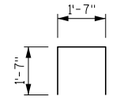

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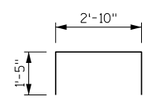

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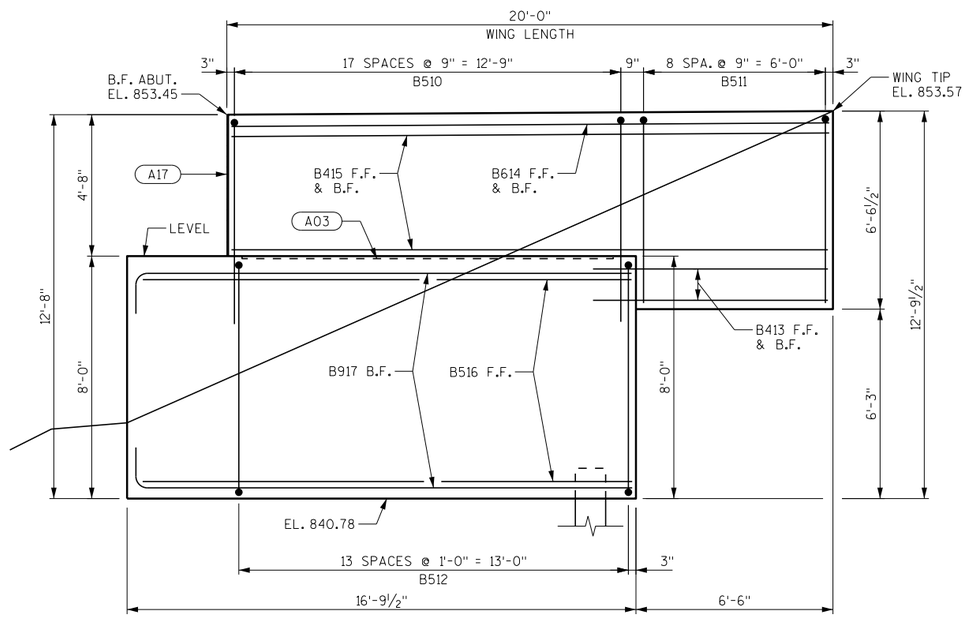
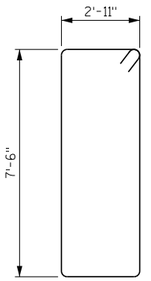


WING 4 ELEVATION

B510

B511



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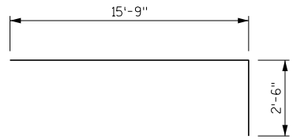

B917

LEGEND

(A03) OPTIONAL CONST. JOINT: KEYWAY FORMED BY BEVELED 2 x 6. (18" R.M.W. @ B.F. IF JOINT IS USED.) NO "V" GROOVE @ F.F., SEE SHT. 22.

(A07) SUPPORT ABUTMENT ON C.I.P. 12¾ X 0.375-INCH PILING, ESTIMATED 35'-0" LONG WITH A REQUIRED DRIVING RESISTANCE OF 210 TONS PER PILE. FOR PILE SPLICE DETAIL, SEE SHEET 3.

(A15) PIPE UNDERDRAIN WRAPPED 6-INCH. SLOPE 0.5% MINIMUM TO SUITABLE DRAINAGE. RODENT SCREEN REQUIRED. SEE SHEET 3 FOR DETAILS.

(A17) ½" FILLER (INCLUDED IN WING LENGTH): SEAL ALL EXPOSED HORIZ. & VERT. SURFACES OF ½" FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD ⅛" BELOW SURF ACE OF CONCRETE). EXTEND SEALER 3" BELOW GUTTER LINE AT INSIDE FACE.

(A19) 18" (RMW) RUBBERIZED MEMBRANE WATERPROOFING. SEAL ALL HORIZONTAL AND VERTICAL JOINTS AT BACK FACE.

(A20) FOR RUSTICATION PATTERN LIMITS ON FRONT FACE, SEE "AESTHETIC DETAILS 1" SHEET.

(A21) FOR PPT. BARS & DIMENSION, SEE PARAPET SHT. 18.

F.F. FRONT FACE
B.F. BACK FACE

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-53-319

DRAWN BY VJD | PLANS CK'D. YC

EAST ABUTMENT DETAILS

SHEET 8 OF 23
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STATE PROJECT NUMBER

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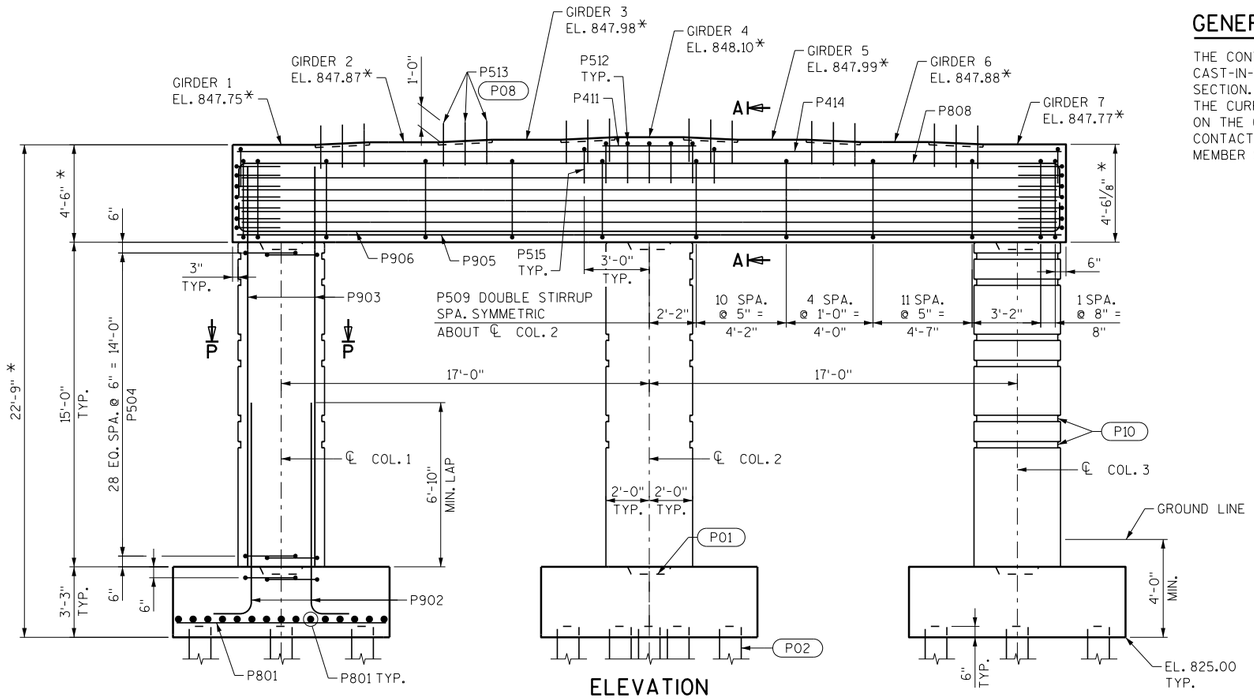
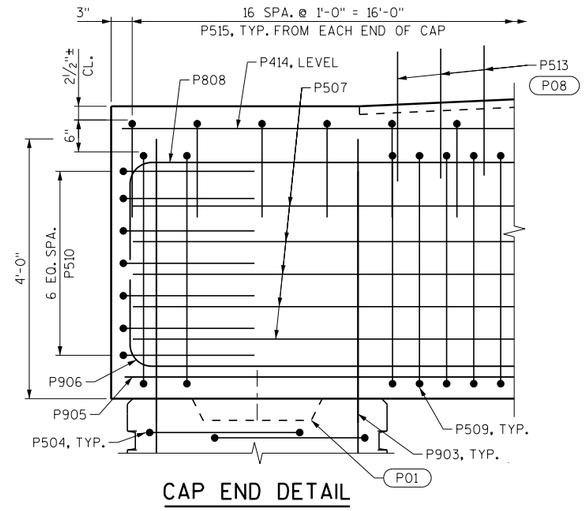
GENERAL NOTES

THE CONTRACTOR MAY FURNISH A PRECAST PIER (CAP AND COLUMNS ELEMENTS) IN LIEU OF THE CAST-IN-PLACE PIER WITH THE ACCEPTANCE OF THE SHOP DRAWINGS BY THE STRUCTURES DESIGN SECTION. THE PRECAST PIER SHALL CONFORM TO PRECAST DETAILS IN CHAPTER 7 STANDARDS OF THE CURRENT WISCONSIN DOT BRIDGE MANUAL. PAYMENT FOR THE PRECAST PIER SHALL BE BASED ON THE QUANTITIES AND PRICES BID FOR THE ITEMS LISTED IN THE "TOTAL ESTIMATED QUANTITIES". CONTACT DAVE KIEKBUSCH (608-266-5084) OR JAMES LUEBKE (608-266-5098) FOR PRECAST PIER MEMBER STANDARDS.

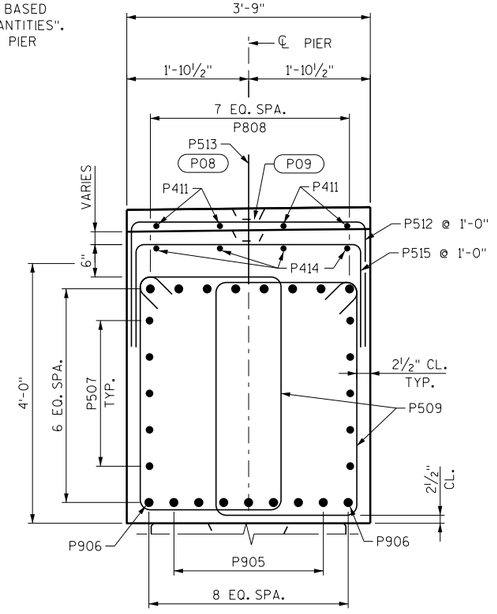


ELEVATION

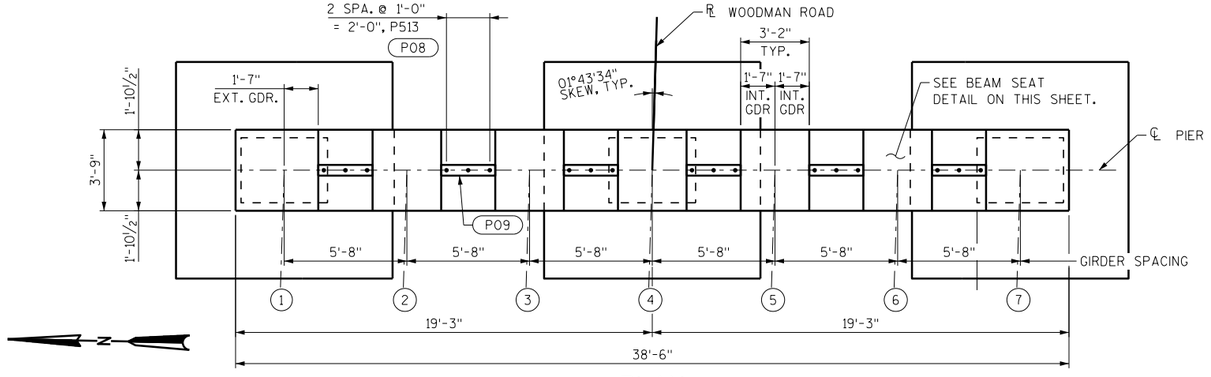
LOOKING EAST



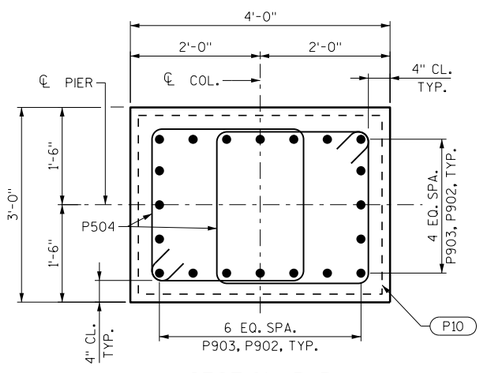
CAP END DETAIL



SECTION A-A



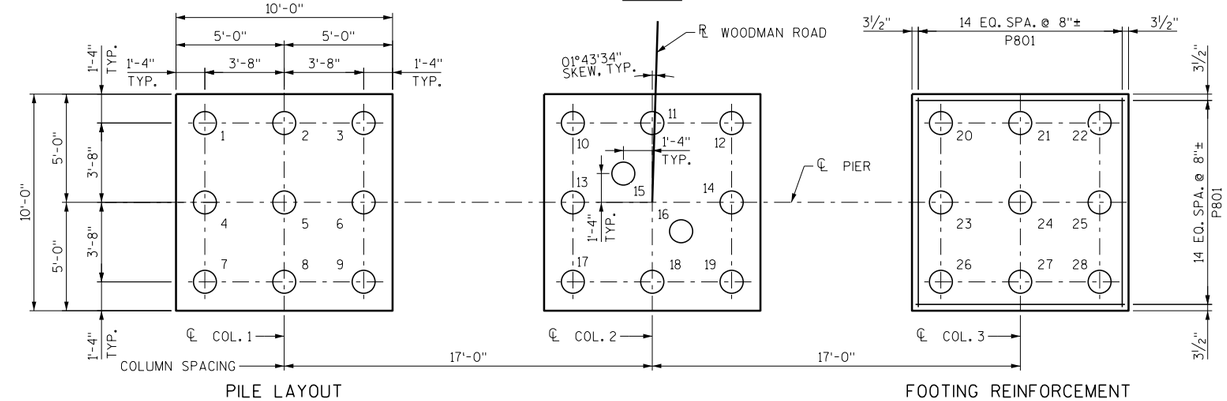
PLAN



SECTION P-P

LEGEND

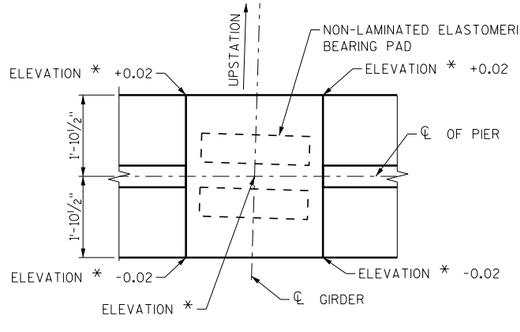
*	ELEVATIONS & DIMENSIONS ARE GIVEN AT ℄ PIER.
P01	1'-3" X 2'-0" X 4" CONSTRUCTION JOINT FORMED BY BEVELED KEYWAY.
P02	SUPPORT PIER ON C.I.P. 12¾ X 0.375-INCH PILING, ESTIMATED 35'-0" LONG WITH A REQUIRED DRIVING RESISTANCE OF 210 TONS PER PILE. FOR PILE SPLICE DETAIL, SEE SHEET 3.
P08	P513 BARS BETWEEN BEAM SEATS. MAY BE PLACED AFTER CONCRETE IS POURED BUT BEFORE INITIAL SET HAS TAKEN PLACE. EMBED 1'-0" INTO CONCRETE.
P09	KEYED CONSTRUCTION JOINT FORMED BY BEVELED 2 X 6 BETWEEN BEAM SEATS.
P10	FOR 1½" RUSTICATION PATTERN ON ALL FACES OF PIER COLUMN, SEE "AESTHETIC DETAILS 2" SHEET.
◯	GIRDER NUMBER



PILE LAYOUT

FOOTING PLAN

FOOTING REINFORCEMENT



SLOPED BEAM SEAT DETAIL - PIER

(SHOWN AT INTERIOR GIRDER, EXTERIOR GIRDER SIMILAR)

NO.	DATE	REVISION	BY

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DEPARTMENT OF TRANSPORTATION

STRUCTURE B-53-319

DRAWN BY VJD | PLANS CK'D. YC

PIER

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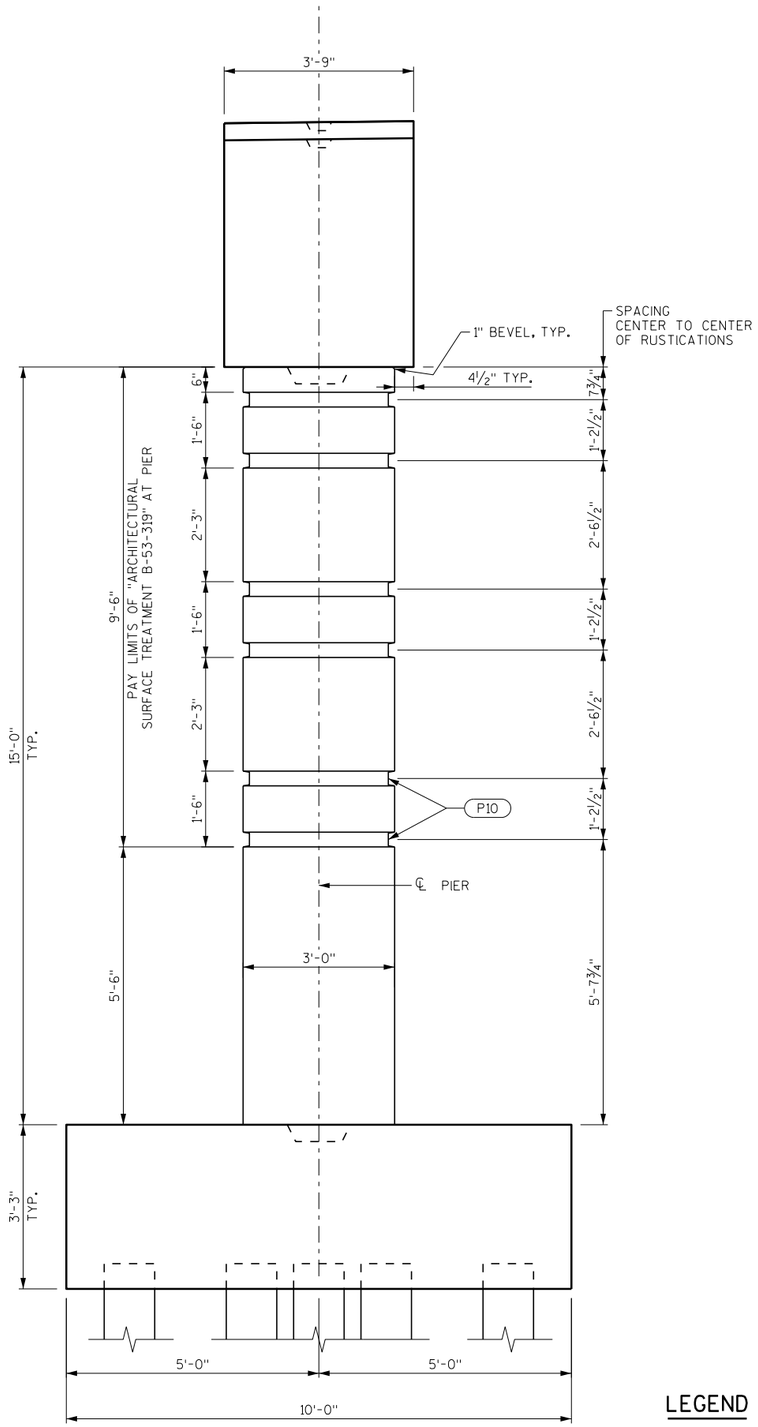
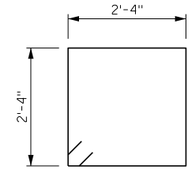


END VIEW

LOOKING NORTH AT COLUMN 2

P902



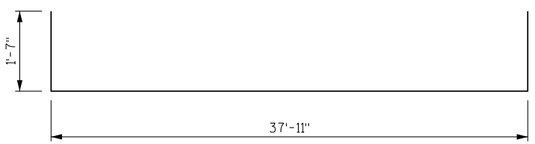
P504

BILL OF BARS

THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE.
BAR DIMENSIONS ARE OUT TO OUT OF BAR.

UNCOATED: 2,290 LBS
COATED: 12,540 LBS

BAR MARK	COAT	NO. REQ'D	LENGTH	BENT	BAR SERIES	LOCATION
P801		90	9'- 6"			FOOTING-HORIZ.
P902	X	60	11'- 0"	X		FOOTING/COLUMN-VERT.
P903	X	60	18'- 6"			COLUMN-VERT.
P504	X	180	10'- 0"	X		COLUMN-STIRRUPS
P905	X	7	38'- 1"			CAP-HORIZ.-BOTTOM
P906	X	2	40'- 7"	X		CAP-HORIZ.-BOTTOM EDGES
P507	X	10	37'- 10"			CAP-HORIZ.-SIDES
P808	X	8	40'- 2"	X		CAP-HORIZ.-TOP
P509	X	112	12'- 2"	X		CAP-VERT.-STIRRUPS
P510	X	14	6'- 5"	X		CAP-HORIZ.-ENDS
P411	X	28	4'- 4"			CAP-HORIZ.-UNDER GIRDER 4
P512	X	35	6'- 11"	X		CAP-VERT.-UNDER GIRDER 4
P513	X	18	2'- 0"			CAP-VERT.-DOWELS
P414	X	4	38'- 1"			CAP-HORIZ.-TOP
P515	X	34	6'- 3"	X		CAP-VERT.-EXCEPT UNDER GIRDER 4



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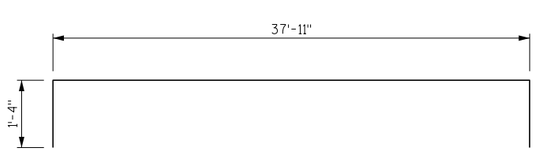

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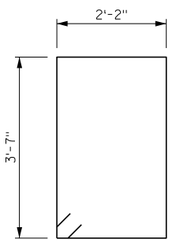

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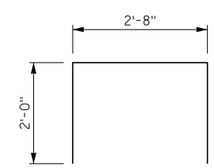

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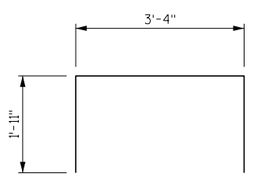

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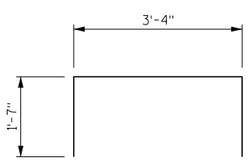

P515

LEGEND

(P10) FOR 1½" RUSTICATION PATTERN ON ALL FACES OF PIER COLUMN, SEE "AESTHETIC DETAILS 2" SHEET.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
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STRUCTURE B-53-319

DRAWN BY VJD | PLANS CK'D. YC

PIER DETAILS

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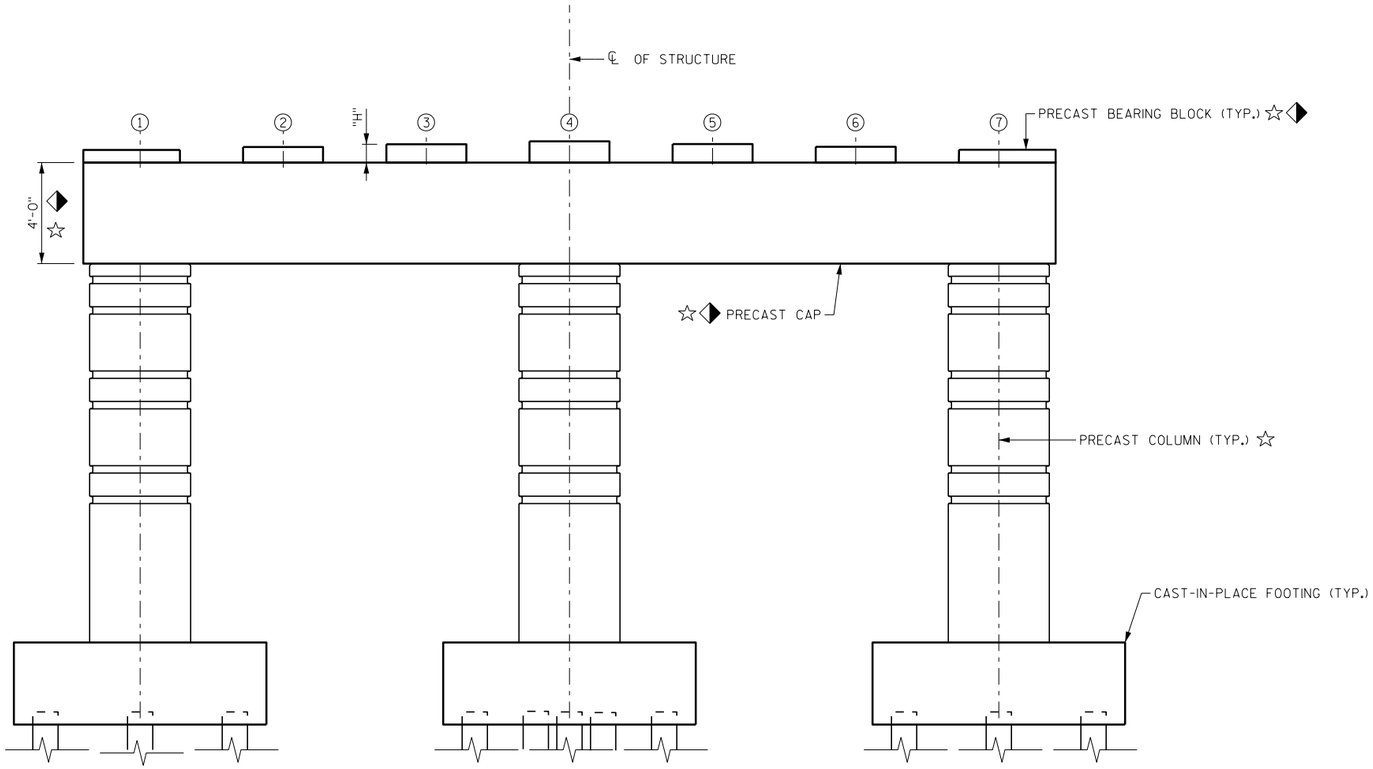

ELEVATION OF OPTIONAL PRECAST PIER

FOR INFORMATION ONLY
CONTACT DAVE KIEKBUSCH (608) 266-5084 AND
JAMES LUEBKE (608) 266-5098 FOR PRECAST DETAILS

8

8

LEGEND

☆ THE CONTRACTOR MAY FURNISH PRECAST PIER CAPS, BEARING BLOCKS, AND COLUMNS IN LIEU OF THE CAST-IN-PLACE PIER WITH THE ACCEPTANCE OF THE SHOP DRAWINGS BY THE STRUCTURES DESIGN SECTION. CONTACT DAVE KIEKBUSCH (608-266-5084) OR JAMES LUEBKE (608-266-5098) FOR PRECAST PIER MEMBER STANDARDS. PAYMENT FOR THE PRECAST PIER MEMBERS SHALL BE BASED ON THE QUANTITIES AND PRICES BID FOR THE ITEMS LISTED IN THE "TOTAL ESTIMATED QUANTITIES".

◆ IF THE CONTRACTOR CHOOSES TO FURNISH PRECAST PIER MEMBERS, THE CAP HEIGHT SHALL BE 4'-0". THE REMAINING DIFFERENCE BETWEEN THE BEAM SEAT ELEVATIONS AND THE TOP OF THE 4'-0" CAP WILL BE THE "H" DIMENSION OF THE PRECAST BEARING BLOCKS.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-53-319

DRAWN BY NLD | PLANS CK'D. JFR

PIER ALTERNATE

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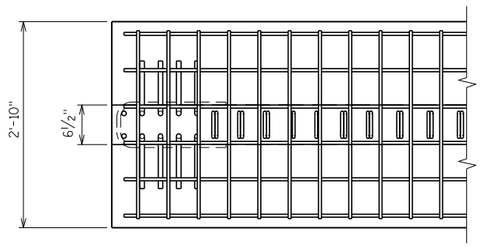
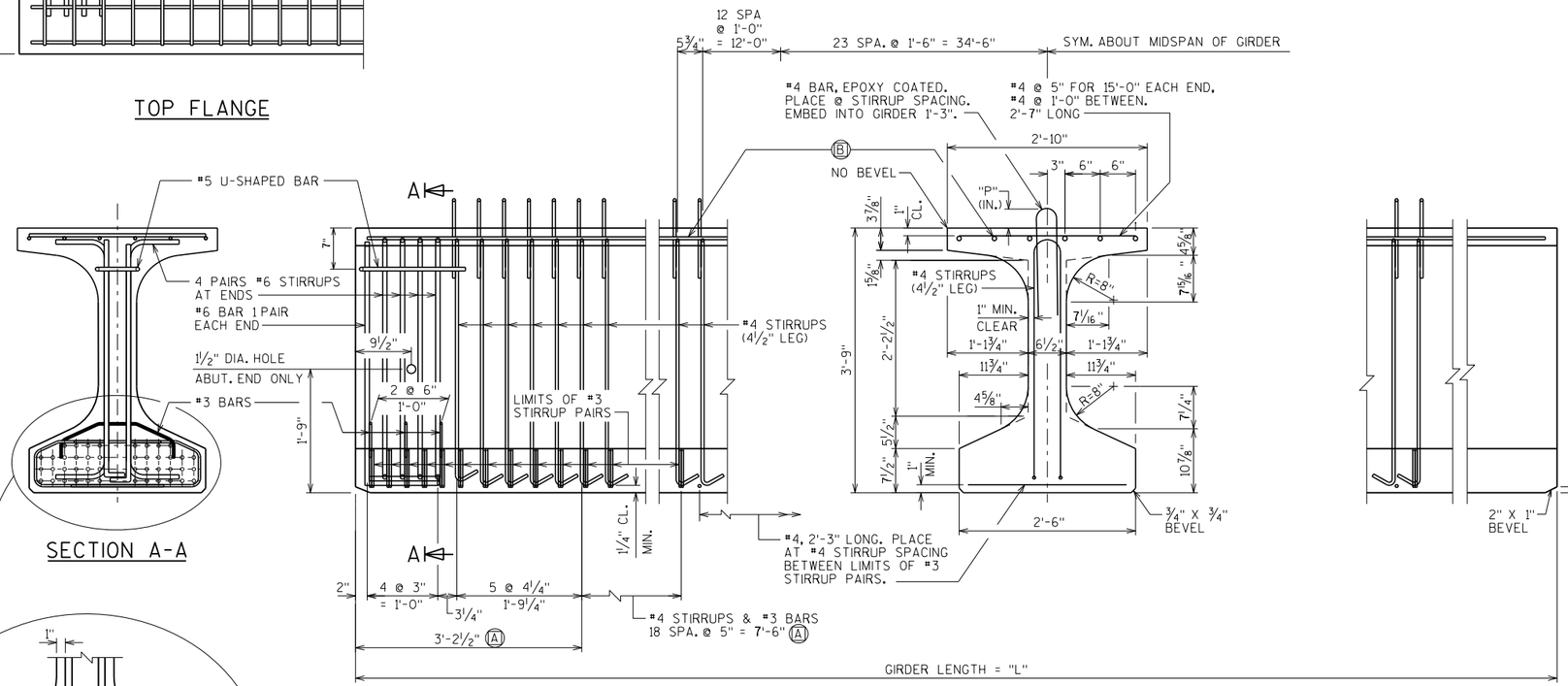
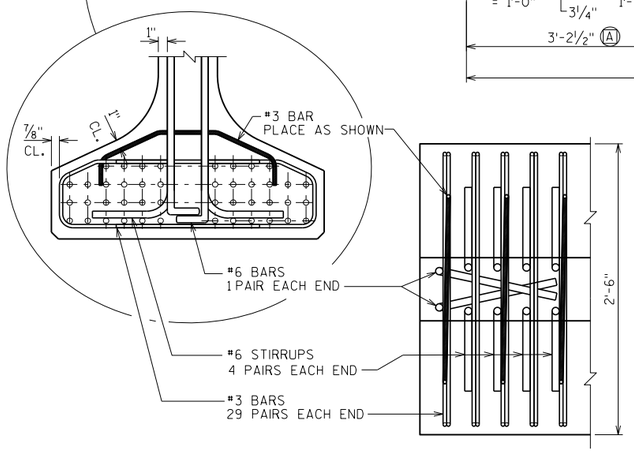


TOP FLANGE



SECTION A-A

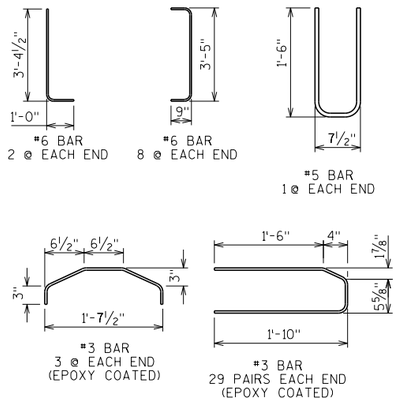


BOTTOM FLANGE

SIDE VIEW & TYPICAL SECTION IN SPAN

Ⓐ DETAIL TYP. AT EACH END

Ⓑ 6 #4 BARS, FULL LENGTH, MIN. LAP = 1'-11"



NOTES

TOP OF GIRDER TO BE ROUGH FLOATED AND BROOMED TRANSVERSELY, EXCEPT THE OUTSIDE 8" OF GIRDER, WHICH SHALL RECEIVE A SMOOTH FINISH. AN APPROVED CONCRETE SEALER SHALL BE APPLIED TO ALL SMOOTH SURFACES INCLUDING THE OUTSIDE 8" OF THE TOP FLANGE.

DO NOT APPLY CONCRETE SEALER TO SURFACES RECEIVING APPLICATION OF CONCRETE STAINING.

THE GIRDERS SHALL BE PROVIDED WITH A SUITABLE LIFTING DEVICE FOR HANDLING AND ERECTING THE GIRDERS.

STRANDS SHALL BE FLUSH WITH END OF GIRDER. FOR GIRDER ENDS EMBEDDED COMPLETELY IN CONCRETE, END OF STRANDS SHALL BE COATED WITH NON-BITUMINOUS JOINT SEALER. FOR GIRDER ENDS THAT ARE FINALLY EXPOSED, COAT THE GIRDER ENDS, EXPOSED STRAND ENDS AND ALL NON-BONDING SURFACES WITHIN 2 FEET OF THE GIRDER ENDS WITH A NON-PIGMENTED EPOXY CONFORMING TO AASHTO M-235 TYPE III, CLASS B OR C. THE EPOXY SHALL BE APPLIED AT LEAST 3 DAYS AFTER MOIST CURING HAS CEASED AND PRIOR TO THE APPLICATION OF THE SEALER.

ALL GIRDERS SHALL BE CAST FULL LENGTH AS SHOWN.

SPACING SHOWN FOR #4 STIRRUPS IS FOR GRADE 60 REINFORCEMENT.

AN ALTERNATE EQUIVALENT OF WELDED WIRE FABRIC (WWF) ASTM A497 MAY BE SUBSTITUTED FOR THE STIRRUP REINFORCEMENT SHOWN, UPON APPROVAL OF THE STRUCTURES DEVELOPMENT SECTION.

PRESTRESSING STRANDS SHALL BE (0.6" DIA.)-7 WIRE LOW-RELAXATION STRANDS WITH AN ULTIMATE STRENGTH OF 270,000 PSI.

FOR DIAPHRAGM INSERT & CONNECTION DETAILS SEE "STEEL DIAPHRAGM" SHEET.

✳ MINIMUM CYLINDER STRENGTH OF CONCRETE @ TIME OF TRANSFER OF PRESTRESS FORCE.

GIRDER DATA

SPAN	GIRDER	GIRDER LENGTH "L"	DEAD LOAD DEFL. (IN.)									CONC. STRGTH. f'c (p.s.i.)	"P" 1ST 1/3 OF GIRDER	"P" MID 1/3 OF GIRDER	"P" END 1/3 OF GIRDER	DIA. OF STRAND (IN.)	DRAPED PATTERN						UNDRAPED PATTERN	
			1/10	2/10	3/10	4/10	5/10	6/10	7/10	8/10	9/10						TOTAL NO. OF STRANDS	f'ci (P.S.I.) ✳	(IN.) "A"	"B" MIN.	"B" MAX.	"C"	TOTAL NO. OF STRANDS	f'ci (P.S.I.) ✳
1	1-7	115'-4½"	0.8	1.5	2.0	2.3	2.4	2.3	1.9	1.4	0.7	8000	7.0"	7.0"	7.0"	0.6	32	6800	40	13.75	16.75	5		
2	1-7	115'-4½"	0.8	1.4	1.9	2.3	2.4	2.3	2.0	1.5	0.7	8000	7.0"	7.0"	7.0"	0.6	32	6800	40	13.75	16.75	5		

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STRUCTURE B-53-319

DRAWN BY VJD | PLANS CK'D. YC

45W" PRESTRESSED GIRDER DETAILS 1

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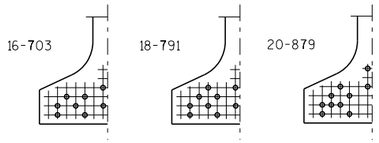
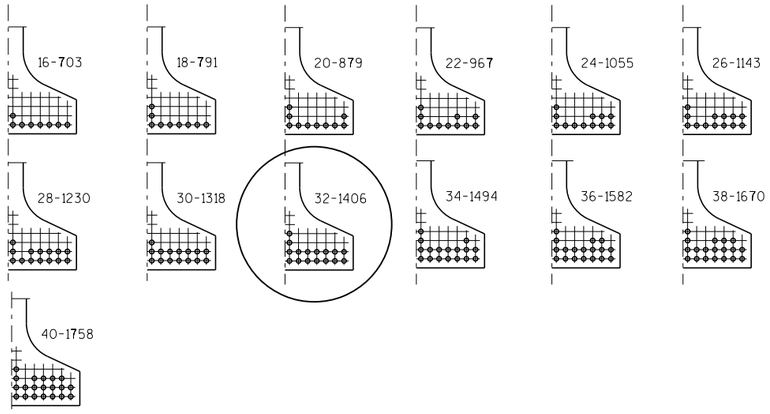


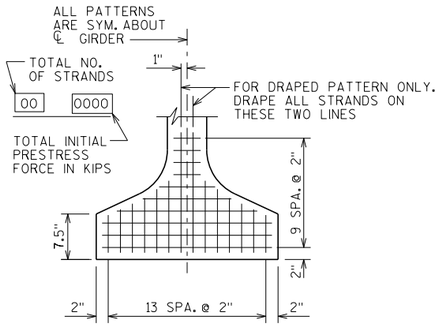
STANDARD ARRANGEMENTS TO RAISE CENTER OF GRAVITY TO AVOID DRAPING OF STRANDS

0.6"ϕ STRANDS

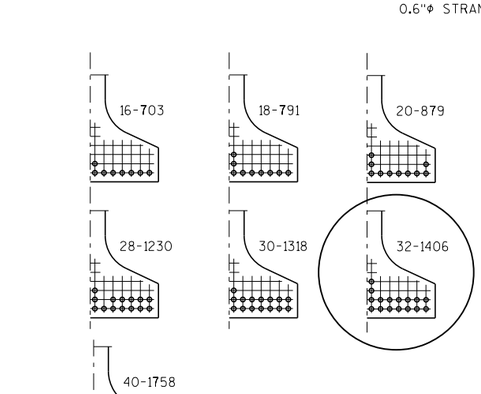


ARRANGEMENT AT ℄ SPAN - FOR GIRDERS WITH DRAPED STRANDS

0.6"ϕ STRANDS



TYP. STRAND PATTERN



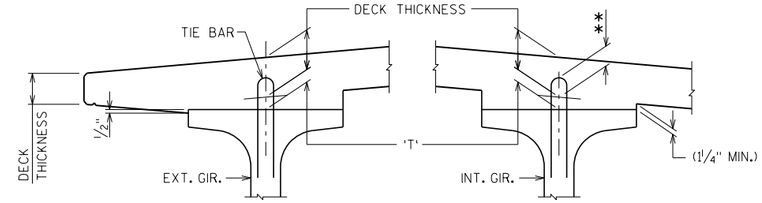
DRAPED STRAND PROFILE

*THE THEORETICAL INITIAL CAMBER VALUE AT THE TIME OF STRAND RELEASE AT MIDSPAN MULTIPLIED BY A FACTOR OF 1.4 TO ACCOUNT FOR CAMBER GROWTH FROM THE TIME OF STRAND RELEASE TO JOBSITE PLACEMENT.

SPAN	CAMBER (IN.) *
1	3.34
2	3.34

THESE VALUES ARE NOT TO BE USED IN DETERMINING 'T', USE ACTUAL GIRDER SHOTS.

THESE VALUES ARE FOR INFORMATIONAL PURPOSES ONLY.



DECK HAUNCH DETAIL

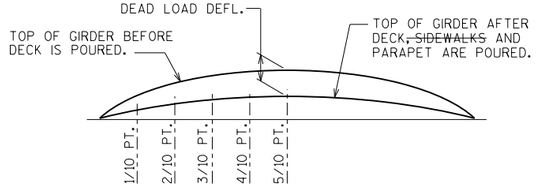
IF 1¼" MINIMUM HAUNCH HEIGHT AT EDGE OF GIRDER CANNOT BE MAINTAINED, THE GRADE LINE MAY BE REVISED BY THE ENGINEER AT THE OPTION OF THE CONTRACTOR. THE PLAN DECK THICKNESS SHALL BE HELD. NOTIFY THE STRUCTURES SECTION IF THE GRADE LINE IS RAISED FROM THE PLAN PROFILE BY MORE THAN ½" OR,

** IF 3" MINIMUM DECK EMBEDMENT OF TIE BAR CANNOT BE OBTAINED.

TO DETERMINE 'T', ELEV. OF TOP OF GIR'S. AT ℄ OF SUBSTRUCTURE UNITS & AT 1/10 POINTS OF EACH SPAN SHALL BE TAKEN. THEN FOLLOW THIS PROCESS:

TOP OF DECK ELEV. AT FINAL GRADE
\- TOP OF GIRDER ELEVATION
\+ DEAD LOAD DEFLECTION
\- DECK THICKNESS
= HAUNCH HEIGHT 'T'

NOTE: AN AVERAGE HAUNCH ('T') OF 3" WAS USED IN THE QUANTITY "CONCRETE MASONRY BRIDGES".



DEAD LOAD DEFLECTION DIAGRAM

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STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-53-319

DRAWN BY VJD | PLANS CK'D. YC

45W" PRESTRESSED GIRDER DETAILS 2

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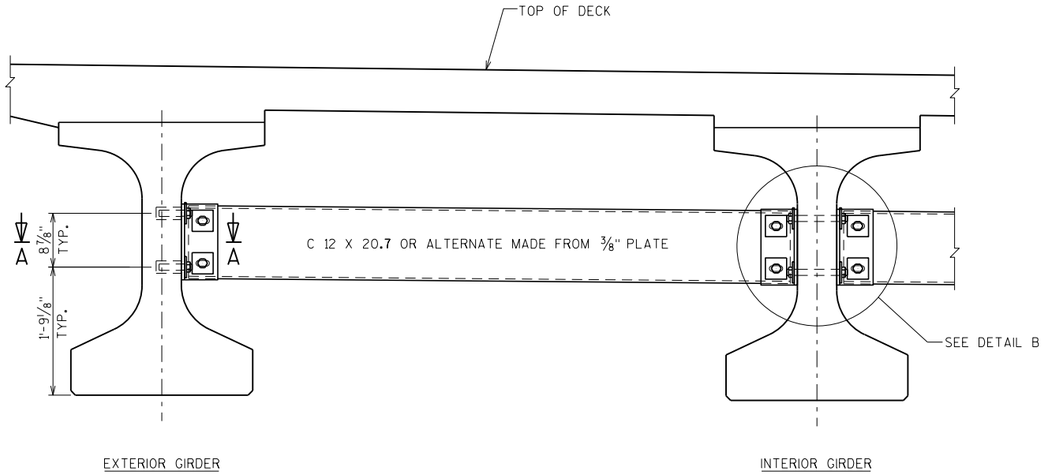
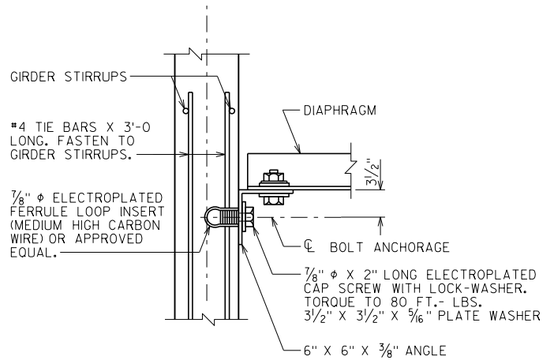


PART TRANSVERSE SECTION AT DIAPHRAGM



SECTION A-A

(FOR EXTERIOR ATTACHMENT)

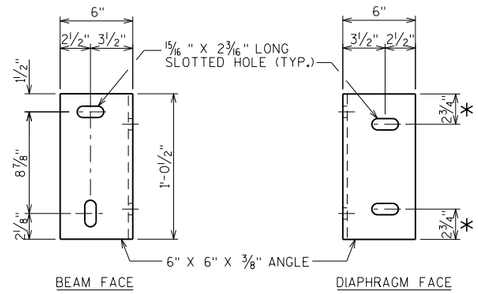
NOTES

ALL DIAPHRAGM MATERIAL NOT EMBEDDED IN THE CONCRETE GIRDER SHALL BE PAID FOR AT THE UNIT PRICE BID FOR "STEEL DIAPHRAGMS B-53-319", EACH.

EACH DIAPHRAGM BETWEEN GIRDERS SHALL CONSTITUTE ONE UNIT.

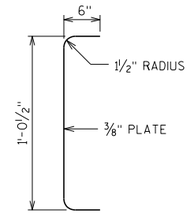
ALL DIAPHRAGM STRUCTURAL STEEL SHALL BE ASTM A709 GRADE 36. ALL BOLTS, NUTS AND WASHERS SHALL BE ASTM A325 TYPE 1.

ALL DIAPHRAGM STRUCTURAL STEEL SHOWN SHALL BE HOT-DIPPED GALVANIZED. ALL BOLTS, NUTS AND WASHERS SHALL BE HOT-DIPPED GALVANIZED IN ACCORDANCE WITH ASTM A153 CLASS C. GALVANIZED NUTS SHALL BE TAPPED OVERSIZED IN ACCORDANCE WITH THE REQUIREMENTS OF ASTM A563 AND SHALL MEET THE REQUIREMENTS OF SUPPLEMENTARY REQUIREMENT S1 OF ASTM A563, LUBRICANT AND TEST FOR COATED NUTS.

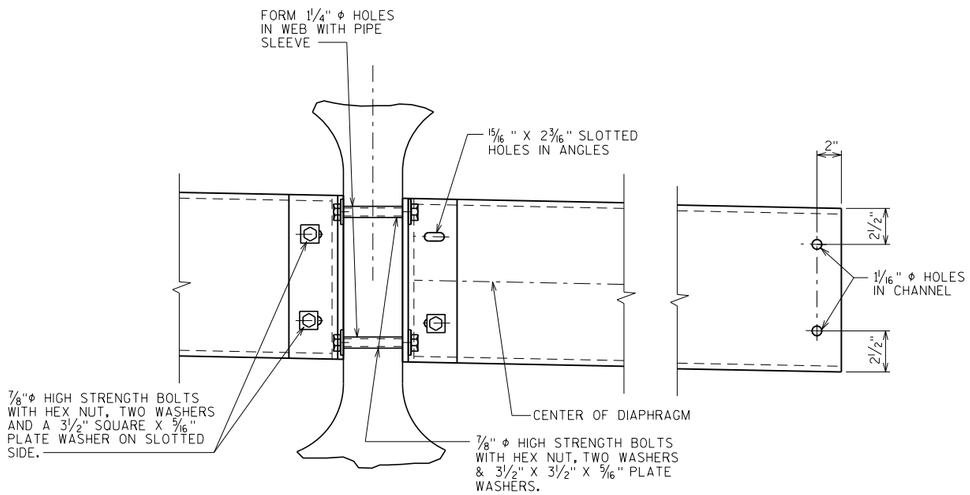


DIAPHRAGM SUPPORT

* 2½" FOR ALTERNATE PLATE DIAPHRAGM



SECTION THRU ALTERNATE DIAPHRAGM



DETAIL B

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-53-319

DRAWN BY VJD | PLANS CK'D. YC

STEEL DIAPHRAGM

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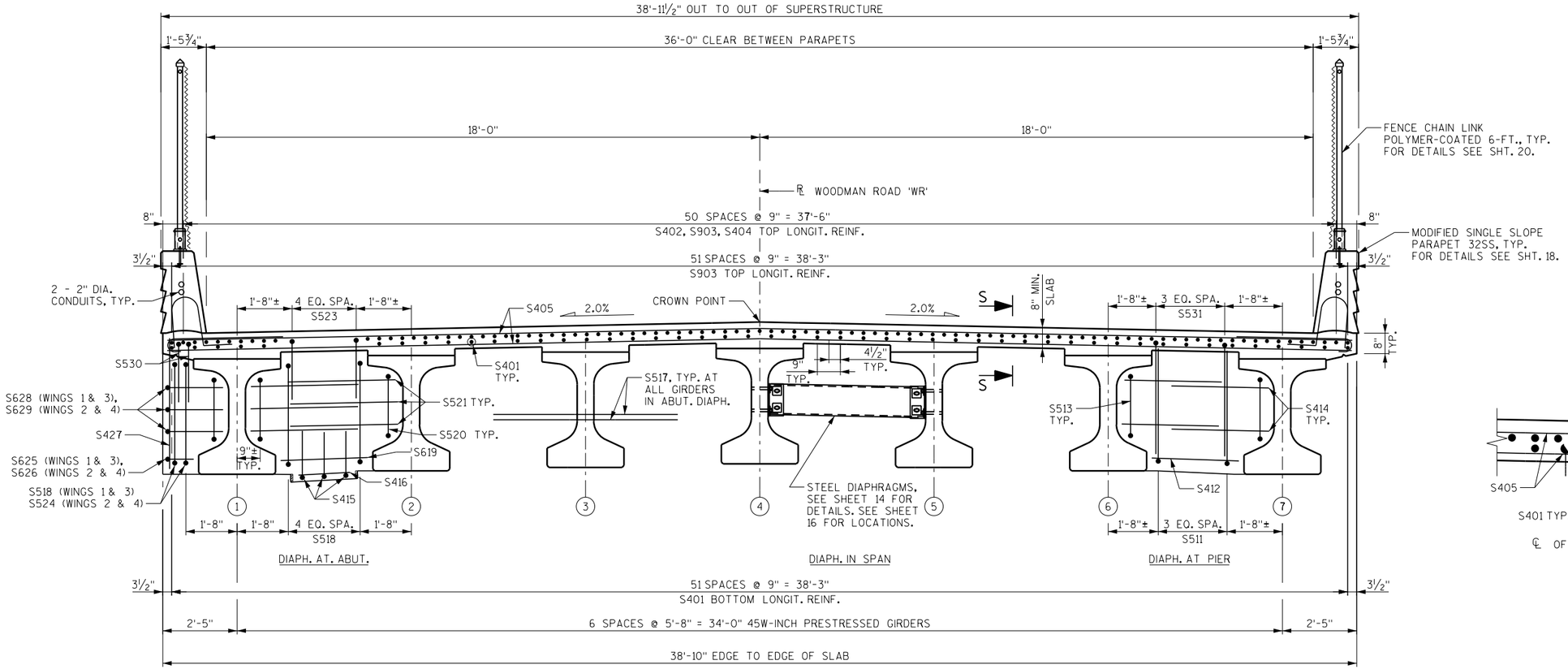
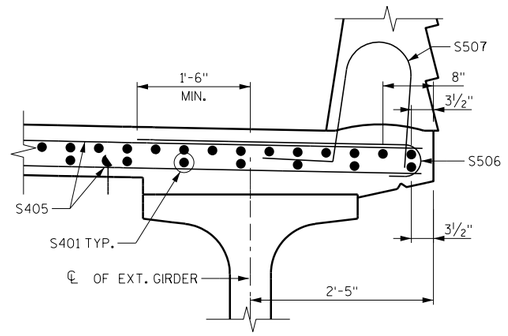
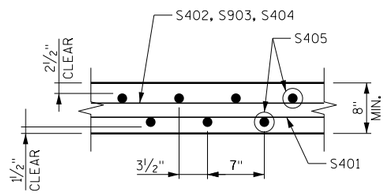


CROSS SECTION THRU ROADWAY

(LOOKING EAST)



OVERHANG DETAIL



SECTION S-S

TOP OF DECK ELEVATIONS

LOCATION	C/L BRG. W. ABUT.	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	C/L PIER	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	C/L BRG. E. ABUT.
NORTH EDGE OF DECK	850.85	851.03	851.20	851.37	851.54	851.70	851.85	852.00	852.14	852.28	852.41	852.53	852.65	852.77	852.88	852.99	853.08	853.18	853.27	853.35	853.43
TOE OF NORTH PARAPET	850.85	851.03	851.20	851.37	851.54	851.70	851.85	852.00	852.14	852.28	852.41	852.53	852.66	852.77	852.88	852.99	853.08	853.18	853.27	853.35	853.43
GIRDER 1	850.87	851.05	851.22	851.39	851.56	851.72	851.87	852.02	852.16	852.30	852.43	852.55	852.68	852.79	852.90	853.01	853.11	853.20	853.29	853.37	853.45
GIRDER 2	850.99	851.17	851.34	851.51	851.67	851.83	851.99	852.13	852.28	852.41	852.54	852.67	852.79	852.91	853.02	853.12	853.22	853.31	853.40	853.49	853.56
GIRDER 3	851.10	851.28	851.46	851.63	851.79	851.95	852.10	852.25	852.39	852.53	852.66	852.79	852.91	853.02	853.13	853.24	853.33	853.43	853.52	853.60	853.68
CROWN (GIRDER 4)	851.22	851.40	851.57	851.74	851.91	852.06	852.22	852.36	852.51	852.64	852.77	852.90	853.02	853.14	853.25	853.35	853.45	853.54	853.63	853.71	853.79
GIRDER 5	851.11	851.29	851.46	851.63	851.79	851.95	852.11	852.25	852.39	852.53	852.66	852.79	852.91	853.02	853.13	853.24	853.34	853.43	853.52	853.60	853.68
GIRDER 6	851.00	851.18	851.35	851.52	851.68	851.84	851.99	852.14	852.28	852.42	852.55	852.68	852.80	852.91	853.02	853.13	853.23	853.32	853.41	853.49	853.57
GIRDER 7	850.89	851.07	851.24	851.41	851.57	851.73	851.88	852.03	852.17	852.31	852.44	852.57	852.69	852.80	852.91	853.01	853.11	853.21	853.30	853.38	853.46
TOE OF SOUTH PARAPET	850.87	851.05	851.22	851.39	851.55	851.71	851.86	852.01	852.15	852.29	852.42	852.55	852.67	852.78	852.89	853.00	853.09	853.19	853.28	853.36	853.44
SOUTH EDGE OF DECK	850.87	851.05	851.22	851.39	851.55	851.71	851.86	852.01	852.15	852.29	852.42	852.55	852.67	852.78	852.89	853.00	853.09	853.19	853.28	853.36	853.44

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SUPERSTRUCTURE CROSS SECTION

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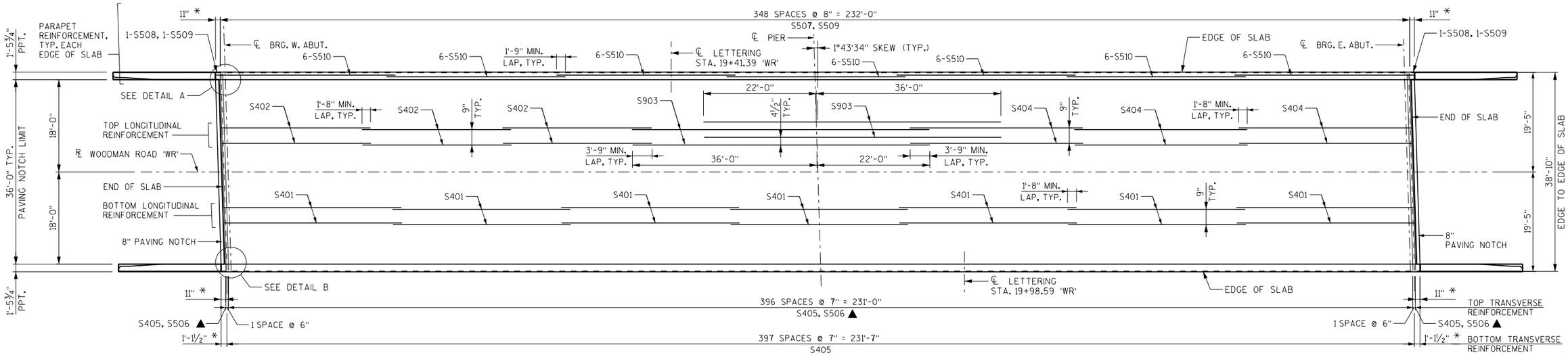
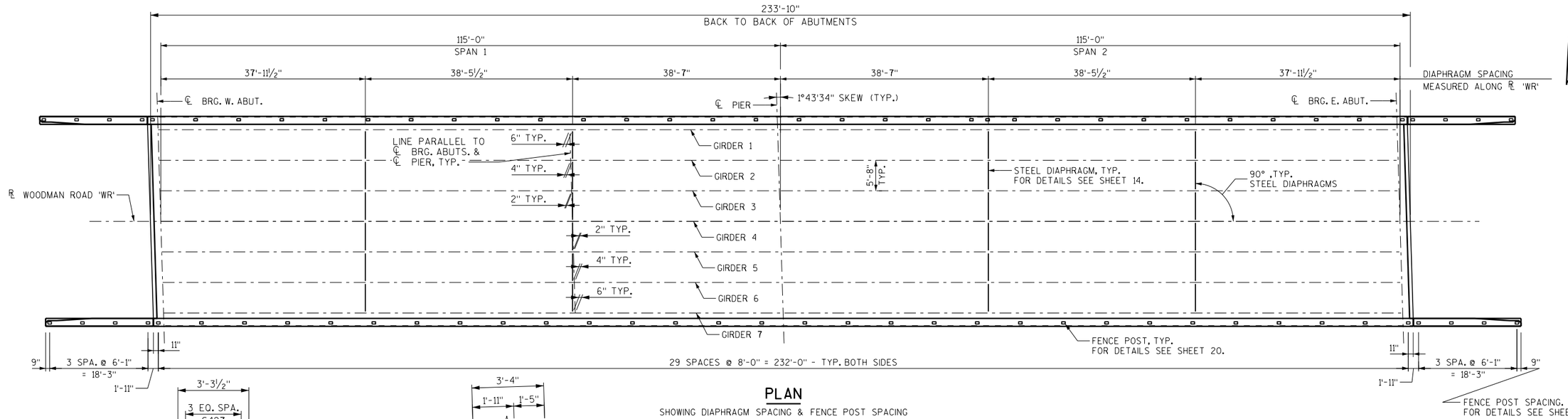


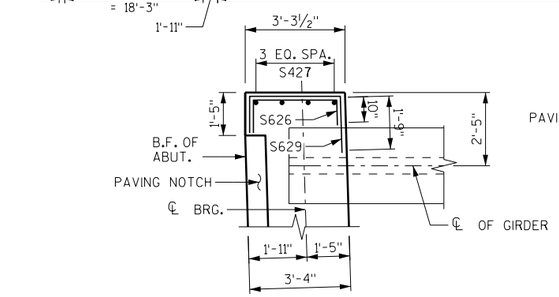
PLAN

SHOWING REINFORCEMENT



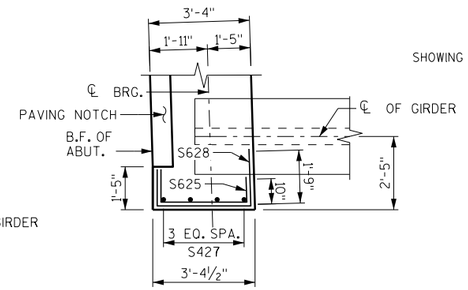
PLAN

SHOWING DIAPHRAGM SPACING & FENCE POST SPACING



DETAIL A

DIAPH. AT WINGS 2 & 4



DETAIL B

DIAPH. AT WINGS 1& 3

LEGEND

* DIMENSION TAKEN OFF BACK FACE OF ABUTMENT

▲ PLACE S506 BARS ALONG BOTH EDGES OF SLAB

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STRUCTURE B-53-319

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SUPERSTRUCTURE PLAN

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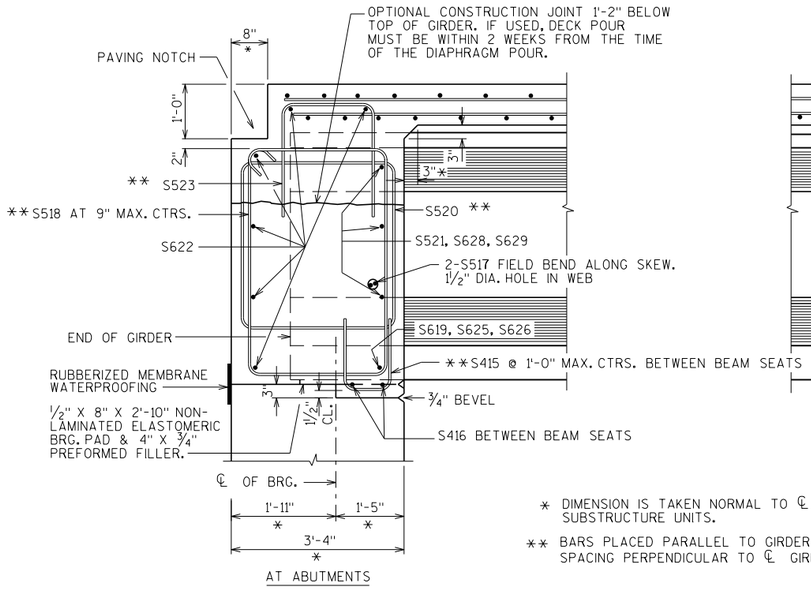
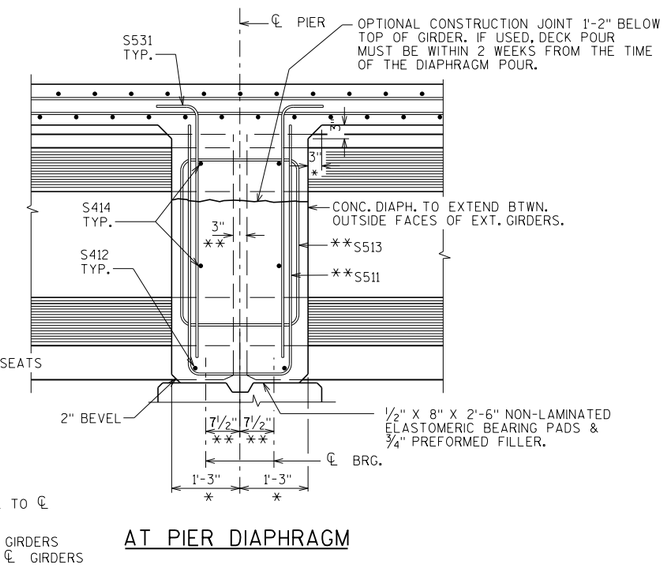
FILE NAME : P:\8394 IH 39 AECOM\Structural\CADD\B-53-319 Woodman Road\Sheets\B-53-319_16-Super-Plan.dgn PLOT DATE : 10/28/2014 4:55:41 PM PLOT BY : ndecent PLOT SCALE : 20.000040 ' / in.



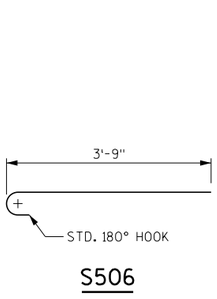
PART LONGIT. SECTION



AT PIER DIAPHRAGM

* DIMENSION IS TAKEN NORMAL TO ℄ SUBSTRUCTURE UNITS.

** BARS PLACED PARALLEL TO GIRDERS SPACING PERPENDICULAR TO ℄ GIRDERS



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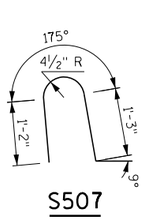

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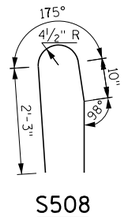

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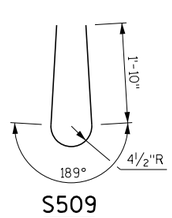

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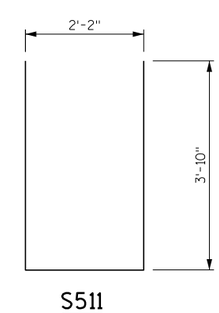

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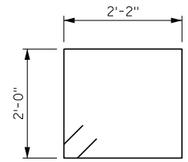

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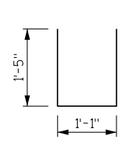


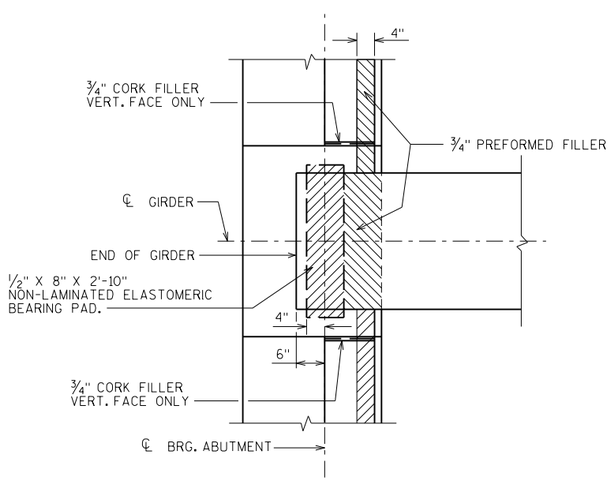
S415

BILL OF BARS

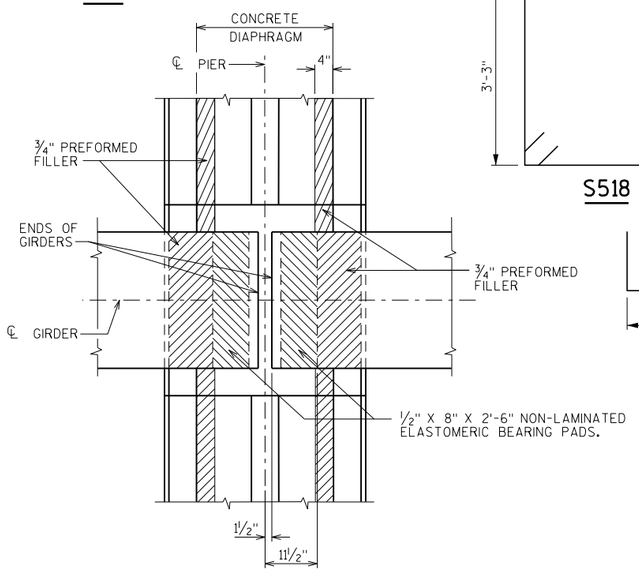
THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE.
BAR DIMENSIONS ARE OUT TO OUT OF BAR.

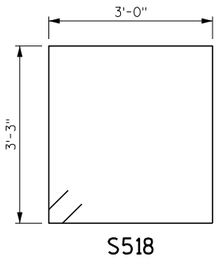
UNCOATED: 0 LBS
COATED: 73,250 LBS

BAR MARK	COAT	NO. REQ'D	LENGTH	BENT	BAR SERIES	LOCATION
S401	X	364	34'- 8"			SLAB - BOTTOM LONGIT.
S402	X	153	29'- 1"			SLAB - LONGIT. - TOP
S903	X	103	58'- 0"			SLAB - LONGIT. - TOP OVER PIER
S404	X	153	33'- 9"			SLAB - LONGIT. - TOP
S405	X	795	38'- 6"			SLAB - TRANS. - TOP & BOTTOM
S506	X	794	4'- 4"	X		SLAB - TRANS. - TOP AT EDGES OF SLAB
S507	X	698	4'- 5"	X		PARAPET - DOWELS
S508	X	4	5'- 10"	X		PARAPET - DOWELS - AT PAVING NOTCHES
S509	X	702	5'- 0"	X		PARAPET - VERT.
S510	X	84	34'- 11"			PARAPET - LONGIT.
S511	X	24	9'- 7"	X		PIER DIAPH. - VERT.
S412	X	12	2'- 10"			PIER DIAPH. - HORIZ.
S513	X	12	9'- 0"	X		PIER DIAPH. - VERT.
S414	X	48	3'- 2"			PIER DIAPH. - HORIZ.
S415	X	36	3'- 9"	X		ABUT. DIAPH. - VERT. - BTWN. BEAM SEATS
S416	X	24	1'- 8"			ABUT. DIAPH. - HORIZ. - BTWN. BEAM SEATS
S517	X	28	6'- 0"			ABUT. HORIZ. - THRU GIRDER WEB
S518	X	64	13'- 2"	X		ABUT. DIAPH. - STIRRUP
S619	X	12	2'- 10"			ABUT. DIAPH. - HORIZ.
S520	X	28	10'- 8"	X		ABUT. DIAPH. - STIRRUPS AT GIRDERS
S621	X	72	3'- 9"			ABUT. DIAPH. - HORIZ.
S622	X	24	20'- 4"			ABUT. DIAPH. - HORIZ. - B.F.
S523	X	60	6'- 9"	X		ABUT. DIAPH. - VERT.-TOP
S524	X	4	13'- 0"	X		ABUT. DIAPH. - STIRRUP-ENDS-WINGS 2 & 4
S625	X	2	4'- 5"	X		ABUT. DIAPH. - HORIZ. - ENDS-WINGS 1 & 3
S626	X	2	4'- 4"	X		ABUT. DIAPH. - HORIZ. - ENDS-WINGS 2 & 4
S427	X	16	4'- 3"			ABUT. DIAPH. - VERT. - ENDS
S628	X	6	5'- 4"	X		ABUT. DIAPH. - HORIZ. - ENDS-WINGS 1 & 3
S629	X	6	5'- 3"	X		ABUT. DIAPH. - HORIZ. - ENDS-WINGS 2 & 4
S530	X	8	7'- 4"	X		ABUT. DIAPH. - VERT. - ENDS-TOP
S531	X	48	4'- 7"	X		PIER DIAPH. - VERT. - TOP



BEARING PAD DETAIL





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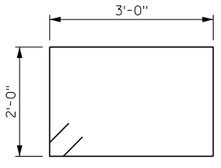

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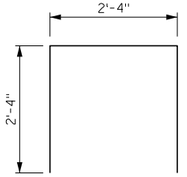

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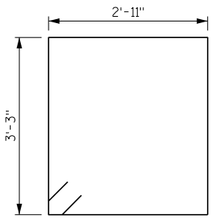

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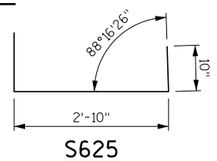

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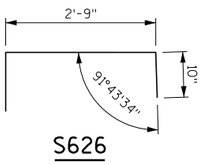

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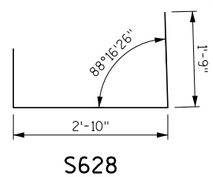

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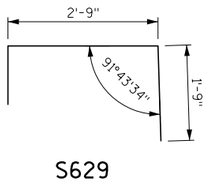

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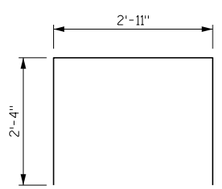

S530

S531

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STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-53-319

DRAWN BY VJD | PLANS CK'D. YC

SUPERSTRUCTURE DETAILS

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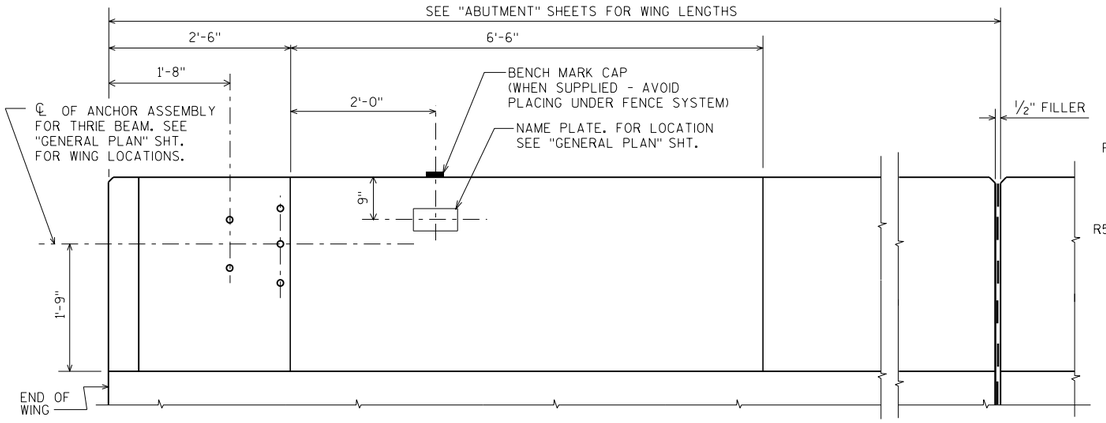
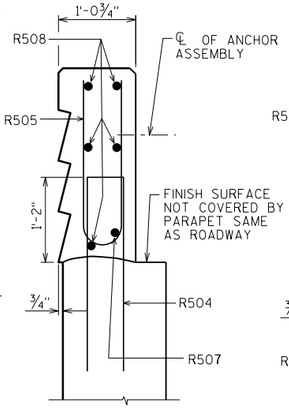
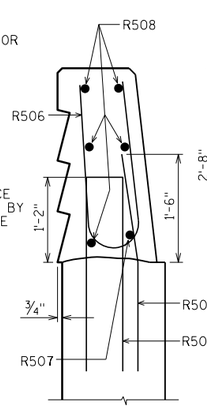


INSIDE ELEVATION



SECTION A



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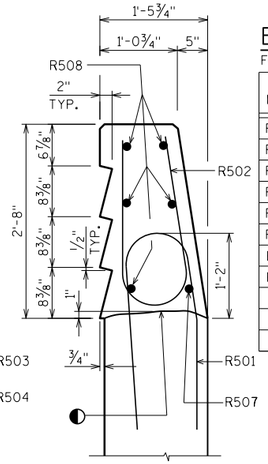


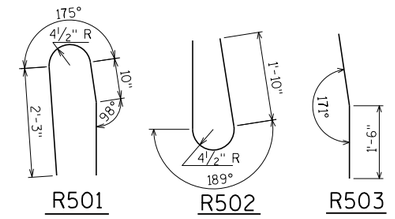
SECTION C

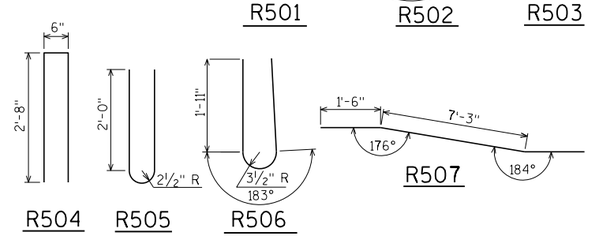
BILL OF BARS

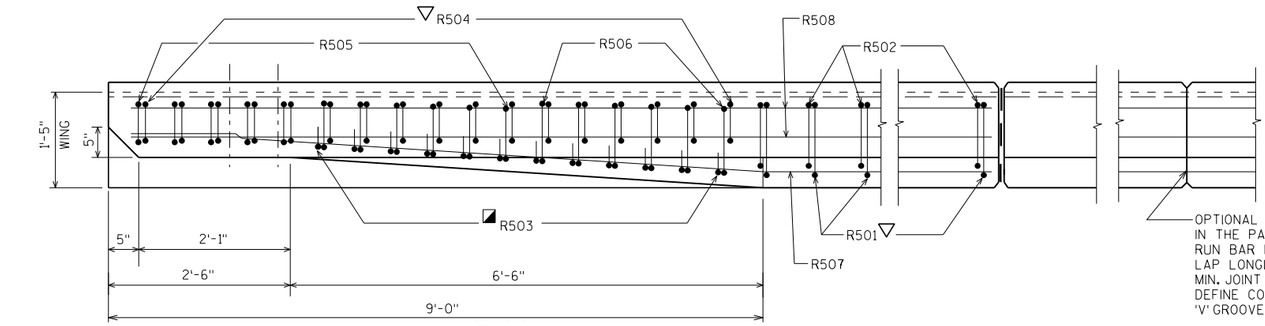
FOR ABUTMENT PARAPETS

UNCOATED 0 LBS
COATED 2,200 LBS

BAR MARK	COAT	WEST ABUT.	EAST ABUT.	LENGTH	BENT	BAR SERIES	LOCATION
R501	X	36	36	5'-10"	X		PARAPET VERT.
R502	X	36	36	5'-0"	X		PARAPET VERT.
R503	X	24	24	3'-0"	X		PARAPET VERT.
R504	X	34	34	5'-7"	X		PARAPET VERT.
R505	X	22	22	4'-9"	X		PARAPET VERT.
R506	X	12	12	4'-10"	X		PARAPET VERT.
R507	X	2	2	19'-6"	X		PARAPET HORIZ.
R508	X	10	10	19'-6"			PARAPET HORIZ.

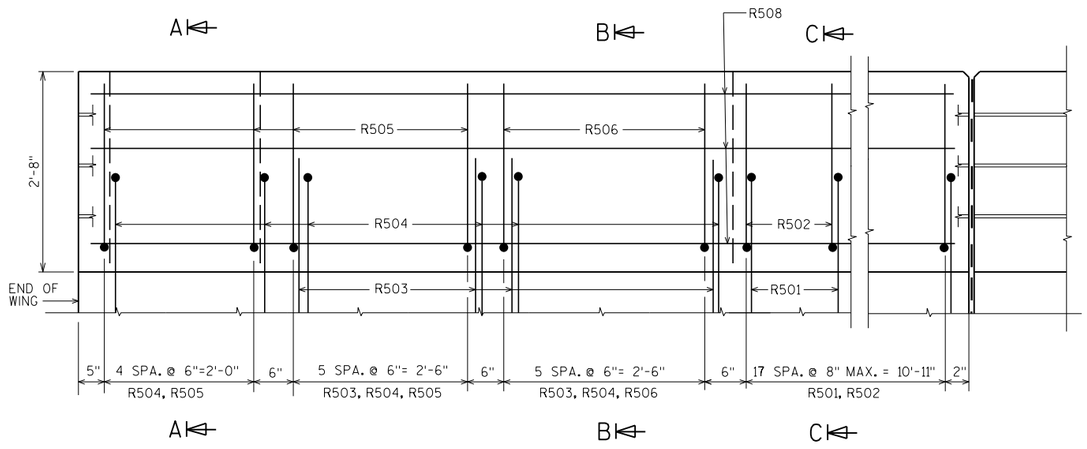






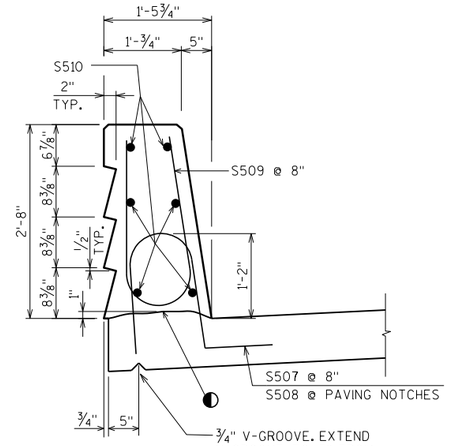
PLAN

OPTIONAL CONSTRUCTION JOINTS IN THE PARAPETS MAY BE USED. RUN BAR REINF. THRU THE JOINT. LAP LONGIT. BARS A MIN. OF 1'-9". MIN. JOINT SPACING OF 80'-0". DEFINE CONST. JOINT WITH A ¾" - 'V' GROOVE.

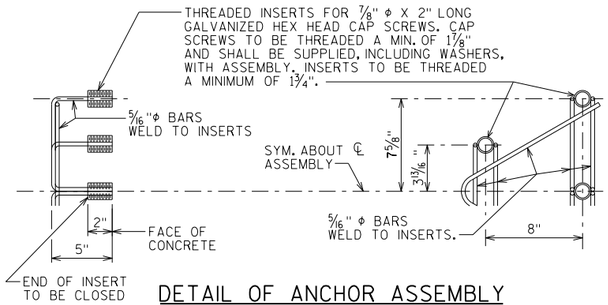


OUTSIDE ELEVATION

SAWTOOTH PATTERN NOT SHOWN FOR CLARITY



SECTION THRU PARAPET ON BRIDGE



DETAIL OF ANCHOR ASSEMBLY

NOTE: HEX HEAD CAP SCREWS & WASHERS TO BE GALVANIZED IN ACCORDANCE WITH AASHTO M232 CLASS C.

ASSEMBLY SHALL BE BID ITEM "ANCHOR ASSEMBLIES FOR STEEL PLATE BEAM GUARD", EACH.

LEGEND

◐ CONST. JOINT - STRIKE OFF AS SHOWN.

◪ R503 BARS MAY BE PLACED AFTER CONCRETE IS POURED BUT BEFORE INITIAL SET HAS TAKEN PLACE. USE CARE TO PLACE R503 OR S503 BARS CORRECTLY ALONG TRANSITION OF PARAPET.

▽ R501 AND R504 BARS TO BE TIED TO WING STEEL BEFORE WING IS POURED.

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MODIFIED SINGLE SLOPE PARAPET 32SS

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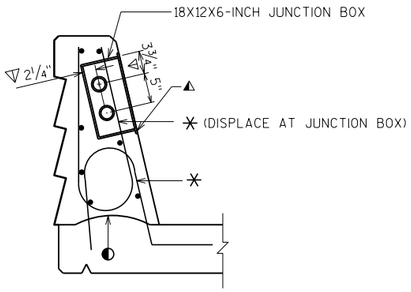
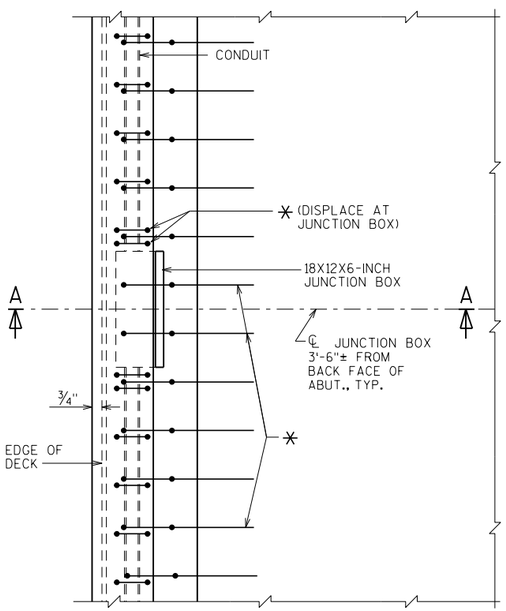
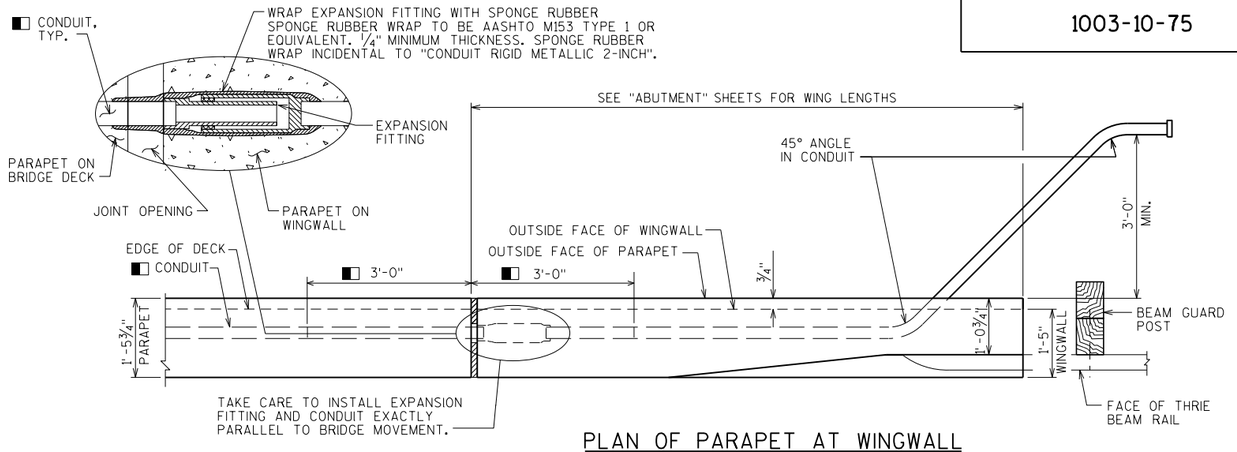


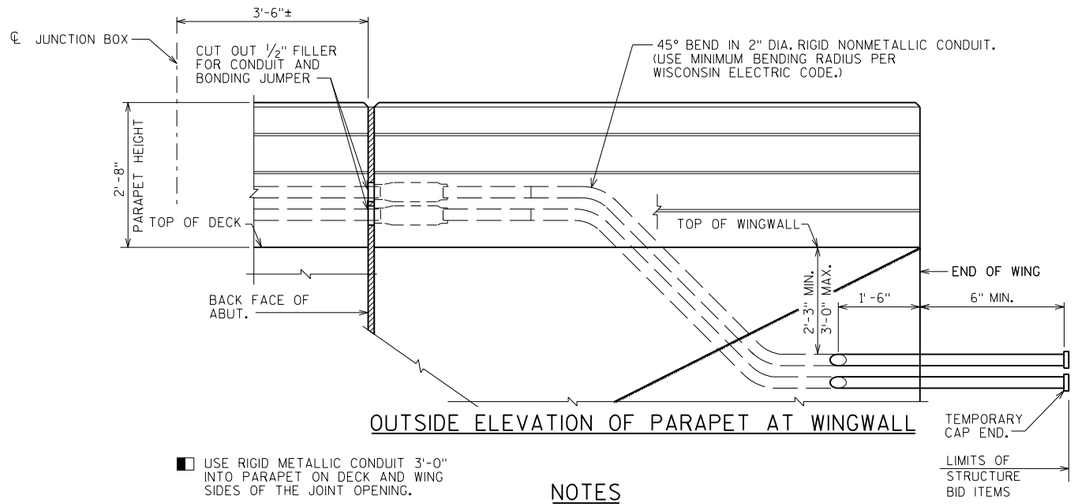
SECTION A-A



PLAN AT JUNCTION BOX



PLAN OF PARAPET AT WINGWALL



OUTSIDE ELEVATION OF PARAPET AT WINGWALL

■ USE RIGID METALLIC CONDUIT 3'-0" INTO PARAPET ON DECK AND WING SIDES OF THE JOINT OPENING.

◐ CONST. JT. STRIKE OFF AS SHOWN

◭ CUT OUT ± 1" OF GASKET AT BOTTOM OF JUNCTION BOX COVER TO ALLOW FOR DRAINAGE.

▽ LOCATION OF CONDUIT IS MEASURED FROM OUTSIDE EDGE OF JUNCTION BOX.

✳ SEE SINGLE SLOPE PARAPET SHEET FOR ADDITIONAL BAR STEEL DETAILS.

NOTES

BID ITEMS SHALL BE:
"JUNCTION BOXES 18X12X6-INCH", EACH.

"CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH"
"CONDUIT RIGID METALLIC 2-INCH"

APPROVED MANUFACTURERS - JUNCTION BOXES:
SEE APPROVED MATERIAL LIST.

APPROVED MANUFACTURER OR EQUIVALENT - EXPANSION FITTING:
O-Z/GEDNEY TYPE AX-200 AND BONDING JUMPER (4" TOTAL CONDUIT MOVEMENT).

EXPANSION FITTINGS, ANGLES AND ADAPTER FITTINGS TO BE INCLUDED WITH "CONDUIT RIGID METALLIC 2-INCH".

WHEN CONNECTING NONMETALLIC CONDUIT TO METALLIC CONDUIT, ONLY ADAPTER FITTINGS U.L. OR NRTL LISTED FOR ELECTRICAL USE SHALL BE USED.

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PARAPET "32SS" ELECTRICAL WORK

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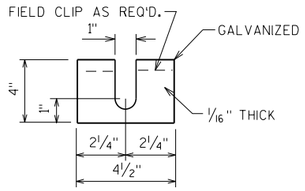
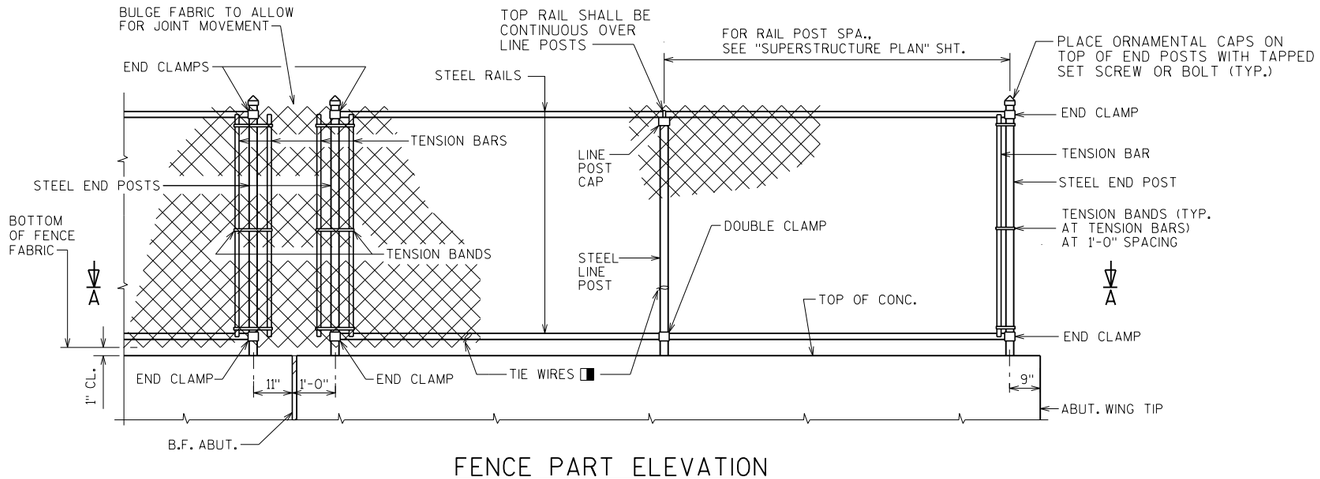
FENCE MEMBER SIZE & WEIGHT

STEEL FENCE MEMBER	OUTSIDE DIAMETER (INCHES)	WEIGHT (LB/FT)
RAILS	1.660	2.27
END POST	2.875	5.80
OVERHANG POST	2.875	5.80
LINE POST	2.375	3.65
POST SLEEVE	4.000	9.12



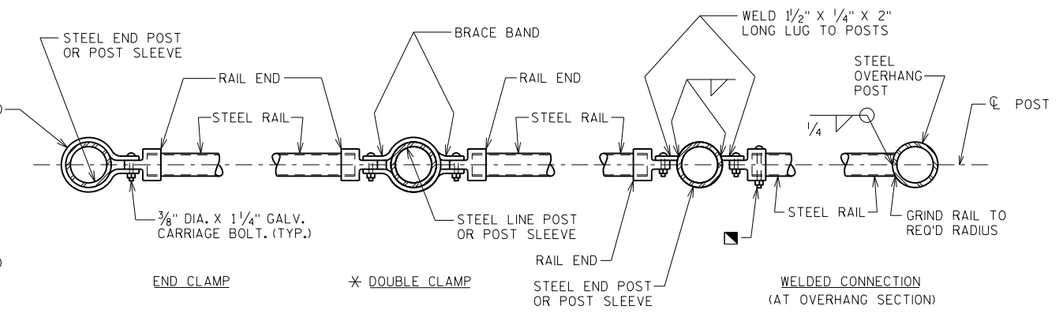
POST SHIM DETAILS

SHIMS REQUIRED ONLY WHEN END POSTS AND LINE POSTS ARE WELDED TO BASE PLATES. PROVIDE 4 SHIMS PER POST. USE WHERE REQUIRED FOR ALIGNMENT.



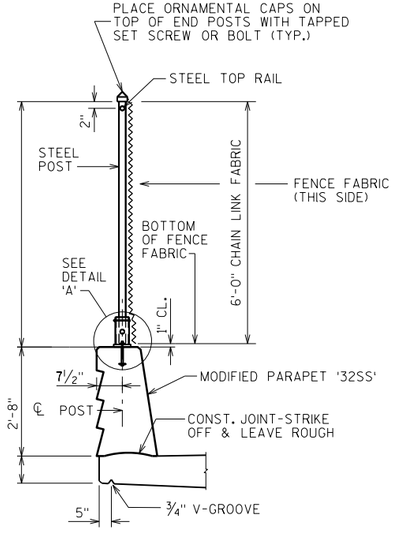
FENCE PART ELEVATION

VIEWING FABRIC SIDE

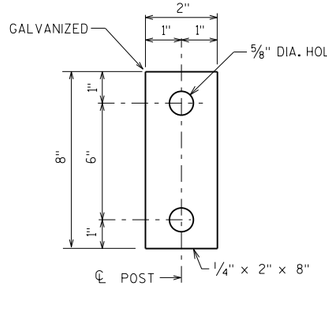


SECTION A-A

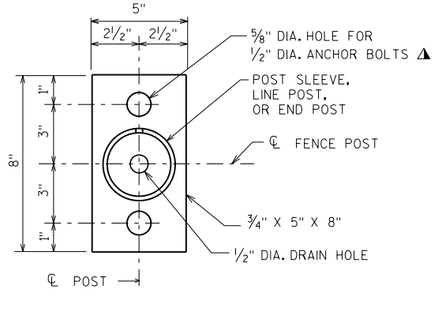
NOTE: PLACE ALL BOLT HEADS ON SIDE OF FENCE ADJACENT TO PEDESTRIANS



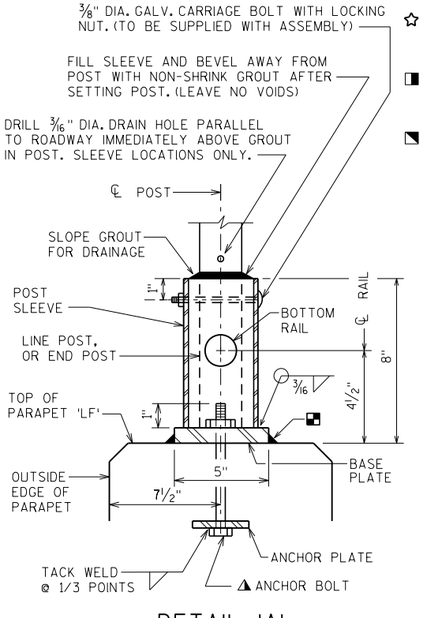
SECTION THRU FENCE



ANCHOR PLATE



BASE PLATE



DETAIL 'A'

UNIT SHALL BE GALVANIZED AFTER FABRICATION

NOTE: IN LIEU OF USING THE POST SLEEVE, THE FENCE POST MAY BE WELDED TO THE BASE PLATE.

GENERAL NOTES

POSTS ARE TO BE SET VERTICAL.

ALL FENCE COMPONENTS SHALL BE GALVANIZED STEEL WITH A COLORED POLYMER-COATING ON THE OUTSIDE.

FABRIC SHALL CONFORM TO ASTM F668, CLASS 2B. STEEL RAILS, POSTS AND POST SLEEVES SHALL CONFORM TO ASTM F1083, STANDARD WEIGHT PIPE (SCHEDULE 40). FITTINGS SHALL CONFORM TO ASTM F626. SEE THE "BRIDGE SPECIAL PROVISIONS" FOR ADDITIONAL DETAILS.

THE COLOR OF POLYMER-COATING FOR THIS STRUCTURE SHALL MATCH FEDERAL COLOR NO. 30140. FABRIC, RAIL, AND TIE SAMPLES SHALL BE PROVIDED TO THE ENGINEER FOR APPROVAL PRIOR TO CONSTRUCTION.

THE BID ITEM SHALL BE "FENCE CHAIN LINK POLYMER-COATED 6-FT.", LF.

COMPLETE ANY REQUIRED WELDING OF COMPONENTS BEFORE GALVANIZING.

POST BASE PLATES SHALL BE FLAT WITH ALL SURFACES SMOOTH AND FREE FROM WARP AND ALL EDGES SMOOTH, STRAIGHT AND VERTICAL. ALL PLATE CUTS SHALL BE MACHINE OR MACHINE FLAME CUT.

BASE PLATES, ANCHOR PLATES AND SHIMS SHALL BE ASTM A709, GRADE 36.

ALL POST SPACINGS ARE MEASURED HORIZONTALLY ALONG THE C/L OF THE POST.

◪ CAULK AROUND PERIMETER OF BASE PLATE AND FILL PORTION OF SLOTTED HOLE AROUND ANCHOR BOLT IN SHIM WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER.

✳ ALTERNATE TO DOUBLE CLAMP: USE LINE RAIL CLAMP (BOULEVARD) OR 180° BRACE BAND, WHICH MAY BE USED WHEN THE POSTS ARE EITHER BOLTED TO THE POST SLEEVES OR DIRECTLY WELDED TO THE BASE PLATE.

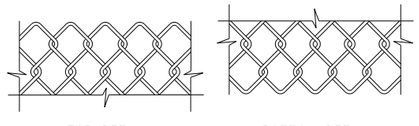
◭ 1/2" DIA. X 6 7/8" LONG GALVANIZED HEX BOLT WITH NUT & WASHER. TYPE "S", 1/2" DIA. CONCRETE MASONRY ANCHORS MAY BE SUBSTITUTED FOR 1/2" DIA. BOLTS. ANCHOR PLATE NOT REQUIRED WHEN TYPE "S" ANCHORS ARE USED. SEE ☆

☆ MASONRY ANCHOR TYPE S 1/2-INCH. EMBED 6" IN CONCRETE. ANCHOR, WASHER, AND NUT SHALL BE GALVANIZED.

◨ ATTACH FABRIC TO RAILS, AND TO POSTS WITHOUT TENSION BANDS, WITH TIE WIRES (ROUND, 9-GAGE) SPACED AT 1'-0".

◹ BOLT RAIL TO RAIL END TO SECURE OVERHANG SECTION. ALTERNATE IS TO WELD RAIL DIRECTLY TO END POST.

MINIMUM LENGTH OF TOP RAIL BETWEEN SPLICES SHALL BE 20'-0". LOCATE SPLICES NEAR 1/4 POINT OF POST SPACING.



TOP DETAIL BOTTOM DETAIL

FENCE FABRIC

FENCE FABRIC WOVEN OF 9-GAGE WIRE IN 2" DIAMOND PATTERN MESH WITH BOTH THE TOP AND BOTTOM SELVAGES KNUCKLED.

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CHAIN LINK FENCE DETAILS

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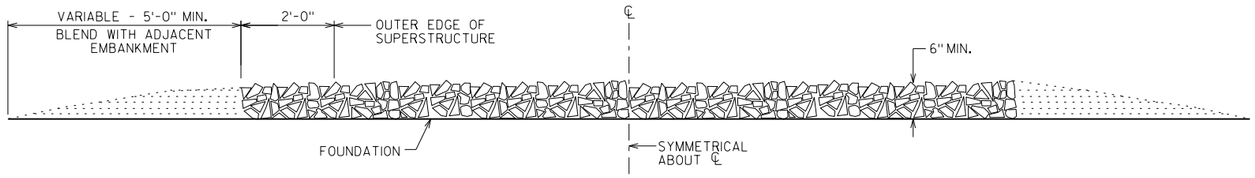
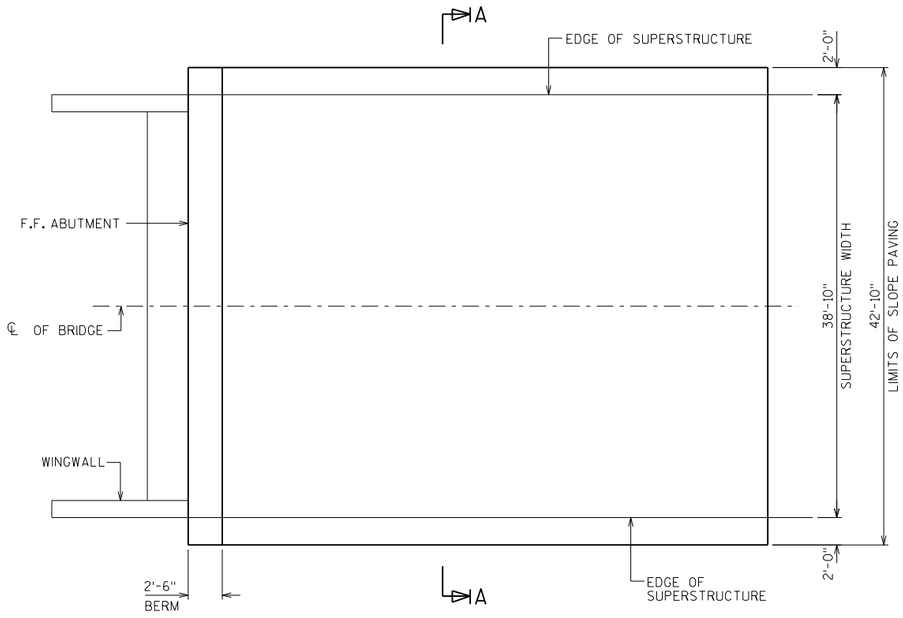
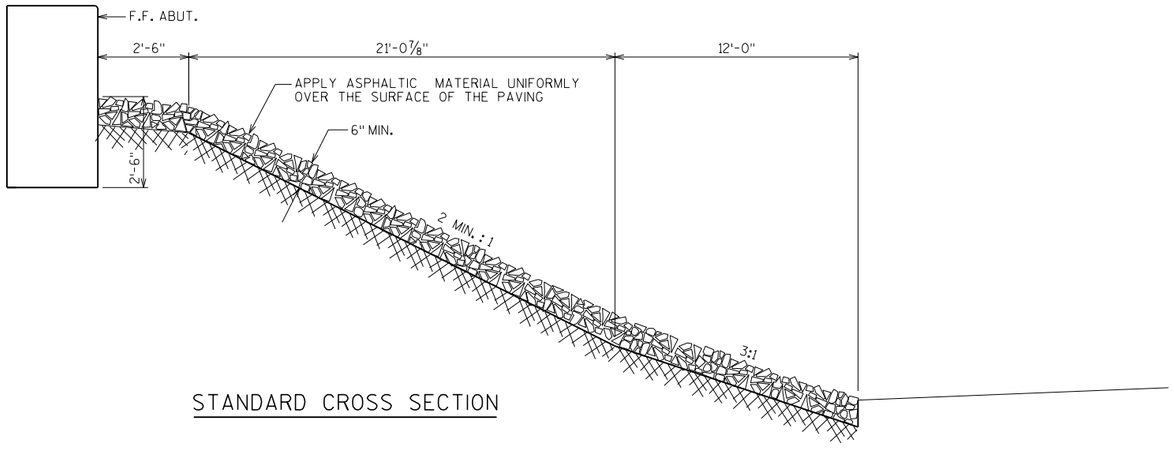


SECTION A-A



PLAN



STANDARD CROSS SECTION

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS.

WOOD FORMS MAY BE LEFT IN PLACE WHEN OF A QUALITY ACCEPTABLE TO THE ENGINEER.

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DRAWN BY VJD | PLANS CK'D. YC

SLOPE PAVING CRUSHED AGGREGATE

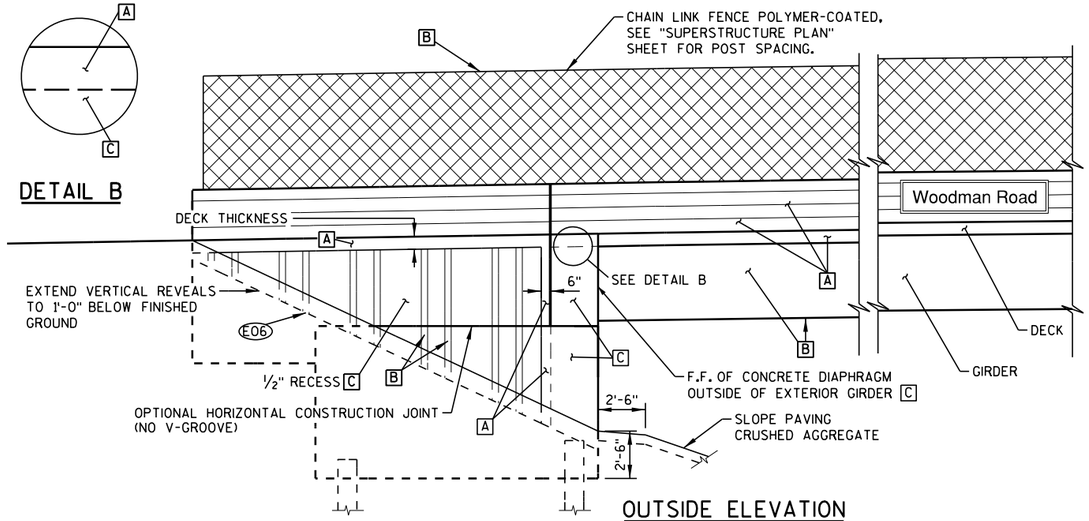
SHEET 21 OF 23
159

8

8

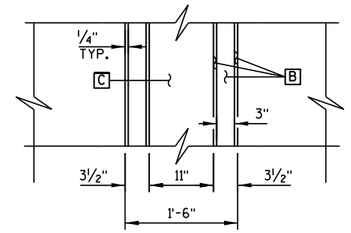
STATE PROJECT NUMBER

1003-10-75

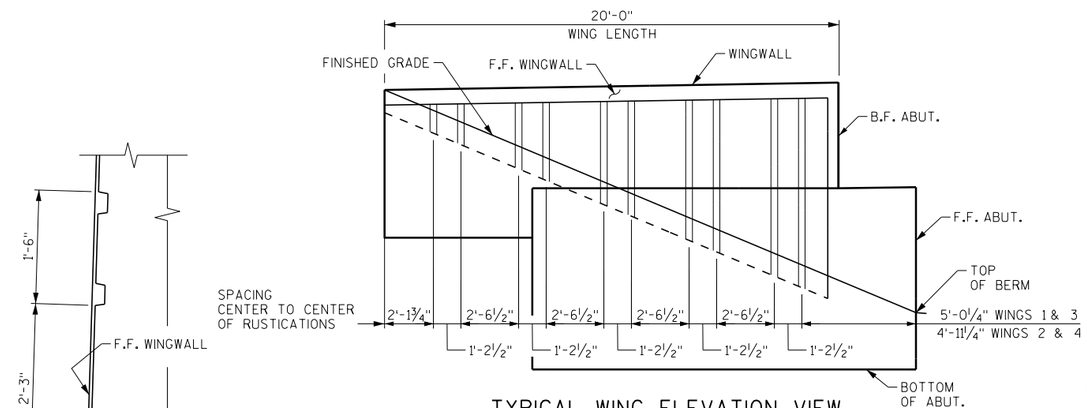


DETAIL B

OUTSIDE ELEVATION

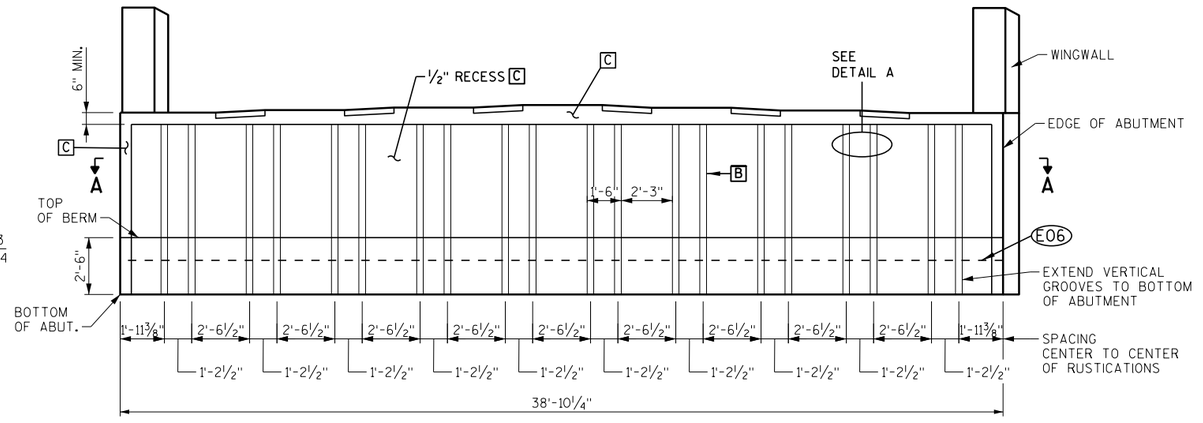


DETAIL A



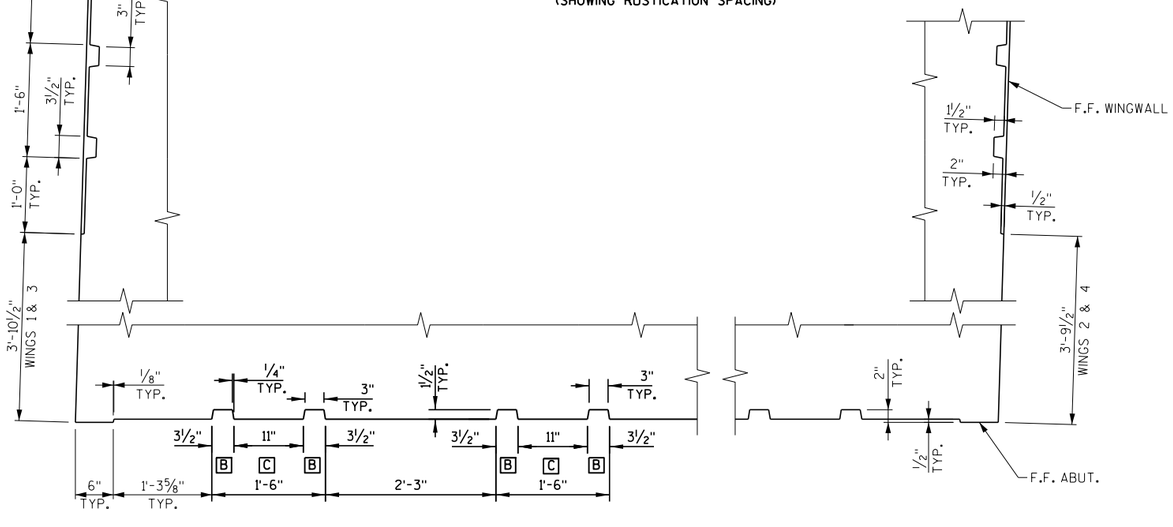
TYPICAL WING ELEVATION VIEW

(SHOWING RUSTICATION SPACING)



TYPICAL ABUTMENT ELEVATION VIEW

(MODIFIED A1 ABUTMENT)



SECTION A-A

LEGEND

E06 STAIN TO 1'-0" BELOW FINISHED GRADE.

CONCRETE STAINING SCHEDULE

MARK	FEDERAL COLOR NUMBER	LOCATION
A	36642	PARAPET, EDGE OF DECK, WINGWALLS
B	30140	EXTERIOR GIRDER, REVEALS, FENCING
C	30372	PIER, ABUTMENT AND WINGWALL
D	27038	ROADWAY NAME LETTERING

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-53-319

DRAWN BY DRJ | PLANS CK'D. YC

AESTHETIC DETAILS 1

SHEET 22 OF 23

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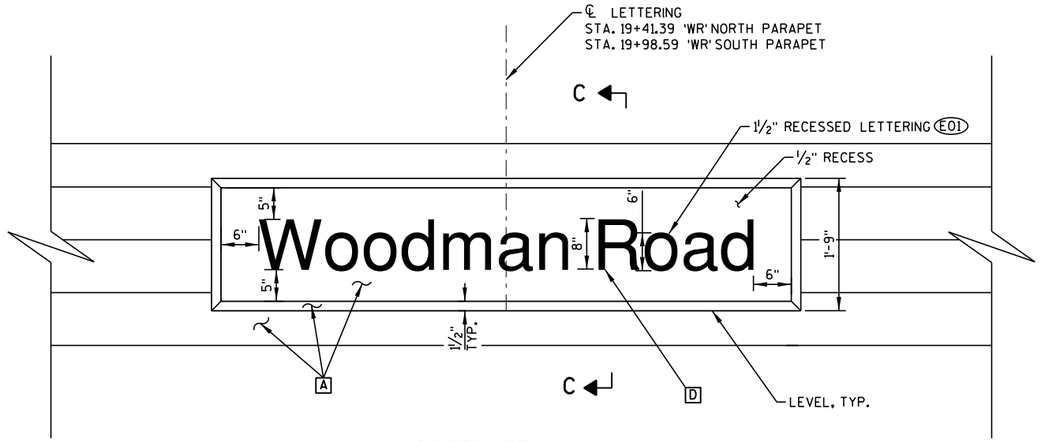
8

8

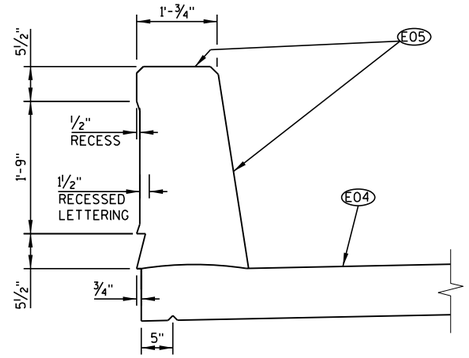
STATE PROJECT NUMBER

1003-10-75

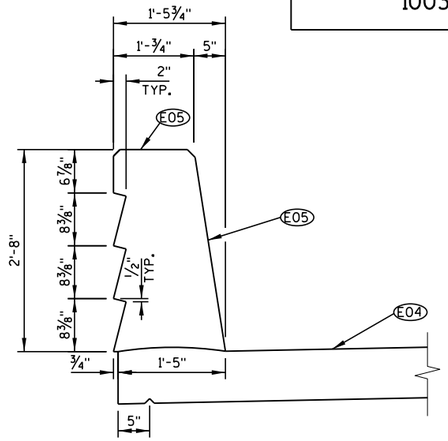


INDENTED TEXT

EXTERIOR FACE OF PARAPET ONLY



SECTION C-C



32" SINGLE SLOPE PARAPET MODIFIED

NOTES

NAME SHOULD BE CENTERED OVER 1ST AND 2ND LANES AS DIMENSIONED FROM THE MEDIAN.

LETTERING IS ONLY ON OUTSIDE FACE OF PARAPET.

PIER WILL BE TEMPORARY BACKFILLED AFTER STAINING. BEFORE PLACING TEMPORARY BACKFILL, COVER ALL SURFACES OF COLUMNS WITH 3 LAYERS OF POLYETHYLENE SHEETING. SHEETING TO EXTEND TO 1'-0" (MIN.) ABOVE TEMPORARY GROUND LINE. SHEETING TO BE INCLUDED WITH THE BID ITEM "CONCRETE STAINING".

LEGEND

E01 LETTERING SHALL BE HELVETICA. 8" UPPER CASE AND 6" LOWER CASE.

E04 PROTECTIVE SURFACE TREATMENT SHALL BE APPLIED TO THE ROADWAY SURFACE.

E05 PIGMENTED SURFACE SEALER SHALL BE APPLIED TO THE TOP AND INSIDE FACE OF THE PARAPET.

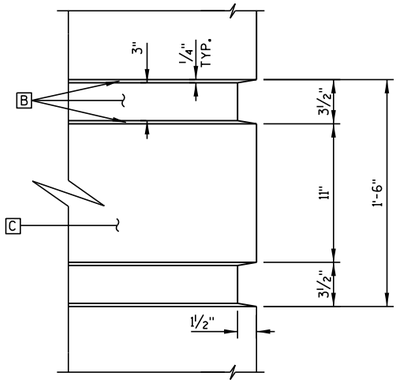
E06 STAIN TO 1-0" BELOW FINISHED GRADE

CONCRETE STAINING SCHEDULE

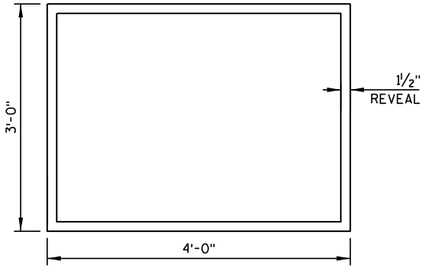
MARK	FEDERAL COLOR NUMBER	LOCATION
A	36642	PARAPET, EDGE OF DECK, WINGWALLS
B	30140	EXTERIOR GIRDER, REVEALS, FENCING
C	30372	PIER, ABUTMENT AND WINGWALL
D	27038	ROADWAY NAME LETTERING

PIGMENTED SURFACE SEALER SCHEDULE

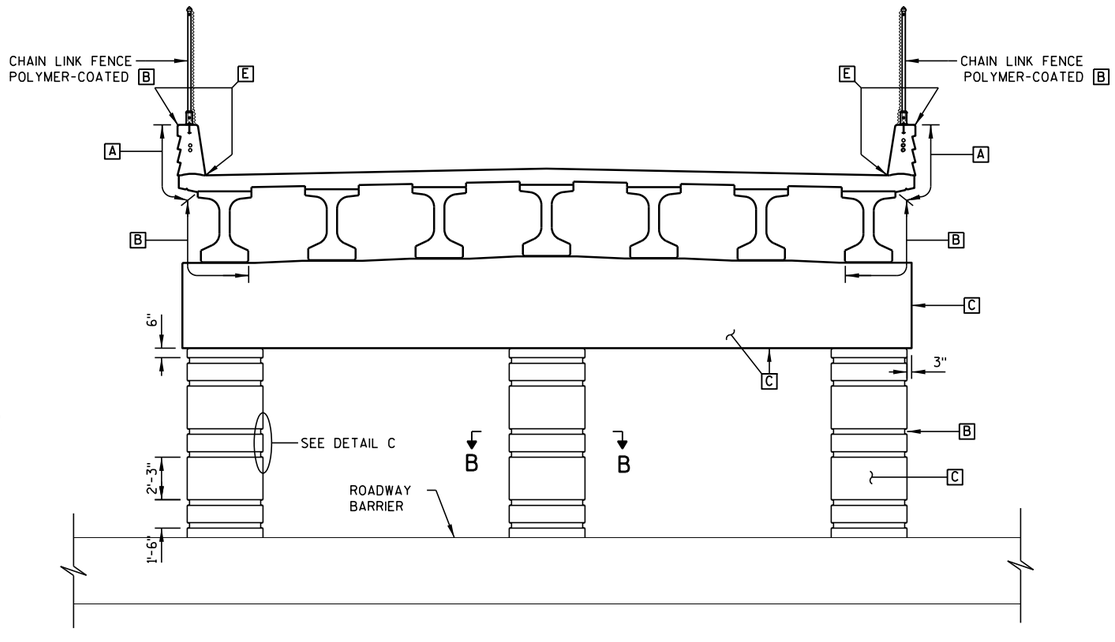
MARK	FEDERAL COLOR NUMBER	LOCATION
E	36642	TOP AND INSIDE FACE OF PARAPET



DETAIL C

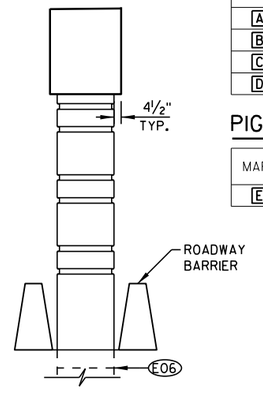


SECTION B-B



TYPICAL PIER ELEVATION

FOR SPACING CENTER TO CENTER OF RUSTICATIONS, SEE "PIER DETAILS" SHEET.



PIER END VIEW

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-53-319

DRAWN BY DRJ | PLANS CK'D. YC

AESTHETIC DETAILS 2

SHEET 23 OF 23

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EARTH WORK DATA - WOODMAN ROAD

STATION	Real Station	Distance	AREA (SF)		Incremental Vol (CY) (Unadjusted)		Cumulative Vol (CY)		Mass Ordinate
			Cut	Fill	Cut	Fill	Cut	Fill	
					0	0	0	0	0
14+00	1400	0	44	36	0	0	0	0	0
14+50	1450	50	58	40	94	71	94	71	23
15+00	1500	50	72	54	120	88	214	159	56
15+50	1550	50	67	111	129	153	343	311	32
16+00	1600	50	64	197	121	285	464	596	-132
16+50	1650	50	56	300	111	460	575	1056	-481
17+00	1700	50	51	380	100	629	675	1685	-1010
17+50	1750	50	46	382	90	705	765	2390	-1626
18+00	1800	50	37	434	77	755	842	3145	-2304
18+36	1836	36	32	460	46	596	888	3741	-2853
21+05	2105	0	1	781	0	0	888	3741	-2853
21+50	2150	45	1	973	30	1103	917	4844	-3377
22+00	2200	50	0	1156	1	1972	918	6816	-5348
22+50	2250	50	0	1375	0	2344	918	9160	-7692
23+00	2300	50	0	1421	0	2589	918	11749	-10281
23+50	2350	50	0	1347	0	2563	918	14311	-12844
24+00	2400	50	0	1367	0	2513	918	16824	-15356
24+50	2450	50	0	1407	0	2568	918	19392	-17925
25+00	2500	50	0	1430	0	2627	918	22019	-20551
25+50	2550	50	0	1462	0	2678	918	24696	-23229
26+00	2600	50	0	1445	0	2692	918	27388	-25921
26+50	2650	50	0	1361	0	2599	918	29987	-28519
27+00	2700	50	0	1251	0	2419	918	32406	-30938
27+50	2750	50	0	1116	0	2192	918	34597	-33130
28+00	2800	50	0	959	0	1921	918	36518	-35051
28+50	2850	50	0	804	0	1632	918	38150	-36683
29+00	2900	50	0	656	0	1352	918	39502	-38034
29+50	2950	50	0	533	0	1101	918	40603	-39135
30+00	3000	50	0	382	0	847	918	41450	-39983
30+50	3050	50	0	260	0	595	918	42045	-40578
31+00	3100	50	0	158	0	388	918	42433	-40965
31+50	3150	50	1	77	0	218	918	42650	-41183
32+00	3200	50	11	23	11	93	929	42743	-41264
32+50	3250	50	17	7	26	28	956	42771	-41266
33+00	3300	50	30	1	44	7	1000	42778	-41229
33+50	3350	50	39	1	65	2	1064	42780	-41166
34+00	3400	50	43	0	77	1	1141	42781	-41090
					1141	42781			

9

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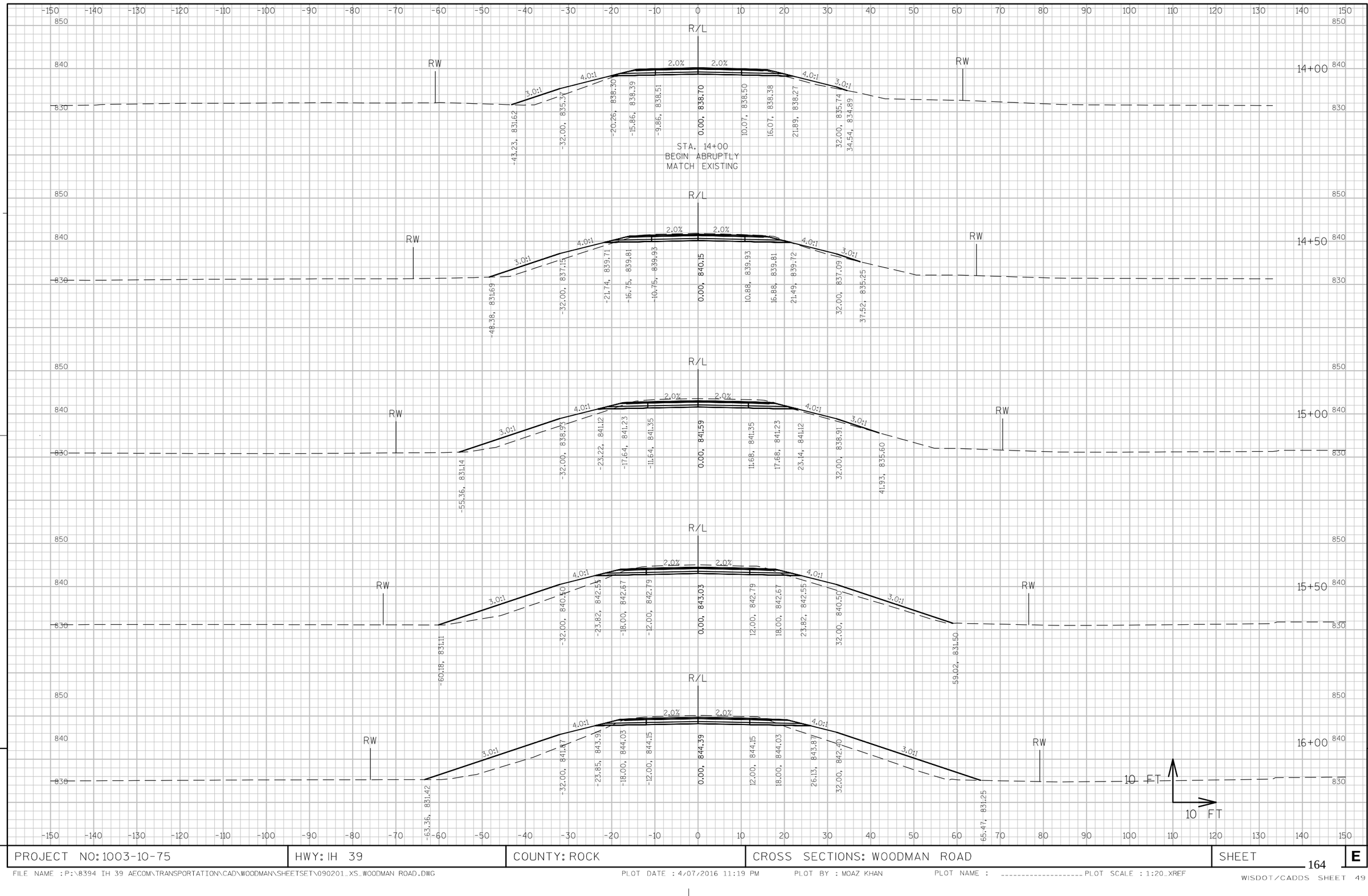
PROJECT NO:1003-10-75	HWY:IH 39	COUNTY:ROCK	EARTH WORK DATA: WOODMAN ROAD	SHEET	E

FILE NAME : P:\8394 IH 39 AECOM\TRANSPORTATION\CAD\WOODMAN\SHEETSET\021001_CD.DWG PLOT DATE : 4/8/2016 12:45 AM PLOT BY : MOAZ KHAN PLOT NAME :

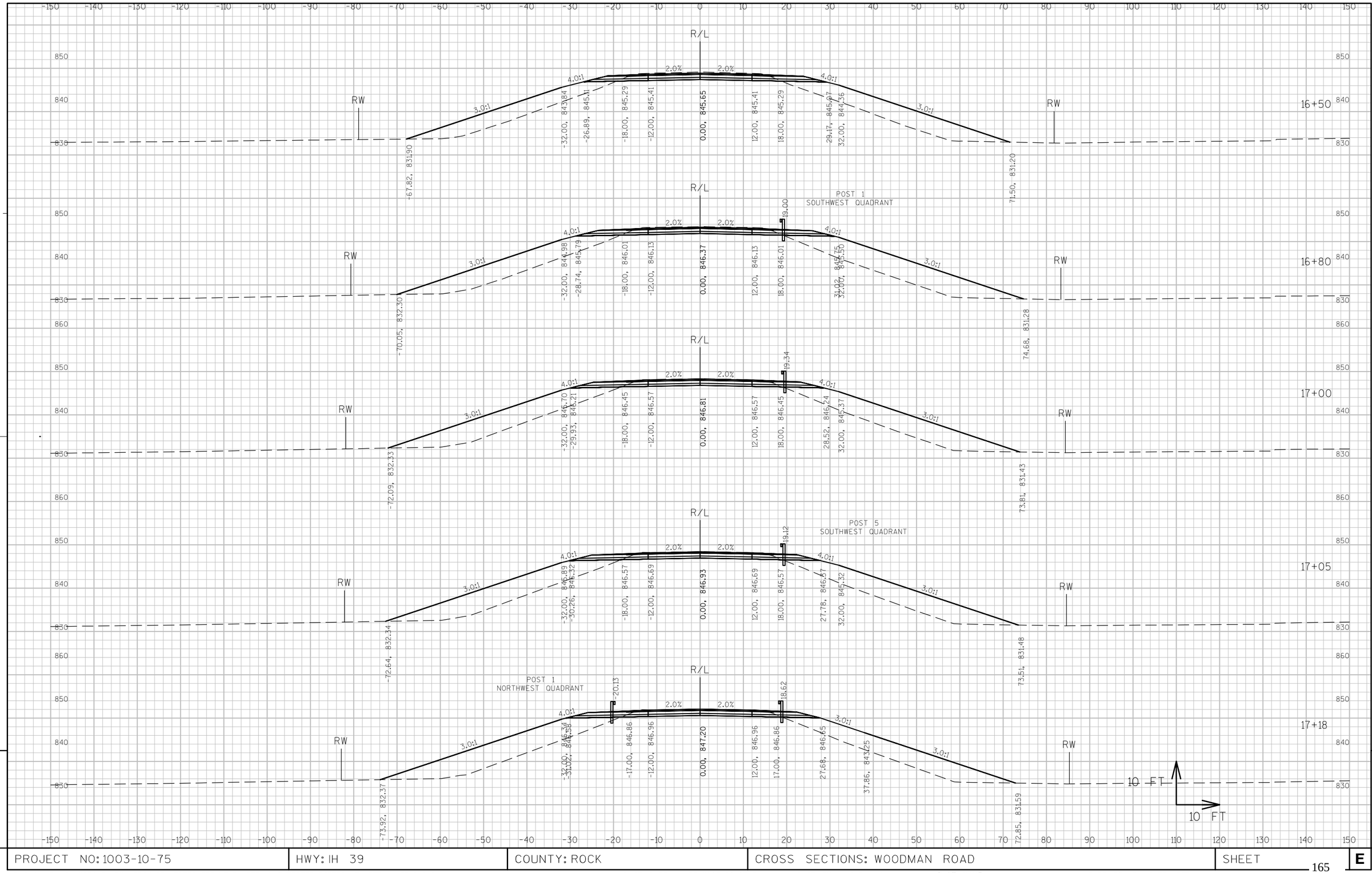
WISDOT/CADDS SHEET 49

EARTH WORK DATA - IH 39

STATION	Real Station	Distance	AREA (SF)			Incremental Vol (CY) (Unadjusted)			Cumulative Vol (CY)			Mass Ordinate
			Cut	Fill	EBS	Cut	Fill	EBS	Cut	Fill	EBS	
						0	0	0	0	0	0	0
532+50	53250	0	45	1.2	21.6	0	0	0	0	0	0	0
533+00	53300	50	39	2.5	28.6	78	3	46	78	3	46	78
533+50	53350	50	38	4.3	29.5	72	6	54	149	10	100	149
534+00	53400	50	39	5.0	29.4	72	9	55	221	18	155	256
534+50	53450	50	41	3.6	27.0	74	8	52	295	26	207	364
535+00	53500	50	40	2.6	28.7	75	6	52	370	32	259	474
535+50	53550	50	45	2.9	31.6	79	5	56	449	37	314	593
536+00	53600	50	45	4.1	28.2	84	6	52	532	43	366	705
536+50	53650	50	45	4.8	28.5	83	8	52	616	51	419	822
537+00	53700	50	44	4.2	28.2	82	8	53	698	60	471	938
537+50	53750	50	53	1.0	24.1	90	5	48	788	65	520	1062
538+00	53800	50	52	1.6	20.4	97	2	41	885	67	561	1190
538+50	53850	50	57	0.9	21.5	101	2	39	986	69	600	1319
539+00	53900	50	53	0.8	18.5	102	2	37	1088	71	637	1449
539+50	53950	50	51	1.5	20.9	96	2	37	1184	73	673	1573
540+00	54000	50	49	2.2	22.1	93	3	40	1277	76	713	1694
540+50	54050	50	47	2.5	22.5	89	4	41	1366	81	754	1812
541+00	54100	50	44	4.0	24.6	84	6	44	1450	87	798	1925
541+50	54150	50	44	4.8	23.3	81	8	44	1531	95	842	2033
542+00	54200	50	49	2.9	26.9	86	7	46	1617	102	889	2150
542+50	54250	50	54	2.3	25.8	95	5	49	1713	107	938	2279
543+00	54300	50	70	0.0	21.1	115	2	43	1828	109	981	2427
543+50	54350	50	71	0.0	25.6	131	0	43	1958	109	1024	2592
544+00	54400	50	91	0.0	29.5	150	0	51	2108	109	1075	2783
544+50	54450	50	94	0.0	25.0	230	0	50	2338	109	1126	2994
545+00	54500	50	83	0.0	10.4	164	0	33	2502	109	1159	3184
545+50	54550	50	57	0.0	9.9	130	0	19	2632	109	1177	3329
546+00	54600	50	54	0.0	16.3	103	0	24	2735	109	1202	3451
546+50	54650	50	53	0.8	34.9	99	1	47	2834	110	1249	3587
547+00	54700	50	43	0.0	38.3	89	1	68	2923	110	1317	3730
547+50	54750	50	52	0.5	37.1	88	0	70	3011	111	1386	3873
548+00	54800	50	52	0.0	41.5	96	0	73	3107	111	1459	4027
548+50	54850	50	48	0.1	41.7	93	0	77	3200	111	1536	4181
549+00	54900	50	55	0.0	38.7	95	0	74	3295	111	1611	4336
549+50	54950	50	46	0.2	46.9	94	0	79	3388	112	1690	4493
550+00	55000	50	43	4.9	50.7	82	5	90	3471	116	1780	4643
550+50	55050	50	44	0.6	47.5	81	5	91	3551	121	1871	4791
551+00	55100	50	43	1.8	49.3	81	2	90	3632	124	1961	4941
551+50	55150	50	37	3.2	55.6	74	5	97	3706	128	2058	5088
552+00	55200	50	24	3.6	57.5	56	6	105	3763	135	2163	5222
552+50	55250	50	37	3.1	54.2	56	6	104	3819	141	2266	5355
553+00	55300	50	42	1.5	51.2	73	4	98	3892	145	2364	5502
553+50	55350	50	53	0.4	49.1	88	2	93	3980	147	2457	5663
554+00	55400	50	49	1.3	42.3	94	2	85	4075	148	2541	5823
554+50	55450	50	56	0.0	45.2	97	1	81	4172	150	2622	5984
555+00	55500	50	56	0.0	44.2	104	0	83	4276	150	2705	6154
555+50	55550	50	49	0.0	21.9	45	0	61	4321	150	2766	6300
556+00	55600	50	48	0.0	21.6	89	0	40	4410	150	2807	6421
556+50	55650	50	54	0.0	23.6	94	0	42	4503	150	2848	6548
BULLNOSE GRADING												
									0	0	0	
542+00	54200	0	0	16.9	0.0	0	0	0	0	0	0	
542+50	54250	50	0	24.9	0.0	0	39	0	0	39	0	
543+00	54300	50	0	33.2	0.0	0	54	0	0	92	0	
543+50	54350	50	0	40.4	0.0	0	68	0	0	161	0	
544+00	54400	50	0	40.6	0.0	0	75	0	0	236	0	
544+50	54450	50	0	38.2	0.0	0	73	0	0	309	0	
545+00	54500	50	0	37.8	0.0	0	70	0	0	379	0	
545+50	54550	50	0	37.7	0.0	0	70	0	0	449	0	
546+00	54600	50	0	36.3	0.0	0	69	0	0	517	0	
546+50	54650	50	0	35.8	0.0	0	67	0	0	584	0	
547+00	54700	50	0	35.0	0.0	0	65	0	0	649	0	
547+50	54750	50	0	35.1	0.0	0	65	0	0	714	0	
EXCAVATION FOR NEW ABUTMENT												
544+29	544+64	35	67	0.0	0.0	87	0	0	87	0	0	
					Column totals	4590	864	2848				

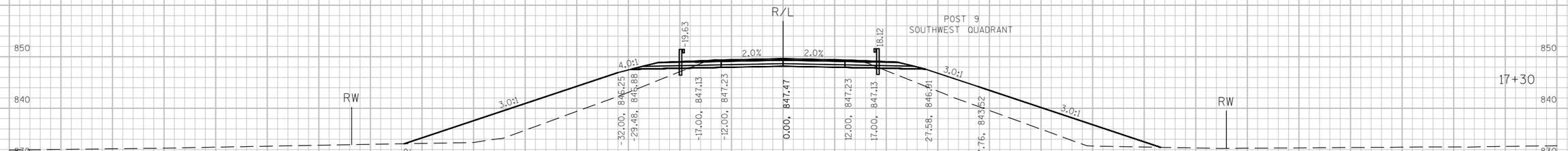


PROJECT NO: 1003-10-75	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: WOODMAN ROAD	SHEET 164 E



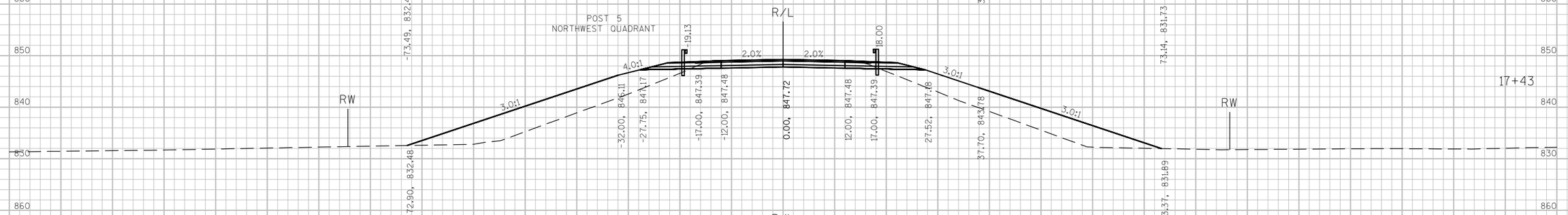
PROJECT NO: 1003-10-75	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: WOODMAN ROAD	SHEET 165 E

POST 9
SOUTHWEST QUADRANT

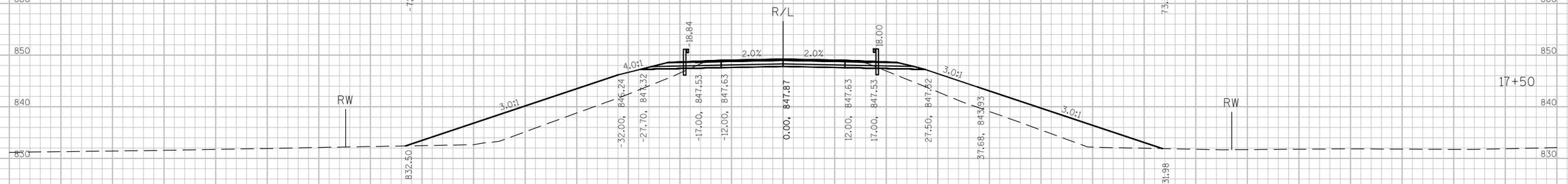


17+30

POST 5
NORTHWEST QUADRANT



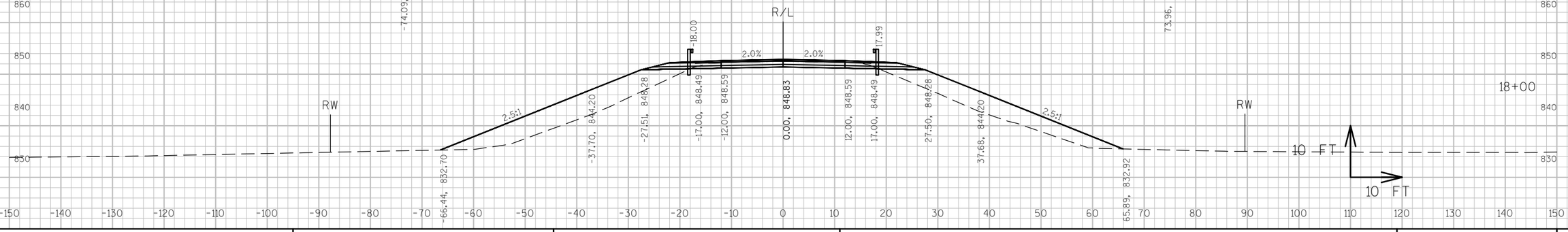
17+43



17+50

POST 9
NORTHWEST QUADRANT

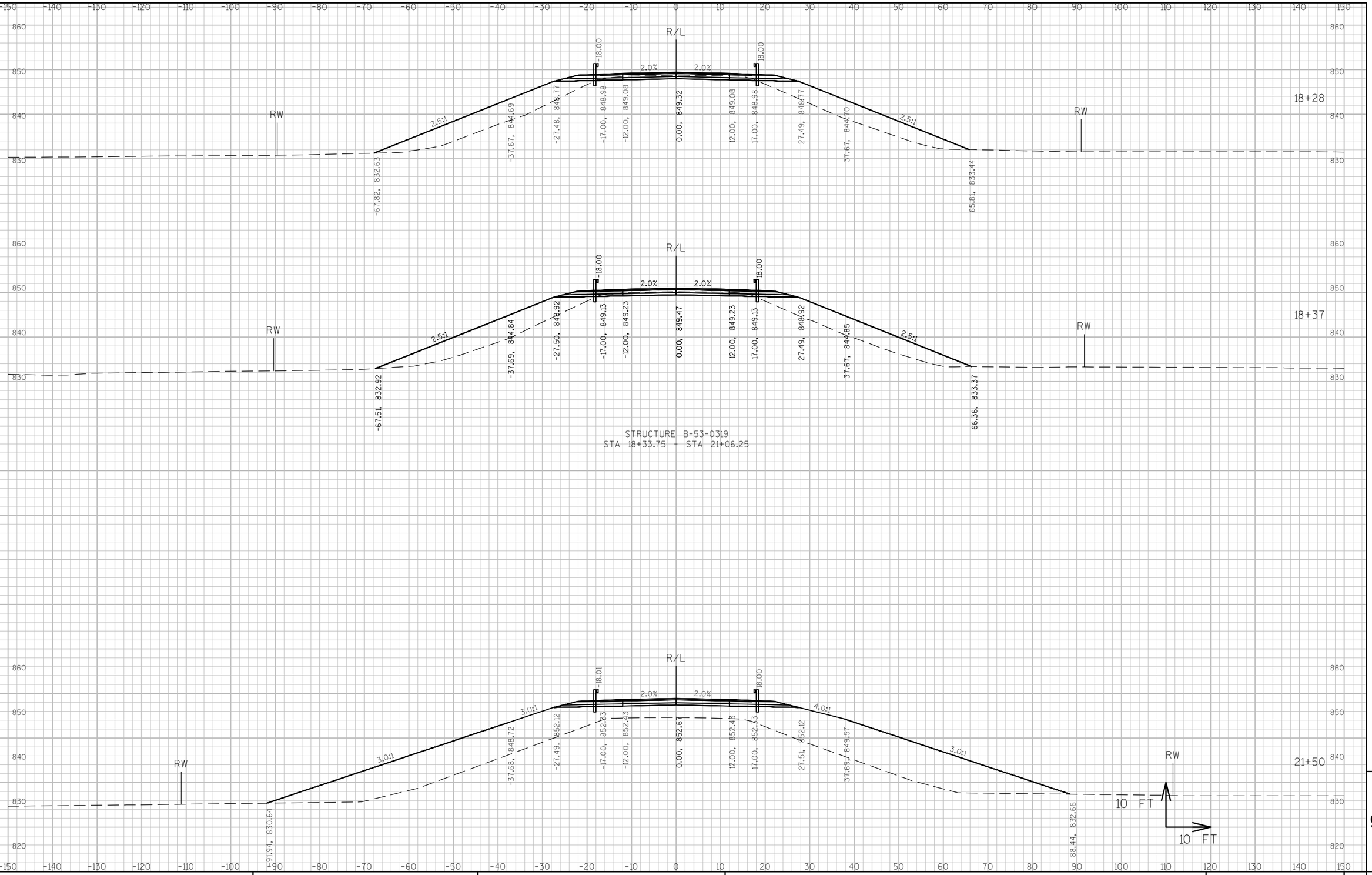
17+68



18+00

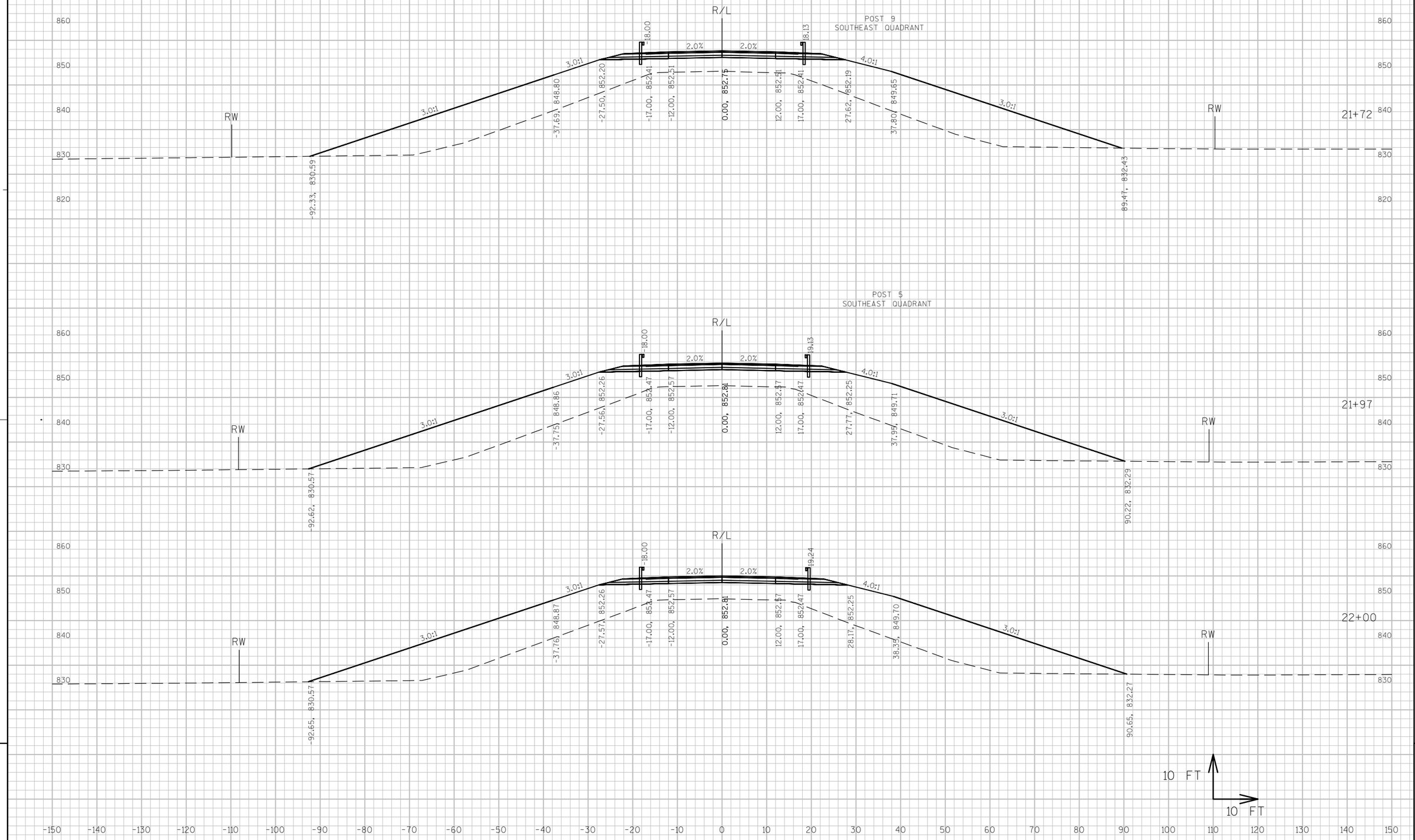
PROJECT NO: 1003-10-75	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: WOODMAN ROAD	SHEET

FILE NAME : P:\8394 IH 39 AECOM\TRANSPORTATION\CAD\WOODMAN\SHEETSET\090201_XS_WOODMAN ROAD.DWG PLOT DATE : 4/07/2016 11:19 PM PLOT BY : MOAZ KHAN PLOT NAME : _____ PLOT SCALE : 1:20_XREF



STRUCTURE B-53-0319
STA 18+33.75 - STA 21+06.25

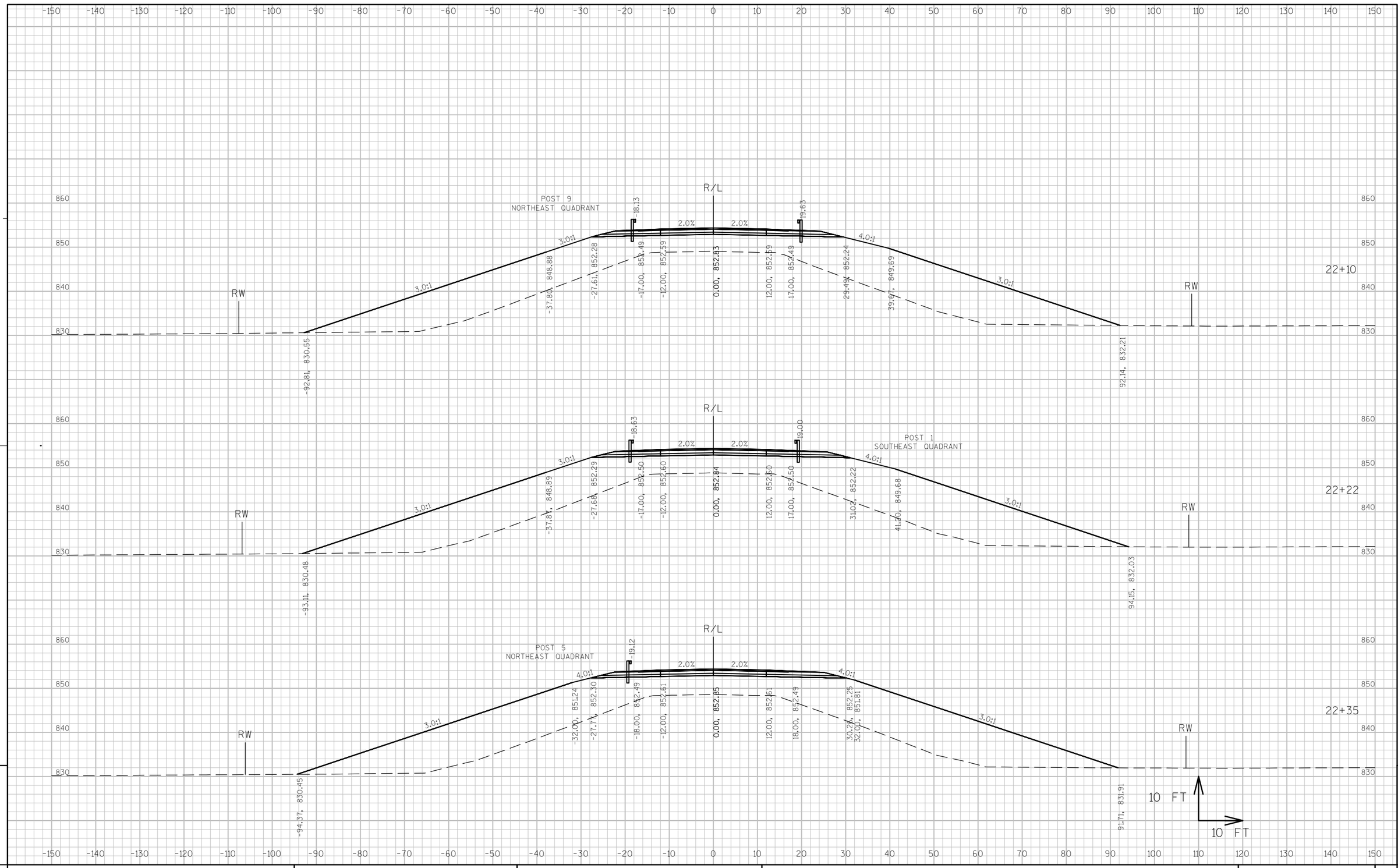
PROJECT NO: 1003-10-75	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: WOODMAN ROAD	SHEET 167 E



9

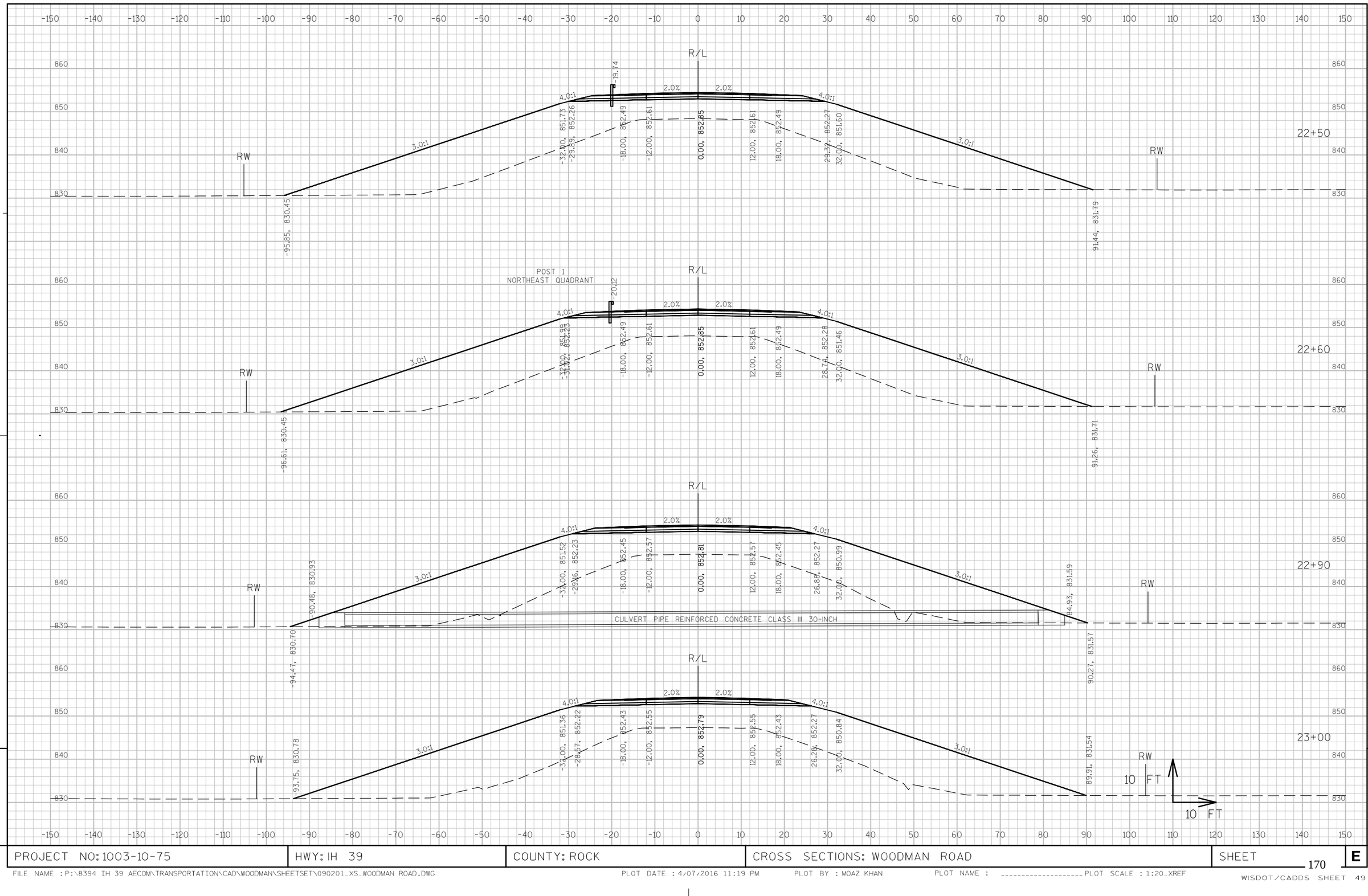
9

PROJECT NO: 1003-10-75	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: WOODMAN ROAD	SHEET 168	E



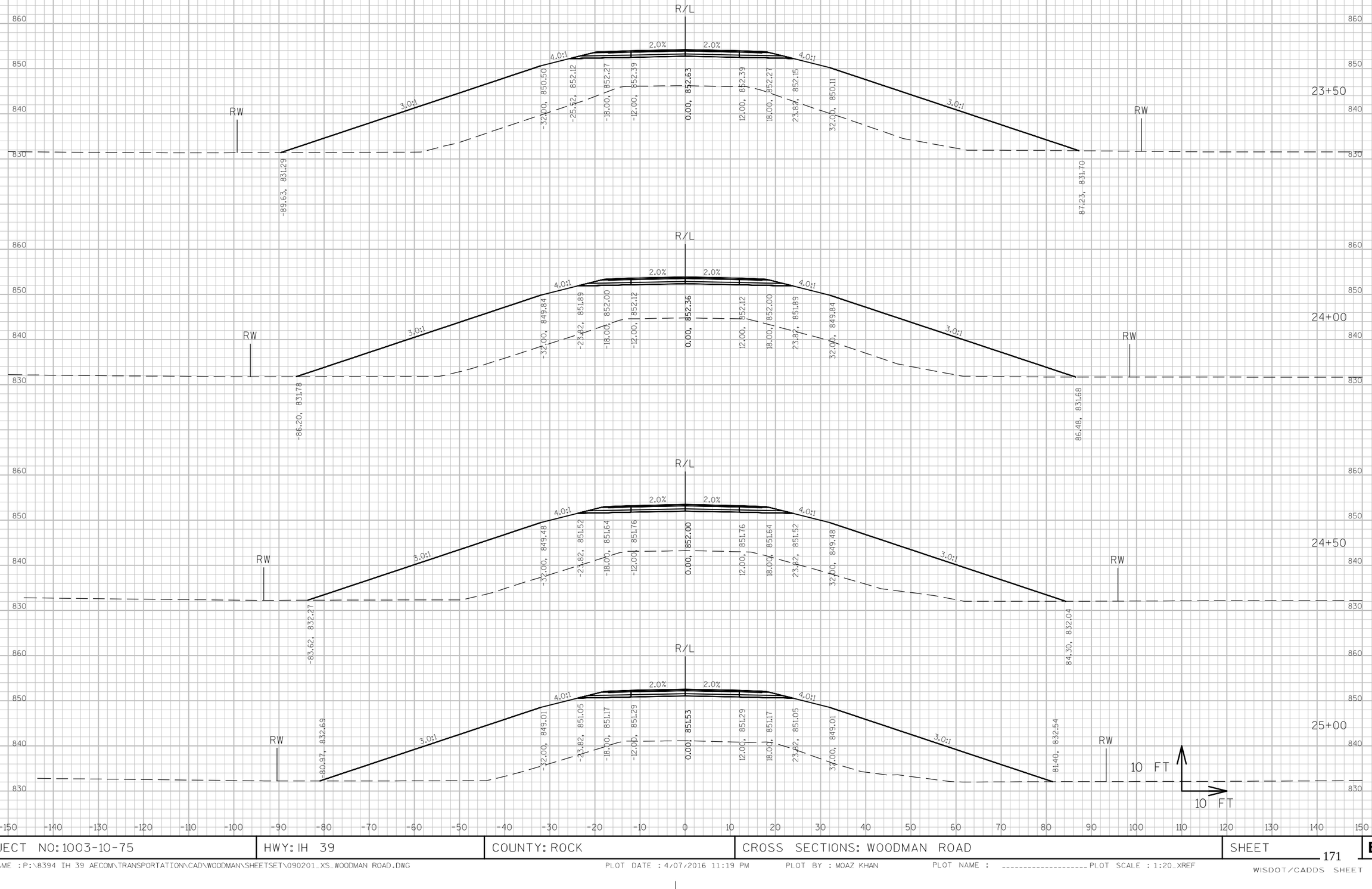
PROJECT NO: 1003-10-75	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: WOODMAN ROAD	SHEET E

FILE NAME : P:\8394 IH 39 AECOM\TRANSPORTATION\CAD\WOODMAN\SHEETSET\090201_XS_WOODMAN ROAD.DWG PLOT DATE : 4/07/2016 11:19 PM PLOT BY : MOAZ KHAN PLOT NAME : _____ PLOT SCALE : 1:20_XREF



PROJECT NO: 1003-10-75	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: WOODMAN ROAD	SHEET 170 E

FILE NAME : P:\8394 IH 39 AECOM\TRANSPORTATION\CAD\WOODMAN\SHEETSET\090201_XS_WOODMAN ROAD.DWG PLOT DATE : 4/07/2016 11:19 PM PLOT BY : MOAZ KHAN PLOT NAME : _____ PLOT SCALE : 1:20_XREF
WISDOT/CADDS SHEET 49



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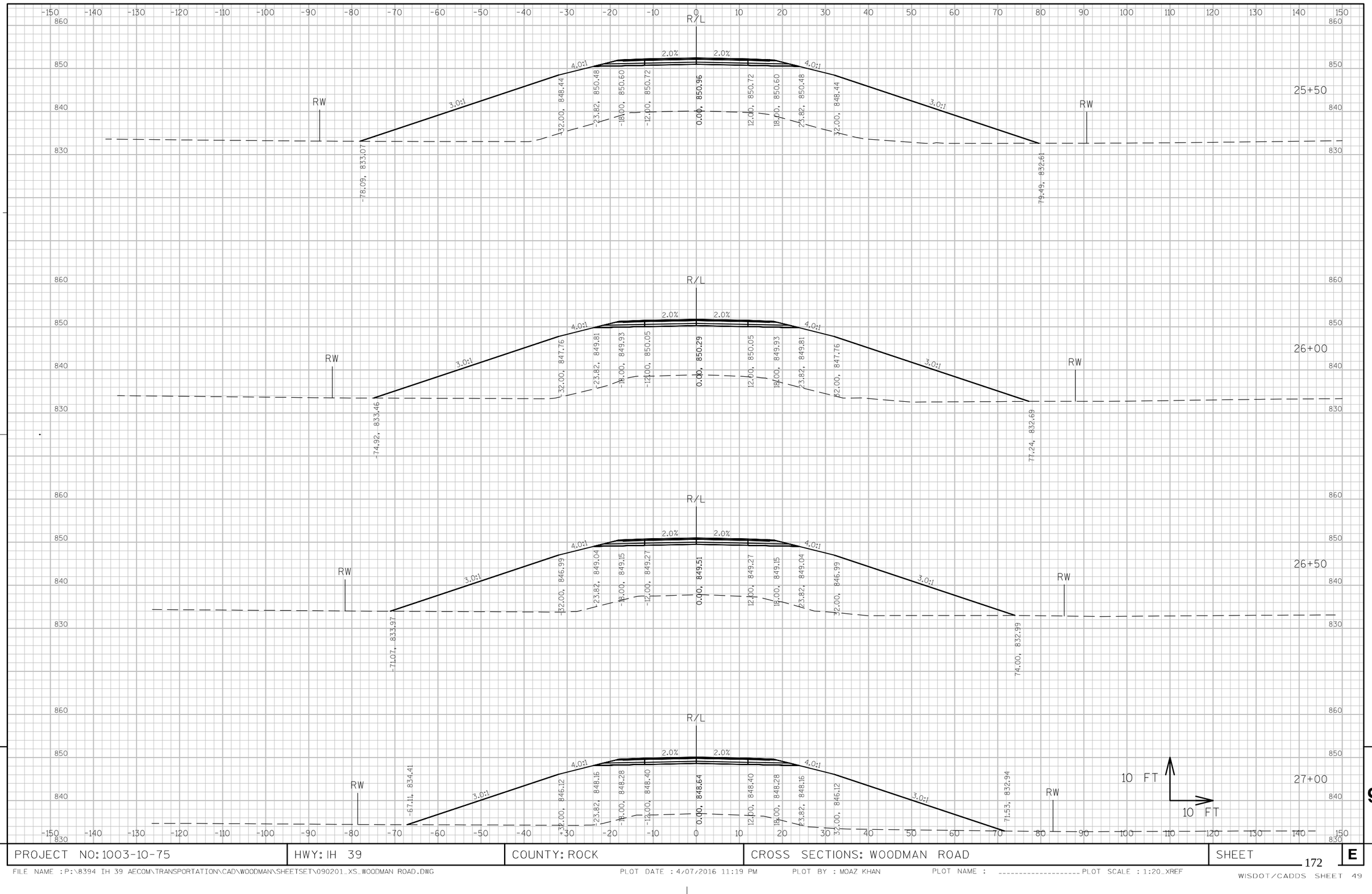

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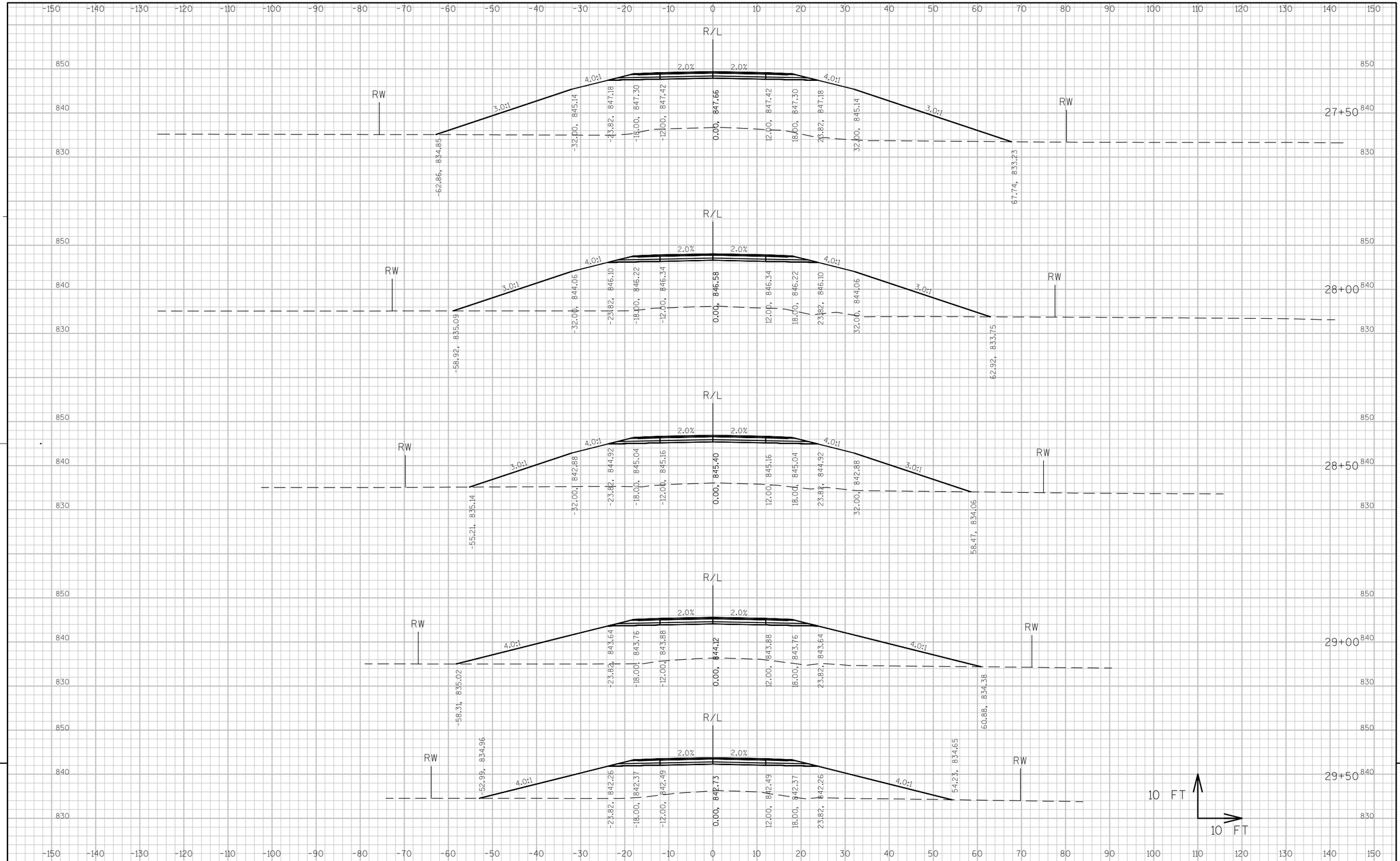

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PROJECT NO: 1003-10-75	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: WOODMAN ROAD	SHEET 173	E

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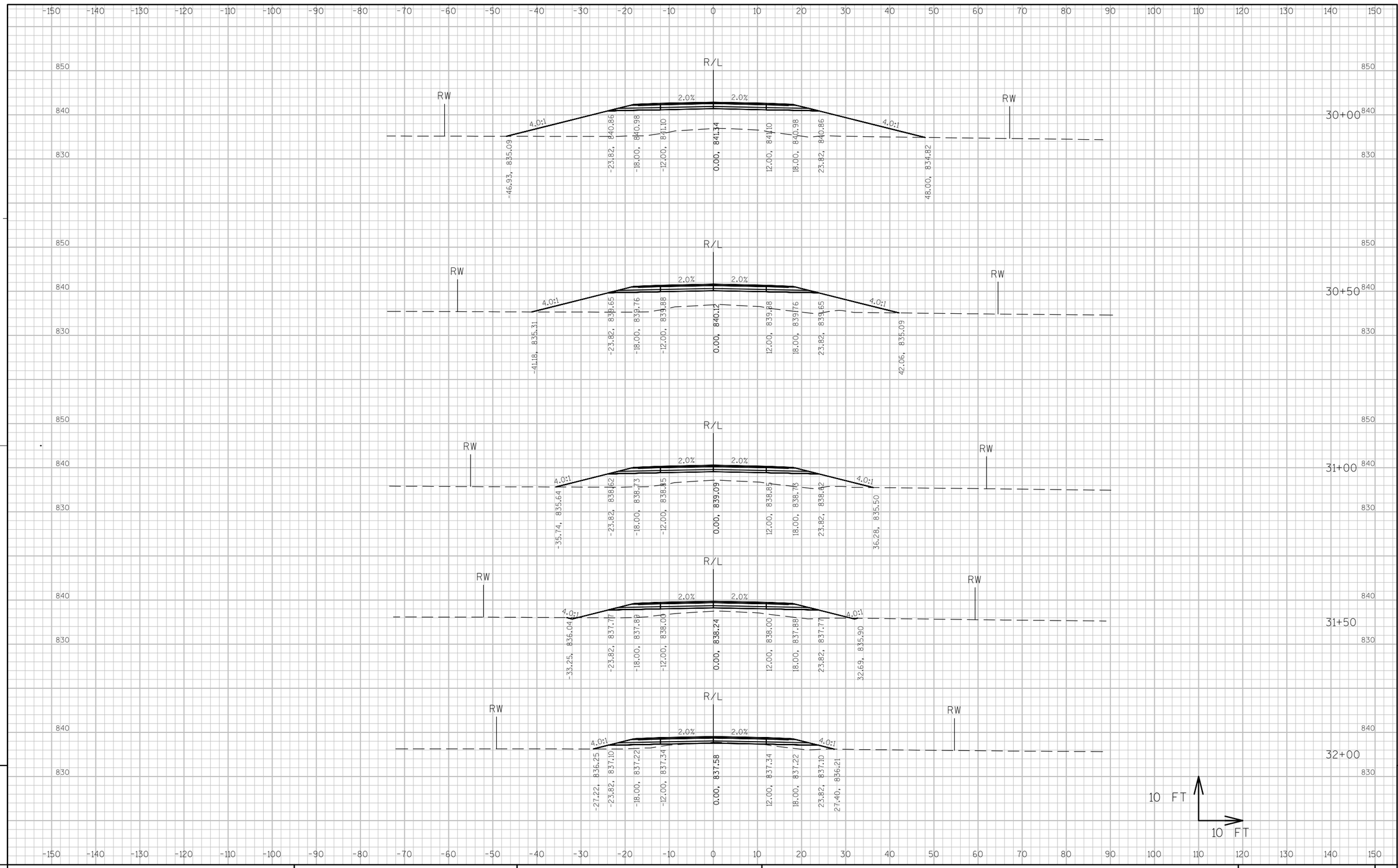
WISDOT/CADDS SHEET 49



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PROJECT NO: 1003-10-75	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: WOODMAN ROAD	SHEET 174	E

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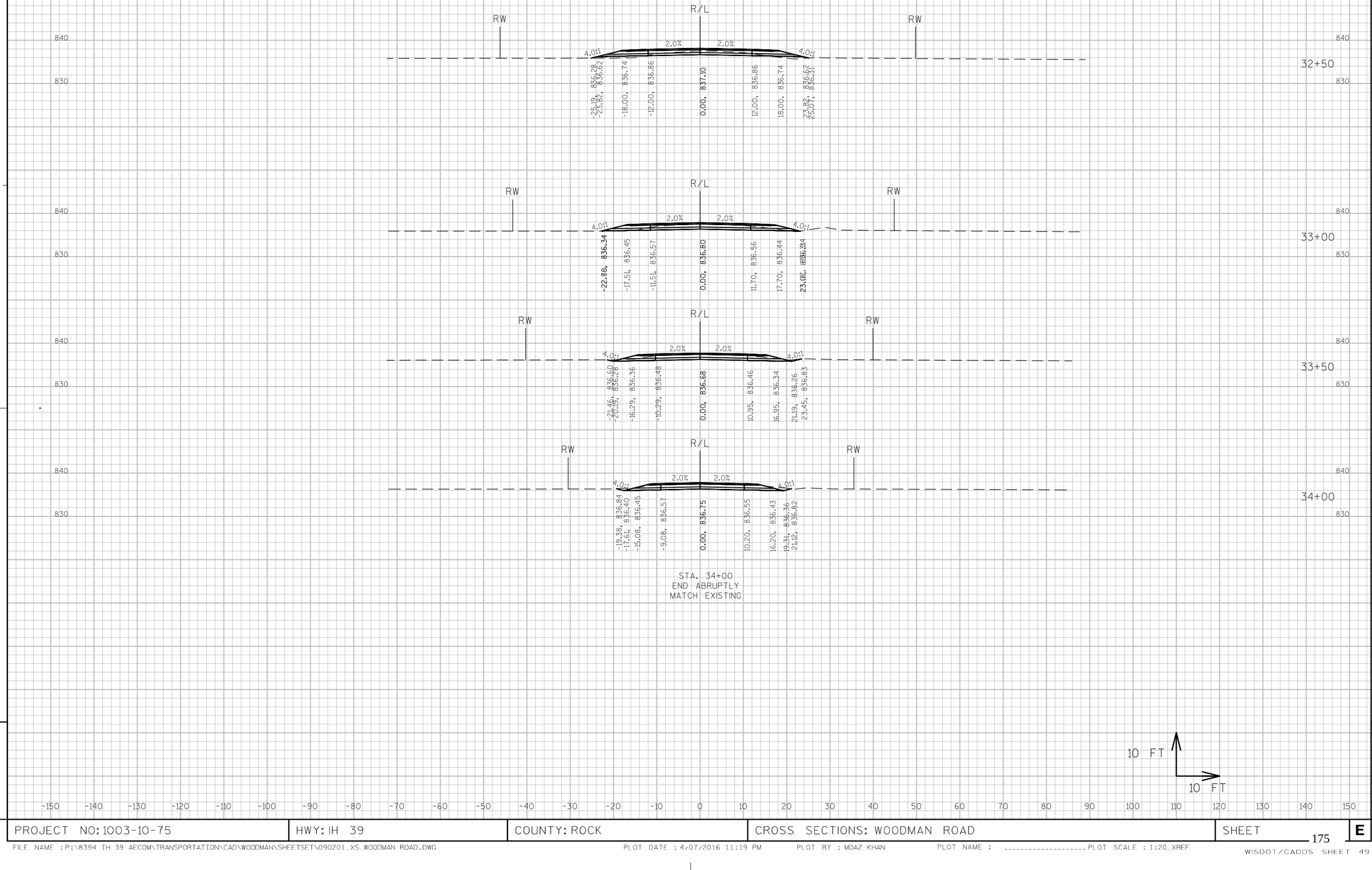
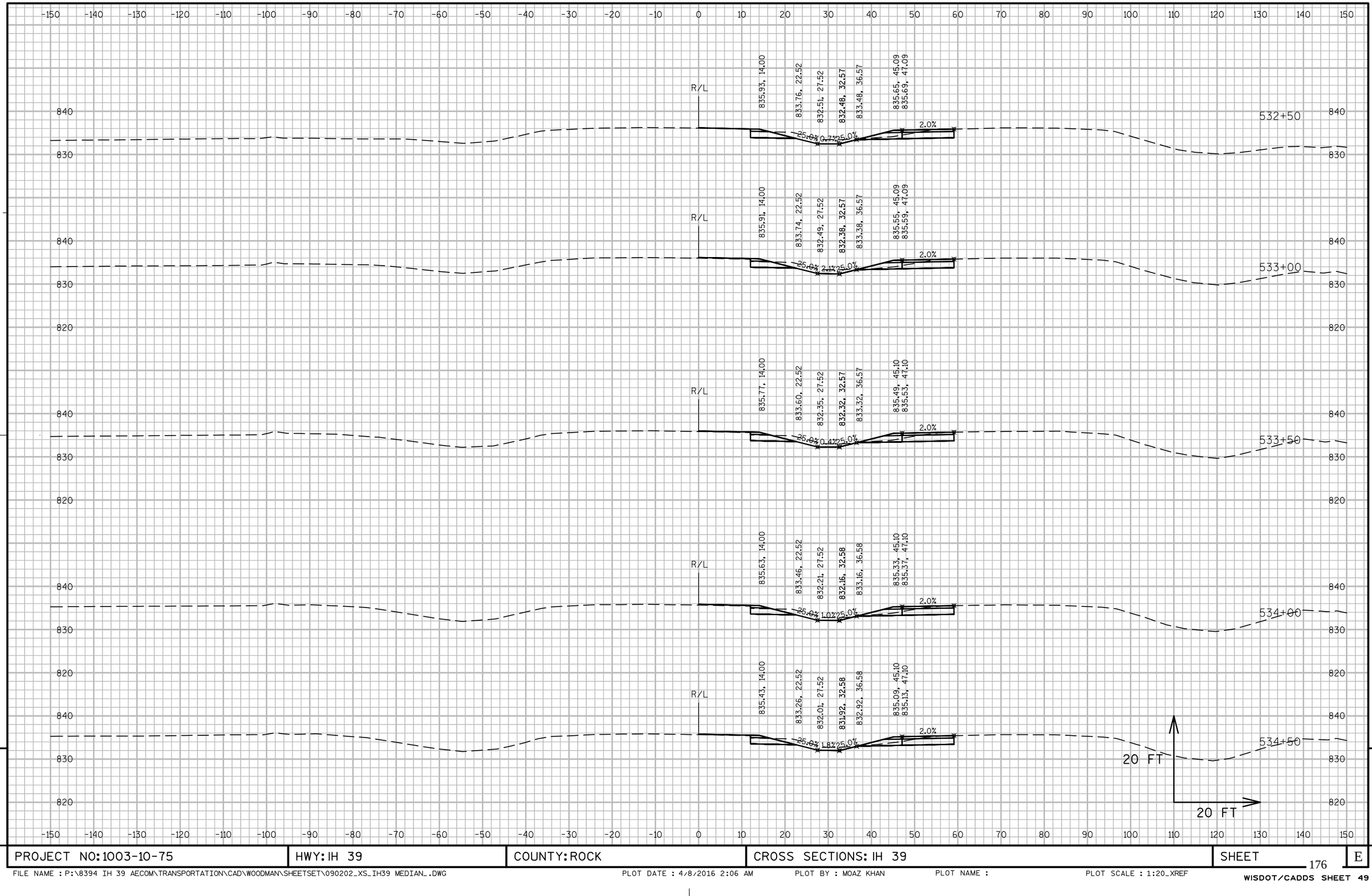


STA. 34+00
END ABRUPTLY
MATCH EXISTING

9 9

PROJECT NO: 1003-10-75	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: WOODMAN ROAD	SHEET 175	E



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PROJECT NO: 1003-10-75	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: IH 39	SHEET	E

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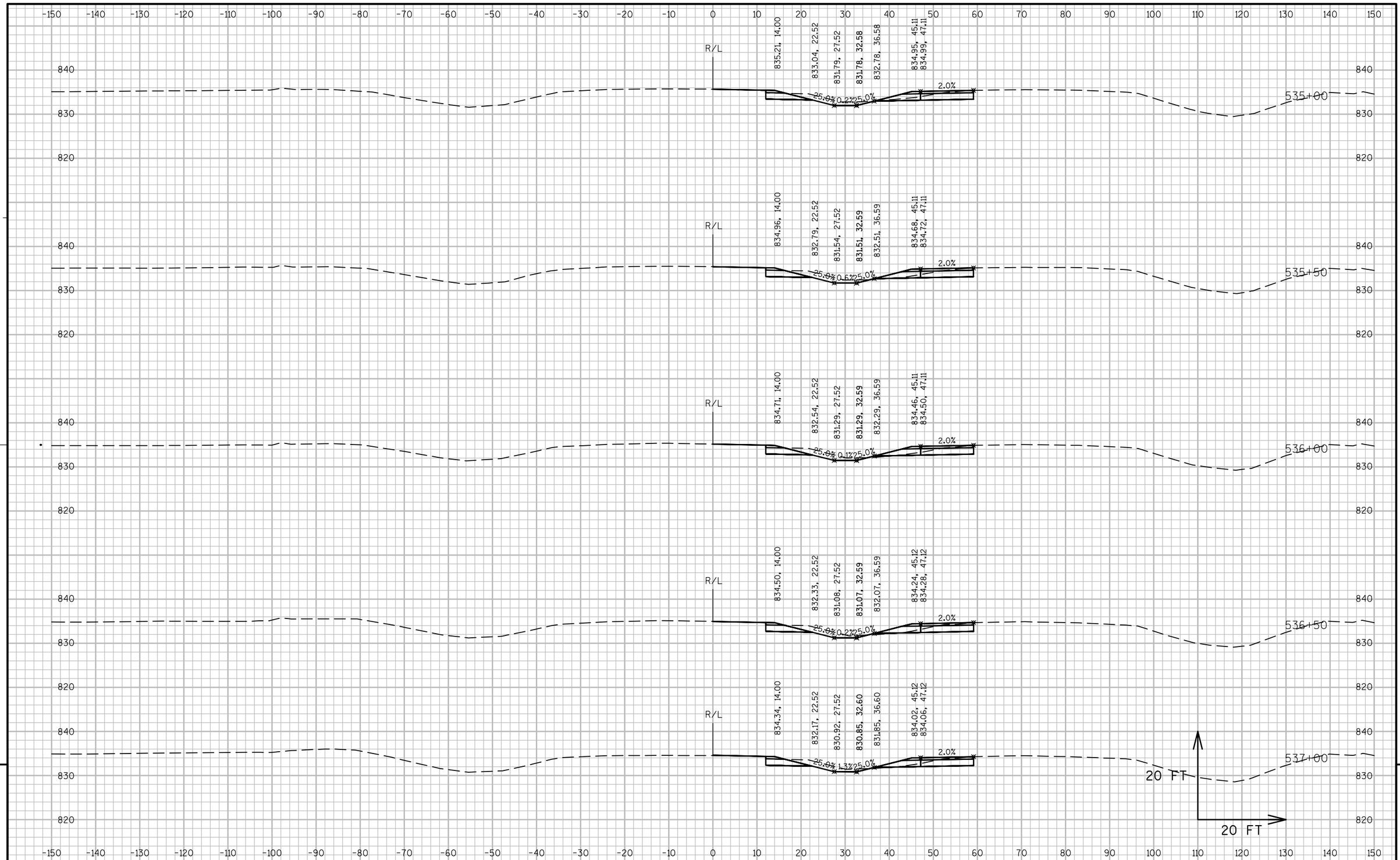

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FILE NAME : P:\8394 IH 39 AECOM\TRANSPORTATION\CAD\WOODMAN\SHEETSET\090202_XS_IH39 MEDIAN_.DWG PLOT DATE : 4/8/2016 2:06 AM PLOT BY : MOAZ KHAN PLOT NAME : PLOT SCALE : 1:20_XREF

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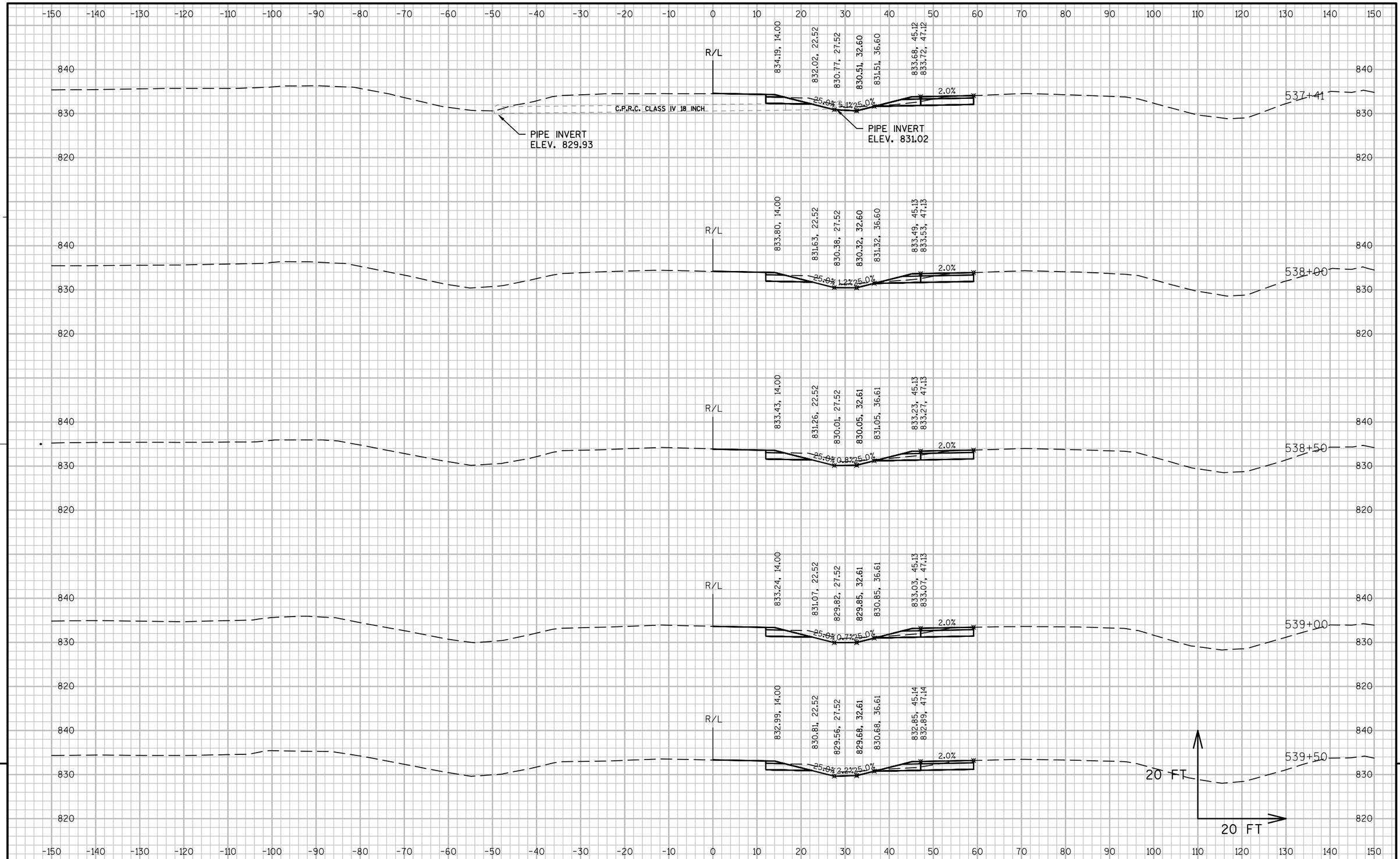

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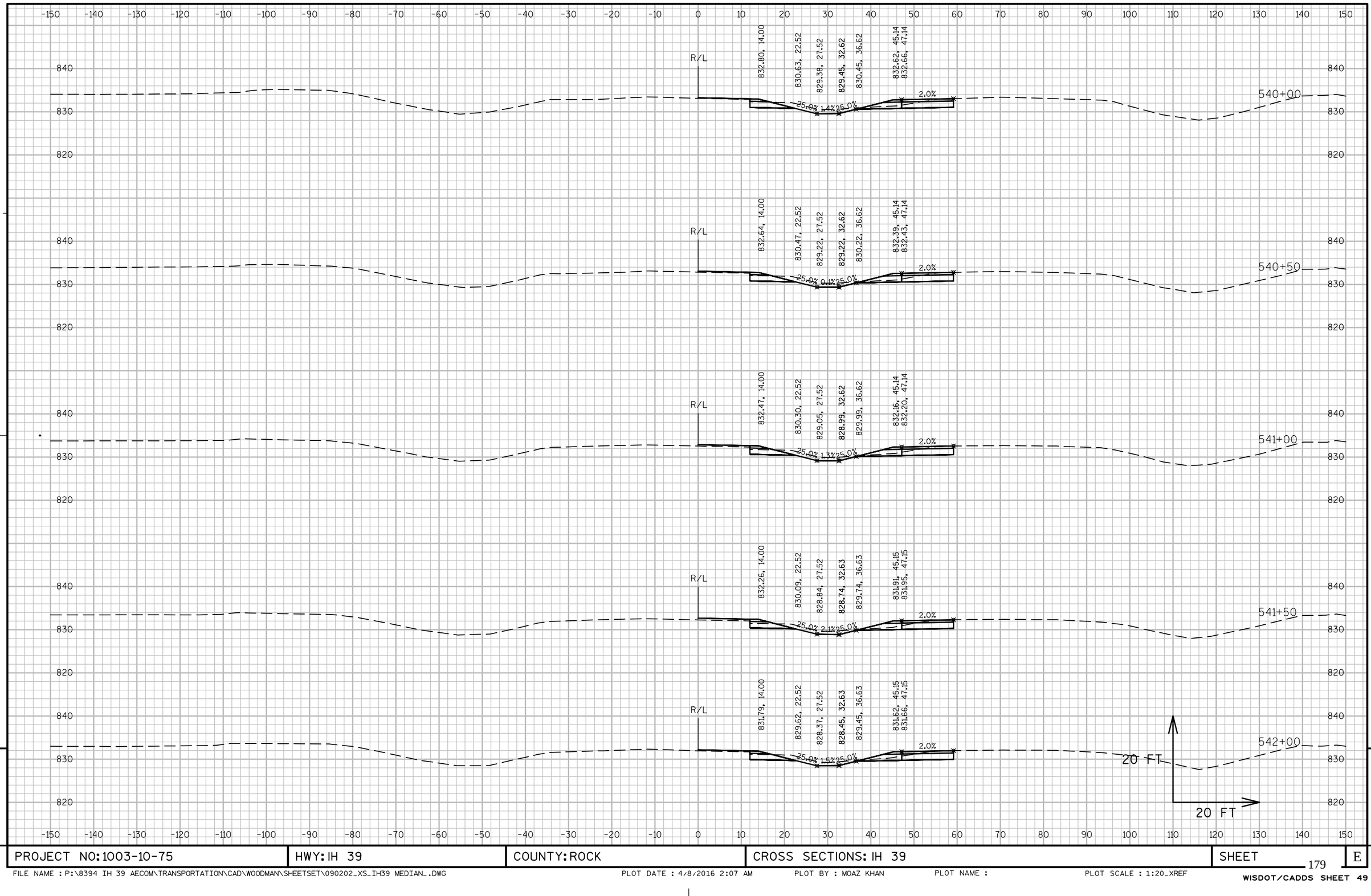
PROJECT NO: 1003-10-75	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: IH 39	SHEET	E

9

FILE NAME : P:\8394 IH 39 AECOM\TRANSPORTATION\CAD\WOODMAN\SHEETSET\090202_XS_IH39 MEDIAN_.DWG PLOT DATE : 4/8/2016 2:07 AM PLOT BY : MOAZ KHAN PLOT NAME : PLOT SCALE : 1:20_XREF

WISDOT/CADDS SHEET 49



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PROJECT NO: 1003-10-75	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: IH 39	SHEET	E

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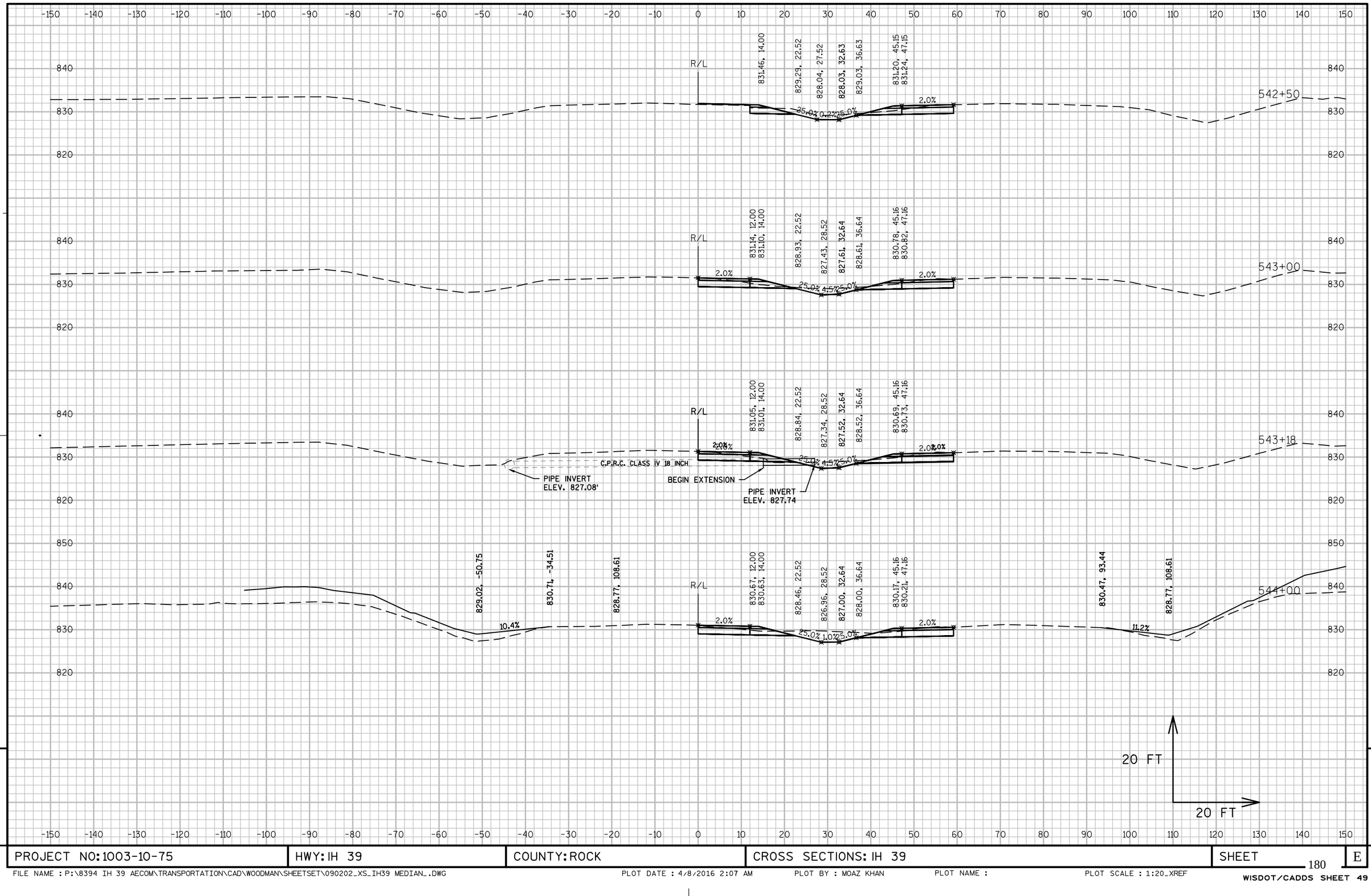
WISDOT/CADDS SHEET 49



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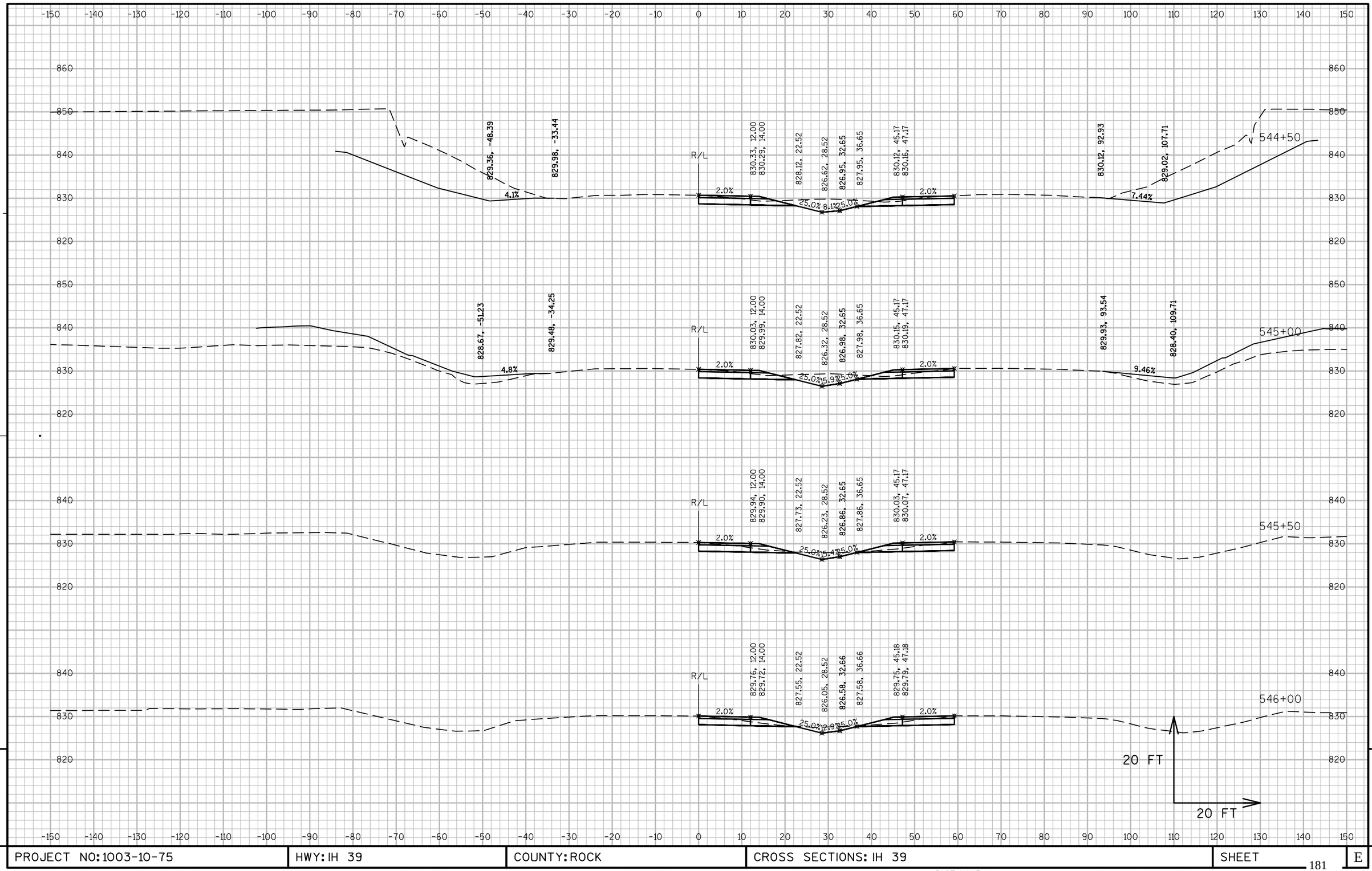

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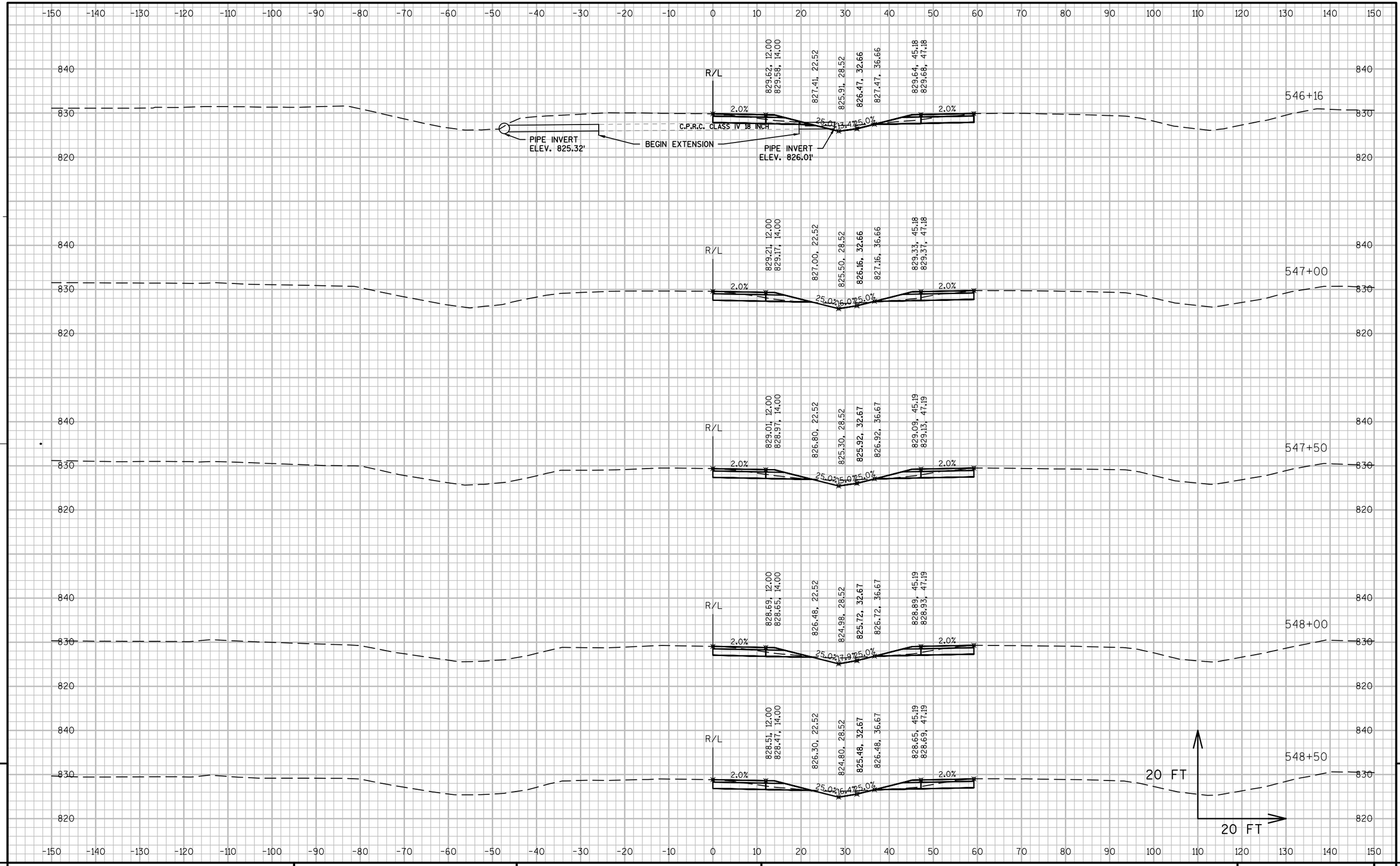

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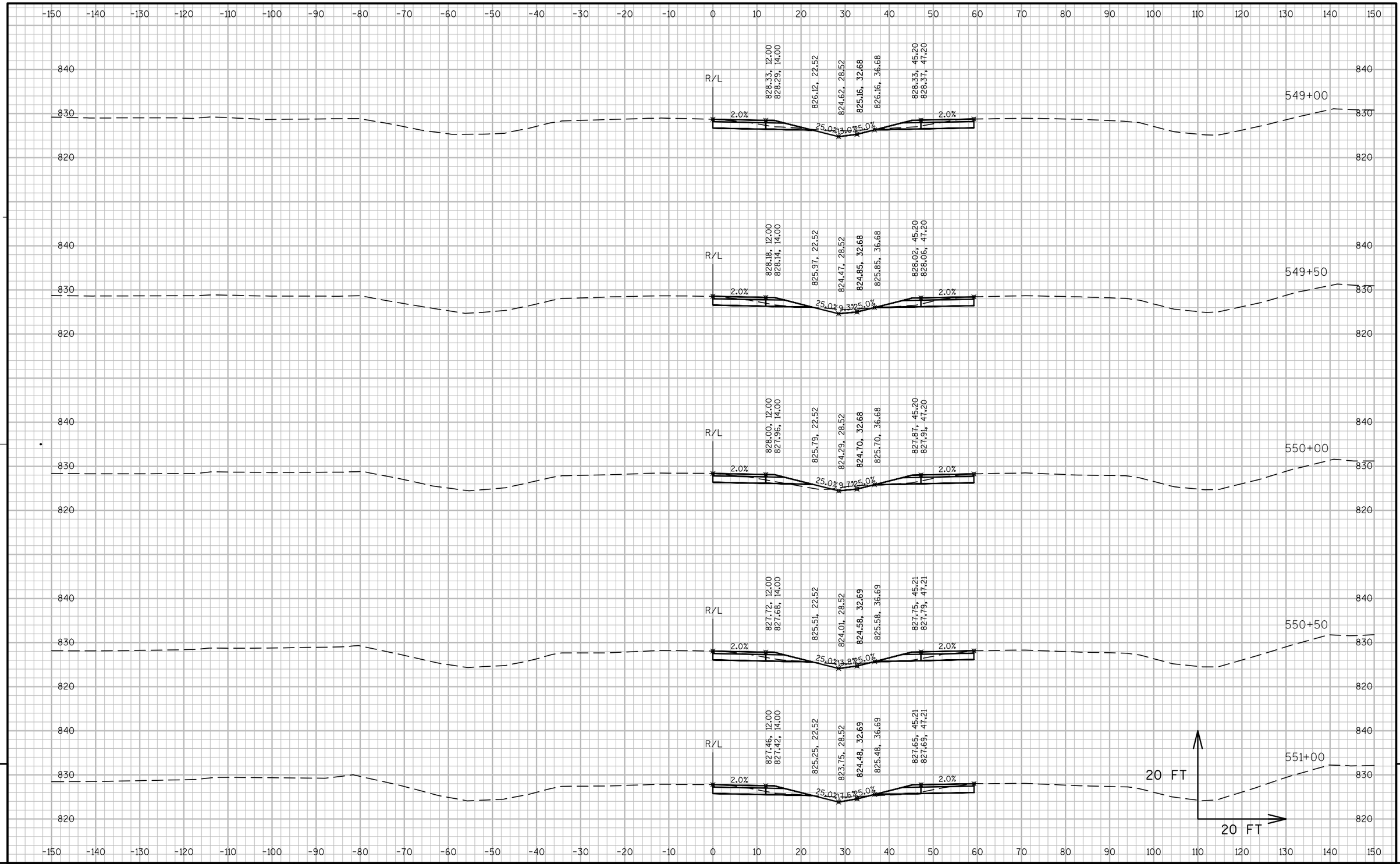

PROJECT NO: 1003-10-75	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: IH 39	SHEET	E

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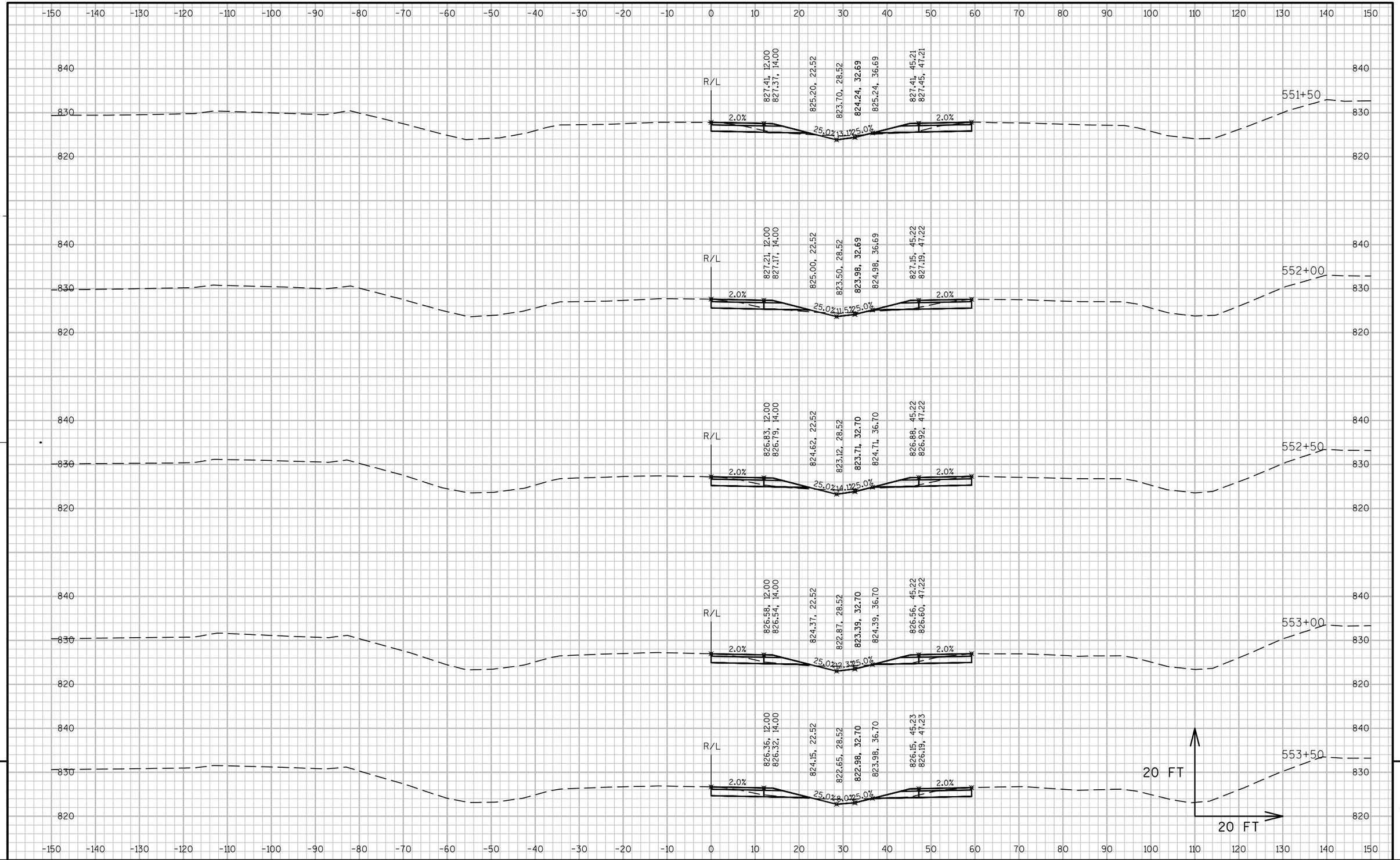

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PROJECT NO: 1003-10-75	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: IH 39	SHEET	E

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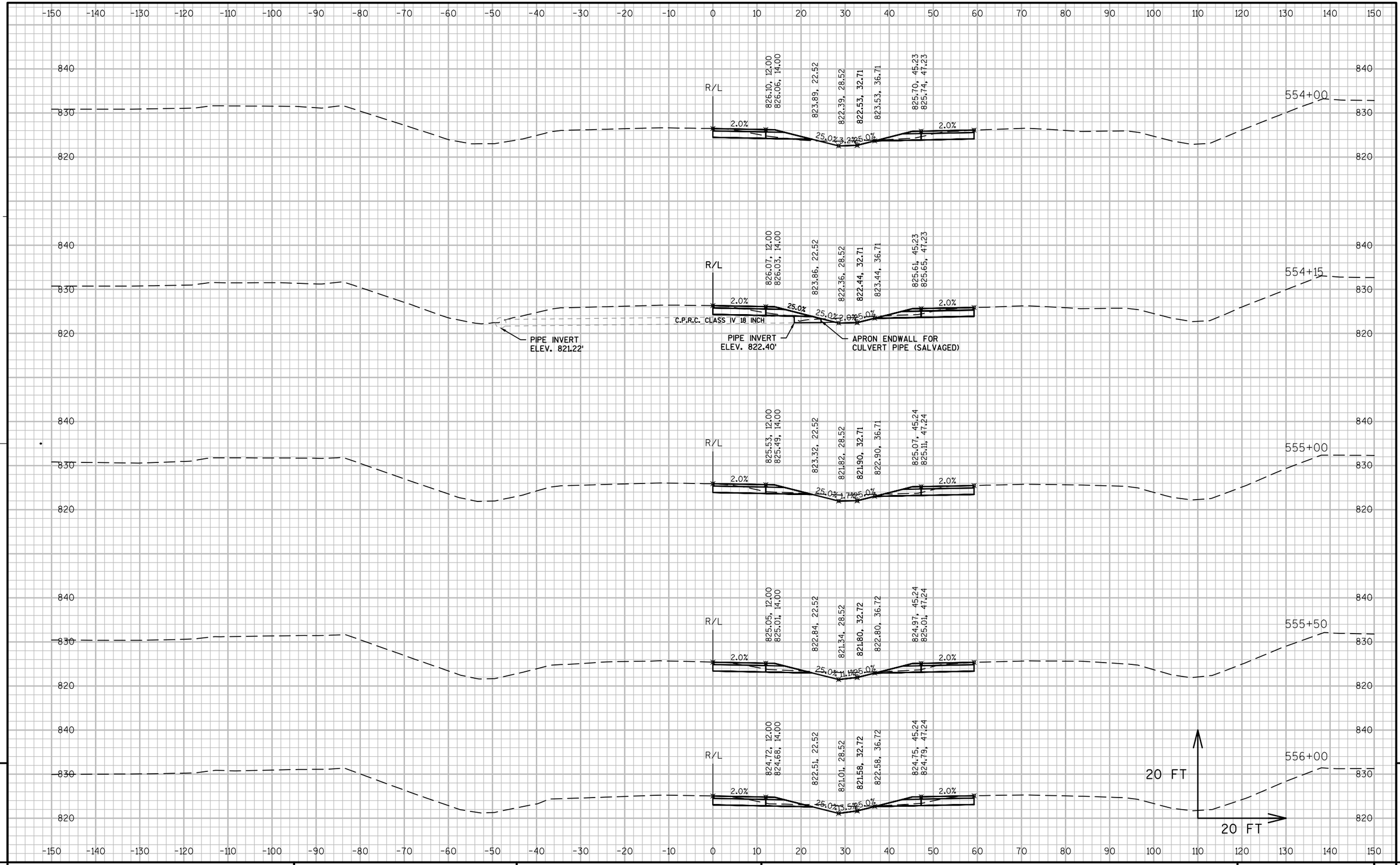

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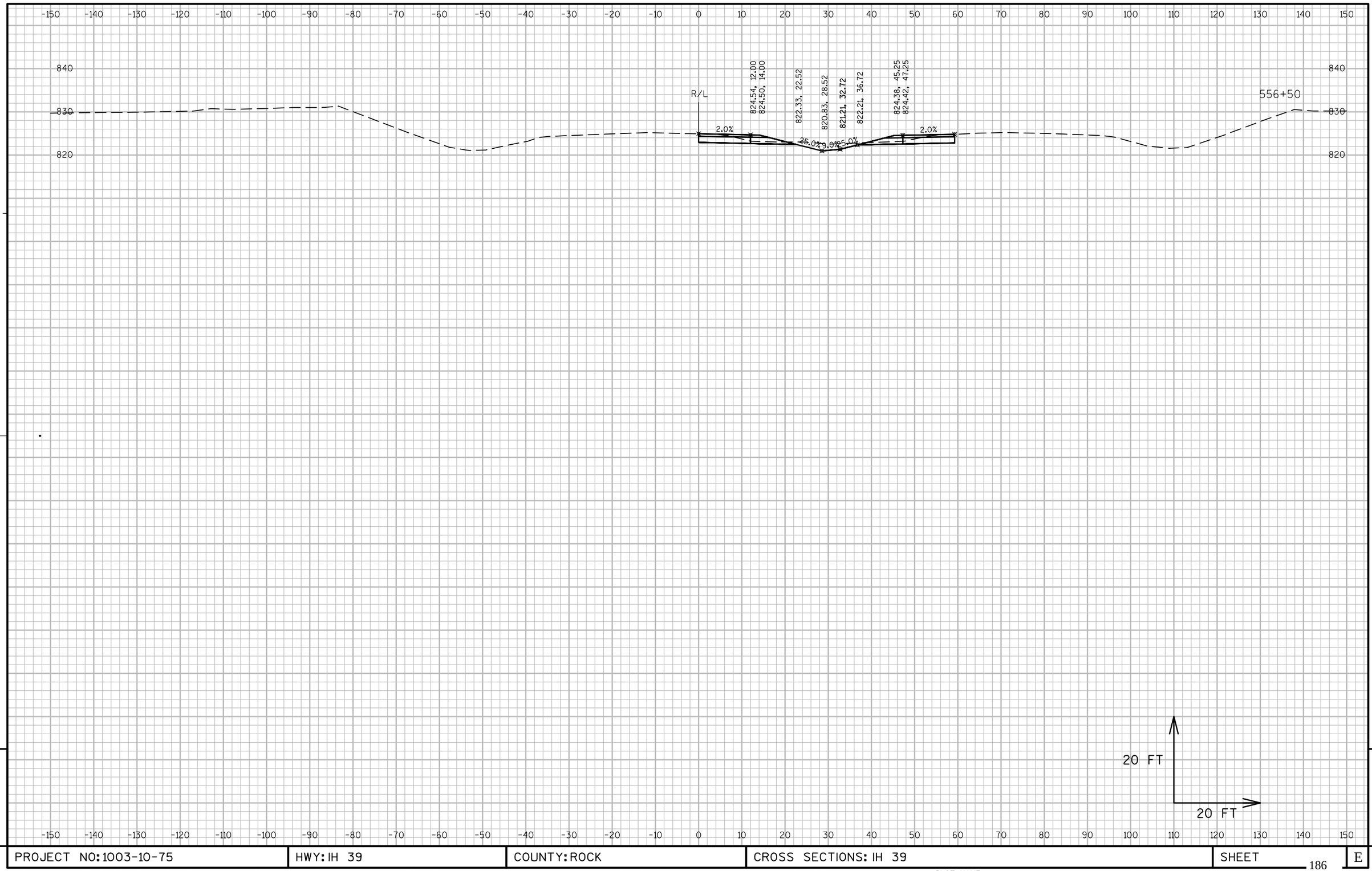
FILE NAME : P:\8394 IH 39 AECOM\TRANSPORTATION\CAD\WOODMAN\SHEETSET\090202_XS_IH39 MEDIAN_.DWG
PLOT DATE : 4/8/2016 2:08 AM
PLOT BY : MOAZ KHAN
PLOT NAME :
PLOT SCALE : 1:20_XREF
WISDOT/CADDS SHEET 49



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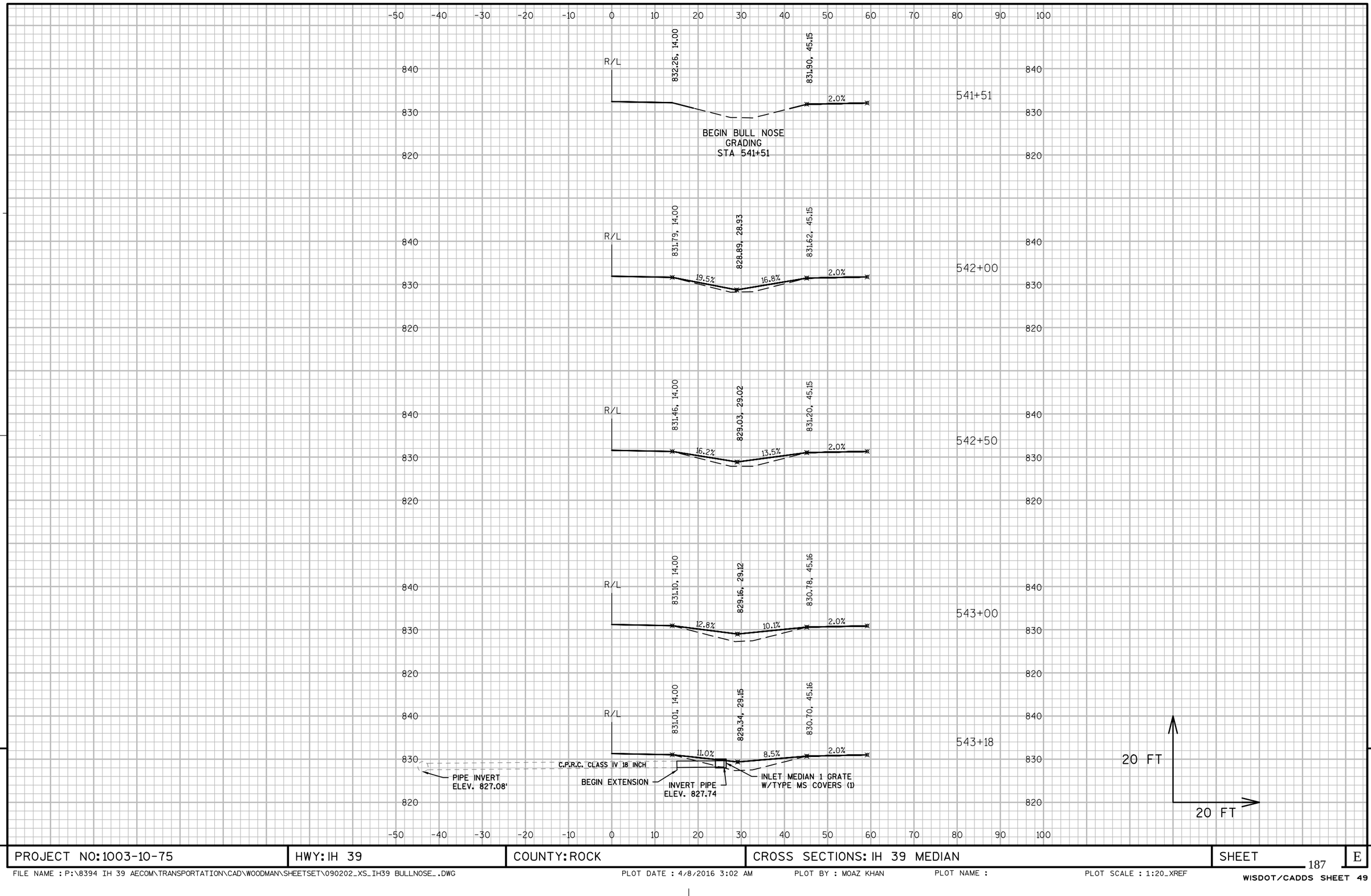
WISDOT/CADDS SHEET 49



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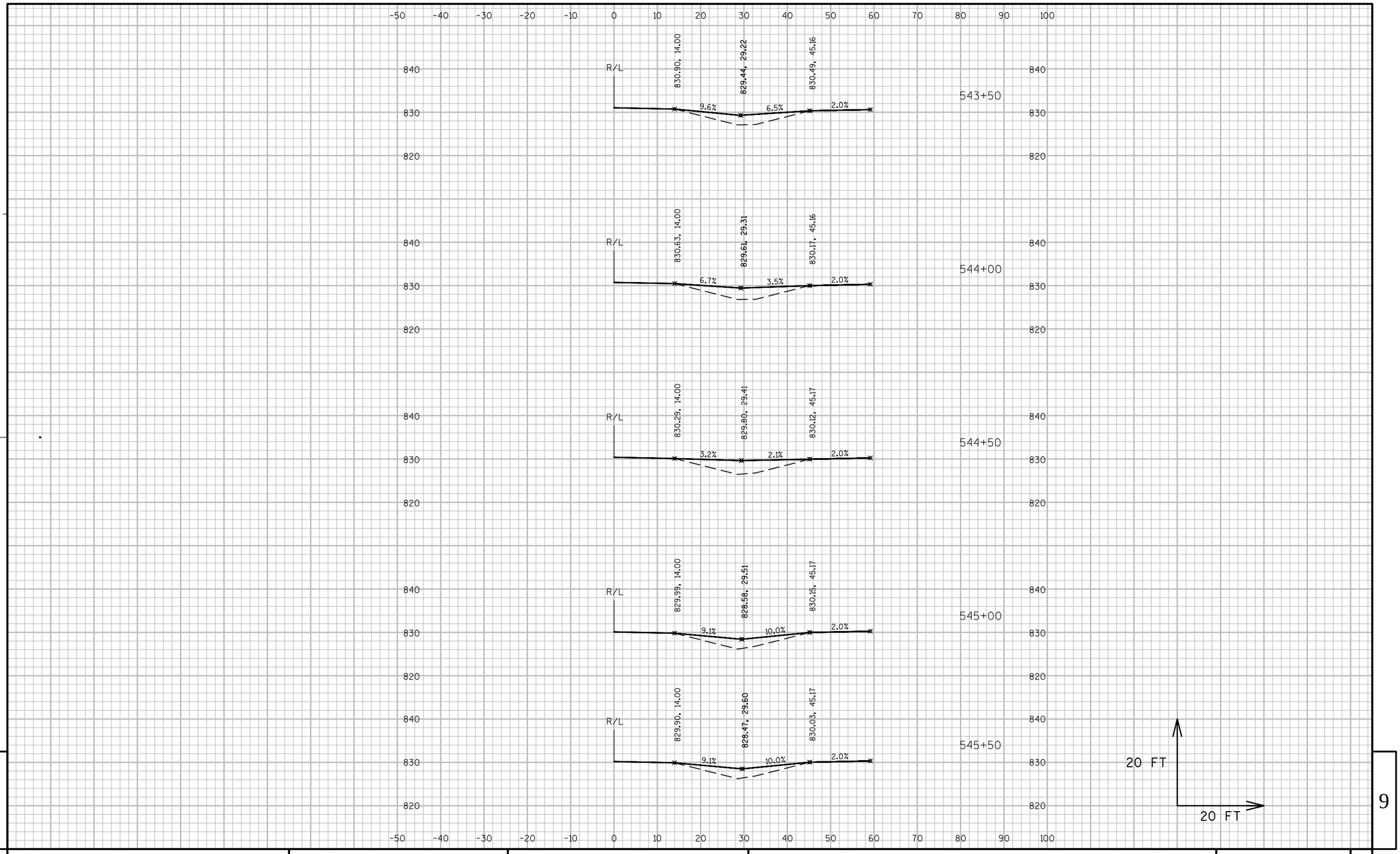

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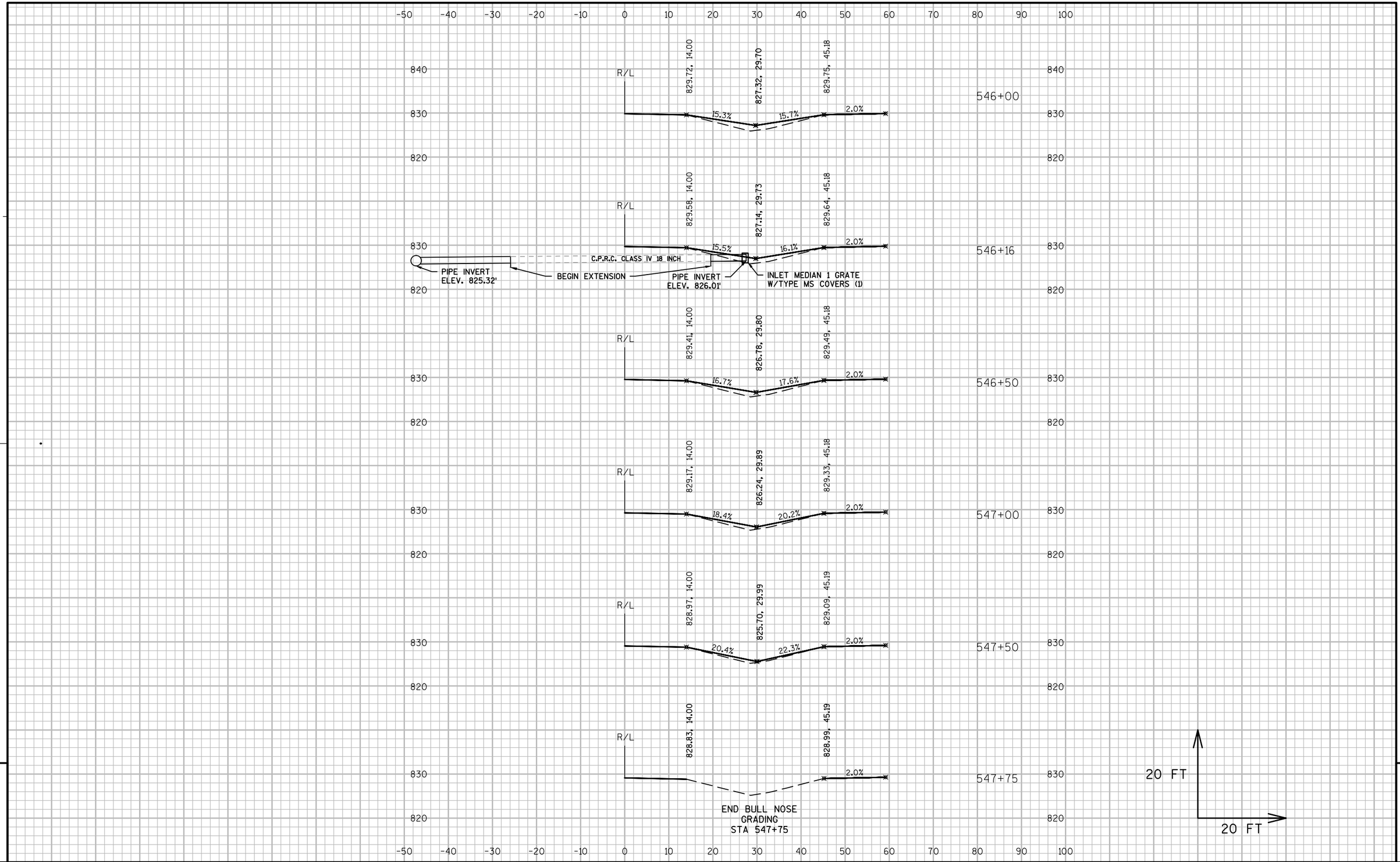

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PROJECT NO: 1003-10-75	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: IH 39 MEDIAN	SHEET	E

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Wisconsin Department of Transportation

Dedicated people creating transportation solutions
through innovation and exceptional service.

http://www.dot.wisconsin.gov

MAD JUNE 2016

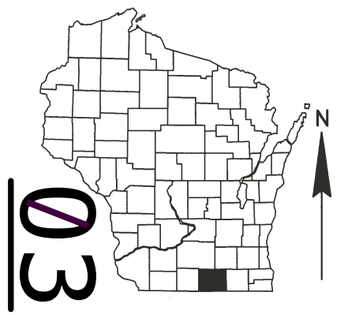
PROJECT ID: 1003-10-77
WITH: 1003-10-74, 1003-10-75, 1003-10-78, 1003-10-82

COUNTY: ROCK

ORDER OF SHEETS

Section No.	1	Title
Section No.	2	Typical Sections and Details
Section No.	3	Estimate of Quantities
Section No.	3	Miscellaneous Quantities
~~Section No.~~	~~4~~	~~Right-of-Way Plat~~
Section No.	5	Plan and Profile
Section No.	6	Standard Detail Drawings
Section No.	7	Sign Plates
~~Section No.~~	~~8~~	~~Structure Plans~~
Section No.	9	Computer Earthwork Data
Section No.	9	Cross Sections

TOTAL SHEETS = 358



STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

ILLINOIS STATE LINE - MADISON

CTH S TO STH 11

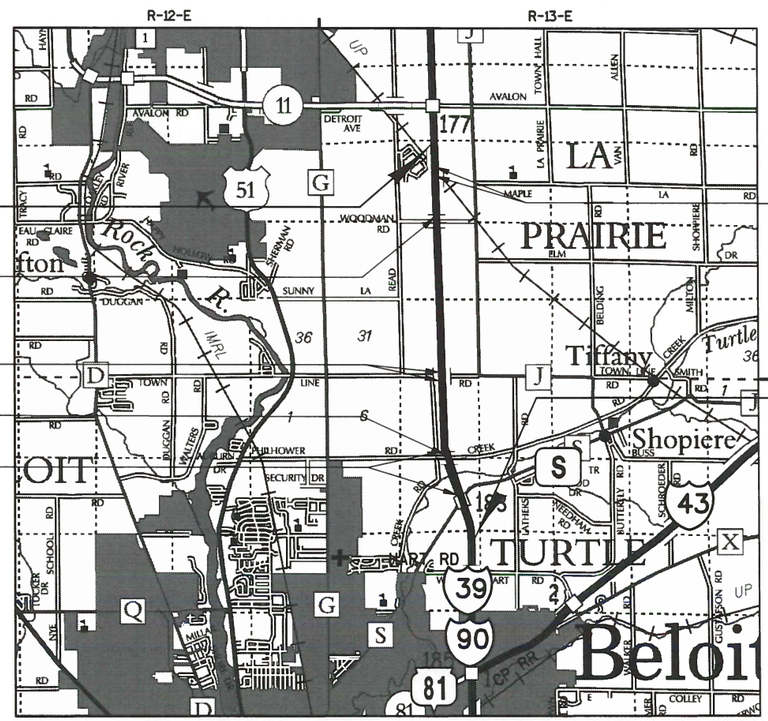
IH 39

ROCK COUNTY

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
1003-10-77	———	—

STATE PROJECT NUMBER

1003-10-77



END PROJECT 1003-10-77
STA. 600+92.00

EQUATION — EQU. STA. 544+24.87 BK. = STA. 544+99.72 AH.

EXCEPTION TO NET LENGTH OF CENTERLINE
STA. 437+31.04 - STA. 438+35.38

EQUATION — EQU. STA. 384+99.83 BK. = STA. 385+00.00 AH.

EXCEPTION TO NET LENGTH OF CENTERLINE
STA. 357+00.00 - STA. 385+88.00

EXCEPTION TO NET LENGTH OF CENTERLINE
STA. 579+28.00 -
STA. 581+67.00

BEGIN PROJECT 1003-10-77
STA. 320+00.00
Y = 221,567.56
X = 506,215.94

DESIGN DESIGNATION 1003-10-77

A.A.D.T. (2016)	=	52,900
A.A.D.T. (2019)	=	56,500
D.H.V. (2019)	=	3,580
D.D.	=	58/42
T. (% ADT)	=	35.1%
DESIGN SPEED	=	70 MPH
ESALS	=	7,523,700

CONVENTIONAL SYMBOLS

PLAN
- CORPORATE LIMITS
- PROPERTY LINE
- LOT LINE
- LIMITED HIGHWAY EASEMENT
- EXISTING RIGHT OF WAY
- PROPOSED OR NEW R/W LINE
- SLOPE INTERCEPT
- REFERENCE LINE
- EXISTING CULVERT
- PROPOSED CULVERT (Box or Pipe)
- COMBUSTIBLE FLUIDS (CAUTION)
- MARSH AREA
- WOODED OR SHRUB AREA

PROFILE
- GRADE LINE
- ORIGINAL GROUND
- MARSH OR ROCK PROFILE (To be noted as such) (ROCK)
- SPECIAL DITCH (LABEL)
- GRADE ELEVATION (95.36)
- CULVERT (Profile View)

UTILITIES
- ELECTRIC (E)
- FIBER OPTIC (FO)
- GAS (G)
- SANITARY SEWER (SAN)
- STORM SEWER (SS)
- TELEPHONE (T)
- WATER (W)
- UTILITY PEDESTAL
- POWER POLE
- TELEPHONE POLE

LAYOUT
SCALE 0 1.0 MI.

TOTAL NET LENGTH OF CENTERLINE = 4.709 MI.

COORDINATES ON THIS PLAN ARE REFERENCED TO THE WISCONSIN COUNTY COORDINATE SYSTEM (WCCS) ROCK COUNTY, NAD 83(91)
ELEVATIONS SHOWN ON THIS PLAN ARE REFERENCED TO NAV 88 (2007)

ORIGINAL PLANS PREPARED BY

AECOM

AECOM
1350 Deming Way, Suite 100, Middleton, WI 53562
T 608.836.9800 www.aecom.com

WISCONSIN PROFESSIONAL ENGINEER
JACK K. BARTMAN
E-38645
MADISON
WI

3/1/16 (Date) (Signature)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor	AECOM AND COMBS & ASSOCIATES
Designer	AECOM
Project Manager	STEVE MARSHALL
Regional Examiner	JIM BUSCHKOPF
Regional Supervisor	KIM SCHAUDER
C.O. Examiner	

APPROVED FOR THE DEPARTMENT

DATE: 3/7/2016 (Signature)

KIM SCHAUDER, Regional Administrator

E

GENERAL NOTES

THE LOCATION OF EXISTING UTILITY INSTALLATIONS AS SHOWN ON THE PLANS ARE APPROXIMATE.
THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT AREA THAT ARE NOT SHOWN.
THE CONTRACTOR IS FULLY RESPONSIBLE FOR LOCATING AND AVOIDING ALL UNDERGROUND AND ABOVE GROUND UTILITY STRUCTURES AND FACILITIES.

CROSS DRAIN PIPE ELEVATIONS, LENGTHS AND LOCATIONS SHOWN ON THE PLANS MAY BE ADJUSTED TO FIT THE EXISTING FIELD CONDITIONS, AS DIRECTED BY THE ENGINEER.

EXISTING PIPE CULVERT SIZES AND CONCRETE BOX CULVERT SIZES SHOWN ARE APPROXIMATE AND THE CONTRACTOR SHALL BASE THE BID ON THE ACTUAL FIELD CONDITIONS.

RADII, ELEVATIONS, AND DIMENSIONS ARE GIVEN AT THE PAVEMENT EDGES, UNLESS OTHERWISE NOTED IN THE PLANS.

THE CONTRACTOR'S PAVING OPERATIONS SHALL BE CONSISTENT WITH PLAN TYPICAL SECTIONS.

ADJUST TRAFFIC CONTROL DEVICE LOCATIONS TO FIT FIELD CONDITIONS AS DIRECTED BY THE ENGINEER.

EROSION CONTROL ITEMS SHOWN IN THE MISCELLANEOUS QUANTITIES ARE AT SUGGESTED LOCATIONS.
THE ENGINEER MAY MODIFY LOCATIONS TO FIT FIELD CONDITIONS.

SALVAGED TOPSOIL, SEEDING, MULCHING, AND FERTILIZER HAVE BEEN COMPUTED BY A DIRECT MEASUREMENT ON THE CROSS SECTIONS PLUS FIVE (5) FEET BEYOND THE TOE OF SLOPE.

WETLANDS, WATERWAYS, AND OTHER ENVIRONMENTALLY SENSITIVE AREAS SHALL BE PROTECTED AT ALL TIMES.
DO NOT STORE EQUIPMENT OR MATERIALS NEAR THESE SITES UNLESS APPROVED BY THE ENGINEER.

THE BASE AGGREGATE DENSE (BAD) 3/4-INCH WEIGHT CALCULATIONS ARE BASED ON A UNIT WEIGHT OF 2.1 TONS/CY.

THE BASE AGGREGATE DENSE (BAD) 1 1/4-INCH WEIGHT CALCULATIONS ARE BASED ON A UNIT WEIGHT OF 2.0 TONS/CY.

THE SELECT CRUSHED AGGREGATE MATERIAL WEIGHT CALCULATIONS ARE BASED ON A UNIT WEIGHT OF 1.9 TONS/CY.

THE HMA PAVEMENT WEIGHT CALCULATIONS ARE BASED ON A UNIT WEIGHT OF 112 LBS/SY/IN OF DEPTH.

6.5-INCH HMA PAVEMENT

LAYER	THICKNESS	GRADATION	BID ITEM
UPPER	2.5-INCHES	12.5mm	4 HT 58-28 H
LOWER	4.0-INCHES	25.0 mm	2 HT 58-28 S

2.0-INCH HMA PAVEMENT (TO REMOVE RUMBLE STRIPS)

THICKNESS	GRADATION	BID ITEM
2.0-INCHES	12.5 mm	4 HT 58-28 H

CONTACTS:

WISDOT

WISDOT PROJECT MANAGER
STEVE MARSHALL
111 INTERSTATE BLVD
EDGERTON, WI 53534
(608)884-7134
steve.marshall@dot.wi.gov

WISDOT CONSTRUCTION MANAGER
EMMANUEL YARTEY
111 INTERSTATE BLVD
EDGERTON, WI 53534
(608)884-7131
emmanuel.yartey@dot.wi.gov

WISDOT ITS MANAGEMENT ENGINEER
LUKE HOLMAN
910 WEST WINGRA DRIVE
MADISON, WI 53715
(608)251-4843
luke.holman@strand.com

WISDOT STATEWIDE TRAFFIC OPERATIONS CENTER
DEAN BEEKMAN
433 W ST PAUL AVE, STE 300
MILWAUKEE, WI 53203
(414)227-2154
dean.beakman@dot.wi.gov

WISDOT SAFETY AND WEIGHT ENFORCEMENT FACILITY
ROBERT SPOERL
4802 SHEBOYGAN AVE, ROOM 501 (BOX 7986)
MADISON, WI 53707
(608)266-8665
robert.spoerl@dot.wi.gov

IDOT

ILLINOIS DEPARTMENT OF TRANSPORTATION
IDOT REGION 2/DISTRICT 2
MASOOD AHMAD
819 DEPOT AVE
DIXON, IL 61021
(815)284-5351

RAILROADS

UNION PACIFIC RAILROAD
JOHN VENICE
101 N. WACKER DR
CHICAGO, IL 60606
(312)777-2043
Jnvenice@up.com

DESIGN

AECOM
JACK BARTMAN
1350 DEMING WAY, SUITE 100
MIDDLETON, WI 53562
(608)828-8149
Jack.bartman@aecom.com

WISDNR

WISCONSIN DEPARTMENT OF NATURAL RESOURCES
(SOUTH CENTRAL REGION)
ROCK COUNTY
LAURA BUB
3911 FISH HATCHERY RD
FITCHBURG, WI 53711-5397
(608)275-3485
laura.bub@wisconsin.gov

DETAIL SHEET INDEX

GENERAL NOTES
PROJECT OVERVIEW
TYPICAL SECTIONS
CONSTRUCTION DETAILS
EROSION CONTROL
TRAFFIC CONTROL
ALIGNMENT DIAGRAM

FILE NAME : L:\WORK\PROJECTS\60242867\000_CAD\001_DRAWINGS\1003-10-77_CTH S TO STH 11 TEMP\100%\020101_GN.DWG PLOT DATE : 3/7/2016 11:09 AM PLOT BY : ARBUCKLE, ADRIAN PLOT NAME : ---------- PLOT SCALE : 1:20_XREF
WISDOT/CADDS SHEET 42

UTILITIES

WISCONSIN POWER AND LIGHT - GAS/ELECTRICITY
(ALLIANT ENERGY)
JASON HOGAN
4902 N BILTMORE LANE STE 1000
MADISON, WI 53718
(608) 458-4871
jasonhogan@alliantenergy.com

AT&T WISCONSIN - COMMUNICATION LINE
CAROL ANASON
316 W WASHINGTON AVE
MADISON, WI 53703
(608) 252-2385
ca2624@att.com

ROCK ENERGY COOPERATIVE - ELECTRICITY
LYNN MAIER
P.O. BOX 1758
JANESVILLE, WI 53547-1758
(608) 752-4550
LYNNM@ROCK.COOP

ATC MANAGEMENT, INC. - ELECTRICITY
MIKE OLSEN
801 O'KEEFE RD
P.O. BOX 6113
DE PERE, WI 54115-6113
(920) 338-6582
molsen@atcllc.com

CHARTER COMMUNICATIONS - COMMUNICATION LINE
BRANDON STORM
2701 DANIELS ST
MADISON, WI 53718
(608) 274-3822
brandon.storm@charter.com

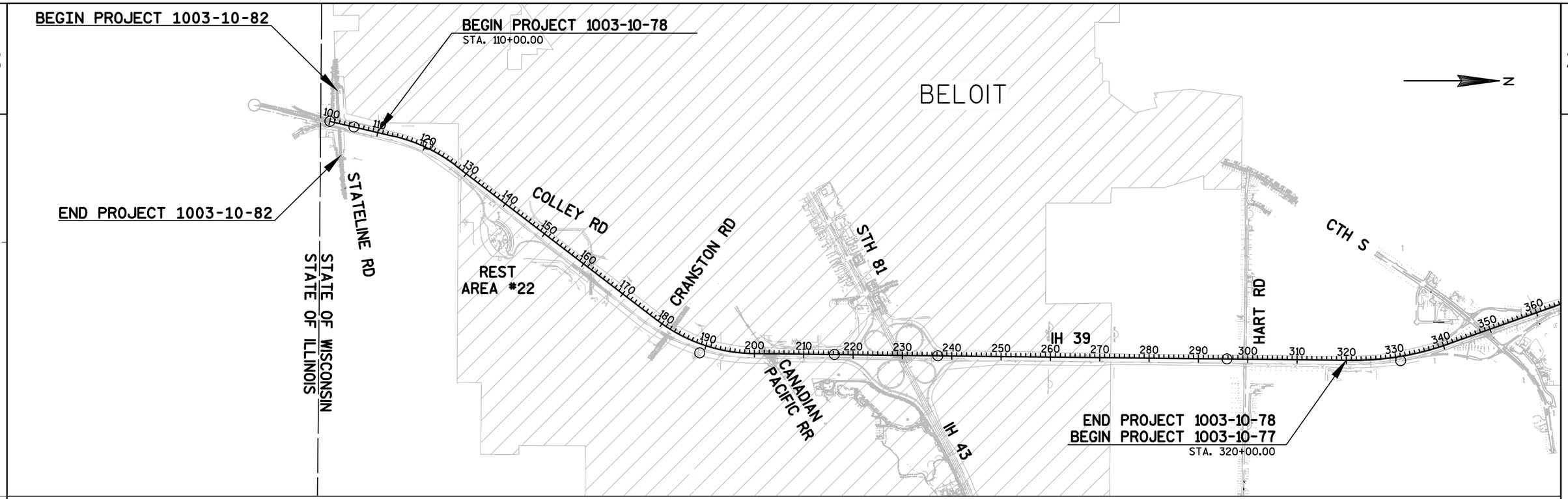
FRONTIER COMMUNICATIONS OF WI, LLC - COMMUNICATION LINE
ROBERT CHURCH
2222 WEST WISCONSIN ST
PORTAGE, WI 53901
(608) 742-1817
robert.church@ftr.com

ABBREVIATIONS

AP	ACCESS POINT/ DRIVEWAY CONNECTION
AR	ACCESS RIGHTS
AC.	ACRES
ET.AL.	AND OTHERS
℄ OR C/L	CENTERLINE
CMCP	CORRUGATED METAL CULVERT PIPE
CSM	CERTIFIED SURVEY MAP
COR.	CORNER
D	DEGREE OF CURVE
D.D.	DIRECTION DISTRIBUTION
D.H.V.	DESIGN HOUR VOLUME
DOC.	DOCUMENT
E.	EAST
EASE.	EASEMENT
EL OR ELEV	ELEVATION
E.S.A.L.	EQUIVALENT SINGLE AXLE LOAD
EXIST.	EXISTING
H.E.	HIGHWAY EASEMENT
HMA	HOT MIX ASPHALT
IH	INTERSTATE HIGHWAY
IP OR I.P.	IRON PIN
L	LENGTH OF CURVE
LN	LANE
LT. OR LT	LEFT
MAX.	MAXIMUM
MIN.	MINIMUM
MON.	MONUMENT
MP	ROADWAY MILEAGE
N.	NORTH
P.	PAGE
PLE	PERMANENT LIMITED EASEMENT
PL	PROPERTY LINE
RCCP	REINFORCED CONCRETE CULVERT PIPE
RD.	ROAD
(100')	RECORDED AS
R	RADIUS
℞ OR R/L	REFERENCE LINE
RR	RAILROAD
ROR	RELEASE OF RIGHTS
REM.	REMAINING
RT OR RT.	RIGHT
R/W	RIGHT-OF-WAY
S.	SOUTH
S.E.	SUPEREVELVATION
SEC.	SECTION
SF	SQUARE FEET
STA.	STATION
STH	STATE TRUNK HIGHWAY
T	TANGENT
TLE	TEMPORARY LIMITED EASEMENT
T. %	TRUCK (PERCENT OF)
V.	VOLUME
W.	WEST
WIS	WISCONSIN STATE TRUNK HIGHWAY

DIGGERS HOTLINE
Dial 811 or (800) 242-8511
www.DiggersHotline.com

FILE NAME : L:\WORK\PROJECTS\60242867\000_CAD\001_DRAWINGS\1003-10-77_CTH S TO STH 11 TEMP\100%\020101_GN.DWG PLOT DATE : 3/7/2016 11:09 AM PLOT BY : ARBUCKLE, ADRIAN PLOT NAME : ---------- PLOT SCALE : 1:20_XREF WISDOT/CADDS SHEET 42



NOTE:

THIS SHEET PROVIDES AN OVERVIEW OF THE LOCATION OF THE FOLLOWING 5 TIED PROJECTS:

1003-10-74
1003-10-75
1003-10-77
1003-10-78
1003-10-82

SEE THE PLANS OF THE CORRESPONDING PROJECT I.D. FOR MORE INFORMATION.

PROJECT NO: 1003-10-77	HWY: IH 39	COUNTY: ROCK	PROJECT OVERVIEW - 5 TIED PROJECTS	SHEET 4	E

2

N

BELOIT

BEGIN PROJECT 1003-10-77
STA. 320+00.00

CTH S OFF RAMP CROSSOVER
FROM IH 39/90 NB - 'TZB'

STA. 369+04.91
STRUCTURES B-53-42

STA. 437+81.37
STRUCTURES B-53-39

STA. 381+51.54
STRUCTURE B-53-41

EQUATION
STA. 544+24.87 BK. =
STA. 544+99.72 AH.

END PROJECT 1003-10-77
STA. 600+92.00

WOODMAN RD
BP: 544+99.72

STA. 580+30.06
STRUCTURE B-53-36

CTH S

PATRICK RD

IH 39

CREEK RD

TOWNLINE RD

SWEF #19

STA. 543+73.03
STRUCTURE B-53-319

STA. 565+69.88
STRUCTURE B-53-56

UNION PACIFIC RR

STA. 349+86.78
STRUCTURE B-53-313

EXCEPTION TO NET LENGTH OF CENTERLINE
STA. 437+31.04 - STA. 438+35.38

EXCEPTION TO NET LENGTH OF CENTERLINE
STA. 541+00.00 - STA. 547+00.00

EXCEPTION TO NET LENGTH OF CENTERLINE
STA. 579+28.00 - STA. 581+67.00

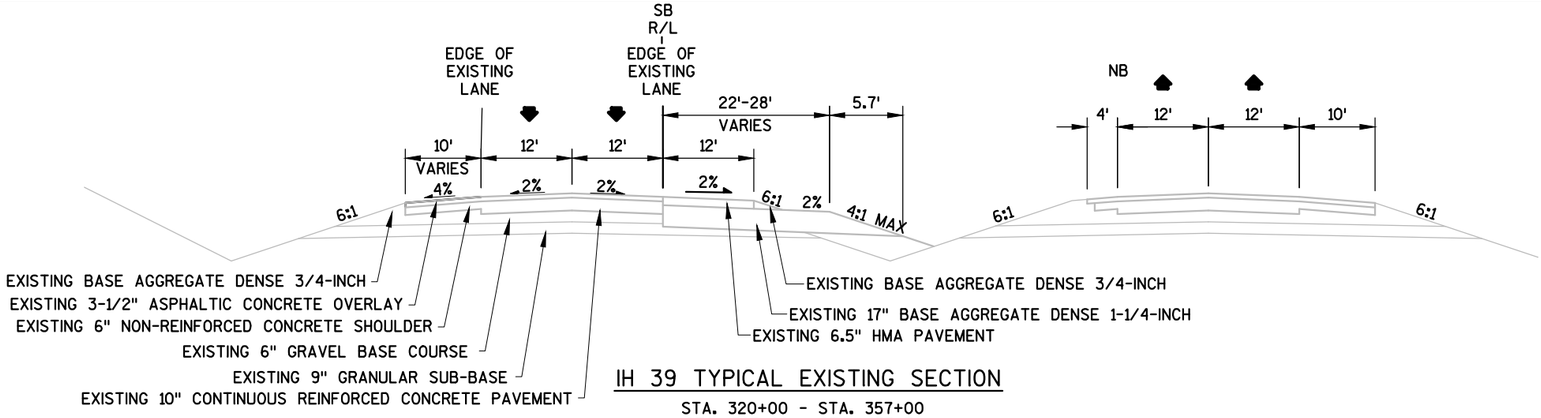
STA. 384+99.83 BK. =
STA. 385+00.00 AH. EQUATION

NOTE: ADDITIONAL TEMPORARY WIDENING TO BE CONSTRUCTED IN PROJECT 1003-10-78.

EXCEPTION TO NET LENGTH OF CENTERLINE
STA. 357+00.00 - STA. 385+88.00

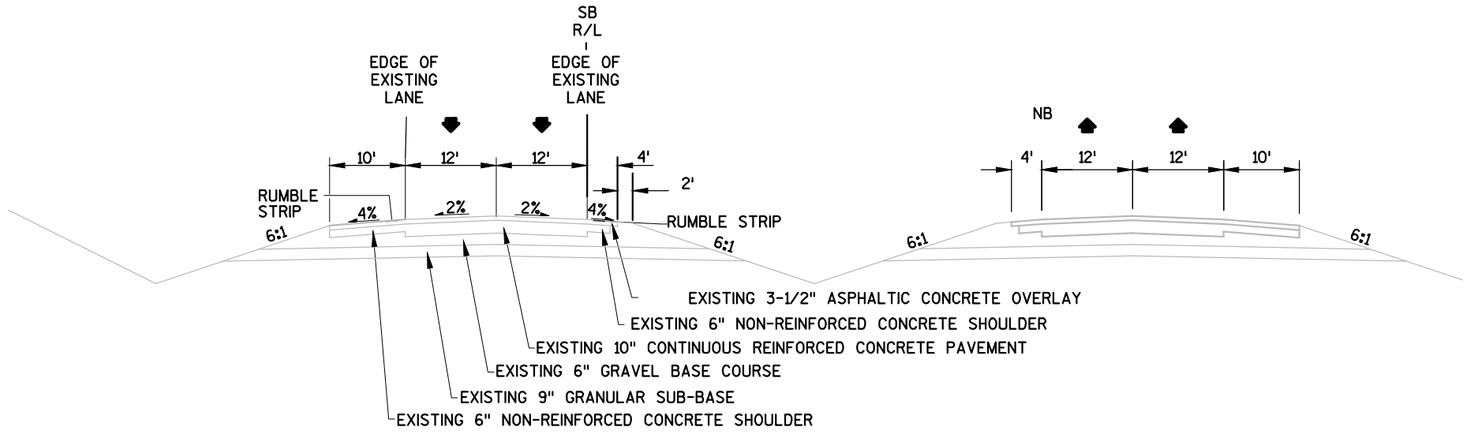
CTH S ON RAMP LOOP
TO IH 39/90 NB - 'TZA'

PROJECT NO: 1003-10-77	HWY: IH 39	COUNTY: ROCK	PROJECT OVERVIEW	SHEET 5	E



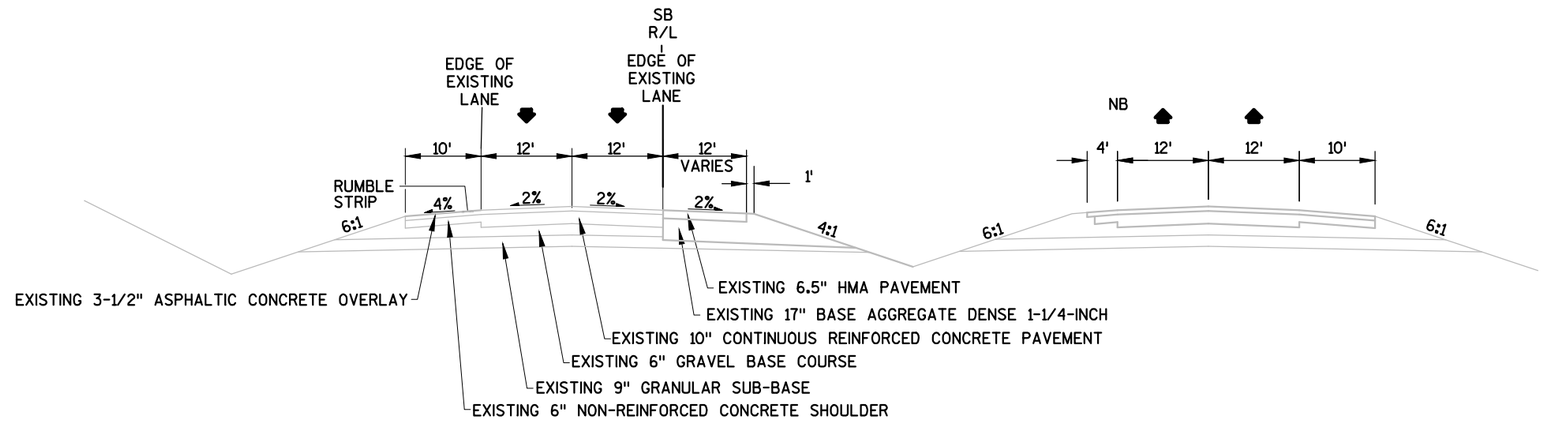
IH 39 TYPICAL EXISTING SECTION

STA. 320+00 - STA. 357+00
STA. 385+88 - STA. 437+31
STA. 438+35 - STA. 541+00



IH 39 TYPICAL EXISTING SECTION

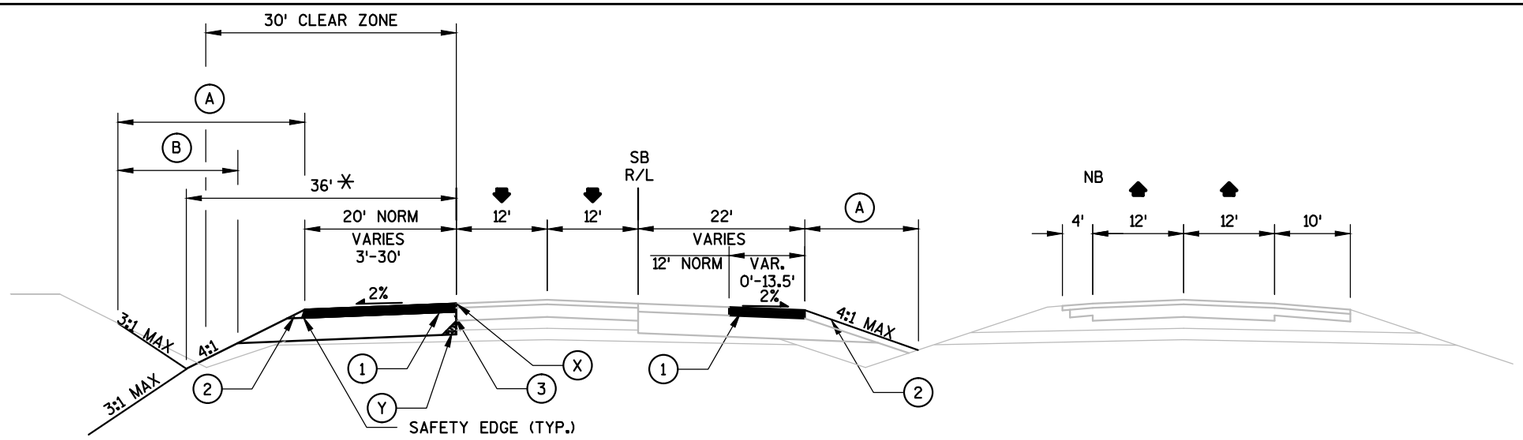
STA. 547+00 - STA. 579+28
STA. 581+67 - STA. 590+00



IH 39 TYPICAL EXISTING SECTION

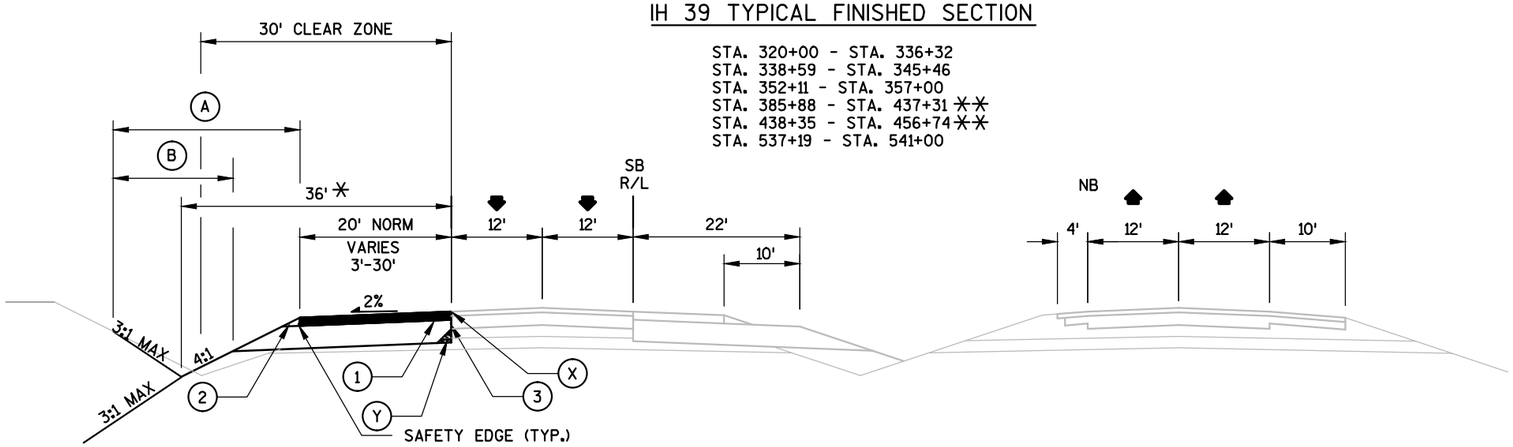
STA. 590+00 - STA. 600+92

PROJECT NO: 1003-10-77	HWY: IH 39	COUNTY: ROCK	PLAN: TYPICAL SECTION	SHEET 6	E



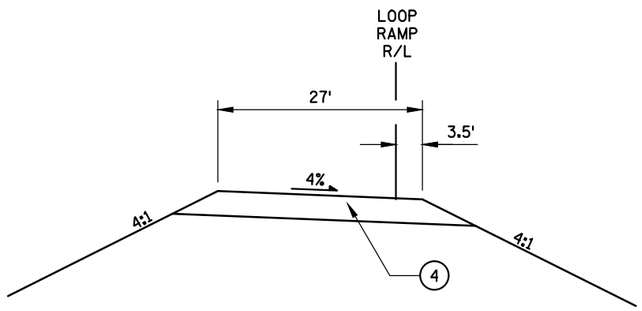
IH 39 TYPICAL FINISHED SECTION

STA. 320+00 - STA. 336+32
STA. 338+59 - STA. 345+46
STA. 352+11 - STA. 357+00
STA. 385+88 - STA. 437+31 ✳✳
STA. 438+35 - STA. 456+74 ✳✳
STA. 537+19 - STA. 541+00



IH 39 TYPICAL FINISHED SECTION

STA. 345+46 - STA. 347+03
STA. 349+50 - STA. 352+11
STA. 456+74 - STA. 537+19



CTH S LOOP RAMP 'TZA'

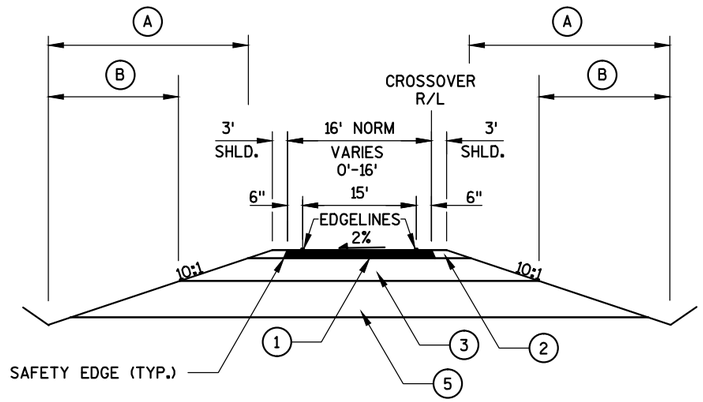
STA. 10+61'TZA' - STA. 17+75'TZA'

LEGEND

(1)	6.5" NEW CONSTRUCTION 2.5" HMA PAVEMENT 4 HT 58-28 H (UPPER LAYER) 4.0" HMA PAVEMENT 3 HT 58-28 S (LOWER LAYER)
(2)	BASE AGGREGATE DENSE 3/4-INCH
(3)	17" BASE AGGREGATE DENSE 1 1/4-INCH
(4)	10" BASE AGGREGATE DENSE 1 1/4-INCH
(5)	16" SELECT CRUSHED MATERIAL
(X)	SAW CUT
(Y)	EXISTING MATERIAL REMAINS TO PREVENT UNDERCUTTING EXISTING PAVEMENT
(A)	SEED & FERTILIZE
(B)	SALVAGED TOPSOIL AND MULCH

✳ CLEAR ZONE IS 30'. THIS WIDTH WILL PROVIDE A 20' CONSTRUCTION CLEAR ZONE FOR THE TRAFFIC CONTROL CONFIGURATION FOR THE NORTHBOUND MAINLINE RECONSTRUCTION.

✳✳ SEE GUARDRAIL PARTIAL TYPICAL SECTION.

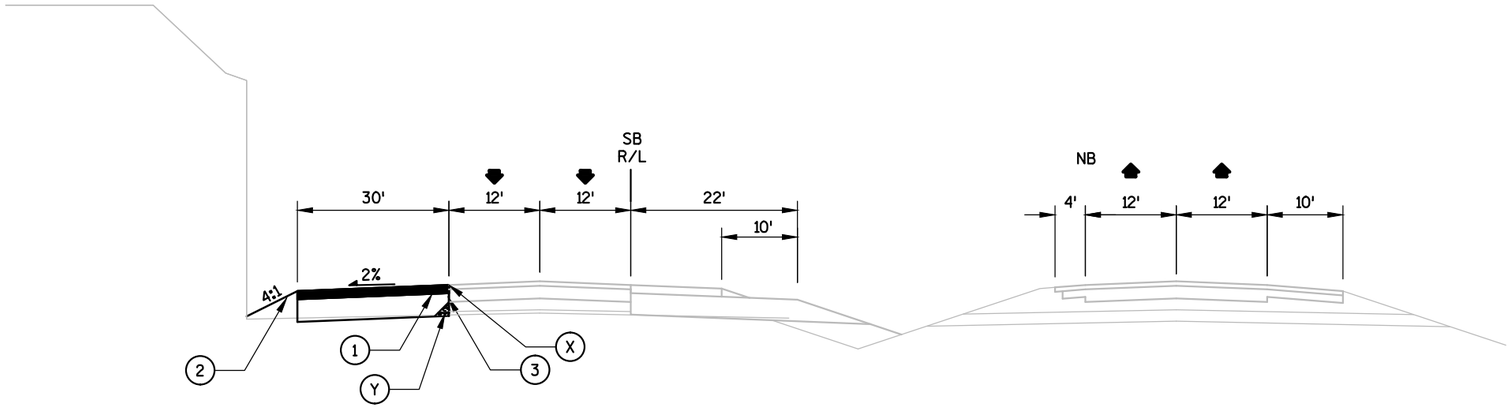


TYPICAL RAMP CROSSOVER ROADWAY DIMENSIONS

STA. 9+25'TZB' - STA. 20+69'TZB'

PROJECT NO: 1003-10-77	HWY: IH 39	COUNTY: ROCK	PLAN: PROPOSED TYPICAL SECTION	SHEET 7	E

2



IH 39 TYPICAL FINISHED SECTION

STA. 347+03 - STA. 349+50 ✳✳✳

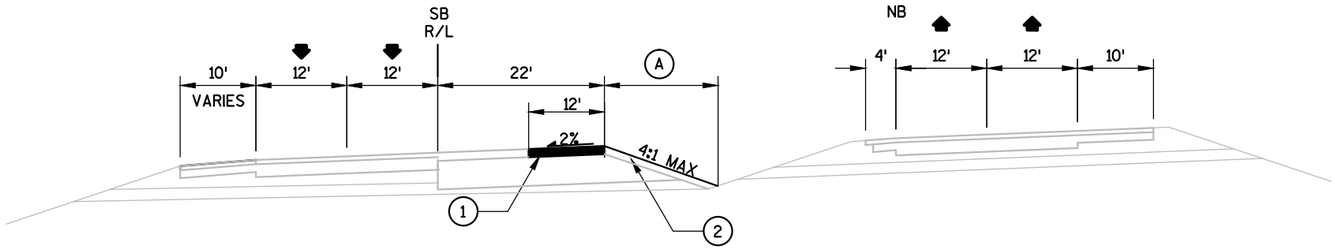
LEGEND

(1)	6.5" NEW CONSTRUCTION 2.5" HMA PAVEMENT 4 HT 58-28 H (UPPER LAYER) 4.0" HMA PAVEMENT 3 HT 58-28 S (LOWER LAYER)
(2)	BASE AGGREGATE DENSE 3/4-INCH
(3)	17" BASE AGGREGATE DENSE 1 1/4-INCH
(4)	10" BASE AGGREGATE DENSE 1 1/4-INCH
(5)	16" SELECT CRUSHED MATERIAL
(X)	SAW CUT
(Y)	EXISTING MATERIAL REMAINS TO PREVENT UNDERCUTTING EXISTING PAVEMENT
(A)	SEED & FERTILIZE
(B)	SALVAGED TOPSOIL AND MULCH

✳ CLEAR ZONE IS 30'. THIS WIDTH WILL PROVIDE A 20' CONSTRUCTION CLEAR ZONE FOR THE TRAFFIC CONTROL CONFIGURATION FOR THE NORTHBOUND MAINLINE RECONSTRUCTION.

✳✳ SEE GUARDRAIL PARTIAL TYPICAL SECTION.

✳✳✳ SEE CONCRETE BARRIER TEMPORARY PRECAST PARTIAL TYPICAL SECTION.

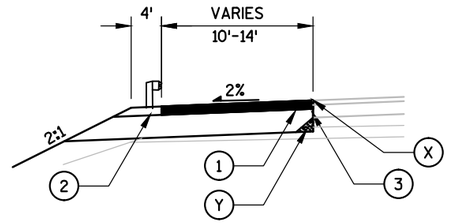


IH 39 TYPICAL FINISHED SECTION

STA. 336+32 - STA. 338+59

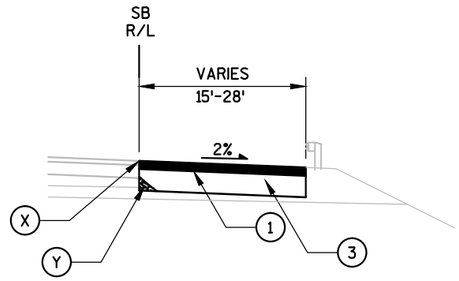
PROJECT NO: 1003-10-77	HWY: IH 39	COUNTY: ROCK	PLAN: PROPOSED TYPICAL SECTION	SHEET 8 E

2



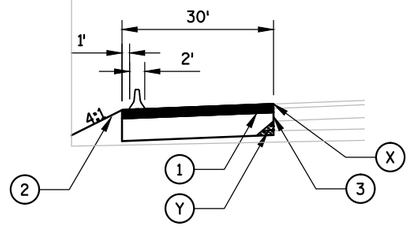
IH 39 TYPICAL PARTIAL FINISHED SECTION WITH GUARDRAIL

STA. 434+29 - STA. 437+31, LT
STA. 438+35 - STA. 441+37, LT



IH 39 TYPICAL PARTIAL FINISHED SECTION WITH EXISTING GUARDRAIL

STA. 436+52 - STA. 437+31, RT
STA. 438+35 - STA. 439+19, RT



IH 39 TYPICAL PARTIAL FINISHED SECTION
WITH PROPOSED CONCRETE BARRIER TEMPORARY PRECAST

STA. 347+15 - STA. 352+11, LT

LEGEND

(1) 6.5" NEW CONSTRUCTION
2.5" HMA PAVEMENT 4 HT 58-28 H (UPPER LAYER)
4.0" HMA PAVEMENT 3 HT 58-28 S (LOWER LAYER)

(2) BASE AGGREGATE DENSE 3/4-INCH

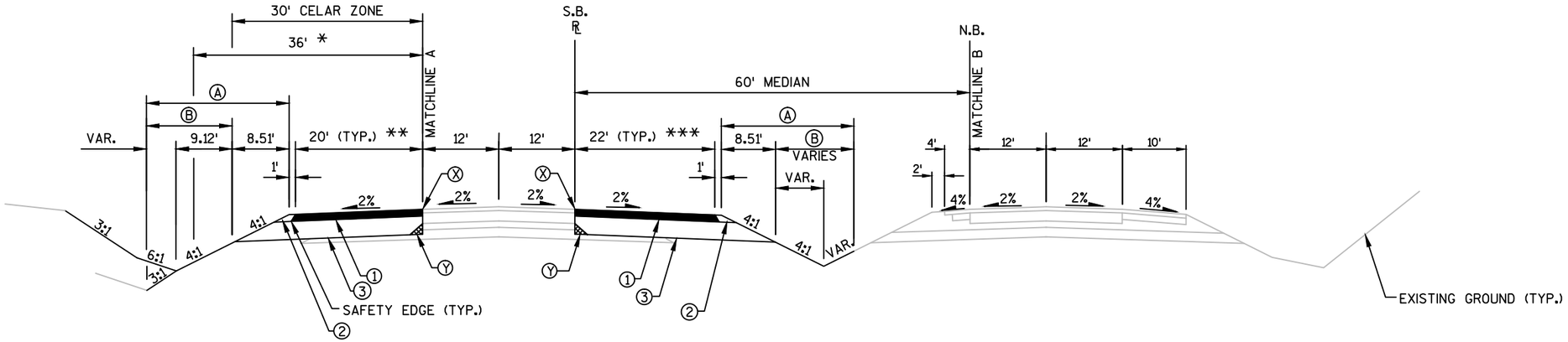
(3) 17" BASE AGGREGATE DENSE 1 1/4-INCH

(X) SAW CUT

(Y) EXISTING MATERIAL REMAINS TO PREVENT UNDERCUTTING EXISTING PAVEMENT

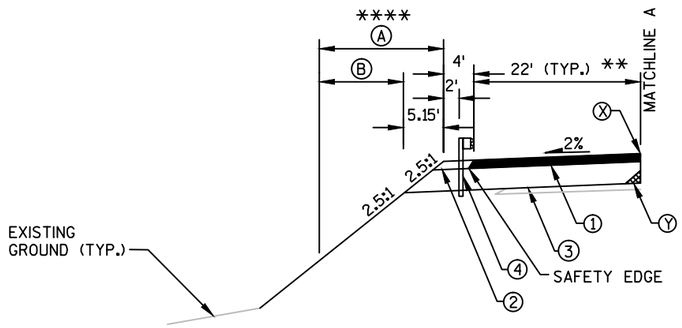
PROJECT NO: 1003-10-77	HWY: IH 39	COUNTY: ROCK	PLAN: TYPICAL FINISHED SECTION	SHEET 9	E

FILE NAME : L:\WORK\PROJECTS\60242867\000_CAD\001_DRAWINGS\1003-10-77_CTH S TO STH 11 TEMP\100%\020304_TS.DWG PLOT DATE : 9/18/2014 4:01 PM PLOT BY : ARBUCKLE, ADRIAN PLOT NAME : ---------- PLOT SCALE : 1 IN: 20 FT WISDOT/CADDS SHEET 42



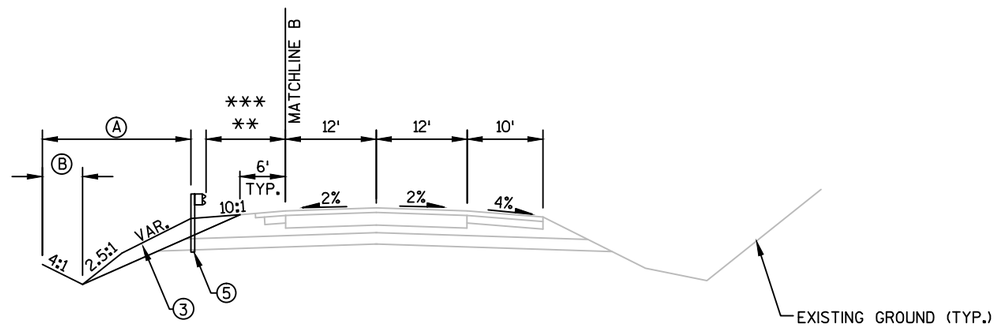
TYPICAL FINISHED SECTION

STA. 547+00 - STA. 579+28



MGS GUARDRAIL SECTION

STA. 563+65.50 - STA. 579+66.00



MGS GUARDRAIL SECTION

STA. 575+33.00 - STA. 578+75.30

STA. 581+22.70 - STA. 582+85.40

* CLEAR ZONE IS 30'. THIS WIDTH WILL PROVIDE A 20' CONSTRUCTION CLEAR ZONE FOR THE TRAFFIC CONTROL CONFIGURATION FOR THE NORTHBOUND MAINLINE RECONSTRUCTION.

** VARIES STA. 562+55 - STA. 563+65 FROM 20' - 22'
STA. 563+65 - STA. 574+50 - 22'
VARIES STA. 574+50 - STA. 578+10 FROM 22' - 10'
STA. 578+10 - STA. 579+28 - 10'

*** VARIES STA. 562+90 - STA. 564+00 FROM 22' - 17'
STA. 564+00 - STA. 567+00 - 17'
VARIES STA. 567+00 - STA. 568+10 FROM 17' - 19'
STA. 568+10 - STA. 571+50 - 19'
VARIES STA. 571+50 - STA. 577+00 FROM 19' - 29'
STA. 577+00 - STA. 578+90 - 29'

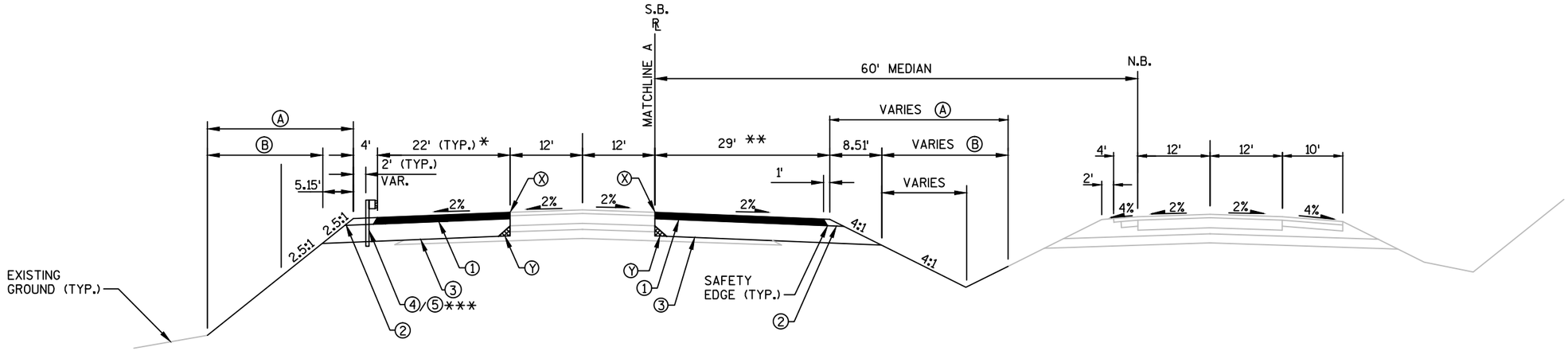
**** VARIES STA. 563+73 - STA. 579+73, SEE PLAN SHEETS FOR ADDT'L INFORMATION

*** STA. 575+33.00 - 576+64.70 11.5'
** VAR. STA. 576+64.70 - STA. 578+23.30 11.5' - 23.0'
STA. 578+23.30 - STA. 578+75.30 23.0'

STA. 581+22.70 - STA. 581+55.90 23.0'
VAR. STA. 581+55.90 - STA. 582+51.60 23.0' - 16.5'
STA. 582+51.60 - STA. 582+85.40 - 16.5'

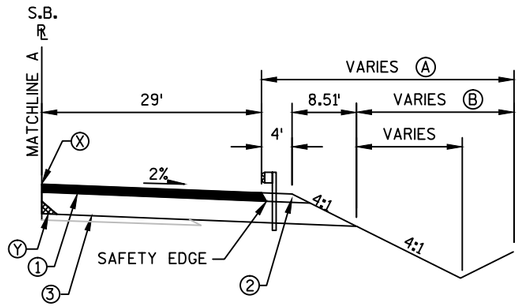
LEGEND

①	6.5" NEW CONSTRUCTION 2.5" HMA PAVEMENT 4 HT 58-28 H (UPPER LAYER) 4.0" HMA PAVEMENT 3 HT 58-28 S (LOWER LAYER)
②	BASE AGGREGATE DENSE 3/4-INCH
③	17" BASE AGGREGATE DENSE 1 1/4-INCH
④	MGS GUARDRAIL
⑤	MGS GUARDRAIL 3 K
Ⓧ	SAW CUT
Ⓨ	EXISTING MATERIAL REMAINS TO PREVENT UNDERCUTTING EXISTING PAVEMENT
Ⓐ	SEED AND FERTILIZE
Ⓑ	SALVAGED TOPSOIL AND MULCH



TYPICAL FINISHED SECTION

STA. 581+67 - STA. 590+00 RT
STA. 582+20 - STA. 602+45 LT



MGS GUARDRAIL SECTION

STA. 581+27.50 - STA. 582+45.02 RT

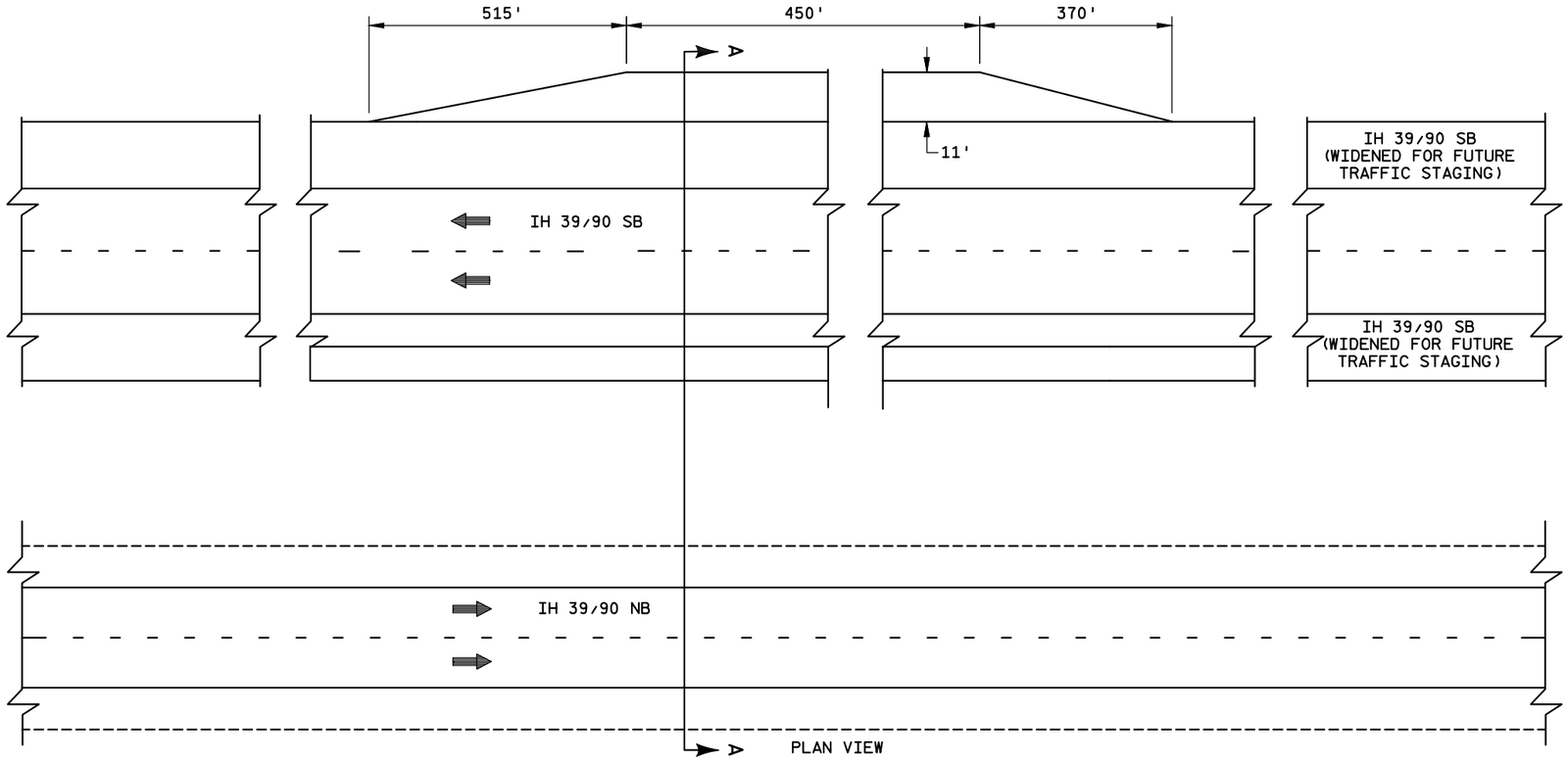
* STA. 582+12 - STA. 582+74 - 10'
VARIES STA. 582+74 - STA. 583+40 FROM 10' - 12'
STA. 583+40 - STA. 584+00 - 12'
VARIES STA. 584+00 - STA. 596+10 FROM 12' - 34'
STA. 596+10 - STA. 600+92 - 34', PAVING ENDS AT 600+92 LT
STA. 600+92 - STA. 602+45, GUARDRAIL INSTALLATION/GRADING ONLY BEYOND SB EXISTING OUTSIDE EDGE OF PAVEMENT

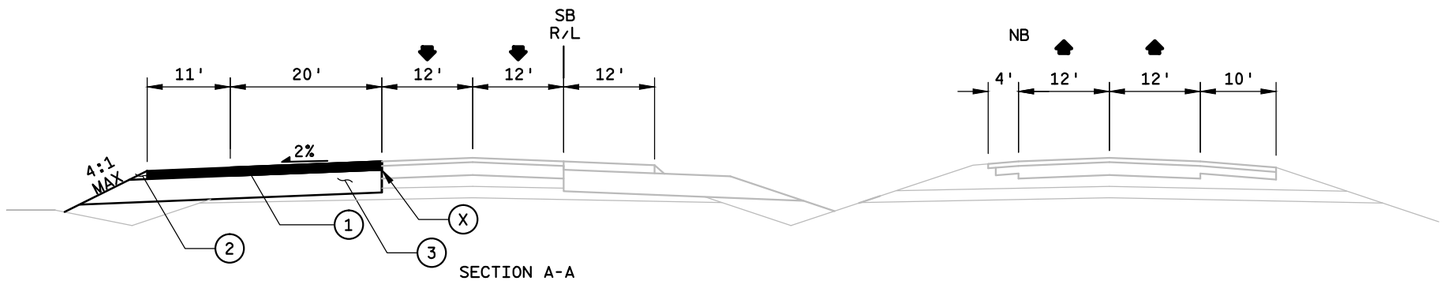
** VARIES STA. 584+00 - STA. 589+60 FROM 29' - 19'
VARIES STA. 589+60 - STA. 590+00 FROM 19' - 18.1', PAVING ENDS AT 590+00 RT

*** USE MGS GUARDRAIL 3 K, HALF POST SPACING STA. 584+49.00 - STA. 585+99.00 LT, STA. 595+49.00 - STA. 597+99.00 LT

LEGEND

(1)	6.5" NEW CONSTRUCTION 2.5" HMA PAVEMENT 4 HT 58-28 H (UPPER LAYER) 4.0" HMA PAVEMENT 3 HT 58-28 S (LOWER LAYER)
(2)	BASE AGGREGATE DENSE 3/4-INCH
(3)	17" BASE AGGREGATE DENSE 1 1/4-INCH
(4)	MGS GUARDRAIL
(5)	MGS GUARDRAIL 3 K
(X)	SAW CUT
(Y)	EXISTING MATERIAL REMAINS TO PREVENT UNDERCUTTING EXISTING PAVEMENT
(A)	SEED AND FERTILIZE
(B)	SALVAGED TOPSOIL AND MULCH





SECTION A-A

TEMPORARY EMERGENCY PULLOUTS

STA. 478+60 - STA. 491+95

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS, APPLICABLE SPECIAL PROVISIONS AND THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

LEGEND

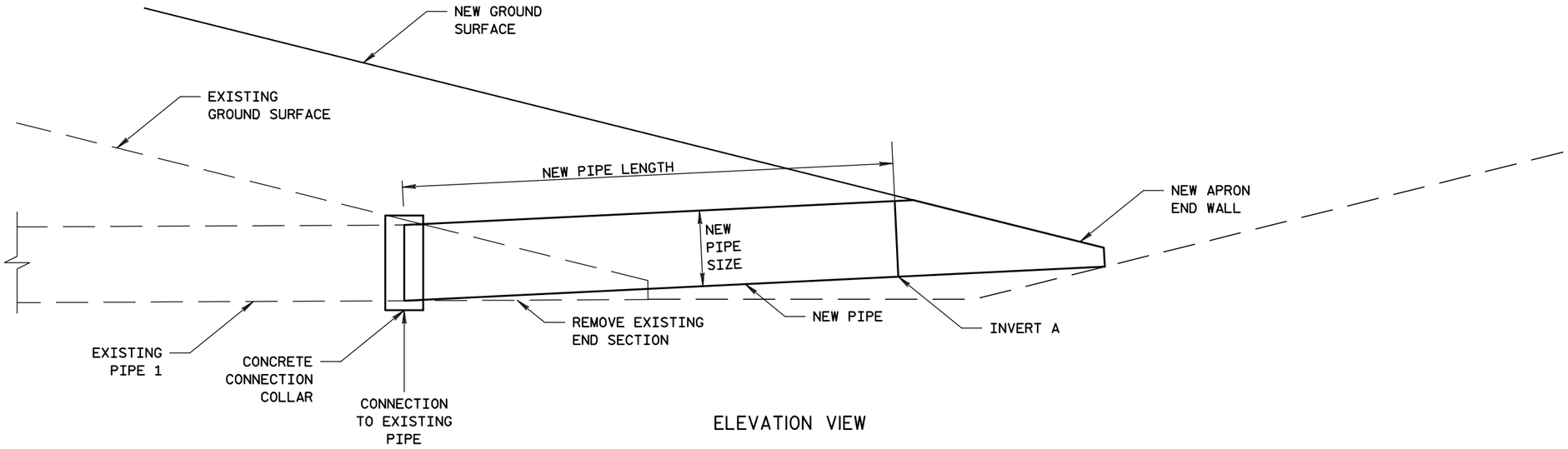
(1) 6.5" NEW CONSTRUCTION
2.5" HMA PAVEMENT 4 HT 58-28 H (UPPER LAYER)
4.0" HMA PAVEMENT 3 HT 58-28 (LOWER LAYER)

(2) BASE AGGREGATE DENSE 3/4-INCH

(3) 17" BASE AGGREGATE DENSE 1 1/4-INCH

(X) SAW CUT

2



ELEVATION VIEW

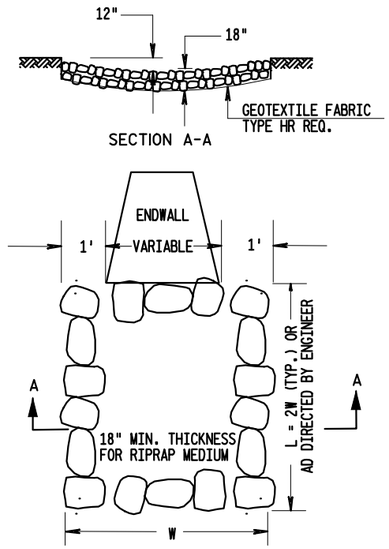
CULVERT PIPE EXTENSION DETIAL

PROJECT NO:1003-10-77	HWY:IH 39	COUNTY:ROCK	DRAINAGE DETAILS	SHEET 13	E

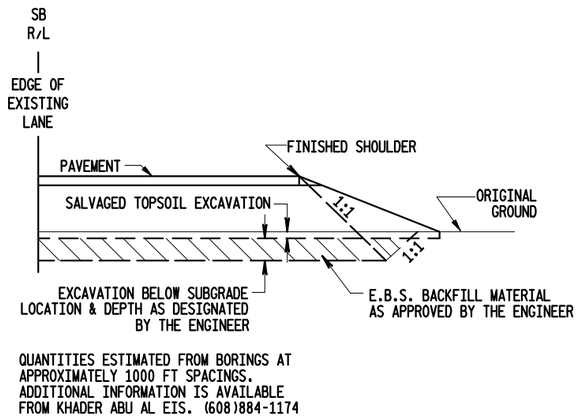
RUNOFF COEFFICIENT TABLE

	HYDROLOGIC SOIL GROUP											
	A			B			C			D		
	SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)		
LAND USE:	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER
ROW CROPS	.08 .22	.16 .30	.22 .38	.12 .26	.20 .34	.27 .44	.15 .30	.24 .37	.33 .50	.19 .34	.28 .41	.38 .56
MEDIAN STRIP-TURF	.19 .24	.20 .26	.24 .30	.19 .25	.22 .28	.26 .33	.20 .26	.23 .30	.30 .37	.20 .27	.25 .32	.30 .40
SIDE SLOPE-TURF			.25 .32			.27 .34			.28 .36			.30 .38
PAVEMENT:												
ASPHALT	.70 - .95											
CONCRETE	.80 - .95											
BRICK	.70 - .80											
DRIVES, WALKS	.75 - .85											
ROOFS	.75 - .95											
GRAVEL ROADS, SHOULDERS	.40 - .60											

TOTAL PROJECT AREA = 70.041 ACRES
TOTAL AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES = 36.078 ACRES



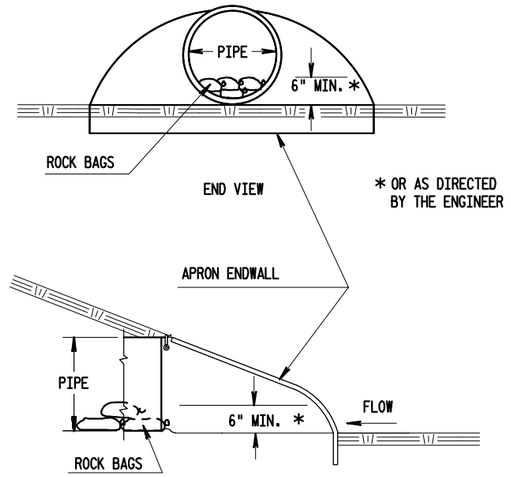
RIPRAP MEDIUM TREATMENT AT CULVERTS



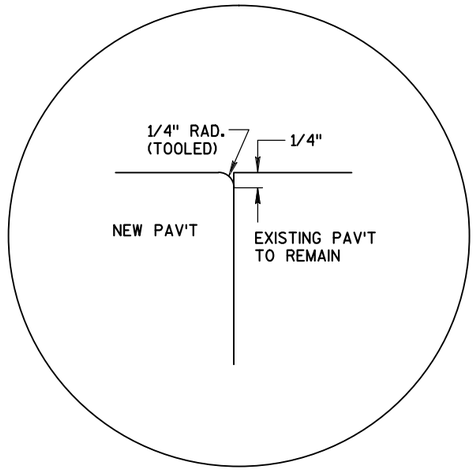
QUANTITIES ESTIMATED FROM BORINGS AT APPROXIMATELY 1000 FT SPACINGS. ADDITIONAL INFORMATION IS AVAILABLE FROM KHADER ABU AL EIS. (608)884-1174

DETAIL FOR EXCAVATION BELOW SUBGRADE

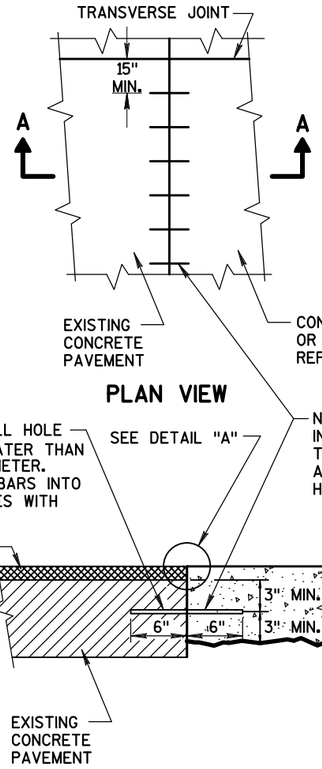
THIS DETAIL TO BE USED FOR REMOVAL OF UNSUITABLE MATERIAL.



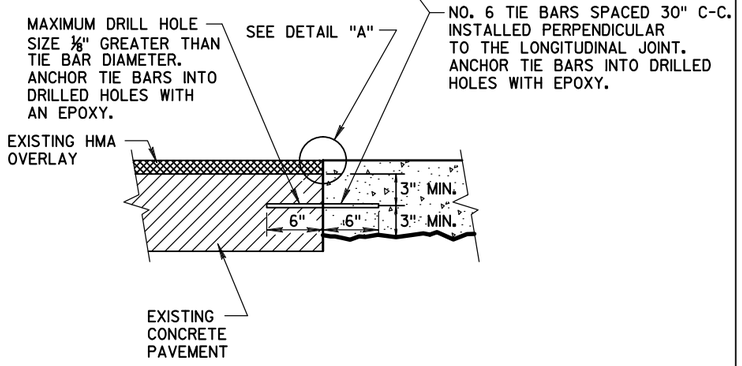
CULVERT PIPE CHECKS



DETAIL "A"



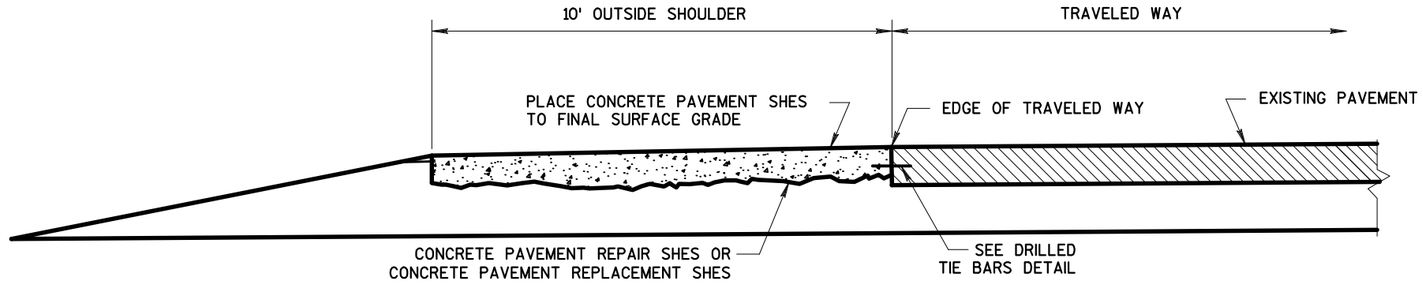
PLAN VIEW



SECTION A-A

DRILLED TIE BARS

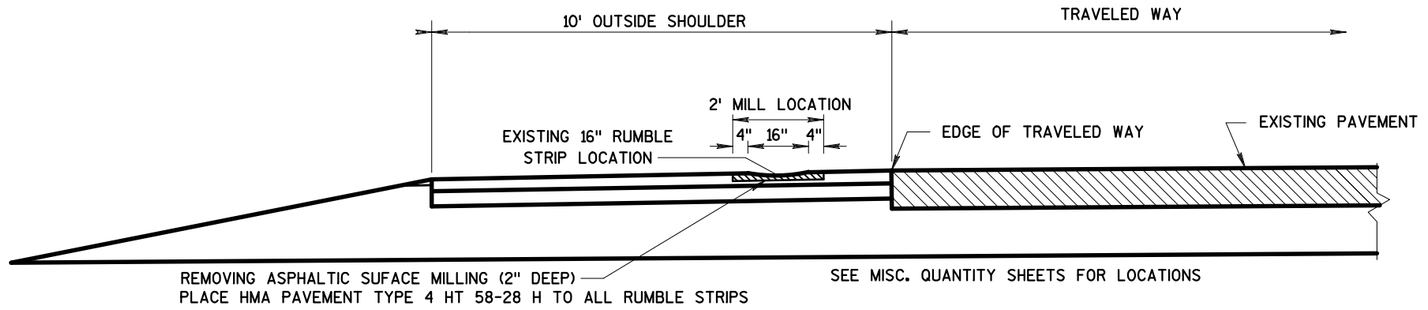
NOTE: PLACE CONSTRUCTION TRANSVERSE JOINTS AT A MAXIMUM OF 15' SPACING. DO NOT SEAL OR FILL CONSTRUCTION JOINTS.



SECTION VIEW

CONCRETE PAVEMENT REPLACEMENT SHES

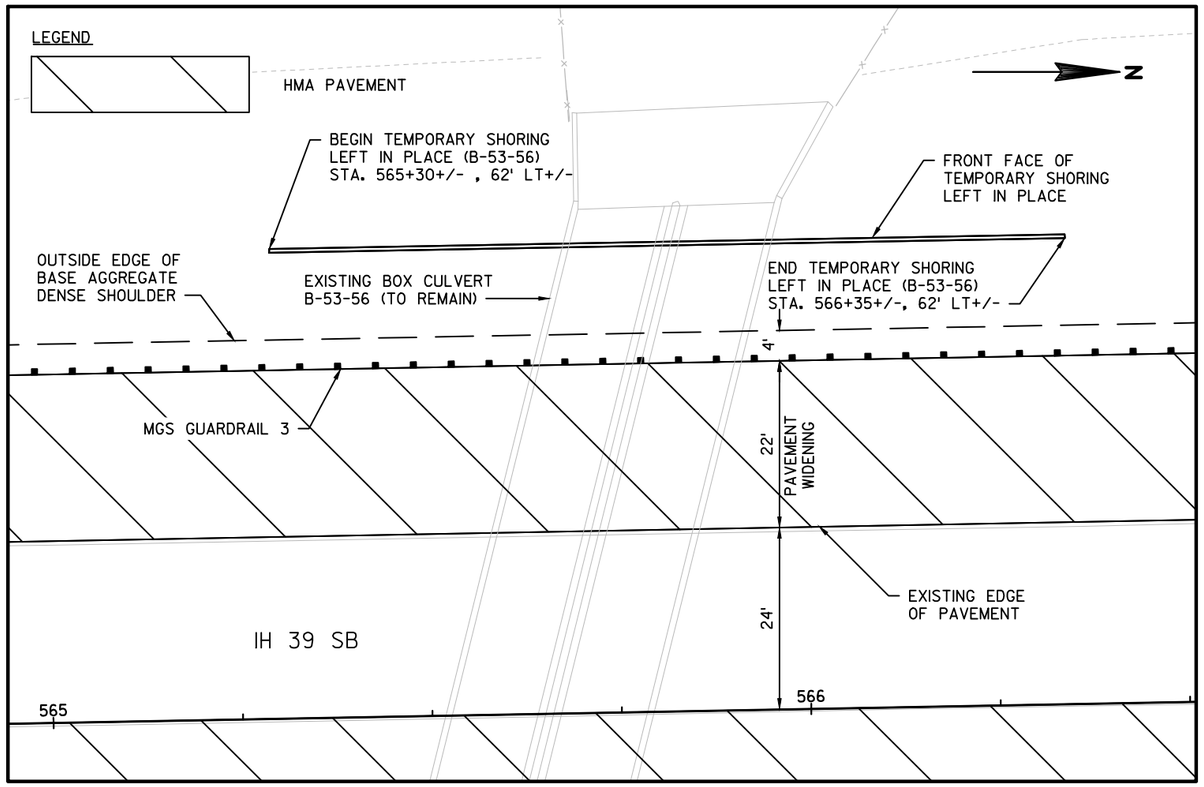
STA. 582+31 - STA. 582+41
STA. 583+26 - STA. 583+66
STA. 586+28 - STA. 586+68
STA. 591+41 - STA. 591+51
STA. 592+35 - STA. 592+68



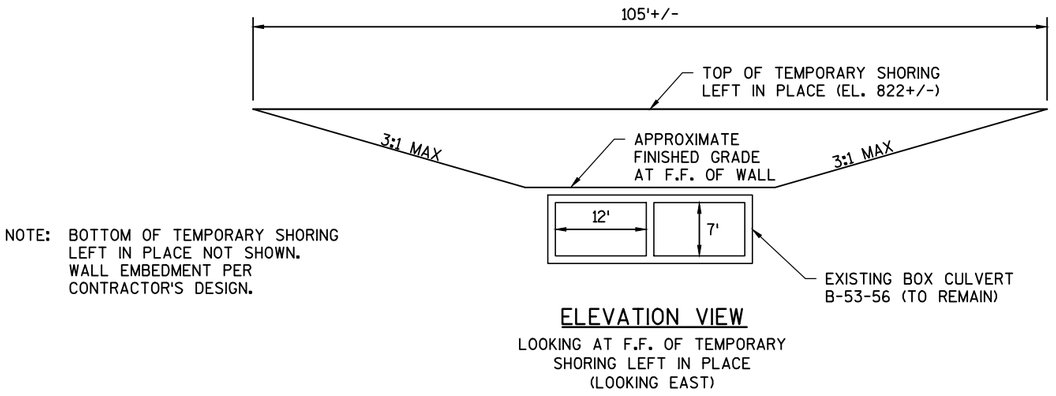
SECTION VIEW

REMOVING RUMBLE STRIPS - 2' WIDTH

OUTSIDE SHOULDER REHABILITATION



PLAN VIEW



NOTE: BOTTOM OF TEMPORARY SHORING LEFT IN PLACE NOT SHOWN. WALL EMBEDMENT PER CONTRACTOR'S DESIGN.

ELEVATION VIEW

LOOKING AT F.F. OF TEMPORARY SHORING LEFT IN PLACE (LOOKING EAST)

TEMPORARY SHORING LEFT IN PLACE (B-53-56)

GENERAL NOTES

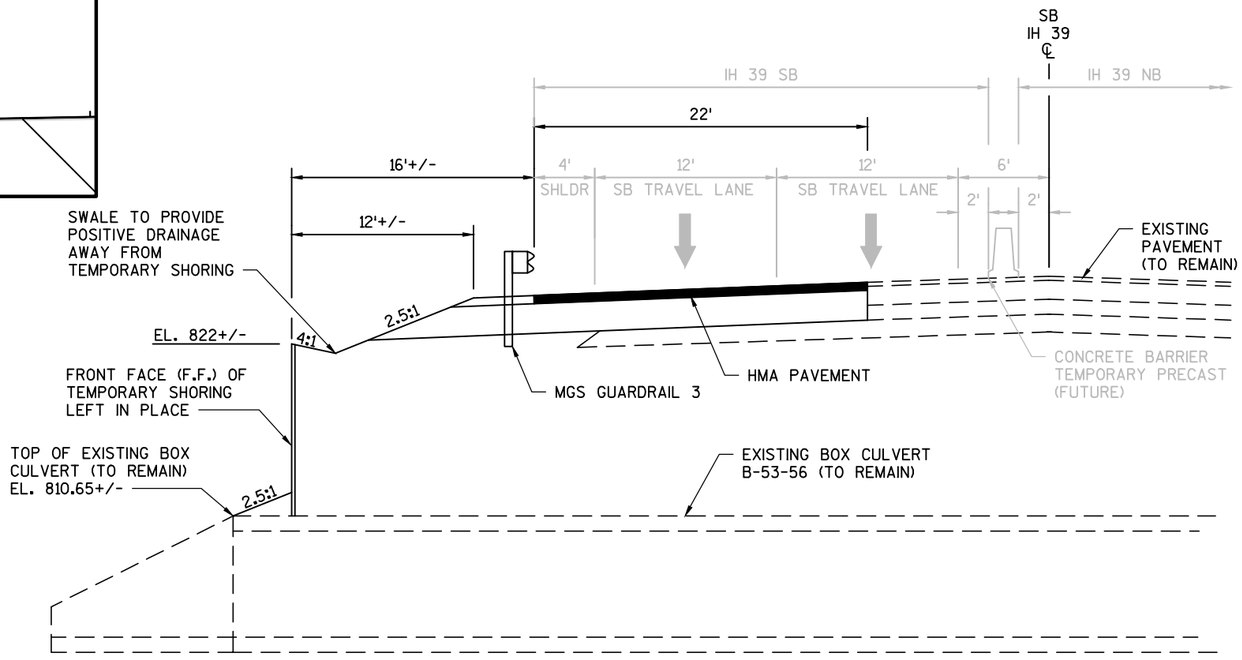
THIS CONSTRUCTION DETAIL IS FOR BID ITEM TEMPORARY SHORING LEFT IN PLACE (B-53-56). THE TEMPORARY SHORING WILL BE CONSTRUCTED (AND LEFT IN PLACE) UNDER THIS CONTRACT AND REMOVED UNDER A FUTURE CONTRACT.

A GEOTECHNICAL REPORT HAS NOT BEEN COMPLETED FOR THIS TEMPORARY SHORING LEFT IN PLACE LOCATION. THE CONTRACTOR SHALL COMPLETE ANY SOIL INVESTIGATIONS NECESSARY FOR DESIGN PURPOSES.

DIMENSIONS, ELEVATIONS, AND TEMPORARY SHORING LAYOUT SHOWN ON THIS DETAIL ARE APPROXIMATE AND PROVIDED FOR INFORMATIONAL PURPOSES ONLY.

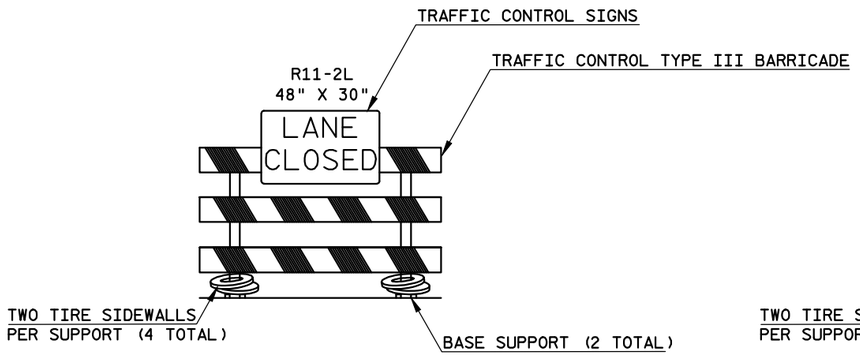
THE TEMPORARY SHORING LEFT IN PLACE DESIGN SHALL ACCOUNT FOR THE BACK SLOPE AND FRONT SLOPE AS SHOWN ON THIS DETAIL AND ROADWAY CROSS SECTIONS. DESIGN TEMPORARY SHORING FOR A LIVE LOAD SURCHARGE OF 240 PSF.

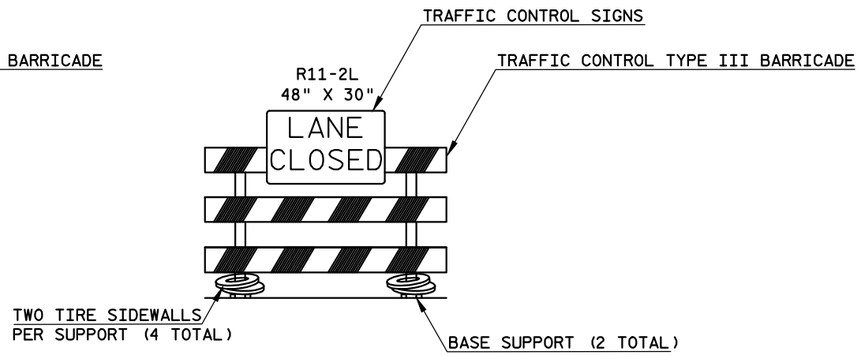
IF A WIRE-FACED WALL IS PROVIDED, THE EXPOSED SURFACE SHALL HAVE A ROCK FACING TO PREVENT UV DEGRADATION OF GEOTEXTILE FABRIC.



IH 39 PARTIAL TYPICAL SECTION

FUTURE BI-DIRECTIONAL TRAFFIC CONFIGURATION SHOWN FOR INFORMATION PURPOSES ONLY. REFER TO STAGING PLANS AND TYPICAL SECTIONS FOR TRAFFIC CONFIGURATIONS UNDER THIS CONTRACT





TRAFFIC CONTROL BARRICADES TYPE III WITH SIGN

ALL THE FOLLOWING ITEMS PAID FOR AS SPV.0060.008 TRAFFIC CONTROL BARRICADES TYPE III WITH SIGN, PERMANENT

- TRAFFIC CONTROL SIGNS R11-2L "LANE CLOSED" - ONE PER BARRICADE
- TRAFFIC CONTROL TYPE III BARRICADE - INCLUDES TWO BASE SUPPORTS PER BARRICADE
- TIRE SIDEWALLS - FOUR PER BARRICADE

NOTE: PROVIDE HALF OF THE BARRICADES WITH THE RAIL STRIPES AND SIGNS SET UP FOR BARRICADES PLACED ON THE LEFT SIDE OF THE ROADWAY.

NOTE: PROVIDE HALF OF THE BARRICADES WITH THE RAIL STRIPES AND SIGNS SET UP FOR BARRICADES PLACED ON THE RIGHT SIDE OF THE ROADWAY.

2

N

BELOIT

BEGIN PROJECT 1003-10-77
STA. 320+00.00

CTH S

PATRICK RD

SNOW FENCE
STA. 400+00 - STA. 435+00 LT

SNOW FENCE
STA. 446+00 - STA. 541+00 LT

END PROJECT 1003-10-77
STA. 600+92.00

WOODMAN RD
BP: 544+99.72

310 320 330 340 350 360 370 380 390 400 410 420 430 440 450 460 470 480 490 500 510 520 530 540 545 550 560 570 580 590 600

IH 39

CREEK RD

TOWNLINE RD

SWEF #19

SNOW FENCE
STA. 549+00 - STA. 565+00 LT

UNION PACIFIC RR

SNOW FENCE
STA. 372+00 - STA. 381+00 LT

NOTE: ADDITIONAL SNOW FENCE
TO BE CONSTRUCTED IN PROJECT
1003-10-78.

PROJECT NO: 1003-10-77	HWY: IH 39	COUNTY: ROCK	SNOW FENCE OVERVIEW	SHEET 18	E

2

N

READ RD.

STH 11

TOWN OF LA PRAIRIE

BEGIN PROJECT 1003-10-83
STA. 646+24.38'TWSB'

END PROJECT 1003-10-83
STA. 738+00.00'TWSB'

E. RACINE ST.

620'TWSB' 630'TWSB' 640'TWSB' 650'TWSB' 660'TWSB' 670'TWSB' 680'TWSB' 690'TWSB' 700'TWSB' 710'TWSB' 720'TWSB' 730'TWSB' 740'TWSB' 750'TWSB' 760'TWSB' 770'T

IH 39

CTH O

WISCONSIN & SOUTHERN RAILROAD

AVALON RD.

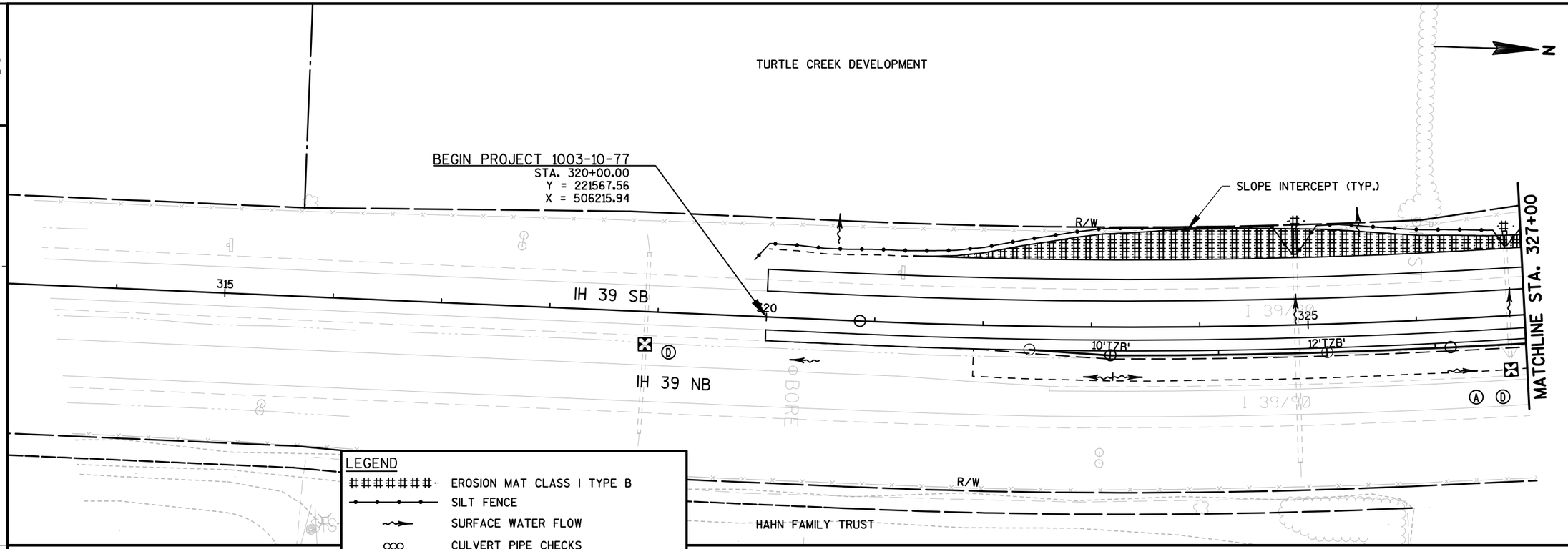
SNOW FENCE INSTALLED UNDER PROJECT I.D. 1003-10-77
STA. 646+00'TWSB' - STA. 731+00'TWSB' LT

TOWN OF LA PRAIRIE

STH 11/E. RACINE ST.

CTH J

PROJECT NO: 1003-10-77	HWY: IH 39	COUNTY: ROCK	SNOW FENCE OVERVIEW	SHEET 19	E

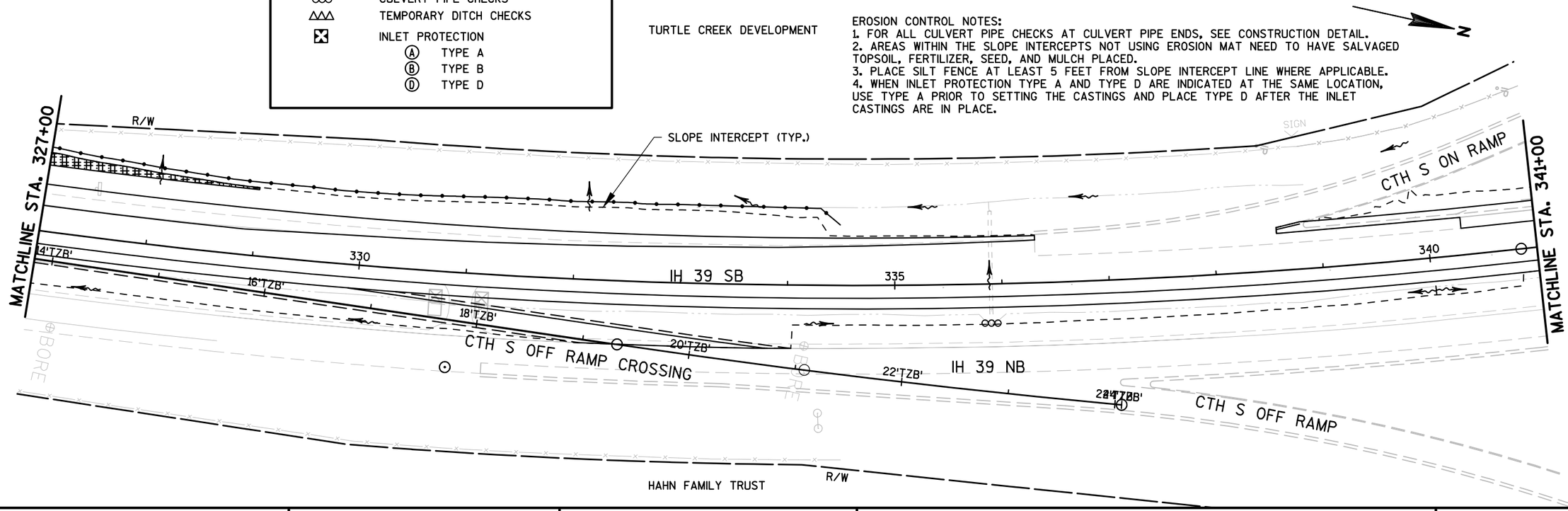


LEGEND

- ######## EROSION MAT CLASS I TYPE B
- SILT FENCE
- SURFACE WATER FLOW
- CULVERT PIPE CHECKS
- TEMPORARY DITCH CHECKS
- INLET PROTECTION
  - (A) TYPE A
  - (B) TYPE B
  - (D) TYPE D

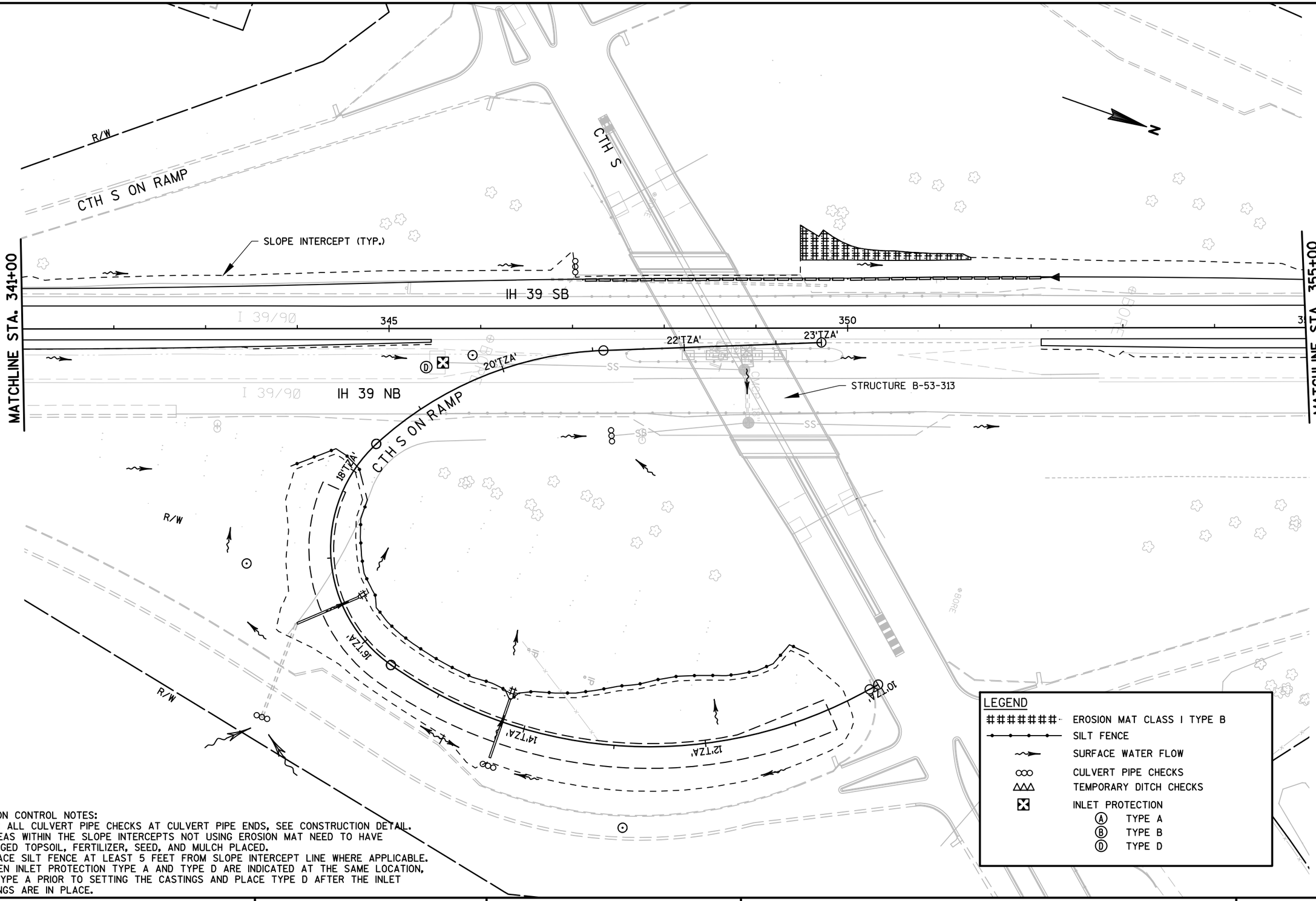
TURTLE CREEK DEVELOPMENT

EROSION CONTROL NOTES:
1. FOR ALL CULVERT PIPE CHECKS AT CULVERT PIPE ENDS, SEE CONSTRUCTION DETAIL.
2. AREAS WITHIN THE SLOPE INTERCEPTS NOT USING EROSION MAT NEED TO HAVE SALVAGED TOPSOIL, FERTILIZER, SEED, AND MULCH PLACED.
3. PLACE SILT FENCE AT LEAST 5 FEET FROM SLOPE INTERCEPT LINE WHERE APPLICABLE.
4. WHEN INLET PROTECTION TYPE A AND TYPE D ARE INDICATED AT THE SAME LOCATION, USE TYPE A PRIOR TO SETTING THE CASTINGS AND PLACE TYPE D AFTER THE INLET CASTINGS ARE IN PLACE.



PROJECT NO: 1003-10-77	HWY: IH 39	COUNTY: ROCK	EROSION CONTROL	SHEET 20	E

2



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PROJECT NO: 1003-10-77	HWY: IH 39	COUNTY: ROCK	EROSION CONTROL	SHEET 21	E

2

CTH S OFF RAMP

R/W

COBURN RORABECK TRUST

TURTLE CREEK

MATCHLINE STA. 355+00

MATCHLINE STA. 369+00

IH 39 SB

IH 39 NB

360

365

STRUCTURE B-53-42

STRUCTURE B-53-43

SLOPE INTERCEPT (TYP.)

EL VENADO HOLDINGS LLC

LEGEND

- ######## EROSION MAT CLASS I TYPE B
- SILT FENCE
- SURFACE WATER FLOW
- CULVERT PIPE CHECKS
- TEMPORARY DITCH CHECKS
- INLET PROTECTION
  - (A) TYPE A
  - (B) TYPE B
  - (D) TYPE D

RICHARD LE FEBER

TWIN CITY FARMS PARTNERSHIP

STRUCTURE B-52-41

MATCHLINE STA. 383+00

370

375

380

EROSION CONTROL NOTES:
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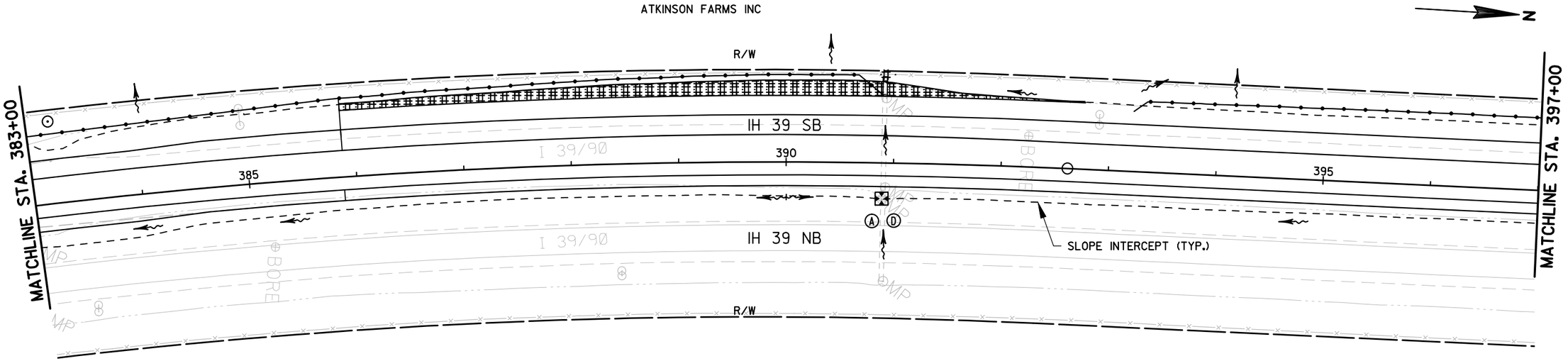
ARNDT ANGUS LLC

CREEK RD

PROJECT NO: 1003-10-77	HWY: IH 39	COUNTY: ROCK	EROSION CONTROL	SHEET 22	E



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ATKINSON FARMS INC

LEGEND

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- SURFACE WATER FLOW
- CULVERT PIPE CHECKS
- TEMPORARY DITCH CHECKS
- INLET PROTECTION
  - (A) TYPE A
  - (B) TYPE B
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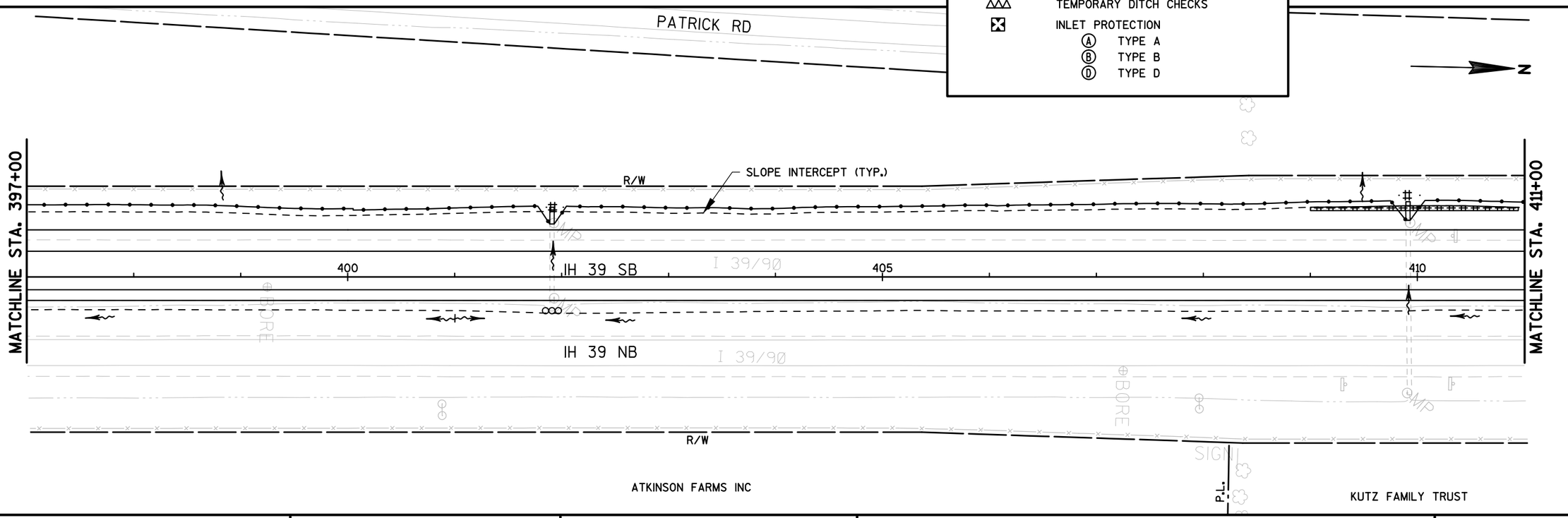
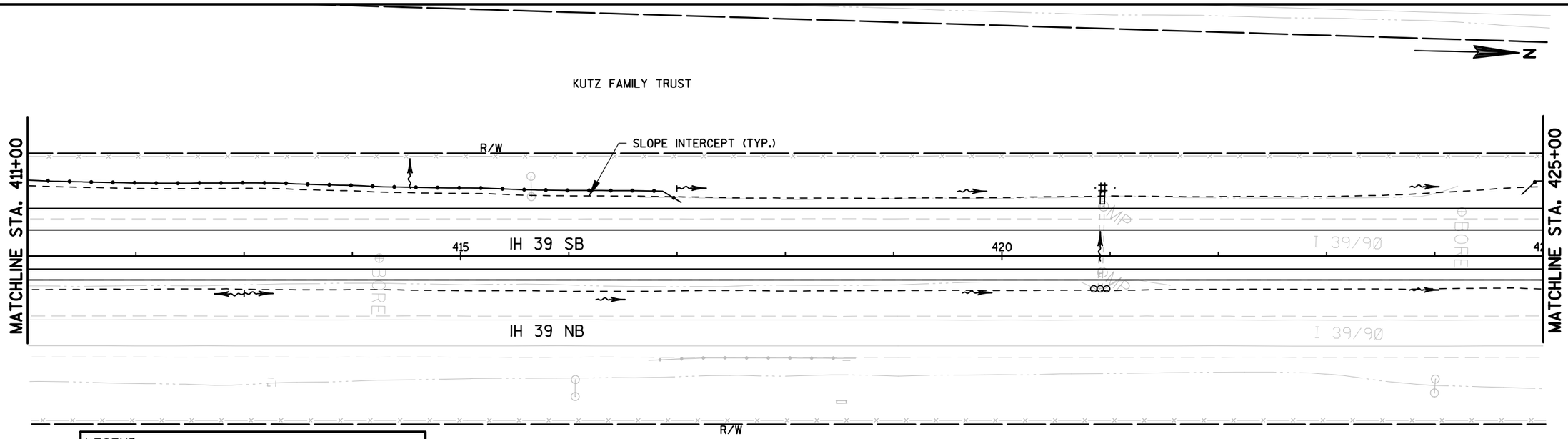


PROJECT NO: 1003-10-77	HWY: IH 39	COUNTY: ROCK	EROSION CONTROL	SHEET 23	E



LEGEND

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- SURFACE WATER FLOW
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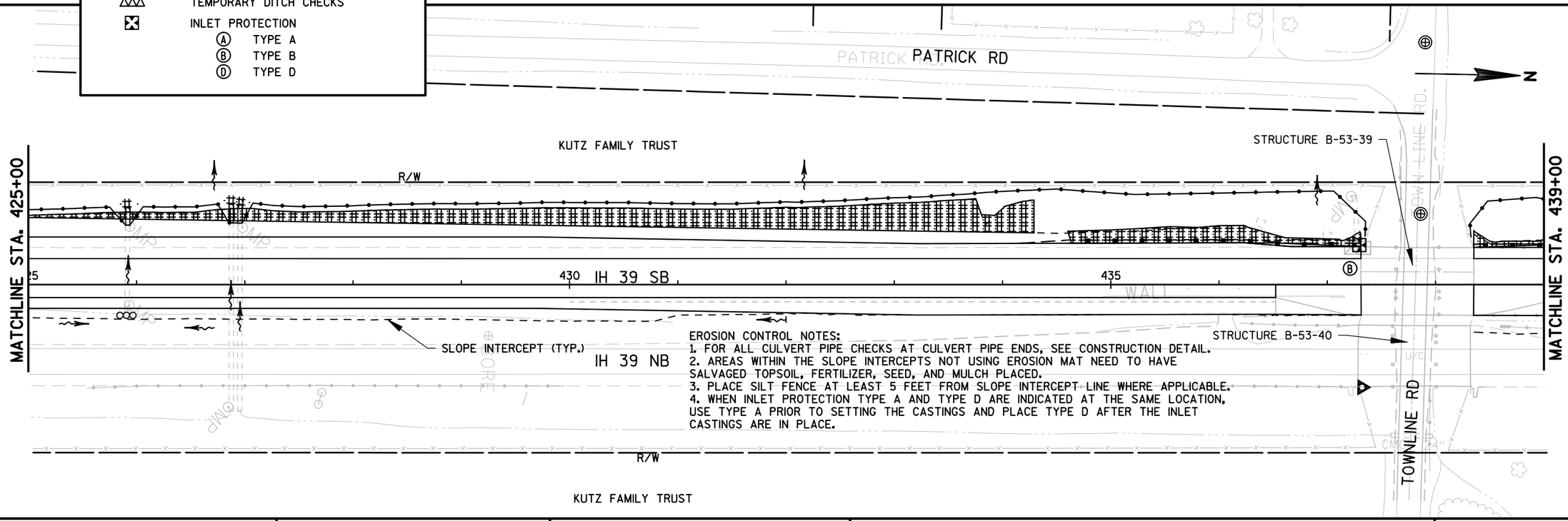

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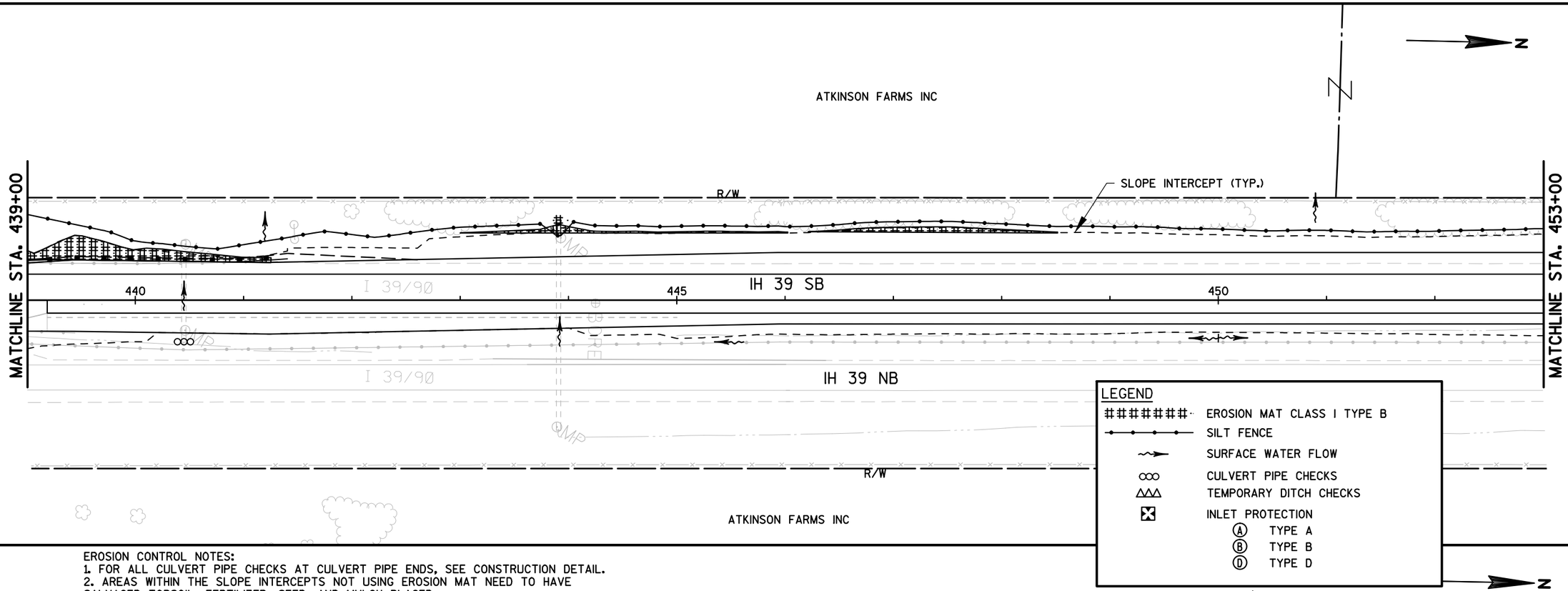
PROJECT NO: 1003-10-77	HWY: IH 39	COUNTY: ROCK	EROSION CONTROL	SHEET	E

FILE NAME : L:\WORK\PROJECTS\60242867\000_CAD\001_DRAWINGS\1003-10-77_CTH S TO STH 11 TEMP\100%\022001_EC.DWG PLOT DATE : 4/7/2016 1:25 PM PLOT BY : ARBUCKLE, ADRIAN PLOT NAME : PLOT SCALE : ********** WISDOT/CADDS SHEET 44



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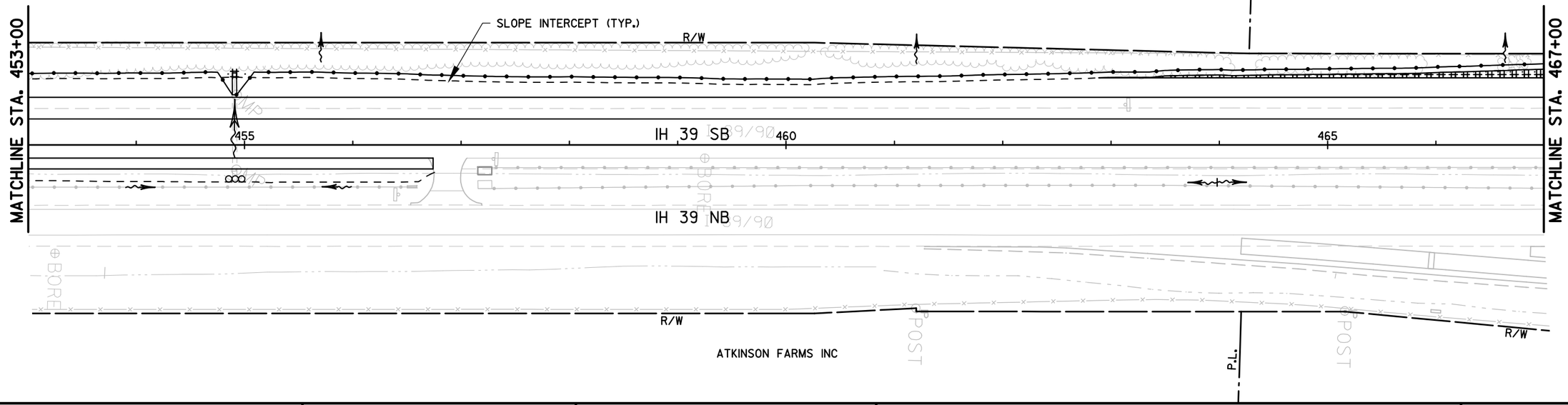
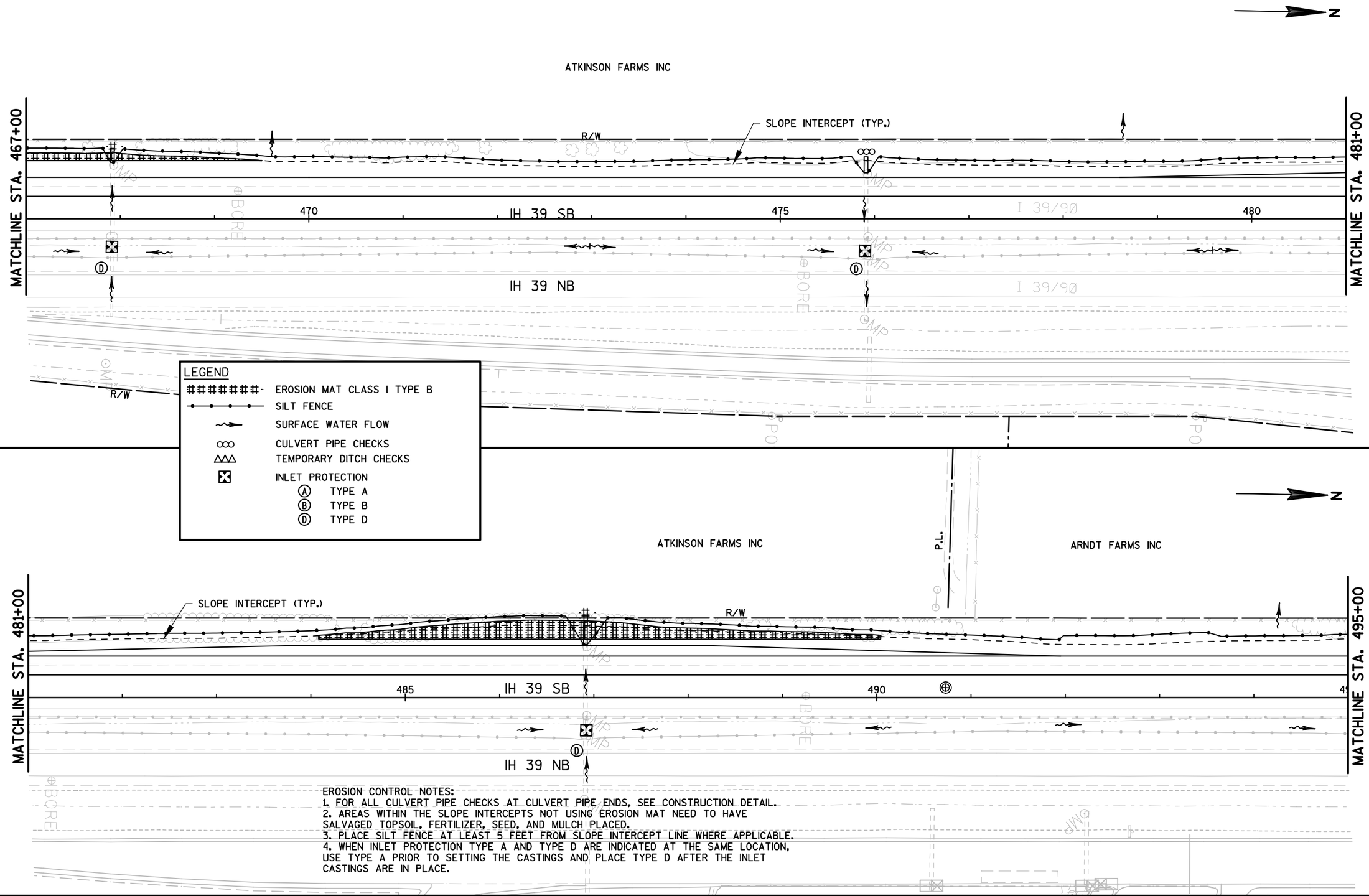


PROJECT NO: 1003-10-77	HWY: IH 39	COUNTY: ROCK	EROSION CONTROL	SHEET 25	E

FILE NAME : L:\WORK\PROJECTS\60242867\000_CAD\001_DRAWINGS\1003-10-77_CTH S TO STH 11 TEMP\100%\022001_EC.DWG PLOT DATE : 4/7/2016 1:26 PM PLOT BY : ARBUCKLE, ADRIAN PLOT NAME : PLOT SCALE : ********** WISDOT/CADDS SHEET 44



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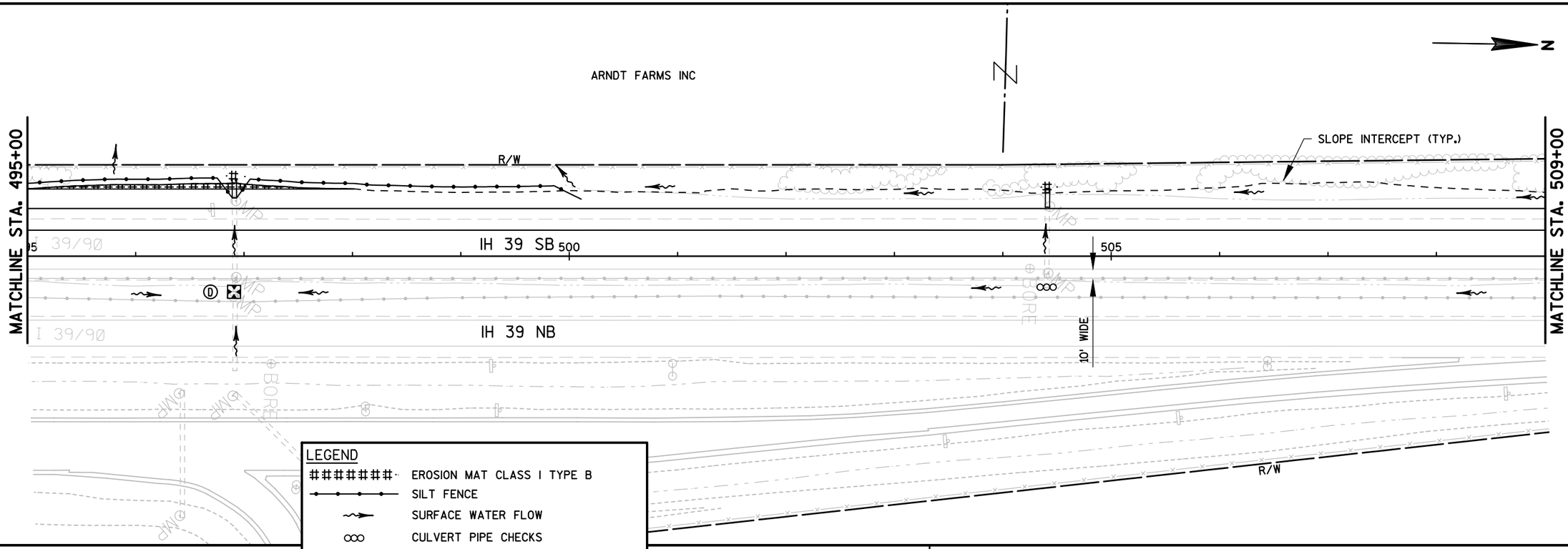
PROJECT NO: 1003-10-77	HWY: IH 39	COUNTY: ROCK	EROSION CONTROL	SHEET 26	E



LEGEND

- ####### EROSION MAT CLASS I TYPE B
- SILT FENCE
- SURFACE WATER FLOW
- CULVERT PIPE CHECKS
- TEMPORARY DITCH CHECKS
- INLET PROTECTION
  - (A) TYPE A
  - (B) TYPE B
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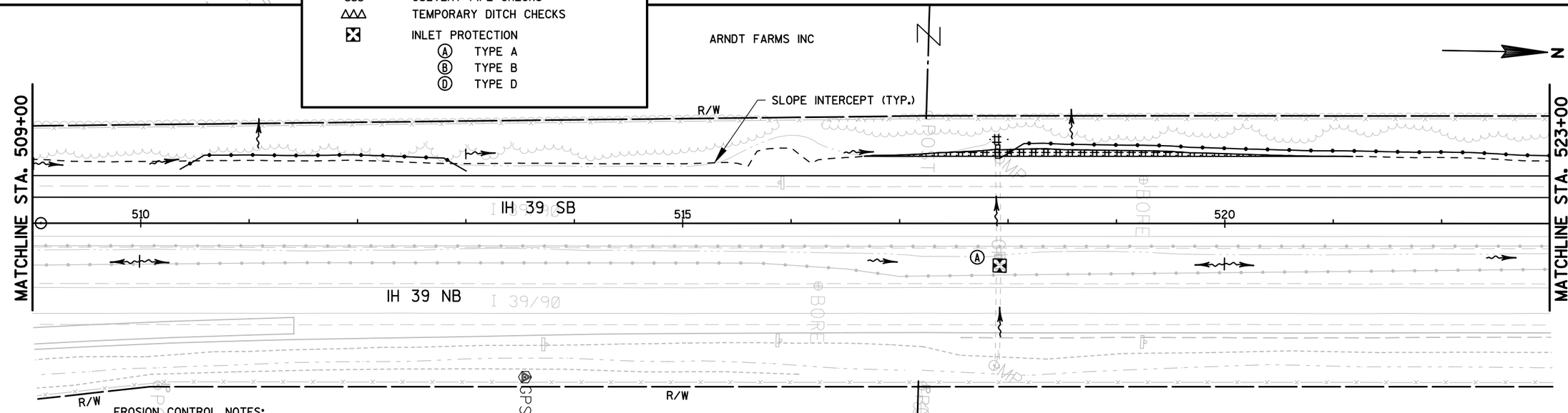

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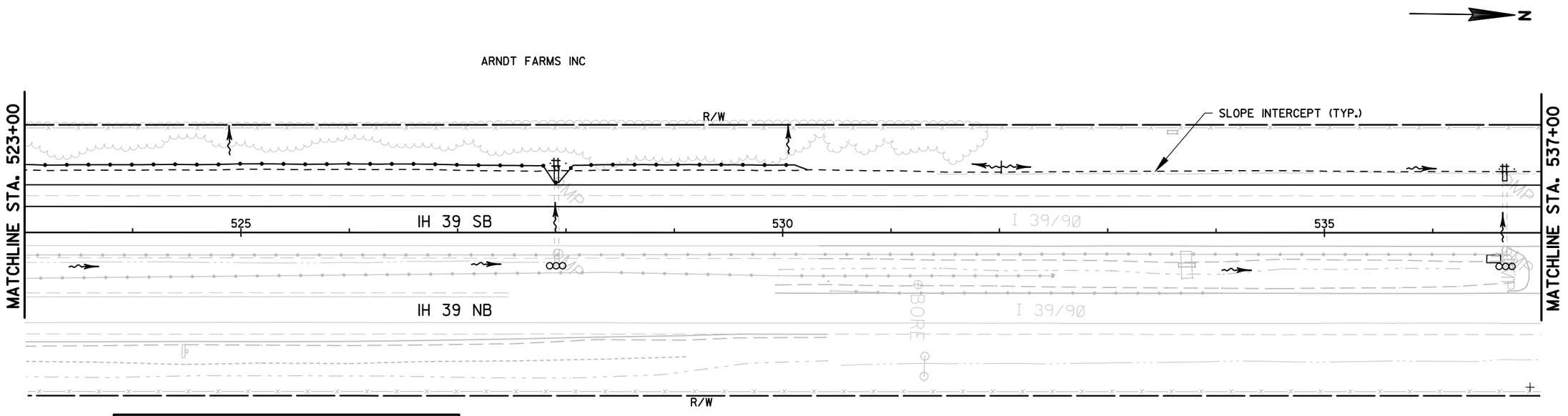
PROJECT NO: 1003-10-77	HWY: IH 39	COUNTY: ROCK	EROSION CONTROL	SHEET 27	E



LEGEND

- ######## EROSION MAT CLASS I TYPE B
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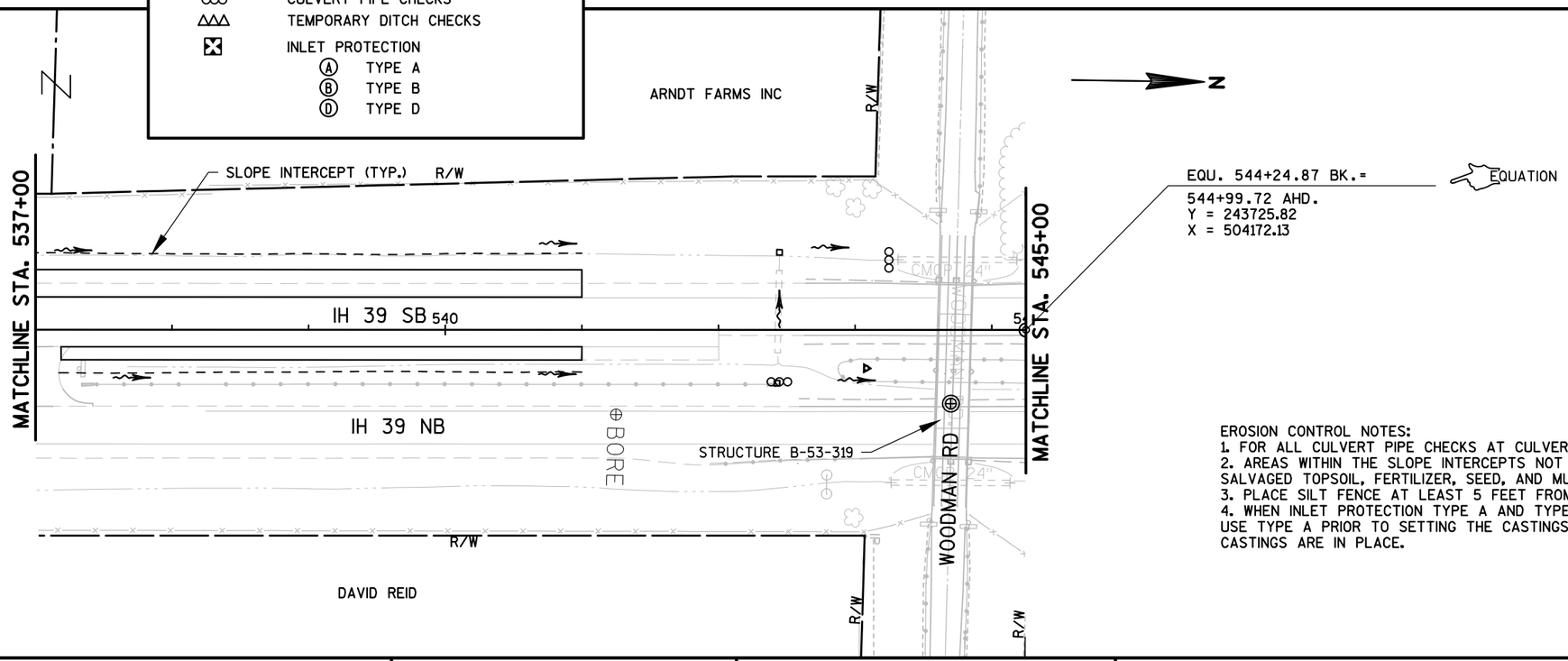
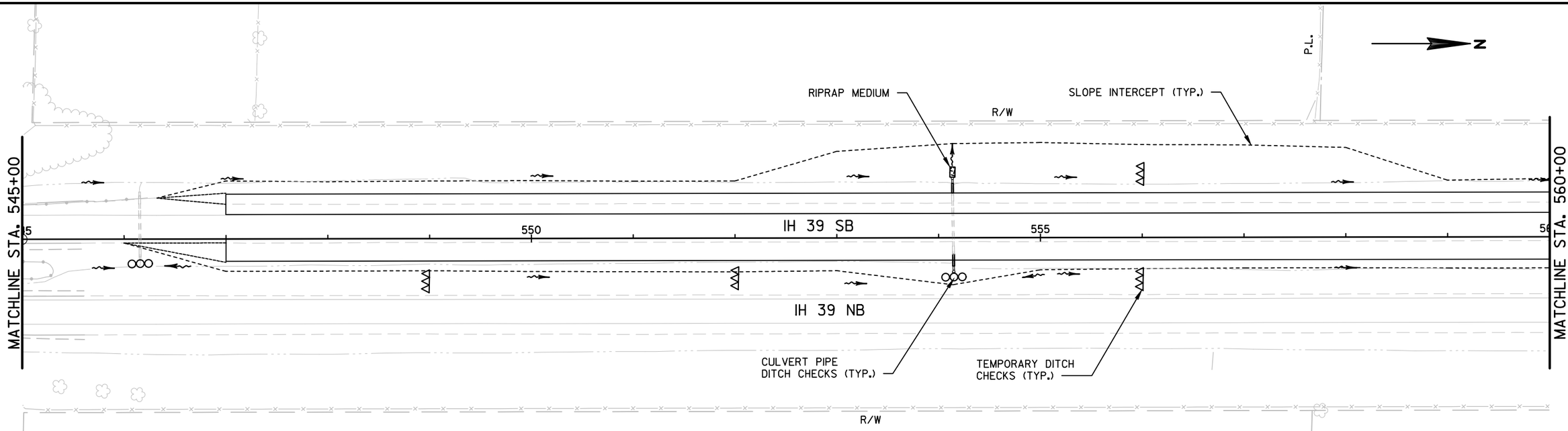
  - (B) TYPE B
  - (D) TYPE D



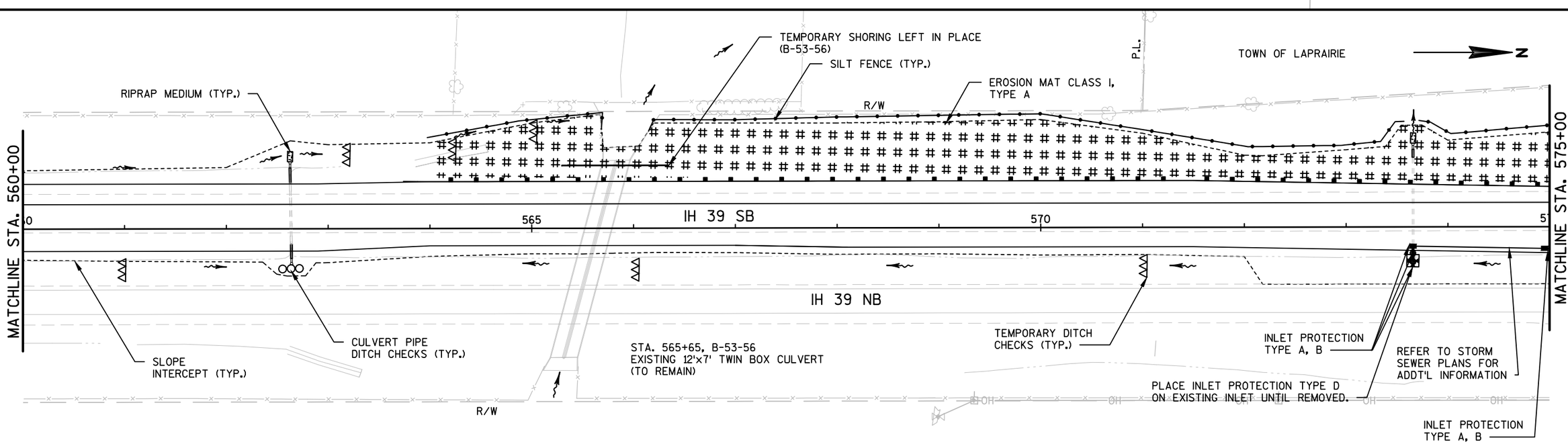
EQU. 544+24.87 BK.= EQUATION
544+99.72 AHD.
Y = 243725.82
X = 504172.13

EROSION CONTROL NOTES:
1. FOR ALL CULVERT PIPE CHECKS AT CULVERT PIPE ENDS, SEE CONSTRUCTION DETAIL.
2. AREAS WITHIN THE SLOPE INTERCEPTS NOT USING EROSION MAT NEED TO HAVE SALVAGED TOPSOIL, FERTILIZER, SEED, AND MULCH PLACED.
3. PLACE SILT FENCE AT LEAST 5 FEET FROM SLOPE INTERCEPT LINE WHERE APPLICABLE.
4. WHEN INLET PROTECTION TYPE A AND TYPE D ARE INDICATED AT THE SAME LOCATION, USE TYPE A PRIOR TO SETTING THE CASTINGS AND PLACE TYPE D AFTER THE INLET CASTINGS ARE IN PLACE.

PROJECT NO: 1003-10-77	HWY: IH 39	COUNTY: ROCK	EROSION CONTROL	SHEET 28	E

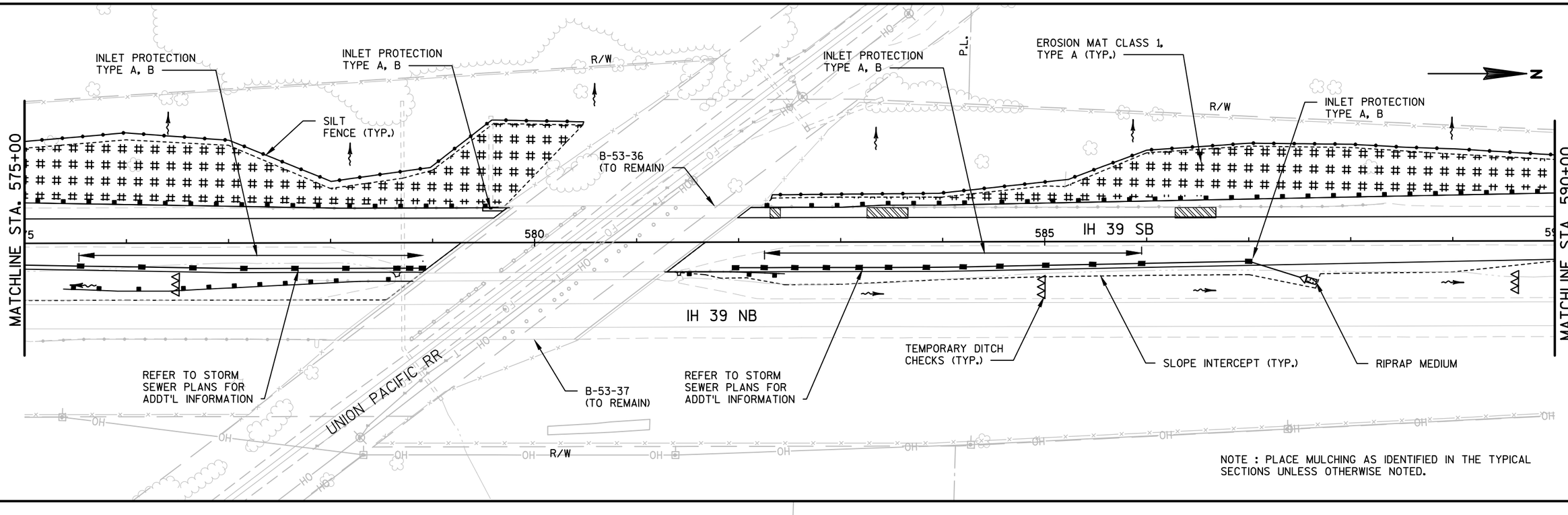


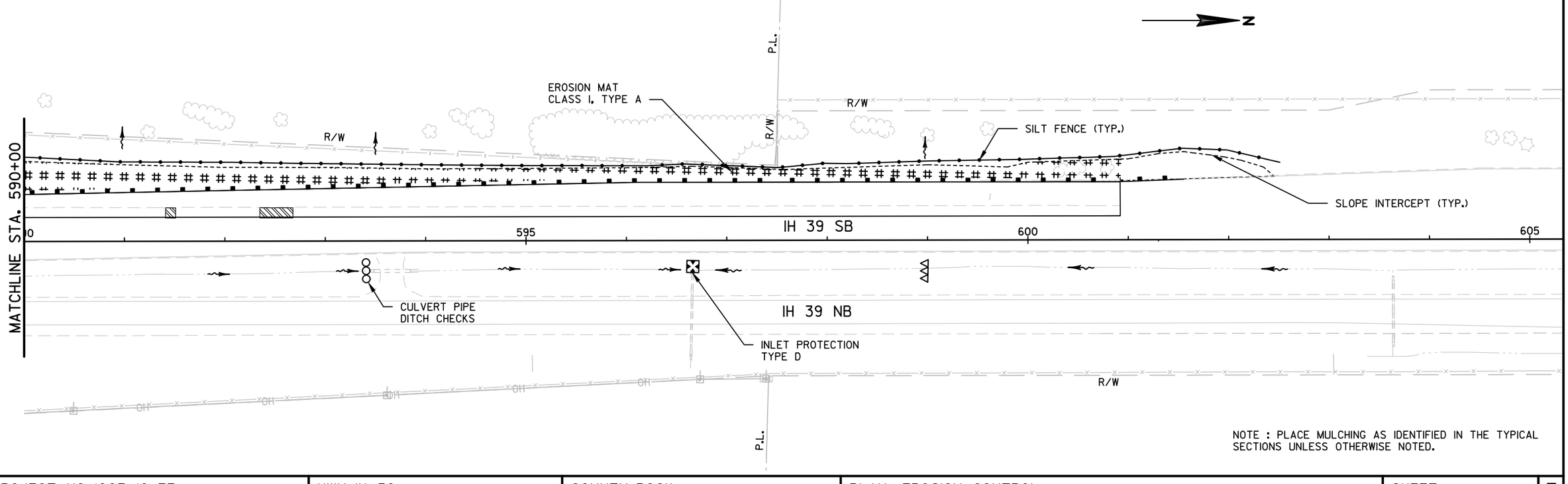
NOTE : PLACE MULCHING AS IDENTIFIED IN THE TYPICAL SECTIONS UNLESS OTHERWISE NOTED.



NOTE : PLACE MULCHING AS IDENTIFIED IN THE TYPICAL SECTIONS UNLESS OTHERWISE NOTED.

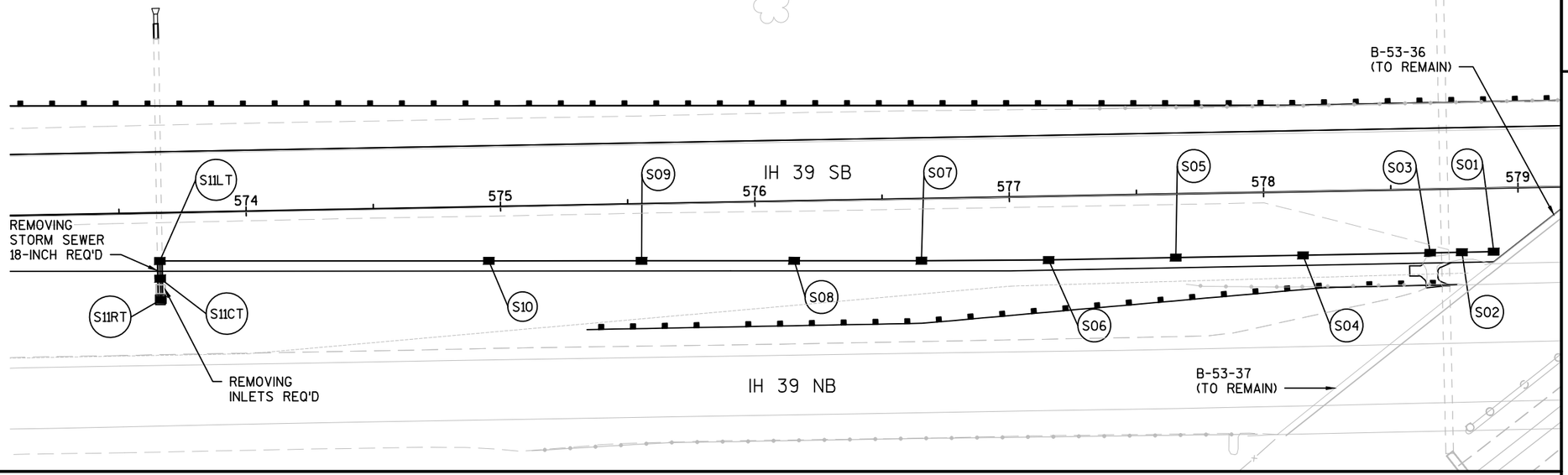
PROJECT NO: 1003-10-77	HWY: IH 39	COUNTY: ROCK	PLAN: EROSION CONTROL	SHEET 29	E

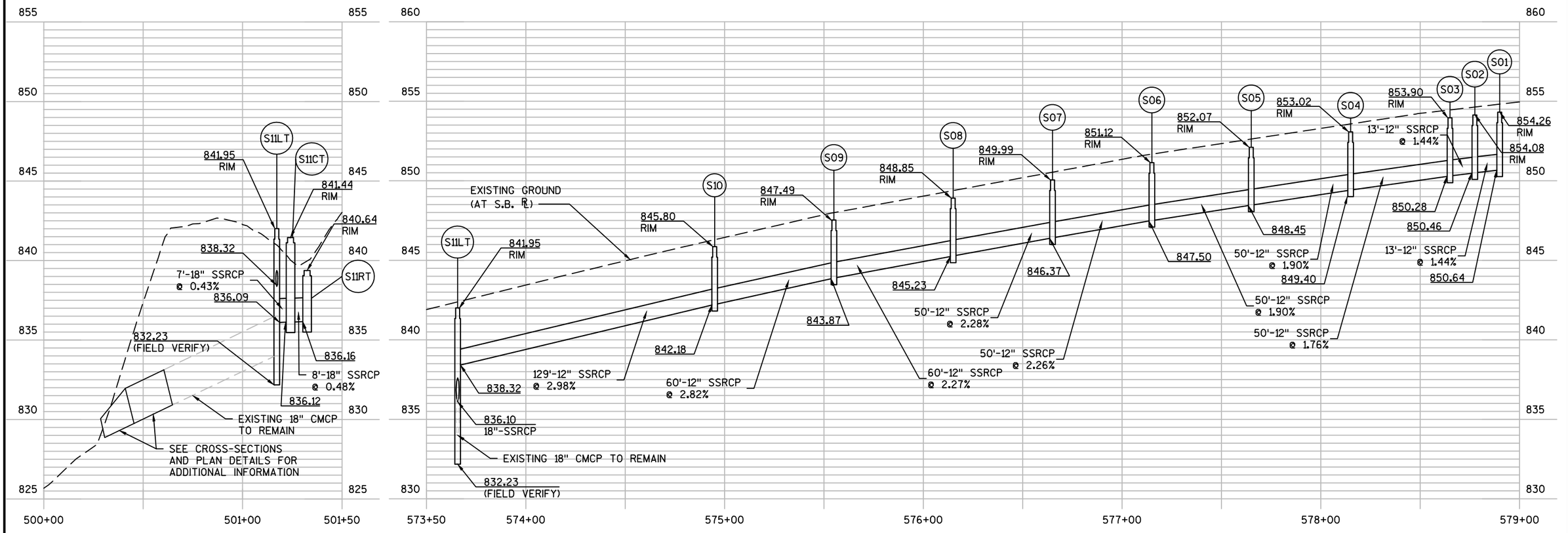




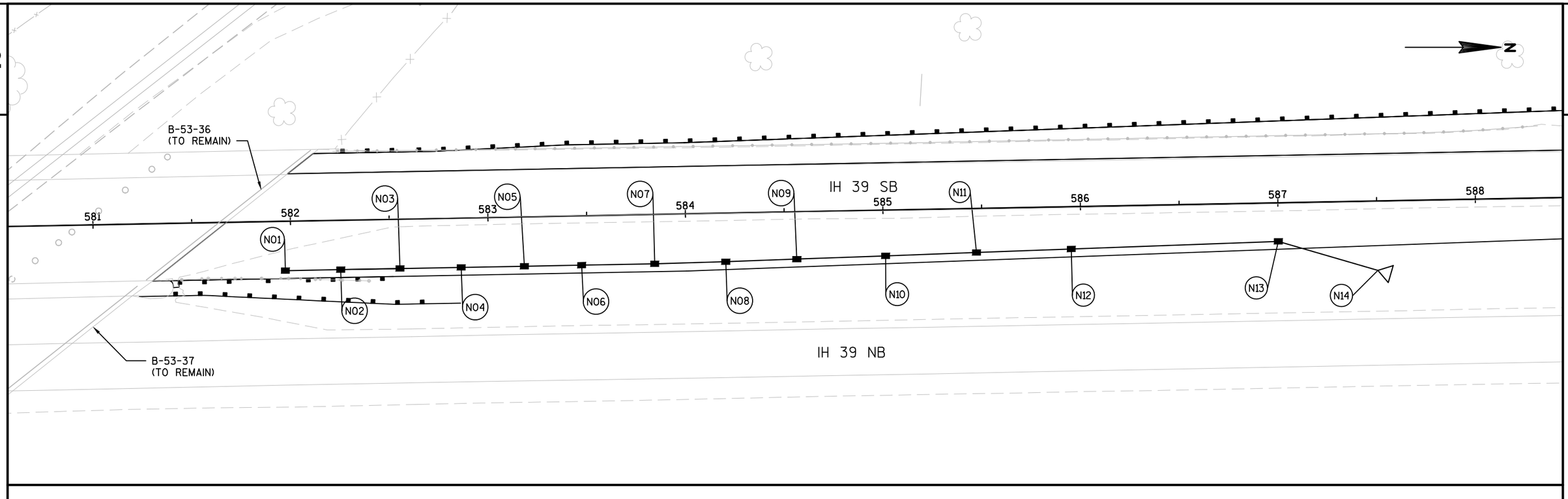
PROJECT NO: 1003-10-77	HWY: IH 39	COUNTY: ROCK	PLAN: EROSION CONTROL	SHEET 30	E

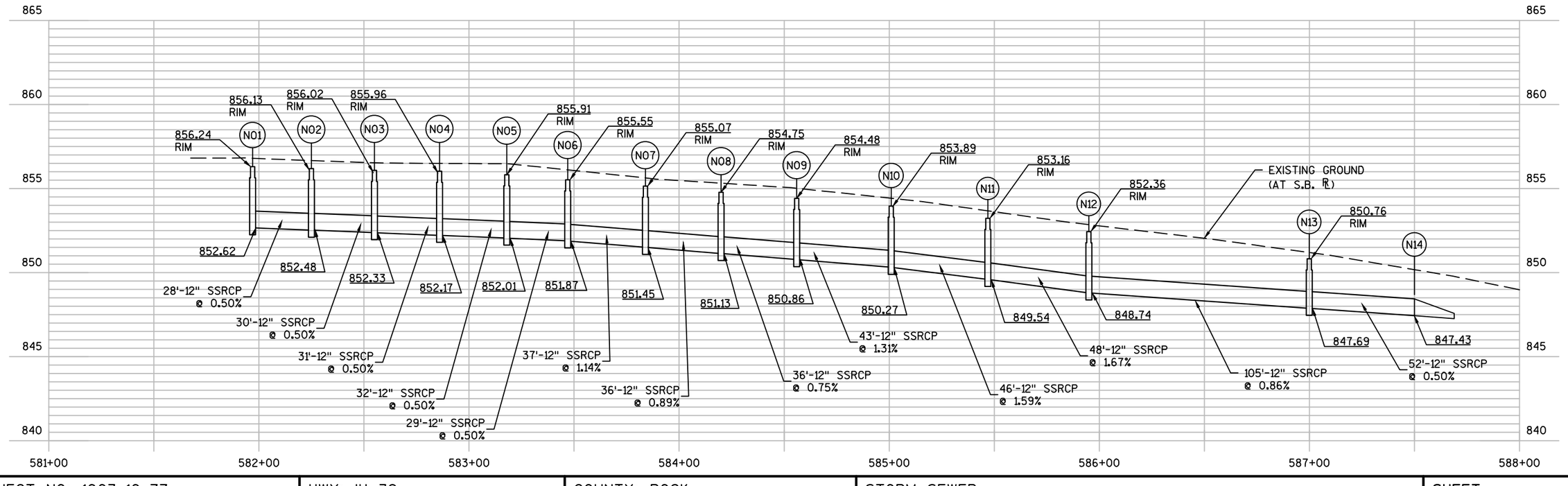
2





PROJECT NO: 1003-10-77	HWY: IH 39	COUNTY: ROCK	STORM SEWER	SHEET 31	E



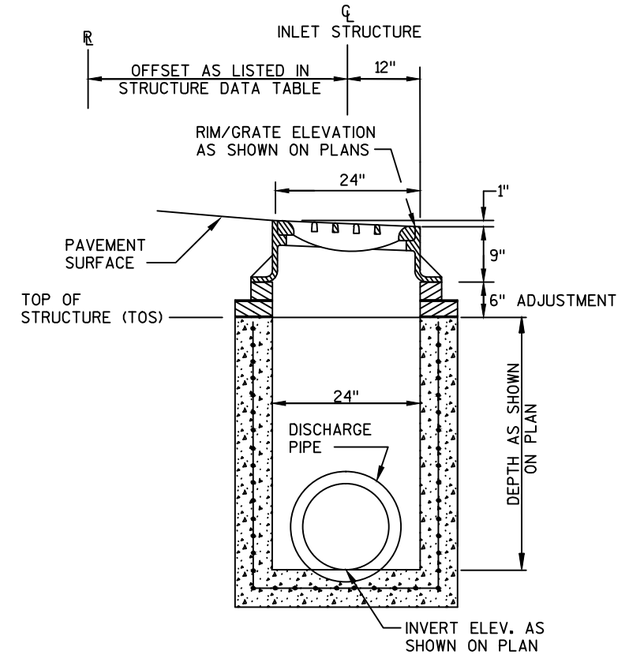


PROJECT NO: 1003-10-77	HWY: IH 39	COUNTY: ROCK	STORM SEWER	SHEET 32	E

2

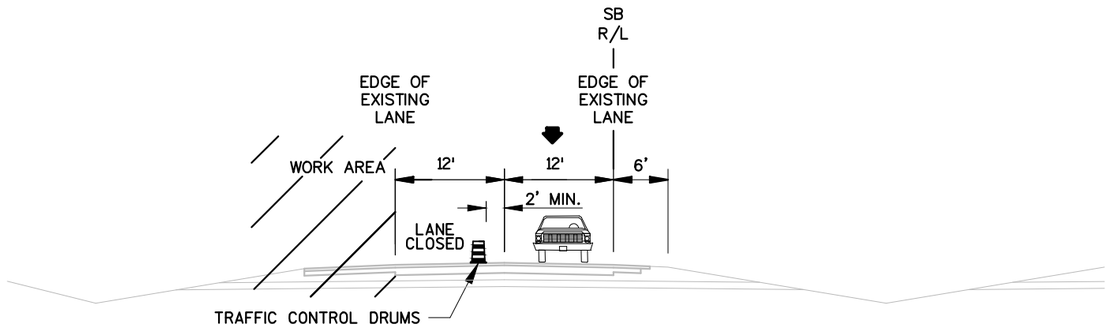
STRUCT NO.	STATION	OFFSET	C-C (FT)	TO STRUCT	INLET TYPE	INLET COVER	R.M. GRATE ELEV.	T.O.S. ELEV.	DEPTH (FT)	DISCHARGE PIPE SIZE (IN)	DISCHARGE PIPE INLET ELEV.	DISCHARGE PIPE DISCHARGE ELEV.	DISCHARGE PIPE LENGTH (FT)	DISCHARGE PIPE SLOPE (%)	REMARKS
N01	581+97	25.0 ' RT	28.0	N02	2X2.5-FT	BW	856.24	854.99	2.38	12	852.62	852.48	28	0.50	--
N02	582+25	25.0 ' RT	30.0	N03	2X2.5-FT	BW	856.13	854.88	2.40	12	852.48	852.33	30	0.50	--
N03	582+55	25.0 ' RT	31.0	N04	2X2.5-FT	BW	856.02	854.77	2.44	12	852.33	852.17	31	0.50	--
N04	582+86	25.0 ' RT	32.0	N05	2X2.5-FT	BW	855.96	854.71	2.54	12	852.17	852.01	32	0.50	--
N05	583+18	25.0 ' RT	29.0	N06	2X2.5-FT	BW	855.91	854.66	2.65	12	852.01	851.87	29	0.50	--
N06	583+47	25.0 ' RT	37.0	N07	2X2.5-FT	BW	855.55	854.30	2.43	12	851.87	851.45	37	1.14	--
N07	583+84	25.0 ' RT	36.0	N08	2X2.5-FT	BW	855.07	853.82	2.38	12	851.45	851.13	36	0.89	--
N08	584+20	24.6 ' RT	36.0	N09	2X2.5-FT	BW	854.75	853.50	2.38	12	851.13	850.86	36	0.75	--
N09	584+56	24.0 ' RT	45.0	N10	2X2.5-FT	BW	854.48	853.23	2.38	12	850.86	850.27	45	1.31	--
N10	585+01	23.2 ' RT	46.0	N11	2X2.5-FT	BW	853.89	852.64	2.38	12	850.27	849.54	46	1.59	--
N11	585+47	22.3 ' RT	48.0	N12	2X2.5-FT	BW	853.16	851.91	2.38	12	849.54	848.74	48	1.67	--
N12	585+95	21.5 ' RT	105.0	N13	2X2.5-FT	BW	852.36	851.11	2.38	12	848.74	847.84	105	0.86	--
N13	587+00	19.6 ' RT	52.0	N14	2X2.5-FT	BW	850.76	849.51	1.82	12	847.69	847.43	52	0.50	--
N14	587+50	35.2 ' RT	--	--	--	--	--	--	--	--	--	--	--	--	APRON ENDWALL FOR CPRC 12- NCH REQUIRED
S01	578+90	25.0 ' RT	12.5	S02	2X2.5-FT	BW	854.26	853.01	2.38	12	850.64	850.46	13	1.44	--
S02	578+78	25.0 ' RT	12.5	S03	2X2.5-FT	BW	854.08	852.83	2.38	12	850.46	850.28	13	1.44	--
S03	578+65	25.0 ' RT	50.0	S04	2X2.5-FT	BW	853.90	852.65	2.38	12	850.28	849.40	50	1.76	--
S04	578+15	25.0 ' RT	50.0	S05	2X2.5-FT	BW	853.02	851.77	2.38	12	849.40	848.45	50	1.90	--
S05	577+65	25.0 ' RT	50.0	S06	2X2.5-FT	BW	852.07	850.82	2.38	12	848.45	847.50	50	1.90	--
S06	577+15	25.0 ' RT	50.0	S07	2X2.5-FT	BW	851.12	849.87	2.38	12	847.50	846.37	50	2.26	--
S07	576+65	24.4 ' RT	50.0	S08	2X2.5-FT	BW	849.99	848.74	2.38	12	846.37	845.23	50	2.28	--
S08	576+15	23.5 ' RT	60.0	S09	2X2.5-FT	BW	848.85	847.60	2.38	12	845.23	843.87	60	2.27	--
S09	575+55	22.4 ' RT	60.0	S10	2X2.5-FT	BW	847.49	846.24	2.38	12	843.87	842.18	60	2.82	--
S10	574+95	21.3 ' RT	129.3	S11LT	2X2.5-FT	BW	845.80	844.55	2.38	12	842.18	838.32	129	2.98	--
S11RT	573+66	34.2 ' RT	8.4	S11CT	Median 1 Grate	MS	839.84	840.64	4.48	18	836.16	836.12	8	0.48	NO GRATE SLOPE
S11CT	573+66	25.8 ' RT	6.9	S11LT	Median 1 Grate	MS	841.44	841.44	5.32	18	836.12	836.09	7	0.43	NO GRATE SLOPE; COVER PLATE LEFT IN PLACE REQ'D. TO BE PLACED OVER MS GRATE.
S11LT	573+66	18.9 ' RT	--	Existing	2X2.5-FT	BW	841.95	840.70	8.47	18	832.23	--	--	--	FIELD VERIFY EXISTING PIPE INVERT

SEE SDD "INLETS 2X2-FT, 2X2.5-FT, 2X3-FT AND 2.5X3-FT" FOR ADDITIONAL INFORMATION



(INLET 2X2.5-FT WITH COVERS TYPE BW SHOWN)

DETAIL FOR COMPUTING INLET ELEVATIONS



STAGE 1 - OUTSIDE SHOULDER REPAIR

(NIGHT-TIME OPERATION)

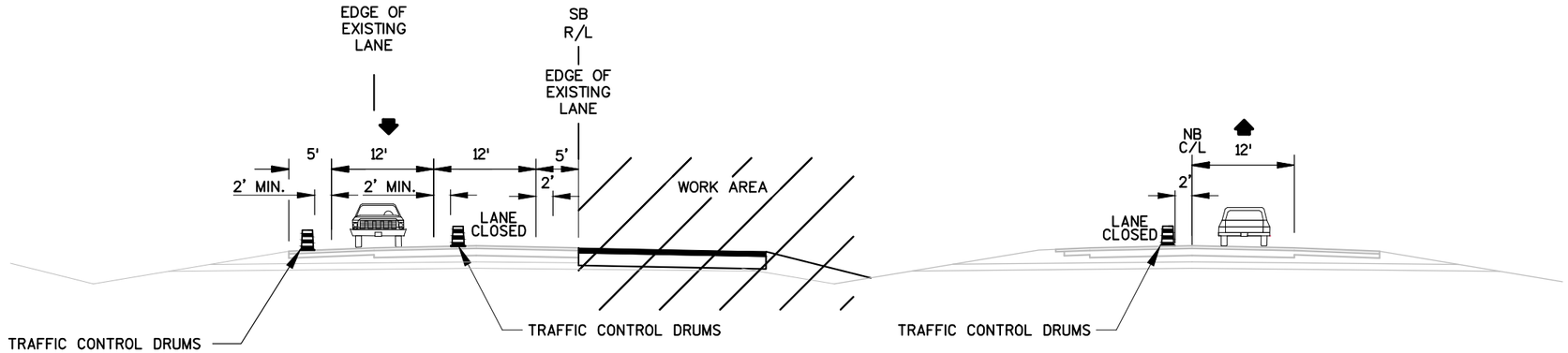
TRAFFIC CONTROL

SEE TRAFFIC CONTROL, LANE CLOSURE,
SPEED REDUCTION DETAIL

CONSTRUCTION

SHOULDER REPAIR:
- REMOVING RUMBLE STRIPS
- REMOVING ASPHALTIC SURFACE MILLING
- CONCRETE PAVEMENT REPAIR/REPLACEMENT
- HMA PAVEMENT

OUTSIDE SHOULDER BASE AGGREGATE PLACEMENT
TEMPORARY PAVEMENT MARKING



STAGE 2-1 - INSIDE WIDENING & PAVING

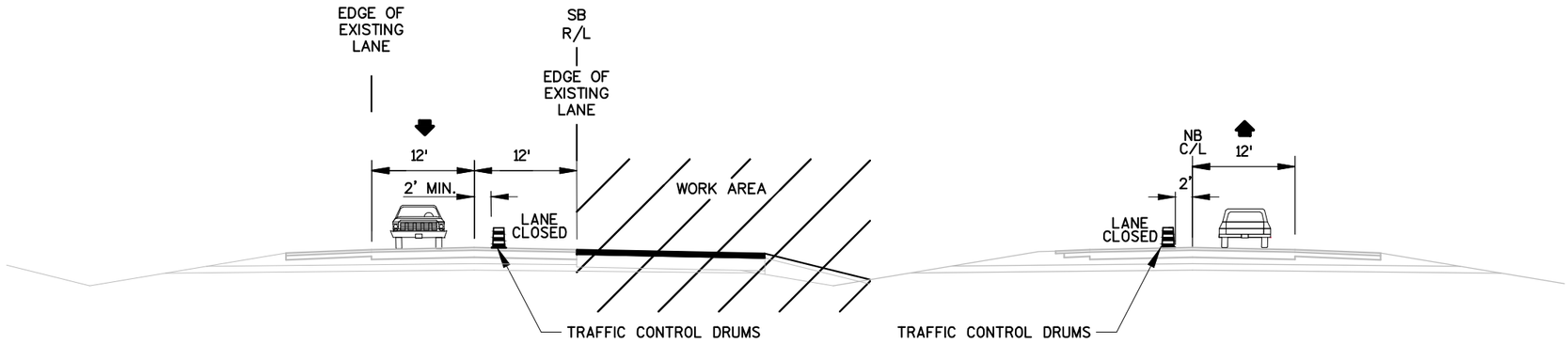
(NIGHT-TIME OPERATION)

TRAFFIC CONTROL

SEE FREEWAY LANE CLOSURE FOR MEDIAN WORK (NIGHT-TIME OPERATION)

CONSTRUCTION

EXCAVATION & GRADING
EXCAVATION BELOW SUBGRADE
CULVERT EXTENSION
PLACE BASE AGGREGATE DENSE
PLACE HMA
PAVEMENT MARKING



STAGE 2 - INSIDE PAVING ONLY

(NIGHT-TIME OPERATION)

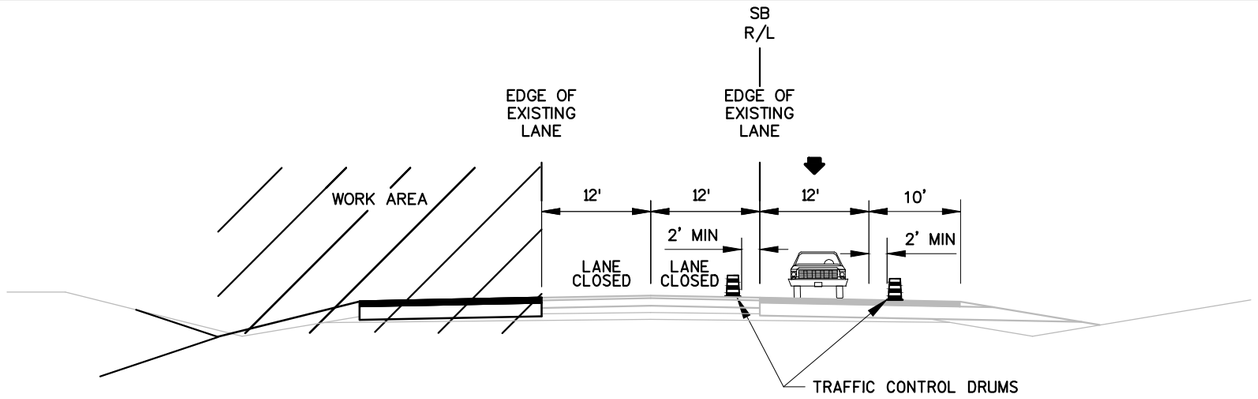
TRAFFIC CONTROL

SEE TRAFFIC CONTROL, LANE CLOSURE, SPEED REDUCTION DETAIL

CONSTRUCTION

PLACE BASE AGGREGATE DENSE
PLACE HMA

PROJECT NO: 1003-10-77	HWY: IH 39	COUNTY: ROCK	PLAN: TRAFFIC CONTROL - STAGING SEQUENCE	SHEET 35	E



STAGE 3-1 - OUTSIDE WIDENING

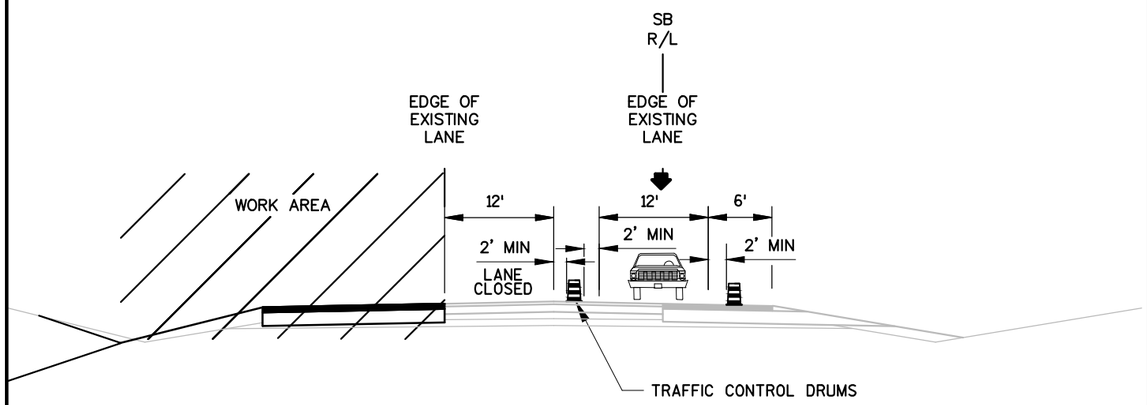
(NIGHT-TIME OPERATION)
STA. 320+00 - STA. 456+74
STA. 540+19 - STA. 537+22

TRAFFIC CONTROL

SEE FREEWAY LANE CLOSURE FOR OUTSIDE WORK
(NIGHT-TIME OPERATION)

CONSTRUCTION

EXCAVATION & GRADING
EXCAVATION BELOW SUBGRADE
CULVERT EXTENSION
PLACE BASE AGGREGATE DENSE
PLACE HMA



STAGE 3-2 - OUTSIDE WIDENING

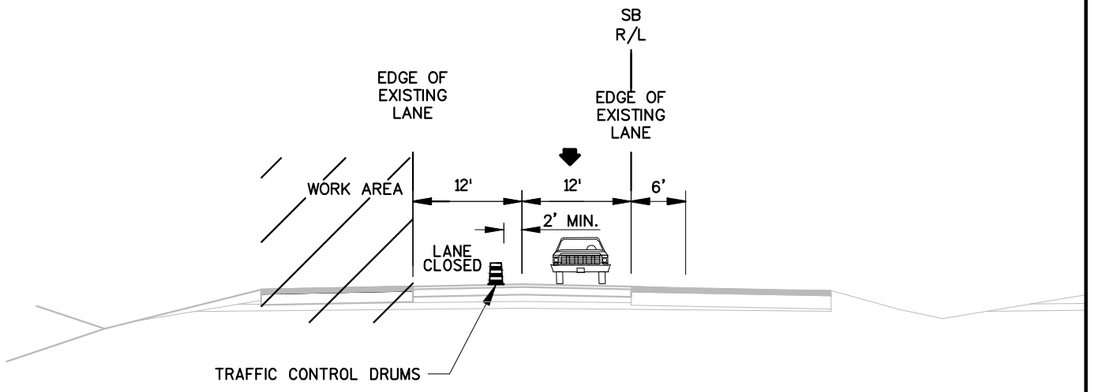
(NIGHT-TIME OPERATION)
STA. 456+74 - STA. 540+19

TRAFFIC CONTROL

SEE FREEWAY LANE CLOSURE FOR OUTSIDE WORK
(NIGHT-TIME OPERATION)

CONSTRUCTION

EXCAVATION & GRADING
EXCAVATION BELOW SUBGRADE
CULVERT EXTENSION
PLACE BASE AGGREGATE DENSE
PLACE HMA



STAGE 4

(NIGHT-TIME OPERATION)

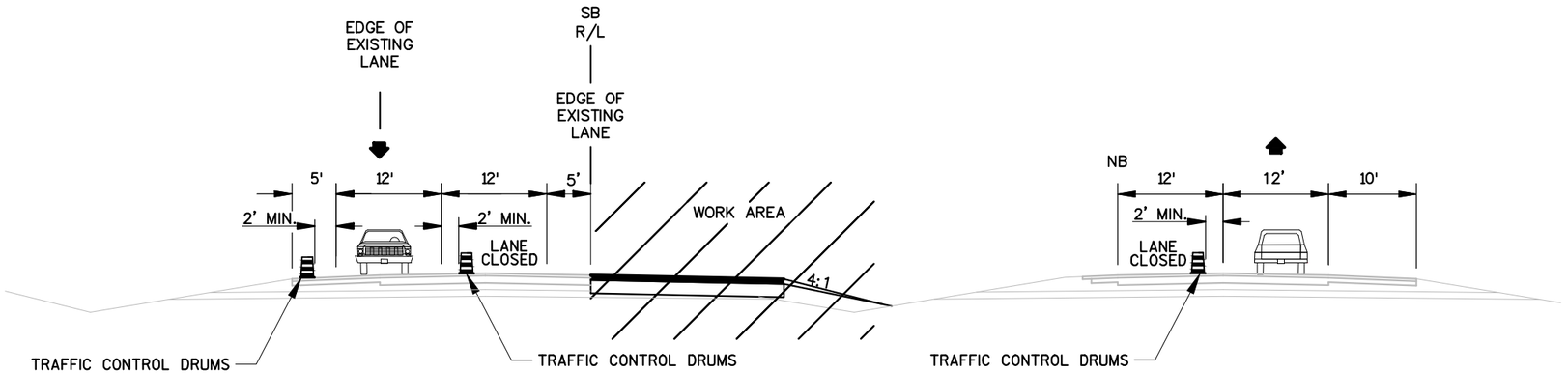
TRAFFIC CONTROL

SEE TRAFFIC CONTROL, LANE CLOSURE,
SPEED REDUCTION DETAIL

CONSTRUCTION

PAVEMENT MARKING

PROJECT NO: 1003-10-77	HWY: IH 39	COUNTY: ROCK	PLAN: TRAFFIC CONTROL - STAGING SEQUENCE	SHEET 36	E



TRAFFIC CONTROL TYPICAL SECTION

NIGHT-TIME OPERATION

TRAFFIC CONTROL NOTES

THE EXACT NUMBER, LOCATION AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS DIRECTED BY THE ENGINEER.

FOR NIGHTTIME OPERATION ALL DRUMS IN TAPERS SHALL HAVE A WARNING LIGHT, TYPE C (STEADY BURN).

ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.

"WO" SIGNS ARE THE SAME AS "W" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

WHEN A RAMP INTERSECTS THE FACILITY ON WHICH THE WORK IS BEING PERFORMED, ADDITIONAL TRAFFIC CONTROLS SHALL BE PROVIDED AS SPECIFIED IN THE PLANS AND/OR THE SPECIAL PROVISIONS OR AS DIRECTED BY THE ENGINEER.

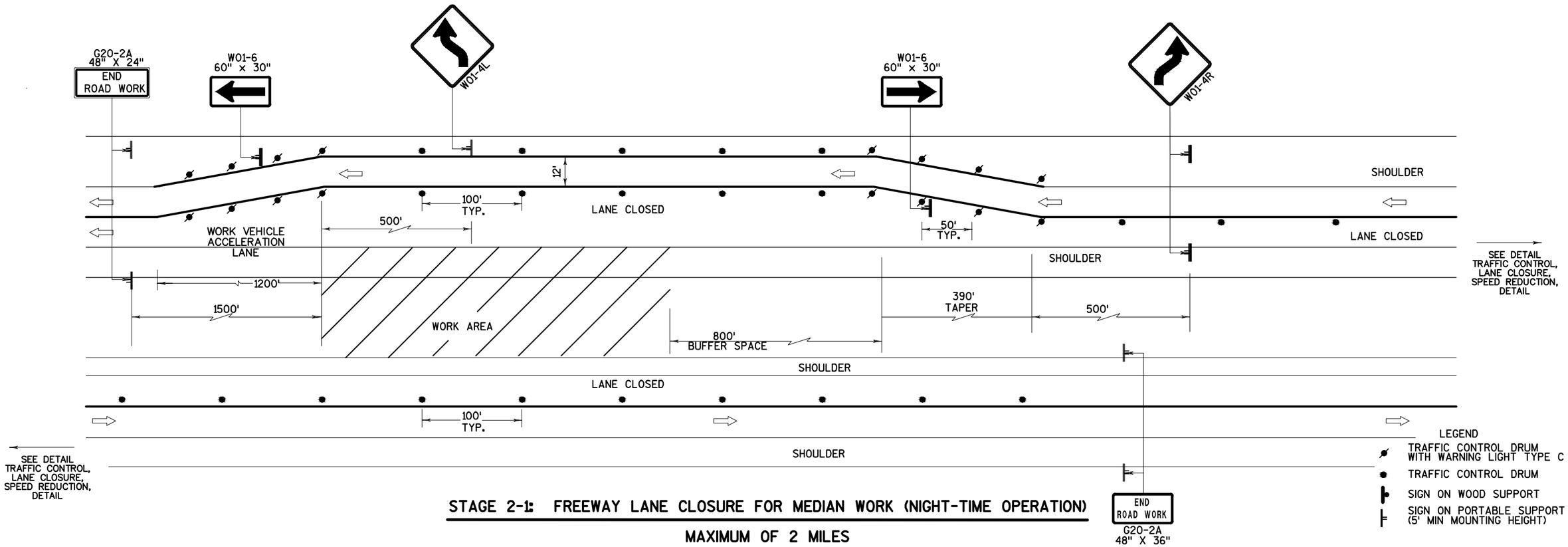
ALL SHORT TERM LANE CLOSURE SIGNS SHALL BE REMOVED OR COVERED AND ALL ARROWBOARDS AND DEVICES REMOVED BEYOND THE SHOULDER WHEN THE WORK IS NOT IN PROGRESS AND THE LANE IS RESTORED TO A SAFE OPERATING CONDITION.

IF LANE CLOSURE IS MORE THAN 1 MILE, PLACE A TYPE III BARRICADE APPROXIMATELY EVERY 1000' ACROSS THE CLOSED LANE TO HELP ENFORCE THE DRUM LINE.

CONSIDER GEOMETRICS WHEN LOCATING SIGNS AND ARROWBOARDS SO THE DRIVER HAS A CLEAR VIEW OF THE ARROWBOARD AND LANE CLOSURE DRUMS FOR A MINIMUM 1500' IN FRONT OF DRUMS.

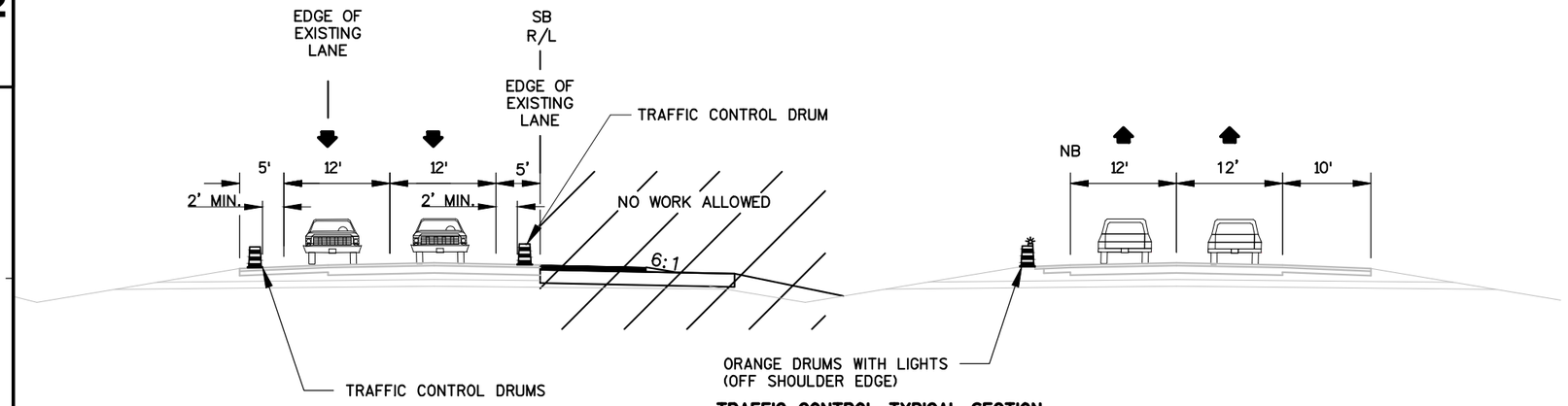
THE WORK ZONE AND BUFFER SPACE WILL BE A MAXIMUM 2 MILES IN LENGTH.

THE CLOSED TRAFFIC LANE MAY BE USED FOR ACCESS TO AND FROM THE WORK ZONE BUT MAY NOT BE USED FOR WORK VEHICLE STORAGE.



STAGE 2-1: FREEWAY LANE CLOSURE FOR MEDIAN WORK (NIGHT-TIME OPERATION)

MAXIMUM OF 2 MILES



TRAFFIC CONTROL TYPICAL SECTION
DAY-TIME OPERATION

TRAFFIC CONTROL NOTES

THE EXACT NUMBER, LOCATION AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS DIRECTED BY THE ENGINEER.

FOR NIGHTIME OPERATION ALL DRUMS IN TAPERS SHALL HAVE A WARNING LIGHT.

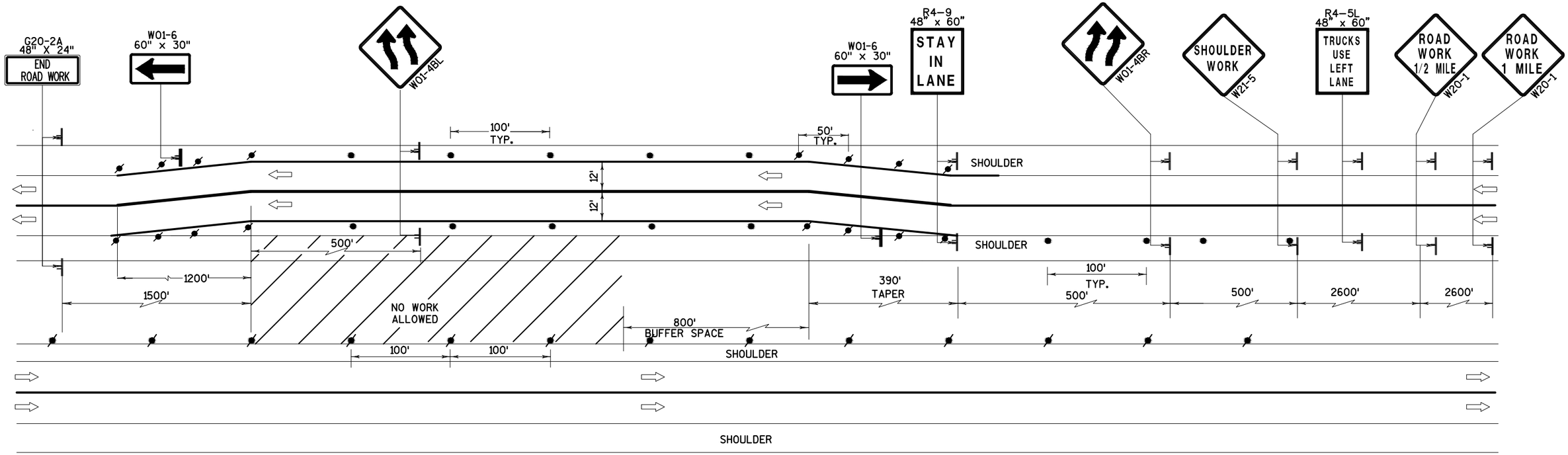
"WO" SIGNS ARE THE SAME AS "W" SIGNS EXCEPT THE BACKGROUND

WHEN A RAMP INTERSECTS THE FACILITY ON WHICH THE WORK IS BEING PERFORMED, ADDITIONAL TRAFFIC CONTROLS SHALL BE PROVIDED AS SPECIFIED IN THE PLANS AND/OR THE SPECIAL PROVISIONS OR AS DIRECTED BY THE ENGINEER.

ALL SHORT TERM LANE CLOSURE SIGNS SHALL BE REMOVED OR COVERED AND ALL ARROWBOARDS AND DEVICES REMOVED BEYOND THE SHOULDER WHEN THE WORK IS NOT IN PROGRESS AND THE LANE IS RESTORED TO A SAFE OPERATING CONDITION.

CONSIDER GEOMETRICS WHEN LOCATING SIGNS AND ARROWBOARDS SO THE DRIVER HAS A CLEAR VIEW OF THE ARROWBOARD AND LANE CLOSURE DRUMS FOR A MINIMUM 1500' IN FRONT OF DRUMS.

THE WORK ZONE AND BUFFER SPACE WILL BE A MAXIMUM 2 MILES IN LENGTH.



LEGEND
- TRAFFIC CONTROL DRUM WITH WARNING LIGHT TYPE C
- TRAFFIC CONTROL DRUM
- SIGN ON WOOD SUPPORT
- SIGN ON PORTABLE SUPPORT (5' MIN MOUNTING HEIGHT)

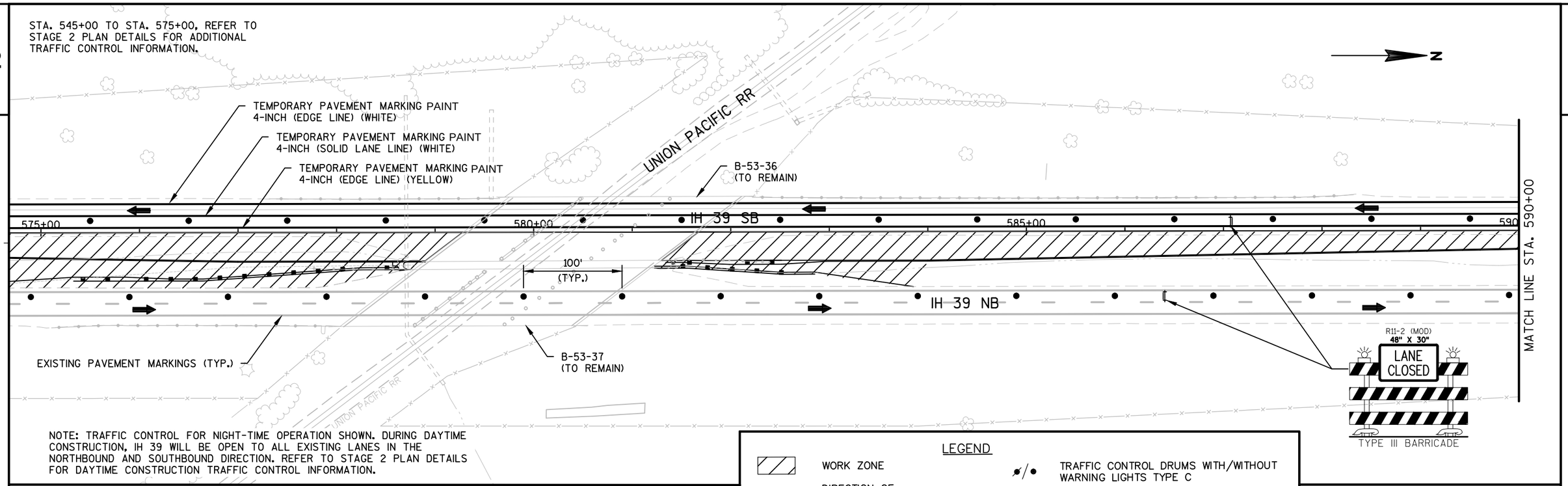
STAGE 2-1: FREEWAY TRAFFIC SHIFT FOR MEDIAN WORK (DAY-TIME CONFIGURATION)

THIS DETAIL COMPLEMENTS THE "FREEWAY LANE CLOSURE FOR MEDIAN WORK (NIGHT-TIME OPERATION)" DETAIL

PROJECT NO: 1003-10-77	HWY: IH 39	COUNTY: ROCK	PLAN: STAGE 2 TRAFFIC CONTROL DAY LANE CONFIGURATION	SHEET 38	E

2

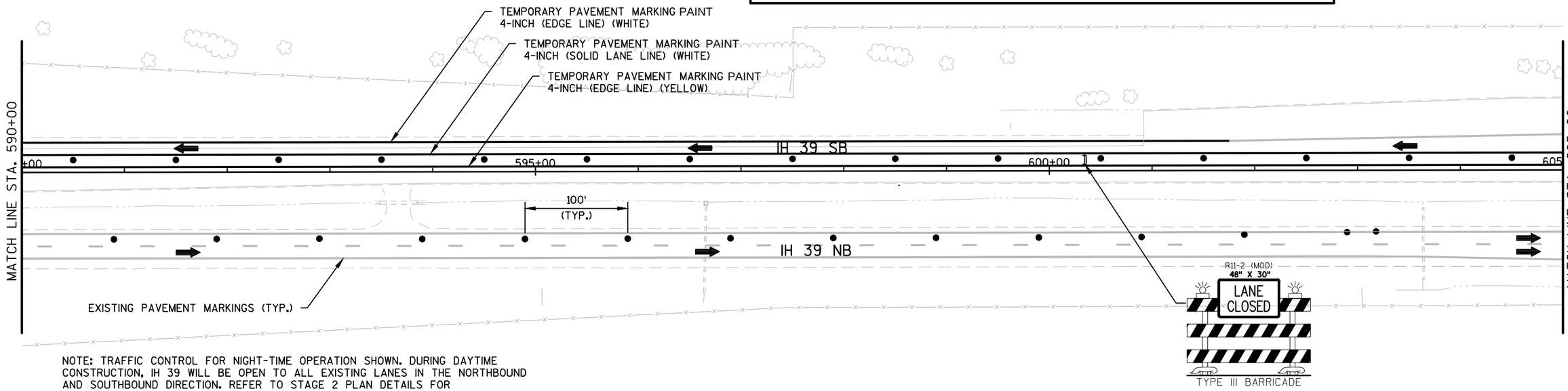
STA. 545+00 TO STA. 575+00, REFER TO STAGE 2 PLAN DETAILS FOR ADDITIONAL TRAFFIC CONTROL INFORMATION.



NOTE: TRAFFIC CONTROL FOR NIGHT-TIME OPERATION SHOWN. DURING DAYTIME CONSTRUCTION, IH 39 WILL BE OPEN TO ALL EXISTING LANES IN THE NORTHBOUND AND SOUTHBOUND DIRECTION. REFER TO STAGE 2 PLAN DETAILS FOR DAYTIME CONSTRUCTION TRAFFIC CONTROL INFORMATION.

LEGEND

- WORK ZONE
- DIRECTION OF TRAFFIC
- SIGN ON PORTABLE SUPPORT
- CONCRETE BARRIER TEMPORARY PRECAST
- TRAFFIC CONTROL DRUMS WITH/WITHOUT WARNING LIGHTS TYPE C
- TRAFFIC CONTROL ARROW BOARDS
- TYPE III BARRICADE WITH SIGN



NOTE: TRAFFIC CONTROL FOR NIGHT-TIME OPERATION SHOWN. DURING DAYTIME CONSTRUCTION, IH 39 WILL BE OPEN TO ALL EXISTING LANES IN THE NORTHBOUND AND SOUTHBOUND DIRECTION. REFER TO STAGE 2 PLAN DETAILS FOR DAYTIME CONSTRUCTION TRAFFIC CONTROL INFORMATION.

PROJECT NO: 1003-10-77	HWY: IH 39	COUNTY: ROCK	PLAN: CONSTRUCTION STAGING - STAGE 2	SHEET 39	E

2

R1-2
36"X31"

FLAGS 16"x16" (MIN.),
ORANGE (TYP.)

W03-2
48"X48"

IH 39 SB ENTRANCE RAMP

SEE SDD "TRAFFIC CONTROL, EXIT AND ENTRANCE RAMP WITHIN LANE CLOSURE" FOR ADDITIONAL INFORMATION.

TEMPORARY PAVEMENT MARKING PAINT
4-INCH (EDGE LINE) (WHITE)

TEMPORARY PAVEMENT MARKING
REMOVABLE TAPE 8-INCH (WHITE)

TEMPORARY PAVEMENT MARKING PAINT
4-INCH (SOLID LANE LINE) (WHITE)

TEMPORARY PAVEMENT MARKING PAINT
4-INCH (EDGE LINE) (YELLOW)

935' MERGING TAPER (55:1 TAPER RATE)

MATCH LINE STA. 605+00

+00

610+00

615+00

620

+76

+00

+35

100'
(TYP.)

50'
(TYP.)

IH 39 SB

IH 39 NB

MATCH LINE STA. 620+00

EXISTING PAVEMENT MARKINGS (TYP.)

R11-2 (MOD)
48" X 30"
LANE CLOSED

TYPE III BARRICADE

IH 39 NB EXIT RAMP

TEMPORARY PAVEMENT MARKING REMOVABLE TAPE
4-INCH (SOLID LANE LINE) (WHITE)

TEMPORARY PAVEMENT MARKING REMOVABLE TAPE
4-INCH (EDGE LINE) (WHITE)

TEMPORARY PAVEMENT MARKING REMOVABLE TAPE
4-INCH (EDGE LINE) (YELLOW)

NOTE: TRAFFIC CONTROL FOR NIGHT-TIME OPERATION SHOWN. DURING DAYTIME CONSTRUCTION, IH 39 WILL BE OPEN TO ALL EXISTING LANES IN THE NORTHBOUND AND SOUTHBOUND DIRECTION. REFER TO STAGE 2 PLAN DETAILS FOR DAYTIME CONSTRUCTION TRAFFIC CONTROL INFORMATION.

LEGEND

- WORK ZONE
- DIRECTION OF TRAFFIC
- SIGN ON PORTABLE SUPPORT
- CONCRETE BARRIER TEMPORARY PRECAST
- TRAFFIC CONTROL DRUMS WITH/WITHOUT WARNING LIGHTS TYPE C
- TRAFFIC CONTROL ARROW BOARDS
- TYPE III BARRICADE WITH SIGN

N

STH 11

IH 39 SB EXIT RAMP

SEE TRAFFIC CONTROL DETAILS "TRAFFIC CONTROL, LANE CLOSURE, SPEED REDUCTION" AND "STAGE 2: FREEWAY TRAFFIC SHIFT FOR MEDIAN WORK (DAY-TIME AND NIGHT-TIME CONFIGURATION)" FOR ADVANCE WARNING DEVICES.

W01-4R
48"X48"
NIGHT-TIME

W01-4B
48"X48"
DAY-TIME

935' MERGING TAPER (55:1 TAPER RATE)

MATCH LINE STA. 620+00

+00

625+00

630+00

635+00

+35

50'
(TYP.)

50'
(TYP.)

10' SPA. (TYP.)

500'

EXISTING PAVEMENT MARKINGS (TYP.)

IH 39 SB

IH 39 NB

TEMPORARY PAVEMENT MARKING REMOVABLE TAPE
4-INCH (SOLID LANE LINE) (WHITE)

TEMPORARY PAVEMENT MARKING REMOVABLE TAPE
4-INCH (EDGE LINE) (WHITE)

TEMPORARY PAVEMENT MARKING REMOVABLE TAPE
4-INCH (EDGE LINE) (YELLOW)

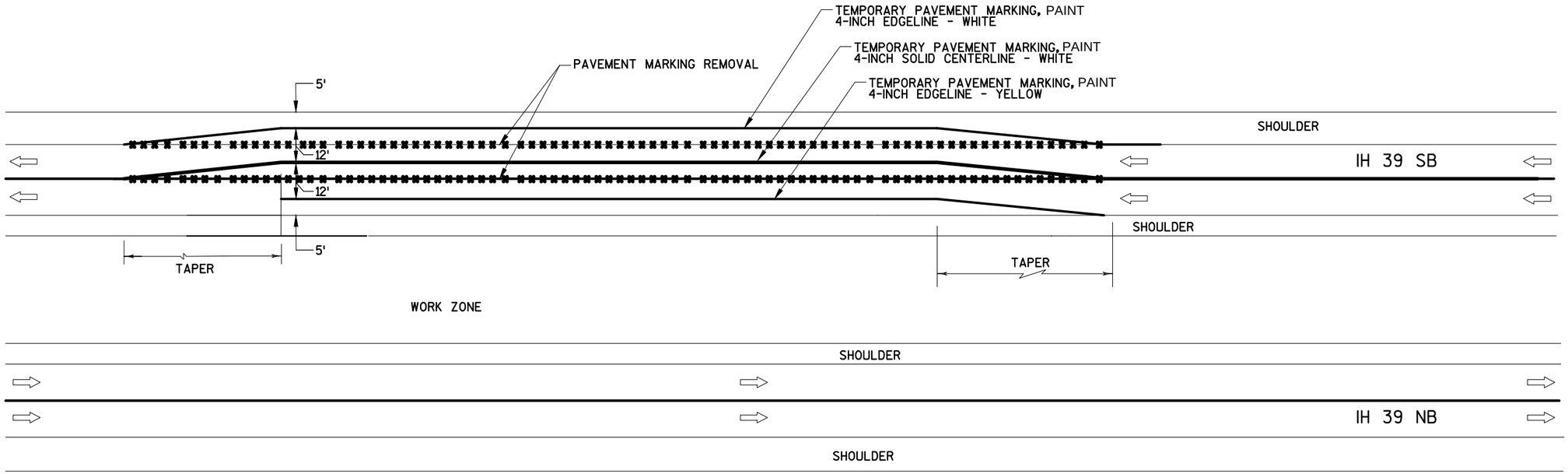
NOTE: TRAFFIC CONTROL FOR NIGHT-TIME OPERATION SHOWN. DURING DAYTIME CONSTRUCTION, IH 39 WILL BE OPEN TO ALL EXISTING LANES IN THE NORTHBOUND AND SOUTHBOUND DIRECTION. REFER TO STAGE 2 PLAN DETAILS FOR DAYTIME CONSTRUCTION TRAFFIC CONTROL INFORMATION.

IH 39 NB ENTRANCE RAMP

PROJECT NO: 1003-10-77	HWY: IH 39	COUNTY: ROCK	PLAN: CONSTRUCTION STAGING - STAGE 2	SHEET 40	E

FILE NAME : S:\MAD\3500--3599\3557\002\CIVIL3D\FINAL\10031077\SHEETSPLAN\026102_S2.DWG
PLOT DATE : 7/29/2015 1:41 PM
PLOT BY : GRADY, NED
PLOT NAME :
PLOT SCALE : 1" = 100'_XREF
WISDOT/CADDS SHEET 44

2

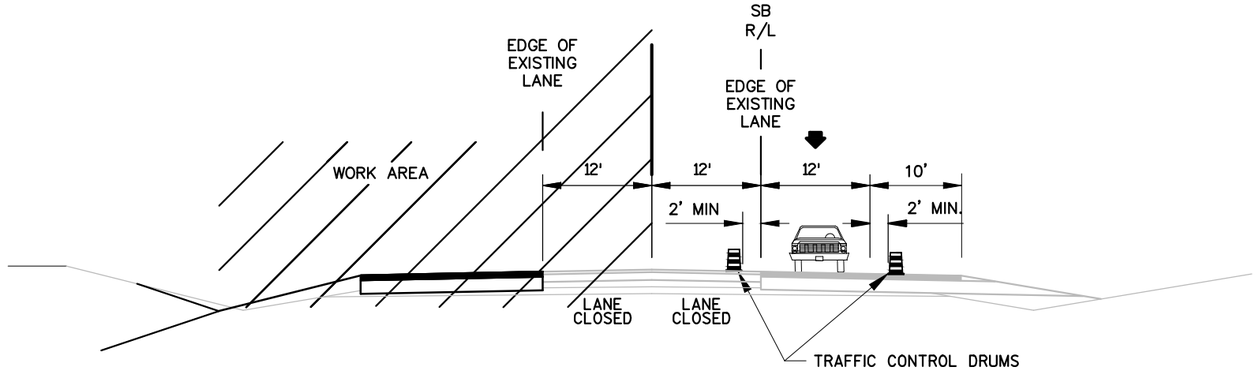


PAVEMENT MARKING FOR FREEWAY LANE CLOSURE FOR MEDIAN WORK

STAGE 2-1

PROJECT NO: 1003-10-77	HWY: IH 39	COUNTY: ROCK	PLAN: TRAFFIC CONTROL - STAGE 2-1	SHEET 41	E

FILE NAME : L:\WORK\PROJECTS\60242867\000_CAD\001_DRAWINGS\1003-10-77_CTH S TO STH 11 TEMP\100%\025004_TC.DWG PLOT DATE : 7/29/2015 3:08 PM PLOT BY : ARBUCKLE, ADRIAN PLOT NAME : PLOT SCALE : 1 IN:200 FT



TRAFFIC CONTROL TYPICAL SECTION
(NIGHT-TIME OPERATION)

TRAFFIC CONTROL NOTES

THE EXACT NUMBER, LOCATION AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS DIRECTED BY THE ENGINEER.

FOR NIGHTTIME OPERATION ALL DRUMS IN TAPERS SHALL HAVE A WARNING LIGHT, TYPE C (STEADY BURN).

ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.

"WO" SIGNS ARE THE SAME AS "W" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

WHEN A RAMP INTERSECTS THE FACILITY ON WHICH THE WORK IS BEING PERFORMED, ADDITIONAL TRAFFIC CONTROLS SHALL BE PROVIDED AS SPECIFIED IN THE PLANS AND/OR THE SPECIAL PROVISIONS OR AS DIRECTED BY THE ENGINEER.

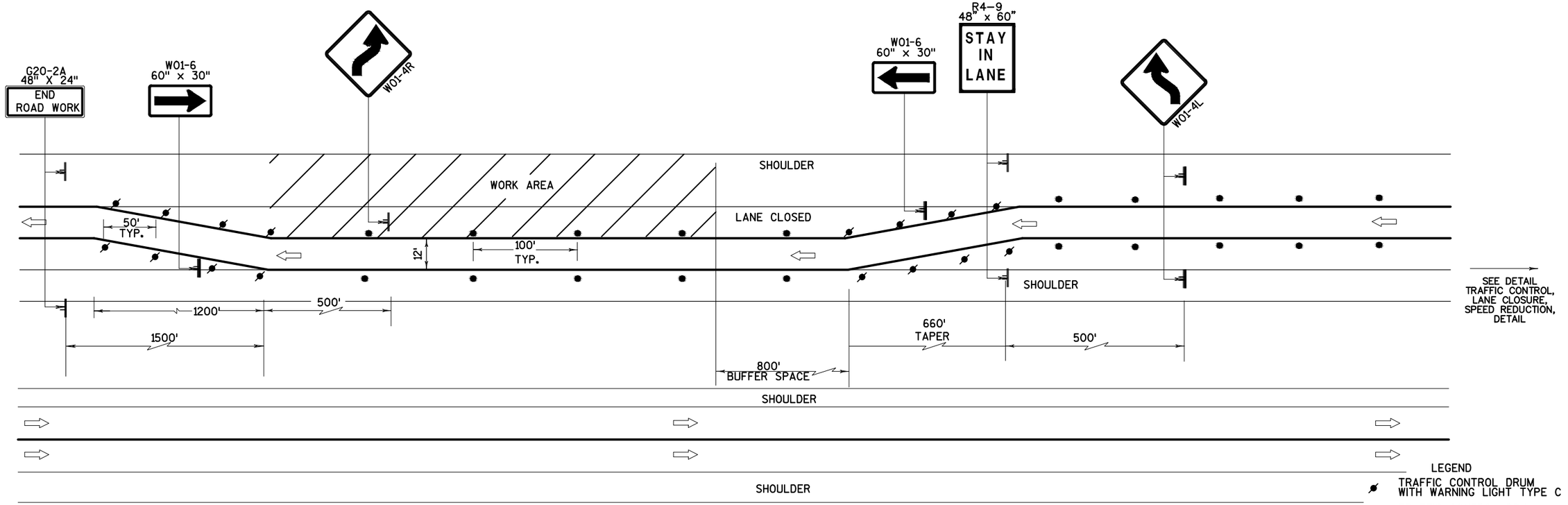
ALL SHORT TERM LANE CLOSURE SIGNS SHALL BE REMOVED OR COVERED AND ALL ARROWBOARDS AND DEVICES REMOVED BEYOND THE SHOULDER WHEN THE WORK IS NOT IN PROGRESS AND THE LANE IS RESTORED TO A SAFE OPERATING CONDITION.

IF LANE CLOSURE IS MORE THAN 1 MILE, PLACE A TYPE III BARRICADE APPROXIMATELY EVERY 1000' ACROSS THE CLOSED LANE TO HELP ENFORCE THE DRUM LINE.

CONSIDER GEOMETRICS WHEN LOCATING SIGNS AND ARROWBOARDS SO THE DRIVER HAS A CLEAR VIEW OF THE ARROWBOARD AND LANE CLOSURE DRUMS FOR A MINIMUM 1500' IN FRONT OF DRUMS.

THE WORK ZONE AND BUFFER SPACE WILL BE A MAXIMUM 2 MILES IN LENGTH.

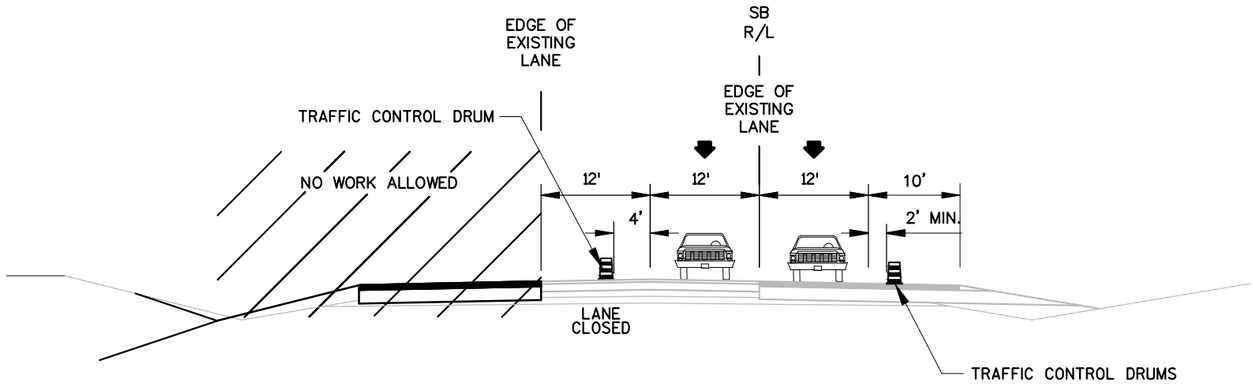
THE CLOSED TRAFFIC LANE MAY BE USED FOR ACCESS TO AND FROM THE WORK ZONE BUT MAY NOT BE USED FOR WORK VEHICLE STORAGE.



STAGE 3-1: FREEWAY LANE CLOSURE FOR OUTSIDE WORK (NIGHT-TIME OPERATION)

MAXIMUM OF 2 MILES

PROJECT NO: 1003-10-77	HWY: IH 39	COUNTY: ROCK	PLAN: STAGE 3 TRAFFIC CONTROL	SHEET 42	E



TRAFFIC CONTROL TYPICAL SECTION
(DAY OPERATION)

TRAFFIC CONTROL NOTES

THE EXACT NUMBER, LOCATION AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS DIRECTED BY THE ENGINEER.

FOR NIGHTTIME OPERATION ALL DRUMS IN TAPERS SHALL HAVE A WARNING LIGHT, TYPE C (STEADY BURN).

ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.

"WO" SIGNS ARE THE SAME AS "W" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

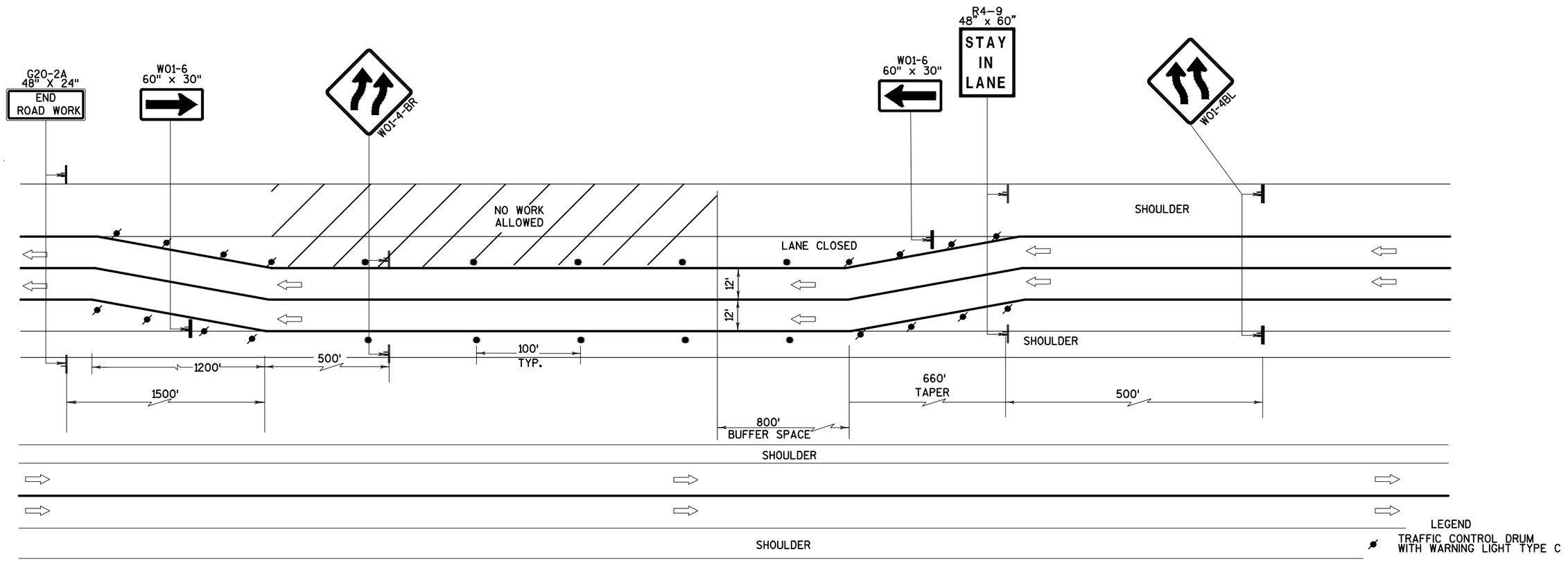
WHEN A RAMP INTERSECTS THE FACILITY ON WHICH THE WORK IS BEING PERFORMED, ADDITIONAL TRAFFIC CONTROLS SHALL BE PROVIDED AS SPECIFIED IN THE PLANS AND/OR THE SPECIAL PROVISIONS OR AS DIRECTED BY THE ENGINEER.

ALL SHORT TERM LANE CLOSURE SIGNS SHALL BE REMOVED OR COVERED AND ALL ARROWBOARDS AND DEVICES REMOVED BEYOND THE SHOULDER WHEN THE WORK IS NOT IN PROGRESS AND THE LANE IS RESTORED TO A SAFE OPERATING CONDITION.

IF LANE CLOSURE IS MORE THAN 1 MILE, PLACE A TYPE III BARRICADE APPROXIMATELY EVERY 1000' ACROSS THE CLOSED LANE TO HELP ENFORCE THE DRUM LINE.

CONSIDER GEOMETRICS WHEN LOCATING SIGNS AND ARROWBOARDS SO THE DRIVER HAS A CLEAR VIEW OF THE ARROWBOARD AND LANE CLOSURE DRUMS FOR A MINIMUM 1500' IN FRONT OF DRUMS.

THE WORK ZONE AND BUFFER SPACE WILL BE A MAXIMUM 2 MILES IN LENGTH.

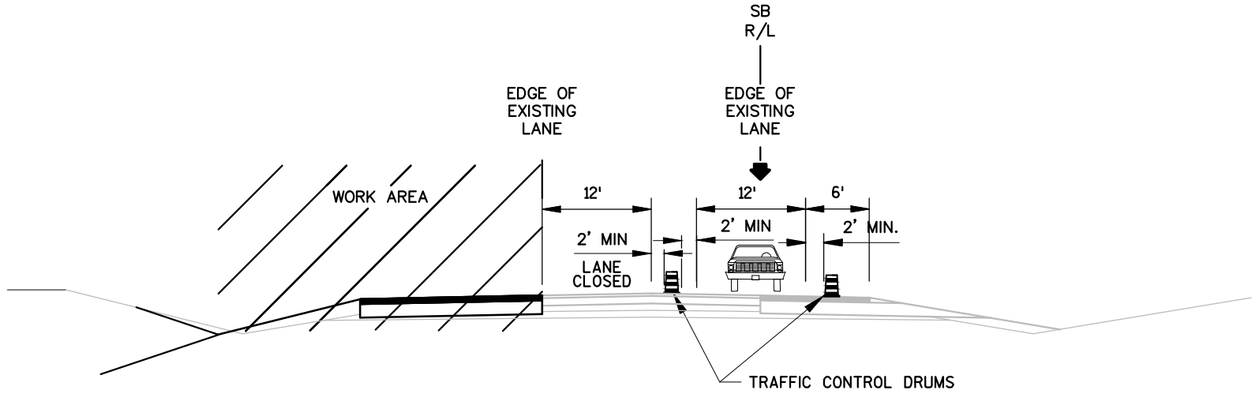


LEGEND
- TRAFFIC CONTROL DRUM WITH WARNING LIGHT TYPE C
- TRAFFIC CONTROL DRUM
- SIGN ON WOOD SUPPORT
- SIGN ON PORTABLE SUPPORT (5' MIN MOUNTING HEIGHT)

STAGE 3-1: FREEWAY TRAFFIC SHIFT FOR OUTSIDE WORK (DAY CONFIGURATION)

THIS DETAIL COMPLEMENTS THE "FREEWAY LANE CLOSURE FOR OUTSIDE WORK (NIGHT-TIME OPERATION)" DETAIL

PROJECT NO: 1003-10-77	HWY: IH 39	COUNTY: ROCK	PLAN: STAGE 3 TRAFFIC CONTROL DAY LANE CONFIGURATION	SHEET 43	E



TRAFFIC CONTROL TYPICAL SECTION
(NIGHT-TIME OPERATION)

TRAFFIC CONTROL NOTES

THE EXACT NUMBER, LOCATION AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS DIRECTED BY THE ENGINEER.

FOR NIGHTTIME OPERATION ALL DRUMS IN TAPERS SHALL HAVE A WARNING LIGHT, TYPE C (STEADY BURN).

ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.

"WO" SIGNS ARE THE SAME AS "W" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

WHEN A RAMP INTERSECTS THE FACILITY ON WHICH THE WORK IS BEING PERFORMED, ADDITIONAL TRAFFIC CONTROLS SHALL BE PROVIDED AS SPECIFIED IN THE PLANS AND/OR THE SPECIAL PROVISIONS OR AS DIRECTED BY THE ENGINEER.

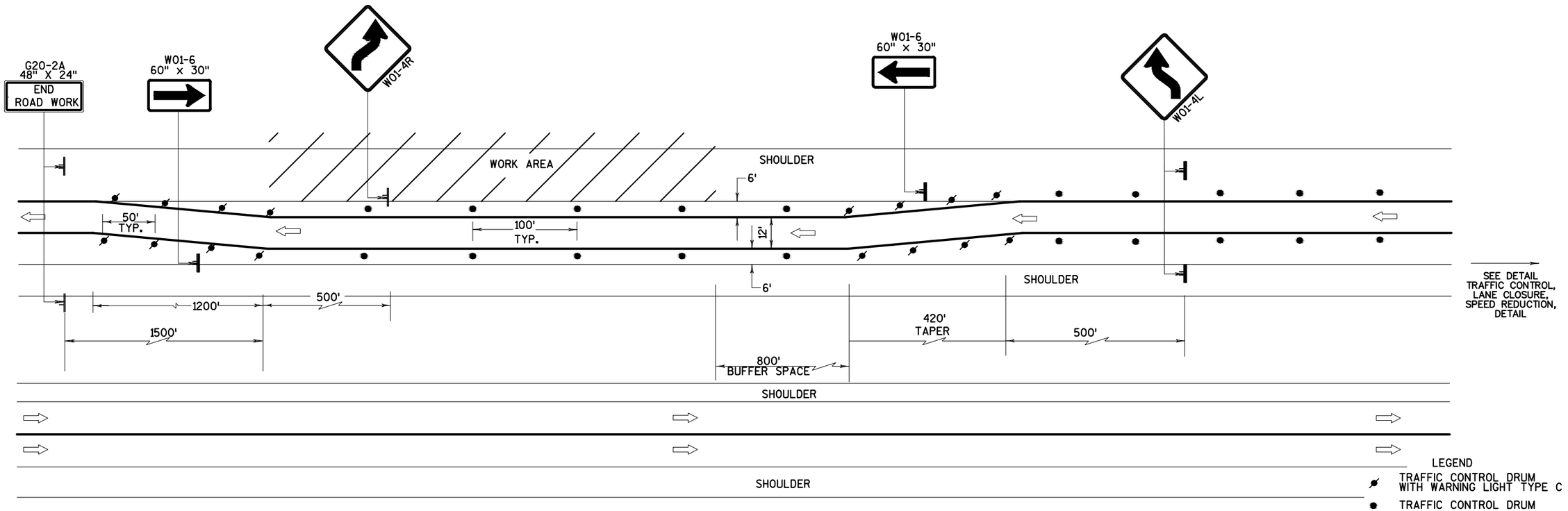
ALL SHORT TERM LANE CLOSURE SIGNS SHALL BE REMOVED OR COVERED AND ALL ARROWBOARDS AND DEVICES REMOVED BEYOND THE SHOULDER WHEN THE WORK IS NOT IN PROGRESS AND THE LANE IS RESTORED TO A SAFE OPERATING CONDITION.

IF LANE CLOSURE IS MORE THAN 1 MILE, PLACE A TYPE III BARRICADE APPROXIMATELY EVERY 1000' ACROSS THE CLOSED LANE TO HELP ENFORCE THE DRUM LINE.

CONSIDER GEOMETRICS WHEN LOCATING SIGNS AND ARROWBOARDS SO THE DRIVER HAS A CLEAR VIEW OF THE ARROWBOARD AND LANE CLOSURE DRUMS FOR A MINIMUM 1500' IN FRONT OF DRUMS.

THE WORK ZONE AND BUFFER SPACE WILL BE A MAXIMUM 2 MILES IN LENGTH.

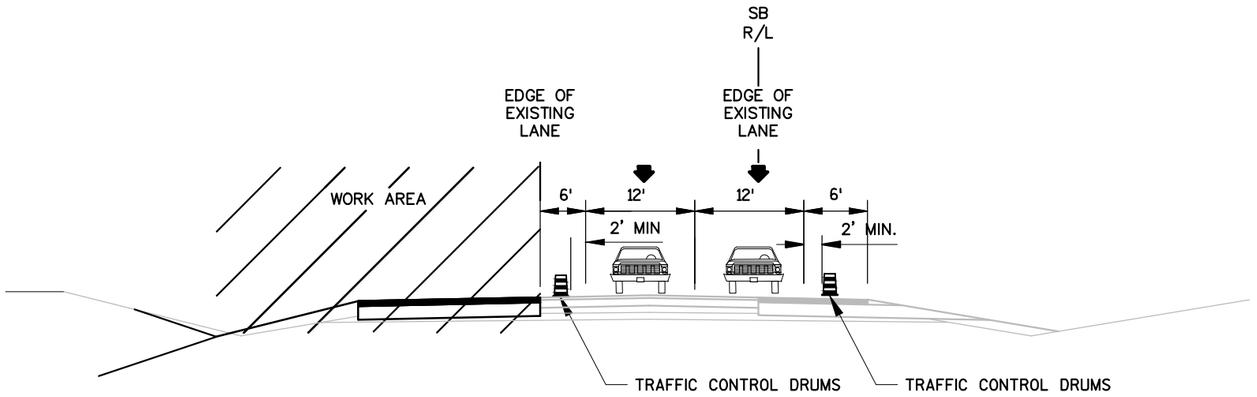
THE CLOSED TRAFFIC LANE MAY BE USED FOR ACCESS TO AND FROM THE WORK ZONE BUT MAY NOT BE USED FOR WORK VEHICLE STORAGE.



STAGE 3-2: FREEWAY LANE CLOSURE FOR OUTSIDE WORK (NIGHT-TIME OPERATION)

MAXIMUM OF 2 MILES

PROJECT NO: 1003-10-77	HWY: IH 39	COUNTY: ROCK	PLAN: STAGE 3 TRAFFIC CONTROL DAY LANE CONFIGURATION	SHEET 44	E



TRAFFIC CONTROL TYPICAL SECTION
(DAY OPERATION)

TRAFFIC CONTROL NOTES

THE EXACT NUMBER, LOCATION AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS DIRECTED BY THE ENGINEER.

FOR NIGHTTIME OPERATION ALL DRUMS IN TAPERS SHALL HAVE A WARNING LIGHT, TYPE C (STEADY BURN).

ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.

"WO" SIGNS ARE THE SAME AS "W" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

WHEN A RAMP INTERSECTS THE FACILITY ON WHICH THE WORK IS BEING PERFORMED, ADDITIONAL TRAFFIC CONTROLS SHALL BE PROVIDED AS SPECIFIED IN THE PLANS AND/OR THE SPECIAL PROVISIONS OR AS DIRECTED BY THE ENGINEER.

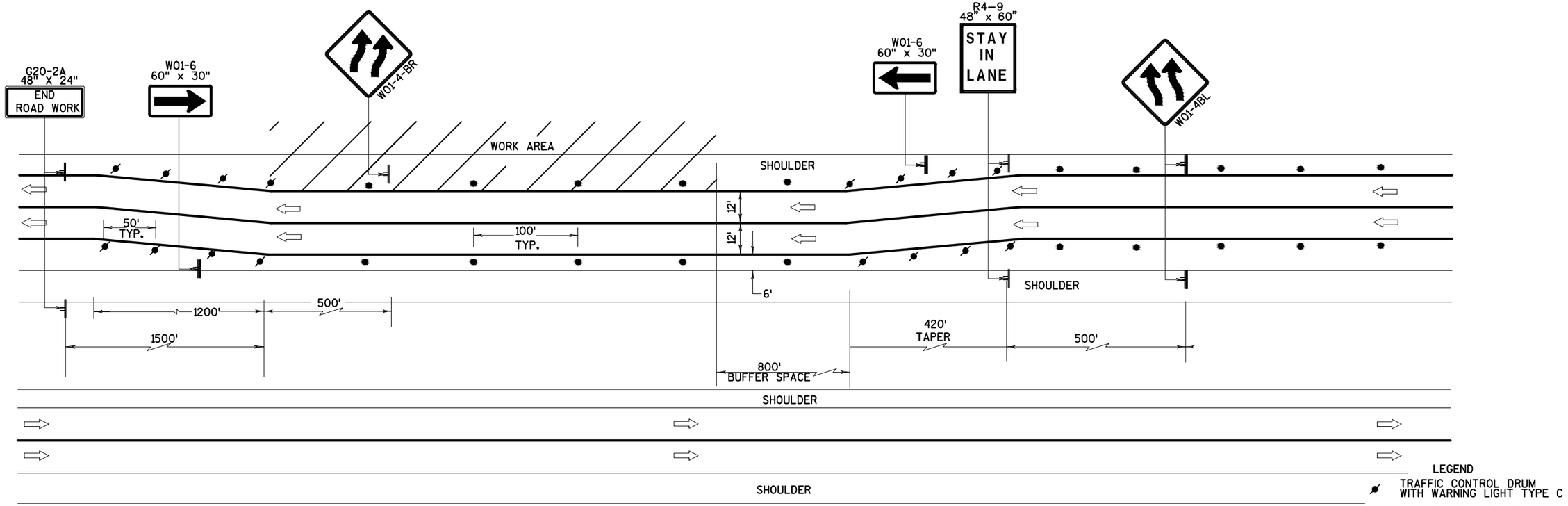
ALL SHORT TERM LANE CLOSURE SIGNS SHALL BE REMOVED OR COVERED AND ALL ARROWBOARDS AND DEVICES REMOVED BEYOND THE SHOULDER WHEN THE WORK IS NOT IN PROGRESS AND THE LANE IS RESTORED TO A SAFE OPERATING CONDITION.

IF LANE CLOSURE IS MORE THAN 1 MILE, PLACE A TYPE III BARRICADE APPROXIMATELY EVERY 1000' ACROSS THE CLOSED LANE TO HELP ENFORCE THE DRUM LINE.

CONSIDER GEOMETRICS WHEN LOCATING SIGNS AND ARROWBOARDS SO THE DRIVER HAS A CLEAR VIEW OF THE ARROWBOARD AND LANE CLOSURE DRUMS FOR A MINIMUM 1500' IN FRONT OF DRUMS.

THE WORK ZONE AND BUFFER SPACE WILL BE A MAXIMUM 2 MILES IN LENGTH.

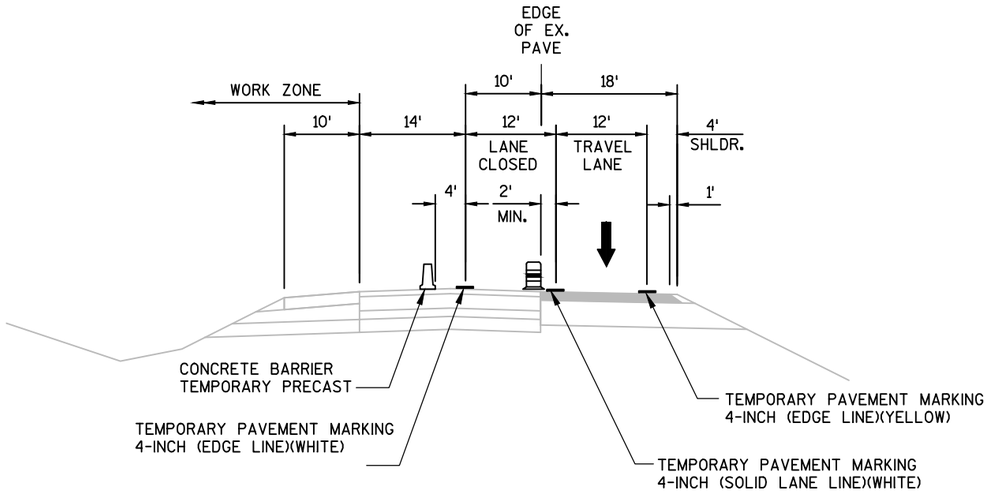
THE CLOSED TRAFFIC LANE MAY BE USED FOR ACCESS TO AND FROM THE WORK ZONE BUT MAY NOT BE USED FOR WORK VEHICLE STORAGE.



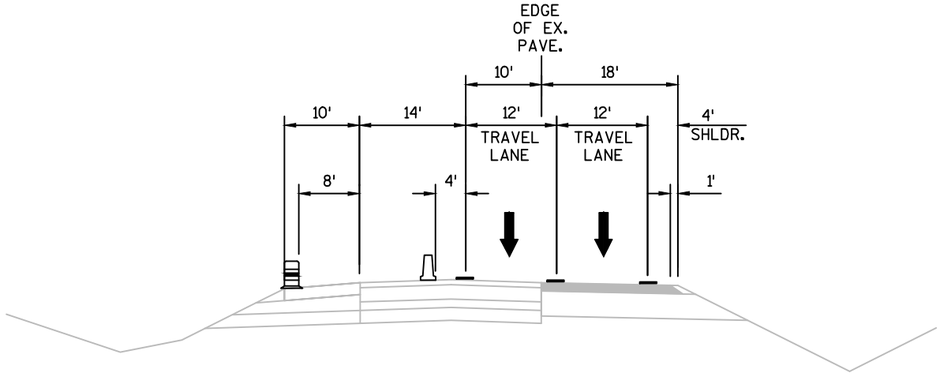
STAGE 3-2: FREEWAY TRAFFIC SHIFT FOR OUTSIDE WORK (DAY CONFIGURATION)

THIS DETAIL COMPLEMENTS THE "FREEWAY LANE CLOSURE FOR OUTSIDE WORK (NIGHT-TIME OPERATION)" DETAIL

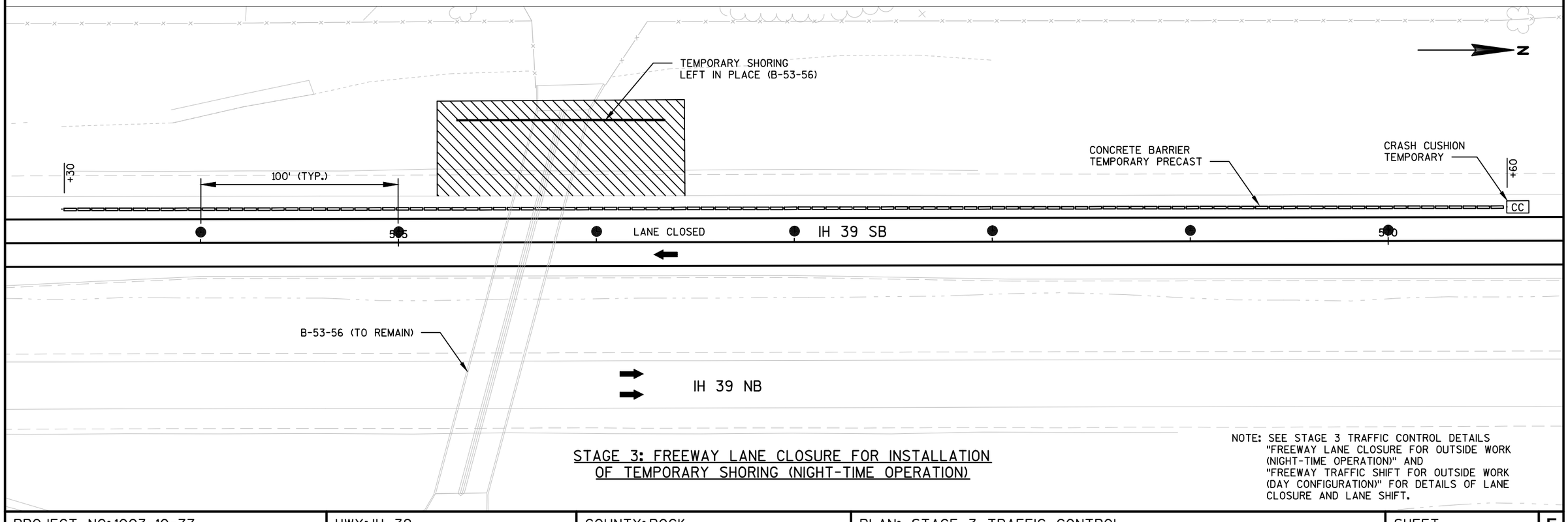
PROJECT NO: 1003-10-77	HWY: IH 39	COUNTY: ROCK	PLAN: STAGE 3 TRAFFIC CONTROL DAY LANE CONFIGURATION	SHEET 45	E



TRAFFIC CONTROL TYPICAL SECTION
(NIGHT-TIME OPERATION)



TRAFFIC CONTROL TYPICAL SECTION
(DAY OPERATION)

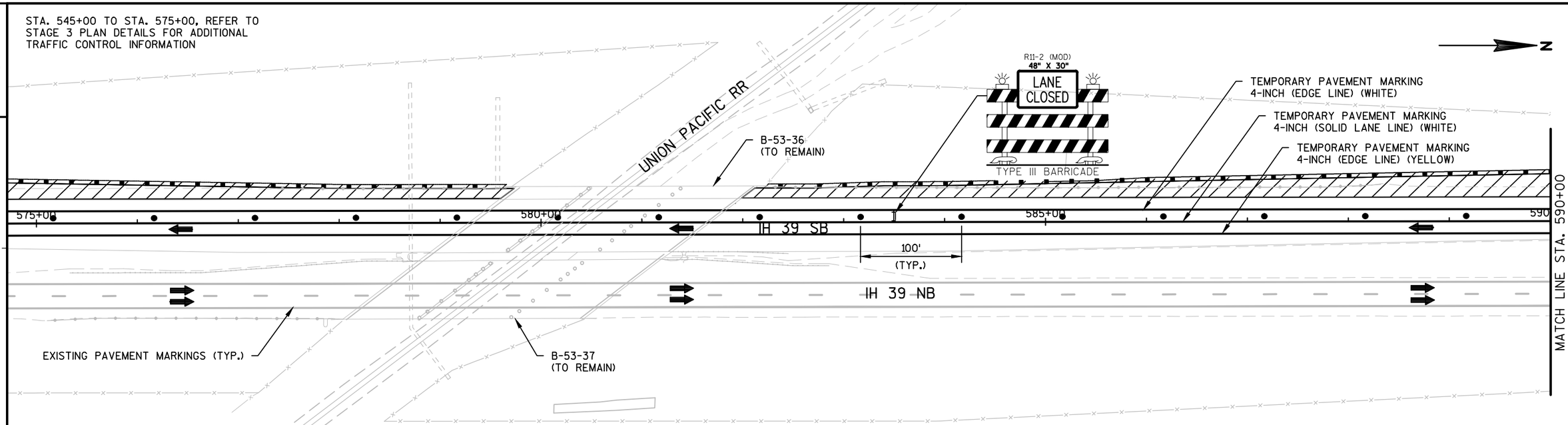


STAGE 3: FREEWAY LANE CLOSURE FOR INSTALLATION
OF TEMPORARY SHORING (NIGHT-TIME OPERATION)

NOTE: SEE STAGE 3 TRAFFIC CONTROL DETAILS "FREEWAY LANE CLOSURE FOR OUTSIDE WORK (NIGHT-TIME OPERATION)" AND "FREEWAY TRAFFIC SHIFT FOR OUTSIDE WORK (DAY CONFIGURATION)" FOR DETAILS OF LANE CLOSURE AND LANE SHIFT.

PROJECT NO: 1003-10-77	HWY: IH 39	COUNTY: ROCK	PLAN: STAGE 3 TRAFFIC CONTROL	SHEET 46	E

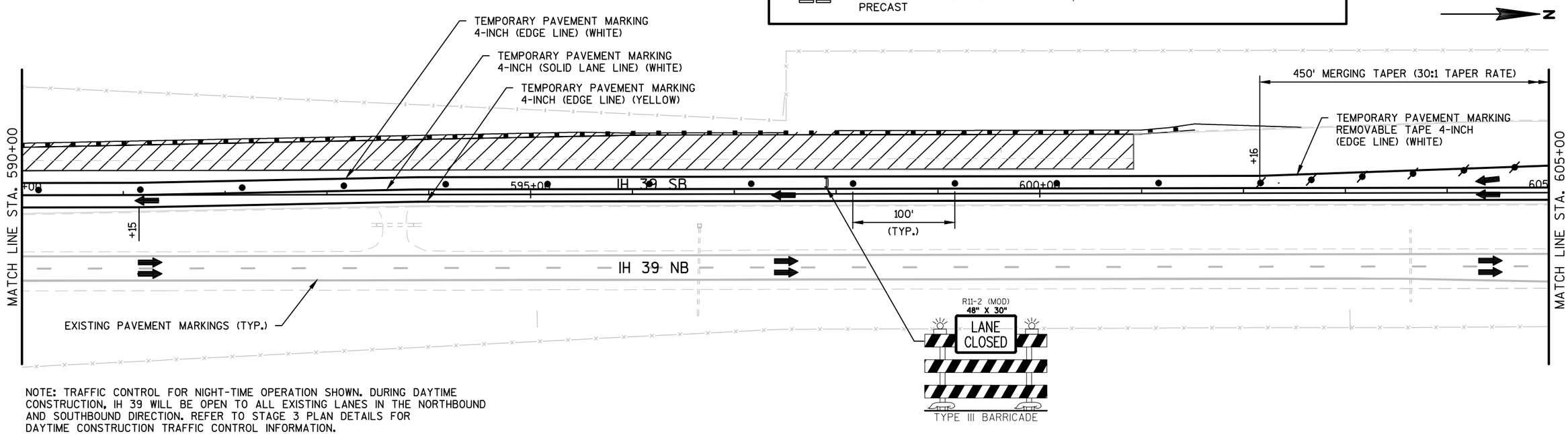
STA. 545+00 TO STA. 575+00, REFER TO STAGE 3 PLAN DETAILS FOR ADDITIONAL TRAFFIC CONTROL INFORMATION



NOTE: TRAFFIC CONTROL FOR NIGHT-TIME OPERATION SHOWN. DURING DAYTIME CONSTRUCTION, IH 39 WILL BE OPEN TO ALL EXISTING LANES IN THE NORTHBOUND AND SOUTHBOUND DIRECTION. REFER TO STAGE 3 PLAN DETAILS FOR DAYTIME CONSTRUCTION TRAFFIC CONTROL INFORMATION.

LEGEND

- WORK ZONE
- DIRECTION OF TRAFFIC
- SIGN ON PORTABLE SUPPORT
- CONCRETE BARRIER TEMPORARY PRECAST
- TRAFFIC CONTROL DRUMS WITH/WITHOUT WARNING LIGHTS TYPE C
- TRAFFIC CONTROL ARROW BOARDS
- TYPE III BARRICADE WITH SIGN



NOTE: TRAFFIC CONTROL FOR NIGHT-TIME OPERATION SHOWN. DURING DAYTIME CONSTRUCTION, IH 39 WILL BE OPEN TO ALL EXISTING LANES IN THE NORTHBOUND AND SOUTHBOUND DIRECTION. REFER TO STAGE 3 PLAN DETAILS FOR DAYTIME CONSTRUCTION TRAFFIC CONTROL INFORMATION.

PROJECT NO: 1003-10-77	HWY: IH 39	COUNTY: ROCK	PLAN: CONSTRUCTION STAGING - STAGE 3	SHEET 47	E

SEE SDD "TRAFFIC CONTROL, EXIT AND ENTRANCE RAMP WITHIN LANE CLOSURE" FOR ADDITIONAL INFORMATION

FLAGS 16"x16" (MIN.), ORANGE (TYP.)

R1-2 36"X31"

W03-2 48"X48"

W04-1R 48"X48"

TEMPORARY PAVEMENT MARKING 4-INCH (EDGE LINE) (WHITE)

IH 39 SB ENTRANCE RAMP

N

SEE TRAFFIC CONTROL DETAILS "TRAFFIC CONTROL, LANE CLOSURE, SPEED REDUCTION" AND "STAGE 2: FREEWAY TRAFFIC SHIFT FOR MEDIAN WORK (DAY-TIME AND NIGHT-TIME CONFIGURATION)" FOR ADVANCE WARNING DEVICES.

450' TAPER (30:1 TAPER RATE)

50' (TYP.)

+66

50' (TYP.)

TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (EDGE LINE) (WHITE)

100' (TYP.)

1045' MERGING TAPER (55:1 TAPER RATE)

50' (TYP.)

MATCH LINE STA. 605+00

+00

600+00

IH 39 SB

605+00

620

MATCH LINE STA. 620+00

+70

IH 39 NB

EXISTING PAVEMENT MARKINGS (TYP.)

TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 8-INCH (EDGE LINE) (WHITE)

TEMPORARY PAVEMENT MARKING 4-INCH (SOLID LANE LINE) (WHITE)

TEMPORARY PAVEMENT MARKING 4-INCH (EDGE LINE) (YELLOW)

TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (EDGE LINE) (WHITE)

TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (SOLID LANE LINE) (WHITE)

TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (EDGE LINE) (YELLOW)

IH 39 NB EXIT RAMP

NOTE: TRAFFIC CONTROL FOR NIGHT-TIME OPERATION SHOWN. DURING DAYTIME CONSTRUCTION, IH 39 WILL BE OPEN TO ALL EXISTING LANES IN THE NORTHBOUND AND SOUTHBOUND DIRECTION. REFER TO STAGE 3 PLAN DETAILS FOR DAYTIME CONSTRUCTION TRAFFIC CONTROL INFORMATION.

LEGEND

- WORK ZONE
- DIRECTION OF TRAFFIC
- SIGN ON PORTABLE SUPPORT
- CONCRETE BARRIER TEMPORARY PRECAST
- TRAFFIC CONTROL DRUMS WITH/WITHOUT WARNING LIGHTS TYPE C
- TRAFFIC CONTROL ARROW BOARDS
- TYPE III BARRICADE WITH SIGN

STH 11

N

IH 39 SB EXIT RAMP

SEE TRAFFIC CONTROL DETAILS "TRAFFIC CONTROL, LANE CLOSURE, SPEED REDUCTION" AND "STAGE 3: FREEWAY TRAFFIC SHIFT FOR MEDIAN WORK (DAY-TIME AND NIGHT-TIME CONFIGURATION)" FOR ADVANCE WARNING DEVICES.

1045' MERGING TAPER (55:1 TAPER RATE)

50' (TYP.)

+45

50' (TYP.)

10' SPA. (TYP.)

W1-4B (DAYTIME) 48"X48"

W4-2L (NIGHTTIME) 48"X48"

MATCH LINE STA. 620+00

+00

625+00

IH 39 SB

630+00

635+00

500'

IH 39 NB

EXISTING PAVEMENT MARKINGS (TYP.)

TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (EDGE LINE) (WHITE)

TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (SOLID LANE LINE) (WHITE)

TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (EDGE LINE) (YELLOW)

IH 39 NB ENTRANCE RAMP

NOTE: TRAFFIC CONTROL FOR NIGHT-TIME OPERATION SHOWN. DURING DAYTIME CONSTRUCTION, IH 39 WILL BE OPEN TO ALL EXISTING LANES IN THE NORTHBOUND AND SOUTHBOUND DIRECTION. REFER TO STAGE 3 PLAN DETAILS FOR DAYTIME CONSTRUCTION TRAFFIC CONTROL INFORMATION.

PROJECT NO: 1003-10-77	HWY: IH 39	COUNTY: ROCK	PLAN: CONSTRUCTION STAGING - STAGE 3	SHEET 48	E

FILE NAME : S:\MAD\3500--3599\3557\002\CIVIL3D\FINAL\10031077\SHEETSPLAN\026202_S3.DWG PLOT DATE : 7/28/2015 10:56 AM PLOT BY : GRIMME, SARA PLOT NAME : PLOT SCALE : 1" = 100'_XREF

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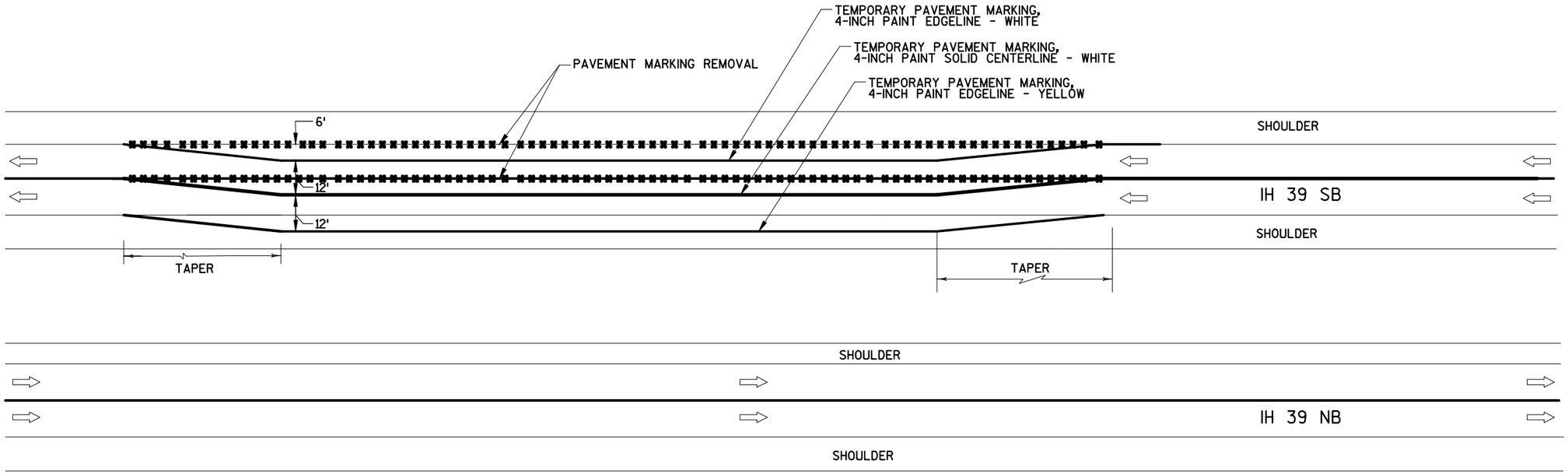


PAVEMENT MARKING FOR FREEWAY LANE CLOSURE FOR MEDIAN WORK

STAGE 3-2

2

LEGEND

- TYPE III BARRICADE
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- REMOVING PAVEMENT MARKING
- DIRECTION OF TRAFFIC
- WORK AREA
- PCMS — PORTABLE CHANGEABLE MESSAGE SIGN

TRAFFIC CONTROL NOTES

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

THE SPACING BETWEEN SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND TO PROVIDE A MINIMUM OF 200 FEET, 500 FEET DESIRABLE, DISTANCE TO EXISTING SIGNS.

THIS LANE CLOSURE IS TYPICAL FOR CLOSING RIGHT LANE - REVERSE FOR CLOSING LEFT LANE.

ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.

"WO" IS THE SAME AS "W" EXCEPT THE BACKGROUND IS ORANGE.

ANY SIGNS, TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER. NO WARNING LIGHTS SHALL BE WORKING ON "COVERED" OR "DOWNED" SIGNS.

REDUCED SPEED AHEAD AND SPEED LIMIT 55 SIGNS MUST BE POST MOUNTED.

SPEED LIMIT SIGNS SHALL ALSO BE LOCATED 1500 FEET BEYOND THE END OF THE ACCELERATION LANE OF EACH ENTRANCE RAMP AND AT 0.5 MILE INTERVALS, OR AS DIRECTED BY THE ENGINEER.

THE LOCATION OF THE FIRST SIGN INDICATING THE 55 MPH REGULATORY SPEED LIMIT IS REFERENCED FROM BEGINNING OF LANE CLOSURE TAPER. THE 55 MPH REGULATORY SPEED LIMIT SIGN LOCATION MUST BE ADJUSTED WHEN CONSTRUCTION ACTIVITIES REQUIRE THE LANE CLOSURE START LOCATION TO CHANGE.

TRAFFIC CONTROL DEVICES NOT IN USE SHALL BE LAYED DOWN OR REMOVED, TURNING OF DEVICES TO OBSCURE THE MESSAGE WILL NOT BE ALLOWED.

FOR A LANE CLOSURE THAT IS IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS, THE ADVANCED WARNING SIGNS MAY BE MOUNTED ON PORTABLE SUPPORTS.

REMOVE PAVEMENT MARKINGS IF LANE CLOSURE IS TO BE IN PLACE FOR LONGER THAN 7 CONTINUOUS DAYS AND NIGHTS.

WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

IF THE HORIZONTAL ALIGNMENT IS SUCH THAT A CURVE MAY REQUIRE ADDITIONAL DELINEATION, THE DEVICE SPACING MAY BE DECREASED TO 50 FEET.

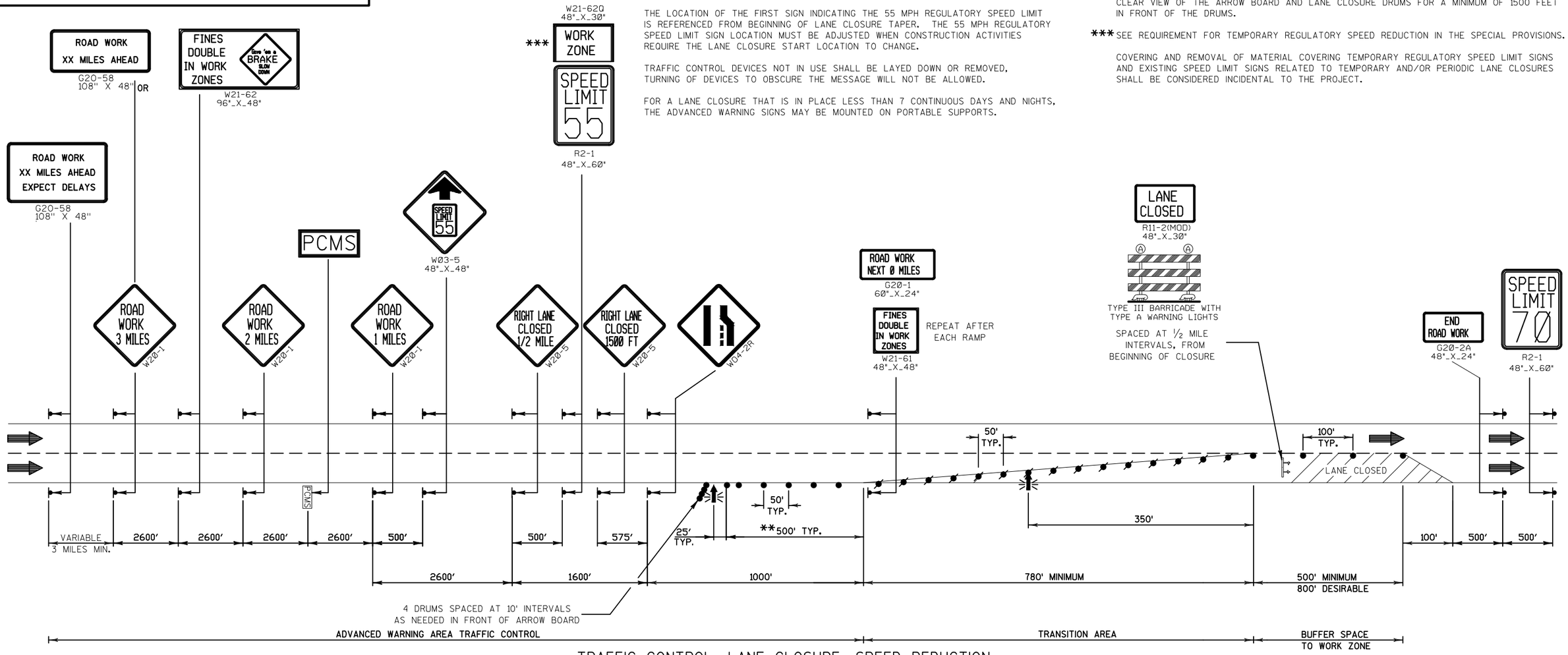
IF LANE CLOSURE IS MORE THAN 1 MILE, PLACE A TYPE III BARRICADE APPROXIMATELY EVERY ½ MILE ACROSS THE CLOSED LANE TO HELP ENFORCE THE DRUM LINE.

ADJUSTMENTS IN BUFFER SPACE NEED TO BE INCORPORATED WHEN THE LANE CLOSURE OCCURS NEAR AN INTERCHANGE EXIT OR ENTRANCE RAMP. THE LANE CLOSURE MUST TAKE PLACE FAR ENOUGH IN ADVANCE OF AN EXIT OR ENTRANCE RAMP TO STILL ALLOW FOR ADEQUATE BUFFER SPACE. THE MINIMUM LENGTH OF THE BUFFER SPACE BEFORE AN EXIT RAMP SHOULD BE ½ THE LENGTH OF THE TRANSITION AREA. THE ENTRANCE RAMP SHOULD BE FOLLOWED BY THE ORIGINAL BUFFER SPACE LENGTH OF 800 FEET DESIRABLE PRIOR TO ANOTHER TRAFFIC CONTROL CHANGE SUCH AS A CROSSOVER MANEUVER.

** CONSIDER GEOMETRICS WHEN LOCATING SIGNS AND ARROW BOARDS SO THE DRIVER HAS A CLEAR VIEW OF THE ARROW BOARD AND LANE CLOSURE DRUMS FOR A MINIMUM OF 1500 FEET IN FRONT OF THE DRUMS.

*** SEE REQUIREMENT FOR TEMPORARY REGULATORY SPEED REDUCTION IN THE SPECIAL PROVISIONS.

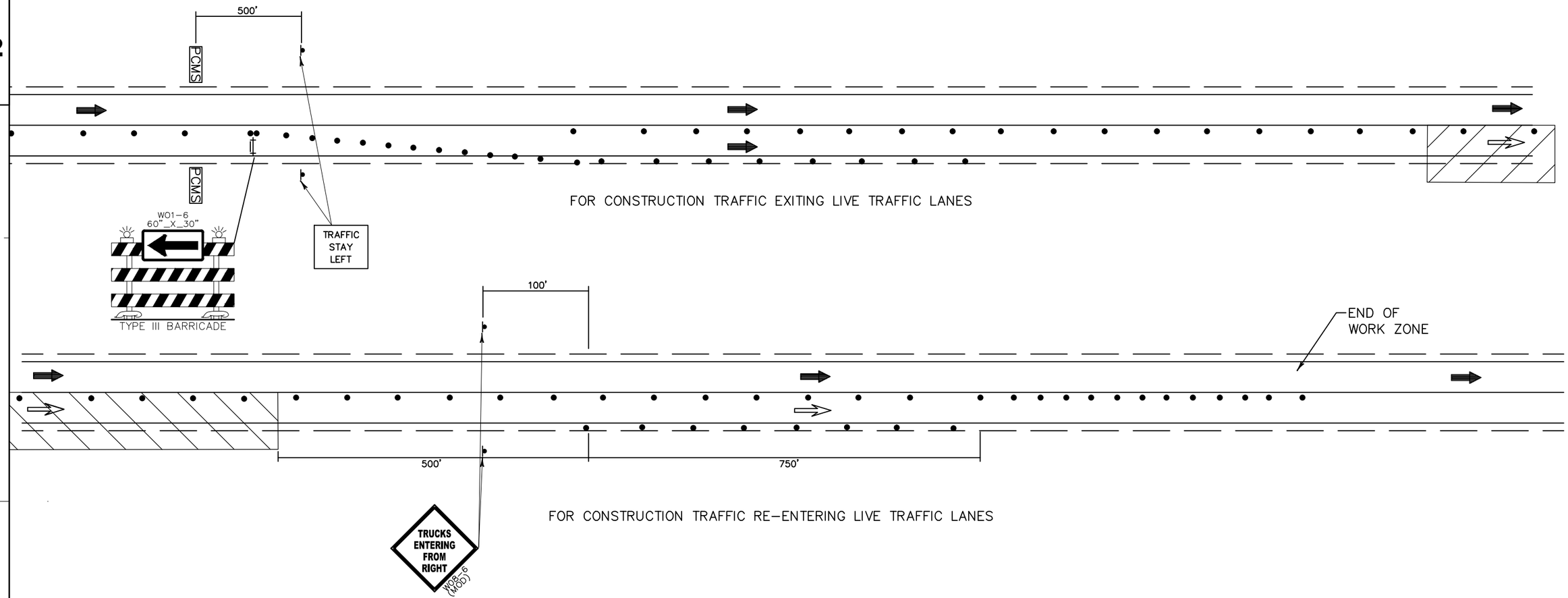
COVERING AND REMOVAL OF MATERIAL COVERING TEMPORARY REGULATORY SPEED LIMIT SIGNS AND EXISTING SPEED LIMIT SIGNS RELATED TO TEMPORARY AND/OR PERIODIC LANE CLOSURES SHALL BE CONSIDERED INCIDENTAL TO THE PROJECT.



TRAFFIC CONTROL, LANE CLOSURE, SPEED REDUCTION

PROJECT NO: 1003-10-77	HWY: IH 39	COUNTY: ROCK	PLAN: TRAFFIC CONTROL	SHEET 50	E

2



FOR CONSTRUCTION TRAFFIC EXITING LIVE TRAFFIC LANES

FOR CONSTRUCTION TRAFFIC RE-ENTERING LIVE TRAFFIC LANES

NOTE:
SPACING AND LOCATIONS OF DEVICES IN THE FIELD SUBJECT TO REVIEW AND APPROVAL BY THE ENGINEER

SEE OTHER TRAFFIC CONTROL DETAILS AND STANDARD DETAIL DRAWINGS FOR LANE CLOSURE DETAILS

PORTABLE MESSAGE SIGN MESSAGES SHOULD READ:

FRAME 1

TRUCKS
EXITING
RIGHT

LEGEND

- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL SIGN
- IH 39 TRAFFIC
- CONSTRUCTION TRAFFIC
- WORK ZONE
- PCMS — PORTABLE CHANGEABLE MESSAGE BOARD

TRAFFIC CONTROL DETAIL FOR CONSTRUCTION ACCESS AT LANE CLOSURES

NIGHT USE ONLY

IH 39 CURVE DATA

PI STA = 330+96.25	PI STA = 383+27.87
Y = 222663.7375	Y = 227615.3243
X = 506228.1350	X = 504476.0563
DELTA = 20°07'24"	DELTA = 18°24'10"
D = 1°00'24"	D = 0°58'37"
T = 1009.97'	T = 950.07
L = 1999.13'	L = 1883.77
R = 5692.00'	R = 5865.00
PC STA = 320+86.28	PC STA = 373+77.80
PT STA = 340+85.41	PT STA = 392+61.74
S.E. = 2.8%	S.E. = 2.8%

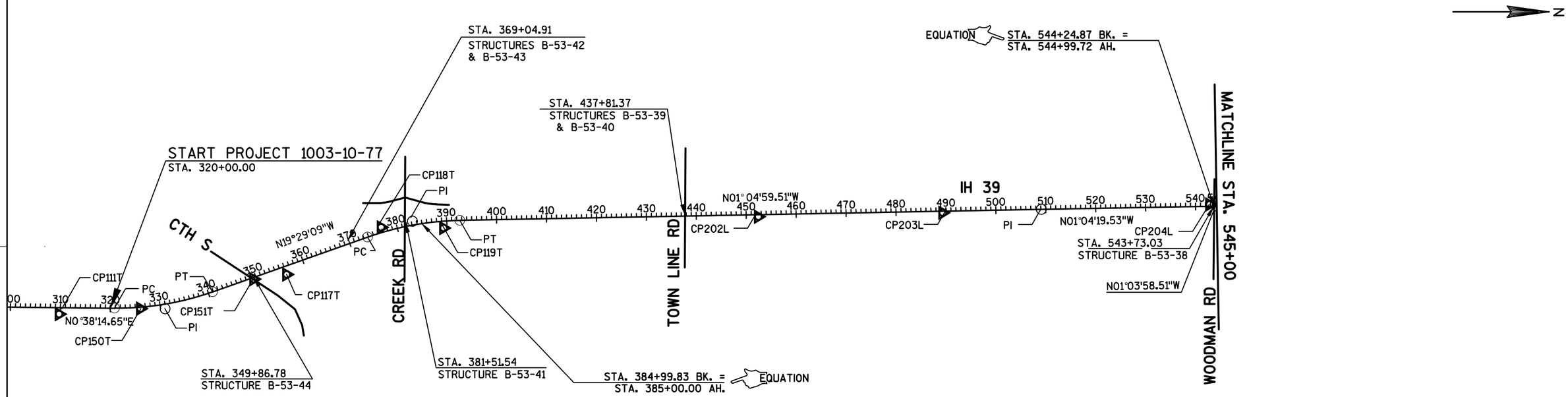
IH 39 ALIGNMENT DATA

POINT	STATION	Y	X
P.C.	320+86.28	221653.8298	506216.8995
P.I.	330+96.25	222663.7375	506228.1350
P.T.	340+85.41	223615.8601	505891.2341
P.C.	373+77.80	226719.6625	504792.9840
P.I.	383+27.87	227615.3243	504476.0563
P.T.	392+61.74	228565.2197	504458.0960
P.I.	509+07.60	240209.1701	504237.9366
P.I	544+24.87	243725.8195	504172.1271

SUPERELEVATION TABLE

PC/PT - STATION	CURVE RADIUS	S.E.	L RUNOFF LENGTH	TANGENT RUNOUT	NORMAL CROWN STATION	FLAT (HIGHSIDE) STATION	REMOVE CROWN -2% STATION	FULL SUPER STATION
PC - 320+86.28	5,692.00	2.8%	168	120	318+54.28	319+74.28	320+94.28	321+42.28
PT - 340+85.41	5,692.00	2.8%	168	120	343+17.41	341+97.41	340+77.41	340+29.41
PC - 373+77.80	5,865.00	2.8%	168	120	371+45.80	372+65.80	373+85.80	374+33.80
PT - 392+61.74	5,865.00	2.8%	168	120	394+93.74	393+73.74	392+53.74	392+05.74

NOTE:
THIS ALIGNMENT IS THE SOUTHBOUND REFERENCE LINE.

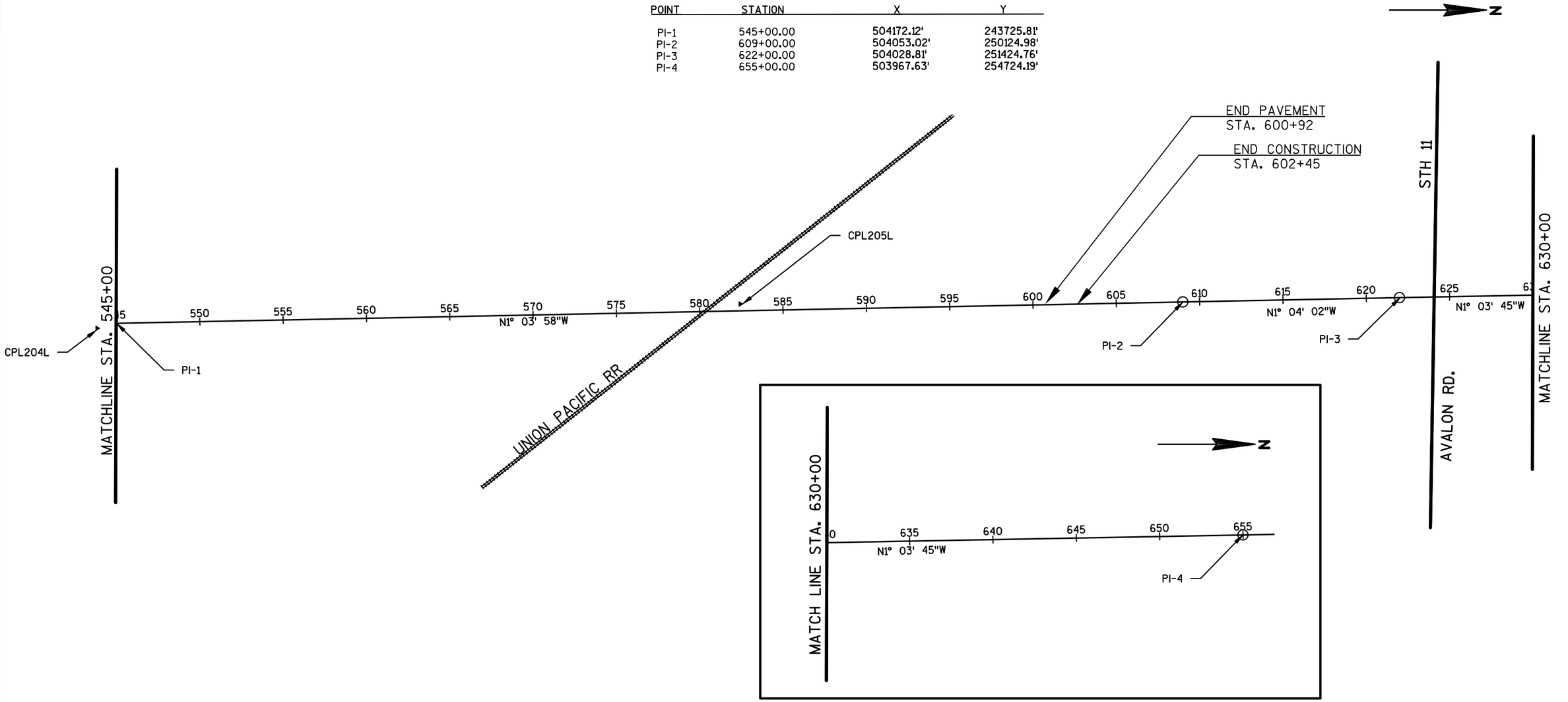


PROJECT NO: 1003-10-77	HWY: IH 39	COUNTY: ROCK	PLAN: ALIGNMENT DIAGRAM	SHEET 52	E

2

IH 39-TEMPORARY WIDENING ALIGNMENT DATA

POINT	STATION	X	Y
PI-1	545+00.00	504172.12'	243725.81'
PI-2	609+00.00	504053.02'	250124.98'
PI-3	622+00.00	504028.81'	251424.76'
PI-4	655+00.00	503967.63'	254724.19'



CONTROL POINT TIES

POINT NAME	DESCRIPTION	X	Y
CP204L	D.O.T. CAPPED REBAR	504202.33	243609.38
CP205L	3/4" X 30" CAPPED REBAR	504061.36	247468.99

NOTE:
FOR INFORMATION ONLY, OFFICIAL SURVEY CONTROL SHALL BE OBATINED FROM WISDOT PRIOR TO CONSTRUCTION

NOTE:
THIS ALIGNMENT IS ALONG THE INSIDE EDGE OF EXISTING SOUTHBOUND IH 39 PCC PAVEMENT

PROJECT NO: 1003-10-77	HWY: IH 39	COUNTY: ROCK	PLAN: ALIGNMENT DIAGRAM	SHEET 53	E

'TZB' CURVE DATA

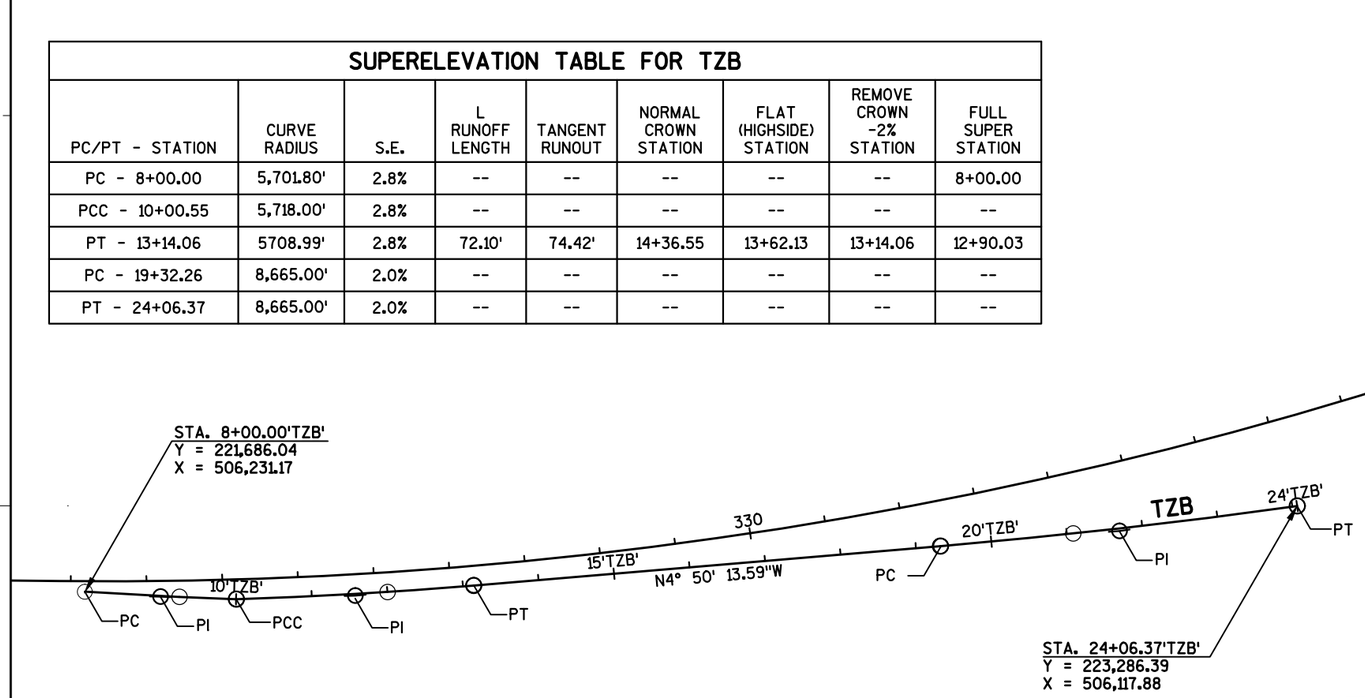
PI STA = 9+00.09'TZB'
Y = 221785.9156
X = 506231.1669
DELTA = 02°00'41"
D = 1°00'18"
T = 100.09'
L = 200.15'
R = 5701.80'
PC STA = 8+00.00'TZB'
PT STA = 10+00.15'TZB'
S.E. = 2.8%

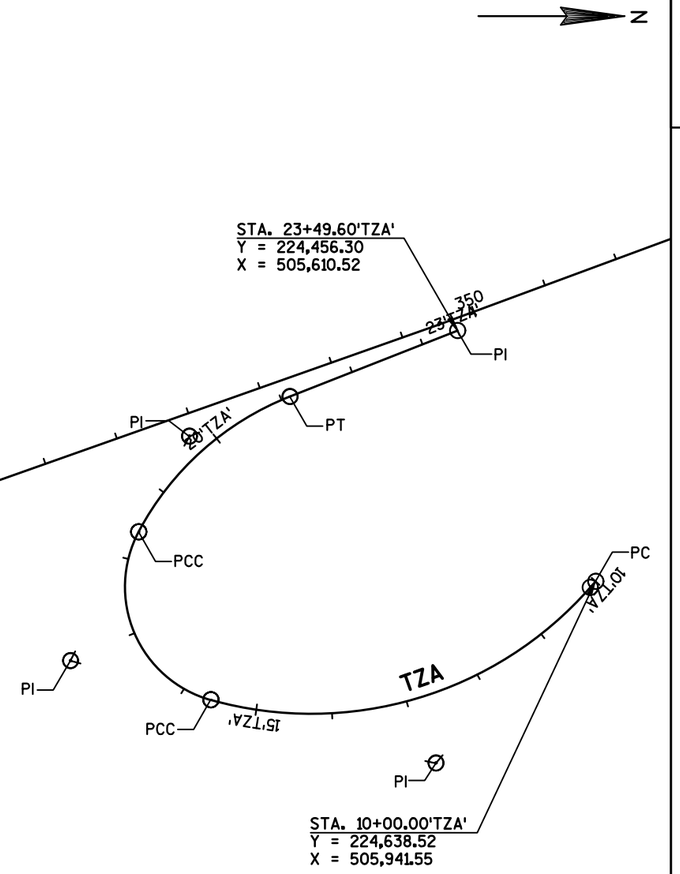
PI STA = 11+57.14'TZB'
Y = 222042.8782
X = 506236.1249
DELTA = 03°08'43"
D = 1°00'07"
T = 156.99'
L = 313.90'
R = 5718.00'
PC STA = 10+00.15'TZB'
PT STA = 13+14.06'TZB'
S.E. = 2.8%

PI STA = 21+69.36'TZB'
Y = 223051.5727
X = 506150.7645
DELTA = 03°08'05"
D = 0°39'40"
T = 237.11'
L = 474.09'
R = 8665.00'
PC STA = 19+32.26'TZB'
PT STA = 24+06.35'TZB'
S.E. = 2.0% (N.C.)

SUPERELEVATION TABLE FOR TZB

PC/PT - STATION	CURVE RADIUS	S.E.	L RUNOFF LENGTH	TANGENT RUNOUT	NORMAL CROWN STATION	FLAT (HIGHSIDE) STATION	REMOVE CROWN -2% STATION	FULL SUPER STATION
PC - 8+00.00	5,701.80'	2.8%	--	--	--	--	--	8+00.00
PCC - 10+00.55	5,718.00'	2.8%	--	--	--	--	--	--
PT - 13+14.06	5708.99'	2.8%	72.10'	74.42'	14+36.55	13+62.13	13+14.06	12+90.03
PC - 19+32.26	8,665.00'	2.0%	--	--	--	--	--	--
PT - 24+06.37	8,665.00'	2.0%	--	--	--	--	--	--





SUPERELEVATION TABLE FOR TZA

PC/PT - STATION	CURVE RADIUS	S.E.	L RUNOFF LENGTH	TANGENT RUNOUT	NORMAL CROWN STATION	FLAT (HIGHSIDE) STATION	REMOVE CROWN -2% STATION	FULL SUPER STATION
PC - 10+00.00	490.65'	2.9%	50'	34'	10+12.21	--	--	10+27.15
PCC - 15+61.67	155.00'	4.0%	69'	35'	--	--	--	15+84.65
PCC - 18+38.34	386.35'	3.2%	55'	34'	--	--	--	18+56.18
PT - 21+11.81	386.35'	3.2%	55'	34'	21+13.26	--	--	20+93.97

'TZA' CURVE DATA

PI STA = 13+19.32'TZA'
Y = 224427.67
X = 506181.36
DELTA = 64°20'22"
D = 11°40'39"
T = 308.62
L = 550.97
R = 490.65
PC STA = 10+10.70'TZA'
PT STA = 15+61.67'TZA'
SE = 2.9%

PI STA = 17+54.00'TZA'
Y = 223945.32
X = 506046.12
DELTA = 102°16'04"
D = 36°57'54"
T = 192.33
L = 276.66
R = 155.00
PC STA = 15+61.67'TZA'
PT STA = 18+38.34'TZA'
SE = 4.0%

PI STA = 19+81.09'TZA'
Y = 224102.27
X = 505750.07
DELTA = 40°33'24"
D = 14°49'48"
T = 142.75
L = 273.48
R = 386.35
PC STA = 18+38.34'TZA'
PT STA = 21+11.81'TZA'
SE = 3.2%

DATE 13APR16 E S T I M A T E O F Q U A N T I T I E S

LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	1003-10-77 QUANTITY
0010	201.0105	Clearing	STA	39.000	39.000
0020	201.0205	Grubbing	STA	39.000	39.000
0030	203.0100	Removing Small Pipe Culverts	EACH	1.000	1.000
0100	204.0100	Removing Pavement	SY	31,095.000	31,095.000
0120	204.0120	Removing Asphaltic Surface Milling	SY	1,145.000	1,145.000
0140	204.0165	Removing Guardrail	LF	1,840.000	1,840.000
0160	204.0180	Removing Delineators and Markers	EACH	68.000	68.000
0190	204.0220	Removing Inlets	EACH	3.000	3.000
0200	204.0245	Removing Storm Sewer (size) 001. 18-Inch	LF	18.000	18.000
0210	204.9060.S	Removing (item description) 001. Apron Endwall	EACH	16.000	16.000
0220	205.0100	Excavation Common	CY	60,194.000	60,194.000
0270	211.0500	Prepare Foundation for Base Aggregate	STA	110.000	110.000
0320	213.0100	Finishing Roadway (project) 005. 1003-10-77	EACH	1.000	1.000
0330	305.0110	Base Aggregate Dense 3/4-Inch	TON	2,350.000	2,350.000
0340	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	89,000.000	89,000.000
0360	312.0110	Select Crushed Material	TON	120.000	120.000
0400	416.0610	Drilled Tie Bars	EACH	52.000	52.000
0420	416.1715	Concrete Pavement Repair SHES	SY	29.000	29.000
0430	416.1725	Concrete Pavement Replacement SHES	SY	152.000	152.000
0440	455.0605	Tack Coat	GAL	3,010.000	3,010.000
0450	460.2000	Incentive Density HMA Pavement	DOL	18,910.000	18,910.000
0480	460.7222	HMA Pavement 2 HT 58-28 S	TON	18,300.000	18,300.000
0510	460.7424	HMA Pavement 4 HT 58-28 H	TON	12,050.000	12,050.000
0530	465.0315	Asphaltic Flumes	SY	13.000	13.000
0660	511.2200	Temporary Shoring Left in Place (structure) 001. B-53-56	SF	715.000	715.000
0710	520.8000	Concrete Collars for Pipe	EACH	27.000	27.000
0750	522.0118	Culvert Pipe Reinforced Concrete Class III 18-Inch	LF	28.000	28.000
0800	522.0318	Culvert Pipe Reinforced Concrete Class IV 18-Inch	LF	80.000	80.000
0810	522.0324	Culvert Pipe Reinforced Concrete Class IV 24-Inch	LF	239.000	239.000
0840	522.0348	Culvert Pipe Reinforced Concrete Class IV 48-Inch	LF	23.000	23.000
0850	522.0354	Culvert Pipe Reinforced Concrete Class IV 54-Inch	LF	27.000	27.000
0860	522.0518	Culvert Pipe Reinforced Concrete Class V 18-Inch	LF	50.000	50.000
0870	522.1012	Apron Endwalls for Culvert Pipe Reinforced Concrete 12-Inch	EACH	1.000	1.000
0880	522.1018	Apron Endwalls for Culvert Pipe Reinforced Concrete 18-Inch	EACH	15.000	15.000
0890	522.1024	Apron Endwalls for Culvert Pipe Reinforced Concrete 24-Inch	EACH	11.000	11.000
0920	522.1048	Apron Endwalls for Culvert Pipe Reinforced Concrete 48-Inch	EACH	1.000	1.000
0930	522.1054	Apron Endwalls for Culvert Pipe Reinforced Concrete 54-Inch	EACH	2.000	2.000
0980	603.8000	Concrete Barrier Temporary Precast Delivered	LF	2,230.000	2,230.000
0990	603.8125	Concrete Barrier Temporary Precast Installed	LF	2,230.000	2,230.000
1010	606.0200	Riprap Medium	CY	16.000	16.000

3

DATE 13APR16 E S T I M A T E O F Q U A N T I T I E S

LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	1003-10-77 QUANTITY
1020	608.0412	Storm Sewer Pipe Reinforced Concrete Class IV 12-Inch	LF	1,080.000	1,080.000
1030	608.0418	Storm Sewer Pipe Reinforced Concrete Class IV 18-Inch	LF	15.000	15.000
1040	611.0610	Inlet Covers Type BW	EACH	24.000	24.000
1050	611.0642	Inlet Covers Type MS	EACH	5.000	5.000
1080	611.3225	Inlets 2x2.5-FT	EACH	24.000	24.000
1090	611.3901	Inlets Median 1 Grate	EACH	3.000	3.000
1100	611.3903	Inlets Median 3 Grate	EACH	1.000	1.000
1110	611.8115	Adjusting Inlet Covers	EACH	1.000	1.000
1180	614.0800	Crash Cushions Permanent	EACH	1.000	1.000
1190	614.0905	Crash Cushions Temporary	EACH	8.000	8.000
1200	614.2300	MGS Guardrail 3	LF	3,506.000	3,506.000
1210	614.2330	MGS Guardrail 3 K	LF	830.000	830.000
1220	614.2500	MGS Thrie Beam Transition	LF	176.000	176.000
1230	614.2610	MGS Guardrail Terminal EAT	EACH	4.000	4.000
1240	614.2620	MGS Guardrail Terminal Type 2	EACH	3.000	3.000
1330	618.0100	Maintenance And Repair of Haul Roads (project) 005. 1003-10-77	EACH	1.000	1.000
1340	619.1000	Mobilization	EACH	0.200	0.200
1360	624.0100	Water	MGAL	1,200.000	1,200.000
1370	625.0500	Salvaged Topsoil	SY	79,789.000	79,789.000
1380	627.0200	Mulching	SY	77,953.000	77,953.000
1390	628.1504	Silt Fence	LF	22,850.000	22,850.000
1400	628.1520	Silt Fence Maintenance	LF	22,850.000	22,850.000
1410	628.1905	Mobilizations Erosion Control	EACH	11.000	11.000
1420	628.1910	Mobilizations Emergency Erosion Control	EACH	5.000	5.000
1430	628.2004	Erosion Mat Class I Type B	SY	21,900.000	21,900.000
1460	628.6510	Soil Stabilizer Type B	ACRE	22.200	22.200
1470	628.7005	Inlet Protection Type A	EACH	29.000	29.000
1480	628.7010	Inlet Protection Type B	EACH	28.000	28.000
1500	628.7020	Inlet Protection Type D	EACH	11.000	11.000
1510	628.7504	Temporary Ditch Checks	LF	1,030.000	1,030.000
1520	628.7555	Culvert Pipe Checks	EACH	92.000	92.000
1530	628.7560	Tracking Pads	EACH	9.000	9.000
1540	629.0205	Fertilizer Type A	CWT	90.000	90.000
1570	630.0130	Seeding Mixture No. 30	LB	2,623.000	2,623.000
1590	630.0200	Seeding Temporary	LB	3,898.000	3,898.000
1610	633.0100	Delineator Posts Steel	EACH	14.000	14.000
1620	633.0500	Delineator Reflectors	EACH	14.000	14.000
1630	633.5200	Markers Culvert End	EACH	36.000	36.000
1640	634.0618	Posts Wood 4x6-Inch X 18-FT	EACH	6.000	6.000
1650	634.0620	Posts Wood 4x6-Inch X 20-FT	EACH	1.000	1.000
1670	635.0300	Sign Supports Replacing Base Connection Bolts	EACH	2.000	2.000
1680	636.0100	Sign Supports Concrete Masonry	CY	3.600	3.600
1690	636.0500	Sign Supports Steel Reinforcement	LB	200.000	200.000
1710	638.2101	Moving Signs Type I	EACH	2.000	2.000
1720	638.2102	Moving Signs Type II	EACH	34.000	34.000
1730	638.2602	Removing Signs Type II	EACH	2.000	2.000
1740	638.3000	Removing Small Sign Supports	EACH	12.000	12.000
1760	638.4100	Moving Structural Steel Sign Supports	EACH	4.000	4.000
1770	642.5201	Field Office Type C	EACH	0.200	0.200
1820	643.0200	Traffic Control Surveillance and Maintenance (project) 005. 1003-10-77	DAY	130.000	130.000

3

DATE 13APR16 E S T I M A T E O F Q U A N T I T I E S

LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	1003-10-77 QUANTITY
1830	643.0300	Traffic Control Drums	DAY	20,810.000	20,810.000
1840	643.0420	Traffic Control Barricades Type III	DAY	732.000	732.000
1850	643.0705	Traffic Control Warning Lights Type A	DAY	1,464.000	1,464.000
1870	643.0715	Traffic Control Warning Lights Type C	DAY	5,734.000	5,734.000
1880	643.0800	Traffic Control Arrow Boards	DAY	288.000	288.000
1890	643.0900	Traffic Control Signs	DAY	3,706.000	3,706.000
1910	643.1050	Traffic Control Signs PCMS	DAY	192.000	192.000
1930	645.0120	Geotextile Fabric Type HR	SY	53.000	53.000
1940	646.0106	Pavement Marking Epoxy 4-Inch	LF	68,728.000	68,728.000
1980	646.0600	Removing Pavement Markings	LF	259,225.000	259,225.000
2000	649.0400	Temporary Pavement Marking Removable Tape 4-Inch	LF	5,940.000	5,940.000
2010	649.0402	Temporary Pavement Marking Paint 4-Inch	LF	168,800.000	168,800.000
2030	649.0801	Temporary Pavement Marking Removable Tape 8-Inch	LF	948.000	948.000
2140	690.0150	Sawing Asphalt	LF	19,900.000	19,900.000
2150	690.0250	Sawing Concrete	LF	29,765.000	29,765.000
2180	SPV.0035	Special 001. Roadway Embankment	CY	69,896.000	69,896.000
2190	SPV.0060	Special 001. Baseline CPM Progress Schedule	EACH	0.200	0.200
2200	SPV.0060	Special 002. CPM Progress Schedule Updates and Accepted Revisions	EACH	10.000	10.000
2250	SPV.0060	Special 007. Cover Plate Left In Place	EACH	1.000	1.000
2260	SPV.0060	Special 008. Traffic Control Barricades Type III with Sign	EACH	18.000	18.000
2320	SPV.0090	Special 006. Concrete Barrier Temporary Precast Left In Place	LF	500.000	500.000
2340	SPV.0090	Special 008. Furnishing Snow Fence	LF	25,000.000	25,000.000
2350	SPV.0090	Special 009. Installing Snow Fence	LF	24,000.000	24,000.000
2390	SPV.0105	Special 003. Survey Project 1003-10-77	LS	1.000	1.000

3

CLEARING & GRUBBING

STAGE	STATION	-	STATION	LOCATION	201.0105 CLEARING (STA)	201.0205 GRUBBING (STA)
3	446+00	-	448+00	LT	2	2
3	452+00	-	454+00	LT	2	2
3	463+00	-	471+00	LT	8	8
3	475+00	-	491+00	LT	16	16
3	502+00	-	509+00	LT	7	7
3	575+00	-	577+00	LT	2	2
3	588+00	-	589+00	LT	1	1
3	600+00	-	601+00	LT	1	1
				STAGE 3 TOTALS	39	39
				PROJECT TOTALS	39	39

REMOVING SMALL PIPE CULVERTS, REMOVING INLETS AND REMOVING STORM SEWER

STAGE	STATION	LOCATION	ESTIMATED LENGTH (FT)	ESTIMATED DIA. (IN)	203.0100 REMOVING SMALL PIPE CULVERTS (EACH)	204.0220 REMOVING INLETS (EACH)	204.0245 REMOVING STORM SEWER 18-INCH (LF)	204.9060.S REMOVING APRON ENDWALLS (EACH)	COMMENTS
2	326+85	RT			--	--	--	1	
2	330+73	RT			--	1	--	--	
2	330+95	RT	34	36	1	--	--	2	
2	331+16	RT			--	1	--	--	
2	554+14	RT			--	--	--	1	
2	562+63	RT			--	--	--	1	
2	573+66	RT				1	18	---	
		STAGE 2 TOTAL			1	3	18	5	
3	326+85	LT			--	--	--	1	
3	401+91	LT			--	--	--	1	
3	420+92	LT			--	--	--	1	
3	425+92	LT			--	--	--	1	
3	454+91	LT			--	--	--	1	
3	504+41	LT			--	--	--	1	
3	517+90	LT			--	--	--	1	
3	527+91	LT			--	--	--	1	
3	536+66	LT			--	--	--	1	
3	554+14	LT			--	--	--	1	
3	562+63	LT			--	--	--	1	
		STAGE 3 TOTAL			0	0	0	11	
		PROJECT TOTALS			1	3	18	16	

3

REMOVING DELINEATORS AND MARKERS

STATION	- STATION	LOCATION	204.0180 REMOVING DELINEATORS AND MARKERS (EACH)
324+89		LT	1
326+86		LT	1
326+84		RT	1
331+00		RT	1
356+86		LT	1
356+86		RT	1
390+91		LT	1
401+91		LT	1
409+91		LT	1
420+93		LT	1
425+92		LT	1
426+87		LT	1
426+95		LT	1
443+91		LT	1
454+91		LT	1
467+92		LT	1
475+91		LT	1
486+91		LT	1
496+91		LT	1
504+41		LT	1
517+91		LT	1
527+91		LT	1
536+66		LT	1
554+14		RT	1
562+63		RT	1
554+14		LT	1
562+63		LT	1
573+66		LT	1
320+00	- 541+00	LT/RT	20
547+00	- 600+00	LT	20
		PROJECT TOTALS	68

REMOVING PAVEMENT

STAGE	STATION	-	STATION	LOCATION	204.0100 REMOVING PAVEMENT (SY)	204.0120 REMOVING ASPHALTIC SURFACE MILLING (SY)	690.0150 SAWING ASPHALT (LF)	*690.0250 SAWING CONCRETE (LF)
1	547+00	-	579+59	LT, SHOULDER	--	725	--	--
1	581+98	-	600+92	LT, SHOULDER	--	420	--	--
				STAGE 1 TOTAL	0	1145	0	0
2	436+52	-	437+31	RT	81	--	--	90
2	438+35	-	439+19	RT	88	--	--	95
2	547+00	-	579+28	RT, SHOULDER	1076	--	--	3250
2	581+68	-	590+00	RT, SHOULDER	277	--	--	850
				STAGE 2 TOTAL	1522	0	0	4285
3	320+00	-	336+32	LT	1810	--	1650	1650
3	338+59	-	357+00	LT	3620	--	1870	1870
3	379+38	-	437+31	LT	6760	--	5800	5800
3	438+35	-	541+00	LT	11660	--	10280	10280
3	547+00	-	579+59	LT, SHOULDER	3621	--	--	3300
3	581+98	-	600+92	LT, SHOULDER	2103	--	--	1900
				STAGE 3 TOTAL	29574	0	19600	24800
				UNDISTRIBUTED	--	--	300	397
				PROJECT TOTALS	31095	1145	19900	29482

*ADDITIONAL QUANTITIES LISTED ELSEWHERE.

REMOVING GUARDRAIL

STAGE	STATION	-	STATION	LT/RT	204.0165 REMOVING GUARDRAIL (LF)
3	438+35	-	441+22	LT	287
2	577+68	-	578+75	RT	107
2	581+34	-	582+40	RT	106
				STAGE 2 TOTAL	500
3	347+14	-	352+11	LT	497
3	577+31	-	579+66	LT	235
3	582+22	-	588+32	LT	610
				STAGE 3 TOTAL	1342
				PROJECT TOTALS	1840

3

EARTHWORK (PROJECT 1003-10-77)

Category	Division	From/To Station	Location	Excavation Common (CY) (1) 205.0100		Fill (CY)	Roadway Embankment (CY) (4) SPV.0035.001	Mass Ordinate +/- (5)
				Cut (CY) (2)	EBS (CY) (3)			
1000	1	320+00 - 357+50	SB, RT	528	0	83	83	445
		379+38 - 400+00	SB, RT	216	0	499	499	-283
		400+00 - 456+76	SB, RT	708	0	1,901	1,901	-1,193
		537+00 - 541+50	SB, RT	0	0	66	66	-66
		547+00 - 579+28	SB, RT	3,360	2,487	131	2,617	3,230
		581+29 - 590+00	SB, RT	1,390	805	0	805	1,390
			UNDISTRIBUTED	0	494	0	494	0
	Project 1003-10-77 - Division 1 Subtotal			6,202	3,785	2,679	6,464	3,523
	Project 1003-10-77 - Division 1 Total			9,987			6,464	
1000	2	554+00 - 554+14	NB, LT	6	0	0	0	6
		582+00 - 601+02	NB, LT	3	0	2	2	0
		573+00 - 578+78	NB, LT	117	0	6	6	110
		583+00 - 583+85	NB, LT	7	0	0	0	7
			UNDISTRIBUTED	0	0	0	0	0
	Project 1003-10-77 - Division 2 Subtotal			132	0	8	8	124
	Project 1003-10-77 - Division 2 Total			132			8	
1000	3	320+00 - 357+50	SB, LT	4,146	4,380	3,212	7,591	935
		379+38 - 400+00	SB, LT	1,825	1,666	1,648	3,314	177
		400+00 - 470+00	SB, LT	7,050	4,837	4,332	9,169	2,717
		470+00 - 541+50	SB, LT	7,665	7,125	3,660	10,784	4,005
		547+00 - 579+73	SB, LT	6,463	373	8,607	8,981	-2,144
		582+00 - 601+02	SB, LT	2,124	186	3,537	3,723	-1,413
			UNDISTRIBUTED	0	2,785	0	2,785	0
	Project 1003-10-77 - Division 3 Subtotal			29,272	21,352	24,995	46,347	4,277
	Project 1003-10-77 - Division 3 Total			50,624			46,347	

EARTHWORK (PROJECT 1003-10-77) CONTINUED

Category	Division	From/To Station	Location	Excavation Common (CY) (1) 205.0100		Fill (CY)	Roadway Embankment (CY) (4) SPV.0035.001	Mass Ordinate +/- (5)
				Cut (CY) (2)	EBS (CY) (3)			
1000	4	10+53'TZA - 18+00'TZA'	TZA LOOP RAMP	7	0	16,807	16,807	-16,800
		8+50'TZB' - 20+50'TZB'	TZB CROSSOVER	243	0	936	936	-693
			UNDISTRIBUTED	50	0	0	0	50
	Project 1003-10-77 - Division 4 Subtotal			300	0	17,743	17,743	-17,443
	Project 1003-10-77 - Division 4 Total			300			17,743	
	Project 1003-10-77 Totals			60,194			69,896	

1) Excavation Common = Cut + EBS Excavation. Item number 205.0100.

2) Cut volume includes concrete and asphaltic surface material.

3) EBS Excavation to be backfilled with roadway embankment unless otherwise noted in plans.

4) Roadway Embankment = (Fill + EBS Excavation)

5) The Mass Ordinate is calculated by division. A positive quantity indicates an excess of material within the Division and a negative quantity indicates a shortage of material within the Division. Structure Excavation is not included in this calculation.
Mass Ordinate = Cut - Fill. The Mass Ordinate is for information purposes only as Common Excavation and Roadway Embankment are not balanced for quantity purposes and does not guarantee the quality of Common Excavation, and if it can be reused onsite. All EBS material is assumed to be wasted offsite.

BASE AGGREGATE DENSE

STAGE	STATION	-	STATION	LOCATION	211.0500 PREPARE FOUNDATION FOR BASE AGGREGATE (STA)	305.0110 BASE AGGREGATE DENSE 3/4-INCH (TON)	305.0120 BASE AGGREGATE DENSE 1 1/4-INCH (TON)	312.0110 SELECT CRUSHED MATERIAL (TON)	*624.0100 WATER (MGAL)	COMMENTS
2	9+25'TZB'	-	20+94'TZB'		--	155	2,185	95	24	CTH S CROSSOVER
	10+60'TZA'	-	17+75'TZA'		--	--	1,705	--	17	CTH S LOOP ON RAMP
	320+00	-	345+46	RT	25	--	--	--	--	
	352+11	-	355+20	RT	3	--	--	--	--	
	355+20	-	357+00	RT	2	7	130	--	1	
	379+38	-	437+31	RT	58	--	--	--	--	
	438+35	-	439+19	RT	1	3	290	--	3	
	439+19	-	456+74	RT	18	--	--	--	--	
	537+19	-	541+00	RT	4	--	--	--	--	
	546+00	-	578+90	IH 39 SB, RT	--	280	9500	--	98	
	572+18	-	578+80	IH 39 NB, LT	--	290	300	--	6	
	581+29	-	590+00	IH 39 SB, RT	--	75	2880	--	30	
				STAGE 2 TOTAL	110	810	16990	95	179	
3	320+00	-	336+31	LT	--	56	3,380	--	34	
	338+59	-	357+00	LT	--	58	5,495	--	56	
	379+38	-	437+31	LT	--	226	12,950	--	132	
	438+35	-	541+00	LT	--	401	25,685	--	261	
	478+60	-	491+95	LT	--	52	1,630	--	17	EMERGENCY PULLOUT
	546+32	-	579+73	IH 39 SB, LT	--	320	8715	--	90	
	582+00	-	602+45	IH 39 SB, LT	--	230	6050	--	63	
				STAGE 3 TOTAL	0	1343	63905	0	652	
				UNDISTRIBUTED		215	8090	25	85	
				PROJECT TOTAL	110	2350	89000	120	900	

* ADDITIONAL QUANTITIES LISTED ELSEWHERE.

3

TEMPORARY SHORING LEFT IN PLACE

STAGE	STATION	-	STATION	LOCATION	511.2200 TEMPORARY SHORING LEFT IN PLACE (B-53-56) (SF)
3	565+30	-	566+35	LT	715
				STAGE 3 TOTAL	715
				PROJECT TOTALS	715

CONCRETE PAVEMENT

STAGE	STATION	-	STATION	LOCATION	416.0610 DRILLED TIE BARS (EACH)	416.1725 CONCRETE PAVEMENT REPLACEMENT SHES (SY)	416.1715 CONCRETE PAVEMENT REPAIR SHES (SY)	*690.0250 SAWING CONCRETE (LF)
1	582+31	-	582+41	LT	--	--	12	30
1	583+26	-	583+66	LT	15	45	--	60
1	586+28	-	586+68	LT	15	45	--	60
1	591+41	-	591+51	LT	--	--	12	30
1	592+35	-	592+68	LT	12	37	--	53
	UNDISTRIBUTED				10	25	5	50
				STAGE 1 TOTAL	52	152	29	283
				PROJECT TOTALS	52	152	29	283

*ADDITIONAL QUANTITIES SHOWN ELSEWHERE

HMA PAVEMENT ITEMS

STAGE	STATION	-	STATION	LOCATION	PAVEMENT DEPTH (INCHES)	460.7222 HMA PAVEMENT 2 HT 58-28 S (TON)	460.7424 HMA PAVEMENT 4 HT 58-28 H (TON)	455.0605 TACK COAT (GAL)	465.0315 ASPHALTIC FLUMES (SY)	COMMENTS
1	547+00	-	579+59	RUMBLE, LT	2.0	--	80	50	--	
	582+00	-	600+92	RUMBLE, LT	2.0	--	45	30	--	
				STAGE 1 TOTAL		0	125	80	0	
2	320+00		345+46	RT	6.5	635	440	70	--	
	9+25 'TZB'	-	20+94 'TZB'		6.5	240	170	--	--	CTH S OFF RAMP
	352+11	-	357+00	RT	6.5	135	90	15	--	
	379+38	-	437+31	RT	6.5	1,635	1,105	175	--	
	438+35	-	456+74	RT	6.5	595	400	65	--	
	537+19	-	541+00	RT	6.5	95	65	10	--	
			578+65	RT	--	--	--	--	10	
			581+41	RT	--	--	--	--	3	
	547+00	-	579+29	RT	6.5	1,740	1,090	545	--	
	581+30	-	595+00	RT	6.5	530	335	165	--	
				STAGE 2 TOTAL		5,605	3,695	1,045	13	
3	320+00	-	336+31	LT	6.5	680	470	10	--	
	338+59	-	357+00	LT	6.5	1,205	785	130	--	
	379+38	-	437+31	LT	6.5	2,860	1,875	305	--	
	438+35	-	541+00	LT	6.5	4,995	3,245	560	--	
	478+60	-	491+95	LT	6.5	255	180	25	--	EMERGENCY PULLOUT
	547+00	-	579+73	LT	6.5	1,560	975	490	--	
	582+00	-	600+92	LT	6.5	1,155	720	360	--	
				STAGE 3 TOTAL		12,710	8,250	1,880	0	
				PROJECT TOTALS		18,300	12,050	3,010	13	

REINFORCED CONCRETE CULVERT PIPE, APRON ENDWALLS, AND CONCRETE COLLARS

STAGE	STATION	LOCATION	522.0118 CLASS III 18-INCH (LF)	522.0318 CLASS IV 18-INCH (LF)	522.0324 CLASS IV 24-INCH (LF)	522.0348 CLASS IV 48-INCH (LF)	522.0354 CLASS IV 54-INCH (LF)	522.0518 CLASS V 18-INCH (LF)	APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 522.1012 12-INCH (EACH)	522.1018 18-INCH (EACH)	522.1024 24-INCH (EACH)	522.1048 48-INCH (EACH)	522.1054 54-INCH (EACH)	520.8000 CONCRETE COLLARS FOR PIPE (EACH)	*633.5200 MARKERS CULVERT END (EACH)	COMMENTS
3	324+89	LT	--	--	--	23	--	--	--	--	--	1	--	1	1	
3	326+86	LT	9	--	--	--	--	--	--	1	--	--	--	1	1	
3	356+86	LT	--	15	--	--	--	--	--	1	--	--	--	1	1	
2	356+86	RT	--	6	--	--	--	--	--	1	--	--	--	1	1	
3	390+91	LT	--	--	14	--	--	--	--	--	1	--	--	1	1	
3	401+91	LT	--	11	--	--	--	--	--	1	--	--	--	1	1	
3	409+91	LT	--	--	15	--	--	--	--	--	1	--	--	1	1	
3	420+93	LT	--	--	--	--	--	8	--	1	--	--	--	1	1	
3	425+92	LT	--	--	--	--	--	12	--	1	--	--	--	1	1	
3	426+87	LT	--	--	--	--	13	--	--	--	--	--	1	1	1	
3	426+95	LT	--	--	--	--	14	--	--	--	--	--	1	1	1	
3	443+91	LT	--	--	10	--	--	--	--	--	1	--	--	1	1	
3	454+91	LT	--	15	--	--	--	--	--	1	--	--	--	1	1	
3	467+92	LT	--	--	11	--	--	--	--	--	1	--	--	1	1	
3	475+91	LT	--	--	12	--	--	--	--	--	1	--	--	1	1	
3	486+91	LT	--	--	22	--	--	--	--	--	1	--	--	1	1	
3	496+91	LT	--	--	12	--	--	--	--	--	1	--	--	1	1	
3	504+41	LT	--	--	--	--	--	12	--	1	--	--	--	1	1	
3	517+91	LT	--	--	8	--	--	--	--	--	1	--	--	1	1	
3	527+91	LT	--	--	--	--	--	8	--	1	--	--	--	1	1	
3	536+66	LT	--	--	--	--	--	10	--	1	--	--	--	1	1	
2	554+14	RT	--	11	--	--	--	--	--	1	--	--	--	1	1	
2	562+63	RT	--	14	--	--	--	--	--	1	--	--	--	1	1	
3	554+14	LT	--	8	--	--	--	--	--	1	--	--	--	1	1	
3	562+63	LT	13	--	--	--	--	--	--	1	--	--	--	1	1	
3	573+66	LT	6	--	--	--	--	--	--	1	--	--	--	1	1	
2	587+50	35.2' RT	--	--	--	--	--	--	1	--	--	--	--	--	1	
2	14+25'TZA'	CL	--	--	60	--	--	--	--	--	2	--	--	--	2	PIPE UNDER LOOP RAMP
2	16+48'TZA'	CL	--	--	75	--	--	--	--	--	1	--	--	1	1	PIPE UNDER LOOP RAMP
	PROJECT TOTALS		28	80	239	23	27	50	1	15	11	1	2	27	30	

*ADDITIONAL QUANTITIES LISTED ELSEWHERE.

3

CONCRETE BARRIER TEMPORARY PRECAST & CRASH CUSHIONS TEMPORARY

STAGE	STATION	-	STATION	LOCATION	603.8000 CONCRETE BARRIER TEMORARY PRECAST DELIVERED (LF)	603.8125 CONCRETE BARRIER TEMORARY PRECAST INSTALLED (LF)	614.0905 CRASH CUSHIONS TEMPORARY (EACH)
3	347+15	-	352+15	LT	500	500	--
3	352+15			LT	--	--	1
3	563+30	-	570+60	LT	730	730	--
3	570+60			LT	--	--	1
				STAGE 3 TOTAL	1230	1230	2
				UNDISTRIBUTED	1000	1000	6
				PROJECT TOTALS	2230	2230	8

MEDIUM RIPRAP & GEOTEXTILE FABRIC

STAGE	STATION	LOCATION	606.0200 RIPRAP MEDIUM (CY)	645.0120 GEOTEXTILE FABRIC TYPE HR (SY)
3	554+14	LT	3	12
	562+64	LT	3	12
	573+66	LT	3	12
	587+50	RT	2	7
		UNDISTRIBUTED	5	10
		PROJECT TOTALS	16	53

MGS GUARDRAIL ITEMS

STAGE	STATION	-	STATION	LOCATION	614.2300 MGS GUARDRAIL 3 (LF)	614.2330 MGS GUARDRAIL 3 K (LF)	614.2500 MGS THRIE BEAM TRANSITION (LF)	614.2610 MGS GUARDRAIL TERMINAL EAT (EACH)	614.2620 MGS GUARDRAIL TERMINAL TYPE 2 (EACH)
2	575+33.1	-	578+75.3	IH 39 NB, SW PARAPET	--	250.0	40	1	--
	581+34.0	-	582+51.6	IH 39 SB, NE PARAPET	--	25.0	40	1	--
	581+22.7	-	582+85.4	IH 39 NB, NW PARAPET	--	155.0	8	--	1
				STAGE 2 TOTALS	0.0	430.0	80	2	1
3	434+60.4	-	437+30.9	LT	262.5	--	8	--	1
	438+35.5	-	441+40.5	LT	212.5	--	40	1	--
	563+65.5	-	579+66.0	IH 39 SB, SW PARAPET	1593.0	--	8	--	1
	582+22.0	-	601+52.1	IH 39 SB, NW PARAPET	1438.0	400.0	40	1	--
				STAGE 3 TOTALS	3506.0	400.0	96	2	2
				PROJECT TOTALS	3506.0	830.0	176	4	3

STORM SEWER

STAGE	FROM STRU.	-	TO STRU.	608.0412 STORM SEWER PIPE REINFORCED CONCRETE CLASSIV 12-INCH (LF)	608.0418 STORM SEWER PIPE REINFORCED CONCRETE CLASSIV 18-INCH (LF)
2	S01	-	S02	13	--
2	S02	-	S03	13	--
2	S03	-	S04	50	--
2	S04	-	S05	50	--
2	S05	-	S06	50	--
2	S06	-	S07	50	--
2	S07	-	S08	50	--
2	S08	-	S09	60	--
2	S09	-	S10	60	--
2	S10	-	S11LT	129	--
2	S11RT	-	S11CT	--	8
2	S11CT	-	S11LT	--	7
2	N01	-	N02	28	--
2	N02	-	N03	30	--
2	N03	-	N04	31	--
2	N04	-	N05	32	--
2	N05	-	N06	29	--
2	N06	-	N07	37	--
2	N07	-	N08	36	--
2	N08	-	N09	36	--
2	N09	-	N10	45	--
2	N10	-	N11	46	--
2	N11	-	N12	48	--
2	N12	-	N13	105	--
2	N13	-	N14	52	--
			STAGE 2 TOTALS	1080	15
			PROJECT TOTALS	1080	15

INLET COVERS, INLET PROTECTION

STAGE	STATION	LOCATION	STRUCTURE	611.0610 INLET COVERS TYPE BW (EACH)	611.0642 INLET COVERS TYPE MS (EACH)	611.3225 INLETS 2X2.5-FT (EACH)	611.3901 INLETS MEDIAN 1 GRATE (EACH)	611.3903 INLETS MEDIAN 3 GRATE (EACH)	611.8115 ADJUSTING INLET COVERS (EACH)	*628.7005 INLET PROTECTION TYPE A (EACH)	*628.7010 INLET PROTECTION TYPE B (EACH)	*628.7020 INLET PROTECTION TYPE D (EACH)	*633.5200 MARKERS CULVERT END (EACH)	SPV.0060.007 COVER PLATE LEFT IN PLACE (EACH)
2	326+84	47' RT	--	--	1	--	1	--	--	--	--	--	--	--
2	356+86	RT	--	--	3	--	--	1	--	--	--	--	--	--
2	573+66	18.9' RT	S11LT	1	--	1	--	--	--	1	1	1	--	--
2	573+66	25.8' RT	S11CT	--	1	--	1	--	--	1	1	--	1	1
2	573+66	34.2' RT	S11RT	--	1	--	1	--	--	1	--	1	1	--
2	574+95	21.3' RT	S10	1	--	1	--	--	--	1	1	--	--	--
2	575+55	22.4' RT	S09	1	--	1	--	--	--	1	1	--	--	--
2	576+15	23.5' RT	S08	1	--	1	--	--	--	1	1	--	--	--
2	576+65	24.4' RT	S07	1	--	1	--	--	--	1	1	--	--	--
2	577+15	25.0' RT	S06	1	--	1	--	--	--	1	1	--	--	--
2	577+65	25.0' RT	S05	1	--	1	--	--	--	1	1	--	--	--
2	578+15	25.0' RT	S04	1	--	1	--	--	--	1	1	--	--	--
2	578+65	25.0' RT	S03	1	--	1	--	--	--	1	1	--	--	--
2	578+78	25.0' RT	S02	1	--	1	--	--	--	1	1	--	--	--
2	578+90	25.0' RT	S01	1	--	1	--	--	--	1	1	--	--	--
2	581+97	25.0' RT	N01	1	--	1	--	--	--	1	1	--	--	--
2	582+25	25.0' RT	N02	1	--	1	--	--	--	1	1	--	--	--
2	582+55	25.0' RT	N03	1	--	1	--	--	--	1	1	--	--	--
2	582+86	25.0' RT	N04	1	--	1	--	--	--	1	1	--	--	--
2	583+18	25.0' RT	N05	1	--	1	--	--	--	1	1	--	--	--
2	583+47	25.0' RT	N06	1	--	1	--	--	--	1	1	--	--	--
2	583+84	25.0' RT	N07	1	--	1	--	--	--	1	1	--	--	--
2	584+20	24.6' RT	N08	1	--	1	--	--	--	1	1	--	--	--
2	584+56	24.0' RT	N09	1	--	1	--	--	--	1	1	--	--	--
2	585+01	23.2' RT	N10	1	--	1	--	--	--	1	1	--	--	--
2	588+47	22.3' RT	N11	1	--	1	--	--	--	1	1	--	--	--
2	585+95	21.5' RT	N12	1	--	1	--	--	--	1	1	--	--	--
2	587+00	19.6' RT	N13	1	--	1	--	--	--	1	1	--	--	--
2	587+50	35.2' RT	N14	--	--	--	--	--	--	--	--	--	1	--
		STAGE 2 TOTALS		24	5	24	3	1	0	26	25	2	3	1
3	579+57	LT		--	--	--	--	--	1	--	1	--	--	--
		STAGE 3 TOTALS		0	0	0	0	0	1	0	1	--	3	0
		PROJECT TOTALS		24	5	24	3	1	1	26	26	2	6	1

*ADDITIONAL QUANTITIES LISTED ELSEWHERE.

FINISHING ITEMS

STAGE	LOCATION			LT/RT	625.0500 SALVAGED TOPSOIL (SY)	627.0200 MULCHING (SY)	628.6510 SOIL STABILIZER TYPE B (ACRE)	629.0205 FERTILIZER TYPE A (CWT)	630.0130 SEEDING MIXTURE NO. 30 (LB)	630.0200 SEEDING TEMPORARY (LB)
2	320+83	-	332+09	RT	1,830	1,562	0.4	2	57	86
	330+58	-	340+85	RT	2,167	2,167	0.5	2	57	86
	10+35'TZA'	-	18+05'TZA'	LT/RT	6,134	5,312	1.3	5	143	214
	352+11	-	357+00	RT	608	608	0.2	1	29	43
	379+35	-	437+31	RT	8,865	7,610	1.9	5	161	241
	438+35	-	456+77	RT	2,671	1,825	0.6	2	57	86
	537+17	-	541+00	RT	380	380	0.1	1	29	43
	547+00	-	578+92	RT	2,760	2,760	0.6	4	110	168
	581+32	-	590+00	RT	590	590	0.2	1	28	42
			STAGE 2 TOTALS		26,005	22,814	6	23	671	1,009
3	320+00	-	336+33	LT	3,798	2,506	0.8	4	114	172
	339+00	-	347+04	LT	823	823	0.2	1	29	43
	349+49	-	357+00	LT	1,456	1,162	0.4	2	57	86
	379+35	-	437+31	LT	10,372	10,372	2.2	10	286	429
	438+35	-	541+00	LT	21,895	19,585	4.6	20	571	857
	547+00	-	581+08	LT	11,750	5000	2.4	9	260	390
	582+23	-	602+45	LT	3,690	--	0.8	3	89	134
			STAGE 3 TOTALS		53,784	39,448	11.4	49	1,406	2,110
	UNDISTRIBUTED					15,691	5.0	18	546	780
			TOTALS		79,789	77,953	22.2	90	2,623	3,898

WATER

LOCATION	*624.0100 WATER (MGAL)
UNDISTRIBUTED	300
TOTALS	300

*ADDITIONAL QUANTITIES LISTED ELSEWHERE.

SILT FENCE

LOCATION			LT/RT	628.1504 SILT FENCE (LF)	628.1520 SILT FENCE MAINTENANCE (LF)
319+87	-	334+32	LT	1,500	1,500
10+35'TZA'	-	18+05'TZA'	LT	780	780
379+35	-	390+89	LT	540	540
393+21	-	417+04	LT	3,030	3,030
424+80	-	437+35	LT	1,330	1,330
438+32	-	500+11	LT	6,340	6,340
510+36	-	513+00	LT	280	280
517+93	-	530+23	LT	1,260	1,260
563+97	-	580+48	LT	1,100	1,100
582+07	-	602+51	LT	2,100	2,100
UNDISTRIBUTED				4,590	4,590
		TOTALS		22,850	22,850

MOBILIZATIONS EROSION CONTROL

LOCATION	628.1905 MOBILIZATIONS EROSION CONTROL (EACH)	628.1910 MOBILIZATIONS EMERGENCY EROSION CONTROL (EACH)
UNDISTRIBUTED	11	5
TOTALS	11	5

TRACKING PADS

LOCATION	628.7560 TRACKING PADS (EACH)
UNDISTRIBUTED	9
TOTALS	9

EROSION MAT

LOCATION			LT/RT	628.2004 EROSION MAT CLASS I TYPE B (SY)
321+39	-	329+00	LT	1,459
14+25'TZA'			RT	4
16+48'TZA'			RT	6
349+49	-	351+35	LT	295
356+85			LT	4
385+88	-	392+76	LT	730
401+91			LT	4
409+00	-	411+00	LT	100
420+93			LT	4
424+56	-	434+56	LT	1,049
434+60	-	437+31	LT	642
438+36	-	441+25	LT	647
442+96	-	449+52	LT	323
454+91			LT	4
462+89	-	469+50	LT	384
484+00	-	490+00	LT	881
494+88	-	498+02	LT	283
504+41			LT	4
516+68	-	521+18	LT	245
527+91			LT	4
536+66			LT	4
564+00	-	581+08	LT	6,750
582+23	-	601+00	LT	3,700
UNDISTRIBUTED				4,374
				21,900

INLET PROTECTION

STATION	LOCATION	*628.7005 INLET PROTECTION TYPE A (EACH)	*628.7010 INLET PROTECTION TYPE B (EACH)	*628.7020 INLET PROTECTION TYPE D (EACH)	COMMENTS
318+89	29' RT	--	--	1	
345+61	37' RT	--	--	1	
390+91	34' RT	1	--	1	
467+91	30' RT	--	--	1	
475+91	34' RT	--	--	1	
486+91	35' RT	--	--	1	
496+91	34' RT	--	--	1	
517+91	39' RT	1	--	--	
596+66	RT	--	--	1	EXISTING INLET
	STAGE 2 TOTALS	2	0	8	
437+29	35' LT	--	1	--	
	STAGE 3 TOTALS	0	1	0	
	UNDISTRIBUTED	1	1	1	
	PROJECT TOTALS	3	2	9	

*ADDITIONAL QUANTITIES LISTED ELSEWHERE.

CULVERT PIPE CHECKS

STATION	LOCATION	628.7555 CULVERT PIPE CHECKS (EACH)
335+89	38' RT	3
347+42	117' RT	3
347+00	70' LT	3
14+25'TZA'	120' LT	3
356+86	45' RT	3
363+47	48' RT	3
370+29	37' RT	3
379+81	36' RT	3
382+09	53' LT	3
382+98	40' RT	3
401+91	32' RT	3
420+91	30' RT	3
425+91	30' RT	3
440+45	39' RT	3
454+91	33' RT	3
475+91	62' LT	4
504+41	29' RT	3
527+92	30' RT	3
536+67	31' RT	3
542+43	20' RT	3
543+31	52' LT	3
545+41	21' RT	3
546+15	RT	5
554+14	RT	5
562+64	RT	5
593+40	RT	5
UNDISTRIBUTED		5
	TOTALS	92

3

TEMPORARY DITCH CHECKS

STAGE	STATION	-	STATION	LOCATION	628.7504 TEMPORARY DITCH CHECKS (LF)
2&3	320+00	-	541+00	LT/RT	600
2	549+00			RT	25
	552+00			RT	25
	556+00			RT	25
	561+00			RT	25
	566+00			RT	25
	571+00			RT	25
	576+50			RT	15
	585+00			RT	15
	589+64			RT	25
	599+00			RT	25
			STAGE 2 TOTALS		230
3	556+00			LT	25
	563+00			LT	25
	564+00			LT	25
	565+00			LT	25
			STAGE 3 TOTALS		100
			UNDISTRIBUTED		95
				TOTALS	1,030

DELINEATORS

STAGE	STATION	-	STATION	LOCATION	633.0100 DELINEATOR POSTS STEEL (EACH)	633.0500 DELINEATOR REFLECTORS (EACH)
3	547+00	-	601+00	LT	14	14
				STAGE 3 TOTAL	14	14
				PROJECT TOTALS	14	14

MOVING SIGNS TYPE I AND MOVING SIGN SUPPORTS

STATION	LOCATION	638.2101 MOVING SIGNS TYPE I (EACH)	638.4100 MOVING STRUCTURAL STEEL SIGN SUPPORTS (EACH)
415+60		1	2
441+30		1	2
	PROJECT TOTALS	2	4

SIGN SUPPORTS

STATION	635.0300 SIGN SUPPORTS REPLACING BASE CONNECTION BOLTS (EACH)	636.0100 SIGN SUPPORTS CONCRETE MASONRY (CY)	636.0500 SIGN SUPPORTS STEEL REINFORCEMENT (LB)
415+60	1	1.8	100
441+30	1	1.8	100
PROJECT TOTALS	2	3.6	200

MOVING SIGNS TYPE II

STATION	638.2102 MOVING SIGNS TYPE II (EACH)	638.2602 REMOVING SIGNS TYPE II (EACH)	638.3000 REMOVING SMALL SIGN SUPPORTS (EACH)
321+25	1	--	--
325+95	2	--	--
327+50	1	--	--
331+25	--	2	1
336+35	2	--	--
345+20	1	--	--
379+85	2	--	1
385+00	1	--	3
388+30	2	--	--
392+90	1	--	--
398+20	2	--	--
409+40	2	--	--
421+05	2	--	--
431+00	2	--	--
441+85	2	--	--
452+10	2	--	--
537+20	2	--	--
548+72	2	--	1
559+10	2	--	1
569+90	2	--	1
581+42	2	--	1
592+58	1	--	1
599+59	1	--	2
PROJECT TOTALS	34	2	12

POSTS WOOD

STAGE	STATION	634.0618 POSTS WOOD 4X6 -INCH X 18-FT (EACH)	634.0620 POSTS WOOD 4X6-INCH X 20-FT (EACH)
2	548+72	1	--
2	559+10	1	--
2	569+90	1	--
2	581+42	1	--
	STAGE 2 TOTALS	4	0
3	592+58	1	--
3	599+59	1	1
	STAGE 3 TOTALS	2	1
	PROJECT TOTALS	6	1

TRAFFIC CONTROL - DRUMS, BARRICADES, WARNING LIGHTS, ARROW BOARDS, AND SIGNS

SECTION	STAGE	DAYS IN SERVICE	643.0300 TRAFFIC CONTROL DRUMS NO.	643.0300 TRAFFIC CONTROL DRUMS (DAYS)	643.0420 TRAFFIC CONTROL BARRICADES TYPE III NO.	643.0420 TRAFFIC CONTROL BARRICADES TYPE III (DAYS)	643.0705 TRAFFIC CONTROL WARNING LIGHTS TYPE A NO.	643.0705 TRAFFIC CONTROL WARNING LIGHTS TYPE A (DAYS)	643.0715 TRAFFIC CONTROL WARNING LIGHTS TYPE C NO.	643.0715 TRAFFIC CONTROL WARNING LIGHTS TYPE C (DAYS)	643.0800 TRAFFIC CONTROL ARROW BOARDS NO.	643.0800 TRAFFIC CONTROL ARROW BOARDS (DAYS)	643.0900 TRAFFIC CONTROL SIGNS NO.	643.0900 TRAFFIC CONTROL SIGNS (DAYS)	643.1050 TRAFFIC CONTROL SIGNS PCMS NO.	643.1050 TRAFFIC CONTROL SIGNS PCMS (DAYS)	SPV.0060.008** TRAFFIC CONTROL BARRICADES TYPE III WITH SIGN (EACH)
SECTION 1																	
	STAGE 1	4	96	384	3	12	6	24	12	48	2	8	21	84	1	4	
	STAGE 2	16	283	4528	13	208	26	416	43	688	6	96	68	1088	2	32	
	STAGE 3	14	207	2898	8	112	16	224	37	518	4	56	41	574	2	28	
	SECTION 1 TOTAL			7810		332		664		1254		160		1746		64	
SECTION 2																	
	STAGE 3	14	200	2800	5	70	10	140	75	1050	2	28	30	420	2	28	
	SECTION 2 TOTAL			2800		70		140		1050		28		420		28	
SECTION 3																	
	STAGE 3	14	200	2800	5	70	10	140	75	1050	2	28	30	420	2	28	
	SECTION 3 TOTAL			2800		70		140		1050		28		420		28	
SECTION 4																	
	STAGE 2	4	225	900	15	60	30	120	35	140	2	8	35	140	2	8	
	STAGE 3	14	200	2800	5	70	10	140	75	1050	2	28	30	420	2	28	
	SECTION 4 TOTAL			3700		130		260		1190		36		560		36	
SECTION 5																	
	STAGE 2	4	225	900	15	60	30	120	35	140	2	8	35	140	2	8	
	STAGE 3	14	200	2800	5	70	10	140	75	1050	2	28	30	420	2	28	
	SECTION 5 TOTAL			3700		130		260		1190		36		560		36	
UNDISTRIBUTED																	18
PROJECT TOTALS				20810		732		1464		5734		288		3706		192	18

**SEE SPECIAL PROVISIONS FOR DELIVERY INFORMATION

3

PAVEMENT MARKING

STATION	-	STATION	LOCATION	646.0106 EPOXY 4-INCH YELLOW (LF)	646.0106 EPOXY 4-INCH WHITE (LF)	646.0106 EPOXY 4-INCH WHITE LANE LINE 12.5' LINE 37.5' SKIP (LF)	*646.0600 REMOVING PAVEMENT MARKINGS (LF)
320+00	-	541+00	RT	22,100	--	--	22,100
320+00	-	541+00	LT	--	22,100	--	22,100
320+00	-	541+00	MIDDLE	--	--	5,525	5,525
541+00	-	625+45	RT	8,445	--	--	--
541+00		625+45	LT	--	8,445	--	--
547+00	-	625+45	MIDDLE	--	--	2,113	--
				30,545	30,545	7,638	49,725
			TOTAL FOR 646.0106		68,728		
			PROJECT TOTALS		68,728		49,725

*ADDITIONAL QUANTITIES LISTED ELSEWHERE.

SNOW FENCE

LOCATION	SPV.0090.008 FURNISHING LF	SPV.0090.009 INSTALLING LF
STA. 372+00 - STA. 381+00 LT	900	900
STA. 400+00 - STA. 435+00 LT	3,500	3500
STA. 446+00 - STA. 541+00 LT	9,500	9500
STA. 549+00 - STA. 565+00 LT	1,600	1600
STA. 646+00 - STA. 731+00 LT	8,500	8500
UNDISTRIBUTED	1,000	
PROJECT TOTALS	25,000	24,000

CONCRETE BARRIER TEMPORARY PRECAST LEFT IN PLACE

SPV.0090.006

STATION	-	STATION	LOCATION	LF
347+15	-	352+15	LT	500
			PROJECT TOTALS	500

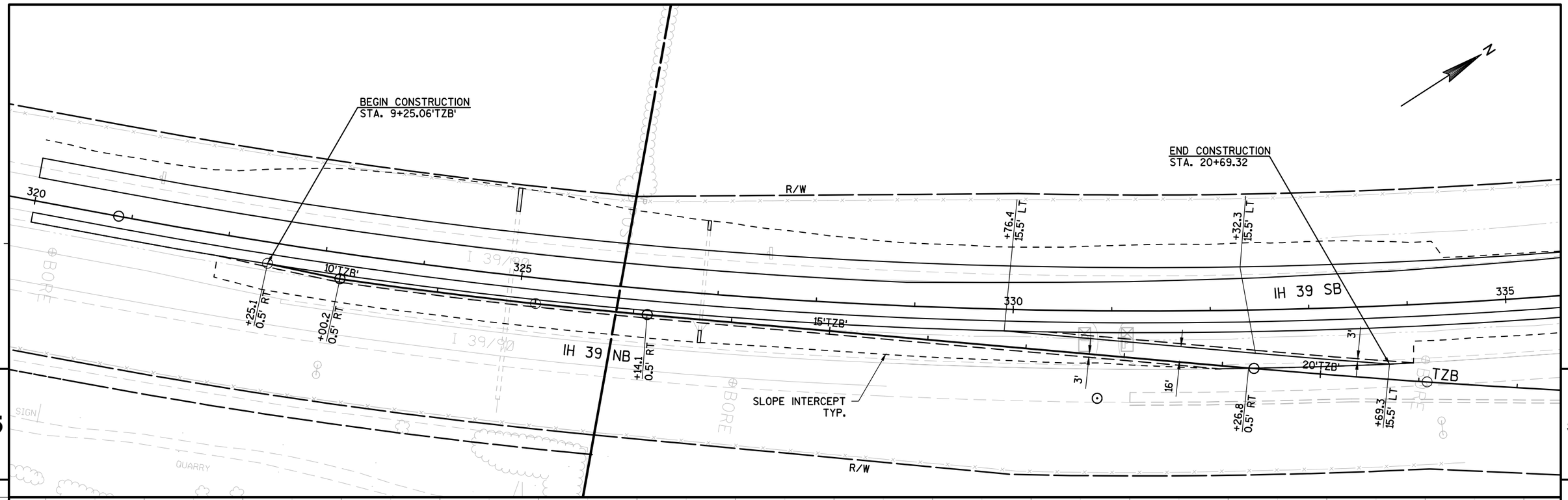
CRASH CUSHIONS PERMANENT

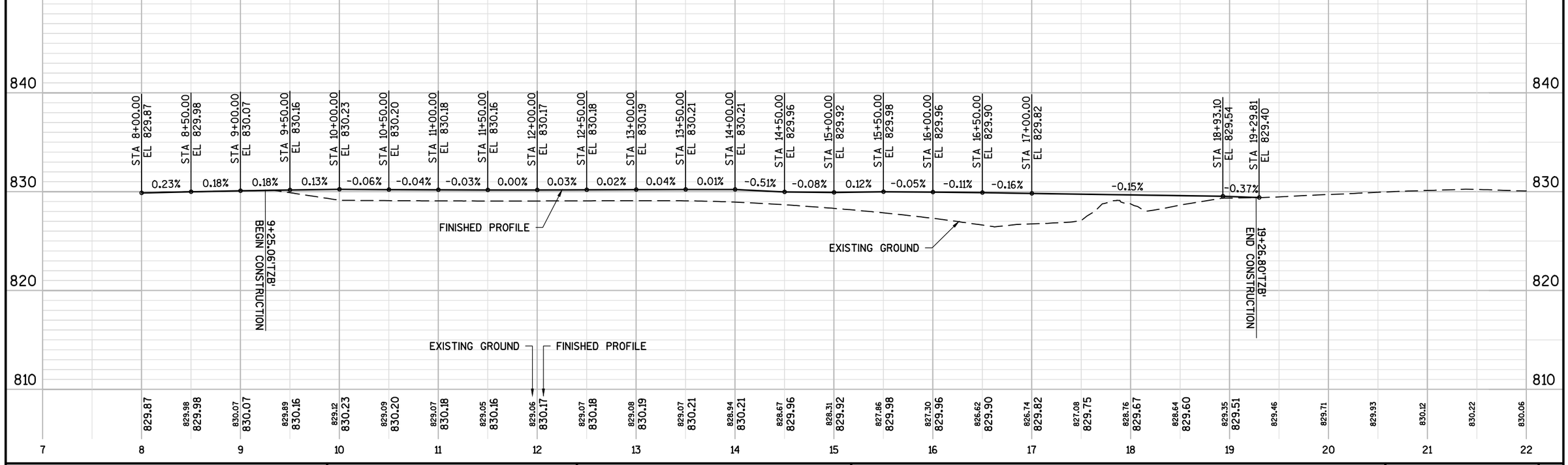
STATION	LOCATION	614.0800 CRASH CUSHIONS PERMANENT (EACH)	BACK WIDTH (FT)	OBJECT MARKING PATTERN	CRASH TEST LEVEL	TRAFFIC DIRECTION	TRAFFIC LOCATION	CRASH CUSHION SHIELDS
352+15	54' LT	1	2	OM-3R	TL-3	UNIDIRECTIONAL	L	TEMPORARY CONCRETE BARRIER ON OUTSIDE SHOULDER
	PROJECT TOTALS	1						

TEMPORARY PAVEMENT MARKING

SECTION	STAGE	649.0400 TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH YELLOW (LF)	649.0400 TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH WHITE (LF)	649.0402 TEMPORARY PAVEMENT MARKING PAINT 4-INCH YELLOW (LF)	649.0402 TEMPORARY PAVEMENT MARKING PAINT 4-INCH WHITE (LF)	649.0801 TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 8-INCH WHITE (LF)	*646.0600 REMOVING PAVEMENT MARKING (LF)
SECTION 1							
	STAGE 2	935	1870	8000	14900	340	10650
	STAGE 3	1045	2090	8000	16000	608	9595
	SECTION 1 TOTAL	1980	3960	16000	30900	948	46900
SECTION 2							
	STAGE 3	--	--	6750	13500	--	33750
	SECTION 2 TOTAL	--	--	6750	13500	--	33750
SECTION 3							
	STAGE 3	--	--	6750	13500	--	33750
	SECTION 3 TOTAL	--	--	6750	13500	--	33750
SECTION 4							
	STAGE 2	--	--	6850	13600	--	13600
	STAGE 3	--	--	6850	13600	--	34050
	SECTION 4 TOTAL	--	--	13700	27200	--	47650
SECTION 5							
	STAGE 2	--	--	6750	13500	--	13500
	STAGE 3	--	--	6750	13500	--	33950
	SECTION 5 TOTAL	--	--	13500	27000	--	47450
SUBTOTAL		1980	3960	56700	112100		
PROJECT TOTAL		5940		168800		948	209500

*ADDITIONAL QUANTITIES ELSEWHERE

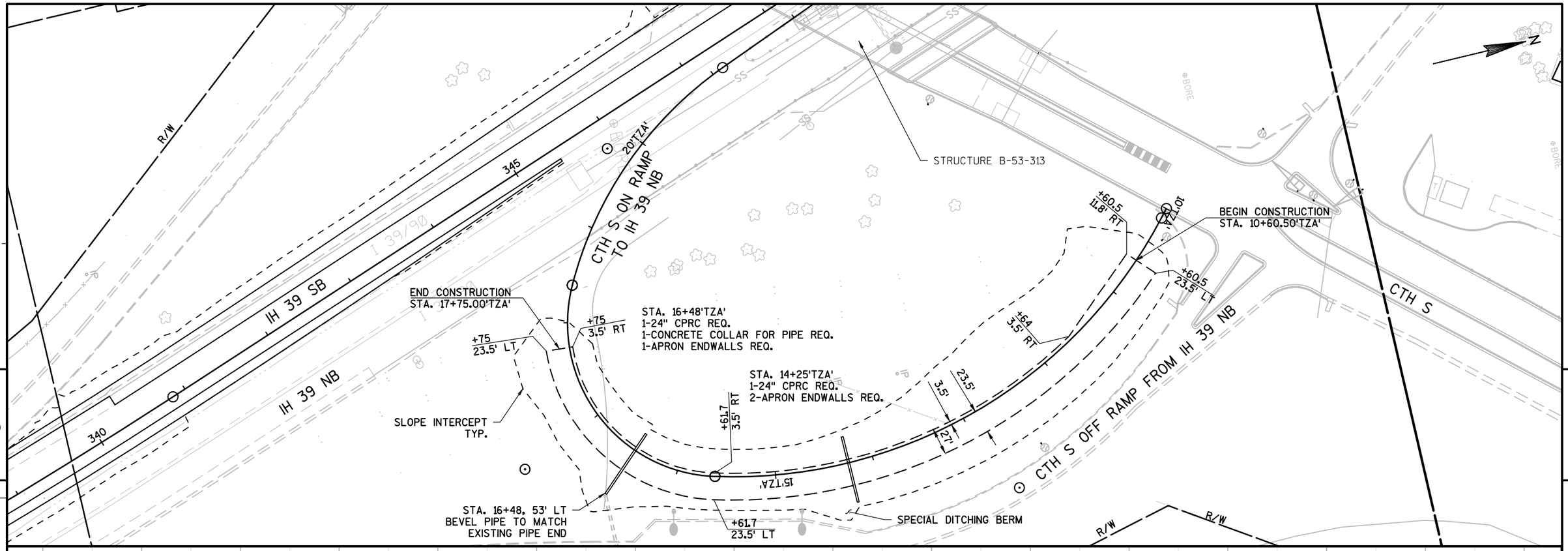




PROJECT NO: 1003-10-77	HWY: IH 39	COUNTY: ROCK	PLAN AND PROFILE: CTH S OFF RAMP	SHEET 75 E

FILE NAME : \\USMSN1FS001\PROD\DATA\LIBRARY\WORK\PROJECTS\60242867\000_CAD\001_DRAWINGS\1003-10-77_CTH S TO STH 11 TEMP\100%\050101_PROFILES_SHEET3.DWG 3/26/2015 12:11 PM PLOT BY : ARBUCKLE, ADRIAN PLOT NAME : PLOT SCALE : 1:100_XREF

WISDOT/CADDS SHEET 44



PROJECT NO: 1003-10-77	HWY: IH 39	COUNTY: ROCK	PLAN AND PROFILE: CTH S ON RAMP	SHEET 76	E

TURTLE CREEK DEVELOPMENT

STA. 320+00 - STA. 336+31 LT
SAWCUT REQUIRED

STA. 324+89
1-48" CPRC EXTENSION LT REQ.
1-APRON ENDWALL REQ.
1-CONCRETE COLLAR FOR PIPE REQ.

STA. 326+86
1-18" CPRC EXTENSION LT REQ.
1-APRON ENDWALL REQ.
1-CONCRETE COLLAR FOR PIPE REQ.

MOVE TYPE II SIGN

BEGIN PROJECT 1003-10-77
STA. 320+00.00
Y = 221567.56
X = 506215.94

+00 -24.0' LT

+00 -44.0' LT

R/W

20' WIDE

SLOPE INTERCEPT (TYP.)

MATCHLINE STA. 327+00

315

IH 39 SB

320

325

IH 39 NB

+00 22.0' RT

+00 12.0' RT

+43 22.0' RT

+18 26.5' RT

14.5' WIDE

WISCONSIN POWER & LIGHT GAS

MOVE TYPE II SIGN

5

5

LEGEND

HMA PAVEMENT

R/W

HAHN FAMILY TRUST

TURTLE CREEK DEVELOPMENT

MOVE TYPE II SIGN

MATCHLINE STA. 327+00

R/W

20' WIDE

STA. 320+00 - STA. 336+31 LT
SAWCUT REQUIRED

+90 -24.0' LT

REMOVE TYPE II SIGN

SLOPE INTERCEPT (TYP.)

+32 -44.0' LT

+32 -40.0' LT

STA. 338+59 - STA. 357+00 LT
SAWCUT REQUIRED

R/W

CTH S ON RAMP

SIGN

+59 -34.7' LT

+59 -40.3' LT

+81 -44.0' LT

+32 -35.2' LT

+31 -24.9' LT

+85 -44.0' LT

MATCHLINE STA. 341+00

330

IH 39 SB

335

340

+91 22.0' RT

CTH S OFF RAMP CROSSING
SEE PLAN & PROFILE

IH 39 NB

10' WIDE

+85 12.0' RT

+85 22.0' RT

STA. 330+73, 29' RT
REMOVE INLET

STA. 331+16, 29' RT
REMOVE INLET

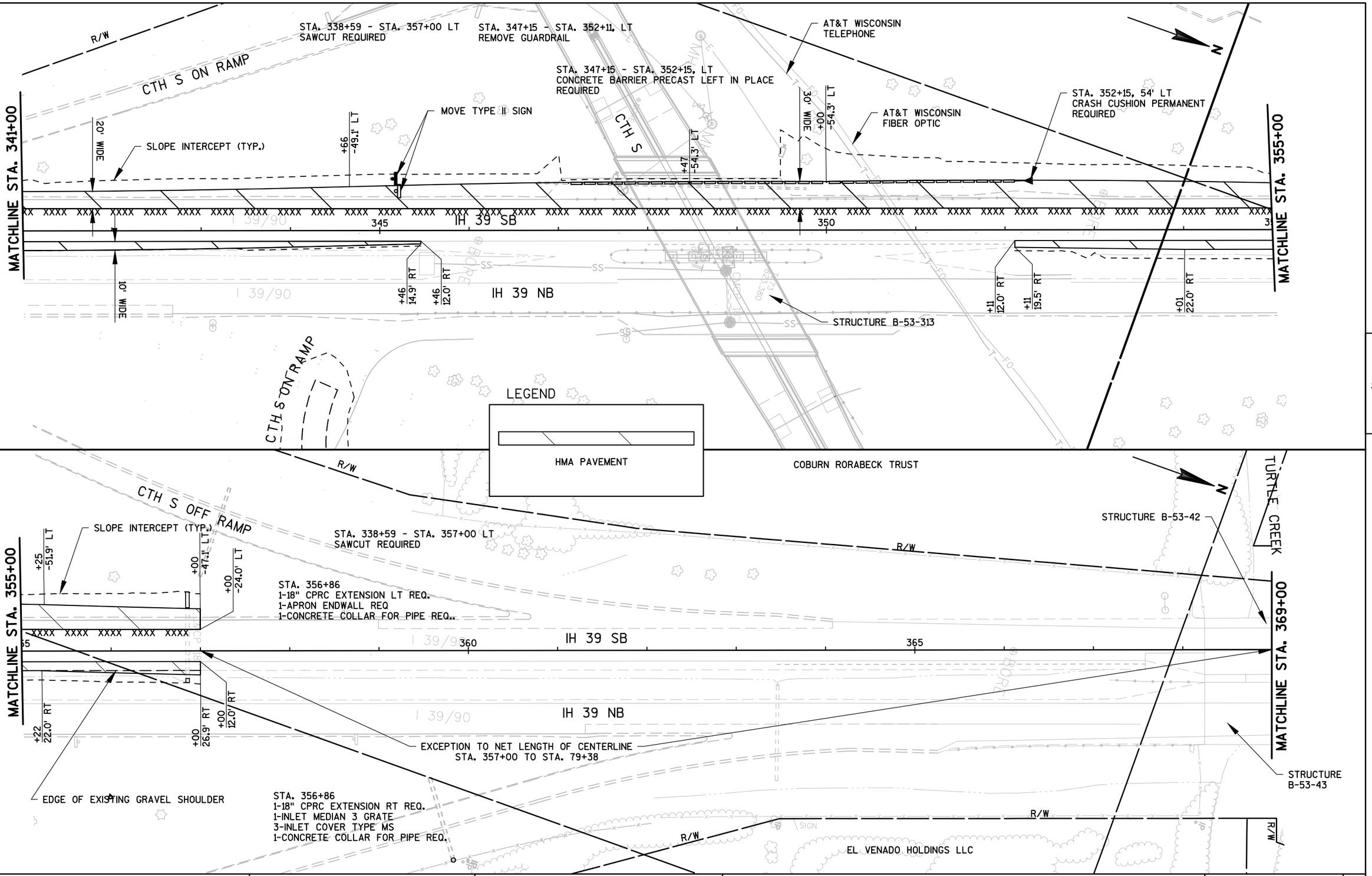
MOVE TYPE II SIGN

STA. 330+95, 29' RT
REMOVE SMALL CULVERT PIPE

HAHN FAMILY TRUST

R/W

PROJECT NO: 1003-10-77	HWY: IH 39	COUNTY: ROCK	PLAN: TEMPORARY WIDENING	SHEET 77	E



PROJECT NO: 1003-10-77	HWY: IH 39	COUNTY: ROCK	PLAN: TEMPORARY WIDENING	SHEET 78	E

TURTLE CREEK

RICHARD LE FEBER

P.L.

STRUCTURE B-53-42

TWIN CITY FARMS PARTNERSHIP

STA. 379+38 - STA. 437+31 LT
SAWCUT REQUIRED

R/W

EXCEPTION TO NET LENGTH OF CENTERLINE
STA. 357+00 TO STA. 379+38

+38 -24.9' LT

+38 -41.4' LT

STRUCTURE B-52-41

MATCHLINE STA. 369+00

370

IH 39 SB

375

380

IH 39 NB

I 39/90

BORE

SIGN

+38 21.2' RT

+38 24.6' RT

WISCONSIN POWER & LIGHT
ELECTRIC

MOVE TYPE II SIGN

MATCHLINE STA. 383+00

STRUCTURE B-53-43

LEGEND

HMA PAVEMENT

ARNDT ANGUS LLC

CREEK RD

5

5

N

ATKINSON FARMS INC

STA. 390+91
1-24" CPRC EXTENSION LT REQ.
1-APRON ENDWALL REQ.
1-CONCRETE COLLAR FOR PIPE REQ.

18' WIDE

+62 44' LT

MOVE TYPE II SIGN

20' WIDE

MATCHLINE STA. 383+00

385

IH 39 SB

390

395

MATCHLINE STA. 397+00

10' WIDE

IH 39 NB

+62 22' RT

SLOPE INTERCEPT (TYP.)

MOVE TYPE II SIGN

ATKINSON FARMS INC

PROJECT NO: 1003-10-77	HWY: IH 39	COUNTY: ROCK	PLAN: TEMPORARY WIDENING	SHEET 79	E

FILE NAME : L:\WORK\PROJECTS\60242867\000_CAD\001_DRAWINGS\1003-10-77_CTH S TO STH 11 TEMP\100%\050201_PN_77.DWG PLOT DATE : 4/7/2016 12:22 PM PLOT BY : ARBUCKLE, ADRIAN PLOT NAME : ---------- PLOT SCALE : **********

PATRICK RD

STA. 385+88 - STA. 437+31 LT
SAWCUT REQUIRED

STA. 401+91
1-18" CPRC EXTENSION LT REQ.
1-APRON ENDWALL REQ.
1-CONCRETE COLLAR FOR PIPE REQ.

STA. 409+91
1-24" CPRC EXTENSION LT REQ.
1-APRON ENDWALL REQ.
1-CONCRETE COLLAR FOR PIPE REQ.

KUTZ FAMILY TRUST

CAUTION — WISCONSIN POWER AND LIGHT GAS

P.L.

MATCHLINE STA. 397+00

SLOPE INTERCEPT (TYP.)

20' WIDE

R/W

400 405 410

IH 39 SB

IH 39 NB

10' WIDE

MOVE TYPE II SIGN

MOVE TYPE II SIGN

MATCHLINE STA. 411+00

R/W

5

5

LEGEND

HMA PAVEMENT

ATKINSON FARMS INC

KUTZ FAMILY TRUST

P.L.

STA. 385+88 - STA. 437+31 LT
SAWCUT REQUIRED

KUTZ FAMILY TRUST

STA. 420+93
1-18" CPRC EXTENSION LT REQ.
1-APRON ENDWALL REQ.
1-CONCRETE COLLAR FOR PIPE REQ.

MATCHLINE STA. 411+00

SLOPE INTERCEPT (TYP.)

20' WIDE

R/W

MOVE TYPE I SIGN

415 420

IH 39 SB

IH 39 NB

10' WIDE

MOVE TYPE II SIGN

MATCHLINE STA. 425+00

R/W

KUTZ FAMILY TRUST

PROJECT NO: 1003-10-77	HWY: IH 39	COUNTY: ROCK	PLAN: TEMPORARY WIDENING	SHEET 80	E

STA. 385+88 - STA. 437+31 LT
SAWCUT REQUIRED

PATRICK RD

CAUTION
WISCONSIN POWER AND LIGHT GAS

STA. 438+35 - STA. 541+00 LT
SAWCUT REQUIRED

STA. 425+92
1-18" CPRC EXTENSION LT REQ.
1-APRON ENDWALL REQ.
1-CONCRETE COLLAR FOR PIPE REQ.

STA. 426+91
2-54" CPRC EXTENSION LT REQ.
2-APRON ENDWALL REQ.
2-CONCRETE COLLAR FOR PIPE REQ.

STA. 434+60.4 - STA. 437+30.9 LT
262.5 LF MGS GUARDRAIL 3 REQ.
8 LF MGS THRIE BEAM TRANSITION REQ.
1 - MGS TYPE 2 TERMINAL REQ.

MATCHLINE STA. 425+00

SLOPE INTERCEPT (TYP.)

R/W

20' WIDE

+73 -44.0' LT

KUTZ FAMILY TRUST

+23 -37.9' LT

+23 -38.6' LT

+67 -35.2' LT

STRUCTURE B-53-39

STRUCTURE B-53-40

+31 -35.2' LT

+31 -24.0' LT

+35 -24.0' LT

+35 -34.4' LT

+00 -34.4' LT

MATCHLINE STA. 439+00

430

IH 39 SB

435

10' WIDE

+72 22.0' RT

IH 39 NB

+22 28.1' RT

ABANDONED COMMUNICATIONS MANHOLES TO BE REMOVED

+22 27.3' RT

+52 27.5' RT

+52 0.0' 12.0' RT

+31 28.0' RT

+31 0.0'

+35 0.0'

+35 28.4' RT

MOVE TYPE II SIGN

TOWNLINE RD

5

5

LEGEND

HMA PAVEMENT

R/W

KUTZ FAMILY TRUST

EXCEPTION TO NET LENGTH OF CENTERLINE
STA. 437+31.04 TO STA. 438+35.38

STA. 436+52 - STA. 437+31 RT
SAWCUT REQUIRED

ATKINSON FARMS INC

STA. 438+35 - STA. 441+22 LT
REMOVE GUARDRAIL

STA. 438+35.5 - STA. 441+40.5 LT
212.5 LF MGS GUARDRAIL 3 REQ.
39.4 LF MGS THRIE BEAM TRANSITION REQ.
1-MGS GUARDRAIL TERMINAL EAT REQ.

STA. 443+91
1-24" CPRC EXTENSION LT REQ.
1-APRON ENDWALL REQ.
1-CONCRETE COLLAR FOR PIPE REQ.

STA. 438+35 - STA. 541+00 LT
SAWCUT REQUIRED

+44 -37.2' LT

+23 -34.8' LT

POST #1
STA. 441+40.5
37.0' LT

MOVE TYPE I SIGN

+94 -44.0' LT

20' WIDE

SLOPE INTERCEPT (TYP.)

MATCHLINE STA. 439+00

R/W

440

IH 39 SB

445

450

MATCHLINE STA. 453+00

+19 0.0' 12.0' RT

+24 31.2' RT

MOVE TYPE II SIGN

IH 39 NB

+94 22.0' RT

10' WIDE

MOVE TYPE II SIGN

ROCK ENERGY COOPERATIVE
ELECTRIC (OVERHEAD)

R/W

STA. 438+35 - STA. 439+19 RT
SAWCUT REQUIRED

ATKINSON FARMS INC

PROJECT NO: 1003-10-77	HWY: IH 39	COUNTY: ROCK	PLAN: TEMPORARY WIDENING	SHEET 81	E

STA. 438+35 - STA. 541+00 LT
SAWCUT REQUIRED

STA. 454+91
1-18" CPRC EXTENSION LT REQ.
1-APRON ENDWALL REQ.
1-CONCRETE COLLAR FOR PIPE REQ.

ATKINSON FARMS INC

SLOPE INTERCEPT (TYP.)

R/W

20' WIDE

MATCHLINE STA. 453+00

MATCHLINE STA. 467+00

455 460 465

IH 39 SB

IH 39 NB

+21 22' RT

+74 22' RT

+74 12' RT

R/W

ATKINSON FARMS INC

P.L.

LEGEND

HMA PAVEMENT

STA. 438+35 - STA. 541+00 LT
SAWCUT REQUIRED

STA. 475+91
1-24" CPRC EXTENSION LT REQ.
1-APRON ENDWALL REQ.
1-CONCRETE COLLAR FOR PIPE REQ.

ATKINSON FARMS INC

STA. 467+92
1-24" CPRC EXTENSION LT REQ.
1-APRON ENDWALL REQ.
1-CONCRETE COLLAR FOR PIPE REQ.

20' WIDE

R/W

SLOPE INTERCEPT (TYP.)

STA. 478+60, 44' LT
BEGIN TAPER

MATCHLINE STA. 467+00

MATCHLINE STA. 481+00

470 475 480

IH 39 SB

IH 39 NB

R/W

PROJECT NO: 1003-10-77	HWY: IH 39	COUNTY: ROCK	PLAN: TEMPORARY WIDENING	SHEET 82	E

STA. 438+35 - STA. 541+00 LT
SAWCUT REQUIRED

STA. 486+91
1-24" CPRC EXTENSION LT REQ.
1-APRON ENDWALL REQ.
1-CONCRETE COLLAR FOR PIPE REQ.

ATKINSON FARMS INC

ARNDT FARMS INC

CAUTION

ATC
ELECTRIC (OVERHEAD)

P.L.

N

MATCHLINE STA. 481+00

STA 483+75, 55' LT
END TAPER

11' WIDE

SEE DETAIL "TEMPORARY
EMERGENCY PULLOUTS"

STA 488+25, 55' LT
BEGIN TAPER

R/W

SLOPE INTERCEPT (TYP.)

STA. 491+95, 44' LT
END TAPER

20' WIDE

MATCHLINE STA. 495+00

485

IH 39 SB

490

IH 39 NB

5

5

LEGEND

HMA PAVEMENT

ARNDT FARMS INC

STA. 504+41
1-18" CPRC EXTENSION LT REQ.
1-APRON ENDWALL REQ.
1-CONCRETE COLLAR FOR PIPE REQ.

N

STA. 496+91
1-24" CPRC EXTENSION LT REQ.
1-APRON ENDWALL REQ.
1-CONCRETE COLLAR FOR PIPE REQ.

STA. 438+35 - STA. 541+00 LT
SAWCUT REQUIRED

20' WIDE

SLOPE INTERCEPT (TYP.)

MATCHLINE STA. 495+00

R/W

IH 39 SB

500

505

MATCHLINE STA. 509+00

IH 39 NB

R/W

PROJECT NO: 1003-10-77	HWY: IH 39	COUNTY: ROCK	PLAN: TEMPORARY WIDENING	SHEET 83	E

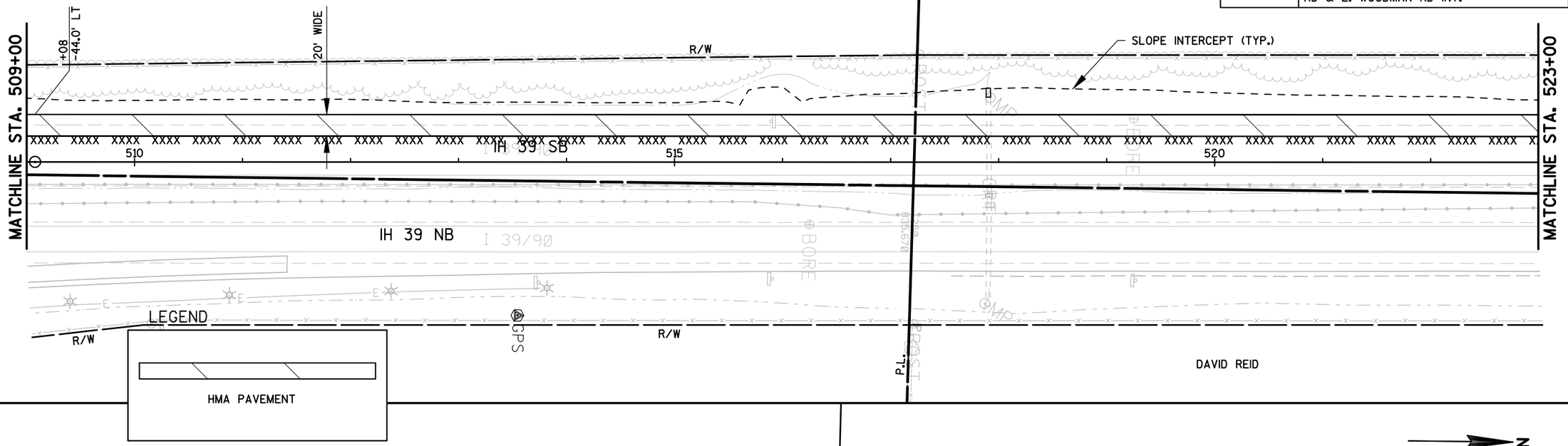
STA. 438+35 - STA. 541+00 LT
SAWCUT REQUIRED

ARNDT FARMS INC

STA. 517+91
1-24" CPRC EXTENSION LT REQ.
1-APRON ENDWALL REQ.
1-CONCRETE COLLAR FOR PIPE REQ.

BENCH MARKS

NO.	DESCRIPTION	ELEV.
251L	SET RR SPIKE IN UTILITY POLE @ S. READ RD & E. WOODMAN RD INT.	834.98

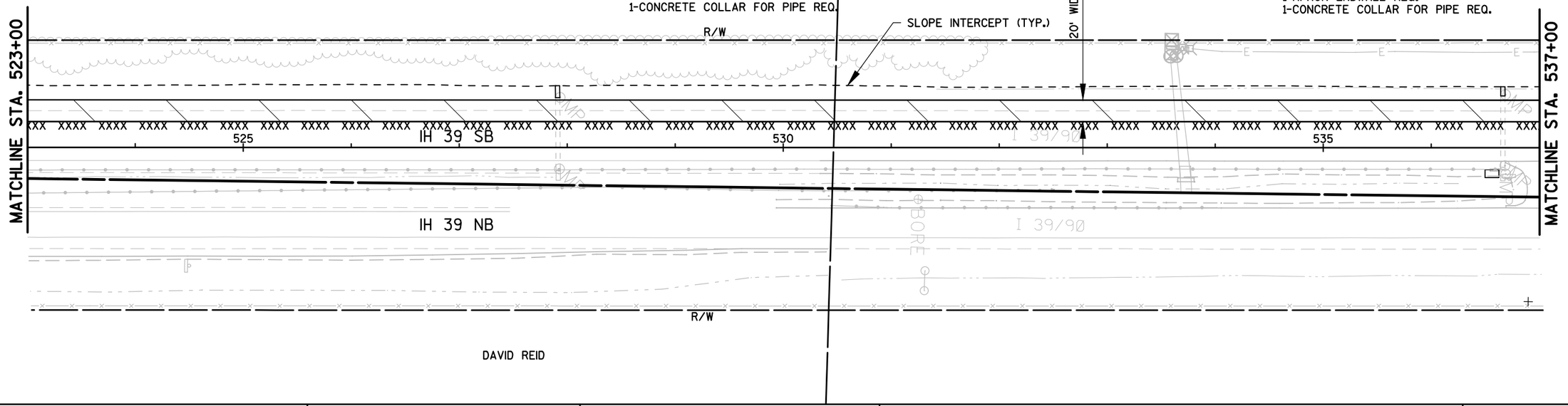


STA. 438+35 - STA. 541+00 LT
SAWCUT REQUIRED

ARNDT FARMS INC

STA. 527+91
1-18" CPRC EXTENSION LT REQ.
1-APRON ENDWALL REQ.
1-CONCRETE COLLAR FOR PIPE REQ.

STA. 536+66
1-18" CPRC EXTENSION LT REQ.
1-APRON ENDWALL REQ.
1-CONCRETE COLLAR FOR PIPE REQ.



PROJECT NO: 1003-10-77	HWY: IH 39	COUNTY: ROCK	PLAN: TEMPORARY WIDENING	SHEET 84	E

FILE NAME : L:\WORK\PROJECTS\60242867\000_CAD\001_DRAWINGS\1003-10-77_CTH S TO STH 11 TEMP\100%\050201_PN_77.DWG PLOT DATE : 4/7/2016 12:11 PM PLOT BY : ARBUCKLE, ADRIAN PLOT NAME : _____ PLOT SCALE : **********
WISDOT/CADDS SHEET 44

STA. 438+35 - STA. 541+00 LT
SAWCUT REQUIRED

ARNDT FARMS INC

ROCK ENERGY COOPERATIVE
ELECTRIC (OVERHEAD)

ABANDON COMMUNICATION MANHOLES AND
PULL BOXES TO BE REMOVED

SLOPE INTERCEPT (TYP.)

R/W

+59 -44.0' LT

+00 -44.0' LT

+00 -24.0' LT

MATCHLINE STA. 537+00

XXXX XXXX XXXX XXXX XXXX XXXX XXXX XXXX XXXX

IH 39 SB

IH 39 NB

MOVE TYPE II SIGNS

+19 12.3' RT

+19 22.0' RT

+00 22.0' RT

BORE

+00 12.4' RT

STRUCTURE B-53-319

EQU. 544+24.87 BK.= EQUATION
544+99.72 AHD.
Y = 243725.82
X = 504172.13

MATCHLINE STA. 545+00

WOODMAN RD

CMCP 24"

R/W

DAVID REID

LEGEND

HMA PAVEMENT

PROJECT NO: 1003-10-77	HWY: IH 39	COUNTY: ROCK	PLAN: TEMPORARY WIDENING	SHEET 85	E

STA. 547+00 - STA. 579+59 LT
SAWCUT REQUIRED

SHOULDER TRANSITION REQ'D
(6.5" BASE AGGREGATE DENSE 3/4-INCH
OVER 17" BASE AGGREGATE DENSE 1 1/4-INCH)

ARNDT FARMS INC.

STA. 554+14 LT
REMOVE EXISTING AEW
1 - CONCRETE COLLARS FOR PIPE
1 - 8' X 18-INCH CPRC CLASS IV
1 - 18-INCH AEWCPRC

P.L.

N

JERRY & JENNIFER FREI

SLOPE INTERCEPT (TYP.)

R/W

MATCHLINE STA. 545+00

20'

22'

550

IH 39 SB

555

MATCHLINE STA. 560+00

+00 22' RT BEGIN PAVEMENT

IH 39 NB

MOVE TYPE II SIGN

EXCEPTION TO NET LENGTH OF CENTERLINE
STA. 541+00 TO STA. 547+00

STA. 554+14 RT
REMOVE EXISTING AEW
1 - CONCRETE COLLARS FOR PIPE
1 - 11' X 18-INCH CPRC CLASS IV
1 - 18-INCH AEWCPRC

MOVE TYPE II SIGN

R/W

5

STA. 547+00 - STA. 579+28 RT
SAWING CONCRETE REQUIRED

ARNDT FARMS INC.

LEACH FARMS INC.

5

LEGEND

HMA PAVMENT

STA. 547+00 - STA. 579+59 LT
SAWING CONCRETE REQUIRED

STA. 562+63 LT
REMOVE EXISTING AEW
1 - CONCRETE COLLARS FOR PIPE
1 - 13' X 18-INCH CPRC CLASS III
1 - 18-INCH AEWCPRC

MGS GUARDRAIL TERMINAL TYPE 2 (END POST, STA. 563+70.5)
MGS GUARDRAIL 3 STA. 563+65.5 - 579+58.0
MGS THRIE BEAM TRANSITION STA. 579+58.0 - 579+66.0

BM 254L

TEMPORARY SHORING
LEFT IN PLACE (B-53-56)
SEE TEMPORARY SHORING DETAIL

STA. 573+66 LT
1 - CONCRETE COLLARS FOR PIPE
1 - 6' X 18-INCH CPRC CLASS III
1 - 18-INCH AEWCPRC

N

TOWN OF LAPRAIRIE

R/W

+55 44' LT

+65 46' LT

+50 46' LT

MATCHLINE STA. 560+00

20'

22'

IH 39 SB

565

570

MATCHLINE STA. 575+00

+90 22' RT

+00 17' RT

IH 39 NB

+00 17' RT

+10 19' RT

+50 19' RT

SLOPE
INTERCEPT (TYP.)

STA. 565+65, (B-53-56)
EXISTING 12'x7' TWIN BOX CULVERT
(TO REMAIN)

MOVE TYPE II SIGN

REFER TO STORM
SEWER PLANS FOR
ADDT'L INFORMATION

STA. 562+63 RT
REMOVE EXISTING AEW
1 - CONCRETE COLLARS FOR PIPE
1 - 14' X 18-INCH CPRC CLASS IV
1 - 18-INCH AEWCPRC

R/W

ROCK COUNTY
COOPERATIVE

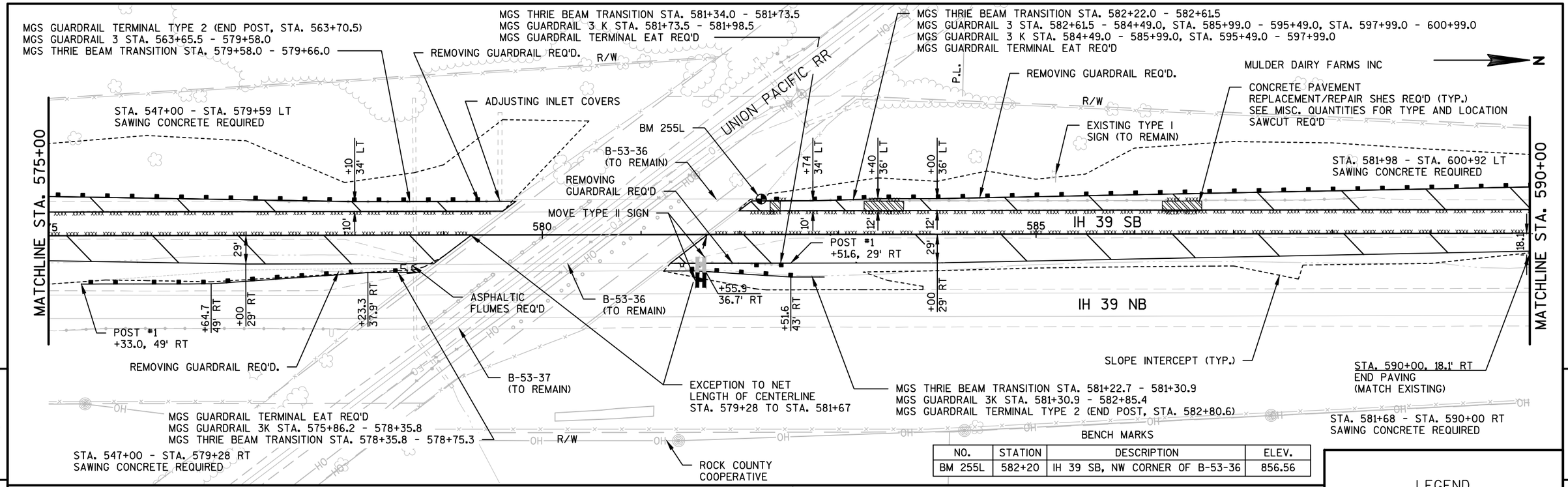
LEACH FARMS INC

STA. 547+00 - STA. 579+28 RT
SAWING CONCRETE REQUIRED

BENCH MARKS

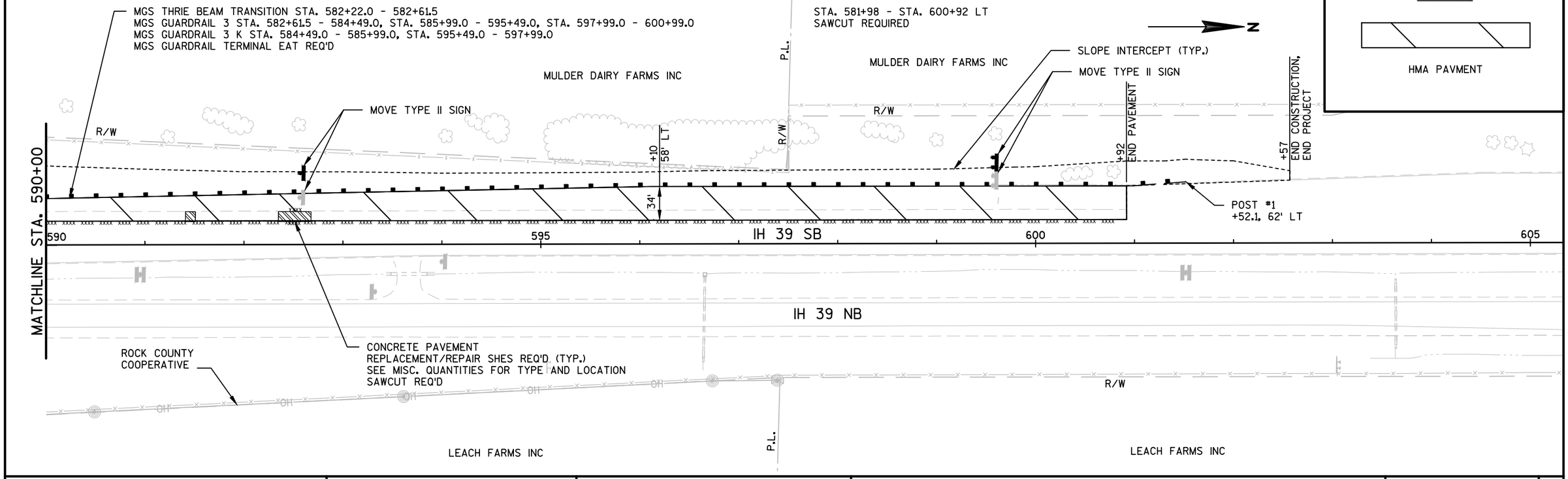
NO.	STATION	DESCRIPTION	ELEVATION
BM 254L	565+71	IH 39 SB, SW WALL OF B-53-56	810.64

PROJECT NO: 1003-10-77	HWY: IH 39	COUNTY: ROCK	PLAN: IH 39	SHEET 86	E



BENCH MARKS

NO.	STATION	DESCRIPTION	ELEV.
BM 255L	582+20	IH 39 SB, NW CORNER OF B-53-36	856.56



LEGEND

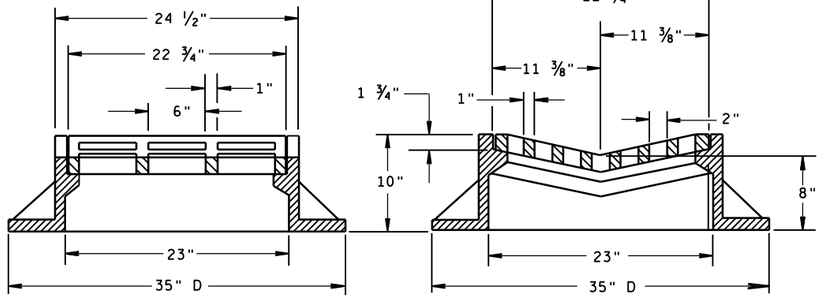
HMA PAVMENT

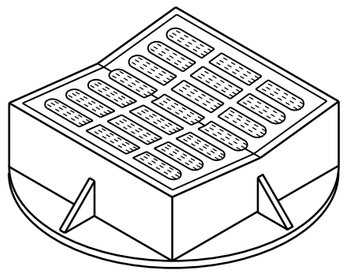
PROJECT NO: 1003-10-77	HWY: IH 39	COUNTY: ROCK	PLAN: IH 39	SHEET 87	E

Standard Detail Drawing List

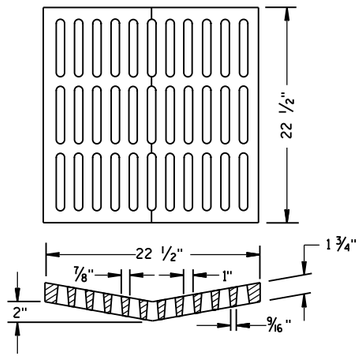
08A05-19B	INLET COVERS TYPE B, B-A, C, MS, MS-A, & WM
08A05-19D	INLET COVER TYPE BW, MANHOLE COVERS, TYPE K, J, J-S, L & M
08C07-01	INLETS 2X2-FT, 2X2.5-FT, 2X3-FT AND 2.5X3-FT
08C08-01	INLETS MEDIAN 1 AND 2 GRATE
08C09-01	INLETS MEDIAN 3 AND 4 GRATE
08D04-05	CONCRETE SURFACE DRAINS & ASPHALTIC FLUMES
08E08-03	TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS
08E09-06	SILT FENCE
08E10-02	INLET PROTECTION TYPE A, B, C AND D
08E14-01	TRACKING PAD
08F01-11	APRON ENDWALLS FOR CULVERT PIPE
08F04-07	JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL
13C09-13A	CONCRETE PAVEMENT REPAIR AND REPLACEMENT
13C09-13B	CONCRETE PAVEMENT REPAIR AND REPLACEMENT
13C09-13C	CONCRETE PAVEMENT REPAIR AND REPLACEMENT
14B07-14A	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-14B	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-14C	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-14D	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-14E	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-14F	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-14G	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-14H	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B08-02A	CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS
14B08-02B	CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS
14B08-02C	CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS
14B08-02D	CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS
14B08-02E	CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS
14B29-01	SAFETY EDGE
14B42-03A	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-03B	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-03C	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B44-02A	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B44-02B	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B44-02C	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B45-04A	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-04B	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-04C	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-04D	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-04E	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-04F	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-04G	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-04H	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-04I	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-04J	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B47-02A	MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL
14B47-02B	MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL
14B47-02C	MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL
15A02-08	DELINEATOR POST, DELINEATOR, AND DELINEATOR BRACKET WITH REFLECTIVE SHEETING
15A03-02A	FLEXIBLE MARKER POST FOR CULVERT END
15A03-02B	FLEXIBLE MARKER POST FOR CULVERT END
15A04-02	FLEXIBLE DELINEATOR POST
15A06-02	DELINEATOR LAYOUT
15C08-16A	PAVEMENT MARKING (MAINLINE)
15C19-03C	MOVING PAVEMENT MARKING OPERATION MULTI-LANE DIVIDED ROADWAY
15D15-02	TRAFFIC CONTROL, EXIT AND ENTRANCE RAMP WITHIN LANE CLOSURE

6



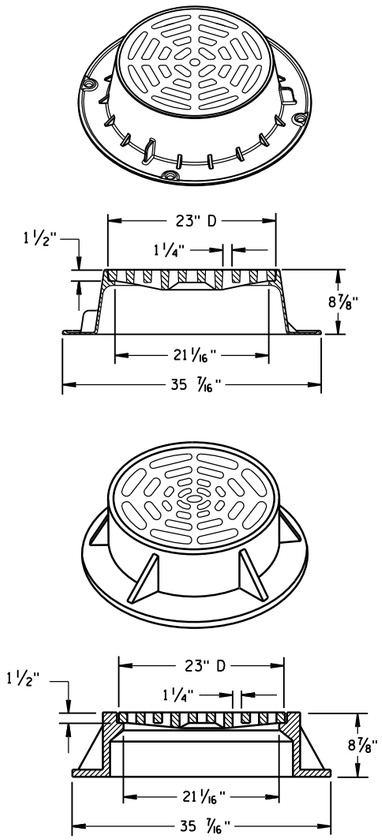


TYPE "B"



ALTERNATIVE GRATE FOR TYPE "B" COVER

USE WHERE PEDESTRIAN OR BICYCLE TRAFFIC IS POSSIBLE.
NOTED AS TYPE B-A ON THE DRAINAGE TABLE



TYPE "C"

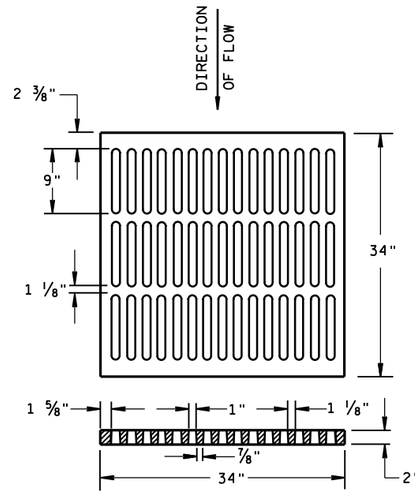
NOTE: EITHER CASTING IS ACCEPTABLE

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

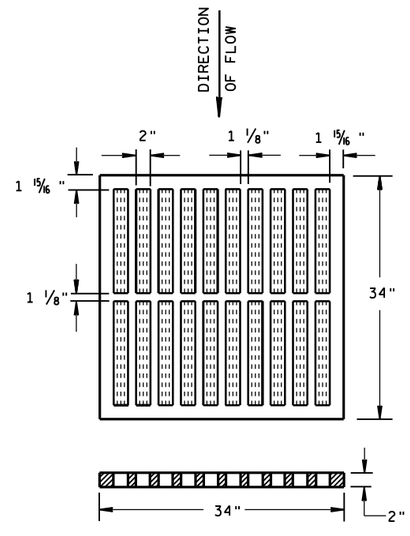
DETAIL DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR CATCH BASIN, MANHOLE AND INLET COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

ROUND FRAMES AND COVERS SHALL HAVE CONTINUOUSLY MACHINED BEARING SURFACES TO PREVENT ROCKING AND RATTLING.



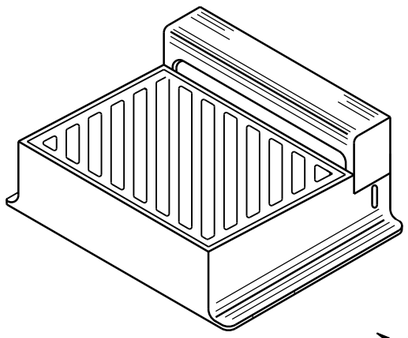
ALTERNATIVE TYPE "MS"

USE WHERE PEDESTRIAN OR BICYCLE TRAFFIC IS PERMITTED
NOTED AS TYPE MS-A ON THE DRAINAGE TABLE

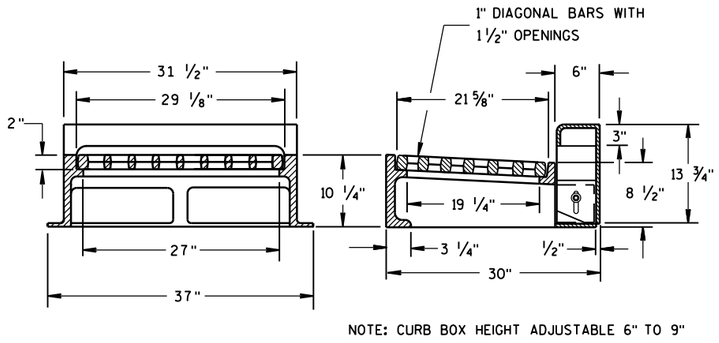


TYPE "MS"

USE ON FREEWAYS AND EXPRESSWAYS
NOTED AS TYPE MS ON DRAINAGE TABLE



DIAGONAL SLOTS, SHALL BE ORIENTED TO THE DIRECTION OF FLOW AS ILLUSTRATED. GRATES ARE MANUFACTURED TO BE REVERSIBLE.



NOTE: CURB BOX HEIGHT ADJUSTABLE 6" TO 9"

TYPE "WM"

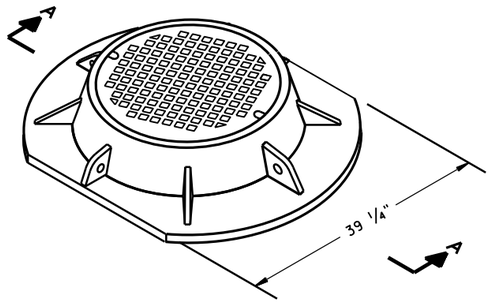
INLET COVERS
TYPE B, B-A, C, MS, MS-A, & WM

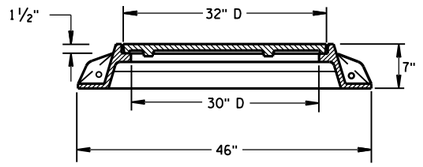
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
11/27/2013 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS ENGINEER
FHWA

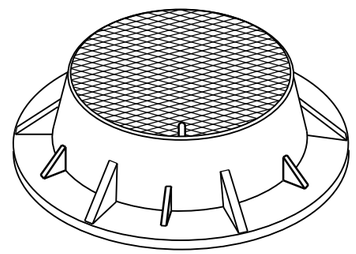
6

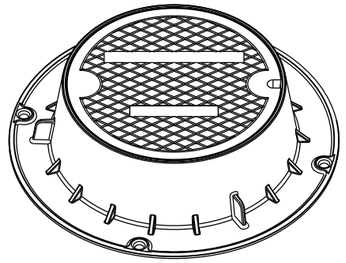
S.D.D. 8 A 5-19b

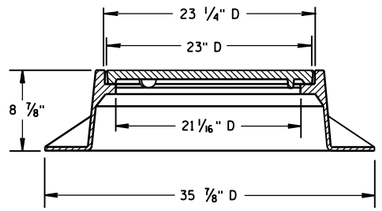


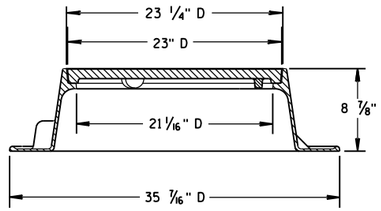


SECTION A-A
TYPE "K"









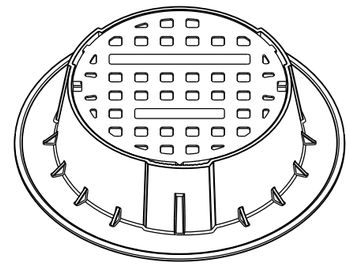
TYPE "J"
NOTE: EITHER CASTING IS ACCEPTABLE

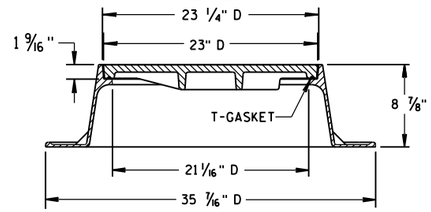
GENERAL NOTES

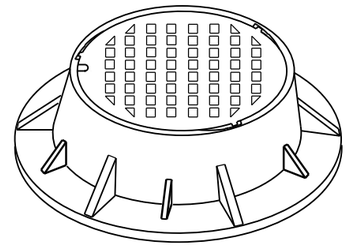
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

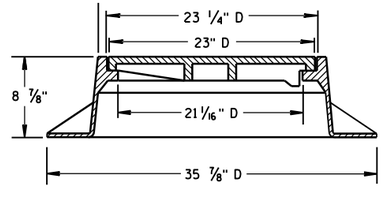
DETAIL DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR MANHOLE COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

ROUND FRAMES AND COVERS SHALL HAVE CONTINUOUSLY MACHINED BEARING SURFACES TO PREVENT ROCKING AND RATTLING.

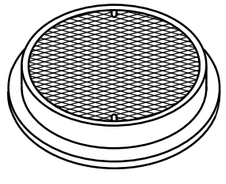


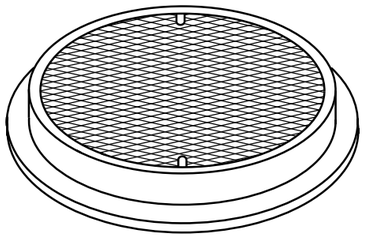


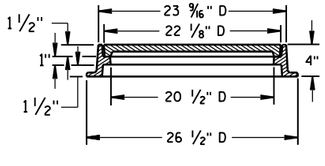




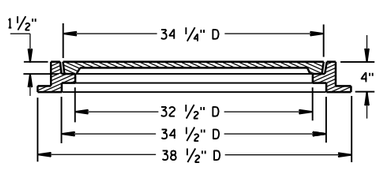
TYPE "J" SPECIAL
TYPE "B" NON-ROCKING SELF-SEAL LID
(NOTED AS TYPE J-S ON THE DRAINAGE TABLE)
NOTE: EITHER CASTING IS ACCEPTABLE







TYPE "L"



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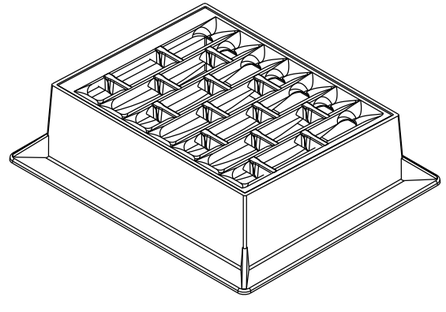
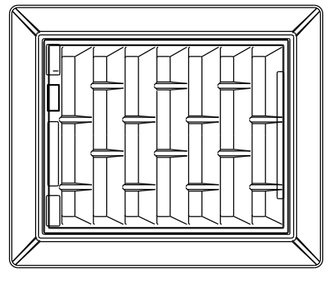
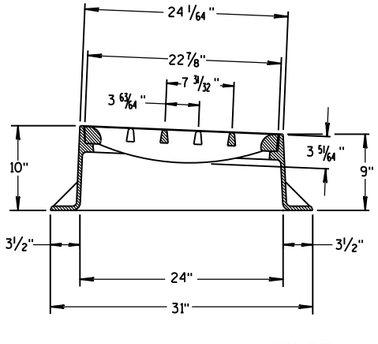
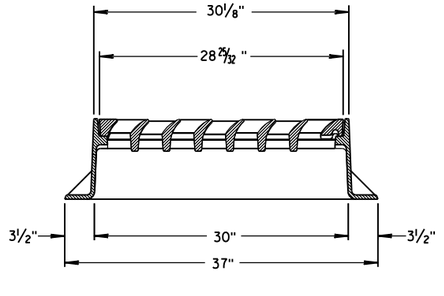








INLET COVER TYPE "BW"

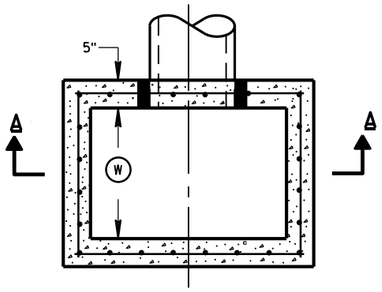
INLET COVER TYPE BW
MANHOLE COVERS, TYPE K, J, J-S, L & M

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

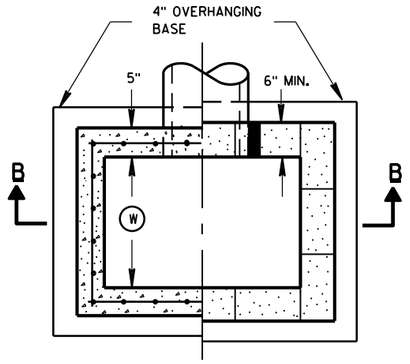
APPROVED
11/27/2013
DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA

6

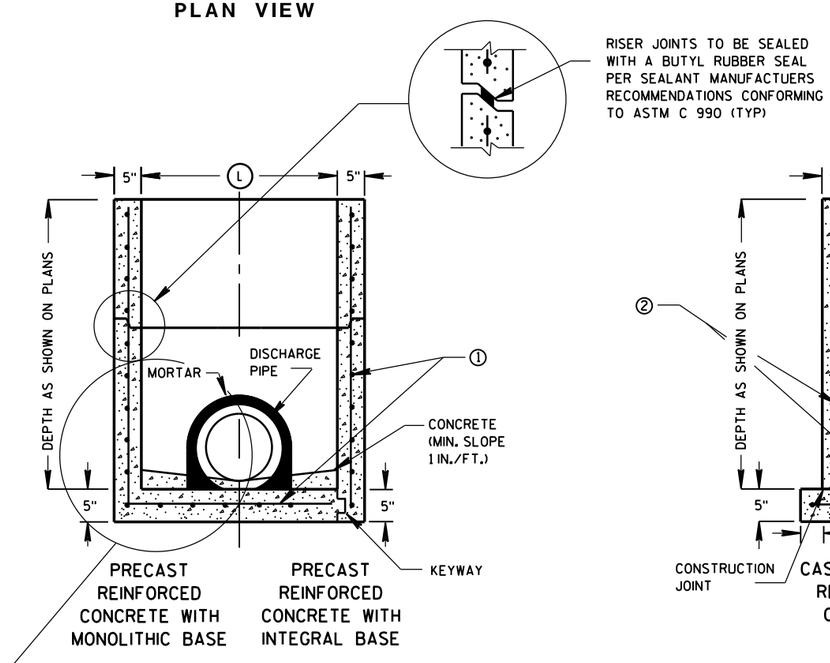
S.D.D. 8 A 5-19d



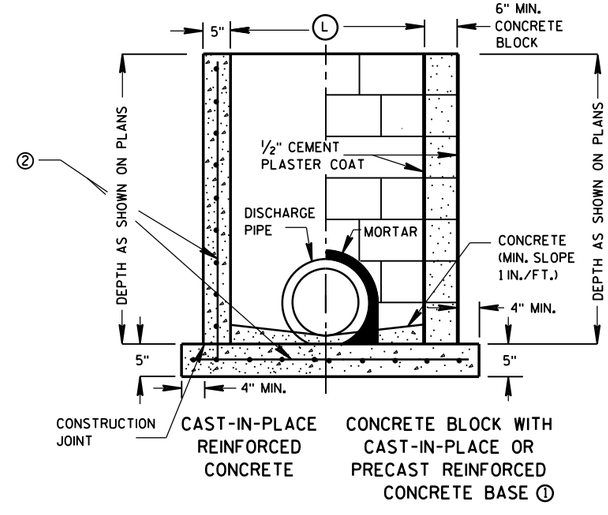
PLAN VIEW



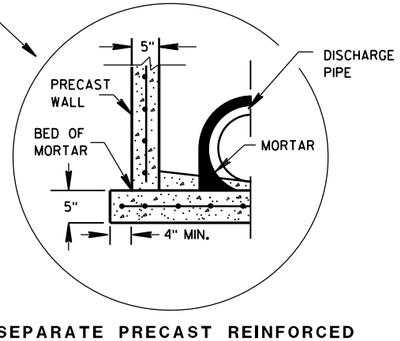
PLAN VIEW



SECTION A-A



SECTION B-B



SEPARATE PRECAST REINFORCED CONCRETE BASE OPTION

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

UNLESS OTHERWISE AUTHORIZED IN WRITING BY THE ENGINEER, THE CONTRACTOR SHALL NOT ORDER AND DELIVER PRECAST INLET UNITS REQUIRED FOR THE PROJECT UNTIL A LIST OF SIZES IS FURNISHED BY THE ENGINEER.

DETAILED DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR UNDERGROUND DRAINAGE STRUCTURES SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

ALL PRECAST INLET UNITS SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF ASTM C 913.

ALL DRAINAGE STRUCTURES ARE DESIGNATED ON THE PLANS AS "MANHOLES 3X3-L", "CATCH BASINS 4-B", "INLETS 2X3-H", ETC. THE FIRST NUMBERS DESIGNATES THE SIZE OF THE STRUCTURE, AND THE FOLLOWING LETTER DESIGNATES THE TYPE OF COVER TO BE USED TO COMPRISE THE COMPLETE UNIT.

BASES SHALL BE PLACED ON A BED OF MATERIAL AT LEAST 6 INCHES IN DEPTH, WHICH MEETS THE REQUIREMENTS OF GRANULAR BACKFILL. THIS BEDDING SHALL BE COMPACTED AND PROVIDE UNIFORM SUPPORT FOR THE ENTIRE AREA OF THE BASE.

ALL BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2 INCHES CLEAR UNLESS OTHERWISE SHOWN OR NOTED.

PRECAST REINFORCED RISERS SHALL HAVE A TONGUE AND GROOVE JOINT WITH TONGUE UP OR DOWN.

4" OVERHANGING BASES ARE REQUIRED FOR CAST-IN-PLACE REINFORCED CONCRETE AND CONCRETE BLOCK INSTALLATIONS.
4" OVERHANG IS REQUIRED WHEN SEPARATE PRECAST BASE IS PROVIDED.
OVERHANG IS NOT REQUIRED ON PRECAST STRUCTURES WITH AN INTEGRAL OR MONOLITHIC BASE.

MAXIMUM INSIDE PIPE DIAMETER DETERMINED BY 3 INCH CLEARANCE ON EACH SIDE OF THE OUTSIDE WALL OF THE PIPE. SEE DETAIL "A". ASSUMES PIPE ENTERS PERPENDICULAR TO THE STRUCTURE.

① FOR PRECAST INLETS PROVIDE REINFORCING STEEL IN ACCORDANCE TO ASTM C 913.

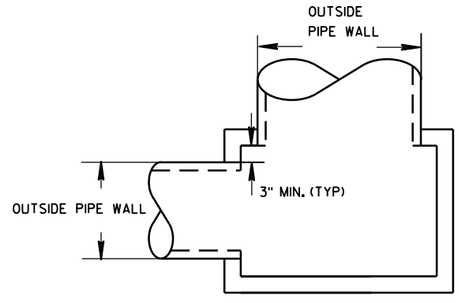
② CONTRACTOR TO PROVIDE DRAWING(S) STAMPED BY A PROFESSIONAL ENGINEER FOR STEEL REINFORCING DESIGN FOR CAST-IN-PLACE STRUCTURES.

INLET COVER MATRIX

INLET SIZE		INLET COVER TYPE	ALL A'S	ALL B'S	BW	F	ALL H'S	S	T	V	WM
	WIDTH (W) (FT)	LENGTH (L) (FT)									
2X2-FT	2	2	X	X				X		X	
2X2.5-FT	2	2.5			X			X	X	X	X
2X3-FT	2	3					X				
2.5X3-FT	2.5	3				X					

PIPE MATRIX

INLET SIZE	MAXIMUM INSIDE PIPE DIAMETER	
	WIDTH (IN)	LENGTH (IN)
2X2-FT	12	12
2X2.5-FT	12	18
2X3-FT	12	24
2.5X3-FT	18	24



DETAIL "A"

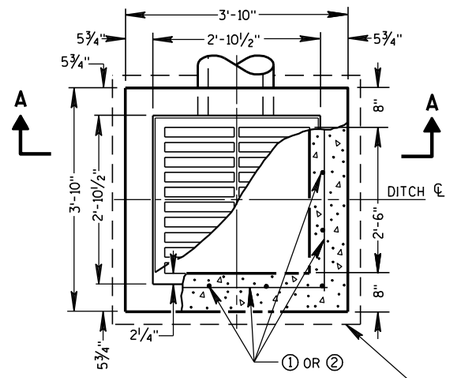
INLETS 2X2-FT, 2X2.5-FT, 2X3-FT AND 2.5X3-FT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

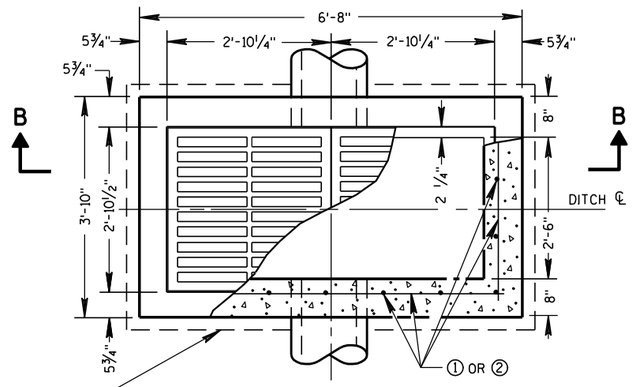
APPROVED
6/5/2012
DATE
FHWA

/S/ Jerry H. Zogg
ROADWAY STANDARDS DE
ENGINEER

6
S.D.D. 8 C 7-1

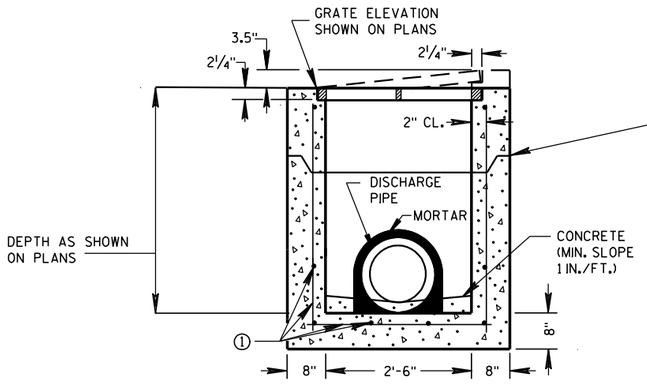


PLAN VIEW

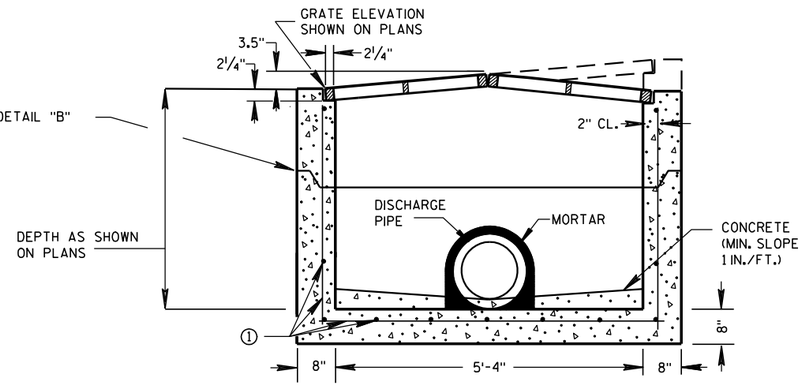


PLAN VIEW

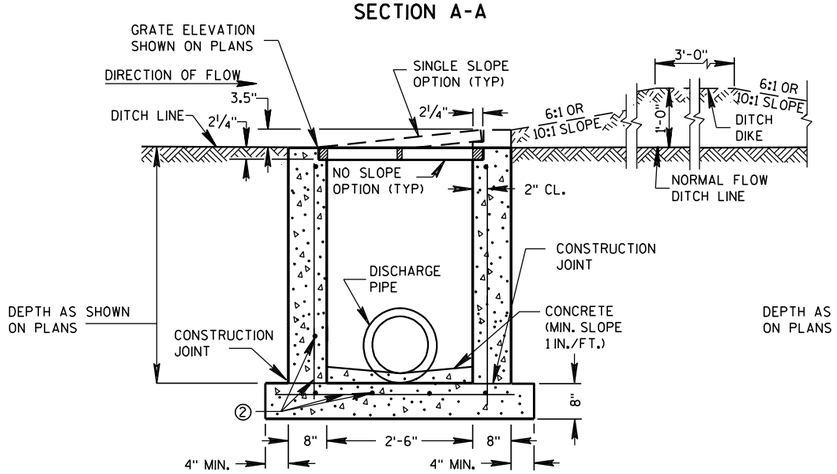
4" OVERHANGING BASE ON REINFORCED CAST-IN-PLACE CONCRETE INLETS



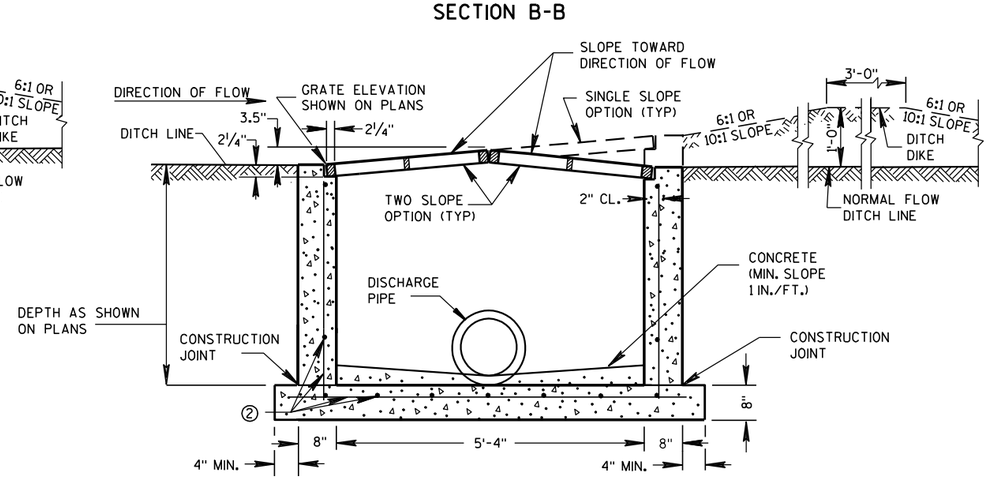
PRECAST REINFORCED CONCRETE SECTION A-A



PRECAST REINFORCED CONCRETE SECTION B-B



REINFORCED CAST-IN-PLACE CONCRETE SECTION A-A



REINFORCED CAST-IN-PLACE CONCRETE SECTION B-B

INLETS MEDIAN 1 GRATE

INLETS MEDIAN 2 GRATE

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

UNLESS OTHERWISE AUTHORIZED IN WRITING BY THE ENGINEER, THE CONTRACTOR SHALL NOT ORDER AND DELIVER PRECAST INLET UNITS REQUIRED FOR THE PROJECT UNTIL A LIST OF SIZES IS FURNISHED BY THE ENGINEER.

DETAILED DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR INLETS WHICH MAY INCLUDE PRECAST REINFORCED CONCRETE INLETS, SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

ALL MEDIAN INLETS ARE DESIGNATED ON THE PLANS AS "INLETS, 1G-MS", ETC. THE FIRST NUMBER AND LETTER DESIGNATE THE TYPE OF STRUCTURE, AND THE FOLLOWING LETTERS DESIGNATE THE TYPE OF COVER TO BE USED TO COMPRISE THE COMPLETE UNIT.

ALL BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2 INCHES CLEAR UNLESS OTHERWISE SHOWN OR NOTED.

PRECAST REINFORCED RISERS SHALL HAVE A TONGUE AND GROOVE JOINT WITH TONGUE UP OR DOWN.

ALL PRECAST INLET UNITS SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF ASTM C 913.

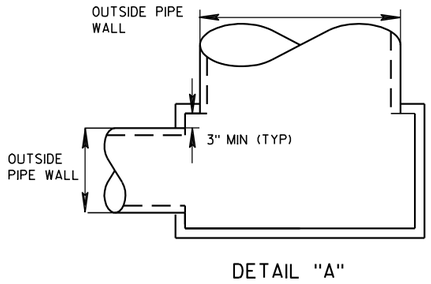
MAXIMUM INSIDE PIPE DIAMETER DETERMINED BY 3" CLEARANCE ON EACH SIDE OF THE OUTSIDE WALL OF THE PIPE. SEE DETAIL "A". ASSUMES PIPE ENTERS PERPENDICULAR TO THE STRUCTURE.

① FOR PRECAST INLETS PROVIDE REINFORCING STEEL IN ACCORDANCE TO ASTM C 913.

② CONTRACTOR TO PROVIDE DRAWING(S) STAMPED BY A PROFESSIONAL ENGINEER FOR STEEL REINFORCING DESIGN FOR CAST-IN-PLACE STRUCTURES.

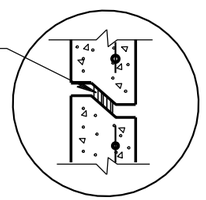
PIPE MATRIX

	MAXIMUM INSIDE PIPE DIAMETER	
INLET SIZE	WIDTH (IN)	LENGTH (IN)
1 GRATE	18	18
2 GRATE	18	42



DETAIL "A"

JOINTS TO BE SEALED WITH A BUTYL RUBBER SEAL PER SEALANT MANUFACTURERS RECOMMENDATIONS CONFORMING TO ASTM C 990 (TYP)



DETAIL "B"

INLETS MEDIAN 1 AND 2 GRATE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

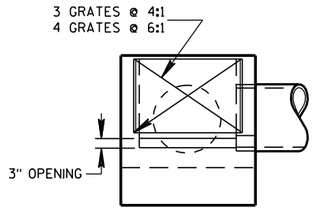
6/5/2012
DATE

/S/ Jerry H. Zogg
ROADWAY STANDARDS ENGINEER

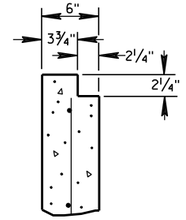
FHWA

S.D.D. 8 C 8-1

S.D.D. 8 C 8-1



SECTION B-B



SECTION C-C

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

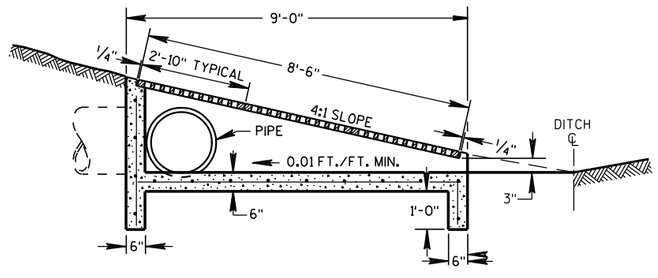
UNLESS OTHERWISE AUTHORIZED IN WRITING BY THE ENGINEER, THE CONTRACTOR SHALL NOT ORDER AND DELIVER PRECAST INLET UNITS REQUIRED FOR THE PROJECT UNTIL A LIST OF SIZES IS FURNISHED BY THE ENGINEER.

DETAILED DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR INLETS WHICH MAY INCLUDE PRECAST REINFORCED CONCRETE INLETS, SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

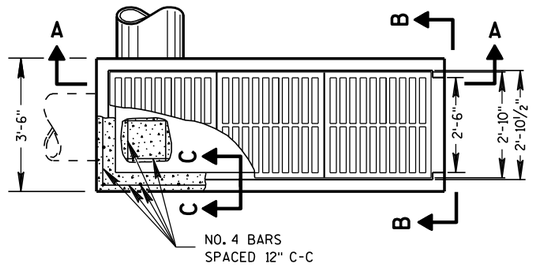
ALL MEDIAN INLETS ARE DESIGNATED ON THE PLANS AS "INLETS, 3G-MS", ETC. THE FIRST NUMBER AND LETTER DESIGNATE THE TYPE OF STRUCTURE, AND THE FOLLOWING LETTERS DESIGNATE THE TYPE OF COVER TO BE USED TO COMPRISE THE COMPLETE UNIT.

ALL BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2 INCHES CLEAR UNLESS OTHERWISE SHOWN OR NOTED.

ALL PRECAST INLET UNITS SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF ASTM C 913.

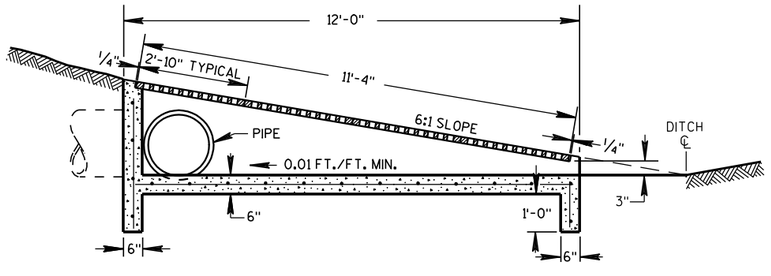


SECTION A-A

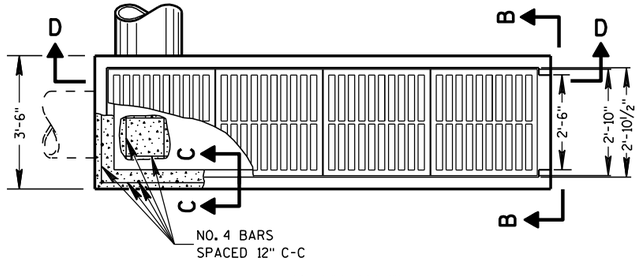


PLAN VIEW

INLETS MEDIAN 3 GRATE



SECTION D-D



PLAN VIEW

INLETS MEDIAN 4 GRATE

INLETS MEDIAN 3 AND 4 GRATE	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 6/5/2012 DATE FHWA	/S/ Jerry H. Zogg ROADWAY STANDARDS DEV ENGINEER

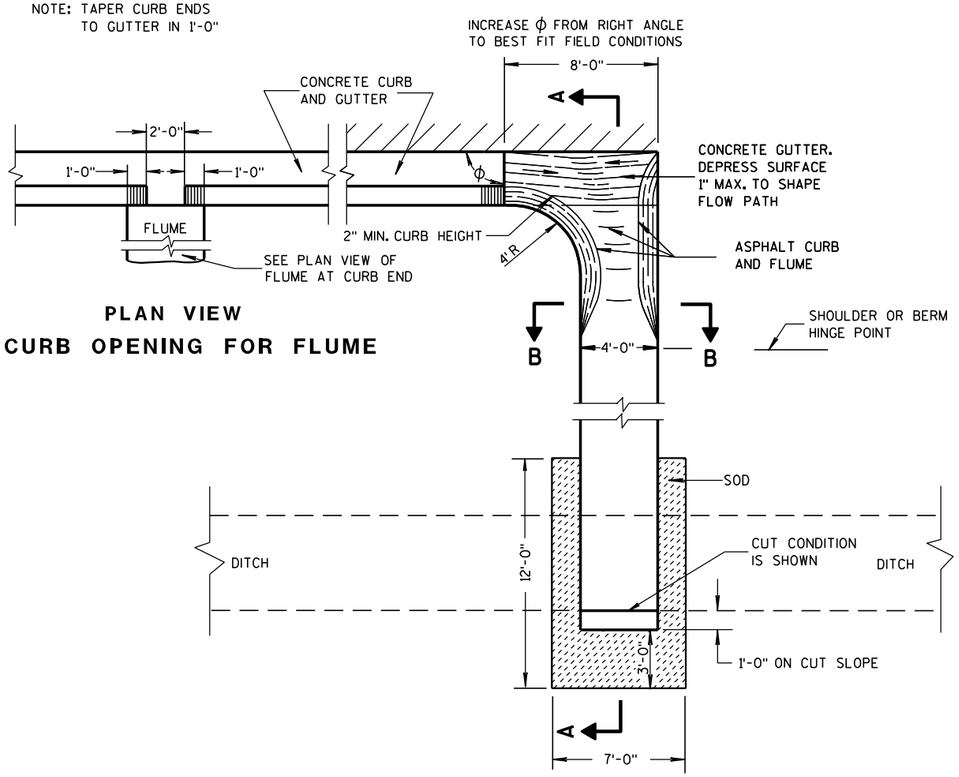
6

S.D.D. 8 C 9-1

6

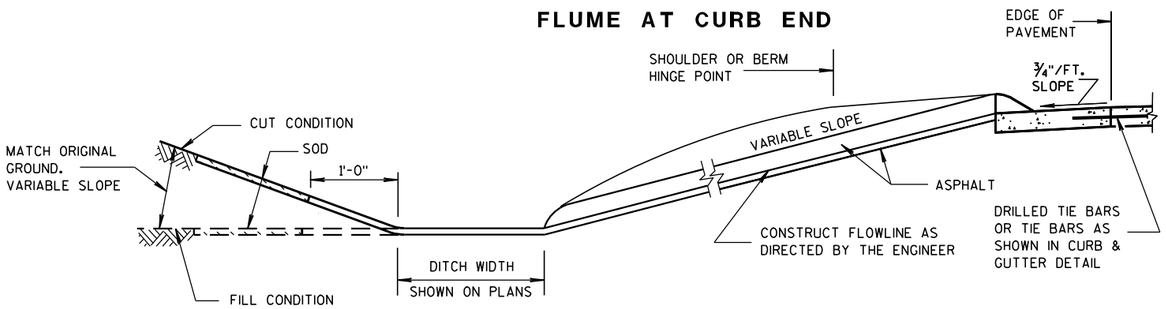
S.D.D. 8 C 9-1

ASPHALTIC FLUME

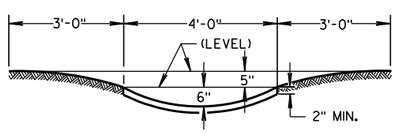


PLAN VIEW
CURB OPENING FOR FLUME

PLAN VIEW
FLUME AT CURB END



SECTION A-A



SECTION B-B

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

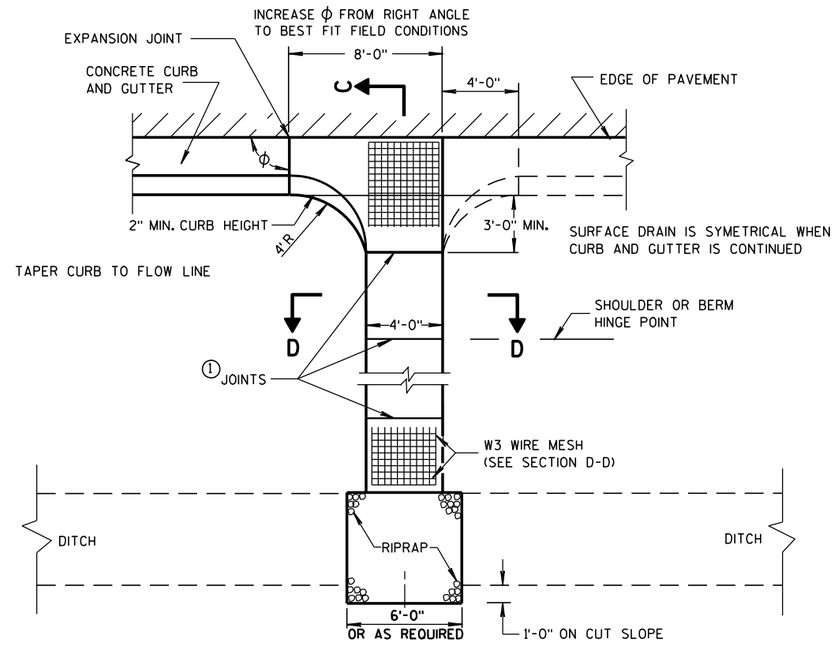
WELDED STEEL WIRE FABRIC SHALL BE IN ACCORDANCE WITH AASHTO SPECIFICATION M55.

① JOINTS SHALL BE $\frac{1}{8}$ TO $\frac{1}{4}$ INCH WIDE BY $1\frac{1}{2}$ INCHES DEEP AND SPACED AT UNIFORM INTERVALS OF APPROXIMATELY 4 FEET.

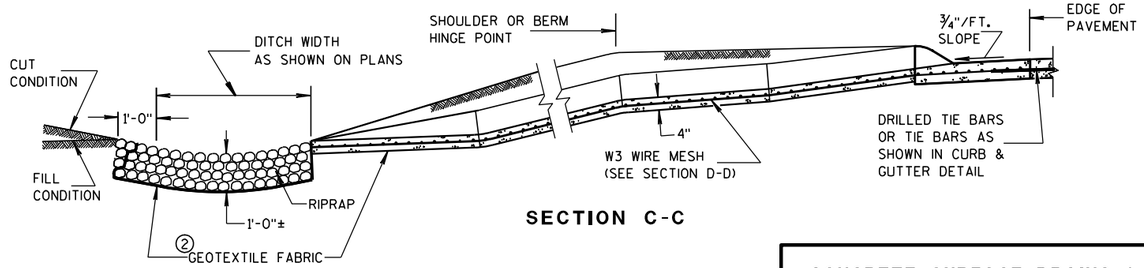
② GEOTEXTILE FABRIC TYPE "R" SHALL UNDERLAY THE FULL LENGTH AND WIDTH OF THE CONCRETE SURFACE DRAIN AND RIPRAP.

③ CONCRETE SURFACE DRAIN WITHOUT CURB AND GUTTER MAY BE USED ON BACKSLOPES WHEN SPECIFIED

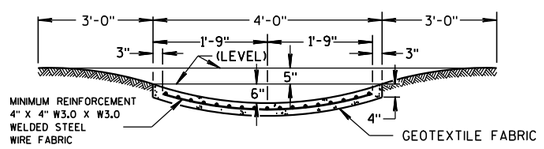
③ CONCRETE SURFACE DRAIN



PLAN VIEW



SECTION C-C



SECTION D-D

CONCRETE SURFACE DRAINS & ASPHALTIC FLUMES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
9-4-08 DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS ENGINEER
MENT

FHWA

6

S.D.D. 8 D 4-5

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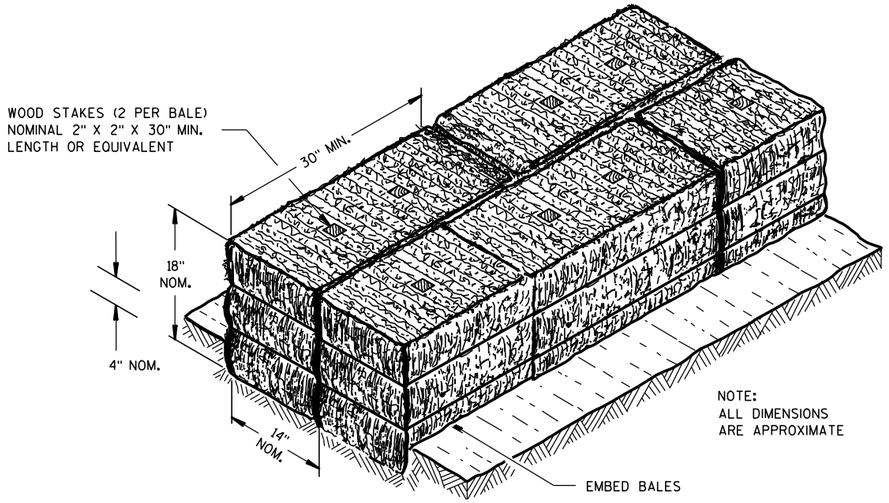
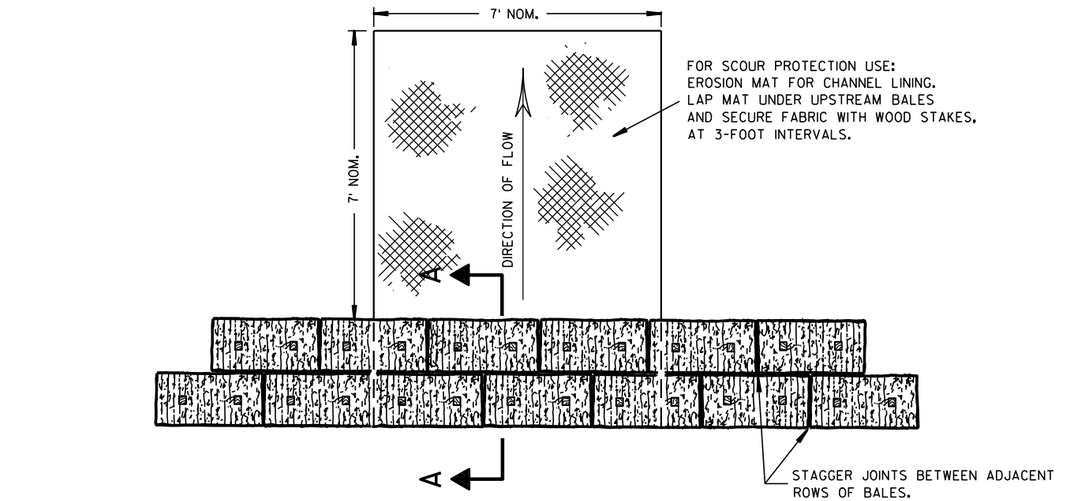
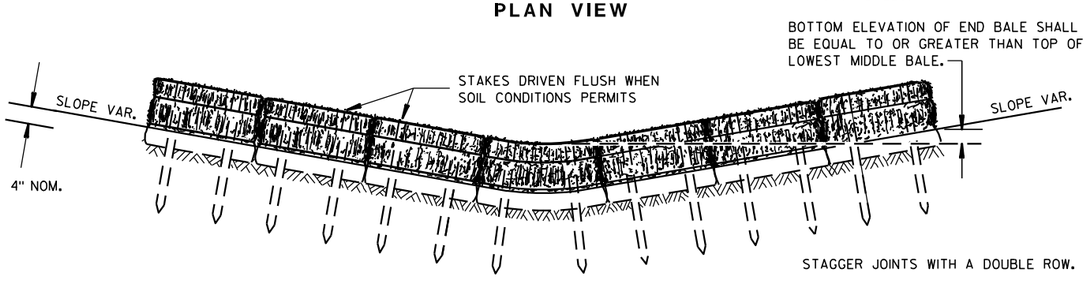
S.D.D. 8 D 4-5



SECTION A-A



PLAN VIEW



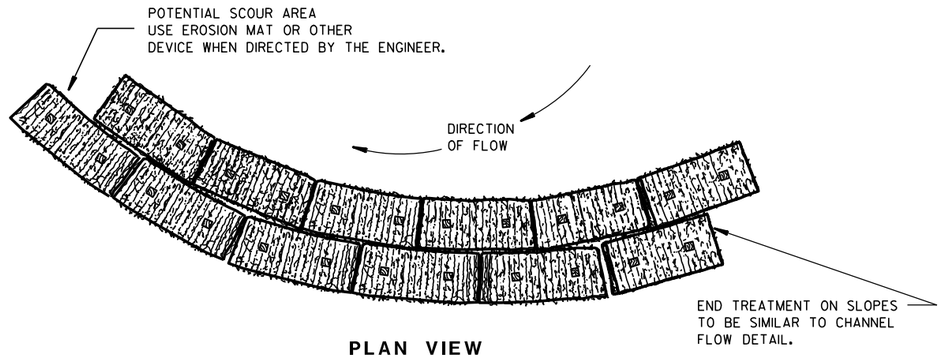
FRONT ELEVATION

TEMPORARY DITCH CHECK USING EROSION BALES (1)

GENERAL NOTES

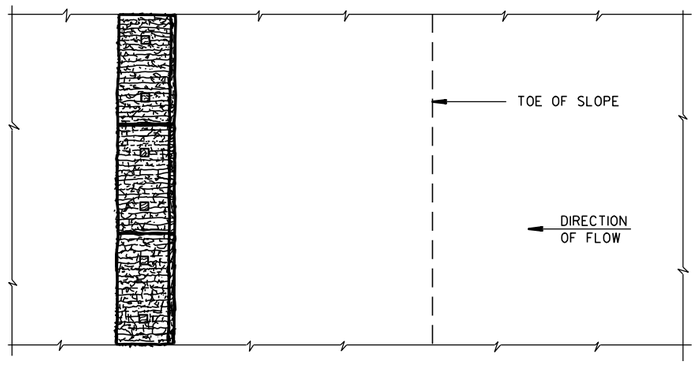
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

(1) TEMPORARY DITCH CHECKS EITHER EROSION BALES OR MANUFACTURED SHALL BE PAID FOR UNDER THE BID ITEM OF TEMPORARY DITCH CHECK. THE DEPARTMENT WILL NOT PAY FOR TEMPORARY DITCH CHECKS CONSTRUCTED OF A SINGLE ROW OF EROSION BALES.

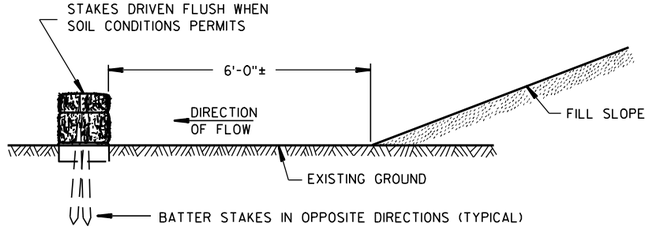


PLAN VIEW

WHEN ALTERING THE DIRECTION OF FLOW



PLAN VIEW



FRONT ELEVATION

WHEN EXISTING GROUND SLOPES AWAY FROM FILL SLOPE

EROSION BALES FOR SHEET FLOW

TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

6/04/02 — DATE

/S/ Beth Cannestra — CHIEF ROADWAY DEVELOPMENT ENGINEER

FHWA

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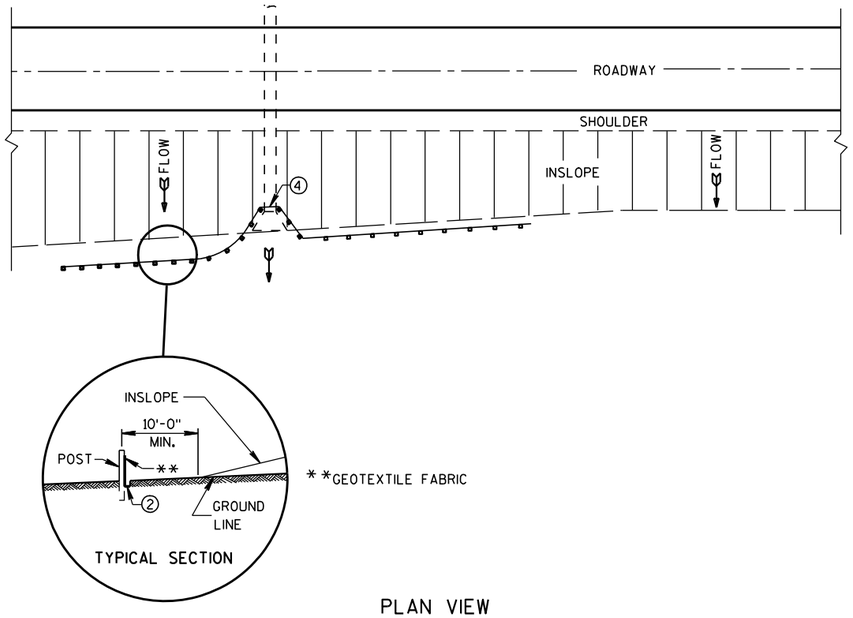
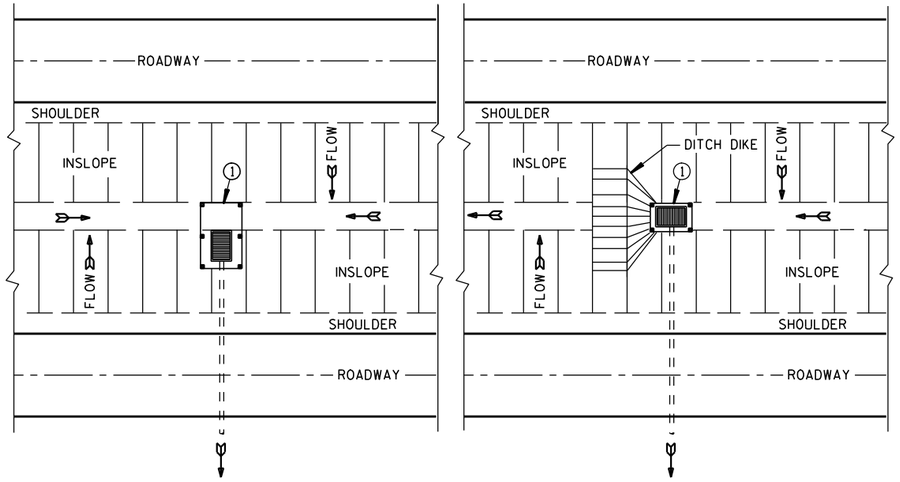
S.D.D. 8 E 8-3



PLAN VIEW

TYPICAL APPLICATION OF SILT FENCE



PLAN VIEW

SILT FENCE AT MEDIAN SURFACE DRAINS

GENERAL NOTES

DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

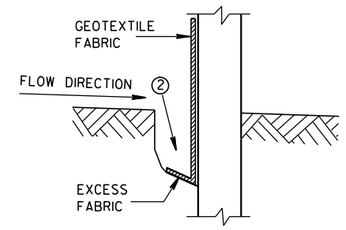
① HORIZONTAL BRACE REQUIRED WITH 2" X 4" WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS.

② FOR MANUAL INSTALLATIONS THE TRENCH SHALL BE A MINIMUM OF 4" WIDE & 6" DEEP TO BURY AND ANCHOR THE GEOTEXTILE FABRIC. FOLD MATERIAL TO FIT TRENCH AND BACKFILL & COMPACT TRENCH WITH EXCAVATED SOIL.

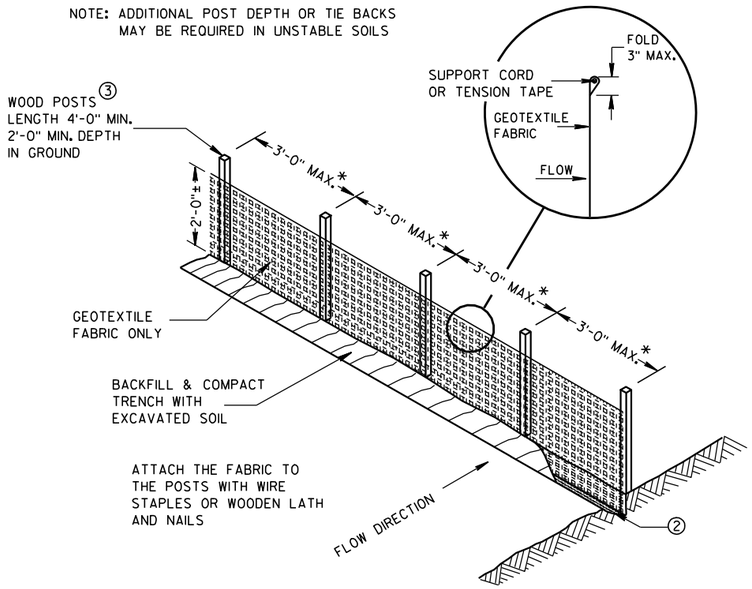
③ WOOD POSTS SHALL BE A MINIMUM SIZE OF 1⅛" X 1⅛" OF OAK OR HICKORY.

④ SILT FENCE TO EXTEND ACROSS THE TOP OF THE PIPE.

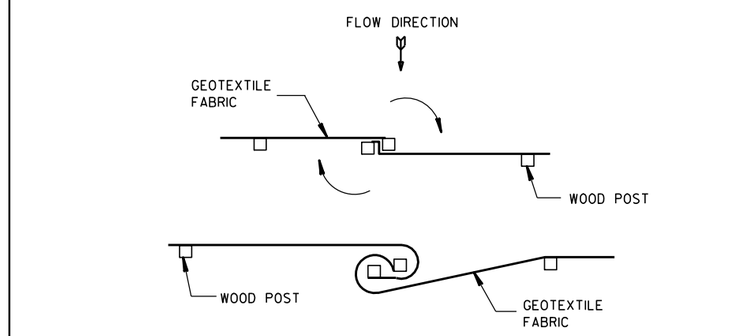
⑤ CONSTRUCT SILT FENCE FROM A CONTINUOUS ROLL IF POSSIBLE BY CUTTING LENGTHS TO AVOID JOINTS. IF A JOINT IS NECESSARY USE ONE OF THE FOLLOWING TWO METHODS; A) OVERLAP THE END POSTS AND TWIST, OR ROTATE, AT LEAST 180 DEGREES, B) HOOK THE END OF EACH SILT FENCE LENGTH.



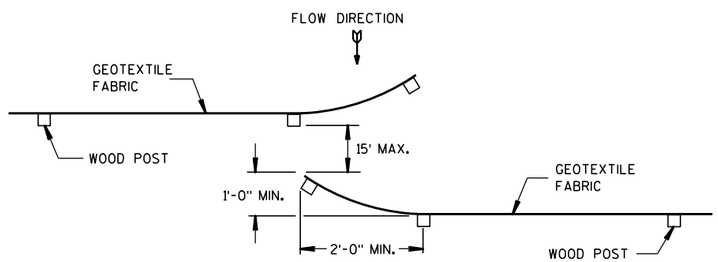
TRENCH DETAIL



SILT FENCE

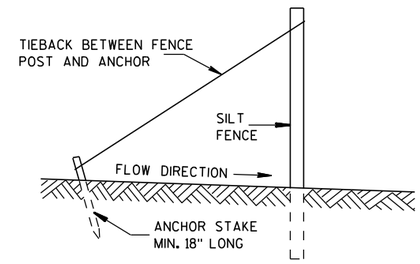


TWIST METHOD



HOOK METHOD

JOINING TWO LENGTHS OF SILT FENCE ⑤



SILT FENCE TIE BACK

(WHEN REQUIRED BY THE ENGINEER)

SILT FENCE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
4-29-05 DATE
/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

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S.D.D. 8 E 9-6

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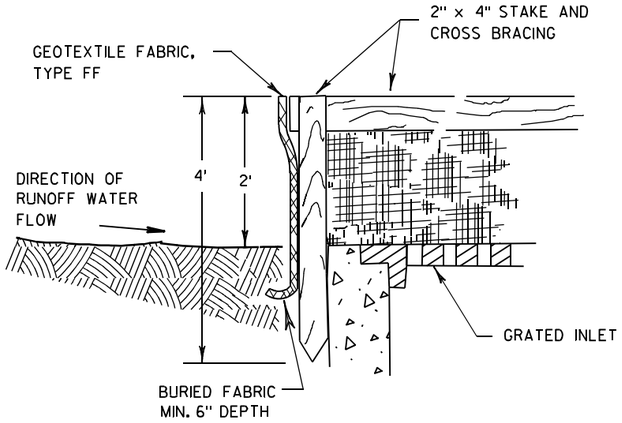
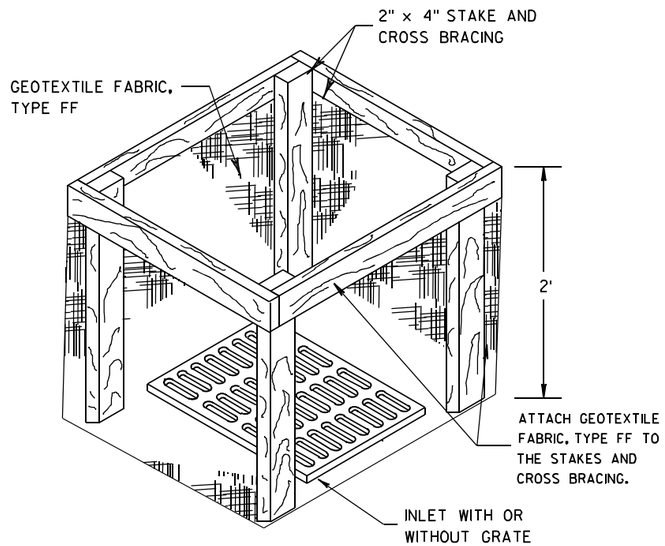
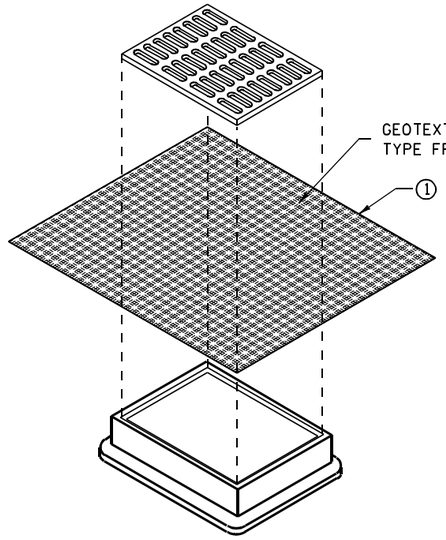
S.D.D. 8 E 9-6



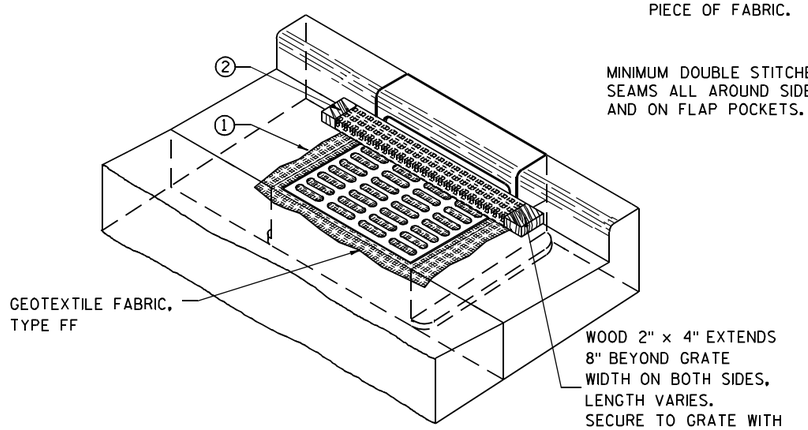


INLET PROTECTION, TYPE A

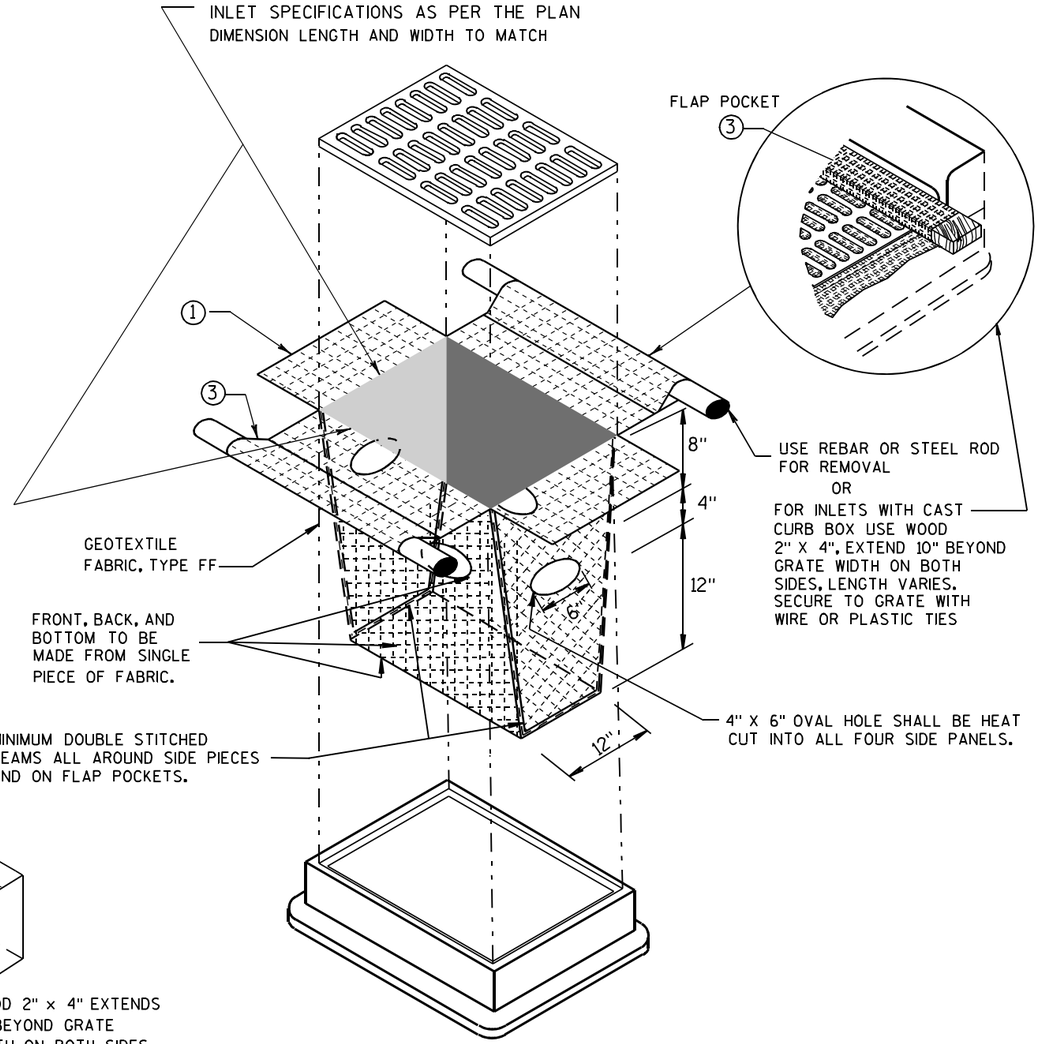


INLET PROTECTION, TYPE B
(WITHOUT CURB BOX)

(CAN BE INSTALLED IN ANY INLET WITHOUT A CURB BOX)



INLET PROTECTION, TYPE C (WITH CURB BOX)



INLET PROTECTION, TYPE D

(CAN BE INSTALLED IN ANY INLET TYPE WITH
OR WITHOUT A CURB BOX AS PER NOTE ②)

GENERAL NOTES

INLET PROTECTION DEVICES SHALL BE MAINTAINED OR REPLACED AT THE DIRECTION OF THE ENGINEER.

MANUFACTURED ALTERNATIVES APPROVED AND LISTED ON THE DEPARTMENT'S EROSION CONTROL PRODUCT ACCEPTABILITY LIST MAY BE SUBSTITUTED.

WHEN REMOVING OR MAINTAINING INLET PROTECTION, CARE SHALL BE TAKEN SO THAT THE SEDIMENT TRAPPED ON THE GEOTEXTILE FABRIC DOES NOT FALL INTO THE INLET. ANY MATERIAL FALLING INTO THE INLET SHALL BE REMOVED IMMEDIATELY.

① FINISHED SIZE, INCLUDING FLAP POCKETS WHERE REQUIRED, SHALL EXTEND A MINIMUM OF 10" AROUND THE PERIMETER TO FACILITATE MAINTENANCE OR REMOVAL.

② FOR INLET PROTECTION, TYPE C (WITH CURB BOX), AN ADDITIONAL 18" OF FABRIC IS WRAPPED AROUND THE WOOD AND SECURED WITH STAPLES. THE WOOD SHALL NOT BLOCK THE ENTIRE HEIGHT OF THE CURB BOX OPENING.

③ FLAP POCKETS SHALL BE LARGE ENOUGH TO ACCEPT WOOD 2X4.

INSTALLATION NOTES

TYPE B & C

TRIM EXCESS FABRIC IN THE FLOW LINE TO WITHIN 3" OF THE GRATE.

THE CONTRACTOR SHALL DEMONSTRATE A METHOD OF MAINTENANCE, USING A SEWN FLAP, HAND HOLDS OR OTHER METHOD TO PREVENT ACCUMULATED SEDIMENT FROM ENTERING THE INLET.

TYPE D

DO NOT INSTALL INLET PROTECTION TYPE D IN INLETS SHALLOWER THAN 30", MEASURED FROM THE BOTTOM OF THE INLET TO THE TOP OF THE GRATE.

TRIM EXCESS FABRIC IN THE FLOW LINE TO WITHIN 3" OF THE GRATE.

THE INSTALLED BAG SHALL HAVE A MINIMUM SIDE CLEARANCE, BETWEEN THE INLET WALLS AND THE BAG, MEASURED AT THE BOTTOM OF THE OVERFLOW HOLES, OF 3". WHERE NECESSARY THE CONTRACTOR SHALL CINCH THE BAG, USING PLASTIC ZIP TIES, TO ACHIEVE THE 3" CLEARANCE. THE TIES SHALL BE PLACED AT A MAXIMUM OF 4" FROM THE BOTTOM OF THE BAG.

INLET PROTECTION
TYPE A, B, C, AND D

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
10/16/02
DATE
/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

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S.D.D. 8 E 10-2

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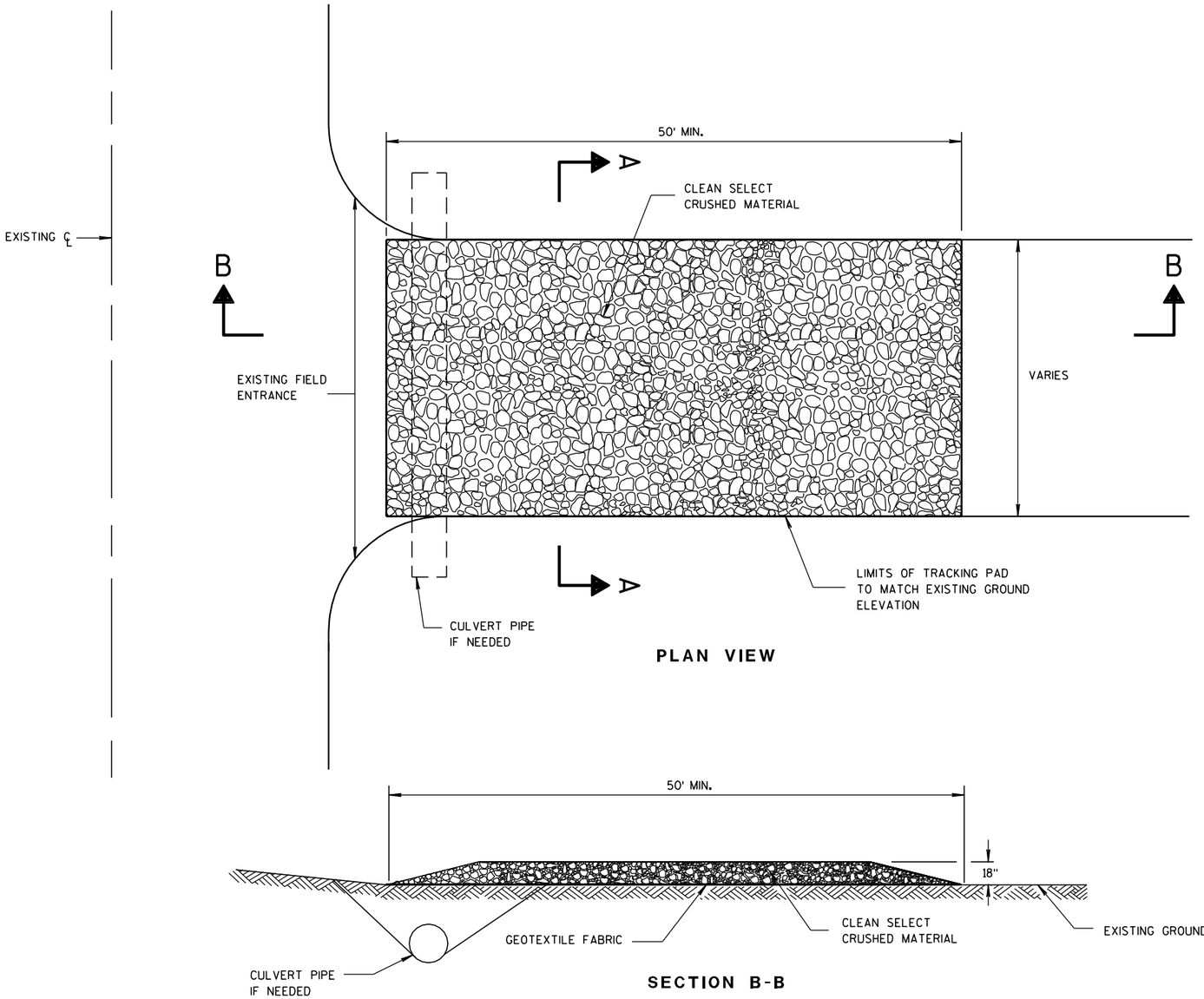
S.D.D. 8 E 10-2



PLAN VIEW

SECTION B-B

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

TRACKING PAD SHALL BE INSPECTED DAILY. DEFICIENT AREAS SHALL BE REPAIRED OR REPLACED IMMEDIATELY.

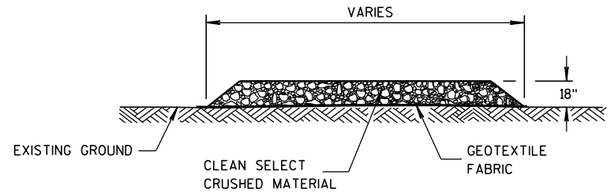
TRACKING PAD TO BE REMOVED AFTER CONSTRUCTION IS COMPLETED.

TRACKING PAD SHALL BE THE FULL WIDTH OF THE EGRESS POINT.

SURFACE WATER MUST BE PREVENTED FROM PASSING THROUGH THE TRACKING PAD. FLOWS SHALL BE DIVERTED AWAY, AROUND OR CONVEYED UNDER THE TRACKING PAD.

CULVERT PIPE OR OTHER BMP USED TO DIVERT WATER AWAY, AROUND OR UNDER THE TRACKING PAD SHALL BE DESIGNED TO CONVEY THE 2 YEAR - 24 HOUR EVENT.

THE COST OF ADDITIONAL BMP TO DIVERT WATER ARE INCIDENTAL TO THE TRACKING PAD BID ITEM.



SECTION A-A

TRACKING PAD

TRACKING PAD	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 3/24/2011 DATE	/S/ Jerry H. Zoda ROADWAY STANDARDS ENGINEER
FHWA	98 ENT

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S.D.D. 8 E 14-1

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S.D.D. 8 E 14-1

METAL APRON ENDWALLS

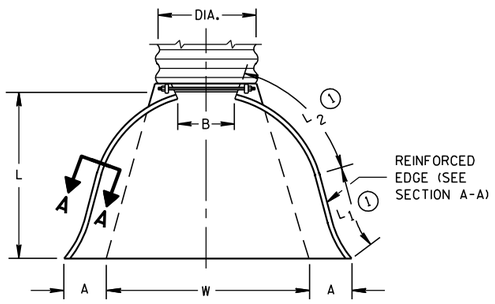
PIPE DIA. (IN.)	MIN. THICK. (Inches) STEEL	MIN. THICK. (Inches) ALUM.	DIMENSIONS (Inches) A (±1")	B (MAX.)	H (±1")	L (±1 1/2")	L1 ①	L2 ①	W (±2")	APPROX. SLOPE	BODY
12	.064	.060	6	6	6	21	12	17 1/2	24	2 1/2 to 1	1 Pc.
15	.064	.060	7	8	6	26	14	21 3/4	30	2 1/2 to 1	1 Pc.
18	.064	.060	8	10	6	31	15	28 1/4	36	2 1/2 to 1	1 Pc.
21	.064	.060	9	12	6	36	18	29 5/8	42	2 1/2 to 1	1 Pc.
24	.064	.075	10	13	6	41	18	37 1/4	48	2 1/2 to 1	1 Pc.
30	.079	.075	12	16	8	51	18	52 1/4	60	2 1/2 to 1	1 Pc.
36	.079	.105	14	19	9	60	24	59 3/4	72	2 1/2 to 1	2 Pc.
42	.109	.105	16	22	11	69	24	75 5/8	84	2 1/2 to 1	2 Pc.
48	.109	.105	18	27	12	78	24	81	90	2 1/4 to 1	3 Pc.
54	.109	.105	18	30	12	84	30	85 1/2	102	2 1/4 to 1	3 Pc.
60	.109×	.105×	18	33	12	87	—	—	114	2 to 1	3 Pc.
66	.109×	.105×	18	36	12	87	—	—	120	2 to 1	3 Pc.
72	.109×	.105×	18	39	12	87	—	—	126	2 to 1	3 Pc.
78	.109×	.105×	18	42	12	87	—	—	132	1 1/2 to 1	3 Pc.
84	.109×	.105×	18	45	12	87	—	—	138	1 1/2 to 1	3 Pc.
90	.109×	.105×	18	37	12	87	—	—	144	1 1/2 to 1	3 Pc.
96	.109×	.105×	18	35	12	87	—	—	150	1 1/2 to 1	3 Pc.

× EXCEPT CENTER PANEL SEE GENERAL NOTES

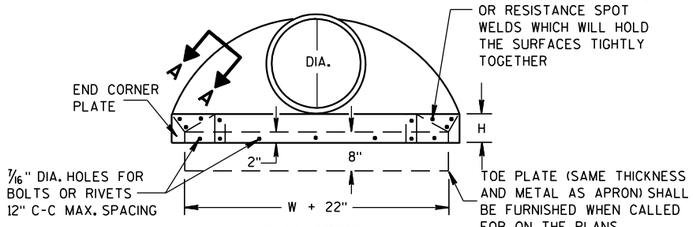
REINFORCED CONCRETE APRON ENDWALLS

PIPE DIA. (IN.)	DIMENSIONS (Inches) T	A	B	C	D	E	G	APPROX. SLOPE
12	2	4	24	48 7/8	72 1/8	24	2	3 to 1
15	2 1/4	6	27	46	73	30	2 1/4	3 to 1
18	2 1/2	9	27	46	73	36	2 1/2	3 to 1
21	2 3/4	9	36	37 1/2	73 1/2	42	2 3/4	3 to 1
24	3	9 1/2	43 1/2	30	73 1/2	48	3	3 to 1
27	3 1/4	10 1/2	49 1/2	24	73 1/2	54	3 1/4	3 to 1
30	3 1/2	12	54	19 3/4	73 1/2	60	3 1/2	3 to 1
36	4	15	63	34 3/4	97 3/4	72	4	3 to 1
42	4 1/2	21	63	35	98	78	4 1/2	3 to 1
48	5	24	72	26	98	84	5	3 to 1
54	5 1/2	27	65	* 33 1/4 - ** 35	* 98 1/4 - ** 100	90	5 1/2	2 2/5 to 1
60	6	* 30 - ** 35	60	39	99	96	5	2 to 1
66	6 1/2	* 24 - ** 30	* 72 - ** 78	* 21 - ** 27	99	102	5 1/2	2 to 1
72	7	* 24 - ** 36	78	21	99	108	6	2 to 1
78	7 1/2	* 24 - ** 36	78	21	99	114	6 1/2	2 to 1
84	8	36	90 1/2	21	111 1/2	120	6 1/2	1 1/2 to 1
90	8 1/2	41	87 1/2	24	111 1/2	132	6 1/2	1 1/2 to 1

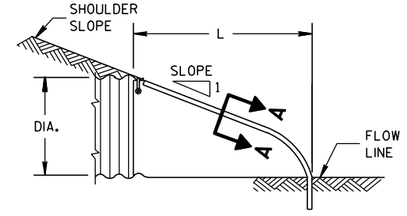
*MINIMUM
**MAXIMUM



PLAN VIEW

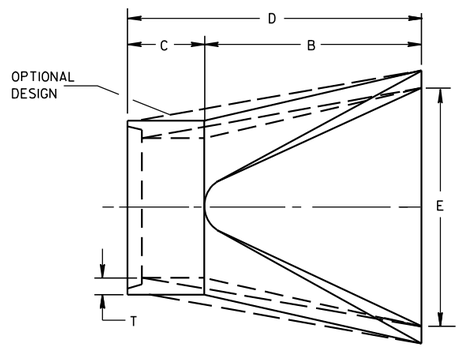


END VIEW

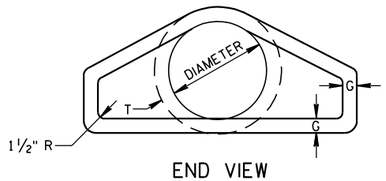


SIDE ELEVATION

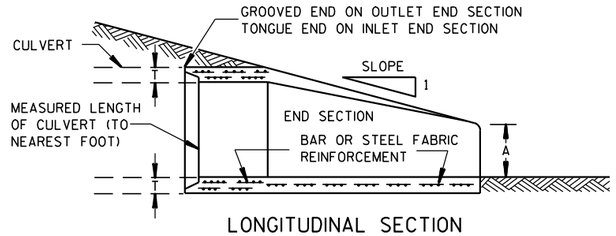
METAL ENDWALLS



PLAN

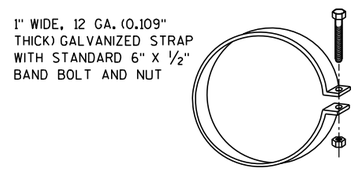


END VIEW



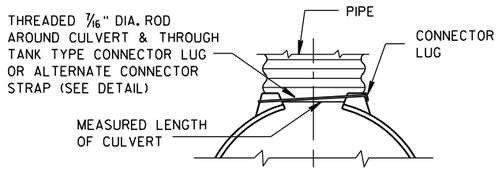
LONGITUDINAL SECTION

CONCRETE ENDWALLS

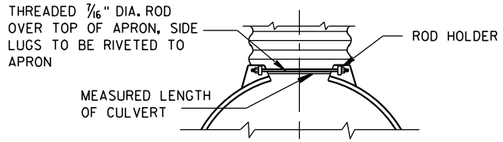


ALTERNATE FOR TYPE 1 CONNECTION

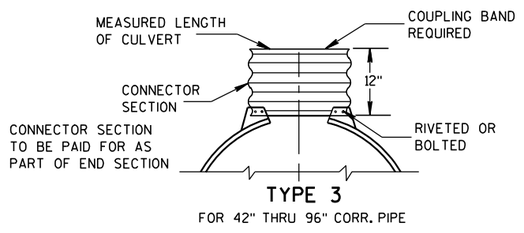
END SECTION CONNECTOR STRAP



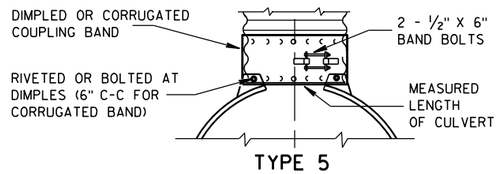
TYPE 1
FOR 12" THRU 24" CORR. PIPE



TYPE 2
FOR 30" THRU 96" CORR. PIPE



TYPE 3
FOR 42" THRU 96" CORR. PIPE



TYPE 5
ALTERNATE FOR:
ALL SIZES CORRUGATED CIRCULAR PIPE

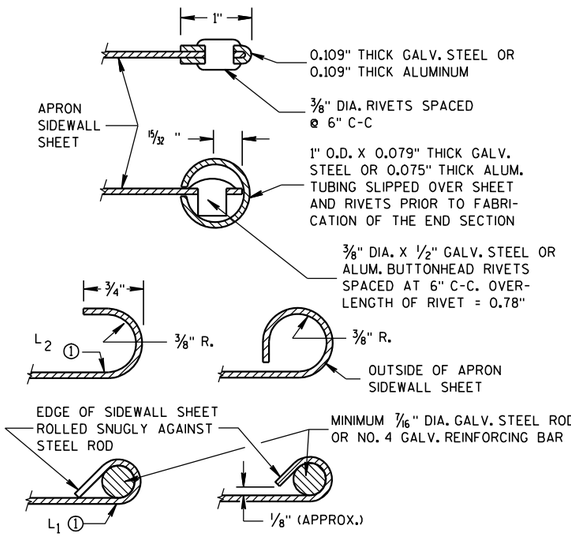
NOTE: DIMPLED BAND FITS OVER OUTSIDE OF ENDWALL. AND CORRUGATED BAND FITS INSIDE ENDWALL. DIMPLED BAND MAY BE USED WITH HELICALLY CORRUGATED PIPE.

FOR CIRCUMFERENTIALLY CORRUGATED PIPE USE ENDWALL CONNECTION DETAILS 1, 2, 3 OR 5 AS APPLICABLE.

FOR HELICALLY CORRUGATED PIPE USE ENDWALL CONNECTION DETAILS 1, 2 OR 5.

FOR HELICALLY CORRUGATED PIPES WITH TWO CIRCUMFERENTIAL CORRUGATIONS AT EACH END USE ENDWALL CONNECTION DETAILS 1, 2 OR 3.

CONNECTION DETAILS



SECTION A-A

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

CONCRETE CULVERT ENDWALLS MAY NOT BE USED WITH GALVANIZED STEEL OR ALUMINUM CULVERT PIPE OR VISE VERSA. GALVANIZED STEEL OR ALUMINUM ENDWALLS SHALL NORMALLY BE INSTALLED ON CULVERT PIPE OF THE SAME METAL.

ALL THREE PIECE STEEL APRON ENDWALLS FOR 60" DIAMETER PIPE AND LARGER SHALL HAVE 0.109" SIDES AND 0.138" CENTER PANELS. ALL THREE PIECE ALUMINUM APRON ENDWALLS FOR 60" DIAMETER PIPE AND LARGER SHALL HAVE 0.105" SIDES AND 0.134" CENTER PANELS. THE WIDTH OF CENTER PANELS SHALL BE GREATER THAN 20 PERCENT OF THE PIPE PERIMETER.

LAP SEAMS SHALL BE TIGHTLY JOINED BY GALVANIZED RIVETS OR BOLTS FOR STEEL UNITS AND ALUMINUM RIVETS AND BOLTS FOR ALUMINUM UNITS. FOR THE 60" THROUGH 96" DIAMETER APRON ENDWALL SIZES, THE REINFORCED EDGES AND CENTER PANEL SEAMS SHALL BE FURTHER REINFORCED WITH GALVANIZED STEEL OR ALUMINUM STIFFENER ANGLES. THE ANGLES SHALL BE ATTACHED BY GALVANIZED NUTS AND BOLTS FOR STEEL UNITS AND ALUMINUM NUTS AND BOLTS FOR ALUMINUM UNITS.

WHERE TWO OR MORE PIPES WITH APRON ENDWALLS ARE LAID ADJACENT TO EACH OTHER, THEY SHALL BE SEPARATED BY A DISTANCE SUFFICIENT TO PROVIDE A MINIMUM CLEARANCE OF 6 INCHES BETWEEN APRON ENDWALLS.

① FOR PIPE SIZES UP TO 60" DIAMETER, A 180° ROLLED EDGE MAY BE USED INSTEAD OF STEEL ROD REINFORCEMENT. SEE SECTION A-A.

APRON ENDWALLS FOR CULVERT PIPE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
11/30/94 DATE
/S/ Rory L. Rhinesmith
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

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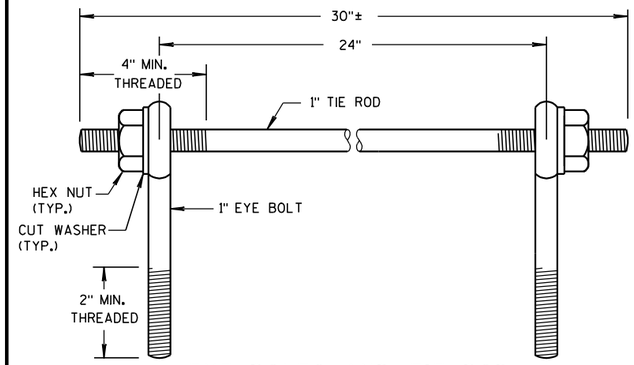
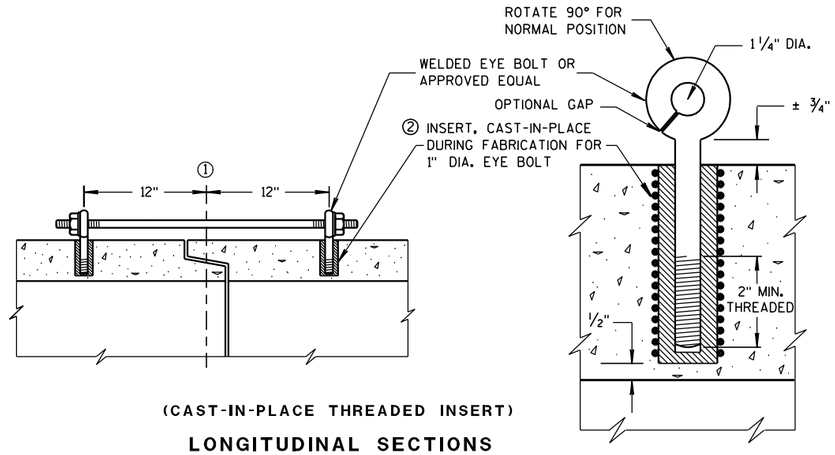
S.D.D. 8 F 1-11



EYE BOLTS AND TIE ROD



(CAST-IN-PLACE THREADED INSERT)

LONGITUDINAL SECTIONS

EYE BOLT AND TIE ROD ASSEMBLY (ALTERNATE NO. 1)

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS, AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

CONCRETE CULVERT AND STORM SEWER PIPE SHALL BE TIED TOGETHER IN THE MANNER ILLUSTRATED BY THIS DETAIL AT LOCATIONS DESIGNATED IN THE STANDARD SPECIFICATIONS AND THE PLAN. THE CONTRACTOR MAY USE EITHER ALTERNATE 1, 2 OR 3 FOR DRAINAGE STRUCTURES. ONLY ALTERNATE 1 AND 3 MAY BE USED FOR CATTLE PASSES, UNLESS OTHERWISE STATED IN THE CONTRACT. THE MATERIALS, FABRICATION AND WORK NECESSARY TO TIE THE PIPE BY THIS DETAIL WILL BE CONSIDERED INCIDENTAL TO THE PIPE AND APRON ENDWALLS IF REQUIRED.

DETAILED DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR JOINT TIES SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL.

JOINT TIES TO BE HOT-DIP GALVANIZED PER ASTM A 153.

① ℄ OF TONGUE AND GROOVE OR BELL AND SPIGOT JOINTS.

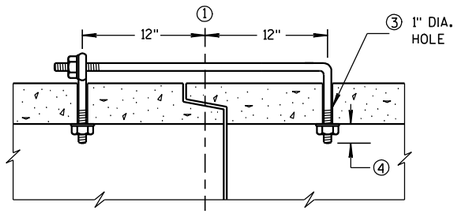
② THE INSIDE OF THE THREADED INSERTS SHALL BE CLEAN TO ALLOW THE INSERTION OF THREADED EYE BOLTS.

③ HOLES SHALL BE CAST-IN-PLACE OR DRILLED 12 INCHES FROM ℄ OF TONGUE AND GROOVE.

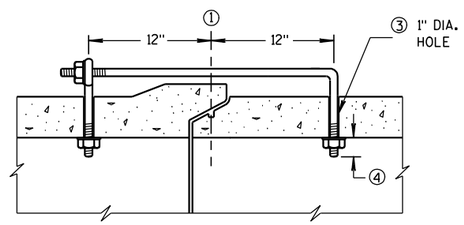
④ BOLT PROJECTION INSIDE OF PIPE SHALL NOT EXCEED 2 INCHES.

⑤ OPENING TO BE ROD DIAMETER PLUS 1 INCH.

⑥ LENGTH ADEQUATE TO EXTEND TO WITHIN 1/2 INCH OF THE INNER SURFACE OF THE PIPE.



(TONGUE & GROOVE PIPE)

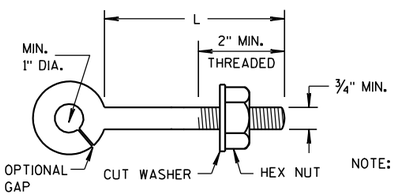


(MODIFIED BELL PIPE)

LONGITUDINAL SECTION

EYE BOLT DIMENSION TABLE

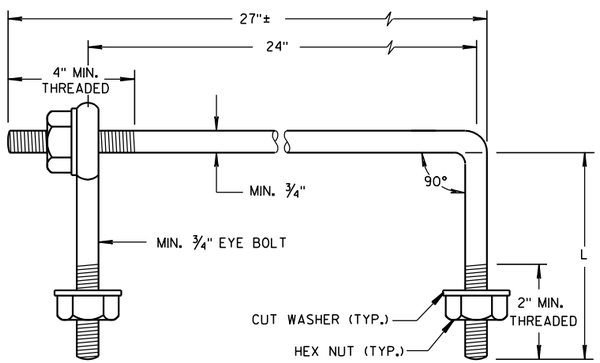
PIPE SIZE	L = LENGTH	
	TONGUE & GROOVE PIPE	MODIFIED BELL PIPE
18" TO 24"	4 1/2"	6 1/4"
30"	5"	7"
36"	5 1/2"	7"
42"	6"	
48"	6 1/2"	
60"	7 1/2"	
66"	8"	



NOTE:

EYE BOLT

NOTE: TWO EYE BOLTS MAY BE USED WITH A 30" LONG THREADED ROD IN LIEU OF THE 90° BENT TIE ROD.



EYE BOLT AND TIE ROD

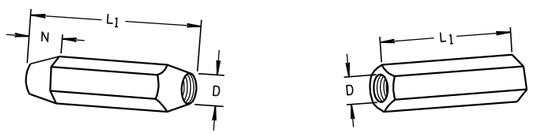
(JOINT TIES FOR 18" TO 66" DIA. CONCRETE PIPE)

EYE BOLT AND TIE ROD ASSEMBLY (ALTERNATE NO. 2)

ADJUSTABLE TIE ROD TABLE

PIPE DIAMETER	TIE ROD DIAMETER	D	L_1	N
12-60	5/8	5/8	5	1/2
66-84	3/4	3/4	5	1/2
90-108	1	1	7	1 1/16

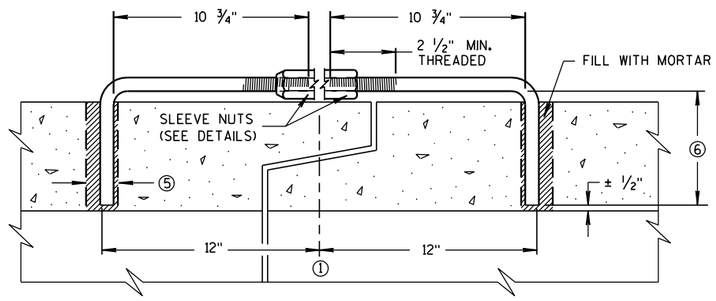
DIMENSIONS SHOWN ARE IN INCHES



TAPERED PLAIN

RIGHT AND LEFT THREADS

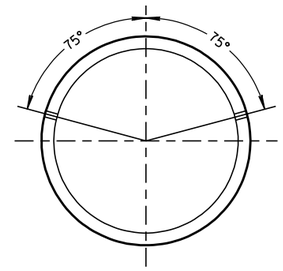
SLEEVE NUTS



LONGITUDINAL SECTION

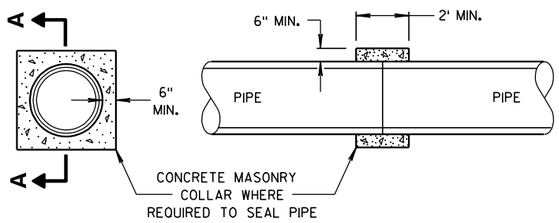
(JOINT TIES FOR 12" TO 108" DIA. CONCRETE PIPE)

ADJUSTABLE TIE ROD (ALTERNATE NO. 3)



PLACEMENT OF (2) CAST-IN-PLACE INSERTS OR HOLES DURING FABRICATION FOR PIPE SECTIONS REQUIRING TIE RODS

TRANSVERSE SECTION



SECTION A-A

CONCRETE COLLAR DETAIL

JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
6/5/2012 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS ENGINEER
100
FHWA

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S.D.D. 8 F 4-7

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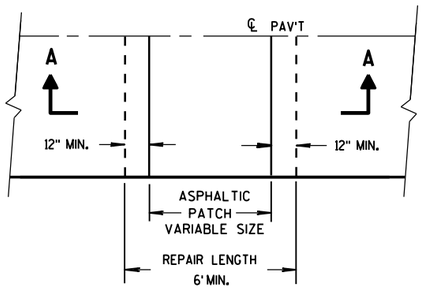
GENERAL NOTES

SAW CUT, DRILL, AND LIFT OUT EXISTING CONCRETE PAVEMENT WITHIN THE BOUNDARIES OF CONCRETE REPAIR AREAS. THE CONTRACTOR MAY MAKE ADDITIONAL SAW CUTS INSIDE THE REPAIR LIMITS TO REDUCE WEIGHT AND SIZE OF CONCRETE PIECES.

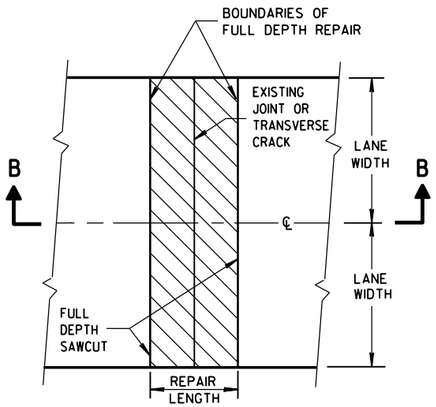
PROVIDE A 6-FOOT MINIMUM DISTANCE FROM BOUNDARIES OF CONCRETE REPAIR AREAS TO ADJACENT TRANSVERSE JOINT OR CRACK IN THE SAME LANE.

THE LENGTH OF THE REPAIRS MAY VARY FROM THE DIMENSIONS SHOWN IF THE EXISTING CONCRETE PAVEMENT IS NONDOWELED AND THE PAVEMENT IS TO BE OVERLAID AFTER REPAIRING.

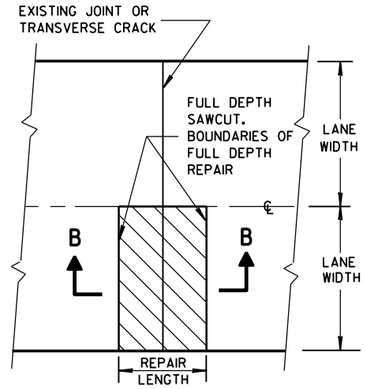
(1) DOWEL BARS MIGHT NOT EXIST.



PLAN VIEW

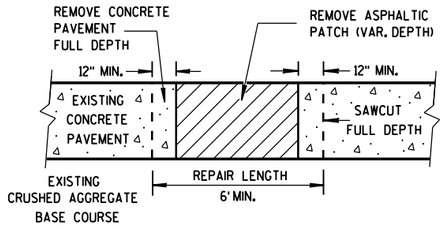


PLAN VIEW
(DOUBLE LANE REPAIR)



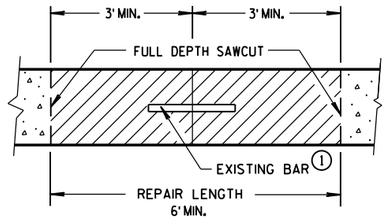
PLAN VIEW
(SINGLE LANE REPAIR)

FULL DEPTH CONCRETE PAVEMENT REMOVAL



SECTION A-A

HMA PATCH REMOVAL



SECTION B-B

CONCRETE REMOVAL

CONCRETE PAVEMENT REPAIR AND REPLACEMENT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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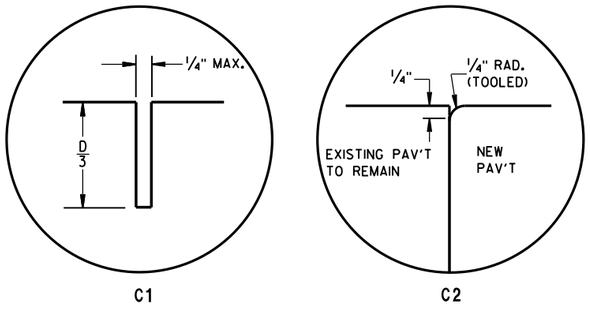


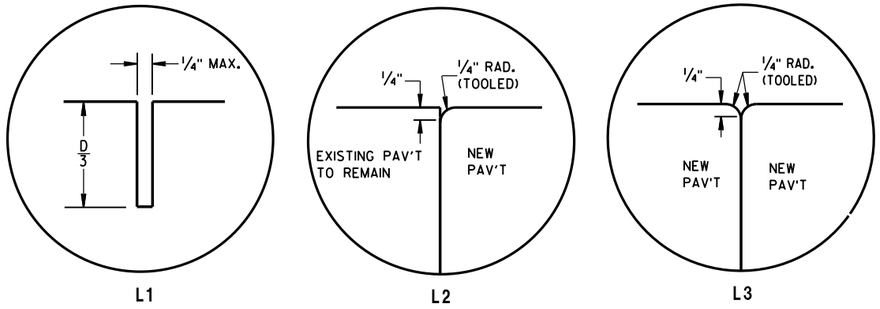
TRANSVERSE JOINTS

TIE BAR TABLE

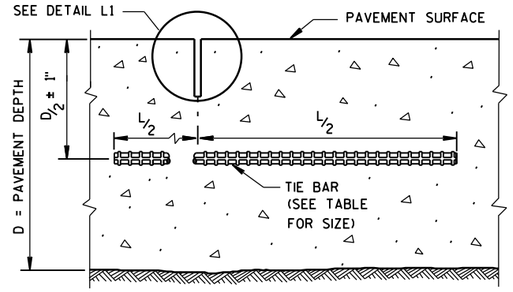
PAVEMENT DEPTH (D)	TIE BAR SIZE	TIE BAR LENGTH (L)	MAX. TIE BAR SPACING
< 10 ½"	NO. 4	30"	36"
≥ 10 ½"	NO. 5	36"	36"
	NO. 4 *	30"	24"**

* SUBSTITUTE BENT BARS AT LONGITUDINAL JOINTS WHEN EQUIPMENT LIMITATIONS DURING CONSTRUCTION WARRANT (e.g. AUXILIARY LANES OR TURN LANES)

** CONFORM TO 15" MINUMUM SPACING FROM TRANSVERSE JOINTS; SPACING BETWEEN TIE BARS WILL BE 30" AT TRANSVERSE JOINTS.



LONGITUDINAL JOINTS



SECTION C-C

SAWED LONGITUDINAL JOINT

GENERAL NOTES

INSTALL DOWEL BARS PARALLEL TO THE PAVEMENT CENTERLINE AND PAVEMENT SURFACE.

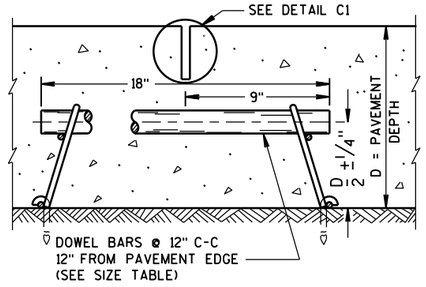
CONCRETE PAVEMENT REPAIRS OF EXISTING NONDOWELED CONCRETE PAVEMENTS DO NOT NEED TO BE DOWELED.

DO NOT SEAL OR FILL JOINTS.

ANCHOR DOWEL BARS AND TIE BARS INTO DRILLED HOLES WITH AN EPOXY.

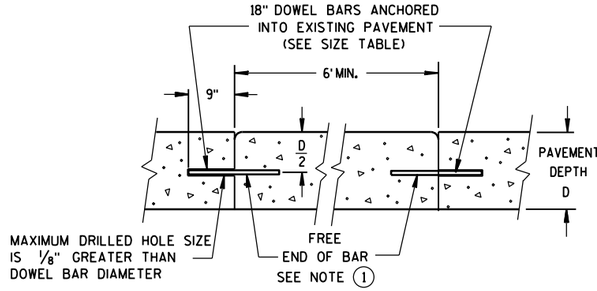
FOR MULTI-LANE CONCRETE PAVEMENT REPLACEMENTS, PROVIDE A MINIMUM DISTANCE OF 15 INCHES FROM ALL TRANSVERSE JOINTS OR EDGES OF REPLACEMENT TO THE CENTER OF THE TIE BAR NEAREST THAT JOINT OR EDGE.

(1) APPLY A THIN UNIFORM COATING OF SURFACE TREATMENT TO THE FREE END OF DOWEL BARS TO PREVENT BONDING.

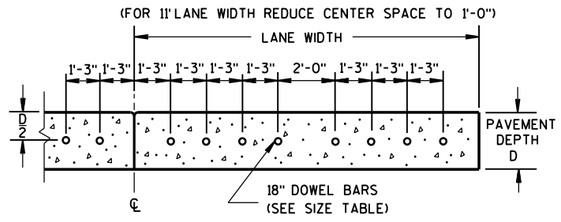


SECTION F-F

CONTRACTION JOINT



SECTION D-D

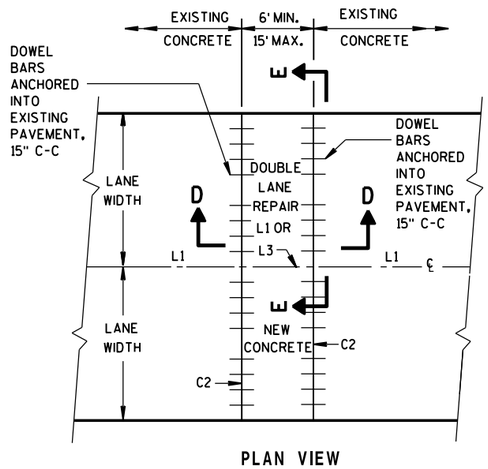


SECTION E-E

DRILLED DOWEL BAR CONSTRUCTION JOINT

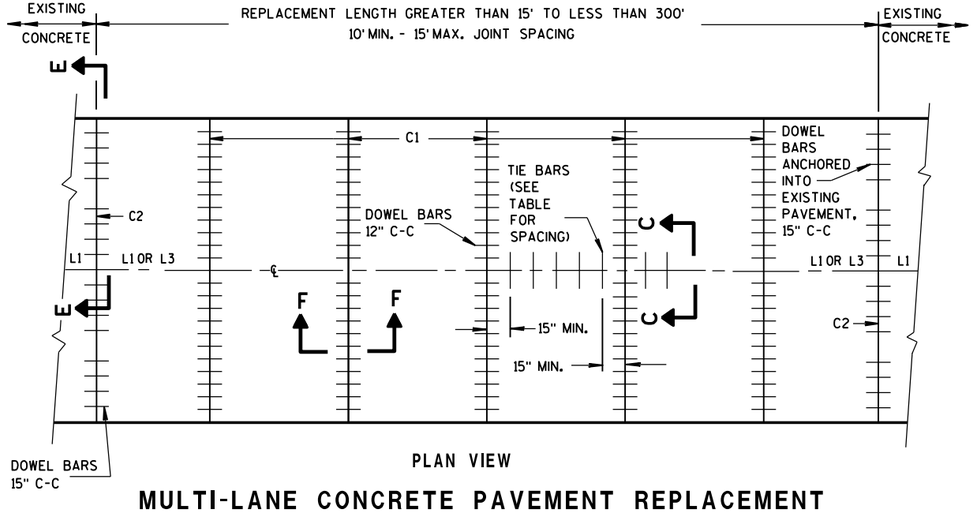
PAVEMENT DEPTH, DOWEL BAR SIZE AND JOINT SPACING TABLE

PAVEMENT DEPTH (D)	DOWEL BAR DIAMETER	CONTRACTION JOINT SPACING
5 ½", 6",6 ½"	NONE	12'
7",7 ½"	1"	14'
8",8 ½"	1 ¼"	15'
9",9 ½"	1 ¼"	15'
10" & ABOVE	1 ½"	15'



PLAN VIEW

MULTI-LANE CONCRETE PAVEMENT REPAIR



PLAN VIEW

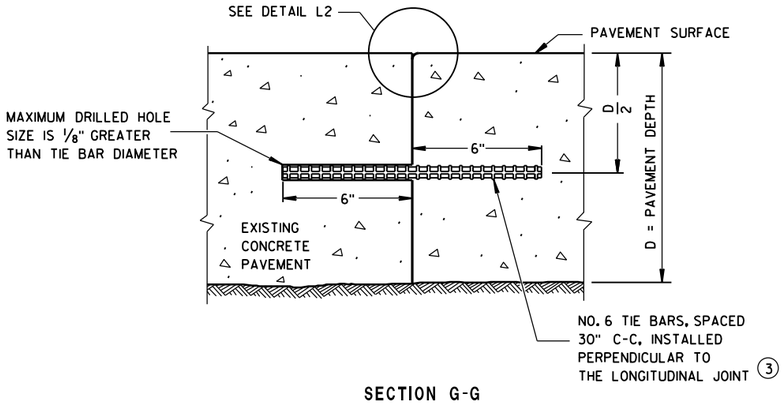
MULTI-LANE CONCRETE PAVEMENT REPLACEMENT

CONCRETE PAVEMENT REPAIR AND REPLACEMENT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

S.D.D. 13 C 9-13b



SECTION G-G

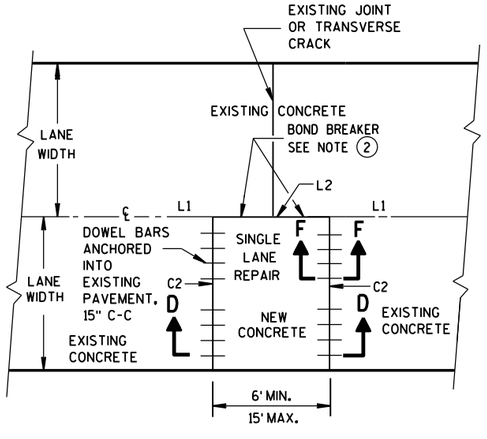
TIE BARS ANCHORED INTO EXISTING PAVEMENT

GENERAL NOTES

(1) WITH THE APPROVAL OF THE ENGINEER, FOR SINGLE LANE PAVEMENT REPLACEMENTS LESS THAN 30 FEET IN LENGTH, THE CONTRACTOR MAY INSTALL DRILLED TIE BARS ON 6:1 SKEW HORIZONTALLY, DIRECTION OF SKEW ALTERNATING WITH EACH SUCCESSIVE BAR. DRIVE SKEWED TIE BARS TO A DEPTH OF 6 INCHES IN A HOLE OF SUCH A DIAMETER AS TO PROVIDE A TIGHT DRIVEN FIT.

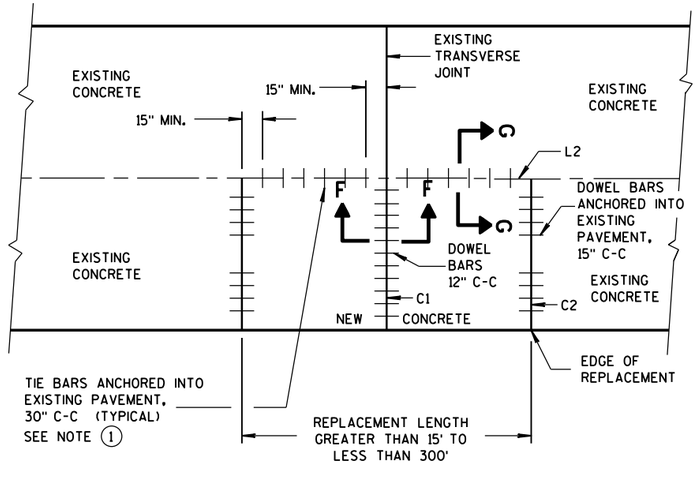
(2) USE AN ENGINEER-APPROVED BOND BREAKER (E.G. RELEASE AGENT, CURING COMPOUND) FOR SINGLE LANE REPAIRS UP TO 15 FEET IN LENGTH.

(3) ANCHOR TIE BARS INTO DRILLED HOLES WITH AN EPOXY.



PLAN VIEW

SINGLE LANE CONCRETE PAVEMENT REPAIR



PLAN VIEW

SINGLE LANE CONCRETE PAVEMENT REPLACEMENT

CONCRETE PAVEMENT REPAIR AND REPLACEMENT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Sept., 2015 — DATE
/S/ Peter Kemp, P.E. — PAVEMENT SUPER
FHWA

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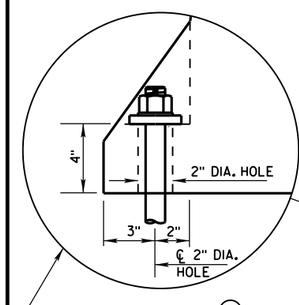
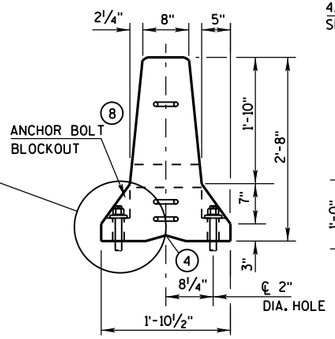
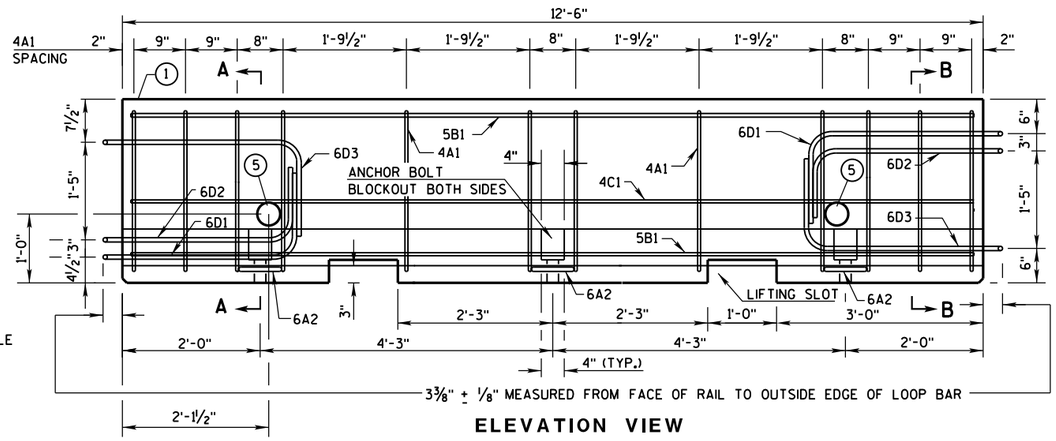
S.D.D. 13 C 9-13c

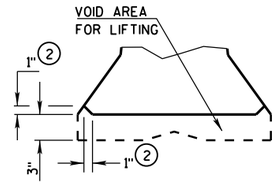




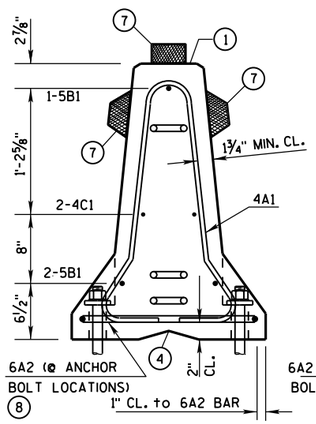
END VIEW



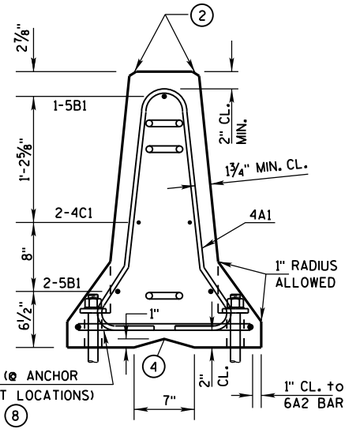
ELEVATION VIEW



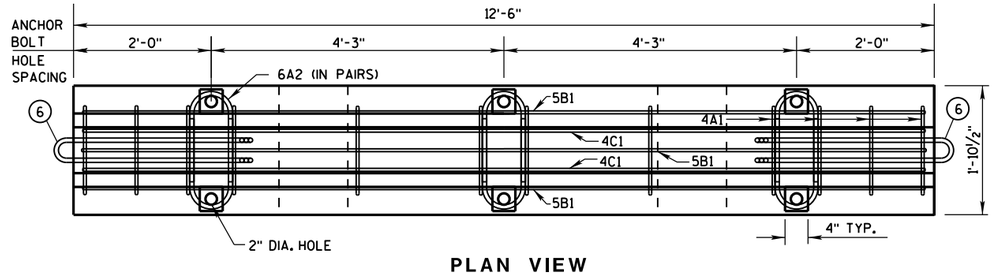
DETAIL "B"
LIFTING SLOT DETAIL



SECTION A-A
(STIRRUP PLACEMENT)

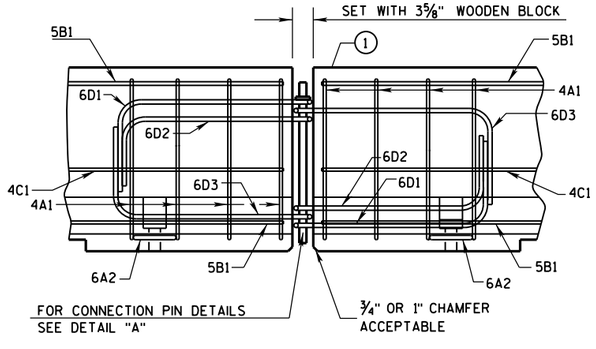


SECTION B-B
(STIRRUP PLACEMENT)

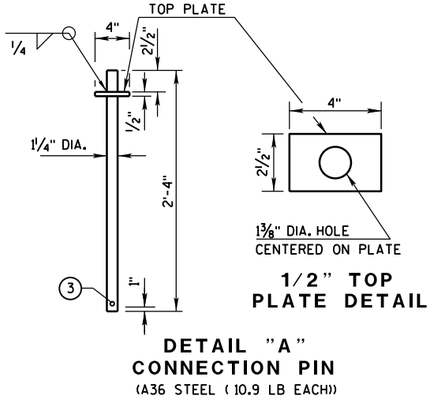


PLAN VIEW

DETAILS OF BARRIER SECTION

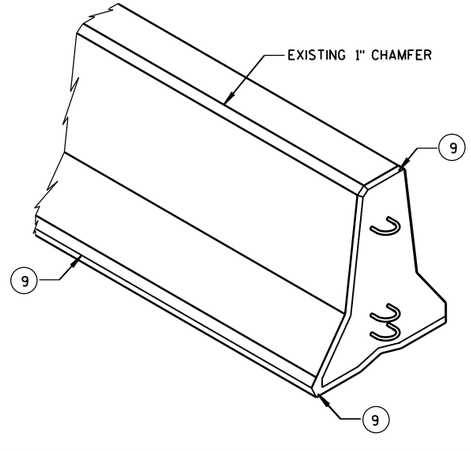


DETAILS OF BARRIER CONNECTION



1/2" TOP
PLATE DETAIL

DETAIL "A"
CONNECTION PIN
(A36 STEEL (10.9 LB EACH))



GENERAL NOTES

THESE GENERAL NOTES APPLY TO SHEETS 14B7-14(a) THRU 14B7-14(h).

DO NOT INTERMIX CONCRETE BARRIER TEMPORARY PRCAST, 12'-6" (CBTP12.5) WITH OTHER TEMPORARY CONCRETE BARRIERS.

USE ASTM A-615, GRADE 60, DEFORMED STEEL BARS FOR BARS 4A1, 6A2, 5B1 AND 4C1 IN THE BARRIER SECTION AND FOR 4V1, 4V2, 4V3, 4V4, 4V5, 4V6, 4F1, 4F2 AND 5F3 IN THE BARRIER TAPER SECTION.

LOOP BARS 6D1, 6D2 AND 6D3 SHALL BE ¾" SMOOTH STEEL BARS WITH A MINIMUM YIELD STRENGTH OF 60 KSI, A TENSILE STRENGTH OF NOT LESS THAN 1.25 TIMES THE YIELD STRENGTH BUT A MINIMUM OF 80 KSI, A MINIMUM 14% ELONGATION IN 8 INCHES AND PASSING A 180 DEGREE BEND TEST USING A 3-½" PIN BEND DIAMETER FOR BEND TESTS. THE LOOPS SHALL BE INSTALLED WITHIN ⅛" OF THE PLAN DIMENSION.

CONSTRUCT LIFTING SLOTS AS SPECIFIED ON THE PLANS TO FACILITATE THE DRAINAGE OF WATER AFTER INSTALLATION.

PLACE BARRIER ON A PAVED SURFACE. REMOVE ALL LOOSE DIRT AND SAND FROM THE ROADWAY SURFACE PRIOR TO PLACEMENT OF THE BARRIER.

INSTALL MECHANICAL OR ADHESIVE ANCHORS PER MANUFACTURER'S RECOMMENDATIONS. PROVIDE MANUFACTURER'S INFORMATION TO PROJECT ENGINEER.

(1) MARK ONE END OF EACH BARRIER PERMANENTLY BY FORMING INTO THE BARRIER THE FOLLOWING INFORMATION:
- a. TYPE: WI CBTP
- b. MANUFACTURER
- c. DATE MANUFACTURED (MONTH AND YEAR)

(2) 1" CHAMFER TO PREVENT SPALLING.

(3) A ⅜" HOLE IN THE CONNECTION PIN, AT THE LOCATION SHOWN, IS ACCEPTABLE, BUT NOT REQUIRED..

(4) "V" NOTCH IS OPTIONAL.

(5) THE 4" DIAMETER, 11 GAUGE STEEL, ROUND MECHANICAL TUBING SLEEVE FOR LIFTING (OPTIONAL).

(6) NEVER USE LOOP BARS (6D1, 6D2 OR 6D3) TO LIFT, MOVE OR REPOSITION THE BARRIER.

(7) USE DELINEATORS CONFORMING TO SECTION 633 OF THE STANDARD SPECIFICATIONS. CONTRACTOR MAY USE ALTERNATE SHAPES AND HOUSING. INSTALL DELINEATORS ACCORDING TO MANUFACTURES INSTRUCTION. INSTALL YELLOW REFLECTORS WHEN BARRIER IS LOCATED TO THE LEFT OF TRAFFIC AND WHITE REFLECTORS WHEN BARRIER IS LOCATED TO THE RIGHT OF TRAFFIC. SPACE DELINEATORS A MAXIMUM OF 25 FEET APART. PROVIDE TOP MOUNTED DELINEATORS IN ADDITION TO THE SIDE MOUNTED DELINEATORS ON ALL BARRIER INSTALLATIONS LOCATED ON A CURVED ALIGNMENT LONGER THAN 200 FEET AND ON BARRIERS USED TO SEPARATE OPPOSING TRAFFIC.

(8) SEE SHEET D FOR ANCHORING CRITERIA.

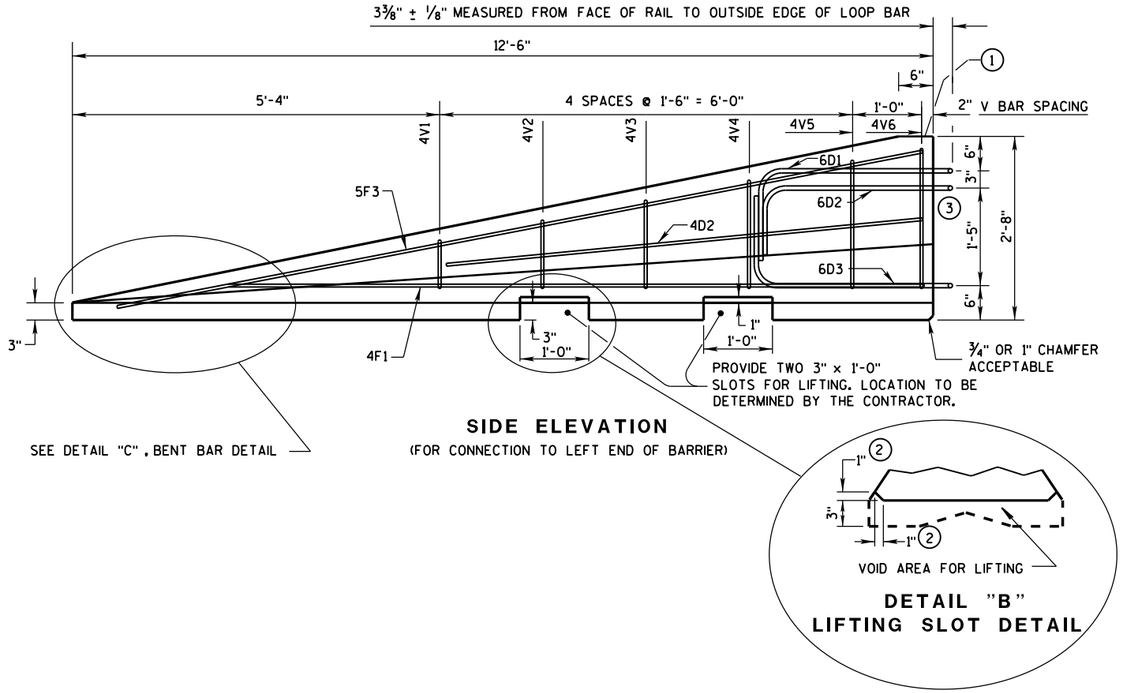
(9) 1" CHAMFER OPTIONAL.

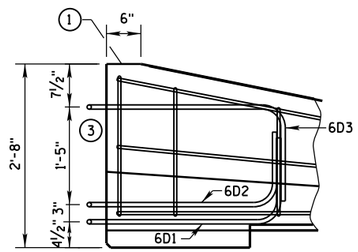
CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6

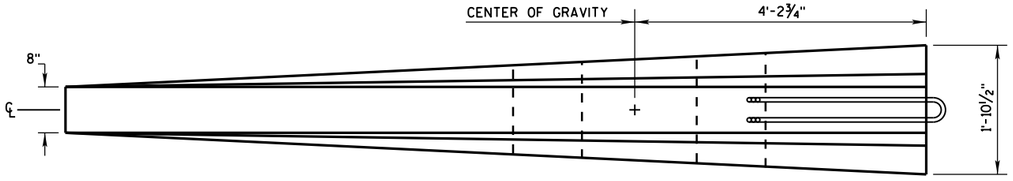
S.D.D. 14 B 7-14a

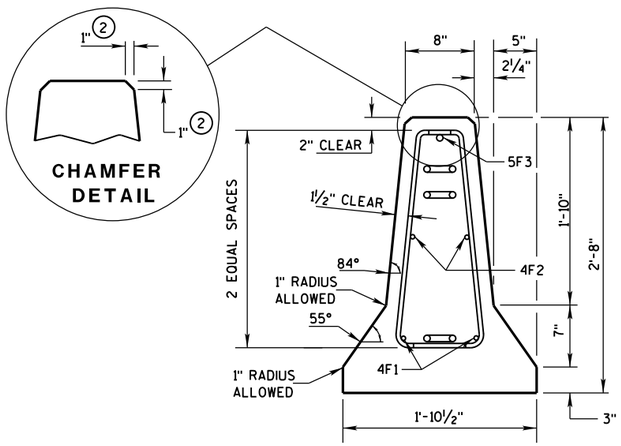


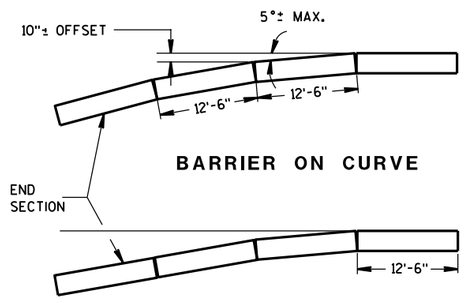


GENERAL NOTES

1. MARK ONE END OF EACH BARRIER PERMANENTLY BY FORMING INTO THE BARRIER THE FOLLOWING INFORMATION:
   a. TYPE WICBTP
   b. MANUFACTURER
   c. DATE MANUFACTURED (MONTH AND YEAR)
2. 1" CHAMFER TO PREVENT SPALLING.
3. NEVER USE LOOP BARS (6D1, 6D2 OR 6D3) TO LIFT, MOVE OR REPOSITION THE BARRIER.







POSTED SPEED, (MPH)	FLARE RATE
40 OR LESS	6:1
45 OR GREATER	8:1

DETAILS OF BARRIER TAPER SECTION

CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

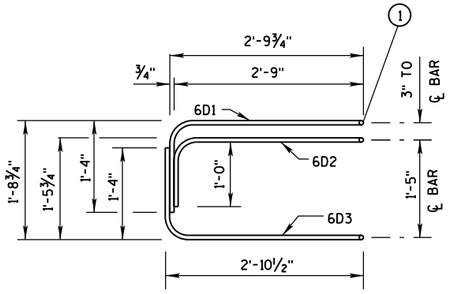
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6
S.D.D. 14 B 7-14b

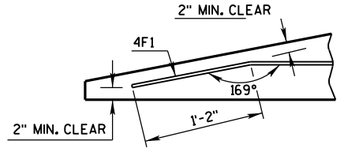
BARRIER TAPER SECTION BILL OF MATERIALS

(PER 12'-6" BARRIER TAPER SECTION)

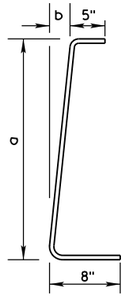
BAR	BAR SIZE	NO. OF BARS	LENGTH FT.
4V1	4	2	1'-11"
4V2	4	2	2'-2"
4V3	4	2	2'-6"
4V4	4	2	2'-9"
4V5	4	2	3'-2"
4V6	4	2	3'-4"
4F1	4	2	12'-0"
4F2	4	2	7'-6"
5F3	5	1	11'-9"
LOOP ASSEMBLY			
6D1	6	1	8'-5"
6D2	6	1	7'-7"
6D3	6	1	8'-6"



ELEVATION
LOOP BAR ASSEMBLY



DETAIL "C"
BENT BAR DETAIL



BAR	a	b
V1	10"	1"
V2	1'-1"	1¼"
V3	1'-5"	1⅝"
V4	1'-8"	1⅞"
V5	2'-0½"	2⅜"
V6	2'-3"	2¾"

4V BARS
2 AT EACH SIZE REQUIRED
FOR STIRRUP ASSEMBLY

TAPER BARRIER SECTION

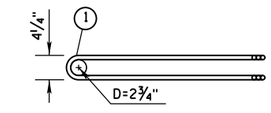
GENERAL NOTES

(1) NEVER USE LOOP BARS (6D1, 6D2 OR 6D3) TO LIFT, MOVE OR REPOSITION THE BARRIER.

BARRIER SECTION BILL OF MATERIALS

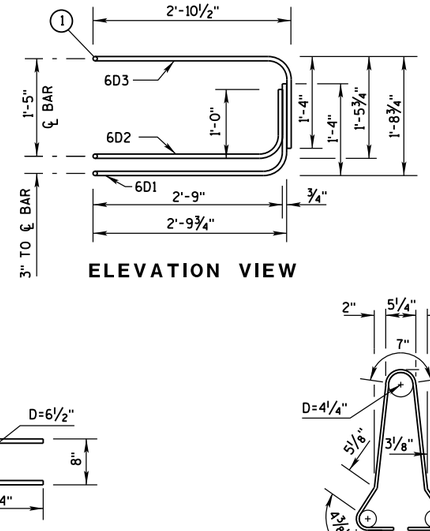
(PER 12'-6" BARRIER SECTION)

BAR	BAR SIZE	NO. OF BARS	LENGTH FT.
4A1	4	12	6'-0"
6A2	6	6	2'-11"
5B1	5	3	12'-2"
4C1	4	2	12'-2"
LOOP ASSEMBLY			
6D1	6	2	8'-5"
6D2	6	2	7'-7"
6D3	6	2	8'-6"

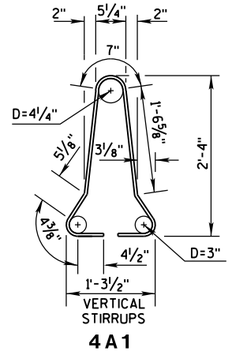


PLAN VIEW
LOOP BAR ASSEMBLY
(MARKED END SHOWN, INVERT FOR OTHER END)

6A2



ELEVATION VIEW



4A1

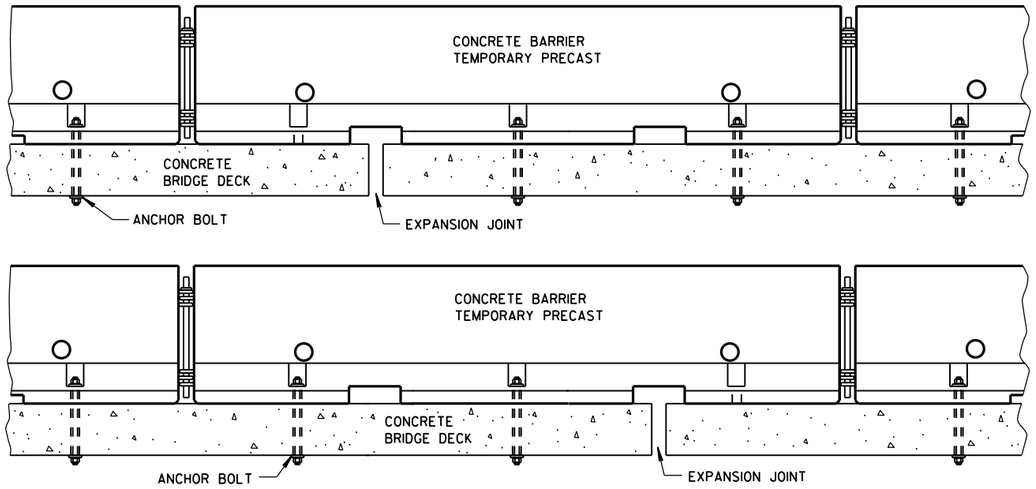
BARRIER SECTION

CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

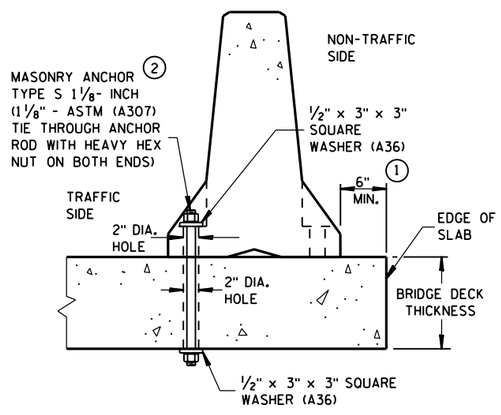
6

S.D.D. 14 B 7-14c



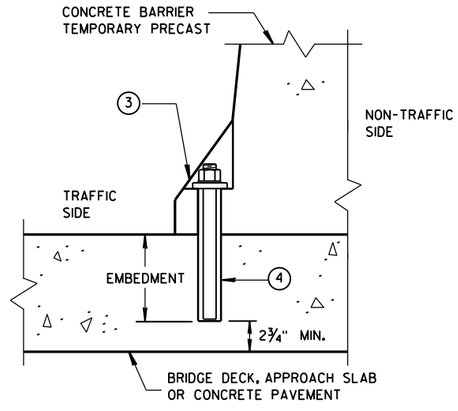
TREATMENT AT BRIDGE DECK EXPANSION JOINTS

(NO SINGLE CONCRETE BARRIER SECTION SHALL BE ANCHORED TO BOTH THE BRIDGE DECK AND THE APPROACH SLAB. ALL ANCHOR BOLT LOCATIONS SHALL BE ANCHORED TO THE DECK IN ACCORDANCE WITH THE DETAIL. NO MORE THAN ONE ANCHOR BOLT SHALL BE ELIMINATED FROM A BARRIER SECTION WHEN SPANNING AN EXPANSION JOINT.)



THROUGH BOLTED ANCHOR INSTALLATION ON BRIDGE DECK

(DO NOTUSE ON CONCRETE BRIDGE DECK WITH ASPHALT OVERLAY)



REMOVABLE ADHESIVE BONDED ANCHOR ② INSTALLATION ON CONCRETE BRIDGE DECK, CONCRETE APPROACH SLAB, OR CONCRETE PAVEMENT

(DO NOT USE ON CONCRETE WITH AN ASPHALTIC OVERLAY)

GENERAL NOTES

① CONCRETE BARRIER TEMPORARY PRECAST, 12'-6" SHALL BE ANCHORED IF:
THE DISTANCE TO A 2 FOOT OR GREATER DROPOFF THAT IS STEEPER THAN 3H : 1V, FOR EXAMPLE THE EDGE OF A BRIDGE DECK OR A DROPOFF AT THE EDGE OF PAVEMENT, IS LESS THAN 4 FEET FROM THE SIDE OF THE BARRIER CLOSEST TO THE DROPOFF AND THE POSTED SPEED IS 45 MPH OR GREATER, OR

THE DISTANCE TO A 2 FOOT OR GREATER DROPOFF THAT IS STEEPER THAN 3H : 1V, FOR EXAMPLE THE EDGE OF A BRIDGE DECK OR A DROPOFF AT THE EDGE OF PAVEMENT, IS LESS THAN 2 FEET FROM THE SIDE OF THE BARRIER CLOSEST TO THE DROPOFF AND THE POSTED SPEED IS 40 MPH OR LESS.

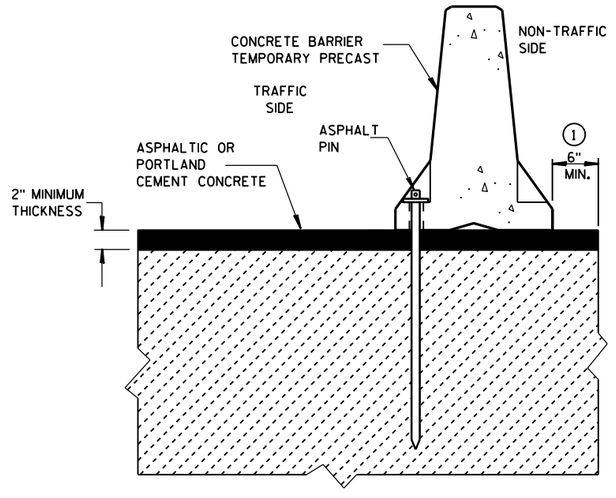
② ANCHORING IS INCIDENTAL TO CONCRETE BARRIER TEMPORARY PRECAST.

WITH THE APPROVAL OF THE ENGINEER, REMOVABLE ADHESIVE BONDED ANCHOR BOLT INSTALLATION MAY BE USED IN LIEU OF THROUGH BOLTED ANCHOR INSTALLATION. THE ADHESIVE BONDED ANCHOR BOLT MUST BE REMOVABLE. USE ASTM (A307) MASONRY ANCHORS TYPE S 1⅛-INCH, EMBEDDED TO A DEPTH SUFFICIENT TO DEVELOP THE ULTIMATE CAPACITY OF THE ANCHOR BOLT AND PROVIDE DOCUMENTATION TO CONFIRM THIS.

UPON REMOVAL OR RELOCATION OF THE BARRIER UNITS, REMOVE ALL ANCHOR BOLTS AND COMPLETELY FILL IN THE REMAINING HOLES IN CONCRETE BRIDGE DECKS, CONCRETE APPROACH SLABS AND CONCRETE PAVEMENTS THAT ARE TO REMAIN, WITH A NON-SHRINK COMMERICAL GROUT OR MATERIAL IDENTIFIED ON THE CURRENT WISDOT APPROVED PRODUCTS LIST.

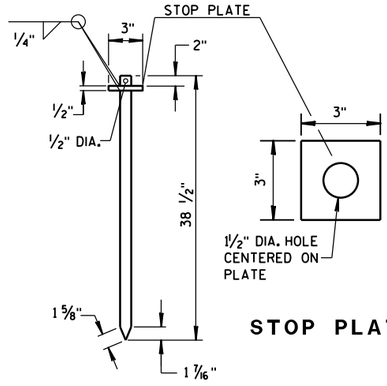
③ 1⅛" DIAMENTER A307 THREADED ROD, ½" X 3" X 3" SQUARE PLATE WASHER WITH ASTM A36 STEEL, ASTM A563A HEAVY HEX NUT.

④ ADHESIVE ANCHORS WITH A MINIMUM BOND STRENGTH OF 1,800 PSI AND 5¼" EMBEDMENT. SEE 603.2 AND 603.3.1.2 OF THE WISCONSIN STANDARD SPECIFICATIONS FOR MORE INFORMATION ON ADHESIVE ANCHORS.

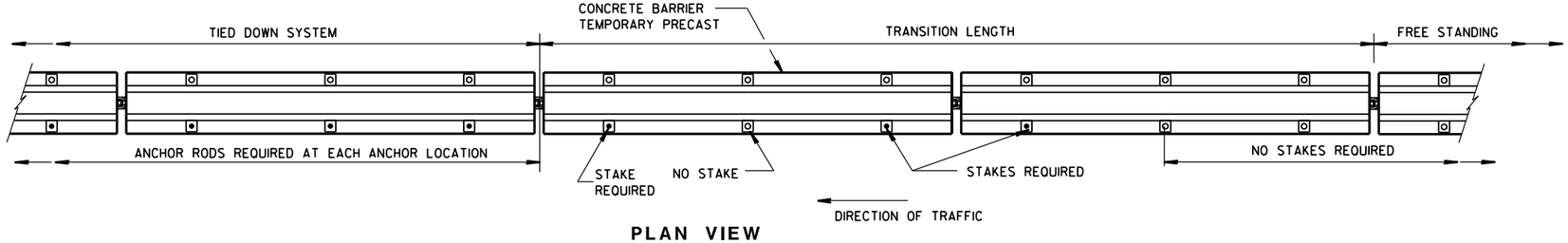


STAKE DOWN INSTALLATION FOR ASPHALTIC OR PORTLAND CEMENT CONCRETE SURFACE

(STAKING IS INCIDENTAL TO CONCRETE BARRIER TEMPORARY PRECAST)



STOP PLATE



PLAN VIEW

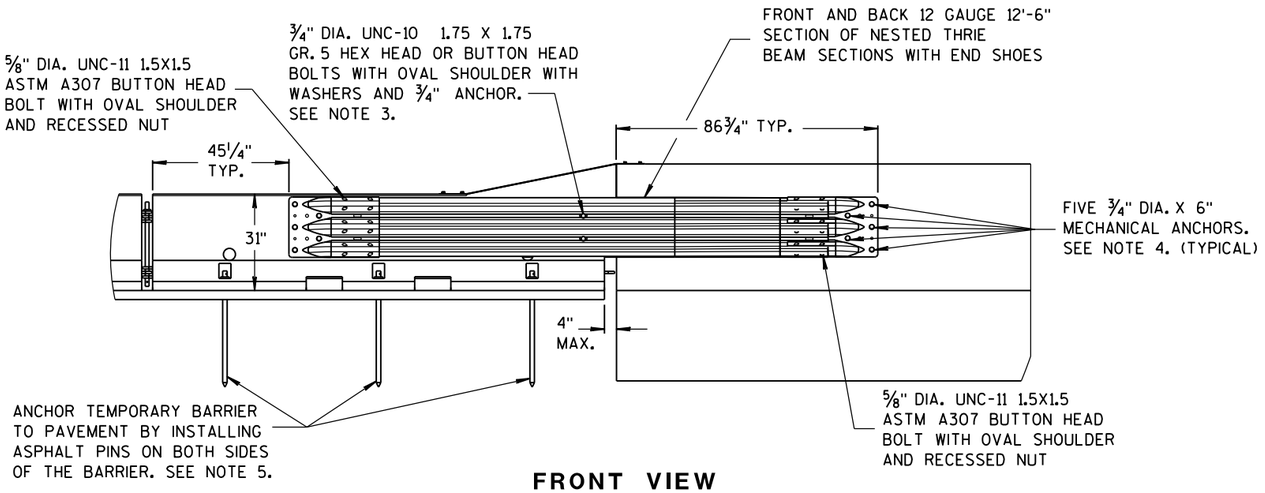
FREE STANDING TRANSITION TO TIED-DOWN SYSTEM

(PLACE TRANSITION IN A TANGENT SECTION OF BARRIER PARALLEL TO THE ROADWAY. IF TRANSITION OCCURS ON STRUCTURAL SLAB, ANCHOR AS SHOWN.)

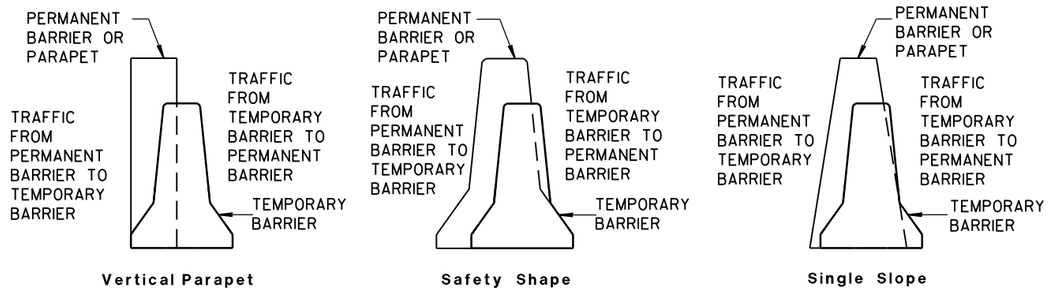
CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6
S.D.D. 14 B 7-14d



FRONT VIEW

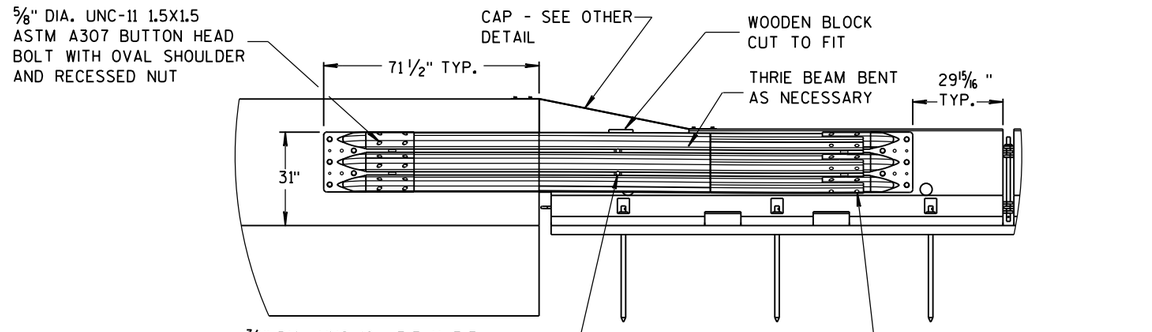


TEMPORARY BARRIER PLACEMENT FOR BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM

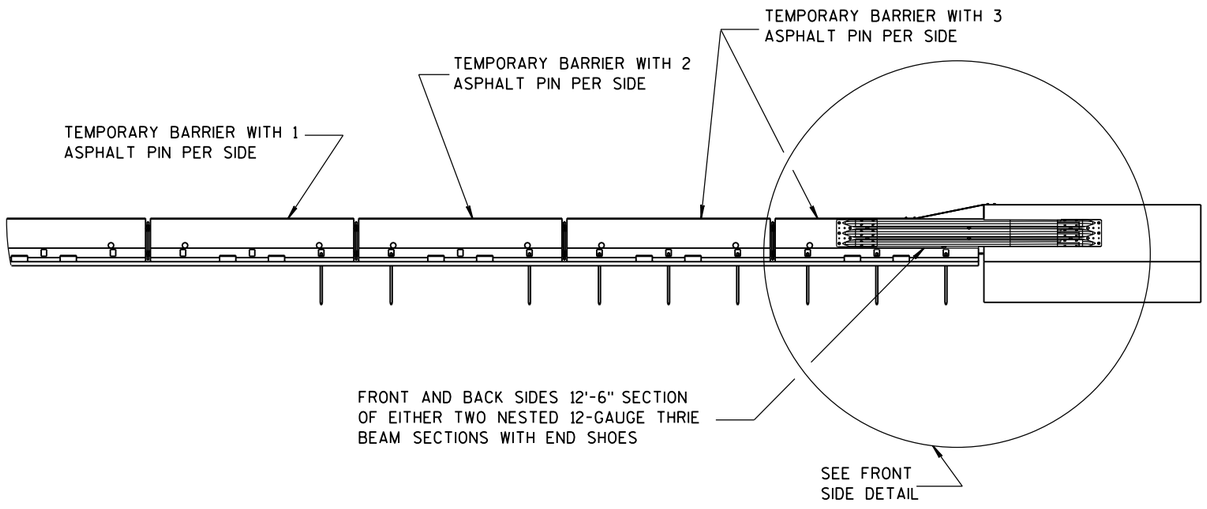
NOTES

NESTED THRIE BEAM IS REQUIRED ON BOTH SIDES OF THE TEMPORARY BARRIER FOR ALL INSTALLATIONS.

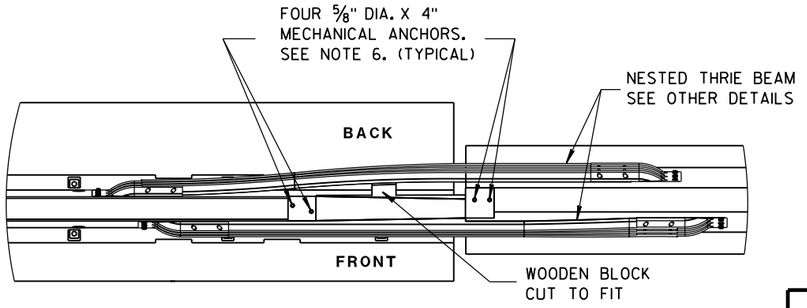
1. CAP END PLATE PLACED FLUSH WITH UPSTREAM END OF PERMANENT BARRIER OR PARAPET.
2. THRIE BEAM PIECES ARE OFFSET 15 1/4" TO PREVENT INTERFERENCE FROM THE ANCHORS ON OPPOSING SIDES.
3. MINIMUM MECHANICAL OR ADHESIVE ANCHOR STRENGTH REQUIREMENTS: ULTIMATE TENSILE LOAD 9.48 KIPS AND ULTIMATE SHEAR LOAD 10.48 KIPS.
4. MINIMUM MECHANICAL OR ADHESIVE ANCHOR STRENGTH REQUIREMENTS: ULTIMATE TENSILE LOAD 17.9 KIPS AND ULTIMATE SHEAR LOAD 21.96 KIPS.
5. MAY BE USED ON CONCRETE OR ASPHALT PAVEMENTS. ASPHALT OPTION SHOWN. FOR CONCRETE OPTION SEE OTHER DETAILS.
6. MINIMUM MECHANICAL OR ADHESIVE ANCHOR STRENGTH REQUIREMENTS: ULTIMATE TENSILE LOAD 12.14 KIPS AND ULTIMATE SHEAR LOAD 17.5 KIPS.



BACK VIEW



FRONT VIEW



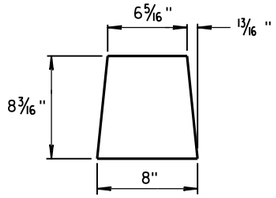
PLAN VIEW

BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM

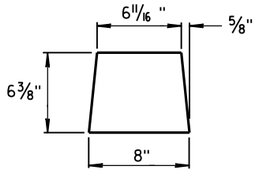
CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPO

6
S.D.D. 14 B 7-14e



GUSSET 1



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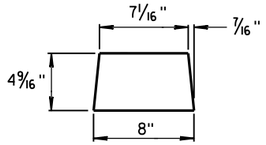

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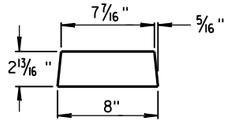
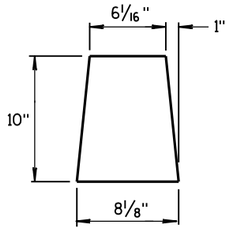
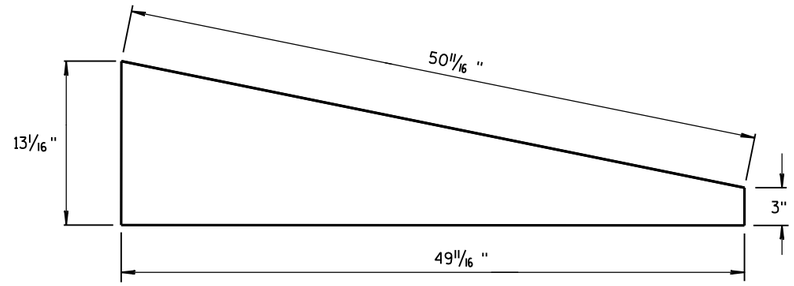


GUSSET 4

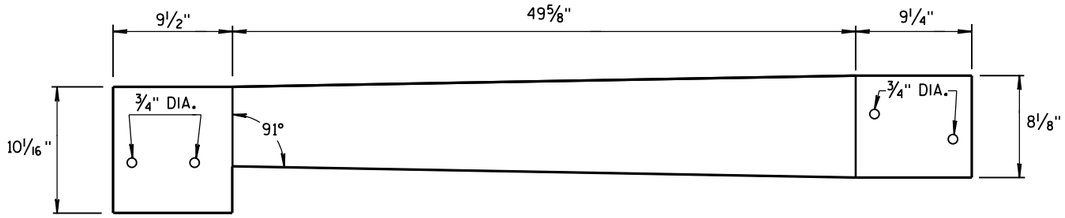
GUSSETS

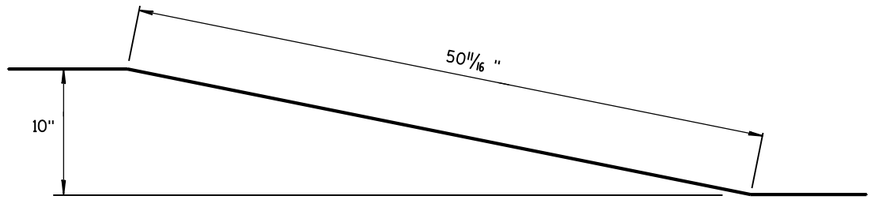


END PLATE



SIDE PLATE

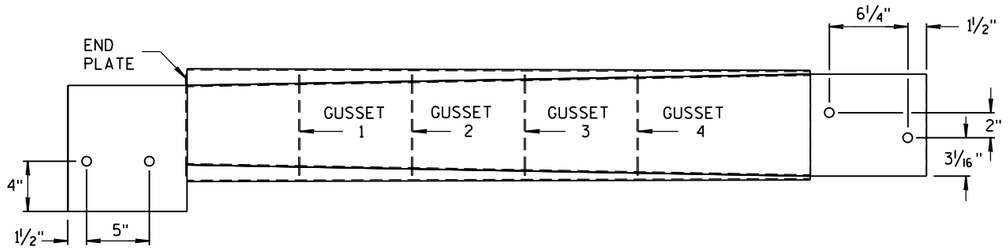


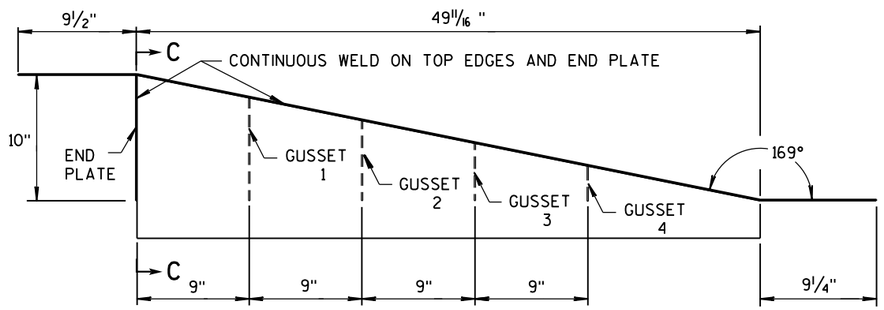


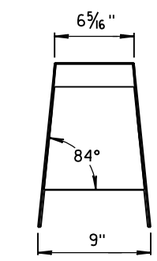
TOP PLATE

SIDE, TOP AND END PLATES FOR CAP FROM TEMPORARY CONCRETE BARRIER TO 42" PERMANENT CONCRETE BARRIER

SIDE PLATES, TOP PLATE, END PLATE AND GUSSETS ARE 12 GAUGE ASTM A36 GALVANIZED STEEL.







SECTION C-C

NOTES

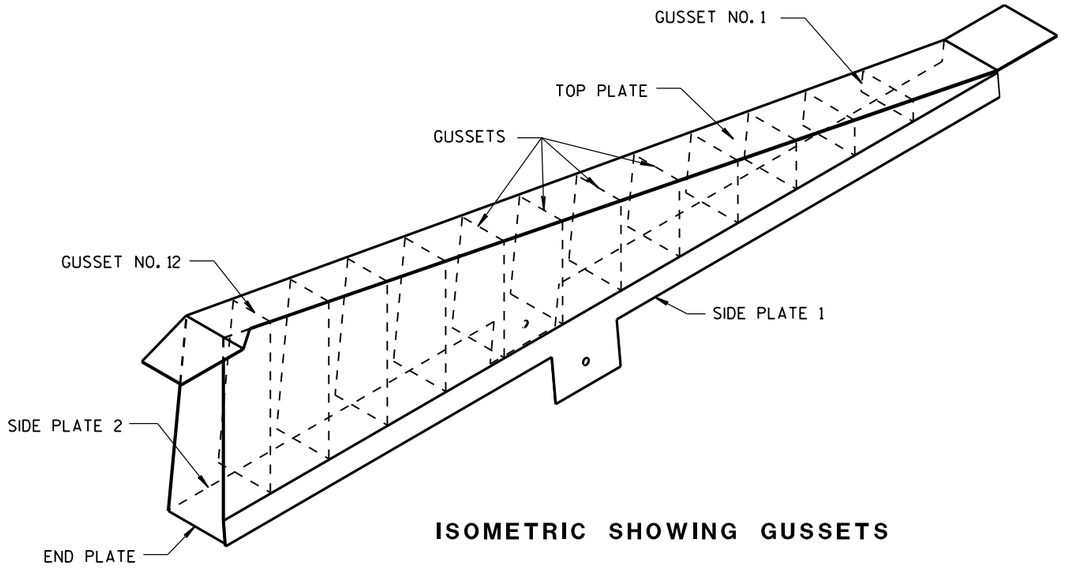
1. FOUR GUSSETS AND END PLATE ARE STITCH WELDED ON THREE SIDES.
2. TWO TRIANGULAR SIDE PLATES ARE STITCH WELDED TO TOP PLATE, END PLATE, AND GUSSETS.

CAP DETAILS FOR TEMPORARY CONCRETE BARRIER TO 42" PERMANENT CONCRETE BARRIER

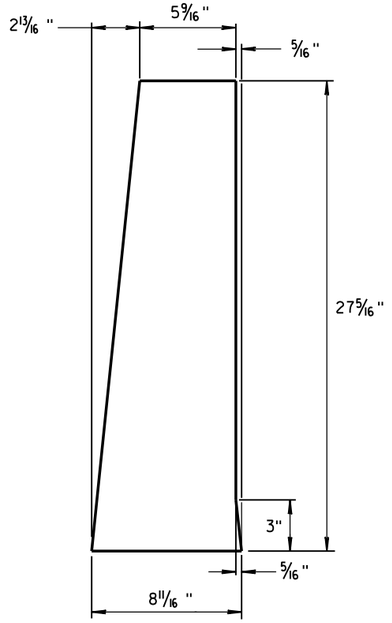
CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6
S.D.D. 14 B 7-14f

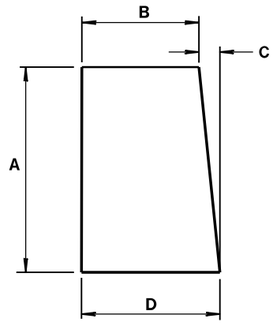


ISOMETRIC SHOWING GUSSETS



END PLATE

1/8" STEEL PLATE



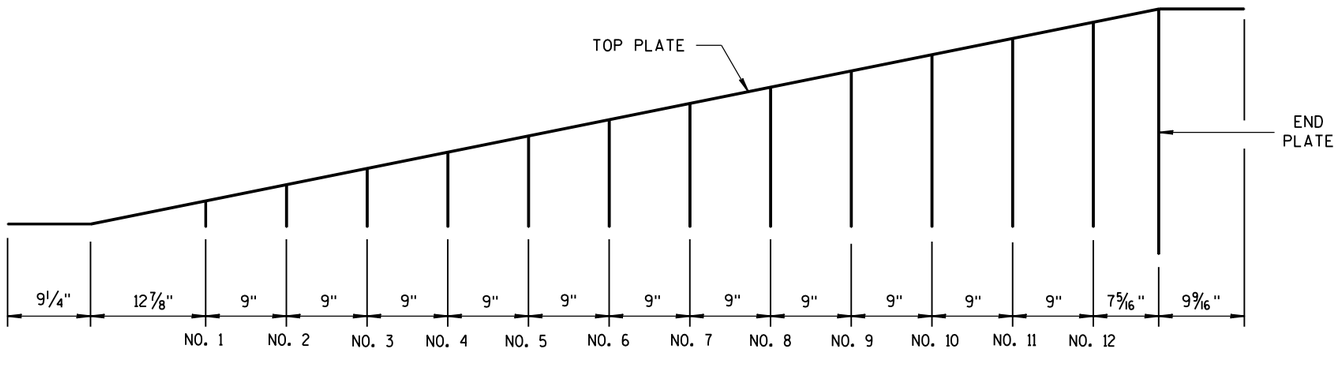
GUSSETS 1 - 12

ALL GUSSETS 1/8" STEEL PLATE

GUSSET DIMENSIONS				
GUSSET NO.	A	B	C	D
1	2 7/8"	7 3/4"	1/4"	8
2	4 11/16 "	7 9/16 "	1/2"	8
3	6 1/2"	7 3/8"	11/16 "	8 1/16 "
4	8 5/16 "	7 3/16 "	7/8"	8 1/16 "
5	10 1/8"	7"	1 1/16 "	8 1/16 "
6	11 15/16 "	6 13/16 "	1 1/4"	8 1/16 "
7	13 3/4"	6 5/8"	1 7/16 "	8 1/16 "
8	15 9/16 "	6 7/16 "	1 9/16 "	8 1/16 "
9	17 3/8"	6 1/4"	1 13/16 "	8 1/16 "
10	19 3/16 "	6 1/16 "	1 15/16 "	8 1/16 "
11	21"	5 7/8"	2 3/16 "	8 1/16 "
12	22 13/16 "	5 11/16 "	2 5/16 "	8 1/16 "

SIDE PLATES, TOP PLATE, END PLATE AND GUSSETS ARE 12 GAUGE ASTM A36 STEEL AND GALVANIZED.

GUSSETS AND END PLATE ARE STITCH WELDED ON 3 SIDES. TWO TRIANGULAR SIDE PLATES ARE STITCH WELDED TO TOP PLATE, END PLATE AND GUSSETS.



GUSSET LOCATION

CAP DETAILS FOR TEMPORARY CONCRETE BARRIER TO 56" PERMANENT CONCRETE BARRIER

CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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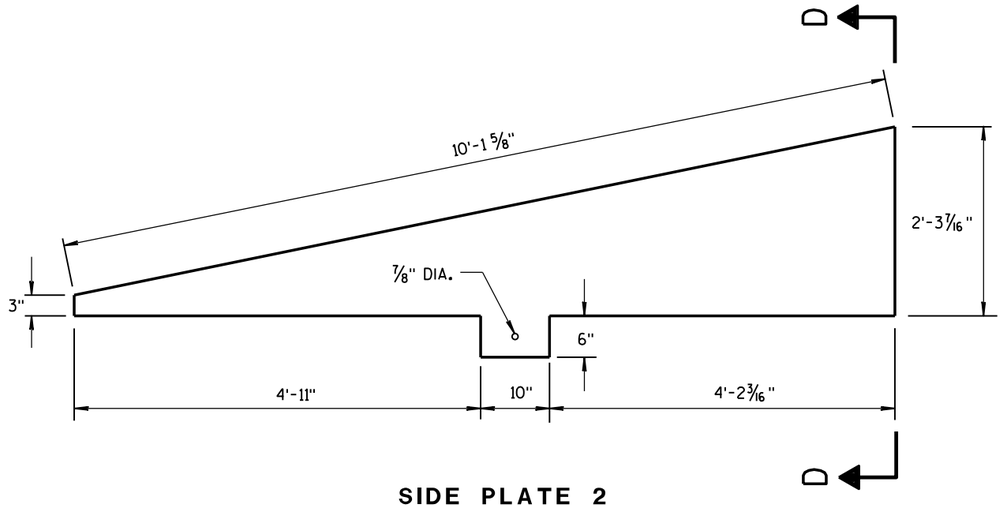
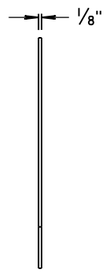
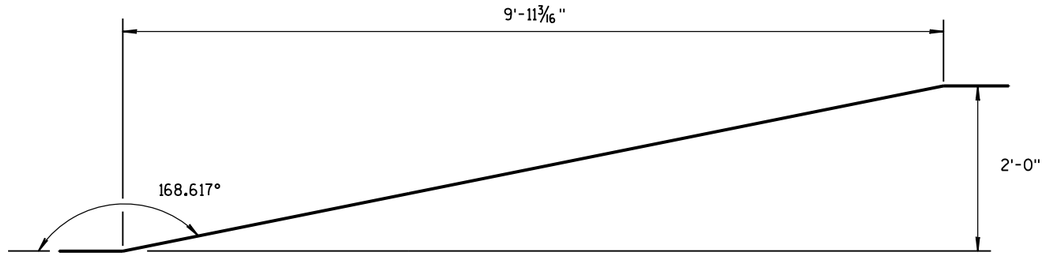
S.D.D. 14 B 7-14g



SIDE PLATE 2

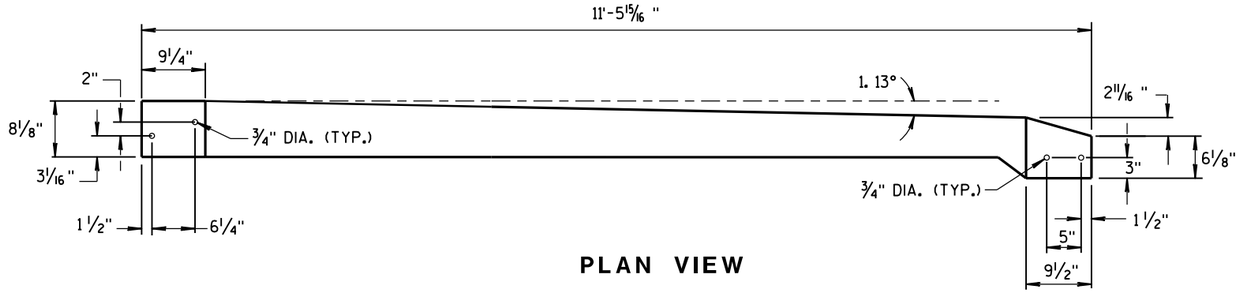


END VIEW



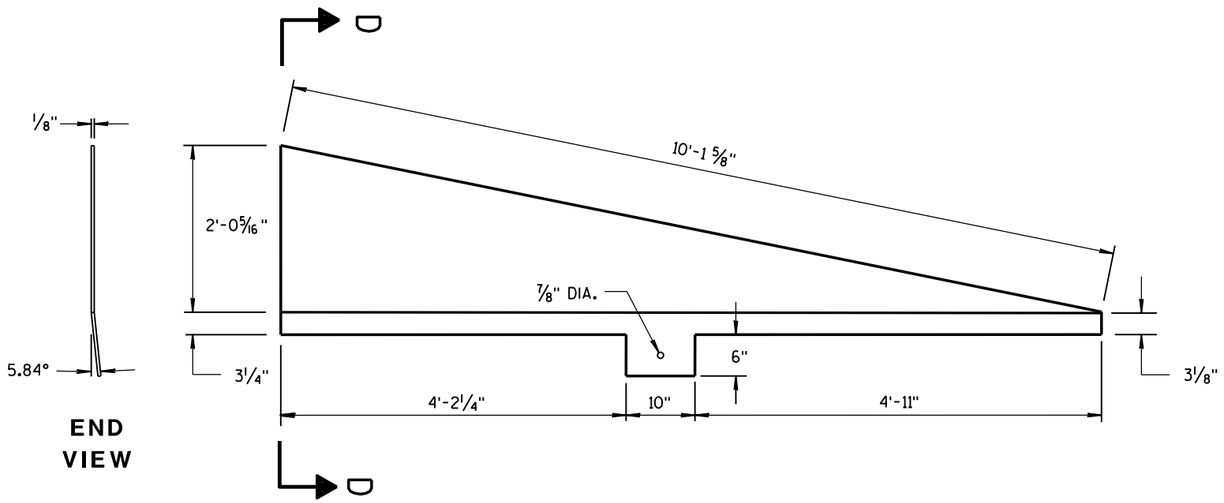
SIDE VIEW

TOP PLATE



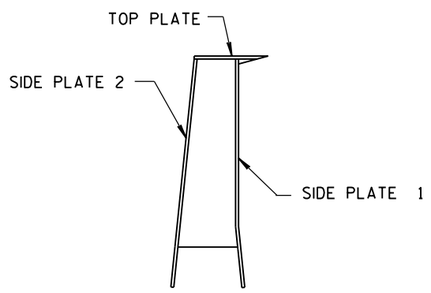
PLAN VIEW

TOP PLATE



END VIEW

SIDE PLATE 1



SECTION D-D

CAP DETAILS FOR TEMPORARY CONCRETE BARRIER TO 56" PERMANENT CONCRETE BARRIER

CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2014 — DATE
/S/ Jerry H. Zoda — ROADWAY STANDARD DEVELOPMENT ENGINEER
FHWA

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S.D.D. 14 B 7-14h

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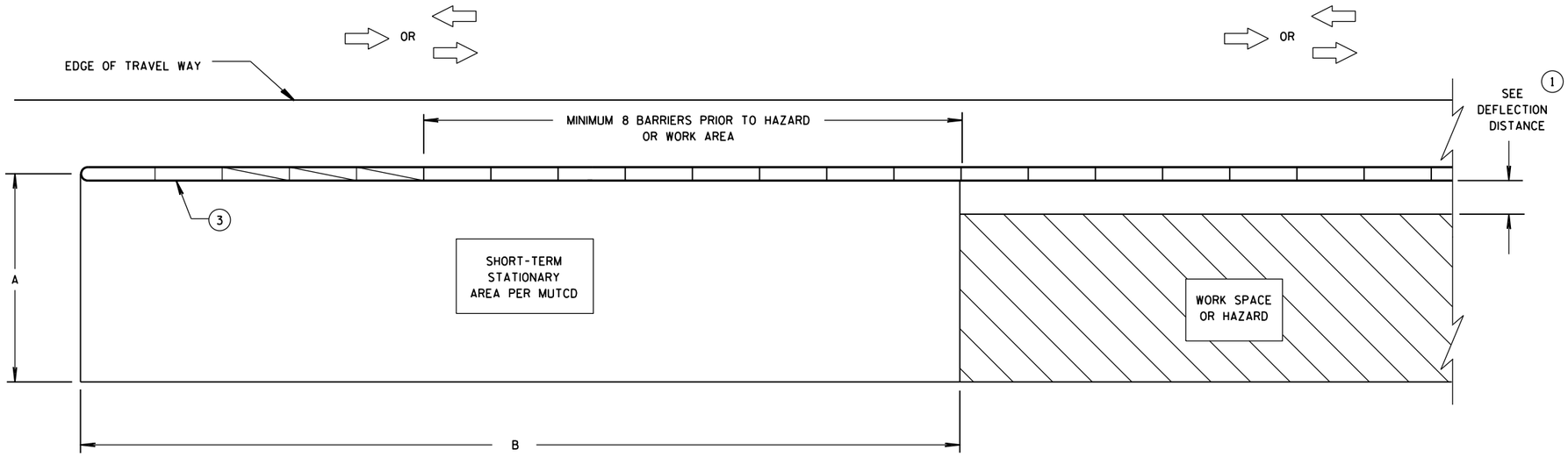
S.D.D. 14 B 7-14h



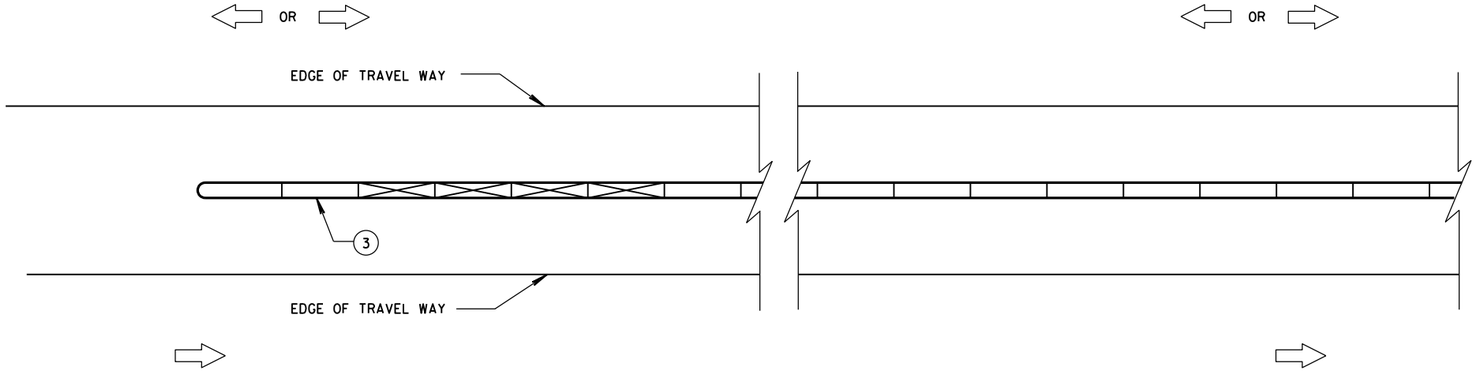
CRASH CUSHION/SAND BARREL ARRAY AND TEMPORARY BARRIER INSTALLATION FOR TRAFFIC ON ONE SIDE OF BARRIER

DIMENSION A TABLE (2)

FACILITY	POSTED SPEED MPH	DIMENSION A	
		MIN. FT	MAX. FT
FREEWAY/EXPRESSWAY	ALL	15	20
NON-FREEWAY/EXPRESSWAY	GREATER THAN OR EQUAL TO 45	10	15
NON-FREEWAY/EXPRESSWAY	LESS THAN 45	8	10
AADT LESS THAN 1,500	ALL	8	10

DIMENSION B TABLE (2)

POSTED SPEEDS MPH	DIMENSION B FT
20	115
25	155
30	200
35	250
40	305
45	360
50	425
55	495
60	570
65	645



CRASH CUSHION/SAND BARREL ARRAY AND TEMPORARY BARRIER INSTALLATION FOR TRAFFIC ON BOTH SIDES OF BARRIER

LEGEND

- DIRECTION OF TRAVEL
- CRASH CUSHION OR SAND BARREL ARRAY
- SEE FREE STANDING TRANSITION TO TIED-DOWN SYSTEM DETAILS
- SEE BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM DETAILS
- 3 PINS PLACED ON TRAFFIC SIDE OF BARRIER
- PERMANENT CONCRETE BARRIER OR CONCRETE PARAPET
- FREE STANDING TEMPORARY BARRIER

GENERAL NOTES

SEE STANDARD DETAIL DRAWING 14B7 FOR MORE INFORMATION.

DETAILS PROVIDE A GENERAL LAYOUT OF TEMPORARY CONCRETE BARRIER, CRASH CUSHIONS, SAND BARREL ARRAYS AND TIE DOWN TRANSITIONS. DETAILS PROVIDED MAY NOT FIT ALL POSSIBLE SITUATIONS OR SITE CONDITIONS. SEE OTHER SECTIONS OF THE CONTRACT OR PROJECT ENGINEER FOR MORE DETAILS.

ADDITIONAL TEMPORARY BARRIER MAY BE REQUIRED TO PROTECT TRAVELING PUBLIC FROM HAZARDS, CONTRACTOR'S OPERATIONS OR TO CONTROL TRAFFIC.

TEMPORARY BARRIER MAY BE REQUIRED TO BE ANCHORED TO PAVEMENT OR BRIDGE DECK.

FOR DETAILS ON CRASH CUSHION OR SAND BARREL ARRAYS SEE OTHER SECTIONS OF THE PLAN AND MANUFACTURE'S DETAILS.

SLOPES LEADING TO TEMPORARY BARRIER, CRASH CUSHION OR SAND BARREL ARRAY ARE 10:1 OR LESS.

(1) FOR DEFLECTION INFORMATION SEE STANDARD DETAIL DRAWING 14B7.

(2) VALUES PROVIDED MAY NOT FIT ALL POSSIBLE SITUATIONS OR SITE CONDITIONS. SEE OTHER SECTIONS OF THE CONTRACT OR PROJECT ENGINEER FOR MORE DETAILS.

(3) ANCHOR TEMPORARY BARRIER ACCORDING TO CRASH CUSHION OR SAND BARREL MANUFACTURER'S RECOMMENDATIONS. IF MANUFACTURER'S RECOMMENDATIONS ARE NOT PROVIDED, ANCHOR 3 PINS ON TRAFFIC SIDE.

CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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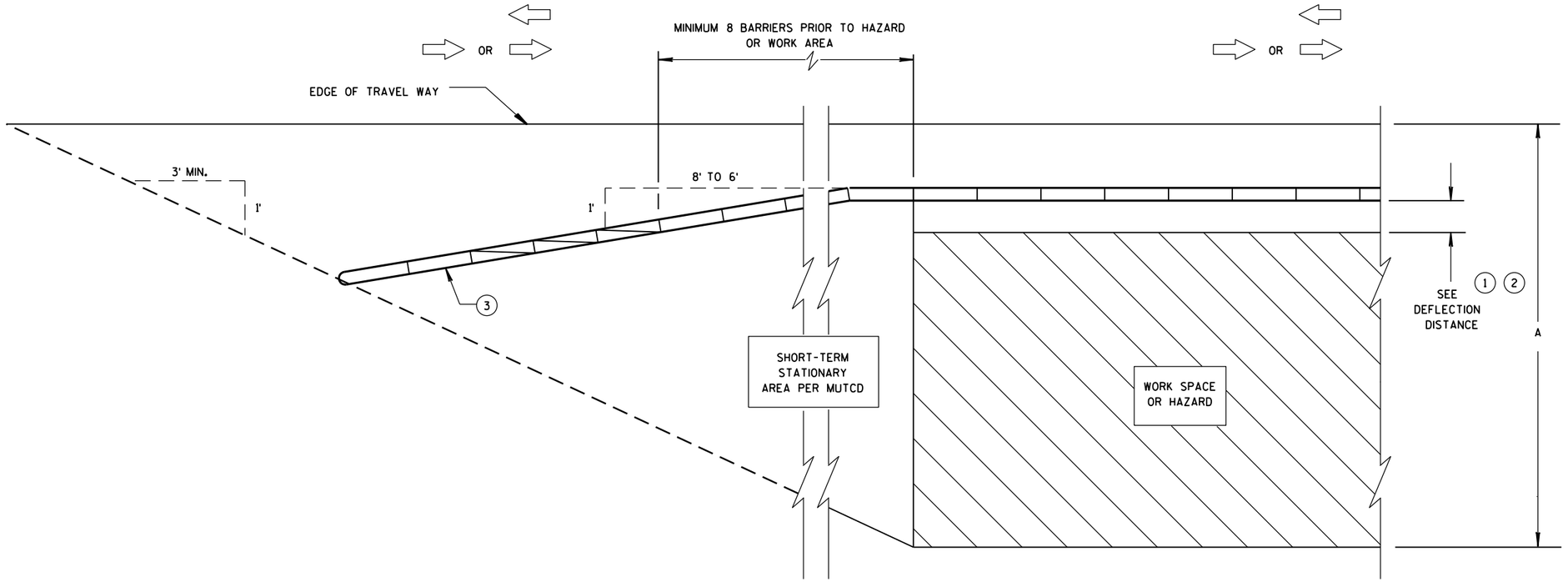
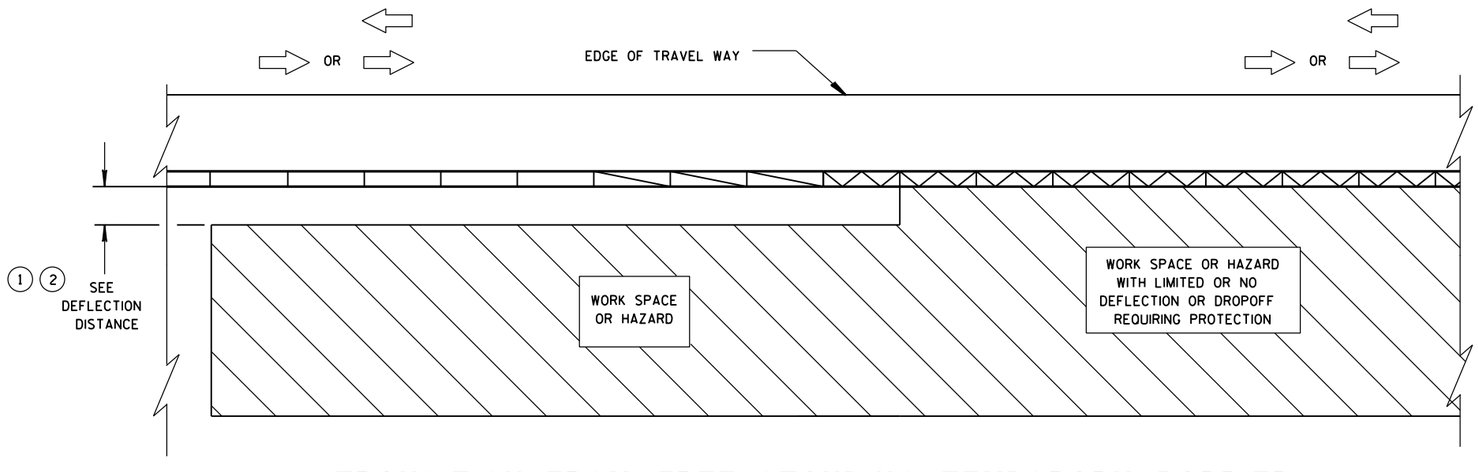
S.D.D. 14 B 8-2a



CRASH CUSHION/SAND BARREL ARRAY AND TEMPORARY BARRIER INSTALLATION FOR TRAFFIC ON ONE SIDE - FLARED INSTALLATION



TRANSITION FROM FREE STANDING TEMPORARY BARRIER TO ANCHORED BARRIER

LEGEND

- DIRECTION OF TRAVEL
- CRASH CUSHION OR SAND BARREL ARRAY
- SEE FREE STANDING TRANSITION TO TIED-DOWN SYSTEM DETAILS
- SEE BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM DETAILS
- 3 PINS PLACED ON TRAFFIC SIDE OF BARRIER
- PERMANENT CONCRETE BARRIER OR CONCRETE PARAPET
- FREE STANDING TEMPORARY BARRIER

CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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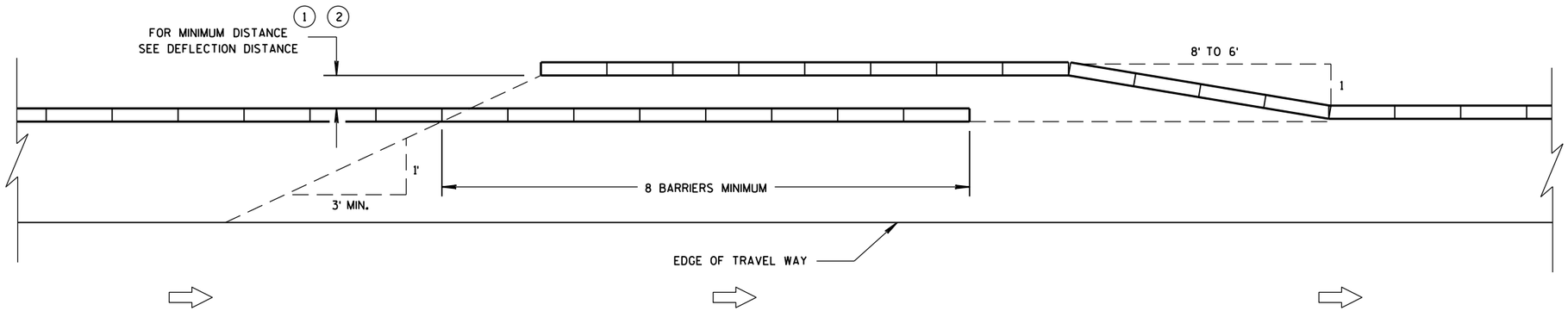
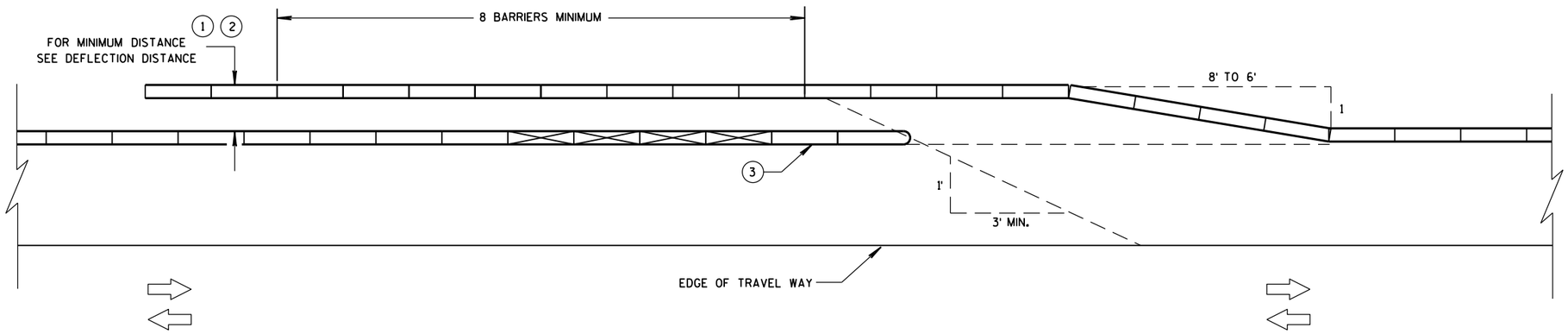
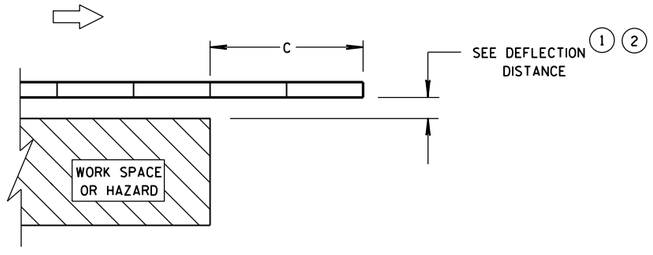
S.D.D. 14 B 8-2b



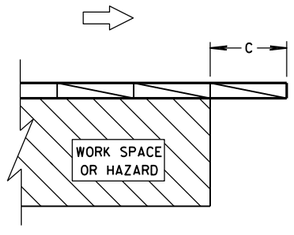
TEMPORARY BARRIER OVERLAP - ONE-WAY TRAFFIC



TEMPORARY BARRIER OVERLAP - TWO-WAY TRAFFIC



ENDING TEMPORARY BARRIER DOWNSTREAM - UNANCHORED



ENDING TEMPORARY BARRIER DOWNSTREAM - ANCHORED

LEGEND

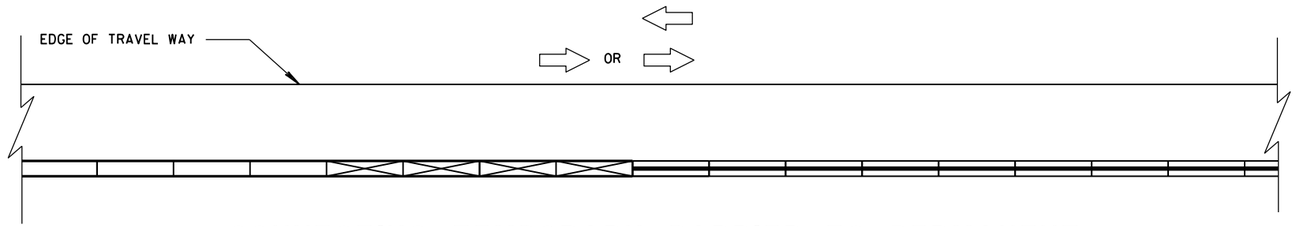
- DIRECTION OF TRAVEL
- CRASH CUSHION OR SAND BARREL ARRAY
- SEE FREE STANDING TRANSITION TO TIED-DOWN SYSTEM DETAILS
- SEE BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM DETAILS
- 3 PINS PLACED ON TRAFFIC SIDE OF BARRIER
- PERMANENT CONCRETE BARRIER OR CONCRETE PARAPET
- FREE STANDING TEMPORARY BARRIER

CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS

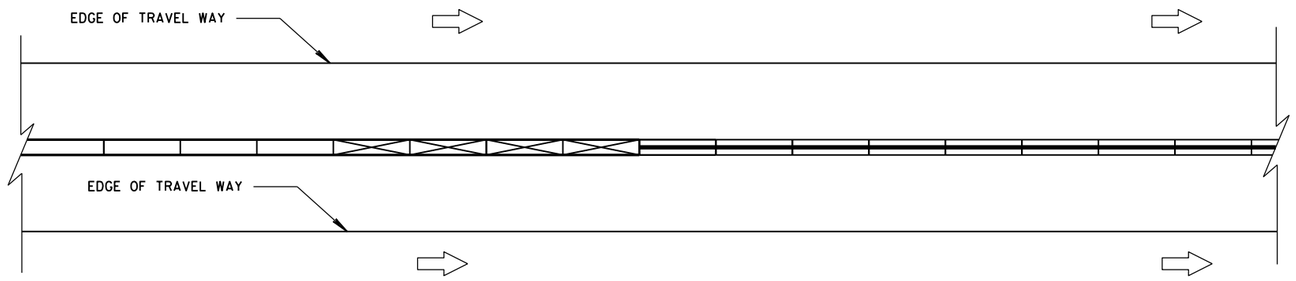
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

S.D.D. 14 B 8-2c



CONNECTING TEMPORARY BARRIER TO PERMANENT
CONCRETE BARRIER-TRAFFIC ON ONE SIDE



CONNECTING TEMPORARY BARRIER TO PERMANENT
CONCRETE BARRIER-TRAFFIC ON BOTH SIDES

LEGEND

DIRECTION OF TRAVEL

CRASH CUSHION OR
SAND BARREL ARRAY

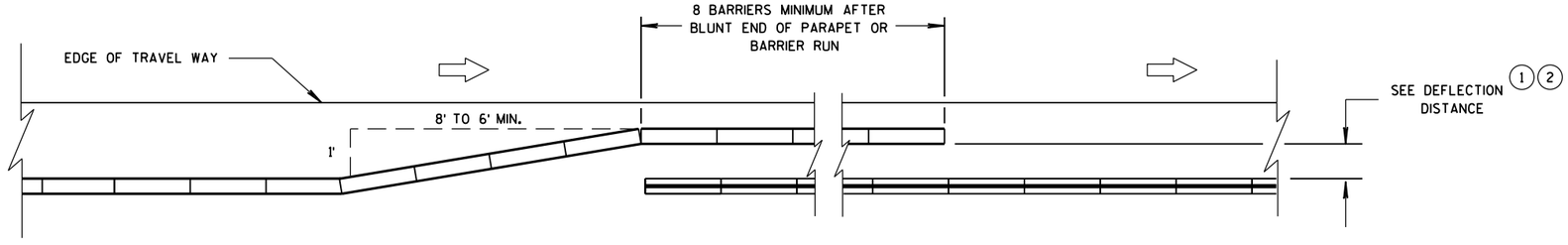
SEE FREE STANDING TRANSITION
TO TIED-DOWN SYSTEM DETAILS

SEE BI-DIRECTIONAL TRANSITION
TO TIED-DOWN SYSTEM DETAILS

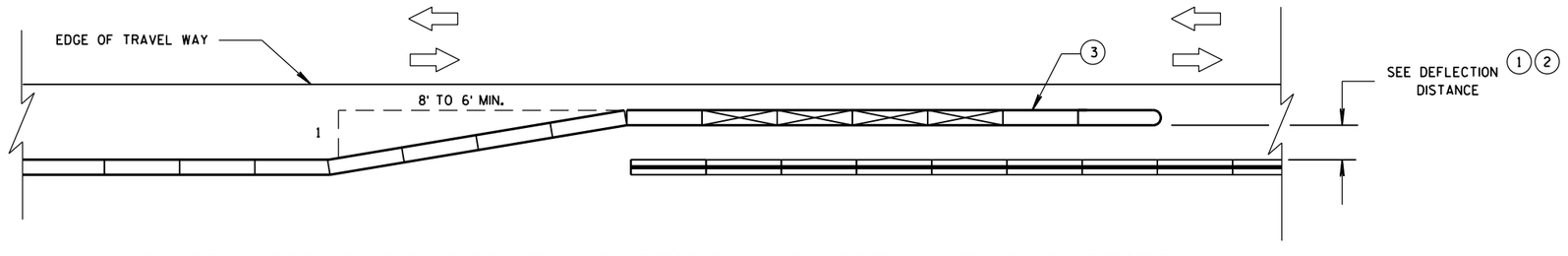
3 PINS PLACED ON
TRAFFIC SIDE OF BARRIER

PERMANENT CONCRETE BARRIER
OR CONCRETE PARAPET

FREE STANDING TEMPORARY
BARRIER



OVERLAPPING TEMPORARY BARRIER AND PERMANENT BARRIER -
ONE WAY TRAFFIC



OVERLAPPING TEMPORARY BARRIER AND PERMANENT BARRIER -
TWO WAY TRAFFIC

CRASH CUSHION/SAND BARREL
ARRAY AND OTHER TEMPORARY
BARRIER LAYOUT DETAILS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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S.D.D. 14 B 8-2d

LEGEND

DIRECTION OF TRAVEL

CRASH CUSHION OR SAND BARREL ARRAY

SEE FREE STANDING TRANSITION TO TIED-DOWN SYSTEM DETAILS

SEE BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM DETAILS

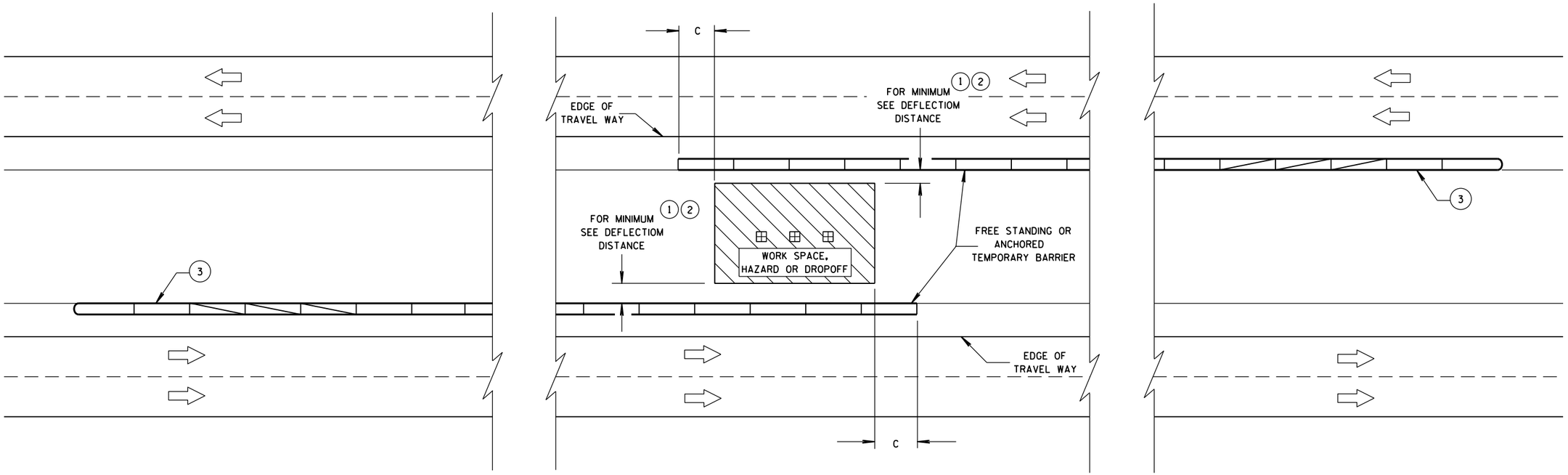
3 PINS PLACED ON TRAFFIC SIDE OF BARRIER

PERMANENT CONCRETE BARRIER OR CONCRETE PARAPET

FREE STANDING TEMPORARY BARRIER

DIMENSION C TABLE (2)

AVAILABLE DEFLECTION DISTANCE	MINIMUM LENGTH OF BARRIER BEYOND HAZARD FT
GREATER THAN 8'	12.5
LESS THAN OR EQUAL TO 8' BUT GREATER THAN 4'	50
LESS THAN OR EQUAL TO 4'	100



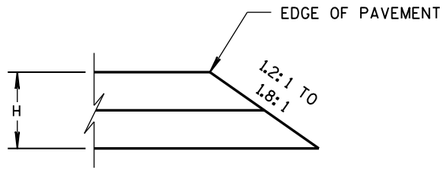
CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June, 2015
DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS ENGINNER
FHWA

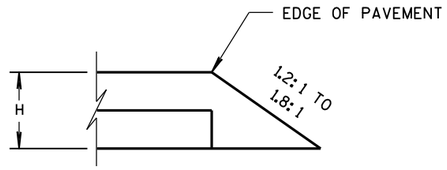
6

S.D.D. 14 B 8-2e



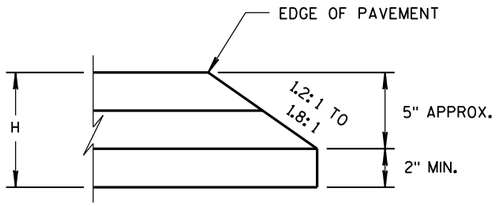
CONSTRUCTED WITH FINAL TWO LAYERS

FOR H 5" OR LESS



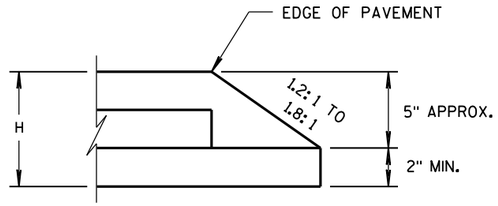
CONSTRUCTED WITH FINAL LAYER

FOR H 5" OR LESS



CONSTRUCTED WITH FINAL TWO LAYERS

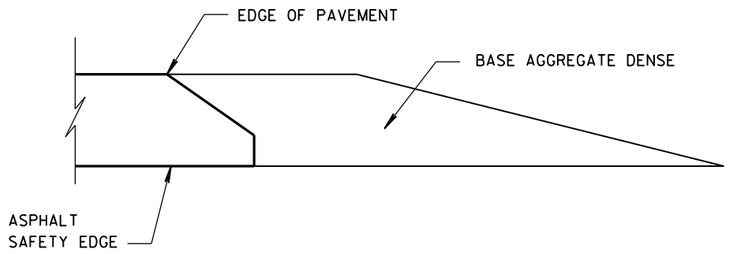
FOR H GREATER THAN 5"



CONSTRUCTED WITH FINAL LAYER

FOR H GREATER THAN 5"

HMA PAVEMENT AND HMA OVERLAYS



FINISHED SHOULDER AGGREGATE PLACEMENT

6

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S.D.D. 14 B 29-1

S.D.D. 14 B 29-1

SAFETY EDGE SM

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

11/30/2012
DATE

/S/ Jerry H. Zoda
ROADWAY STANDARDS DEVELOPMENT ENGINEER

FHWA

GENERAL NOTES

1. WOOD OR STEEL POSTS (w6X9 OR w6X8.5) MAY BE USED. DO NOT INTERMIX WOOD AND STEEL POSTS. INSTALL STEEL POSTS WITH HOLES ON APPROACHING TRAFFIC SIDE.

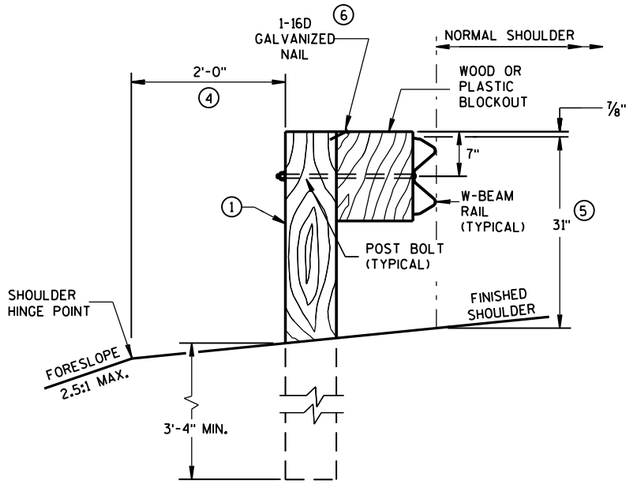
2. USE WOOD OR APPROVED PLASTIC BLOCKOUTS. WOOD BLOCKOUTS MAY BE CONSTRUCTED OUT OF TWO OR MORE WOOD BLOCKOUTS. SEE ALTERNATE WOOD BLOCKOUT DETAIL. DIMENSIONS OF APPROVED PLASTIC BLOCKOUTS MAY VARY.

3. IF ROCK IS ENCOUNTERED DURING EXCAVATION, PROVIDE A HOLE 12 INCHES IN DIAMETER EXTENDING 20 INCHES DEEP INTO THE ROCK. PLACE APPROXIMATELY 2½ INCHES OF GRANULAR MATERIAL IN THE BOTTOM OF THE HOLE. CUT THE POSTS THE TO LENGTH AMD INSTALL. BACKFILL WITH EXCAVATED MATERIAL AND COMPACT. BACKFILL IS TO BE FREE OF LARGE ROCKS.

4. WHEN THE DISTANCE FROM BACK OF POST TO SHOULDER HINGE POINT IS LESS THAN 2 FEET INSTALL LONGER POST AT HALF POST SPACING (K).

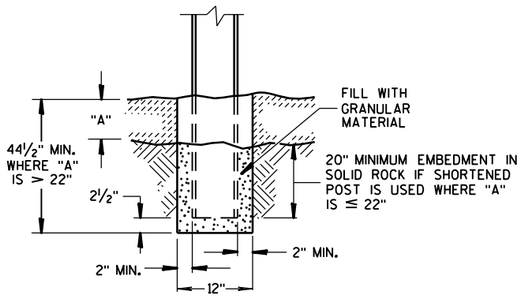
5. FOR NEW MGS INSTALLATION TOP OF W-BEAM RAIL TOLERANCE IS ± 1". FOR EXISTING MGS INSTALLATION TOP OF W-BEAM IS BETWEEN 27¾" TO 32".

6. WHEN USING STEEL POST AND WOOD BLOCKOUTS INSTALL FOUR 16D GALVANIZED NAILS. INSTALL NAILS AT THE BACK CORNERS OF THE BLOCK AND BEND THE NAILS OVER THE FLANGE OF THE STEEL POST.



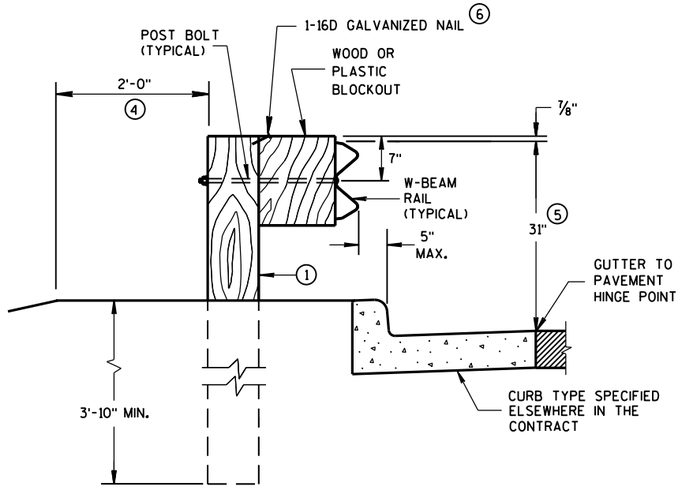
END VIEW

LOCATED ALONG A ROADWAY SHOULDER
STANDARD INSTALLATION



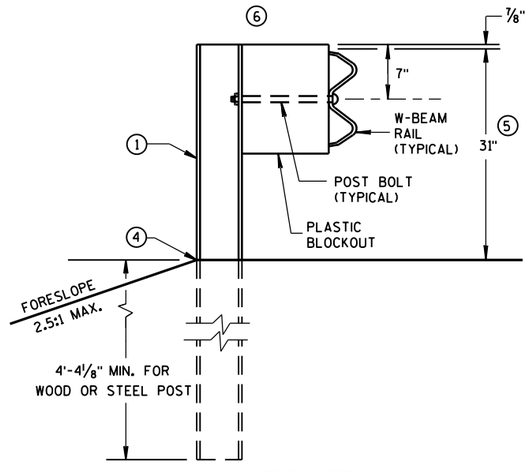
END VIEW

SETTING STEEL OR WOOD POST IN ROCK ③



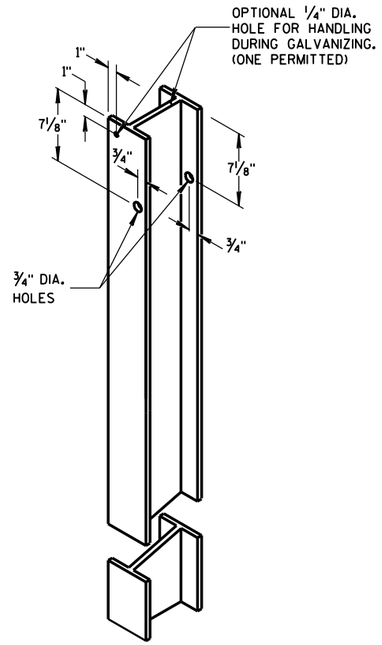
END VIEW

LOCATED ALONG A CURBED ROADWAY

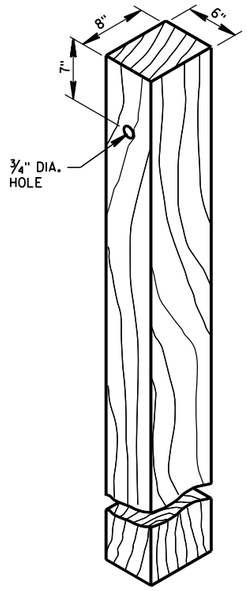


END VIEW

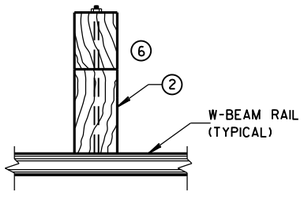
MGS LONGER POST AT HALFPOST SPACING W BEAM (K)



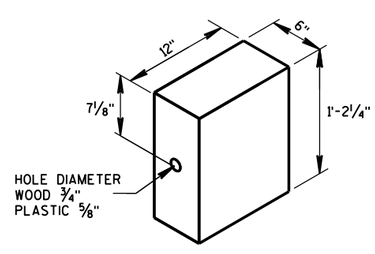
STEEL POST &
HOLE PUNCHING DETAIL
(w6X9) ①



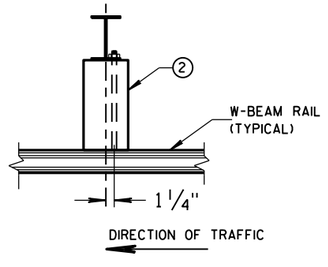
WOOD POST
(6" X 8") NOMINAL ①



PLAN VIEW
WOOD POST,
BLOCKOUT & BEAM



WOOD OR
PLASTIC BLOCKOUT ②



PLAN VIEW
STEEL POST,
PLASTIC BLOCKOUT & BEAM

MIDWEST GUARDRAIL SYSTEM
(MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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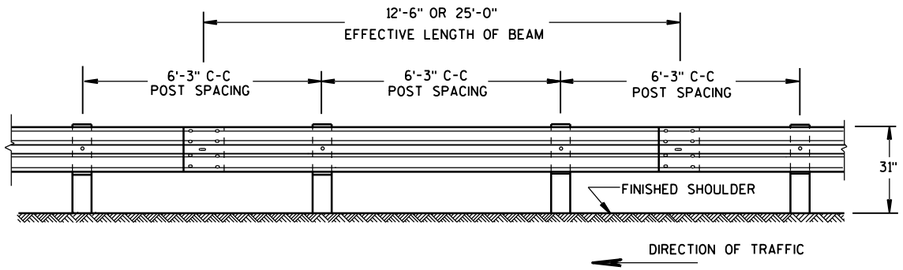
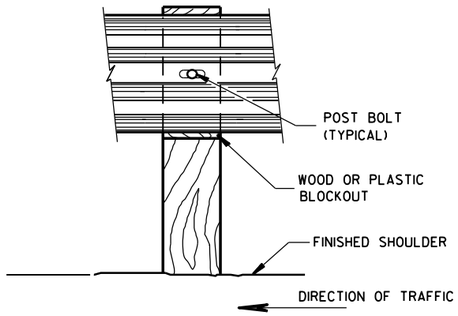
S.D.D. 14 B 42-3a



FRONT VIEW

POST SPACING STANDARD INSTALLATION



FRONT VIEW AT WOOD POST

GENERAL NOTES

(7) PROVIDE SILVER REFLECTIVE SHEETING ON ALL REFLECTORS EXCEPT THOSE LOCATED ALONG THE LEFT EDGE OF ONE-WAY ROADWAYS, WHICH SHALL BE PROVIDED WITH YELLOW REFLECTIVE SHEETING. SHEETING IS TYPE H. SEE STANDARD SPECIFICATION 637.

(8) DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL. RAIL SPLICE LOCATIONS ARE THE ONLY ACCEPTABLE LOCATIONS FOR REFLECTORS.

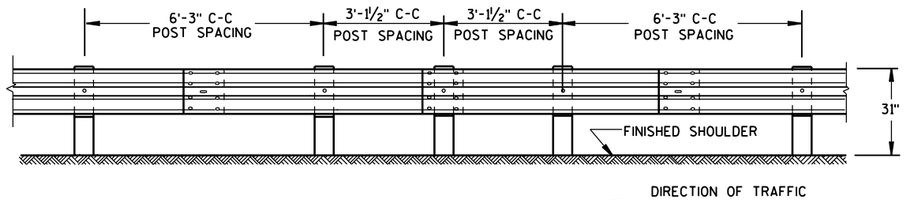
(9) REVERSE EVERY OTHER REFLECTOR FOR 2-WAY VISIBILITY. THE CONTRACTOR MAY FURNISH TWO-SIDED REFLECTORS IN LIEU OF ONE-SIDED REFLECTORS.

(10) PROVIDE AN ANGLE OF BEND OF 90° ± 1° FOR TWO-SIDED REFLECTORS.

(11) 25 FEET OF HALF POST SPACING IS REQUIRED ON APPROACH AND DEPARTURE ENDS OF QUARTER POST SPACING.

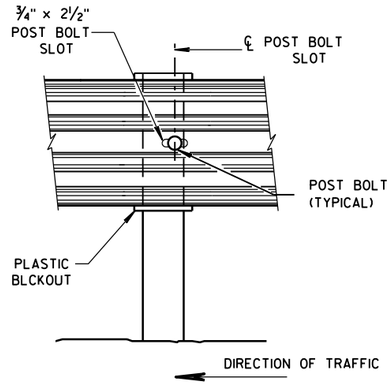
POST BOLTS ARE A 5/8" DIAMETER ASTM A307 GUARDRAIL BOLT. A POST BOLT REQUIRES 5/8" DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX NUT AND 5/8" DIAMETER F844 FLAT WASHER. POST BOLTS MAY BE LONGER IF MULTIPLE BLOCKOUTS ARE BEING USED.

GUARD RAIL SPLICE BOLTS ARE A 5/8" DIAMETER ASTM A307 GUARDRAIL HEAD BOLT. A GUARDRAIL SPLICE BOLT REQUIRES 5/8" DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX NUT.

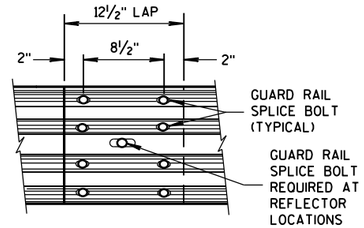


FRONT VIEW

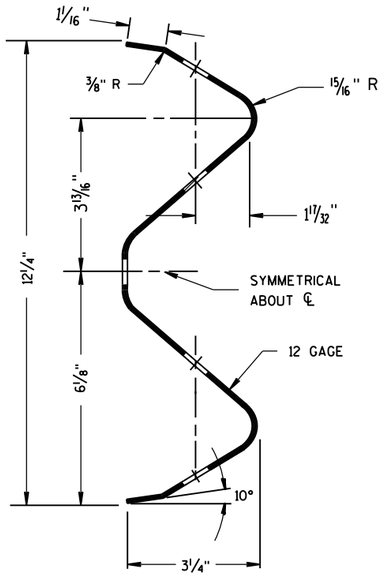
HALF POST SPACING (HS) AND HALF POST SPACING WITH LONGER POSTS (K)



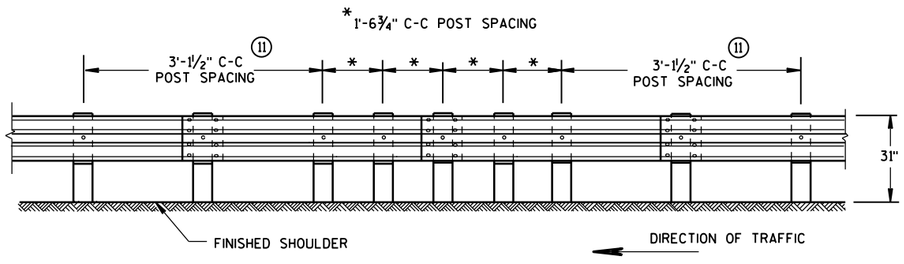
FRONT VIEW AT STEEL POST



FRONT VIEW
MID-SPAN BEAM SPLICE

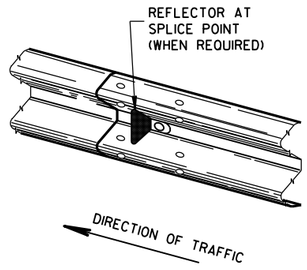


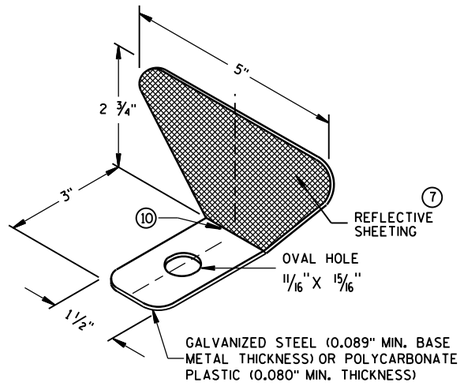
SECTION THRU W-BEAM RAIL



FRONT VIEW

QUARTER POST SPACING (QS)





REFLECTOR SPACING (8)

	BEAM GUARD LENGTH	REFLECTOR SPACING	NO. SURFACES REFLECTORIZED	MIN. NO. REFLECTORS
ONE WAY TRAFFIC	< 200'	50' C-C	1	3
	> 200'	100' C-C	1	
TWO WAY TRAFFIC	< 200'	25' C-C	1 (9)	6
	> 200'	50' C-C	1	
TWO WAY TRAFFIC	< 200'	50' C-C	2	3
	> 200'	100' C-C	2 (10)	

ONE SIDED REFLECTOR DETAIL AND TYPICAL INSTALLATION (7)

MIDWEST GUARDRAIL SYSTEM
(MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPO

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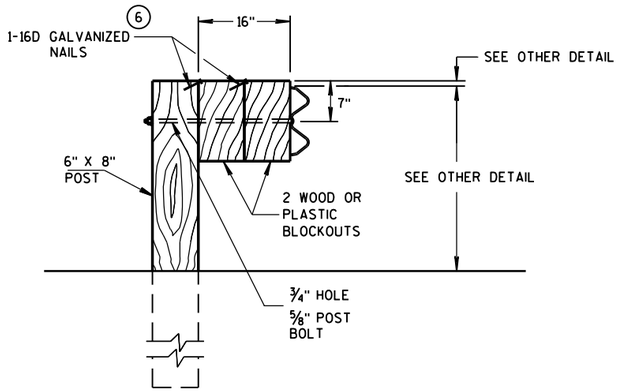
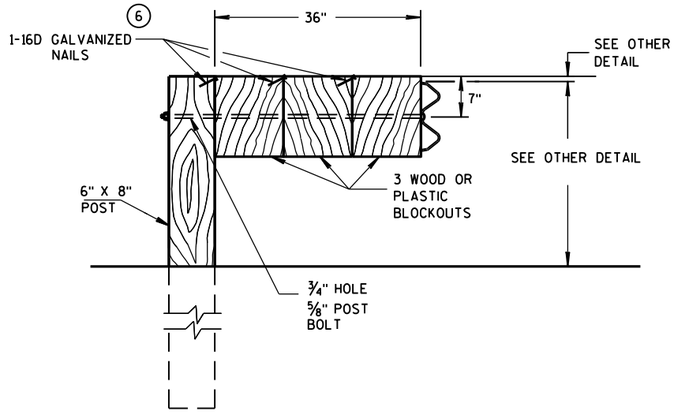
S.D.D. 14 B 42-3b



DETAIL FOR 16" BLOCKOUT DEPTH

IT IS ACCEPTABLE TO USE BLOCKOUTS UP TO 16" DEEP TO INCREASE THE POST OFFSET TO AVOID UNDERGROUND OBSTACLES. THERE IS NO LIMIT TO THE NUMBER OF POSTS THAT CAN HAVE ADDITIONAL BLOCKOUTS UP TO 16" DEEP.

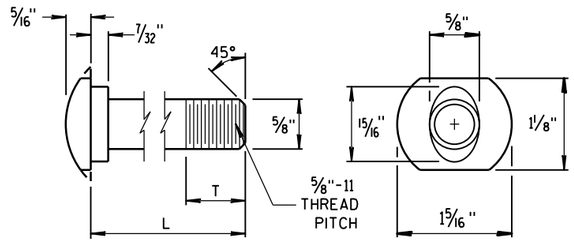


DETAIL FOR 36" BLOCKOUT DEPTH

NOTES: UNDER SPECIAL CIRCUMSTANCES, SUCH AS AVOIDING OBSTACLES THAT ARE NOT RELOCATED, IT IS ACCEPTABLE TO INSTALL ADDITIONAL BLOCKOUTS TO OBTAIN UP TO 36" DEPTH FOR ONE OR TWO POSTS IN A SECTION OF GUARDRAIL.

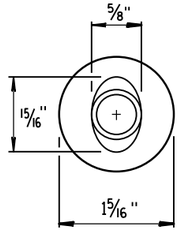
DO NOT USE 16" OR 36" BLOCKOUTS IF IT CAUSES THE POST TO BE DRIVEN BEYOND SHOULDER HINGE POINT OR CAUSES A FIXED OBJECT TO BE WITHIN THE DEFLECTION DISTANCE OF THE BARRIER.

NOTE: 1. ALL FILLETS SHALL HAVE A MINIMUM RADIUS OF 1/16".
2. IF THE BOLT EXTENDS MORE THAN 1/4" FROM THE NUT THE BOLT SHOULD BE TRIMMED BACK.

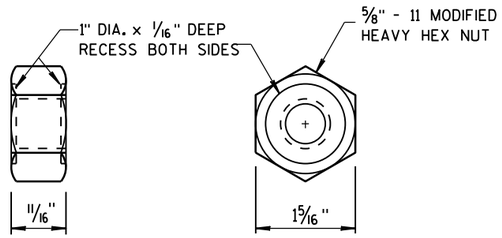


POST BOLT TABLE

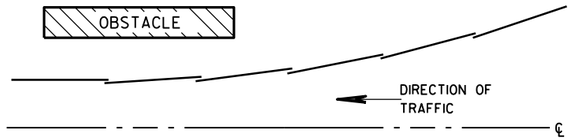
L	T (MIN.)
1¼"	1⅛"
2"	1¾"
10"	4"
14"	4 1/16"
18"	4"
21"	4 1/16"
25"	4"



ALTERNATE BOLT HEAD

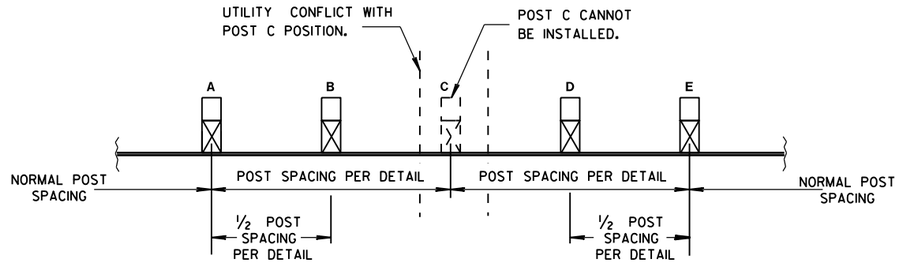


POST BOLT AND RECESS NUT

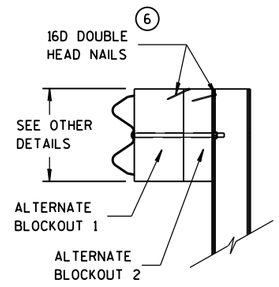


PLAN VIEW

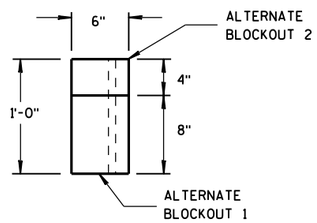
BEAM LAPPING DETAIL



POST DRIVING FOR CONTINUOUS UNDERGROUND OBSTRUCTION



SIDE VIEW



TOP VIEW

ALTERNATE WOOD BLOCKOUT DETAIL

MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2014
DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA

6
S.D.D. 14 B 42-3c

GENERAL NOTES

(A) THE SLOPE IN THE AREA BOUNDED BY THE GRADELINE, THE HINGE POINT LINE (HPL), AND THE CLEAR ZONE LIMITS (CZL) SHALL BE 4:1 OR FLATTER.

(B) AFTER FINAL ASSEMBLY, RECHECK CABLE TO BE SURE IT IS TAUT AND HAS NOT RELAXED.

(C) DIFFERENT MANUFACTURES REQUIRE DIFFERENT PERFORATED W-BEAM RAIL END PANELS. SEE MANUFACTURES INFORMATION.

(D) THE TOP OF THE STEEL TUBE ON POST 1 AND POST 2 SHALL NOT BE MORE THAN 3" ABOVE THE FINISH GROUND ELEVATION.

(F) ATTACH ALUMINUM SHEET TO E.A.T. HEAD USING 4 STAINLESS STEEL SELF-TAPPING SCREWS. ONE SCREW PER CORNER.

(G) ½" DIAMETER X 3" LONG LAG BOLT AND WASHER.

(H) HARDWARE VARIES BETWEEN DIFFERENT MANUFACTURES. SEE MANUFACTURE'S DRAWING FOR INFORMATION.

(I) DIMENSIONS MAY VARY. SEE MANUFACTURE'S INFORMATION.

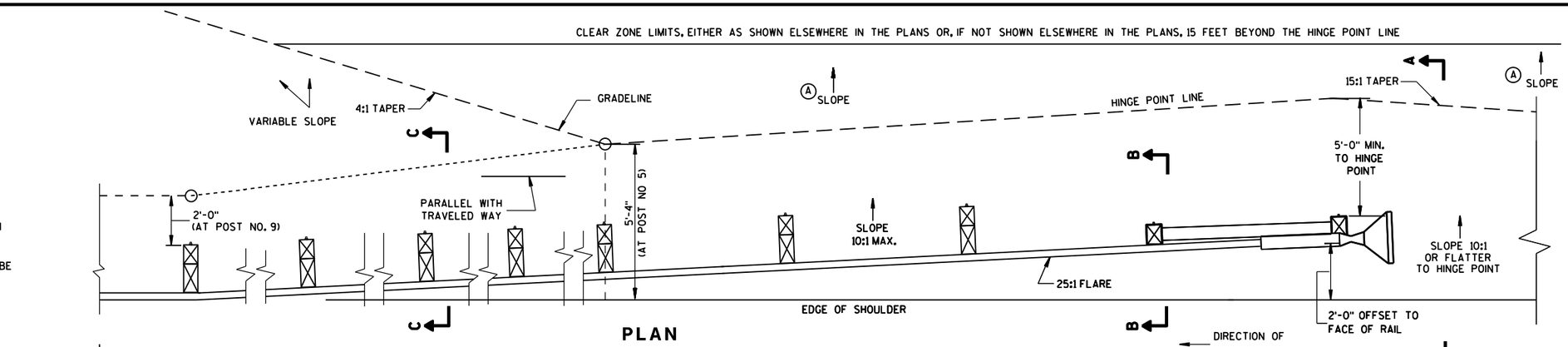
SEE SDD 14B42 FOR MORE INFORMATION.

* DO NOT ATTACH BLOCKOUTS TO POSTS 1 AND 2.

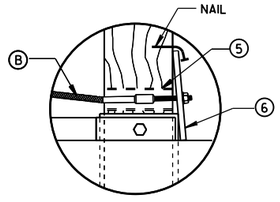
DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL.

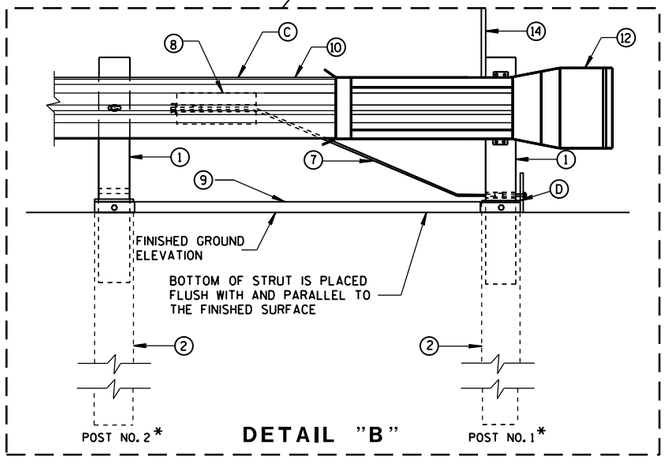
W-BEAM RAIL SPLICES ARE LOCATED AT POST NUMBER 3, AND BETWEEN POST 5 AND 6, BETWEEN POSTS 7 AND 8, AND MIDDLE OF THE SPAN AFTER POST 9.

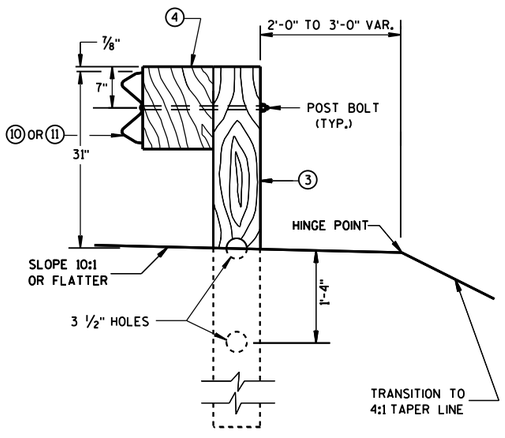
THE CENTER OF THE UPPER 3½" DIAMETER HOLE ON POST NUMBER 3 THROUGH POST 9 IS TO BE FLUSH WITH THE GROUND LINE UP TO A MAXIMUM OF 2" ABOVE GROUND LINE.



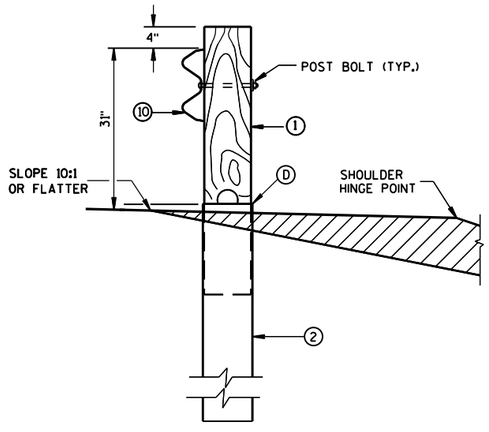
ELEVATION



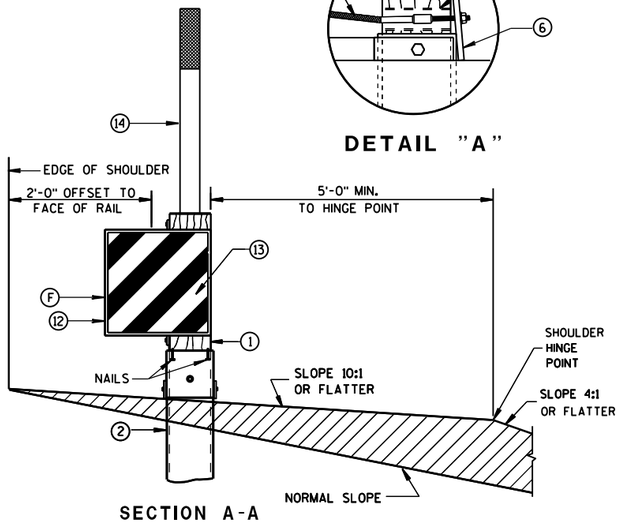




SECTION C-C
TYPICAL AT POST NOS. 3-9



SECTION B-B
TYPICAL AT POST NO. 2*



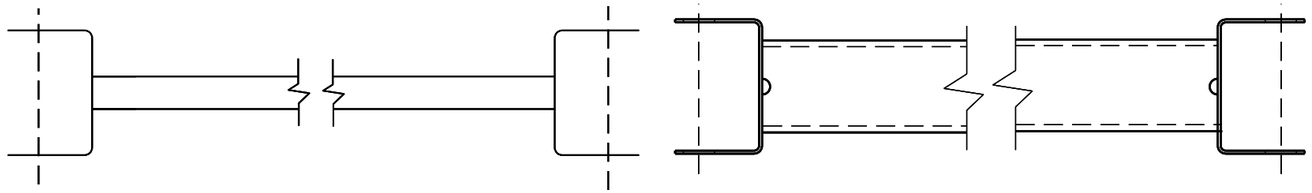
SECTION A-A
TYPICAL AT POST NO. 1*

MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL
(MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

S.D.D. 14 B 44-2a

S.D.D. 14 B 44-2a

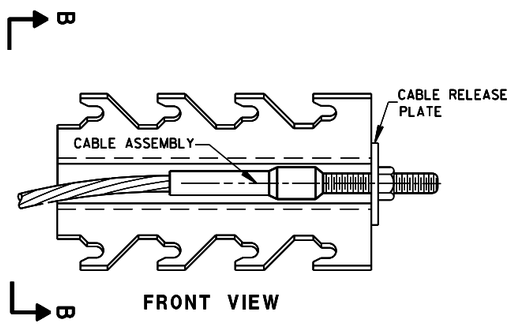


⑨ Ⓗ

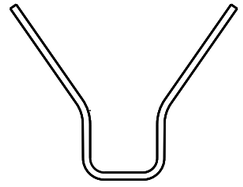
GENERIC GROUND STRUT

BILL OF MATERIALS

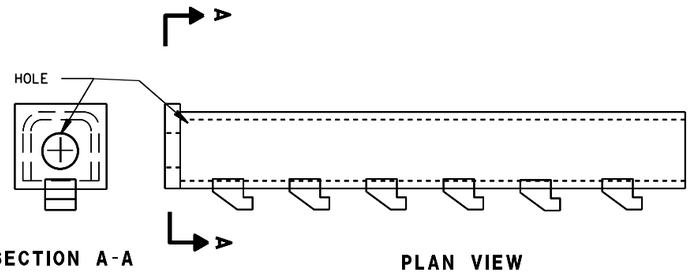
PART NO.	DESCRIPTION MATERIALS PROVIDED BY MGS EAT MANUFACTURER. SEE MANUFACTURER'S DETAILS FOR MORE INFORMATION.
①	WOOD BREAKAWAY POST
②	6" X 8" X 0.188", 6'-0" LONG FOUNDATION TUBE AT POSTS 1 AND 2
③	WOOD CRT
④	WOOD BLOCKOUT
⑤	PIPE SLEEVE
⑥	BEARING PLATE
⑦	BCT CABLE ASSEMBLY
⑧	ANCHOR CABLE BOX
⑨	GROUND STRUT
⑩	PERFORATED W-BEAM RAIL END PANEL, 12'-6" LONG.
⑪	STANDARD W-BEAM RAIL. MULTIPLE SECTIONS REQUIRED. SECTIONS VARY IN LENGTH.
⑫	END SECTION EAT
⑬	0.040" ALUMINUM SHEET WITH REFLECTIVE SHEETING TYPE F PER SECTION 637 OF THE STANDARD SPECIFICATIONS
⑭	EAT MARKER POST - YELLOW (SEE APPROVED PRODUCTS LIST)



FRONT VIEW



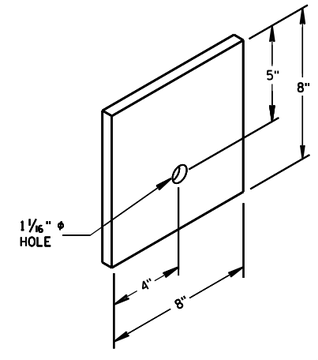
SECTION B-B



SECTION A-A

PLAN VIEW

GENERIC ANCHOR CABLE BOX ⑧ Ⓗ



BEARING PLATE ⑥

MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL
(MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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S.D.D. 14 B 44-2b

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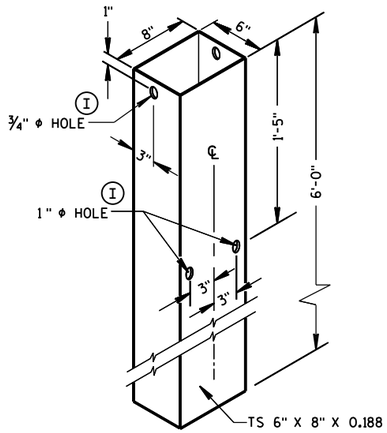
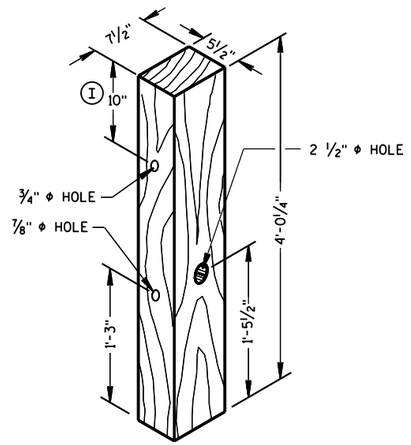
S.D.D. 14 B 44-2b

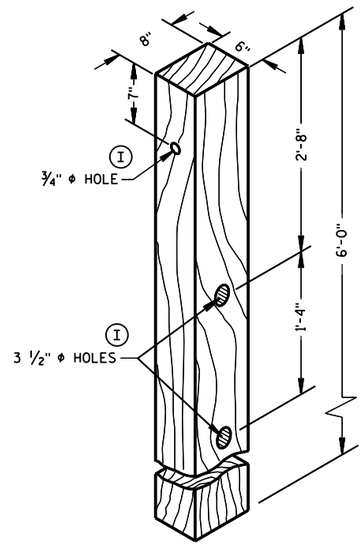


FOUNDATION TUBE (2)



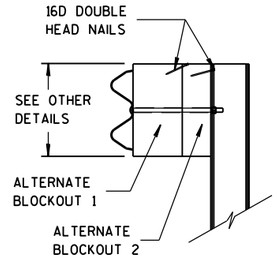
POSTS NUMBER 1 AND 2

WOOD BREAKAWAY POST (1)

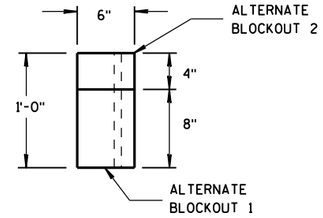


POSTS NUMBER 3-9

WOOD CRT POST (3)

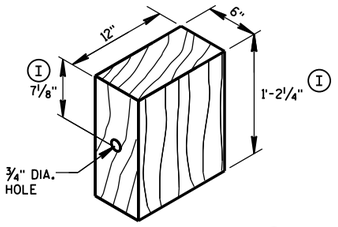


SIDE VIEW



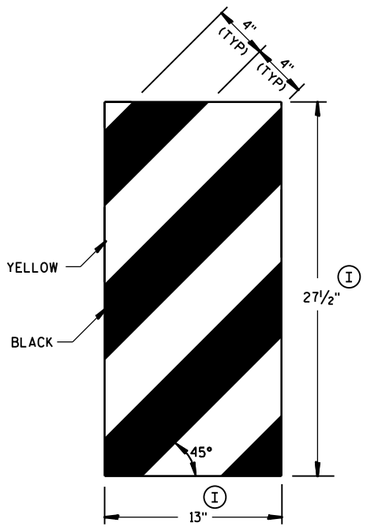
TOP VIEW

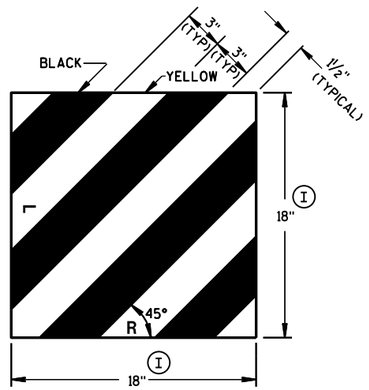
ALTERNATE WOOD BLOCKOUT DETAIL



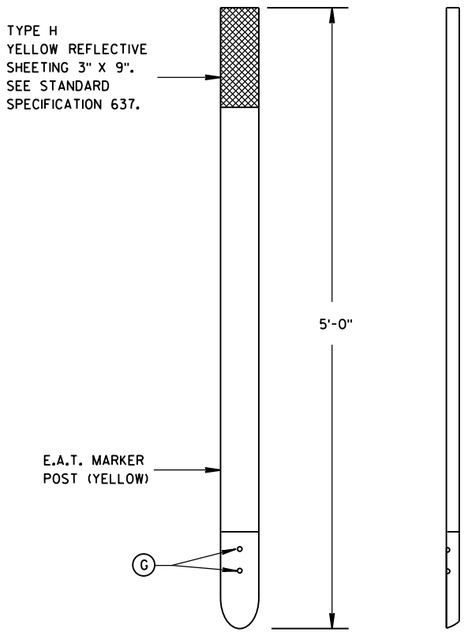
WOOD BLOCKOUT (4)

REQ'D. AT ALL POSTS EXCEPT POST NO'S 1 & 2





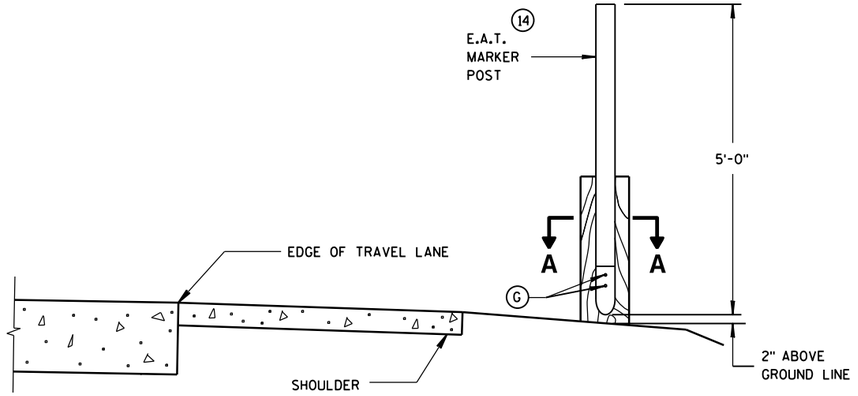
GENERIC REFLECTIVE SHEETING (13) (H)



FRONT VIEW

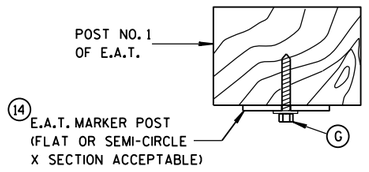
SIDE VIEW

E.A.T. MARKER POST (14)



TYPICAL INSTALLATION OF E.A.T. MARKER POST BACKSIDE OF POST NO. 1

(E.A.T. AND RAIL REMOVED FOR CLARITY)



SECTION A-A

MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2014 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS ENGINEER

FHWA

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S.D.D. 14 B 44-2c

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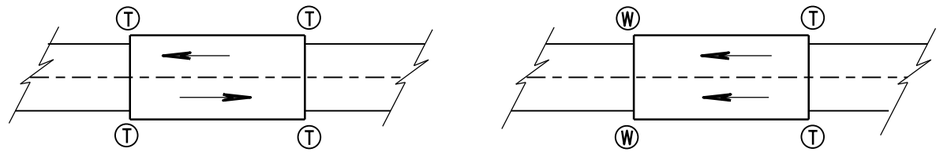
S.D.D. 14 B 44-2c



TWO WAY TRAFFIC **ONE WAY TRAFFIC**

Ⓣ THRIE BEAM CONNECTION

Ⓦ W-BEAM CONNECTION WHEN REQUIRED

TYPICAL LOCATIONS OF THRIE BEAM AND W-BEAM CONNECTIONS TO BRIDGE

GENERAL NOTES

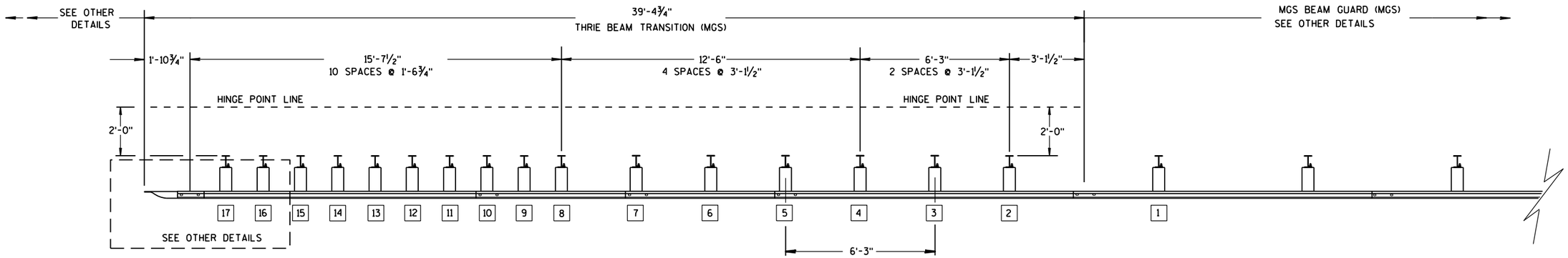
IF ROCK IS ENCOUNTERED, REMOVE ROCK TO FULL DEPTH OF POST PLUS 2½", AND 12" DIAMETER AROUND POST. SEE 14B42 FOR MORE DETAILS.

TRANSITION USES STEEL POSTS ONLY.

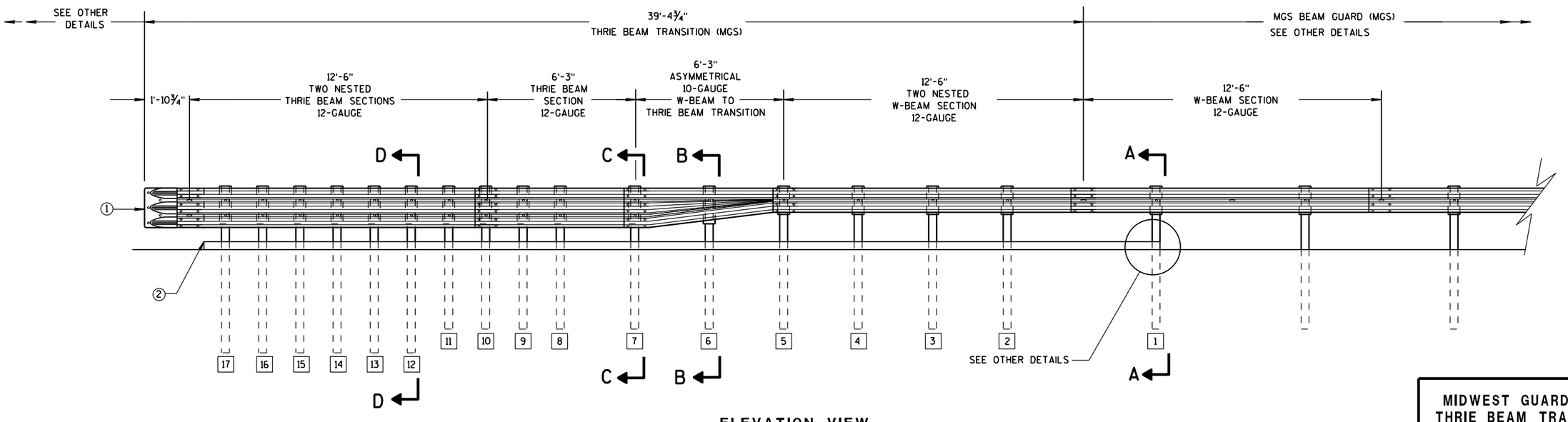
SEE STANDARD DETAIL DRAWING 14 B 42 FOR MORE INFORMATION.

① BRIDGE RAILING TYPE "W" DOES NOT REQUIRE A TERMINAL CONNECTOR.

② OPTIONAL CURB AND GUTTER OR DRAINAGE FEATURE SEE PLAN FOR INFORMATION.



PLAN VIEW



ELEVATION VIEW

MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

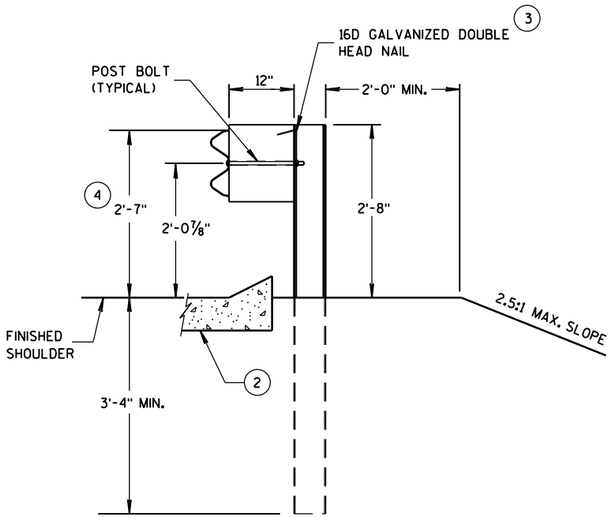
S.D.D. 14 B 45-4a

GENERAL NOTES

(2) OPTIONAL CURB AND GUTTER OR DRAINAGE_FEATURE SEE PLAN FOR INFORMATION.

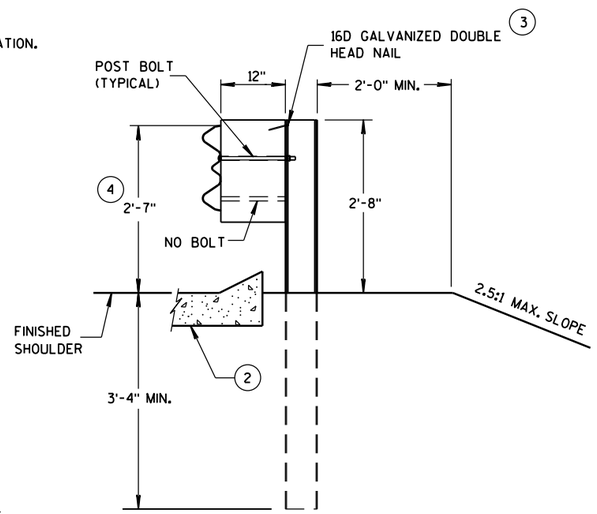
(3) WHEN USING STEEL POSTS AND WOOD BLOCKOUTS INSTALL FOUR 10D GALVANIZED NAILS. INSTALL NAILS AT THE BACK CORNERS OF THE BLOCK AND BEND THE NAILS OVER THE FLANGE OF THE STEEL POST.

(4) TOLERANCE FOR TOP OF W-BEAM RAIL IS ± 1".



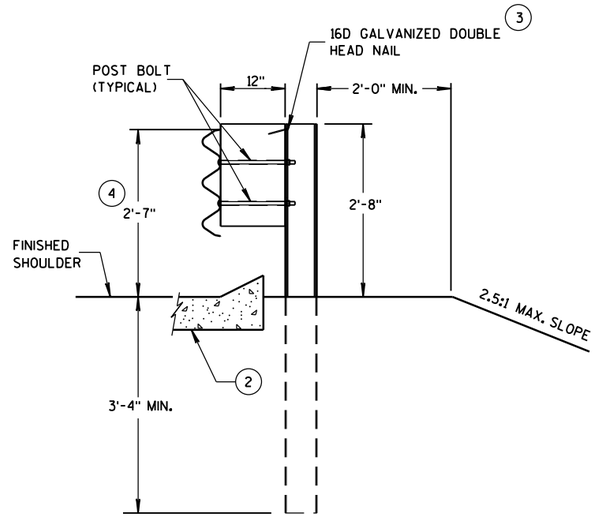
SECTION A-A

POSTS 1-5



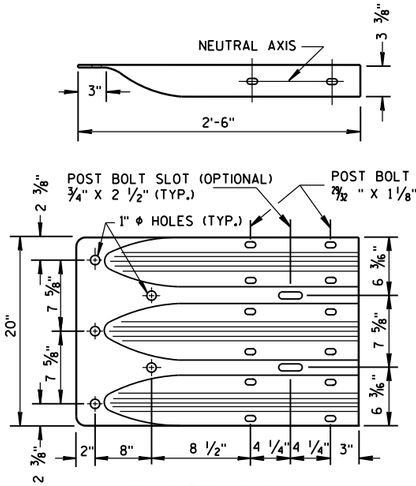
SECTION B-B

POST 6



SECTION C-C

POSTS 7-11



THRIE BEAM TERMINAL CONNECTOR

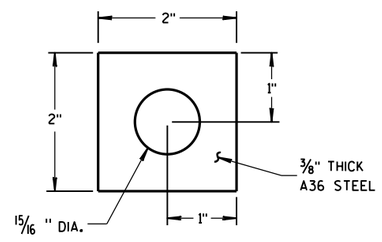
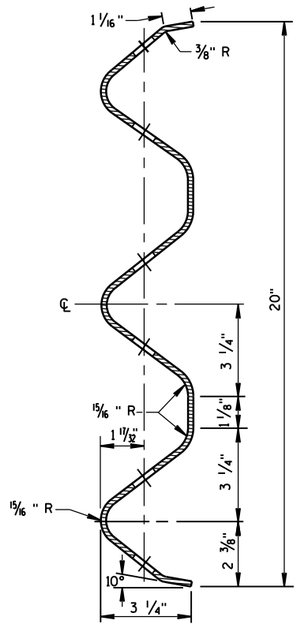
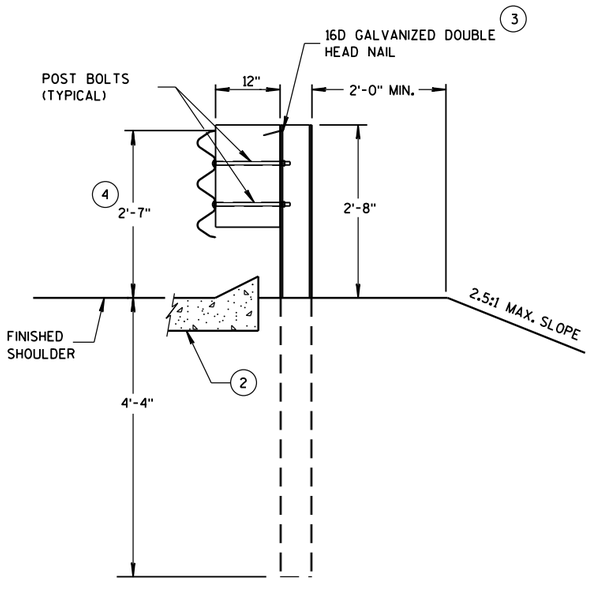


PLATE WASHER DETAIL

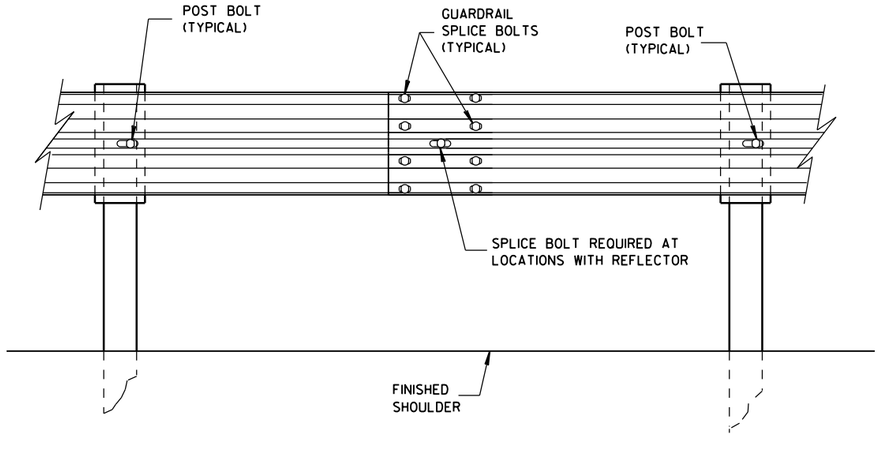


SECTION THRU THRIE BEAM RAIL ELEMENT



SECTION D-D

POSTS 12-17



SPLICE DETAIL

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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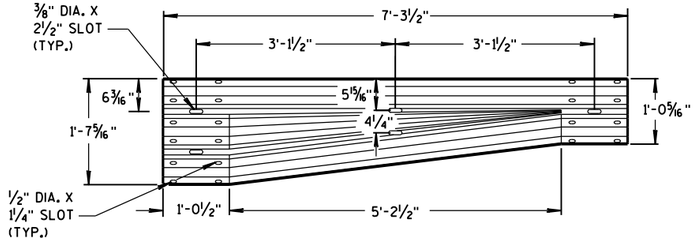
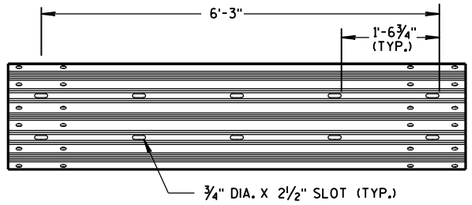
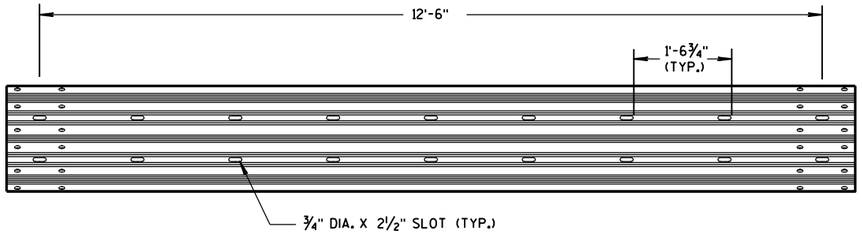
S.D.D. 14 B 45-4b



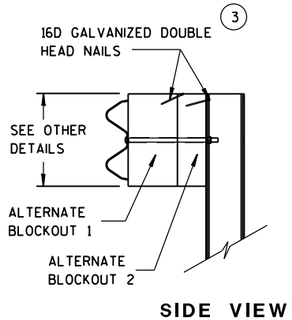
W-BEAM TO THRIE BEAM TRANSITION SECTION



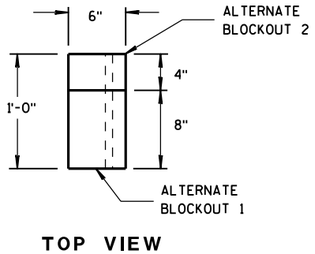
6'-3" THRIE BEAM SECTION



12'-6" THRIE BEAM SECTION

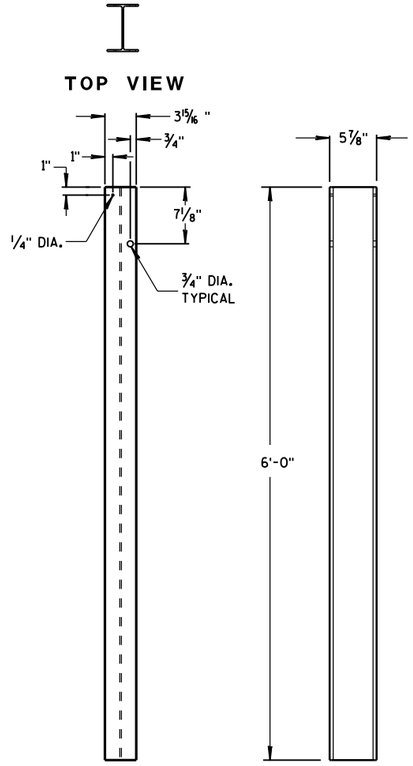


SIDE VIEW

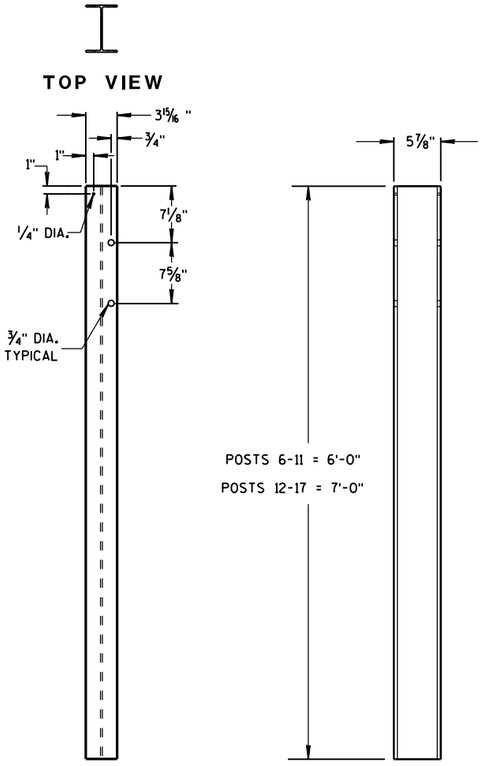


TOP VIEW

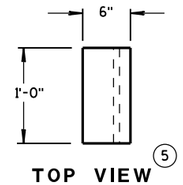
ALTERNATE WOOD BLOCKOUT DETAIL



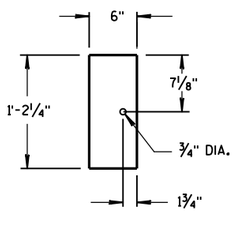
STEEL POSTS 1-5



STEEL POSTS 6-17

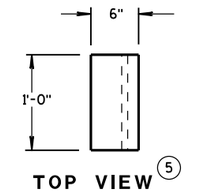


TOP VIEW

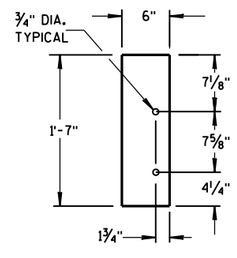


FRONT VIEW

BLOCKOUT POSTS 1-5



TOP VIEW



FRONT VIEW

BLOCKOUT POSTS 6-17

GENERAL NOTES

STEEL POSTS ARE W6X9 OR W6X8.5.

BOLT HOLES FOR POST ARE ON FRONT AND OF SIDE OF POST.

(3) WHEN USING STEEL POSTS AND WOOD BLOCKOUTS INSTALL FOUR 16D GALVANIZED NAILS. INSTALL NAILS AT THE BACK CORNERS OF THE BLOCK AND BEND THE NAILS OVER THE FLANGE OF THE STEEL POST.

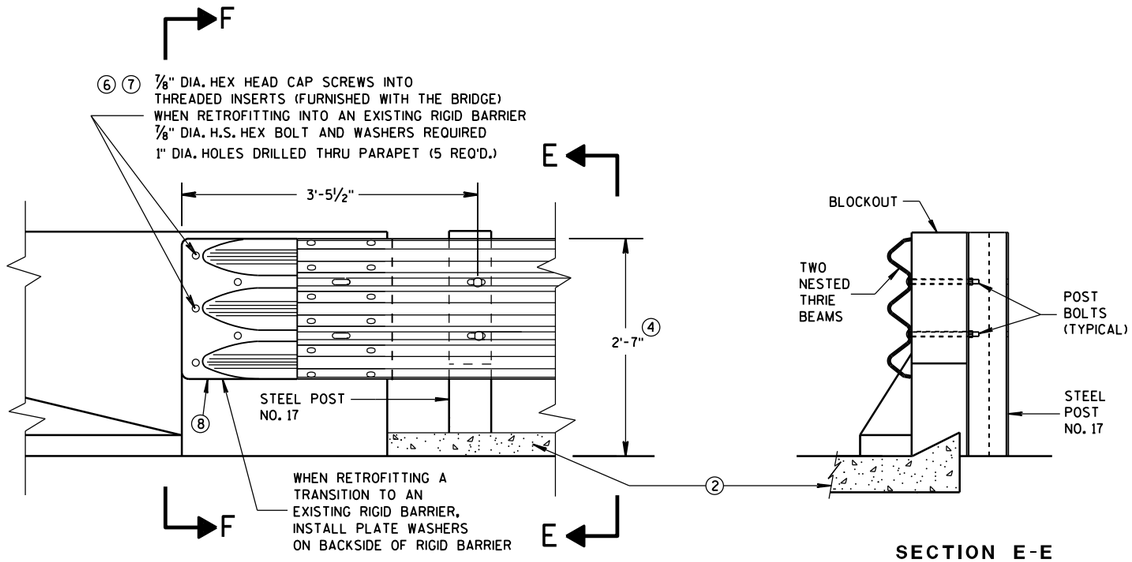
(5) WOOD BLOCKS MAY BE CONSTRUCTED OUT OF 2 WOOD BLOCKS. SEE ALTERNATE WOOD BLOCK DETAIL.

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6

S.D.D. 14 B 45-4c



FRONT VIEW

SECTION E-E

THRIE BEAM CONNECTION TO BRIDGE PARAPET WITH SQUARE ENDS

GENERAL NOTES

THESE ARE TYPICAL CONNECTION DETAILS. ADJUST THE POSTION OF CONNECTIONS TO EXISTING BRIDGES TO FIT THE ACTUAL BRIDGE AND SITE DIMENSIONS.

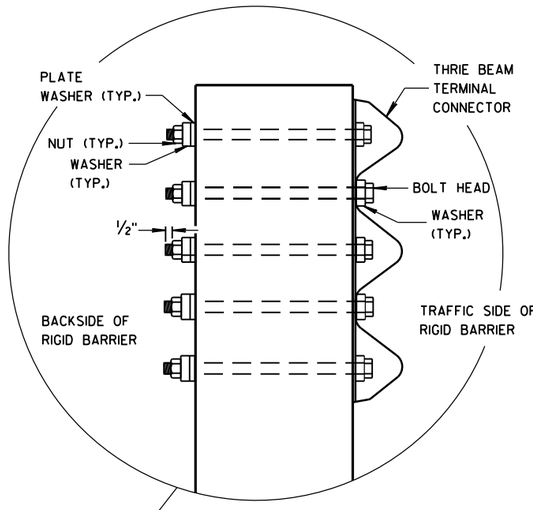
② OPTIONAL CURB AND GUTTER OR DRAINAGE FEATURE SEE PLAN FOR INFORMATION.

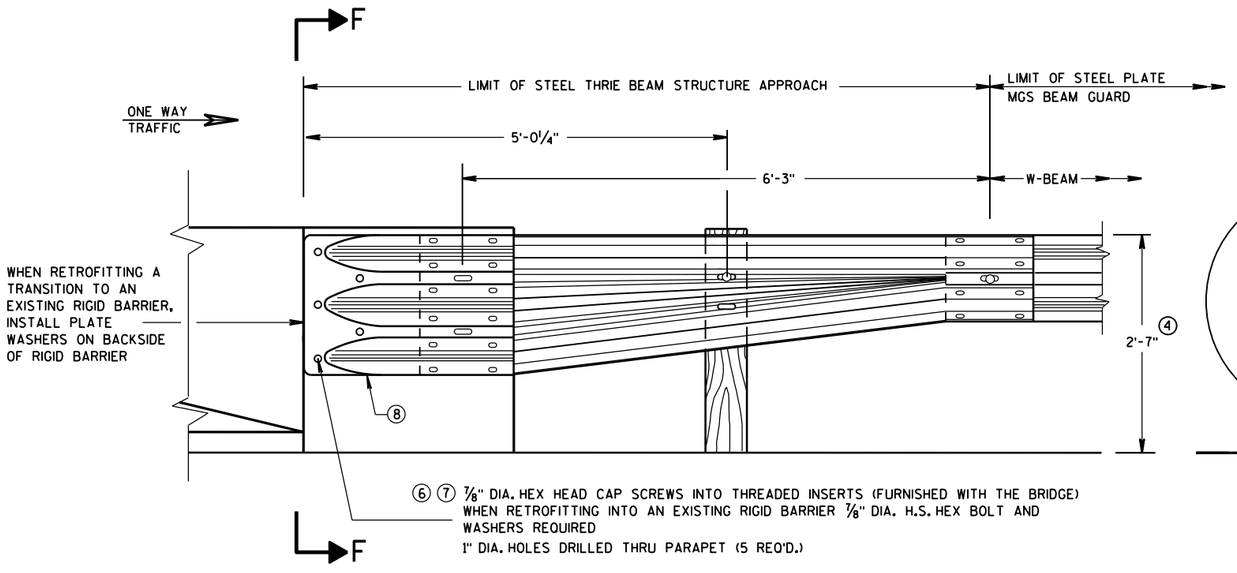
④ TOLERANCE FOR TOP OF BEAM IS ± 1".

⑥ DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

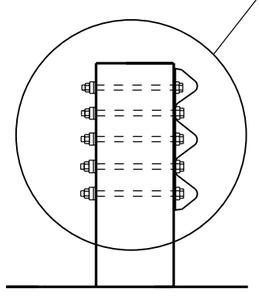
⑦ BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE. BOLTS THAT EXTEND THROUGH THE PARAPET AND OUT THE BACK FACE REQUIRE A HARDENED ROUND STEEL WASHER THAT IS 2" O.D. X 5/8" THICK AND ONE PLATE WASHER. REPAIR ANY DAMAGED CONCRETE FROM BOLT INSTALLATION.

⑧ THE RECESS FOR A W-BEAM CONNECTION, WHICH EXISTS ON SOME PARAPETS OF THIS TYPE, SHALL BE FILLED WITH A TREATED TIMBER BLOCKOUT. BLOCKOUT SIZE IS 1'-6" X 2'-0" X 3 1/2".

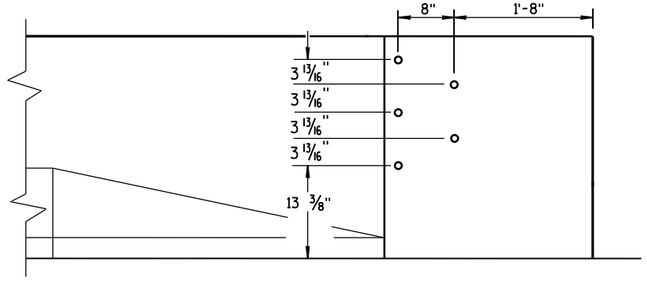




FRONT VIEW



SECTION F-F



DRILL HOLE LOCATION

W BEAM TRANSITION AND CONNECTION TO BRIDGE PARAPETS WITH SQUARE ENDS

(USE ONLY ON THE TRAFFIC EXIT END OF ONE WAY BRIDGES)

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June, 2015 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA

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S.D.D. 14 B 45-4d

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S.D.D. 14 B 45-4d

GENERAL NOTES

THESE ARE TYPICAL CONNECTION DETAILS. ADJUST THE POSTION OF CONNECTIONS TO EXISTING BRIDGES TO FIT THE ACTUAL BRIDGE AND SITE DIMENSIONS.

(2) OPTIONAL CURB AND GUTTER OR DRAINAGE FEATURE SEE PLAN FOR INFORMATION.

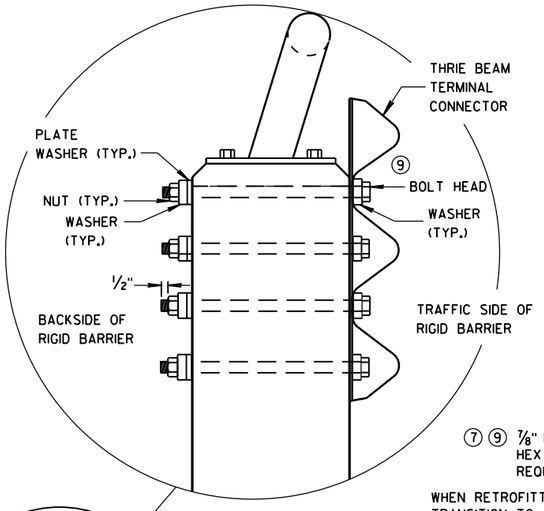
(4) TOLERANCE FOR TOP OF BEAM IS ± 1".

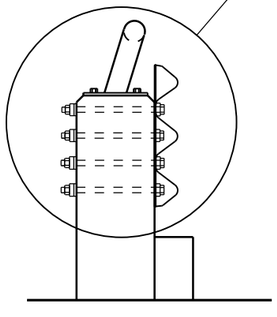
(6) DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

(7) BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE. BOLTS THAT EXTEND THROUGH THE PARAPET AND OUT THE BACK FACE REQUIRE A HARDENED ROUND STEEL WASHER THAT IS 2" O.D. X 5/8" THICK AND ONE PLATE WASHER. REPAIR ANY DAMAGED CONCRETE FROM BOLT INSTALLATION.

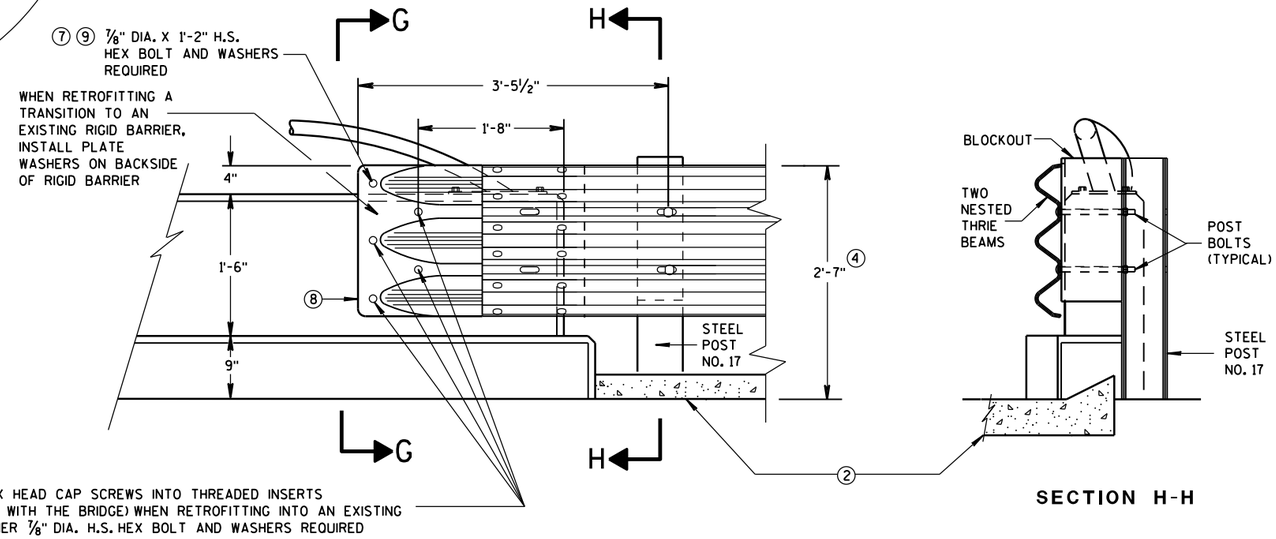
(8) THE RECESS FOR A W-BEAM CONNECTION, WHICH EXISTS ON SOME PARAPETS OF THIS TYPE, SHALL BE FILLED WITH A TREATED TIMBER BLOCKOUT. BLOCKOUT SIZE IS 1'-6" X 2'-0" X 3 1/2".

(9) BOLT, NUT AND WASHERS NOT REQUIRED FOR THIS LOCATION WHEN RETROFITTING AN EXISTING PAPAPET AND THE HOLE IS EITHER ABOVE PARAPET OR WITHIN 4 INCHES OF THE EDGE OF PARAPET.





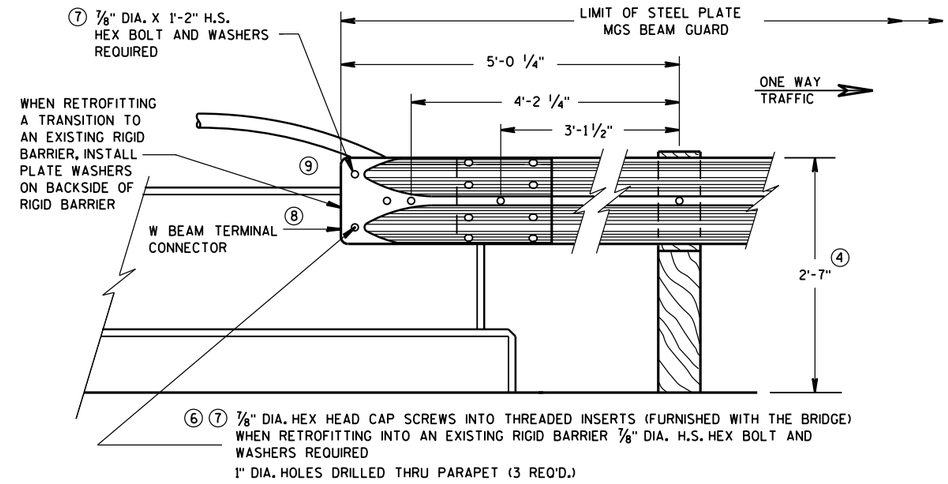
SECTION G-G



FRONT VIEW

SECTION H-H

THRIE BEAM CONNECTION TO VERTICAL FACED PARAPETS



FRONT VIEW

W BEAM CONNECTION TO VERTICAL FACE PARAPET

(USE ONLY ON THE TRAFFIC EXIT END OF ONE WAY BRIDGES)

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June, 2015 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS DEVELOPMENT ENGINEER
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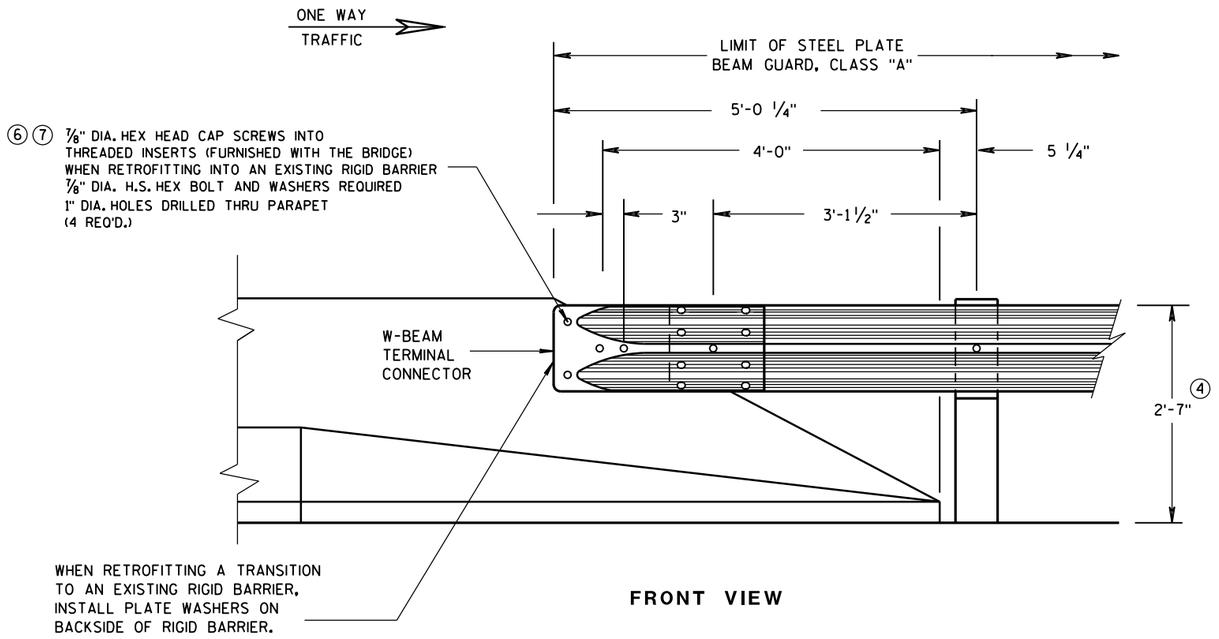


FRONT VIEW

W BEAM CONNECTION TO PARAPETS WITH SLOPED ENDS

(USE ONLY AT TRAFFIC EXIT END OF ONE WAY BRIDGE)

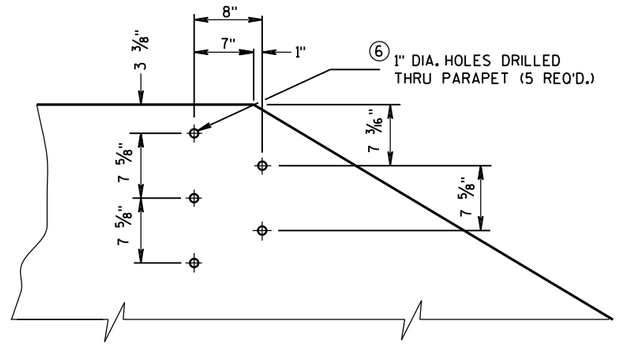
GENERAL NOTES

② OPTIONAL CURB AND GUTTER OR DRAINAGE FEATURE SEE PLAN FOR INFORMATION.

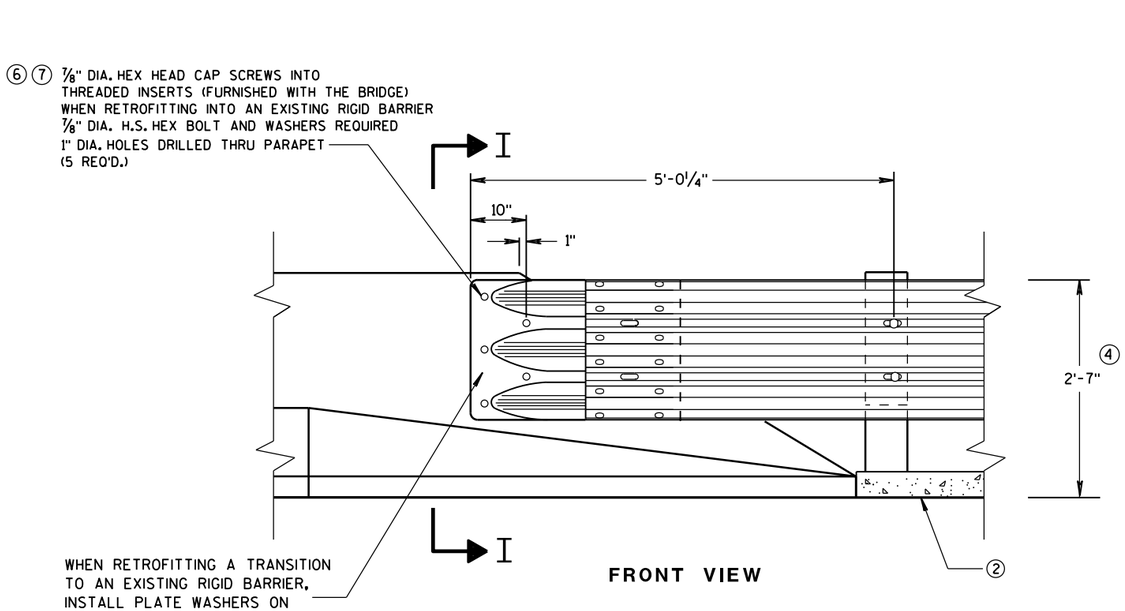
④ TOLERANCE FOR TOP OF BEAM IS ± 1".

⑥ DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

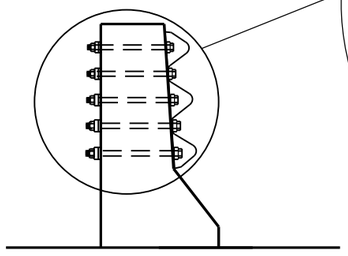
⑦ BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE. BOLTS THAT EXTEND THROUGH THE PARAPET AND OUT THE BACK FACE REQUIRE A HARDENED ROUND STEEL WASHER THAT IS 2" O.D. X 5/8" THICK AND ONE PLATE WASHER. REPAIR ANY DAMAGED CONCRETE FROM BOLT INSTALLATION.



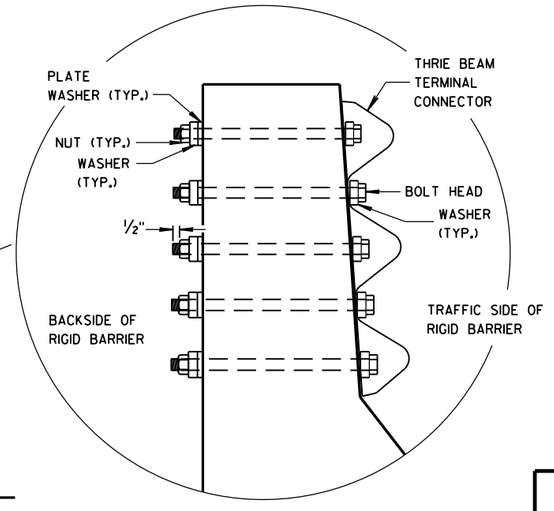
DRILL HOLE LOCATION AND PATTERN
FOR THRIE BEAM CONNECTION



FRONT VIEW



SECTION I-I



THRIE BEAM CONNECTION TO BRIDGE PARAPETS WITH SLOPED ENDS

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

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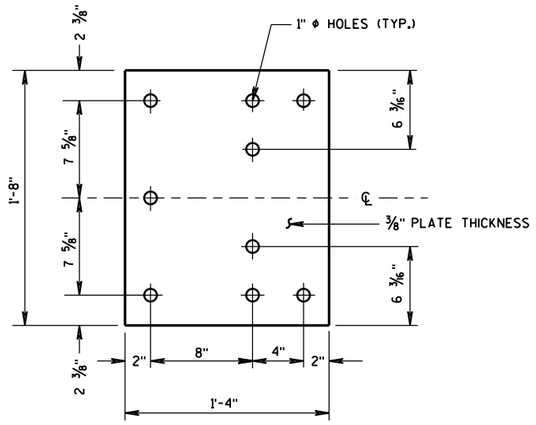
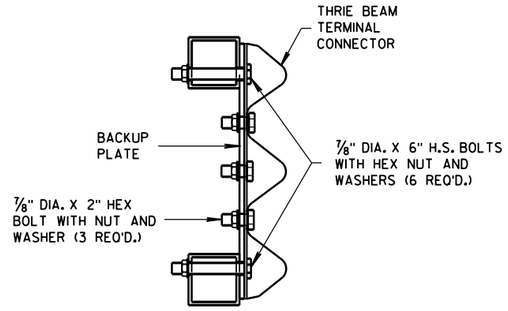
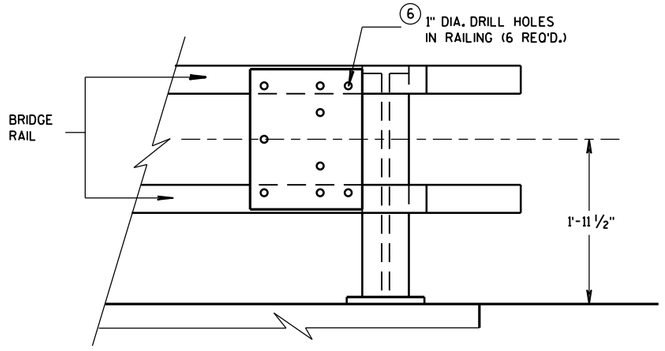


BACK-UP PLATE DETAIL



SECTION J-J

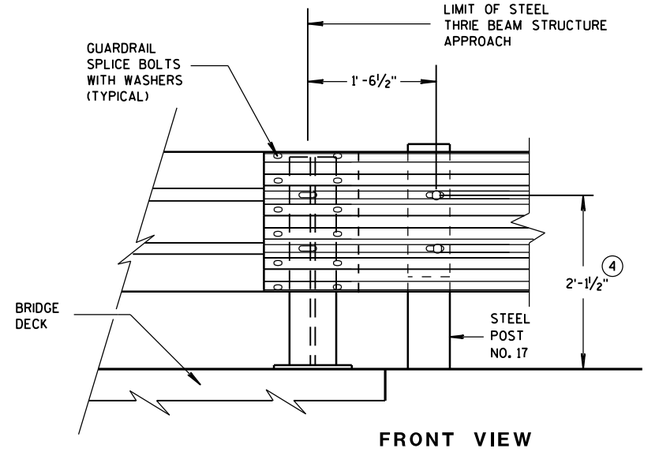


BACK-UP PLATE MOUNTING ONTO BRIDGE RAILING

GENERAL NOTES

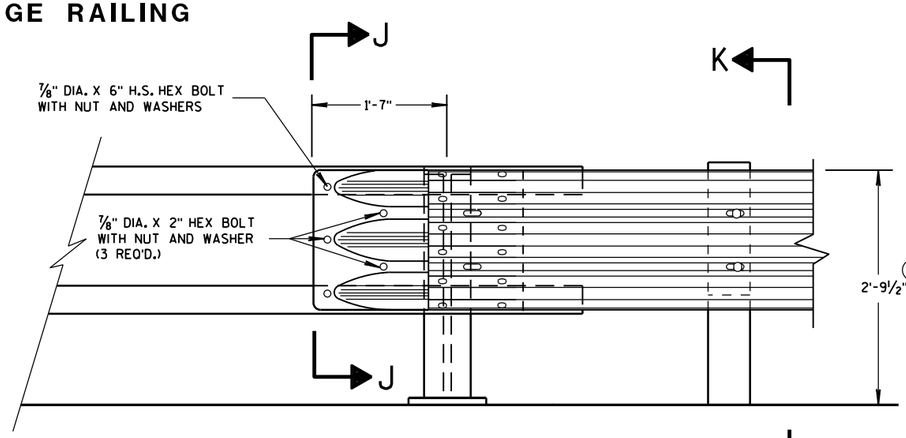
4 TOLERANCE FOR TOP OF BEAM IS ± 1".

6 DRILLING HOLES THROUGH THE PAPRPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

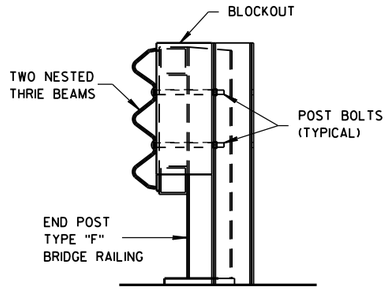


FRONT VIEW

THRIE BEAM CONNECTION TO STEEL RAILING TYPE "W"



FRONT VIEW



SECTION K-K

THRIE BEAM CONNECTION TO TUBULAR RAILING TYPE "F"

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

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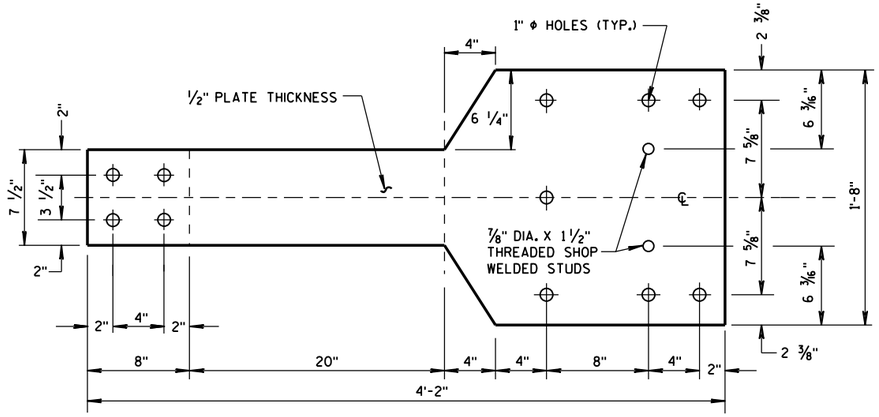
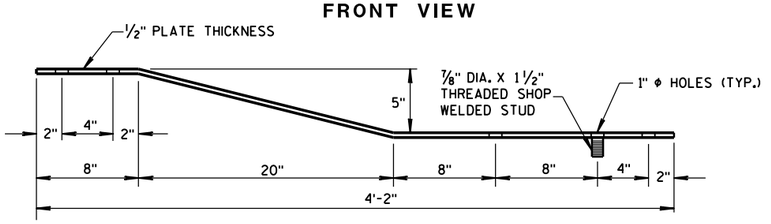
GENERAL NOTES

(4) TOLERANCE FOR TOP OF W-BEAM RAIL IS ± 1".

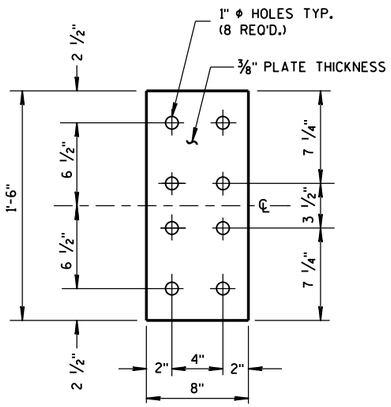


FRONT VIEW



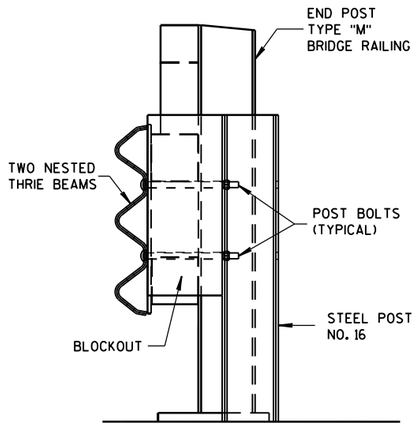
PLAN VIEW

BACK-UP PLATE DETAIL, TYPE "M"

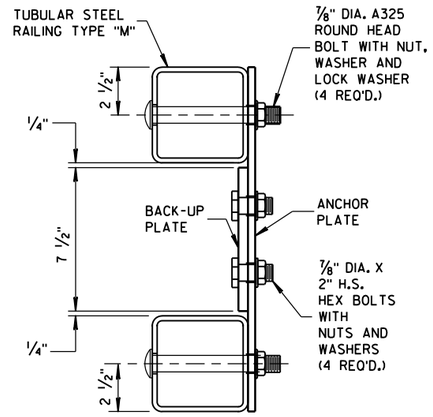


FRONT VIEW

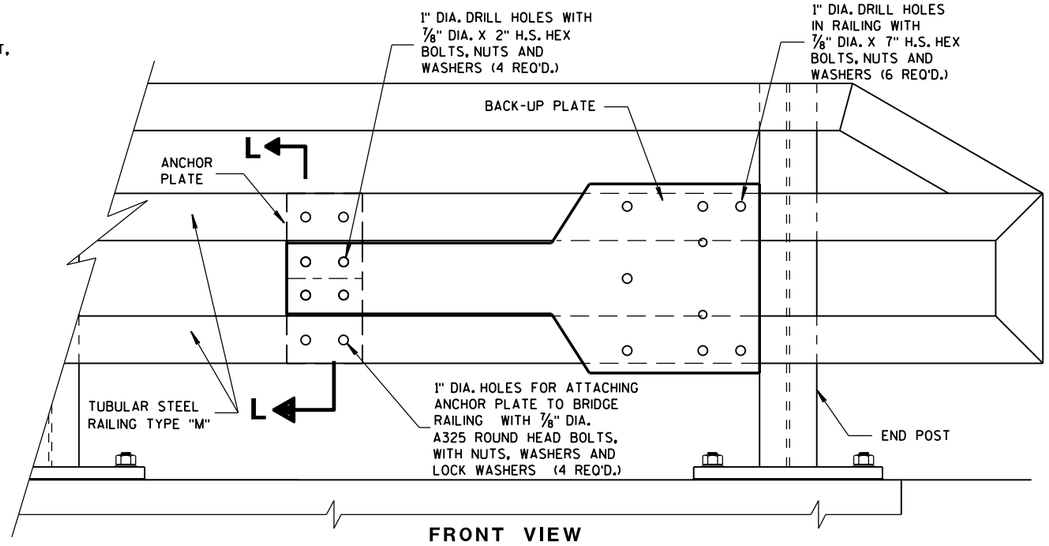
ANCHOR PLATE DETAIL, TYPE "M"



SECTION M-M

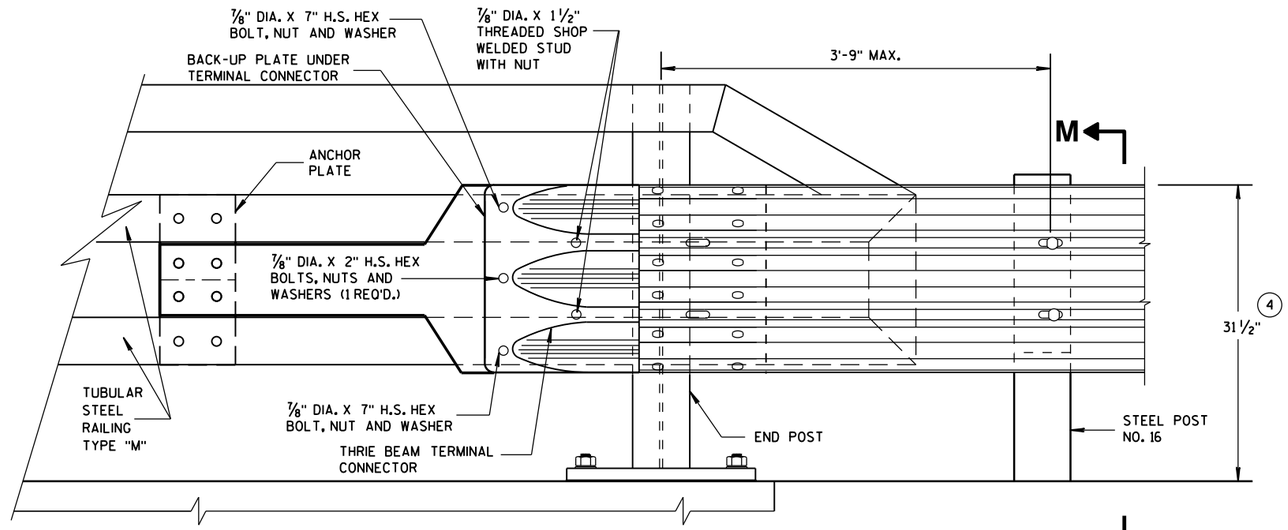


SECTION L-L

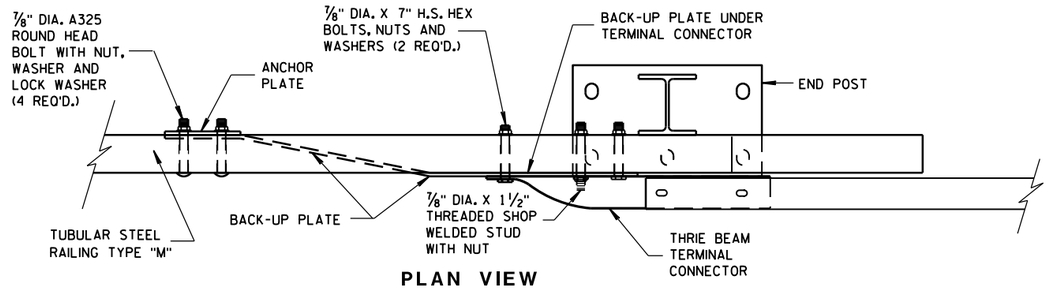


FRONT VIEW

ANCHOR AND BACK-UP PLATE MOUNTING TO BRIDGE RAILING, TYPE "M"



FRONT VIEW



PLAN VIEW

THRIE BEAM CONNECTION TO TUBULAR RAILING, TYPE "M"

MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
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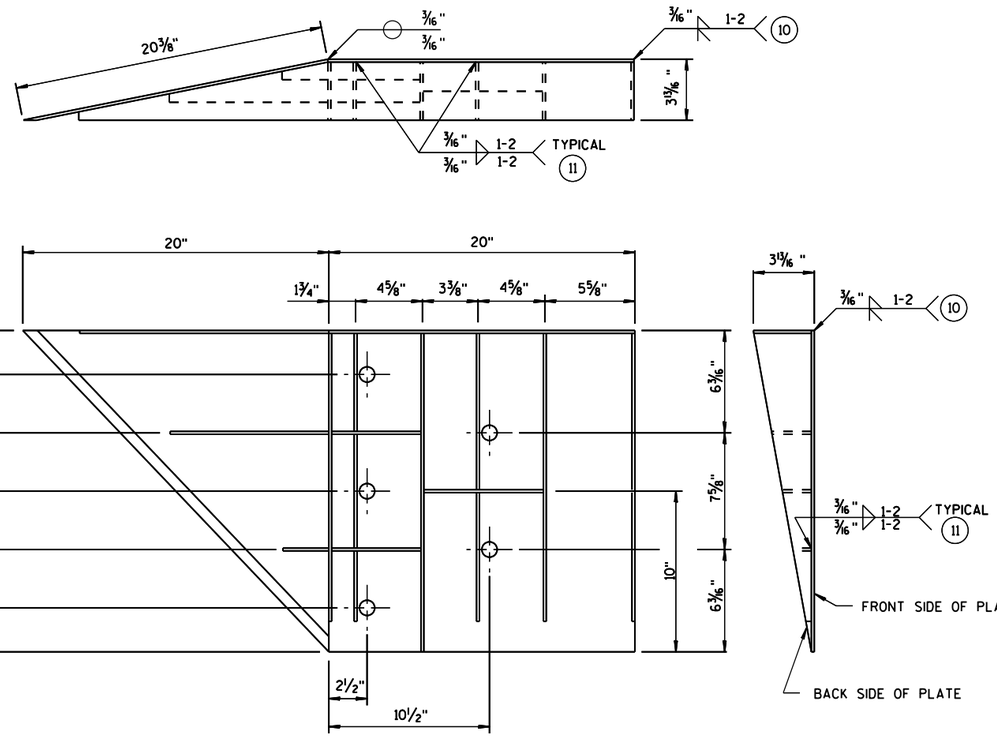

WELDING INSTRUCTION

(VIEWED FROM BACK SIDE OF PLATE)

GENERAL NOTES

COVER PLATE PANELS ARE 3/16" THICK.

ALL STIFFENERS ARE 1/4" THICK.

CONNECTOR PLATE SHALL BE FABRICATED FROM ASTM GRADE A36 STEEL AND GALVANIZED.

FOR GALVANIZED REQUIREMENTS, SEE SECTION 614 OF THE STANDARD SPECIFICATIONS.

ALL HOLE DIAMETERS SHALL BE 1".

FOR OPPOSITE SIDE INSTALLATION MIRROR DRAWINGS.

(10) STIFFENERS LOCATED AT THE OUTSIDE EDGES OF THE COVER PLATES SHALL BE WELDED AS FOLLOWS:
SINGLE BEVEL GROOVE WELD ON EXTERNAL SIDES AND 3/16" FILLET WELD BY 1" LONG SPACED AT 2" ON INTERNAL SIDES.

(11) STIFFENERS LOCATED ON THE INSIDE OF THE COVER PLATE SHALL BE WELDED AS FOLLOWS:
3/16" FILLET WELD BY 1" LONG SPACED AT 2".

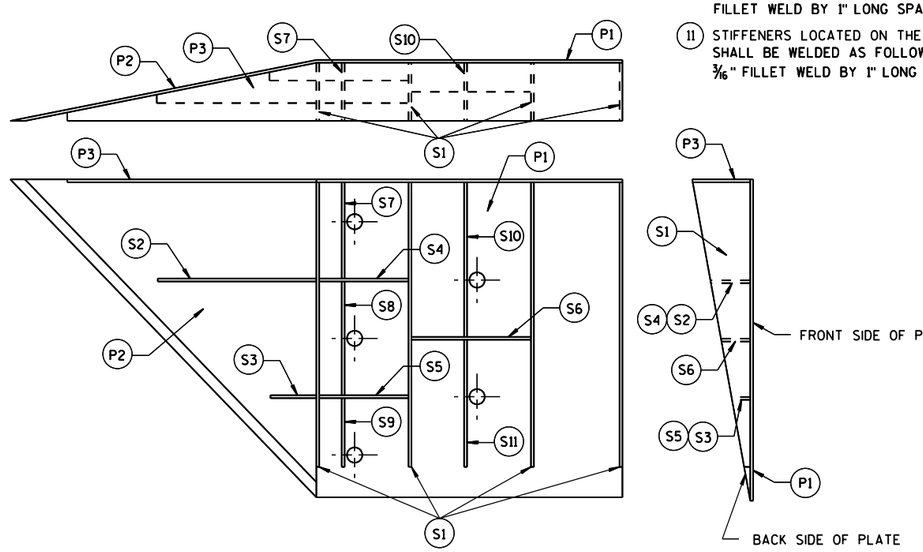

PLATE AND STIFFENER IDENTIFICATION

(VIEWED FROM BACK SIDE OF PLATE)

CONNECTOR PLATE DIMENSION (PER ASSEMBLY)

PLATE	QUANTITY	SHAPE	SIZE (A x B x C x D)	THICKNESS
P1	1		20" x 20"	3/16"
P2	1		20" x 20" x 28 9/16"	3/16"
P3	1		39" x 3 5/8" x 20" x 19 5/16"	3/16"
S1	4		18 7/16" x 3 3/8" x 18 3/4"	1/4"
S2	1		10 1/4" x 2 7/16" x 10 3/8" x 1/2"	1/4"
S3	1		3" x 1 1/16" x 3 1/8" x 1/2"	1/4"
S4	1		6 1/8" x 2 7/16"	1/4"
S5	1		6 1/8" x 1 1/16"	1/4"
S6	1		7 3/4" x 1 3/4"	1/4"
S7	1		2 9/16" x 6" x 3 5/8" x 5 7/8"	1/4"
S8	1		1 5/32" x 7 1/2" x 2 1/2" x 7 3/8"	1/4"
S9	1		6 1/16" x 6 3/16" x 1 1/32"	1/4"
S10	1		1 7/8" x 9 7/8" x 3 5/8" x 9 11/16"	1/4"
S11	1		8 1/2" x 8 3/4" x 1 13/16"	1/4"

SINGLE SLOPE CONNECTION PLATE

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

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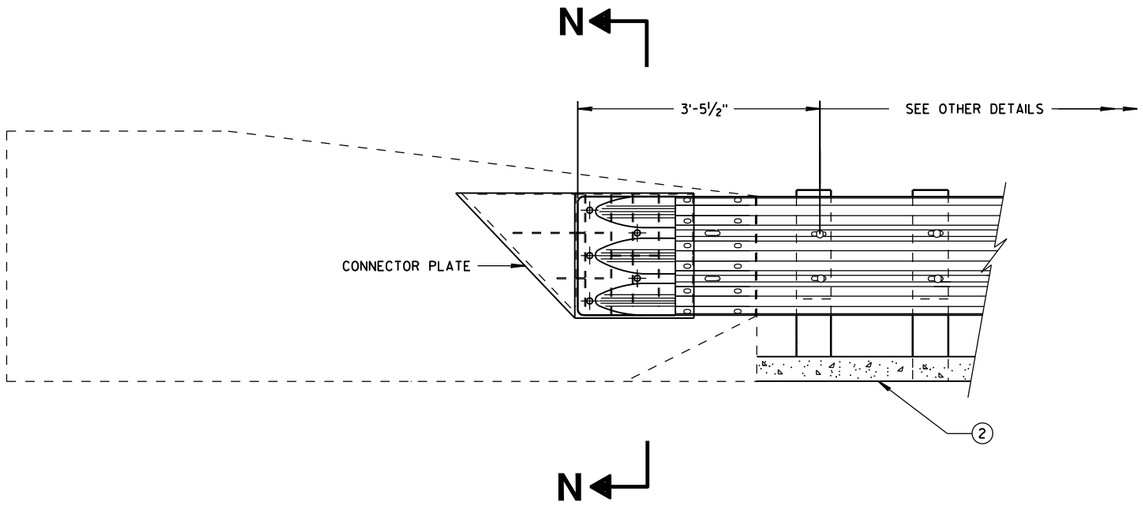
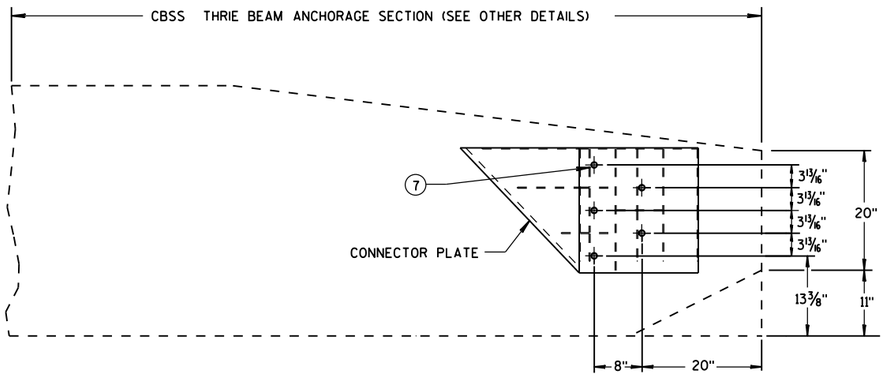


THRIE BEAM CONNECTION TO SINGLE SLOPE BARRIER



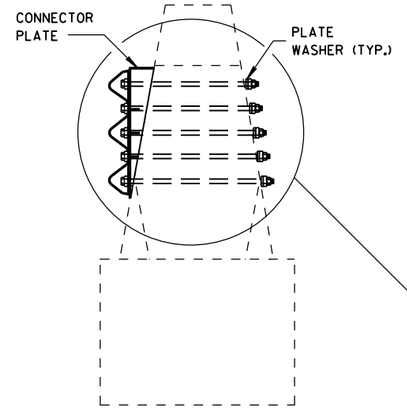
SINGLE SLOPE CONNECTION PLATE PLACEMENT

GENERAL NOTES

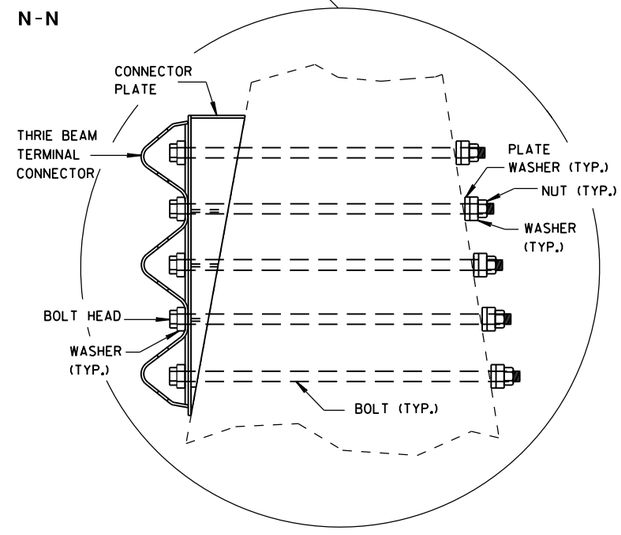
CONNECTOR PLATE, DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

(2) OPTIONAL CURB AND GUTTER OR DRAINAGE FEATURE SEE PLAN FOR INFORMATION.

(7) BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE. BOLTS THAT EXTEND THROUGH THE PARAPET AND OUT THE BACK FACE REQUIRE A HARDENED ROUND STEEL WASHER THAT IS 2" O.D. X 5/8" THICK AND ONE PLATE WASHER. REPAIR ANY DAMAGED CONCRETE FROM BOLT INSTALLATION.



SECTION N-N



MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
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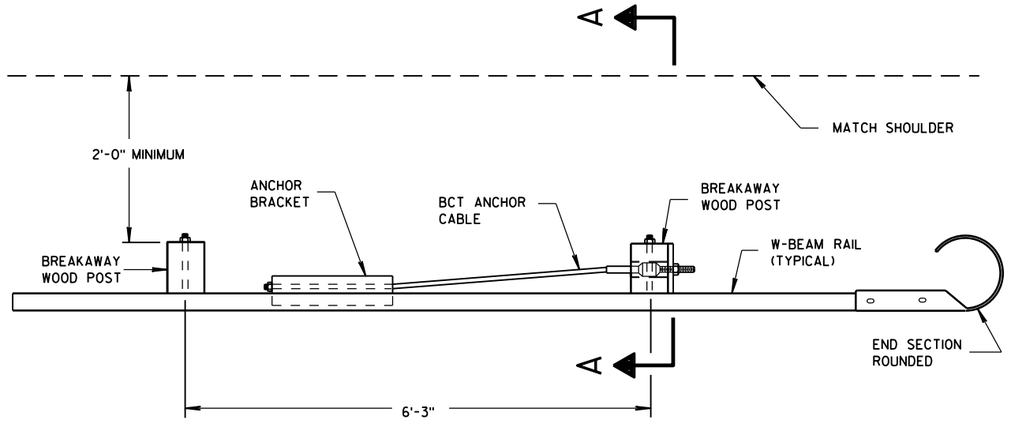
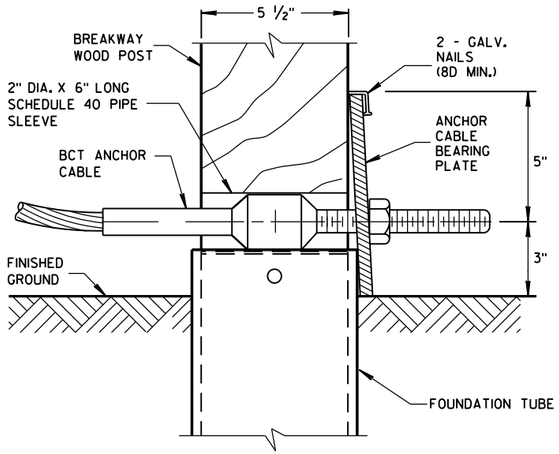


PLAN VIEW



DETAIL A

POST NO. 1
GROUNG STRUT NOT SHOWN FOR CLARITY.

GENERAL NOTES

SEE SDD 14 B 42 FOR MORE INFORMATION.

END SECTION BOLTS AND NUTS HAVE THE SAME MATERIAL REQUIREMENTS AS SPLICE BOLTS.

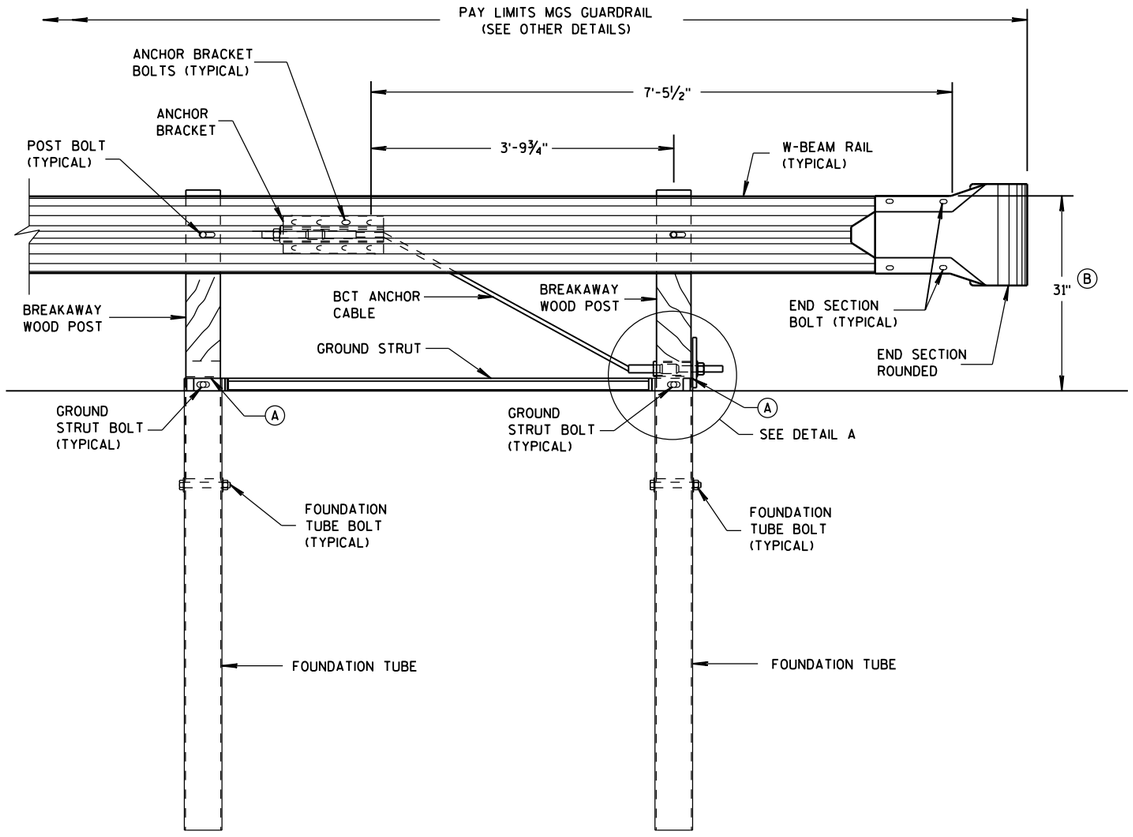
FOUNDATION TUBE BOLTS ARE ⅞" DIAMETER ASTM A307 HEX HEAD BOLT. FOUNDATION TUBE BOLTS REQUIRE ASTM A563 A NUT AND TWO ASTM F844 ⅞" DIAMETER FLAT WASHERS. INSTALL ONE WASHER UNDER BOLT HEAD AND ONE WASHER UNDER NUT.

ANCHOR BRACKET AND GROUND STRUT BOLTS ARE A ⅝" DIAMETER ASTM A307 HEX HEAD BOLT. ANCHOR BRACKET BOLTS REQUIRE ASTM A563 A NUT AND TWO ASTM F844 ⅝" DIAMETER FLAT WASHERS. INSTALL ONE WASHER UNDER BOLT HEAD AND ONE WASHER UNDER NUT.

W-BEAM END SECTION ROUNDED HAS THE SAME MATERIAL PROPERTIES AS STANDARD STEEL RAIL.

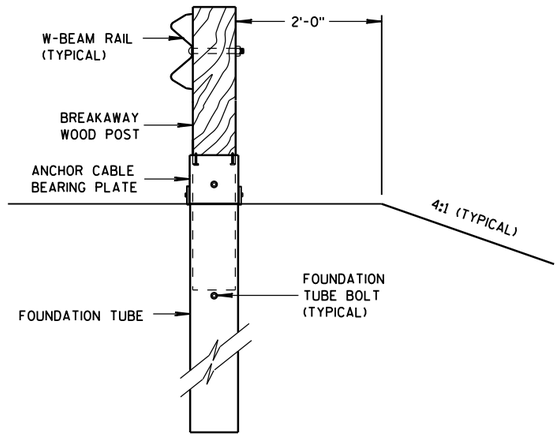
(A) TOP OF FOUNDATION TUBE SHALL BE NO MORE THAN 3" ABOVE FINISHED GROUND.

(B) FOR NEW CONSTRUCTION TOP OF RAIL IS 31" ± 1".
FOR EXISTING INSTALLATIONS TOP OF RAIL IS BETWEEN 27¾" TO 32" ± 1".

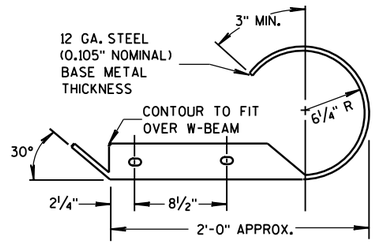


FRONT VIEW

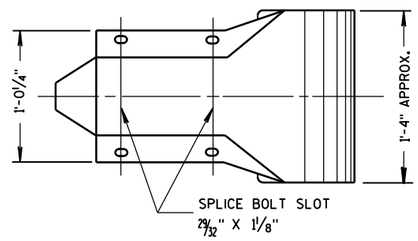
END RAIL DETAIL



SECTION A-A



PLAN VIEW



FRONT VIEW

W BEAM END SECTION ROUNDED

MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL

STATE OF WISCONSIN
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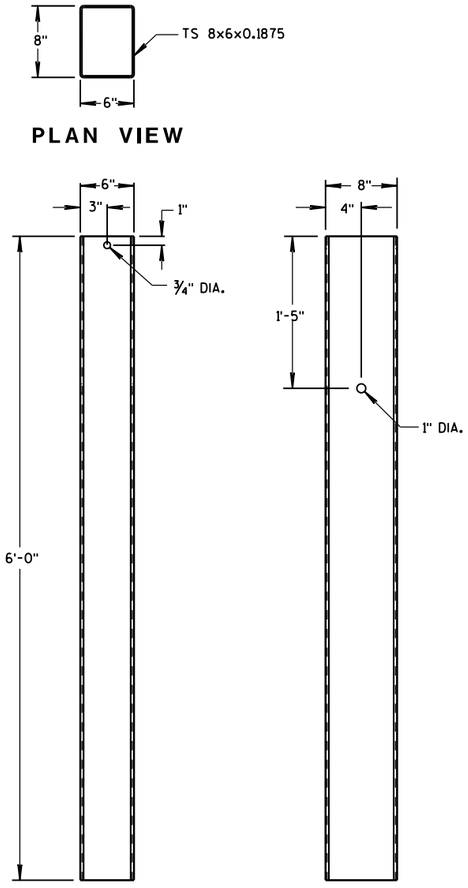
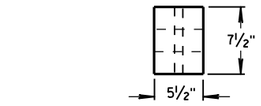
S.D.D. 14 B 47-2a



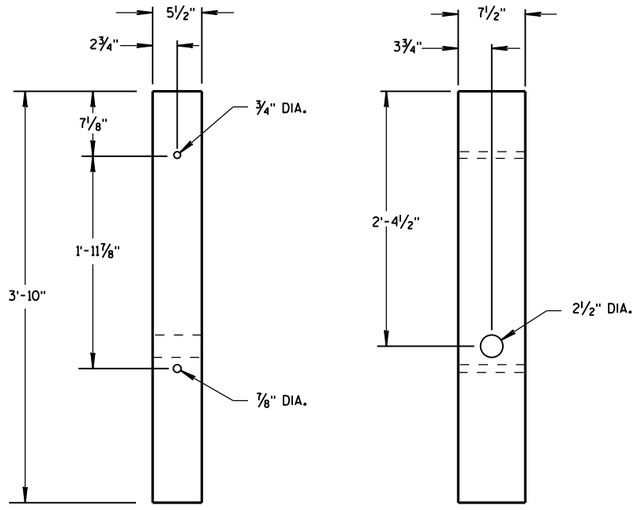
PLAN VIEW

FRONT VIEW SIDE VIEW

FOUNDATION TUBE



PLAN VIEW

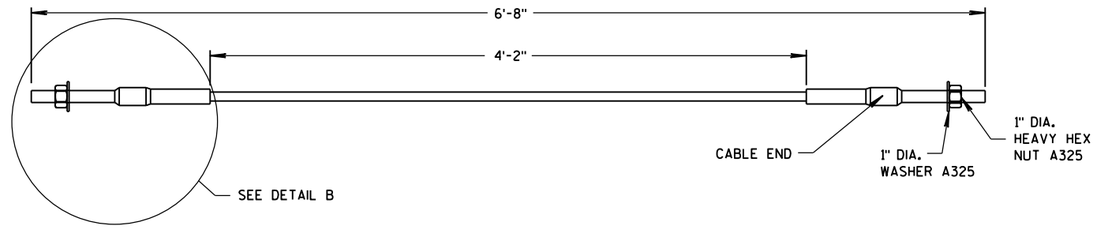


FRONT VIEW SIDE VIEW

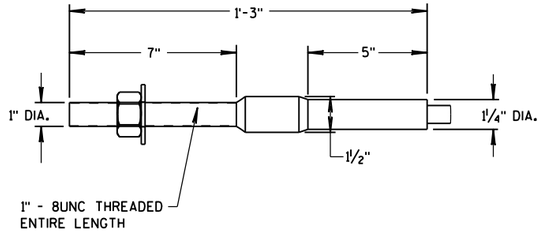
BREAKAWAY WOOD POST

GENERAL NOTES

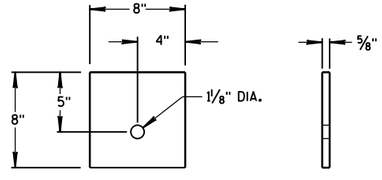
BCT ANCHOR CABLE IS A ¾" DIAMETER 6X19 IWRC IPS GALVANIZED WIRE ROPE. THE SWAGED FITTINGS AND STUD ARE REQUIRED. END FITTING SHALL BE MACHINED FROM HOT-ROLLED CARBON STEEL CONFORMING TO ASTM A576 GRADE 1035 AND GALVANIZED ACCORDING TO ASTM A123. TREADED STUD SHALL CONFORM TO ASTM A325 OR SAE GRADE 5. MINIMUM BREAKING STRENGTH OF WIRE ROPE IS 43,000 LB. WIRE ROPE IS TO BE TAUT.



BCT ANCHOR CABLE



DETAIL B



SIDE VIEW FRONT VIEW

ANCHOR CABLE
BEARING PLATE

MIDWEST GUARDRAIL
SYSTEM (MGS) TYPE 2 TERMINAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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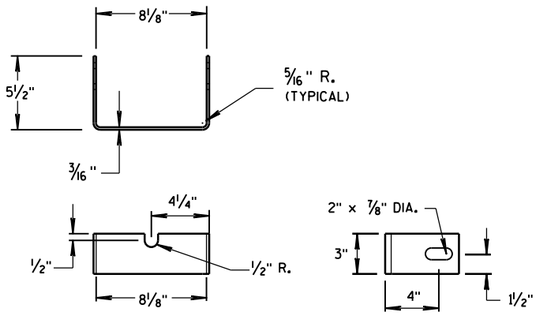
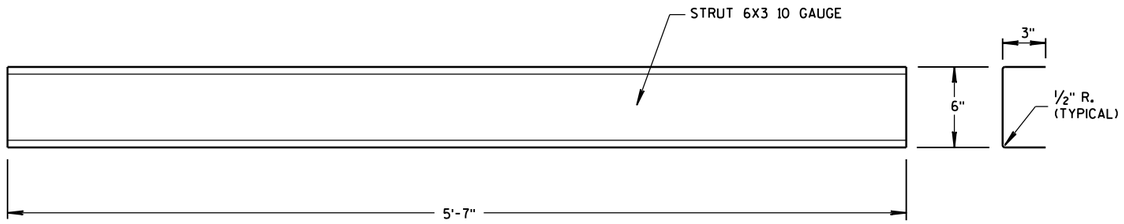
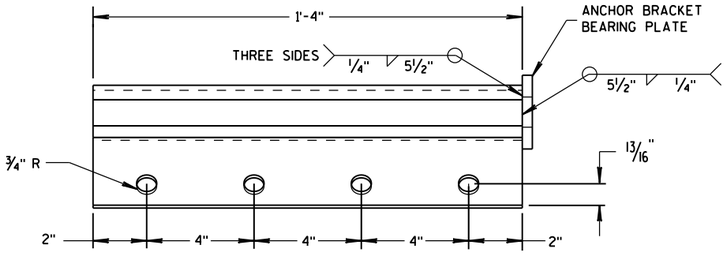
S.D.D. 14 B 47-2b

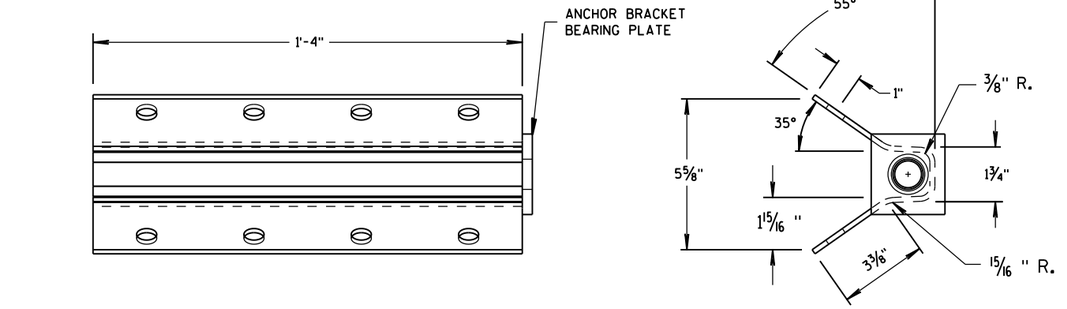


YOKE DETAIL

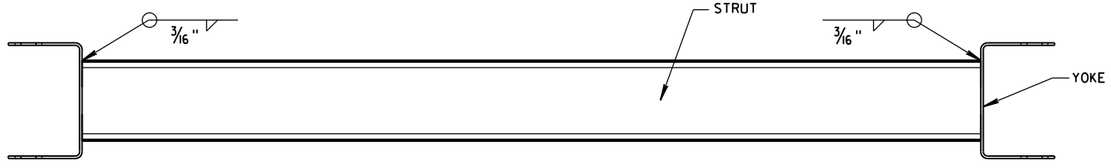


STRUT DETAIL

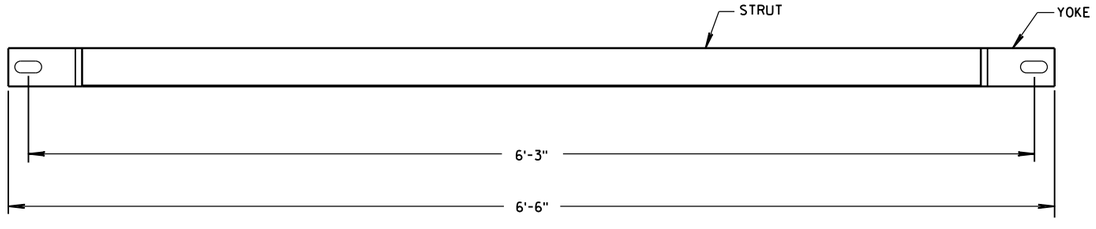




ANCHOR BRACKET

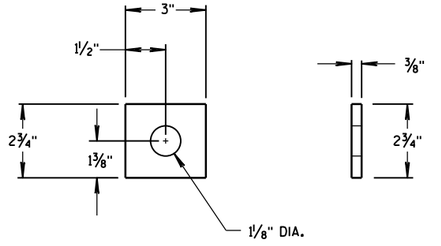


PLAN VIEW



FRONT VIEW

GROUND STRUT DETAIL



ANCHOR BRACKET BEARING PLATE

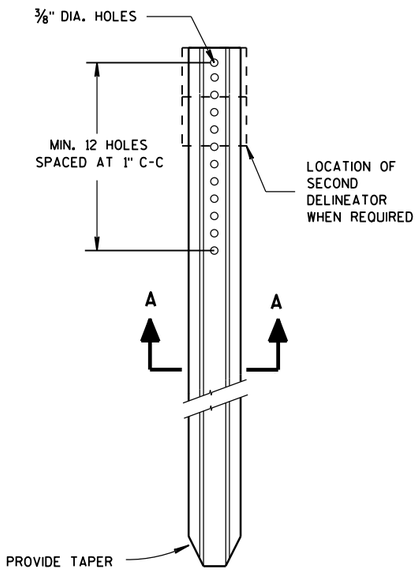
MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

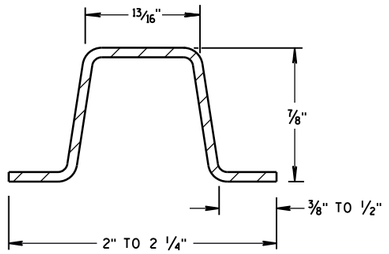
APPROVED
June 2014
DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS ENGINEER
FHWA

6

S.D.D. 14 B 47-2c

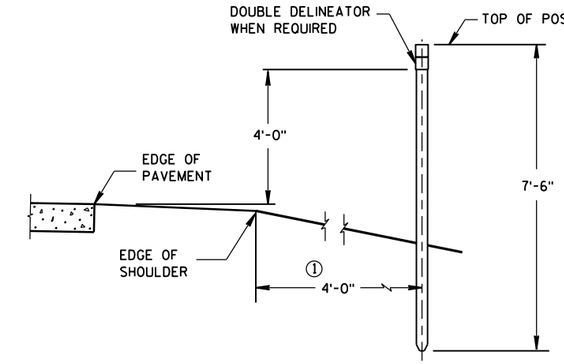


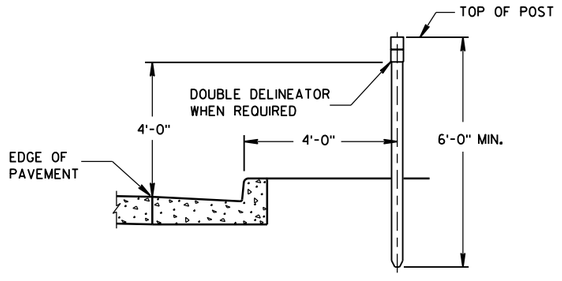
DELINEATOR POST



SECTION A-A

WEIGHT 1.12 LBS PER FT. ± 0.1 LB.



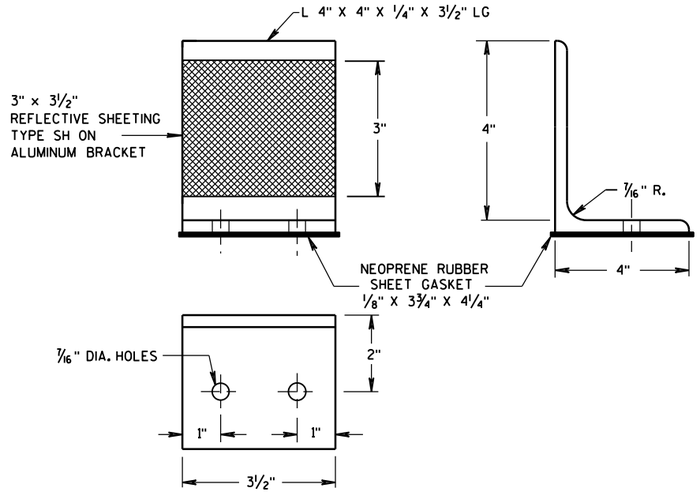


TYPICAL INSTALLATIONS OF DELINEATOR POSTS

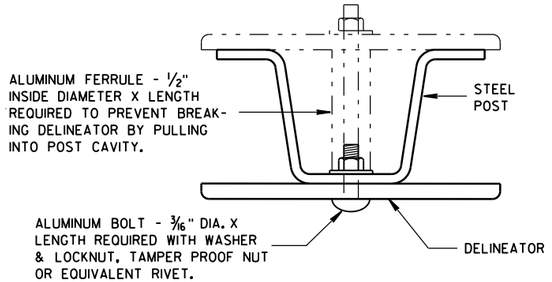
GENERAL NOTES

DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

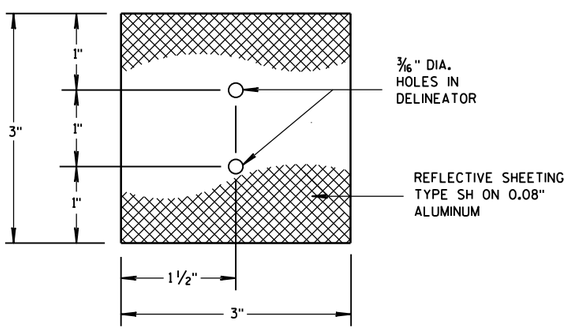
① DELINEATORS SHALL BE PLACED AT A CONSTANT DISTANCE FROM THE EDGE OF THE SHOULDER FOR THE LENGTH OF THE INSTALLATION.



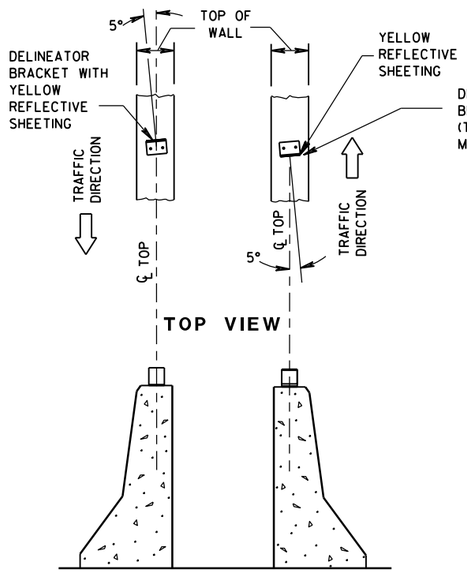
DELINEATOR BRACKET



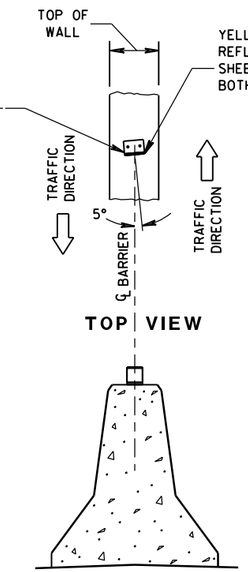
MOUNTING DETAIL FOR DELINEATOR



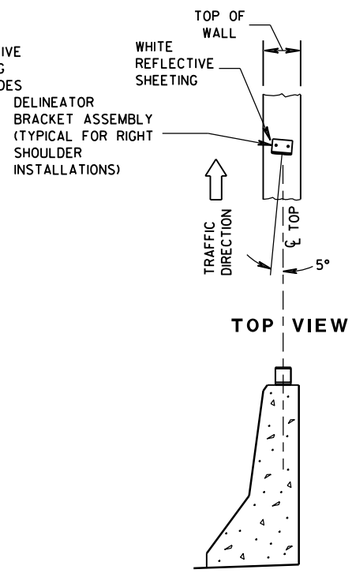
3"x 3" DELINEATOR



DOUBLE BARRIERS IN MEDIAN

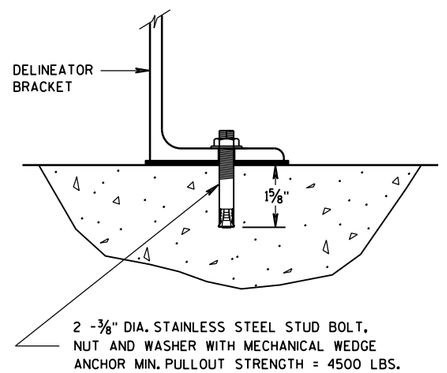


MEDIAN BARRIER



BARRIER LOCATED TO RT. OF TRAFFIC FLOW

LOCATION AND AIMING DETAILS FOR DELINEATOR BRACKETS MOUNTED ON CONCRETE BARRIERS



DELINEATOR BRACKET MOUNTING DETAIL

DELINEATOR POST, DELINEATOR, AND DELINEATOR BRACKET WITH REFLECTIVE SHEETING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
7/2013 — DATE
/S/ Travis Feltes — STATE TRAFFIC E
FHWA

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S.D.D. 15 A 2-8

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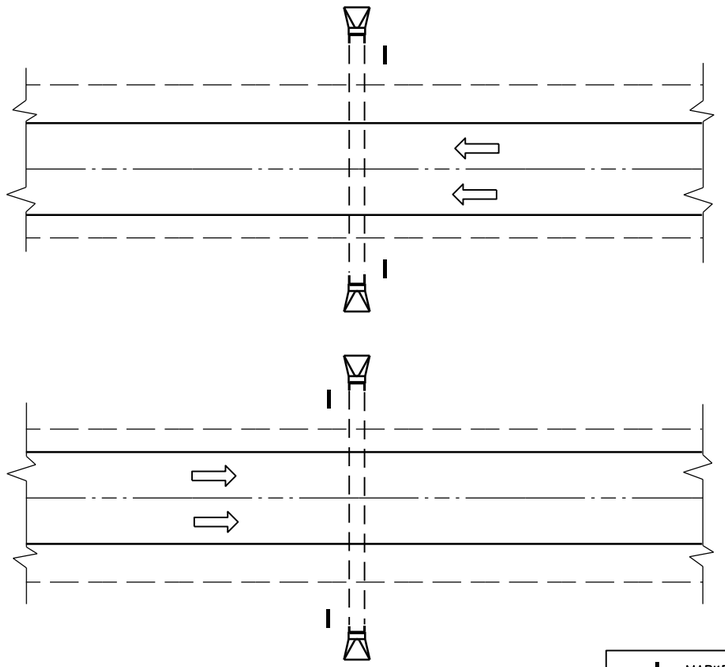
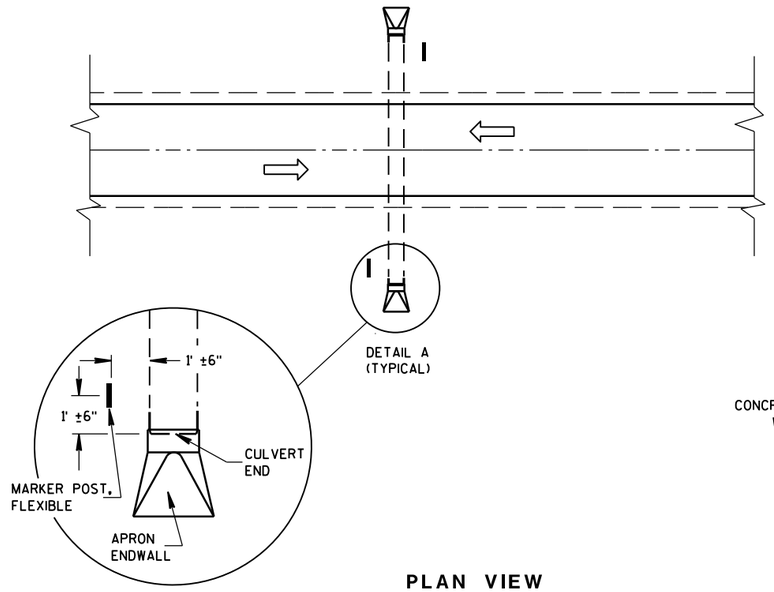
S.D.D. 15 A 2-8



PLAN VIEW

DIVIDED HIGHWAY



DETAIL A
(TYPICAL)

PLAN VIEW

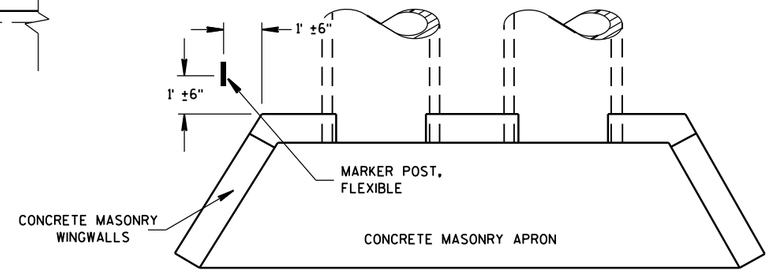
UNDIVIDED HIGHWAY

MARKER POST, FLEXIBLE

DIRECTION OF TRAFFIC FLOW

GENERAL NOTES

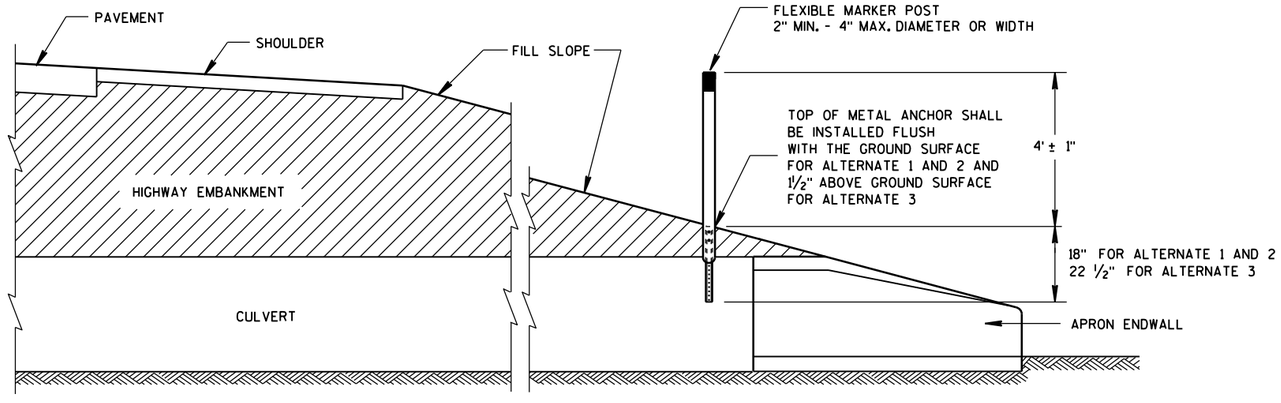
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.



PLAN VIEW

CONCRETE MASONRY ENDWALLS FOR CULVERT PIPE AND PIPE ARCH

FLEXIBLE MARKER POST LOCATION



CROSS SECTION

FLEXIBLE MARKER POST

FLEXIBLE MARKER POST FOR CULVERT END

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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S.D.D. 15 A 3-2a

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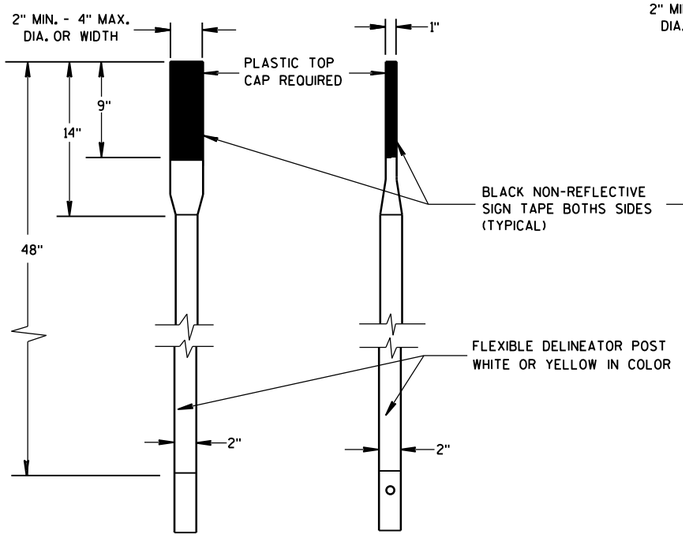
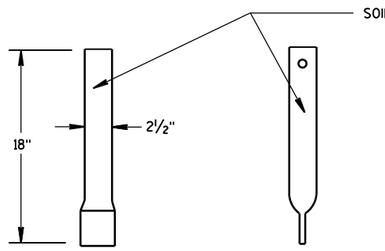
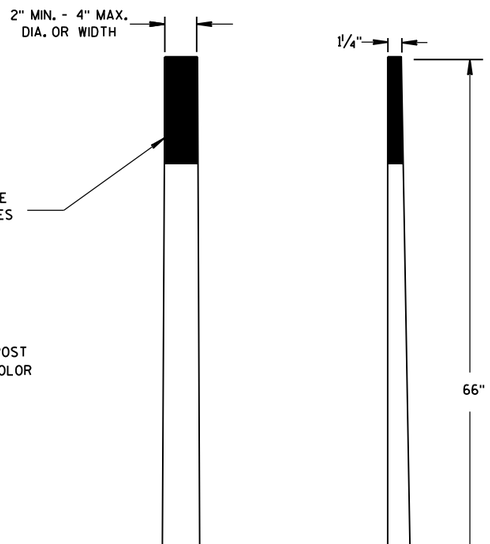
S.D.D. 15 A 3-2a





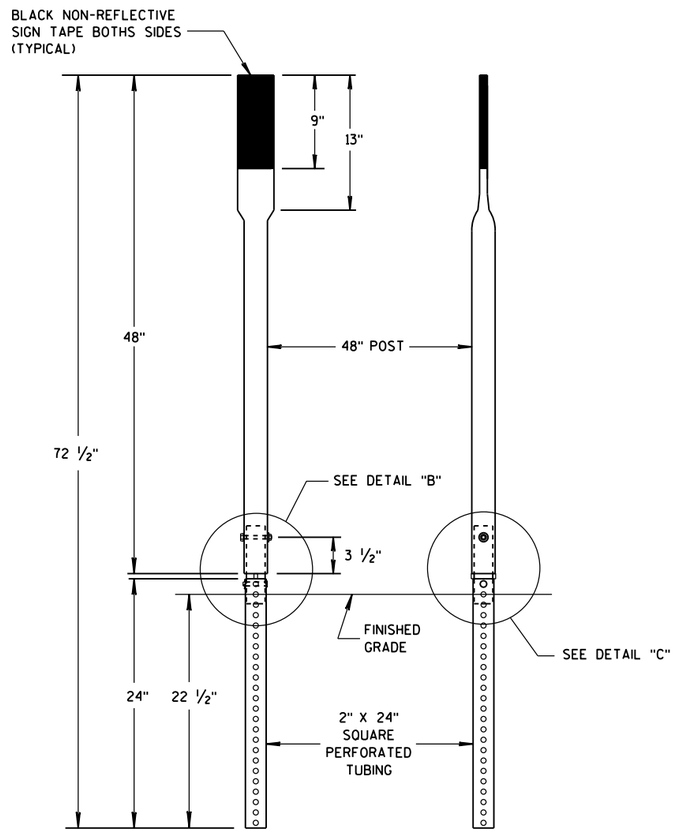
FRONT VIEW SIDE VIEW

ALTERNATE 1



FRONT VIEW SIDE VIEW

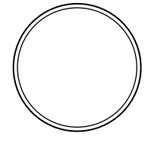
ALTERNATE 2



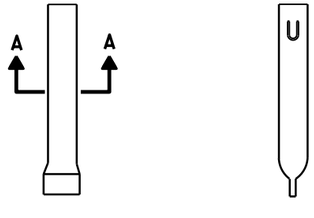
FRONT VIEW SIDE VIEW

ALTERNATE 3

FLEXIBLE MARKER POSTS

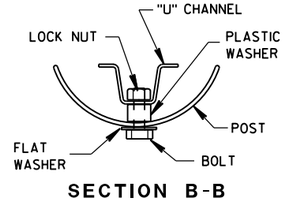


SECTION A-A

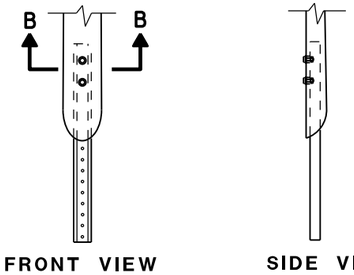


FRONT VIEW SIDE VIEW

ALTERNATE 1

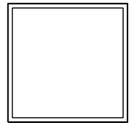


SECTION B-B

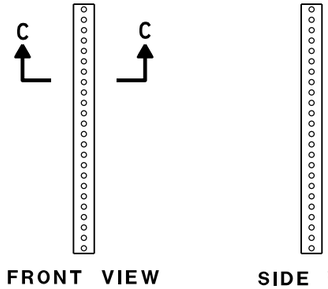


FRONT VIEW SIDE VIEW

ALTERNATE 2



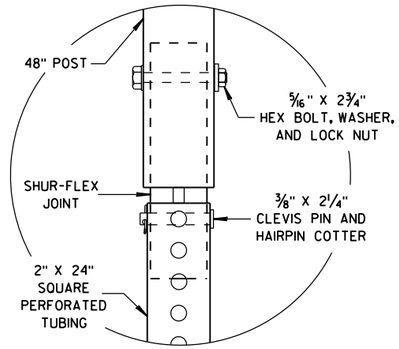
SECTION C-C



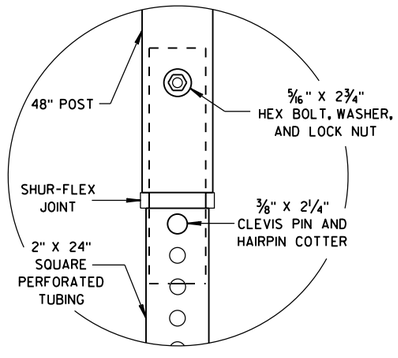
FRONT VIEW SIDE VIEW

ALTERNATE 3

FLEXIBLE MARKER POST ANCHORS



DETAIL B



DETAIL C

FLEXIBLE MARKER POST
FOR CULVERT END

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
10/1/2012 — DATE
/S/ Travis Feltes — STATE TRAFFIC ENGINEER
FHWA

6

S.D.D. 15 A 3-2b

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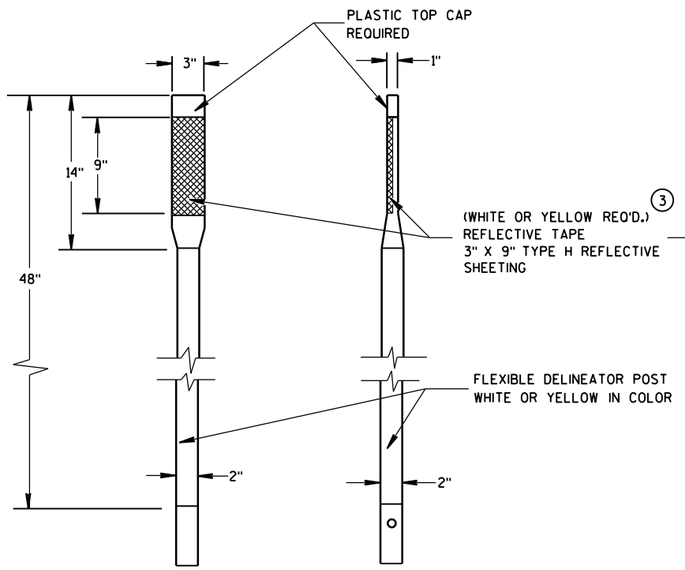
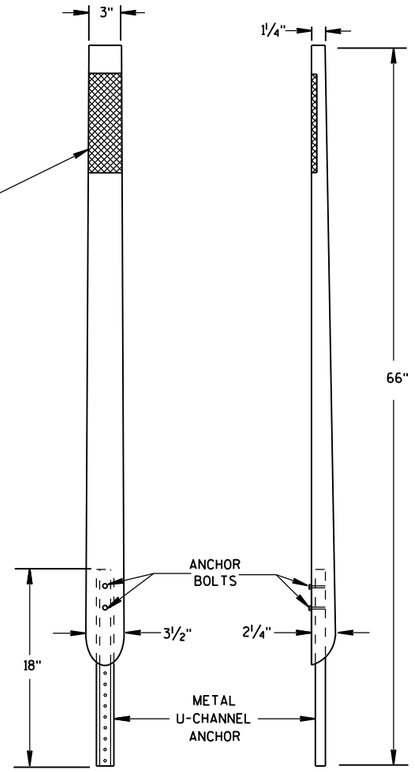
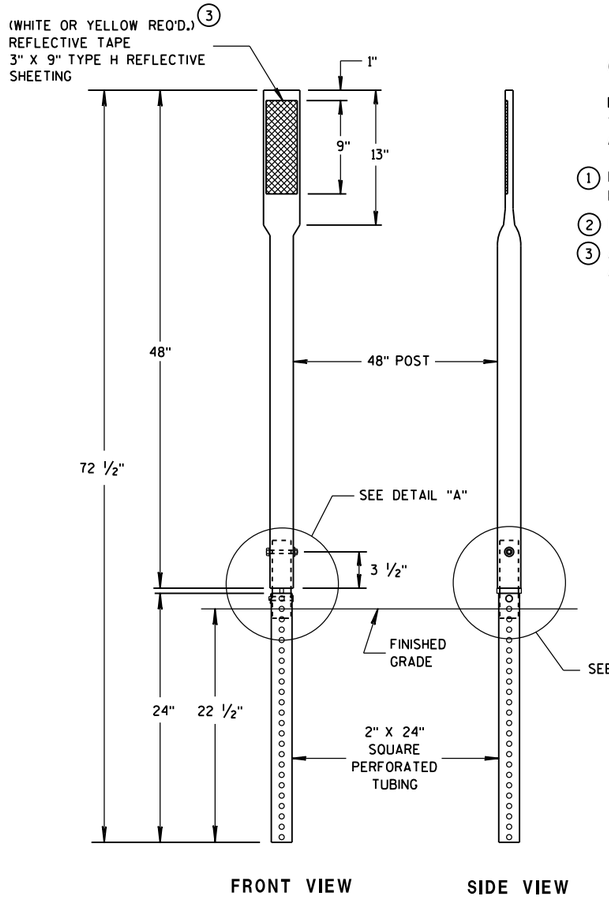
S.D.D. 15 A 3-2b



ALTERNATE 1



ALTERNATE 2



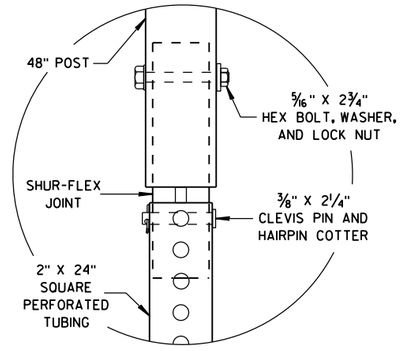
ALTERNATE 3

FLEXIBLE DELINEATOR POSTS

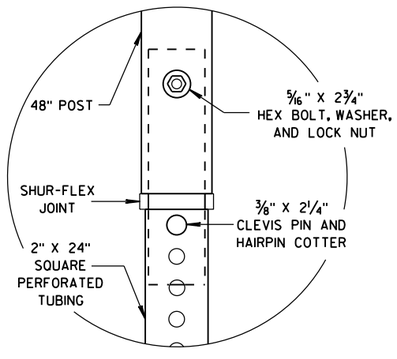
GENERAL NOTES

DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDATRD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

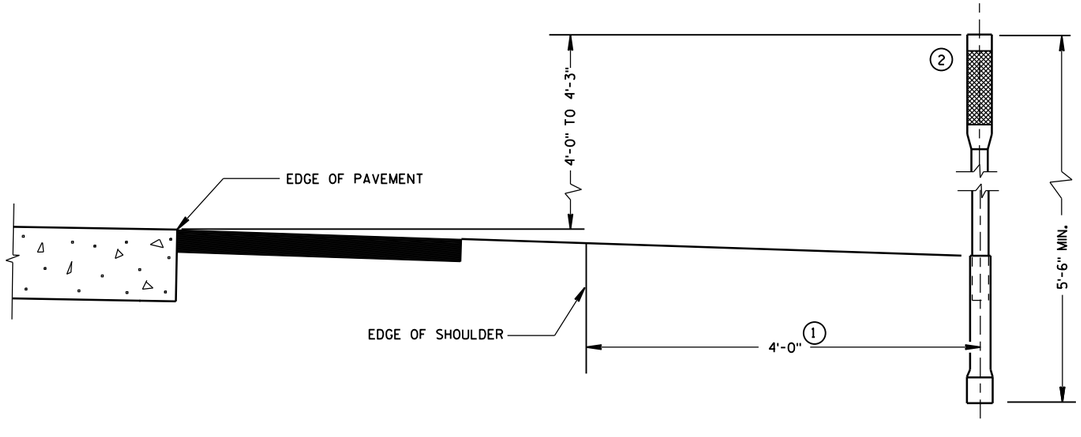
1. DELINEATORS SHALL BE PLACED AT A CONSTANT DISTANCE FROM THE EDGE OF THE SHOULDER FOR THE LENGTH OF THE INSTALLATION.
2. EITHER ALTERNATE NO. 1, NO. 2 OR NO. 3 MAY BE FURNISHED.
3. AS PER SECTION 637.2.2.2. OF THE STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION.

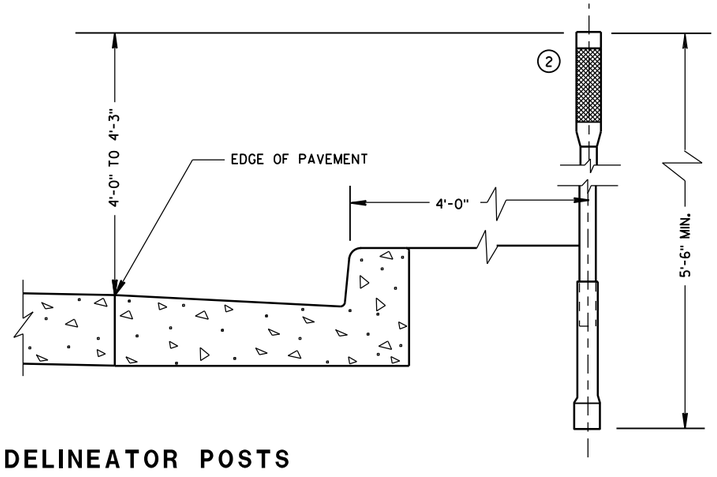


DETAIL A



DETAIL B





TYPICAL INSTALLATIONS OF FLEXIBLE DELINEATOR POSTS

FLEXIBLE DELINEATOR POST

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
9-26-2012 DATE
/S/ Travis Feltes
STATE TRAFFIC ENGINEER
FHWA

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S.D.D. 15 A 4-2

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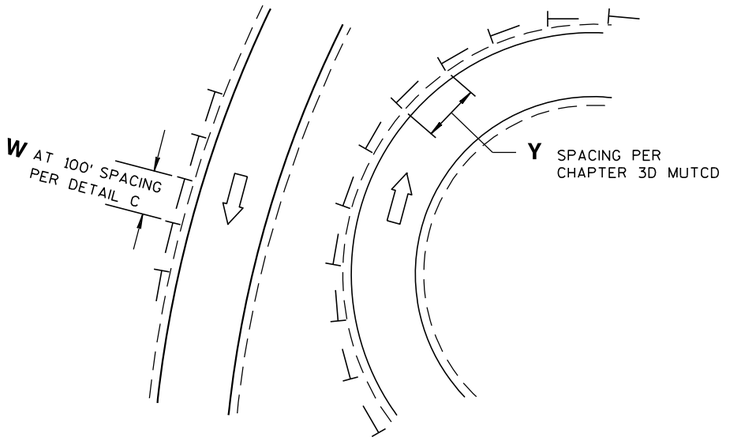
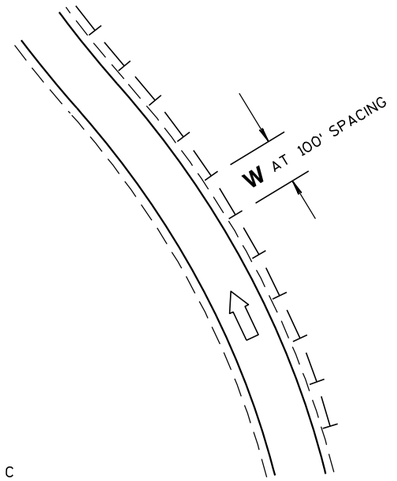
S.D.D. 15 A 4-2

GENERAL NOTES

* USE DOUBLE DELINEATOR ALONG ACCELERATION-DECELERATION LANES AND TAPERS. USE SINGLE DELINEATOR WHEN RAMP PAVEMENT IS FULL WIDTH.



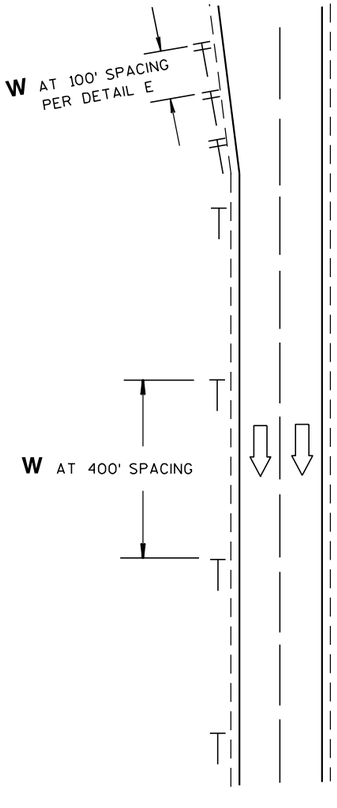
DETAIL A
DELINEATOR LAYOUT AT CURVED RAMP



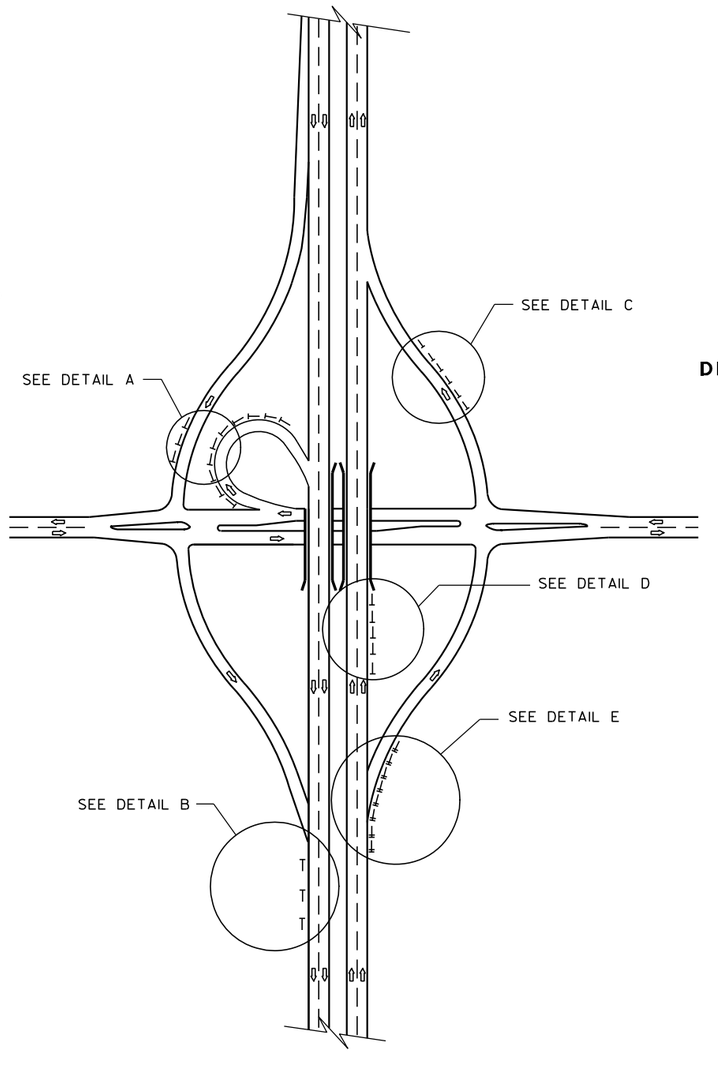
DETAIL C
DELINEATOR LAYOUT ALONG RAMP

LEGEND

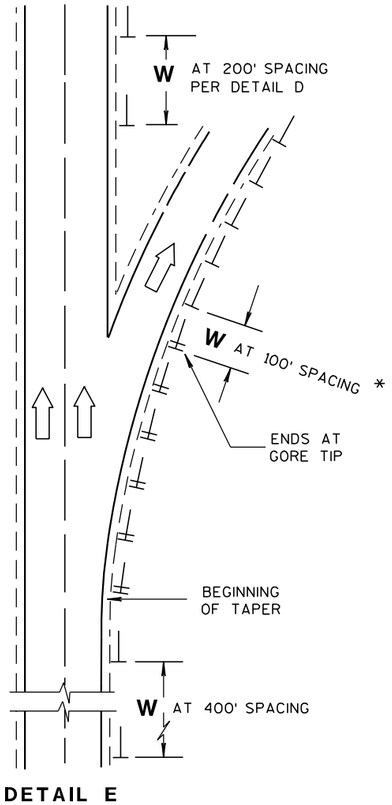
- DIRECTION OF TRAFFIC FLOW
- SINGLE DELINEATOR
- DOUBLE DELINEATOR
- W — WHITE
- Y — YELLOW



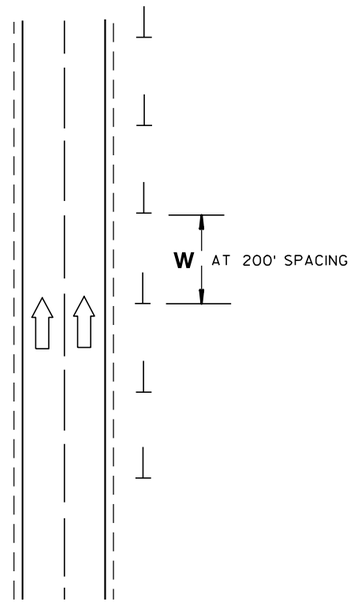
DETAIL B
DELINEATOR LAYOUT ALONG MAINLINE



DELINEATOR LAYOUT



DETAIL E
DELINEATOR LAYOUT FOR ACCELERATION - DECELERATION LANES AND TAPERS AT RAMPS



DETAIL D
DELINEATOR LAYOUT BETWEEN INTERCHANGE RAMPS

DELINEATOR LAYOUT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

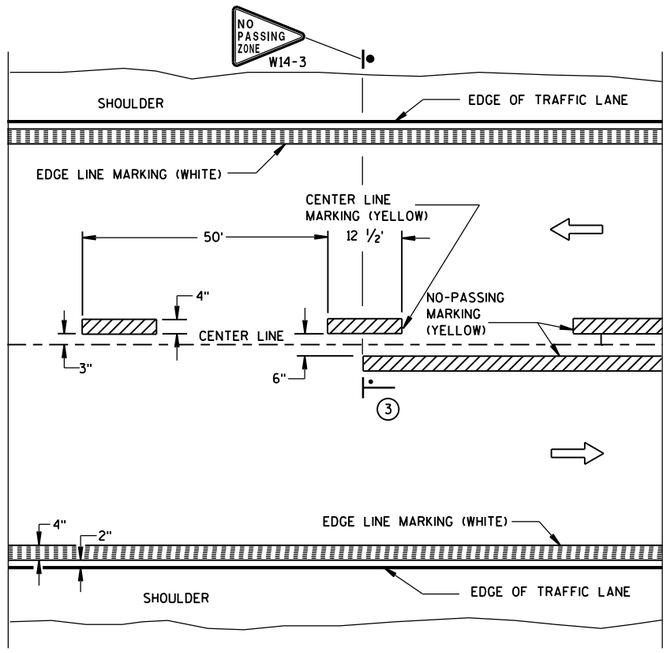
APPROVED
2/5/09 DATE
/S/ Thomas N. Nothdurft
STATE TRAFFIC ENGINEER
FHWA

6

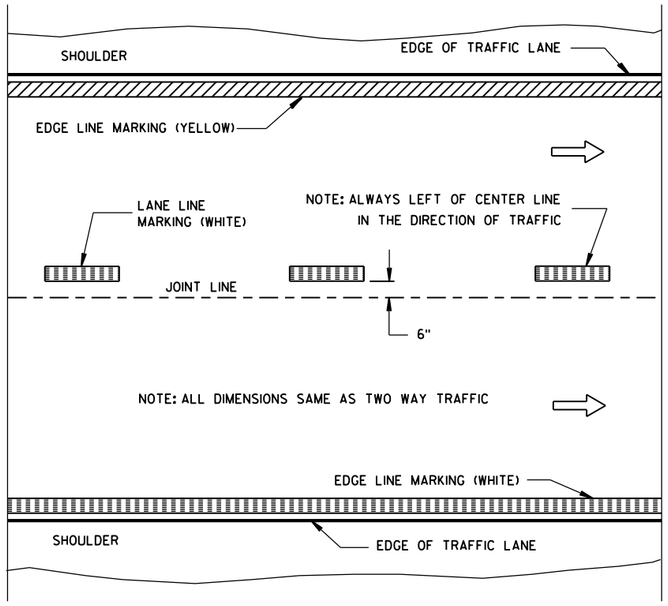
S.D.D. 15 A 6-2

6

S.D.D. 15 A 6-2

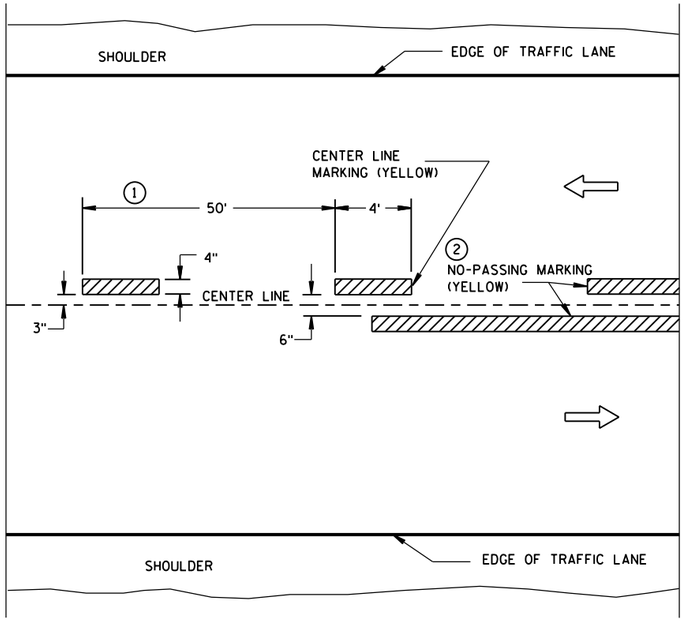


TWO WAY TRAFFIC

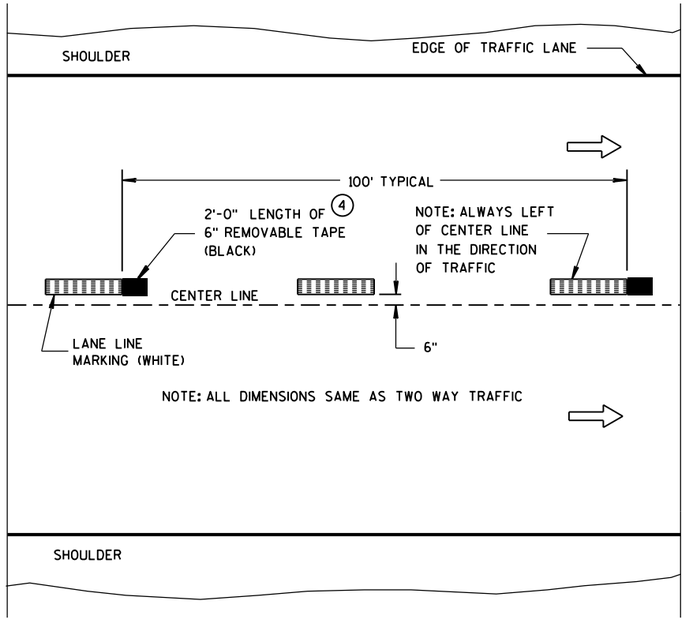


ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING



TWO WAY TRAFFIC



ONE WAY TRAFFIC

TEMPORARY (INTERMEDIATE) PAVEMENT MARKING

(SHOWS CYCLE FOR TEMPORARY CENTER LINE OR TEMPORARY LANE LINE MARKING)

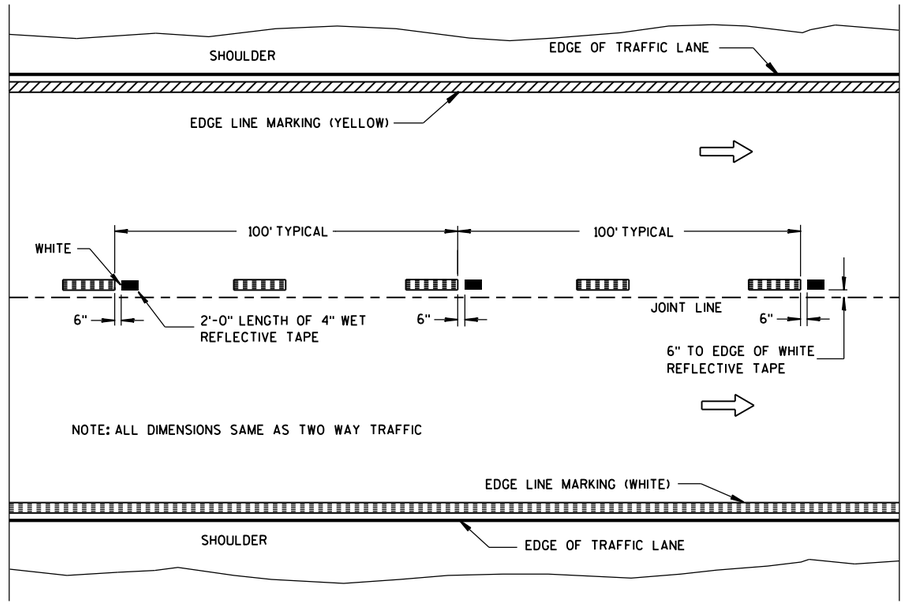
GENERAL NOTES

DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO STANDARD SPECIFICATIONS AND SPECIAL PROVISIONS.

1. HALF CYCLE LENGTHS (25'±) WITH 2' MINIMUM STRIPE LENGTHS SHALL BE PROVIDED ON ROADWAYS (INCLUDING TEMPORARY TRAVELED WAYS) WITH REVERSE CURVATURE, CURVATURE OF OVER 5 DEGREES OR WHEN DIRECTED BY THE ENGINEER TO MARK UNUSUAL ALIGNMENT OF THE TRAVELED WAY.
2. NO PASSING ZONE TEMPORARY PAVEMENT MARKING IS REQUIRED TO BE PLACED, WHERE APPROPRIATE, ALONG WITH CENTERLINE TEMPORARY PAVEMENT MARKING WHEN A SAME DAY PERMANENT PAVEMENT MARKING ITEM IS INCLUDED IN THE CONTRACT.
3. NO PASSING ZONE MARKINGS ARE PLACED ACCORDING TO "T" MARKINGS. IF EXISTING NO PASSING ZONE W14-3 SIGNS ARE BEYOND 50 FEET IN EITHER DIRECTION, THE SIGNS SHALL BE MOVED TO THE "T" MARKINGS.
4. CONCRETE ONLY.

NOTE

ARROW SYMBOL (⇨) SHOWS DIRECTION OF TRAVEL



WET REFLECTIVE TAPE SUPPLEMENT TO
SPRAYED OR NON WET REFLECTIVE TAPE LANE LINE

LEGEND

"T" MARKING

POST MOUNTED SIGN

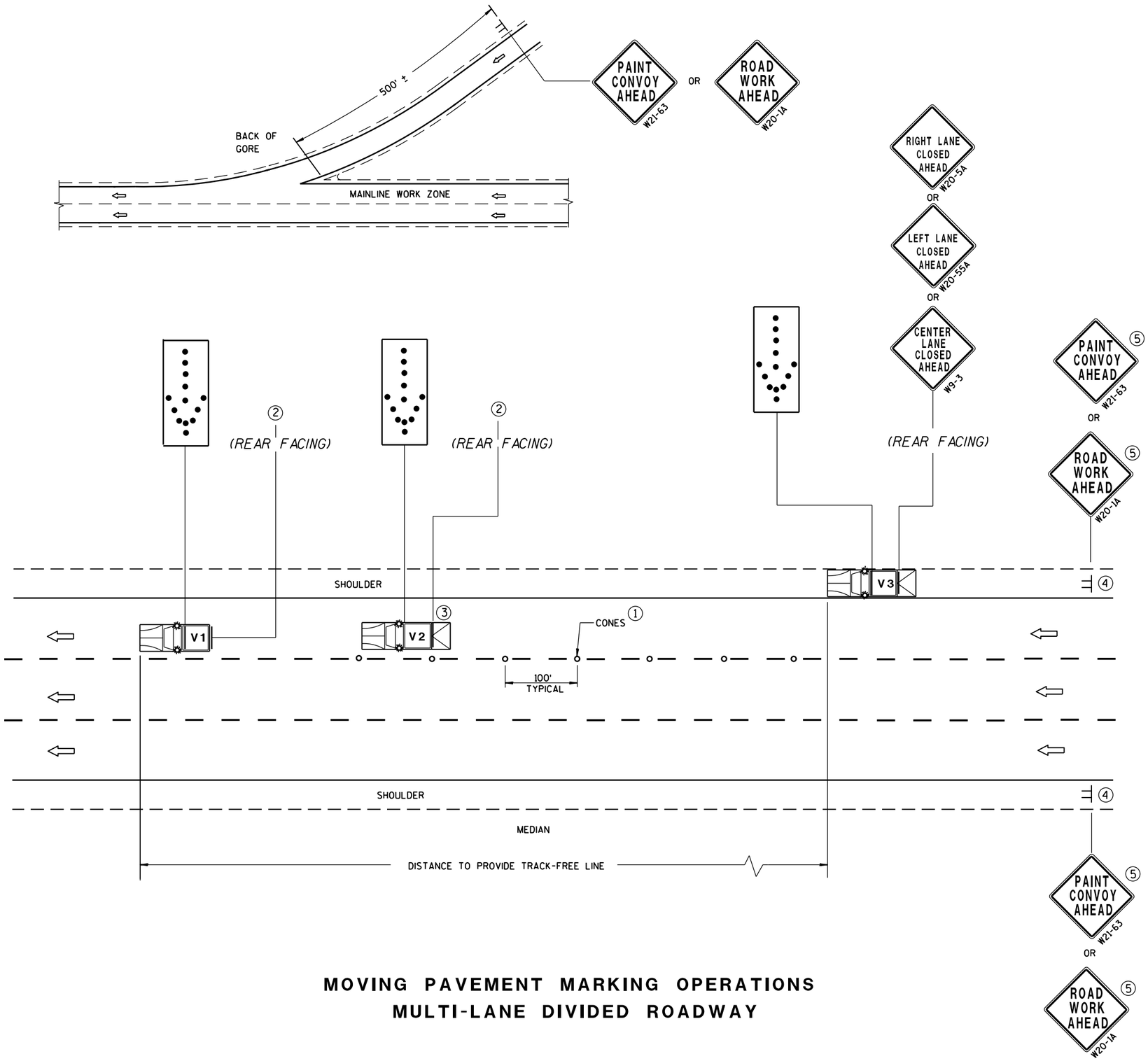
PAVEMENT MARKING (MAINLINE)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
5-13-2013 DATE
/S/ Travis Feltes STATE TRAFFIC E
FHWA

6

S.D.D. 15 C 8-16a



MOVING PAVEMENT MARKING OPERATIONS
MULTI-LANE DIVIDED ROADWAY

GENERAL NOTES

ALL VEHICLES SHALL BE EQUIPPED WITH TWO 360 DEGREE HIGH INTENSITY YELLOW FLASHING LIGHTS OR STROBE LIGHTS AND OPERATED WITH HEADLIGHTS TURNED ON.

ALL VEHICLES SHALL BE EQUIPPED WITH REAR FACING TYPE B OR C FLASHING ARROW PANEL. SIGNS PLACED ON VEHICLES MUST NOT OBSCURE THE ARROW PANEL.

ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE SPECIFIED.

IF SPEED LIMIT IS 40 MPH OR LESS STATIONARY SIGNS MAY BE OMITTED IF CONES ARE USED.

ALTERNATE SIGN MESSAGES, SUCH AS "PAINT CREW AHEAD" OR "ROAD PAINTING AHEAD" MAY BE USED.

DISTANCE BETWEEN VEHICLES MAY VARY ACCORDING TO TERRAIN, SIGHT DISTANCE, PAINT DRYING TIME, AND OTHER FACTORS. WHENEVER ADEQUATE STOPPING SIGHT DISTANCE EXISTS TO THE REAR, SHADOW VEHICLES SHOULD MAINTAIN THE MINIMUM DISTANCE FROM THE WORK VEHICLE AND PROCEED AT THE SAME SPEED AS THE WORK VEHICLE. SHADOW VEHICLES SHOULD SLOW DOWN IN ADVANCE OF VERTICAL OR HORIZONTAL CURVES THAT RESTRICT SIGHT DISTANCE.

WHEN WORK ACTIVITY BLOCKS THE LEFT LANE, REVERSE TRAFFIC CONTROL.

WHEN A RAMP INTERSECTS THE FACILITY ON WHICH THE WORK IS BEING PERFORMED, PROVIDE ADDITIONAL TRAFFIC CONTROLS AS SPECIFIED IN THE CONTRACT OR AS APPROVED BY THE ENGINEER.

USE AN ATTENUATOR ON THE REARMOST VEHICLE THAT BLOCKS ALL OR PART OF THE TRAFFIC LANE.

FOR EDGELINE MARKING OR IF CONES ARE NOT USED, POSITION THE REARMOST SHADOW VEHICLE ON THE SHOULDER AS SHOWN IN THE MUTCD IF THE SHOULDER HAS ADEQUATE WIDTH. USE DOUBLE ARROWS WHEN CONVOY IS IN CENTER LANE ONLY.

WHEN NO WORK ACTIVITY IS TAKING PLACE, REMOVE OR TURN THE STATIONARY WARNING SIGNS AWAY FROM TRAFFIC.

THIS DRAWING SHALL BE USED FOR EDGELINE OR LANELINE MARKING FOR MULTILANE DIVIDED ROADWAYS.

① CONES MAY BE OMITTED ON PAINTED LINE IF APPROVED BY THE ENGINEER. CONSIDER PAVEMENT MARKING DRY OR CURE TIMES AND TRAFFIC VOLUME.

② USE STANDARD SIGN W21-64 WITH APPROPRIATE ARROW.

WET PAINT W21-64 OR WET PAINT W21-64

③ OPTIONAL TRUCK-MOUNTED ATTENUATOR.

④ SIGNS SHALL BE REPEATED AFTER EVERY ON RAMP OR EVERY THREE MILES.

⑤ IF CONSTRUCTION WORK ZONE SIGNS ARE IN PLACE, W20-1 OR W21-63 ARE NOT REQUIRED.

LEGEND

V1	LEAD VEHICLE
V2	SHADOW VEHICLE
V3	TRAIL VEHICLE WITH TMA
TMA	TRUCK-MOUNTED ATTENUATOR
	SIGN ON TEMPORARY SUPPORT
	DIRECTION OF TRAFFIC
	CONES
	FLASHING ARROW PANEL (MERGE)

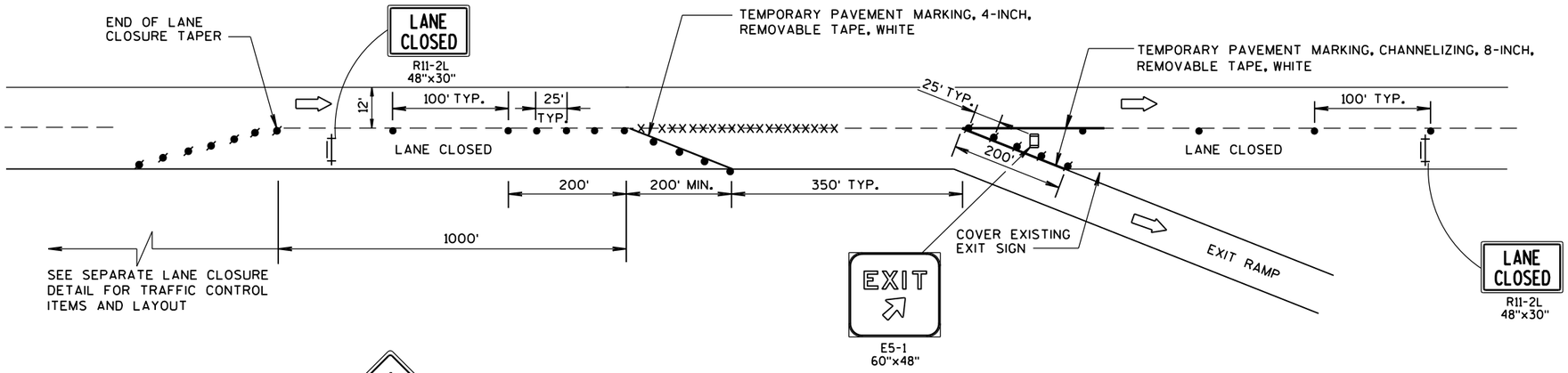
MOVING PAVEMENT MARKING OPERATION
MULTI-LANE DIVIDED ROADWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

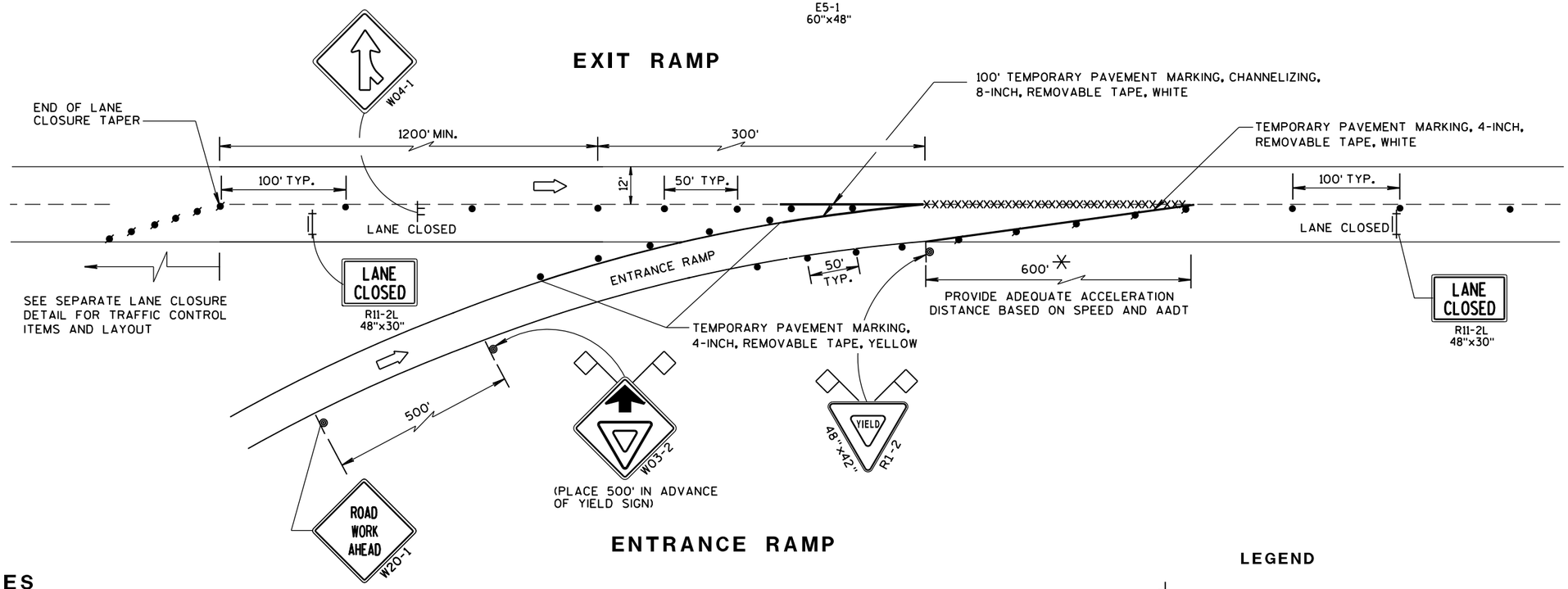
APPROVED
Sept. 2015 — DATE
/S/ Peter Amakobe Atepe — STATEWIDE WORK ZON SAFETY ENGINI
FHWA

6 S.D.D. 15 C 19-3c

6 S.D.D. 15 C 19-3c



EXIT RAMP



ENTRANCE RAMP

GENERAL NOTES

THE INSTALLATIONS SHOWN ON THIS SHEET ARE TYPICAL EXAMPLES AND ARE NOT INTENDED TO REPRESENT ANY PARTICULAR RAMP. AT SPECIFIC FIELD LOCATIONS, SIMILAR INSTALLATIONS SHALL BE USED AND ADJUSTED TO THE GEOMETRICS OF THE RAMP AS COORDINATED WITH THE ENGINEER.

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A MINIMUM OF 200 FEET, (500 FEET DESIRABLE) CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED.

"WO" IS THE SAME AS "W" EXCEPT THE BACKGROUND IS ORANGE.

SEE SEPARATE LANE CLOSURE DETAIL FOR TYPICAL SPACING OF TYPE III BARRICADES AND R11-2L "LANE CLOSED" SIGNS.

YIELD SIGN AND WARNING SIGNS ON ENTRANCE RAMP ARE ALSO APPROPRIATE FOR CLOSURE OF THE MAINLINE LEFT LANE. OMIT THE YIELD SIGN IF MORE THAN ONE LANE REMAINS OPEN ON THE MAINLINE AND THE RAMP TAPER IS AT LEAST AS LONG AS THE NORMAL ENTRANCE RAMP TAPER AT THE SITE.

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS, OR THAT WILL BE PLACED IN A CLOSED LANE, MAY BE MOUNTED ON PORTABLE SUPPORTS.

IF INDICATED IN MISCELLANEOUS QUANTITIES, SUBSTITUTE FLEXIBLE TUBULAR MARKERS FOR DRUMS IN THE GORE BETWEEN THE ENTRANCE RAMP AND MAINLINE TRAFFIC.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

REMOVE PAVEMENT MARKINGS AND PLACE TEMPORARY PAVEMENT MARKING, REMOVABLE TAPE IF LANE CLOSURE IS TO BE IN PLACE FOR 7 OR MORE CONTINUOUS DAYS AND NIGHTS.

WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

* LENGTH OF OPENING MAY BE REDUCED TO 150 FEET DURING STAGING OF WORK IN IMMEDIATE AREA OF RAMP TAPER.

LEGEND

- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- REMOVING PAVEMENT MARKING (SEE GENERAL NOTES)
- TYPE III BARRICADE WITH ATTACHED SIGN
- FLAGS, 16" x 16" MIN., (ORANGE)
- DIRECTION OF TRAFFIC

TRAFFIC CONTROL, EXIT AND ENTRANCE RAMP WITHIN LANE CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Sept. 2015 — DATE
/S/ Peter Amakobe Atepe
STATEWIDE WORK ZONE SAFETY ENGINEER
FHWA

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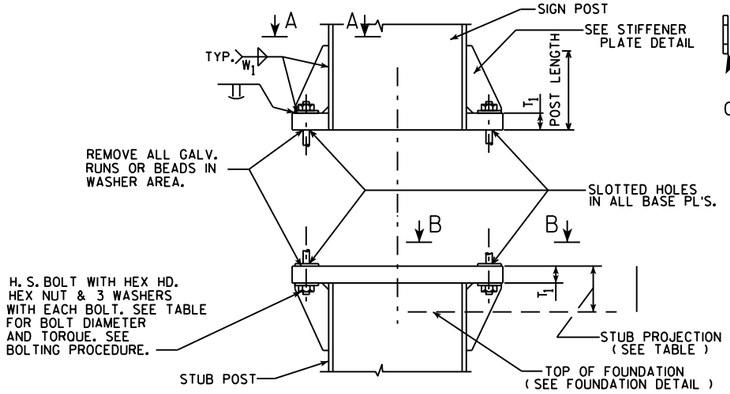
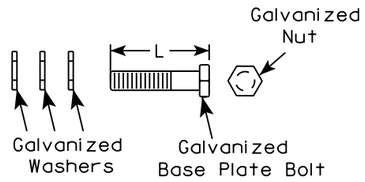
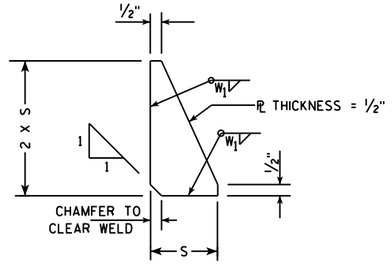
S.D.D. 15 D 15-2



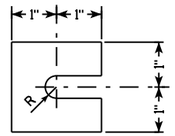
SIGN POST AND STUB POST ELEVATION





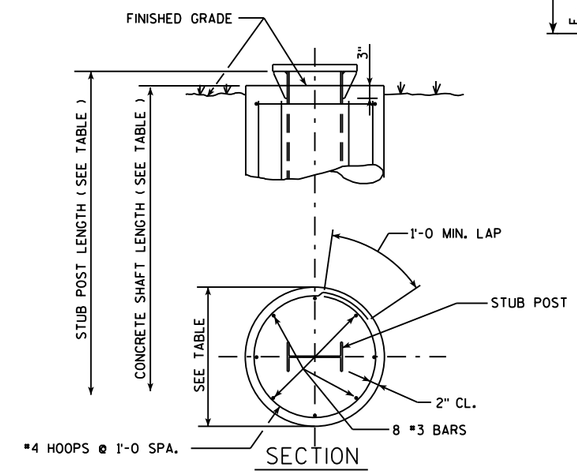
STIFFENER PLATE DETAIL

(SEE TABLE FOR DIMENSIONS)

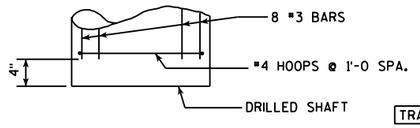


FURNISH 2 @ .012" ± THICK AND 2 @ .032" ± THICK SHIMS PER POST. SHIMS SHALL BE FABRICATED FROM BRASS SHIM STOCK OR STRIP CONFORMING TO A.S.T.M.- B36.

SHIM DETAIL



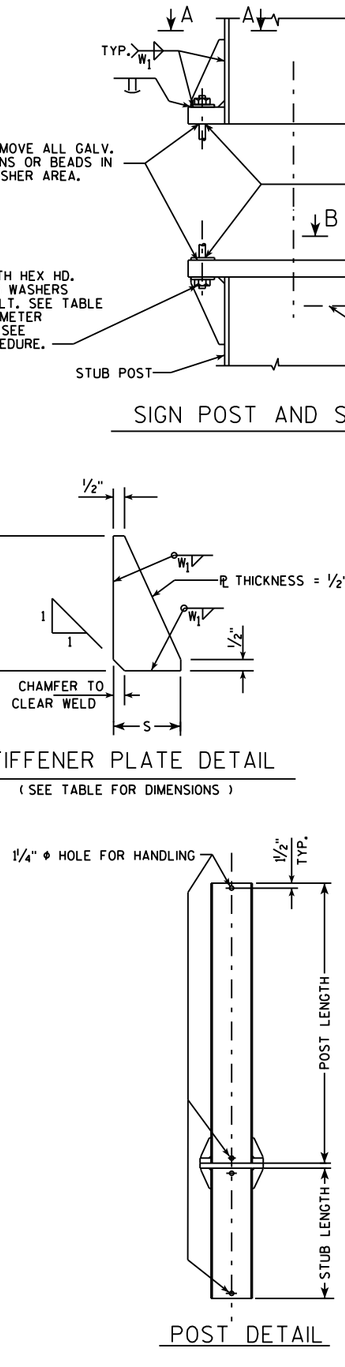
SECTION



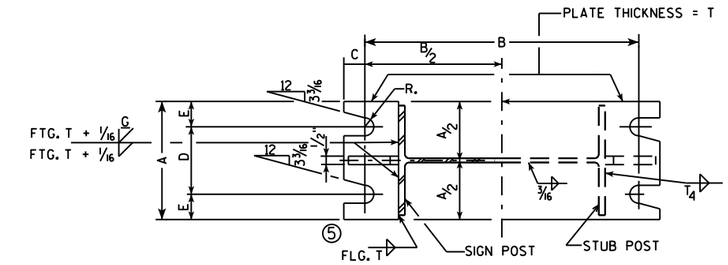
FOUNDATION DETAIL

QUANTITIES FOR 1 FOOTING		
	CONC. MASONRY C.Y.	REINF. STEEL LBS.
A	0.6	34
B	0.8	49
C	0.9	50
D	0.9	56
⑦ E	1.0	62

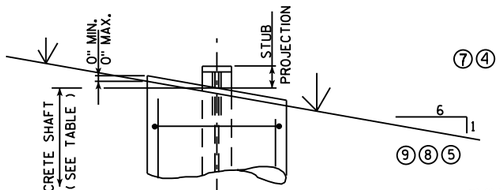
	TYPE	#3	#4
⑦ REINF.	A	8 @ 4'-5	5 @ 6'-3
	B	8 @ 6'-5	7 @ 6'-3
	C	8 @ 6'-11	7 @ 6'-3
	D	8 @ 7'-5	8 @ 6'-3
	E	8 @ 7'-11	9 @ 6'-3



POST DETAIL



SECTION A-A SECTION B-B



⑦④

SHAFT PLACEMENT

DESIGN DATA

WIND PRESSURE = 75 M.P.H.
WIND COMPONENTS - NORMAL = 1.0 TRANSVERSE = 0.0
ICE LOAD = 3 P.S.F.

GROUP LOADS	PERCENT OF ALLOWABLE STRESS
1. DEAD	100
2. DEAD & WIND	140
3. DEAD, ICE & ½ WIND[4]	140

[4]25 P.S.F. MIN.

ALLOWABLE SOIL PRESSURE = 1½T / SQ. FT.
WIND LOAD WAS APPLIED TO THE AREA OF THE SIGN AND TO THE SUPPORTING MEMBERS.
ICE LOAD WAS APPLIED TO ONE FACE OF THE SIGN AND AROUND THE SURFACE OF THE SUPPORTING MEMBERS.

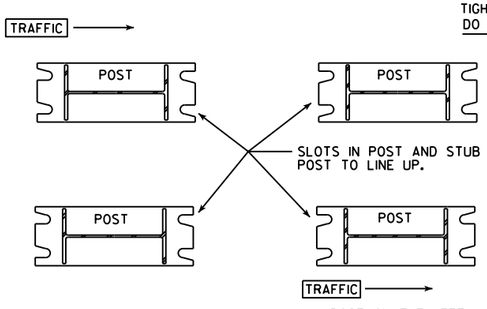
GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.
DESIGN CONFORMS WITH A.A.S.H.T.O. SPECIFICATIONS 1985.
⑨ ALL POSTS, POST STUBS & ATTACHMENTS SHALL BE A.S.T.M. A709 GRADE 50, GALVANIZED IN ACCORDANCE WITH ASTM A123.
THE POST, BASE PLATES, UPPER SIX INCHES OF STUB POST FLANGE SPLICE PLATE AND FUSE PLATE SHALL BE GALVANIZED AFTER FABRICATION.
FURNISH STEEL BOLTS, NUTS, AND WASHERS IN ACCORDANCE WITH SECTION 635 OF THE STANDARD SPECIFICATIONS.

BOLTING PROCEDURE - BASE CONNECTION

1. ASSEMBLE SIGN POST TO STUB POST WITH BOLTS AND ONE OF THE FLAT WASHERS ON EACH BOLT BETW. PLATES.
2. SHIM AS REQ'D. TO PLUMB POST.
3. PRIOR TO BOLT TIGHTENING LUBRICATE BASE CONNECTION BOLTS WITH BEESWAX OR OTHER HIGH-WAX LUBRICANT.
4. TIGHTEN ALL BOLTS THE MAXIMUM POSSIBLE WITH 12" OR 15" WRENCH TO BED WASHERS & SHIMS AND TO CLEAN BOLT THREADS, THEN LOOSEN EACH BOLT IN TURN AND RETIGHTEN IN A SYSTEMATIC ORDER TO THE PRESCRIBED TORQUE. (SEE TABLE)
5. BURR THREADS AT JUNCTION WITH NUT USING A CENTER PUNCH TO PREVENT NUT LOOSENING.

NOTE:
TIGHTEN THE HIGH STRENGTH BOLTS TO THE TORQUE SHOWN. DO NOT OVERTIGHTEN.



POST SLOT ORIENTATION ⑦

L	X	TYPE	POST SIZE \ DIMENSION	BOLT SIZE & TORQUE	A	B	C	D	E	T_1	T_4	W_1	R	S	STUB LENGTH	STUB PROJECTION	SHAFT DIAMETER	SHAFT LENGTH	② K
3 ¾	④	A	W10"X12.0 #/FT.	¾" ϕ @ 75#-FT.	5¼"	1'-0⅜"	⅞"	3½"	⅞"	1"	3/16"	5/16"	13/32"	2⅛"	3'-6	3"	2'-0 ϕ	5'-0	76.0# ④
4 ¾	④	B	W12"X16.0 #/FT.	⅞" ϕ @ 85#-FT.	5½"	1'-4¼"	1"	3½"	1"	1¼"	¼"	5/16"	13/32"	3"	5'-6	3"	2'-0 ϕ	7'-0	146.5# ④
5		C	W12"X19.0 #/FT.	⅞" ϕ @ 85#-FT.	5½"	1'-4¼"	1"	3½"	1"	1½"	5/16"	5/16"	13/32"	3"	6'-0	3"	2'-0 ϕ	7'-6	182.1#
5		D	W12"X22.0 #/FT.	⅞" ϕ @ 85#-FT.	5½"	1'-4¼"	1"	3½"	1"	1½"	⅜"	5/16"	13/32"	3"	6'-6	3"	2'-0 ϕ	8'-0	210.5#
5	③	E	W12"X26.0 #/FT.	1" ϕ @ 90#-FT.	7"	1'-4¼"	1¼"	4"	1½"	1½"	⅜"	5/16"	17/32"	3"	7'-0	3"	2'-0 ϕ	8'-6	293.0# ③

BASE CONNECTION DATA TABLE — FOUNDATION DATA

① ⑥ ①

STRUCTURAL CARBON STEEL PAY WTS. (1 POST) = K+ (POST LENGTH X POST WT.)
" K " INCLUDES STUB, BASE PLATES, STIFFS., BOLTS, AND WASHERS.

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch for State Traffic Engineer

DATE 11/12/15 PLATE NO. A3-1.16

⑩	1-21-14	LUBRICATION OF BASE BOLTS
⑨	4-26-11	REMOVE NON-GALVANIZED
⑧	10-30-96	NOT GALVANIZED/GALVANIZED
⑦	10-30-92	QUANT., A588 EXCEPT., ADD SLOT VIEW
⑥	8-24-87	BASE CONN. WELD
⑤	10-13-81	BASE CONN. WELD & FUSE PL WASHERS
④	10-19-79	POST A & B, A572 GR. 50, & K
②	11-28-78	"K" ③ 4-23-79 TYPE "E"
①	5-4-78	T_1 , T_2 & W_1
NO.	DATE	REVISION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

TYPE A, B, C, D, & E

CONST. SPEC. 2011	DRAWN BY JPH	PLANS CK'D.

FTG. & SIGN SUPPORT DETAILS GROUND MOUNT BREAK-AWAY SIGNS — SHEET

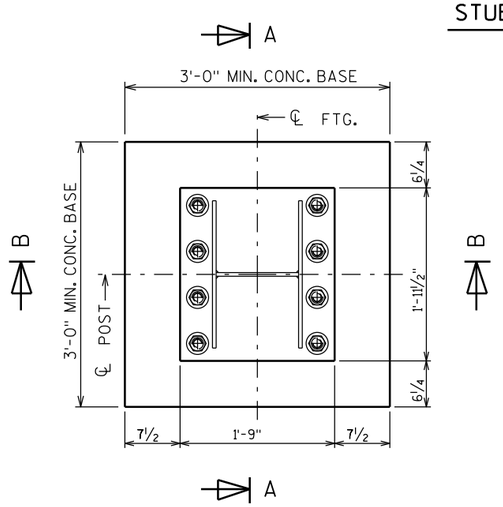
145

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

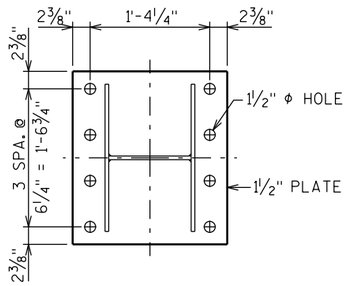
7

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\A31.DGN PLOT DATE : 01-DEC-2015 18:20 PLOT BY : $$ plotuser $$ PLOT NAME : PLOT SCALE : 5.351066:1.000000

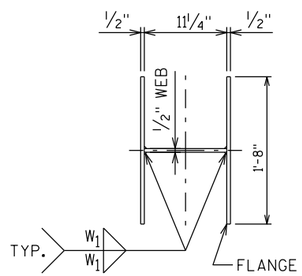
STUB AND MASONRY ANCHOR DETAILS



STUB SECTION



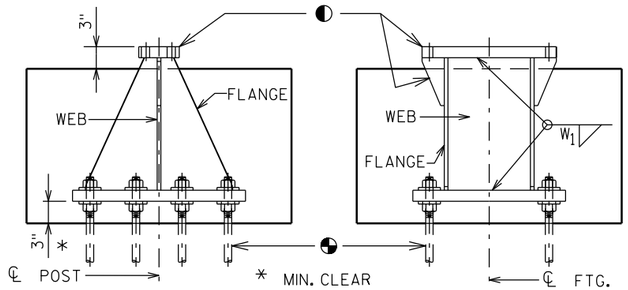
BASE PLATE



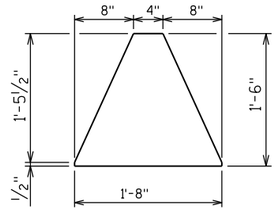
STUB

◐ SEE PLATE NO. A3-1 FOR DETAILS

◒ MASONRY ANCHORS TYPE S 1¼-INCHES (ADHESIVE). ALLOWABLE PULL OUT CAPACITY 14,995 KIPS. EMBED 1'-3" IN ROCK.



SECTION A SECTION B



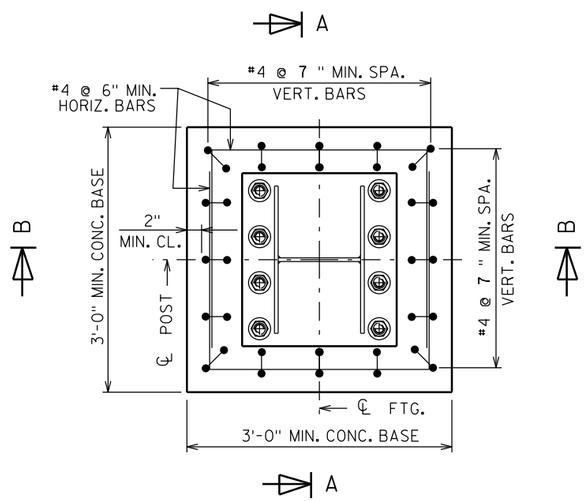
FLANGE

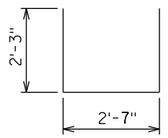
GENERAL NOTES

1. Quantities per Base:
   - REINFORCING BAR STEEL = 62 LBS
   - CONCRETE = 0.6 C.Y.
   - STEEL WEIGHT = 335 LBS
2. All materials, except anchor rod, nuts and washers, are to be A.S.T.M. A709 grade 50. All materials to be galvanized after fabrication.
3. If the contractor encounters rock before reaching the footing depth, per the A3-1 Sign Detail, determine the pull-out capacity of a test adhesive anchor installed in the rock. If the test result equals or exceeds the pull-out capacity of 14,995 KIPS, the contractor may install the breakaway stub for rock, according to this detail.

CONCRETE BASE AND REINFORCING STEEL DETAILS

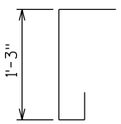
CONCRETE BASE SECTION





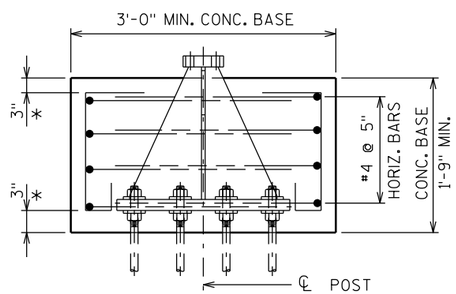
HORIZONTAL BAR

8 BARS @ 6'-11" LENGTH



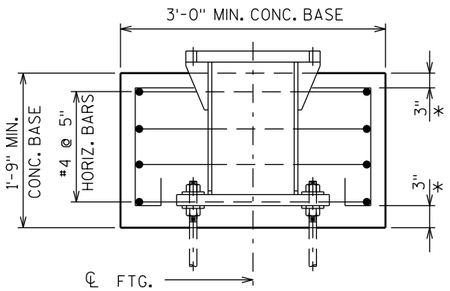
VERTICAL BARS

16 BARS @ 2'-4" LENGTH
MAY BE PLACED IN SKEW
FOR CLEARANCE NEED



SECTION A

* MIN. CLEAR



SECTION B

ALTERNATE BREAK-AWAY BASE ON ROCK
A3-1M

WISCONSIN DEPT OF TRANSPORTATION

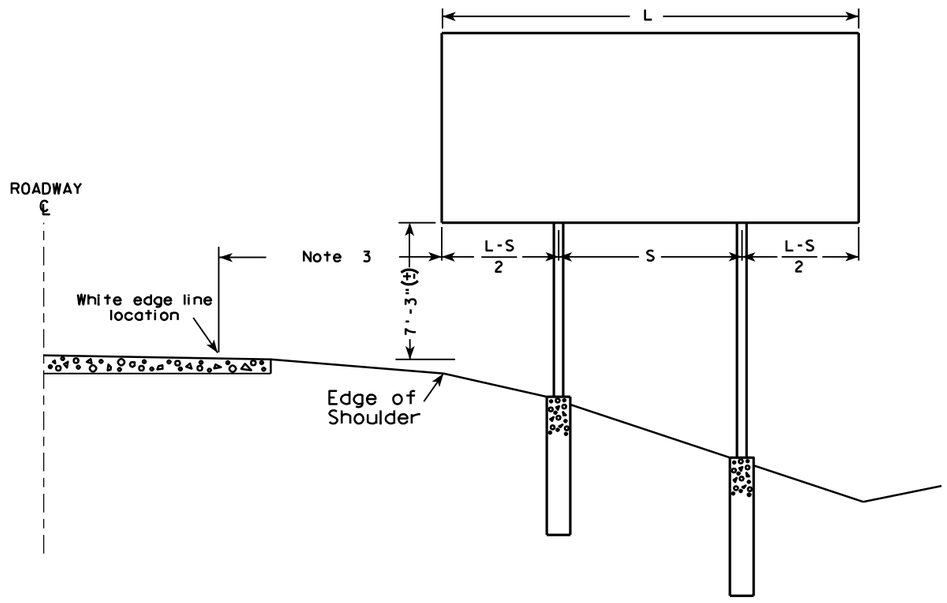
APPROVED Matthew R Rauch for State Traffic Engineer

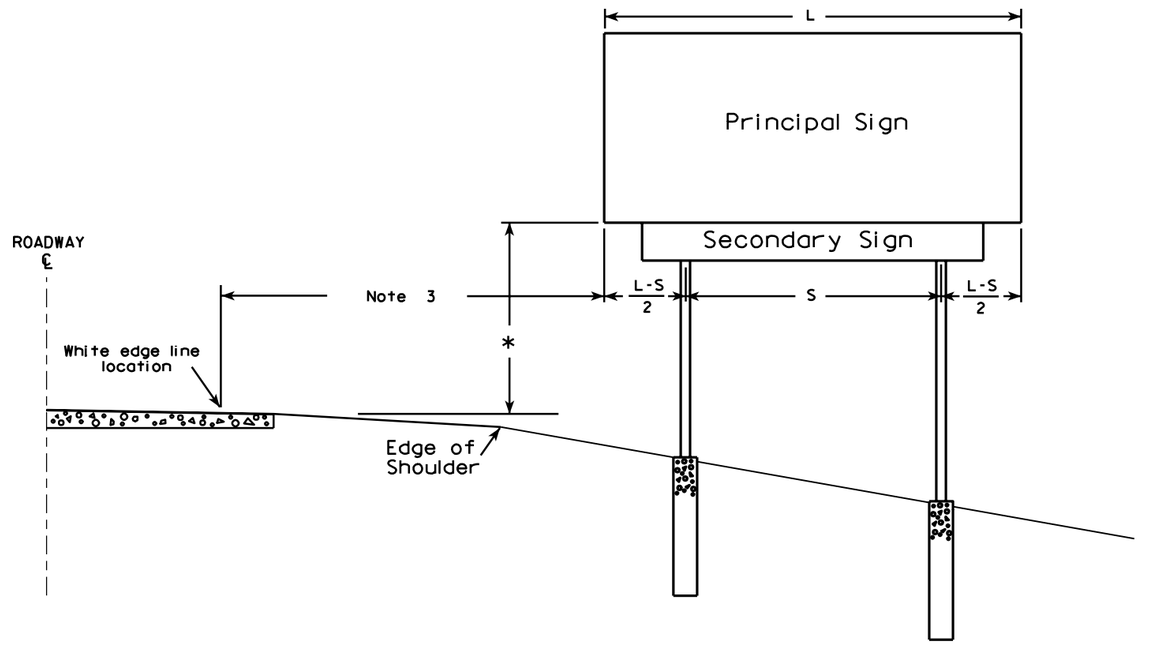
DATE 2/06/2014 PLATE A3-1M.1

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\A31M.DGN PLOT DATE : 10-MAR-2014 15:16 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 1.556674:1.000000

WISDOT/CADDS SHEET 42





GENERAL NOTES

1. For a 2 post installation, S equals 3L/5, but shall not be less than 9 ft.
2. For a 3 post installation, S equals 5L/7, but shall not be less than 18 ft., and the space between any two posts shall not be less than 9 ft.
3. Unless noted in the plan, the sign offset distance shall be a minimum of 17'-6", desirable 30'-0".
4. The (±) tolerance shown on this sheet is 3 in.
5. The vertical sign height clearance detailed is measured from the bottom of the sign to the near edge of pavement.
6. Post lengths shown in the miscellaneous quantities are estimated lengths. The contractor shall verify post lengths at the time of final grading.
7. Refer to the Traffic Guidelines Manual for further guidance on minimum vertical clearance requirements.

* Clearance is 8'-3"(±) when the secondary sign is 3 ft. or less in height. For secondary signs larger than 3 ft., the clearance to the bottom of the secondary sign shall be 5'-3"(±).

7

7

TYPICAL INSTALLATION OF TYPE I SIGNS

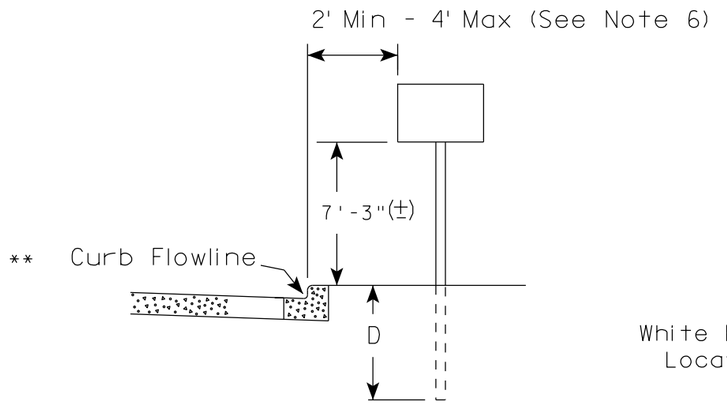
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

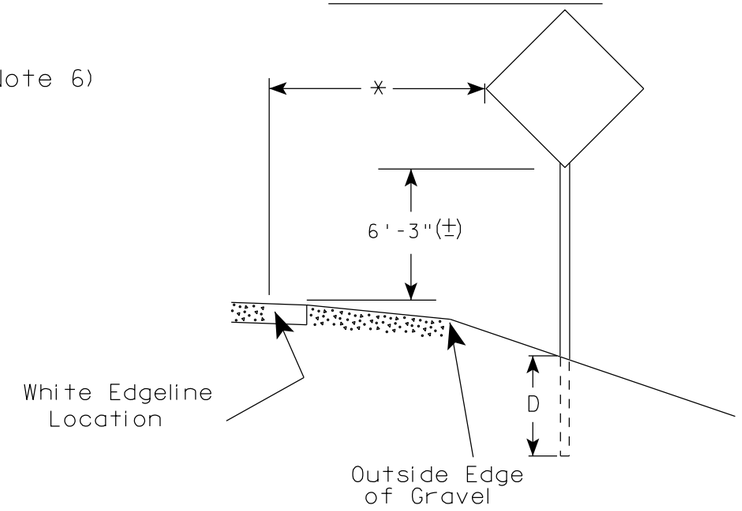
DATE 4/02/08 PLATE NO. A4-1.9

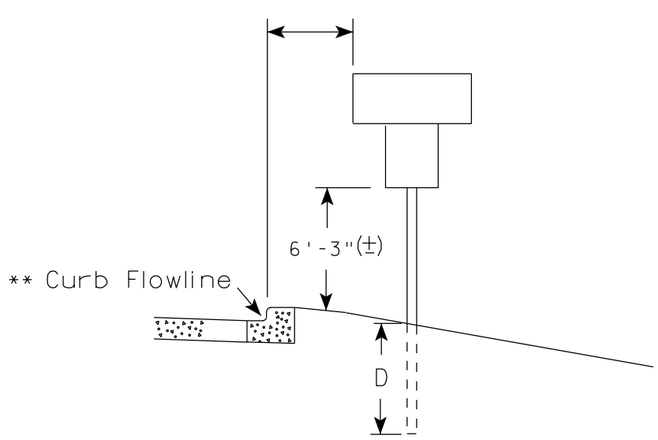
PROJECT NO:				SHEET NO: 147	E

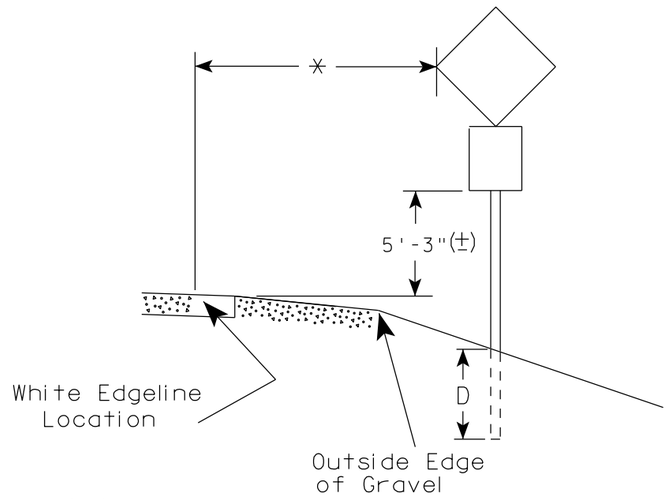
URBAN AREA



RURAL AREA (See Note 2)







GENERAL NOTES

1. Signs wider than 4 feet or 20 sq.ft or larger, shall be mounted on multiple posts. Refer to plate A4-4.
2. If signs are mounted on barrier wall, see A4-10 sign plate.
3. For expressways and freeways, mounting height is 7'- 3" (±) or 6'-3" (±) depending upon existence of a sub-sign.
4. Minimum mounting height for J assemblies (A2-1S) is 7'-3" (±) or 6'-3" (±) per urban or rural detail respectively.
5. Minimum mounting height for signs mounted on traffic signal poles is 5'- 3" (±).
6. Offset distance shall be consistent with existing signs or consistent throughout length of project.
7. The (±) tolerance for mounting height is 3 inches.
8. Folding signs shall be mounted at a height of 5'-3" (±) or as directd by the Engineer.
9. The Double Arrow sign (W12-1) shall be mounted at a height of 2'-3" (±). The Chevron sign (W1-8), Roundabout Chevron panel (R6-4B), Enhanced Reference Markers, Clearance Markers (W5-52), Mile Markers (D10 series), In Road Object Markers (W5-54) & End of Road Markers (W5-56) shall be mounted at a height of 4'-3" (±).

POST EMBEDMENT DEPTH

Area of Sign Installation (Sq. Ft.)	D (Min)
20 or Less	4'
Greater than 20	5'

** The existence of curb and gutter does not in itself mandate the vertical clearance illustrated. That height is typically measured where there is sidewalk adjacent to the roadway or parking is permitted. In the absence of sidewalk vertical clearance is measured from the top of the curb. Offset of signs is measured from the flow line.

* 6 feet from edge of a paved shoulder or 12 feet from the edge of pavement (edge line location) or 2 feet from outside edge of gravel, whichever is greater unless directed by project engineer.

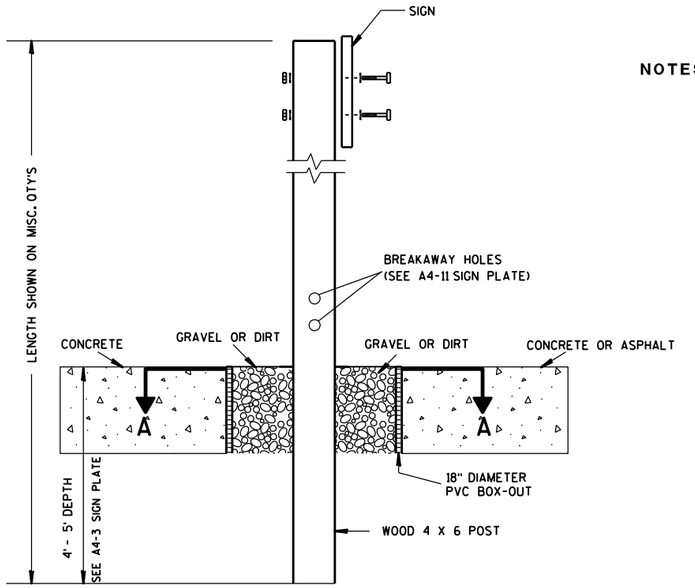
TYPICAL INSTALLATION OF PERMANENT TYPE II SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 7/23/15 PLATE NO. A4-3.20

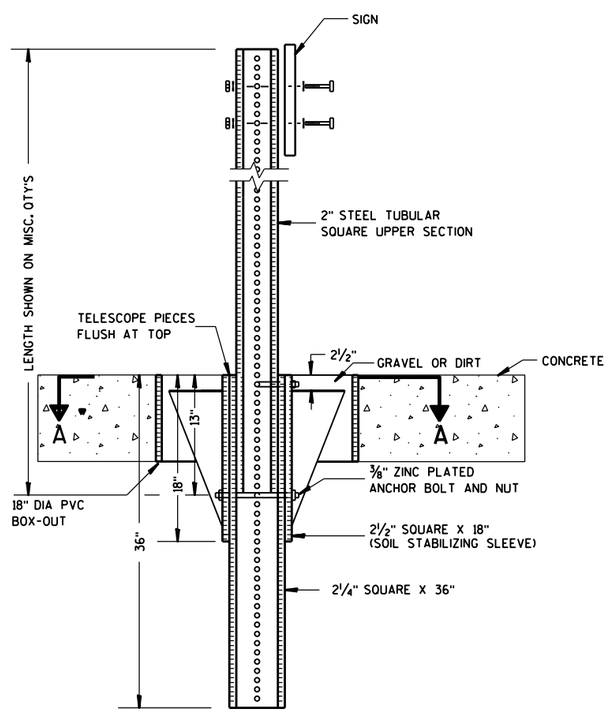
PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E



ELEVATION VIEW

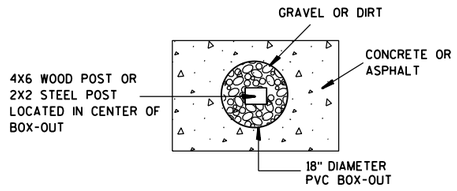
DETAIL OF WOOD 4 X 6 SIGN POST IN BOX-OUT

NOTES:
1. ALL MATERIAL TO BE APPROVED BY ENGINEER PRIOR TO INSTALLATION
2. SEE SIGN PLATE A4-8 FOR SIGN HARDWARE REQUIREMENTS
3. 18 INCH X 18 INCH SQUARE BOX-OUTS MAY BE USED FOR INSTALLATIONS IN EXISTING CONCRETE OR ASPHALT LOCATIONS.



ELEVATION VIEW

DETAIL OF STEEL 2 X 2 SIGN POST IN BOX-OUT



PLAN VIEW

FOR NEW CONCRETE/ASPHALT INSTALLATIONS

SIGN POST BOX-OUTS A4-3B

WISCONSIN DEPT OF TRANSPORTATION

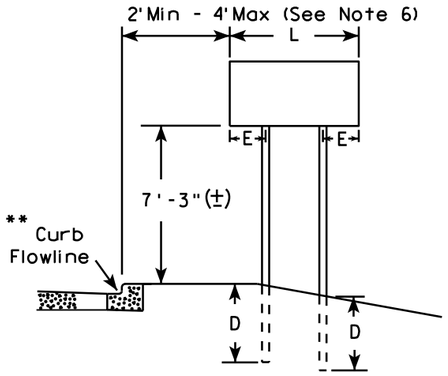
APPROVED Matthew R Rauch
for State Traffic Engineer

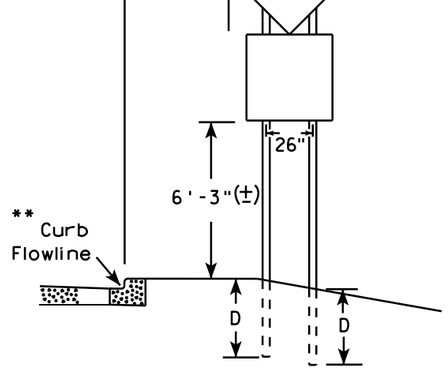
DATE 1/27/14 PLATE NO. A4-3B.1

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\A43B.DGN PLOT DATE : 27-JAN-2014 09:48 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 13.659812:1.000000 WISDOT/CADDS SHEET 42

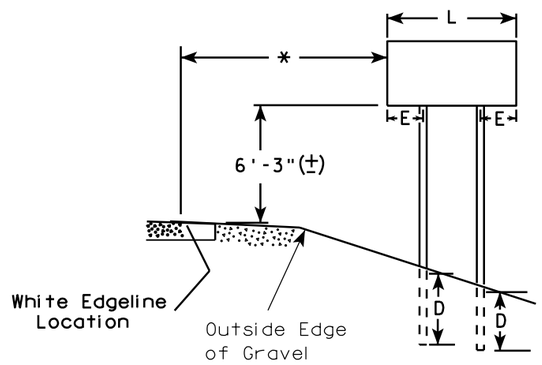
URBAN AREA

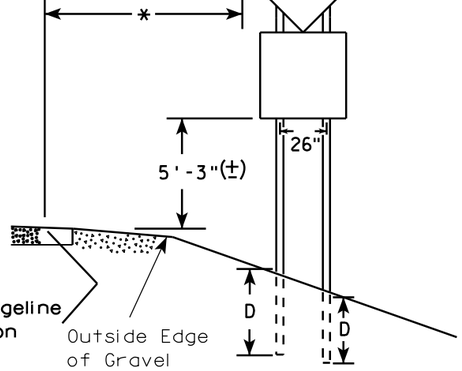




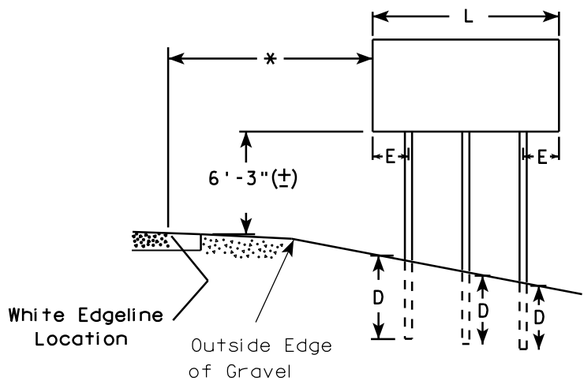
48" DIAMOND WARNING SIGN

RURAL AREA (See Note 3)





48" DIAMOND WARNING SIGN



GENERAL NOTES

1. For 3 or 4 post installations, individual post spacing shall be greater than 3'-6".
2. See tables below for required number of posts.
3. For expressways and freeways, mounting height is 7'-3" (±) or 6'-3" (±) depending upon existence of sub-sign.
4. The (±) tolerance for mounting height is 3 inches.
5. Minimum mounting height for J assemblies (A2-1S) is 7'-3" (±) or 6'-3" (±) per urban or rural detail respectively.
6. Offset distance shall be consistent with existing signs or consistent throughout length of project.
7. Folding signs shall be mounted at a height of 5'-3" (±) or as directed by the engineer.
8. The Double Arrow sign (W12-1) shall be mounted at a height of 2'-3" (±). The Chevron sign (W1-8), Roundabout Chevron panel (R6-4B), Clearance Markers (W5-52), Mile Markers (D10 series), In Road Object Markers (W5-54) & End of Road Markers (W5-56) shall be mounted at a height of 4"-3" (±).

* 6 feet from edge of a paved shoulder or 12 feet from the edge of pavement (edge line location) or 2 feet from outside edge of gravel, whichever is greater unless directed by project engineer.

** The existence of curb and gutter does not in itself mandate the vertical clearance illustrated. That height is typically measured where there is sidewalk adjacent to the roadway or parking is permitted. In the absence of sidewalk vertical clearance is measured from the top of the curb. Offset of signs is measured from the flow line.

*** See A4-3 sign plate for signs 4' or less in width and less than 20 S.F. in area.

SIGN SHAPE OTHER THAN DIAMOND (TWO POSTS REQUIRED)	
L	E
Greater than 48" Less than 60"	12"
60" to 120"	L/5

***

SIGN SHAPE OTHER THAN DIAMOND (THREE POSTS REQUIRED)	
L	E
Greater than 120" less than 168"	12"

SIGN SHAPE OTHER THAN DIAMOND (FOUR POSTS REQUIRED)	
L	E
168" and greater	12"

POST EMBEDMENT DEPTH

Area of Sign Installation (Sq. Ft.)	D (Min)
20 or Less	4'
Greater than 20	5'

TYPICAL INSTALLATION OF TYPE II SIGNS ON MULTIPLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

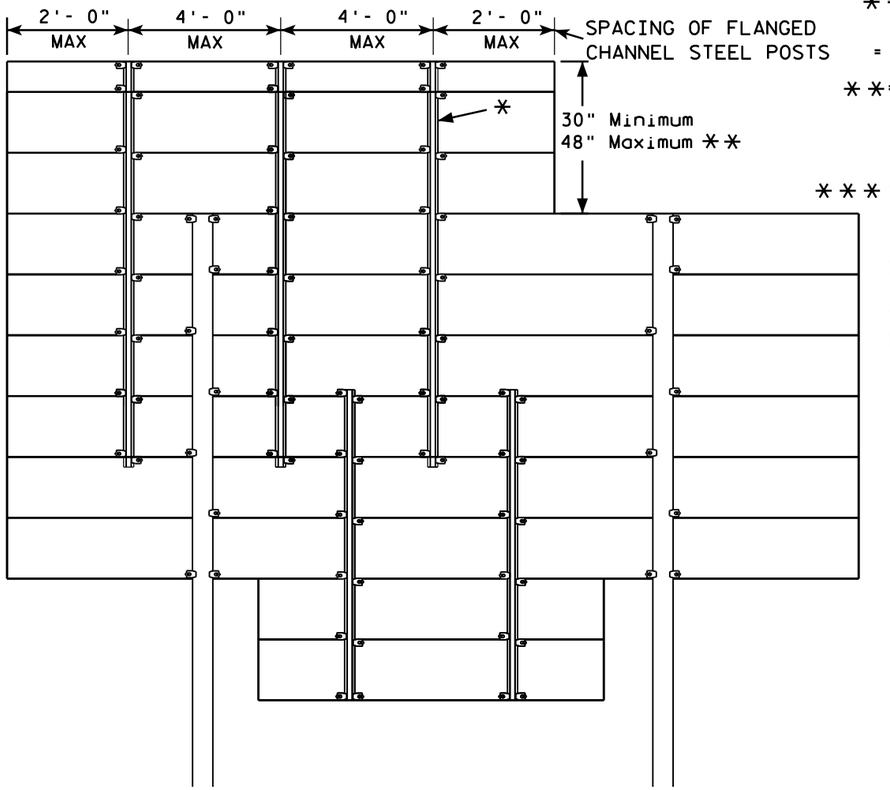
DATE 7/23/15 PLATE NO. A4-4 14 150

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\A44.DGN PLOT DATE : 23-JUL-2015 15:23 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 107.021305:1.000000

WISDOT/CADDS SHEET 42

GROUND MOUNTED SIGN

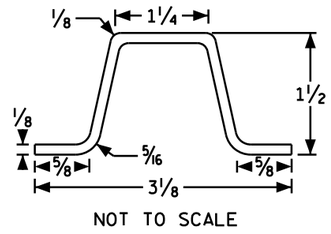


* =2.00 lb/ft FLANGED CHANNEL, MIN. YIELD STRENGTH = 60,000 PSI (GRADE 60) GALVANIZED

** =FOR 48" HEIGHT PANELS ON OVERHEAD STRUCTURES, ENTIRE SIGN SHALL BE CENTERED VERTICALLY ABOUT THE DEPTH OF THE TRUSS.

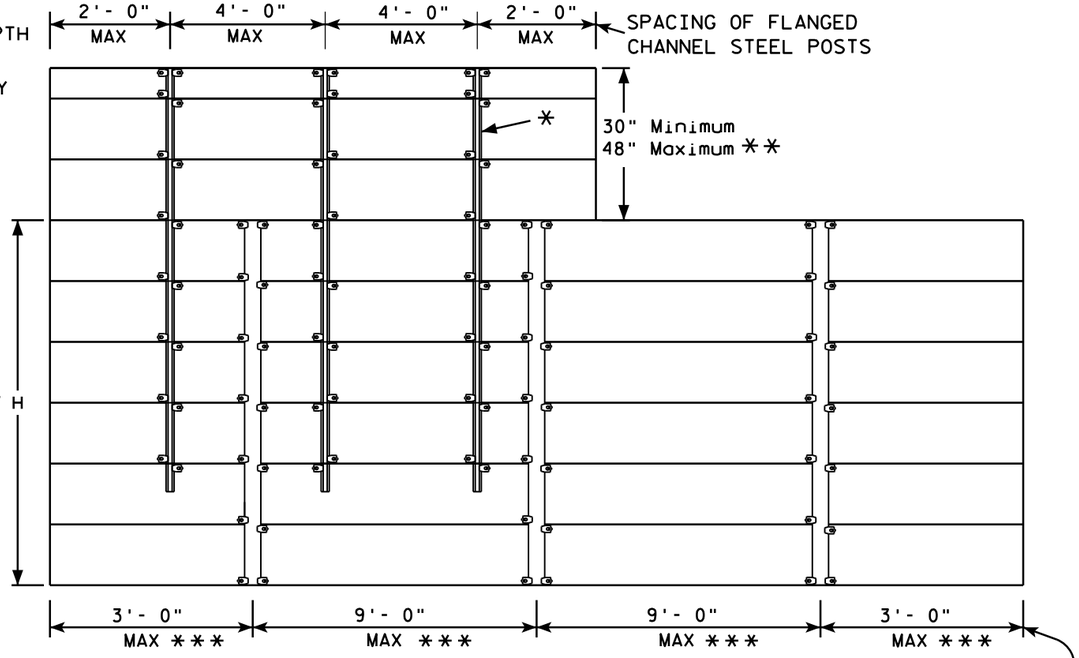
*** THESE SPACING DISTANCES SHALL ONLY BE USED WHEN THE MAIN SIGN HAS A MAXIMUM HEIGHT (DIMENSION H) OF 16 FT OR LESS. FOR SIGNS WITH A HEIGHT OF GREATER THAN 16 FT, STRUCTURAL CALCULATIONS SHALL BE PERFORMED.

FLANGE CHANNEL DETAIL



NOT TO SCALE

SIGN BRIDGE MOUNTED SIGN



GENERAL NOTES

1. Flanged channel steel posts shall conform to size and material above, and shall be considered as incidental to other items in the contract.
2. Number of Flanged channel steel supports varies with length of panel and shall be spaced as shown:

   PANEL LENGTH 8'-0" OR LESS = 2 CHANNELS
   PANEL LENGTH 9'- 0" - 12'- 0" = 3 CHANNELS
   PANEL LENGTH 13'- 0" OR MORE = 4 CHANNELS

   If the flanged channel steel posts can not be horizontally spaced as shown, they can be moved so as to securely hold the sign.
3. The EXIT NUMBER PANEL shall normally be positioned above the guide sign aligned with the right edge of the guide sign. If the guide sign indicates a left exit, the EXIT NUMBER PANEL shall be aligned with the left edge of the guide sign.
4. If the bolt holes in the top panel (EXIT NUMBER), or sub panel (NEXT EXIT) line up with holes in main sign panel, stitch bolts shall be used in addition to the channels.
5. Provide post clips for each sign as shown. (Please note the differences between a ground mounted versus Sign bridge mounted sign as far as number of clips required on the main supports or beams)
6. Structural steel sign supports shall extend to the top of the main signs, as shown on the above details.

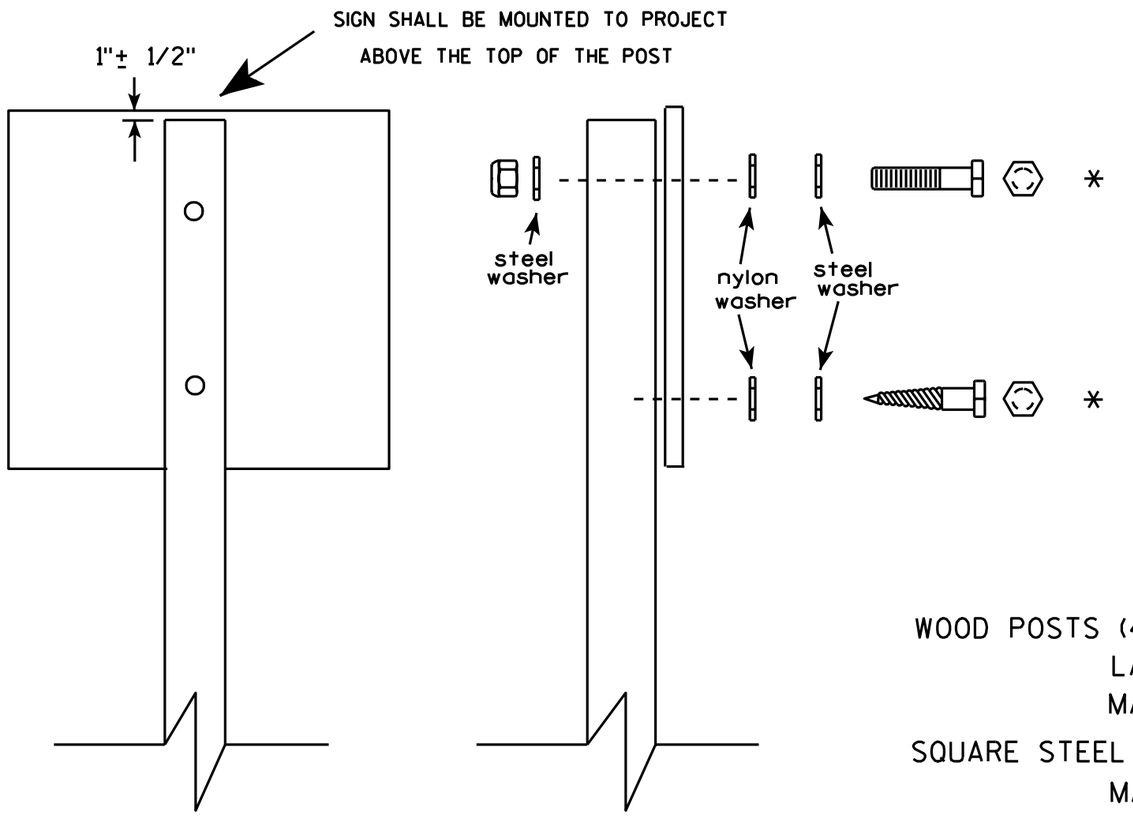
ATTACHMENT OF GUIDE SIGNS TO SUPPORTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/05/13 PLAT 151 A4-6.12

PROJECT NO: | SHEET NO: E



Nuts, bolts and lags used for mounting signs shall have hexagonal heads and shall be either :

a. Hot dip galvanized in accordance with ASTM Designation: A 153, Class D, or SC 3

b. Electro-galvanized in accordance with ASTM Designation : B 633, TYPE III, SC 3.

Threads on bolts and nuts shall be manufactured with sufficient allowance for the cadmium plate or galvanized coating to permit the nuts to run freely on the bolts.

WOOD POSTS (4" x 4" or 4" x 6")

LAG SCREWS - 3/8" X 3"

MACHINE BOLTS - 5/16" X 6-1/2" or 7" Length w/ nuts

SQUARE STEEL POSTS (2" x 2")

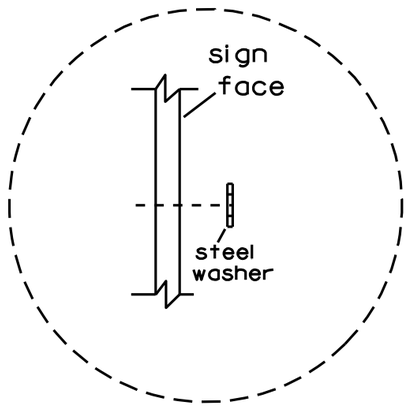
MACHINE BOLTS - 3/8" X 3-1/4" Length w/ nuts

RIVETS - 9/32 " (6605-9-6) BULB-TITE, TRI-FOLD, ALUMINUM BODY/MANDREL O.D. FLANGE .720-.765 INCH, GRIP RANGE .042-.375 INCH

WASHERS (ALL POSTS) -

1-1/4" O.D. X 3/8" I.D. X 1/16" STEEL

1-1/4" O.D. X 3/8" I.D. X .080 NYLON for all Type H signs.



Washer Placement when Sign Has Other Than Type H or Type F Face

* Two different fastening systems are shown for illustration purposes. On any individual sign, either one or the other system shall be used. Actual number of fasteners per sign varies with the sign area, but normally there are two. For a single post installation, all signs greater than 9 sq. ft. require the use of 3 fasteners.

ATTACHMENT OF SIGNS TO POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/23/10 PLATE NO. A4-8.7

7

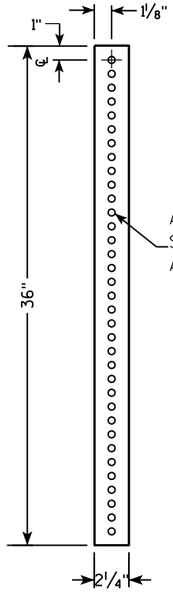
7

PROJECT NO:

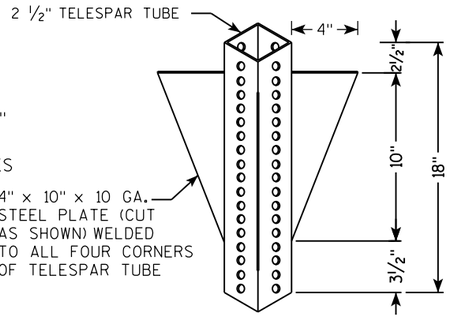
SHEET NO: 152 E

TELESCOPIC TUBING ANCHORS
TWO PIECE SYSTEM

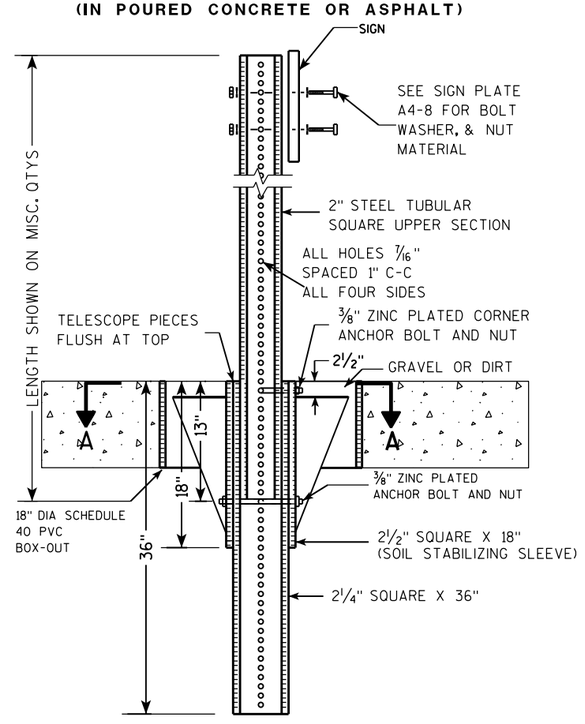
2 1/4 " SQUARE
12 GAUGE
PERFORATED
GALVANIZED FINISH



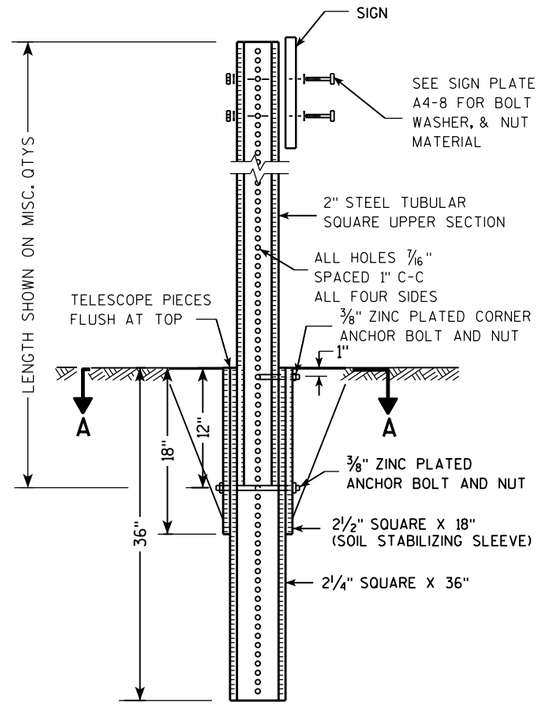
2 1/2 " SQUARE
12 GAUGE
OMNI-DIRECTIONAL
PERFORATED
SOIL STABILIZING SLEEVE
GALVANIZED FINISH

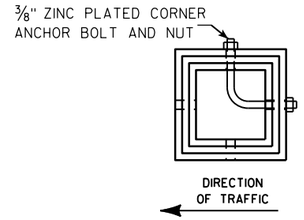


DETAIL OF TUBULAR STEEL SIGN POST
(IN POURED CONCRETE OR ASPHALT)



DETAIL OF TUBULAR STEEL SIGN POST
(IN LOCATIONS OTHER THAN POURED CONCRETE OR ASPHALT)





SECTION A-A

Area of Sign Installation (Sq. Ft.)	Number of Required Posts
9 or less	1
Greater than 9 less than or equal to 18	2
Greater than 18 less than or equal to 27	3

Signs wider than 3 feet or larger than 9 sq. ft shall be mounted on multiple posts (see above table).

TUBULAR STEEL
SIGN POST
A4-9

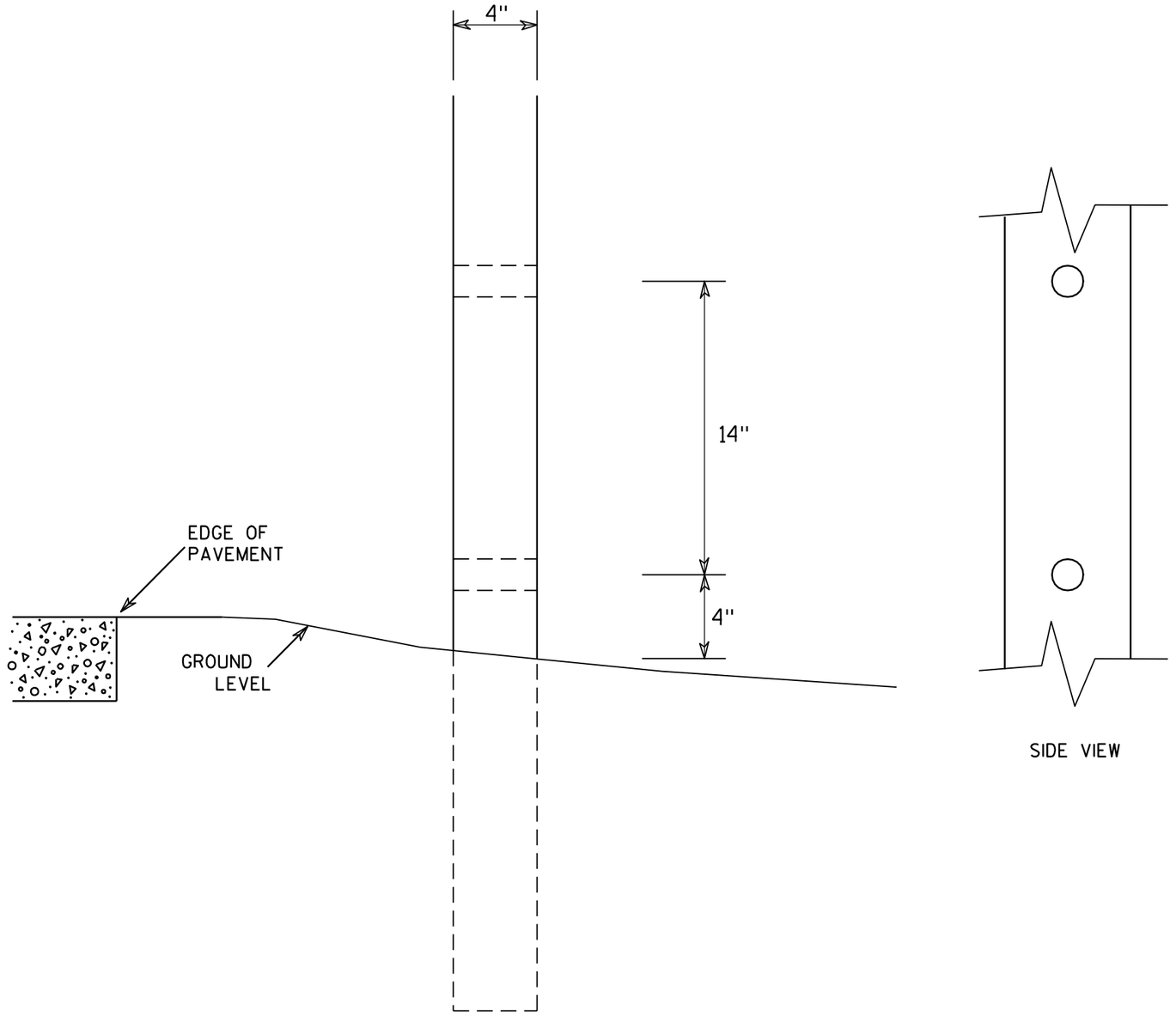
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/05/15 PLATE A4-9.9

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\A49.DGN PLOT DATE : 05-FEB-2015 17:09 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 13.659812:1.000000
WISDOT/CADDS SHEET 42



SIDE VIEW

GENERAL NOTES

1. All 4 x 6 Wood Posts shall be modified by having two 1½" diameter holes drilled perpendicular to the roadway centerline.

7

7

4 X 6 WOOD POST MODIFICATIONS

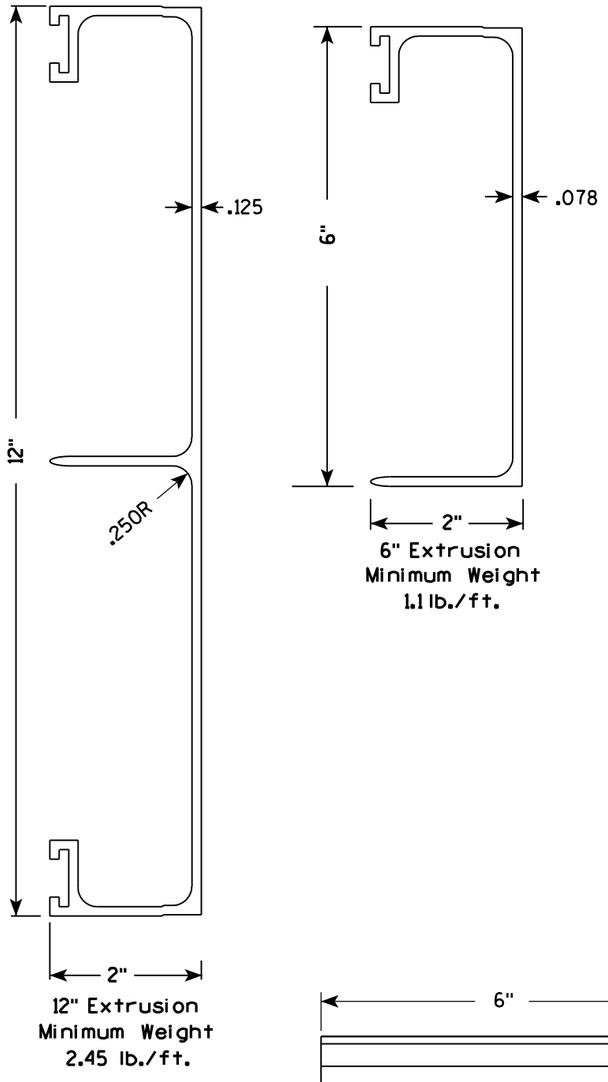
WISCONSIN DEPT OF TRANSPORTATION

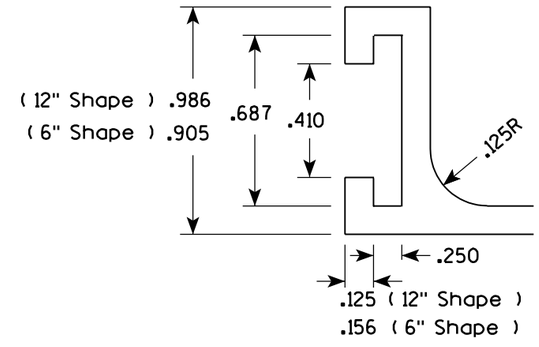
APPROVED Chester J Spang for State Traffic Engineer

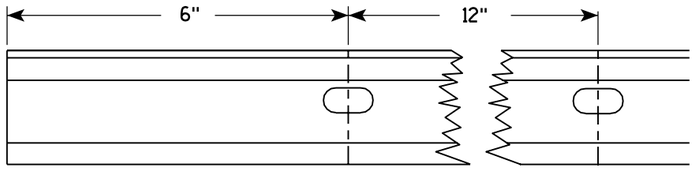
DATE 3/27/97 PLATE NO. A4-11.2

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 154	E

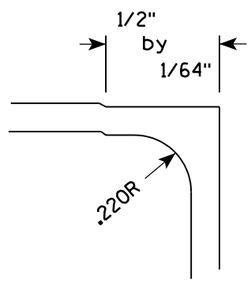
Extruded Shape







Punch 7/16" x 7/8" oval holes beginning 6" in from end of extrusion 12" CC on both edges of 6" and 12" panels.

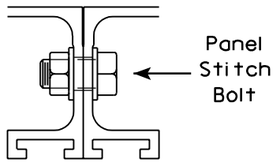


Hardware

STITCH BOLT, WASHER & NUT

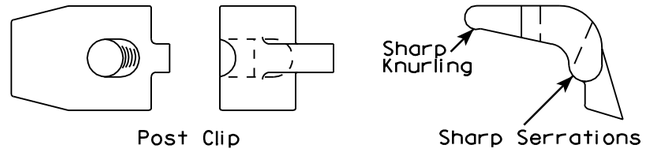
The hardware includes:

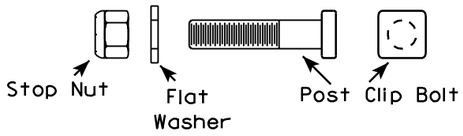
3/8 " - 16 X 3/4 " Economy Bolt 2024-T4 alloy
3/8 " - Stainless steel stop nut
3/8" X .064 Flat Washers, Alclad 2024-T4 alloy



POST CLIP, POST CLIP BOLT, WASHER & NUT

Post Clip shall be Alum. Alloy 356-T6
Post Clip Bolt shall be Stainless Steel.
Flat washer shall be 3/8" X .091, Stainless Steel.
Stop nut shall be stainless steel.





NOTES

1. The contractor may select any brand of extrusion that conforms to the illustrations or meets with the approval of the engineer, but all extrusions used on this contract shall be of the same brand.
2. Panel Stitch Bolts shall be used to assemble adjacent panels. Maximum stitch bolt spacing shall be 24" C-C, and a minimum of 4 bolts shall be used to connect any two extrusions.
3. Post Clips shall be used to attach the sign panel to the sign support.

ALUMINUM EXTRUSIONS FOR TYPE I SIGNS

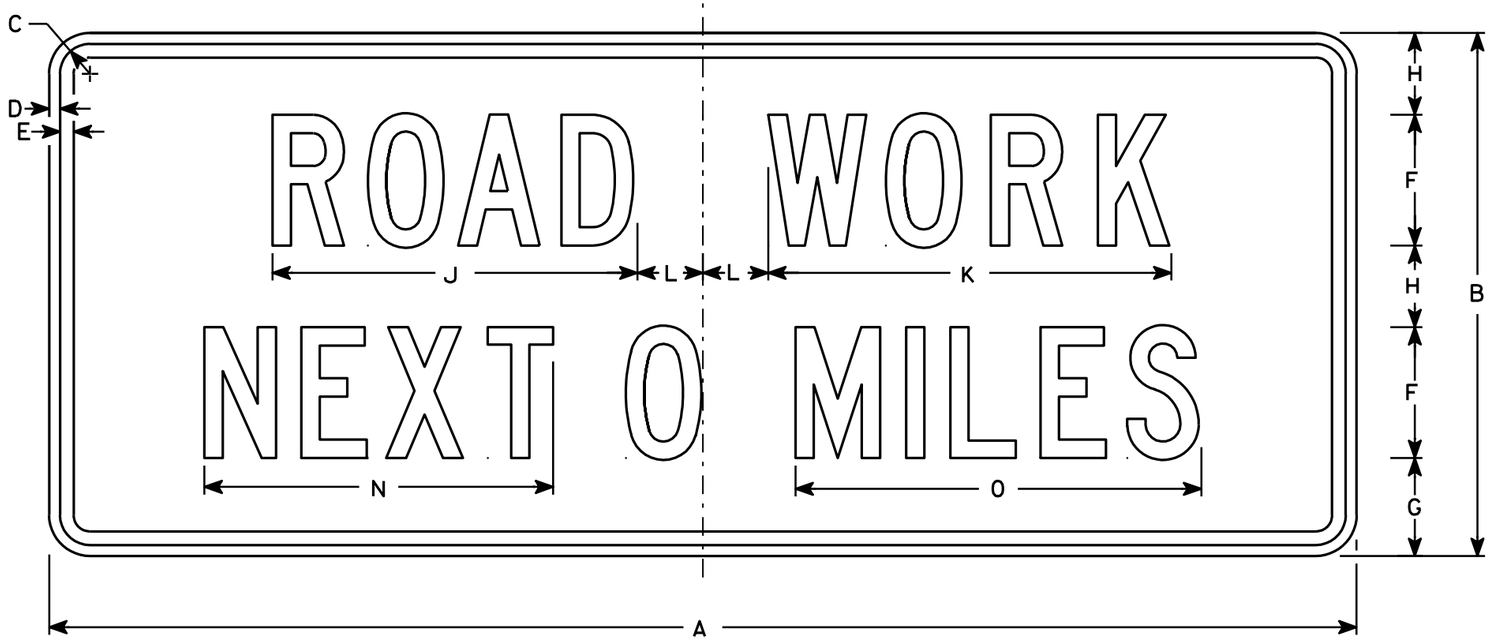
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Chester J Spang
for State Traffic Engineer

DATE 11/18/99 PLATE NO. A5-2.9

PROJECT NO:

SHEET NO: 155 E



G20-1

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Substitute appropriate numerals and optically adjust spacing to achieve proper balance

Metric equivalent for this sign is:

SIZE	
1	
2	1500 mm X 600 mm
3	
4	1500 mm X 600 mm
5	

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.	Area m2
1																												
2	60	24	1 3/8	1/2	5/8	6	4 1/2	3 3/4		16 3/4	18 1/2	3		16	18 5/8												10	.90
3																												
4	60	24	1 3/8	1/2	5/8	6	4 1/2	3 3/4		16 3/4	18 1/2	3		16	18 5/8												10	.90
5																												

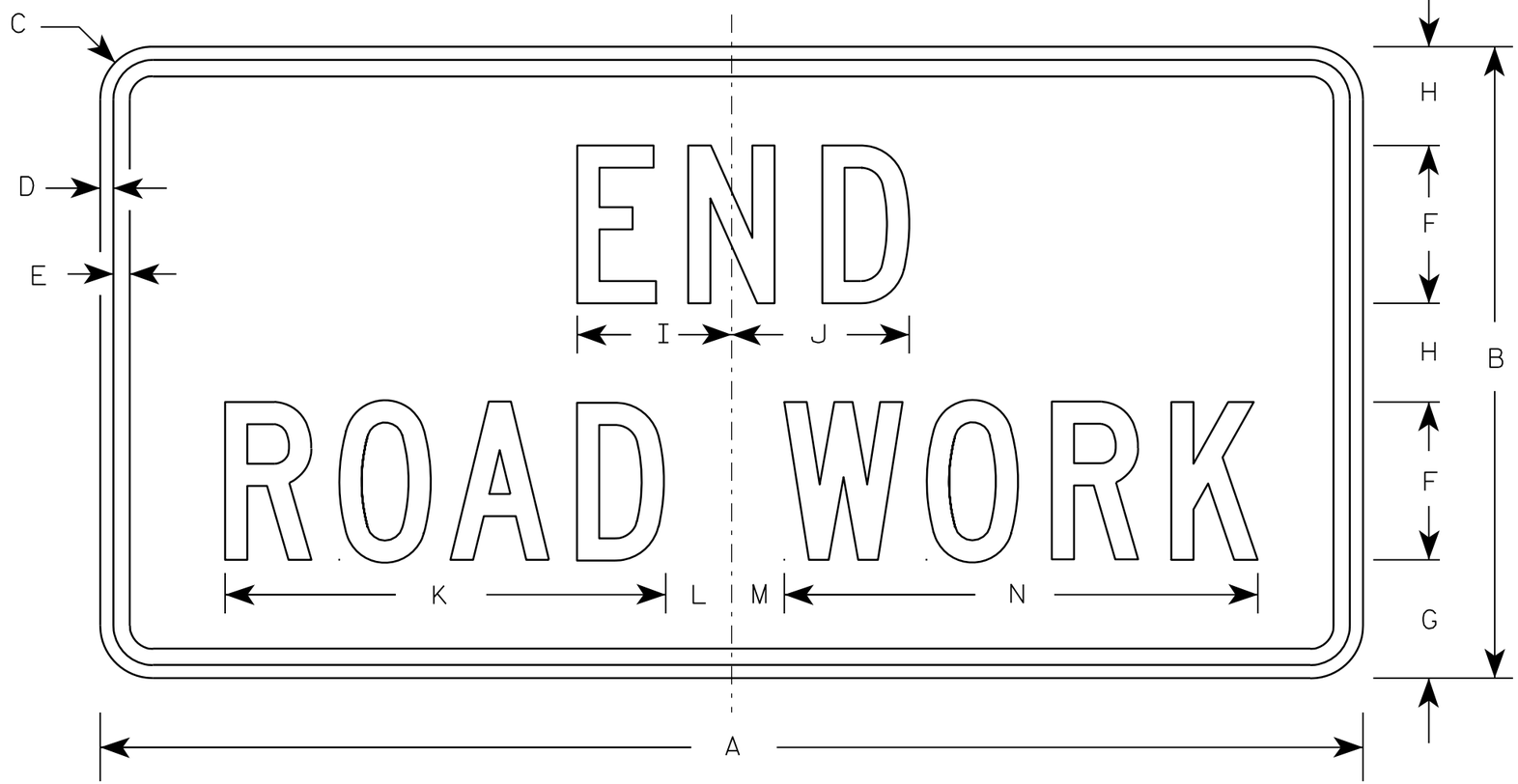
STANDARD SIGN
G20-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Chester J Spray for State Traffic Engineer

DATE 4/8/97 PLATE NO. G20-1.7

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 156	E



G20-2A

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

Metric equivalent for this sign is:

SIZE	
1	900 mm X 450 mm
2	1200 mm X 600 mm
3	1200 mm X 600 mm
4	1200 mm X 600 mm
5	1200 mm X 600 mm

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.	Area m2
1	36	18	1 1/8	3/8	1/2	4	3 3/4	2 1/2	4 1/8	4 1/8	11 1/8	2	1	12 1/8													4.5	0.41
2	48	24	1 1/2	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0	0.72
3	48	24	1 1/2	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0	0.72
4	48	24	1 1/2	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0	0.72
5	48	24	1 1/2	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0	0.72

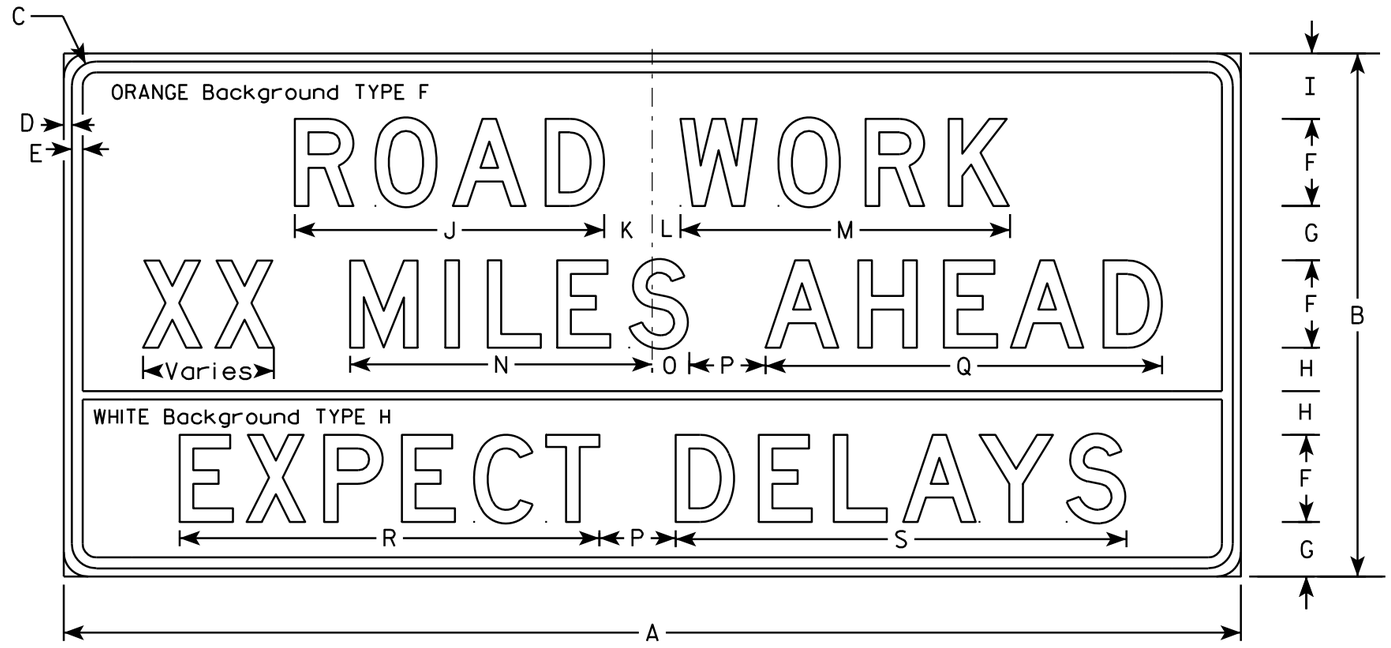
STANDARD SIGN
G20-2A

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 9/30/09 PLATE NO. G20-2A.8

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 157	E



G20-58

NOTES

1. Sign is Type II - Type F & Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - AS NOTED
   Message - BLACK
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

Metric equivalent for this sign is:

SIZE	
1	
2	2700 mm X 1200 mm
3	
4	
5	

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.	Area m2
1																												
2																												
3																												
4	108	48	2 1/4	3/4	1	8	5	4	6	28 3/8	4 1/2	2 1/2	30 1/4	27 3/4	3 3/8	7	36 3/8	38 1/2	41 3/8								36.0	3.24
5																												

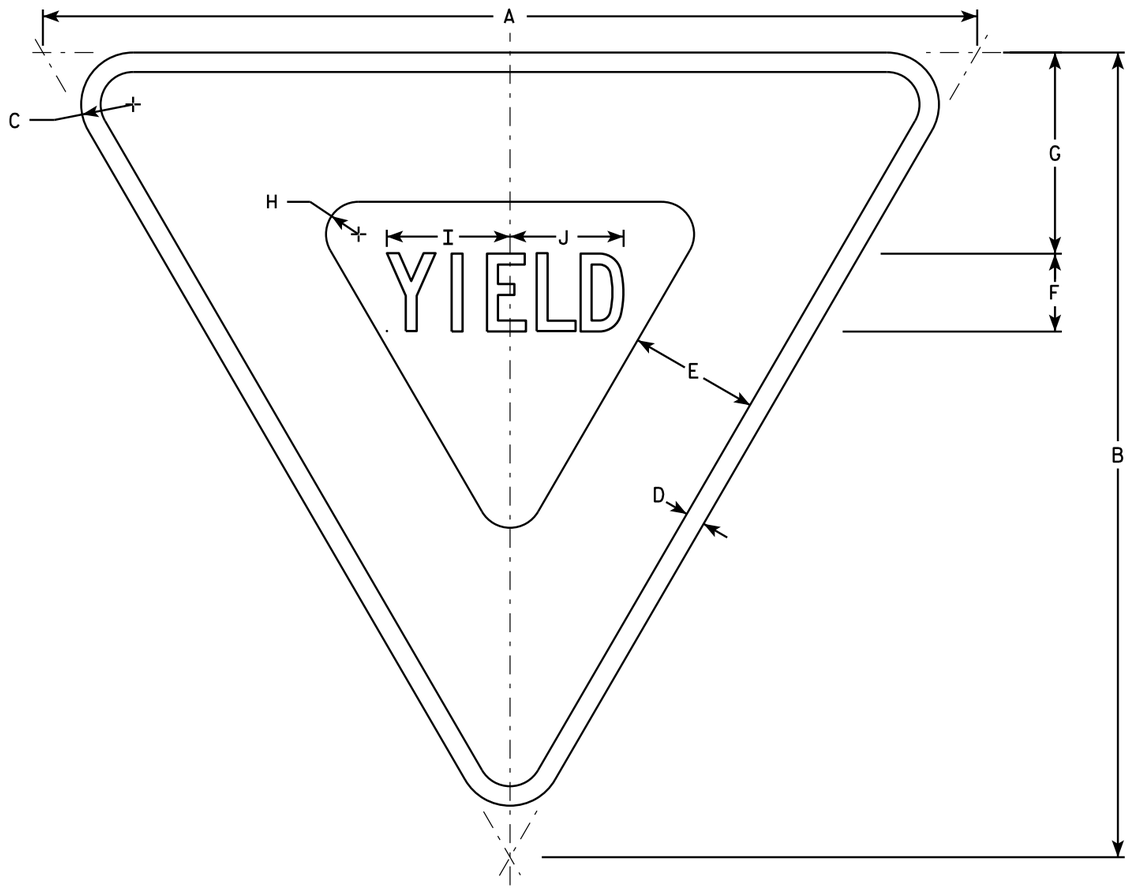
STANDARD SIGN
G20-58

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 7/13/2009 PLATE NO. G20-58.1

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 158 | E



R1-2

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - See note 5
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. The border strip and word message are reflectorized red.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	30	26	1 1/2	5/8	4	2 1/2	6 3/8	7/8	4	3 5/8																	2.71
2S	36	31	2	3/4	5	3	7 3/4	1 1/4	4 3/4	4 3/8																	3.88
2M	48	42	3	1	6	4	9 3/4	2	6 1/4	5 7/8																	7.00
3	48	42	3	1	6	4	9 3/4	2	6 1/4	5 7/8																	7.00
4	48	42	3	1	6	4	9 3/4	2	6 1/4	5 7/8																	7.00
5	60	52	3	1 1/2	8	5	13	2 1/2	7 7/8	7 1/4																	10.83
6																											
7	18	15 1/2	1	3/8	2 1/2	1 1/2	3 7/8	5/8	2 3/8	2 1/4																	0.97

STANDARD SIGN
R1-2

WISCONSIN DEPT OF TRANSPORTATION

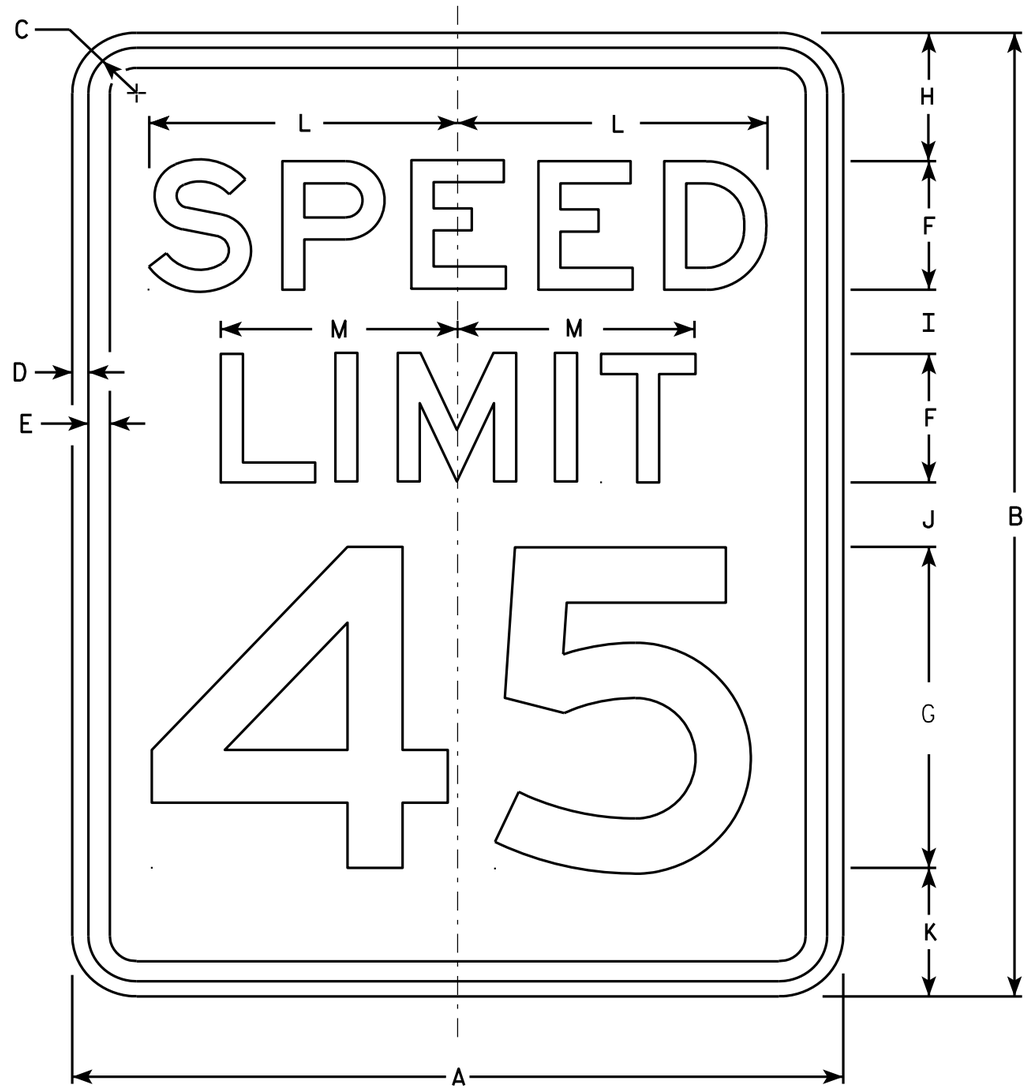
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 10/13/14 PLATE R1-2.12

PROJECT NO: | HWY: | COUNTY: | | SHEET NO: E

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\R12.DGN PLOT DATE : 13-OCT-2014 15:12 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 5.837526:1.000000

WISDOT/CADDS SHEET 42



R2-1

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - E
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Substitute appropriate numerals and optically adjust spacing to achieve proper balance.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	18	24	1 1/8	3/8	1/2	3	8	3	2	2	3	7 1/4	5 1/2														3.0
2S	24	30	1 1/8	3/8	1/2	4	10	3	2 1/4	3 3/8	3 3/8	9 5/8	7 3/8														5.0
2M	30	36	1 3/8	1/2	5/8	5	12	5	2 1/2	2 1/2	4	12	9 1/4														7.5
3	36	48	1 3/8	1/2	5/8	6	14	6	5	5	6	14 3/8	11														12.0
4	36	48	1 3/8	1/2	5/8	6	14	6	5	5	6	14 3/8	11														12.0
5	48	60	2 1/4	3/4	1	8	20	6	4 1/2	6 3/4	6 3/4	19 1/4	14 5/8														20.0

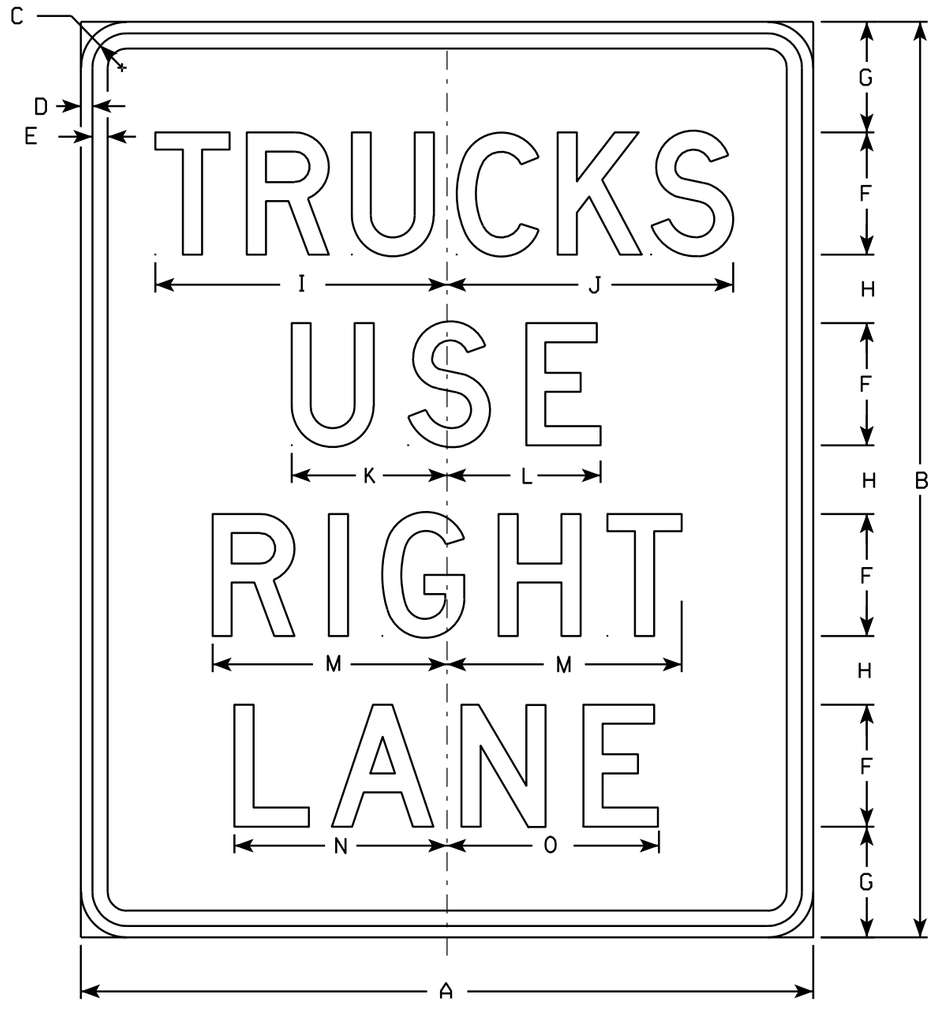
STANDARD SIGN
R2-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/26/10 PLATE NO. R2-1.13

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 160	E

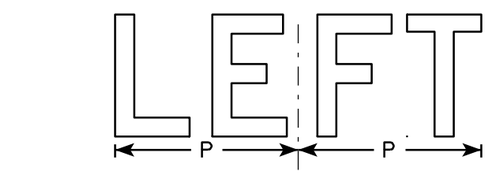


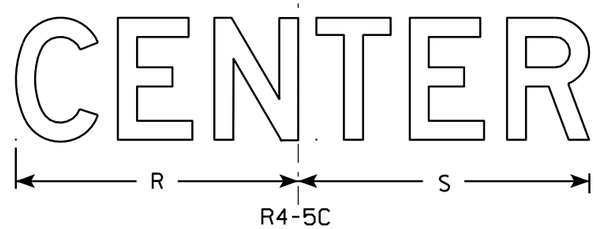
R4-5

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. R4-5L & R4-5C are the same as R4-5 except LEFT or CENTER replaces RIGHT as order by code.

R4-5L





R4-5C

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	24	30	1 1/8	3/8	1/2	4	3 5/8	2 1/4	9 5/8	9 3/8	5 1/8	5 1/8	7 3/4	7 1/4	7	6		9 1/4	9 1/2								5.0
2M	24	30	1 1/8	3/8	1/2	4	3 5/8	2 1/4	9 5/8	9 3/8	5 1/8	5 1/8	7 3/4	7 1/4	7	6		9 1/4	9 1/2								5.0
3																											
4	36	48	2 1/4	5/8	3/4	6	6	4	14 3/8	14 1/8	7 7/8	7 7/8	12 1/4	10 3/4	10 1/2	9 5/8		13 7/8	14 1/4								12.0
5	48	60	2 1/4	3/4	1	8	7 1/4	4 1/2	19 1/8	18 3/4	10 1/4	10 1/8	15 3/8	14	13 7/8	12		18 1/2	19 1/8								20.0

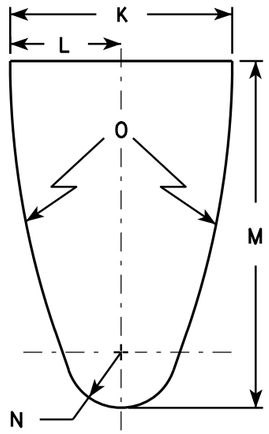
STANDARD SIGN
R4-5

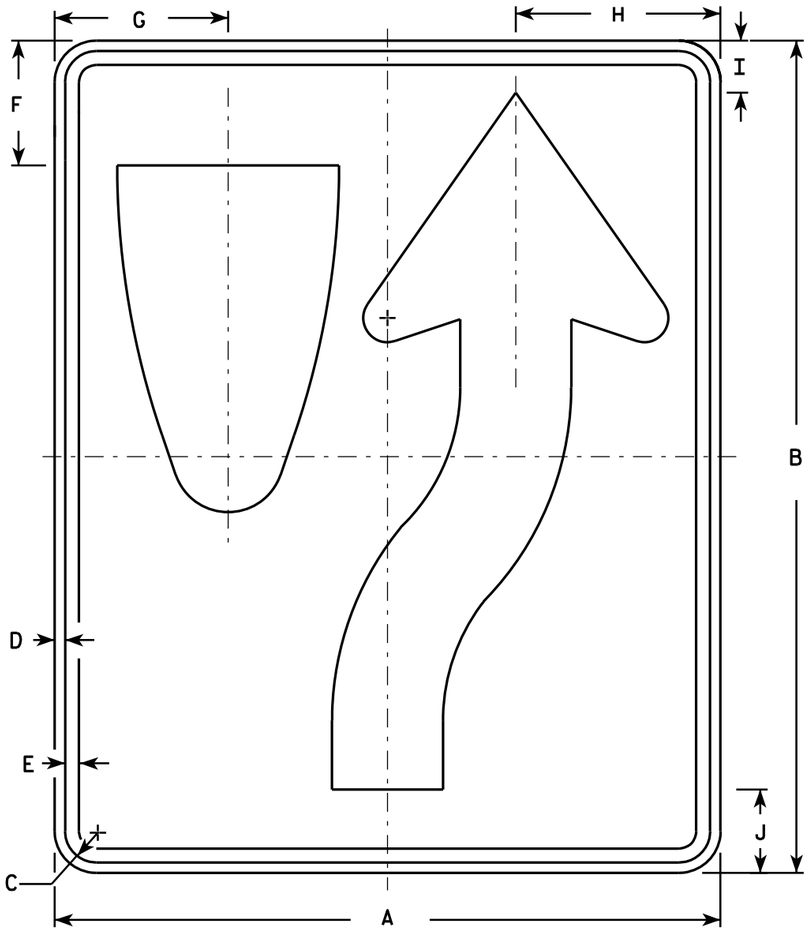
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/25/2011 PLATE NO. R4-5.3

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 161 | E

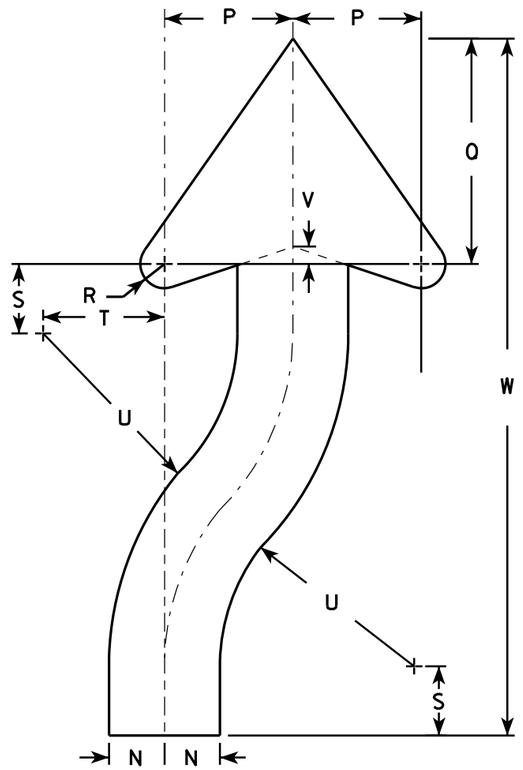




R4-7

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition. material is plywood but borders shall be rounded
2. Color:
   Background - White
   Message - Black
3. Corners may be square or rounded when base as shown. When base material is metal, the corners and borders shall be rounded.
4. R4-8 is the same as R4-7 except Legend is reversed.



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	18	24	1 1/8	3/8	1/2	3 3/8	4 3/4	5 1/2	1 3/8	2 1/4	6	3	9 3/8	1 1/2	22 1/2	3 1/2	6 1/8	5/8	1 7/8	3 1/4	6 3/4	1/2	20 3/8				3.0
2S	24	30	1 1/8	3/8	1/2	4 1/2	6 1/4	7 3/8	1 7/8	3	8	4	12 1/2	2	30	4 5/8	8 1/8	7/8	2 1/2	4 3/8	9	5/8	25 1/8				5.0
2M	24	30	1 1/8	3/8	1/2	4 1/2	6 1/4	7 3/8	1 7/8	3	8	4	12 1/2	2	30	4 5/8	8 1/8	7/8	2 1/2	4 3/8	9	5/8	25 1/8				5.0
3	36	48	1 3/4	1/2	5/8	6 3/4	9 3/8	11 1/8	2 7/8	4 1/2	12	6	18 3/4	3	45	6 7/8	12 1/4	1 1/4	3 3/4	6 5/8	13 1/2	1	40 3/4				12.0
4	36	48	1 3/4	1/2	5/8	6 3/4	9 3/8	11 1/8	2 7/8	4 1/2	12	6	18 3/4	3	45	6 7/8	12 1/4	1 1/4	3 3/4	6 5/8	13 1/2	1	40 3/4				12.0
5	48	60	2 1/4	3/4	1	9	12 1/2	14 3/4	3 3/4	6	16	8	25	4	60	9 1/4	16 1/4	1 5/8	5	8 3/4	18	1 1/4	50 1/4				20.0

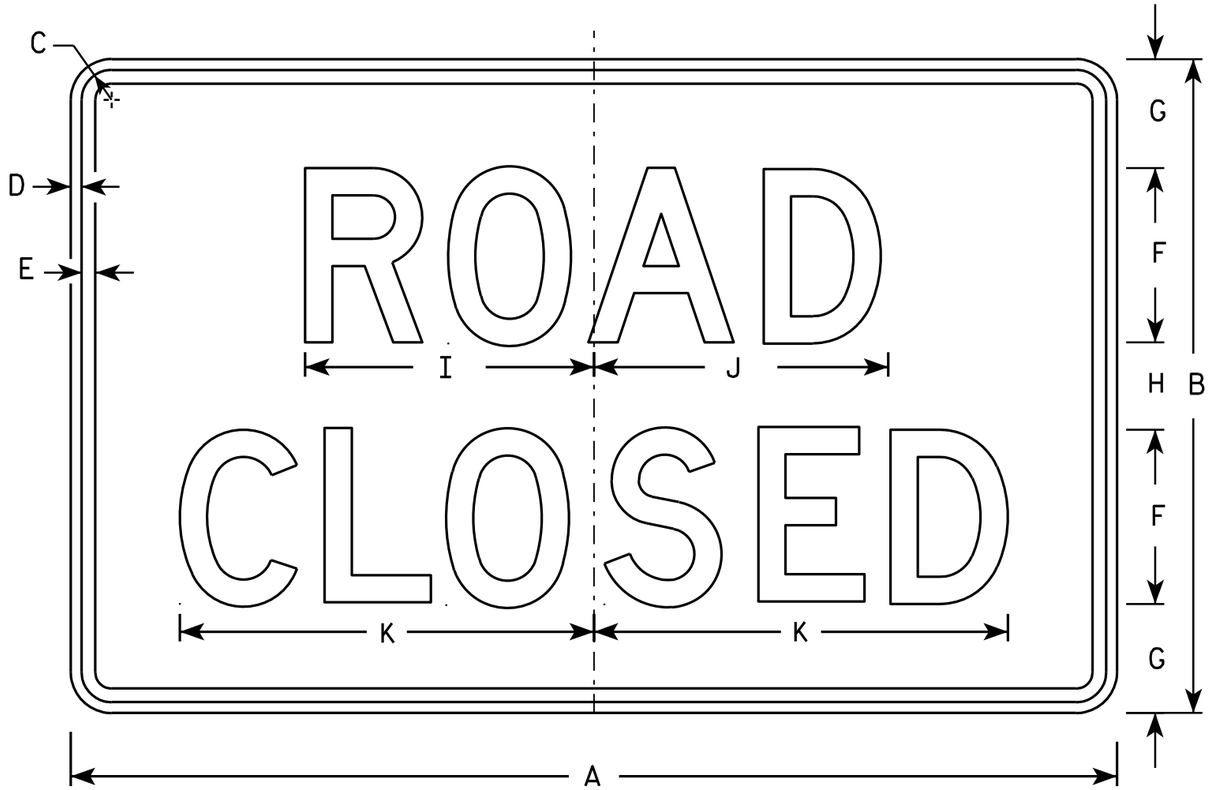
STANDARD SIGN
R4-7 & R4-8

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch for State Traffic Engineer

DATE 3/25/2011 PLATE NO. R4-7.8

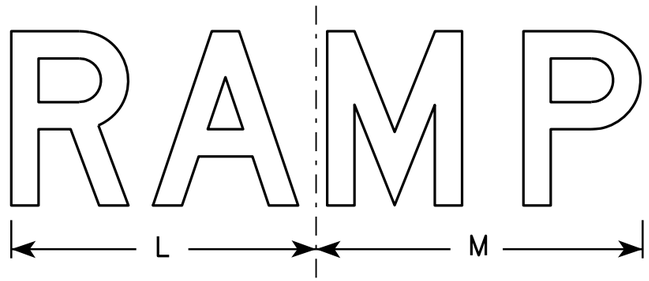
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 162	E



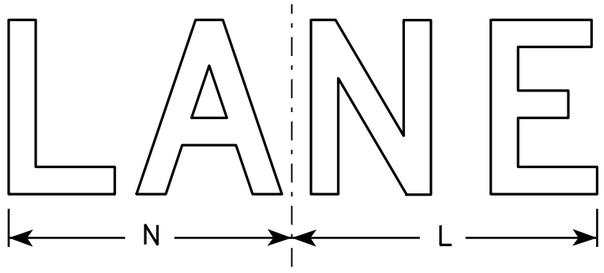
R11-2

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Modify the message as required.



R11-2R



R11-2L

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	48	30	1 3/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13													10.0
2M	48	30	1 3/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13													10.0
3	48	30	1 3/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13													10.0
4	48	30	1 3/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13													10.0
5	48	30	1 3/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13													10.0

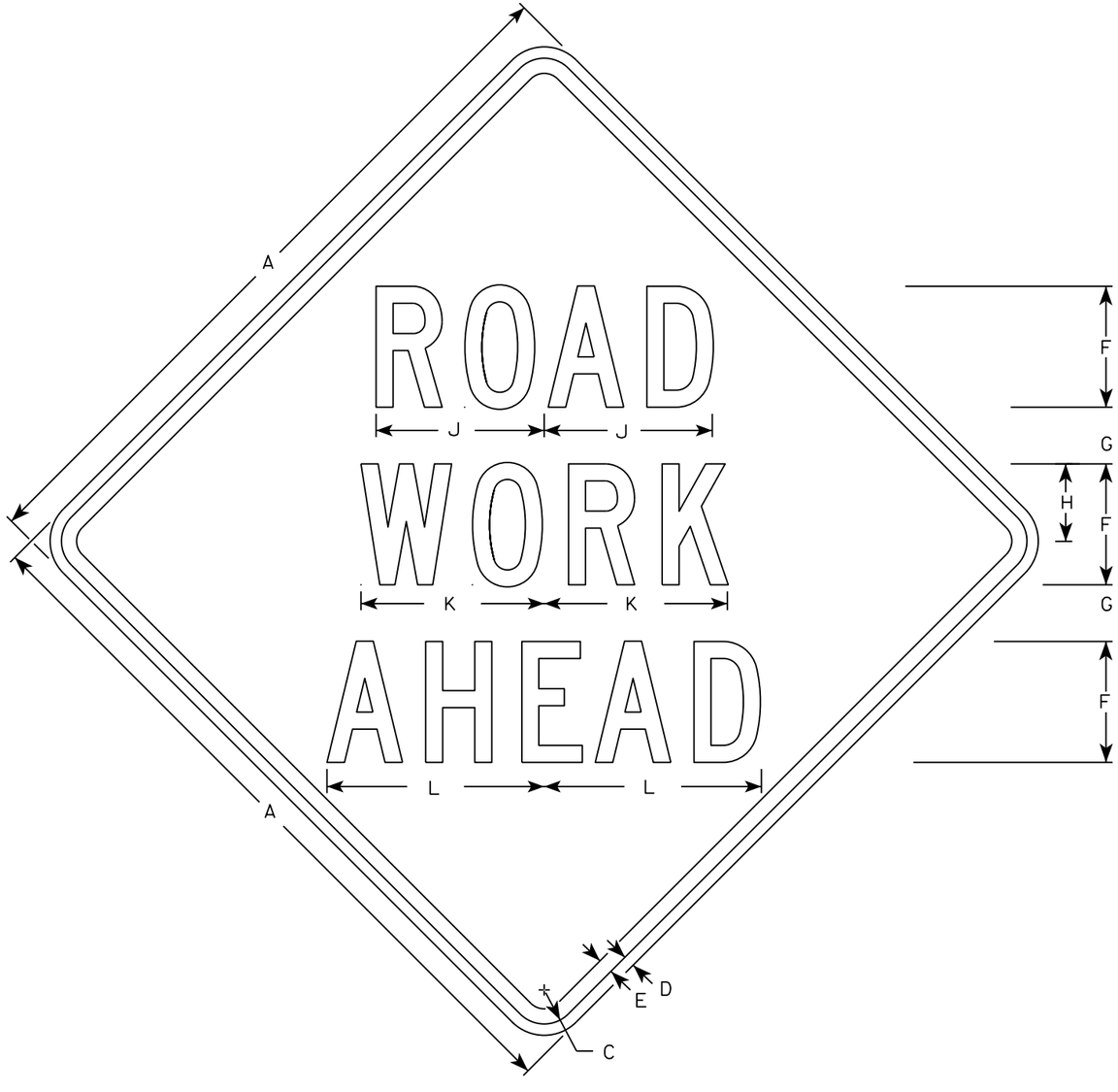
STANDARD SIGN
R11-2

WISCONSIN DEPT OF TRANSPORTATION

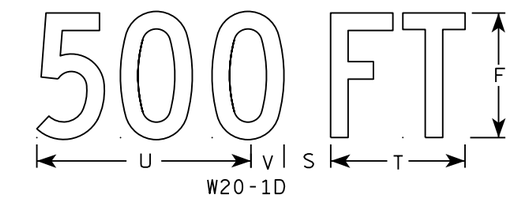
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 4/1/11 PLATE NO. R11-2.10

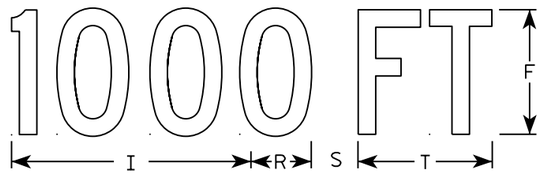
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 163	E



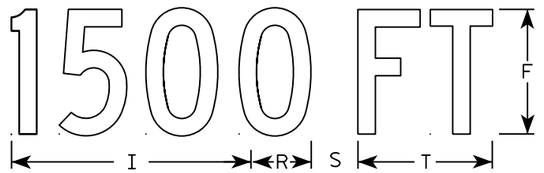
W20-1A



W20-1D

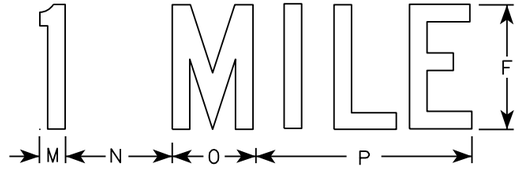


W20-1C

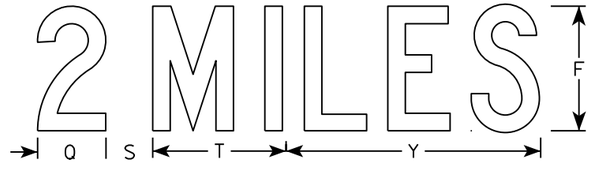


W20-1B

W20-1G



W20-1F



W20-1E

NOTES

1. Sign is Type II - Type F Reflective
2. Color:
   Background - Orange
   Message - Black
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 3/8	1/2	5/8	5	2 5/8	3 1/4	10 1/8	7	7 5/8	8 7/8	1 1/8	4 1/2	3 1/2	9		2 1/2	2 1/4	5 5/8	9	1 3/8	8	1 3/4	10 3/4	6	9.0
2S	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
2M	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
3	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
4	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
5	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0

STANDARD SIGN
W20-1A, B, C, D, F & G

WISCONSIN DEPT OF TRANSPORTATION

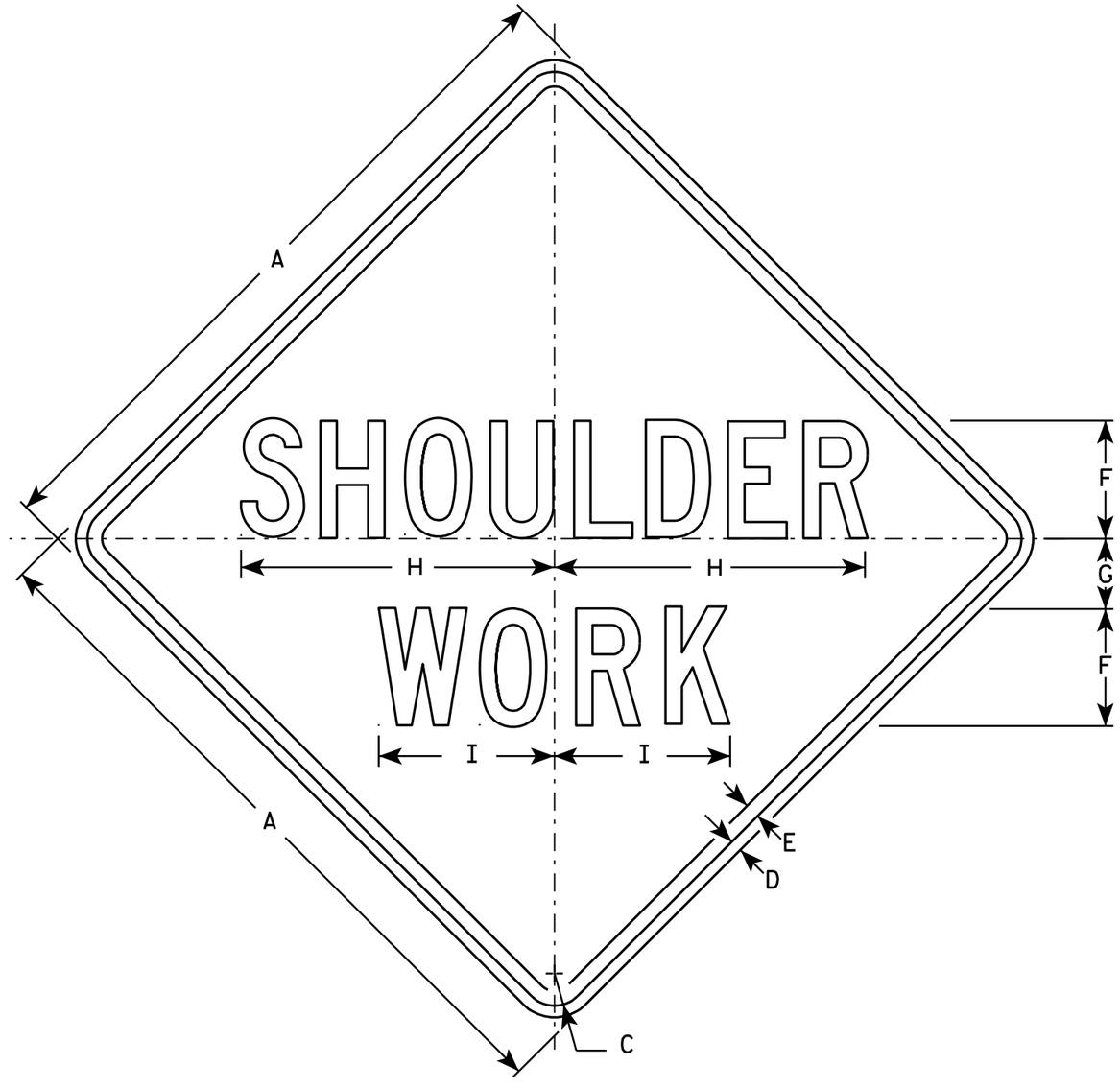
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/07/15 PLATE NO. W20-1.10

PROJECT NO:

SHEET NO: E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\W201.DGN PLOT DATE : 01-DEC-2015 18:24 PLOT BY : $$ plotuser $$



W21-5

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24		1 1/8	3/8	1/2	4	2 1/2	10 3/4	6																		4.0
2S	30		1 3/8	1/2	5/8	5	3	13 3/8	7 1/2																		6.25
2M	30		1 3/8	1/2	5/8	5	3	13 3/8	7 1/2																		6.25
3	36		1 5/8	5/8	3/4	6	3 1/2	16	9																		9.0
4	48		2 1/4	3/4	1	8	5	21 3/8	11 1/4																		16.0
5	48		2 1/4	3/4	1	8	5	21 3/8	11 1/4																		16.0

STANDARD SIGN
W21-5

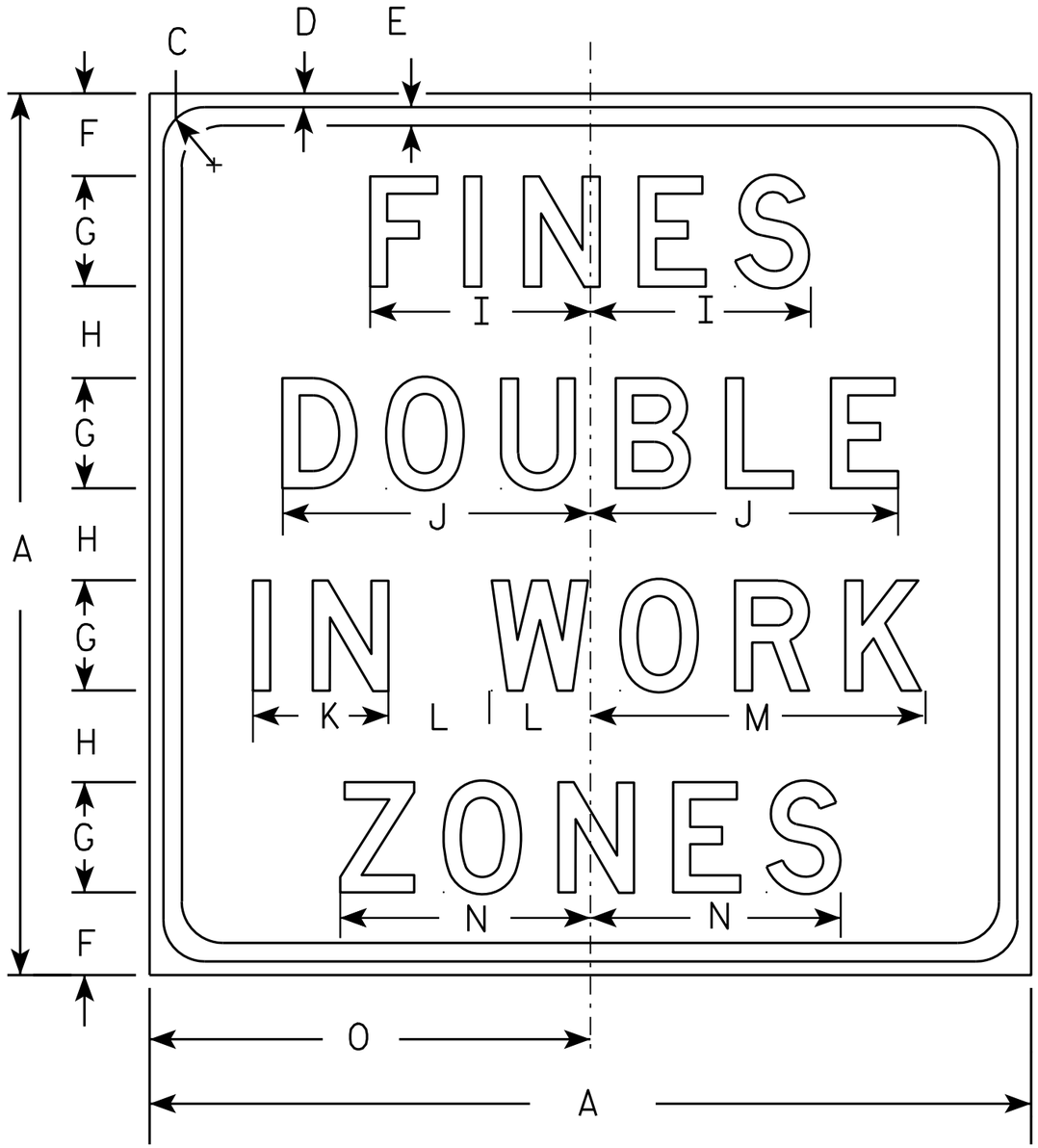
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/21/11 PLATE NO. W21-5.5

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 165 | E

FILE NAME : C:\Users\PROJECTS\tr_stdplate\W215.DGN PLOT DATE : 21-MAR-2011 08:01 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 6.207338:1.000000
WISDOT/CADDS SHEET 42



W21-61

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24		1 1/8	3/8	1/2	2 1/4	3	2 1/2	6	8 3/8	3 3/4	2 3/4	9 1/8	6 7/8	12												4.0
2S	36		1 5/8	5/8	3/4	3 3/8	4 1/2	3 3/4	9	12 5/8	5 1/2	4 1/8	13 3/4	10 1/4	18												9.0
2M	36		1 5/8	5/8	3/4	3 3/8	4 1/2	3 3/4	9	12 5/8	5 1/2	4 1/8	13 3/4	10 1/4	18												9.0
3	48		2 1/4	3/4	1	4 1/2	6	5	12	16 3/4	7 3/8	5 1/2	18 1/4	13 5/8	24												16.0
4																											
5																											

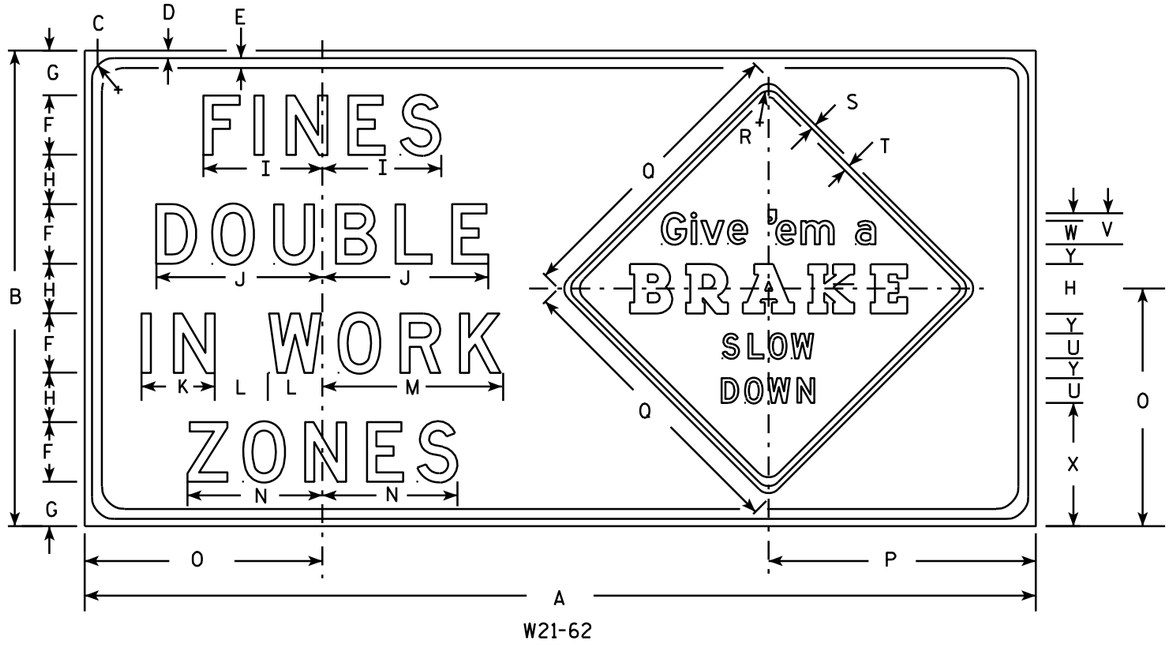
STANDARD SIGN
W21-61

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
For State Traffic Engineer

DATE 3/21/11 PLATE NO. W21-61.4

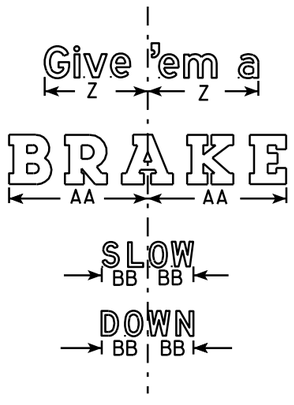
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 166 | E

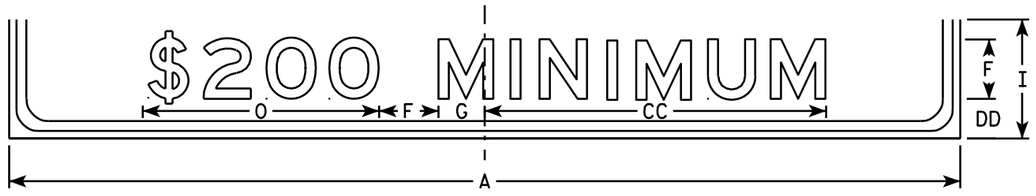


W21-62

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White - (See Note 5)
   Message - Black
3. Message Series -
   Fines Double Message - All lines are Series D
   Give 'em a Brake -
   Line one is Series E, line two is a Special Graphic Series and lines three and four are Series D.
4. The base material shall be plywood. Corners may be square or rounded, but borders shall be rounded as shown. The base material for Give 'em a Brake sign can be a seperate sheet of aluminum with the corners and borders rounded as shown. This seperate panel shall then be attached to the plywood with aluminum or stainless steel sheet metal screws.
5. Background for the Give 'em a Brake sign shall be Type F reflective orange.





W21-62P

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA	BB	CC	DD	Area sq. ft.
1																															
2S																															
2M																															
3	96	48	2 1/4	3/4	1	6	4 1/2	5	12	16 3/4	7 3/8	5 1/2	18 1/4	13 5/8	24	27	30	1 3/8	1/2	5/8	2 1/2	3 1/8	2 3/8	12 1/2	2	10 3/4	14	4 5/8	34 1/2	4	32.0
4																															
5																															

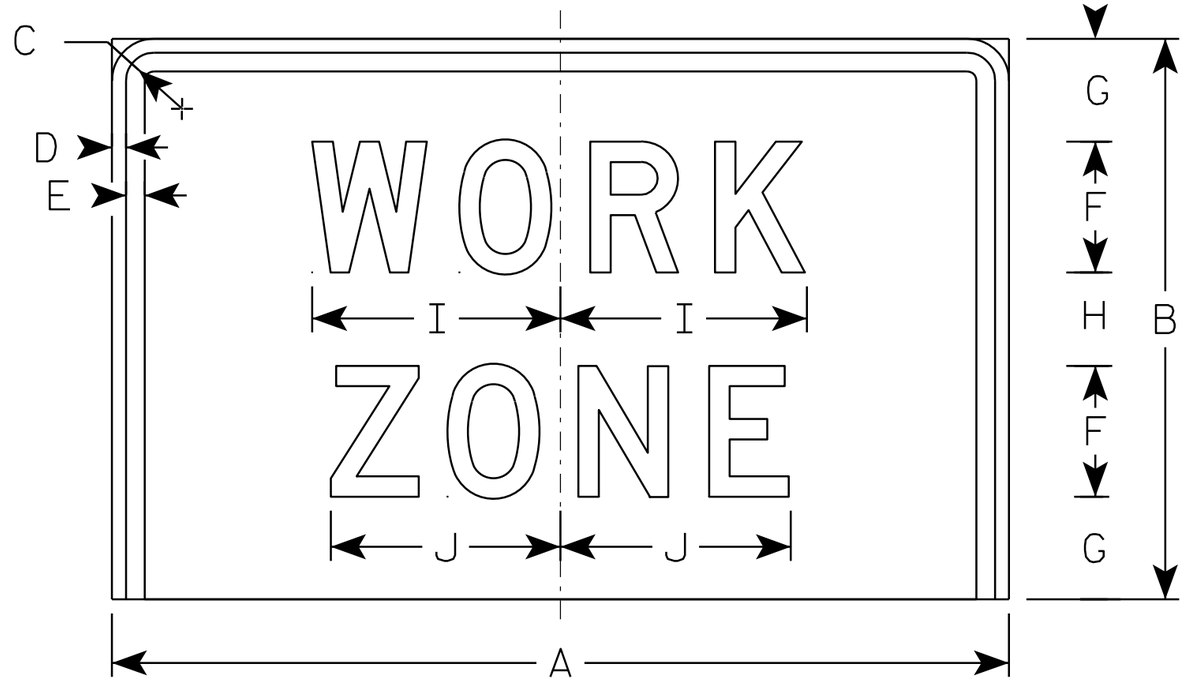
STANDARD SIGN
W21-62

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/21/11 PLATE NO. W21-62.5

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 167	E



W21-62Q

NOTES

1. Sign is Type II - Type F - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Message Series - D

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	48	30	2 1/4	3/4	1	7	5 1/2	5	13 1/4	12 1/4																	10.0
2M	48	30	2 1/4	3/4	1	7	5 1/2	5	13 1/4	12 1/4																	10.0
3																											
4																											
5																											

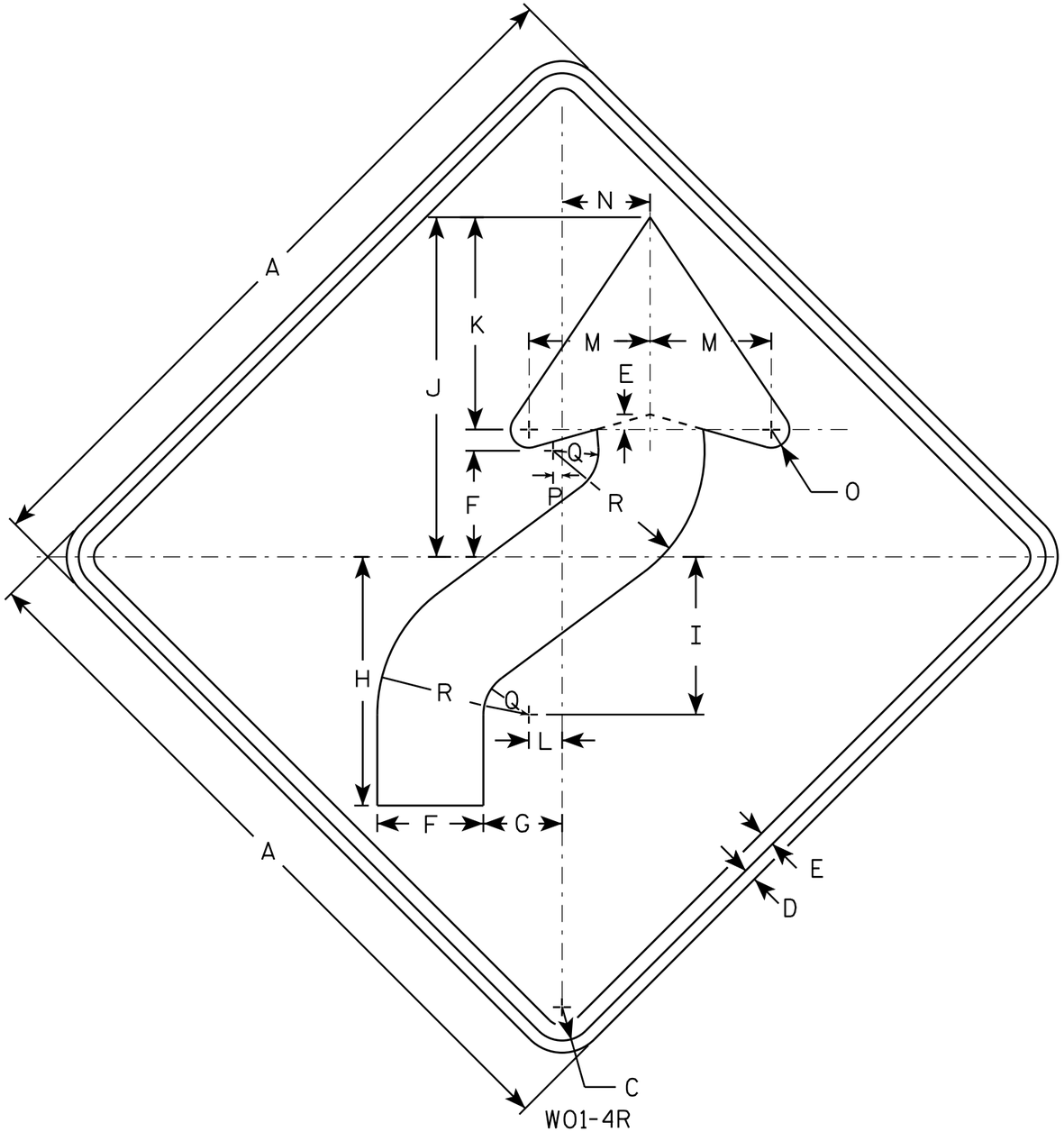
STANDARD SIGN
W21-62Q

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/21/11 PLATE NO. W21-620.2

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 168	E



W01-4R

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. W01-4L is the same as W01-4R except the arrow is reversed along the vertical centerline.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 5/8	5/8	3/4	5 1/4	4	12 3/8	7 7/8	16 7/8	10 1/2	1 5/8	6	4 1/2	1	1/2	2 1/4	7 1/2									9.0
2S	48		2 1/4	3/4	1	7	5 1/4	16 1/2	10 1/2	22 1/2	14	2 1/4	8	6	1 1/4	5/8	3	10									16.0
2M	48		2 1/4	3/4	1	7	5 1/4	16 1/2	10 1/2	22 1/2	14	2 1/4	8	6	1 1/4	5/8	3	10									16.0
3	48		2 1/4	3/4	1	7	5 1/4	16 1/2	10 1/2	22 1/2	14	2 1/4	8	6	1 1/4	5/8	3	10									16.0
4	48		2 1/4	3/4	1	7	5 1/4	16 1/2	10 1/2	22 1/2	14	2 1/4	8	6	1 1/4	5/8	3	10									16.0
5	48		2 1/4	3/4	1	7	5 1/4	16 1/2	10 1/2	22 1/2	14	2 1/4	8	6	1 1/4	5/8	3	10									16.0

STANDARD SIGN
W01-4

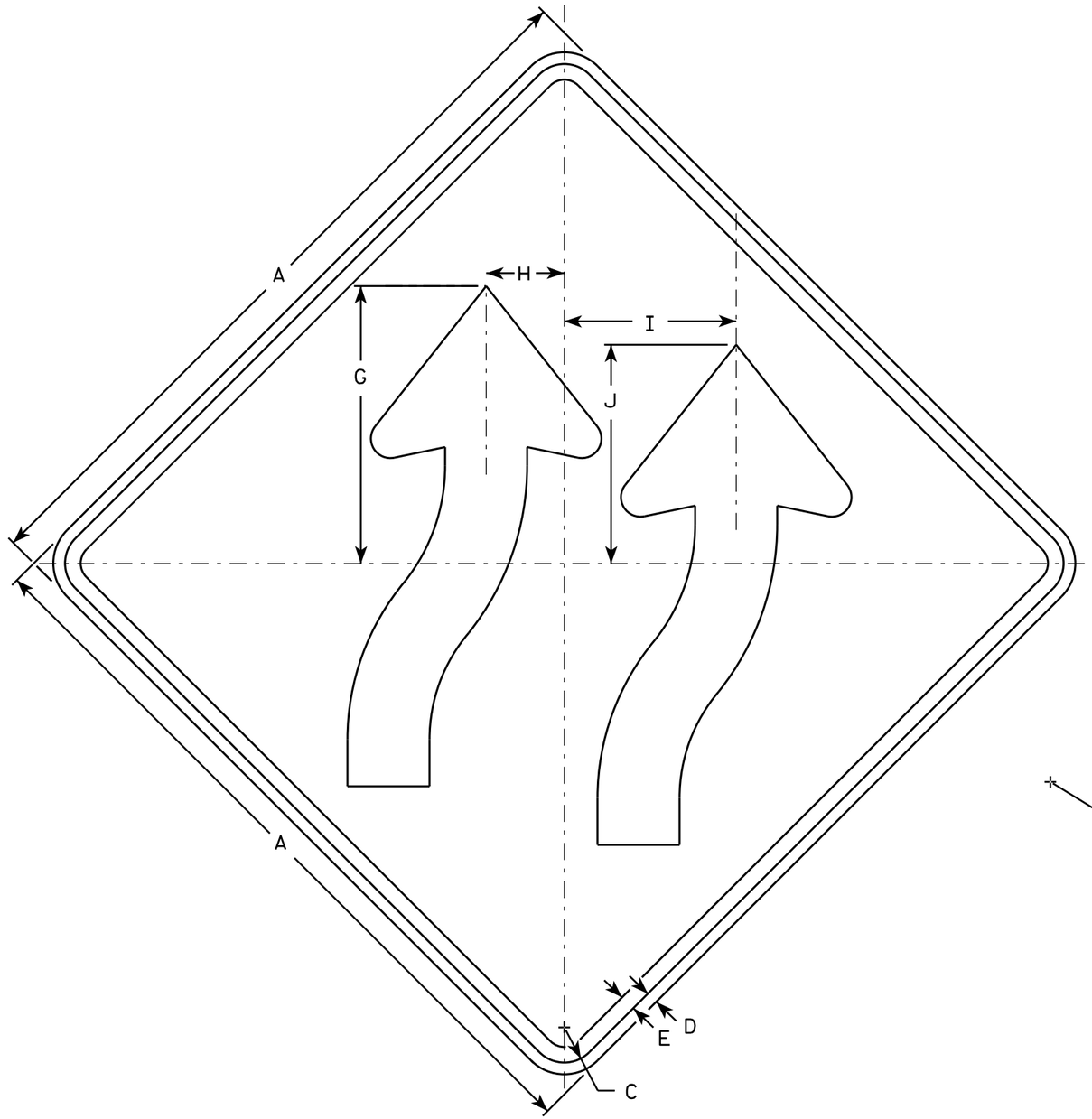
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

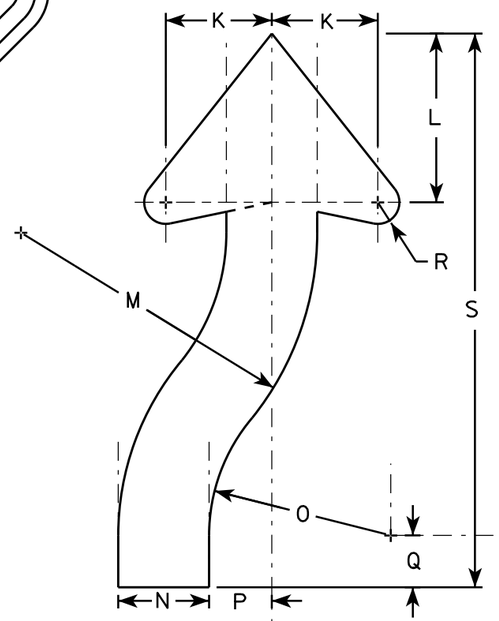
DATE 11/18/13 PLATE NO W01-4.1

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\W014.DGN PLOT DATE : 28-FEB-2014 11:35 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 6.755110:1.000000 WISDOT/CADDS SHEET 42



W01-4bR



NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. W01-4bL is the same as W014-bR exept arrows are reversed along the vertical centerline

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 5/8	5/8	3/4		13 3/8	3 3/4	8 1/4	10 1/2	4 5/8	7 3/8	12 7/8	3 7/8	7 7/8	2 3/4	2 1/4	7/8	24								9.0
2S	48		2 1/4	3/4	1		17 3/4	5	11	14	6 1/8	9 3/4	17 1/8	5 1/4	10 1/2	3 5/8	3	1 1/4	32								16.0
2M	48		2 1/4	3/4	1		17 3/4	5	11	14	6 1/8	9 3/4	17 1/8	5 1/4	10 1/2	3 5/8	3	1 1/4	32								16.0
3	48		2 1/4	3/4	1		17 3/4	5	11	14	6 1/8	9 3/4	17 1/8	5 1/4	10 1/2	3 5/8	3	1 1/4	32								16.0
4	48		2 1/4	3/4	1		17 3/4	5	11	14	6 1/8	9 3/4	17 1/8	5 1/4	10 1/2	3 5/8	3	1 1/4	32								16.0
5	48		2 1/4	3/4	1		17 3/4	5	11	14	6 1/8	9 3/4	17 1/8	5 1/4	10 1/2	3 5/8	3	1 1/4	32								16.0

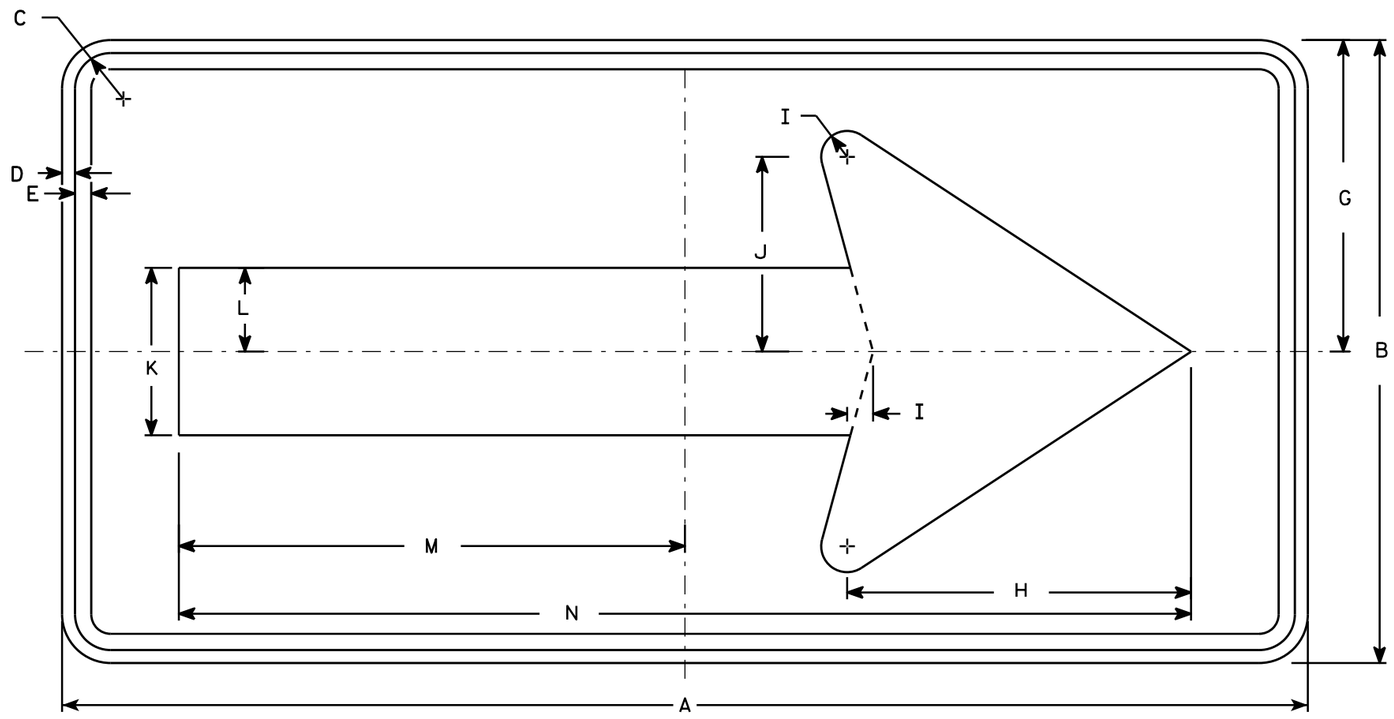
STANDARD SIGN
W01-4b

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/18/13 PLATE NO. W01-4b.1

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E



W01-6

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	48	24	1 3/8	1/2	5/8		12	13 1/4	1	7 1/2	6 1/2	3 1/4	19 1/2	39													8.0
2M	48	24	1 3/8	1/2	5/8		12	13 1/4	1	7 1/2	6 1/2	3 1/4	19 1/2	39													8.0
3	60	30	1 3/8	1/2	5/8		15	16 1/4	1 1/4	9 1/4	8	4	24 3/8	48 3/4													12.5
4	60	30	1 3/8	1/2	5/8		15	16 1/4	1 1/4	9 1/4	8	4	24 3/8	48 3/4													12.5
5	60	30	1 3/8	1/2	5/8		15	16 1/4	1 1/4	9 1/4	8	4	24 3/8	48 3/4													12.5

STANDARD SIGN
W01-6

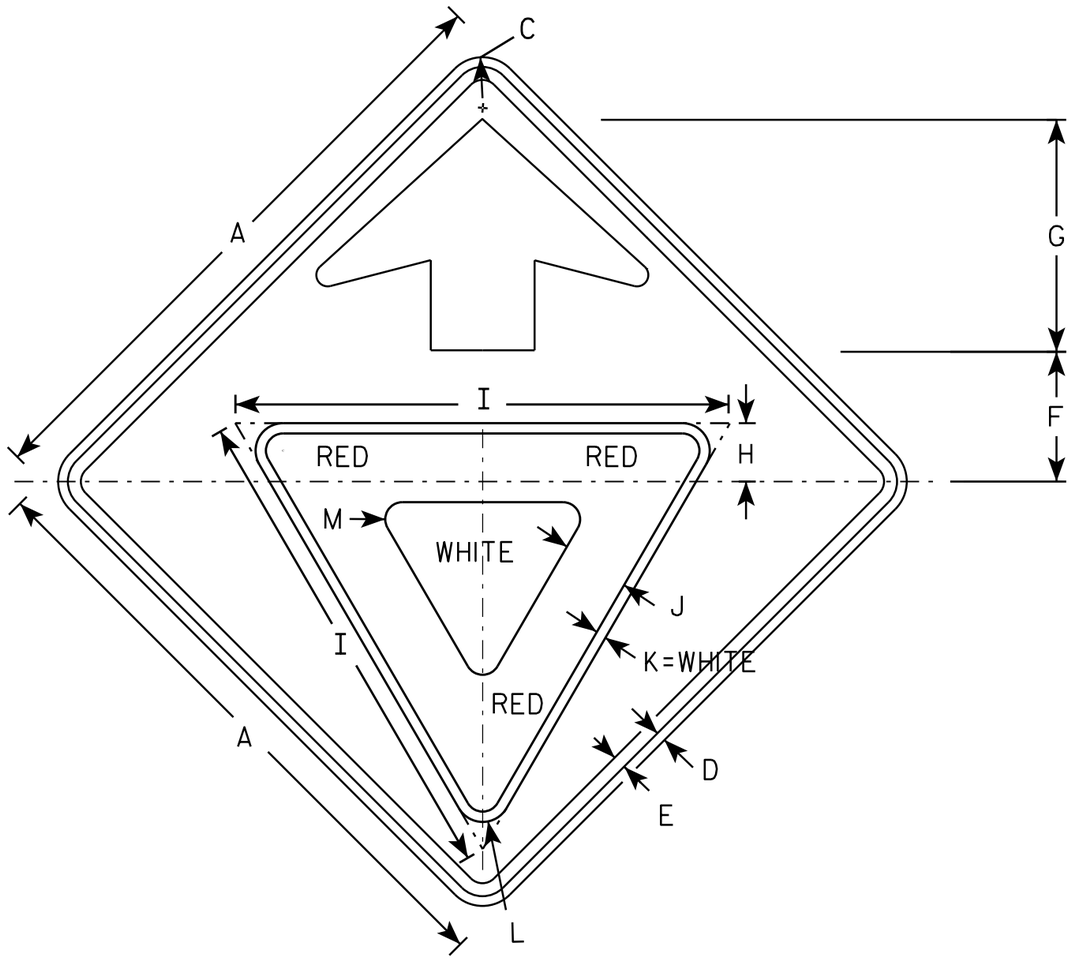
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/18/13 PLATE NO. W01-6.1

PROJECT NO: | HWY: | COUNTY: | SHEET NO: E

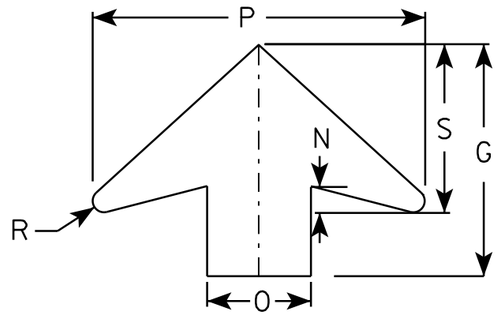
FILE NAME : C:\CAEfiles\Projects\tr_stdplate\W016.DGN PLOT DATE : 28-FEB-2014 11:37 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 5.837526:1.000000 WISDOT/CADDS SHEET 42



W03-2

NOTES

1. All Signs Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - ORANGE
   Arrow & Border - BLACK
   Yield Symbol - WHITE BORDER ON RED BACKGROUND



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 5/8	5/8	3/4	7 1/2	13 1/2	3 3/8	28	3 3/4	5/8	1 1/2	1	1 5/8	6	19 1/4		5/8	9 3/4								9.0
2S	48		2 1/4	3/4	1	10	17 7/8	4 1/2	38	5	3/4	2 1/8	1 3/8	2	8	25 5/8		7/8	13								16.0
2M	48		2 1/4	3/4	1	10	17 7/8	4 1/2	38	5	3/4	2 1/8	1 3/8	2	8	25 5/8		7/8	13								16.0
3	48		2 1/4	3/4	1	10	17 7/8	4 1/2	38	5	3/4	2 1/8	1 3/8	2	8	25 5/8		7/8	13								16.0
4	48		2 1/4	3/4	1	10	17 7/8	4 1/2	38	5	3/4	2 1/8	1 3/8	2	8	25 5/8		7/8	13								16.0
5	48		2 1/4	3/4	1	10	17 7/8	4 1/2	38	5	3/4	2 1/8	1 3/8	2	8	25 5/8		7/8	13								16.0

STANDARD SIGN
W03-2

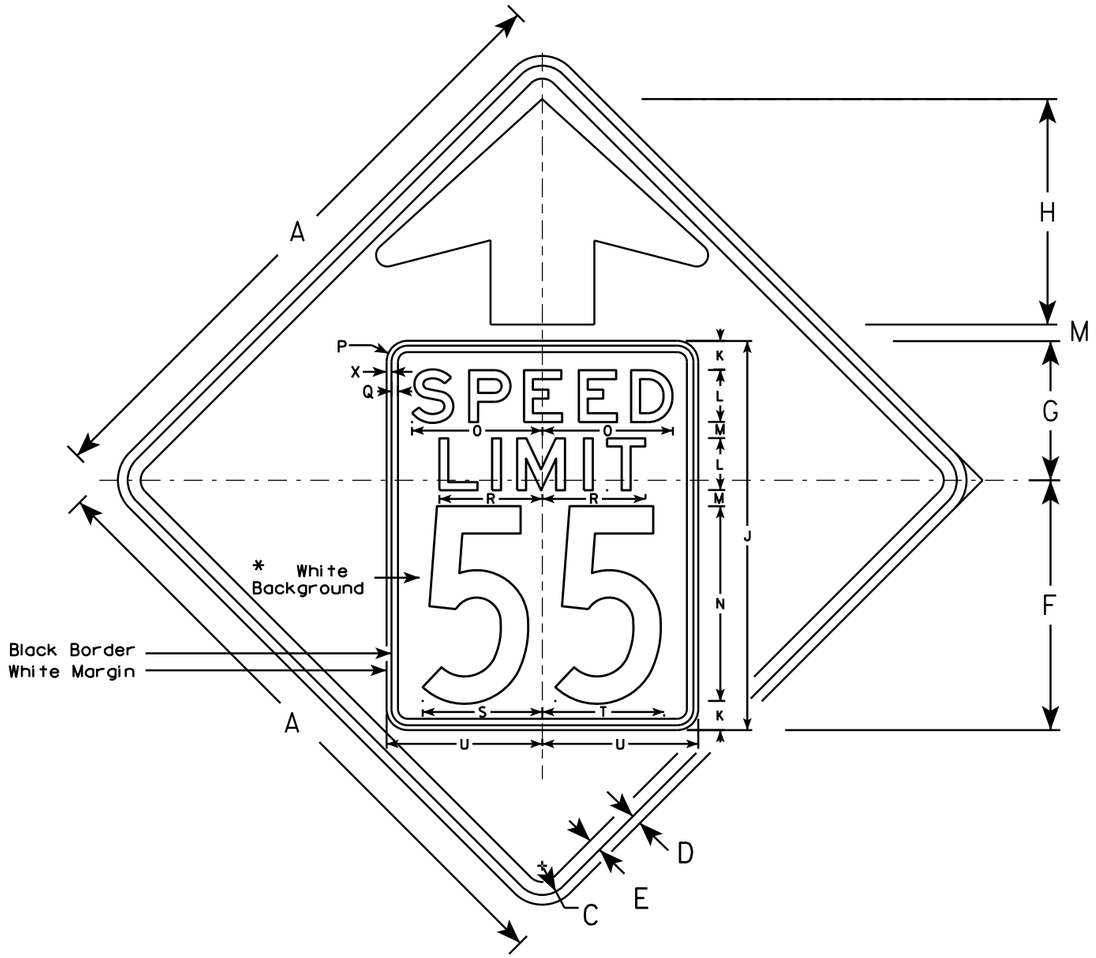
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/20/13 PLATE W03-2.1

PROJECT NO:

SHEET NO: E

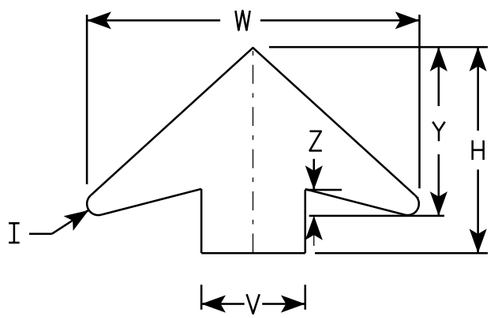


W03-5

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color: *
   Background - ORANGE*
   Message - BLACK
3. Message Series - C for numbers Series E for wording
4. Substitute appropriate numerals and optically adjust spacing to achieve proper balance

*Speed Limit Sign shall have a White Background



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 5/8	5/8	3/4	14 1/2	9 1/2	11 1/2	5/8	24	2	3	1	12	7 1/8	1 1/2	3/8	5 3/4	7 1/4	7 1/8	9	6	19 1/4	3/8	9 3/4	1 5/8	9.0
2S	48		2 1/4	3/4	1	19 1/4	10 3/4	17 3/8	7/8	30	2 1/4	4	1 1/4	15	10	1 5/8	1/2	8	9 1/4	9 3/8	12	8	25 5/8	3/8	13	2	16.0
2M	48		2 1/4	3/4	1	19 1/4	10 3/4	17 3/8	7/8	30	2 1/4	4	1 1/4	15	10	1 5/8	1/2	8	9 1/4	9 3/8	12	8	25 5/8	3/8	13	2	16.0
3	48		2 1/4	3/4	1	19 1/4	10 3/4	17 3/8	7/8	30	2 1/4	4	1 1/4	15	10	1 5/8	1/2	8	9 1/4	9 3/8	12	8	25 5/8	3/8	13	2	16.0
4	48		2 1/4	3/4	1	19 1/4	10 3/4	17 3/8	7/8	30	2 1/4	4	1 1/4	15	10	1 5/8	1/2	8	9 1/4	9 3/8	12	8	25 5/8	3/8	13	2	16.0
5	48		2 1/4	3/4	1	19 1/4	10 3/4	17 3/8	7/8	30	2 1/4	4	1 1/4	15	10	1 5/8	1/2	8	9 1/4	9 3/8	12	8	25 5/8	3/8	13	2	16.0

STANDARD SIGN
W03-5

WISCONSIN DEPT OF TRANSPORTATION

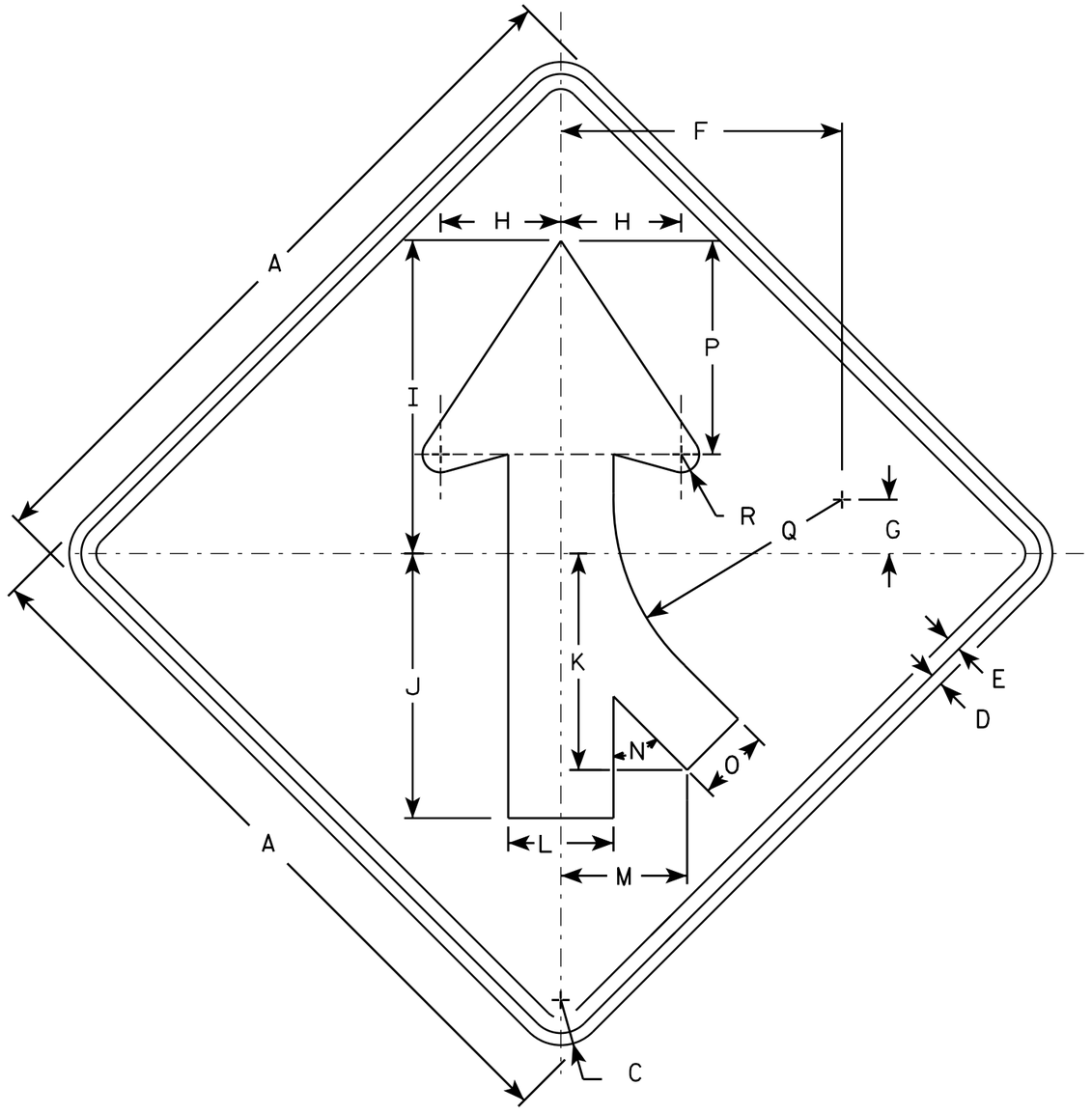
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/20/13 PLATE W03-5.1

PROJECT NO: SHEET NO: E

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\W035.DGN PLOT DATE : 20-NOV-2013 11:32 PLOT BY : mscsja

WISDOT/CADDS SHEET 42



W04-1R

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. W4-1L is the same as W4-1R except the arrow is reversed along the vertical centerline.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 5/8	5/8	3/4	14	2 3/4	6	15 3/4	13 1/4	10 1/4	5 1/4	6 3/8	45°	3 5/8	10 5/8	11 3/8	7/8									9.0
2S	48		2 1/4	3/4	1	18 3/4	3 5/8	8	20 1/2	17 1/2	14 3/8	7	8 3/8	45°	4 3/4	14 1/4	15 1/4	1 1/4									16.0
2M	48		2 1/4	3/4	1	18 3/4	3 5/8	8	20 1/2	17 1/2	14 3/8	7	8 3/8	45°	4 3/4	14 1/4	15 1/4	1 1/4									16.0
3	48		2 1/4	3/4	1	18 3/4	3 5/8	8	20 1/2	17 1/2	14 3/8	7	8 3/8	45°	4 3/4	14 1/4	15 1/4	1 1/4									16.0
4	48		2 1/4	3/4	1	18 3/4	3 5/8	8	20 1/2	17 1/2	14 3/8	7	8 3/8	45°	4 3/4	14 1/4	15 1/4	1 1/4									16.0
5	48		2 1/4	3/4	1	18 3/4	3 5/8	8	20 1/2	17 1/2	14 3/8	7	8 3/8	45°	4 3/4	14 1/4	15 1/4	1 1/4									16.0

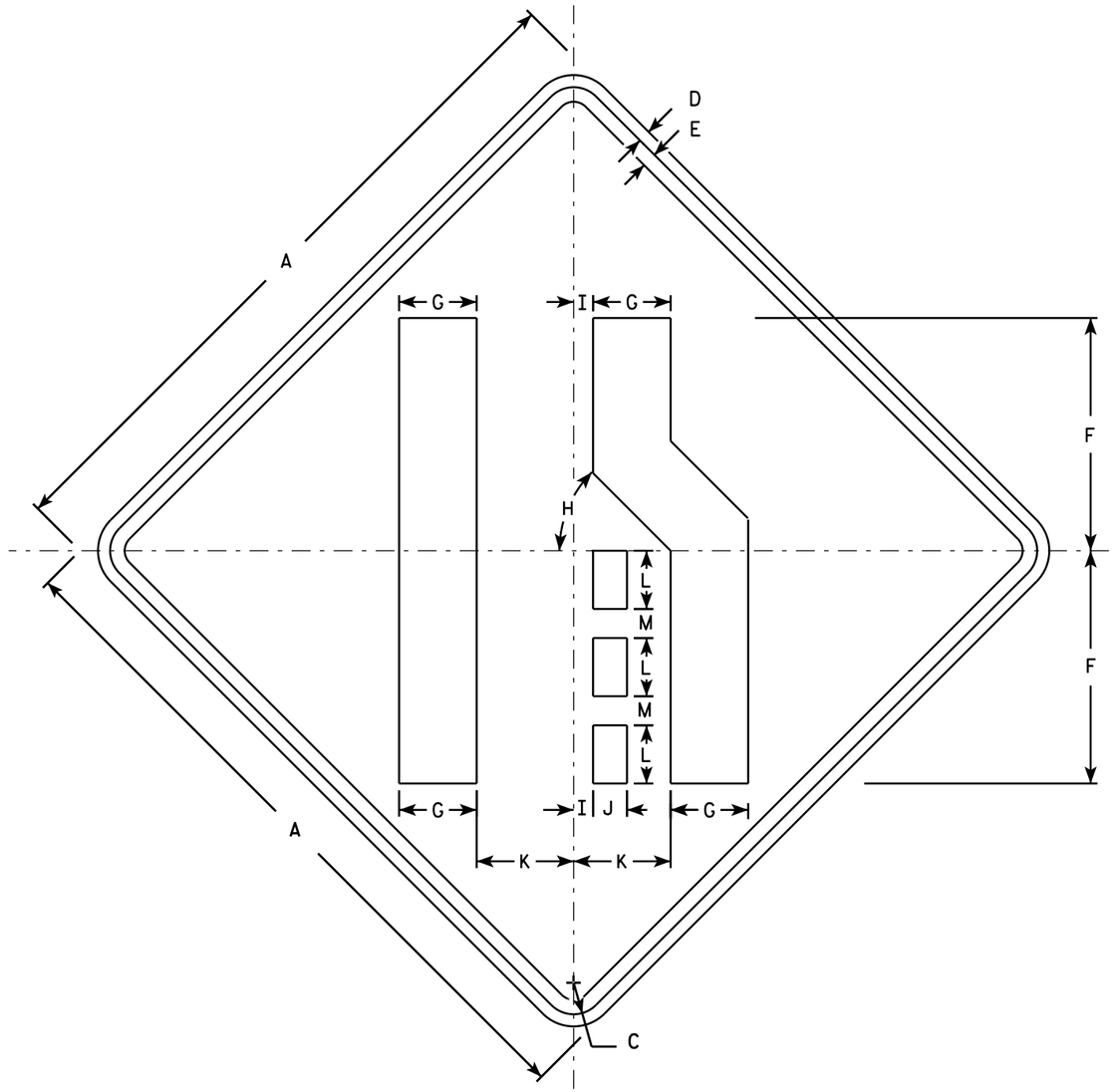
STANDARD SIGN
W04-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/20/13 PLATE NO. W04-1.1

PROJECT NO: | HWY: | COUNTY: | SHEET NO: E



W04-2R

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. W04-2L is the same as W04-2R except the symbol is reversed along the vertical centerline.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 5/8	5/8	3/4	12	4	45°	1	1 3/4	5	3	1 1/2														9.0
2S	48		2 1/4	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0
2M	48		2 1/4	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0
3	48		2 1/4	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0
4	48		2 1/4	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0
5	48		2 1/4	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0

STANDARD SIGN
W04-2

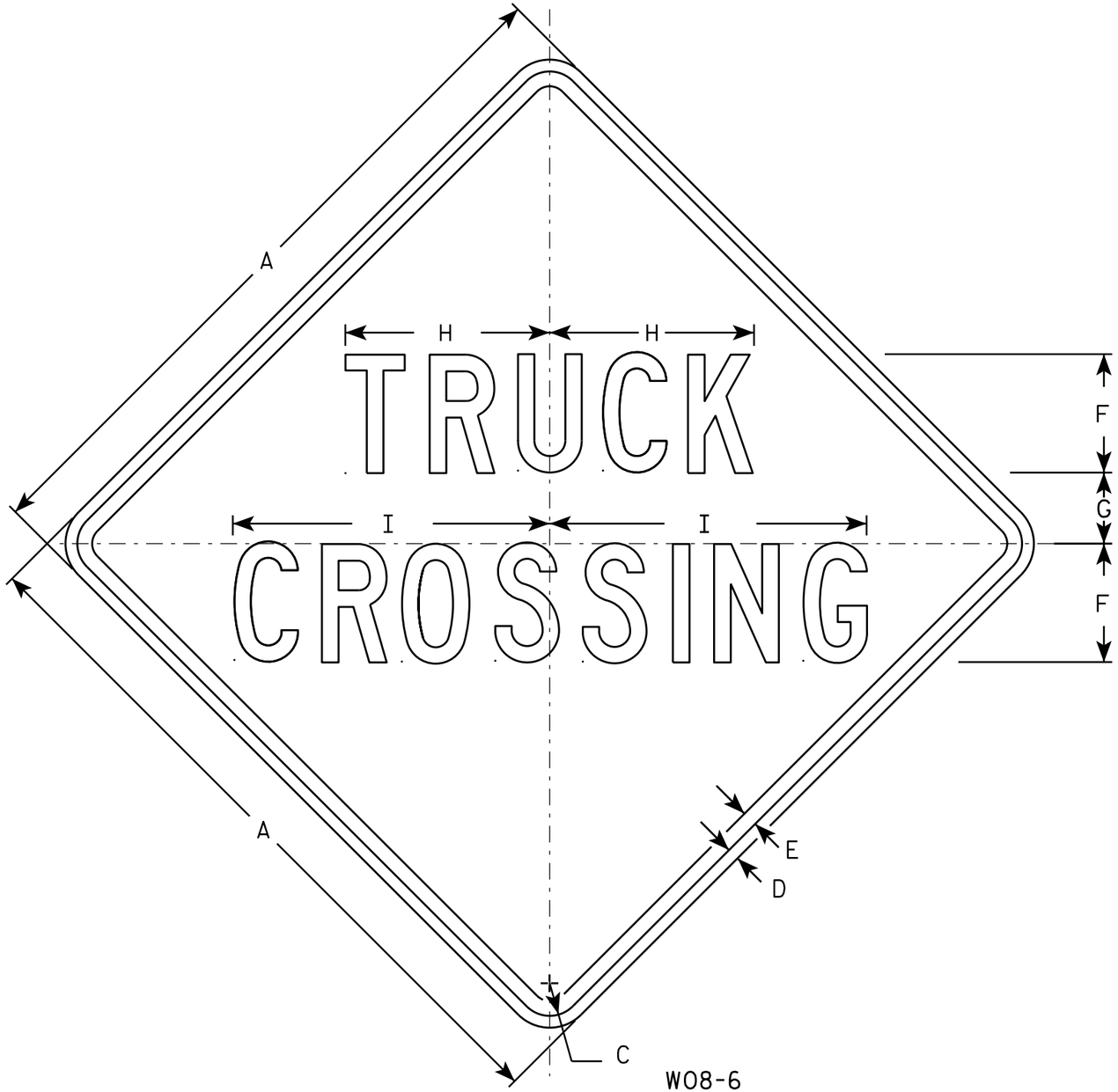
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/20/13 PLATE 175 W04-2.1

PROJECT NO:

SHEET NO: E



W08-6

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 5/8	5/8	3/4	6	3 1/2	10 3/8	16																		9.0
2S	48		2 1/4	3/4	1	8	5	13 3/4	21 1/4																		16.0
2M	48		2 1/4	3/4	1	8	5	13 3/4	21 1/4																		16.0
3	48		2 1/4	3/4	1	8	5	13 3/4	21 1/4																		16.0
4	48		2 1/4	3/4	1	8	5	13 3/4	21 1/4																		16.0
5	48		2 1/4	3/4	1	8	5	13 3/4	21 1/4																		16.0

STANDARD SIGN
W08-6

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/20/13 PLATE 176 of 28-6.1

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

PROJECT ID 1003-10-77

DIVISION 1 - SB IH 39 STA. 320+00 - STA. 357+50 RT

STATION	Real Station	Distance	AREA (SF)			Incremental Vol (CY) (Unadjusted)			Cumulative Vol (CY)			Mass Ordinate
			Cut	Fill	EBS	Cut	Fill	EBS	Cut	Fill	EBS	
320+00 AH	32000.00	0.00	5.45	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
320+50	32050.00	50.00	5.43	0.01	0.00	10.07	0.01	0.00	10.07	0.01	0.00	10.06
320+86	32086.28	36.28	6.00	0.00	0.00	7.68	0.01	0.00	17.75	0.02	0.00	17.74
320+94	32094.28	8.00	5.41	0.00	0.00	1.69	0.00	0.00	19.44	0.02	0.00	19.43
321+00	32100.00	5.72	5.42	0.01	0.00	1.15	0.00	0.00	20.59	0.02	0.00	20.57
321+42	32142.28	42.28	5.41	0.06	0.00	8.48	0.05	0.00	29.07	0.07	0.00	29.00
321+50	32150.00	7.72	5.48	0.00	0.00	1.56	0.01	0.00	30.63	0.08	0.00	30.55
322+00	32200.00	50.00	5.66	0.00	0.00	10.31	0.00	0.00	40.94	0.08	0.00	40.86
322+50	32250.00	50.00	5.48	0.00	0.00	10.31	0.00	0.00	51.26	0.08	0.00	51.18
323+00	32300.00	50.00	5.91	0.00	0.00	10.55	0.00	0.00	61.80	0.08	0.00	61.72
323+50	32350.00	50.00	5.48	0.00	0.00	10.55	0.00	0.00	72.35	0.08	0.00	72.27
324+00	32400.00	50.00	6.44	0.00	0.00	11.04	0.00	0.00	83.39	0.08	0.00	83.31
324+50	32450.00	50.00	5.93	0.00	0.00	11.45	0.00	0.00	94.84	0.08	0.00	94.76
324+89	32489.21	39.21	5.42	0.00	0.00	8.24	0.00	0.00	103.08	0.08	0.00	103.00
325+00	32500.00	10.79	5.93	0.00	0.00	2.27	0.00	0.00	105.35	0.08	0.00	105.27
325+50	32550.00	50.00	5.48	0.00	0.00	10.56	0.00	0.00	115.91	0.08	0.00	115.83
326+00	32600.00	50.00	5.49	0.00	0.00	10.16	0.00	0.00	126.07	0.08	0.00	125.99
326+50	32650.00	50.00	5.49	0.00	0.00	10.17	0.00	0.00	136.24	0.08	0.00	136.16
326+86	32686.02	36.02	5.42	0.00	0.00	7.28	0.00	0.00	143.52	0.08	0.00	143.44
327+00	32700.00	13.98	5.49	0.00	0.00	2.82	0.00	0.00	146.34	0.08	0.00	146.26
327+50	32750.00	50.00	5.42	0.00	0.00	10.10	0.00	0.00	156.44	0.08	0.00	156.36
328+00	32800.00	50.00	5.42	0.00	0.00	10.04	0.00	0.00	166.48	0.08	0.00	166.40
328+50	32850.00	50.00	5.42	0.00	0.00	10.04	0.00	0.00	176.52	0.08	0.00	176.44
329+00	32900.00	50.00	5.42	0.00	0.00	10.04	0.00	0.00	186.55	0.08	0.00	186.47
329+50	32950.00	50.00	5.42	0.00	0.00	10.04	0.00	0.00	196.59	0.08	0.00	196.51
330+00	33000.00	50.00	5.42	0.00	0.00	10.04	0.00	0.00	206.63	0.08	0.00	206.55
330+50	33050.00	50.00	5.42	0.00	0.00	10.04	0.00	0.00	216.66	0.08	0.00	216.58
331+00	33100.00	50.00	5.95	0.00	0.00	10.53	0.00	0.00	227.19	0.08	0.00	227.11
331+50	33150.00	50.00	5.42	0.00	0.00	10.53	0.00	0.00	237.72	0.08	0.00	237.64
332+00	33200.00	50.00	5.42	0.00	0.00	10.04	0.00	0.00	247.76	0.08	0.00	247.68
332+50	33250.00	50.00	5.42	0.00	0.00	10.04	0.00	0.00	257.79	0.08	0.00	257.71
333+00	33300.00	50.00	5.42	0.00	0.00	10.04	0.00	0.00	267.83	0.08	0.00	267.75
333+50	33350.00	50.00	5.42	0.00	0.00	10.04	0.00	0.00	277.87	0.08	0.00	277.79
334+00	33400.00	50.00	5.42	0.00	0.00	10.04	0.00	0.00	287.91	0.08	0.00	287.82
334+50	33450.00	50.00	5.42	0.00	0.00	10.04	0.00	0.00	297.94	0.08	0.00	297.86
335+00	33500.00	50.00	5.42	0.00	0.00	10.04	0.00	0.00	307.98	0.08	0.00	307.90
335+50	33550.00	50.00	5.42	0.00	0.00	10.04	0.00	0.00	318.02	0.08	0.00	317.94
336+00	33600.00	50.00	5.42	0.00	0.00	10.04	0.00	0.00	328.05	0.08	0.00	327.97
336+50	33650.00	50.00	5.48	0.00	0.00	10.09	0.00	0.00	338.15	0.08	0.00	338.07
337+00	33700.00	50.00	8.56	0.00	0.00	13.00	0.00	0.00	351.15	0.08	0.00	351.07
337+50	33750.00	50.00	5.66	0.00	0.00	13.17	0.00	0.00	364.31	0.08	0.00	364.23
338+00	33800.00	50.00	5.66	0.00	0.00	10.48	0.00	0.00	374.79	0.08	0.00	374.71
338+50	33850.00	50.00	5.48	0.00	0.00	10.31	0.00	0.00	385.11	0.08	0.00	385.03

PROJECT ID 1003-10-77

DIVISION 1 - SB IH 39 STA. 320+00 - STA. 357+50 RT

STATION	Real Station	Distance	AREA (SF)			Incremental Vol (CY) (Unadjusted)			Cumulative Vol (CY)			Mass Ordinate
			Cut	Fill	EBS	Cut	Fill	EBS	Cut	Fill	EBS	
339+00	33900.00	50.00	5.90	0.00	0.00	10.54	0.00	0.00	395.65	0.08	0.00	395.57
339+50	33950.00	50.00	5.48	0.00	0.00	10.54	0.00	0.00	406.18	0.08	0.00	406.10
340+00	34000.00	50.00	5.63	0.00	0.00	10.29	0.00	0.00	416.47	0.08	0.00	416.39
340+00	34000.42	0.42	5.42	0.00	0.00	0.09	0.00	0.00	416.56	0.08	0.00	416.48
340+29	34029.41	28.99	5.41	0.05	0.00	5.81	0.03	0.00	422.37	0.11	0.00	422.26
340+50	34050.00	20.59	5.41	0.03	0.00	4.13	0.03	0.00	426.50	0.14	0.00	426.36
340+77	34077.41	27.41	5.42	0.00	0.00	5.50	0.02	0.00	431.99	0.15	0.00	431.84
340+85	34085.41	8.00	5.42	0.00	0.00	1.61	0.00	0.00	433.60	0.15	0.00	433.45
341+00	34100.00	14.59	5.43	0.00	0.00	2.93	0.00	0.00	436.53	0.15	0.00	436.38
341+50	34150.00	50.00	5.36	0.00	0.00	9.99	0.00	0.00	446.52	0.15	0.00	446.37
341+97	34197.41	47.41	5.23	0.00	0.00	9.30	0.00	0.00	455.82	0.15	0.00	455.67
342+00	34200.00	2.59	5.20	0.00	0.00	0.50	0.00	0.00	456.32	0.15	0.00	456.17
342+50	34250.00	50.00	4.95	0.00	0.00	9.40	0.00	0.00	465.72	0.15	0.00	465.56
342+55	34255.42	5.42	4.95	0.00	0.00	0.99	0.00	0.00	466.71	0.15	0.00	466.56
343+00	34300.00	44.58	4.59	0.00	0.00	7.88	0.00	0.00	474.59	0.15	0.00	474.43
343+17	34317.41	17.41	4.41	0.00	0.00	2.90	0.00	0.00	477.49	0.15	0.00	477.34
343+50	34350.00	32.59	0.00	0.64	0.00	2.66	0.39	0.00	480.15	0.54	0.00	479.61
344+00	34400.00	50.00	0.00	0.64	0.00	0.00	1.19	0.00	480.15	1.72	0.00	478.43
344+05	34405.42	5.42	0.00	0.64	0.00	0.00	0.13	0.00	480.15	1.85	0.00	478.30
344+50	34450.00	44.58	0.00	0.64	0.00	0.00	1.06	0.00	480.15	2.91	0.00	477.24
345+00	34500.00	50.00	0.00	0.64	0.00	0.00	1.19	0.00	480.15	4.09	0.00	476.05
345+50	34550.00	50.00	0.00	0.00	0.00	0.00	0.59	0.00	480.15	4.69	0.00	475.46
346+00	34600.00	50.00	0.00	0.00	0.00	0.00	0.00	0.00	480.15	4.69	0.00	475.46
346+50	34650.00	50.00	0.00	0.00	0.00	0.00	0.00	0.00	480.15	4.69	0.00	475.46
347+00	34700.00	50.00	0.00	0.00	0.00	0.00	0.00	0.00	480.15	4.69	0.00	475.46
347+50	34750.00	50.00	0.00	0.00	0.00	0.00	0.00	0.00	480.15	4.69	0.00	475.46
348+00	34800.00	50.00	0.00	0.00	0.00	0.00	0.00	0.00	480.15	4.69	0.00	475.46
348+50	34850.00	50.00	0.00	0.00	0.00	0.00	0.00	0.00	480.15	4.69	0.00	475.46
349+00	34900.00	50.00	0.00	0.00	0.00	0.00	0.00	0.00	480.15	4.69	0.00	475.46
349+50	34950.00	50.00	0.00	0.00	0.00	0.00	0.00	0.00	480.15	4.69	0.00	475.46
350+00	35000.00	50.00	0.00	0.00	0.00	0.00	0.00	0.00	480.15	4.69	0.00	475.46
350+50	35050.00	50.00	0.00	0.00	0.00	0.00	0.00	0.00	480.15	4.69	0.00	475.46
351+00	35100.00	50.00	0.00	0.00	0.00	0.00	0.00	0.00	480.15	4.69	0.00	475.46
351+50	35150.00	50.00	0.00	0.00	0.00	0.00	0.00	0.00	480.15	4.69	0.00	475.46
352+00	35200.00	50.00	0.00	0.00	0.00	0.00	0.00	0.00	480.15	4.69	0.00	475.46
352+50	35250.00	50.00	4.05	0.78	0.00	3.75	0.72	0.00	483.90	5.41	0.00	478.49
353+00	35300.00	50.00	5.22	0.22	0.00	8.58	0.93	0.00	492.48	6.34	0.00	486.15
353+50	35350.00	50.00	0.00	5.24	0.00	4.83	5.06	0.00	497.32	11.39	0.00	485.93
354+00	35400.00	50.00	0.00	5.22	0.00	0.00	9.69	0.00	497.32	21.08	0.00	476.24
354+50	35450.00	50.00	0.00	5.19	0.00	0.00	9.64	0.00	497.32	30.72	0.00	466.60
355+00	35500.00	50.00	0.00	5.36	0.00	0.00	9.77	0.00	497.32	40.48	0.00	456.83
355+50	35550.00	50.00	4.39	1.69	0.00	4.06	6.53	0.00	501.38	47.01	0.00	454.37
356+00	35600.00	50.00	2.80	9.57	0.00	6.66	10.43	0.00	508.04	57.44	0.00	450.60

PROJECT ID 1003-10-77

DIVISION 1 - SB IH 39 STA. 320+00 - STA. 357+50 RT

STATION		Real Station	Distance	AREA (SF)			Incremental Vol (CY) (Unadjusted)			Cumulative Vol (CY)			Mass Ordinate
				Cut	Fill	EBS	Cut	Fill	EBS	Cut	Fill	EBS	
356+50		35650.00	50.00	4.39	2.64	0.00	6.66	11.31	0.00	514.70	68.74	0.00	445.95
357+00		35700.00	50.00	4.84	6.28	0.00	8.55	8.26	0.00	523.24	77.00	0.00	446.24
357+50	BK	35750.00	50.00	0.00	0.00	0.00	4.48	5.81	0.00	527.72	82.82	0.00	444.91
						Column totals	527.72	82.82	0.00				

PROJECT ID 1003-10-77

DIVISION 1 - SB IH 39 STA. 384+00 - STA. 400+00 RT

STATION		Real Station	Distance	AREA (SF)			Incremental Vol (CY) (Unadjusted)			Cumulative Vol (CY)			Mass Ordinate
				Cut	Fill	EBS	Cut	Fill	EBS	Cut	Fill	EBS	
384+00	AH	38400.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
385+88		38588.17	188.17	0.00	6.89	0.00	0.00	24.01	0.00	0.00	24.01	0.00	-24.01
386+00		38600.00	11.83	0.00	6.97	0.00	0.00	3.04	0.00	0.00	27.05	0.00	-27.05
387+00		38700.00	100.00	0.00	6.50	0.00	0.00	24.94	0.00	0.00	51.99	0.00	-51.99
388+00		38800.00	100.00	0.00	6.57	0.00	0.00	24.20	0.00	0.00	76.19	0.00	-76.19
389+00		38900.00	100.00	0.00	6.81	0.00	0.00	24.78	0.00	0.00	100.97	0.00	-100.97
390+00		39000.00	100.00	0.00	7.42	0.00	0.00	26.35	0.00	0.00	127.32	0.00	-127.32
390+91		39090.84	90.83	0.00	8.85	0.00	0.00	27.37	0.00	0.00	154.69	0.00	-154.69
391+00		39100.00	9.17	0.03	8.43	0.00	0.01	2.93	0.00	0.01	157.62	0.00	-157.62
392+00		39200.00	100.00	0.00	7.75	0.00	0.06	29.96	0.00	0.06	187.59	0.00	-187.53
392+06		39205.57	5.57	0.00	7.67	0.00	0.00	1.59	0.00	0.06	189.18	0.00	-189.12
392+06		39205.74	0.17	0.00	7.67	0.00	0.00	0.05	0.00	0.06	189.22	0.00	-189.16
392+54		39253.57	47.83	0.00	7.96	0.00	0.00	13.85	0.00	0.06	203.07	0.00	-203.01
392+54		39253.74	0.17	0.00	7.97	0.00	0.00	0.05	0.00	0.06	203.12	0.00	-203.06
392+62		39261.74	8.00	0.00	7.94	0.00	0.00	2.36	0.00	0.06	205.48	0.00	-205.42
393+00		39300.00	38.26	0.00	7.87	0.00	0.00	11.20	0.00	0.06	216.68	0.00	-216.62
393+74		39373.57	73.57	0.00	7.82	0.00	0.00	21.38	0.00	0.06	238.06	0.00	-237.99
393+74		39373.57	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.06	238.06	0.00	-237.99
394+00		39400.00	26.43	0.00	7.78	0.00	0.00	3.81	0.00	0.06	241.86	0.00	-241.80
394+94		39493.57	93.57	0.00	7.13	0.00	0.00	25.84	0.00	0.06	267.70	0.00	-267.64
394+94		39493.57	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.06	267.70	0.00	-267.64
395+00		39500.00	6.43	0.00	7.04	0.00	0.00	0.84	0.00	0.06	268.54	0.00	-268.48
396+00		39600.00	100.00	0.00	6.90	0.00	0.00	25.81	0.00	0.06	294.35	0.00	-294.29
397+00		39700.00	100.00	0.00	6.85	0.00	0.00	25.46	0.00	0.06	319.81	0.00	-319.75
398+00		39800.00	100.00	0.00	6.78	0.00	0.00	25.24	0.00	0.06	345.06	0.00	-345.00
399+00		39900.00	100.00	0.00	6.85	0.00	0.00	25.24	0.00	0.06	370.30	0.00	-370.24
400+00	BK	40000.00	100.00	0.00	7.17	0.00	0.00	25.96	0.00	0.06	396.26	0.00	-396.20
						Column totals	0.06	396.26	0.00				

PROJECT ID 1003-10-77

DIVISION 1 - SB IH 39 STA. 400+00 - STA. 456+76 RT

STATION	Real Station	Distance	AREA (SF)			Incremental Vol (CY) (Unadjusted)			Cumulative Vol (CY)			Mass Ordinate
			Cut	Fill	EBS	Cut	Fill	EBS	Cut	Fill	EBS	
400+00 AH	40000.00	0.00	0.00	4.46	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
400+50	40050.17	50.17	0.00	4.38	0.00	0.00	8.21	0.00	0.00	8.21	0.00	-8.21
401+00	40100.17	50.00	0.02	4.54	0.00	0.02	8.26	0.00	0.02	16.47	0.00	-16.45
401+50	40150.17	50.00	0.00	5.22	0.00	0.02	9.04	0.00	0.04	25.51	0.00	-25.47
401+91	40191.10	40.93	0.00	5.90	0.00	0.00	8.43	0.00	0.04	33.94	0.00	-33.90
401+91	40191.10	0.00	0.00	5.90	0.00	0.00	0.00	0.00	0.04	33.94	0.00	-33.90
402+00	40200.17	9.07	0.00	5.97	0.00	0.00	1.99	0.00	0.04	35.93	0.00	-35.89
402+50	40250.17	50.00	0.00	5.82	0.00	0.00	10.92	0.00	0.04	46.85	0.00	-46.81
403+00	40300.17	50.00	0.00	5.56	0.00	0.00	10.54	0.00	0.04	57.38	0.00	-57.35
403+50	40350.17	50.00	0.00	5.40	0.00	0.00	10.15	0.00	0.04	67.53	0.00	-67.50
404+00	40400.17	50.00	0.02	5.02	0.00	0.02	9.65	0.00	0.06	77.18	0.00	-77.13
404+50	40450.17	50.00	0.00	4.93	0.00	0.02	9.21	0.00	0.07	86.39	0.00	-86.32
405+00	40500.17	50.00	0.00	4.70	0.00	0.00	8.92	0.00	0.07	95.31	0.00	-95.24
405+50	40550.17	50.00	0.01	4.58	0.00	0.01	8.59	0.00	0.08	103.90	0.00	-103.82
406+00	40600.17	50.00	0.00	4.83	0.00	0.01	8.71	0.00	0.09	112.62	0.00	-112.52
406+50	40650.17	50.00	0.00	4.75	0.00	0.00	8.87	0.00	0.09	121.49	0.00	-121.39
407+00	40700.17	50.00	0.00	4.80	0.00	0.00	8.84	0.00	0.09	130.33	0.00	-130.24
407+50	40750.17	50.00	0.00	4.84	0.00	0.00	8.93	0.00	0.09	139.25	0.00	-139.16
408+00	40800.17	50.00	0.00	5.03	0.00	0.00	9.14	0.00	0.09	148.39	0.00	-148.30
408+50	40850.17	50.00	0.00	4.86	0.00	0.00	9.16	0.00	0.09	157.55	0.00	-157.46
409+00	40900.17	50.00	0.00	4.93	0.00	0.00	9.06	0.00	0.09	166.62	0.00	-166.52
409+50	40950.17	50.00	0.02	4.58	0.00	0.02	8.81	0.00	0.11	175.42	0.00	-175.31
409+91	40991.24	41.08	0.00	4.82	0.00	0.02	7.15	0.00	0.13	182.57	0.00	-182.45
409+91	40991.24	0.00	0.00	4.82	0.00	0.00	0.00	0.00	0.13	182.57	0.00	-182.45
410+00	41000.17	8.92	0.02	4.43	0.00	0.00	1.53	0.00	0.13	184.10	0.00	-183.97
410+50	41050.17	50.00	0.00	4.25	0.00	0.02	8.04	0.00	0.15	192.14	0.00	-191.99
411+00	41100.17	50.00	0.00	4.28	0.00	0.00	7.90	0.00	0.15	200.04	0.00	-199.89
411+50	41150.17	50.00	0.01	4.14	0.00	0.01	7.80	0.00	0.16	207.83	0.00	-207.67
412+00	41200.17	50.00	0.00	4.22	0.00	0.01	7.74	0.00	0.17	215.57	0.00	-215.41
412+50	41250.17	50.00	0.00	3.91	0.00	0.00	7.53	0.00	0.17	223.10	0.00	-222.93
413+00	41300.17	50.00	0.00	4.10	0.00	0.00	7.42	0.00	0.17	230.52	0.00	-230.35
413+50	41350.17	50.00	0.00	4.40	0.00	0.00	7.87	0.00	0.17	238.39	0.00	-238.22
414+00	41400.17	50.00	0.00	4.42	0.00	0.00	8.17	0.00	0.17	246.55	0.00	-246.39
414+50	41450.17	50.00	0.00	4.55	0.00	0.00	8.31	0.00	0.17	254.86	0.00	-254.69
415+00	41500.17	50.00	0.00	4.93	0.00	0.00	8.78	0.00	0.17	263.64	0.00	-263.47
415+50	41550.17	50.00	0.00	4.91	0.00	0.00	9.11	0.00	0.17	272.75	0.00	-272.58
416+00	41600.17	50.00	0.00	5.25	0.00	0.00	9.41	0.00	0.17	282.16	0.00	-281.99
416+50	41650.17	50.00	0.00	5.08	0.00	0.00	9.56	0.00	0.17	291.72	0.00	-291.55
417+00	41700.17	50.00	0.00	4.91	0.00	0.00	9.25	0.00	0.17	300.97	0.00	-300.80
417+50	41750.17	50.00	0.00	4.67	0.00	0.00	8.87	0.00	0.17	309.84	0.00	-309.67
418+00	41800.17	50.00	0.00	5.02	0.00	0.00	8.97	0.00	0.17	318.81	0.00	-318.65
418+50	41850.17	50.00	0.00	4.95	0.00	0.00	9.23	0.00	0.17	328.04	0.00	-327.88
419+00	41900.17	50.00	0.00	4.89	0.00	0.00	9.11	0.00	0.17	337.16	0.00	-336.99

PROJECT ID 1003-10-77

DIVISION 1 - SB IH 39 STA. 400+00 - STA. 456+76 RT

STATION	Real Station	Distance	AREA (SF)			Incremental Vol (CY) (Unadjusted)			Cumulative Vol (CY)			Mass Ordinate
			Cut	Fill	EBS	Cut	Fill	EBS	Cut	Fill	EBS	
419+50	41950.17	50.00	0.00	4.78	0.00	0.00	8.95	0.00	0.17	346.11	0.00	-345.94
420+00	42000.17	50.00	0.00	4.84	0.00	0.00	8.91	0.00	0.17	355.02	0.00	-354.85
420+50	42050.17	50.00	0.00	4.56	0.00	0.00	8.70	0.00	0.17	363.72	0.00	-363.55
420+91	42090.82	40.65	0.00	4.79	0.00	0.00	7.04	0.00	0.17	370.76	0.00	-370.59
420+93	42092.51	1.69	0.00	4.82	0.00	0.00	0.30	0.00	0.17	371.06	0.00	-370.89
421+00	42100.17	7.65	0.00	4.78	0.00	0.00	1.36	0.00	0.17	372.42	0.00	-372.26
421+50	42150.17	50.00	0.00	4.32	0.00	0.00	8.43	0.00	0.17	380.85	0.00	-380.68
422+00	42200.17	50.00	0.00	4.11	0.00	0.00	7.81	0.00	0.17	388.65	0.00	-388.49
422+50	42250.17	50.00	0.00	4.04	0.00	0.00	7.55	0.00	0.17	396.20	0.00	-396.03
423+00	42300.17	50.00	0.00	4.07	0.00	0.00	7.51	0.00	0.17	403.71	0.00	-403.54
423+50	42350.17	50.00	0.00	4.00	0.00	0.00	7.47	0.00	0.17	411.18	0.00	-411.01
424+00	42400.17	50.00	0.00	3.85	0.00	0.00	7.27	0.00	0.17	418.45	0.00	-418.28
424+50	42450.17	50.00	0.00	3.68	0.00	0.00	6.97	0.00	0.17	425.42	0.00	-425.26
425+00	42500.17	50.00	0.00	4.03	0.00	0.00	7.14	0.00	0.17	432.56	0.00	-432.39
425+50	42550.17	50.00	0.00	4.45	0.00	0.00	7.85	0.00	0.17	440.41	0.00	-440.25
425+92	42591.67	41.51	0.00	5.05	0.00	0.00	7.30	0.00	0.17	447.71	0.00	-447.55
426+00	42600.17	8.49	0.00	5.03	0.00	0.00	1.58	0.00	0.17	449.30	0.00	-449.13
426+50	42650.17	50.00	0.00	4.62	0.00	0.00	8.94	0.00	0.17	458.24	0.00	-458.07
426+87	42687.31	37.14	0.00	4.88	0.00	0.00	6.53	0.00	0.17	464.77	0.00	-464.60
426+87	42687.31	0.00	0.00	4.88	0.00	0.00	0.00	0.00	0.17	464.77	0.00	-464.60
426+95	42695.44	8.13	0.00	4.86	0.00	0.00	1.47	0.00	0.17	466.24	0.00	-466.07
426+95	42695.44	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.17	466.24	0.00	-466.07
427+00	42700.17	4.73	0.00	4.82	0.00	0.00	0.42	0.00	0.17	466.66	0.00	-466.49
427+50	42750.17	50.00	0.00	4.86	0.00	0.00	8.96	0.00	0.17	475.62	0.00	-475.45
428+00	42800.17	50.00	0.00	4.90	0.00	0.00	9.04	0.00	0.17	484.66	0.00	-484.49
428+50	42850.17	50.00	0.00	4.72	0.00	0.00	8.91	0.00	0.17	493.57	0.00	-493.40
429+00	42900.17	50.00	0.00	4.88	0.00	0.00	8.89	0.00	0.17	502.45	0.00	-502.29
429+50	42950.17	50.00	0.00	5.37	0.00	0.00	9.49	0.00	0.17	511.94	0.00	-511.78
430+00	43000.17	50.00	0.00	5.50	0.00	0.00	10.06	0.00	0.17	522.01	0.00	-521.84
430+50	43050.17	50.00	0.00	4.93	0.00	0.00	9.66	0.00	0.17	531.67	0.00	-531.50
431+00	43100.17	50.00	0.00	1.54	0.00	0.00	5.99	0.00	0.17	537.66	0.00	-537.49
431+50	43150.17	50.00	0.00	0.86	0.00	0.00	2.22	0.00	0.17	539.88	0.00	-539.71
432+00	43200.17	50.00	7.59	0.00	0.00	7.03	0.80	0.00	7.19	540.68	0.00	-533.48
432+50	43250.17	50.00	8.06	0.00	0.00	14.49	0.00	0.00	21.69	540.68	0.00	-518.99
433+00	43300.17	50.00	8.53	0.00	0.00	15.36	0.00	0.00	37.05	540.68	0.00	-503.63
433+50	43350.17	50.00	8.70	0.00	0.00	15.95	0.00	0.00	53.00	540.68	0.00	-487.68
434+00	43400.17	50.00	8.63	0.00	0.00	16.05	0.00	0.00	69.05	540.68	0.00	-471.63
434+29	43429.00	28.83	8.59	0.00	0.00	9.20	0.00	0.00	78.24	540.68	0.00	-462.43
434+50	43450.17	21.17	8.56	0.00	0.00	6.72	0.00	0.00	84.96	540.68	0.00	-455.71
435+00	43500.17	50.00	8.49	0.00	0.00	15.79	0.00	0.00	100.75	540.68	0.00	-439.93
435+50	43550.17	50.00	8.42	0.00	0.00	15.66	0.00	0.00	116.41	540.68	0.00	-424.27
435+99	43599.47	49.31	10.05	0.00	0.00	16.87	0.00	0.00	133.27	540.68	0.00	-407.40
436+00	43600.17	0.69	10.11	0.00	0.00	0.26	0.00	0.00	133.53	540.68	0.00	-407.15

PROJECT ID 1003-10-77

DIVISION 1 - SB IH 39 STA. 400+00 - STA. 456+76 RT

STATION	Real Station	Distance	AREA (SF)			Incremental Vol (CY) (Unadjusted)			Cumulative Vol (CY)			Mass Ordinate
			Cut	Fill	EBS	Cut	Fill	EBS	Cut	Fill	EBS	
436+13	43612.72	12.55	11.23	0.00	0.00	4.96	0.00	0.00	138.49	540.68	0.00	-402.19
436+50	43650.17	37.45	14.95	0.00	0.00	18.16	0.00	0.00	156.65	540.68	0.00	-384.03
437+00	43700.17	50.00	60.20	0.00	0.00	69.58	0.00	0.00	226.23	540.68	0.00	-314.45
437+28	43728.08	27.92	64.42	0.00	0.00	64.42	0.00	0.00	290.65	540.68	0.00	-250.02
437+28	43728.08	0.00	64.42	0.00	0.00	0.00	0.00	0.00	290.65	540.68	0.00	-250.02
437+50	43750.17	22.08	0.00	273.04	0.00	26.35	111.67	0.00	317.00	652.34	0.00	-335.35
438+00	43800.17	50.00	0.00	419.17	0.00	0.00	640.94	0.00	317.00	1293.28	0.00	-976.28
438+50	43850.17	50.00	58.32	0.00	0.00	54.00	388.12	0.00	371.00	1681.40	0.00	-1310.40
439+00	43900.17	50.00	55.78	0.00	0.00	105.65	0.00	0.00	476.65	1681.40	0.00	-1204.75
439+50	43950.17	50.00	14.21	0.00	0.00	64.81	0.00	0.00	541.45	1681.40	0.00	-1139.95
440+00	44000.17	50.00	9.53	0.00	0.00	21.98	0.00	0.00	563.43	1681.40	0.00	-1117.97
440+45	44044.81	44.64	9.84	0.00	0.00	16.01	0.00	0.00	579.45	1681.40	0.00	-1101.95
440+45	44044.81	0.00	9.84	0.00	0.00	0.00	0.00	0.00	579.45	1681.40	0.00	-1101.95
440+50	44050.17	5.36	9.88	0.00	0.00	1.96	0.00	0.00	581.40	1681.40	0.00	-1100.00
440+91	44090.54	40.38	10.18	0.00	0.00	15.00	0.00	0.00	596.40	1681.40	0.00	-1085.00
441+00	44100.17	9.63	10.26	0.00	0.00	3.64	0.00	0.00	600.05	1681.40	0.00	-1081.35
441+16	44115.54	15.38	10.37	0.00	0.00	5.87	0.00	0.00	605.92	1681.40	0.00	-1075.48
441+41	44140.54	25.00	10.25	0.00	0.00	9.55	0.00	0.00	615.47	1681.40	0.00	-1065.93
441+50	44150.17	9.63	10.15	0.00	0.00	3.64	0.00	0.00	619.10	1681.40	0.00	-1062.30
442+00	44200.17	50.00	9.62	0.00	0.00	18.31	0.00	0.00	637.41	1681.40	0.00	-1043.99
442+50	44250.17	50.00	9.15	0.00	0.00	17.38	0.00	0.00	654.79	1681.40	0.00	-1026.61
443+00	44300.17	50.00	8.55	0.00	0.00	16.39	0.00	0.00	671.18	1681.40	0.00	-1010.22
443+50	44350.17	50.00	8.02	0.00	0.00	15.34	0.00	0.00	686.52	1681.40	0.00	-994.88
443+91	44390.86	40.69	8.09	0.00	0.00	12.14	0.00	0.00	698.66	1681.40	0.00	-982.74
443+91	44390.86	0.00	0.00	0.00	0.00	0.00	0.00	0.00	698.66	1681.40	0.00	-982.74
444+00	44400.17	9.31	7.90	0.00	0.00	1.36	0.00	0.00	700.02	1681.40	0.00	-981.38
444+50	44450.17	50.00	0.00	3.63	0.00	7.31	3.36	0.00	707.34	1684.76	0.00	-977.43
445+00	44500.17	50.00	0.00	5.94	0.00	0.00	8.86	0.00	707.34	1693.62	0.00	-986.29
445+50	44550.17	50.00	0.00	4.93	0.00	0.00	10.06	0.00	707.34	1703.69	0.00	-996.35
446+00	44600.17	50.00	0.00	4.30	0.00	0.00	8.55	0.00	707.34	1712.23	0.00	-1004.90
446+50	44650.17	50.00	0.00	4.60	0.00	0.00	8.24	0.00	707.34	1720.47	0.00	-1013.14
447+00	44700.17	50.00	0.00	4.36	0.00	0.00	8.30	0.00	707.34	1728.77	0.00	-1021.44
447+50	44750.17	50.00	0.00	4.05	0.00	0.00	7.79	0.00	707.34	1736.56	0.00	-1029.22
448+00	44800.17	50.00	0.00	4.18	0.00	0.00	7.62	0.00	707.34	1744.18	0.00	-1036.84
448+50	44850.17	50.00	0.00	4.27	0.00	0.00	7.82	0.00	707.34	1752.00	0.00	-1044.67
449+00	44900.17	50.00	0.00	4.06	0.00	0.00	7.71	0.00	707.34	1759.72	0.00	-1052.38
449+50	44950.17	50.00	0.00	3.65	0.00	0.00	7.14	0.00	707.34	1766.85	0.00	-1059.52
450+00	45000.17	50.00	0.00	3.65	0.00	0.00	6.76	0.00	707.34	1773.61	0.00	-1066.28
450+50	45050.17	50.00	0.00	3.75	0.00	0.00	6.85	0.00	707.34	1780.47	0.00	-1073.13
451+00	45100.17	50.00	0.00	3.94	0.00	0.00	7.12	0.00	707.34	1787.59	0.00	-1080.25
451+50	45150.17	50.00	0.00	4.23	0.00	0.00	7.56	0.00	707.34	1795.15	0.00	-1087.82
452+00	45200.17	50.00	0.00	4.60	0.00	0.00	8.18	0.00	707.34	1803.33	0.00	-1095.99
452+50	45250.17	50.00	0.00	4.84	0.00	0.00	8.74	0.00	707.34	1812.07	0.00	-1104.73

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PROJECT ID 1003-10-77

DIVISION 1 - SB IH 39 STA. 400+00 - STA. 456+76 RT

STATION		Real Station	Distance	AREA (SF)			Incremental Vol (CY) (Unadjusted)			Cumulative Vol (CY)			Mass Ordinate
				Cut	Fill	EBS	Cut	Fill	EBS	Cut	Fill	EBS	
453+00		45300.17	50.00	0.00	5.24	0.00	0.00	9.33	0.00	707.34	1821.40	0.00	-1114.07
453+50		45350.17	50.00	0.00	5.58	0.00	0.00	10.02	0.00	707.34	1831.42	0.00	-1124.08
454+00		45400.17	50.00	0.00	5.84	0.00	0.00	10.57	0.00	707.34	1841.99	0.00	-1134.66
454+50		45450.17	50.00	0.00	6.04	0.00	0.00	11.00	0.00	707.34	1852.99	0.00	-1145.66
454+91		45490.70	40.54	0.00	6.13	0.00	0.00	9.14	0.00	707.34	1862.13	0.00	-1154.79
454+91		45490.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	707.34	1862.13	0.00	-1154.79
455+00		45500.17	9.46	0.00	6.14	0.00	0.00	1.08	0.00	707.34	1863.20	0.00	-1155.87
455+50		45550.17	50.00	0.00	6.16	0.00	0.00	11.39	0.00	707.34	1874.59	0.00	-1167.26
456+00		45600.17	50.00	0.00	6.21	0.00	0.00	11.45	0.00	707.34	1886.05	0.00	-1178.71
456+50		45650.17	50.00	0.00	6.13	0.00	0.00	11.43	0.00	707.34	1897.47	0.00	-1190.14
456+70		45669.64	19.47	1.46	1.86	0.00	0.53	2.88	0.00	707.86	1900.35	0.00	-1192.49
456+76	BK	45675.51	5.88	0.00	0.00	0.00	0.16	0.20	0.00	708.02	1900.56	0.00	-1192.54
						Column totals	708.02	1900.56	0.00				

PROJECT ID 1003-10-77

DIVISION 1 - SB IH 39 STA. 537+00 - STA. 541+50 RT

STATION		Real Station	Distance	AREA (SF)			Incremental Vol (CY) (Unadjusted)			Cumulative Vol (CY)			Mass Ordinate
				Cut	Fill	EBS	Cut	Fill	EBS	Cut	Fill	EBS	
537+00	AH	53700.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
537+17		53717.48	17.31	0.10	4.07	0.00	0.03	1.30	0.00	0.03	1.30	0.00	-1.27
537+25		53725.46	7.98	0.00	4.65	0.00	0.01	1.29	0.00	0.05	2.59	0.00	-2.55
537+50		53750.17	24.71	0.00	4.73	0.00	0.00	4.29	0.00	0.05	6.89	0.00	-6.84
538+00		53800.17	50.00	0.00	4.58	0.00	0.00	8.62	0.00	0.05	15.51	0.00	-15.46
538+50		53850.17	50.00	0.00	4.30	0.00	0.00	8.22	0.00	0.05	23.73	0.00	-23.68
539+00		53900.17	50.00	0.00	4.25	0.00	0.00	7.92	0.00	0.05	31.64	0.00	-31.60
539+50		53950.17	50.00	0.00	3.98	0.00	0.00	7.62	0.00	0.05	39.26	0.00	-39.22
540+00		54000.17	50.00	0.00	4.07	0.00	0.00	7.45	0.00	0.05	46.72	0.00	-46.67
540+50		54050.17	50.00	0.00	4.26	0.00	0.00	7.71	0.00	0.05	54.43	0.00	-54.38
541+00		54100.17	50.00	0.00	4.13	0.00	0.00	7.77	0.00	0.05	62.20	0.00	-62.15
541+50	BK	54150.17	50.00	0.00	0.00	0.00	0.00	3.82	0.00	0.05	66.02	0.00	-65.98
						Column totals	0.05	66.02	0.00				

PROJECT ID 1003-10-77

DIVISION 1 - SB IH 39 STA. 547+00 - STA. 579+28 RT

STATION	Real Station	Distance	AREA (SF)			Incremental Vol (CY) (Unadjusted)			Cumulative Vol (CY)			Mass Ordinate
			Cut	Fill	EBS	Cut	Fill	EBS	Cut	Fill	EBS	
547+00 AH	54700.00	0.00	20.50	1.80	19.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
548+00	54800.00	100.00	24.70	0.40	19.20	83.70	4.07	70.74	83.70	4.07	70.74	79.63
549+00	54900.00	100.00	23.20	0.40	19.00	88.70	1.48	70.74	172.41	5.56	141.48	166.85
550+00	55000.00	100.00	20.00	3.00	18.62	80.00	6.30	69.67	252.41	11.85	211.15	240.56
551+00	55100.00	100.00	21.10	1.80	19.14	76.11	8.89	69.92	328.52	20.74	281.07	307.78
552+00	55200.00	100.00	17.20	2.40	16.46	70.93	7.78	65.92	399.44	28.52	346.99	370.93
553+00	55300.00	100.00	27.90	0.00	18.02	83.52	4.44	63.85	482.96	32.96	410.84	450.00
554+00	55400.00	100.00	38.70	0.00	17.50	123.33	0.00	65.77	606.30	32.96	476.61	573.33
554+14	55414.00	14.00	39.20	0.10	14.66	20.20	0.03	8.34	626.49	32.99	484.95	593.50
555+00	55500.00	86.00	20.40	0.20	30.27	94.92	0.48	71.55	721.41	33.47	556.50	687.94
556+00	55600.00	100.00	26.60	0.00	29.90	87.04	0.37	111.42	808.45	33.84	667.92	774.61
557+00	55700.00	100.00	27.70	0.00	31.00	100.56	0.00	112.78	909.00	33.84	780.70	875.17
558+00	55800.00	100.00	28.70	0.00	31.51	104.44	0.00	115.76	1013.45	33.84	896.46	979.61
559+00	55900.00	100.00	26.40	0.00	31.58	102.04	0.00	116.84	1115.49	33.84	1013.30	1081.65
560+00	56000.00	100.00	24.30	0.00	19.69	93.89	0.00	94.95	1209.37	33.84	1108.25	1175.54
561+00	56100.00	100.00	17.20	1.40	29.30	76.85	2.59	90.72	1286.23	36.43	1198.97	1249.80
562+00	56200.00	100.00	18.50	3.10	20.48	66.11	8.33	92.19	1352.34	44.76	1291.16	1307.57
562+63	56263.00	63.00	17.90	15.80	6.13	42.47	22.05	31.05	1394.80	66.81	1322.21	1327.99
563+00	56300.00	37.00	16.50	6.90	9.86	23.57	15.55	10.96	1418.37	82.37	1333.17	1336.01
564+00	56400.00	100.00	16.40	1.30	8.07	60.93	15.19	33.20	1479.30	97.55	1366.37	1381.75
565+00	56500.00	100.00	22.70	0.00	3.09	72.41	2.41	20.66	1551.71	99.96	1387.03	1451.75
565+50	56550.00	50.00	23.00	0.00	3.10	42.31	0.00	5.73	1594.02	99.96	1392.76	1494.06
565+75	56575.00	25.00	23.90	0.00	3.00	21.71	0.00	2.82	1615.74	99.96	1395.58	1515.78
565+81	56581.00	6.00	25.30	0.00	2.50	5.47	0.00	0.61	1621.20	99.96	1396.19	1521.24
566+00	56600.00	19.00	27.40	0.00	4.14	18.54	0.00	2.34	1639.74	99.96	1398.53	1539.79
566+25	56625.00	25.00	26.30	0.00	6.30	24.86	0.00	4.83	1664.61	99.96	1403.36	1564.65
567+00	56700.00	75.00	26.80	0.00	7.84	73.75	0.00	19.64	1738.36	99.96	1423.00	1638.40
568+00	56800.00	100.00	27.30	0.00	26.09	100.19	0.00	62.83	1838.54	99.96	1485.83	1738.58
569+00	56900.00	100.00	31.90	0.00	23.97	109.63	0.00	92.70	1948.17	99.96	1578.53	1848.21
570+00	57000.00	100.00	27.90	0.00	22.31	110.74	0.00	85.70	2058.91	99.96	1664.23	1958.95
571+00	57100.00	100.00	32.80	0.00	16.02	112.41	0.00	70.99	2171.32	99.96	1735.22	2071.36
572+00	57200.00	100.00	32.10	5.80	18.85	120.19	10.74	64.58	2291.50	110.70	1799.80	2180.80
573+00	57300.00	100.00	25.70	2.70	20.00	107.04	15.74	71.94	2398.54	126.44	1871.74	2272.10
573+66	57366.00	66.00	31.90	0.50	26.43	70.40	3.91	56.74	2468.94	130.35	1928.48	2338.59
574+00	57400.00	34.00	33.20	0.00	27.11	40.99	0.31	33.71	2509.93	130.67	1962.19	2379.26
575+00	57500.00	100.00	33.60	0.00	29.71	123.70	0.00	105.22	2633.63	130.67	2067.41	2502.97
575+33	57533.00	33.00	33.70	0.00	34.03	41.13	0.00	38.95	2674.76	130.67	2106.36	2544.09
575+58	57558.00	25.00	33.10	0.00	34.04	30.93	0.00	31.51	2705.69	130.67	2137.87	2575.02
575+83	57583.00	25.00	36.00	0.00	31.73	31.99	0.00	30.45	2737.68	130.67	2168.32	2607.01
576+00	57600.00	17.00	37.80	0.00	34.75	23.23	0.00	20.93	2760.91	130.67	2189.25	2630.24
577+00	57700.00	100.00	48.40	0.00	45.69	159.63	0.00	148.95	2920.54	130.67	2338.20	2789.87
578+00	57800.00	100.00	66.80	0.00	17.24	213.33	0.00	116.54	3133.87	130.67	2454.74	3003.21
579+00	57900.00	100.00	43.30	0.00	0.00	203.89	0.00	31.93	3337.76	130.67	2486.67	3207.10

PROJECT ID 1003-10-77

DIVISION 1 - SB IH 39 STA. 547+00 - STA. 579+28 RT

STATION		Real Station	Distance	AREA (SF)			Incremental Vol (CY) (Unadjusted)			Cumulative Vol (CY)			Mass Ordinate
				Cut	Fill	EBS	Cut	Fill	EBS	Cut	Fill	EBS	
579+28	BK	57928.00	28.00	0.00	0.00	0.00	22.45	0.00	0.00	3360.21	130.67	2486.67	3229.55
						Column totals	3360.21	130.67	2486.67				

PROJECT ID 1003-10-77

DIVISION 1 - SB IH 39 STA. 581+29 - STA. 590+00 RT

STATION		Real Station	Distance	AREA (SF)			Incremental Vol (CY) (Unadjusted)			Cumulative Vol (CY)			Mass Ordinate
				Cut	Fill	EBS	Cut	Fill	EBS	Cut	Fill	EBS	
581+29	AH	58129.00	0.00	0.00	0.00	31.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
581+83		58183.00	54.00	62.30	0.00	0.00	62.30	0.00	31.90	62.30	0.00	31.90	62.30
582+00		58200.00	17.00	64.00	0.00	33.80	39.76	0.00	10.64	102.06	0.00	42.54	102.06
582+02		58202.00	2.00	63.90	0.00	38.20	4.74	0.00	2.67	106.80	0.00	45.21	106.80
582+47		58247.00	45.00	63.40	0.00	49.70	106.08	0.00	73.25	212.88	0.00	118.46	212.88
582+52		58252.00	5.00	62.30	0.00	42.50	11.64	0.00	8.54	224.52	0.00	127.00	224.52
583+00		58300.00	48.00	61.40	0.00	35.20	109.96	0.00	69.07	334.48	0.00	196.07	334.48
584+00		58400.00	100.00	61.70	0.00	32.79	227.96	0.00	125.91	562.44	0.00	321.98	562.44
585+00		58500.00	100.00	45.60	0.00	28.68	198.70	0.00	113.83	761.14	0.00	435.81	761.14
586+00		58600.00	100.00	34.70	0.00	25.94	148.70	0.00	101.16	909.85	0.00	536.97	909.85
587+00		58700.00	100.00	28.10	0.00	22.09	116.30	0.00	88.95	1026.14	0.00	625.92	1026.14
588+00		58800.00	100.00	29.20	0.00	18.50	106.11	0.00	75.17	1132.25	0.00	701.09	1132.25
589+00		58900.00	100.00	32.50	0.00	14.15	114.26	0.00	60.46	1246.51	0.00	761.55	1246.51
590+00	BK	59000.00	100.00	44.80	0.00	9.12	143.15	0.00	43.09	1389.66	0.00	804.64	1389.66
						Column totals	1389.66	0.00	804.63				

PROJECT ID 1003-10-77

DIVISION 2 - NB IH 39 STA. 547+00 - STA. 579+73 LT

STATION	Real Station	Distance	AREA (SF)			Incremental Vol (CY) (Unadjusted)			Cumulative Vol (CY)			Mass Ordinate
			Cut	Fill	EBS	Cut	Fill	EBS	Cut	Fill	EBS	
547+00 AH	54700.00	0.00	29.30	9.50	4.58	0.00	0.00	0.00	0.00	0.00	0.00	0.00
548+00	54800.00	100.00	32.40	3.90	3.96	114.26	24.81	15.82	114.26	24.81	15.82	89.44
549+00	54900.00	100.00	27.80	7.30	4.13	111.48	20.74	14.99	225.74	45.56	30.81	180.19
550+00	55000.00	100.00	29.60	10.30	4.20	106.30	32.59	15.42	332.04	78.15	46.23	253.89
551+00	55100.00	100.00	30.50	6.20	4.30	111.30	30.56	15.74	443.33	108.70	61.97	334.63
552+00	55200.00	100.00	28.50	7.90	4.34	109.26	26.11	16.00	552.59	134.81	77.97	417.78
553+00	55300.00	100.00	71.30	10.40	5.32	184.81	33.89	17.88	737.41	168.70	95.85	568.70
554+00	55400.00	100.00	116.80	6.50	5.64	348.33	31.30	20.29	1085.74	200.00	116.14	885.74
554+14	55414.00	14.00	125.70	10.60	3.09	62.87	4.43	2.26	1148.61	204.43	118.40	944.18
555+00	55500.00	86.00	124.80	11.80	3.60	398.94	35.67	10.65	1547.56	240.11	129.05	1307.45
556+00	55600.00	100.00	132.60	8.00	3.00	476.67	36.67	12.22	2024.22	276.77	141.27	1747.45
557+00	55700.00	100.00	148.80	9.80	3.74	521.11	32.96	12.49	2545.33	309.74	153.76	2235.60
558+00	55800.00	100.00	127.20	9.20	4.05	511.11	35.19	14.44	3056.44	344.92	168.20	2711.52
559+00	55900.00	100.00	63.80	4.90	5.16	353.70	26.11	17.06	3410.15	371.03	185.26	3039.11
560+00	56000.00	100.00	83.10	13.90	4.41	272.04	34.81	17.71	3682.19	405.85	202.97	3276.34
561+00	56100.00	100.00	102.30	18.80	0.00	343.33	60.56	8.16	4025.52	466.40	211.13	3559.11
562+00	56200.00	100.00	125.80	24.70	0.00	422.41	80.56	0.00	4447.93	546.96	211.13	3900.97
562+63	56263.00	63.00	78.10	37.10	0.00	237.88	72.10	0.00	4685.81	619.06	211.13	4066.75
563+00	56300.00	37.00	49.30	48.00	0.00	87.29	58.31	0.00	4773.10	677.37	211.13	4095.73
564+00	56400.00	100.00	22.90	150.60	0.00	133.70	367.78	0.00	4906.81	1045.15	211.13	3861.66
565+00	56500.00	100.00	27.10	277.50	0.00	92.59	792.78	0.00	4999.40	1837.92	211.13	3161.47
565+50	56550.00	50.00	26.40	105.70	0.00	49.54	354.81	0.00	5048.94	2192.74	211.13	2856.20
565+75	56575.00	25.00	25.90	45.40	0.00	24.21	69.95	0.00	5073.15	2262.69	211.13	2810.46
565+81	56581.00	6.00	25.80	44.20	0.00	5.74	9.96	0.00	5078.89	2272.65	211.13	2806.24
566+00	56600.00	19.00	26.10	45.70	0.00	18.26	31.63	0.00	5097.15	2304.28	211.13	2792.87
566+25	56625.00	25.00	25.80	179.70	0.00	24.03	104.35	0.00	5121.18	2408.63	211.13	2712.55
567+00	56700.00	75.00	22.10	250.30	0.00	66.53	597.22	0.00	5187.71	3005.85	211.13	2181.86
568+00	56800.00	100.00	33.90	206.20	0.00	103.70	845.37	0.00	5291.41	3851.22	211.13	1440.19
569+00	56900.00	100.00	22.80	251.60	0.70	105.00	847.78	1.29	5396.41	4699.00	212.42	697.41
570+00	57000.00	100.00	24.90	267.70	3.26	88.33	961.67	7.33	5484.75	5660.67	219.75	-175.92
571+00	57100.00	100.00	31.20	159.30	1.89	103.89	790.74	9.53	5588.64	6451.41	229.28	-862.77
572+00	57200.00	100.00	28.90	61.50	0.60	111.30	408.89	4.61	5699.93	6860.30	233.89	-1160.37
573+00	57300.00	100.00	23.50	92.80	4.62	97.04	285.74	9.66	5796.97	7146.04	243.55	-1349.07
573+66	57366.00	66.00	27.60	105.30	5.51	62.46	242.12	12.38	5859.42	7388.16	255.93	-1528.74
574+00	57400.00	34.00	25.60	116.60	3.47	33.50	139.71	5.65	5892.92	7527.88	261.58	-1634.96
575+00	57500.00	100.00	25.30	109.70	3.42	94.26	419.07	12.76	5987.18	7946.95	274.34	-1959.77
575+33	57533.00	33.00	25.80	96.00	1.84	31.23	125.71	3.22	6018.41	8072.66	277.56	-2054.25
575+58	57558.00	25.00	26.50	96.80	3.37	24.21	89.26	2.42	6042.62	8161.91	279.98	-2119.29
575+83	57583.00	25.00	26.90	91.40	2.28	24.72	87.13	2.62	6067.34	8249.04	282.60	-2181.70
576+00	57600.00	17.00	27.30	84.40	7.57	17.06	55.34	3.10	6084.41	8304.39	285.70	-2219.98
577+00	57700.00	100.00	28.30	27.20	7.14	102.96	206.67	27.24	6187.37	8511.06	312.94	-2323.69
578+00	57800.00	100.00	26.70	3.10	6.58	101.85	56.11	25.40	6289.22	8567.17	338.34	-2277.95
579+00	57900.00	100.00	27.60	7.50	7.14	100.56	19.63	25.42	6389.78	8586.80	363.76	-2197.02

PROJECT ID 1003-10-77

DIVISION 2 - NB IH 39 STA. 547+00 - STA. 579+73 LT

STATION		Real Station	Distance	AREA (SF)			Incremental Vol (CY) (Unadjusted)			Cumulative Vol (CY)			Mass Ordinate
				Cut	Fill	EBS	Cut	Fill	EBS	Cut	Fill	EBS	
579+73	BK	57973.00	73.00	26.65	7.50	0.00	73.34	20.28	9.66	6463.11	8607.07	373.42	-2143.96
						Column totals	6463.11	8607.07	373.43				

PROJECT ID 1003-10-77

DIVISION 2 - NB IH 39 STA. 582+00 - STA. 601+02 LT

STATION		Real Station	Distance	AREA (SF)			Incremental Vol (CY) (Unadjusted)			Cumulative Vol (CY)			Mass Ordinate
				Cut	Fill	EBS	Cut	Fill	EBS	Cut	Fill	EBS	
582+00	AH	58200.00	0.00	1.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
582+02		58202.00	2.00	4.50	0.00	0.00	0.23	0.00	0.00	0.23	0.00	0.00	0.23
582+27		58227.00	25.00	19.60	0.00	0.00	11.16	0.00	0.00	11.39	0.00	0.00	11.39
582+52		58252.00	25.00	30.10	0.00	0.00	23.01	0.00	0.00	34.40	0.00	0.00	34.40
583+00		58300.00	48.00	30.50	0.00	0.00	53.87	0.00	0.00	88.26	0.00	0.00	88.26
584+00		58400.00	100.00	31.40	1.90	7.00	114.63	3.52	12.96	202.89	3.52	12.96	199.37
585+00		58500.00	100.00	29.00	6.40	10.33	111.85	15.37	32.10	314.74	18.89	45.06	295.86
586+00		58600.00	100.00	28.00	43.70	4.42	105.56	92.78	27.31	420.30	111.67	72.37	308.63
587+00		58700.00	100.00	28.40	65.50	4.59	104.44	202.22	16.68	524.74	313.89	89.05	210.86
588+00		58800.00	100.00	30.50	71.40	2.43	109.07	253.52	13.01	633.82	567.41	102.06	66.41
589+00		58900.00	100.00	28.10	83.50	4.87	108.52	286.85	13.53	742.34	854.26	115.59	-111.92
590+00		59000.00	100.00	26.20	79.70	4.43	100.56	302.22	17.22	842.89	1156.48	132.81	-313.59
591+00		59100.00	100.00	26.30	73.70	0.59	97.22	284.07	9.29	940.11	1440.56	142.10	-500.44
592+00		59200.00	100.00	25.80	69.30	0.00	96.48	264.81	1.09	1036.60	1705.37	143.19	-668.77
593+00		59300.00	100.00	26.90	62.70	0.00	97.59	244.44	0.00	1134.19	1949.81	143.19	-815.63
594+00		59400.00	100.00	28.30	50.00	0.00	102.22	208.70	0.00	1236.41	2158.52	143.19	-922.11
595+00		59500.00	100.00	27.60	48.10	0.00	103.52	181.67	0.00	1339.93	2340.19	143.19	-1000.26
596+00		59600.00	100.00	25.90	60.60	0.00	99.07	201.30	0.00	1439.00	2541.48	143.19	-1102.48
597+00		59700.00	100.00	23.60	74.40	1.00	91.67	250.00	1.85	1530.67	2791.48	145.04	-1260.81
598+00		59800.00	100.00	26.00	69.20	1.16	91.85	265.93	4.00	1622.52	3057.41	149.04	-1434.89
599+00		59900.00	100.00	28.60	64.40	2.82	101.11	247.41	7.37	1723.63	3304.81	156.41	-1581.18
600+00		60000.00	100.00	54.20	26.60	6.65	153.33	168.52	17.54	1876.97	3473.33	173.95	-1596.37
601+00		60100.00	100.00	77.40	7.40	0.00	243.70	62.96	12.32	2120.67	3536.30	186.27	-1415.63
601+02		60102.00	2.00	0.00	0.00	0.00	2.87	0.27	0.00	2123.54	3536.57	186.27	-1413.03
						Column totals	2123.54	3536.57	186.26				

PROJECT ID 1003-10-77

DIVISION 3 - SB IH 39 STA. 320+00 - STA. 357+50 LT

STATION	Real Station	Distance	AREA (SF)			Incremental Vol (CY) (Unadjusted)			Cumulative Vol (CY)			Mass Ordinate
			Cut	Fill	EBS	Cut	Fill	EBS	Cut	Fill	EBS	
320+00 AH	32000.00	0.00	23.84	26.59	28.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00
320+50	32050.00	50.00	25.11	19.70	33.04	45.32	42.86	57.26	45.32	42.86	57.26	2.46
320+86	32086.28	36.28	22.79	20.83	33.04	32.18	27.23	44.39	77.50	70.09	101.65	7.41
320+94	32094.28	8.00	22.40	23.82	33.04	6.70	6.62	9.79	84.20	76.71	111.44	7.49
321+00	32100.00	5.72	22.82	24.09	33.04	4.79	5.07	7.00	88.99	81.78	118.44	7.21
321+42	32142.28	42.28	25.21	22.63	33.04	37.61	36.58	51.74	126.60	118.36	170.18	8.23
321+50	32150.00	7.72	25.44	22.53	33.04	7.24	6.46	9.45	133.84	124.82	179.63	9.02
322+00	32200.00	50.00	26.46	26.53	33.04	48.06	45.43	61.19	181.89	170.24	240.82	11.65
322+50	32250.00	50.00	24.54	63.15	33.04	47.22	83.04	61.19	229.12	253.28	302.01	-24.17
323+00	32300.00	50.00	25.94	93.01	33.04	46.74	144.59	61.19	275.86	397.87	363.20	-122.02
323+50	32350.00	50.00	26.59	119.74	33.04	48.64	196.99	61.19	324.49	594.86	424.39	-270.37
324+00	32400.00	50.00	26.50	140.09	33.04	49.16	240.58	61.19	373.65	835.45	485.58	-461.79
324+50	32450.00	50.00	26.57	150.12	33.04	49.14	268.71	61.19	422.79	1104.16	546.77	-681.37
324+89	32489.21	39.21	27.55	174.32	33.04	39.29	235.56	47.98	462.08	1339.72	594.75	-877.63
325+00	32500.00	10.79	27.91	152.89	33.04	11.09	65.41	13.21	473.17	1405.12	607.96	-931.95
325+50	32550.00	50.00	28.54	95.65	33.04	52.27	230.13	61.19	525.44	1635.25	669.15	-1109.81
326+00	32600.00	50.00	28.57	63.86	33.04	52.88	147.69	61.19	578.32	1782.95	730.34	-1204.63
326+50	32650.00	50.00	29.49	51.76	33.04	53.76	107.06	61.19	632.08	1890.00	791.53	-1257.92
326+86	32686.02	36.02	31.57	29.82	33.04	40.73	54.42	44.08	672.81	1944.42	835.61	-1271.61
327+00	32700.00	13.98	30.24	33.45	33.04	16.00	16.38	17.11	688.81	1960.80	852.72	-1271.99
327+50	32750.00	50.00	29.01	36.15	33.04	54.86	64.44	61.19	743.67	2025.24	913.91	-1281.57
328+00	32800.00	50.00	28.04	30.58	33.04	52.82	61.79	61.19	796.49	2087.03	975.10	-1290.54
328+50	32850.00	50.00	29.32	25.43	33.04	53.11	51.86	61.19	849.60	2138.89	1036.29	-1289.29
329+00	32900.00	50.00	28.01	16.92	33.04	53.08	39.21	61.19	902.69	2178.10	1097.48	-1275.41
329+50	32950.00	50.00	25.90	15.65	33.04	49.92	30.16	61.19	952.60	2208.26	1158.67	-1255.66
330+00	33000.00	50.00	24.30	15.23	37.28	46.48	28.59	65.11	999.09	2236.85	1223.78	-1237.77
330+50	33050.00	50.00	24.95	12.31	40.88	45.60	25.50	72.37	1044.69	2262.35	1296.15	-1217.66
331+00	33100.00	50.00	24.86	12.95	40.88	46.12	23.39	75.70	1090.81	2285.74	1371.85	-1194.93
331+50	33150.00	50.00	23.86	12.62	40.88	45.11	23.68	75.70	1135.92	2309.42	1447.55	-1173.50
332+00	33200.00	50.00	23.47	10.42	40.88	43.82	21.33	75.70	1179.74	2330.75	1523.25	-1151.01
332+50	33250.00	50.00	22.42	10.19	40.88	42.49	19.08	75.70	1222.23	2349.83	1598.95	-1127.60
333+00	33300.00	50.00	22.77	7.96	40.88	41.84	16.81	75.70	1264.08	2366.64	1674.65	-1102.56
333+50	33350.00	50.00	21.38	6.12	40.88	40.88	13.04	75.70	1304.96	2379.68	1750.35	-1074.72
334+00	33400.00	50.00	21.63	2.80	40.88	39.82	8.26	75.70	1344.78	2387.94	1826.05	-1043.16
334+50	33450.00	50.00	13.52	0.37	40.88	32.55	2.94	75.70	1377.33	2390.87	1901.75	-1013.54
335+00	33500.00	50.00	11.97	0.31	40.88	23.60	0.63	75.70	1400.93	2391.50	1977.45	-990.57
335+50	33550.00	50.00	10.53	0.16	40.88	20.83	0.44	75.70	1421.76	2391.94	2053.15	-970.17
336+00	33600.00	50.00	8.66	0.10	40.88	17.77	0.24	75.70	1439.53	2392.18	2128.85	-952.65
336+50	33650.00	50.00	0.00	0.00	40.88	8.02	0.09	75.70	1447.55	2392.27	2204.55	-944.72
337+00	33700.00	50.00	0.00	0.00	40.88	0.00	0.00	75.70	1447.55	2392.27	2280.25	-944.72
337+50	33750.00	50.00	0.00	0.00	40.88	0.00	0.00	75.70	1447.55	2392.27	2355.95	-944.72
338+00	33800.00	50.00	0.00	0.00	40.88	0.00	0.00	75.70	1447.55	2392.27	2431.65	-944.72
338+50	33850.00	50.00	0.00	0.00	40.88	0.00	0.00	75.70	1447.55	2392.27	2507.35	-944.72

PROJECT ID 1003-10-77

DIVISION 3 - SB IH 39 STA. 320+00 - STA. 357+50 LT

STATION	Real Station	Distance	AREA (SF)			Incremental Vol (CY) (Unadjusted)			Cumulative Vol (CY)			Mass Ordinate
			Cut	Fill	EBS	Cut	Fill	EBS	Cut	Fill	EBS	
339+00	33900.00	50.00	24.16	0.00	40.88	22.37	0.00	75.70	1469.92	2392.27	2583.05	-922.35
339+50	33950.00	50.00	28.51	0.00	40.88	48.77	0.00	75.70	1518.69	2392.27	2658.75	-873.58
340+00	34000.00	50.00	45.42	8.80	44.48	68.45	8.15	79.04	1587.14	2400.42	2737.79	-813.28
340+00	34000.42	0.42	45.30	8.89	25.27	0.71	0.14	0.54	1587.85	2400.56	2738.33	-812.71
340+29	34029.41	28.99	78.73	0.49	25.27	66.59	5.04	27.13	1654.43	2405.59	2765.46	-751.16
340+50	34050.00	20.59	74.29	0.03	25.27	58.35	0.20	19.27	1712.78	2405.79	2784.73	-693.01
340+77	34077.41	27.41	60.74	0.11	25.27	68.54	0.07	25.65	1781.32	2405.86	2810.38	-624.54
340+85	34085.41	8.00	57.49	0.07	25.27	17.52	0.03	7.49	1798.84	2405.89	2817.87	-607.05
341+00	34100.00	14.59	46.21	0.35	25.27	28.01	0.11	13.65	1826.85	2406.00	2831.52	-579.15
341+50	34150.00	50.00	27.02	5.02	25.27	67.81	4.97	46.79	1894.66	2410.97	2878.31	-516.31
341+97	34197.41	47.41	27.68	7.94	25.27	48.02	11.38	44.36	1942.68	2422.35	2922.67	-479.67
342+00	34200.00	2.59	27.76	8.09	25.27	2.66	0.77	2.42	1945.34	2423.12	2925.09	-477.78
342+50	34250.00	50.00	28.63	10.94	25.27	52.21	17.62	46.79	1997.56	2440.74	2971.88	-443.18
342+55	34255.42	5.42	28.45	11.40	25.27	5.73	2.24	5.07	2003.28	2442.98	2976.95	-439.70
343+00	34300.00	44.58	27.59	12.92	25.27	46.26	20.08	41.72	2049.55	2463.06	3018.67	-413.51
343+17	34317.41	17.41	28.09	11.75	25.27	17.95	7.95	16.29	2067.50	2471.01	3034.96	-403.51
343+50	34350.00	32.59	28.35	12.82	25.27	34.06	14.83	30.50	2101.56	2485.84	3065.46	-384.28
344+00	34400.00	50.00	28.30	15.49	25.27	52.45	26.21	46.79	2154.02	2512.06	3112.25	-358.04
344+05	34405.42	5.42	28.24	15.99	25.27	5.67	3.16	5.07	2159.69	2515.22	3117.32	-355.52
344+50	34450.00	44.58	27.63	18.89	25.27	46.12	28.80	41.72	2205.82	2544.01	3159.04	-338.19
345+00	34500.00	50.00	29.68	19.27	25.27	53.06	35.33	46.79	2258.88	2579.34	3205.83	-320.46
345+50	34550.00	50.00	32.56	14.80	25.27	57.63	31.55	46.79	2316.51	2610.89	3252.62	-294.38
346+00	34600.00	50.00	33.58	14.96	25.27	61.24	27.56	46.79	2377.75	2638.45	3299.41	-260.69
346+50	34650.00	50.00	32.07	13.95	25.27	60.79	26.77	46.79	2438.54	2665.21	3346.20	-226.68
347+00	34700.00	50.00	41.60	7.79	25.27	68.21	20.13	46.79	2506.75	2685.34	3392.99	-178.59
347+50	34750.00	50.00	39.61	2.03	25.27	75.19	9.09	46.79	2581.95	2694.44	3439.78	-112.49
348+00	34800.00	50.00	70.50	1.97	25.27	101.95	3.70	46.79	2683.90	2698.14	3486.57	-14.24
348+50	34850.00	50.00	97.79	1.93	25.27	155.82	3.61	46.79	2839.72	2701.75	3533.36	137.97
349+00	34900.00	50.00	63.80	2.13	25.27	149.62	3.76	46.79	2989.34	2705.51	3580.15	283.83
349+50	34950.00	50.00	74.10	0.10	25.27	127.69	2.06	46.79	3117.03	2707.58	3626.94	409.45
350+00	35000.00	50.00	38.98	14.89	6.05	104.70	13.88	29.00	3221.73	2721.45	3655.94	500.28
350+50	35050.00	50.00	30.96	16.68	26.75	64.76	29.23	30.38	3286.49	2750.69	3686.32	535.81
351+00	35100.00	50.00	36.62	12.18	26.75	62.57	26.72	49.55	3349.07	2777.41	3735.87	571.66
351+50	35150.00	50.00	33.62	15.27	26.75	65.04	25.42	49.55	3414.10	2802.83	3785.42	611.28
352+00	35200.00	50.00	38.85	13.34	26.75	67.10	26.49	49.55	3481.20	2829.32	3834.97	651.89
352+50	35250.00	50.00	35.70	13.65	26.75	69.03	24.99	49.55	3550.23	2854.31	3884.52	695.93
353+00	35300.00	50.00	43.79	13.39	26.75	73.60	25.04	49.55	3623.83	2879.34	3934.07	744.49
353+50	35350.00	50.00	41.19	17.36	26.75	78.69	28.47	49.55	3702.52	2907.82	3983.62	794.70
354+00	35400.00	50.00	38.00	16.71	26.75	73.32	31.55	49.55	3775.84	2939.36	4033.17	836.48
354+50	35450.00	50.00	38.02	15.55	26.75	70.39	29.87	49.55	3846.23	2969.23	4082.72	877.00
355+00	35500.00	50.00	30.47	19.87	26.75	63.42	32.80	49.55	3909.65	3002.03	4132.27	907.62
355+50	35550.00	50.00	27.17	24.98	26.75	53.37	41.53	49.55	3963.02	3043.56	4181.82	919.46
356+00	35600.00	50.00	27.67	26.37	26.75	50.78	47.55	49.55	4013.80	3091.10	4231.37	922.69

PROJECT ID 1003-10-77

DIVISION 3 - SB IH 39 STA. 320+00 - STA. 357+50 LT

STATION		Real Station	Distance	AREA (SF)			Incremental Vol (CY) (Unadjusted)			Cumulative Vol (CY)			Mass Ordinate
				Cut	Fill	EBS	Cut	Fill	EBS	Cut	Fill	EBS	
356+50		35650.00	50.00	29.00	26.93	26.75	52.47	49.35	49.55	4066.27	3140.45	4280.92	925.81
357+00		35700.00	50.00	28.67	24.90	26.75	53.40	47.99	49.55	4119.67	3188.45	4330.47	931.22
357+50	BK	35750.00	50.00	0.00	0.00	26.75	26.55	23.06	49.55	4146.21	3211.50	4380.02	934.71
						Column totals	4146.21	3211.50	4379.89				

PROJECT ID 1003-10-77

DIVISION 3 - SB IH 39 STA. 384+00 - STA. 400+00 LT

STATION		Real Station	Distance	AREA (SF)			Incremental Vol (CY) (Unadjusted)			Cumulative Vol (CY)			Mass Ordinate
				Cut	Fill	EBS	Cut	Fill	EBS	Cut	Fill	EBS	
384+00	AH	38400.00	0.00	0.00	0.00	21.81	0.00	0.00	0.00	0.00	0.00	0.00	0.00
385+88		38588.17	188.17	32.93	27.70	21.81	114.75	96.52	152.01	114.75	96.52	152.01	18.22
386+00		38600.00	11.83	33.40	28.12	21.81	14.53	12.23	9.56	129.28	108.75	161.57	20.53
387+00		38700.00	100.00	29.04	38.01	21.81	115.63	122.46	80.78	244.91	231.22	242.35	13.69
388+00		38800.00	100.00	28.53	37.11	21.81	106.61	139.11	80.78	351.52	370.33	323.13	-18.81
389+00		38900.00	100.00	27.72	43.64	21.81	104.17	149.54	80.78	455.69	519.86	403.91	-64.18
390+00		39000.00	100.00	26.80	53.98	21.81	100.96	180.78	80.78	556.65	700.64	484.69	-143.99
390+91		39090.84	90.83	25.38	59.81	21.81	87.77	191.41	73.38	644.42	892.05	558.07	-247.63
391+00		39100.00	9.17	25.64	51.56	21.81	8.66	18.90	7.40	653.08	910.95	565.47	-257.87
392+00		39200.00	100.00	25.15	29.30	21.81	94.06	149.74	80.78	747.14	1060.69	646.25	-313.56
392+06		39205.57	5.57	25.00	30.30	21.81	5.17	6.15	4.50	752.31	1066.84	650.75	-314.53
392+06		39205.74	0.17	25.01	30.31	21.81	0.15	0.19	0.13	752.46	1067.03	650.88	-314.56
392+54		39253.57	47.83	27.70	24.82	21.81	46.69	48.84	38.64	799.16	1115.86	689.52	-316.71
392+54		39253.74	0.17	27.71	24.79	21.81	0.17	0.15	0.13	799.33	1116.01	689.65	-316.69
392+62		39261.74	8.00	28.10	23.99	21.81	8.27	7.23	6.46	807.60	1123.24	696.11	-315.65
393+00		39300.00	38.26	28.56	24.02	21.81	40.15	34.02	30.91	847.74	1157.26	727.02	-309.52
393+74		39373.57	73.57	28.09	21.71	21.81	77.18	62.30	59.43	924.92	1219.56	786.45	-294.64
393+74		39373.57	0.00	0.00	0.00	21.81	0.00	0.00	0.00	924.92	1219.56	786.45	-294.64
394+00		39400.00	26.43	29.15	18.95	21.81	14.27	9.27	21.35	939.19	1228.84	807.80	-289.65
394+94		39493.57	93.57	31.31	12.25	21.81	104.76	54.06	75.59	1043.96	1282.90	883.39	-238.95
394+94		39493.57	0.00	0.00	0.00	21.81	0.00	0.00	0.00	1043.96	1282.90	883.39	-238.95
395+00		39500.00	6.43	30.59	13.42	21.81	3.64	1.60	5.19	1047.60	1284.50	888.58	-236.90
396+00		39600.00	100.00	30.25	14.26	21.81	112.67	51.26	80.78	1160.26	1335.76	969.36	-175.49
397+00		39700.00	100.00	30.31	13.99	21.81	112.15	52.31	80.78	1272.41	1388.07	1050.14	-115.66
398+00		39800.00	100.00	31.18	12.87	21.81	113.87	49.74	80.78	1386.28	1437.81	1130.92	-51.53
399+00		39900.00	100.00	31.41	11.11	21.81	115.91	44.41	80.78	1502.19	1482.22	1211.70	19.97
400+00	BK	40000.00	100.00	32.37	6.07	21.81	118.11	31.81	80.78	1620.30	1514.04	1292.48	106.26
						Column totals	1620.30	1514.04	1292.53				

PROJECT ID 1003-10-77

DIVISION 3 - SB IH 39 STA. 400+00 - STA. 470+00 LT

STATION	Real Station	Distance	AREA (SF)			Incremental Vol (CY) (Unadjusted)			Cumulative Vol (CY)			Mass Ordinate
			Cut	Fill	EBS	Cut	Fill	EBS	Cut	Fill	EBS	
400+00 AH	40000.00	0.00	32.42	6.07	21.81	0.00	0.00	0.00	0.00	0.00	0.00	0.00
400+50	40050.17	50.17	33.49	6.76	21.81	61.23	11.92	40.52	61.23	11.92	40.52	49.31
401+00	40100.17	50.00	30.43	9.75	18.20	59.19	15.29	37.05	120.41	27.21	77.57	93.21
401+50	40150.17	50.00	30.82	12.97	17.64	56.71	21.04	33.18	177.13	48.24	110.75	128.88
401+91	40191.10	40.93	31.31	17.22	17.64	47.10	22.89	26.74	224.22	71.13	137.49	153.10
401+91	40191.10	0.00	31.31	17.22	17.64	0.00	0.00	0.00	224.22	71.13	137.49	153.10
402+00	40200.17	9.07	31.43	16.01	17.64	10.53	5.58	5.92	234.76	76.71	143.41	158.05
402+50	40250.17	50.00	31.86	14.25	17.64	58.60	28.02	32.66	293.36	104.73	176.07	188.63
403+00	40300.17	50.00	31.65	12.75	17.64	58.81	25.00	32.66	352.16	129.73	208.73	222.44
403+50	40350.17	50.00	30.75	11.52	17.64	57.78	22.47	32.66	409.94	152.20	241.39	257.74
404+00	40400.17	50.00	33.12	8.89	17.64	59.14	18.90	32.66	469.08	171.10	274.05	297.99
404+50	40450.17	50.00	32.77	11.26	17.64	61.01	18.66	32.66	530.09	189.75	306.71	340.34
405+00	40500.17	50.00	31.22	13.33	17.64	59.25	22.77	32.66	589.34	212.52	339.37	376.82
405+50	40550.17	50.00	29.59	15.08	17.64	56.31	26.31	32.66	645.65	238.83	372.03	406.82
406+00	40600.17	50.00	28.68	15.16	17.64	53.95	28.00	32.66	699.60	266.83	404.69	432.77
406+50	40650.17	50.00	28.78	16.10	17.64	53.20	28.94	32.66	752.80	295.77	437.35	457.03
407+00	40700.17	50.00	28.98	18.82	17.64	53.48	32.33	32.66	806.29	328.11	470.01	478.18
407+50	40750.17	50.00	30.59	20.97	17.64	55.16	36.84	32.66	861.44	364.95	502.67	496.49
408+00	40800.17	50.00	31.52	19.30	17.64	57.51	37.29	32.66	918.95	402.23	535.33	516.72
408+50	40850.17	50.00	31.62	17.19	17.64	58.46	33.79	32.66	977.41	436.02	567.99	541.39
409+00	40900.17	50.00	30.99	22.76	17.64	57.97	36.99	32.66	1035.39	473.01	600.65	562.37
409+50	40950.17	50.00	29.77	26.31	17.64	56.26	45.44	32.66	1091.65	518.45	633.31	573.20
409+91	40991.24	41.08	28.59	36.17	17.64	44.39	47.53	26.83	1136.04	565.98	660.14	570.06
409+91	40991.24	0.00	28.59	36.17	17.64	0.00	0.00	0.00	1136.04	565.98	660.14	570.06
410+00	41000.17	8.92	27.85	33.28	17.07	9.33	11.48	5.73	1145.37	577.45	665.87	567.91
410+50	41050.17	50.00	28.44	33.85	13.25	52.12	62.16	28.07	1197.49	639.61	693.94	557.88
411+00	41100.17	50.00	28.98	27.82	13.25	53.17	57.10	24.53	1250.65	696.71	718.47	553.94
411+50	41150.17	50.00	29.29	20.43	13.25	53.95	44.68	24.53	1304.61	741.39	743.00	563.22
412+00	41200.17	50.00	31.04	13.64	13.25	55.86	31.55	24.53	1360.47	772.93	767.53	587.54
412+50	41250.17	50.00	31.99	13.42	13.25	58.36	25.06	24.53	1418.83	797.99	792.06	620.84
413+00	41300.17	50.00	32.19	14.72	13.25	59.43	26.06	24.53	1478.26	824.04	816.59	654.21
413+50	41350.17	50.00	34.93	10.91	13.25	62.15	23.73	24.53	1540.40	847.78	841.12	692.63
414+00	41400.17	50.00	35.64	8.29	13.25	65.34	17.78	24.53	1605.75	865.55	865.65	740.19
414+50	41450.17	50.00	36.08	6.55	13.25	66.41	13.74	24.53	1672.15	879.29	890.18	792.86
415+00	41500.17	50.00	34.91	7.44	13.25	65.73	12.95	24.53	1737.88	892.25	914.71	845.64
415+50	41550.17	50.00	33.36	6.92	13.25	63.21	13.30	24.53	1801.10	905.54	939.24	895.55
416+00	41600.17	50.00	31.13	6.32	13.25	59.71	12.26	24.53	1860.81	917.80	963.77	943.01
416+50	41650.17	50.00	29.92	6.80	13.25	56.53	12.15	24.53	1917.34	929.95	988.30	987.39
417+00	41700.17	50.00	30.87	4.53	13.25	56.29	10.49	24.53	1973.63	940.44	1012.83	1033.18
417+50	41750.17	50.00	33.33	2.49	13.25	59.44	6.50	24.53	2033.07	946.94	1037.36	1086.13
418+00	41800.17	50.00	35.21	2.48	13.25	63.46	4.60	24.53	2096.53	951.54	1061.89	1144.99
418+50	41850.17	50.00	35.89	1.64	13.25	65.83	3.81	24.53	2162.37	955.36	1086.42	1207.01
419+00	41900.17	50.00	33.26	1.15	13.25	64.03	2.58	24.53	2226.39	957.94	1110.95	1268.45

PROJECT ID 1003-10-77

DIVISION 3 - SB IH 39 STA. 400+00 - STA. 470+00 LT

STATION	Real Station	Distance	AREA (SF)			Incremental Vol (CY) (Unadjusted)			Cumulative Vol (CY)			Mass Ordinate
			Cut	Fill	EBS	Cut	Fill	EBS	Cut	Fill	EBS	
419+50	41950.17	50.00	30.46	1.60	13.25	59.00	2.55	24.53	2285.39	960.49	1135.48	1324.91
420+00	42000.17	50.00	30.46	3.10	9.43	56.41	4.35	21.00	2341.80	964.84	1156.48	1376.96
420+50	42050.17	50.00	30.55	3.94	16.38	56.49	6.52	23.89	2398.29	971.36	1180.37	1426.93
420+91	42090.82	40.65	31.49	5.65	16.38	46.71	7.22	24.66	2445.00	978.58	1205.03	1466.42
420+93	42092.51	1.69	31.49	6.60	16.38	1.97	0.38	1.03	2446.97	978.96	1206.06	1468.01
421+00	42100.17	7.65	31.21	3.60	16.38	8.89	1.45	4.64	2455.86	980.41	1210.70	1475.45
421+50	42150.17	50.00	29.83	5.94	16.38	56.52	8.83	30.32	2512.38	989.24	1241.02	1523.14
422+00	42200.17	50.00	29.17	4.73	16.38	54.63	9.88	30.32	2567.01	999.12	1271.34	1567.89
422+50	42250.17	50.00	29.12	6.21	16.38	53.97	10.13	30.32	2620.98	1009.25	1301.66	1611.73
423+00	42300.17	50.00	28.77	5.60	16.38	53.60	10.94	30.32	2674.58	1020.19	1331.98	1654.40
423+50	42350.17	50.00	28.26	7.98	16.38	52.81	12.57	30.32	2727.39	1032.76	1362.30	1694.63
424+00	42400.17	50.00	27.57	10.61	16.38	51.69	17.21	30.32	2779.08	1049.97	1392.62	1729.11
424+50	42450.17	50.00	26.20	15.88	16.38	49.79	24.53	30.32	2828.87	1074.50	1422.94	1754.37
425+00	42500.17	50.00	24.34	23.75	16.38	46.80	36.69	30.32	2875.67	1111.20	1453.26	1764.47
425+50	42550.17	50.00	23.81	28.86	16.38	44.58	48.71	30.32	2920.25	1159.91	1483.58	1760.34
425+92	42591.67	41.51	24.05	37.70	16.38	36.79	51.16	25.17	2957.04	1211.07	1508.75	1745.97
426+00	42600.17	8.49	24.16	31.60	16.38	7.58	10.90	5.15	2964.62	1221.97	1513.90	1742.65
426+50	42650.17	50.00	25.90	26.99	16.38	46.35	54.25	30.32	3010.97	1276.22	1544.22	1734.75
426+87	42687.31	37.14	24.53	47.28	16.38	34.69	51.08	22.53	3045.66	1327.30	1566.75	1718.35
426+87	42687.31	0.00	24.53	47.28	16.38	0.00	0.00	0.00	3045.66	1327.30	1566.75	1718.35
426+95	42695.44	8.13	24.71	49.94	16.38	7.42	14.64	4.93	3053.07	1341.94	1571.68	1711.13
426+95	42695.44	0.00	0.00	0.00	16.38	0.00	0.00	0.00	3053.07	1341.94	1571.68	1711.13
427+00	42700.17	4.73	25.02	43.97	16.38	2.19	3.85	2.87	3055.26	1345.79	1574.55	1709.47
427+50	42750.17	50.00	24.82	26.74	16.38	46.15	65.47	30.32	3101.41	1411.26	1604.87	1690.15
428+00	42800.17	50.00	27.27	25.09	16.38	48.23	47.99	30.32	3149.64	1459.25	1635.19	1690.39
428+50	42850.17	50.00	26.05	34.95	16.38	49.37	55.59	30.32	3199.01	1514.85	1665.51	1684.16
429+00	42900.17	50.00	26.45	33.80	16.38	48.61	63.66	30.32	3247.62	1578.50	1695.83	1669.12
429+50	42950.17	50.00	26.10	41.15	16.38	48.66	69.40	30.32	3296.28	1647.90	1726.15	1648.38
430+00	43000.17	50.00	25.14	43.61	23.32	47.44	78.48	36.76	3343.72	1726.38	1762.91	1617.34
430+50	43050.17	50.00	25.17	42.53	20.21	46.58	79.76	40.31	3390.31	1806.14	1803.22	1584.16
431+00	43100.17	50.00	26.02	33.33	20.21	47.40	70.24	37.43	3437.71	1876.38	1840.65	1561.32
431+50	43150.17	50.00	25.84	27.79	20.21	48.02	56.59	37.43	3485.72	1932.98	1878.08	1552.75
432+00	43200.17	50.00	24.66	27.23	20.21	46.76	50.94	37.43	3532.48	1983.92	1915.51	1548.56
432+50	43250.17	50.00	25.27	24.72	20.21	46.23	48.10	37.43	3578.71	2032.02	1952.94	1546.69
433+00	43300.17	50.00	24.75	25.03	20.21	46.31	46.06	37.43	3625.03	2078.09	1990.37	1546.94
433+50	43350.17	50.00	24.76	29.61	20.21	45.84	50.59	37.43	3670.87	2128.68	2027.80	1542.19
434+00	43400.17	50.00	23.75	39.53	20.21	44.92	64.02	37.43	3715.79	2192.70	2065.23	1523.09
434+29	43429.00	28.83	24.35	19.55	20.21	25.68	31.55	21.59	3741.47	2224.25	2086.82	1517.23
434+50	43450.17	21.17	24.70	12.93	20.21	19.22	12.73	15.84	3760.70	2236.98	2102.66	1523.72
435+00	43500.17	50.00	25.11	12.75	20.21	46.12	23.78	37.43	3806.82	2260.75	2140.09	1546.06
435+50	43550.17	50.00	25.22	16.55	20.21	46.60	27.13	37.43	3853.42	2287.88	2177.52	1565.54
435+99	43599.47	49.31	26.57	20.01	20.21	47.29	33.38	36.91	3900.71	2321.27	2214.43	1579.44
436+00	43600.17	0.69	26.58	20.03	20.21	0.68	0.51	0.52	3901.39	2321.78	2214.95	1579.61

PROJECT ID 1003-10-77

DIVISION 3 - SB IH 39 STA. 400+00 - STA. 470+00 LT

STATION	Real Station	Distance	AREA (SF)			Incremental Vol (CY) (Unadjusted)			Cumulative Vol (CY)			Mass Ordinate
			Cut	Fill	EBS	Cut	Fill	EBS	Cut	Fill	EBS	
436+13	43612.72	12.55	26.87	20.28	20.21	12.42	9.37	9.40	3913.81	2331.15	2224.35	1582.67
436+50	43650.17	37.45	27.62	20.24	20.21	37.79	28.10	28.04	3951.60	2359.25	2252.39	1592.35
437+00	43700.17	50.00	22.50	9.33	20.21	46.41	27.38	37.43	3998.01	2386.63	2289.82	1611.38
437+28	43728.08	27.92	20.79	8.21	20.21	22.38	9.07	20.90	4020.39	2395.70	2310.72	1624.69
437+28	43728.08	0.00	20.79	8.21	20.21	0.00	0.00	0.00	4020.39	2395.70	2310.72	1624.69
437+50	43750.17	22.08	0.00	0.00	20.21	8.50	3.36	16.53	4028.89	2399.05	2327.25	1629.84
438+00	43800.17	50.00	0.00	0.00	20.21	0.00	0.00	37.43	4028.89	2399.05	2364.68	1629.84
438+50	43850.17	50.00	19.24	3.15	20.21	17.81	2.92	37.43	4046.71	2401.97	2402.11	1644.74
439+00	43900.17	50.00	20.72	18.86	20.21	37.00	20.38	37.43	4083.71	2422.35	2439.54	1661.36
439+50	43950.17	50.00	21.03	25.70	20.21	38.66	41.26	37.43	4122.36	2463.61	2476.97	1658.75
440+00	44000.17	50.00	20.43	9.80	17.10	38.39	32.87	34.55	4160.75	2496.48	2511.52	1664.27
440+45	44044.81	44.64	19.88	5.45	19.27	33.33	12.61	30.07	4194.08	2509.09	2541.59	1684.99
440+45	44044.81	0.00	19.88	5.45	19.27	0.00	0.00	0.00	4194.08	2509.09	2541.59	1684.99
440+50	44050.17	5.36	19.81	4.98	19.27	3.94	1.03	3.82	4198.02	2510.12	2545.41	1687.89
440+91	44090.54	40.38	20.18	1.65	19.27	29.90	4.96	28.82	4227.92	2515.08	2574.23	1712.84
441+00	44100.17	9.63	20.26	1.61	19.27	7.21	0.58	6.87	4235.12	2515.66	2581.10	1719.46
441+16	44115.54	15.38	20.41	1.61	19.27	11.58	0.92	10.97	4246.70	2516.58	2592.07	1730.13
441+41	44140.54	25.00	19.70	3.82	19.27	18.57	2.51	17.84	4265.27	2519.09	2609.91	1746.18
441+50	44150.17	9.63	20.12	5.43	19.27	7.10	1.65	6.87	4272.37	2520.74	2616.78	1751.63
442+00	44200.17	50.00	21.28	7.79	19.27	38.33	12.24	35.69	4310.70	2532.98	2652.47	1777.72
442+50	44250.17	50.00	22.30	6.17	19.27	40.35	12.93	35.69	4351.06	2545.91	2688.16	1805.15
443+00	44300.17	50.00	23.56	14.33	19.27	42.46	18.98	35.69	4393.52	2564.89	2723.85	1828.63
443+50	44350.17	50.00	24.08	18.74	19.27	44.11	30.62	35.69	4437.63	2595.51	2759.54	1842.12
443+91	44390.86	40.69	24.43	36.00	19.27	36.56	41.25	29.05	4474.19	2636.76	2788.59	1837.43
443+91	44390.86	0.00	0.00	0.00	19.27	0.00	0.00	0.00	4474.19	2636.76	2788.59	1837.43
444+00	44400.17	9.31	24.66	27.38	19.27	4.25	4.72	6.64	4478.44	2641.48	2795.23	1836.96
444+50	44450.17	50.00	24.08	25.00	19.27	45.13	48.50	35.69	4523.57	2689.98	2830.92	1833.59
445+00	44500.17	50.00	24.18	22.25	19.27	44.69	43.75	35.69	4568.25	2733.73	2866.61	1834.52
445+50	44550.17	50.00	24.66	23.21	19.27	45.22	42.09	35.69	4613.47	2775.82	2902.30	1837.65
446+00	44600.17	50.00	28.37	16.90	19.27	49.10	37.14	35.69	4662.58	2812.96	2937.99	1849.61
446+50	44650.17	50.00	28.21	20.08	19.27	52.39	34.24	35.69	4714.96	2847.20	2973.68	1867.76
447+00	44700.17	50.00	26.33	28.39	19.27	50.50	44.88	35.69	4765.46	2892.08	3009.37	1873.38
447+50	44750.17	50.00	25.73	32.09	19.27	48.20	56.00	35.69	4813.67	2948.08	3045.06	1865.59
448+00	44800.17	50.00	25.67	23.64	19.27	47.59	51.60	35.69	4861.26	2999.68	3080.75	1861.58
448+50	44850.17	50.00	26.70	20.24	19.27	48.49	40.63	35.69	4909.75	3040.31	3116.44	1869.44
449+00	44900.17	50.00	26.83	18.95	19.27	49.56	36.29	35.69	4959.32	3076.60	3152.13	1882.72
449+50	44950.17	50.00	26.90	16.37	19.27	49.75	32.70	35.69	5009.07	3109.30	3187.82	1899.76
450+00	45000.17	50.00	27.34	11.64	19.27	50.22	25.94	35.69	5059.29	3135.24	3223.51	1924.05
450+50	45050.17	50.00	27.95	9.43	21.44	51.19	19.51	37.70	5110.48	3154.75	3261.21	1955.74
451+00	45100.17	50.00	28.66	9.22	21.55	52.42	17.27	39.81	5162.90	3172.02	3301.02	1990.88
451+50	45150.17	50.00	29.73	6.22	21.55	54.06	14.30	39.91	5216.96	3186.31	3340.93	2030.65
452+00	45200.17	50.00	29.76	8.49	21.55	55.08	13.62	39.91	5272.05	3199.93	3380.84	2072.11
452+50	45250.17	50.00	27.30	11.34	21.55	52.83	18.36	39.91	5324.88	3218.29	3420.75	2106.59

PROJECT ID 1003-10-77

DIVISION 3 - SB IH 39 STA. 400+00 - STA. 470+00 LT

STATION	Real Station	Distance	AREA (SF)			Incremental Vol (CY) (Unadjusted)			Cumulative Vol (CY)			Mass Ordinate
			Cut	Fill	EBS	Cut	Fill	EBS	Cut	Fill	EBS	
453+00	45300.17	50.00	26.37	13.58	21.55	49.69	23.07	39.91	5374.58	3241.37	3460.66	2133.21
453+50	45350.17	50.00	25.19	15.44	21.55	47.74	26.87	39.91	5422.32	3268.24	3500.57	2154.08
454+00	45400.17	50.00	24.98	16.54	21.55	46.45	29.61	39.91	5468.77	3297.85	3540.48	2170.92
454+50	45450.17	50.00	24.30	18.05	21.55	45.63	32.03	39.91	5514.40	3329.88	3580.39	2184.52
454+91	45490.70	40.54	23.79	31.34	21.55	36.10	37.08	32.35	5550.50	3366.95	3612.74	2183.55
454+91	45490.70	0.00	0.00	0.00	21.55	0.00	0.00	0.00	5550.50	3366.95	3612.74	2183.55
455+00	45500.17	9.46	23.51	18.93	21.55	4.12	3.32	7.55	5554.62	3370.27	3620.29	2184.35
455+50	45550.17	50.00	22.33	23.70	21.55	42.44	39.47	39.91	5597.06	3409.74	3660.20	2187.32
456+00	45600.17	50.00	24.34	20.81	21.55	43.21	41.21	39.91	5640.28	3450.96	3700.11	2189.32
456+50	45650.17	50.00	25.25	16.45	21.55	45.92	34.50	39.91	5686.19	3485.46	3740.02	2200.74
456+70	45669.64	19.47	25.39	15.03	21.55	18.26	11.35	15.54	5704.45	3496.81	3755.56	2207.65
456+76	45675.51	5.88	25.40	14.76	21.55	5.53	3.24	4.69	5709.98	3500.05	3760.25	2209.93
457+00	45700.17	24.65	25.92	12.20	21.55	23.43	12.31	19.68	5733.41	3512.36	3779.93	2221.05
457+05	45705.45	5.28	25.97	11.71	21.55	5.07	2.34	4.21	5738.48	3514.70	3784.14	2223.79
457+50	45750.17	44.72	25.09	10.98	21.55	42.29	18.79	35.69	5780.77	3533.49	3819.83	2247.28
458+00	45800.17	50.00	25.41	11.84	21.55	46.76	21.13	39.91	5827.53	3554.62	3859.74	2272.91
458+50	45850.17	50.00	26.80	8.83	21.55	48.34	19.14	39.91	5875.87	3573.75	3899.65	2302.12
459+00	45900.17	50.00	25.12	9.52	21.55	48.07	16.99	39.91	5923.94	3590.74	3939.56	2333.20
459+50	45950.17	50.00	25.07	6.39	21.55	46.47	14.73	39.91	5970.42	3605.48	3979.47	2364.94
460+00	46000.17	50.00	24.55	7.03	21.66	45.94	12.43	40.01	6016.36	3617.90	4019.48	2398.46
460+50	46050.17	50.00	26.31	8.26	22.07	47.09	14.16	40.49	6063.45	3632.06	4059.97	2431.39
461+00	46100.17	50.00	25.95	9.42	22.07	48.39	16.37	40.87	6111.84	3648.43	4100.84	2463.41
461+50	46150.17	50.00	26.66	9.84	22.07	48.71	17.83	40.87	6160.56	3666.26	4141.71	2494.29
462+00	46200.17	50.00	26.41	11.00	22.07	49.14	19.30	40.87	6209.69	3685.56	4182.58	2524.13
462+50	46250.17	50.00	27.17	11.07	22.07	49.61	20.44	40.87	6259.31	3705.99	4223.45	2553.31
463+00	46300.17	50.00	27.71	12.99	22.07	50.81	22.28	40.87	6310.12	3728.27	4264.32	2581.85
463+50	46350.17	50.00	28.98	12.93	22.07	52.49	24.00	40.87	6362.61	3752.27	4305.19	2610.34
464+00	46400.17	50.00	29.36	14.58	22.07	54.02	25.47	40.87	6416.63	3777.74	4346.06	2638.88
464+50	46450.17	50.00	28.09	19.35	22.07	53.19	31.42	40.87	6469.82	3809.16	4386.93	2660.66
465+00	46500.17	50.00	27.70	21.86	22.07	51.66	38.16	40.87	6521.48	3847.32	4427.80	2674.16
465+50	46550.17	50.00	27.08	25.21	22.07	50.72	43.58	40.87	6572.20	3890.90	4468.67	2681.30
466+00	46600.17	50.00	28.16	24.90	22.07	51.15	46.40	40.87	6623.35	3937.30	4509.54	2686.05
466+50	46650.17	50.00	28.40	26.80	22.07	52.37	47.87	40.87	6675.72	3985.17	4550.41	2690.55
467+00	46700.17	50.00	28.89	34.40	22.07	53.05	56.67	40.87	6728.77	4041.84	4591.28	2686.93
467+50	46750.17	50.00	29.34	35.18	22.07	53.92	64.43	40.87	6782.69	4106.26	4632.15	2676.42
467+92	46791.55	41.39	28.50	41.78	22.07	44.33	58.98	33.83	6827.01	4165.24	4665.98	2661.77
467+92	46791.62	0.07	28.50	41.87	22.07	0.07	0.10	0.05	6827.08	4165.35	4666.03	2661.74
468+00	46800.17	8.55	28.36	34.43	22.07	9.00	12.08	6.99	6836.08	4177.43	4673.02	2658.66
468+50	46850.17	50.00	28.14	27.13	22.07	52.31	57.00	40.87	6888.40	4234.43	4713.89	2653.97
469+00	46900.17	50.00	28.69	22.02	22.07	52.62	45.51	40.87	6941.02	4279.94	4754.76	2661.08
469+50	46950.17	50.00	29.73	11.89	22.07	54.09	31.40	40.87	6995.11	4311.33	4795.63	2683.78

PROJECT ID 1003-10-77
DIVISION 3 - SB IH 39 STA. 400+00 - STA. 470+00 LT

STATION		Real Station	Distance	AREA (SF)			Incremental Vol (CY) (Unadjusted)			Cumulative Vol (CY)			Mass Ordinate
				Cut	Fill	EBS	Cut	Fill	EBS	Cut	Fill	EBS	
470+00	BK	47000.00	49.83	29.31	10.91	22.49	54.49	21.04	41.12	7049.60	4332.38	4836.75	2717.22
						Column totals	7049.60	4332.38	4836.86				

PROJECT ID 1003-10-77
DIVISION 3 - SB IH 39 STA. 470+00 - STA. 541+50 LT

STATION		Real Station	Distance	AREA (SF)			Incremental Vol (CY) (Unadjusted)			Cumulative Vol (CY)			Mass Ordinate
				Cut	Fill	EBS	Cut	Fill	EBS	Cut	Fill	EBS	
470+00	AH	47000.17	0.00	29.30	9.94	22.49	0.00	0.00	0.00	0.00	0.00	0.00	0.00
470+50		47050.17	50.00	28.53	9.41	18.39	53.55	17.92	37.85	53.55	17.92	37.85	35.63
471+00		47100.17	50.00	28.94	8.89	18.39	53.21	16.94	34.06	106.76	34.86	71.91	71.90
471+50		47150.17	50.00	28.90	9.39	18.39	53.56	16.93	34.06	160.31	51.79	105.97	108.53
472+00		47200.17	50.00	30.62	4.38	18.39	55.11	12.75	34.06	215.43	64.54	140.03	150.89
472+50		47250.17	50.00	31.97	3.02	18.39	57.95	6.85	34.06	273.38	71.39	174.09	201.99
473+00		47300.17	50.00	31.66	2.80	18.39	58.92	5.39	34.06	332.30	76.78	208.15	255.52
473+50		47350.17	50.00	31.10	3.32	18.39	58.11	5.67	34.06	390.41	82.44	242.21	307.96
474+00		47400.17	50.00	29.33	6.19	18.39	55.95	8.81	34.06	446.36	91.25	276.27	355.11
474+50		47450.17	50.00	29.21	6.21	18.39	54.20	11.48	34.06	500.56	102.73	310.33	397.83
475+00		47500.17	50.00	30.94	8.15	18.39	55.69	13.30	34.06	556.26	116.03	344.39	440.23
475+50		47550.17	50.00	32.45	7.30	18.39	58.69	14.31	34.06	614.95	130.33	378.45	484.62
475+91		47590.87	40.70	32.66	24.58	18.39	49.07	24.03	27.73	664.03	154.36	406.18	509.67
475+91		47590.88	0.01	32.65	24.57	18.39	0.02	0.01	0.01	664.05	154.38	406.19	509.67
476+00		47600.17	9.29	32.88	15.33	18.39	11.27	6.86	6.33	675.31	161.24	412.52	514.08
476+50		47650.17	50.00	30.61	8.34	18.39	58.79	21.92	34.06	734.10	183.15	446.58	550.95
477+00		47700.17	50.00	30.46	7.75	18.39	56.55	14.90	34.06	790.65	198.05	480.64	592.60
477+50		47750.17	50.00	28.96	9.24	18.39	55.02	15.73	34.06	845.66	213.78	514.70	631.88
478+00		47800.17	50.00	28.81	6.69	18.39	53.49	14.75	34.06	899.16	228.53	548.76	670.62
478+50		47850.17	50.00	29.19	5.70	18.39	53.70	11.47	34.06	952.86	240.00	582.82	712.86
479+00		47900.17	50.00	31.85	5.43	18.39	56.52	10.31	34.06	1009.38	250.31	616.88	759.07
479+50		47950.17	50.00	31.71	6.50	18.39	58.85	11.05	34.06	1068.23	261.36	650.94	806.87
480+00		48000.17	50.00	30.32	10.75	14.30	57.44	15.97	30.27	1125.66	277.33	681.21	848.34
480+50		48050.17	50.00	30.26	10.83	18.76	56.09	19.98	30.62	1181.76	297.31	711.83	884.45
481+00		48100.17	50.00	29.27	10.06	18.76	55.12	19.34	34.75	1236.88	316.65	746.58	920.23
481+50		48150.17	50.00	30.11	9.43	18.76	54.98	18.05	34.75	1291.86	334.70	781.33	957.16
482+00		48200.17	50.00	29.73	10.62	18.76	55.41	18.56	34.75	1347.27	353.26	816.08	994.00
482+50		48250.17	50.00	29.92	11.57	18.76	55.23	20.55	34.75	1402.50	373.81	850.83	1028.69

PROJECT ID 1003-10-77

DIVISION 3 - SB IH 39 STA. 470+00 - STA. 541+50 LT

STATION	Real Station	Distance	AREA (SF)			Incremental Vol (CY) (Unadjusted)			Cumulative Vol (CY)			Mass Ordinate
			Cut	Fill	EBS	Cut	Fill	EBS	Cut	Fill	EBS	
483+00	48300.17	50.00	32.20	9.76	18.76	57.52	19.75	34.75	1460.02	393.56	885.58	1066.46
483+50	48350.17	50.00	32.49	9.26	18.76	59.90	17.61	34.75	1519.91	411.17	920.33	1108.74
484+00	48400.17	50.00	30.76	14.00	18.76	58.56	21.54	34.75	1578.48	432.71	955.08	1145.77
484+50	48450.17	50.00	29.30	22.63	18.76	55.61	33.92	34.75	1634.09	466.62	989.83	1167.47
485+00	48500.17	50.00	29.34	37.79	18.76	54.30	55.94	34.75	1688.39	522.57	1024.58	1165.82
485+50	48550.17	50.00	29.01	53.14	18.76	54.03	84.19	34.75	1742.41	606.76	1059.33	1135.65
486+00	48600.17	50.00	28.28	71.44	18.76	53.05	115.35	34.75	1795.46	722.12	1094.08	1073.35
486+50	48650.17	50.00	28.25	77.16	18.76	52.34	137.59	34.75	1847.80	859.71	1128.83	988.10
486+91	48690.89	40.72	28.67	70.56	18.76	42.92	111.39	28.30	1890.73	971.10	1157.13	919.62
486+91	48691.00	0.11	28.67	70.51	18.76	0.12	0.30	0.08	1890.85	971.40	1157.21	919.45
487+00	48700.17	9.17	28.51	64.05	18.76	9.71	22.84	6.37	1900.55	994.24	1163.58	906.31
487+50	48750.17	50.00	29.14	49.60	18.76	53.38	105.23	34.75	1953.93	1099.47	1198.33	854.46
488+00	48800.17	50.00	29.86	37.02	18.76	54.63	80.20	34.75	2008.56	1179.67	1233.08	828.89
488+50	48850.17	50.00	29.11	29.86	18.76	54.60	61.93	34.75	2063.16	1241.60	1267.83	821.56
489+00	48900.17	50.00	30.34	12.45	18.76	55.05	39.18	34.75	2118.21	1280.77	1302.58	837.43
489+50	48950.17	50.00	29.74	21.87	18.76	55.63	31.78	34.75	2173.84	1312.55	1337.33	861.29
490+00	49000.17	50.00	28.57	20.45	23.22	53.99	39.19	38.88	2227.83	1351.74	1376.21	876.09
490+50	49050.17	50.00	31.02	13.68	50.65	55.18	31.60	68.40	2283.01	1383.34	1444.61	899.67
491+00	49100.17	50.00	31.73	12.02	50.65	58.10	23.80	93.80	2341.11	1407.14	1538.41	933.97
491+50	49150.17	50.00	32.65	8.31	50.65	59.61	18.82	93.80	2400.72	1425.96	1632.21	974.76
492+00	49200.17	50.00	33.30	4.17	50.65	61.06	11.56	93.80	2461.78	1437.52	1726.01	1024.27
492+50	49250.17	50.00	32.66	3.77	50.65	61.07	7.35	93.80	2522.86	1444.87	1819.81	1077.99
493+00	49300.17	50.00	30.28	6.07	50.65	58.28	9.11	93.80	2581.14	1453.98	1913.61	1127.16
493+50	49350.17	50.00	28.66	10.80	50.65	54.57	15.62	93.80	2635.71	1469.60	2007.41	1166.11
494+00	49400.17	50.00	27.79	14.78	50.65	52.27	23.69	93.80	2687.98	1493.28	2101.21	1194.69
494+50	49450.17	50.00	28.00	12.08	50.65	51.66	24.87	93.80	2739.64	1518.15	2195.01	1221.48
495+00	49500.17	50.00	28.46	15.36	50.65	52.28	25.41	93.80	2791.91	1543.56	2288.81	1248.35
495+50	49550.17	50.00	26.57	19.28	50.65	50.95	32.07	93.80	2842.87	1575.64	2382.61	1267.23
496+00	49600.17	50.00	26.77	25.59	50.65	49.39	41.55	93.80	2892.26	1617.18	2476.41	1275.07
496+50	49650.17	50.00	28.22	27.18	50.65	50.92	48.86	93.80	2943.17	1666.04	2570.21	1277.13
496+91	49691.10	40.93	29.52	38.46	50.65	43.77	49.76	76.79	2986.94	1715.80	2647.00	1271.14
496+91	49691.10	0.00	29.52	38.46	50.65	0.00	0.00	0.00	2986.94	1715.80	2647.00	1271.14
497+00	49700.17	9.07	29.24	25.20	50.65	9.87	10.69	17.01	2996.81	1726.49	2664.01	1270.32
497+50	49750.17	50.00	28.98	15.84	50.65	53.91	38.00	93.80	3050.71	1764.49	2757.81	1286.23
498+00	49800.17	50.00	26.85	14.23	50.65	51.69	27.84	93.80	3102.41	1792.33	2851.61	1310.08
498+50	49850.17	50.00	27.96	10.76	50.65	50.75	23.14	93.80	3153.16	1815.47	2945.41	1337.69
499+00	49900.17	50.00	29.78	8.09	50.65	53.46	17.45	93.80	3206.62	1832.92	3039.21	1373.70
499+50	49950.17	50.00	27.98	9.51	50.65	53.48	16.30	93.80	3260.10	1849.22	3133.01	1410.88
500+00	50000.17	50.00	24.28	13.53	78.08	48.39	21.33	119.19	3308.49	1870.55	3252.20	1437.94
500+50	50050.17	50.00	27.29	11.30	49.88	47.75	22.99	118.48	3356.24	1893.54	3370.68	1462.70
501+00	50100.17	50.00	27.88	9.73	49.88	51.08	19.47	92.38	3407.33	1913.02	3463.06	1494.31
501+50	50150.17	50.00	26.57	10.94	49.88	50.42	19.14	92.38	3457.74	1932.16	3555.44	1525.59
502+00	50200.17	50.00	27.16	11.76	49.88	49.75	21.02	92.38	3507.49	1953.17	3647.82	1554.32

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PROJECT ID 1003-10-77

DIVISION 3 - SB IH 39 STA. 470+00 - STA. 541+50 LT

STATION	Real Station	Distance	AREA (SF)			Incremental Vol (CY) (Unadjusted)			Cumulative Vol (CY)			Mass Ordinate
			Cut	Fill	EBS	Cut	Fill	EBS	Cut	Fill	EBS	
502+50	50250.17	50.00	26.47	12.07	49.88	49.66	22.06	92.38	3557.15	1975.24	3740.20	1581.91
503+00	50300.17	50.00	25.18	13.75	49.88	47.82	23.91	92.38	3604.97	1999.15	3832.58	1605.83
503+50	50350.17	50.00	24.82	13.81	49.88	46.30	25.52	92.38	3651.27	2024.66	3924.96	1626.61
504+00	50400.17	50.00	25.70	14.83	49.88	46.78	26.52	92.38	3698.05	2051.18	4017.34	1646.86
504+41	50440.53	40.36	27.85	16.97	49.88	40.03	23.77	74.57	3738.07	2074.95	4091.91	1663.12
504+41	50441.08	0.56	27.86	16.95	49.88	0.57	0.35	1.03	3738.65	2075.30	4092.94	1663.35
504+41	50441.08	0.00	27.86	16.95	49.88	0.00	0.00	0.00	3738.65	2075.30	4092.94	1663.35
504+50	50450.17	9.08	27.98	11.91	49.88	9.39	4.85	16.78	3748.04	2080.16	4109.72	1667.88
505+00	50500.17	50.00	28.38	15.30	49.88	52.19	25.19	92.38	3800.22	2105.35	4202.10	1694.87
505+50	50550.17	50.00	28.10	15.34	49.88	52.30	28.37	92.38	3852.52	2133.72	4294.48	1718.80
506+00	50600.17	50.00	25.99	17.83	49.88	50.08	30.71	92.38	3902.60	2164.43	4386.86	1738.17
506+50	50650.17	50.00	26.54	13.92	49.88	48.64	29.40	92.38	3951.24	2193.83	4479.24	1757.41
507+00	50700.17	50.00	26.15	11.82	49.88	48.79	23.83	92.38	4000.03	2217.66	4571.62	1782.36
507+50	50750.17	50.00	27.55	11.36	49.88	49.72	21.46	92.38	4049.75	2239.13	4664.00	1810.62
508+00	50800.17	50.00	26.72	13.00	49.88	50.25	22.56	92.38	4100.00	2261.68	4756.38	1838.32
508+50	50850.17	50.00	25.35	14.03	49.88	48.21	25.03	92.38	4148.21	2286.71	4848.76	1861.50
509+00	50900.17	50.00	23.60	13.40	49.88	45.32	25.40	92.38	4193.54	2312.11	4941.14	1881.43
509+08	50907.77	7.60	24.49	12.83	49.88	6.77	3.69	14.05	4200.31	2315.80	4955.19	1884.51
509+50	50950.17	42.40	29.43	8.31	49.88	42.33	16.60	78.33	4242.64	2332.40	5033.52	1910.24
510+00	51000.17	50.00	29.59	6.70	21.69	54.65	13.90	66.27	4297.29	2346.30	5099.79	1950.99
510+50	51050.17	50.00	29.47	8.18	17.83	54.69	13.78	36.60	4351.98	2360.08	5136.39	1991.90
511+00	51100.17	50.00	30.42	8.98	17.83	55.45	15.89	33.02	4407.43	2375.96	5169.41	2031.47
511+50	51150.17	50.00	30.21	8.39	17.83	56.14	16.08	33.02	4463.57	2392.05	5202.43	2071.52
512+00	51200.17	50.00	29.03	8.33	17.83	54.85	15.48	33.02	4518.42	2407.53	5235.45	2110.89
512+50	51250.17	50.00	28.20	5.70	17.83	52.99	12.99	33.02	4571.41	2420.52	5268.47	2150.89
513+00	51300.17	50.00	29.39	3.97	17.83	53.32	8.95	33.02	4624.74	2429.47	5301.49	2195.26
513+50	51350.17	50.00	28.35	7.32	17.83	53.46	10.45	33.02	4678.20	2439.93	5334.51	2238.27
514+00	51400.17	50.00	29.07	6.61	17.83	53.17	12.90	33.02	4731.37	2452.83	5367.53	2278.54
514+50	51450.17	50.00	30.28	5.67	17.83	54.95	11.37	33.02	4786.32	2464.20	5400.55	2322.12
515+00	51500.17	50.00	30.06	5.19	17.83	55.87	10.06	33.02	4842.19	2474.25	5433.57	2367.94
515+50	51550.17	50.00	29.89	4.03	17.83	55.51	8.54	33.02	4897.70	2482.79	5466.59	2414.91
516+00	51600.17	50.00	82.46	0.00	17.83	104.03	3.73	33.02	5001.73	2486.52	5499.61	2515.21
516+50	51650.17	50.00	28.72	16.23	17.83	102.94	15.03	33.02	5104.67	2501.55	5532.63	2603.12
517+00	51700.17	50.00	27.82	22.97	17.83	52.35	36.30	33.02	5157.02	2537.84	5565.65	2619.18
517+50	51750.17	50.00	27.54	28.89	17.83	51.26	48.02	33.02	5208.28	2585.86	5598.67	2622.42
517+91	51790.52	40.36	25.98	36.37	17.83	40.00	48.77	26.65	5248.28	2634.64	5625.32	2613.65
517+91	51791.35	0.83	26.00	35.67	17.83	0.80	1.11	0.55	5249.08	2635.74	5625.87	2613.34
517+91	51791.50	0.14	26.00	35.42	17.83	0.14	0.19	0.09	5249.22	2635.93	5625.96	2613.29
518+00	51800.17	8.67	26.17	34.52	17.83	8.38	11.23	5.73	5257.59	2647.16	5631.69	2610.43
518+50	51850.17	50.00	28.40	38.63	17.83	50.53	67.73	33.02	5308.12	2714.89	5664.71	2593.23
519+00	51900.17	50.00	27.94	35.34	17.83	52.17	68.49	33.02	5360.29	2783.38	5697.73	2576.91
519+50	51950.17	50.00	27.02	32.95	17.83	50.89	63.23	33.02	5411.18	2846.61	5730.75	2564.56
520+00	52000.17	50.00	28.88	24.75	13.97	51.76	53.43	29.45	5462.94	2900.04	5760.20	2562.90

PROJECT ID 1003-10-77

DIVISION 3 - SB IH 39 STA. 470+00 - STA. 541+50 LT

STATION	Real Station	Distance	AREA (SF)			Incremental Vol (CY) (Unadjusted)			Cumulative Vol (CY)			Mass Ordinate
			Cut	Fill	EBS	Cut	Fill	EBS	Cut	Fill	EBS	
520+50	52050.17	50.00	28.05	19.72	16.03	52.71	41.18	27.79	5515.65	2941.21	5787.99	2574.43
521+00	52100.17	50.00	28.46	16.73	16.03	52.32	33.75	29.69	5567.97	2974.96	5817.68	2593.01
521+50	52150.17	50.00	28.72	13.98	16.03	52.94	28.44	29.69	5620.92	3003.40	5847.37	2617.52
522+00	52200.17	50.00	28.04	14.01	16.03	52.56	25.92	29.69	5673.47	3029.32	5877.06	2644.16
522+50	52250.17	50.00	26.85	11.57	16.03	50.82	23.69	29.69	5724.30	3053.00	5906.75	2671.30
523+00	52300.17	50.00	28.58	9.23	16.03	51.32	19.26	29.69	5775.62	3072.26	5936.44	2703.36
523+50	52350.17	50.00	28.61	9.02	16.03	52.95	16.90	29.69	5828.58	3089.16	5966.13	2739.42
524+00	52400.17	50.00	29.06	8.48	16.03	53.40	16.20	29.69	5881.97	3105.36	5995.82	2776.61
524+50	52450.17	50.00	28.84	8.70	16.03	53.61	15.91	29.69	5935.58	3121.27	6025.51	2814.31
525+00	52500.17	50.00	28.64	10.75	16.03	53.22	18.01	29.69	5988.81	3139.28	6055.20	2849.53
525+50	52550.17	50.00	27.99	10.49	16.03	52.44	19.67	29.69	6041.24	3158.95	6084.89	2882.30
526+00	52600.17	50.00	27.49	10.92	16.03	51.37	19.82	29.69	6092.61	3178.77	6114.58	2913.84
526+50	52650.17	50.00	27.19	10.54	16.03	50.63	19.87	29.69	6143.24	3198.64	6144.27	2944.60
527+00	52700.17	50.00	27.63	7.90	16.03	50.76	17.07	29.69	6194.00	3215.71	6173.96	2978.29
527+50	52750.17	50.00	28.84	6.97	16.03	52.29	13.77	29.69	6246.29	3229.48	6203.65	3016.80
527+91	52791.13	40.97	28.23	10.95	16.03	43.30	13.60	24.33	6289.59	3243.08	6227.98	3046.51
527+91	52791.13	0.00	0.00	0.00	16.03	0.00	0.00	0.00	6289.59	3243.08	6227.98	3046.51
528+00	52800.17	9.03	28.43	7.30	16.03	4.75	1.22	5.36	6294.34	3244.30	6233.34	3050.04
528+50	52850.17	50.00	28.26	10.25	16.03	52.49	16.25	29.69	6346.83	3260.55	6263.03	3086.28
529+00	52900.17	50.00	28.48	10.08	16.03	52.54	18.82	29.69	6399.37	3279.37	6292.72	3119.99
529+50	52950.17	50.00	28.37	9.82	16.03	52.64	18.43	29.69	6452.01	3297.80	6322.41	3154.21
530+00	53000.17	50.00	29.53	8.38	18.09	53.61	16.85	31.60	6505.62	3314.65	6354.01	3190.97
530+50	53050.17	50.00	28.87	8.89	18.09	54.07	15.99	33.51	6559.69	3330.64	6387.52	3229.05
531+00	53100.17	50.00	29.78	6.90	18.09	54.31	14.62	33.51	6614.00	3345.26	6421.03	3268.74
531+50	53150.17	50.00	28.67	6.40	18.09	54.12	12.31	33.51	6668.12	3357.58	6454.54	3310.54
532+00	53200.17	50.00	27.15	6.47	18.09	51.69	11.92	33.51	6719.80	3369.49	6488.05	3350.31
532+50	53250.17	50.00	25.71	7.37	18.09	48.94	12.81	33.51	6768.75	3382.31	6521.56	3386.44
533+00	53300.17	50.00	25.13	10.74	18.09	47.07	16.77	33.51	6815.82	3399.08	6555.07	3416.74
533+50	53350.17	50.00	26.00	10.99	18.09	47.34	20.12	33.51	6863.16	3419.20	6588.58	3443.97
533+71	53370.81	20.64	25.25	12.20	18.09	19.59	8.86	13.83	6882.75	3428.06	6602.41	3454.69
534+00	53400.17	29.36	25.43	13.25	18.09	27.55	13.84	19.68	6910.31	3441.90	6622.09	3468.41
534+50	53450.17	50.00	25.31	12.62	18.09	46.98	23.95	33.51	6957.29	3465.85	6655.60	3491.44
535+00	53500.17	50.00	26.14	9.28	18.09	47.64	20.28	33.51	7004.93	3486.13	6689.11	3518.80
535+50	53550.17	50.00	27.08	7.90	18.09	49.28	15.91	33.51	7054.21	3502.04	6722.62	3552.17
536+00	53600.17	50.00	25.94	9.57	18.09	49.09	16.18	33.51	7103.30	3518.21	6756.13	3585.09
536+50	53650.17	50.00	27.09	9.99	18.09	49.10	18.11	33.51	7152.40	3536.33	6789.64	3616.08
536+66	53666.44	16.27	26.99	11.02	18.09	16.30	6.33	10.90	7168.70	3542.66	6800.54	3626.04
536+66	53666.44	0.00	26.99	11.02	18.09	0.00	0.00	0.00	7168.70	3542.66	6800.54	3626.04
536+88	53687.81	21.37	26.18	9.61	18.09	21.04	8.16	14.32	7189.74	3550.82	6814.86	3638.92
536+93	53693.45	5.65	25.91	9.90	18.09	5.45	2.04	3.79	7195.19	3552.86	6818.65	3642.33
537+00	53700.17	6.71	25.84	9.92	18.09	6.43	2.46	4.50	7201.62	3555.32	6823.15	3646.29
537+17	53717.48	17.31	26.47	8.95	18.09	16.77	6.05	11.60	7218.39	3561.37	6834.75	3657.01
537+25	53725.46	7.98	26.69	8.55	18.09	7.86	2.59	5.35	7226.24	3563.96	6840.10	3662.28

PROJECT ID 1003-10-77

DIVISION 3 - SB IH 39 STA. 470+00 - STA. 541+50 LT

STATION		Real Station	Distance	AREA (SF)			Incremental Vol (CY) (Unadjusted)			Cumulative Vol (CY)			Mass Ordinate
				Cut	Fill	EBS	Cut	Fill	EBS	Cut	Fill	EBS	
537+50		53750.17	24.71	27.29	7.24	18.09	24.70	7.22	16.56	7250.94	3571.18	6856.66	3679.76
538+00		53800.17	50.00	28.51	6.33	18.09	51.67	12.56	33.51	7302.61	3583.75	6890.17	3718.86
538+50		53850.17	50.00	30.57	6.18	18.09	54.70	11.58	33.51	7357.31	3595.33	6923.68	3761.98
539+00		53900.17	50.00	31.73	4.95	18.09	57.69	10.31	33.51	7415.00	3605.64	6957.19	3809.36
539+50		53950.17	50.00	33.26	4.32	18.09	60.18	8.58	33.51	7475.17	3614.22	6990.70	3860.95
540+00		54000.17	50.00	29.14	7.19	18.09	57.78	10.66	33.51	7532.95	3624.88	7024.21	3908.07
540+50		54050.17	50.00	29.06	6.77	18.09	53.89	12.93	33.51	7586.84	3637.80	7057.72	3949.04
541+00		54100.17	50.00	27.55	8.39	18.09	52.42	14.04	33.51	7639.26	3651.84	7091.23	3987.42
541+50	BK	54150.17	50.00	0.00	0.00	18.09	25.51	7.77	33.51	7664.77	3659.61	7124.74	4005.16
						Column totals	7664.77	3659.61	7124.65				

PROJECT ID 1003-10-77

DIVISION 3 - SB IH 39 STA. 547+00 - STA. 579+73 LT

STATION		Real Station	Distance	AREA (SF)			Incremental Vol (CY) (Unadjusted)			Cumulative Vol (CY)			Mass Ordinate
				Cut	Fill	EBS	Cut	Fill	EBS	Cut	Fill	EBS	
547+00	AH	54700.00	0.00	29.30	9.50	4.58	0.00	0.00	0.00	0.00	0.00	0.00	0.00
548+00		54800.00	100.00	32.40	3.90	3.96	114.26	24.81	15.82	114.26	24.81	15.82	89.44
549+00		54900.00	100.00	27.80	7.30	4.13	111.48	20.74	14.99	225.74	45.56	30.81	180.19
550+00		55000.00	100.00	29.60	10.30	4.20	106.30	32.59	15.42	332.04	78.15	46.23	253.89
551+00		55100.00	100.00	30.50	6.20	4.30	111.30	30.56	15.74	443.33	108.70	61.97	334.63
552+00		55200.00	100.00	28.50	7.90	4.34	109.26	26.11	16.00	552.59	134.81	77.97	417.78
553+00		55300.00	100.00	71.30	10.40	5.32	184.81	33.89	17.88	737.41	168.70	95.85	568.70
554+00		55400.00	100.00	116.80	6.50	5.64	348.33	31.30	20.29	1085.74	200.00	116.14	885.74
554+14		55414.00	14.00	125.70	10.60	3.09	62.87	4.43	2.26	1148.61	204.43	118.40	944.18
555+00		55500.00	86.00	124.80	11.80	3.60	398.94	35.67	10.65	1547.56	240.11	129.05	1307.45
556+00		55600.00	100.00	132.60	8.00	3.00	476.67	36.67	12.22	2024.22	276.77	141.27	1747.45
557+00		55700.00	100.00	148.80	9.80	3.74	521.11	32.96	12.49	2545.33	309.74	153.76	2235.60
558+00		55800.00	100.00	127.20	9.20	4.05	511.11	35.19	14.44	3056.44	344.92	168.20	2711.52
559+00		55900.00	100.00	63.80	4.90	5.16	353.70	26.11	17.06	3410.15	371.03	185.26	3039.11
560+00		56000.00	100.00	83.10	13.90	4.41	272.04	34.81	17.71	3682.19	405.85	202.97	3276.34
561+00		56100.00	100.00	102.30	18.80	0.00	343.33	60.56	8.16	4025.52	466.40	211.13	3559.11
562+00		56200.00	100.00	125.80	24.70	0.00	422.41	80.56	0.00	4447.93	546.96	211.13	3900.97
562+63		56263.00	63.00	78.10	37.10	0.00	237.88	72.10	0.00	4685.81	619.06	211.13	4066.75
563+00		56300.00	37.00	49.30	48.00	0.00	87.29	58.31	0.00	4773.10	677.37	211.13	4095.73
564+00		56400.00	100.00	22.90	150.60	0.00	133.70	367.78	0.00	4906.81	1045.15	211.13	3861.66
565+00		56500.00	100.00	27.10	277.50	0.00	92.59	792.78	0.00	4999.40	1837.92	211.13	3161.47
565+50		56550.00	50.00	26.40	105.70	0.00	49.54	354.81	0.00	5048.94	2192.74	211.13	2856.20
565+75		56575.00	25.00	25.90	45.40	0.00	24.21	69.95	0.00	5073.15	2262.69	211.13	2810.46

PROJECT ID 1003-10-77

DIVISION 3 - SB IH 39 STA. 547+00 - STA. 579+73 LT

STATION		Real Station	Distance	AREA (SF)			Incremental Vol (CY) (Unadjusted)			Cumulative Vol (CY)			Mass Ordinate
				Cut	Fill	EBS	Cut	Fill	EBS	Cut	Fill	EBS	
565+81		56581.00	6.00	25.80	44.20	0.00	5.74	9.96	0.00	5078.89	2272.65	211.13	2806.24
566+00		56600.00	19.00	26.10	45.70	0.00	18.26	31.63	0.00	5097.15	2304.28	211.13	2792.87
566+25		56625.00	25.00	25.80	179.70	0.00	24.03	104.35	0.00	5121.18	2408.63	211.13	2712.55
567+00		56700.00	75.00	22.10	250.30	0.00	66.53	597.22	0.00	5187.71	3005.85	211.13	2181.86
568+00		56800.00	100.00	33.90	206.20	0.00	103.70	845.37	0.00	5291.41	3851.22	211.13	1440.19
569+00		56900.00	100.00	22.80	251.60	0.70	105.00	847.78	1.29	5396.41	4699.00	212.42	697.41
570+00		57000.00	100.00	24.90	267.70	3.26	88.33	961.67	7.33	5484.75	5660.67	219.75	-175.92
571+00		57100.00	100.00	31.20	159.30	1.89	103.89	790.74	9.53	5588.64	6451.41	229.28	-862.77
572+00		57200.00	100.00	28.90	61.50	0.60	111.30	408.89	4.61	5699.93	6860.30	233.89	-1160.37
573+00		57300.00	100.00	23.50	92.80	4.62	97.04	285.74	9.66	5796.97	7146.04	243.55	-1349.07
573+66		57366.00	66.00	27.60	105.30	5.51	62.46	242.12	12.38	5859.42	7388.16	255.93	-1528.74
574+00		57400.00	34.00	25.60	116.60	3.47	33.50	139.71	5.65	5892.92	7527.88	261.58	-1634.96
575+00		57500.00	100.00	25.30	109.70	3.42	94.26	419.07	12.76	5987.18	7946.95	274.34	-1959.77
575+33		57533.00	33.00	25.80	96.00	1.84	31.23	125.71	3.22	6018.41	8072.66	277.56	-2054.25
575+58		57558.00	25.00	26.50	96.80	3.37	24.21	89.26	2.42	6042.62	8161.91	279.98	-2119.29
575+83		57583.00	25.00	26.90	91.40	2.28	24.72	87.13	2.62	6067.34	8249.04	282.60	-2181.70
576+00		57600.00	17.00	27.30	84.40	7.57	17.06	55.34	3.10	6084.41	8304.39	285.70	-2219.98
577+00		57700.00	100.00	28.30	27.20	7.14	102.96	206.67	27.24	6187.37	8511.06	312.94	-2323.69
578+00		57800.00	100.00	26.70	3.10	6.58	101.85	56.11	25.40	6289.22	8567.17	338.34	-2277.95
579+00		57900.00	100.00	27.60	7.50	7.14	100.56	19.63	25.42	6389.78	8586.80	363.76	-2197.02
579+73	BK	57973.00	73.00	26.65	7.50	0.00	73.34	20.28	9.66	6463.11	8607.07	373.42	-2143.96
						Column totals	6463.11	8607.07	373.43				

PROJECT ID 1003-10-77

DIVISION 3 - SB IH 39 STA. 582+00 - STA. 601+02 LT

STATION	Real Station	Distance	AREA (SF)			Incremental Vol (CY) (Unadjusted)			Cumulative Vol (CY)			Mass Ordinate
			Cut	Fill	EBS	Cut	Fill	EBS	Cut	Fill	EBS	
582+00 AH	58200.00	0.00	1.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
582+02	58202.00	2.00	4.50	0.00	0.00	0.23	0.00	0.00	0.23	0.00	0.00	0.23
582+27	58227.00	25.00	19.60	0.00	0.00	11.16	0.00	0.00	11.39	0.00	0.00	11.39
582+52	58252.00	25.00	30.10	0.00	0.00	23.01	0.00	0.00	34.40	0.00	0.00	34.40
583+00	58300.00	48.00	30.50	0.00	0.00	53.87	0.00	0.00	88.26	0.00	0.00	88.26
584+00	58400.00	100.00	31.40	1.90	7.00	114.63	3.52	12.96	202.89	3.52	12.96	199.37
585+00	58500.00	100.00	29.00	6.40	10.33	111.85	15.37	32.10	314.74	18.89	45.06	295.86
586+00	58600.00	100.00	28.00	43.70	4.42	105.56	92.78	27.31	420.30	111.67	72.37	308.63
587+00	58700.00	100.00	28.40	65.50	4.59	104.44	202.22	16.68	524.74	313.89	89.05	210.86
588+00	58800.00	100.00	30.50	71.40	2.43	109.07	253.52	13.01	633.82	567.41	102.06	66.41
589+00	58900.00	100.00	28.10	83.50	4.87	108.52	286.85	13.53	742.34	854.26	115.59	-111.92
590+00	59000.00	100.00	26.20	79.70	4.43	100.56	302.22	17.22	842.89	1156.48	132.81	-313.59
591+00	59100.00	100.00	26.30	73.70	0.59	97.22	284.07	9.29	940.11	1440.56	142.10	-500.44
592+00	59200.00	100.00	25.80	69.30	0.00	96.48	264.81	1.09	1036.60	1705.37	143.19	-668.77
593+00	59300.00	100.00	26.90	62.70	0.00	97.59	244.44	0.00	1134.19	1949.81	143.19	-815.63
594+00	59400.00	100.00	28.30	50.00	0.00	102.22	208.70	0.00	1236.41	2158.52	143.19	-922.11
595+00	59500.00	100.00	27.60	48.10	0.00	103.52	181.67	0.00	1339.93	2340.19	143.19	-1000.26
596+00	59600.00	100.00	25.90	60.60	0.00	99.07	201.30	0.00	1439.00	2541.48	143.19	-1102.48
597+00	59700.00	100.00	23.60	74.40	1.00	91.67	250.00	1.85	1530.67	2791.48	145.04	-1260.81
598+00	59800.00	100.00	26.00	69.20	1.16	91.85	265.93	4.00	1622.52	3057.41	149.04	-1434.89
599+00	59900.00	100.00	28.60	64.40	2.82	101.11	247.41	7.37	1723.63	3304.81	156.41	-1581.18
600+00	60000.00	100.00	54.20	26.60	6.65	153.33	168.52	17.54	1876.97	3473.33	173.95	-1596.37
601+00	60100.00	100.00	77.40	7.40	0.00	243.70	62.96	12.32	2120.67	3536.30	186.27	-1415.63
601+02 BK	60102.00	2.00	0.00	0.00	0.00	2.87	0.27	0.00	2123.54	3536.57	186.27	-1413.03
					Column totals	2123.54	3536.57	186.26				

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PROJECT NO: 1003-10-77	HWY: IH 39	COUNTY: ROCK	EARTHWORK DATA SHEET	SHEET 201	E

PROJECT ID 1003-10-77

DIVISION 4 - Temporary On-Ramp at CTH S STA. 10+53'TZA' - STA. 18+00'TZA'

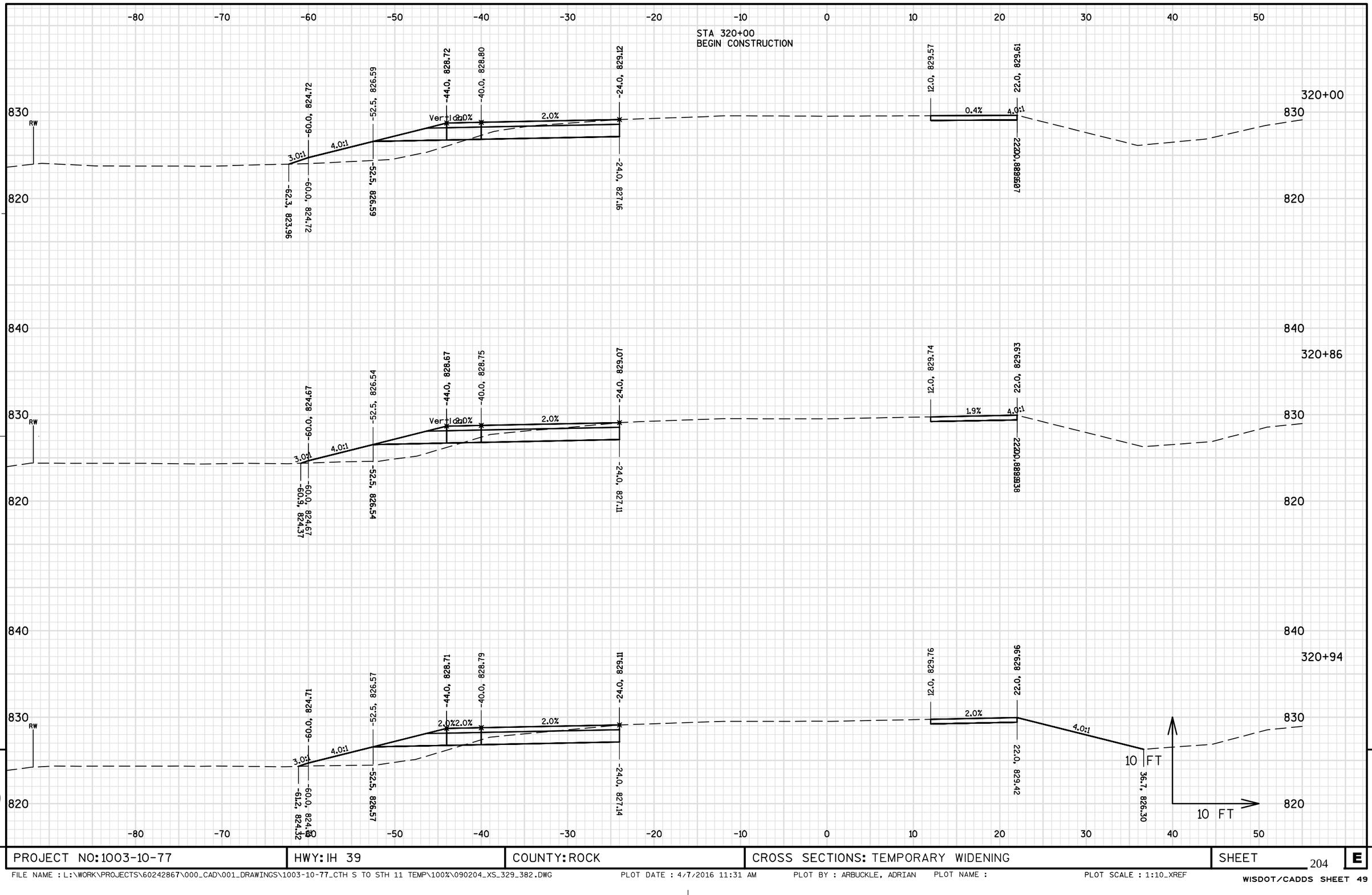
STATION		Real Station	Distance	AREA (SF)			Incremental Vol (CY) (Unadjusted)			Cumulative Vol (CY)			Mass Ordinate
				Cut	Fill	EBS	Cut	Fill	EBS	Cut	Fill	EBS	
10+53'TZA'	AH	1053.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10+60'TZA'		1060.50	7.46	0.00	808.02	0.00	0.00	111.55	0.00	0.00	111.55	0.00	-111.55
11+00'TZA'		1100.00	39.50	0.00	1080.91	0.00	0.00	1381.86	0.00	0.00	1493.41	0.00	-1493.41
11+50'TZA'		1150.00	50.00	0.00	1224.52	0.00	0.00	2134.66	0.00	0.00	3628.07	0.00	-3628.07
12+00'TZA'		1200.00	50.00	0.00	1199.45	0.00	0.00	2244.42	0.00	0.00	5872.48	0.00	-5872.48
12+50'TZA'		1250.00	50.00	0.00	1037.43	0.00	0.00	2071.19	0.00	0.00	7943.67	0.00	-7943.67
13+00'TZA'		1300.00	50.00	0.00	877.47	0.00	0.00	1773.06	0.00	0.00	9716.72	0.00	-9716.72
13+50'TZA'		1350.00	50.00	0.00	658.50	0.00	0.00	1422.19	0.00	0.00	11138.92	0.00	-11138.92
14+00'TZA'		1400.00	50.00	0.00	474.22	0.00	0.00	1048.81	0.00	0.00	12187.73	0.00	-12187.73
14+25'TZA'		1425.00	25.00	0.00	410.20	0.00	0.00	409.45	0.00	0.00	12597.19	0.00	-12597.19
14+30'TZA'		1430.00	5.00	0.02	401.99	0.00	0.00	75.20	0.00	0.00	12672.39	0.00	-12672.39
14+35'TZA'		1435.00	5.00	0.69	391.65	0.00	0.07	73.49	0.00	0.07	12745.87	0.00	-12745.81
14+40'TZA'		1440.00	5.00	0.79	376.23	0.00	0.14	71.10	0.00	0.20	12816.97	0.00	-12816.77
14+45'TZA'		1445.00	5.00	0.66	361.77	0.00	0.13	68.33	0.00	0.34	12885.31	0.00	-12884.97
14+50'TZA'		1450.00	5.00	0.56	348.94	0.00	0.11	65.81	0.00	0.45	12951.11	0.00	-12950.66
15+00'TZA'		1500.00	50.00	0.00	265.82	0.00	0.52	569.22	0.00	0.97	13520.34	0.00	-13519.37
15+50'TZA'		1550.00	50.00	0.00	247.61	0.00	0.00	475.40	0.00	0.97	13995.73	0.00	-13994.76
16+00'TZA'		1600.00	50.00	0.00	279.68	0.00	0.00	488.23	0.00	0.97	14483.97	0.00	-14483.00
16+48'TZA'		1647.80	47.80	1.90	433.31	0.00	1.68	631.18	0.00	2.65	15115.15	0.00	-15112.49
16+50'TZA'		1650.00	2.20	1.82	434.99	0.00	0.15	35.31	0.00	2.80	15150.46	0.00	-15147.65
16+63'TZA'		1663.20	13.20	1.39	353.66	0.00	0.78	192.75	0.00	3.59	15343.21	0.00	-15339.62
17+00'TZA'		1700.00	36.80	1.45	278.81	0.00	1.94	431.04	0.00	5.52	15774.25	0.00	-15768.73
17+50'TZA'		1750.00	50.00	0.00	324.99	0.00	1.34	559.07	0.00	6.87	16333.32	0.00	-16326.46
17+75'TZA'		1775.00	25.00	0.00	348.90	0.00	0.00	311.99	0.00	6.87	16645.31	0.00	-16638.44
18+00'TZA'	BK	1800.00	25.00	0.00	0.00	0.00	0.00	161.53	0.00	6.87	16806.84	0.00	-16799.97
						Column totals	6.87	16806.84	0.00				

PROJECT ID 1003-10-77

DIVISION 4 - Temporary Crossover STA. 8+50'TZB' - STA. 20+50'TZB'

STATION		Real Station	Distance	AREA (SF)			Incremental Vol (CY) (Unadjusted)			Cumulative Vol (CY)			Mass Ordinate
				Cut	Fill	EBS	Cut	Fill	EBS	Cut	Fill	EBS	
8+50'TZB'	AH	850.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9+00'TZB'		900.00	50.00	6.99	23.30	0.00	6.47	21.57	0.00	6.47	21.57	0.00	-15.10
9+25'TZB'		925.06	25.06	6.94	25.66	0.00	6.46	22.72	0.00	12.94	44.30	0.00	-31.36
9+50'TZB'		950.00	24.94	5.93	26.63	0.00	5.94	24.15	0.00	18.88	68.45	0.00	-49.56
10+00'TZB'		1000.00	50.00	2.99	28.08	0.00	8.26	50.66	0.00	27.14	119.10	0.00	-91.96
10+50'TZB'		1050.00	50.00	2.98	29.19	0.00	5.53	53.03	0.00	32.67	172.13	0.00	-139.46
11+00'TZB'		1100.00	50.00	2.98	28.65	0.00	5.52	53.56	0.00	38.19	225.69	0.00	-187.50
11+50'TZB'		1150.00	50.00	2.98	28.73	0.00	5.52	53.13	0.00	43.70	278.82	0.00	-235.11
12+00'TZB'		1200.00	50.00	2.98	28.36	0.00	5.52	52.86	0.00	49.22	331.68	0.00	-282.45
12+50'TZB'		1250.00	50.00	2.98	27.57	0.00	5.52	51.79	0.00	54.74	383.46	0.00	-328.72
13+00'TZB'		1300.00	50.00	2.98	27.69	0.00	5.52	51.17	0.00	60.26	434.63	0.00	-374.37
13+14'TZB'		1314.06	14.06	2.99	28.82	0.00	1.55	14.71	0.00	61.81	449.34	0.00	-387.53
13+50'TZB'		1350.00	35.94	2.90	29.15	0.00	3.92	38.59	0.00	65.73	487.93	0.00	-422.19
14+00'TZB'		1400.00	50.00	6.97	26.63	0.00	9.14	51.65	0.00	74.87	539.57	0.00	-464.70
14+50'TZB'		1450.00	50.00	2.85	17.22	0.00	9.09	40.60	0.00	83.97	580.18	0.00	-496.21
15+00'TZB'		1500.00	50.00	1.46	18.25	0.00	3.99	32.84	0.00	87.96	613.02	0.00	-525.06
15+50'TZB'		1550.00	50.00	0.00	20.70	0.00	1.35	36.06	0.00	89.31	649.08	0.00	-559.77
16+00'TZB'		1600.00	50.00	0.00	22.25	0.00	0.00	39.77	0.00	89.31	688.85	0.00	-599.54
16+50'TZB'		1650.00	50.00	0.00	23.67	0.00	0.00	42.52	0.00	89.31	731.37	0.00	-642.06
16+76'TZB'		1676.40	26.40	0.00	23.99	0.00	0.00	23.30	0.00	89.31	754.67	0.00	-665.36
17+00'TZB'		1700.00	23.60	0.00	24.22	0.00	0.00	21.07	0.00	89.31	775.74	0.00	-686.43
17+50'TZB'		1750.00	50.00	6.53	11.07	0.00	6.05	32.68	0.00	95.36	808.42	0.00	-713.06
18+00'TZB'		1800.00	50.00	14.11	0.61	0.00	19.11	10.81	0.00	114.47	819.23	0.00	-704.77
18+50'TZB'		1850.00	50.00	8.49	14.51	0.00	20.93	14.00	0.00	135.39	833.23	0.00	-697.84
18+93'TZB'		1892.87	42.87	15.15	16.48	0.00	18.77	24.60	0.00	154.16	857.84	0.00	-703.67
19+00'TZB'		1900.00	7.13	14.85	16.84	0.00	3.96	4.40	0.00	158.12	862.23	0.00	-704.11
19+30'TZB'		1929.82	29.82	15.25	15.70	0.00	16.62	17.97	0.00	174.74	880.20	0.00	-705.46
19+32'TZB'		1932.26	2.44	15.29	15.53	0.00	1.38	1.41	0.00	176.12	881.61	0.00	-705.49
19+50'TZB'		1950.00	17.74	15.75	13.81	0.00	10.20	9.64	0.00	186.32	891.25	0.00	-704.93
20+00'TZB'		2000.00	50.00	15.57	11.86	0.00	29.00	23.77	0.00	215.32	915.02	0.00	-699.70
20+50'TZB'	BK	2050.00	50.00	14.63	11.05	0.00	27.96	21.21	0.00	243.28	936.23	0.00	-692.95
						Column totals	243.28	936.23	0.00				

STA 320+00
BEGIN CONSTRUCTION



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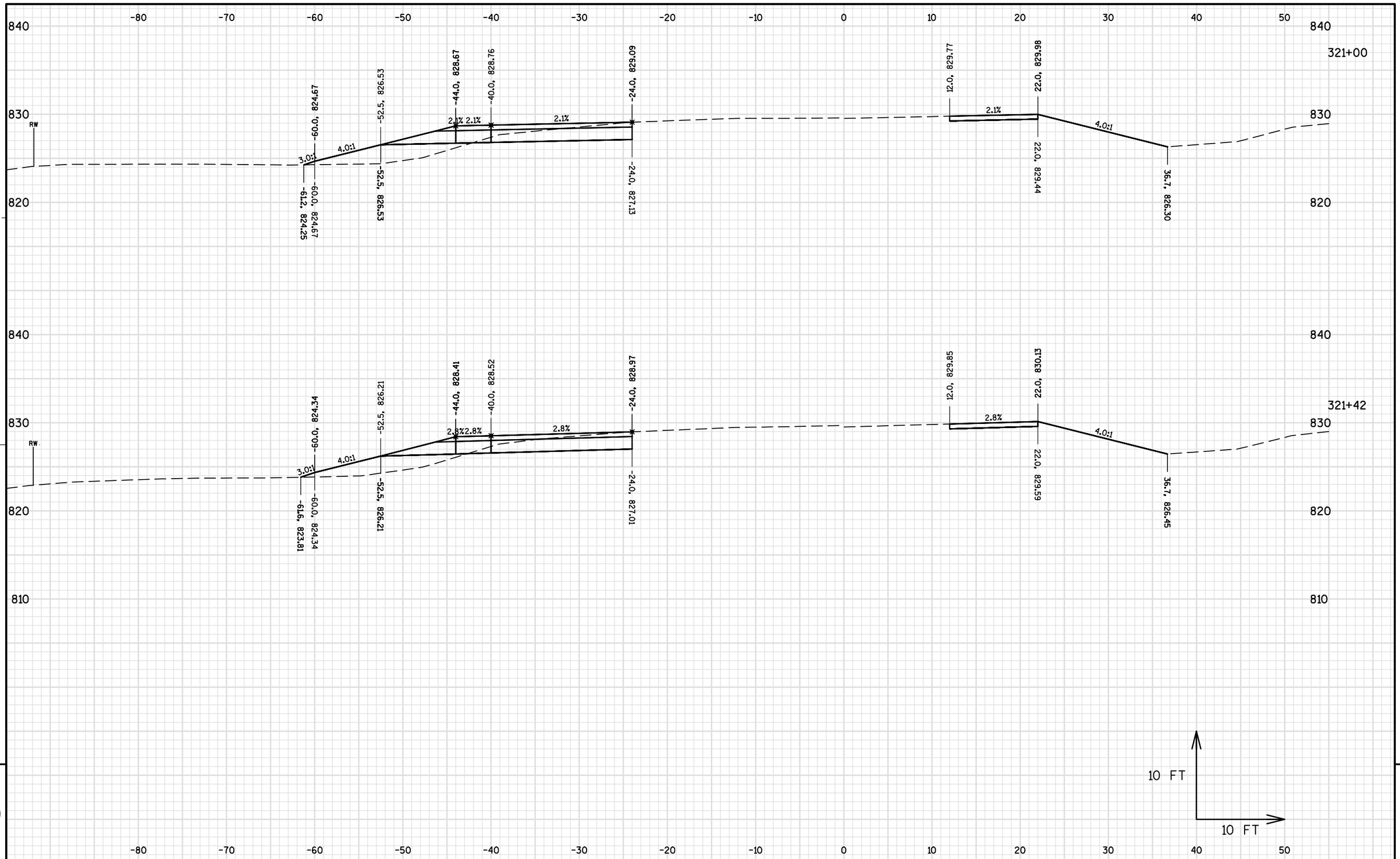
WISDOT/CADDS SHEET 49



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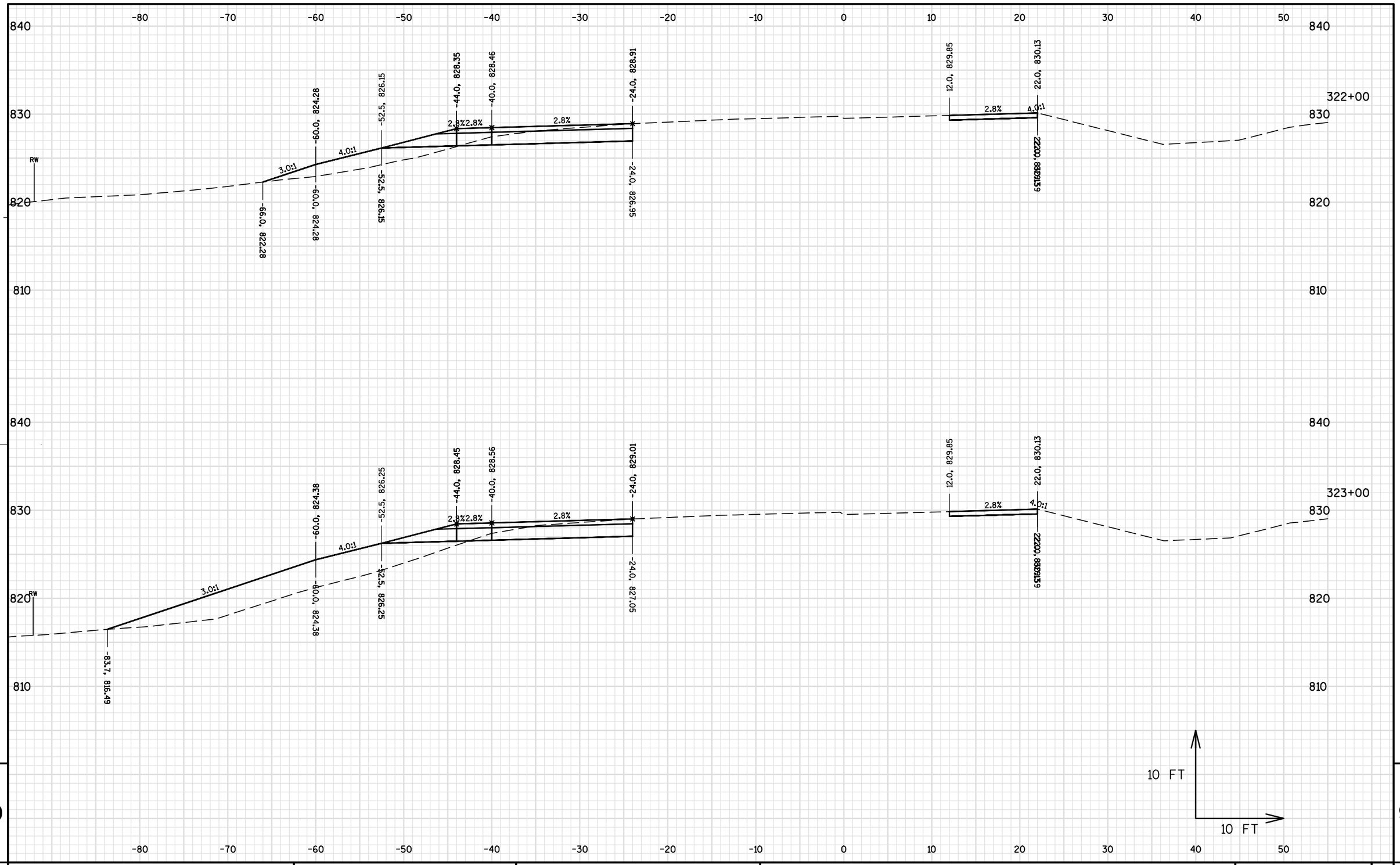

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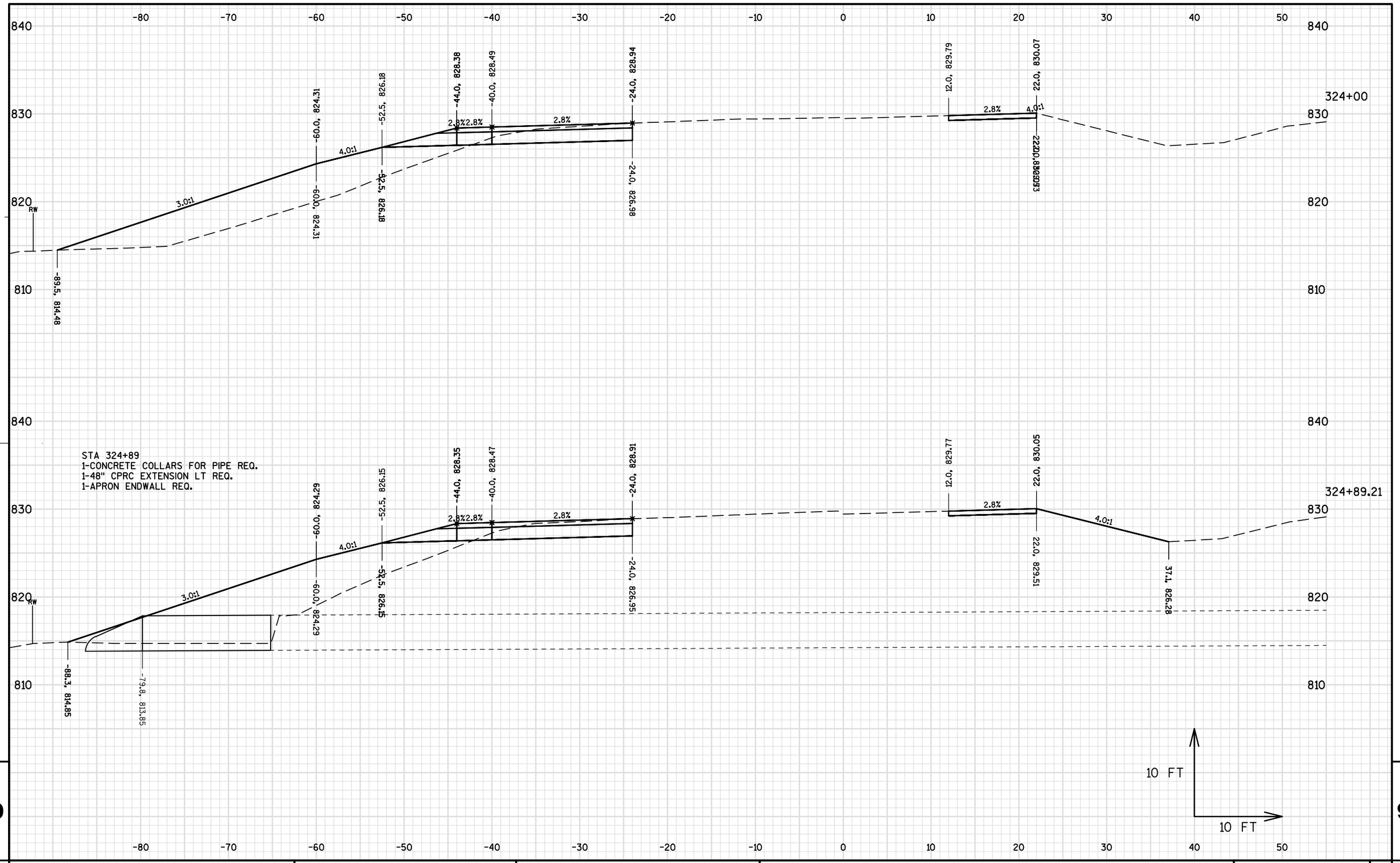
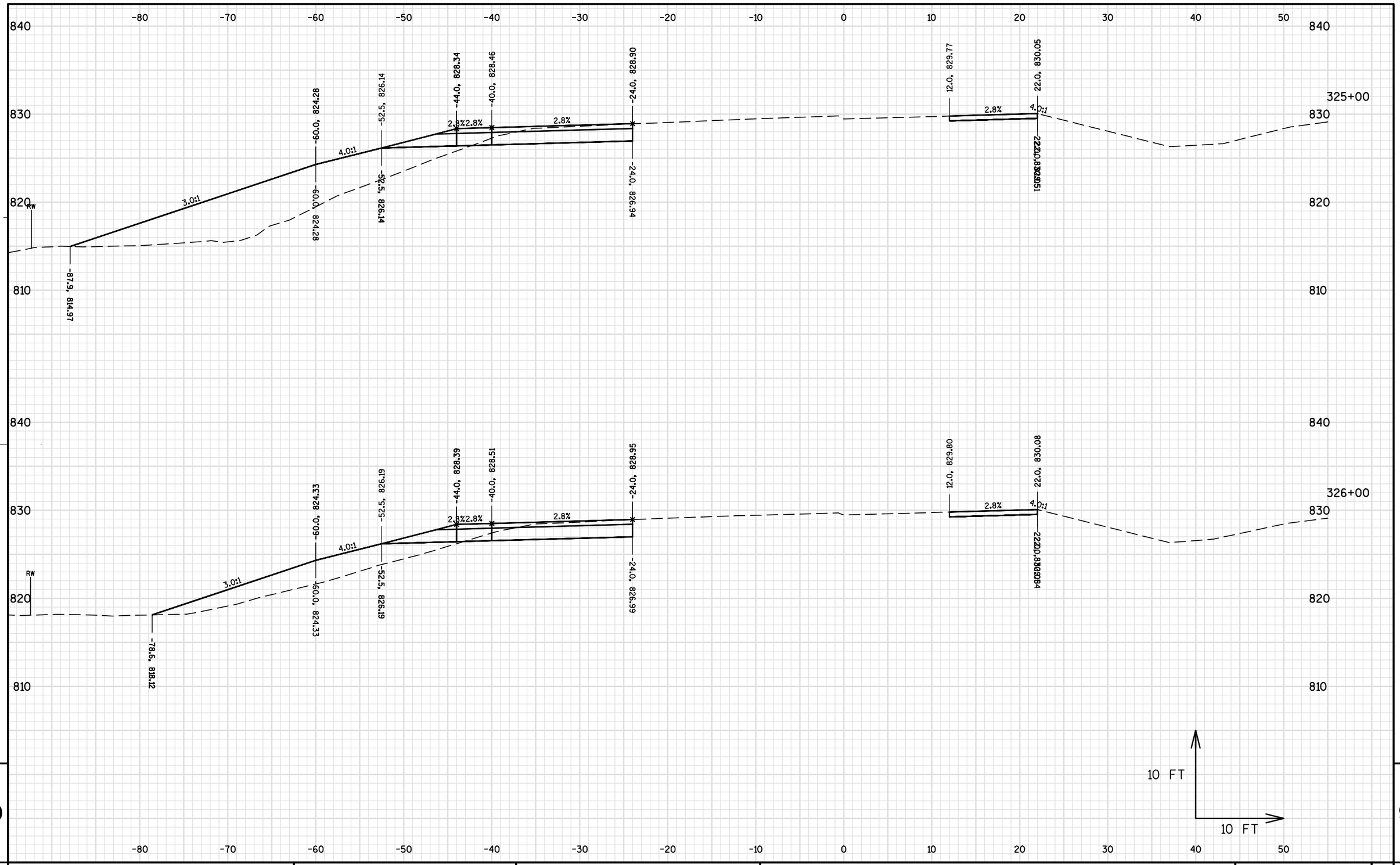


PROJECT NO: 1003-10-77	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: TEMPORARY WIDENING	SHEET	E

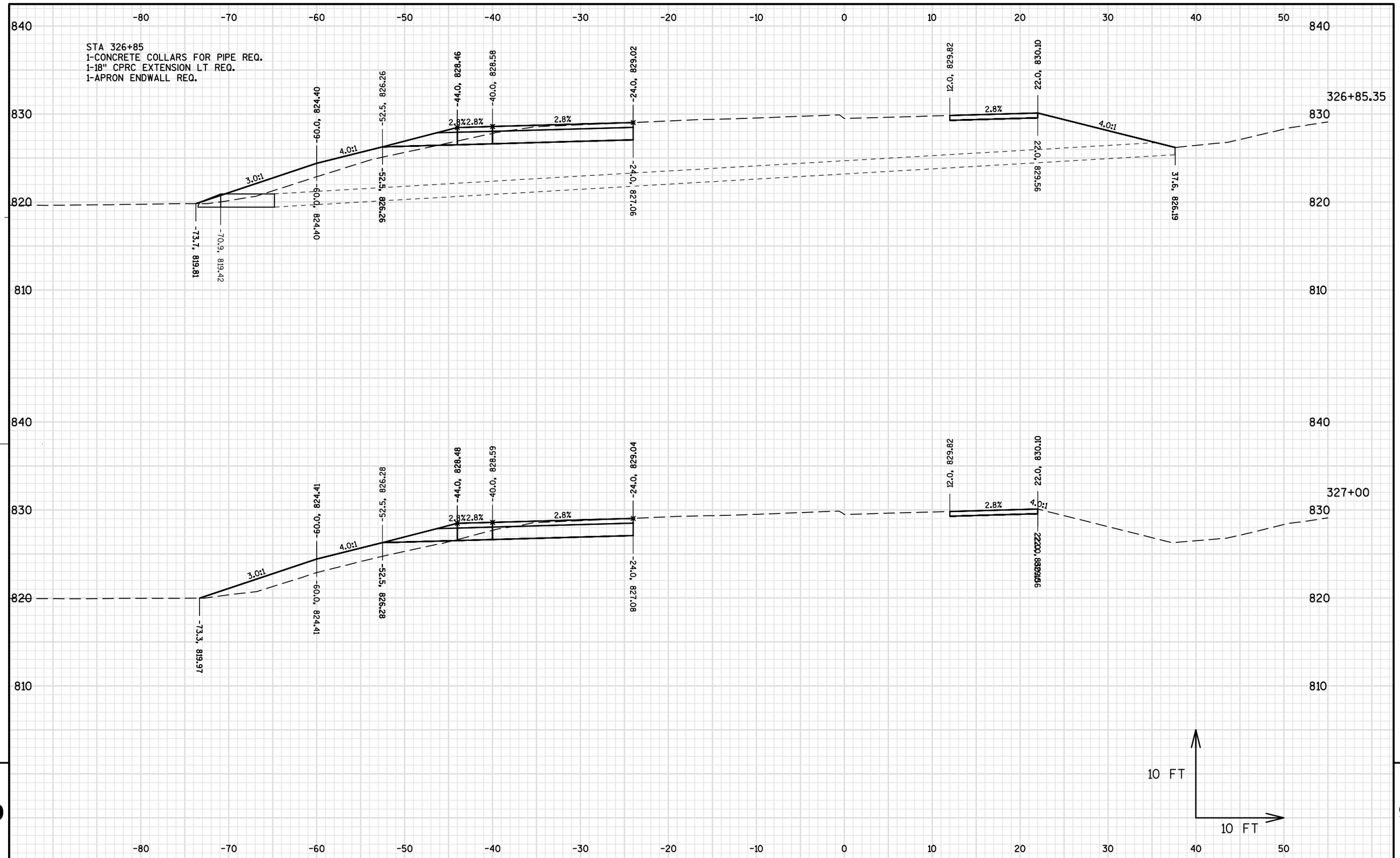
FILE NAME : L:\WORK\PROJECTS\60242867\000_CAD\001_DRAWINGS\1003-10-77_CTH S TO STH 11 TEMP\100%\090204_XS_329_382.DWG PLOT DATE : 4/7/2016 11:33 AM PLOT BY : ARBUCKLE, ADRIAN PLOT NAME : PLOT SCALE : 1:10_XREF



PROJECT NO: 1003-10-77	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: TEMPORARY WIDENING	SHEET	E

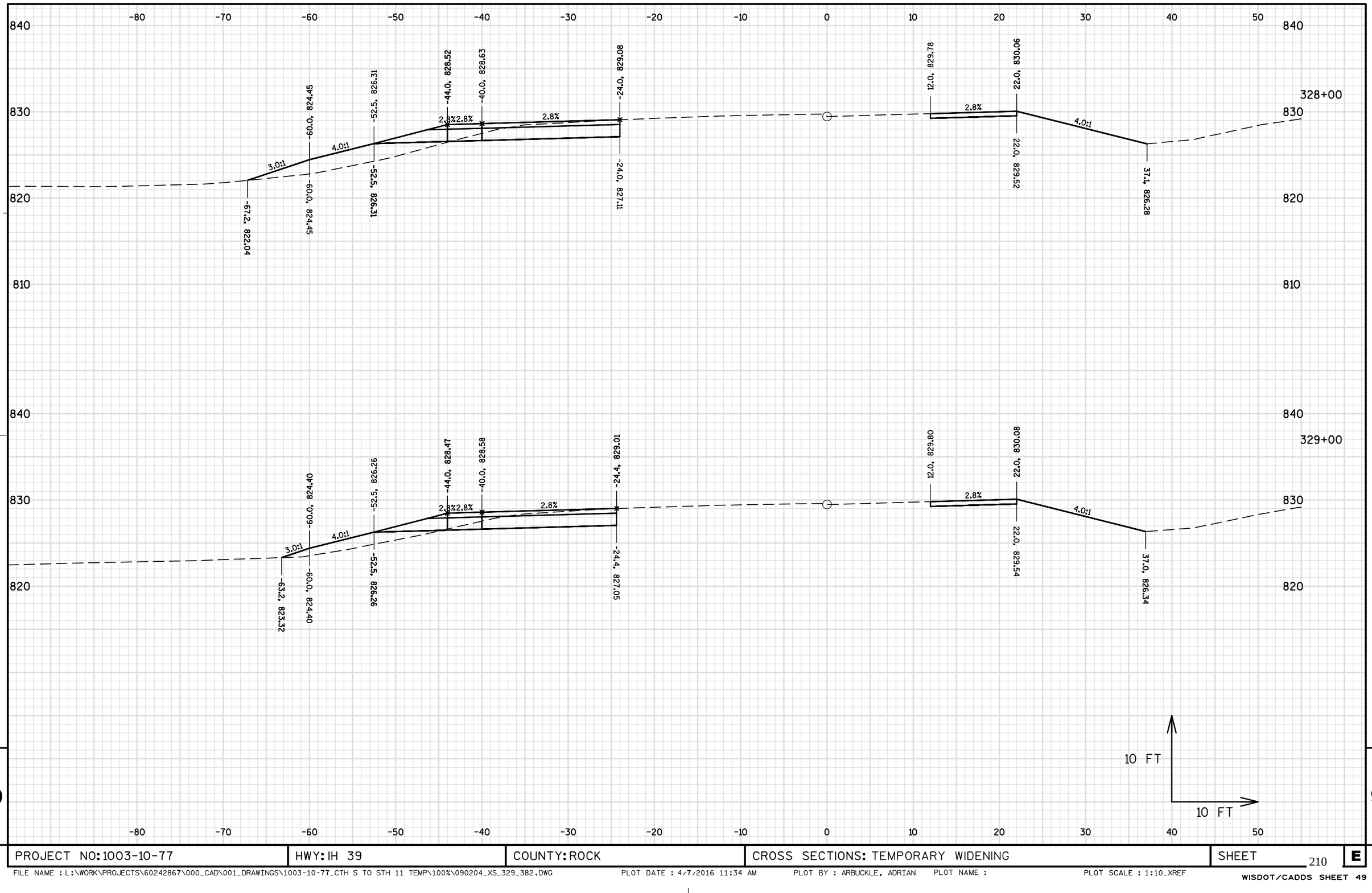
FILE NAME : L:\WORK\PROJECTS\60242867\000_CAD\001_DRAWINGS\1003-10-77_CTH S TO STH 11 TEMP\100%\090204_XS_329_382.DWG PLOT DATE : 4/7/2016 11:33 AM PLOT BY : ARBUCKLE, ADRIAN PLOT NAME : PLOT SCALE : 1:10_XREF

STA 326+85
1-CONCRETE COLLARS FOR PIPE REQ.
1-18" CPRC EXTENSION LT REQ.
1-APRON ENDWALL REQ.



PROJECT NO: 1003-10-77	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: TEMPORARY WIDENING	SHEET	E

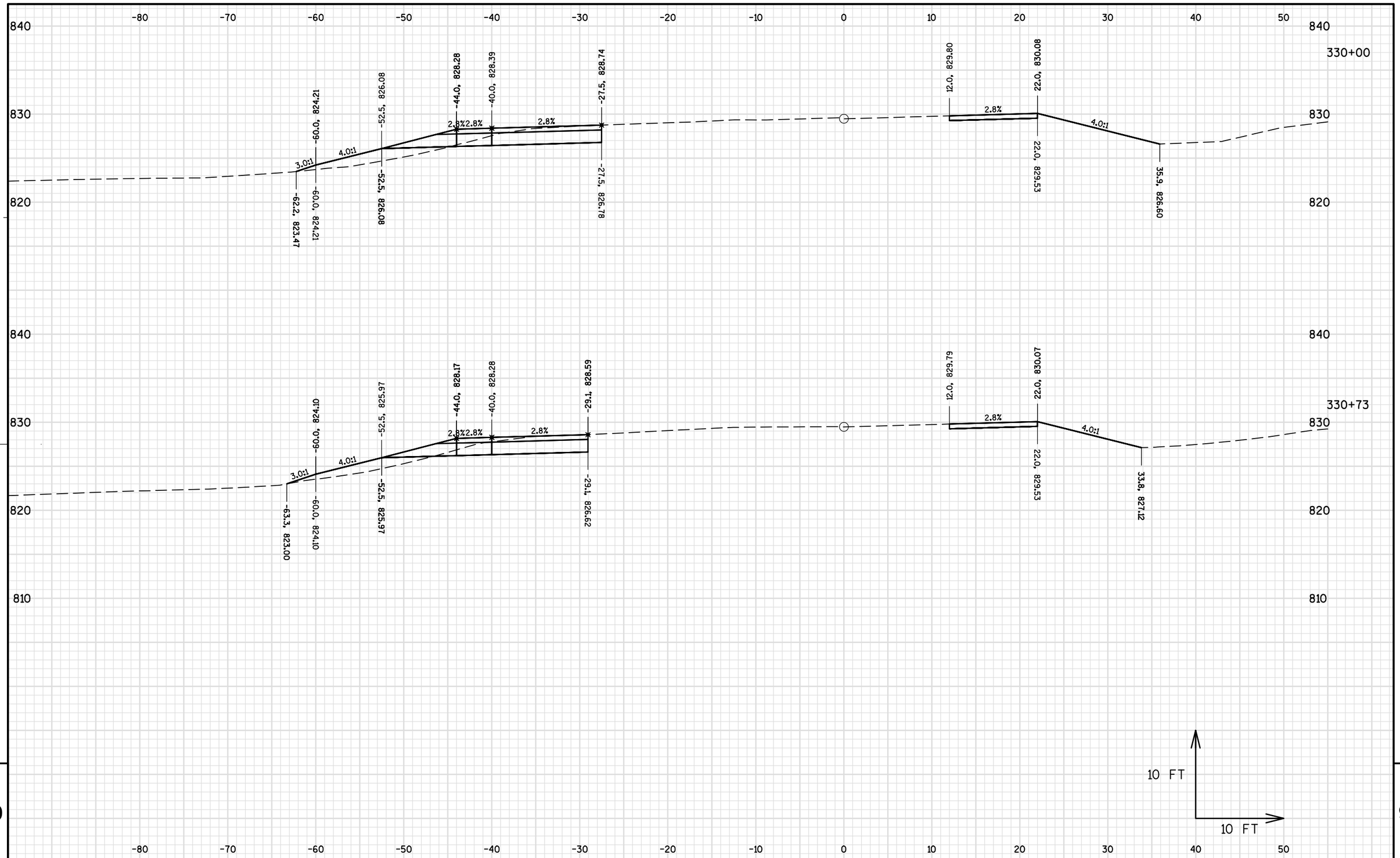
FILE NAME : L:\WORK\PROJECTS\60242867\000_CAD\001_DRAWINGS\1003-10-77_CTH S TO STH 11 TEMP\100%\090204_XS_329_382.DWG PLOT DATE : 4/7/2016 11:33 AM PLOT BY : ARBUCKLE, ADRIAN PLOT NAME : PLOT SCALE : 1:10_XREF
WISDOT/CADDS SHEET 49



PROJECT NO: 1003-10-77	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: TEMPORARY WIDENING	SHEET	E

FILE NAME : L:\WORK\PROJECTS\60242867\000_CAD\001_DRAWINGS\1003-10-77_CTH S TO STH 11 TEMP\100%\090204_XS_329_382.DWG PLOT DATE : 4/7/2016 11:34 AM PLOT BY : ARBUCKLE, ADRIAN PLOT NAME : PLOT SCALE : 1:10_XREF

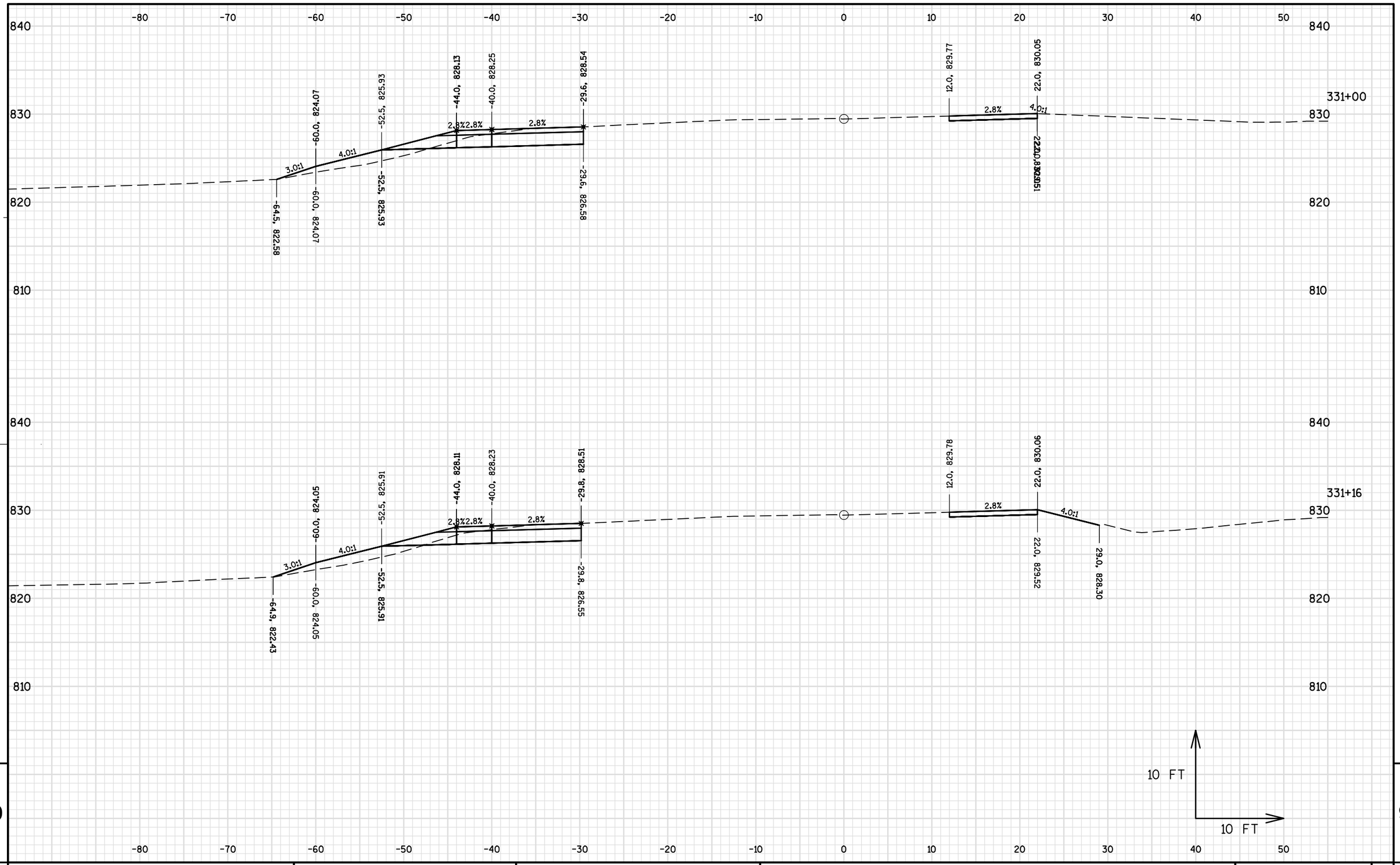
WISDOT/CADDS SHEET 49



PROJECT NO: 1003-10-77	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: TEMPORARY WIDENING	SHEET 211	E

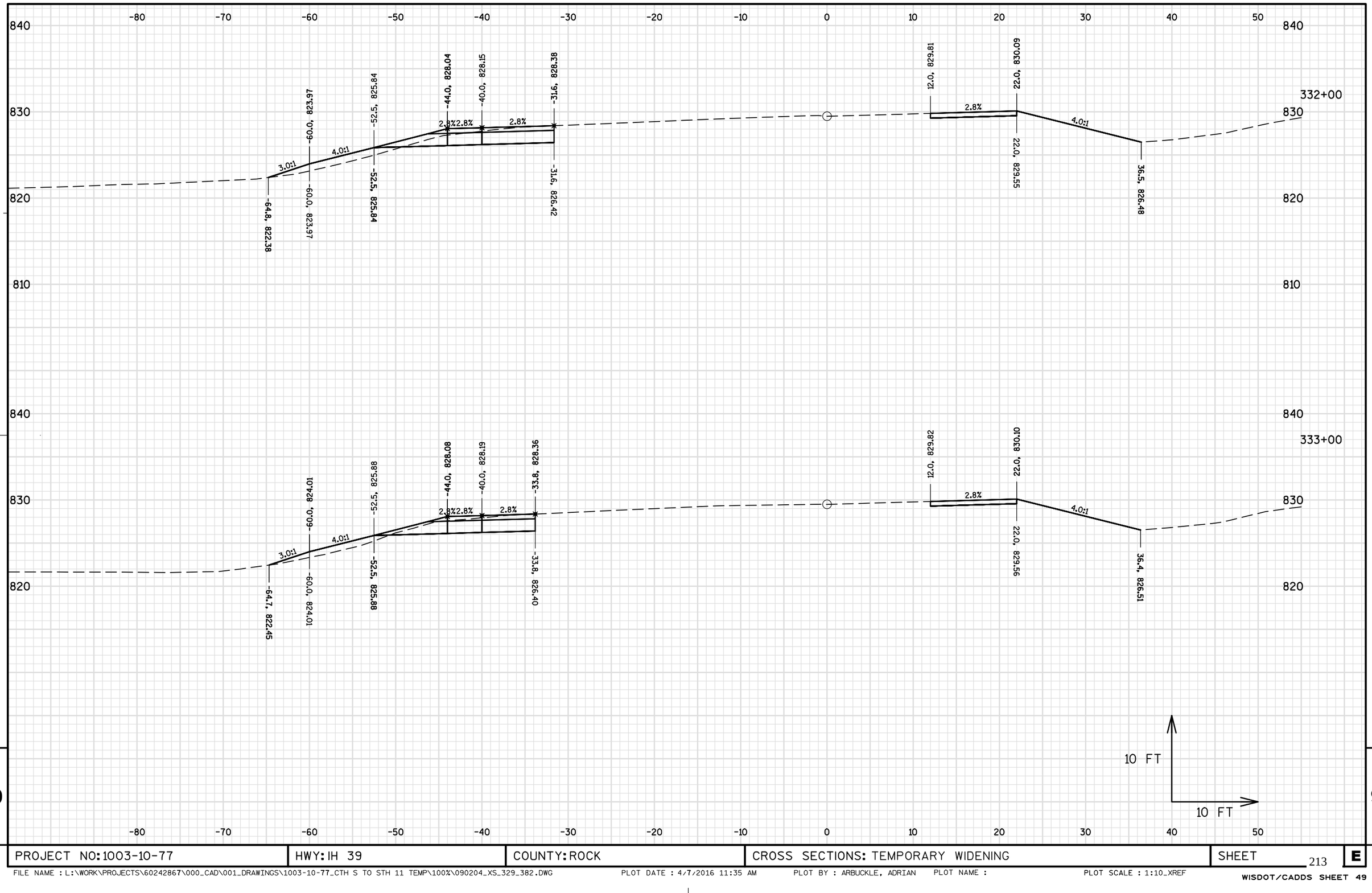
FILE NAME : L:\WORK\PROJECTS\60242867\000_CAD\001_DRAWINGS\1003-10-77_CTH S TO STH 11 TEMP\100%\090204_XS_329_382.DWG PLOT DATE : 4/7/2016 11:34 AM PLOT BY : ARBUCKLE, ADRIAN PLOT NAME : PLOT SCALE : 1:10_XREF

WISDOT/CADDS SHEET 49



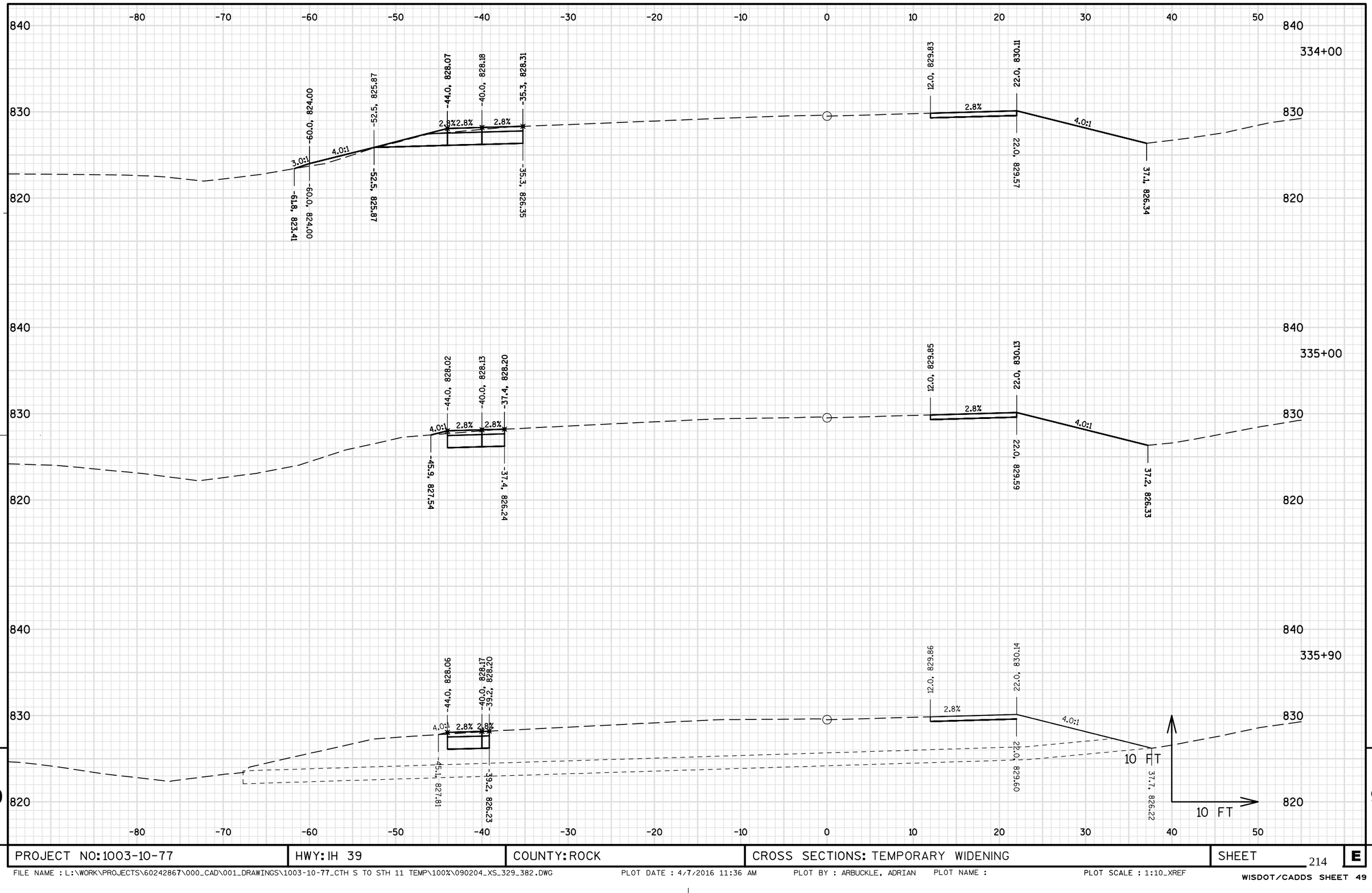
PROJECT NO: 1003-10-77	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: TEMPORARY WIDENING	SHEET	E

FILE NAME : L:\WORK\PROJECTS\60242867\000_CAD\001_DRAWINGS\1003-10-77_CTH S TO STH 11 TEMP\100%\090204_XS_329_382.DWG PLOT DATE : 4/7/2016 11:35 AM PLOT BY : ARBUCKLE, ADRIAN PLOT NAME : PLOT SCALE : 1:10_XREF



PROJECT NO: 1003-10-77	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: TEMPORARY WIDENING	SHEET	E

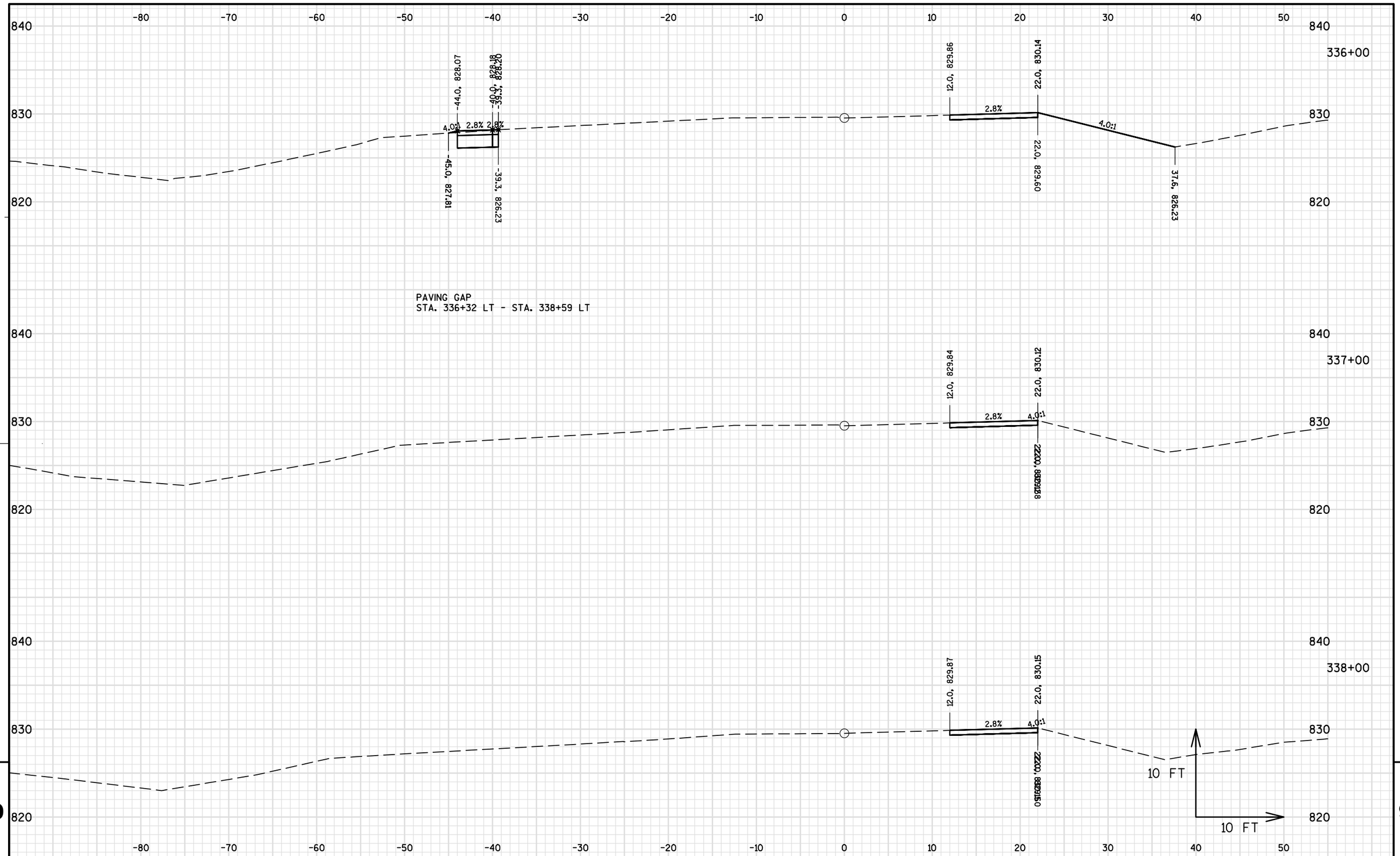
FILE NAME : L:\WORK\PROJECTS\60242867\000_CAD\001_DRAWINGS\1003-10-77_CTH S TO STH 11 TEMP\100%\090204_XS_329_382.DWG PLOT DATE : 4/7/2016 11:35 AM PLOT BY : ARBUCKLE, ADRIAN PLOT NAME : PLOT SCALE : 1:10_XREF
WISDOT/CADDS SHEET 49



PROJECT NO: 1003-10-77	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: TEMPORARY WIDENING	SHEET 214	E

FILE NAME : L:\WORK\PROJECTS\60242867\000_CAD\001_DRAWINGS\1003-10-77_CTH S TO STH 11 TEMP\100%\090204_XS_329_382.DWG PLOT DATE : 4/7/2016 11:36 AM PLOT BY : ARBUCKLE, ADRIAN PLOT NAME : PLOT SCALE : 1:10_XREF

WISDOT/CADDS SHEET 49



PAVING GAP
STA. 336+32 LT - STA. 338+59 LT

9

9

PROJECT NO: 1003-10-77	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: TEMPORARY WIDENING	SHEET 215	E

PAVING GAP
STA. 336+32 LT - STA. 338+59 LT

339+00

-47.3, 827.96
-44.0, 827.14
-40.0, 827.25
-35.3, 827.38
-35.3, 825.42
12.0, 829.93
22.0, 830.21
22.0, 828.87
2.8%
4.0:1

340+00

-66.5, 828.22
-60.0, 826.07
-56.5, 825.20
-52.5, 826.20
-44.0, 828.40
-40.0, 828.51
-35.5, 828.64
-35.5, 826.68
12.0, 829.95
22.0, 830.23
22.0, 828.89
3.0:1
4.0:1
4.0:1
2.8%

340+29

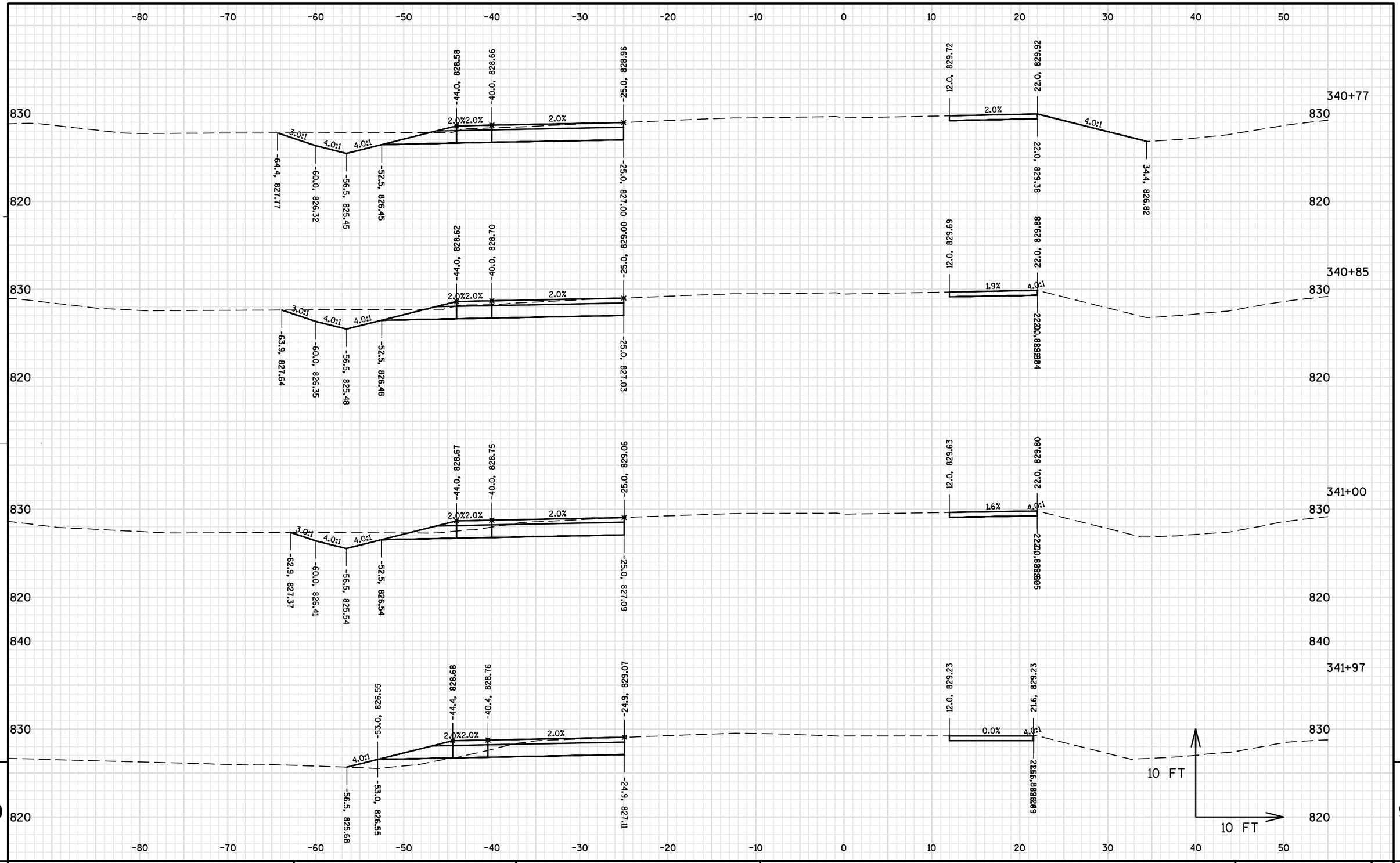
-65.5, 827.73
-60.0, 825.89
-56.5, 825.03
-52.5, 826.03
-44.0, 828.23
-40.0, 828.34
-35.2, 828.47
-35.2, 826.51
12.0, 829.93
22.0, 830.21
22.0, 828.69
35.6, 826.82
10 FT
10 FT

840
830
820
-80 -70 -60 -50 -40 -30 -20 -10 0 10 20 30 40 50

9

PROJECT NO: 1003-10-77	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: TEMPORARY WIDENING	SHEET	E

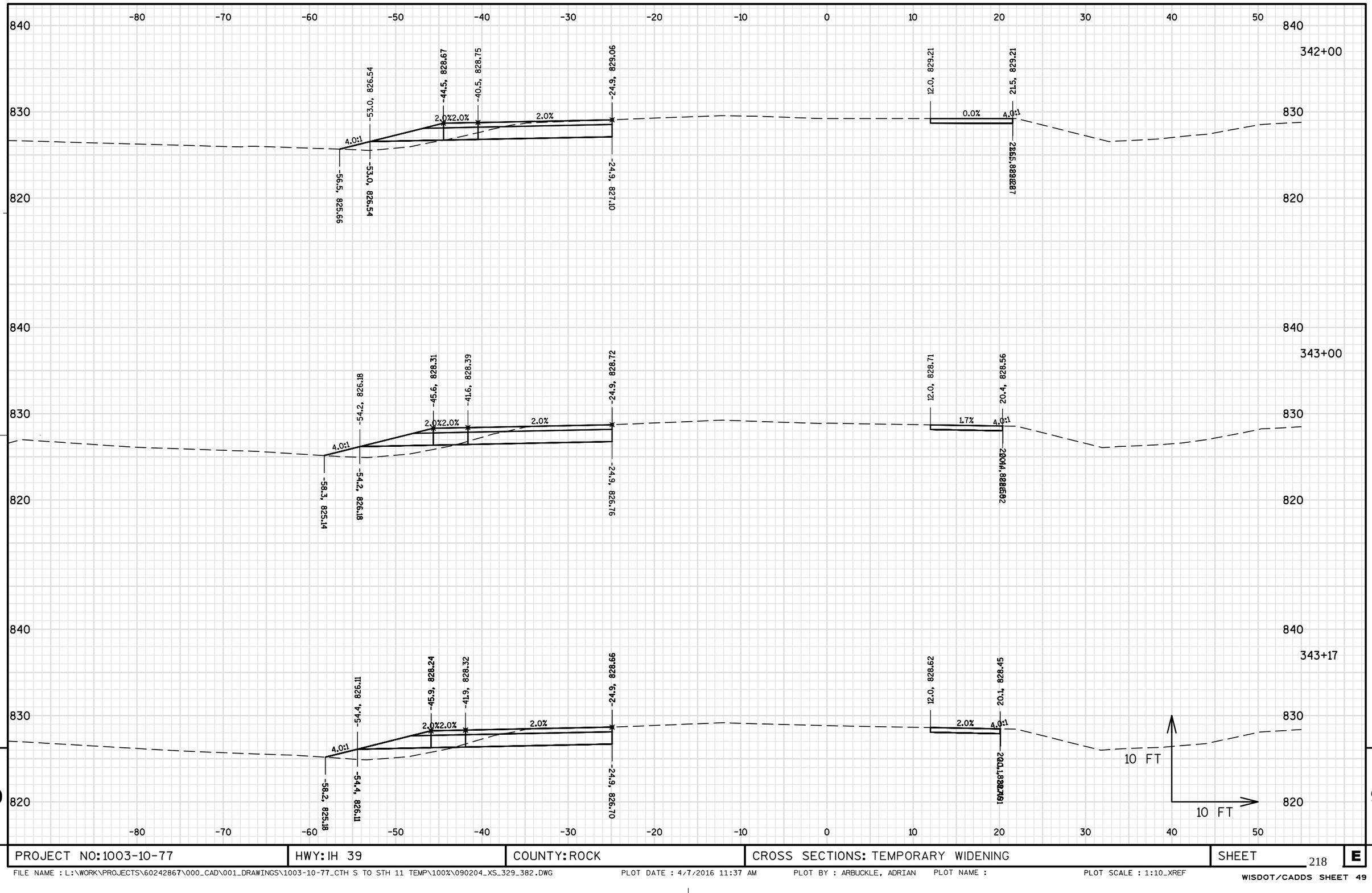
FILE NAME : L:\WORK\PROJECTS\60242867\000_CAD\001_DRAWINGS\1003-10-77_CTH S TO STH 11 TEMP\100%\090204_XS_329_382.DWG PLOT DATE : 4/7/2016 11:36 AM PLOT BY : ARBUCKLE, ADRIAN PLOT NAME : PLOT SCALE : 1:10_XREF
WISDOT/CADDS SHEET 49



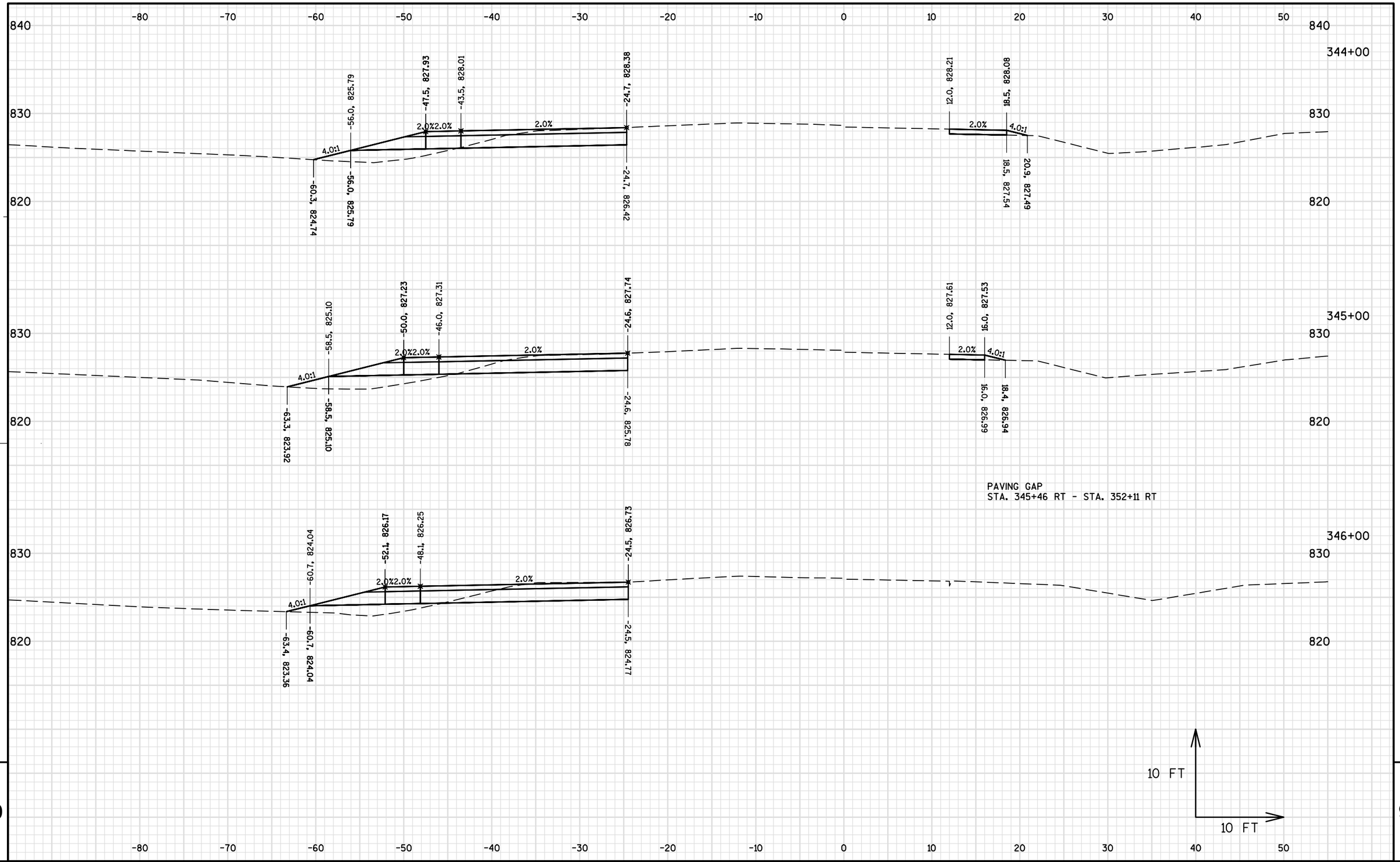
PROJECT NO: 1003-10-77	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: TEMPORARY WIDENING	SHEET 217 E

FILE NAME : L:\WORK\PROJECTS\60242867\000_CAD\001_DRAWINGS\1003-10-77_CTH S TO STH 11 TEMP\100%\090204_XS_329_382.DWG PLOT DATE : 4/7/2016 11:37 AM PLOT BY : ARBUCKLE, ADRIAN PLOT NAME : PLOT SCALE : 1:10_XREF

WISDOT/CADDS SHEET 49

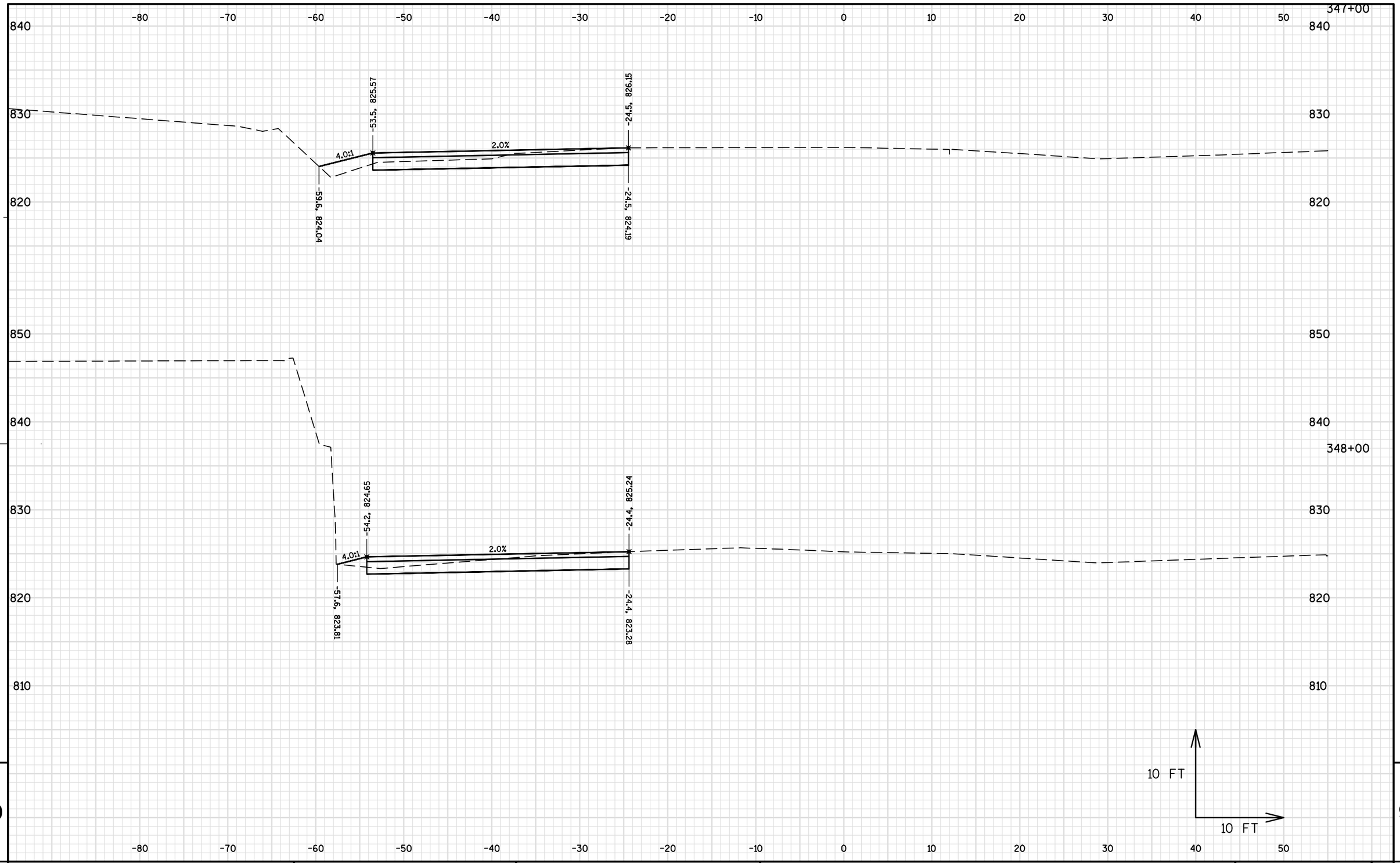


PROJECT NO: 1003-10-77	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: TEMPORARY WIDENING	SHEET 218	E



PROJECT NO: 1003-10-77	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: TEMPORARY WIDENING	SHEET	E

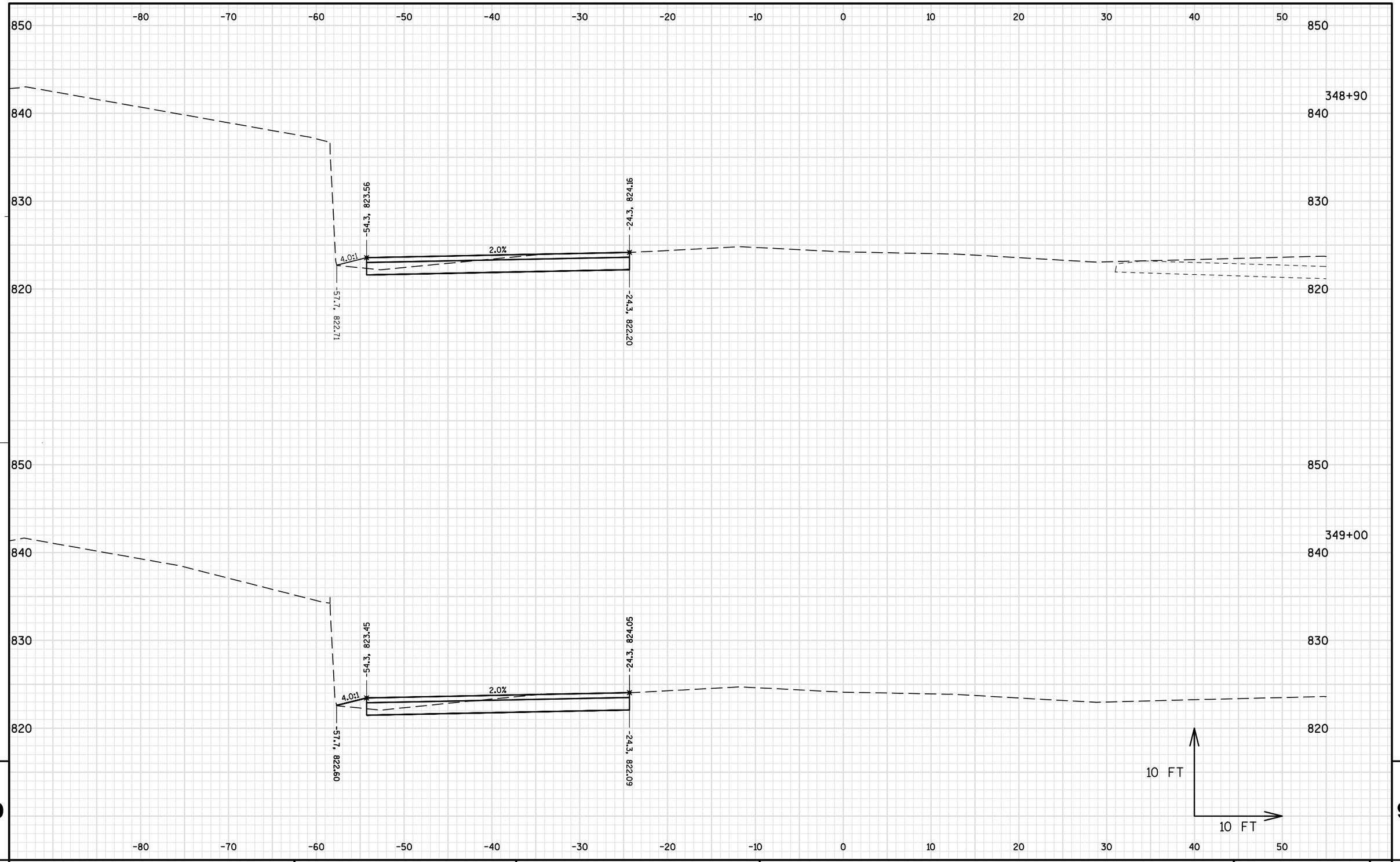
FILE NAME : L:\WORK\PROJECTS\60242867\000_CAD\001_DRAWINGS\1003-10-77_CTH S TO STH 11 TEMP\100%\090204_XS_329_382.DWG PLOT DATE : 4/7/2016 11:38 AM PLOT BY : ARBUCKLE, ADRIAN PLOT NAME : PLOT SCALE : 1:10_XREF
WISDOT/CADDS SHEET 49



9

9

PROJECT NO: 1003-10-77	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: TEMPORARY WIDENING	SHEET 220	E

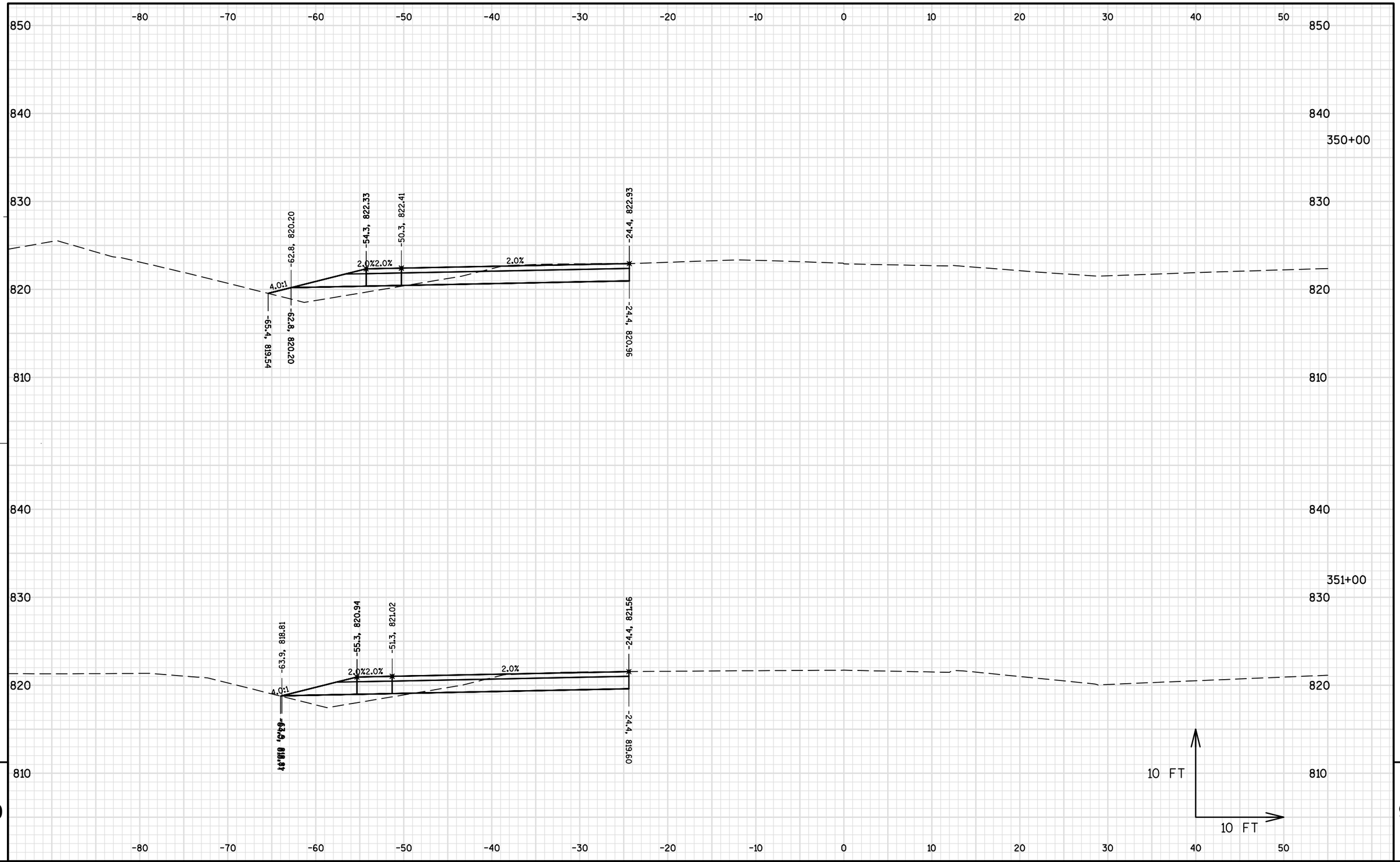


9

9

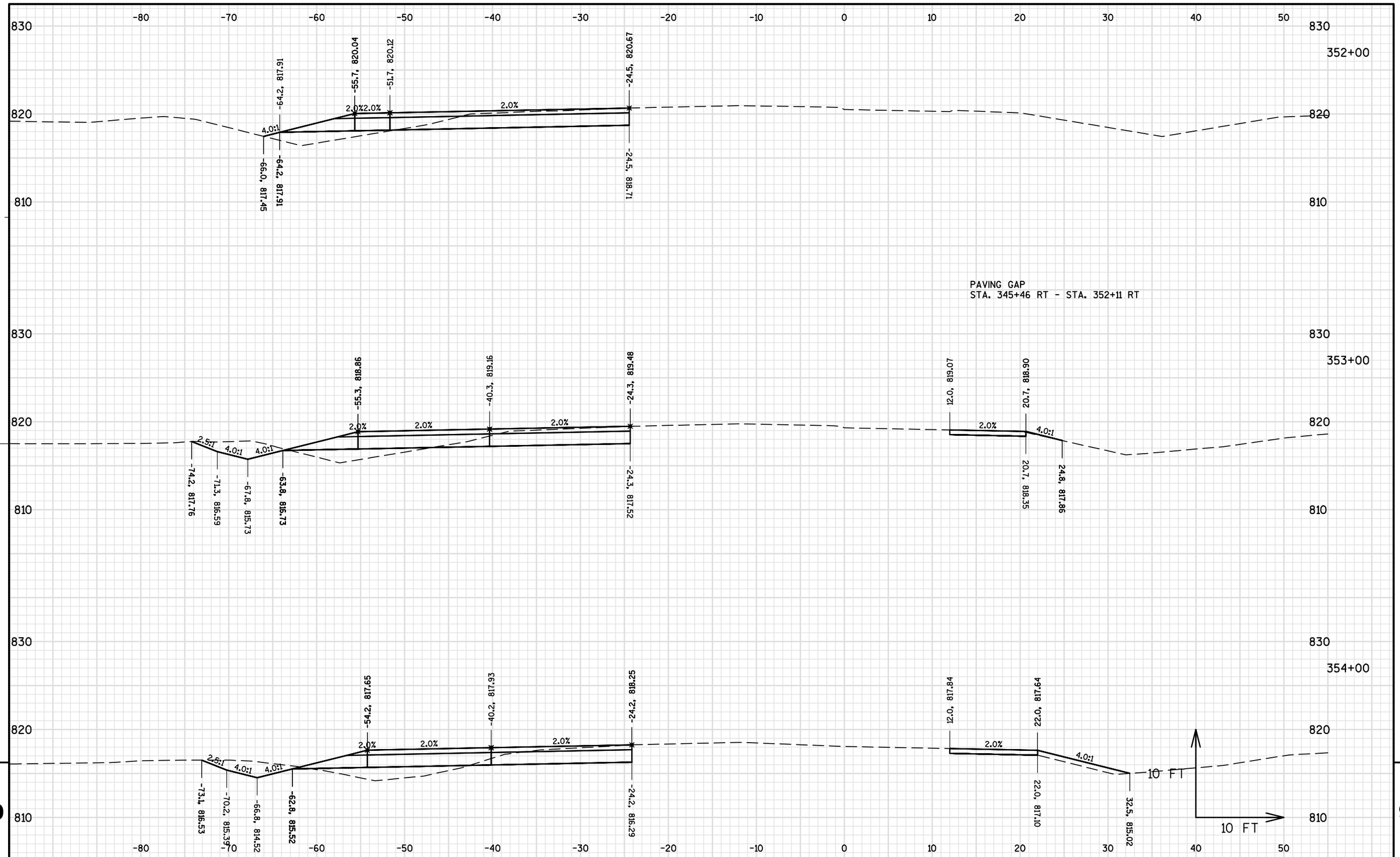
PROJECT NO: 1003-10-77	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: TEMPORARY WIDENING	SHEET	E

FILE NAME : L:\WORK\PROJECTS\60242867\000_CAD\001_DRAWINGS\1003-10-77_CTH S TO STH 11 TEMP\100%\090204_XS_329_382.DWG PLOT DATE : 4/7/2016 11:39 AM PLOT BY : ARBUCKLE, ADRIAN PLOT NAME : PLOT SCALE : 1:10_XREF
WISDOT/CADDS SHEET 49



9

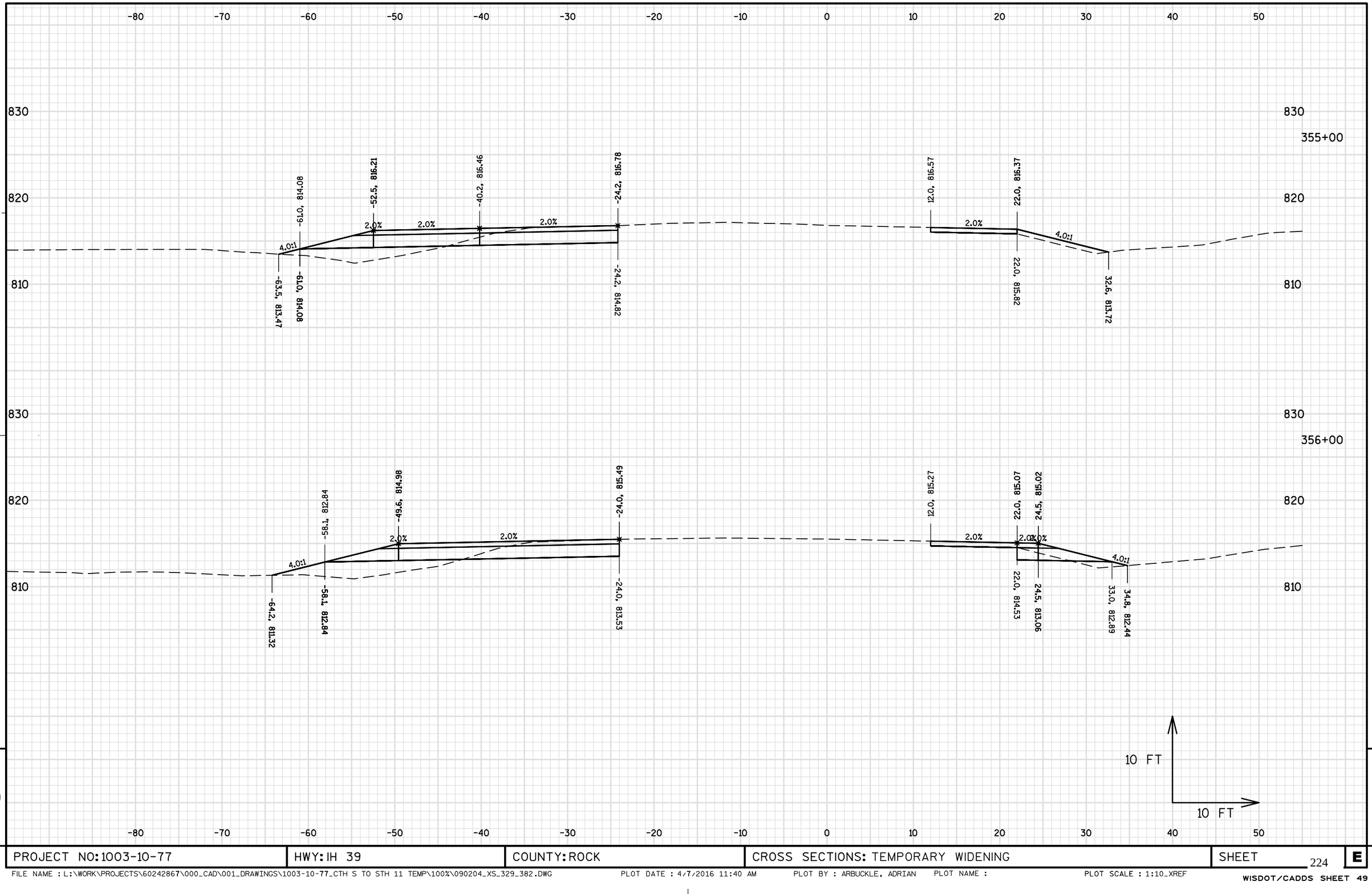
PROJECT NO: 1003-10-77	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: TEMPORARY WIDENING	SHEET 222	E



PROJECT NO: 1003-10-77	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: TEMPORARY WIDENING	SHEET 223	E

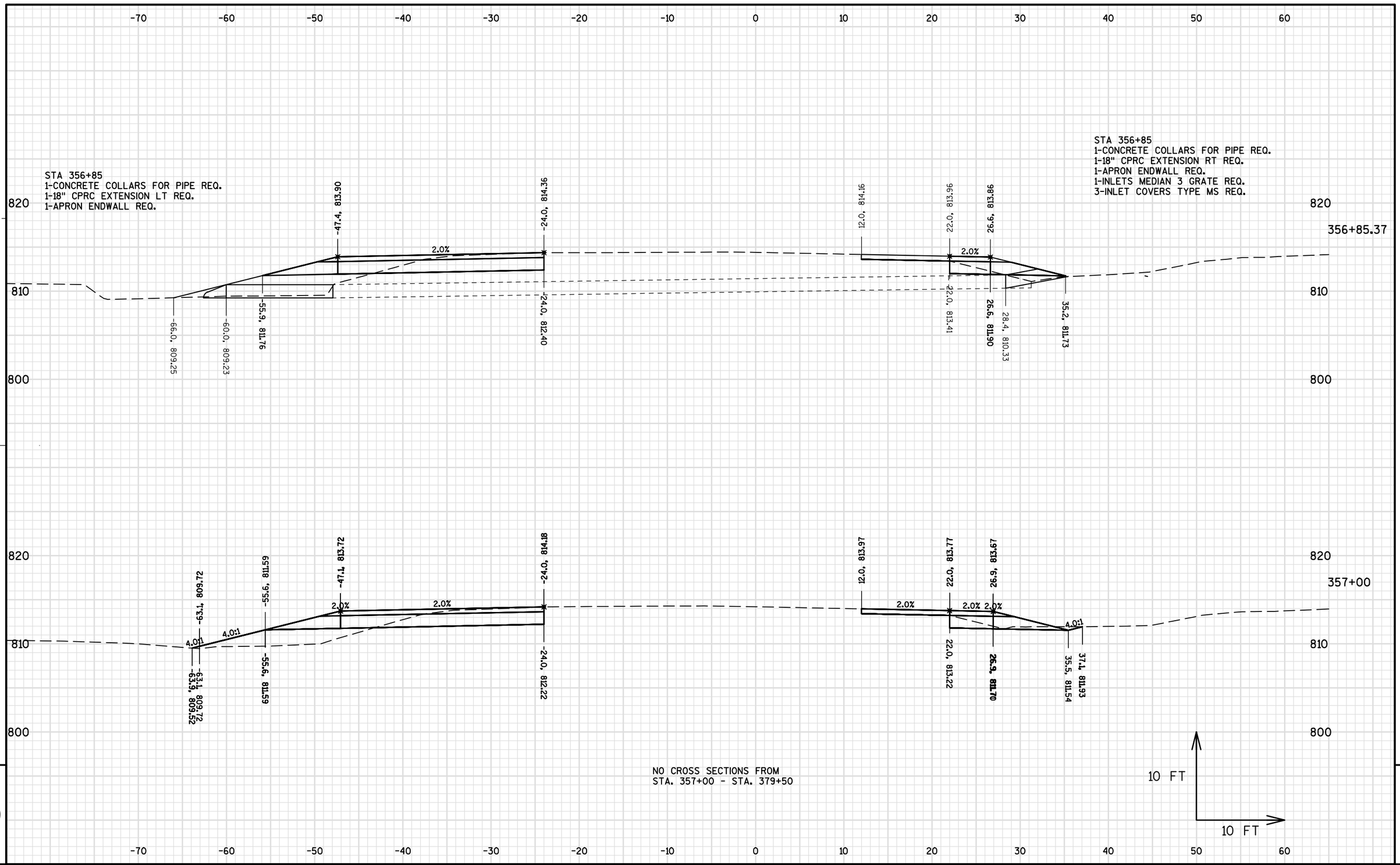
FILE NAME : L:\WORK\PROJECTS\60242867\000_CAD\001_DRAWINGS\1003-10-77_CTH S TO STH 11 TEMP\100%\090204_XS_329_382.DWG PLOT DATE : 4/7/2016 11:40 AM PLOT BY : ARBUCKLE, ADRIAN PLOT NAME : PLOT SCALE : 1:10_XREF

WISDOT/CADDS SHEET 49



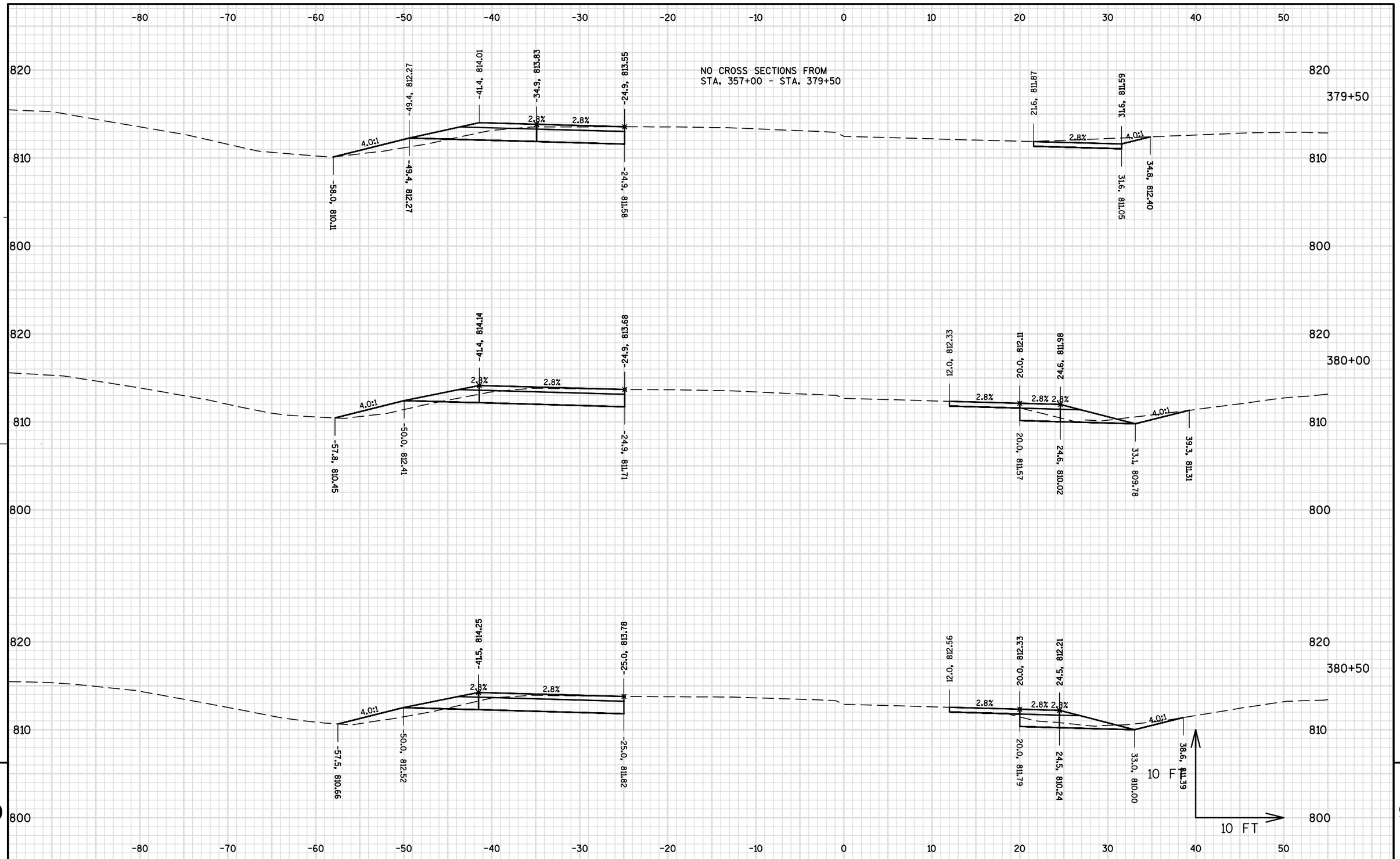
PROJECT NO: 1003-10-77	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: TEMPORARY WIDENING	SHEET 224	E

FILE NAME : L:\WORK\PROJECTS\60242867\000_CAD\001_DRAWINGS\1003-10-77_CTH S TO STH 11 TEMP\100%\090204_XS_329_382.DWG PLOT DATE : 4/7/2016 11:40 AM PLOT BY : ARBUCKLE, ADRIAN PLOT NAME : PLOT SCALE : 1:10_XREF



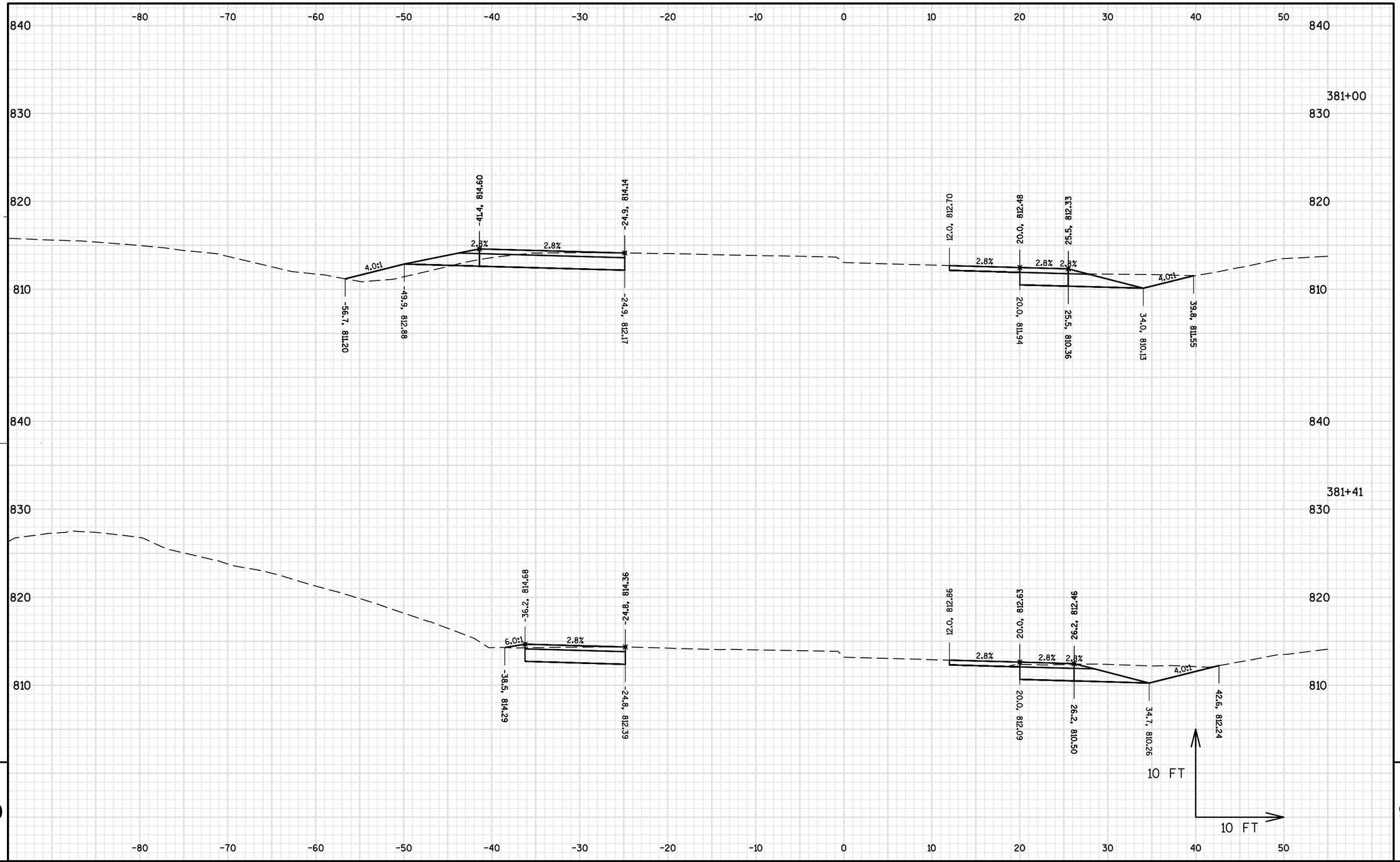
PROJECT NO: 1003-10-77	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: TEMPORARY WIDENING	SHEET	E

FILE NAME : L:\WORK\PROJECTS\60242867\000_CAD\001_DRAWINGS\1003-10-77_CTH S TO STH 11 TEMP\100%\090204_XS_329_382.DWG PLOT DATE : 4/8/2016 8:03 AM PLOT BY : ARBUCKLE, ADRIAN PLOT NAME : PLOT SCALE : 1:10_XREF
WISDOT/CADDS SHEET 49



PROJECT NO: 1003-10-77	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: TEMPORARY WIDENING	SHEET E

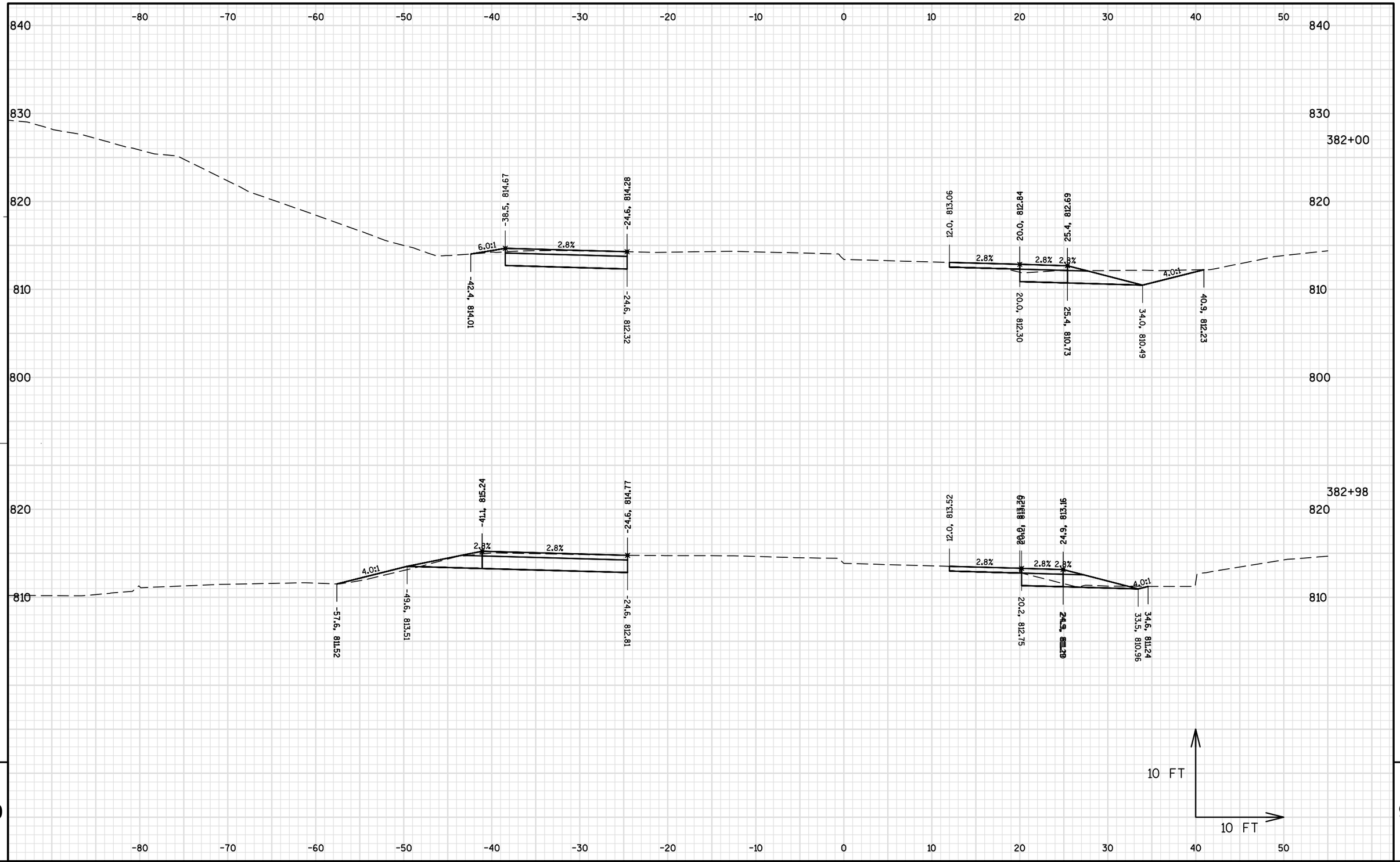
FILE NAME : L:\WORK\PROJECTS\60242867\000_CAD\001_DRAWINGS\04_CORRIDORS\TEMPORARY OUTSIDE WIDENING\AE_0378_COR_SB OUTSIDE WIDENING_3820400.DGN 12/20/2016 10:50 AM PLOT BY : ARBUCKLE, ADRIAN PLOT NAME : PLOT SCALE : 1" = 10'_1_XREF
WISDOT/CADDS SHEET 49



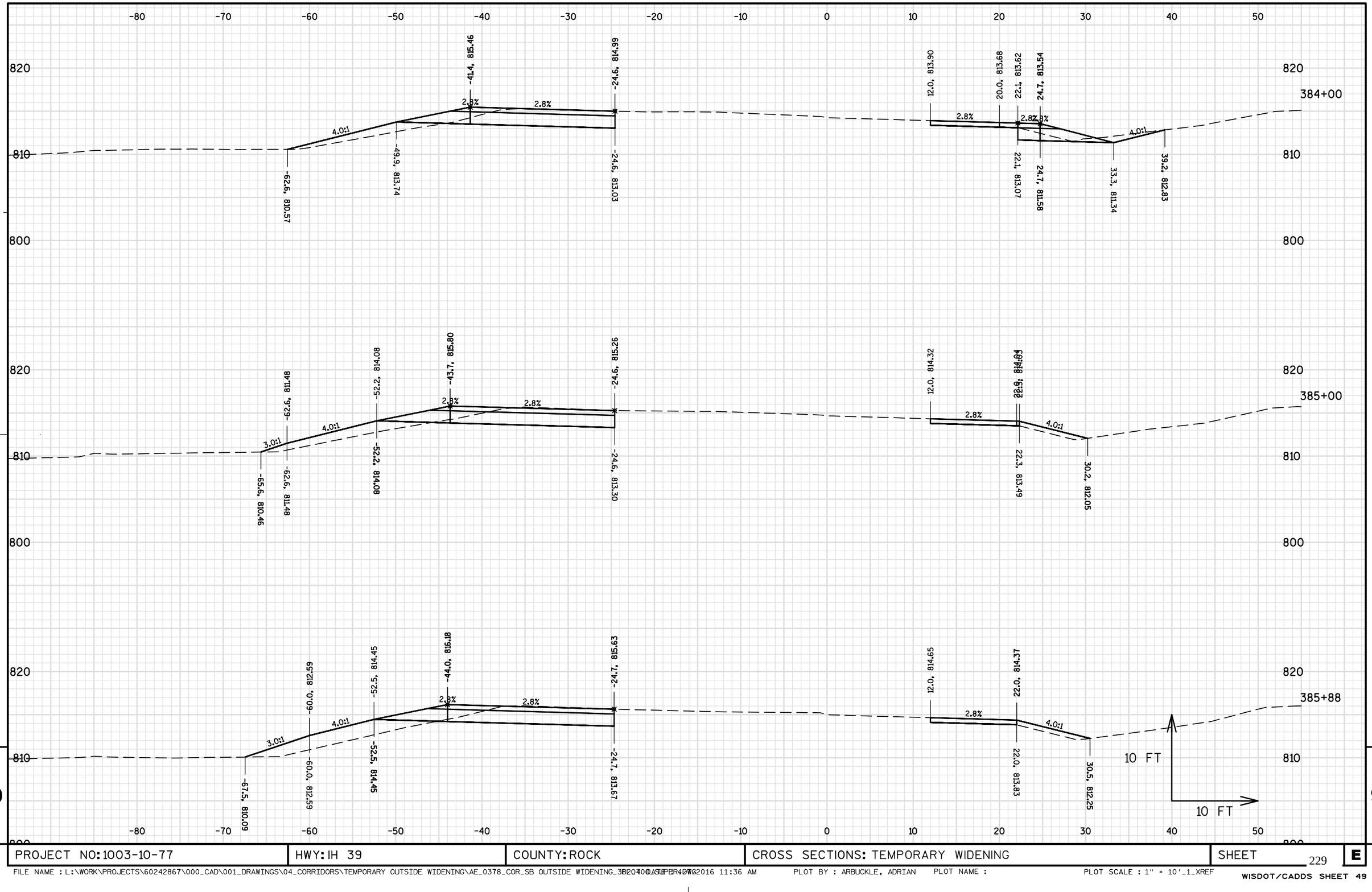
9

9

PROJECT NO: 1003-10-77	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: TEMPORARY WIDENING	SHEET 227	E

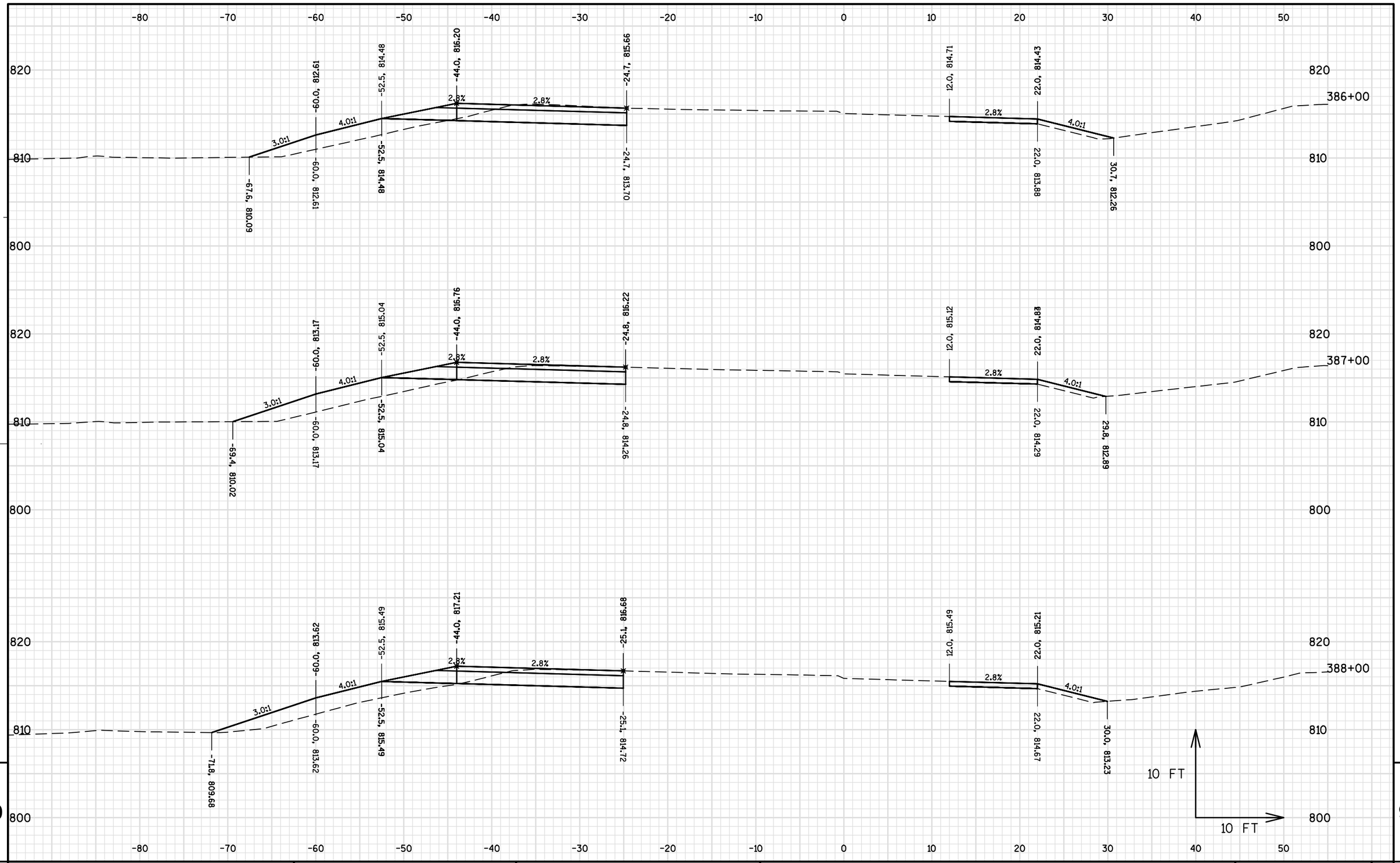


PROJECT NO: 1003-10-77	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: TEMPORARY WIDENING	SHEET 228 E



PROJECT NO: 1003-10-77	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: TEMPORARY WIDENING	SHEET 229	E

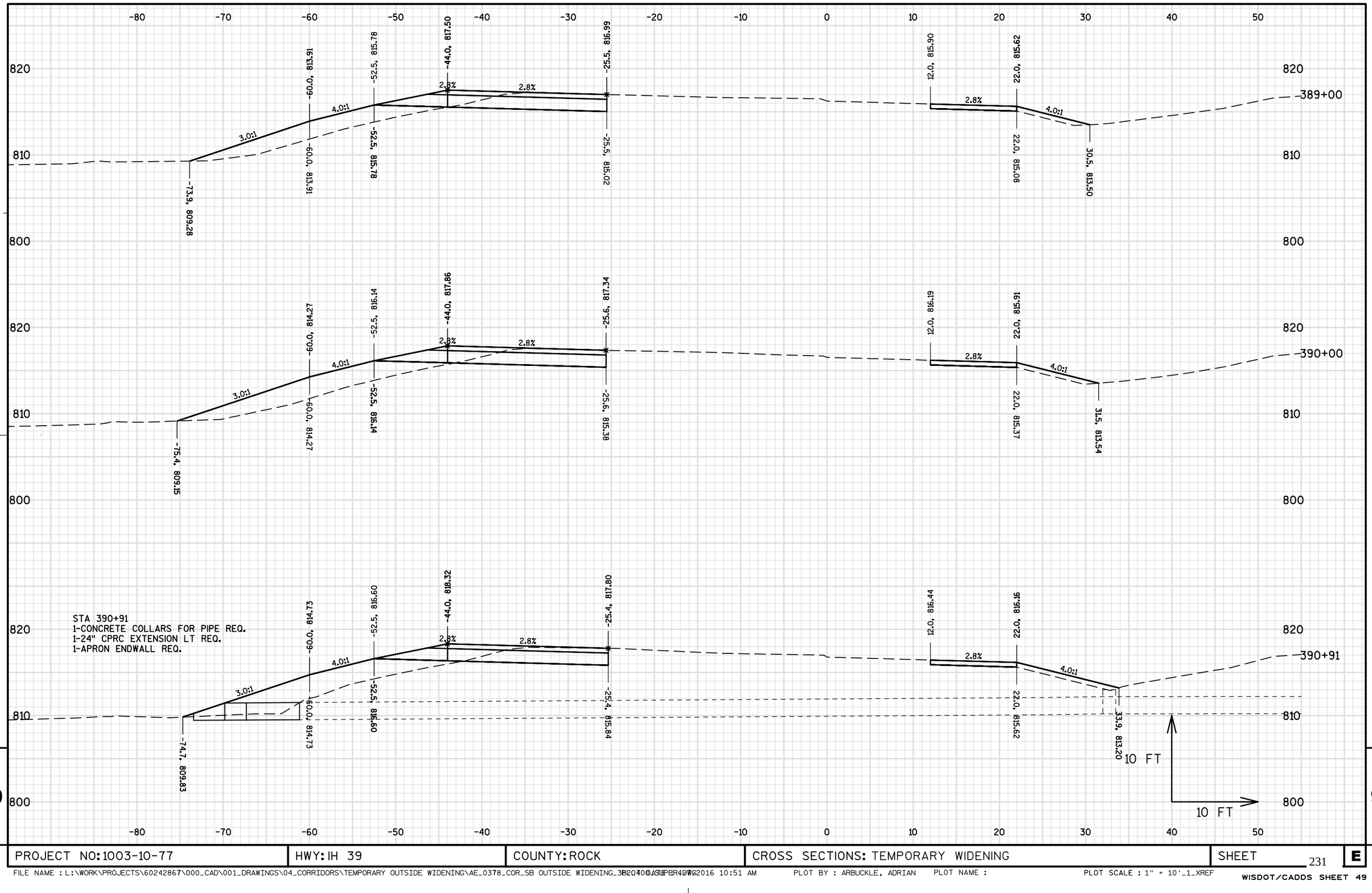
FILE NAME : L:\WORK\PROJECTS\60242867\000_CAD\001_DRAWINGS\04_CORRIDORS\TEMPORARY OUTSIDE WIDENING\AE_0378_COR_SB OUTSIDE WIDENING_3B2400.DGN 8/2/2016 11:36 AM PLOT BY : ARBUCKLE, ADRIAN PLOT NAME : PLOT SCALE : 1" = 10'_1_XREF



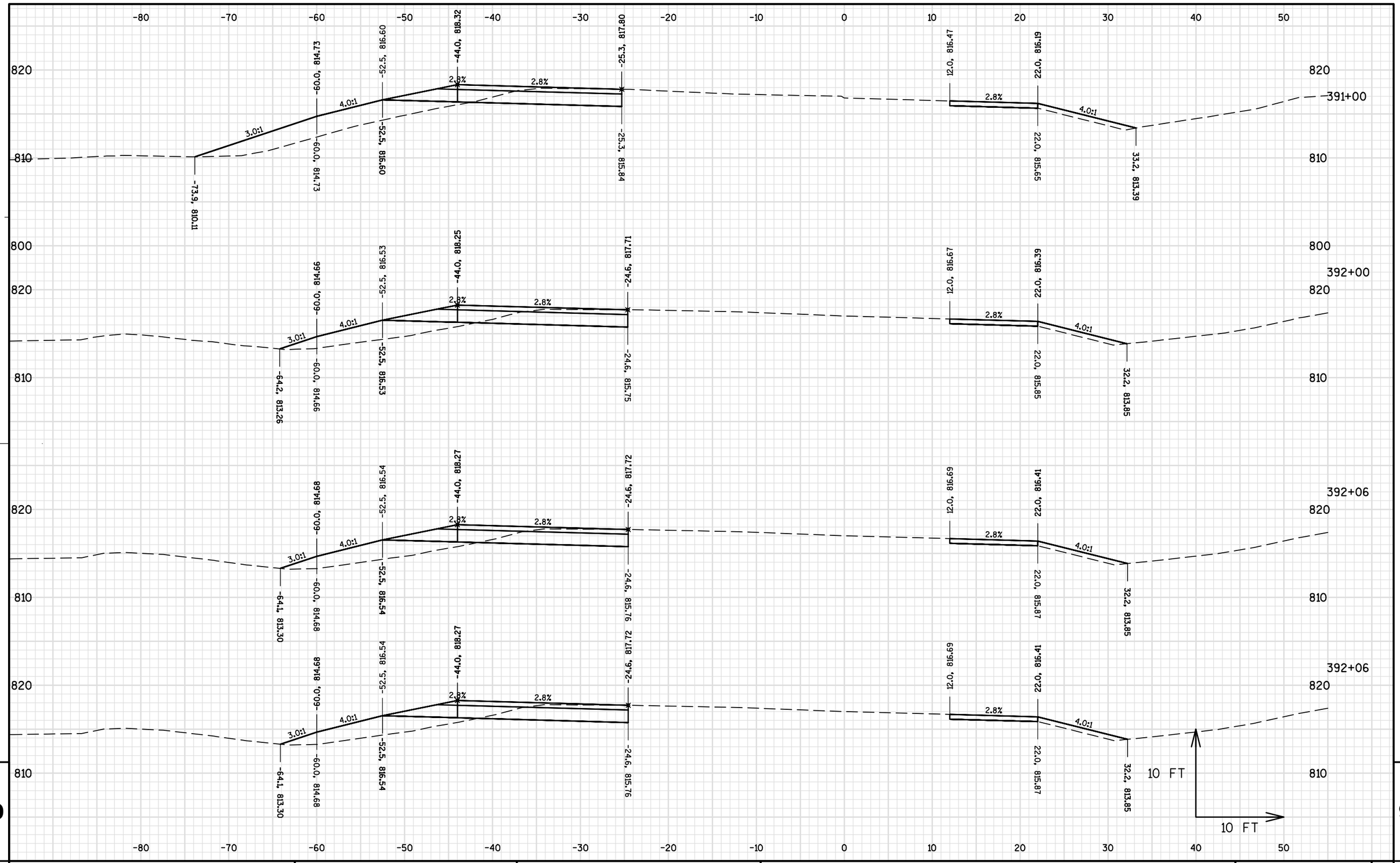
PROJECT NO: 1003-10-77	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: TEMPORARY WIDENING	SHEET 230	E

FILE NAME : L:\WORK\PROJECTS\60242867\000_CAD\001_DRAWINGS\04_CORRIDORS\TEMPORARY OUTSIDE WIDENING\AE_0378_COR_SB OUTSIDE WIDENING_3B2014.DGN USER: WC 2016 10:51 AM PLOT BY : ARBUCKLE, ADRIAN PLOT NAME : PLOT SCALE : 1" = 10'_1_XREF

WISDOT/CADDS SHEET 49



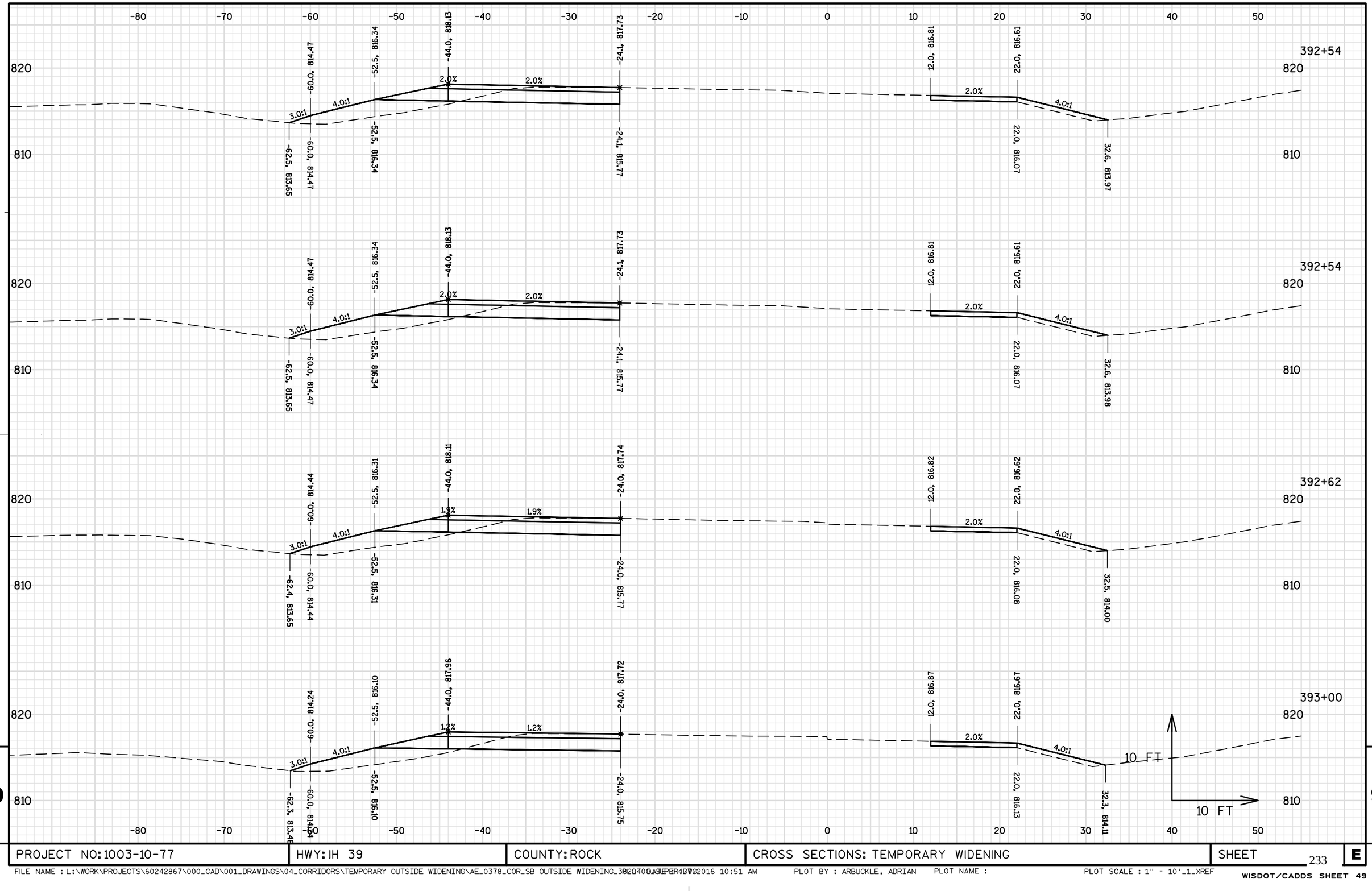
PROJECT NO: 1003-10-77	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: TEMPORARY WIDENING	SHEET 231	E



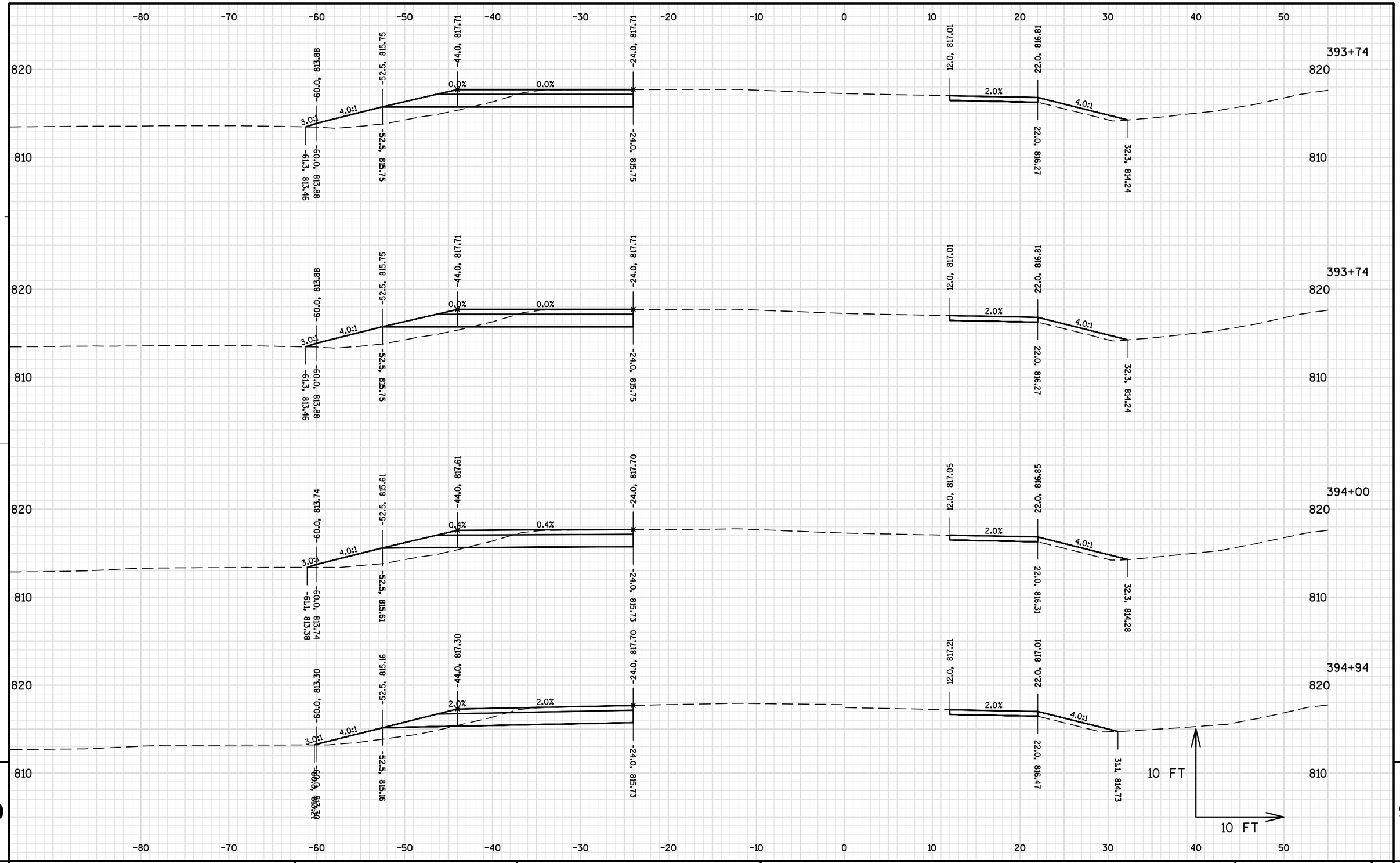
PROJECT NO: 1003-10-77	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: TEMPORARY WIDENING	SHEET	E

FILE NAME : L:\WORK\PROJECTS\60242867\000_CAD\001_DRAWINGS\04_CORRIDORS\TEMPORARY OUTSIDE WIDENING\AE_0378_COR_SB OUTSIDE WIDENING_3D2017.DGN LAST SAVED: 2016 10:51 AM PLOT BY : ARBUCKLE, ADRIAN PLOT NAME : PLOT SCALE : 1" = 10'_1_XREF

WISDOT/CADDS SHEET 49



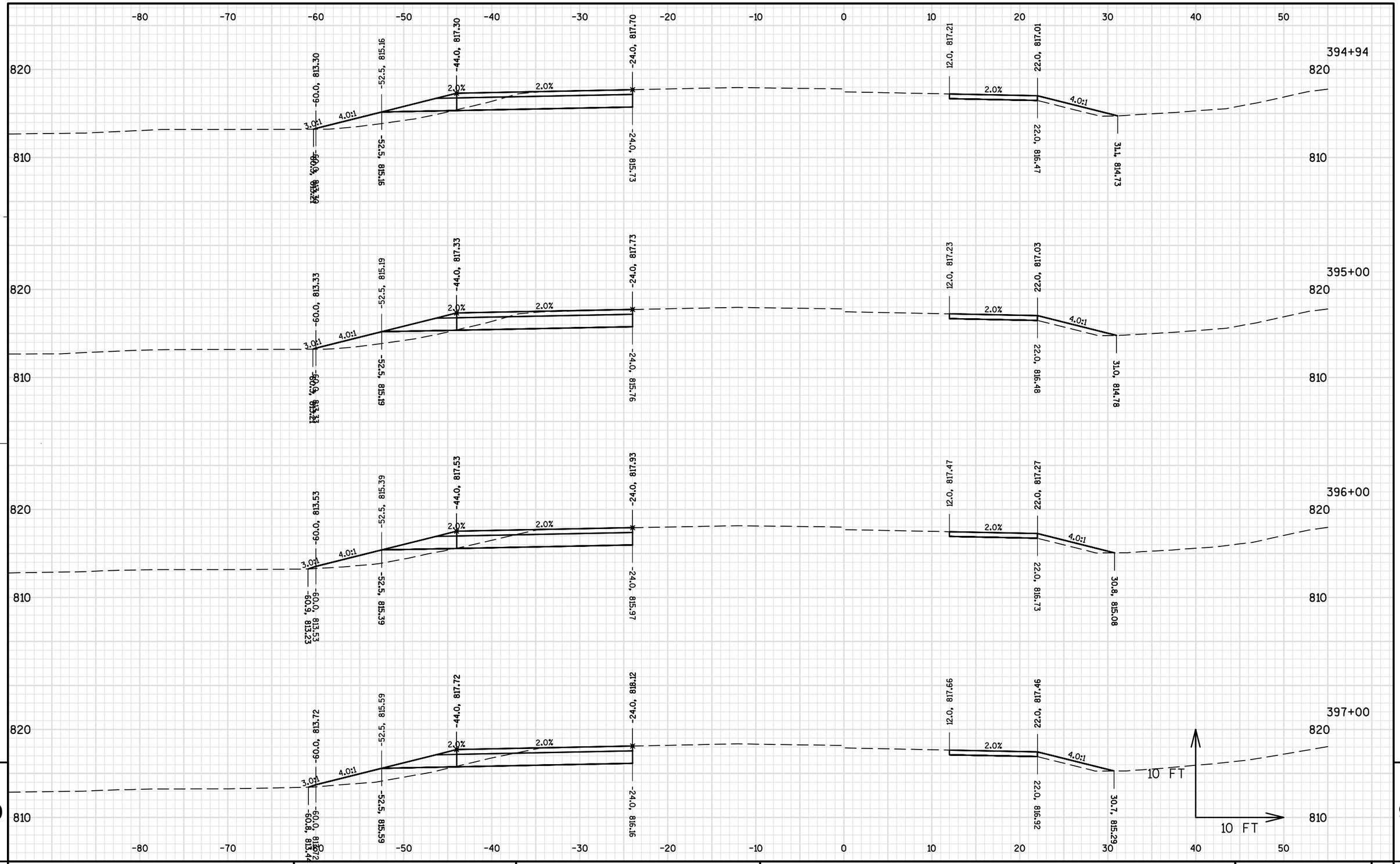
PROJECT NO: 1003-10-77	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: TEMPORARY WIDENING	SHEET 233	E



9

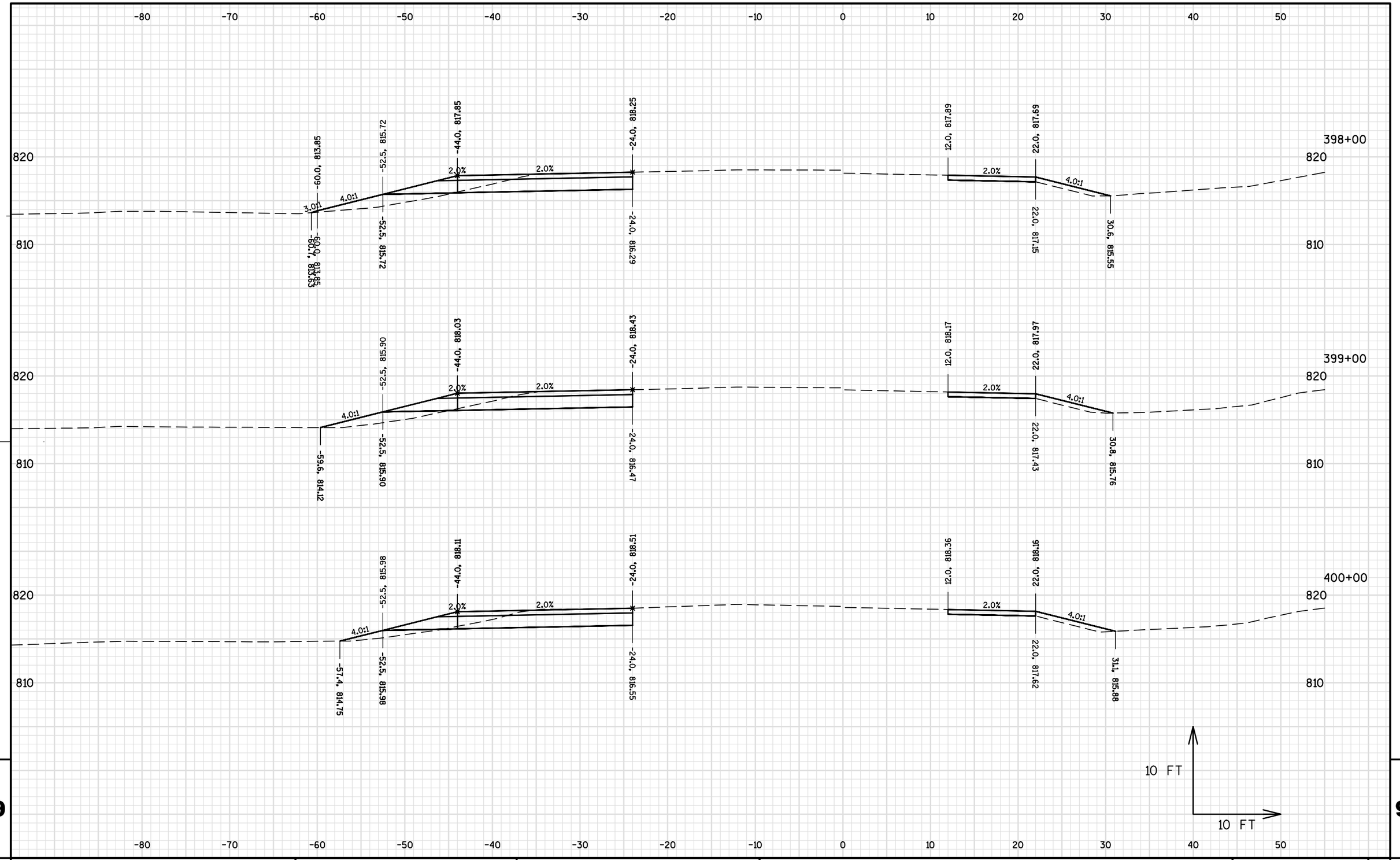
9

PROJECT NO: 1003-10-77	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: TEMPORARY WIDENING	SHEET 234	E

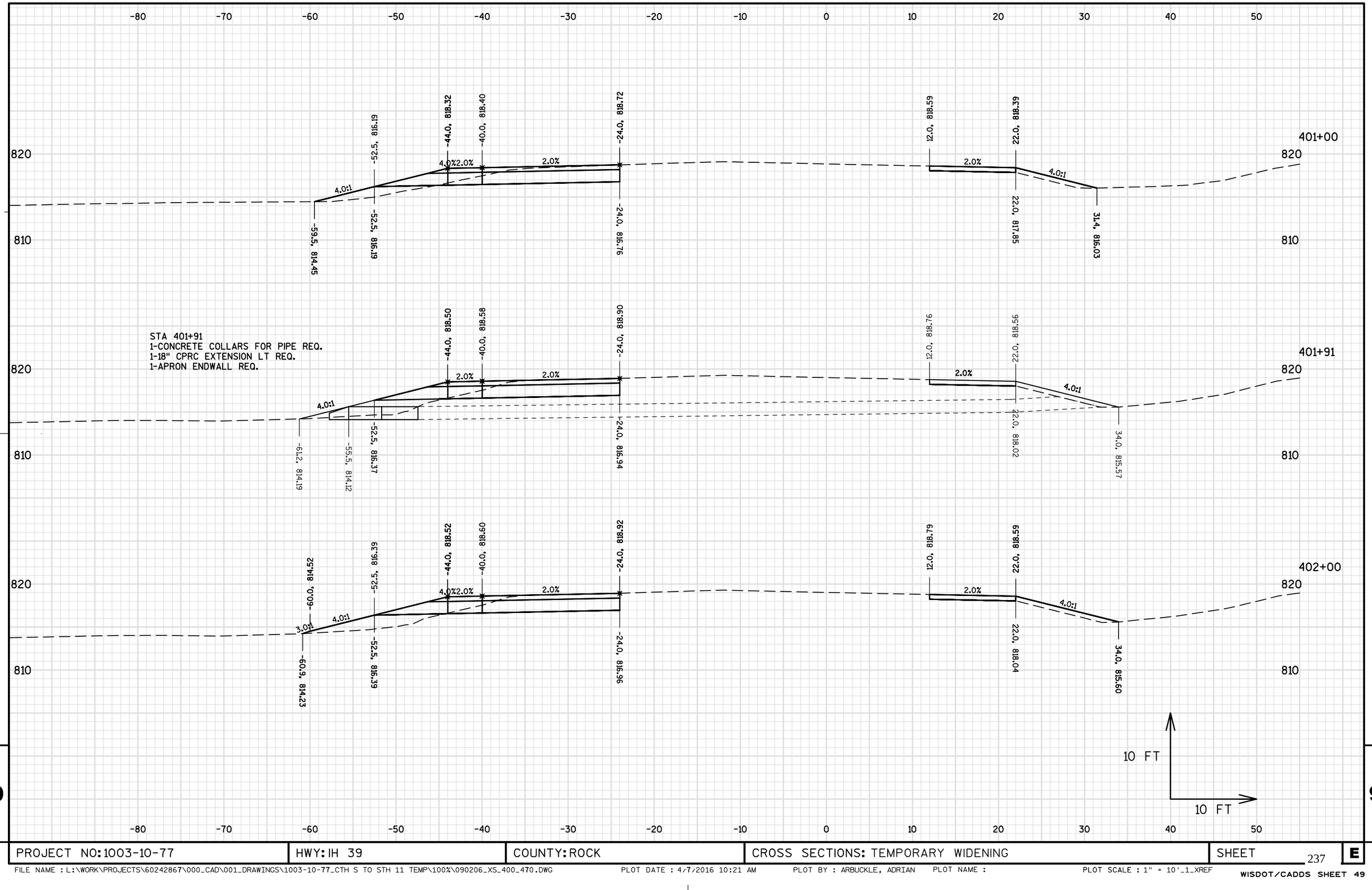


PROJECT NO: 1003-10-77	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: TEMPORARY WIDENING	SHEET 235	E

FILE NAME : L:\WORK\PROJECTS\60242867\000_CAD\001_DRAWINGS\04_CORRIDORS\TEMPORARY OUTSIDE WIDENING\AE_0378_COR_SB OUTSIDE WIDENING_3D2040.DGN PLOT DATE : 2016 10:51 AM PLOT BY : ARBUCKLE, ADRIAN PLOT NAME : PLOT SCALE : 1" = 10'_1_XREF



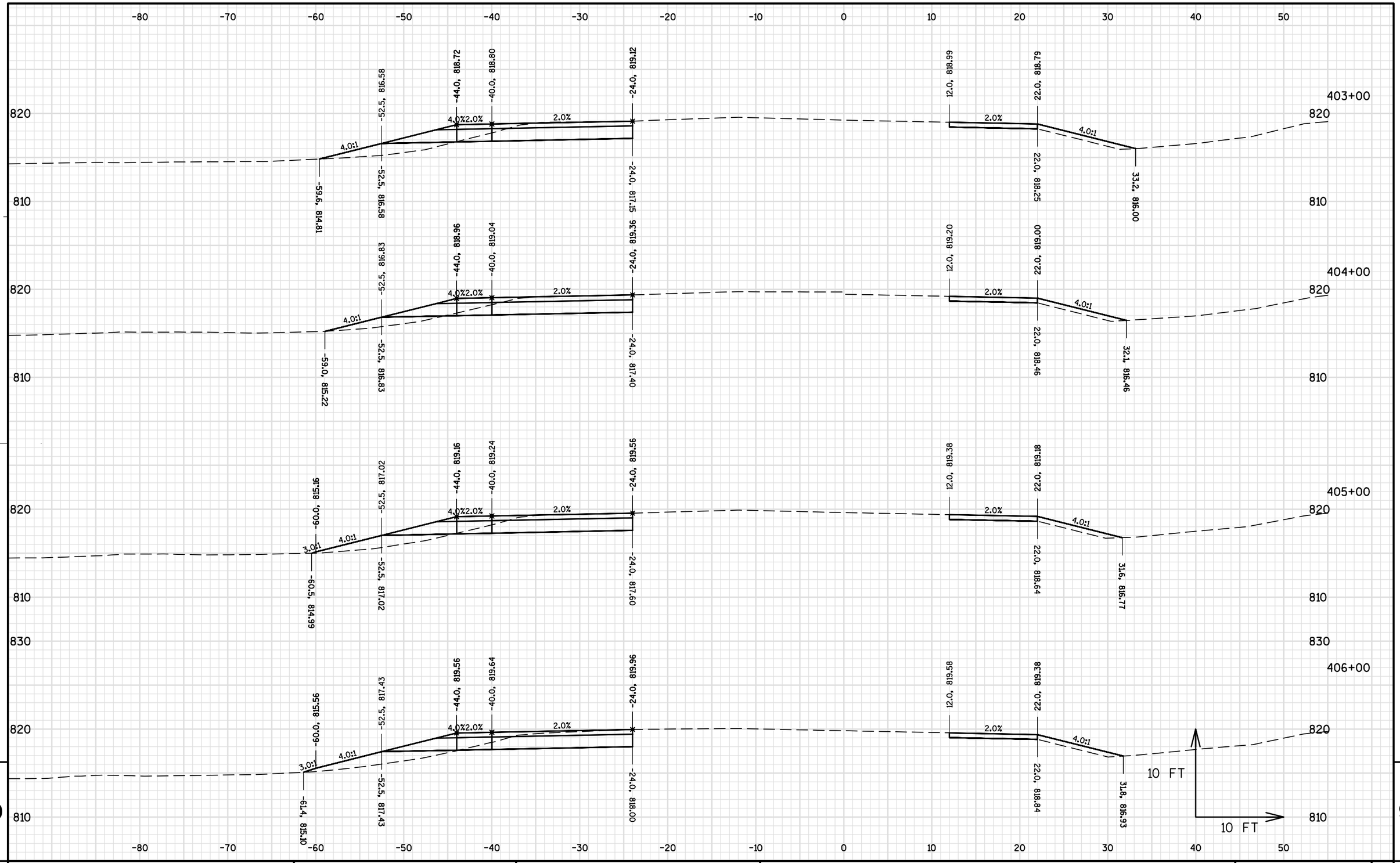
PROJECT NO: 1003-10-77	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: TEMPORARY WIDENING	SHEET 236 E



PROJECT NO: 1003-10-77	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: TEMPORARY WIDENING	SHEET 237	E

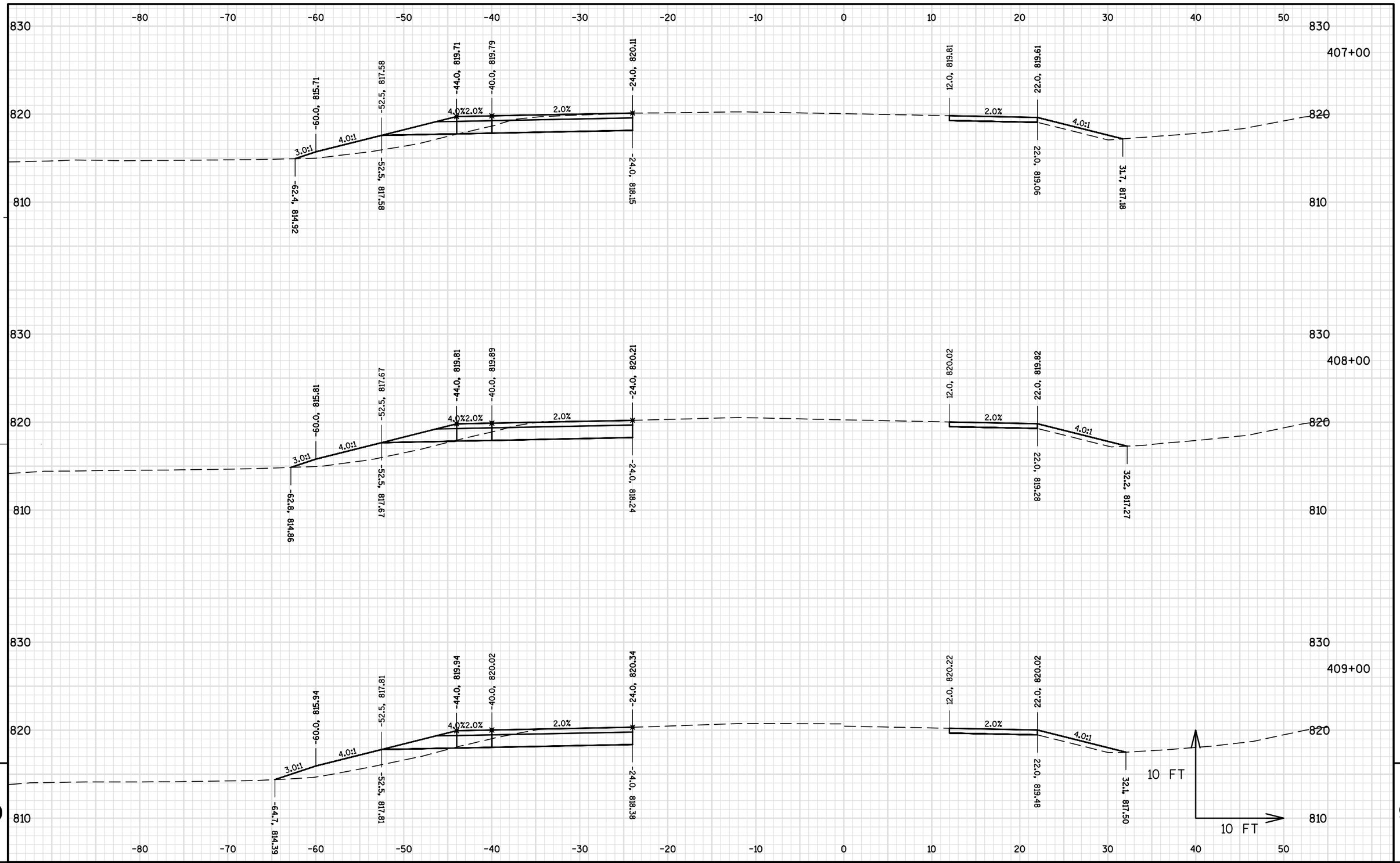
FILE NAME : L:\WORK\PROJECTS\60242867\000_CAD\001_DRAWINGS\1003-10-77_CTH S TO STH 11 TEMP\100%\090206_XS_400_470.DWG PLOT DATE : 4/7/2016 10:21 AM PLOT BY : ARBUCKLE, ADRIAN PLOT NAME : PLOT SCALE : 1" = 10'_1_XREF

WISDOT/CADDS SHEET 49



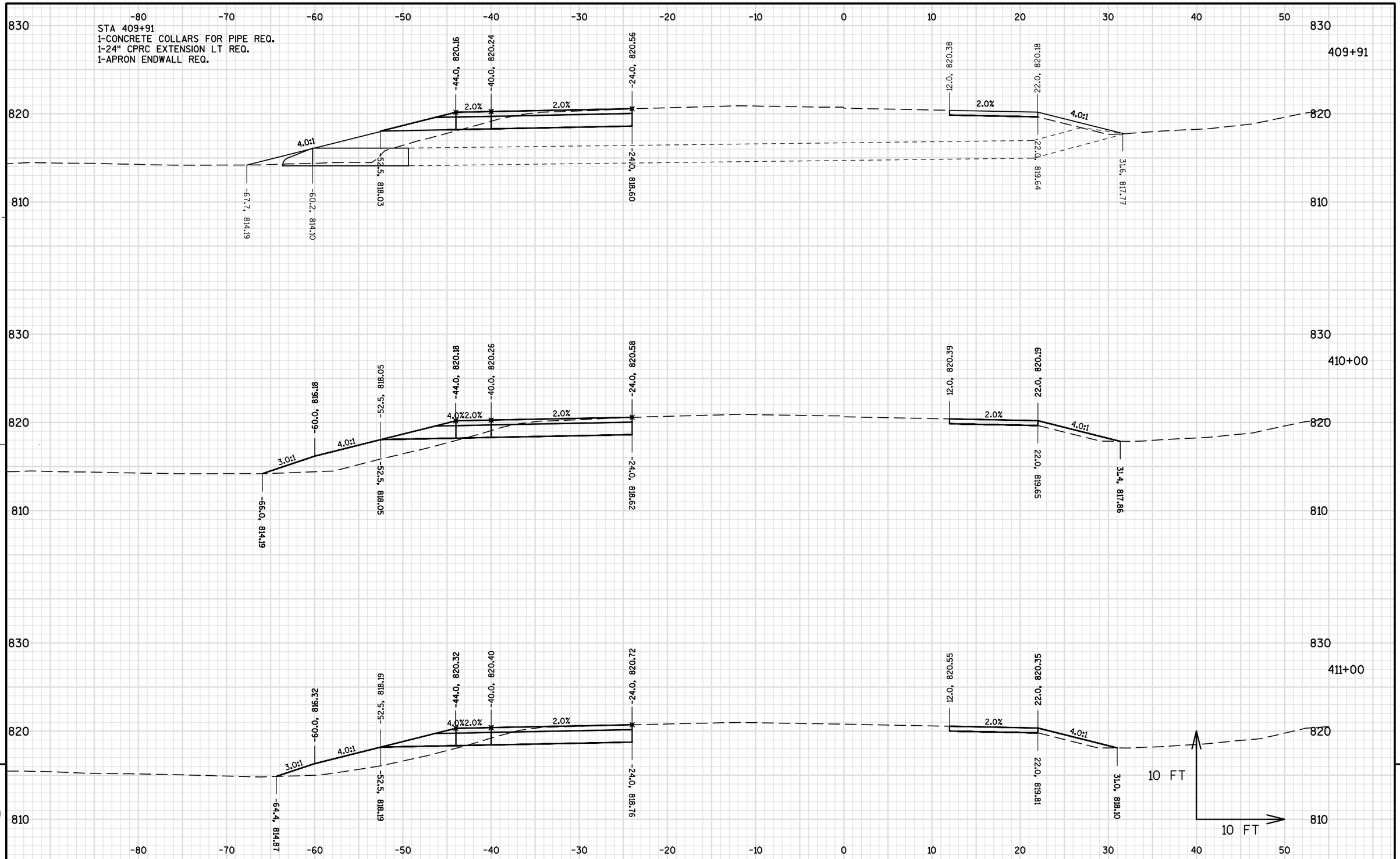
PROJECT NO: 1003-10-77	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: TEMPORARY WIDENING	SHEET	E

FILE NAME : L:\WORK\PROJECTS\60242867\000_CAD\001_DRAWINGS\1003-10-77_CTH S TO STH 11 TEMP\100%\090206_XS_400_470.DWG PLOT DATE : 4/7/2016 10:21 AM PLOT BY : ARBUCKLE, ADRIAN PLOT NAME : PLOT SCALE : 1" = 10'_1_XREF
WISDOT/CADDS SHEET 49

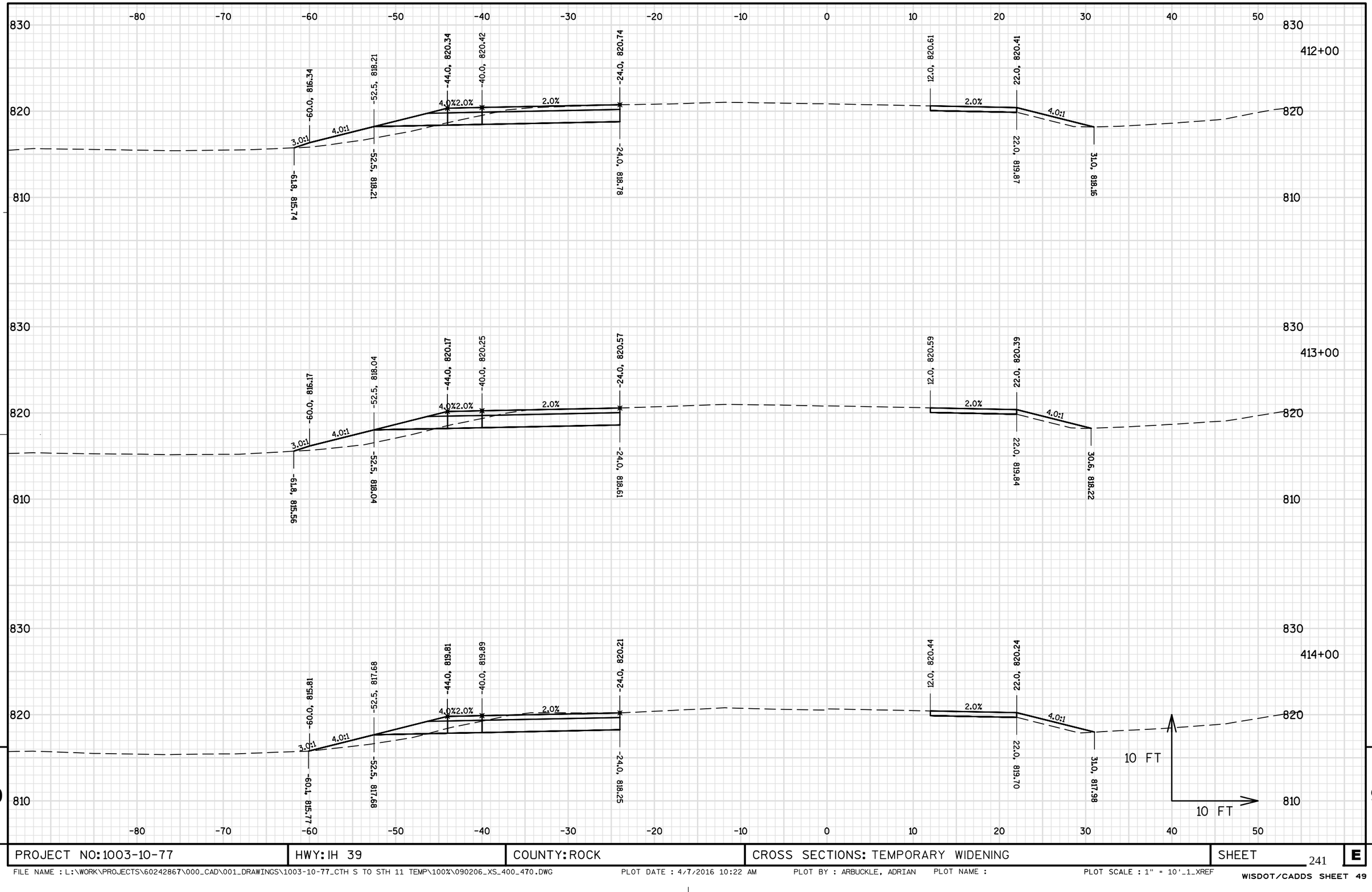


PROJECT NO: 1003-10-77	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: TEMPORARY WIDENING	SHEET 239 E

STA 409+91
1-CONCRETE COLLARS FOR PIPE REQ.
1-24" CPRC EXTENSION LT REQ.
1-APRON ENDWALL REQ.



PROJECT NO: 1003-10-77	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: TEMPORARY WIDENING	SHEET 240	E

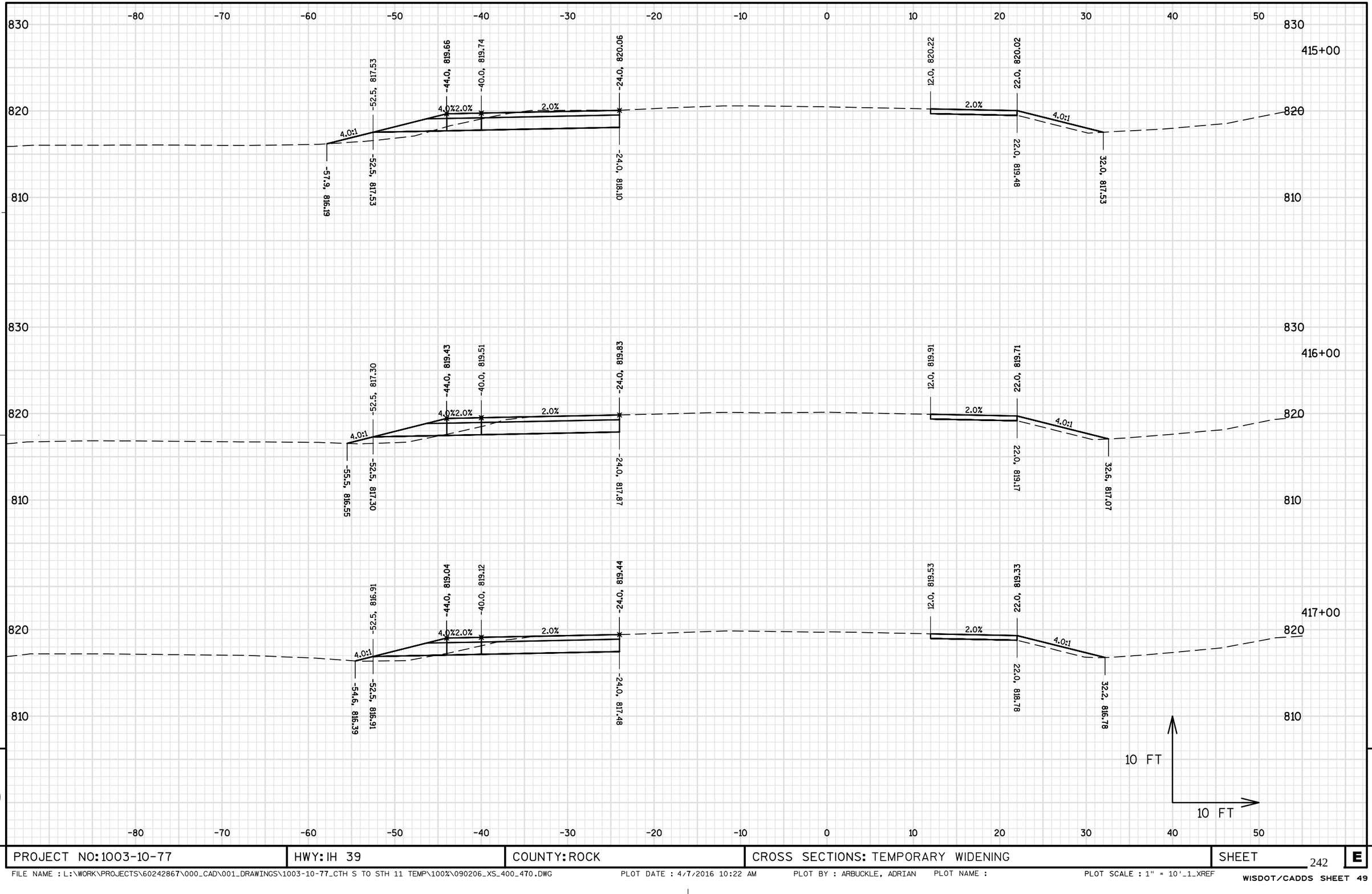


9

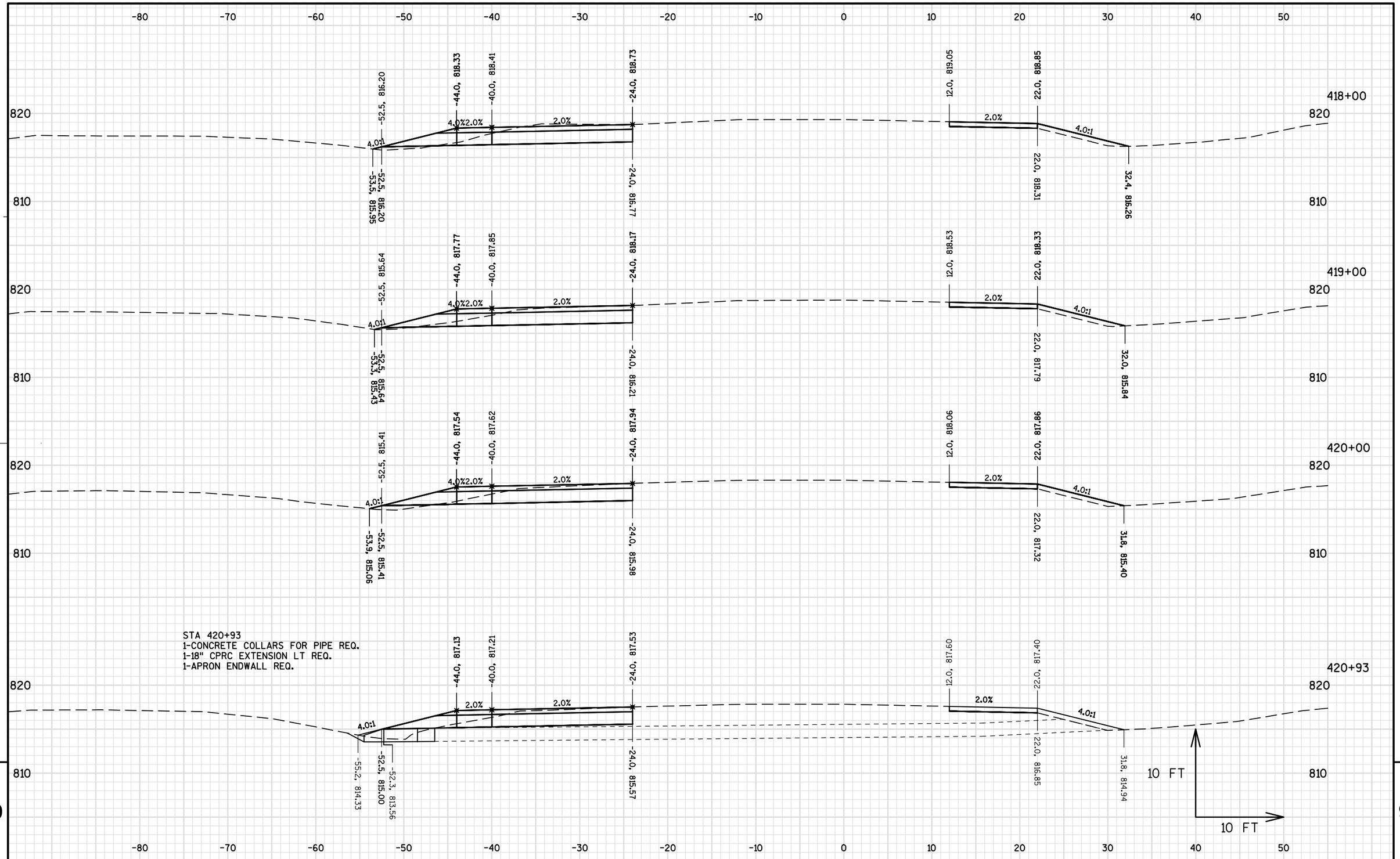
PROJECT NO: 1003-10-77	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: TEMPORARY WIDENING	SHEET	E

FILE NAME : L:\WORK\PROJECTS\60242867\000_CAD\001_DRAWINGS\1003-10-77_CTH S TO STH 11 TEMP\100%\090206_XS_400_470.DWG PLOT DATE : 4/7/2016 10:22 AM PLOT BY : ARBUCKLE, ADRIAN PLOT NAME : PLOT SCALE : 1" = 10'_1_XREF

WISDOT/CADDS SHEET 49



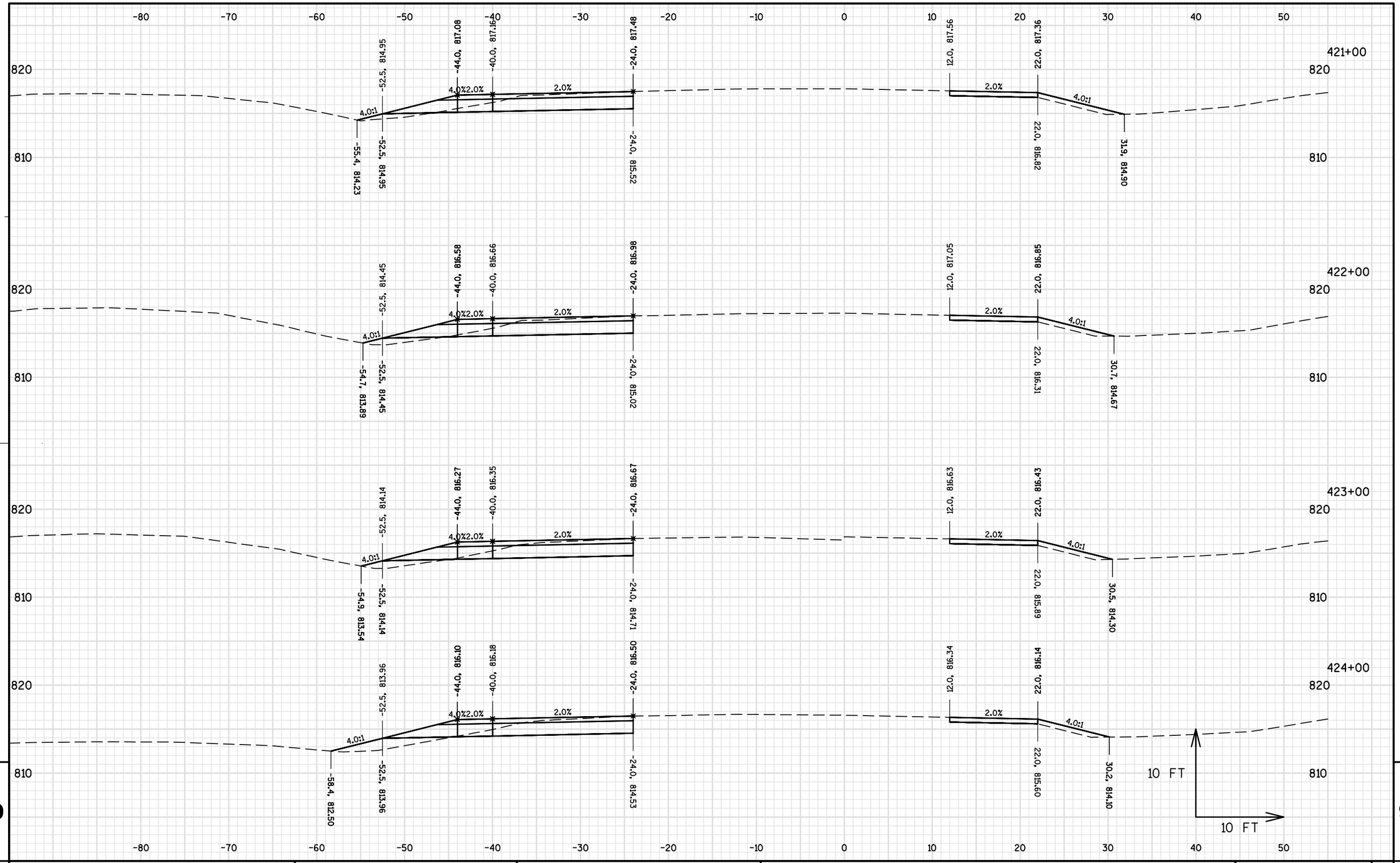
PROJECT NO: 1003-10-77	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: TEMPORARY WIDENING	SHEET 242	E



9

PROJECT NO: 1003-10-77	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: TEMPORARY WIDENING	SHEET	E

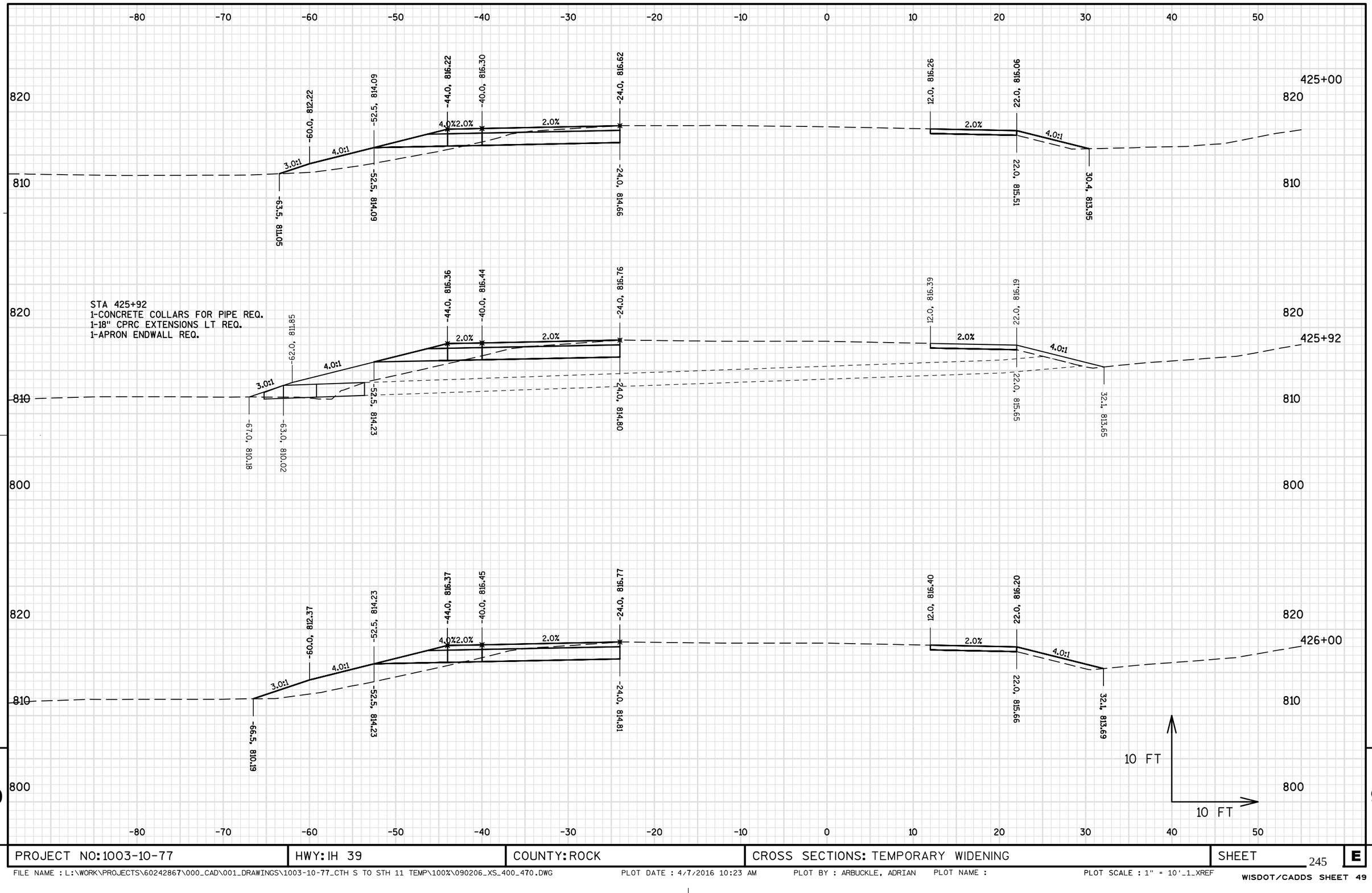
FILE NAME : L:\WORK\PROJECTS\60242867\000_CAD\001_DRAWINGS\1003-10-77_CTH S TO STH 11 TEMP\100%\090206_XS_400_470.DWG PLOT DATE : 4/7/2016 10:23 AM PLOT BY : ARBUCKLE, ADRIAN PLOT NAME : PLOT SCALE : 1" = 10'_1_XREF
WISDOT/CADDS SHEET 49



PROJECT NO: 1003-10-77	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: TEMPORARY WIDENING	SHEET 244	E

FILE NAME : L:\WORK\PROJECTS\60242867\000_CAD\001_DRAWINGS\1003-10-77_CTH S TO STH 11 TEMP\100%\090206_XS_400_470.DWG PLOT DATE : 4/7/2016 10:23 AM PLOT BY : ARBUCKLE, ADRIAN PLOT NAME : PLOT SCALE : 1" = 10'_1_XREF

WISDOT/CADDS SHEET 49

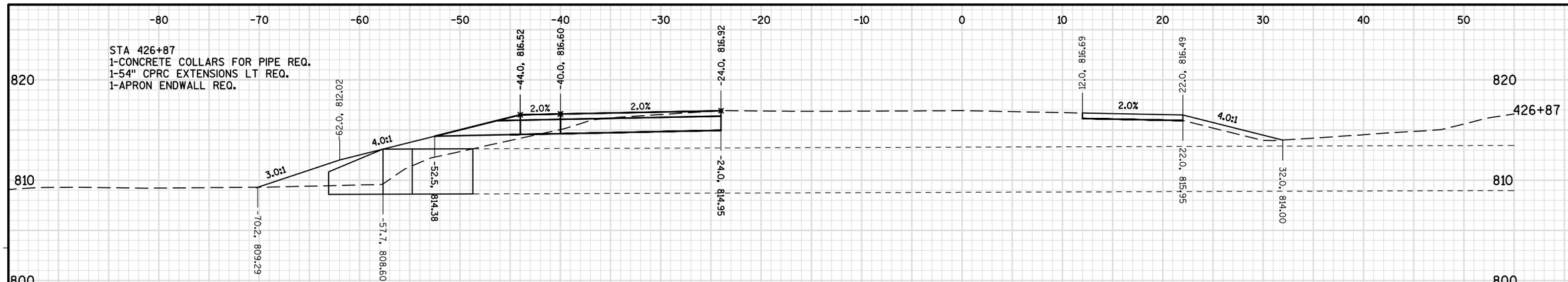


PROJECT NO: 1003-10-77	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: TEMPORARY WIDENING	SHEET 245	E

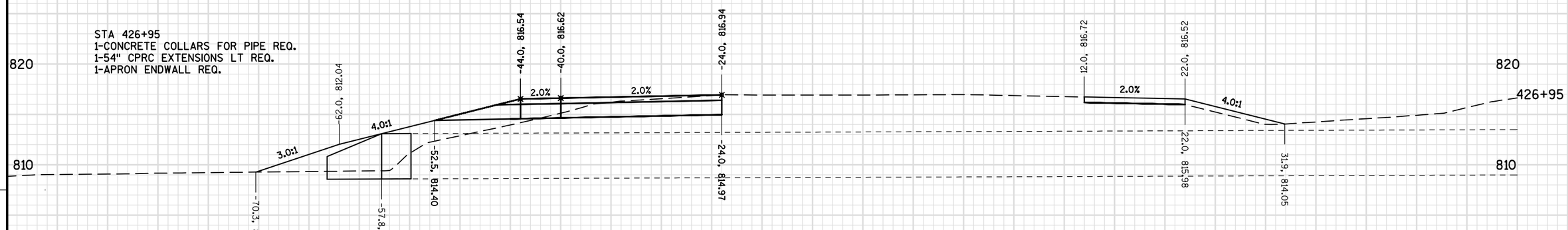
FILE NAME : L:\WORK\PROJECTS\60242867\000_CAD\001_DRAWINGS\1003-10-77_CTH S TO STH 11 TEMP\100%\090206_XS_400_470.DWG PLOT DATE : 4/7/2016 10:23 AM PLOT BY : ARBUCKLE, ADRIAN PLOT NAME : PLOT SCALE : 1" = 10'_1_XREF

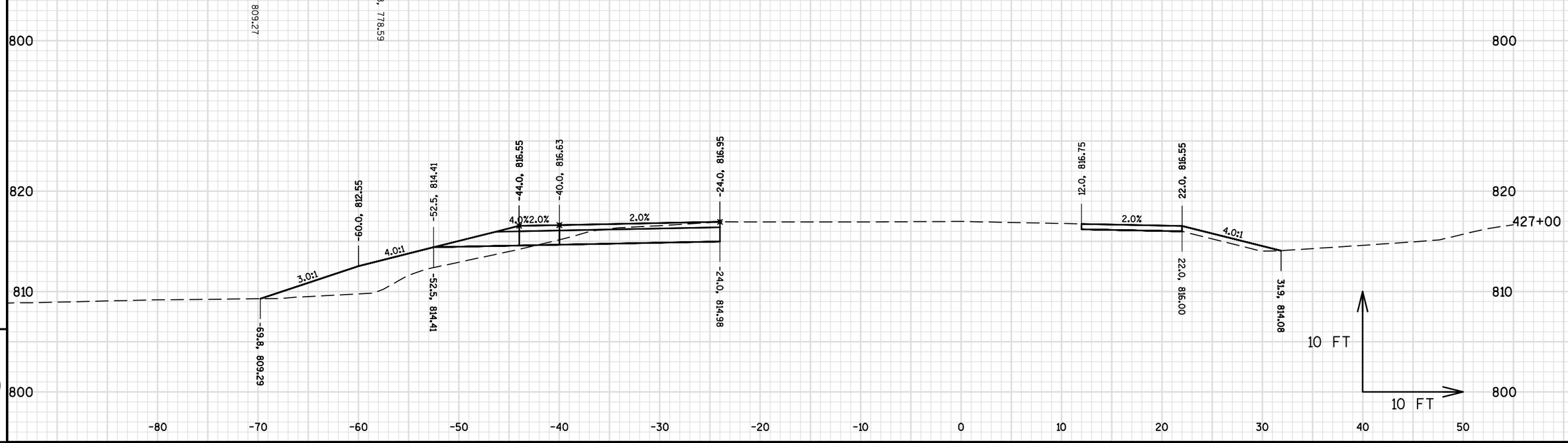
WISDOT/CADDS SHEET 49

STA 426+87
1-CONCRETE COLLARS FOR PIPE REQ.
1-54" CPRC EXTENSIONS LT REQ.
1-APRON ENDWALL REQ.



STA 426+95
1-CONCRETE COLLARS FOR PIPE REQ.
1-54" CPRC EXTENSIONS LT REQ.
1-APRON ENDWALL REQ.





9

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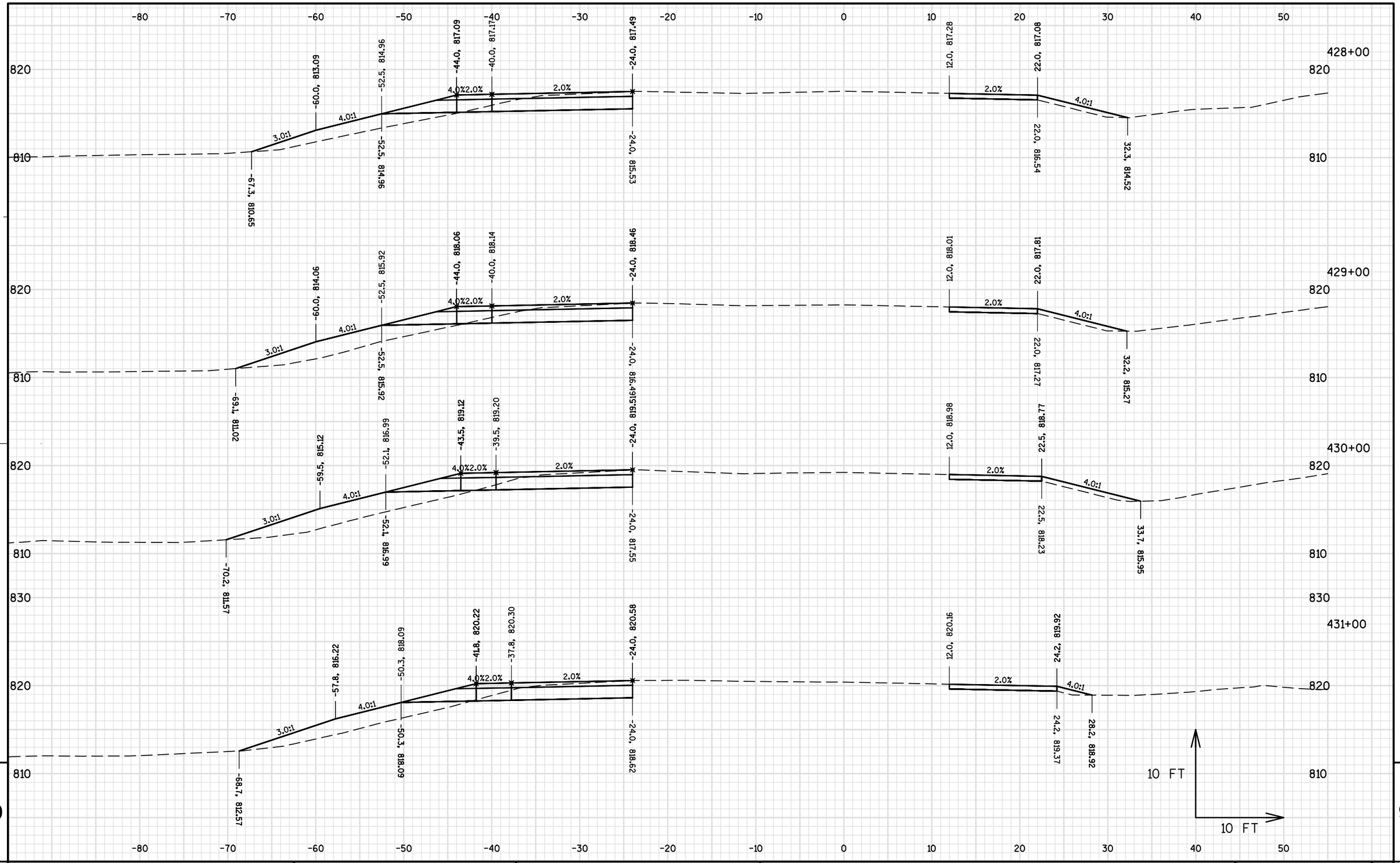
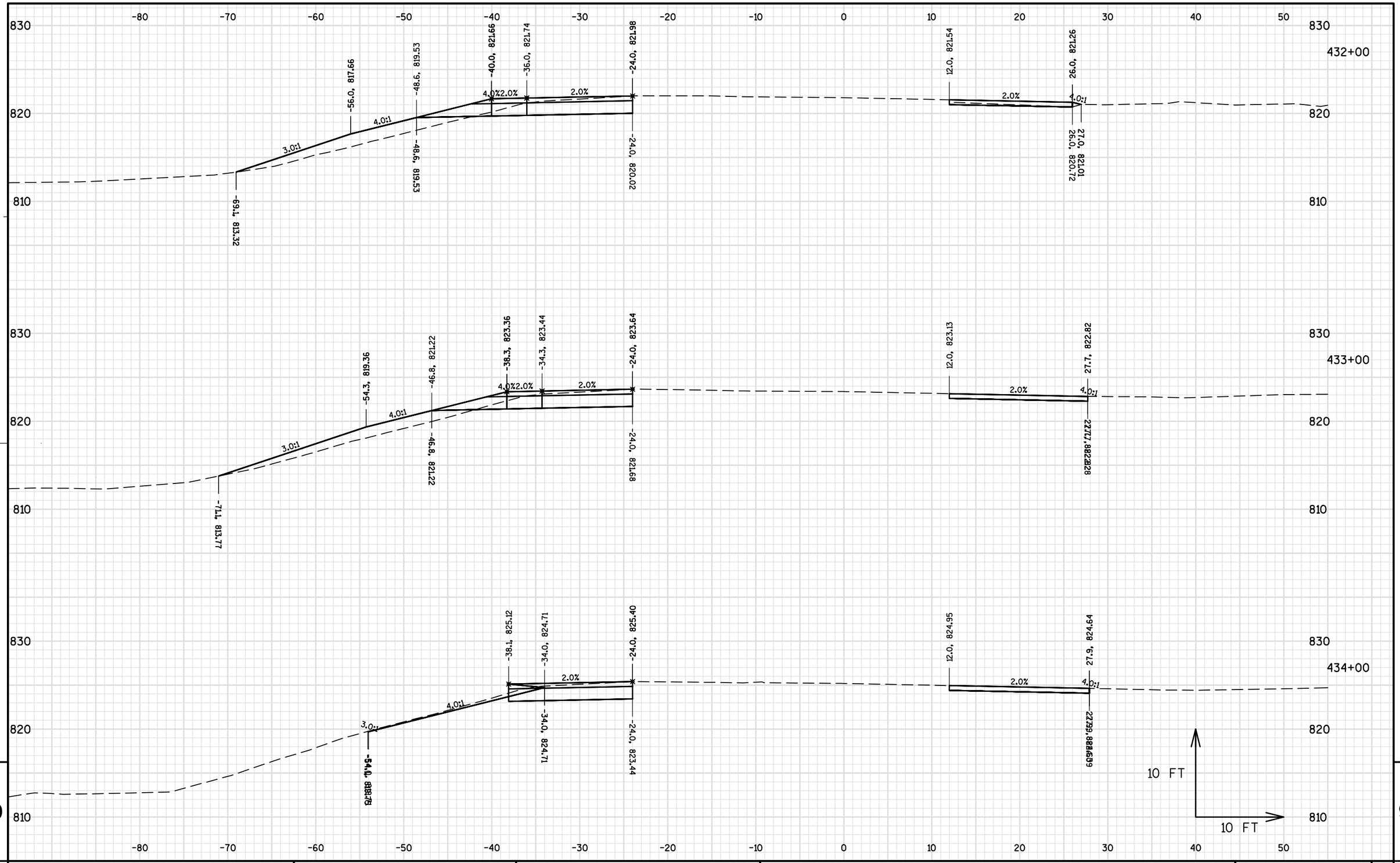
PROJECT NO: 1003-10-77	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: TEMPORARY WIDENING	SHEET 246	E



PROJECT NO: 1003-10-77	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: TEMPORARY WIDENING	SHEET 247	E

FILE NAME : L:\WORK\PROJECTS\60242867\000_CAD\001_DRAWINGS\1003-10-77_CTH S TO STH 11 TEMP\100%\090206_XS_400_470.DWG PLOT DATE : 4/7/2016 10:24 AM PLOT BY : ARBUCKLE, ADRIAN PLOT NAME : PLOT SCALE : 1" = 10'_1_XREF

WISDOT/CADDS SHEET 49

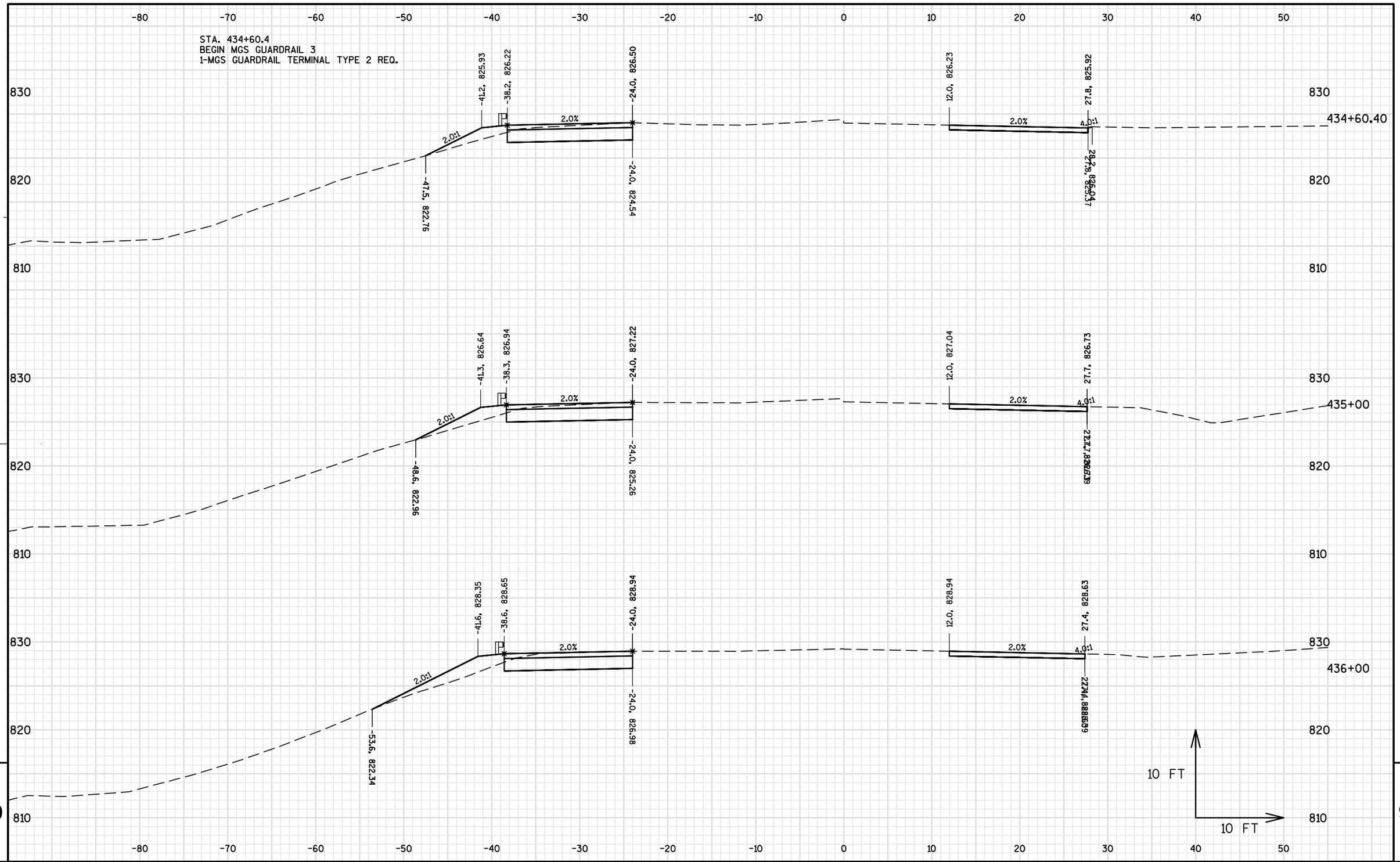


PROJECT NO: 1003-10-77	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: TEMPORARY WIDENING	SHEET 248	E

FILE NAME : L:\WORK\PROJECTS\60242867\000_CAD\001_DRAWINGS\1003-10-77_CTH S TO STH 11 TEMP\100%\090206_XS_400_470.DWG PLOT DATE : 4/7/2016 10:24 AM PLOT BY : ARBUCKLE, ADRIAN PLOT NAME : PLOT SCALE : 1" = 10'_1_XREF

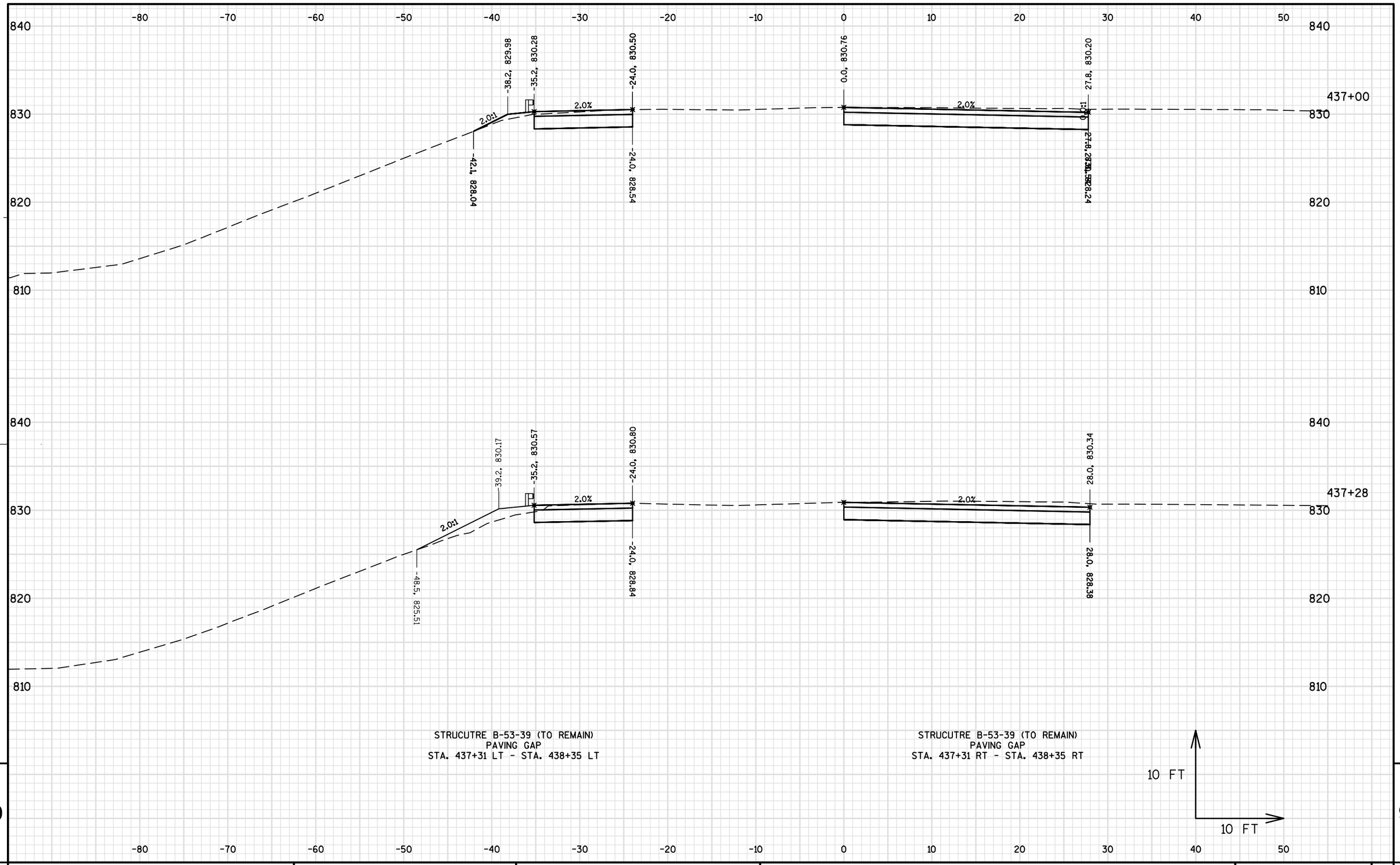
WISDOT/CADDS SHEET 49

STA. 434+60.4
BEGIN MGS GUARDRAIL 3
1-MGS GUARDRAIL TERMINAL TYPE 2 REQ.



PROJECT NO: 1003-10-77	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: TEMPORARY WIDENING	SHEET 249	E

FILE NAME : L:\WORK\PROJECTS\60242867\000_CAD\001_DRAWINGS\1003-10-77_CTH S TO STH 11 TEMP\100%\090206_XS_400_470.DWG PLOT DATE : 4/7/2016 10:24 AM PLOT BY : ARBUCKLE, ADRIAN PLOT NAME : PLOT SCALE : 1" = 10'_1_XREF



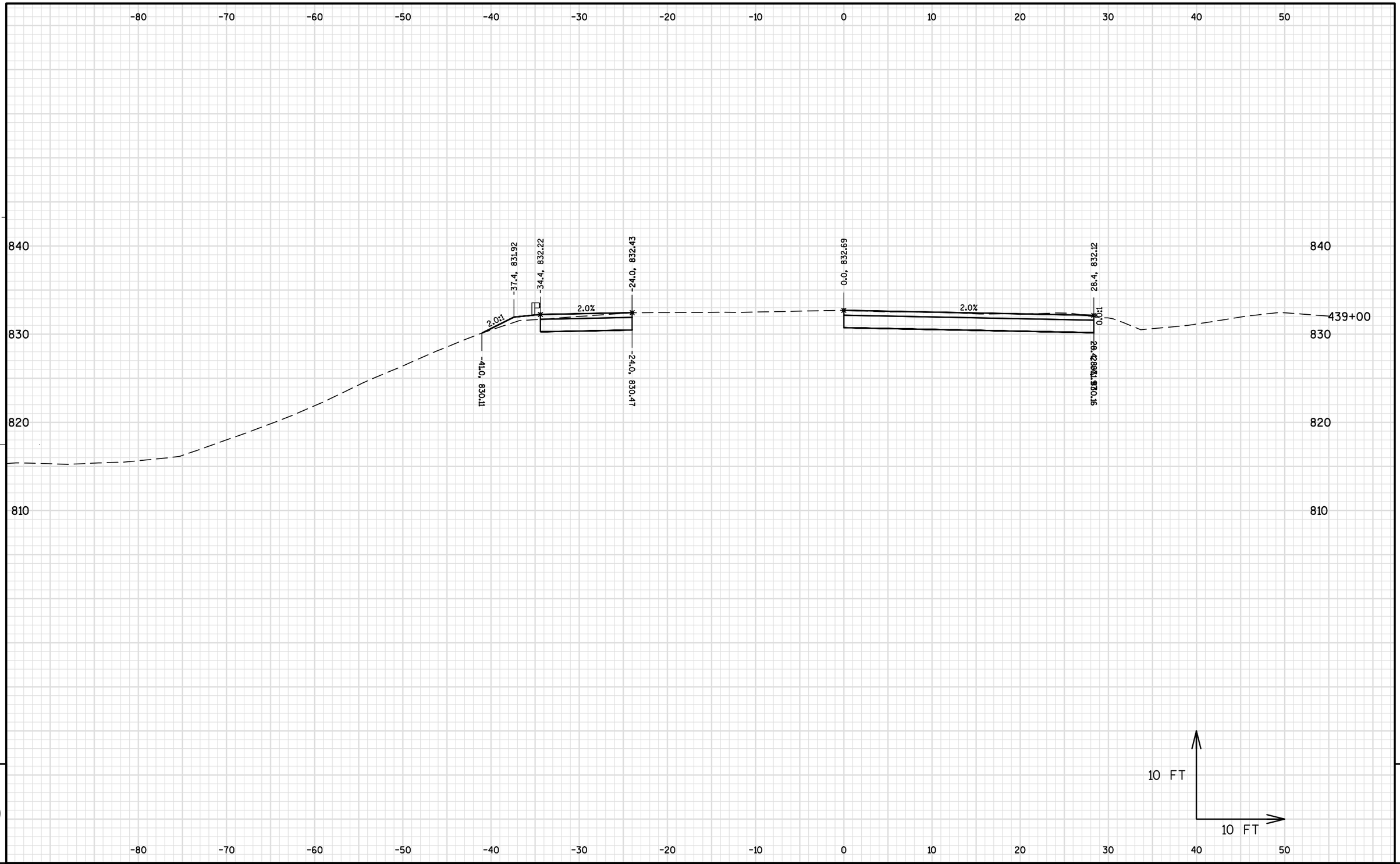
STRUCUTRE B-53-39 (TO REMAIN)
PAVING GAP
STA. 437+31 LT - STA. 438+35 LT

STRUCUTRE B-53-39 (TO REMAIN)
PAVING GAP
STA. 437+31 RT - STA. 438+35 RT

10 FT
10 FT

9 9

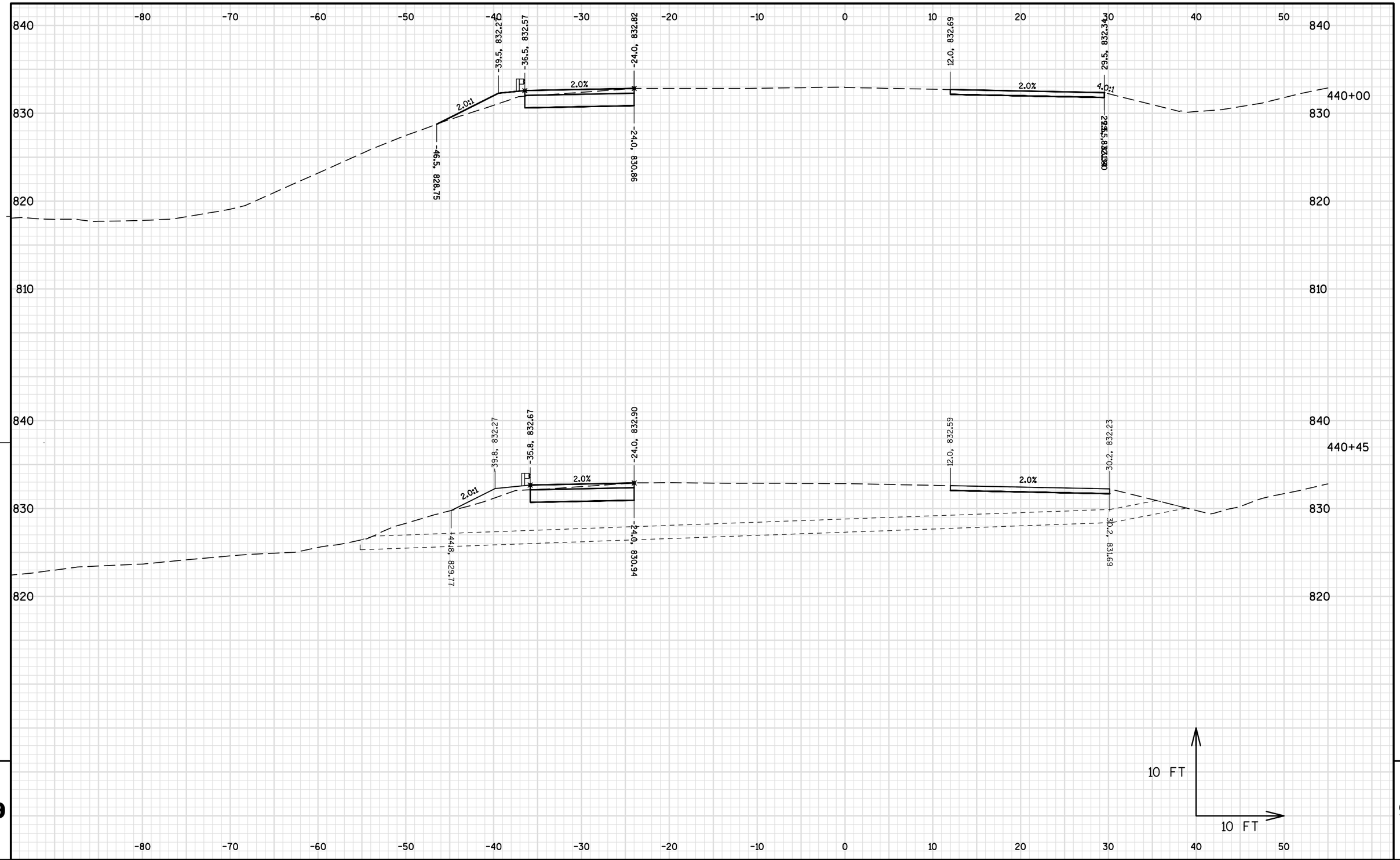
PROJECT NO: 1003-10-77	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: TEMPORARY WIDENING	SHEET 250	E



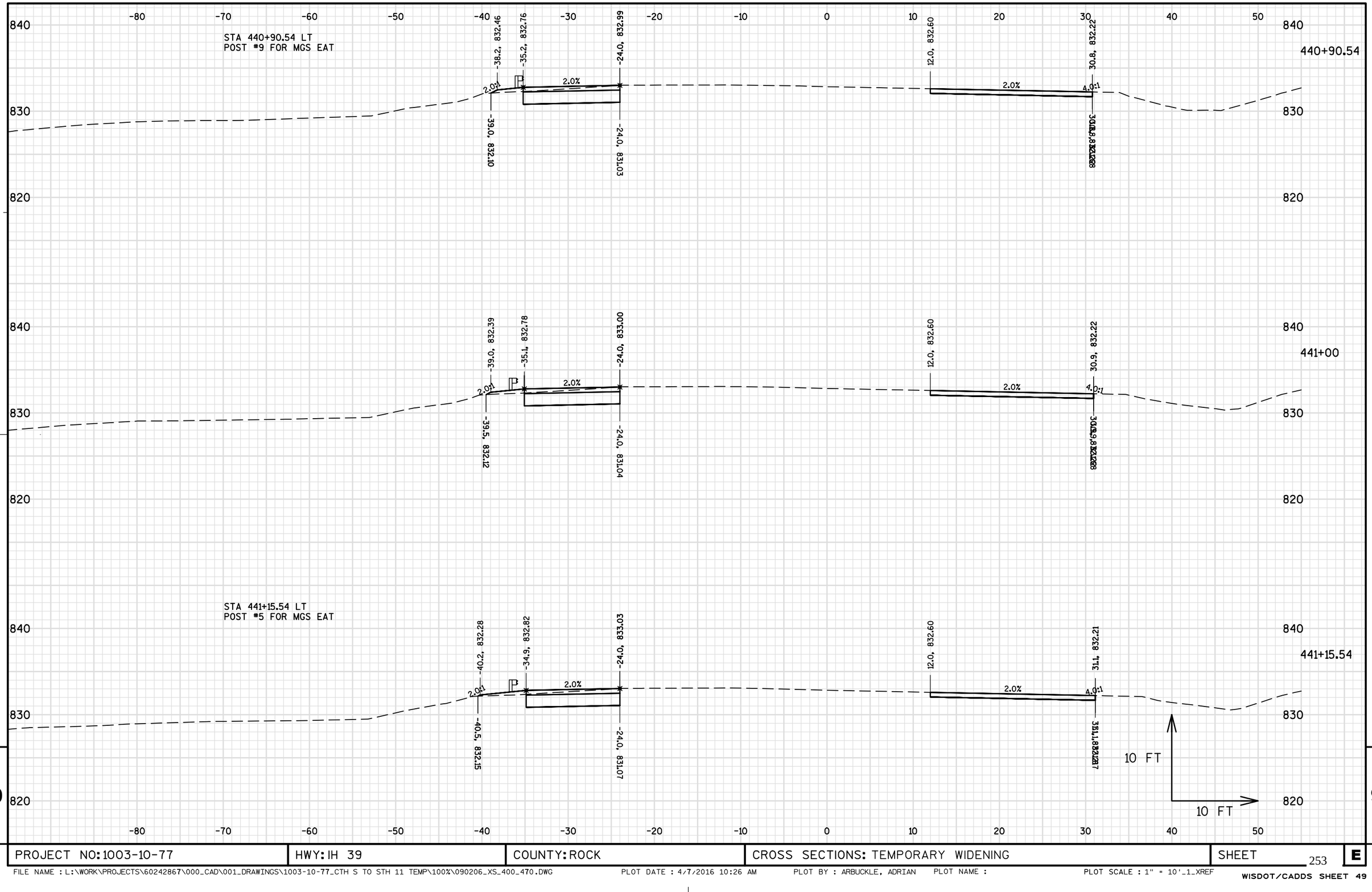
PROJECT NO: 1003-10-77	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: TEMPORARY WIDENING	SHEET 251	E

FILE NAME : L:\WORK\PROJECTS\60242867\000_CAD\001_DRAWINGS\1003-10-77_CTH S TO STH 11 TEMP\100%\090206_XS_400_470.DWG PLOT DATE : 4/7/2016 10:25 AM PLOT BY : ARBUCKLE, ADRIAN PLOT NAME : PLOT SCALE : 1" = 10'_1_XREF

WISDOT/CADDS SHEET 49



PROJECT NO: 1003-10-77	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: TEMPORARY WIDENING	SHEET 252	E



PROJECT NO: 1003-10-77	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: TEMPORARY WIDENING	SHEET 253 E

STA 441+40.54 LT
POST #1 FOR MGS EAT

441+40.54

-43.1, 832.06
-35.1, 832.86
-24.0, 833.09
12.0, 832.63
30.9, 832.25
-45.3, 830.97
-24.0, 831.12
2.0:1
2.0%
2.0%
4.0:1

442+00

-40.3, 832.54
-36.3, 832.95
-24.0, 833.19
12.0, 832.78
29.7, 832.42
-48.6, 829.78
-40.3, 832.54
-24.0, 832.23
3.0:1
0.0:1
2.0%
2.0%
4.0:1

443+00

-38.2, 833.09
-34.2, 833.17
-24.0, 833.38
12.0, 832.99
27.8, 832.68
-54.2, 829.09
-46.8, 830.96
-58.5, 827.67
-46.8, 830.96
-24.0, 831.41
3.0:1
4.0:1
4.0%2.0%
2.0%
2.0%
4.0:1

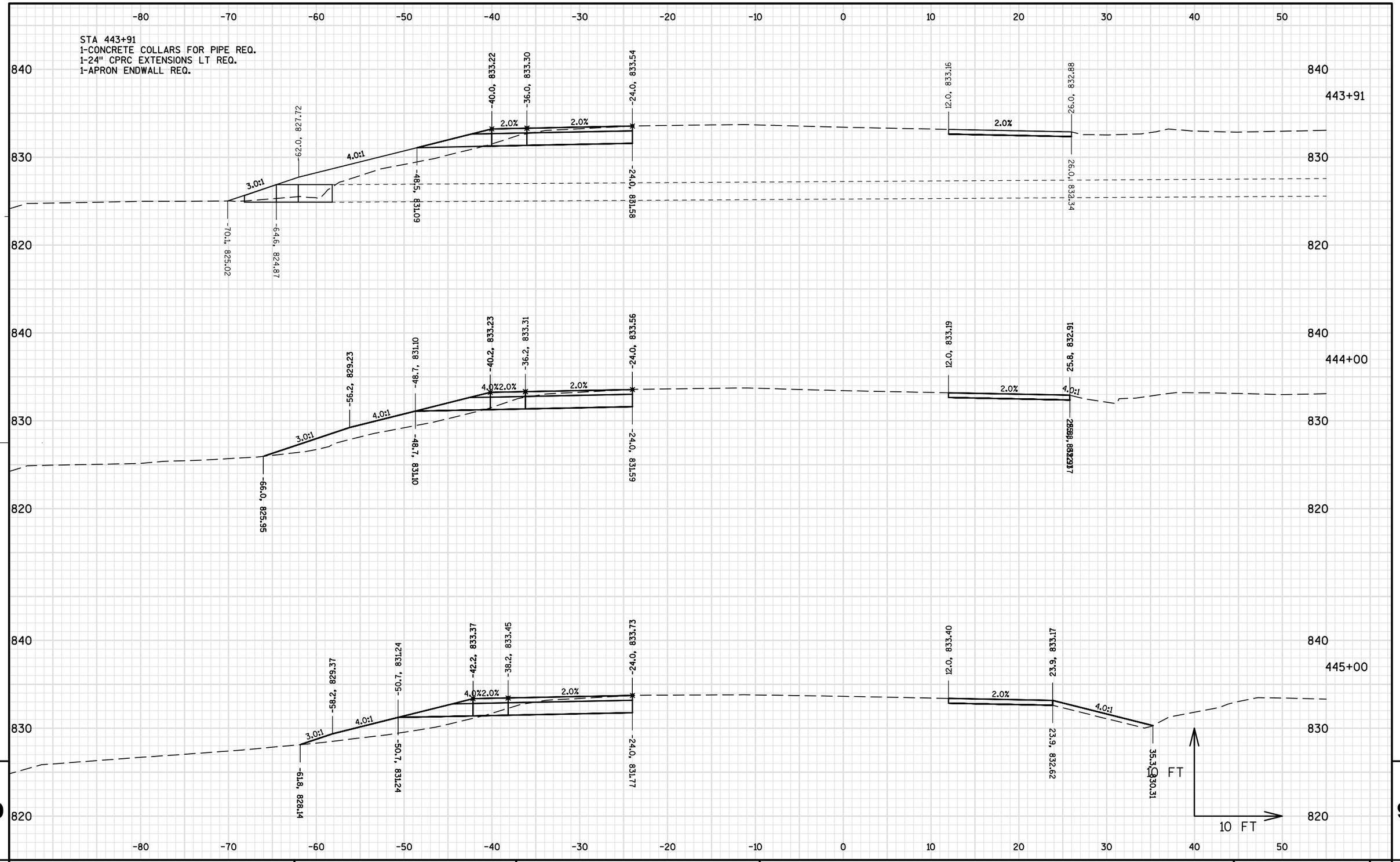
10 FT
10 FT

840
830
820
-80 -70 -60 -50 -40 -30 -20 -10 0 10 20 30 40 50

9

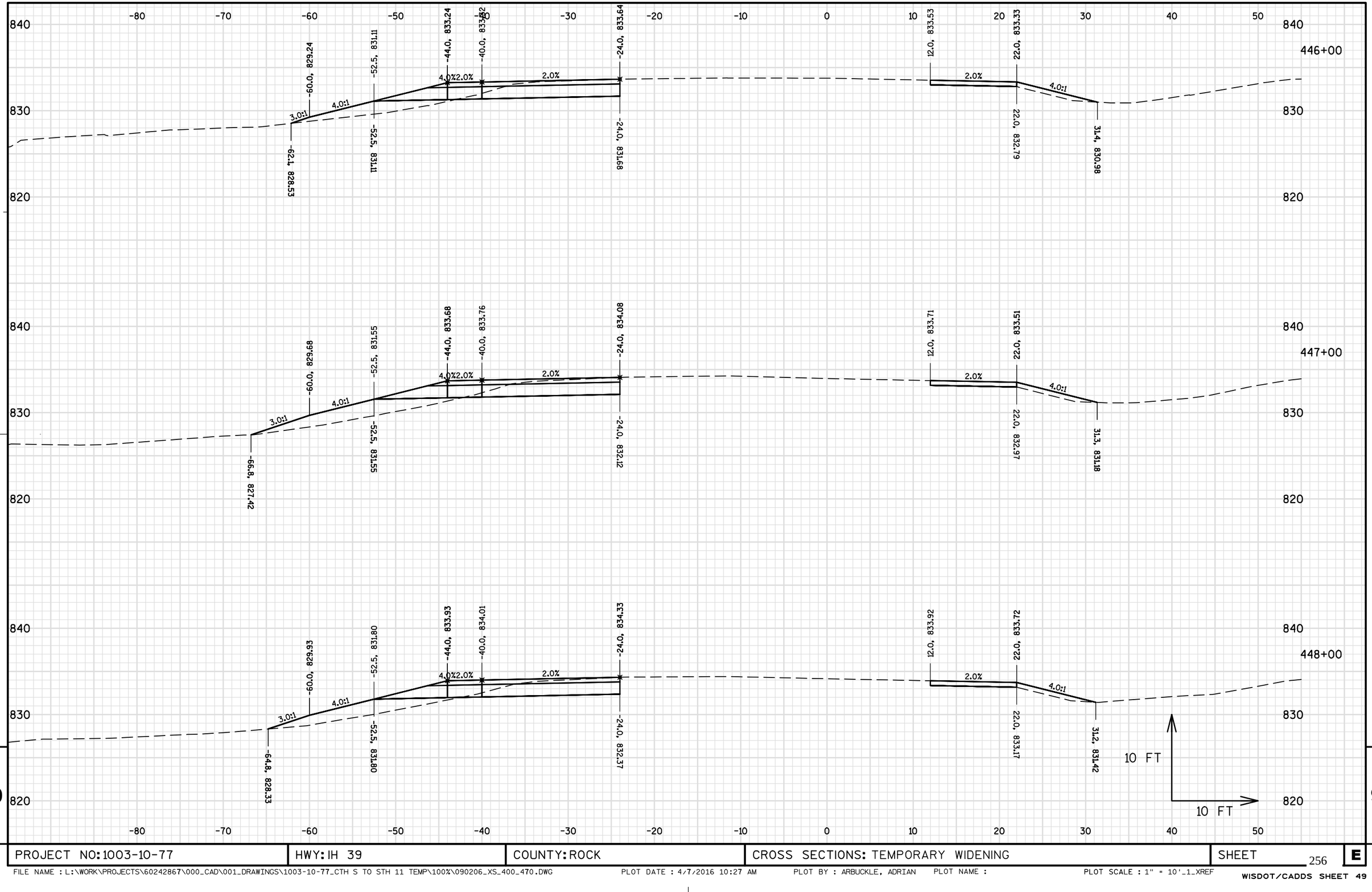
PROJECT NO: 1003-10-77	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: TEMPORARY WIDENING	SHEET 254	E

STA 443+91
1-CONCRETE COLLARS FOR PIPE REQ.
1-24" CPRC EXTENSIONS LT REQ.
1-APRON ENDWALL REQ.

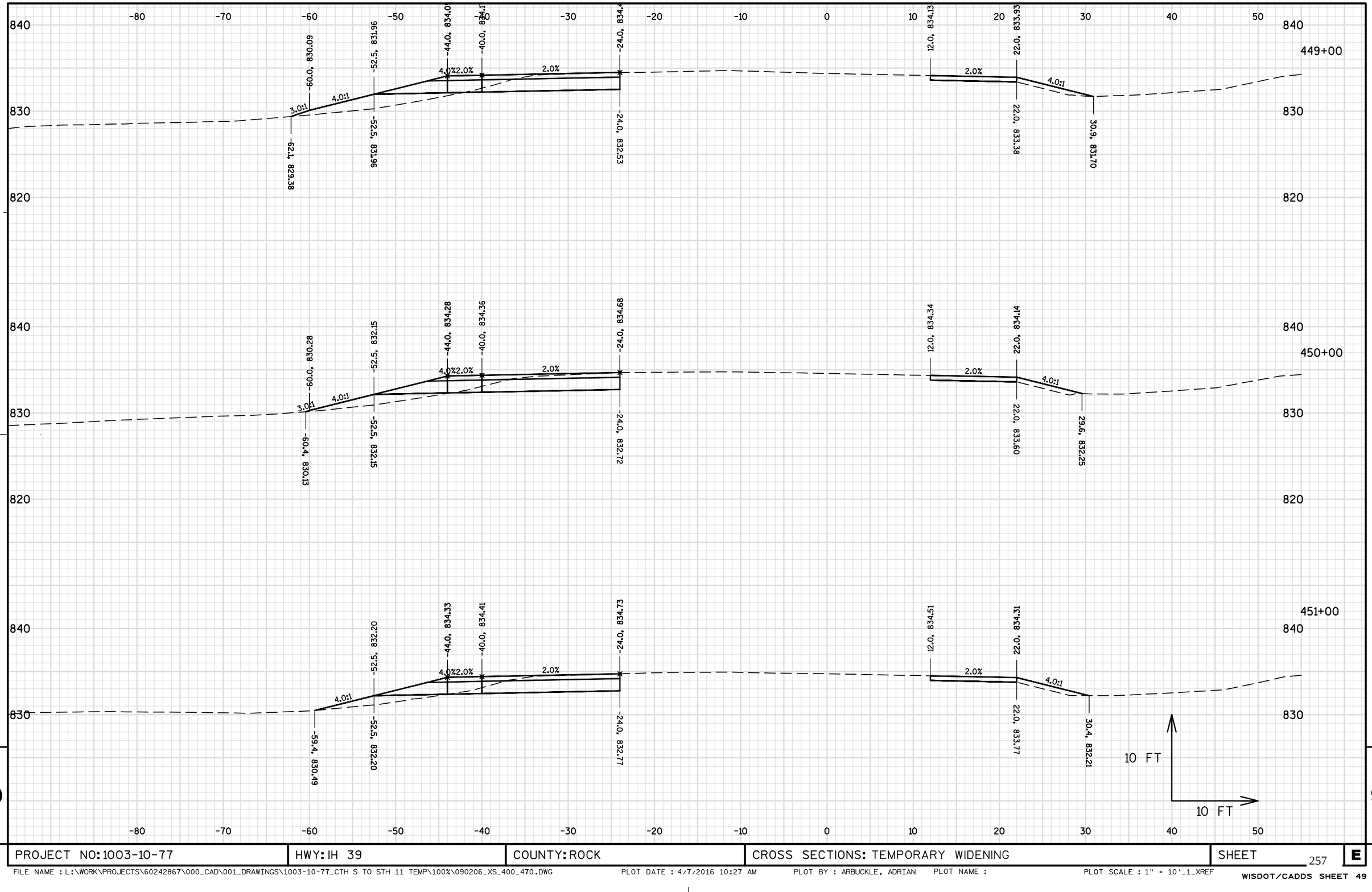


PROJECT NO: 1003-10-77	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: TEMPORARY WIDENING	SHEET 255	E

FILE NAME : L:\WORK\PROJECTS\60242867\000_CAD\001_DRAWINGS\1003-10-77_CTH S TO STH 11 TEMP\100%\090206_XS_400_470.DWG PLOT DATE : 4/7/2016 10:26 AM PLOT BY : ARBUCKLE, ADRIAN PLOT NAME : PLOT SCALE : 1" = 10'_1_XREF



PROJECT NO: 1003-10-77	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: TEMPORARY WIDENING	SHEET 256	E

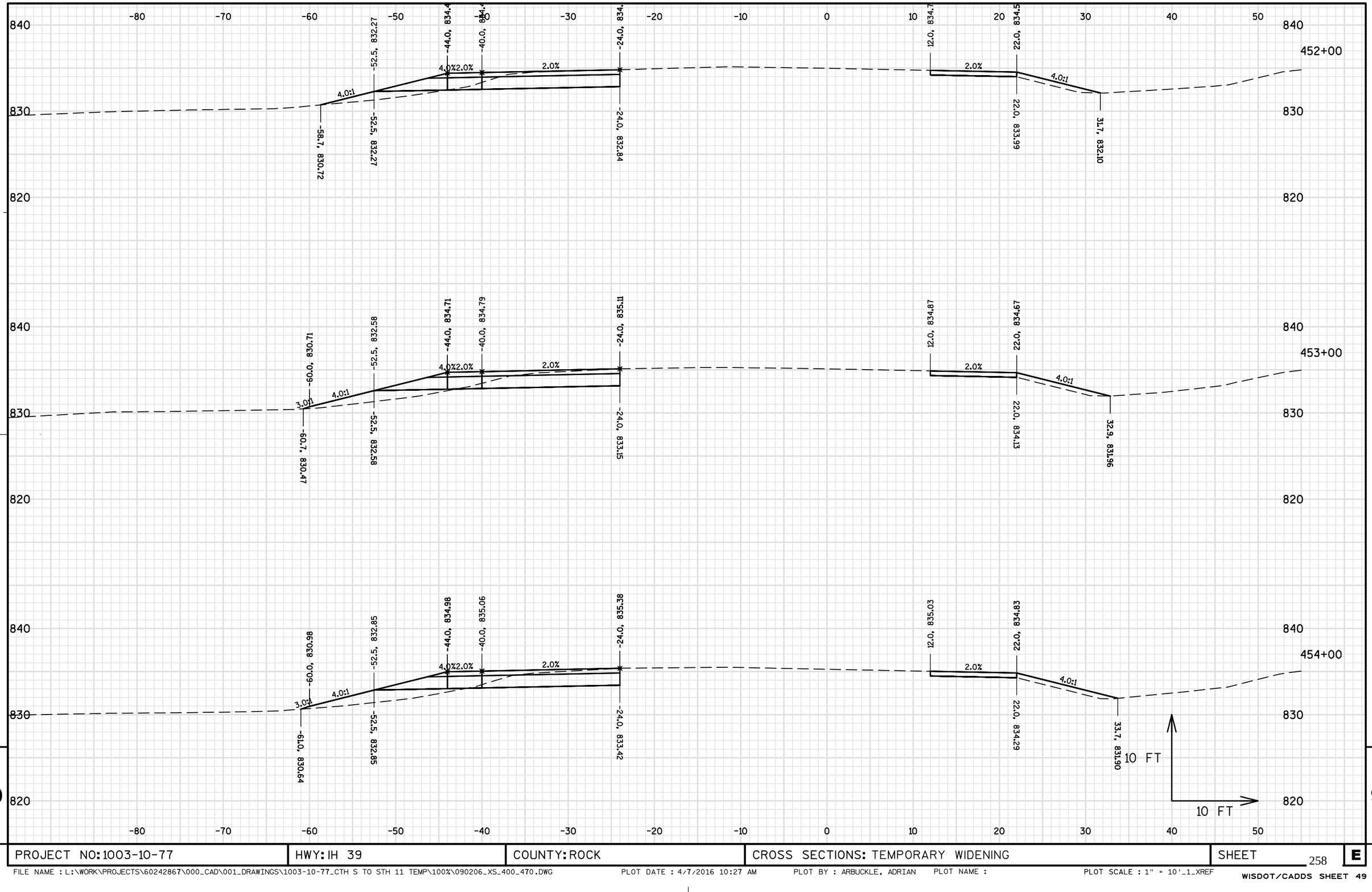


9

9

PROJECT NO: 1003-10-77	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: TEMPORARY WIDENING	SHEET 257	E

FILE NAME : L:\WORK\PROJECTS\60242867\000_CAD\001_DRAWINGS\1003-10-77_CTH S TO STH 11 TEMP\100%\090206_XS_400_470.DWG PLOT DATE : 4/7/2016 10:27 AM PLOT BY : ARBUCKLE, ADRIAN PLOT NAME : PLOT SCALE : 1" = 10'_1_XREF

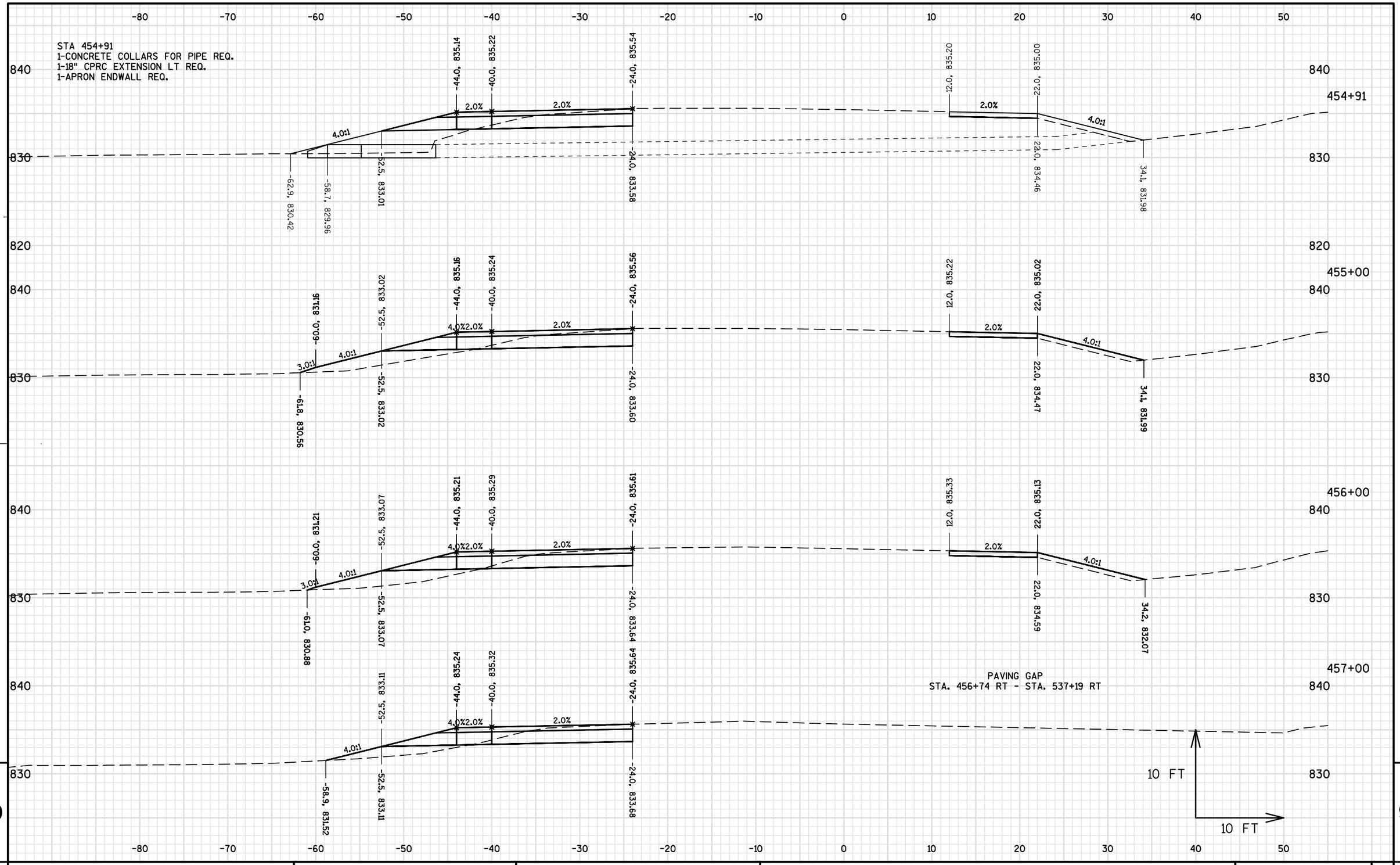


PROJECT NO: 1003-10-77	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: TEMPORARY WIDENING	SHEET 258	E

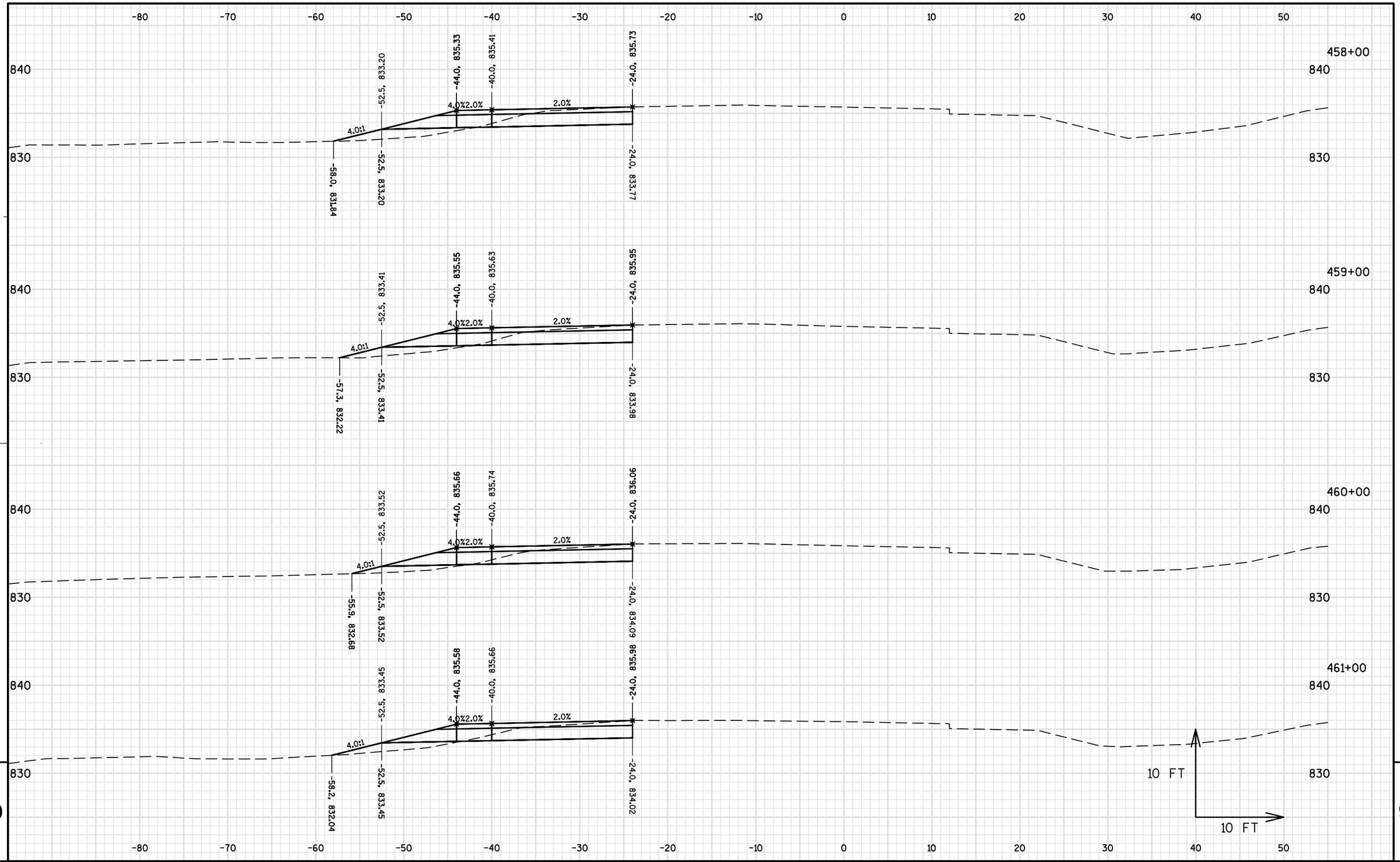
FILE NAME : L:\WORK\PROJECTS\60242867\000_CAD\001_DRAWINGS\1003-10-77_CTH S TO STH 11 TEMP\100%\090206_XS_400_470.DWG PLOT DATE : 4/7/2016 10:27 AM PLOT BY : ARBUCKLE, ADRIAN PLOT NAME : PLOT SCALE : 1" = 10'_1_XREF

WISDOT/CADDS SHEET 49

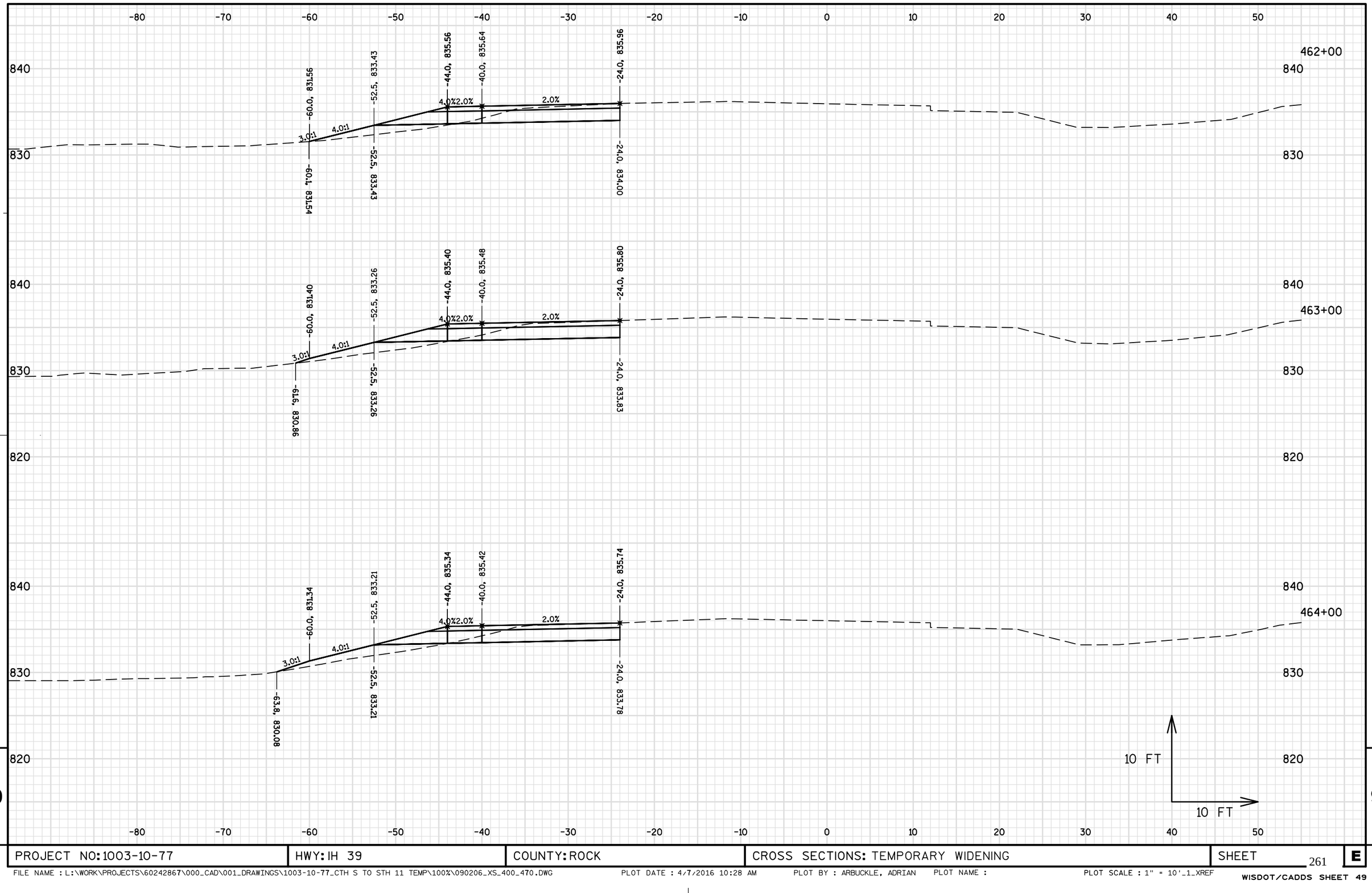
STA 454+91
1-CONCRETE COLLARS FOR PIPE REQ.
1-18" CPRC EXTENSION LT REQ.
1-APRON ENDWALL REQ.



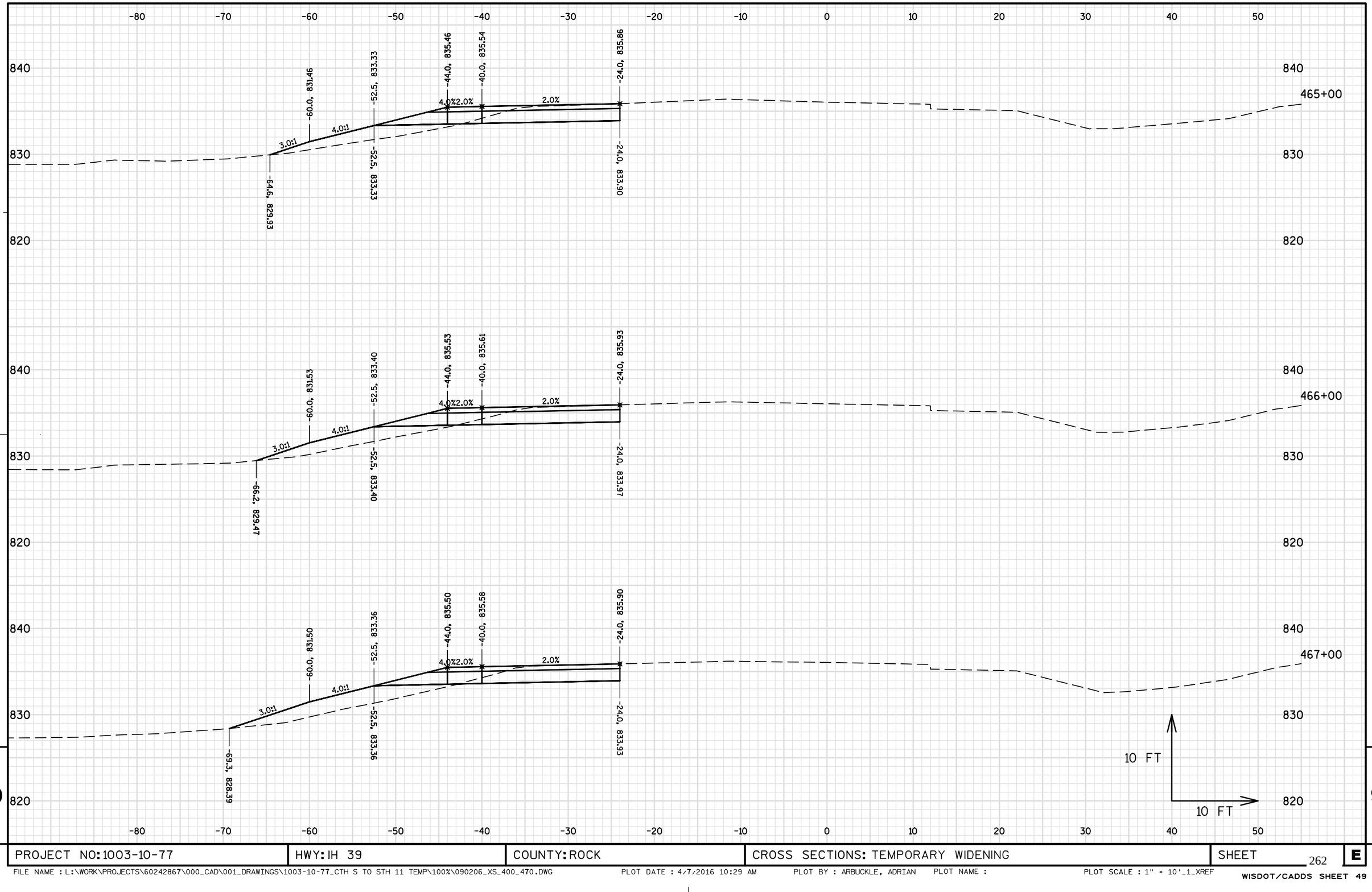
PROJECT NO: 1003-10-77	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: TEMPORARY WIDENING	SHEET 259	E



9	PROJECT NO: 1003-10-77	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: TEMPORARY WIDENING	SHEET 260 E



PROJECT NO: 1003-10-77	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: TEMPORARY WIDENING	SHEET 261	E



9

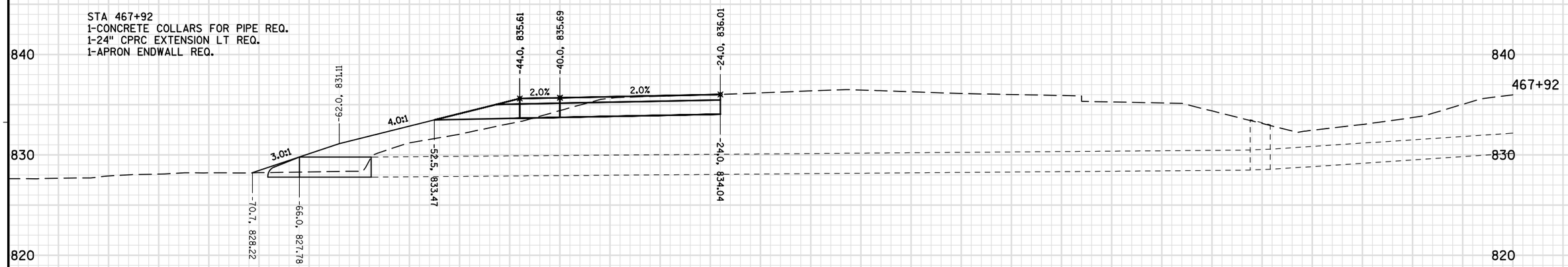
9

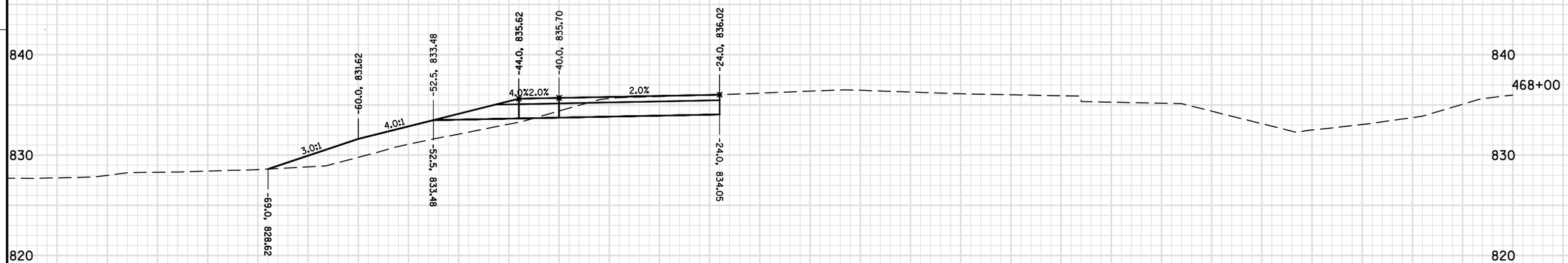
PROJECT NO: 1003-10-77	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: TEMPORARY WIDENING	SHEET 262	E

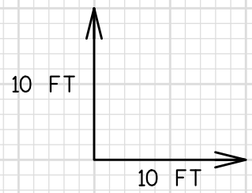
FILE NAME : L:\WORK\PROJECTS\60242867\000_CAD\001_DRAWINGS\1003-10-77_CTH S TO STH 11 TEMP\100%\090206_XS_400_470.DWG PLOT DATE : 4/7/2016 10:29 AM PLOT BY : ARBUCKLE, ADRIAN PLOT NAME : PLOT SCALE : 1" = 10'_1_XREF

WISDOT/CADDS SHEET 49

STA 467+92
1-CONCRETE COLLARS FOR PIPE REQ.
1-24" CPRC EXTENSION LT REQ.
1-APRON ENDWALL REQ.



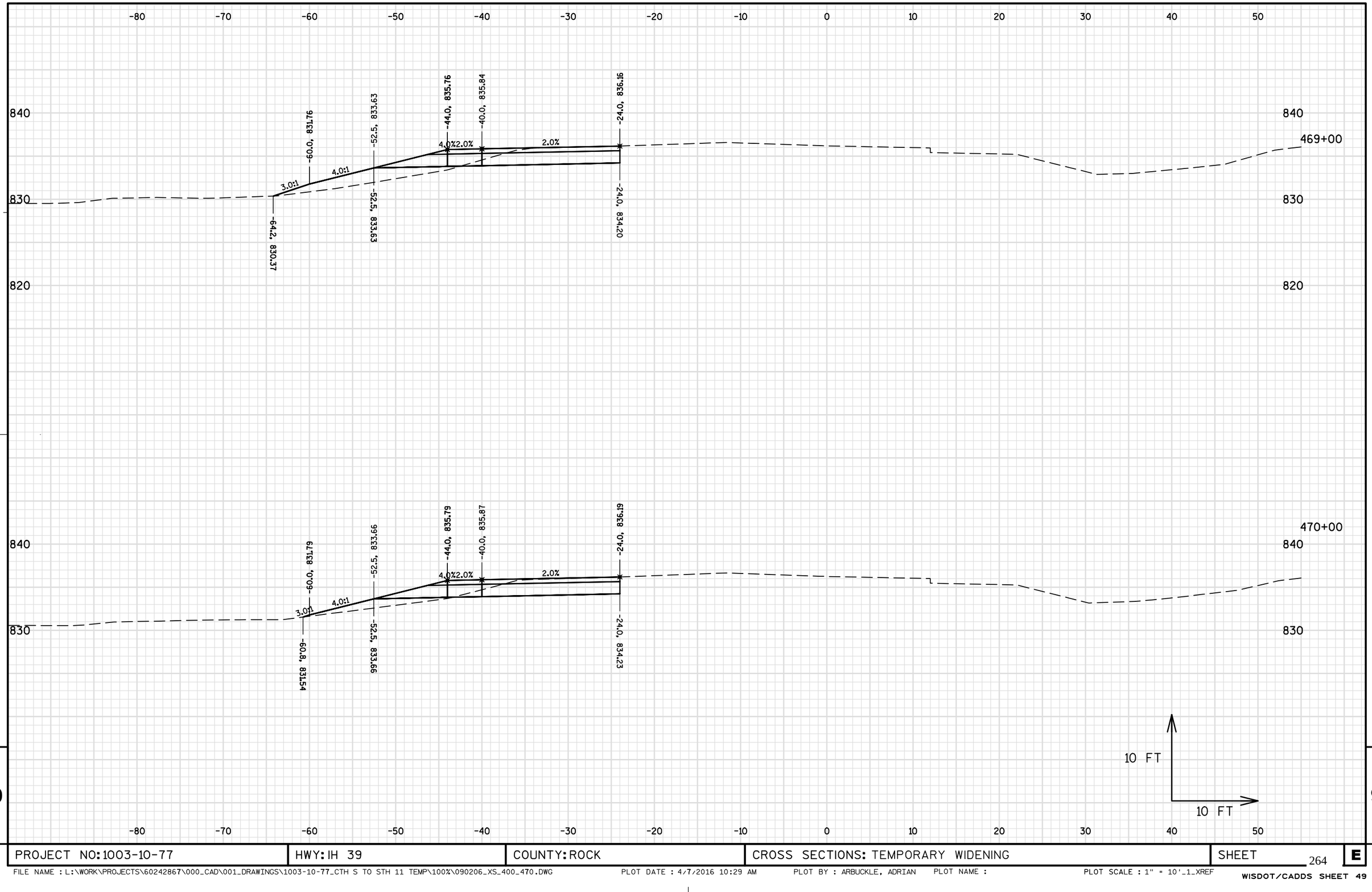




-80 -70 -60 -50 -40 -30 -20 -10 0 10 20 30 40 50

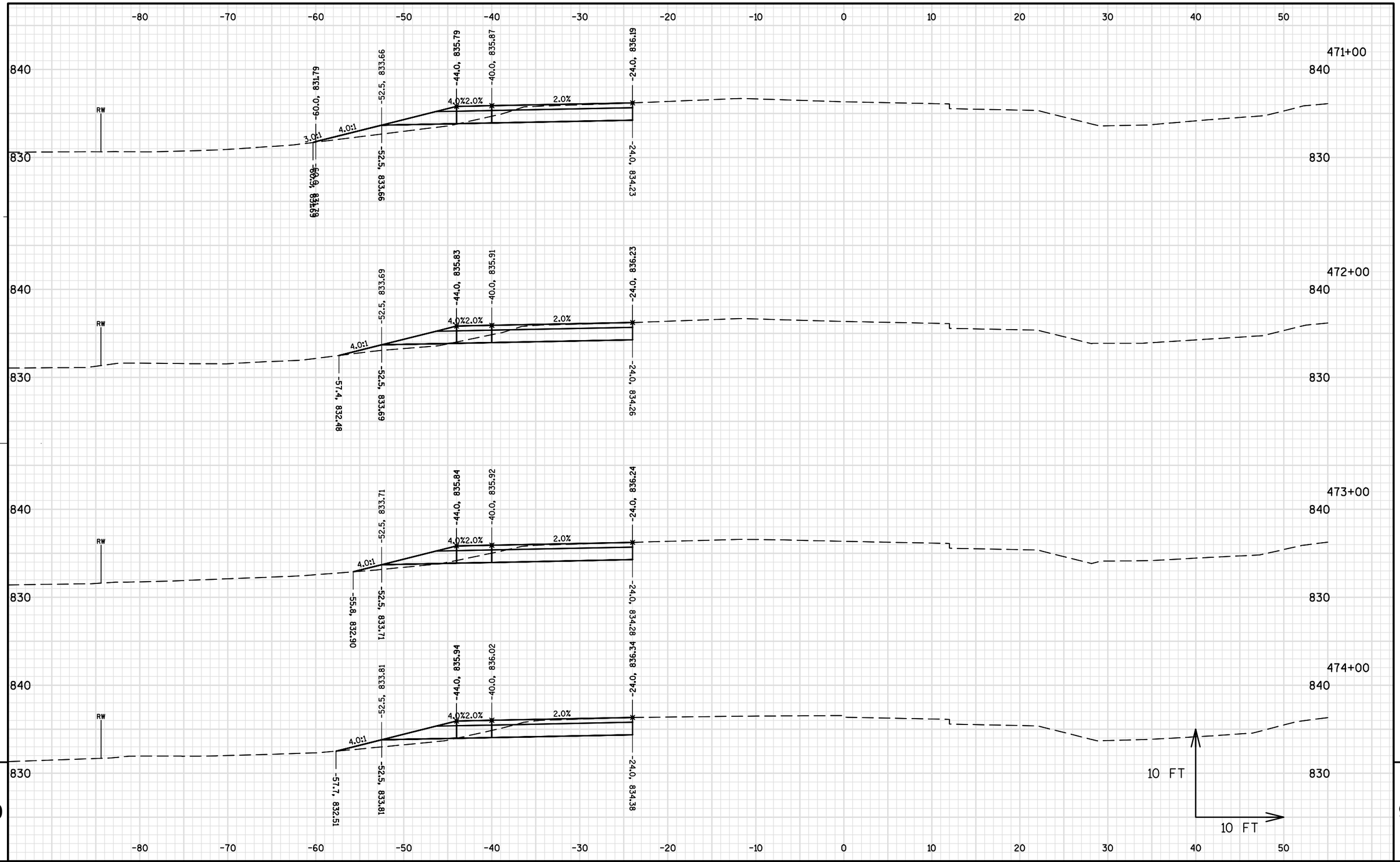
9

PROJECT NO: 1003-10-77	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: TEMPORARY WIDENING	SHEET 263	E



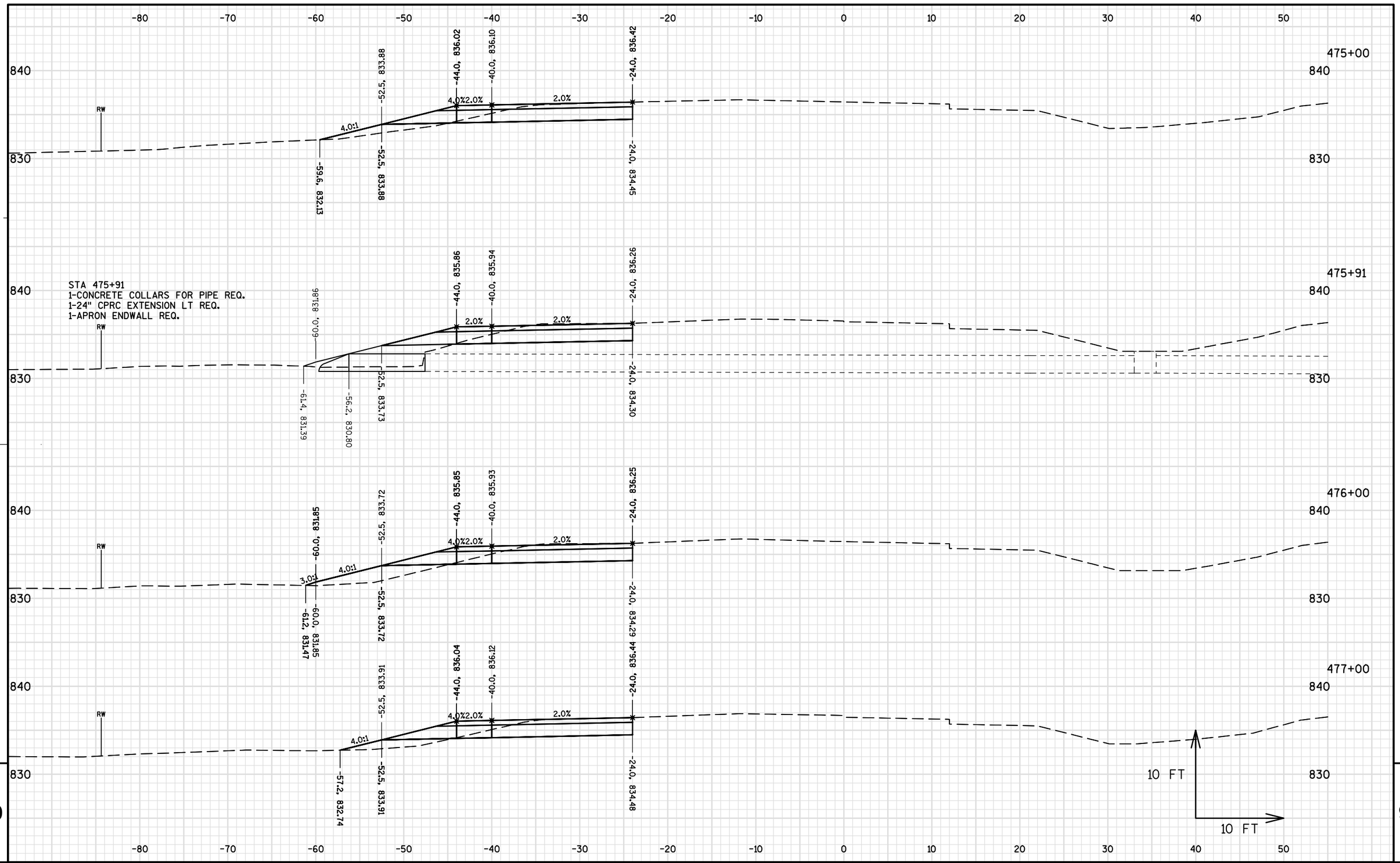
PROJECT NO: 1003-10-77	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: TEMPORARY WIDENING	SHEET 264	E

FILE NAME : L:\WORK\PROJECTS\60242867\000_CAD\001_DRAWINGS\1003-10-77_CTH S TO STH 11 TEMP\100%\090206_XS_400_470.DWG PLOT DATE : 4/7/2016 10:29 AM PLOT BY : ARBUCKLE, ADRIAN PLOT NAME : PLOT SCALE : 1" = 10'_1_XREF
WISDOT/CADDS SHEET 49



PROJECT NO: 1003-10-77	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: TEMPORARY WIDENING	SHEET	E

FILE NAME : L:\WORK\PROJECTS\60242867\000_CAD\001_DRAWINGS\1003-10-77_CTH S TO STH 11 TEMP\100%\090207_XS_470_545.DWG PLOT DATE : 4/7/2016 10:55 AM PLOT BY : ARBUCKLE, ADRIAN PLOT NAME : PLOT SCALE : 1" = 10'_1_XREF
WISDOT/CADDS SHEET 49



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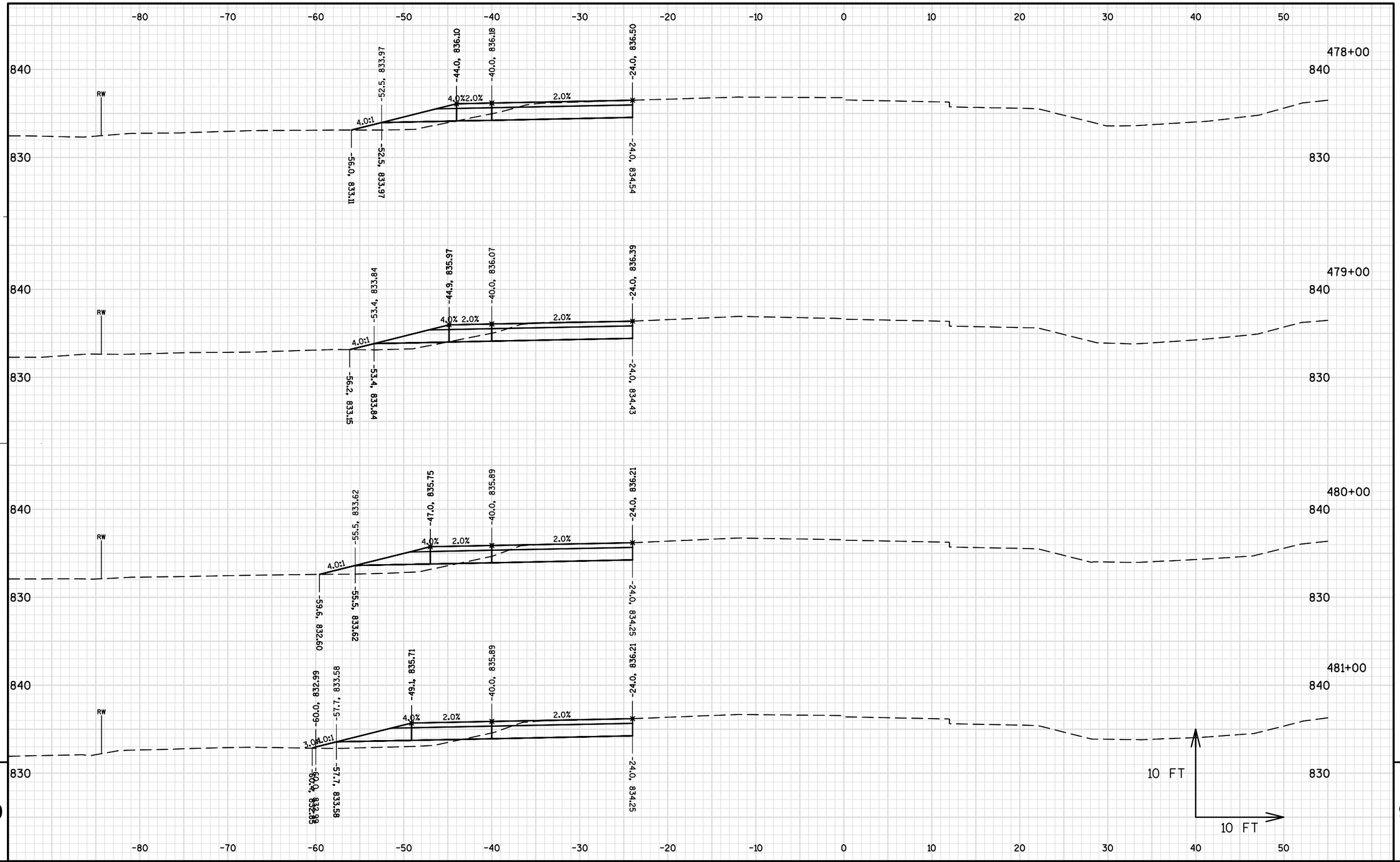
PROJECT NO: 1003-10-77	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: TEMPORARY WIDENING	SHEET	E

FILE NAME : L:\WORK\PROJECTS\60242867\000_CAD\001_DRAWINGS\1003-10-77_CTH S TO STH 11 TEMP\100%\090207_XS_470_545.DWG PLOT DATE : 4/7/2016 10:55 AM PLOT BY : ARBUCKLE, ADRIAN PLOT NAME : PLOT SCALE : 1" = 10'_1_XREF
WISDOT/CADDS SHEET 49



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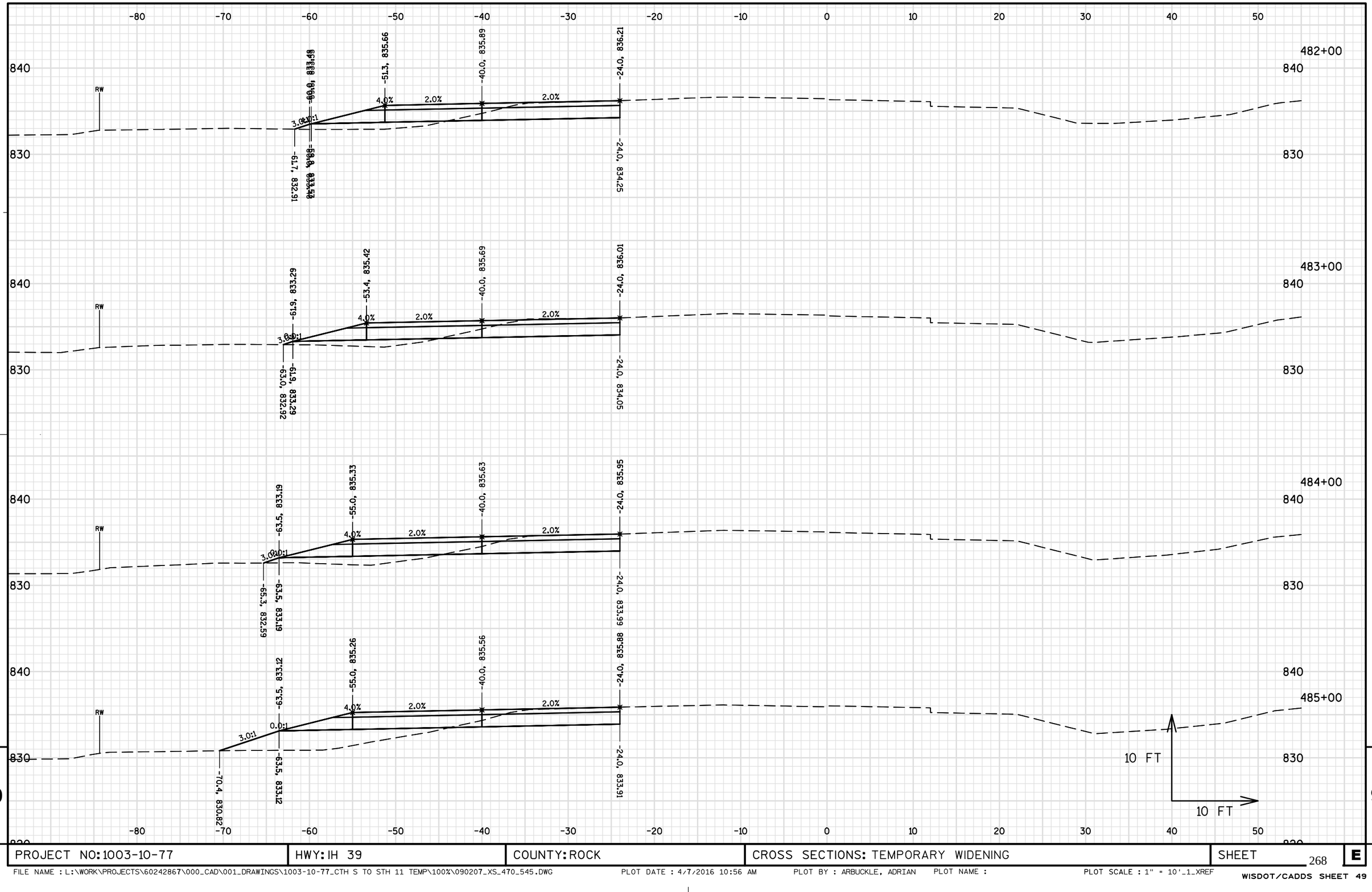
PROJECT NO: 1003-10-77	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: TEMPORARY WIDENING	SHEET	E

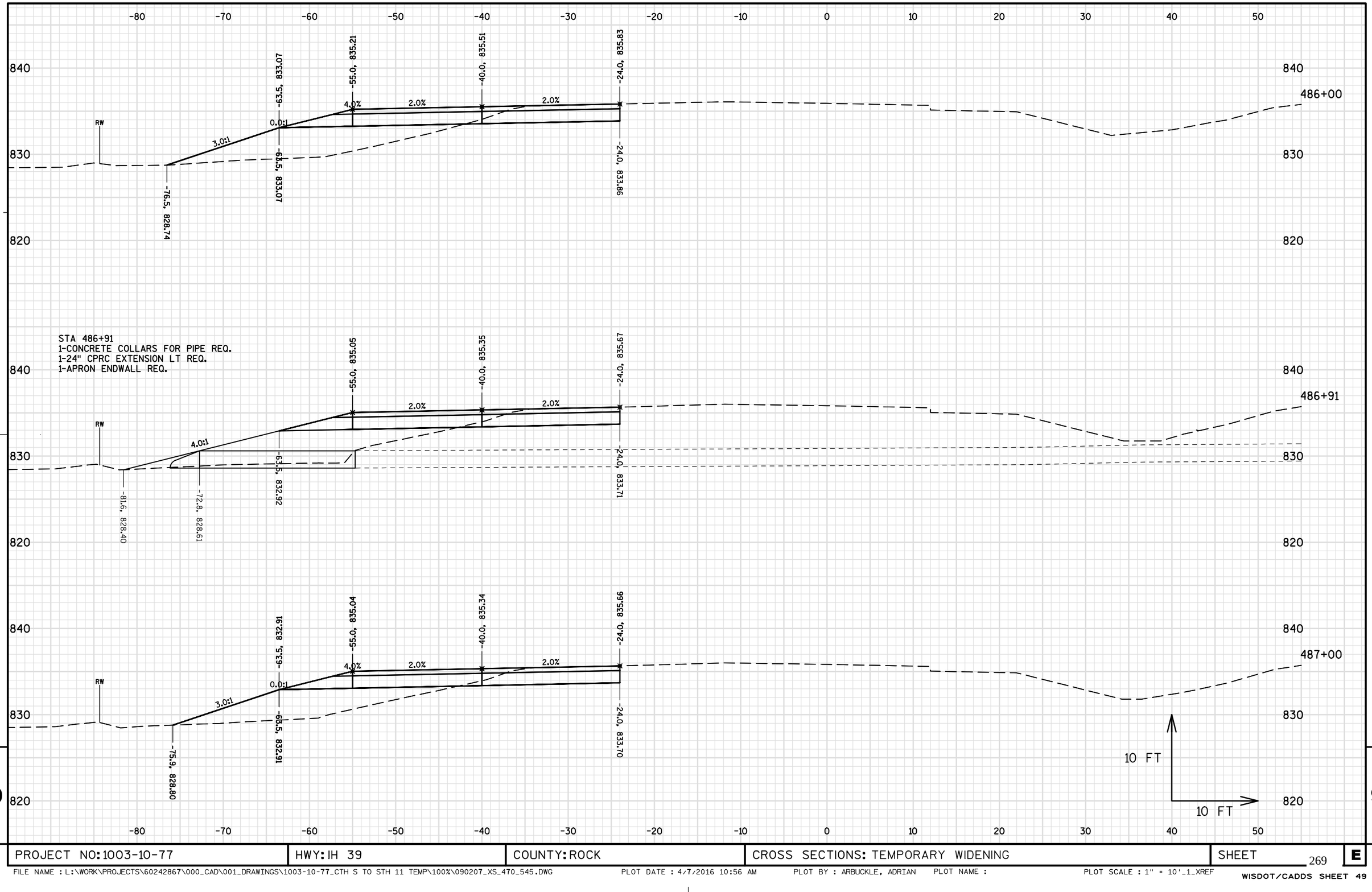
FILE NAME : L:\WORK\PROJECTS\60242867\000_CAD\001_DRAWINGS\1003-10-77_CTH S TO STH 11 TEMP\100%\090207_XS_470_545.DWG PLOT DATE : 4/7/2016 10:55 AM PLOT BY : ARBUCKLE, ADRIAN PLOT NAME : PLOT SCALE : 1" = 10'_1_XREF



PROJECT NO: 1003-10-77	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: TEMPORARY WIDENING	SHEET E

FILE NAME : L:\WORK\PROJECTS\60242867\000_CAD\001_DRAWINGS\1003-10-77_CTH S TO STH 11 TEMP\100%\090207_XS_470_545.DWG PLOT DATE : 4/7/2016 10:56 AM PLOT BY : ARBUCKLE, ADRIAN PLOT NAME : PLOT SCALE : 1" = 10'_1_XREF

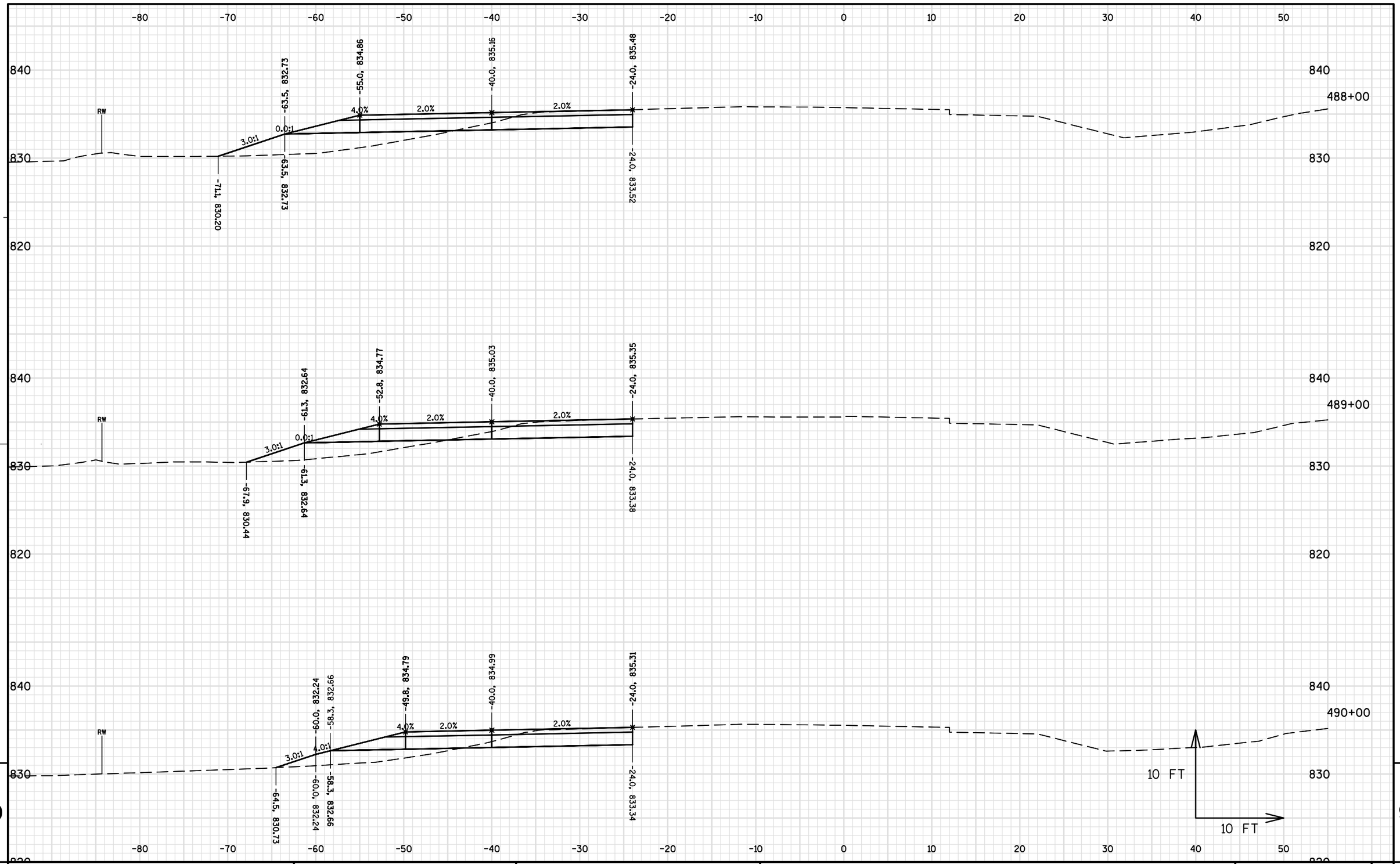
STA 486+91
1-CONCRETE COLLARS FOR PIPE REQ.
1-24" CPRC EXTENSION LT REQ.
1-APRON ENDWALL REQ.



PROJECT NO: 1003-10-77	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: TEMPORARY WIDENING	SHEET 269	E

FILE NAME : L:\WORK\PROJECTS\60242867\000_CAD\001_DRAWINGS\1003-10-77_CTH S TO STH 11 TEMP\100%\090207_XS_470_545.DWG PLOT DATE : 4/7/2016 10:56 AM PLOT BY : ARBUCKLE, ADRIAN PLOT NAME : PLOT SCALE : 1" = 10'_1_XREF

WISDOT/CADDS SHEET 49



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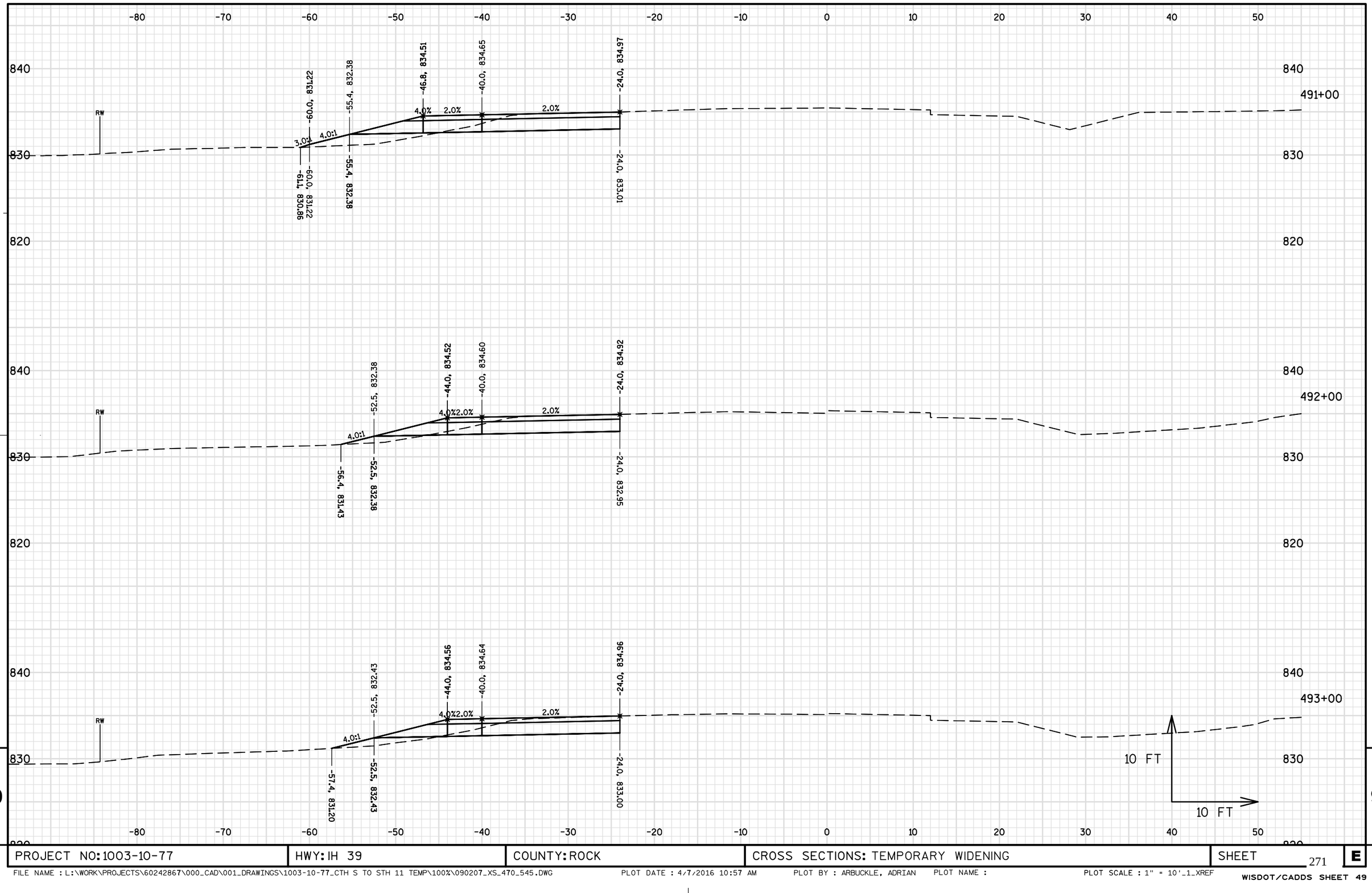
PROJECT NO: 1003-10-77	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: TEMPORARY WIDENING	SHEET 270	E



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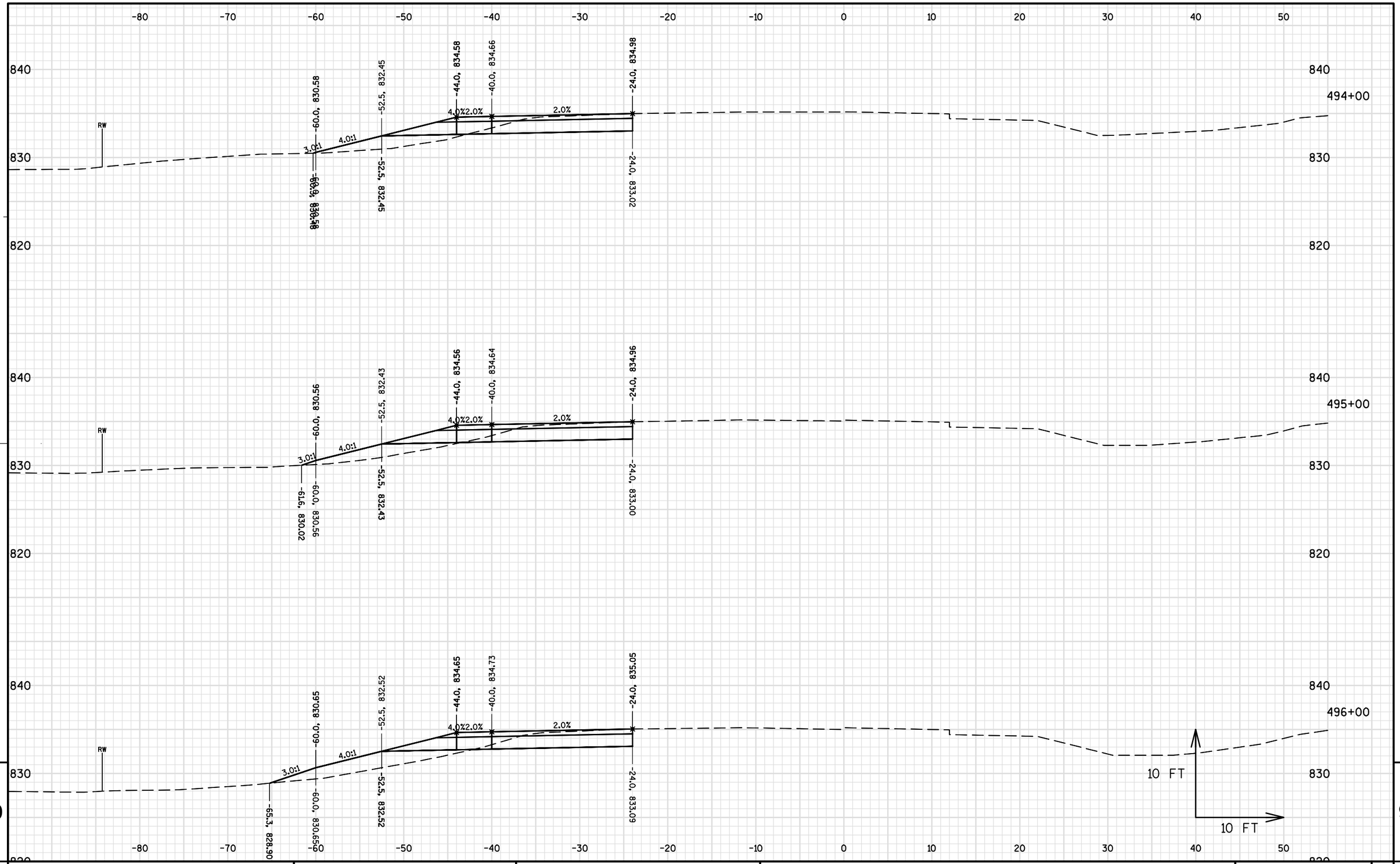
PROJECT NO: 1003-10-77	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: TEMPORARY WIDENING	SHEET	E

FILE NAME : L:\WORK\PROJECTS\60242867\000_CAD\001_DRAWINGS\1003-10-77_CTH S TO STH 11 TEMP\100%\090207_XS_470_545.DWG PLOT DATE : 4/7/2016 10:57 AM PLOT BY : ARBUCKLE, ADRIAN PLOT NAME : PLOT SCALE : 1" = 10'_1_XREF
WISDOT/CADDS SHEET 49



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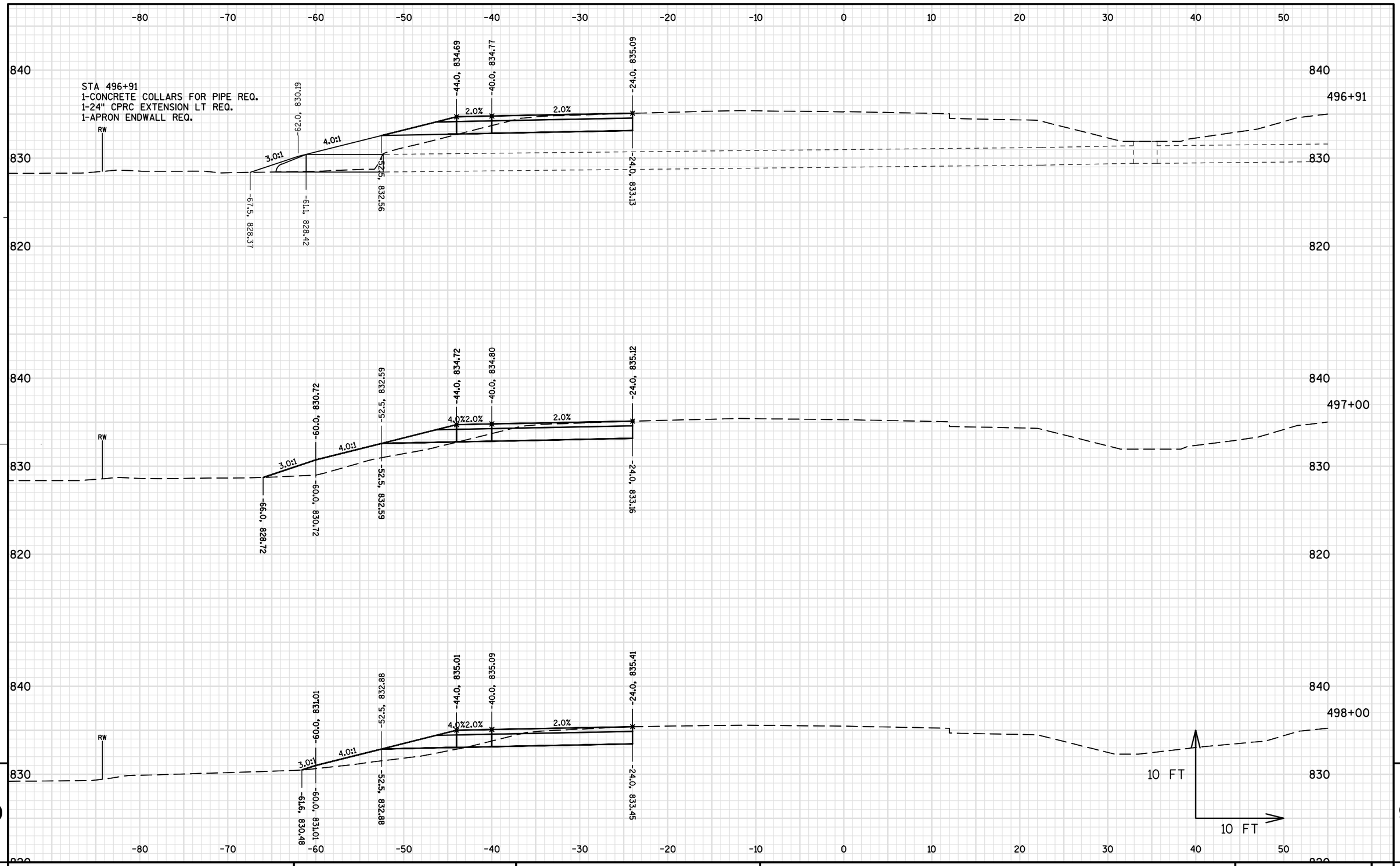
PROJECT NO: 1003-10-77	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: TEMPORARY WIDENING	SHEET 272	E

FILE NAME : L:\WORK\PROJECTS\60242867\000_CAD\001_DRAWINGS\1003-10-77_CTH S TO STH 11 TEMP\100%\090207_XS_470_545.DWG PLOT DATE : 4/7/2016 10:58 AM PLOT BY : ARBUCKLE, ADRIAN PLOT NAME : PLOT SCALE : 1" = 10'_1_XREF
WISDOT/CADDS SHEET 49

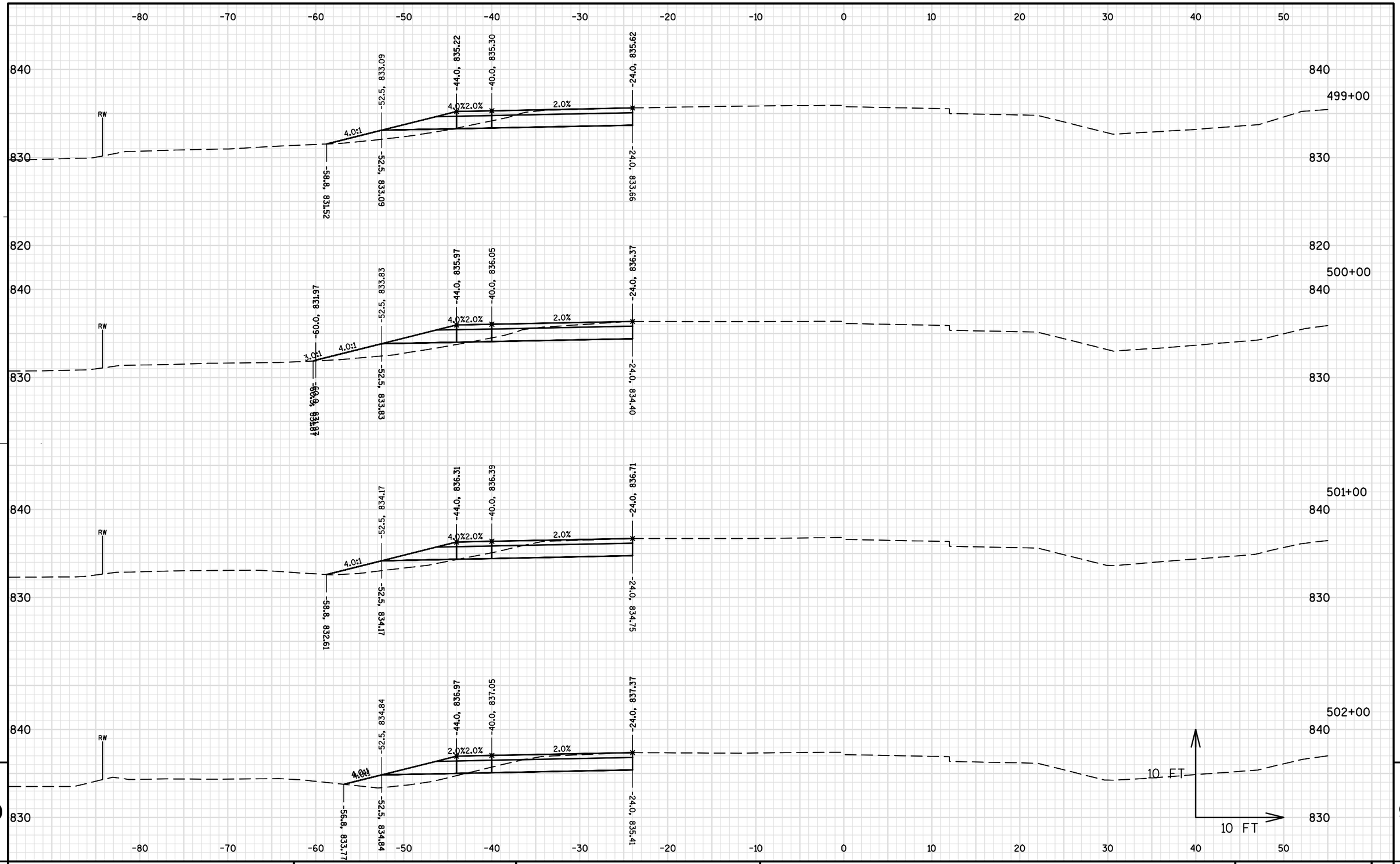
STA 496+91
1-CONCRETE COLLARS FOR PIPE REQ.
1-24" CPRC EXTENSION LT REQ.
1-APRON ENDWALL REQ.



PROJECT NO: 1003-10-77	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: TEMPORARY WIDENING	SHEET 273	E

FILE NAME : L:\WORK\PROJECTS\60242867\000_CAD\001_DRAWINGS\1003-10-77_CTH S TO STH 11 TEMP\100%\090207_XS_470_545.DWG PLOT DATE : 4/7/2016 10:58 AM PLOT BY : ARBUCKLE, ADRIAN PLOT NAME : PLOT SCALE : 1" = 10'_1_XREF

WISDOT/CADDS SHEET 49



PROJECT NO: 1003-10-77	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: TEMPORARY WIDENING	SHEET 274	E

FILE NAME : L:\WORK\PROJECTS\60242867\000_CAD\001_DRAWINGS\1003-10-77_CTH S TO STH 11 TEMP\100%\090207_XS_470_545.DWG PLOT DATE : 4/7/2016 10:58 AM PLOT BY : ARBUCKLE, ADRIAN PLOT NAME : PLOT SCALE : 1" = 10'_1_XREF

WISDOT/CADDS SHEET 49

503+00

504+00

STA 504+41
1-CONCRETE COLLARS FOR PIPE REQ.
1-18" CPRC EXTENSION LT REQ.
1-APRON ENDWALL REQ.

504+41

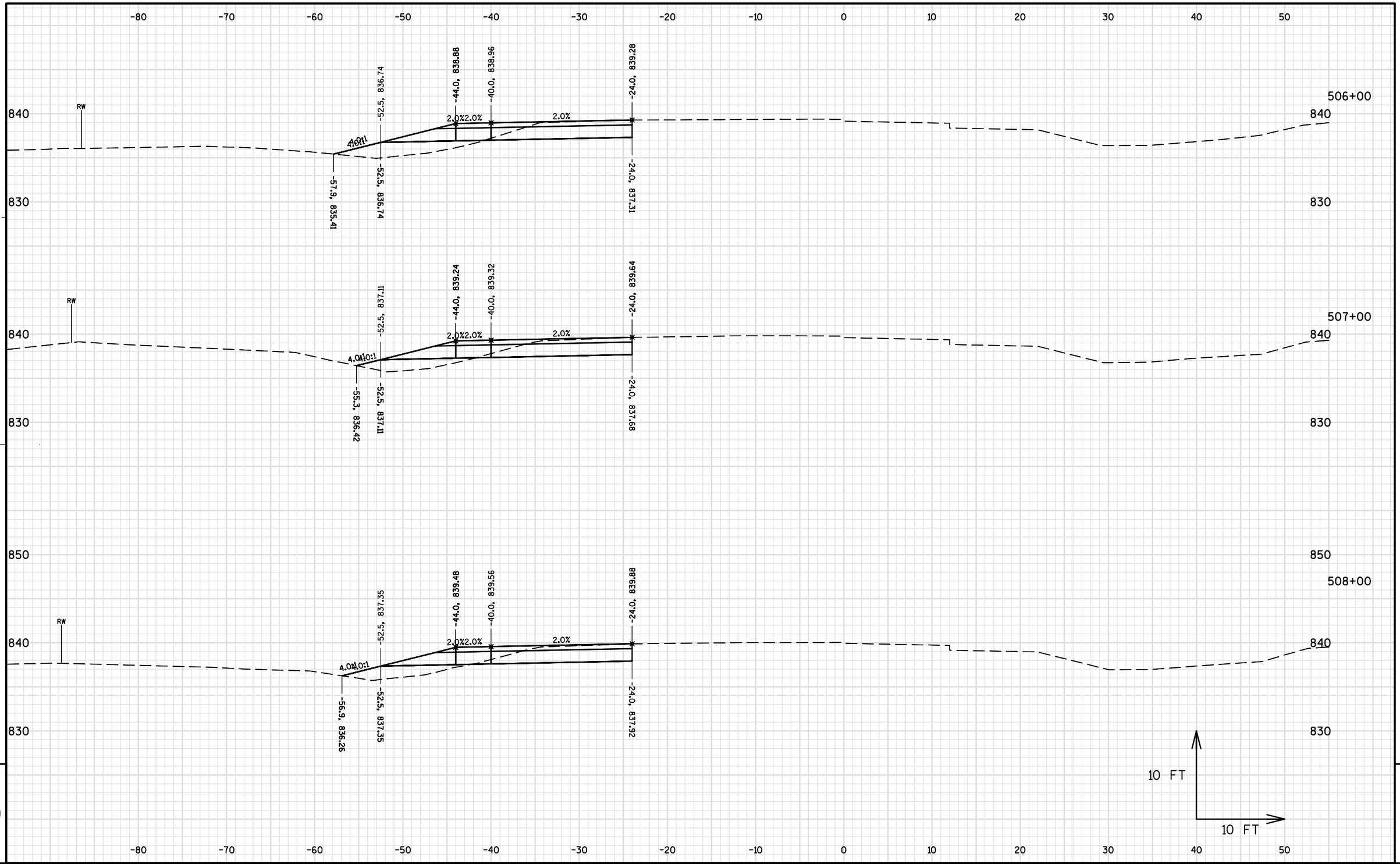
505+00

10 FT
10 FT

9

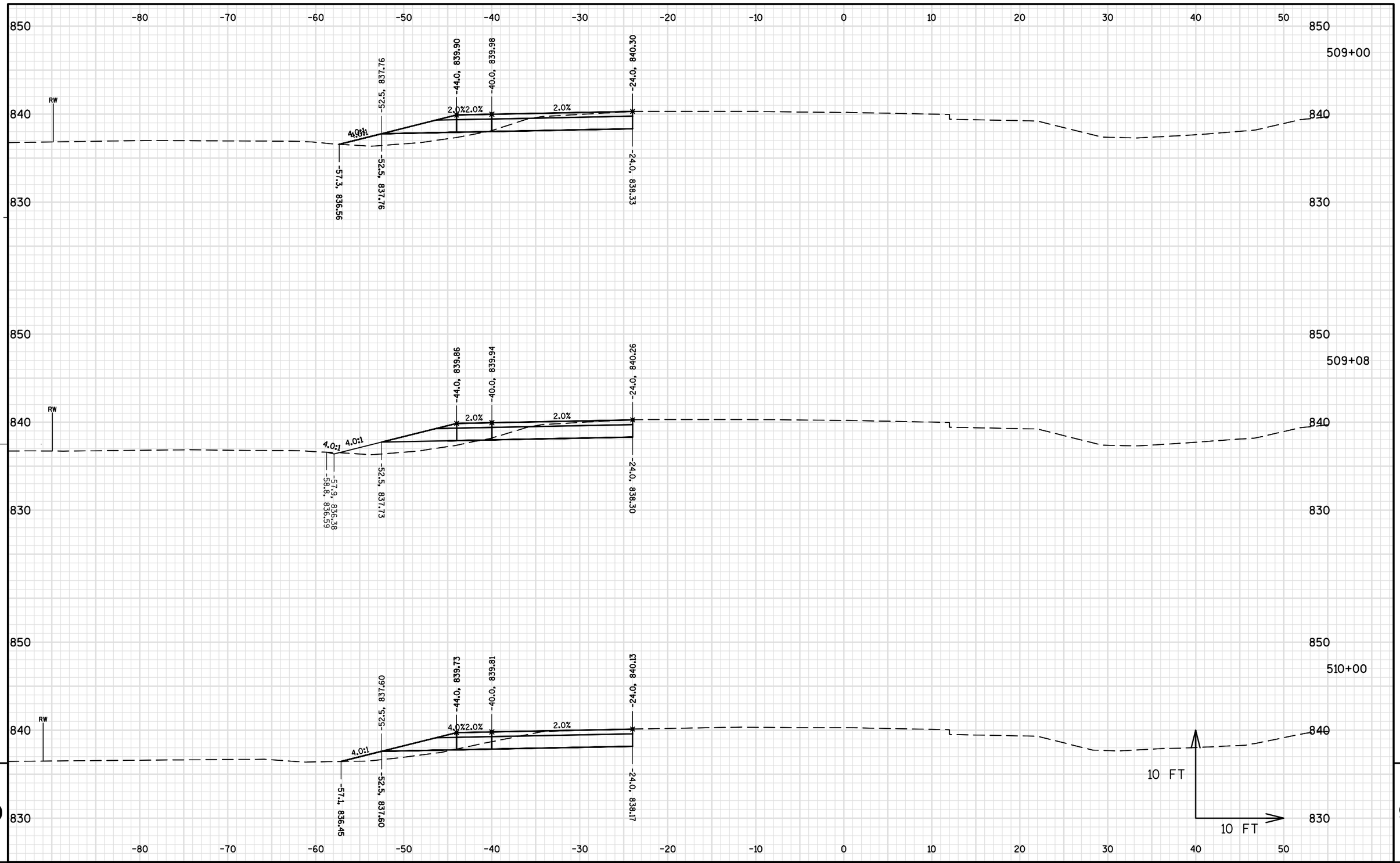
9

PROJECT NO: 1003-10-77	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: TEMPORARY WIDENING	SHEET 275	E



PROJECT NO: 1003-10-77	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: TEMPORARY WIDENING	SHEET	E

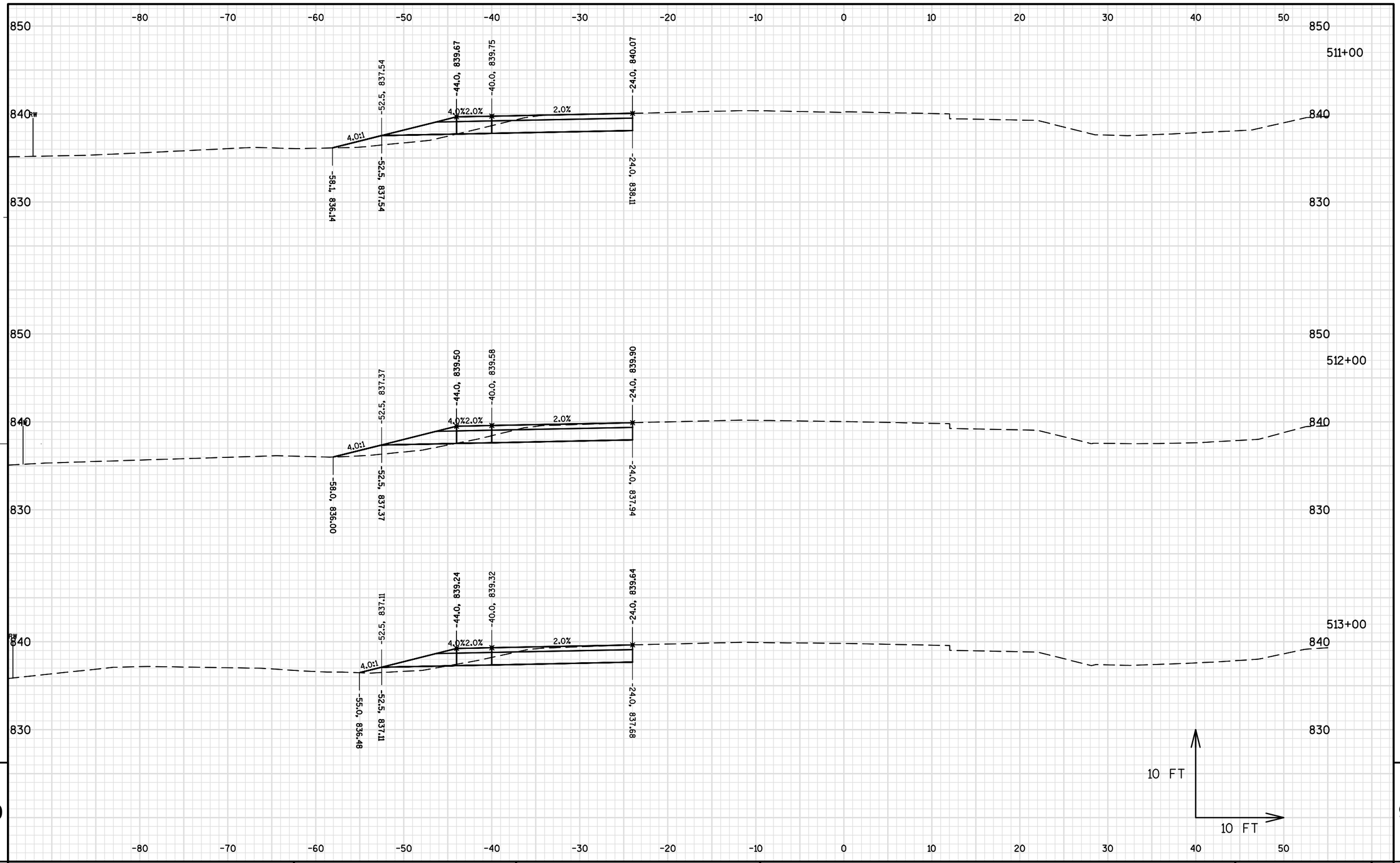
FILE NAME : L:\WORK\PROJECTS\60242867\000_CAD\001_DRAWINGS\1003-10-77_CTH S TO STH 11 TEMP\100%\090207_XS_470_545.DWG PLOT DATE : 4/7/2016 10:59 AM PLOT BY : ARBUCKLE, ADRIAN PLOT NAME : PLOT SCALE : 1" = 10'_1_XREF
WISDOT/CADDS SHEET 49



PROJECT NO: 1003-10-77	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: TEMPORARY WIDENING	SHEET 277	E

FILE NAME : L:\WORK\PROJECTS\60242867\000_CAD\001_DRAWINGS\1003-10-77_CTH S TO STH 11 TEMP\100%\090207_XS_470_545.DWG PLOT DATE : 4/7/2016 11:00 AM PLOT BY : ARBUCKLE, ADRIAN PLOT NAME : PLOT SCALE : 1" = 10'_1_XREF

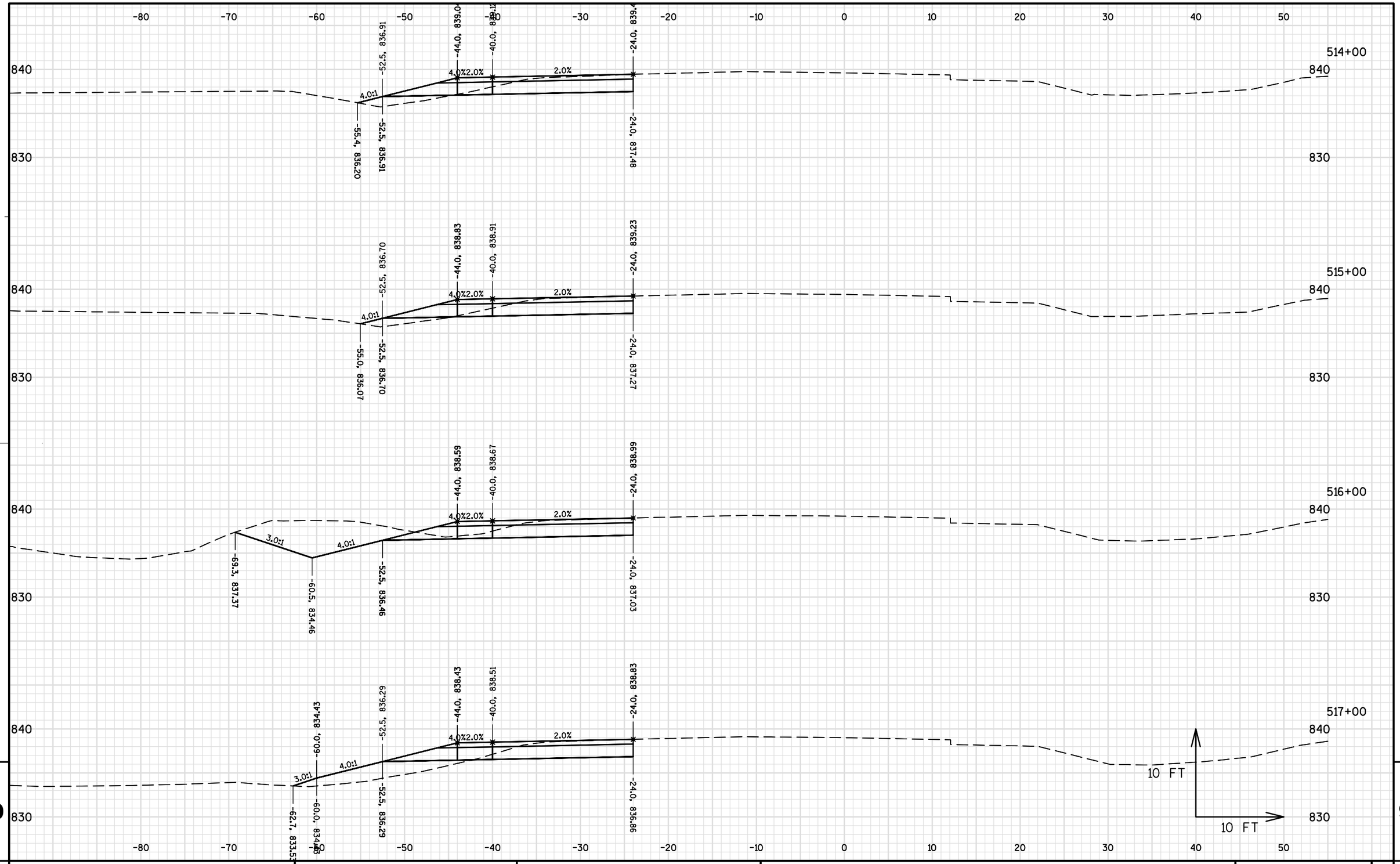
WISDOT/CADDS SHEET 49



PROJECT NO: 1003-10-77	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: TEMPORARY WIDENING	SHEET 278	E

FILE NAME : L:\WORK\PROJECTS\60242867\000_CAD\001_DRAWINGS\1003-10-77_CTH S TO STH 11 TEMP\100%\090207_XS_470_545.DWG PLOT DATE : 4/7/2016 11:00 AM PLOT BY : ARBUCKLE, ADRIAN PLOT NAME : PLOT SCALE : 1" = 10'_1_XREF

WISDOT/CADDS SHEET 49



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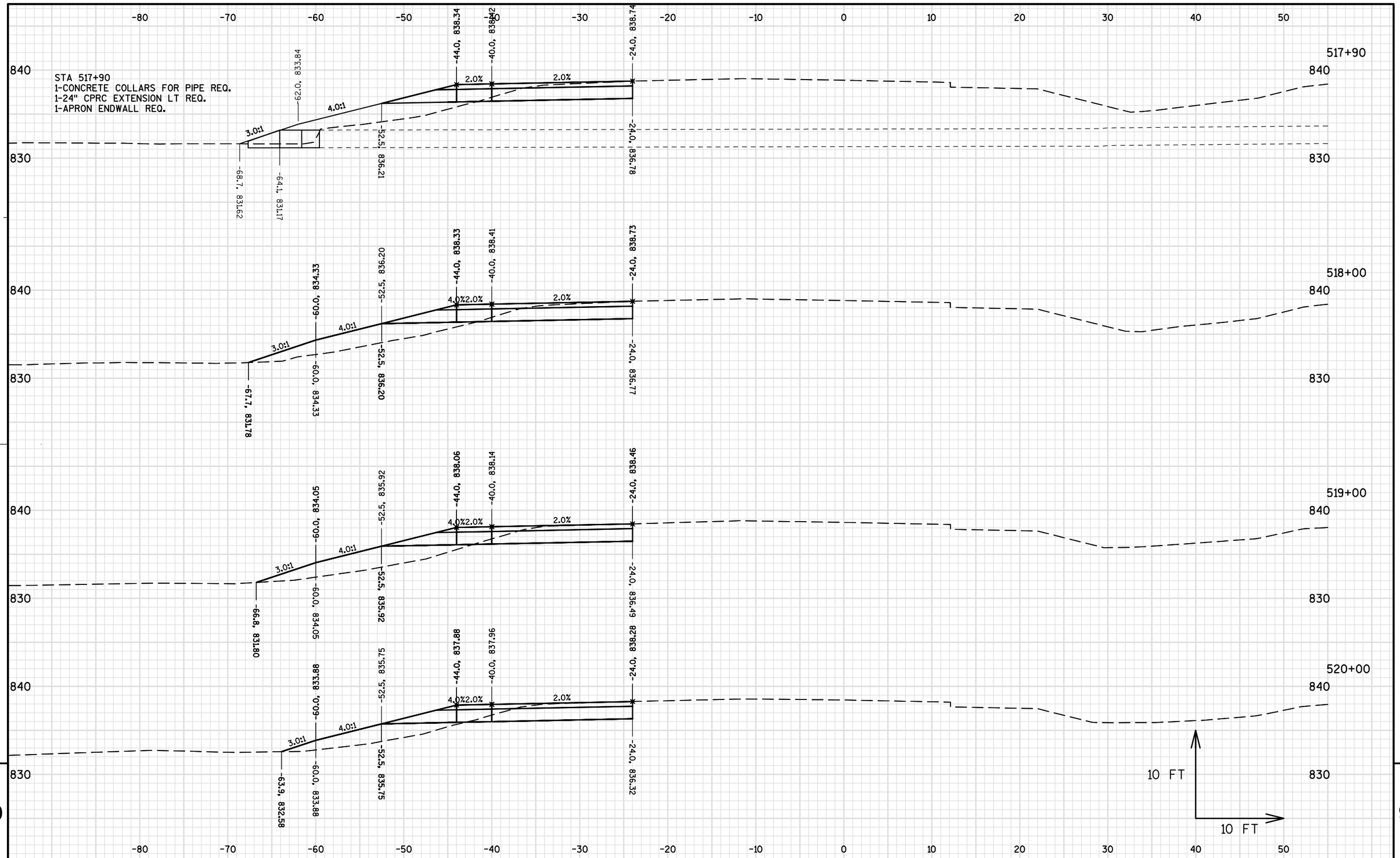
PROJECT NO: 1003-10-77	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: TEMPORARY WIDENING	SHEET	E

279

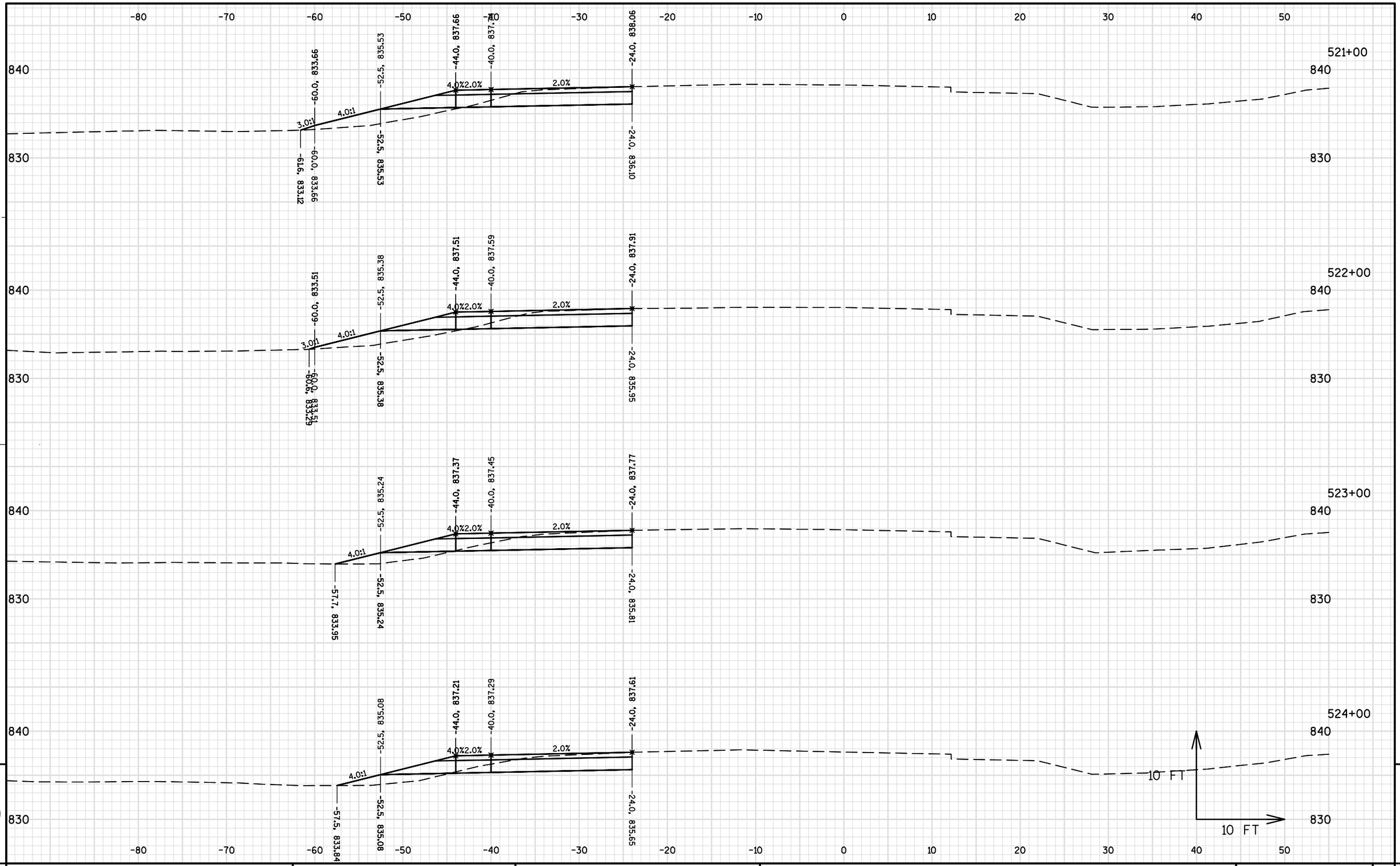
FILE NAME : L:\WORK\PROJECTS\60242867\000_CAD\001_DRAWINGS\1003-10-77_CTH S TO STH 11 TEMP\100%\090207_XS_470_545.DWG PLOT DATE : 4/7/2016 11:01 AM PLOT BY : ARBUCKLE, ADRIAN PLOT NAME : PLOT SCALE : 1" = 10'_1_XREF

WISDOT/CADDS SHEET 49



PROJECT NO: 1003-10-77	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: TEMPORARY WIDENING	SHEET 280 E

FILE NAME : L:\WORK\PROJECTS\60242867\000_CAD\001_DRAWINGS\1003-10-77_CTH S TO STH 11 TEMP\100%\090207_XS_470_545.DWG PLOT DATE : 4/7/2016 11:01 AM PLOT BY : ARBUCKLE, ADRIAN PLOT NAME : PLOT SCALE : 1" = 10'_1_XREF



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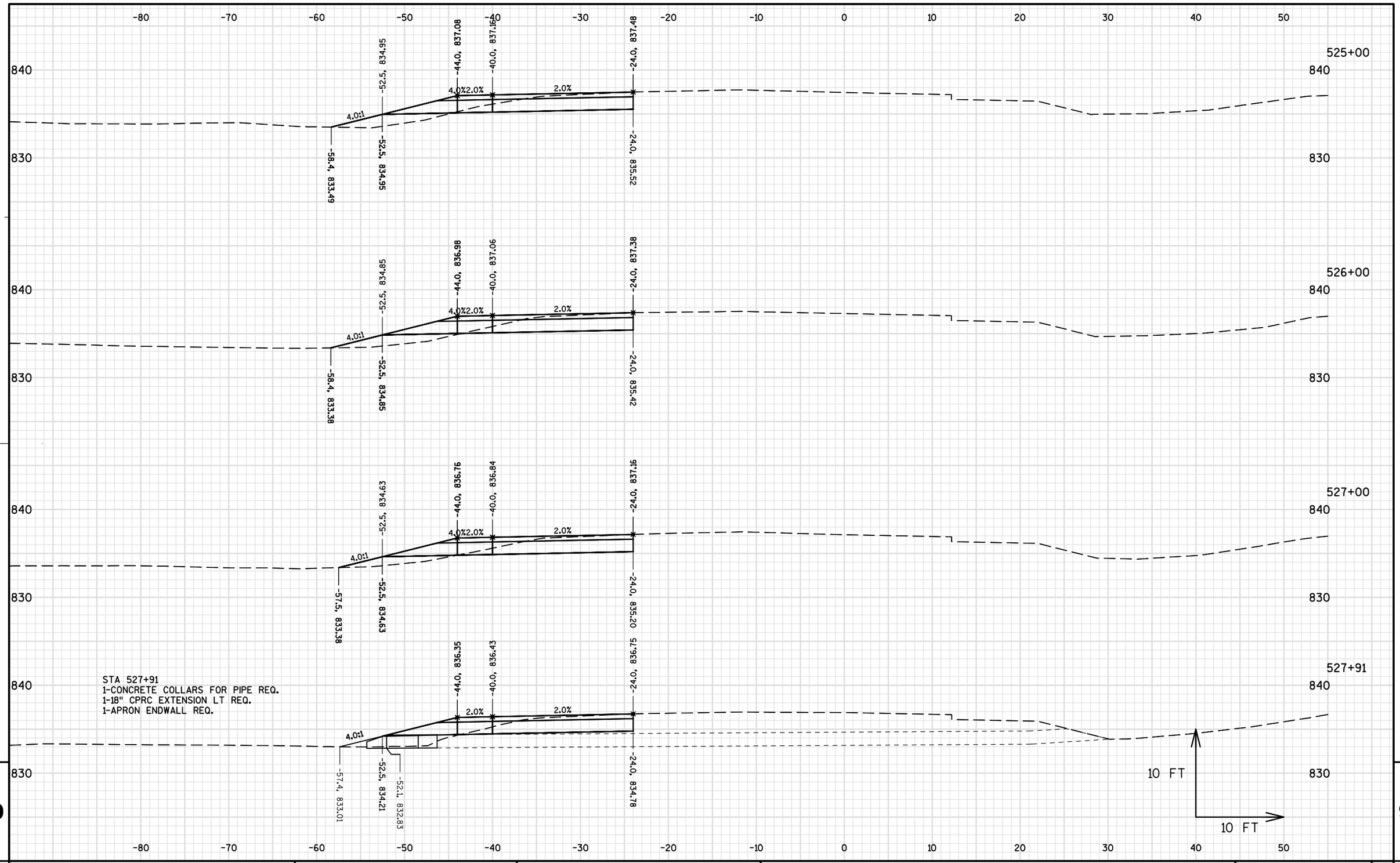
9

PROJECT NO: 1003-10-77	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: TEMPORARY WIDENING	SHEET 281	E

FILE NAME : L:\WORK\PROJECTS\60242867\000_CAD\001_DRAWINGS\1003-10-77_CTH S TO STH 11 TEMP\100%\090207_XS_470_545.DWG PLOT DATE : 4/7/2016 11:02 AM PLOT BY : ARBUCKLE, ADRIAN PLOT NAME : PLOT SCALE : 1" = 10'_1_XREF



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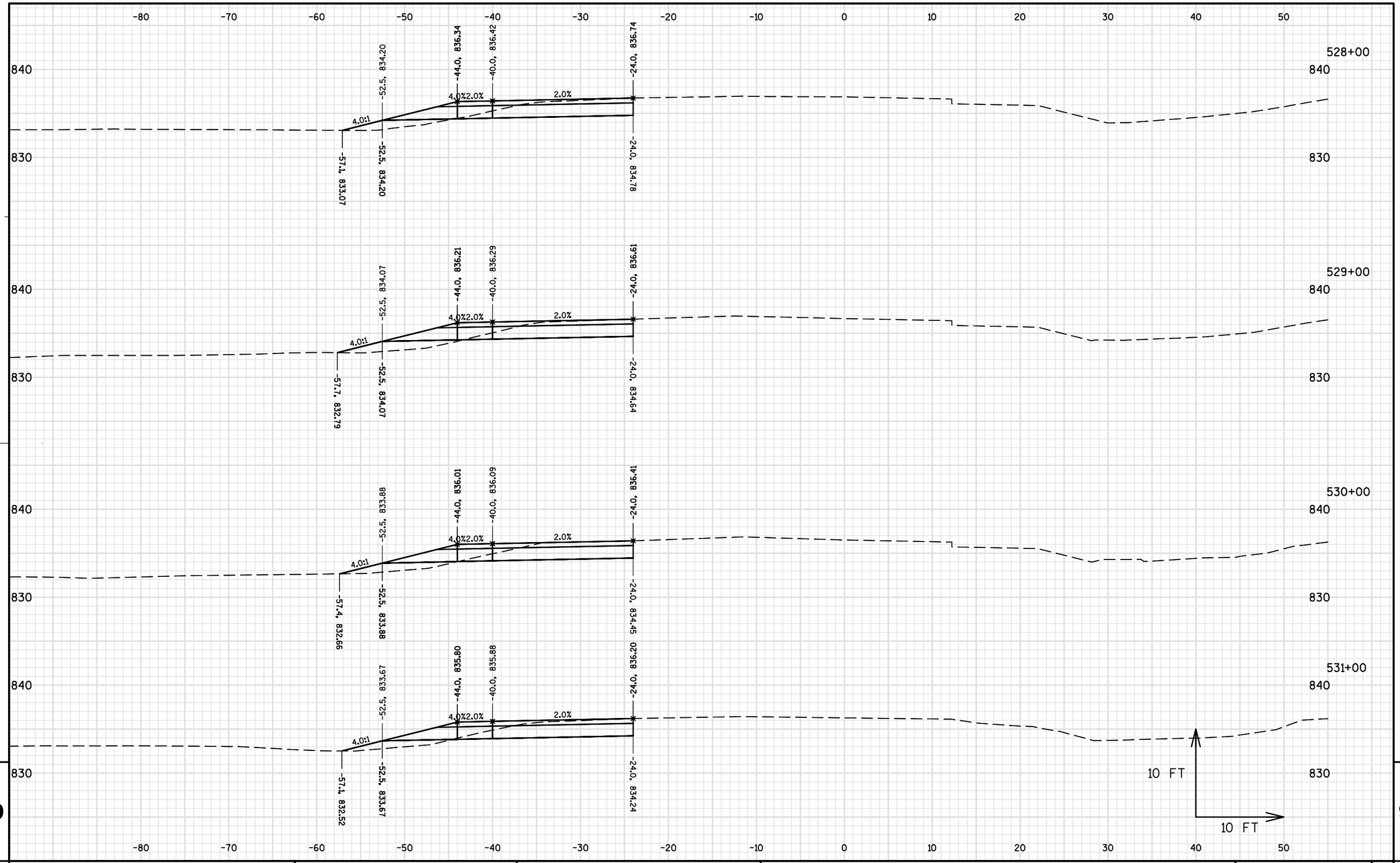
9

PROJECT NO: 1003-10-77	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: TEMPORARY WIDENING	SHEET	E

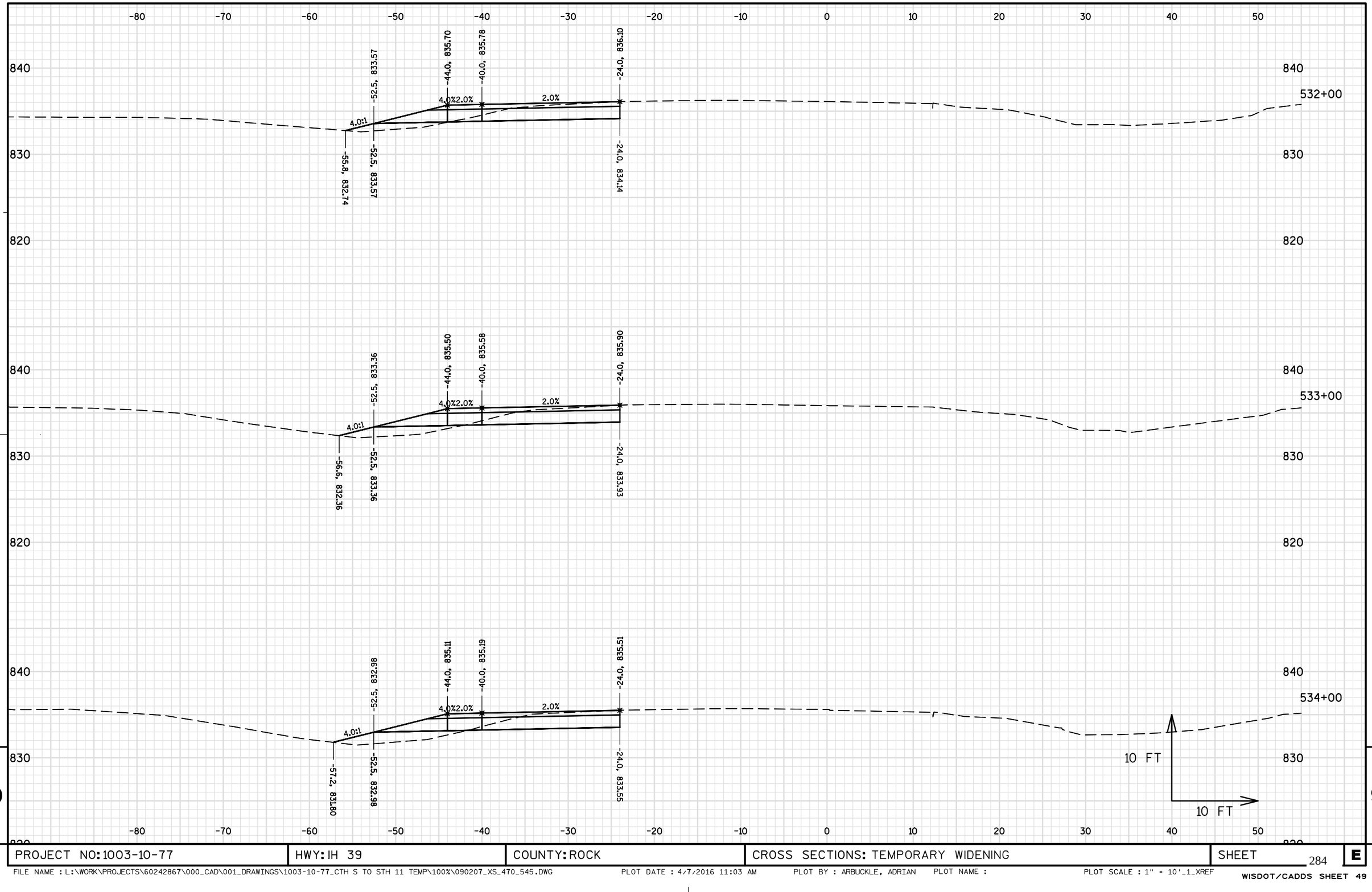
FILE NAME : L:\WORK\PROJECTS\60242867\000_CAD\001_DRAWINGS\1003-10-77_CTH S TO STH 11 TEMP\100%\090207_XS_470_545.DWG PLOT DATE : 4/7/2016 11:02 AM PLOT BY : ARBUCKLE, ADRIAN PLOT NAME : PLOT SCALE : 1" = 10'_1_XREF
WISDOT/CADDS SHEET 49



PROJECT NO: 1003-10-77	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: TEMPORARY WIDENING	SHEET 283 E

FILE NAME : L:\WORK\PROJECTS\60242867\000_CAD\001_DRAWINGS\1003-10-77_CTH S TO STH 11 TEMP\100%\090207_XS_470_545.DWG PLOT DATE : 4/7/2016 11:02 AM PLOT BY : ARBUCKLE, ADRIAN PLOT NAME : PLOT SCALE : 1" = 10'_1_XREF

WISDOT/CADDS SHEET 49



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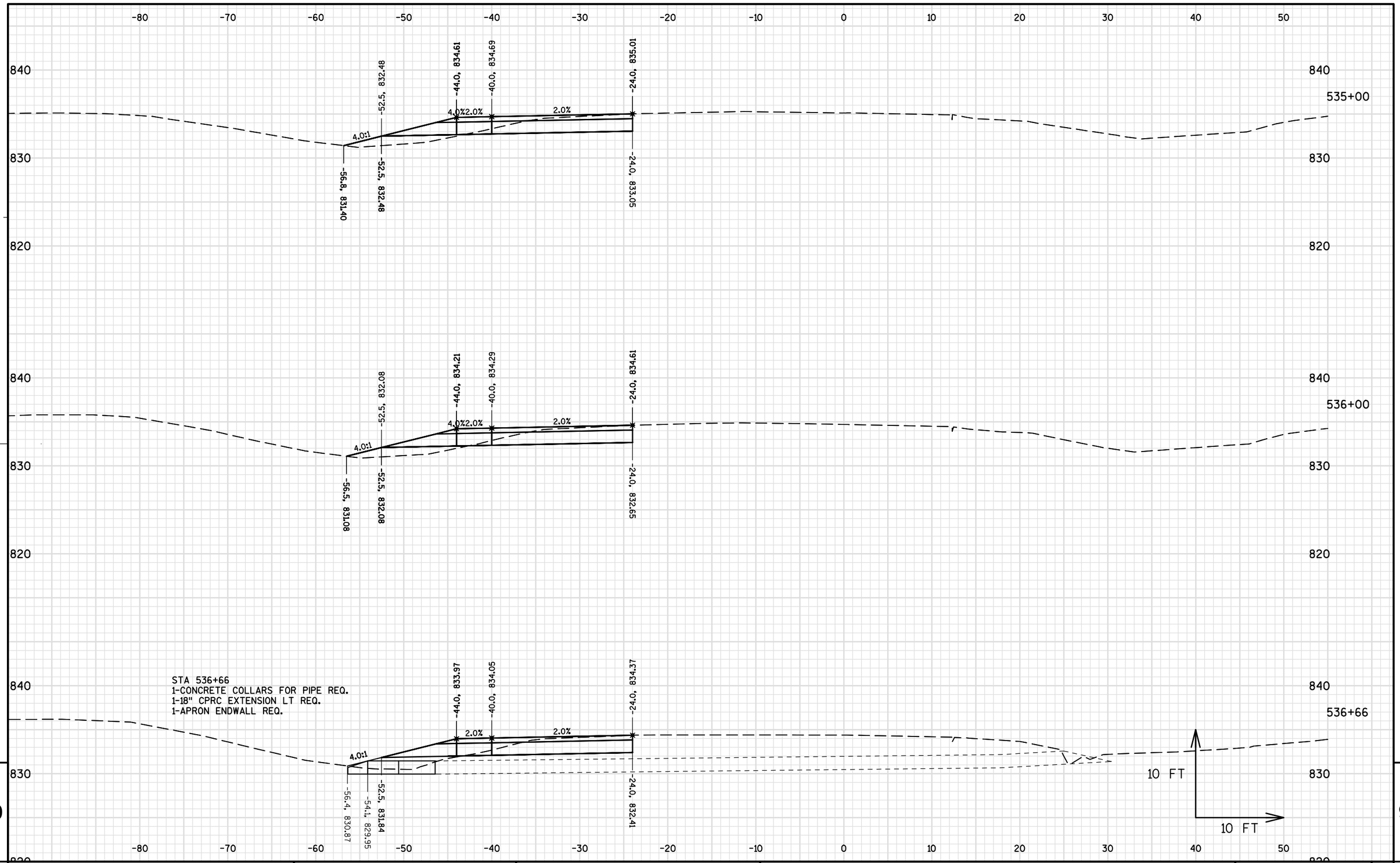
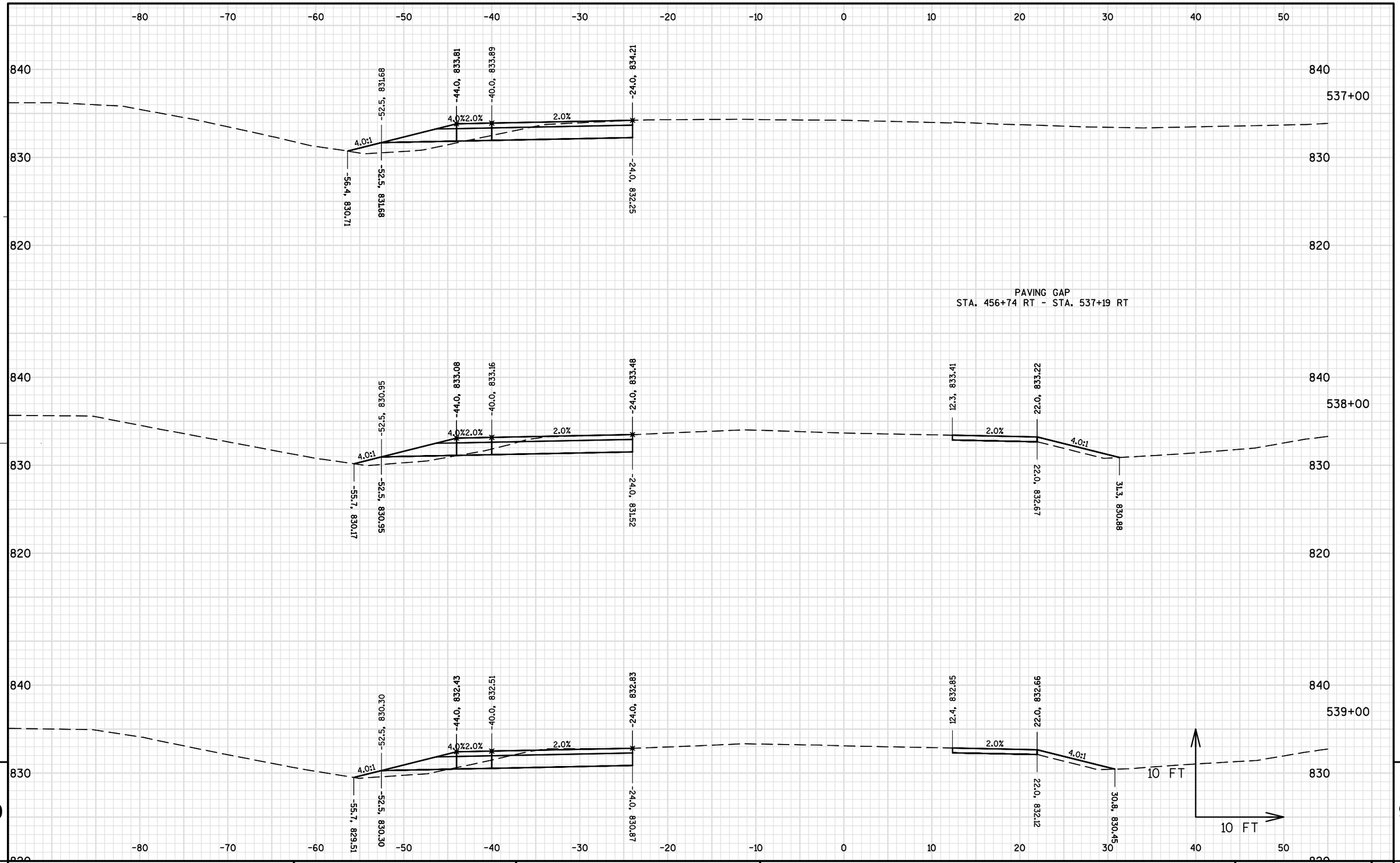
PROJECT NO: 1003-10-77	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: TEMPORARY WIDENING	SHEET 284	E



PROJECT NO: 1003-10-77	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: TEMPORARY WIDENING	SHEET 285	E

FILE NAME : L:\WORK\PROJECTS\60242867\000_CAD\001_DRAWINGS\1003-10-77_CTH S TO STH 11 TEMP\100%\090207_XS_470_545.DWG PLOT DATE : 4/7/2016 11:03 AM PLOT BY : ARBUCKLE, ADRIAN PLOT NAME : PLOT SCALE : 1" = 10'_1_XREF

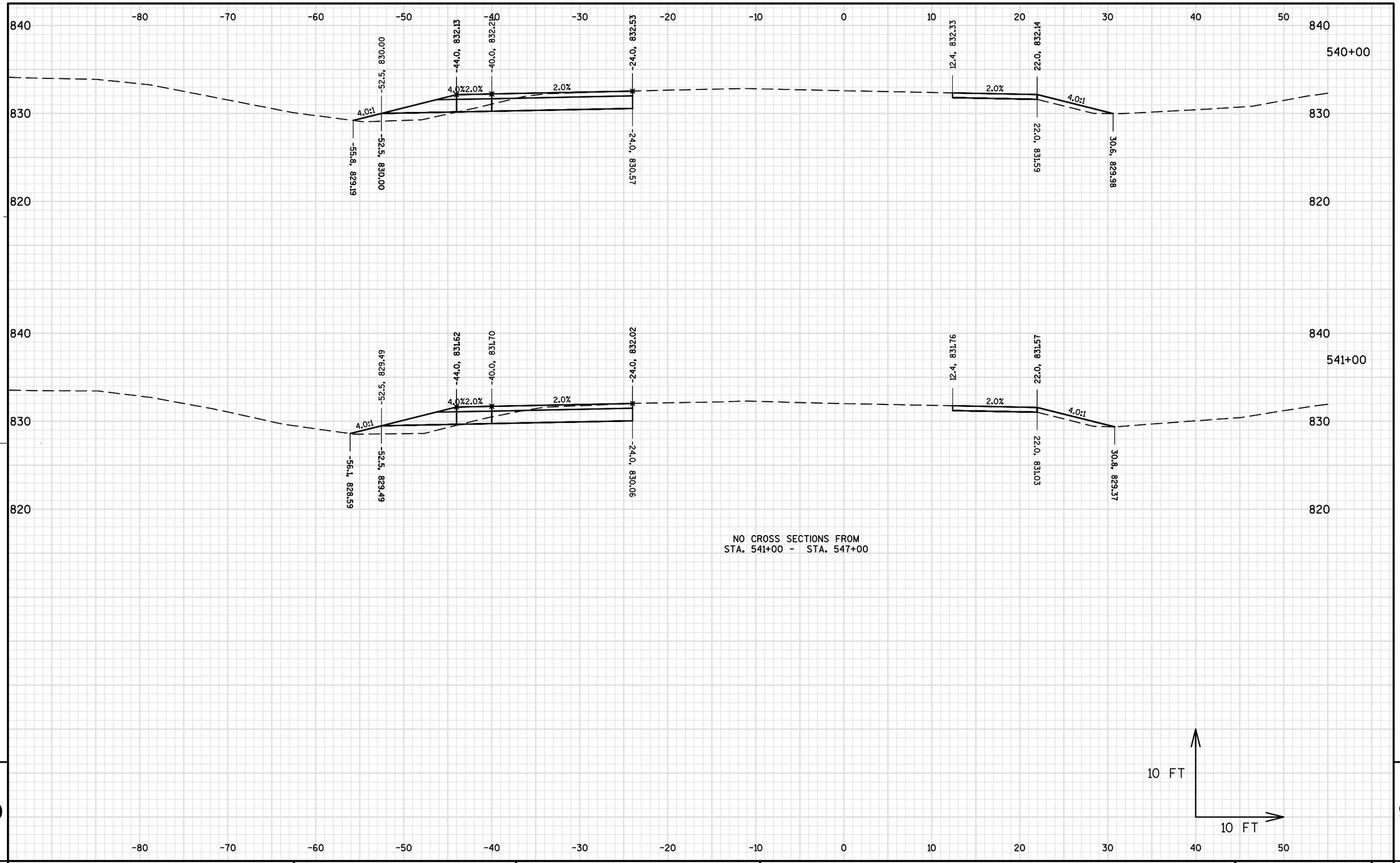
WISDOT/CADDS SHEET 49



9 9

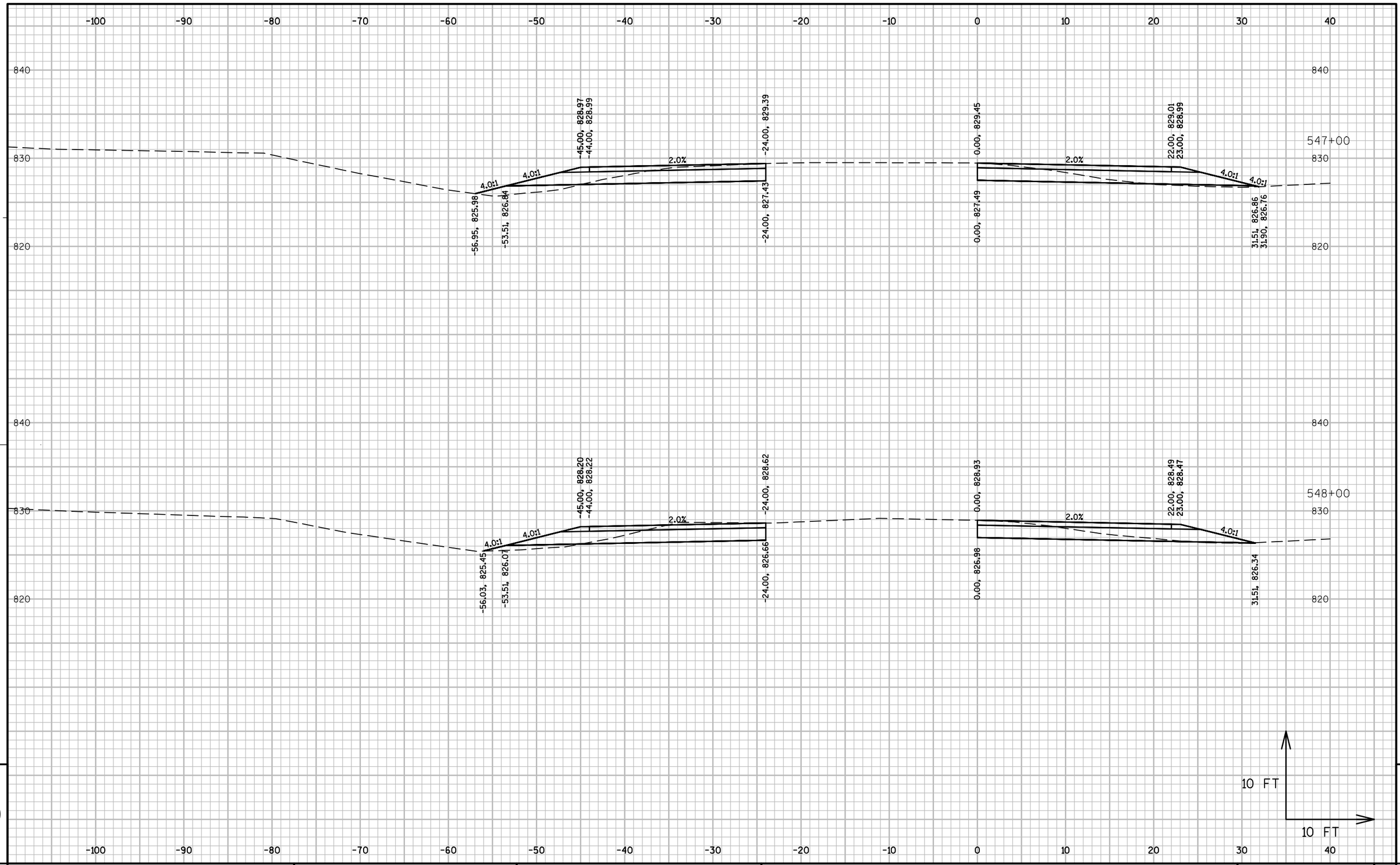
PROJECT NO: 1003-10-77	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: TEMPORARY WIDENING	SHEET 286	E

FILE NAME : L:\WORK\PROJECTS\60242867\000_CAD\001_DRAWINGS\1003-10-77_CTH S TO STH 11 TEMP\100%\090207_XS_470_545.DWG PLOT DATE : 4/7/2016 11:03 AM PLOT BY : ARBUCKLE, ADRIAN PLOT NAME : PLOT SCALE : 1" = 10'_1_XREF
WISDOT/CADDS SHEET 49



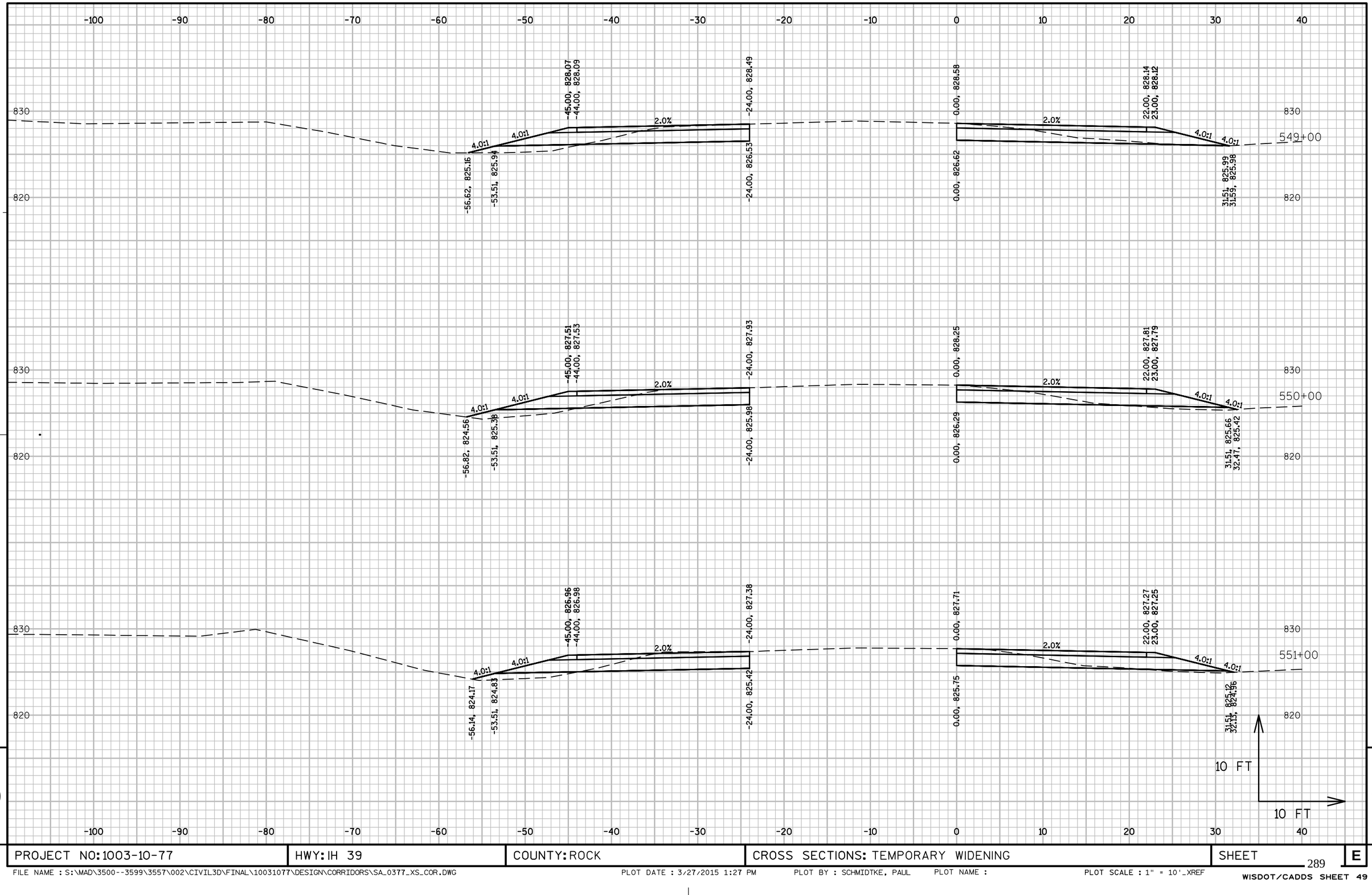
PROJECT NO: 1003-10-77	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: TEMPORARY WIDENING	SHEET 287 E

FILE NAME : L:\WORK\PROJECTS\60242867\000_CAD\001_DRAWINGS\1003-10-77_CTH S TO STH 11 TEMP\100%\090207_XS_470_545.DWG PLOT DATE : 4/7/2016 11:03 AM PLOT BY : ARBUCKLE, ADRIAN PLOT NAME : PLOT SCALE : 1" = 10'_1_XREF



PROJECT NO: 1003-10-77	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: TEMPORARY WIDENING	SHEET 288	E

FILE NAME : S:\MAD\3500--3599\3557\002\CIVIL3D\FINAL\10031077\DESIGN\CORRIDORS\SA_0377_XS_COR.DWG PLOT DATE : 3/27/2015 1:27 PM PLOT BY : SCHMIDTKE, PAUL PLOT NAME : PLOT SCALE : 1" = 10'_XREF



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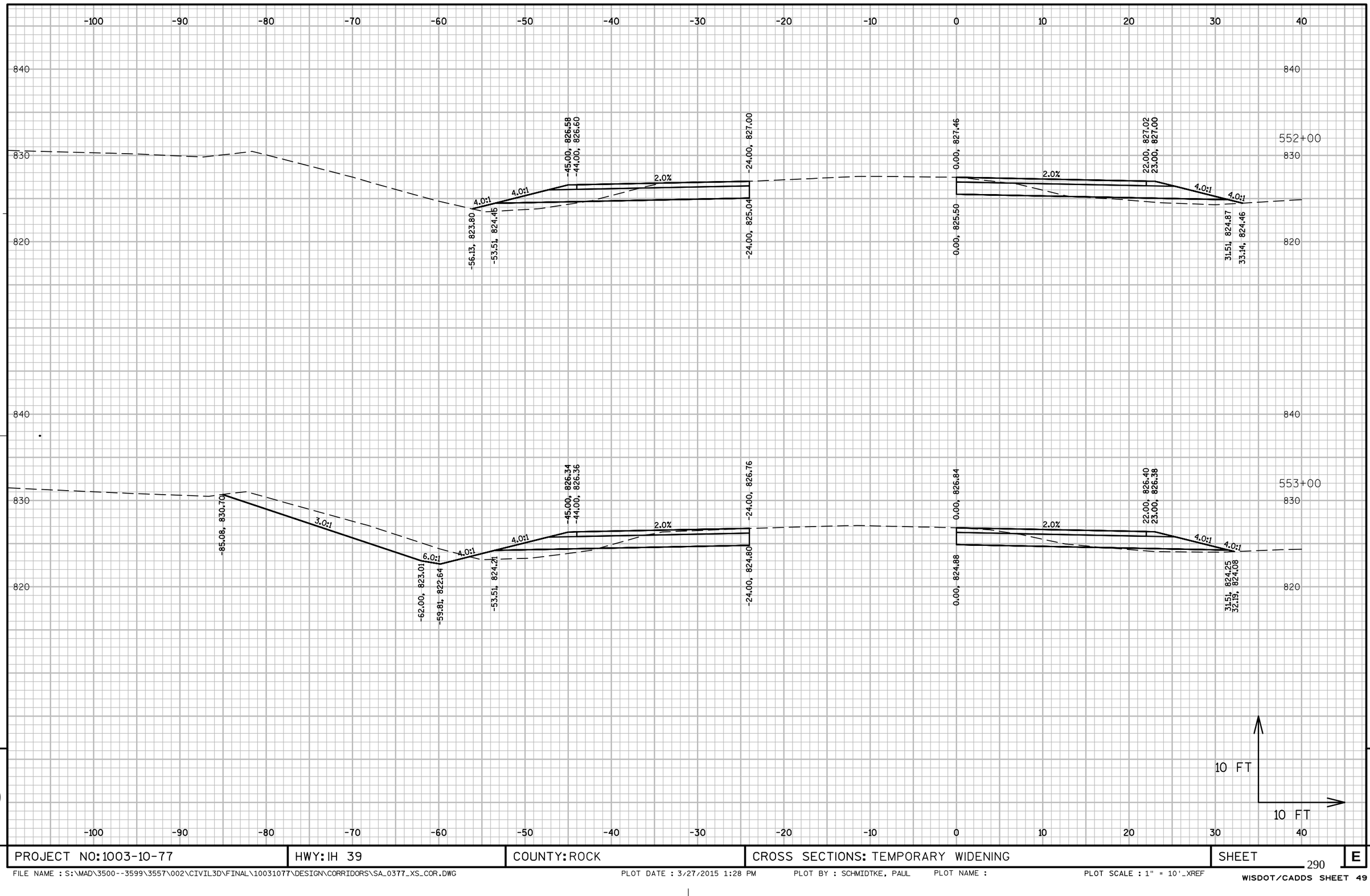
9

PROJECT NO: 1003-10-77	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: TEMPORARY WIDENING	SHEET	E

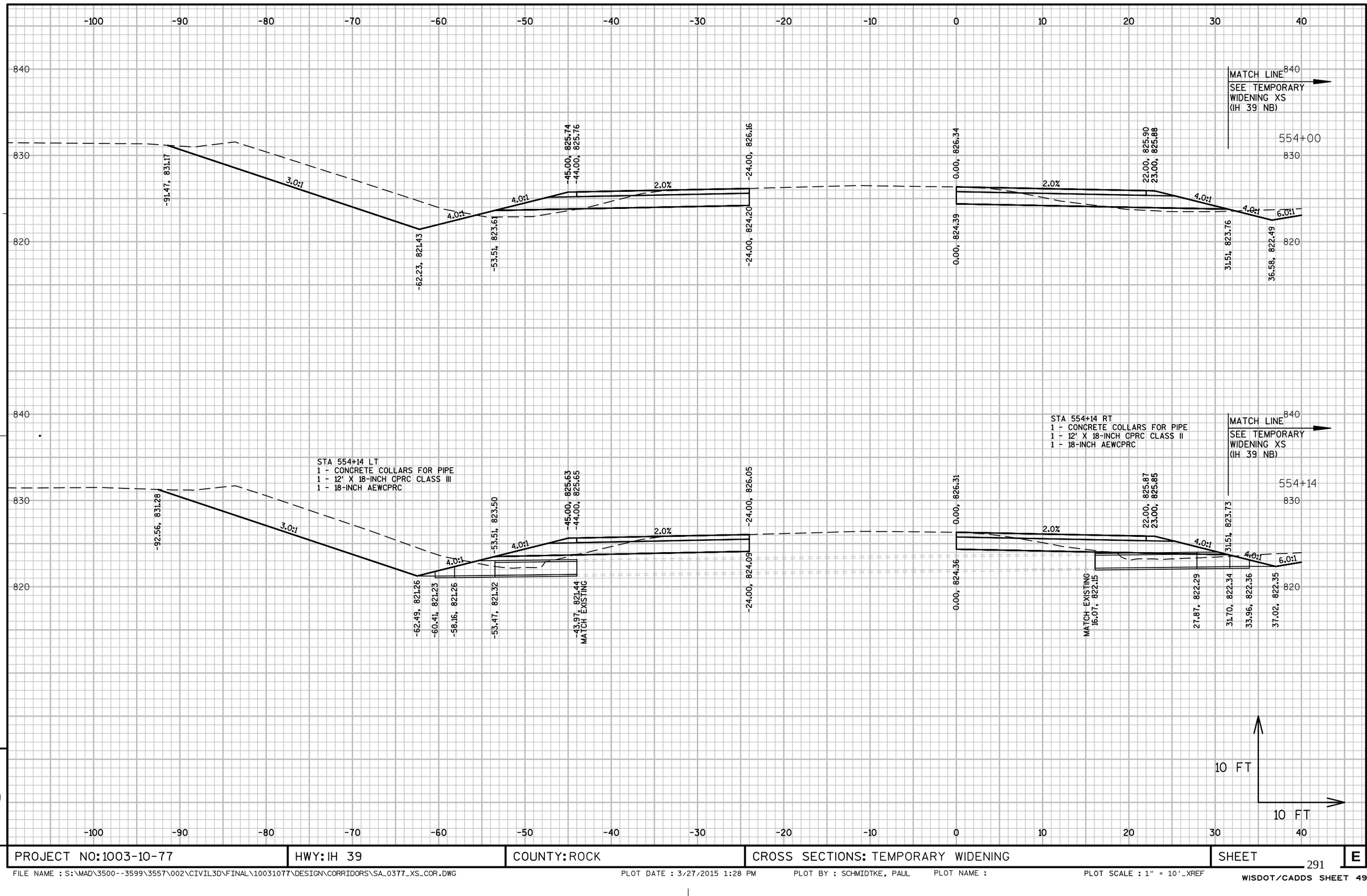
FILE NAME : S:\MAD\3500--3599\3557\002\CIVIL3D\FINAL\10031077\DESIGN\CORRIDORS\SA_0377_XS_COR.DWG PLOT DATE : 3/27/2015 1:27 PM PLOT BY : SCHMIDTKE, PAUL PLOT NAME : PLOT SCALE : 1" = 10'_XREF



9 9

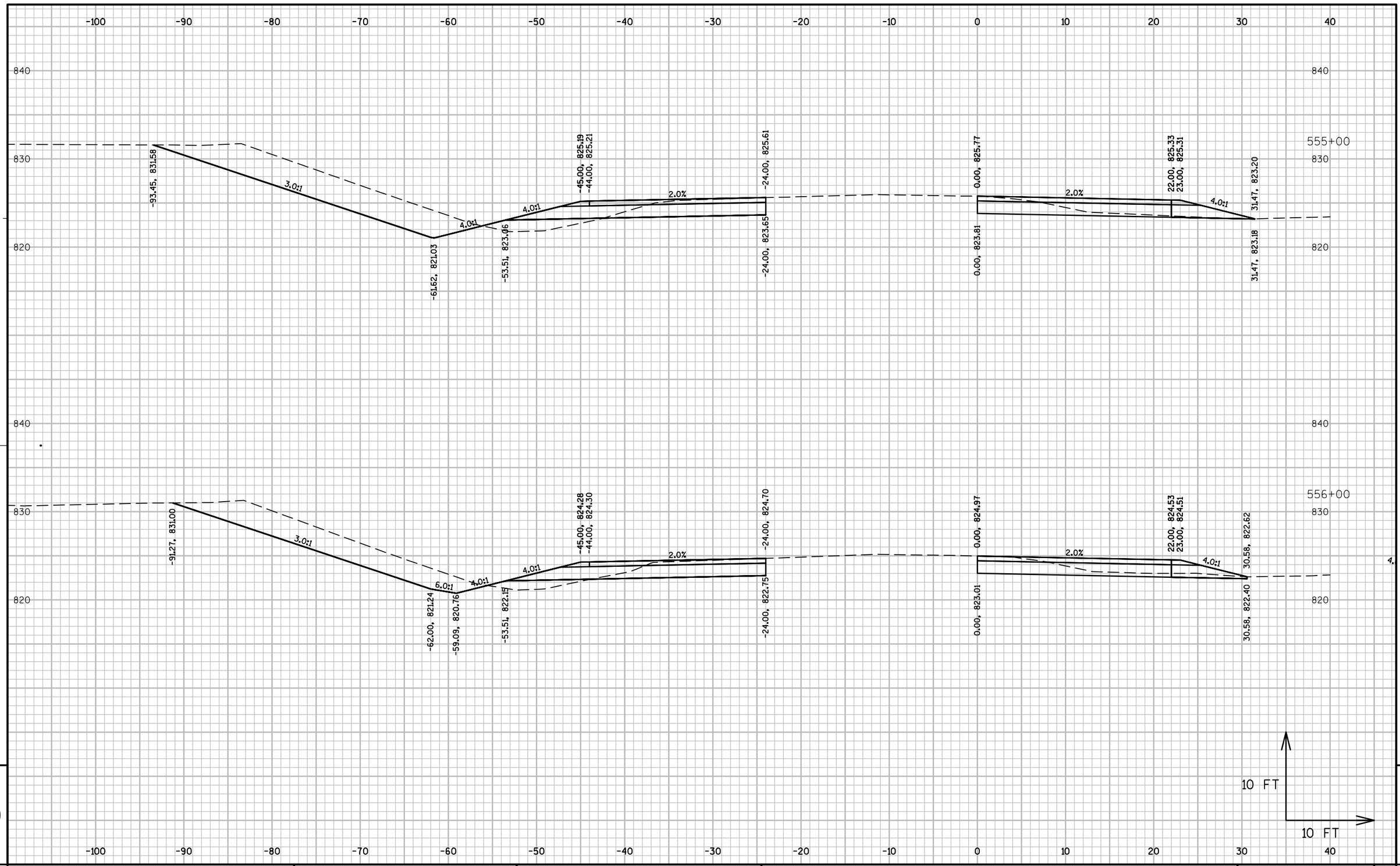
PROJECT NO: 1003-10-77	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: TEMPORARY WIDENING	SHEET	E

FILE NAME : S:\MAD\3500--3599\3557\002\CIVIL3D\FINAL\10031077\DESIGN\CORRIDORS\SA_0377_XS_COR.DWG PLOT DATE : 3/27/2015 1:28 PM PLOT BY : SCHMIDTKE, PAUL PLOT NAME : PLOT SCALE : 1" = 10'_XREF
WISDOT/CADDS SHEET 49



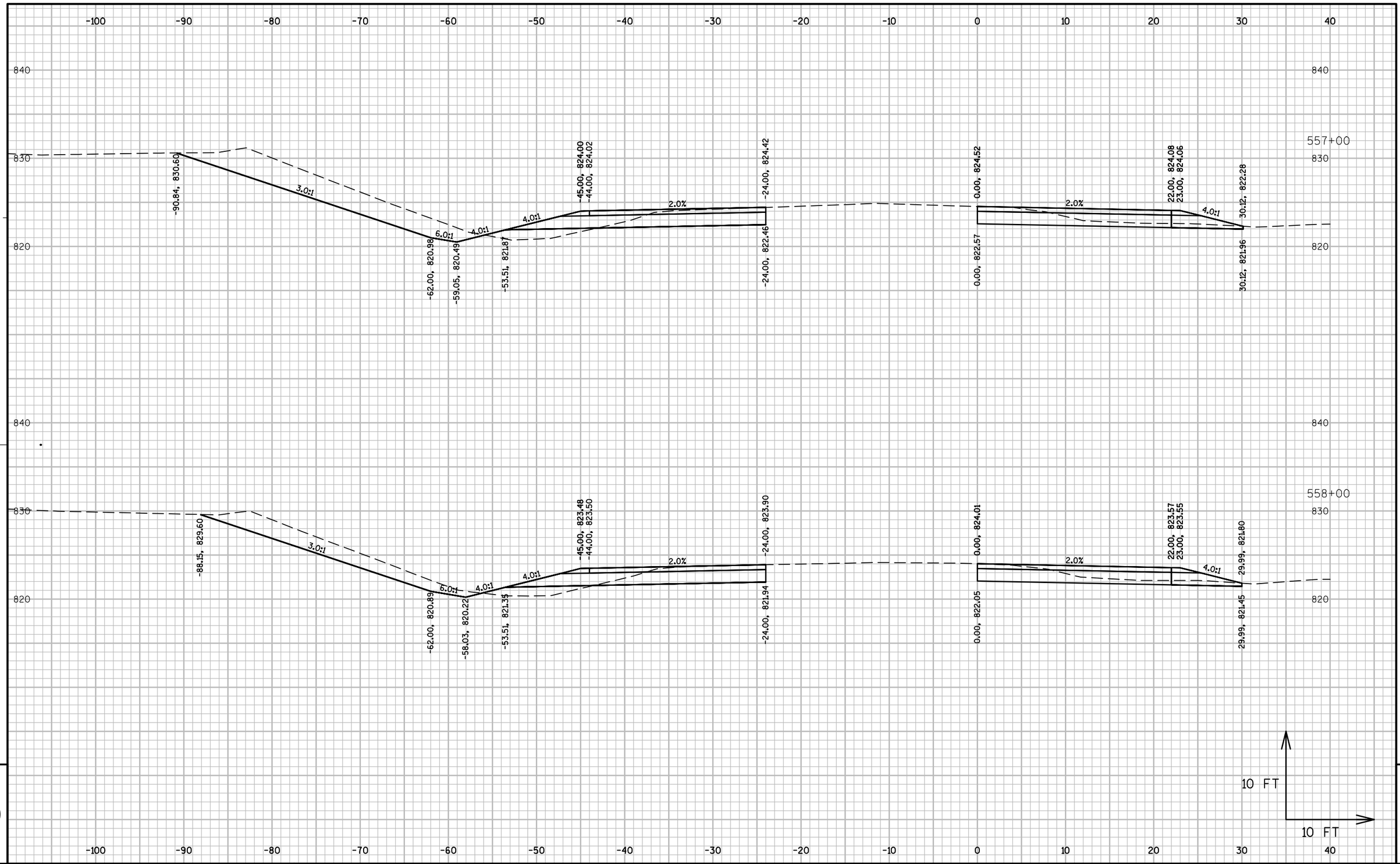
PROJECT NO: 1003-10-77	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: TEMPORARY WIDENING	SHEET	E

FILE NAME : S:\MAD\3500--3599\3557\002\CIVIL3D\FINAL\10031077\DESIGN\CORRIDORS\SA_0377_XS_COR.DWG PLOT DATE : 3/27/2015 1:28 PM PLOT BY : SCHMIDTKE, PAUL PLOT NAME : PLOT SCALE : 1" = 10'_XREF



PROJECT NO: 1003-10-77	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: TEMPORARY WIDENING	SHEET E

FILE NAME : S:\MAD\3500--3599\3557\002\CIVIL3D\FINAL\10031077\DESIGN\CORRIDORS\SA_0377_XS_COR.DWG PLOT DATE : 3/27/2015 1:29 PM PLOT BY : SCHMIDTKE, PAUL PLOT NAME : PLOT SCALE : 1" = 10'_XREF
WISDOT/CADDS SHEET 49



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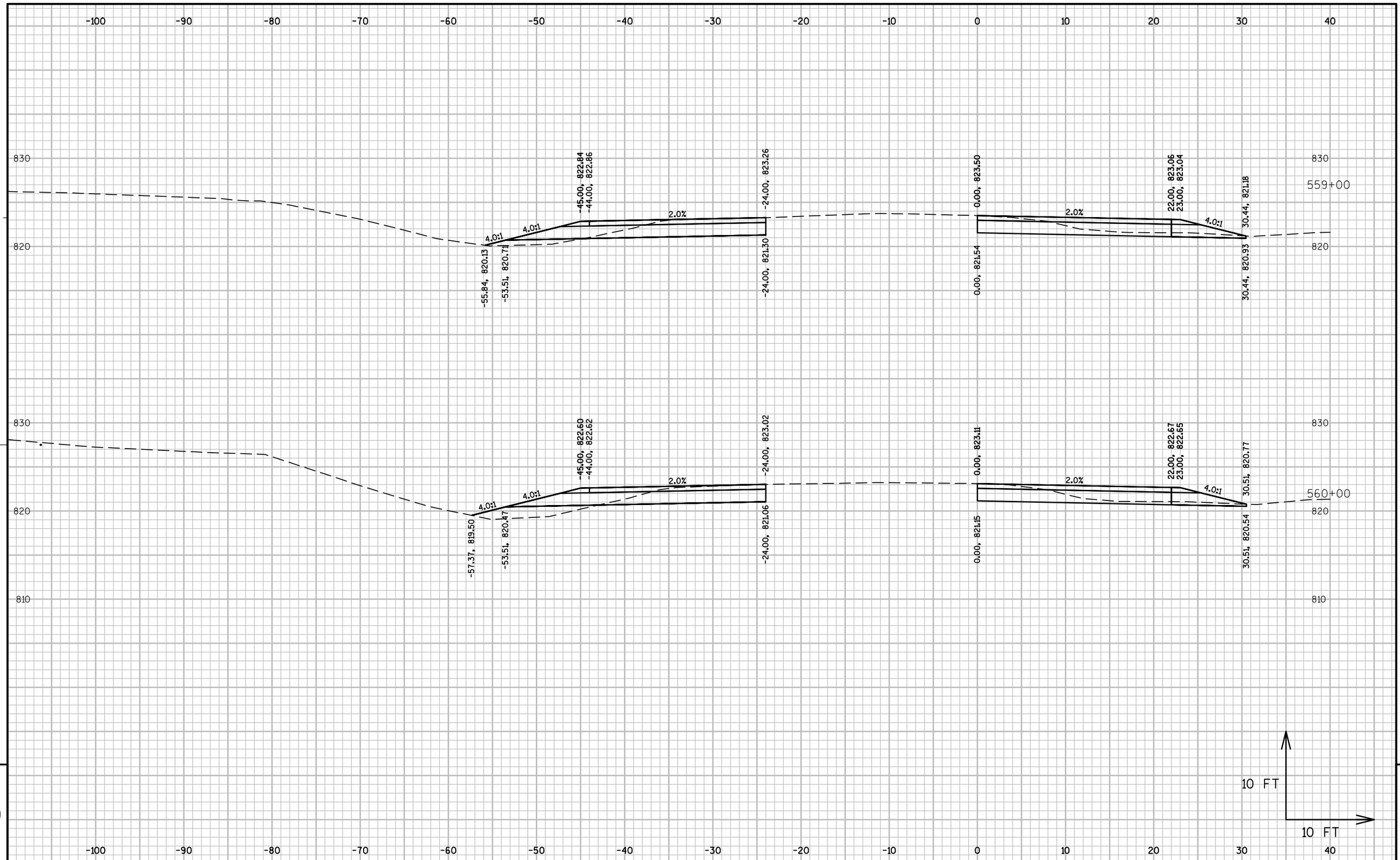
PROJECT NO: 1003-10-77	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: TEMPORARY WIDENING	SHEET	E

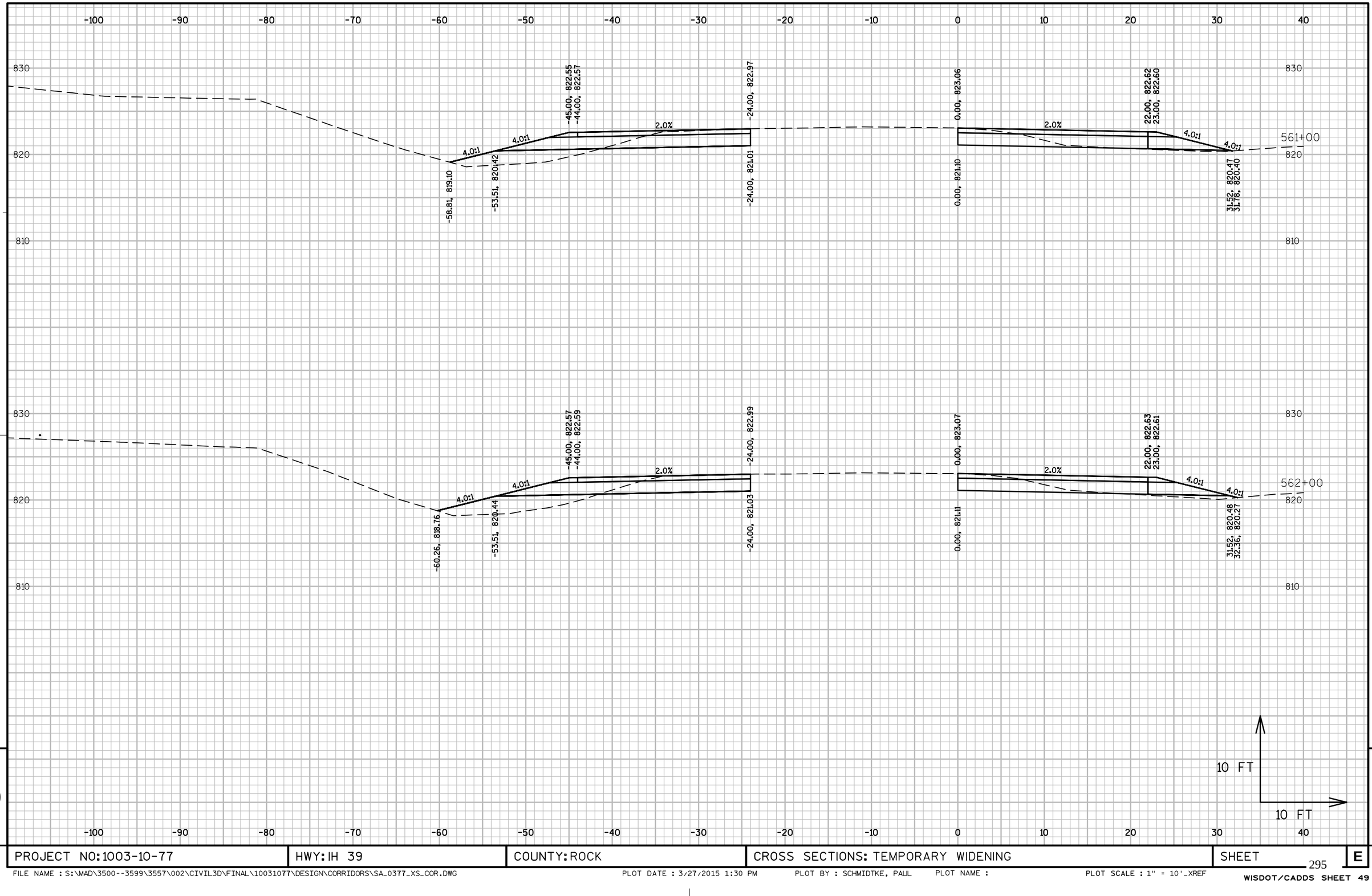
FILE NAME : S:\MAD\3500--3599\3557\002\CIVIL3D\FINAL\10031077\DESIGN\CORRIDORS\SA_0377_XS_COR.DWG PLOT DATE : 3/27/2015 1:29 PM PLOT BY : SCHMIDTKE, PAUL PLOT NAME : PLOT SCALE : 1" = 10'_XREF
WISDOT/CADDS SHEET 49



9

PROJECT NO: 1003-10-77	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: TEMPORARY WIDENING	SHEET	E

FILE NAME : S:\MAD\3500--3599\3557\002\CIVIL3D\FINAL\10031077\DESIGN\CORRIDORS\SA_0377_XS_COR.DWG PLOT DATE : 3/27/2015 1:30 PM PLOT BY : SCHMIDTKE, PAUL PLOT NAME : PLOT SCALE : 1" = 10'_XREF
WISDOT/CADDS SHEET 49



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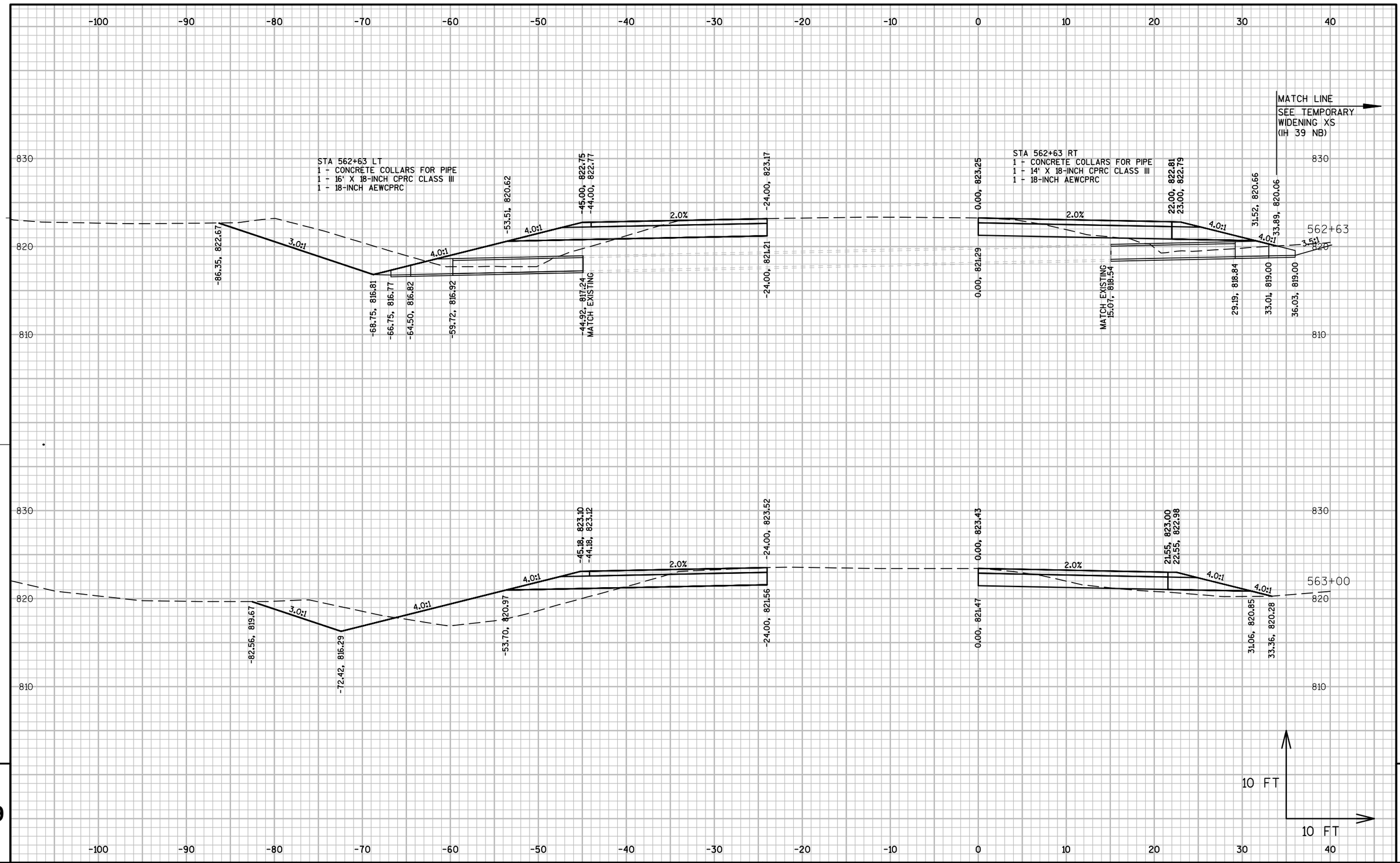
PROJECT NO: 1003-10-77	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: TEMPORARY WIDENING	SHEET	E

FILE NAME : S:\MAD\3500--3599\3557\002\CIVIL3D\FINAL\10031077\DESIGN\CORRIDORS\SA_0377_XS_COR.DWG PLOT DATE : 3/27/2015 1:30 PM PLOT BY : SCHMIDTKE, PAUL PLOT NAME : PLOT SCALE : 1" = 10'_XREF



PROJECT NO: 1003-10-77	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: TEMPORARY WIDENING	SHEET	E

FILE NAME : S:\MAD\3500--3599\3557\002\CIVIL3D\FINAL\10031077\DESIGN\CORRIDORS\SA_0377_XS_COR.DWG PLOT DATE : 3/27/2015 1:31 PM PLOT BY : SCHMIDTKE, PAUL PLOT NAME : PLOT SCALE : 1" = 10'_XREF
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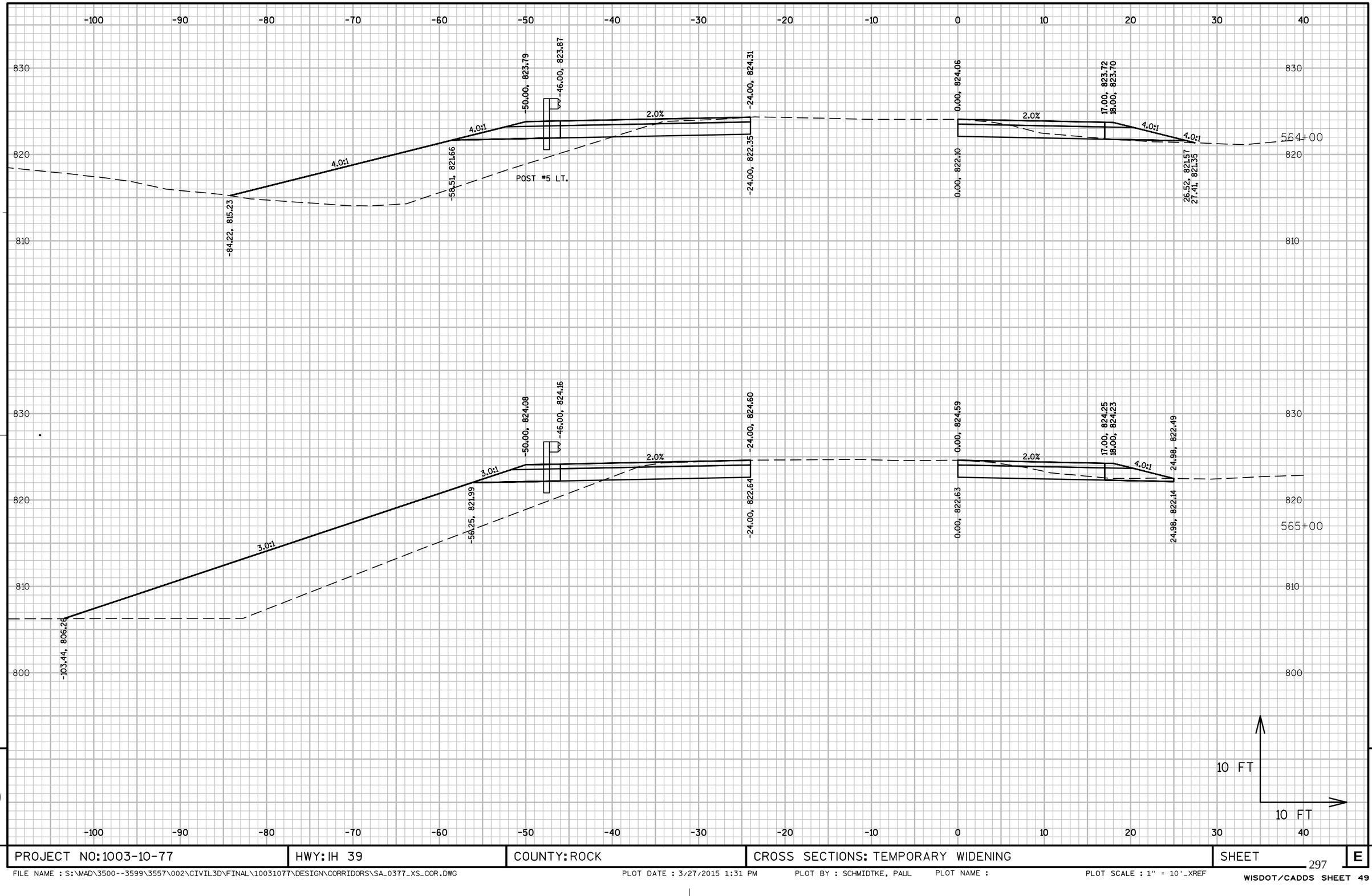
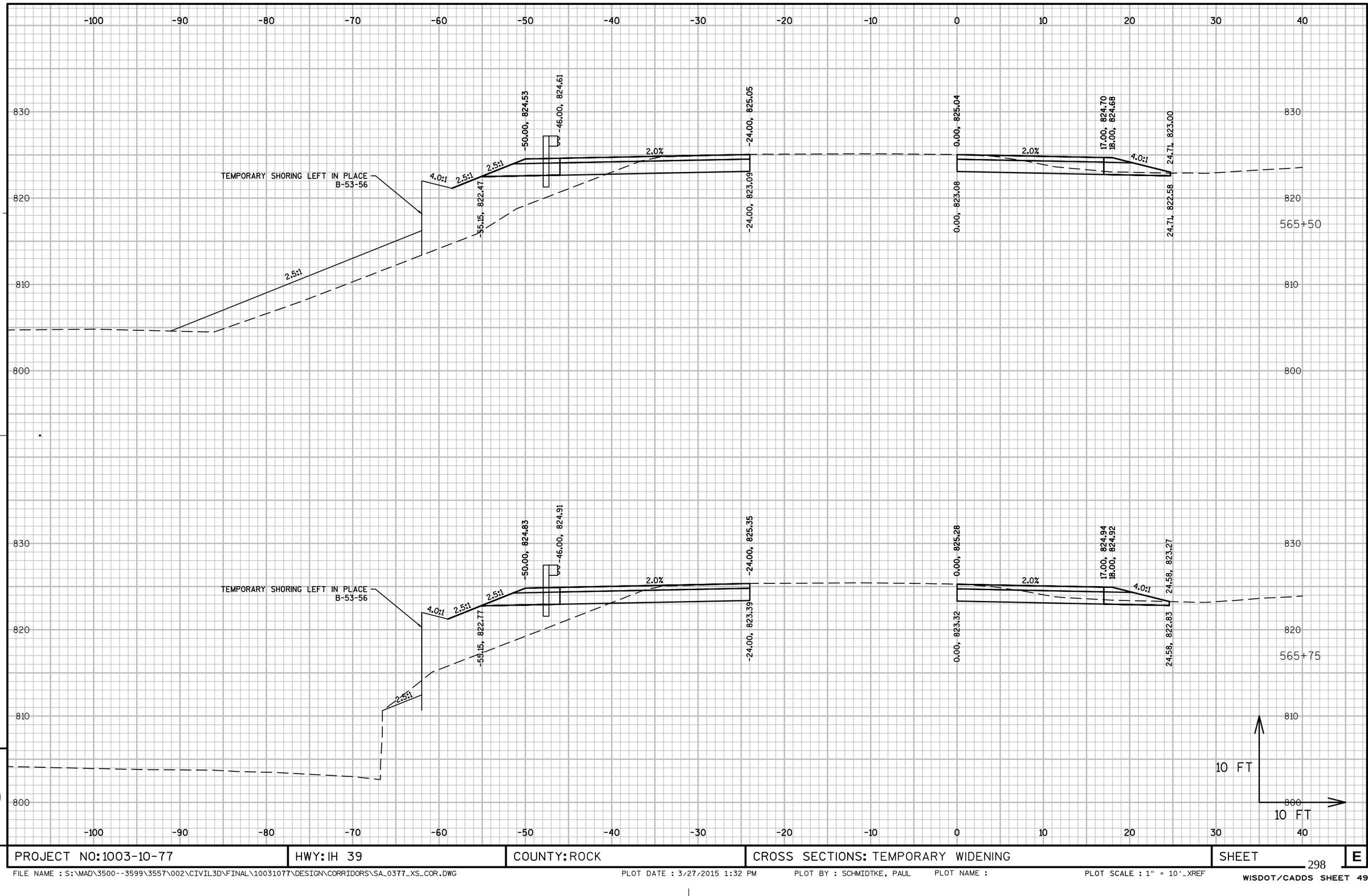


PROJECT NO: 1003-10-77	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: TEMPORARY WIDENING	SHEET 297	E

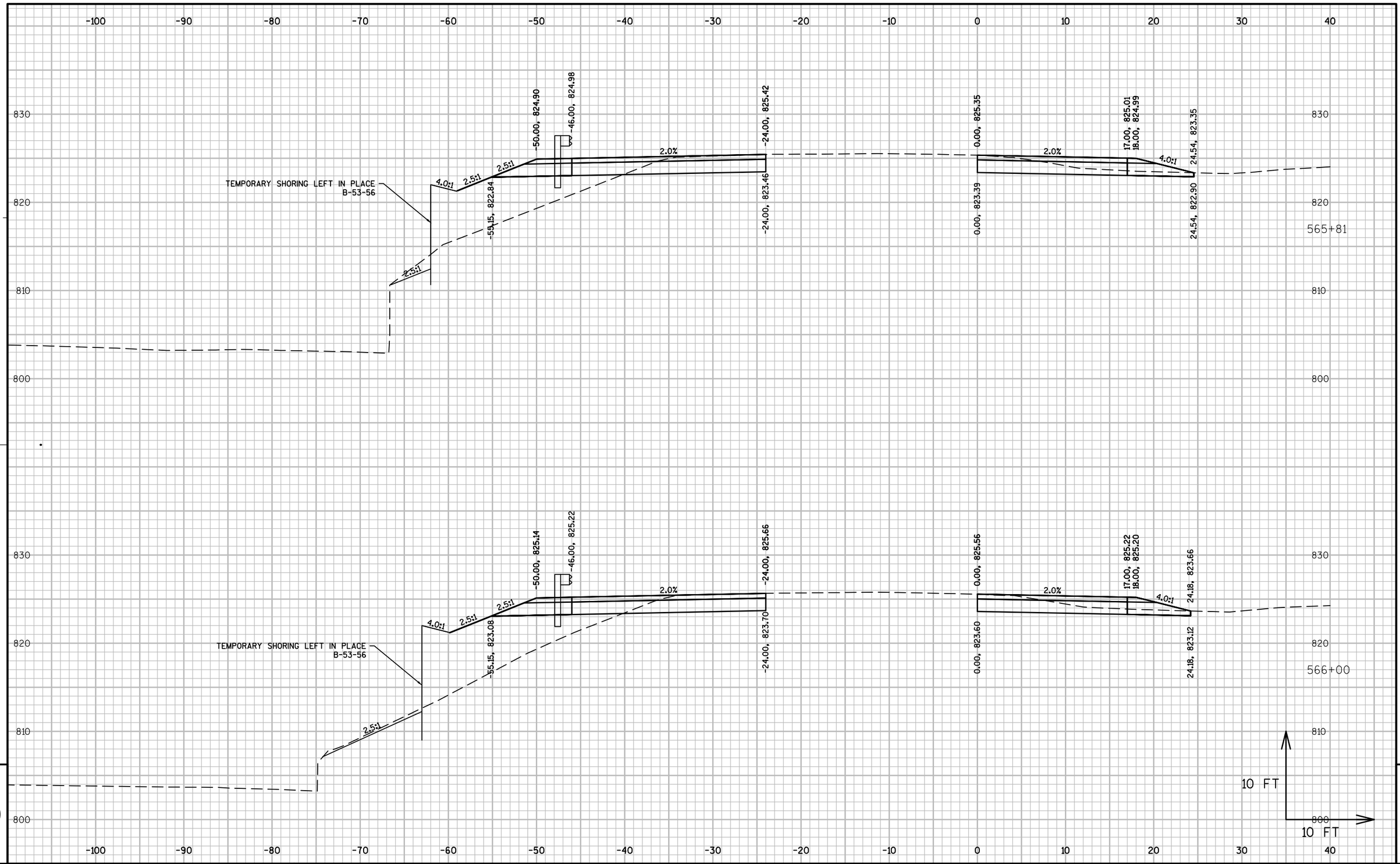
FILE NAME : S:\MAD\3500--3599\3557\002\CIVIL3D\FINAL\10031077\DESIGN\CORRIDORS\SA_0377_XS_COR.DWG PLOT DATE : 3/27/2015 1:31 PM PLOT BY : SCHMIDTKE, PAUL PLOT NAME : PLOT SCALE : 1" = 10'_XREF

WISDOT/CADDS SHEET 49



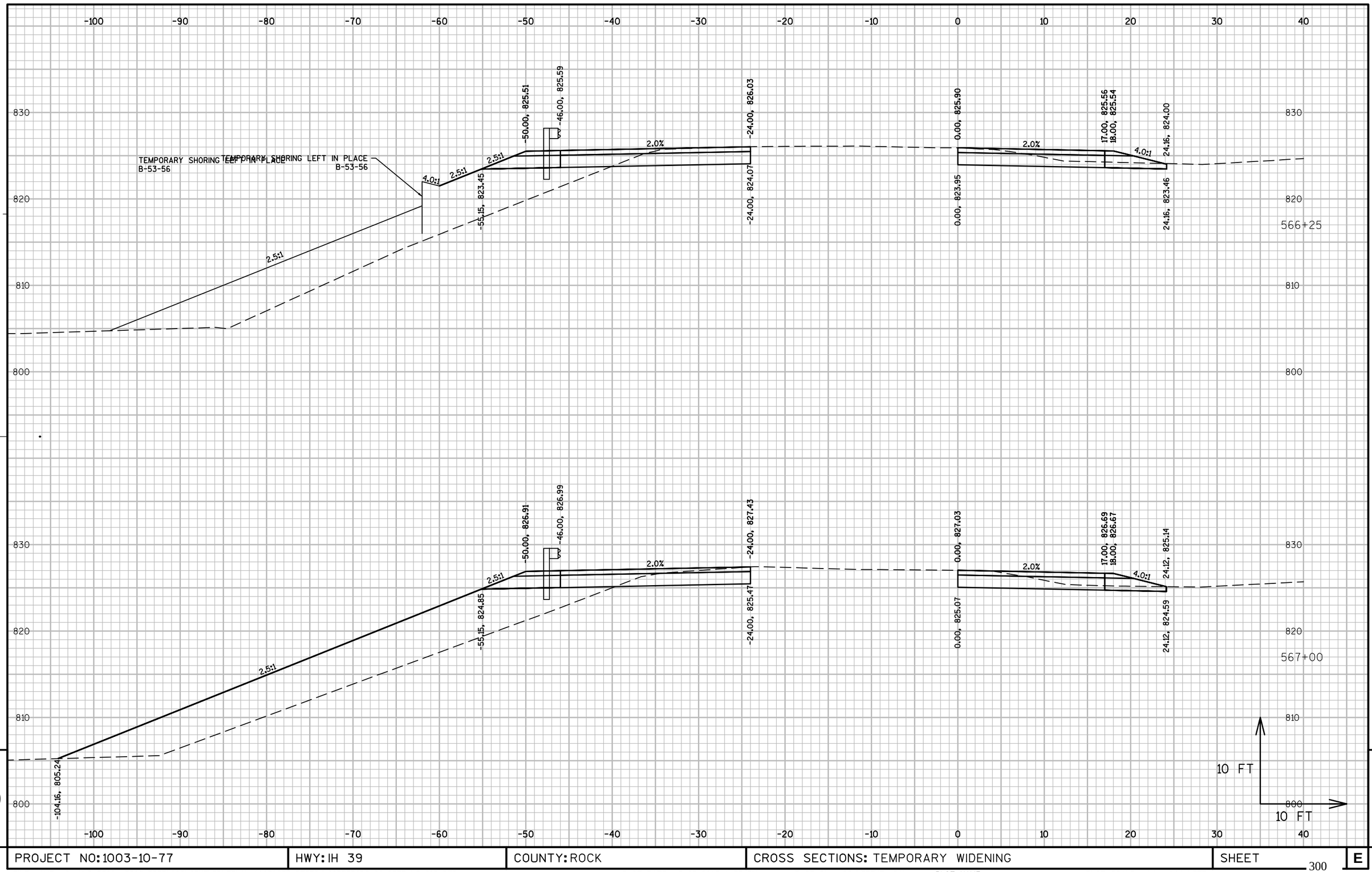
PROJECT NO: 1003-10-77	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: TEMPORARY WIDENING	SHEET	E

FILE NAME : S:\MAD\3500--3599\3557\002\CIVIL3D\FINAL\10031077\DESIGN\CORRIDORS\SA_0377_XS_COR.DWG PLOT DATE : 3/27/2015 1:32 PM PLOT BY : SCHMIDTKE, PAUL PLOT NAME : PLOT SCALE : 1" = 10'_XREF
WISDOT/CADDS SHEET 49



PROJECT NO: 1003-10-77	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: TEMPORARY WIDENING	SHEET	E

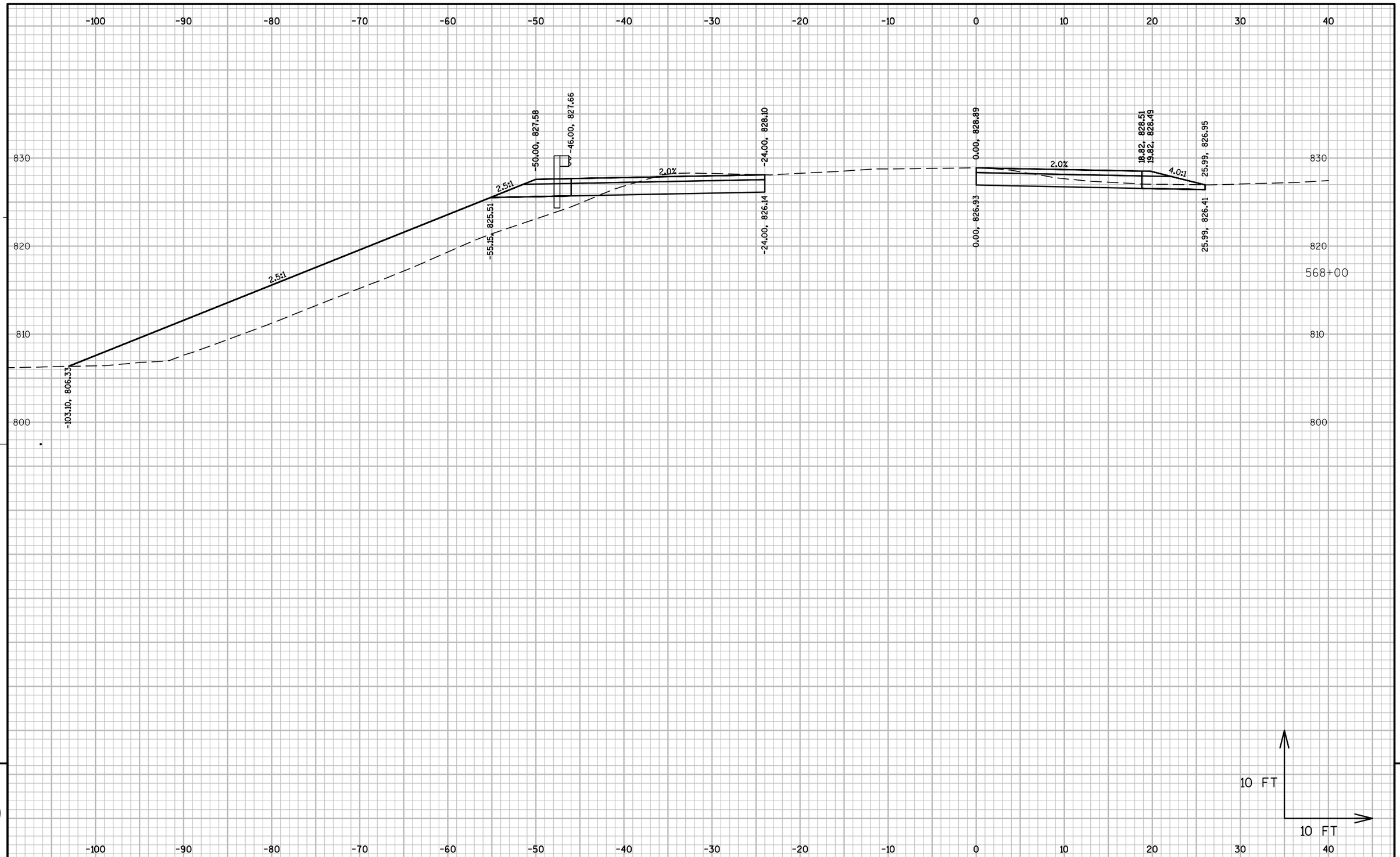
FILE NAME : S:\MAD\3500--3599\3557\002\CIVIL3D\FINAL\10031077\DESIGN\CORRIDORS\SA_0377_XS_COR.DWG PLOT DATE : 3/27/2015 1:32 PM PLOT BY : SCHMIDTKE, PAUL PLOT NAME : PLOT SCALE : 1" = 10'_XREF
WISDOT/CADDS SHEET 49



PROJECT NO: 1003-10-77	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: TEMPORARY WIDENING	SHEET 300	E

FILE NAME : S:\MAD\3500--3599\3557\002\CIVIL3D\FINAL\10031077\DESIGN\CORRIDORS\SA_0377_XS_COR.DWG PLOT DATE : 3/27/2015 1:33 PM PLOT BY : SCHMIDTKE, PAUL PLOT NAME : PLOT SCALE : 1" = 10'_XREF

WISDOT/CADDS SHEET 49



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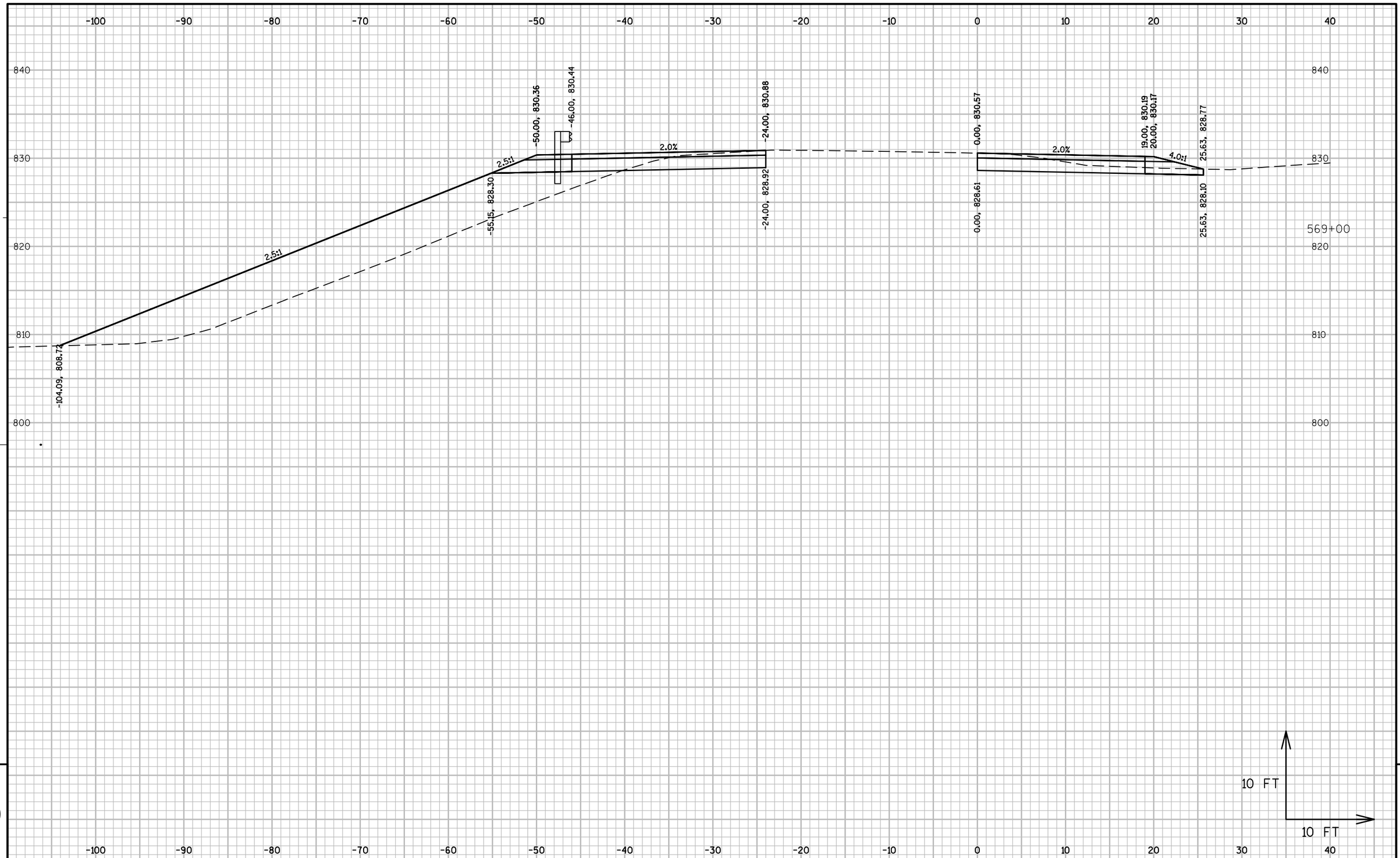
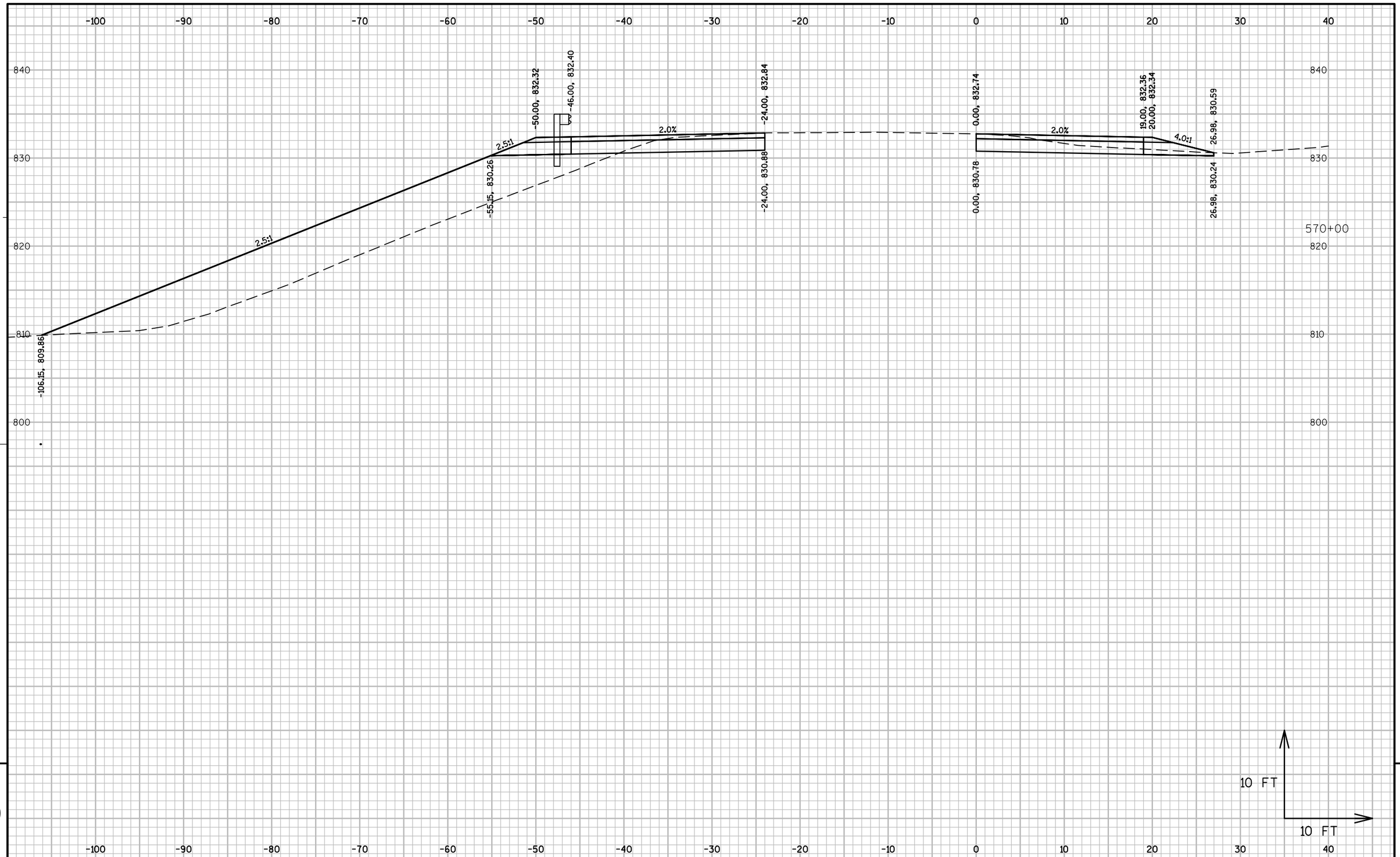
PROJECT NO: 1003-10-77	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: TEMPORARY WIDENING	SHEET	E

FILE NAME : S:\MAD\3500--3599\3557\002\CIVIL3D\FINAL\10031077\DESIGN\CORRIDORS\SA_0377_XS_COR.DWG PLOT DATE : 3/27/2015 1:33 PM PLOT BY : SCHMIDTKE, PAUL PLOT NAME : PLOT SCALE : 1" = 10'_XREF
WISDOT/CADDS SHEET 49



9	PROJECT NO: 1003-10-77	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: TEMPORARY WIDENING	SHEET E

FILE NAME : S:\MAD\3500--3599\3557\002\CIVIL3D\FINAL\10031077\DESIGN\CORRIDORS\SA_0377_XS_COR.DWG PLOT DATE : 3/27/2015 1:33 PM PLOT BY : SCHMIDTKE, PAUL PLOT NAME : PLOT SCALE : 1" = 10'_XREF
WISDOT/CADDS SHEET 49



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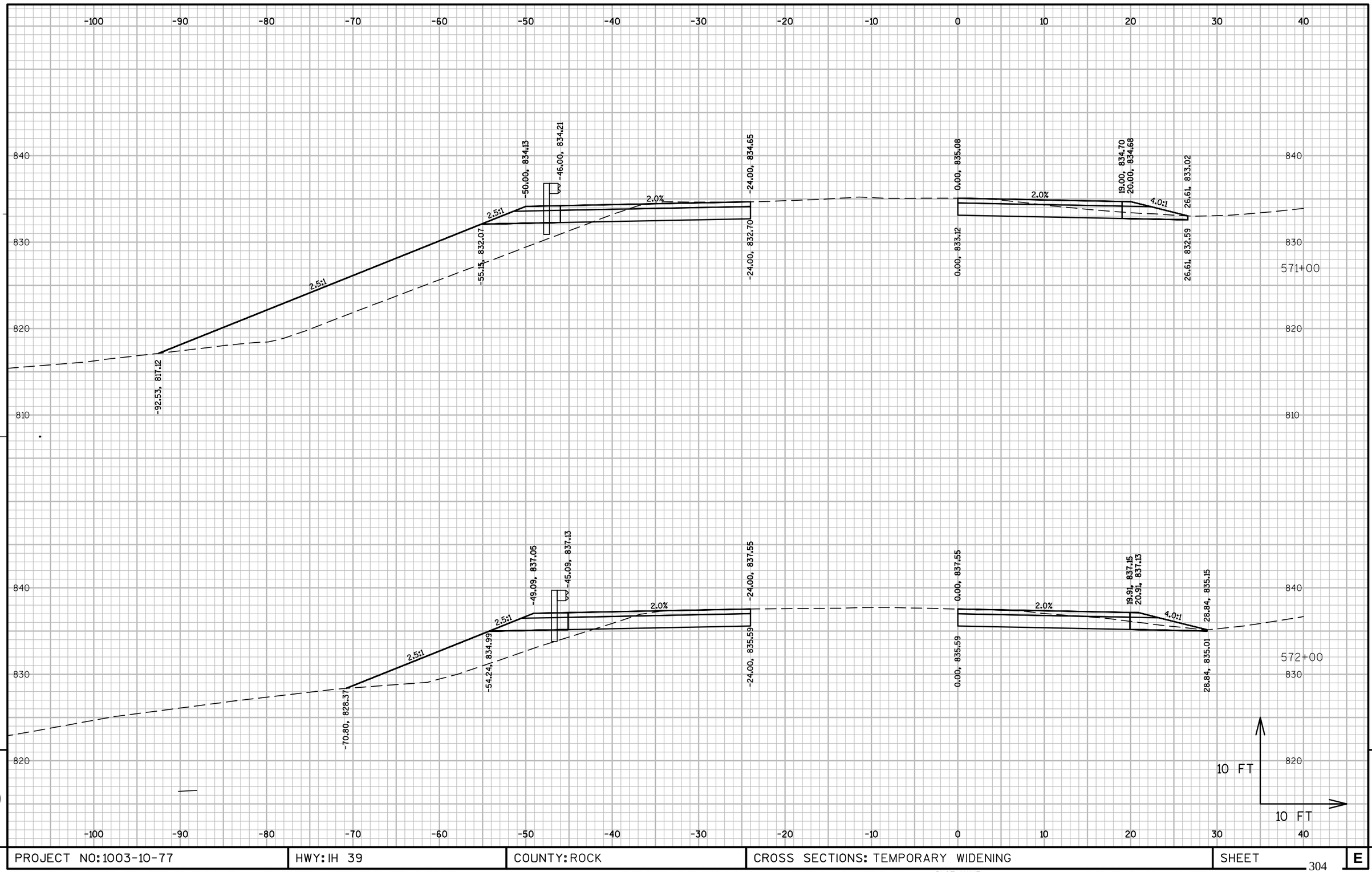
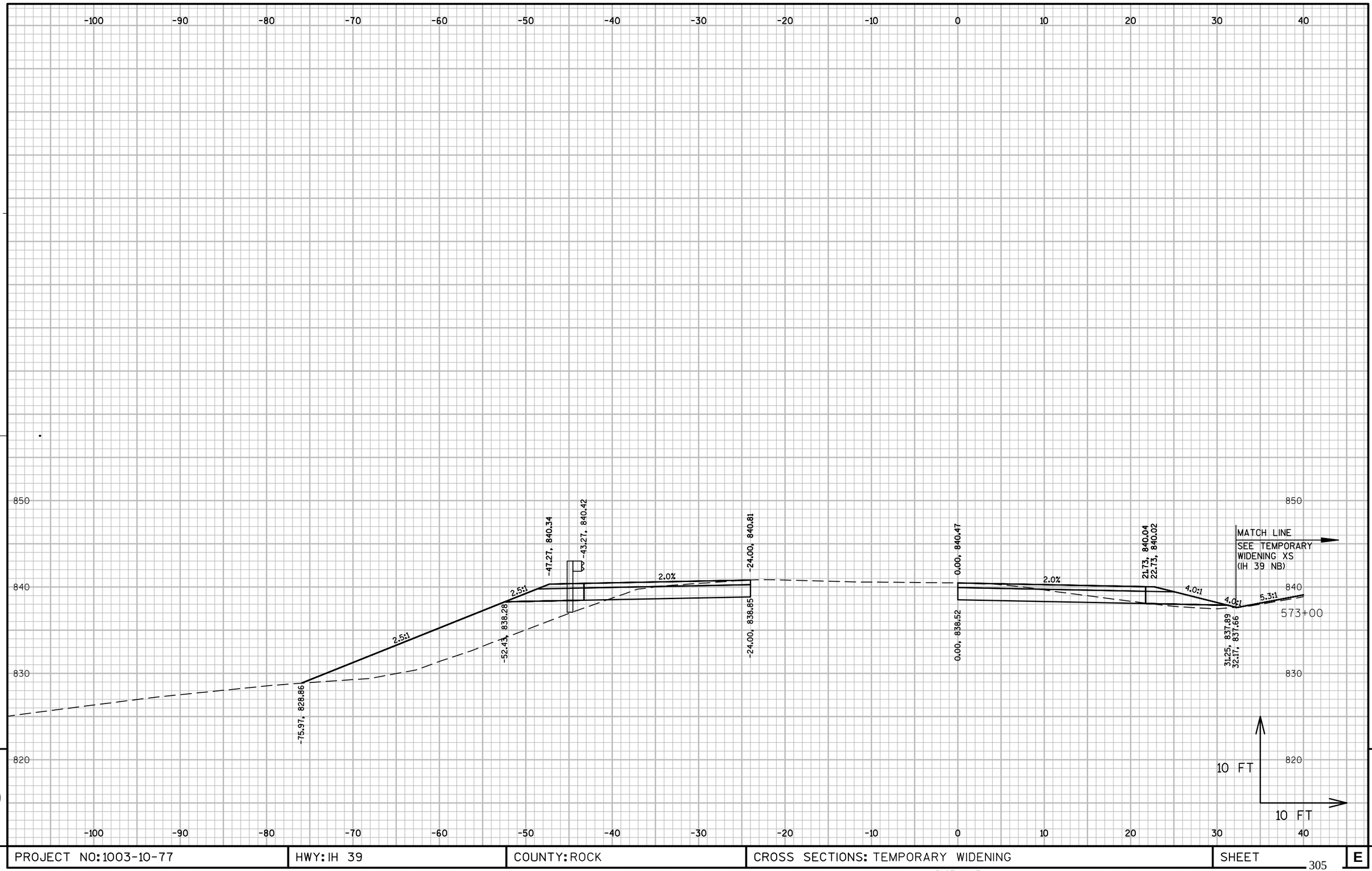
PROJECT NO: 1003-10-77	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: TEMPORARY WIDENING	SHEET	E

FILE NAME : S:\MAD\3500--3599\3557\002\CIVIL3D\FINAL\10031077\DESIGN\CORRIDORS\SA_0377_XS_COR.DWG PLOT DATE : 3/27/2015 1:34 PM PLOT BY : SCHMIDTKE, PAUL PLOT NAME : PLOT SCALE : 1" = 10'_XREF
WISDOT/CADDS SHEET 49



PROJECT NO: 1003-10-77	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: TEMPORARY WIDENING	SHEET	E

FILE NAME : S:\MAD\3500--3599\3557\002\CIVIL3D\FINAL\10031077\DESIGN\CORRIDORS\SA_0377_XS_COR.DWG PLOT DATE : 3/27/2015 1:34 PM PLOT BY : SCHMIDTKE, PAUL PLOT NAME : PLOT SCALE : 1" = 10'_XREF
WISDOT/CADDS SHEET 49



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PROJECT NO: 1003-10-77	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: TEMPORARY WIDENING	SHEET	E

FILE NAME : S:\MAD\3500--3599\3557\002\CIVIL3D\FINAL\10031077\DESIGN\CORRIDORS\SA_0377_XS_COR.DWG PLOT DATE : 3/27/2015 1:35 PM PLOT BY : SCHMIDTKE, PAUL PLOT NAME : PLOT SCALE : 1" = 10'_XREF

STA 573+66 LT
1 - CONCRETE COLLARS FOR PIPE
1 - 8' X 18-INCH CPRC CLASS III
1 - 18-INCH AEWCPRC

-90.20, 826.54
-83.67, 826.81
-81.84, 827.53
-80.67, 826.97
-76.27, 827.21
-68.47, 827.63
-51.23, 839.78
-46.07, 841.84
-42.07, 841.92
-24.00, 842.28
-24.00, 840.32
0.00, 842.39
0.00, 840.43
18.90, 841.99
17.65, 832.23
20.00, 832.39
22.93, 841.94
23.93, 841.92
20.83, 836.10
23.88, 836.13
25.80, 841.44
27.71, 836.13
32.24, 839.84
32.24, 836.16
34.16, 839.84
36.07, 839.84

2.5:1
2.0%
4.0:1
7.6:1
4.0:1

① COVER PLATE LEFT IN PLACE REQ'D. TO BE PLACED OVER MEDIAN 1 GRATE

MATCH LINE
SEE TEMPORARY WIDENING XS (IH 39 NB)

REFER TO STORM SEWER PLANS FOR ADDITIONAL INFORMATION

573+66

850
840
830
820

-100 -90 -80 -70 -60 -50 -40 -30 -20 -10 0 10 20 30 40

STA 574+00

-85.27, 827.11
-50.61, 840.97
-45.45, 843.03
-41.46, 843.11
-24.00, 843.46
-24.00, 841.50
0.00, 843.45
0.00, 841.49
23.55, 842.98
24.55, 842.96
31.88, 841.12
31.88, 840.85

2.5:1
2.0%
4.0:1
10.3:1
4.0:1

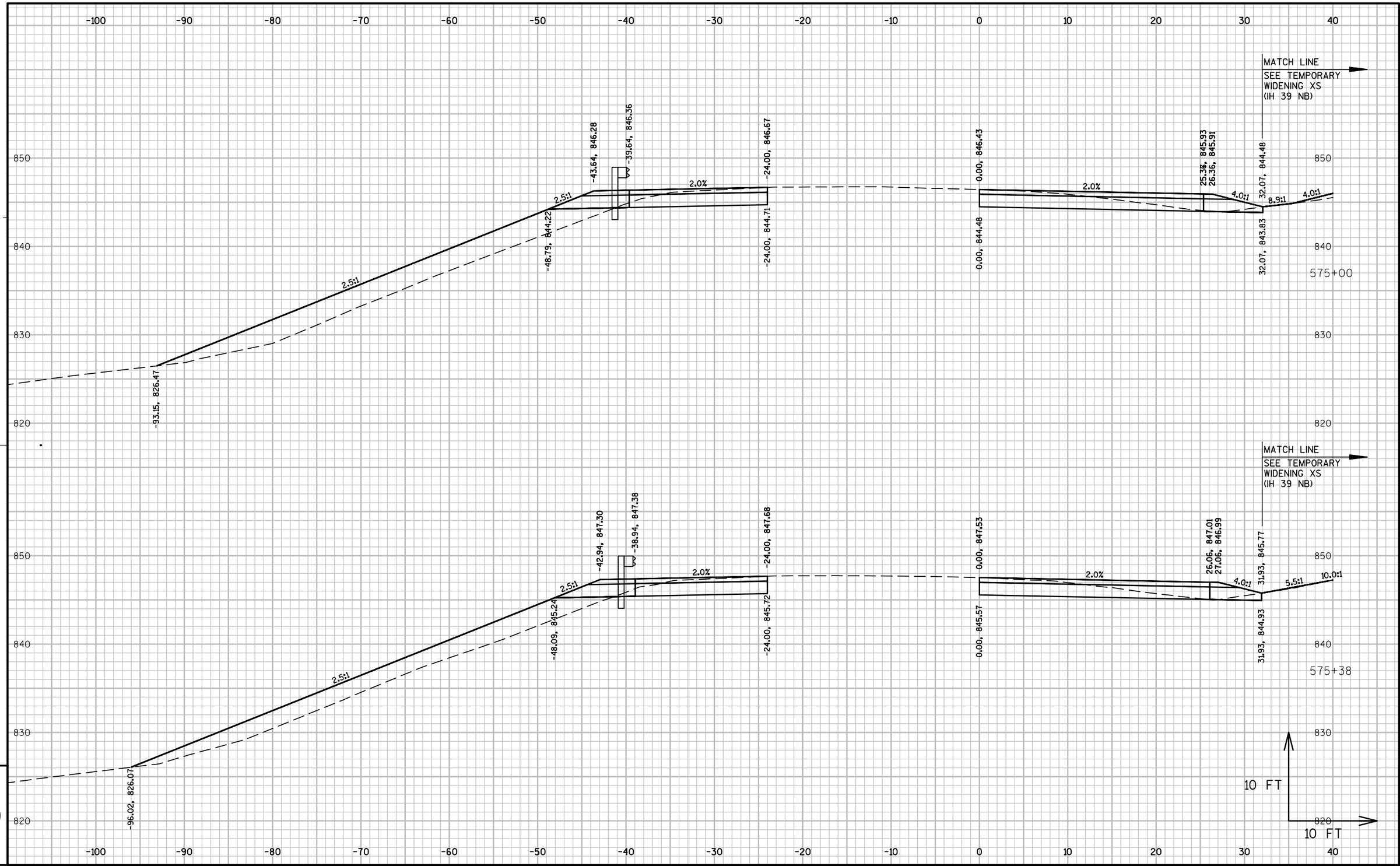
MATCH LINE
SEE TEMPORARY WIDENING XS (IH 39 NB)

574+00

10 FT
10 FT

PROJECT NO: 1003-10-77	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: TEMPORARY WIDENING	SHEET	E

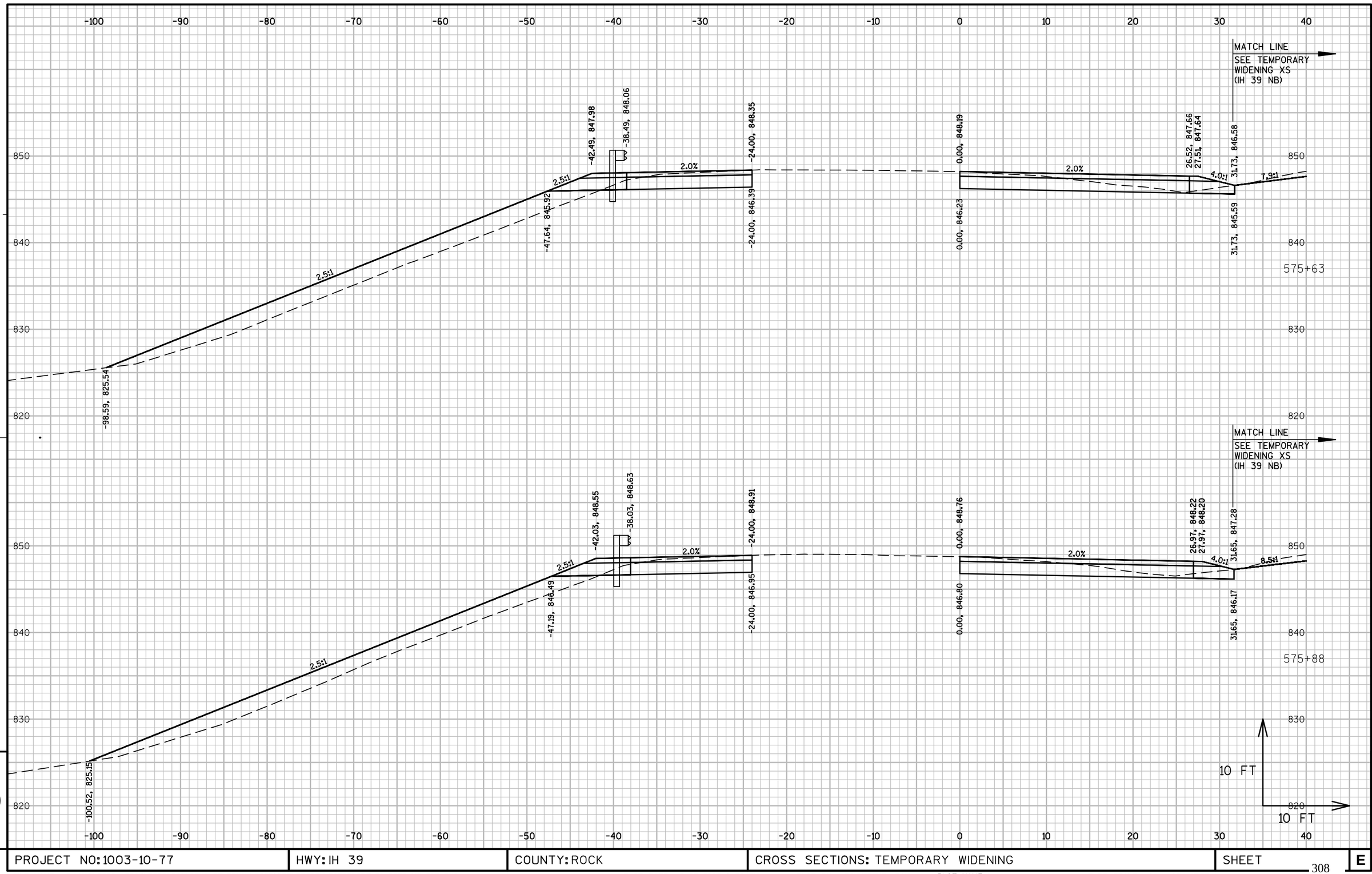
FILE NAME : S:\MAD\3500--3599\3557\002\CIVIL3D\FINAL\10031077\DESIGN\CORRIDORS\SA_0377_XS_COR.DWG
PLOT DATE : 3/27/2015 1:35 PM
PLOT BY : SCHMIDTKE, PAUL
PLOT NAME :
PLOT SCALE : 1" = 10'_XREF



PROJECT NO: 1003-10-77	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: TEMPORARY WIDENING	SHEET 307 E

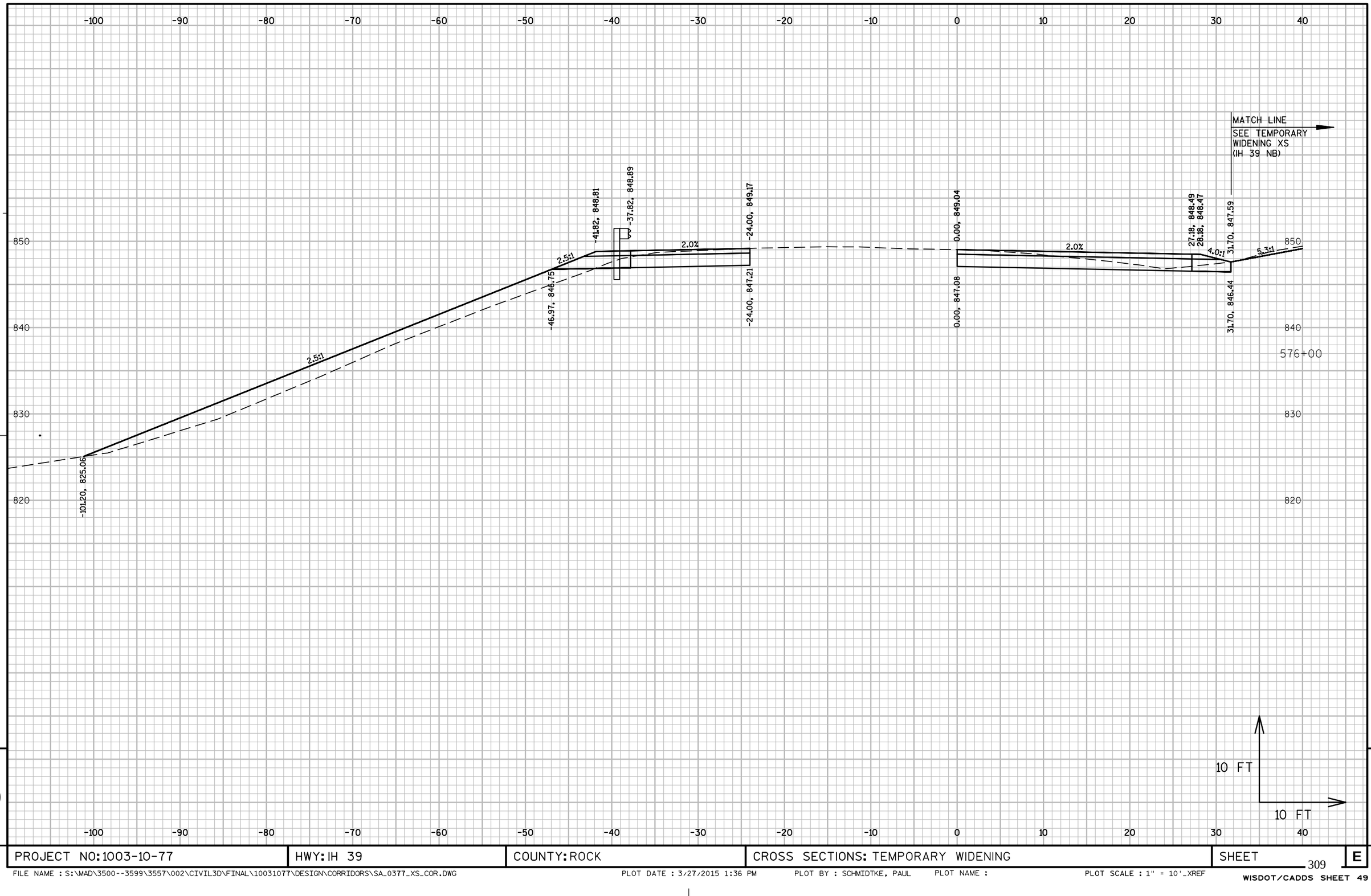
FILE NAME : S:\MAD\3500--3599\3557\002\CIVIL3D\FINAL\10031077\DESIGN\CORRIDORS\SA_0377_XS_COR.DWG PLOT DATE : 3/27/2015 1:36 PM PLOT BY : SCHMIDTKE, PAUL PLOT NAME : PLOT SCALE : 1" = 10'_XREF

WISDOT/CADDS SHEET 49



PROJECT NO: 1003-10-77	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: TEMPORARY WIDENING	SHEET	E

FILE NAME : S:\MAD\3500--3599\3557\002\CIVIL3D\FINAL\10031077\DESIGN\CORRIDORS\SA_0377_XS_COR.DWG PLOT DATE : 3/27/2015 1:36 PM PLOT BY : SCHMIDTKE, PAUL PLOT NAME : PLOT SCALE : 1" = 10'_XREF



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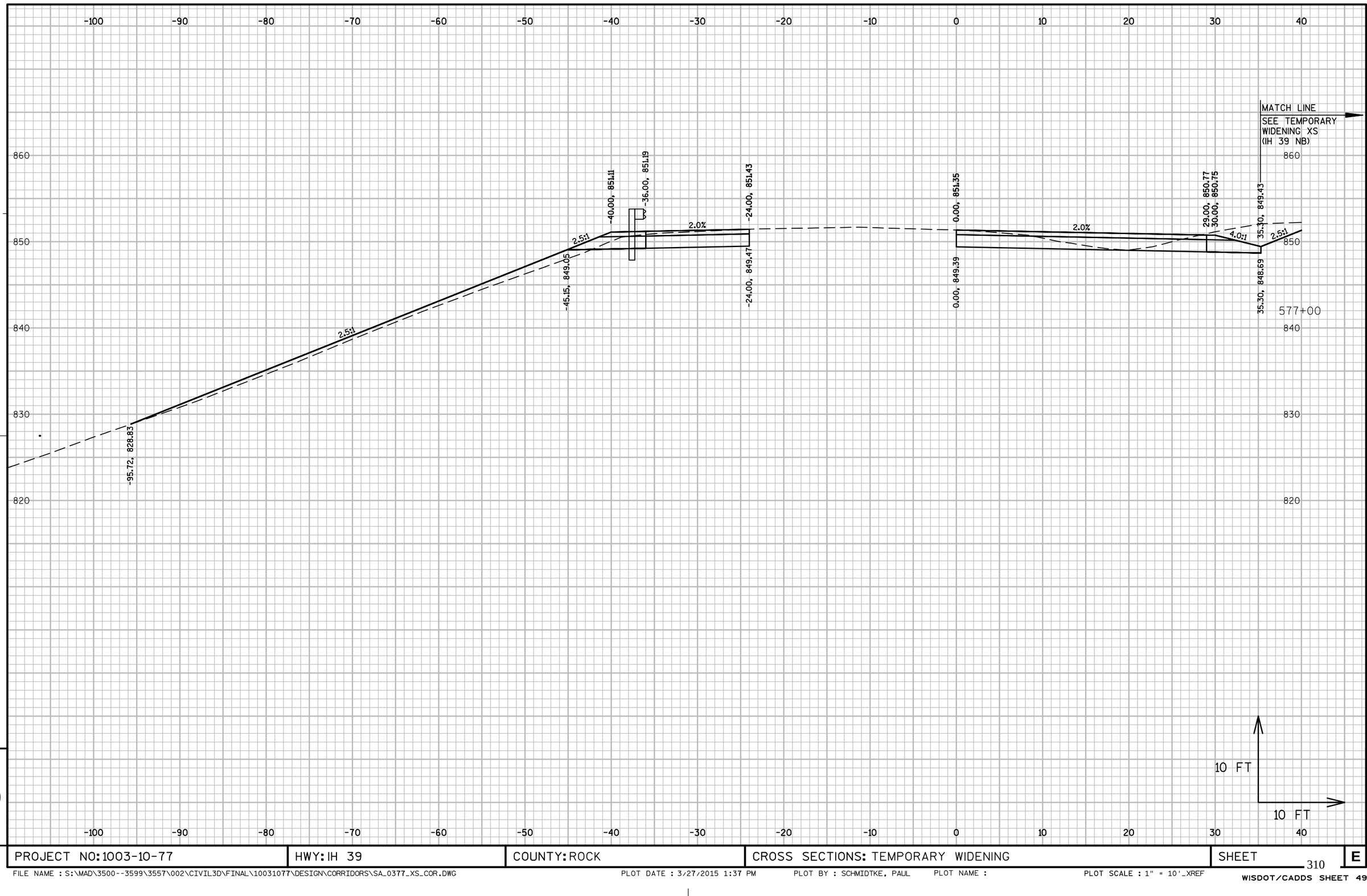
PROJECT NO: 1003-10-77	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: TEMPORARY WIDENING	SHEET	E

FILE NAME : S:\MAD\3500--3599\3557\002\CIVIL3D\FINAL\10031077\DESIGN\CORRIDORS\SA_0377_XS_COR.DWG PLOT DATE : 3/27/2015 1:36 PM PLOT BY : SCHMIDTKE, PAUL PLOT NAME : PLOT SCALE : 1" = 10'_XREF



PROJECT NO: 1003-10-77	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: TEMPORARY WIDENING	SHEET	E

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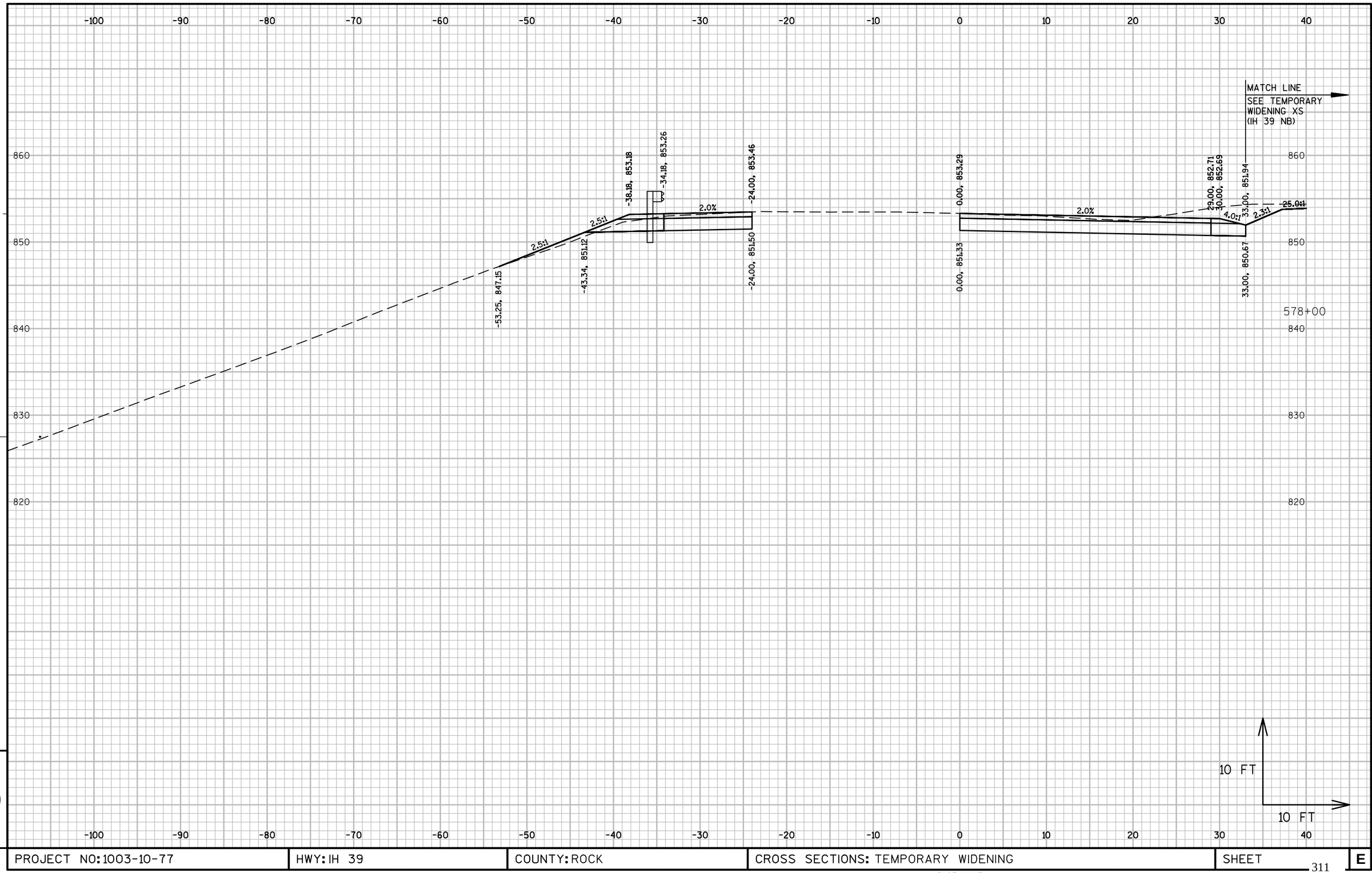

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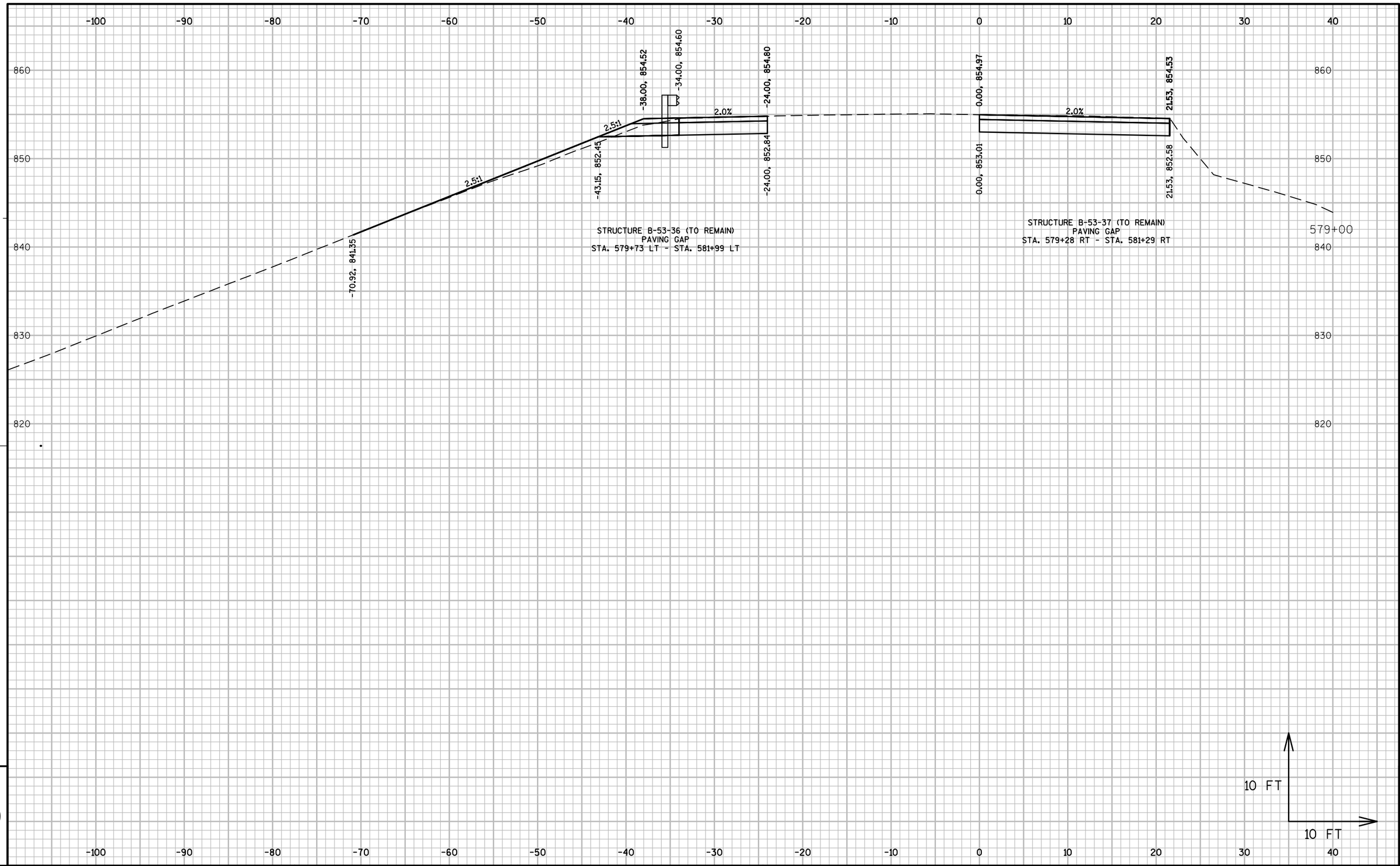
PROJECT NO: 1003-10-77	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: TEMPORARY WIDENING	SHEET	E

9

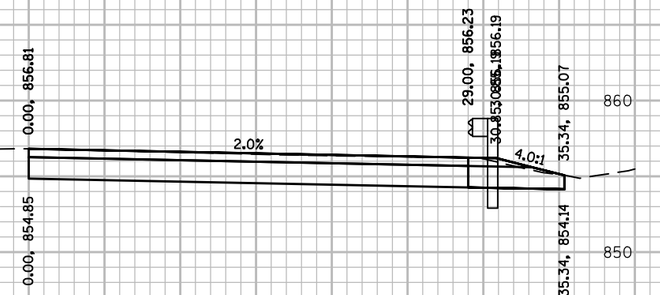
FILE NAME : S:\MAD\3500--3599\3557\002\CIVIL3D\FINAL\10031077\DESIGN\CORRIDORS\SA_0377_XS_COR.DWG PLOT DATE : 3/27/2015 1:37 PM PLOT BY : SCHMIDTKE, PAUL PLOT NAME : PLOT SCALE : 1" = 10'_XREF
WISDOT/CADDS SHEET 49



PROJECT NO: 1003-10-77	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: TEMPORARY WIDENING	SHEET	E

FILE NAME : S:\MAD\3500--3599\3557\002\CIVIL3D\FINAL\10031077\DESIGN\CORRIDORS\SA_0377_XS_COR.DWG PLOT DATE : 3/27/2015 1:38 PM PLOT BY : SCHMIDTKE, PAUL PLOT NAME : PLOT SCALE : 1" = 10'_XREF
WISDOT/CADDS SHEET 49

STRUCTURE B-53-37 (TO REMAIN)
PAVING GAP
STA. 579+28 RT - STA. 581+29 RT



581+83

-100 -90 -80 -70 -60 -50 -40 -30 -20 -10 0 10 20 30 40

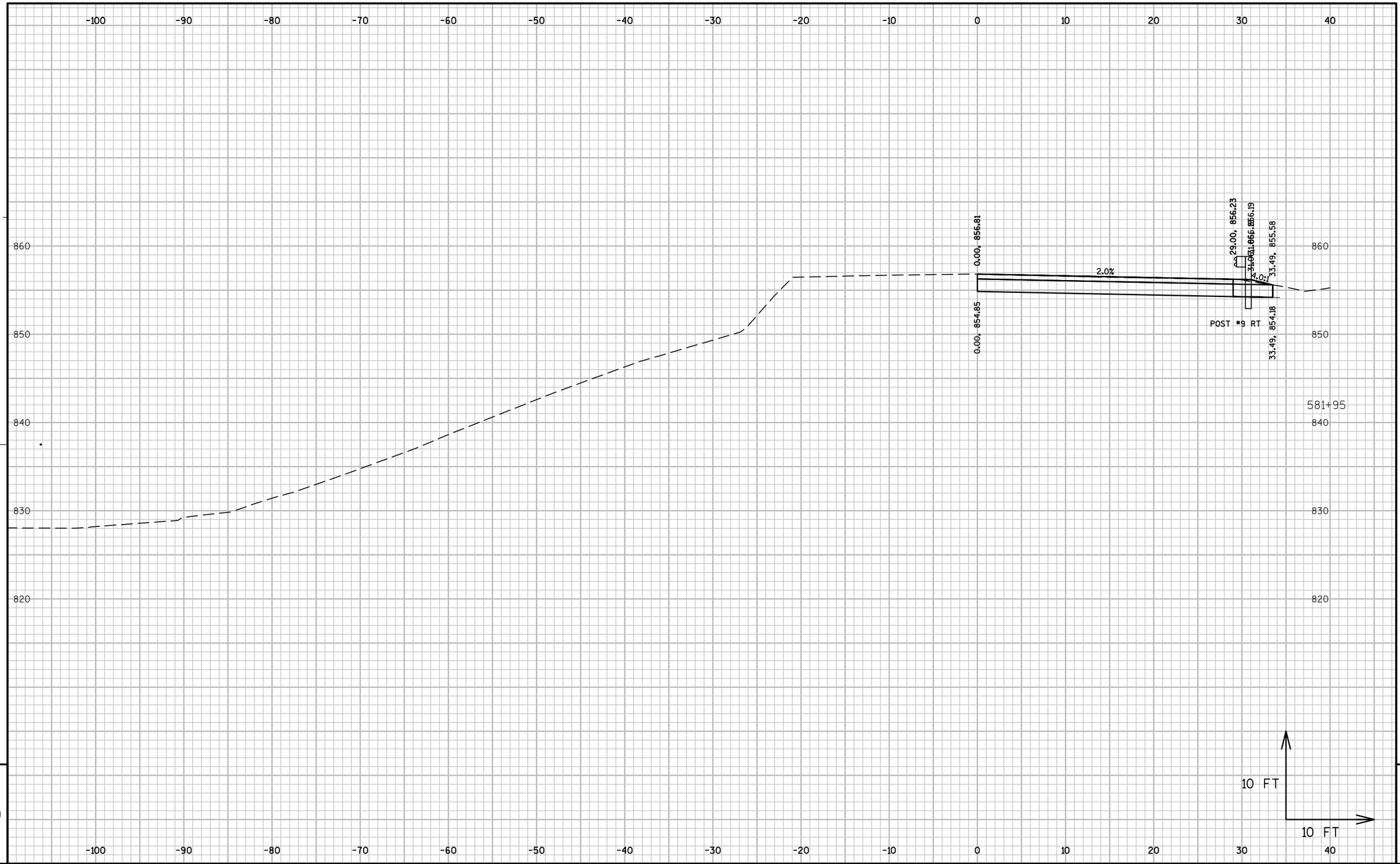
860 850 840 830 820

10 FT
10 FT

9 9

PROJECT NO: 1003-10-77	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: TEMPORARY WIDENING	SHEET	E

FILE NAME : S:\MAD\3500--3599\3557\002\CIVIL3D\FINAL\10031077\DESIGN\CORRIDORS\SA_0377_XS_COR.DWG PLOT DATE : 3/27/2015 1:38 PM PLOT BY : SCHMIDTKE, PAUL PLOT NAME : PLOT SCALE : 1" = 10'_XREF



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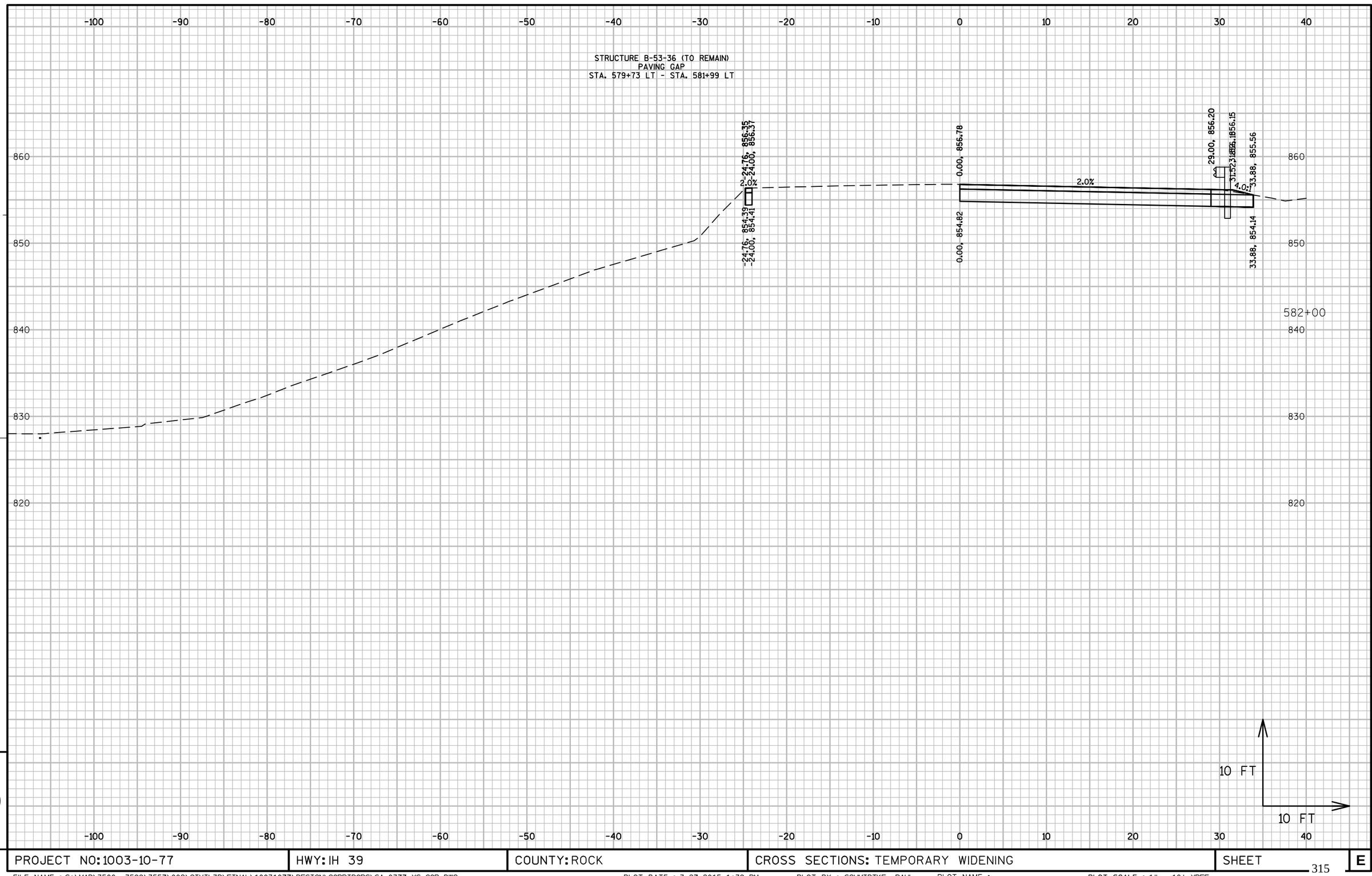
PROJECT NO: 1003-10-77	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: TEMPORARY WIDENING	SHEET	E

FILE NAME : S:\MAD\3500--3599\3557\002\CIVIL3D\FINAL\10031077\DESIGN\CORRIDORS\SA_0377_XS_COR.DWG PLOT DATE : 3/27/2015 1:38 PM PLOT BY : SCHMIDTKE, PAUL PLOT NAME : PLOT SCALE : 1" = 10'_XREF

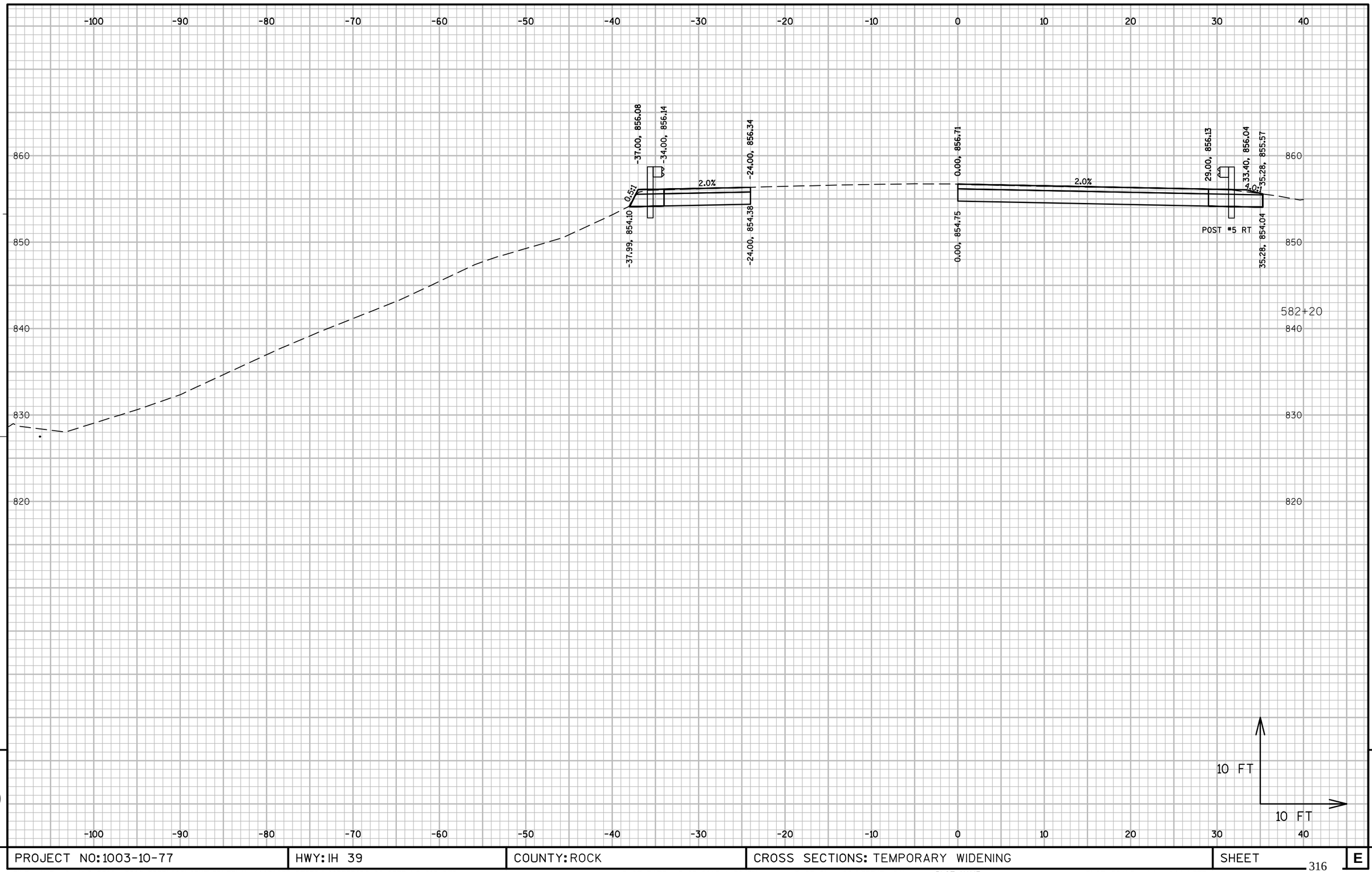
WISDOT/CADDS SHEET 49

STRUCTURE B-53-36 (TO REMAIN)
PAVING GAP
STA. 579+73 LT - STA. 581+99 LT

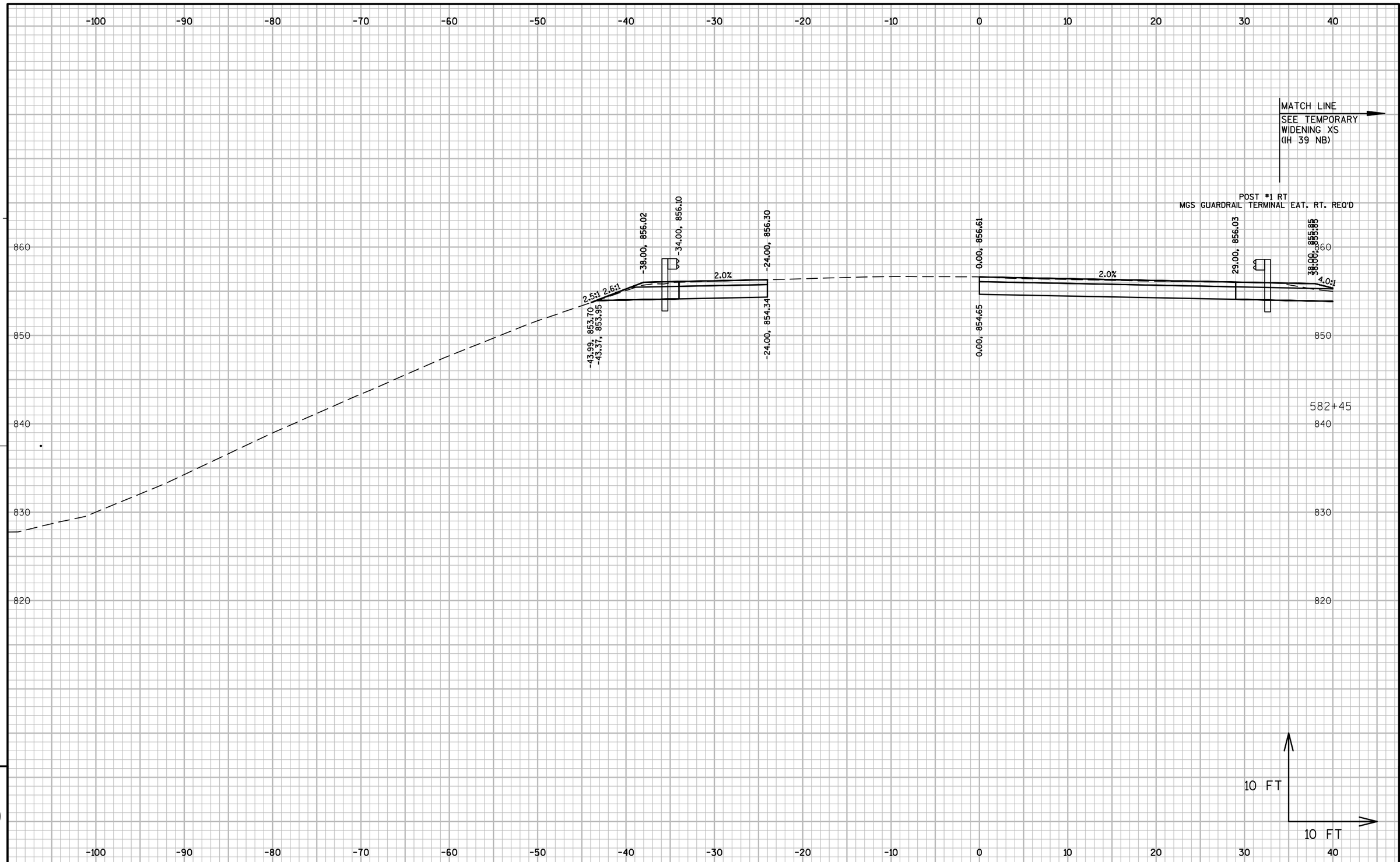


PROJECT NO: 1003-10-77	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: TEMPORARY WIDENING	SHEET	E

FILE NAME : S:\MAD\3500--3599\3557\002\CIVIL3D\FINAL\10031077\DESIGN\CORRIDORS\SA_0377_XS_COR.DWG PLOT DATE : 3/27/2015 1:39 PM PLOT BY : SCHMIDTKE, PAUL PLOT NAME : PLOT SCALE : 1" = 10'_XREF



PROJECT NO: 1003-10-77	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: TEMPORARY WIDENING	SHEET	E



PROJECT NO: 1003-10-77	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: TEMPORARY WIDENING	SHEET	E

FILE NAME : S:\MAD\3500--3599\3557\002\CIVIL3D\FINAL\10031077\DESIGN\CORRIDORS\SA_0377_XS_COR.DWG PLOT DATE : 3/27/2015 1:40 PM PLOT BY : SCHMIDTKE, PAUL PLOT NAME : PLOT SCALE : 1" = 10'_XREF
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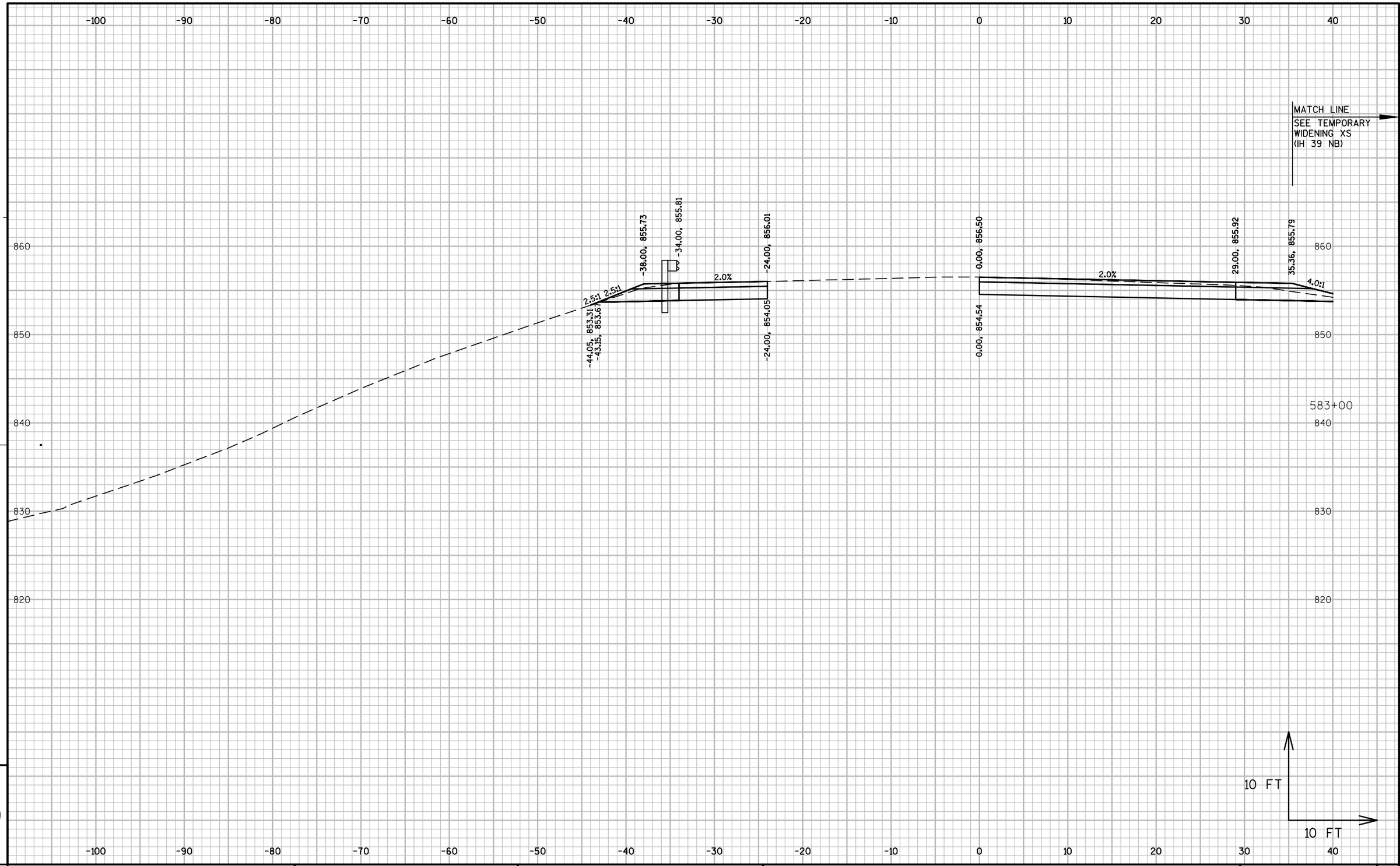

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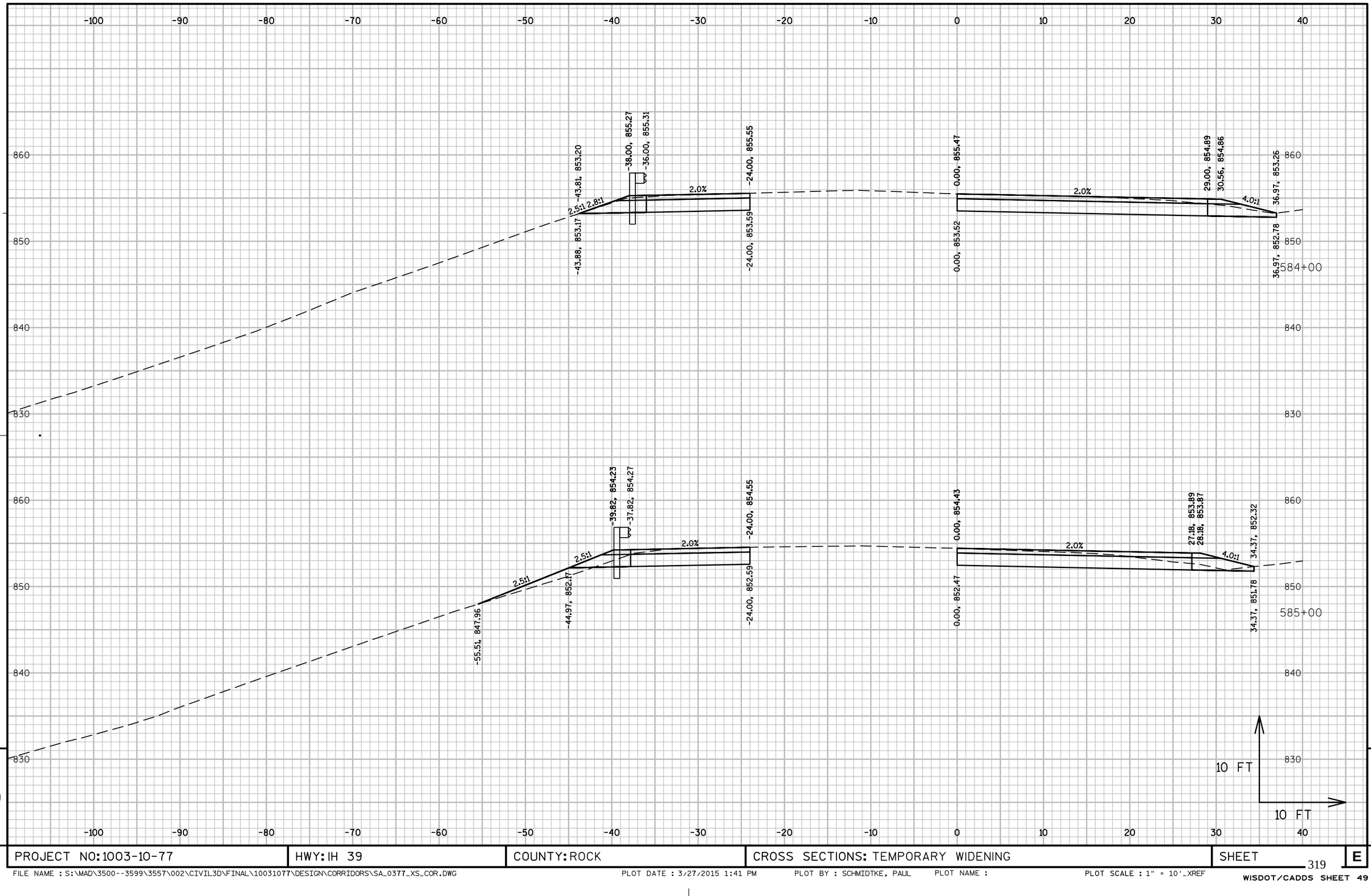
PROJECT NO: 1003-10-77	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: TEMPORARY WIDENING	SHEET	E

FILE NAME : S:\MAD\3500--3599\3557\002\CIVIL3D\FINAL\10031077\DESIGN\CORRIDORS\SA_0377_XS_COR.DWG PLOT DATE : 3/27/2015 1:40 PM PLOT BY : SCHMIDTKE, PAUL PLOT NAME : PLOT SCALE : 1" = 10'_XREF



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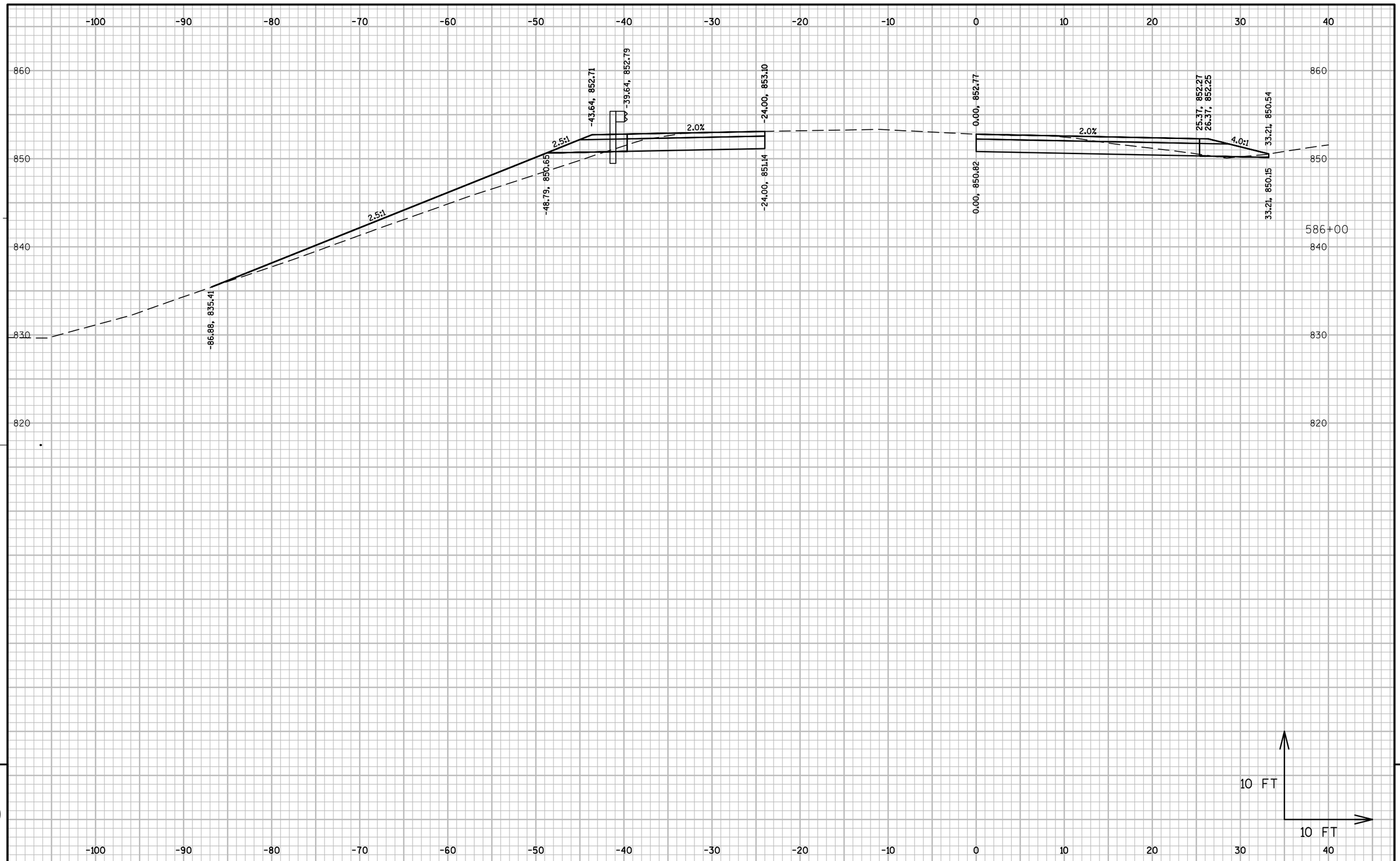
9

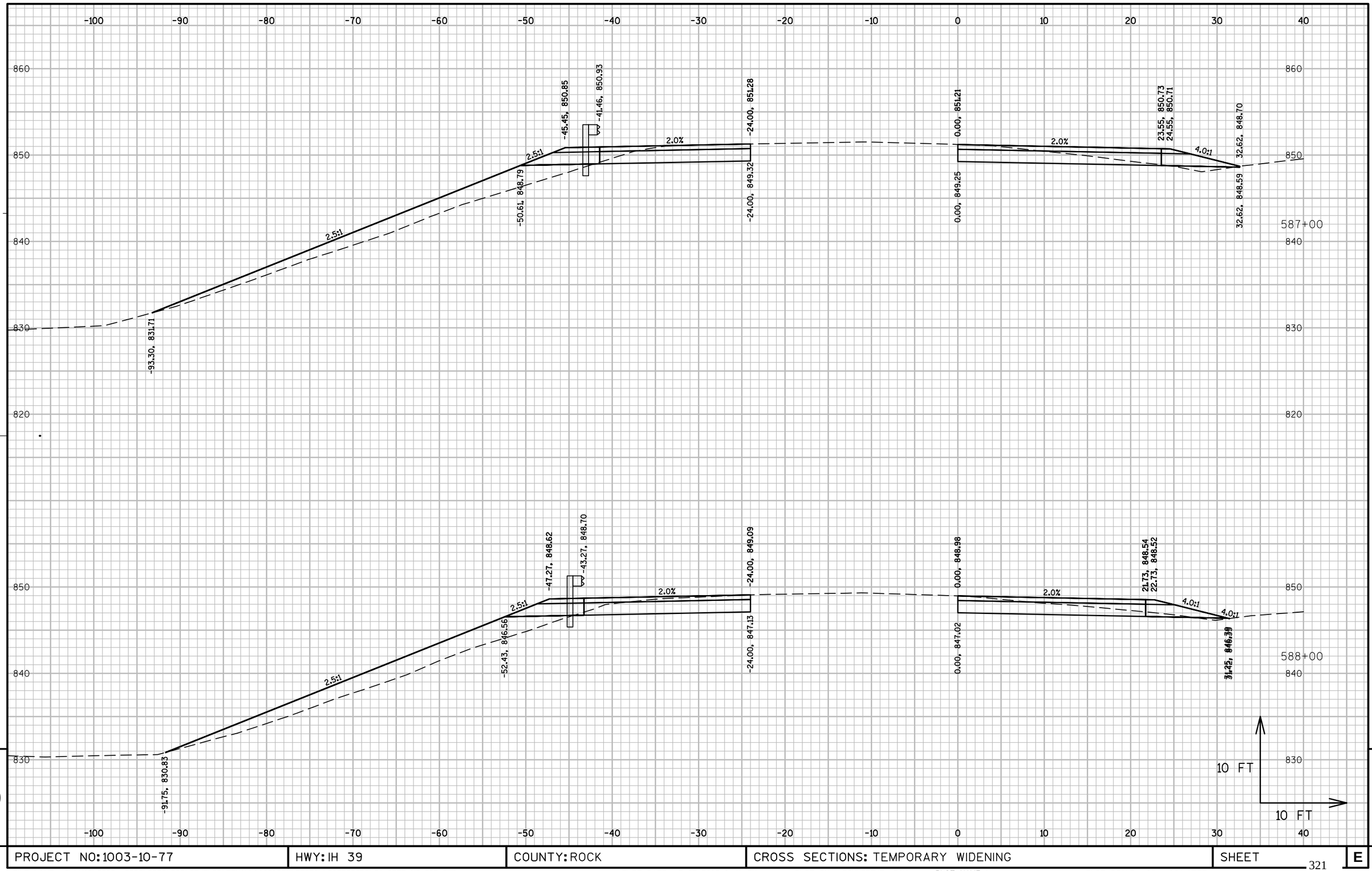
PROJECT NO: 1003-10-77	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: TEMPORARY WIDENING	SHEET	E

FILE NAME : S:\MAD\3500--3599\3557\002\CIVIL3D\FINAL\10031077\DESIGN\CORRIDORS\SA_0377_XS_COR.DWG PLOT DATE : 3/27/2015 1:41 PM PLOT BY : SCHMIDTKE, PAUL PLOT NAME : PLOT SCALE : 1" = 10'_XREF



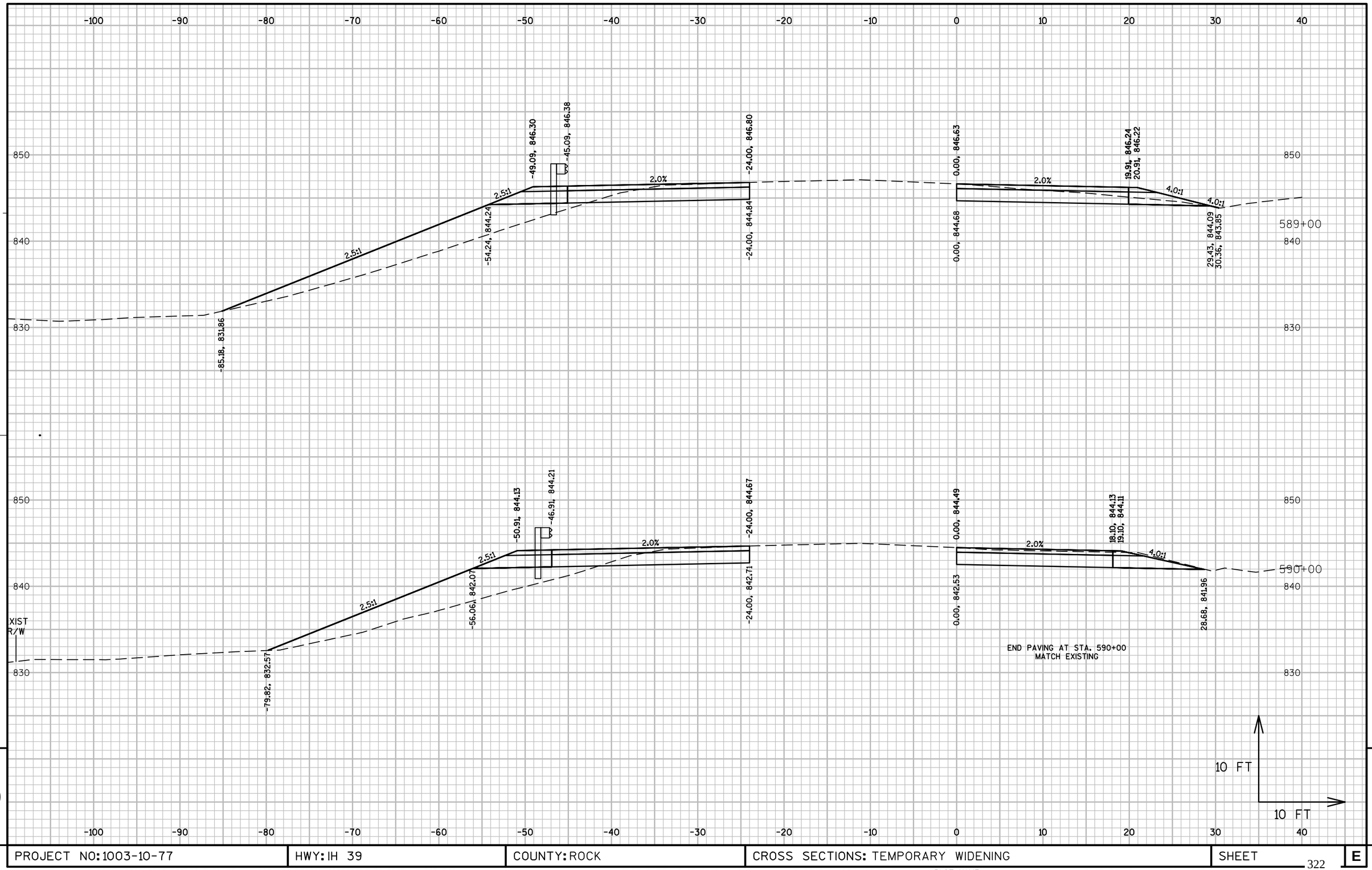
9	PROJECT NO: 1003-10-77	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: TEMPORARY WIDENING	SHEET E	9

FILE NAME : S:\MAD\3500--3599\3557\002\CIVIL3D\FINAL\10031077\DESIGN\CORRIDORS\SA_0377_XS_COR.DWG PLOT DATE : 3/27/2015 1:41 PM PLOT BY : SCHMIDTKE, PAUL PLOT NAME : PLOT SCALE : 1" = 10'_XREF
WISDOT/CADDS SHEET 49



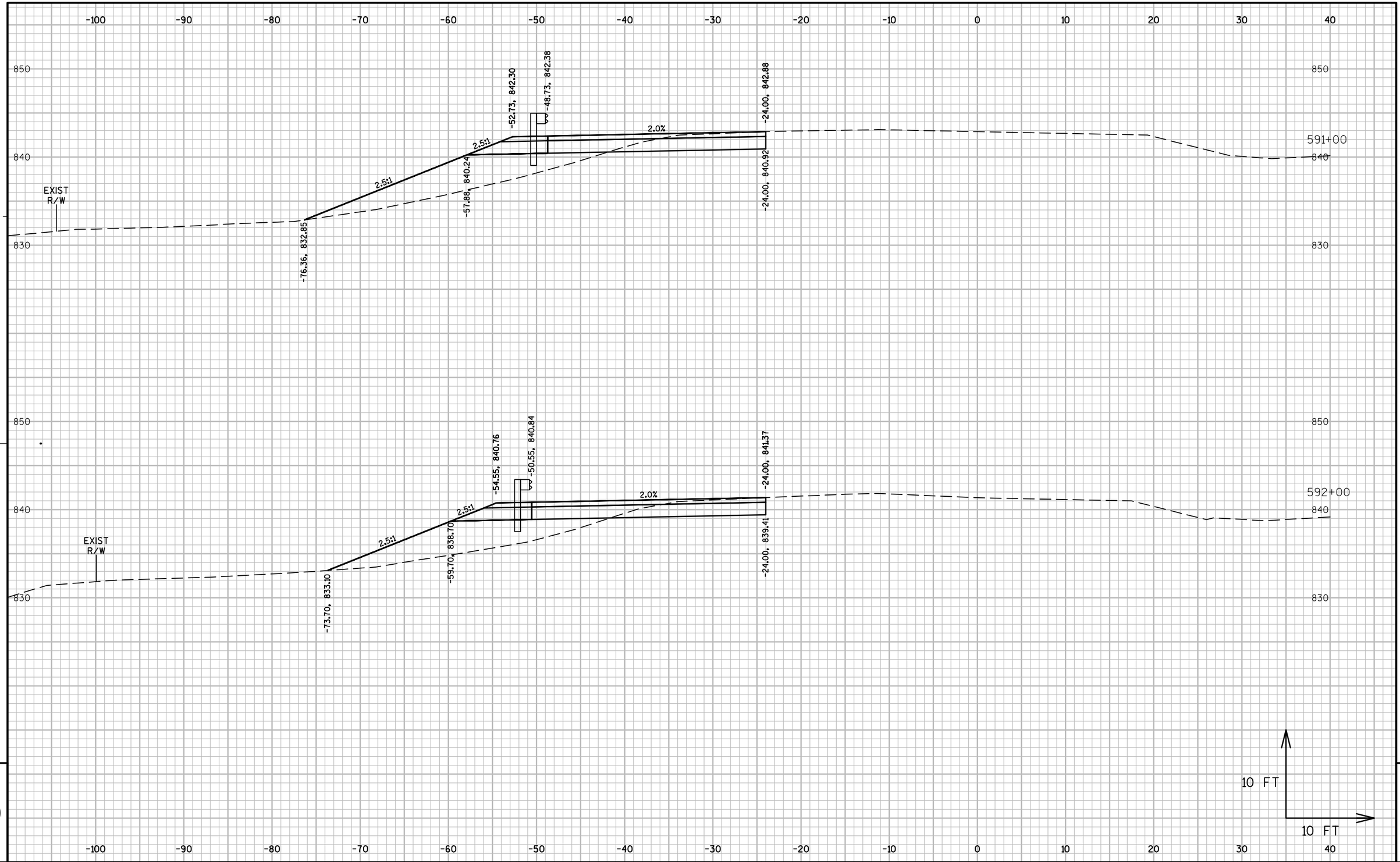
PROJECT NO: 1003-10-77	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: TEMPORARY WIDENING	SHEET	E

FILE NAME : S:\MAD\3500--3599\3557\002\CIVIL3D\FINAL\10031077\DESIGN\CORRIDORS\SA_0377_XS_COR.DWG PLOT DATE : 3/27/2015 1:41 PM PLOT BY : SCHMIDTKE, PAUL PLOT NAME : PLOT SCALE : 1" = 10'_XREF

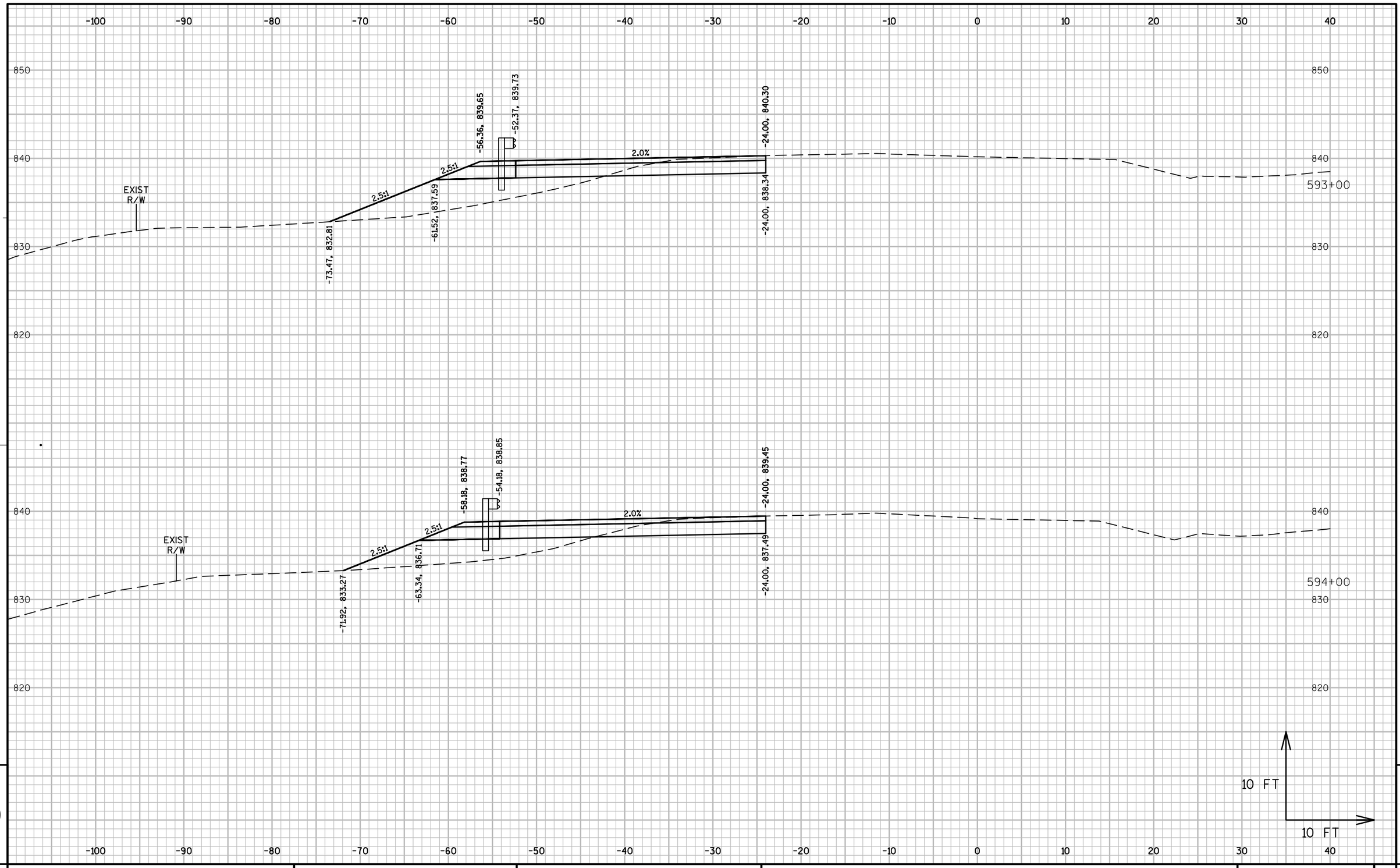


PROJECT NO: 1003-10-77	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: TEMPORARY WIDENING	SHEET E

FILE NAME : S:\MAD\3500--3599\3557\002\CIVIL3D\FINAL\10031077\DESIGN\CORRIDORS\SA_0377_XS_COR.DWG PLOT DATE : 3/27/2015 1:42 PM PLOT BY : SCHMIDTKE, PAUL PLOT NAME : PLOT SCALE : 1" = 10'_XREF
WISDOT/CADDS SHEET 49



PROJECT NO: 1003-10-77	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: TEMPORARY WIDENING	SHEET 323 E



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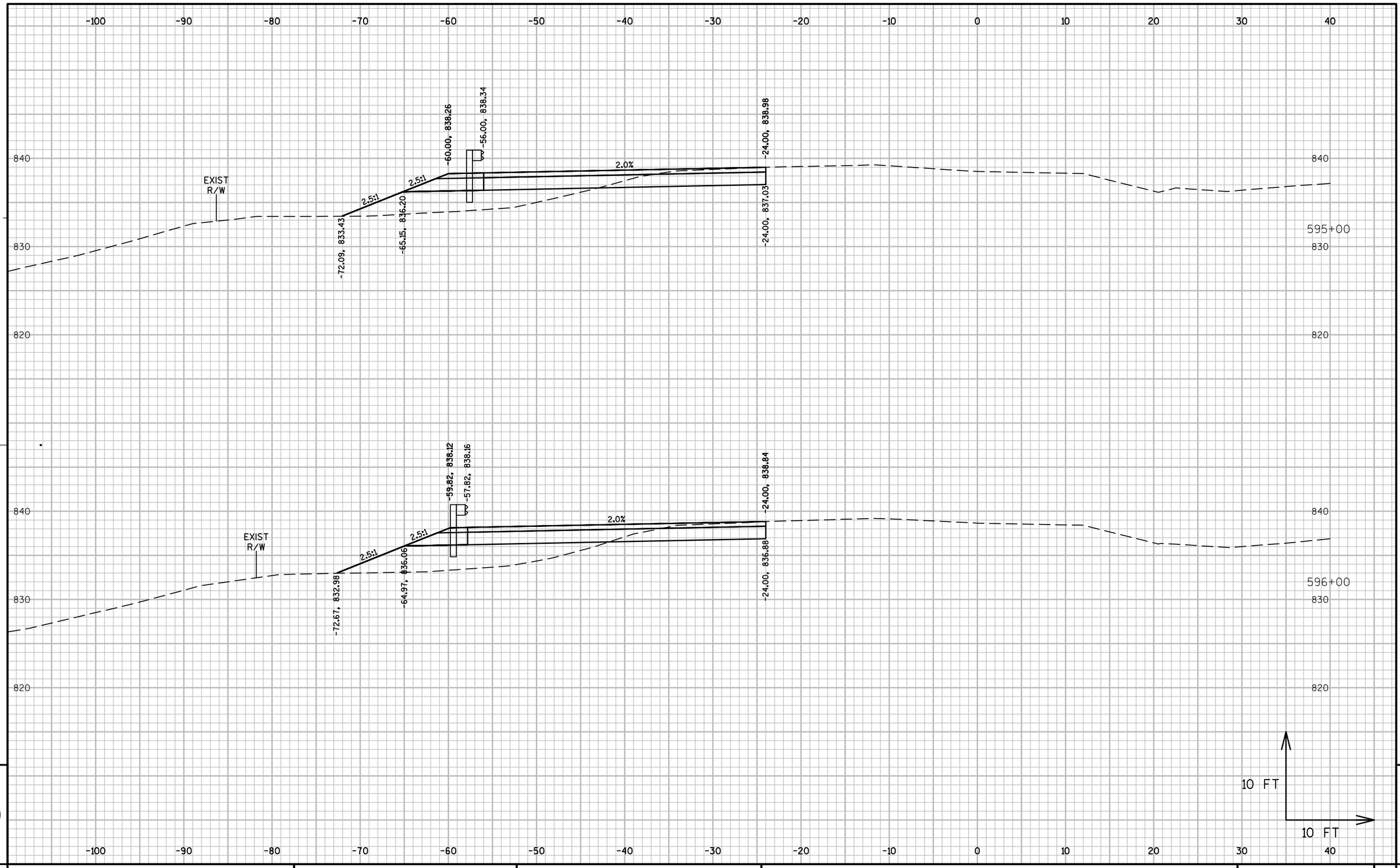
PROJECT NO: 1003-10-77	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: TEMPORARY WIDENING	SHEET	E

9

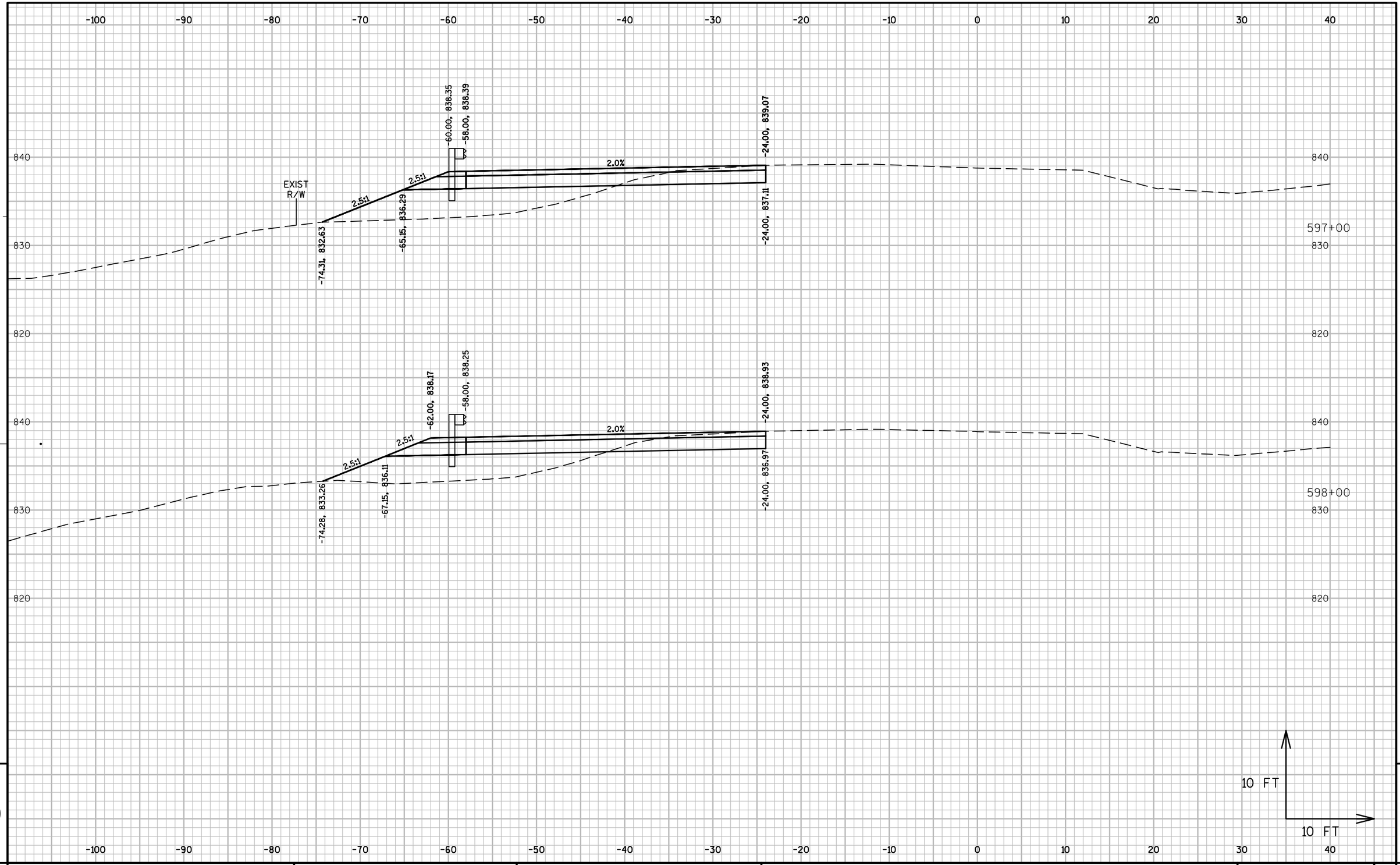
FILE NAME : S:\MAD\3500--3599\3557\002\CIVIL3D\FINAL\10031077\DESIGN\CORRIDORS\SA_0377_XS_COR.DWG PLOT DATE : 3/27/2015 1:43 PM PLOT BY : SCHMIDTKE, PAUL PLOT NAME : PLOT SCALE : 1" = 10'_XREF

WISDOT/CADDS SHEET 49



PROJECT NO: 1003-10-77	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: TEMPORARY WIDENING	SHEET	E

FILE NAME : S:\MAD\3500--3599\3557\002\CIVIL3D\FINAL\10031077\DESIGN\CORRIDORS\SA_0377_XS_COR.DWG PLOT DATE : 3/27/2015 1:43 PM PLOT BY : SCHMIDTKE, PAUL PLOT NAME : PLOT SCALE : 1" = 10'_XREF



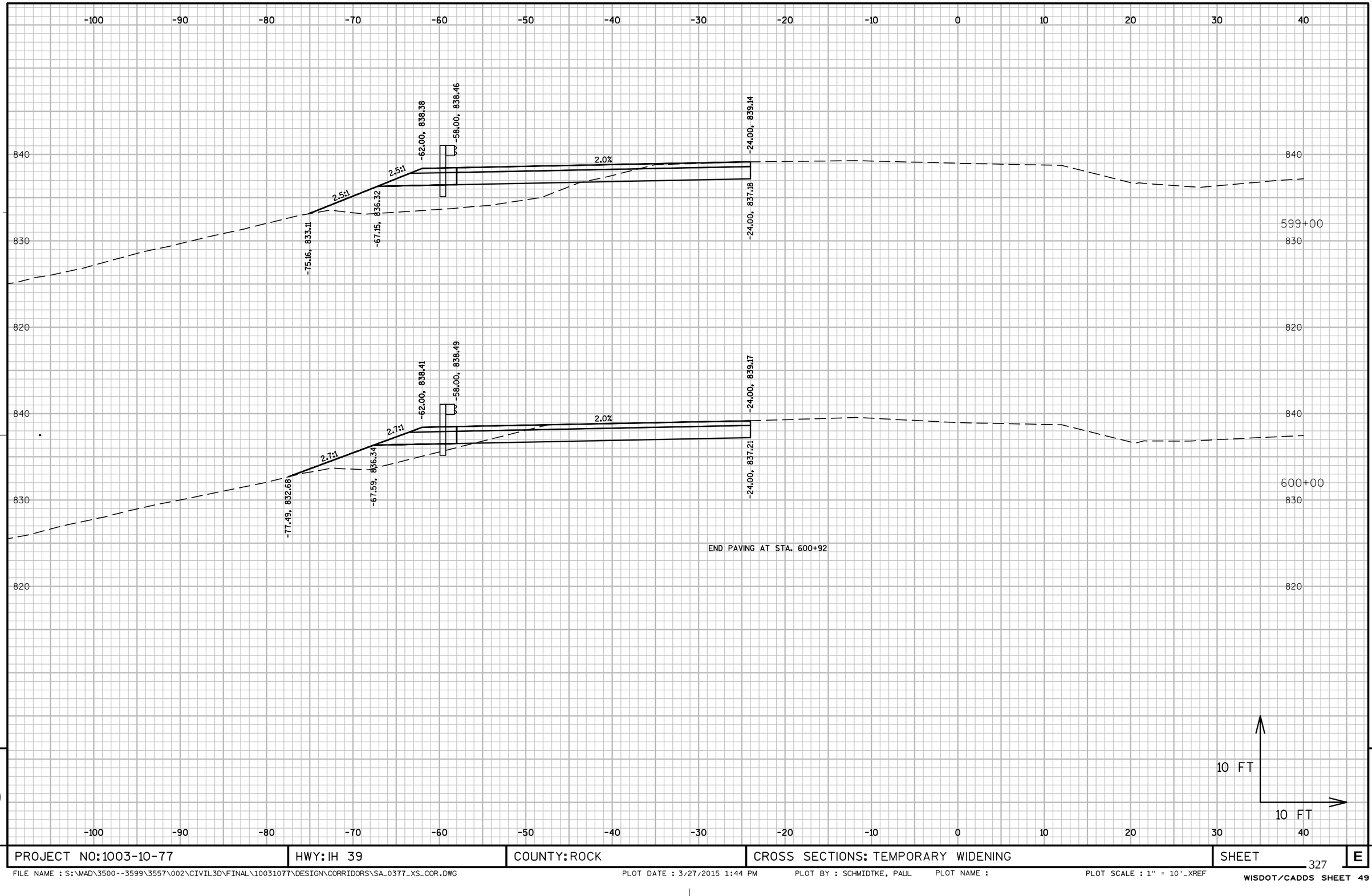
9

9

PROJECT NO: 1003-10-77	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: TEMPORARY WIDENING	SHEET 326	E

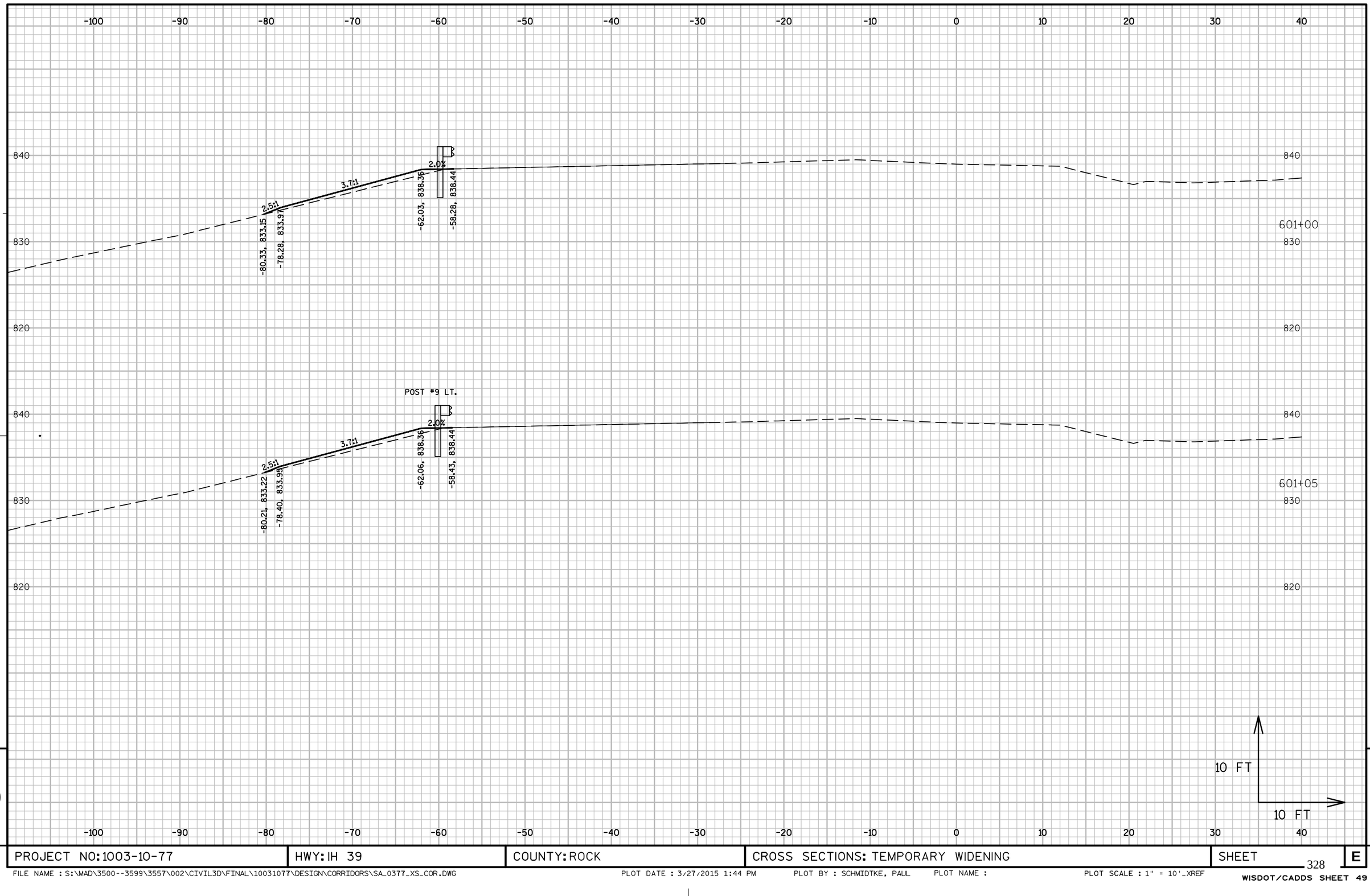
FILE NAME : S:\MAD\3500--3599\3557\002\CIVIL3D\FINAL\10031077\DESIGN\CORRIDORS\SA_0377_XS_COR.DWG PLOT DATE : 3/27/2015 1:43 PM PLOT BY : SCHMIDTKE, PAUL PLOT NAME : PLOT SCALE : 1" = 10'_XREF

WISDOT/CADDS SHEET 49



PROJECT NO: 1003-10-77	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: TEMPORARY WIDENING	SHEET E

FILE NAME : S:\MAD\3500--3599\3557\002\CIVIL3D\FINAL\10031077\DESIGN\CORRIDORS\SA_0377_XS_COR.DWG PLOT DATE : 3/27/2015 1:44 PM PLOT BY : SCHMIDTKE, PAUL PLOT NAME : PLOT SCALE : 1" = 10'_XREF

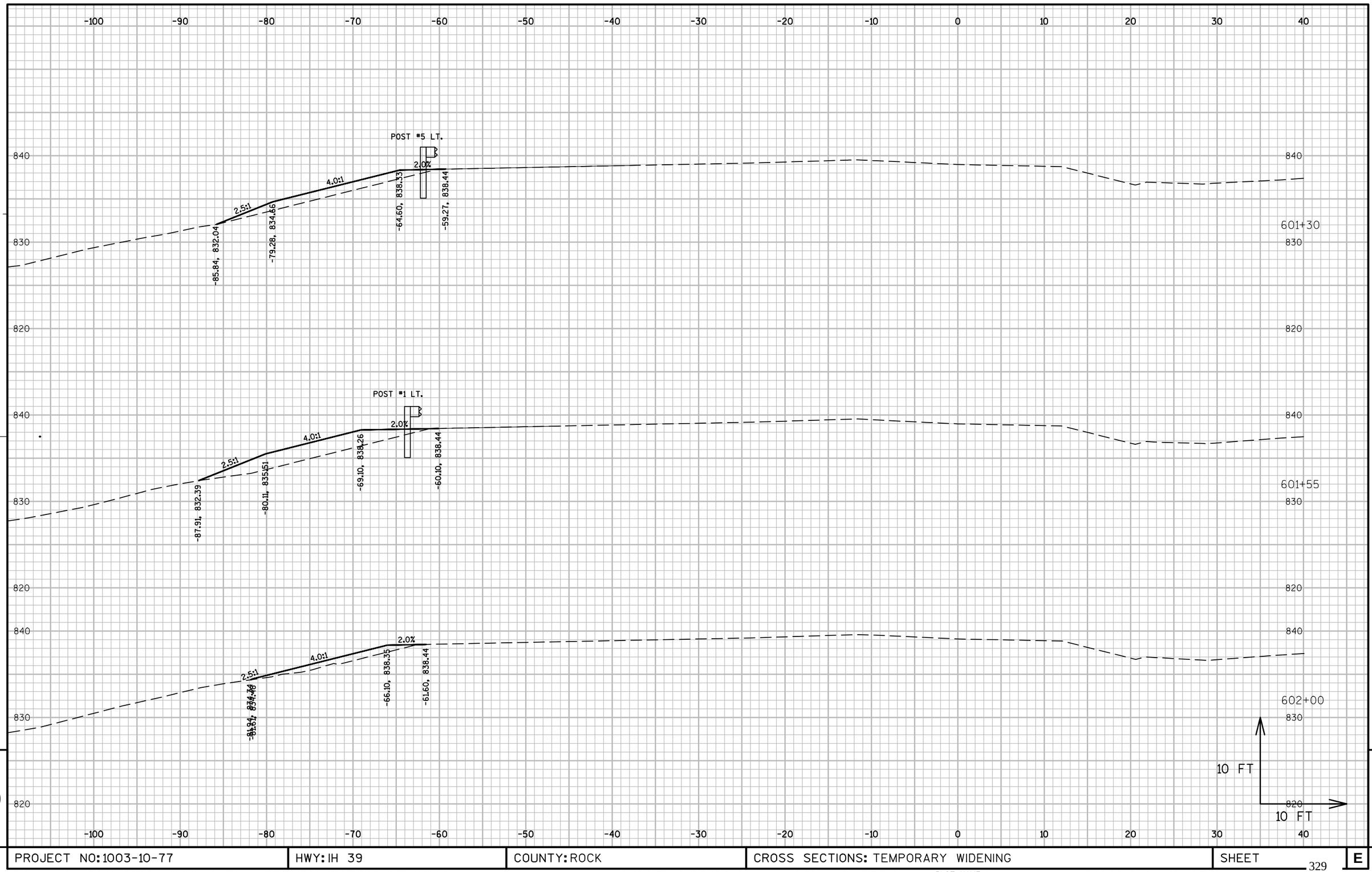


9

PROJECT NO: 1003-10-77	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: TEMPORARY WIDENING	SHEET	E

9

FILE NAME : S:\MAD\3500--3599\3557\002\CIVIL3D\FINAL\10031077\DESIGN\CORRIDORS\SA_0377_XS_COR.DWG PLOT DATE : 3/27/2015 1:44 PM PLOT BY : SCHMIDTKE, PAUL PLOT NAME : PLOT SCALE : 1" = 10'_XREF



9

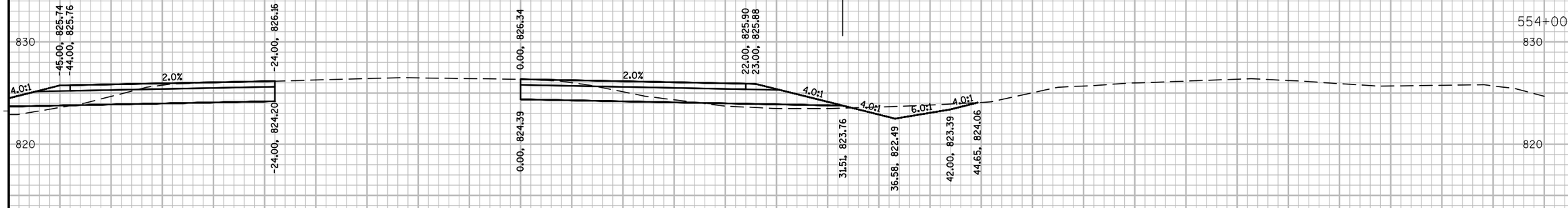
9

PROJECT NO: 1003-10-77	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: TEMPORARY WIDENING	SHEET	E

FILE NAME : S:\MAD\3500--3599\3557\002\CIVIL3D\FINAL\10031077\DESIGN\CORRIDORS\SA_0377_XS_COR.DWG PLOT DATE : 3/27/2015 1:45 PM PLOT BY : SCHMIDTKE, PAUL PLOT NAME : PLOT SCALE : 1" = 10'_XREF

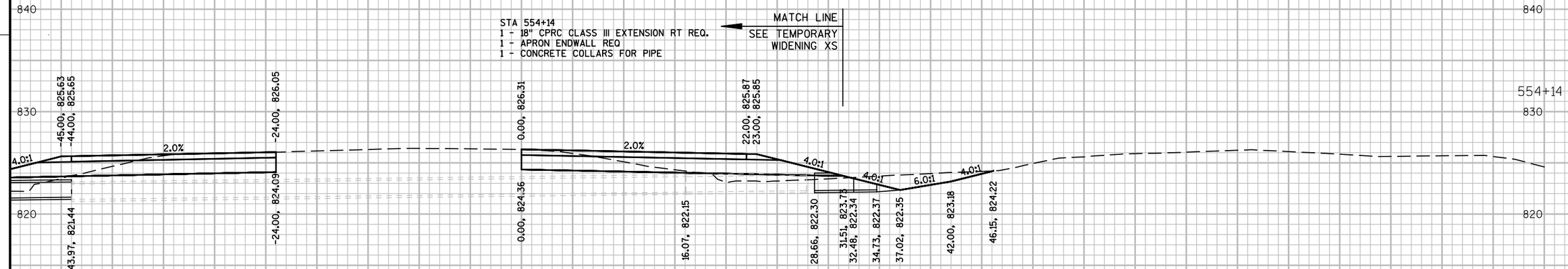
NO CROSS SECTIONS FROM
STA. 547+00 - STA. 554+00

MATCH LINE
SEE TEMPORARY
WIDENING XS

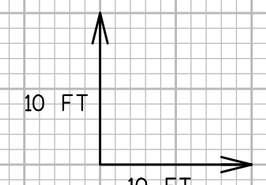


STA 554+14
1 - 18" CPRC CLASS III EXTENSION RT REQ.
1 - APRON ENDWALL REQ
1 - CONCRETE COLLARS FOR PIPE

MATCH LINE
SEE TEMPORARY
WIDENING XS

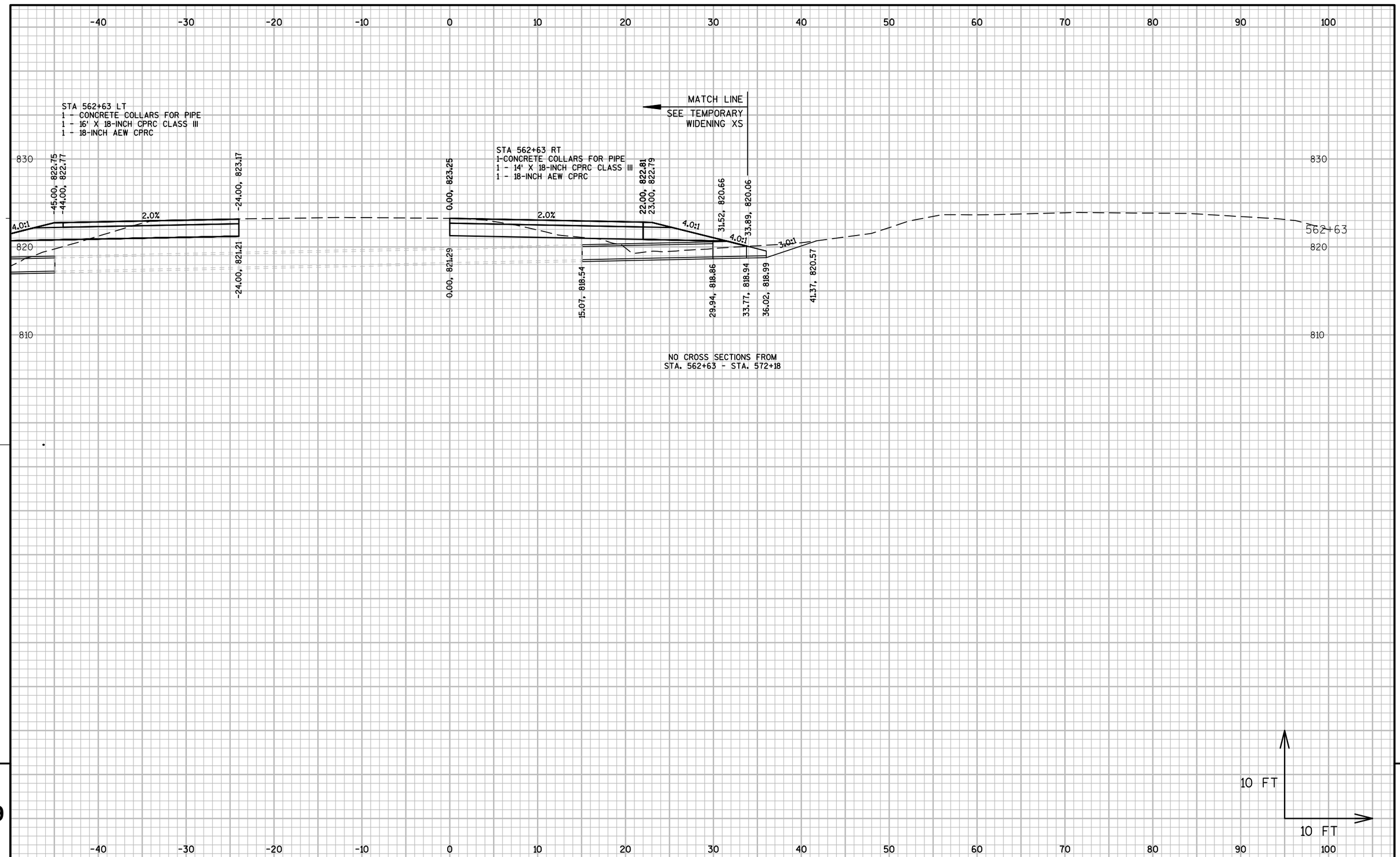


NO CROSS SECTIONS FROM
STA. 554+14 - STA. 562+63



9 9

PROJECT NO: 1003-10-77	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: TEMPORARY WIDENING (IH 39 NB)	SHEET 330	E

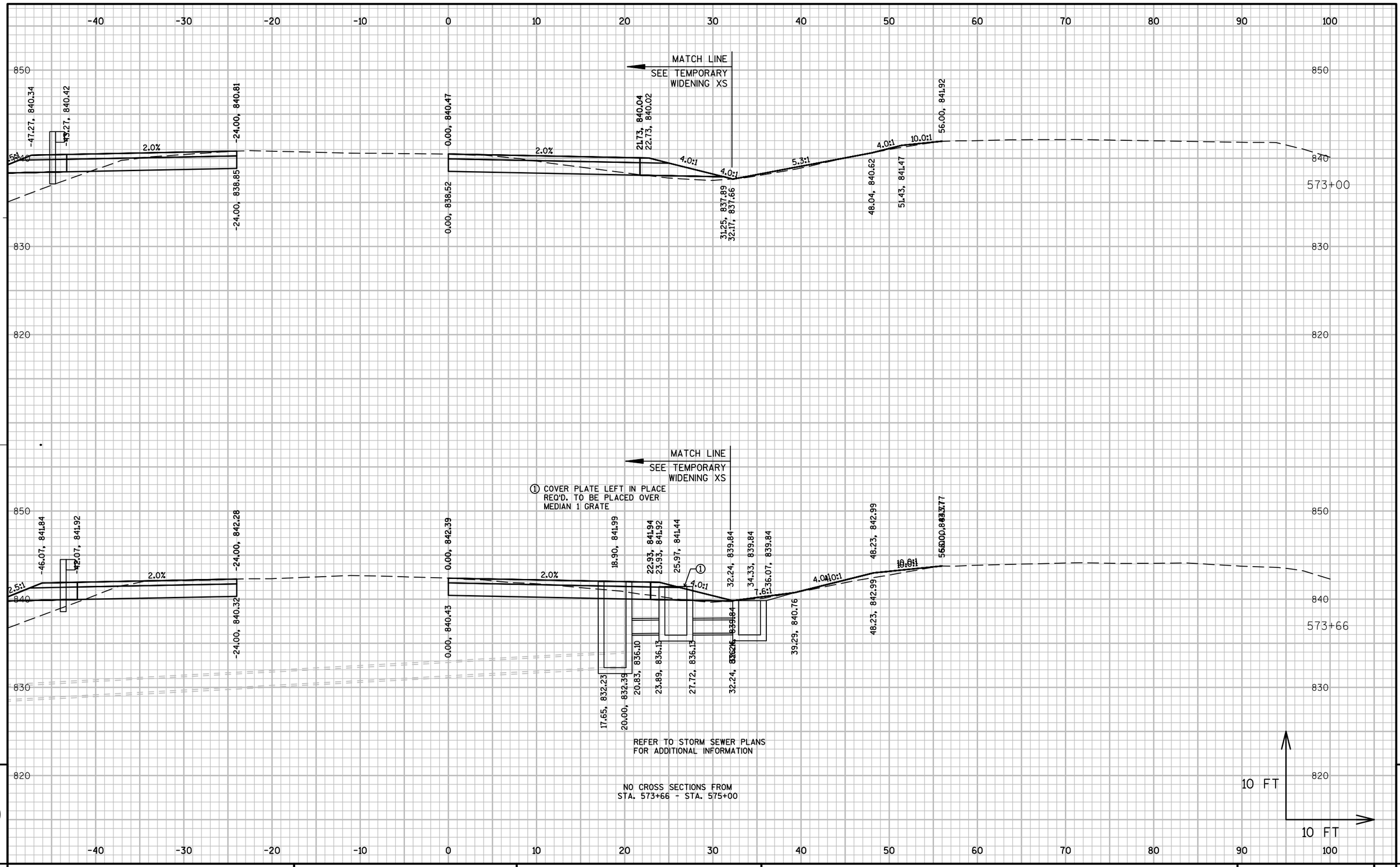


9

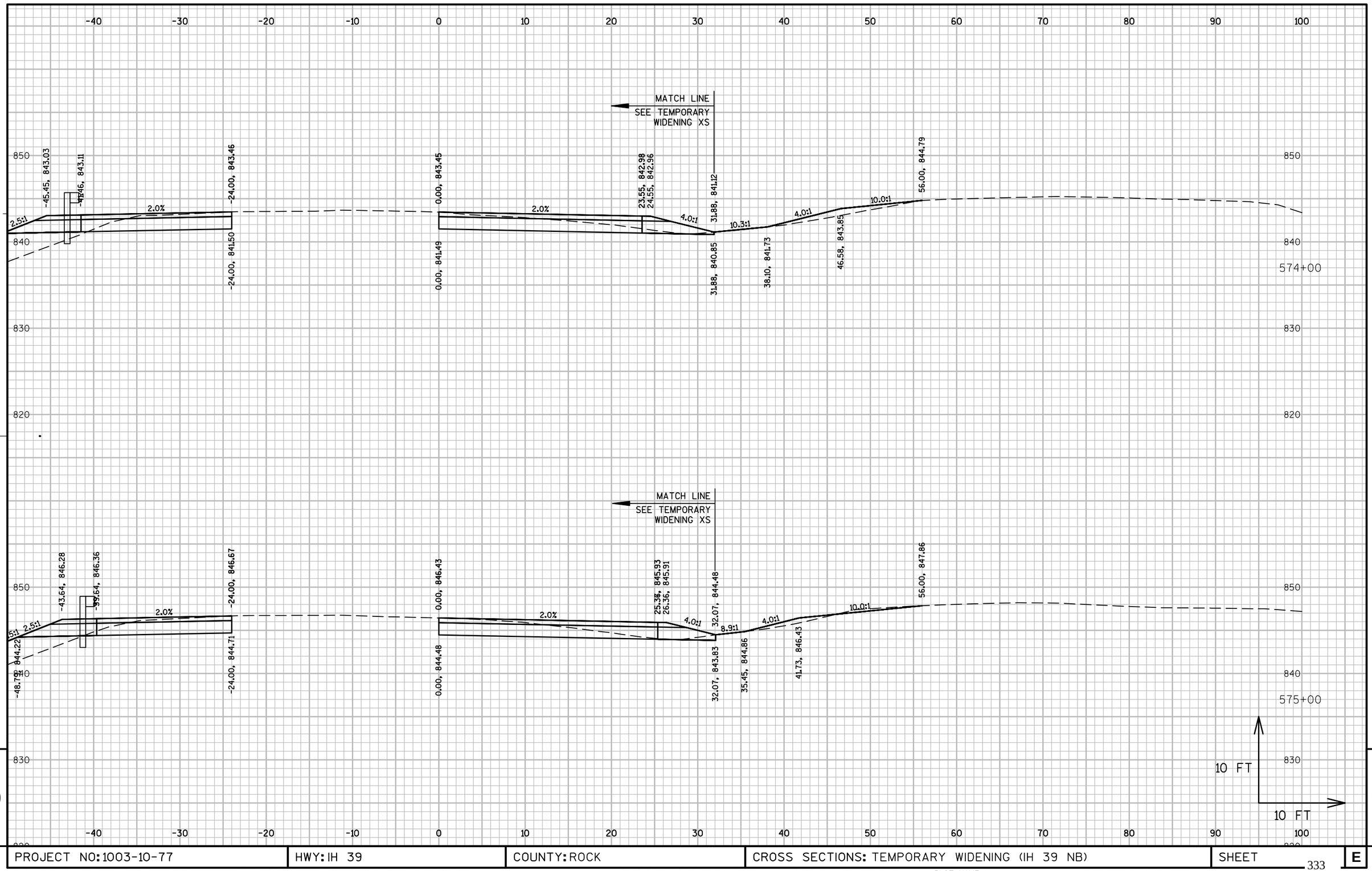
9

PROJECT NO: 1003-10-77	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: TEMPORARY WIDENING (IH 39 NB)	SHEET	E

FILE NAME : S:\MAD\3500--3599\3557\002\CIVIL3D\FINAL\10031077\DESIGN\CORRIDORS\SA_0377_NB_XS_COR.DWG PLOT DATE : 3/27/2015 1:43 PM PLOT BY : SCHMIDTKE, PAUL PLOT NAME : PLOT SCALE : 1:10_XREF
WISDOT/CADDS SHEET 49



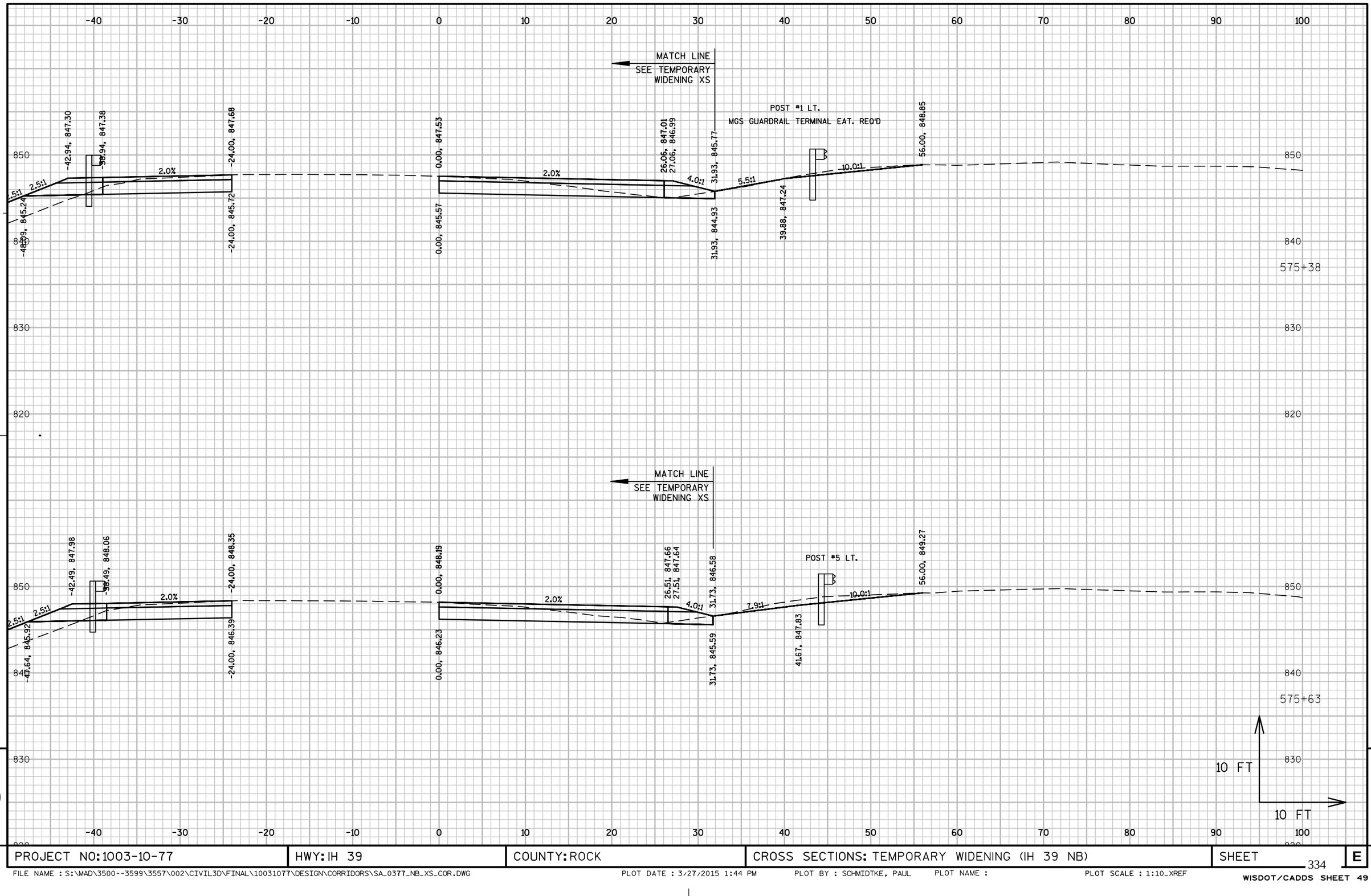
PROJECT NO: 1003-10-77	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: TEMPORARY WIDENING (IH 39 NB)	SHEET	E



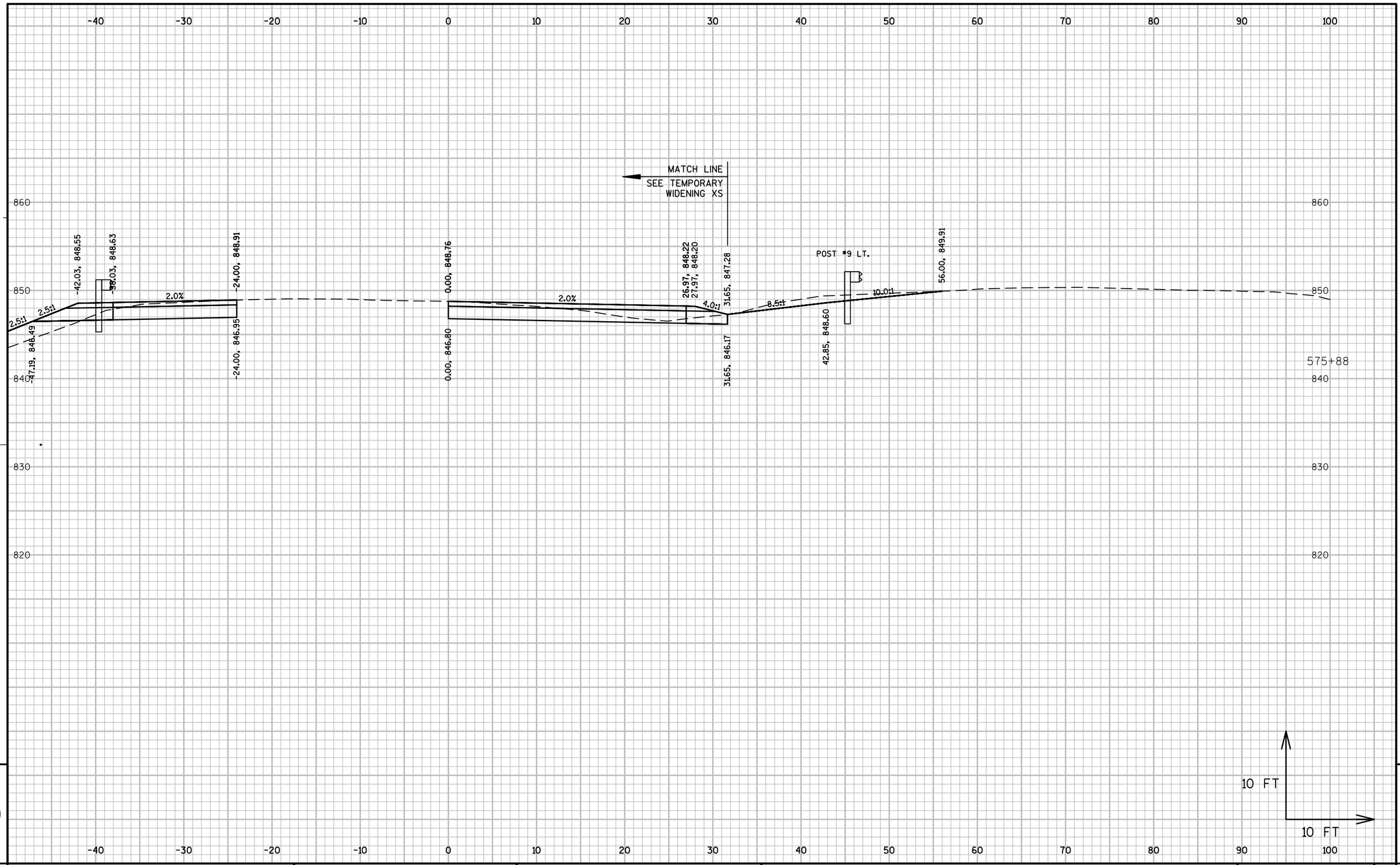
PROJECT NO: 1003-10-77	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: TEMPORARY WIDENING (IH 39 NB)	SHEET 333	E

FILE NAME : S:\MAD\3500--3599\3557\002\CIVIL3D\FINAL\10031077\DESIGN\CORRIDORS\SA_0377_NB_XS_COR.DWG PLOT DATE : 3/27/2015 1:43 PM PLOT BY : SCHMIDTKE, PAUL PLOT NAME : PLOT SCALE : 1:10_XREF

WISDOT/CADDS SHEET 49



PROJECT NO: 1003-10-77	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: TEMPORARY WIDENING (IH 39 NB)	SHEET 334	E

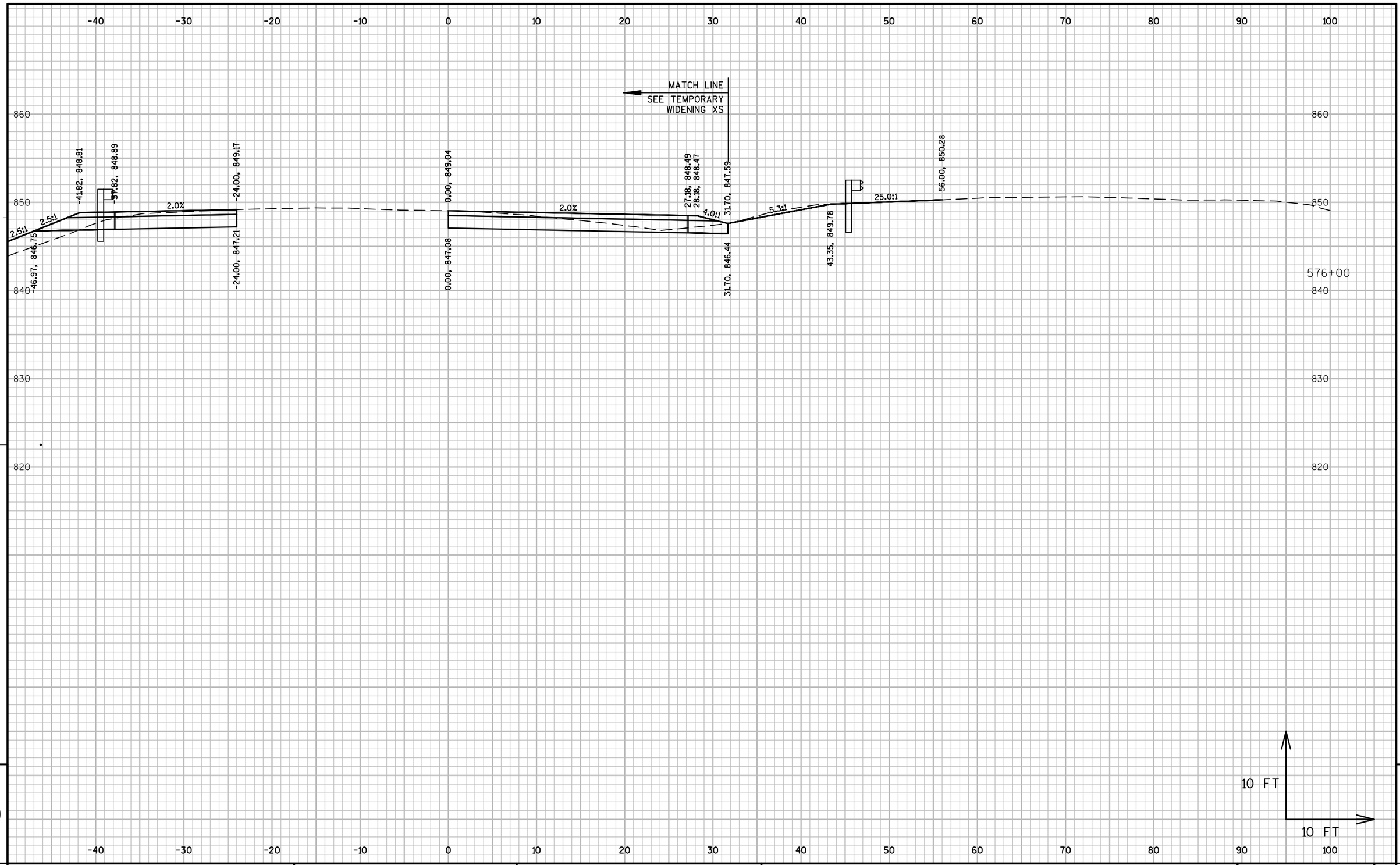


9

9

PROJECT NO: 1003-10-77	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: TEMPORARY WIDENING (IH 39 NB)	SHEET	E

FILE NAME : S:\MAD\3500--3599\3557\002\CIVIL3D\FINAL\10031077\DESIGN\CORRIDORS\SA_0377_NB_XS_COR.DWG
PLOT DATE : 3/27/2015 1:44 PM
PLOT BY : SCHMIDTKE, PAUL
PLOT NAME :
PLOT SCALE : 1:10_XREF
WISDOT/CADDS SHEET 49

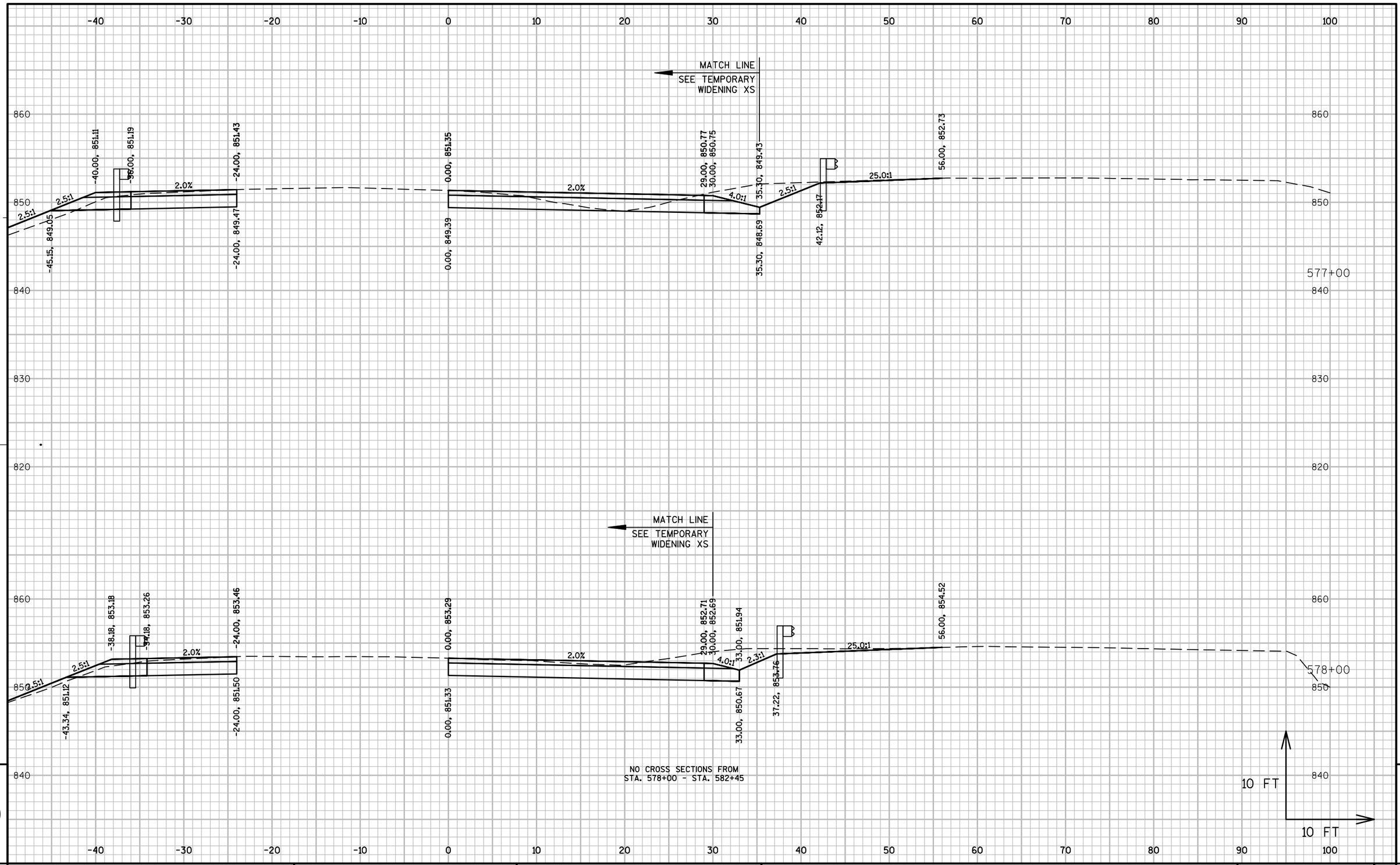


9

9

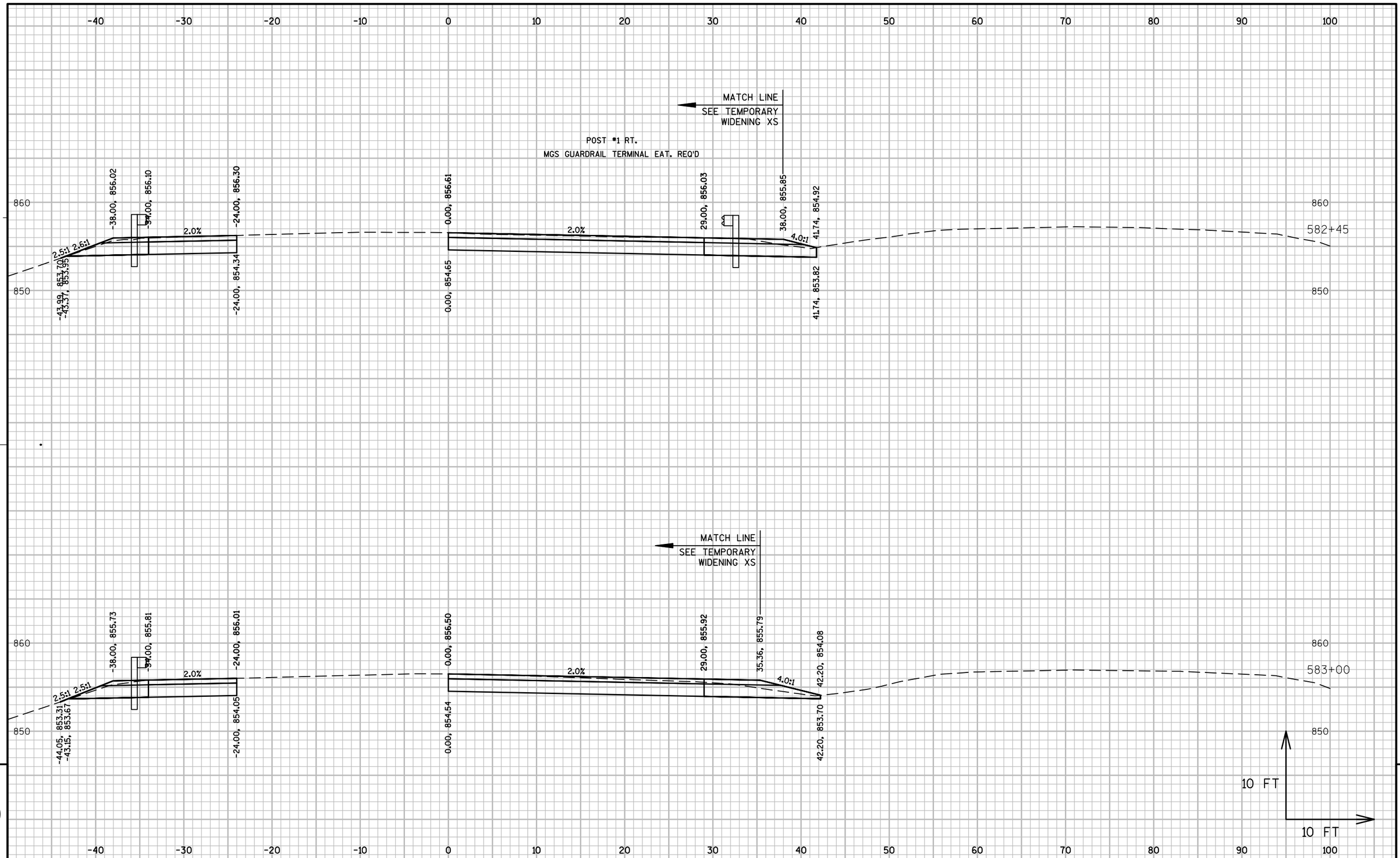
PROJECT NO: 1003-10-77	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: TEMPORARY WIDENING (IH 39 NB)	SHEET	E

FILE NAME : S:\MAD\3500--3599\3557\002\CIVIL3D\FINAL\10031077\DESIGN\CORRIDORS\SA_0377_NB_XS_COR.DWG
PLOT DATE : 3/27/2015 1:45 PM
PLOT BY : SCHMIDTKE, PAUL
PLOT NAME :
PLOT SCALE : 1:10_XREF
WISDOT/CADDS SHEET 49



PROJECT NO: 1003-10-77	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: TEMPORARY WIDENING (IH 39 NB)	SHEET	E

FILE NAME : S:\MAD\3500--3599\3557\002\CIVIL3D\FINAL\10031077\DESIGN\CORRIDORS\SA_0377_NB_XS_COR.DWG PLOT DATE : 3/27/2015 1:45 PM PLOT BY : SCHMIDTKE, PAUL PLOT NAME : PLOT SCALE : 1:10_XREF
WISDOT/CADDS SHEET 49



PROJECT NO: 1003-10-77	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: TEMPORARY WIDENING (IH 39 NB)	SHEET 338 E

STA. 10+60.50
BEGIN CONSTRUCTION

10+60.50'TZA'

11+00'TZA'

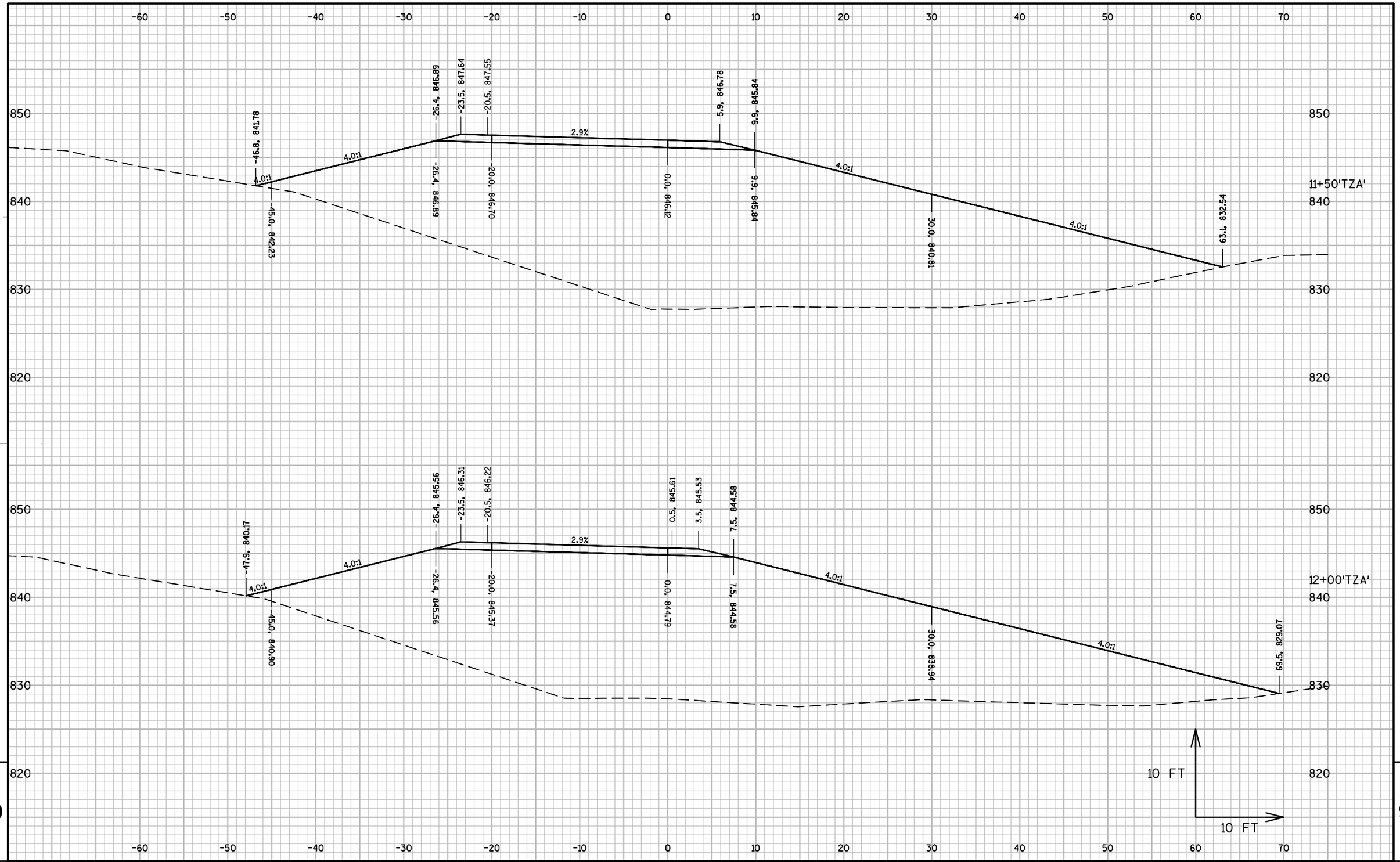
-39.9, 845.41
-26.4, 848.79
-23.5, 849.54
-20.5, 849.45
-26.4, 848.79
-20.0, 848.66
0.0, 848.02
11.8, 848.51
15.8, 847.56
15.8, 847.56
30.0, 844.01
62.1, 835.98
4.0:1
2.9%
4.0:1
4.0:1

-43.1, 843.82
-26.4, 848.00
-23.5, 848.75
-20.5, 848.66
-26.4, 848.00
-20.0, 847.81
0.0, 847.23
11.2, 847.74
15.2, 846.79
15.2, 846.79
30.0, 843.08
63.8, 834.63
4.0:1
2.9%
4.0:1
4.0:1

10 FT
10 FT

PROJECT NO:1003-10-77	HWY:IH 39	COUNTY:ROCK	CROSS SECTIONS:TEMPORARY ON-RAMP AT CTH S (RAMP TZA)	SHEET 339	E

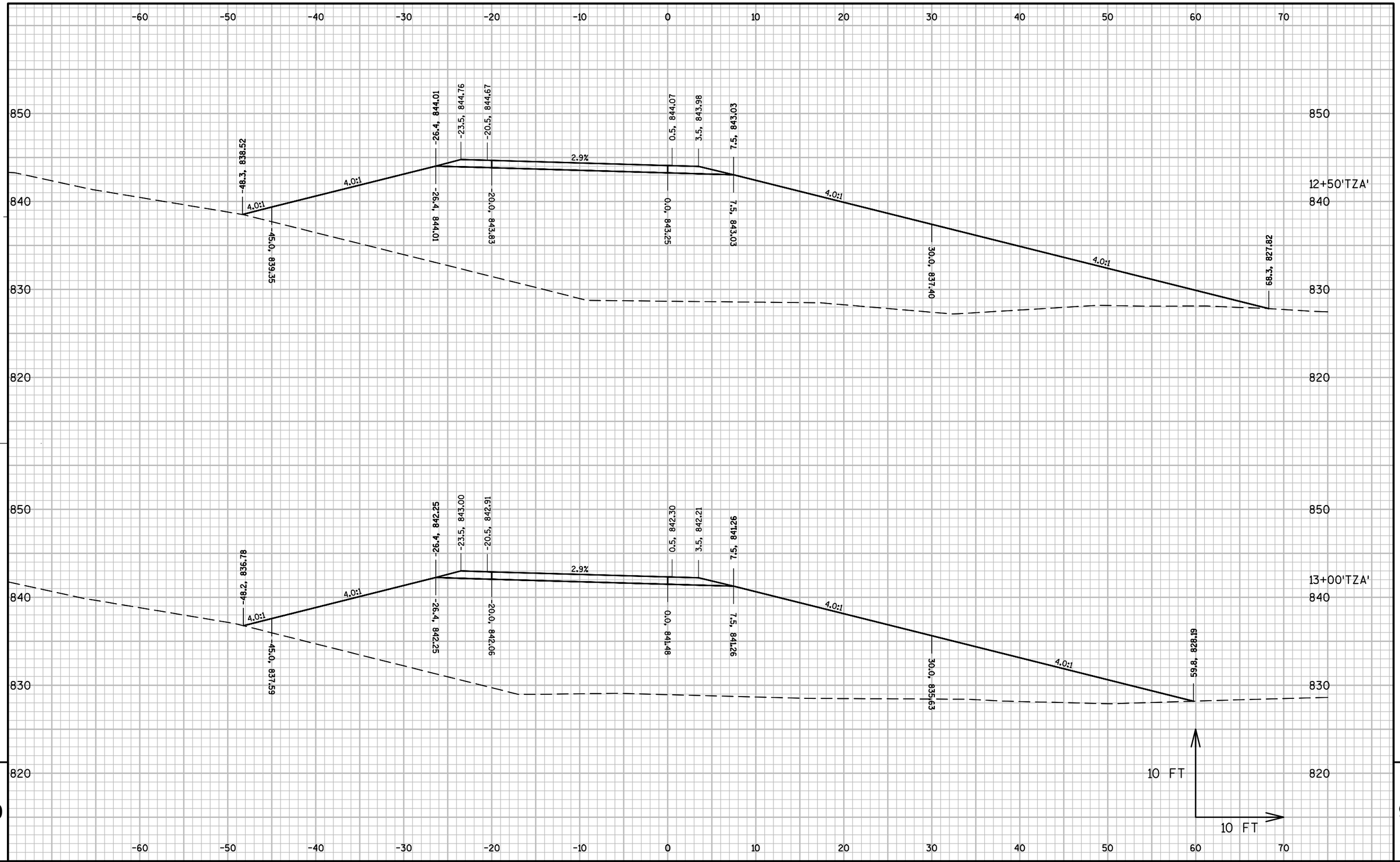
FILE NAME : L:\WORK\PROJECTS\60242867\000_CAD\001_DRAWINGS\1003-10-77_CTH S TO STH 11 TEMP\AE_0378_COR_TZA RAMP _LOOP.DWG PLOT DATE : 7/28/2015 2:26 PM PLOT BY : ARBUCKLE, ADRIAN PLOT NAME : PLOT SCALE : 1:10_XREF



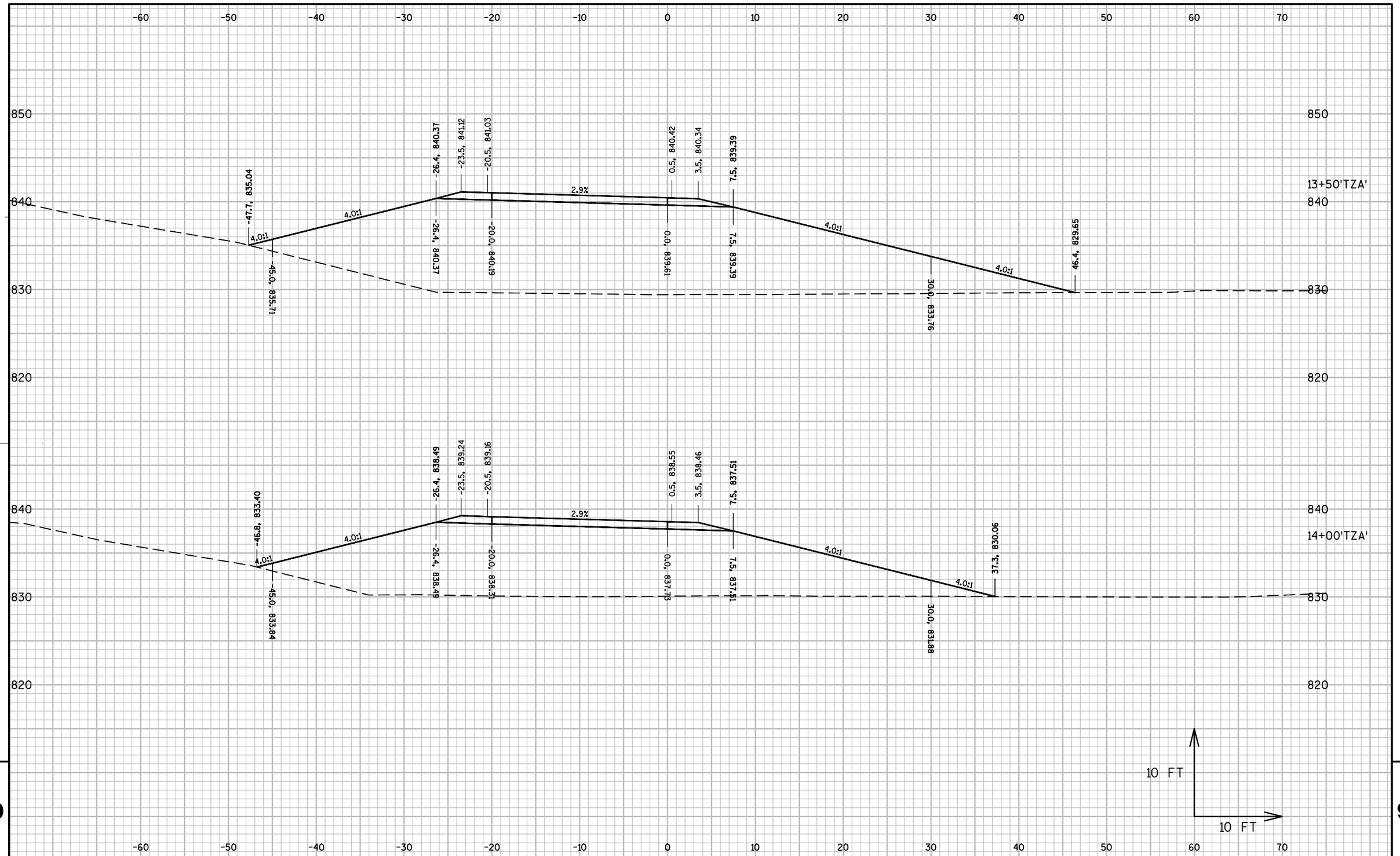
PROJECT NO:1003-10-77	HWY:IH 39	COUNTY:ROCK	CROSS SECTIONS:TEMPORARY ON-RAMP AT CTH S (RAMP TZA)	SHEET 340 E

FILE NAME : L:\WORK\PROJECTS\60242867\000_CAD\001_DRAWINGS\1003-10-77_CTH S TO STH 11 TEMP\AE_0378_COR_TZA RAMP _LOOP.DWG PLOT DATE : 7/28/2015 2:27 PM PLOT BY : ARBUCKLE, ADRIAN PLOT NAME : PLOT SCALE : 1:10_XREF

WISDOT/CADDS SHEET 49



PROJECT NO:1003-10-77	HWY:IH 39	COUNTY:ROCK	CROSS SECTIONS:TEMPORARY ON-RAMP AT CTH S (RAMP TZA)	SHEET 341 E

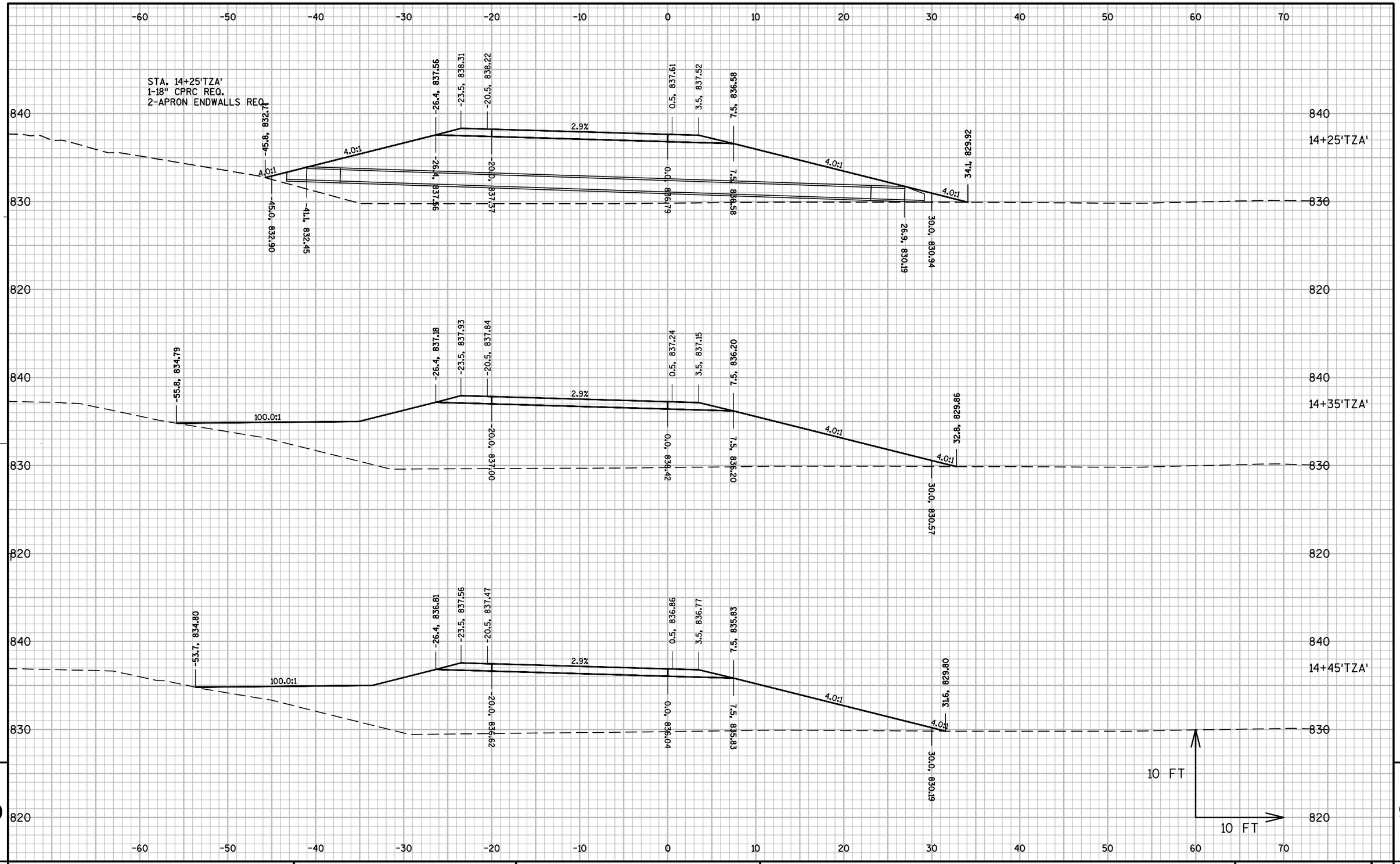


PROJECT NO:1003-10-77	HWY:IH 39	COUNTY:ROCK	CROSS SECTIONS:TEMPORARY ON-RAMP AT CTH S (RAMP TZA)	SHEET 342	E

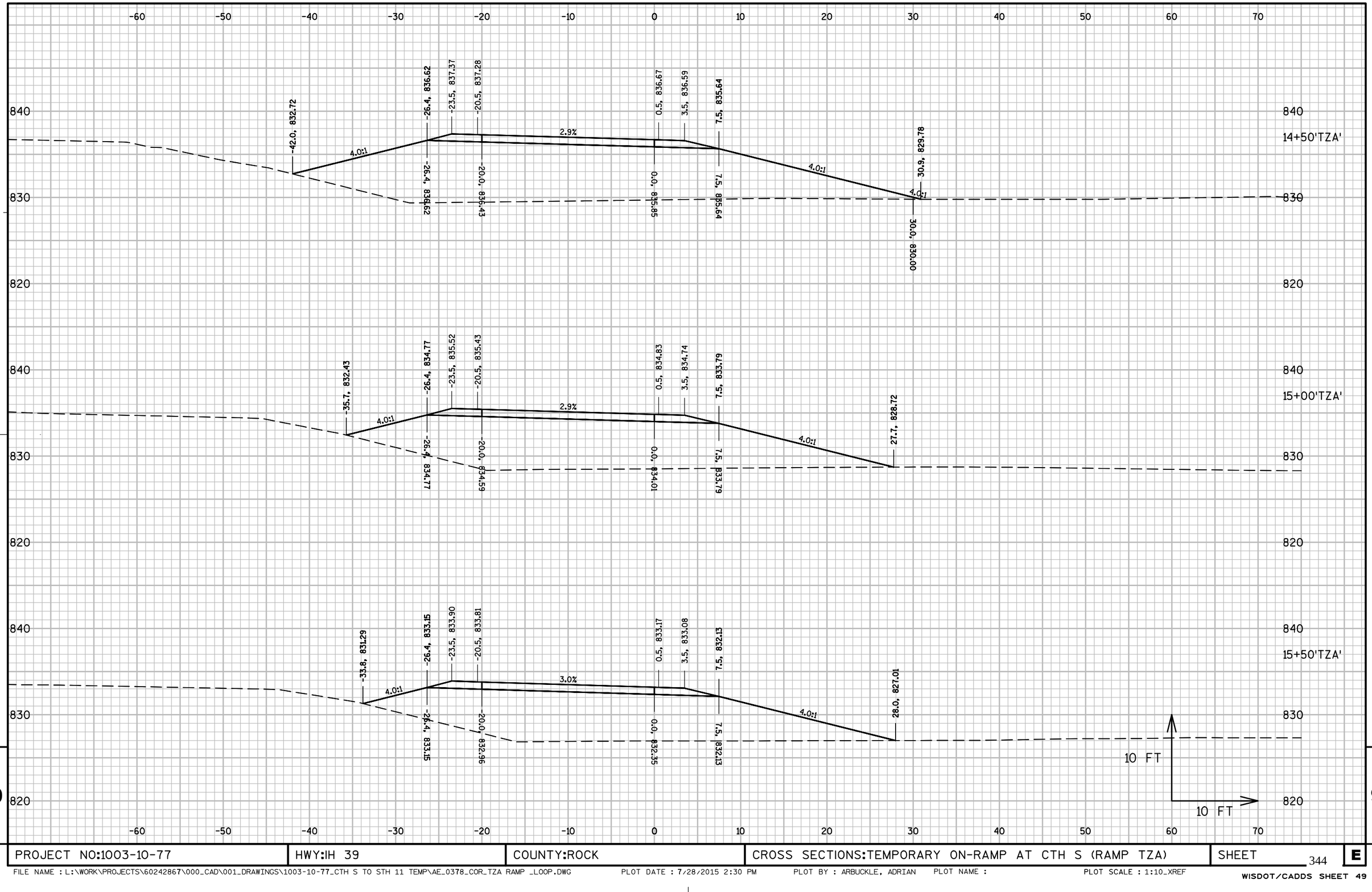
FILE NAME : L:\WORK\PROJECTS\60242867\000_CAD\001_DRAWINGS\1003-10-77_CTH S TO STH 11 TEMP\AE_0378_COR_TZA RAMP _LOOP.DWG PLOT DATE : 7/28/2015 2:29 PM PLOT BY : ARBUCKLE, ADRIAN PLOT NAME : PLOT SCALE : 1:10_XREF

WISDOT/CADDS SHEET 49

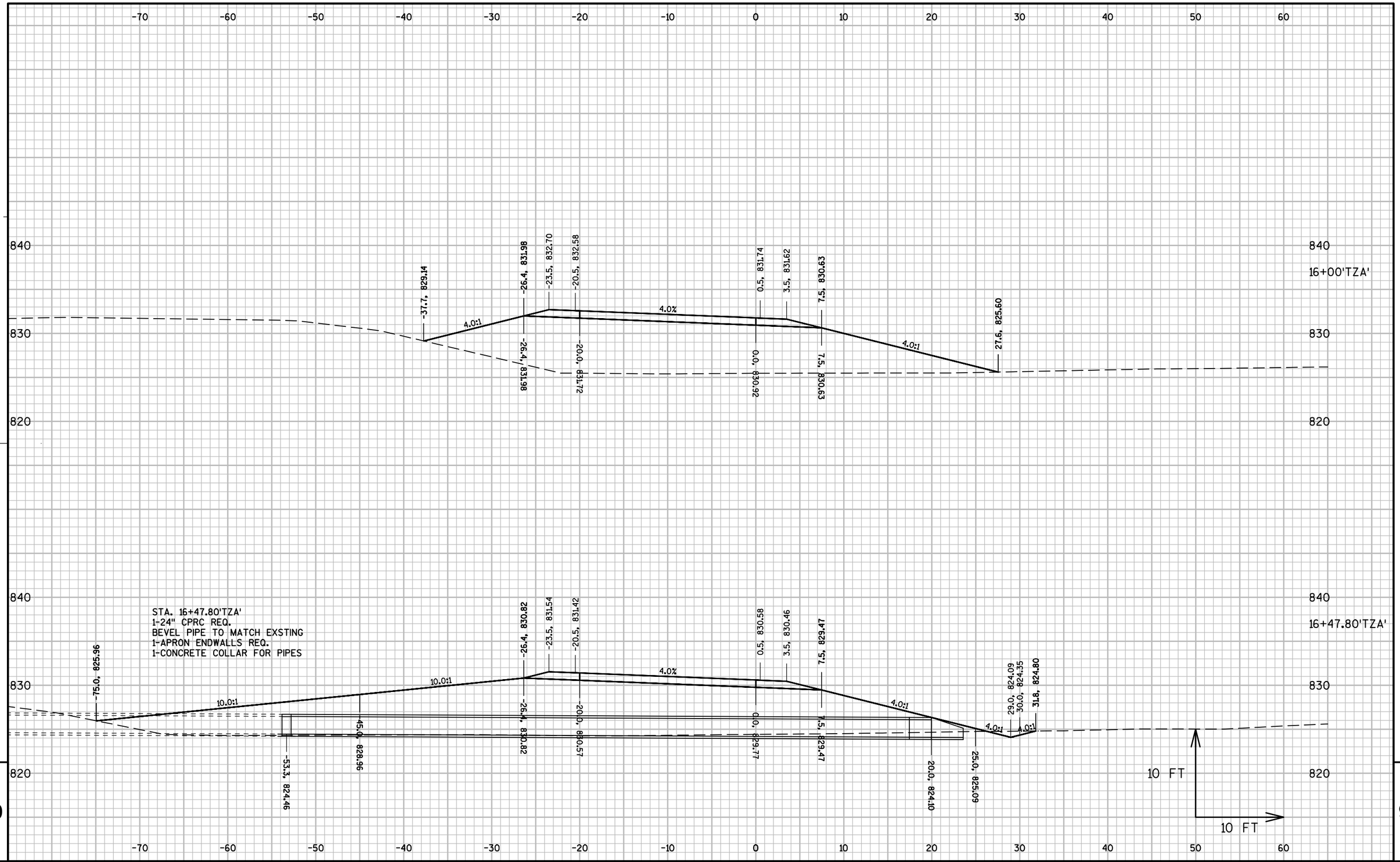
STA. 14+25'TZA'
1-18" CPRC REQ.
2-APRON ENDWALLS REQ.



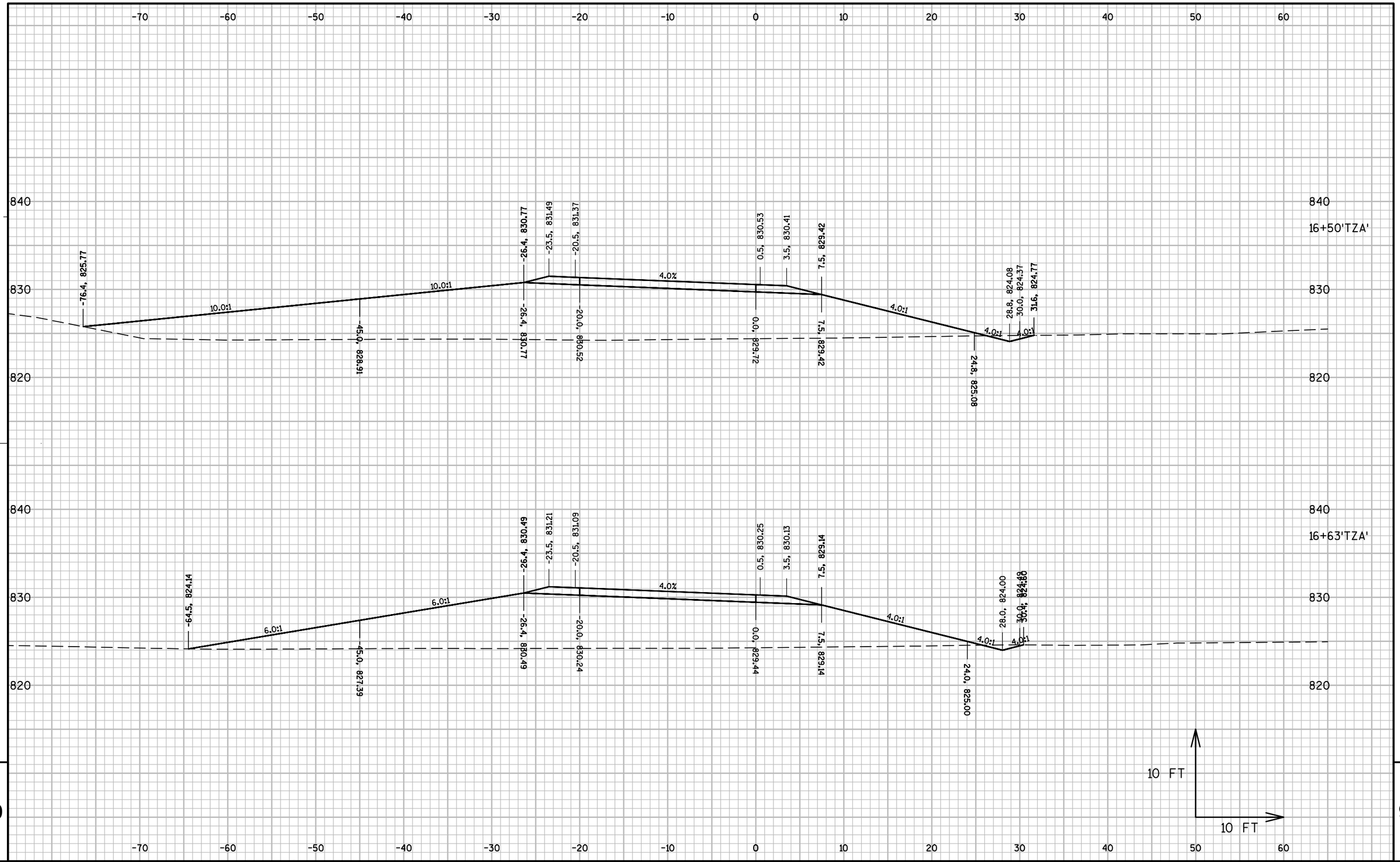
PROJECT NO:1003-10-77	HWY:IH 39	COUNTY:ROCK	CROSS SECTIONS:TEMPORARY ON-RAMP AT CTH S (RAMP TZA)	SHEET 343	E



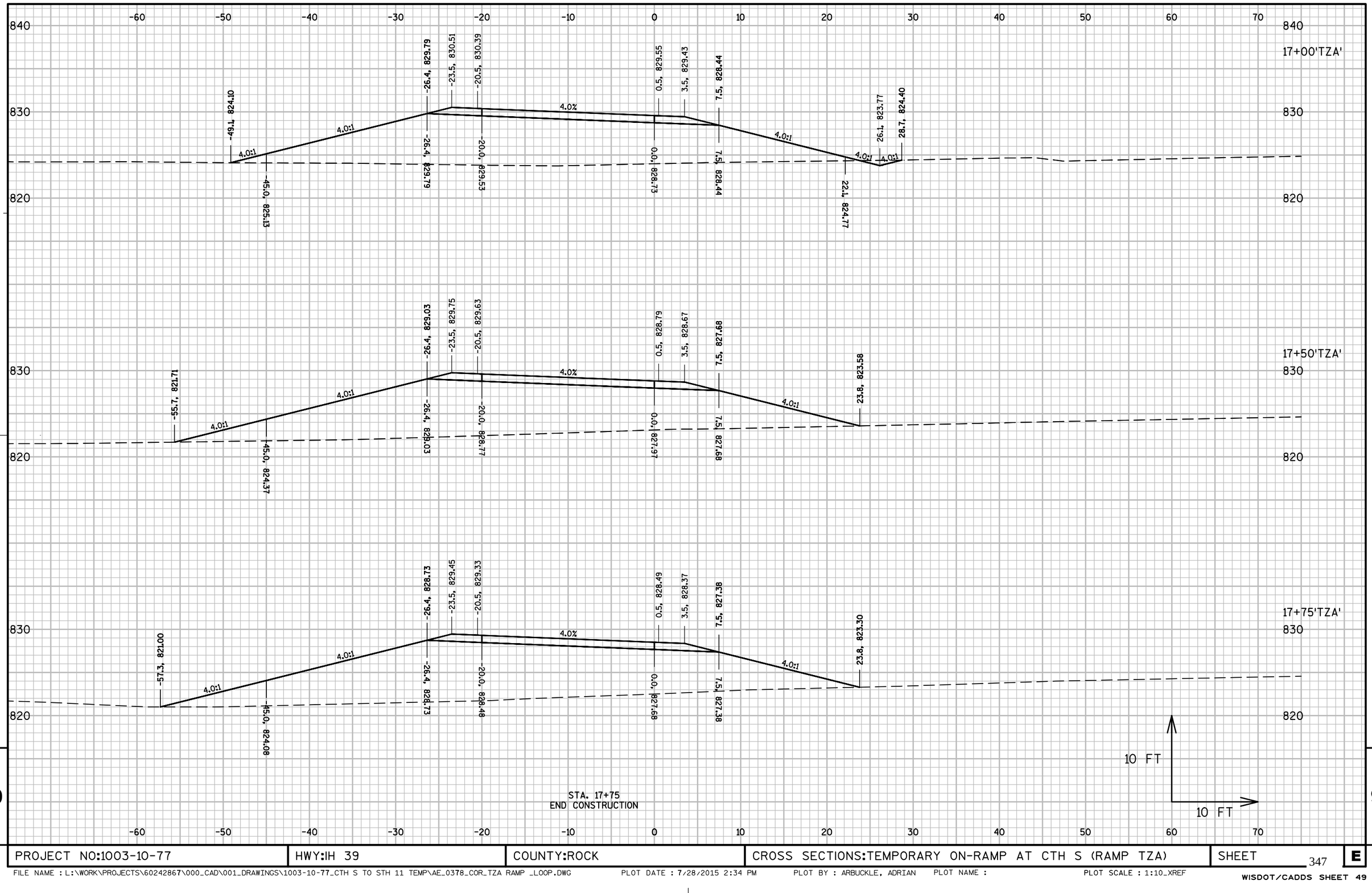
PROJECT NO:1003-10-77	HWY:IH 39	COUNTY:ROCK	CROSS SECTIONS:TEMPORARY ON-RAMP AT CTH S (RAMP TZA)	SHEET 344	E



PROJECT NO:1003-10-77	HWY:IH 39	COUNTY:ROCK	CROSS SECTIONS:TEMPORARY ON-RAMP AT CTH S (RAMP TZA)	SHEET 345 E



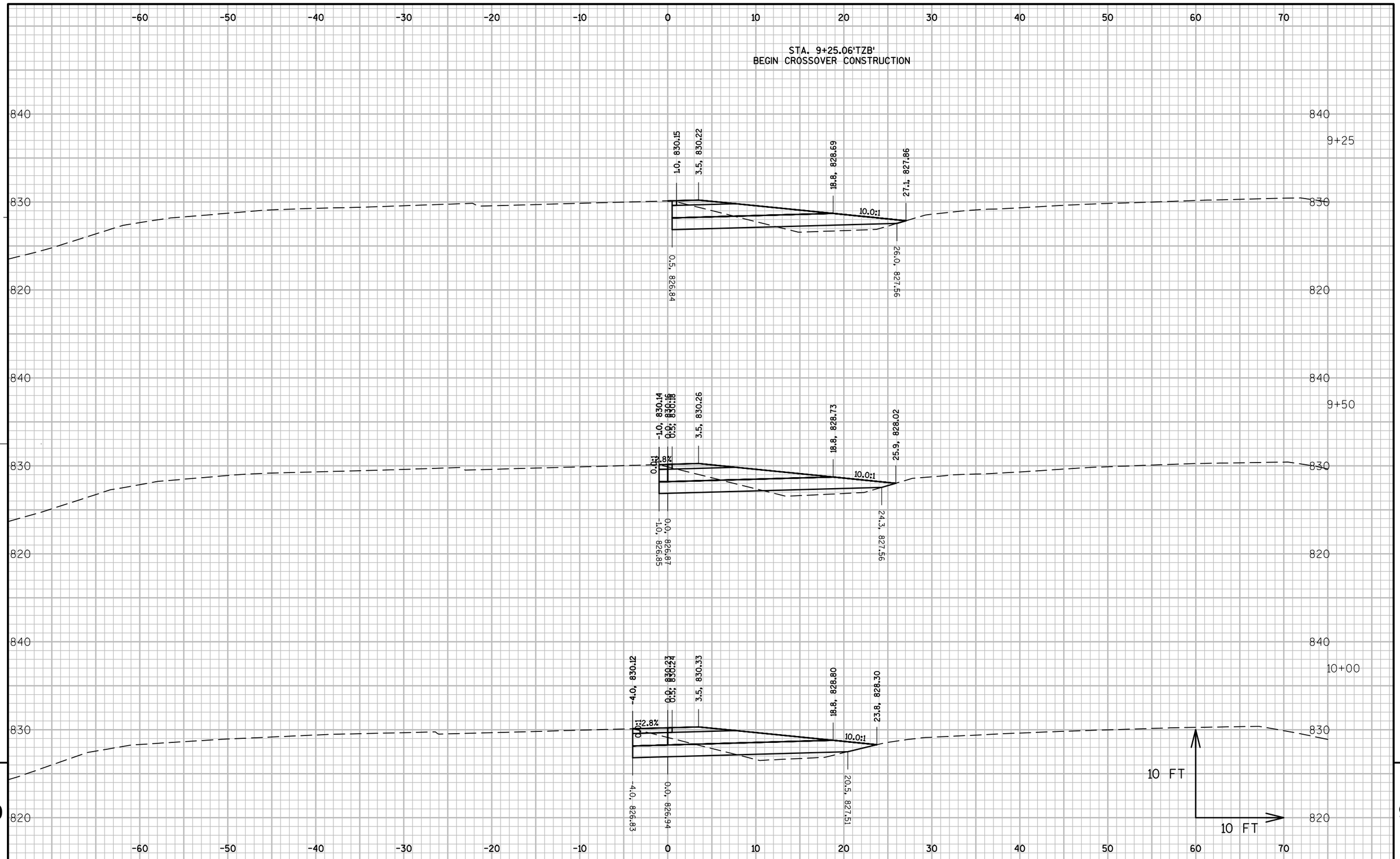
PROJECT NO:1003-10-77	HWY:IH 39	COUNTY:ROCK	CROSS SECTIONS:TEMPORARY ON-RAMP AT CTH S (RAMP TZA)	SHEET 346 E



PROJECT NO:1003-10-77	HWY:IH 39	COUNTY:ROCK	CROSS SECTIONS:TEMPORARY ON-RAMP AT CTH S (RAMP TZA)	SHEET 347 E

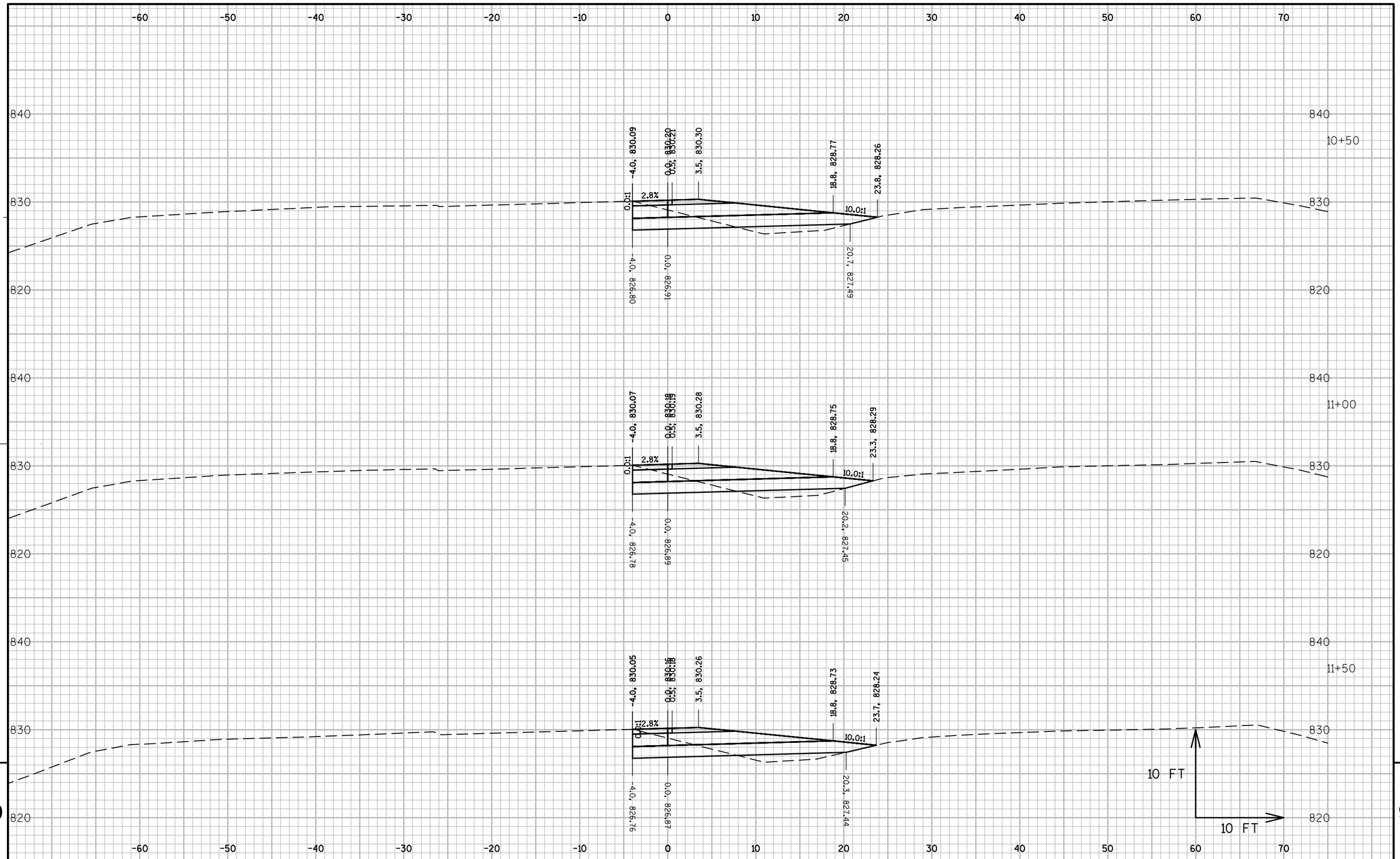
FILE NAME : L:\WORK\PROJECTS\60242867\000_CAD\001_DRAWINGS\1003-10-77_CTH S TO STH 11 TEMP\AE_0378_COR_TZA RAMP _LOOP.DWG PLOT DATE : 7/28/2015 2:34 PM PLOT BY : ARBUCKLE, ADRIAN PLOT NAME : PLOT SCALE : 1:10_XREF

WISDOT/CADDS SHEET 49



PROJECT NO: 1003-10-77	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: RAMP 'TZB' - TEMPORARY CROSSOVER	SHEET 348	E

FILE NAME : L:\WORK\PROJECTS\60242867\000_CAD\001_DRAWINGS\1003-10-77_CTH S TO STH 11 TEMP\AE_0378_COR_TZB RAMP.DWG PLOT DATE : 2/16/2016 12:42 PM PLOT BY : ARBUCKLE, ADRIAN PLOT NAME : PLOT SCALE : 1" = 10'_1_XREF



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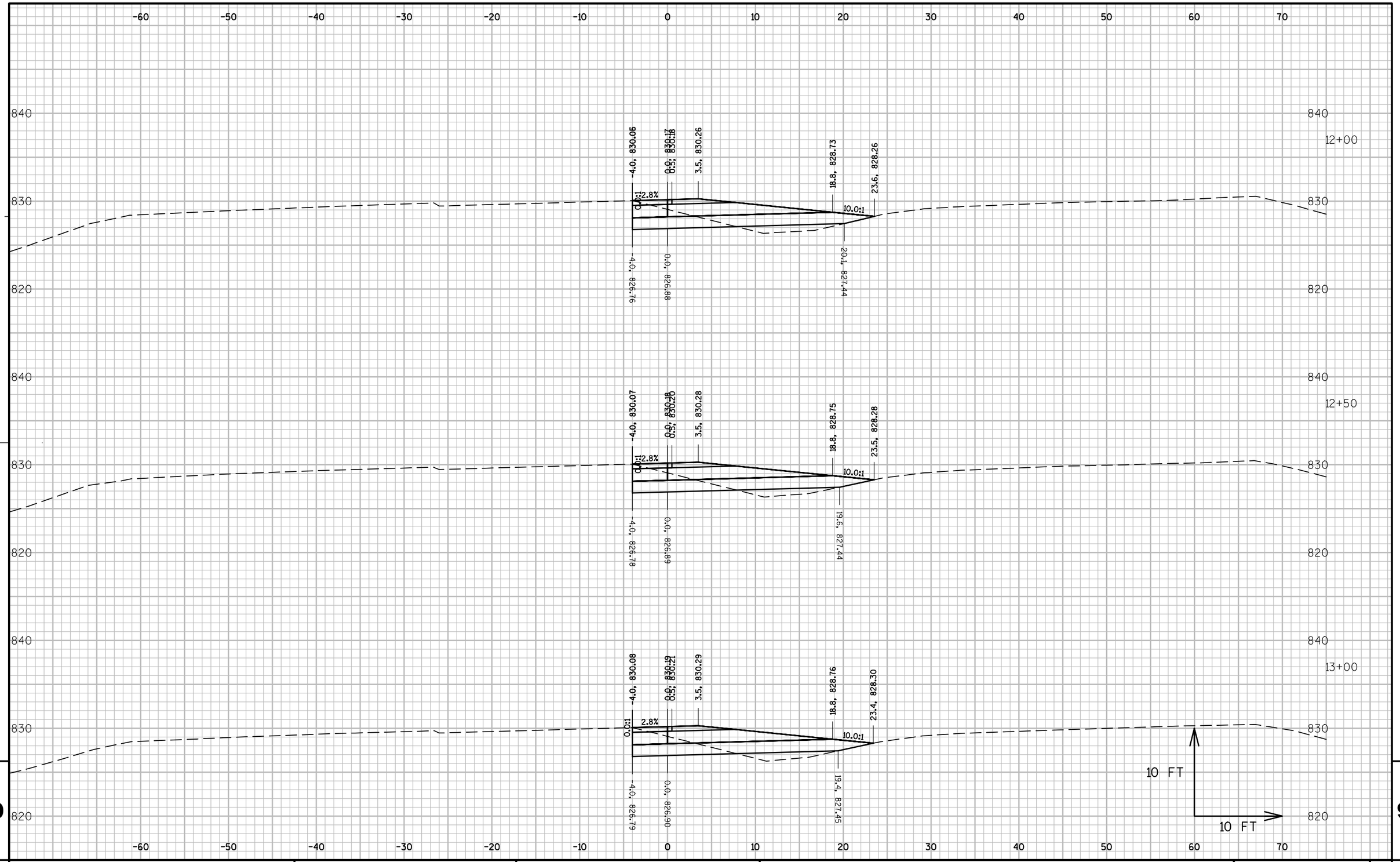
PROJECT NO: 1003-10-77	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: RAMP 'TZB' - TEMPORARY CROSSOVER	SHEET 349	E



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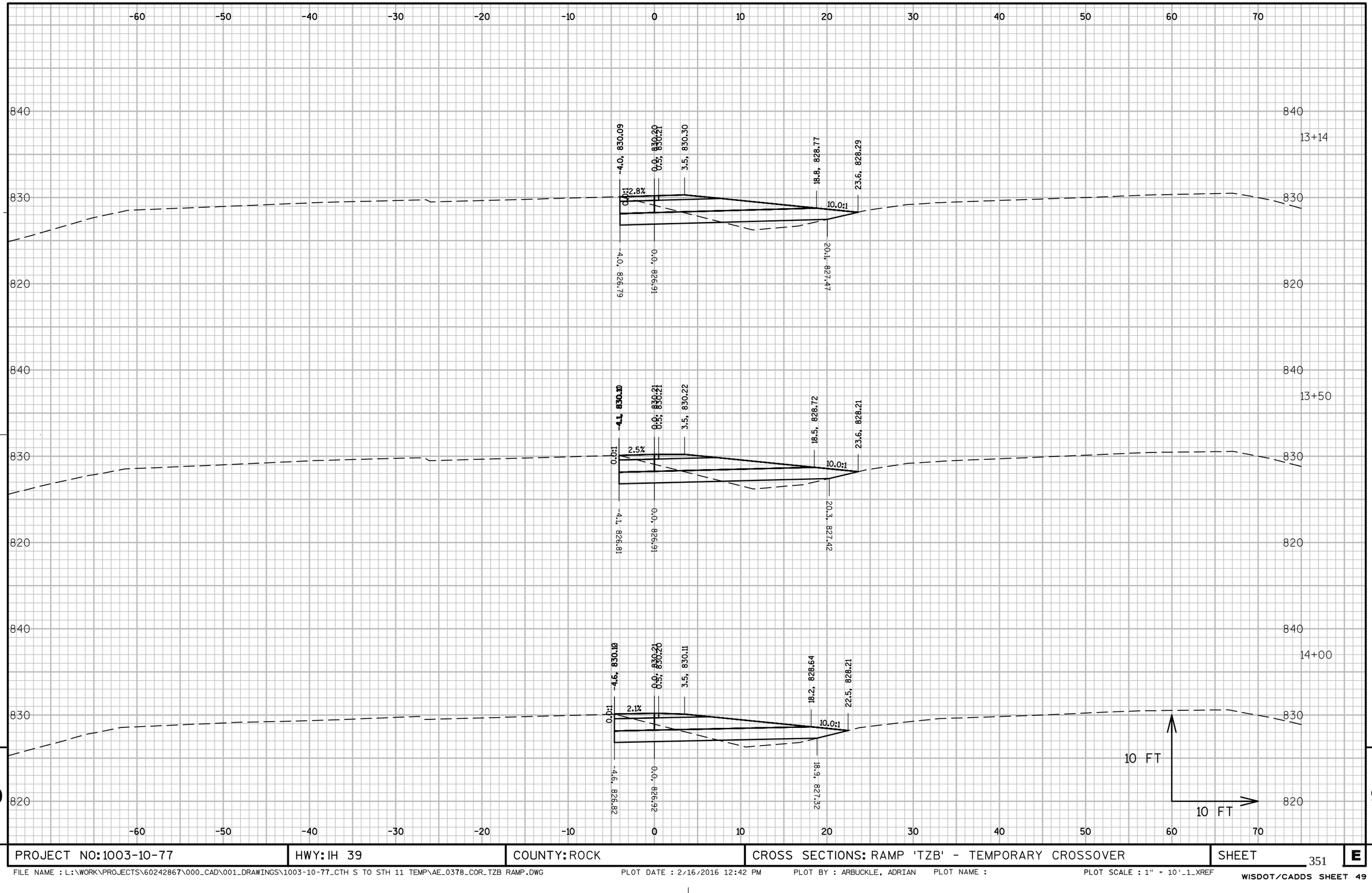
9

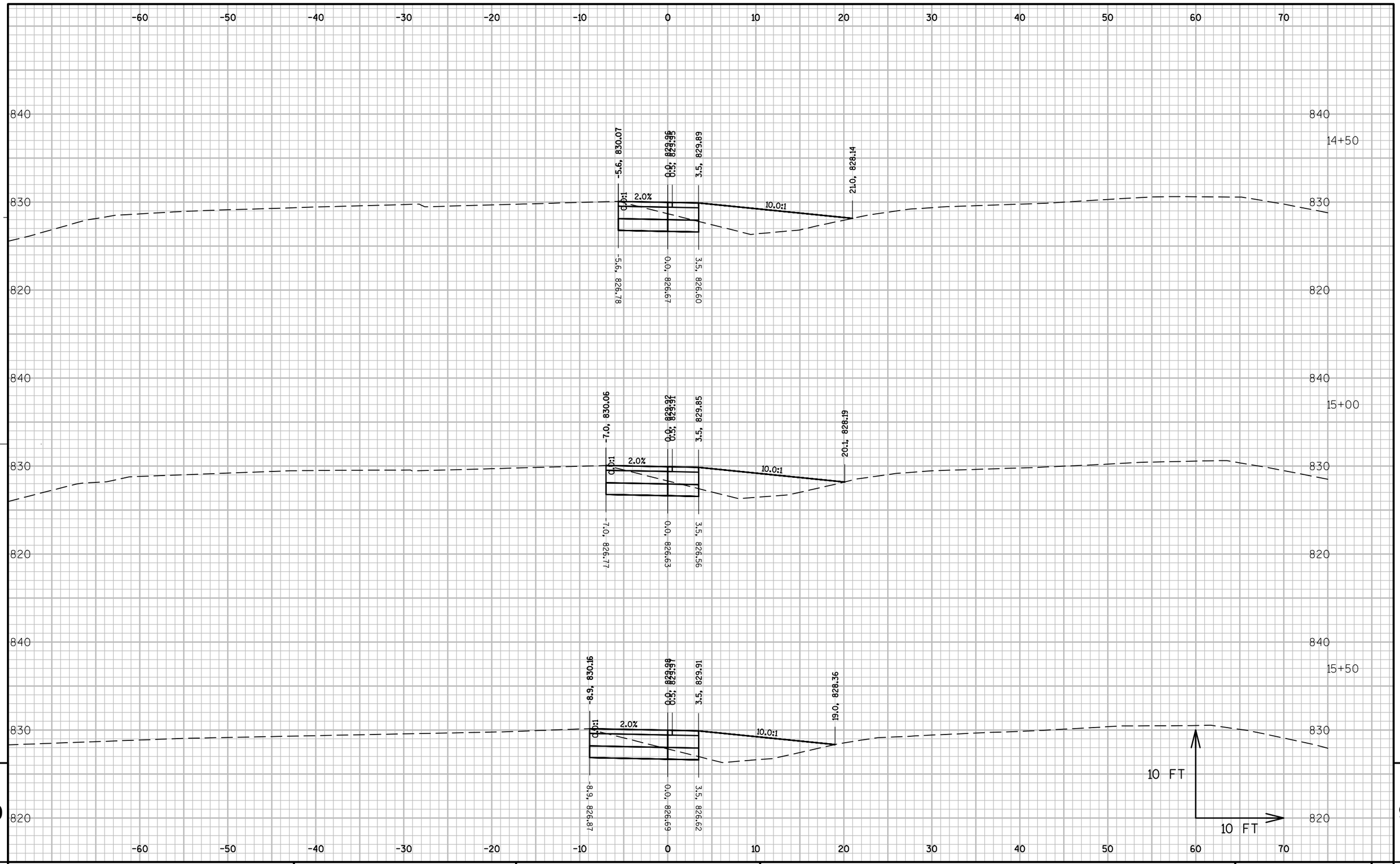
PROJECT NO: 1003-10-77	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: RAMP 'TZB' - TEMPORARY CROSSOVER	SHEET 350	E

FILE NAME : L:\WORK\PROJECTS\60242867\000_CAD\001_DRAWINGS\1003-10-77_CTH S TO STH 11 TEMP\AE_0378_COR_TZB RAMP.DWG PLOT DATE : 2/16/2016 12:42 PM PLOT BY : ARBUCKLE, ADRIAN PLOT NAME : PLOT SCALE : 1" = 10'_1_XREF



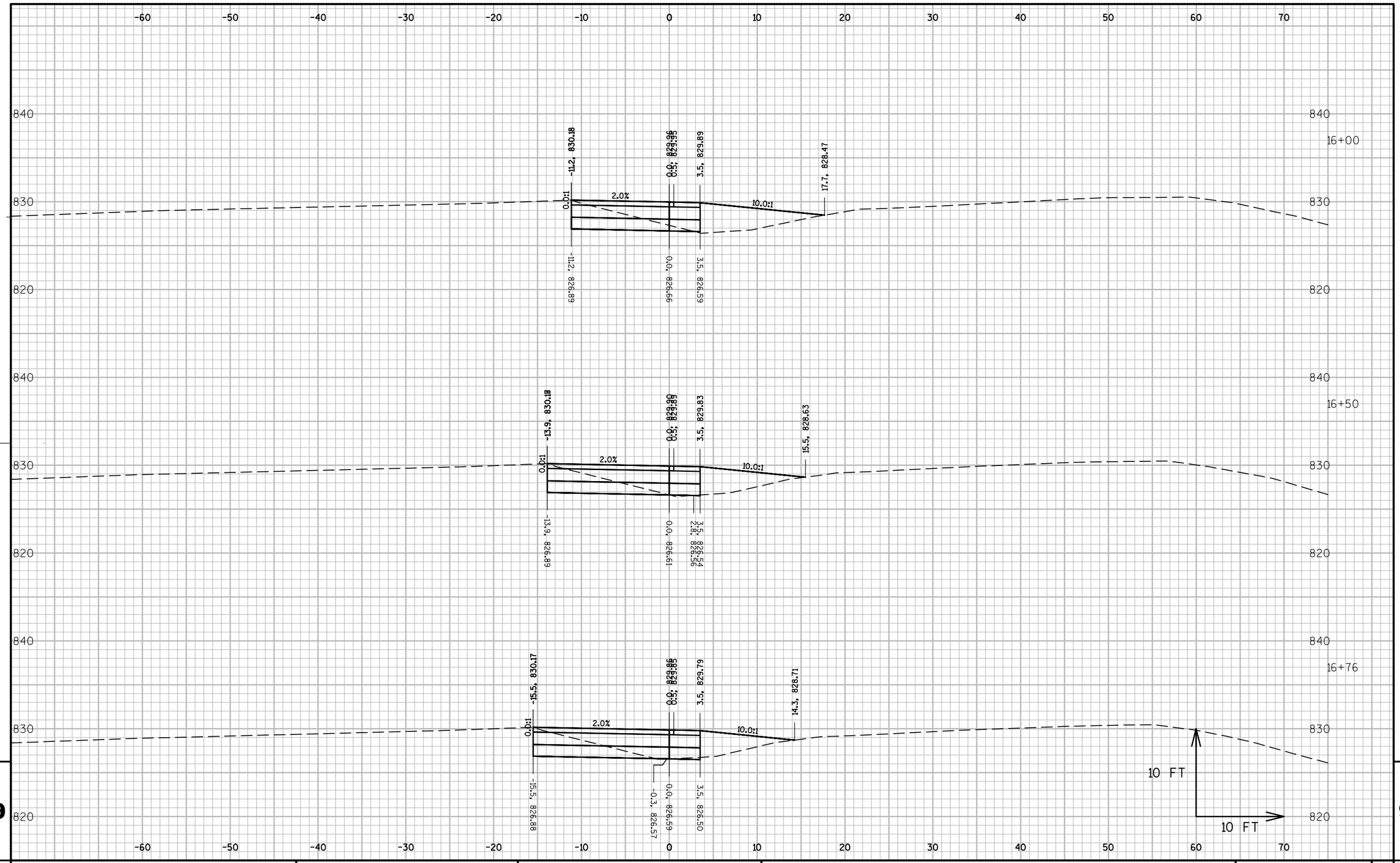
PROJECT NO: 1003-10-77	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: RAMP 'TZB' - TEMPORARY CROSSOVER	SHEET 351	E

FILE NAME : L:\WORK\PROJECTS\60242867\000_CAD\001_DRAWINGS\1003-10-77_CTH S TO STH 11 TEMP\AE_0378_COR_TZB RAMP.DWG PLOT DATE : 2/16/2016 12:42 PM PLOT BY : ARBUCKLE, ADRIAN PLOT NAME : PLOT SCALE : 1" = 10'_1_XREF



PROJECT NO: 1003-10-77	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: RAMP 'TZB' - TEMPORARY CROSSOVER	SHEET 352	E

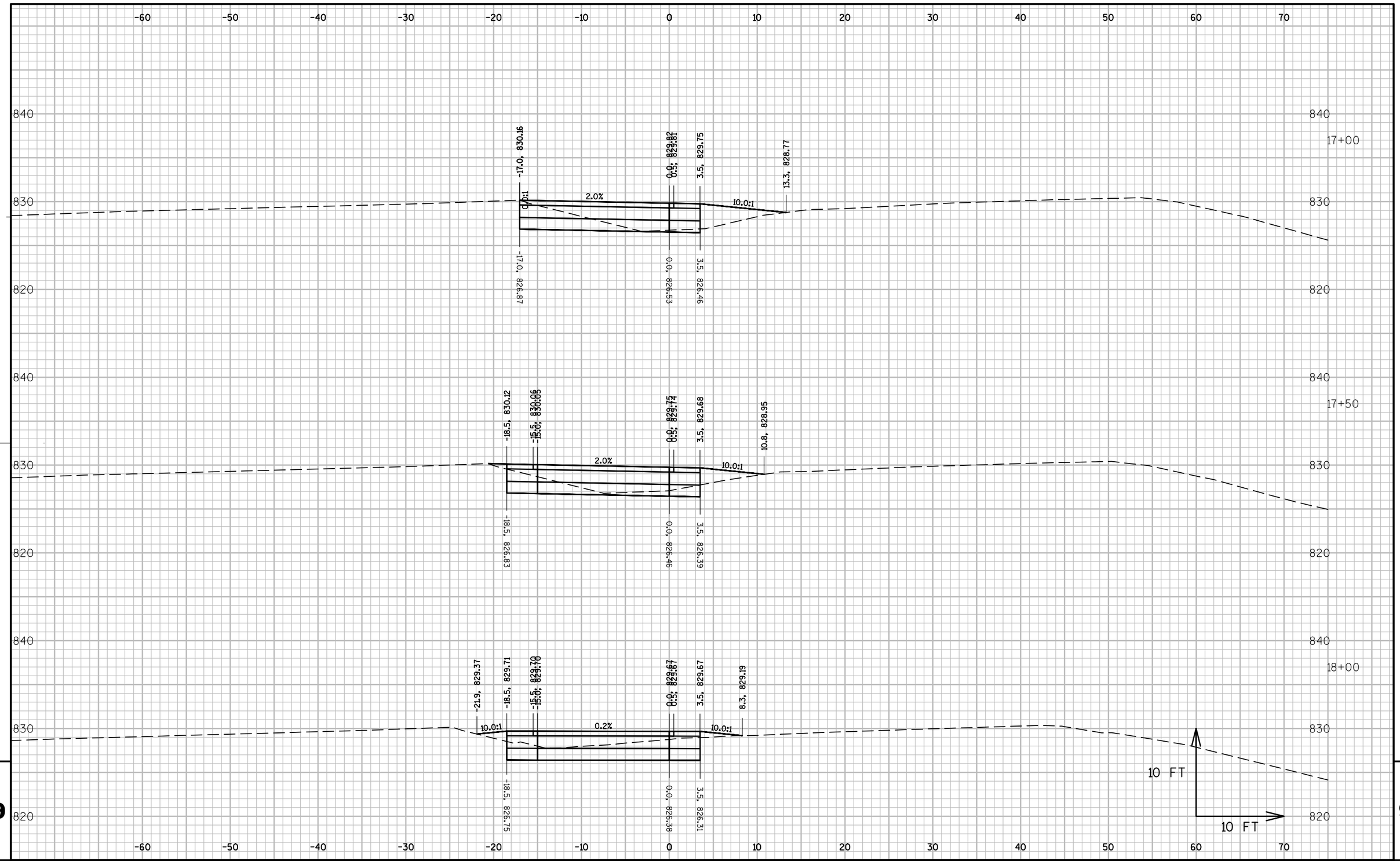
FILE NAME : L:\WORK\PROJECTS\60242867\000_CAD\001_DRAWINGS\1003-10-77_CTH S TO STH 11 TEMP\AE_0378_COR_TZB RAMP.DWG PLOT DATE : 2/16/2016 12:42 PM PLOT BY : ARBUCKLE, ADRIAN PLOT NAME : PLOT SCALE : 1" = 10'_1_XREF



PROJECT NO: 1003-10-77	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: RAMP 'TZB' - TEMPORARY CROSSOVER	SHEET 353	E

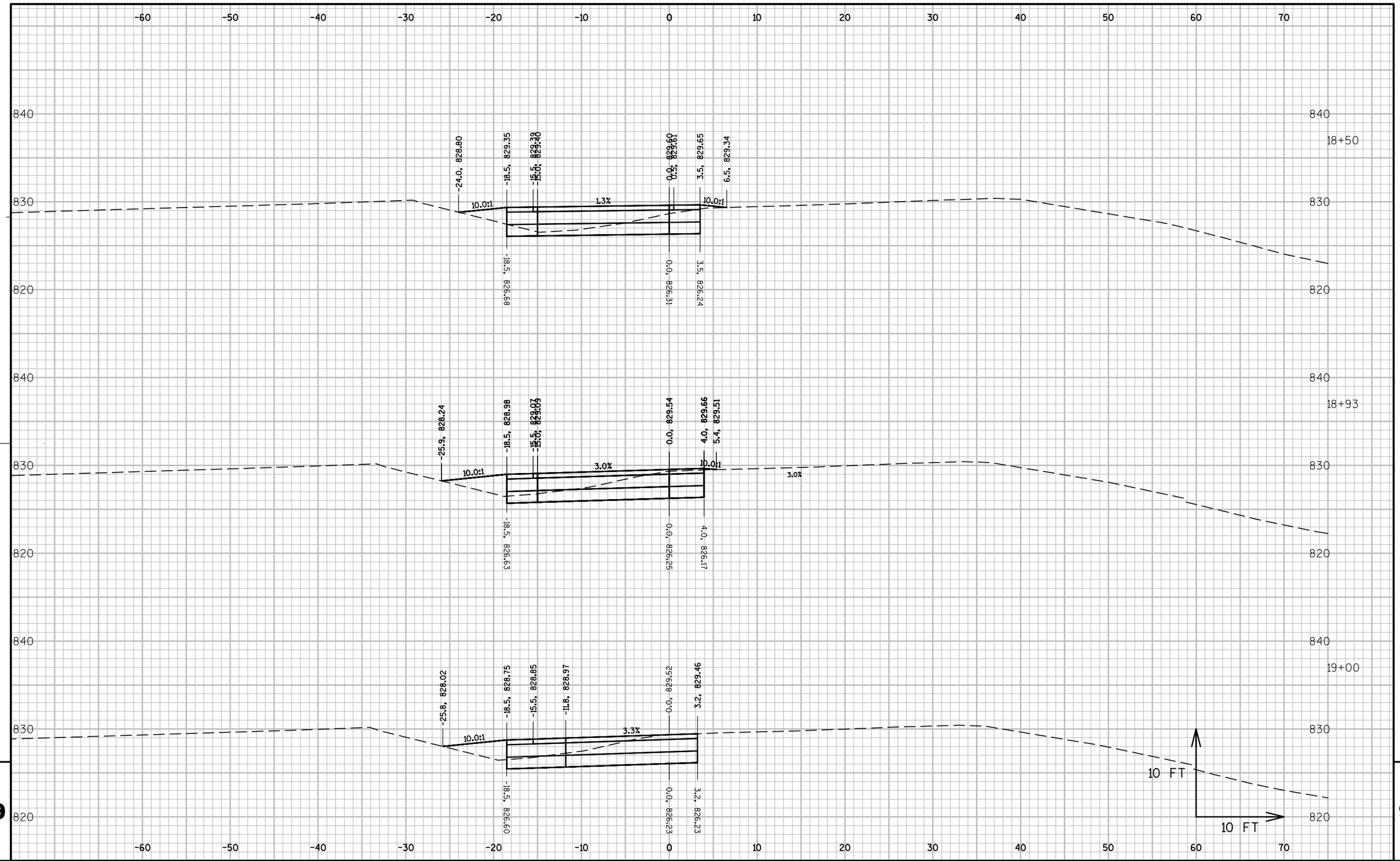
FILE NAME : L:\WORK\PROJECTS\60242867\000_CAD\001_DRAWINGS\1003-10-77_CTH S TO STH 11 TEMP\AE_0378_COR_TZB RAMP.DWG PLOT DATE : 2/16/2016 12:42 PM PLOT BY : ARBUCKLE, ADRIAN PLOT NAME : PLOT SCALE : 1" = 10'_1_XREF

WISDOT/CADDS SHEET 49



PROJECT NO: 1003-10-77	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: RAMP 'TZB' - TEMPORARY CROSSOVER	SHEET 354	E

FILE NAME : L:\WORK\PROJECTS\60242867\000_CAD\001_DRAWINGS\1003-10-77_CTH S TO STH 11 TEMP\AE_0378_COR_TZB RAMP.DWG PLOT DATE : 2/16/2016 12:42 PM PLOT BY : ARBUCKLE, ADRIAN PLOT NAME : PLOT SCALE : 1" = 10'_1_XREF



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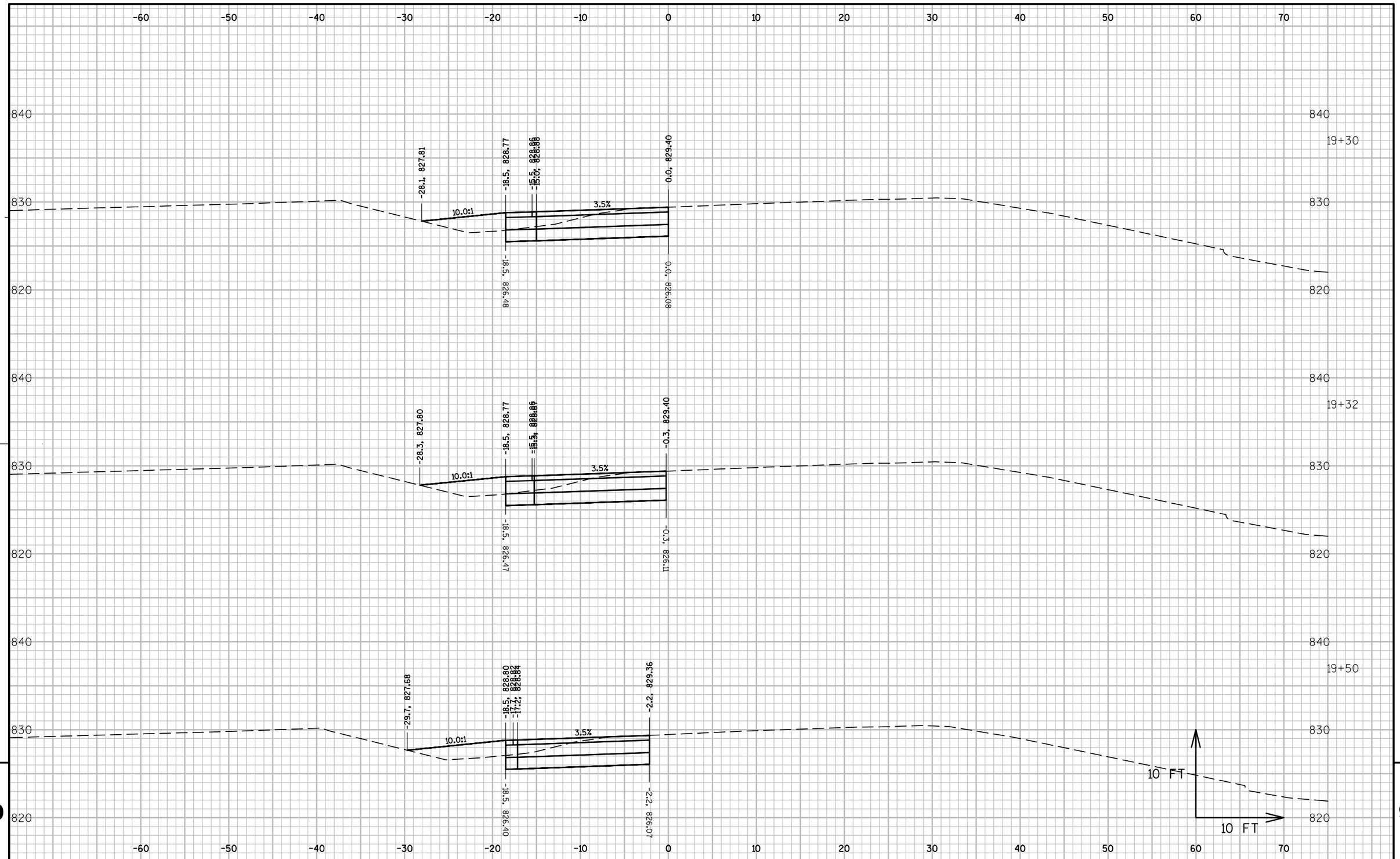
9

PROJECT NO: 1003-10-77	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: RAMP 'TZB' - TEMPORARY CROSSOVER	SHEET 355	E

FILE NAME : L:\WORK\PROJECTS\60242867\000_CAD\001_DRAWINGS\1003-10-77_CTH S TO STH 11 TEMP\AE_0378_COR_TZB RAMP.DWG PLOT DATE : 2/16/2016 12:42 PM PLOT BY : ARBUCKLE, ADRIAN PLOT NAME : PLOT SCALE : 1" = 10'_1_XREF

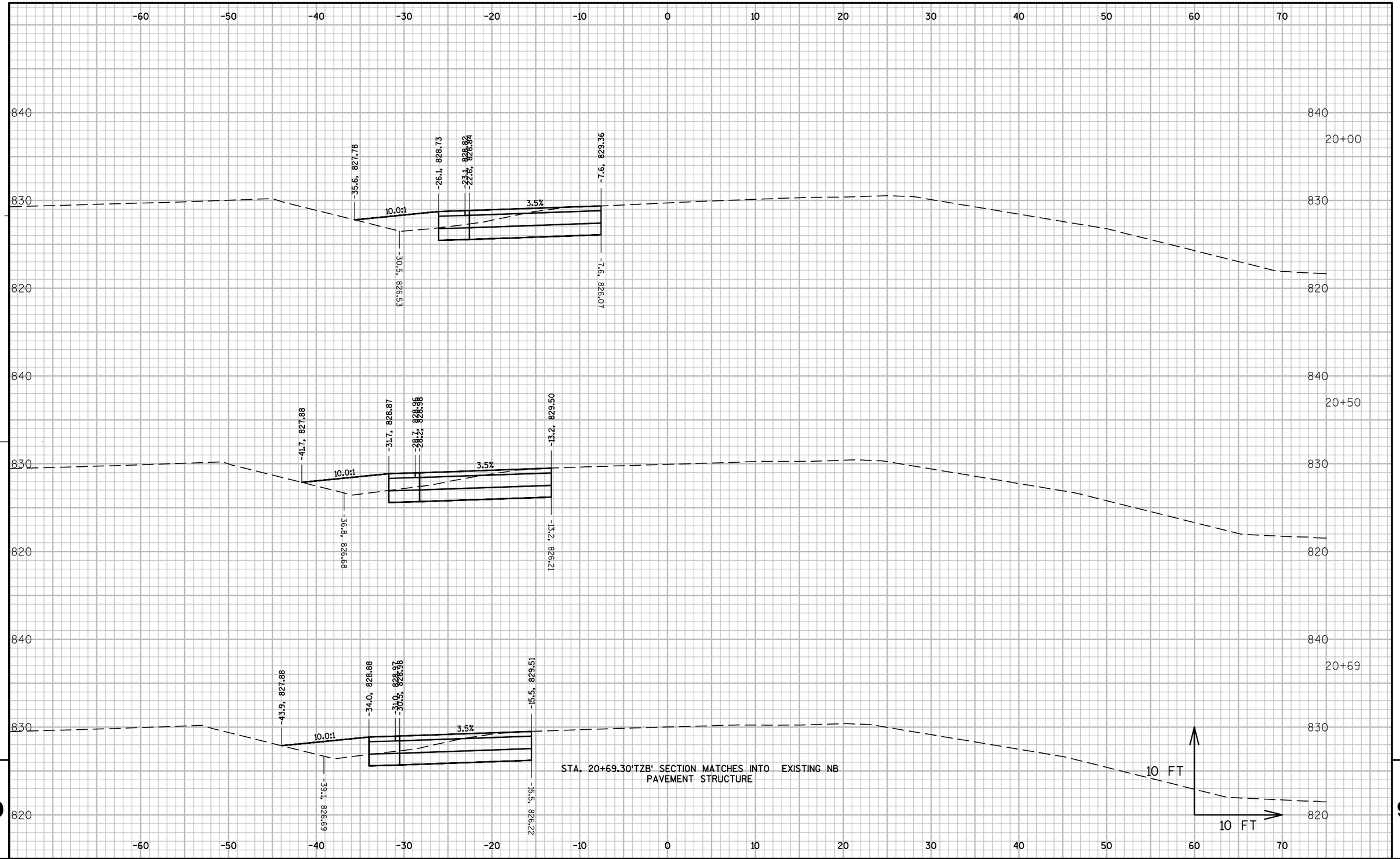


9

9

PROJECT NO: 1003-10-77	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: RAMP 'TZB' - TEMPORARY CROSSOVER	SHEET 356	E

FILE NAME : L:\WORK\PROJECTS\60242867\000_CAD\001_DRAWINGS\1003-10-77_CTH S TO STH 11 TEMP\AE_0378_COR_TZB RAMP.DWG PLOT DATE : 2/16/2016 12:42 PM PLOT BY : ARBUCKLE, ADRIAN PLOT NAME : PLOT SCALE : 1" = 10'_1_XREF



PROJECT NO: 1003-10-77	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: RAMP 'TZB' - TEMPORARY CROSSOVER	SHEET 357	E

Wisconsin Department of Transportation

Dedicated people creating transportation solutions
through innovation and exceptional service.

http://www.dot.wisconsin.gov

MAD JUNE 2013

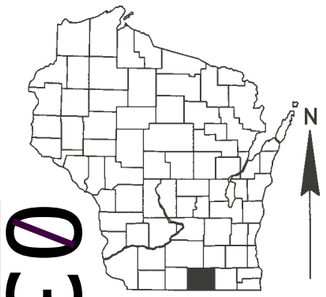
PROJECT ID: 1003-10-78
WITH: 1003-10-74, 1003-10-75, 1003-10-77, 1003-10-82

COUNTY: ROCK

ORDER OF SHEETS

Section No.	1	Title
Section No.	2	Typical Sections and Details
Section No.	3	Estimate of Quantities
Section No.	3	Miscellaneous Quantities
~~Section No.~~	~~4~~	~~Right of Way Plat~~
Section No.	5	Plan and Profile
Section No.	6	Standard Detail Drawings
Section No.	7	Sign Plates
~~Section No.~~	~~8~~	~~Structure Plans~~
Section No.	9	Computer Earthwork Data
Section No.	9	Cross Sections

TOTAL SHEETS = 206



03

DESIGN DESIGNATION 1003-10-78

A.A.D.T. (2017)	=	56,400
A.A.D.T. (2019)	=	58,200
D.H.V. (2019)	=	5,590
D.D.	=	58/42
T. (% ADT)	=	35.1%
DESIGN SPEED	=	70 MPH
ESALS	=	5,255,300

CONVENTIONAL SYMBOLS

PLAN

- CORPORATE LIMITS
- PROPERTY LINE
- LOT LINE
- LIMITED HIGHWAY EASEMENT
- EXISTING RIGHT OF WAY
- PROPOSED OR NEW R/W LINE
- SLOPE INTERCEPT
- REFERENCE LINE
- EXISTING CULVERT
- PROPOSED CULVERT (Box or Pipe)
- COMBUSTIBLE FLUIDS (CAUTION)
- MARSH AREA
- WOODED OR SHRUB AREA

PROFILE

- GRADE LINE
- ORIGINAL GROUND
- MARSH OR ROCK PROFILE (To be noted as such) (ROCK)
- SPECIAL DITCH (LABEL)
- GRADE ELEVATION (95.36)
- CULVERT (Profile View)

UTILITIES

- ELECTRIC (E)
- FIBER OPTIC (FO)
- GAS (G)
- SANITARY SEWER (SAN)
- STORM SEWER (SS)
- TELEPHONE (T)
- WATER (W)
- UTILITY PEDESTAL
- POWER POLE
- TELEPHONE POLE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

ILLINOIS STATE LINE - MADISON

STATELINE ROAD TO CTH S

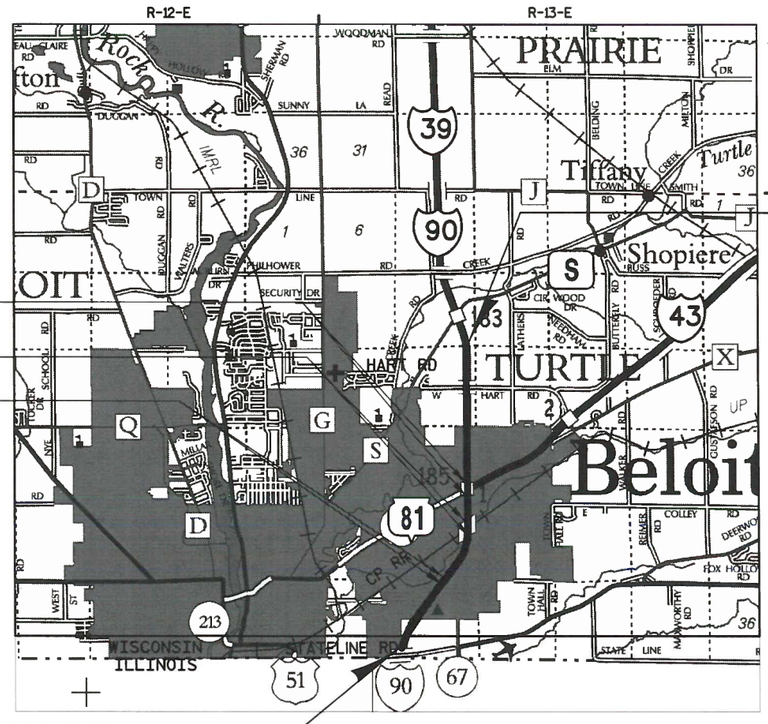
IH 39

ROCK COUNTY

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
1003-10-78	———	—

STATE PROJECT NUMBER

1003-10-78



EXCEPTION TO NET LENGTH OF CENTERLINE
STA. 212+68.31 - STA. 243+00.00

EXCEPTION TO NET LENGTH OF CENTERLINE
STA. 201+79.21 - STA. 203+93.22

EXCEPTION TO NET LENGTH OF CENTERLINE
STA. 161+13.50 - STA. 162+62.44

BEGIN PROJECT 1003-10-78
STA. 110+00.00
Y = 201,935.09
X = 501,599.78

END PROJECT 1003-10-78
STA. 320+00

LAYOUT
SCALE 0 1.0 MI.

TOTAL NET LENGTH OF CENTERLINE = 3.334 MI.

COORDINATES ON THIS PLAN ARE REFERENCED TO THE WISCONSIN COUNTY COORDINATE SYSTEM (WCCS) ROCK COUNTY, NAD 83(91)
ELEVATIONS SHOWN ON THIS PLAN ARE REFERENCED TO NAV 88 (2007)

ORIGINAL PLANS PREPARED BY

AECOM

AECOM
1350 Deming Way, Suite 100, Middleton, WI 53562
T 608.836.9800 www.aecom.com

WISCONSIN
JACK K. BARTMAN
E-38645
MADISON
WI
PROFESSIONAL ENGINEER

3/1/16 (Date) (Signature)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor	AECOM
Designer	AECOM
Project Manager	STEVE MARSHALL
Regional Examiner	JIM BUSCHKOPF
Regional Supervisor	KIM SCHAUDER
C.O. Examiner	

APPROVED FOR THE DEPARTMENT
DATE: 3/7/2016 (Signature)

E

GENERAL NOTES

THE LOCATION OF EXISTING UTILITY INSTALLATIONS AS SHOWN ON THE PLANS ARE APPROXIMATE.
THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT AREA THAT ARE NOT SHOWN.
THE CONTRACTOR IS FULLY RESPONSIBLE FOR LOCATING AND AVOIDING ALL UNDERGROUND AND ABOVE GROUND STRUCTURES AND FACILITIES.

CROSS DRAIN PIPE ELEVATIONS, LENGTHS AND LOCATIONS SHOWN ON THE PLANS, MAY BE ADJUSTED TO FIT THE EXISTING FIELD CONDITIONS, AS DIRECTED BY THE ENGINEER.

EXISTING PIPE CULVERT SIZES AND CONCRETE BOX CULVERT SIZES SHOWN ARE APPROXIMATE AND THE CONTRACTOR SHALL BASE THE BID ON THE ACTUAL FIELD CONDITIONS.

RADII, ELEVATIONS, AND DIMENSIONS ARE GIVEN AT THE PAVEMENT EDGES, UNLESS OTHERWISE NOTED IN THE PLANS.

THE CONTRACTOR'S PAVING OPERATIONS SHALL BE CONSISTENT WITH PLAN TYPICAL SECTIONS.

ADJUST TRAFFIC CONTROL DEVICE LOCATIONS TO FIT FIELD CONDITIONS AS DIRECTED BY THE ENGINEER.

EROSION CONTROL ITEMS SHOWN IN THE MISCELLANEOUS QUANTITIES ARE AT SUGGESTED LOCATIONS.
THE ENGINEER MAY MODIFY LOCATIONS TO FIT FIELD CONDITIONS.

SALVAGED TOPSOIL, SEEDING, MULCHING, AND FERTILIZER HAVE BEEN COMPUTED BY A DIRECT MEASUREMENT ON THE CROSS SECTIONS PLUS FIVE (5) FEET BEYOND THE TOE OF SLOPE.

WETLANDS, WATERWAYS, AND OTHER ENVIRONMENTALLY SENSITIVE AREAS SHALL BE PROTECTED AT ALL TIMES.
DO NOT STORE EQUIPMENT OR MATERIALS NEAR THESE SITES UNLESS APPROVED BY THE ENGINEER.

THE HMA PAVEMENT WEIGHT CALCULATIONS ARE BASED ON A UNIT WEIGHT OF 112 LBS/SY/IN OF DEPTH.

6.5-INCH HMA PAVEMENT

LAYER	THICKNESS	GRADATION	BID ITEM
UPPER	2.5-INCHES	12.5mm	4 HT 58-28 H
LOWER	4.0-INCHES	25.0mm	2 HT 58-28 S

2.0-INCH HMA PAVEMENT (RUMBLE STRIP FILLING)

THICKNESS	GRADATION	BID ITEM
2.0-INCHES	12.5mm	4 HT 58-28 H

CONTACTS:

WISDOT

WisDOT PROJECT MANAGER
STEVE MARSHALL
111 INTERSTATE BLVD
EDGERTON, WI 53534
(608)884-7134
steve.marshall@dot.wi.gov

WisDOT CONSTRUCTION MANAGER
EMMANUEL YARTEY
111 INTERSTATE BLVD
EDGERTON, WI 53534
(608)884-7131
emmanuel.yartey@dot.wi.gov

WisDOT ITS MANAGEMENT ENGINEER
LUKE HOLMAN
910 WEST WINGRA DRIVE
MADISON, WI 53715
(608)251-4843
luke.holman@strand.com

WisDOT STATEWIDE TRAFFIC OPERATIONS CENTER
DEAN BEEKMAN
433 W ST PAUL AVE, STE 300
MILWAUKEE, WI 53203
(414)227-21-2154
dean.beakman@dot.wi.gov

WisDOT - COMMUNICATION LINE
JEFF MADSON
STE 300
433 W ST. PAUL AVE
MILWAUKEE, WI 53203
(414)225-3723
Jeffery.madson@dot.wi.gov

IDOT

ILLINOIS DEPARTMENT OF TRANSPORTATION
IDOT REGION 2/DISTRICT 2
MASOOD AHMAD
819 DEPOT AVE
DIXON, IL 61021
(815)284-5351

TOLLWAY

ILLINOIS TOLLWAY - UTILITY ADMINISTRATOR
PATRICIA MATHEZ
ILLINOIS STATE TOLLWAY AUTHORITY
2700 OGDEN AVE
DOWNERS GROVE, IL 60515
(630)241-6800 ext. 3306
pmathez@getipass.com

WISDNR

WISCONSIN DEPARTMENT OF NATURAL RESOURCES
(SOUTH CENTRAL REGION)
ROCK COUNTY
LAURA BUB
3911 FISH HATCHERY RD
FITCHBURG, WI 53711-5397
(608)275-3485
laura.bub@wisconsin.gov

DESIGN

AECOM
JACK BARTMAN
1350 DEMING WAY, SUITE 100
MIDDLETON, WI 53562
(608)828-8149
Jack.bartman@aecom.com

RAILROADS

CANADIAN PACIFIC RAILROAD
JAMES KRIEGER
ENGINEER PUBLIC WORKS
120 S. 6TH ST
MINNEAPOLIS, MN 55402
(612)904-5994
jim_krieger@cpr.ca

UNION PACIFIC RAILROAD
JOHN VENICE
101 N. WACKER DR
CHICAGO, IL 60606
(312)777-2043
jnvenice@up.com

DETAIL SHEET INDEX

GENERAL NOTES
PROJECT OVERVIEW
TYPICAL SECTIONS
CONSTRUCTION DETAILS
EROSION CONTROL
TRAFFIC CONTROL
ALIGNMENT DIAGRAM

FILE NAME : L:\WORK\PROJECTS\60242867\000_CAD\001_DRAWINGS\1003-10-78_STATELINE TO CTH S TEMP\100%\020101_GN.DWG PLOT DATE : 3/7/2016 9:08 AM PLOT BY : ARBUCKLE, ADRIAN PLOT NAME : ---------- PLOT SCALE : 1:20_XREF WISDOT/CADDS SHEET 42

UTILITIES

WISCONSIN POWER AND LIGHT - GAS/ELECTRICITY
(ALLIANT ENERGY)
JASON HOGAN
4902 N BILTMORE LANE STE 1000
MADISON, WI 53718
(608) 458-4871
Jasonhogan@alliantenergy.com

CITY OF BELOIT - WATER
MICHAEL FLESCH
100 STATE ST
BELOIT, WI 53511
(608) 364-6696
FleschM@ci.beloit.wi.us

CITY OF BELOIT - SEWER
MICHAEL FLESCH
100 STATE ST
BELOIT, WI 53511
(608) 364-6696
FleschM@ci.beloit.wi.us

ANR PIPELINE COMPANY - GAS/PETROLEUM
LAWRENCE HUBER
W3925 PIPELINE LN
EDEN, WI 53019
(920) 477-2235
lawrence_huber@transcanada.com

ROCK ENERGY COOPERATIVE - ELECTRICITY
LYNN MAIER
P.O. BOX 1758
JANESVILLE, WI 53547-1758
(608) 752-4550
lynnm@rock.coop

ATC MANAGEMENT, INC. - ELECTRICITY
MIKE OLSEN
801 O'KEEFE RD
P.O. BOX 6113
DE PERE, WI 54115-6113
(920) 338-6582
molsen@atcllc.com

CHARTER COMMUNICATIONS - COMMUNICATION LINE
BRANDON STORM
2701 DANIELS ST
MADISON, WI 53718
(608) 274-3822
brandon.storm@charter.com

AT&T WISCONSIN - COMMUNICATION LINE
CAROL ANASON
316 W WASHINGTON AVE
MADISON, WI 53703
(608) 252-2385
ca2624@att.com

WISCONSIN DOT RWIS PROGRAM - COMMUNICATION TOWER
RM. 501
MIKE ADAMS
P.O. BOX 7986
MADISON, WI 53707-7986
(608) 266-5004
michael.adams@dot.wi.gov

G4S TECHNOLOGIES
(MAINTAINS ILLINOIS TOLLWAY COMMUNICATION LINE)
CECIL KUHSE
565 WILLOWBROOK CENTER PKWY
WILLOWBROOK, IL 60527
(732) 675-2268
cecil.kuhse@usa.g4s.com

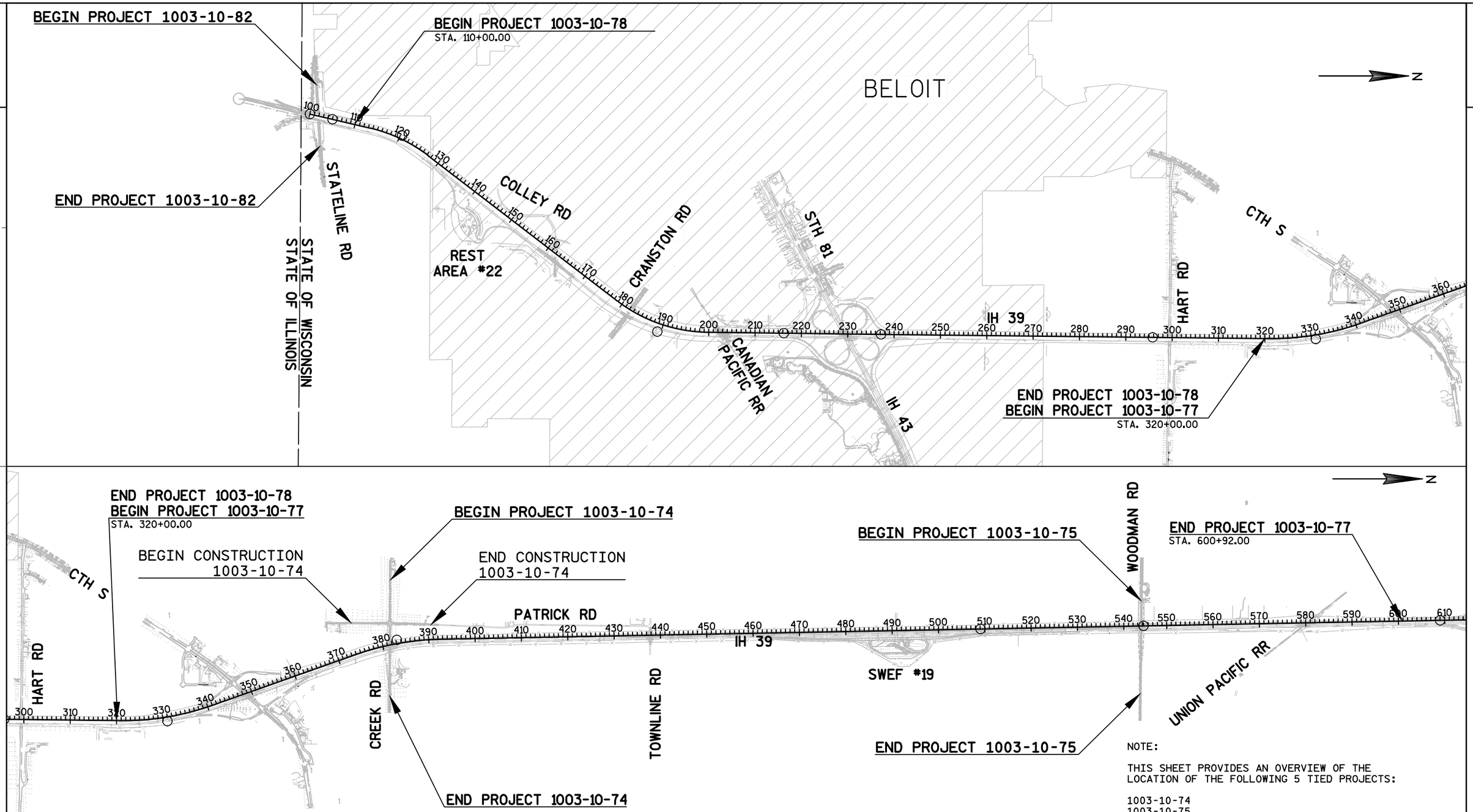
IL DEPT OF TRANS REG 2 - STREET LIGHTING
MASOOD AHMAD
819 DEPOT AVE
DIXON, IL 61021
(815) 284-5351
masood.ahmad@illinois.gov

ILLINOIS STATE TOLL HIGHWAY AUTHORITY
PATRICIA MATHEZ, UTILITY ADMIN.
(630) 241-6800, EXT. 3306
pmathez@getipass.com

ABBREVIATIONS

AP	ACCESS POINT, DRIVEWAY CONNECTION
AR	ACCESS RIGHTS
AC.	ACRES
ET.AL.	AND OTHERS
℄ OR C/L	CENTERLINE
CMCP	CORRUGATED METAL CULVERT PIPE
CSM	CERTIFIED SURVEY MAP
COR.	CORNER
D	DEGREE OF CURVE
D.D.	DIRECTION DISTRIBUTION
D.H.V.	DESIGN HOUR VOLUME
DOC.	DOCUMENT
E.	EAST
EASE.	EASEMENT
EL OR ELEV	ELEVATION
E.S.A.L.	EQUIVALENT SINGLE AXLE LOAD
EXIST.	EXISTING
H.E.	HIGHWAY EASEMENT
HMA	HOT MIX ASPHALT
IH	INTERSTATE HIGHWAY
IP OR I.P.	IRON PIN
L	LENGTH OF CURVE
LN	LANE
LT. OR LT	LEFT
MAX.	MAXIMUM
MIN.	MINIMUM
MON.	MONUMENT
MP	ROADWAY MILEAGE
N.	NORTH
P.	PAGE
PLE	PERMANENT LIMITED EASEMENT
PL	PROPERTY LINE
RCCP	REINFORCED CONCRETE CULVERT PIPE
RD.	ROAD
(100')	RECORDED AS
R	RADIUS
RR	RAILROAD
℞ OR R/L	REFERENCE LINE
ROR	RELEASE OF RIGHTS
REM.	REMAINING
RT OR RT.	RIGHT
R/W	RIGHT-OF-WAY
S.	SOUTH
S.E.	SUPEREVELVATION
SEC.	SECTION
SF	SQUARE FEET
STA.	STATION
STH	STATE TRUNK HIGHWAY
T	TANGENT
TLE	TEMPORARY LIMITED EASEMENT
T. %	TRUCK (PERCENT OF)
V.	VOLUME
W.	WEST
WIS	WISCONSIN STATE TRUNK HIGHWAY

THE ILLINOIS TOLLWAY COMM. FIBER OPTICAL CABLE IS NOT INCLUDED IN DIGGERS HOTLINE. TO HAVE THIS LINE LOCATED, CALL G4S SECURE INTEGRATION, WHO MAINTAINS THE LINE, DIRECTLY CECIL KUHSE, (630)920-1488, cecil.kuhse@usa.g4s.com



NOTE:

THIS SHEET PROVIDES AN OVERVIEW OF THE LOCATION OF THE FOLLOWING 5 TIED PROJECTS:

1003-10-74
1003-10-75
1003-10-77
1003-10-78
1003-10-82

SEE THE PLANS OF THE CORRESPONDING PROJECT I.D. FOR MORE INFORMATION.

PROJECT NO: 1003-10-78	HWY: IH 39	COUNTY: ROCK	PROJECT OVERVIEW - 5 TIED PROJECTS	SHEET 4	E

2

N

BELOIT

STATE OF WISCONSIN
STATE OF ILLINOIS

STATELINE RD

BEGIN PROJECT 1003-10-78
STA. 110+00.00

NOTE: ADDITIONAL TEMPORARY WIDENING TO BE CONSTRUCTED IN PROJECT 1003-10-77

EXCEPTION TO NET LENGTH OF CENTERLINE
STA. 161+13.50 - STA. 162+62.44

EXCEPTION TO NET LENGTH OF CENTERLINE
STA. 201+79.21 - STA. 203+93.22

STA. 229+40.48
STRUCTURES B-53-46, B-53-47

STA. 299+46.28
STRUCTURE B-53-312

REST AREA #22

STA. 101+78.02
STRUCTURE B-53-204

STA. 161+87.42
STRUCTURES B-53-216, B-53-217

STA. 182+24.35
STRUCTURE B-53-220

STA. 202+84.42
STRUCTURES B-53-48, B-53-51

EXCEPTION TO NET LENGTH OF CENTERLINE
STA. 212+68.31 - STA. 243+00.00

COLLEY RD

CRANSTON RD

STH 81

CANADIAN PACIFIC RR

IH 43

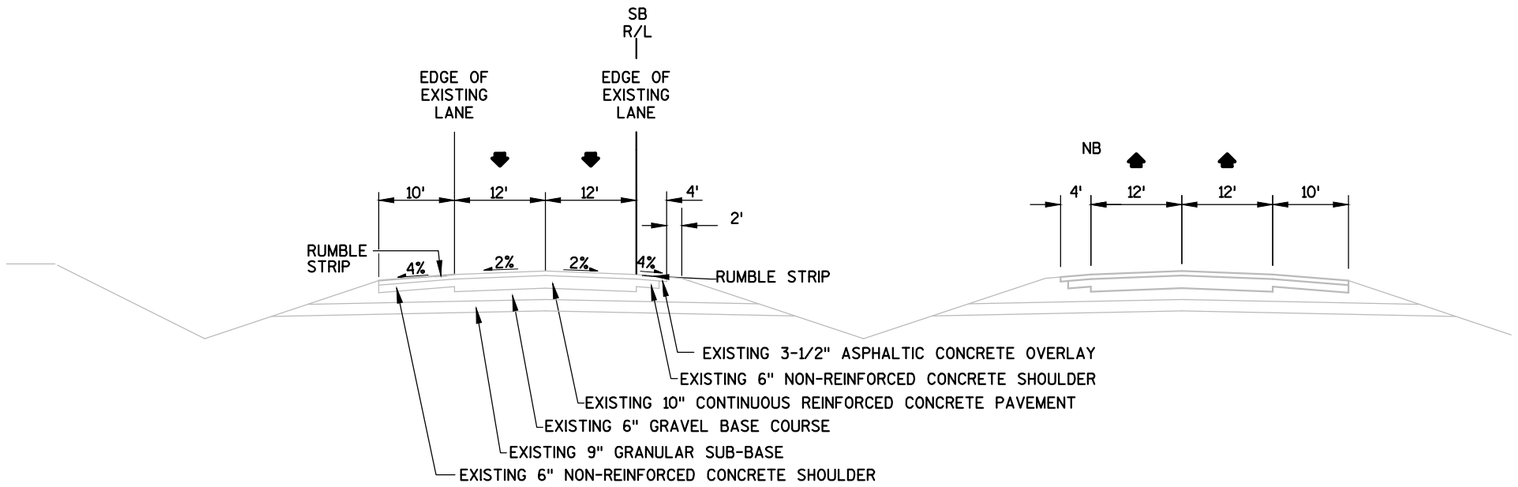
IH 39

HART RD

CTH S

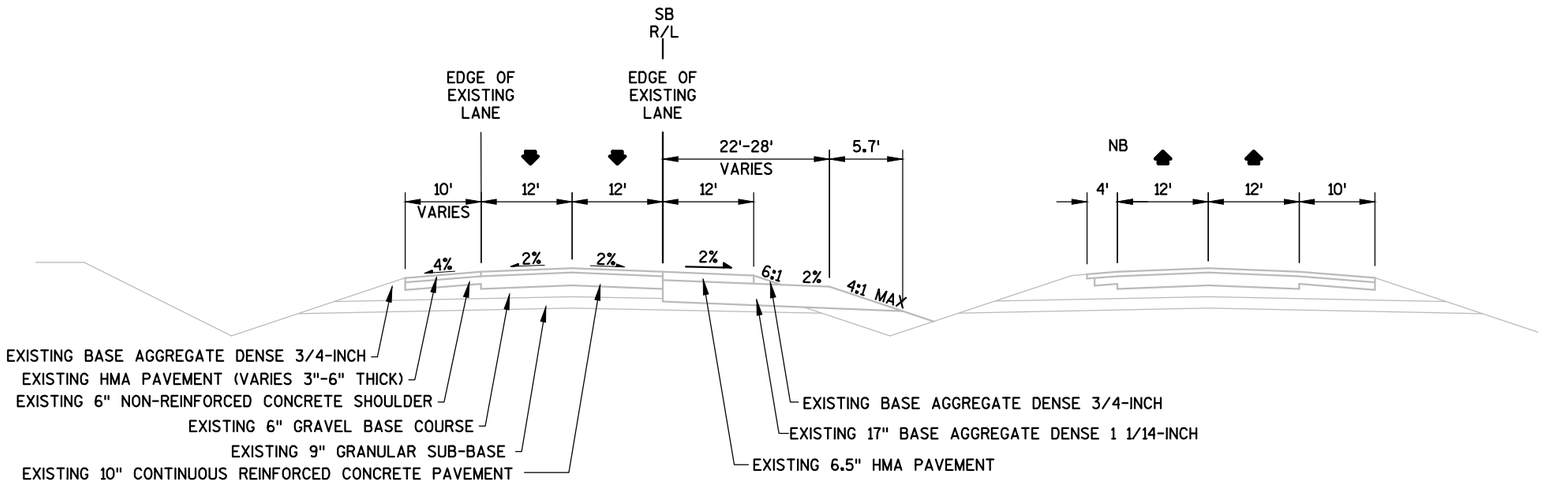
END PROJECT 1003-10-78
STA. 320+00.00

PROJECT NO: 1003-10-78	HWY: IH 39	COUNTY: ROCK	PROJECT OVERVIEW	SHEET 5	E



TYPICAL EXISTING SECTION

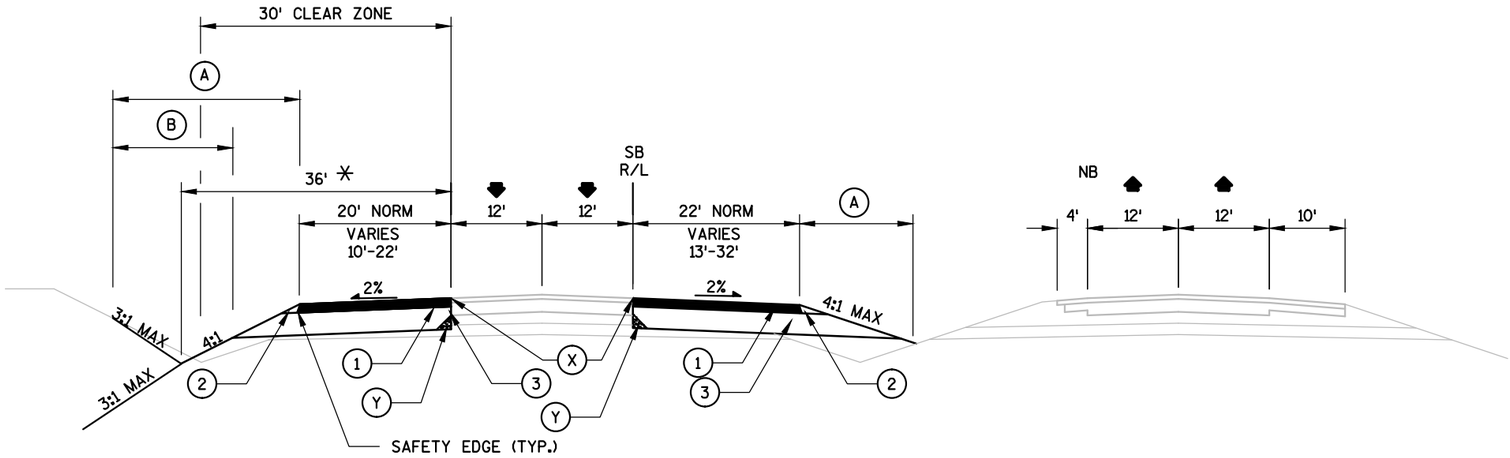
STA. 110+00 - STA. 135+00
STA. 145+00 - STA. 148+00
STA. 201+28 - STA. 201+79
STA. 203+93 - STA. 212+68



TYPICAL EXISTING SECTION

STA. 135+00 - STA. 145+00
STA. 148+00 - STA. 161+14
STA. 162+62 - STA. 201+28
STA. 243+00 - STA. 320+00

PROJECT NO: 1003-10-78	HWY: IH 39	COUNTY: ROCK	PLAN: TYPICAL EXISTING SECTION	SHEET 6	E



IH 39 TYPICAL FINISHED SECTION

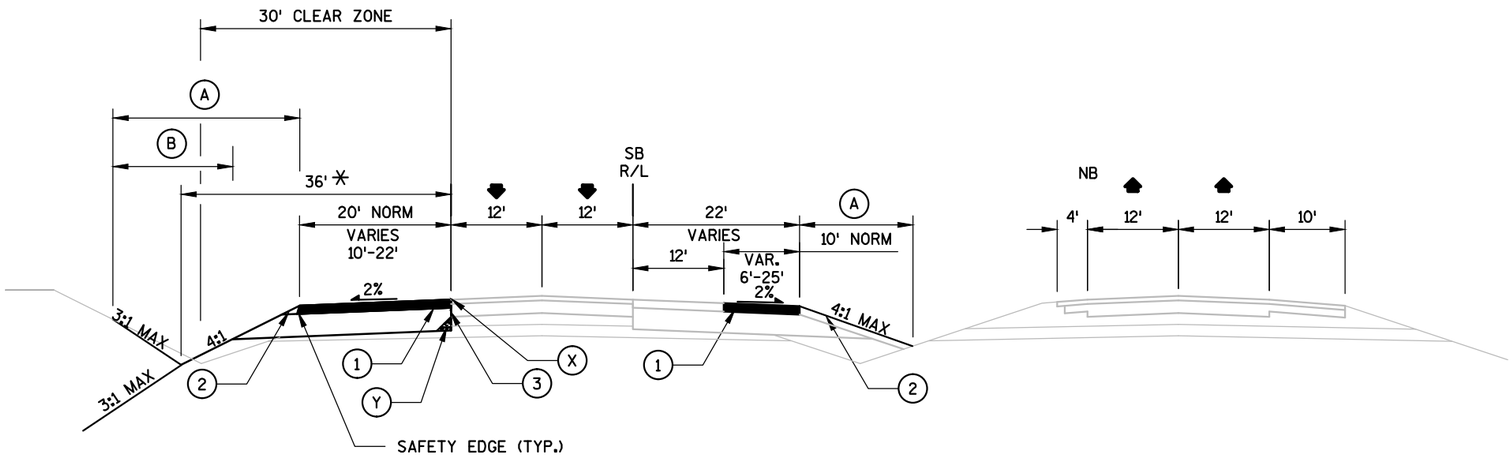
STA. 110+00 - STA. 135+00
STA. 145+00 - STA. 148+00
STA. 201+28 - STA. 201+79
STA. 203+93 - STA. 212+68✳✳

LEGEND

(1)	6.5" NEW CONSTRUCTION 2.5" HMA PAVEMENT 4 HT 58-28 H (UPPER LAYER) 4.0" HMA PAVEMENT 3 HT 58-28 S (LOWER LAYER)
(2)	BASE AGGREGATE DENSE 3/4-INCH
(3)	17" BASE AGGREGATE DENSE 1 1/4-INCH
(A)	SEED & FERTILIZE
(B)	SALVAGED TOPSOIL AND MULCH OR EMAT
(X)	SAW CUT
(Y)	EXISTING MATERIAL REMAINS TO PREVENT UNDERCUTTING EXISTING PAVEMENT

✳ CLEAR ZONE IS 30'. THIS WIDTH WILL PROVIDE A 20' CONSTRUCTION CLEAR ZONE FOR THE TRAFFIC CONTROL CONFIGURATION FOR THE NORTHBOUND MAINLINE RECONSTRUCTION.

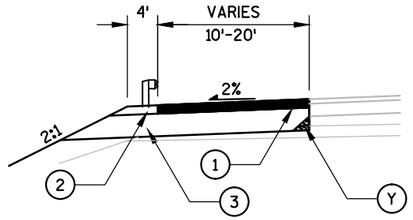
✳✳ SEE GUARDRAIL PARTIAL TYPICAL SECTION WITHIN STATION RANGE.



IH 39 TYPICAL FINISHED SECTION

STA. 135+00 - STA. 145+00
STA. 148+00 - STA. 161+14 ✳✳
STA. 162+62 - STA. 201+28✳✳
STA. 243+00 - STA. 320+00

PROJECT NO: 1003-10-78	HWY: IH 39	COUNTY: ROCK	PLAN: TYPICAL FINISHED SECTION	SHEET 7	E

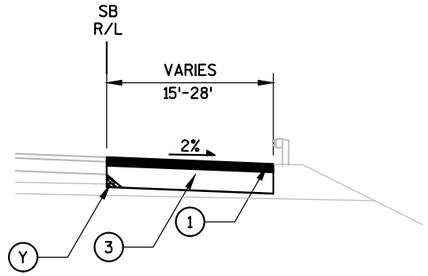


IH 39 TYPICAL PARTIAL FINISHED SECTION WITH GUARDRAIL

STA. 146+06 - STA. 149+40
STA. 158+87 - STA. 161+14
STA. 162+62 - STA. 169+42
STA. 181+16 - STA. 201+79
STA. 203+93 - STA. 211+52

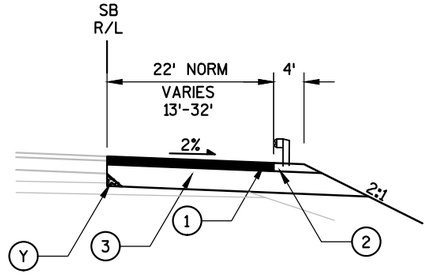
LEGEND

1	6.5" NEW CONSTRUCTION 2.5" HMA PAVEMENT 4 HT 58-28 H (UPPER LAYER) 4.0" HMA PAVEMENT 3 HT 58-28 S (LOWER LAYER)
2	BASE AGGREGATE DENSE 3/4-INCH
3	17" BASE AGGREGATE DENSE 1 1/4-INCH
Y	EXISTING MATERIAL REMAINS TO PREVENT UNDERCUTTING EXISTING PAVEMENT



IH 39 TYPICAL PARTIAL FINISHED SECTION WITH EXISTING GUARDRAIL

STA. 162+62 - STA. 164+02

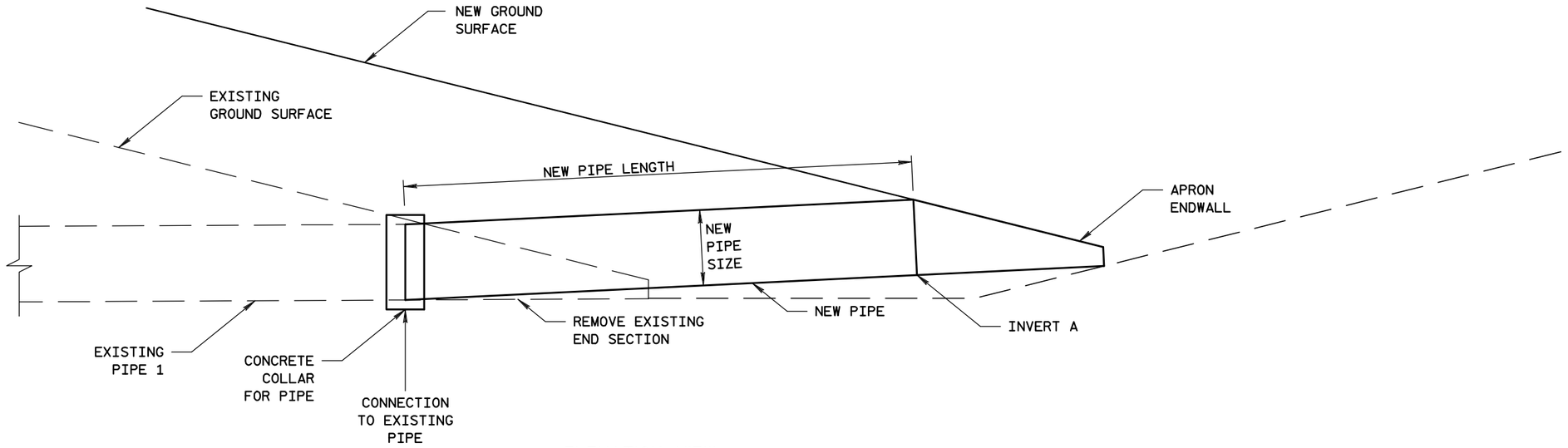


IH 39 TYPICAL PARTIAL FINISHED SECTION WITH GUARDRAIL

STA. 203+93 - STA. 211+42

PROJECT NO: 1003-10-78	HWY: IH 39	COUNTY: ROCK	PLAN: TYPICAL FINISHED SECTION	SHEET 8	E

2



ELEVATION VIEW

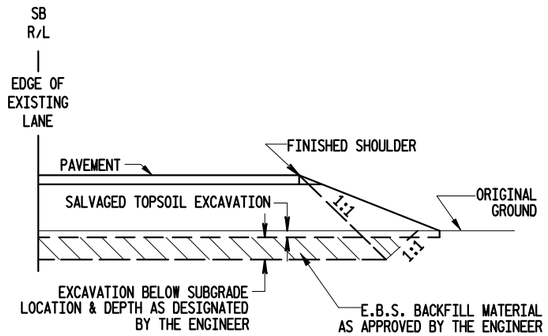
CULVERT PIPE EXTENSION DETAIL

PROJECT NO:1003-10-78	HWY:IH 39	COUNTY:ROCK	DRAINAGE DETAILS	SHEET 9	E

RUNOFF COEFFICIENT TABLE

	HYDROLOGIC SOIL GROUP											
	A			B			C			D		
	SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)		
LAND USE:	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER
ROW CROPS	.08 .22	.16 .30	.22 .38	.12 .26	.20 .34	.27 .44	.15 .30	.24 .37	.33 .50	.19 .34	.28 .41	.38 .56
MEDIAN STRIP- TURF	.19 .24	.20 .26	.24 .30	.19 .25	.22 .28	.26 .33	.20 .26	.23 .30	.30 .37	.20 .27	.25 .32	.30 .40
SIDE SLOPE- TURF			.25 .32			.27 .34			.28 .36			.30 .38
PAVEMENT:												
ASPHALT	.70 - .95											
CONCRETE	.80 - .95											
BRICK	.70 - .80											
DRIVES, WALKS	.75 - .85											
ROOFS	.75 - .95											
GRAVEL ROADS, SHOULDERS	.40 - .60											

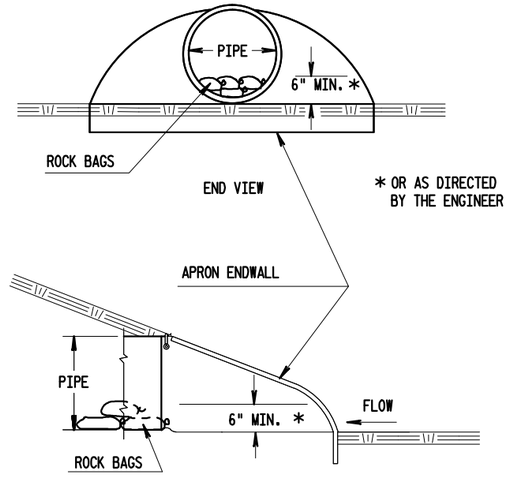
TOTAL PROJECT AREA = 36.386 ACRES
TOTAL AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES = 23.388 ACRES



QUANTITIES ESTIMATED FROM BORINGS AT APPROXIMATELY 1000 FT SPACINGS. ADDITIONAL INFORMATION IS AVAILABLE FROM KHADER ABU AL EIS. (608)884-1174

DETAIL FOR EXCAVATION BELOW SUBGRADE

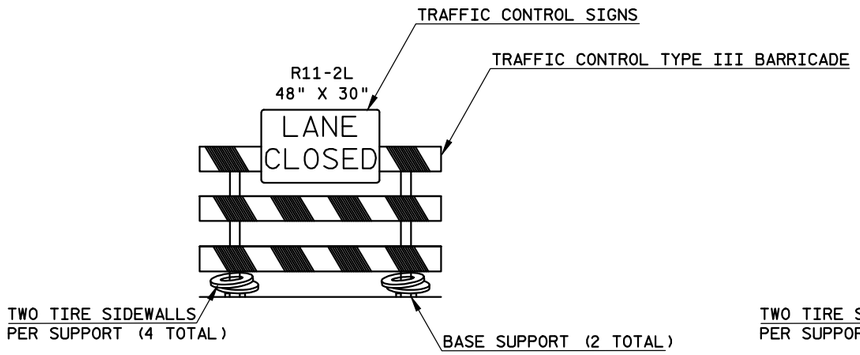
THIS DETAIL TO BE USED FOR REMOVAL OF UNSUITABLE MATERIAL.

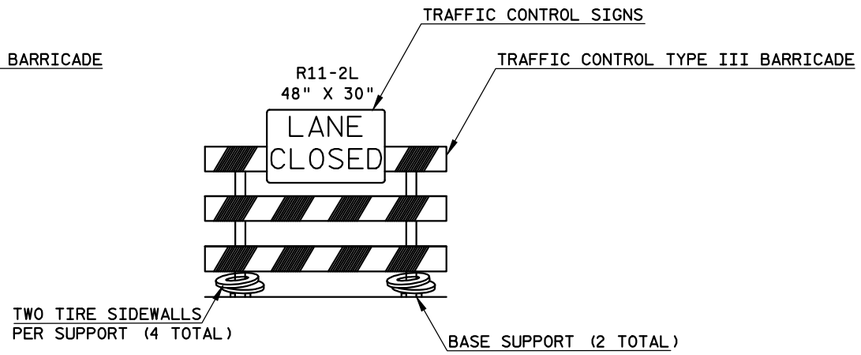


CULVERT PIPE CHECKS

PROJECT NO:1003-10-78	HWY: IH 39	COUNTY: ROCK	CONSTRUCTION DETAILS	SHEET 10	E

2





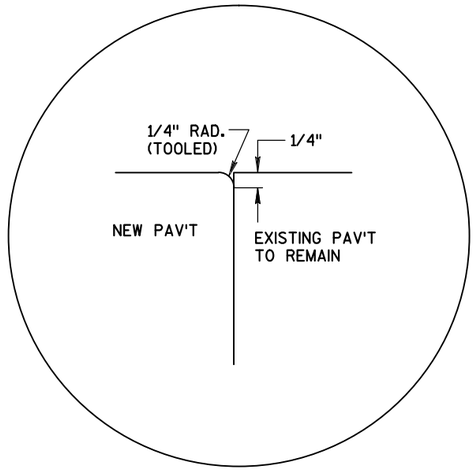
TRAFFIC CONTROL BARRICADES TYPE III WITH SIGN

ALL THE FOLLOWING ITEMS PAID FOR AS SPV.0060.008 TRAFFIC CONTROL BARRICADES TYPE III WITH SIGN, PERMANENT

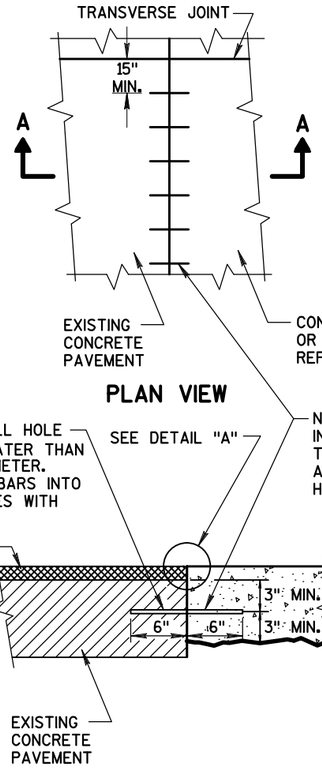
- TRAFFIC CONTROL SIGNS R11-2L "LANE CLOSED" - ONE PER BARRICADE
- TRAFFIC CONTROL TYPE III BARRICADE - INCLUDES TWO BASE SUPPORTS PER BARRICADE
- TIRE SIDEWALLS - FOUR PER BARRICADE

NOTE: PROVIDE HALF OF THE BARRICADES WITH THE RAIL STRIPES AND SIGNS SET UP FOR BARRICADES PLACED ON THE LEFT SIDE OF THE ROADWAY.

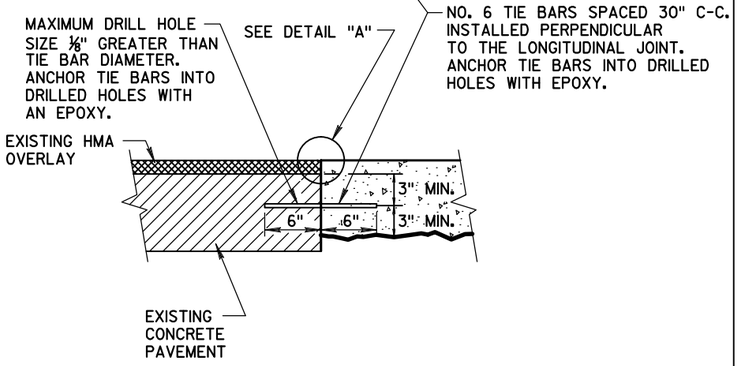
NOTE: PROVIDE HALF OF THE BARRICADES WITH THE RAIL STRIPES AND SIGNS SET UP FOR BARRICADES PLACED ON THE RIGHT SIDE OF THE ROADWAY.



DETAIL "A"



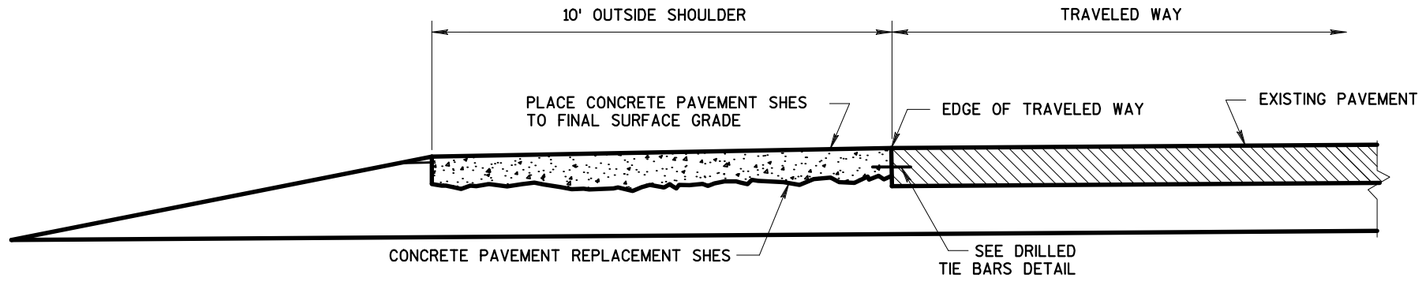
PLAN VIEW



SECTION A-A

DRILLED TIE BARS

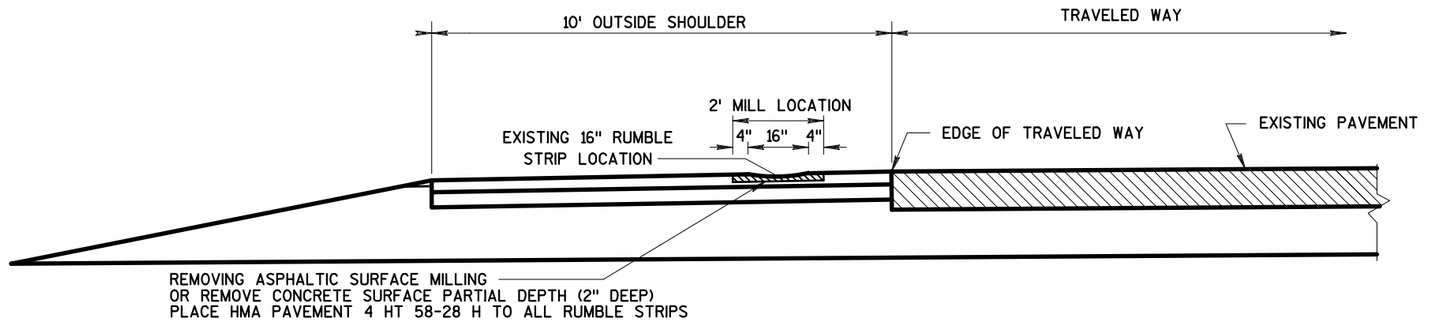
NOTE: PLACE CONSTRUCTION TRANSVERSE JOINTS AT A MAXIMUM OF 15' SPACING. DO NOT SEAL OR FILL CONSTRUCTION JOINTS.



SECTION VIEW

CONCRETE PAVEMENT REPLACEMENT SHES

STA. 118+91 - STA. 119+67 LT
STA. 127+70 - STA. 128+72 LT



SECTION VIEW

REMOVING RUMBLE STRIPS - 2' WIDTH

SEE MISC. QUANTITY SHEETS FOR LOCATIONS

OUTSIDE SHOULDER REHABILITATION

2

N

BELOIT

STATE OF WISCONSIN
STATE OF ILLINOIS

STATELINE RD

BEGIN PROJECT 1003-10-78
STA. 110+00.00

SNOW FENCE
STA. 116+00 - STA. 158+00 LT

NOTE: ADDITIONAL SNOW FENCE TO BE CONSTRUCTED IN PROJECT 1003-10-77

REST AREA #22

COLLEY RD

CRANSTON RD

STH 81

CANADIAN PACIFIC RR

IH 43

IH 39

HART RD

CTH S

END PROJECT 1003-10-78
STA. 320+00.00

PROJECT NO: 1003-10-78	HWY: IH 39	COUNTY: ROCK	SNOW FENCE OVERVIEW	SHEET 13	E

2

STATELINE RD

R/W

CITY OF BELOIT

BEGIN PROJECT 1003-10-78
STA. 110+00.00

B-53-204

100

105

IH 39 SB

IH 39 NB

MATCHLINE STA. 110+00

I-39/90

I 39/90

R/W

BRIDGET WALSH TRUST

LEGEND

- EROSION MAT CLASS I TYPE B
- SILT FENCE
- SURFACE WATER FLOW
- CULVERT PIPE CHECKS
- INLET PROTECTION
  - (A) TYPE A
  - (B) TYPE B
  - (C) TYPE C
  - (D) TYPE D

WALSH TRUST

EROSION CONTROL NOTES:
1. FOR ALL CULVERT PIPE CHECKS AT CULVERT PIPE ENDS, SEE CONSTRUCTION DETAIL.
2. AREAS WITHIN THE SLOPE INTERCEPTS NOT USING EROSION MAT NEED TO HAVE SALVAGED TOPSOIL, FERTILIZER, SEED, AND MULCH PLACED.
3. PLACE SILT FENCE AT LEAST 5 FEET FROM SLOPE INTERCEPT LINE WHERE APPLICABLE.
4. WHEN INLET PROTECTION TYPE A AND TYPE D ARE INDICATED AT THE SAME LOCATION, USE TYPE A PRIOR TO SETTING THE CASTINGS AND PLACE TYPE D AFTER THE INLET CASTINGS ARE IN PLACE.

SLOPE INTERCEPT (TYP.)

MATCHLINE STA. 110+00

115

120

IH 39 SB

IH 39 NB

I 39/90

R/W

MATCHLINE STA. 124+00

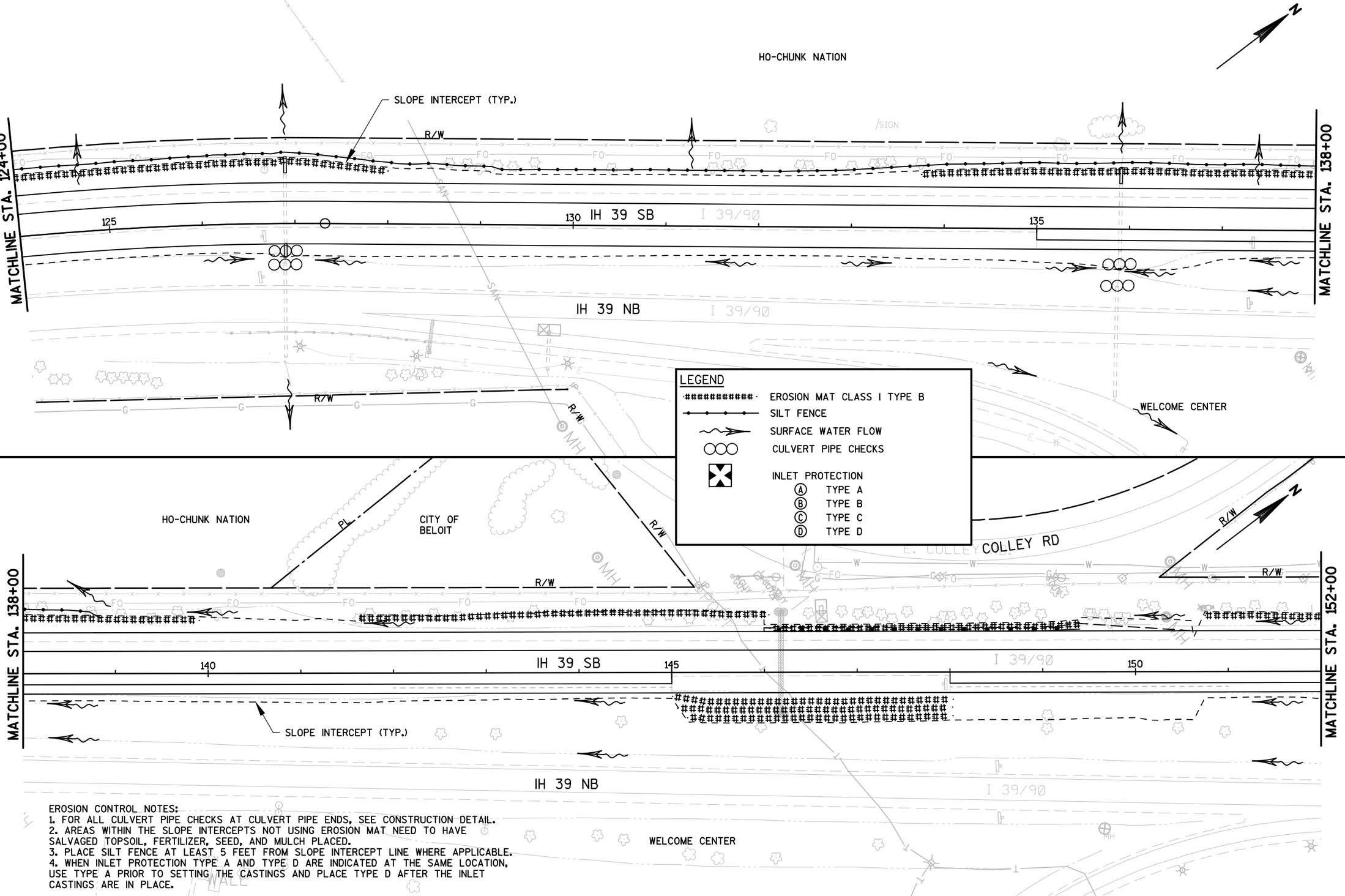
BRIDGET WALSH TRUST

P.I.

RICHARD WALSH TRUST

PROJECT NO: 1003-10-78	HWY: IH 39	COUNTY: ROCK	EROSION CONTROL	SHEET 14	E

2



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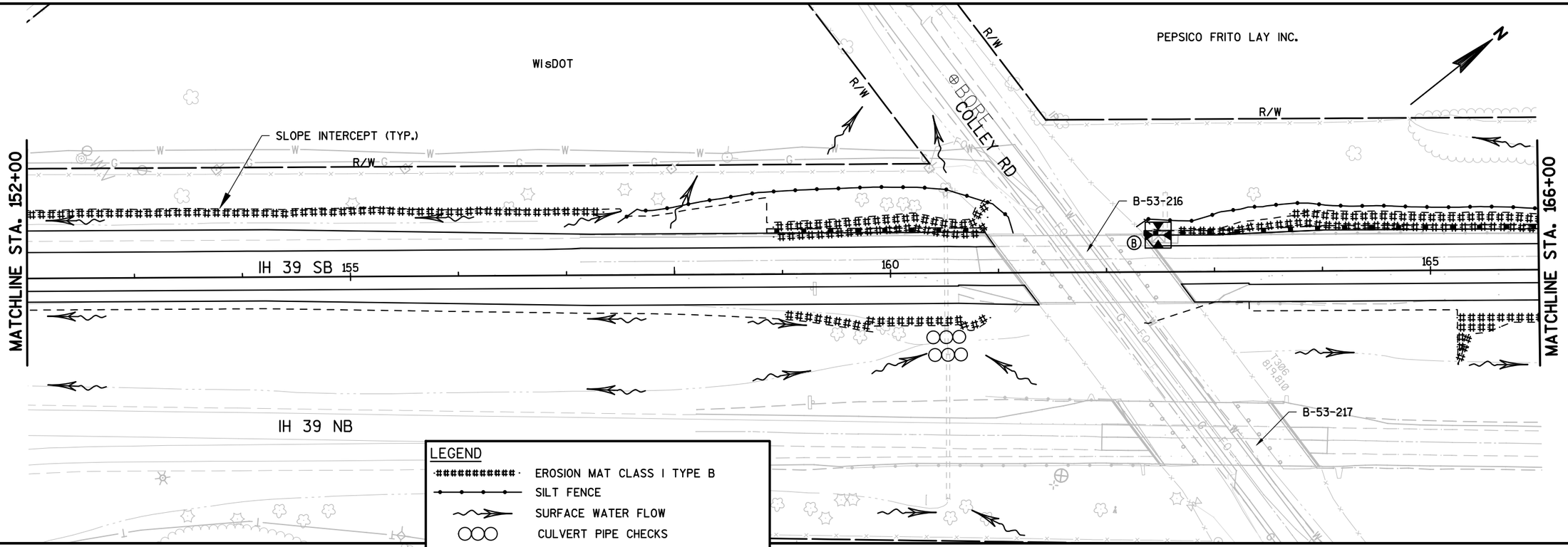
PROJECT NO: 1003-10-78	HWY: IH 39	COUNTY: ROCK	EROSION CONTROL	SHEET 15	E



EROSION CONTROL NOTES:
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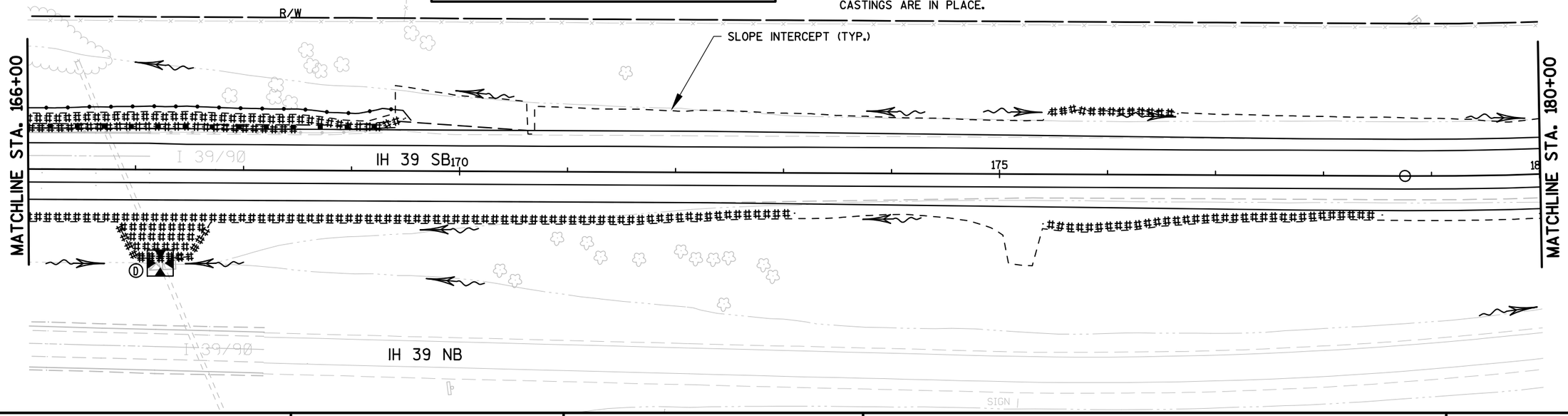
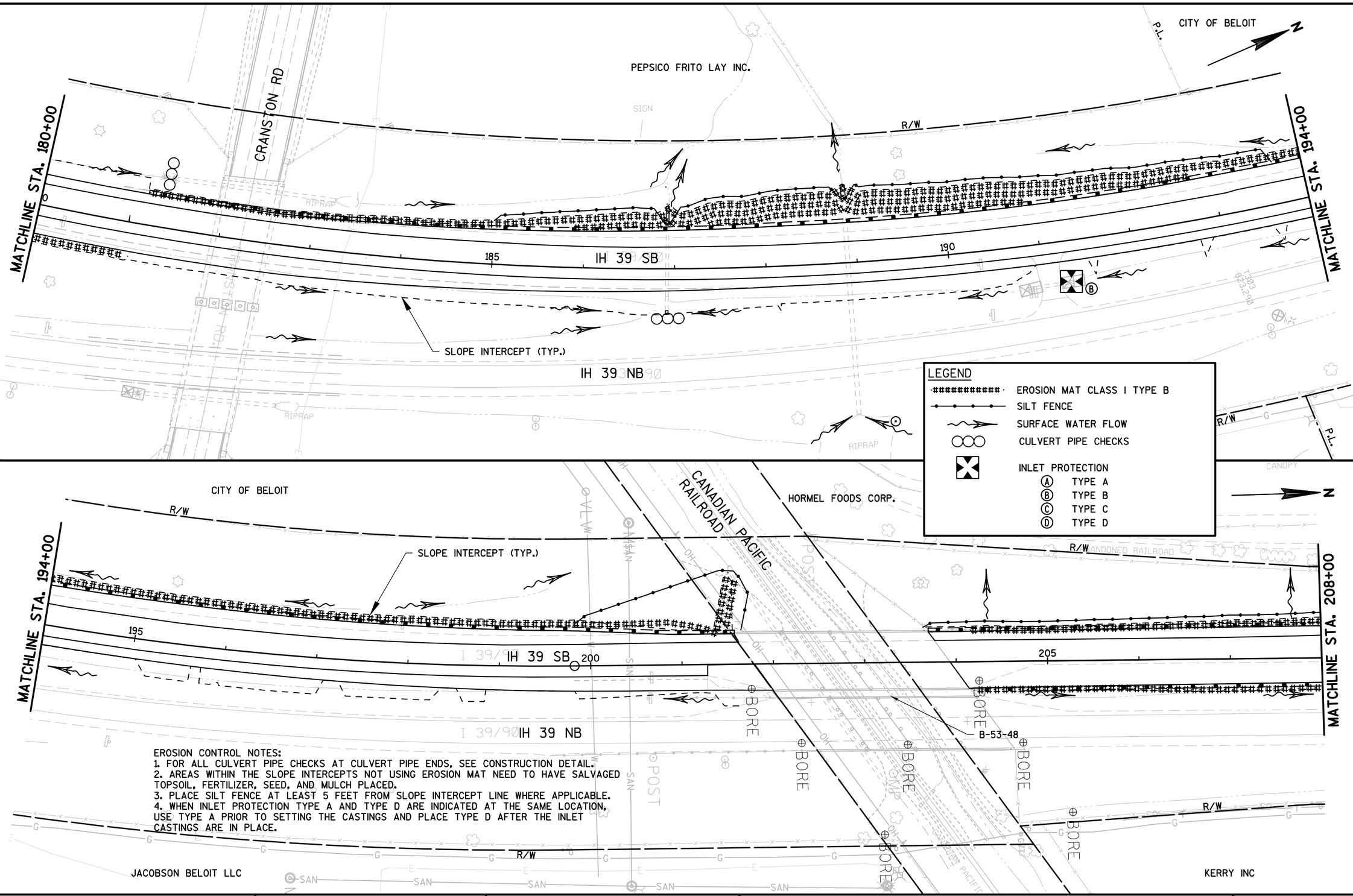


PROJECT NO: 1003-10-78	HWY: IH 39	COUNTY: ROCK	EROSION CONTROL	SHEET 16	E



EROSION CONTROL NOTES:
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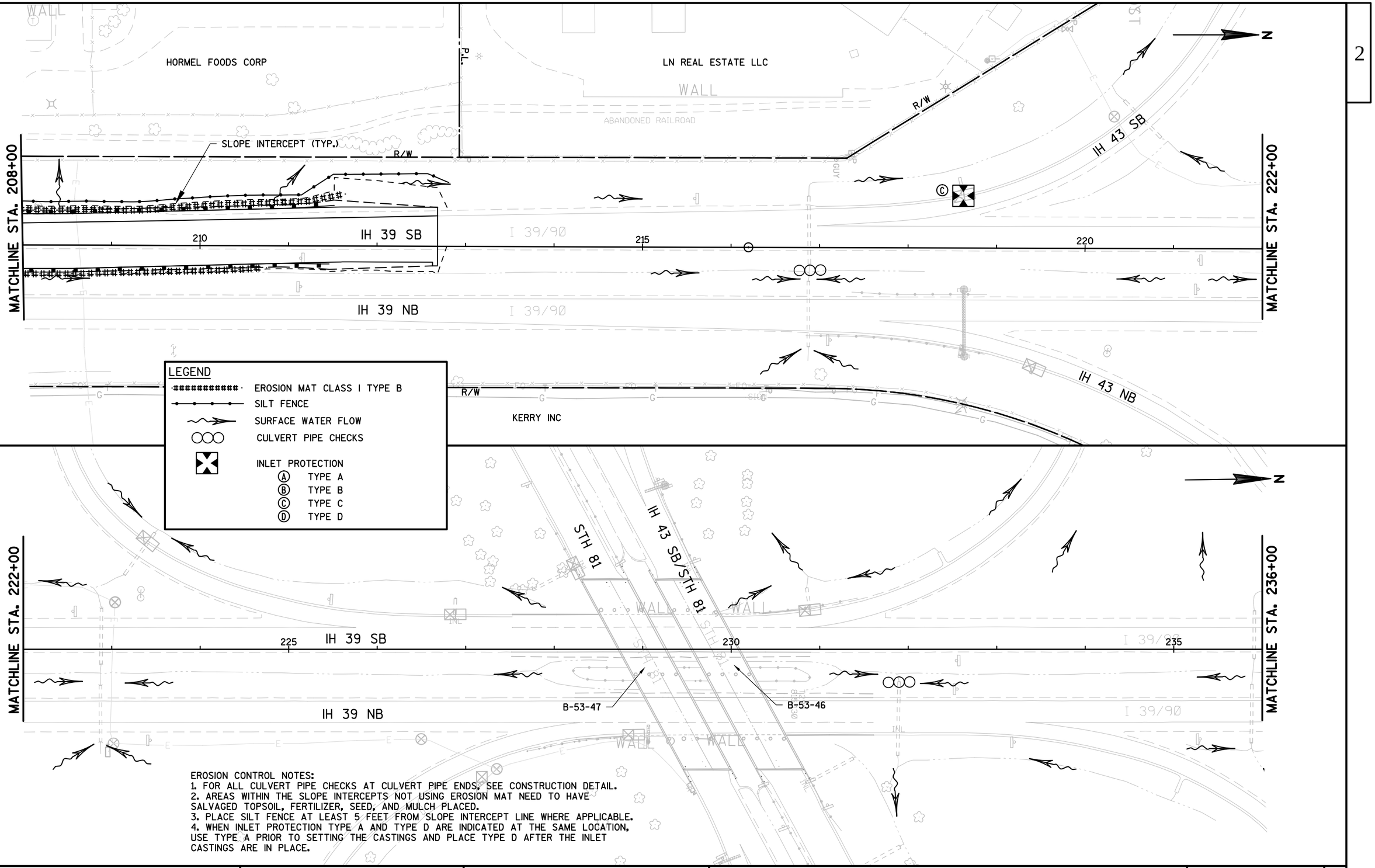
PROJECT NO: 1003-10-78	HWY: IH 39	COUNTY: ROCK	EROSION CONTROL	SHEET 17	E



EROSION CONTROL NOTES:
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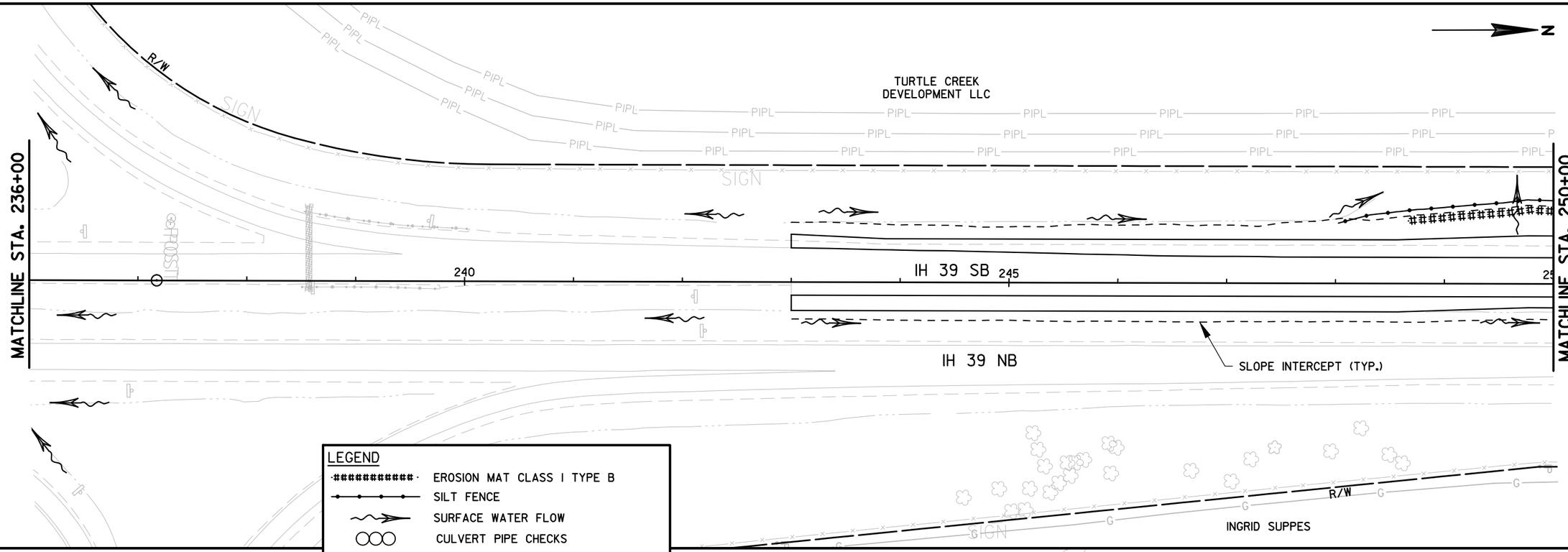
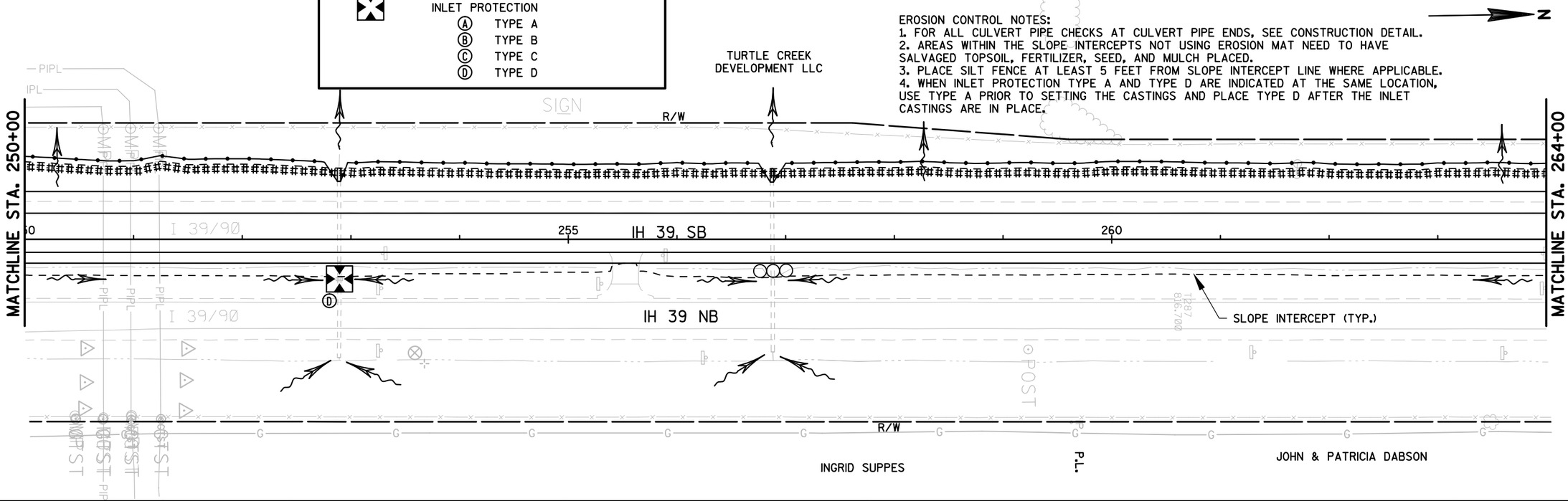
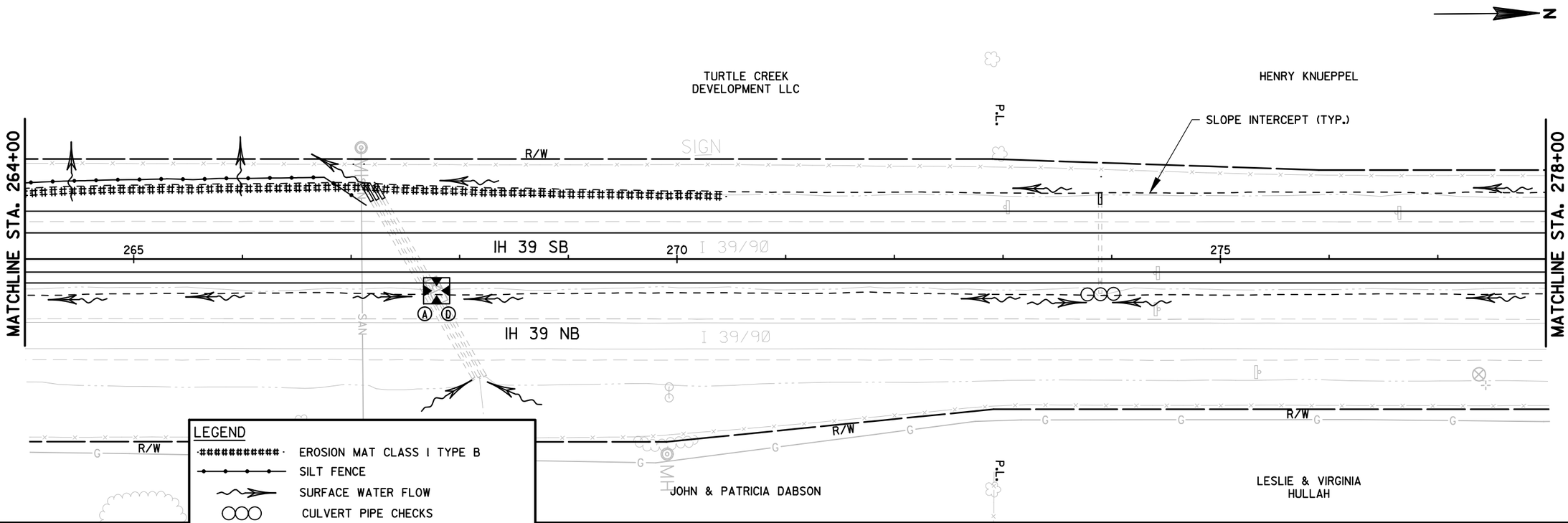
PROJECT NO: 1003-10-78	HWY: IH 39	COUNTY: ROCK	EROSION CONTROL	SHEET 18	E





PROJECT NO: 1003-10-78	HWY: IH 39	COUNTY: ROCK	EROSION CONTROL	SHEET 19	E



LEGEND

- EROSION MAT CLASS I TYPE B
- SILT FENCE
- SURFACE WATER FLOW
- CULVERT PIPE CHECKS
- INLET PROTECTION
  - (A) TYPE A
  - (B) TYPE B
  - (C) TYPE C
  - (D) TYPE D

HENRY KNUEPPEL

EROSION CONTROL NOTES:
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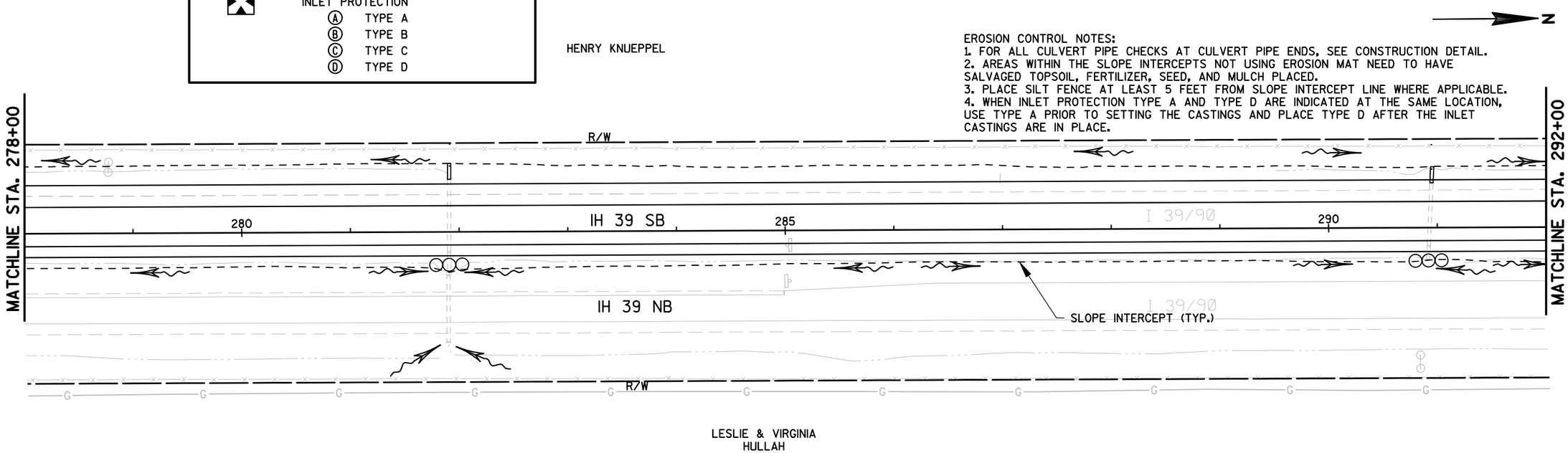

PROJECT NO: 1003-10-78	HWY: IH 39	COUNTY: ROCK	EROSION CONTROL	SHEET 20	E

2

HENRY KNUEPPEL

SLOPE INTERCEPT (TYP.)

HART RD

R/W

HAHN FAMILY TRUST

MATCHLINE STA. 292+00

MATCHLINE STA. 306+00

295

IH 39 SB

300

305

IH 39 NB

B-53-312

LESLIE & VIRGINIA HULLAH

ROCK ROAD LATHERS INC

LEGEND

EROSION MAT CLASS I TYPE B

SILT FENCE

SURFACE WATER FLOW

CULVERT PIPE CHECKS

INLET PROTECTION

(A) TYPE A

(B) TYPE B

(C) TYPE C

(D) TYPE D

END PROJECT 1003-10-78

STA. 320+00.00

Y = 221567.60

X = 506215.94

N

HAHN FAMILY TRUST

SLOPE INTERCEPT (TYP.)

P.L.

MATCHLINE STA. 306+00

IH 39 SB

310

315

320

IH 39 NB

EROSION CONTROL NOTES:

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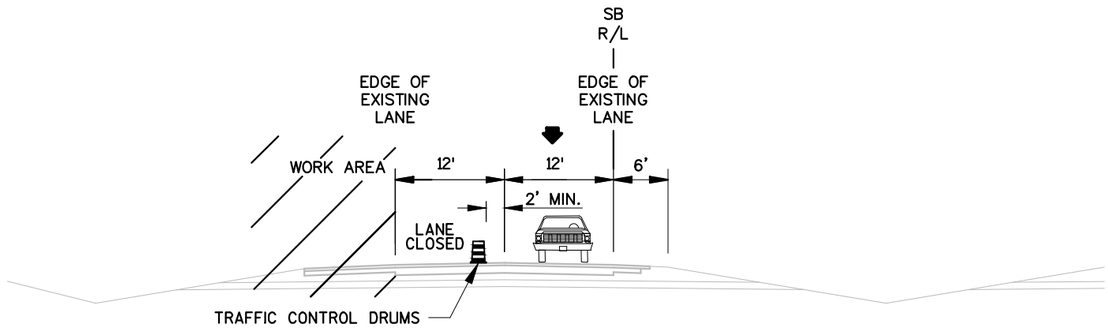
ROCK ROAD LATHERS INC

PROJECT NO: 1003-10-78	HWY: IH 39	COUNTY: ROCK	EROSION CONTROL	SHEET 21	E



STAGE 1 - OUTSIDE SHOULDER REPAIR

(NIGHT-TIME OPERATION)

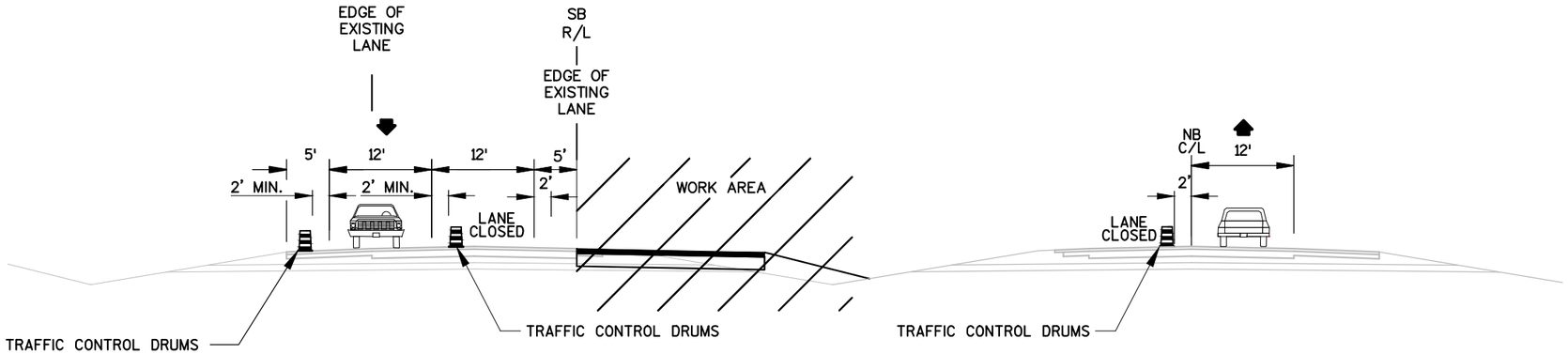
TRAFFIC CONTROL

SEE TRAFFIC CONTROL, LANE CLOSURE,
SPEED REDUCTION DETAIL

CONSTRUCTION

SHOULDER REPAIR:
- REMOVING RUMBLE STRIPS
- REMOVING ASPHALTIC SURFACE MILLING
- CONCRETE PAVEMENT REPLACEMENT SHES
- HMA PAVEMENT

OUTSIDE SHOULDER BASE AGGREGATE PLACEMENT
TEMPORARY PAVEMENT MARKING



STAGE 2-1 - INSIDE WIDENING & PAVING

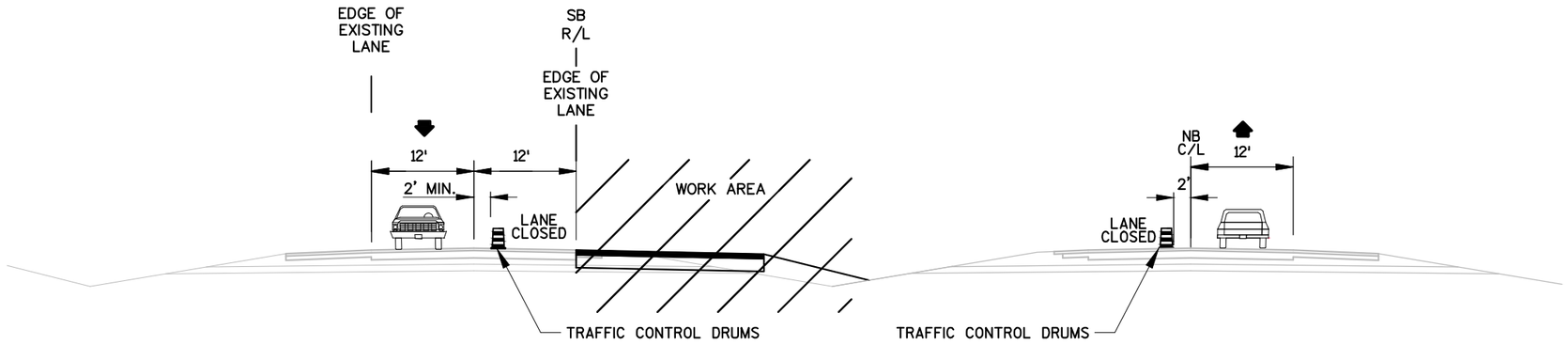
TRAFFIC CONTROL

SEE TYPICAL SINGLE LANE NIGHT TIME CLOSURE

CONSTRUCTION

EXCAVATION & GRADING
EXCAVATION BELOW SUBGRADE
CULVERT EXTENSION
PLACE BASE AGGREGATE DENSE
PLACE HMA
PAVEMENT MARKING

PROJECT NO:1003-10-78	HWY: IH 39	COUNTY: ROCK	PLAN: TRAFFIC CONTROL - STAGING SEQUENCE	SHEET 22	E



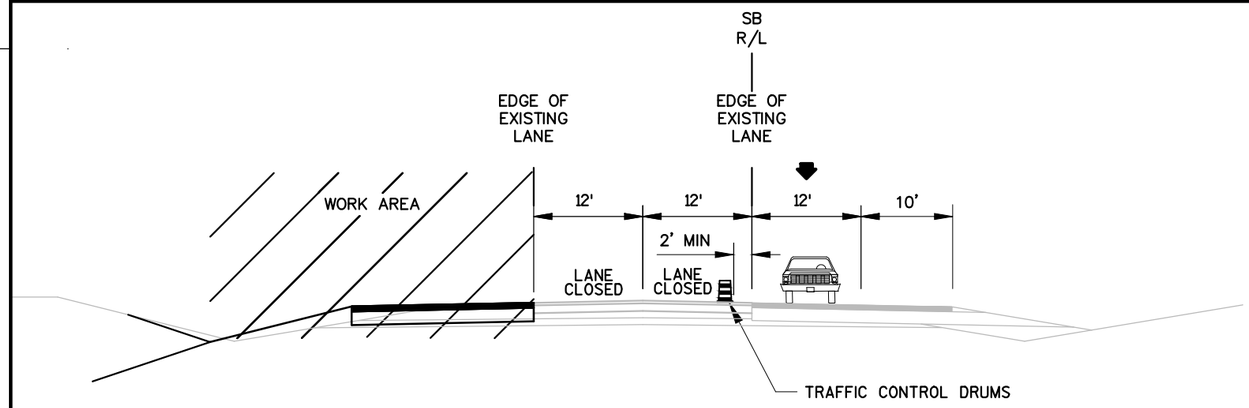
STAGE 2-2 - INSIDE PAVING ONLY

TRAFFIC CONTROL

SEE FREEWAY LANE CLOSURE FOR MEDIAN WORK (NIGHT-TIME OPERATION)

CONSTRUCTION

PLACE BASE AGGREGATE DENSE
PLACE HMA



STAGE 3 - OUTSIDE WIDENING

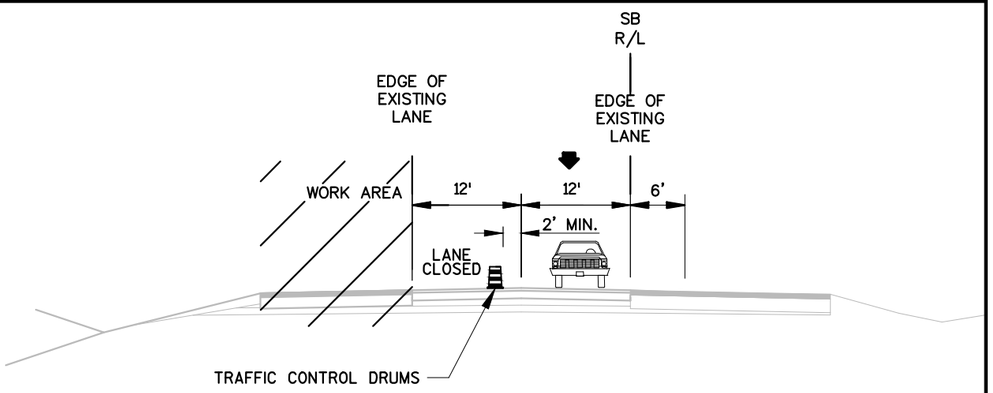
(NIGHT-TIME OPERATION)

TRAFFIC CONTROL

SEE FREEWAY LANE CLOSURE FOR OUTSIDE WORK
(NIGHT-TIME OPERATION)

CONSTRUCTION

EXCAVATION & GRADING
EXCAVATION BELOW SUBGRADE
CULVERT EXTENSION
PLACE BASE AGGREGATE DENSE
PLACE HMA



STAGE 4

(NIGHT-TIME OPERATION)

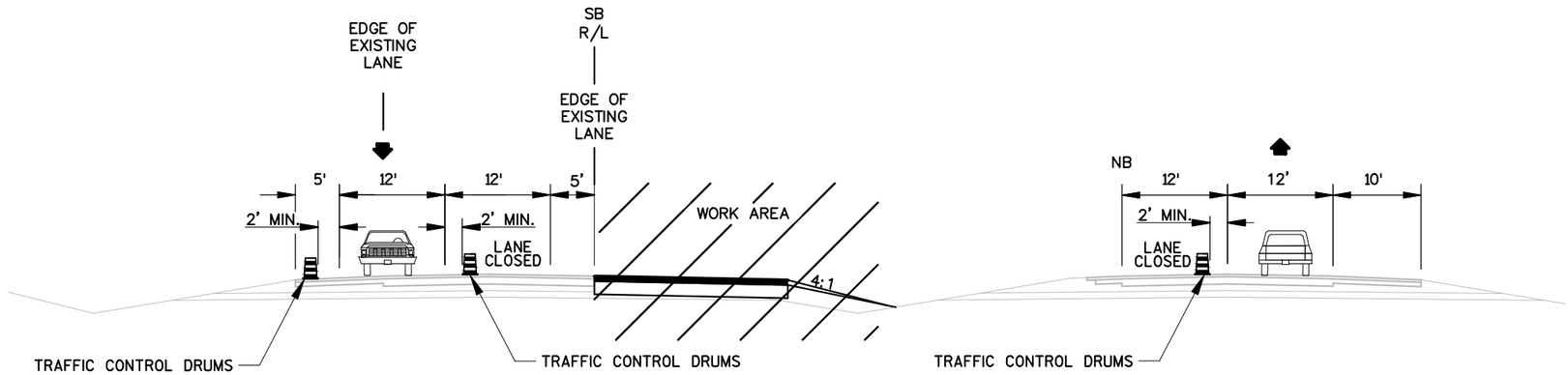
TRAFFIC CONTROL

SEE TRAFFIC CONTROL, LANE CLOSURE,
SPEED REDUCTION DETAIL

CONSTRUCTION

PAVEMENT MARKING

PROJECT NO:1003-10-78	HWY: IH 39	COUNTY:ROCK	PLAN: TRAFFIC CONTROL - STAGING SEQUENCE	SHEET 23	E



TRAFFIC CONTROL TYPICAL SECTION

NIGHT-TIME OPERATION

TRAFFIC CONTROL NOTES

THE EXACT NUMBER, LOCATION AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS DIRECTED BY THE ENGINEER.

FOR NIGHTTIME OPERATION ALL DRUMS IN TAPERS SHALL HAVE A WARNING LIGHT, TYPE C (STEADY BURN).

ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.

"WO" SIGNS ARE THE SAME AS "W" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

WHEN A RAMP INTERSECTS THE FACILITY ON WHICH THE WORK IS BEING PERFORMED, ADDITIONAL TRAFFIC CONTROLS SHALL BE PROVIDED AS SPECIFIED IN THE PLANS AND/OR THE SPECIAL PROVISIONS OR AS DIRECTED BY THE ENGINEER.

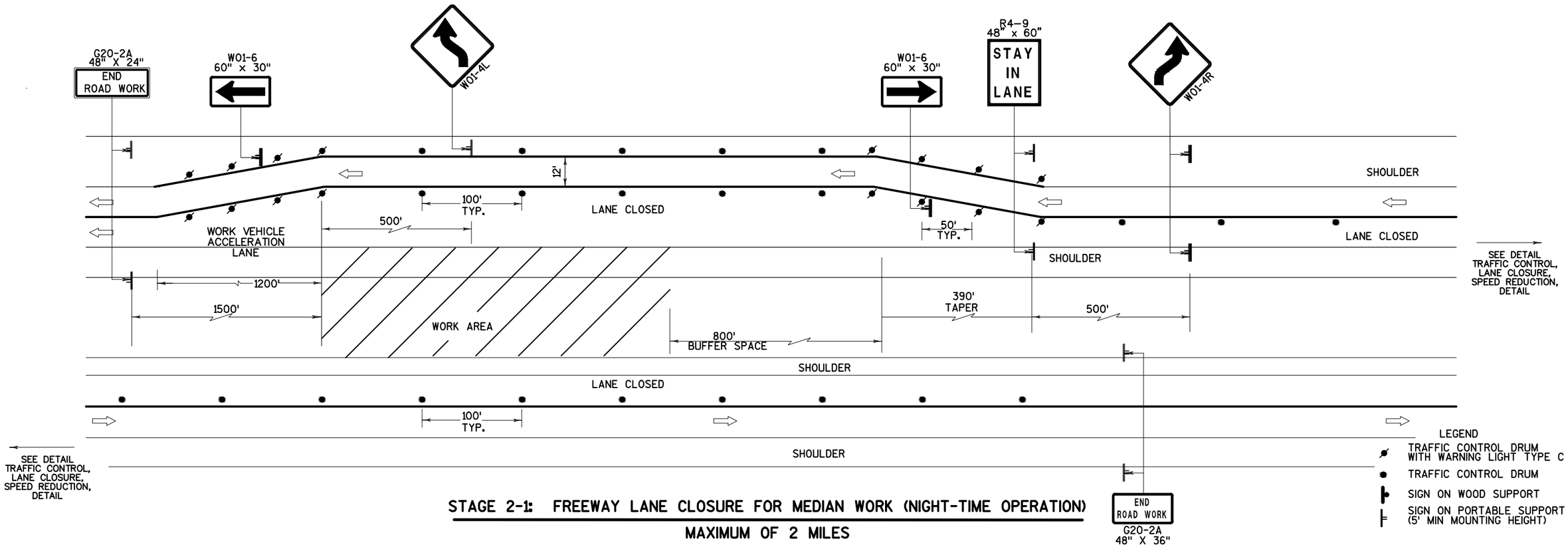
ALL SHORT TERM LANE CLOSURE SIGNS SHALL BE REMOVED OR COVERED AND ALL ARROWBOARDS AND DEVICES REMOVED BEYOND THE SHOULDER WHEN THE WORK IS NOT IN PROGRESS AND THE LANE IS RESTORED TO A SAFE OPERATING CONDITION.

IF LANE CLOSURE IS MORE THAN 1 MILE, PLACE A TYPE III BARRICADE APPROXIMATELY EVERY 1000' ACROSS THE CLOSED LANE TO HELP ENFORCE THE DRUM LINE.

CONSIDER GEOMETRICS WHEN LOCATING SIGNS AND ARROWBOARDS SO THE DRIVER HAS A CLEAR VIEW OF THE ARROWBOARD AND LANE CLOSURE DRUMS FOR A MINIMUM 1500' IN FRONT OF DRUMS.

THE WORK ZONE AND BUFFER SPACE WILL BE A MAXIMUM 2 MILES IN LENGTH.

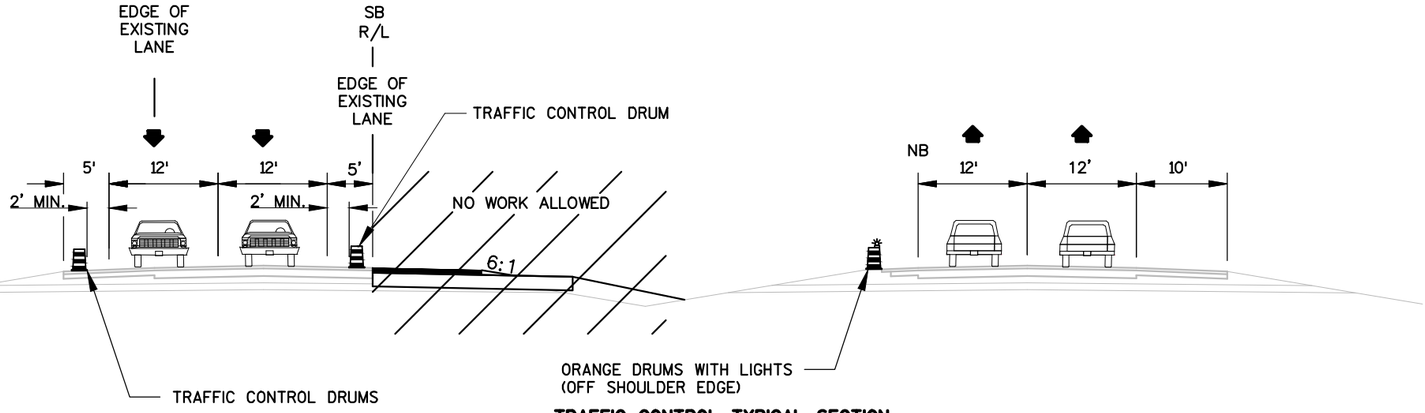
THE CLOSED TRAFFIC LANE MAY BE USED FOR ACCESS TO AND FROM THE WORK ZONE BUT MAY NOT BE USED FOR WORK VEHICLE STORAGE.



STAGE 2-1: FREEWAY LANE CLOSURE FOR MEDIAN WORK (NIGHT-TIME OPERATION)

MAXIMUM OF 2 MILES

PROJECT NO: 1003-10-78	HWY: IH 39	COUNTY: ROCK	PLAN: STAGE 2 TRAFFIC CONTROL	SHEET 24	E



TRAFFIC CONTROL TYPICAL SECTION
DAY-TIME OPERATION

TRAFFIC CONTROL NOTES

THE EXACT NUMBER, LOCATION AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS DIRECTED BY THE ENGINEER.

FOR NIGHTIME OPERATION ALL DRUMS IN TAPERS SHALL HAVE A WARNING LIGHT,

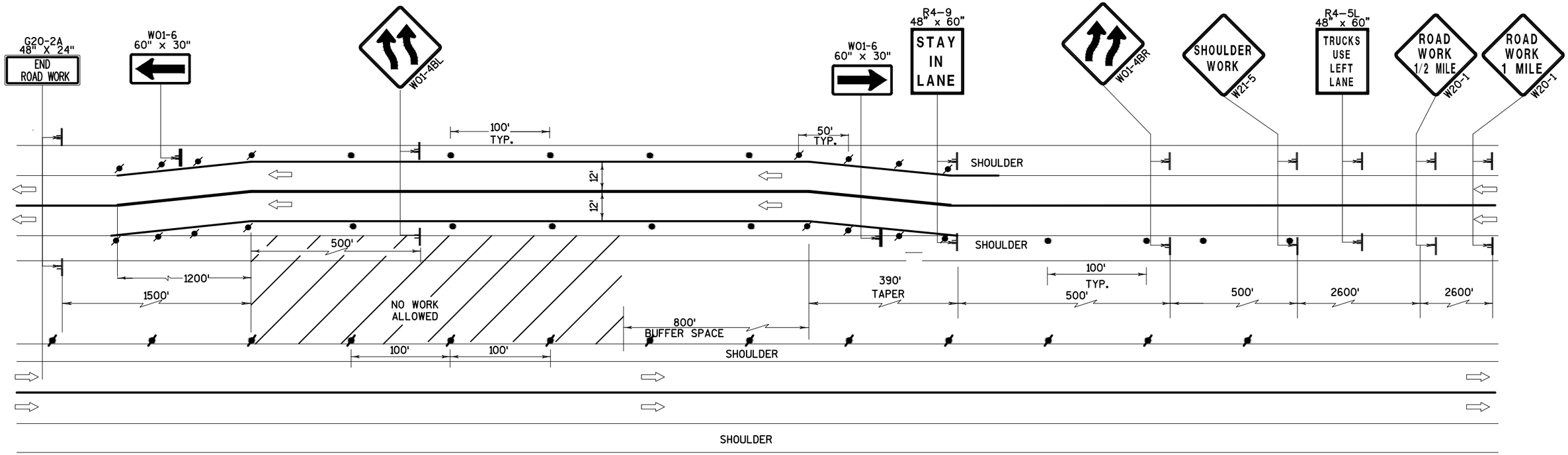
"WO" SIGNS ARE THE SAME AS "W" SIGNS EXCEPT THE BACKGROUND

WHEN A RAMP INTERSECTS THE FACILITY ON WHICH THE WORK IS BEING PERFORMED, ADDITIONAL TRAFFIC CONTROLS SHALL BE PROVIDED AS SPECIFIED IN THE PLANS AND/OR THE SPECIAL PROVISIONS OR AS DIRECTED BY THE ENGINEER.

ALL SHORT TERM LANE CLOSURE SIGNS SHALL BE REMOVED OR COVERED AND ALL ARROWBOARDS AND DEVICES REMOVED BEYOND THE SHOULDER WHEN THE WORK IS NOT IN PROGRESS AND THE LANE IS RESTORED TO A SAFE OPERATING CONDITION.

CONSIDER GEOMETRICS WHEN LOCATING SIGNS AND ARROWBOARDS SO THE DRIVER HAS A CLEAR VIEW OF THE ARROWBOARD AND LANE CLOSURE DRUMS FOR A MINIMUM 1500' IN FRONT OF DRUMS.

THE WORK ZONE AND BUFFER SPACE WILL BE A MAXIMUM 2 MILES IN LENGTH.

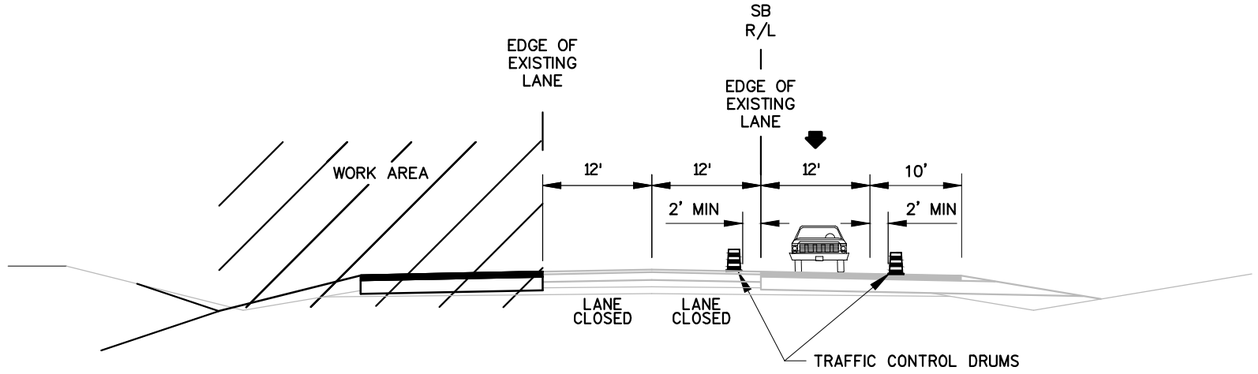


LEGEND
- TRAFFIC CONTROL DRUM WITH WARNING LIGHT TYPE C
- TRAFFIC CONTROL DRUM
- SIGN ON WOOD SUPPORT
- SIGN ON PORTABLE SUPPORT (5' MIN MOUNTING HEIGHT)

STAGE 2-1: FREEWAY TRAFFIC SHIFT FOR MEDIAN WORK (DAY-TIME CONFIGURATION)

THIS DETAIL COMPLEMENTS THE "FREEWAY LANE CLOSURE FOR MEDIAN WORK (NIGHT-TIME OPERATION)" DETAIL

PROJECT NO: 1003-10-78	HWY: IH 39	COUNTY: ROCK	PLAN: STAGE 2 TRAFFIC CONTROL DAY LANE CONFIGURATION	SHEET 25	E



TRAFFIC CONTROL TYPICAL SECTION
(NIGHT-TIME OPERATION)

TRAFFIC CONTROL NOTES

THE EXACT NUMBER, LOCATION AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS DIRECTED BY THE ENGINEER.

FOR NIGHTTIME OPERATION ALL DRUMS IN TAPERS SHALL HAVE A WARNING LIGHT, TYPE C (STEADY BURN).

ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.

"WO" SIGNS ARE THE SAME AS "W" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

WHEN A RAMP INTERSECTS THE FACILITY ON WHICH THE WORK IS BEING PERFORMED, ADDITIONAL TRAFFIC CONTROLS SHALL BE PROVIDED AS SPECIFIED IN THE PLANS AND/OR THE SPECIAL PROVISIONS OR AS DIRECTED BY THE ENGINEER.

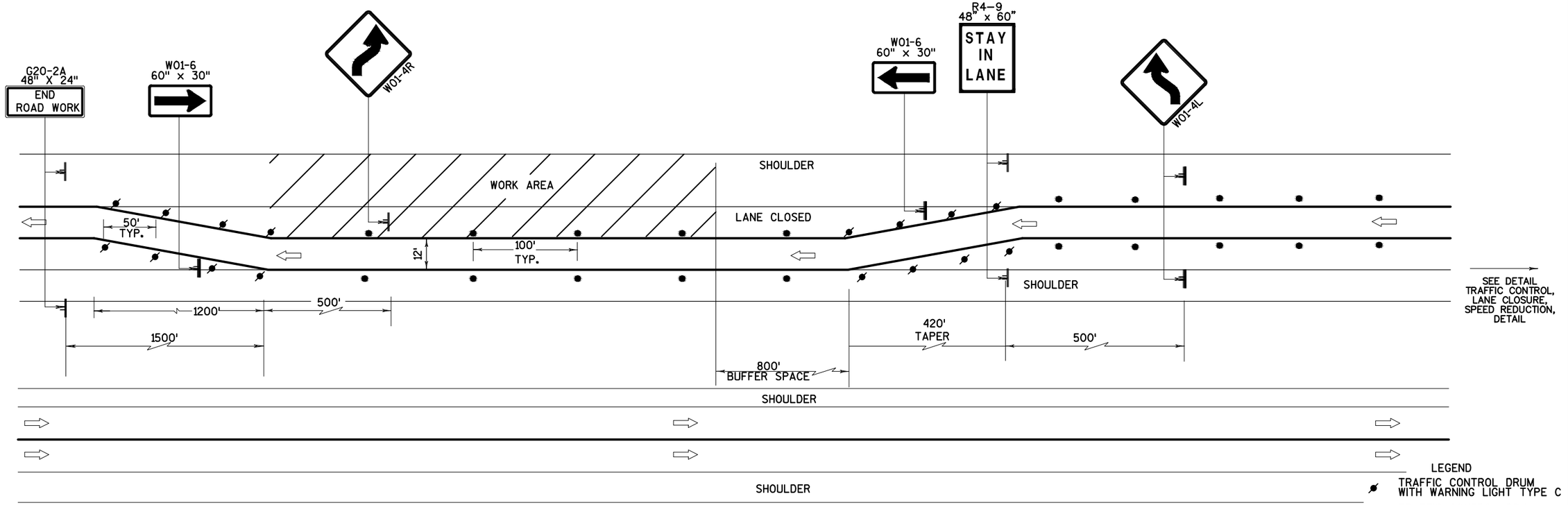
ALL SHORT TERM LANE CLOSURE SIGNS SHALL BE REMOVED OR COVERED AND ALL ARROWBOARDS AND DEVICES REMOVED BEYOND THE SHOULDER WHEN THE WORK IS NOT IN PROGRESS AND THE LANE IS RESTORED TO A SAFE OPERATING CONDITION.

IF LANE CLOSURE IS MORE THAN 1 MILE, PLACE A TYPE III BARRICADE APPROXIMATELY EVERY 1000' ACROSS THE CLOSED LANE TO HELP ENFORCE THE DRUM LINE.

CONSIDER GEOMETRICS WHEN LOCATING SIGNS AND ARROWBOARDS SO THE DRIVER HAS A CLEAR VIEW OF THE ARROWBOARD AND LANE CLOSURE DRUMS FOR A MINIMUM 1500' IN FRONT OF DRUMS.

THE WORK ZONE AND BUFFER SPACE WILL BE A MAXIMUM 2 MILES IN LENGTH.

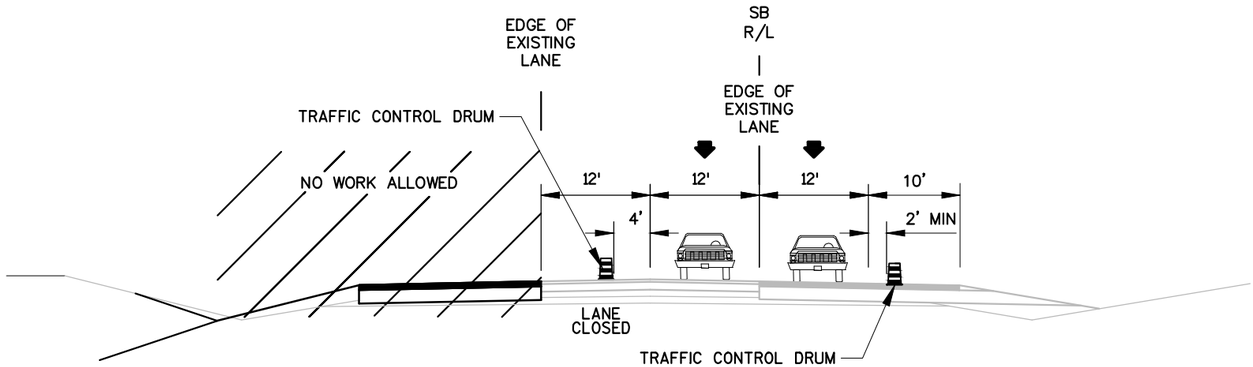
THE CLOSED TRAFFIC LANE MAY BE USED FOR ACCESS TO AND FROM THE WORK ZONE BUT MAY NOT BE USED FOR WORK VEHICLE STORAGE.



STAGE 3: FREEWAY LANE CLOSURE FOR OUTSIDE WORK (NIGHT-TIME OPERATION)

MAXIMUM OF 2 MILES

PROJECT NO:1003-10-78	HWY: IH 39	COUNTY: ROCK	PLAN: STAGE 3 TRAFFIC CONTROL	SHEET 26	E



TRAFFIC CONTROL TYPICAL SECTION
(DAY OPERATION)

TRAFFIC CONTROL NOTES

THE EXACT NUMBER, LOCATION AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS DIRECTED BY THE ENGINEER.

FOR NIGHTTIME OPERATION ALL DRUMS IN TAPERS SHALL HAVE A WARNING LIGHT, TYPE C (STEADY BURN).

ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.

"WO" SIGNS ARE THE SAME AS "W" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

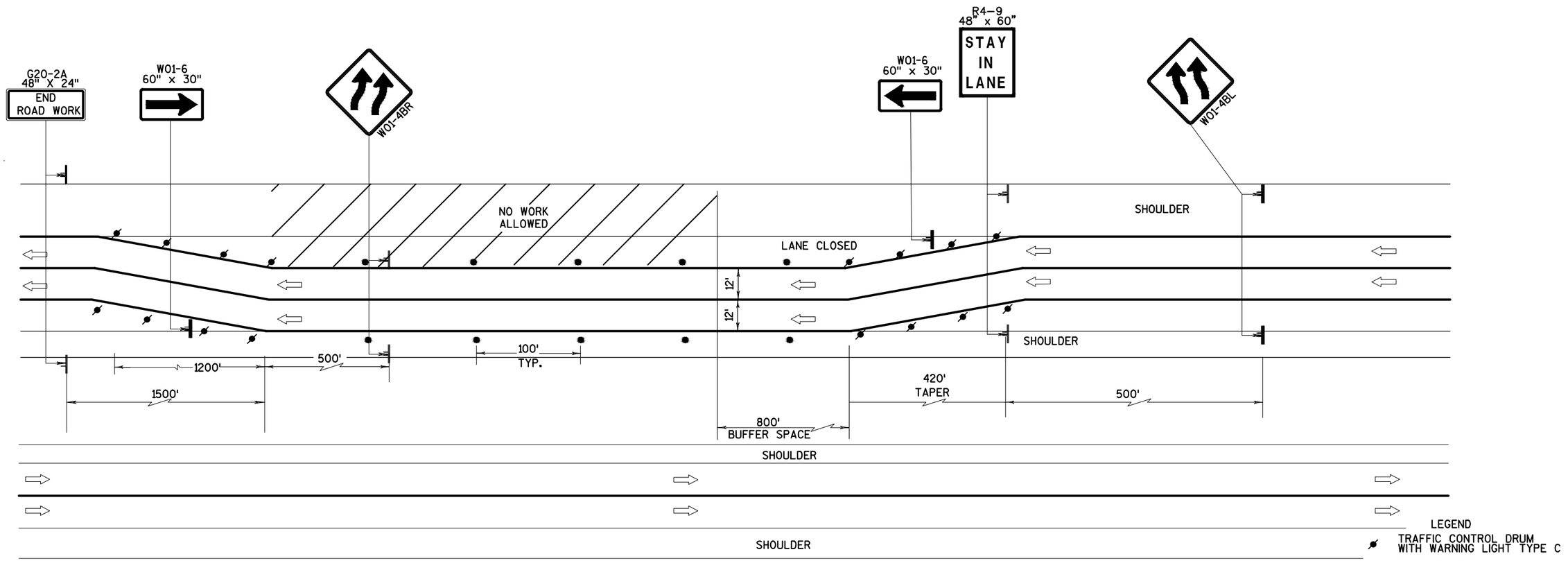
WHEN A RAMP INTERSECTS THE FACILITY ON WHICH THE WORK IS BEING PERFORMED, ADDITIONAL TRAFFIC CONTROLS SHALL BE PROVIDED AS SPECIFIED IN THE PLANS AND/OR THE SPECIAL PROVISIONS OR AS DIRECTED BY THE ENGINEER.

ALL SHORT TERM LANE CLOSURE SIGNS SHALL BE REMOVED OR COVERED AND ALL ARROWBOARDS AND DEVICES REMOVED BEYOND THE SHOULDER WHEN THE WORK IS NOT IN PROGRESS AND THE LANE IS RESTORED TO A SAFE OPERATING CONDITION.

IF LANE CLOSURE IS MORE THAN 1 MILE, PLACE A TYPE III BARRICADE APPROXIMATELY EVERY 1000' ACROSS THE CLOSED LANE TO HELP ENFORCE THE DRUM LINE.

CONSIDER GEOMETRICS WHEN LOCATING SIGNS AND ARROWBOARDS SO THE DRIVER HAS A CLEAR VIEW OF THE ARROWBOARD AND LANE CLOSURE DRUMS FOR A MINIMUM 1500' IN FRONT OF DRUMS.

THE WORK ZONE AND BUFFER SPACE WILL BE A MAXIMUM 2 MILES IN LENGTH.



LEGEND
- TRAFFIC CONTROL DRUM WITH WARNING LIGHT TYPE C
- TRAFFIC CONTROL DRUM
- SIGN ON WOOD SUPPORT
- SIGN ON PORTABLE SUPPORT (5' MIN MOUNTING HEIGHT)

STAGE 3: FREEWAY TRAFFIC SHIFT FOR OUTSIDE WORK (DAY CONFIGURATION)

THIS DETAIL COMPLEMENTS THE "FREEWAY LANE CLOSURE FOR OUTSIDE WORK (NIGHT-TIME OPERATION)" DETAIL

PROJECT NO: 1003-10-78	HWY: IH 39	COUNTY: ROCK	PLAN: STAGE 3 TRAFFIC CONTROL DAY LANE CONFIGURATION	SHEET 27	E

2

LEGEND

- TYPE III BARRICADE
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- REMOVING PAVEMENT MARKING
- DIRECTION OF TRAFFIC
- WORK AREA
- PCMS — PORTABLE CHANGEABLE MESSAGE SIGN

TRAFFIC CONTROL NOTES

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

THE SPACING BETWEEN SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND TO PROVIDE A MINIMUM OF 200 FEET, 500 FEET DESIRABLE, DISTANCE TO EXISTING SIGNS.

THIS LANE CLOSURE IS TYPICAL FOR CLOSING RIGHT LANE - REVERSE FOR CLOSING LEFT LANE.

ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.

"WO" IS THE SAME AS "W" EXCEPT THE BACKGROUND IS ORANGE.

ANY SIGNS, TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER. NO WARNING LIGHTS SHALL BE WORKING ON "COVERED" OR "DOWNED" SIGNS.

REDUCED SPEED AHEAD AND SPEED LIMIT 55 SIGNS MUST BE POST MOUNTED.

SPEED LIMIT SIGNS SHALL ALSO BE LOCATED 1500 FEET BEYOND THE END OF THE ACCELERATION LANE OF EACH ENTRANCE RAMP AND AT 0.5 MILE INTERVALS, OR AS DIRECTED BY THE ENGINEER.

THE LOCATION OF THE FIRST SIGN INDICATING THE 55 MPH REGULATORY SPEED LIMIT IS REFERENCED FROM BEGINNING OF LANE CLOSURE TAPER. THE 55 MPH REGULATORY SPEED LIMIT SIGN LOCATION MUST BE ADJUSTED WHEN CONSTRUCTION ACTIVITIES REQUIRE THE LANE CLOSURE START LOCATION TO CHANGE.

TRAFFIC CONTROL DEVICES NOT IN USE SHALL BE LAYED DOWN OR REMOVED, TURNING OF DEVICES TO OBSCURE THE MESSAGE WILL NOT BE ALLOWED.

FOR A LANE CLOSURE THAT IS IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS, THE ADVANCED WARNING SIGNS MAY BE MOUNTED ON PORTABLE SUPPORTS.

REMOVE PAVEMENT MARKINGS IF LANE CLOSURE IS TO BE IN PLACE FOR LONGER THAN 7 CONTINUOUS DAYS AND NIGHTS.

WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

IF THE HORIZONTAL ALIGNMENT IS SUCH THAT A CURVE MAY REQUIRE ADDITIONAL DELINEATION, THE DEVICE SPACING MAY BE DECREASED TO 50 FEET.

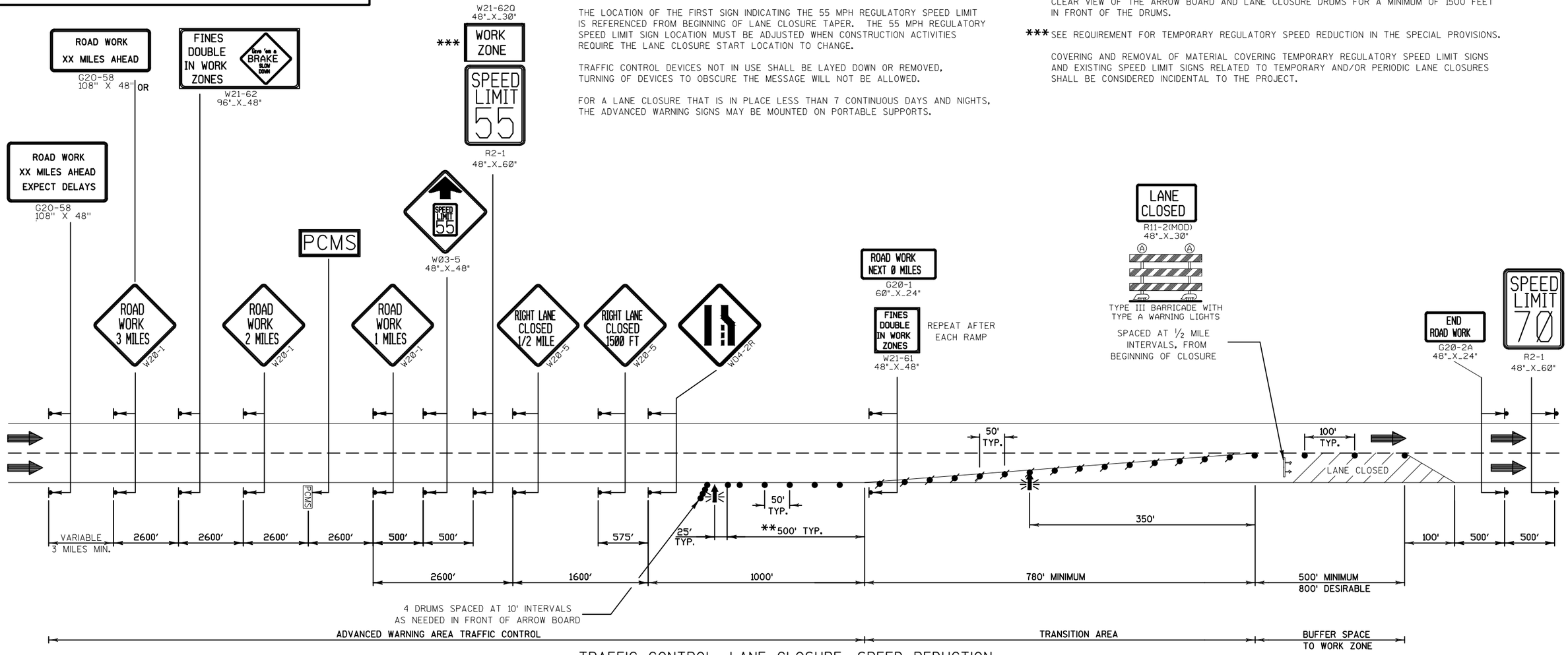
IF LANE CLOSURE IS MORE THAN 1 MILE, PLACE A TYPE III BARRICADE APPROXIMATELY EVERY ½ MILE ACROSS THE CLOSED LANE TO HELP ENFORCE THE DRUM LINE.

ADJUSTMENTS IN BUFFER SPACE NEED TO BE INCORPORATED WHEN THE LANE CLOSURE OCCURS NEAR AN INTERCHANGE EXIT OR ENTRANCE RAMP. THE LANE CLOSURE MUST TAKE PLACE FAR ENOUGH IN ADVANCE OF AN EXIT OR ENTRANCE RAMP TO STILL ALLOW FOR ADEQUATE BUFFER SPACE. THE MINIMUM LENGTH OF THE BUFFER SPACE BEFORE AN EXIT RAMP SHOULD BE ½ THE LENGTH OF THE TRANSITION AREA. THE ENTRANCE RAMP SHOULD BE FOLLOWED BY THE ORIGINAL BUFFER SPACE LENGTH OF 800 FEET DESIRABLE PRIOR TO ANOTHER TRAFFIC CONTROL CHANGE SUCH AS A CROSSOVER MANEUVER.

** CONSIDER GEOMETRICS WHEN LOCATING SIGNS AND ARROW BOARDS SO THE DRIVER HAS A CLEAR VIEW OF THE ARROW BOARD AND LANE CLOSURE DRUMS FOR A MINIMUM OF 1500 FEET IN FRONT OF THE DRUMS.

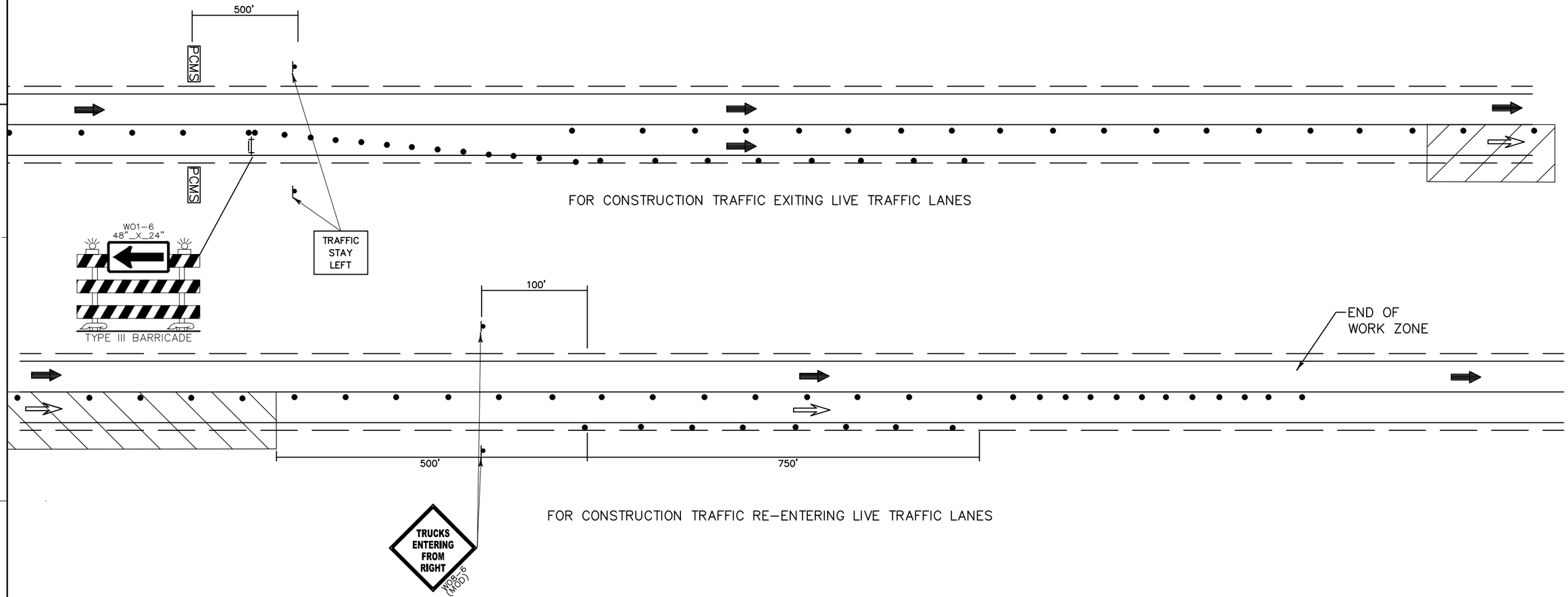
*** SEE REQUIREMENT FOR TEMPORARY REGULATORY SPEED REDUCTION IN THE SPECIAL PROVISIONS.

COVERING AND REMOVAL OF MATERIAL COVERING TEMPORARY REGULATORY SPEED LIMIT SIGNS AND EXISTING SPEED LIMIT SIGNS RELATED TO TEMPORARY AND/OR PERIODIC LANE CLOSURES SHALL BE CONSIDERED INCIDENTAL TO THE PROJECT.



TRAFFIC CONTROL, LANE CLOSURE, SPEED REDUCTION

PROJECT NO: 1003-10-78	HWY: IH 39	COUNTY: ROCK	PLAN: TRAFFIC CONTROL	SHEET 28	E



FOR CONSTRUCTION TRAFFIC EXITING LIVE TRAFFIC LANES

FOR CONSTRUCTION TRAFFIC RE-ENTERING LIVE TRAFFIC LANES

NOTE:
SPACING AND LOCATIONS OF DEVICES IN THE FIELD SUBJECT TO REVIEW AND APPROVAL BY THE ENGINEER

SEE OTHER TRAFFIC CONTROL DETAILS AND STANDARD DETAIL DRAWINGS FOR LANE CLOSURE DETAILS

PORTABLE MESSAGE SIGN MESSAGES SHOULD READ:

FRAME 1

TRUCKS
EXITING
RIGHT

LEGEND

- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL SIGN
- IH 39 TRAFFIC
- CONSTRUCTION TRAFFIC
- WORK ZONE
- PCMS — PORTABLE CHANGEABLE MESSAGE BOARD

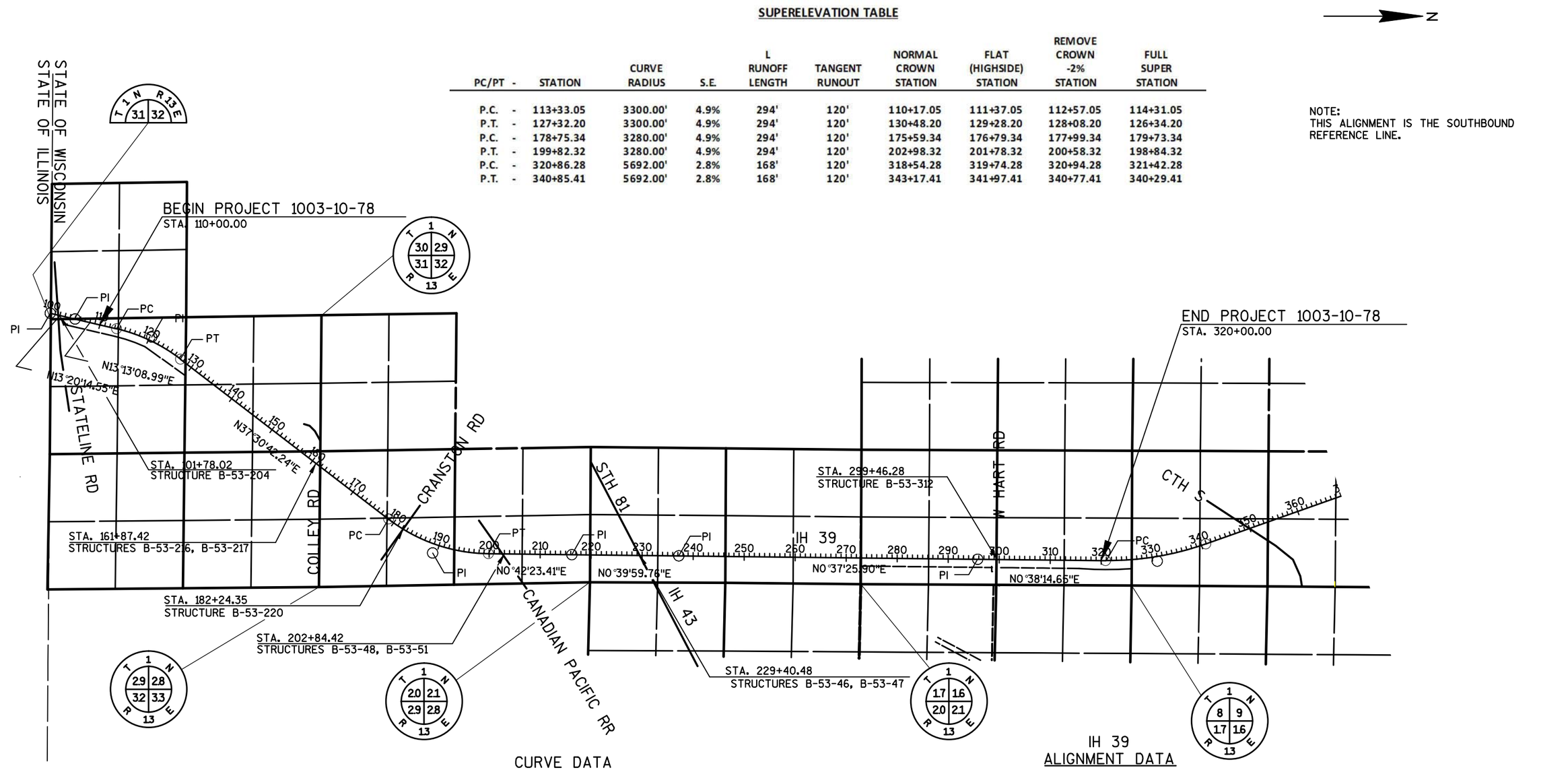
TRAFFIC CONTROL DETAIL FOR CONSTRUCTION ACCESS AT LANE CLOSURES

NIGHT USE ONLY

SUPERELEVATION TABLE

PC/PT	-	STATION	CURVE RADIUS	S.E.	L RUNOFF LENGTH	TANGENT RUNOUT	NORMAL CROWN STATION	FLAT (HIGHSIDE) STATION	REMOVE CROWN -2% STATION	FULL SUPER STATION
P.C.	-	113+33.05	3300.00'	4.9%	294'	120'	110+17.05	111+37.05	112+57.05	114+31.05
P.T.	-	127+32.20	3300.00'	4.9%	294'	120'	130+48.20	129+28.20	128+08.20	126+34.20
P.C.	-	178+75.34	3280.00'	4.9%	294'	120'	175+59.34	176+79.34	177+99.34	179+73.34
P.T.	-	199+82.32	3280.00'	4.9%	294'	120'	202+98.32	201+78.32	200+58.32	198+84.32
P.C.	-	320+86.28	5692.00'	2.8%	168'	120'	318+54.28	319+74.28	320+94.28	321+42.28
P.T.	-	340+85.41	5692.00'	2.8%	168'	120'	343+17.41	341+97.41	340+77.41	340+29.41

NOTE:
THIS ALIGNMENT IS THE SOUTHBOUND REFERENCE LINE.



CURVE DATA

PI STA = 120+43.30
Y = 202950.7411
X = 501838.3606
DELTA = 24°17'33"
D = 1°44'10"
T = 710.25'
L = 1399.15'
R = 3300.00'
E = 75.57'
PC STA = 113+33.05
PT STA = 127+32.20
S.E. = 4.9%
R.O. = 190'

PI STA = 189+66.62
Y = 208459.4504
X = 506067.1343
DELTA = 36°48'19"
D = 1°44'49"
T = 1091.28'
L = 2106.98'
R = 3280.00'
E = 176.77'
PC STA = 178+75.34
PT STA = 199+82.32
S.E. = 4.9%
R.O. = 190'

PI STA = 330+96.25
Y = 222663.7375
X = 506228.1350
DELTA = 20°07'24"
D = 1°00'24"
T = 1009.97'
L = 1999.13'
R = 5692.00'
E = 88.91'
PC STA = 320+86.28
PT STA = 340+85.41
S.E. = 2.8%
R.O. = 175'

IH 39 ALIGNMENT DATA

POINT	STATION	Y	X
P.I.	100+00.00	200961.8250	501370.1030
P.I.	105+00.00	201448.3343	501485.4441
P.C.	113+33.05	202259.3134	501675.9437
P.I.	120+43.30	202950.7411	501838.3606
P.T.	127+32.20	203514.1298	502270.8472
P.C.	178+75.34	207593.8181	505402.6296
P.I.	189+66.62	208459.4504	506067.1343
P.T.	199+82.32	209550.6444	506080.5902
P.I.	216+19.60	211187.7928	506100.7786
P.I.	237+17.20	213285.2520	506125.1823
P.I.	295+77.58	219145.2887	506188.9914
P.C.	320+86.28	221653.8298	506216.8995
P.I.	330+96.25	222663.7375	506228.1350
P.T.	340+85.41	223615.8601	505891.2341

PROJECT NO: 1003-10-78	HWY: IH 39	COUNTY: ROCK	PLAN: ALIGNMENT DIAGRAM	SHEET 30	E

DATE 13APR16 E S T I M A T E O F Q U A N T I T I E S

LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	1003-10-78 QUANTITY
0010	201.0105	Clearing	STA	35.000	35.000
0020	201.0205	Grubbing	STA	35.000	35.000
0100	204.0100	Removing Pavement	SY	21,100.000	21,100.000
0110	204.0109.S	Removing Concrete Surface Partial Depth	SF	24.000	24.000
0120	204.0120	Removing Asphaltic Surface Milling	SY	786.000	786.000
0140	204.0165	Removing Guardrail	LF	1,441.000	1,441.000
0160	204.0180	Removing Delineators and Markers	EACH	19.000	19.000
0170	204.0195	Removing Concrete Bases	EACH	4.000	4.000
0210	204.9060.S	Removing (item description) 001. Apron Endwall	EACH	21.000	21.000
0220	205.0100	Excavation Common	CY	50,542.000	50,542.000
0270	211.0500	Prepare Foundation for Base Aggregate	STA	140.000	140.000
0310	213.0100	Finishing Roadway (project) 004. 1003-10-78	EACH	1.000	1.000
0330	305.0110	Base Aggregate Dense 3/4-Inch	TON	1,761.000	1,761.000
0340	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	64,820.000	64,820.000
0400	416.0610	Drilled Tie Bars	EACH	90.000	90.000
0430	416.1725	Concrete Pavement Replacement SHES	SY	199.000	199.000
0440	455.0605	Tack Coat	GAL	987.000	987.000
0450	460.2000	Incentive Density HMA Pavement	DOL	22,011.000	22,011.000
0480	460.7222	HMA Pavement 2 HT 58-28 S	TON	21,105.000	21,105.000
0510	460.7424	HMA Pavement 4 HT 58-28 H	TON	13,277.000	13,277.000
0710	520.8000	Concrete Collars for Pipe	EACH	21.000	21.000
0760	522.0124	Culvert Pipe Reinforced Concrete Class III 24-Inch	LF	2.000	2.000
0810	522.0324	Culvert Pipe Reinforced Concrete Class IV 24-Inch	LF	73.000	73.000
0820	522.0330	Culvert Pipe Reinforced Concrete Class IV 30-Inch	LF	22.000	22.000
0830	522.0336	Culvert Pipe Reinforced Concrete Class IV 36-Inch	LF	27.000	27.000
0850	522.0354	Culvert Pipe Reinforced Concrete Class IV 54-Inch	LF	6.000	6.000
0860	522.0518	Culvert Pipe Reinforced Concrete Class V 18-Inch	LF	21.000	21.000
0880	522.1018	Apron Endwalls for Culvert Pipe Reinforced Concrete 18-Inch	EACH	3.000	3.000
0890	522.1024	Apron Endwalls for Culvert Pipe Reinforced Concrete 24-Inch	EACH	11.000	11.000
0900	522.1030	Apron Endwalls for Culvert Pipe Reinforced Concrete 30-Inch	EACH	3.000	3.000
0910	522.1036	Apron Endwalls for Culvert Pipe Reinforced Concrete 36-Inch	EACH	3.000	3.000
0930	522.1054	Apron Endwalls for Culvert Pipe Reinforced Concrete 54-Inch	EACH	1.000	1.000
1110	611.8115	Adjusting Inlet Covers	EACH	1.000	1.000
1140	614.0010	Barrier System Grading Shaping Finishing	EACH	7.000	7.000
1200	614.2300	MGS Guardrail 3	LF	4,762.500	4,762.500
1220	614.2500	MGS Thrie Beam Transition	LF	136.000	136.000
1230	614.2610	MGS Guardrail Terminal EAT	EACH	5.000	5.000
1240	614.2620	MGS Guardrail Terminal Type 2	EACH	4.000	4.000
1320	618.0100	Maintenance And Repair of Haul Roads (project) 004. 1003-10-78	EACH	1.000	1.000
1340	619.1000	Mobilization	EACH	0.200	0.200
1360	624.0100	Water	MGAL	945.000	945.000
1370	625.0500	Salvaged Topsoil	SY	76,658.000	76,658.000

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DATE 13APR16 E S T I M A T E O F Q U A N T I T I E S

LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	1003-10-78 QUANTITY
1380	627.0200	Mulching	SY	63,047.000	63,047.000
1390	628.1504	Silt Fence	LF	11,000.000	11,000.000
1400	628.1520	Silt Fence Maintenance	LF	11,000.000	11,000.000
1410	628.1905	Mobilizations Erosion Control	EACH	10.000	10.000
1420	628.1910	Mobilizations Emergency Erosion Control	EACH	5.000	5.000
1430	628.2004	Erosion Mat Class I Type B	SY	13,611.000	13,611.000
1460	628.6510	Soil Stabilizer Type B	ACRE	16.400	16.400
1470	628.7005	Inlet Protection Type A	EACH	2.000	2.000
1480	628.7010	Inlet Protection Type B	EACH	6.000	6.000
1490	628.7015	Inlet Protection Type C	EACH	2.000	2.000
1500	628.7020	Inlet Protection Type D	EACH	7.000	7.000
1510	628.7504	Temporary Ditch Checks	LF	600.000	600.000
1520	628.7555	Culvert Pipe Checks	EACH	61.000	61.000
1530	628.7560	Tracking Pads	EACH	7.000	7.000
1540	629.0205	Fertilizer Type A	CWT	63.000	63.000
1570	630.0130	Seeding Mixture No. 30	LB	1,361.000	1,361.000
1590	630.0200	Seeding Temporary	LB	2,722.000	2,722.000
1630	633.5200	Markers Culvert End	EACH	21.000	21.000
1660	635.0200	Sign Supports Structural Steel HS	LB	200.000	200.000
1670	635.0300	Sign Supports Replacing Base Connection Bolts	EACH	4.000	4.000
1680	636.0100	Sign Supports Concrete Masonry	CY	7.200	7.200
1690	636.0500	Sign Supports Steel Reinforcement	LB	400.000	400.000
1710	638.2101	Moving Signs Type I	EACH	4.000	4.000
1720	638.2102	Moving Signs Type II	EACH	31.000	31.000
1760	638.4100	Moving Structural Steel Sign Supports	EACH	9.000	9.000
1770	642.5201	Field Office Type C	EACH	0.200	0.200
1810	643.0200	Traffic Control Surveillance and Maintenance (project) 004. 1003-10-78	DAY	130.000	130.000
1830	643.0300	Traffic Control Drums	DAY	12,500.000	12,500.000
1840	643.0420	Traffic Control Barricades Type III	DAY	460.000	460.000
1850	643.0705	Traffic Control Warning Lights Type A	DAY	920.000	920.000
1870	643.0715	Traffic Control Warning Lights Type C	DAY	4,620.000	4,620.000
1880	643.0800	Traffic Control Arrow Boards	DAY	136.000	136.000
1890	643.0900	Traffic Control Signs	DAY	2,720.000	2,720.000
1910	643.1050	Traffic Control Signs PCMS	DAY	136.000	136.000
1940	646.0106	Pavement Marking Epoxy 4-Inch	LF	47,250.000	47,250.000
1980	646.0600	Removing Pavement Markings	LF	144,850.000	144,850.000
2010	649.0402	Temporary Pavement Marking Paint 4-Inch	LF	97,600.000	97,600.000
2140	690.0150	Sawing Asphalt	LF	350.000	350.000
2150	690.0250	Sawing Concrete	LF	21,668.000	21,668.000
2180	SPV.0035	Special 001. Roadway Embankment	CY	42,149.000	42,149.000
2190	SPV.0060	Special 001. Baseline CPM Progress Schedule	EACH	0.200	0.200
2200	SPV.0060	Special 002. CPM Progress Schedule Updates and Accepted Revisions	EACH	10.000	10.000
2250	SPV.0060	Special 007. Cover Plate Left In Place	EACH	1.000	1.000
2260	SPV.0060	Special 008. Traffic Control Barricades Type III with Sign	EACH	14.000	14.000
2340	SPV.0090	Special 008. Furnishing Snow Fence	LF	4,200.000	4,200.000
2350	SPV.0090	Special 009. Installing Snow Fence	LF	4,200.000	4,200.000
2400	SPV.0105	Special 004. Survey Project 1003-10-78	LS	1.000	1.000

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CLEARING & GRUBBING

STAGE	STATION	-	STATION	LOCATION	201.0105 CLEARING (STA)	201.0205 GRUBBING (STA)
3	116+00	-	131+00	LT	15	15
3	137+00	-	157+00	LT	20	20
				STAGE 3 TOTAL	35	35
				PROJECT TOTALS	35	35

REMOVING GUARDRAIL

STAGE	STATION	-	STATION	LT/RT	204.0165 REMOVING GUARDRAIL (LF)
3	162+35	-	169+30	LT	695
3	203+82	-	210+75	LT	693
2	204+72	-	205+25	RT	53
				PROJECT TOTAL	1441

REMOVING DELINEATORS AND MARKERS

STATION	LOCATION	204.0180 REMOVING DELINEATORS AND MARKERS (EACH)
119+93	RT	1
119+93	LT	1
126+90	RT	1
126+90	LT	1
135+91	RT	1
135+91	LT	1
186+92	RT	1
186+92	LT	1
188+89	LT	1
252+89	LT	1
256+87	LT	1
267+50	LT	1
267+56	LT	1
267+62	LT	1
273+89	LT	1
281+91	LT	1
290+95	LT	1
308+89	LT	1
318+90	LT	1
PROJECT TOTALS		19

REMOVING PAVEMENT

STAGE	STATION	-	STATION	LOCATION	204.0100 REMOVING PAVEMENT (SY)	690.0150 SAWING ASPHALT (LF)	*690.0250 SAWING CONCRETE (LF)
2	112+46	-	135+00	RT	1000	39	2254
2	145+00	-	148+00	RT	130	--	300
2	201+28	-	201+79	RT	20	--	51
2	203+93	-	212+68	RT	390	--	875
				STAGE 2 TOTALS	1540	39	3480
3	110+00	-	161+13	LT	5680	--	5130
3	162+63	-	201+79	LT	4350	--	3940
3	203+93	-	212+75	LT	980	--	900
3	243+00	-	320+00	LT	8560	--	7720
				STAGE 3 TOTALS	19570	0	17690
				UNDISTRIBUTED		300	300
				PROJECT TOTALS	21100	350	21450

*ADDITIONAL QUANTITIES LISTED ELSEWHERE.

RUMBLE STRIP REMOVAL

	204.0120 REMOVING ASPHALTIC SURFACE MILLING				204.0109.S REMOVING CONCRETE SURFACE PARTIAL DEPTH			
STATION - STATION	LENGTH (LF)	WIDTH (LF)	DEPTH (IN.)	(SY)	LENGTH (LF)	WIDTH (LF)	DEPTH (IN.)	(SF)
110+00 - 118+91	891	2	2.00	198	--	--	--	--
119+67 - 127+70	803	2	2.00	178	--	--	--	--
128+70 - 135+00	630	2	2.00	140	--	--	--	--
145+00 - 146+62	162	2	2.00	36	--	--	--	--
146+62 - 146+68	--	--	--	--	6	2	2.00	12
146+68 - 148+00	132	2	2.00	29	--	--	--	--
201+28 - 201+34	--	--	--	--	6	2	2.00	12
201+34 - 201+79	45	2	2.00	10	--	--	--	--
203+93 - 212+68	875	2	2.00	194	--	--	--	--
TOTALS				786				24

EARTHWORK (PROJECT 1003-10-78)

Category	Division	From/To Station	Location	Excavation Common (CY) (1) 205.0100		Fill (CY)	Roadway Embankment (CY) (4) SPV.0035.001	Mass Ordinate +/- (5)
				Cut (CY) (2)	EBS (CY) (3)			
1000	1	112+50 - 202+00	SB, RT	5,334	0	3,985	3,985	1,350
		204+16 - 213+00	SB, RT	1,167	0	181	181	987
		243+00 - 246+49	SB, RT	0	0	52	52	-52
		246+49 - 320+00	SB, RT	656	0	1,344	1,344	-688
			UNDISTRIBUTED	0	0	0	0	0
	Project 1003-10-78 - Division 1 Subtotal			7,157	0	5,561	5,561	1,596
	Project 1003-10-78 - Division 1 Total			7,157			5,561	
1000	2	110+00 - 202+00	SB, LT	11,249	10,755	7,754	18,509	3,495
		204+16 - 213+00	SB, LT	590	816	281	1,097	309
		243+00 - 246+49	SB, LT	279	322	29	351	250
		246+49 - 320+00	SB, LT	8,191	8,173	5,448	13,621	2,743
			UNDISTRIBUTED	0	3,010	0	3,010	0
	Project 1003-10-78 - Division 2 Subtotal			20,309	23,076	13,512	36,588	6,797
	Project 1003-10-78 - Division 2 Total			43,385			36,588	
	Project 1003-10-78 Totals			50,542			42,149	

1) Excavation Common = Cut + EBS Excavation. Item number 205.0100.

2) Cut volume includes concrete and asphaltic surface material.

3) EBS Excavation to be backfilled with roadway embankment unless otherwise noted in plans.

4) Roadway Embankment = (Fill + EBS Excavation)

5) The Mass Ordinate is calculated by division. A positive quantity indicates an excess of material within the Division and a negative quantity indicates a shortage of material within the Division. Structure Excavation is not included in this calculation.
Mass Ordinate = Cut - Fill. The Mass Ordinate is for information purposes only as Common Excavation and Roadway Embankment are not balanced for quantity purposes and does not guarantee the quality of Common Excavation, and if it can be reused onsite. All EBS material is assumed to be wasted offsite.

BASE AGGREGATE DENSE

STAGE	STATION	-	STATION	LOCATION	211.0500 PREPARE FOUNDATION FOR BASE AGGREGATE (STA)	305.0110 BASE AGGREGATE DENSE 3/4-INCH (TON)	305.0120 BASE AGGREGATE DENSE 1 1/4-INCH (TON)	*624.0100 WATER (MGAL)
2	110+00	-	135+00	RT	0	113	6,941	71
	135+00	-	145+00	RT	10	0	392	4
	145+00	-	148+00	RT	0	9	568	6
	148+00	-	161+14	RT	14	5	718	7
	162+70	-	201+28	RT	39	72	3,541	36
	201+28	-	201+80	RT	0	2	209	2
	203+93	-	212+68	RT	0	132	2,245	24
	243+00	-	320+00	RT	77	0	2,102	21
		-						
				STAGE 2 TOTALS	140	333	16716	170
3	110+00	-	135+00	LT	0	113	5,943	61
	135+00	-	145+00	LT	0	45	2,628	27
	145+00	-	148+00	LT	0	88	1,155	12
	148+00	-	161+14	LT	0	77	2,882	30
	162+70	-	201+28	LT	0	387	6,969	74
	201+28	-	201+80	LT	0	2	61	1
	203+93	-	212+68	LT	0	150	1,012	12
	243+00	-	320+00	LT	0	406	19,735	201
				STAGE 3 TOTALS	0	1,268	40,385	417
				UNDISTRIBUTED	0	160	7720	58
				PROJECT TOTALS	140	1,761	64,820	645

* ADDITIONAL QUANTITIES LISTED ELSEWHERE.

CONCRETE PAVEMENT

STAGE	STATION	-	STATION	LOCATION	WIDTH (LF)	416.0610 DRILLED TIE BARS (EACH)	416.1725 CONCRETE PAVEMENT REPLACEMENT SHES (SY)	*690.0250 SAWING CONCRETE (LF)
1	118+91	-	119+67	LT	10	42	85	96
1	127+70	-	128+72	LT	10	48	114	122
				STAGE 1 TOTAL		90	199	218
				PROJECT TOTALS		90	199	218

*ADDITIONAL QUANTITIES SHOWN ELSEWHERE

HMA PAVEMENT ITEMS

STAGE	STATION - STATION	LOCATION	PAVEMENT DEPTH (INCHES)	460.7222 HMA PAVEMENT 2 HT 58-28 S (TON)	*460.7424 HMA PAVEMENT 4 HT 58-28 H (TON)		*455.0605 TACK COAT (GAL)
2	110+00 - 135+00	RT	6.5	1,400	880	**	150
	135+00 - 145+00	RT	6.5	260	165		30
	145+00 - 148+00	RT	6.5	170	110	**	20
	148+00 - 161+15	RT	6.5	440	275		45
	162+70 - 201+28	RT	6.5	1,525	955		160
	201+28 - 201+80	RT	6.5	45	30	**	5
	203+93 - 212+75	RT	6.5	560	350		60
	243+00 - 296+00	RT	6.5	1,450	905		155
	296+00 - 303+00	RT	6.5	1,220	760		130
	303+00 - 320+00	RT	6.5	445	280		45
		STAGE 2 TOTALS		7,515	4,710		800
3	110+00 - 135+00	LT	6.5	1,150	725	**	15
	135+00 - 145+00	LT	6.5	525	330	**	5
	145+00 - 148+00	LT	6.5	2,350	1,470	**	30
	148+00 - 161+15	LT	6.5	585	370	**	5
	162+70 - 201+28	LT	6.5	1,540	965	**	20
	201+28 - 201+80	LT	6.5	10	5	**	0
	203+93 - 212+75	LT	6.5	250	155		5
	243+00 - 296+00	LT	6.5	2,665	1,675	**	30
	296+00 - 303+00	LT	6.5	3,635	2,270	**	45
	303+00 - 320+00	LT	6.5	880	555	**	10
		STAGE 3 TOTALS		13,590	8,520		165
		PROJECT TOTALS		21,105	13,230		965

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE
** CALCULATED WITH SAFETY EDGE (BASED ON SECTIONS)

RUMBLE STRIP AREA FILL

STATION - STATION	*460.7424 HMA PAVEMENT 4 HT 58-28 H (TON)	*455.0605 TACK COAT (GAL)
110+00 - 135+00	31	14
145+00 - 148+00	4	2
201+28 - 201+79	1	1
203+93 - 212+68	11	5
	47	22

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE

REINFORCED CONCRETE CULVERT PIPE, APRON ENDWALLS, AND CONCRETE COLLARS

STAGE	STATION	LOCATION	522.0124 CLASS III 24-INCH (LF)	522.0324 CLASS IV 24-INCH (LF)	522.0330 CLASS IV 30-INCH (LF)	522.0336 CLASS IV 36-INCH (LF)	522.0354 CLASS IV 54-INCH (LF)	522.0518 CLASS V 18-INCH (LF)	APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 522.1018 18-INCH (EACH)	522.1024 24-INCH (EACH)	522.1030 30-INCH (EACH)	522.1036 36-INCH (EACH)	522.1054 54-INCH (EACH)	520.8000 CONCRETE COLLARS FOR PIPE (EACH)	633.5200 MARKERS CULVERT END (EACH)	204.9060.S REMOVING APRON ENDWALLS (EACH)	COMMENTS
2	119+93	RT	--	11	--	--	--	--	--	1	--	--	--	1	1	1	
2	126+90	RT	--	11	--	--	--	--	--	1	--	--	--	1	1	1	
2	135+91	RT	--	--	1	--	--	--	--	--	1	--	--	1	1	1	
2	186+92	RT	2	--	--	--	--	--	--	1	--	--	--	1	1	1	
		STAGE 2 TOTALS	2	22	7	0	0	0	0	3	1	0	0	4	4	4	
3	119+93	LT	--	8	--	--	--	--	--	1	--	--	--	1	1	1	
3	126+90	LT	--	10	--	--	--	--	--	1	--	--	--	1	1	1	
3	135+91	LT	--	--	9	--	--	--	--	--	1	--	--	1	1	1	
3	186+92	LT	--	--	--	--	--	--	--	1	--	--	--	1	1	1	
3	188+89	LT	--	--	--	--	6	--	--	--	--	--	1	1	1	1	
3	252+89	LT	--	7	--	--	--	--	--	1	--	--	--	1	1	1	
3	256+87	LT	--	6	--	--	--	--	--	1	--	--	--	1	1	1	
3	267+50	LT	--	--	--	10	--	--	--	--	--	1	--	1	1	1	
3	267+56	LT	--	--	--	9	--	--	--	--	--	1	--	1	1	1	
3	267+62	LT	--	--	--	8	--	--	--	--	--	1	--	1	1	1	
3	273+89	LT	--	--	--	--	--	4	1	--	--	--	--	1	1	1	
3	281+91	LT	--	8	--	--	--	--	--	1	--	--	--	1	1	1	
3	290+95	LT	--	--	--	--	--	11	1	--	--	--	--	1	1	1	
3	296+90	LT	--	4	--	--	--	--	--	1	--	--	--	1	1	1	
3	300+86	LT	--	--	6	--	--	--	--	--	1	--	--	1	1	1	
3	308+89	LT	--	--	--	--	--	6	1	--	--	--	--	1	1	1	
3	318+90	LT	--	8	--	--	--	--	--	1	--	--	--	1	1	1	
		STAGE 3 TOTALS	0	51	15	27	6	21	3	8	2	3	1	17	17	17	
		PROJECT TOTALS	2	73	22	27	6	21	3	11	3	3	1	21	21	21	

*ADDITIONAL QUANTITIES LISTED ELSEWHERE.

INLET COVERS, INLET PROTECTION

STAGE	STATION	LOCATION	611.8115 ADJUSTING INLET COVERS (EACH)	*628.7010 INLET PROTECTION TYPE B (EACH)
2	300+86	RT	1	1
		PROJECT TOTALS	1	1

*ADDITIONAL QUANTITIES LISTED ELSEWHE

MGS GUARDRAIL ITEMS

	STATION	-	STATION	LOCATION	614.2300 MGS GUARDRAIL 3 (LF)	614.2500 MGS THRIE BEAM TRANSITION (LF)	614.2610 MGS GUARDRAIL TERMINAL EAT (EACH)	614.2620 MGS GUARDRAIL TERMINAL TYPE 2 (EACH)	614.0010 BARRIER SYSTEM GRADING SHAPING FINISHING (EACH)
2	204+14.1	-	211+44.2	RT	637.5	40	1	--	1
				STAGE 2 TOTALS	637.5	40	1	0	1
3	145+99.5	-	149+40.1	LT	287.5	--	1	1	1
	158+85.7	-	160+87.6	LT	162.5	8	--	1	1
	162+35.1	-	169+40.1	LT	612.5	40	1	--	1
	181+15.9	-	201+55.3	LT	2000	8	--	1	1
	203+69.6	-	211+49.7	LT	687.5	40	1	--	1
	298+76.9	-	303+05.0	LT	375	--	1	1	1
				STAGE 3 TOTALS	4125.0	96	4	4	6
				PROJECT TOTALS	4762.5	136	5	4	7

FINISHING ITEMS

STAGE	LOCATION			LT/RT	625.0500 SALVAGED TOPSOIL (SY)	627.0200 MULCHING (SY)	628.6510 SOIL STABILIZER TYPE B (ACRE)	629.0205 FERTILIZER TYPE A (CWT)	630.0130 SEEDING MIXTURE NO. 30 (LB)	630.0200 SEEDING TEMPORARY (LB)
2	110+00	-	161+39	RT	9,888	8,993	2.1	7	150	300
	162+82	-	202+00	RT	8,686	7,550	1.8	6	129	258
	204+14	-	212+75	RT	1,125	648	0.3	1	22	43
	243+00	-	296+00	RT	8,772	8,772	1.9	6	129	258
	303+00	-	320+00	RT	2,638	2,634	0.6	2	43	86
	STAGE 2 TOTALS				31,109	28,597	6.7	22	473	945
3	110+00	-	160+88	LT	9,651	7,479	2.0	9	193	386
	162+35	-	201+63	LT	8,086	3,820	1.7	6	129	258
	203+70	-	212+75	LT	1,529	995	0.4	1	22	43
	243+00	-	296+00	LT	8,655	7,495	1.8	9	193	386
	303+00	-	320+00	LT	1,995	1,808	0.5	3	65	129
	STAGE 3 TOTALS				29,916	21,597	6.4	28	602	1,202
	UNDISTRIBUTED				15,633	12,853	3.3	13	286	575
	TOTALS				76,658	63,047	16.4	63	1,361	2,722

WATER

LOCATION	*624.0100 WATER (MGAL)
UNDISTRIBUTED	300
TOTALS	300

*ADDITIONAL QUANTITIES LISTED ELSEWHERE.

SILT FENCE

LOCATION			LT/RT	628.1504 SILT FENCE (LF)	628.1520 SILT FENCE MAINTENANCE (LF)
109+89	-	138+84	LT	2,940	2,940
157+48	-	161+14	LT	390	390
162+28	-	169+55	LT	740	740
185+00	-	193+68	LT	900	900
199+84	-	201+67	LT	260	260
203+64	-	212+75	LT	925	925
248+02	-	267+14	LT	1,970	1,970
313+92	-	320+11	LT	650	650
UNDISTRIBUTED				2,200	2,200
TOTALS				11,000	11,000

MOBILIZATIONS EROSION CONTROL

LOCATION	628.1905 MOBILIZATIONS EROSION CONTROL (EACH)	628.1910 MOBILIZATIONS EMERGENCY EROSION CONTROL (EACH)
UNDISTRIBUTED	10	5
TOTALS	10	5

EROSION MAT

LOCATION			LT/RT	628.2004 EROSION MAT CLASS I TYPE B (SY)
145+00	-	148+00	RT	755
159+03	-	160+90	RT	141
165+25	-	173+06	RT	840
175+40	-	178+50	RT	252
180+00	-	181+00	RT	46
204+16	-	210+75	RT	478
		STAGE 2 TOTAL		2,512
116+50	-	127+94	LT	903
133+75	-	139+83	LT	295
141+64	-	146+05	LT	264
146+06	-	149+43	LT	166
150+75	-	157+34	LT	293
158+90	-	160+90	LT	314
162+82	-	169+49	LT	1,083
175+45	-	176+61	LT	51
181+17	-	201+62	LT	2,821
204+16	-	212+75	LT	623
248+67	-	270+45	LT	1,294
273+89	-	308+87	LT	18
316+11	-	320+00	LT	194
		STAGE 3 TOTAL		8,319
		UNDISTRIBUTED		2,780
		PROJECT TOTAL		13,611

INLET PROTECTION

STATION	LOCATION	628.7005 INLET PROTECTION TYPE A (EACH)	*628.7010 INLET PROTECTION TYPE B (EACH)	628.7015 INLET PROTECTION TYPE C (EACH)	628.7020 INLET PROTECTION TYPE D (EACH)
100+39	22' RT	--	1	--	--
103+40	24' RT	--	1	--	--
167+25	87' RT	--	--	--	1
191+32	45' RT	--	1	--	--
252+89	37' RT	--	--	--	1
267+78	29' RT	1	--	--	1
300+88	30' RT	--	--	--	1
318+89	29' RT	--	--	--	1
	STAGE 2 TOTALS	1	3	0	5
162+55	33' LT	--	1	--	--
218+62	59' LT	--	--	1	--
	STAGE 3 TOTALS	0	1	1	0
	UNDISTRIBUTED	1	1	1	2
	PROJECT TOTALS	2	5	2	7

*ADDITIONAL QUANTITIES LISTED ELSEWHERE

CULVERT PIPE CHECKS

STATION	LOCATION	628.7555 CULVERT PIPE CHECKS (EACH)
108+89	22' RT	2
108+89	27' RT	2
119+88	39' RT	3
119+93	30' RT	3
126+90	43' RT	3
126+90	33' RT	3
135+91	62' RT	4
135+91	42' RT	4
160+51	64' RT	4
160+53	75' RT	4
186+92	46' RT	3
216+89	30' RT	3
231+90	37' RT	2
256+87	34' RT	3
273+89	32' RT	2
281+91	36' RT	3
290+95	29' RT	2
296+89	32' RT	3
308+89	30' RT	2
	UNDISTRIBUTED	6
	TOTALS	61

TEMPORARY DITCH CHECKS

LOCATION	628.7504 TEMPORARY DITCH CHECKS (LF)
UNDISTRIBUTED	600
TOTALS	600

TRACKING PADS

LOCATION	628.7560 TRACKING PADS (EACH)
UNDISTRIBUTED	7
TOTALS	7

3

SIGN SUPPORTS

STATION	635.0300 SIGN SUPPORTS REPLACING BASE CONNECTION BOLTS (EACH)	636.0100 SIGN SUPPORTS CONCRETE MASONRY (CY)	636.0500 SIGN SUPPORTS STEEL REINFORCEMENT (LB)	635.0200 SIGN SUPPORTS STRUCTURAL STEEL HS (LB)
151+00	1	1.8	100	50
253+40	1	1.8	100	50
286+95	1	1.8	100	50
300+05	1	1.8	100	50
PROJECT TOTALS	4	7.2	400	200

MOVING SIGNS TYPE I AND MOVING STRUCTURAL STEEL SIGN SUPPORTS

STATION	638.2101 MOVING SIGNS TYPE I (EACH)	638.4100 MOVING STRUCTURAL STEEL SIGN SUPPORTS (EACH)	204.0195 REMOVING CONCRETE BASES (EACH)
151+00	1	2	1
253+40	1	2	1
286+95	1	3	1
300+05	1	2	1
PROJECT TOTALS	4	9	4

MOVING SIGNS TYPE II

STATION	638.2102 MOVING SIGNS TYPE II (EACH)
113+80	1
116+10	1
126+65	1
137+30	1
147+90	1
159+25	1
170+75	1
180+25	1
190+30	1
197+90	1
200+65	1
208+15	1
253+30	1
255+85	2
263+95	2
273+00	1
274+40	2
276+60	1
285+00	2
295+55	2
303+50	1
305+85	2
315+00	1
315+45	2
PROJECT TOTALS	31

3

TRAFFIC CONTROL - DRUMS, BARRICADES, WARNING LIGHTS, ARROW BOARDS, AND SIGNS

SECTION	STAGE	DAYS IN SERVICE	643.0300 TRAFFIC CONTROL DRUMS NO.	643.0300 TRAFFIC CONTROL DRUMS (DAYS)	643.0420 TRAFFIC CONTROL BARRICADES TYPE III NO.	643.0420 TRAFFIC CONTROL BARRICADES TYPE III (DAYS)	643.0705 TRAFFIC CONTROL WARNING LIGHTS TYPE A NO.	643.0705 TRAFFIC CONTROL WARNING LIGHTS TYPE A (DAYS)	643.0715 TRAFFIC CONTROL WARNING LIGHTS TYPE C NO.	643.0715 TRAFFIC CONTROL WARNING LIGHTS TYPE C (DAYS)	643.0800 TRAFFIC CONTROL ARROW BOARDS NO.	643.0800 TRAFFIC CONTROL ARROW BOARDS (DAYS)	643.0900 TRAFFIC CONTROL SIGNS NO.	643.0900 TRAFFIC CONTROL SIGNS (DAYS)	643.1050 TRAFFIC CONTROL SIGNS PCMS NO.	643.1050 TRAFFIC CONTROL SIGNS PCMS (DAYS)	SPV.0060.008** TRAFFIC CONTROL BARRICADES TYPE III WITH SIGN (EACH)
SECTION 1																	
STA 267+00 -	STAGE 2	2	225	450	15	30	30	60	35	70	2	4	40	80	2	4	
STA 320+00	STAGE 3	14	200	2800	5	70	10	140	75	1050	2	28	40	560	2	28	
	SECTION 1 TOTAL			3250		100		200		1120		32		640		32	
SECTION 2																	
STA 243+00 -	STAGE 2	2	150	300	15	30	30	60	35	70	2	4	40	80	2	4	
STA 267+00	STAGE 3	14	100	1400	5	70	10	140	75	1050	2	28	40	560	2	28	
	SECTION 2 TOTAL			1400		70		140		1050		28		560		28	
SECTION 3																	
STA 162+00 -	STAGE 1	4	225	900	15	60	30	120	35	140	2	8	40	160	2	8	
STA 231+00	STAGE 2	2	225	450	15	30	30	60	35	70	2	4	40	80	2	4	
	STAGE 3	14	200	2800	5	70	10	140	75	1050	2	28	40	560	2	28	
	SECTION 3 TOTAL			2800		70		140		1050		28		560		28	
SECTION 4																	
STA 110+00 -	STAGE 1	4	225	900	15	60	30	120	35	140	2	8	40	160	2	8	
STA 162+00	STAGE 2	10	225	2250	15	150	30	300	35	350	2	20	40	400	2	20	
	STAGE 3	14	200	2800	5	70	10	140	75	1050	2	28	40	560	2	28	
	SECTION 4 TOTAL			5050		220		440		1400		48		960		48	
UNDISTRIBUTED																	14
PROJECT TOTALS				12500		460		920		4620		136		2720		136	14

NOTES: SECTIONS WERE IDENTIFIED FOR ESTIMATING PURPOSES ONLY AND ARE NOT INTENDED TO DIRECT THE CONTRACTOR'S OPERATIONS.
**SEE SPECIAL PROVISION FOR DELIVERY INSTRUCTIONS

3

PAVEMENT MARKING

STATION	-	STATION	LOCATION	646.0106 EPOXY 4-INCH YELLOW (LF)	646.0106 EPOXY 4-INCH WHITE (LF)	WHITE LANE LINE 12.5' LINE 37.5' SKIP (LF)	*646.0600 REMOVING PAVEMENT MARKINGS (LF)
110+00	-	320+00	RT	21,000	--	--	21,000
110+00	-	320+00	LT	--	21,000	--	21,000
110+00	-	320+00	MIDDLE	--	--	5,250	5,250
			TOTALS	21,000	21,000	5,250	47,250
							47,250
			TOTAL FOR 646.0106		47,250		
			PROJECT TOTALS		47,250		47,250

*ADDITIONAL QUANTITIES LISTED ELSEWHERE.

COVER PLATE LEFT IN PLACE

STAGE	STATION	LOCATION	STRUCTURE	SPV.0060.007 COVER PLATE LEFT IN PLACE (EACH)
3	162+55	33' LT		1
		STAGE 3 TOTAL		1
		PROJECT TOTALS		1

SNOW FENCE

LOCATION	SPV.0090.008 FURNISHING LF	SPV.0090.009 INSTALLING LF
STA. 116+00 - STA. 158+00 LT	4,200	4,200
PROJECT TOTALS	4,200	4,200

TEMPORARY PAVEMENT MARKING

SECTION	STAGE	649.0402 TEMPORARY PAVEMENT MARKING PAINT 4-INCH YELLOW (LF)	649.0402 TEMPORARY PAVEMENT MARKING PAINT 4-INCH WHITE (LF)	*646.0600 REMOVING PAVEMENT MARKING (LF)
SECTION 1				
	STAGE 2	7200	14200	32000
	STAGE 3	7200	14200	21400
	SECTION 1 TOTAL	7200	14200	21400
SECTION 2				
	STAGE 2	4000	8000	17000
	STAGE 3	4000	8000	12000
	SECTION 2 TOTAL	4000	8000	12000
SECTION 3				
	STAGE 1	3000	6000	11700
	STAGE 2	3000	6000	9000
	STAGE 3	7200	14200	21400
	SECTION 3 TOTAL	7200	14200	21400
SECTION 4				
	STAGE 1	7200	14200	32000
	STAGE 2	7200	14200	21400
	STAGE 3	7200	14200	21400
	SECTION 4 TOTAL	14400	28400	42800
PROJECT TOTALS		97600		97600

*ADDITIONAL QUANTITIES LISTED ELSEWHERE

BEGIN PROJECT 1003-10-78
STA. 110+00.00
Y = 201935.091
X = 501599.784

STA. 110+00 - STA. 161+13 LT
SAWCUT REQ.

STAGE 1 -
CONCRETE PAVEMENT
REPLACEMENT SHES

TYPE I SIGN
(MOVED BY OTHERS)

ILLINOIS TOLLWAY COMM.
FIBER OPTIC

+53 10' WIDE

+21 10' WIDE

+83 20' WIDE

STA. 119+93
1-24" CPRC EXTENSION LT REQ.
1-APRON ENDWALL REQ.
1-CONCRETE COLLAR FOR PIPE REQ.

SLOPE INTERCEPT
TYP.

R/W

IH 39 SB

IH 39 NB

MATCHLINE STA. 124+00

+46 18.7' RT

+99 19.0' RT

+52 19.4' RT

+20 22.0' RT

MOVE TYPE II SIGN

MOVE TYPE II SIGN

STA. 119+91
1-24" CPRC EXTENSION RT REQ.
1-APRON ENDWALL REQ.
1-CONCRETE COLLAR FOR PIPE REQ.

BRIDGET WALSH TRUST

RICHARD WALSH TRUST

P.L.

STA. 112+46 - STA. 135+00 RT
SAWCUT REQ.

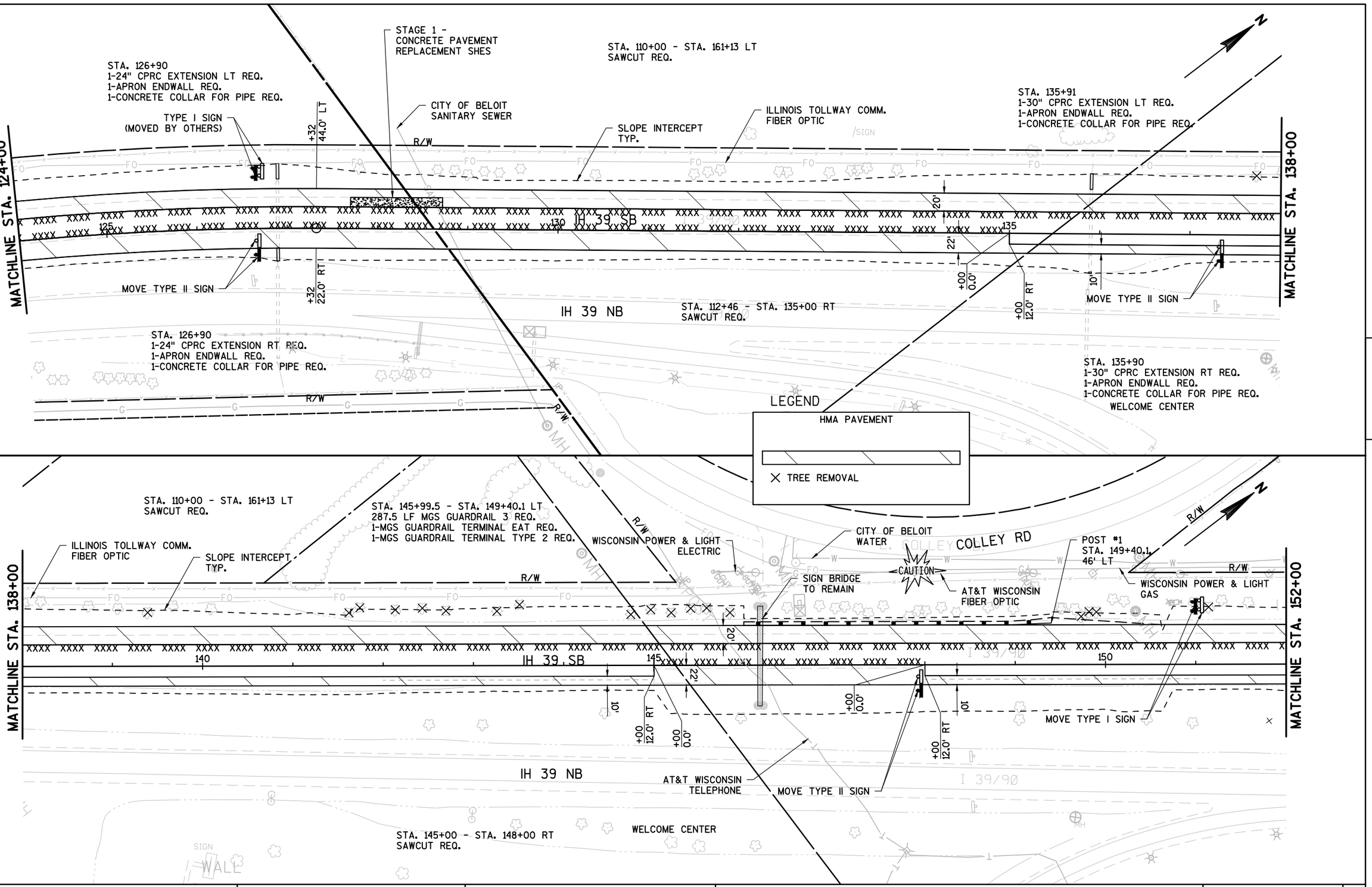
LEGEND

HMA PAVEMENT

TREE REMOVAL

BENCH MARKS

NO.	DESCRIPTION	ELEV.
099T	CHISELED "X" ON BOLT OF SIGN BASE ON WEST SIDE OF I39 SB LANES. APPROX 400' S OF STATELINE RD OVERPASS.	803.54
112T	CHISELED "X" ON W BOLT OF SIGN BASE ON EAST SIDE OF I39 NB LANES. APPROX 670' N OF STATELINE RD OVERPASS.	805.65



PROJECT NO: 1003-10-78	HWY: IH 39	COUNTY: ROCK	PLAN: TEMPORARY WIDENING	SHEET 44	E

FILE NAME : L:\WORK\PROJECTS\60242867\000_CAD\001_DRAWINGS\1003-10-78_STATELINE TO CTH S TEMP\100%\050201_PN_78.DWG PLOT DATE : 2/16/2016 10:17 AM PLOT BY : ARBUCKLE, ADRIAN PLOT NAME : ---------- PLOT SCALE : **********

WisDOT

STA. 110+00 - STA. 161+13 LT
SAWCUT REQ.

STA. 158+85.7 - STA. 160+87.6 LT
162.5 LF MGS GUARDRAIL 3 REQ.
39.4 LF MGS THRIE BEAM TRANSITION REQ.
1-MGS GUARDRAIL TERMINAL TYPE 2

PEPSICO FRITO LAY INC.

STA. 162+35.1 - STA. 169+40.1 LT
612.5 LF MGS GUARDRAIL 3 REQ.
39.4 LF MGS THRIE BEAM TRANSITION REQ.
1-MGS TERMINAL EAT REQ.

STA. 162+35 - STA. 169+30 LT
REMOVE GUARDRAIL

STA. 162+63 - STA. 201+79 LT
SAWCUT REQ.

MATCHLINE STA. 152+00

MATCHLINE STA. 166+00

SLOPE INTERCEPT TYP.

B-53-216

WISCONSIN POWER & LIGHT GAS

CAUTION

IH 39 SB

IH 39 NB

MOVE TYPE II SIGN

CHARTER COMM. FIBER OPTIC

WISCONSIN POWER & LIGHT ELECTRIC

CITY OF BELOIT WATER

STA. 162+55, 33' LT
DO NOT DISTURB EXISTING STORM SEWER INLET

B-53-217

COLLEY RD

R/W

LEGEND

HMA PAVEMENT

TREE REMOVAL

PEPSICO FRITO LAY INC.

STA. 162+63 - STA. 201+79 LT
SAWCUT REQ.

MATCHLINE STA. 166+00

MATCHLINE STA. 180+00

POST #1
STA. 169+40.1,
40' LT

SLOPE INTERCEPT TYP.

MOVE TYPE II SIGN

IH 39 SB

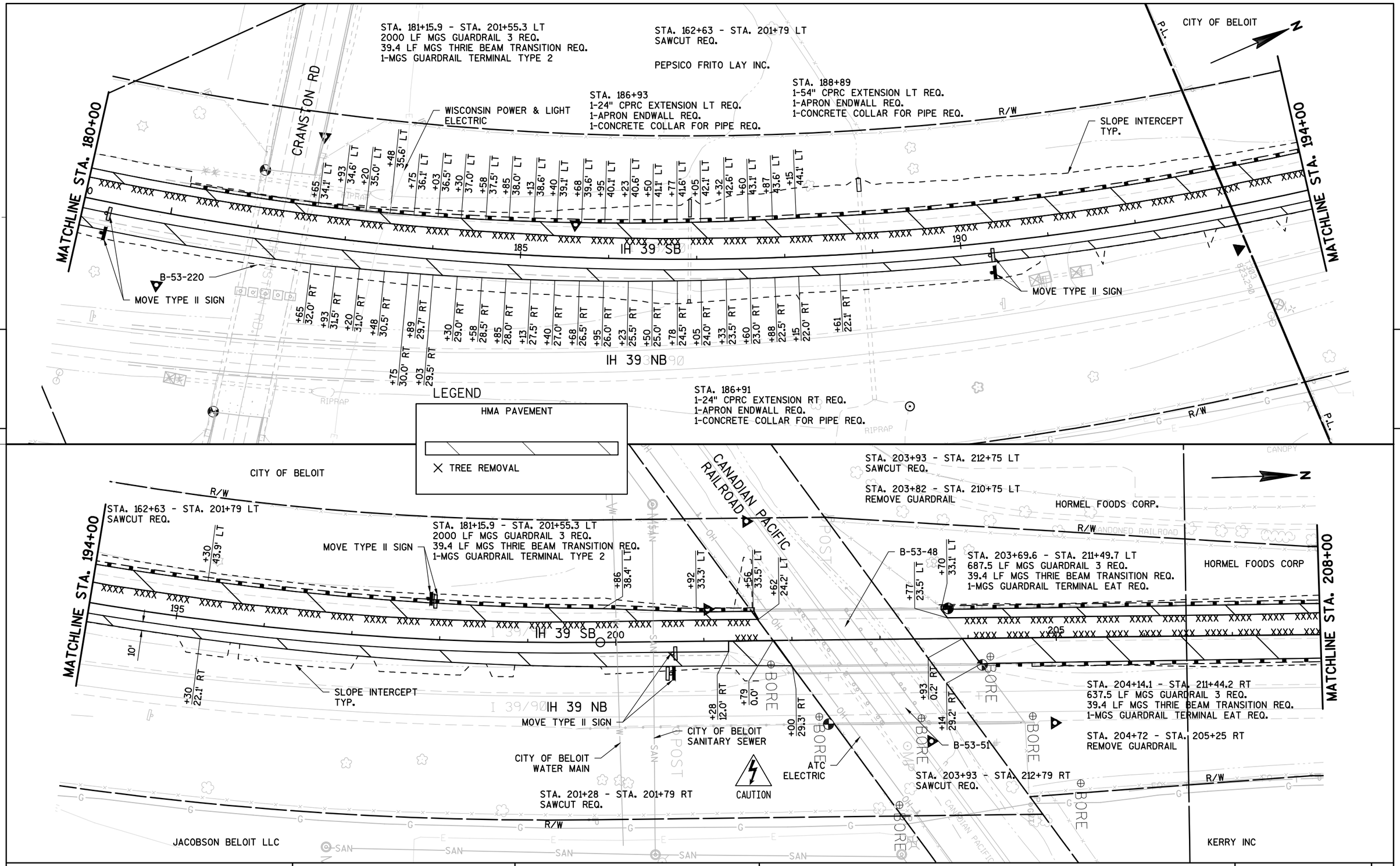
IH 39 NB

BENCH MARKS

NO.	DESCRIPTION	ELEV.
104T	FIRE HYD, SE QUAD, CRANSTON RD & RR INT.	813.37
114T	DISK IN BRIDGE ON NORTHWESTERLY BARRIER WALL OF I39 SB LANES. APPROX 2000' S OF THE CRANSTON OVERPASS.	813.37

PROJECT NO: 1003-10-78	HWY: IH 39	COUNTY: ROCK	PLAN: TEMPORARY WIDENING	SHEET 45	E

FILE NAME : L:\WORK\PROJECTS\60242867\000_CAD\001_DRAWINGS\1003-10-78_STATELINE TO CTH S TEMP\100%\050201_PN_78.DWG PLOT DATE : 7/30/2015 1:56 PM PLOT BY : ARBUCKLE, ADRIAN PLOT NAME : ---------- PLOT SCALE : **********



PROJECT NO:1003-10-78	HWY: IH 39	COUNTY: ROCK	PLAN: TEMPORARY WIDENING	SHEET 46	E

FILE NAME : L:\WORK\PROJECTS\60242867\000_CAD\001_DRAWINGS\1003-10-78_STATELINE TO CTH S TEMP\100%\050201_PN_78.DWG PLOT DATE : 7/30/2015 1:47 PM PLOT BY : ARBUCKLE, ADRIAN PLOT NAME : ---------- PLOT SCALE : **********

STA. 203+93 - STA. 212+68 LT
SAWCUT REQ.

HORMEL FOODS CORP

LN REAL ESTATE LLC

MOVE TYPE II SIGN

WISCONSIN POWER & LIGHT ELECTRIC

SLOPE INTERCEPT TYP.

POST #1
STA. 211+49.7,
46.0' LT

STA. 203+69.6 - STA. 211+49.7 LT
687.5 LF MGS GUARDRAIL 3 REQ.
39.4 LF MGS THRIE BEAM TRANSITION REQ.
1-MGS GUARDRAIL TERMINAL EAT REQ.

R/W

+68 43.9' LT

+68 34.4' LT

MATCHLINE STA. 208+00

MATCHLINE STA. 222+00

STH 81 EB TO
IH 39 SB

WISDOT ELECTRIC

IH 39 SB

210

215

220

BENCH MARKS

NO.	STATION	DESCRIPTION	ELEV.
105T	218+59	CHISELED SQ. SW CORNER OF CONC. SIGN BRIDGE BASE IN MEDIAN AT EXIT 185B	816.52

MOVE TYPE II SIGN

POST #1
STA. 211+44.2,
20.4' RT

+63 18.0' RT

+63 22.2' RT

+68 21.9' RT

+68 0.0' LT

IH 39 NB

STA. 204+14.1 - STA. 211+44.2 RT
637.5 LF MGS GUARDRAIL 3 REQ.
39.4 LT MGS THRIE BEAM TRANSITION REQ.
1-MGS GUARDRAIL TERMINAL EAT REQ.

STA. 203+93 - STA. 212+68 RT
SAWCUT REQ.

R/W

KERRY INC

IH 39 NB TO
IH 43 NB

5

5

N

LEGEND

HMA PAVEMENT

X TREE REMOVAL

IH 39 SB TO
IH 43 NB

IH 43 NB/STH 81

IH 43 SB/STH 81

IH 43 SB TO
IH 39 SB

MATCHLINE STA. 222+00

MATCHLINE STA. 236+00

225

IH 39 SB

230

235

IH 39 NB

WISDOT ELECTRIC

B-53-46

B-53-47

IH 43 NB TO
IH 39 NB

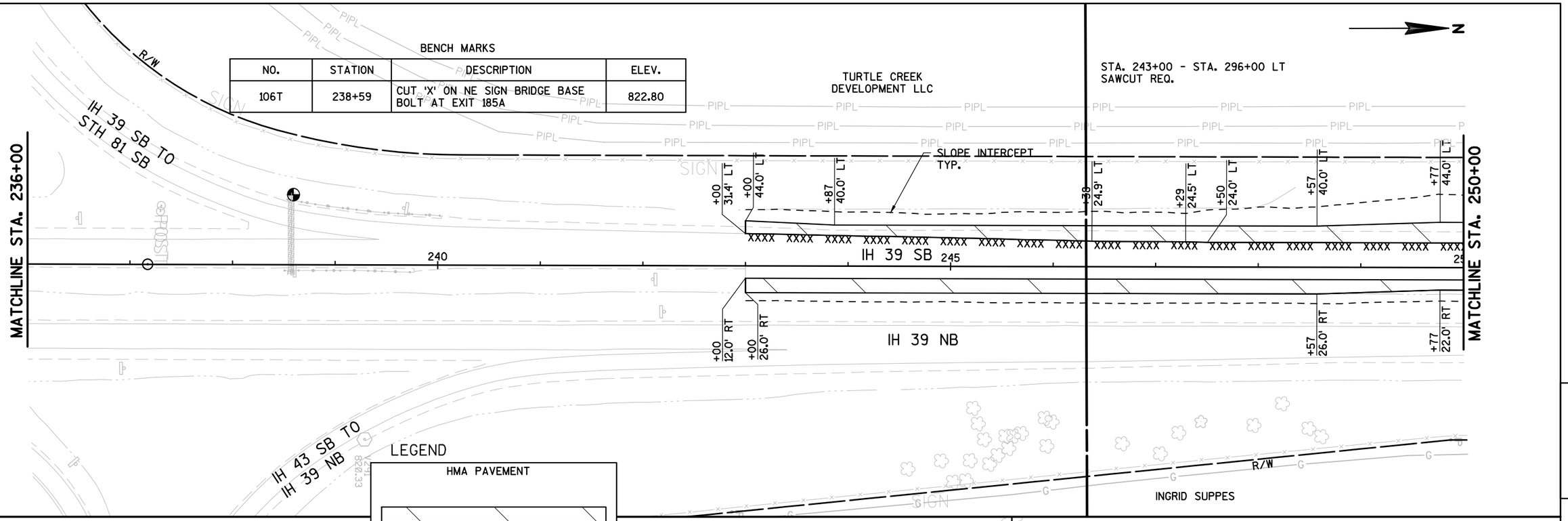
IH 39 NB TO
STH 81 SB

PROJECT NO: 1003-10-78	HWY: IH 39	COUNTY: ROCK	PLAN: TEMPORARY WIDENING	SHEET 47	E

FILE NAME : L:\WORK\PROJECTS\60242867\000_CAD\001_DRAWINGS\1003-10-78_STATELINE TO CTH S TEMP\100%\050201_PN_78.DWG PLOT DATE : 7/30/2015 1:58 PM PLOT BY : ARBUCKLE, ADRIAN PLOT NAME : ---------- PLOT SCALE : **********

BENCH MARKS

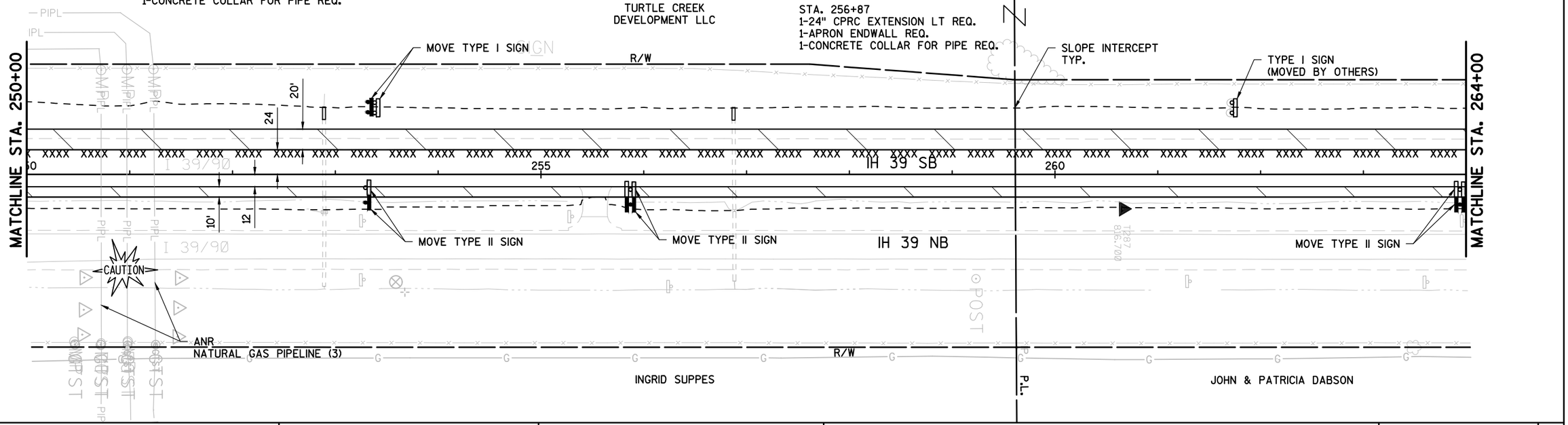
NO.	STATION	DESCRIPTION	ELEV.
106T	238+59	CUT 'X' ON NE SIGN BRIDGE BASE BOLT AT EXIT 185A	822.80



LEGEND

HMA PAVEMENT

X TREE REMOVAL



PROJECT NO: 1003-10-78	HWY: IH 39	COUNTY: ROCK	PLAN: TEMPORARY WIDENING	SHEET 48	E

STA. 243+00 - STA. 296+00 LT
SAWCUT REQ.

STA. 267+24
3-36" CPRC EXTENSION LT REQ.
3-APRON ENDWALL REQ.
3-CONCRETE COLLAR FOR PIPE REQ.

TURTLE CREEK
DEVELOPMENT LLC

STA. 273+89
1-18" CPRC EXTENSION LT REQ.
1-APRON ENDWALL REQ.
1-CONCRETE COLLAR FOR PIPE REQ.

HENRY KNUEPPEL

N

MATCHLINE STA. 264+00

CITY OF BELOIT
SANITARY SEWER

SLOPE INTERCEPT
TYP.

R/W

SIGN

MOVE TYPE II SIGN

MOVE TYPE II SIGN

P.L.

24

20'

265

270

275

IH 39 SB

I 39/90

10'

12'

IH 39 NB

I 39/90

MOVE TYPE II SIGN

MATCHLINE STA. 278+00

SAN

MH

R/W

R/W

R/W

P.L.

JOHN & PATRICIA DABSON

LESLIE & VIRGINIA
HULLAH

5

5

LEGEND

HMA PAVEMENT

X TREE REMOVAL

STA. 243+00 - STA. 296+00 LT
SAWCUT REQ.

N

STA. 281+91
1-24" CPRC EXTENSION LT REQ.
1-APRON ENDWALL REQ.
1-CONCRETE COLLAR FOR PIPE REQ.

HENRY KNUEPPEL

STA. 290+95
1-18" CPRC EXTENSION LT REQ.
1-APRON ENDWALL REQ.
1-CONCRETE COLLAR FOR PIPE REQ.

MATCHLINE STA. 278+00

TYPE I SIGN
(MOVED BY OTHERS)

SLOPE INTERCEPT
TYP.

MOVE TYPE I SIGN

24

20'

R/W

280

285

290

IH 39 SB

I 39/90

10'

12'

MOVE TYPE II SIGN

IH 39 NB

I 39/90

MATCHLINE STA. 292+00

R/W

LESLIE & VIRGINIA
HULLAH

PROJECT NO: 1003-10-78	HWY: IH 39	COUNTY: ROCK	PLAN: TEMPORARY WIDENING	SHEET 49	E

BENCH MARKS

NO.	STATION	DESCRIPTION	ELEV.
107T	298+91	CUT 'SQUARE' S. END OF NB CONC. BARRIER WALL, IH-39 & HART RD	824.14

STA. 243+00 - STA. 320+00 LT
SAWCUT REQ.

HENRY KNUEPPEL

STA. 296+90
1-24" CPRC EXTENSION LT REQ.
1-APRON ENDWALL REQ.
1-CONCRETE COLLAR FOR PIPE REQ.

HART RD

STA. 300+86
1-30" CPRC EXTENSION LT REQ.
1-APRON ENDWALL REQ.
1-CONCRETE COLLAR FOR PIPE REQ.

HAHN FAMILY TRUST

STA. 298+76.9 - STA. 303+05 LT
375 LF MGS GUARDRAIL 3 REQ.
1-MGS GUARDRAIL TERMINAL EAT REQ.
1-MGS GUARDRAIL TERMINAL TYPE 2 REQ.

MATCHLINE STA. 293+00

SLOPE INTERCEPT TYP.

+77 44.0' LT

+68 48.0' LT

+33 48.0' LT

POST #1
STA. 303+05.0,
46.4' LT

+33 44.0' LT

R/W

295

IH 39 SB

300

305

MATCHLINE STA. 306+00

MOVE TYPE II SIGN

IH 39 NB

+78 22.0' RT

CAUTION

WISCONSIN POWER & LIGHT GAS

+65 18.0' RT

WISCONSIN POWER & LIGHT ELECTRIC

B-53-312

+33 18.0' RT

MOVE TYPE I SIGN

+33 22.0' RT

MOVE TYPE II SIGN

MOVE TYPE TYPE II SIGN

CHARTER COMM. FIBER OPTIC OVERHEAD

LESLIE & VIRGINIA HULLAH

LEGEND

HMA PAVEMENT

TREE REMOVAL

ROCK ROAD
LATHERS INC

STA. 308+87
1-18" CPRC EXTENSION LT REQ.
1-APRON ENDWALL REQ.
1-CONCRETE COLLAR FOR PIPE REQ.

HAHN FAMILY TRUST

STA. 243+00 - STA. 320+00 LT
SAWCUT REQ.

STA. 318+90
1-24" CPRC EXTENSION LT REQ.
1-APRON ENDWALL REQ.
1-CONCRETE COLLAR FOR PIPE REQ.

END PROJECT 1003-10-78
STA. 320+00.00
Y = 221567.60
X = 506215.94

MATCHLINE STA. 306+00

SLOPE INTERCEPT TYP.

TYPE I SIGN (MOVED BY OTHERS)

R/W

MOVE TYPE II SIGN

IH 39 SB

310

315

320

IH 39 NB

MOVE TYPE II SIGN

TYPE I SIGN (MOVED BY OTHERS)

ROCK ROAD
LATHERS INC

PROJECT NO: 1003-10-78	HWY: IH 39	COUNTY: ROCK	PLAN: TEMPORARY WIDENING	SHEET 50	E

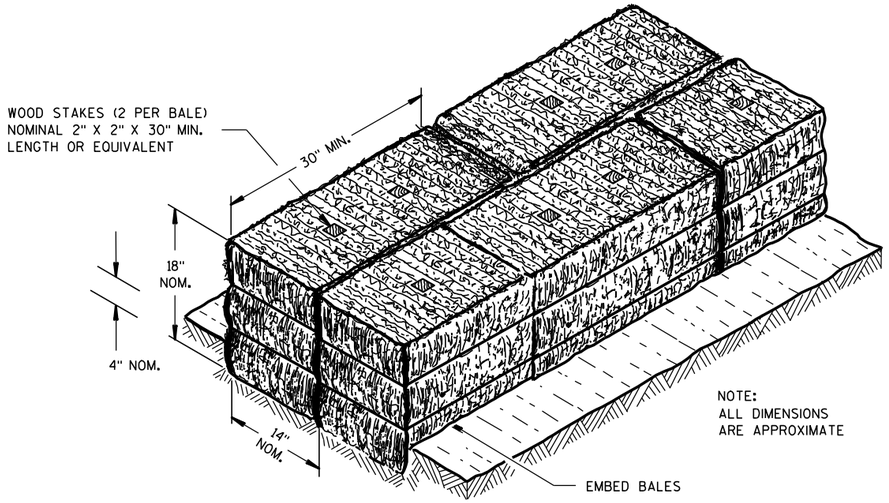
FILE NAME : L:\WORK\PROJECTS\60242867\000_CAD\001_DRAWINGS\1003-10-78_STATELINE TO CTH S TEMP\100%\050201_PN_78.DWG PLOT DATE : 7/27/2015 9:54 AM PLOT BY : ARBUCKLE, ADRIAN PLOT NAME : ---------- PLOT SCALE : **********

WISDOT/CADDS SHEET 44

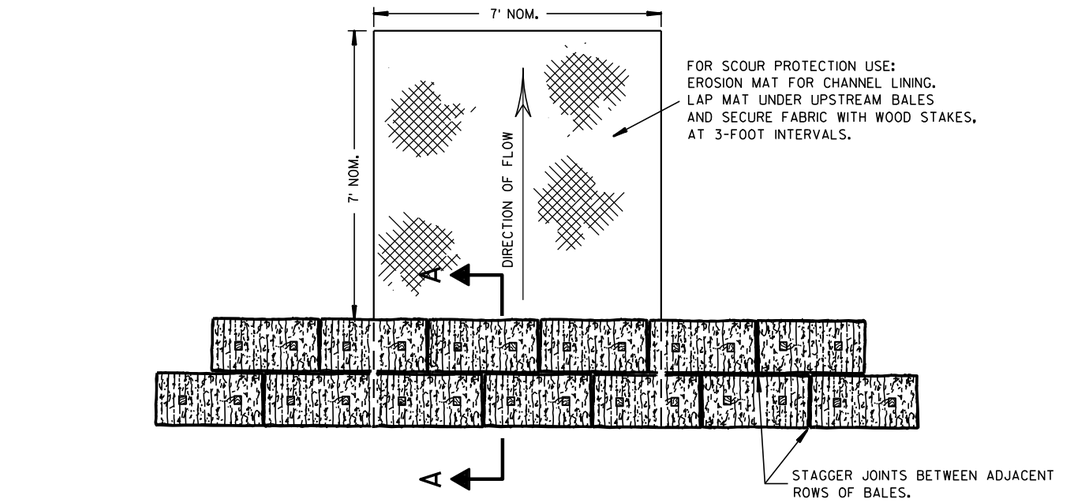
Standard Detail Drawing List

08E08-03	TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS
08E09-06	SILT FENCE
08E10-02	INLET PROTECTION TYPE A, B, C AND D
08E14-01	TRACKING PAD
08F01-11	APRON ENDWALLS FOR CULVERT PIPE
08F04-07	JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL
13C09-13A	CONCRETE PAVEMENT REPAIR AND REPLACEMENT
13C09-13B	CONCRETE PAVEMENT REPAIR AND REPLACEMENT
13C09-13C	CONCRETE PAVEMENT REPAIR AND REPLACEMENT
14B29-01	SAFETY EDGE
14B42-03A	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-03B	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-03C	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B44-02A	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B44-02B	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B44-02C	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B45-04A	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-04B	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-04C	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-04D	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-04E	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-04F	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-04G	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-04H	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-04I	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-04J	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B47-02A	MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL
14B47-02B	MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL
14B47-02C	MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL
15A03-02A	FLEXIBLE MARKER POST FOR CULVERT END
15A03-02B	FLEXIBLE MARKER POST FOR CULVERT END
15C08-16A	PAVEMENT MARKING (MAINLINE)
15C19-03C	MOVING PAVEMENT MARKING OPERATION MULTI-LANE DIVIDED ROADWAY
15D15-02	TRAFFIC CONTROL, EXIT AND ENTRANCE RAMP WITHIN LANE CLOSURE

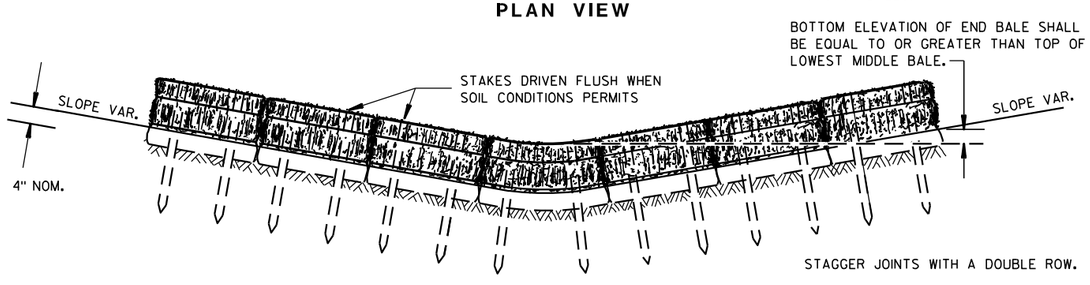
6



SECTION A-A



PLAN VIEW



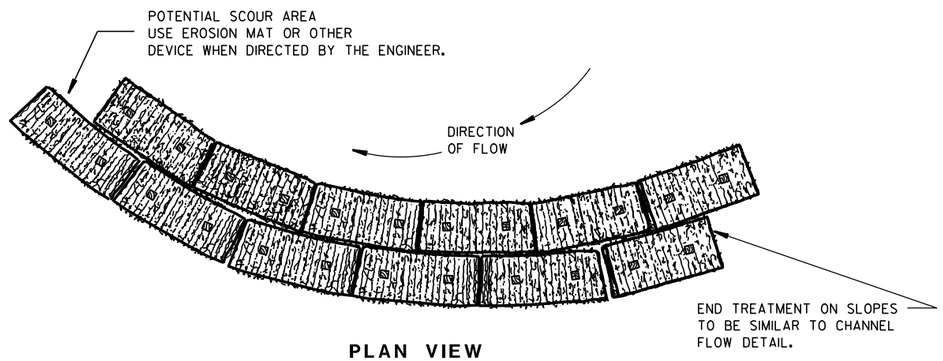
FRONT ELEVATION

TEMPORARY DITCH CHECK USING EROSION BALES ①

GENERAL NOTES

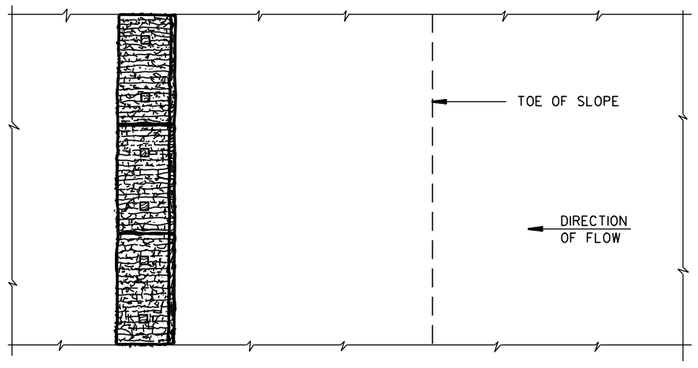
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

① TEMPORARY DITCH CHECKS EITHER EROSION BALES OR MANUFACTURED SHALL BE PAID FOR UNDER THE BID ITEM OF TEMPORARY DITCH CHECK. THE DEPARTMENT WILL NOT PAY FOR TEMPORARY DITCH CHECKS CONSTRUCTED OF A SINGLE ROW OF EROSION BALES.

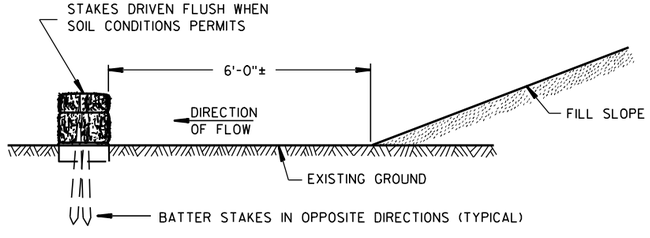


PLAN VIEW

WHEN ALTERING THE DIRECTION OF FLOW



PLAN VIEW



FRONT ELEVATION

WHEN EXISTING GROUND SLOPES AWAY FROM FILL SLOPE

EROSION BALES FOR SHEET FLOW

TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS

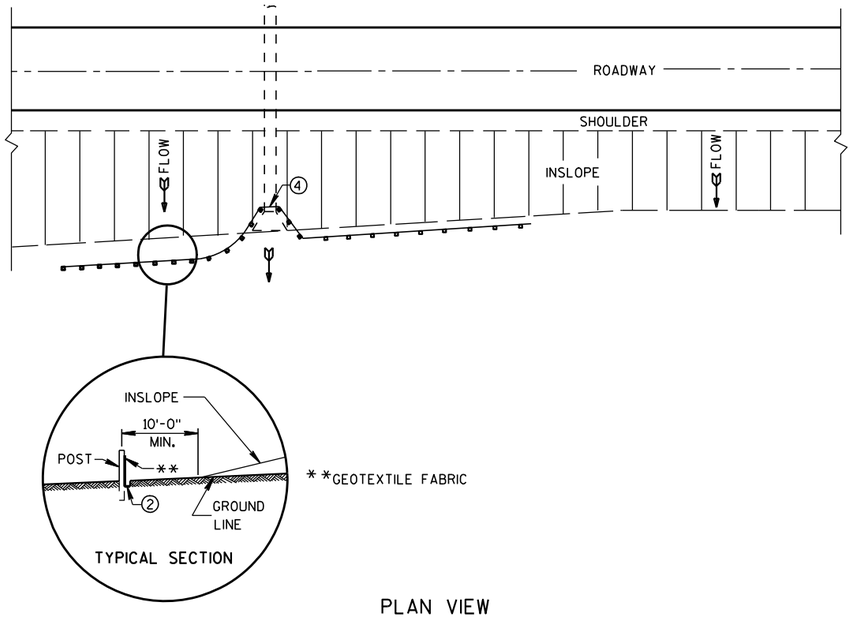
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

6/04/02 — DATE

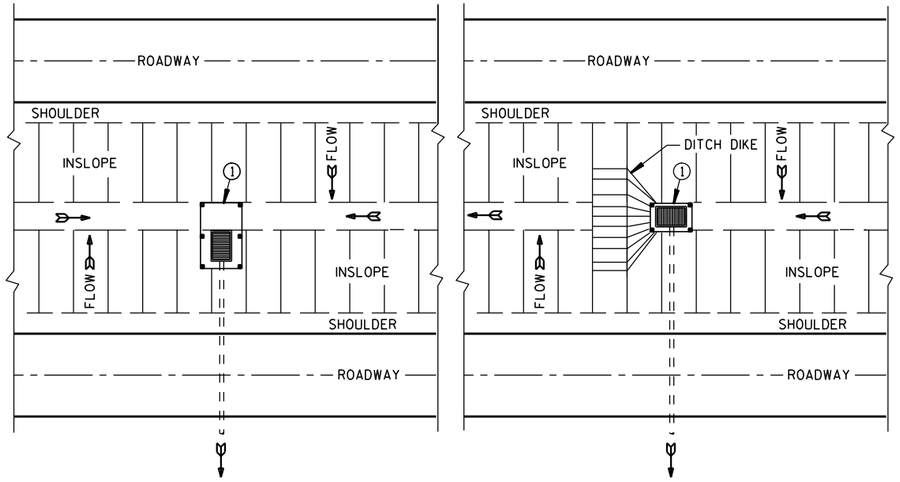
/S/ Beth Cannestra — CHIEF ROADWAY DEVELOPMENT ENGINEER

FHWA



PLAN VIEW

TYPICAL APPLICATION OF SILT FENCE



PLAN VIEW

SILT FENCE AT MEDIAN SURFACE DRAINS

GENERAL NOTES

DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

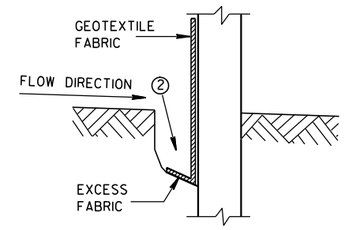
① HORIZONTAL BRACE REQUIRED WITH 2" X 4" WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS.

② FOR MANUAL INSTALLATIONS THE TRENCH SHALL BE A MINIMUM OF 4" WIDE & 6" DEEP TO BURY AND ANCHOR THE GEOTEXTILE FABRIC. FOLD MATERIAL TO FIT TRENCH AND BACKFILL & COMPACT TRENCH WITH EXCAVATED SOIL.

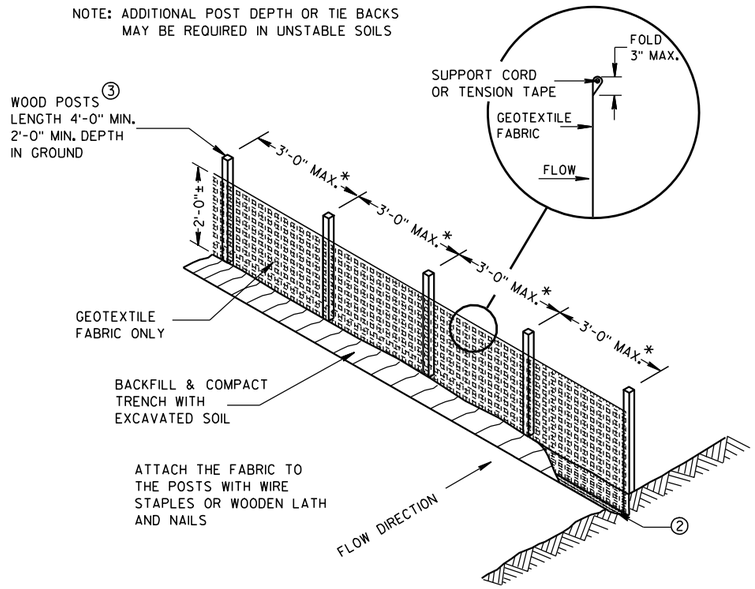
③ WOOD POSTS SHALL BE A MINIMUM SIZE OF 1⅛" X 1⅛" OF OAK OR HICKORY.

④ SILT FENCE TO EXTEND ACROSS THE TOP OF THE PIPE.

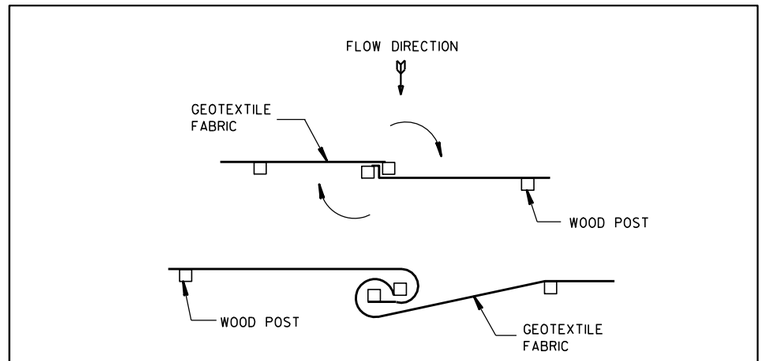
⑤ CONSTRUCT SILT FENCE FROM A CONTINUOUS ROLL IF POSSIBLE BY CUTTING LENGTHS TO AVOID JOINTS. IF A JOINT IS NECESSARY USE ONE OF THE FOLLOWING TWO METHODS; A) OVERLAP THE END POSTS AND TWIST, OR ROTATE, AT LEAST 180 DEGREES, B) HOOK THE END OF EACH SILT FENCE LENGTH.



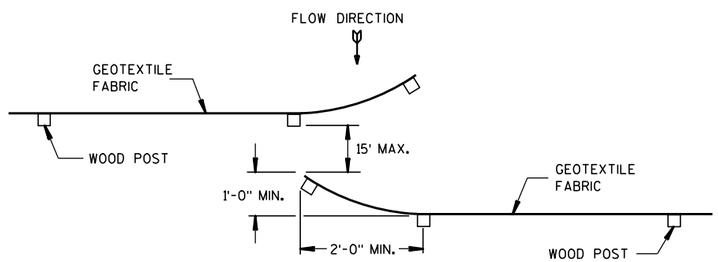
TRENCH DETAIL



SILT FENCE

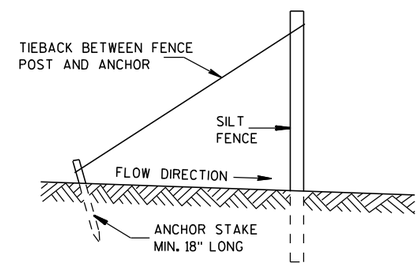


TWIST METHOD



HOOK METHOD

JOINING TWO LENGTHS OF SILT FENCE ⑤



SILT FENCE TIE BACK

(WHEN REQUIRED BY THE ENGINEER)

SILT FENCE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

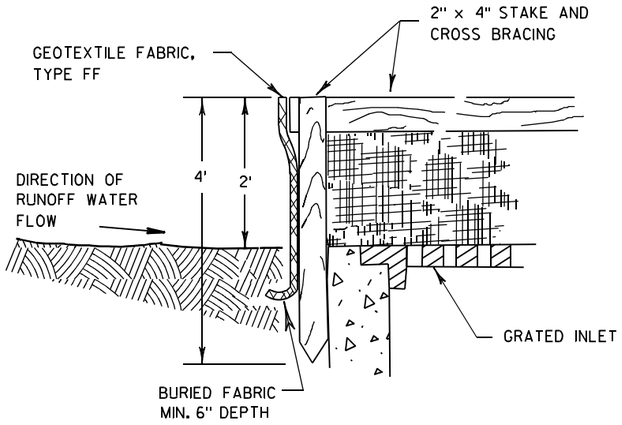
APPROVED
4-29-05 DATE
/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

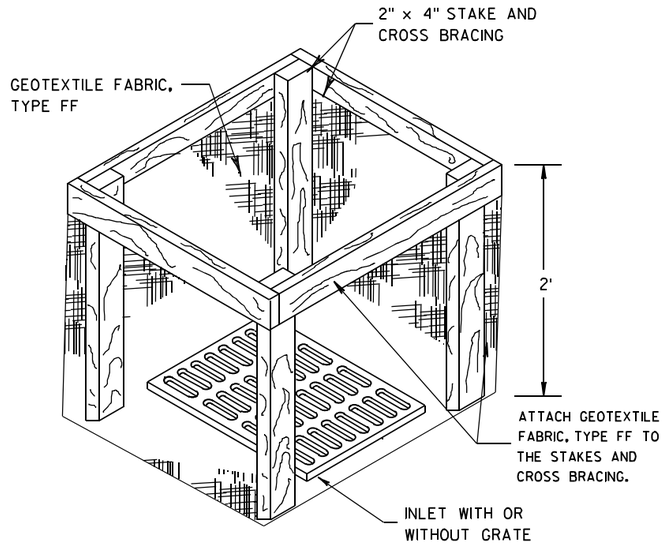
6

S.D.D. 8 E 9-6

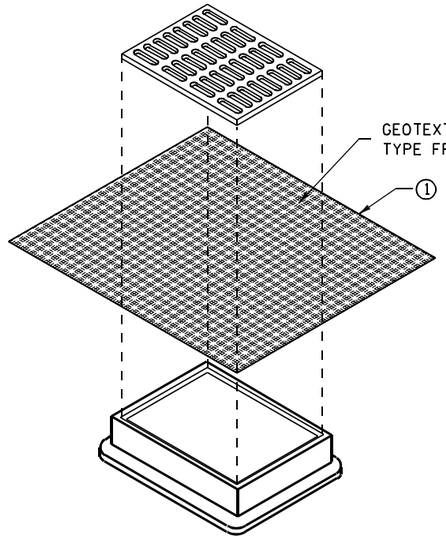
6

S.D.D. 8 E 9-6



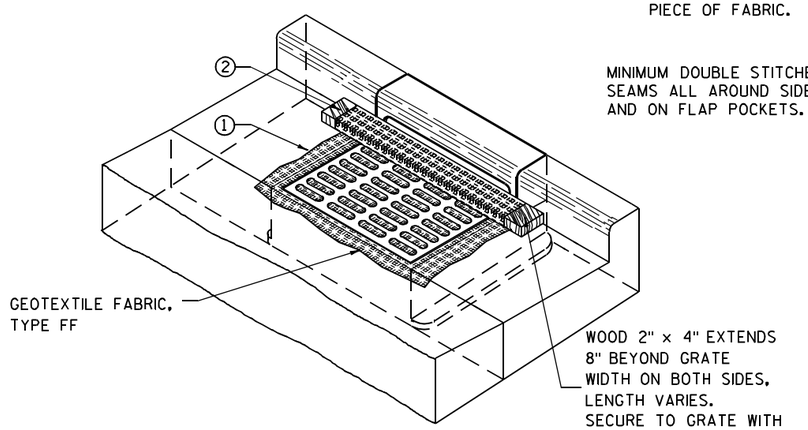


INLET PROTECTION, TYPE A

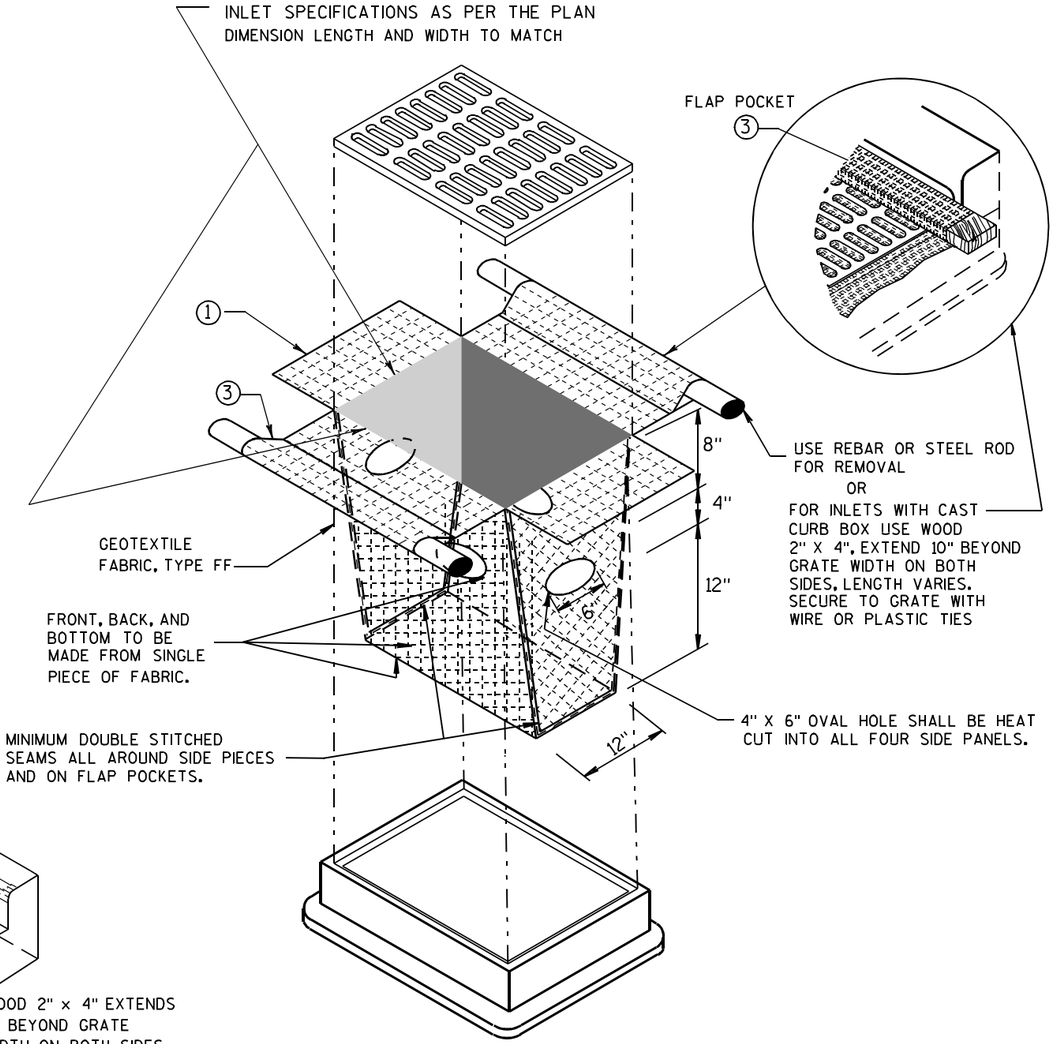


INLET PROTECTION, TYPE B
(WITHOUT CURB BOX)

(CAN BE INSTALLED IN ANY INLET WITHOUT A CURB BOX)



INLET PROTECTION, TYPE C (WITH CURB BOX)



INLET PROTECTION, TYPE D

(CAN BE INSTALLED IN ANY INLET TYPE WITH
OR WITHOUT A CURB BOX AS PER NOTE ②)

GENERAL NOTES

INLET PROTECTION DEVICES SHALL BE MAINTAINED OR REPLACED AT THE DIRECTION OF THE ENGINEER.

MANUFACTURED ALTERNATIVES APPROVED AND LISTED ON THE DEPARTMENT'S EROSION CONTROL PRODUCT ACCEPTABILITY LIST MAY BE SUBSTITUTED.

WHEN REMOVING OR MAINTAINING INLET PROTECTION, CARE SHALL BE TAKEN SO THAT THE SEDIMENT TRAPPED ON THE GEOTEXTILE FABRIC DOES NOT FALL INTO THE INLET. ANY MATERIAL FALLING INTO THE INLET SHALL BE REMOVED IMMEDIATELY.

① FINISHED SIZE, INCLUDING FLAP POCKETS WHERE REQUIRED, SHALL EXTEND A MINIMUM OF 10" AROUND THE PERIMETER TO FACILITATE MAINTENANCE OR REMOVAL.

② FOR INLET PROTECTION, TYPE C (WITH CURB BOX), AN ADDITIONAL 18" OF FABRIC IS WRAPPED AROUND THE WOOD AND SECURED WITH STAPLES. THE WOOD SHALL NOT BLOCK THE ENTIRE HEIGHT OF THE CURB BOX OPENING.

③ FLAP POCKETS SHALL BE LARGE ENOUGH TO ACCEPT WOOD 2X4.

INSTALLATION NOTES

TYPE B & C

TRIM EXCESS FABRIC IN THE FLOW LINE TO WITHIN 3" OF THE GRATE.

THE CONTRACTOR SHALL DEMONSTRATE A METHOD OF MAINTENANCE, USING A SEWN FLAP, HAND HOLDS OR OTHER METHOD TO PREVENT ACCUMULATED SEDIMENT FROM ENTERING THE INLET.

TYPE D

DO NOT INSTALL INLET PROTECTION TYPE D IN INLETS SHALLOWER THAN 30", MEASURED FROM THE BOTTOM OF THE INLET TO THE TOP OF THE GRATE.

TRIM EXCESS FABRIC IN THE FLOW LINE TO WITHIN 3" OF THE GRATE.

THE INSTALLED BAG SHALL HAVE A MINIMUM SIDE CLEARANCE, BETWEEN THE INLET WALLS AND THE BAG, MEASURED AT THE BOTTOM OF THE OVERFLOW HOLES, OF 3". WHERE NECESSARY THE CONTRACTOR SHALL CINCH THE BAG, USING PLASTIC ZIP TIES, TO ACHIEVE THE 3" CLEARANCE. THE TIES SHALL BE PLACED AT A MAXIMUM OF 4" FROM THE BOTTOM OF THE BAG.

INLET PROTECTION
TYPE A, B, C, AND D

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

10/16/02
DATE

/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER

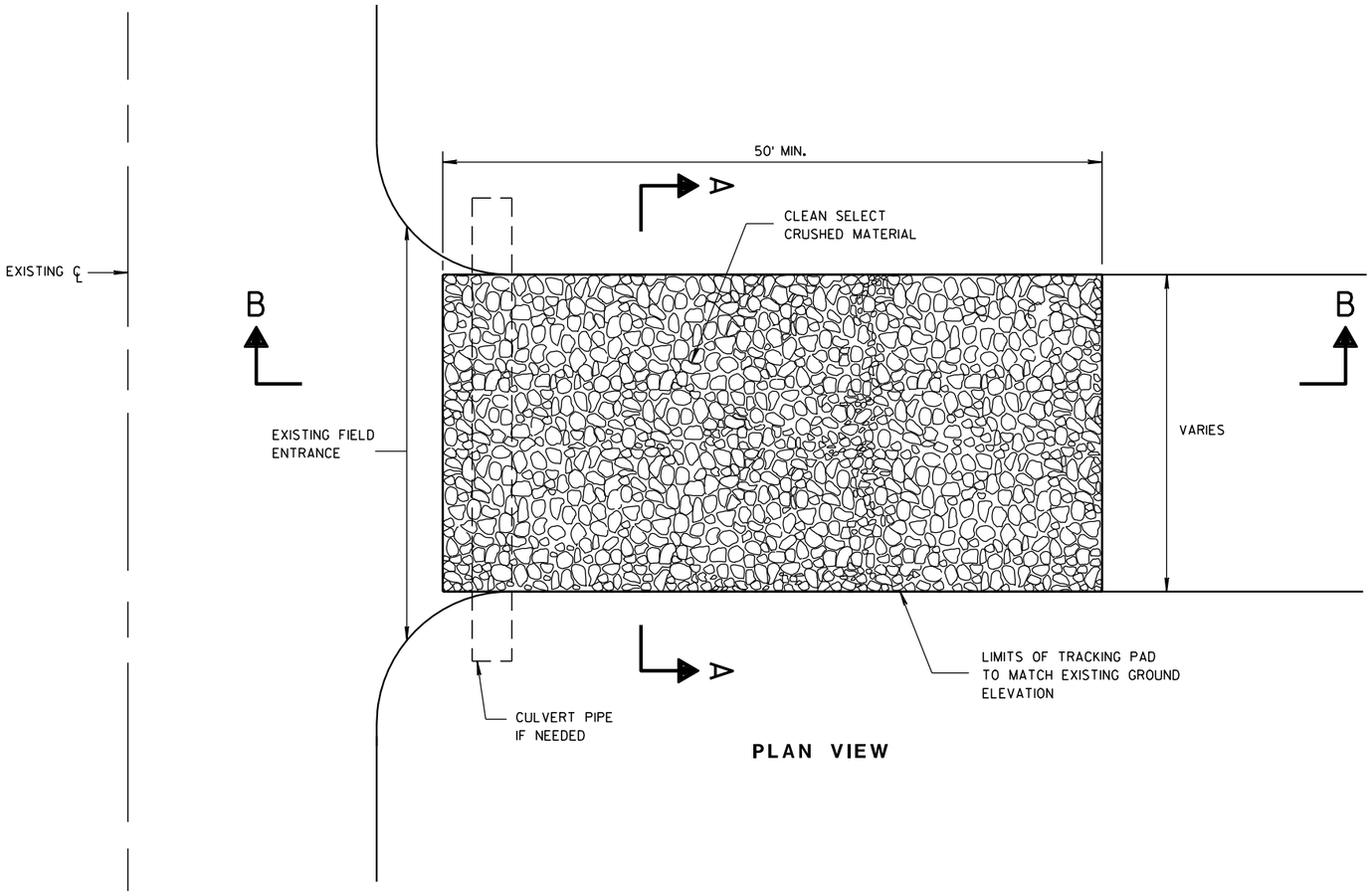
FHWA

6

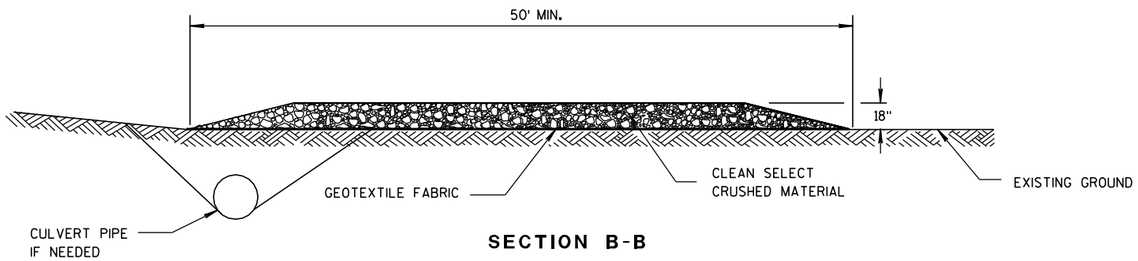
S.D.D. 8 E 10-2

6

S.D.D. 8 E 10-2



PLAN VIEW



SECTION B-B

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

TRACKING PAD SHALL BE INSPECTED DAILY. DEFICIENT AREAS SHALL BE REPAIRED OR REPLACED IMMEDIATELY.

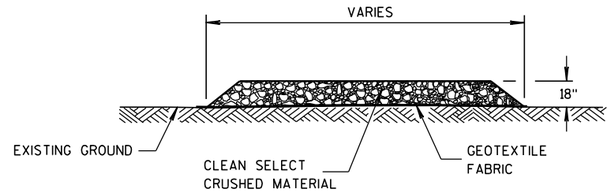
TRACKING PAD TO BE REMOVED AFTER CONSTRUCTION IS COMPLETED.

TRACKING PAD SHALL BE THE FULL WIDTH OF THE EGRESS POINT.

SURFACE WATER MUST BE PREVENTED FROM PASSING THROUGH THE TRACKING PAD. FLOWS SHALL BE DIVERTED AWAY, AROUND OR CONVEYED UNDER THE TRACKING PAD.

CULVERT PIPE OR OTHER BMP USED TO DIVERT WATER AWAY, AROUND OR UNDER THE TRACKING PAD SHALL BE DESIGNED TO CONVEY THE 2 YEAR - 24 HOUR EVENT.

THE COST OF ADDITIONAL BMP TO DIVERT WATER ARE INCIDENTAL TO THE TRACKING PAD BID ITEM.



SECTION A-A

TRACKING PAD

TRACKING PAD

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

3/24/2011	/S/ Jerry H. Zona	
DATE	ROADWAY STANDARDS ENGINEER	ENT

FHWA

6

S.D.D. 8 E 14-1

METAL APRON ENDWALLS

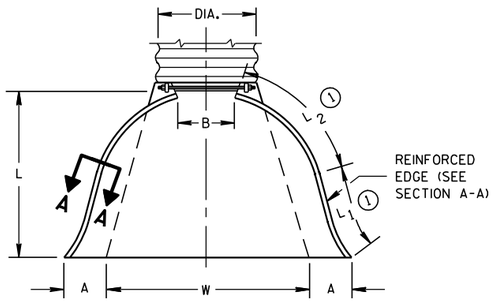
PIPE DIA. (IN.)	MIN. THICK. (Inches) STEEL	MIN. THICK. (Inches) ALUM.	DIMENSIONS (Inches) A (±1")	B (MAX.)	H (±1")	L (±1 1/2")	L1 ①	L2 ①	W (±2")	APPROX. SLOPE	BODY
12	.064	.060	6	6	6	21	12	17 1/2	24	2 1/2 to 1	1 Pc.
15	.064	.060	7	8	6	26	14	21 3/4	30	2 1/2 to 1	1 Pc.
18	.064	.060	8	10	6	31	15	28 1/4	36	2 1/2 to 1	1 Pc.
21	.064	.060	9	12	6	36	18	29 5/8	42	2 1/2 to 1	1 Pc.
24	.064	.075	10	13	6	41	18	37 1/4	48	2 1/2 to 1	1 Pc.
30	.079	.075	12	16	8	51	18	52 1/4	60	2 1/2 to 1	1 Pc.
36	.079	.105	14	19	9	60	24	59 3/4	72	2 1/2 to 1	2 Pc.
42	.109	.105	16	22	11	69	24	75 5/8	84	2 1/2 to 1	2 Pc.
48	.109	.105	18	27	12	78	24	81	90	2 1/4 to 1	3 Pc.
54	.109	.105	18	30	12	84	30	85 1/2	102	2 1/4 to 1	3 Pc.
60	.109×	.105×	18	33	12	87	—	—	114	2 to 1	3 Pc.
66	.109×	.105×	18	36	12	87	—	—	120	2 to 1	3 Pc.
72	.109×	.105×	18	39	12	87	—	—	126	2 to 1	3 Pc.
78	.109×	.105×	18	42	12	87	—	—	132	1 1/2 to 1	3 Pc.
84	.109×	.105×	18	45	12	87	—	—	138	1 1/2 to 1	3 Pc.
90	.109×	.105×	18	37	12	87	—	—	144	1 1/2 to 1	3 Pc.
96	.109×	.105×	18	35	12	87	—	—	150	1 1/2 to 1	3 Pc.

× EXCEPT CENTER PANEL SEE GENERAL NOTES

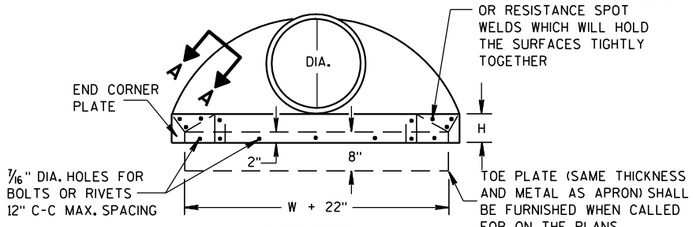
REINFORCED CONCRETE APRON ENDWALLS

PIPE DIA. (IN.)	DIMENSIONS (Inches) T	A	B	C	D	E	G	APPROX. SLOPE
12	2	4	24	48 7/8	72 1/8	24	2	3 to 1
15	2 1/4	6	27	46	73	30	2 1/4	3 to 1
18	2 1/2	9	27	46	73	36	2 1/2	3 to 1
21	2 3/4	9	36	37 1/2	73 1/2	42	2 3/4	3 to 1
24	3	9 1/2	43 1/2	30	73 1/2	48	3	3 to 1
27	3 1/4	10 1/2	49 1/2	24	73 1/2	54	3 1/4	3 to 1
30	3 1/2	12	54	19 3/4	73 1/2	60	3 1/2	3 to 1
36	4	15	63	34 3/4	97 3/4	72	4	3 to 1
42	4 1/2	21	63	35	98	78	4 1/2	3 to 1
48	5	24	72	26	98	84	5	3 to 1
54	5 1/2	27	65	* 33 1/4 - ** 35	* 98 1/4 - ** 100	90	5 1/2	2 2/5 to 1
60	6	* 30 - ** 35	60	39	99	96	5	2 to 1
66	6 1/2	* 24 - ** 30	* 72 - ** 78	* 21 - ** 27	99	102	5 1/2	2 to 1
72	7	* 24 - ** 36	78	21	99	108	6	2 to 1
78	7 1/2	* 24 - ** 36	78	21	99	114	6 1/2	2 to 1
84	8	36	90 1/2	21	111 1/2	120	6 1/2	1 1/2 to 1
90	8 1/2	41	87 1/2	24	111 1/2	132	6 1/2	1 1/2 to 1

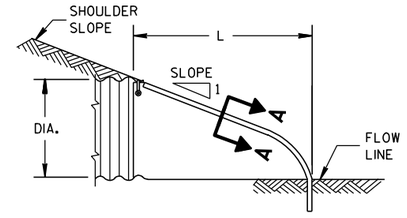
* MINIMUM
** MAXIMUM



PLAN VIEW

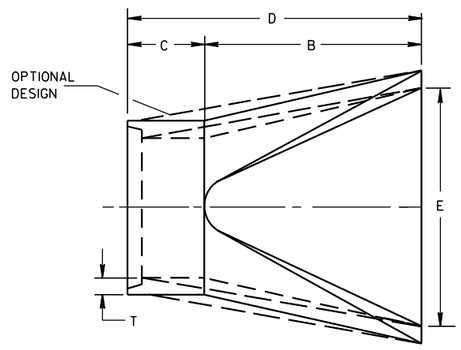


END VIEW

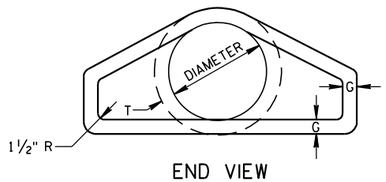


SIDE ELEVATION

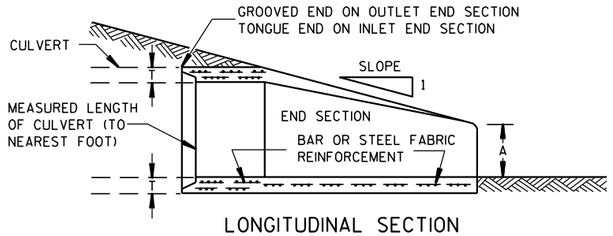
METAL ENDWALLS



PLAN

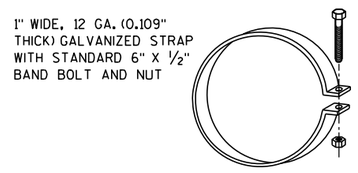


END VIEW



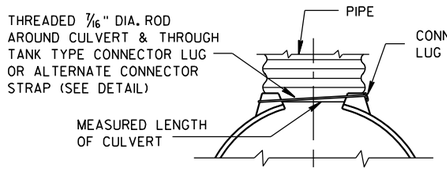
LONGITUDINAL SECTION

CONCRETE ENDWALLS

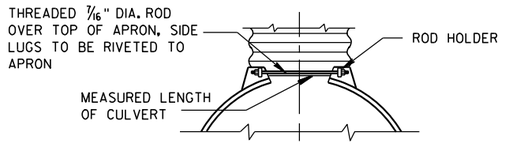


ALTERNATE FOR TYPE 1 CONNECTION

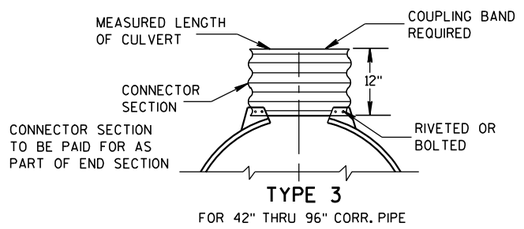
END SECTION CONNECTOR STRAP



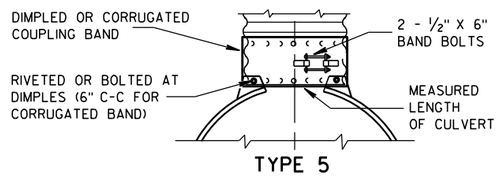
TYPE 1
FOR 12" THRU 24" CORR. PIPE



TYPE 2
FOR 30" THRU 96" CORR. PIPE



TYPE 3
FOR 42" THRU 96" CORR. PIPE



TYPE 5
ALTERNATE FOR:
ALL SIZES CORRUGATED CIRCULAR PIPE

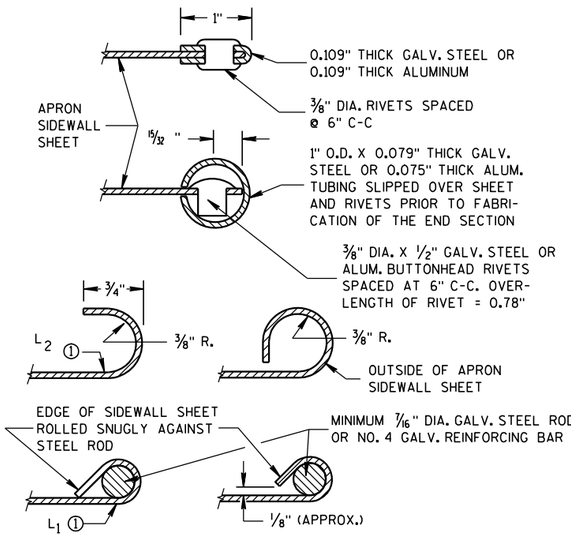
NOTE: DIMPLED BAND FITS OVER OUTSIDE OF ENDWALL. AND CORRUGATED BAND FITS INSIDE ENDWALL. DIMPLED BAND MAY BE USED WITH HELICALLY CORRUGATED PIPE.

FOR CIRCUMFERENTIALLY CORRUGATED PIPE USE ENDWALL CONNECTION DETAILS 1, 2, 3 OR 5 AS APPLICABLE.

FOR HELICALLY CORRUGATED PIPE USE ENDWALL CONNECTION DETAILS 1, 2 OR 5.

FOR HELICALLY CORRUGATED PIPES WITH TWO CIRCUMFERENTIAL CORRUGATIONS AT EACH END USE ENDWALL CONNECTION DETAILS 1, 2 OR 3.

CONNECTION DETAILS



SECTION A-A

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

CONCRETE CULVERT ENDWALLS MAY NOT BE USED WITH GALVANIZED STEEL OR ALUMINUM CULVERT PIPE OR VISE VERSA. GALVANIZED STEEL OR ALUMINUM ENDWALLS SHALL NORMALLY BE INSTALLED ON CULVERT PIPE OF THE SAME METAL.

ALL THREE PIECE STEEL APRON ENDWALLS FOR 60" DIAMETER PIPE AND LARGER SHALL HAVE 0.109" SIDES AND 0.138" CENTER PANELS. ALL THREE PIECE ALUMINUM APRON ENDWALLS FOR 60" DIAMETER PIPE AND LARGER SHALL HAVE 0.105" SIDES AND 0.134" CENTER PANELS. THE WIDTH OF CENTER PANELS SHALL BE GREATER THAN 20 PERCENT OF THE PIPE PERIMETER.

LAP SEAMS SHALL BE TIGHTLY JOINED BY GALVANIZED RIVETS OR BOLTS FOR STEEL UNITS AND ALUMINUM RIVETS AND BOLTS FOR ALUMINUM UNITS. FOR THE 60" THROUGH 96" DIAMETER APRON ENDWALL SIZES, THE REINFORCED EDGES AND CENTER PANEL SEAMS SHALL BE FURTHER REINFORCED WITH GALVANIZED STEEL OR ALUMINUM STIFFENER ANGLES. THE ANGLES SHALL BE ATTACHED BY GALVANIZED NUTS AND BOLTS FOR STEEL UNITS AND ALUMINUM NUTS AND BOLTS FOR ALUMINUM UNITS.

WHERE TWO OR MORE PIPES WITH APRON ENDWALLS ARE LAID ADJACENT TO EACH OTHER, THEY SHALL BE SEPARATED BY A DISTANCE SUFFICIENT TO PROVIDE A MINIMUM CLEARANCE OF 6 INCHES BETWEEN APRON ENDWALLS.

① FOR PIPE SIZES UP TO 60" DIAMETER, A 180° ROLLED EDGE MAY BE USED INSTEAD OF STEEL ROD REINFORCEMENT. SEE SECTION A-A.

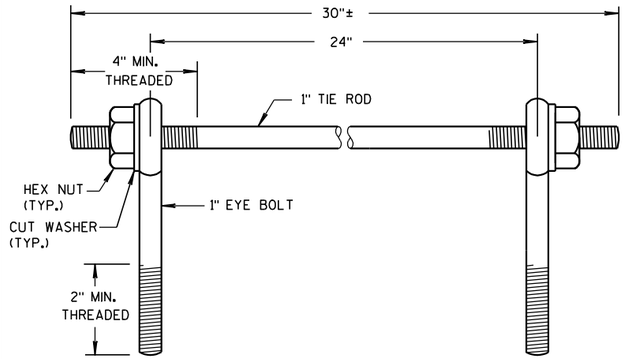
APRON ENDWALLS FOR CULVERT PIPE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

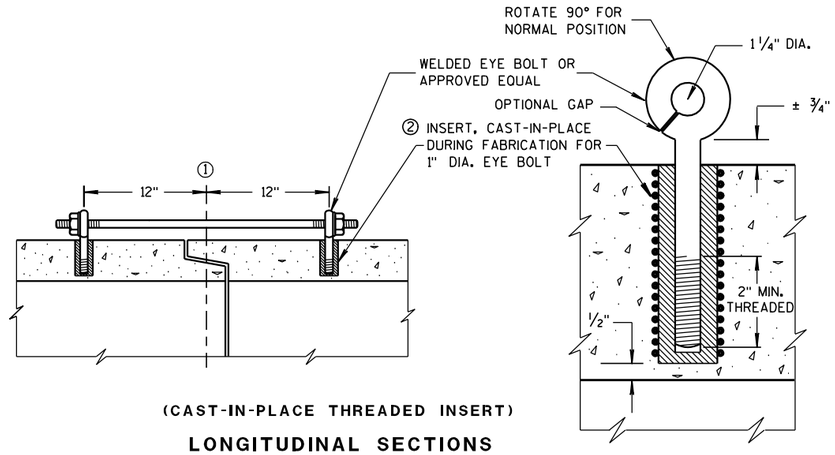
APPROVED
11/30/94 DATE
/S/ Rory L. Rhinesmith
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

6

S.D.D. 8 F 1-11



EYE BOLTS AND TIE ROD



(CAST-IN-PLACE THREADED INSERT)

LONGITUDINAL SECTIONS

EYE BOLT AND TIE ROD ASSEMBLY (ALTERNATE NO. 1)

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS, AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

CONCRETE CULVERT AND STORM SEWER PIPE SHALL BE TIED TOGETHER IN THE MANNER ILLUSTRATED BY THIS DETAIL AT LOCATIONS DESIGNATED IN THE STANDARD SPECIFICATIONS AND THE PLAN. THE CONTRACTOR MAY USE EITHER ALTERNATE 1, 2 OR 3 FOR DRAINAGE STRUCTURES. ONLY ALTERNATE 1 AND 3 MAY BE USED FOR CATTLE PASSES, UNLESS OTHERWISE STATED IN THE CONTRACT. THE MATERIALS, FABRICATION AND WORK NECESSARY TO TIE THE PIPE BY THIS DETAIL WILL BE CONSIDERED INCIDENTAL TO THE PIPE AND APRON ENDWALLS IF REQUIRED.

DETAILED DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR JOINT TIES SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL.

JOINT TIES TO BE HOT-DIP GALVANIZED PER ASTM A 153.

① ℄ OF TONGUE AND GROOVE OR BELL AND SPIGOT JOINTS.

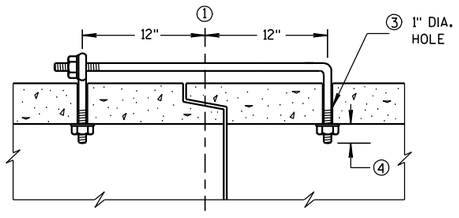
② THE INSIDE OF THE THREADED INSERTS SHALL BE CLEAN TO ALLOW THE INSERTION OF THREADED EYE BOLTS.

③ HOLES SHALL BE CAST-IN-PLACE OR DRILLED 12 INCHES FROM ℄ OF TONGUE AND GROOVE.

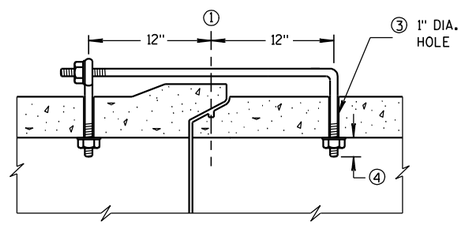
④ BOLT PROJECTION INSIDE OF PIPE SHALL NOT EXCEED 2 INCHES.

⑤ OPENING TO BE ROD DIAMETER PLUS 1 INCH.

⑥ LENGTH ADEQUATE TO EXTEND TO WITHIN 1/2 INCH OF THE INNER SURFACE OF THE PIPE.



(TONGUE & GROOVE PIPE)

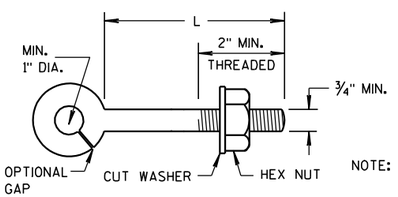


(MODIFIED BELL PIPE)

LONGITUDINAL SECTION

EYE BOLT DIMENSION TABLE

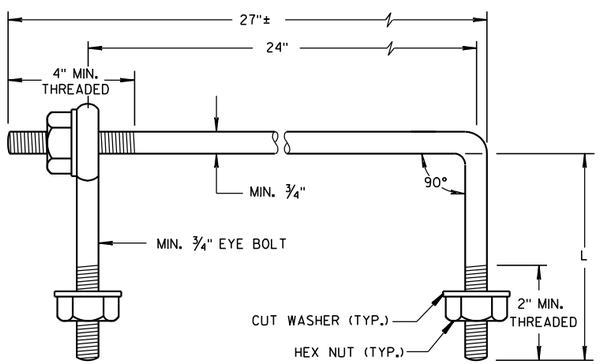
PIPE SIZE	L = LENGTH	
	TONGUE & GROOVE PIPE	MODIFIED BELL PIPE
18" TO 24"	4 1/2"	6 1/4"
30"	5"	7"
36"	5 1/2"	7"
42"	6"	
48"	6 1/2"	
60"	7 1/2"	
66"	8"	



NOTE:

EYE BOLT

NOTE: TWO EYE BOLTS MAY BE USED WITH A 30" LONG THREADED ROD IN LIEU OF THE 90° BENT TIE ROD.



EYE BOLT AND TIE ROD

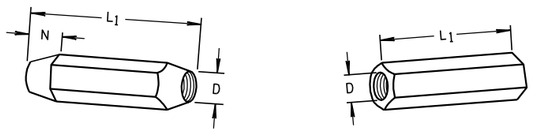
(JOINT TIES FOR 18" TO 66" DIA. CONCRETE PIPE)

EYE BOLT AND TIE ROD ASSEMBLY (ALTERNATE NO. 2)

ADJUSTABLE TIE ROD TABLE

PIPE DIAMETER	TIE ROD DIAMETER	D	L_1	N
12-60	5/8	5/8	5	1/2
66-84	3/4	3/4	5	1/2
90-108	1	1	7	1 1/16

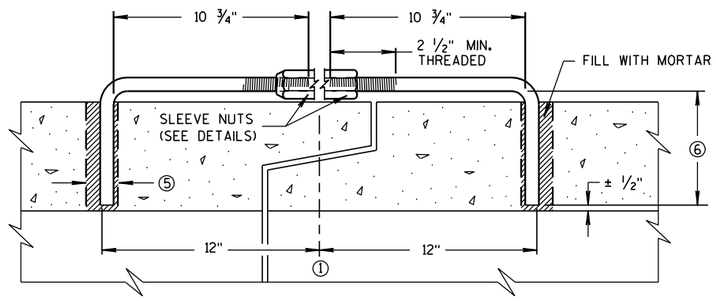
DIMENSIONS SHOWN ARE IN INCHES



TAPERED PLAIN

RIGHT AND LEFT THREADS

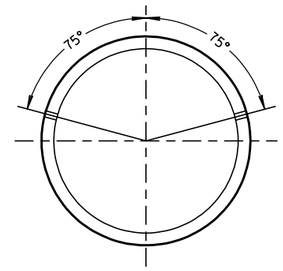
SLEEVE NUTS



LONGITUDINAL SECTION

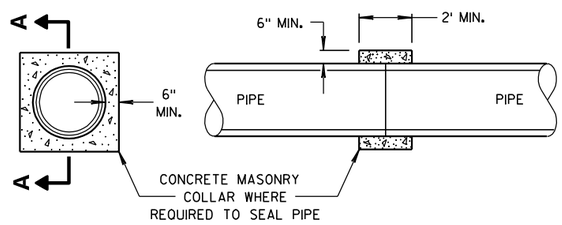
(JOINT TIES FOR 12" TO 108" DIA. CONCRETE PIPE)

ADJUSTABLE TIE ROD (ALTERNATE NO. 3)



PLACEMENT OF (2) CAST-IN-PLACE INSERTS OR HOLES DURING FABRICATION FOR PIPE SECTIONS REQUIRING TIE RODS

TRANSVERSE SECTION



SECTION A-A

CONCRETE COLLAR DETAIL

JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
6/5/2012 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS ENGINEER
57 — 'MENT

FHWA

6

S.D.D. 8 F 4-7

6

S.D.D. 8 F 4-7

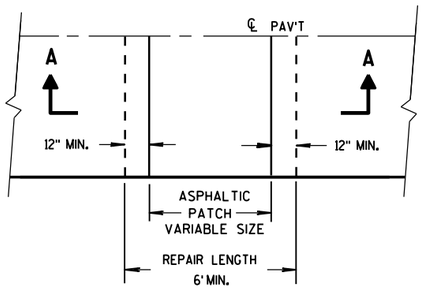
GENERAL NOTES

SAW CUT, DRILL, AND LIFT OUT EXISTING CONCRETE PAVEMENT WITHIN THE BOUNDARIES OF CONCRETE REPAIR AREAS. THE CONTRACTOR MAY MAKE ADDITIONAL SAW CUTS INSIDE THE REPAIR LIMITS TO REDUCE WEIGHT AND SIZE OF CONCRETE PIECES.

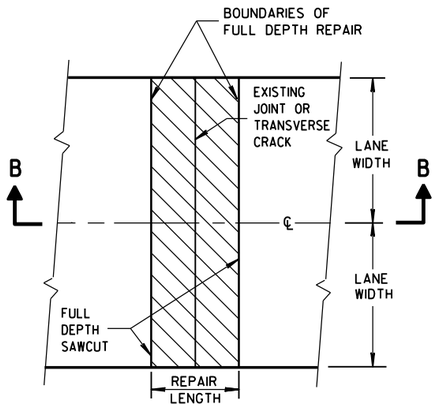
PROVIDE A 6-FOOT MINIMUM DISTANCE FROM BOUNDARIES OF CONCRETE REPAIR AREAS TO ADJACENT TRANSVERSE JOINT OR CRACK IN THE SAME LANE.

THE LENGTH OF THE REPAIRS MAY VARY FROM THE DIMENSIONS SHOWN IF THE EXISTING CONCRETE PAVEMENT IS NONDOWELED AND THE PAVEMENT IS TO BE OVERLAID AFTER REPAIRING.

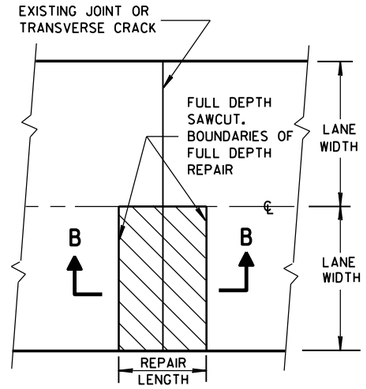
(1) DOWEL BARS MIGHT NOT EXIST.



PLAN VIEW

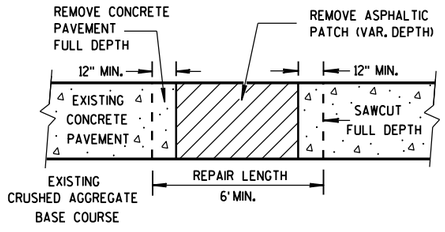


PLAN VIEW
(DOUBLE LANE REPAIR)



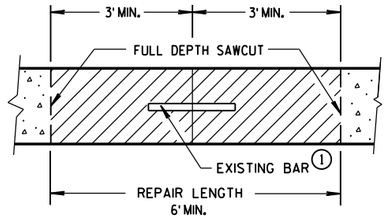
PLAN VIEW
(SINGLE LANE REPAIR)

FULL DEPTH CONCRETE PAVEMENT REMOVAL



SECTION A-A

HMA PATCH REMOVAL



SECTION B-B

CONCRETE REMOVAL

CONCRETE PAVEMENT REPAIR AND REPLACEMENT

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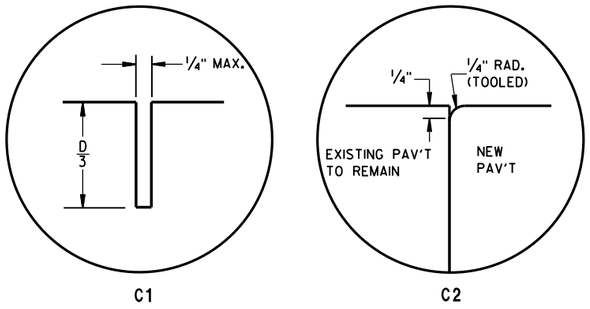
S.D.D. 13 C 9-13a



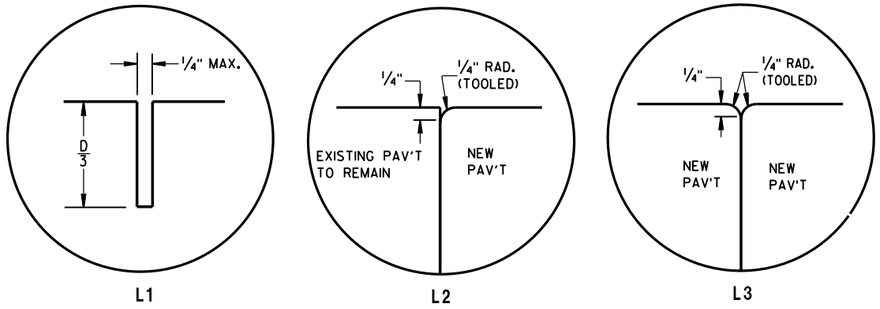
TRANSVERSE JOINTS

TIE BAR TABLE

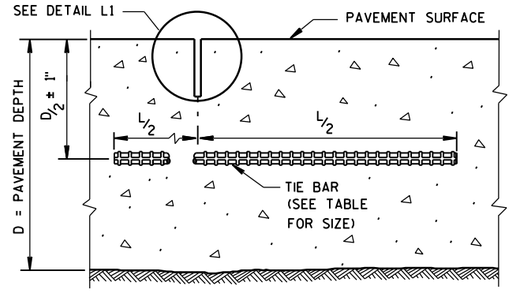
PAVEMENT DEPTH (D)	TIE BAR SIZE	TIE BAR LENGTH (L)	MAX. TIE BAR SPACING
< 10 ½"	NO. 4	30"	36"
≥ 10 ½"	NO. 5	36"	36"
	NO. 4 *	30"	24"**

* SUBSTITUTE BENT BARS AT LONGITUDINAL JOINTS WHEN EQUIPMENT LIMITATIONS DURING CONSTRUCTION WARRANT (e.g. AUXILIARY LANES OR TURN LANES)

** CONFORM TO 15" MINUMUM SPACING FROM TRANSVERSE JOINTS; SPACING BETWEEN TIE BARS WILL BE 30" AT TRANSVERSE JOINTS.



LONGITUDINAL JOINTS



SECTION C-C

SAWED LONGITUDINAL JOINT

GENERAL NOTES

INSTALL DOWEL BARS PARALLEL TO THE PAVEMENT CENTERLINE AND PAVEMENT SURFACE.

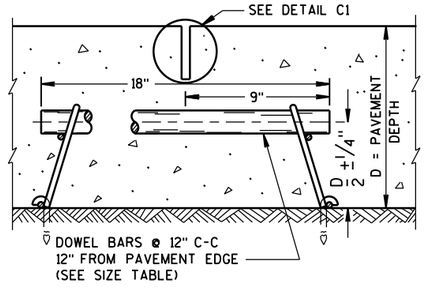
CONCRETE PAVEMENT REPAIRS OF EXISTING NONDOWELED CONCRETE PAVEMENTS DO NOT NEED TO BE DOWELED.

DO NOT SEAL OR FILL JOINTS.

ANCHOR DOWEL BARS AND TIE BARS INTO DRILLED HOLES WITH AN EPOXY.

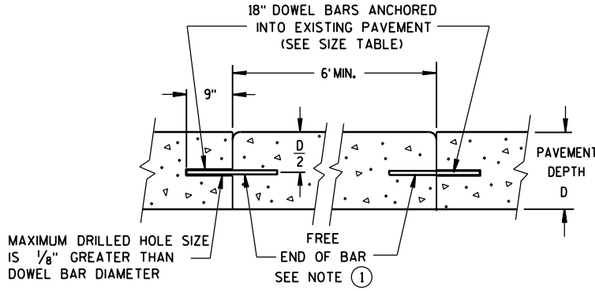
FOR MULTI-LANE CONCRETE PAVEMENT REPLACEMENTS, PROVIDE A MINIMUM DISTANCE OF 15 INCHES FROM ALL TRANSVERSE JOINTS OR EDGES OF REPLACEMENT TO THE CENTER OF THE TIE BAR NEAREST THAT JOINT OR EDGE.

(1) APPLY A THIN UNIFORM COATING OF SURFACE TREATMENT TO THE FREE END OF DOWEL BARS TO PREVENT BONDING.

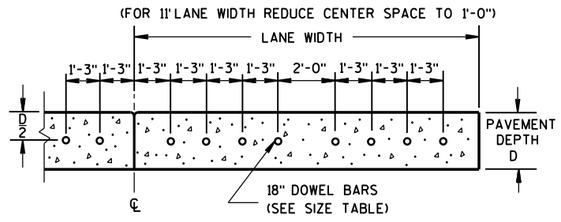


SECTION F-F

CONTRACTION JOINT



SECTION D-D

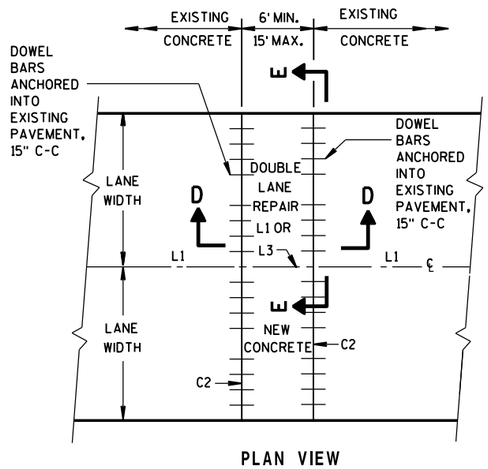


SECTION E-E

DRILLED DOWEL BAR CONSTRUCTION JOINT

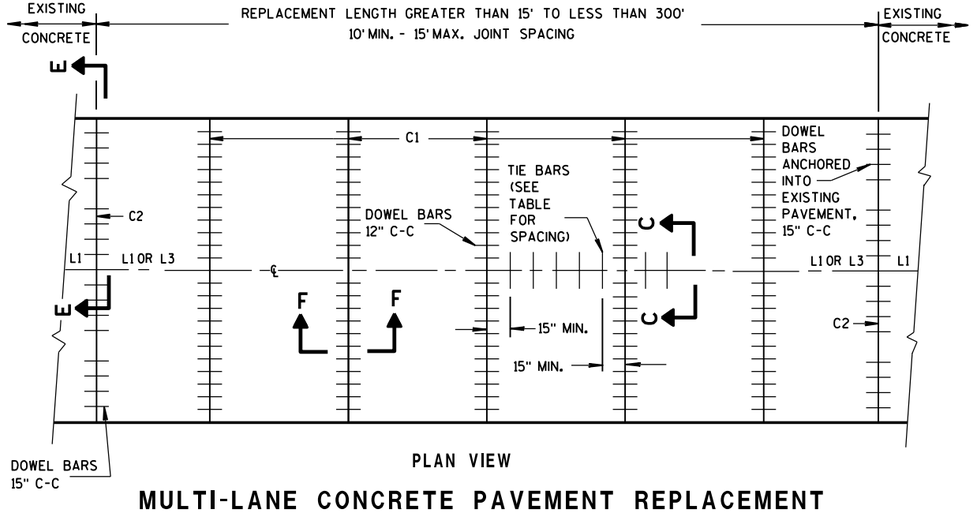
PAVEMENT DEPTH, DOWEL BAR SIZE AND JOINT SPACING TABLE

PAVEMENT DEPTH (D)	DOWEL BAR DIAMETER	CONTRACTION JOINT SPACING
5 ½", 6",6 ½"	NONE	12'
7",7 ½"	1"	14'
8",8 ½"	1 ¼"	15'
9",9 ½"	1 ¼"	15'
10" & ABOVE	1 ½"	15'



PLAN VIEW

MULTI-LANE CONCRETE PAVEMENT REPAIR



PLAN VIEW

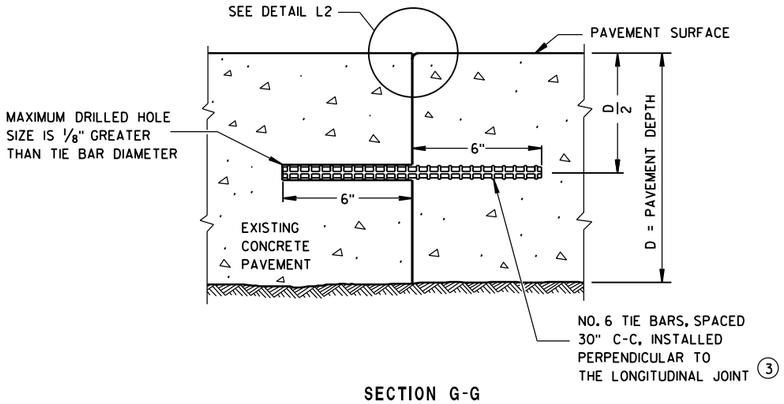
MULTI-LANE CONCRETE PAVEMENT REPLACEMENT

CONCRETE PAVEMENT REPAIR AND REPLACEMENT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

S.D.D. 13 C 9-13b



SECTION G-G

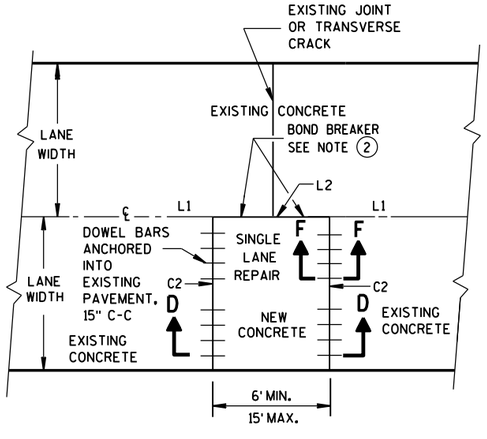
TIE BARS ANCHORED INTO EXISTING PAVEMENT

GENERAL NOTES

(1) WITH THE APPROVAL OF THE ENGINEER, FOR SINGLE LANE PAVEMENT REPLACEMENTS LESS THAN 30 FEET IN LENGTH, THE CONTRACTOR MAY INSTALL DRILLED TIE BARS ON 6:1 SKEW HORIZONTALLY, DIRECTION OF SKEW ALTERNATING WITH EACH SUCCESSIVE BAR. DRIVE SKEWED TIE BARS TO A DEPTH OF 6 INCHES IN A HOLE OF SUCH A DIAMETER AS TO PROVIDE A TIGHT DRIVEN FIT.

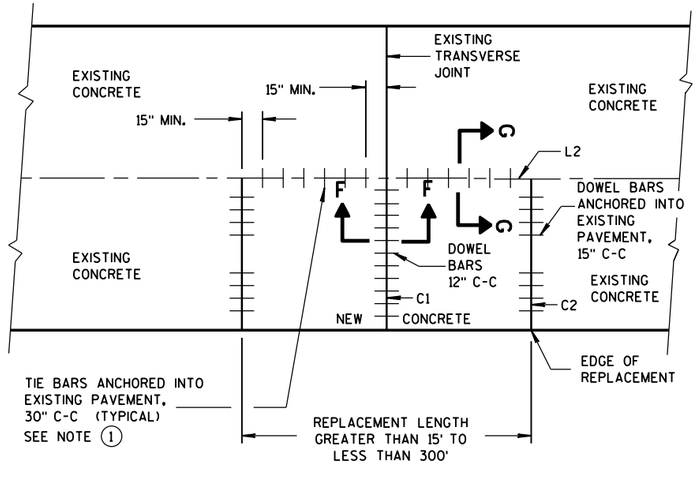
(2) USE AN ENGINEER-APPROVED BOND BREAKER (E.G. RELEASE AGENT, CURING COMPOUND) FOR SINGLE LANE REPAIRS UP TO 15 FEET IN LENGTH.

(3) ANCHOR TIE BARS INTO DRILLED HOLES WITH AN EPOXY.



PLAN VIEW

SINGLE LANE CONCRETE PAVEMENT REPAIR



PLAN VIEW

SINGLE LANE CONCRETE PAVEMENT REPLACEMENT

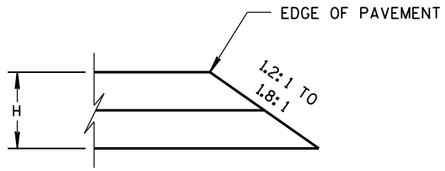
CONCRETE PAVEMENT REPAIR AND REPLACEMENT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Sept., 2015 — DATE
/S/ Peter Kemp, P.E. — PAVEMENT SUPER
FHWA

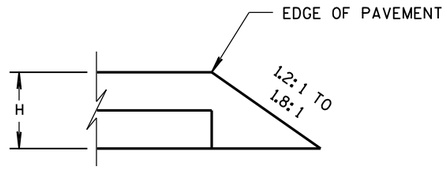
6

S.D.D. 13 C 9-13c



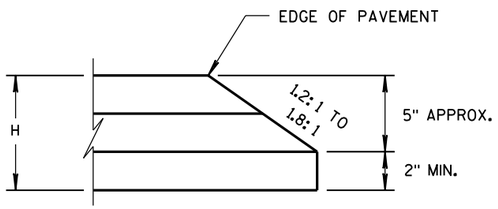
CONSTRUCTED WITH FINAL TWO LAYERS

FOR H 5" OR LESS



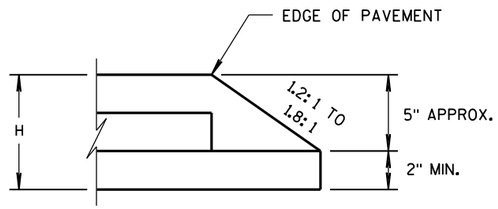
CONSTRUCTED WITH FINAL LAYER

FOR H 5" OR LESS



CONSTRUCTED WITH FINAL TWO LAYERS

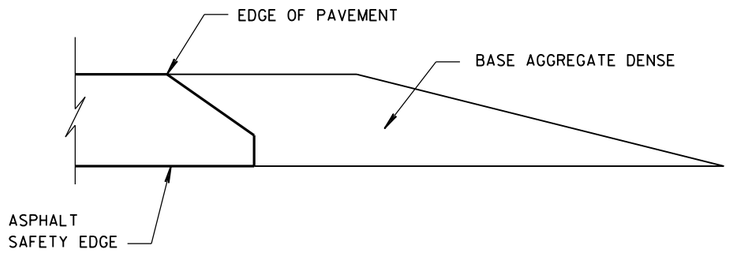
FOR H GREATER THAN 5"



CONSTRUCTED WITH FINAL LAYER

FOR H GREATER THAN 5"

HMA PAVEMENT AND HMA OVERLAYS



FINISHED SHOULDER AGGREGATE PLACEMENT

6

6

S.D.D. 14 B 29-1

S.D.D. 14 B 29-1

SAFETY EDGE SM

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

11/30/2012
DATE

/S/ Jerry H. Zoda
ROADWAY STANDARDS DEVELOPMENT ENGINEER

FHWA

GENERAL NOTES

(1) WOOD OR STEEL POSTS (w6X9 OR w6X8.5) MAY BE USED. DO NOT INTERMIX WOOD AND STEEL POSTS. INSTALL STEEL POSTS WITH HOLES ON APPROACHING TRAFFIC SIDE.

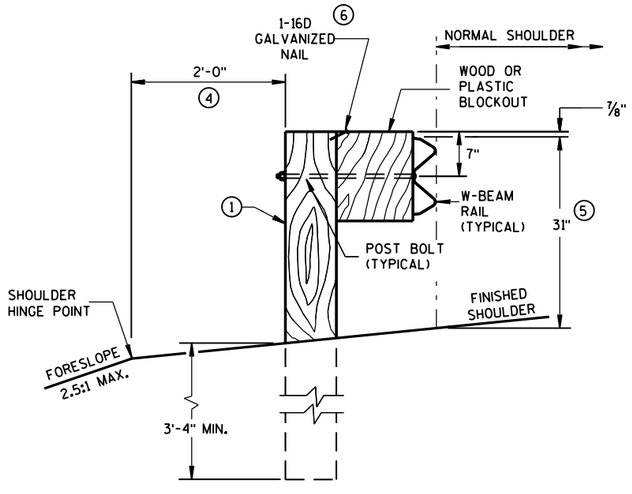
(2) USE WOOD OR APPROVED PLASTIC BLOCKOUTS. WOOD BLOCKOUTS MAY BE CONSTRUCTED OUT OF TWO OR MORE WOOD BLOCKOUTS. SEE ALTERNATE WOOD BLOCKOUT DETAIL. DIMENSIONS OF APPROVED PLASTIC BLOCKOUTS MAY VARY.

(3) IF ROCK IS ENCOUNTERED DURING EXCAVATION, PROVIDE A HOLE 12 INCHES IN DIAMETER EXTENDING 20 INCHES DEEP INTO THE ROCK. PLACE APPROXIMATELY 2½ INCHES OF GRANULAR MATERIAL IN THE BOTTOM OF THE HOLE. CUT THE POSTS THE TO LENGTH AMD INSTALL. BACKFILL WITH EXCAVATED MATERIAL AND COMPACT. BACKFILL IS TO BE FREE OF LARGE ROCKS.

(4) WHEN THE DISTANCE FROM BACK OF POST TO SHOULDER HINGE POINT IS LESS THAN 2 FEET INSTALL LONGER POST AT HALF POST SPACING (K).

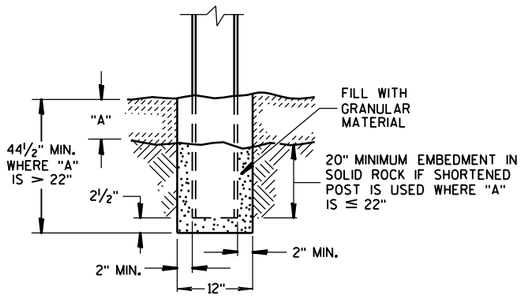
(5) FOR NEW MGS INSTALLATION TOP OF W-BEAM RAIL TOLERANCE IS ± 1". FOR EXISTING MGS INSTALLATION TOP OF W-BEAM IS BETWEEN 27¾" TO 32".

(6) WHEN USING STEEL POST AND WOOD BLOCKOUTS INSTALL FOUR 16D GALVANIZED NAILS. INSTALL NAILS AT THE BACK CORNERS OF THE BLOCK AND BEND THE NAILS OVER THE FLANGE OF THE STEEL POST.



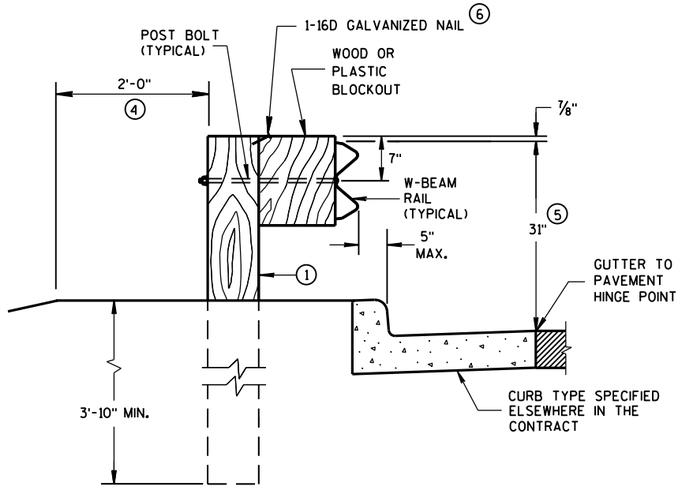
END VIEW

LOCATED ALONG A ROADWAY SHOULDER
STANDARD INSTALLATION



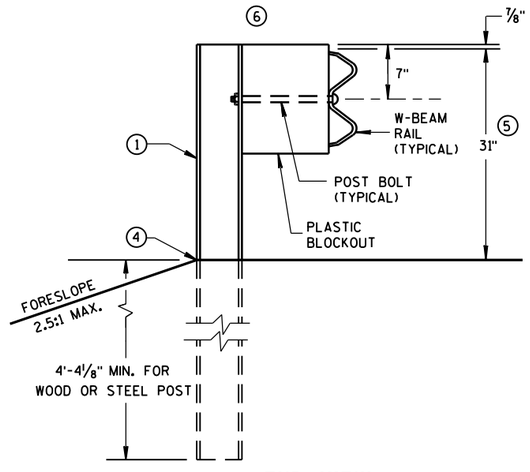
END VIEW

SETTING STEEL OR WOOD POST IN ROCK (3)



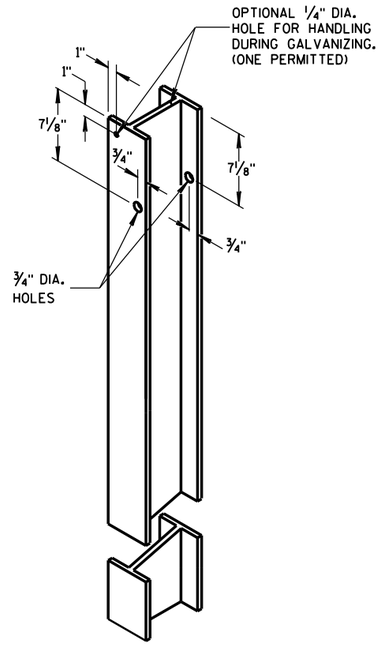
END VIEW

LOCATED ALONG A CURBED ROADWAY

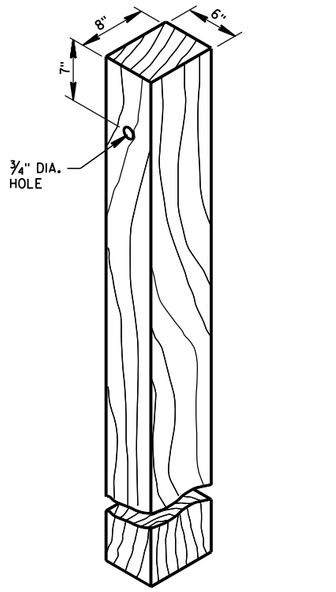


END VIEW

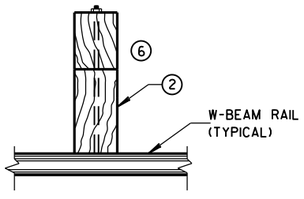
MGS LONGER POST AT HALFPOST SPACING W BEAM (K)



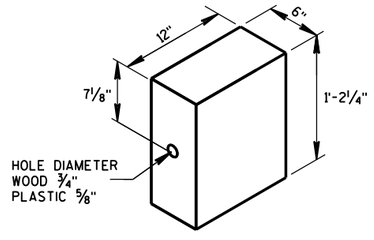
STEEL POST &
HOLE PUNCHING DETAIL
(w6X9) (1)



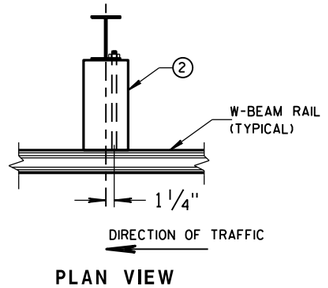
WOOD POST
(6" X 8") NOMINAL (1)



PLAN VIEW
WOOD POST,
BLOCKOUT & BEAM



WOOD OR
PLASTIC BLOCKOUT (2)



PLAN VIEW
STEEL POST,
PLASTIC BLOCKOUT & BEAM

MIDWEST GUARDRAIL SYSTEM
(MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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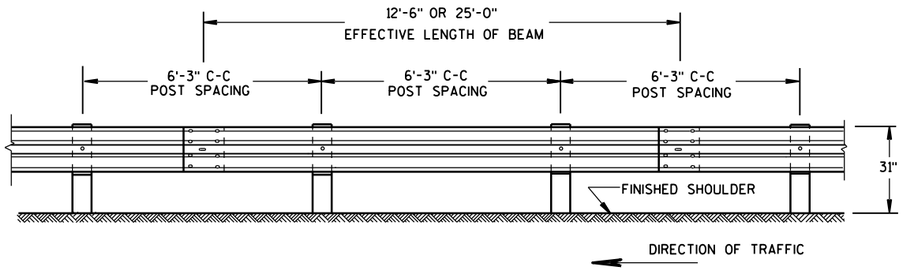
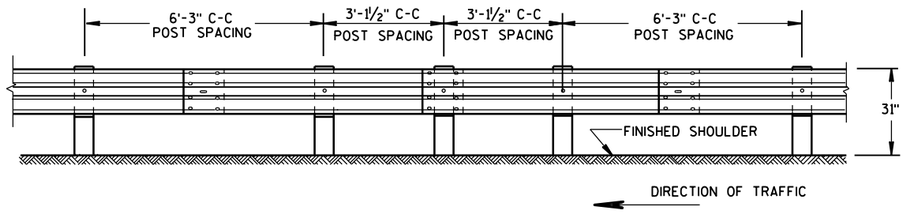
S.D.D. 14 B 42-3a



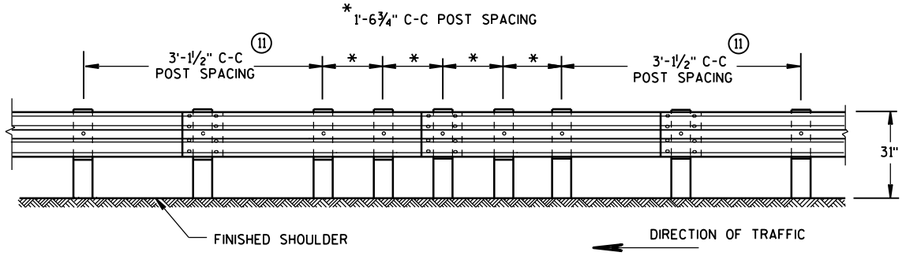
FRONT VIEW

POST SPACING STANDARD INSTALLATION



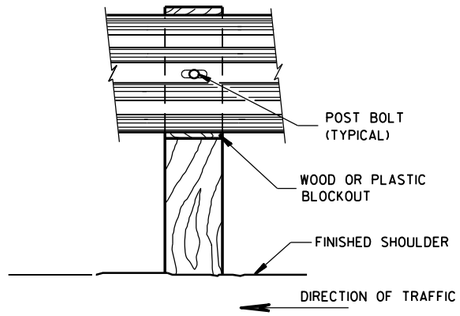
FRONT VIEW

HALF POST SPACING (HS) AND HALF POST SPACING WITH LONGER POSTS (K)

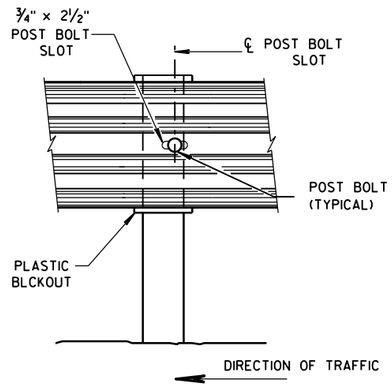


FRONT VIEW

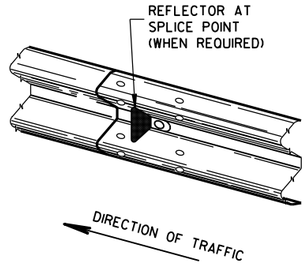
QUARTER POST SPACING (QS)

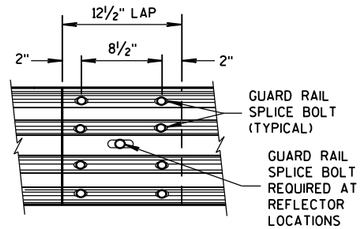


FRONT VIEW AT WOOD POST



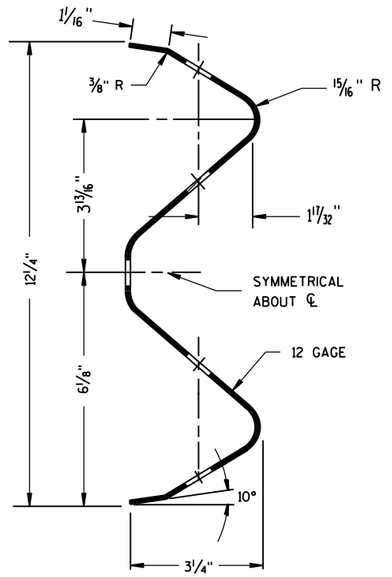
FRONT VIEW AT STEEL POST



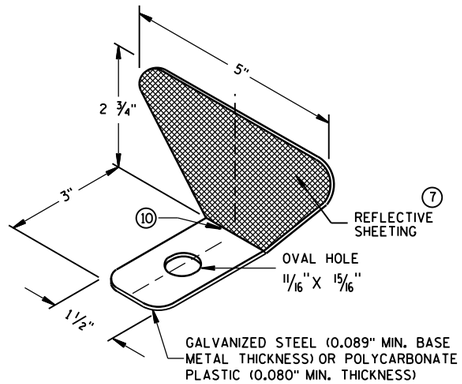


FRONT VIEW

MID-SPAN BEAM SPLICE



SECTION THRU W-BEAM RAIL



GENERAL NOTES

⑦ PROVIDE SILVER REFLECTIVE SHEETING ON ALL REFLECTORS EXCEPT THOSE LOCATED ALONG THE LEFT EDGE OF ONE-WAY ROADWAYS, WHICH SHALL BE PROVIDED WITH YELLOW REFLECTIVE SHEETING. SHEETING IS TYPE H. SEE STANDARD SPECIFICATION 637.

⑧ DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL. RAIL SPLICE LOCATIONS ARE THE ONLY ACCEPTABLE LOCATIONS FOR REFLECTORS.

⑨ REVERSE EVERY OTHER REFLECTOR FOR 2-WAY VISIBILITY. THE CONTRACTOR MAY FURNISH TWO-SIDED REFLECTORS IN LIEU OF ONE-SIDED REFLECTORS.

⑩ PROVIDE AN ANGLE OF BEND OF 90° ± 1° FOR TWO-SIDED REFLECTORS.

⑪ 25 FEET OF HALF POST SPACING IS REQUIRED ON APPROACH AND DEPARTURE ENDS OF QUARTER POST SPACING.

POST BOLTS ARE A ⅝" DIAMETER ASTM A307 GUARDRAIL BOLT. A POST BOLT REQUIRES ⅝" DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX NUT AND ⅝" DIAMETER F844 FLAT WASHER. POST BOLTS MAY BE LONGER IF MULTIPLE BLOCKOUTS ARE BEING USED.

GUARD RAIL SPLICE BOLTS ARE A ⅝" DIAMETER ASTM A307 GUARDRAIL HEAD BOLT. A GUARDRAIL SPLICE BOLT REQUIRES ⅝" DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX NUT.

REFLECTOR SPACING ⑧

	BEAM GUARD LENGTH	REFLECTOR SPACING	NO. SURFACES REFLECTORIZED	MIN. NO. REFLECTORS
ONE WAY TRAFFIC	< 200'	50' C-C	1	3
	> 200'	100' C-C	1	
TWO WAY TRAFFIC	< 200'	25' C-C	1 ⑨	6
	> 200'	50' C-C	1	
TWO WAY TRAFFIC	< 200'	50' C-C	2	3
	> 200'	100' C-C	2 ⑩	

ONE SIDED REFLECTOR DETAIL AND TYPICAL INSTALLATION ⑦

MIDWEST GUARDRAIL SYSTEM
(MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPO

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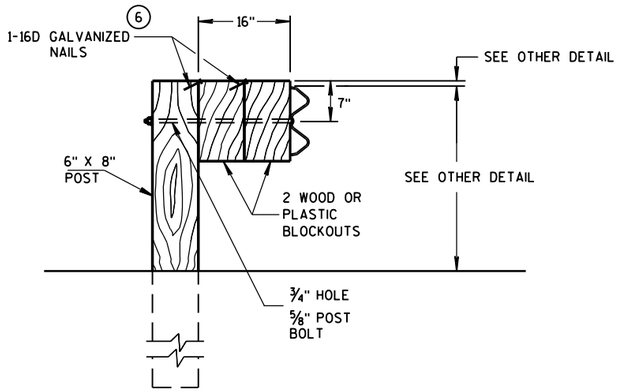
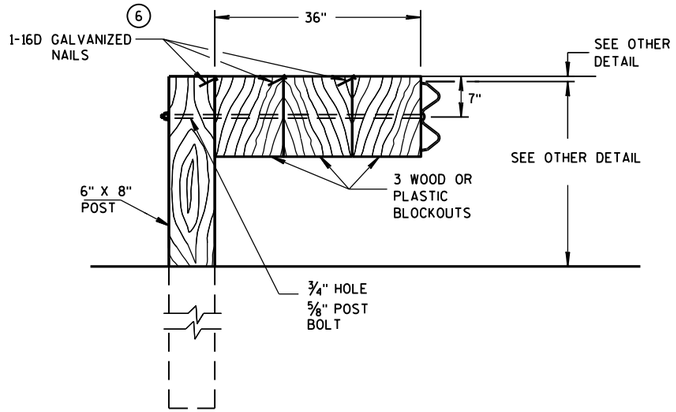
S.D.D. 14 B 42-3b



DETAIL FOR 16" BLOCKOUT DEPTH

IT IS ACCEPTABLE TO USE BLOCKOUTS UP TO 16" DEEP TO INCREASE THE POST OFFSET TO AVOID UNDERGROUND OBSTACLES. THERE IS NO LIMIT TO THE NUMBER OF POSTS THAT CAN HAVE ADDITIONAL BLOCKOUTS UP TO 16" DEEP.

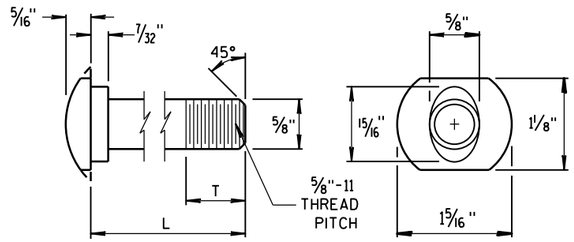


DETAIL FOR 36" BLOCKOUT DEPTH

NOTES: UNDER SPECIAL CIRCUMSTANCES, SUCH AS AVOIDING OBSTACLES THAT ARE NOT RELOCATED, IT IS ACCEPTABLE TO INSTALL ADDITIONAL BLOCKOUTS TO OBTAIN UP TO 36" DEPTH FOR ONE OR TWO POSTS IN A SECTION OF GUARDRAIL.

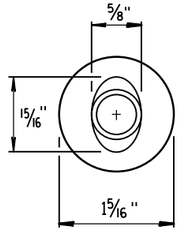
DO NOT USE 16" OR 36" BLOCKOUTS IF IT CAUSES THE POST TO BE DRIVEN BEYOND SHOULDER HINGE POINT OR CAUSES A FIXED OBJECT TO BE WITHIN THE DEFLECTION DISTANCE OF THE BARRIER.

NOTE: 1. ALL FILLETS SHALL HAVE A MINIMUM RADIUS OF 1/16".
2. IF THE BOLT EXTENDS MORE THAN 1/4" FROM THE NUT THE BOLT SHOULD BE TRIMMED BACK.

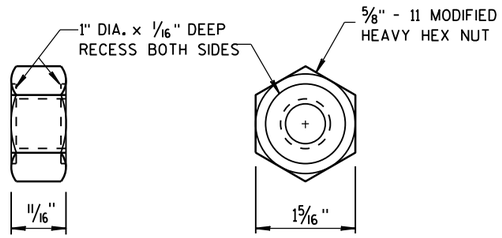


POST BOLT TABLE

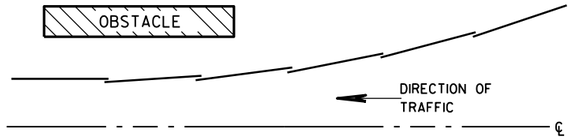
L	T (MIN.)
1¼"	1⅛"
2"	1¾"
10"	4"
14"	4 1/16"
18"	4"
21"	4 1/16"
25"	4"



ALTERNATE BOLT HEAD

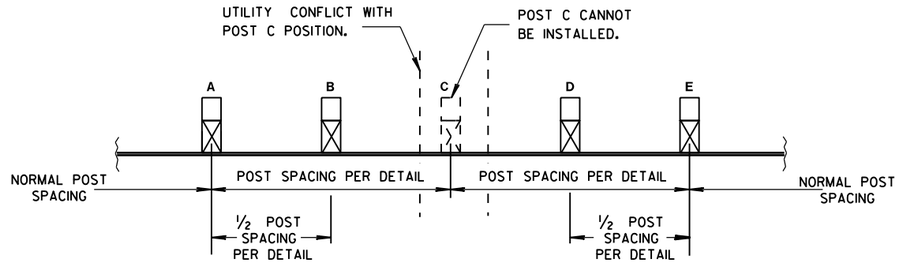


POST BOLT AND RECESS NUT

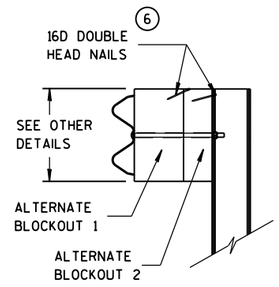


PLAN VIEW

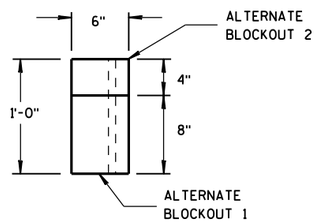
BEAM LAPPING DETAIL



POST DRIVING FOR CONTINUOUS UNDERGROUND OBSTRUCTION



SIDE VIEW



TOP VIEW

ALTERNATE WOOD BLOCKOUT DETAIL

MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2014
DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS ENGINEER
FHWA

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S.D.D. 14 B 42-3c

GENERAL NOTES

(A) THE SLOPE IN THE AREA BOUNDED BY THE GRADELINE, THE HINGE POINT LINE (HPL), AND THE CLEAR ZONE LIMITS (CZL) SHALL BE 4:1 OR FLATTER.

(B) AFTER FINAL ASSEMBLY, RECHECK CABLE TO BE SURE IT IS TAUT AND HAS NOT RELAXED.

(C) DIFFERENT MANUFACTURES REQUIRE DIFFERENT PERFORATED W-BEAM RAIL END PANELS. SEE MANUFACTURES INFORMATION.

(D) THE TOP OF THE STEEL TUBE ON POST 1 AND POST 2 SHALL NOT BE MORE THAN 3" ABOVE THE FINISH GROUND ELEVATION.

(F) ATTACH ALUMINUM SHEET TO E.A.T. HEAD USING 4 STAINLESS STEEL SELF-TAPPING SCREWS. ONE SCREW PER CORNER.

(G) ½" DIAMETER X 3" LONG LAG BOLT AND WASHER.

(H) HARDWARE VARIES BETWEEN DIFFERENT MANUFACTURES. SEE MANUFACTURE'S DRAWING FOR INFORMATION.

(I) DIMENSIONS MAY VARY. SEE MANUFACTURE'S INFORMATION.

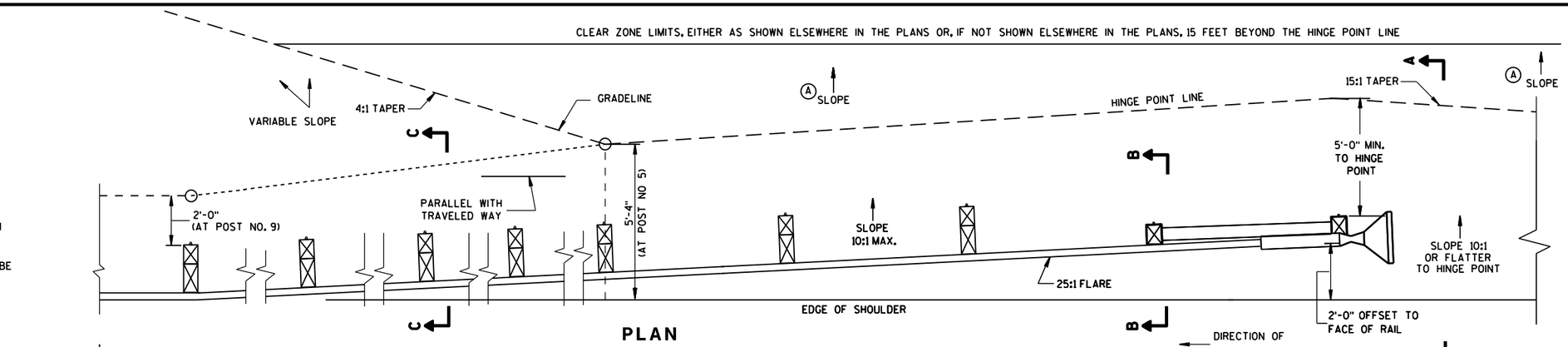
SEE SDD 14B42 FOR MORE INFORMATION.

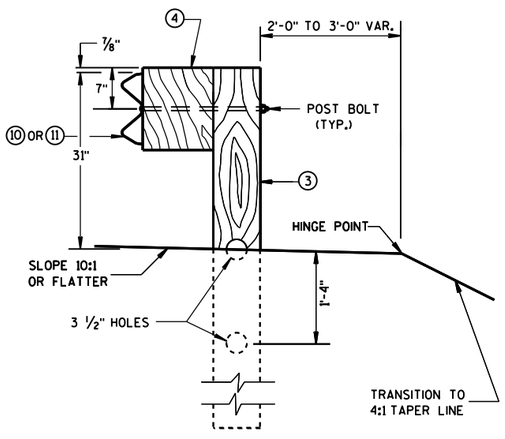
* DO NOT ATTACH BLOCKOUTS TO POSTS 1 AND 2.

DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL.

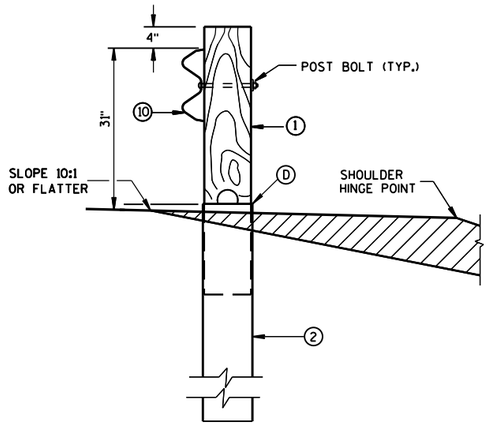
W-BEAM RAIL SPLICES ARE LOCATED AT POST NUMBER 3, AND BETWEEN POST 5 AND 6, BETWEEN POSTS 7 AND 8, AND MIDDLE OF THE SPAN AFTER POST 9.

THE CENTER OF THE UPPER 3½" DIAMETER HOLE ON POST NUMBER 3 THROUGH POST 9 IS TO BE FLUSH WITH THE GROUND LINE UP TO A MAXIMUM OF 2" ABOVE GROUND LINE.

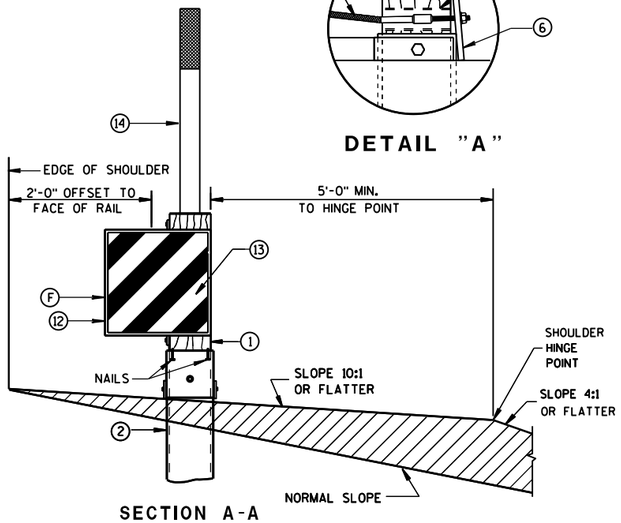




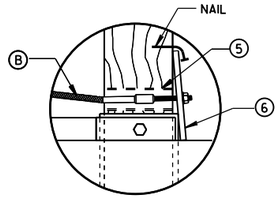
SECTION C-C
TYPICAL AT POST NOS. 3-9



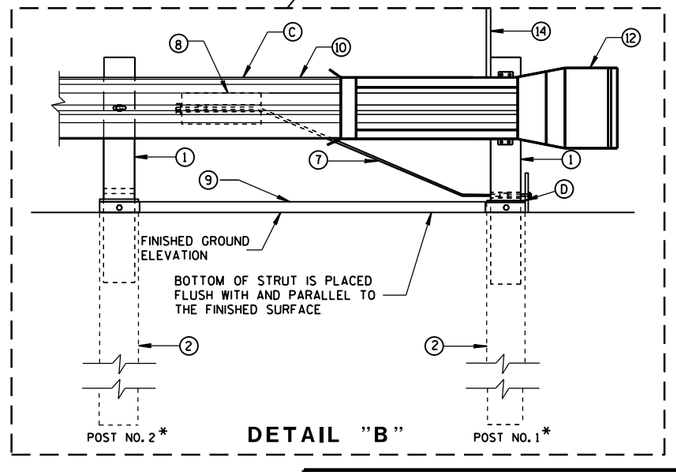
SECTION B-B
TYPICAL AT POST NO. 2*



SECTION A-A
TYPICAL AT POST NO. 1*



DETAIL "A"



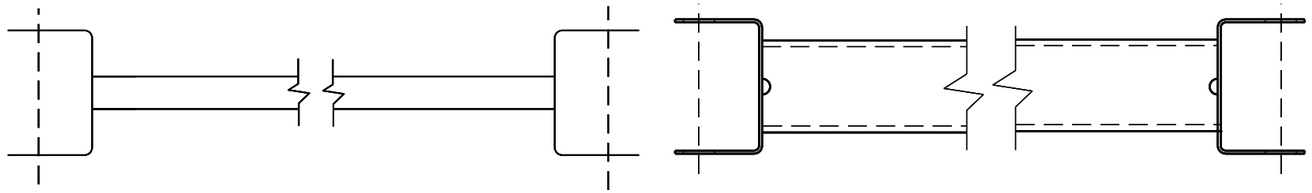
DETAIL "B"

MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

S.D.D. 14 B 44-2a

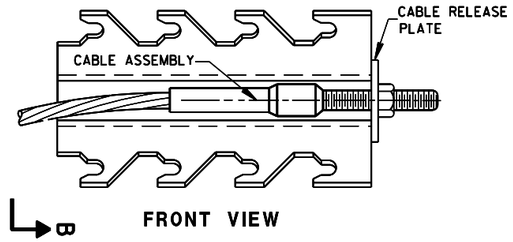
S.D.D. 14 B 44-2a



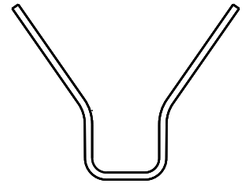
GENERIC GROUND STRUT (9) (H)

BILL OF MATERIALS

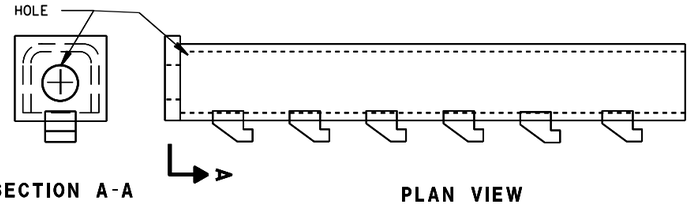
PART NO.	DESCRIPTION MATERIALS PROVIDED BY MGS EAT MANUFACTURER. SEE MANUFACTURER'S DETAILS FOR MORE INFORMATION.
(1)	WOOD BREAKAWAY POST
(2)	6" X 8" X 0.188", 6'-0" LONG FOUNDATION TUBE AT POSTS 1 AND 2
(3)	WOOD CRT
(4)	WOOD BLOCKOUT
(5)	PIPE SLEEVE
(6)	BEARING PLATE
(7)	BCT CABLE ASSEMBLY
(8)	ANCHOR CABLE BOX
(9)	GROUND STRUT
(10)	PERFORATED W-BEAM RAIL END PANEL, 12'-6" LONG.
(11)	STANDARD W-BEAM RAIL. MULTIPLE SECTIONS REQUIRED. SECTIONS VARY IN LENGTH.
(12)	END SECTION EAT
(13)	0.040" ALUMINUM SHEET WITH REFLECTIVE SHEETING TYPE F PER SECTION 637 OF THE STANDARD SPECIFICATIONS
(14)	EAT MARKER POST - YELLOW (SEE APPROVED PRODUCTS LIST)



FRONT VIEW



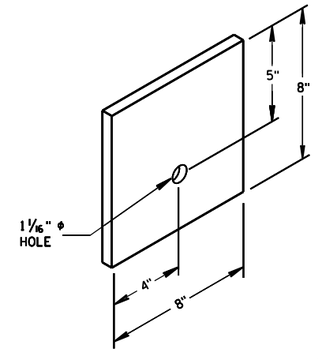
SECTION B-B



SECTION A-A

PLAN VIEW

GENERIC ANCHOR CABLE BOX (8) (H)

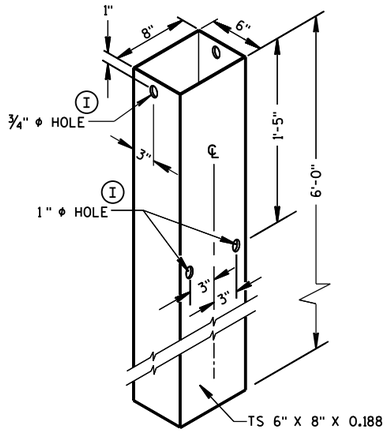


BEARING PLATE (6)

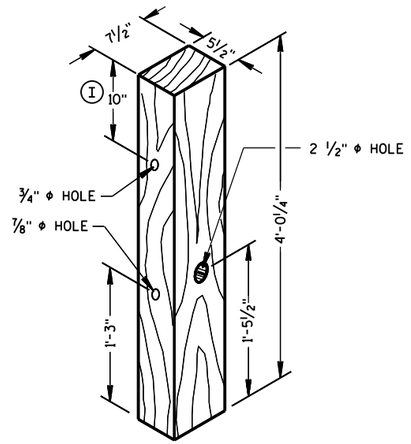
MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL
(MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6
S.D.D. 14 B 44-2b

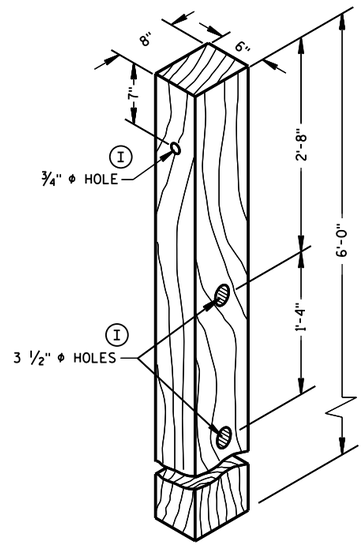


FOUNDATION TUBE (2)



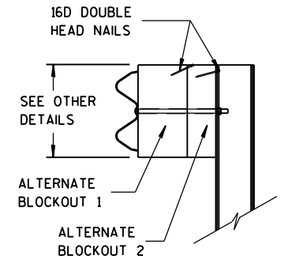
POSTS NUMBER 1 AND 2

WOOD BREAKAWAY POST (1)

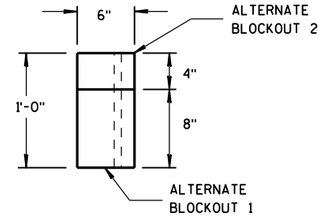


POSTS NUMBER 3-9

WOOD CRT POST (3)

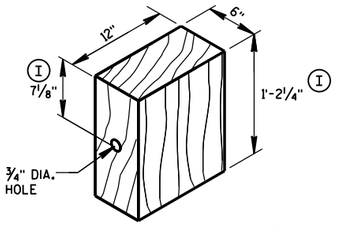


SIDE VIEW



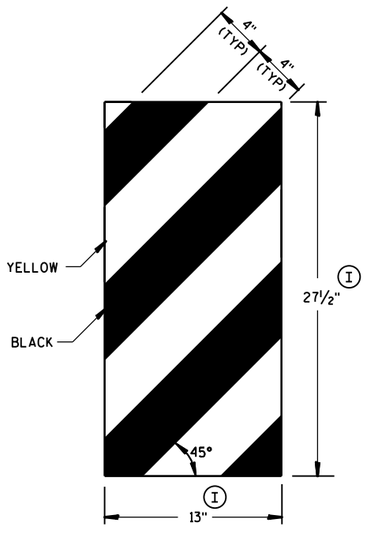
TOP VIEW

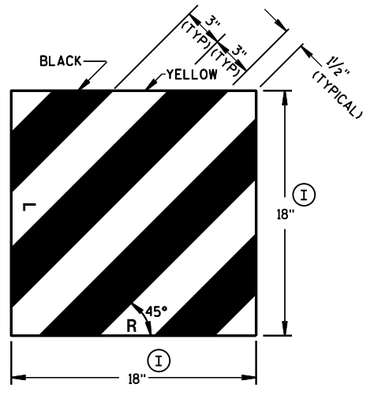
ALTERNATE WOOD BLOCKOUT DETAIL



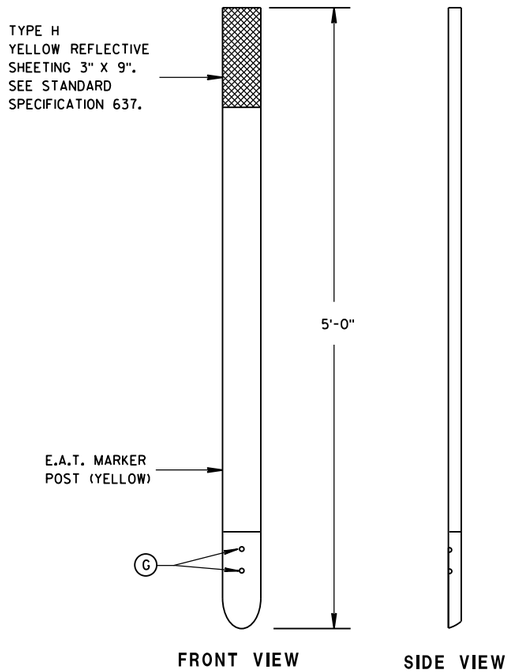
WOOD BLOCKOUT (4)

REQ'D. AT ALL POSTS EXCEPT POST NO'S 1 & 2





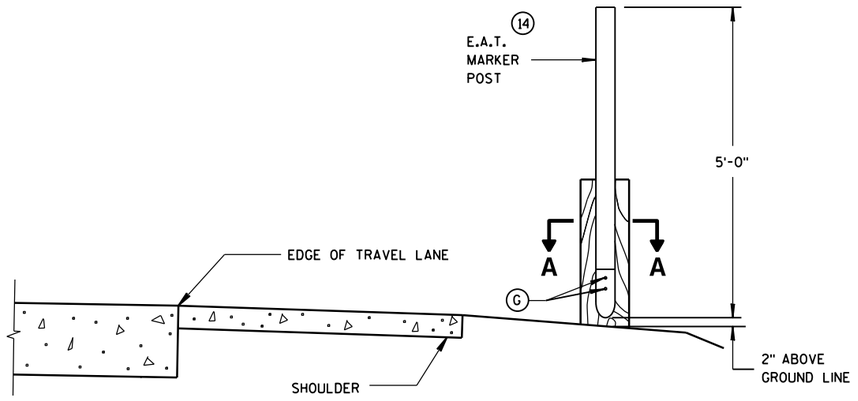
GENERIC REFLECTIVE SHEETING (13) (H)



FRONT VIEW

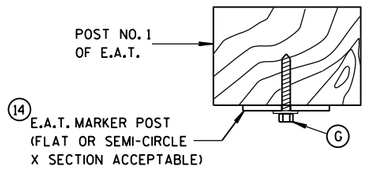
SIDE VIEW

E.A.T. MARKER POST (14)



TYPICAL INSTALLATION OF E.A.T. MARKER POST BACKSIDE OF POST NO. 1

(E.A.T. AND RAIL REMOVED FOR CLARITY)



SECTION A-A

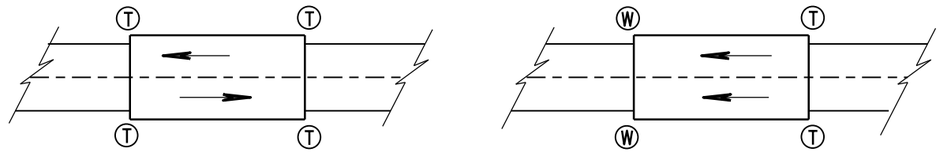
MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2014 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS ENGINEER
FHWA

6

S.D.D. 14 B 44-2c



TWO WAY TRAFFIC

ONE WAY TRAFFIC

Ⓣ THRIE BEAM CONNECTION

Ⓦ W-BEAM CONNECTION WHEN REQUIRED

TYPICAL LOCATIONS OF THRIE BEAM AND W-BEAM CONNECTIONS TO BRIDGE

GENERAL NOTES

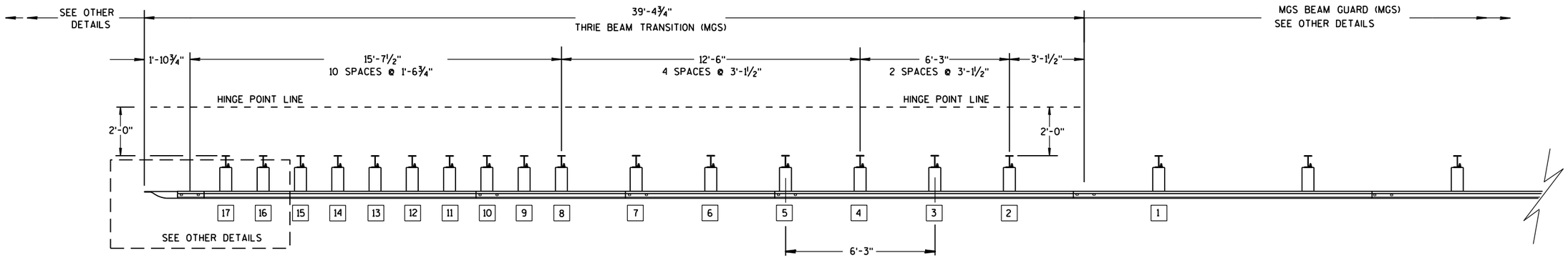
IF ROCK IS ENCOUNTERED, REMOVE ROCK TO FULL DEPTH OF POST PLUS 2½", AND 12" DIAMETER AROUND POST. SEE 14B42 FOR MORE DETAILS.

TRANSITION USES STEEL POSTS ONLY.

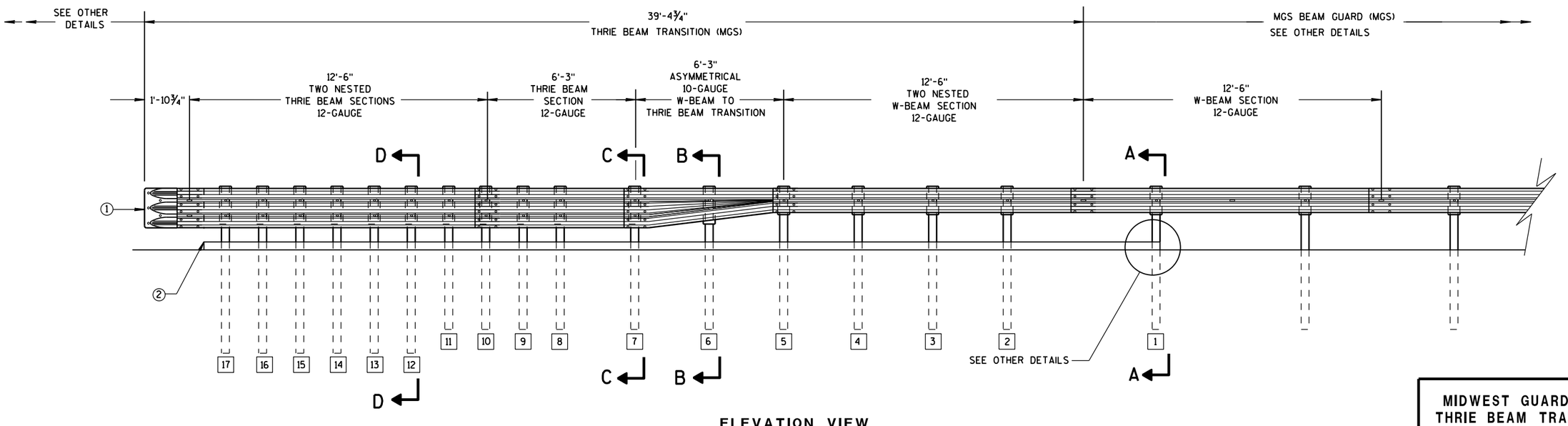
SEE STANDARD DETAIL DRAWING 14 B 42 FOR MORE INFORMATION.

① BRIDGE RAILING TYPE "W" DOES NOT REQUIRE A TERMINAL CONNECTOR.

② OPTIONAL CURB AND GUTTER OR DRAINAGE FEATURE SEE PLAN FOR INFORMATION.



PLAN VIEW



ELEVATION VIEW

MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

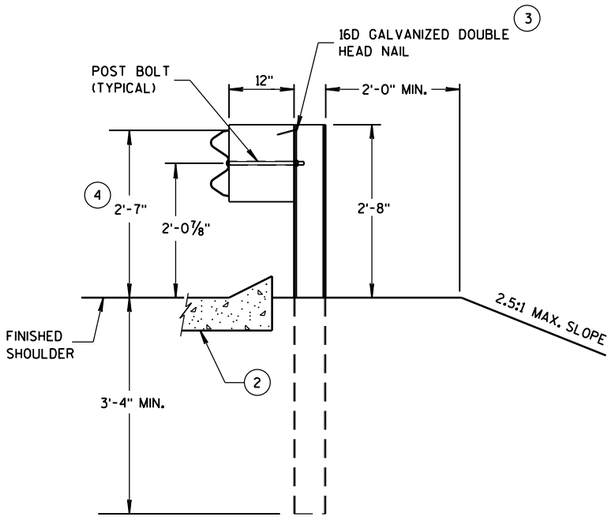
S.D.D. 14 B 45-4a

GENERAL NOTES

(2) OPTIONAL CURB AND GUTTER OR DRAINAGE_FEATURE SEE PLAN FOR INFORMATION.

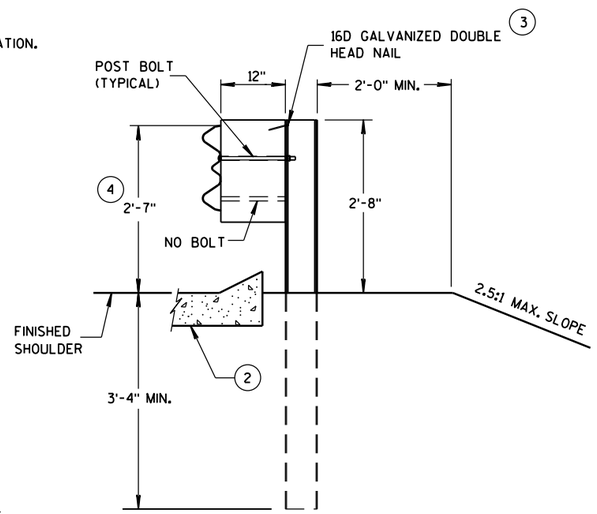
(3) WHEN USING STEEL POSTS AND WOOD BLOCKOUTS INSTALL FOUR 10D GALVANIZED NAILS. INSTALL NAILS AT THE BACK CORNERS OF THE BLOCK AND BEND THE NAILS OVER THE FLANGE OF THE STEEL POST.

(4) TOLERANCE FOR TOP OF W-BEAM RAIL IS ± 1".



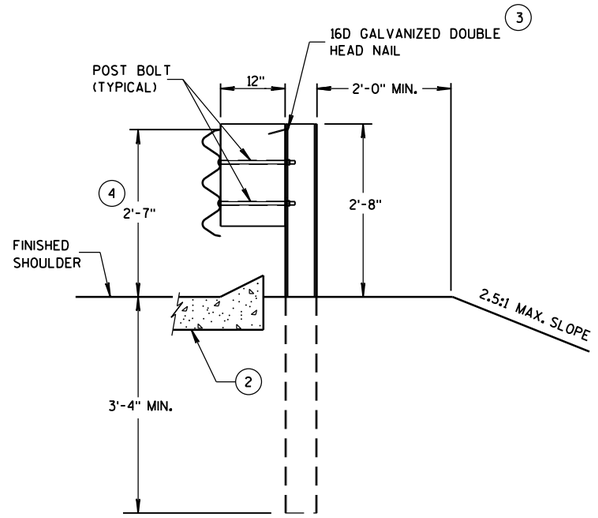
SECTION A-A

POSTS 1-5



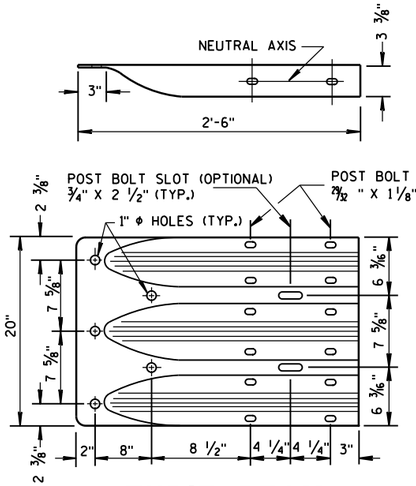
SECTION B-B

POST 6



SECTION C-C

POSTS 7-11



THRIE BEAM TERMINAL CONNECTOR

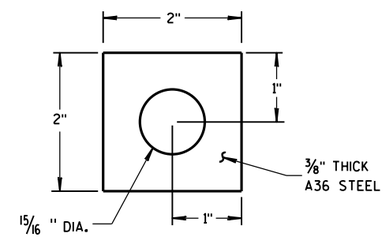
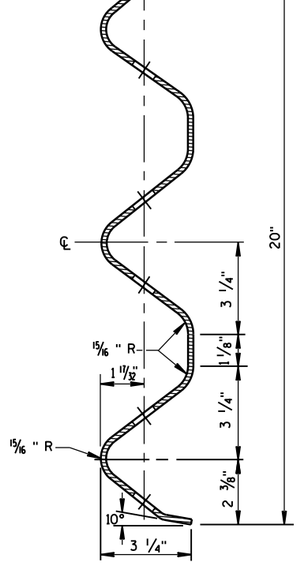
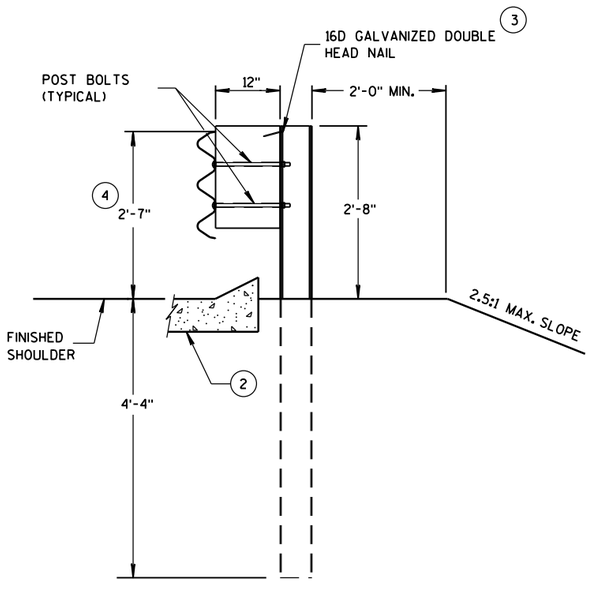


PLATE WASHER DETAIL

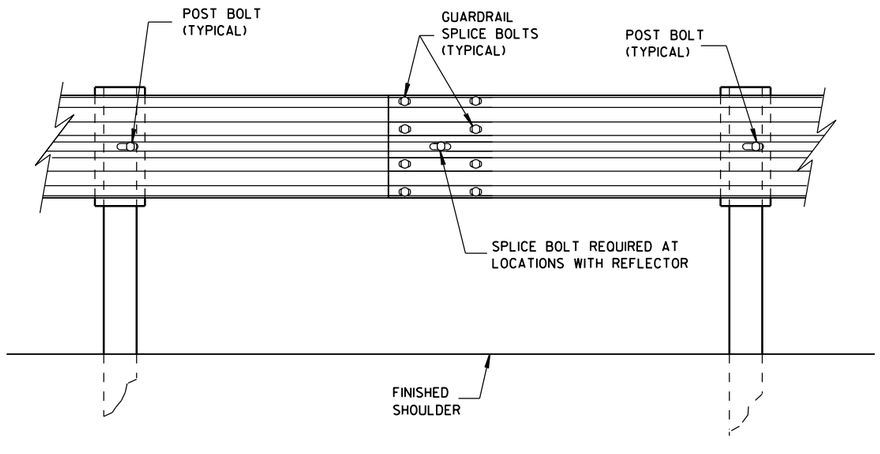


SECTION THRU THRIE BEAM RAIL ELEMENT



SECTION D-D

POSTS 12-17



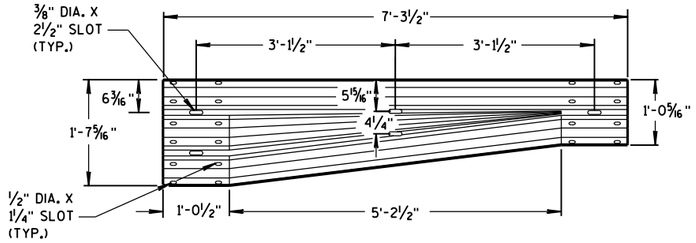
SPLICE DETAIL

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

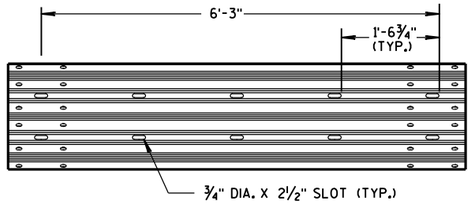
STATE OF WISCONSIN
DEPARTMENT OF TRANSPO

6

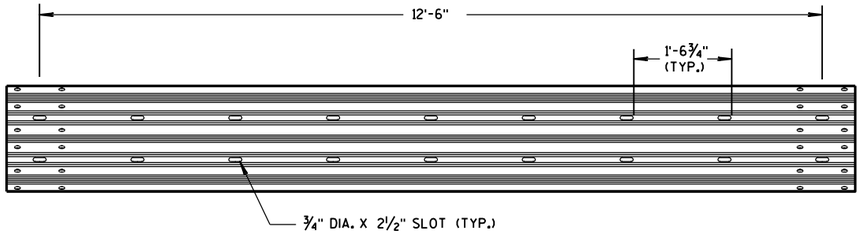
S.D.D. 14 B 45-4b



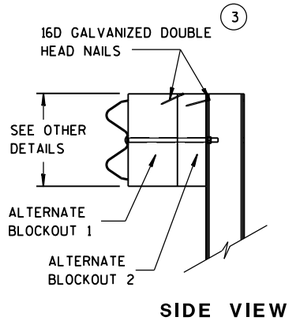
W-BEAM TO THRIE BEAM TRANSITION SECTION



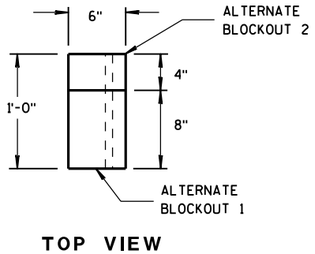
6'-3" THRIE BEAM SECTION



12'-6" THRIE BEAM SECTION

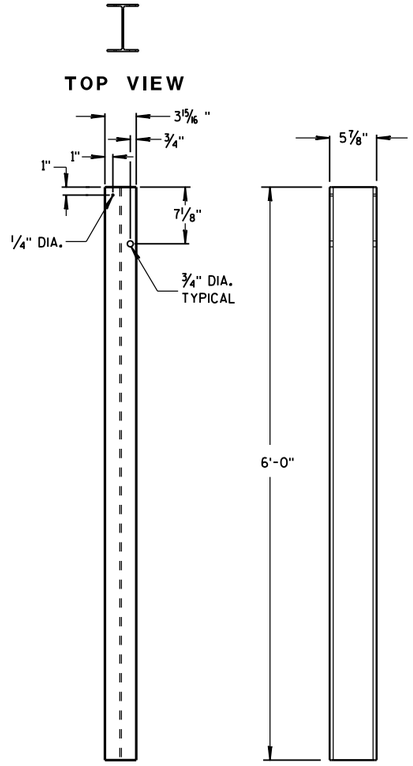


SIDE VIEW



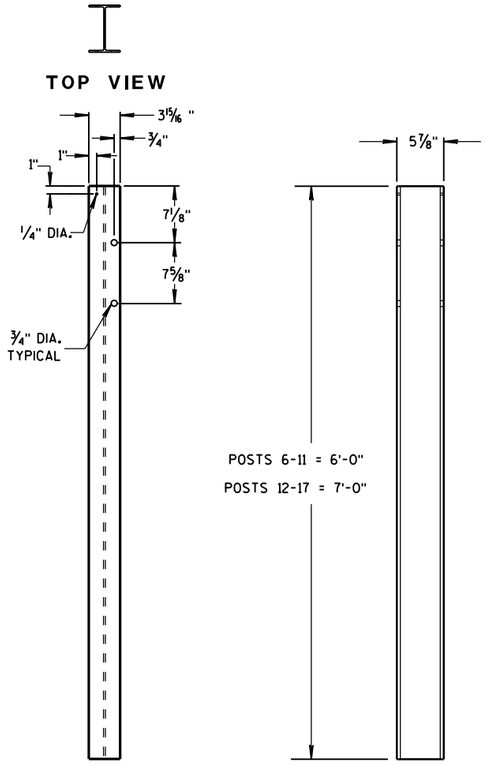
TOP VIEW

ALTERNATE WOOD BLOCKOUT DETAIL



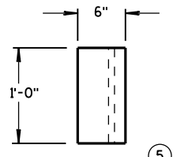
FRONT VIEW SIDE VIEW

STEEL POSTS 1-5

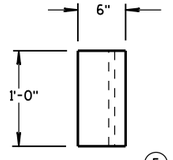


FRONT VIEW SIDE VIEW

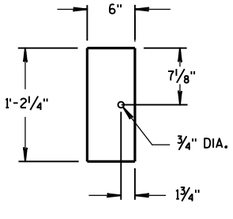
STEEL POSTS 6-17



TOP VIEW (5)

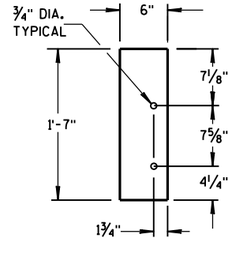


TOP VIEW (5)



FRONT VIEW

BLOCKOUT POSTS 1-5



FRONT VIEW

BLOCKOUT POSTS 6-17

GENERAL NOTES

STEEL POSTS ARE W6X9 OR W6X8.5.

BOLT HOLES FOR POST ARE ON FRONT AND OF SIDE OF POST.

(3) WHEN USING STEEL POSTS AND WOOD BLOCKOUTS INSTALL FOUR 16D GALVANIZED NAILS. INSTALL NAILS AT THE BACK CORNERS OF THE BLOCK AND BEND THE NAILS OVER THE FLANGE OF THE STEEL POST.

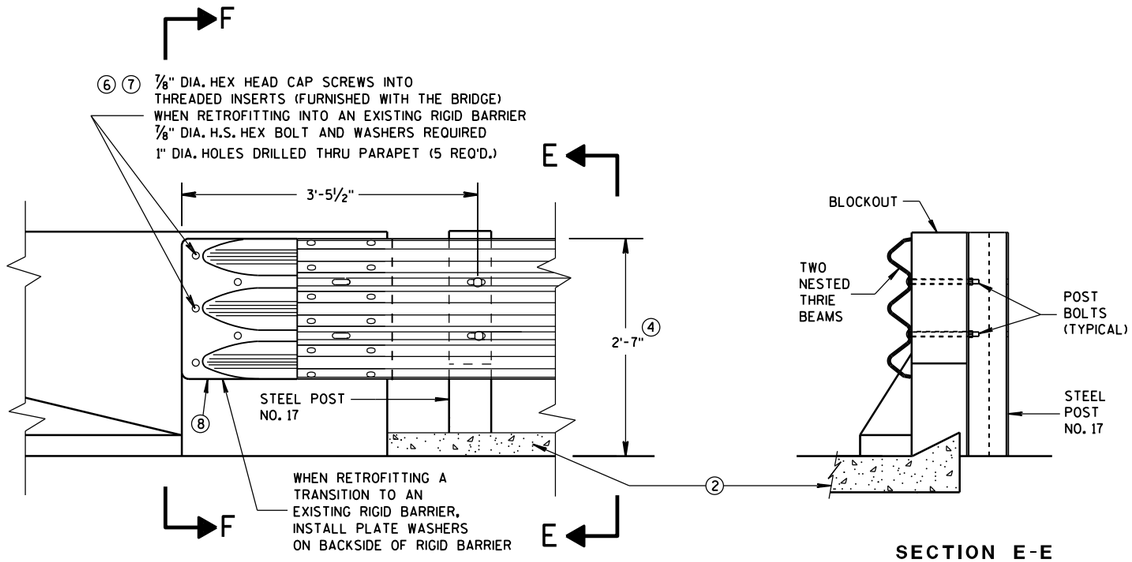
(5) WOOD BLOCKS MAY BE CONSTRUCTED OUT OF 2 WOOD BLOCKS. SEE ALTERNATE WOOD BLOCK DETAIL.

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

S.D.D. 14 B 45-4c



FRONT VIEW

SECTION E-E

THRIE BEAM CONNECTION TO BRIDGE PARAPET WITH SQUARE ENDS

GENERAL NOTES

THESE ARE TYPICAL CONNECTION DETAILS. ADJUST THE POSTION OF CONNECTIONS TO EXISTING BRIDGES TO FIT THE ACTUAL BRIDGE AND SITE DIMENSIONS.

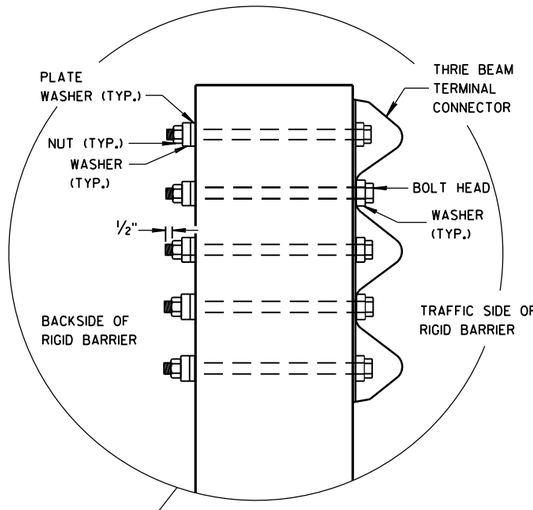
② OPTIONAL CURB AND GUTTER OR DRAINAGE FEATURE SEE PLAN FOR INFORMATION.

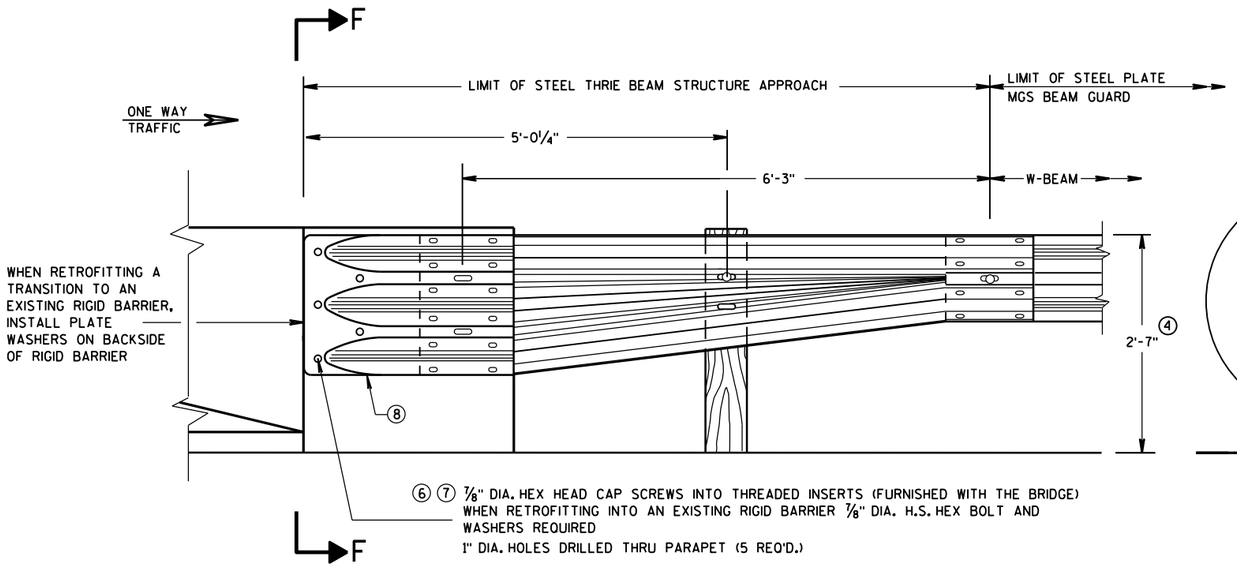
④ TOLERANCE FOR TOP OF BEAM IS ± 1".

⑥ DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

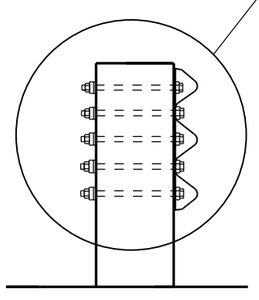
⑦ BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE. BOLTS THAT EXTEND THROUGH THE PARAPET AND OUT THE BACK FACE REQUIRE A HARDENED ROUND STEEL WASHER THAT IS 2" O.D. X 5/8" THICK AND ONE PLATE WASHER. REPAIR ANY DAMAGED CONCRETE FROM BOLT INSTALLATION.

⑧ THE RECESS FOR A W-BEAM CONNECTION, WHICH EXISTS ON SOME PARAPETS OF THIS TYPE, SHALL BE FILLED WITH A TREATED TIMBER BLOCKOUT. BLOCKOUT SIZE IS 1'-6" X 2'-0" X 3 1/2".

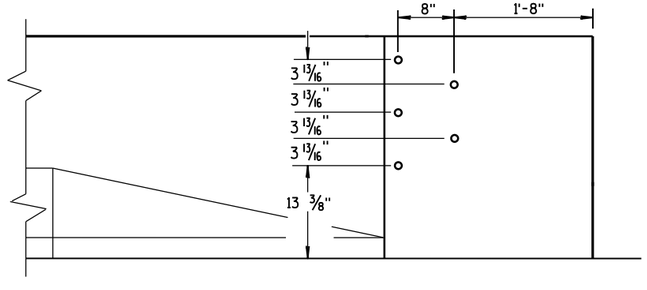




FRONT VIEW



SECTION F-F



DRILL HOLE LOCATION

W BEAM TRANSITION AND CONNECTION TO BRIDGE PARAPETS WITH SQUARE ENDS

(USE ONLY ON THE TRAFFIC EXIT END OF ONE WAY BRIDGES)

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June, 2015 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA
NT

6

S.D.D. 14 B 45-4d

6

S.D.D. 14 B 45-4d

GENERAL NOTES

THESE ARE TYPICAL CONNECTION DETAILS. ADJUST THE POSTION OF CONNECTIONS TO EXISTING BRIDGES TO FIT THE ACTUAL BRIDGE AND SITE DIMENSIONS.

(2) OPTIONAL CURB AND GUTTER OR DRAINAGE FEATURE SEE PLAN FOR INFORMATION.

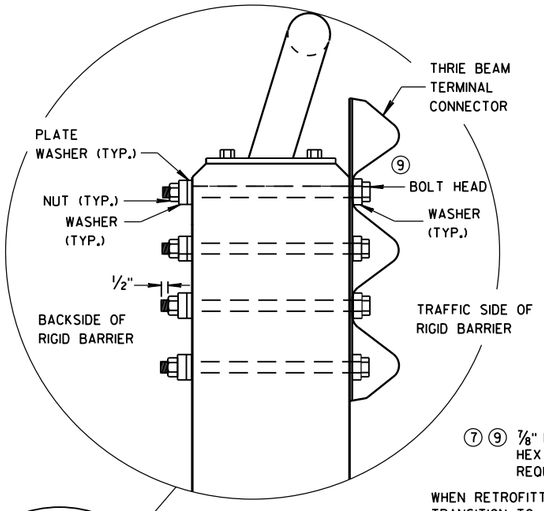
(4) TOLERANCE FOR TOP OF BEAM IS ± 1".

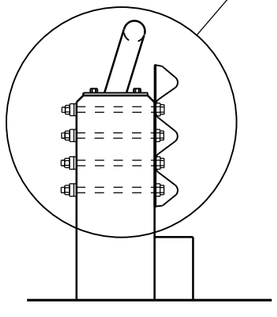
(6) DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

(7) BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE. BOLTS THAT EXTEND THROUGH THE PARAPET AND OUT THE BACK FACE REQUIRE A HARDENED ROUND STEEL WASHER THAT IS 2" O.D. X 5/8" THICK AND ONE PLATE WASHER. REPAIR ANY DAMAGED CONCRETE FROM BOLT INSTALLATION.

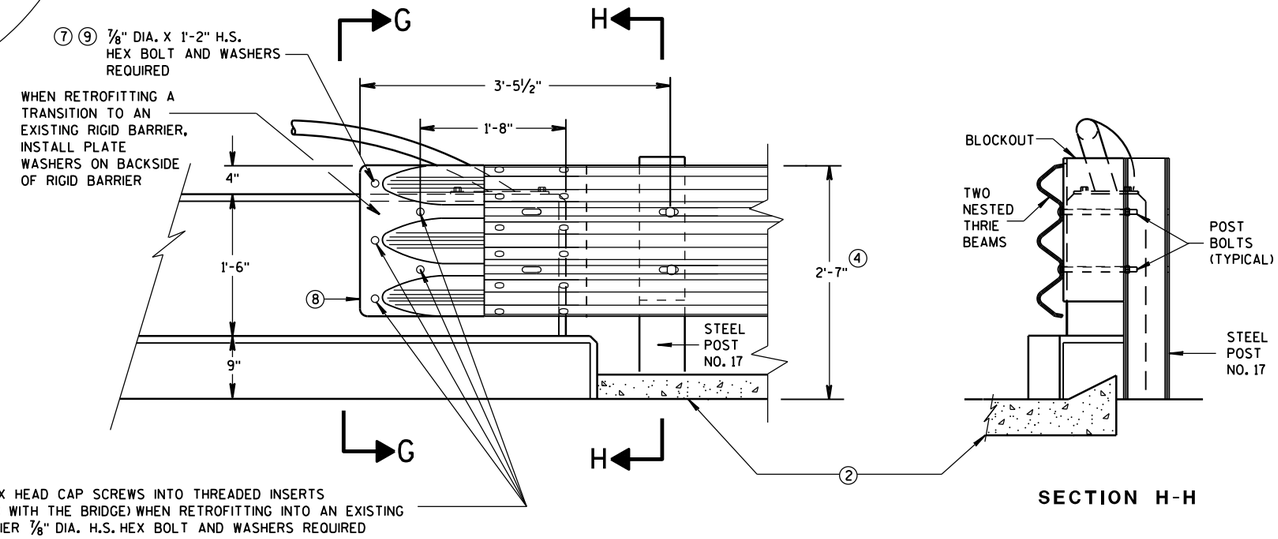
(8) THE RECESS FOR A W-BEAM CONNECTION, WHICH EXISTS ON SOME PARAPETS OF THIS TYPE, SHALL BE FILLED WITH A TREATED TIMBER BLOCKOUT. BLOCKOUT SIZE IS 1'-6" X 2'-0" X 3 1/2".

(9) BOLT, NUT AND WASHERS NOT REQUIRED FOR THIS LOCATION WHEN RETROFITTING AN EXISTING PAPAPET AND THE HOLE IS EITHER ABOVE PARAPET OR WITHIN 4 INCHES OF THE EDGE OF PARAPET.





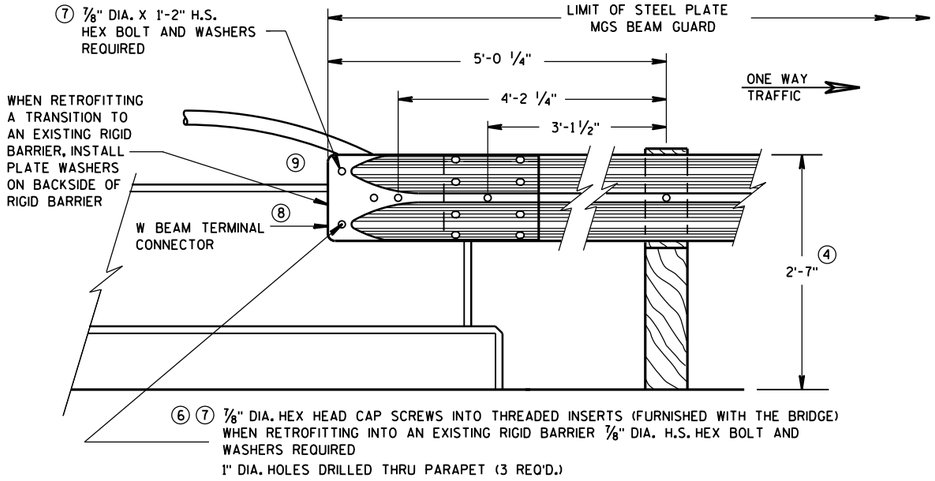
SECTION G-G



FRONT VIEW

SECTION H-H

THRIE BEAM CONNECTION TO VERTICAL FACED PARAPETS



FRONT VIEW

W BEAM CONNECTION TO VERTICAL FACE PARAPET

(USE ONLY ON THE TRAFFIC EXIT END OF ONE WAY BRIDGES)

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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June, 2015 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS DEVELOPMENT ENGINEER
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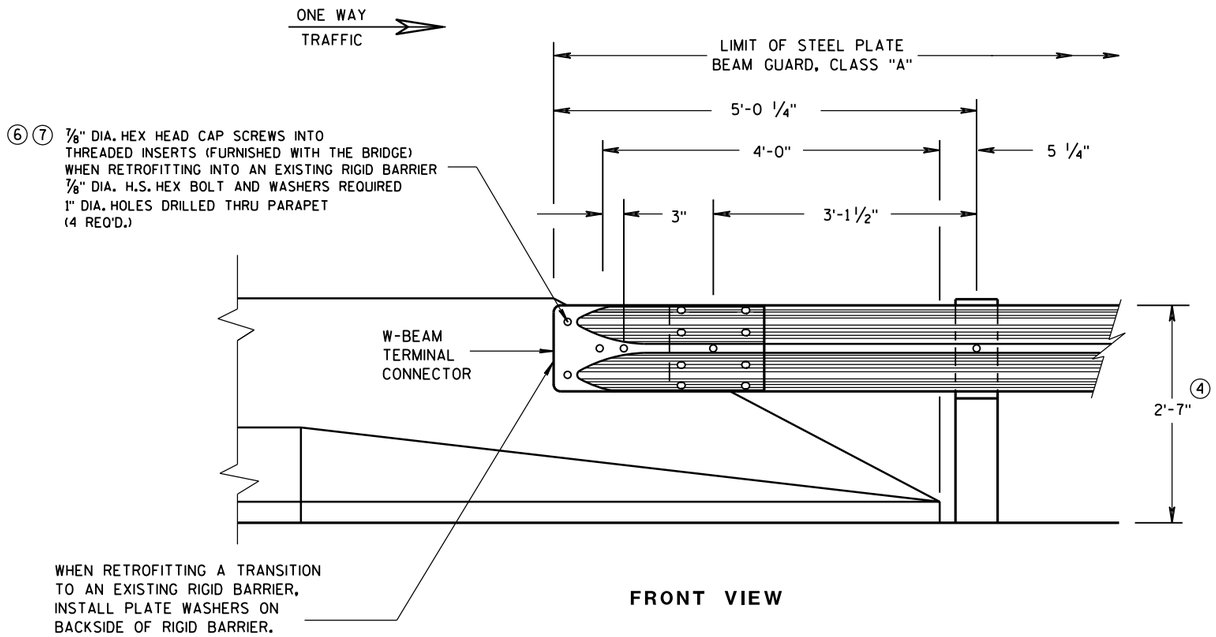


FRONT VIEW

W BEAM CONNECTION TO PARAPETS WITH SLOPED ENDS

(USE ONLY AT TRAFFIC EXIT END OF ONE WAY BRIDGE)

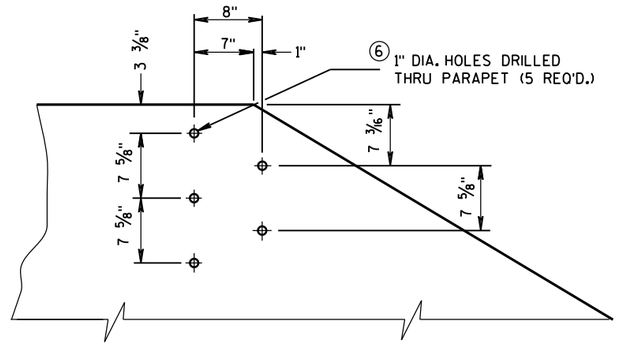
GENERAL NOTES

② OPTIONAL CURB AND GUTTER OR DRAINAGE FEATURE SEE PLAN FOR INFORMATION.

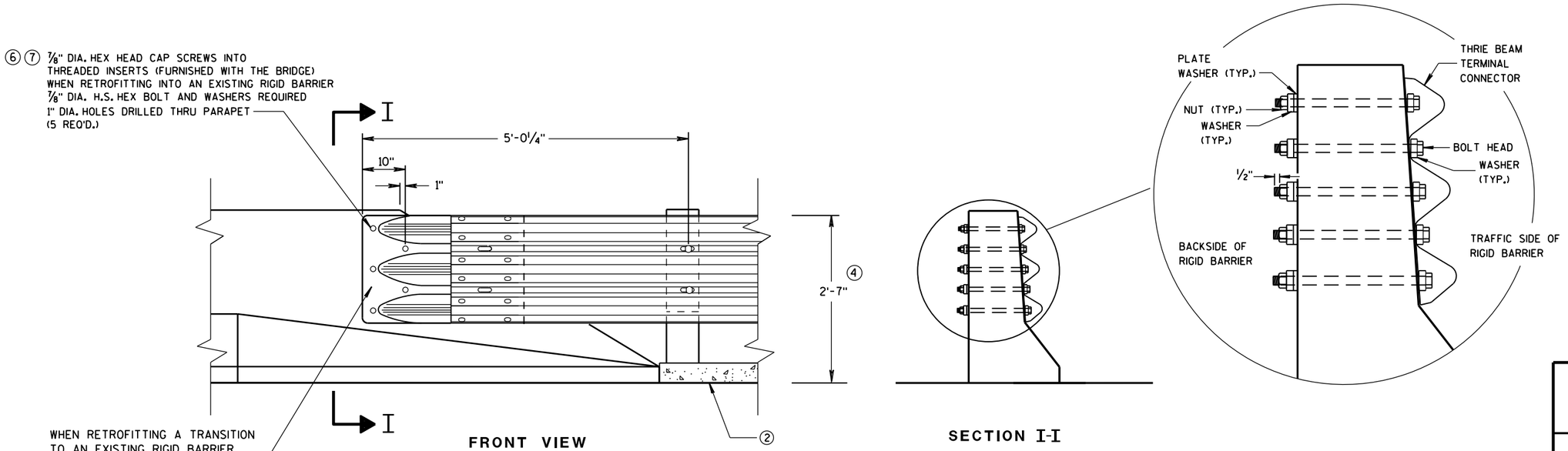
④ TOLERANCE FOR TOP OF BEAM IS ± 1".

⑥ DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

⑦ BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE. BOLTS THAT EXTEND THROUGH THE PARAPET AND OUT THE BACK FACE REQUIRE A HARDENED ROUND STEEL WASHER THAT IS 2" O.D. X 5/8" THICK AND ONE PLATE WASHER. REPAIR ANY DAMAGED CONCRETE FROM BOLT INSTALLATION.



DRILL HOLE LOCATION AND PATTERN
FOR THRIE BEAM CONNECTION



FRONT VIEW

SECTION I-I

THRIE BEAM CONNECTION TO BRIDGE PARAPETS WITH SLOPED ENDS

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

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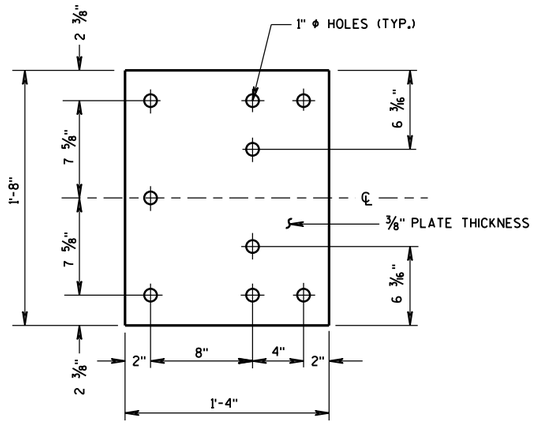
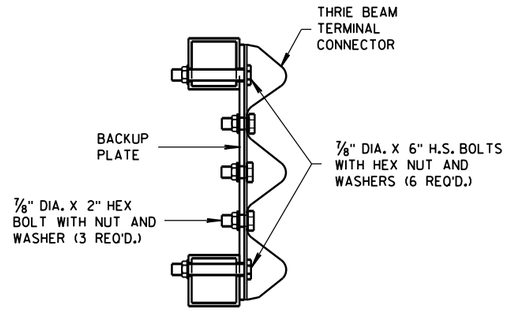
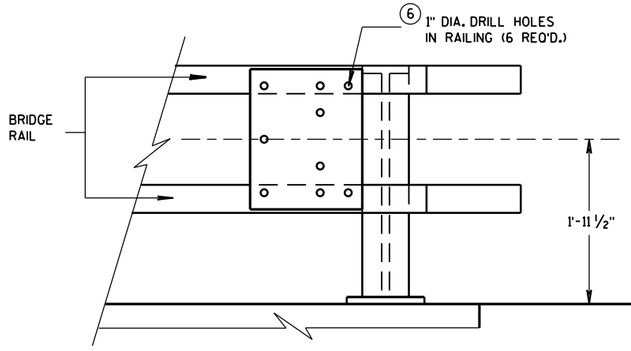


BACK-UP PLATE DETAIL



SECTION J-J

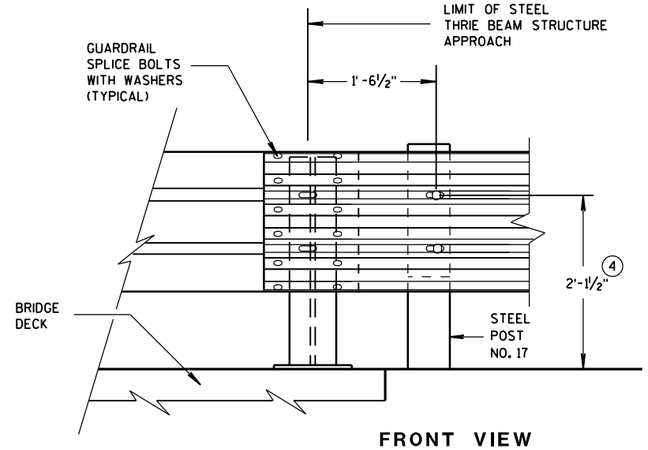


BACK-UP PLATE MOUNTING ONTO BRIDGE RAILING

GENERAL NOTES

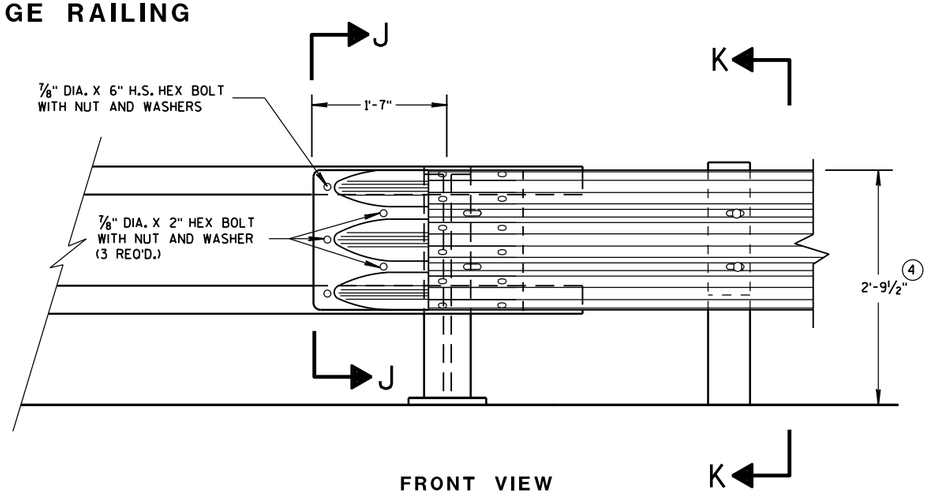
④ TOLERANCE FOR TOP OF BEAM IS ± 1".

⑥ DRILLING HOLES THROUGH THE PAPRPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

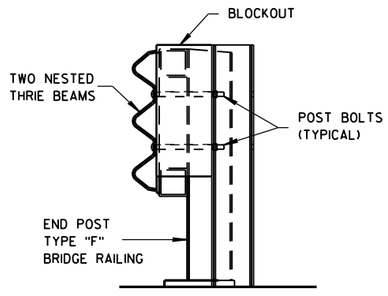


FRONT VIEW

THRIE BEAM CONNECTION TO STEEL RAILING TYPE "W"



FRONT VIEW



SECTION K-K

THRIE BEAM CONNECTION TO TUBULAR RAILING TYPE "F"

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
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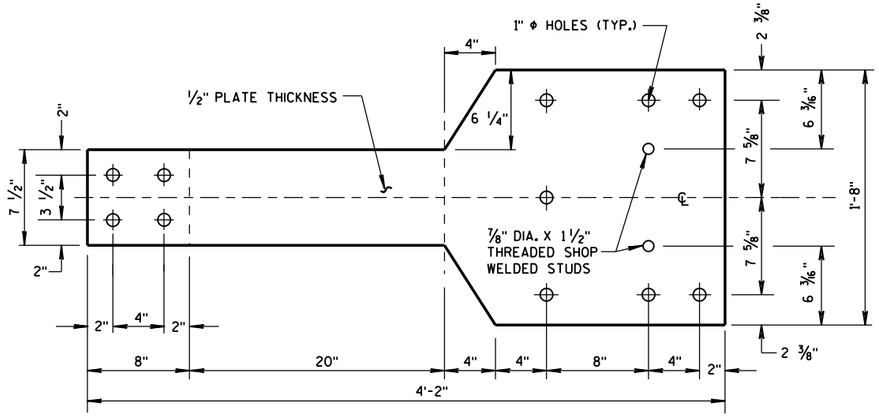
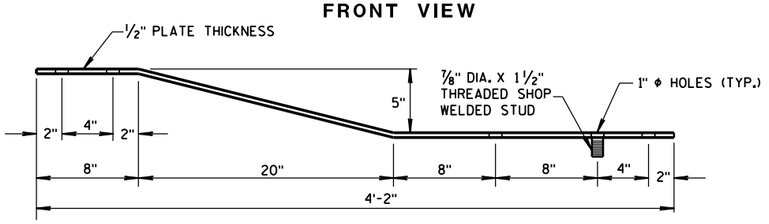
GENERAL NOTES

(4) TOLERANCE FOR TOP OF W-BEAM RAIL IS ± 1".

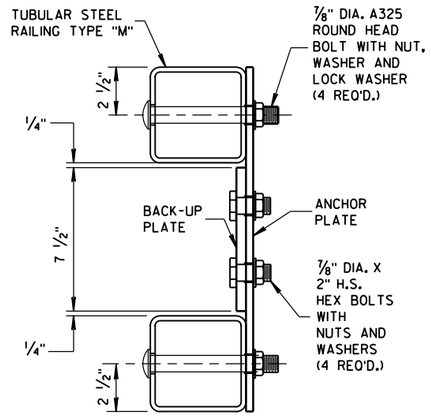


FRONT VIEW

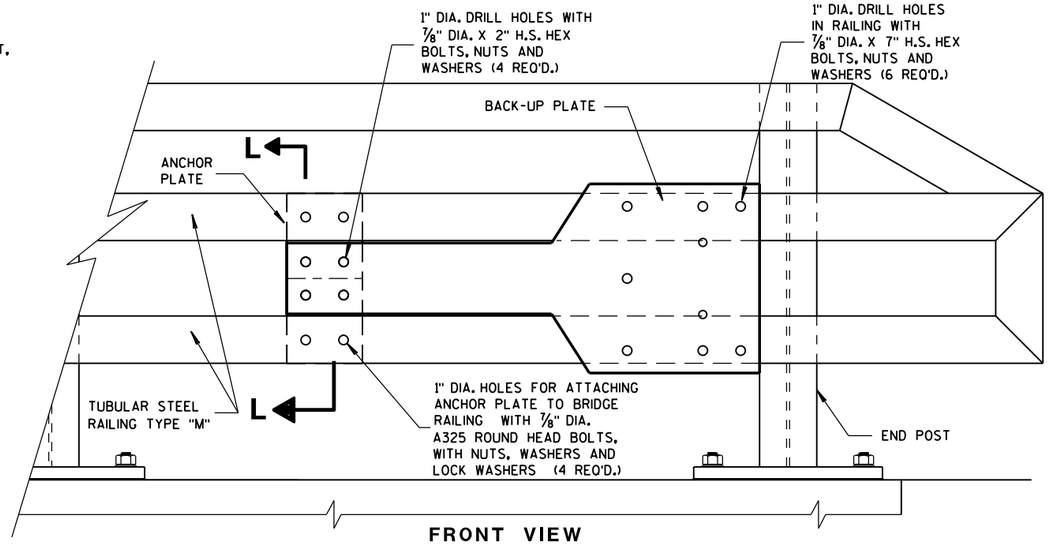


PLAN VIEW

BACK-UP PLATE DETAIL, TYPE "M"

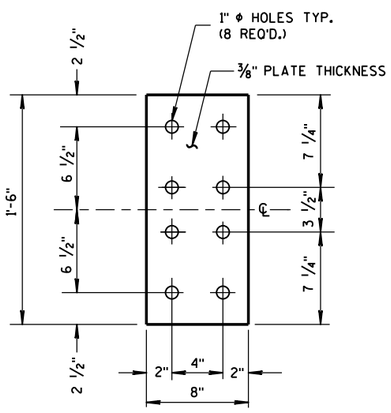


SECTION L-L



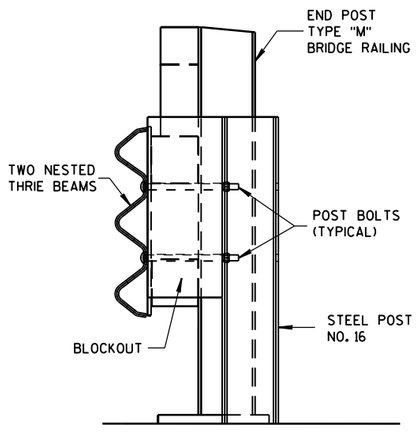
FRONT VIEW

ANCHOR AND BACK-UP PLATE MOUNTING TO BRIDGE RAILING, TYPE "M"

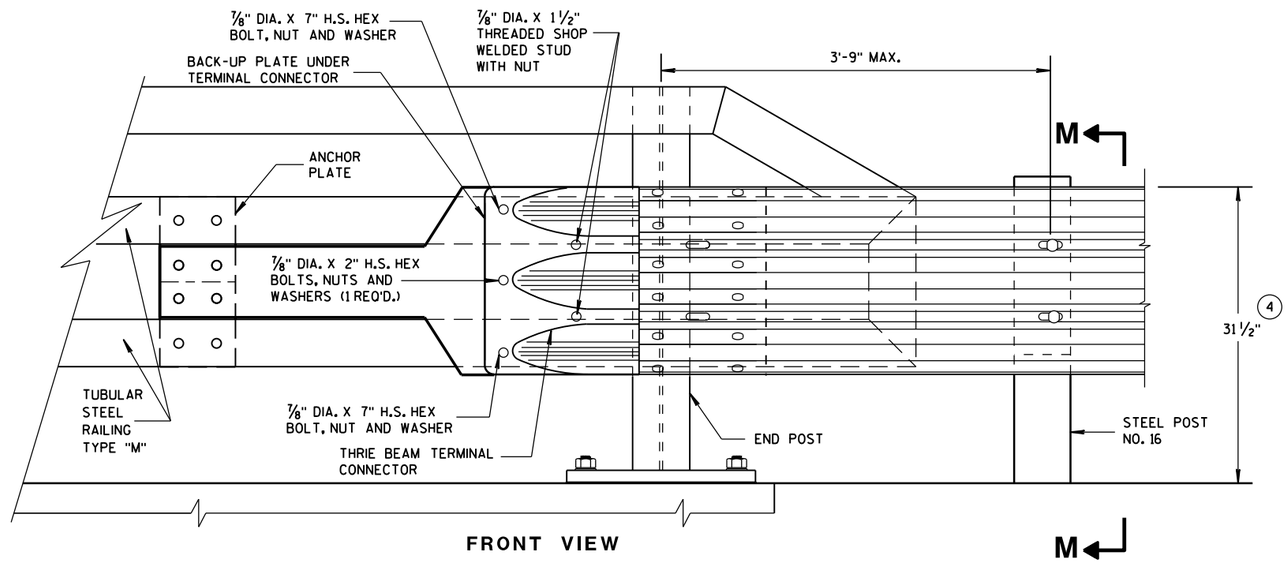


FRONT VIEW

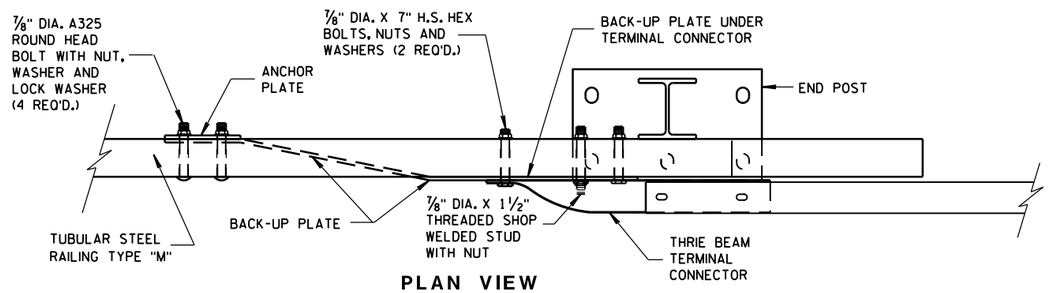
ANCHOR PLATE DETAIL, TYPE "M"



SECTION M-M



FRONT VIEW



PLAN VIEW

THRIE BEAM CONNECTION TO TUBULAR RAILING, TYPE "M"

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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June, 2015 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS DEVELOPMENT ENGINEER
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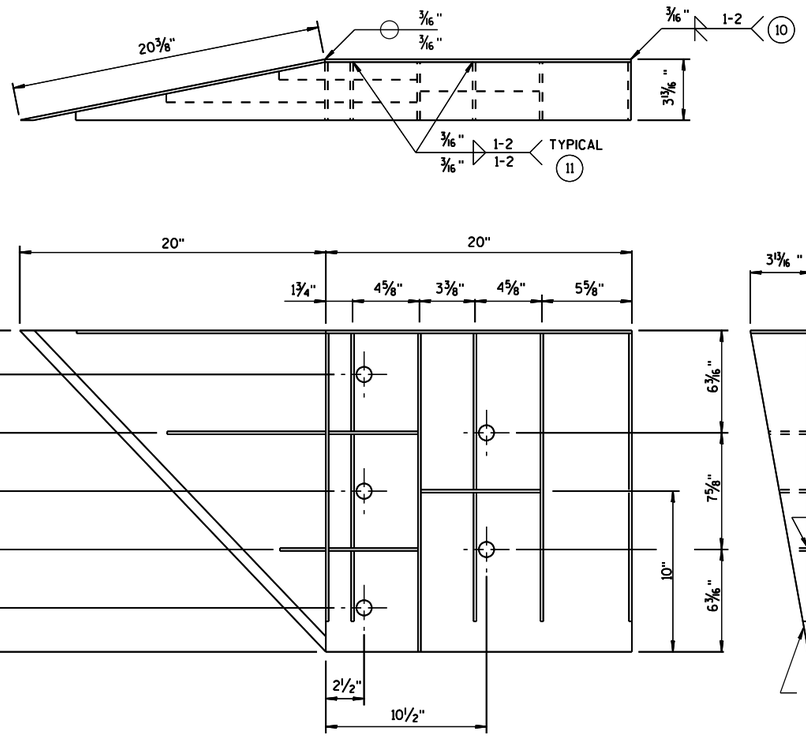

WELDING INSTRUCTION

(VIEWED FROM BACK SIDE OF PLATE)

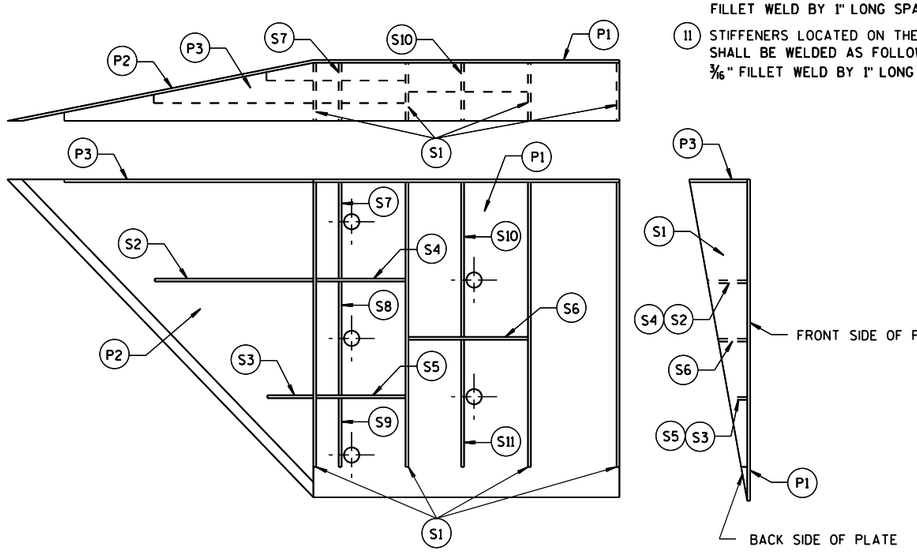

PLATE AND STIFFENER IDENTIFICATION

(VIEWED FROM BACK SIDE OF PLATE)

GENERAL NOTES

COVER PLATE PANELS ARE 3/16" THICK.

ALL STIFFENERS ARE 1/4" THICK.

CONNECTOR PLATE SHALL BE FABRICATED FROM ASTM GRADE A36 STEEL AND GALVANIZED.

FOR GALVANIZED REQUIREMENTS, SEE SECTION 614 OF THE STANDARD SPECIFICATIONS.

ALL HOLE DIAMETERS SHALL BE 1".

FOR OPPOSITE SIDE INSTALLATION MIRROR DRAWINGS.

(10) STIFFENERS LOCATED AT THE OUTSIDE EDGES OF THE COVER PLATES SHALL BE WELDED AS FOLLOWS:
SINGLE BEVEL GROOVE WELD ON EXTERNAL SIDES AND 3/16" FILLET WELD BY 1" LONG SPACED AT 2" ON INTERNAL SIDES.

(11) STIFFENERS LOCATED ON THE INSIDE OF THE COVER PLATE SHALL BE WELDED AS FOLLOWS:
3/16" FILLET WELD BY 1" LONG SPACED AT 2".

CONNECTOR PLATE DIMENSION (PER ASSEMBLY)

PLATE	QUANTITY	SHAPE	SIZE (A x B x C x D)	THICKNESS
P1	1		20" x 20"	3/16"
P2	1		20" x 20" x 28 9/16"	3/16"
P3	1		39" x 3 5/8" x 20" x 19 5/16"	3/16"
S1	4		18 7/16" x 3 3/8" x 18 3/4"	1/4"
S2	1		10 1/4" x 2 7/16" x 10 3/8" x 1/2"	1/4"
S3	1		3" x 1 1/16" x 3 1/8" x 1/2"	1/4"
S4	1		6 1/8" x 2 7/16"	1/4"
S5	1		6 1/8" x 1 1/16"	1/4"
S6	1		7 3/4" x 1 3/4"	1/4"
S7	1		2 9/16" x 6" x 3 5/8" x 5 7/8"	1/4"
S8	1		1 5/32" x 7 1/2" x 2 1/2" x 7 3/8"	1/4"
S9	1		6 1/16" x 6 3/16" x 1 1/32"	1/4"
S10	1		1 7/8" x 9 7/8" x 3 5/8" x 9 11/16"	1/4"
S11	1		8 1/2" x 8 3/4" x 1 13/16"	1/4"

SINGLE SLOPE CONNECTION PLATE

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
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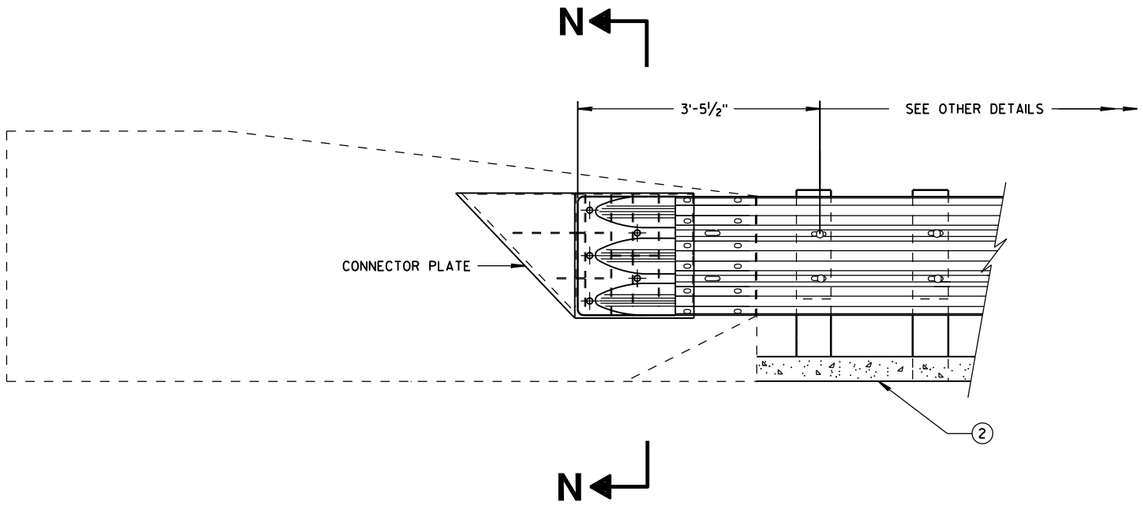
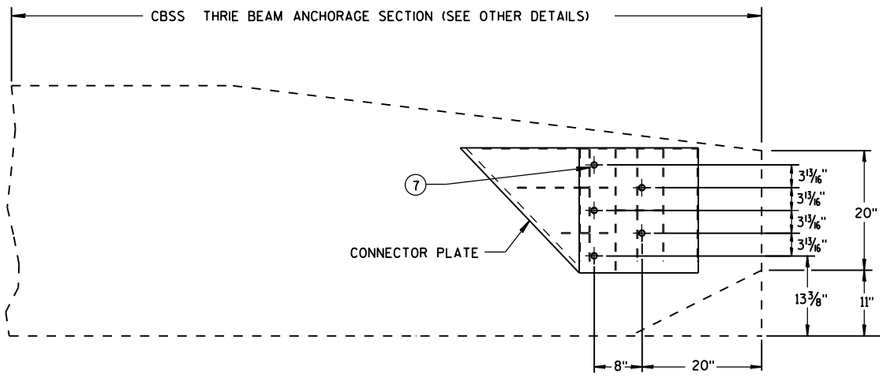


THRIE BEAM CONNECTION TO SINGLE SLOPE BARRIER



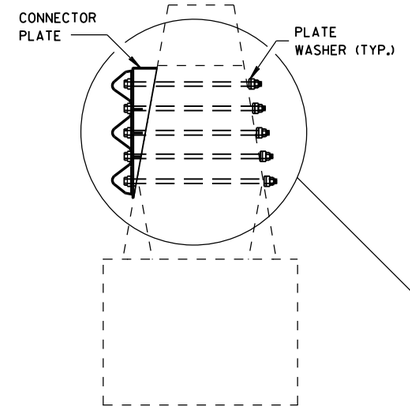
SINGLE SLOPE CONNECTION PLATE PLACEMENT

GENERAL NOTES

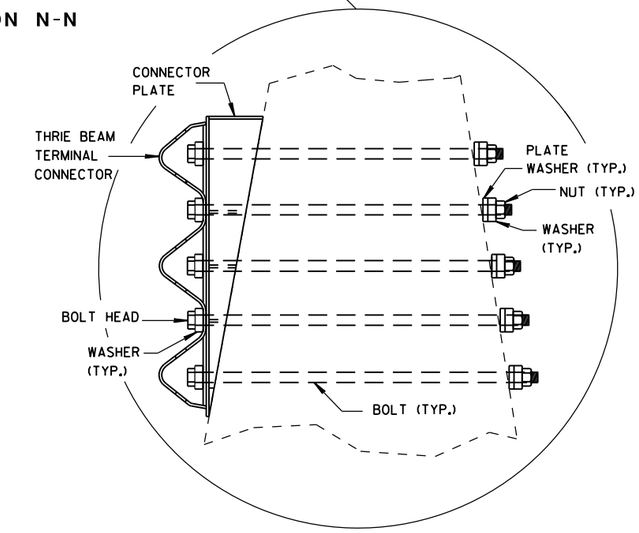
CONNECTOR PLATE, DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

(2) OPTIONAL CURB AND GUTTER OR DRAINAGE FEATURE SEE PLAN FOR INFORMATION.

(7) BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE. BOLTS THAT EXTEND THROUGH THE PARAPET AND OUT THE BACK FACE REQUIRE A HARDENED ROUND STEEL WASHER THAT IS 2" O.D. X 5/8" THICK AND ONE PLATE WASHER. REPAIR ANY DAMAGED CONCRETE FROM BOLT INSTALLATION.



SECTION N-N



MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

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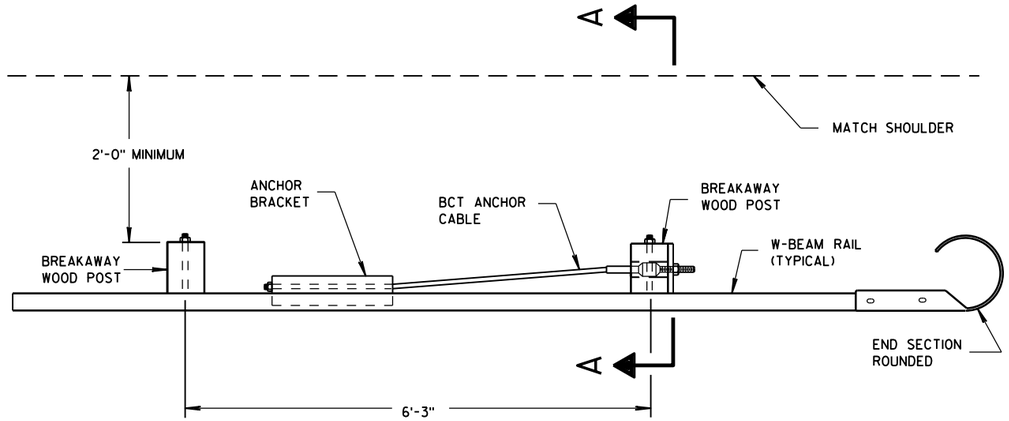
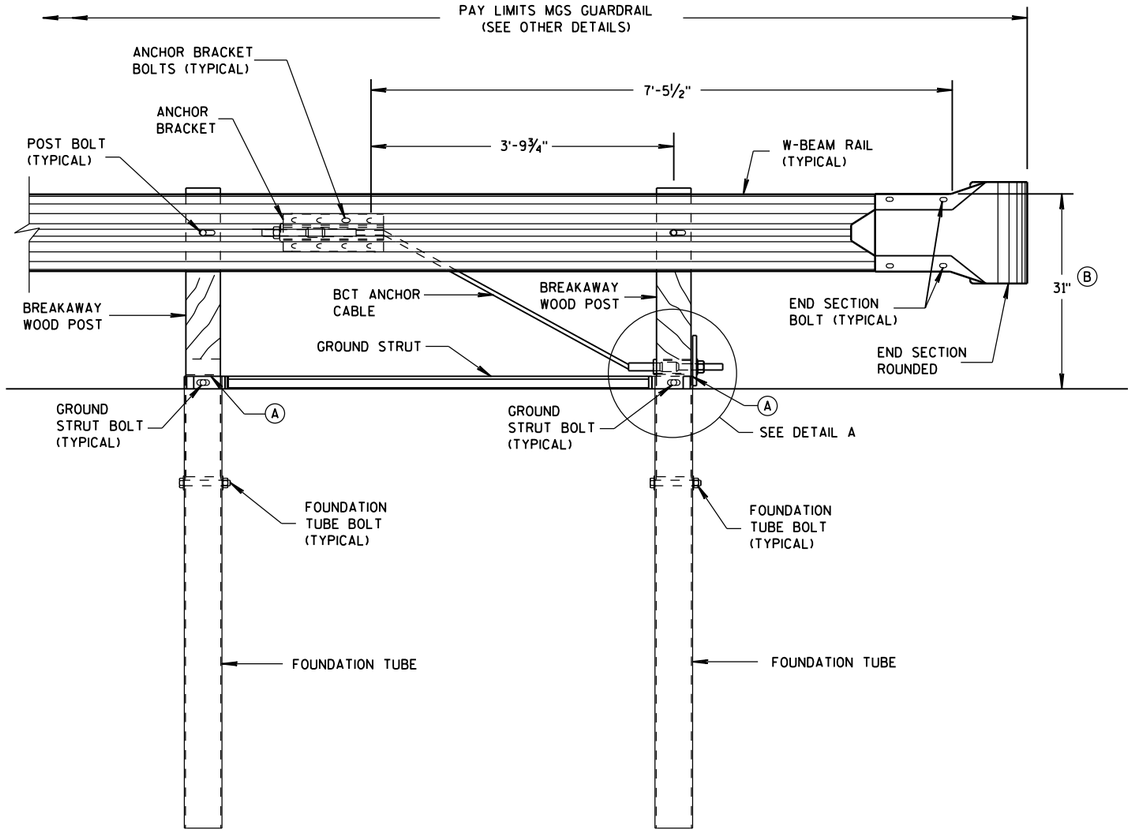
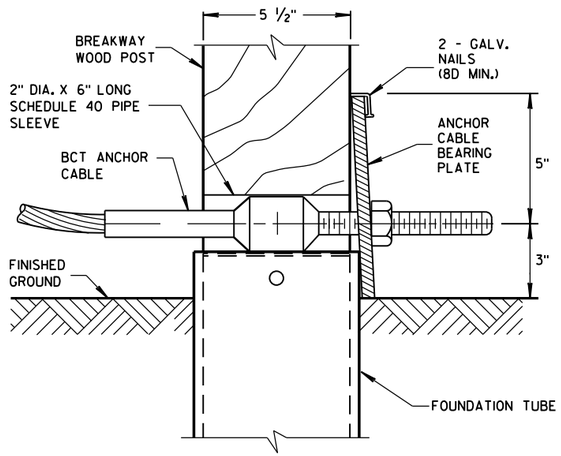


PLAN VIEW



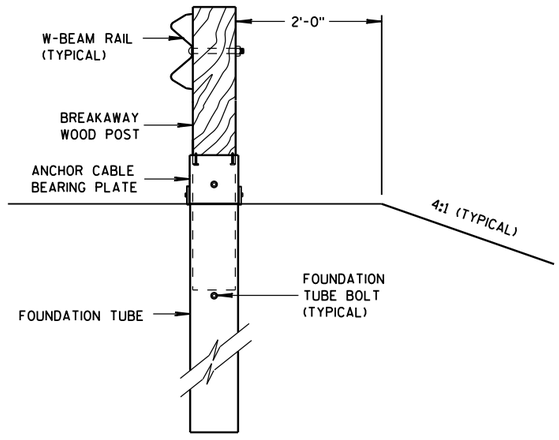
FRONT VIEW

END RAIL DETAIL



DETAIL A

POST NO. 1
GROUNG STRUT NOT SHOWN FOR CLARITY.



SECTION A-A

GENERAL NOTES

SEE SDD 14 B 42 FOR MORE INFORMATION.

END SECTION BOLTS AND NUTS HAVE THE SAME MATERIAL REQUIREMENTS AS SPLICE BOLTS.

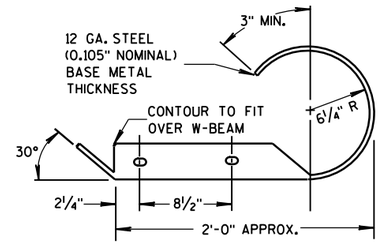
FOUNDATION TUBE BOLTS ARE ⅞" DIAMETER ASTM A307 HEX HEAD BOLT. FOUNDATION TUBE BOLTS REQUIRE ASTM A563 A NUT AND TWO ASTM F844 ⅞" DIAMETER FLAT WASHERS. INSTALL ONE WASHER UNDER BOLT HEAD AND ONE WASHER UNDER NUT.

ANCHOR BRACKET AND GROUND STRUT BOLTS ARE A ⅝" DIAMETER ASTM A307 HEX HEAD BOLT. ANCHOR BRACKET BOLTS REQUIRE ASTM A563 A NUT AND TWO ASTM F844 ⅝" DIAMETER FLAT WASHERS. INSTALL ONE WASHER UNDER BOLT HEAD AND ONE WASHER UNDER NUT.

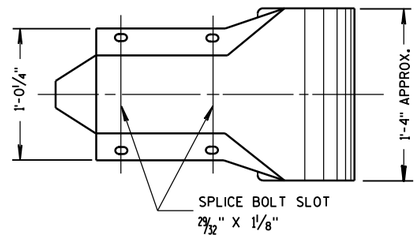
W-BEAM END SECTION ROUNDED HAS THE SAME MATERIAL PROPERTIES AS STANDARD STEEL RAIL.

(A) TOP OF FOUNDATION TUBE SHALL BE NO MORE THAN 3" ABOVE FINISHED GROUND.

(B) FOR NEW CONSTRUCTION TOP OF RAIL IS 31" ± 1".
FOR EXISTING INSTALLATIONS TOP OF RAIL IS BETWEEN 27¾" TO 32" ± 1".



PLAN VIEW



FRONT VIEW

W BEAM END SECTION ROUNDED

MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPO

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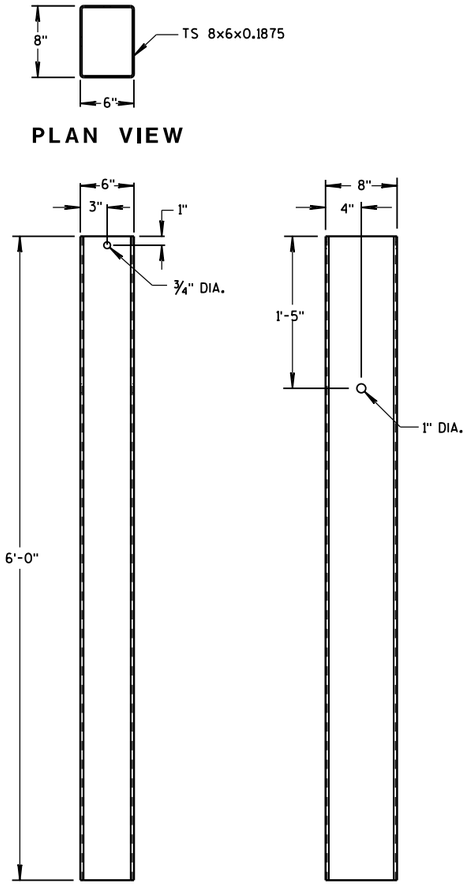
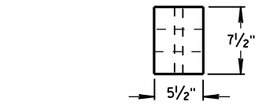


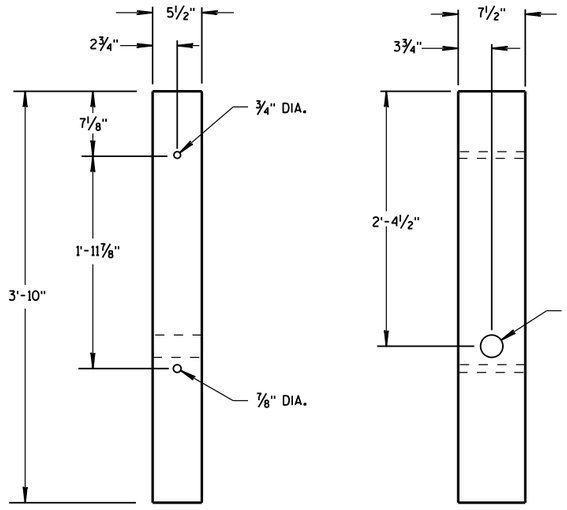
PLAN VIEW

FRONT VIEW SIDE VIEW

FOUNDATION TUBE



PLAN VIEW



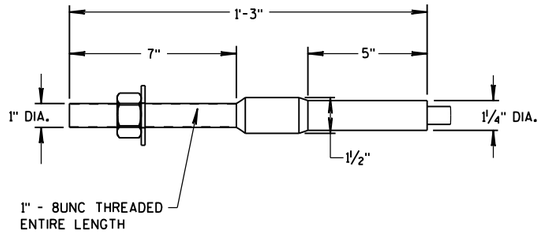
FRONT VIEW SIDE VIEW

BREAKAWAY WOOD POST

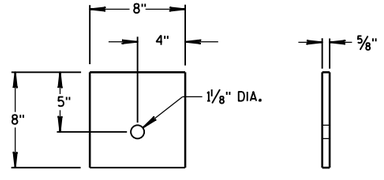
GENERAL NOTES

BCT ANCHOR CABLE IS A ¾" DIAMETER 6X19 IWRC IPS GALVANIZED WIRE ROPE. THE SWAGED FITTINGS AND STUD ARE REQUIRED. END FITTING SHALL BE MACHINED FROM HOT-ROLLED CARBON STEEL CONFORMING TO ASTM A576 GRADE 1035 AND GALVANIZED ACCORDING TO ASTM A123. TREADED STUD SHALL CONFORM TO ASTM A325 OR SAE GRADE 5. MINIMUM BREAKING STRENGTH OF WIRE ROPE IS 43,000 LB. WIRE ROPE IS TO BE TAUT.

BCT ANCHOR CABLE



DETAIL B



SIDE VIEW FRONT VIEW

ANCHOR CABLE
BEARING PLATE

MIDWEST GUARDRAIL
SYSTEM (MGS) TYPE 2 TERMINAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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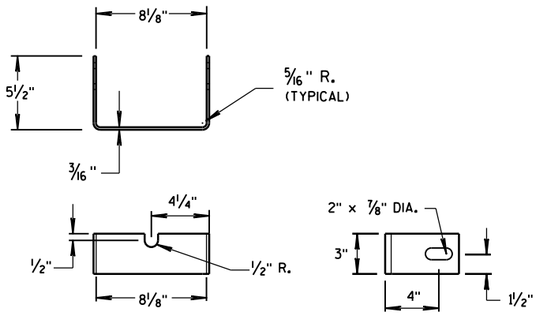
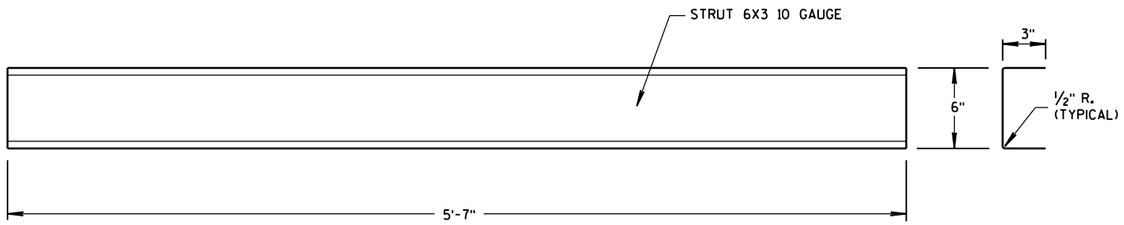
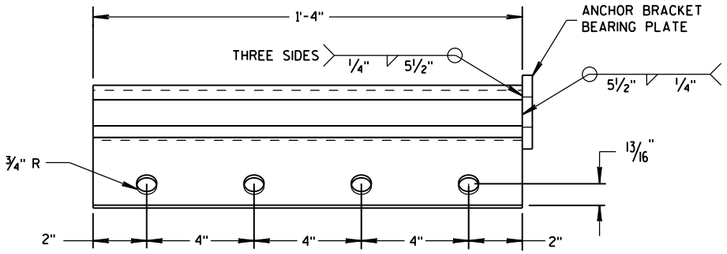
S.D.D. 14 B 47-2b

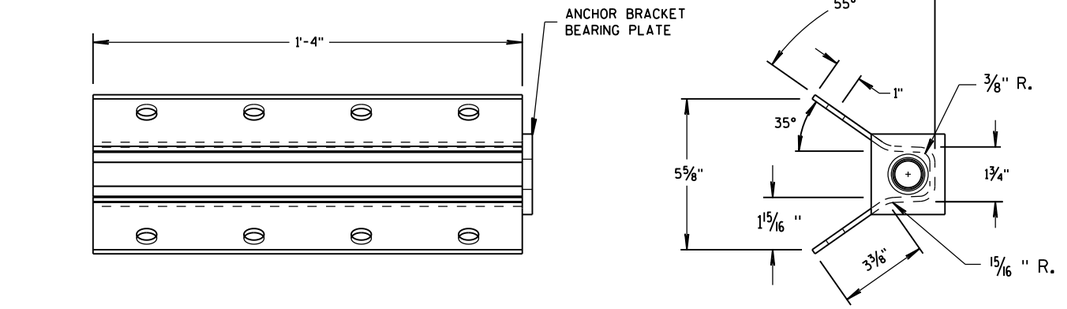


YOKE DETAIL

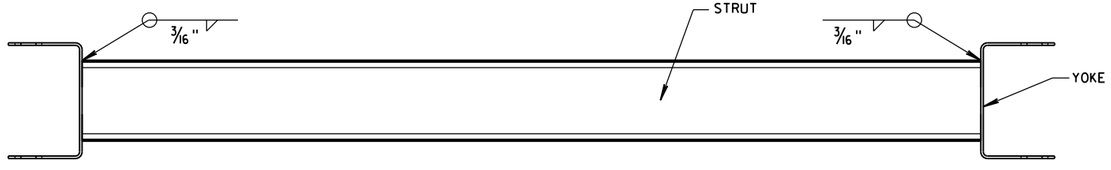


STRUT DETAIL

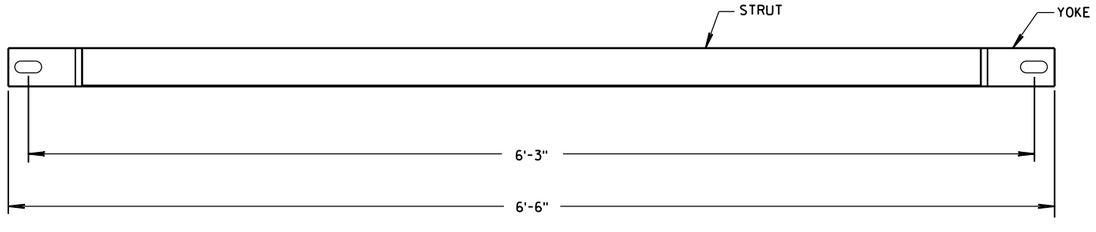




ANCHOR BRACKET

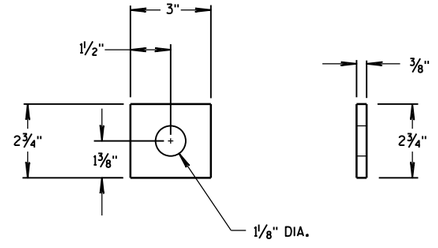


PLAN VIEW



FRONT VIEW

GROUND STRUT DETAIL



ANCHOR BRACKET BEARING PLATE

MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2014
DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS ENGINEER
FHWA

6

S.D.D. 14 B 47-2c

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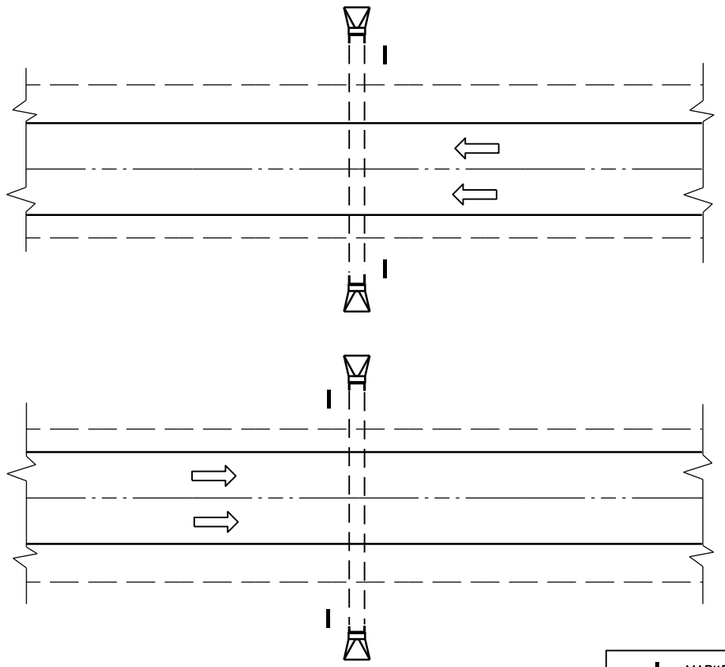
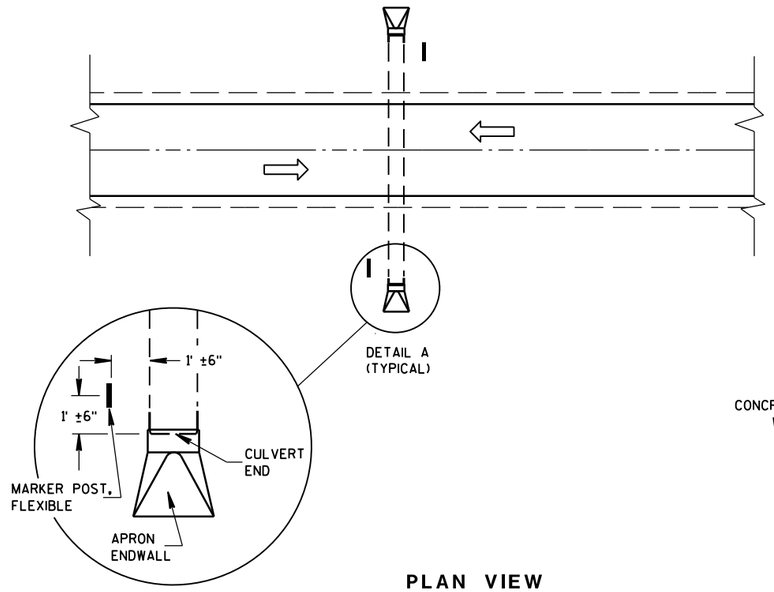
S.D.D. 14 B 47-2c



PLAN VIEW

DIVIDED HIGHWAY



DETAIL A
(TYPICAL)

PLAN VIEW

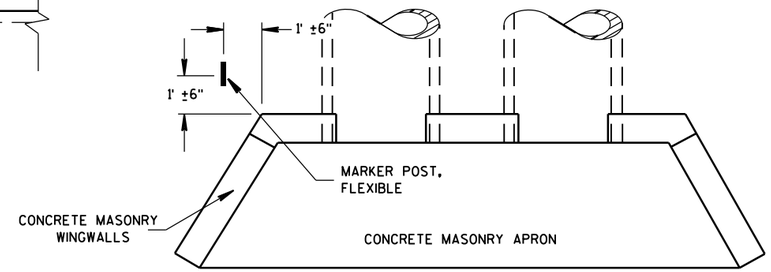
UNDIVIDED HIGHWAY

MARKER POST, FLEXIBLE

DIRECTION OF TRAFFIC FLOW

GENERAL NOTES

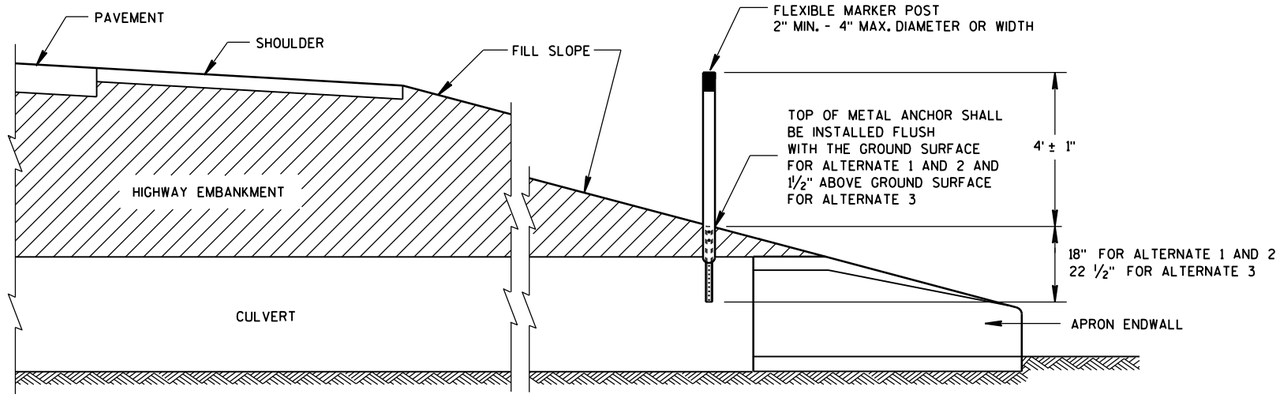
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.



PLAN VIEW

CONCRETE MASONRY ENDWALLS FOR CULVERT PIPE AND PIPE ARCH

FLEXIBLE MARKER POST LOCATION



CROSS SECTION

FLEXIBLE MARKER POST

FLEXIBLE MARKER POST FOR CULVERT END

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

S.D.D. 15 A 3-2a

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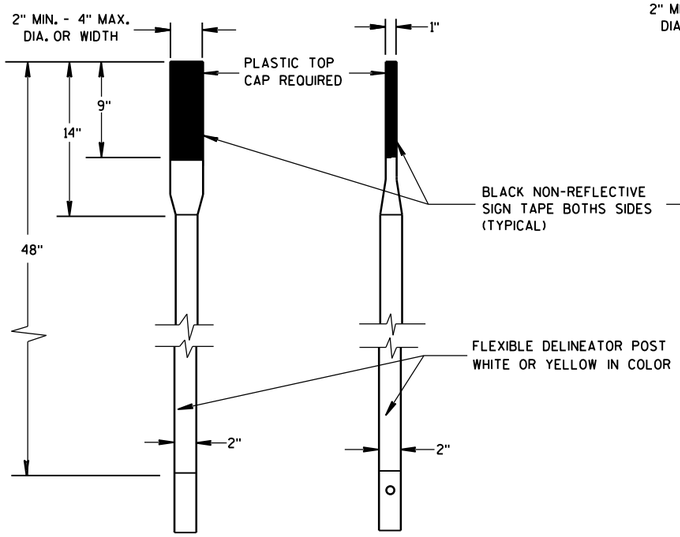
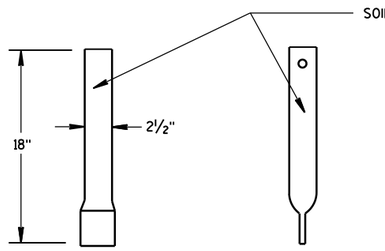
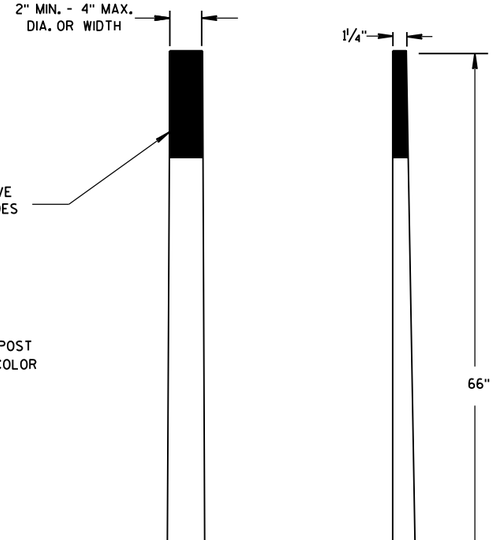
S.D.D. 15 A 3-2a





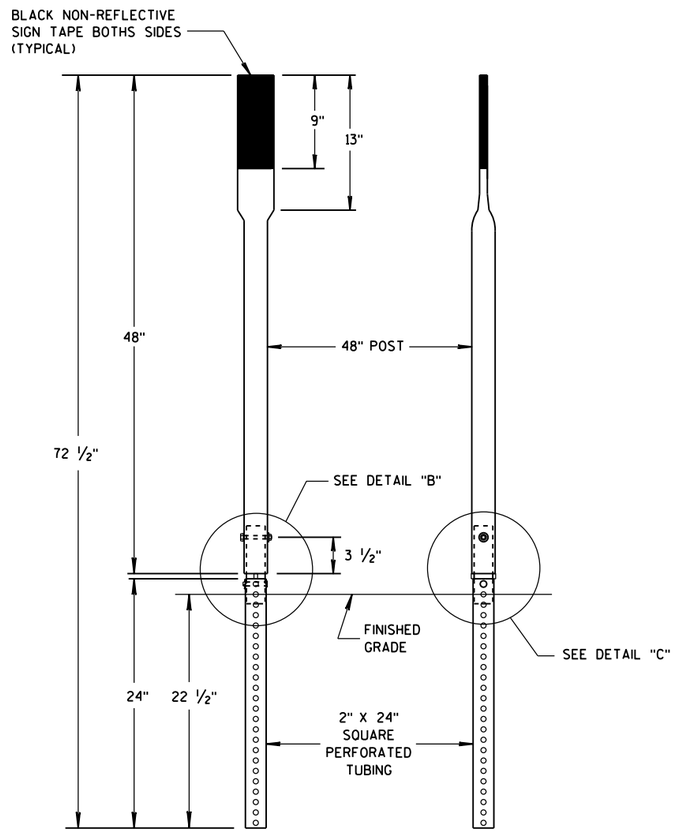
FRONT VIEW SIDE VIEW

ALTERNATE 1



FRONT VIEW SIDE VIEW

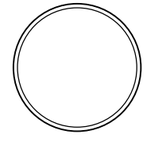
ALTERNATE 2



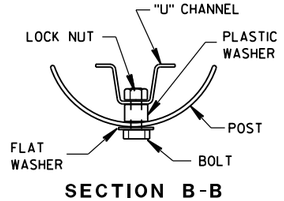
FRONT VIEW SIDE VIEW

ALTERNATE 3

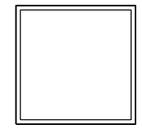
FLEXIBLE MARKER POSTS



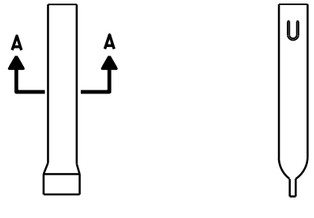
SECTION A-A



SECTION B-B

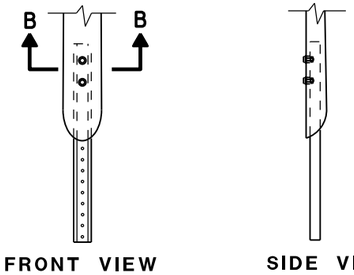


SECTION C-C



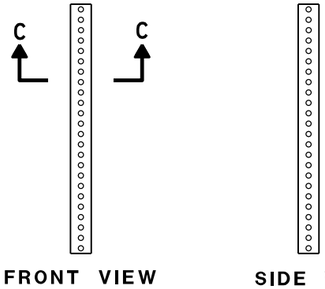
FRONT VIEW SIDE VIEW

ALTERNATE 1



FRONT VIEW SIDE VIEW

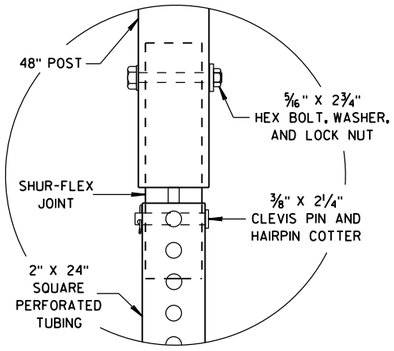
ALTERNATE 2



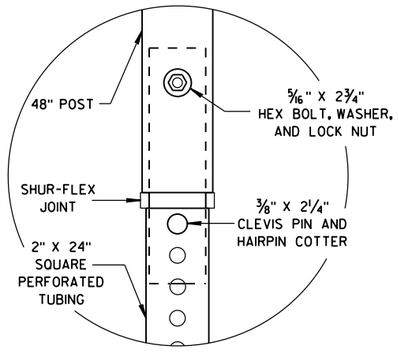
FRONT VIEW SIDE VIEW

ALTERNATE 3

FLEXIBLE MARKER POST ANCHORS



DETAIL B



DETAIL C

FLEXIBLE MARKER POST
FOR CULVERT END

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

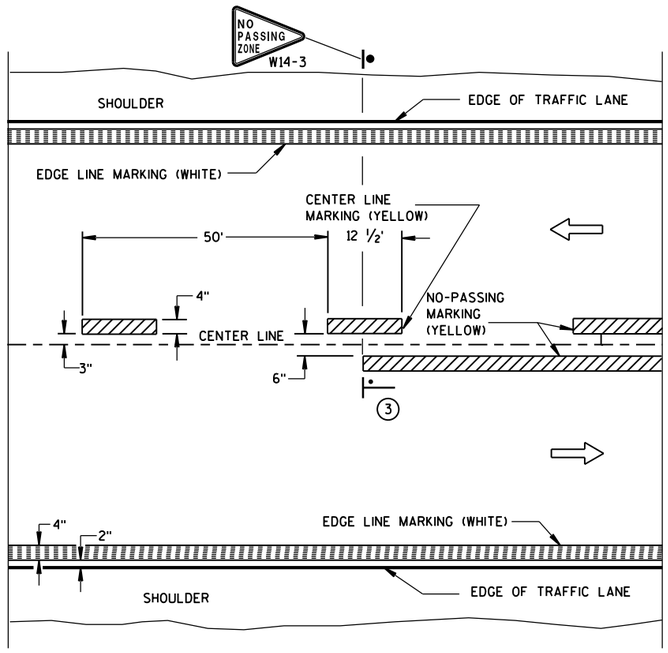
APPROVED
10/1/2012 — DATE
/S/ Travis Feltes — STATE TRAFFIC ENGINEER
IGN
FHWA

6

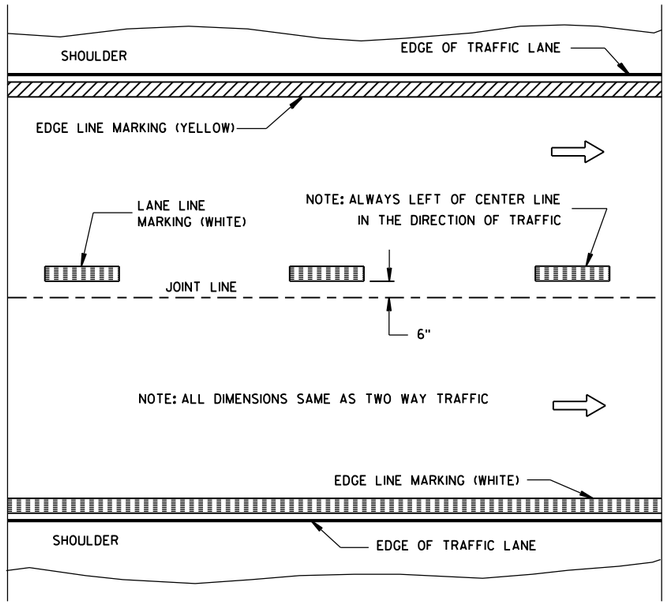
S.D.D. 15 A 3-2b

6

S.D.D. 15 A 3-2b

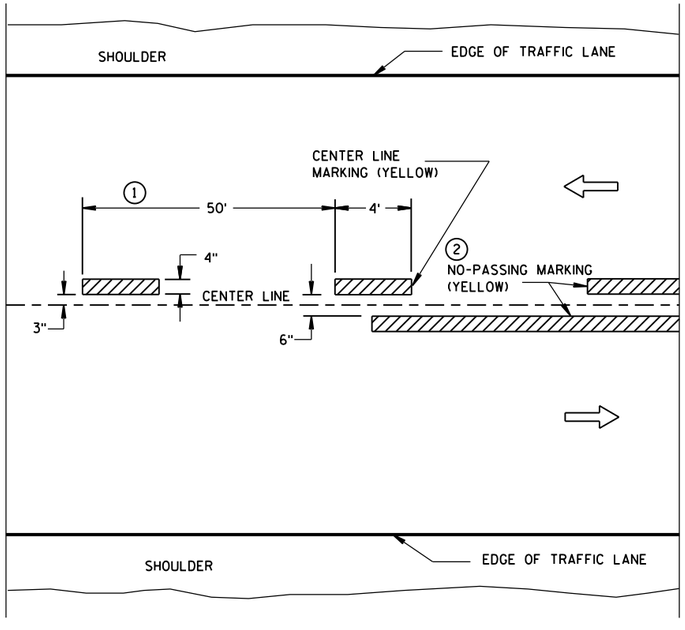


TWO WAY TRAFFIC

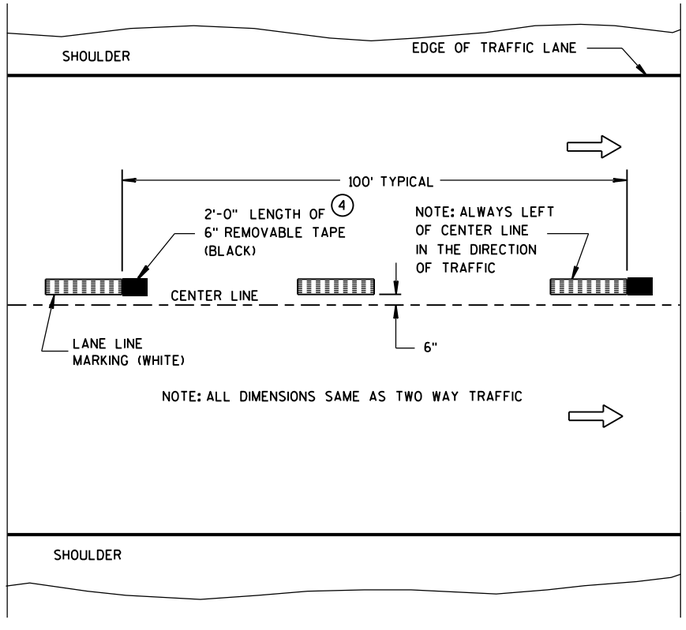


ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING



TWO WAY TRAFFIC



ONE WAY TRAFFIC

TEMPORARY (INTERMEDIATE) PAVEMENT MARKING

(SHOWS CYCLE FOR TEMPORARY CENTER LINE OR TEMPORARY LANE LINE MARKING)

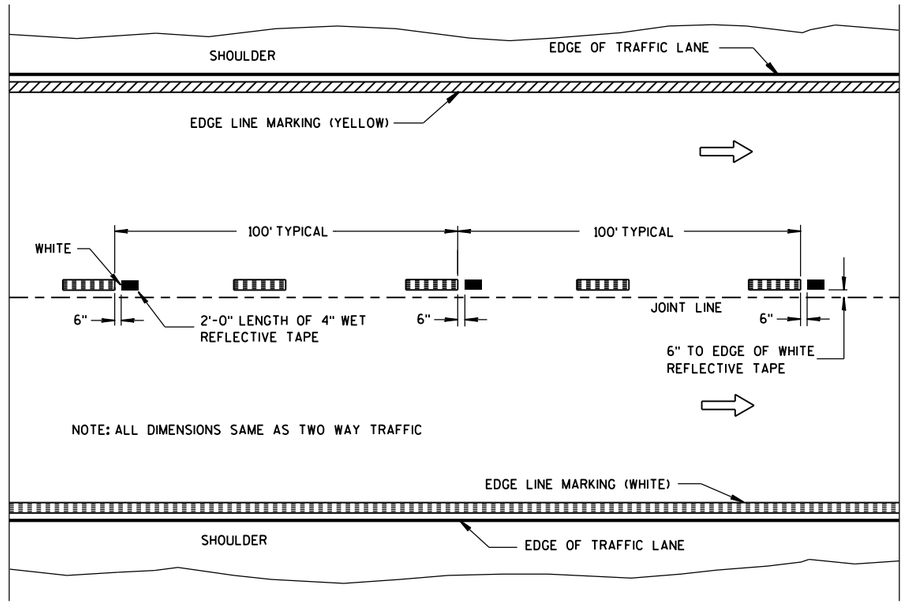
GENERAL NOTES

DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO STANDARD SPECIFICATIONS AND SPECIAL PROVISIONS.

1. HALF CYCLE LENGTHS (25'±) WITH 2' MINIMUM STRIPE LENGTHS SHALL BE PROVIDED ON ROADWAYS (INCLUDING TEMPORARY TRAVELED WAYS) WITH REVERSE CURVATURE, CURVATURE OF OVER 5 DEGREES OR WHEN DIRECTED BY THE ENGINEER TO MARK UNUSUAL ALIGNMENT OF THE TRAVELED WAY.
2. NO PASSING ZONE TEMPORARY PAVEMENT MARKING IS REQUIRED TO BE PLACED, WHERE APPROPRIATE, ALONG WITH CENTERLINE TEMPORARY PAVEMENT MARKING WHEN A SAME DAY PERMANENT PAVEMENT MARKING ITEM IS INCLUDED IN THE CONTRACT.
3. NO PASSING ZONE MARKINGS ARE PLACED ACCORDING TO "T" MARKINGS. IF EXISTING NO PASSING ZONE W14-3 SIGNS ARE BEYOND 50 FEET IN EITHER DIRECTION, THE SIGNS SHALL BE MOVED TO THE "T" MARKINGS.
4. CONCRETE ONLY.

NOTE

ARROW SYMBOL (⇨) SHOWS DIRECTION OF TRAVEL



WET REFLECTIVE TAPE SUPPLEMENT TO
SPRAYED OR NON WET REFLECTIVE TAPE LANE LINE

LEGEND

"T" MARKING

POST MOUNTED SIGN

PAVEMENT MARKING (MAINLINE)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
5-13-2013 DATE
/S/ Travis Feltes STATE TRAFFIC E
FHWA

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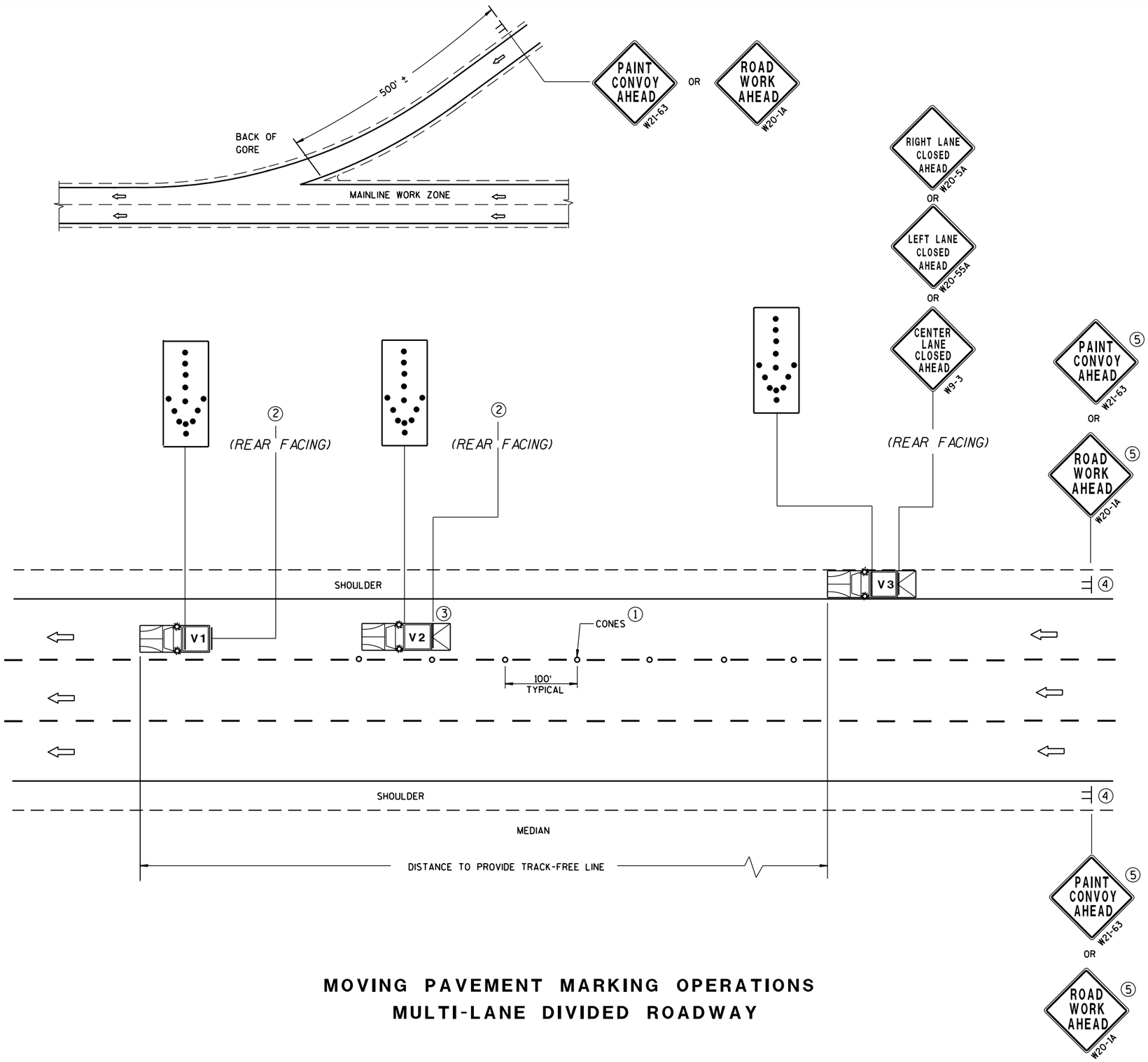
S.D.D. 15 C 8-16a

6

S.D.D. 15 C 8-16a



MOVING PAVEMENT MARKING OPERATIONS
MULTI-LANE DIVIDED ROADWAY

GENERAL NOTES

ALL VEHICLES SHALL BE EQUIPPED WITH TWO 360 DEGREE HIGH INTENSITY YELLOW FLASHING LIGHTS OR STROBE LIGHTS AND OPERATED WITH HEADLIGHTS TURNED ON.

ALL VEHICLES SHALL BE EQUIPPED WITH REAR FACING TYPE B OR C FLASHING ARROW PANEL. SIGNS PLACED ON VEHICLES MUST NOT OBSCURE THE ARROW PANEL.

ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE SPECIFIED.

IF SPEED LIMIT IS 40 MPH OR LESS STATIONARY SIGNS MAY BE OMITTED IF CONES ARE USED.

ALTERNATE SIGN MESSAGES, SUCH AS "PAINT CREW AHEAD" OR "ROAD PAINTING AHEAD" MAY BE USED.

DISTANCE BETWEEN VEHICLES MAY VARY ACCORDING TO TERRAIN, SIGHT DISTANCE, PAINT DRYING TIME, AND OTHER FACTORS. WHENEVER ADEQUATE STOPPING SIGHT DISTANCE EXISTS TO THE REAR, SHADOW VEHICLES SHOULD MAINTAIN THE MINIMUM DISTANCE FROM THE WORK VEHICLE AND PROCEED AT THE SAME SPEED AS THE WORK VEHICLE. SHADOW VEHICLES SHOULD SLOW DOWN IN ADVANCE OF VERTICAL OR HORIZONTAL CURVES THAT RESTRICT SIGHT DISTANCE.

WHEN WORK ACTIVITY BLOCKS THE LEFT LANE, REVERSE TRAFFIC CONTROL.

WHEN A RAMP INTERSECTS THE FACILITY ON WHICH THE WORK IS BEING PERFORMED, PROVIDE ADDITIONAL TRAFFIC CONTROLS AS SPECIFIED IN THE CONTRACT OR AS APPROVED BY THE ENGINEER.

USE AN ATTENUATOR ON THE REARMOST VEHICLE THAT BLOCKS ALL OR PART OF THE TRAFFIC LANE.

FOR EDGELINE MARKING OR IF CONES ARE NOT USED, POSITION THE REARMOST SHADOW VEHICLE ON THE SHOULDER AS SHOWN IN THE MUTCD IF THE SHOULDER HAS ADEQUATE WIDTH. USE DOUBLE ARROWS WHEN CONVOY IS IN CENTER LANE ONLY.

WHEN NO WORK ACTIVITY IS TAKING PLACE, REMOVE OR TURN THE STATIONARY WARNING SIGNS AWAY FROM TRAFFIC.

THIS DRAWING SHALL BE USED FOR EDGELINE OR LANELINE MARKING FOR MULTILANE DIVIDED ROADWAYS.

① CONES MAY BE OMITTED ON PAINTED LINE IF APPROVED BY THE ENGINEER. CONSIDER PAVEMENT MARKING DRY OR CURE TIMES AND TRAFFIC VOLUME.

② USE STANDARD SIGN W21-64 WITH APPROPRIATE ARROW.

WET PAINT W21-64 OR WET PAINT W21-64

③ OPTIONAL TRUCK-MOUNTED ATTENUATOR.

④ SIGNS SHALL BE REPEATED AFTER EVERY ON RAMP OR EVERY THREE MILES.

⑤ IF CONSTRUCTION WORK ZONE SIGNS ARE IN PLACE, W20-1 OR W21-63 ARE NOT REQUIRED.

LEGEND

V1	LEAD VEHICLE
V2	SHADOW VEHICLE
V3	TRAIL VEHICLE WITH TMA
TMA	TRUCK-MOUNTED ATTENUATOR
	SIGN ON TEMPORARY SUPPORT
	DIRECTION OF TRAFFIC
	CONES
	FLASHING ARROW PANEL (MERGE)

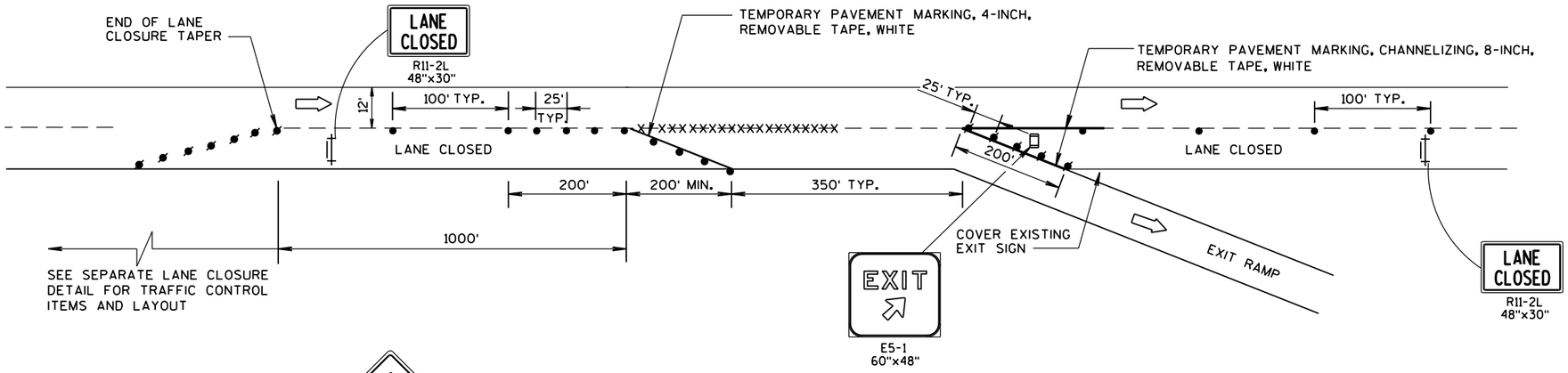
MOVING PAVEMENT MARKING OPERATION
MULTI-LANE DIVIDED ROADWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

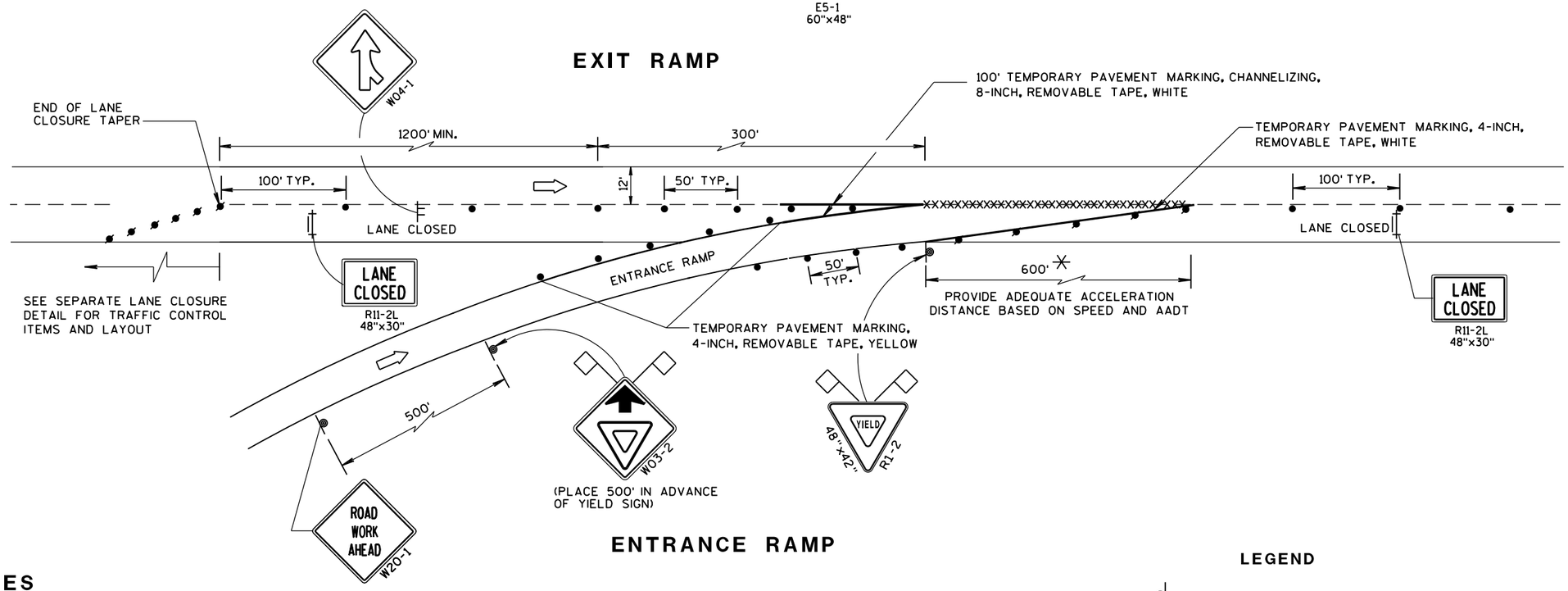
APPROVED
Sept. 2015 — DATE
/S/ Peter Amakobe Atepe — STATEWIDE WORK ZON SAFETY ENGINI
FHWA

6 S.D.D. 15 C 19-3c

6 S.D.D. 15 C 19-3c



EXIT RAMP



ENTRANCE RAMP

GENERAL NOTES

THE INSTALLATIONS SHOWN ON THIS SHEET ARE TYPICAL EXAMPLES AND ARE NOT INTENDED TO REPRESENT ANY PARTICULAR RAMP. AT SPECIFIC FIELD LOCATIONS, SIMILAR INSTALLATIONS SHALL BE USED AND ADJUSTED TO THE GEOMETRICS OF THE RAMP AS COORDINATED WITH THE ENGINEER.

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A MINIMUM OF 200 FEET, (500 FEET DESIRABLE) CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED.

"WO" IS THE SAME AS "W" EXCEPT THE BACKGROUND IS ORANGE.

SEE SEPARATE LANE CLOSURE DETAIL FOR TYPICAL SPACING OF TYPE III BARRICADES AND R11-2L "LANE CLOSED" SIGNS.

YIELD SIGN AND WARNING SIGNS ON ENTRANCE RAMP ARE ALSO APPROPRIATE FOR CLOSURE OF THE MAINLINE LEFT LANE. OMIT THE YIELD SIGN IF MORE THAN ONE LANE REMAINS OPEN ON THE MAINLINE AND THE RAMP TAPER IS AT LEAST AS LONG AS THE NORMAL ENTRANCE RAMP TAPER AT THE SITE.

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS, OR THAT WILL BE PLACED IN A CLOSED LANE, MAY BE MOUNTED ON PORTABLE SUPPORTS.

IF INDICATED IN MISCELLANEOUS QUANTITIES, SUBSTITUTE FLEXIBLE TUBULAR MARKERS FOR DRUMS IN THE GORE BETWEEN THE ENTRANCE RAMP AND MAINLINE TRAFFIC.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

REMOVE PAVEMENT MARKINGS AND PLACE TEMPORARY PAVEMENT MARKING, REMOVABLE TAPE IF LANE CLOSURE IS TO BE IN PLACE FOR 7 OR MORE CONTINUOUS DAYS AND NIGHTS.

WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

* LENGTH OF OPENING MAY BE REDUCED TO 150 FEET DURING STAGING OF WORK IN IMMEDIATE AREA OF RAMP TAPER.

LEGEND

- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- REMOVING PAVEMENT MARKING (SEE GENERAL NOTES)
- TYPE III BARRICADE WITH ATTACHED SIGN
- FLAGS, 16" x 16" MIN., (ORANGE)
- DIRECTION OF TRAFFIC

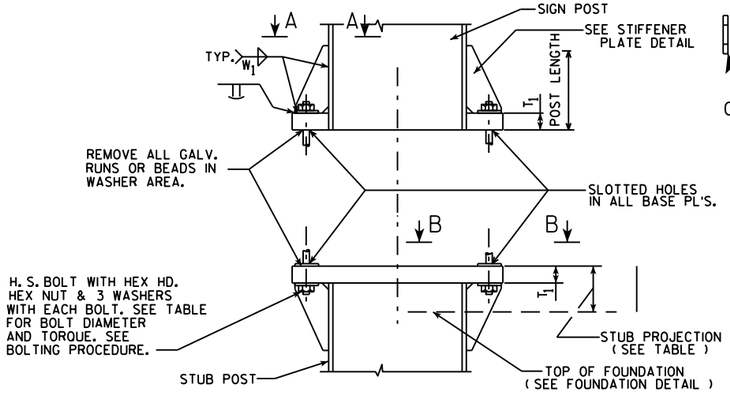
TRAFFIC CONTROL, EXIT AND ENTRANCE RAMP WITHIN LANE CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

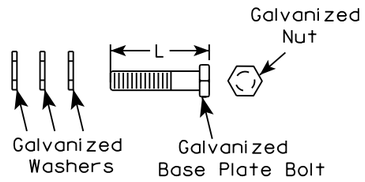
APPROVED
Sept. 2015 — DATE
/S/ Peter Amakobe Atepe — STATEWIDE WORK ZONE SAFETY ENGINEER
FHWA

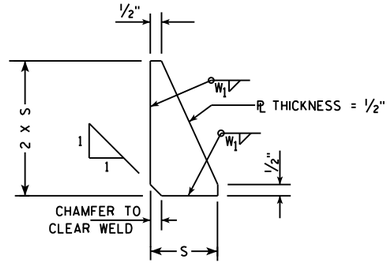
S.D.D. 15 D 15-2

S.D.D. 15 D 15-2



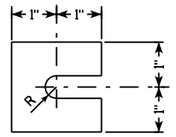
SIGN POST AND STUB POST ELEVATION





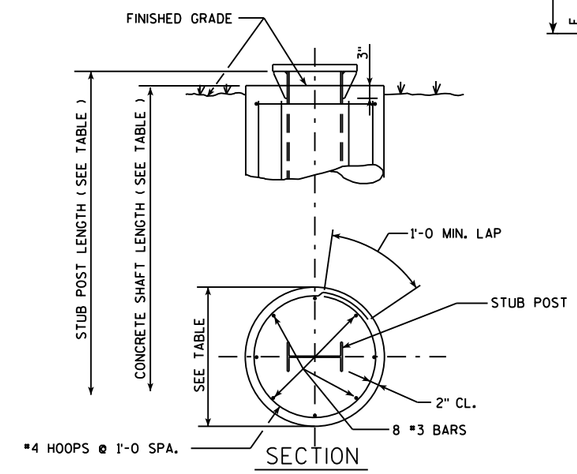
STIFFENER PLATE DETAIL

(SEE TABLE FOR DIMENSIONS)

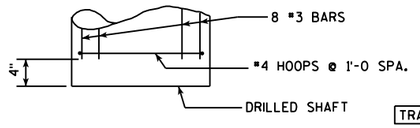


FURNISH 2 @ .012" ± THICK AND 2 @ .032" ± THICK SHIMS PER POST. SHIMS SHALL BE FABRICATED FROM BRASS SHIM STOCK OR STRIP CONFORMING TO A.S.T.M.- B36.

SHIM DETAIL



SECTION



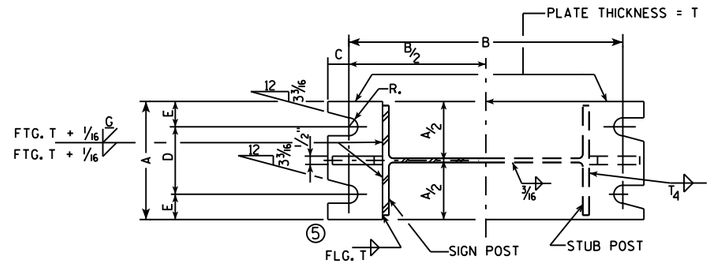
FOUNDATION DETAIL

QUANTITIES FOR 1 FOOTING		
	CONC. MASONRY C.Y.	REINF. STEEL LBS.
A	0.6	34
B	0.8	49
C	0.9	50
D	0.9	56
E	1.0	62

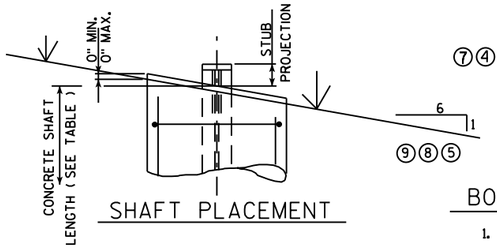
⑦

REINF.	TYPE	#3	#4
	A	8 @ 4'-5	5 @ 6'-3
	B	8 @ 6'-5	7 @ 6'-3
	C	8 @ 6'-11	7 @ 6'-3
	D	8 @ 7'-5	8 @ 6'-3
	E	8 @ 7'-11	9 @ 6'-3

⑦



SECTION A-A SECTION B-B



SHAFT PLACEMENT

DESIGN DATA

WIND PRESSURE = 75 M.P.H.
WIND COMPONENTS - NORMAL = 1.0 TRANSVERSE = 0.0
ICE LOAD = 3 P.S.F.

GROUP LOADS	PERCENT OF ALLOWABLE STRESS
1. DEAD	100
2. DEAD & WIND	140
3. DEAD, ICE & ½ WIND[4]	140

[4]25 P.S.F. MIN.

ALLOWABLE SOIL PRESSURE = 1½T / SQ. FT.
WIND LOAD WAS APPLIED TO THE AREA OF THE SIGN AND TO THE SUPPORTING MEMBERS.
ICE LOAD WAS APPLIED TO ONE FACE OF THE SIGN AND AROUND THE SURFACE OF THE SUPPORTING MEMBERS.

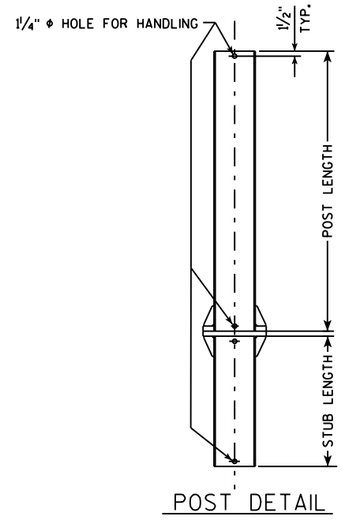
GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.
DESIGN CONFORMS WITH A.A.S.H.T.O. SPECIFICATIONS 1985.
ALL POSTS, POST STUBS & ATTACHMENTS SHALL BE A.S.T.M. A709 GRADE 50, GALVANIZED IN ACCORDANCE WITH ASTM A123. ⑨
THE POST, BASE PLATES, UPPER SIX INCHES OF STUB POST FLANGE SPLICE PLATE AND FUSE PLATE SHALL BE GALVANIZED AFTER FABRICATION.
FURNISH STEEL BOLTS, NUTS, AND WASHERS IN ACCORDANCE WITH SECTION 635 OF THE STANDARD SPECIFICATIONS.

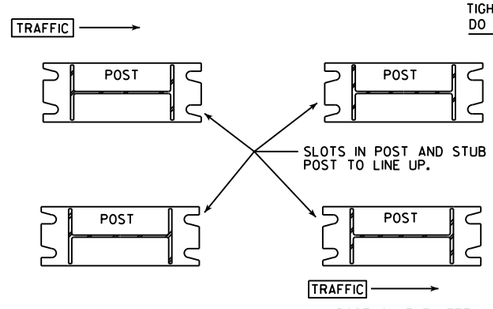
BOLTING PROCEDURE - BASE CONNECTION

1. ASSEMBLE SIGN POST TO STUB POST WITH BOLTS AND ONE OF THE FLAT WASHERS ON EACH BOLT BETW. PLATES.
2. SHIM AS REQ'D. TO PLUMB POST.
3. PRIOR TO BOLT TIGHTENING LUBRICATE BASE CONNECTION BOLTS WITH BEESWAX OR OTHER HIGH-WAX LUBRICANT.
4. TIGHTEN ALL BOLTS THE MAXIMUM POSSIBLE WITH 12" OR 15" WRENCH TO BED WASHERS & SHIMS AND TO CLEAN BOLT THREADS, THEN LOOSEN EACH BOLT IN TURN AND RETIGHTEN IN A SYSTEMATIC ORDER TO THE PRESCRIBED TORQUE. (SEE TABLE)
5. BURR THREADS AT JUNCTION WITH NUT USING A CENTER PUNCH TO PREVENT NUT LOOSENING.

NOTE:
TIGHTEN THE HIGH STRENGTH BOLTS TO THE TORQUE SHOWN. DO NOT OVERTIGHTEN.



POST DETAIL



POST SLOT ORIENTATION ⑦

L	X	TYPE	POST SIZE \ DIMENSION	BOLT SIZE & TORQUE	A	B	C	D	E	T_1	T_4	W_1	R	S	STUB LENGTH	STUB PROJECTION	SHAFT DIAMETER	SHAFT LENGTH	K
3 ¾	④	A	W10"X12.0 #/FT.	¾" Φ @ 75#-FT.	5¼"	1'-0⅜"	⅞"	3½"	⅞"	1"	3/16"	5/16"	13/32"	2⅛"	3'-6	3"	2'-0 Φ	5'-0	76.0# ④
4 ¾	④	B	W12"X16.0 #/FT.	⅞" Φ @ 85#-FT.	5½"	1'-4¼"	1"	3½"	1"	1¼"	¼"	5/16"	13/32"	3"	5'-6	3"	2'-0 Φ	7'-0	146.5# ④
5		C	W12"X19.0 #/FT.	⅞" Φ @ 85#-FT.	5½"	1'-4¼"	1"	3½"	1"	1½"	5/16"	5/16"	13/32"	3"	6'-0	3"	2'-0 Φ	7'-6	182.1#
5		D	W12"X22.0 #/FT.	⅞" Φ @ 85#-FT.	5½"	1'-4¼"	1"	3½"	1"	1½"	⅜"	5/16"	13/32"	3"	6'-6	3"	2'-0 Φ	8'-0	210.5#
5	③	E	W12"X26.0 #/FT.	1" Φ @ 90#-FT.	7"	1'-4¼"	1¼"	4"	1½"	1½"	⅜"	5/16"	11/32"	3"	7'-0	3"	2'-0 Φ	8'-6	293.0# ③

BASE CONNECTION DATA TABLE — FOUNDATION DATA — ②

① ⑥ ①

STRUCTURAL CARBON STEEL PAY WTS. (1 POST) = K+ (POST LENGTH X POST WT.)
" K " INCLUDES STUB, BASE PLATES, STIFFS., BOLTS, AND WASHERS.

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch for State Traffic Engineer

DATE 11/12/15 PLATE NO. A3-1.16

⑩	1-21-14	LUBRICATION OF BASE BOLTS
⑨	4-26-11	REMOVE NON-GALVANIZED
⑧	10-30-96	NOT GALVANIZED/GALVANIZED
⑦	10-30-92	QUANT., A588 EXCEPT., ADD SLOT VIEW
⑥	8-24-87	BASE CONN. WELD
⑤	10-13-81	BASE CONN. WELD & FUSE PL WASHERS
④	10-19-79	POST A & B, A572 GR. 50, & K
②	11-28-78	"K" ③ 4-23-79 TYPE "E"
①	5-4-78	T_1 , T_2 & W_1
NO.	DATE	REVISION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

TYPE A, B, C, D, & E

CONST. SPEC. 2011	DRAWN BY JPH	PLANS CK'D.

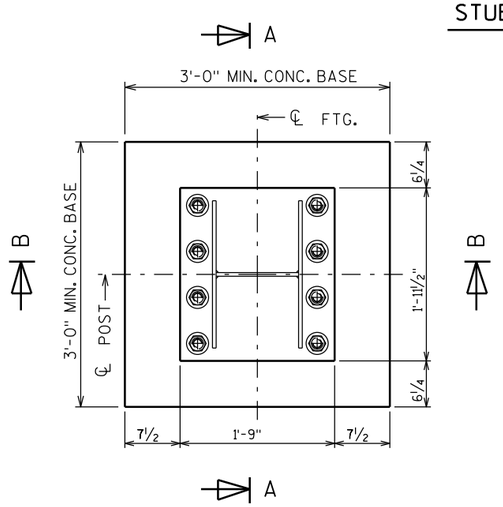
FTG. & SIGN SUPPORT DETAILS GROUND MOUNT BREAK-AWAY SIGNS — SHEET

86

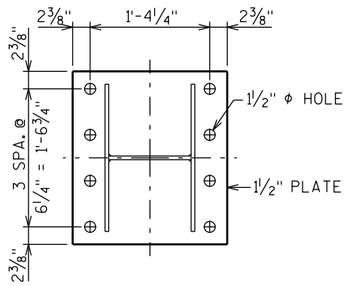
PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\A31.DGN PLOT DATE : 01-DEC-2015 18:20 PLOT BY : $$ plotuser $$ PLOT NAME : PLOT SCALE : 5.351066:1.000000

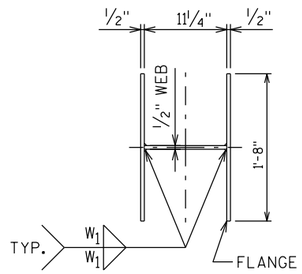
STUB AND MASONRY ANCHOR DETAILS



STUB SECTION



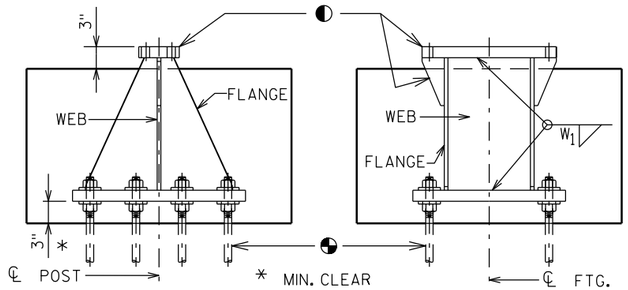
BASE PLATE



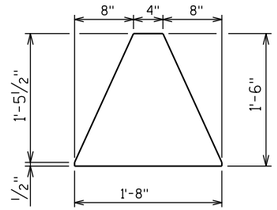
STUB

◐ SEE PLATE NO. A3-1 FOR DETAILS

◒ MASONRY ANCHORS TYPE S 1¼-INCHES (ADHESIVE). ALLOWABLE PULL OUT CAPACITY 14,995 KIPS. EMBED 1'-3" IN ROCK.



SECTION A SECTION B



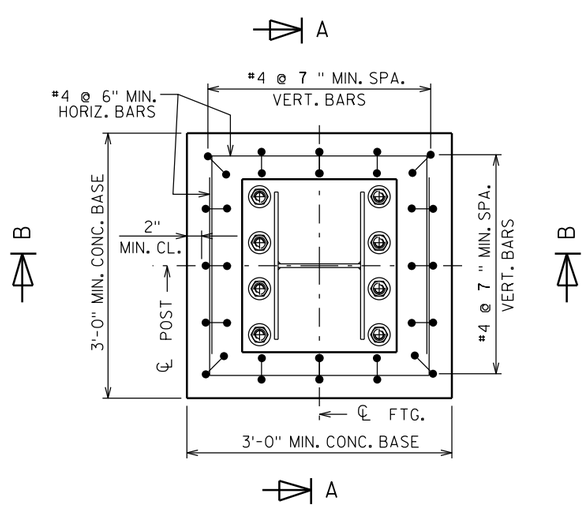
FLANGE

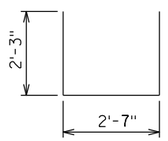
GENERAL NOTES

1. Quantities per Base:
   - REINFORCING BAR STEEL = 62 LBS
   - CONCRETE = 0.6 C.Y.
   - STEEL WEIGHT = 335 LBS
2. All materials, except anchor rod, nuts and washers, are to be A.S.T.M. A709 grade 50. All materials to be galvanized after fabrication.
3. If the contractor encounters rock before reaching the footing depth, per the A3-1 Sign Detail, determine the pull-out capacity of a test adhesive anchor installed in the rock. If the test result equals or exceeds the pull-out capacity of 14,995 KIPS, the contractor may install the breakaway stub for rock, according to this detail.

CONCRETE BASE AND REINFORCING STEEL DETAILS

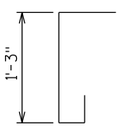
CONCRETE BASE SECTION





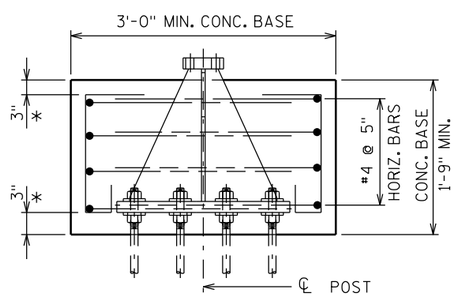
HORIZONTAL BAR

8 BARS @ 6'-11" LENGTH



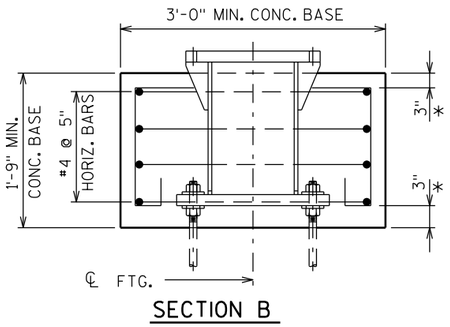
VERTICAL BARS

16 BARS @ 2'-4" LENGTH
MAY BE PLACED IN SKEW
FOR CLEARANCE NEED



SECTION A

* MIN. CLEAR



SECTION B

ALTERNATE BREAK-AWAY BASE ON ROCK
A3-1M

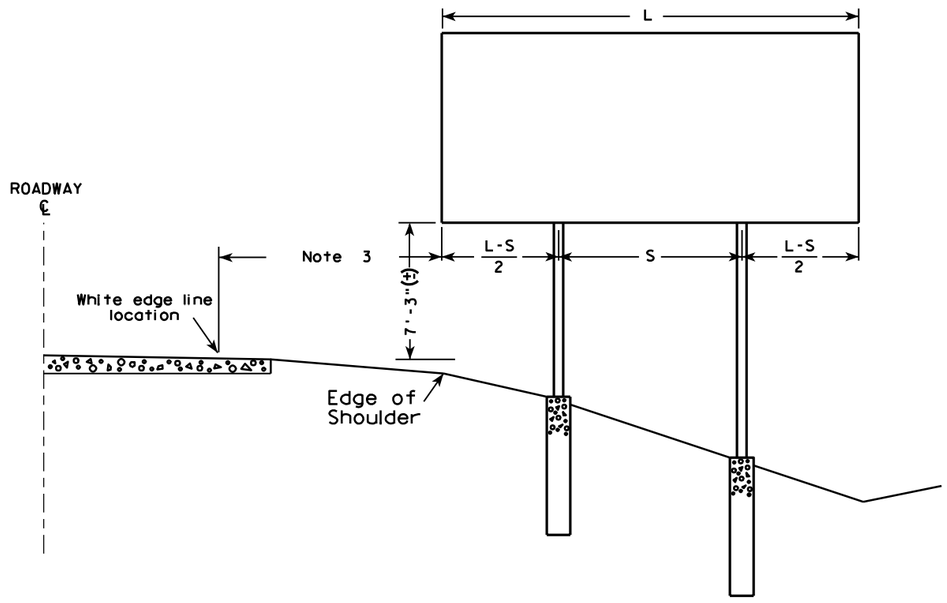
WISCONSIN DEPT OF TRANSPORTATION

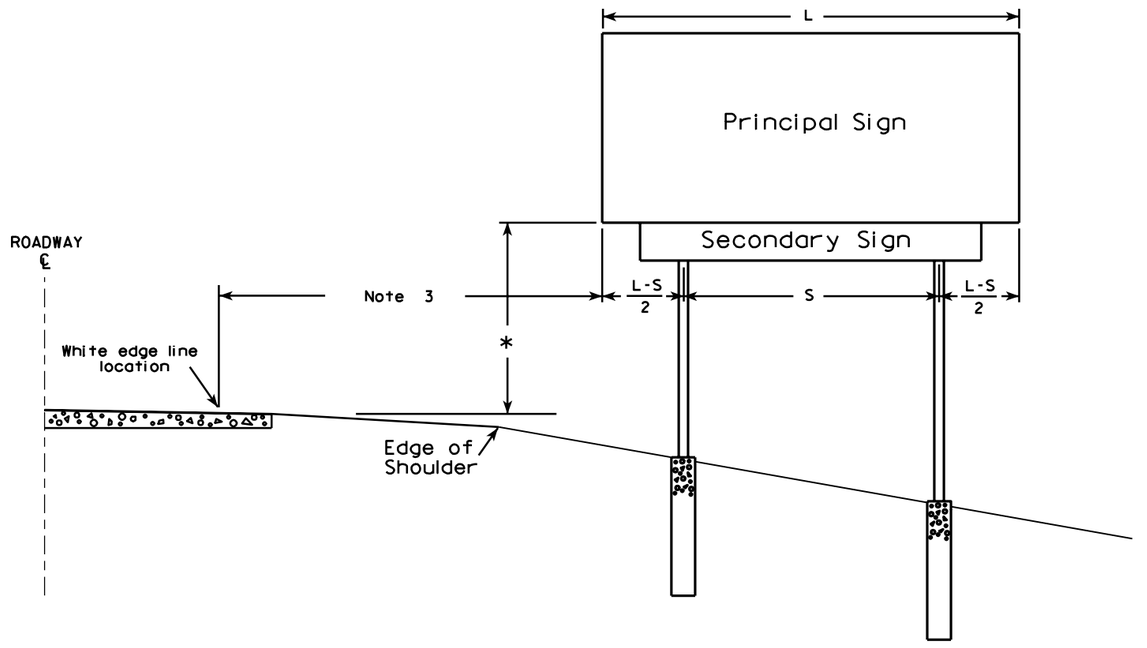
APPROVED Matthew R Rauch for State Traffic Engineer

DATE 2/06/2014 PLATE A3-1M.1

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\A31M.DGN PLOT DATE : 10-MAR-2014 15:16 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 1.556674:1.000000 WISDOT/CADDS SHEET 42





GENERAL NOTES

1. For a 2 post installation, S equals 3L/5, but shall not be less than 9 ft.
2. For a 3 post installation, S equals 5L/7, but shall not be less than 18 ft., and the space between any two posts shall not be less than 9 ft.
3. Unless noted in the plan, the sign offset distance shall be a minimum of 17'-6", desirable 30'-0".
4. The (±) tolerance shown on this sheet is 3 in.
5. The vertical sign height clearance detailed is measured from the bottom of the sign to the near edge of pavement.
6. Post lengths shown in the miscellaneous quantities are estimated lengths. The contractor shall verify post lengths at the time of final grading.
7. Refer to the Traffic Guidelines Manual for further guidance on minimum vertical clearance requirements.

* Clearance is 8'-3"(±) when the secondary sign is 3 ft. or less in height. For secondary signs larger than 3 ft., the clearance to the bottom of the secondary sign shall be 5'-3"(±).

7

7

TYPICAL INSTALLATION
OF TYPE I SIGNS

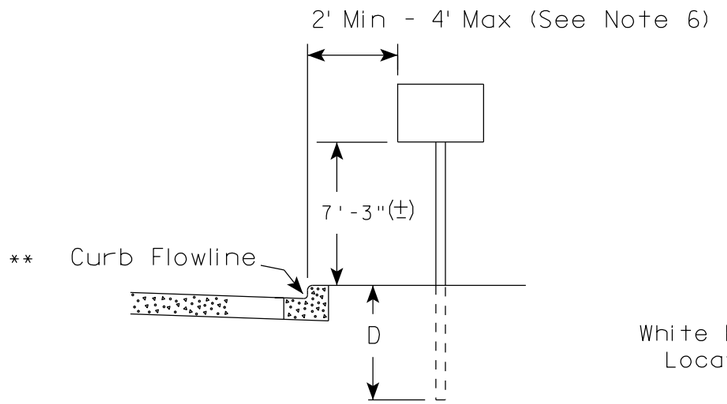
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

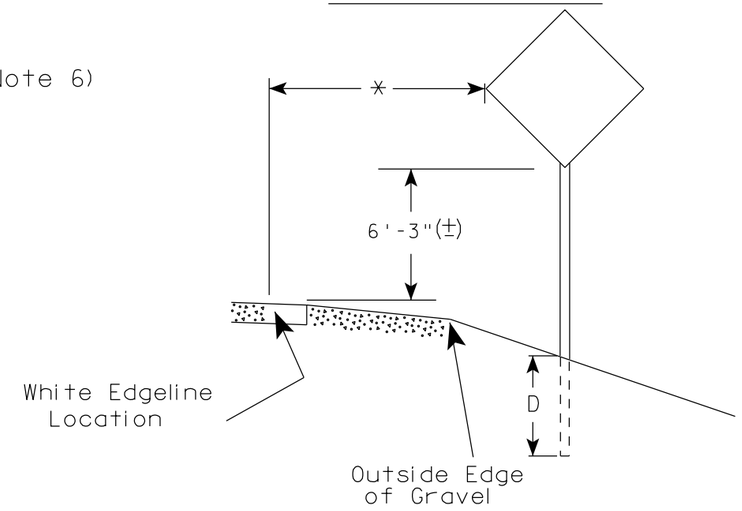
DATE 4/02/08 PLATE NO. A4-1.9

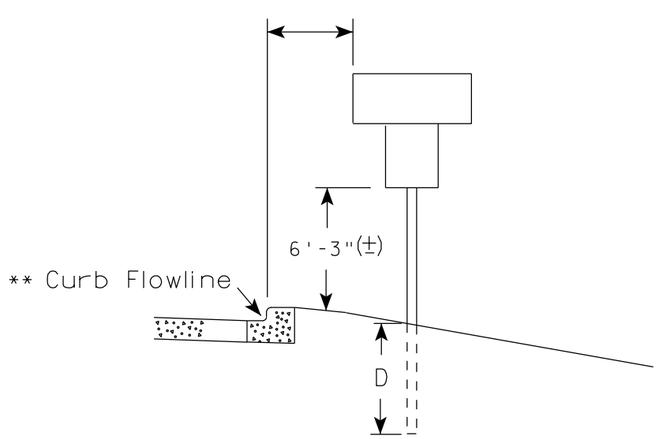
PROJECT NO:				SHEET NO: 88	E

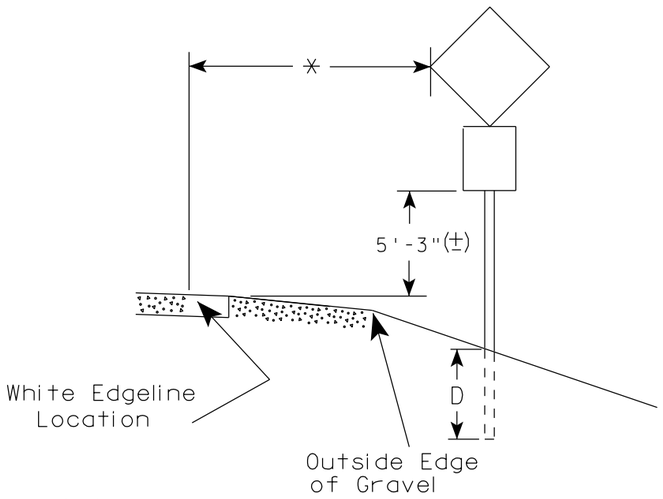
URBAN AREA



RURAL AREA (See Note 2)







** The existence of curb and gutter does not in itself mandate the vertical clearance illustrated. That height is typically measured where there is sidewalk adjacent to the roadway or parking is permitted. In the absence of sidewalk vertical clearance is measured from the top of the curb. Offset of signs is measured from the flow line.

* 6 feet from edge of a paved shoulder or 12 feet from the edge of pavement (edge line location) or 2 feet from outside edge of gravel, whichever is greater unless directed by project engineer.

POST EMBEDMENT DEPTH

Area of Sign Installation (Sq. Ft.)	D (Min)
20 or Less	4'
Greater than 20	5'

GENERAL NOTES

1. Signs wider than 4 feet or 20 sq.ft or larger, shall be mounted on multiple posts. Refer to plate A4-4.
2. If signs are mounted on barrier wall, see A4-10 sign plate.
3. For expressways and freeways, mounting height is 7'- 3" (±) or 6'-3" (±) depending upon existence of a sub-sign.
4. Minimum mounting height for J assemblies (A2-1S) is 7'-3" (±) or 6'-3" (±) per urban or rural detail respectively.
5. Minimum mounting height for signs mounted on traffic signal poles is 5'- 3" (±).
6. Offset distance shall be consistent with existing signs or consistent throughout length of project.
7. The (±) tolerance for mounting height is 3 inches.
8. Folding signs shall be mounted at a height of 5'-3" (±) or as directd by the Engineer.
9. The Double Arrow sign (W12-1) shall be mounted at a height of 2'-3" (±). The Chevron sign (W1-8), Roundabout Chevron panel (R6-4B), Enhanced Reference Markers, Clearance Markers (W5-52), Mile Markers (D10 series), In Road Object Markers (W5-54) & End of Road Markers (W5-56) shall be mounted at a height of 4'-3" (±).

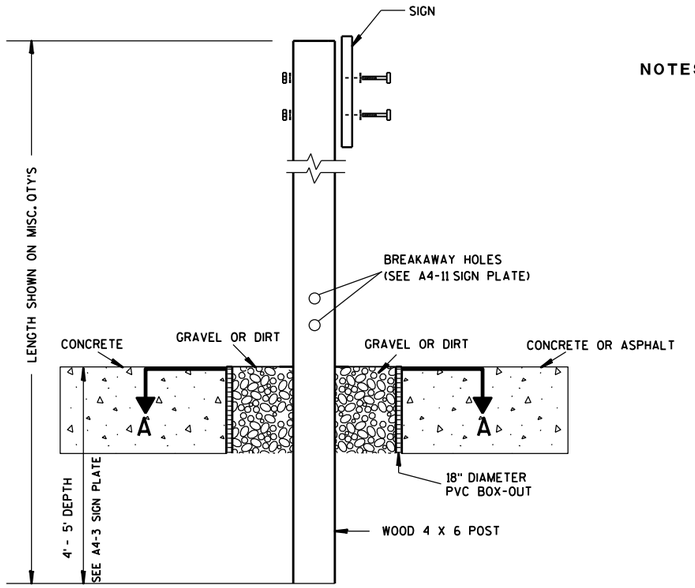
TYPICAL INSTALLATION OF PERMANENT TYPE II SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 7/23/15 PLATE NO. A4-3.20

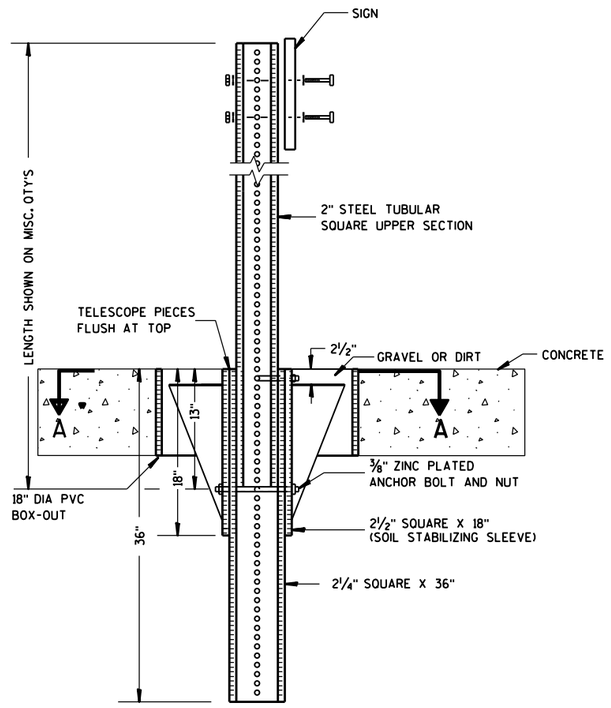
PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E



ELEVATION VIEW

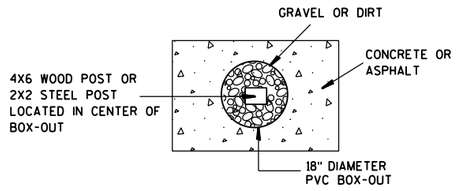
DETAIL OF WOOD 4 X 6 SIGN POST IN BOX-OUT

NOTES:
1. ALL MATERIAL TO BE APPROVED BY ENGINEER PRIOR TO INSTALLATION
2. SEE SIGN PLATE A4-8 FOR SIGN HARDWARE REQUIREMENTS
3. 18 INCH X 18 INCH SQUARE BOX-OUTS MAY BE USED FOR INSTALLATIONS IN EXISTING CONCRETE OR ASPHALT LOCATIONS.



ELEVATION VIEW

DETAIL OF STEEL 2 X 2 SIGN POST IN BOX-OUT



PLAN VIEW

FOR NEW CONCRETE/ASPHALT INSTALLATIONS

SIGN POST BOX-OUTS A4-3B

WISCONSIN DEPT OF TRANSPORTATION

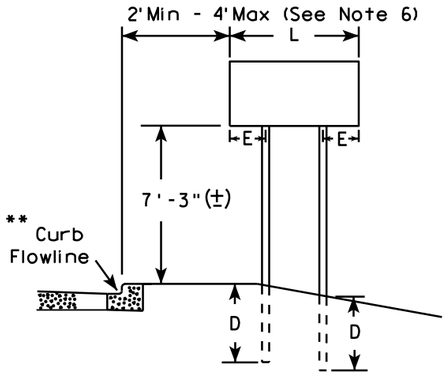
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 1/27/14 PLATE NO. A4-3B.1

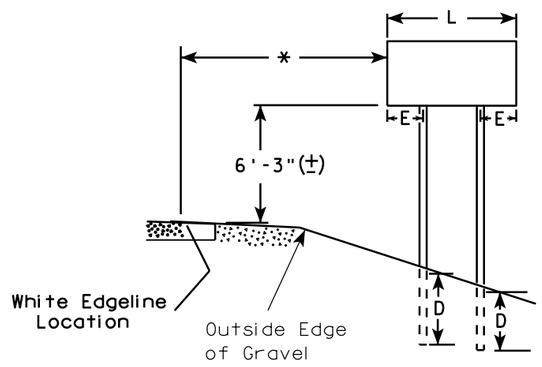
PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

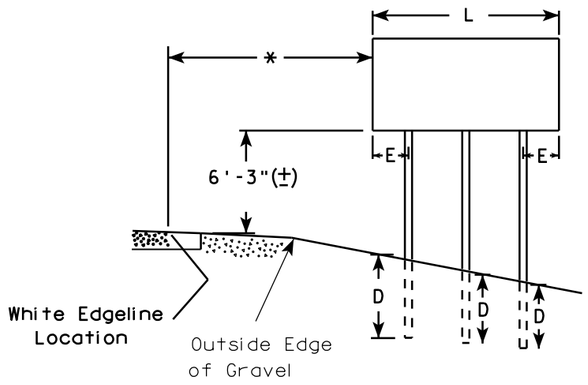
FILE NAME : C:\CAEFiles\Projects\tr_stdplate\A43B.DGN PLOT DATE : 27-JAN-2014 09:48 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 13.659812:1.000000 WISDOT/CADDS SHEET 42

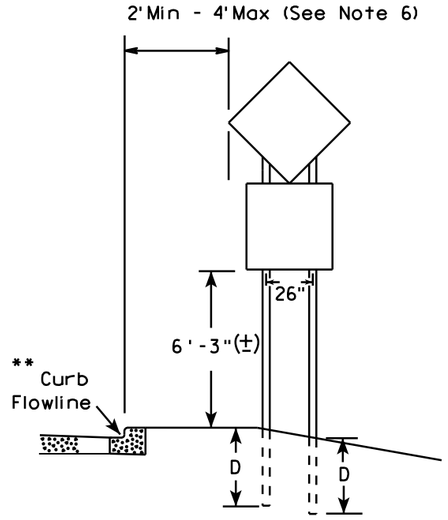
URBAN AREA



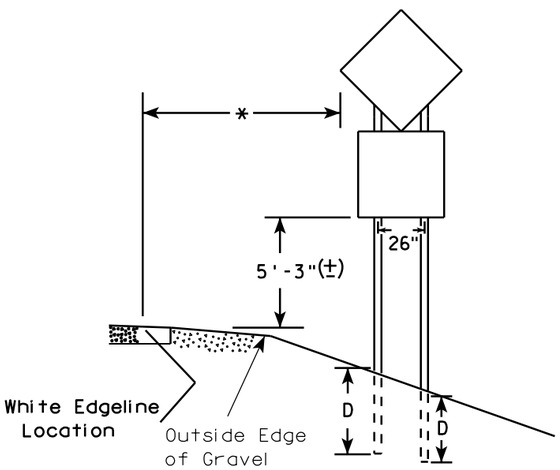
RURAL AREA (See Note 3)







48" DIAMOND WARNING SIGN



48" DIAMOND WARNING SIGN

GENERAL NOTES

1. For 3 or 4 post installations, individual post spacing shall be greater than 3'-6".
2. See tables below for required number of posts.
3. For expressways and freeways, mounting height is 7'-3" (±) or 6'-3" (±) depending upon existence of sub-sign.
4. The (±) tolerance for mounting height is 3 inches.
5. Minimum mounting height for J assemblies (A2-1S) is 7'-3" (±) or 6'-3" (±) per urban or rural detail respectively.
6. Offset distance shall be consistent with existing signs or consistent throughout length of project.
7. Folding signs shall be mounted at a height of 5'-3" (±) or as directed by the engineer.
8. The Double Arrow sign (W12-1) shall be mounted at a height of 2'-3" (±). The Chevron sign (W1-8), Roundabout Chevron panel (R6-4B), Clearance Markers (W5-52), Mile Markers (D10 series), In Road Object Markers (W5-54) & End of Road Markers (W5-56) shall be mounted at a height of 4"-3" (±).

* 6 feet from edge of a paved shoulder or 12 feet from the edge of pavement (edge line location) or 2 feet from outside edge of gravel, whichever is greater unless directed by project engineer.

** The existence of curb and gutter does not in itself mandate the vertical clearance illustrated. That height is typically measured where there is sidewalk adjacent to the roadway or parking is permitted. In the absence of sidewalk vertical clearance is measured from the top of the curb. Offset of signs is measured from the flow line.

*** See A4-3 sign plate for signs 4' or less in width and less than 20 S.F. in area.

SIGN SHAPE OTHER THAN DIAMOND (TWO POSTS REQUIRED)	
L	E
Greater than 48" Less than 60"	12"
60" to 120"	L/5

***

SIGN SHAPE OTHER THAN DIAMOND (THREE POSTS REQUIRED)	
L	E
Greater than 120" less than 168"	12"

SIGN SHAPE OTHER THAN DIAMOND (FOUR POSTS REQUIRED)	
L	E
168" and greater	12"

POST EMBEDMENT DEPTH

Area of Sign Installation (Sq. Ft.)	D (Min)
20 or Less	4'
Greater than 20	5'

TYPICAL INSTALLATION OF TYPE II SIGNS ON MULTIPLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

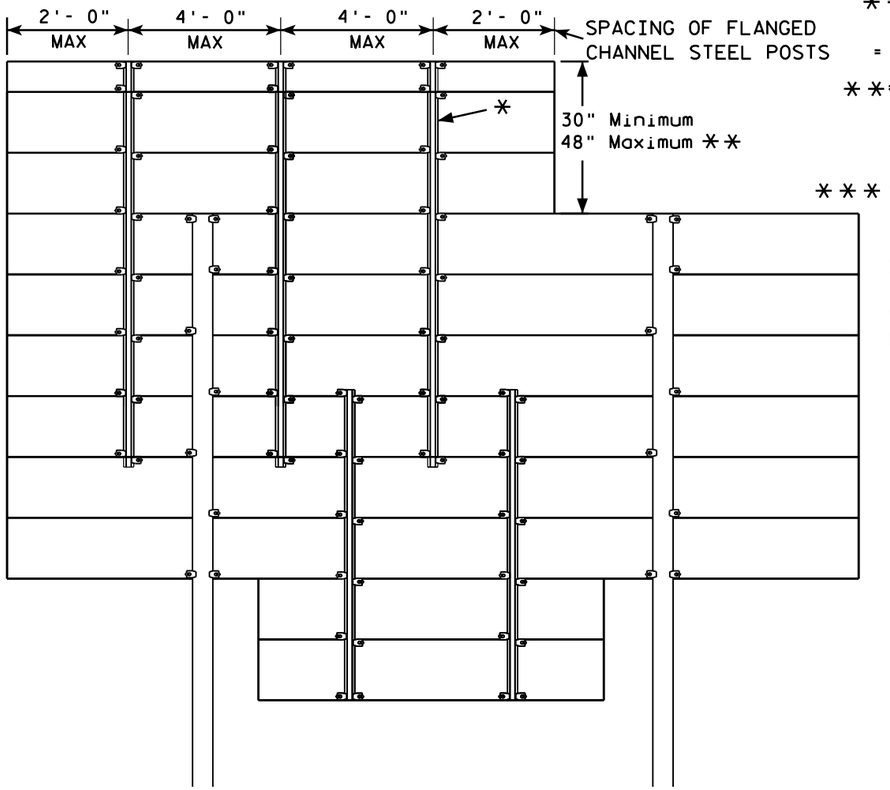
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 7/23/15 PLATE NO. A4-4 14

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\A44.DGN PLOT DATE : 23-JUL-2015 15:23 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 107.021305:1.000000 WISDOT/CADDS SHEET 42

GROUND MOUNTED SIGN

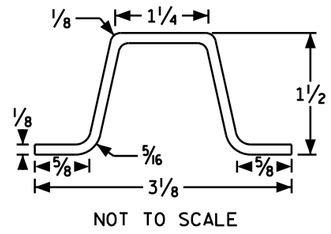


*=2.00 lb/ft FLANGED CHANNEL, MIN. YIELD STRENGTH = 60,000 PSI (GRADE 60) GALVANIZED

**=FOR 48" HEIGHT PANELS ON OVERHEAD STRUCTURES, ENTIRE SIGN SHALL BE CENTERED VERTICALLY ABOUT THE DEPTH OF THE TRUSS.

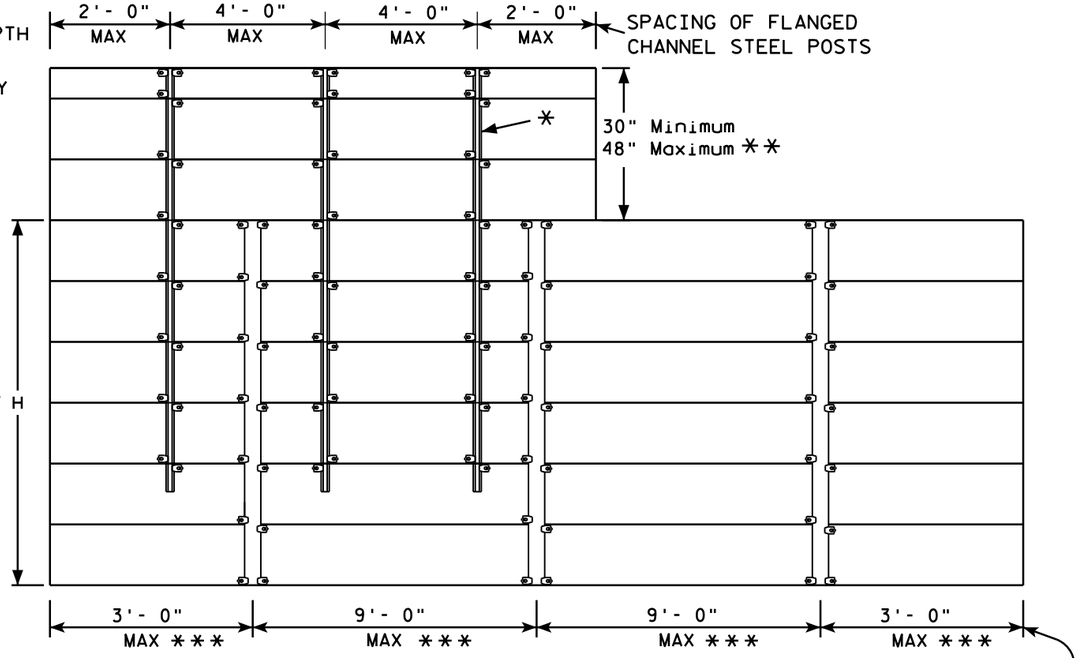
*** THESE SPACING DISTANCES SHALL ONLY BE USED WHEN THE MAIN SIGN HAS A MAXIMUM HEIGHT (DIMENSION H) OF 16 FT OR LESS. FOR SIGNS WITH A HEIGHT OF GREATER THAN 16 FT, STRUCTURAL CALCULATIONS SHALL BE PERFORMED.

FLANGE CHANNEL DETAIL



NOT TO SCALE

SIGN BRIDGE MOUNTED SIGN



GENERAL NOTES

1. Flanged channel steel posts shall conform to size and material above, and shall be considered as incidental to other items in the contract.
2. Number of Flanged channel steel supports varies with length of panel and shall be spaced as shown:

   PANEL LENGTH 8'-0" OR LESS = 2 CHANNELS
   PANEL LENGTH 9'- 0" - 12'- 0" = 3 CHANNELS
   PANEL LENGTH 13'- 0" OR MORE = 4 CHANNELS

   If the flanged channel steel posts can not be horizontally spaced as shown, they can be moved so as to securely hold the sign.
3. The EXIT NUMBER PANEL shall normally be positioned above the guide sign aligned with the right edge of the guide sign. If the guide sign indicates a left exit, the EXIT NUMBER PANEL shall be aligned with the left edge of the guide sign.
4. If the bolt holes in the top panel (EXIT NUMBER), or sub panel (NEXT EXIT) line up with holes in main sign panel, stitch bolts shall be used in addition to the channels.
5. Provide post clips for each sign as shown. (Please note the differences between a ground mounted versus Sign bridge mounted sign as far as number of clips required on the main supports or beams)
6. Structural steel sign supports shall extend to the top of the main signs, as shown on the above details.

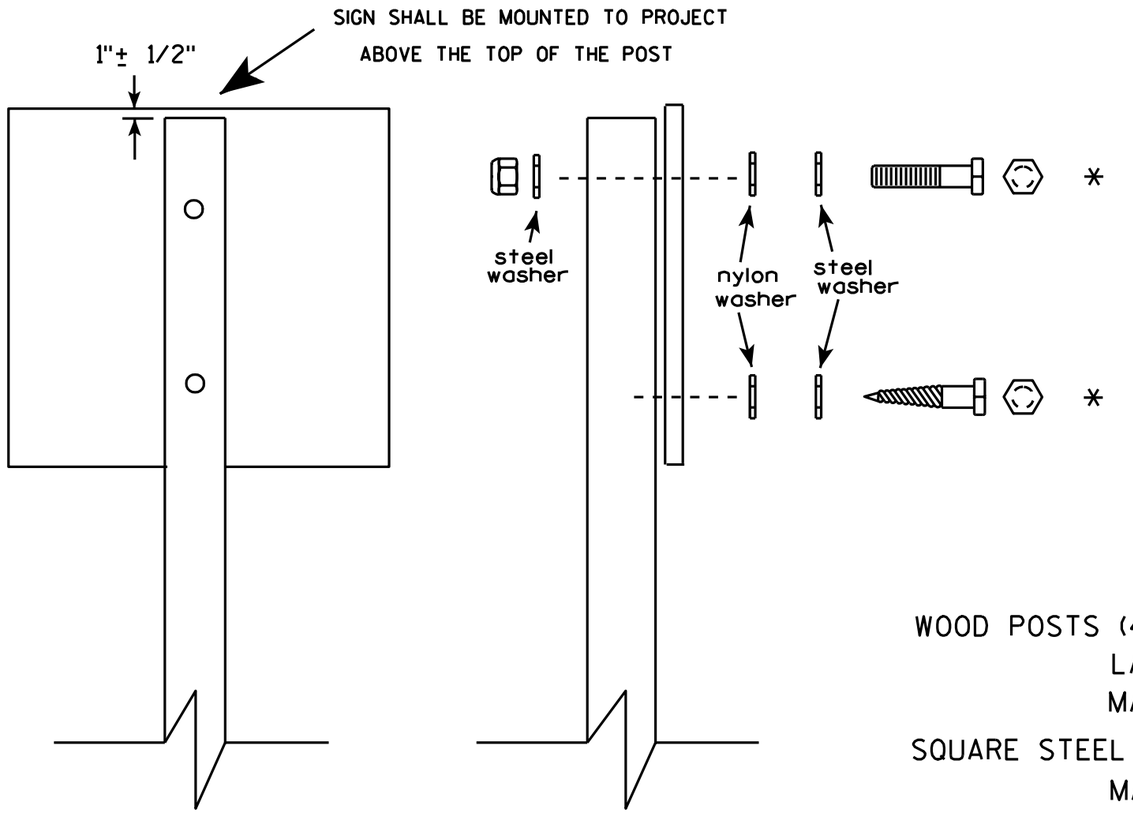
ATTACHMENT OF GUIDE SIGNS TO SUPPORTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/05/13 PLAT 92 A4-6.12

PROJECT NO: | SHEET NO: E



Nuts, bolts and lags used for mounting signs shall have hexagonal heads and shall be either :

a. Hot dip galvanized in accordance with ASTM Designation: A 153, Class D, or SC 3

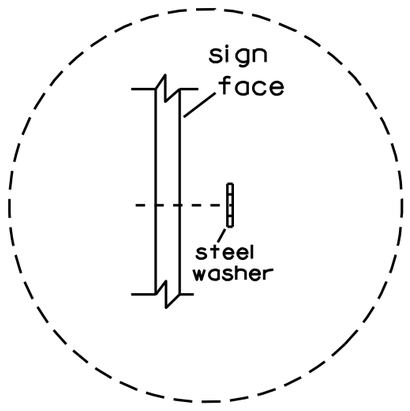
b. Electro-galvanized in accordance with ASTM Designation : B 633, TYPE III, SC 3.

Threads on bolts and nuts shall be manufactured with sufficient allowance for the cadmium plate or galvanized coating to permit the nuts to run freely on the bolts.

WOOD POSTS (4" x 4" or 4" x 6")
LAG SCREWS - 3/8" X 3"
MACHINE BOLTS - 5/16" X 6-1/2" or 7" Length w/ nuts

SQUARE STEEL POSTS (2" x 2")
MACHINE BOLTS - 3/8" X 3-1/4" Length w/ nuts
RIVETS - 9/32 " (6605-9-6) BULB-TITE, TRI-FOLD, ALUMINUM BODY/MANDREL
O.D. FLANGE .720-.765 INCH, GRIP RANGE .042-.375 INCH

WASHERS (ALL POSTS) -
1-1/4" O.D. X 3/8" I.D. X 1/16" STEEL
1-1/4" O.D. X 3/8" I.D. X .080 NYLON for all Type H signs.



Washer Placement when Sign Has Other Than Type H or Type F Face

* Two different fastening systems are shown for illustration purposes. On any individual sign, either one or the other system shall be used. Actual number of fasteners per sign varies with the sign area, but normally there are two. For a single post installation, all signs greater than 9 sq. ft. require the use of 3 fasteners.

ATTACHMENT OF SIGNS TO POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/23/10 PLATE NO. A4-8.7

7

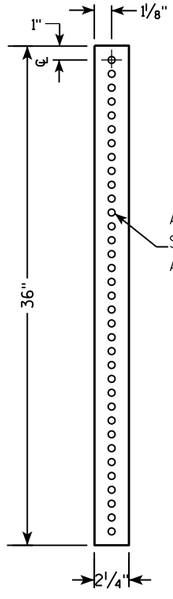
7

PROJECT NO:

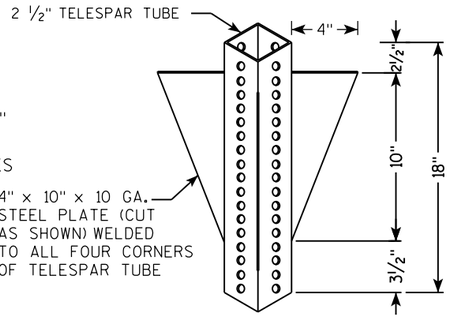
SHEET NO: 93 E

TELESCOPIC TUBING ANCHORS
TWO PIECE SYSTEM

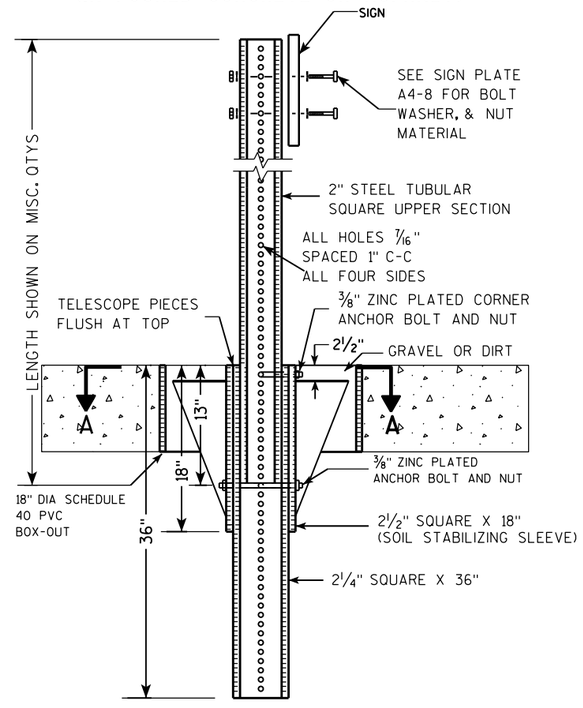
2 ¼ " SQUARE
12 GAUGE
PERFORATED
GALVANIZED FINISH



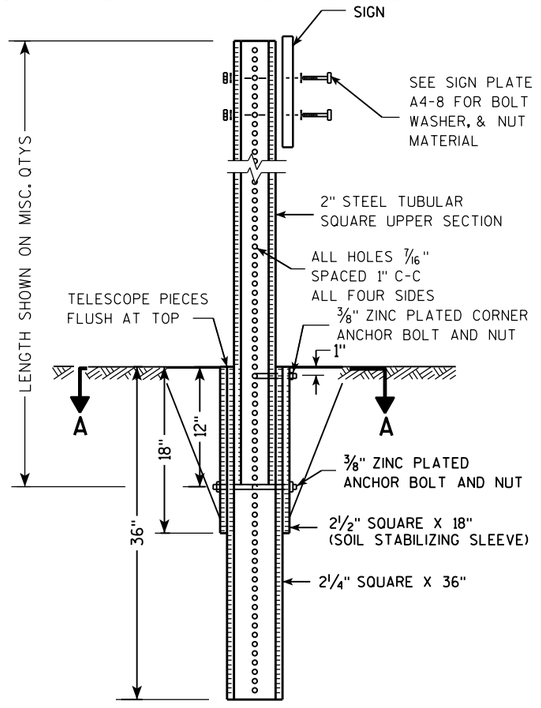
2 ½ " SQUARE
12 GAUGE
OMNI-DIRECTIONAL
PERFORATED
SOIL STABILIZING SLEEVE
GALVANIZED FINISH

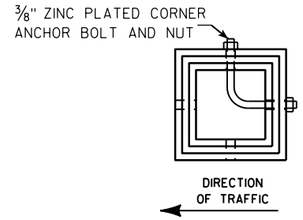


DETAIL OF TUBULAR STEEL SIGN POST
(IN POURED CONCRETE OR ASPHALT)



DETAIL OF TUBULAR STEEL SIGN POST
(IN LOCATIONS OTHER THAN POURED CONCRETE OR ASPHALT)





SECTION A-A

Area of Sign Installation (Sq. Ft.)	Number of Required Posts
9 or less	1
Greater than 9 less than or equal to 18	2
Greater than 18 less than or equal to 27	3

Signs wider than 3 feet or larger than 9 sq. ft shall be mounted on multiple posts (see above table).

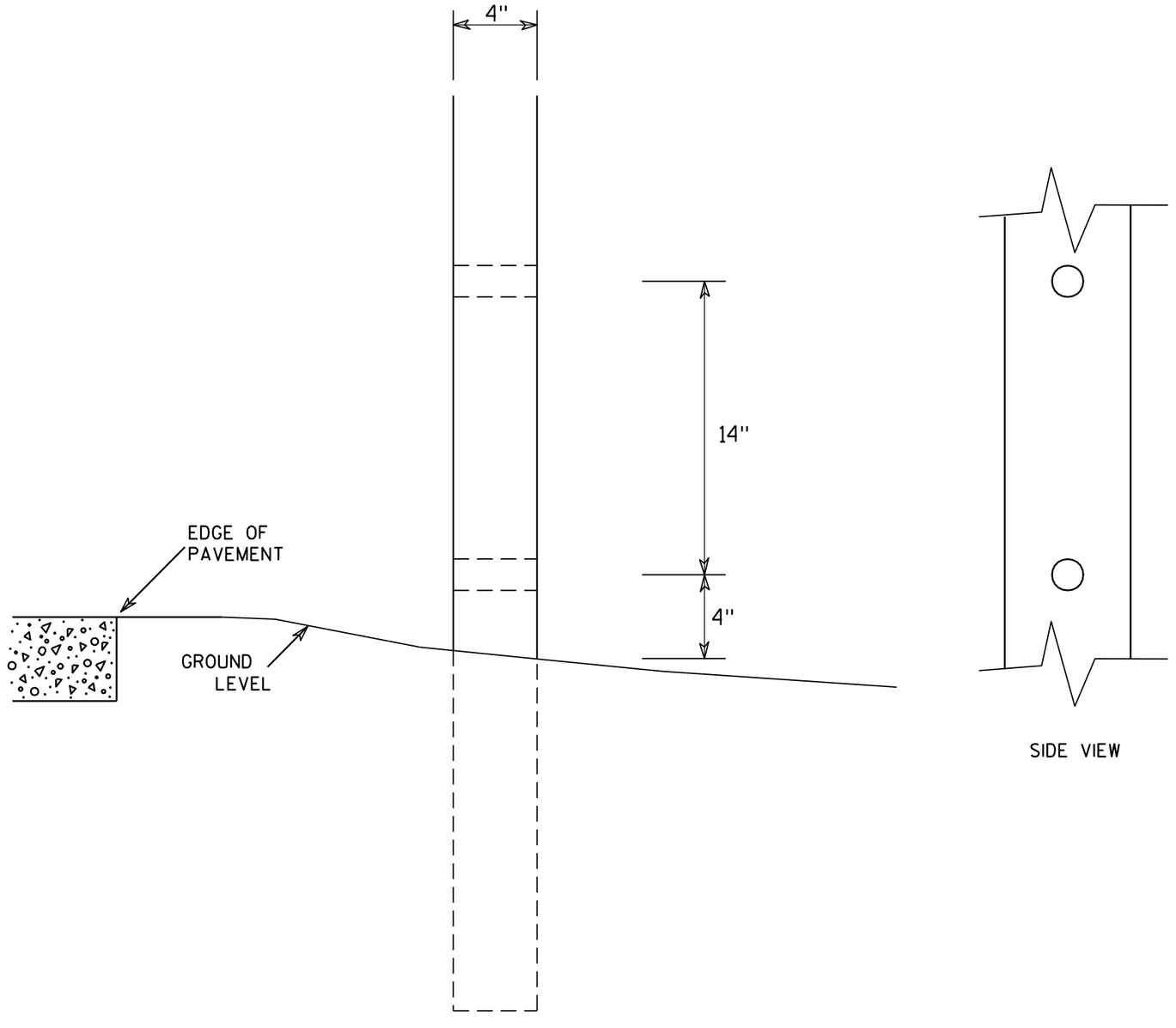
TUBULAR STEEL
SIGN POST
A4-9

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/05/15 PLATE 94 A4-9.9

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E



SIDE VIEW

GENERAL NOTES

1. All 4 x 6 Wood Posts shall be modified by having two 1½" diameter holes drilled perpendicular to the roadway centerline.

7

7

4 X 6 WOOD POST MODIFICATIONS

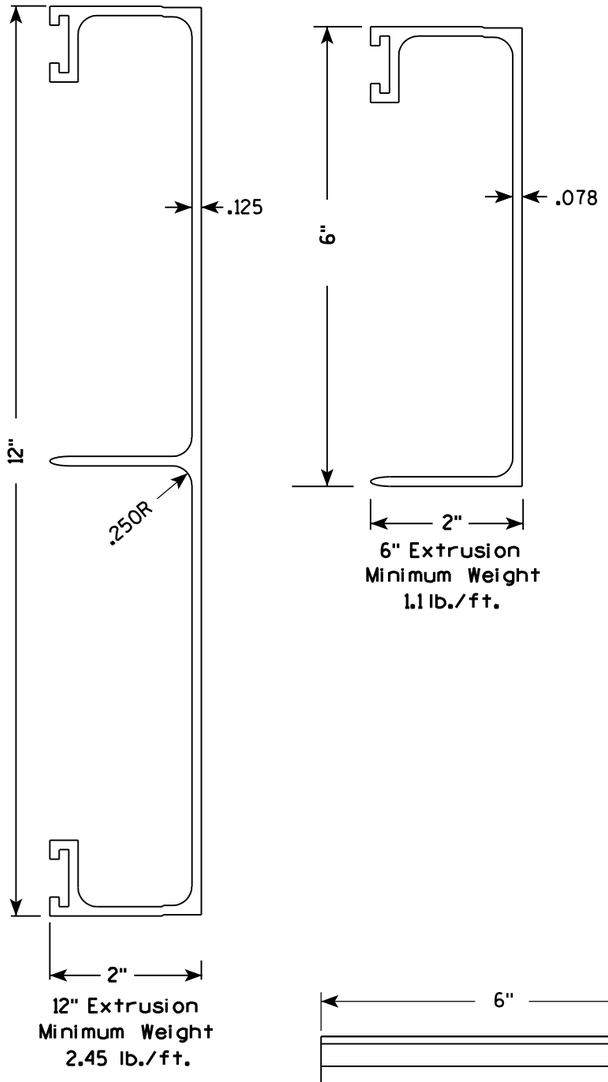
WISCONSIN DEPT OF TRANSPORTATION

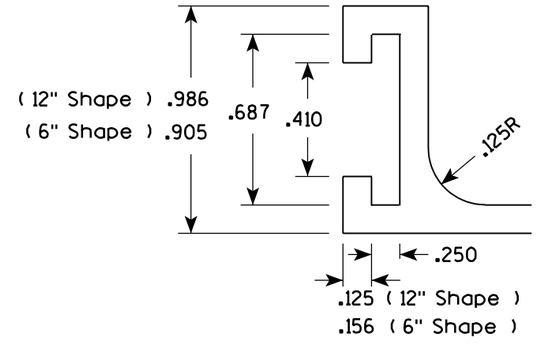
APPROVED Chester J Spang for State Traffic Engineer

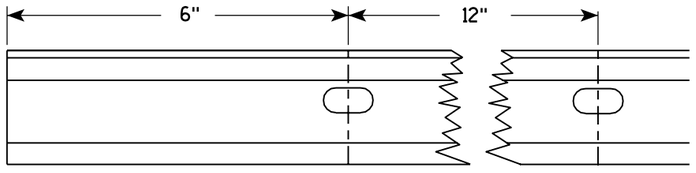
DATE 3/27/97 PLATE NO. A4-11.2

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 95	E

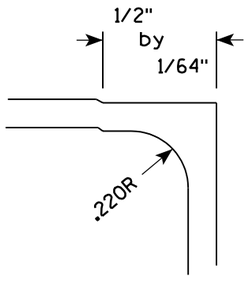
Extruded Shape







Punch 7/16" x 7/8" oval holes beginning 6" in from end of extrusion 12" CC on both edges of 6" and 12" panels.

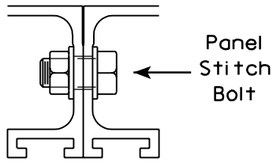


Hardware

STITCH BOLT, WASHER & NUT

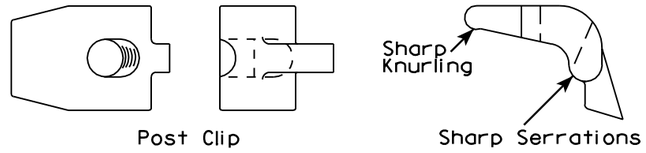
The hardware includes:

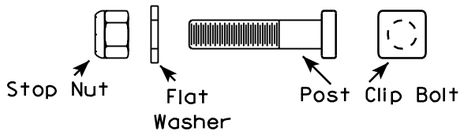
3/8 " - 16 X 3/4 " Economy Bolt 2024-T4 alloy
3/8 " - Stainless steel stop nut
3/8" X .064 Flat Washers, Alclad 2024-T4 alloy



POST CLIP, POST CLIP BOLT, WASHER & NUT

Post Clip shall be Alum. Alloy 356-T6
Post Clip Bolt shall be Stainless Steel.
Flat washer shall be 3/8" X .091, Stainless Steel.
Stop nut shall be stainless steel.





NOTES

1. The contractor may select any brand of extrusion that conforms to the illustrations or meets with the approval of the engineer, but all extrusions used on this contract shall be of the same brand.
2. Panel Stitch Bolts shall be used to assemble adjacent panels. Maximum stitch bolt spacing shall be 24" C-C, and a minimum of 4 bolts shall be used to connect any two extrusions.
3. Post Clips shall be used to attach the sign panel to the sign support.

ALUMINUM EXTRUSIONS FOR TYPE I SIGNS

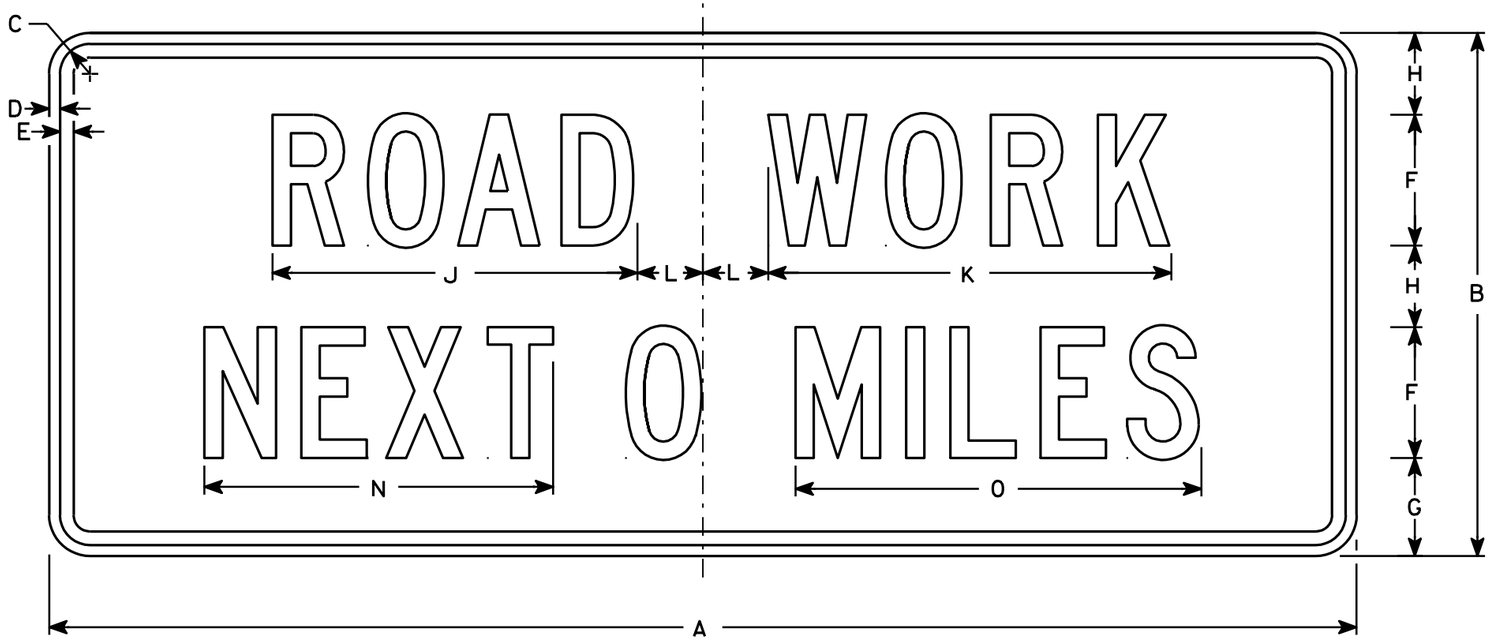
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Chester J Spang
for State Traffic Engineer

DATE 11/18/99 PLATE NO. A5-2.9

PROJECT NO:

SHEET NO: 96 E



G20-1

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Substitute appropriate numerals and optically adjust spacing to achieve proper balance

Metric equivalent for this sign is:

SIZE	
1	
2	1500 mm X 600 mm
3	
4	1500 mm X 600 mm
5	

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.	Area m2
1																												
2	60	24	1 3/8	1/2	5/8	6	4 1/2	3 3/4		16 3/4	18 1/2	3		16	18 5/8												10	.90
3																												
4	60	24	1 3/8	1/2	5/8	6	4 1/2	3 3/4		16 3/4	18 1/2	3		16	18 5/8												10	.90
5																												

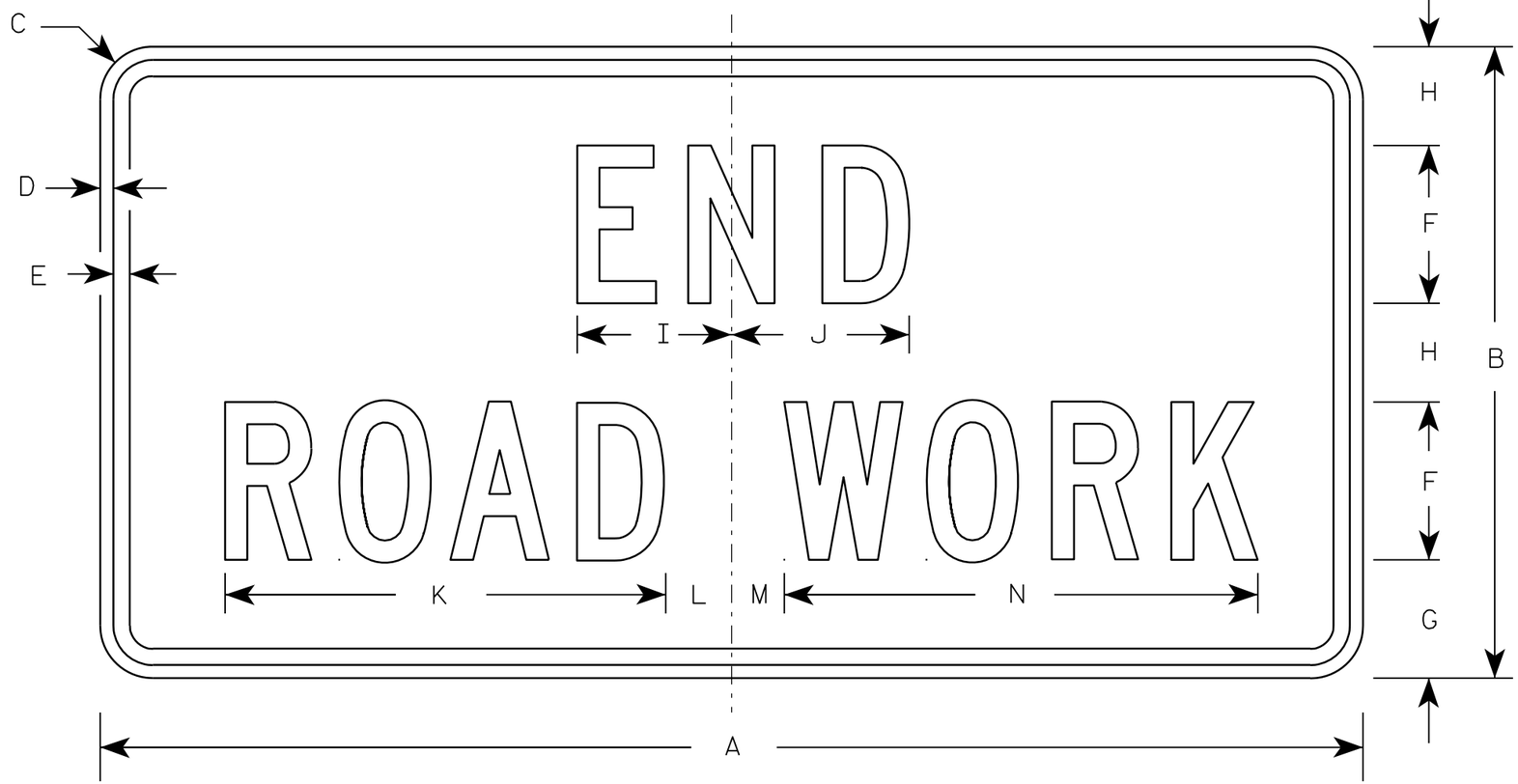
STANDARD SIGN
G20-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Chester J Spray for State Traffic Engineer

DATE 4/8/97 PLATE NO. G20-1.7

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 97	E



G20-2A

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

Metric equivalent for this sign is:

SIZE	
1	900 mm X 450 mm
2	1200 mm X 600 mm
3	1200 mm X 600 mm
4	1200 mm X 600 mm
5	1200 mm X 600 mm

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.	Area m2
1	36	18	1 1/8	3/8	1/2	4	3 3/4	2 1/2	4 1/8	4 1/8	11 1/8	2	1	12 1/8													4.5	0.41
2	48	24	1 1/2	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0	0.72
3	48	24	1 1/2	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0	0.72
4	48	24	1 1/2	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0	0.72
5	48	24	1 1/2	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0	0.72

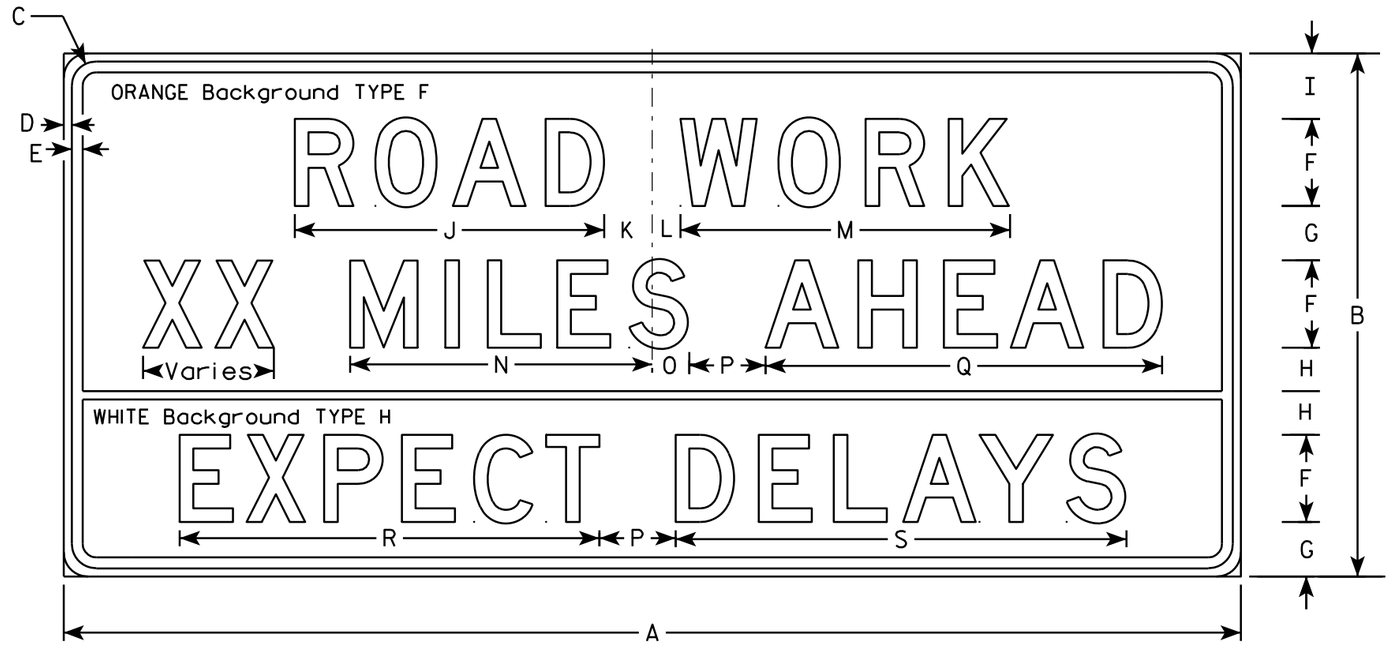
STANDARD SIGN
G20-2A

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 9/30/09 PLATE NO. G20-2A.8

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 98	E



G20-58

NOTES

1. Sign is Type II - Type F & Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - AS NOTED
   Message - BLACK
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

Metric equivalent for this sign is:

SIZE	
1	
2	2700 mm X 1200 mm
3	
4	
5	

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.	Area m2
1																												
2																												
3																												
4	108	48	2 1/4	3/4	1	8	5	4	6	28 3/8	4 1/2	2 1/2	30 1/4	27 3/4	3 3/8	7	36 3/8	38 1/2	41 3/8								36.0	3.24
5																												

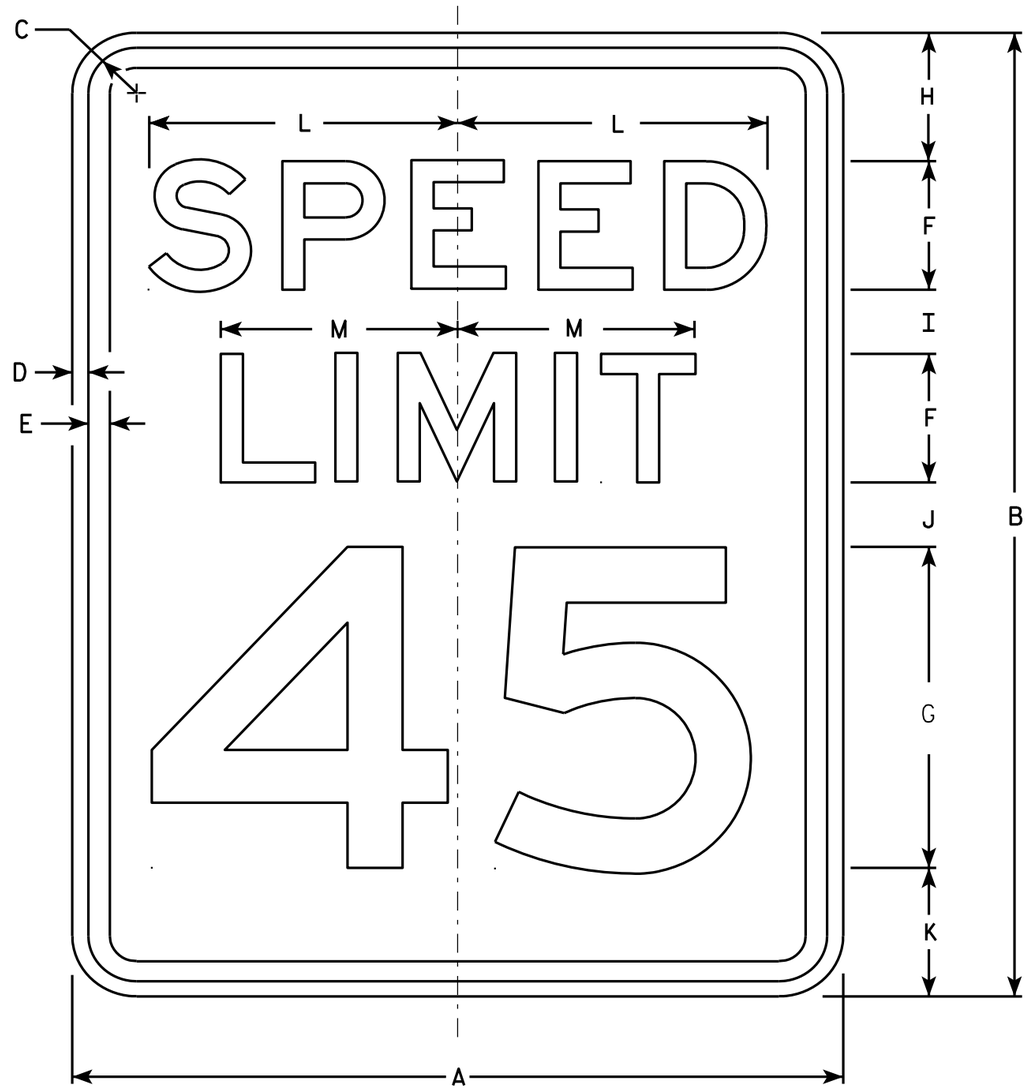
STANDARD SIGN
G20-58

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 7/13/2009 PLATE NO. G20-58.1

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 99 | E



R2-1

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - E
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Substitute appropriate numerals and optically adjust spacing to achieve proper balance.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	18	24	1 1/8	3/8	1/2	3	8	3	2	2	3	7 1/4	5 1/2														3.0
2S	24	30	1 1/8	3/8	1/2	4	10	3	2 1/4	3 3/8	3 3/8	9 5/8	7 3/8														5.0
2M	30	36	1 3/8	1/2	5/8	5	12	5	2 1/2	2 1/2	4	12	9 1/4														7.5
3	36	48	1 3/8	1/2	5/8	6	14	6	5	5	6	14 3/8	11														12.0
4	36	48	1 3/8	1/2	5/8	6	14	6	5	5	6	14 3/8	11														12.0
5	48	60	2 1/4	3/4	1	8	20	6	4 1/2	6 3/4	6 3/4	19 1/4	14 5/8														20.0

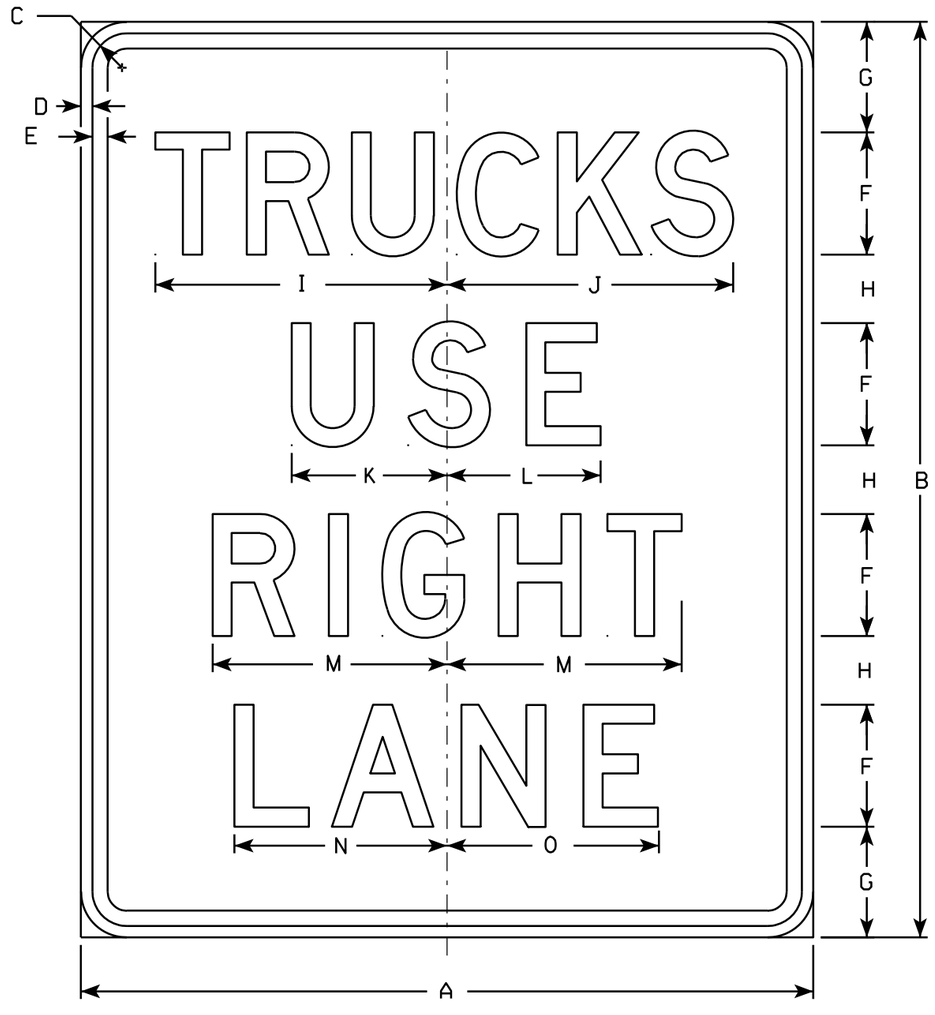
STANDARD SIGN
R2-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/26/10 PLATE NO. R2-1.13

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 100	E

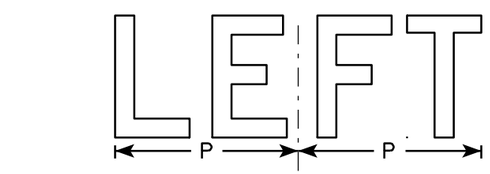


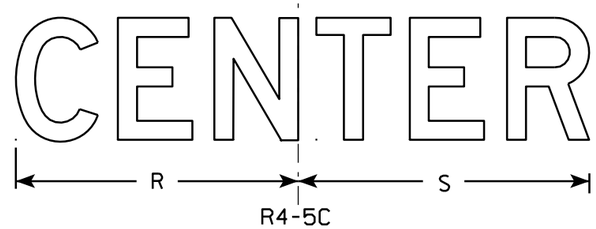
R4-5

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. R4-5L & R4-5C are the same as R4-5 except LEFT or CENTER replaces RIGHT as order by code.

R4-5L





R4-5C

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	24	30	1 1/8	3/8	1/2	4	3 5/8	2 1/4	9 5/8	9 3/8	5 1/8	5 1/8	7 3/4	7 1/4	7	6		9 1/4	9 1/2								5.0
2M	24	30	1 1/8	3/8	1/2	4	3 5/8	2 1/4	9 5/8	9 3/8	5 1/8	5 1/8	7 3/4	7 1/4	7	6		9 1/4	9 1/2								5.0
3																											
4	36	48	2 1/4	5/8	3/4	6	6	4	14 3/8	14 1/8	7 7/8	7 7/8	12 1/4	10 3/4	10 1/2	9 5/8		13 7/8	14 1/4								12.0
5	48	60	2 1/4	3/4	1	8	7 1/4	4 1/2	19 1/8	18 3/4	10 1/4	10 1/8	15 3/8	14	13 7/8	12		18 1/2	19 1/8								20.0

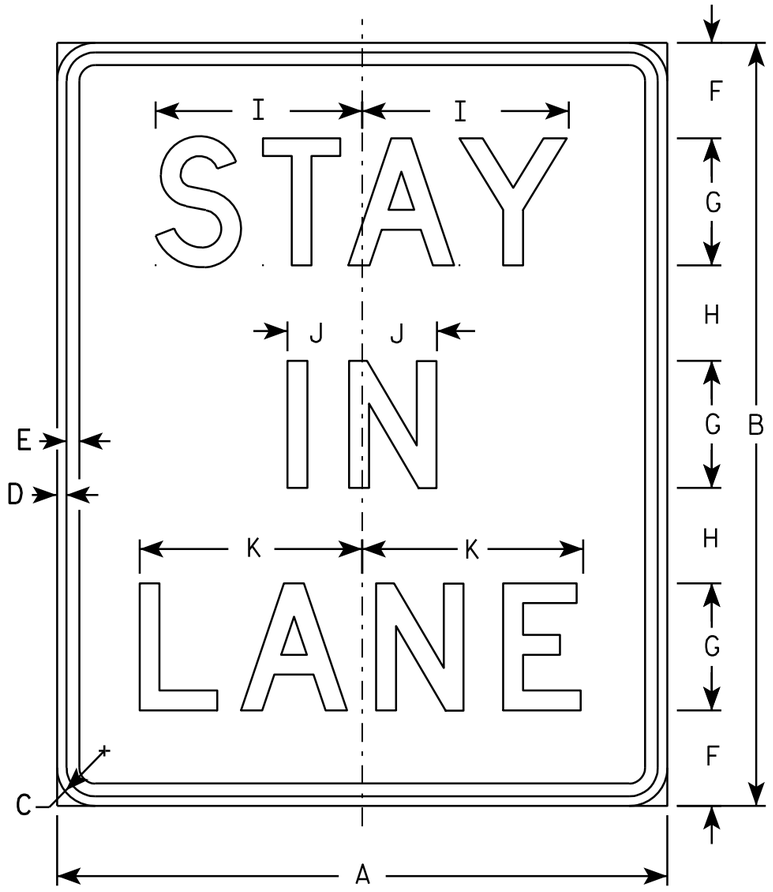
STANDARD SIGN
R4-5

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/25/2011 PLATE NO. R4-5.3

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 101 | E



R4-9

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - WHITE
   Message - BLACK
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	18	24	1 1/8	3/8	3/8	3	4	3	6 1/2	2 3/8	7																3.0
2S	24	30	1 1/8	3/8	1/2	3 5/8	5	3 7/8	8 1/8	3	8 3/4																5.0
2M	24	30	1 1/8	3/8	1/2	3 5/8	5	3 7/8	8 1/8	3	8 3/4																5.0
3	36	48	1 3/8	1/2	5/8	8 1/4	7	5 1/4	11 3/8	4 1/8	12 1/4																12.0
4	36	48	1 3/8	1/2	5/8	8 1/4	7	5 1/4	11 3/8	4 1/8	12 1/4																12.0
5	48	60	2 1/4	3/4	1	7 1/2	10	7 1/2	16 1/4	5 7/8	17 1/2																20.0

STANDARD SIGN
R4-9

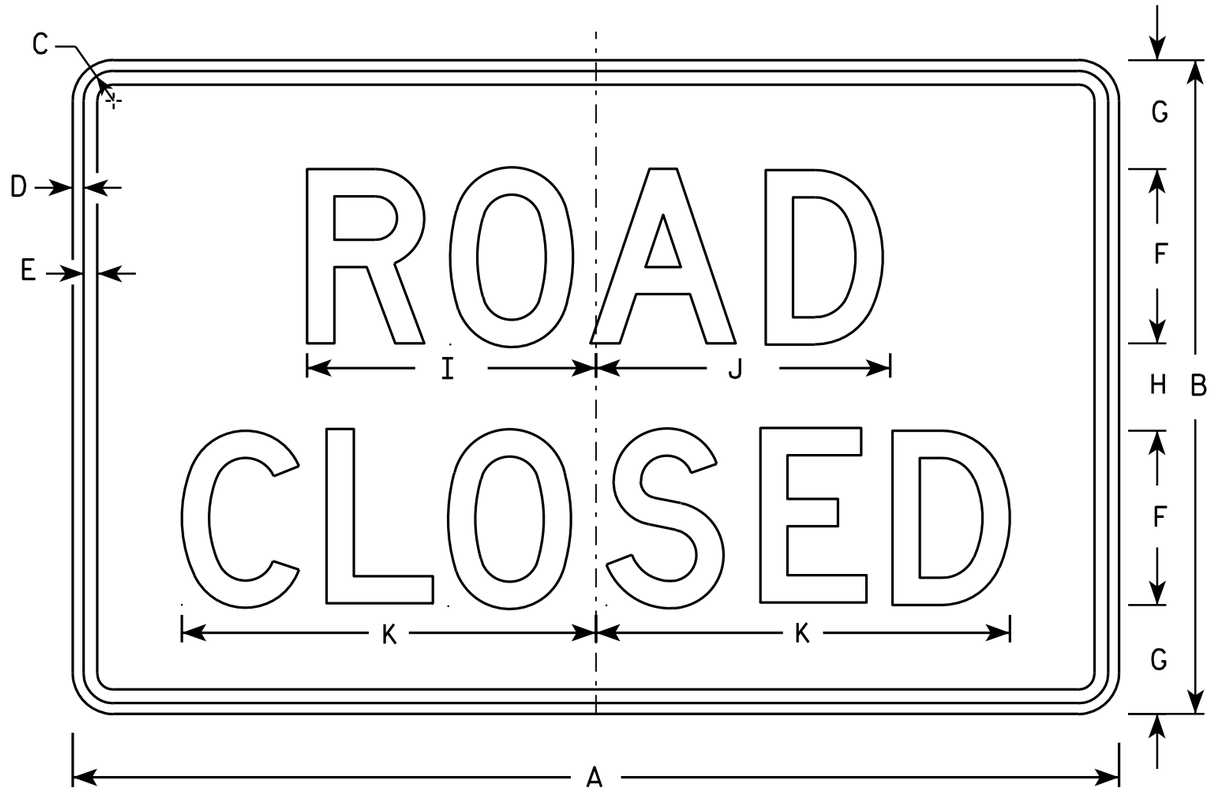
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/25/2011 PLATE NO. R4-9.2

PROJECT NO:

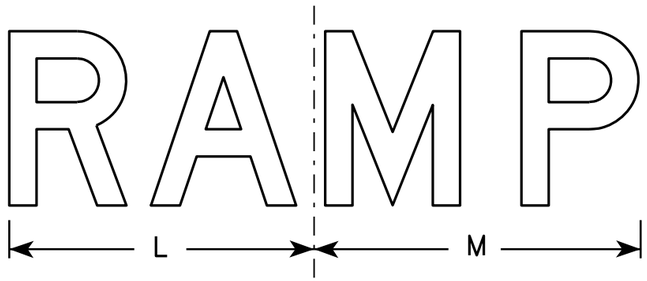
SHEET NO: 102 E



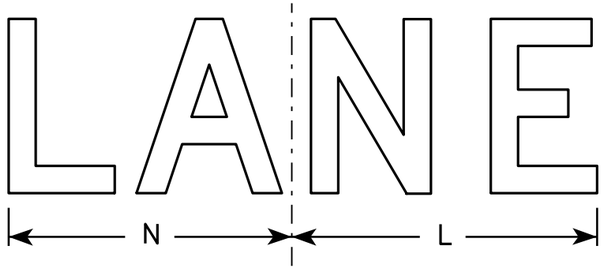
R11-2

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Modify the message as required.



R11-2R



R11-2L

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	48	30	1 3/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13													10.0
2M	48	30	1 3/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13													10.0
3	48	30	1 3/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13													10.0
4	48	30	1 3/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13													10.0
5	48	30	1 3/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13													10.0

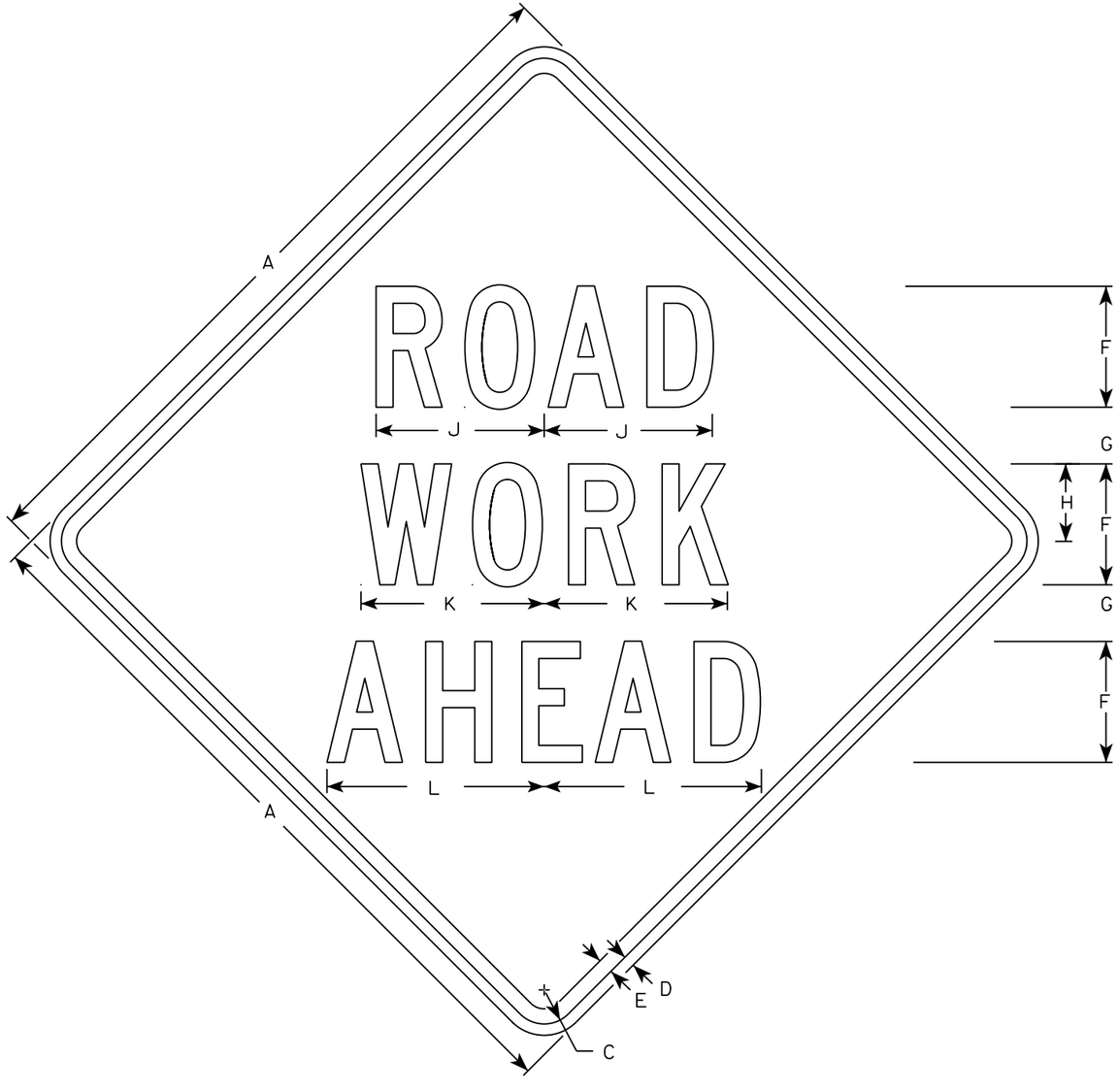
STANDARD SIGN
R11-2

WISCONSIN DEPT OF TRANSPORTATION

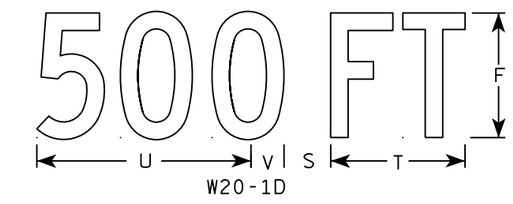
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 4/1/11 PLATE NO. R11-2.10

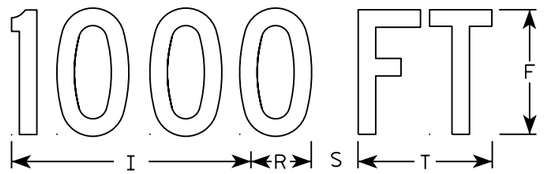
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 103 | E



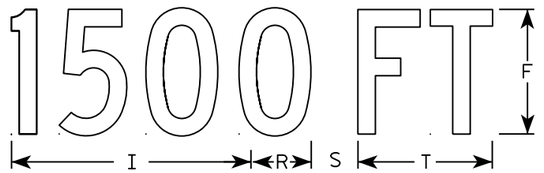
W20-1A



W20-1D

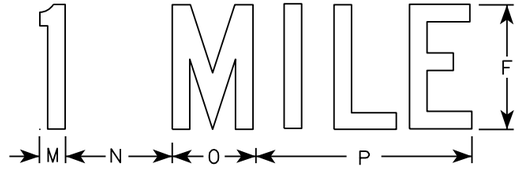


W20-1C

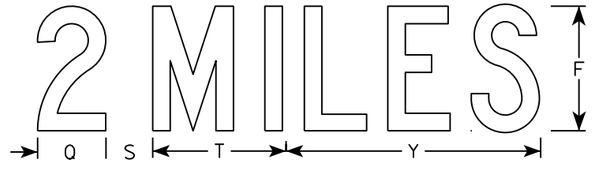


W20-1B

W20-1G



W20-1F



W20-1E

NOTES

1. Sign is Type II - Type F Reflective
2. Color:
   Background - Orange
   Message - Black
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 3/8	1/2	5/8	5	2 5/8	3 1/4	10 1/8	7	7 5/8	8 7/8	1 1/8	4 1/2	3 1/2	9		2 1/2	2 1/4	5 5/8	9	1 3/8	8	1 3/4	10 3/4	6	9.0
2S	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
2M	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
3	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
4	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
5	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0

STANDARD SIGN
W20-1A, B, C, D, F & G

WISCONSIN DEPT OF TRANSPORTATION

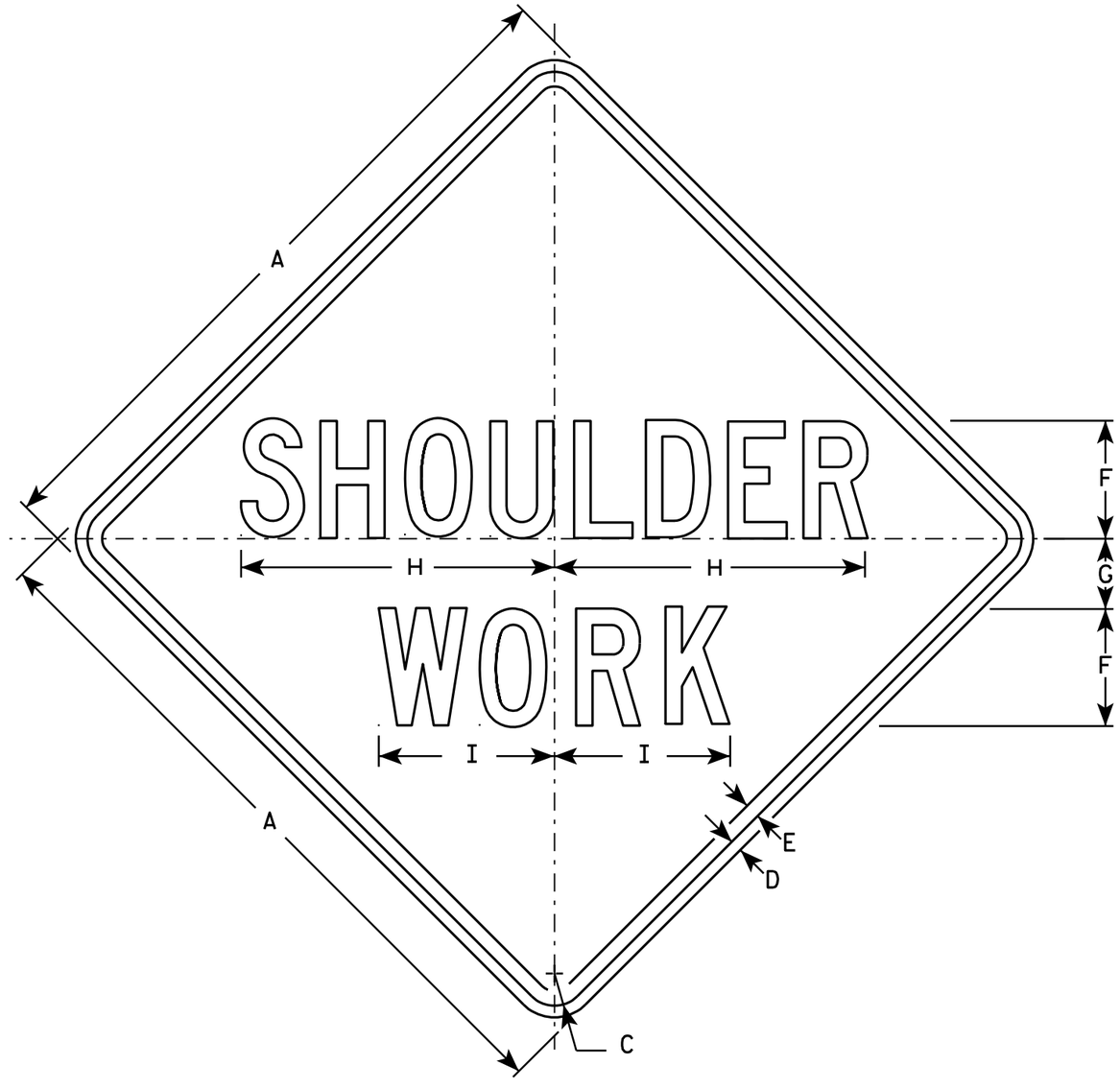
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/07/15 PLATE NO. W20-1.10

PROJECT NO:

SHEET NO: E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\W201.DGN PLOT DATE : 01-DEC-2015 18:24 PLOT BY : $$ plotuser $$



W21-5

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24		1 1/8	3/8	1/2	4	2 1/2	10 3/4	6																		4.0
2S	30		1 3/8	1/2	5/8	5	3	13 3/8	7 1/2																		6.25
2M	30		1 3/8	1/2	5/8	5	3	13 3/8	7 1/2																		6.25
3	36		1 5/8	5/8	3/4	6	3 1/2	16	9																		9.0
4	48		2 1/4	3/4	1	8	5	21 3/8	11 1/4																		16.0
5	48		2 1/4	3/4	1	8	5	21 3/8	11 1/4																		16.0

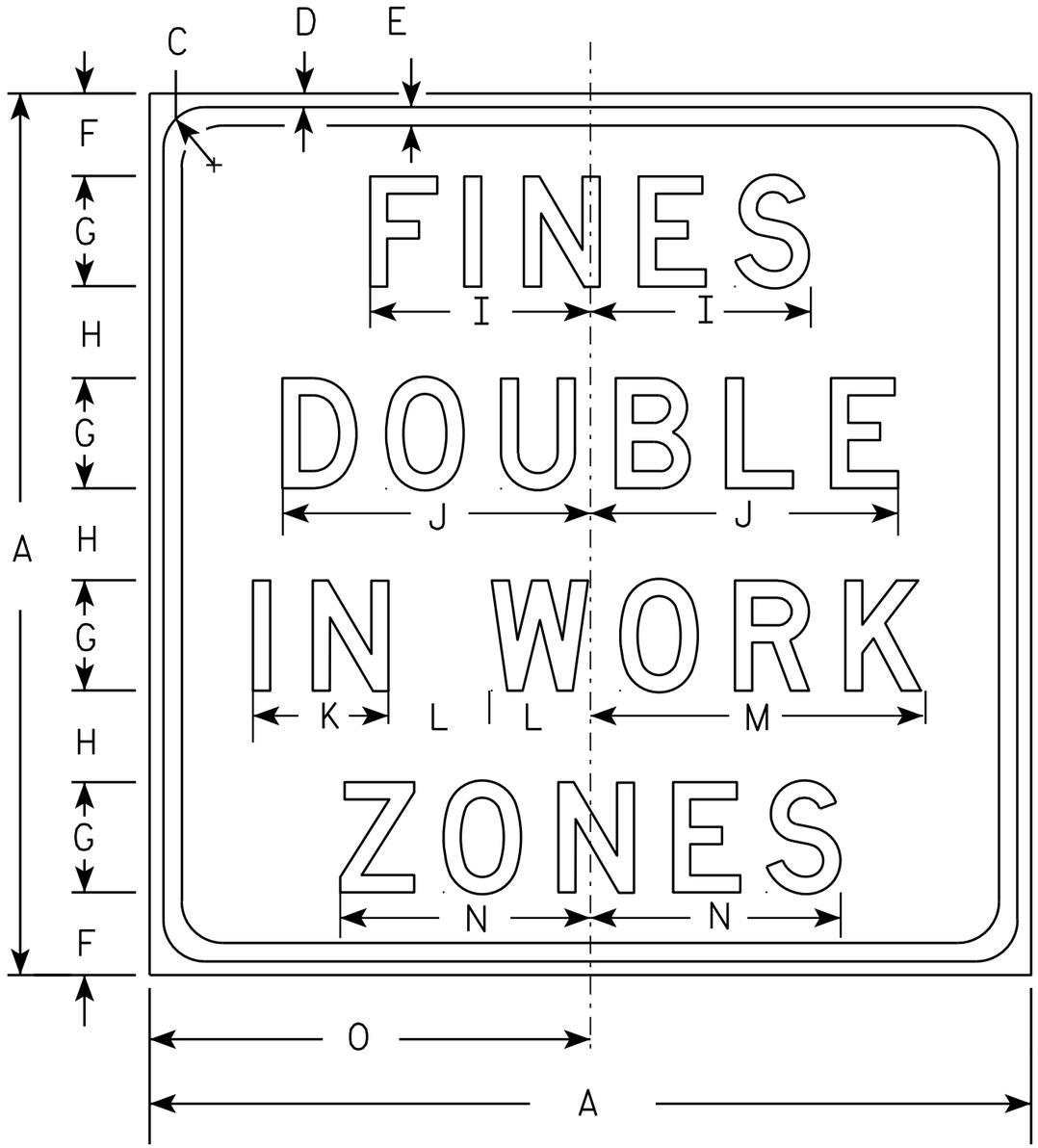
STANDARD SIGN
W21-5

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/21/11 PLATE NO. W21-5.5

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 105	E



W21-61

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24		1 1/8	3/8	1/2	2 1/4	3	2 1/2	6	8 3/8	3 3/4	2 3/4	9 1/8	6 7/8	12												4.0
2S	36		1 5/8	5/8	3/4	3 3/8	4 1/2	3 3/4	9	12 5/8	5 1/2	4 1/8	13 3/4	10 1/4	18												9.0
2M	36		1 5/8	5/8	3/4	3 3/8	4 1/2	3 3/4	9	12 5/8	5 1/2	4 1/8	13 3/4	10 1/4	18												9.0
3	48		2 1/4	3/4	1	4 1/2	6	5	12	16 3/4	7 3/8	5 1/2	18 1/4	13 5/8	24												16.0
4																											
5																											

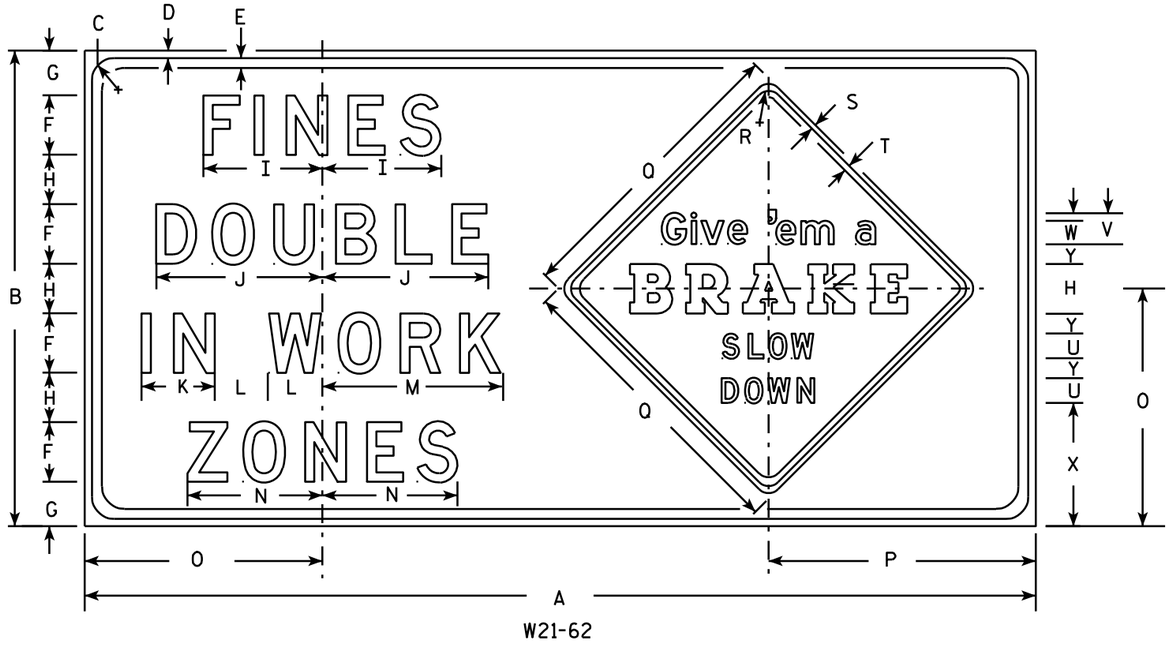
STANDARD SIGN
W21-61

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
For State Traffic Engineer

DATE 3/21/11 PLATE NO. W21-61.4

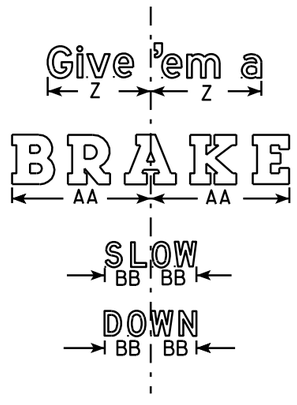
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 106 | E



W21-62

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White - (See Note 5)
   Message - Black
3. Message Series -
   Fines Double Message - All lines are Series D
   Give 'em a Brake -
   Line one is Series E, line two is a Special Graphic Series and lines three and four are Series D.
4. The base material shall be plywood. Corners may be square or rounded, but borders shall be rounded as shown. The base material for Give 'em a Brake sign can be a seperate sheet of aluminum with the corners and borders rounded as shown. This seperate panel shall then be attached to the plywood with aluminum or stainless steel sheet metal screws.
5. Background for the Give 'em a Brake sign shall be Type F reflective orange.



W21-62P

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA	BB	CC	DD	Area sq. ft.
1																															
2S																															
2M																															
3	96	48	2 1/4	3/4	1	6	4 1/2	5	12	16 3/4	7 3/8	5 1/2	18 1/4	13 5/8	24	27	30	1 3/8	1/2	5/8	2 1/2	3 1/8	2 3/8	12 1/2	2	10 3/4	14	4 5/8	34 1/2	4	32.0
4																															
5																															

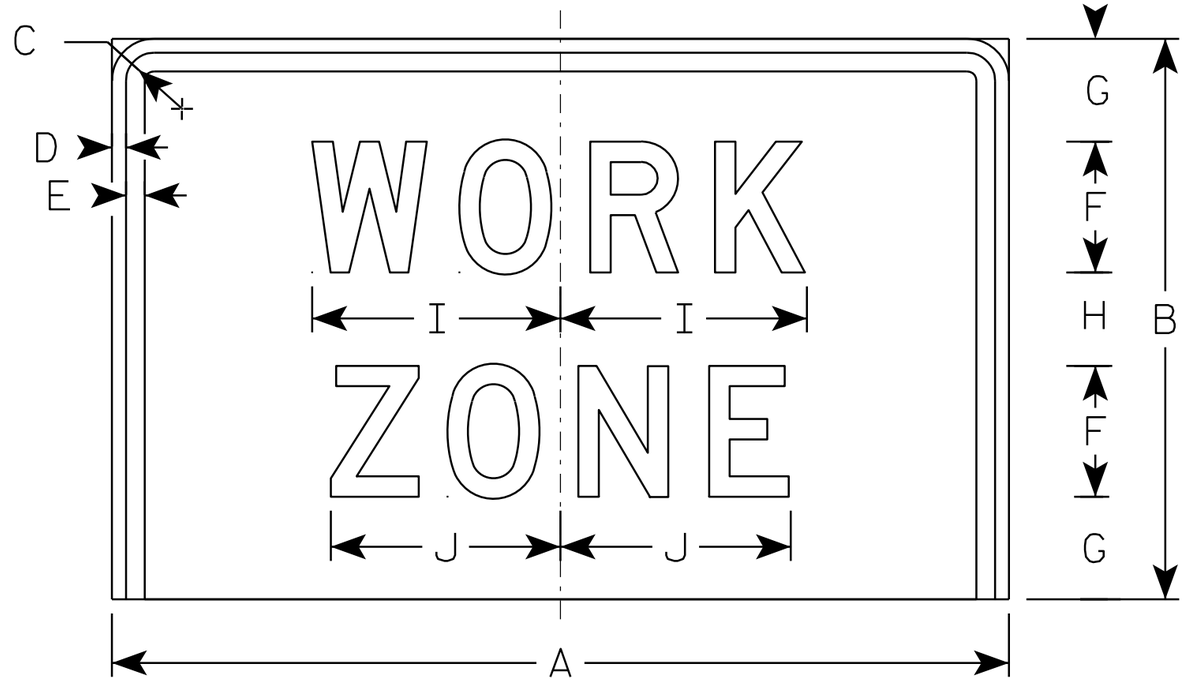
STANDARD SIGN
W21-62

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/21/11 PLATE NO. W21-62.5

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 107	E



W21-620

NOTES

1. Sign is Type II - Type F - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Message Series - D

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	48	30	2 1/4	3/4	1	7	5 1/2	5	13 1/4	12 1/4																	10.0
2M	48	30	2 1/4	3/4	1	7	5 1/2	5	13 1/4	12 1/4																	10.0
3																											
4																											
5																											

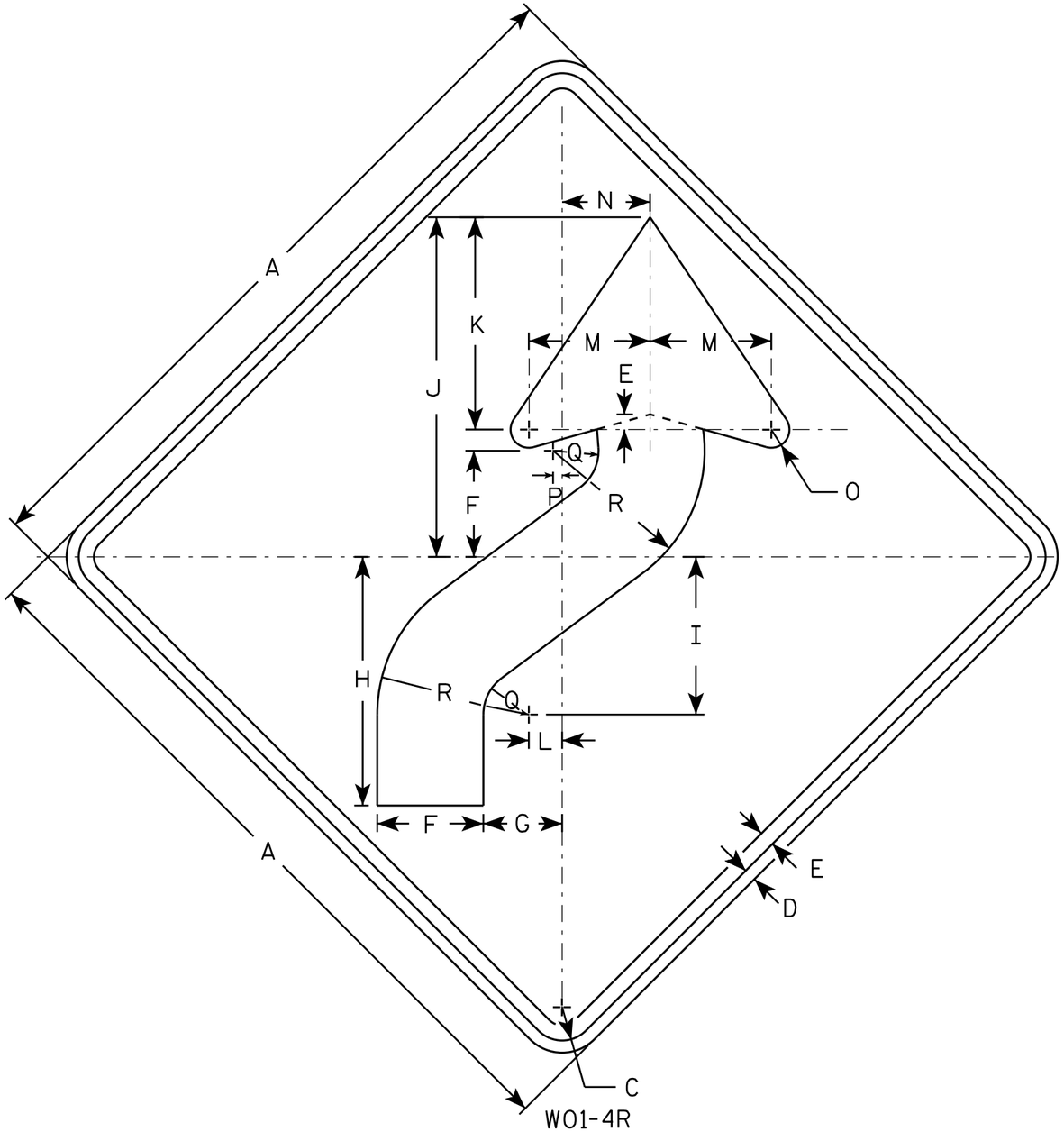
STANDARD SIGN
W21-620

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/21/11 PLATE NO. W21-620.2

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 108	E



W01-4R

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. W01-4L is the same as W01-4R except the arrow is reversed along the vertical centerline.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 5/8	5/8	3/4	5 1/4	4	12 3/8	7 7/8	16 7/8	10 1/2	1 5/8	6	4 1/2	1	1/2	2 1/4	7 1/2									9.0
2S	48		2 1/4	3/4	1	7	5 1/4	16 1/2	10 1/2	22 1/2	14	2 1/4	8	6	1 1/4	5/8	3	10									16.0
2M	48		2 1/4	3/4	1	7	5 1/4	16 1/2	10 1/2	22 1/2	14	2 1/4	8	6	1 1/4	5/8	3	10									16.0
3	48		2 1/4	3/4	1	7	5 1/4	16 1/2	10 1/2	22 1/2	14	2 1/4	8	6	1 1/4	5/8	3	10									16.0
4	48		2 1/4	3/4	1	7	5 1/4	16 1/2	10 1/2	22 1/2	14	2 1/4	8	6	1 1/4	5/8	3	10									16.0
5	48		2 1/4	3/4	1	7	5 1/4	16 1/2	10 1/2	22 1/2	14	2 1/4	8	6	1 1/4	5/8	3	10									16.0

STANDARD SIGN
W01-4

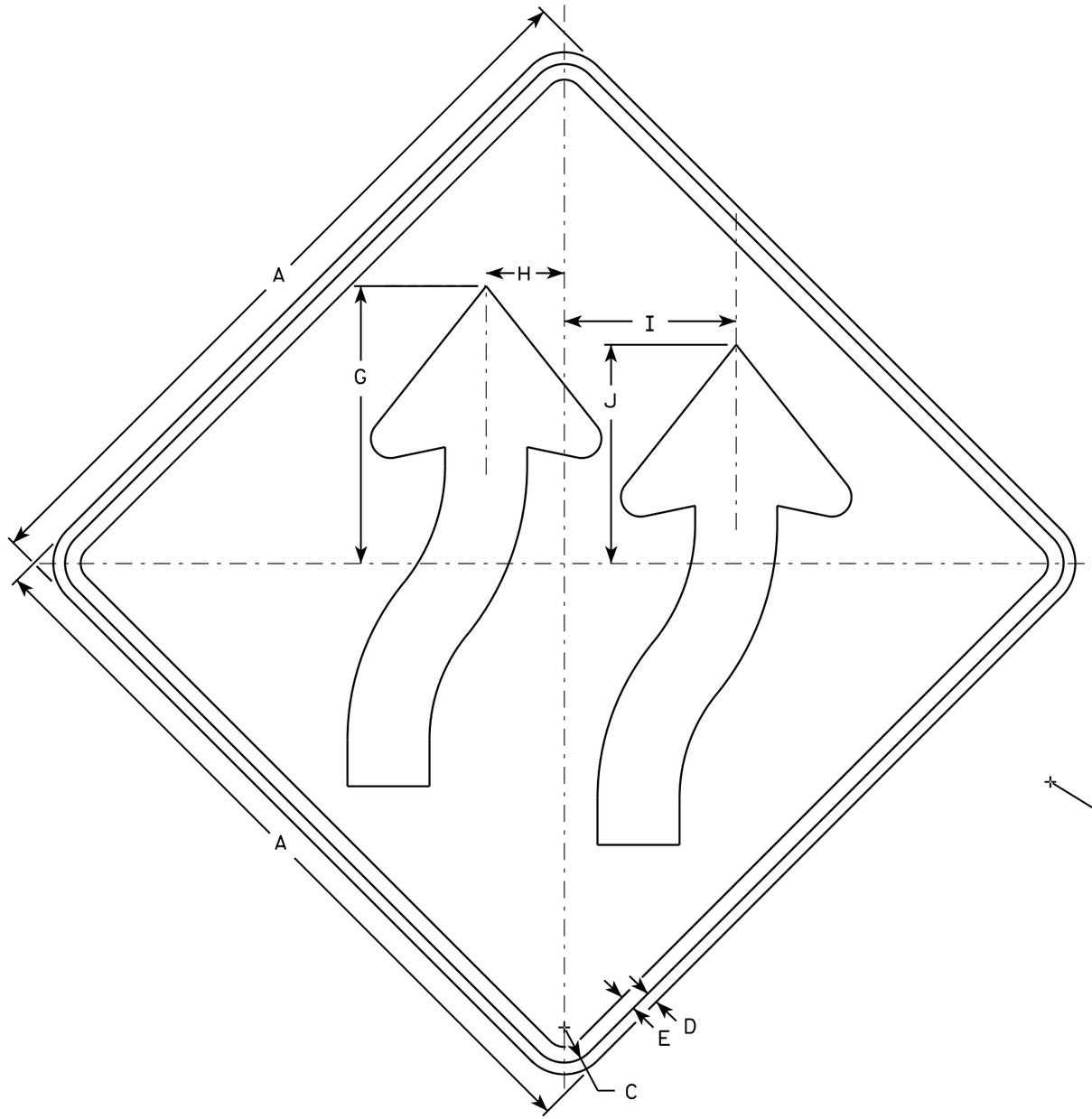
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

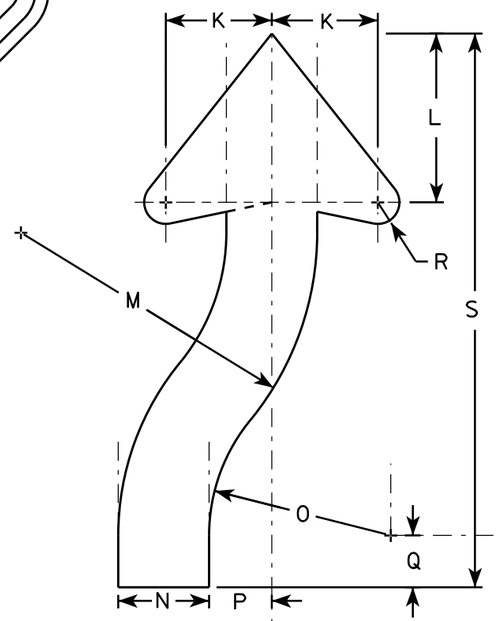
DATE 11/18/13 PLATE NO W01-4.1

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\W014.DGN PLOT DATE : 28-FEB-2014 11:35 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 6.755110:1.000000 WISDOT/CADDS SHEET 42



W01-4bR



NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. W01-4bL is the same as W014-bR exept arrows are reversed along the vertical centerline

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 5/8	5/8	3/4		13 3/8	3 3/4	8 1/4	10 1/2	4 5/8	7 3/8	12 7/8	3 7/8	7 7/8	2 3/4	2 1/4	7/8	24								9.0
2S	48		2 1/4	3/4	1		17 3/4	5	11	14	6 1/8	9 3/4	17 1/8	5 1/4	10 1/2	3 5/8	3	1 1/4	32								16.0
2M	48		2 1/4	3/4	1		17 3/4	5	11	14	6 1/8	9 3/4	17 1/8	5 1/4	10 1/2	3 5/8	3	1 1/4	32								16.0
3	48		2 1/4	3/4	1		17 3/4	5	11	14	6 1/8	9 3/4	17 1/8	5 1/4	10 1/2	3 5/8	3	1 1/4	32								16.0
4	48		2 1/4	3/4	1		17 3/4	5	11	14	6 1/8	9 3/4	17 1/8	5 1/4	10 1/2	3 5/8	3	1 1/4	32								16.0
5	48		2 1/4	3/4	1		17 3/4	5	11	14	6 1/8	9 3/4	17 1/8	5 1/4	10 1/2	3 5/8	3	1 1/4	32								16.0

STANDARD SIGN
W01-4b

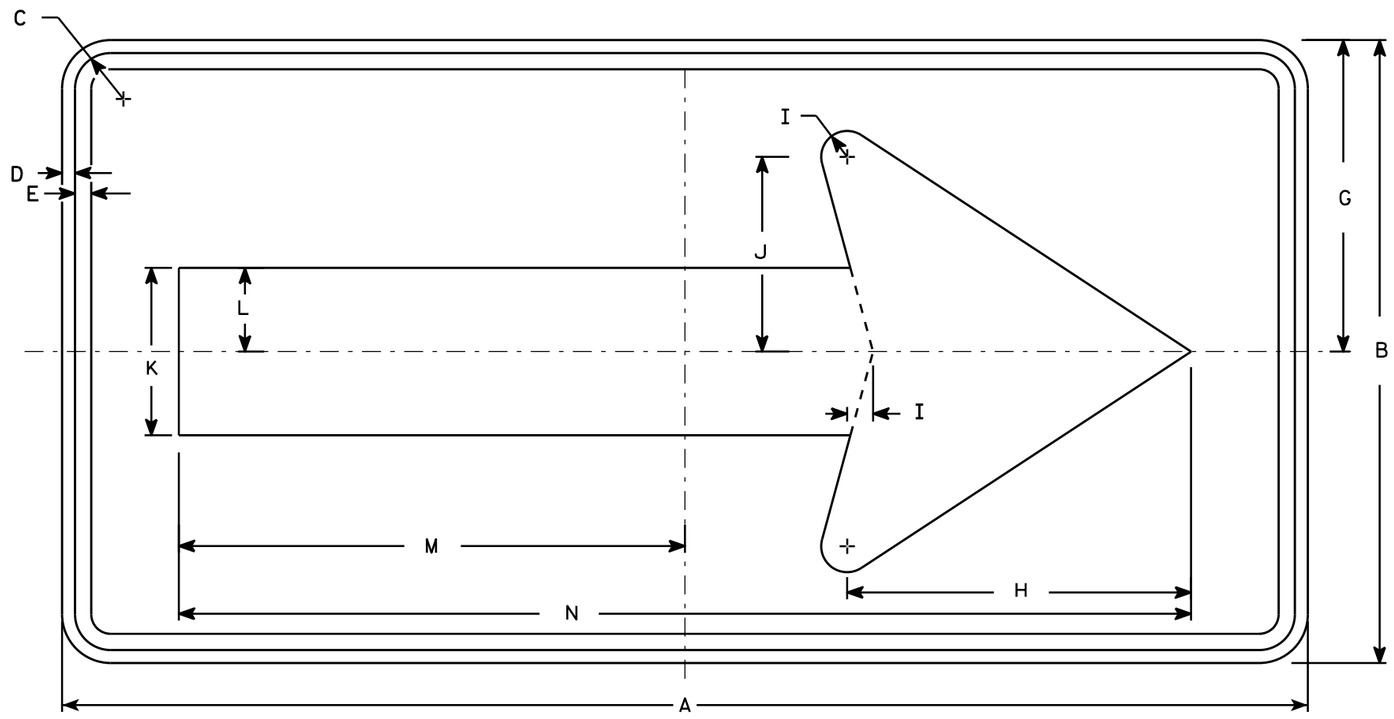
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/18/13 PLATE NO. W01-4b.1

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\W014B.DGN PLOT DATE : 28-FEB-2014 11:36 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 8.756290:1.000000
WISDOT/CADDS SHEET 42



W01-6

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	48	24	1 3/8	1/2	5/8		12	13 1/4	1	7 1/2	6 1/2	3 1/4	19 1/2	39													8.0
2M	48	24	1 3/8	1/2	5/8		12	13 1/4	1	7 1/2	6 1/2	3 1/4	19 1/2	39													8.0
3	60	30	1 3/8	1/2	5/8		15	16 1/4	1 1/4	9 1/4	8	4	24 3/8	48 3/4													12.5
4	60	30	1 3/8	1/2	5/8		15	16 1/4	1 1/4	9 1/4	8	4	24 3/8	48 3/4													12.5
5	60	30	1 3/8	1/2	5/8		15	16 1/4	1 1/4	9 1/4	8	4	24 3/8	48 3/4													12.5

STANDARD SIGN
W01-6

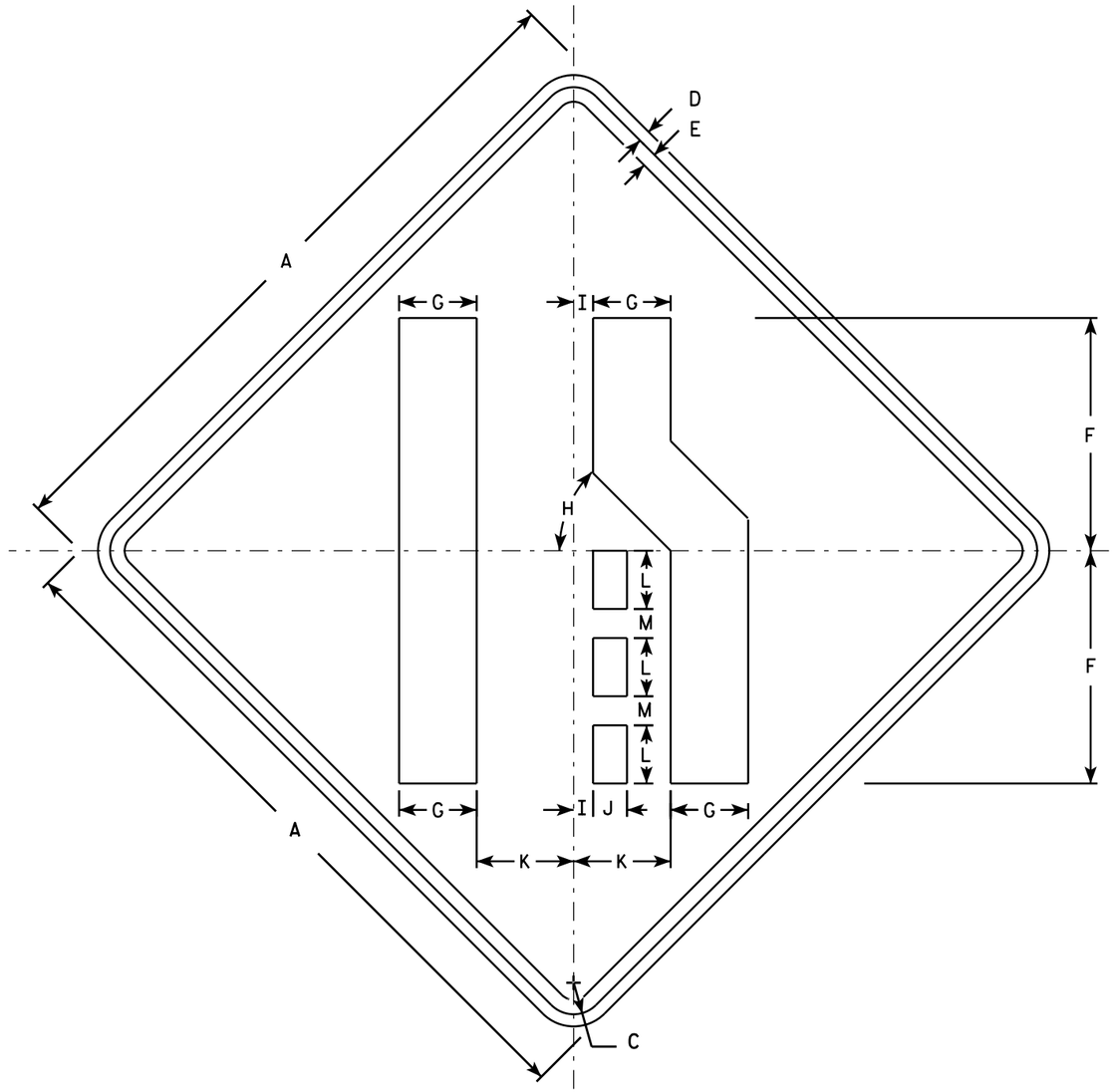
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/18/13 PLATE NO. W01-6.1

PROJECT NO: | HWY: | COUNTY: | SHEET NO: E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\W016.DGN PLOT DATE : 28-FEB-2014 11:37 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 5.837526:1.000000 WISDOT/CADDS SHEET 42



W04-2R

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. W04-2L is the same as W04-2R except the symbol is reversed along the vertical centerline.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 5/8	5/8	3/4	12	4	45°	1	1 3/4	5	3	1 1/2														9.0
2S	48		2 1/4	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0
2M	48		2 1/4	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0
3	48		2 1/4	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0
4	48		2 1/4	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0
5	48		2 1/4	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0

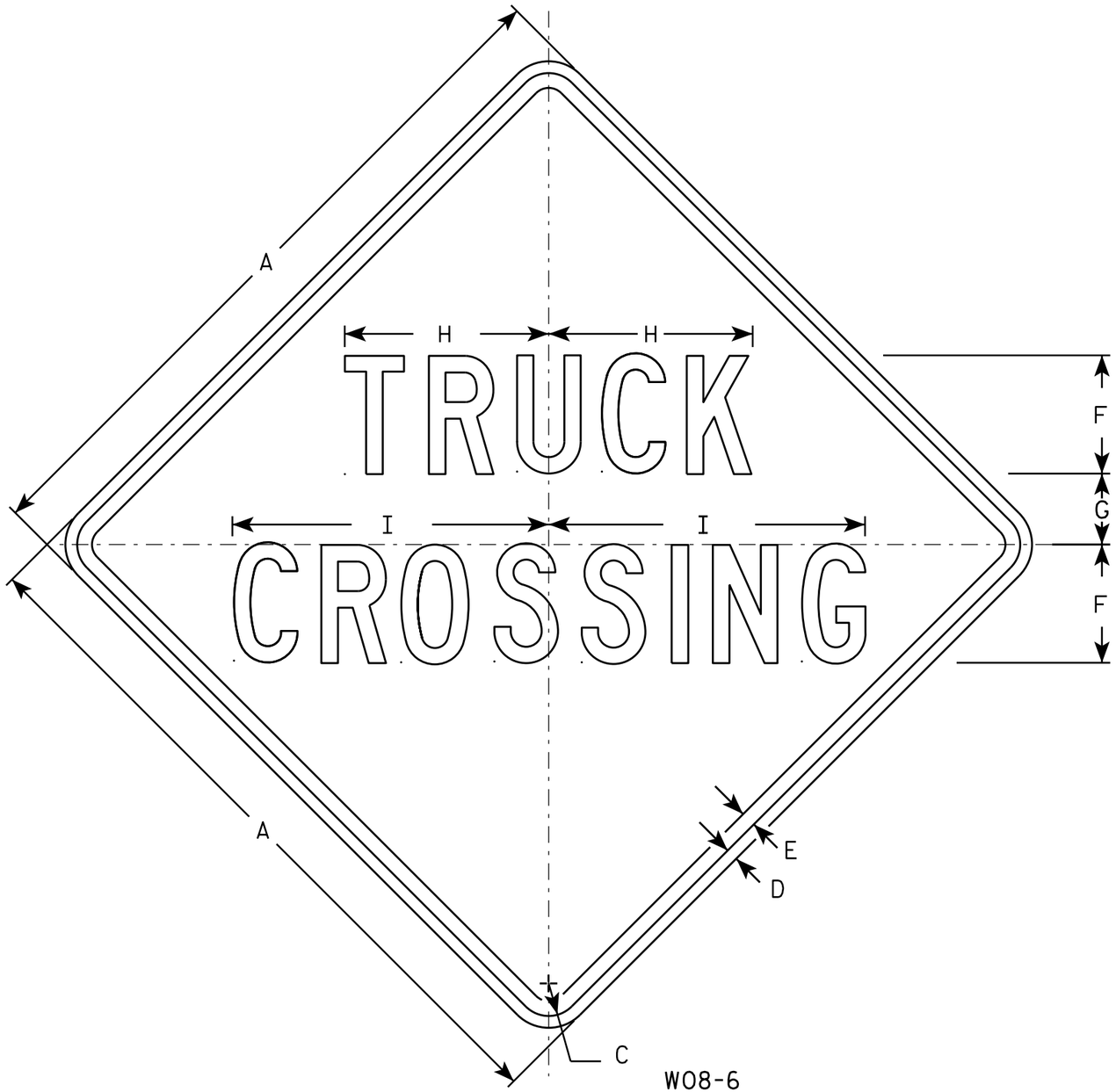
STANDARD SIGN
W04-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/20/13 PLATE 112 W04-2.1

PROJECT NO: | SHEET NO: E



W08-6

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 5/8	5/8	3/4	6	3 1/2	10 3/8	16																		9.0
2S	48		2 1/4	3/4	1	8	5	13 3/4	21 1/4																		16.0
2M	48		2 1/4	3/4	1	8	5	13 3/4	21 1/4																		16.0
3	48		2 1/4	3/4	1	8	5	13 3/4	21 1/4																		16.0
4	48		2 1/4	3/4	1	8	5	13 3/4	21 1/4																		16.0
5	48		2 1/4	3/4	1	8	5	13 3/4	21 1/4																		16.0

STANDARD SIGN
W08-6

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/20/13 PLATE 113 of 28-6.1

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

PROJECT ID 1003-10-78

DIVISION 1 - SB STA. 112+50 - STA. 202+00 RT

STATION	Distance	AREA (SF)			Incremental Vol (CY) (Unadjusted)			Cumulative Vol (CY)			Mass Ordinate
		Cut	Fill	EBS	Cut	Fill	EBS	Cut	Fill	EBS	
112+50 AH	0.00	65.59	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
113+00	50.00	71.41	0.00	0.00	126.85	0.00	0.00	126.85	0.00	0.00	126.85
113+33	33.05	69.35	0.00	0.00	86.15	0.00	0.00	213.00	0.00	0.00	213.00
113+50	16.95	67.64	0.00	0.00	43.00	0.00	0.00	256.00	0.00	0.00	256.00
114+00	50.00	64.35	0.00	0.00	122.21	0.00	0.00	378.21	0.00	0.00	378.21
114+50	50.00	80.60	0.74	0.00	134.21	0.69	0.00	512.43	0.69	0.00	511.74
114+61	10.72	83.62	0.23	0.00	32.59	0.19	0.00	545.02	0.88	0.00	544.14
115+00	39.28	36.03	9.33	0.00	87.04	6.95	0.00	632.06	7.83	0.00	624.23
115+50	50.00	22.28	8.52	0.00	53.99	16.53	0.00	686.05	24.36	0.00	661.69
116+00	50.00	22.93	8.18	0.00	41.86	15.46	0.00	727.91	39.82	0.00	688.09
116+50	50.00	21.14	10.25	0.00	40.81	17.06	0.00	768.72	56.89	0.00	711.83
117+00	50.00	17.84	13.29	0.00	36.09	21.80	0.00	804.81	78.68	0.00	726.13
117+50	50.00	18.82	14.79	0.00	33.94	26.00	0.00	838.76	104.68	0.00	734.07
118+00	50.00	17.94	15.15	0.00	34.04	27.72	0.00	872.79	132.41	0.00	740.39
118+50	50.00	17.29	16.48	0.00	32.62	29.29	0.00	905.41	161.69	0.00	743.72
119+00	50.00	15.69	20.67	0.00	30.54	34.40	0.00	935.95	196.09	0.00	739.86
119+50	50.00	16.86	21.59	0.00	30.14	39.13	0.00	966.09	235.22	0.00	730.87
120+00	50.00	17.28	24.95	0.00	31.61	43.09	0.00	997.70	278.31	0.00	719.39
120+50	50.00	16.34	19.44	0.00	31.13	41.10	0.00	1028.83	319.42	0.00	709.41
121+00	50.00	17.21	18.62	0.00	31.06	35.24	0.00	1059.89	354.66	0.00	705.24
121+50	50.00	20.18	15.71	0.00	34.62	31.79	0.00	1094.51	386.44	0.00	708.07
122+00	50.00	19.24	14.13	0.00	36.50	27.63	0.00	1131.01	414.07	0.00	716.94
122+50	50.00	18.52	13.63	0.00	34.96	25.70	0.00	1165.98	439.78	0.00	726.20
123+00	50.00	15.91	14.72	0.00	31.88	26.25	0.00	1197.86	466.03	0.00	731.83
123+50	50.00	18.05	11.79	0.00	31.44	24.55	0.00	1229.30	490.57	0.00	738.73
124+00	50.00	16.65	13.08	0.00	32.13	23.03	0.00	1261.43	513.60	0.00	747.83
124+50	50.00	17.03	12.22	0.00	31.19	23.43	0.00	1292.62	537.03	0.00	755.59
125+00	50.00	20.11	9.22	0.00	34.39	19.85	0.00	1327.01	556.88	0.00	770.13
125+50	50.00	22.47	8.29	0.00	39.43	16.21	0.00	1366.43	573.09	0.00	793.34
126+00	50.00	22.04	10.48	0.00	41.21	17.38	0.00	1407.64	590.47	0.00	817.17
126+05	4.53	22.14	10.73	0.00	3.71	1.78	0.00	1411.35	592.25	0.00	819.10
126+50	45.47	22.36	11.70	0.00	37.47	18.89	0.00	1448.82	611.14	0.00	837.68
127+00	50.00	21.32	22.83	0.00	40.44	31.97	0.00	1489.27	643.11	0.00	846.16
127+32	32.20	19.46	24.66	0.00	24.32	28.32	0.00	1513.58	671.43	0.00	842.16
127+50	17.80	18.76	24.93	0.00	12.60	16.35	0.00	1526.18	687.77	0.00	838.41
128+00	50.00	17.52	23.80	0.00	33.59	45.12	0.00	1559.77	732.89	0.00	826.88
128+37	37.33	17.34	21.99	0.00	24.10	31.66	0.00	1583.87	764.55	0.00	819.32
128+50	12.67	17.48	20.54	0.00	8.17	9.98	0.00	1592.04	774.53	0.00	817.51
129+00	50.00	17.38	18.14	0.00	32.28	35.81	0.00	1624.32	810.34	0.00	813.98
129+50	50.00	18.23	16.20	0.00	32.97	31.80	0.00	1657.29	842.14	0.00	815.15
130+00	50.00	17.51	17.67	0.00	33.09	31.36	0.00	1690.38	873.50	0.00	816.88
130+50	50.00	19.85	12.80	0.00	34.59	28.21	0.00	1724.98	901.71	0.00	823.26
131+00	50.00	21.54	9.68	0.00	38.32	20.81	0.00	1763.30	922.53	0.00	840.77

PROJECT ID 1003-10-78

DIVISION 1 - SB STA. 112+50 - STA. 202+00 RT

STATION	Distance	AREA (SF)			Incremental Vol (CY) (Unadjusted)			Cumulative Vol (CY)			Mass Ordinate
		Cut	Fill	EBS	Cut	Fill	EBS	Cut	Fill	EBS	
131+50	50.00	25.44	8.14	0.00	43.50	16.50	0.00	1806.80	939.03	0.00	867.77
132+00	50.00	26.11	8.33	0.00	47.73	15.25	0.00	1854.53	954.28	0.00	900.26
132+50	50.00	25.62	8.27	0.00	47.90	15.37	0.00	1902.43	969.65	0.00	932.78
133+00	50.00	26.06	8.21	0.00	47.85	15.26	0.00	1950.28	984.91	0.00	965.38
133+50	50.00	24.67	9.58	0.00	46.97	16.47	0.00	1997.25	1001.38	0.00	995.88
134+00	50.00	22.43	12.54	0.00	43.61	20.48	0.00	2040.87	1021.86	0.00	1019.01
134+50	50.00	22.27	13.40	0.00	41.39	24.02	0.00	2082.25	1045.88	0.00	1036.38
135+00	50.00	16.32	7.19	0.00	35.73	19.06	0.00	2117.99	1064.94	0.00	1053.04
135+50	50.00	7.08	7.95	0.00	21.67	14.02	0.00	2139.65	1078.96	0.00	1060.69
136+00	50.00	1.81	11.12	0.00	8.23	17.66	0.00	2147.88	1096.62	0.00	1051.26
136+50	50.00	0.00	10.56	0.00	1.68	20.07	0.00	2149.56	1116.69	0.00	1032.87
137+00	50.00	0.00	5.07	0.00	0.00	14.47	0.00	2149.56	1131.17	0.00	1018.39
137+50	50.00	0.00	4.00	0.00	0.00	8.40	0.00	2149.56	1139.56	0.00	1010.00
138+00	50.00	0.00	3.63	0.00	0.00	7.06	0.00	2149.56	1146.63	0.00	1002.93
138+50	50.00	0.00	3.63	0.00	0.00	6.72	0.00	2149.56	1153.35	0.00	996.21
139+00	50.00	0.00	3.73	0.00	0.00	6.81	0.00	2149.56	1160.17	0.00	989.39
139+50	50.00	0.01	4.03	0.00	0.01	7.19	0.00	2149.57	1167.35	0.00	982.22
140+00	50.00	0.00	4.32	0.00	0.01	7.73	0.00	2149.58	1175.08	0.00	974.50
140+50	50.00	0.00	4.55	0.00	0.00	8.21	0.00	2149.58	1183.30	0.00	966.28
141+00	50.00	0.00	4.99	0.00	0.00	8.83	0.00	2149.58	1192.13	0.00	957.45
141+50	50.00	0.00	4.88	0.00	0.00	9.14	0.00	2149.58	1201.27	0.00	948.31
142+00	50.00	0.01	4.19	0.00	0.01	8.40	0.00	2149.59	1209.67	0.00	939.92
142+50	50.00	0.00	3.75	0.00	0.01	7.35	0.00	2149.60	1217.02	0.00	932.58
143+00	50.00	0.00	3.63	0.00	0.00	6.83	0.00	2149.60	1223.85	0.00	925.75
143+50	50.00	0.30	3.32	0.00	0.28	6.44	0.00	2149.88	1230.29	0.00	919.59
144+00	50.00	2.39	2.95	0.00	2.49	5.81	0.00	2152.37	1236.09	0.00	916.27
144+50	50.00	4.41	2.67	0.00	6.30	5.20	0.00	2158.66	1241.30	0.00	917.37
145+00	50.00	39.51	5.14	0.00	40.67	7.23	0.00	2199.33	1248.53	0.00	950.80
145+50	50.00	76.45	4.16	0.00	107.37	8.61	0.00	2306.70	1257.14	0.00	1049.56
146+00	50.00	67.00	7.22	0.00	132.82	10.54	0.00	2439.52	1267.68	0.00	1171.85
146+50	50.00	61.71	5.82	0.00	119.18	12.07	0.00	2558.70	1279.75	0.00	1278.95
147+00	50.00	54.66	9.51	0.00	107.75	14.19	0.00	2666.45	1293.94	0.00	1372.51
147+50	50.00	51.79	7.76	0.00	98.56	15.99	0.00	2765.01	1309.94	0.00	1455.08
148+00	50.00	65.85	2.89	0.00	108.93	9.86	0.00	2873.94	1319.80	0.00	1554.14
148+50	50.00	53.51	3.07	0.00	110.52	5.52	0.00	2984.46	1325.31	0.00	1659.14
149+00	50.00	48.19	2.89	0.00	94.17	5.52	0.00	3078.63	1330.83	0.00	1747.79
149+50	50.00	34.37	3.09	0.00	76.44	5.54	0.00	3155.07	1336.37	0.00	1818.70
150+00	50.00	24.42	3.29	0.00	54.44	5.91	0.00	3209.50	1342.28	0.00	1867.23
150+50	50.00	29.61	2.87	0.00	50.03	5.70	0.00	3259.53	1347.98	0.00	1911.55
151+00	50.00	0.00	8.59	0.00	27.42	10.61	0.00	3286.95	1358.59	0.00	1928.36
151+50	50.00	0.00	4.52	0.00	0.00	12.14	0.00	3286.95	1370.73	0.00	1916.22
152+00	50.00	0.00	4.44	0.00	0.00	8.30	0.00	3286.95	1379.03	0.00	1907.92
152+50	50.00	0.00	3.64	0.00	0.00	7.48	0.00	3286.95	1386.51	0.00	1900.44

PROJECT ID 1003-10-78

DIVISION 1 - SB STA. 112+50 - STA. 202+00 RT

STATION	Distance	AREA (SF)			Incremental Vol (CY) (Unadjusted)			Cumulative Vol (CY)			Mass Ordinate
		Cut	Fill	EBS	Cut	Fill	EBS	Cut	Fill	EBS	
153+00	50.00	0.00	3.64	0.00	0.00	6.74	0.00	3286.95	1393.25	0.00	1893.70
153+50	50.00	0.00	3.64	0.00	0.00	6.74	0.00	3286.95	1399.99	0.00	1886.96
154+00	50.00	0.00	3.64	0.00	0.00	6.74	0.00	3286.95	1406.73	0.00	1880.22
154+50	50.00	0.00	6.49	0.00	0.00	9.38	0.00	3286.95	1416.11	0.00	1870.84
155+00	50.00	0.00	6.76	0.00	0.00	12.27	0.00	3286.95	1428.38	0.00	1858.57
155+50	50.00	0.00	7.03	0.00	0.00	12.77	0.00	3286.95	1441.15	0.00	1845.80
156+00	50.00	0.00	7.30	0.00	0.00	13.27	0.00	3286.95	1454.42	0.00	1832.53
156+50	50.00	0.00	7.57	0.00	0.00	13.77	0.00	3286.95	1468.19	0.00	1818.76
157+00	50.00	0.00	7.84	0.00	0.00	14.27	0.00	3286.95	1482.45	0.00	1804.50
157+50	50.00	0.00	7.99	0.00	0.00	14.66	0.00	3286.95	1497.11	0.00	1789.84
158+00	50.00	0.00	8.52	0.00	0.00	15.29	0.00	3286.95	1512.40	0.00	1774.55
158+50	50.00	0.00	9.72	0.00	0.00	16.89	0.00	3286.95	1529.29	0.00	1757.66
159+00	50.00	0.00	11.39	0.00	0.00	19.55	0.00	3286.95	1548.83	0.00	1738.12
159+50	50.00	0.00	14.91	0.00	0.00	24.35	0.00	3286.95	1573.19	0.00	1713.76
160+00	50.00	0.00	13.69	0.00	0.00	26.48	0.00	3286.95	1599.67	0.00	1687.28
160+50	50.00	0.55	13.67	0.00	0.51	25.33	0.00	3287.46	1625.00	0.00	1662.46
161+00	50.00	71.64	0.00	0.00	66.84	12.66	0.00	3354.30	1637.66	0.00	1716.64
161+50	50.00	157.90	77.11	0.00	212.54	71.40	0.00	3566.84	1709.06	0.00	1857.78
162+00	50.00	20.47	214.32	0.00	165.16	269.84	0.00	3732.00	1978.90	0.00	1753.10
162+50	50.00	15.23	94.89	0.00	33.06	286.31	0.00	3765.05	2265.20	0.00	1499.85
163+00	50.00	56.46	7.64	0.00	66.38	94.94	0.00	3831.43	2360.14	0.00	1471.29
163+50	50.00	33.45	9.23	0.00	83.25	15.62	0.00	3914.68	2375.76	0.00	1538.92
164+00	50.00	32.92	0.00	0.00	61.45	8.55	0.00	3976.13	2384.31	0.00	1591.83
164+50	50.00	31.43	0.00	0.00	59.58	0.00	0.00	4035.72	2384.31	0.00	1651.41
165+00	50.00	31.60	0.00	0.00	58.36	0.00	0.00	4094.08	2384.31	0.00	1709.77
165+50	50.00	0.00	31.47	0.00	29.26	29.14	0.00	4123.34	2413.44	0.00	1709.89
166+00	50.00	0.00	13.67	0.00	0.00	41.80	0.00	4123.34	2455.24	0.00	1668.10
166+50	50.00	0.00	13.67	0.00	0.00	25.31	0.00	4123.34	2480.56	0.00	1642.78
167+00	50.00	0.00	58.40	0.00	0.00	66.73	0.00	4123.34	2547.29	0.00	1576.05
167+50	50.00	0.00	57.35	0.00	0.00	107.18	0.00	4123.34	2654.46	0.00	1468.88
168+00	50.00	20.43	13.67	0.00	18.92	65.76	0.00	4142.25	2720.22	0.00	1422.03
168+50	50.00	9.41	13.67	0.00	27.63	25.31	0.00	4169.88	2745.54	0.00	1424.35
169+00	50.00	1.92	13.67	0.00	10.49	25.31	0.00	4180.38	2770.85	0.00	1409.52
169+50	50.00	0.00	13.67	0.00	1.78	25.31	0.00	4182.15	2796.17	0.00	1385.99
170+00	50.00	0.00	13.67	0.00	0.00	25.31	0.00	4182.15	2821.48	0.00	1360.67
170+50	50.00	0.00	13.67	0.00	0.00	25.31	0.00	4182.15	2846.80	0.00	1335.36
171+00	50.00	0.00	9.34	0.00	0.00	21.31	0.00	4182.15	2868.10	0.00	1314.05
171+50	50.00	0.00	9.34	0.00	0.00	17.30	0.00	4182.15	2885.40	0.00	1296.76
172+00	50.00	0.00	9.01	0.00	0.00	16.99	0.00	4182.15	2902.39	0.00	1279.76
172+50	50.00	0.76	9.47	0.00	0.70	17.11	0.00	4182.86	2919.50	0.00	1263.36
173+00	50.00	2.30	12.19	0.00	2.83	20.06	0.00	4185.69	2939.56	0.00	1246.13
173+50	50.00	3.42	15.34	0.00	5.30	25.49	0.00	4190.99	2965.05	0.00	1225.94
174+00	50.00	4.12	19.62	0.00	6.98	32.37	0.00	4197.97	2997.42	0.00	1200.55

PROJECT ID 1003-10-78

DIVISION 1 - SB STA. 112+50 - STA. 202+00 RT

STATION	Distance	AREA (SF)			Incremental Vol (CY) (Unadjusted)			Cumulative Vol (CY)			Mass Ordinate
		Cut	Fill	EBS	Cut	Fill	EBS	Cut	Fill	EBS	
174+50	50.00	4.98	29.15	0.00	8.43	45.16	0.00	4206.39	3042.57	0.00	1163.82
174+70	19.80	6.46	24.10	0.00	4.19	19.52	0.00	4210.59	3062.10	0.00	1148.49
175+00	30.20	12.31	8.09	0.00	10.50	18.00	0.00	4221.09	3080.10	0.00	1140.98
175+50	50.00	25.49	4.56	0.00	35.00	11.71	0.00	4256.09	3091.81	0.00	1164.27
176+00	50.00	33.32	4.58	0.00	54.45	8.46	0.00	4310.54	3100.28	0.00	1210.26
176+20	20.00	29.69	4.80	0.00	23.33	3.47	0.00	4333.87	3103.75	0.00	1230.12
176+50	30.00	18.45	5.49	0.00	26.75	5.72	0.00	4360.62	3109.47	0.00	1251.15
177+00	50.00	13.51	6.80	0.00	29.59	11.38	0.00	4390.21	3120.85	0.00	1269.36
177+50	50.00	12.39	9.07	0.00	23.98	14.69	0.00	4414.19	3135.54	0.00	1278.65
178+00	50.00	11.81	12.37	0.00	22.41	19.85	0.00	4436.60	3155.39	0.00	1281.21
178+50	50.00	12.06	15.36	0.00	22.10	25.68	0.00	4458.70	3181.07	0.00	1277.63
178+75	25.34	12.24	16.14	0.00	11.40	14.78	0.00	4470.11	3195.85	0.00	1274.25
179+00	24.66	12.41	16.92	0.00	11.26	15.10	0.00	4481.36	3210.95	0.00	1270.41
179+50	50.00	12.41	17.15	0.00	22.98	31.55	0.00	4504.34	3242.50	0.00	1261.85
180+00	50.00	11.88	15.73	0.00	22.49	30.44	0.00	4526.84	3272.94	0.00	1253.90
180+03	3.00	11.89	15.53	0.00	1.32	1.73	0.00	4528.15	3274.67	0.00	1253.48
180+50	47.00	11.90	17.02	0.00	20.71	28.33	0.00	4548.86	3303.01	0.00	1245.85
181+00	50.00	12.01	17.74	0.00	22.14	32.19	0.00	4571.00	3335.19	0.00	1235.81
181+50	50.00	11.87	19.56	0.00	22.11	34.54	0.00	4593.11	3369.73	0.00	1223.38
182+00	50.00	16.41	18.12	0.00	26.19	34.89	0.00	4619.30	3404.62	0.00	1214.68
182+50	50.00	17.07	26.40	0.00	31.00	41.22	0.00	4650.30	3445.84	0.00	1204.46
183+00	50.00	11.87	25.64	0.00	26.80	48.19	0.00	4677.09	3494.03	0.00	1183.07
183+50	50.00	11.87	26.97	0.00	21.98	48.71	0.00	4699.07	3542.74	0.00	1156.34
184+00	50.00	11.87	27.65	0.00	21.98	50.57	0.00	4721.06	3593.31	0.00	1127.74
184+50	50.00	11.87	28.28	0.00	21.98	51.79	0.00	4743.04	3645.10	0.00	1097.94
185+00	50.00	11.80	27.00	0.00	21.92	51.19	0.00	4764.95	3696.28	0.00	1068.67
185+50	50.00	11.56	26.85	0.00	21.63	49.86	0.00	4786.58	3746.15	0.00	1040.44
186+00	50.00	11.61	26.07	0.00	21.45	49.00	0.00	4808.04	3795.15	0.00	1012.89
186+50	50.00	9.97	29.89	0.00	19.98	51.81	0.00	4828.02	3846.96	0.00	981.06
187+00	50.00	8.85	25.38	0.00	17.43	51.18	0.00	4845.45	3898.14	0.00	947.31
187+50	50.00	7.50	17.35	0.00	15.14	39.56	0.00	4860.58	3937.70	0.00	922.88
188+00	50.00	6.17	10.71	0.00	12.66	25.98	0.00	4873.24	3963.68	0.00	909.56
188+50	50.00	2.72	0.42	0.00	8.23	10.31	0.00	4881.47	3973.99	0.00	907.48
189+00	50.00	2.78	0.53	0.00	5.09	0.88	0.00	4886.57	3974.87	0.00	911.70
189+50	50.00	3.33	0.63	0.00	5.66	1.07	0.00	4892.22	3975.94	0.00	916.28
190+00	50.00	3.39	0.57	0.00	6.22	1.11	0.00	4898.45	3977.05	0.00	921.39
190+50	50.00	3.24	0.33	0.00	6.14	0.83	0.00	4904.58	3977.89	0.00	926.70
191+00	50.00	19.54	0.00	0.00	21.09	0.31	0.00	4925.68	3978.19	0.00	947.48
191+50	50.00	10.05	0.00	0.00	27.40	0.00	0.00	4953.07	3978.19	0.00	974.88
192+00	50.00	8.43	0.00	0.00	17.11	0.00	0.00	4970.19	3978.19	0.00	991.99
192+50	50.00	6.28	0.00	0.00	13.62	0.00	0.00	4983.81	3978.19	0.00	1005.61
193+00	50.00	5.57	0.00	0.00	10.97	0.00	0.00	4994.78	3978.19	0.00	1016.59
193+50	50.00	6.42	0.00	0.00	11.10	0.00	0.00	5005.88	3978.19	0.00	1027.69

PROJECT ID 1003-10-78

DIVISION 1 - SB STA. 112+50 - STA. 202+00 RT

STATION		Distance	AREA (SF)			Incremental Vol (CY) (Unadjusted)			Cumulative Vol (CY)			Mass Ordinate
			Cut	Fill	EBS	Cut	Fill	EBS	Cut	Fill	EBS	
194+00		50.00	8.59	0.00	0.00	13.90	0.00	0.00	5019.78	3978.19	0.00	1041.59
194+50		50.00	10.23	0.00	0.00	17.43	0.00	0.00	5037.20	3978.19	0.00	1059.01
195+00		50.00	10.29	0.00	0.00	19.00	0.00	0.00	5056.20	3978.19	0.00	1078.01
195+50		50.00	7.49	0.00	0.00	16.46	0.00	0.00	5072.67	3978.19	0.00	1094.48
196+00		50.00	7.58	0.00	0.00	13.95	0.00	0.00	5086.62	3978.19	0.00	1108.43
196+50		50.00	7.63	0.00	0.00	14.08	0.00	0.00	5100.70	3978.19	0.00	1122.51
197+00		50.00	7.55	0.00	0.00	14.06	0.00	0.00	5114.76	3978.19	0.00	1136.57
197+50		50.00	7.42	0.00	0.00	13.86	0.00	0.00	5128.62	3978.19	0.00	1150.43
198+00		50.00	7.40	0.00	0.00	13.72	0.00	0.00	5142.34	3978.19	0.00	1164.15
198+50		50.00	7.39	0.00	0.00	13.69	0.00	0.00	5156.04	3978.19	0.00	1177.85
198+55		4.67	7.40	0.00	0.00	1.28	0.00	0.00	5157.32	3978.19	0.00	1179.12
199+00		45.33	4.51	0.00	0.00	10.00	0.00	0.00	5167.31	3978.19	0.00	1189.12
199+50		50.00	6.11	0.00	0.00	9.83	0.00	0.00	5177.15	3978.19	0.00	1198.96
199+82		32.32	5.99	0.01	0.00	7.24	0.01	0.00	5184.39	3978.20	0.00	1206.19
200+00		17.68	6.26	0.20	0.00	4.01	0.07	0.00	5188.40	3978.27	0.00	1210.13
200+50		50.00	7.19	0.59	0.00	12.45	0.73	0.00	5200.85	3979.00	0.00	1221.86
201+00		50.00	8.04	0.66	0.00	14.10	1.16	0.00	5214.96	3980.16	0.00	1234.80
201+50		50.00	60.40	2.13	0.00	63.37	2.58	0.00	5278.33	3982.74	0.00	1295.59
202+00	BK	50.00	0.00	0.00	0.00	55.93	1.97	0.00	5334.25	3984.71	0.00	1349.54
Column totals						5334.25	3984.71	0.00				

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PROJECT NO: 1003-10-78	HWY: IH 39	COUNTY: ROCK	EARTHWORK DATA SHEET	SHEET 118	E

PROJECT ID 1003-10-78

DIVISION 1 - SB STA. 204+16 - STA. 213+00 RT

STATION		Distance	AREA (SF)			Incremental Vol (CY) (Unadjusted)			Cumulative Vol (CY)			Mass Ordinate
			Cut	Fill	EBS	Cut	Fill	EBS	Cut	Fill	EBS	
204+16	AH	0.00	53.92	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
204+50		34.07	53.64	0.02	0.00	67.87	0.04	0.00	67.87	0.04	0.00	67.83
205+00		50.00	55.28	0.07	0.00	100.85	0.08	0.00	168.72	0.12	0.00	168.60
205+50		50.00	54.81	0.00	0.00	101.94	0.06	0.00	270.65	0.19	0.00	270.47
206+00		50.00	53.96	0.92	0.00	100.71	0.85	0.00	371.37	1.04	0.00	370.33
206+50		50.00	46.53	6.40	0.00	93.05	6.78	0.00	464.41	7.82	0.00	456.60
207+00		50.00	41.50	8.57	0.00	81.51	13.86	0.00	545.92	21.68	0.00	524.25
207+50		50.00	38.66	8.86	0.00	74.22	16.14	0.00	620.14	37.82	0.00	582.33
208+00		50.00	36.74	9.32	0.00	69.81	16.83	0.00	689.96	54.65	0.00	635.31
208+50		50.00	30.29	10.00	0.00	62.06	17.89	0.00	752.02	72.54	0.00	679.49
209+00		50.00	28.10	10.28	0.00	54.06	18.78	0.00	806.09	91.32	0.00	714.77
209+50		50.00	25.70	9.97	0.00	49.81	18.75	0.00	855.90	110.07	0.00	745.84
210+00		50.00	24.55	9.11	0.00	46.53	17.67	0.00	902.43	127.73	0.00	774.70
210+50		50.00	27.26	6.43	0.00	47.97	14.39	0.00	950.40	142.12	0.00	808.28
210+94		44.17	30.03	4.29	0.00	46.86	8.77	0.00	997.26	150.89	0.00	846.37
211+00		5.48	30.40	4.20	0.00	6.13	0.86	0.00	1003.40	151.75	0.00	851.65
211+00		0.35	30.43	4.20	0.00	0.39	0.05	0.00	1003.79	151.81	0.00	851.99
211+19		19.17	32.23	3.76	0.00	22.24	2.83	0.00	1026.04	154.63	0.00	871.40
211+25		5.48	32.13	3.96	0.00	6.53	0.78	0.00	1032.57	155.42	0.00	877.15
211+44		19.52	30.89	4.15	0.00	22.78	2.93	0.00	1055.35	158.35	0.00	897.00
211+50		5.48	30.50	4.46	0.00	6.23	0.87	0.00	1061.58	159.22	0.00	902.36
211+50		0.35	30.48	4.46	0.00	0.40	0.06	0.00	1061.97	159.28	0.00	902.69
212+00		50.00	27.64	5.20	0.00	53.81	8.94	0.00	1115.79	168.22	0.00	947.56
212+00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	1115.79	168.22	0.00	947.56
212+50		50.00	27.81	6.65	0.00	25.75	6.16	0.00	1141.54	174.38	0.00	967.16
213+00	BK	50.00	0.00	0.00	0.00	25.75	6.16	0.00	1167.29	180.54	0.00	986.75
					Column totals	1167.29	180.54	0.00				

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PROJECT ID 1003-10-78

DIVISION 1 - SB STA. 243+00 - STA. 246+49 RT

STATION		Distance	AREA (SF)			Incremental Vol (CY) (Unadjusted)			Cumulative Vol (CY)			Mass Ordinate
			Cut	Fill	EBS	Cut	Fill	EBS	Cut	Fill	EBS	
243+00	AH	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
243+50		50.00	0.00	3.90	0.00	0.00	3.61	0.00	0.00	3.61	0.00	-3.61
244+00		50.00	0.00	4.26	0.00	0.00	7.56	0.00	0.00	11.17	0.00	-11.17
244+50		50.00	0.00	4.29	0.00	0.00	7.92	0.00	0.00	19.08	0.00	-19.08
245+00		50.00	0.00	4.15	0.00	0.00	7.81	0.00	0.00	26.90	0.00	-26.90
245+50		50.00	0.00	4.65	0.00	0.00	8.15	0.00	0.00	35.05	0.00	-35.05
246+00		50.00	0.00	4.51	0.00	0.00	8.48	0.00	0.00	43.53	0.00	-43.53
246+49	BK	49.35	0.00	4.79	0.00	0.00	8.50	0.00	0.00	52.03	0.00	-52.03
					Column totals	0.00	52.03	0.00				

PROJECT ID 1003-10-78

DIVISION 1 - SB STA. 246+49 - STA. 320+00 RT

STATION		Distance	AREA (SF)			Incremental Vol (CY) (Unadjusted)			Cumulative Vol (CY)			Mass Ordinate
			Cut	Fill	EBS	Cut	Fill	EBS	Cut	Fill	EBS	
246+49	AH	0.00	109.43	2.85	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
246+50		0.65	109.41	4.80	0.00	2.65	0.09	0.00	2.65	0.09	0.00	2.56
247+00		50.00	106.91	3.36	0.00	200.30	7.56	0.00	202.95	7.65	0.00	195.30
247+50		50.00	83.99	4.55	0.00	176.76	7.32	0.00	379.71	14.97	0.00	364.73
248+00		50.00	40.26	4.43	0.00	115.05	8.31	0.00	494.75	23.29	0.00	471.47
248+50		50.00	9.38	4.65	0.00	45.96	8.41	0.00	540.72	31.69	0.00	509.02
249+00		50.00	0.00	4.92	0.00	8.69	8.86	0.00	549.40	40.56	0.00	508.84
249+50		50.00	0.00	5.22	0.00	0.00	9.39	0.00	549.40	49.94	0.00	499.46
250+00		50.00	0.00	5.51	0.00	0.00	9.94	0.00	549.40	59.88	0.00	489.52
250+50		50.00	0.00	5.53	0.00	0.00	10.22	0.00	549.40	70.10	0.00	479.30
251+00		50.00	0.00	5.80	0.00	0.00	10.49	0.00	549.40	80.59	0.00	468.81
251+50		50.00	0.00	5.73	0.00	0.00	10.68	0.00	549.40	91.27	0.00	458.13
252+00		50.00	0.00	5.96	0.00	0.00	10.82	0.00	549.40	102.09	0.00	447.31
252+50		50.00	0.00	6.09	0.00	0.00	11.16	0.00	549.40	113.25	0.00	436.15
253+00		50.00	0.01	5.98	0.00	0.01	11.18	0.00	549.41	124.43	0.00	424.98
253+50		50.00	0.58	4.67	0.00	0.55	9.86	0.00	549.96	134.29	0.00	415.67
254+00		50.00	0.13	4.67	0.00	0.66	8.65	0.00	550.61	142.94	0.00	407.68
254+50		50.00	0.28	3.92	0.00	0.38	7.95	0.00	550.99	150.89	0.00	400.10
255+00		50.00	0.67	3.92	0.00	0.88	7.26	0.00	551.87	158.15	0.00	393.72
255+50		50.00	22.51	0.00	0.00	21.46	3.63	0.00	573.34	161.78	0.00	411.56
256+00		50.00	0.00	6.23	0.00	20.84	5.77	0.00	594.18	167.55	0.00	426.63
256+50		50.00	0.00	6.72	0.00	0.00	11.99	0.00	594.18	179.54	0.00	414.64
257+00		50.00	0.22	6.35	0.00	0.20	12.10	0.00	594.38	191.64	0.00	402.74
257+50		50.00	0.73	5.41	0.00	0.88	10.89	0.00	595.26	202.53	0.00	392.73
258+00		50.00	0.18	5.35	0.00	0.84	9.96	0.00	596.10	212.49	0.00	383.61
258+50		50.00	0.07	5.27	0.00	0.23	9.83	0.00	596.34	222.32	0.00	374.01

PROJECT ID 1003-10-78

DIVISION 1 - SB STA. 246+49 - STA. 320+00 RT

STATION	Distance	AREA (SF)			Incremental Vol (CY) (Unadjusted)			Cumulative Vol (CY)			Mass Ordinate
		Cut	Fill	EBS	Cut	Fill	EBS	Cut	Fill	EBS	
259+00	50.00	0.00	5.29	0.00	0.06	9.78	0.00	596.40	232.10	0.00	364.30
259+50	50.00	0.00	5.22	0.00	0.00	9.73	0.00	596.40	241.83	0.00	354.57
260+00	50.00	0.00	5.11	0.00	0.00	9.56	0.00	596.40	251.40	0.00	345.00
260+50	50.00	0.05	4.90	0.00	0.05	9.27	0.00	596.45	260.67	0.00	335.78
261+00	50.00	0.00	5.10	0.00	0.05	9.26	0.00	596.49	269.93	0.00	326.57
261+50	50.00	0.05	5.06	0.00	0.05	9.41	0.00	596.54	279.33	0.00	317.21
262+00	50.00	0.00	5.74	0.00	0.05	10.00	0.00	596.59	289.33	0.00	307.25
262+50	50.00	0.03	5.51	0.00	0.03	10.42	0.00	596.61	299.75	0.00	296.86
263+00	50.00	0.07	5.46	0.00	0.09	10.16	0.00	596.71	309.91	0.00	286.80
263+50	50.00	0.00	5.92	0.00	0.06	10.54	0.00	596.77	320.44	0.00	276.33
264+00	50.00	0.02	5.56	0.00	0.02	10.63	0.00	596.79	331.07	0.00	265.72
264+50	50.00	0.04	5.13	0.00	0.06	9.90	0.00	596.84	340.97	0.00	255.87
265+00	50.00	0.09	4.88	0.00	0.12	9.27	0.00	596.97	350.24	0.00	246.72
265+50	50.00	0.05	4.50	0.00	0.13	8.69	0.00	597.09	358.93	0.00	238.17
266+00	50.00	0.07	4.64	0.00	0.11	8.46	0.00	597.21	367.39	0.00	229.82
266+50	50.00	0.22	4.28	0.00	0.27	8.26	0.00	597.47	375.65	0.00	221.83
267+00	50.00	0.12	4.67	0.00	0.31	8.29	0.00	597.79	383.94	0.00	213.85
267+50	50.00	0.00	5.12	0.00	0.11	9.06	0.00	597.90	393.00	0.00	204.90
268+00	50.00	0.00	5.37	0.00	0.00	9.71	0.00	597.90	402.71	0.00	195.19
268+50	50.00	0.06	5.02	0.00	0.06	9.62	0.00	597.96	412.33	0.00	185.62
269+00	50.00	0.03	4.74	0.00	0.08	9.04	0.00	598.04	421.37	0.00	176.67
269+50	50.00	0.03	4.47	0.00	0.06	8.53	0.00	598.09	429.90	0.00	168.20
270+00	50.00	0.02	4.33	0.00	0.05	8.15	0.00	598.14	438.05	0.00	160.09
270+50	50.00	0.02	4.31	0.00	0.04	8.00	0.00	598.18	446.05	0.00	152.13
271+00	50.00	0.00	4.57	0.00	0.02	8.22	0.00	598.20	454.27	0.00	143.93
271+50	50.00	0.03	4.49	0.00	0.03	8.39	0.00	598.22	462.66	0.00	135.57
272+00	50.00	0.11	4.44	0.00	0.13	8.27	0.00	598.35	470.93	0.00	127.43
272+50	50.00	0.03	4.95	0.00	0.13	8.69	0.00	598.48	479.62	0.00	118.86
273+00	50.00	0.00	5.27	0.00	0.03	9.46	0.00	598.51	489.08	0.00	109.43
273+50	50.00	0.02	5.40	0.00	0.02	9.88	0.00	598.53	498.96	0.00	99.57
274+00	50.00	0.00	5.74	0.00	0.02	10.31	0.00	598.55	509.28	0.00	89.27
274+50	50.00	0.06	5.38	0.00	0.06	10.30	0.00	598.60	519.57	0.00	79.03
275+00	50.00	0.00	5.67	0.00	0.06	10.23	0.00	598.66	529.81	0.00	68.85
275+50	50.00	0.02	5.33	0.00	0.02	10.19	0.00	598.68	539.99	0.00	58.69
276+00	50.00	0.00	5.25	0.00	0.02	9.80	0.00	598.70	549.79	0.00	48.91
276+50	50.00	0.07	5.00	0.00	0.06	9.49	0.00	598.76	559.28	0.00	39.48
277+00	50.00	0.04	5.01	0.00	0.10	9.27	0.00	598.86	568.55	0.00	30.32
277+50	50.00	0.00	5.04	0.00	0.04	9.31	0.00	598.90	577.85	0.00	21.05
278+00	50.00	0.03	4.93	0.00	0.03	9.23	0.00	598.93	587.08	0.00	11.84
278+50	50.00	0.02	5.03	0.00	0.05	9.22	0.00	598.97	596.31	0.00	2.67
279+00	50.00	0.00	5.10	0.00	0.02	9.38	0.00	598.99	605.69	0.00	-6.69
279+50	50.00	0.00	4.88	0.00	0.00	9.24	0.00	598.99	614.93	0.00	-15.93
280+00	50.00	0.06	4.59	0.00	0.06	8.77	0.00	599.05	623.69	0.00	-24.65
280+50	50.00	0.08	4.62	0.00	0.13	8.53	0.00	599.18	632.22	0.00	-33.04
281+00	50.00	0.03	5.16	0.00	0.10	9.06	0.00	599.28	641.28	0.00	-42.00

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PROJECT ID 1003-10-78

DIVISION 1 - SB STA. 246+49 - STA. 320+00 RT

STATION	Distance	AREA (SF)			Incremental Vol (CY) (Unadjusted)			Cumulative Vol (CY)			Mass Ordinate
		Cut	Fill	EBS	Cut	Fill	EBS	Cut	Fill	EBS	
281+50	50.00	1.13	5.02	0.00	1.07	9.43	0.00	600.35	650.70	0.00	-50.35
282+00	50.00	1.04	6.47	0.00	2.01	10.64	0.00	602.36	661.34	0.00	-58.98
282+50	50.00	0.67	5.87	0.00	1.58	11.43	0.00	603.95	672.77	0.00	-68.82
283+00	50.00	0.44	5.27	0.00	1.03	10.31	0.00	604.97	683.08	0.00	-78.11
283+50	50.00	0.14	4.96	0.00	0.54	9.47	0.00	605.51	692.56	0.00	-87.04
284+00	50.00	0.02	4.70	0.00	0.15	8.94	0.00	605.66	701.50	0.00	-95.84
284+50	50.00	0.00	4.85	0.00	0.02	8.84	0.00	605.68	710.34	0.00	-104.66
285+00	50.00	0.07	4.23	0.00	0.06	8.41	0.00	605.74	718.75	0.00	-113.01
285+50	50.00	0.00	4.31	0.00	0.06	7.91	0.00	605.81	726.66	0.00	-120.85
286+00	50.00	0.04	3.91	0.00	0.04	7.61	0.00	605.84	734.27	0.00	-128.42
286+50	50.00	0.08	3.68	0.00	0.11	7.03	0.00	605.96	741.30	0.00	-135.34
287+00	50.00	0.03	3.68	0.00	0.10	6.81	0.00	606.06	748.11	0.00	-142.05
287+50	50.00	0.00	3.91	0.00	0.03	7.03	0.00	606.09	755.14	0.00	-149.05
288+00	50.00	0.00	3.82	0.00	0.00	7.16	0.00	606.09	762.30	0.00	-156.21
288+50	50.00	0.02	3.80	0.00	0.02	7.06	0.00	606.10	769.35	0.00	-163.25
289+00	50.00	0.06	3.71	0.00	0.07	6.95	0.00	606.18	776.31	0.00	-170.13
289+50	50.00	0.04	3.74	0.00	0.09	6.90	0.00	606.27	783.20	0.00	-176.93
290+00	50.00	0.00	4.33	0.00	0.04	7.47	0.00	606.31	790.68	0.00	-184.37
290+50	50.00	0.00	4.58	0.00	0.00	8.25	0.00	606.31	798.93	0.00	-192.62
291+00	50.00	1.08	3.63	0.00	1.00	7.60	0.00	607.31	806.53	0.00	-199.22
291+50	50.00	0.00	4.30	0.00	1.00	7.34	0.00	608.31	813.87	0.00	-205.56
292+00	50.00	0.00	4.91	0.00	0.00	8.53	0.00	608.31	822.40	0.00	-214.09
292+50	50.00	0.04	4.54	0.00	0.04	8.75	0.00	608.34	831.15	0.00	-222.80
293+00	50.00	0.00	4.65	0.00	0.04	8.51	0.00	608.38	839.66	0.00	-231.28
293+50	50.00	0.00	4.57	0.00	0.00	8.54	0.00	608.38	848.19	0.00	-239.81
294+00	50.00	0.00	4.82	0.00	0.00	8.69	0.00	608.38	856.89	0.00	-248.51
294+50	50.00	0.00	4.64	0.00	0.00	8.76	0.00	608.38	865.65	0.00	-257.27
295+00	50.00	0.00	4.53	0.00	0.00	8.49	0.00	608.38	874.14	0.00	-265.76
295+50	50.00	0.00	4.64	0.00	0.00	8.49	0.00	608.38	882.63	0.00	-274.25
295+78	27.58	0.00	4.51	0.00	0.00	4.67	0.00	608.38	887.30	0.00	-278.92
296+00	22.42	0.09	4.70	0.00	0.04	3.82	0.00	608.42	891.13	0.00	-282.71
296+50	50.00	0.00	5.97	0.00	0.08	9.88	0.00	608.50	901.01	0.00	-292.50
297+00	50.00	1.16	5.53	0.00	1.07	10.65	0.00	609.58	911.65	0.00	-302.08
297+50	50.00	2.00	3.99	0.00	2.93	8.81	0.00	612.50	920.47	0.00	-307.97
298+00	50.00	0.00	15.81	0.00	1.85	18.33	0.00	614.35	938.80	0.00	-324.45
298+50	50.00	0.21	8.78	0.00	0.19	22.77	0.00	614.55	961.57	0.00	-347.02
299+00	50.00	0.14	2.39	0.00	0.32	10.34	0.00	614.87	971.91	0.00	-357.04
299+50	50.00	0.27	0.92	0.00	0.38	3.06	0.00	615.25	974.98	0.00	-359.73
300+00	50.00	0.01	4.38	0.00	0.26	4.91	0.00	615.51	979.89	0.00	-364.37
300+50	50.00	0.00	20.88	0.00	0.01	23.39	0.00	615.52	1003.27	0.00	-387.75
301+00	50.00	0.03	7.11	0.00	0.03	25.92	0.00	615.55	1029.19	0.00	-413.64
301+50	50.00	0.00	6.25	0.00	0.03	12.37	0.00	615.58	1041.56	0.00	-425.99
302+00	50.00	0.00	5.59	0.00	0.00	10.96	0.00	615.58	1052.52	0.00	-436.95
302+50	50.00	0.00	5.51	0.00	0.00	10.28	0.00	615.58	1062.80	0.00	-447.23
303+00	50.00	0.00	5.01	0.00	0.00	9.74	0.00	615.58	1072.54	0.00	-456.97

PROJECT ID 1003-10-78

DIVISION 1 - SB STA. 246+49 - STA. 320+00 RT

STATION		Distance	AREA (SF)			Incremental Vol (CY) (Unadjusted)			Cumulative Vol (CY)			Mass Ordinate
			Cut	Fill	EBS	Cut	Fill	EBS	Cut	Fill	EBS	
303+50		50.00	0.00	4.55	0.00	0.00	8.85	0.00	615.58	1081.40	0.00	-465.82
304+00		50.00	0.00	4.38	0.00	0.00	8.27	0.00	615.58	1089.66	0.00	-474.09
304+50		50.00	0.00	4.24	0.00	0.00	7.98	0.00	615.58	1097.65	0.00	-482.07
305+00		50.00	0.10	4.13	0.00	0.09	7.75	0.00	615.67	1105.40	0.00	-489.73
305+50		50.00	0.15	4.07	0.00	0.23	7.59	0.00	615.90	1112.99	0.00	-497.09
306+00		50.00	0.02	4.47	0.00	0.16	7.91	0.00	616.06	1120.90	0.00	-504.84
306+50		50.00	0.00	4.68	0.00	0.02	8.47	0.00	616.08	1129.37	0.00	-513.29
307+00		50.00	0.08	4.61	0.00	0.07	8.60	0.00	616.15	1137.97	0.00	-521.82
307+50		50.00	0.15	4.62	0.00	0.21	8.55	0.00	616.36	1146.52	0.00	-530.15
308+00		50.00	0.07	4.70	0.00	0.20	8.63	0.00	616.57	1155.15	0.00	-538.58
308+50		50.00	0.14	4.35	0.00	0.19	8.38	0.00	616.76	1163.52	0.00	-546.76
309+00		50.00	0.00	5.27	0.00	0.13	8.91	0.00	616.89	1172.43	0.00	-555.54
309+50		50.00	0.00	5.51	0.00	0.00	9.98	0.00	616.89	1182.41	0.00	-565.52
310+00		50.00	0.00	5.73	0.00	0.00	10.41	0.00	616.89	1192.82	0.00	-575.93
310+50		50.00	0.00	5.55	0.00	0.00	10.44	0.00	616.89	1203.27	0.00	-586.37
311+00		50.00	0.00	5.31	0.00	0.00	10.06	0.00	616.89	1213.32	0.00	-596.43
311+50		50.00	0.03	4.63	0.00	0.03	9.20	0.00	616.92	1222.52	0.00	-605.61
312+00		50.00	0.01	4.54	0.00	0.04	8.49	0.00	616.96	1231.02	0.00	-614.06
312+50		50.00	0.00	4.47	0.00	0.01	8.34	0.00	616.97	1239.36	0.00	-622.39
313+00		50.00	0.00	4.49	0.00	0.00	8.30	0.00	616.97	1247.65	0.00	-630.69
313+50		50.00	0.00	4.70	0.00	0.00	8.51	0.00	616.97	1256.16	0.00	-639.20
314+00		50.00	0.00	4.58	0.00	0.00	8.59	0.00	616.97	1264.76	0.00	-647.79
314+50		50.00	0.02	4.53	0.00	0.02	8.44	0.00	616.98	1273.19	0.00	-656.21
315+00		50.00	0.00	5.03	0.00	0.02	8.85	0.00	617.00	1282.04	0.00	-665.04
315+50		50.00	0.00	4.79	0.00	0.00	9.09	0.00	617.00	1291.14	0.00	-674.13
316+00		50.00	0.00	4.66	0.00	0.00	8.75	0.00	617.00	1299.89	0.00	-682.88
316+50		50.00	0.00	4.79	0.00	0.00	8.75	0.00	617.00	1308.64	0.00	-691.63
317+00		50.00	0.00	5.27	0.00	0.00	9.31	0.00	617.00	1317.95	0.00	-700.95
317+50		50.00	0.00	5.44	0.00	0.00	9.92	0.00	617.00	1327.87	0.00	-710.86
317+66		16.27	0.00	5.53	0.00	0.00	3.31	0.00	617.00	1331.17	0.00	-714.17
318+00		33.73	0.00	5.78	0.00	0.00	7.06	0.00	617.00	1338.24	0.00	-721.23
318+50		50.00	5.46	0.17	0.00	5.06	5.51	0.00	622.06	1343.75	0.00	-721.69
319+00		50.00	5.87	0.00	0.00	10.49	0.16	0.00	632.55	1343.90	0.00	-711.36
319+16		16.27	6.02	0.00	0.00	3.58	0.00	0.00	636.13	1343.90	0.00	-707.77
319+50		33.73	6.29	0.00	0.00	7.69	0.00	0.00	643.82	1343.90	0.00	-700.08
320+00	BK	50.00	6.73	0.00	0.00	12.06	0.00	0.00	655.88	1343.90	0.00	-688.03
					Column totals	655.88	1343.90	0.00				

PROJECT ID 1003-10-78

DIVISION 2 - SB STA. 110+00 - STA. 202+00 LT

STATION	Distance	AREA (SF)			Incremental Vol (CY) (Unadjusted)			Cumulative Vol (CY)			Mass Ordinate
		Cut	Fill	EBS	Cut	Fill	EBS	Cut	Fill	EBS	
110+00 AH	0.00	47.28	0.00	59.94	0.00	0.00	0.00	0.00	0.00	0.00	0.00
110+50	50.00	47.04	0.01	44.16	87.33	0.01	96.39	87.33	0.01	96.39	87.32
111+00	50.00	46.75	0.00	44.16	86.84	0.01	81.78	174.18	0.02	178.17	174.16
111+50	50.00	43.19	0.00	44.16	83.28	0.00	81.78	257.45	0.02	259.95	257.44
112+00	50.00	32.07	0.78	44.16	69.69	0.72	81.78	327.14	0.74	341.73	326.40
112+28	27.91	32.09	0.04	44.16	33.17	0.42	45.66	360.30	1.16	387.39	359.14
112+50	22.09	30.19	0.25	44.16	25.47	0.12	36.12	385.78	1.28	423.51	384.49
113+00	50.00	33.26	0.04	44.16	58.75	0.27	81.78	444.53	1.55	505.29	442.98
113+33	33.05	29.09	0.07	44.16	38.16	0.07	54.05	482.69	1.62	559.34	481.07
113+50	16.95	27.86	0.08	44.16	17.88	0.05	27.73	500.56	1.67	587.07	498.90
114+00	50.00	28.18	0.06	44.16	51.89	0.13	81.78	552.45	1.80	668.85	550.66
114+50	50.00	25.22	0.12	44.16	49.44	0.17	81.78	601.90	1.96	750.63	599.93
114+61	10.72	26.39	0.07	44.16	10.24	0.04	17.53	612.14	2.00	768.16	610.14
115+00	39.28	27.16	2.76	44.16	38.95	2.06	64.25	651.10	4.06	832.41	647.04
115+50	50.00	26.12	22.00	44.16	49.33	22.93	81.78	700.43	26.98	914.19	673.44
116+00	50.00	27.85	7.49	44.16	49.97	27.31	81.78	750.40	54.29	995.97	696.11
116+50	50.00	29.53	8.45	44.16	53.13	14.76	81.78	803.53	69.05	1077.75	734.48
117+00	50.00	28.60	17.28	44.16	53.82	23.82	81.78	857.35	92.87	1159.53	764.48
117+50	50.00	27.43	36.03	44.16	51.88	49.36	81.78	909.23	142.23	1241.31	767.00
118+00	50.00	27.26	51.47	44.16	50.64	81.02	81.78	959.87	223.25	1323.09	736.62
118+50	50.00	27.76	45.66	44.16	50.94	89.94	81.78	1010.82	313.19	1404.87	697.63
119+00	50.00	28.76	45.56	44.16	52.33	84.46	81.78	1063.15	397.65	1486.65	665.50
119+50	50.00	30.57	45.82	44.16	54.94	84.61	81.78	1118.09	482.26	1568.43	635.82
120+00	50.00	31.96	49.34	28.38	57.90	88.11	67.17	1175.98	570.37	1635.60	605.61
120+50	50.00	29.38	47.81	29.85	56.80	89.95	53.91	1232.78	660.33	1689.51	572.45
121+00	50.00	30.58	51.32	29.85	55.52	91.79	55.27	1288.30	752.11	1744.78	536.18
121+50	50.00	29.99	47.07	29.85	56.08	91.10	55.27	1344.38	843.22	1800.05	501.17
122+00	50.00	32.80	43.32	29.85	58.14	83.69	55.27	1402.52	926.91	1855.32	475.61
122+50	50.00	32.89	42.30	29.85	60.82	79.28	55.27	1463.35	1006.19	1910.59	457.16
123+00	50.00	29.73	42.16	29.85	57.98	78.20	55.27	1521.33	1084.39	1965.86	436.93
123+50	50.00	29.53	35.66	29.85	54.87	72.06	55.27	1576.20	1156.45	2021.13	419.75
124+00	50.00	28.33	35.13	29.85	53.57	65.55	55.27	1629.77	1221.99	2076.40	407.78
124+50	50.00	28.19	32.19	29.85	52.33	62.33	55.27	1682.10	1284.33	2131.67	397.78
125+00	50.00	31.09	30.21	29.85	54.89	57.78	55.27	1736.99	1342.11	2186.94	394.89
125+50	50.00	32.43	30.48	29.85	58.81	56.19	55.27	1795.81	1398.30	2242.21	397.51
126+00	50.00	32.57	44.97	29.85	60.19	69.86	55.27	1855.99	1468.16	2297.48	387.83
126+05	4.53	32.48	46.30	29.85	5.46	7.65	5.01	1861.45	1475.82	2302.49	385.63
126+50	45.47	30.17	49.44	29.85	52.75	80.62	50.26	1914.20	1556.43	2352.75	357.77
127+00	50.00	28.79	50.77	29.85	54.59	92.79	55.27	1968.80	1649.22	2408.02	319.58
127+32	32.20	26.20	47.49	29.85	32.79	58.59	35.59	2001.59	1707.81	2443.61	293.77
127+50	17.80	27.45	39.36	29.85	17.69	28.63	19.68	2019.27	1736.44	2463.29	282.83
128+00	50.00	29.47	20.11	29.85	52.70	55.06	55.27	2071.98	1791.51	2518.56	280.47
128+37	37.33	27.40	16.58	29.85	39.32	25.37	41.27	2111.29	1816.87	2559.83	294.42

PROJECT ID 1003-10-78

DIVISION 2 - SB STA. 110+00 - STA. 202+00 LT

STATION	Distance	AREA (SF)			Incremental Vol (CY) (Unadjusted)			Cumulative Vol (CY)			Mass Ordinate
		Cut	Fill	EBS	Cut	Fill	EBS	Cut	Fill	EBS	
128+50	12.67	26.91	21.07	29.85	12.74	8.83	14.00	2124.03	1825.70	2573.83	298.33
129+00	50.00	25.89	11.01	29.85	48.89	29.70	55.27	2172.92	1855.41	2629.10	317.51
129+50	50.00	30.55	2.77	29.85	52.26	12.76	55.27	2225.18	1868.17	2684.37	357.01
130+00	50.00	29.54	3.91	31.31	55.64	6.19	56.62	2280.82	1874.35	2740.99	406.47
130+50	50.00	31.16	3.76	35.05	56.20	7.10	61.44	2337.02	1881.45	2802.43	455.57
131+00	50.00	30.50	4.58	35.05	57.09	7.72	64.91	2394.12	1889.18	2867.34	504.94
131+50	50.00	31.27	4.30	35.05	57.19	8.22	64.91	2451.31	1897.40	2932.25	553.91
132+00	50.00	31.88	3.76	35.05	58.47	7.46	64.91	2509.78	1904.86	2997.16	604.92
132+50	50.00	32.50	3.64	35.05	59.61	6.85	64.91	2569.39	1911.71	3062.07	657.68
133+00	50.00	31.29	5.32	35.05	59.06	8.30	64.91	2628.46	1920.01	3126.98	708.45
133+50	50.00	30.24	10.55	35.05	56.97	14.69	64.91	2685.43	1934.70	3191.89	750.73
134+00	50.00	31.00	18.29	35.05	56.70	26.70	64.91	2742.13	1961.41	3256.80	780.73
134+50	50.00	30.39	25.62	35.05	56.84	40.66	64.91	2798.98	2002.06	3321.71	796.91
135+00	50.00	30.71	26.41	35.05	56.57	48.18	64.91	2855.55	2050.24	3386.62	805.31
135+50	50.00	31.69	24.66	35.05	57.78	47.29	64.91	2913.33	2097.53	3451.53	815.80
136+00	50.00	30.25	29.69	35.05	57.35	50.32	64.91	2970.68	2147.85	3516.44	822.83
136+50	50.00	31.31	22.79	35.05	57.00	48.59	64.91	3027.68	2196.44	3581.35	831.24
137+00	50.00	31.19	21.11	35.05	57.87	40.65	64.91	3085.55	2237.09	3646.26	848.46
137+50	50.00	31.85	23.55	35.05	58.37	41.35	64.91	3143.92	2278.44	3711.17	865.48
138+00	50.00	31.86	22.73	35.05	58.99	42.85	64.91	3202.91	2321.30	3776.08	881.62
138+50	50.00	30.85	19.83	35.05	58.06	39.41	64.91	3260.98	2360.70	3840.99	900.27
139+00	50.00	29.79	18.27	35.05	56.15	35.28	64.91	3317.12	2395.98	3905.90	921.14
139+50	50.00	27.58	17.87	35.05	53.12	33.46	64.91	3370.25	2429.44	3970.81	940.80
140+00	50.00	28.73	14.72	38.79	52.14	30.18	68.38	3422.38	2459.62	4039.19	962.76
140+50	50.00	29.12	9.30	40.59	53.56	22.24	73.50	3475.95	2481.86	4112.69	994.09
141+00	50.00	31.22	6.07	40.59	55.87	14.23	75.16	3531.82	2496.09	4187.85	1035.73
141+50	50.00	31.50	7.39	40.59	58.07	12.46	75.16	3589.89	2508.56	4263.01	1081.34
142+00	50.00	34.96	7.30	40.59	61.54	13.60	75.16	3651.43	2522.16	4338.17	1129.27
142+50	50.00	35.61	5.75	40.59	65.34	12.08	75.16	3716.77	2534.24	4413.33	1182.53
143+00	50.00	36.03	4.54	40.59	66.33	9.53	75.16	3783.11	2543.77	4488.49	1239.34
143+50	50.00	37.66	4.81	40.59	68.23	8.66	75.16	3851.34	2552.43	4563.65	1298.91
144+00	50.00	38.80	4.23	40.59	70.80	8.37	75.16	3922.13	2560.80	4638.81	1361.34
144+50	50.00	41.00	1.89	40.59	73.89	5.67	75.16	3996.02	2566.46	4713.97	1429.56
145+00	50.00	38.85	2.85	40.59	73.94	4.39	75.16	4069.96	2570.85	4789.13	1499.11
145+50	50.00	44.68	0.94	40.59	77.34	3.51	75.16	4147.30	2574.36	4864.29	1572.94
146+00	50.00	39.03	11.95	40.59	77.51	11.94	75.16	4224.81	2586.30	4939.45	1638.51
146+50	50.00	40.01	9.98	40.59	73.19	20.31	75.16	4298.00	2606.60	5014.61	1691.39
147+00	50.00	37.47	9.41	40.59	71.74	17.95	75.16	4369.74	2624.56	5089.77	1745.18
147+50	50.00	35.18	11.54	40.59	67.27	19.40	75.16	4437.00	2643.95	5164.93	1793.05
148+00	50.00	36.75	10.73	40.59	66.60	20.62	75.16	4503.61	2664.57	5240.09	1839.03
148+50	50.00	28.36	16.74	40.59	60.29	25.44	75.16	4563.89	2690.01	5315.25	1873.88
149+00	50.00	29.14	16.95	40.59	53.24	31.19	75.16	4617.13	2721.20	5390.41	1895.93
149+50	50.00	29.35	24.59	40.59	54.16	38.46	75.16	4671.29	2759.67	5465.57	1911.63

PROJECT ID 1003-10-78

DIVISION 2 - SB STA. 110+00 - STA. 202+00 LT

STATION	Distance	AREA (SF)			Incremental Vol (CY) (Unadjusted)			Cumulative Vol (CY)			Mass Ordinate
		Cut	Fill	EBS	Cut	Fill	EBS	Cut	Fill	EBS	
150+00	50.00	30.65	19.90	42.38	55.56	41.19	76.83	4726.85	2800.86	5542.40	1925.99
150+50	50.00	30.60	14.79	36.77	56.71	32.12	73.29	4783.56	2832.98	5615.69	1950.58
151+00	50.00	33.83	7.68	36.77	59.66	20.81	68.08	4843.22	2853.79	5683.77	1989.43
151+50	50.00	37.43	6.71	36.77	65.98	13.32	68.08	4909.20	2867.11	5751.85	2042.09
152+00	50.00	33.90	7.88	36.77	66.05	13.51	68.08	4975.25	2880.62	5819.93	2094.63
152+50	50.00	34.21	8.01	36.77	63.06	14.71	68.08	5038.31	2895.33	5888.01	2142.98
153+00	50.00	33.99	7.15	36.77	63.15	14.04	68.08	5101.46	2909.37	5956.09	2192.09
153+50	50.00	35.26	8.80	36.77	64.12	14.77	68.08	5165.58	2924.14	6024.17	2241.44
154+00	50.00	35.26	6.60	36.77	65.30	14.26	68.08	5230.87	2938.40	6092.25	2292.48
154+50	50.00	32.42	7.88	36.77	62.67	13.41	68.08	5293.54	2951.81	6160.33	2341.74
155+00	50.00	29.63	11.07	36.77	57.45	17.55	68.08	5351.00	2969.35	6228.41	2381.64
155+50	50.00	30.38	8.82	36.77	55.56	18.42	68.08	5406.56	2987.77	6296.49	2418.79
156+00	50.00	33.96	4.13	36.77	59.57	11.99	68.08	5466.13	2999.76	6364.57	2466.38
156+50	50.00	32.99	2.76	36.77	61.99	6.38	68.08	5528.12	3006.14	6432.65	2521.99
157+00	50.00	34.76	1.94	36.77	62.73	4.35	68.08	5590.86	3010.49	6500.73	2580.37
157+50	50.00	33.13	2.87	36.77	62.86	4.45	68.08	5653.72	3014.94	6568.81	2638.77
158+00	50.00	29.11	4.79	36.77	57.63	7.09	68.08	5711.35	3022.04	6636.89	2689.31
158+50	50.00	29.76	14.38	36.77	54.51	17.75	68.08	5765.86	3039.79	6704.97	2726.07
159+00	50.00	26.89	16.31	36.77	52.45	28.42	68.08	5818.31	3068.20	6773.05	2750.11
159+50	50.00	25.69	14.94	36.77	48.69	28.94	68.08	5867.00	3097.14	6841.13	2769.86
160+00	50.00	23.93	15.32	31.15	45.94	28.02	62.88	5912.94	3125.16	6904.01	2787.78
160+50	50.00	32.43	9.82	31.49	52.19	23.28	58.00	5965.12	3148.43	6962.01	2816.69
161+00	50.00	0.00	265.74	31.49	30.03	255.15	58.31	5995.15	3403.58	7020.32	2591.57
161+50	50.00	0.00	487.52	31.49	0.00	697.46	58.31	5995.15	4101.05	7078.63	1894.11
162+00	50.00	0.00	283.51	31.49	0.00	713.92	58.31	5995.15	4814.96	7136.94	1180.19
162+50	50.00	28.50	0.03	31.49	26.39	262.54	58.31	6021.54	5077.50	7195.25	944.04
163+00	50.00	22.84	7.35	31.49	47.54	6.83	58.31	6069.08	5084.33	7253.56	984.75
163+50	50.00	24.39	16.64	31.49	43.73	22.21	58.31	6112.81	5106.55	7311.87	1006.26
164+00	50.00	24.80	16.66	31.49	45.55	30.83	58.31	6158.36	5137.38	7370.18	1020.98
164+50	50.00	25.42	17.80	31.49	46.50	31.91	58.31	6204.86	5169.29	7428.49	1035.57
165+00	50.00	25.61	13.80	31.49	47.25	29.26	58.31	6252.11	5198.55	7486.80	1053.56
165+50	50.00	24.78	15.32	31.49	46.66	26.96	58.31	6298.76	5225.51	7545.11	1073.25
166+00	50.00	26.93	10.37	31.49	47.88	23.79	58.31	6346.64	5249.30	7603.42	1097.35
166+50	50.00	26.54	12.85	31.49	49.51	21.50	58.31	6396.15	5270.80	7661.73	1125.36
167+00	50.00	26.28	14.39	31.49	48.91	25.22	58.31	6445.06	5296.02	7720.04	1149.04
167+50	50.00	25.20	15.94	31.49	47.67	28.08	58.31	6492.73	5324.10	7778.35	1168.63
168+00	50.00	28.01	17.16	31.49	49.27	30.65	58.31	6542.00	5354.75	7836.66	1187.25
168+50	50.00	26.27	25.35	31.49	50.26	39.36	58.31	6592.25	5394.11	7894.97	1198.14
169+00	50.00	26.76	14.24	31.49	49.10	36.66	58.31	6641.36	5430.77	7953.28	1210.59
169+50	50.00	27.92	51.84	31.49	50.63	61.19	58.31	6691.99	5491.95	8011.59	1200.03
170+00	50.00	25.86	40.27	31.83	49.80	85.29	58.63	6741.78	5577.24	8070.22	1164.54
170+50	50.00	24.02	29.00	37.85	46.19	64.14	64.52	6787.97	5641.38	8134.74	1146.59
171+00	50.00	28.21	11.78	37.85	48.36	37.76	70.09	6836.33	5679.14	8204.83	1157.19

PROJECT ID 1003-10-78

DIVISION 2 - SB STA. 110+00 - STA. 202+00 LT

STATION	Distance	AREA (SF)			Incremental Vol (CY) (Unadjusted)			Cumulative Vol (CY)			Mass Ordinate
		Cut	Fill	EBS	Cut	Fill	EBS	Cut	Fill	EBS	
171+50	50.00	27.50	9.81	37.85	51.58	19.99	70.09	6887.91	5699.13	8274.92	1188.78
172+00	50.00	29.99	9.26	37.85	53.23	17.66	70.09	6941.14	5716.79	8345.01	1224.36
172+50	50.00	23.07	15.83	37.85	49.13	23.23	70.09	6990.27	5740.02	8415.10	1250.25
173+00	50.00	26.82	10.07	37.85	46.19	23.98	70.09	7036.47	5764.00	8485.19	1272.47
173+50	50.00	26.23	6.39	37.85	49.12	15.24	70.09	7085.59	5779.24	8555.28	1306.35
174+00	50.00	24.50	5.40	37.85	46.97	10.92	70.09	7132.56	5790.16	8625.37	1342.40
174+50	50.00	24.21	4.65	37.85	45.10	9.31	70.09	7177.66	5799.46	8695.46	1378.20
174+70	19.80	23.99	4.19	37.85	17.67	3.24	27.75	7195.34	5802.70	8723.21	1392.63
175+00	30.20	24.74	3.83	37.85	27.25	4.49	42.33	7222.59	5807.19	8765.54	1415.40
175+50	50.00	26.46	4.42	37.85	47.41	7.64	70.09	7270.00	5814.83	8835.63	1455.17
176+00	50.00	26.05	5.54	37.85	48.62	9.22	70.09	7318.62	5824.05	8905.72	1494.57
176+20	20.00	27.14	4.40	37.85	19.70	3.68	28.03	7338.31	5827.73	8933.75	1510.58
176+50	30.00	27.84	2.89	37.85	30.55	4.05	42.06	7368.86	5831.78	8975.81	1537.08
177+00	50.00	29.71	1.13	37.85	53.29	3.72	70.09	7422.15	5835.50	9045.90	1586.64
177+50	50.00	31.52	0.15	37.85	56.69	1.19	70.09	7478.84	5836.69	9115.99	1642.15
178+00	50.00	34.92	0.00	37.85	61.52	0.14	70.09	7540.36	5836.83	9186.08	1703.53
178+50	50.00	32.25	0.02	37.85	62.19	0.02	70.09	7602.55	5836.85	9256.17	1765.71
178+75	25.34	34.96	0.00	37.85	31.54	0.01	35.52	7634.10	5836.86	9291.69	1797.24
179+00	24.66	35.14	0.00	37.85	32.01	0.00	34.56	7666.11	5836.86	9326.25	1829.25
179+50	50.00	36.27	0.05	37.85	66.12	0.05	70.09	7732.23	5836.90	9396.34	1895.32
180+00	50.00	37.19	0.04	43.86	68.02	0.08	75.65	7800.24	5836.99	9471.99	1963.26
180+03	3.00	36.96	0.03	25.79	4.11	0.00	3.86	7804.36	5836.99	9475.85	1967.37
180+50	47.00	37.56	0.00	25.79	64.87	0.03	44.90	7869.22	5837.02	9520.75	2032.21
181+00	50.00	36.00	0.00	25.79	68.11	0.00	47.76	7937.34	5837.02	9568.51	2100.32
181+50	50.00	26.14	1.70	25.79	57.54	1.57	47.76	7994.87	5838.59	9616.27	2156.28
182+00	50.00	41.96	1.23	25.79	63.06	2.71	47.76	8057.93	5841.30	9664.03	2216.63
182+50	50.00	32.66	0.22	25.79	69.09	1.34	47.76	8127.02	5842.65	9711.79	2284.38
183+00	50.00	20.80	1.08	25.79	49.50	1.20	47.76	8176.52	5843.85	9759.55	2332.67
183+50	50.00	23.13	1.93	25.79	40.68	2.79	47.76	8217.20	5846.64	9807.31	2370.56
184+00	50.00	23.37	4.55	25.79	43.06	6.00	47.76	8260.25	5852.64	9855.07	2407.62
184+50	50.00	26.22	5.36	25.79	45.92	9.18	47.76	8306.17	5861.81	9902.83	2444.36
185+00	50.00	27.14	7.51	25.79	49.41	11.92	47.76	8355.58	5873.73	9950.59	2481.85
185+50	50.00	27.12	13.50	25.79	50.24	19.45	47.76	8405.82	5893.18	9998.35	2512.63
186+00	50.00	27.74	21.39	25.79	50.80	32.31	47.76	8456.61	5925.49	10046.11	2531.13
186+50	50.00	28.22	27.65	25.79	51.81	45.41	47.76	8508.43	5970.90	10093.87	2537.53
187+00	50.00	32.98	30.93	25.79	56.67	54.24	47.76	8565.09	6025.14	10141.63	2539.96
187+50	50.00	27.75	43.02	25.79	56.23	68.47	47.76	8621.33	6093.61	10189.39	2527.72
188+00	50.00	28.77	57.09	25.79	52.33	92.69	47.76	8673.66	6186.30	10237.15	2487.36
188+50	50.00	29.61	61.55	25.79	54.06	109.85	47.76	8727.71	6296.15	10284.91	2431.56
189+00	50.00	27.88	70.33	25.79	53.23	122.11	47.76	8780.95	6418.27	10332.67	2362.68
189+50	50.00	28.30	59.57	25.79	52.02	120.28	47.76	8832.96	6538.54	10380.43	2294.42
190+00	50.00	28.40	57.52	7.72	52.50	108.42	31.03	8885.46	6646.96	10411.46	2238.50
190+50	50.00	26.25	59.19	7.72	50.60	108.06	14.30	8936.07	6755.02	10425.76	2181.04

PROJECT ID 1003-10-78

DIVISION 2 - SB STA. 110+00 - STA. 202+00 LT

STATION		Distance	AREA (SF)			Incremental Vol (CY) (Unadjusted)			Cumulative Vol (CY)			Mass Ordinate
			Cut	Fill	EBS	Cut	Fill	EBS	Cut	Fill	EBS	
191+00		50.00	29.88	47.59	7.72	51.97	98.87	14.30	8988.04	6853.90	10440.06	2134.14
191+50		50.00	30.83	42.58	7.72	56.21	83.49	14.30	9044.25	6937.39	10454.36	2106.87
192+00		50.00	31.21	36.82	7.72	57.44	73.52	14.30	9101.70	7010.90	10468.66	2090.79
192+50		50.00	30.39	33.81	7.72	57.04	65.40	14.30	9158.73	7076.30	10482.96	2082.43
193+00		50.00	30.44	28.90	7.72	56.32	58.06	14.30	9215.06	7134.37	10497.26	2080.69
193+50		50.00	24.82	28.41	7.72	51.17	53.06	14.30	9266.22	7187.43	10511.56	2078.79
194+00		50.00	23.50	22.36	7.72	44.74	47.01	14.30	9310.96	7234.44	10525.86	2076.52
194+50		50.00	22.68	20.32	7.72	42.76	39.52	14.30	9353.72	7273.96	10540.16	2079.76
195+00		50.00	25.01	19.63	7.72	44.16	36.99	14.30	9397.88	7310.95	10554.46	2086.93
195+50		50.00	26.76	18.83	7.72	47.94	35.61	14.30	9445.82	7346.56	10568.76	2099.25
196+00		50.00	26.37	17.55	7.72	49.19	33.69	14.30	9495.01	7380.25	10583.06	2114.76
196+50		50.00	26.75	14.33	7.72	49.19	29.52	14.30	9544.20	7409.77	10597.36	2134.43
197+00		50.00	28.04	12.63	7.72	50.73	24.96	14.30	9594.93	7434.73	10611.66	2160.20
197+50		50.00	27.08	13.80	7.72	51.04	24.47	14.30	9645.96	7459.20	10625.96	2186.76
198+00		50.00	26.26	13.65	7.72	49.39	25.42	14.30	9695.35	7484.62	10640.26	2210.74
198+50		50.00	27.27	12.32	7.72	49.56	24.05	14.30	9744.92	7508.66	10654.56	2236.25
198+55		4.67	27.16	12.25	7.72	4.71	2.12	1.34	9749.63	7510.79	10655.90	2238.84
199+00		45.33	28.74	10.06	7.72	46.92	18.73	12.96	9796.55	7529.52	10668.86	2267.03
199+50		50.00	24.90	11.05	7.72	49.67	19.55	14.30	9846.22	7549.06	10683.16	2297.15
199+82		32.32	36.28	11.99	7.72	36.62	13.79	9.24	9882.84	7562.85	10692.40	2319.98
200+00		17.68	58.58	11.16	7.72	31.05	7.58	5.05	9913.89	7570.43	10697.45	2343.46
200+50		50.00	158.39	10.01	7.72	200.90	19.60	14.30	10114.79	7590.03	10711.75	2524.75
201+00		50.00	251.99	8.13	7.72	379.98	16.80	14.30	10494.77	7606.83	10726.05	2887.94
201+50		50.00	281.32	75.31	7.72	493.81	77.26	14.30	10988.58	7684.09	10740.35	3304.49
202+00	BK	50.00	0.00	0.00	7.72	260.48	69.73	14.30	11249.06	7753.82	10754.65	3495.24
					Column totals	11249.06	7753.82	10754.71				

PROJECT ID 1003-10-78

DIVISION 2 - SB STA. 204+16 - STA. 213+00 LT

STATION		Distance	AREA (SF)			Incremental Vol (CY) (Unadjusted)			Cumulative Vol (CY)			Mass Ordinate
			Cut	Fill	EBS	Cut	Fill	EBS	Cut	Fill	EBS	
204+16	AH	0.00	18.24	1.13	24.92	0.00	0.00	0.00	0.00	0.00	0.00	0.00
204+50		34.07	18.30	1.27	24.92	23.06	1.51	31.44	23.06	1.51	31.44	21.54
205+00		50.00	18.34	1.18	24.92	33.93	2.27	46.14	56.98	3.78	77.58	53.20
205+50		50.00	18.42	1.70	24.92	34.04	2.67	46.14	91.02	6.45	123.72	84.57
206+00		50.00	18.68	2.17	24.92	34.35	3.58	46.14	125.37	10.03	169.86	115.34
206+50		50.00	20.32	1.56	24.92	36.11	3.45	46.14	161.48	13.49	216.00	147.99
207+00		50.00	21.31	1.74	24.92	38.55	3.06	46.14	200.03	16.54	262.14	183.49
207+50		50.00	20.16	2.76	24.92	38.40	4.17	46.14	238.43	20.71	308.28	217.72
208+00		50.00	17.85	3.41	24.92	35.19	5.71	46.14	273.62	26.42	354.42	247.20
208+50		50.00	16.02	3.56	24.92	31.36	6.45	46.14	304.98	32.88	400.56	272.11
209+00		50.00	17.03	4.43	24.92	30.60	7.40	46.14	335.58	40.27	446.70	295.31
209+50		50.00	19.16	3.57	24.92	33.51	7.41	46.14	369.09	47.68	492.84	321.41
210+00		50.00	17.62	8.48	24.92	34.06	11.16	46.14	403.15	58.84	538.98	344.31
210+50		50.00	19.09	15.82	24.92	33.99	22.50	46.14	437.14	81.34	585.12	355.80
210+94		44.17	20.89	25.20	24.92	32.70	33.55	40.76	469.84	114.89	625.88	354.95
211+00		5.48	21.18	25.88	24.92	4.27	5.18	5.06	474.11	120.07	630.94	354.04
211+00		0.35	21.20	25.94	24.92	0.27	0.34	0.32	474.38	120.41	631.26	353.97
211+19		19.17	21.73	29.35	24.92	15.24	19.63	17.69	489.63	140.04	648.95	349.59
211+25		5.48	21.85	32.09	24.92	4.42	6.24	5.06	494.05	146.27	654.01	347.77
211+44		19.52	22.05	30.23	24.92	15.87	22.53	18.01	509.92	168.80	672.02	341.12
211+50		5.48	21.92	26.62	24.92	4.46	5.77	5.06	514.38	174.57	677.08	339.81
211+50		0.35	21.91	26.47	24.92	0.28	0.34	0.32	514.66	174.91	677.40	339.75
212+00		50.00	20.07	48.26	24.92	38.87	69.19	46.14	553.53	244.11	723.54	309.42
212+00		0.00	0.00	0.00	24.92	0.00	0.00	0.00	553.53	244.11	723.54	309.42
212+50		50.00	19.70	20.05	24.92	18.24	18.56	46.14	571.77	262.67	769.68	309.10
213+00	BK	50.00	0.00	0.00	24.92	18.24	18.56	46.14	590.01	281.24	815.82	308.78
					Column totals	590.01	281.24	815.89				

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PROJECT ID 1003-10-78

DIVISION 2 - SB STA. 243+00 - STA. 246+49 LT

STATION		Distance	AREA (SF)			Incremental Vol (CY) (Unadjusted)			Cumulative Vol (CY)			Mass Ordinate
			Cut	Fill	EBS	Cut	Fill	EBS	Cut	Fill	EBS	
243+00	AH	0.00	0.00	0.00	24.92	0.00	0.00	0.00	0.00	0.00	0.00	0.00
243+50		50.00	18.05	4.55	24.92	16.71	4.21	46.14	16.71	4.21	46.14	12.50
244+00		50.00	19.77	2.55	24.92	35.02	6.57	46.14	51.73	10.79	92.28	40.94
244+50		50.00	22.16	2.09	24.92	38.82	4.30	46.14	90.56	15.08	138.42	75.47
245+00		50.00	22.54	0.98	24.92	41.39	2.84	46.14	131.94	17.93	184.56	114.02
245+50		50.00	26.22	1.69	24.92	45.15	2.47	46.14	177.09	20.40	230.70	156.69
246+00		50.00	27.79	2.36	24.92	50.01	3.75	46.14	227.10	24.15	276.84	202.95
246+49	BK	49.35	28.86	2.98	24.92	51.77	4.88	45.54	278.87	29.03	322.38	249.85
					Column totals	278.87	29.03	322.41				

PROJECT ID 1003-10-78

DIVISION 2 - SB STA. 246+49 - STA. 320+00 LT

STATION		Distance	AREA (SF)			Incremental Vol (CY) (Unadjusted)			Cumulative Vol (CY)			Mass Ordinate
			Cut	Fill	EBS	Cut	Fill	EBS	Cut	Fill	EBS	
246+49	AH	0.00	34.59	0.36	24.92	0.00	0.00	0.00	0.00	0.00	0.00	0.00
246+50		0.65	144.25	1.08	24.92	2.17	0.02	0.60	2.17	0.02	0.60	2.15
247+00		50.00	143.12	1.05	24.92	266.08	1.97	46.14	268.25	1.99	46.74	266.26
247+50		50.00	117.67	4.49	24.92	241.47	5.13	46.14	509.72	7.12	92.88	502.60
248+00		50.00	83.22	5.98	24.92	186.01	9.69	46.14	695.73	16.81	139.02	678.92
248+50		50.00	48.86	8.52	24.92	122.30	13.43	46.14	818.03	30.24	185.16	787.79
249+00		50.00	29.15	18.76	24.92	72.23	25.26	46.14	890.26	55.50	231.30	834.76
249+50		50.00	26.48	37.28	24.92	51.51	51.89	46.14	941.77	107.39	277.44	834.38
250+00		50.00	29.40	44.89	24.92	51.74	76.08	46.14	993.51	183.47	323.58	810.04
250+50		50.00	33.59	35.35	24.92	58.32	74.30	46.14	1051.83	257.77	369.72	794.07
251+00		50.00	31.41	38.05	24.92	60.19	67.96	46.14	1112.02	325.73	415.86	786.29
251+50		50.00	24.92	47.30	24.92	52.16	79.03	46.14	1164.18	404.76	462.00	759.42
252+00		50.00	24.90	47.64	24.92	46.13	87.91	46.14	1210.30	492.67	508.14	717.64
252+50		50.00	27.51	32.83	24.92	48.53	74.51	46.14	1258.83	567.17	554.28	691.66
253+00		50.00	24.86	25.26	24.92	48.49	53.79	46.14	1307.32	620.96	600.42	686.36
253+50		50.00	25.50	33.54	24.92	46.63	54.44	46.14	1353.95	675.41	646.56	678.55
254+00		50.00	28.43	27.37	24.92	49.94	56.40	46.14	1403.89	731.80	692.70	672.08
254+50		50.00	25.27	25.51	24.92	49.72	48.96	46.14	1453.61	780.77	738.84	672.84
255+00		50.00	25.95	25.53	24.92	47.43	47.26	46.14	1501.04	828.03	784.98	673.01
255+50		50.00	28.46	21.73	24.92	50.38	43.76	46.14	1551.42	871.79	831.12	679.63
256+00		50.00	22.22	29.71	24.92	46.93	47.63	46.14	1598.34	919.42	877.26	678.93
256+50		50.00	25.16	29.95	24.92	43.87	55.24	46.14	1642.21	974.66	923.40	667.56
257+00		50.00	27.48	26.18	24.92	48.74	51.97	46.14	1690.95	1026.63	969.54	664.32
257+50		50.00	25.78	35.50	24.92	49.31	57.11	46.14	1740.27	1083.74	1015.68	656.53
258+00		50.00	27.41	34.68	24.92	49.25	64.98	46.14	1789.52	1148.72	1061.82	640.80
258+50		50.00	28.86	31.09	24.92	52.10	60.90	46.14	1841.62	1209.62	1107.96	632.00

PROJECT ID 1003-10-78

DIVISION 2 - SB STA. 246+49 - STA. 320+00 LT

STATION	Distance	AREA (SF)			Incremental Vol (CY) (Unadjusted)			Cumulative Vol (CY)			Mass Ordinate
		Cut	Fill	EBS	Cut	Fill	EBS	Cut	Fill	EBS	
259+00	50.00	25.94	32.17	24.92	50.74	58.57	46.14	1892.36	1268.19	1154.10	624.17
259+50	50.00	26.75	27.60	24.92	48.79	55.34	46.14	1941.15	1323.54	1200.24	617.61
260+00	50.00	22.86	34.02	42.12	45.94	57.06	62.07	1987.08	1380.59	1262.31	606.49
260+50	50.00	21.69	31.68	52.75	41.25	60.83	87.83	2028.33	1441.42	1350.14	586.91
261+00	50.00	23.67	30.56	52.75	42.00	57.63	97.68	2070.33	1499.05	1447.82	571.28
261+50	50.00	25.08	25.93	52.75	45.14	52.31	97.68	2115.47	1551.36	1545.50	564.11
262+00	50.00	27.13	22.66	52.75	48.34	44.99	97.68	2163.81	1596.35	1643.18	567.46
262+50	50.00	29.02	24.33	52.75	51.99	43.51	97.68	2215.80	1639.86	1740.86	575.94
263+00	50.00	24.25	30.39	52.75	49.32	50.67	97.68	2265.13	1690.53	1838.54	574.60
263+50	50.00	28.02	29.18	52.75	48.40	55.16	97.68	2313.53	1745.68	1936.22	567.84
264+00	50.00	26.86	25.58	52.75	50.81	50.70	97.68	2364.34	1796.39	2033.90	567.95
264+50	50.00	26.22	34.57	52.75	49.15	55.69	97.68	2413.49	1852.08	2131.58	561.41
265+00	50.00	25.78	37.52	52.75	48.15	66.75	97.68	2461.64	1918.83	2229.26	542.81
265+50	50.00	25.39	40.08	52.75	47.38	71.85	97.68	2509.02	1990.68	2326.94	518.33
266+00	50.00	26.38	34.02	52.75	47.94	68.61	97.68	2556.95	2059.30	2424.62	497.66
266+50	50.00	29.95	30.44	52.75	52.16	59.69	97.68	2609.11	2118.98	2522.30	490.13
267+00	50.00	24.09	44.11	52.75	50.04	69.03	97.68	2659.15	2188.01	2619.98	471.14
267+50	50.00	28.61	27.86	52.75	48.80	66.64	97.68	2707.94	2254.65	2717.66	453.30
268+00	50.00	28.44	29.74	52.75	52.82	53.33	97.68	2760.77	2307.98	2815.34	452.79
268+50	50.00	26.61	31.07	52.75	50.97	56.31	97.68	2811.74	2364.29	2913.02	447.45
269+00	50.00	27.60	27.91	52.75	50.19	54.61	97.68	2861.93	2418.90	3010.70	443.04
269+50	50.00	27.87	22.89	52.75	51.36	47.04	97.68	2913.30	2465.93	3108.38	447.36
270+00	50.00	27.66	21.72	63.38	51.42	41.31	107.52	2964.71	2507.24	3215.90	457.47
270+50	50.00	26.75	20.86	38.84	50.38	39.43	94.64	3015.09	2546.67	3310.54	468.43
271+00	50.00	29.38	17.79	38.84	51.97	35.79	71.92	3067.06	2582.45	3382.46	484.61
271+50	50.00	31.73	15.44	38.84	56.58	30.77	71.92	3123.65	2613.22	3454.38	510.43
272+00	50.00	31.21	13.16	38.84	58.28	26.48	71.92	3181.93	2639.70	3526.30	542.22
272+50	50.00	28.84	15.18	38.84	55.60	26.24	71.92	3237.53	2665.94	3598.22	571.58
273+00	50.00	27.65	17.59	38.84	52.31	30.34	71.92	3289.83	2696.29	3670.14	593.55
273+50	50.00	28.14	17.03	38.84	51.66	32.06	71.92	3341.49	2728.34	3742.06	613.15
274+00	50.00	30.70	15.09	38.84	54.48	29.74	71.92	3395.97	2758.08	3813.98	637.89
274+50	50.00	28.94	18.39	38.84	55.22	31.00	71.92	3451.19	2789.08	3885.90	662.11
275+00	50.00	29.02	19.01	38.84	53.67	34.63	71.92	3504.86	2823.71	3957.82	681.15
275+50	50.00	24.45	25.31	38.84	49.51	41.04	71.92	3554.37	2864.75	4029.74	689.62
276+00	50.00	25.67	22.06	38.84	46.41	43.86	71.92	3600.78	2908.61	4101.66	692.17
276+50	50.00	20.51	26.39	38.84	42.76	44.86	71.92	3643.54	2953.47	4173.58	690.07
277+00	50.00	23.77	19.15	38.84	41.00	42.17	71.92	3684.54	2995.64	4245.50	688.90
277+50	50.00	19.96	29.31	38.84	40.49	44.87	71.92	3725.03	3040.51	4317.42	684.52
278+00	50.00	21.49	28.71	38.84	38.38	53.72	71.92	3763.41	3094.23	4389.34	669.18
278+50	50.00	22.65	28.23	38.84	40.87	52.72	71.92	3804.28	3146.95	4461.26	657.32
279+00	50.00	24.73	26.34	38.84	43.87	50.53	71.92	3848.15	3197.48	4533.18	650.67
279+50	50.00	24.79	27.66	38.84	45.85	50.00	71.92	3894.00	3247.48	4605.10	646.52
280+00	50.00	24.12	26.42	14.30	45.29	50.07	49.21	3939.29	3297.55	4654.31	641.73
280+50	50.00	24.19	27.16	15.47	44.73	49.61	27.57	3984.02	3347.17	4681.88	636.85
281+00	50.00	24.50	32.80	15.47	45.08	55.52	28.65	4029.10	3402.68	4710.53	626.42

PROJECT ID 1003-10-78

DIVISION 2 - SB STA. 246+49 - STA. 320+00 LT

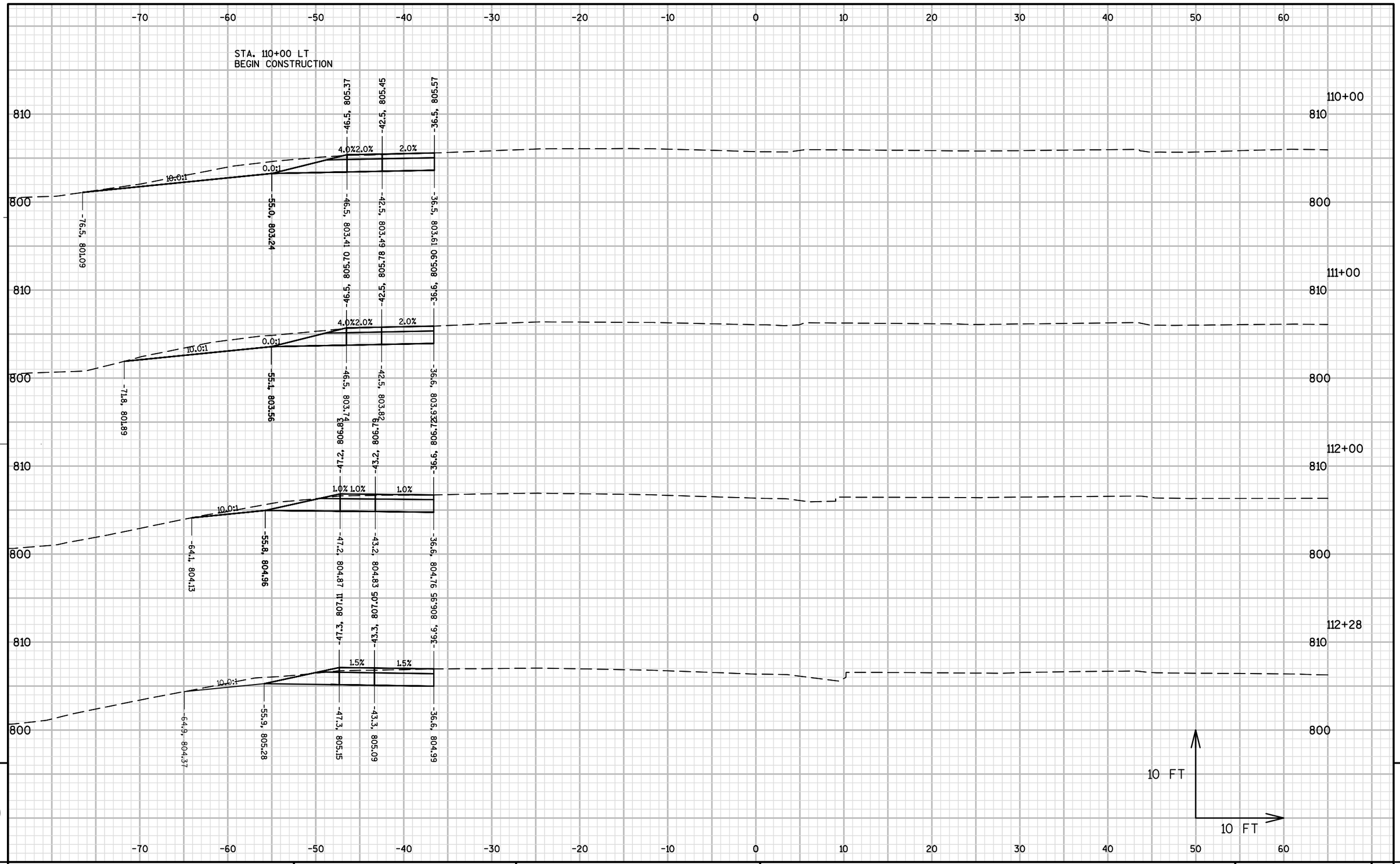
STATION	Distance	AREA (SF)			Incremental Vol (CY) (Unadjusted)			Cumulative Vol (CY)			Mass Ordinate
		Cut	Fill	EBS	Cut	Fill	EBS	Cut	Fill	EBS	
281+50	50.00	24.42	34.48	15.47	45.30	62.30	28.65	4074.40	3464.98	4739.18	609.42
282+00	50.00	24.60	27.75	15.47	45.39	57.62	28.65	4119.79	3522.60	4767.83	597.19
282+50	50.00	26.65	21.82	15.47	47.45	45.90	28.65	4167.24	3568.50	4796.48	598.74
283+00	50.00	25.90	19.45	15.47	48.66	38.21	28.65	4215.90	3606.71	4825.13	609.19
283+50	50.00	26.16	18.12	15.47	48.20	34.79	28.65	4264.10	3641.50	4853.78	622.60
284+00	50.00	27.17	14.62	15.47	49.38	30.31	28.65	4313.48	3671.81	4882.43	641.67
284+50	50.00	29.11	10.04	15.47	52.11	22.83	28.65	4365.59	3694.65	4911.08	670.94
285+00	50.00	29.74	12.19	15.47	54.49	20.58	28.65	4420.08	3715.23	4939.73	704.85
285+50	50.00	28.72	14.36	15.47	54.13	24.58	28.65	4474.21	3739.81	4968.38	734.40
286+00	50.00	28.74	14.34	15.47	53.20	26.57	28.65	4527.42	3766.39	4997.03	761.03
286+50	50.00	28.39	14.08	15.47	52.90	26.31	28.65	4580.31	3792.70	5025.68	787.61
287+00	50.00	30.25	10.05	15.47	54.30	22.34	28.65	4634.61	3815.05	5054.33	819.57
287+50	50.00	30.85	5.80	15.47	56.57	14.68	28.65	4691.18	3829.72	5082.98	861.46
288+00	50.00	28.02	7.05	15.47	54.51	11.90	28.65	4745.69	3841.62	5111.63	904.07
288+50	50.00	28.16	6.86	15.47	52.02	12.88	28.65	4797.71	3854.50	5140.28	943.21
289+00	50.00	31.16	4.67	15.47	54.93	10.68	28.65	4852.64	3865.17	5168.93	987.46
289+50	50.00	27.71	9.50	15.47	54.51	13.12	28.65	4907.15	3878.30	5197.58	1028.85
290+00	50.00	29.24	7.08	16.64	52.73	15.35	29.74	4959.88	3893.65	5227.32	1066.23
290+50	50.00	30.97	6.03	24.48	55.75	12.14	38.08	5015.63	3905.79	5265.40	1109.84
291+00	50.00	29.02	10.11	24.48	55.55	14.94	45.34	5071.18	3920.73	5310.74	1150.44
291+50	50.00	28.54	11.77	24.48	53.30	20.26	45.34	5124.47	3940.99	5356.08	1183.48
292+00	50.00	30.27	9.97	24.48	54.45	20.13	45.34	5178.93	3961.12	5401.42	1217.81
292+50	50.00	27.22	11.75	24.48	53.23	20.11	45.34	5232.16	3981.23	5446.76	1250.93
293+00	50.00	27.23	11.16	24.48	50.42	21.21	45.34	5282.57	4002.44	5492.10	1280.13
293+50	50.00	25.38	9.08	24.48	48.71	18.74	45.34	5331.29	4021.18	5537.44	1310.10
294+00	50.00	26.06	10.09	24.48	47.63	17.75	45.34	5378.92	4038.93	5582.78	1339.98
294+50	50.00	25.26	12.39	24.48	47.52	20.81	45.34	5426.43	4059.75	5628.12	1366.69
295+00	50.00	26.27	13.36	24.48	47.71	23.84	45.34	5474.15	4083.59	5673.46	1390.56
295+50	50.00	28.78	12.82	24.48	50.97	24.24	45.34	5525.12	4107.83	5718.80	1417.29
295+78	27.58	28.00	13.42	24.48	29.00	13.40	25.01	5554.12	4121.24	5743.81	1432.89
296+00	22.42	27.11	16.13	24.48	22.88	12.27	20.33	5577.00	4133.50	5764.14	1443.50
296+50	50.00	25.30	20.67	24.48	48.53	34.07	45.34	5625.53	4167.58	5809.48	1457.95
297+00	50.00	27.29	14.67	24.48	48.69	32.72	45.34	5674.22	4200.30	5854.82	1473.92
297+50	50.00	28.43	21.64	24.48	51.59	33.62	45.34	5725.82	4233.92	5900.16	1491.90
298+00	50.00	27.97	20.84	24.48	52.22	39.33	45.34	5778.04	4273.25	5945.50	1504.78
298+50	50.00	27.60	15.35	24.48	51.45	33.51	45.34	5829.49	4306.76	5990.84	1522.73
299+00	50.00	51.61	8.87	24.48	73.34	22.43	45.34	5902.83	4329.19	6036.18	1573.65
299+50	50.00	27.49	9.43	24.48	73.24	16.94	45.34	5976.07	4346.13	6081.52	1629.94
300+00	50.00	41.11	3.54	24.48	63.52	12.01	45.34	6039.59	4358.14	6126.86	1681.45
300+50	50.00	37.01	12.77	24.48	72.33	15.10	45.34	6111.93	4373.24	6172.20	1738.68
301+00	50.00	32.46	23.93	24.48	64.32	33.98	45.34	6176.25	4407.22	6217.54	1769.03
301+50	50.00	32.32	21.08	24.48	59.98	41.68	45.34	6236.23	4448.90	6262.88	1787.33
302+00	50.00	38.49	10.88	24.48	65.56	29.59	45.34	6301.80	4478.49	6308.22	1823.30
302+50	50.00	37.48	9.25	24.48	70.34	18.64	45.34	6372.14	4497.13	6353.56	1875.01
303+00	50.00	29.47	23.49	24.48	61.99	30.31	45.34	6434.13	4527.45	6398.90	1906.68

PROJECT ID 1003-10-78

DIVISION 2 - SB STA. 246+49 - STA. 320+00 LT

STATION		Distance	AREA (SF)			Incremental Vol (CY) (Unadjusted)			Cumulative Vol (CY)			Mass Ordinate
			Cut	Fill	EBS	Cut	Fill	EBS	Cut	Fill	EBS	
303+50		50.00	26.52	22.07	24.48	51.84	42.19	45.34	6485.97	4569.63	6444.24	1916.34
304+00		50.00	27.08	12.54	24.48	49.63	32.05	45.34	6535.60	4601.68	6489.58	1933.92
304+50		50.00	26.86	9.93	24.48	49.94	20.81	45.34	6585.55	4622.48	6534.92	1963.06
305+00		50.00	26.12	10.34	24.48	49.06	18.77	45.34	6634.60	4641.25	6580.26	1993.35
305+50		50.00	26.61	11.05	24.48	48.82	19.81	45.34	6683.43	4661.06	6625.60	2022.37
306+00		50.00	28.05	11.12	24.48	50.61	20.53	45.34	6734.04	4681.59	6670.94	2052.45
306+50		50.00	28.64	10.21	24.48	52.49	19.75	45.34	6786.53	4701.34	6716.28	2085.19
307+00		50.00	28.82	10.51	24.48	53.20	19.19	45.34	6839.73	4720.52	6761.62	2119.21
307+50		50.00	27.71	10.78	24.48	52.34	19.71	45.34	6892.07	4740.23	6806.96	2151.84
308+00		50.00	26.94	10.94	24.48	50.60	20.11	45.34	6942.68	4760.35	6852.30	2182.33
308+50		50.00	27.51	9.33	24.48	50.42	18.77	45.34	6993.09	4779.11	6897.64	2213.98
309+00		50.00	26.21	7.62	24.48	49.74	15.69	45.34	7042.83	4794.81	6942.98	2248.03
309+50		50.00	28.73	7.66	24.48	50.87	14.15	45.34	7093.70	4808.96	6988.32	2284.75
310+00		50.00	29.38	7.32	32.32	53.81	13.87	52.59	7147.51	4822.83	7040.91	2324.68
310+50		50.00	30.84	6.75	30.56	55.76	13.03	58.22	7203.27	4835.85	7099.13	2367.41
311+00		50.00	27.25	9.12	30.56	53.79	14.69	56.59	7257.06	4850.55	7155.72	2406.51
311+50		50.00	29.26	6.91	30.56	52.32	14.84	56.59	7309.38	4865.39	7212.31	2443.99
312+00		50.00	27.92	7.68	30.56	52.94	13.51	56.59	7362.32	4878.90	7268.90	2483.42
312+50		50.00	26.57	8.91	30.56	50.45	15.36	56.59	7412.78	4894.26	7325.49	2518.52
313+00		50.00	27.83	7.90	30.56	50.37	15.56	56.59	7463.15	4909.83	7382.08	2553.32
313+50		50.00	27.34	7.28	30.56	51.08	14.06	56.59	7514.23	4923.88	7438.67	2590.35
314+00		50.00	27.54	5.52	30.56	50.81	11.85	56.59	7565.05	4935.73	7495.26	2629.31
314+50		50.00	28.86	5.36	30.56	52.22	10.07	56.59	7617.27	4945.81	7551.85	2671.46
315+00		50.00	28.13	11.84	30.56	52.77	15.93	56.59	7670.04	4961.73	7608.44	2708.30
315+50		50.00	29.49	12.96	30.56	53.35	22.96	56.59	7723.39	4984.70	7665.03	2738.69
316+00		50.00	29.35	17.11	30.56	54.48	27.84	56.59	7777.87	5012.54	7721.62	2765.33
316+50		50.00	29.90	21.98	30.56	54.86	36.19	56.59	7832.73	5048.73	7778.21	2784.00
317+00		50.00	28.69	27.68	30.56	54.25	45.98	56.59	7886.98	5094.72	7834.80	2792.27
317+50		50.00	27.33	29.01	30.56	51.87	52.49	56.59	7938.85	5147.21	7891.39	2791.65
317+66		16.27	27.42	31.27	30.56	16.50	18.16	18.41	7955.35	5165.37	7909.80	2789.98
318+00		33.73	28.29	33.05	30.56	34.80	40.18	38.18	7990.15	5205.54	7947.98	2784.60
318+50		50.00	27.95	35.67	30.56	52.07	63.63	56.59	8042.22	5269.17	8004.57	2773.05
319+00		50.00	28.33	34.63	30.56	52.11	65.09	56.59	8094.33	5334.27	8061.16	2760.06
319+16		16.27	27.70	36.03	30.56	16.88	21.29	18.41	8111.21	5355.56	8079.57	2755.66
319+50		33.73	26.30	29.27	30.56	33.73	40.79	38.18	8144.94	5396.34	8117.75	2748.60
320+00	BK	50.00	23.84	26.59	28.80	46.43	51.72	54.96	8191.37	5448.07	8172.71	2743.30
					Column totals	8191.37	5448.07	8172.76				

STA. 110+00 LT
BEGIN CONSTRUCTION



PROJECT NO: 1003-10-78	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: TEMPORARY WIDENING	SHEET 134	E

STA. 112+46 RT
BEGIN CONSTRUCTION

113+00

-71.8, 803.91
-55.4, 806.64
-46.9, 809.01
-42.9, 809.23
-36.4, 808.55
0.0, 807.13
19.1, 806.29
27.6, 803.82
40.3, 806.99
6.0:1
3.3%
4.0:1

113+33

-68.5, 805.21
-55.3, 807.42
-46.8, 807.04
-42.8, 806.87
-36.3, 806.58
0.0, 805.17
19.2, 804.33
27.7, 803.96
39.7, 806.93
6.0:1
4.4%
4.0:1

114+00

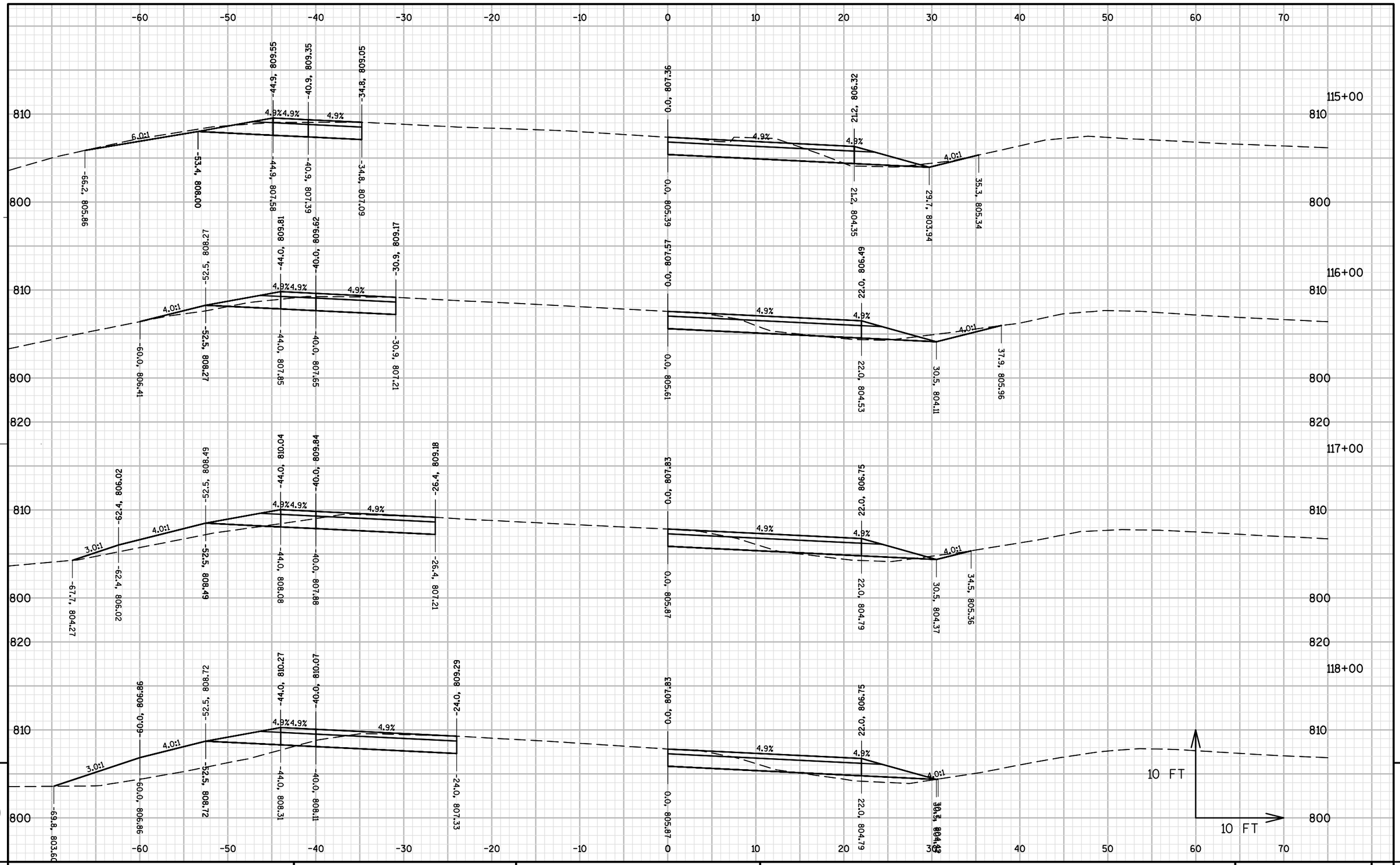
-64.5, 806.25
-54.9, 807.85
-46.4, 807.44
-42.4, 807.24
-35.8, 806.92
0.0, 805.27
19.1, 804.31
28.2, 803.89
42.7, 807.51
6.0:1
4.9%
4.0:1

114+61

10 FT
10 FT

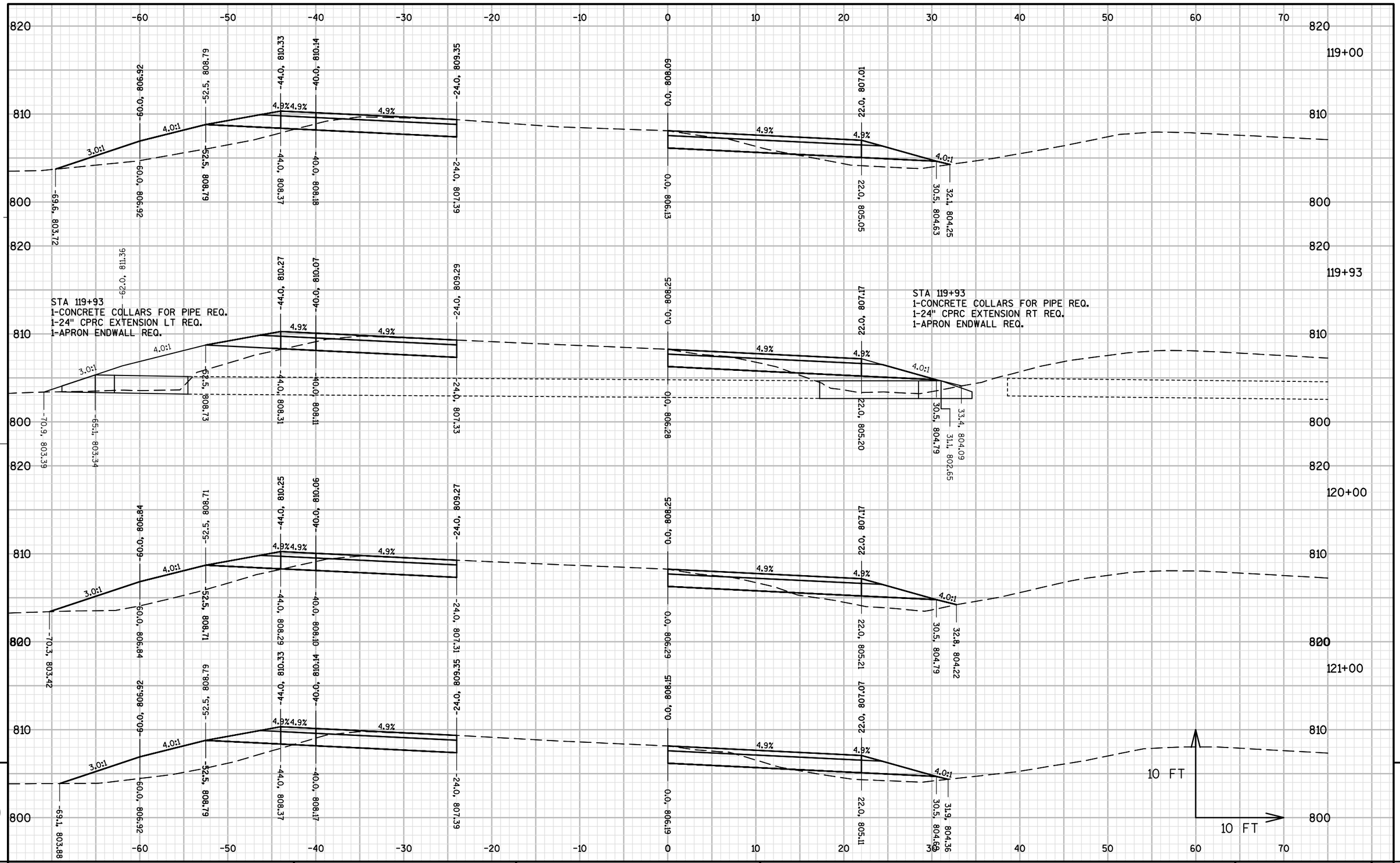
PROJECT NO: 1003-10-78	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: TEMPORARY WIDENING	SHEET	E

FILE NAME : L:\WORK\PROJECTS\60242867\000_CAD\001_DRAWINGS\1003-10-78_STATELINE TO CTH S TEMP\100%\090201_XS_100_204.DWG PLOT DATE : 4/6/2016 3:11 PM PLOT BY : ARBUCKLE, ADRIAN PLOT NAME : PLOT SCALE : 1:10_XREF
WISDOT/CADDS SHEET 49

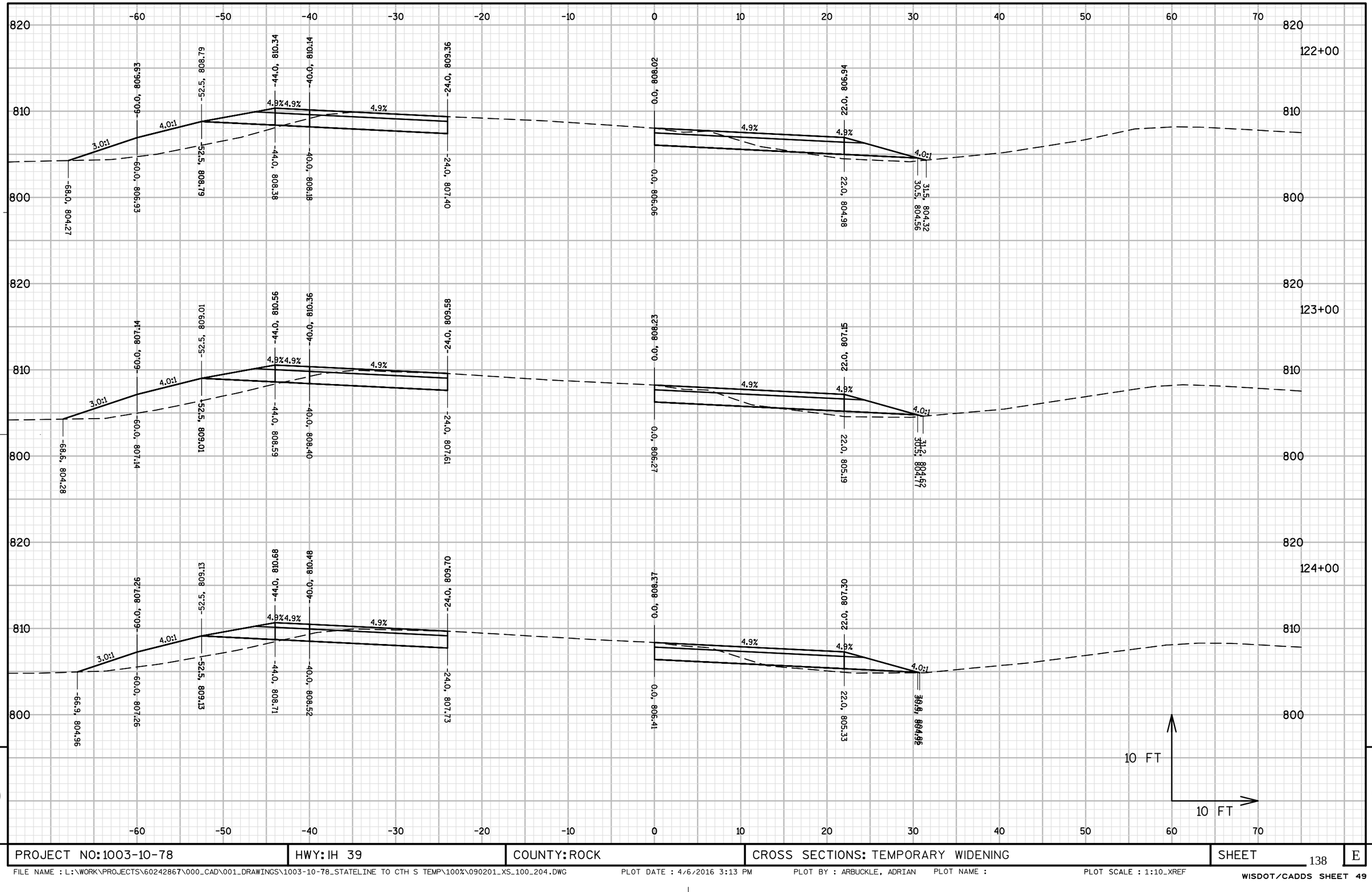


PROJECT NO: 1003-10-78	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: TEMPORARY WIDENING	SHEET E

FILE NAME : L:\WORK\PROJECTS\60242867\000_CAD\001_DRAWINGS\1003-10-78_STATELINE TO CTH S TEMP\100%\090201_XS_100_204.DWG PLOT DATE : 4/6/2016 3:12 PM PLOT BY : ARBUCKLE, ADRIAN PLOT NAME : PLOT SCALE : 1:10_XREF
WISDOT/CADDS SHEET 49

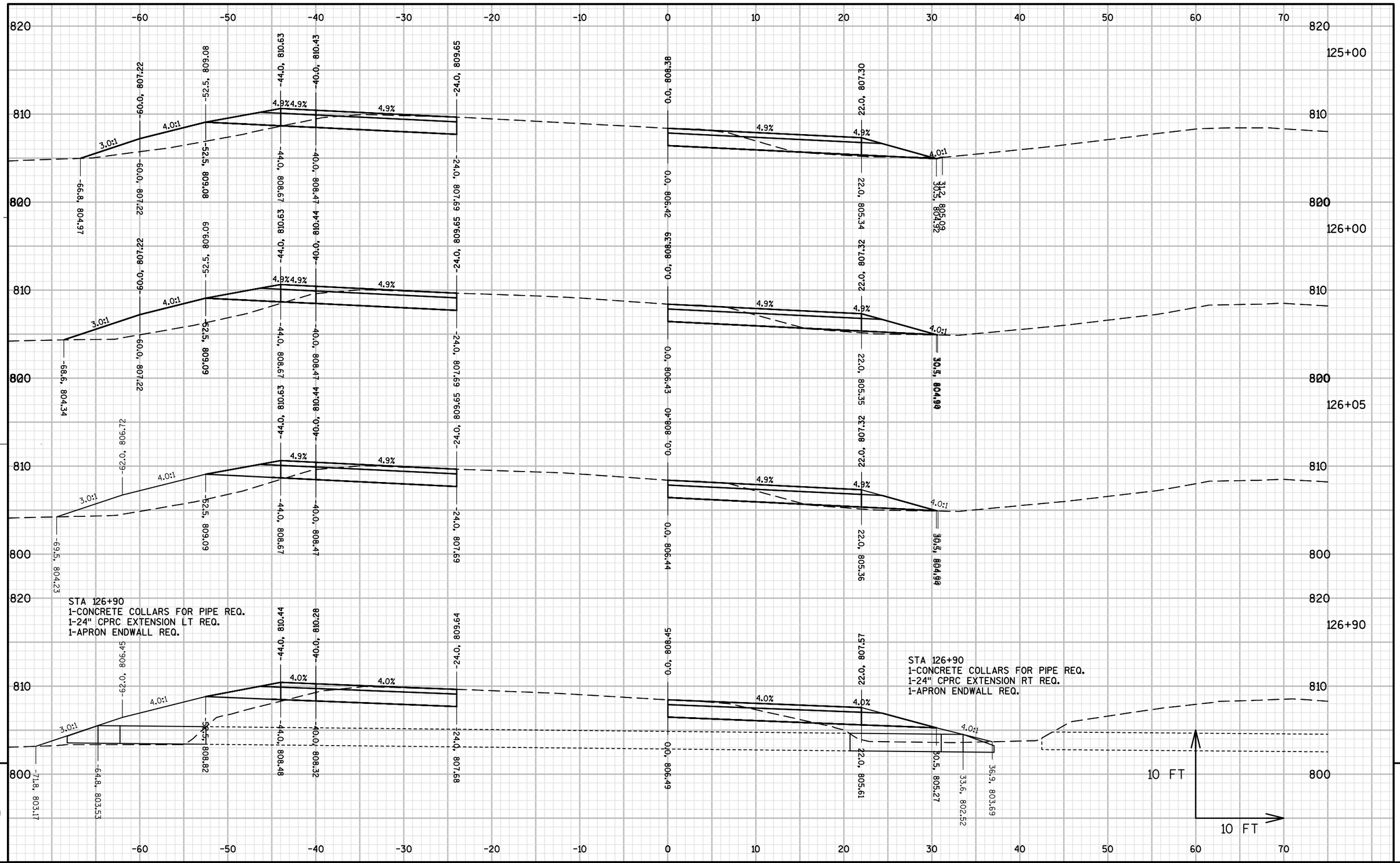


PROJECT NO:1003-10-78	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: TEMPORARY WIDENING	SHEET 137 E



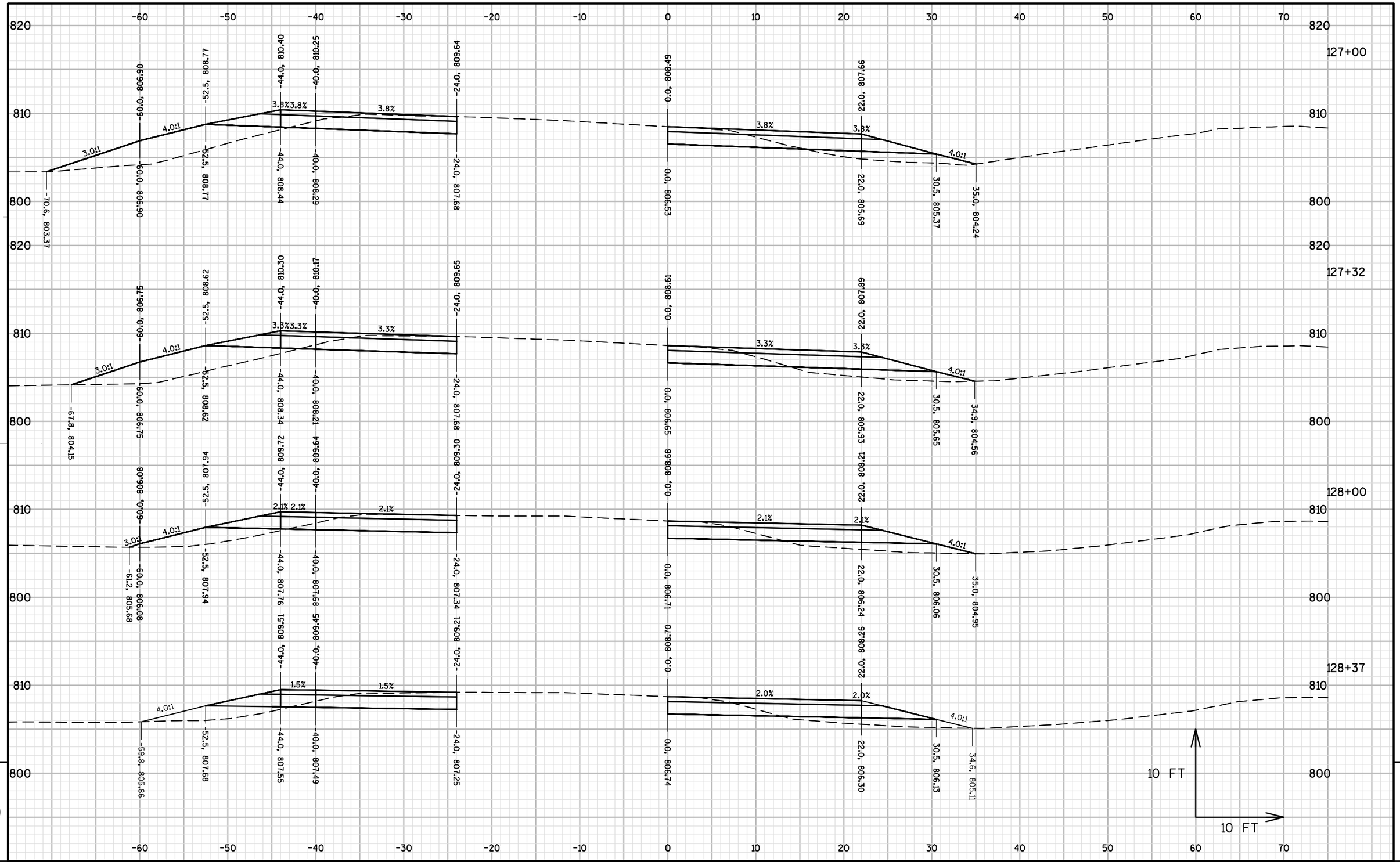
PROJECT NO: 1003-10-78	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: TEMPORARY WIDENING	SHEET	E

FILE NAME : L:\WORK\PROJECTS\60242867\000_CAD\001_DRAWINGS\1003-10-78_STATELINE TO CTH S TEMP\100%\090201_XS_100_204.DWG PLOT DATE : 4/6/2016 3:13 PM PLOT BY : ARBUCKLE, ADRIAN PLOT NAME : PLOT SCALE : 1:10_XREF
WISDOT/CADDS SHEET 49



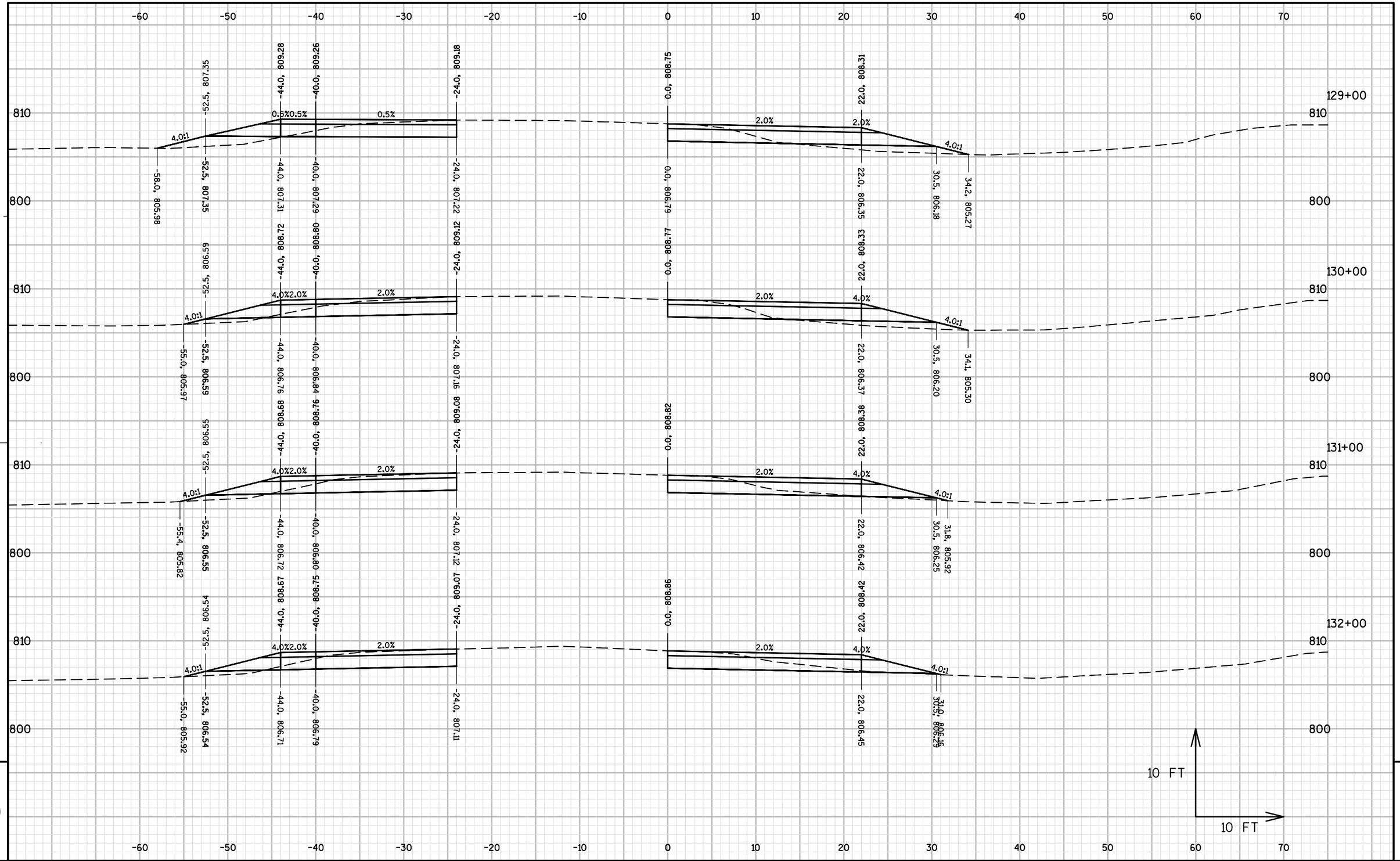
PROJECT NO: 1003-10-78	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: TEMPORARY WIDENING	SHEET	E

FILE NAME : L:\WORK\PROJECTS\60242867\000_CAD\001_DRAWINGS\1003-10-78_STATELINE TO CTH S TEMP\100%\090201_XS_100_204.DWG PLOT DATE : 4/6/2016 3:14 PM PLOT BY : ARBUCKLE, ADRIAN PLOT NAME : PLOT SCALE : 1:10_XREF
WISDOT/CADDS SHEET 49

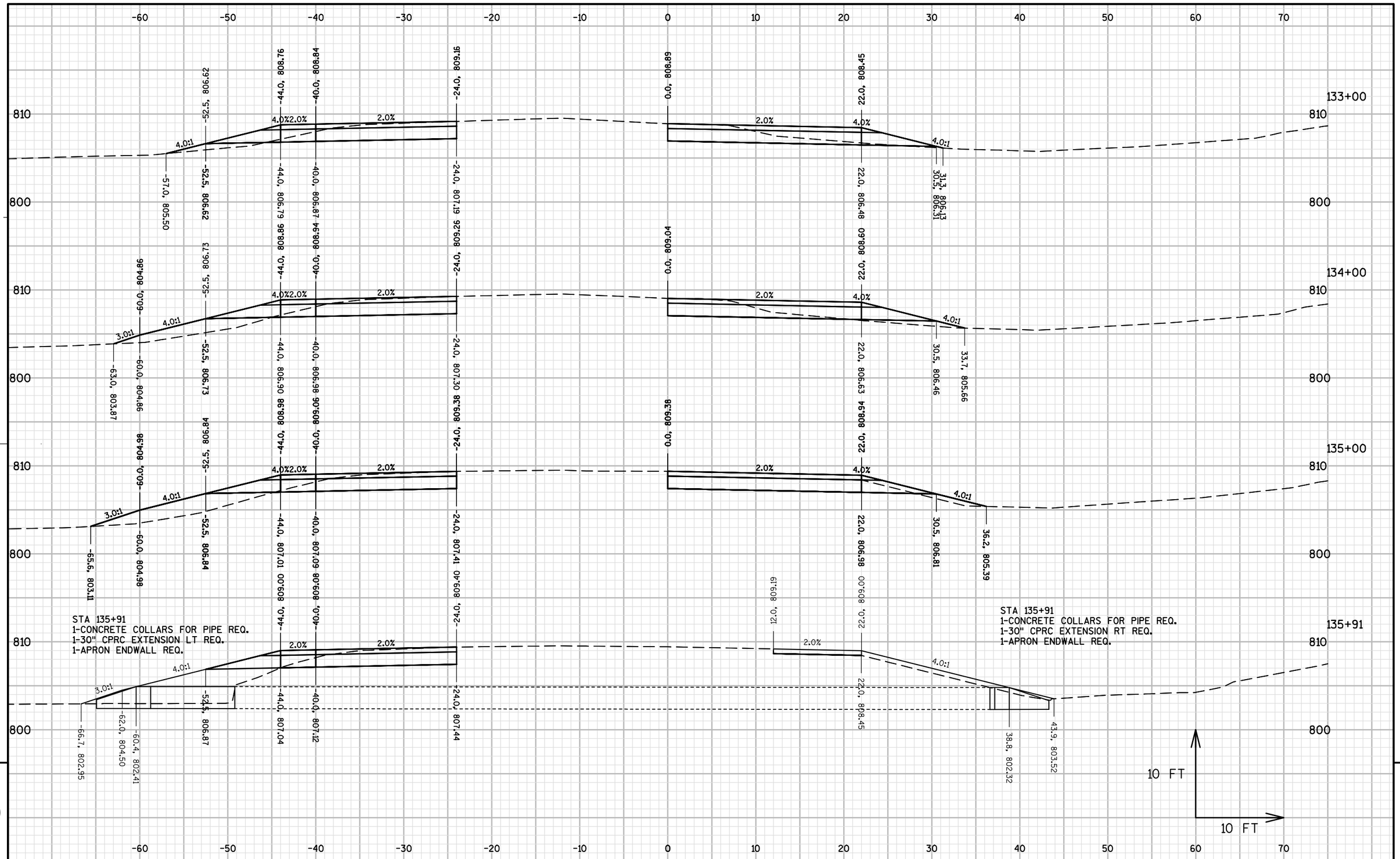


PROJECT NO: 1003-10-78	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: TEMPORARY WIDENING	SHEET	E

FILE NAME : L:\WORK\PROJECTS\60242867\000_CAD\001_DRAWINGS\1003-10-78_STATELINE TO CTH S TEMP\100%\090201_XS_100_204.DWG PLOT DATE : 4/6/2016 3:15 PM PLOT BY : ARBUCKLE, ADRIAN PLOT NAME : PLOT SCALE : 1:10_XREF

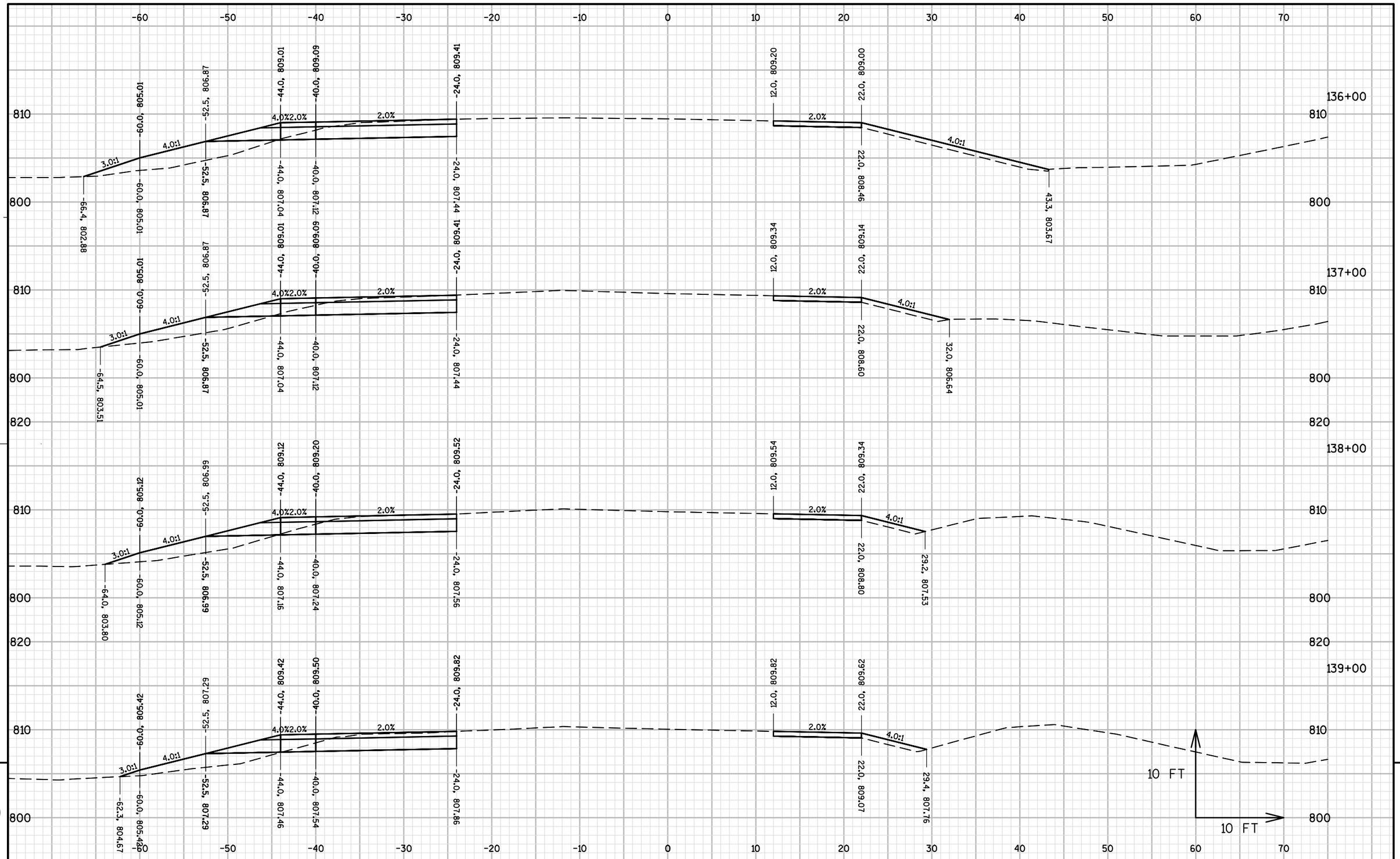


PROJECT NO: 1003-10-78	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: TEMPORARY WIDENING	SHEET 141	E

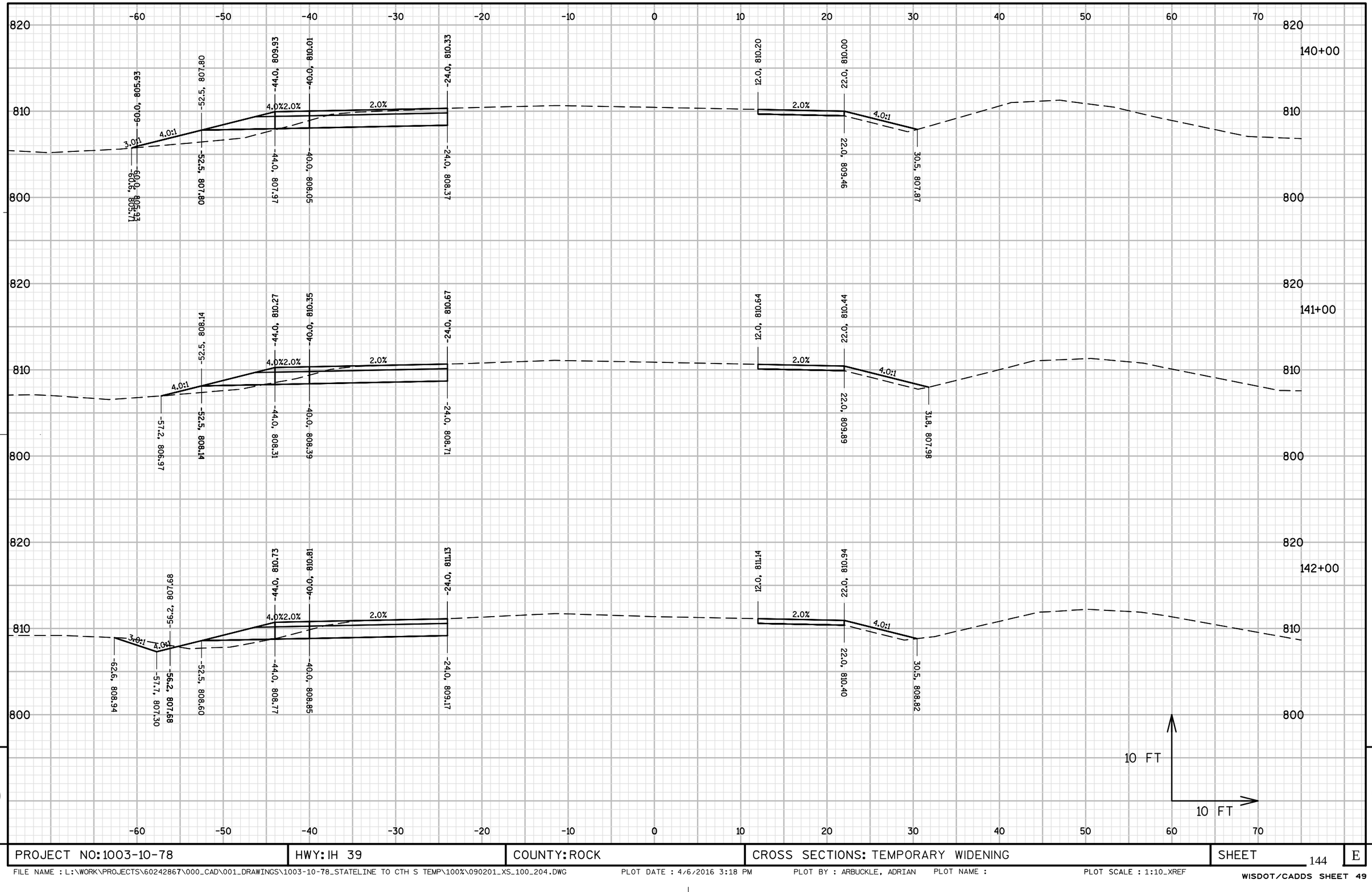


PROJECT NO: 1003-10-78	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: TEMPORARY WIDENING	SHEET 142	E

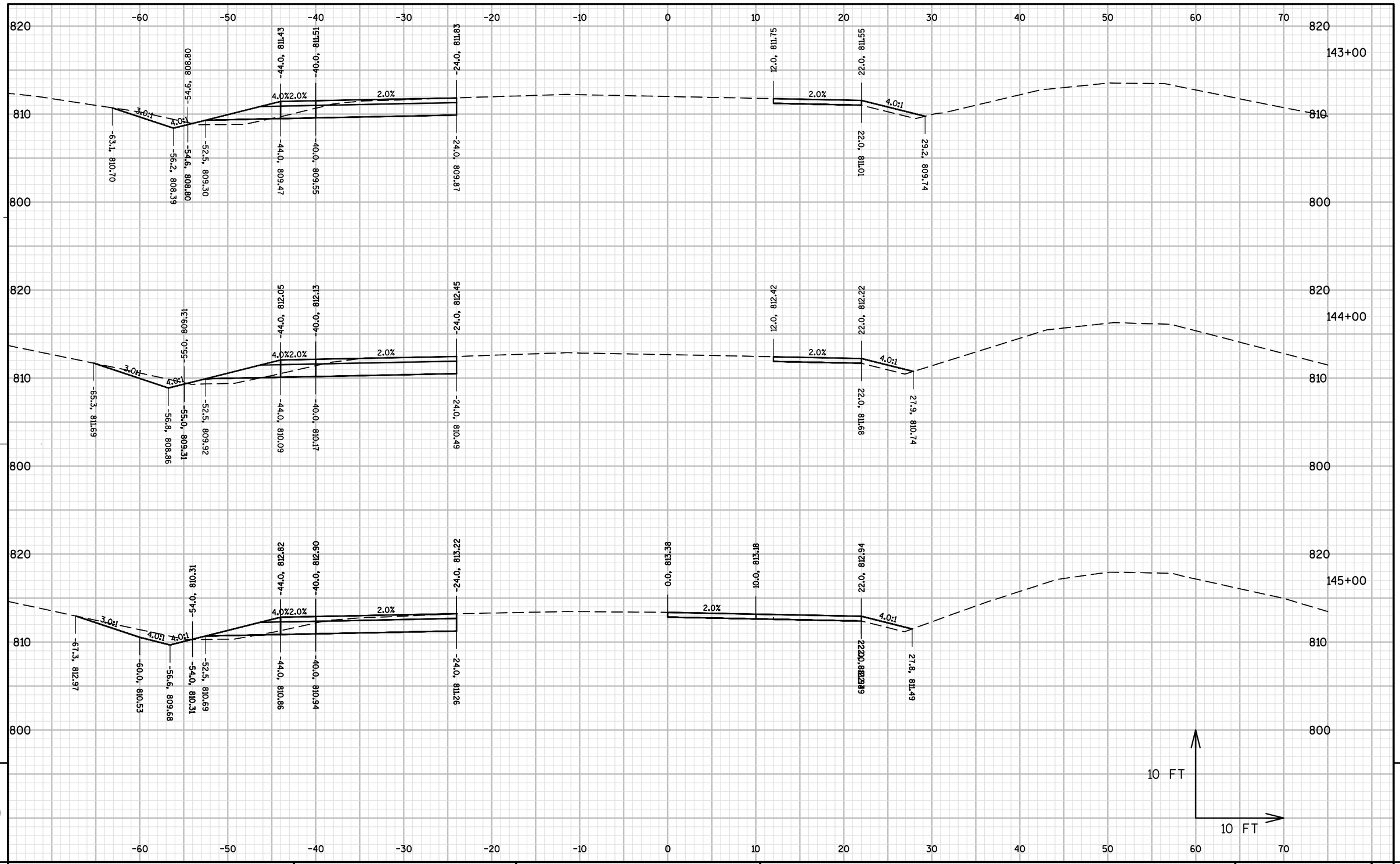
FILE NAME : L:\WORK\PROJECTS\60242867\000_CAD\001_DRAWINGS\1003-10-78_STATELINE TO CTH S TEMP\100%\090201_XS_100_204.DWG PLOT DATE : 4/6/2016 3:16 PM PLOT BY : ARBUCKLE, ADRIAN PLOT NAME : PLOT SCALE : 1:10_XREF
WISDOT/CADDS SHEET 49



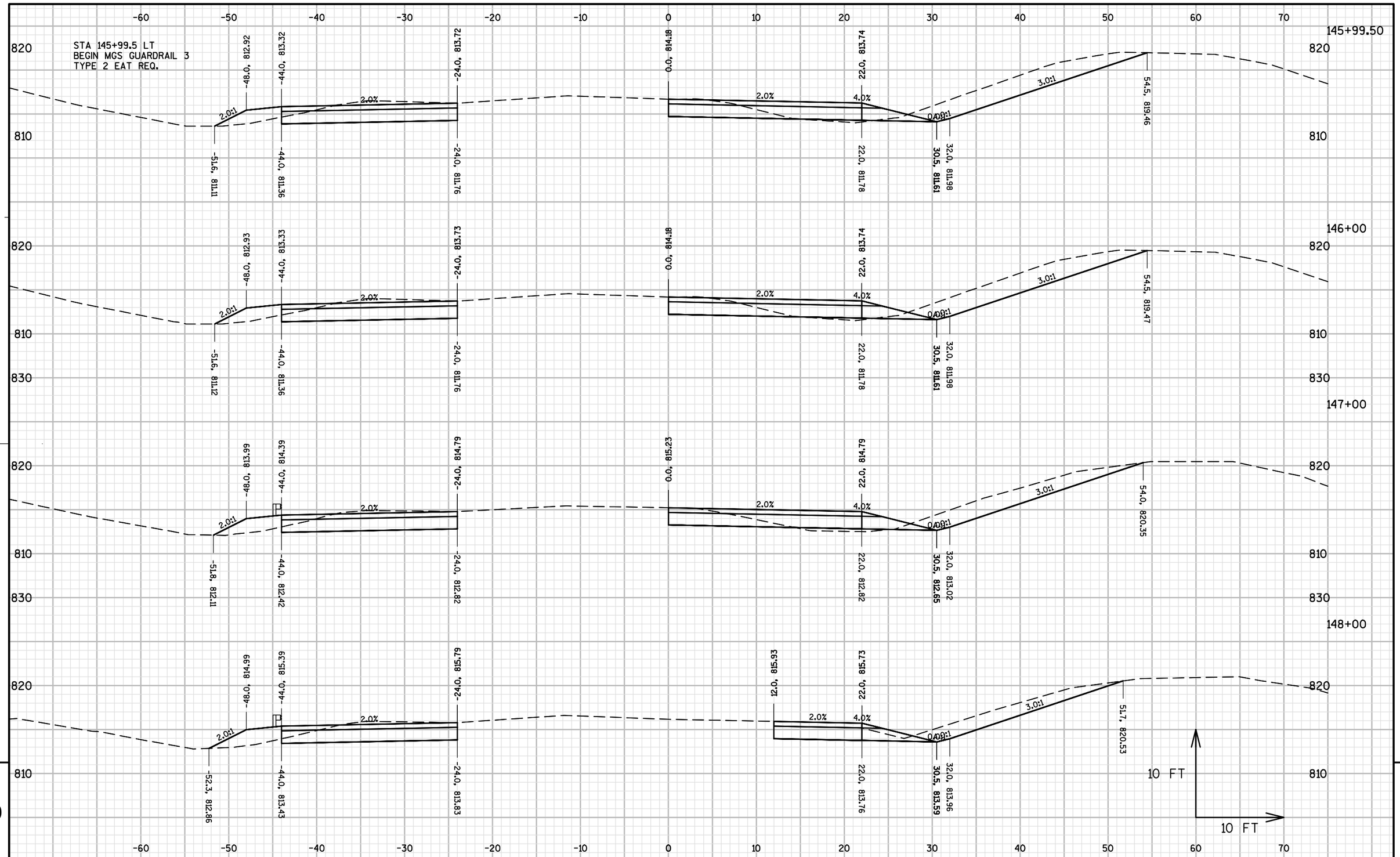
PROJECT NO: 1003-10-78	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: TEMPORARY WIDENING	SHEET 143 E



PROJECT NO: 1003-10-78	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: TEMPORARY WIDENING	SHEET 144	E



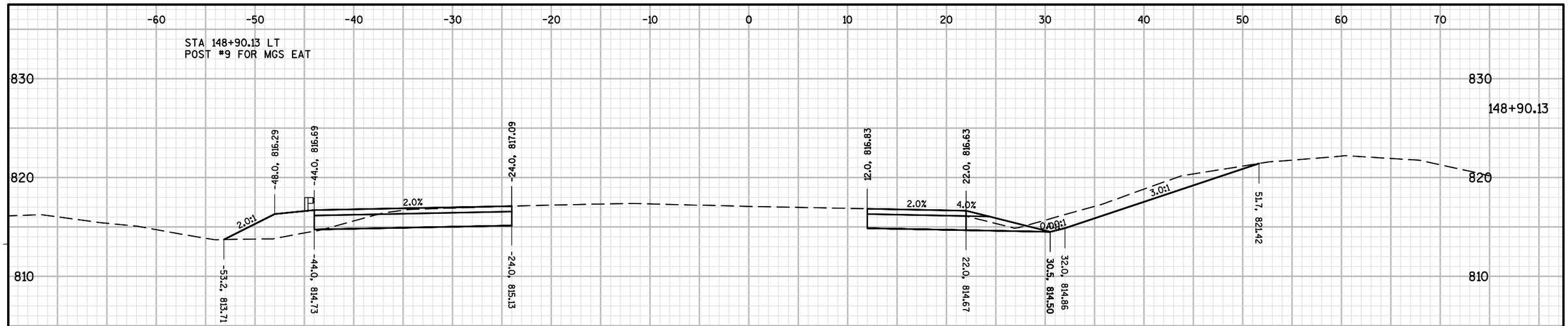
PROJECT NO: 1003-10-78	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: TEMPORARY WIDENING	SHEET 145	E

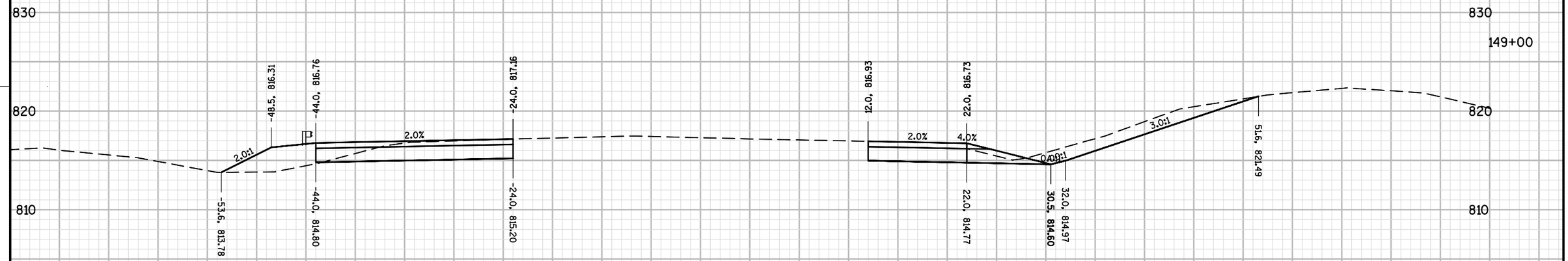


PROJECT NO: 1003-10-78	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: TEMPORARY WIDENING	SHEET	E

FILE NAME : L:\WORK\PROJECTS\60242867\000_CAD\001_DRAWINGS\1003-10-78_STATELINE TO CTH S TEMP\100%\090201_XS_100_204.DWG PLOT DATE : 4/6/2016 3:19 PM PLOT BY : ARBUCKLE, ADRIAN PLOT NAME : PLOT SCALE : 1:10_XREF

STA 148+90.13 LT
POST #9 FOR MGS EAT





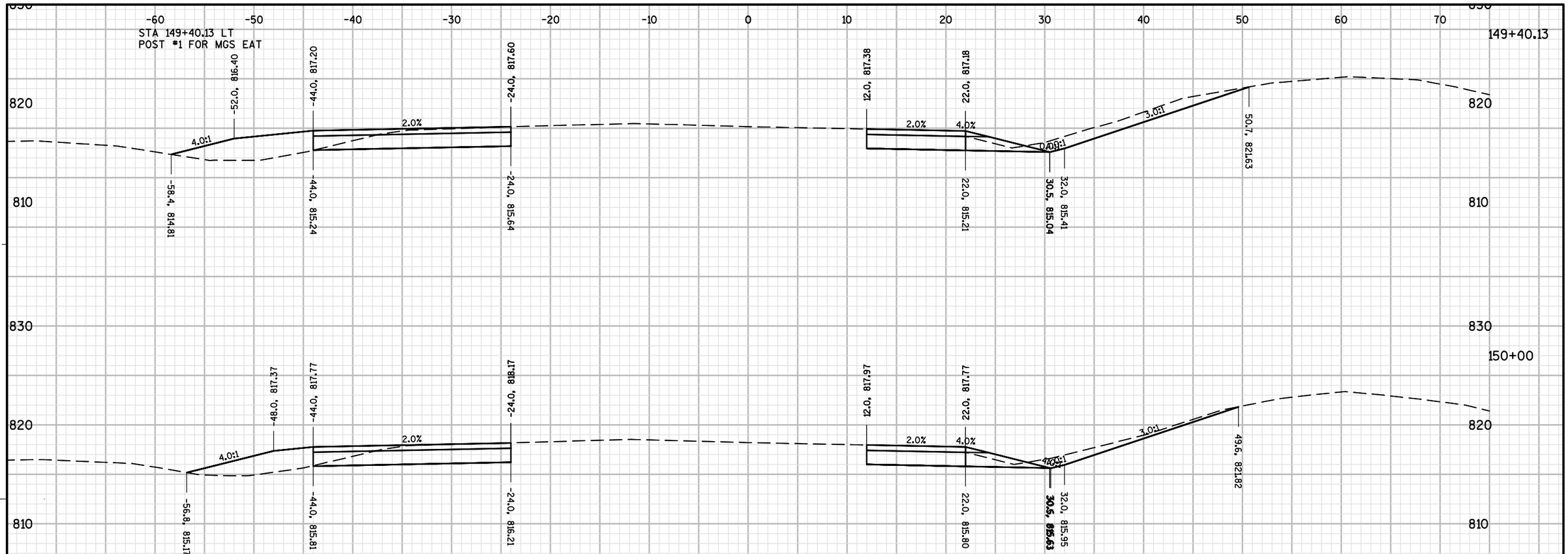
STA 149+15.13 LT
POST #5 FOR MGS EAT

PROJECT NO: 1003-10-78	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: TEMPORARY WIDENING	SHEET	E

FILE NAME : L:\WORK\PROJECTS\60242867\000_CAD\001_DRAWINGS\1003-10-78_STATELINE TO CTH S TEMP\100%\090201_XS_100_204.DWG PLOT DATE : 4/6/2016 3:20 PM PLOT BY : ARBUCKLE, ADRIAN PLOT NAME : PLOT SCALE : 1:10_XREF

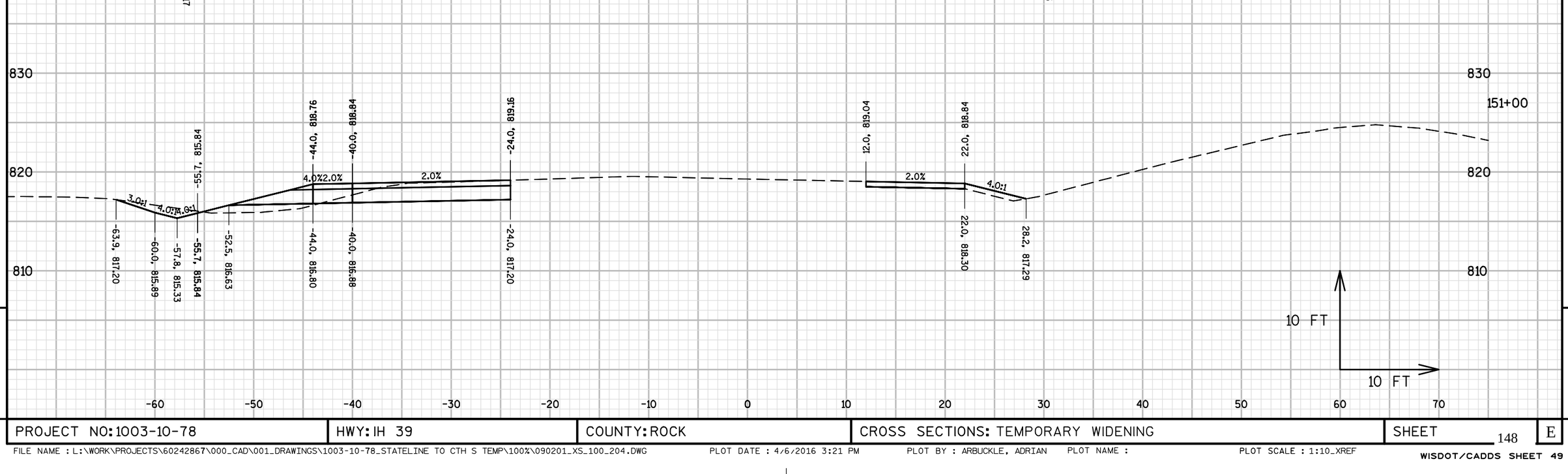
STA 149+40.13 LT
POST #1 FOR MGS EAT

149+40.13



150+00

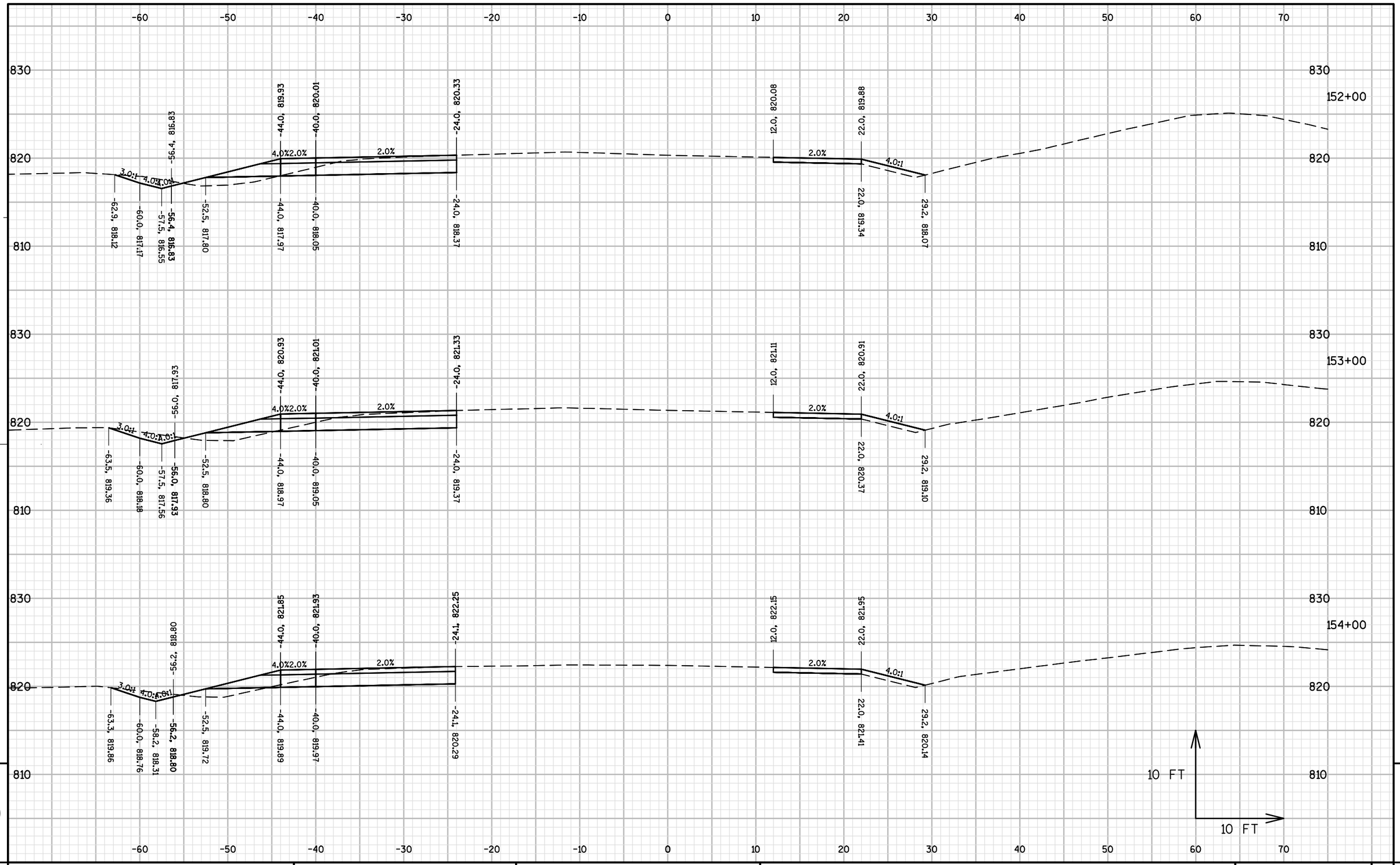
151+00



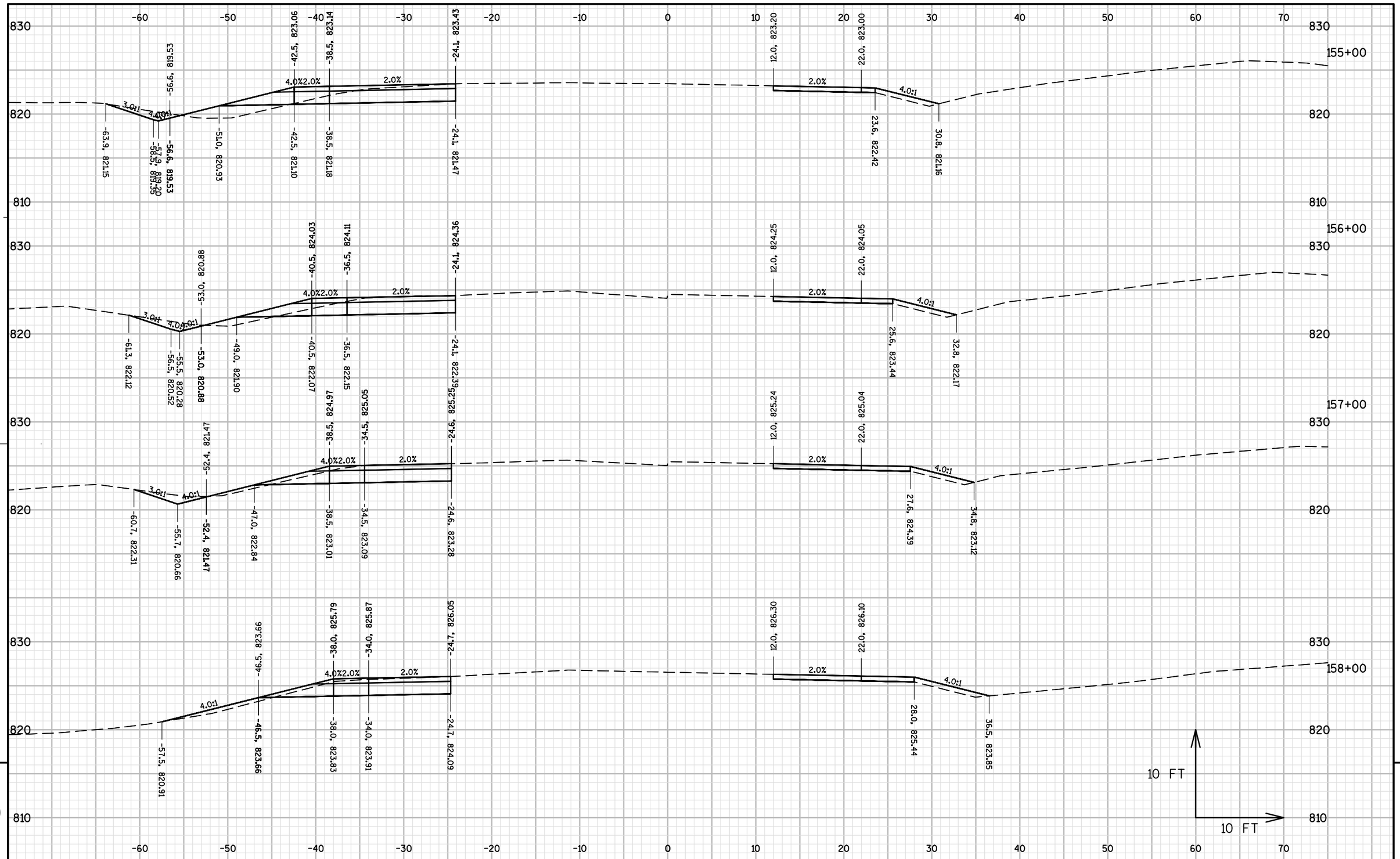
PROJECT NO: 1003-10-78	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: TEMPORARY WIDENING	SHEET 148	E

FILE NAME : L:\WORK\PROJECTS\60242867\000_CAD\001_DRAWINGS\1003-10-78_STATELINE TO CTH S TEMP\100%\090201_XS_100_204.DWG PLOT DATE : 4/6/2016 3:21 PM PLOT BY : ARBUCKLE, ADRIAN PLOT NAME : PLOT SCALE : 1:10_XREF

WISDOT/CADDS SHEET 49



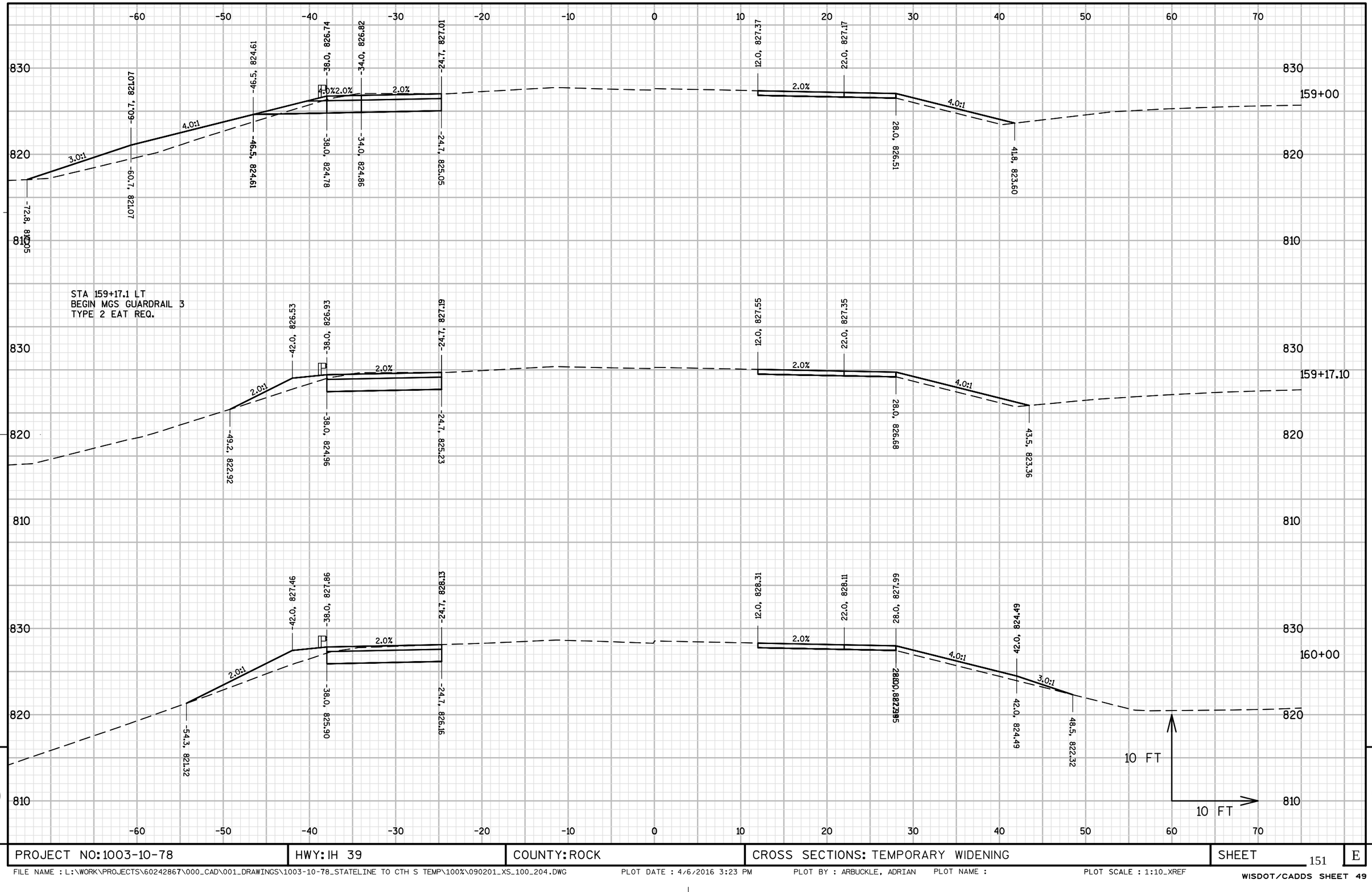
PROJECT NO: 1003-10-78	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: TEMPORARY WIDENING	SHEET 149 E



PROJECT NO: 1003-10-78	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: TEMPORARY WIDENING	SHEET 150	E

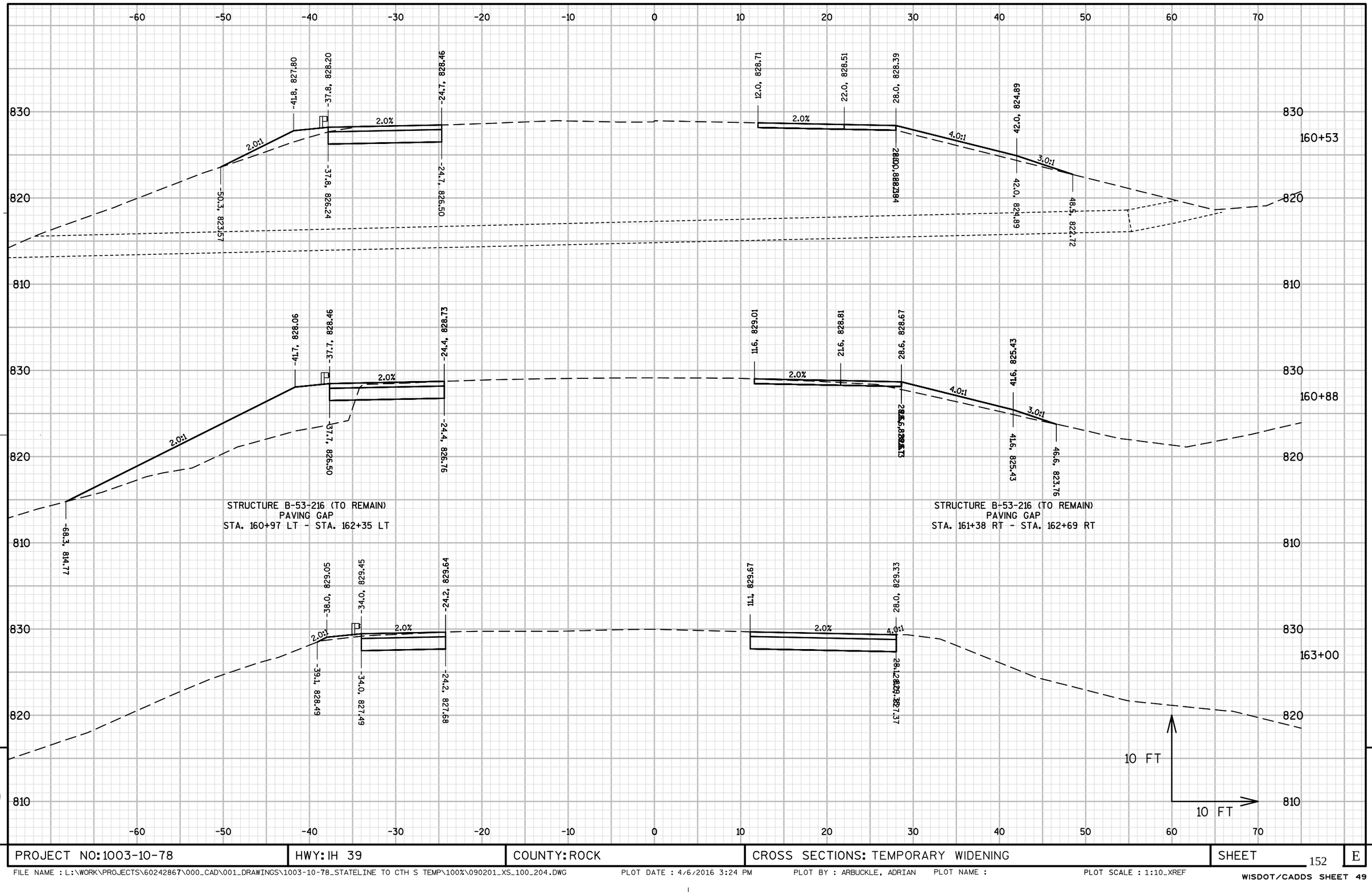
FILE NAME : L:\WORK\PROJECTS\60242867\000_CAD\001_DRAWINGS\1003-10-78_STATELINE TO CTH S TEMP\100%\090201_XS_100_204.DWG PLOT DATE : 4/6/2016 3:23 PM PLOT BY : ARBUCKLE, ADRIAN PLOT NAME : PLOT SCALE : 1:10_XREF

WISDOT/CADDS SHEET 49



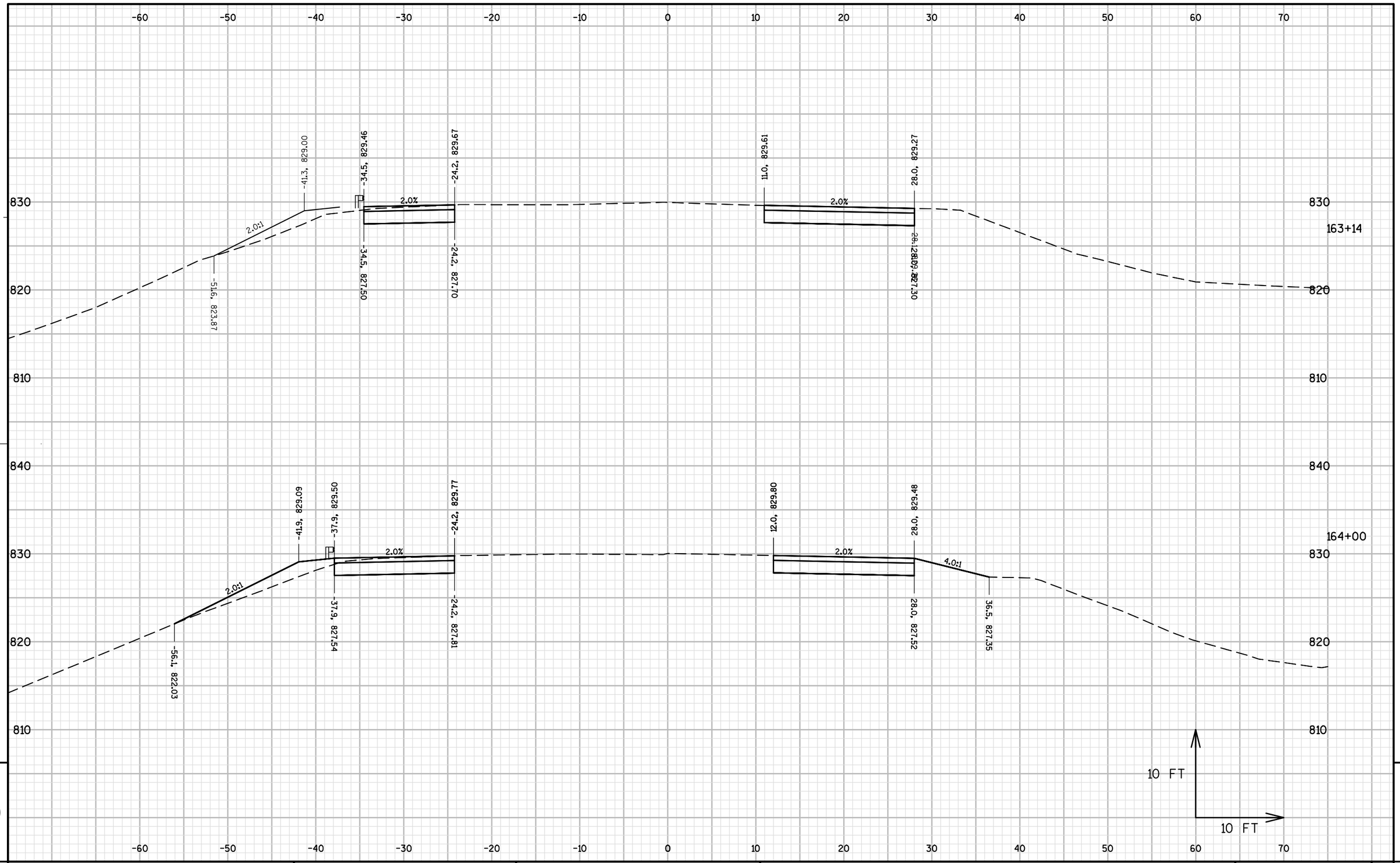
PROJECT NO: 1003-10-78	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: TEMPORARY WIDENING	SHEET	E

FILE NAME : L:\WORK\PROJECTS\60242867\000_CAD\001_DRAWINGS\1003-10-78_STATELINE TO CTH S TEMP\100%\090201_XS_100_204.DWG PLOT DATE : 4/6/2016 3:23 PM PLOT BY : ARBUCKLE, ADRIAN PLOT NAME : PLOT SCALE : 1:10_XREF



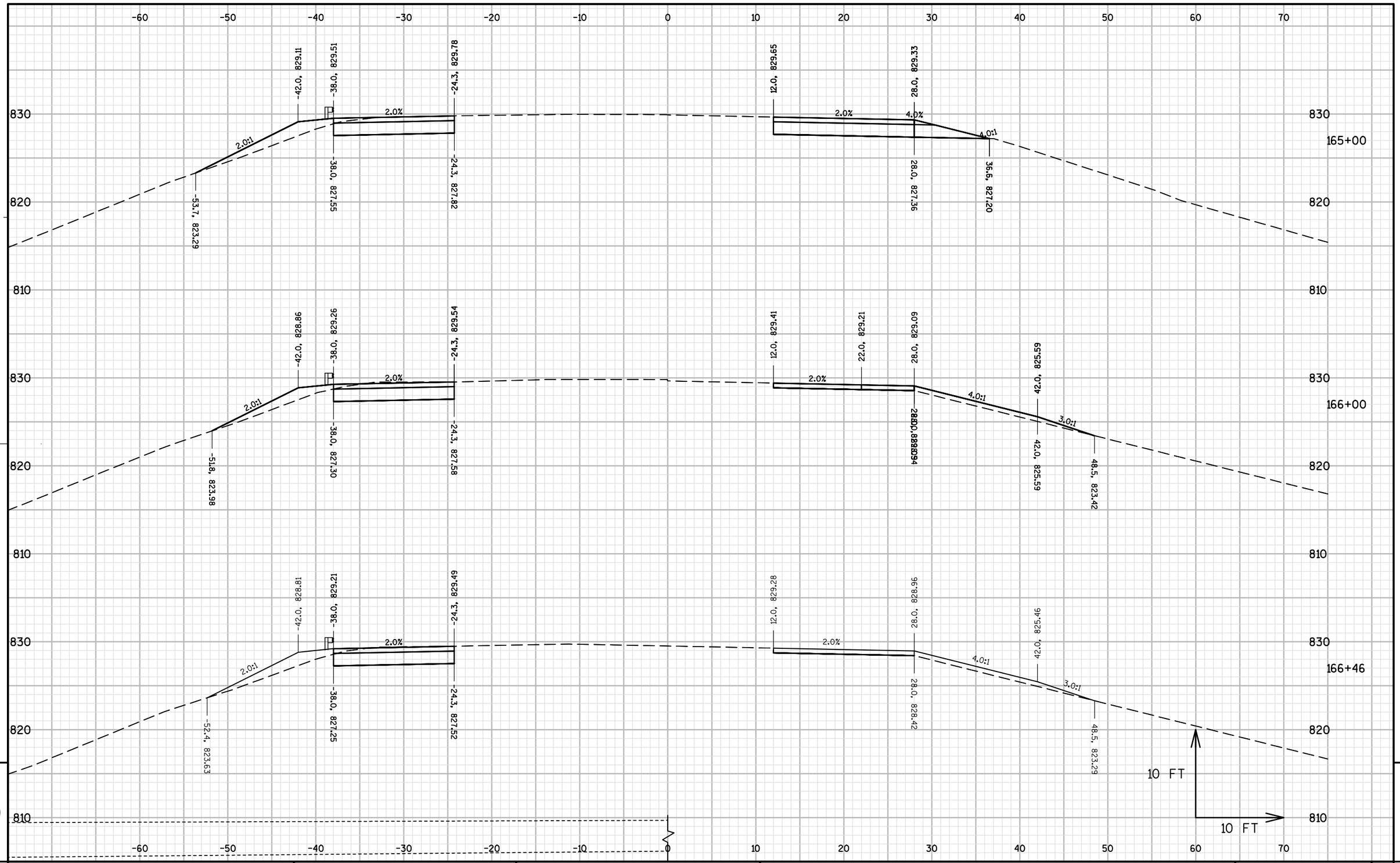
PROJECT NO: 1003-10-78	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: TEMPORARY WIDENING	SHEET	E

FILE NAME : L:\WORK\PROJECTS\60242867\000_CAD\001_DRAWINGS\1003-10-78_STATELINE TO CTH S TEMP\100%\090201_XS_100_204.DWG PLOT DATE : 4/6/2016 3:24 PM PLOT BY : ARBUCKLE, ADRIAN PLOT NAME : PLOT SCALE : 1:10_XREF



PROJECT NO: 1003-10-78	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: TEMPORARY WIDENING	SHEET	E

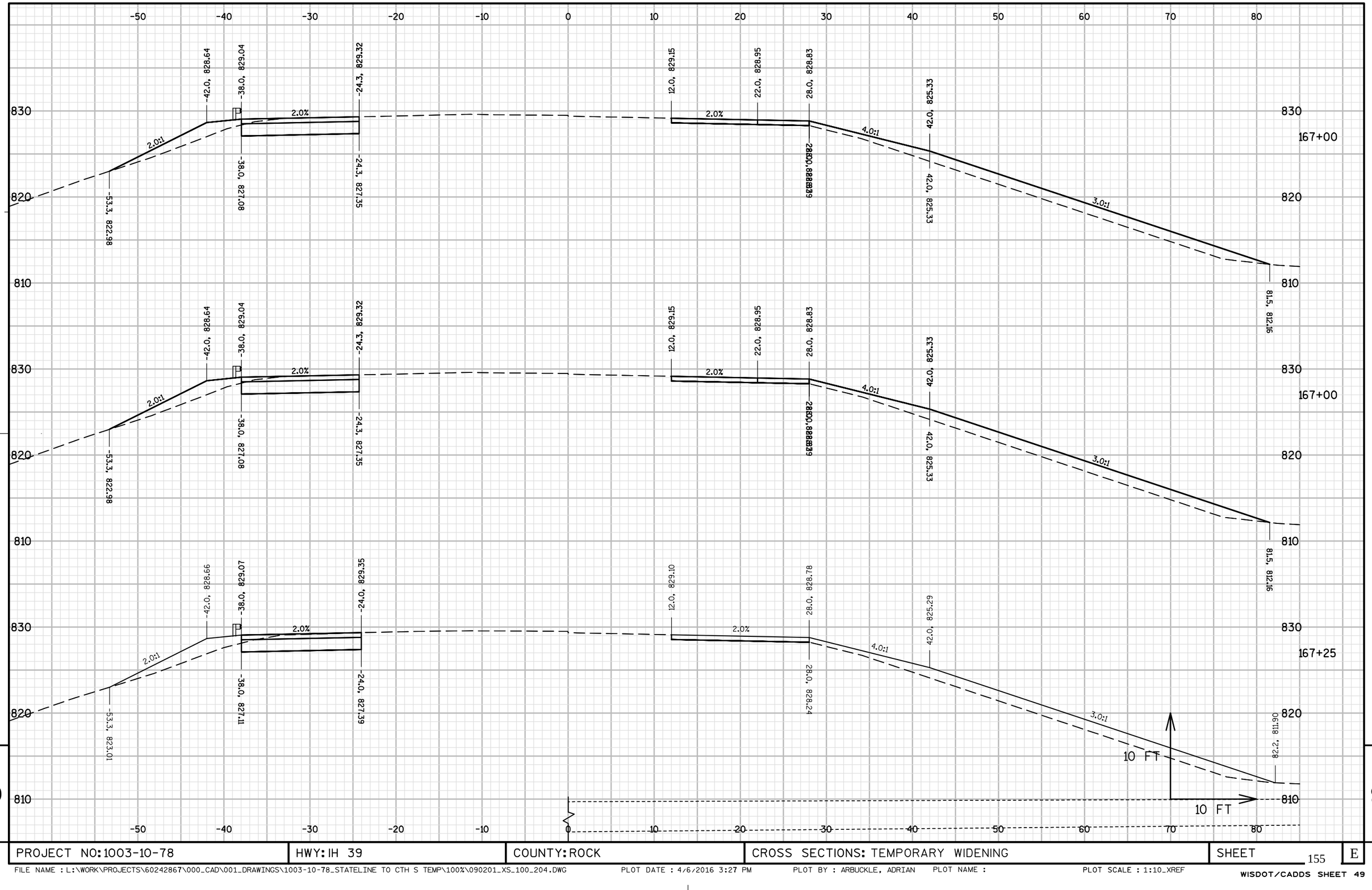
FILE NAME : L:\WORK\PROJECTS\60242867\000_CAD\001_DRAWINGS\1003-10-78_STATELINE TO CTH S TEMP\100%\090201_XS_100_204.DWG PLOT DATE : 4/6/2016 3:25 PM PLOT BY : ARBUCKLE, ADRIAN PLOT NAME : PLOT SCALE : 1:10_XREF
WISDOT/CADDS SHEET 49



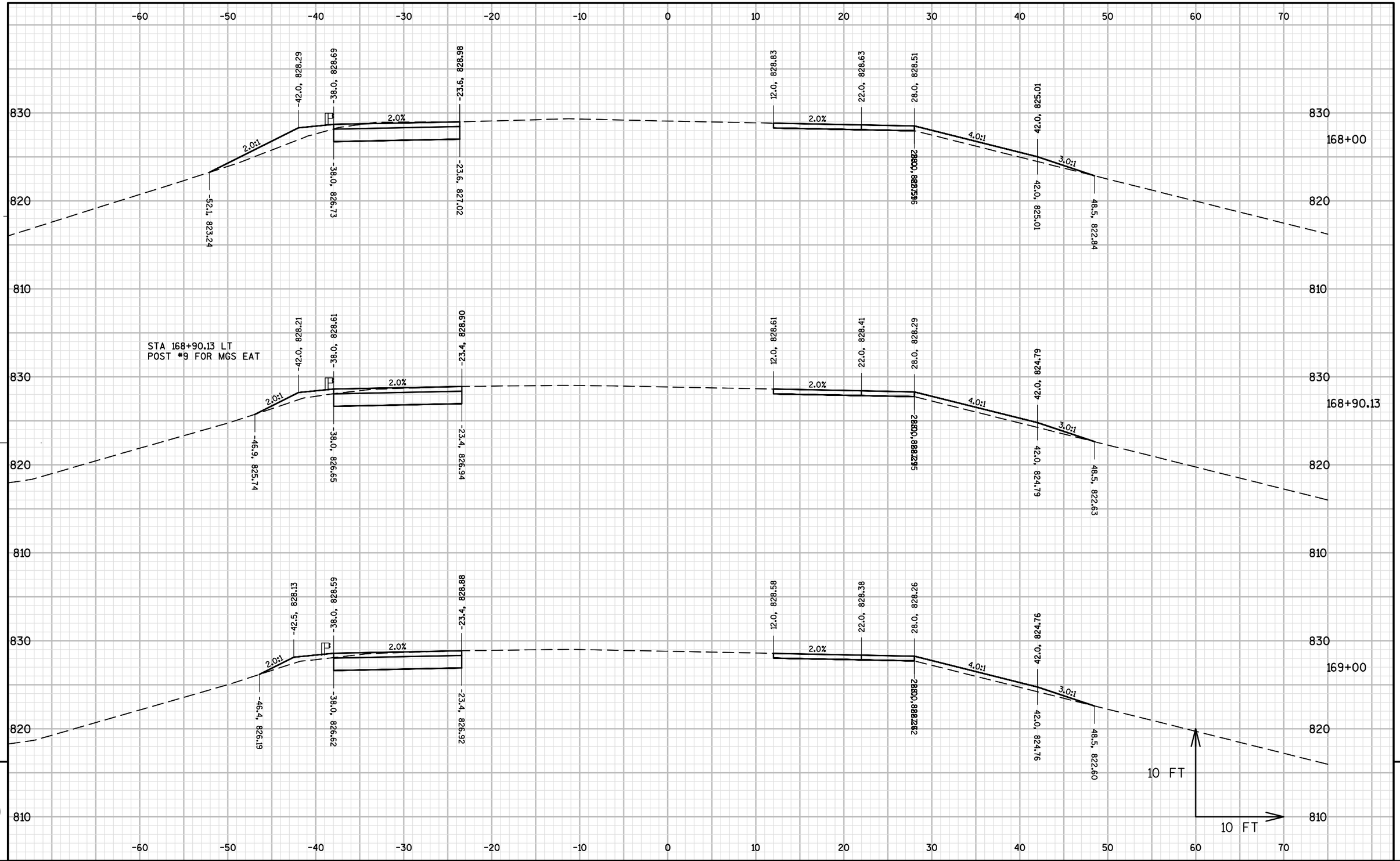
9

9

PROJECT NO: 1003-10-78	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: TEMPORARY WIDENING	SHEET 154	E



PROJECT NO: 1003-10-78	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: TEMPORARY WIDENING	SHEET 155 E

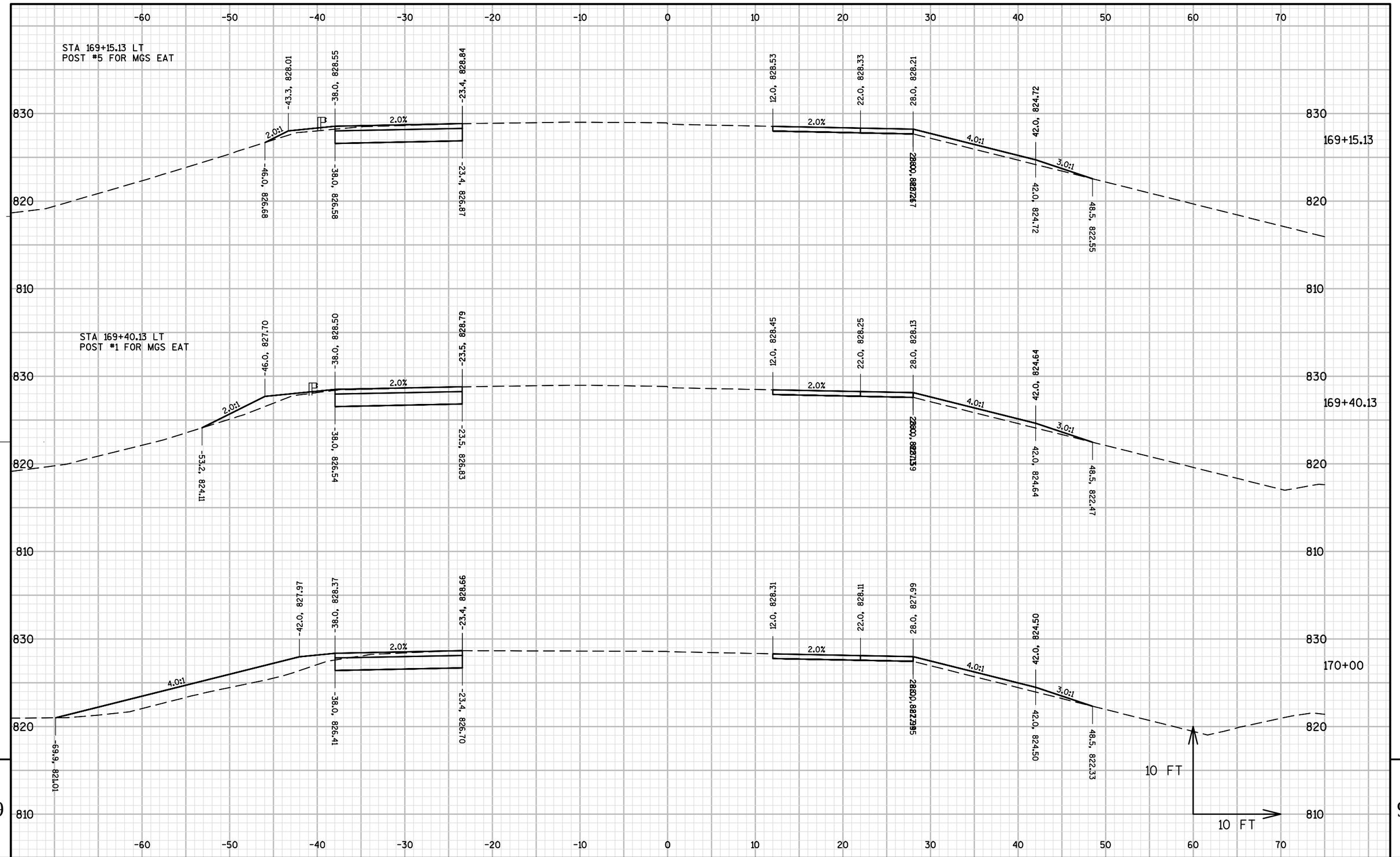


9

PROJECT NO: 1003-10-78	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: TEMPORARY WIDENING	SHEET	E

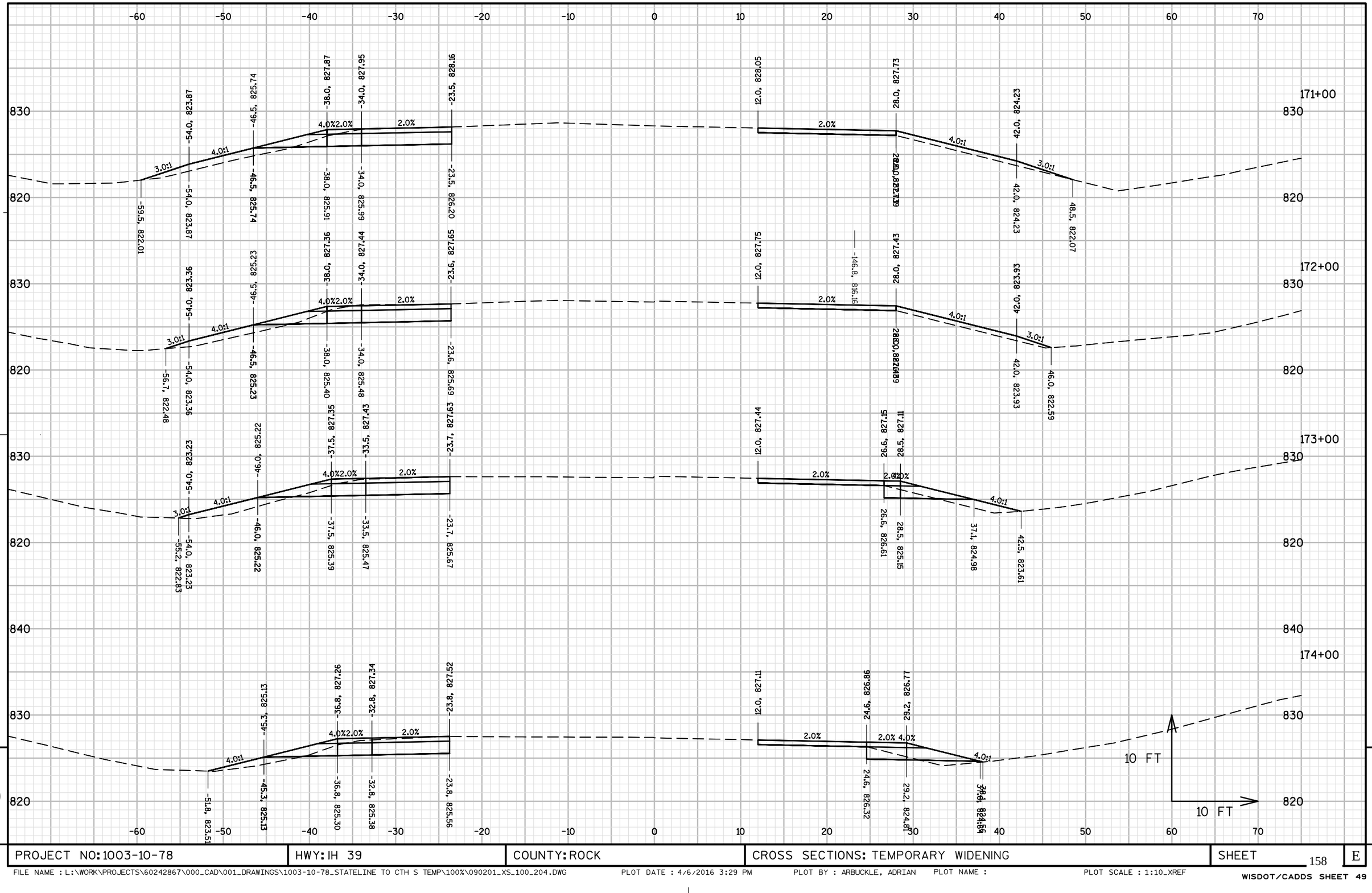
9

FILE NAME : L:\WORK\PROJECTS\60242867\000_CAD\001_DRAWINGS\1003-10-78_STATELINE TO CTH S TEMP\100%\090201_XS_100_204.DWG PLOT DATE : 4/6/2016 3:28 PM PLOT BY : ARBUCKLE, ADRIAN PLOT NAME : PLOT SCALE : 1:10_XREF



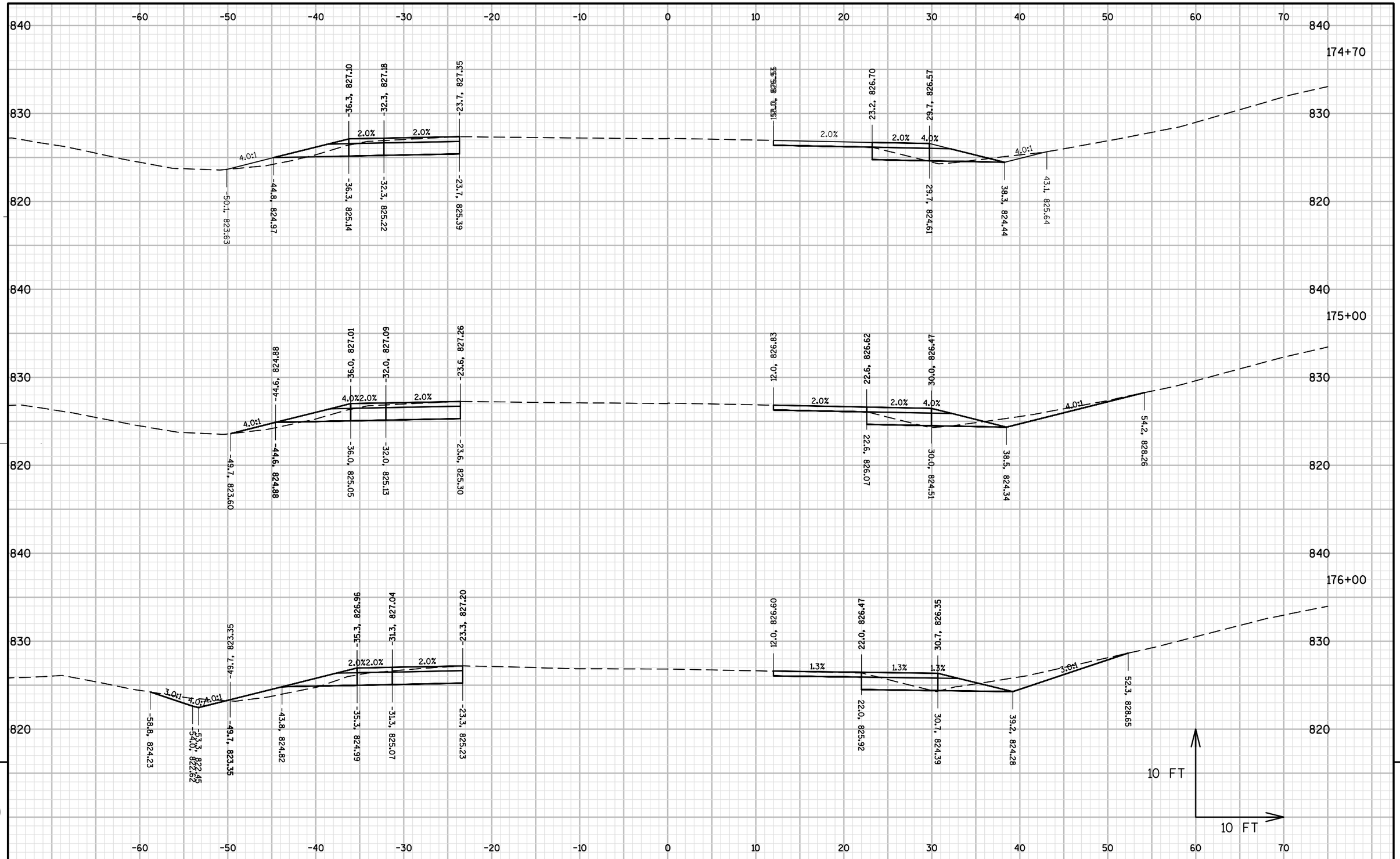
PROJECT NO: 1003-10-78	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: TEMPORARY WIDENING	SHEET	E

FILE NAME : L:\WORK\PROJECTS\60242867\000_CAD\001_DRAWINGS\1003-10-78_STATELINE TO CTH S TEMP\100%\090201_XS_100_204.DWG PLOT DATE : 4/6/2016 3:28 PM PLOT BY : ARBUCKLE, ADRIAN PLOT NAME : PLOT SCALE : 1:10_XREF



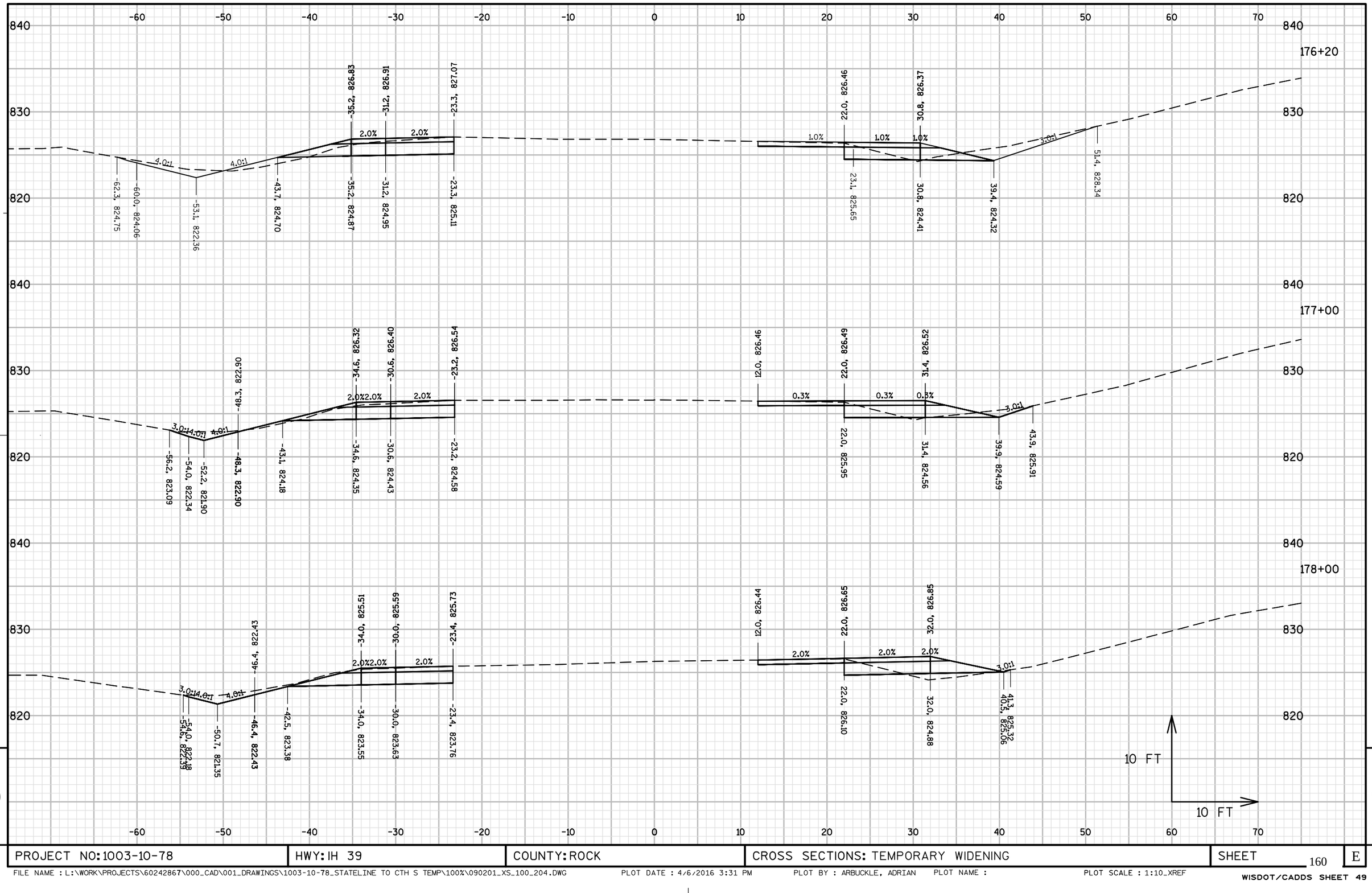
PROJECT NO: 1003-10-78	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: TEMPORARY WIDENING	SHEET	E

FILE NAME : L:\WORK\PROJECTS\60242867\000_CAD\001_DRAWINGS\1003-10-78_STATELINE TO CTH S TEMP\100%\090201_XS_100_204.DWG PLOT DATE : 4/6/2016 3:29 PM PLOT BY : ARBUCKLE, ADRIAN PLOT NAME : PLOT SCALE : 1:10_XREF

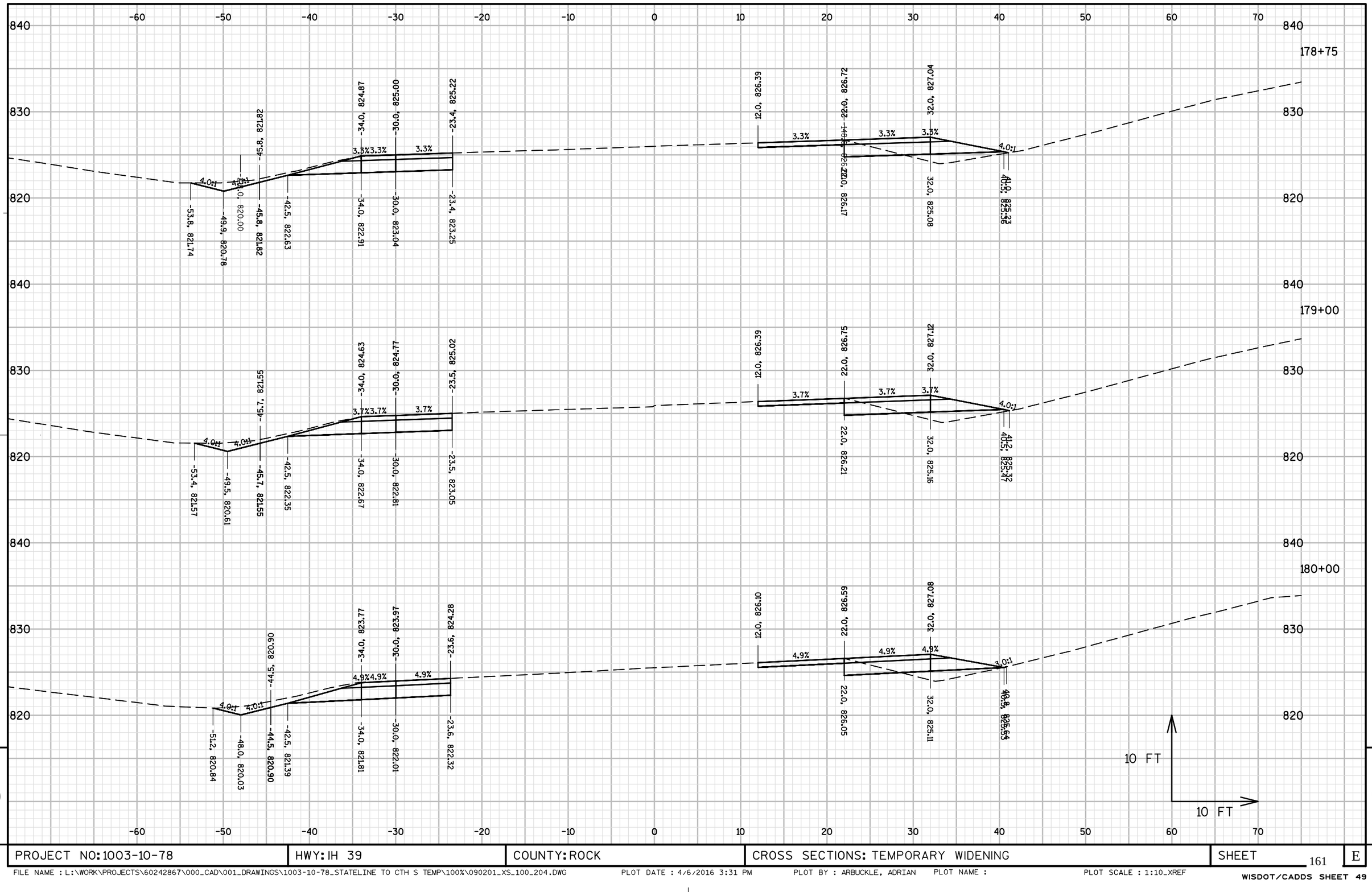


PROJECT NO: 1003-10-78	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: TEMPORARY WIDENING	SHEET	E

FILE NAME : L:\WORK\PROJECTS\60242867\000_CAD\001_DRAWINGS\1003-10-78_STATELINE TO CTH S TEMP\100%\090201_XS_100_204.DWG PLOT DATE : 4/6/2016 3:30 PM PLOT BY : ARBUCKLE, ADRIAN PLOT NAME : PLOT SCALE : 1:10_XREF
WISDOT/CADDS SHEET 49

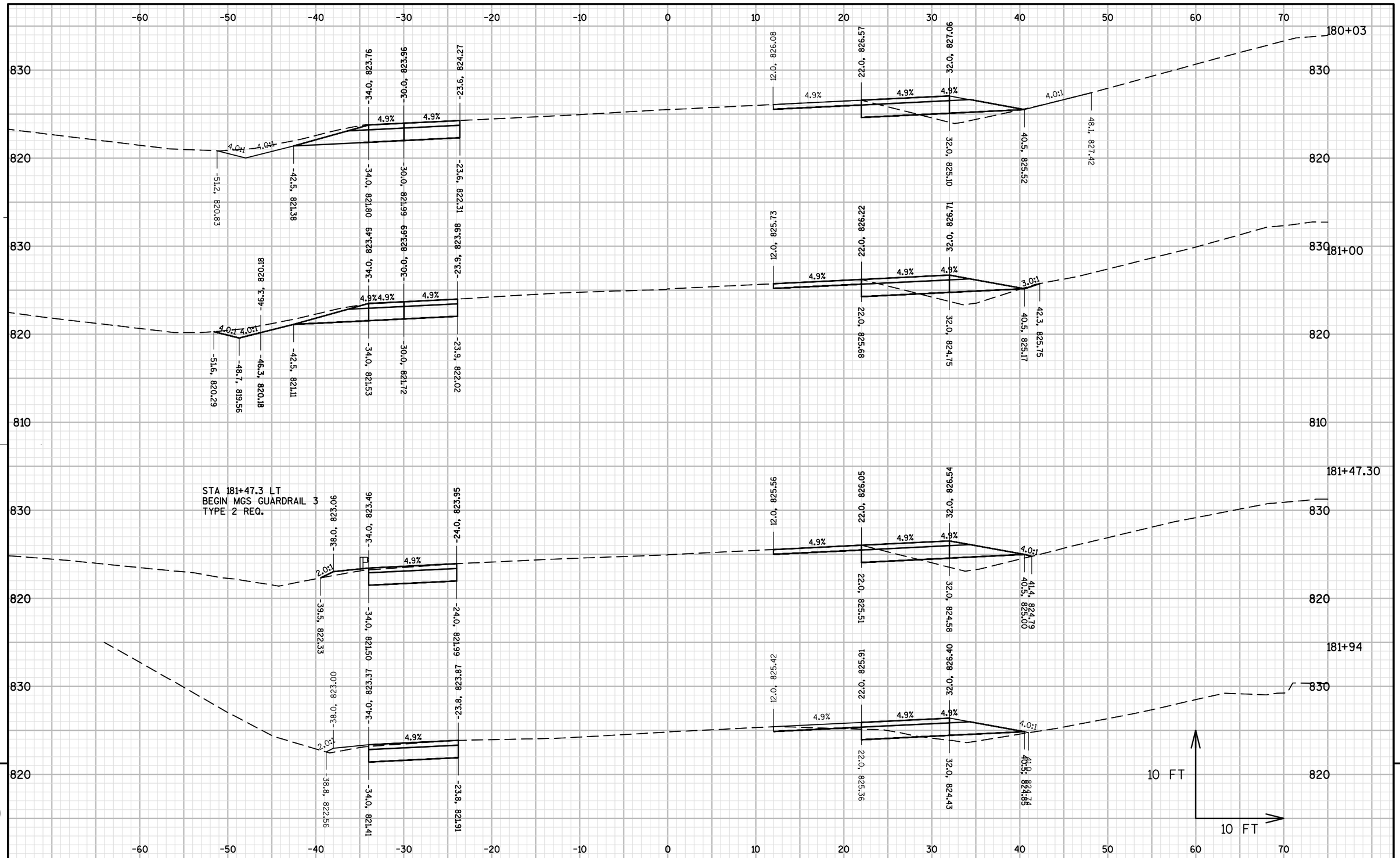


PROJECT NO: 1003-10-78	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: TEMPORARY WIDENING	SHEET 160	E



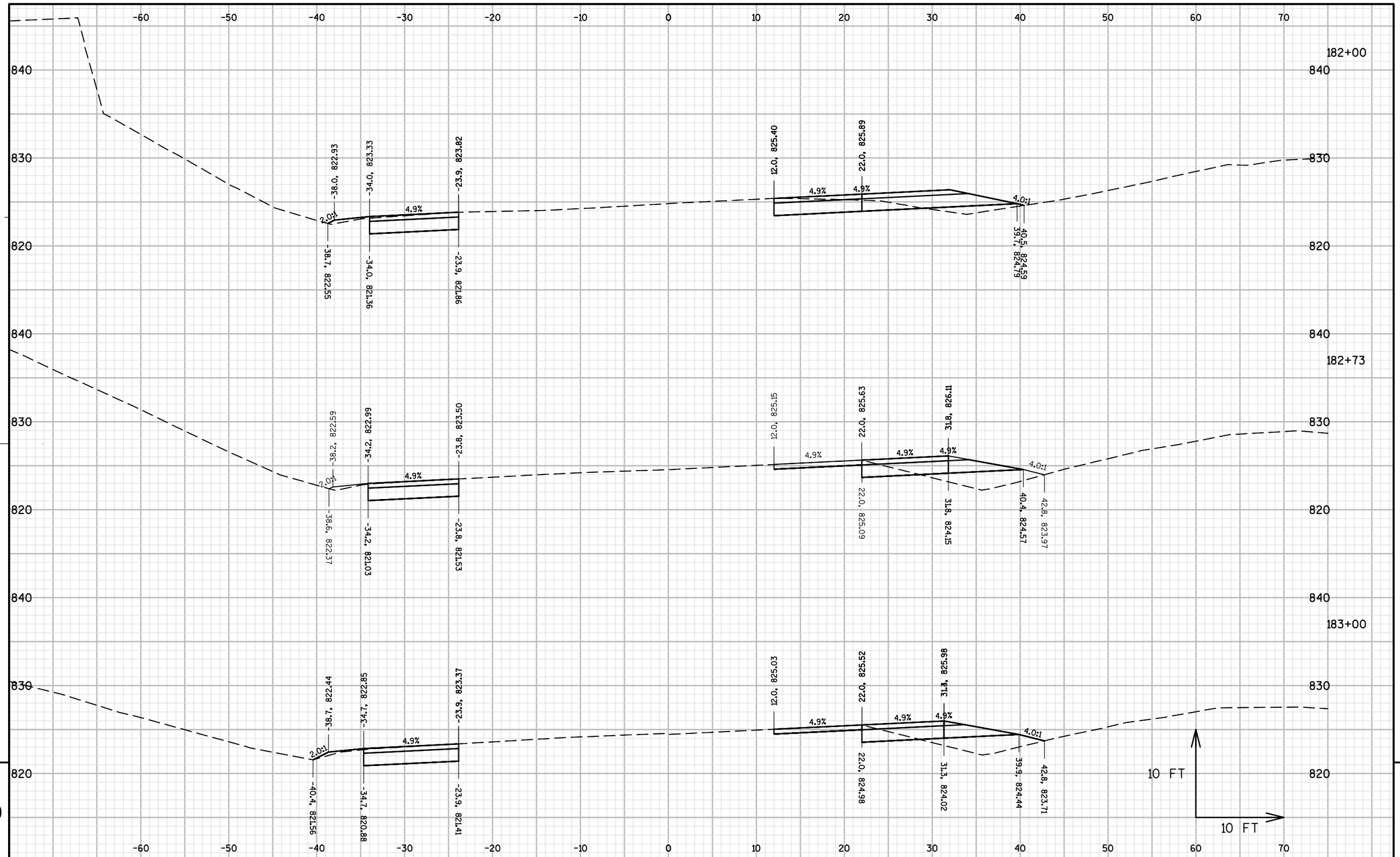
PROJECT NO: 1003-10-78	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: TEMPORARY WIDENING	SHEET	E

FILE NAME : L:\WORK\PROJECTS\60242867\000_CAD\001_DRAWINGS\1003-10-78_STATELINE TO CTH S TEMP\100%\090201_XS_100_204.DWG PLOT DATE : 4/6/2016 3:31 PM PLOT BY : ARBUCKLE, ADRIAN PLOT NAME : PLOT SCALE : 1:10_XREF
WISDOT/CADDS SHEET 49



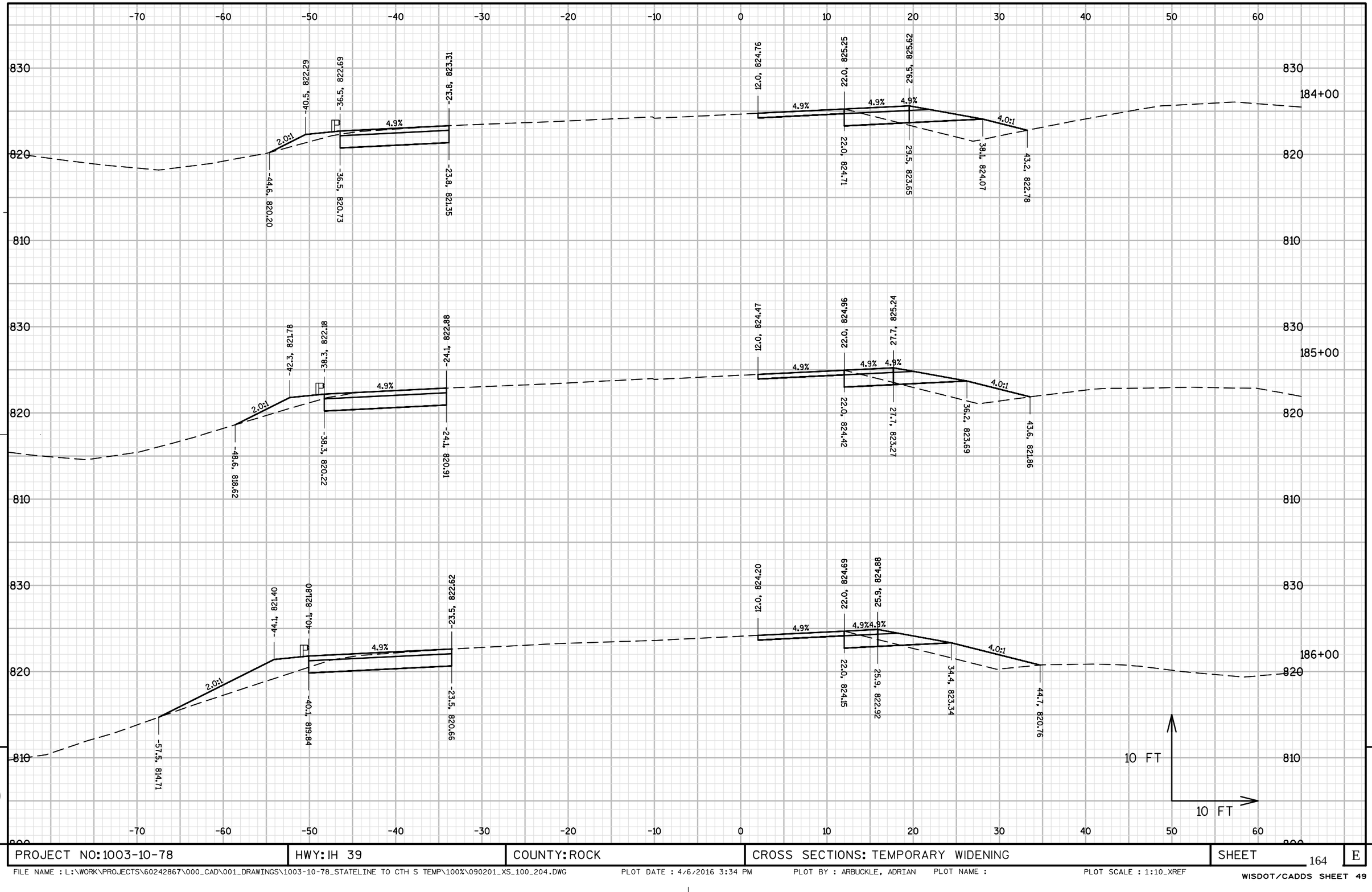
PROJECT NO: 1003-10-78	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: TEMPORARY WIDENING	SHEET	E

FILE NAME : L:\WORK\PROJECTS\60242867\000_CAD\001_DRAWINGS\1003-10-78_STATELINE TO CTH S TEMP\100%\090201_XS_100_204.DWG PLOT DATE : 4/6/2016 3:32 PM PLOT BY : ARBUCKLE, ADRIAN PLOT NAME : PLOT SCALE : 1:10_XREF



PROJECT NO: 1003-10-78	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: TEMPORARY WIDENING	SHEET	E

FILE NAME : L:\WORK\PROJECTS\60242867\000_CAD\001_DRAWINGS\1003-10-78_STATELINE TO CTH S TEMP\100%\090201_XS_100_204.DWG PLOT DATE : 4/6/2016 3:33 PM PLOT BY : ARBUCKLE, ADRIAN PLOT NAME : PLOT SCALE : 1:10_XREF



PROJECT NO: 1003-10-78	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: TEMPORARY WIDENING	SHEET 164 E

FILE NAME : L:\WORK\PROJECTS\60242867\000_CAD\001_DRAWINGS\1003-10-78_STATELINE TO CTH S TEMP\100%\090201_XS_100_204.DWG PLOT DATE : 4/6/2016 3:34 PM PLOT BY : ARBUCKLE, ADRIAN PLOT NAME : PLOT SCALE : 1:10_XREF
WISDOT/CADDS SHEET 49

STA 186+92
1-CONCRETE COLLARS FOR PIPE REQ.
1-24" CPRC EXTENSION LT REQ.
1-APRON ENDWALL REQ.

STA 186+92
1-CONCRETE COLLARS FOR PIPE REQ.
1-24" CPRC EXTENSION RT REQ.
1-APRON ENDWALL REQ.

186+92

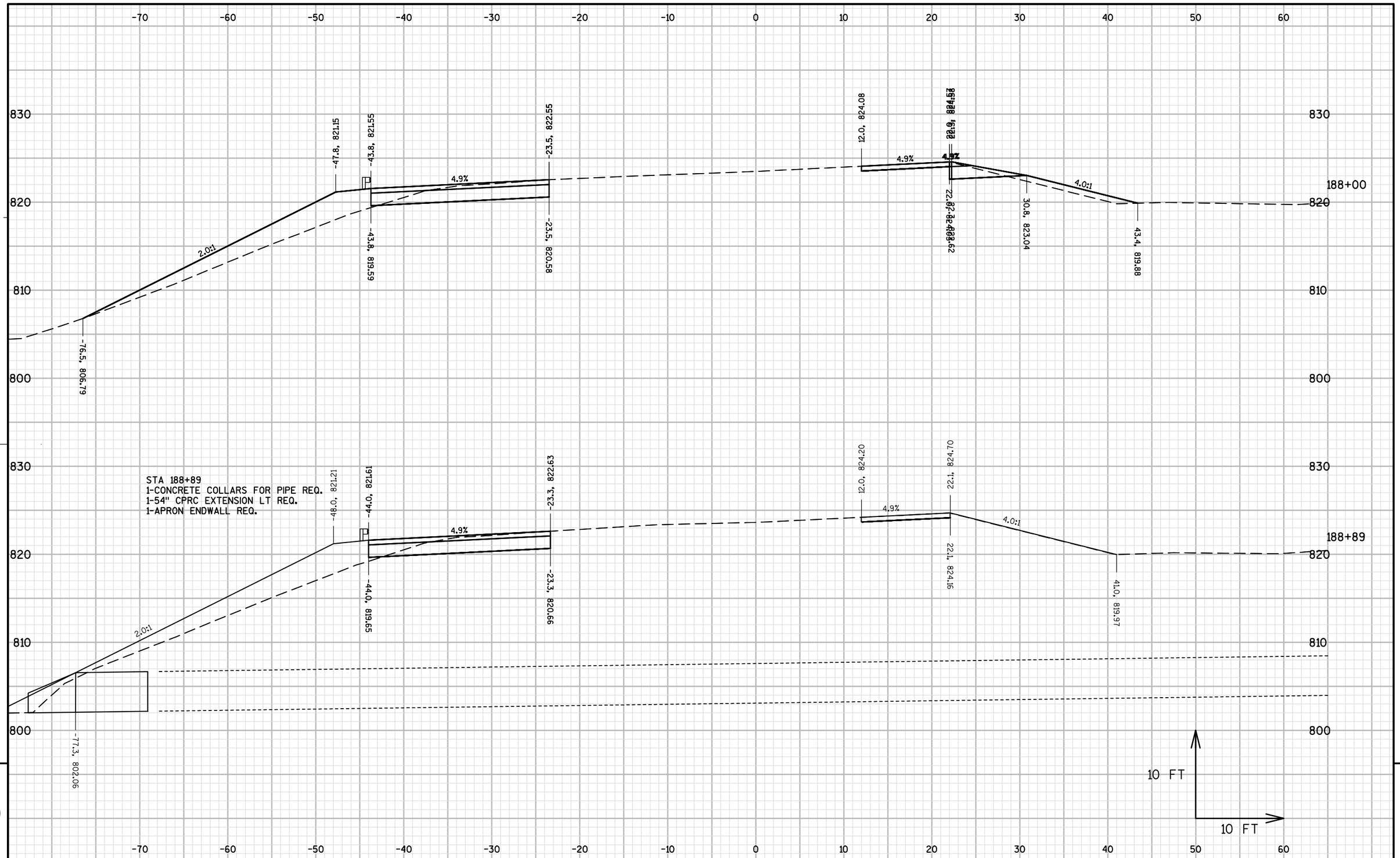
187+00

-68.7, 809.72
-55.6, 811.32
-51.4, 816.41
-45.8, 821.19
-45.9, 821.17
-41.8, 821.59
-41.9, 821.57
-41.8, 816.63
-41.9, 816.69
-23.8, 822.47
-23.8, 822.46
-23.8, 820.51
-23.8, 820.50
12.0, 824.06
12.0, 824.05
22.0, 824.55
22.0, 824.54
22.0, 824.00
24.2, 824.66
24.1, 824.65
24.2, 822.70
24.1, 822.68
32.7, 823.12
32.6, 823.10
43.5, 818.46
49.7, 818.88
49.1, 818.98

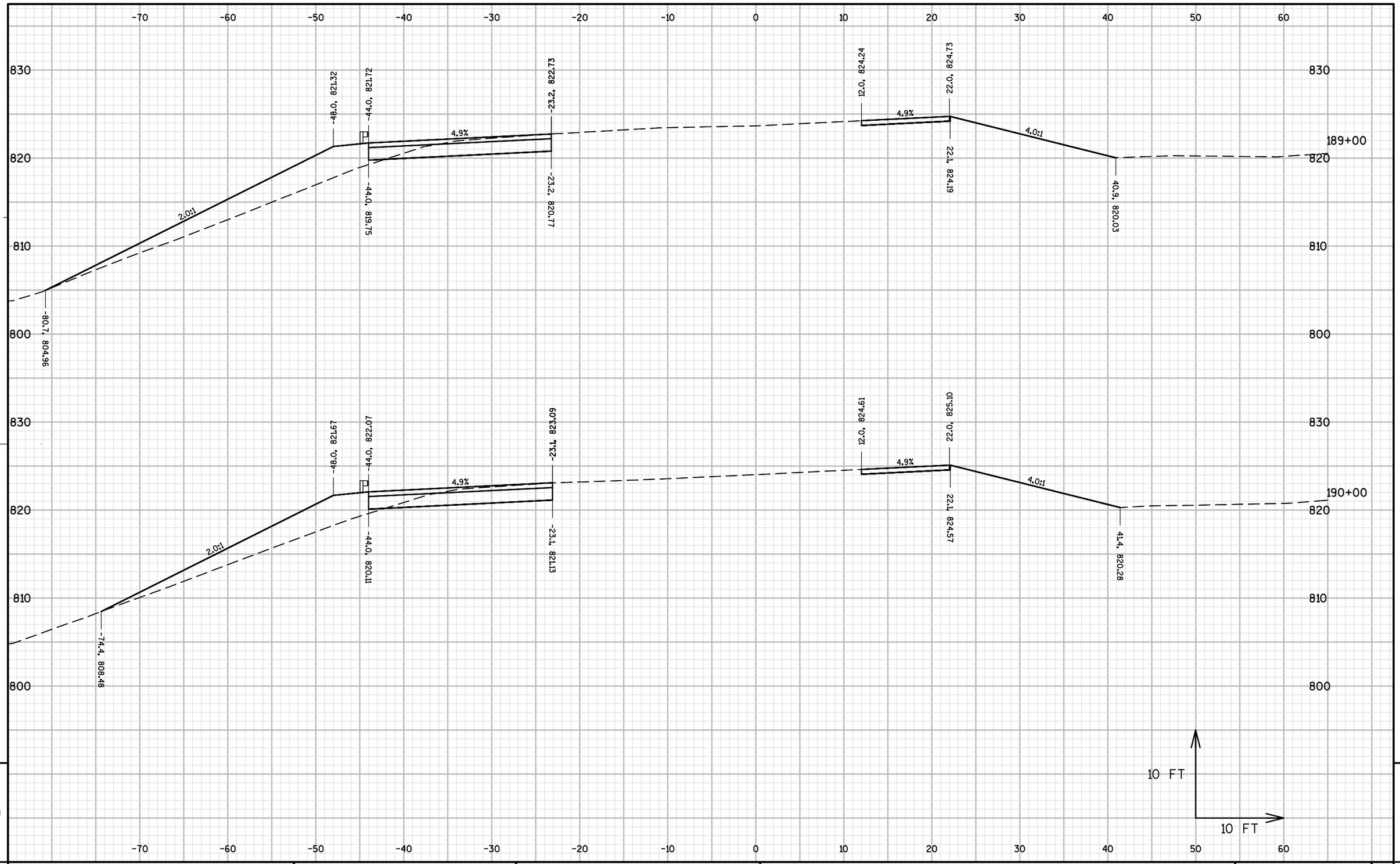
2.0:1
4.9%
4.0:1

10 FT
10 FT

PROJECT NO: 1003-10-78	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: TEMPORARY WIDENING	SHEET 165	E

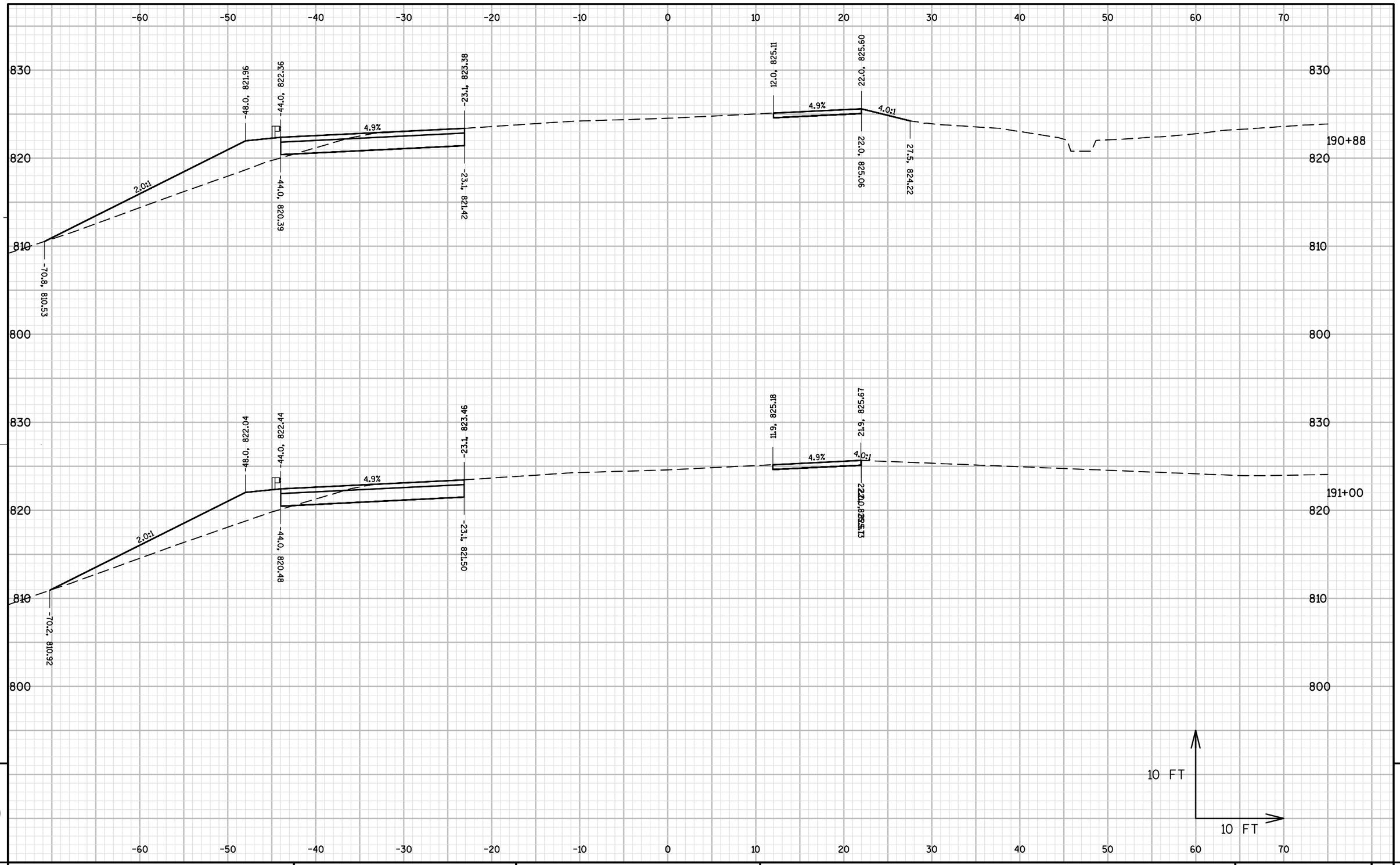


PROJECT NO: 1003-10-78	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: TEMPORARY WIDENING	SHEET 166	E



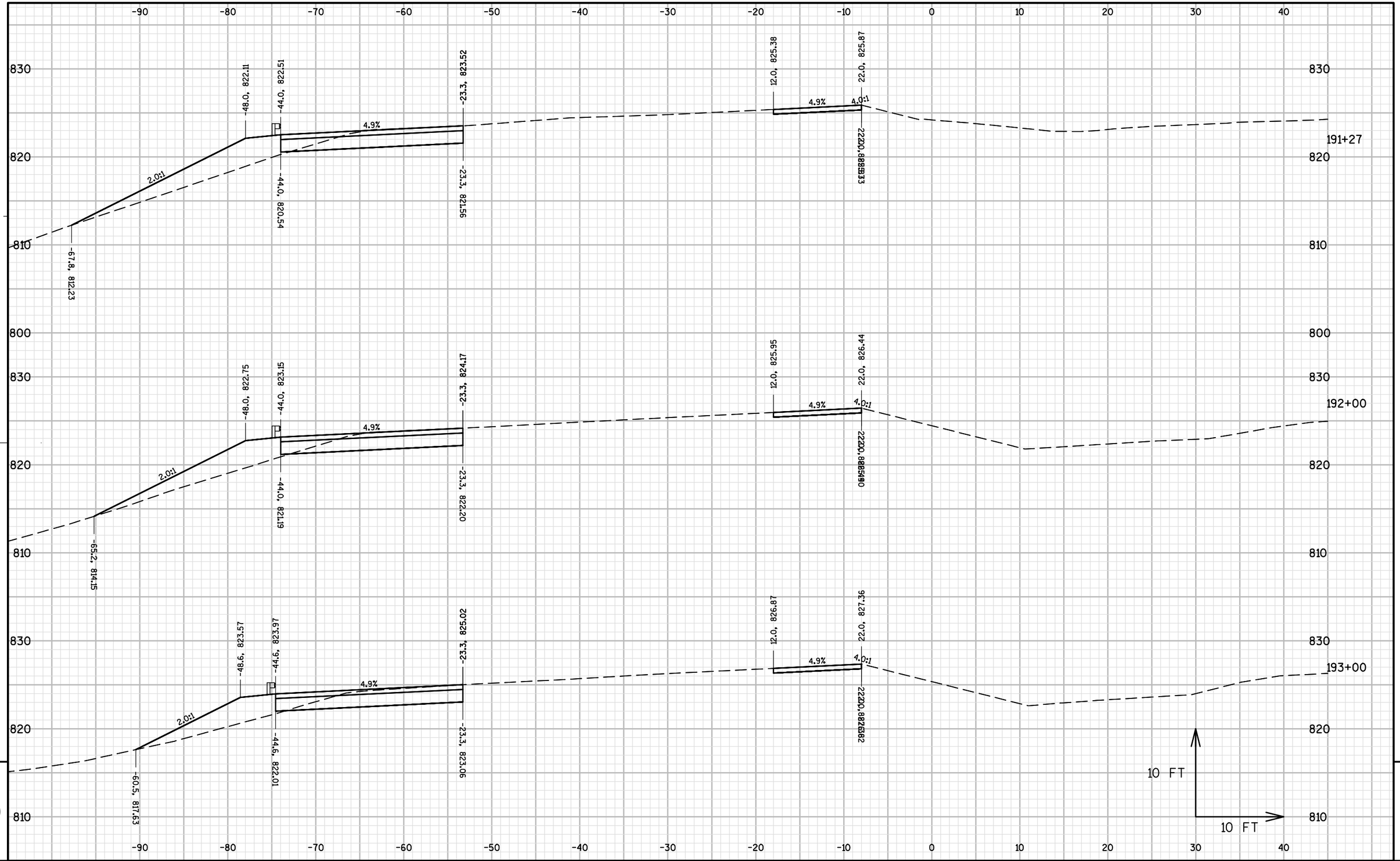
PROJECT NO: 1003-10-78	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: TEMPORARY WIDENING	SHEET	E

FILE NAME : L:\WORK\PROJECTS\60242867\000_CAD\001_DRAWINGS\1003-10-78_STATELINE TO CTH S TEMP\100%\090201_XS_100_204.DWG PLOT DATE : 4/6/2016 3:36 PM PLOT BY : ARBUCKLE, ADRIAN PLOT NAME : PLOT SCALE : 1:10_XREF



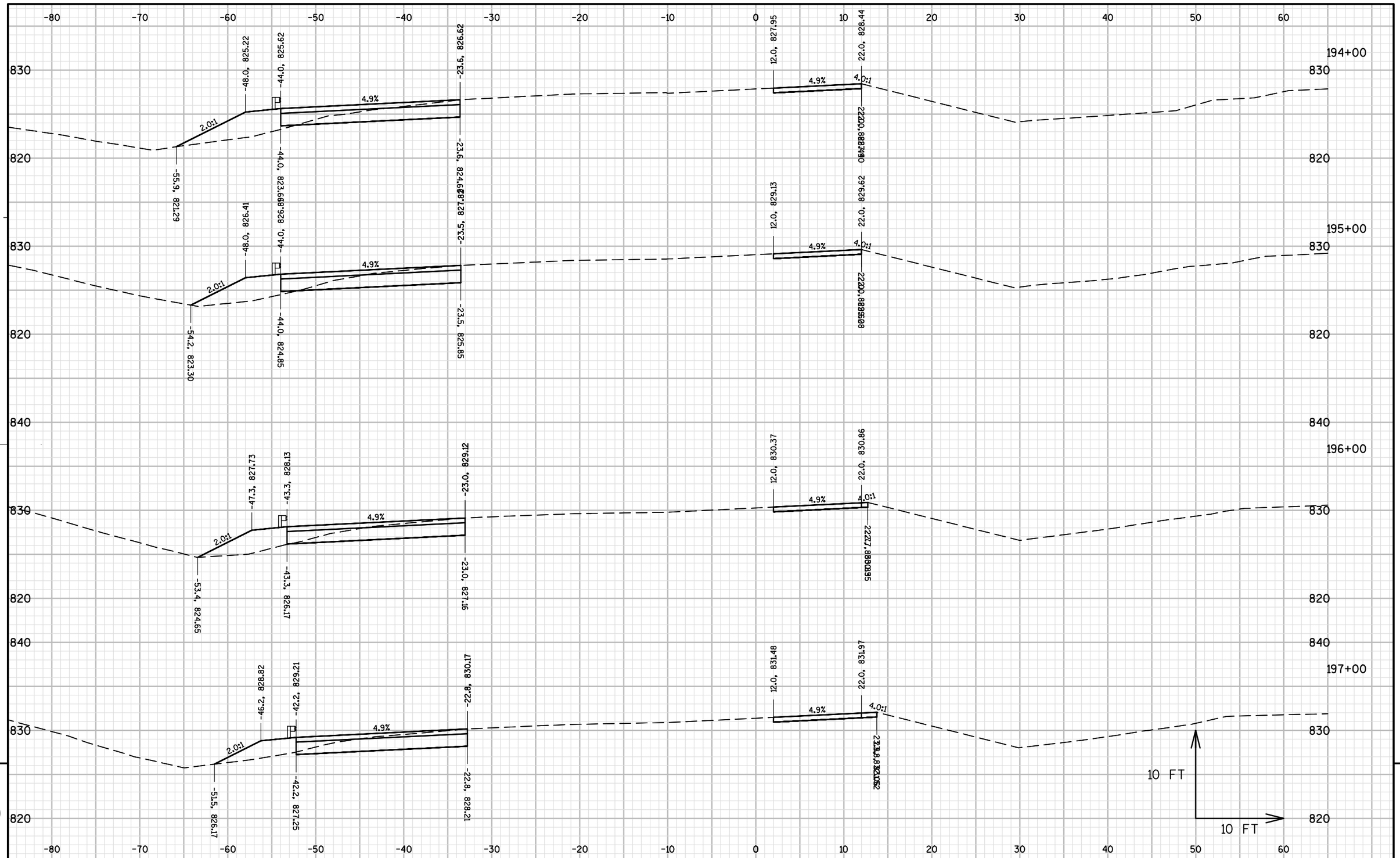
PROJECT NO: 1003-10-78	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: TEMPORARY WIDENING	SHEET 168	E

FILE NAME : L:\WORK\PROJECTS\60242867\000_CAD\001_DRAWINGS\1003-10-78_STATELINE TO CTH S TEMP\100%\090201_XS_100_204.DWG PLOT DATE : 4/6/2016 3:37 PM PLOT BY : ARBUCKLE, ADRIAN PLOT NAME : PLOT SCALE : 1:10_XREF



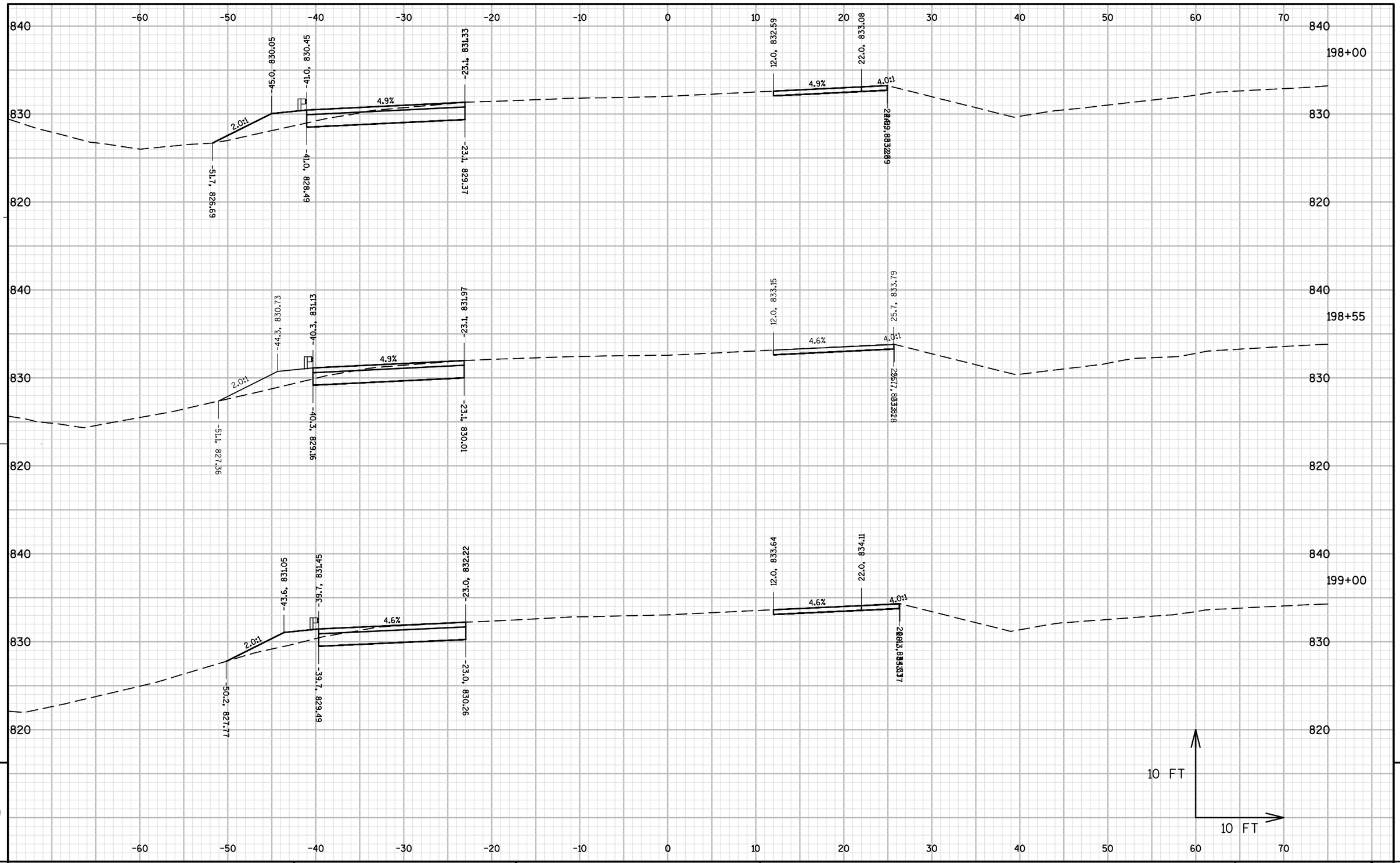
PROJECT NO: 1003-10-78	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: TEMPORARY WIDENING	SHEET	E

FILE NAME : L:\WORK\PROJECTS\60242867\000_CAD\001_DRAWINGS\1003-10-78_STATELINE TO CTH S TEMP\100%\090201_XS_100_204.DWG PLOT DATE : 4/6/2016 3:38 PM PLOT BY : ARBUCKLE, ADRIAN PLOT NAME : PLOT SCALE : 1:10_XREF

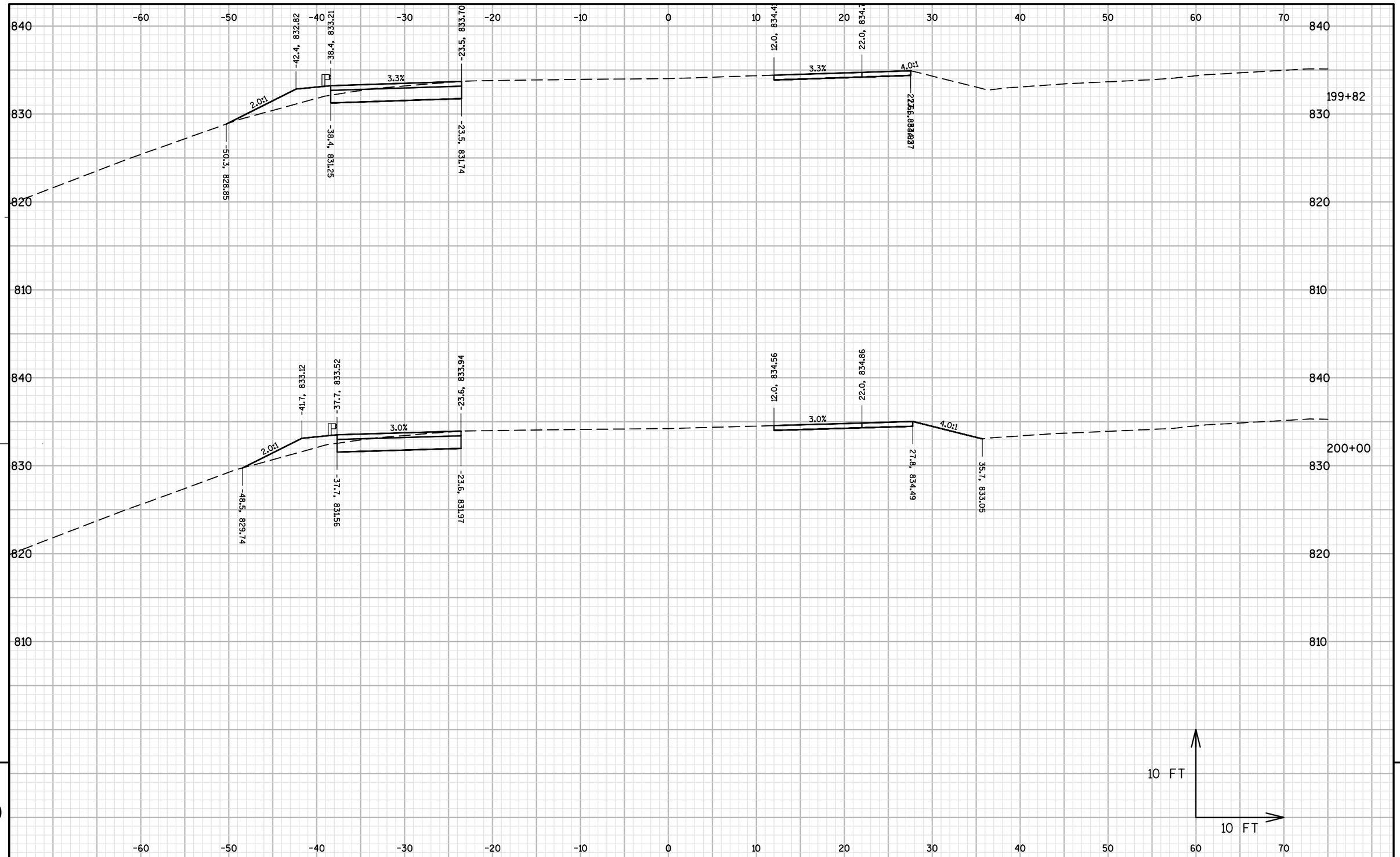


PROJECT NO: 1003-10-78	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: TEMPORARY WIDENING	SHEET 170	E

FILE NAME : L:\WORK\PROJECTS\60242867\000_CAD\001_DRAWINGS\1003-10-78_STATELINE TO CTH S TEMP\100%\090201_XS_100_204.DWG PLOT DATE : 4/6/2016 3:39 PM PLOT BY : ARBUCKLE, ADRIAN PLOT NAME : PLOT SCALE : 1:10_XREF

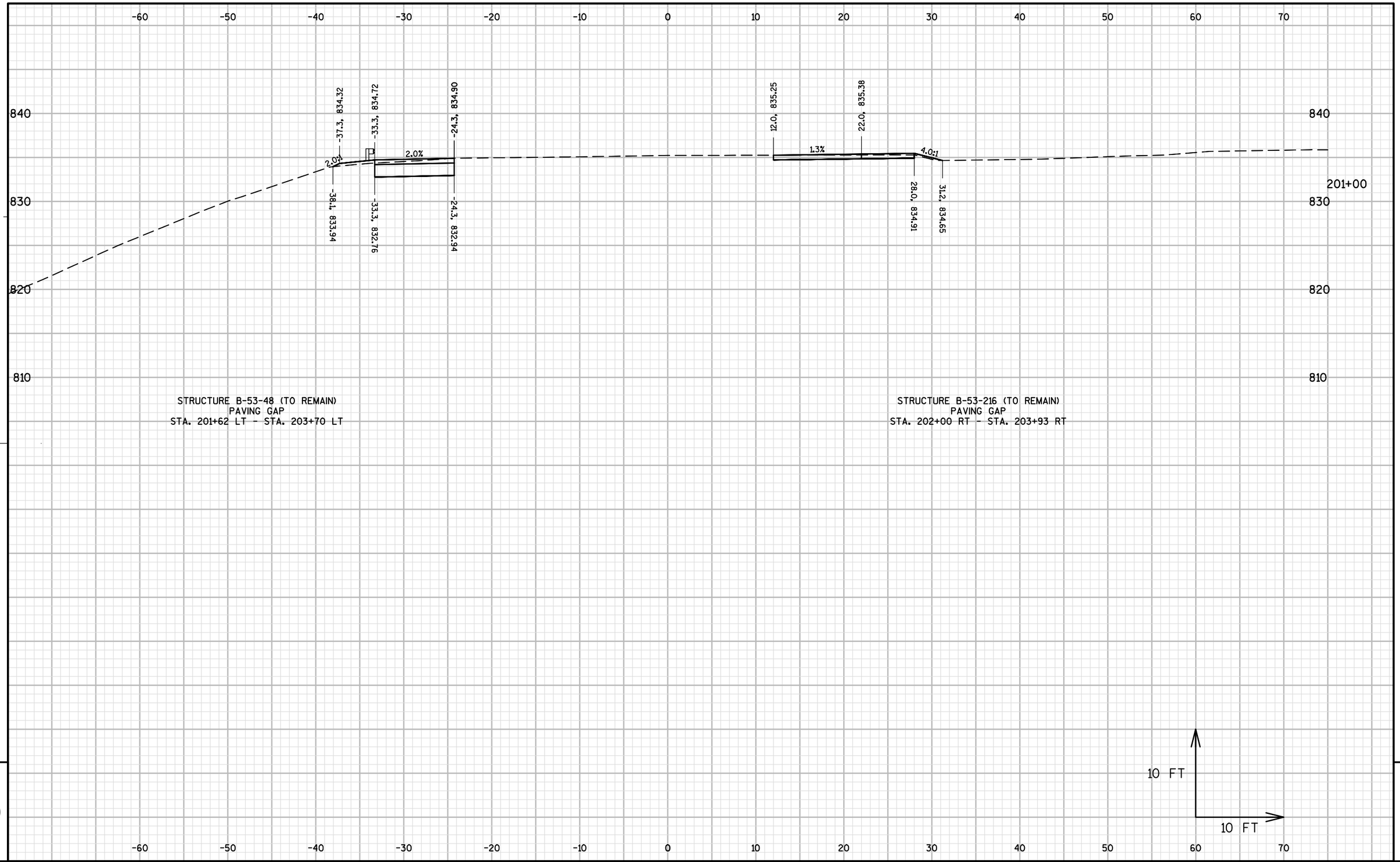


PROJECT NO: 1003-10-78	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: TEMPORARY WIDENING	SHEET 171	E



PROJECT NO: 1003-10-78	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: TEMPORARY WIDENING	SHEET	E

FILE NAME : L:\WORK\PROJECTS\60242867\000_CAD\001_DRAWINGS\1003-10-78_STATELINE TO CTH S TEMP\100%\090201_XS_100_204.DWG PLOT DATE : 4/6/2016 3:40 PM PLOT BY : ARBUCKLE, ADRIAN PLOT NAME : PLOT SCALE : 1:10_XREF
WISDOT/CADDS SHEET 49

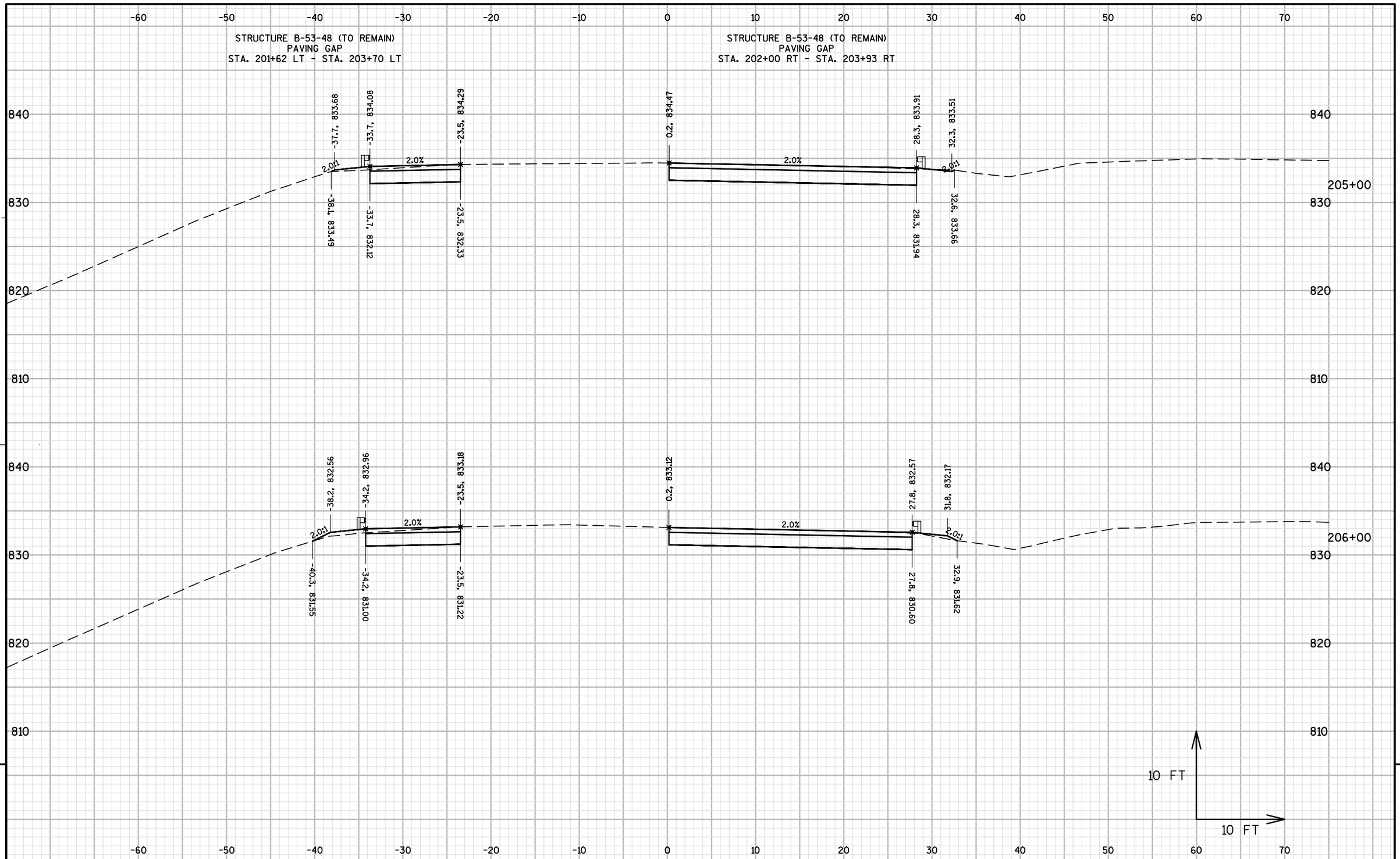


PROJECT NO: 1003-10-78	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: TEMPORARY WIDENING	SHEET	E

FILE NAME : L:\WORK\PROJECTS\60242867\000_CAD\001_DRAWINGS\1003-10-78_STATELINE TO CTH S TEMP\100%\090201_XS_100_204.DWG PLOT DATE : 4/6/2016 3:41 PM PLOT BY : ARBUCKLE, ADRIAN PLOT NAME : PLOT SCALE : 1:10_XREF
WISDOT/CADDS SHEET 49

STRUCTURE B-53-48 (TO REMAIN)
PAVING GAP
STA. 201+62 LT - STA. 203+70 LT

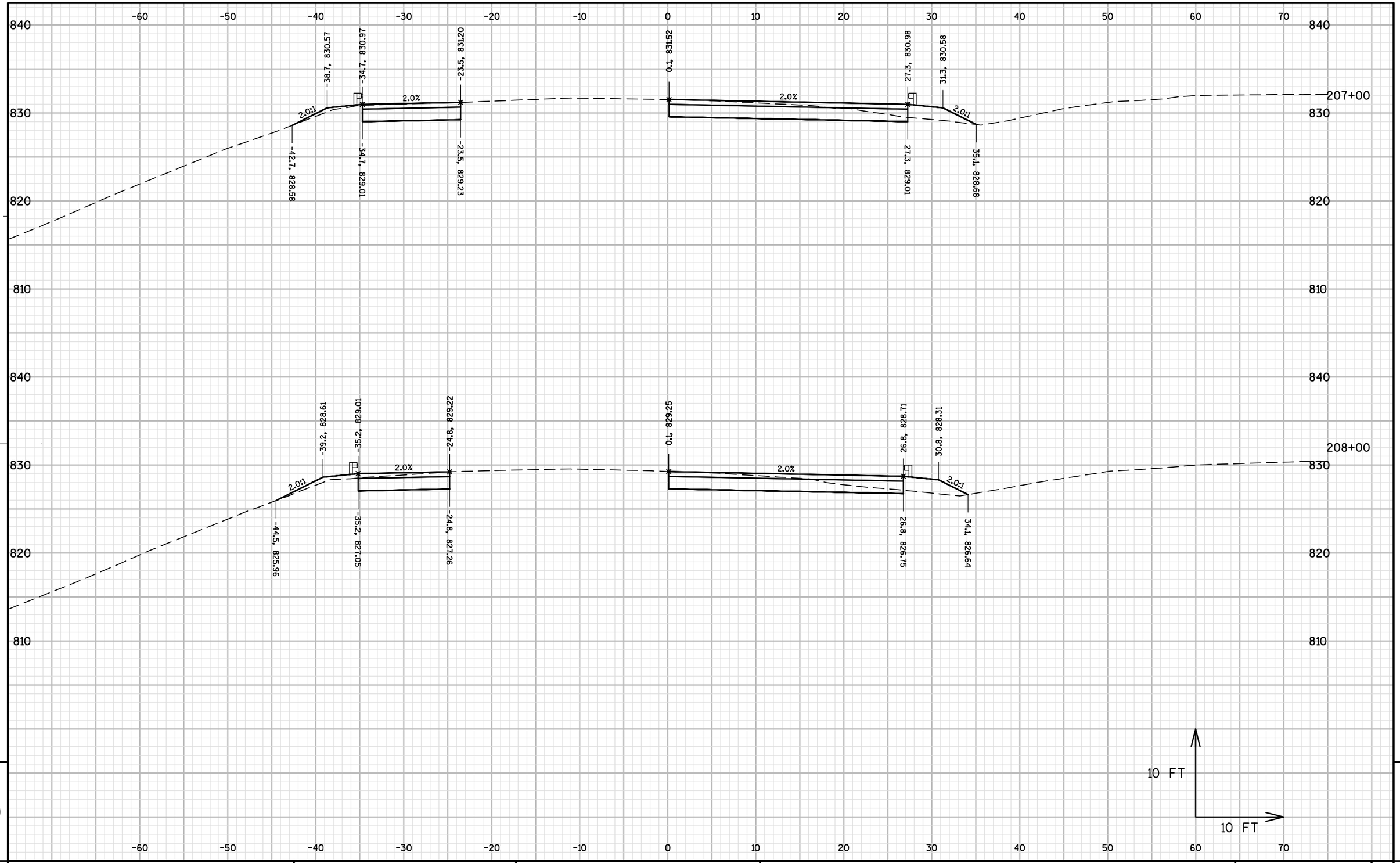
STRUCTURE B-53-48 (TO REMAIN)
PAVING GAP
STA. 202+00 RT - STA. 203+93 RT



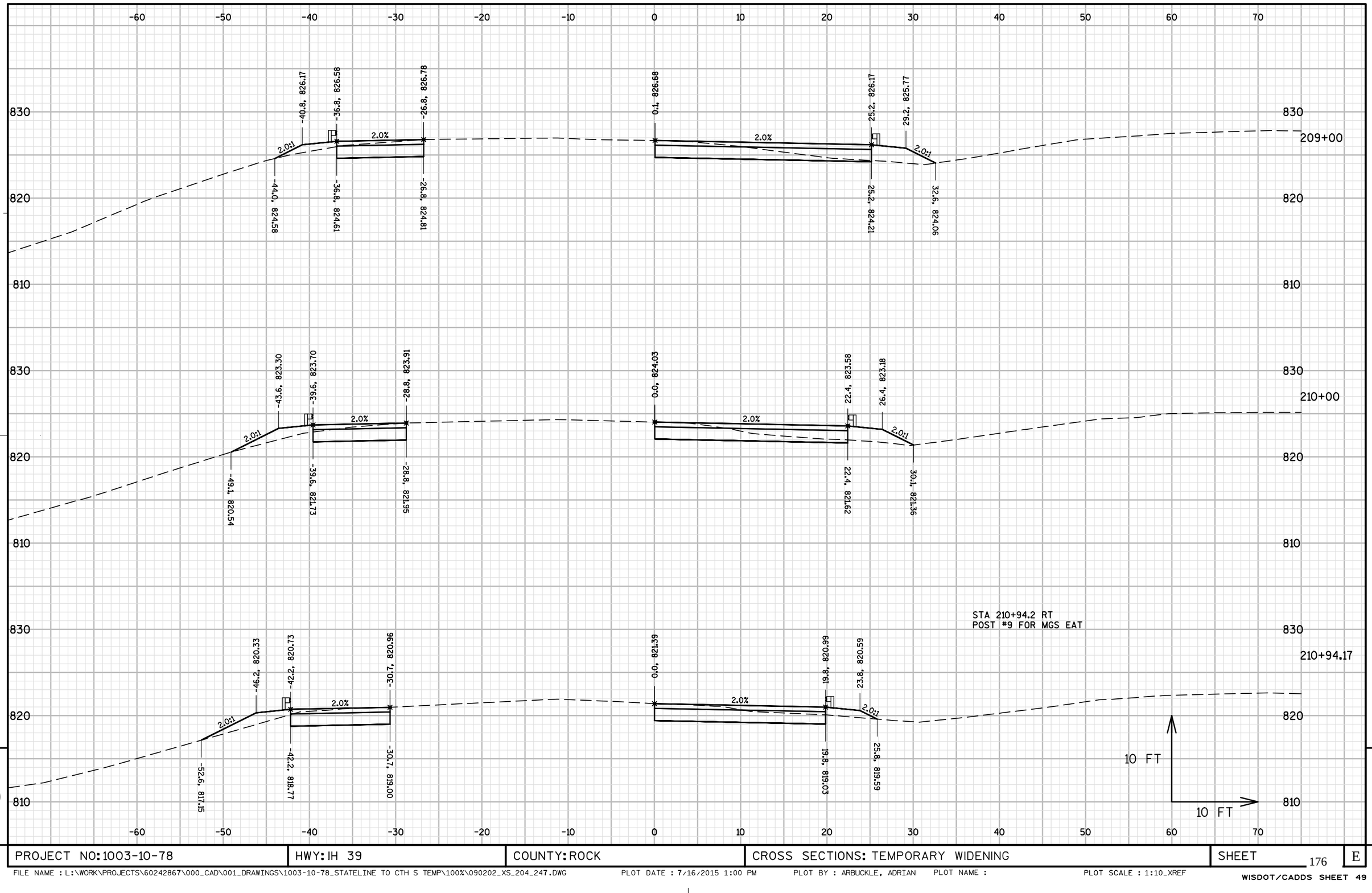
PROJECT NO: 1003-10-78	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: TEMPORARY WIDENING	SHEET 174	E

FILE NAME : L:\WORK\PROJECTS\60242867\000_CAD\001_DRAWINGS\1003-10-78_STATELINE TO CTH S TEMP\100%\090202_XS_204_247.DWG PLOT DATE : 7/16/2015 12:59 PM PLOT BY : ARBUCKLE, ADRIAN PLOT NAME : PLOT SCALE : 1:10_XREF

WISDOT/CADDS SHEET 49

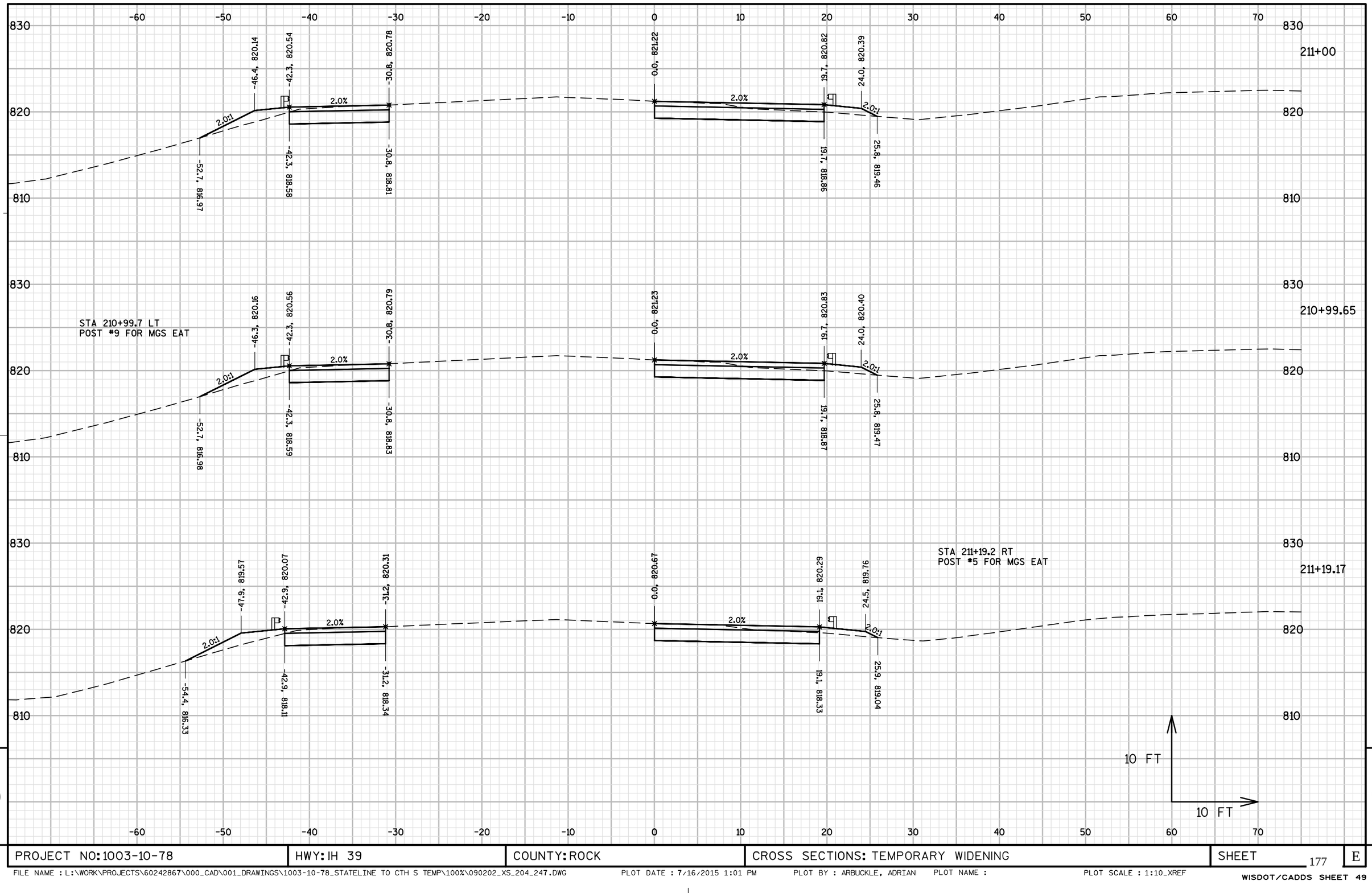


PROJECT NO: 1003-10-78	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: TEMPORARY WIDENING	SHEET 175	E



9

PROJECT NO: 1003-10-78	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: TEMPORARY WIDENING	SHEET 176	E

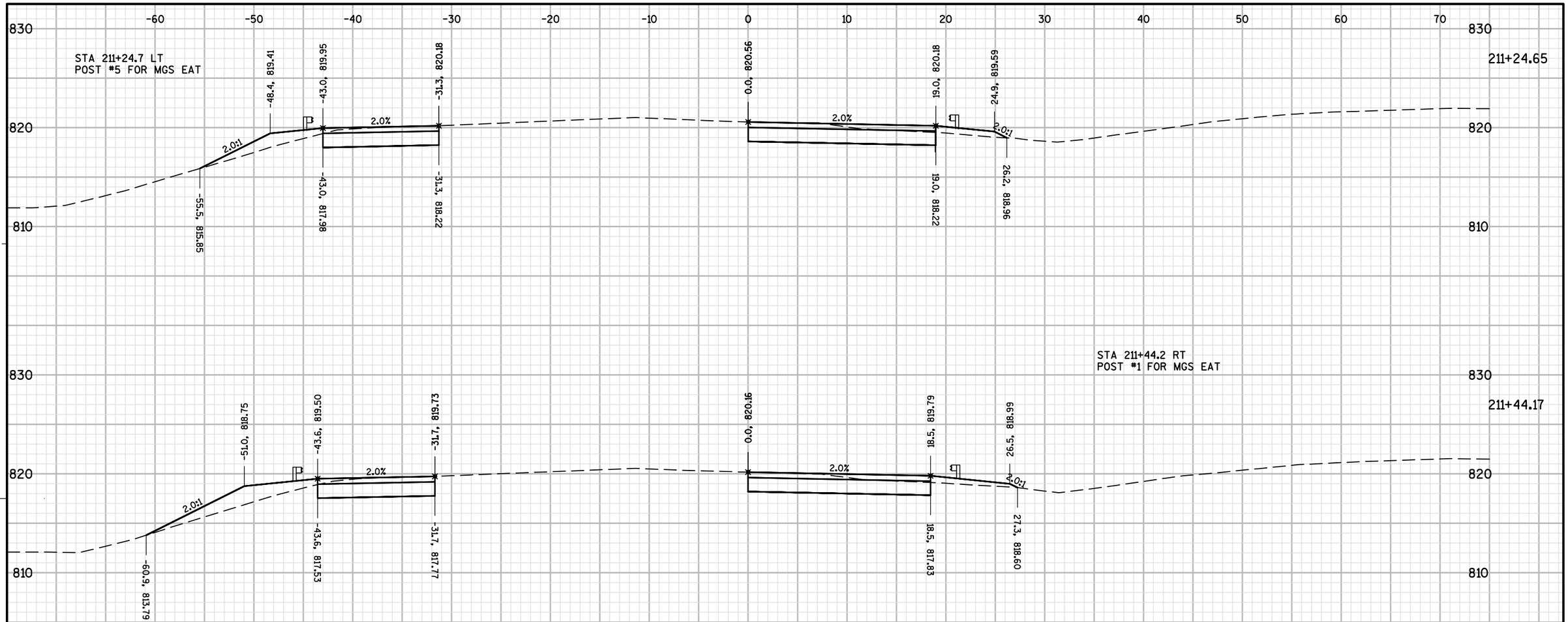


9

9

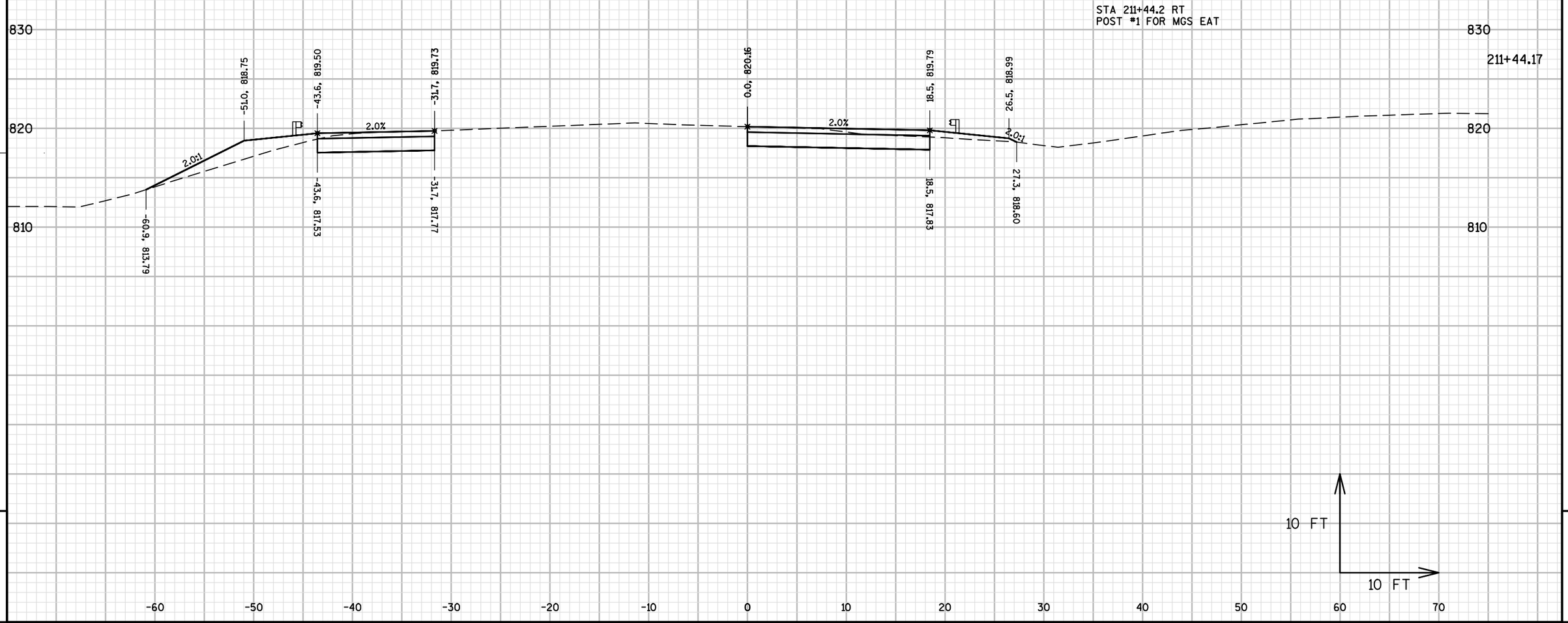
PROJECT NO: 1003-10-78	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: TEMPORARY WIDENING	SHEET 177	E

STA 211+24.7 LT
POST #5 FOR MGS EAT



211+24.65

STA 211+44.2 RT
POST #1 FOR MGS EAT



211+44.17

PROJECT NO: 1003-10-78	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: TEMPORARY WIDENING	SHEET	E

FILE NAME : L:\WORK\PROJECTS\60242867\000_CAD\001_DRAWINGS\1003-10-78_STATELINE TO CTH S TEMP\100%\090202_XS_204_247.DWG PLOT DATE : 7/16/2015 1:02 PM PLOT BY : ARBUCKLE, ADRIAN PLOT NAME : PLOT SCALE : 1:10_XREF
WISDOT/CADDS SHEET 49

STA 211+49.7 LT
POST #1 FOR MGS EAT

-51.7, 818.57
-43.7, 819.37
-31.8, 819.61
0.0, 820.05
18.3, 819.68
26.3, 818.89
2.0:1
2.0%
4.0:1
-62.4, 813.24
-43.7, 817.41
-31.8, 817.65
18.3, 817.72
28.7, 818.27
211+49.65

-48.4, 818.16
-44.0, 818.16
-32.9, 818.83
0.0, 819.14
18.0, 818.77
24.4, 818.13
4.0:1
2.0%
4.0:1
-73.9, 811.79
-44.0, 816.64
-32.9, 816.87
18.0, 816.81
27.1, 817.46
212+00

-44.0, 816.92
-44.0, 816.92
-34.3, 817.12
0.0, 817.88
22.1, 817.44
4.0:1
2.0%
4.0%
4.0:1
-66.2, 811.38
-44.0, 814.96
-34.3, 815.15
22.1, 815.47
30.7, 815.46
212+68.32

NO CROSS SECTION FROM
STA. 212+79 TO STA. 243+00

10 FT
10 FT

PROJECT NO: 1003-10-78	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: TEMPORARY WIDENING	SHEET	E

FILE NAME : L:\WORK\PROJECTS\60242867\000_CAD\001_DRAWINGS\1003-10-78_STATELINE TO CTH S TEMP\100%\090202_XS_204_247.DWG PLOT DATE : 7/16/2015 1:02 PM PLOT BY : ARBUCKLE, ADRIAN PLOT NAME : PLOT SCALE : 1:10_XREF
WISDOT/CADDS SHEET 49

NO CROSS SECTION FROM
STA. 212+68 TO STA. 243+00

244+00

245+00

246+00

246+49

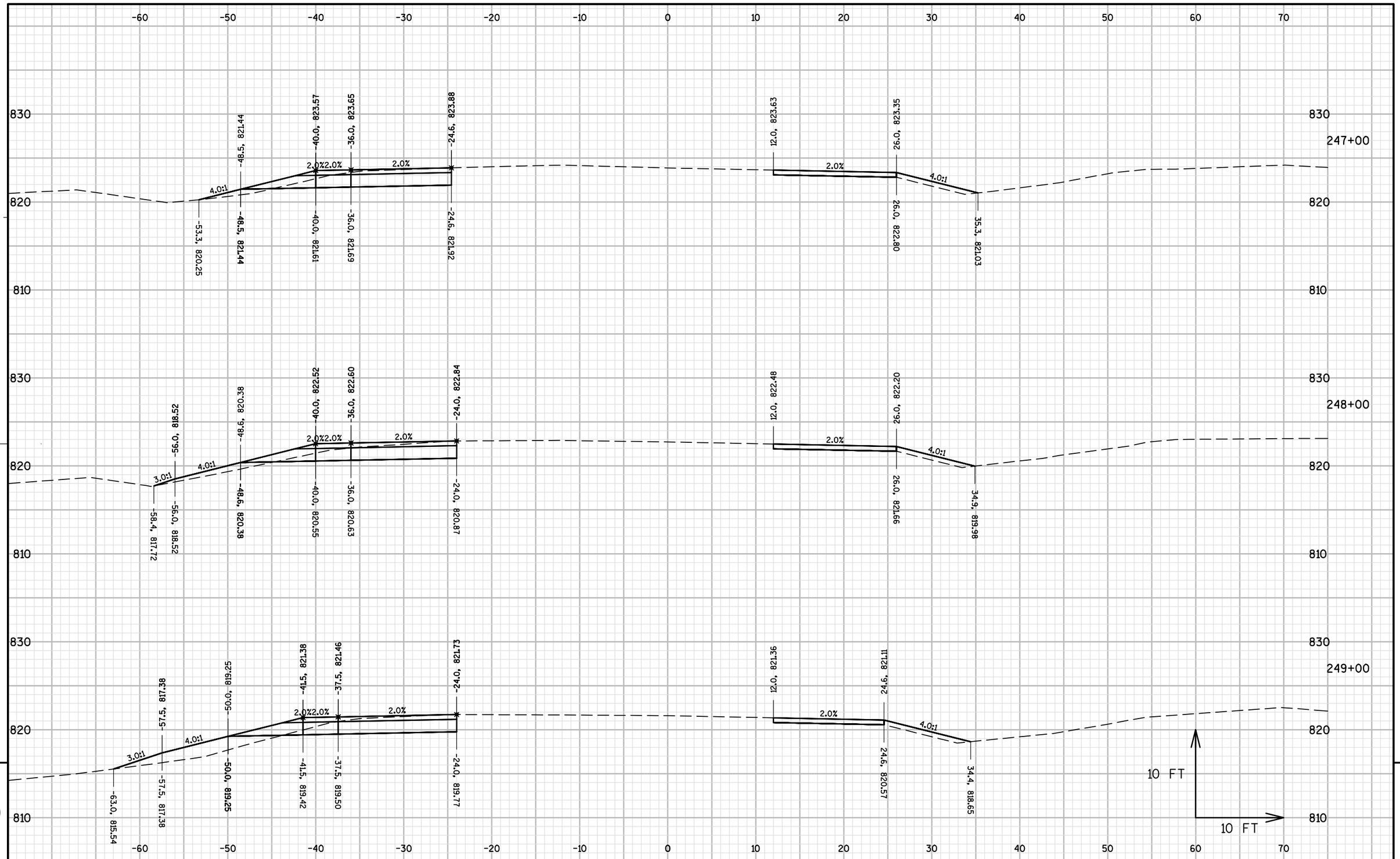
10 FT

10 FT

PROJECT NO: 1003-10-78	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: TEMPORARY WIDENING	SHEET 180	E

FILE NAME : L:\WORK\PROJECTS\60242867\000_CAD\001_DRAWINGS\1003-10-78_STATELINE TO CTH S TEMP\100%\090202_XS_204_247.DWG PLOT DATE : 7/16/2015 1:03 PM PLOT BY : ARBUCKLE, ADRIAN PLOT NAME : PLOT SCALE : 1:10_XREF

WISDOT/CADDS SHEET 49



PROJECT NO: 1003-10-78	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: TEMPORARY WIDENING	SHEET 181	E

FILE NAME : L:\WORK\PROJECTS\60242867\000_CAD\001_DRAWINGS\1003-10-78_STATELINE TO CTH S TEMP\100%\090203_XS_247_329.DWG PLOT DATE : 7/17/2015 3:50 PM PLOT BY : ARBUCKLE, ADRIAN PLOT NAME : PLOT SCALE : 1" = 10'_1_XREF

WISDOT/CADDS SHEET 49

250+00

251+00

252+00

252+89

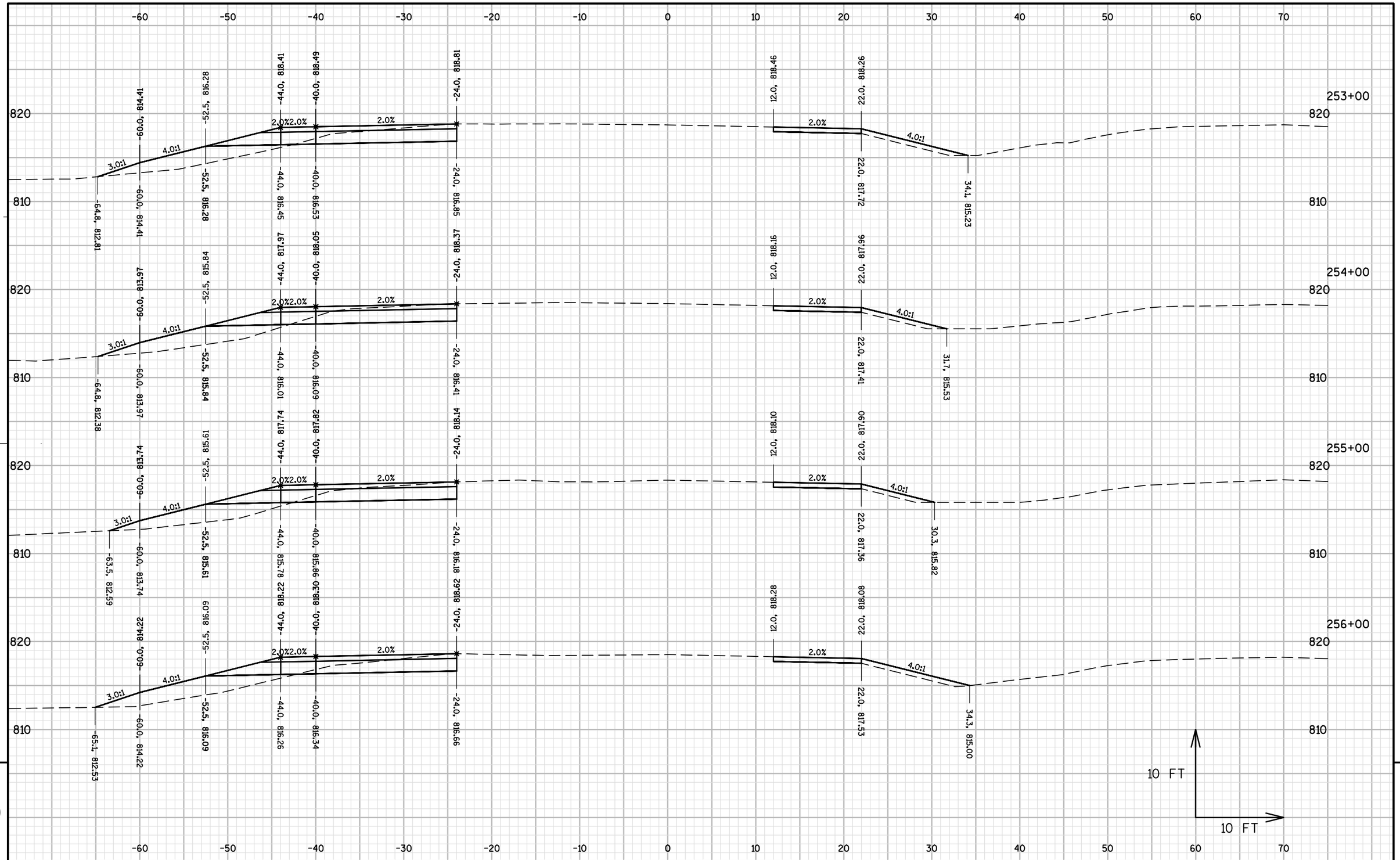
STA 252+89
1-CONCRETE COLLARS FOR PIPE REQ.
1-24" CPRC EXTENSION LT REQ.
1-APRON ENDWALL REQ.

10 FT

10 FT

PROJECT NO: 1003-10-78	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: TEMPORARY WIDENING	SHEET	E

FILE NAME : L:\WORK\PROJECTS\60242867\000_CAD\001_DRAWINGS\1003-10-78_STATELINE TO CTH S TEMP\100%\090203_XS_247_329.DWG PLOT DATE : 7/17/2015 3:51 PM PLOT BY : ARBUCKLE, ADRIAN PLOT NAME : PLOT SCALE : 1" = 10'_1_XREF
WISDOT/CADDS SHEET 49



9

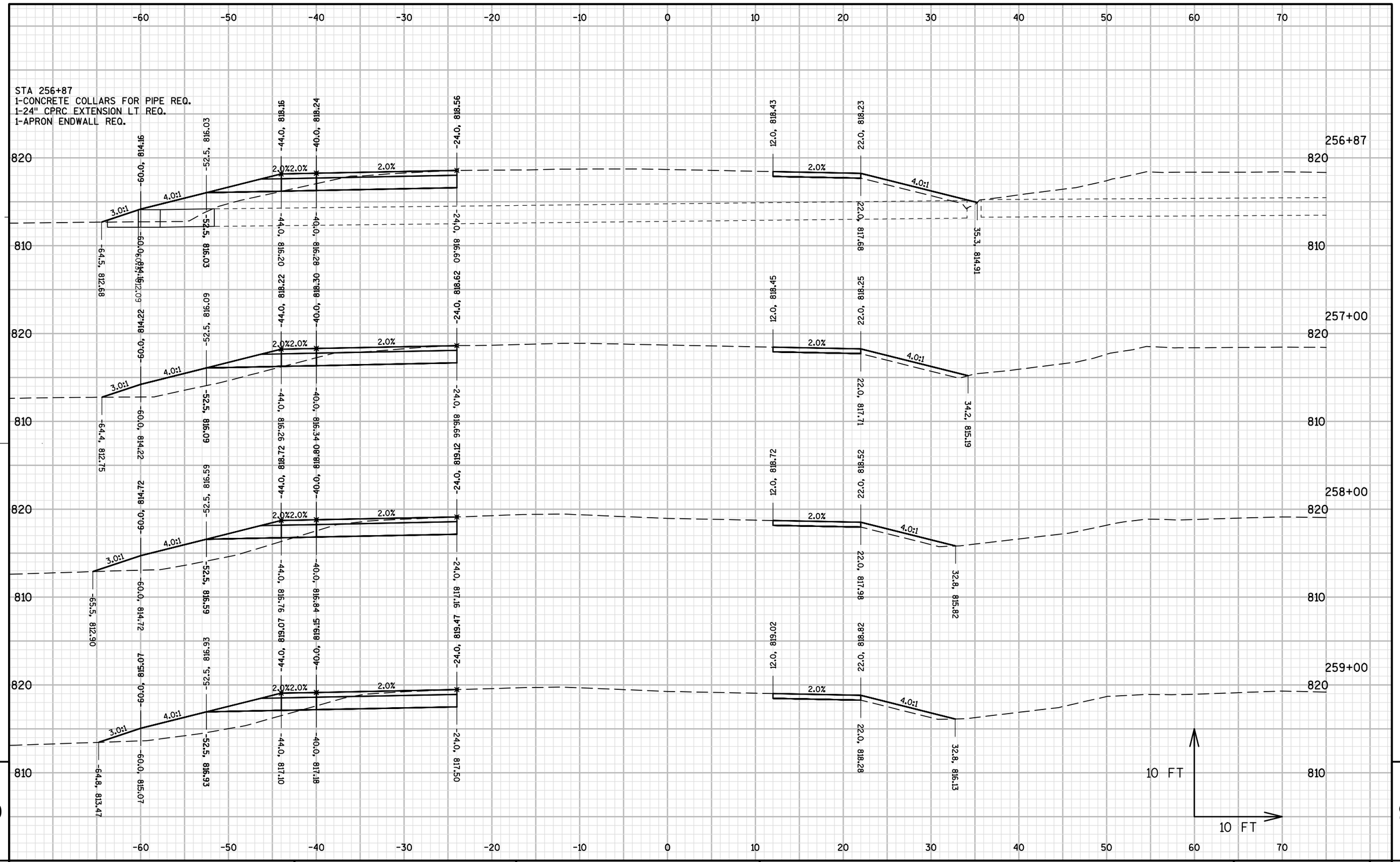
9

PROJECT NO: 1003-10-78	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: TEMPORARY WIDENING	SHEET 183	E

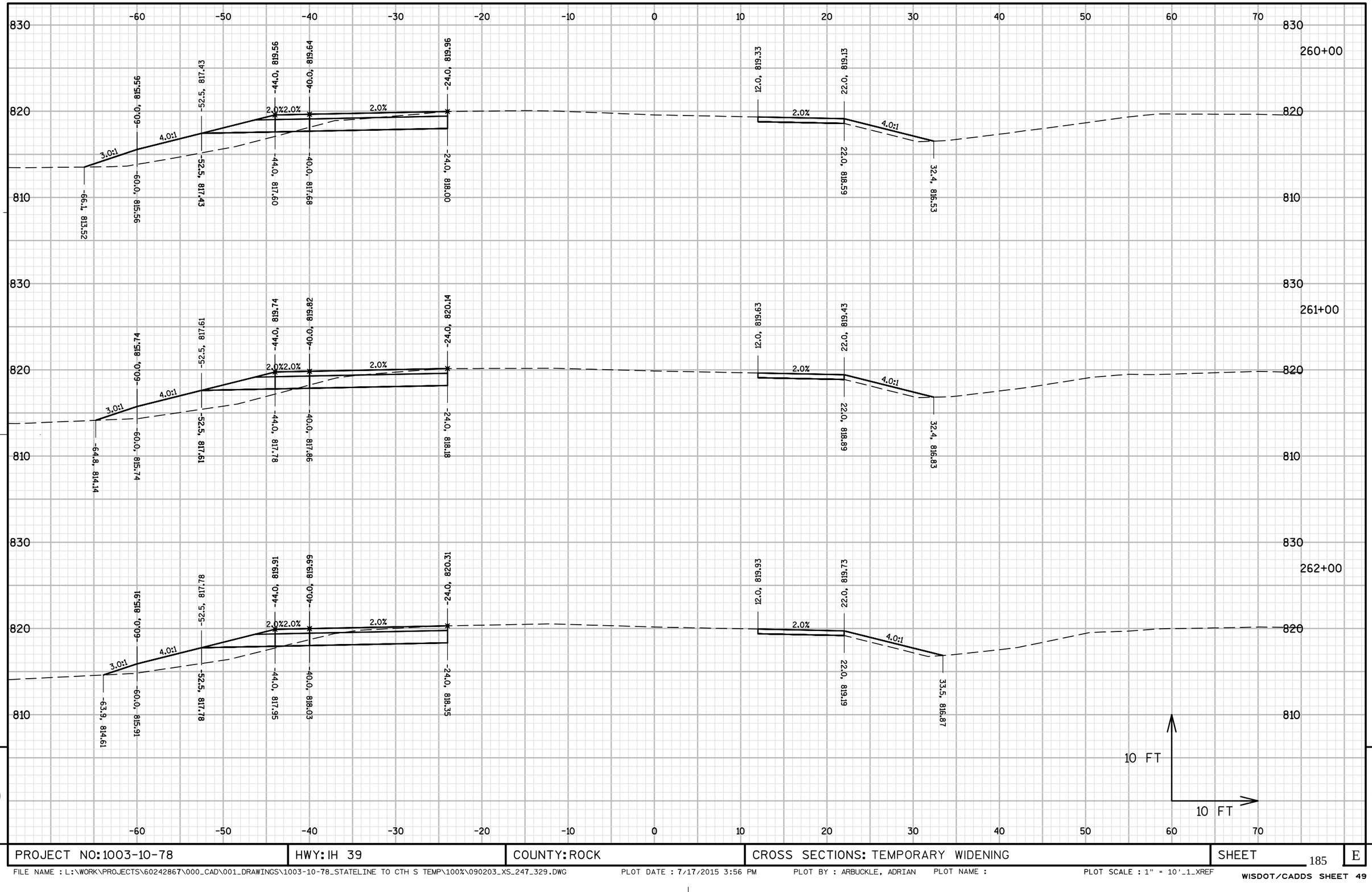
FILE NAME : L:\WORK\PROJECTS\60242867\000_CAD\001_DRAWINGS\1003-10-78_STATELINE TO CTH S TEMP\100%\090203_XS_247_329.DWG PLOT DATE : 7/17/2015 3:53 PM PLOT BY : ARBUCKLE, ADRIAN PLOT NAME : PLOT SCALE : 1" = 10'_1_XREF

WISDOT/CADDS SHEET 49

STA 256+87
1-CONCRETE COLLARS FOR PIPE REQ.
1-24" CPRC EXTENSION LT REQ.
1-APRON ENDWALL REQ.

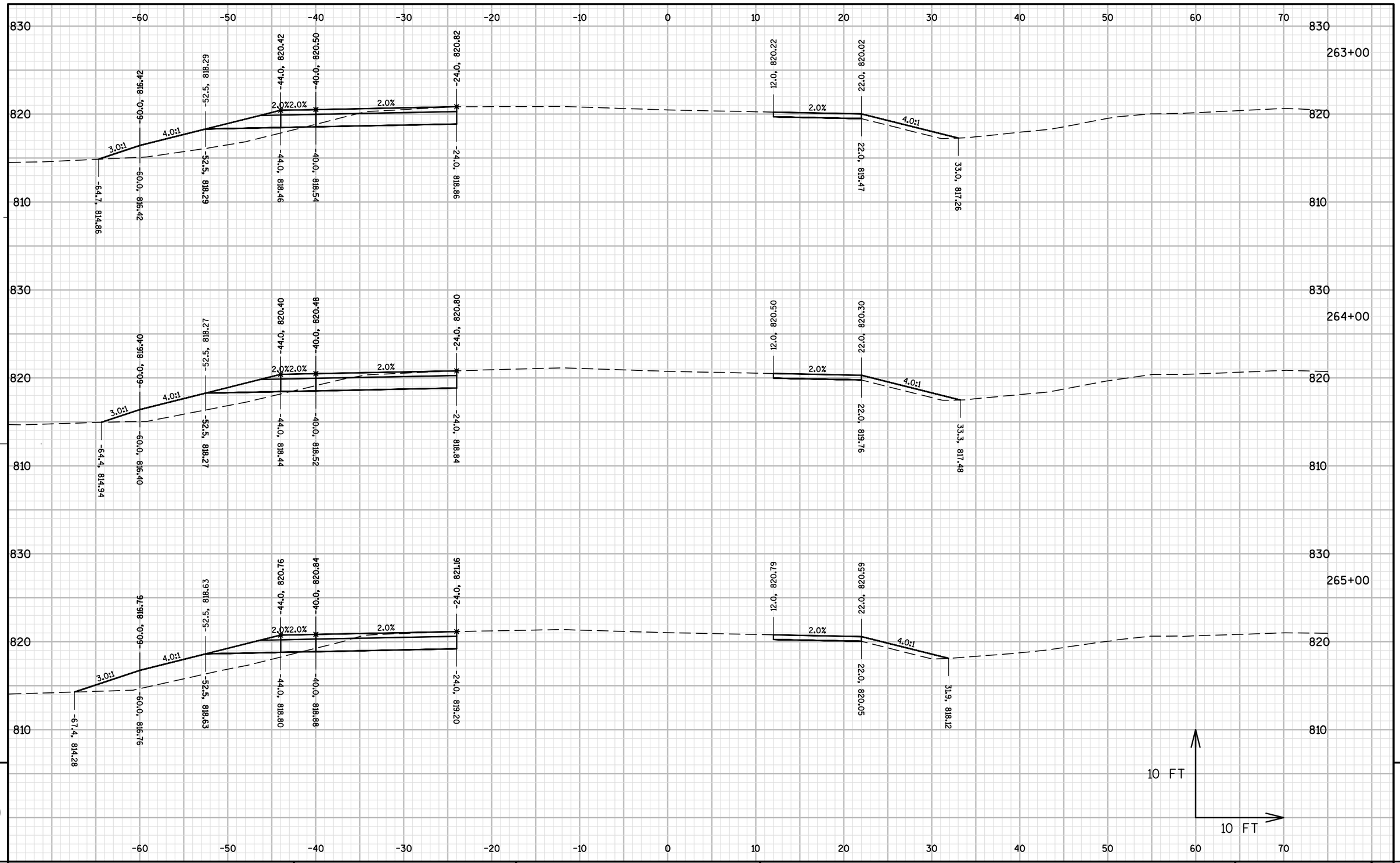


PROJECT NO: 1003-10-78	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: TEMPORARY WIDENING	SHEET 184	E



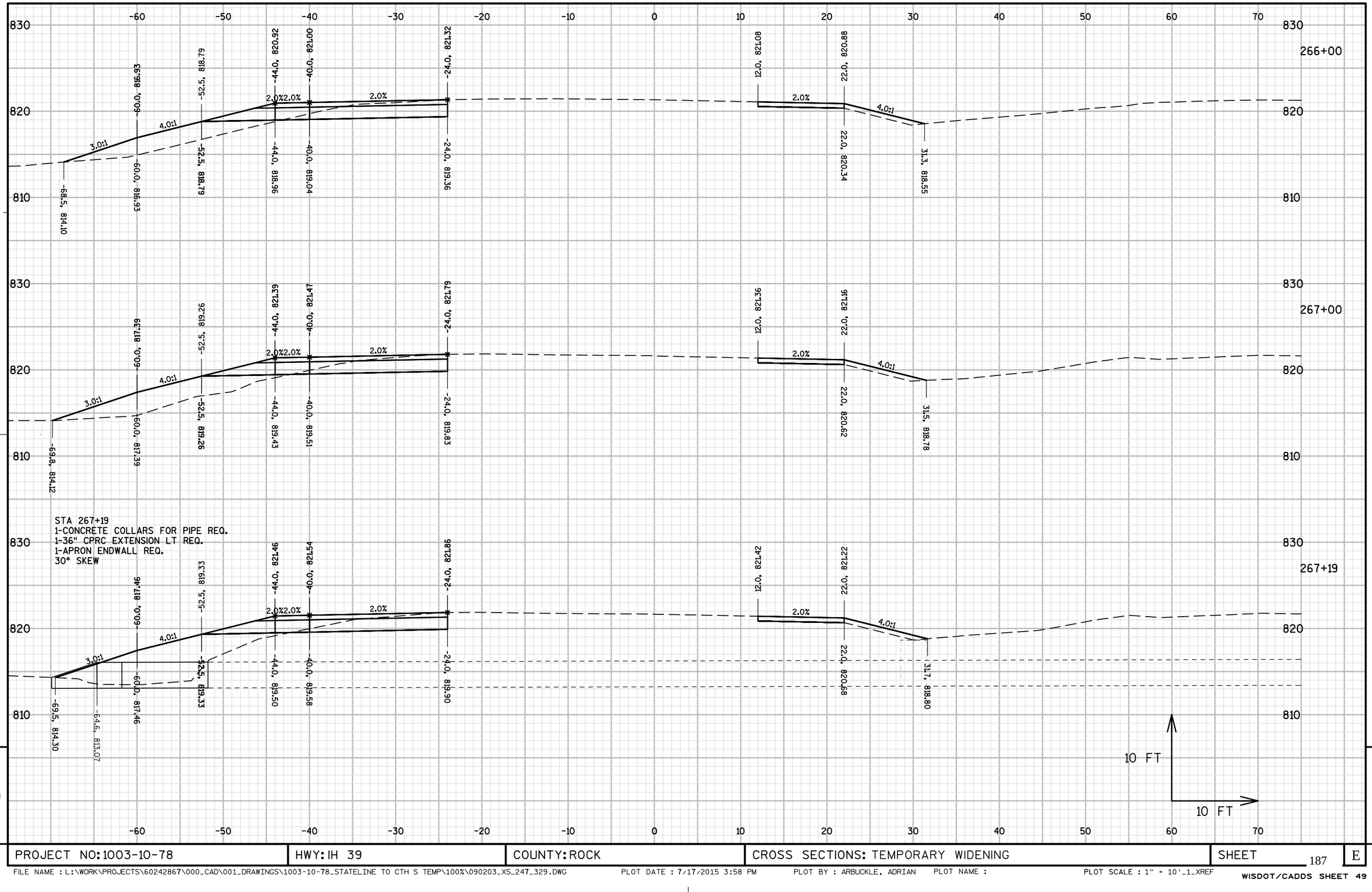
PROJECT NO: 1003-10-78	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: TEMPORARY WIDENING	SHEET	E

FILE NAME : L:\WORK\PROJECTS\60242867\000_CAD\001_DRAWINGS\1003-10-78_STATELINE TO CTH S TEMP\100%\090203_XS_247_329.DWG PLOT DATE : 7/17/2015 3:56 PM PLOT BY : ARBUCKLE, ADRIAN PLOT NAME : PLOT SCALE : 1" = 10'_1_XREF



PROJECT NO: 1003-10-78	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: TEMPORARY WIDENING	SHEET 186	E

FILE NAME : L:\WORK\PROJECTS\60242867\000_CAD\001_DRAWINGS\1003-10-78_STATELINE TO CTH S TEMP\100%\090203_XS_247_329.DWG PLOT DATE : 7/17/2015 3:57 PM PLOT BY : ARBUCKLE, ADRIAN PLOT NAME : PLOT SCALE : 1" = 10'_1_XREF

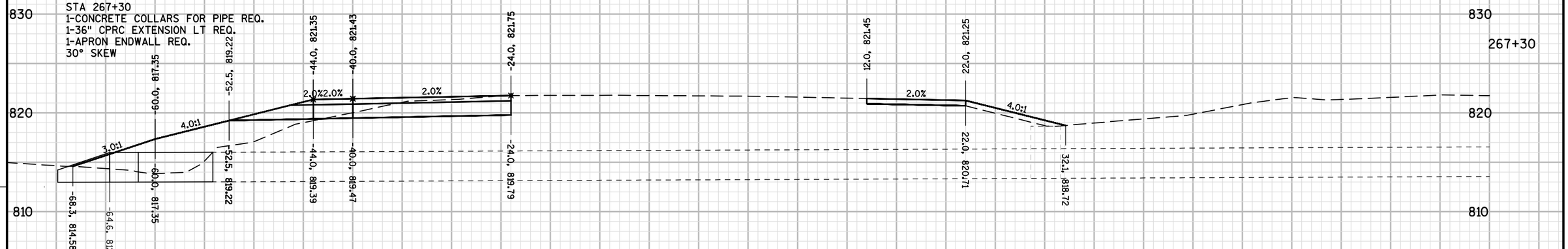


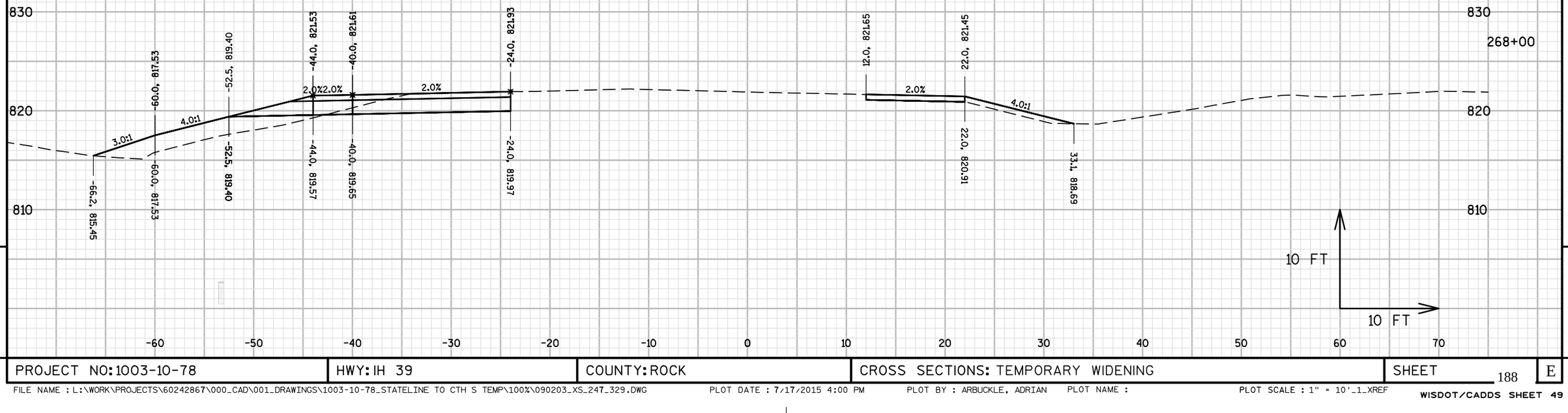
PROJECT NO: 1003-10-78	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: TEMPORARY WIDENING	SHEET	E

FILE NAME : L:\WORK\PROJECTS\60242867\000_CAD\001_DRAWINGS\1003-10-78_STATELINE TO CTH S TEMP\100%\090203_XS_247_329.DWG PLOT DATE : 7/17/2015 3:58 PM PLOT BY : ARBUCKLE, ADRIAN PLOT NAME : PLOT SCALE : 1" = 10'_1_XREF
WISDOT/CADDS SHEET 49

STA 267+24
1-CONCRETE COLLARS FOR PIPE REQ.
1-36" CPRC EXTENSION LT REQ.
1-APRON ENDWALL REQ.
30° SKEW

STA 267+30
1-CONCRETE COLLARS FOR PIPE REQ.
1-36" CPRC EXTENSION LT REQ.
1-APRON ENDWALL REQ.
30° SKEW

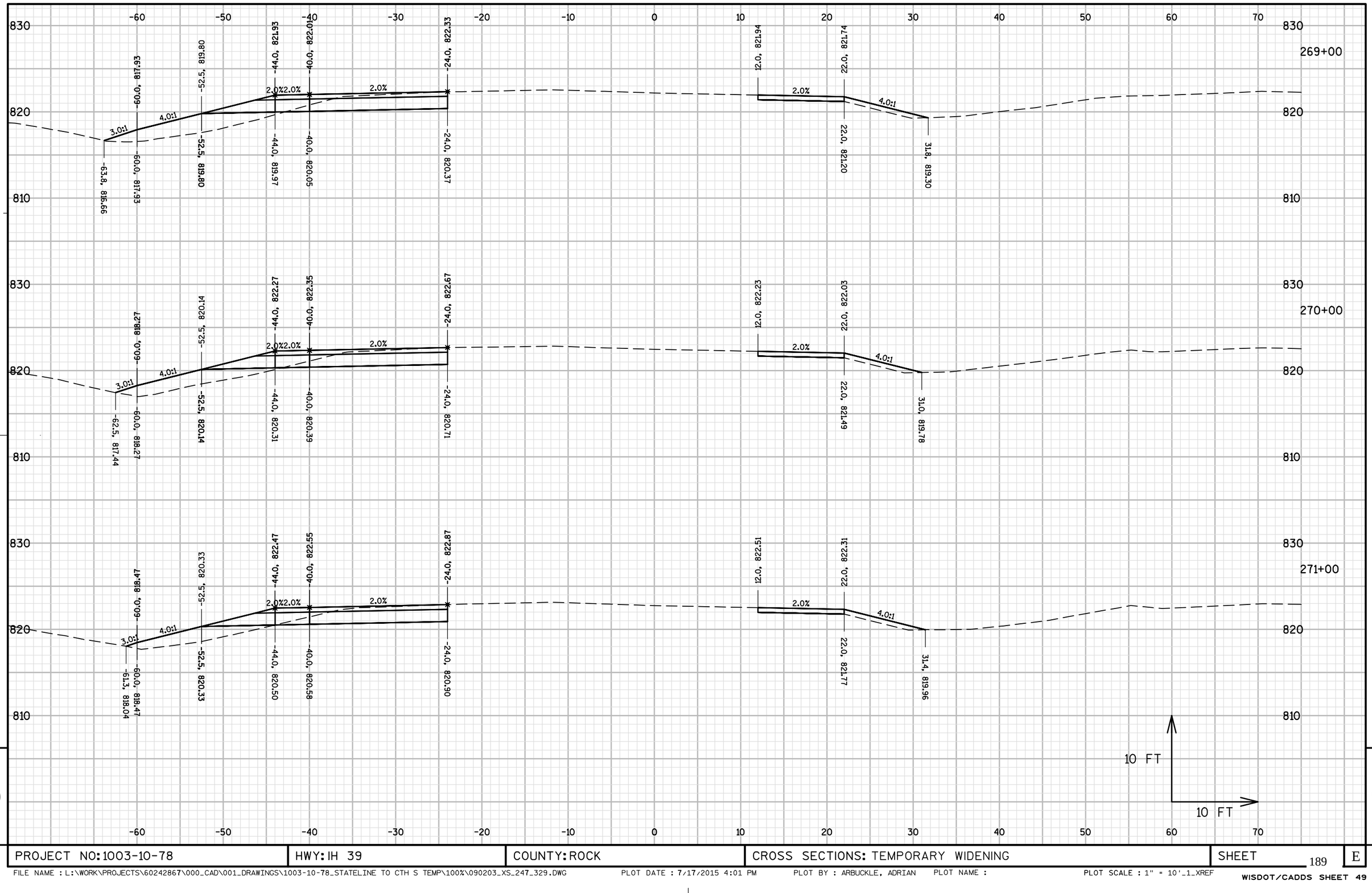




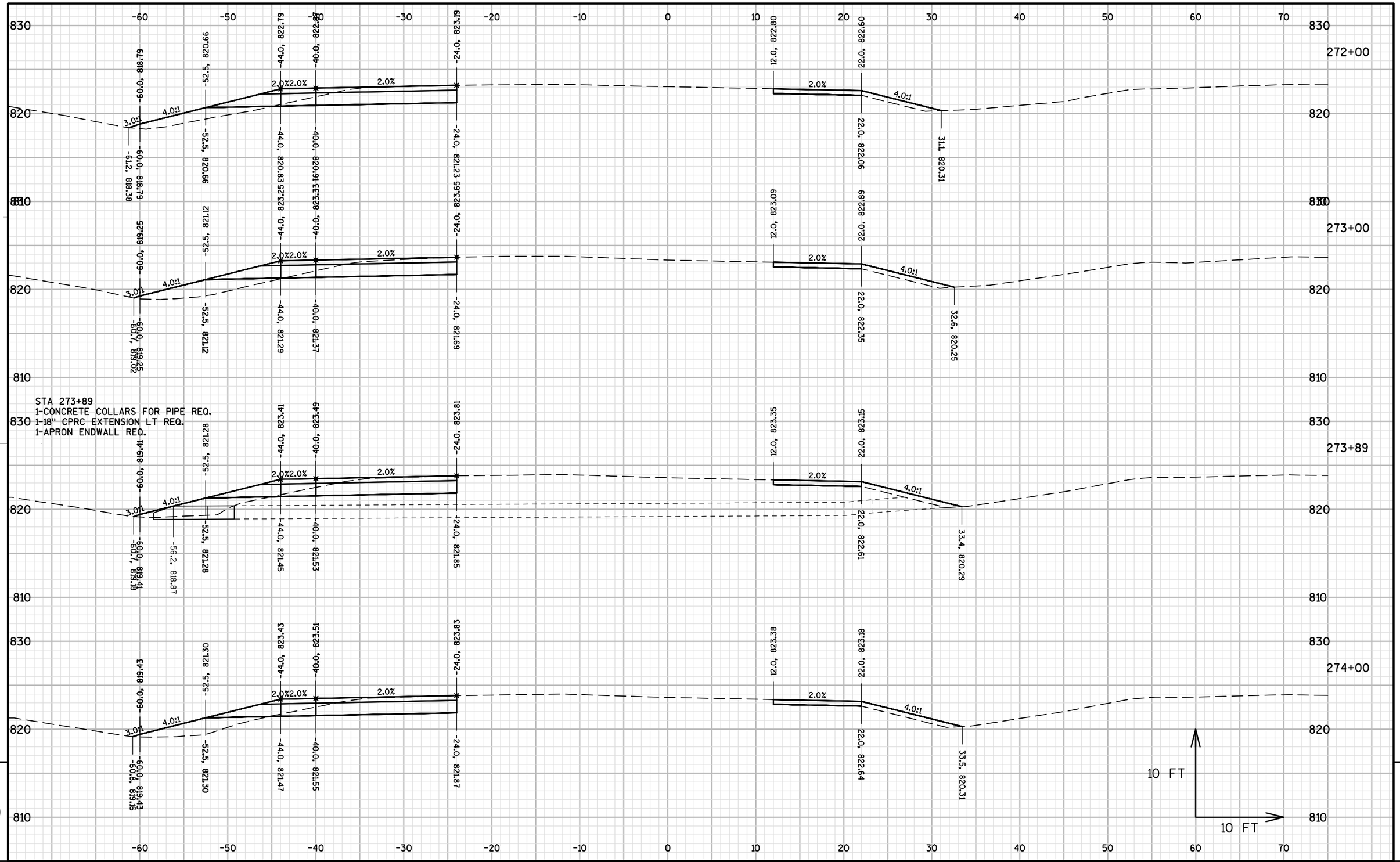
PROJECT NO: 1003-10-78	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: TEMPORARY WIDENING	SHEET 188	E

FILE NAME : L:\WORK\PROJECTS\60242867\000_CAD\001_DRAWINGS\1003-10-78_STATELINE TO CTH S TEMP\100%\090203_XS_247_329.DWG PLOT DATE : 7/17/2015 4:00 PM PLOT BY : ARBUCKLE, ADRIAN PLOT NAME : PLOT SCALE : 1" = 10'_1_XREF

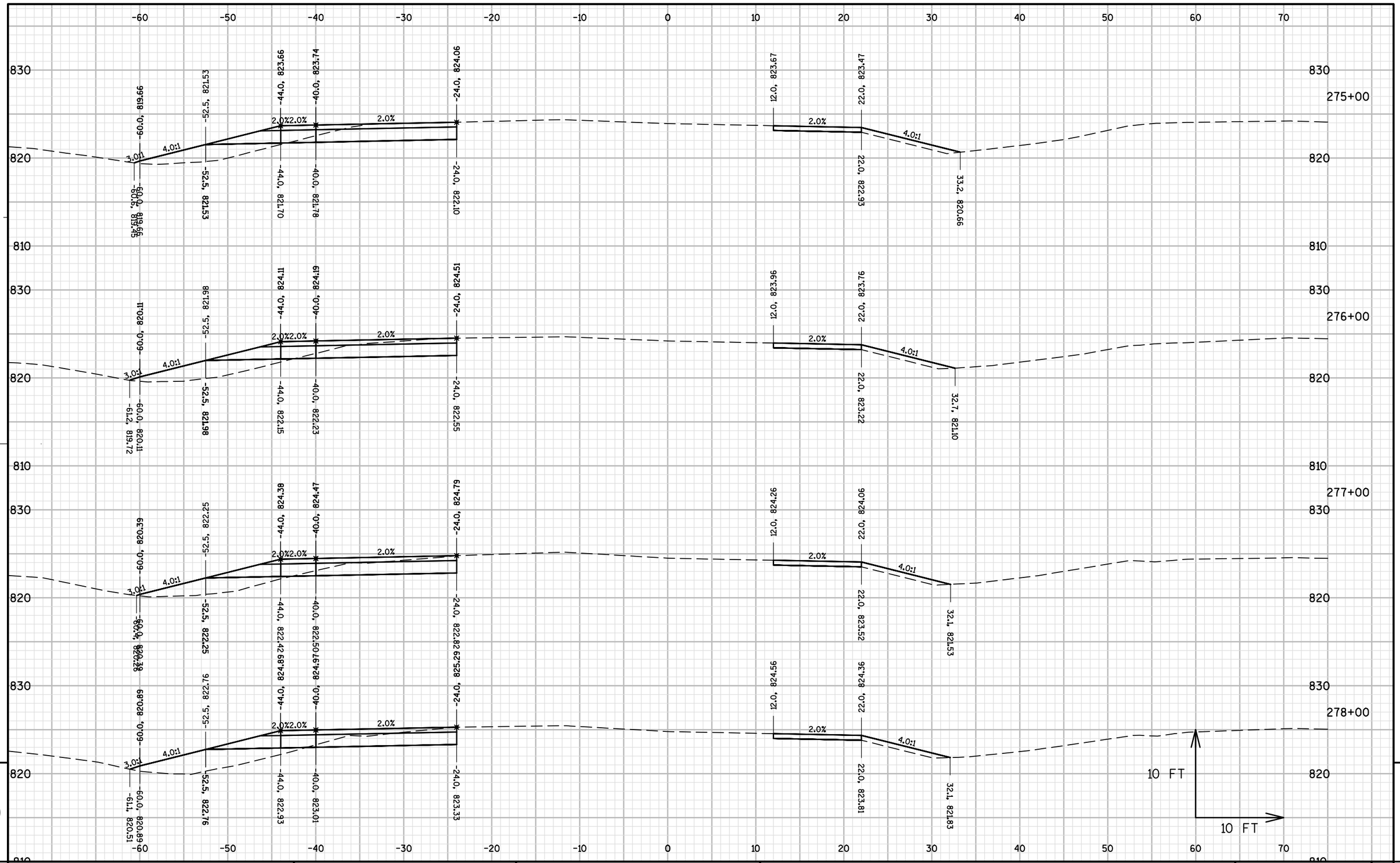
WISDOT/CADDS SHEET 49



PROJECT NO: 1003-10-78	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: TEMPORARY WIDENING	SHEET 189	E



PROJECT NO: 1003-10-78	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: TEMPORARY WIDENING	SHEET 190 E



PROJECT NO: 1003-10-78	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: TEMPORARY WIDENING	SHEET	E

FILE NAME : L:\WORK\PROJECTS\60242867\000_CAD\001_DRAWINGS\1003-10-78_STATELINE TO CTH S TEMP\100%\090203_XS_247_329.DWG PLOT DATE : 7/17/2015 4:04 PM PLOT BY : ARBUCKLE, ADRIAN PLOT NAME : PLOT SCALE : 1" = 10'_1_XREF

279+00

280+00

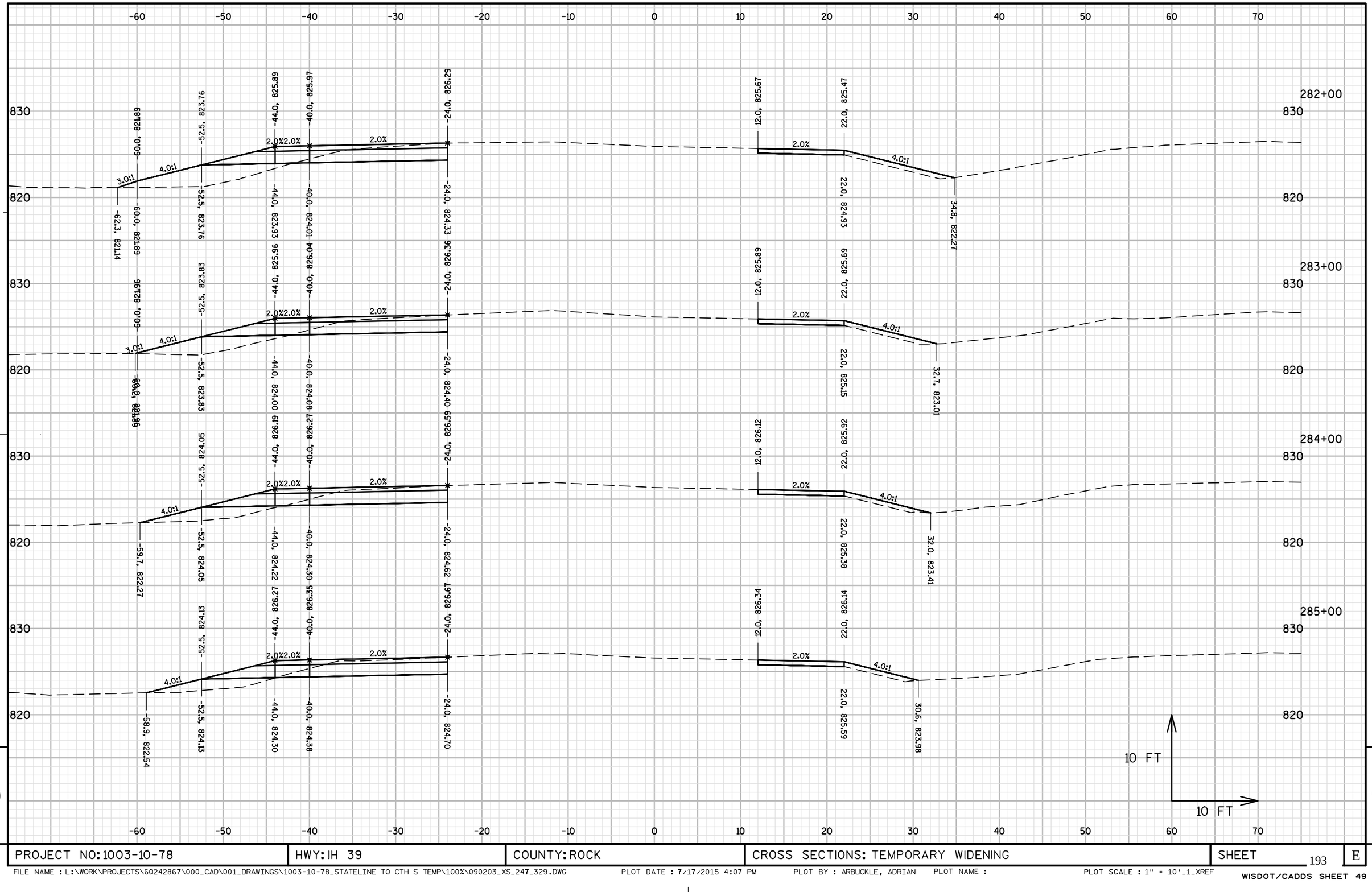
281+00

281+91

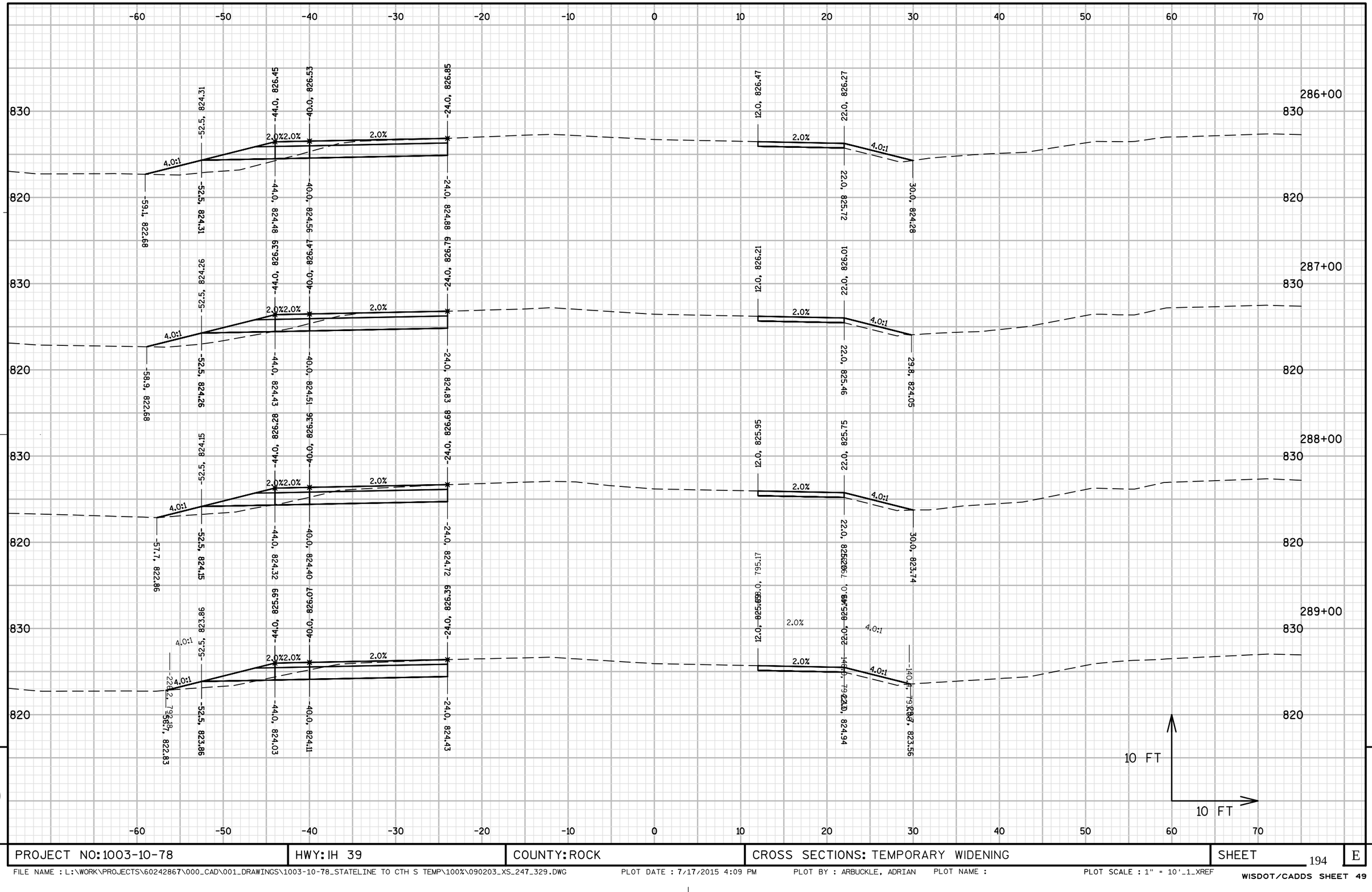
STA 281+91
1-CONCRETE COLLARS FOR PIPE REQ.
1-24" CPRC EXTENSION LT REQ.
1-APRON ENDWALL REQ.

10 FT
10 FT

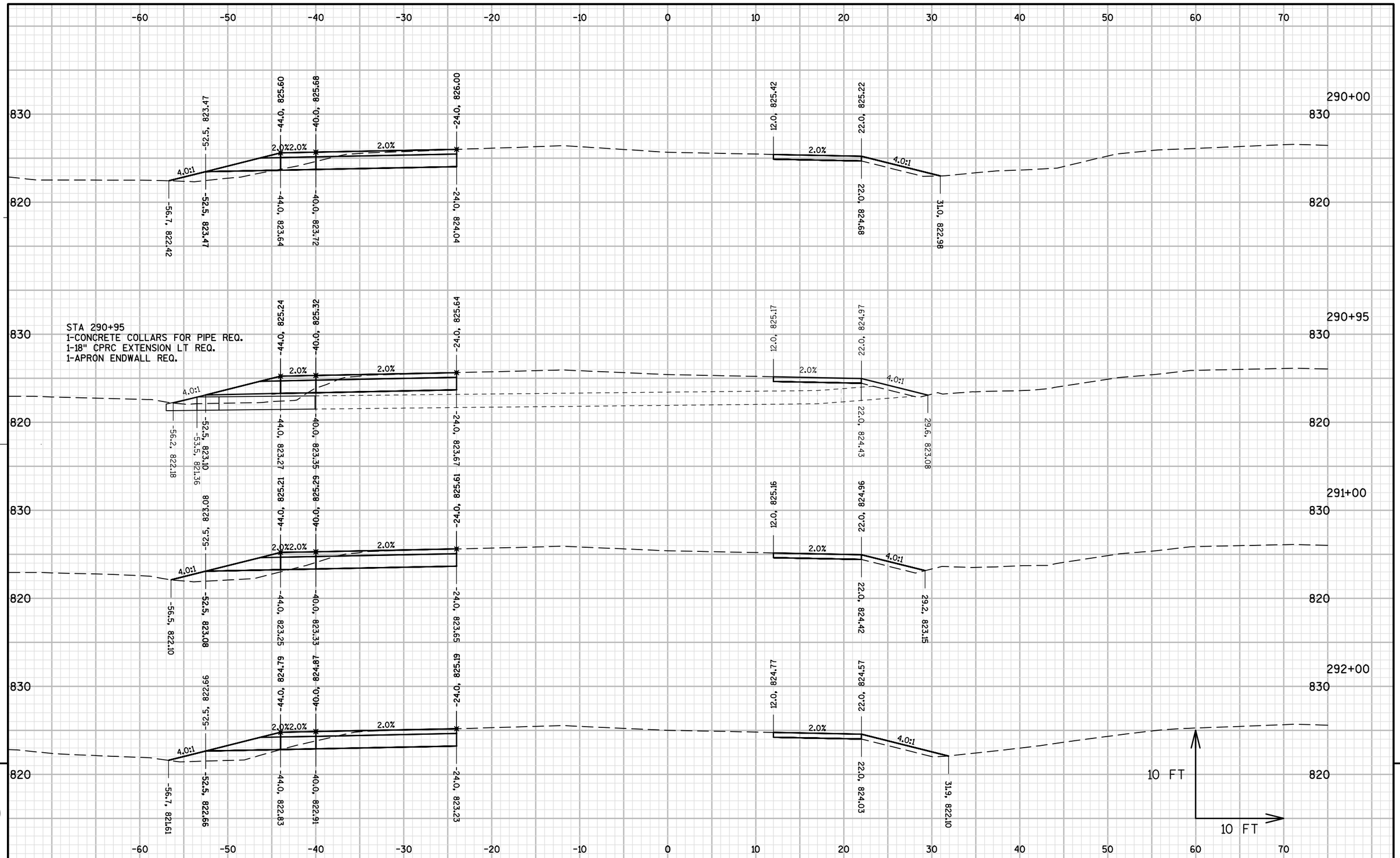
PROJECT NO: 1003-10-78	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: TEMPORARY WIDENING	SHEET 192 E



PROJECT NO: 1003-10-78	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: TEMPORARY WIDENING	SHEET 193	E

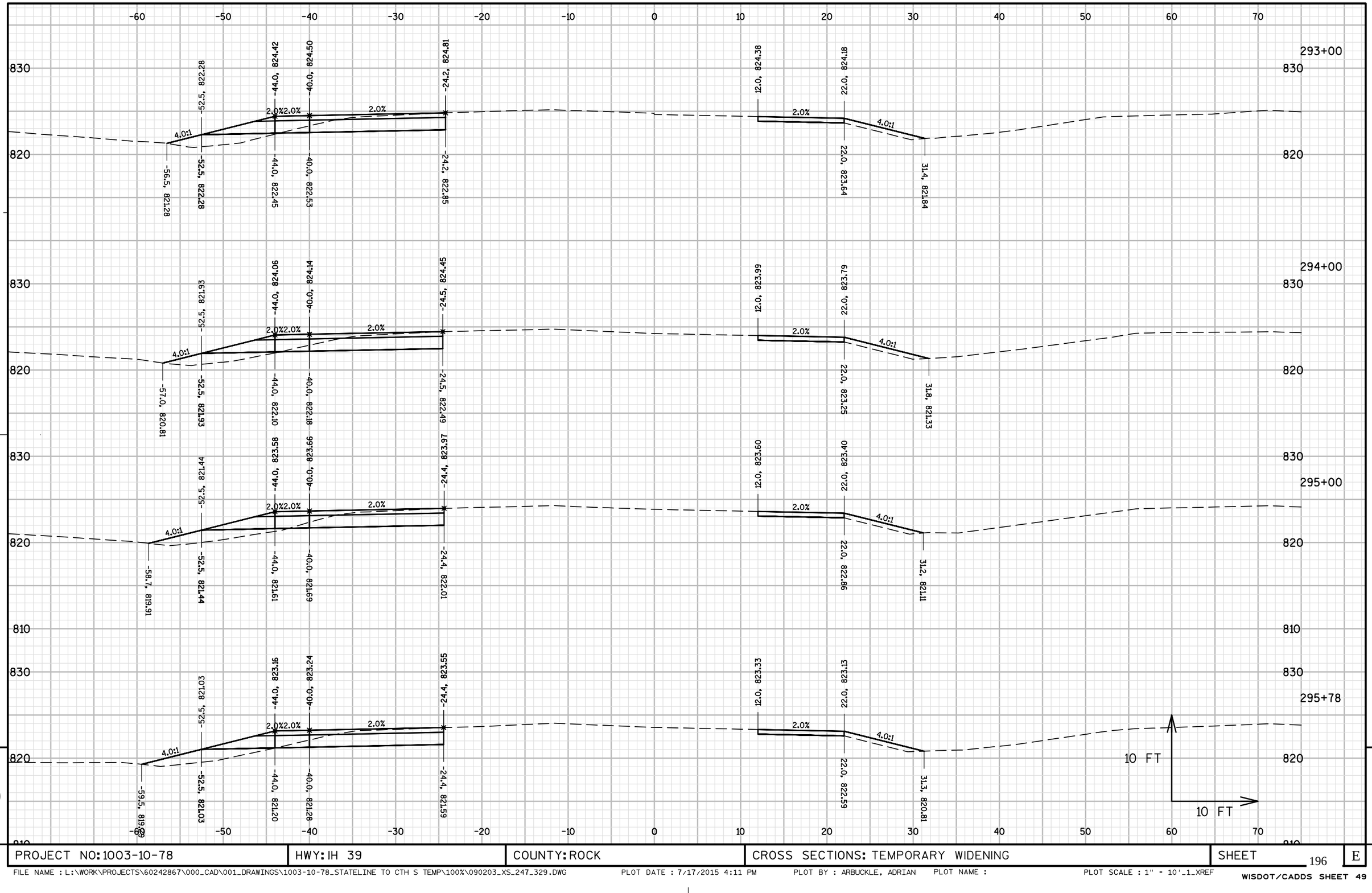


PROJECT NO: 1003-10-78	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: TEMPORARY WIDENING	SHEET 194	E



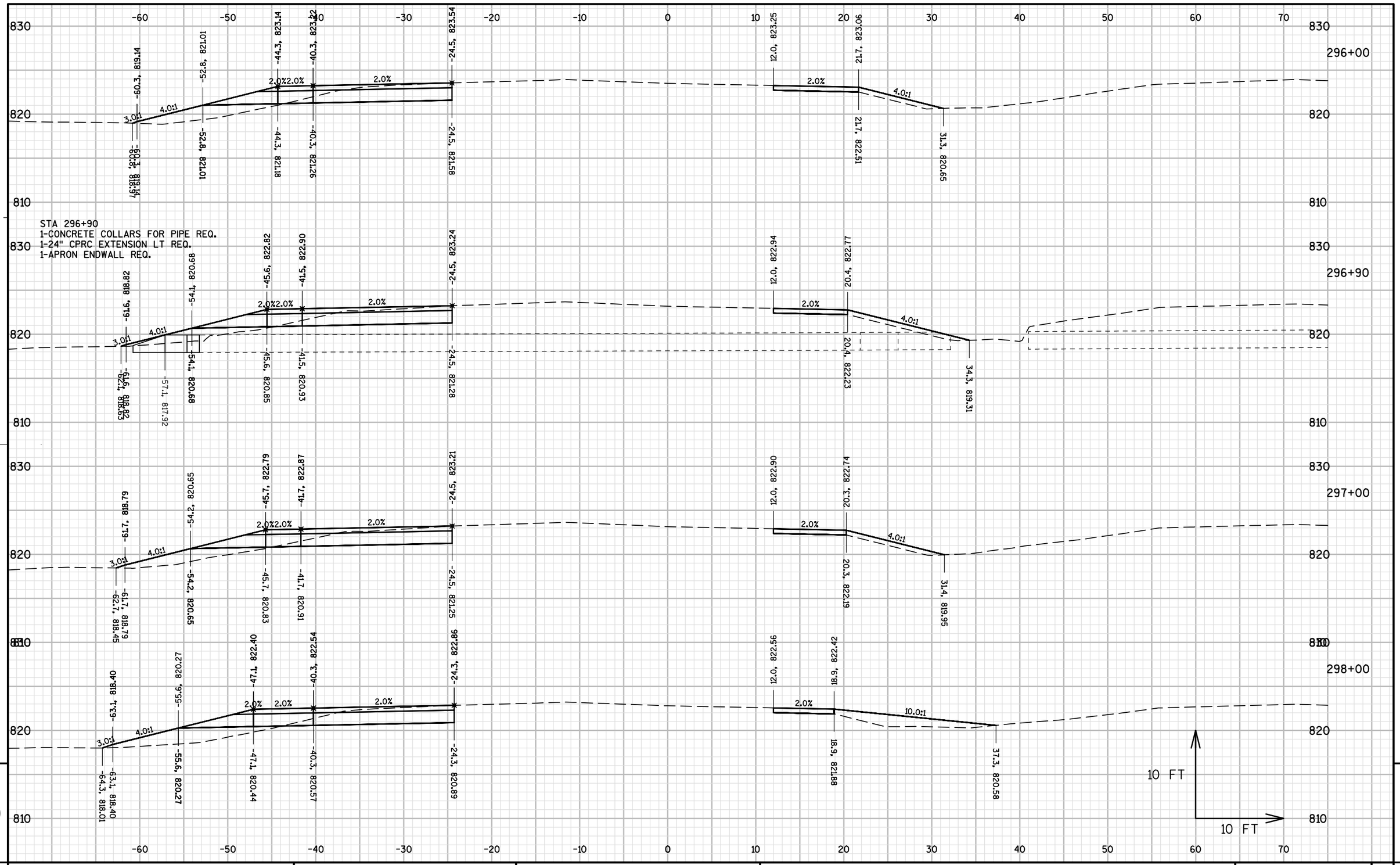
PROJECT NO:1003-10-78	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: TEMPORARY WIDENING	SHEET	E

FILE NAME : L:\WORK\PROJECTS\60242867\000_CAD\001_DRAWINGS\1003-10-78_STATELINE TO CTH S TEMP\100%\090203_XS_247_329.DWG PLOT DATE : 7/17/2015 4:10 PM PLOT BY : ARBUCKLE, ADRIAN PLOT NAME : PLOT SCALE : 1" = 10'_1_XREF



PROJECT NO: 1003-10-78	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: TEMPORARY WIDENING	SHEET	E

FILE NAME : L:\WORK\PROJECTS\60242867\000_CAD\001_DRAWINGS\1003-10-78_STATELINE TO CTH S TEMP\100%\090203_XS_247_329.DWG PLOT DATE : 7/17/2015 4:11 PM PLOT BY : ARBUCKLE, ADRIAN PLOT NAME : PLOT SCALE : 1" = 10'_1_XREF

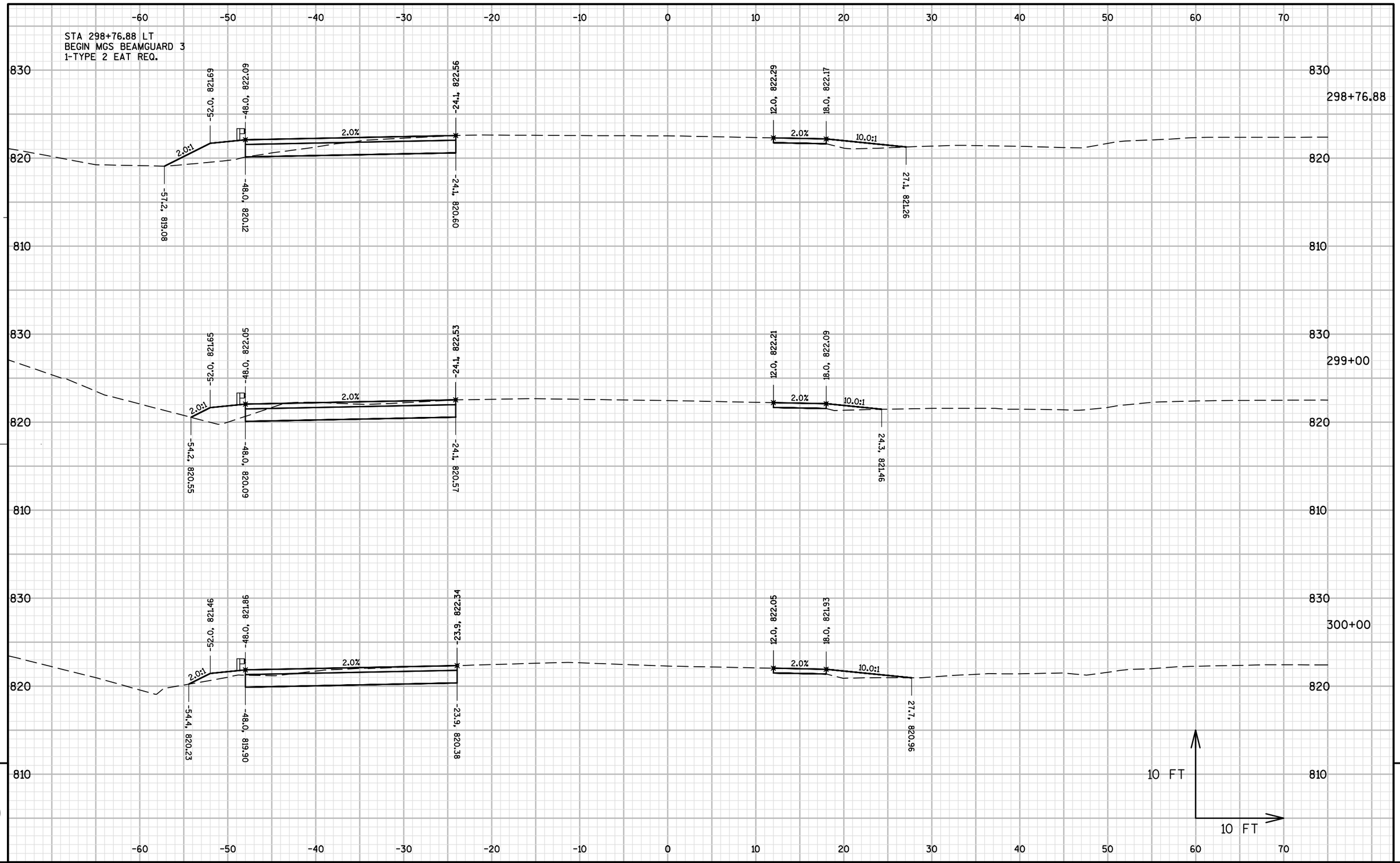


PROJECT NO: 1003-10-78	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: TEMPORARY WIDENING	SHEET 197 E

FILE NAME : L:\WORK\PROJECTS\60242867\000_CAD\001_DRAWINGS\1003-10-78_STATELINE TO CTH S TEMP\100%\090203_XS_247_329.DWG PLOT DATE : 7/17/2015 4:13 PM PLOT BY : ARBUCKLE, ADRIAN PLOT NAME : PLOT SCALE : 1" = 10'_1_XREF

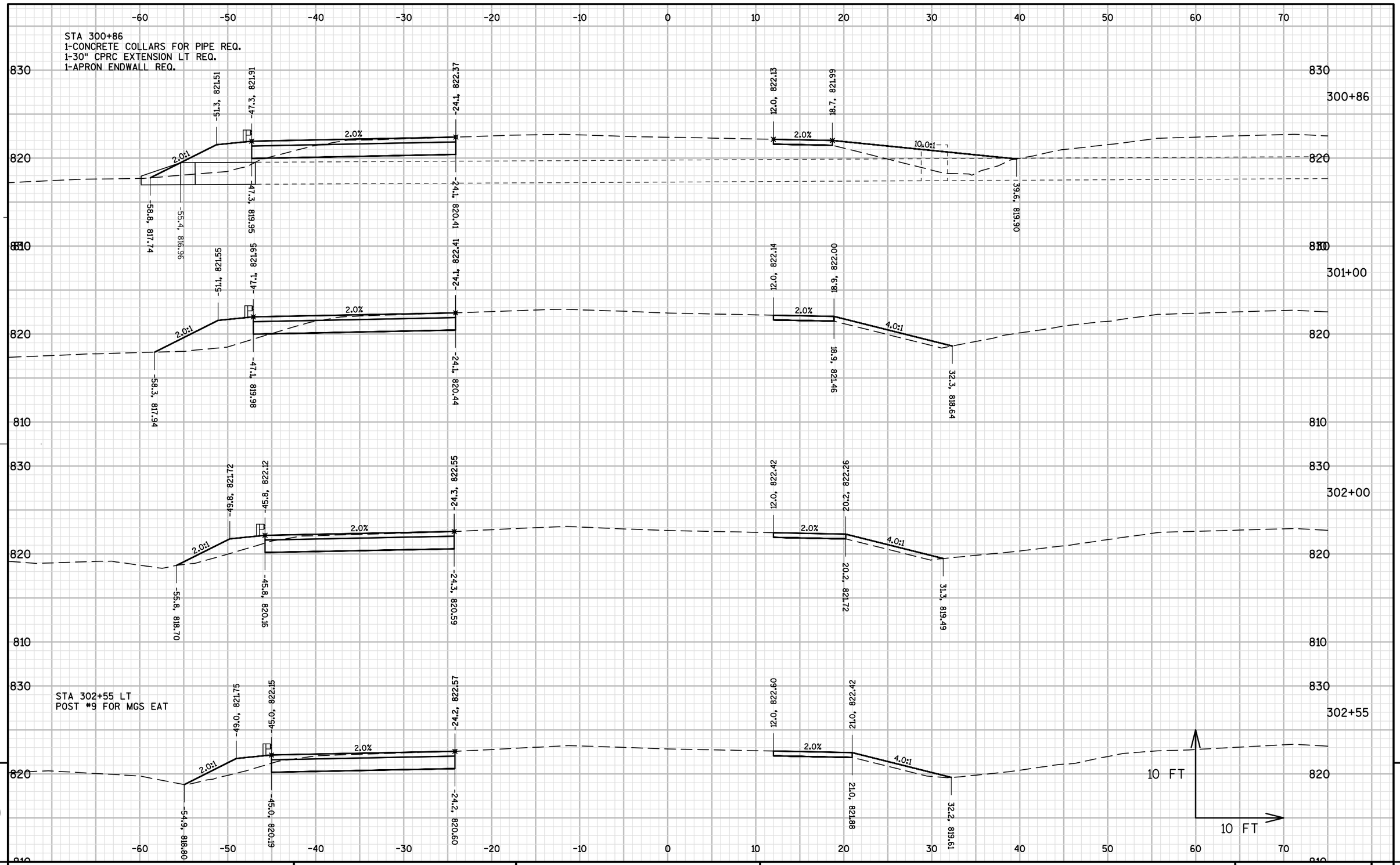
WISDOT/CADDS SHEET 49

STA 298+76.88 LT
BEGIN MGS BEAMGUARD 3
1-TYPE 2 EAT REQ.



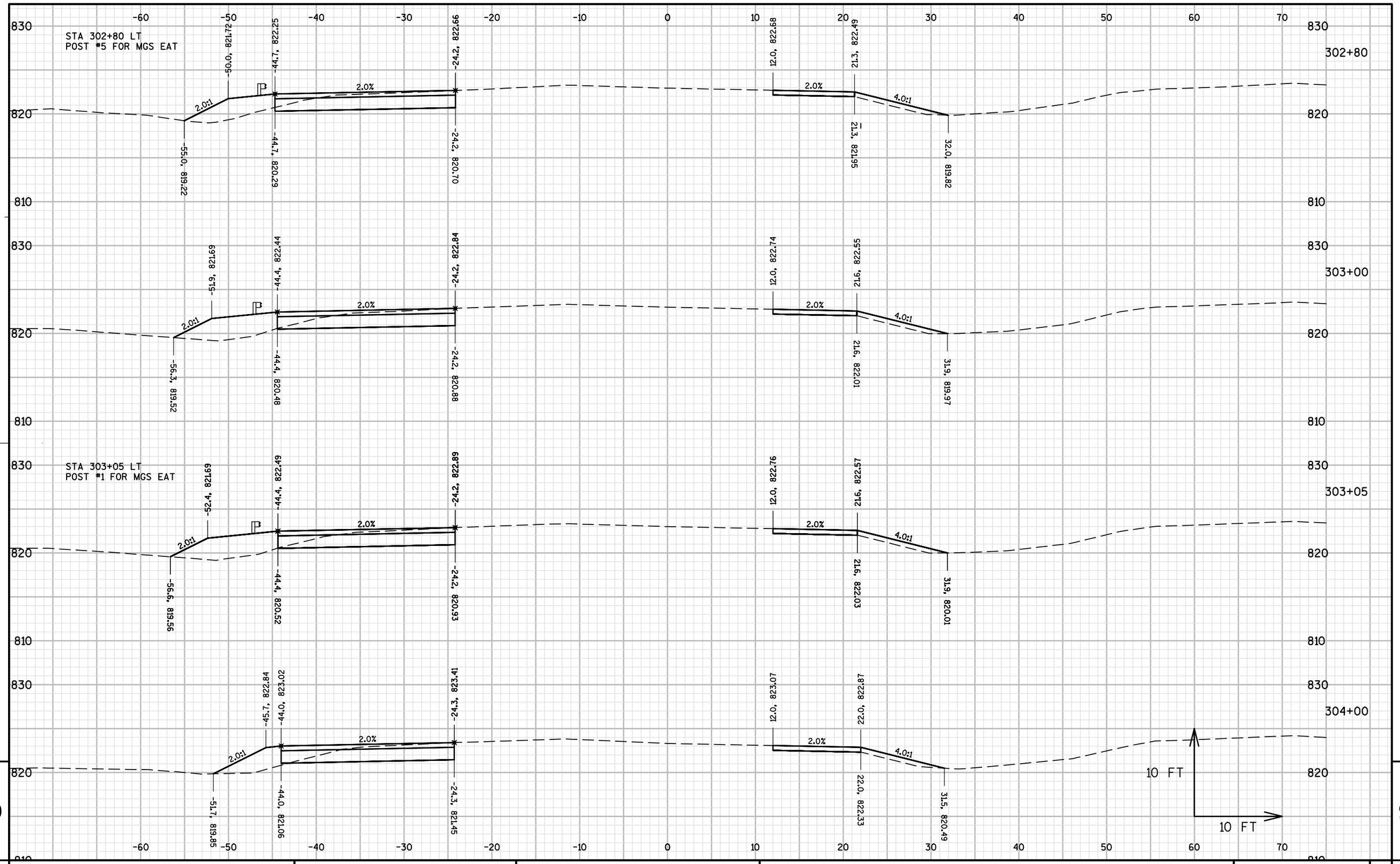
PROJECT NO: 1003-10-78	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: TEMPORARY WIDENING	SHEET 198	E

STA 300+86
1-CONCRETE COLLARS FOR PIPE REQ.
1-30" CPRC EXTENSION LT REQ.
1-APRON ENDWALL REQ.



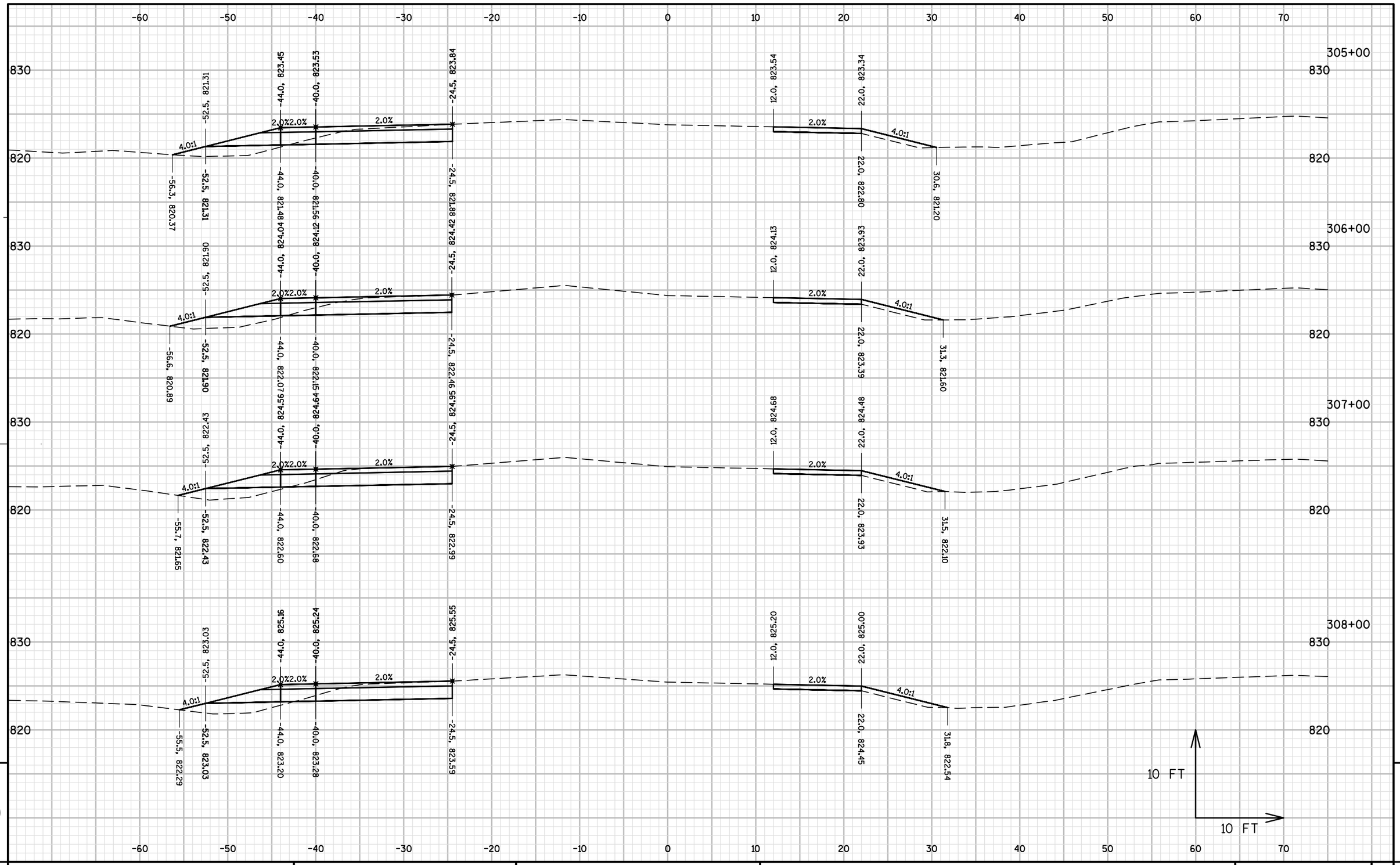
PROJECT NO:1003-10-78	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: TEMPORARY WIDENING	SHEET	E

FILE NAME : L:\WORK\PROJECTS\60242867\000_CAD\001_DRAWINGS\1003-10-78_STATELINE TO CTH S TEMP\100%\090203_XS_247_329.DWG PLOT DATE : 7/19/2015 11:18 AM PLOT BY : ARBUCKLE, ADRIAN PLOT NAME : PLOT SCALE : 1" = 10'_1_XREF
WISDOT/CADDS SHEET 49



PROJECT NO: 1003-10-78	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: TEMPORARY WIDENING	SHEET 200	E

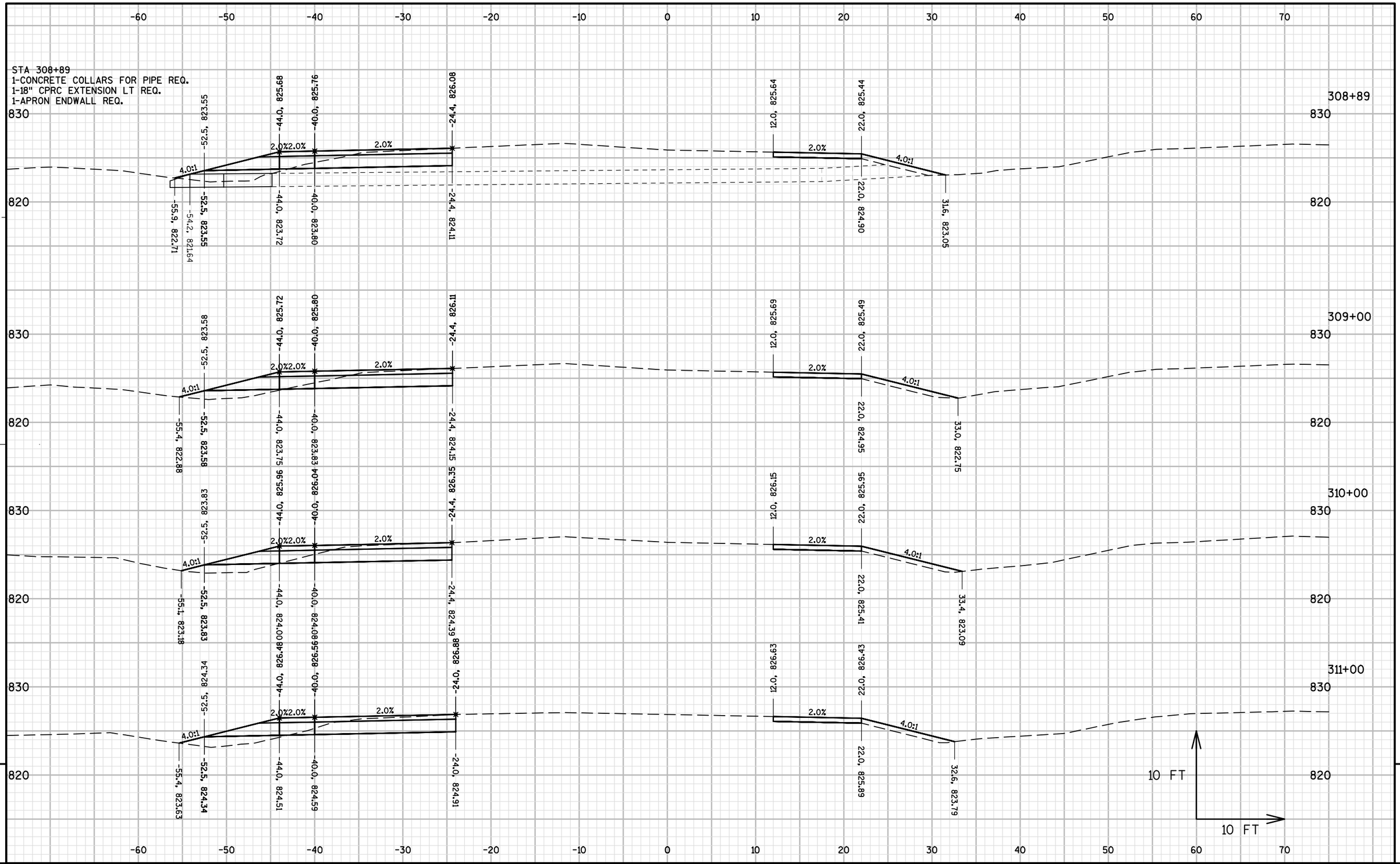
FILE NAME : L:\WORK\PROJECTS\60242867\000_CAD\001_DRAWINGS\1003-10-78_STATELINE TO CTH S TEMP\100%\090203_XS_247_329.DWG PLOT DATE : 7/19/2015 11:19 AM PLOT BY : ARBUCKLE, ADRIAN PLOT NAME : PLOT SCALE : 1" = 10'_1_XREF
WISDOT/CADDS SHEET 49



PROJECT NO: 1003-10-78	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: TEMPORARY WIDENING	SHEET 201 E

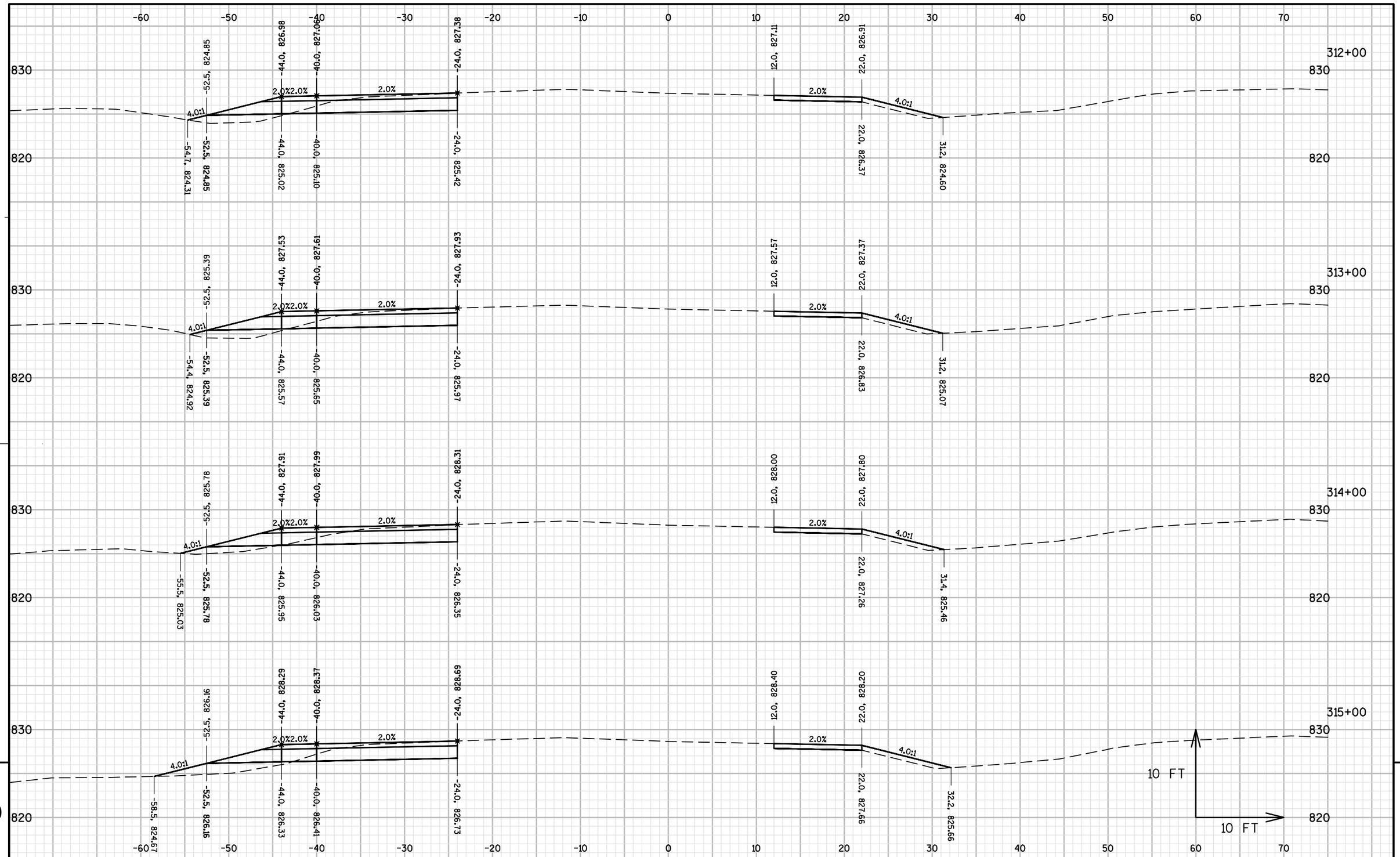
FILE NAME : L:\WORK\PROJECTS\60242867\000_CAD\001_DRAWINGS\1003-10-78_STATELINE TO CTH S TEMP\100%\090203_XS_247_329.DWG PLOT DATE : 7/17/2015 4:18 PM PLOT BY : ARBUCKLE, ADRIAN PLOT NAME : PLOT SCALE : 1" = 10'_1_XREF

WISDOT/CADDS SHEET 49



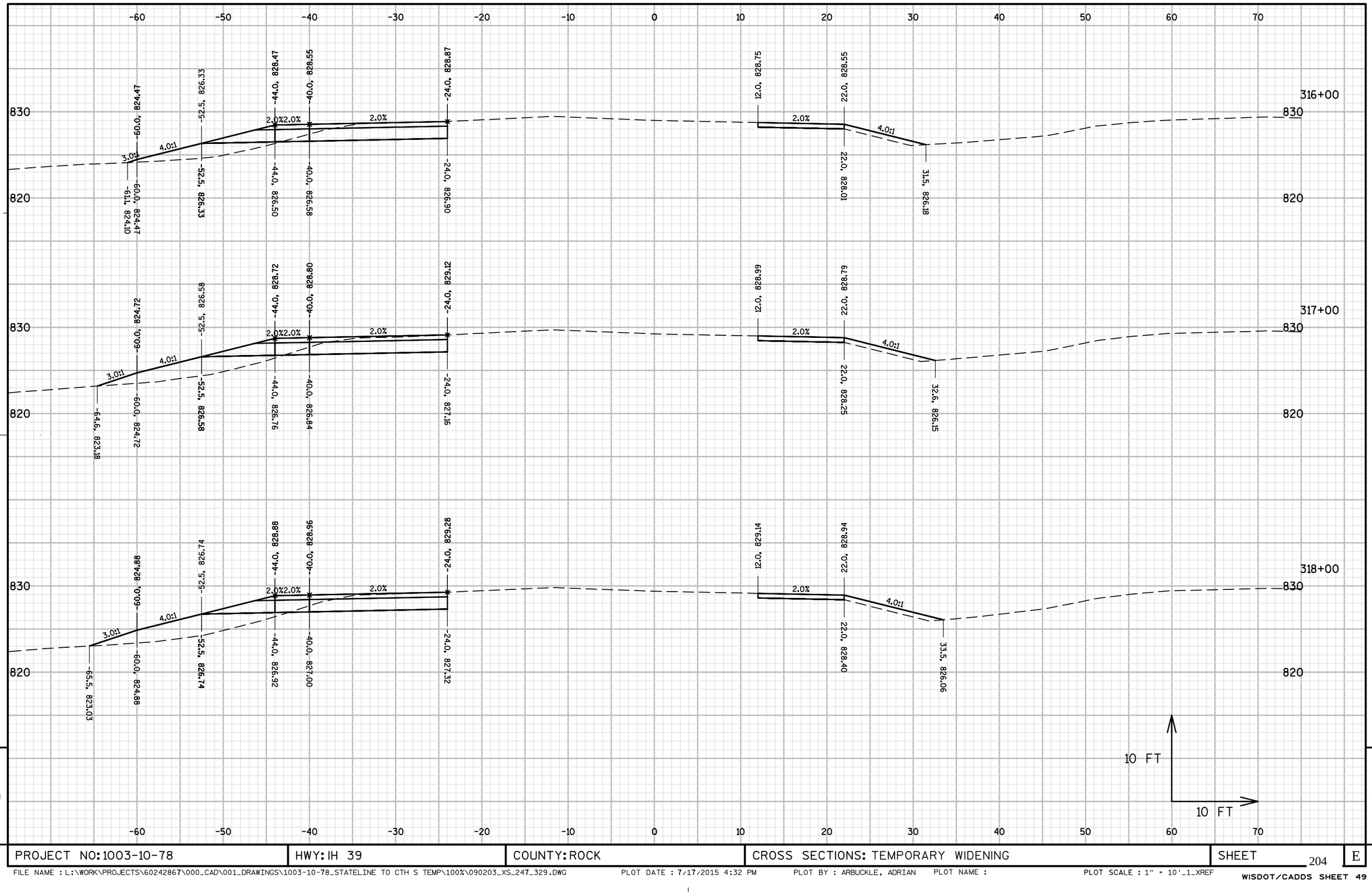
PROJECT NO: 1003-10-78	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: TEMPORARY WIDENING	SHEET	E

FILE NAME : L:\WORK\PROJECTS\60242867\000_CAD\001_DRAWINGS\1003-10-78_STATELINE TO CTH S TEMP\100%\090203_XS_247_329.DWG PLOT DATE : 7/17/2015 4:29 PM PLOT BY : ARBUCKLE, ADRIAN PLOT NAME : PLOT SCALE : 1" = 10'_1_XREF



PROJECT NO: 1003-10-78	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: TEMPORARY WIDENING	SHEET 203 E

FILE NAME : L:\WORK\PROJECTS\60242867\000_CAD\001_DRAWINGS\1003-10-78_STATELINE TO CTH S TEMP\100%\090203_XS_247_329.DWG PLOT DATE : 7/17/2015 4:30 PM PLOT BY : ARBUCKLE, ADRIAN PLOT NAME : PLOT SCALE : 1" = 10'_1_XREF



PROJECT NO: 1003-10-78	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: TEMPORARY WIDENING	SHEET 204	E

STA 318+90
1-CONCRETE COLLARS FOR PIPE REQ.
1-24" CPRC EXTENSION LT REQ.
1-APRON ENDWALL REQ.

318+90

319+00

STA. 320+00
END CONSTRUCITON
MATCH EXISTING

10 FT
10 FT

PROJECT NO: 1003-10-78	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: TEMPORARY WIDENING	SHEET 205 E

FILE NAME : L:\WORK\PROJECTS\60242867\000_CAD\001_DRAWINGS\1003-10-78_STATELINE TO CTH S TEMP\100%\090203_XS_247_329.DWG PLOT DATE : 7/17/2015 4:33 PM PLOT BY : ARBUCKLE, ADRIAN PLOT NAME : PLOT SCALE : 1" = 10'_1_XREF

WISDOT/CADDS SHEET 49

Wisconsin Department of Transportation

Dedicated people creating transportation solutions
through innovation and exceptional service.

http://www.dot.wisconsin.gov

MAD JUNE 2016

PROJECT ID: 1003-10-82

WITH: 1003-10-74 1003-10-75 1003-10-77 1003-10-78

COUNTY: ROCK

03

ORDER OF SHEETS

Section No.	1	Title
Section No.	2	Typical Sections and Details
Section No.	3	Estimate of Quantities
Section No.	3	Miscellaneous Quantities
~~Section No.~~	~~4~~	~~Right-of-Way Plat~~
Section No.	5	Plan and Profile
Section No.	6	Standard Detail Drawings
Section No.	7	Sign Plates
Section No.	8	Structure Plans
Section No.	9	Computer Earthwork Data
Section No.	9	Cross Sections

TOTAL SHEETS = 280

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

ILLINOIS STATE LINE - MADISON

STATELINE RD BRIDGE B-53-0325

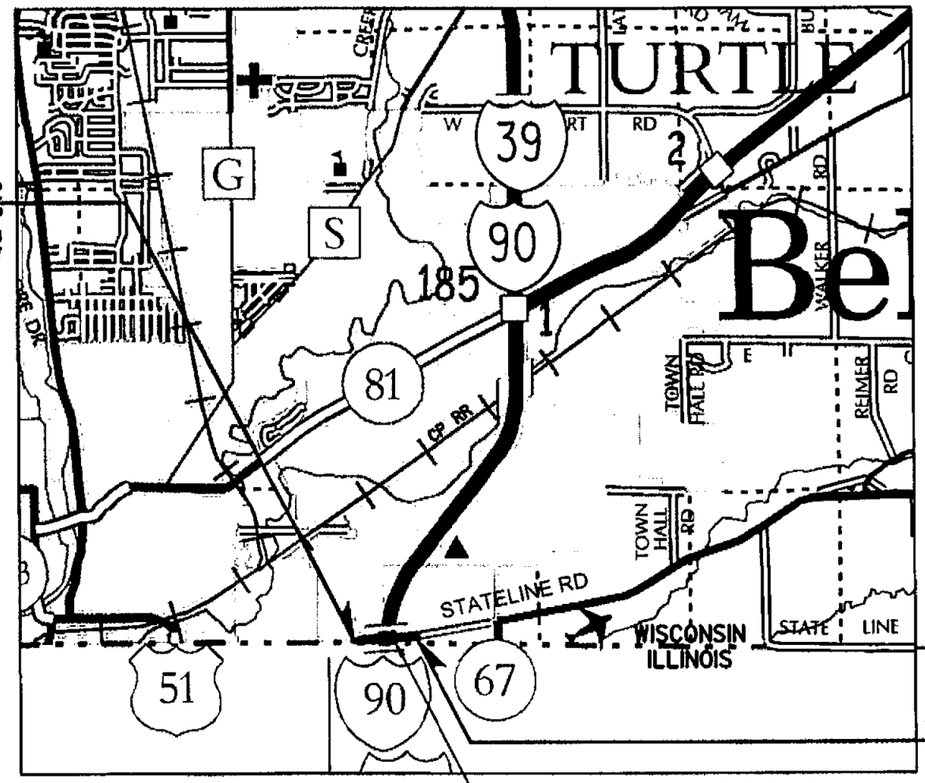
IH 39

ROCK COUNTY

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
1003-10-82	———	—

STATE PROJECT NUMBER

1003-10-82



BEGIN PROJECT 1003-10-82
STA. 13+25.00'SL'
Y = 201,106.18
X = 500,740.17

END PROJECT 1003-10-82
STA. 26+50.00'SL'

STA. 20+24.94'SL'
STRUCTURE B-53-325

TOTAL NET LENGTH OF CENTERLINE = 0.000 MI.

COORDINATES ON THIS PLAN ARE REFERENCED TO THE WISCONSIN COUNTY COORDINATE SYSTEM (WCCS) ROCK COUNTY, NAD 83(91)
ELEVATIONS SHOWN ON THIS PLAN ARE REFERENCED TO NAV 88 (2007)

DESIGN DESIGNATION

A.A.D.T.	(2016)	= 1,080
A.A.D.T.	(2036)	= 1,680
D.H.V.	(2036)	= 252 VPH
D.D.		= 60/40
T. (% ADT)		= 9.3%
DESIGN SPEED		= 50 MPH
ESALS		= 211,700

CONVENTIONAL SYMBOLS

PLAN

- CORPORATE LIMITS
- PROPERTY LINE
- LOT LINE
- LIMITED HIGHWAY EASEMENT
- EXISTING RIGHT OF WAY
- PROPOSED OR NEW R/W LINE
- SLOPE INTERCEPT
- SAW CUT
- REFERENCE LINE
- EXISTING CULVERT
- PROPOSED CULVERT (Box or Pipe)
- COMBUSTIBLE FLUIDS (CAUTION)
- MARSH AREA
- WOODED OR SHRUB AREA

PROFILE

- GRADE LINE
- ORIGINAL GROUND
- MARSH OR ROCK PROFILE (To be noted as such) (ROCK)
- SPECIAL DITCH (LABEL)
- GRADE ELEVATION (95.36)
- CULVERT (Profile View)

UTILITIES

- ELECTRIC (E)
- FIBER OPTIC (FO)
- GAS (G)
- SANITARY SEWER (SAN)
- STORM SEWER (SS)
- TELEPHONE (T)
- WATER (W)
- UTILITY PEDESTAL
- POWER POLE
- TELEPHONE POLE

ACCEPTED FOR
TOWN OF TURTLE

3-18-16 (Date) (Town of Turtle Chair)

ORIGINAL PLANS PREPARED BY
AECOM

WISCONSIN
KELLY J WOLF
E-39796-6
STEVENS PT. WI
PROFESSIONAL ENGINEER

3/1/16 (Date) (Signature)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor	AECOM
Designer	AECOM
Project Manager	STEVE MARSHALL
Regional Examiner	JAMES BUSCHKOPF
Regional Supervisor	KIMBERLY SCHAUDER
C.O. Examiner	

APPROVED FOR THE DEPARTMENT

3/7/2016 (Date) (Signature)

E

GENERAL NOTES

THE LOCATION OF EXISTING UTILITY INSTALLATIONS AS SHOWN ON THE PLANS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT AREA THAT ARE NOT SHOWN.

BE AWARE THAT ALL EXISTING UNDERGROUND AND ABOVE GROUND STRUCTURES AND FACILITIES WITHIN THE SCOPE OF THIS PROJECT MAY NOT BE LOCATED IN THE PLANS. THE CONTRACTOR IS FULLY RESPONSIBLE FOR LOCATING AND AVOIDING ALL UNDERGROUND AND ABOVE GROUND STRUCTURES AND FACILITIES.

FOR UTILITY LOCATES IN ILLINOIS, THE JULIE (JOINT UTILITY LOCATING INFORMATION FOR EXCAVATIONS) USES THE 811 SYSTEM. CONTACT ILLINOIS STATE TOLL HIGHWAY AUTHORITY DIRECTLY FOR A LOCATE OF THEIR FIBER OPTIC

CROSS DRAIN PIPES ELEVATIONS, LENGTHS AND LOCATIONS AS SHOWN ON THE PLANS, SHALL BE ADJUSTED TO FIT THE EXISTING FIELD CONDITIONS, AS DIRECTED BY THE ENGINEER.

EXCAVATION BELOW SUBGRADE (EBS), FOR REMOVAL OF UNSUITABLE MATERIAL, AS SHOWN ON THE PLANS IS MEASURED AND PAID FOR AS EXCAVATION COMMON. EXACT LOCATIONS FOR REMOVING UNSUITABLE MATERIAL WILL BE DETERMINED BY THE ENGINEER.

SALVAGED TOPSOIL, SEEDING, MULCHING, AND FERTILIZER HAVE BEEN COMPUTED BY A DIRECT MEASUREMENT ON THE CROSS SECTIONS PLUS FIVE (5) FEET BEYOND THE TOE OF SLOPE.

RADII, ELEVATIONS, AND DIMENSIONS ARE GIVEN AT THE PAVEMENT EDGES, UNLESS OTHERWISE NOTED IN THE PLANS.

THE CONTRACTOR SHALL NOT OPERATE BEYOND THE SLOPE INTERCEPTS AS SHOWN IN THE PLANS WHEN ADJACENT TO WETLANDS OR ENVIRONMENTALLY SENSITIVE AREAS.

THE CONTRACTOR'S PAVING OPERATIONS SHALL BE CONSISTENT WITH THE PLAN TYPICAL SECTIONS AND CONSTRUCTED TO PREVENT HMA LONGITUDAL JOINTS FROM BEING LOCATED WITHIN A DRIVING, TURNING, PASSING, OR PARKING LANE.

ADJUST TRAFFIC CONTROL DEVICE LOCATIONS TO FIT FIELD CONDITIONS AS DIRECTED BY THE ENGINEER.

EROSION CONTROL ITEMS SHOWN IN THE MISCELLANEOUS QUANTITIES ARE AT SUGGESTED LOCATIONS. THE ENGINEER MAY MODIFY LOCATIONS TO FIT FIELD CONDITIONS.

WETLANDS, WATERWAYS, AND OTHER ENVIRONMENTALLY SENSITIVE AREAS SHALL BE PROTECTED AT ALL TIMES. DO NOT STORE EQUIPMENT OR MATERIALS NEAR THESE SITES UNLESS APPROVED BY THE ENGINEER.

THE BASE AGGREGATE DENSE (BAD) CALCULATIONS ARE BASED ON A UNIT WEIGHT OF 2.1 TONS/CY FOR 3/4-INCH BAD AND 2.0 TONS/CY FOR 1-1/4-INCH BAD.

THE HMA PAVEMENT WEIGHT CALCULATIONS ARE BASED ON A UNIT WEIGHT OF 112 LBS/SY/IN OF DEPTH.

4-INCH HMA PAVEMENT

LAYER	THICKNESS	GRADATION	BID ITEM
UPPER LOWER	1.75-INCHES 2.25 INCHES	12.5mm 19.0mm	4 LT 58-28 S 3 LT 58-28 S

2-INCH HMA PAVEMENT

LAYER	THICKNESS	GRADATION	BID ITEM
UPPER	2.00-INCHES	12.5mm	4 HT 58-28 H

6.5-INCH HMA PAVEMENT

LAYER	THICKNESS	GRADATION	BID ITEM
UPPER LOWER	2.50-INCHES 4.00 INCHES	12.5mm 25.0mm	4 HT 58-28 H 2 HT 58-28 S

ABBREVIATIONS

(100')	RECORDED AS
A.A.D.T.	ANNUAL AVERAGE DAILY TRAFFIC
AC	ACRES
AP	ACCESS POINT/DRIVEWAY CONNECTION
AR	ACCESS RIGHTS
ASPH.	ASPHALTIC
ET. AL.	AND OTHERS
B.A.D.	BASE AGGREGATE DENSE
BM	BENCH MARK
C & G	CURB AND GUTTER
℄ OR CL	CENTERLINE
C.A.B.C.	CRUSHED AGGREGATE BASE COURSE
C.P.	CULVERT PIPE
C.P.C.S.	CULVERT PIPE CORRUGATED STEEL
C.P.R.C.	CULVERT PIPE REINFORCED CONCRETE
C.T.H.	COUNTY TRUNK HIGHWAY
CE	COMMERCIAL ENTRANCE
C.M.C.P.	CORRUGATED METAL CULVERT PIPE
CONC.	CONCRETE
COR.	CORNER
CSM	CERTIFIED SURVEY MAP
CWT.	HUNDREDWEIGHT
D	DEGREE OF CURVE
D.D.	DIRECTIONAL DISTRIBUTION
D.H.V.	DESIGN HOUR VOLUME
DIA.	DIAMETER
DOC.	DOCUMENT
E.	EASE
E.B.S.	EXCAVATION BELOW SUBGRADE
E.S.A.L.	EQUIVALENT SINGLE AXLE LOAD
EASE.	EASEMENT
EB	EASTBOUND
EL OR ELEV	ELEVATION
ELEC.	ELECTRIC (AL)
EXC.	EXCAVATION
EXIST.	EXISTING
F.E.	FIELD ENTRANCE
F.L. OR F/L	FLOW LINE
FT.	FOOT
H.E.	HIGHWAY EASEMENT
HMA	HOT MIX ASPHALT
INL.	INLET
INV.	INVERT
IP OR I.P.	IRON PIN
L	LENGTH OF CURVE
L.H.F.	LEFT-HAND FORWARD
L.S.	LUMP SUM
LB.	POUND
LN	LANE
LT. OR LT	LEFT
M.L. OR M/L	MATCH LINE
MATL.	MATERIAL
MAX.	MAXIMUM
MH.	MANHOLE
MIN.	MINIMUM
MON.	MONUMENT
MP	ROADWAY MILEAGE
N.	NORTH
N.C.	NORMAL CROWN
NB	NORTH BOUND
OBLIT	OBLITERATE
P.	PAGE
P.A.S.P.	PIPE ARCH STRUCTURAL PLATE
P.C.	POINT OF CURVATURE
P.C.C.	POINT OF COMPOUND CURVE
P.E.	PRIVATE ENTRANCE
P.I.	POINT OF INTERSECTION
P.L.	PROPERTY LINE
P.L.E.	PERMANENT LIMITED EASEMENT
P.T.	POINT OF TANGENCY
PAVT.	PAVEMENT
PROJ.	PROJECT
PT.	POINT
R	RADIUS
R.H.F.	RIGHT-HAND FORWARD
℄ OR R/L	REFERENCE LINE
R/W	RIGHT-OF-WAY
R.C.C.P.	REINFORDCED CONCRETE CULVERT PIPE
RD.	ROAD
REBAR.	REINFORCEMENT BAR

ABBREVIATIONS CONT.

REINF	REINFORCING OR REINFORCEMENT
REM.	REMAINING
REQD.	REQUIRED
ROR	RELEASE OF RIGHTS
RR.	RAILROAD
RRSP	RAILROAD SPIKE
RT OR RT.	RIGHT
S.	SOUTH
S.D.D.	STANDARD DETAIL DRAWINGS
S.E.	SUPERELEVATION
S.F. OR SQ.FT.	SQUARE FEET
S.S.	STORM SEWER
S.S.P.R.C.	STORM SEWER PIPE REINFORCED CONCRETE
S.T.H.	STATE TRUNK HIGHWAYS
S.Y. OR SQ.YD.	SQUARE YARD
SALV.	SALVAGED
SB	SOUTHBOUND
SEC.	SECTION
SHLDR.	SHOULDER
SPECS.	SPECIFICATIONS
STA.	STATION
STD.	STANDARD
T	TANGENT
T. %	TRUCKS (PERCENT OF)
T.L.E.	TEMPORARY LIMITED EASEMENT
T.P.M.	TEMPORARY PAVEMENT MARKING
T.P.M.R.T.	TEMPORARY PAVEMENT MARKING, REMOVABLE TAPE
TEL.	TELEPHONE
TEMP.	TEMPORARY
TYP.	TYPICAL
U.S.H.	UNITED STATES HIGHWAY
UG.	UNDERGROUND
V	VOLUME
V.C.	VERTICAL CURVE
W.	WEST
WB	WESTBOUND
X	EAST GRID COORDINATE
Y	NORTH GRID COORDINATE

TYPICAL SECTION AND DETAIL SHEET INDEX

GENERAL NOTES
PROJECT OVERVIEW
TYPICAL SECTIONS
CONSTRUCTION DETAILS
REMOVALS DETAIL
APPROACH SLAB DETAIL
PAVEMENT WIDENING DETAIL
CONCRETE BARRIER AND MGS GUARDRAIL DETAIL
EROSION CONTROL
PAVEMENT MARKING & PERMANENT SIGNING
ITS PLANS
TRAFFIC CONTROL
FENCE DETAIL
ALIGNMENT DIAGRAM
BENCHMARKS AND CONTROL POINTS

FILE NAME : L:\WORK\PROJECTS\60242867\000_CAD\001_DRAWINGS\1003-10-82_STATELINE RD\100% +\020101_GN.DWG PLOT DATE : 4/4/2016 10:36 AM PLOT BY : CZECH, ANDREW PLOT NAME : ---------- PLOT SCALE :
WISDOT/CADDS SHEET 42

2

UTILITIES

WISCONSIN POWER & LIGHT - ELECTRICITY, GAS/PETROLEUM
(ALLIANT ENERGY)
JASON HOGAN
SUITE 1000
4902 N BILTMORE LN.
MADISON, WI 53718
PHONE: (608) 458-4871
jasonhogan@alliantenergy.com

AT&T WISCONSIN - COMMUNICATION LINE
CAROL ANASON
316 W WASHINGTON AVE.
MADISON, WI 53703
PHONE: (608) 252-2385
Ca2624@att.com

ANR PIPELINE COMPANY - GAS/PETROLEUM
LAWRENCE HUBER
W3925 PIPELINE LN
EDEN, WI 53019
PHONE: (920) 477-2235
lawrence_huber@transcanada.com

BRANDON STORM
CHARTER COMMUNICATIONS - COMMUNICATION LINE
2701 DANIELS ST
MADISON, WI 53718
PHONE: (608) 274-3822
brandon.storm@charter.com

ATC MANAGEMENT, INC - ELECTRICITY
MIKE OLSEN
801 O'KEEFE RD
P.O. BOX 6113
DE PERE, WI 54115-6113
PHONE: (920) 338-6582
molsen@atcllc.com

ROCK ENERGY COOPERATIVE - ELECTRICITY
LYNN MAIER
P.O. BOX 1758
JANESVILLE, WI 53547-1758
PHONE: (608) 752-4550
lynnm@rock.coop

WISCONSIN DOT RWIS PROGRAM - COMMUNICATION TOWER
RM 501
MIKE ADAMS
P.O. BOX 7986
MADISON, WI 53707-7986
PHONE: (608) 266-5004
michael.adams@dot.wi.gov

CITY OF BELOIT - SEWER, WATER, ROAD FACILITY
MICHAEL FLESCH
100 STATE ST
BELOIT, WI 53511
PHONE: (608) 364-6696
FleschM@ci.beloit.wi.us

IDOT REGION 2/DISTRICT 2 - STREET LIGHTING
SCOTT KULLERSTRAND
819 DEPOT AVE.
DIXON, IL 61021
PHONE: (815) 284-5468
skullerstrand@getipass.com

G4S TECHNOLOGIES - ISTHA FIBER OPTIC
CECIL KUHSE
565 WILLOWBROOK CENTRE PARKWAY
WILLOWBROOK, IL 60527
PHONE: (630) 920-1488
cecil.kuhse@usa.g4s.com

WISDOT

WisDOT DESIGN PROJECT MANAGER
STEVE MARSHALL
111 INTERSTATE BLVD.
EDGERTON, WI 53534-9399
PHONE: (608) 884-7134
steve.marshall@dot.wi.gov

WisDOT CONSTRUCTION PROJECT MANAGER
EMMANUEL YARTEY
111 INTERSTATE BLVD.
EDGERTON, WI 53534-9399
PHONE: (608) 884-7131
emmanuel.yartey@dot.wi.gov

WisDOT ITS MANAGEMENT ENGINEER
LUKE HOLMAN
910 WEST WINGRA DRIVE
MADISON, WI 53715
PHONE: (608) 251-4843
luke.holman@strand.com

WisDOT STATEWIDE TRAFFIC OPERATIONS CENTER
DEAN BEEKMAN
433 W. ST. PAUL AVE., SUITE 300
MILWAUKEE, WI 53203
PHONE: (414) 227-2154
dean.beekman@dot.wi.gov

WISDNR

WISCONSIN DEPARTMENT OF NATURAL RESOURCES
(SOUTH CENTRAL REGION)
ROCK COUNTY
LAURA BUB
3911 FISH HATCHERY RD
FITCHBURG, WI 53711-5397
PHONE: (608) 275-3485
laura.bub@wisconsin.gov

DIGGERS HOTLINE
Dial 811 or (800) 242-8511
www.DiggersHotline.com

OTHER AGENCIES

TOWN OF TURTLE
ROGER ANCLAM - CHAIR
6916 S. COUNTY ROAD J
BELOIT, WI 53511
PHONE: (608) 362-0655
townofturtle@charter.net

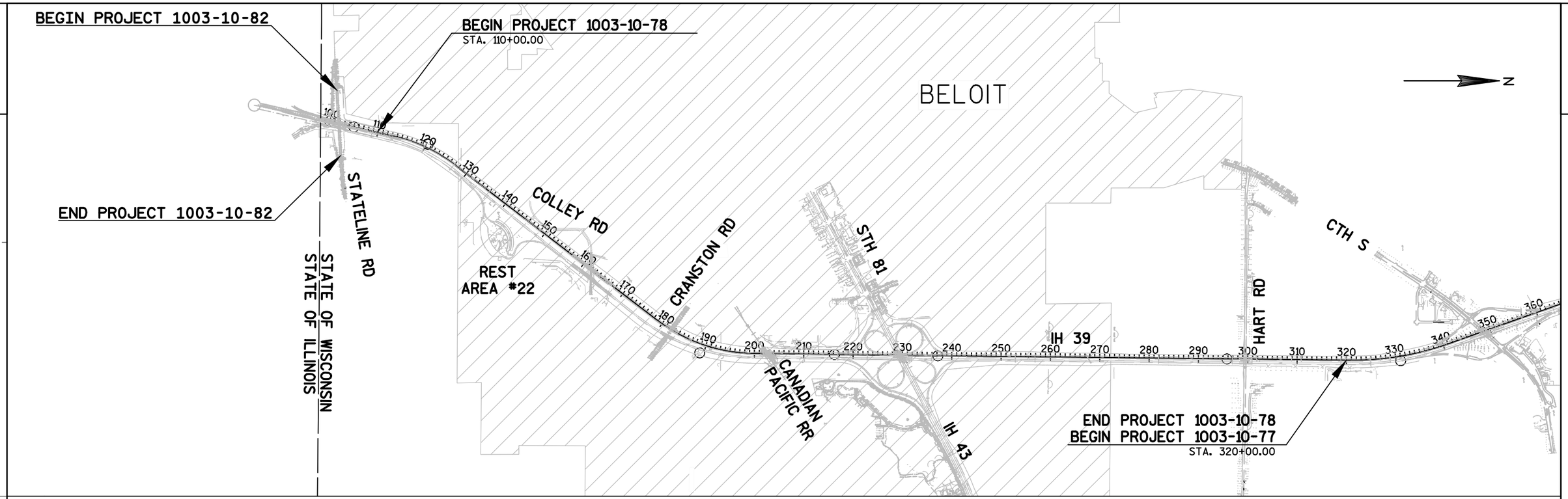
CITY OF BELOIT
MICHAEL FLESCH
100 STATE ST.
BELOIT, WI 53511
PHONE: (608) 364-6696
FleschM@ci.beloit.wi.us

BELOIT AIRPORT
STEVE STAUBER
4046 STATE HWY 67
BELOIT, WI 53511
PHONE: (608) 365-1971

ILLINOIS DEPARTMENT OF TRANSPORTATION
IDOT REGION 2/DISTRICT 2
MASOOD AHMAD
819 DEPOT AVE.
DIXON, IL 61021
PHONE: (815) 284-5351
Masood.Ahmad@illinois.gov

ILLINOIS STATE TOLL HIGHWAY AUTHORITY - UTILITY ADMINISTRATOR
PATRICIA MATHEZ
2700 OGDEN AVE.
DOWNERS GROVE, IL 60515
PHONE: (630) 241-6800, EXT. 3306
pmathez@getipass.com

2



NOTE:

THIS SHEET PROVIDES AN OVERVIEW OF THE LOCATION OF THE FOLLOWING 5 TIED PROJECTS:

1003-10-74
1003-10-75
1003-10-77
1003-10-78
1003-10-82

SEE THE PLANS OF THE CORRESPONDING PROJECT I.D. FOR MORE INFORMATION.

PROJECT NO: 1003-10-82	HWY: IH 39	COUNTY: ROCK	PROJECT OVERVIEW - 5 TIED PROJECTS	SHEET 4	E

2

2

N

END CONSTRUCTION
STA 108+10

IH 39/90 SB

IH 39/90 NB

R/L IH 39/90

105

R/W

UTILITY EASEMENT

END PROJECT 1003-10-82
STA 26+50'SL'

R/W

R/L STATELINE RD

R/W

R/W

15'SL'

20'SL'

25'SL'

STATELINE RD

STRUCTURE B-53-325

SLOPE INTERCEPTS
(TYP.)

BELOIT RD

R/W

FRONTAGE RD

WISCONSIN
ILLINOIS

P.L.

P.L.

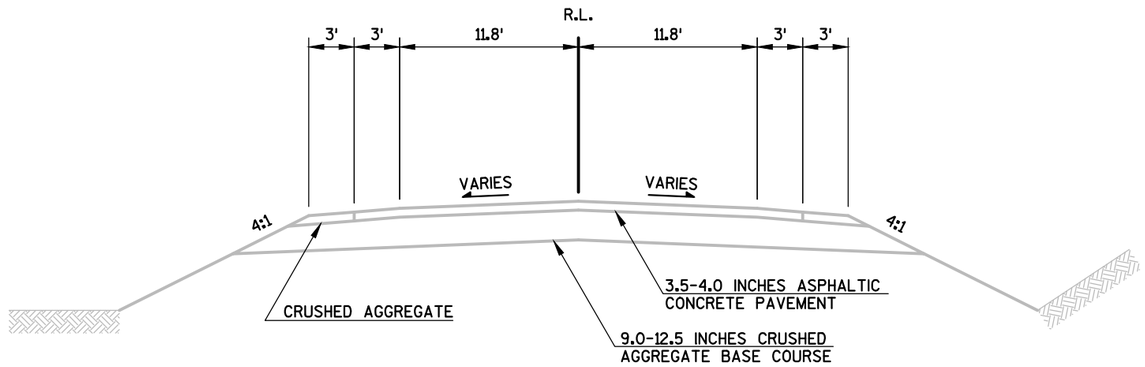
WISCONSIN
ILLINOIS

BEGIN PROJECT 1003-10-82
STA 13+25'SL'

100

BEGIN CONSTRUCTION
STA 100+65

PROJECT NO: 1003-10-82	HWY: IH 39	COUNTY: ROCK	PROJECT OVERVIEW	SHEET 5	E



EXISTING TYPICAL SECTION

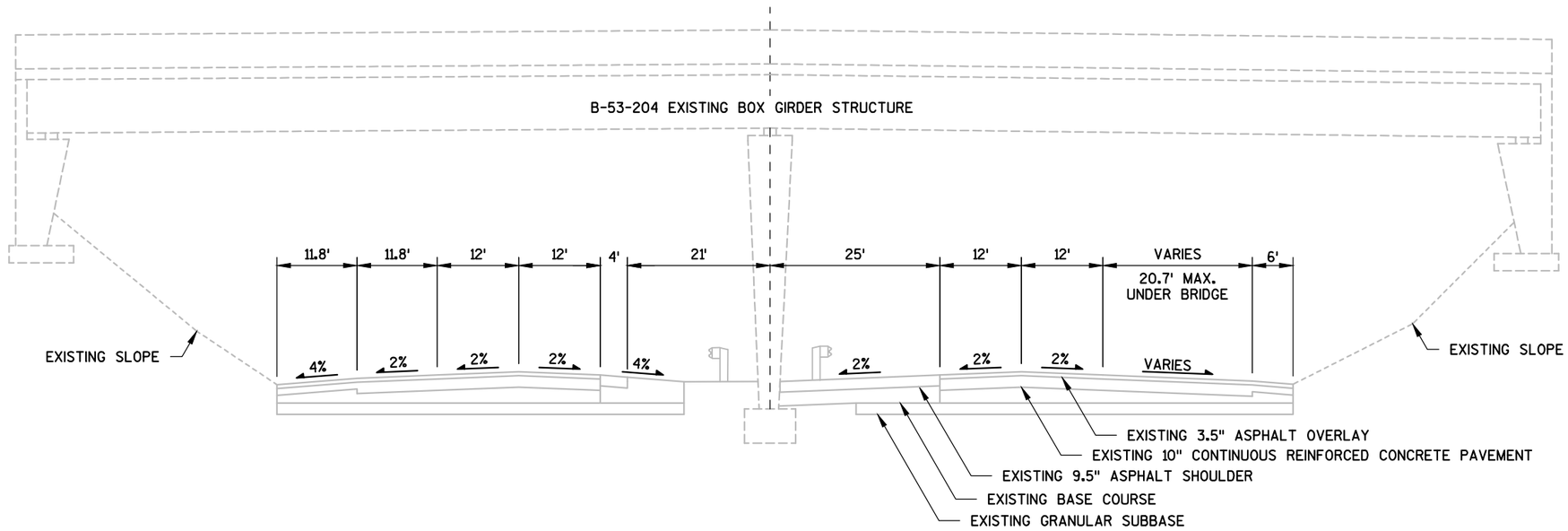
STATELINE RD

PAVEMENT CORE LOG

CORE NO	STATION	OFFSET FROM ℄	ASPHALT DEPTH IN INCHES	CRUSHED AGG. BASE COURSE-DEPTH IN INCHES
SR-1	9+67'SL'	6.3 LT	4.0	9
SR-2	13+67'SL'	7.3 RT	4.0	9
SR-3	26.66'SL'	7.3 LT	3.5	10.5
SR-4	31+66'SL'	7.7 RT	4.0	12.5*

* 6" ASPHALT MILLINGS OVER 6.5" BASE COURSE

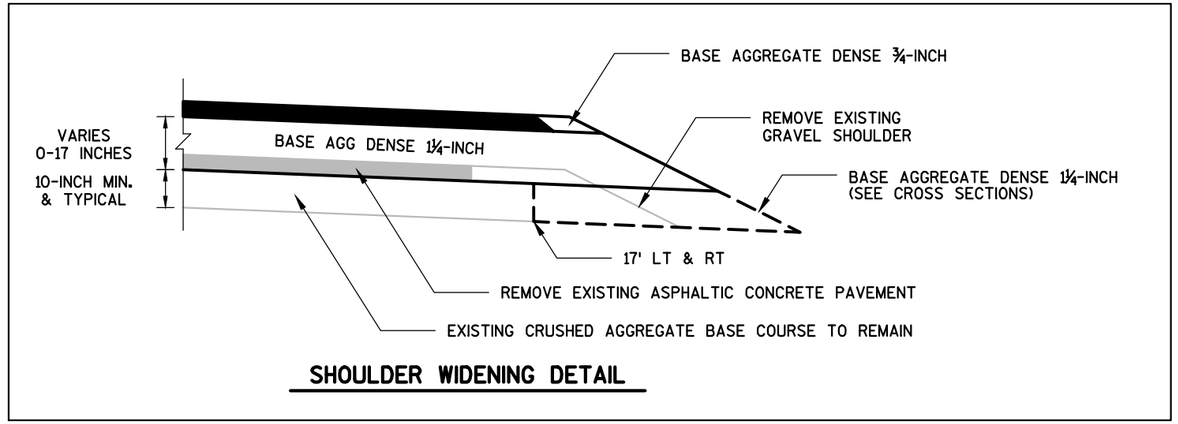
PROJECT NO: 1003-10-82	HWY: IH 39	COUNTY: ROCK	TYPICAL SECTION: STATELINE RD	SHEET 6	E



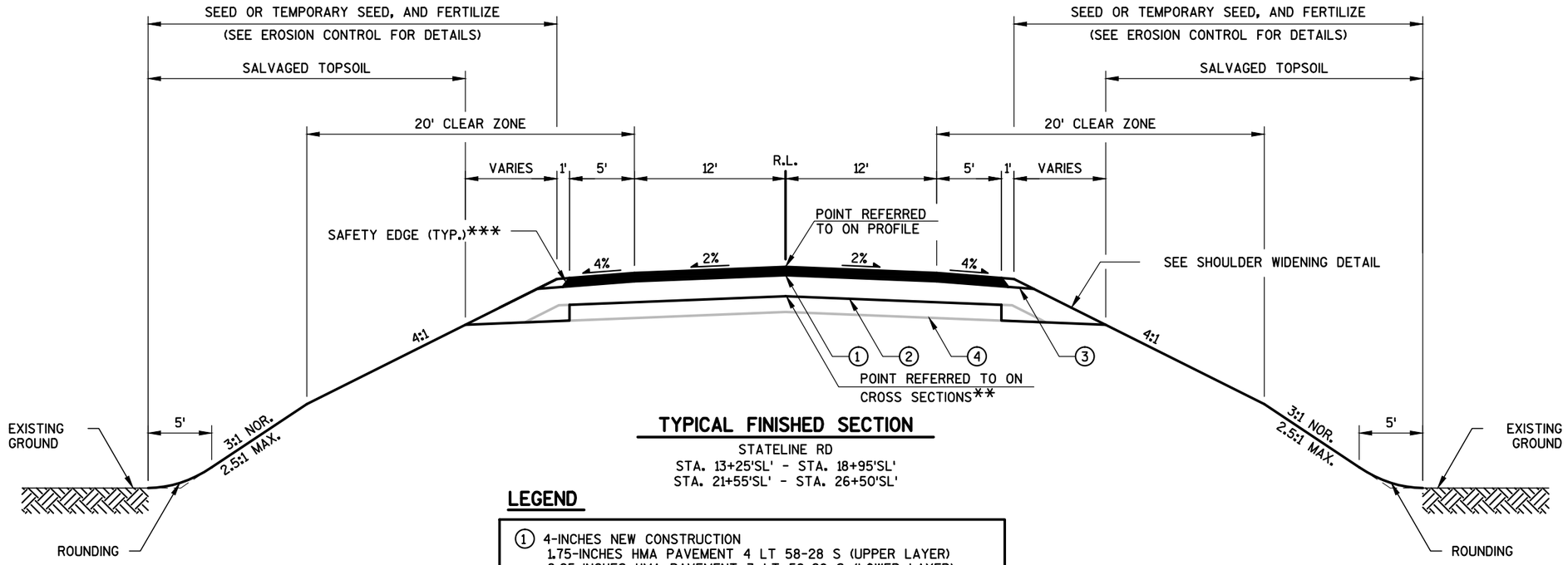
TYPICAL EXISTING SECTION

IH 39 UNDER STATELINE RD

PROJECT NO: 1003-10-82	HWY: IH 39	COUNTY: ROCK	TYPICAL SECTION: IH 39	SHEET 7	E



SHOULDER WIDENING DETAIL



TYPICAL FINISHED SECTION

STATELINE RD
STA. 13+25'SL' - STA. 18+95'SL'
STA. 21+55'SL' - STA. 26+50'SL'

LEGEND

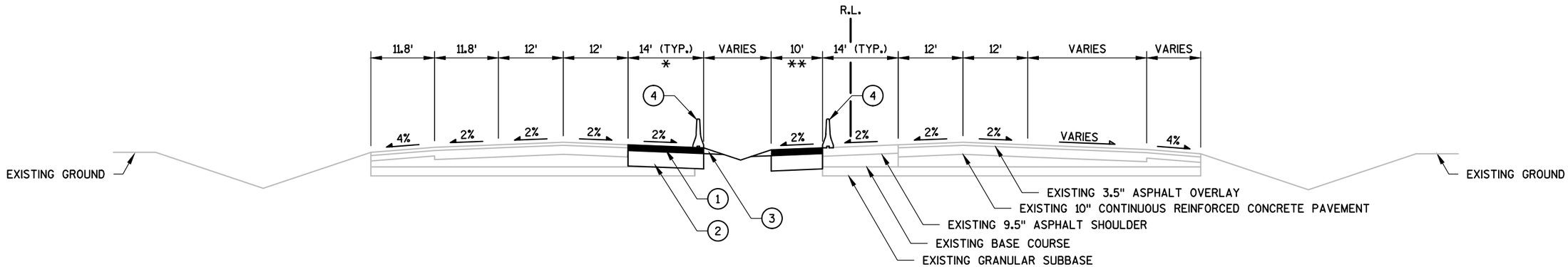
1. 4-INCHES NEW CONSTRUCTION
   1.75-INCHES HMA PAVEMENT 4 LT 58-28 S (UPPER LAYER)
   2.25-INCHES HMA PAVEMENT 3 LT 58-28 S (LOWER LAYER)
2. VARIABLE DEPTH BASE AGGREGATE DENSE 1¼-INCH *
3. BASE AGGREGATE DENSE 3/4-INCH
4. EXISTING CRUSHED AGGREGATE BASE COURSE *

* 10-INCH MINIMUM BASE DEPTH REQUIRED, UTILIZE EXISTING BASE COURSE WHERE POSSIBLE.

** ASSUMES 4-INCHES EXISTING HMA PAVEMENT REMOVAL.

*** SAFETY EDGE SHALL BE CONSTRUCTED WITH HMA PAVEMENT 4 LT 58-28 S.

PROJECT NO: 1003-10-82	HWY: IH 39	COUNTY: ROCK	TYPICAL SECTION: STATELINE RD	SHEET 8	E



LEGEND

(1)	6.5-INCHES NEW CONSTRUCTION 2.5-INCHES HMA PAVEMENT 4 HT 58-28 H (UPPER LAYER) 4.0-INCHES HMA PAVEMENT 2 HT 58-28 S (LOWER LAYER)
(2)	17-INCHES BASE AGGREGATE DENSE 1¼-INCH
(3)	BASE AGGREGATE DENSE 3/4-INCH
(4)	CONCRETE BARRIER TEMPORARY PRECAST LEFT IN PLACE

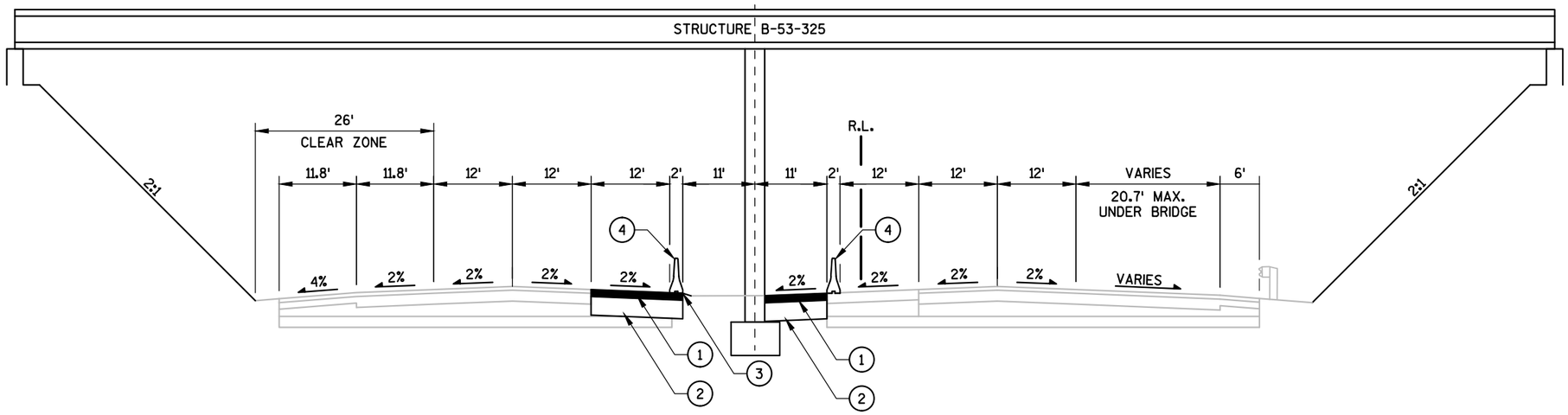
TYPICAL FINSIHED SECTION

IH 39
STA. 101+65.30 - STA. 101+45.10
STA. 103+10.00 - STA. 108+10.20

*VARIES FROM 14'-23.5'
STA. 106+00.00 - STA. 108+10.20

**0' FROM STA. 100+65.50 - STA. 101+45.10
AND STA 103+10.00 - STA. 108+10.20

PROJECT NO: 1003-10-82	HWY: IH 39	COUNTY: ROCK	TYPICAL SECTION: IH 39	SHEET 9	E



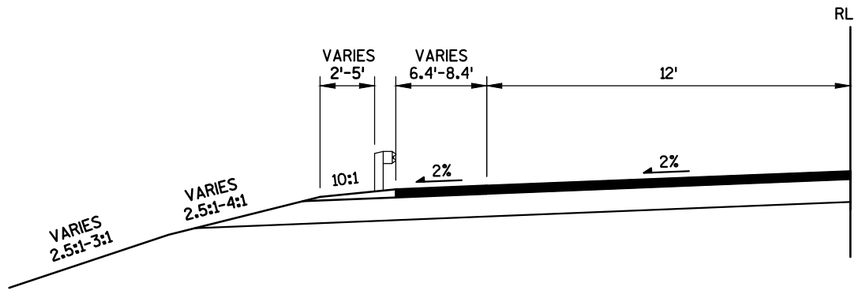
LEGEND

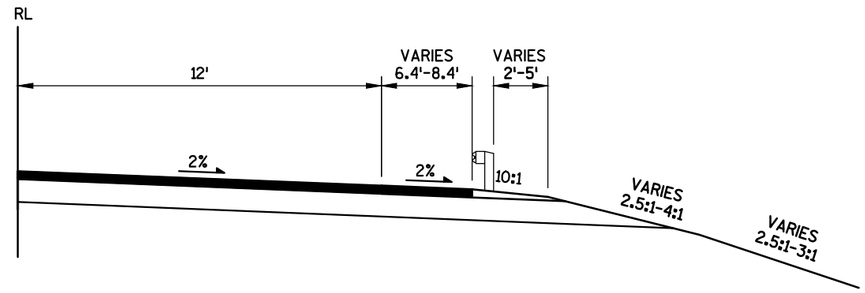
(1)	6.5-INCHES NEW CONSTRUCTION 2.5-INCHES HMA PAVEMENT 4 HT 58-28 H (UPPER LAYER) 4.0-INCHES HMA PAVEMENT 2 HT 58-28 S (LOWER LAYER)
(2)	17-INCHES BASE AGGREGATE DENSE 1¼-INCH
(3)	BASE AGGREGATE DENSE 3/4-INCH
(4)	CONCRETE BARRIER TEMPORARY PRECAST LEFT IN PLACE

TYPICAL FINISHED SECTION

IH 39 UNDER STATELINE RD (B-53-325)
STA. 101+45.10 - STA. 103+10.00

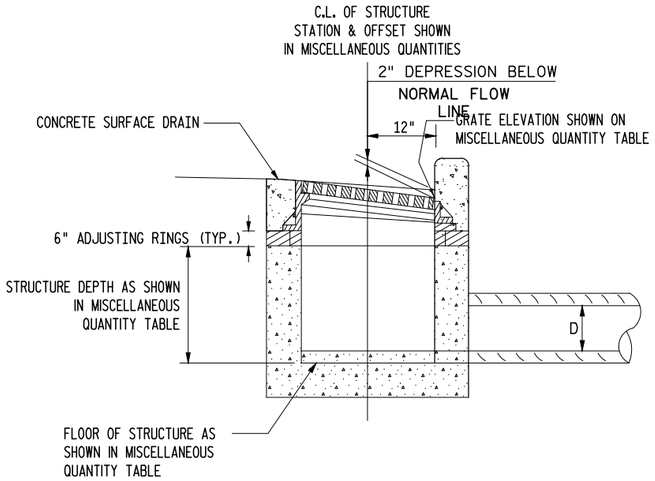
PROJECT NO:1003-10-82	HWY:IH 39	COUNTY:ROCK	TYPICAL SECTION: IH 39	SHEET 10	E



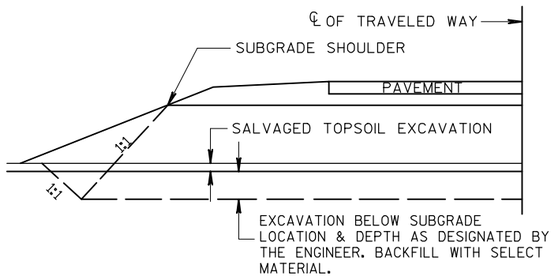


MIDWEST GUARDRAIL SYSTEM
FOR STRUCTURE APPROACHES

17+10.3'SL' TO 17+63.4'SL' (LT)	MGS ENERGY ABSORBING TERMINAL	14+87.1'SL' TO 15+40.2'SL' (RT)	MGS ENERGY ABSORBING TERMINAL
17+63.4'SL' TO 18+63.4'SL' (LT)	MGS GUARDRAIL 3	15+40.2'SL' TO 18+52.7'SL' (RT)	MGS GUARDRAIL 3
18+63.4'SL' TO 19+02.8'SL' (LT)	MGS THRIE BEAM TRANSITION	18+52.7'SL' TO 18+92.1'SL' (RT)	MGS THRIE BEAM TRANSITION
21+57.8'SL' TO 21+97.2'SL' (LT)	MGS THRIE BEAM TRANSITION	21+47.1'SL' TO 21+86.5'SL' (RT)	MGS THRIE BEAM TRANSITION
21+97.2'SL' TO 24+09.7'SL' (LT)	MGS GUARDRAIL 3	21+86.5'SL' TO 22+74.0'SL' (RT)	MGS GUARDRAIL 3
24+09.7'SL' TO 24+62.8'SL' (LT)	MGS ENERGY ABSORBING TERMINAL	22+74.0'SL' TO 23+27.1'SL' (RT)	MGS ENERGY ABSORBING TERMINAL



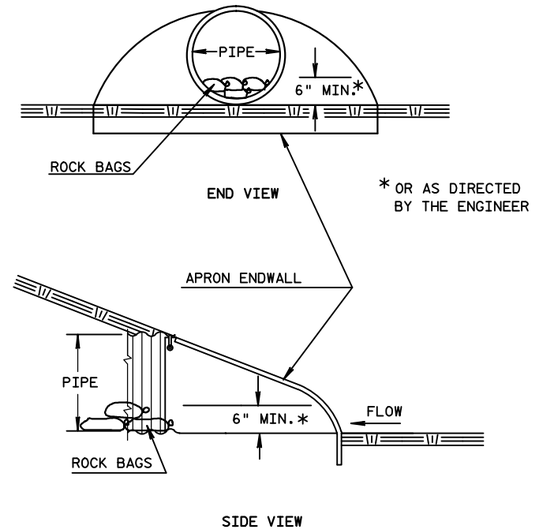
DETAIL OF INLETS AT CONCRETE SURFACE DRAINS



NOTE:

QUANTITIES ESTIMATED FROM BORINGS AT __-FOOT SPACING. ADDITIONAL INFORMATION IS AVAILABLE FROM KHADER ABU AL EIS, (608) 884-4475.

DETAIL FOR EXCAVATION BELOW SUBGRADE

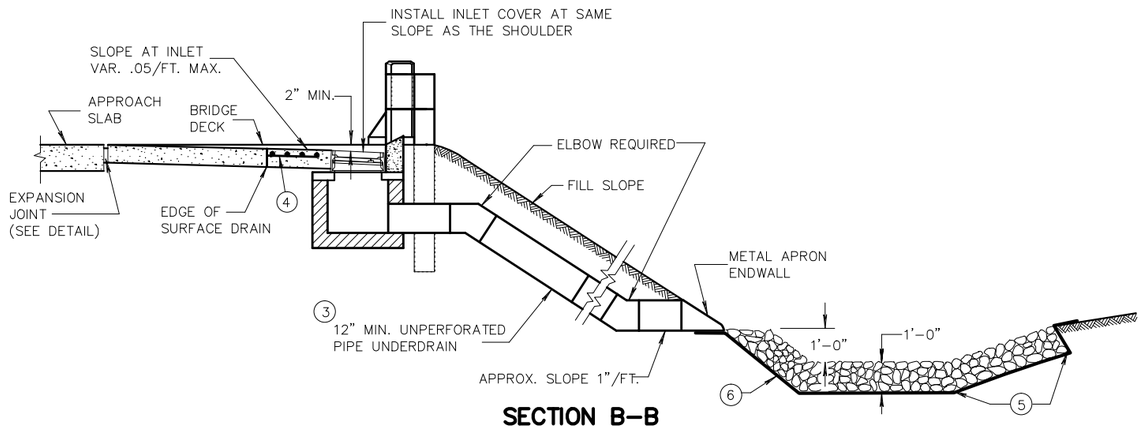


CULVERT PIPE CHECK

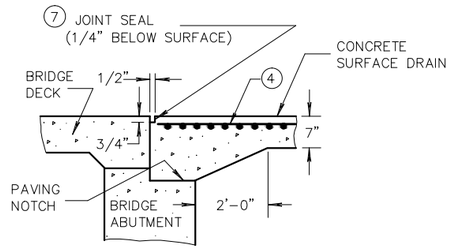
RUNOFF COEFFICIENT TABLE

	HYDROLOGIC SOIL GROUP											
	A			B			C			D		
	SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)		
LAND USE:	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER
ROW CROPS	.08 .22	.16 .30	.22 .38	.12 .26	.20 .34	.27 .44	.15 .30	.24 .37	.33 .50	.19 .34	.28 .41	.38 .56
MEDIAN STRIP-TURF	.19 .24	.20 .26	.24 .30	.19 .25	.22 .28	.26 .33	.20 .26	.23 .30	.30 .37	.20 .27	.25 .32	.30 .40
SIDE SLOPE-TURF			.25 .32			.27 .34			.28 .36			.30 .38
PAVEMENT:												
ASPHALT	.70 - .95											
CONCRETE	.80 - .95											
BRICK	.70 - .80											
DRIVES, WALKS	.75 - .85											
ROOFS	.75 - .95											
GRAVEL ROADS, SHOULDERS	.40 - .60											

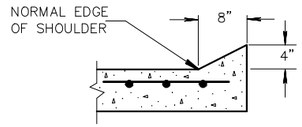
TOTAL PROJECT AREA = 12.943 ACRES
TOTAL AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES = 3.479 ACRES



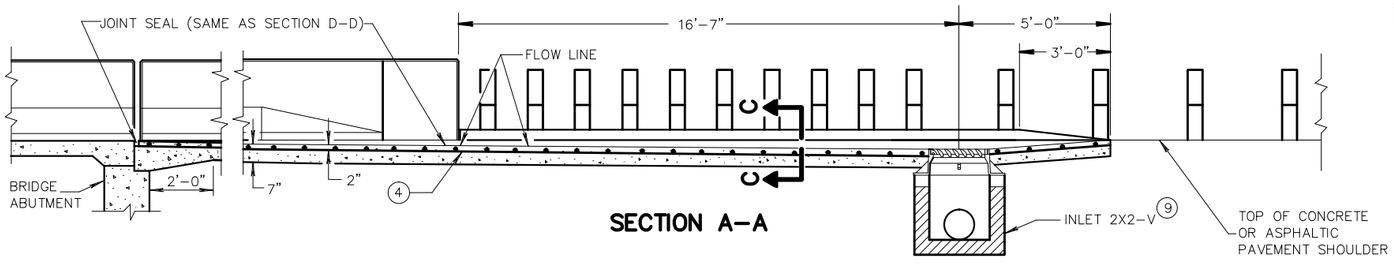
SECTION B–B



SECTION D–D



SECTION C–C



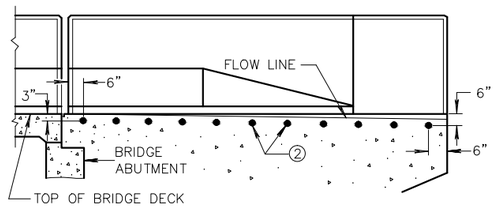
SECTION A–A

GENERAL NOTES

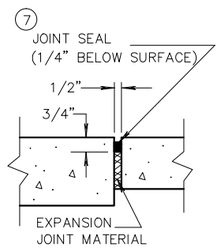
DETAILS OF CONSTRUCTION, MATERIALS, AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

ALL STEEL REINFORCEMENT SHALL BE EMBEDDED 2 INCHES CLEAR UNLESS OTHERWISE SHOWN OR NOTED.

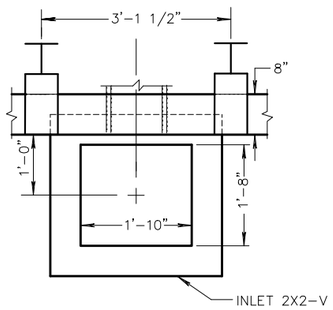
1. NO. 4 X 2'–0" TIE BARS SPACED AT 3'–0" CENTERS TO BE USED ONLY WHEN ADJACENT TO P.C. CONCRETE.
2. NO. 4 X 2'–0" TIE BARS SPACED AT 12" CENTERS TO BE PLACED BY BRIDGE CONTRACTOR, OR DRILLED TIE BARS PLACED AS DIRECTED BY THE ENGINEER.
3. THE PIPE UNDERDRAIN MAY BE ANY ONE OF THE SIX MATERIALS LISTED IN THE STANDARD SPECIFICATIONS SECTION 612.2 EXCEPT DRAIN TILE.
4. MINIMUM REINFORCEMENT SHALL BE 6" X 6" – W4.0 X W4.0 OR NO. 3 BARS LONGITUDINAL AND TRANSVERSE SPACING 12" C–C.
5. LIMITS OF ADDITIONAL RIPRAP WHEN SPECIAL DITCH IS REQUIRED.
6. GEOTEXTILE FABRIC, TYPE 'R' OR TYPE 'HR', DEPENDENT ON RIPRAP TYPE
7. HOT POURED SEALANT UNLESS OTHERWISE SPECIFIED.
8. THIS DIMENSION MAY VARY DEPENDING ON THE SPACING OF POSTS FOR THE STEEL PLATE BEAM GUARD. THE TYPICAL LOCATION FOR THE SURFACE DRAIN IS WHERE THE POST SPACING IS 3'–1 1/2".
9. SEE CURRENT STANDARD DETAIL DRAWINGS 8A5 AND 8C7 FOR DETAILS.
10. SEE CURRENT STANDARD DETAIL DRAWING 14B45 FOR MGS POST SPACING DETAILS.



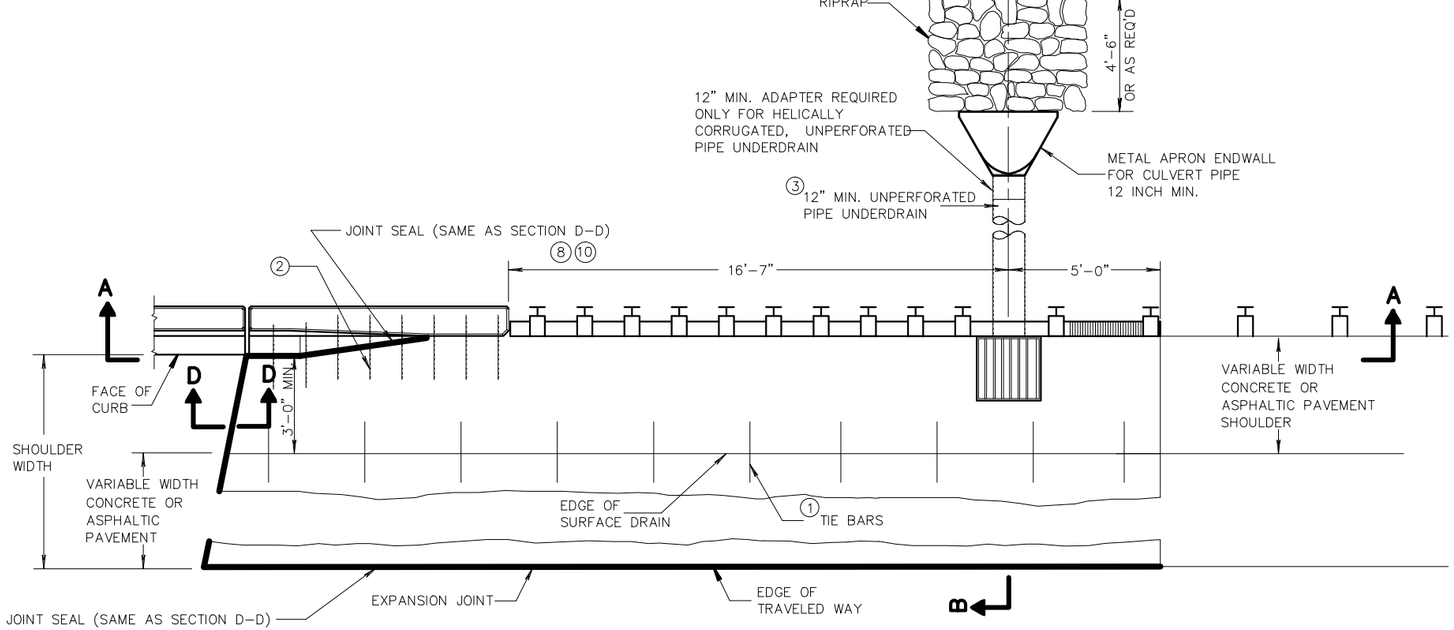
LOCATION OF TIE BARS IN WINGWALL



EXPANSION JOINT DETAIL



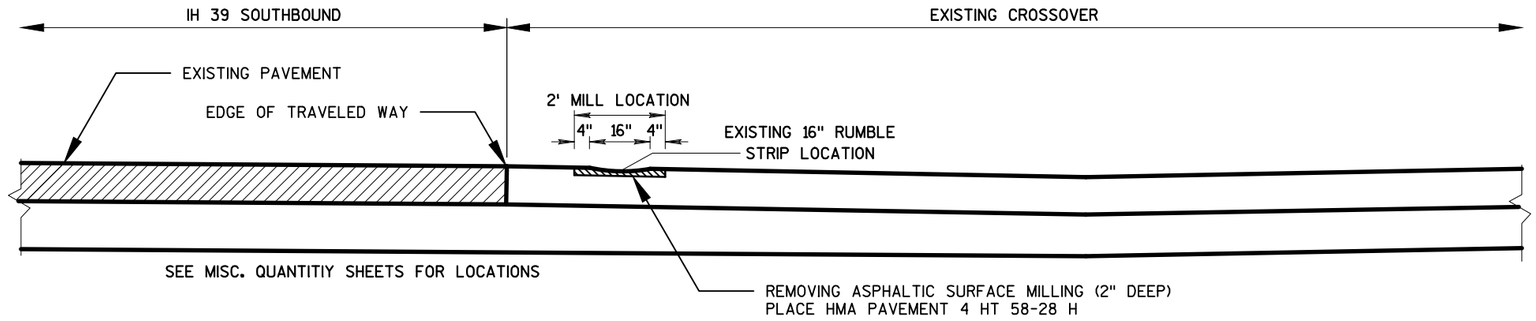
PLAN VIEW



PLAN VIEW

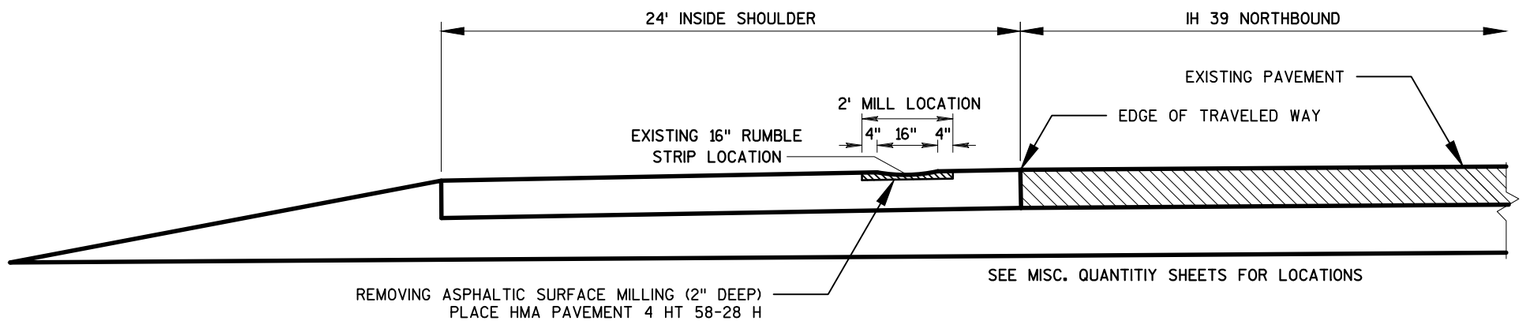
PROJECT NO: 1003-10-82	HWY: IH 39	COUNTY: ROCK	CONSTRUCTION DETAILS	SHEET 13	E

2



SECTION VIEW - SOUTHBOUND

REMOVING ASPHALTIC SURFACE MILLING - 2' WIDTH



SECTION VIEW - NORTHBOUND

REMOVING ASPHALTIC SURFACE MILLING - 2' WIDTH

2

2

N

STA. 18+97'SL' - STA. 19+39'SL', LT
REMOVE FENCE

STA. 18+89'SL' LT
REMOVE INLET,
REMOVE SMALL CULVERT PIPE

STA. 18+86'SL' - STA. 19+13'SL'
REMOVE PAVEMENT

R/W

R/L STATELINE RD

STA. 17+28'SL' - STA. 18+97'SL', LT
REMOVE GUARDRAIL

R/L IH 39/90

105

R/W

UTILITY EASEMENT

STA. 21+58'SL' - STA. 21+64'SL', LT
REMOVE FENCE

STA. 21+37'SL' - STA. 21+64'SL'
REMOVE PAVEMENT

STA. 21+71'SL' LT
REMOVE INLET,
REMOVE SMALL CULVERT PIPE

STA. 21+64'SL' - STA. 24+57'SL', LT
REMOVE GUARDRAIL

R/W

R/W

15'SL'

20'SL'

25'SL'

STATELINE RD

STA. 15+93'SL' - STA. 18+86'SL', RT
REMOVE GUARDRAIL

STA. 21+53'SL' - STA. 23+17'SL', RT
REMOVE GUARDRAIL

BELOIT RD

SLOPE INTERCEPTS
(TYP.)

FRONTAGE RD

WISCONSIN
ILLINOIS

STA. 18+78'SL' RT
REMOVE INLET,
REMOVE SMALL CULVERT PIPE

STA. 21+61'SL' RT
REMOVE INLET,
REMOVE SMALL CULVERT PIPE

R/W

STA. 18+80'SL' - STA. 18+86'SL', RT
REMOVE FENCE

P.I.

P.I.

STA. 20+25'SL'
REMOVING OLD STRUCTURE
B-53-204
TWO SPAN CONTINUOUS STEEL
BOX GIRDER

IH 39/90 SB

100

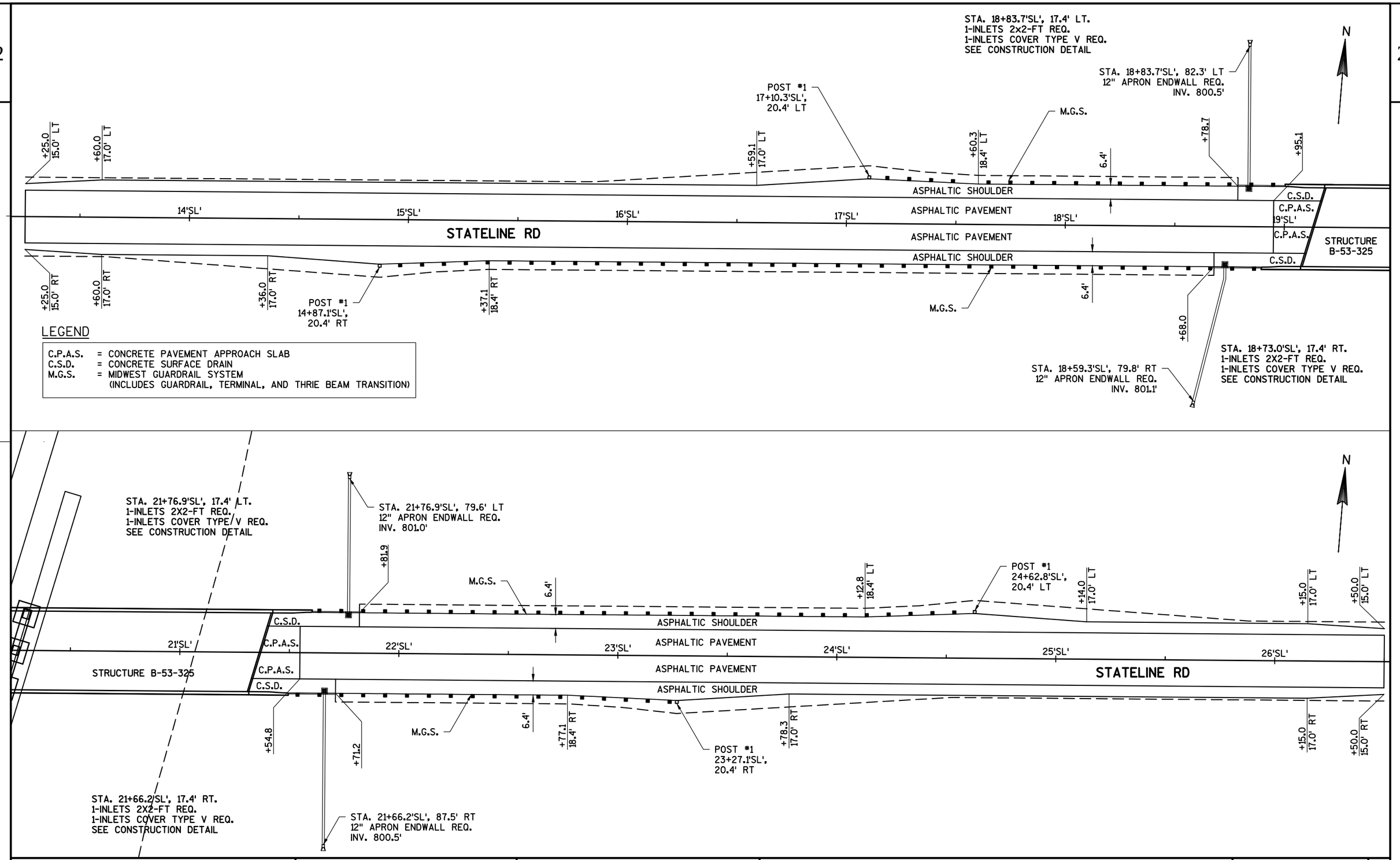
IH 39/90 NB

STA. 21+27'SL' - STA. 21+52'SL', RT
REMOVE FENCE

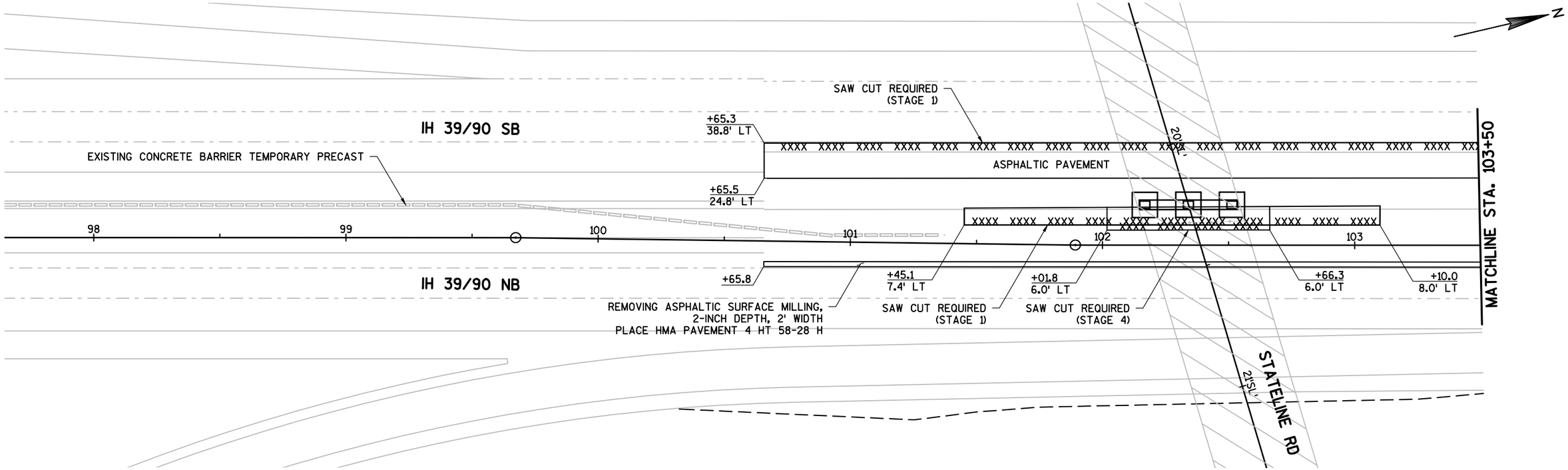
WISCONSIN
ILLINOIS

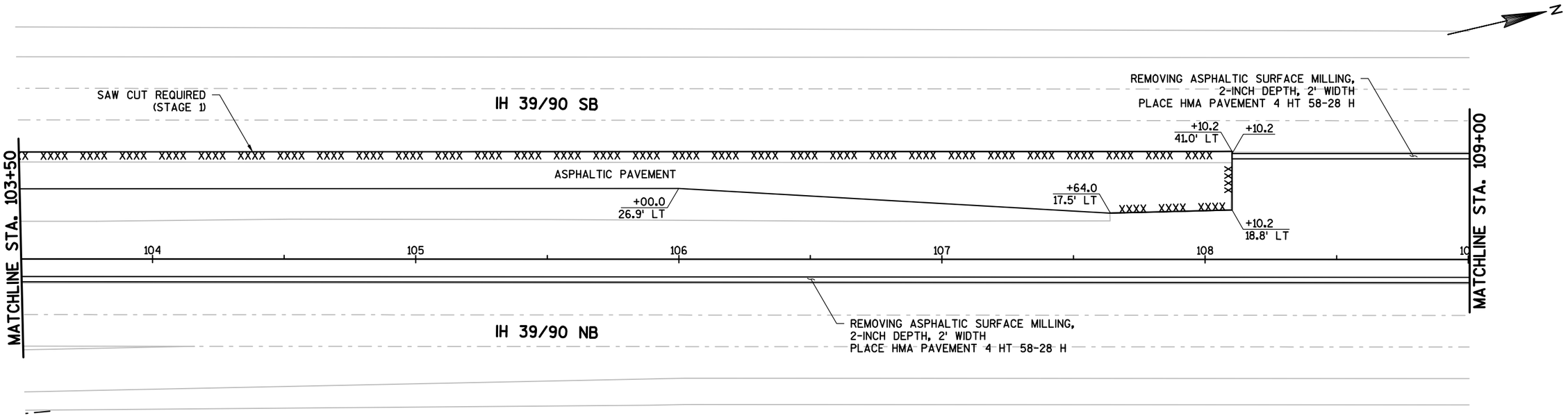
STA. 101+50 - STA. 103+06, LT
REMOVE GUARDRAIL

PROJECT NO: 1003-10-82	HWY: IH 39	COUNTY: ROCK	REMOVALS DETAIL	SHEET 15	E



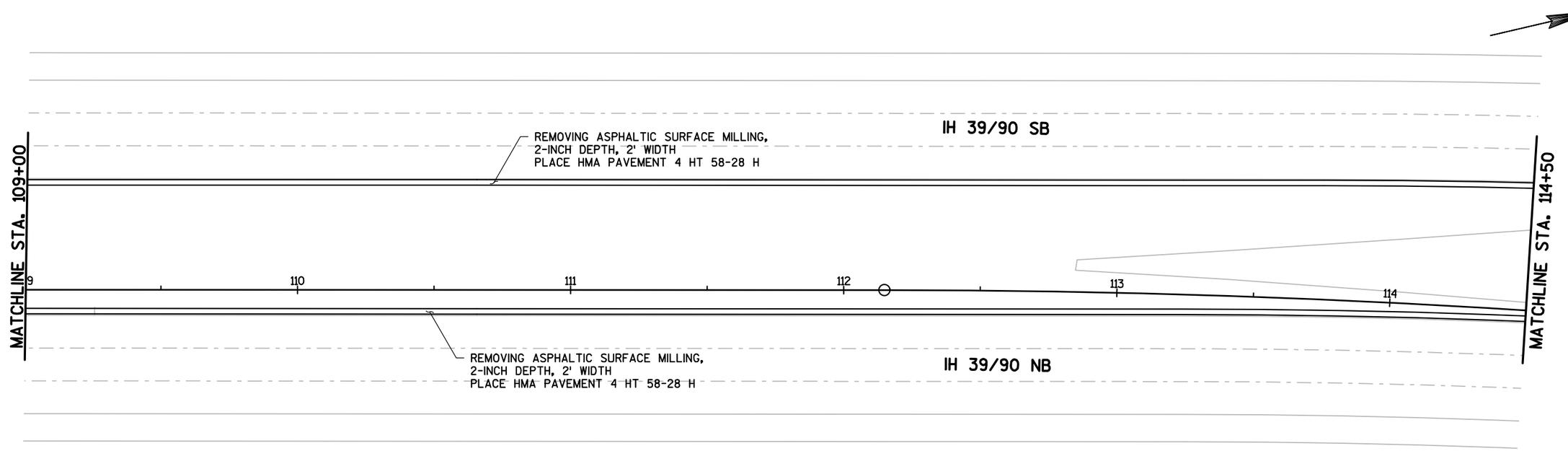
PROJECT NO: 1003-10-82	HWY: IH 39	COUNTY: ROCK	APPROACH SLAB DETAIL - STRUCTURE B-53-325	SHEET 16	E

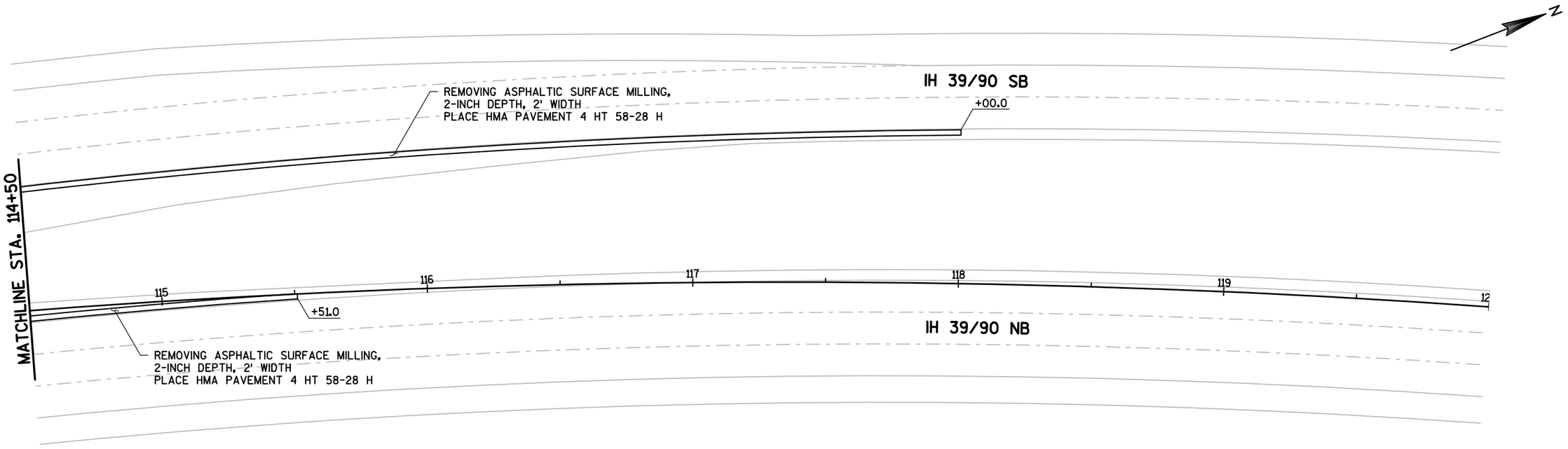




PROJECT NO: 1003-10-82	HWY: IH 39	COUNTY: ROCK	IH 39 PAVEMENT WIDENING DETAIL	SHEET 17	E

FILE NAME : L:\WORK\PROJECTS\60242867\000_CAD\001_DRAWINGS\1003-10-82_STATELINE RD\100% +\021007_CD.DWG PLOT DATE : 4/4/2016 1:28 PM PLOT BY : CZECH, ANDREW PLOT NAME : PLOT SCALE : 1 IN:40 FT





PROJECT NO: 1003-10-82	HWY: IH 39	COUNTY: ROCK	IH 39 PAVEMENT WIDENING DETAIL	SHEET 18	E

2

STATELINE RD

STRUCTURE B-53-325

75'SL'

20'SL'

24'SL'

22'SL'

N

IH 39/90 SB

IH 39/90 NB

EXISTING CONCRETE BARRIER
TEMPORARY PRECAST

BEGIN BARRIER
STA. 1000+00'TC', 12' LT

CONCRETE BARRIER TEMPORARY
PRECAST LEFT IN PLACE

CRASH CUSHION PERMANENT

END BARRIER
STA. 1005+00'TC', 12.0' LT

999'TC'

1000'TC'

1001'TC'

1002'TC'

1003'TC'

1004'TC'

1005'TC'

BEGIN BARRIER
STA. 999+00'TC', 0.0' LT

STA. 1000+25'TC'
12.0' RT

CONCRETE BARRIER TEMPORARY
PRECAST LEFT IN PLACE

END BARRIER
STA. 1002+50'TC, 12.0' RT

100'A'

101'A'

102'A'

103'A'

104'A'

105'A'

STA. 100+31.5'A'
6.4' RT

HINGE POINT (EDGE OF GRAVEL SHOULDER)

POST #1
STA. 101+25.0'A'
8.0' RT

STA. 101+25.0'A'
13.9' RT

MGS GUARDRAIL TERMINAL EAT

POST #9
STA. 101+75.0'A'
6.0' RT

BEGIN MGS GUARDRAIL 3
STA. 101+78.1'A'
6.0' RT

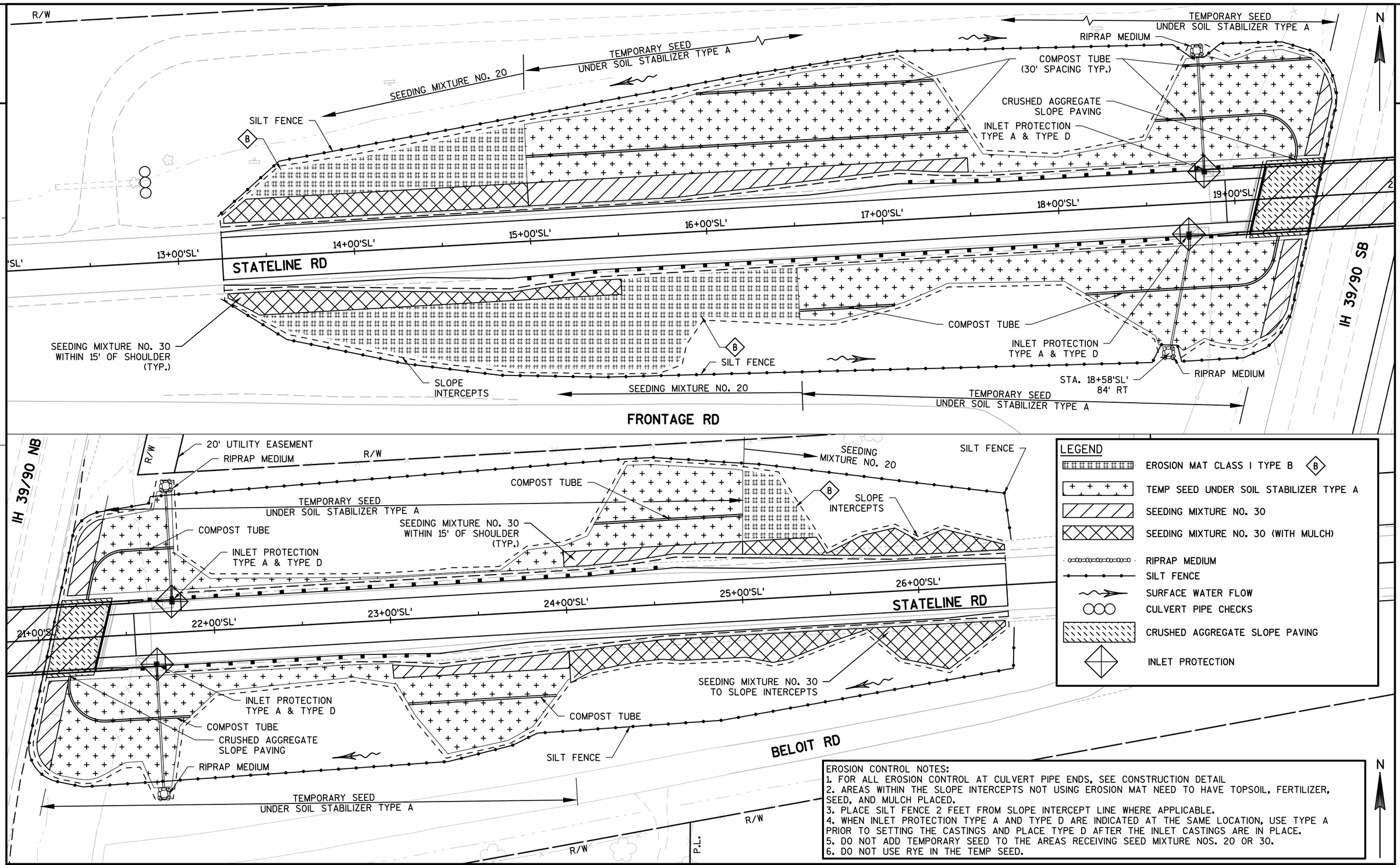
STA. 101+75.0'A'
9.9' RT

STA. 103+25.0'A'
9.9' RT

STA. 103+60.9'A'
7.5' RT

END MGS GUARDRAIL 3
STA. 103+23.5'A'
6.0' RT
MGS GUARDRAIL TERMINAL TYPE 2 REQUIRED

PROJECT NO:1003-10-82	HWY: IH 39	COUNTY: ROCK	IH 39 - CONCRETE BARRIER AND MGS GUARDRAIL DETAIL	SHEET 19	E



EROSION CONTROL NOTES:
1. FOR ALL EROSION CONTROL AT CULVERT PIPE ENDS, SEE CONSTRUCTION DETAIL
2. AREAS WITHIN THE SLOPE INTERCEPTS NOT USING EROSION MAT NEED TO HAVE TOPSOIL, FERTILIZER, SEED, AND MULCH PLACED.
3. PLACE SILT FENCE 2 FEET FROM SLOPE INTERCEPT LINE WHERE APPLICABLE.
4. WHEN INLET PROTECTION TYPE A AND TYPE D ARE INDICATED AT THE SAME LOCATION, USE TYPE A PRIOR TO SETTING THE CASTINGS AND PLACE TYPE D AFTER THE INLET CASTINGS ARE IN PLACE.
5. DO NOT ADD TEMPORARY SEED TO THE AREAS RECEIVING SEED MIXTURE NOS. 20 OR 30.
6. DO NOT USE RYE IN THE TEMP SEED.

PROJECT NO: 1003-10-82	HWY: IH 39	COUNTY: ROCK	EROSION CONTROL	SHEET 20	E

FILE NAME : \\USMSN1FS001\PROD\DATA\LIBRARY\WORK\PROJECTS\60242867\000_CAD\001_DRAWINGS\1003-10-82_STATELINE RD\100% +\022001_EC.DWG PLOT DATE : 4/7/2016 10:06 AM PLOT BY : WOLF, KELLY J. PLOT NAME : PLOT SCALE : 1 IN:50 FT

N

IH 39/90 SB

IH 39/90 NB

WISCONSIN
ILLINOIS

97+00
98+00
99+00
100+00
101+00
102+00
103+00
104+00

INLET PROTECTION
TYPE B & TYPE D

INLET PROTECTION
TYPE B & TYPE D

20+00'SL'
21+00
22+00'SL'
23+00'SL'

STATELINE RD

R/W

20' UTILITY
EASEMENT

SLOPE INTERCEPTS

P.I.

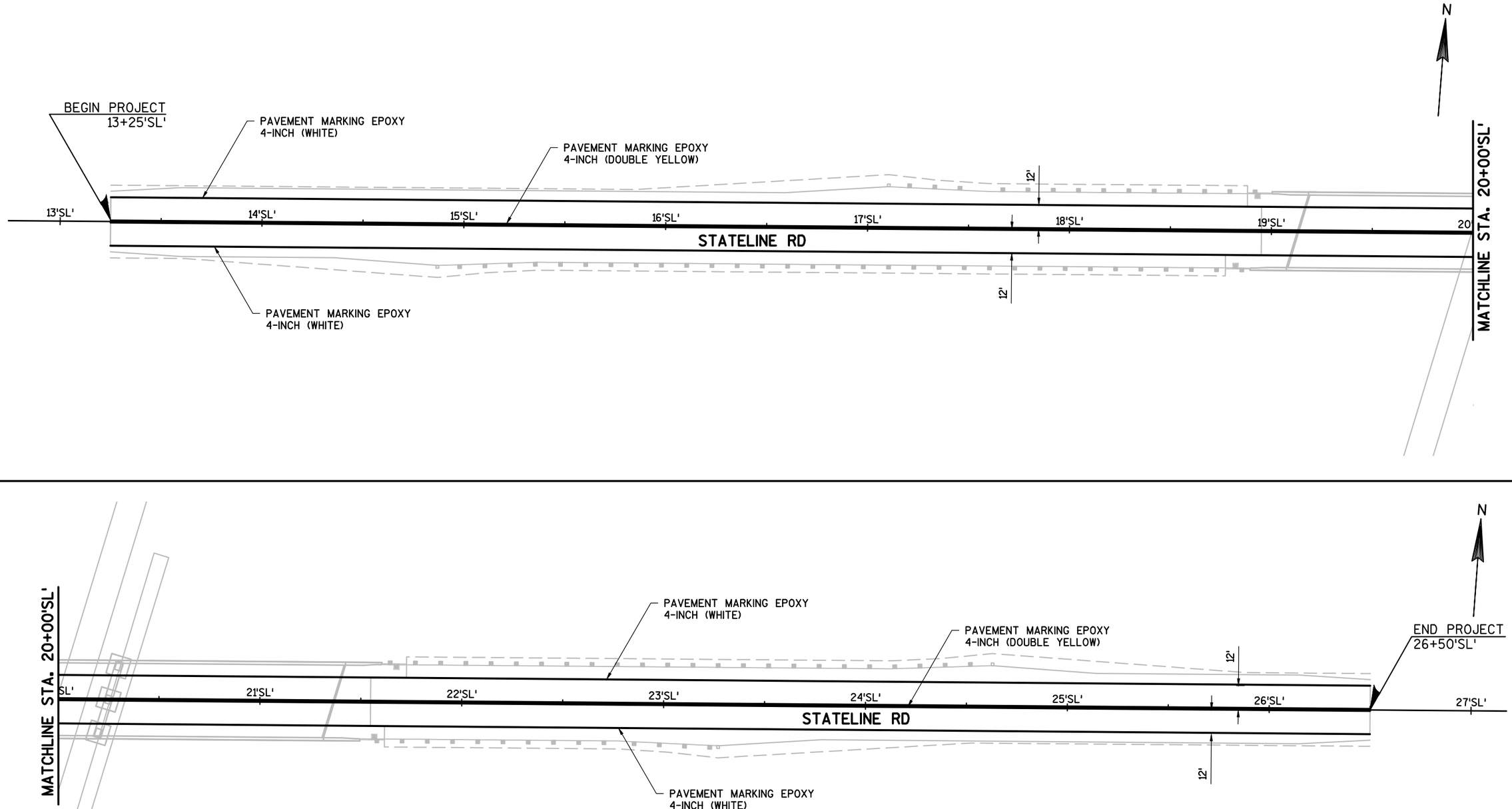
WISCONSIN
ILLINOIS

100
102
98
96

LEGEND

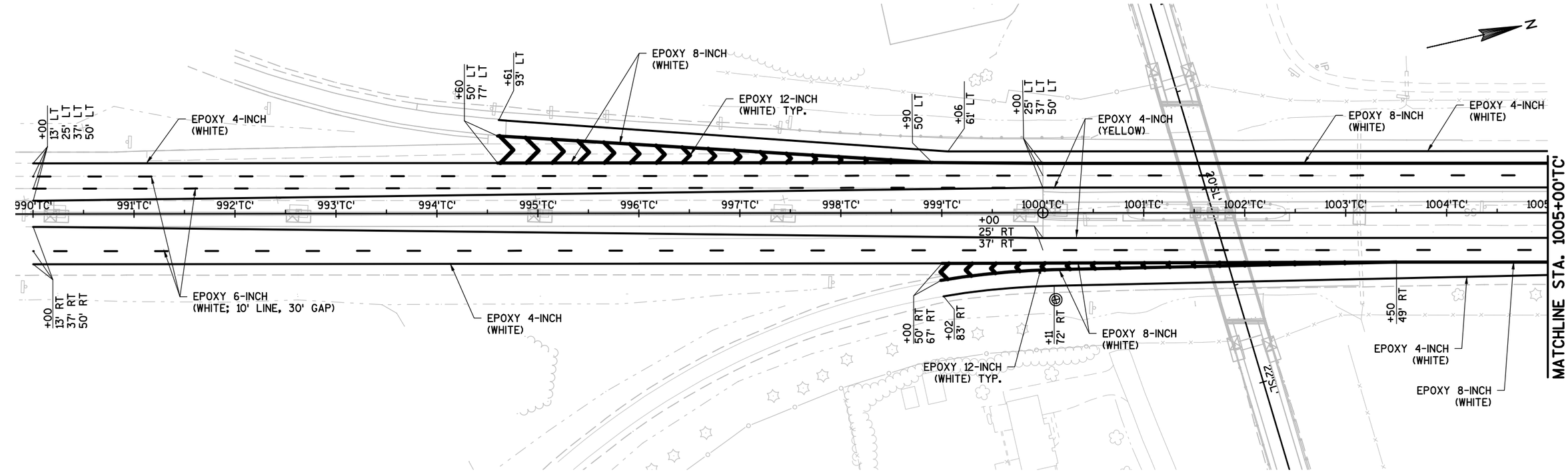
- EROSION MAT CLASS I TYPE B (B)
- TEMP SEED UNDER SOIL STABILIZER TYPE A
- SEEDING MIXTURE NO. 30
- SEEDING MIXTURE NO. 30 (WITH MULCH)
- RIPRAP MEDIUM
- SILT FENCE
- SURFACE WATER FLOW
- CULVERT PIPE CHECKS
- CRUSHED AGGREGATE SLOPE PAVING
- INLET PROTECTION

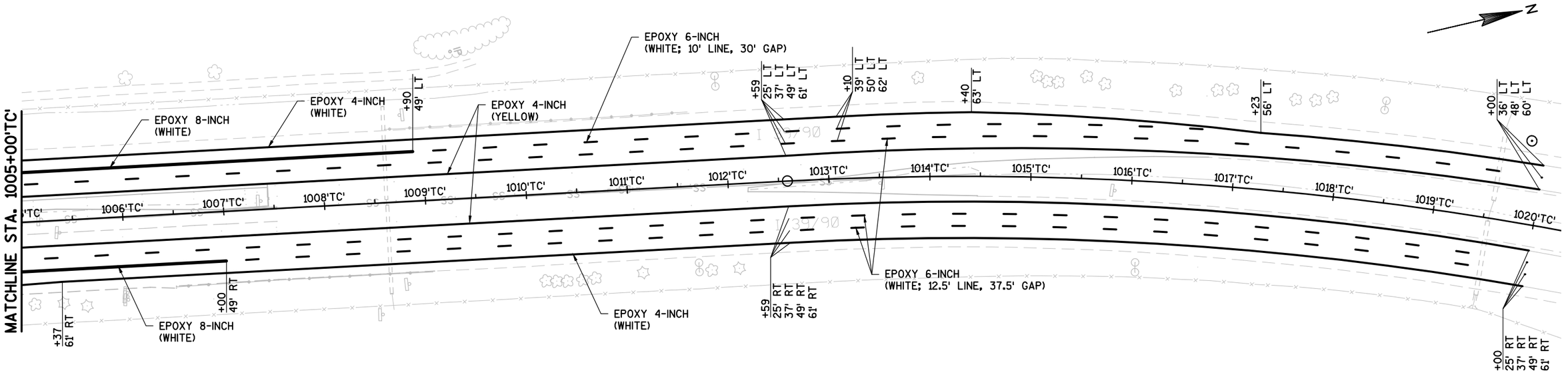
PROJECT NO: 1003-10-82	HWY: IH 39	COUNTY: ROCK	EROSION CONTROL	SHEET 21	E



PROJECT NO: 1003-10-82	HWY: IH 39	COUNTY: ROCK	PAVEMENT MARKING AND PERMANENT SIGNING	SHEET 22	E

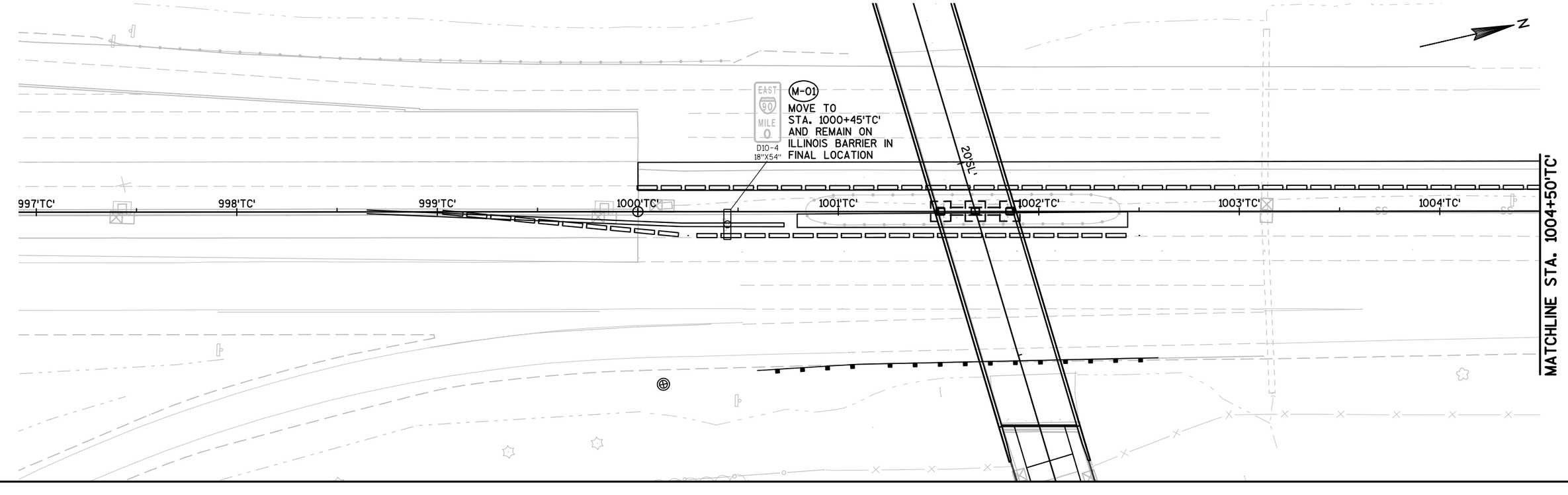
FILE NAME : L:\WORK\PROJECTS\60242867\000_CAD\001_DRAWINGS\1003-10-82_STATELINE RD\90%\023201_PS.DWG PLOT DATE : 10/30/2014 9:36 AM PLOT BY : ARBUCKLE, ADRIAN PLOT NAME : PLOT SCALE : 1 IN:50 FT
WISDOT/CADDS SHEET 42

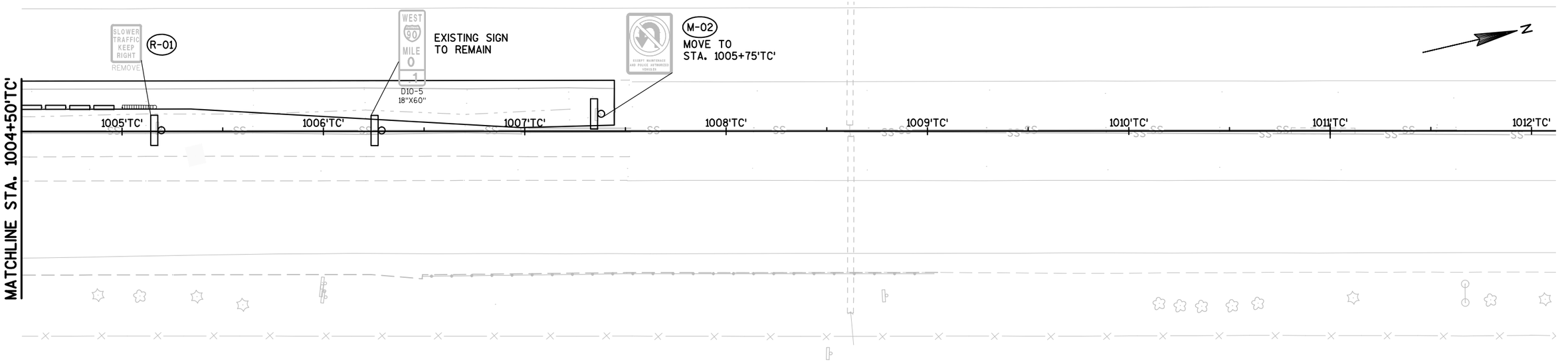




PROJECT NO: 1003-10-82	HWY: IH 39	COUNTY: ROCK	PAVEMENT MARKING AND PERMANENT SIGNING	SHEET 23	E

2





PROJECT NO: 1003-10-82	HWY: IH 39	COUNTY: ROCK	PAVEMENT MARKING AND PERMANENT SIGNING	SHEET 24	E

GENERAL NOTES

THESE PLANS AND THE ASSOCIATED SPECIAL PROVISIONS REFLECT CONDITIONS KNOWN DURING THE DEVELOPMENT OF THE PLANS AND TECHNICAL SPECIAL PROVISIONS. ALL SCALES, DIMENSIONS AND LOCATIONS SHOWN IN THESE PLANS ARE APPROXIMATE. ACTUAL PHYSICAL FIELD CONDITIONS SHALL PROVIDE THE BASIS FOR THE APPLICATION OF WORK SHOWN IN THE PLANS. THE CONTRACTOR IS FULLY RESPONSIBLE FOR THE APPLICATION OF ALL WORK SHOWN IN THE PLANS TO THE ACTUAL PHYSICAL FIELD CONDITIONS TO PROVIDE A COMPLETE AND ACCEPTED PROJECT. IN THE EVENT THAT ACTUAL PHYSICAL FIELD CONDITIONS AFFECT OR PREVENT THE APPLICATION OR PROGRESSION OF ANY WORK SHOWN IN THE PLANS OR TECHNICAL SPECIAL PROVISIONS, THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY, AND PRIOR TO ANY FURTHER WORK ACTIVITY. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER OF ANY LOCATION CHANGES OTHER THAN MINOR ADJUSTMENTS.

ALL EXISTING UNDERGROUND AND ABOVE GROUND STRUCTURES AND FACILITIES WITHIN THE SCOPE OF THIS PROJECT MAY NOT BE LOCATED IN THE PLANS. THE CONTRACTOR IS FULLY RESPONSIBLE FOR LOCATING AND AVOIDING ALL UNDERGROUND AND ABOVE GROUND STRUCTURES AND FACILITIES.

NO TEST BORING WERE MADE WHERE CONDUITS, PULL BOXES, COMMUNICATION VAULTS, POLES, FOUNDATIONS, OR OTHER EQUIPMENT IS TO BE INSTALLED.

THE CONTRACTOR IS FULLY RESPONSIBLE FOR EXAMINING THE JOB SITE CONDITIONS BEFORE SUBMITTING BID PROPOSALS.

NO TREES (AND/OR SHRUBS) ARE TO BE REMOVED WITHOUT APPROVAL OF THE ENGINEER.

AREAS WITHIN RIGHT-OF-WAY DISTURBED SPECIFICALLY FOR ITS CONSTRUCTION ARE TO BE RESTORED TO THE ORIGINAL CONDITION WITH TOPSOIL, FERTILIZER, AND SEED AND MULCH. RESTORATION FOR AREAS DISTURBED FOR OTHER CONSTRUCTION OPERATIONS, BUT ALSO CONTAINING ITS CONSTRUCTION, WILL BE DONE ACCORDING TO REQUIREMENTS AND PAYMENT PROVISIONS FOR THE OTHER CONSTRUCTION OPERATIONS. NO PAYMENT WILL BE MADE FOR RESTORING AREAS DISTURBED FOR ITS CONSTRUCTION OPERATIONS.

THE LOCATION OF EXISTING AND PROPOSED UTILITY INSTALLATIONS SHOWN ON THE PLANS IS APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT AREA THAT ARE NOT SHOWN.

DUE TO RAMP, LANE AND SHOULDER CLOSURE RESTRICTIONS AND WORK UNDER OTHER CONTRACTS, SOME WORK MAY BE REQUIRED TO BE PERFORMED AT NIGHT.

THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING RAMP, LANE, SHOULDER, AND ROADWAY CLOSURES WITH OTHER CONTRACTS IN THE AREA.

NOTIFY THE REGIONAL TRAFFIC UNIT (608-246-5367), OR SECONDARY CONTACT (608-516-6400), A MINIMUM OF TWO (2) WEEKS PRIOR TO THE NEED TO STAKE THE FOLLOWING ITEMS: CCTV CAMERA POLE BASES, CONDUIT, AND ITS PULL BOXES.

HAND DIG TRENCHES CROSSING EXISTING CONDUIT CONTAINING FIBER OPTIC CABLE.

VISUALLY VERIFY DEPTHS OF EXISTING CONDUITS CONTAINING FIBER OPTIC CABLE PRIOR TO CROSSING BY DIRECTIONAL BORE OR SPECIAL METHOD.

ITS LEGEND

DESCRIPTION	SYMBOL
CCTV CAMERA	
ITS POLE MOUNTED CABINET	
MICROWAVE DETECTOR	
WIRELESS MESH NODE	W
BLUETOOTH SENSOR	B
POLE	
ITS CONDUIT	
PULL BOX 24X36	
PULL BOX 24X42	
METER BREAKER PEDESTAL	
COMMUNICATION VAULT	V
ELECTRICAL SERVICE BREAKER DISCONNECT BOX	

NOTE: EXISTING COMPONENTS SHOWN IN GRAY SHADE

ITS STANDARD ABBREVIATIONS

CCTV	CLOSED CIRCUIT TELEVISION
SDS	SYSTEM DETECTOR STATION
CV	COMMUNICATION VAULT
PB	PULL BOX
WMN	WIRELESS MESH NODE
WDS	WIRELESS DETECTION SENSOR

CONTACTS

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MILWAUKEE, WI 53203
DEAN BEEKMAN
(414)227-2154
dean.beekman@dot.wi.gov
DON SCHELL
donald.schell@dot.wi.gov
(414)227-2148

ITS DESIGNER
JEFF SANDBERG
1350 DEMING WAY, SUITE 100
MIDDLETON, WI 53562
(608)828-8161
Jeff.sandberg@aecom.com

PROJECT NO:1003-10-82	HWY: IH 39	COUNTY:ROCK	ITS GENERAL NOTES	SHEET 25	E

NOTIFY THE REGIONAL TRAFFIC UNIT (PRIMARY 608-246-5367, SECONDARY 608-246-5362) A MINIMUM OF TWO (2) WEEKS PRIOR TO STAKING THE ITS ITEMS.

CITY OF BELOIT

TOWN OF TURTLE

N

EXISTING ILLINOIS TOLLWAY FIBER OPTIC

EXISTING CCTV-53-0048
EXISTING WDS-0026-S
EXISTING WMN-S-073

EXISTING 2-INCH CONDUIT

EXISTING SDS-53-0048

EXISTING 2-INCH CONDUIT
WITH (1) EXISTING 6-COUNT FIBER OPTIC

CONDUIT HDPE 2-DUCT 2-INCH

R/W

FIBER TRACER MARKER POST REQ'D

CCTV-53-0048
BASE CAMERA POLE 50-FT
(ONLY CAMERA BASE WILL BE INSTALLED, POLE TO BE INSTALLED IN THE FUTURE)

CP1

CV1

PB1

PB2

PB3

PB4

STRUCTURE B-53-325

FIBER TRACER MARKER POST REQ'D

(1) CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH

IH 39/90 SB

107+00
106+00
105+00
104+00
103+00
102+00
101+00
100+00
99+00
98+00

STATELINE RD

13'SL' 14'SL' 15'SL' 16'SL' 17'SL' 18'SL' 19'SL' 20'SL' 21'SL' 22'SL' 23'SL' 24'SL' 25'SL' 26'SL' 27'SL' 28'SL'

BELOIT RD

FRONTAGE RD

WISCONSIN
ILLINOIS

R/W

IL-75 OFF-RAMP

IL-75 ON-RAMP

ITS STANDARD ABBREVIATIONS

CCTV	CLOSED CIRCUIT TELEVISION
SDS	SYSTEM DETECTOR STATION
CV	COMMUNICATIONS VAULT
PB	PULL BOX
WMN	WIRELESS MESH NODE
WDS	WIRELESS DETECTION SENSOR

(1) (2) CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH

CONSTRUCTION NOTES

1. PROPOSED ITS CONDUIT, PULL BOXES, VAULTS, AND CAMERA POLE BASES ARE FOR FUTURE ITS EQUIPMENT INSTALLATIONS. EXISTING ITS EQUIPMENT TO REMAIN OPERATIONAL DURING CONSTRUCTION.
2. CAP THE TOP OF ALL CONDUITS IN THE CAMERA POLE BASE WITH PVC CAPS TO PREVENT MOISTURE, SEDIMENT, ETC. FROM ENTERING THE CONDUIT SYSTEM.

CITY OF SOUTH BELOIT
ILLINOIS

CITY OF SOUTH BELOIT
ILLINOIS

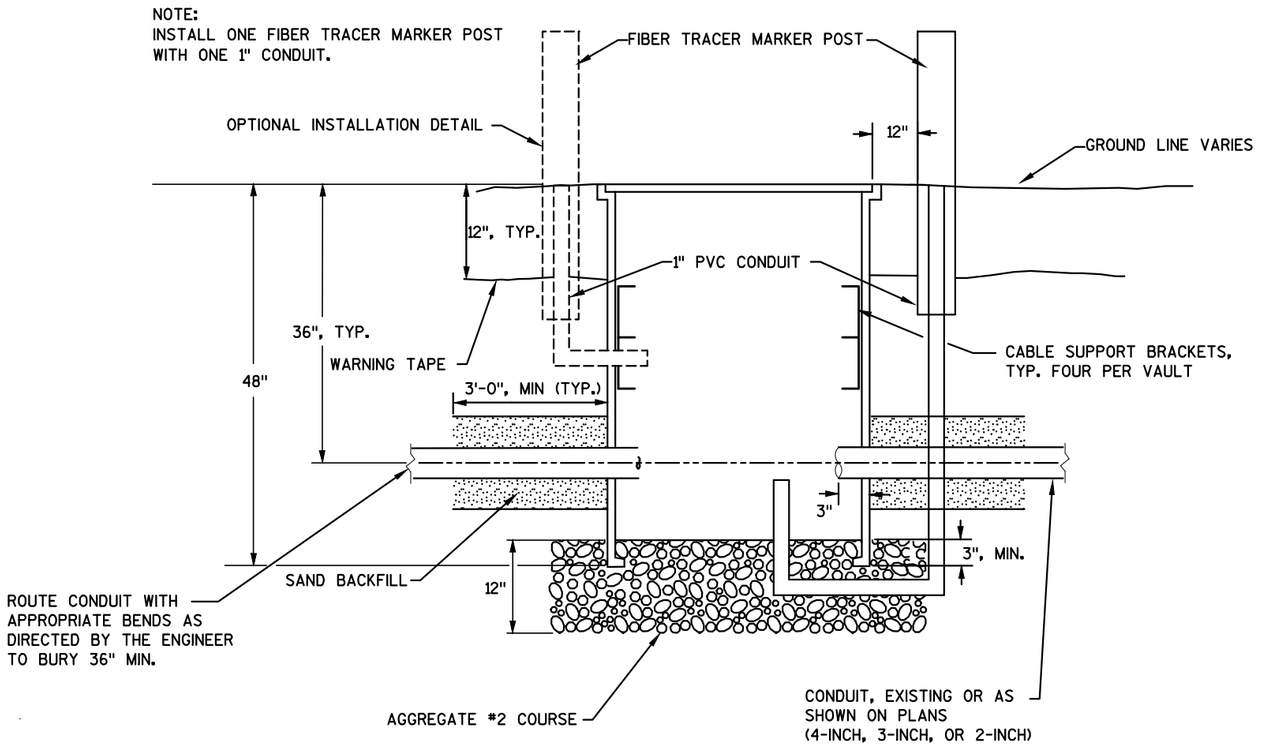
ITS LEGEND

DESCRIPTION	SYMBOL
CCTV CAMERA	
ITS POLE MOUNTED CABINET	
MICROWAVE DETECTOR	
WIRELESS MESH NODE	W
BLUETOOTH SENSOR	B
POLE	
ITS CONDUIT	
PULL BOX 24X36	
PULL BOX 24X42	
METER BREAKER PEDESTAL	
COMMUNICATIONS VAULT	V
ELECTRICAL SERVICE BREAKER DISCONNECT BOX	

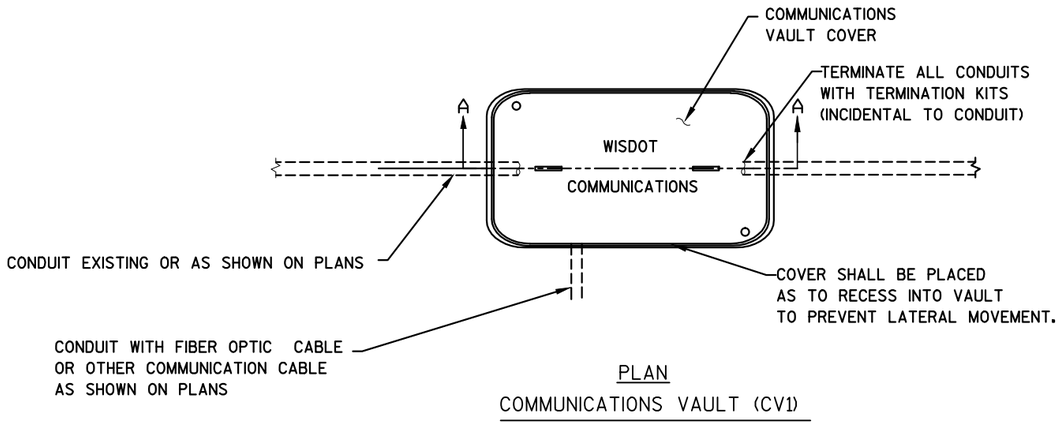
NOTE: GRAYSHADE REPRESENTS EXISTING

PROJECT NO:1003-10-82	HWY: IH 39	COUNTY: ROCK	ITS PLANS	SHEET 26	E

NOTE:
INSTALL ONE FIBER TRACER MARKER POST WITH ONE 1" CONDUIT.

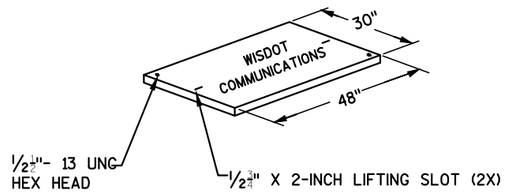


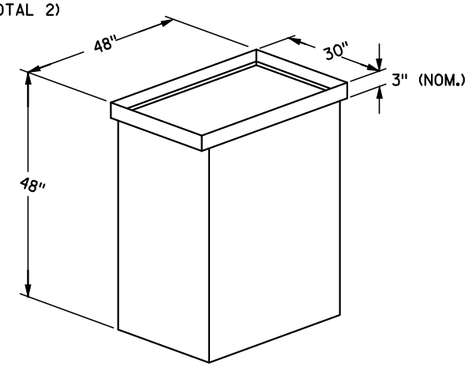
SECTION A-A



PLAN

COMMUNICATIONS VAULT (CV1)



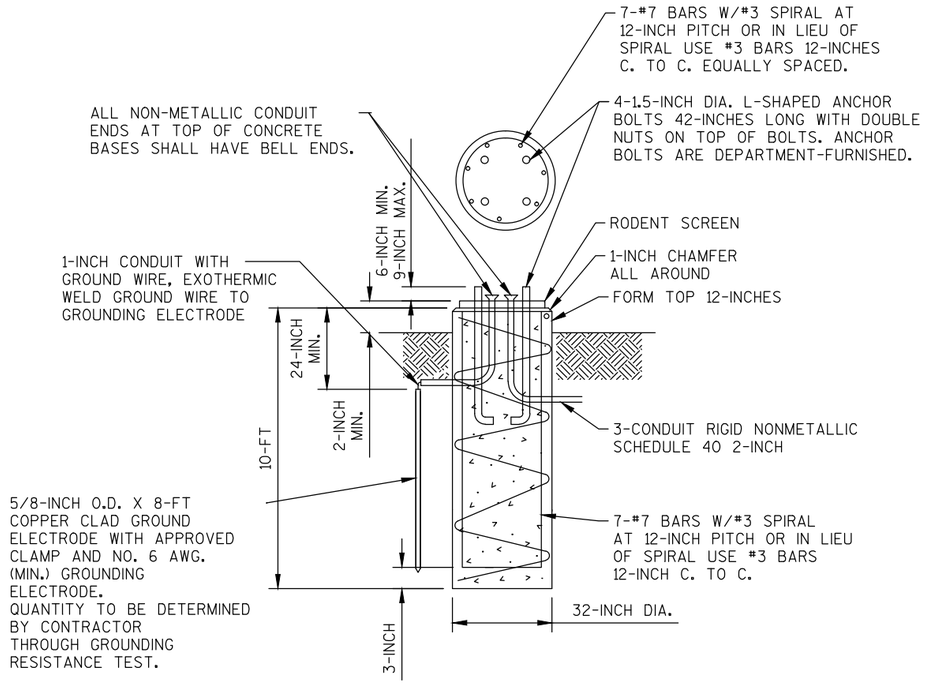


ISOMETRIC

NOTES

1) BOX SHALL HAVE AN OPEN BASE.
2) COVER SHALL HAVE A MINIMUM DESIGN LOAD OF 15,000 LBS AND SHALL LOCK.
3) ALL OPENINGS IN STRUCTURE MUST BE MACHINED AT TIME OF FABRICATION, OR PUNCH DRIVEN AT TIME OF PLACEMENT.
4) VAULTS SHALL BE OF ONE-PIECE CONSTRUCTION. TWO-PIECE/STACKABLE VAULTS WILL NOT BE PERMITTED.
5) FIELD PLACEMENT OF COMMUNICATIONS VAULTS SHALL BE AS DIRECTED BY THE ENGINEER.

2



MATERIALS DATA

CONCRETE	f'c=3,500 psi
HIGH STRENGTH BAR STEEL REINFORCEMENT	fy = 60,000 psi

BASE CAMERA POLE 50-FT

CCTV-53-0048
I-39/90 @ STATELINE ROAD

NOT TO SCALE

2

N

BRIDGE OUT
R11-2B
48" X 30"

5'SL'
6'SL'
8'SL'
10'SL'
12'SL'
14'SL'
16'SL'
18'SL'
20'SL'

STATELINE RD.

ROAD CLOSED 500 FT
W020-3

BRIDGE OUT
R11-2B
48" X 30"

CMCP 18"

IH 39 SB

IH 39 NB

IH 39 NB

BRIDGE OUT
R11-2B
48" X 30"

22'SL'
24'SL'
26'SL'
28'SL'
30'SL'
32'SL'
34'SL'
35'SL'

STATELINE RD.

BRIDGE OUT
R11-2B
48" X 30"

500'
500'
500'

ROAD CLOSED 500 FT
W020-3

ROAD CLOSED 1000 FT
W020-3

ROAD CLOSED AHEAD
W020-3

N

TEMPORARY SIGN POST
TYPE III BARRICADE
TYPE III BARRICADE W/ SIGN
WORKZONE

WILLOWBROOK RD.

BRIDGE OUT
0.2 MILES AHEAD
LOCAL TRAFFIC ONLY
R11-3B
60" X 30"

STATELINE RD.

ROAD CLOSED AHEAD
W020-3

ROAD CLOSED
0.2 MILES AHEAD
LOCAL TRAFFIC ONLY
R11-3
60" X 30"

ROAD CLOSED 1000 FT
W020-3

N

BRIDGE OUT
0.6 MILES AHEAD
LOCAL TRAFFIC ONLY
R11-3B
60" X 30"

GATEWAY BLVD.

WIS 67

STATELINE RD.

WIS 67

N

PROJECT NO: 1003-10-82	HWY: IH 39	COUNTY: ROCK	TRAFFIC CONTROL - STATELINE ROAD	SHEET 29	E

GENERAL TRAFFIC CONTROL NOTES

ALL SIGNS ARE 48" x 48" UNLESS NOTED OTHERWISE.

"WO" SIGNS ARE THE SAME AS "W" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

THE EXACT LOCATION OF SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

ALL SIGNS INAPPROPRIATE TO THE STATUS OF THE CONTROL ZONE INCLUDING PRE-EXISTING SIGNING IN THE VICINITY SHALL BE COVERED OR REMOVED AS SPECIFIED IN THE PLANS AND/OR THE SPECIAL PROVISIONS OR AS DIRECTED BY THE ENGINEER.

TWO (2) TYPE A WARNING LIGHTS SHALL BE INSTALLED ON ALL TYPE III BARRICADES.

ADVANCE WARNING SIGNS TO BE IN PLACE DURING ALL TRAFFIC CONTROL STAGES.

NO ACCESS FROM LIVE LANES OF TRAFFIC BY CONSTRUCTION VEHICLES DURING DAYTIME.

TRAFFIC CONTROL INDEX OF SHEETS

TRAFFIC CONTROL GENERAL NOTES
TRAFFIC CONTROL TYPICAL SECTIONS
APPROACH TO LANE CLOSURE, FREEWAY/EXPRESSWAY DETAIL
TWO LANE CLOSURE, FREEWAY/EXPRESSWAY DETAIL
TRAFFIC CONTROL, LANE CLOSURE, SPEED REDUCTION DETAIL

LEGEND

- TRAFFIC DIRECTION ARROW
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM W/ TYPE C STEADY BURN LIGHT
- TRAFFIC CONTROL SIGN
- TYPE III BARRICADE
- TYPE III BARRICADE W/ SIGN
- FLASHING ARROW BOARD
- WORK ZONE
- (A) TEMPORARY PAVEMENT MARKING EPOXY 4-INCH YELLOW
- (B) TEMPORARY PAVEMENT MARKING EPOXY 4-INCH WHITE
- (C) TEMPORARY PAVEMENT MARKING EPOXY 8-INCH WHITE
- PCMS PORTABLE CHANGEABLE MESSAGE SIGN

TRAFFIC CONTROL - IH 39 SEQUENCE OF ROAD CONSTRUCTION SUMMARY

STAGE 1
TRAFFIC CONTROL:
DAYTIME - SEE DETAIL 1.0
NIGHTTIME - SEE DETAIL 1.1

CONSTRUCTION (NIGHTTIME):
- MILLING AND REPAVING NB AND SB IH 39 MEDIAN RUMBLE STRIPS
- CONCRETE BARRIER TEMPORARY PRECAST
- WIDENING THE SB MEDIAN FROM THE STATE LINE TO THE EXISTING CROSSOVER, AND REPAIRING THE NB MEDIAN ALONG THE EXISTING BULLNOSE

STAGE 2
TRAFFIC CONTROL:
DAYTIME - SEE DETAIL 2.0
NIGHTTIME - SEE DETAILS 2.1, 2.2, & 2.3

CONSTRUCTION (NIGHTTIME):
- CONCRETE BARRIER TEMPORARY PRECAST
- REMOVING THE EXISTING BRIDGE DECK, PARAPET, AND GIRDERS OVER THE SB IH 39 LANES

STAGE 3
TRAFFIC CONTROL:
DAYTIME - SEE DETAIL 3.0
NIGHTTIME - SEE DETAILS 3.1, 3.2, & 3.3

CONSTRUCTION (NIGHTTIME):
- CONCRETE BARRIER TEMPORARY PRECAST
- REMOVING THE EXISTING BRIDGE DECK, PARAPET, AND GIRDERS OVER THE NB IH 39 LANES

STAGE 4
TRAFFIC CONTROL:
DAYTIME - SEE DETAIL 3.0
NIGHTTIME - SEE DETAIL 1.1

CONSTRUCTION (DAYTIME OR NIGHTTIME):
- REMOVING THE EXISTING BRIDGE PIER AND ABUTMENTS
- CONSTRUCTING THE NEW PIER AND ABUTMENTS
- REPAIRING DAMAGED PAVEMENT FROM THE CONSTRUCTION OF THE NEW PIER

NOTE: REMOVAL AND DELIVERY OF MATERIALS AND EQUIPMENT TO AND FROM THE WORK AREA IS RESTRICTED TO NIGHTTIME OPERATIONS ONLY

STAGE 5
TRAFFIC CONTROL:
DAYTIME - SEE DETAIL 3.0
NIGHTTIME - SEE DETAILS 3.1, 3.2, & 3.3

CONSTRUCTION (NIGHTTIME):
- INSTALLING THE NEW GIRDERS AND FORMING THE DECK OVER THE NB IH 39 LANES

STAGE 6
TRAFFIC CONTROL:
DAYTIME - SEE DETAIL 2.0
NIGHTTIME - SEE DETAILS 2.1, 2.2, & 2.3

CONSTRUCTION (NIGHTTIME):
- MODIFYING THE TEMPORARY BARRIER
- INSTALLING THE NEW GIRDERS AND FORMING THE DECK OVER THE SB IH 39 LANES

STAGE 7
TRAFFIC CONTROL:
DAYTIME - SEE DETAIL 2.0
NIGHTTIME - SEE DETAIL 2.0

CONSTRUCTION (DAYTIME):
- PLACING CONCRETE DECK

STAGE 8
TRAFFIC CONTROL:
DAYTIME - SEE DETAIL 2.0
NIGHTTIME - SEE DETAILS 2.1 & 2.2

CONSTRUCTION (NIGHTTIME):
- REMOVING THE FALSEWORK AND PLACING THE PARAPETS OVER THE SB IH 39 LANES

STAGE 9
TRAFFIC CONTROL:
DAYTIME - SEE DETAIL 3.0
NIGHTTIME - SEE DETAILS 3.1 & 3.2

CONSTRUCTION (NIGHTTIME):
- MODIFYING THE TEMPORARY BARRIER
- REMOVING THE FALSEWORK AND PLACING THE PARAPETS OVER THE NB IH 39 LANES

STAGE 10
TRAFFIC CONTROL:
DAYTIME - SEE DETAIL 3.0
NIGHTTIME - SEE DETAILS 3.1 & 3.2

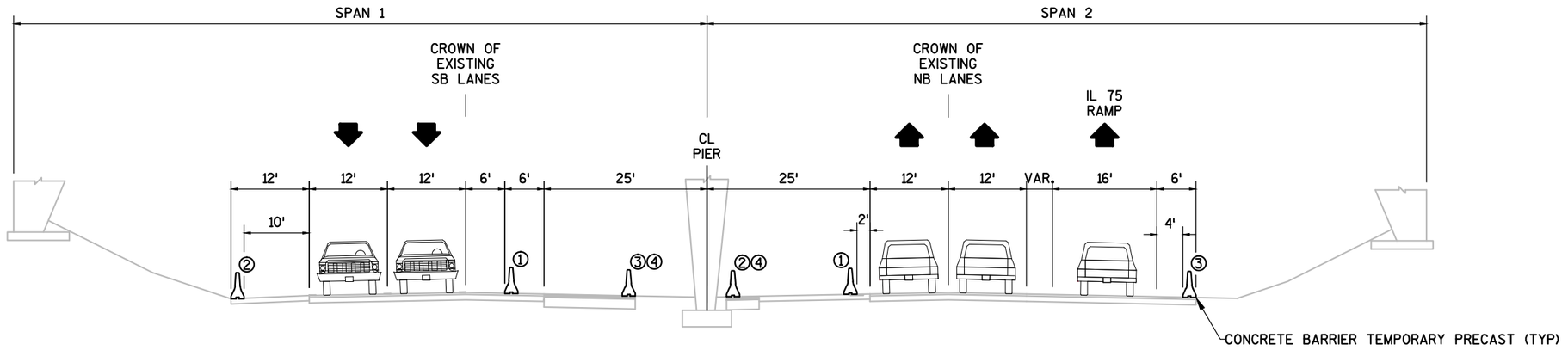
CONSTRUCTION (NIGHTTIME):
- CONCRETE STAINING OVER THE NB IH 39 LANES

STAGE 11
TRAFFIC CONTROL:
DAYTIME - SEE DETAIL 2.0
NIGHTTIME - SEE DETAILS 2.1 & 2.2

CONSTRUCTION (NIGHTTIME):
- MODIFYING THE TEMPORARY BARRIER
- CONCRETE STAINING OVER THE SB IH 39 LANES

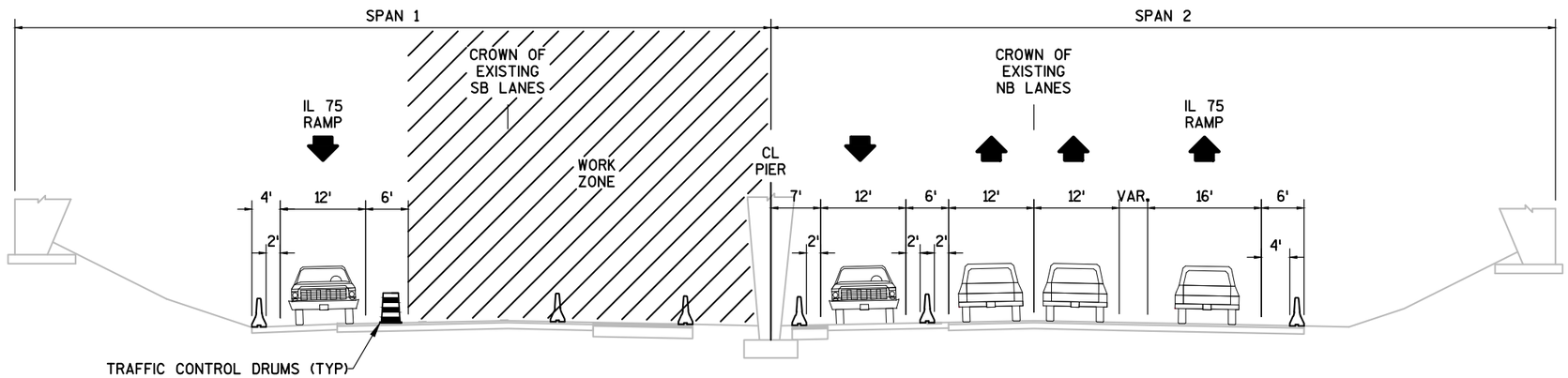
STAGE 12
TRAFFIC CONTROL:
DAYTIME - SEE DETAIL 1.0
NIGHTTIME - SEE DETAIL 1.1

CONSTRUCTION (NIGHTTIME):
- INSTALLING PAVEMENT MARKINGS
- INSTALLING MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
- MOVING AND REMOVING TEMPORARY BARRIER AND CUSHIONS



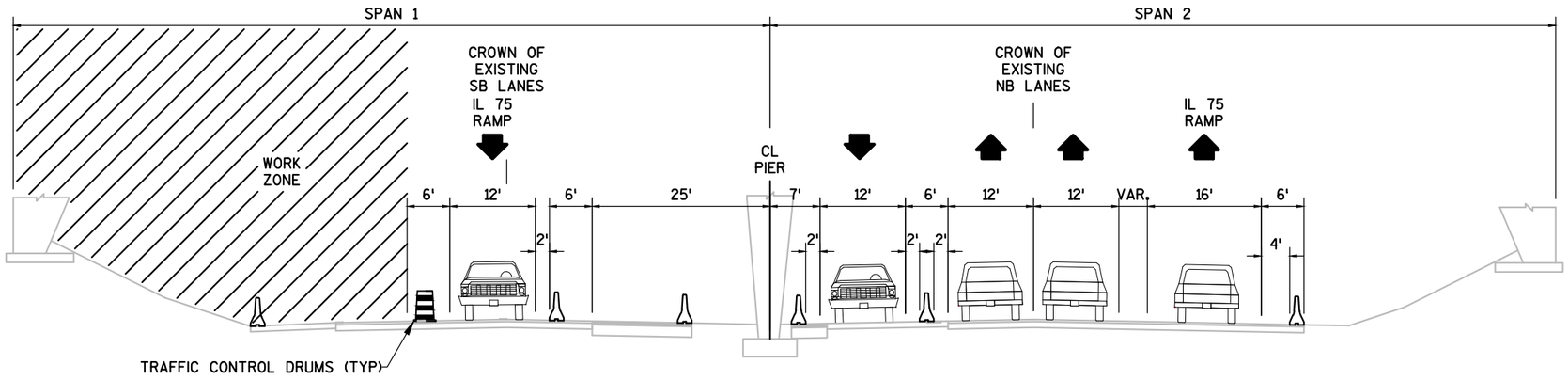
DETAIL 2.0

① DELIVERED/INSTALLED STAGE 1
② DELIVERED/INSTALLED STAGE 2
ANCHORING REQUIRED ADJACENT TO PIER
③ DELIVERED/INSTALLED STAGE 3
④ MOVE AND REPLACE IN KIND FOR PIER
DEMOLITION/CONSTRUCTION

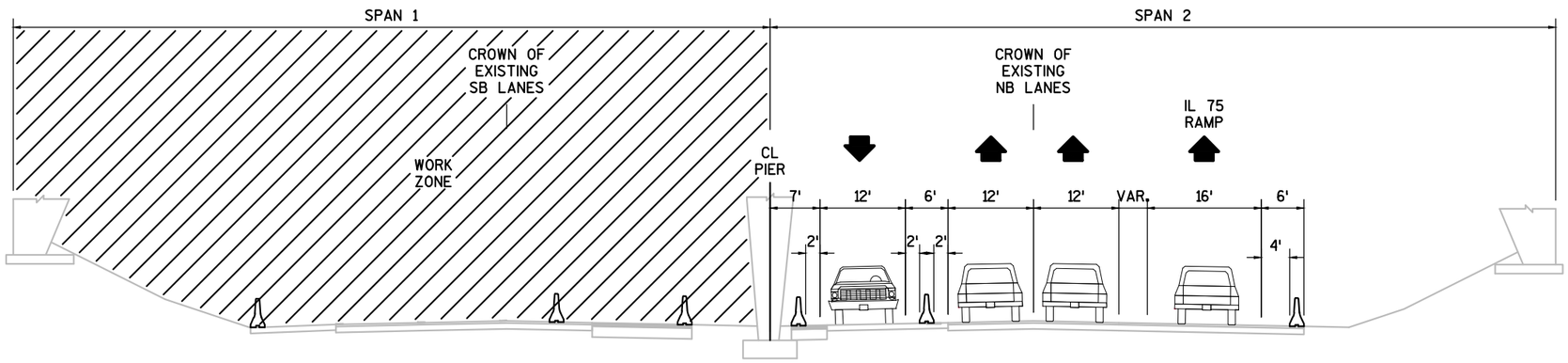


DETAIL 2.1

PROJECT NO: 1003-10-82	HWY: IH 39	COUNTY: ROCK	TRAFFIC CONTROL TYPICAL SECTIONS	SHEET 31	E



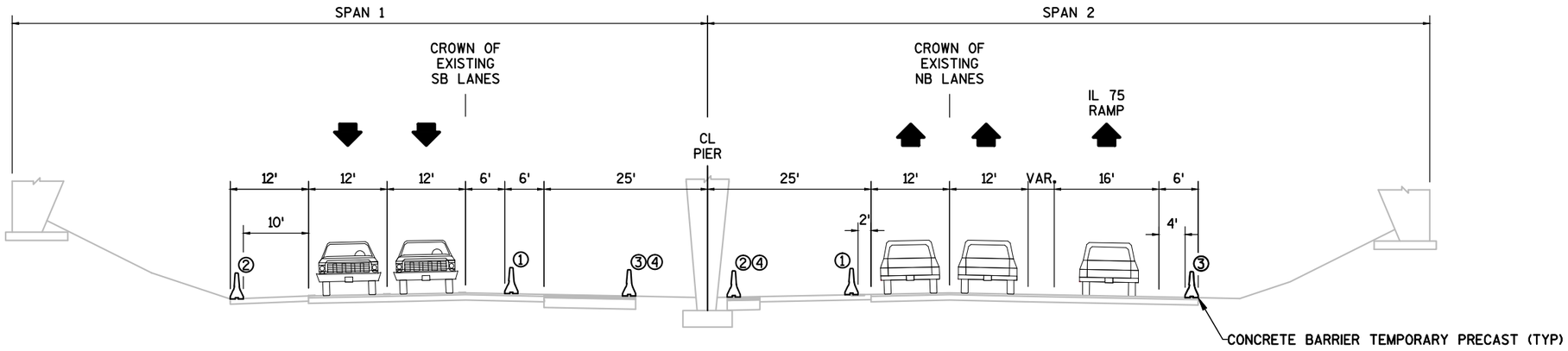
DETAIL 2.2



DETAIL 2.3

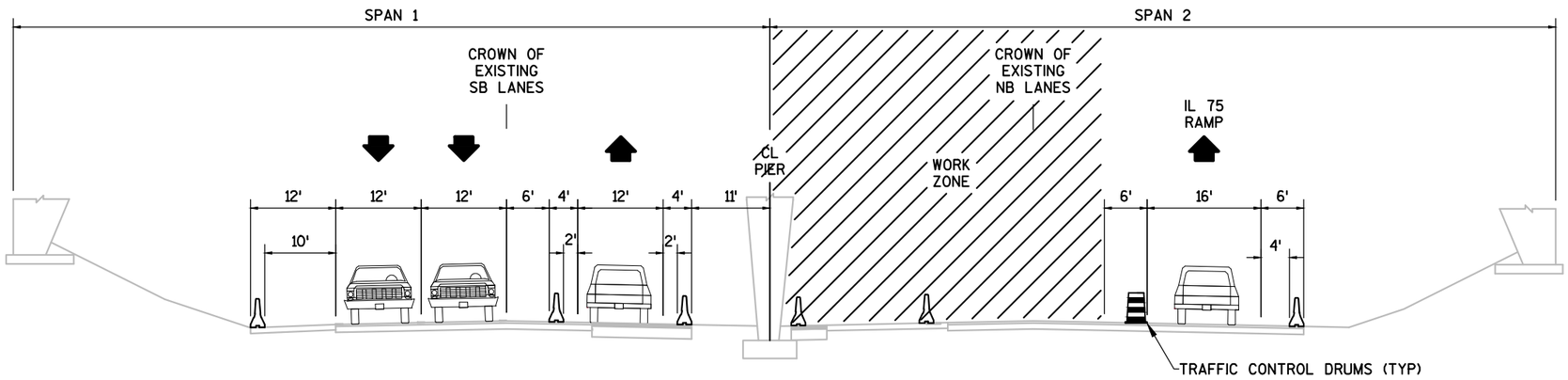
PROJECT NO: 1003-10-82	HWY: IH 39	COUNTY: ROCK	TRAFFIC CONTROL TYPICAL SECTIONS	SHEET 32	E

FILE NAME : L:\WORK\PROJECTS\60242867\000_CAD\001_DRAWINGS\1003-10-82_STATELINE RD\90%\025002_TC.DWG PLOT DATE : 10/31/2014 12:32 PM PLOT BY : CZECH, ANDREW PLOT NAME : PLOT SCALE : 1 IN:20 FT
WISDOT/CADDS SHEET 42



DETAIL 3.0

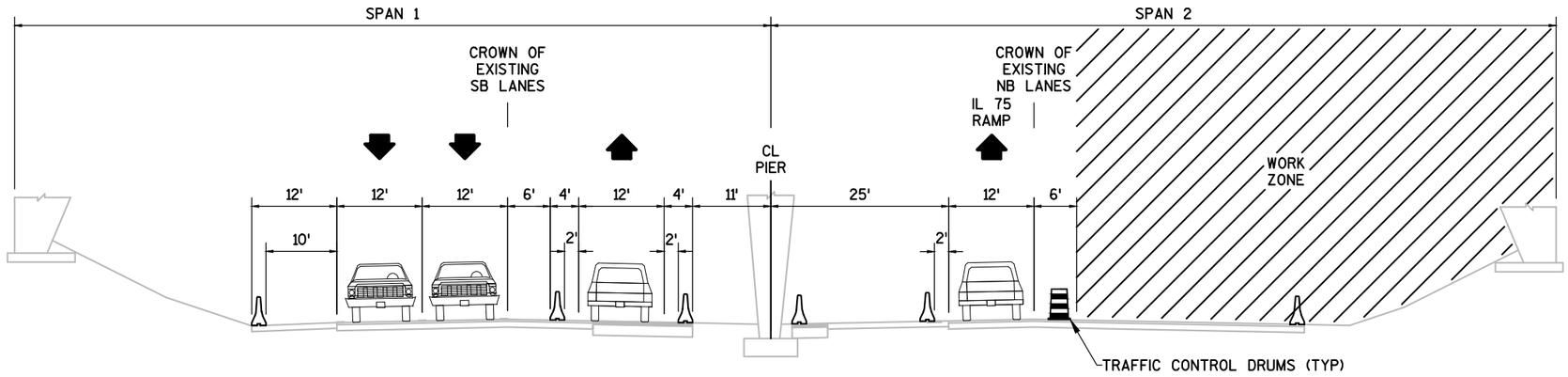
① DELIVERED/INSTALLED STAGE 1
② DELIVERED/INSTALLED STAGE 2 ANCHORING REQUIRED ADJACENT TO PIER
③ DELIVERED/INSTALLED STAGE 3
④ MOVE AND REPLACE IN KIND FOR PIER DEMOLITION/CONSTRUCTION



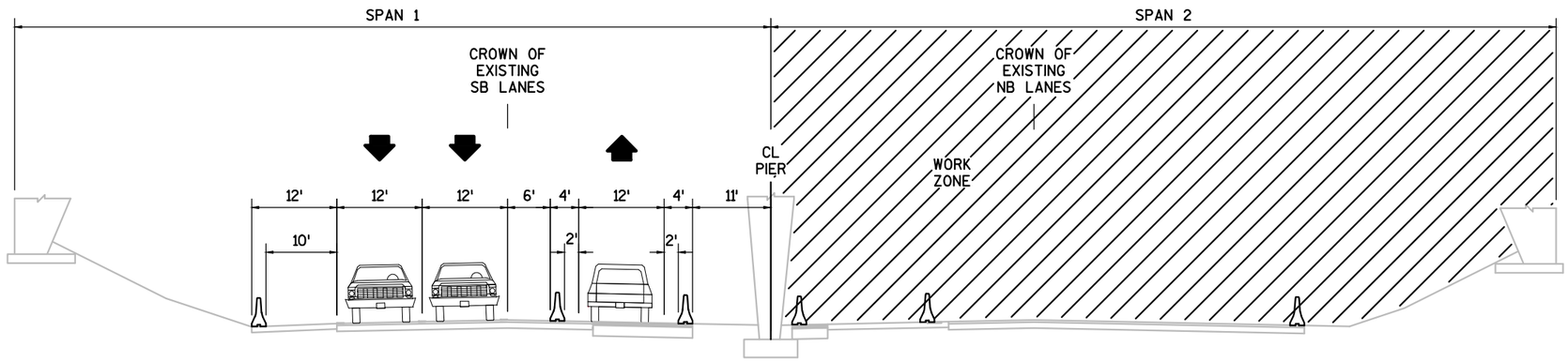
DETAIL 3.1

PROJECT NO: 1003-10-82	HWY: IH 39	COUNTY: ROCK	TRAFFIC CONTROL TYPICAL SECTIONS	SHEET 33	E

2

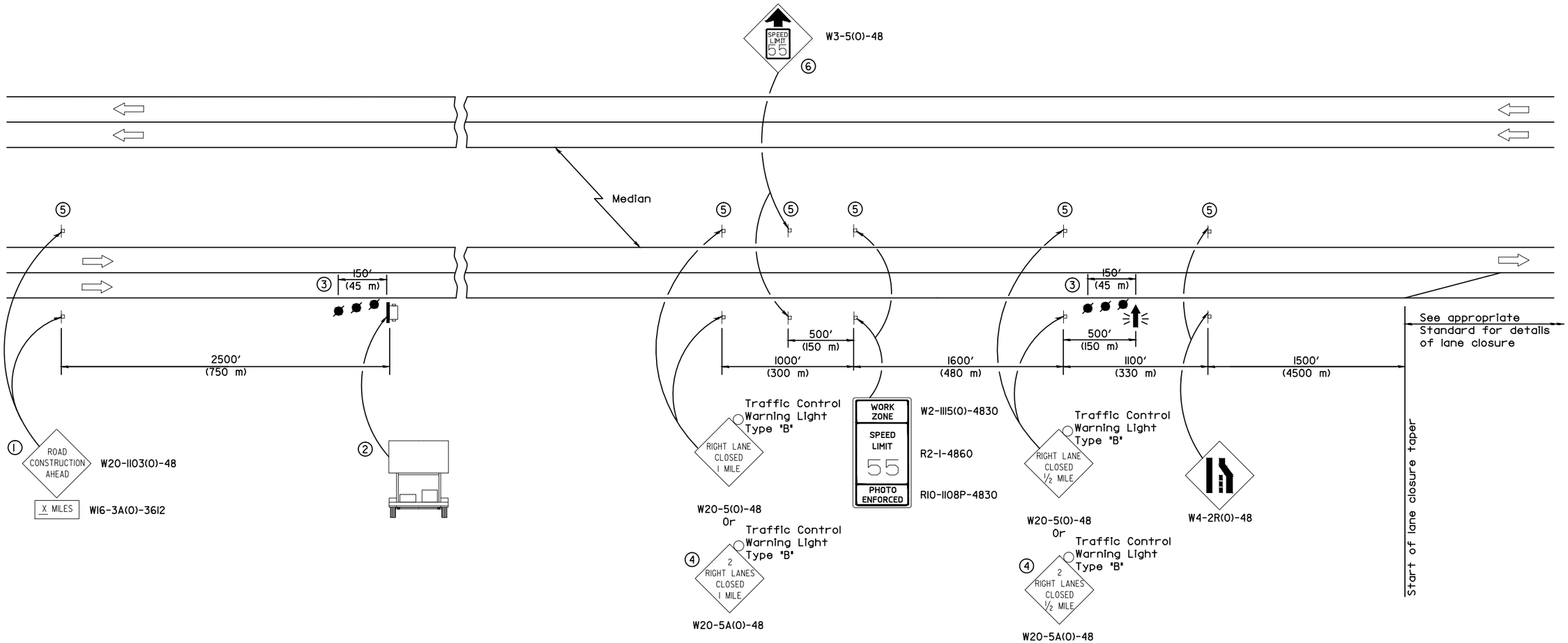


DETAIL 3.2



DETAIL 3.3

PROJECT NO: 1003-10-82	HWY: IH 39	COUNTY: ROCK	TRAFFIC CONTROL TYPICAL SECTIONS	SHEET 34	E



SYMBOLS

- Arrow board
- Portable changeable message sign
- Sign
- Type II barricade, drum, or vertical barricade with monodirectional flashing light

① The Road Construction Ahead sign shall be located 3 to 5 miles in advance of the project limits.

② The message board shall be used to display status of lanes within the project. The primary messages shall be:

"Right Lane Closed" / " x Miles Ahead"
"Left Lane Closed" / " x Miles Ahead"
"All Lanes Open"

③ Three, Type II barricades, drums, or vertical barricades at 50′ (15 m) centers.

④ This sign shall be used when 2 lanes are closed.

⑤ This sign shall be omitted when median width is less than 10′ (3 m).

⑥ This sign shall only be used if the existing speed limit is greater than 65 mph.

GENERAL NOTES

This standard is used where at any time a lane is closed on a freeway/expressway. When the left lane is closed, LEFT LANE CLOSED signs shall be substituted for the RIGHT LANE CLOSED signs.

The first two signs and the message board are stationary.

The last four signs and arrow board shall be moved as necessary to maintain the required distance from the start of the lane closure taper(s).

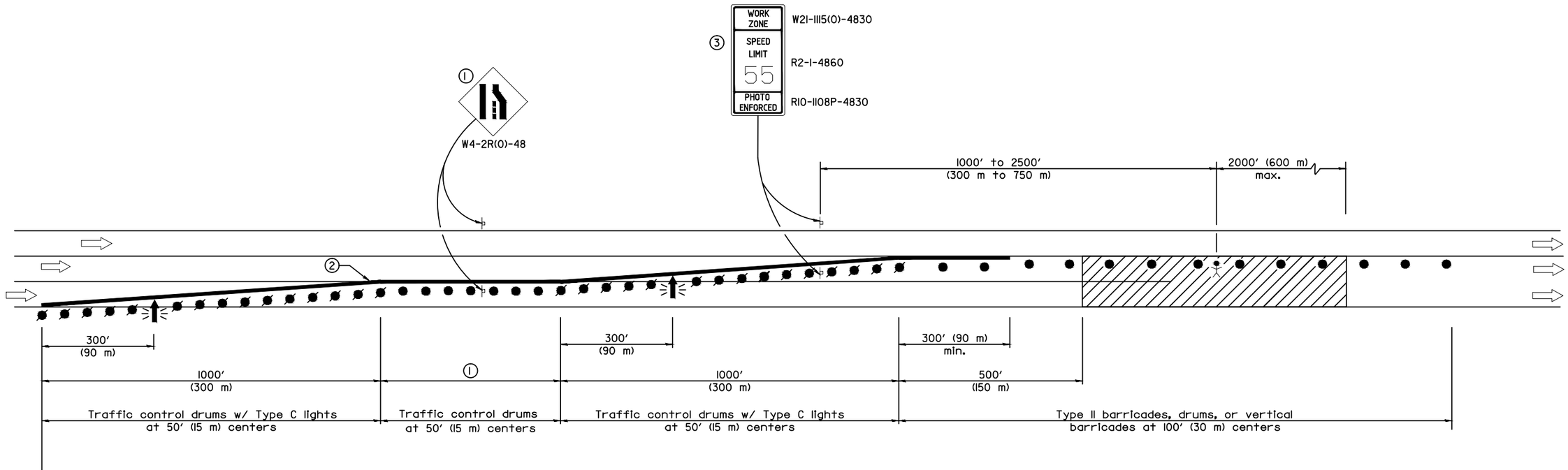
All dimensions are in inches (millimeters) unless otherwise shown.

APPROACH TO LANE CLOSURE, FREEWAY/EXPRESSWAY

STANDARD 701400-08

IDOT Standard: Modified April 2016

PROJECT NO: 1003-10-82	HWY: IH 39	COUNTY: ROCK	APPROACH TO LANE CLOSURE, FREEWAY/EXPRESSWAY DETAIL (IL)	SHEET 35	E



See Standard 701400 for approach
Start of lane closure taper

SYMBOLS

- Arrow board
- Work area
- Worker
- Sign
- Traffic Control Drum/Type "C" Light
- Traffic Control Drum

IDOT Standard: Modified April 2016

① The length of the tangent section shall be:

Duration of Closure	Length of Tangent Section
< 14 Days	1000′ (300 m)
≥ 14 Days	2000′ (600 m)

For off peak closures less than 24 hours, the tangent section and the lane ends sign may be omitted if approved by the Engineer.

② Reflectorized temporary pavement marking tape shall be placed throughout the tapers and for 300′ (90 m) along-side the work area when the closure time is greater than fourteen days. The edge line shall be white for right lane closures and yellow for left lane closures.

③ Work zone speed limits signs shall be moved as necessary to maintain the required spacing between the signs and the workers in each separate work activity. Work Zone Speed Limit 55 Photo Enforced sign shall be omitted when the work area dictates that placement of the sign array within 500′ (150 m) of the End Work Zone Speed Limit sign.

GENERAL NOTES

This Standard is used where at any time any vehicle, equipment, workers or their activities will encroach on two lanes of a freeway/expressway.

This Standard must always be used in combination with Standard 701400.

This Standard also applies when work is being performed in the left lanes. Under these conditions, the set up would be a mirror image to what is shown.

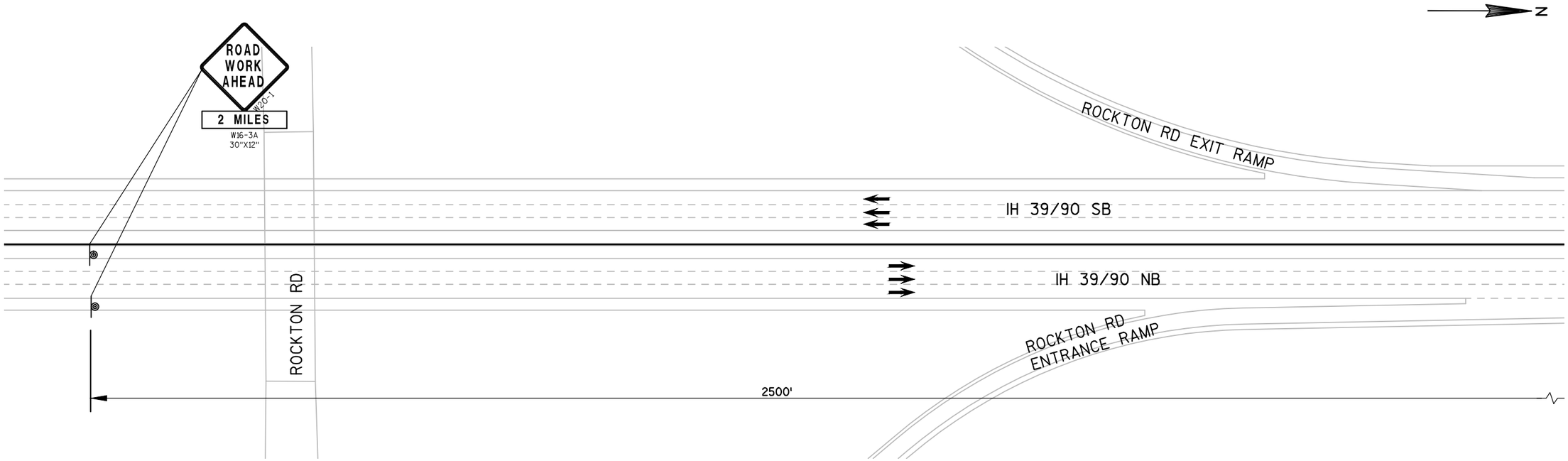
Check barricades shall be placed in the middle of the closed lanes at 1000′ (300 m) centers.

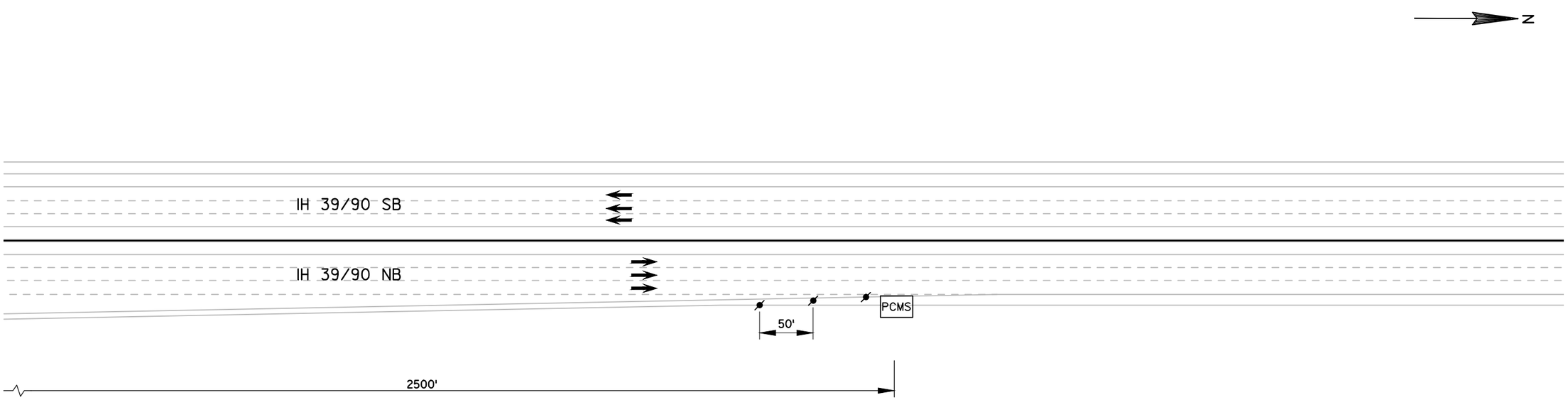
All dimensions are in inches (millimeters) unless otherwise shown.

TWO LANE CLOSURE FREEWAY/EXPRESSWAY

STANDARD 701446-06

PROJECT NO: 1003-10-82	HWY: IH 39	COUNTY: ROCK	TWO LANE CLOSURE, FREEWAY/EXPRESSWAY DETAIL (IL)	SHEET 36	E

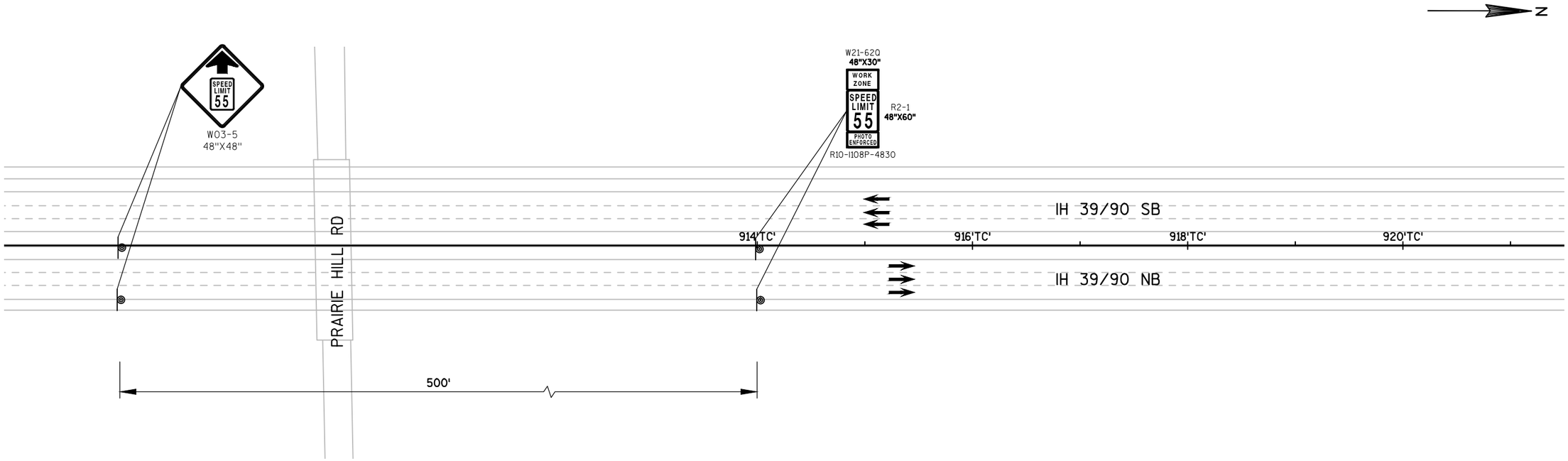


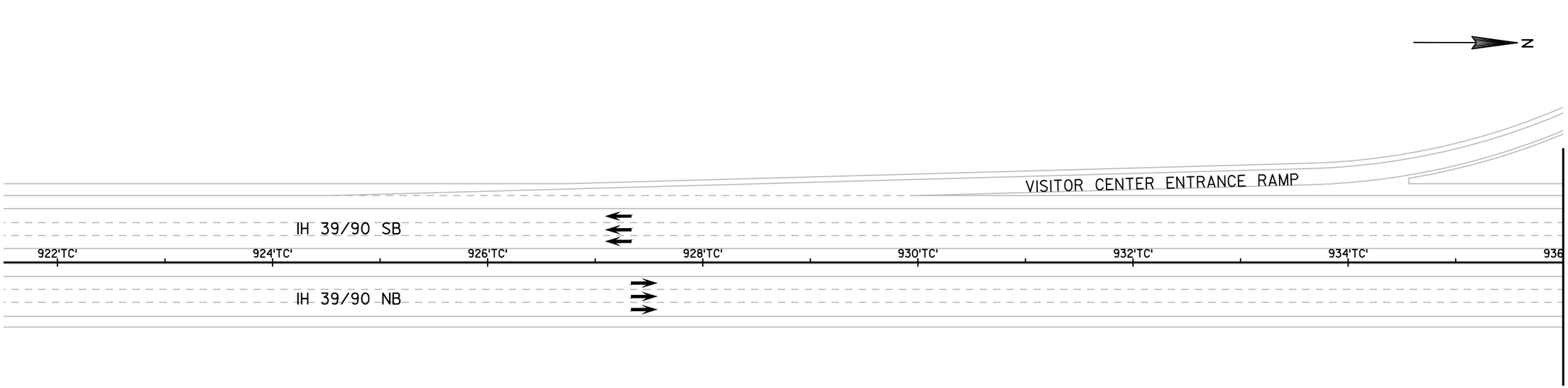


PROJECT NO: 1003-10-82	HWY: IH 39	COUNTY: ROCK	TRAFFIC CONTROL - IH 39 - DETAIL 1.0	SHEET	E

FILE NAME : L:\WORK\PROJECTS\60242867\000_CAD\001_DRAWINGS\1003-10-82_STATELINE RD\100% +\025003_TC.DWG PLOT DATE : 4/7/2016 5:44 PM PLOT BY : CZECH, ANDREW PLOT NAME : PLOT SCALE : 1" = 100'_XREF
WISDOT/CADDS SHEET 44

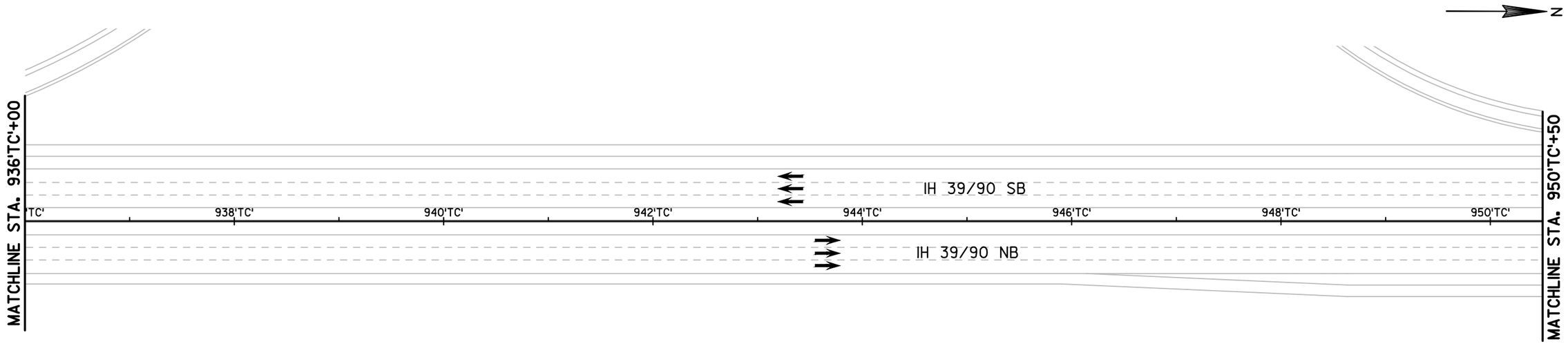
2

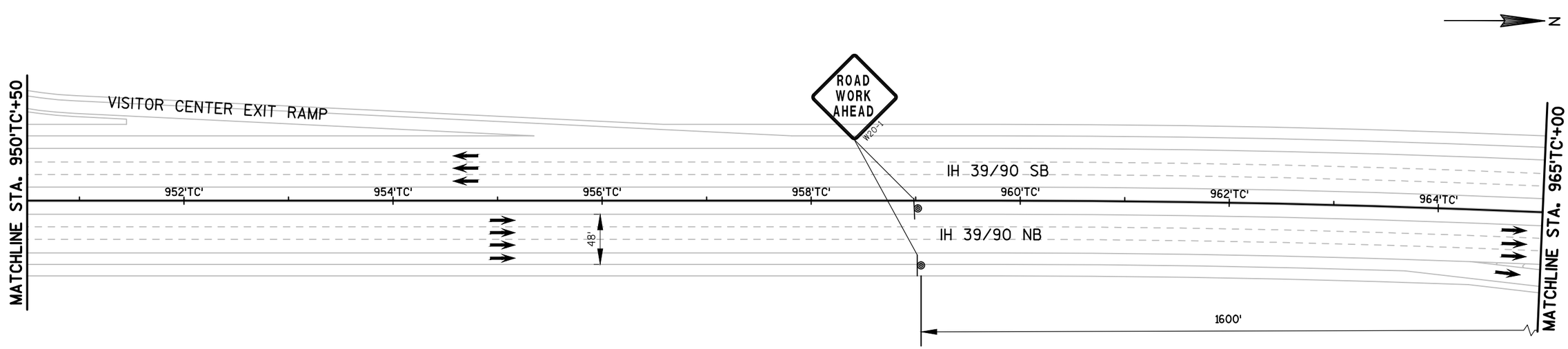




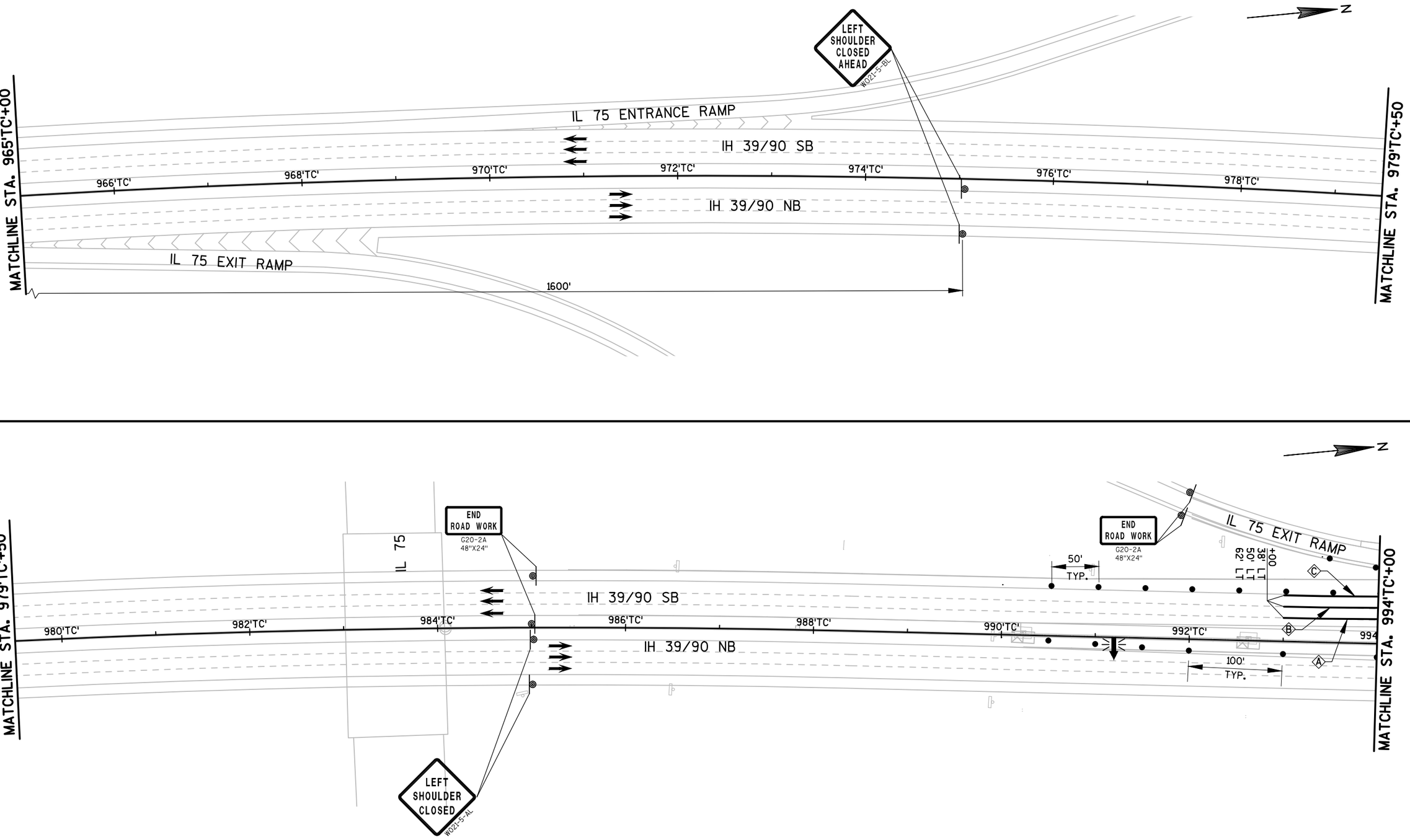
PROJECT NO: 1003-10-82	HWY: IH 39	COUNTY: ROCK	TRAFFIC CONTROL - IH 39 - DETAIL 1.0	SHEET	E

FILE NAME : L:\WORK\PROJECTS\60242867\000_CAD\001_DRAWINGS\1003-10-82_STATELINE RD\100% +\025003_TC.DWG PLOT DATE : 4/7/2016 5:45 PM PLOT BY : CZECH, ANDREW PLOT NAME : PLOT SCALE : 1" = 100'_XREF
WISDOT/CADDS SHEET 44





PROJECT NO: 1003-10-82	HWY: IH 39	COUNTY: ROCK	TRAFFIC CONTROL - IH 39 - DETAIL 1.0	SHEET 39	E



PROJECT NO: 1003-10-82	HWY: IH 39	COUNTY: ROCK	TRAFFIC CONTROL - IH 39 - DETAIL 1.0	SHEET 40	E

FILE NAME : L:\WORK\PROJECTS\60242867\000_CAD\001_DRAWINGS\1003-10-82_STATELINE RD\100% +\025003_TC.DWG PLOT DATE : 4/7/2016 5:45 PM PLOT BY : CZECH, ANDREW PLOT NAME : PLOT SCALE : 1" = 100'_XREF
WISDOT/CADDS SHEET 44

2

MATCHLINE STA. 994'TC'+00

50' TYP.

IL 75 EXIT RAMP

+73 56' LT

+13 30' LT

CONCRETE BARRIER TEMPORARY PRECAST

+38 30' LT

IH 39/90 SB

'TC'

996'TC'

998'TC'

1000'TC'

1002'TC'

1004'TC'

1006'TC'

1008'TC'

100' TYP.

+47 00' RT

+93 11' RT

+80 22' RT

24'

IH 39/90 NB

EXISTING CONCRETE BARRIER TEMPORARY PRECAST EXTENDS TO SOUTH (TYP.)

EXIT

E5-1
72"X60"

CONCRETE BARRIER TEMPORARY PRECAST

USE EXISTING CONCRETE BARRIER TEMPORARY PRECAST STA. 995+47'TC' - STA. 1000+72'TC'

MATCHLINE STA. 1008'TC'+50

ROAD WORK AHEAD

W20-1

W1-4-BL

IL 75 ENTRANCE RAMP

STATELINE RD

BELOIT

N

700' TAPER

B

A

+00 60' LT

+00 36' LT 48' LT 56' LT

IH 39/90 SB

100' TYP.

1010'TC'

1012'TC'

1014'TC'

1016'TC'

1018'TC'

1020'TC'

50' TYP.

1022'TC'

+11 04' RT

+48 22' RT

IH 39/90 NB

MATCHLINE STA. 1008'TC'+50

MATCHLINE STA. 1023'TC'+00

END ROAD WORK

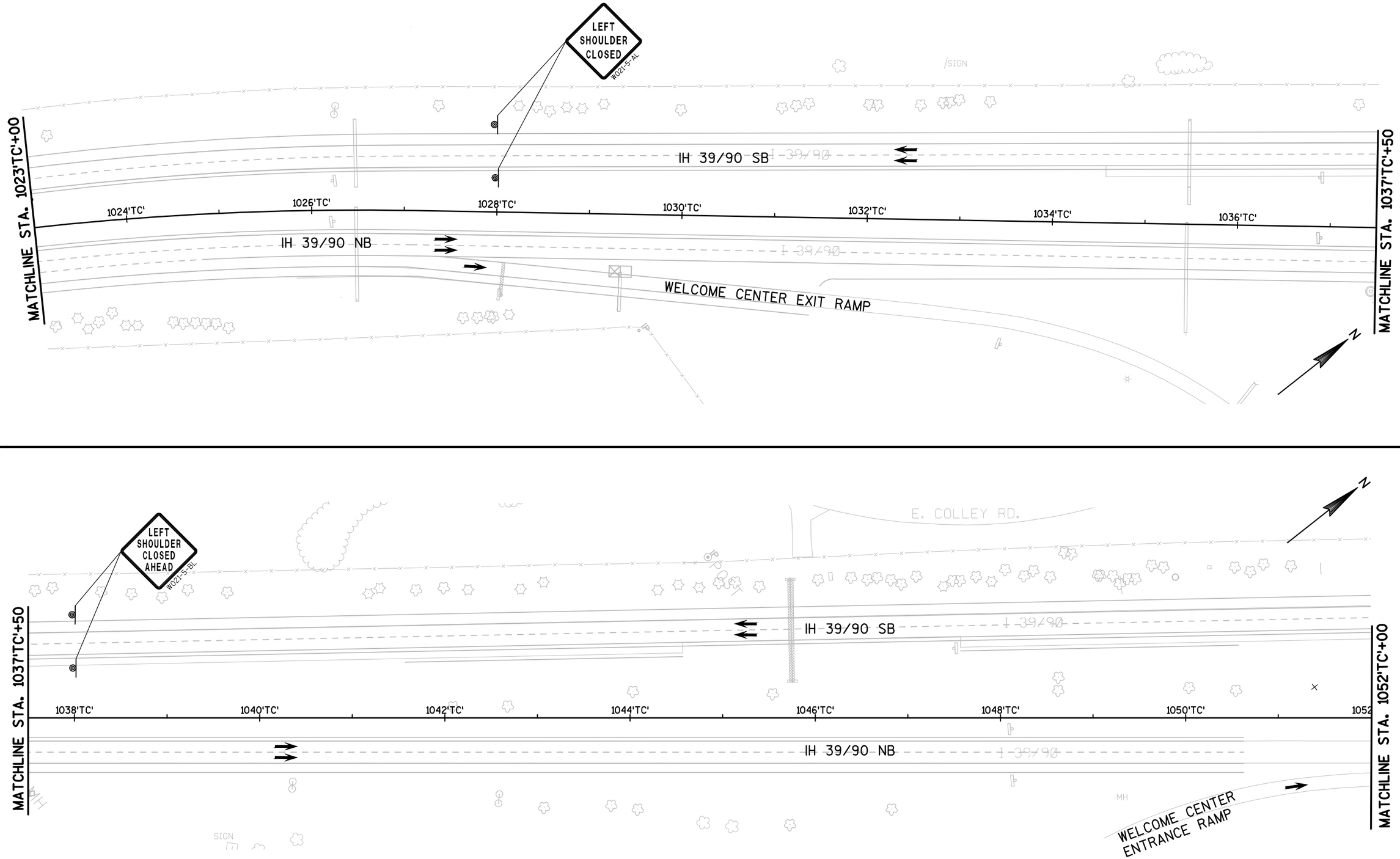
G20-2A
48"X24"

PROJECT NO: 1003-10-82	HWY: IH 39	COUNTY: ROCK	TRAFFIC CONTROL - IH 39 - DETAIL 1.0	SHEET	E

FILE NAME : L:\WORK\PROJECTS\60242867\000_CAD\001_DRAWINGS\1003-10-82_STATELINE RD\100% +\025003_TC.DWG PLOT DATE : 4/7/2016 5:45 PM PLOT BY : CZECH, ANDREW PLOT NAME : PLOT SCALE : 1" = 100'_XREF

WISDOT/CADDS SHEET 44

2



PROJECT NO: 1003-10-82	HWY: IH 39	COUNTY: ROCK	TRAFFIC CONTROL - IH 39 - DETAIL 1.0	SHEET	E

FILE NAME : L:\WORK\PROJECTS\60242867\000_CAD\001_DRAWINGS\1003-10-82_STATELINE RD\100% +\025003_TC.DWG PLOT DATE : 4/7/2016 5:46 PM PLOT BY : CZECH, ANDREW PLOT NAME : PLOT SCALE : 1" = 100'_XREF
WISDOT/CADDS SHEET 44

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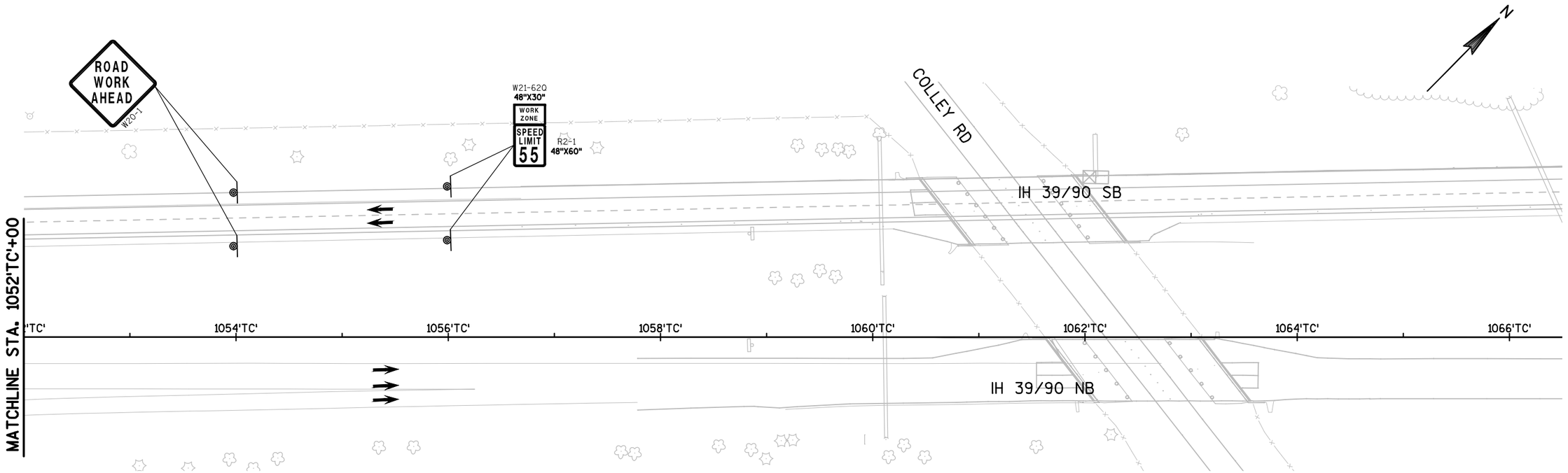
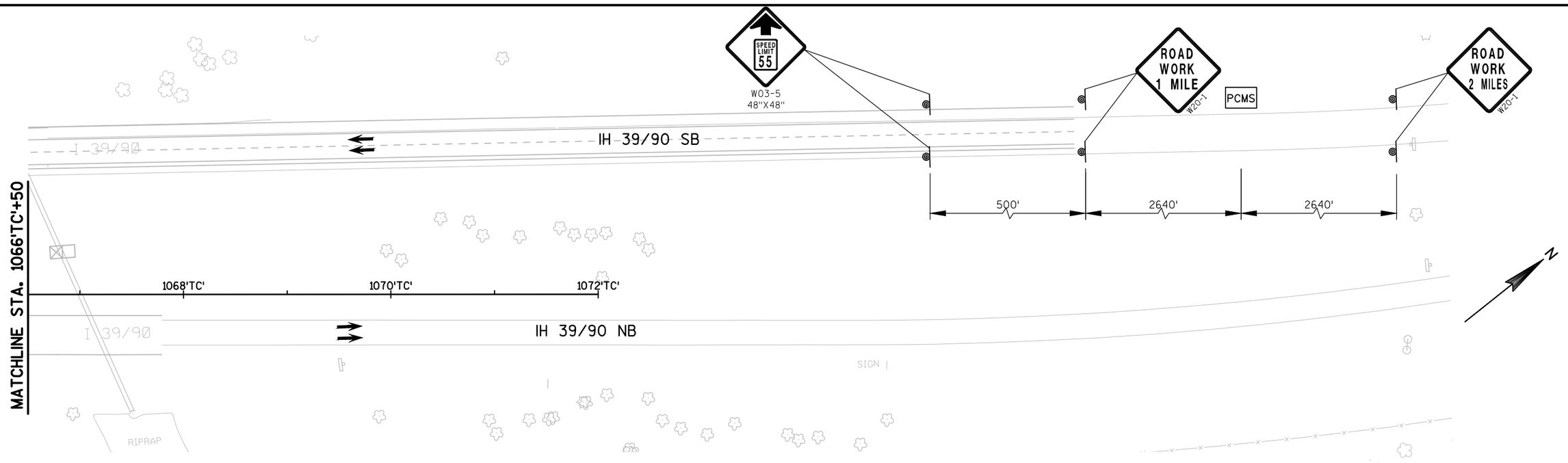
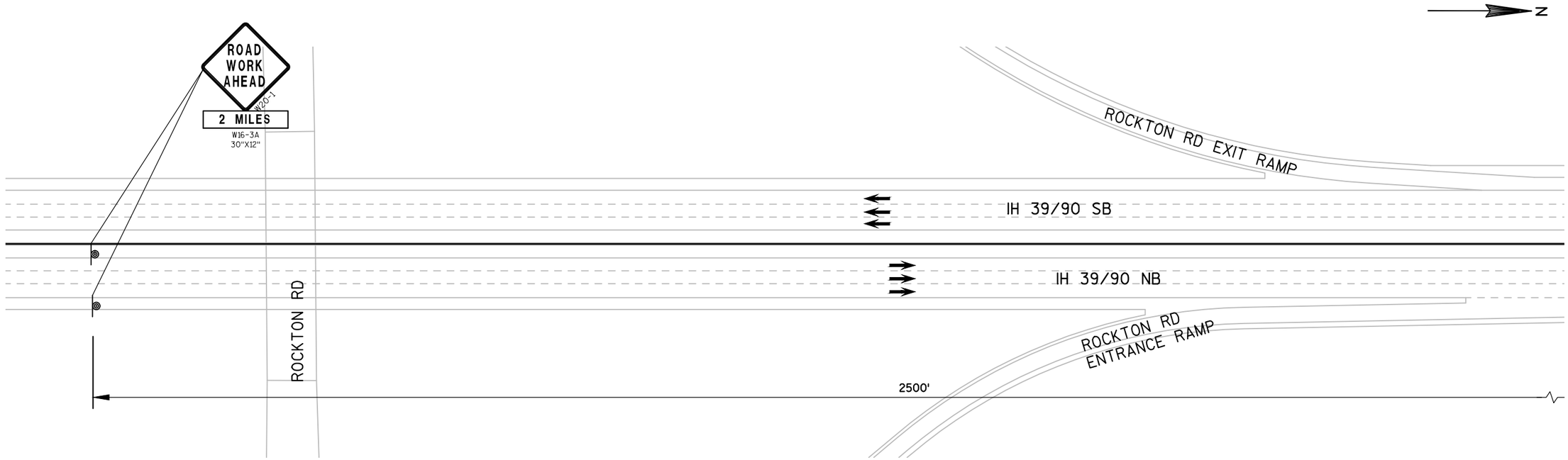
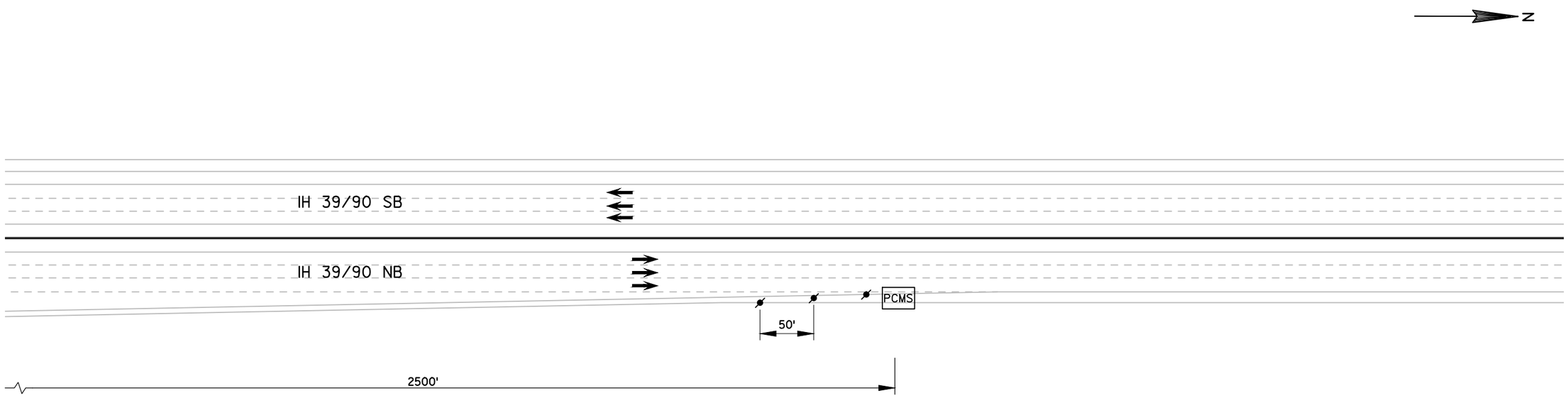


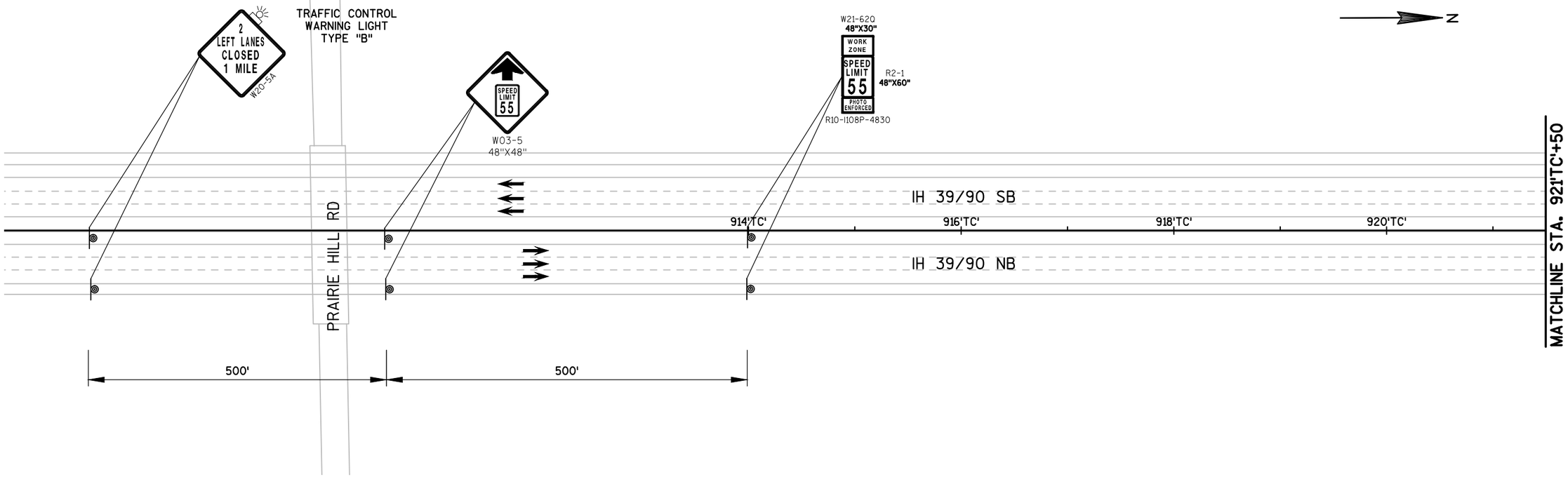


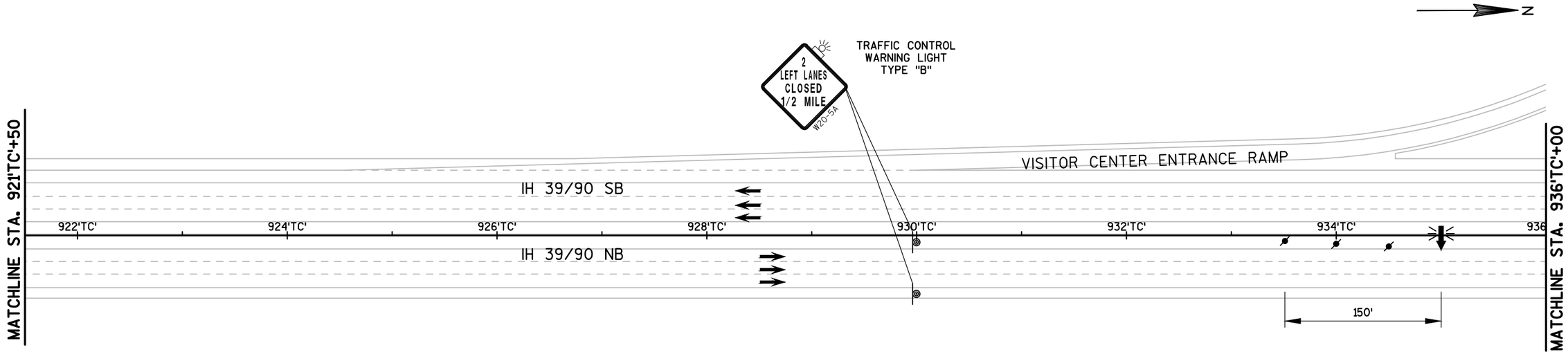
PROJECT NO: 1003-10-82	HWY: IH 39	COUNTY: ROCK	TRAFFIC CONTROL - IH 39 - DETAIL 1.0	SHEET	E

FILE NAME : L:\WORK\PROJECTS\60242867\000_CAD\001_DRAWINGS\1003-10-82_STATELINE RD\100% +\025003_TC.DWG PLOT DATE : 4/7/2016 5:46 PM PLOT BY : CZECH, ANDREW PLOT NAME : PLOT SCALE : 1" = 100'_XREF


ROAD
WORK
AHEAD
W20-1
2 MILES
W16-3A
30"X12"
ROCKTON RD
ROCKTON RD EXIT RAMP
IH 39/90 SB
IH 39/90 NB
ROCKTON RD
ENTRANCE RAMP
2500'
N


IH 39/90 SB
IH 39/90 NB
PCMS
50'
2500'
N

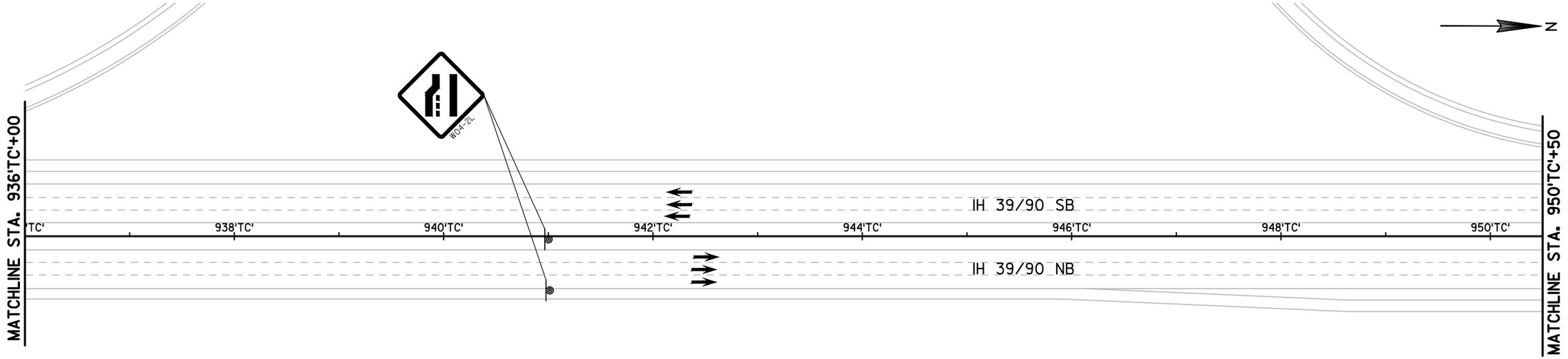


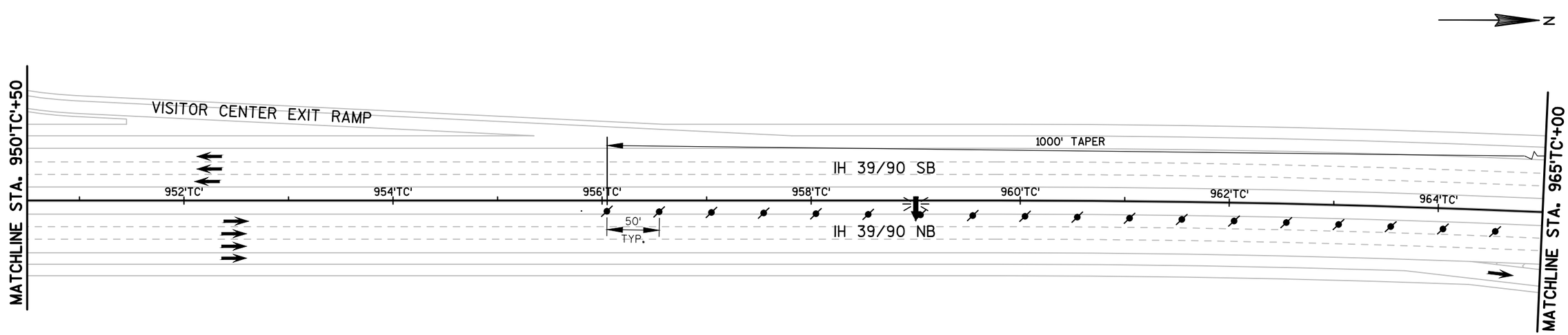


PROJECT NO: 1003-10-82	HWY: IH 39	COUNTY: ROCK	TRAFFIC CONTROL - IH 39 - DETAIL 1.1	SHEET	E

FILE NAME : L:\WORK\PROJECTS\60242867\000_CAD\001_DRAWINGS\1003-10-82_STATELINE RD\100% +\025003_TC.DWG PLOT DATE : 4/7/2016 5:46 PM PLOT BY : CZECH, ANDREW PLOT NAME : PLOT SCALE : 1" = 100'_XREF
WISDOT/CADDS SHEET 44

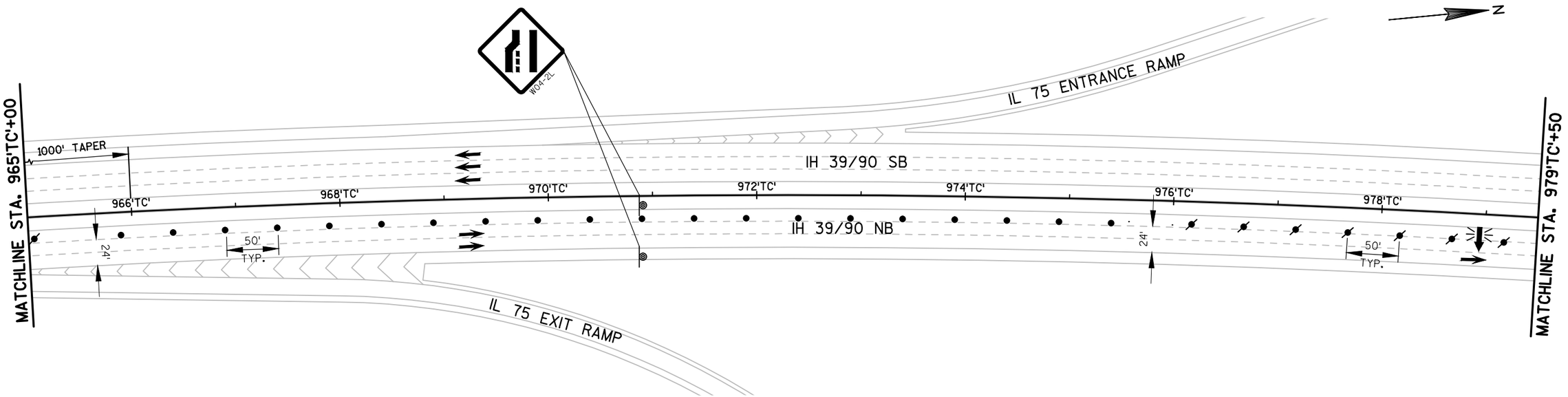
2

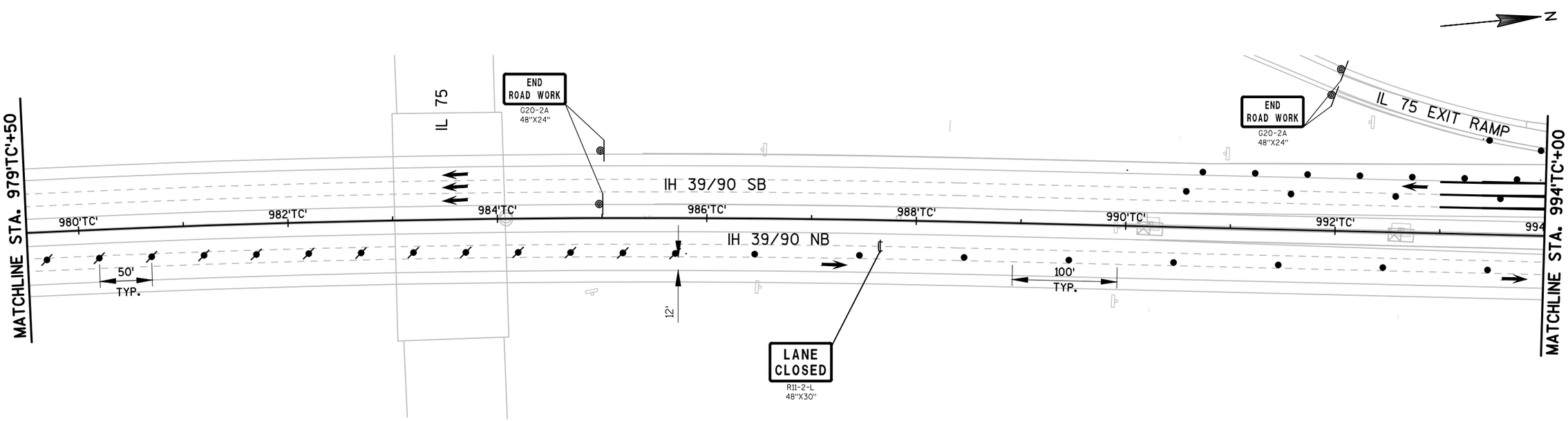




PROJECT NO: 1003-10-82	HWY: IH 39	COUNTY: ROCK	TRAFFIC CONTROL - IH 39 - DETAIL 1.1	SHEET	E

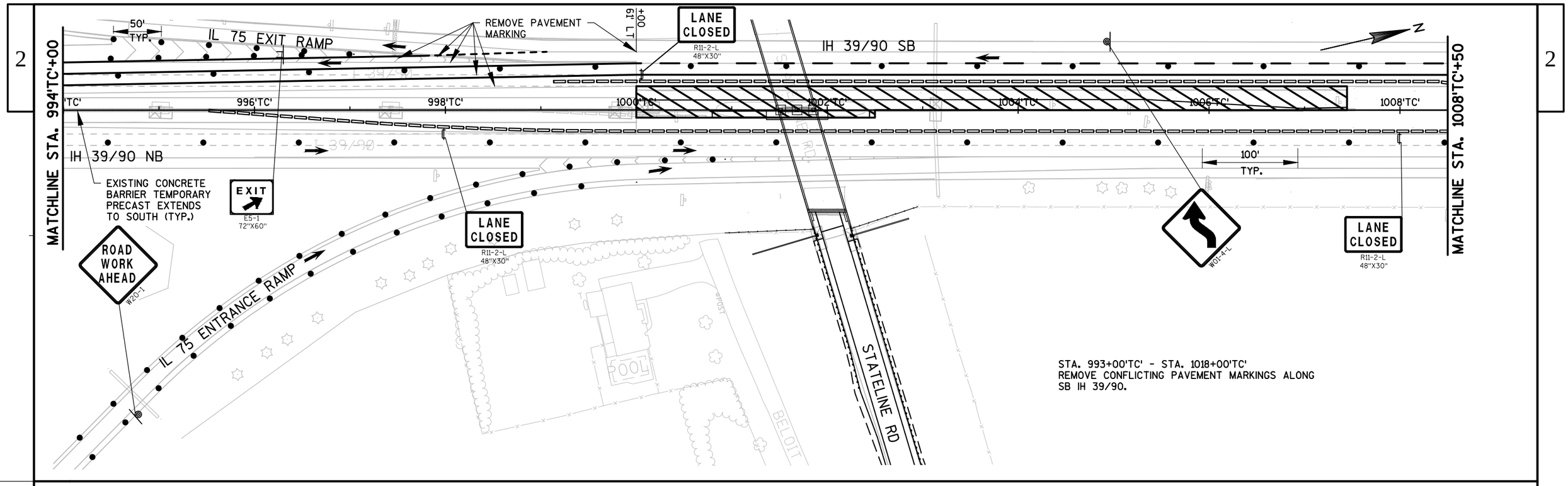
FILE NAME : L:\WORK\PROJECTS\60242867\000_CAD\001_DRAWINGS\1003-10-82_STATELINE RD\100% +\025003_TC.DWG PLOT DATE : 4/7/2016 5:46 PM PLOT BY : CZECH, ANDREW PLOT NAME : PLOT SCALE : 1" = 100'_XREF
WISDOT/CADDS SHEET 44



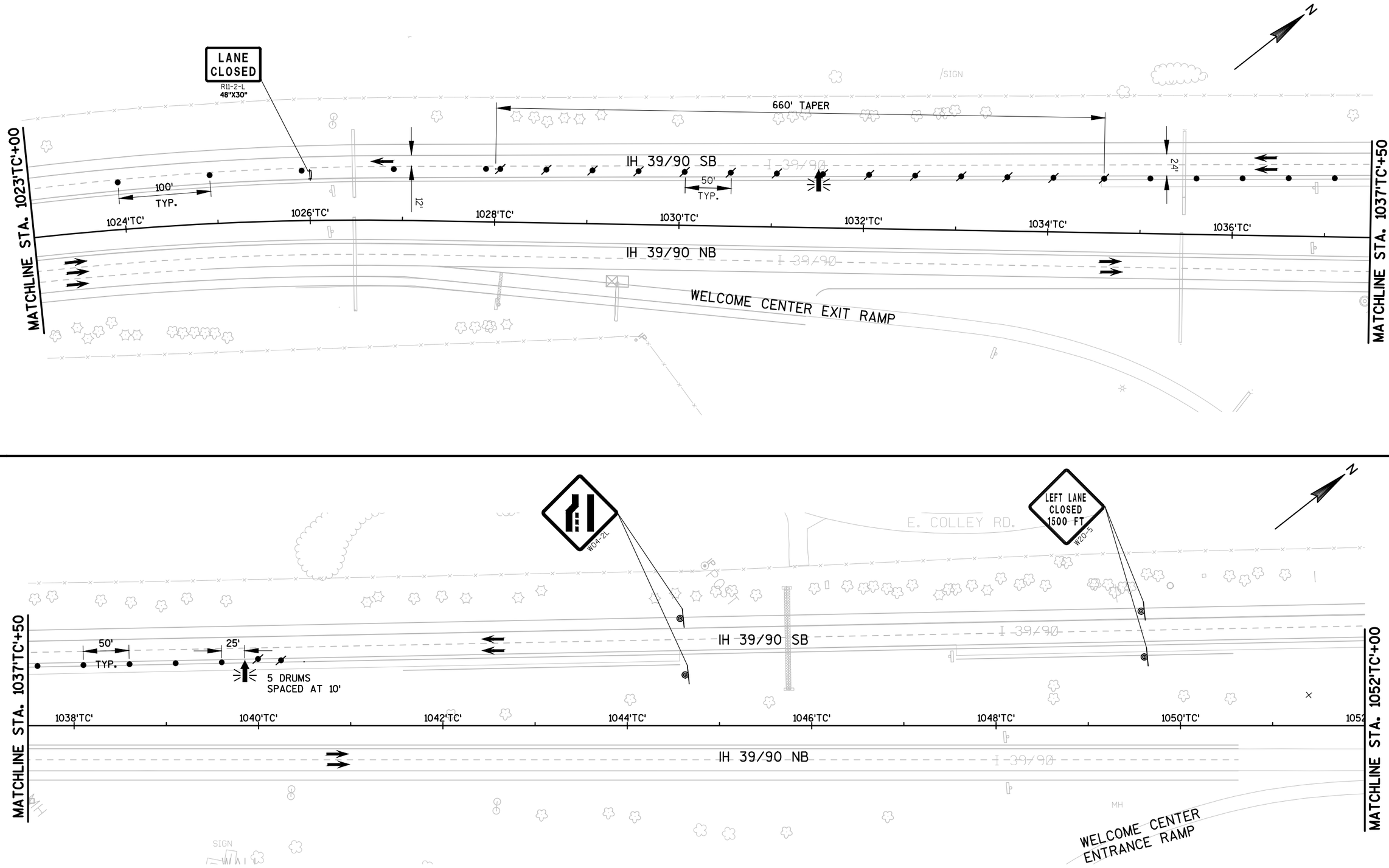


PROJECT NO: 1003-10-82	HWY: IH 39	COUNTY: ROCK	TRAFFIC CONTROL - IH 39 - DETAIL 1.1	SHEET 47	E

FILE NAME : L:\WORK\PROJECTS\60242867\000_CAD\001_DRAWINGS\1003-10-82_STATELINE RD\100% +\025003_TC.DWG PLOT DATE : 4/7/2016 5:47 PM PLOT BY : CZECH, ANDREW PLOT NAME : PLOT SCALE : 1" = 100'_XREF

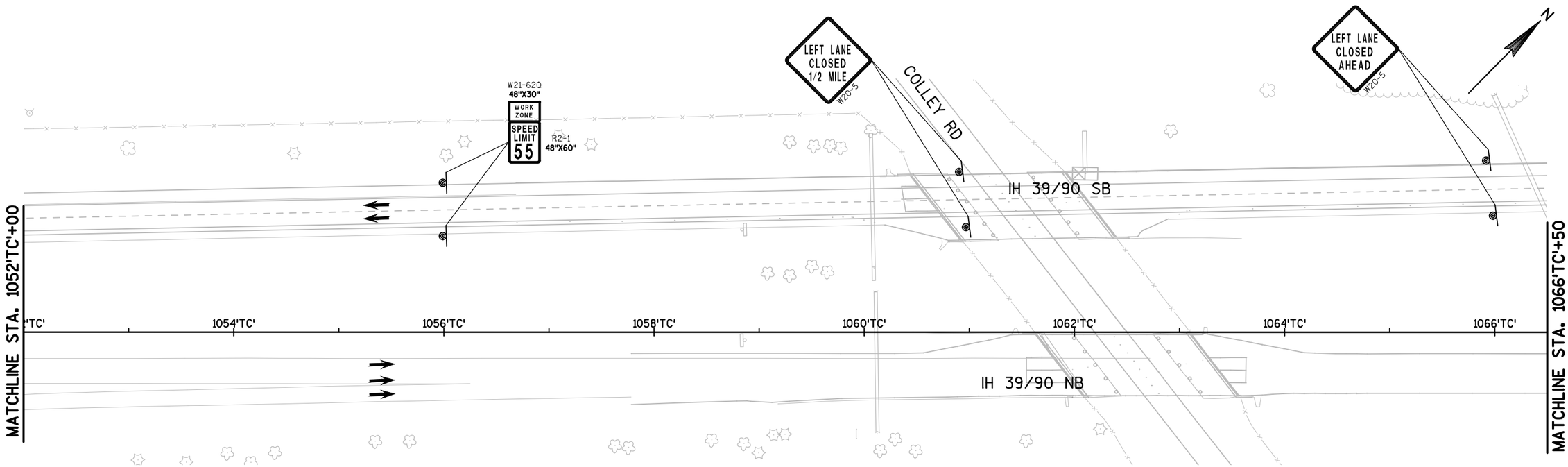


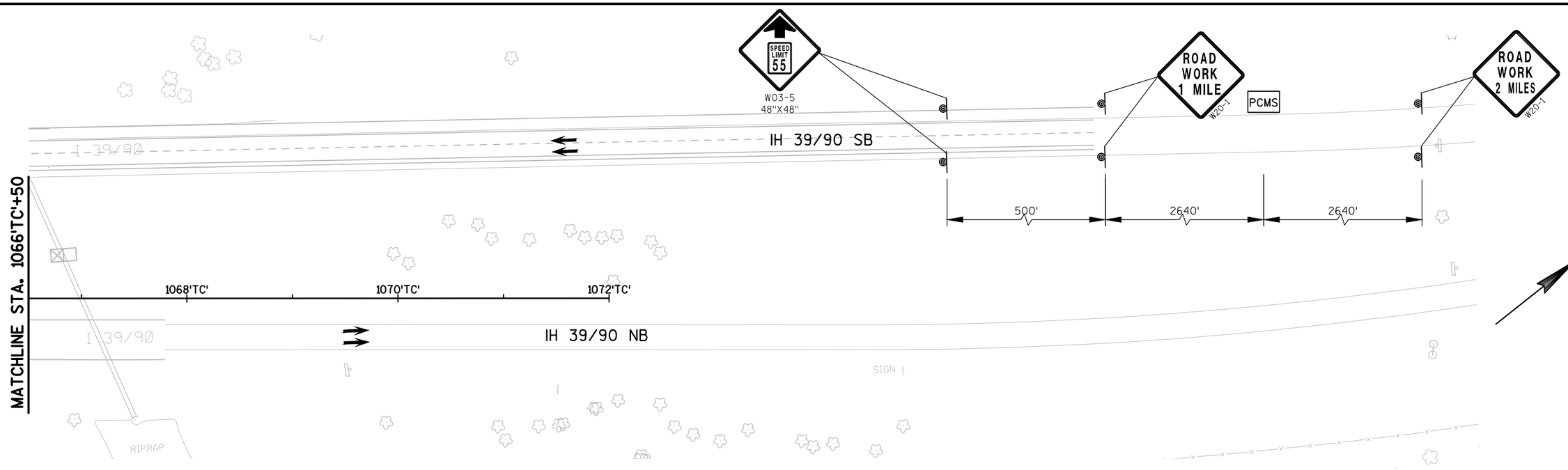
PROJECT NO: 1003-10-82	HWY: IH 39	COUNTY: ROCK	TRAFFIC CONTROL - IH 39 - DETAIL 1.1	SHEET 48	E



PROJECT NO: 1003-10-82	HWY: IH 39	COUNTY: ROCK	TRAFFIC CONTROL - IH 39 - DETAIL 1.1	SHEET	E

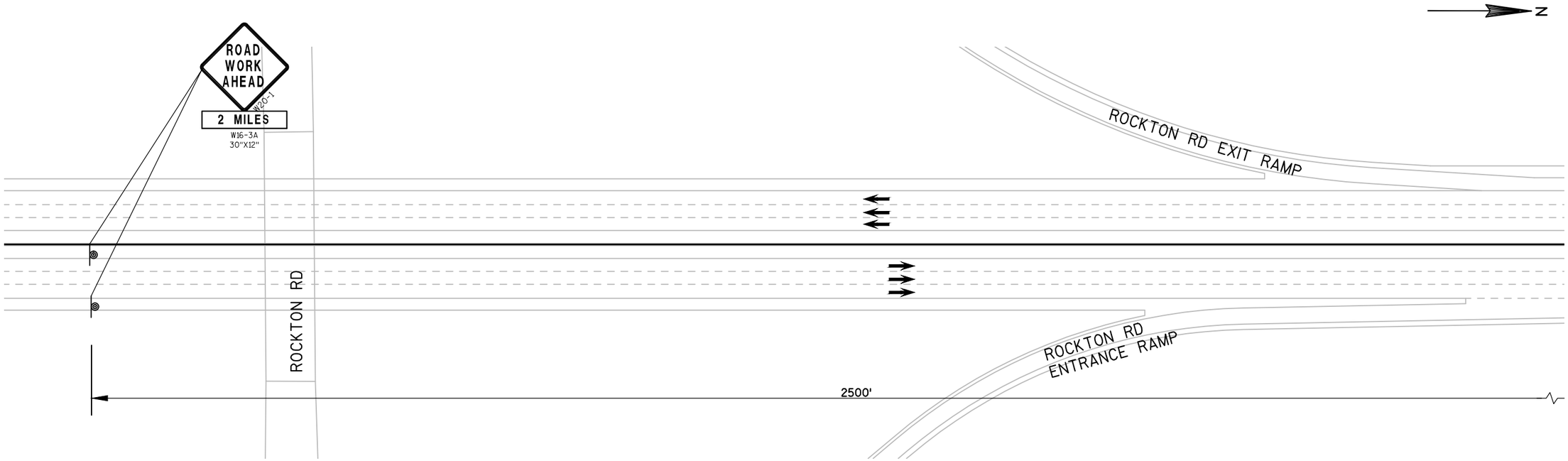
FILE NAME : L:\WORK\PROJECTS\60242867\000_CAD\001_DRAWINGS\1003-10-82_STATELINE RD\100% +\025003_TC.DWG PLOT DATE : 4/7/2016 5:47 PM PLOT BY : CZECH, ANDREW PLOT NAME : PLOT SCALE : 1" = 100'_XREF

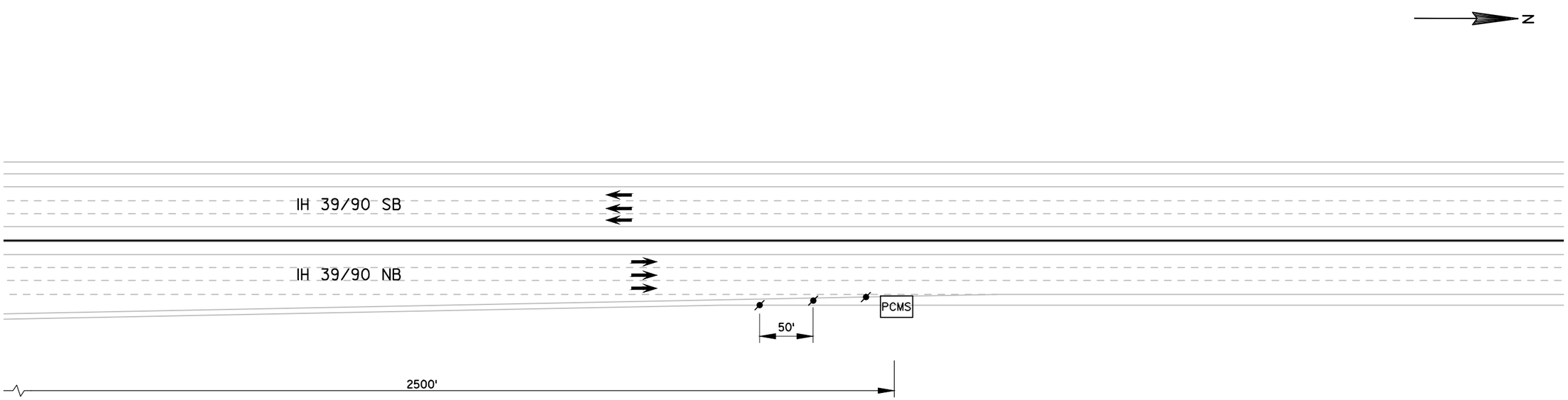




PROJECT NO: 1003-10-82	HWY: IH 39	COUNTY: ROCK	TRAFFIC CONTROL - IH 39 - DETAIL 1.1	SHEET 50	E

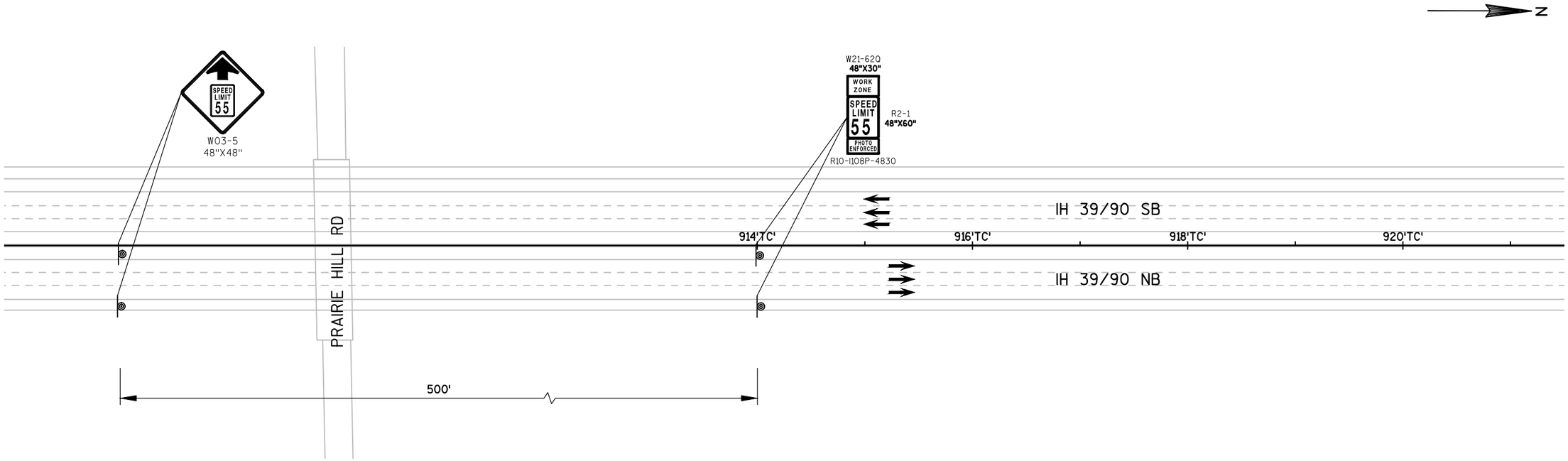
2

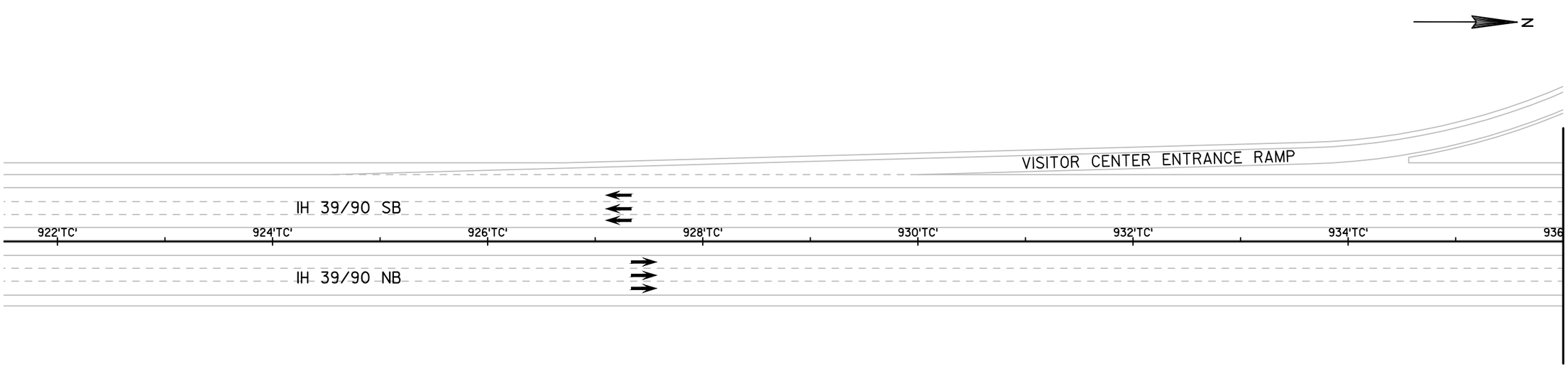




PROJECT NO: 1003-10-82	HWY: IH 39	COUNTY: ROCK	TRAFFIC CONTROL - IH 39 - DETAIL 2.0	SHEET	E

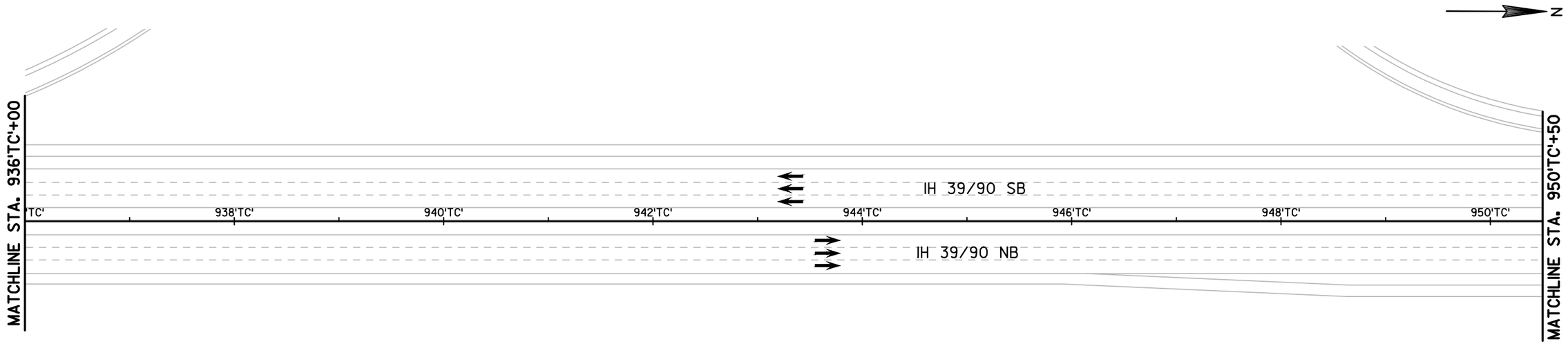
FILE NAME : L:\WORK\PROJECTS\60242867\000_CAD\001_DRAWINGS\1003-10-82_STATELINE RD\100% +\025003_TC.DWG PLOT DATE : 4/7/2016 5:48 PM PLOT BY : CZECH, ANDREW PLOT NAME : PLOT SCALE : 1" = 100'_XREF
WISDOT/CADDS SHEET 44

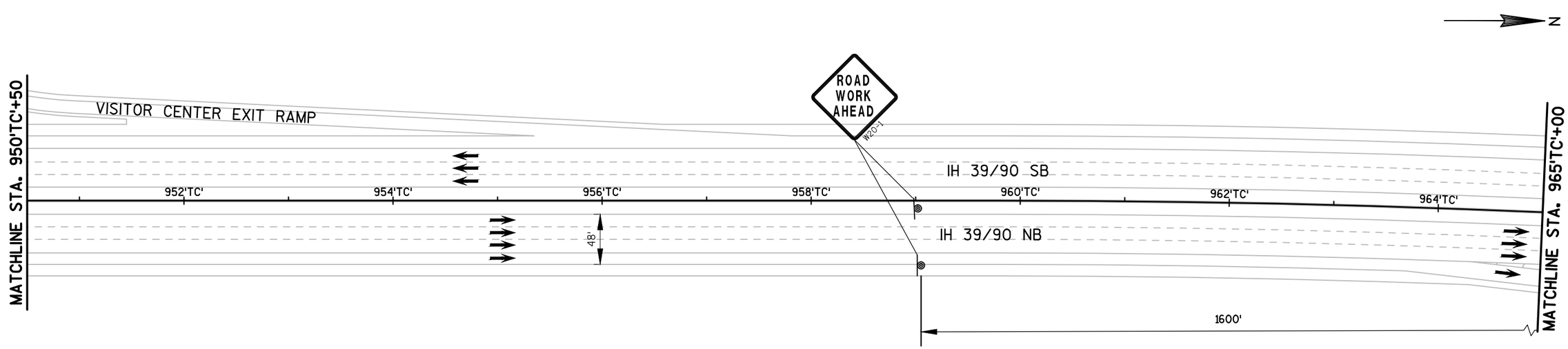




PROJECT NO: 1003-10-82	HWY: IH 39	COUNTY: ROCK	TRAFFIC CONTROL - IH 39 - DETAIL 2.0	SHEET	E

FILE NAME : L:\WORK\PROJECTS\60242867\000_CAD\001_DRAWINGS\1003-10-82_STATELINE RD\100% +\025003_TC.DWG PLOT DATE : 4/7/2016 5:48 PM PLOT BY : CZECH, ANDREW PLOT NAME : PLOT SCALE : 1" = 100'_XREF
WISDOT/CADDS SHEET 44





PROJECT NO: 1003-10-82	HWY: IH 39	COUNTY: ROCK	TRAFFIC CONTROL - IH 39 - DETAIL 2.0	SHEET	E

FILE NAME : L:\WORK\PROJECTS\60242867\000_CAD\001_DRAWINGS\1003-10-82_STATELINE RD\100% +\025003_TC.DWG PLOT DATE : 4/7/2016 5:48 PM PLOT BY : CZECH, ANDREW PLOT NAME : PLOT SCALE : 1" = 100'_XREF
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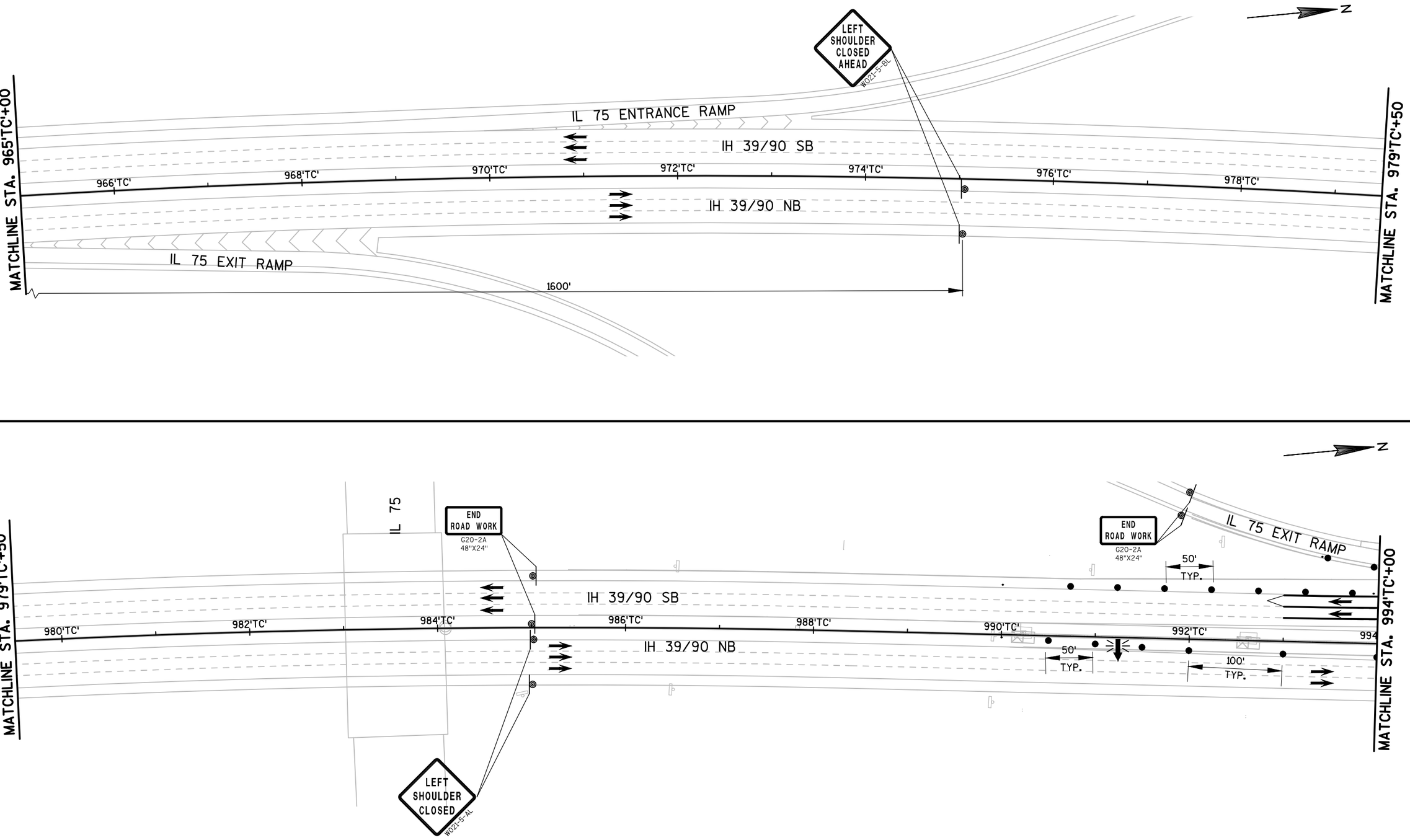


PROJECT NO: 1003-10-82	HWY: IH 39	COUNTY: ROCK	TRAFFIC CONTROL - IH 39 - DETAIL 2.0	SHEET	E

FILE NAME : L:\WORK\PROJECTS\60242867\000_CAD\001_DRAWINGS\1003-10-82_STATELINE RD\100% +\025003_TC.DWG PLOT DATE : 4/7/2016 5:48 PM PLOT BY : CZECH, ANDREW PLOT NAME : PLOT SCALE : 1" = 100'_XREF
WISDOT/CADDS SHEET 44

MATCHLINE STA. 994'TC'+00

50' TYP.

IL 75 EXIT RAMP

+13 30' LT

+00 72' LT

CONCRETE BARRIER TEMPORARY PRECAST INSTALLED STAGE 2

+00 12' LT

MOVE CONCRETE TEMPORARY PRECAST IN STAGE 2 STA. 1005+13'TC' - STA. 1008+13'TC'

+00 70' LT

+13 18' LT

IH 39/90 SB

'TC' 996'TC' 998'TC' 1000'TC' 1002'TC' 1004'TC' 1006'TC' 1008'TC'

+25 4' LT

+40 00' RT

100' TYP.

+25 4' LT

24'

+01 10' RT

IH 39/90 NB

CRASH CUSHION TEMPORARY

+00 3' RT

+00 18' RT

B

A

CONCRETE BARRIER TEMPORARY PRECAST INSTALLED STAGE 1

EXISTING CONCRETE BARRIER TEMPORARY PRECAST EXTENDS TO SOUTH (TYP.)

EXIT

E5-1 72"X60"

CRASH CUSHION TEMPMORARY

+34 77' LT

+85 72' LT

W1-4-BL

CONCRETE BARRIER TEMPORARY PRECAST INSTALLED STAGE 3

CONCRETE BARRIER TEMPORARY PRECAST ANCHORING ADJACENT TO PIER COLUMS. 100' IN STAGES 2 & 4

ROAD WORK AHEAD

W20-1

IL 75 ENTRANCE RAMP

STATELINE RD

BELOIT

N

MATCHLINE STA. 1008'TC'+50

100' TYP.

1010'TC' 1012'TC' 1014'TC' 1016'TC' 1018'TC' 1020'TC' 1022'TC'

+00 30' LT

11' LT

+47 22' RT

IH 39/90 SB

IH 39/90 NB

50' TYP.

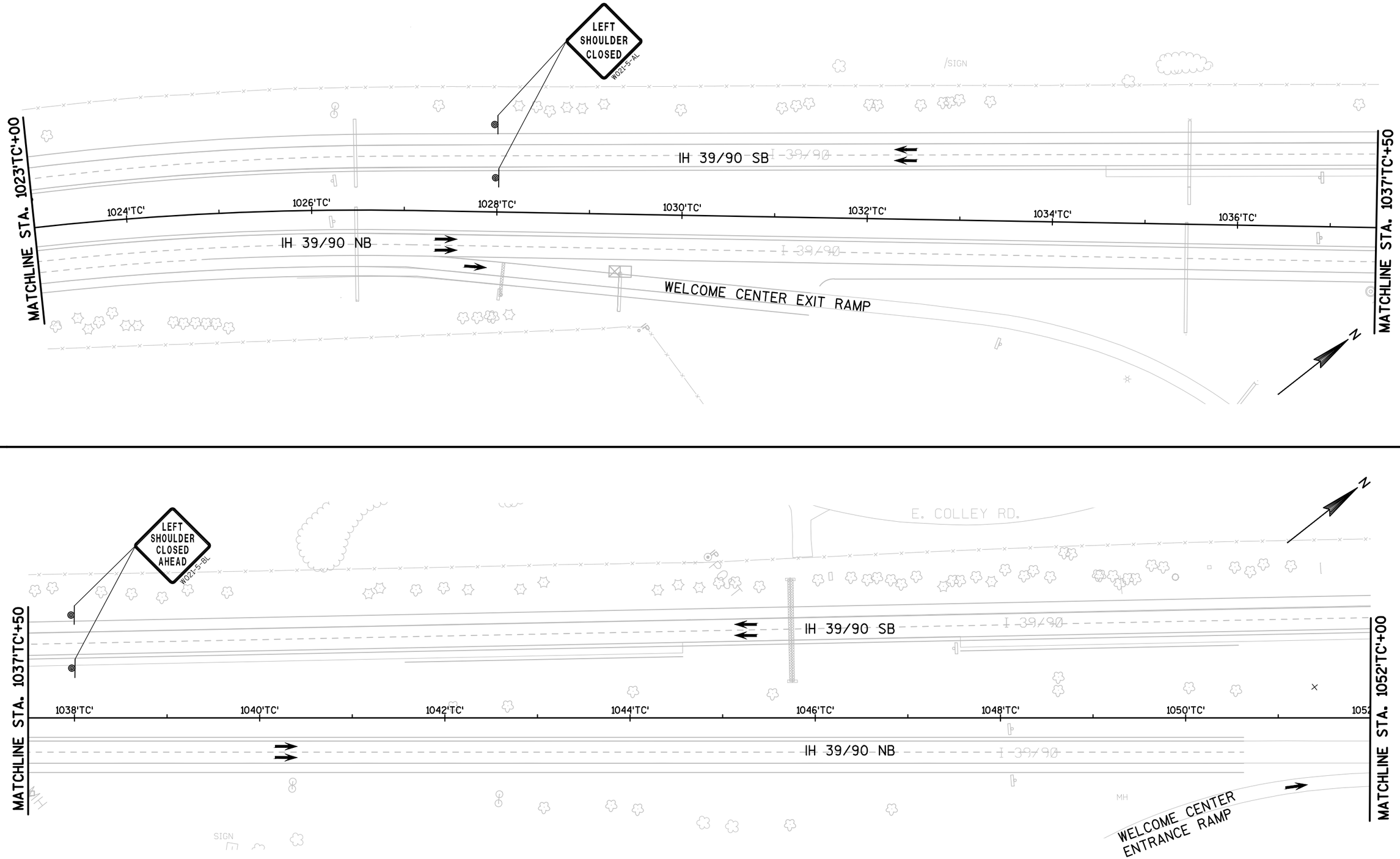
MATCHLINE STA. 1023'TC'+00

END ROAD WORK

G20-2A 48"X24"

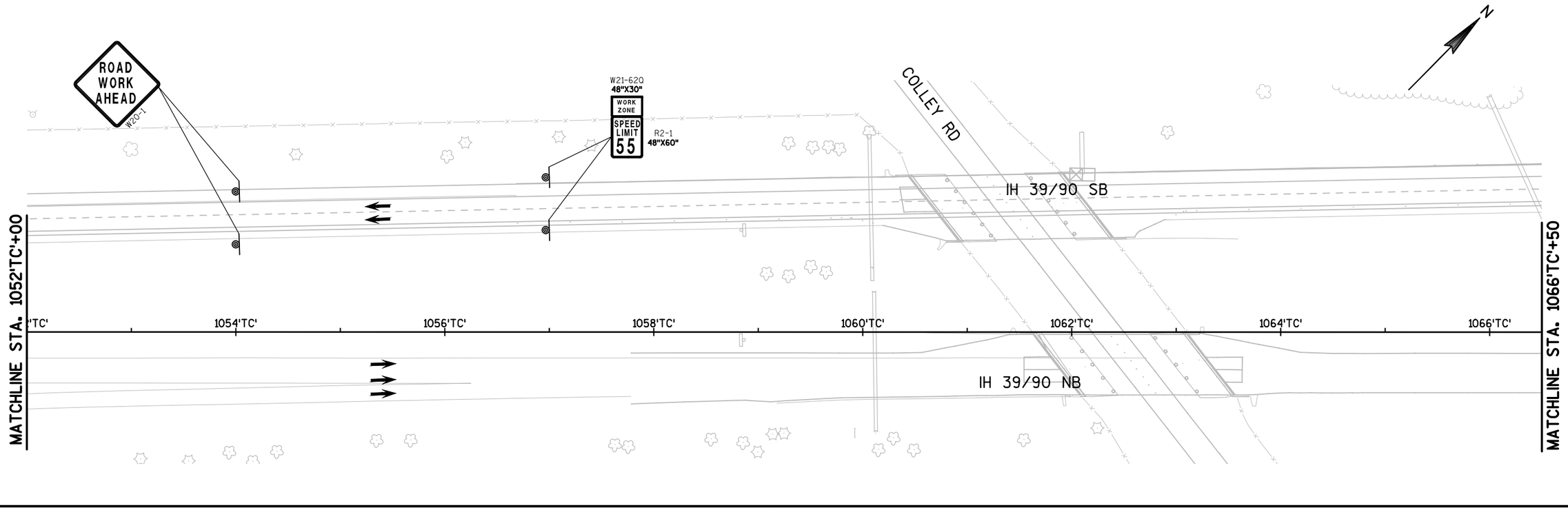
N

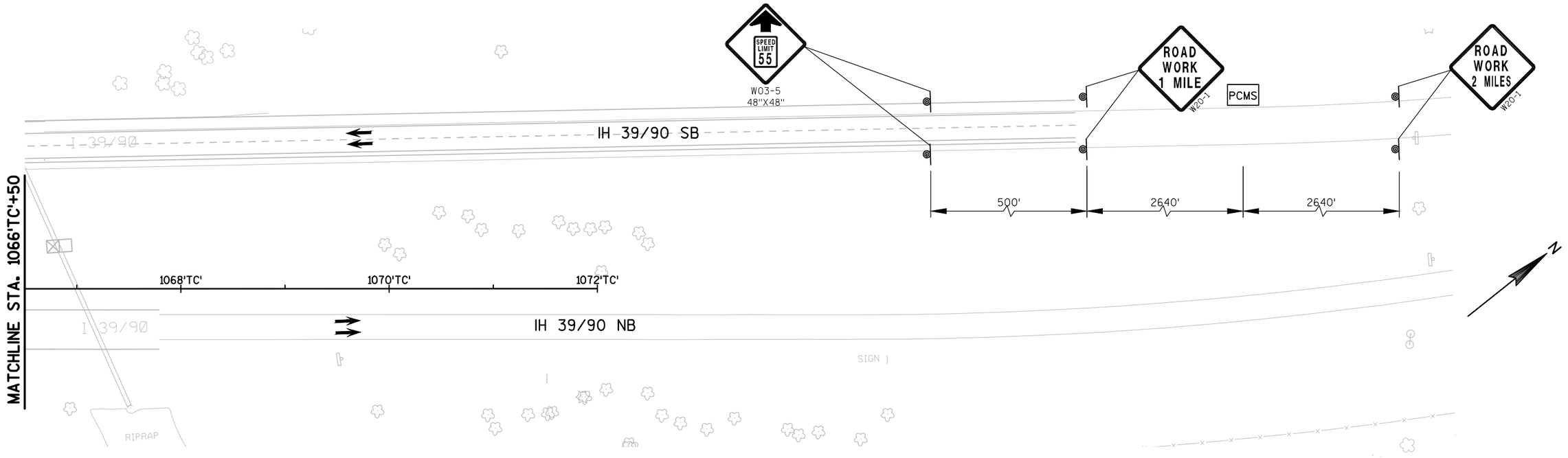
2



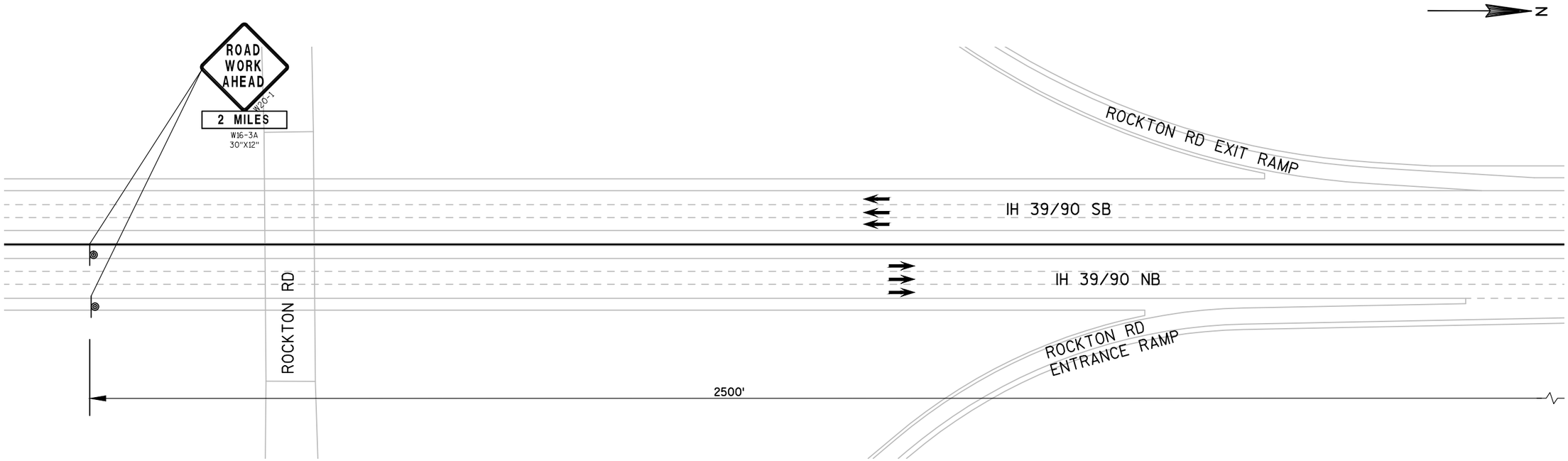
PROJECT NO: 1003-10-82	HWY: IH 39	COUNTY: ROCK	TRAFFIC CONTROL - IH 39 - DETAIL 2.0	SHEET	E

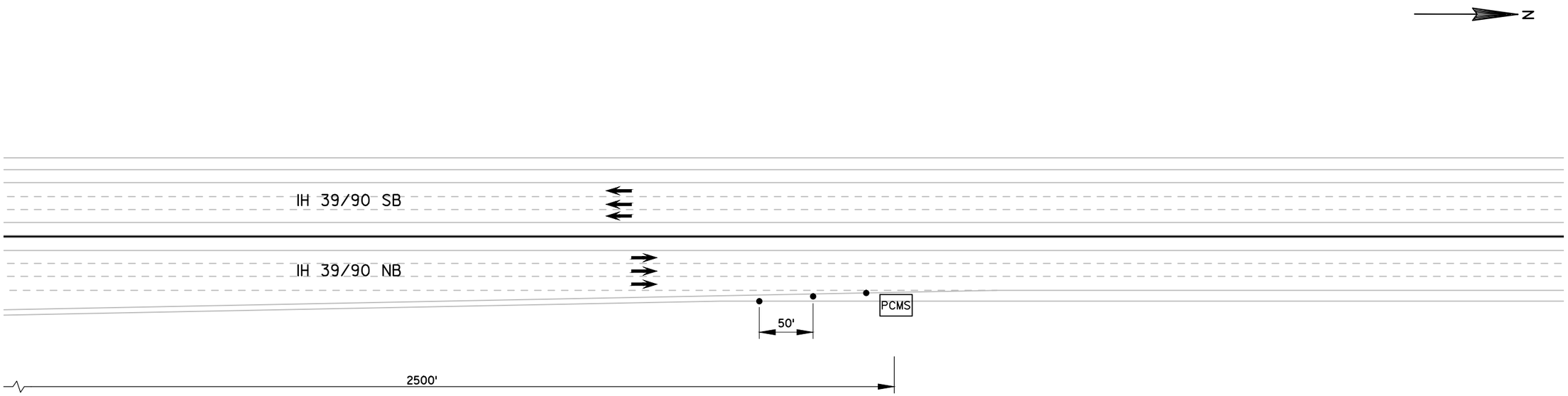
FILE NAME : L:\WORK\PROJECTS\60242867\000_CAD\001_DRAWINGS\1003-10-82_STATELINE RD\100% +\025003_TC.DWG PLOT DATE : 4/7/2016 5:49 PM PLOT BY : CZECH, ANDREW PLOT NAME : PLOT SCALE : 1" = 100'_XREF
WISDOT/CADDS SHEET 44





PROJECT NO: 1003-10-82	HWY: IH 39	COUNTY: ROCK	TRAFFIC CONTROL - IH 39 - DETAIL 2.0	SHEET 57	E





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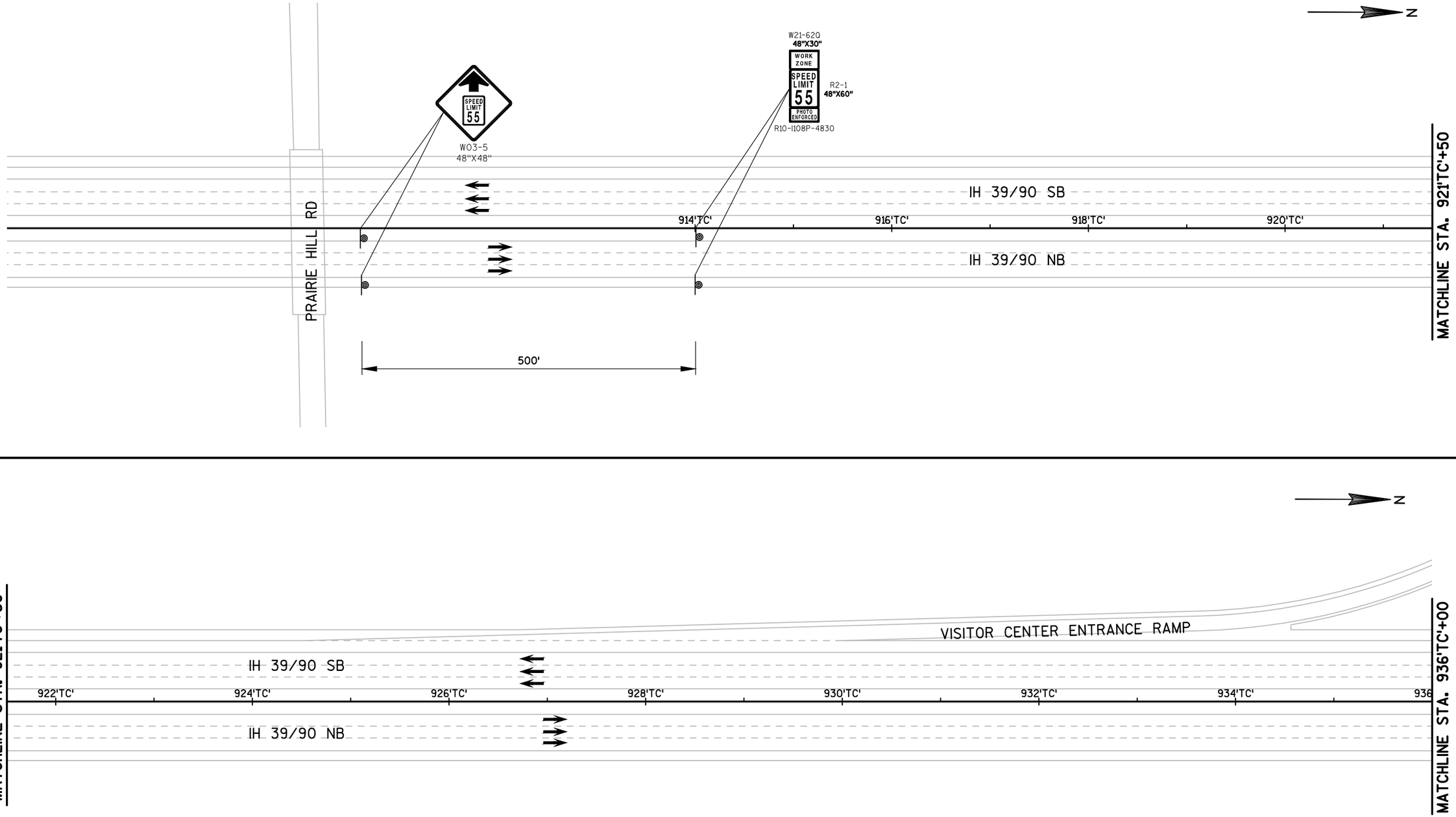
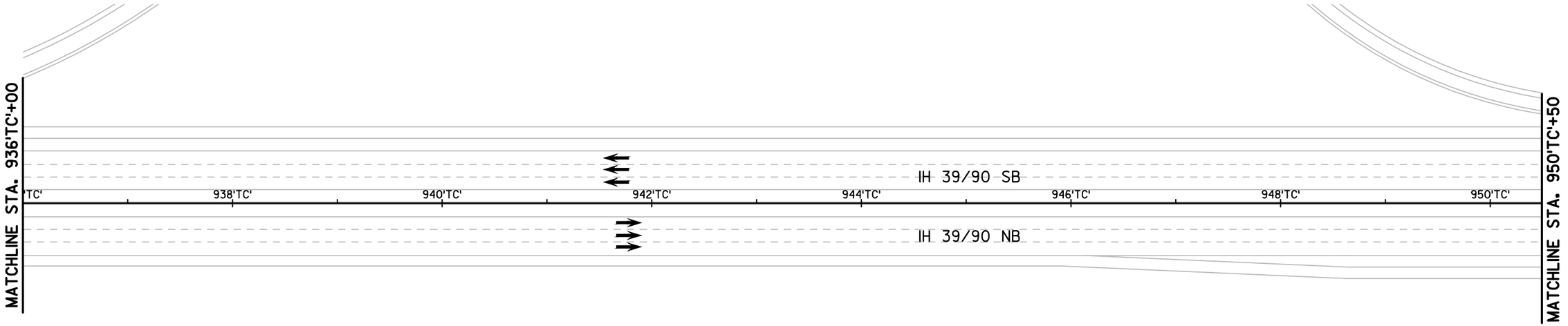
PROJECT NO: 1003-10-82	HWY: IH 39	COUNTY: ROCK	TRAFFIC CONTROL - IH 39 - DETAIL 2.1	SHEET	E

FILE NAME : L:\WORK\PROJECTS\60242867\000_CAD\001_DRAWINGS\1003-10-82_STATELINE RD\100% +\025003_TC.DWG PLOT DATE : 4/7/2016 5:49 PM PLOT BY : CZECH, ANDREW PLOT NAME : PLOT SCALE : 1" = 100'_XREF
WISDOT/CADDS SHEET 44



PROJECT NO: 1003-10-82	HWY: IH 39	COUNTY: ROCK	TRAFFIC CONTROL - IH 39 - DETAIL 2.1	SHEET	E

FILE NAME : L:\WORK\PROJECTS\60242867\000_CAD\001_DRAWINGS\1003-10-82_STATELINE RD\100% +\025003_TC.DWG PLOT DATE : 4/7/2016 5:50 PM PLOT BY : CZECH, ANDREW PLOT NAME : PLOT SCALE : 1" = 100'_XREF
WISDOT/CADDS SHEET 44



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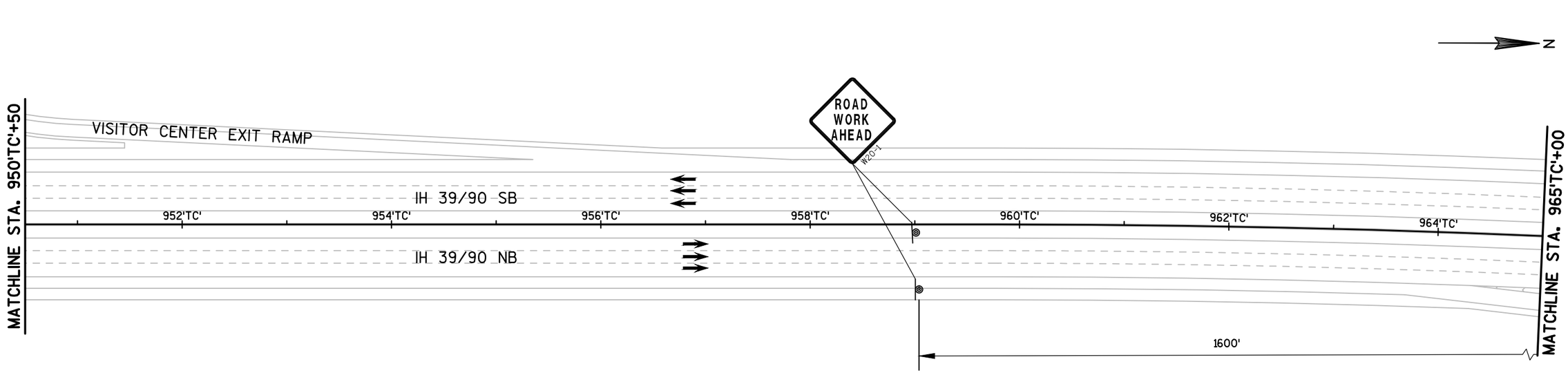
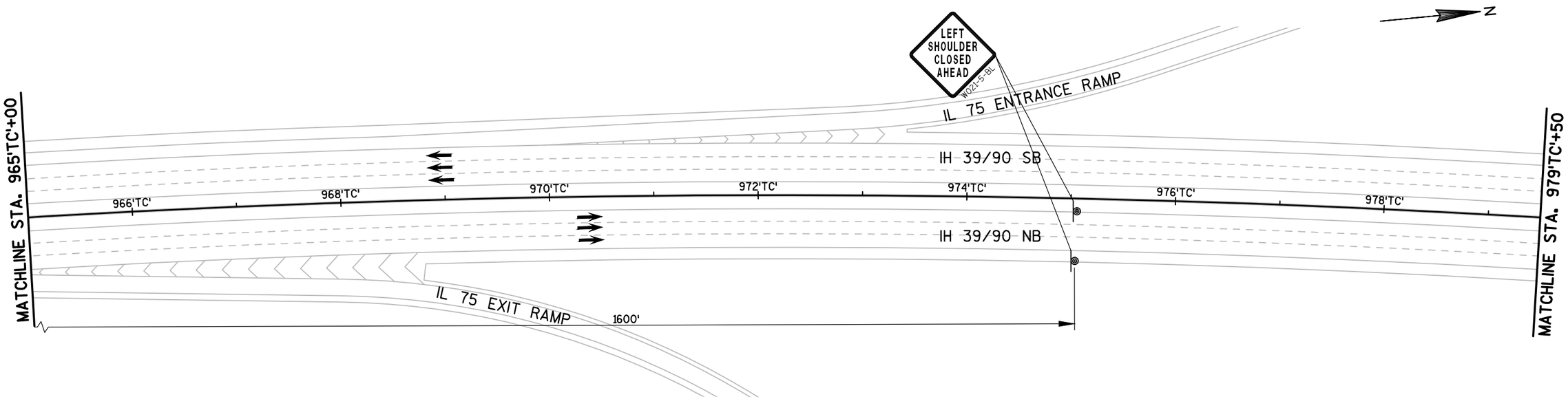
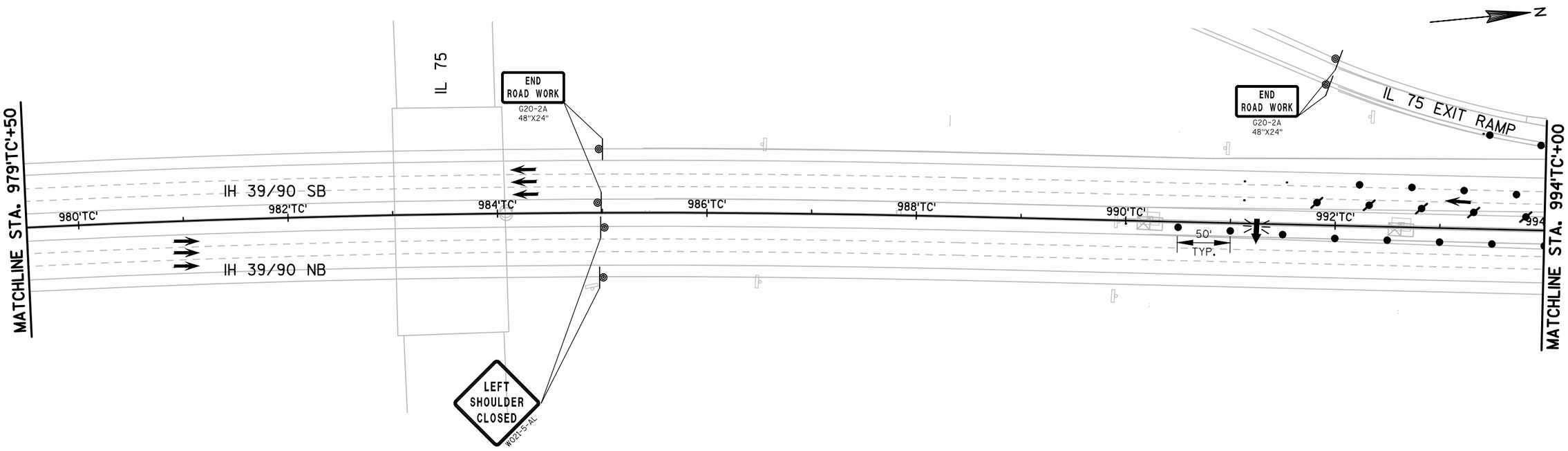


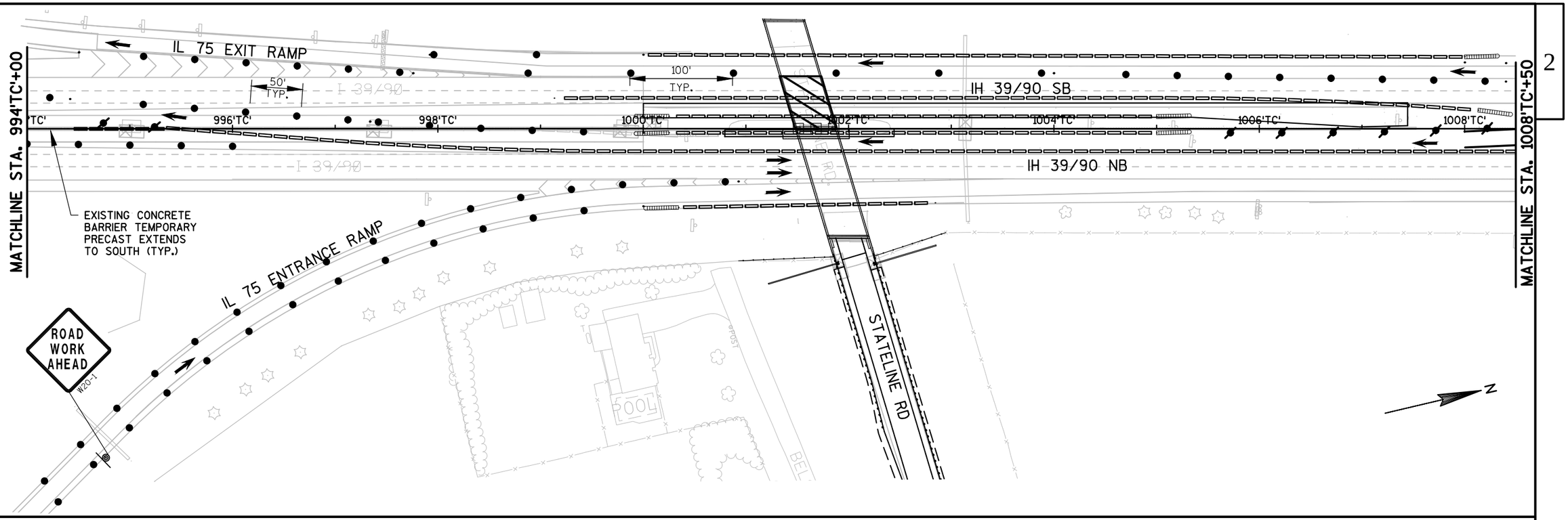
PROJECT NO: 1003-10-82	HWY: IH 39	COUNTY: ROCK	TRAFFIC CONTROL - IH 39 - DETAIL 2.1	SHEET 60	E

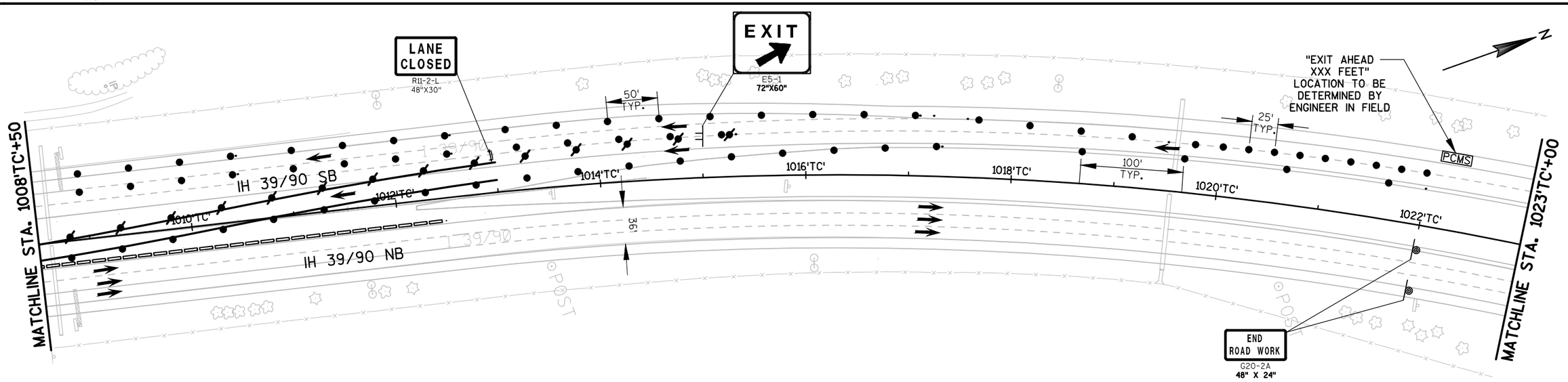




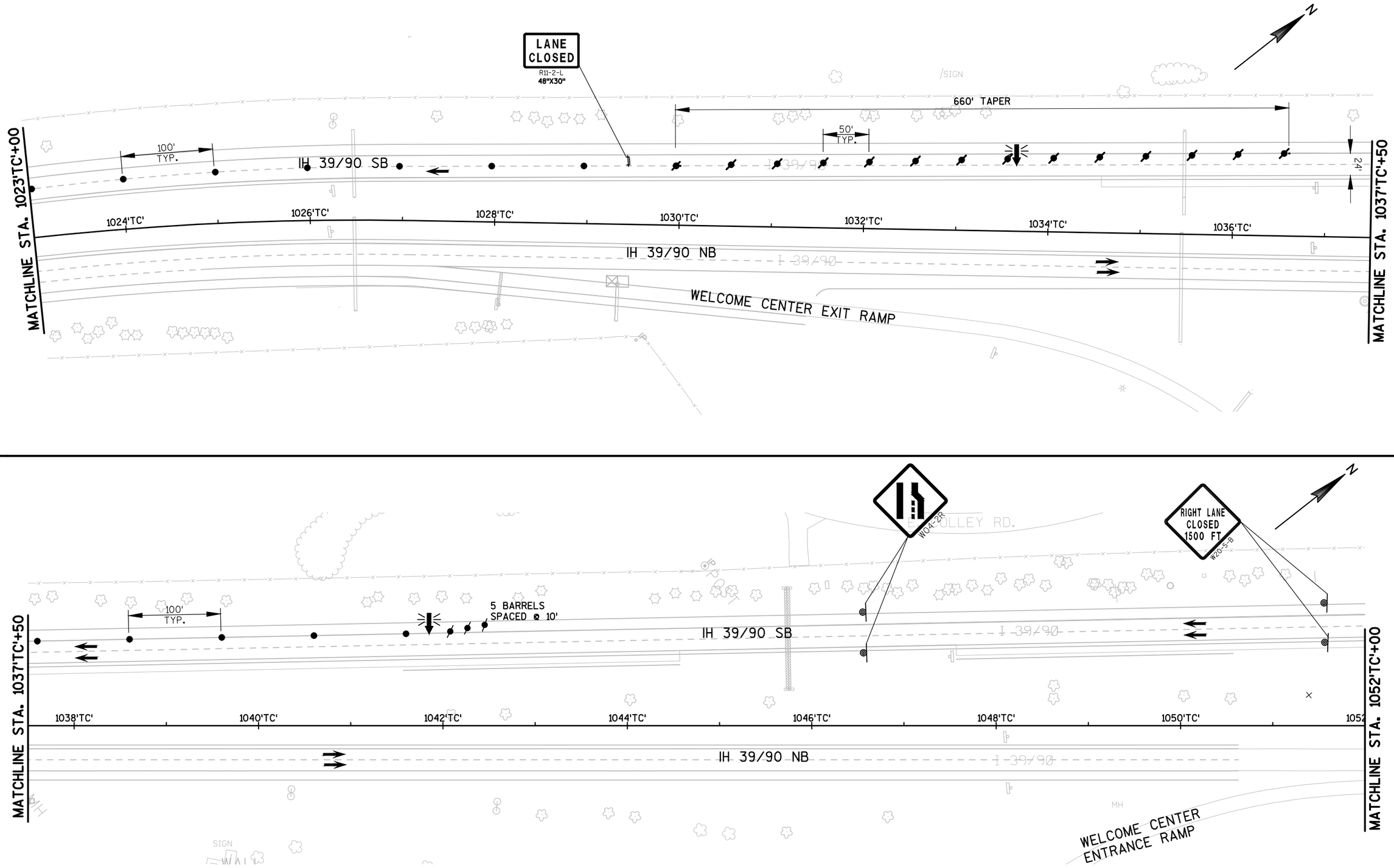
PROJECT NO: 1003-10-82	HWY: IH 39	COUNTY: ROCK	TRAFFIC CONTROL - IH 39 - DETAIL 2.1	SHEET	E

FILE NAME : L:\WORK\PROJECTS\60242867\000_CAD\001_DRAWINGS\1003-10-82_STATELINE RD\100% +\025003_TC.DWG PLOT DATE : 4/7/2016 5:50 PM PLOT BY : CZECH, ANDREW PLOT NAME : PLOT SCALE : 1" = 100'_XREF





PROJECT NO: 1003-10-82	HWY: IH 39	COUNTY: ROCK	TRAFFIC CONTROL - IH 39 - DETAIL 2.1	SHEET 62	E



PROJECT NO: 1003-10-82	HWY: IH 39	COUNTY: ROCK	TRAFFIC CONTROL - IH 39 - DETAIL 2.1	SHEET 63	E

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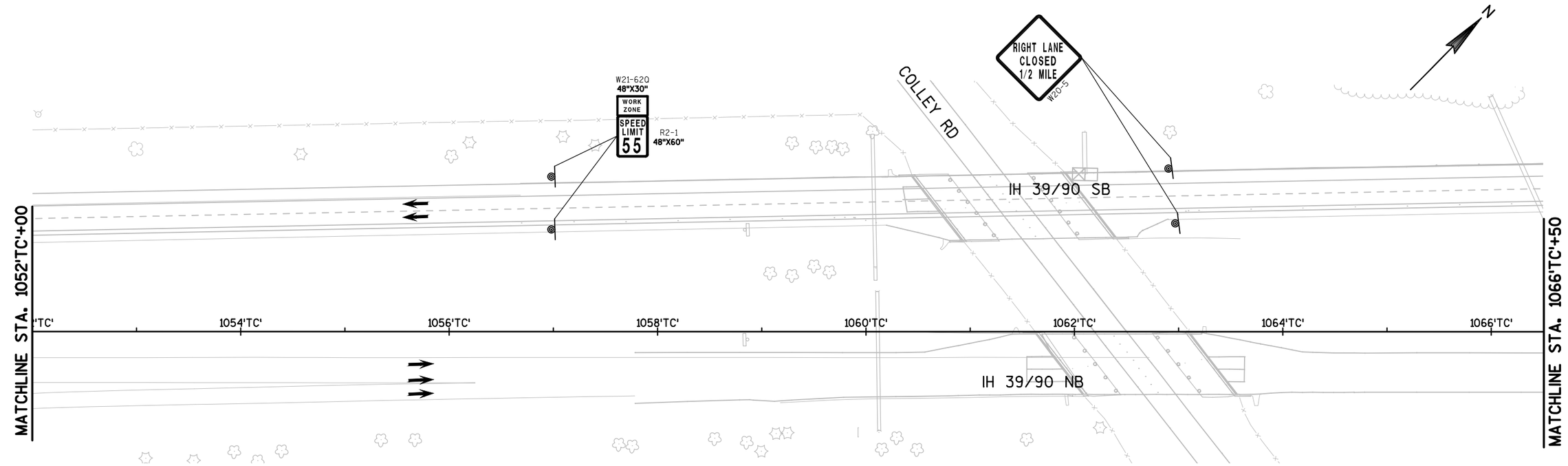
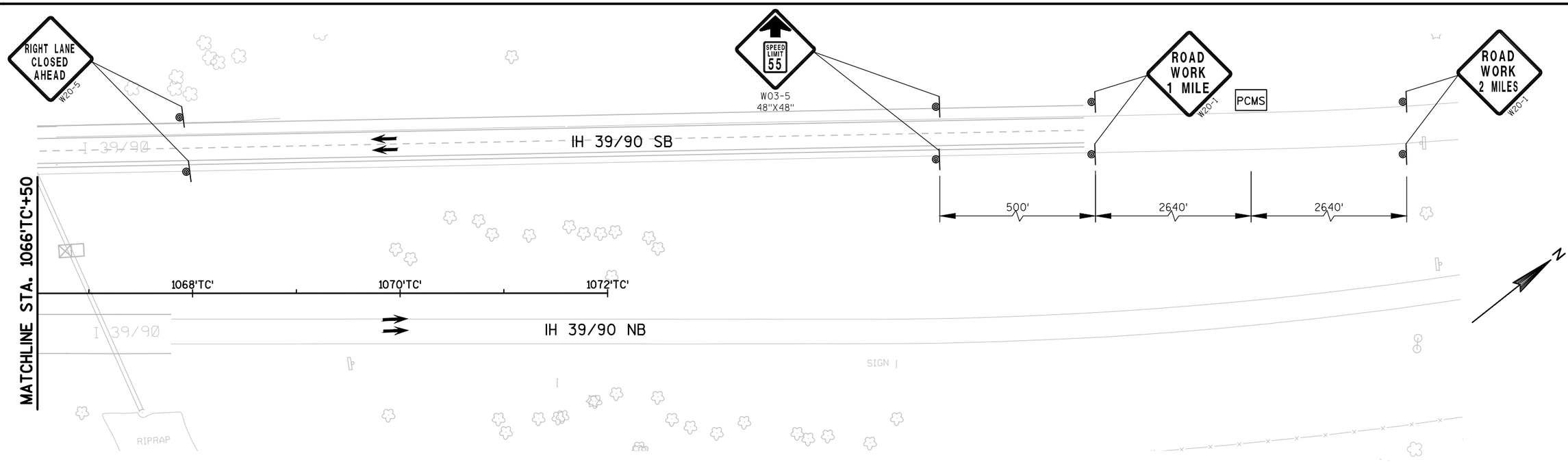
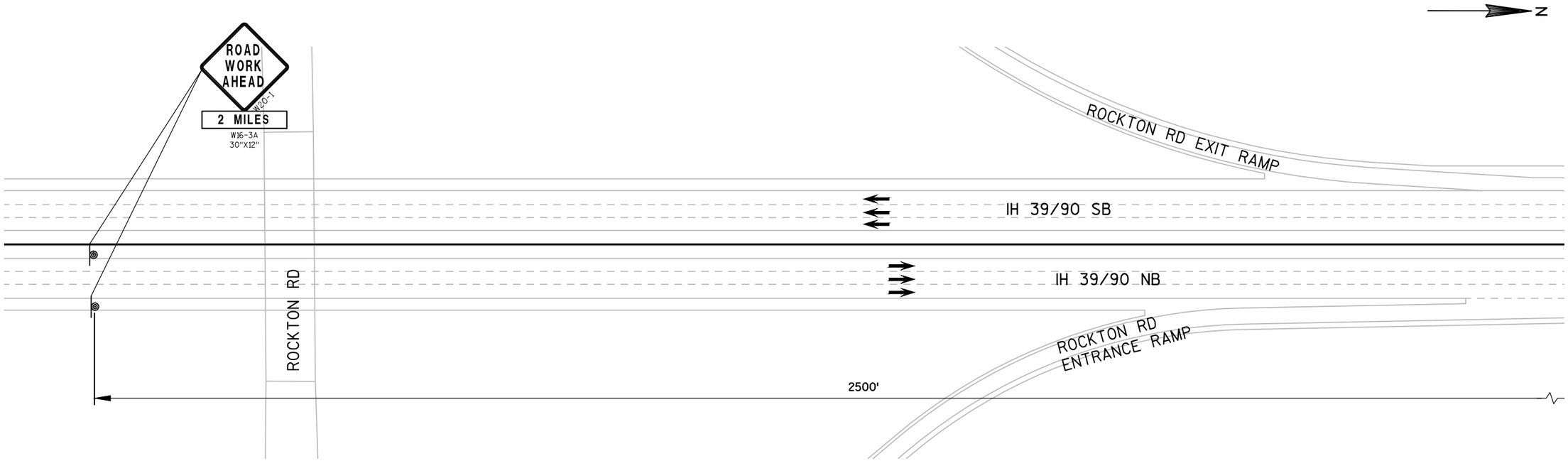
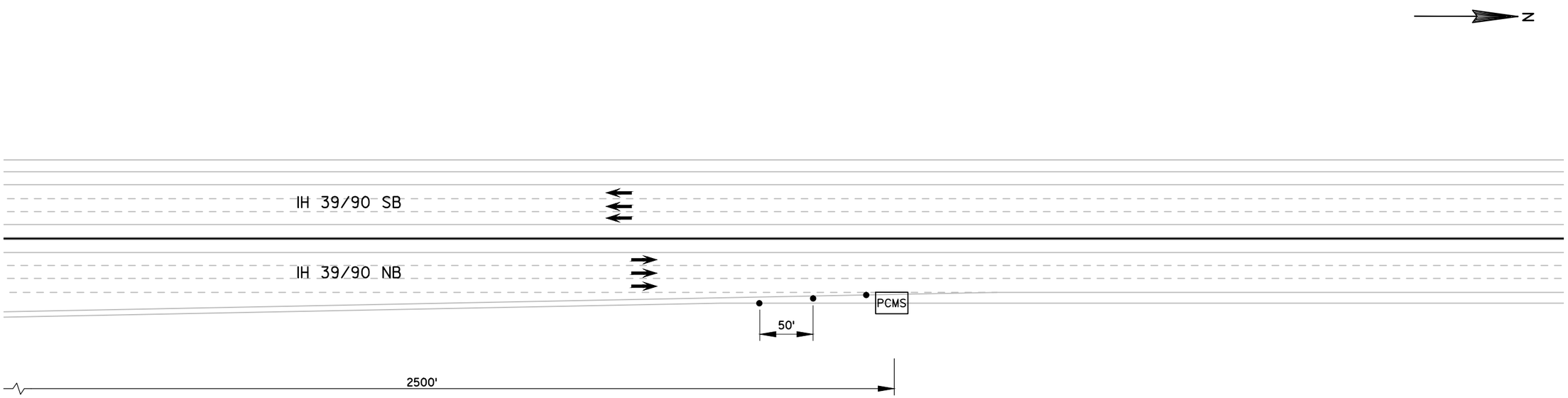




PROJECT NO: 1003-10-82	HWY: IH 39	COUNTY: ROCK	TRAFFIC CONTROL - IH 39 - DETAIL 2.1	SHEET 64	E





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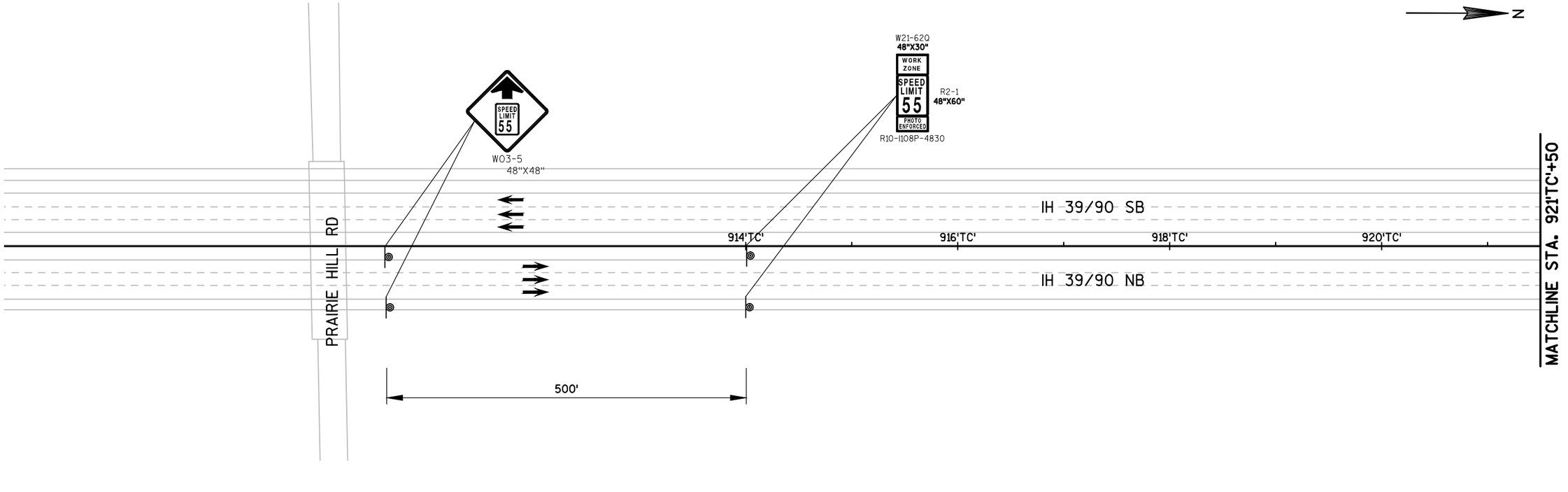
PROJECT NO: 1003-10-82	HWY: IH 39	COUNTY: ROCK	TRAFFIC CONTROL - IH 39 - DETAIL 2.2	SHEET	E

FILE NAME : L:\WORK\PROJECTS\60242867\000_CAD\001_DRAWINGS\1003-10-82_STATELINE RD\100% +\025003_TC.DWG PLOT DATE : 4/7/2016 5:51 PM PLOT BY : CZECH, ANDREW PLOT NAME : PLOT SCALE : 1" = 100'_XREF



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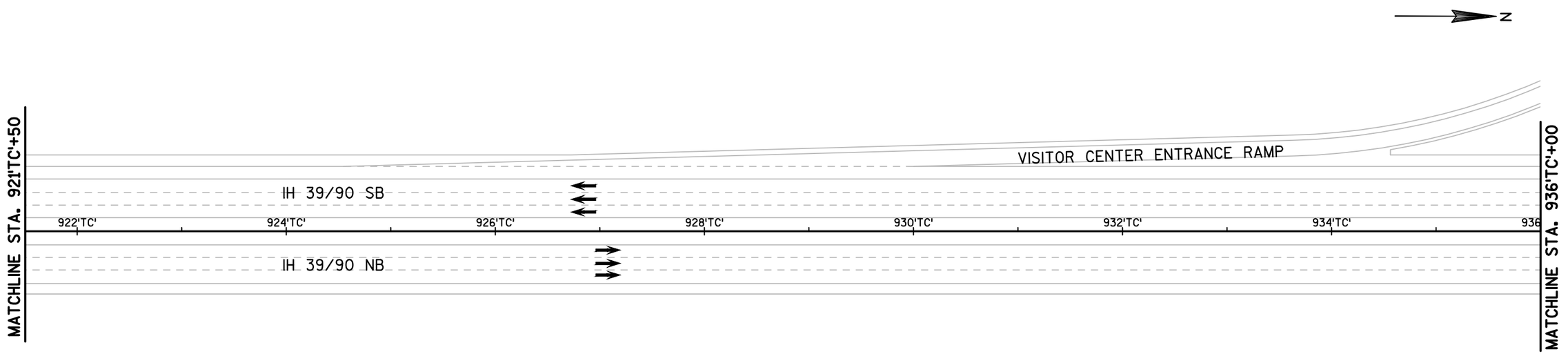

PROJECT NO: 1003-10-82	HWY: IH 39	COUNTY: ROCK	TRAFFIC CONTROL - IH 39 - DETAIL 2.2	SHEET	E

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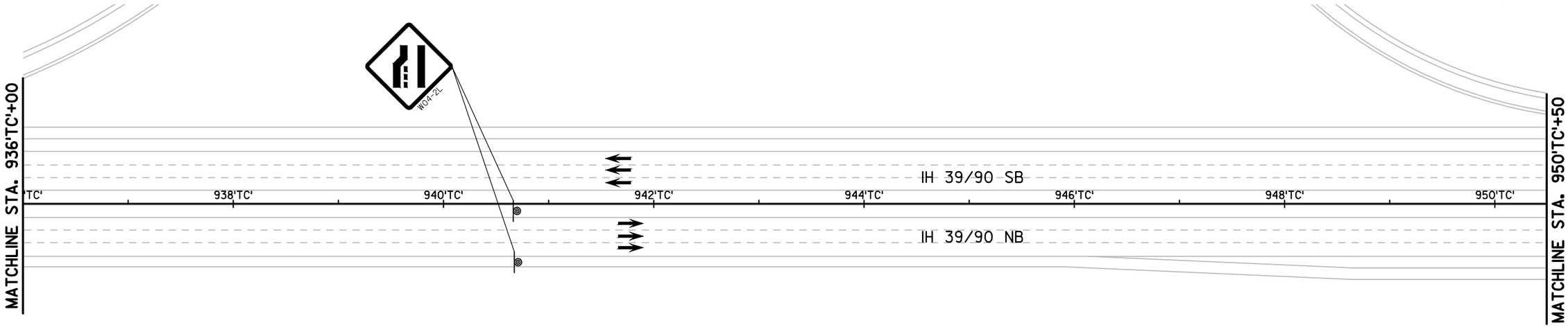
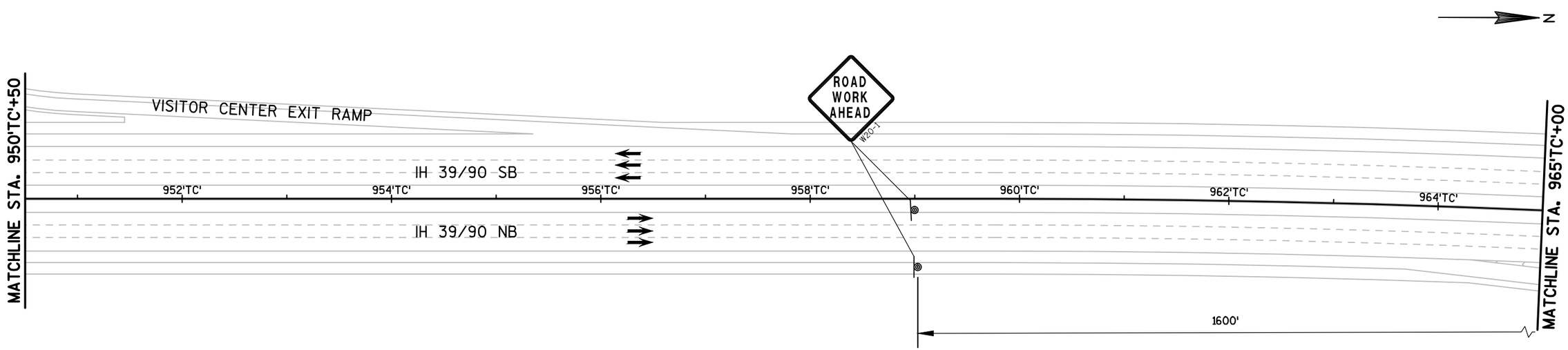
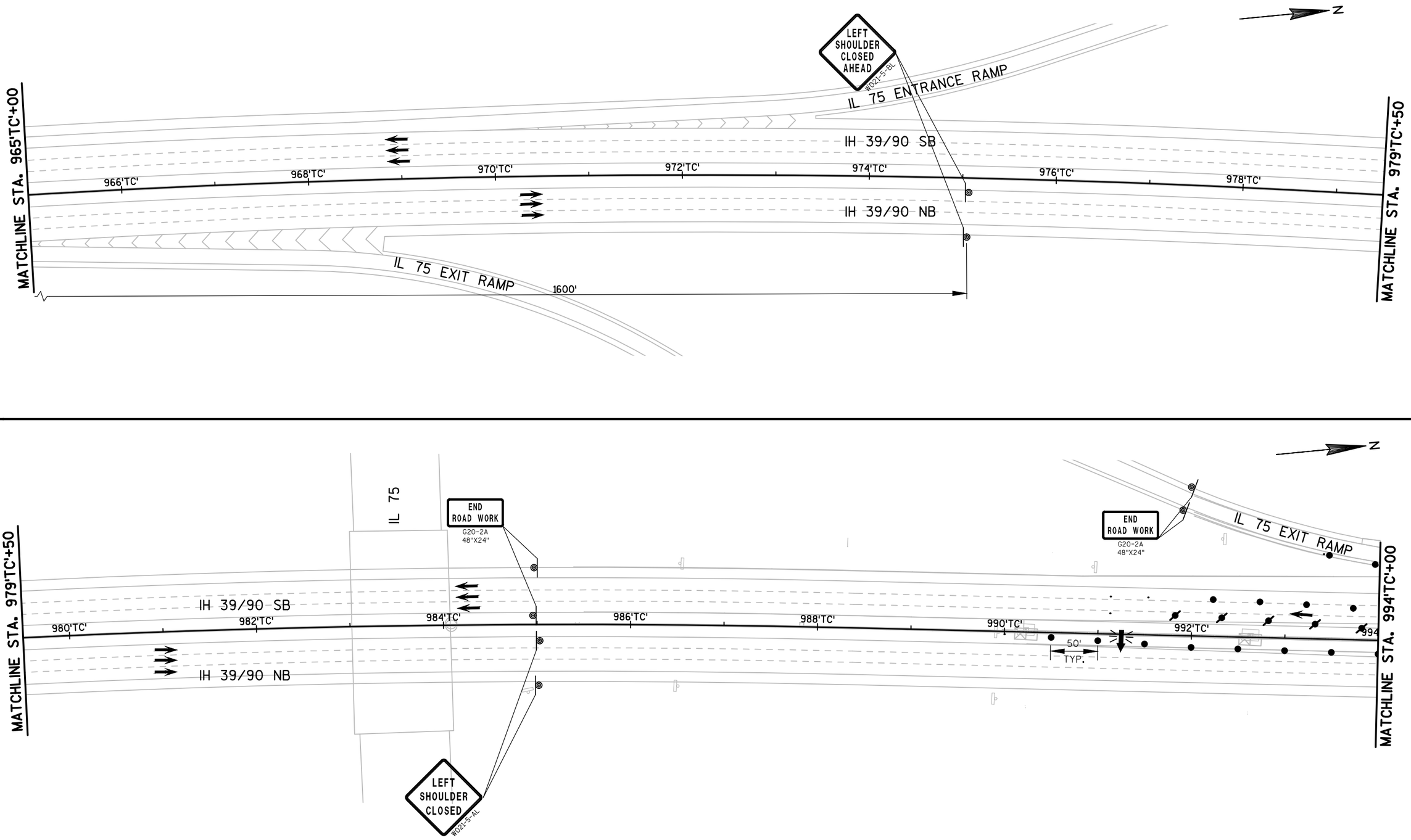
WISDOT/CADDS SHEET 44





PROJECT NO: 1003-10-82	HWY: IH 39	COUNTY: ROCK	TRAFFIC CONTROL - IH 39 - DETAIL 2.2	SHEET	E

FILE NAME : L:\WORK\PROJECTS\60242867\000_CAD\001_DRAWINGS\1003-10-82_STATELINE RD\100% +\025003_TC.DWG PLOT DATE : 4/7/2016 5:51 PM PLOT BY : CZECH, ANDREW PLOT NAME : PLOT SCALE : 1" = 100'_XREF
WISDOT/CADDS SHEET 44



PROJECT NO: 1003-10-82	HWY: IH 39	COUNTY: ROCK	TRAFFIC CONTROL - IH 39 - DETAIL 2.2	SHEET	E

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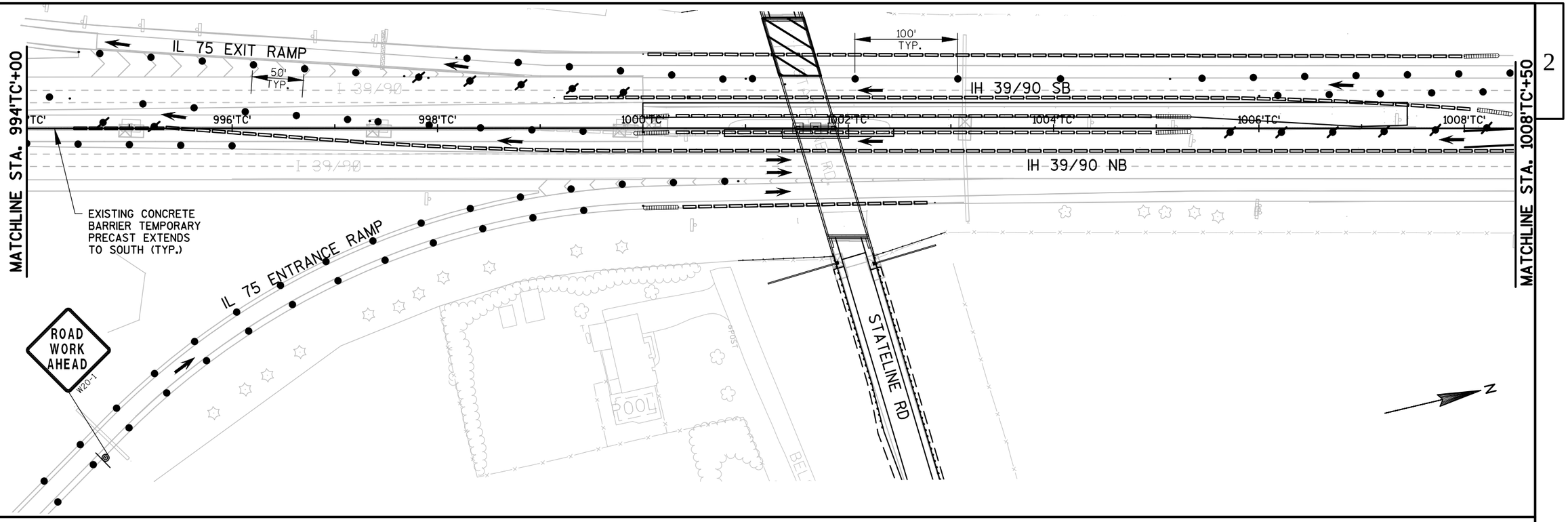
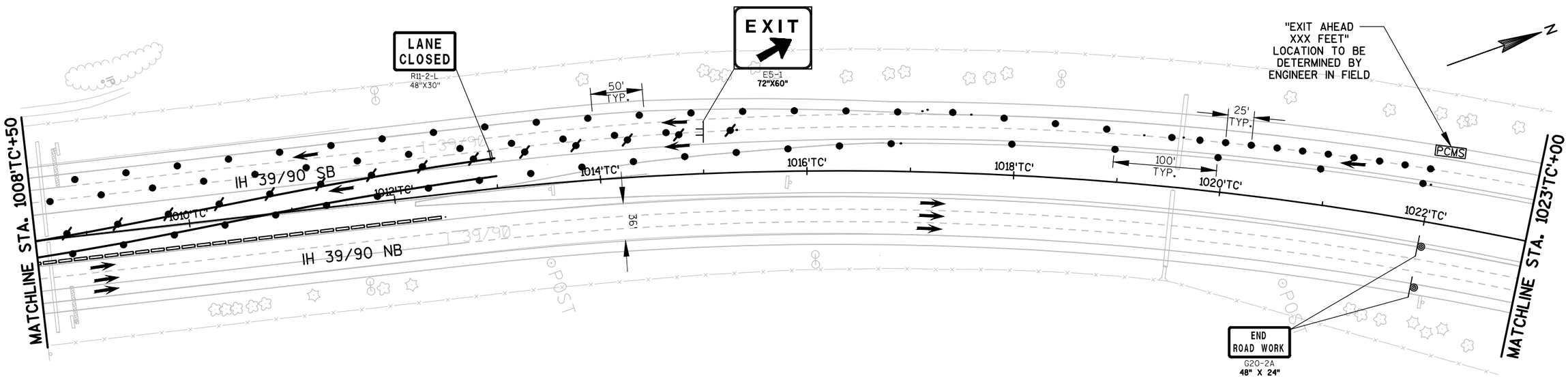
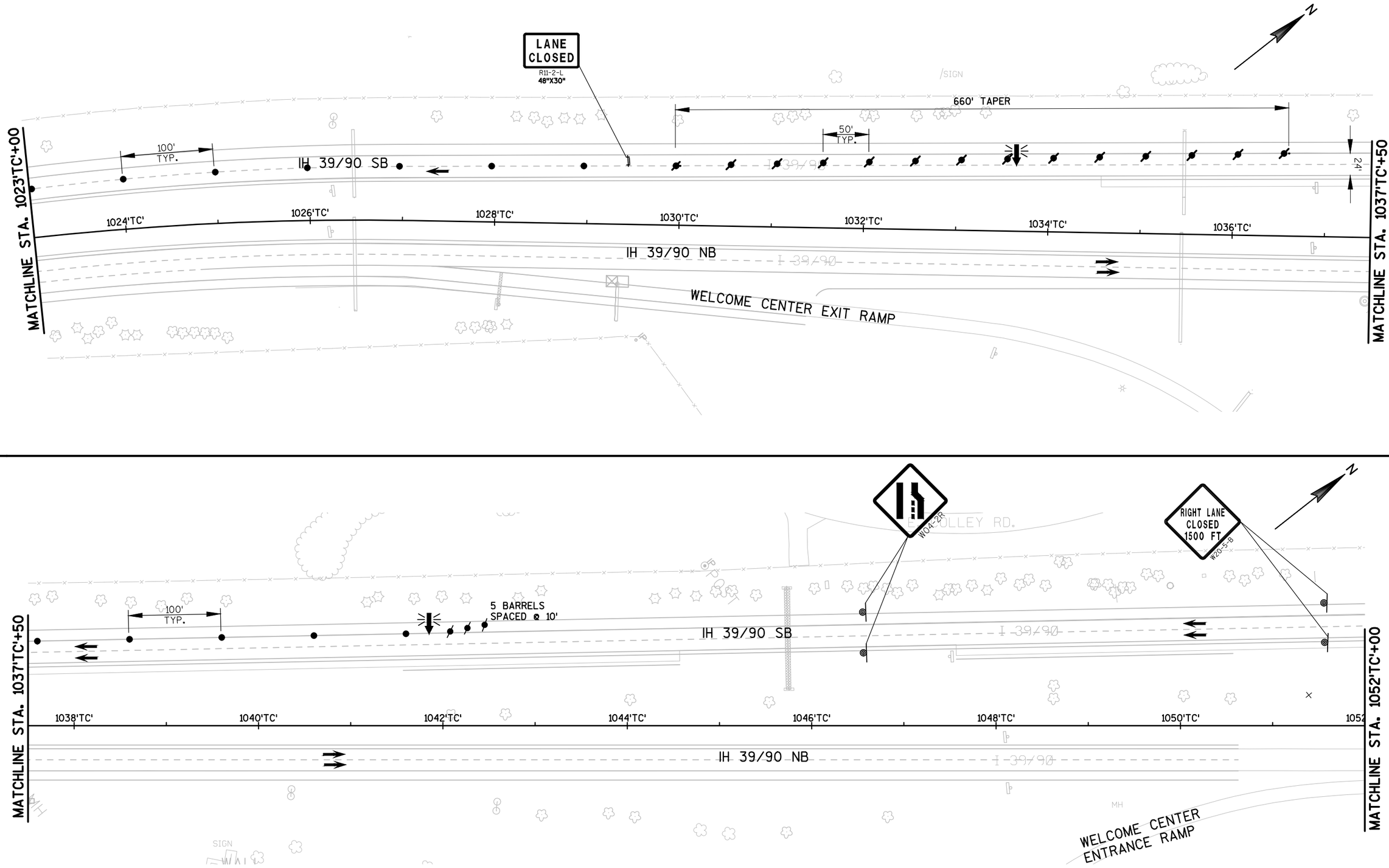
WISDOT/CADDS SHEET 44



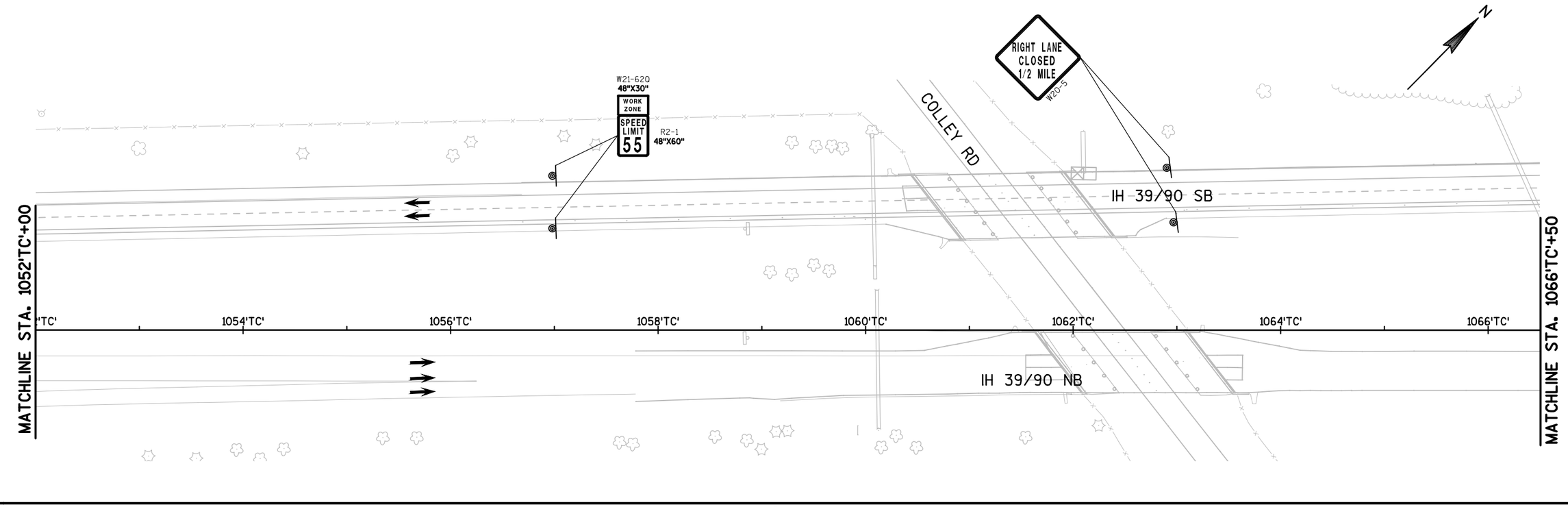


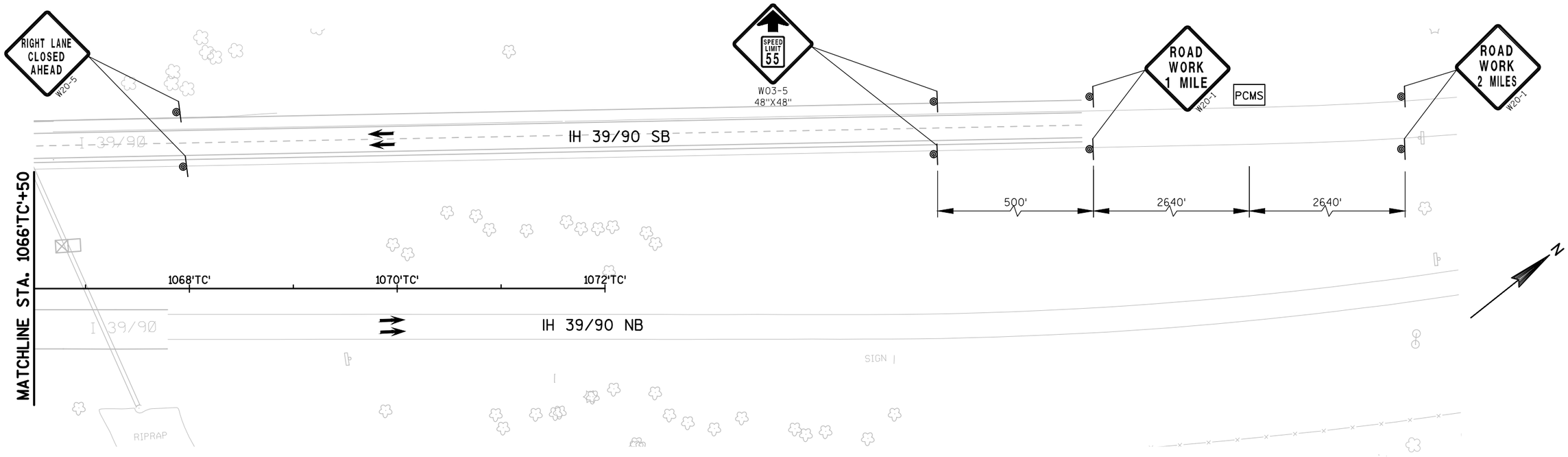
PROJECT NO: 1003-10-82	HWY: IH 39	COUNTY: ROCK	TRAFFIC CONTROL - IH 39 - DETAIL 2.2	SHEET 69	E



PROJECT NO: 1003-10-82	HWY: IH 39	COUNTY: ROCK	TRAFFIC CONTROL - IH 39 - DETAIL 2.2	SHEET	E

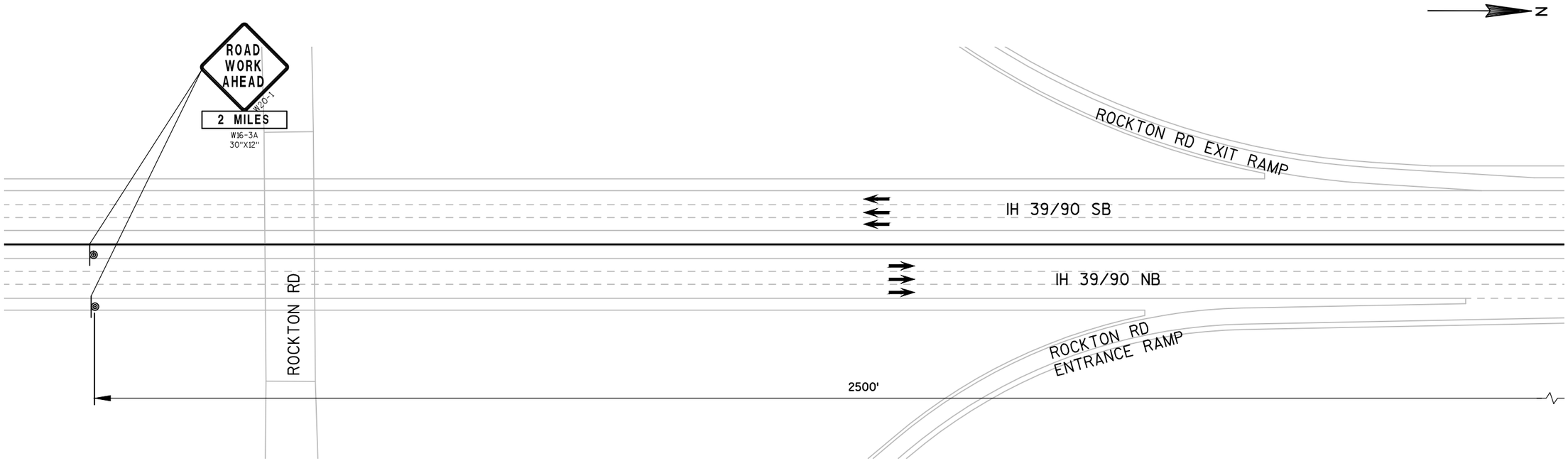
FILE NAME : L:\WORK\PROJECTS\60242867\000_CAD\001_DRAWINGS\1003-10-82_STATELINE RD\100% +\025003_TC.DWG PLOT DATE : 4/7/2016 5:52 PM PLOT BY : CZECH, ANDREW PLOT NAME : PLOT SCALE : 1" = 100'_XREF

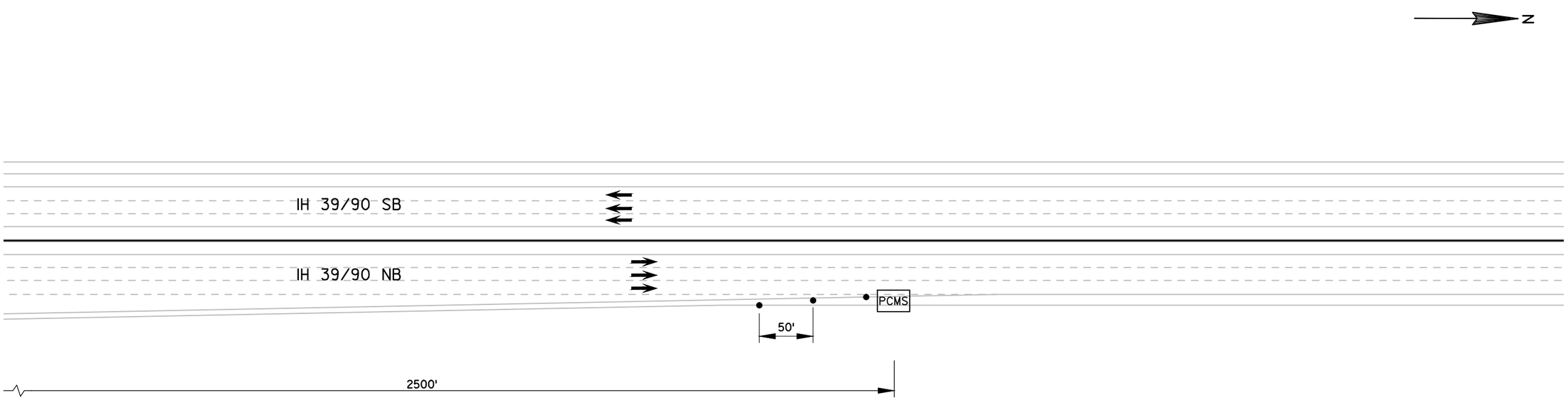




PROJECT NO: 1003-10-82	HWY: IH 39	COUNTY: ROCK	TRAFFIC CONTROL - IH 39 - DETAIL 2.2	SHEET	E

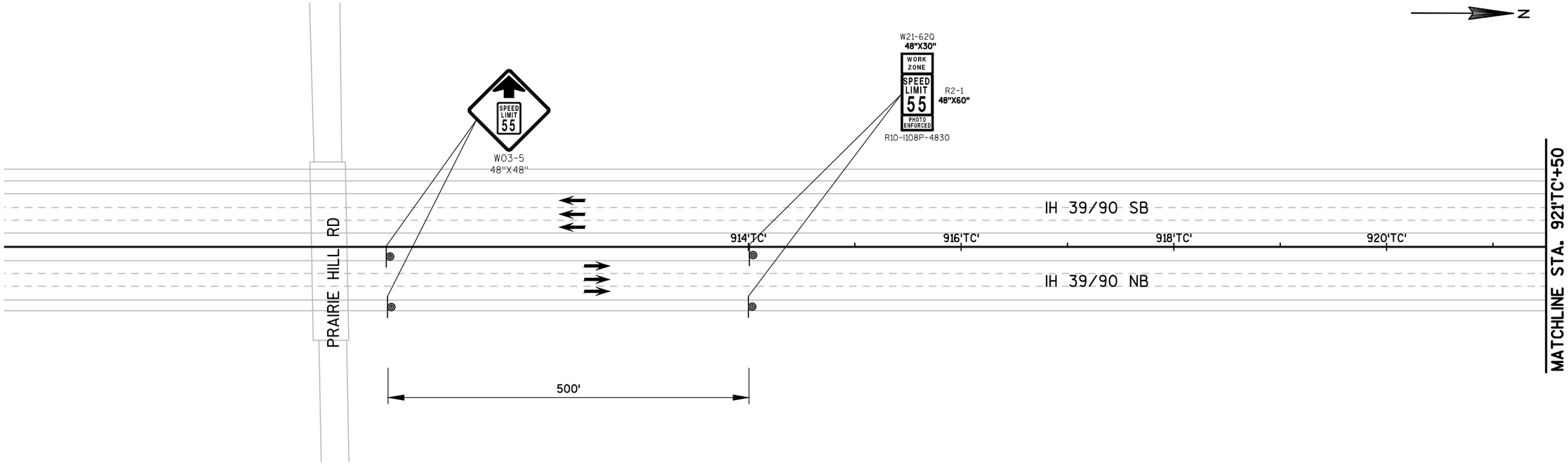
FILE NAME : L:\WORK\PROJECTS\60242867\000_CAD\001_DRAWINGS\1003-10-82_STATELINE RD\100% +\025003_TC.DWG PLOT DATE : 4/7/2016 5:53 PM PLOT BY : CZECH, ANDREW PLOT NAME : PLOT SCALE : 1" = 100'_XREF





PROJECT NO: 1003-10-82	HWY: IH 39	COUNTY: ROCK	TRAFFIC CONTROL - IH 39 - DETAIL 2.3	SHEET	E

FILE NAME : L:\WORK\PROJECTS\60242867\000_CAD\001_DRAWINGS\1003-10-82_STATELINE RD\100% +\025003_TC.DWG PLOT DATE : 4/7/2016 5:53 PM PLOT BY : CZECH, ANDREW PLOT NAME : PLOT SCALE : 1" = 100'_XREF



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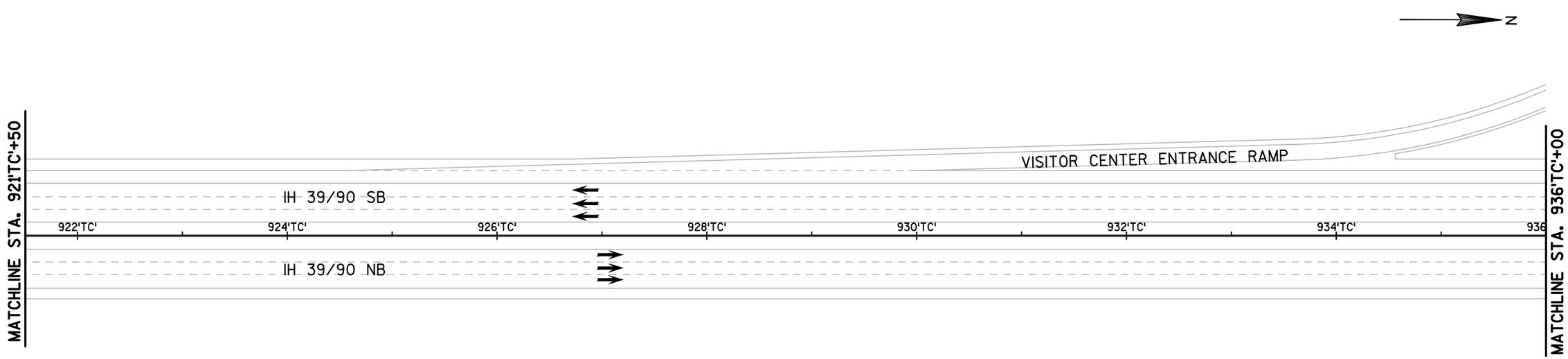
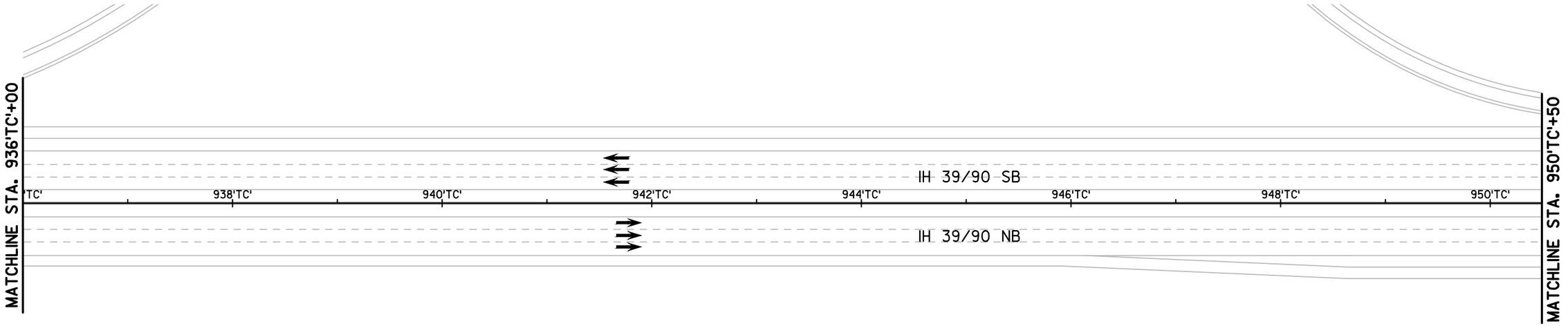


PROJECT NO: 1003-10-82	HWY: IH 39	COUNTY: ROCK	TRAFFIC CONTROL - IH 39 - DETAIL 2.3	SHEET	E

FILE NAME : L:\WORK\PROJECTS\60242867\000_CAD\001_DRAWINGS\1003-10-82_STATELINE RD\100% +\025003_TC.DWG PLOT DATE : 4/7/2016 5:53 PM PLOT BY : CZECH, ANDREW PLOT NAME : PLOT SCALE : 1" = 100'_XREF
WISDOT/CADDS SHEET 44



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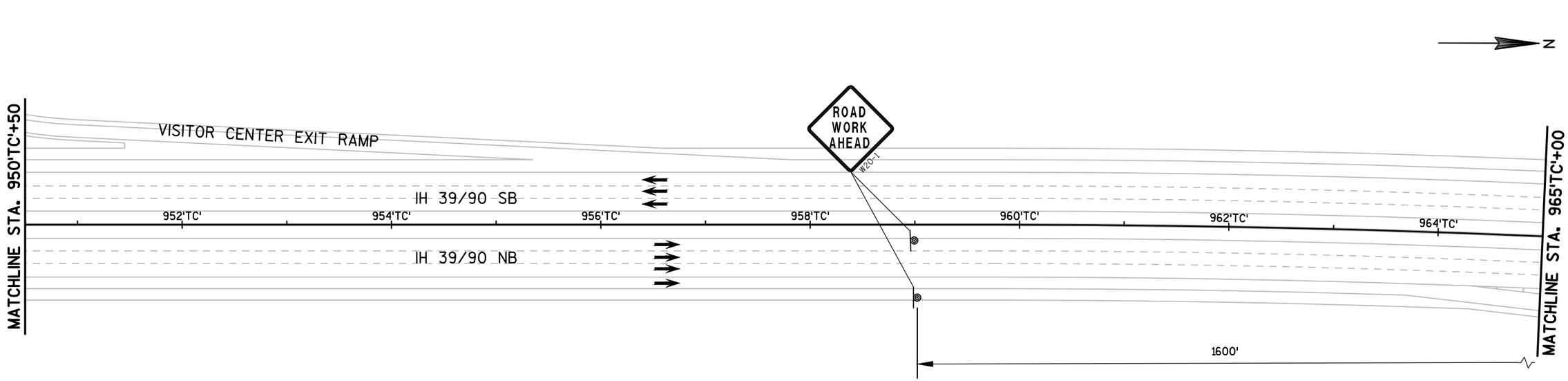
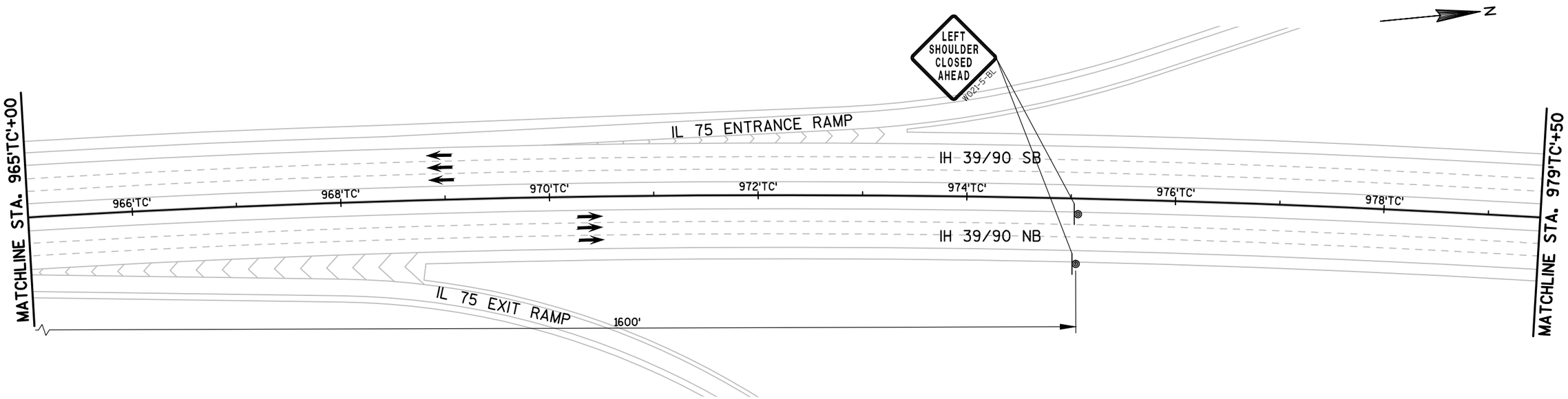
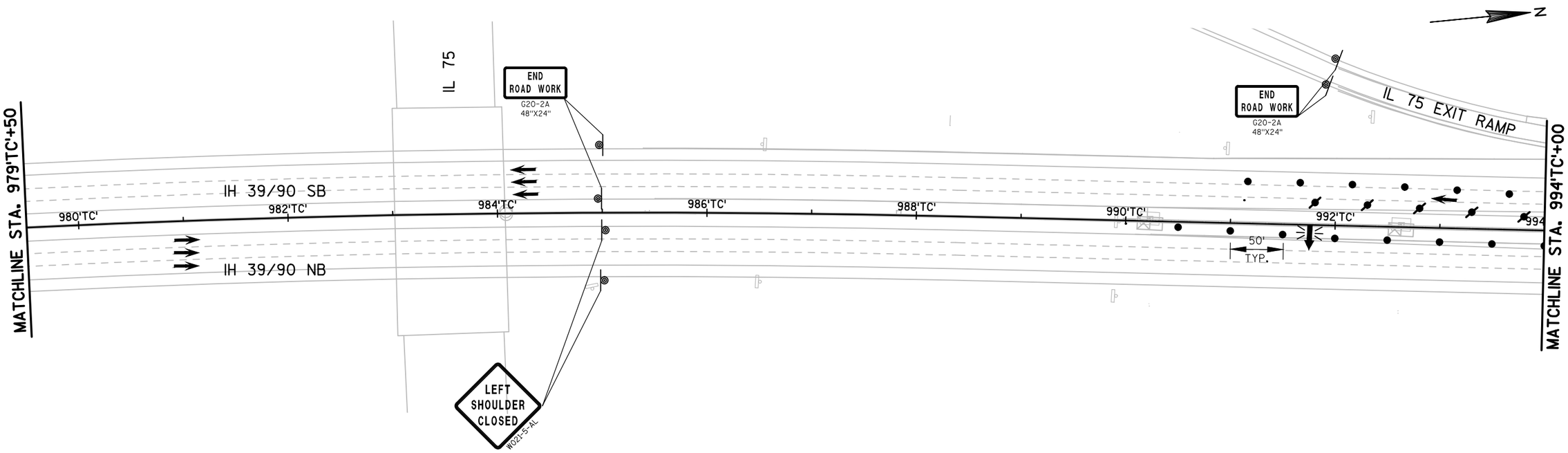


PROJECT NO: 1003-10-82	HWY: IH 39	COUNTY: ROCK	TRAFFIC CONTROL - IH 39 - DETAIL 2.3	SHEET 74	E

FILE NAME : L:\WORK\PROJECTS\60242867\000_CAD\001_DRAWINGS\1003-10-82_STATELINE RD\100% +\025003_TC.DWG PLOT DATE : 4/7/2016 5:53 PM PLOT BY : CZECH, ANDREW PLOT NAME : PLOT SCALE : 1" = 100'_XREF
WISDOT/CADDS SHEET 44





PROJECT NO: 1003-10-82	HWY: IH 39	COUNTY: ROCK	TRAFFIC CONTROL - IH 39 - DETAIL 2.3	SHEET 75	E

2

IL 75 EXIT RAMP

50' TYP.

IH 39/90 SB

IH 39/90 NB

MATCHLINE STA. 994'TC'+00

'TC'

996'TC'

998'TC'

1000'TC'

1002'TC'

1004'TC'

1006'TC'

1008'TC'

MATCHLINE STA. 1008'TC'+50

EXISTING CONCRETE BARRIER TEMPORARY PRECAST EXTENDS TO SOUTH (TYP.)

IL 75 ENTRANCE RAMP

ROAD WORK AHEAD

W20-1

STATELINE RD

5001

N

LANE CLOSED

R11-2-L

48"X30"

50' TYP.

100' TYP.

1010'TC'

1012'TC'

1014'TC'

1016'TC'

1018'TC'

1020'TC'

1022'TC'

36'

MATCHLINE STA. 1008'TC'+50

MATCHLINE STA. 1023'TC'+00

END ROAD WORK

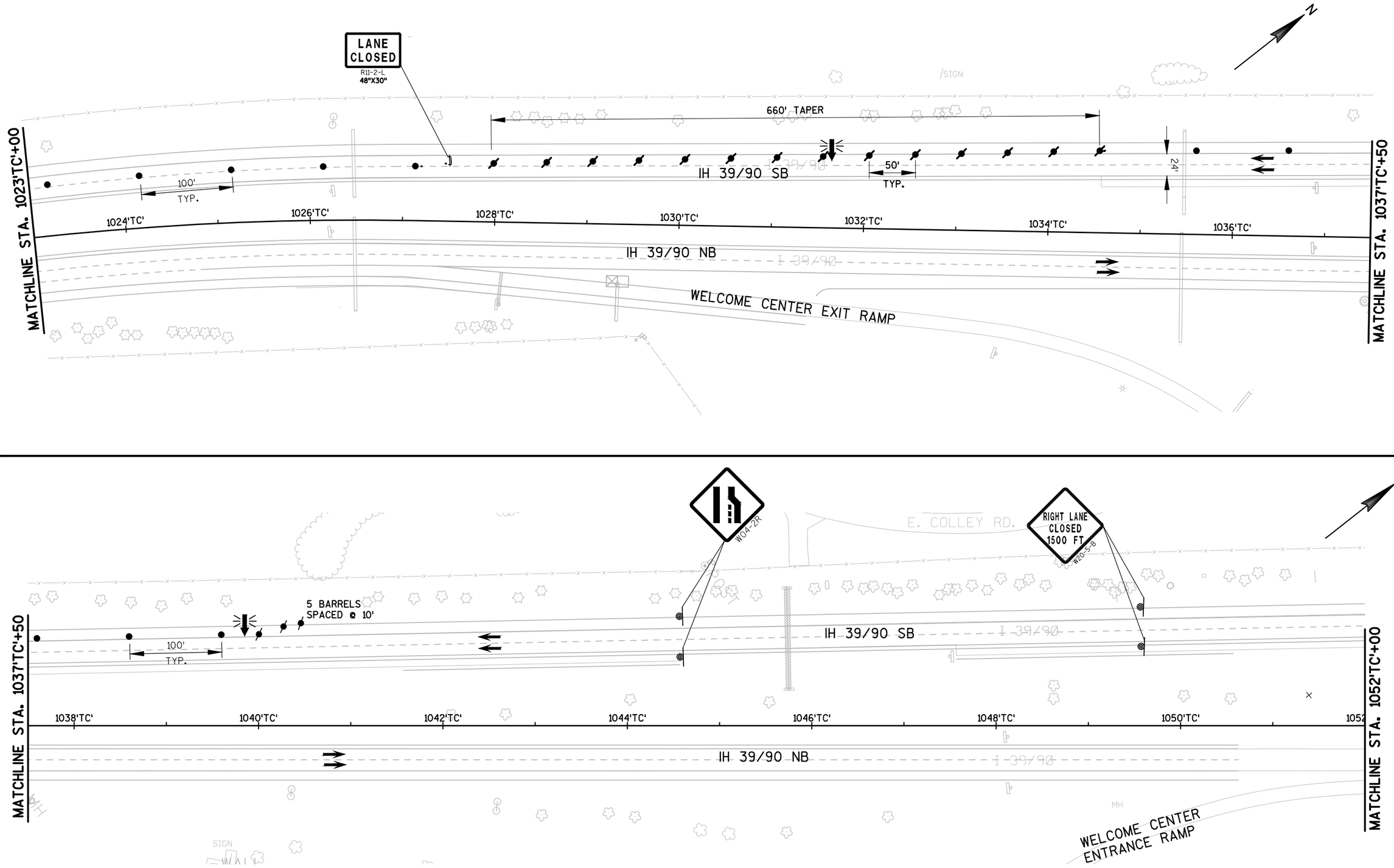
G20-2A

48" X 24"

PROJECT NO: 1003-10-82	HWY: IH 39	COUNTY: ROCK	TRAFFIC CONTROL - IH 39 - DETAIL 2.3	SHEET	E

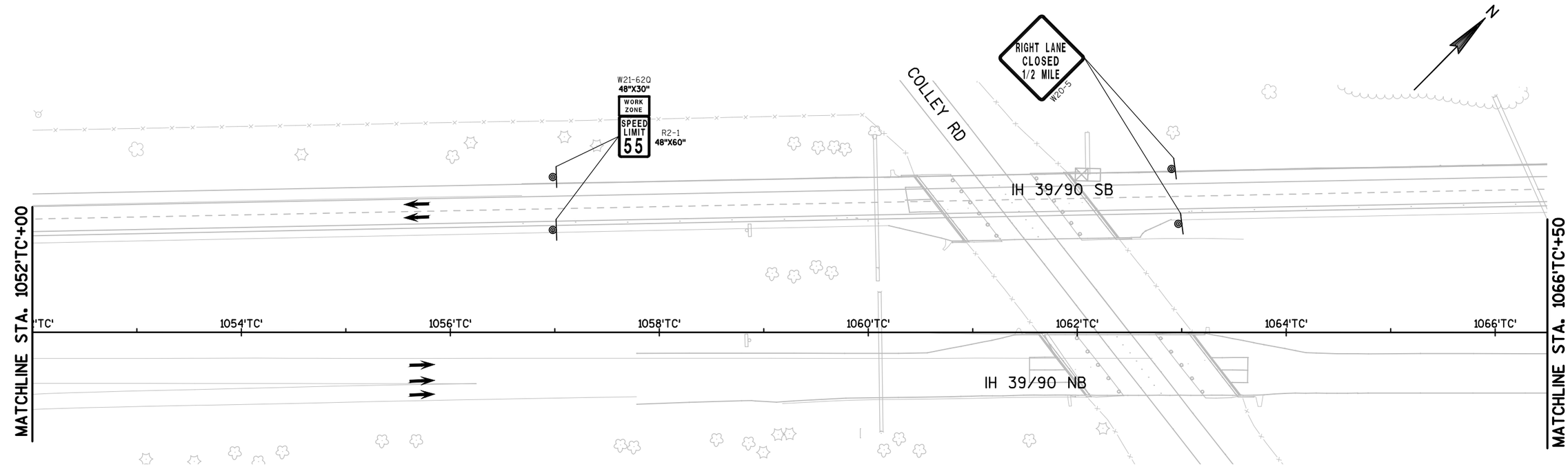
FILE NAME : L:\WORK\PROJECTS\60242867\000_CAD\001_DRAWINGS\1003-10-82_STATELINE RD\100% +\025003_TC.DWG PLOT DATE : 4/7/2016 5:54 PM PLOT BY : CZECH, ANDREW PLOT NAME : PLOT SCALE : 1" = 100'_XREF

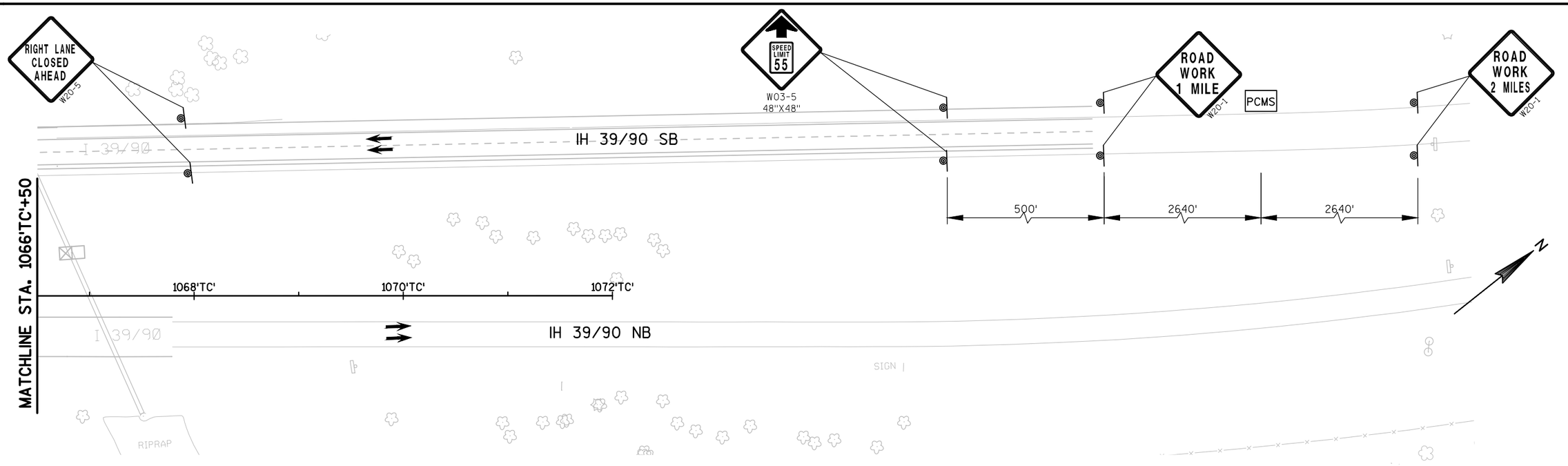
WISDOT/CADDS SHEET 44



PROJECT NO: 1003-10-82	HWY: IH 39	COUNTY: ROCK	TRAFFIC CONTROL - IH 39 - DETAIL 2.3	SHEET 77	E

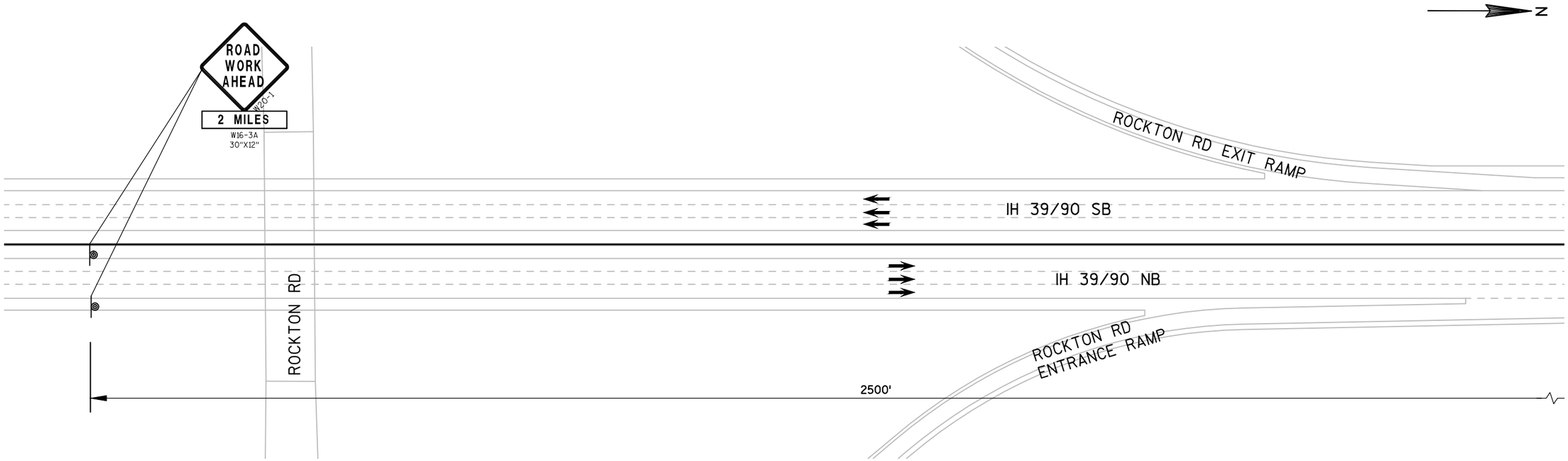
2

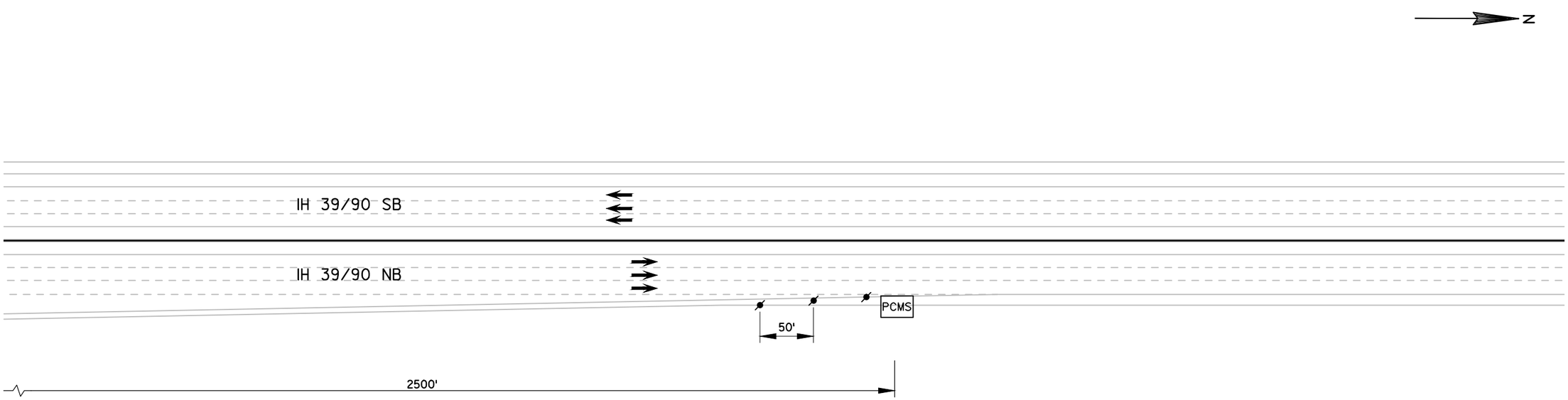




PROJECT NO: 1003-10-82	HWY: IH 39	COUNTY: ROCK	TRAFFIC CONTROL - IH 39 - DETAIL 2.3	SHEET 78	E

2





PROJECT NO: 1003-10-82	HWY: IH 39	COUNTY: ROCK	TRAFFIC CONTROL - IH 39 - DETAIL 3.0	SHEET	E

FILE NAME : L:\WORK\PROJECTS\60242867\000_CAD\001_DRAWINGS\1003-10-82_STATELINE RD\100% +\025003_TC.DWG PLOT DATE : 4/7/2016 5:54 PM PLOT BY : CZECH, ANDREW PLOT NAME : PLOT SCALE : 1" = 100'_XREF
WISDOT/CADDS SHEET 44

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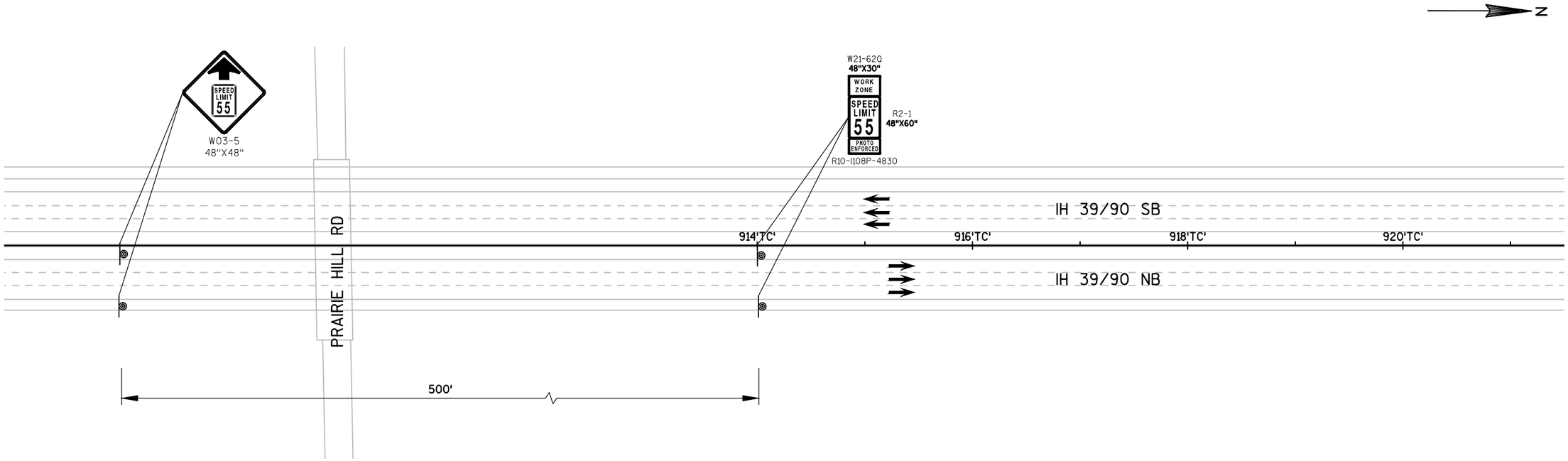
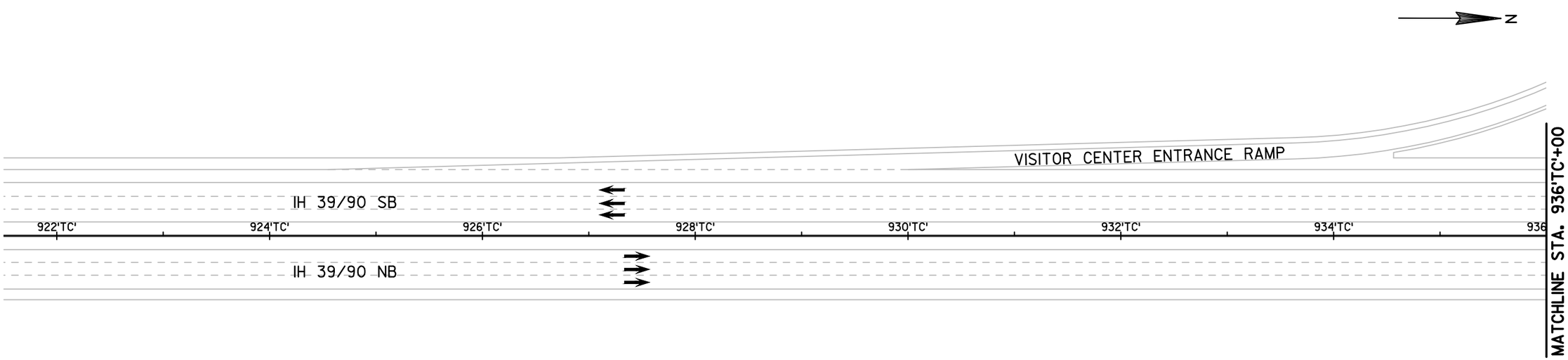
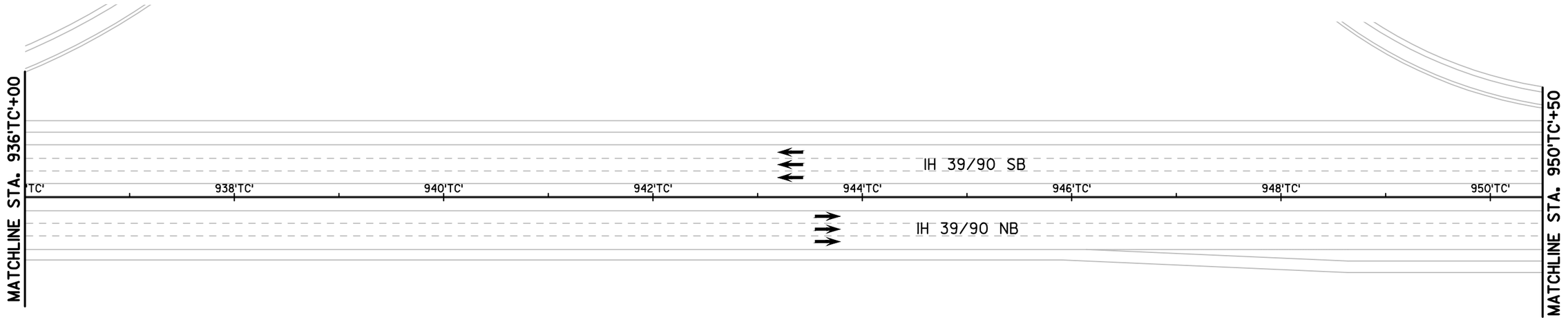




PROJECT NO: 1003-10-82	HWY: IH 39	COUNTY: ROCK	TRAFFIC CONTROL - IH 39 - DETAIL 3.0	SHEET 80	E

FILE NAME : L:\WORK\PROJECTS\60242867\000_CAD\001_DRAWINGS\1003-10-82_STATELINE RD\100% +\025003_TC.DWG PLOT DATE : 4/7/2016 5:55 PM PLOT BY : CZECH, ANDREW PLOT NAME : PLOT SCALE : 1" = 100'_XREF



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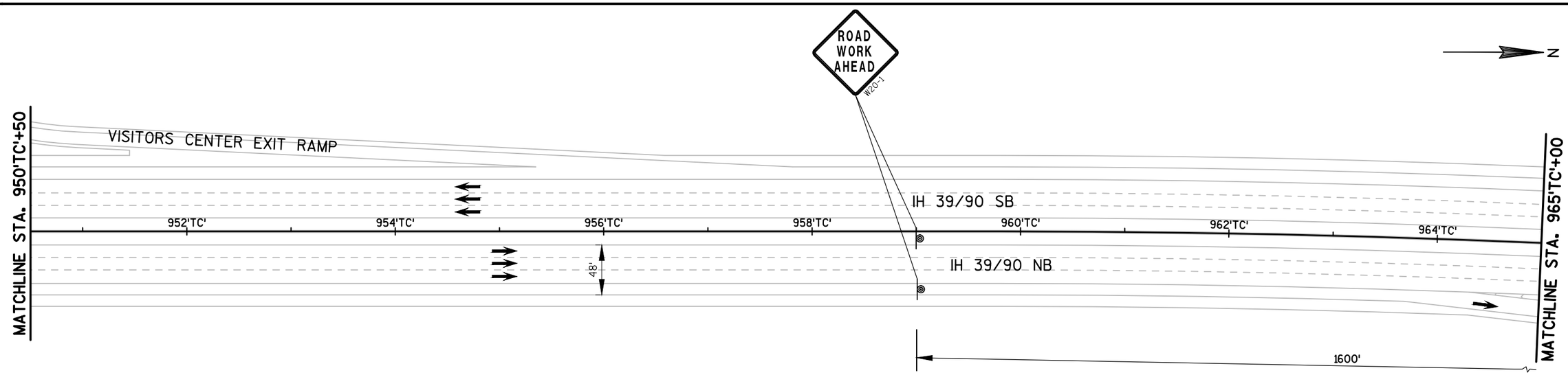
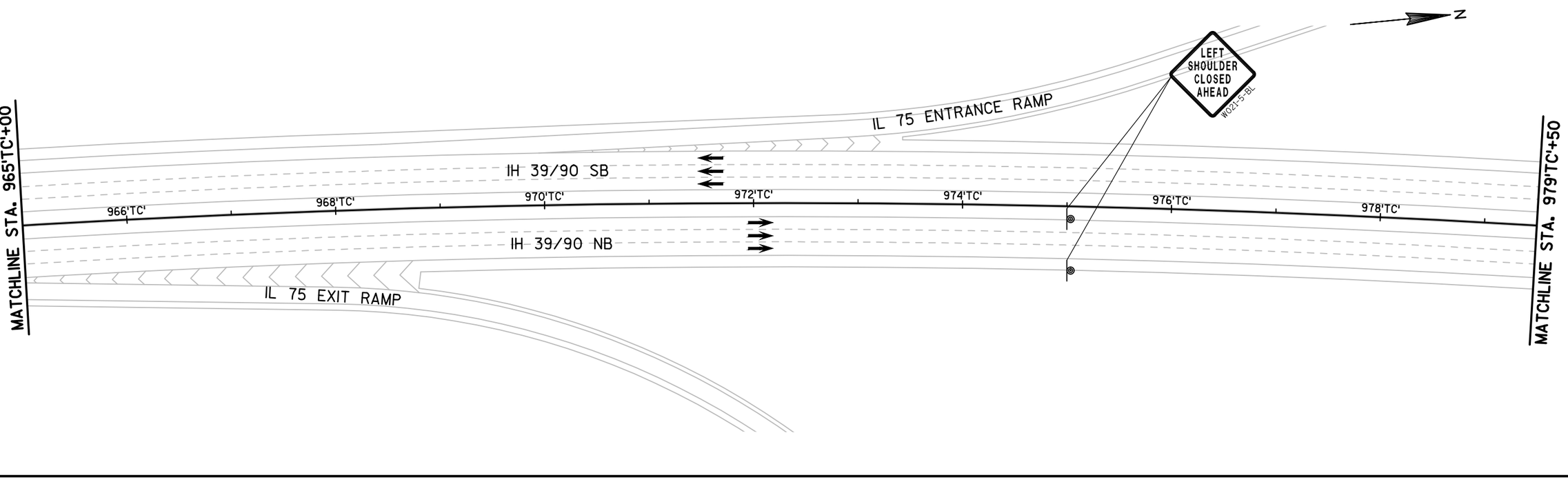
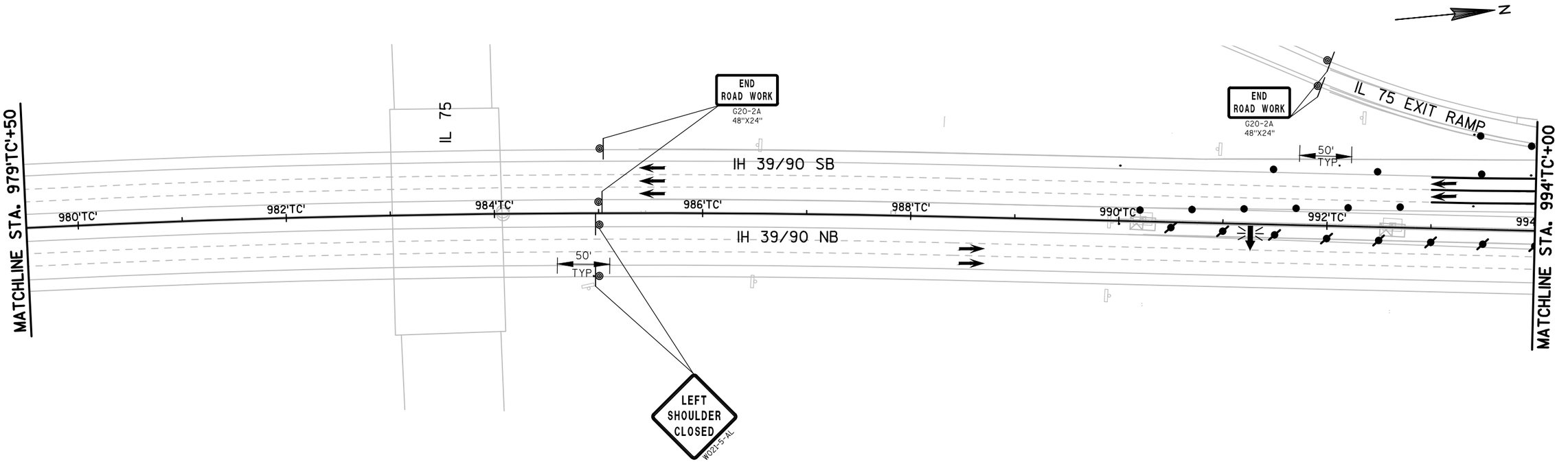


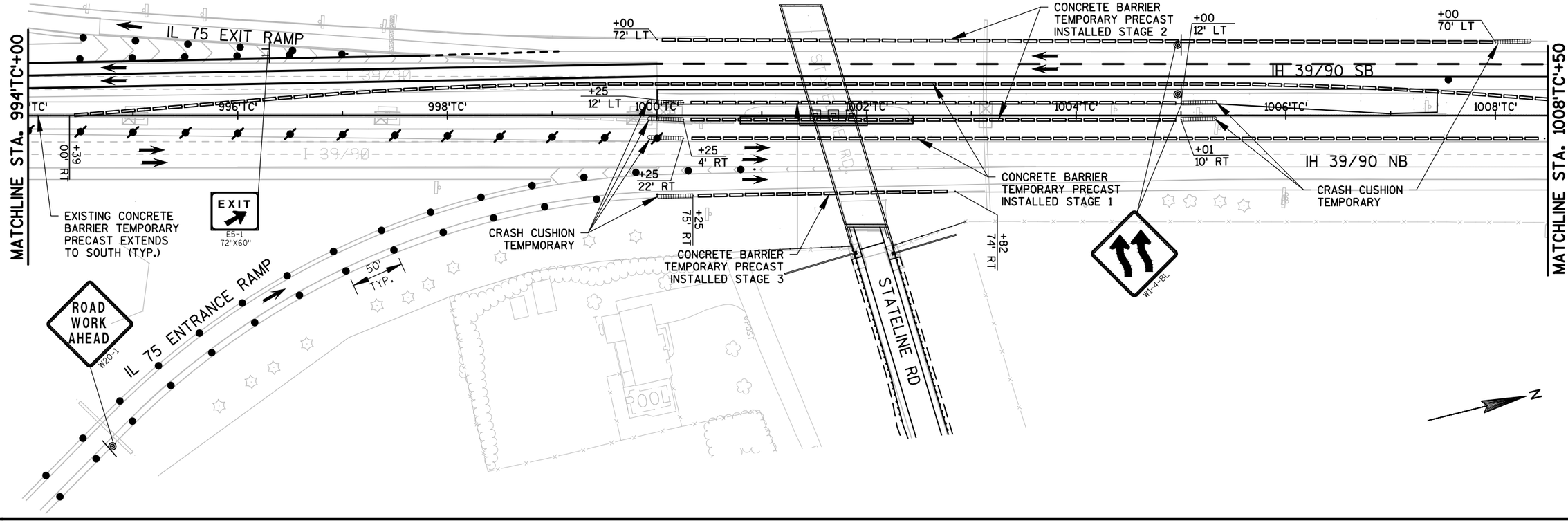
PROJECT NO: 1003-10-82	HWY: IH 39	COUNTY: ROCK	TRAFFIC CONTROL - IH 39 - DETAIL 3.0	SHEET	E

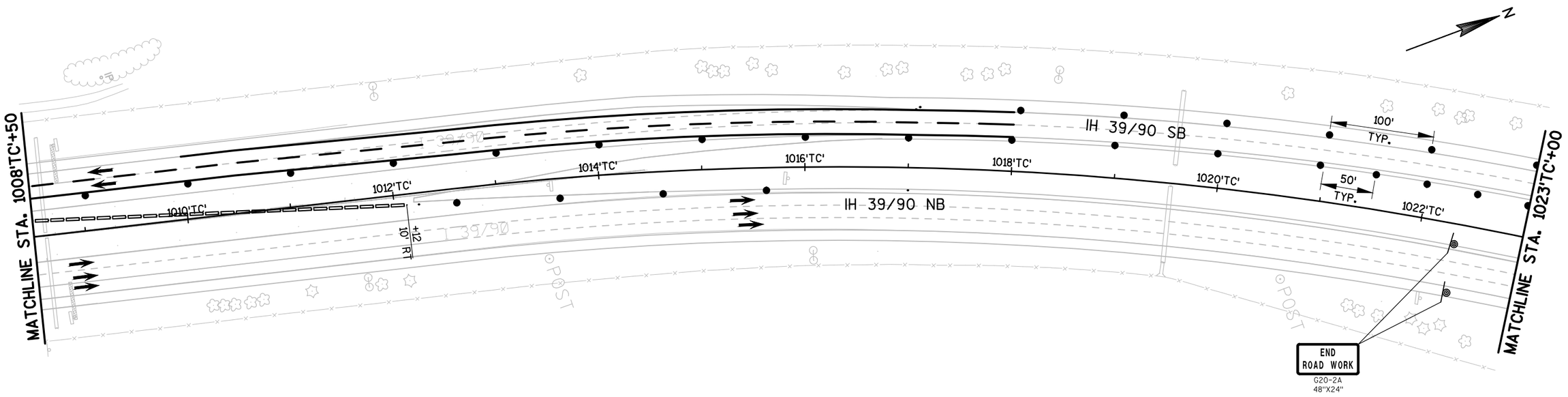
FILE NAME : L:\WORK\PROJECTS\60242867\000_CAD\001_DRAWINGS\1003-10-82_STATELINE RD\100% +\025003_TC.DWG PLOT DATE : 4/7/2016 5:55 PM PLOT BY : CZECH, ANDREW PLOT NAME : PLOT SCALE : 1" = 100'_XREF





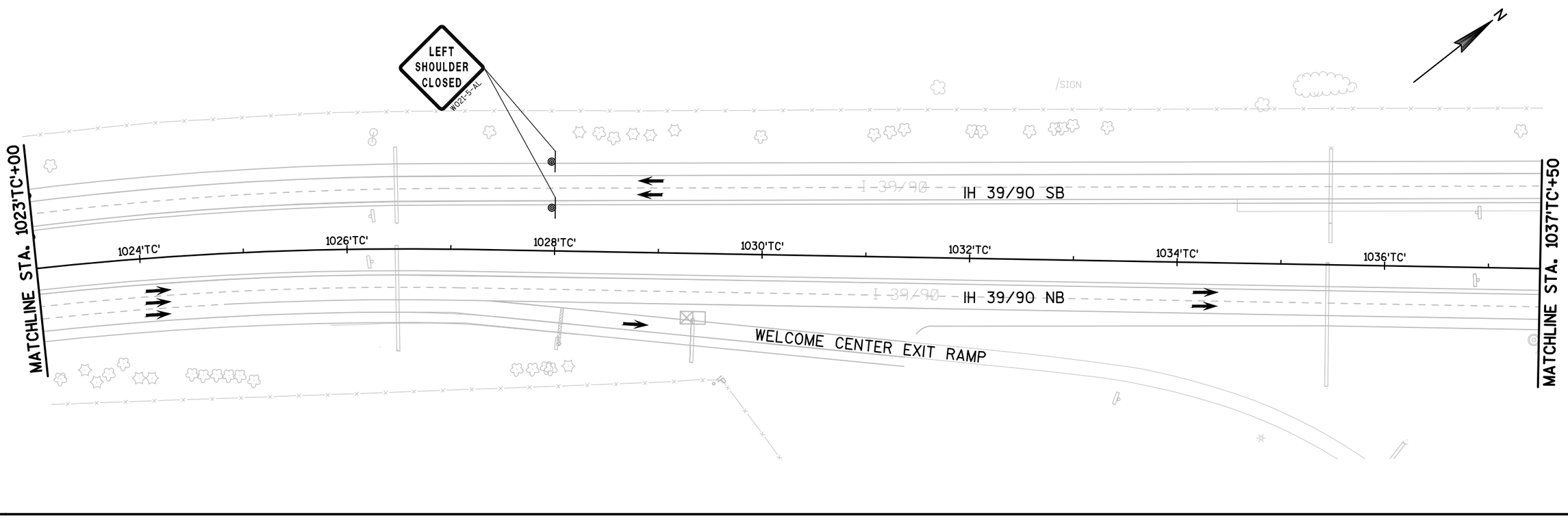
PROJECT NO: 1003-10-82	HWY: IH 39	COUNTY: ROCK	TRAFFIC CONTROL - IH 39 - DETAIL 3.0	SHEET 82	E

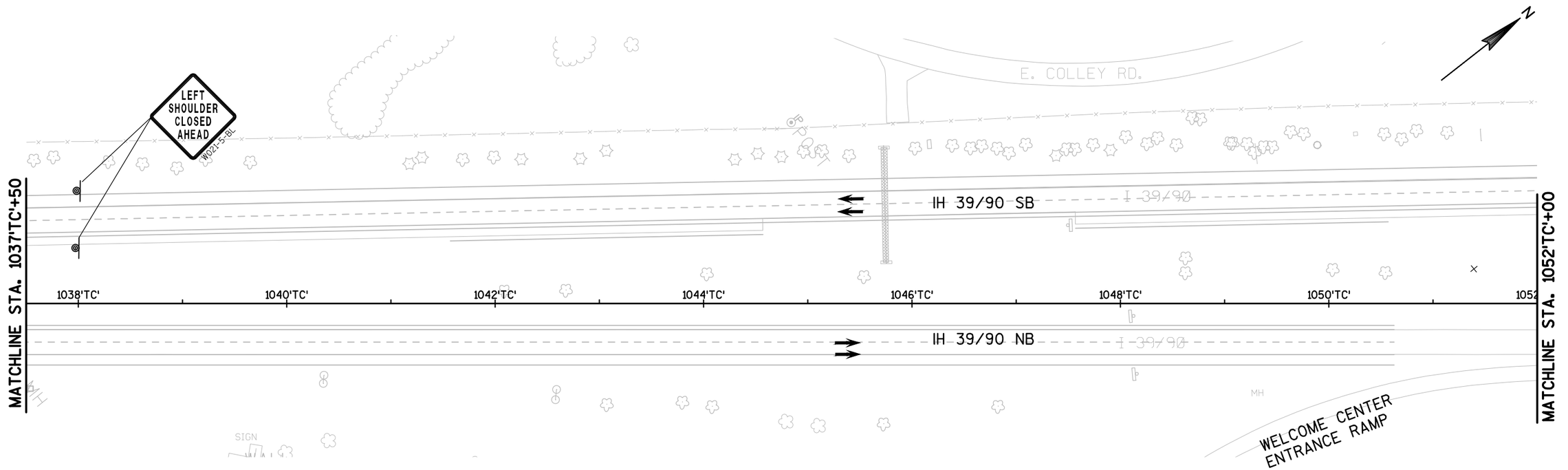




PROJECT NO: 1003-10-82	HWY: IH 39	COUNTY: ROCK	TRAFFIC CONTROL - IH 39 - DETAIL 3.0	SHEET 83	E

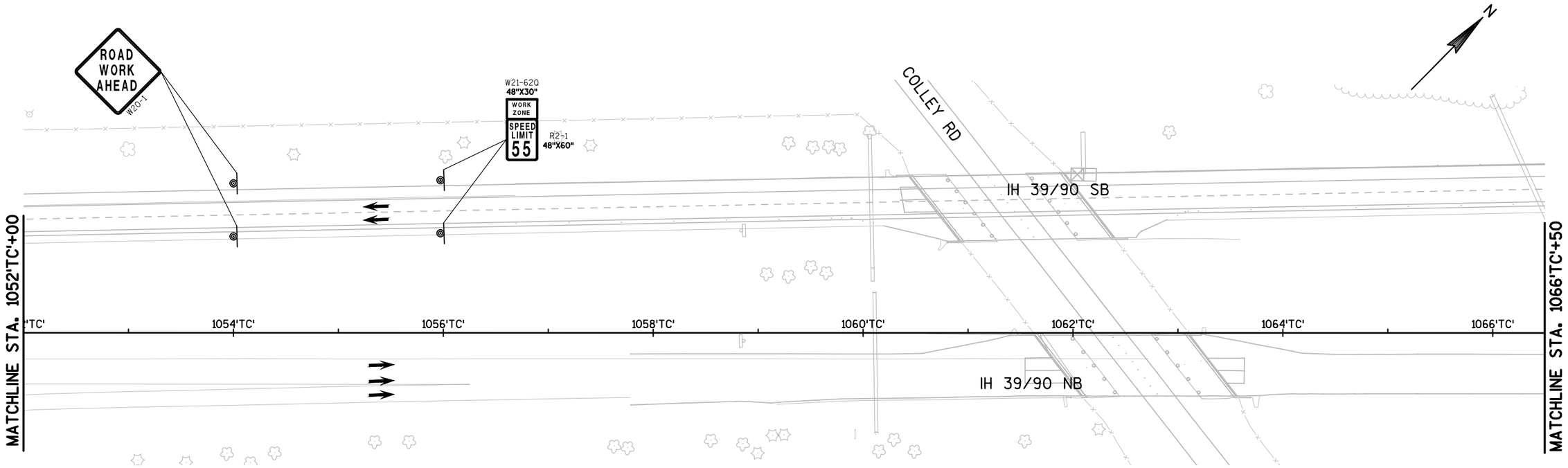
FILE NAME : L:\WORK\PROJECTS\60242867\000_CAD\001_DRAWINGS\1003-10-82_STATELINE RD\100% +\025003_TC.DWG PLOT DATE : 4/7/2016 5:55 PM PLOT BY : CZECH, ANDREW PLOT NAME : PLOT SCALE : 1" = 100'_XREF

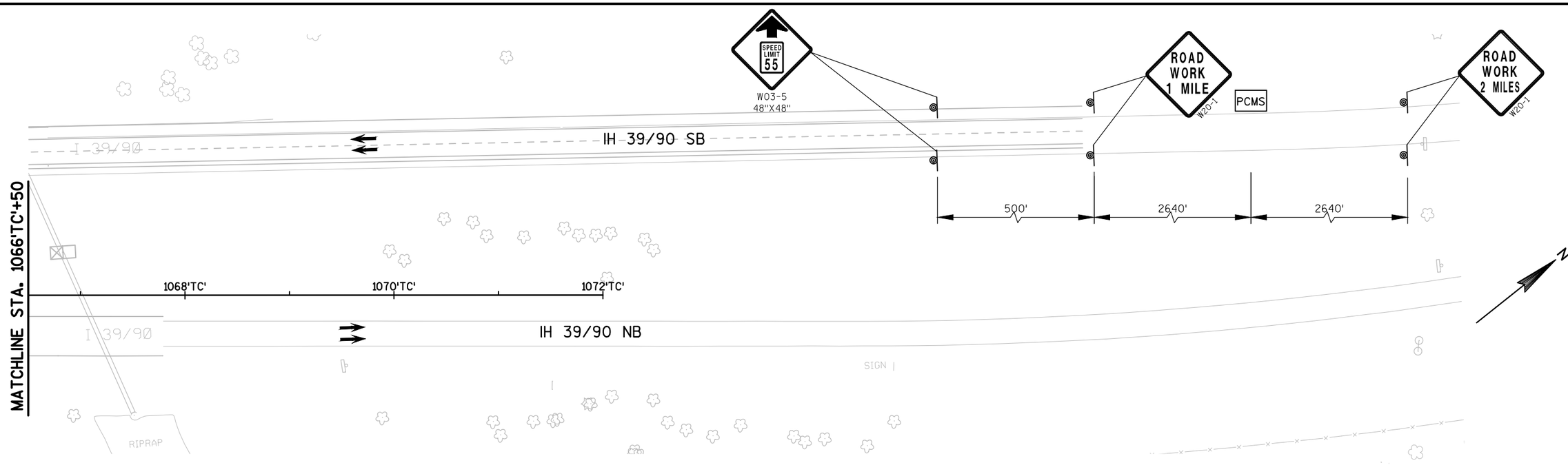




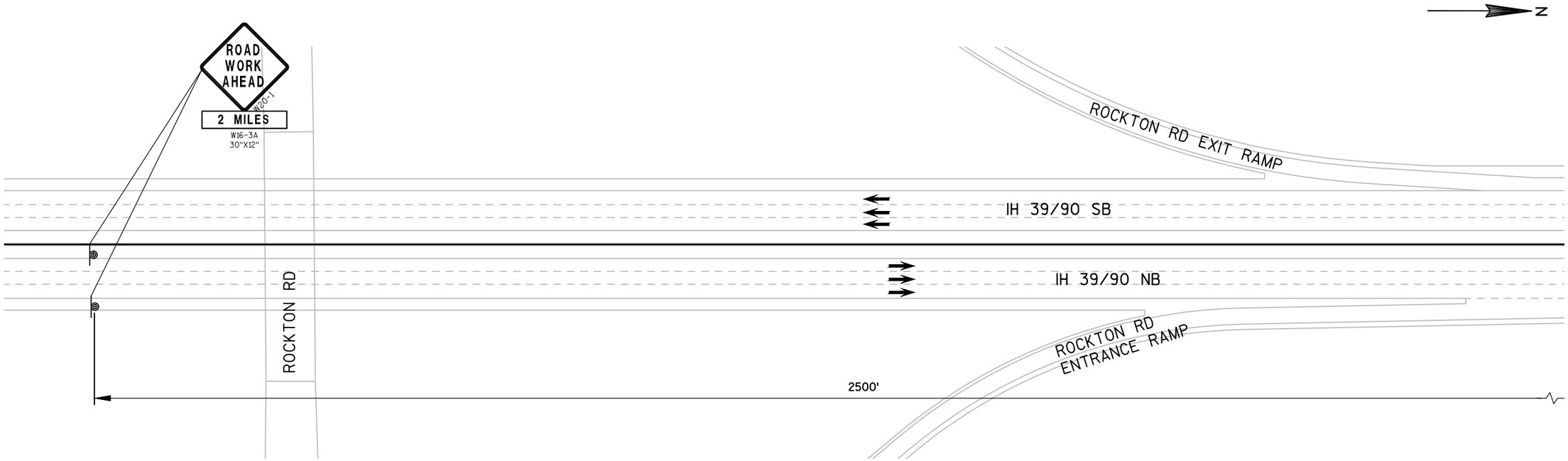
PROJECT NO: 1003-10-82	HWY: IH 39	COUNTY: ROCK	TRAFFIC CONTROL - IH 39 - DETAIL 3.0	SHEET	E

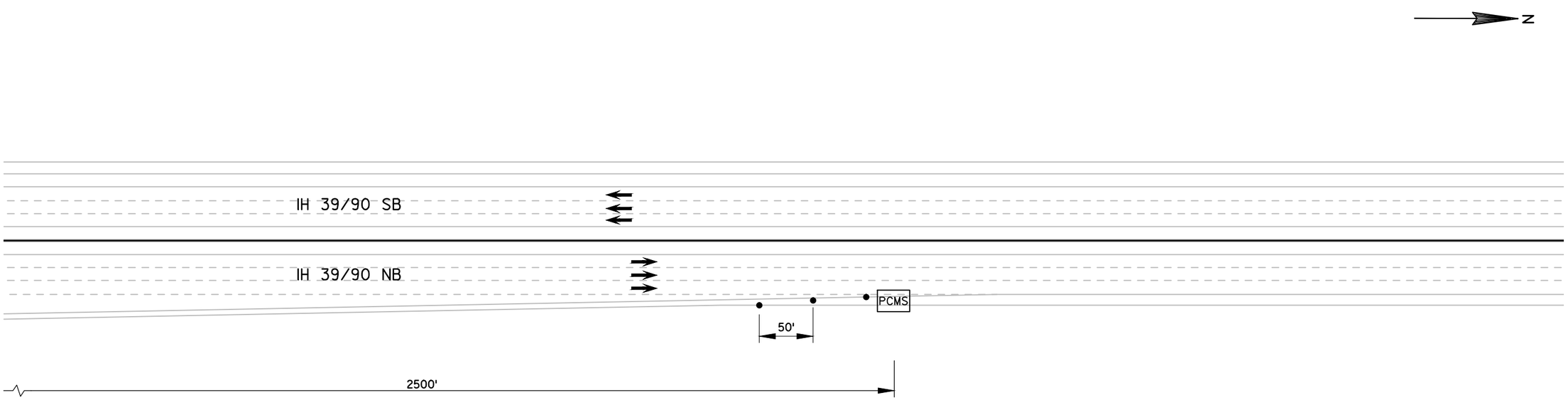
FILE NAME : L:\WORK\PROJECTS\60242867\000_CAD\001_DRAWINGS\1003-10-82_STATELINE RD\100% +\025003_TC.DWG PLOT DATE : 4/7/2016 5:56 PM PLOT BY : CZECH, ANDREW PLOT NAME : PLOT SCALE : 1" = 100'_XREF





PROJECT NO: 1003-10-82	HWY: IH 39	COUNTY: ROCK	TRAFFIC CONTROL - IH 39 - DETAIL 3.0	SHEET 85	E





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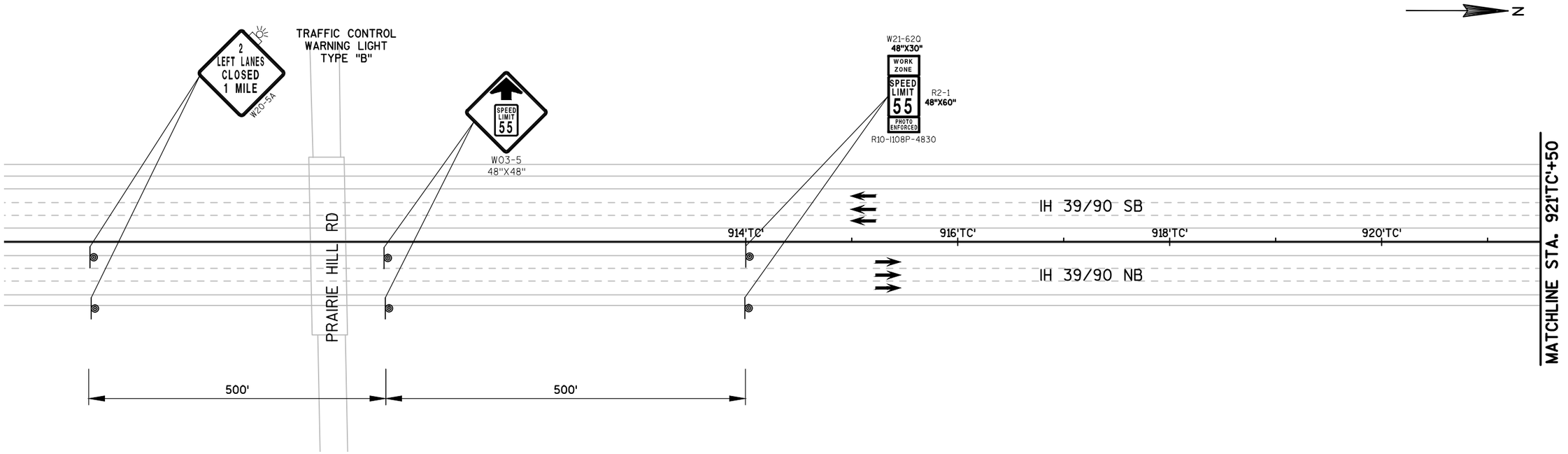
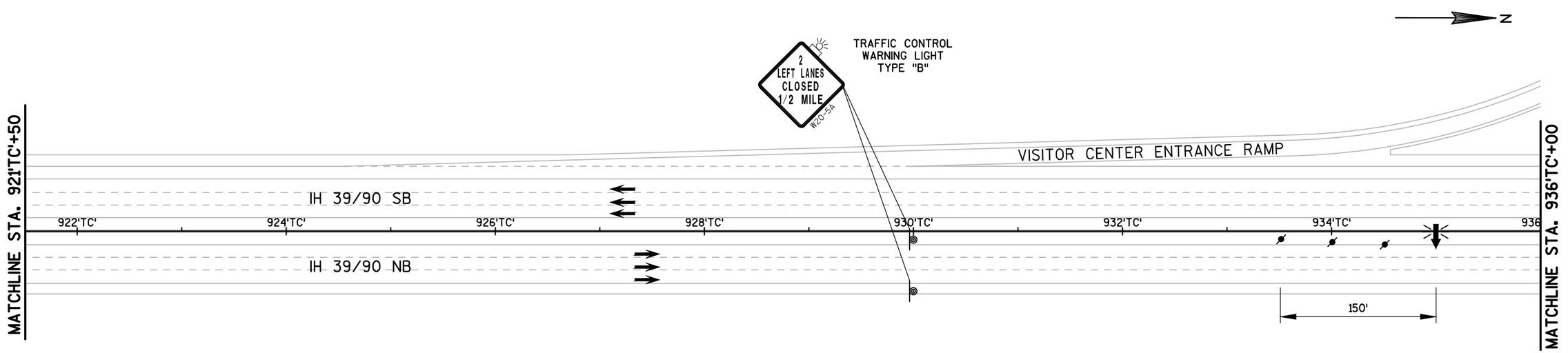
PROJECT NO: 1003-10-82	HWY: IH 39	COUNTY: ROCK	TRAFFIC CONTROL - IH 39 - DETAIL 3.1	SHEET	E

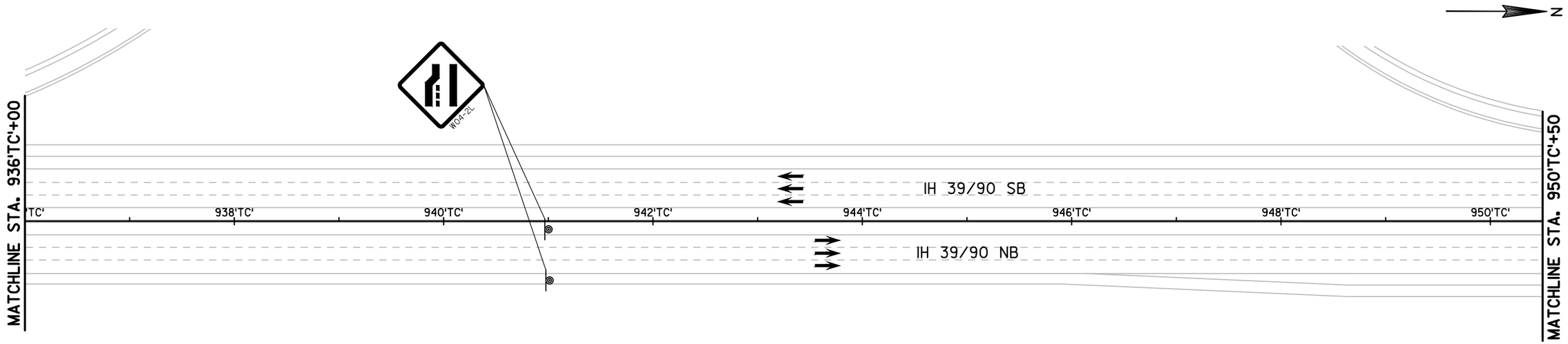
FILE NAME : L:\WORK\PROJECTS\60242867\000_CAD\001_DRAWINGS\1003-10-82_STATELINE RD\100% +\025003_TC.DWG PLOT DATE : 4/7/2016 5:56 PM PLOT BY : CZECH, ANDREW PLOT NAME : PLOT SCALE : 1" = 100'_XREF
WISDOT/CADDS SHEET 44

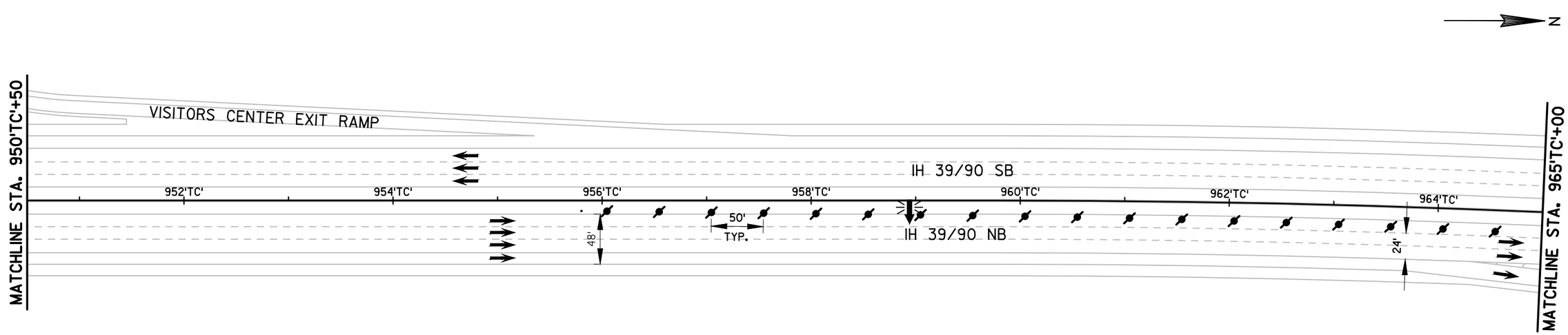




PROJECT NO: 1003-10-82	HWY: IH 39	COUNTY: ROCK	TRAFFIC CONTROL - IH 39 - DETAIL 3.1	SHEET	E

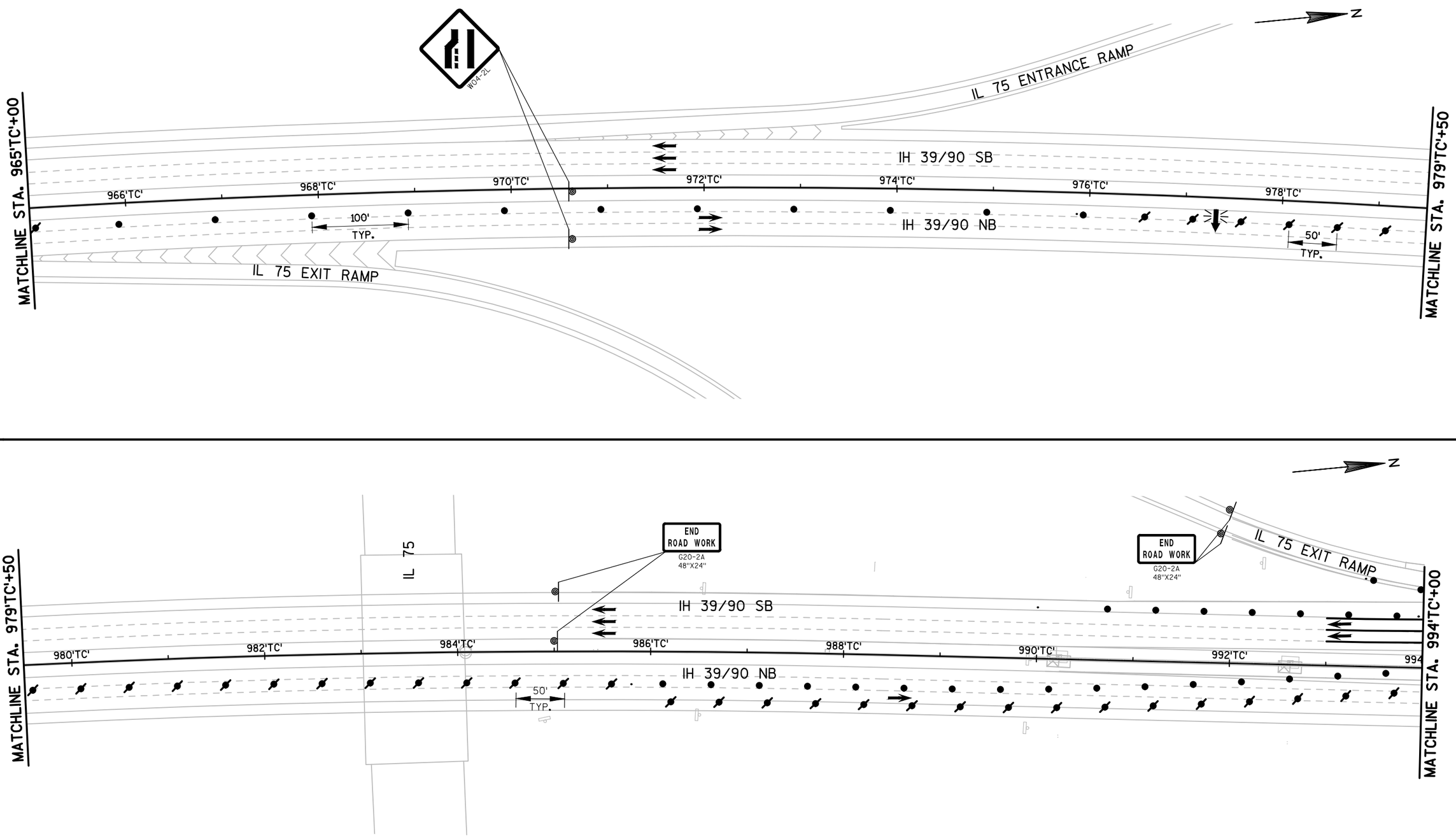
FILE NAME : L:\WORK\PROJECTS\60242867\000_CAD\001_DRAWINGS\1003-10-82_STATELINE RD\100% +\025003_TC.DWG PLOT DATE : 4/7/2016 5:56 PM PLOT BY : CZECH, ANDREW PLOT NAME : PLOT SCALE : 1" = 100'_XREF
WISDOT/CADDS SHEET 44



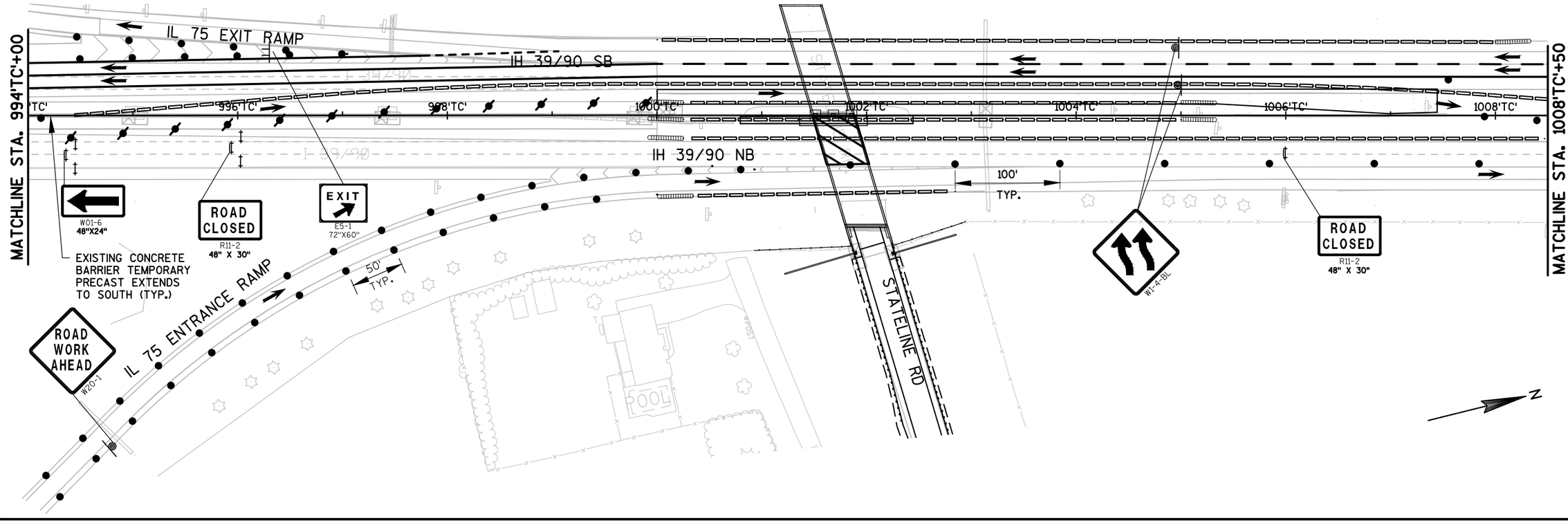


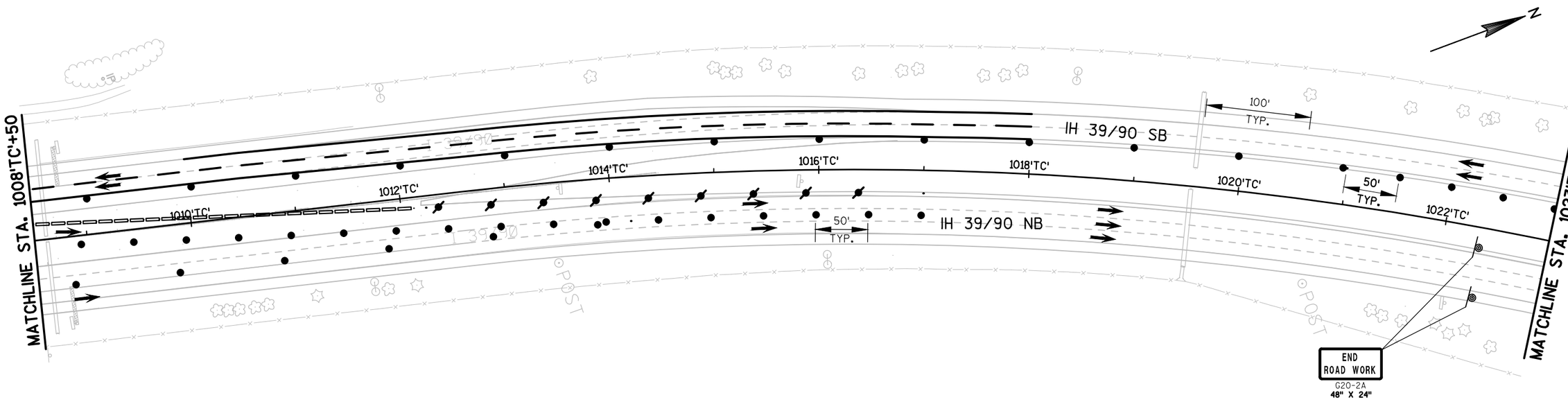
PROJECT NO: 1003-10-82	HWY: IH 39	COUNTY: ROCK	TRAFFIC CONTROL - IH 39 - DETAIL 3.1	SHEET	E

FILE NAME : L:\WORK\PROJECTS\60242867\000_CAD\001_DRAWINGS\1003-10-82_STATELINE RD\100% +\025003_TC.DWG PLOT DATE : 4/7/2016 5:56 PM PLOT BY : CZECH, ANDREW PLOT NAME : PLOT SCALE : 1" = 100'_XREF
WISDOT/CADDS SHEET 44



PROJECT NO: 1003-10-82	HWY: IH 39	COUNTY: ROCK	TRAFFIC CONTROL - IH 39 - DETAIL 3.1	SHEET 89	E





PROJECT NO: 1003-10-82	HWY: IH 39	COUNTY: ROCK	TRAFFIC CONTROL - IH 39 - DETAIL 3.1	SHEET 90	E

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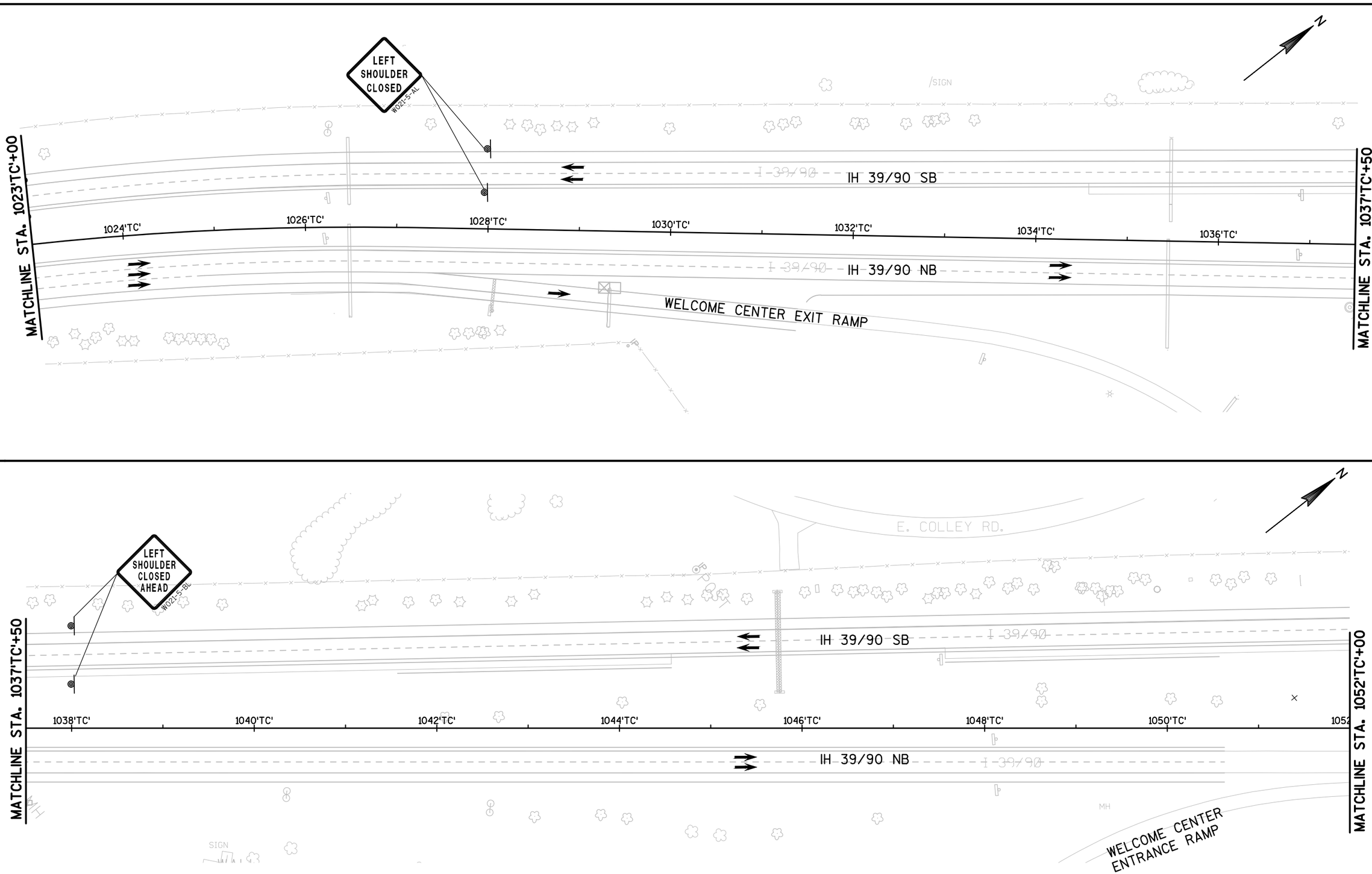
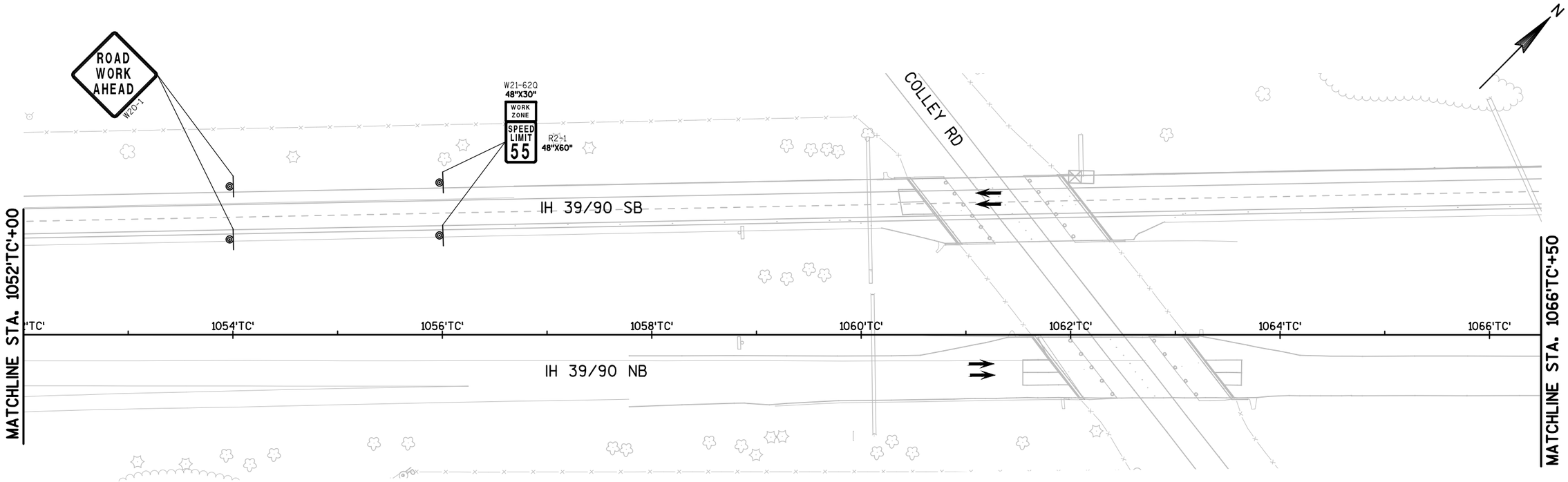
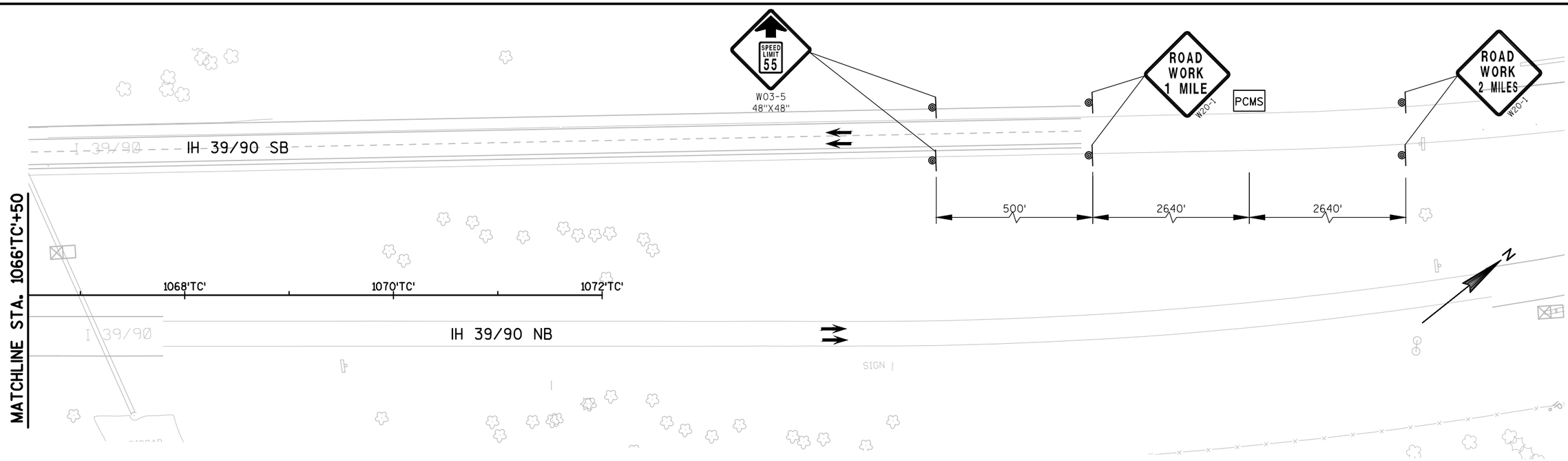
WISDOT/CADDS SHEET 44



PROJECT NO: 1003-10-82	HWY: IH 39	COUNTY: ROCK	TRAFFIC CONTROL - IH 39 - DETAIL 3.1	SHEET	E

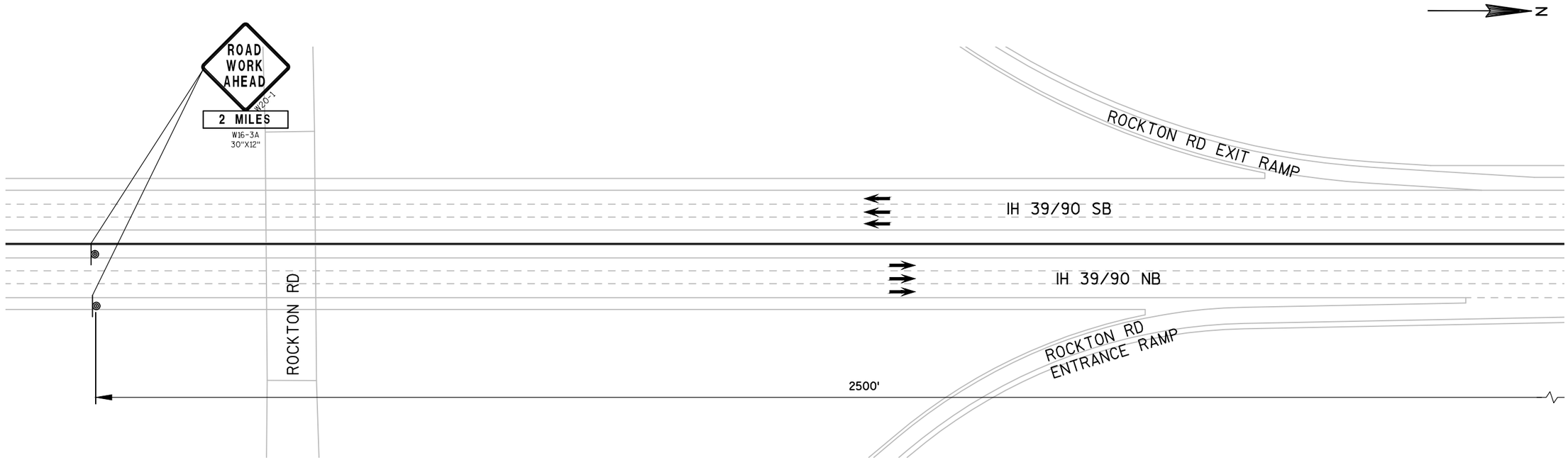
FILE NAME : L:\WORK\PROJECTS\60242867\000_CAD\001_DRAWINGS\1003-10-82_STATELINE RD\100% +\025003_TC.DWG PLOT DATE : 4/7/2016 5:57 PM PLOT BY : CZECH, ANDREW PLOT NAME : PLOT SCALE : 1" = 100'_XREF

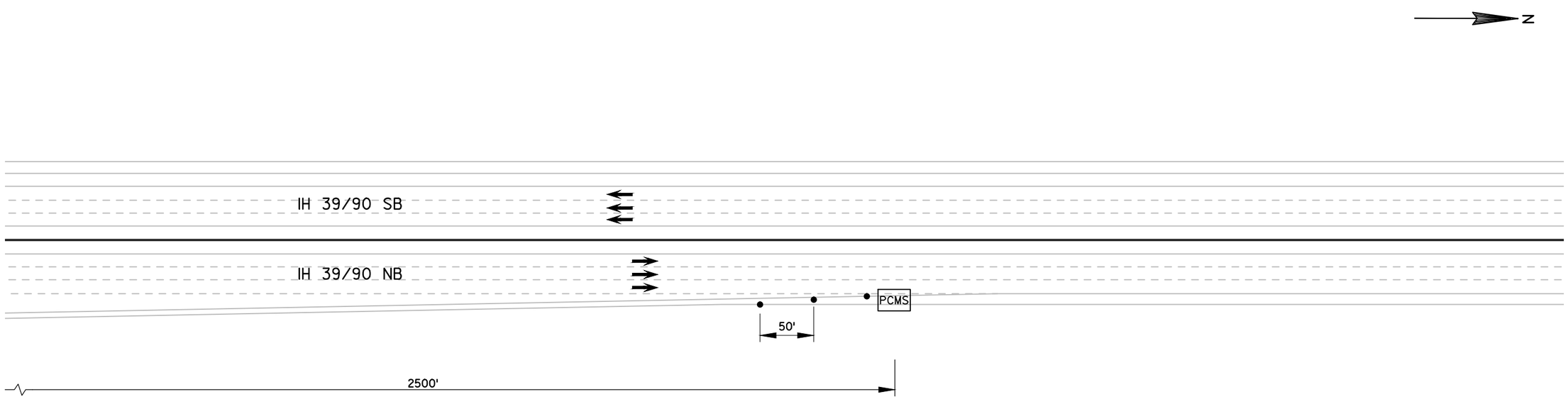




PROJECT NO: 1003-10-82	HWY: IH 39	COUNTY: ROCK	TRAFFIC CONTROL - IH 39 - DETAIL 3.1	SHEET	E

FILE NAME : L:\WORK\PROJECTS\60242867\000_CAD\001_DRAWINGS\1003-10-82_STATELINE RD\100% +\025003_TC.DWG PLOT DATE : 4/7/2016 5:58 PM PLOT BY : CZECH, ANDREW PLOT NAME : PLOT SCALE : 1" = 100'_XREF





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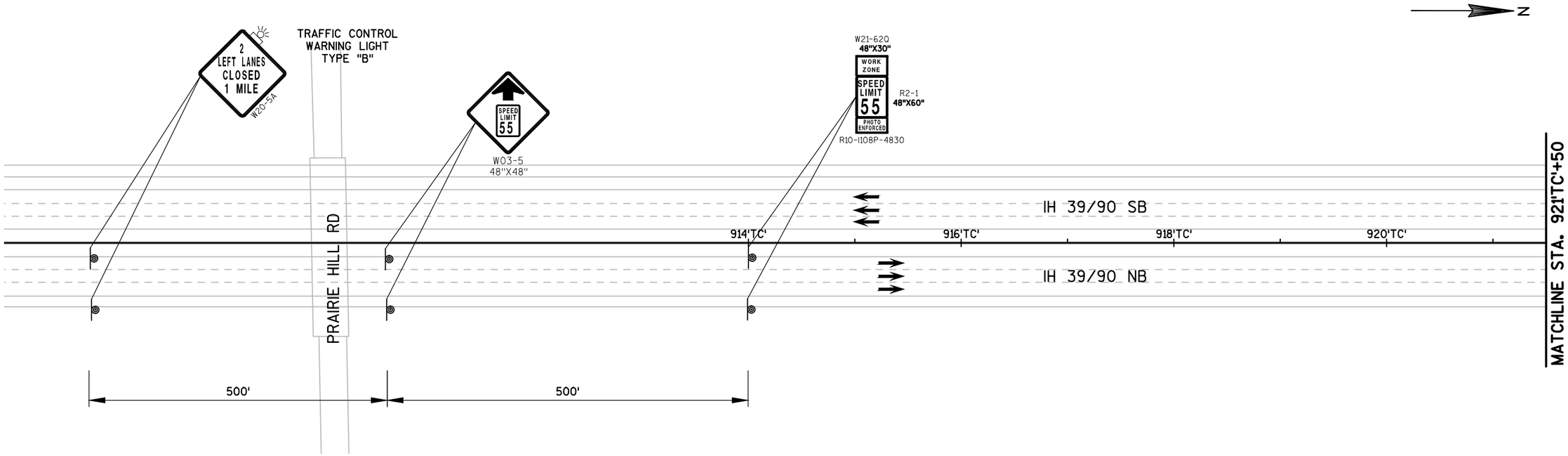
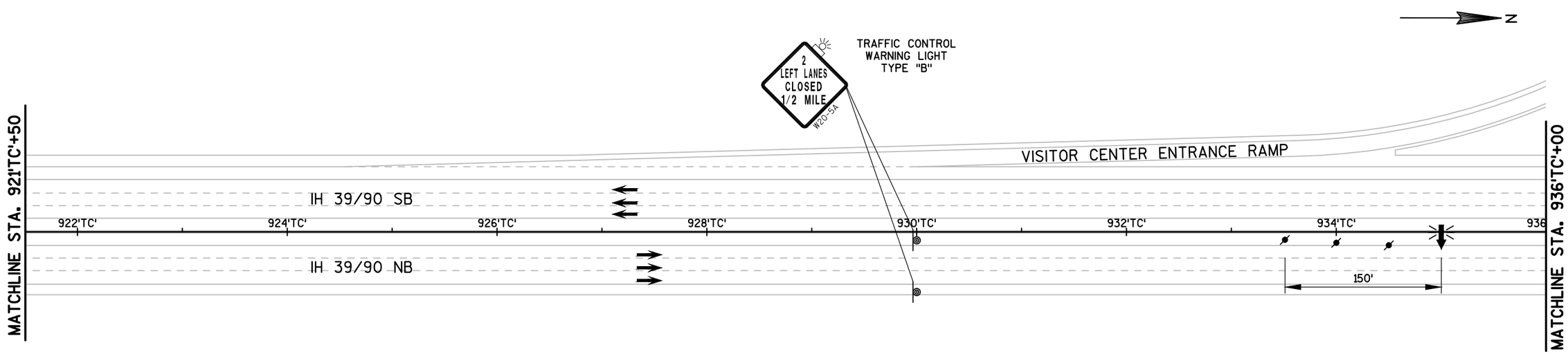
PROJECT NO: 1003-10-82	HWY: IH 39	COUNTY: ROCK	TRAFFIC CONTROL - IH 39 - DETAIL 3.2	SHEET	E

FILE NAME : L:\WORK\PROJECTS\60242867\000_CAD\001_DRAWINGS\1003-10-82_STATELINE RD\100% +\025003_TC.DWG PLOT DATE : 4/7/2016 5:58 PM PLOT BY : CZECH, ANDREW PLOT NAME : PLOT SCALE : 1" = 100'_XREF





PROJECT NO: 1003-10-82	HWY: IH 39	COUNTY: ROCK	TRAFFIC CONTROL - IH 39 - DETAIL 3.2	SHEET	E

FILE NAME : L:\WORK\PROJECTS\60242867\000_CAD\001_DRAWINGS\1003-10-82_STATELINE RD\100% +\025003_TC.DWG PLOT DATE : 4/7/2016 5:58 PM PLOT BY : CZECH, ANDREW PLOT NAME : PLOT SCALE : 1" = 100'_XREF

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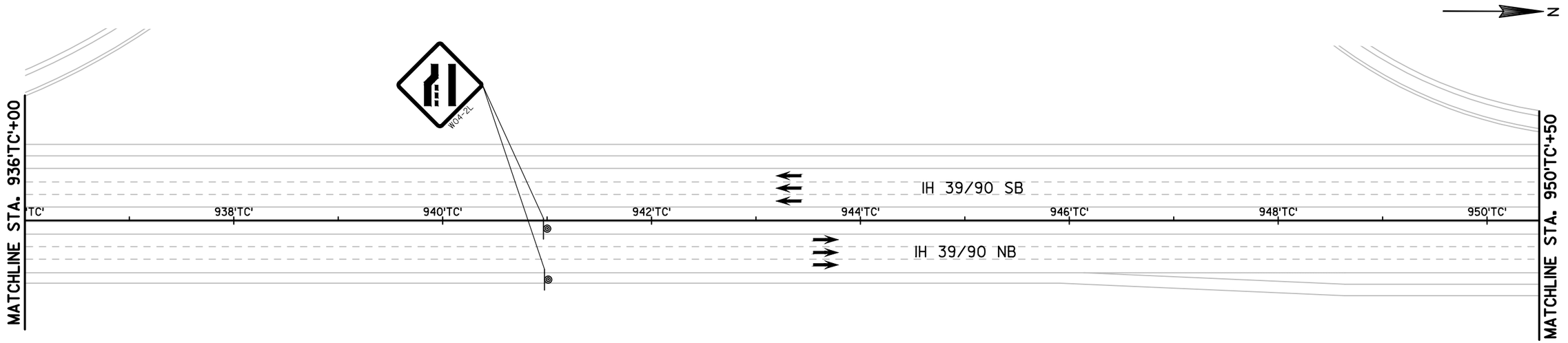
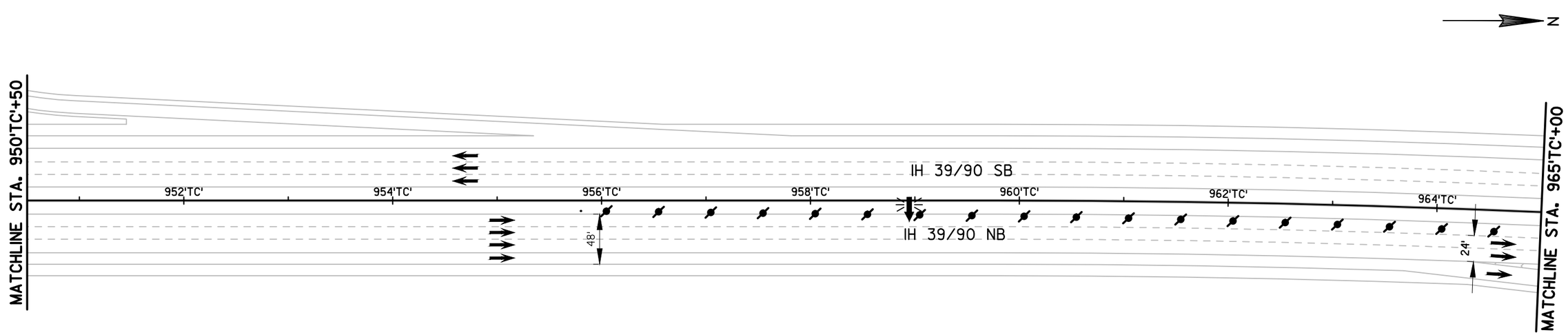
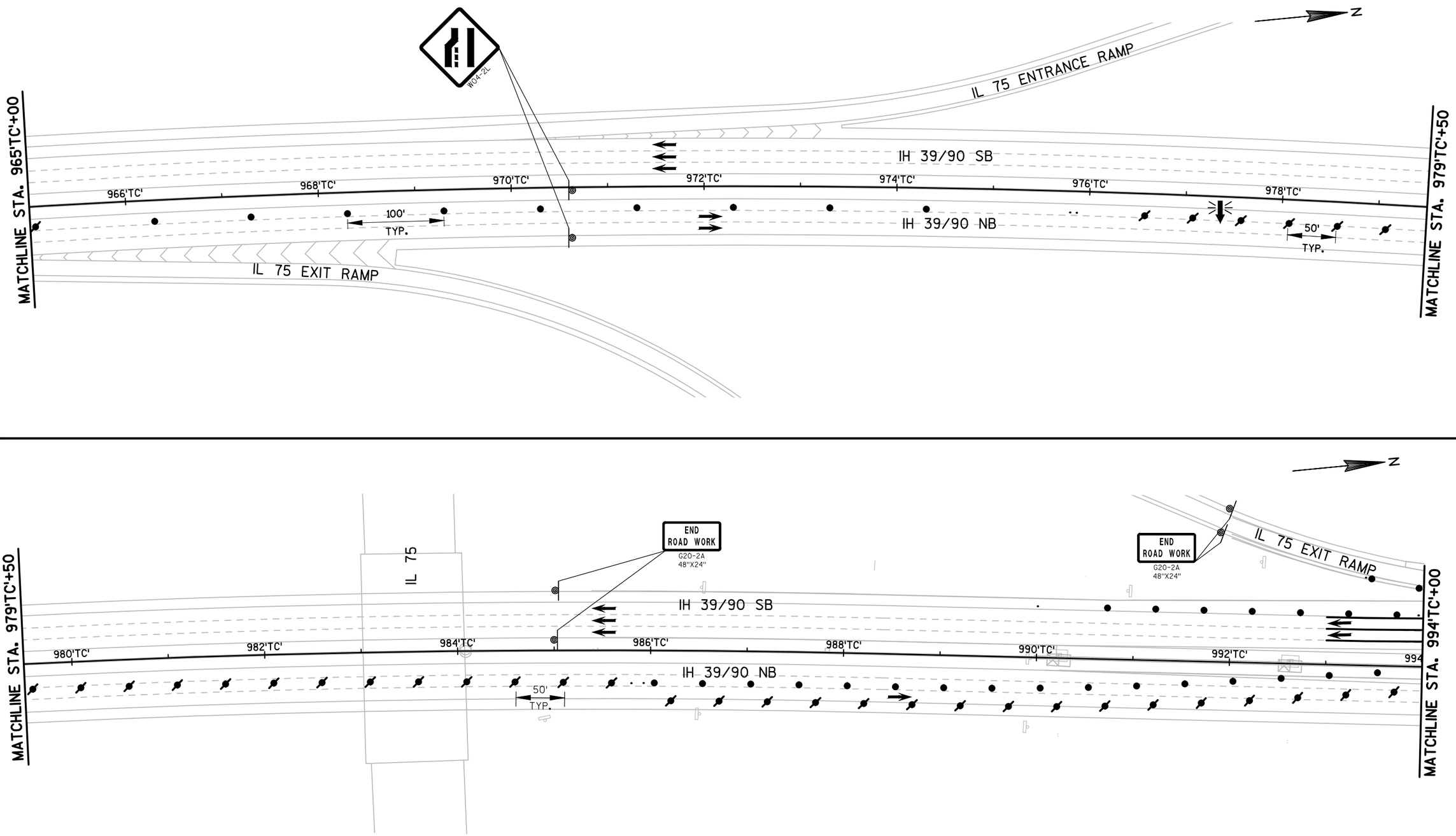


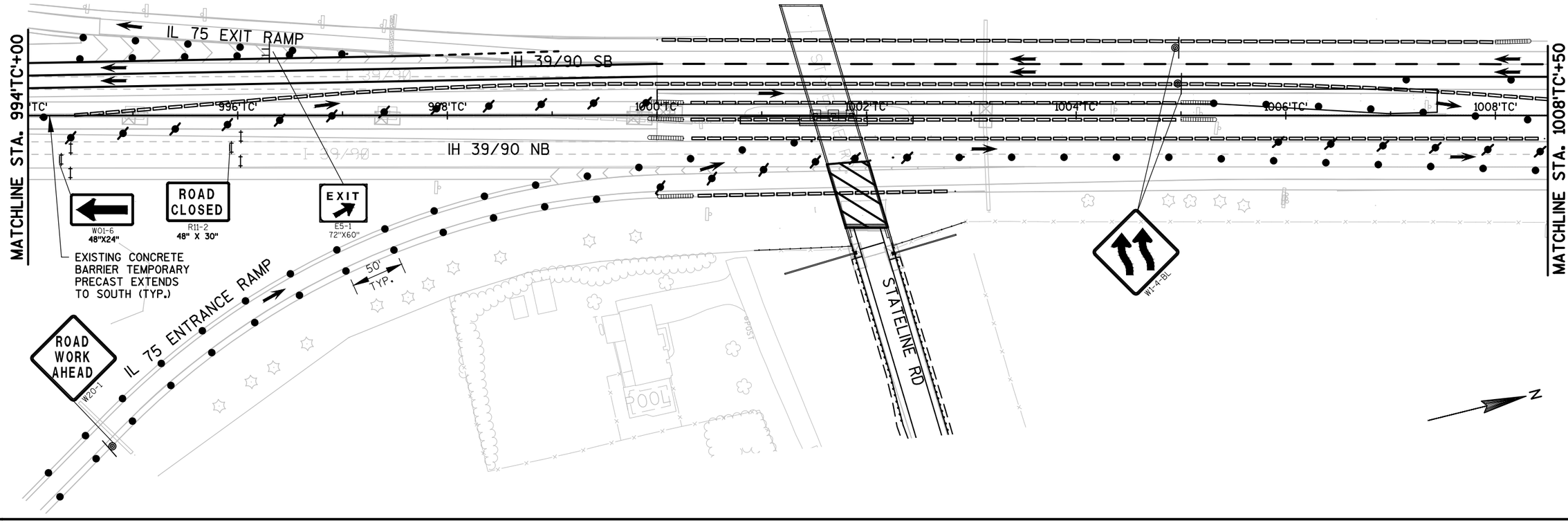


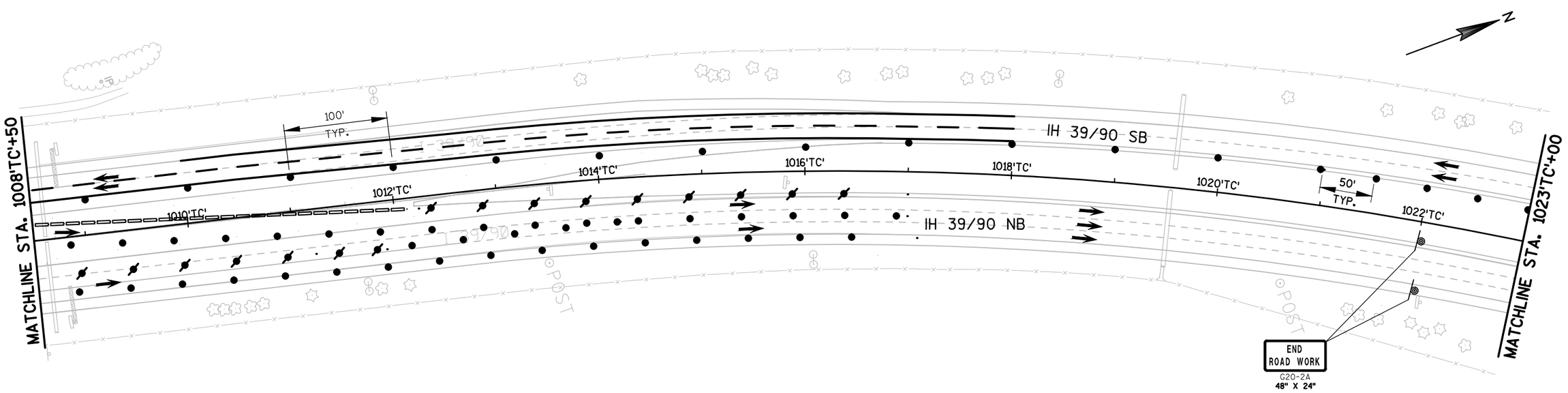
PROJECT NO: 1003-10-82	HWY: IH 39	COUNTY: ROCK	TRAFFIC CONTROL - IH 39 - DETAIL 3.2	SHEET	E

FILE NAME : L:\WORK\PROJECTS\60242867\000_CAD\001_DRAWINGS\1003-10-82_STATELINE RD\100% +\025003_TC.DWG PLOT DATE : 4/7/2016 5:58 PM PLOT BY : CZECH, ANDREW PLOT NAME : PLOT SCALE : 1" = 100'_XREF



PROJECT NO: 1003-10-82	HWY: IH 39	COUNTY: ROCK	TRAFFIC CONTROL - IH 39 - DETAIL 3.2	SHEET 96	E





PROJECT NO: 1003-10-82	HWY: IH 39	COUNTY: ROCK	TRAFFIC CONTROL - IH 39 - DETAIL 3.2	SHEET 97	E

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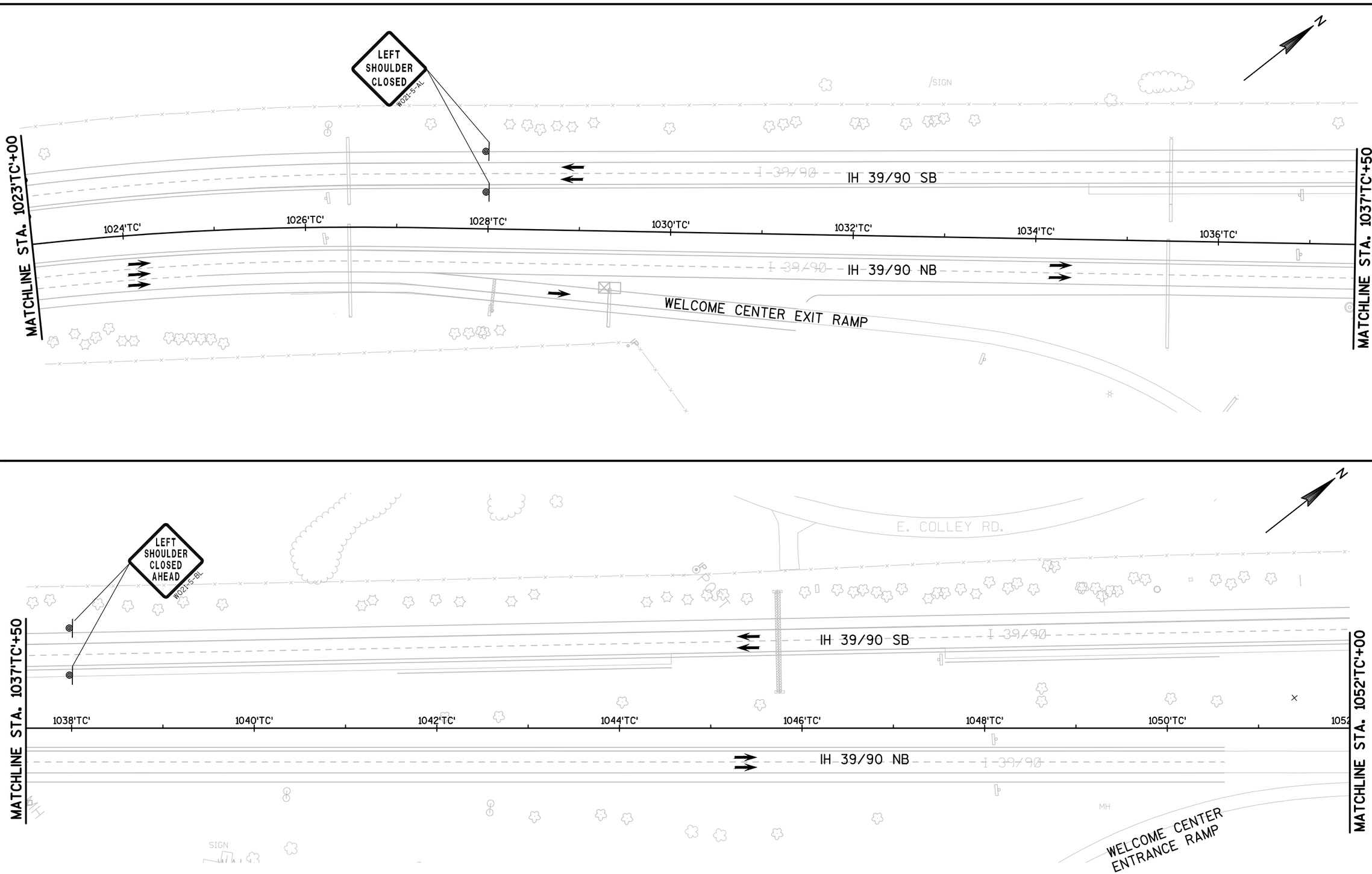
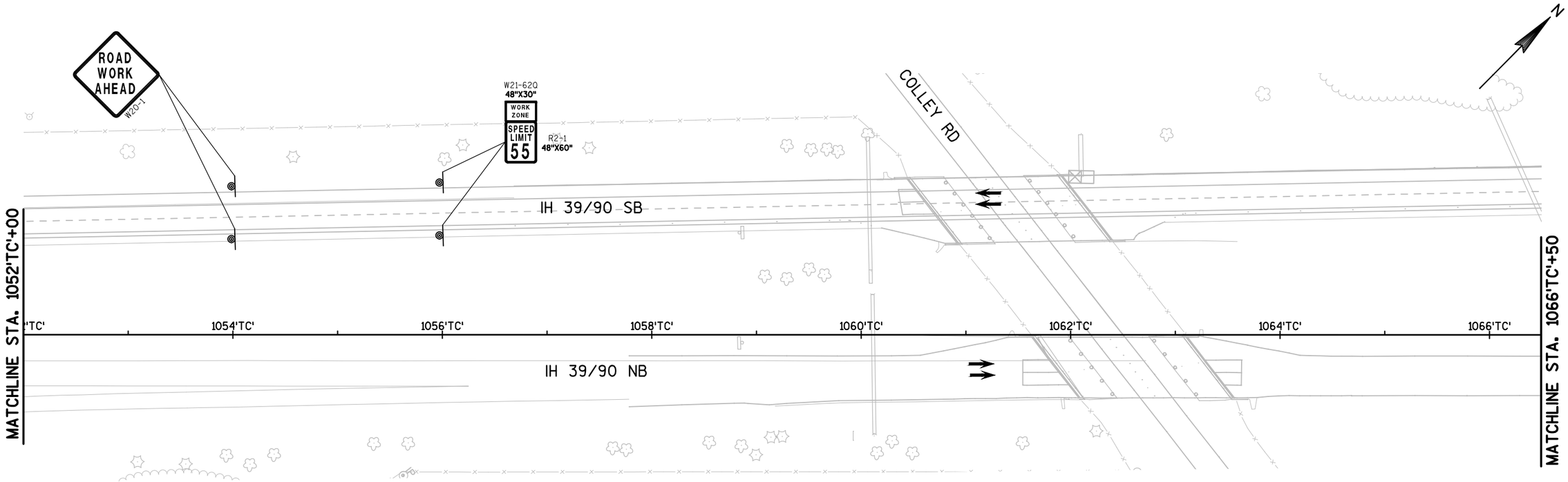
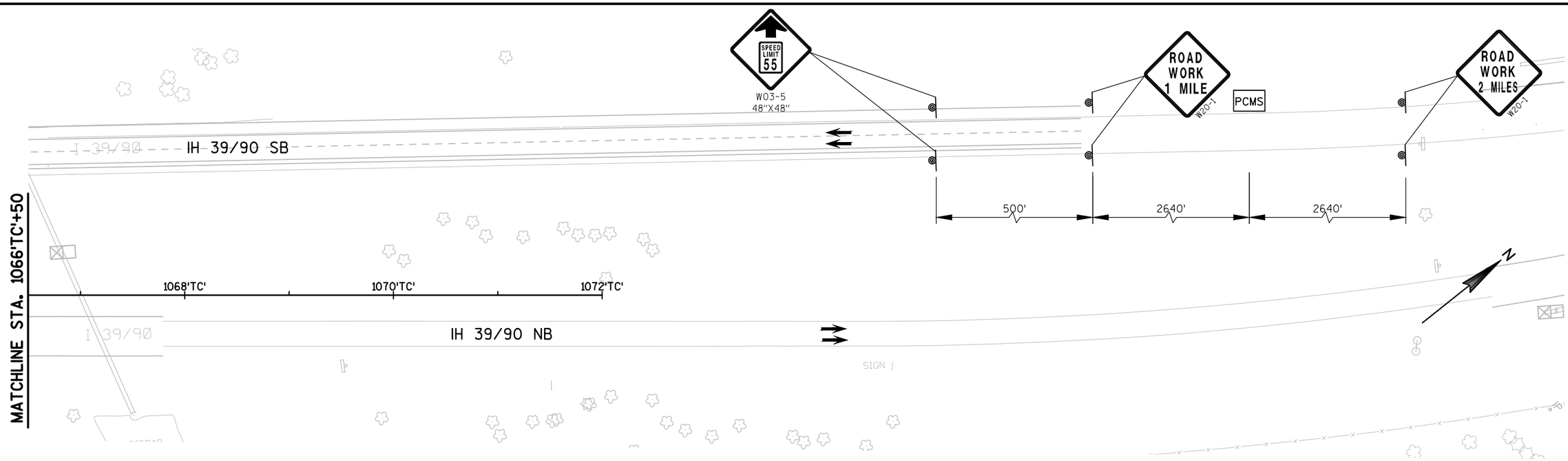


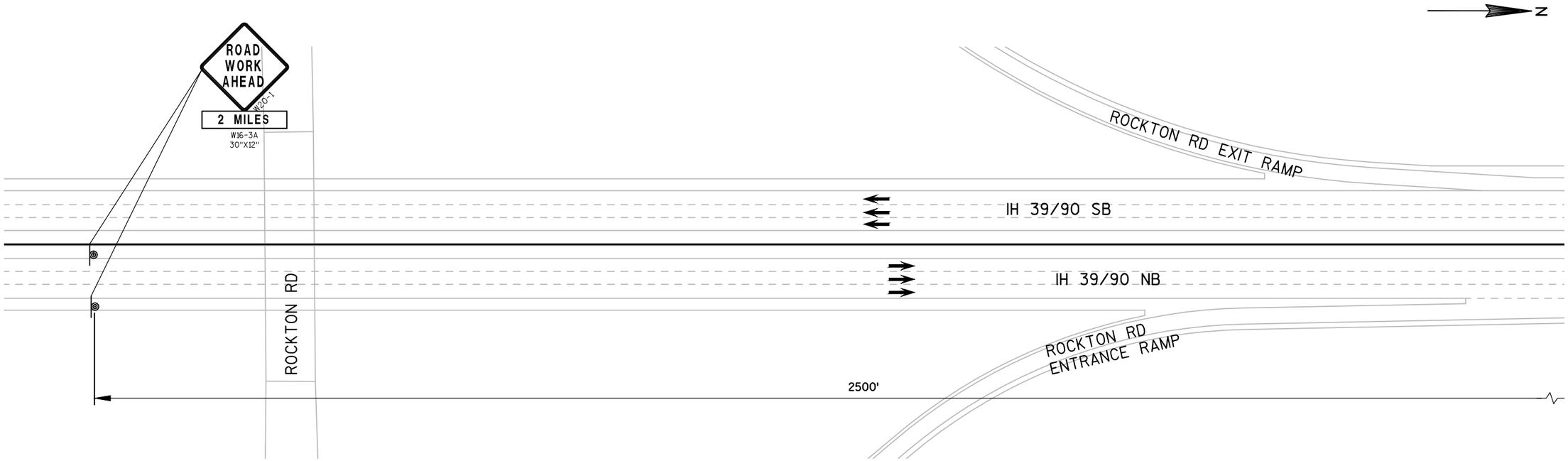
PROJECT NO: 1003-10-82	HWY: IH 39	COUNTY: ROCK	TRAFFIC CONTROL - IH 39 - DETAIL 3.2	SHEET	E

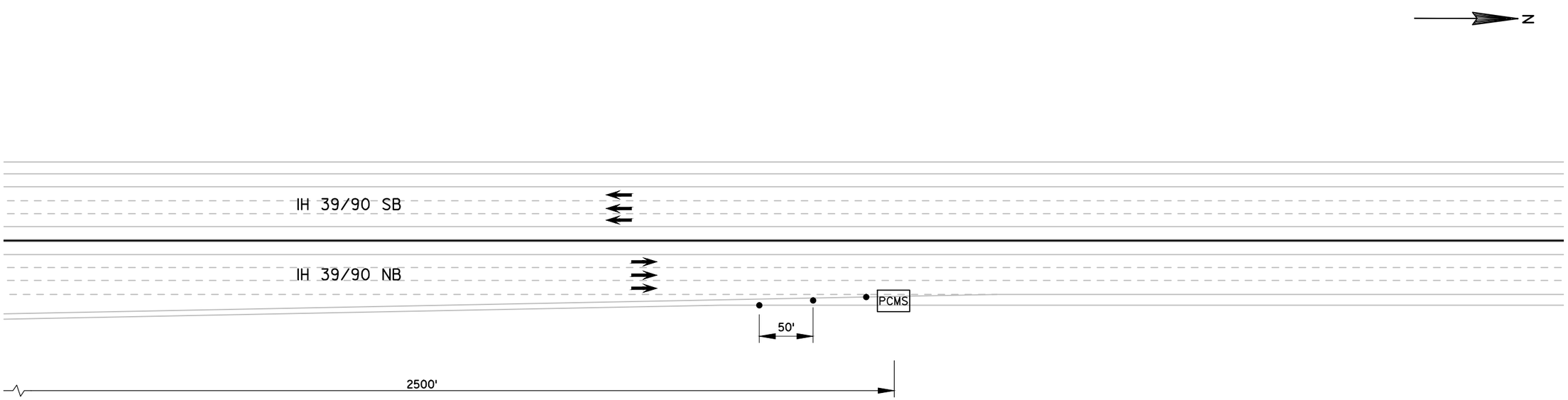
FILE NAME : L:\WORK\PROJECTS\60242867\000_CAD\001_DRAWINGS\1003-10-82_STATELINE RD\100% +\025003_TC.DWG PLOT DATE : 4/7/2016 5:59 PM PLOT BY : CZECH, ANDREW PLOT NAME : PLOT SCALE : 1" = 100'_XREF





PROJECT NO: 1003-10-82	HWY: IH 39	COUNTY: ROCK	TRAFFIC CONTROL - IH 39 - DETAIL 3.2	SHEET 99	E





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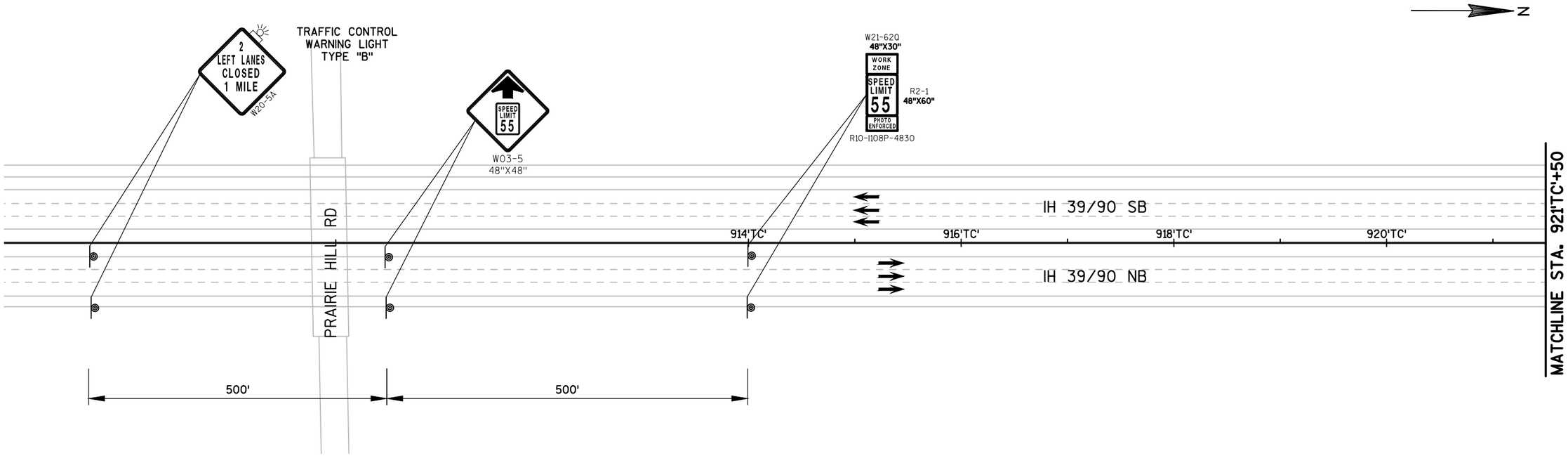
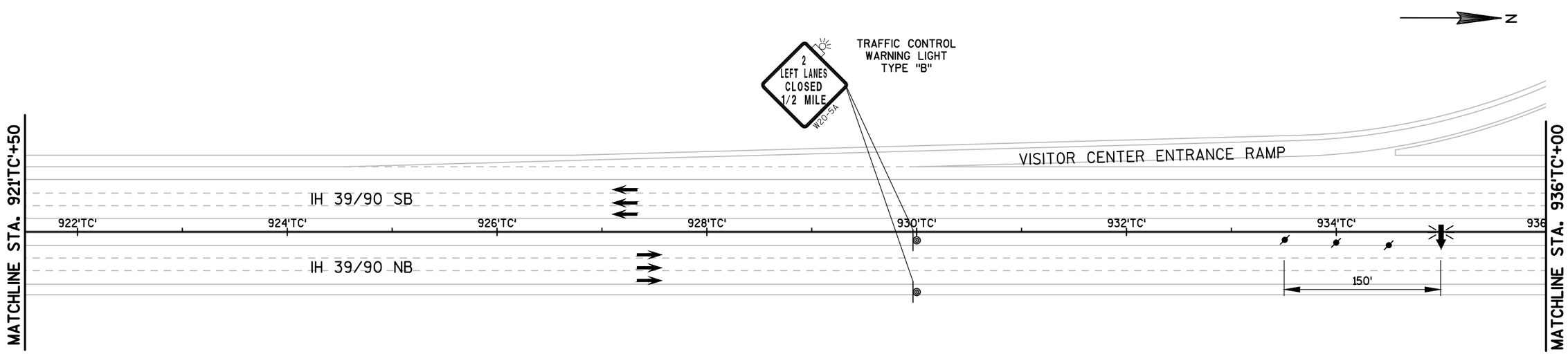
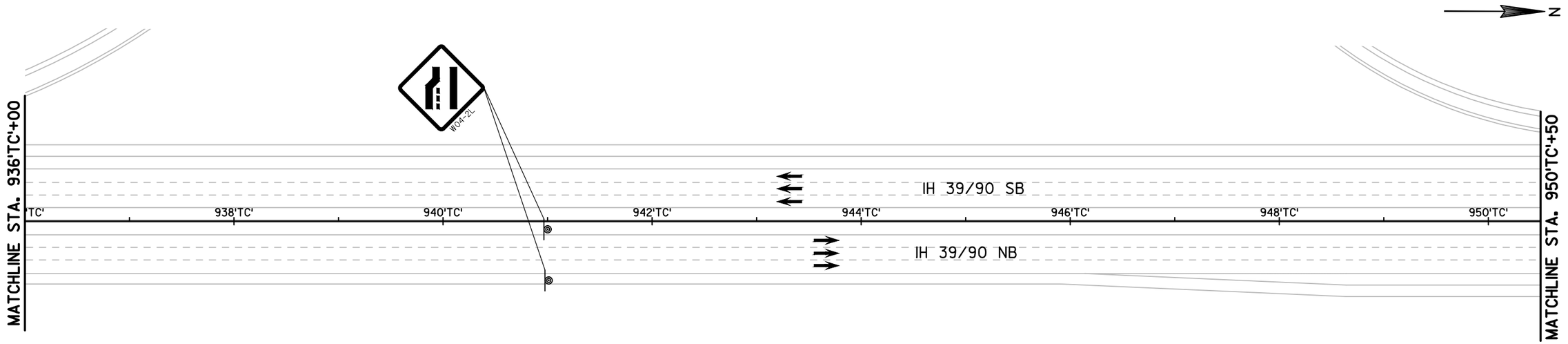


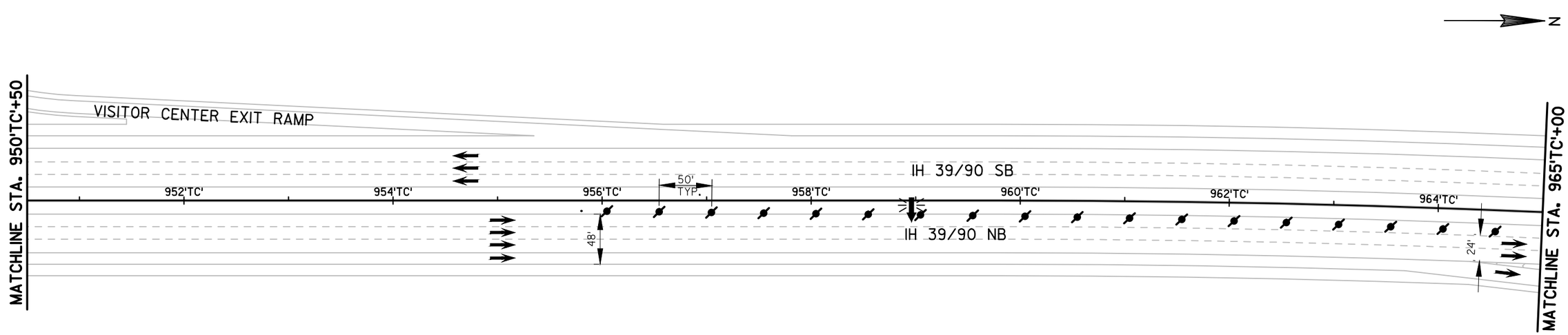


PROJECT NO: 1003-10-82	HWY: IH 39	COUNTY: ROCK	TRAFFIC CONTROL - IH 39 - DETAIL 3.3	SHEET 101	E

FILE NAME : L:\WORK\PROJECTS\60242867\000_CAD\001_DRAWINGS\1003-10-82_STATELINE RD\100% +\025003_TC.DWG PLOT DATE : 4/7/2016 6:00 PM PLOT BY : CZECH, ANDREW PLOT NAME : PLOT SCALE : 1" = 100'_XREF
WISDOT/CADDS SHEET 44

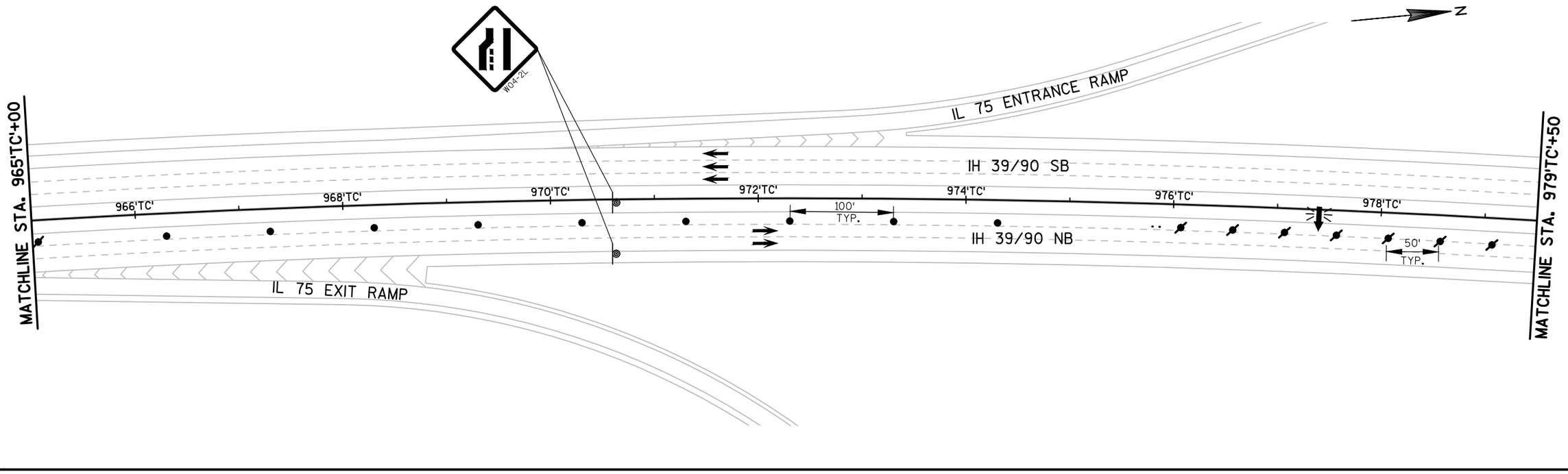
2

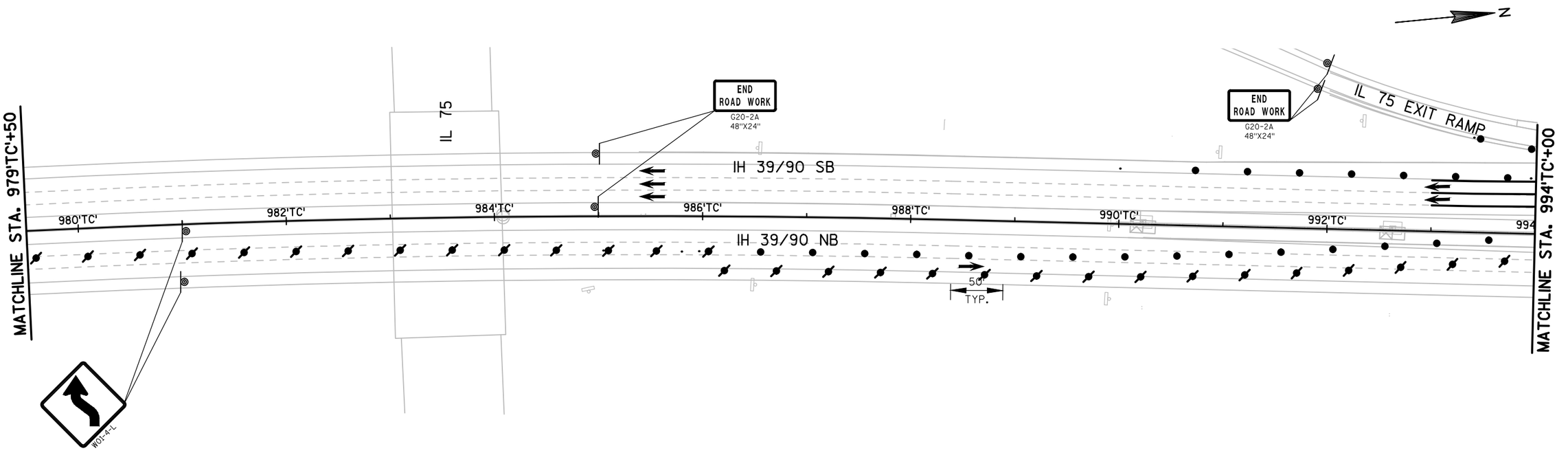




PROJECT NO: 1003-10-82	HWY: IH 39	COUNTY: ROCK	TRAFFIC CONTROL - IH 39 - DETAIL 3.3	SHEET	E

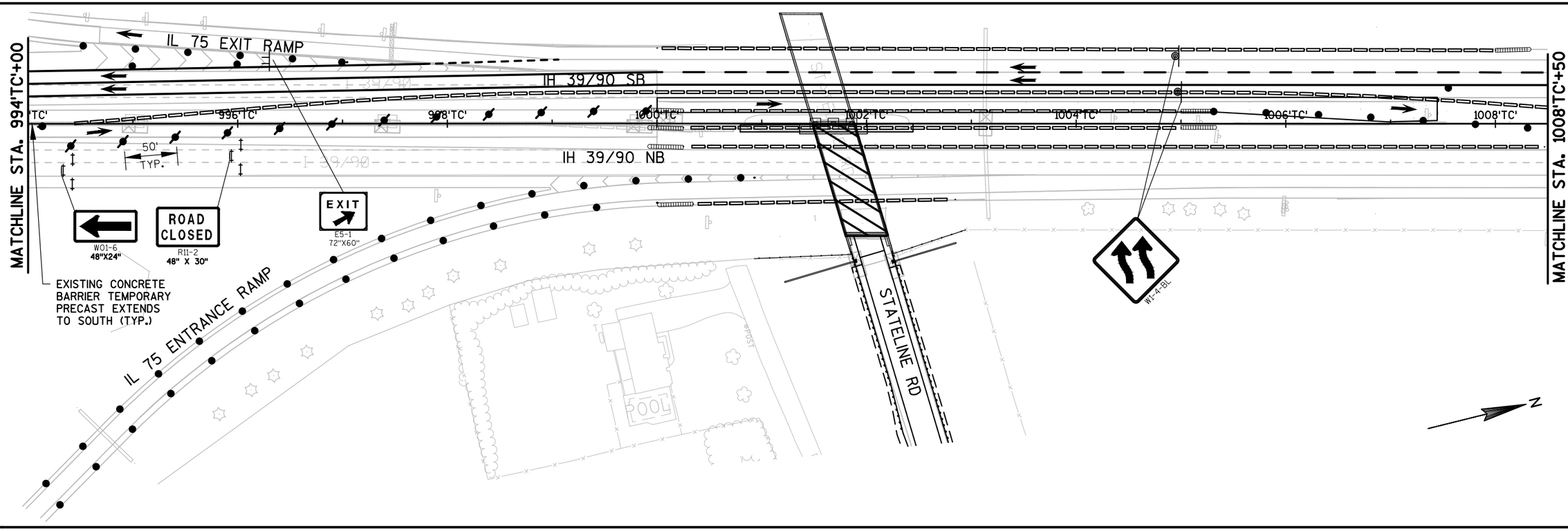
FILE NAME : L:\WORK\PROJECTS\60242867\000_CAD\001_DRAWINGS\1003-10-82_STATELINE RD\100% +\025003_TC.DWG PLOT DATE : 4/7/2016 6:00 PM PLOT BY : CZECH, ANDREW PLOT NAME : PLOT SCALE : 1" = 100'_XREF
WISDOT/CADDS SHEET 44



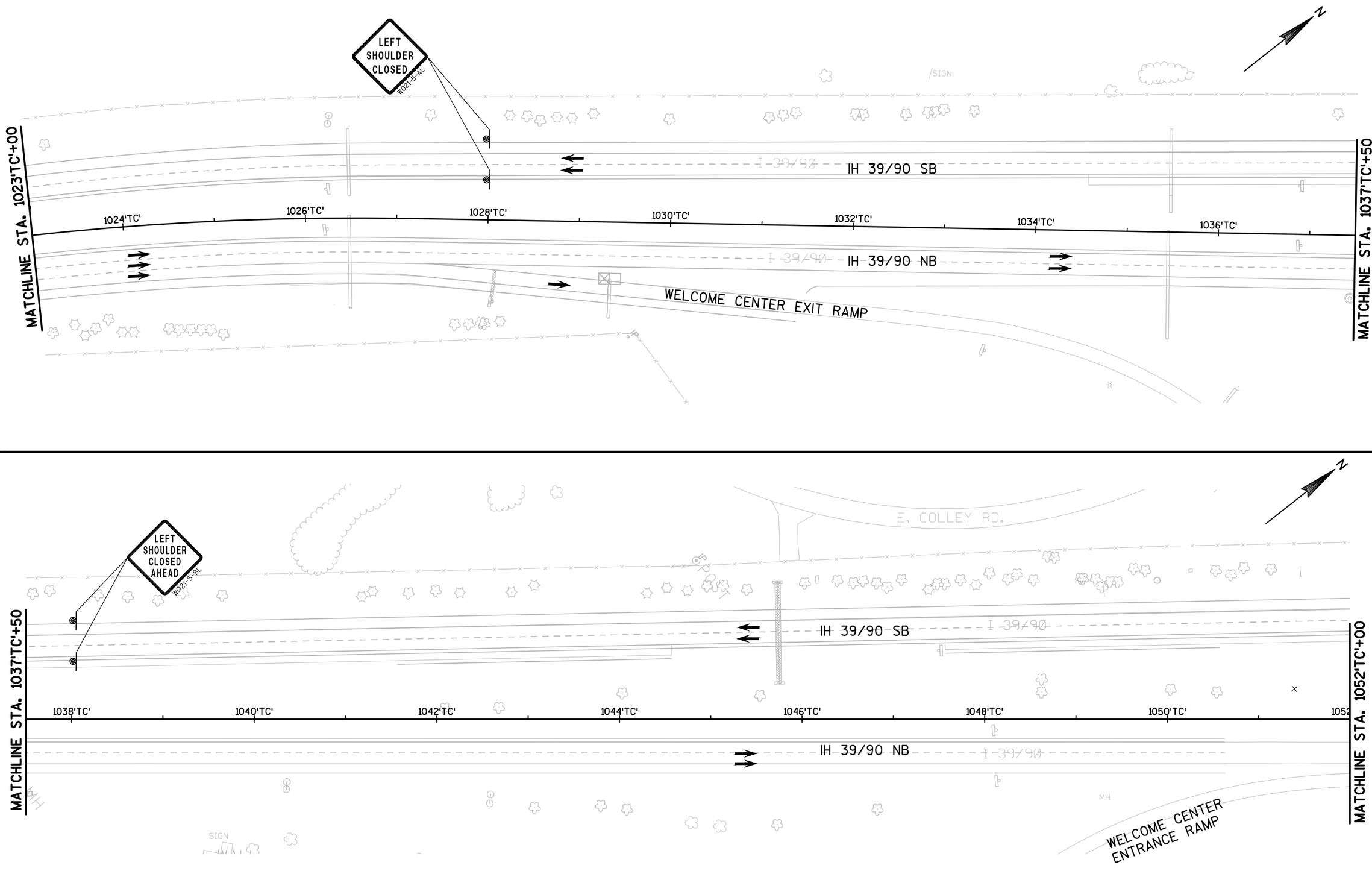


PROJECT NO: 1003-10-82	HWY: IH 39	COUNTY: ROCK	TRAFFIC CONTROL - IH 39 - DETAIL 3.3	SHEET	E

FILE NAME : L:\WORK\PROJECTS\60242867\000_CAD\001_DRAWINGS\1003-10-82_STATELINE RD\100% +\025003_TC.DWG PLOT DATE : 4/7/2016 6:00 PM PLOT BY : CZECH, ANDREW PLOT NAME : PLOT SCALE : 1" = 100'_XREF

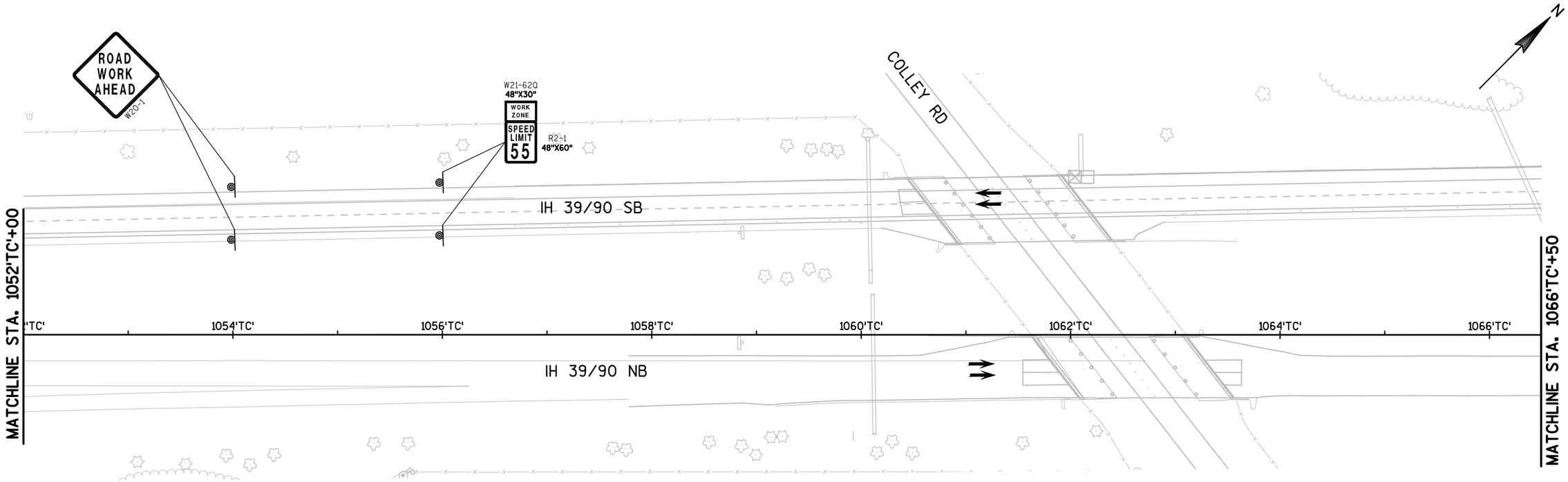


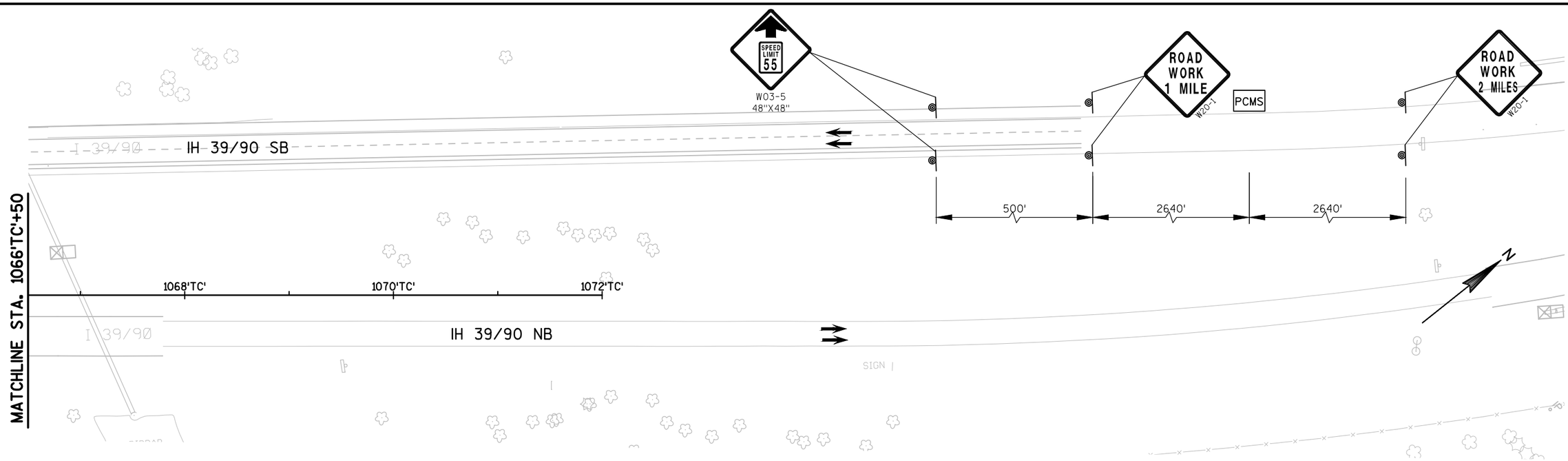
PROJECT NO: 1003-10-82	HWY: IH 39	COUNTY: ROCK	TRAFFIC CONTROL - IH 39 - DETAIL 3.3	SHEET 104	E



PROJECT NO: 1003-10-82	HWY: IH 39	COUNTY: ROCK	TRAFFIC CONTROL - IH 39 - DETAIL 3.3	SHEET	E

FILE NAME : L:\WORK\PROJECTS\60242867\000_CAD\001_DRAWINGS\1003-10-82_STATELINE RD\100% +\025003_TC.DWG PLOT DATE : 4/7/2016 6:01 PM PLOT BY : CZECH, ANDREW PLOT NAME : PLOT SCALE : 1" = 100'_XREF





PROJECT NO: 1003-10-82	HWY: IH 39	COUNTY: ROCK	TRAFFIC CONTROL - IH 39 - DETAIL 3.3	SHEET	E

FILE NAME : L:\WORK\PROJECTS\60242867\000_CAD\001_DRAWINGS\1003-10-82_STATELINE RD\100% +\025003_TC.DWG PLOT DATE : 4/7/2016 6:01 PM PLOT BY : CZECH, ANDREW PLOT NAME : PLOT SCALE : 1" = 100'_XREF

* 1 ADVANCE PCMS FOR 10 DAYS - PRE-WARM
4 PCMS FOR 2 NIGHTS (STAGE 2C & STAGE 6A)

E ROCKTON RD

DURING CLOSURE:
MESSAGE 1
TO IL-75 N-51
MESSAGE 2
<---

PRAIRIE HILL RD

DURING CLOSURE:
MESSAGE 1
TO IL-75 N-51
MESSAGE 2
USE EXIT 3

EXIT 3
Rockton Rd
1/2 MILE

WILLOWBROOK RD

WILLOWBROOK RD

IL 75

STATELINE RD

DURING CLOSURE:
MESSAGE 1
IL-75 EXIT 2 CLOSED
MESSAGE 2
USE EXIT 3

* PCMS 10 DAYS PRE-WARN CLOSURE:
MESSAGE 1
IL-75 EXIT 2 CLOSED
MESSAGE 2
APRIL 15 10PM TO 5AM

N

PCMS

IH 39/90

IH 39/90

IL 75 OFF-RAMP CLOSED

PCMS

PCMS

DURING CLOSURE:
MESSAGE 1
TO IL-75 N-51
MESSAGE 2
<---

TO BE FIELD LOCATED +/- 1/2 MILE

TO BE FIELD LOCATED +/- 1/2 MILE

PRAIRIE HILL RD

MANCHESTER RD

E ROCKTON RD

STATELINE RD

IL 75

GATEWAY BLVD

WIS 67

WEST 90 39 51 NORTH
Wisconsin

LEGEND

- 11 NEW SIGN
- 11 EXISTING SIGN
- DETOUR ROUTE
- PCMS PORTABLE CHANGEABLE MESSAGE SIGN
- TRAFFIC CONTROL DRUM W/ TYPE C STEADY BURN LIGHT
- XXXX ROAD CLOSED
- NEW POST MOUNTED SIGN
- EXISTING POST MOUNTED SIGN
- EXISTING OVERHEAD SIGN

GENERAL NOTES

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

IF THERE ARE EXISTING ROUTE MARKER ASSEMBLIES THAT WILL REMAIN IN PLACE, ADJUST THE LOCATION OF THE DETOUR ROUTE SIGNS TO CORRESPOND WITH THE EXISTING ASSEMBLIES. MODIFY EXISTING SIGNS WHERE POSSIBLE.

THE SPACING BETWEEN TRAFFIC CONTROL AND DETOUR SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT AND TO PROVIDE A DESIRABLE MINIMUM OF 200 FEET CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

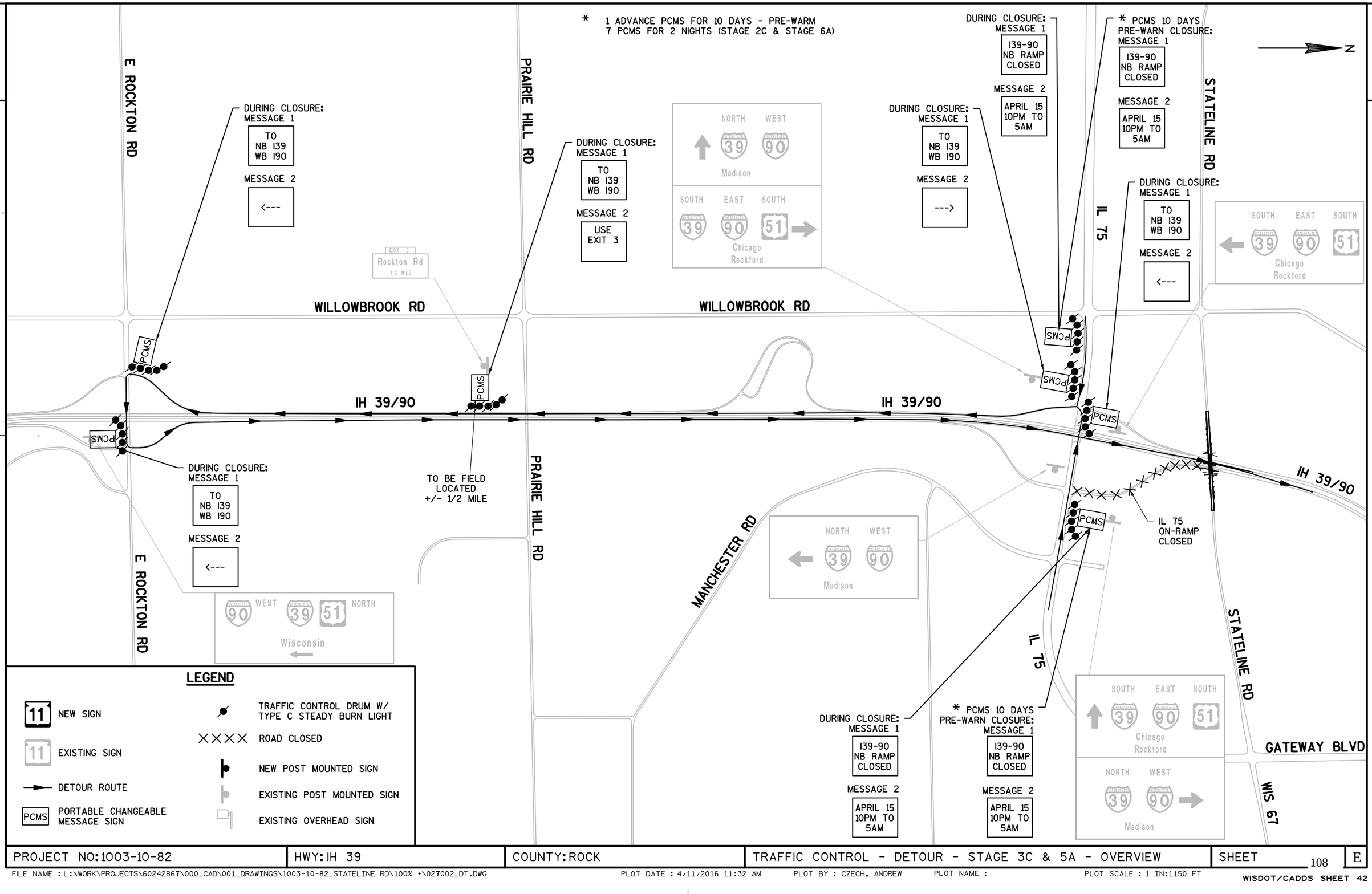
ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE", SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

ALL EXISTING SIGNS THAT NEED TO BE COVERED SHALL BE COVERED WITH A BLANK ORANGE PANEL.

ALL M05 AND M06 SIGNS SHALL BE THE SAME AS "M" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

PROJECT NO: 1003-10-82	HWY: IH 39	COUNTY: ROCK	TRAFFIC CONTROL - DETOUR - STAGE 2C & 6A - OVERVIEW	SHEET 107	E



PROJECT NO: 1003-10-82	HWY: IH 39	COUNTY: ROCK	TRAFFIC CONTROL - DETOUR - STAGE 3C & 5A - OVERVIEW	SHEET 108 E

FILE NAME : L:\WORK\PROJECTS\60242867\000_CAD\001_DRAWINGS\1003-10-82_STATELINE RD\100% +\027002_DT.DWG PLOT DATE : 4/11/2016 11:32 AM PLOT BY : CZECH, ANDREW PLOT NAME : PLOT SCALE : 1 IN:1150 FT
WISDOT/CADDS SHEET 42

2

N

SB IH 39

NB IH 39

ON-RAMP TO NB IH 39

IL 75

RAMP CLOSED
R11-2(MOD)
48" X 30"

RAMP CLOSED
R11-2(MOD)
48" X 30"

25'

10'

50'

LANE CLOSED
R11-2(MOD)
48" X 30"

LANE CLOSED
R11-2(MOD)
48" X 30"

OFF-RAMP FROM NB IH 39

PROJECT NO: 1003-10-82	HWY: IH 39	COUNTY: ROCK	TRAFFIC CONTROL - STAGE 3C & 5A - ON-RAMP LANE CLOSURE	SHEET 109	E

2

N

IH 39/90 SB

IH 39/90 NB

+38.6'SL'
103' LT
MATCH EXISTING

+58.3'SL'
92' LT
MATCH
EXISTING

6-FT CHAIN LINK FENCE (TYP.)

+00.0'SL'
19.5' LT
INSTALL GATES
CHAIN LINK
(3.5 FEET)

+60.2'SL'
19.5' LT

17'SL' 18'SL' 19'SL' 20'SL' 21'SL' 22'SL' 23'SL'

STATELINE RD

+89.7'SL'
19.5' RT

+49.5'SL'
19.5' RT
INSTALL
GATES
CHAIN LINK
(3.5 FEET)

+80.0'SL'
93' RT
MATCH
EXISTING

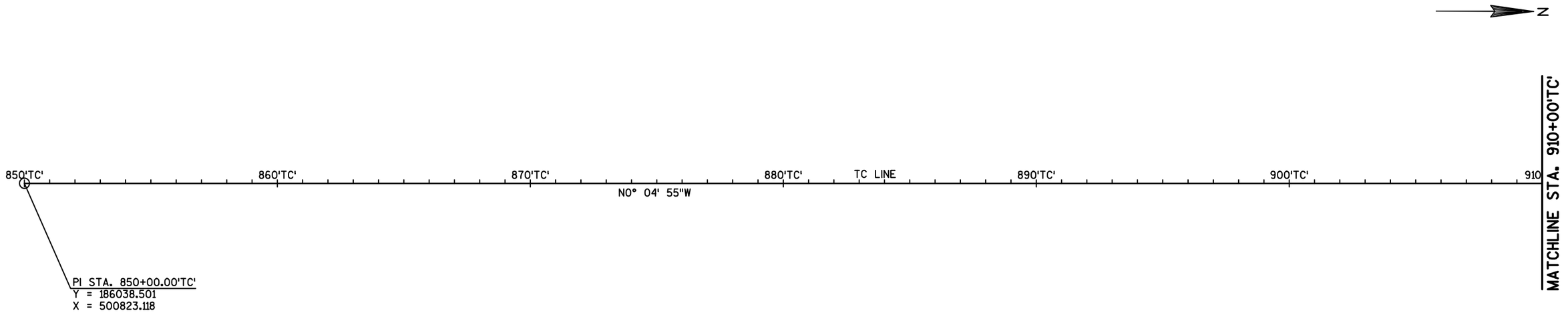
FRONTAGE RD

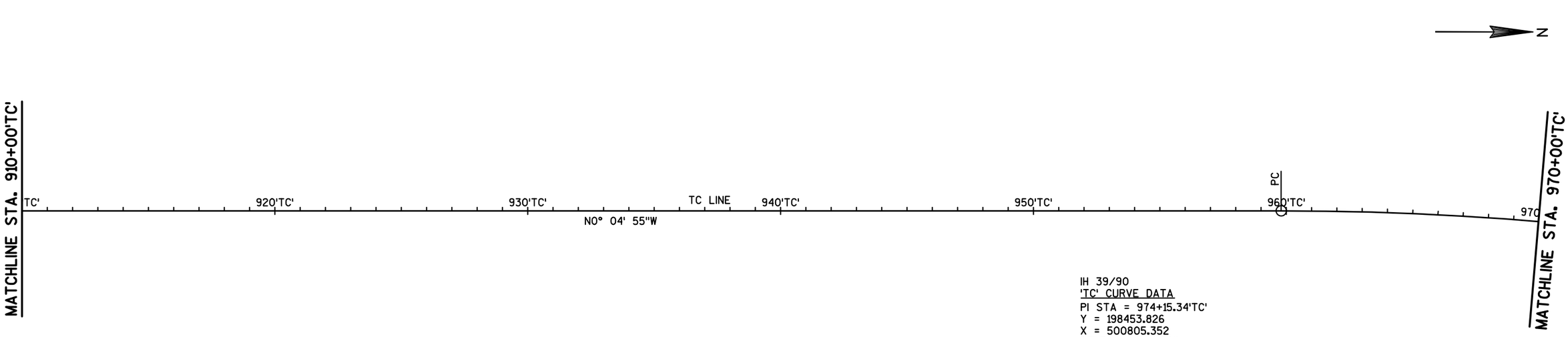
+26.9'SL'
109' RT
MATCH EXISTING

BELOIT RD

PROJECT NO: 1003-10-82	HWY: IH 39	COUNTY: ROCK	FENCE DETAIL	SHEET 110	E

2





IH 39/90
'TC' CURVE DATA
PI STA = 974+15.34'TC'
Y = 198453.826
X = 500805.352
DELTA = 13°19'30"
D = 0°27'58"
T = 1435.84'
L = 2858.73'
R = 12292.15'
PC STA = 959+79.50'TC'
Y = 197017.988
X = 500807.407
PT STA = 988+38.22'TC'
Y = 199851.483
X = 501134.277

PROJECT NO: 1003-10-82	HWY: IH 39	COUNTY: ROCK	ALIGNMENT DIAGRAM	SHEET 111	E

IH 39/90
TC CURVE DATA

PI STA = 1019+96.82'TC'
Y = 202925.817
X = 501858.984
DELTA = 25°24'06"
D = 1°44'58"
T = 738.11'
L = 1451.95'
R = 3275.00'
PC STA = 1012+58.71'TC'
Y = 202207.438
X = 501689.480
PT STA = 1027+10.67'TC'
Y = 203502.034
X = 502320.259

IH 39/90
CURVE DATA

PI STA = 120+64.51
Y = 202924.221
X = 501874.432
DELTA = 25°24'07"
D = 1°31'11"
T = 849.68'
L = 1671.43'
R = 3770.00'
PC STA = 112+14.83
Y = 202097.201
X = 501679.521
PT STA = 128+86.26
Y = 203587.674
X = 502405.265

PI STA. 5+00.00'SL'
Y = 201058.958
X = 499916.518

PI STA. 101+89.20
Y = 201098.925
X = 501444.249

PI STA. 1000+00.00'TC'
Y = 200982.365
X = 501400.419

PI STA. 99+67.29
Y = 200883.618
X = 501390.521

PI STA. 89+55.14
Y = 199898.450
X = 501158.337

PI STA. 90+85.17'A'
Y = 200071.222
X = 501790.852

PI STA. 108+00.00'A'
Y = 201683.112
X = 501628.162

PI STA. 105+32.01'A'
Y = 201500.641
X = 501199.320

PI STA. 35+36.06'SL'
Y = 201274.706
X = 502943.530

IL 75 ON-RAMP
'A' CURVE DATA

PI STA = 98+00.60'A'
Y = 200676.403
X = 501409.278
DELTA = 44°16'38"
D = 7°35'34"
T = 307.01'
L = 583.16'
R = 754.62'
PC STA = 94+93.59'A'
Y = 200416.702
X = 501573.022
PT STA = 100+76.75'A'
Y = 200976.656
X = 501473.347

STATELINE RD
'SL' CURVE DATA

PI STA = 31+68.29'SL'
Y = 201211.678
X = 502580.433
DELTA = 6°33'59"
D = 0°57'18"
T = 344.19'
L = 687.63'
R = 6000.00'
PC STA = 28+24.10'SL'
Y = 201191.978
X = 502236.807
PT STA = 35+11.73'SL'
Y = 201270.544
X = 502919.552

N86° 43' 08"E
N13° 14' 35"E
N13° 15' 41"E
N13° 16' 35"E
N14° 00' 41"E
N12° 02' 43"E
N32° 13' 55"W
N80° 09' 09"E
N38° 40' 41"E
N38° 39' 49"E

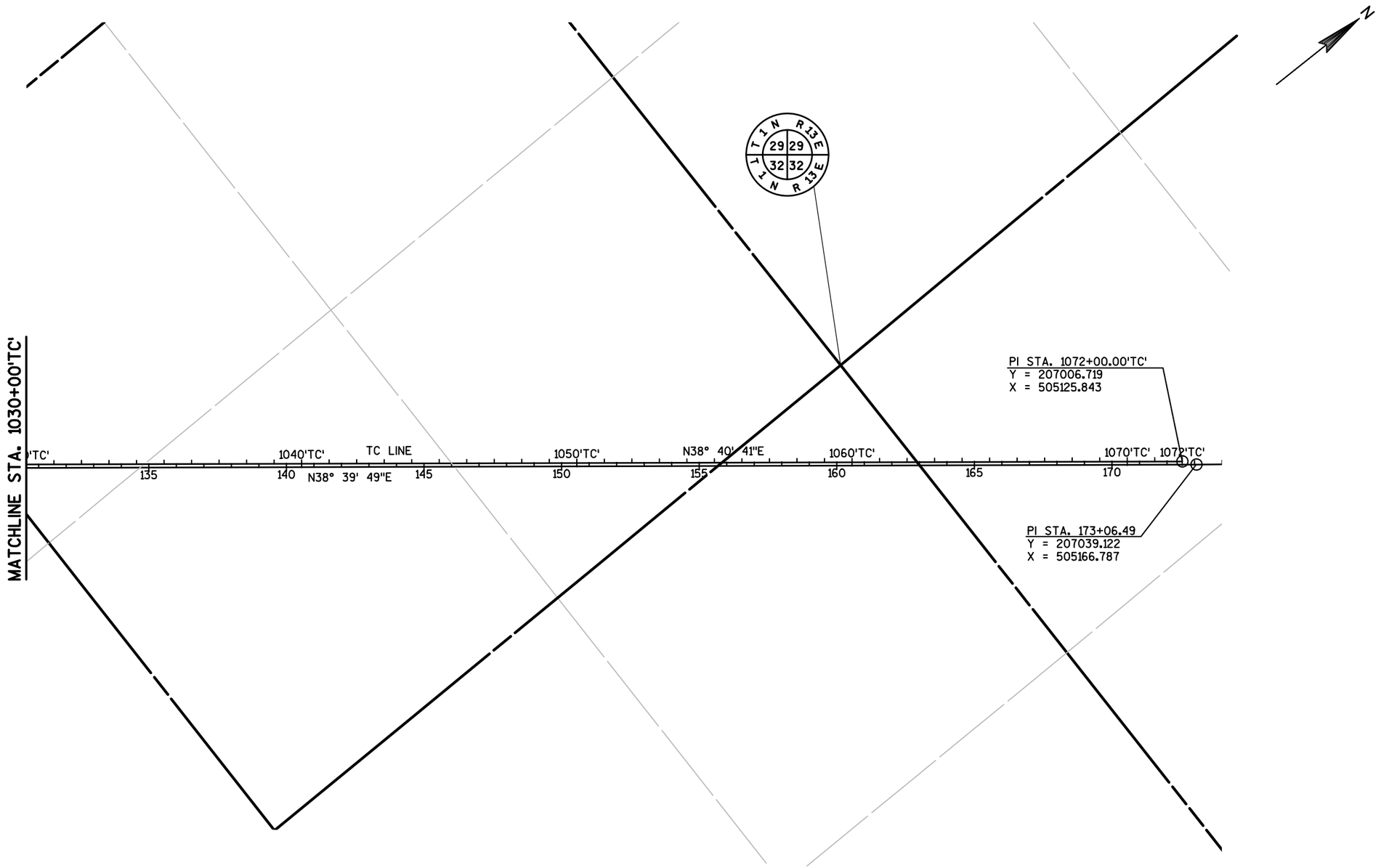
MATCHLINE STA. 970+00'TC'
MATCHLINE STA. 1030+00'TC'

T 1 N R 8 E
T 1 N R 9 E
31
32

PROJECT NO: 1003-10-82	HWY: IH 39	COUNTY: ROCK	ALIGNMENT DIAGRAM	SHEET 112	E

FILE NAME : L:\WORK\PROJECTS\60242867\000_CAD\001_DRAWINGS\1003-10-82_STATELINE RD\100% +\027201_AD.DWG PLOT DATE : 3/8/2016 10:26 AM PLOT BY : CZECH, ANDREW PLOT NAME : PLOT SCALE : 1 IN:400 FT

2



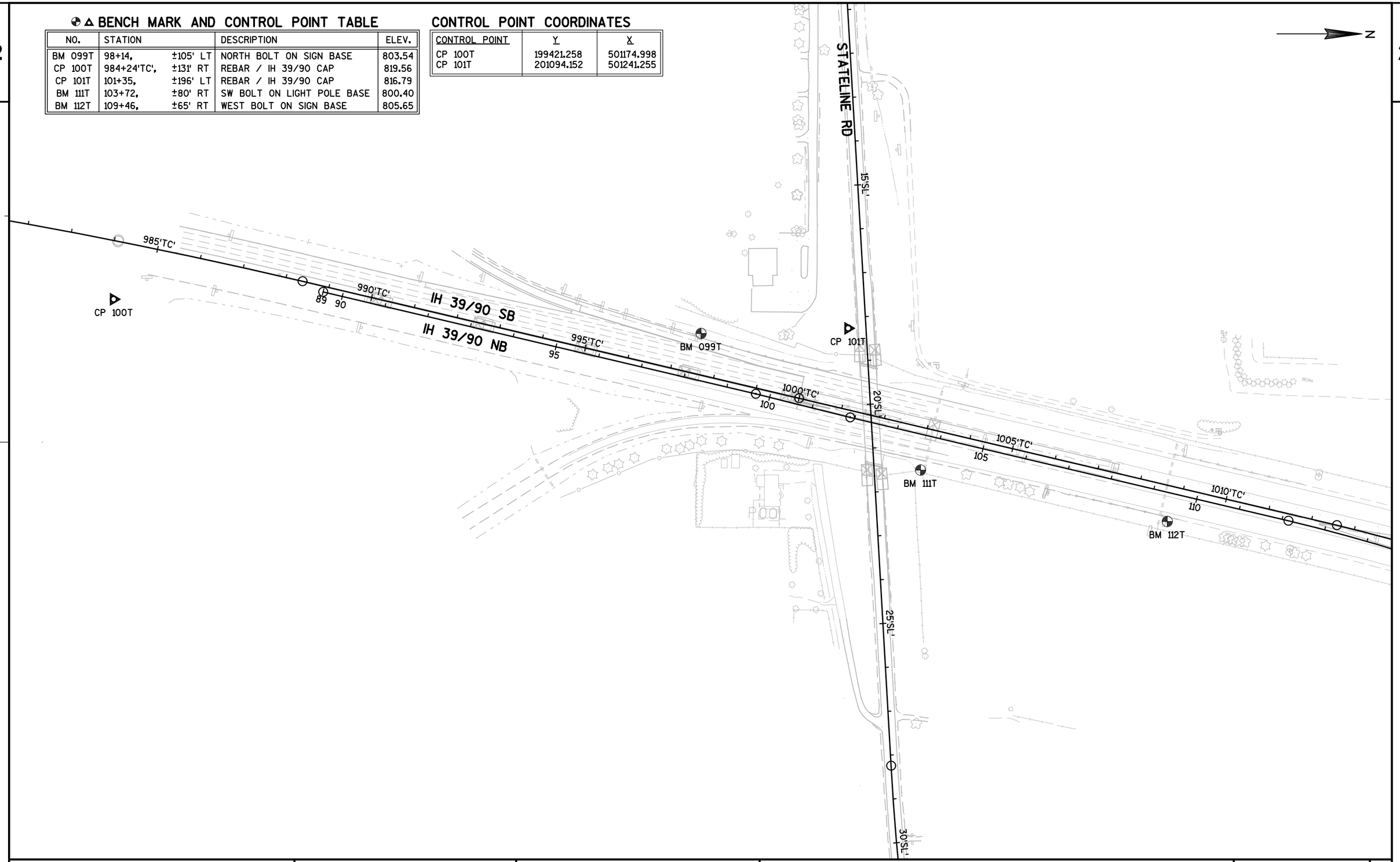
PROJECT NO:1003-10-82	HWY:IH 39	COUNTY:ROCK	ALIGNMENT DIAGRAM	SHEET 113	E

◔ △ BENCH MARK AND CONTROL POINT TABLE

NO.	STATION		DESCRIPTION	ELEV.
BM 099T	98+14,	±105' LT	NORTH BOLT ON SIGN BASE	803.54
CP 100T	984+24'TC',	±131' RT	REBAR / IH 39/90 CAP	819.56
CP 101T	101+35,	±196' LT	REBAR / IH 39/90 CAP	816.79
BM 111T	103+72,	±80' RT	SW BOLT ON LIGHT POLE BASE	800.40
BM 112T	109+46,	±65' RT	WEST BOLT ON SIGN BASE	805.65

CONTROL POINT COORDINATES

CONTROL POINT	Y	X
CP 100T	199421.258	501174.998
CP 101T	201094.152	501241.255



PROJECT NO: 1003-10-82	HWY: IH 39	COUNTY: ROCK	BENCHMARKS AND CONTROL POINTS	SHEET 114	E

DATE 13APR16 E S T I M A T E O F Q U A N T I T I E S

LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	1003-10-82 QUANTITY
0030	203.0100	Removing Small Pipe Culverts	EACH	4.000	4.000
0050	203.0200	Removing Old Structure (station) 002. STA 20+25	LS	1.000	1.000
0080	203.0225.S	Debris Containment (structure) 002. B-53-204	LS	1.000	1.000
0100	204.0100	Removing Pavement	SY	126.000	126.000
0120	204.0120	Removing Asphaltic Surface Milling	SY	550.000	550.000
0140	204.0165	Removing Guardrail	LF	1,250.000	1,250.000
0150	204.0170	Removing Fence	LF	340.000	340.000
0160	204.0180	Removing Delineators and Markers	EACH	50.000	50.000
0190	204.0220	Removing Inlets	EACH	4.000	4.000
0220	205.0100	Excavation Common	CY	1,731.000	1,731.000
0240	206.1000	Excavation for Structures Bridges (structure) 002. B-53-325	LS	1.000	1.000
0260	210.0100	Backfill Structure	CY	1,110.000	1,110.000
0280	213.0100	Finishing Roadway (project) 001. 1003-10-82	EACH	1.000	1.000
0330	305.0110	Base Aggregate Dense 3/4-Inch	TON	275.000	275.000
0340	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	5,390.000	5,390.000
0360	312.0110	Select Crushed Material	TON	475.000	475.000
0390	415.0410	Concrete Pavement Approach Slab	SY	98.000	98.000
0410	416.1010	Concrete Surface Drains	CY	24.000	24.000
0440	455.0605	Tack Coat	GAL	157.000	157.000
0450	460.2000	Incentive Density HMA Pavement	DOL	1,040.000	1,040.000
0460	460.5223	HMA Pavement 3 LT 58-28 S	TON	550.000	550.000
0470	460.5224	HMA Pavement 4 LT 58-28 S	TON	440.000	440.000
0480	460.7222	HMA Pavement 2 HT 58-28 S	TON	350.000	350.000
0510	460.7424	HMA Pavement 4 HT 58-28 H	TON	285.000	285.000
0540	502.0100	Concrete Masonry Bridges	CY	613.000	613.000
0550	502.3200	Protective Surface Treatment	SY	891.000	891.000
0560	502.3210	Pigmented Surface Sealer	SY	217.000	217.000
0570	503.0146	Prestressed Girder Type I 45W-Inch	LF	1,325.000	1,325.000
0580	505.0400	Bar Steel Reinforcement HS Structures	LB	10,810.000	10,810.000
0590	505.0600	Bar Steel Reinforcement HS Coated Structures	LB	99,180.000	99,180.000
0600	506.2605	Bearing Pads Elastomeric Non-Laminated	EACH	24.000	24.000
0620	506.4000	Steel Diaphragms (structure) 002. B-53-325	EACH	20.000	20.000
0640	511.1200	Temporary Shoring (structure) 002. B-53-325	SF	910.000	910.000
0670	516.0500	Rubberized Membrane Waterproofing	SY	24.000	24.000
0690	517.1010.S	Concrete Staining (structure) 002. B-53-325	SF	7,040.000	7,040.000
0730	521.1012	Apron Endwalls for Culvert Pipe Steel 12-Inch	EACH	4.000	4.000
0950	550.2126	Piling CIP Concrete 12 3/4 X 0.375-Inch	LF	1,560.000	1,560.000
0980	603.8000	Concrete Barrier Temporary Precast Delivered	LF	7,900.000	7,900.000
0990	603.8125	Concrete Barrier Temporary Precast Installed	LF	10,050.000	10,050.000
1000	604.0500	Slope Paving Crushed Aggregate	SY	302.000	302.000
1010	606.0200	Riprap Medium	CY	5.000	5.000
1060	611.0654	Inlet Covers Type V	EACH	4.000	4.000
1070	611.3220	Inlets 2x2-FT	EACH	4.000	4.000
1120	612.0212	Pipe Underdrain Unperforated 12-Inch	LF	290.000	290.000
1130	612.0406	Pipe Underdrain Wrapped 6-Inch	LF	140.000	140.000

3

DATE 13APR16 E S T I M A T E O F Q U A N T I T I E S

LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	1003-10-82 QUANTITY
1150	614.0150	Anchor Assemblies for Steel Plate Beam Guard	EACH	4.000	4.000
1180	614.0800	Crash Cushions Permanent	EACH	1.000	1.000
1190	614.0905	Crash Cushions Temporary	EACH	11.000	11.000
1200	614.2300	MGS Guardrail 3	LF	857.900	857.900
1220	614.2500	MGS Thrie Beam Transition	LF	157.600	157.600
1230	614.2610	MGS Guardrail Terminal EAT	EACH	5.000	5.000
1240	614.2620	MGS Guardrail Terminal Type 2	EACH	1.000	1.000
1270	616.0206	Fence Chain Link 6-FT	LF	340.000	340.000
1280	616.0329	Gates Chain Link (width) 001. 3.5 Feet	EACH	2.000	2.000
1290	618.0100	Maintenance And Repair of Haul Roads (project) 001. 1003-10-82	EACH	1.000	1.000
1340	619.1000	Mobilization	EACH	0.200	0.200
1360	624.0100	Water	MGAL	55.000	55.000
1370	625.0500	Salvaged Topsoil	SY	10,400.000	10,400.000
1380	627.0200	Mulching	SY	3,200.000	3,200.000
1390	628.1504	Silt Fence	LF	3,400.000	3,400.000
1400	628.1520	Silt Fence Maintenance	LF	3,400.000	3,400.000
1410	628.1905	Mobilizations Erosion Control	EACH	5.000	5.000
1420	628.1910	Mobilizations Emergency Erosion Control	EACH	4.000	4.000
1430	628.2004	Erosion Mat Class I Type B	SY	2,530.000	2,530.000
1450	628.6505	Soil Stabilizer Type A	ACRE	1.600	1.600
1460	628.6510	Soil Stabilizer Type B	ACRE	0.400	0.400
1470	628.7005	Inlet Protection Type A	EACH	4.000	4.000
1480	628.7010	Inlet Protection Type B	EACH	6.000	6.000
1500	628.7020	Inlet Protection Type D	EACH	6.000	6.000
1510	628.7504	Temporary Ditch Checks	LF	50.000	50.000
1520	628.7555	Culvert Pipe Checks	EACH	8.000	8.000
1540	629.0205	Fertilizer Type A	CWT	9.000	9.000
1560	630.0120	Seeding Mixture No. 20	LB	70.000	70.000
1570	630.0130	Seeding Mixture No. 30	LB	50.000	50.000
1590	630.0200	Seeding Temporary	LB	200.000	200.000
1600	630.0300	Seeding Borrow Pit	LB	15.000	15.000
1720	638.2102	Moving Signs Type II	EACH	2.000	2.000
1730	638.2602	Removing Signs Type II	EACH	1.000	1.000
1740	638.3000	Removing Small Sign Supports	EACH	1.000	1.000
1750	638.4000	Moving Small Sign Supports	EACH	2.000	2.000
1770	642.5201	Field Office Type C	EACH	0.200	0.200
1780	643.0200	Traffic Control Surveillance and Maintenance (project) 001. 1003-10-82	DAY	200.000	200.000
1830	643.0300	Traffic Control Drums	DAY	27,156.000	27,156.000
1840	643.0420	Traffic Control Barricades Type III	DAY	2,909.000	2,909.000
1850	643.0705	Traffic Control Warning Lights Type A	DAY	4,682.000	4,682.000
1860	643.0710	Traffic Control Warning Lights Type B	DAY	244.000	244.000
1870	643.0715	Traffic Control Warning Lights Type C	DAY	9,940.000	9,940.000
1880	643.0800	Traffic Control Arrow Boards	DAY	589.000	589.000
1890	643.0900	Traffic Control Signs	DAY	9,360.000	9,360.000
1910	643.1050	Traffic Control Signs PCMS	DAY	418.000	418.000
1920	643.2000	Traffic Control Detour (project) 001. 1003-10-82	EACH	1.000	1.000
1930	645.0120	Geotextile Fabric Type HR	SY	30.000	30.000
1940	646.0106	Pavement Marking Epoxy 4-Inch	LF	17,300.000	17,300.000
1950	646.0116	Pavement Marking Epoxy 6-Inch	LF	2,290.000	2,290.000
1960	646.0126	Pavement Marking Epoxy 8-Inch	LF	3,310.000	3,310.000

3

DATE 13APR16 E S T I M A T E O F Q U A N T I T I E S

LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	1003-10-82 QUANTITY
1970	646.0136	Pavement Marking Epoxy 12-Inch	LF	400.000	400.000
1980	646.0600	Removing Pavement Markings	LF	10,315.000	10,315.000
2020	649.0403	Temporary Pavement Marking Epoxy 4-Inch	LF	5,450.000	5,450.000
2040	649.0803	Temporary Pavement Marking Epoxy 8-Inch	LF	600.000	600.000
2050	652.0125	Conduit Rigid Metallic 2-Inch	LF	48.000	48.000
2060	652.0225	Conduit Rigid Nonmetallic Schedule 40 2-Inch	LF	1,200.000	1,200.000
2070	652.0700.S	Install Conduit into Existing Item	EACH	1.000	1.000
2090	653.0140	Pull Boxes Steel 24x42-Inch	EACH	4.000	4.000
2100	653.0222	Junction Boxes 18x12x6-Inch	EACH	4.000	4.000
2110	671.0122	Conduit HDPE 2-Duct 2-Inch	LF	530.000	530.000
2120	672.0250	Base Camera Pole 50-FT	EACH	1.000	1.000
2130	673.0105	Communication Vault Type 1	EACH	1.000	1.000
2140	690.0150	Sawing Asphalt	LF	1,140.000	1,140.000
2170	715.0502	Incentive Strength Concrete Structures	DOL	3,678.000	3,678.000
2180	SPV.0035	Special 001. Roadway Embankment	CY	3,600.000	3,600.000
2190	SPV.0060	Special 001. Baseline CPM Progress Schedule	EACH	0.200	0.200
2200	SPV.0060	Special 002. CPM Progress Schedule Updates and Accepted Revisions	EACH	2.000	2.000
2240	SPV.0060	Special 006. Fiber Tracer Marker Post	EACH	2.000	2.000
2310	SPV.0090	Special 005. Compost Tube	LF	1,400.000	1,400.000
2320	SPV.0090	Special 006. Concrete Barrier Temporary Precast Left In Place	LF	850.000	850.000
2330	SPV.0090	Special 007. Concrete Barrier Temporary Precast Anchoring	LF	200.000	200.000
2360	SPV.0090	Special 750. Fence Chain Link Polymer-Coated 6-Ft.	LF	520.000	520.000
2410	SPV.0105	Special 005. Survey Project 1003-10-82	LS	1.000	1.000

3

REMOVING SMALL PIPE CULVERTS AND REMOVING INLETS

STATION	LOCATION	ESTIMATED LENGTH (FT)	ESTIMATED DIA. (IN)	203.0100 REMOVING SMALL PIPE CULVERTS (EACH)	204.0220 REMOVING INLETS (EACH)
18+78'SL'	RT	85	12	1	1
18+89'SL'	LT	82	12	1	1
21+61'SL'	RT	85	12	1	1
21+71'SL'	LT	85	12	1	1
		CATEGORY 1000 TOTALS		4	4
		PROJECT TOTALS		4	4

REMOVING PAVEMENT

STATION	-	STATION	COMMENTS	204.0100 REMOVING PAVEMENT (SY)
18+86'SL'	-	19+13'SL'	WEST APPROACH SLAB	62
21+37'SL'	-	21+64'SL'	EAST APPROACH SLAB	64
			CATEGORY 1000 TOTALS	126
			PROJECT TOTALS	126

REMOVING ASPHALTIC SURFACE MILLING

STATION	-	STATION	LOCATION	LENGTH (LF)	WIDTH (LF)	DEPTH (IN)	204.0120 REMOVING ASPHALTIC SURFACE MILLING (SY)	COMMENTS
100+66	-	115+51	NB MEDIAN SHOULDER	1485	2	2	330	STAGE 1
108+10	-	118+00	SB MEDIAN SHOULDER	990	2	2	220	STAGE 1
					CATEGORY 1000 TOTALS		550	
					PROJECT TOTALS		550	

REMOVING GUARDRAIL AND REMOVING FENCE

STATION	-	STATION	LT/RT	204.0165 REMOVING GUARDRAIL (LF)	204.0170 REMOVING FENCE (LF)	COMMENTS
101+50	-	103+06	LT	325	--	STAGE 1
15+93'SL'		18+86'SL'	RT	295	--	
17+28'SL'	-	18+97'SL'	LT	170	--	
18+80'SL'	-	18+86'SL'	RT	--	75	
18+97'SL'	-	19+39'SL'	LT	--	95	
21+27'SL'	-	21+52'SL'	RT	--	95	
21+53'SL'	-	23+17'SL'	RT	165	--	
21+58'SL'		21+64'SL'	LT	--	75	
21+64'SL'	-	24+57'SL'	LT	295	--	
			CATEGORY 1000 TOTALS	1,250	340	
			PROJECT TOTALS	1,250	340	

REMOVING DELINEATORS AND MARKERS

STATION	-	STATION	LOCATION	204.0180 REMOVING DELINEATORS AND MARKERS (EACH)	COMMENTS
107+64	-	112+85	IH 39 MEDIAN	50	FLEXIBLE TUBULAR MARKER POSTS
			CATEGORY 1000 TOTALS	50	
			PROJECT TOTALS	50	

EARTHWORK (PROJECT 1003-10-82)

Category	Division	From/To Station	Location	Excavation Common (CY) (1) 205.0100		Fill (CY)	Roadway Embankment (CY) (4) SPV.0035.001	Mass Ordinate +/- (5)
				Cut (CY) (2)	EBS (CY) (3)			
1000	1	13+25'SL' - 20+00'SL'	STATELINE RD	340	0	2,035	2,035	-1,695
		21+00'SL' - 26+50'SL'	STATELINE RD	342	0	656	656	-314
		100+50 - 108+10	IH 39 MEDIAN	798	0	61	61	738
		101+00 - 102+86	WEST ABUTMENT	0	0	401	401	-401
		101+50 - 103+50	EAST ABUTMENT	0	0	448	448	-448
		UNDISTRIBUTED		0	250	0	0	0
	Project 1003-10-82 - Division 1 Subtotal			1,481	250	3,600	3,600	-2,119
	Project 1003-10-82 - Division 1 Total			1,731			3,600	
	Project 1003-10-82 Totals			1,731			3,600	

1) Excavation Common = Cut + EBS Excavation. Item number 205.0100.

2) Cut volume includes concrete and asphaltic surface material.

3) EBS to be backfilled with Select Crushed Material, see Base Aggregate items.

4) Roadway Embankment = Fill

5) The Mass Ordinate is calculated by division. A positive quantity indicates an excess of material within the Division and a negative quantity indicates a shortage of material within the Division. Structure Excavation is not included in this calculation.
Mass Ordinate = Cut - Fill. The Mass Ordinate is for information purposes only as Common Excavation and Roadway Embankment are not balanced for quantity purposes and does not guarantee the quality of Common Excavation, and if it can be reused onsite. All EBS material is assumed to be wasted offsite.

3

BASE AGGREGATE DENSE

STATION	-	STATION	LOCATION	305.0110 BASE AGGREGATE DENSE 3/4-INCH (TON)	305.0120 BASE AGGREGATE DENSE 1 1/4-INCH (TON)	312.0110 SELECT CRUSHED MATERIAL (TON)	COMMENTS
13+25'SL'	-	19+18'SL'	STATELINE ROAD	70	2,420	--	
21+32'SL'	-	26+50'SL'	STATELINE ROAD	60	1,410	--	
100+66	-	108+10	IH 39 MEDIAN	140	1,410	--	STAGE 1
102+02	-	102+66	IH 39 MEDIAN	5	150	--	STAGE 4
			UNDISTRIBUTED	--	--	475	EBS BACKFILL
			CATEGORY 1000 TOTALS	275	5,390	475	
			PROJECT TOTALS	275	5,390	475	

CONCRETE PAVEMENT APPROACH SLAB, CONCRETE SURFACE DRAINS

STATION	-	STATION	LOCATION	415.0410 CONCRETE PAVEMENT APPROACH SLAB (SY)	416.1010 CONCRETE SURFACE DRAINS (CY)
18+68'SL'	-	19+10'SL'	RT	--	6
18+79'SL'	-	19+19'SL'	LT	--	6
18+95'SL'	-	19+17'SL'	LT/RT	49	--
21+31'SL'	-	21+71'SL'	RT	--	6
21+33'SL'	-	21+55'SL'	LT/RT	49	--
21+40'SL'	-	21+82'SL'	LT	--	6
			CATEGORY 1000 TOTALS	98	24
			PROJECT TOTALS	98	24

3

HMA PAVEMENT ITEMS

STATION	-	STATION	LOCATION	PAVEMENT DEPTH (INCHES)	460.5223 HMA PAVEMENT 3 LT 58-28 S (TON)	460.5224 HMA PAVEMENT 4 LT 58-28 S (TON)	460.7222 HMA PAVEMENT 2 HT 58-28 S (TON)	460.7424 HMA PAVEMENT 4 HT 58-28 H (TON)	455.0605 TACK COAT (GAL)	COMMENTS
13+25'SL'	-	18+95'SL'	STATELINE ROAD	4	300	240	--	--	55	
21+55'SL'	-	26+50'SL'	STATELINE ROAD	4	250	200	--	--	50	
100+66	-	108+10	IH 39 SB	6.5	--	--	305	190	30	STAGE 1
101+45	-	103+10	IH 39 NB	6.5	--	--	30	20	5	STAGE 1
102+02	-	102+66	IH 39 NB	6.5	--	--	15	10	2	STAGE 4
108+10	-	118+00	IH 39 SB - RUMBLESTRIP OVERLAY	2	--	--	--	40	10	STAGE 1
100+66	-	115+51	IH 39 NB - RUMBLESTRIP OVERLAY	2	--	--	--	25	5	STAGE 1
			CATEGORY 1000 TOTALS		550	440	350	285	157	
			PROJECT TOTALS		550	440	350	285	157	

TRAFFIC CONTROL - CONCRETE BARRIER TEMPORARY PRECAST AND CRASH CUSHIONS TEMPORARY

ROADWAY	LOC.	603.8000 CONCRETE BARRIER TEMPORARY PRECAST DELIVERED (LF)	603.8125 CONCRETE BARRIER TEMPORARY PRECAST INSTALLED (LF)	614.0905 CRASH CUSHION TEMPORARY (EACH)	SPV.0090.006 CONCRETE BARRIER TEMPORARY PRECAST LEFT IN PLACE (LF)	SPV.0090.007 CONCRETE BARRIER TEMPORARY PRECAST ANCHORING (LF)
IH 39 - STAGE 1						
995+47'TC' - 1000+72'TC'	RT.	--	525	--	--	--
1000+72'TC' - 1009+47'TC'	RT.	875	875	--	--	--
999+13'TC' - 1011+11'TC'	LT.	1,200	1,200	--	--	--
IH 39 - STAGE 2						
1000+00'TC' - 1008+00'TC'	LT.	800	800	1	--	--
1005+13'TC' - 1008+13'TC'	LT.	--	300	1	--	--
1000+25'TC' - 1005+00'TC'	RT.	475	475	2	--	100
1009+46'TC' - 1012+47'TC'	RT.	300	300	--	--	--
IH 39 - STAGE 3						
994+40'TC' - 999+13'TC'	LT.	475	475	--	--	--
1008+13'TC' - 1012+12'TC'	LT.	400	400	--	--	--
1000+25'TC' - 1005+00'TC'	LT.	475	475	2	--	--
1000+25'TC' -	RT.	--	--	1	--	--
1000+34'TC' - 1002+84'TC'	RT.	250	250	1	--	--
IH 39 - STAGE 4						
1001+18'TC' - 1002+18'TC'	LT.	--	400	--	--	100
IH 39 - STAGE 6						
994+37.5'TC' - 995+50'TC'	LT./RT.	--	112.5	--	--	--
995+50'TC' - 1000+25'TC'	RT.	475	475	--	--	--
1008+47'TC' - 1012+47'TC'	RT.	400	400	--	--	--
1008+13'TC' -	LT.	--	--	1	--	--
IH 39 - STAGE 9						
994+40'TC' - 999+13'TC'	LT.	475	475	--	--	--
1008+13'TC' - 1012+12'TC'	LT.	400	400	--	--	--
1000+25'TC' -	RT.	--	--	1	--	--
IH 39 - STAGE 11						
994+37.5'TC' - 995+50'TC'	LT./RT.	--	112.5	--	--	--
995+50'TC' - 1000+25'TC'	RT.	475	475	--	--	--
1008+47'TC' - 1012+47'TC'	RT.	400	400	--	--	--
1008+13'TC' -	LT.	--	--	1	--	--
IH 39 - STAGE 12						
995+50'TC' - 1002+50'TC'	RT.	--	700	--	--	--
999+00'TC' - 1002+50'TC'	RT.	--	--	--	350	--
1000+00'TC' - 1000+25'TC'	LT.	25	25	--	--	--
1000+00'TC' - 1005+00'TC'	LT.	--	--	--	500	--
CATEGORY 1000 TOTALS		7,900	10,050	11	850	200
PROJECT TOTALS		7,900	10,050	11	850	200

3

INLETS, COVERS, PIPE UNDERDRAIN, AND ENDWALLS

STATION	(2) OFFSET	RIM OR GRATE ELEVATION	FLOOR ELEVATION	(1) DEPTH OF STRUCTURE	611.3220 INLETS 2X2-FT (EACH)	611.0654 INLET COVERS TYPE V (EACH)	612.0212 PIPE UNDERDRAIN UNPERFORATED 12-INCH (LF)	521.1012 APRON ENDWALLS FOR CULVERT PIPE STEEL 12-INCH (EACH)
18+73.0'SL'	17.4' RT	825.41	821.08	3.00	1	1	75	1
18+83.7'SL'	17.4' LT	825.51	821.18	3.00	1	1	75	1
21+66.2'SL'	17.4' RT	825.11	820.78	3.00	1	1	75	1
21+76.9'SL'	17.4' LT	824.98	820.65	3.00	1	1	65	1
			CATEGORY 1000 TOTALS		4	4	290	4
			PROJECT TOTALS		4	4	290	4

1. DEPTH OF STRUCTURE = GRATE OR RIM ELEVATION MINUS 'THE DEPTH OF FRAME AND ADJUSTING RINGS' MINUS THE FLOOR ELEVATION

THE DEPTH OF FRAME AND ADJUSTING RINGS
TYPE V COVER = 1.33

2. OFFSETS TO INLETS ARE AT THE CENTER OF INLETS

FENCE CHAIN LINK AND GATES CHAIN LINK

STATION	-	STATION	LOCATION	616.0206 FENCE CHAIN LINK 6-FT (LF)	616.0329.001 GATES CHAIN LINK (3.5 FEET) (EACH)	COMMENTS
18+80'SL'	-	18+90'SL'	RT.	75	--	
19+00'SL'	-	19+39'SL'	LT.	95	1	3.5-FT WIDE
21+27'SL'	-	21+50'SL'	RT.	95	1	3.5-FT WIDE
21+58'SL'	-	21+60'SL'	LT.	75	--	
			CATEGORY 1000 TOTALS	340	2	
			PROJECT TOTALS	340	2	

3

CRASH CUSHIONS PERMANENT

STATION	LOCATION	614.0800 CRASH CUSHIONS PERMANENT (EACH)	BACK WIDTH (FT)	OBJECT MARKING PATTERN	CRASH TEST LEVEL	TRAFFIC DIRECTION	TRAFFIC LOCATION	CRASH CUSHION SHIELDS
1005+00'TC'	12' LT	1	2	OM-3C	TL-3	BIDIRECTIONAL	L AND R	TEMPORARY CONCRETE BARRIER IN MEDIAN
	CATEGORY 1000 TOTALS	1						
	PROJECT TOTALS	1						

MGS GUARDRAIL

STATION	-	STATION	LOCATION	614.2300 MGS GUARDRAIL 3 (LF)	614.2500 MGS THRIE BEAM TRANSITION (LF)	614.2610 MGS GUARDRAIL TERMINAL EAT (EACH)	614.2620 MGS GUARDRAIL TERMINAL TYPE 2 (EACH)
14+87'SL'	-	18+92'SL'	RT.	312.5	39.4	1	--
17+10'SL'	-	19+03'SL'	LT.	100.0	39.4	1	--
21+47'SL'	-	23+27'SL'	RT.	87.5	39.4	1	--
21+58'SL'	-	24+63'SL'	LT.	212.5	39.4	1	--
101+25'A'	-	103+24'A'	RT.	145.4	--	1	1
			CATEGORY 1000 TOTALS	857.9	157.6	5	1
			PROJECT TOTALS	857.9	157.6	5	1

3

SALVAGED TOPSOIL, MULCHING, FERTILIZER, SEEDING, & TEMPORARY SEEDING

STATION	-	STATION	LOCATION	625.0500 SALVAGED TOPSOIL (SY)	627.0200 MULCHING (SY)	629.0205 FERTILIZER TYPE A (CWT)	630.0120 SEEDING MIXTURE NO. 20 (LB)	630.0130 SEEDING MIXTURE NO. 30 (LB)	630.0200 SEEDING TEMPORARY (LB)	630.0300 SEEDING BORROW PIT (LB)
13+25'SL'	-	19+50'SL'	LT	3,610	290	2.3	14	12	65	--
13+25'SL'	-	19+50'SL'	RT	2,945	275	1.9	36	7	34	--
21+00'SL'	-	26+50'SL'	LT	1,785	270	1.1	5	8	31	--
21+00'SL'	-	26+50'SL'	RT	2,060	615	1.3	0	14	34	--
BORROW PIT			--	--	1,100	0.7	--	--	--	15
UNDISTRIBUTED				--	650	1.7	15	9	36	--
		CATEGORY 1000 TOTALS		10,400	3,200	9.0	70	50	200	15
		PROJECT TOTALS		10,400	3,200	9.0	70	50	200	15

WATER

DESCRIPTION	624.0100 WATER (MGAL)
PROJECT	55
CATEGORY 1000 TOTALS	55
PROJECT TOTALS	55

3

EROSION CONTROL ITEMS

STATION	-	STATION	LOC.	628.1504 SILT FENCE (LF)	628.1520 SILT FENCE MAINTENANCE (LF)	628.2004 EROSION MAT CLASS I TYPE B (SY)	628.6505 SOIL STABILIZER TYPE A (ACRE)	628.6510 SOIL STABILIZER TYPE B (ACRE)	606.0200 RIPRAP MEDIUM (CY)	645.0120 GEOTEXTILE FABRIC TYPE HR (SY)	INLET PROTECTION 628.7005 TYPE A (EACH)	INLET PROTECTION 628.7010 TYPE B (EACH)	INLET PROTECTION 628.7020 TYPE D (EACH)	628.7504 TEMPORARY DITCH CHECKS (LF)	628.7555 CULVERT PIPE CHECKS (EACH)	628.1905 MOBILIZATIONS EROSION CONTROL (EACH)	628.1910 MOBILIZATIONS EMERGENCY EROSION CONTROL (EACH)	SPV.0090.005 COMPOST TUBE (LF)
12+80'SL'	-		LT.	--	--	--	--	--	--	--	--	--	--	--	2	--	--	--
13+25'SL'	-	19+50'SL'	LT.	730	730	520	0.5	--	--	--	--	--	--	--	--	--	--	580
13+25'SL'	-	19+50'SL'	RT.	710	710	1330	0.3	--	--	--	--	--	--	--	--	--	--	190
18+73'SL'	-		RT.	--	--	--	--	--	1	6	1	--	1	--	--	--	--	--
19+84'SL'	-		LT.	--	--	--	--	--	1	6	1	--	1	--	--	--	--	--
21+00'SL'	-	26+50'SL'	LT.	630	630	180	0.2	--	--	--	--	--	--	--	--	--	--	160
21+00'SL'	-	26+50'SL'	RT.	660	660	--	0.3	--	--	--	--	--	--	--	--	--	--	180
21+66'SL'	-		RT.	--	--	--	--	--	1	6	1	--	1	--	--	--	--	--
21+77'SL'	-		LT.	--	--	--	--	--	1	6	1	--	1	--	--	--	--	--
95+00'A'	-		RT.	--	--	--	--	--	--	--	--	--	--	--	2	--	--	--
101+60	-		LT.	--	--	--	--	--	--	--	--	1	1	--	--	--	--	--
104+00	-		LT.	--	--	--	--	--	--	--	--	1	1	--	--	--	--	--
104+00	-		RT.	--	--	--	--	--	--	--	--	--	--	--	2	--	--	--
		UNDISTRIBUTED		670	670	500	0.3	0.4	1	6	--	4	--	50	2	5	4	290
		CATEGORY 1000 TOTALS		3,400	3,400	2,530	1.6	0.4	5	30	4	6	6	50	8	5	4	1,400
		PROJECT TOTALS		3,400	3,400	2,530	1.6	0.4	5	30	4	6	6	50	8	5	4	1,400

TRAFFIC CONTROL - DRUMS, BARRICADES, WARNING LIGHTS, ARROW BOARDS, AND SIGNS

ROADWAY	DAYS IN SERVICE	643.0300 DRUMS NO.	(DAYS)	643.0420 BARRICADES TYPE III NO.	(DAYS)	643.0705 WARNING LIGHTS TYPE A NO.	(DAYS)	643.0710 WARNING LIGHTS TYPE B NO.	(DAYS)	643.0715 WARNING LIGHTS TYPE C NO.	(DAYS)	643.0800 TRAFFIC CONTROL ARROW BOARDS NO.	(DAYS)	643.0900 SIGNS NO.	(DAYS)	643.1050 TRAFFIC CONTROL SIGNS PCMS NO.	(DAYS)
PRE WARNING MAINLINE																	
NB	10	3	30	--	--	--	--	--	--	3	30	--	--	--	--	1	10
SB	10	3	30	--	--	--	--	--	--	3	30	--	--	--	--	1	10
STATELINE RD	142	--	--	17	2,414	26	3,692	--	--	--	--	--	--	13	1846	--	--
IH 39 - STAGE 1																	
ADV. WARNING/DAYTIME (1.0)	9	74	666	--	--	--	--	--	--	24	216	2	18	38	342	2	18
NIGHTTIME (1.1)	4	162	648	6	24	12	48	4	16	60	240	5	20	22	88	--	--
IH 39 - STAGE 2																	
ADV. WARNING/DAYTIME (2.0)	6	75	450	--	--	--	--	--	--	24	144	2	12	44	264	2	12
2A (2.1)	4	162	648	2	8	4	16	--	--	43	172	2	8	11	44	1	4
2B (2.2)	4	162	648	2	8	4	16	--	--	43	172	2	8	11	44	1	4
2C DETOUR PREWARN	10	5	50	--	--	--	--	--	--	5	50	--	--	--	--	1	10
2C (2.3)	1	111	111	3	3	6	6	--	--	61	61	2	2	9	9	4	4
IH 39 - STAGE 3																	
ADV. WARNING/DAYTIME (3.0)	6	91	546	--	--	--	--	--	--	24	144	2	12	44	264	2	12
3A (3.1)	4	138	552	8	32	16	64	4	16	79	316	3	12	12	48	--	--
3B (3.2)	4	188	752	6	24	12	48	4	16	98	392	3	12	10	40	--	--
3C DETOUR PREWARN	10	10	100	--	--	--	--	--	--	10	100	--	--	--	--	2	20
3C (3.3)	1	152	152	21	21	42	42	4	4	105	105	3	3	14	14	7	7
IH 39 - STAGE 4																	
ADV. WARNING/DAYTIME (3.0)	30	91	2,730	--	--	--	--	--	--	24	720	2	60	44	1320	2	60
NIGHTTIME (1.1)	21	162	3,402	6	126	12	252	4	84	60	1,260	5	105	22	462	--	--
																--	--
IH 39 - STAGE 5																	
ADV. WARNING/DAYTIME (3.0)	7	91	637	--	--	--	--	--	--	24	168	2	14	44	308	2	14
5A DETOUR PREWARN	10	10	100	--	--	--	--	--	--	10	100	--	--	--	--	2	20
5A (3.1)	1	164	164	23	23	46	46	4	4	105	105	3	3	16	16	7	7
5B (3.2)	4	188	752	6	24	12	48	4	16	98	392	3	12	10	40	--	--
5C (3.3)	4	126	504	6	24	12	48	4	16	79	316	3	12	10	40	--	--
IH 39 - STAGE 6																	
ADV. WARNING/DAYTIME (2.0)	10	75	750	--	--	--	--	--	--	24	240	2	20	44	440	2	20
6A DETOUR PREWARN	10	5	50	--	--	--	--	--	--	5	50	--	--	--	--	1	10
6A (2.1)	1	176	176	2	2	4	4	--	--	57	57	2	2	11	11	4	4
6B (2.2)	4	162	648	2	8	4	16	--	--	43	172	2	8	11	44	1	4
6C (2.3)	4	97	388	3	12	6	24	--	--	47	188	2	8	9	36	1	4

TRAFFIC CONTROL - DRUMS, BARRICADES, WARNING LIGHTS, ARROW BOARDS, AND SIGNS (CONTINUED)

ROADWAY	DAYS IN SERVICE	643.0300 DRUMS NO.	(DAYS)	643.0420 BARRICADES TYPE III NO.	(DAYS)	643.0705 WARNING LIGHTS TYPE A NO.	(DAYS)	643.0710 WARNING LIGHTS TYPE B NO.	(DAYS)	643.0715 WARNING LIGHTS TYPE C NO.	(DAYS)	643.0800 TRAFFIC CONTROL ARROW BOARDS NO.	(DAYS)	643.0900 SIGNS NO.	(DAYS)	643.1050 TRAFFIC CONTROL SIGNS PCMS NO.	(DAYS)
IH 39 - STAGE 7																	
ADV. WARNING/DAYTIME (2.0)	8	75	600	--	--	--	--	--	--	24	192	2	16	44	352	2	16
IH 39 - STAGE 8																	
ADV. WARNING/DAYTIME (2.0)	8	75	600	--	--	--	--	--	--	24	192	2	16	44	352	2	16
8A (2.1)	6	162	972	2	12	4	24	--	--	43	258	2	12	11	66	1	6
8A (2.2)	6	162	972	2	12	4	24	--	--	43	258	2	12	11	66	1	6
IH 39 - STAGE 9																	
ADV. WARNING/DAYTIME (3.0)	48	91	4,368	--	--	--	--	--	--	24	1,152	2	96	44	2112	2	96
9A (3.1)	6	138	828	8	48	16	96	4	24	79	474	3	18	12	72	--	--
9B (3.2)	6	138	828	6	36	12	72	4	24	98	588	3	18	10	60	--	--
IH 39 - STAGE 10																	
ADV. WARNING/DAYTIME (3.0)	2	91	182	--	--	--	--	--	--	24	48	2	4	44	88	2	4
10A (3.1)	2	138	276	8	16	16	32	4	8	79	158	3	6	12	24	--	--
10B (3.2)	2	138	276	6	12	12	24	4	8	98	196	3	6	10	20	--	--
IH 39 - STAGE 11																	
ADV. WARNING/DAYTIME (2.0)	6	75	450	--	--	--	--	--	--	24	144	2	12	44	264	2	12
11A (2.1)	2	162	324	2	4	4	8	--	--	43	86	2	4	11	22	1	2
11B (2.2)	2	162	324	2	4	4	8	--	--	43	86	2	4	11	22	1	2
IH 39 - STAGE 12																	
ADV. WARNING/DAYTIME (1.0)	2	74	148	--	--	--	--	--	--	24	48	2	4	38	76	2	4
NIGHTTIME (1.1)	2	162	324	6	12	12	24	4	8	60	120	5	10	22	44	--	--
CATEGORY 1000 TOTALS			27,156		2,909		4,682		244		9,940		589		9,360		418
PROJECT TOTALS			27,156		2,909		4,682		244		9,940		589		9,360		418

3

MOVING SIGNS TYPE II, MOVING SMALL SIGN SUPPORTS, & REMOVING SIGNS

SIGN #	638.2102 MOVING SIGNS TYPE II (EACH)	638.4000 MOVING SMALL SIGN SUPPORTS (EACH)	638.2602 REMOVING SIGNS TYPE II (EACH)	638.3000 REMOVING SMALL SIGN SUPPORTS (EACH)	DESCRIPTION
PROJECT ID 1003-10-82					
M-01	1	1	--	--	MILE MARKER
M-02	1	1	--	--	NO U-TURN
R-01	--	--	1	1	SLOWER TRAFFIC KEEP RIGHT
CATEGORY 1000 TOTALS	2	2	1	1	
PROJECT TOTALS	2	2	1	1	

PAVEMENT MARKING

STATION	-	STATION	LOCATION	646.0106 EPOXY 4-INCH YELLOW (LF)	646.0106 EPOXY 4-INCH WHITE (LF)	646.0116 EPOXY 6-INCH WHITE (LF)	646.0126 EPOXY 8-INCH WHITE (LF)	646.0136 EPOXY 12-INCH WHITE (LF)	646.0600 REMOVING PAVEMENT MARKINGS (LF)	COMMENTS
13+25'SL'	-	26+50'SL'	STATELINE RD	2,650	2,650	--	--	--	--	
993+00'TC'	-	1018+00'TC'	SB IH 39	--	--	--	--	--	4,890	STAGE 1
990+00'TC'	-	1020+00'TC'	NB IH 39	3,000	3,000	1,080	--	--	--	STAGE 12
990+00'TC'	-	1020+00'TC'	SB IH 39	3,000	3,000	1,210	--	--	--	STAGE 12
994+60'TC'	-	1008+90'TC'	SB IH 39	--	--	--	2,060	250	--	STAGE 12
999+00'TC'	-	1007+00'TC'	NB IH 39	--	--	--	1,250	150	--	STAGE 12
993+00'TC'	-	1018+00'TC'	SB IH 39	--	--	--	--	--	4,425	STAGE 12
1008+00'TC'	-	1013+00'TC'	SB CROSSOVER	--	--	--	--	--	1,000	STAGE 12
			CATEGORY 1000 TOTALS	8,650	8,650	2,290	3,310	400	10,315	
			TOTAL FOR 646.0106	17,300						
			PROJECT TOTALS		17,300	2,290	3,310	400	10,315	

3

TEMPORARY PAVEMENT MARKING

STATION	-	STATION	LOCATION	649.0403 TEMPORARY PAVEMENT MARKING EPOXY 4-INCH YELLOW (LF)	649.0403 TEMPORARY PAVEMENT MARKING EPOXY 4-INCH WHITE (LF)	649.0803 TEMPORARY PAVEMENT MARKING EPOXY 8-INCH WHITE (LF)	COMMENTS
993+00'TC'	-	1018+00'TC'	SB IH 39	2,500	1,950	600	STAGE 1
1008+00'TC'	-	1013+00'TC'	SB CROSSOVER	500	500	--	STAGE 2
			CATEGORY 1000 TOTALS	3,000	2,450	600	
			TOTAL FOR 649.0400	5,450			
			PROJECT TOTALS		5,450	600	

ITS PULL BOX, COMMUNICATION VAULT, & BASE ITEMS

ITEM	STATION	OFFSET	653.0140 PULL BOXES STEEL 24 X 42-INCH EA	672.0250 BASE CAMERA POLE 50-FT EA	673.0105 COMMUNICATION VAULT TYPE 1 EA	SPV.0060.006 FIBER TRACER MARKER POST EA
CATEGORY 1200						
PROJECT 1003-10-82						
PB1	18+88'SL'	23' LT	1	--	--	--
PB2	21+62'SL'	23' LT	1	--	--	--
PB3	18+99'SL'	23' RT	1	--	--	--
PB4	21+51'SL'	23' RT	1	--	--	--
CV1	18+49'SL'	30' LT	--	--	1	1
CP1	18+66'SL'	27' LT	--	1	--	--
EXCP1	13+20'SL'	46' LT	--	--	--	1
PROJECT TOTALS			4	1	1	2

3

ITS CONDUIT ITEMS

	FROM	TO	LINEAR DISTANCE	* 652.0225 CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH LF	652.0700.S INSTALL CONDUIT INTO EXISTING ITEM EA	671.0122 CONDUIT HDPE 2-DUCT 2-INCH LF
CATEGORY 1200						
PROJECT 1003-10-82						
	EXCV1	CV1	530	--	1	530
	CV1	PB1	55	110	--	--
	CV1	CP1	30	30	--	--
PROJECT TOTALS				140	1	530

* ADDITIONAL QUANTITIES LISTED IN STRUCTURE PLANS

SAWING ASPHALT

STATION	-	STATION	LOCATION	690.0150 SAWING ASPHALT (LF)	COMMENTS
13+25'SL'	-	13+25'SL'	LT. & RT.	30	
26+50'SL'	-	26+50'SL'	LT. & RT.	30	
100+66	-	108+10	SB IH 39	815	STAGE 1
101+45	-	103+10	NB IH 39	180	STAGE 1
102+02	-	102+66	NB IH 39	85	STAGE 4
			CATEGORY 1000 TOTALS	1,140	
			PROJECT TOTALS	1,140	

CITY OF BELOIT

ILLINOIS TOLLWAY COMMUNICATIONS (FIBER OPTIC)

R/L IH 39/90

WALSH TRUST

SLOPE INTERCEPTS (TYPICAL)

20' UTILITY EASEMENT

WISCONSIN POWER & LIGHT (ELECTRIC)

WISDOT (FIBER OPTIC)

R/L STATELINE RD

BP: 5+00.00

R/W

SAW CUT REQUIRED

106°32'33"

CAUTION

WISCONSIN POWER & LIGHT (GAS)

PC: 28+24.10

P.L.

DAVID E. & DIANA M. SCHNEIDER

PT: 35+11.73

EP: 35+36.06

N80°09'09"E

5'SL'

10'SL'

N86°43'08"E

15'SL'

20'SL'

25'SL'

30'SL'

35'SL'

STATELINE RD

WISCONSIN

ILLINOIS

FRONTAGE RD

PI: 101+89.20

BELOIT RD

SAW CUT REQUIRED

EUGENE L. & CHERYL C. SHEPHARD

AT&T WISCONSIN (TELEPHONE)

STRUCTURE B-53-325

DANIEL D. JOHNSON

WISCONSIN POWER & LIGHT (ELECTRIC)

PI: 99+67.29

IH 39/90 SB

IH 39/90 NB

STA.20+41.63.'SL' STATELINE RD=
STA. 102+38.76 IH 39/90 NB (WB)

BEGIN PROJECT NO. 1003-10-82
STA. 13+25'SL'
Y = 201,106.18
X = 500,740.17

END PROJECT NO. 1003-10-82
STA. 26+50'SL'

VPI STA 20+00.00
VPI EL 837.52

STA 20+24.94'SL'
STRUCTURE B-53-325 REQUIRED
TWO-SPAN PRESTRESSED CONCRETE
DECK GIRDER BRIDGE (45W")
224'-0" OVERALL LENGTH
36'-0" CLEAR WIDTH

VPC STA 14+50.00
VPC EL 815.06

STA 13+25.00
EL 809.95

VPT STA 25+50.00
VPT EL 815.52

STA 26+50.00
EL 811.52

FINISHED PROFILE

4.08%

-4.00%

17'-3" +/-
FUTURE MIN. CLR.

17'-0" +/-
FUTURE MIN. CLR.

17'-9⅝" +/-
INTERIM MIN. CLR.

17'-7" +/-
INTERIM MIN. CLR.

VCL = 1100.00

EXISTING GROUND

EXISTING GROUND ELEVATIONS
FINISHED PROFILE ELEVATIONS

5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35
		800.82	801.15	801.58	802.36	803.87	806.27	809.10	812.54 813.02	816.00 817.01	818.95 820.36	821.56 822.97	823.39 824.85	824.63 826.00	825.06 826.41	824.86 826.08	823.92 825.02	822.25 823.22	819.81 820.69	816.81 817.43	813.26 813.52	809.67	806.52	803.94	802.51	801.70	801.54	801.19	800.68	800.40

PROJECT NO: 1003-10-82	HWY: IH 39	COUNTY: ROCK	PLAN AND PROFILE: STATELINE RD	SHEET 128	E

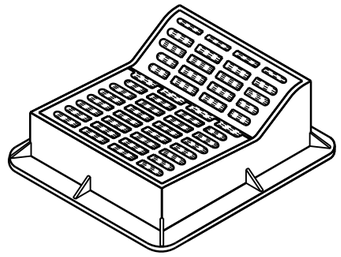
FILE NAME : L:\WORK\PROJECTS\60242867\000_CAD\001_DRAWINGS\1003-10-82_STATELINE RD\90%\050101_PP.DWG PLOT DATE : 10/30/2014 3:37 PM PLOT BY : CZECH, ANDREW PLOT NAME : PLOT SCALE : 1 IN:200 FT

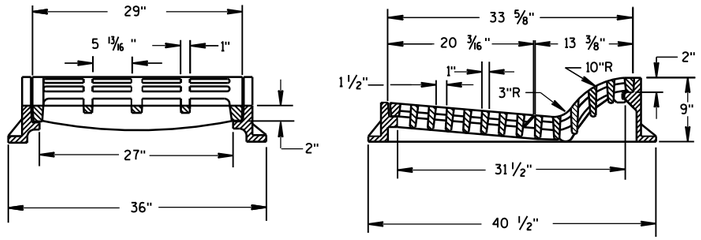
WISDOT/CADDS SHEET 44

Standard Detail Drawing List

08A05-19C	INLET COVERS TYPE F, HM, HM-S, S, T, V, HM-GJ, & HM-GJ-S
08C07-01	INLETS 2X2-FT, 2X2.5-FT, 2X3-FT AND 2.5X3-FT
08E08-03	TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS
08E09-06	SILT FENCE
08E10-02	INLET PROTECTION TYPE A, B, C AND D
08F01-11	APRON ENDWALLS FOR CULVERT PIPE
09B02-09	CONDUIT
09B04-11	PULL BOX
12A03-10	NAME PLATE (STRUCTURES)
13A05-05A	SHOULDER RUMBLE STRIP, MILLING
13A05-05B	SHOULDER RUMBLE STRIP, MILLING
13B02-08A	CONCRETE PAVEMENT APPROACH SLAB
14B07-14A	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-14B	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-14C	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-14D	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-14E	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-14F	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-14G	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-14H	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B08-02A	CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS
14B08-02B	CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS
14B08-02C	CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS
14B08-02D	CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS
14B08-02E	CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS
14B29-01	SAFETY EDGE
14B42-03A	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-03B	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-03C	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B44-02A	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B44-02B	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B44-02C	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B45-04A	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-04B	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-04C	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-04D	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-04E	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-04F	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-04G	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-04H	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-04I	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-04J	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-04K	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-04L	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B47-02A	MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL
14B47-02B	MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL
14B47-02C	MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL
15B03-15A	FENCE CHAIN LINK
15B03-15B	FENCE CHAIN LINK
15C02-06A	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-06B	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C08-16A	PAVEMENT MARKING (MAINLINE)
15D11-06	TRAFFIC CONTROL, SINGLE LANE CROSSOVER
15D12-05B	TRAFFIC CONTROL, LANE CLOSURE, SPEED REDUCTION
15D15-02	TRAFFIC CONTROL, EXIT AND ENTRANCE RAMP WITHIN LANE CLOSURE
15D27-02	TRAFFIC CONTROL, SHOULDER CLOSURE ON DIVIDED ROADWAY, SPEEDS GREATER THAN 40 MPH

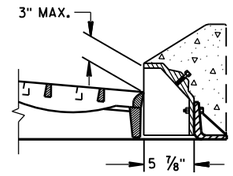
6





TYPE "F"

USE WITH TYPES A & D CONCRETE CURB & GUTTER, 36 INCH.



ALTERNATIVE CURB BOX FOR TYPE "HM" COVER

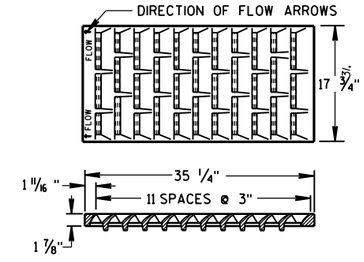
USE WITH TYPES G & J CONCRETE CURB & GUTTER, 30 INCH
NOTED AS TYPE HM-GJ ON DRAINAGE TABLE

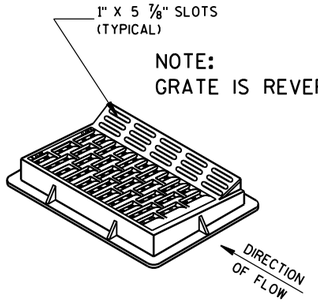
NOTE:
SPECIAL GRATE FOR THE
TYPE "H" COVER MAY ALSO BE
USED FOR THE TYPE "HM-GJ" COVER
NOTED AS TYPE HM-GJ-S ON DRAINAGE TABLE

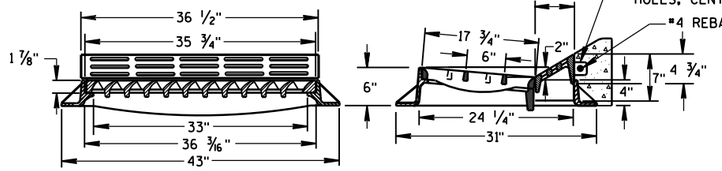
GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

DETAIL DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR INLET COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.



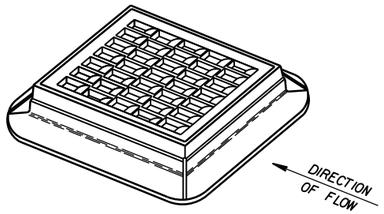


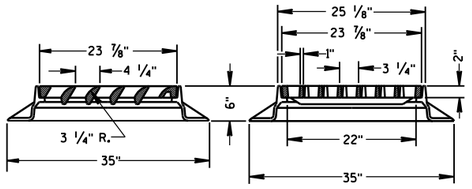


TYPE "HM"

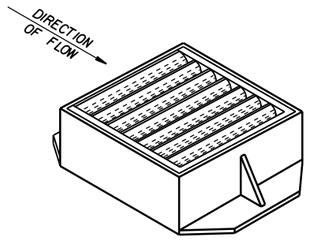
USE WITH TYPES A & D CONCRETE CURB & GUTTER, 36 INCH.

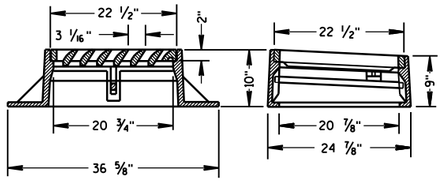
NOTE:
SPECIAL GRATE FOR THE
TYPE "H" COVER MAY ALSO BE
USED FOR THE TYPE "HM" COVER
NOTED AS TYPE HM-S ON DRAINAGE TABLE



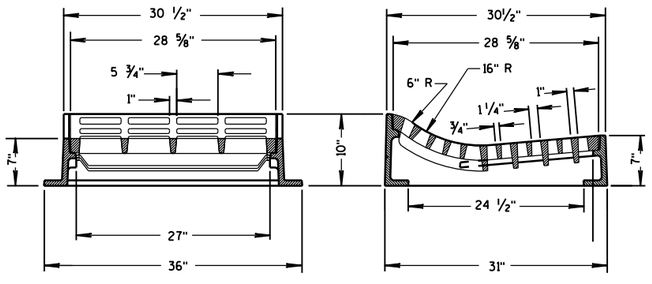


TYPE "S"



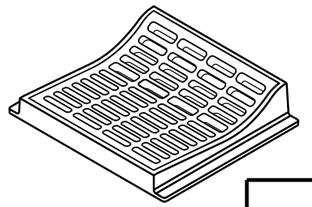


TYPE "V"



TYPE "T"

USE WITH TYPES R & T CONCRETE CURB & GUTTER, 36 INCH.



INLET COVERS
TYPE F, HM, HM-S, S, T, V, HM-GJ, & HM-GJ-S

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
11/27/2013
DATE

/S/ Jerry H. Zogg
ROADWAY STANDARDS ENGINEER

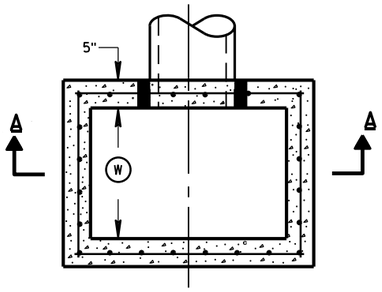
FHWA

6

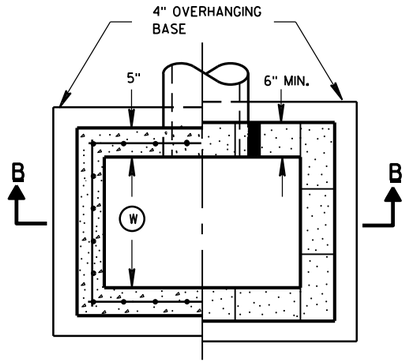
S.D.D. 8 A 5-19c

6

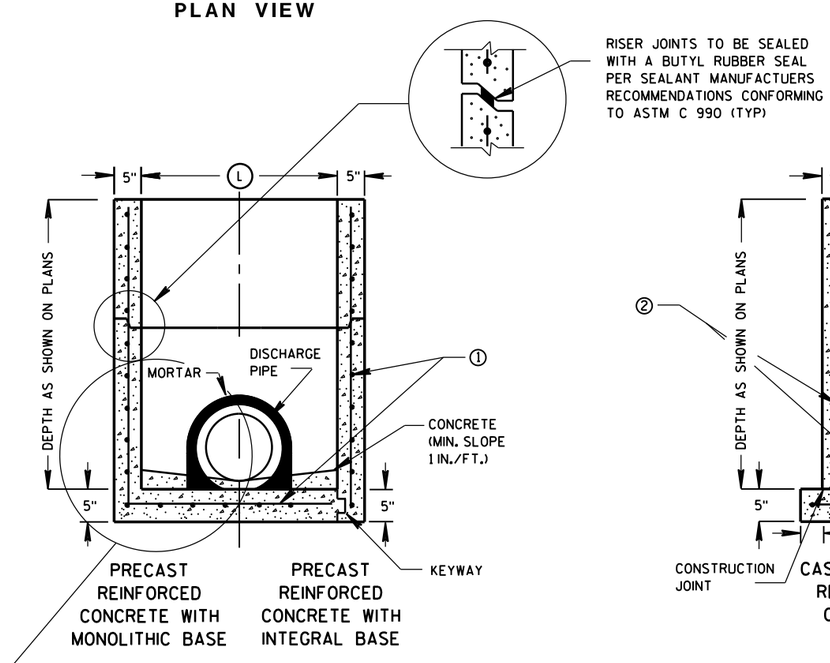
S.D.D. 8 A 5-19c



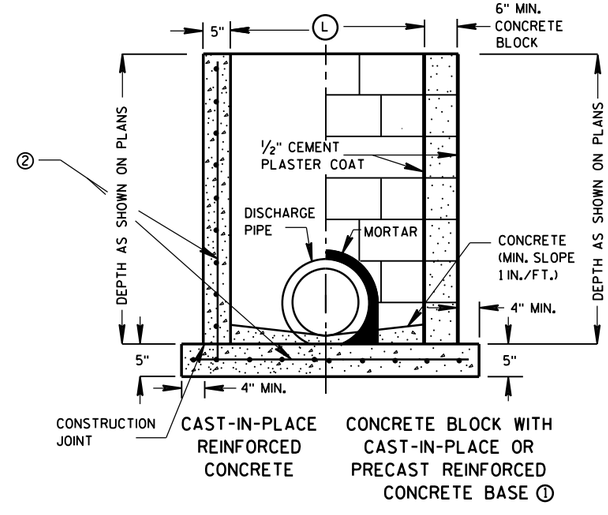
PLAN VIEW



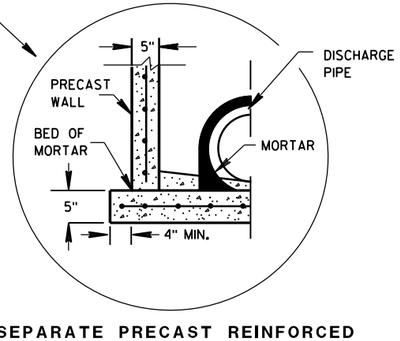
PLAN VIEW



SECTION A-A



SECTION B-B



SEPARATE PRECAST REINFORCED CONCRETE BASE OPTION

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

UNLESS OTHERWISE AUTHORIZED IN WRITING BY THE ENGINEER, THE CONTRACTOR SHALL NOT ORDER AND DELIVER PRECAST INLET UNITS REQUIRED FOR THE PROJECT UNTIL A LIST OF SIZES IS FURNISHED BY THE ENGINEER.

DETAILED DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR UNDERGROUND DRAINAGE STRUCTURES SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

ALL PRECAST INLET UNITS SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF ASTM C 913.

ALL DRAINAGE STRUCTURES ARE DESIGNATED ON THE PLANS AS "MANHOLES 3X3-L", "CATCH BASINS 4-B", "INLETS 2X3-H", ETC. THE FIRST NUMBERS DESIGNATES THE SIZE OF THE STRUCTURE, AND THE FOLLOWING LETTER DESIGNATES THE TYPE OF COVER TO BE USED TO COMPRISE THE COMPLETE UNIT.

BASES SHALL BE PLACED ON A BED OF MATERIAL AT LEAST 6 INCHES IN DEPTH, WHICH MEETS THE REQUIREMENTS OF GRANULAR BACKFILL. THIS BEDDING SHALL BE COMPACTED AND PROVIDE UNIFORM SUPPORT FOR THE ENTIRE AREA OF THE BASE.

ALL BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2 INCHES CLEAR UNLESS OTHERWISE SHOWN OR NOTED.

PRECAST REINFORCED RISERS SHALL HAVE A TONGUE AND GROOVE JOINT WITH TONGUE UP OR DOWN.

4" OVERHANGING BASES ARE REQUIRED FOR CAST-IN-PLACE REINFORCED CONCRETE AND CONCRETE BLOCK INSTALLATIONS.
4" OVERHANG IS REQUIRED WHEN SEPARATE PRECAST BASE IS PROVIDED.
OVERHANG IS NOT REQUIRED ON PRECAST STRUCTURES WITH AN INTEGRAL OR MONOLITHIC BASE.

MAXIMUM INSIDE PIPE DIAMETER DETERMINED BY 3 INCH CLEARANCE ON EACH SIDE OF THE OUTSIDE WALL OF THE PIPE. SEE DETAIL "A". ASSUMES PIPE ENTERS PERPENDICULAR TO THE STRUCTURE.

① FOR PRECAST INLETS PROVIDE REINFORCING STEEL IN ACCORDANCE TO ASTM C 913.

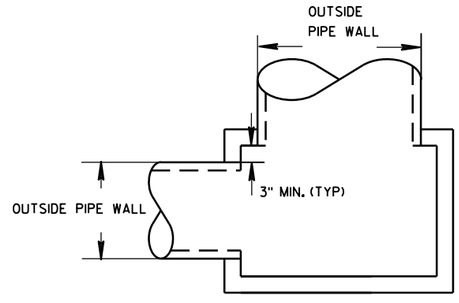
② CONTRACTOR TO PROVIDE DRAWING(S) STAMPED BY A PROFESSIONAL ENGINEER FOR STEEL REINFORCING DESIGN FOR CAST-IN-PLACE STRUCTURES.

INLET COVER MATRIX

INLET SIZE		INLET COVER TYPE	ALL A'S	ALL B'S	BW	F	ALL H'S	S	T	V	WM
	WIDTH (W) (FT)	LENGTH (L) (FT)									
2X2-FT	2	2	X	X				X		X	
2X2.5-FT	2	2.5			X			X	X	X	X
2X3-FT	2	3					X				
2.5X3-FT	2.5	3				X					

PIPE MATRIX

INLET SIZE	MAXIMUM INSIDE PIPE DIAMETER	
	WIDTH (IN)	LENGTH (IN)
2X2-FT	12	12
2X2.5-FT	12	18
2X3-FT	12	24
2.5X3-FT	18	24



DETAIL "A"

INLETS 2X2-FT, 2X2.5-FT, 2X3-FT AND 2.5X3-FT

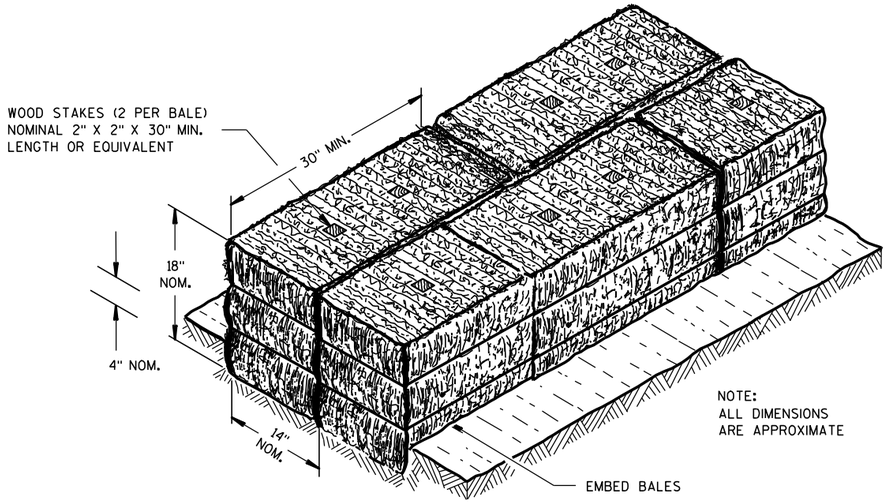
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
6/5/2012
DATE
FHWA

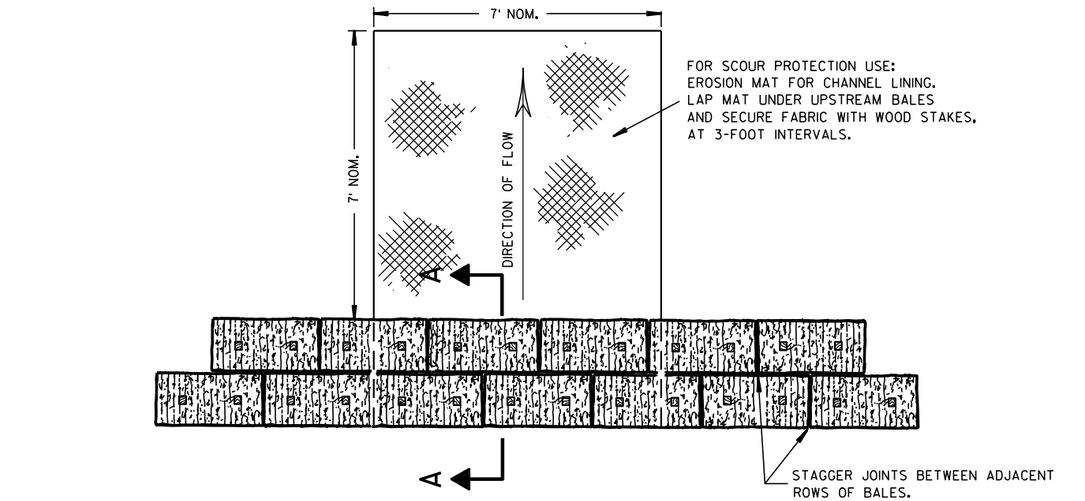
/S/ Jerry H. Zogg
ROADWAY STANDARDS DE
ENGINEER

6

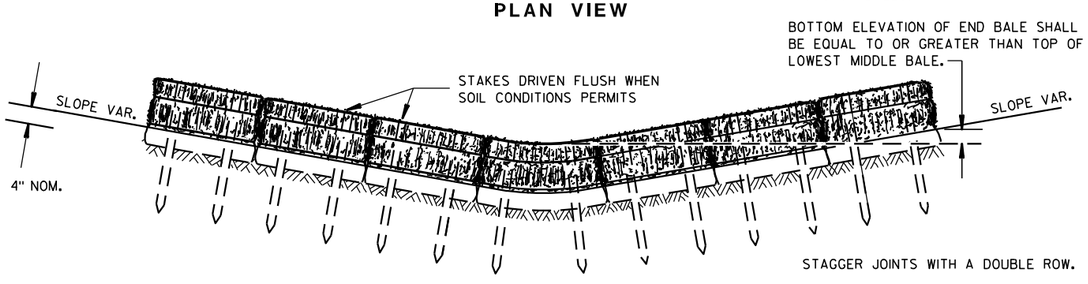
S.D.D. 8 C 7-1



SECTION A-A



PLAN VIEW



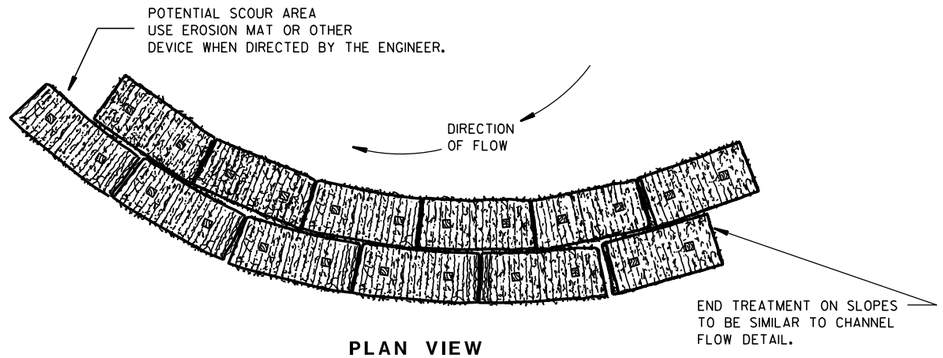
FRONT ELEVATION

TEMPORARY DITCH CHECK USING EROSION BALES (1)

GENERAL NOTES

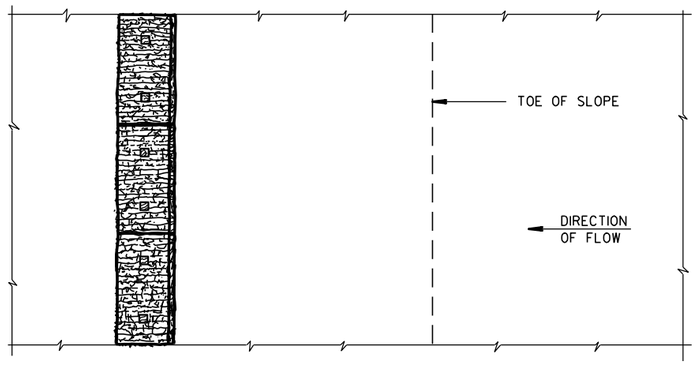
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

(1) TEMPORARY DITCH CHECKS EITHER EROSION BALES OR MANUFACTURED SHALL BE PAID FOR UNDER THE BID ITEM OF TEMPORARY DITCH CHECK. THE DEPARTMENT WILL NOT PAY FOR TEMPORARY DITCH CHECKS CONSTRUCTED OF A SINGLE ROW OF EROSION BALES.

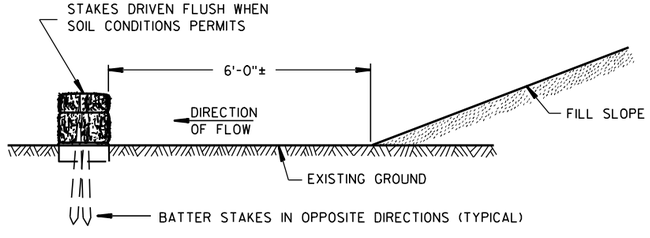


PLAN VIEW

WHEN ALTERING THE DIRECTION OF FLOW



PLAN VIEW



FRONT ELEVATION

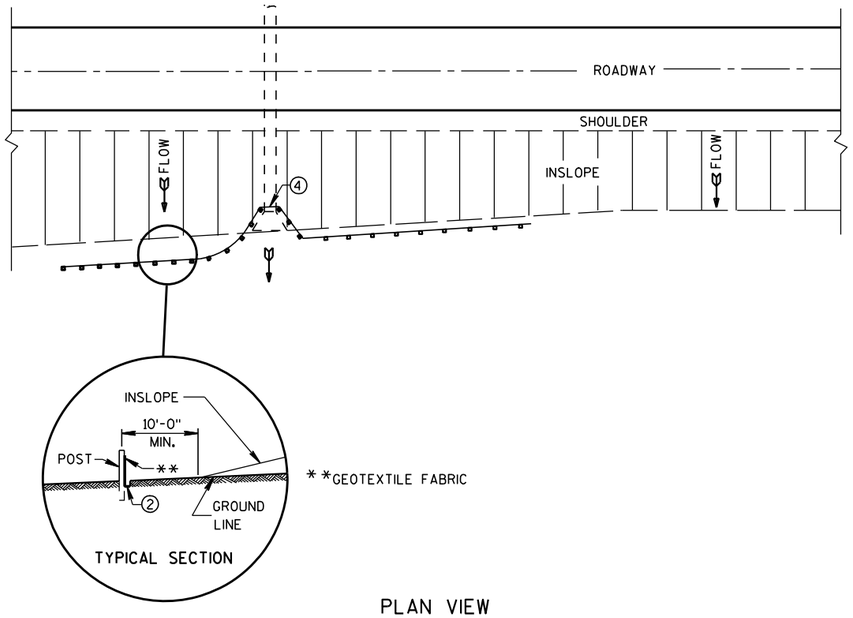
WHEN EXISTING GROUND SLOPES AWAY FROM FILL SLOPE

EROSION BALES FOR SHEET FLOW

TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS

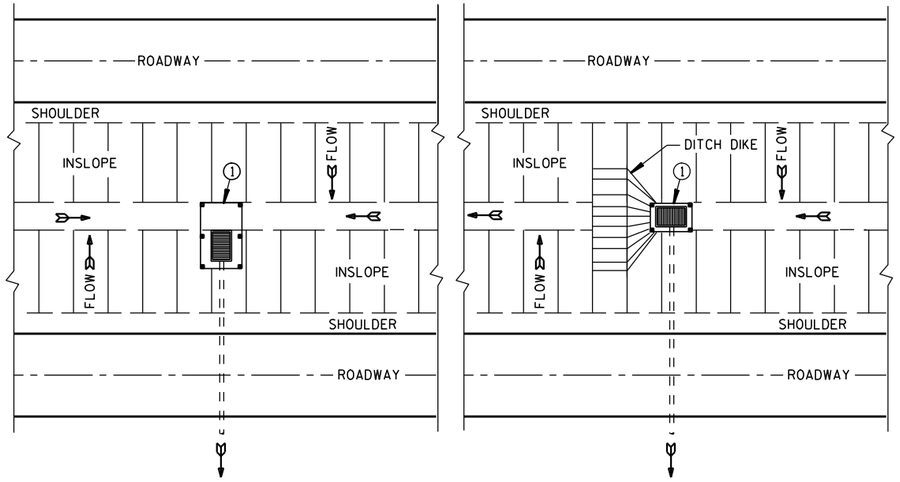
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
6/04/02 — DATE
/S/ Beth Cannestra — CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA



PLAN VIEW

TYPICAL APPLICATION OF SILT FENCE



PLAN VIEW

SILT FENCE AT MEDIAN SURFACE DRAINS

GENERAL NOTES

DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

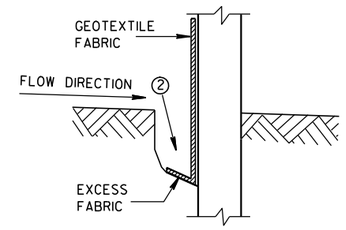
① HORIZONTAL BRACE REQUIRED WITH 2" X 4" WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS.

② FOR MANUAL INSTALLATIONS THE TRENCH SHALL BE A MINIMUM OF 4" WIDE & 6" DEEP TO BURY AND ANCHOR THE GEOTEXTILE FABRIC. FOLD MATERIAL TO FIT TRENCH AND BACKFILL & COMPACT TRENCH WITH EXCAVATED SOIL.

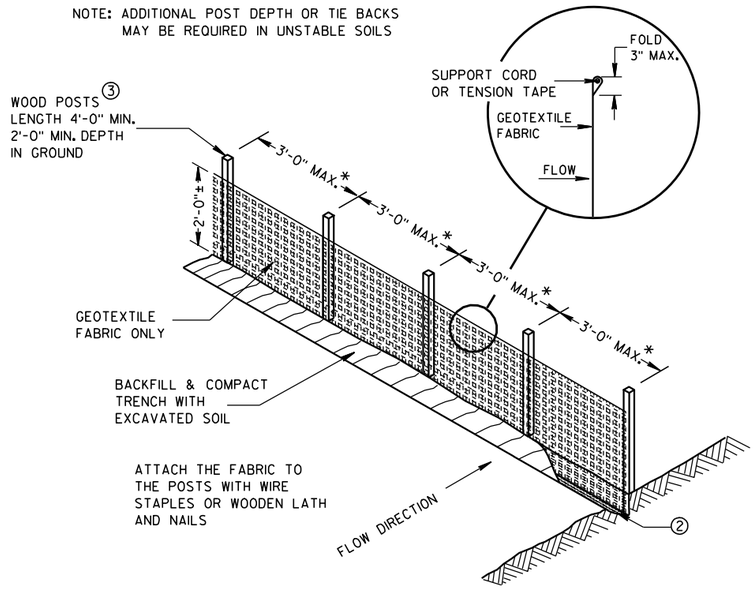
③ WOOD POSTS SHALL BE A MINIMUM SIZE OF 1⅛" X 1⅛" OF OAK OR HICKORY.

④ SILT FENCE TO EXTEND ACROSS THE TOP OF THE PIPE.

⑤ CONSTRUCT SILT FENCE FROM A CONTINUOUS ROLL IF POSSIBLE BY CUTTING LENGTHS TO AVOID JOINTS. IF A JOINT IS NECESSARY USE ONE OF THE FOLLOWING TWO METHODS; A) OVERLAP THE END POSTS AND TWIST, OR ROTATE, AT LEAST 180 DEGREES, B) HOOK THE END OF EACH SILT FENCE LENGTH.

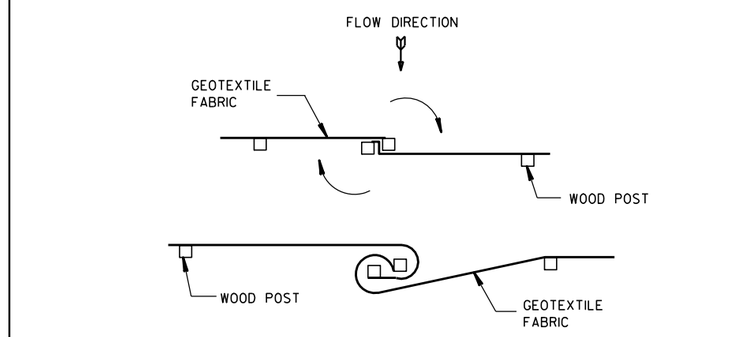


TRENCH DETAIL

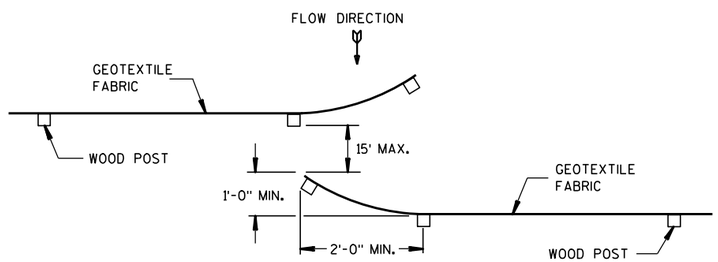


*NOTE: 8'-0" POST SPACING ALLOWED IF A WOVEN GEOTEXTILE FABRIC IS USED.

SILT FENCE

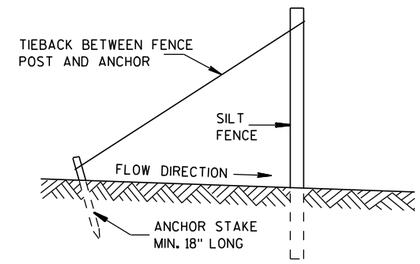


TWIST METHOD



HOOK METHOD

JOINING TWO LENGTHS OF SILT FENCE ⑤



SILT FENCE TIE BACK

(WHEN REQUIRED BY THE ENGINEER)

SILT FENCE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

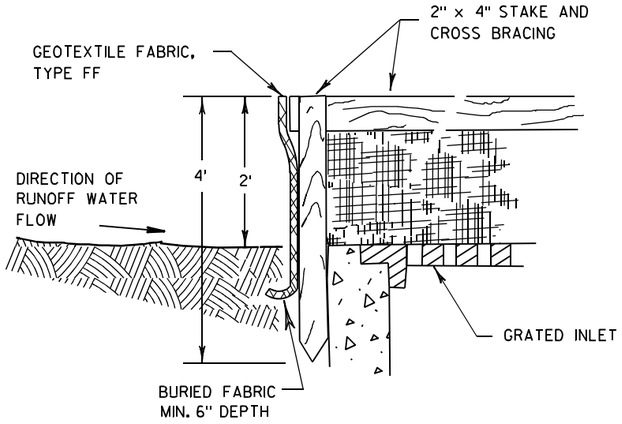
APPROVED
4-29-05 DATE
/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

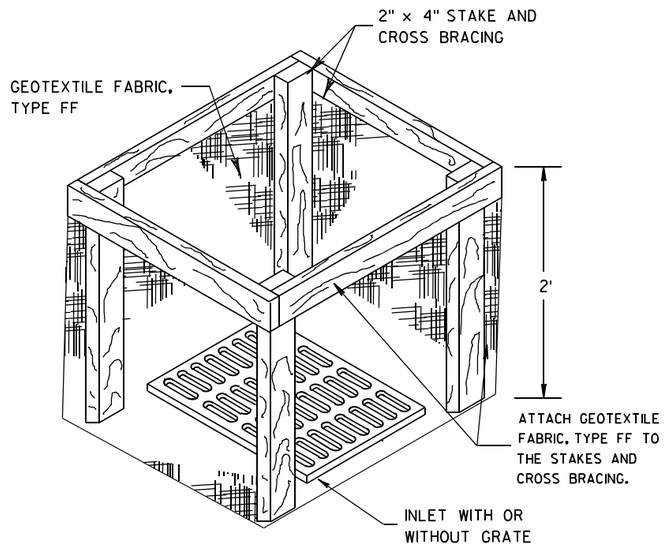
6

S.D.D. 8 E 9-6

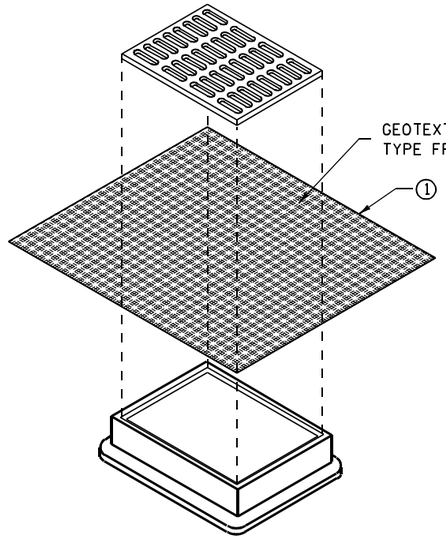
6

S.D.D. 8 E 9-6



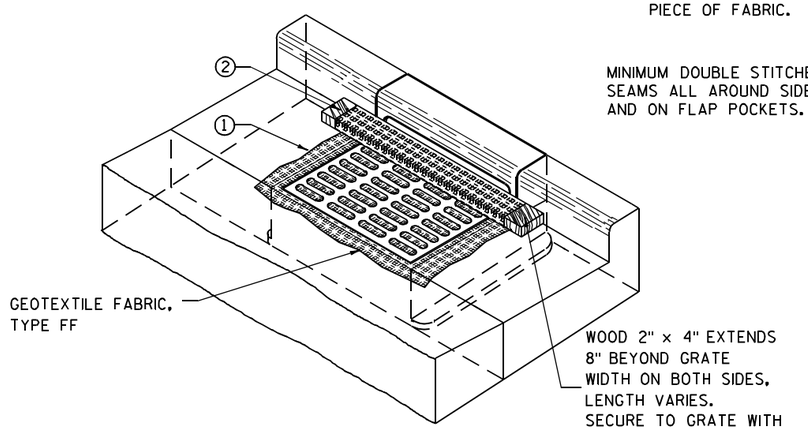


INLET PROTECTION, TYPE A

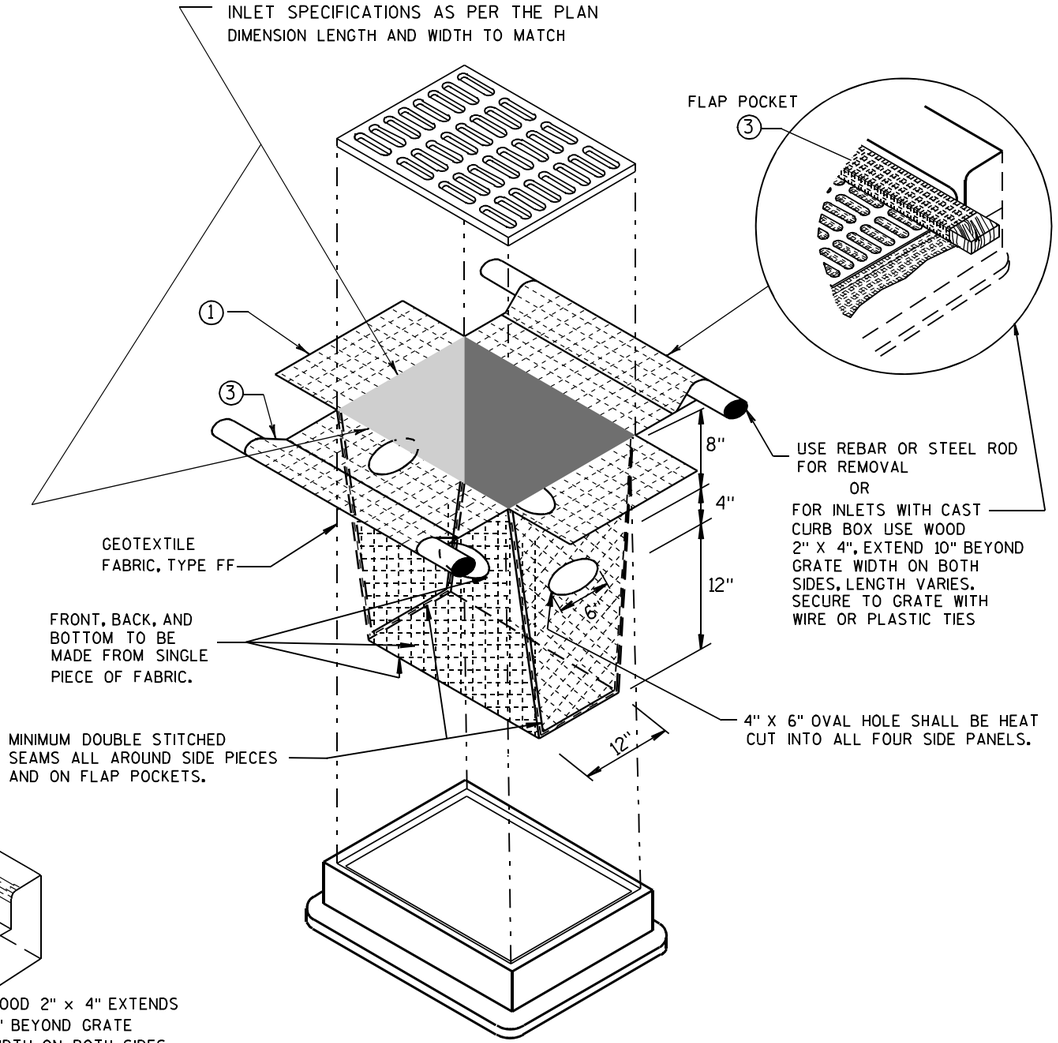


INLET PROTECTION, TYPE B
(WITHOUT CURB BOX)

(CAN BE INSTALLED IN ANY INLET WITHOUT A CURB BOX)



INLET PROTECTION, TYPE C (WITH CURB BOX)



INLET PROTECTION, TYPE D

(CAN BE INSTALLED IN ANY INLET TYPE WITH
OR WITHOUT A CURB BOX AS PER NOTE ②)

GENERAL NOTES

INLET PROTECTION DEVICES SHALL BE MAINTAINED OR REPLACED AT THE DIRECTION OF THE ENGINEER.

MANUFACTURED ALTERNATIVES APPROVED AND LISTED ON THE DEPARTMENT'S EROSION CONTROL PRODUCT ACCEPTABILITY LIST MAY BE SUBSTITUTED.

WHEN REMOVING OR MAINTAINING INLET PROTECTION, CARE SHALL BE TAKEN SO THAT THE SEDIMENT TRAPPED ON THE GEOTEXTILE FABRIC DOES NOT FALL INTO THE INLET. ANY MATERIAL FALLING INTO THE INLET SHALL BE REMOVED IMMEDIATELY.

① FINISHED SIZE, INCLUDING FLAP POCKETS WHERE REQUIRED, SHALL EXTEND A MINIMUM OF 10" AROUND THE PERIMETER TO FACILITATE MAINTENANCE OR REMOVAL.

② FOR INLET PROTECTION, TYPE C (WITH CURB BOX), AN ADDITIONAL 18" OF FABRIC IS WRAPPED AROUND THE WOOD AND SECURED WITH STAPLES. THE WOOD SHALL NOT BLOCK THE ENTIRE HEIGHT OF THE CURB BOX OPENING.

③ FLAP POCKETS SHALL BE LARGE ENOUGH TO ACCEPT WOOD 2X4.

INSTALLATION NOTES

TYPE B & C

TRIM EXCESS FABRIC IN THE FLOW LINE TO WITHIN 3" OF THE GRATE.

THE CONTRACTOR SHALL DEMONSTRATE A METHOD OF MAINTENANCE, USING A SEWN FLAP, HAND HOLDS OR OTHER METHOD TO PREVENT ACCUMULATED SEDIMENT FROM ENTERING THE INLET.

TYPE D

DO NOT INSTALL INLET PROTECTION TYPE D IN INLETS SHALLOWER THAN 30", MEASURED FROM THE BOTTOM OF THE INLET TO THE TOP OF THE GRATE.

TRIM EXCESS FABRIC IN THE FLOW LINE TO WITHIN 3" OF THE GRATE.

THE INSTALLED BAG SHALL HAVE A MINIMUM SIDE CLEARANCE, BETWEEN THE INLET WALLS AND THE BAG, MEASURED AT THE BOTTOM OF THE OVERFLOW HOLES, OF 3". WHERE NECESSARY THE CONTRACTOR SHALL CINCH THE BAG, USING PLASTIC ZIP TIES, TO ACHIEVE THE 3" CLEARANCE. THE TIES SHALL BE PLACED AT A MAXIMUM OF 4" FROM THE BOTTOM OF THE BAG.

INLET PROTECTION
TYPE A, B, C, AND D

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
10/16/02
DATE
/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

6
S.D.D. 8 E 10-2

METAL APRON ENDWALLS

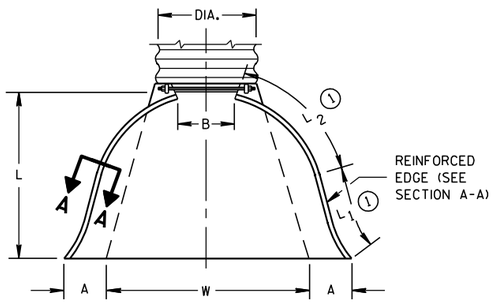
PIPE DIA. (IN.)	MIN. THICK. (Inches) STEEL	MIN. THICK. (Inches) ALUM.	DIMENSIONS (Inches) A (±1")	B (MAX.)	H (±1")	L (±1 1/2")	L1 ①	L2 ①	W (±2")	APPROX. SLOPE	BODY
12	.064	.060	6	6	6	21	12	17 1/2	24	2 1/2 to 1	1 Pc.
15	.064	.060	7	8	6	26	14	21 3/4	30	2 1/2 to 1	1 Pc.
18	.064	.060	8	10	6	31	15	28 1/4	36	2 1/2 to 1	1 Pc.
21	.064	.060	9	12	6	36	18	29 5/8	42	2 1/2 to 1	1 Pc.
24	.064	.075	10	13	6	41	18	37 1/4	48	2 1/2 to 1	1 Pc.
30	.079	.075	12	16	8	51	18	52 1/4	60	2 1/2 to 1	1 Pc.
36	.079	.105	14	19	9	60	24	59 3/4	72	2 1/2 to 1	2 Pc.
42	.109	.105	16	22	11	69	24	75 5/8	84	2 1/2 to 1	2 Pc.
48	.109	.105	18	27	12	78	24	81	90	2 1/4 to 1	3 Pc.
54	.109	.105	18	30	12	84	30	85 1/2	102	2 1/4 to 1	3 Pc.
60	.109×	.105×	18	33	12	87	—	—	114	2 to 1	3 Pc.
66	.109×	.105×	18	36	12	87	—	—	120	2 to 1	3 Pc.
72	.109×	.105×	18	39	12	87	—	—	126	2 to 1	3 Pc.
78	.109×	.105×	18	42	12	87	—	—	132	1 1/2 to 1	3 Pc.
84	.109×	.105×	18	45	12	87	—	—	138	1 1/2 to 1	3 Pc.
90	.109×	.105×	18	37	12	87	—	—	144	1 1/2 to 1	3 Pc.
96	.109×	.105×	18	35	12	87	—	—	150	1 1/2 to 1	3 Pc.

× EXCEPT CENTER PANEL SEE GENERAL NOTES

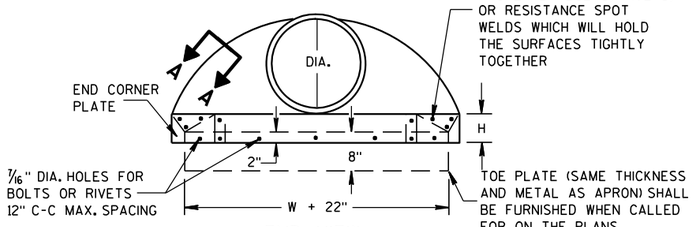
REINFORCED CONCRETE APRON ENDWALLS

PIPE DIA. (IN.)	DIMENSIONS (Inches) T	A	B	C	D	E	G	APPROX. SLOPE
12	2	4	24	48 7/8	72 1/8	24	2	3 to 1
15	2 1/4	6	27	46	73	30	2 1/4	3 to 1
18	2 1/2	9	27	46	73	36	2 1/2	3 to 1
21	2 3/4	9	36	37 1/2	73 1/2	42	2 3/4	3 to 1
24	3	9 1/2	43 1/2	30	73 1/2	48	3	3 to 1
27	3 1/4	10 1/2	49 1/2	24	73 1/2	54	3 1/4	3 to 1
30	3 1/2	12	54	19 3/4	73 1/2	60	3 1/2	3 to 1
36	4	15	63	34 3/4	97 3/4	72	4	3 to 1
42	4 1/2	21	63	35	98	78	4 1/2	3 to 1
48	5	24	72	26	98	84	5	3 to 1
54	5 1/2	27	65	* 33 1/4 - ** 35	* 98 1/4 - ** 100	90	5 1/2	2 2/5 to 1
60	6	* 30 - ** 35	60	39	99	96	5	2 to 1
66	6 1/2	* 24 - ** 30	* 72 - ** 78	* 21 - ** 27	99	102	5 1/2	2 to 1
72	7	* 24 - ** 36	78	21	99	108	6	2 to 1
78	7 1/2	* 24 - ** 36	78	21	99	114	6 1/2	2 to 1
84	8	36	90 1/2	21	111 1/2	120	6 1/2	1 1/2 to 1
90	8 1/2	41	87 1/2	24	111 1/2	132	6 1/2	1 1/2 to 1

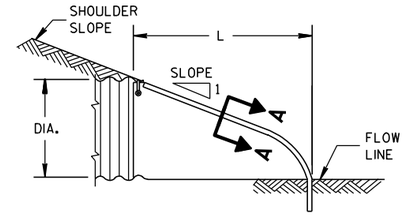
* MINIMUM
** MAXIMUM



PLAN VIEW

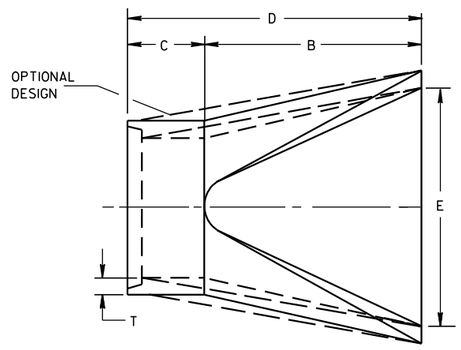


END VIEW

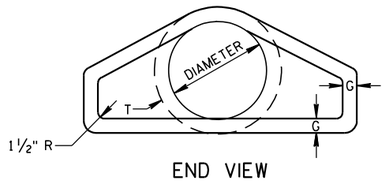


SIDE ELEVATION

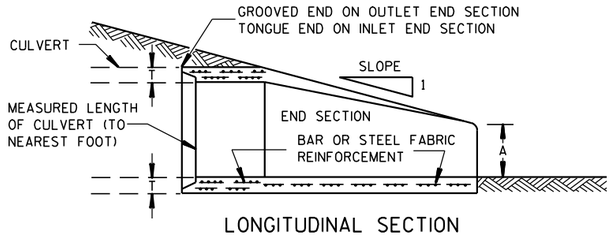
METAL ENDWALLS



PLAN

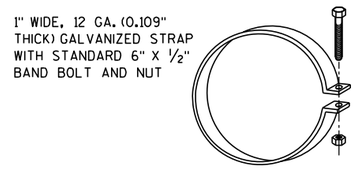


END VIEW



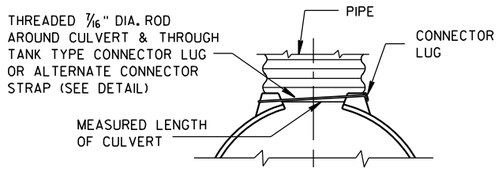
LONGITUDINAL SECTION

CONCRETE ENDWALLS

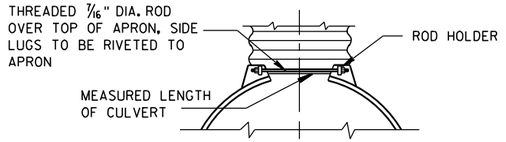


ALTERNATE FOR TYPE 1 CONNECTION

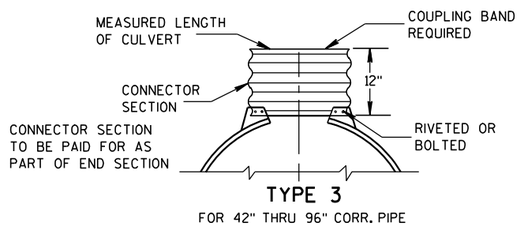
END SECTION CONNECTOR STRAP



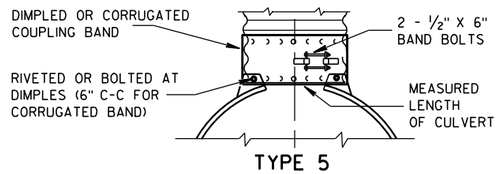
TYPE 1
FOR 12" THRU 24" CORR. PIPE



TYPE 2
FOR 30" THRU 96" CORR. PIPE



TYPE 3
FOR 42" THRU 96" CORR. PIPE



TYPE 5
ALTERNATE FOR:
ALL SIZES CORRUGATED CIRCULAR PIPE

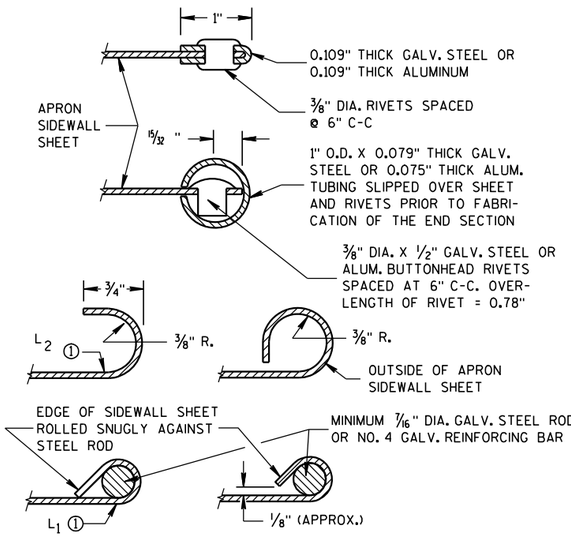
NOTE: DIMPLED BAND FITS OVER OUTSIDE OF ENDWALL. AND CORRUGATED BAND FITS INSIDE ENDWALL. DIMPLED BAND MAY BE USED WITH HELICALLY CORRUGATED PIPE.

FOR CIRCUMFERENTIALLY CORRUGATED PIPE USE ENDWALL CONNECTION DETAILS 1, 2, 3 OR 5 AS APPLICABLE.

FOR HELICALLY CORRUGATED PIPE USE ENDWALL CONNECTION DETAILS 1, 2 OR 5.

FOR HELICALLY CORRUGATED PIPES WITH TWO CIRCUMFERENTIAL CORRUGATIONS AT EACH END USE ENDWALL CONNECTION DETAILS 1, 2 OR 3.

CONNECTION DETAILS



SECTION A-A

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

CONCRETE CULVERT ENDWALLS MAY NOT BE USED WITH GALVANIZED STEEL OR ALUMINUM CULVERT PIPE OR VISE VERSA. GALVANIZED STEEL OR ALUMINUM ENDWALLS SHALL NORMALLY BE INSTALLED ON CULVERT PIPE OF THE SAME METAL.

ALL THREE PIECE STEEL APRON ENDWALLS FOR 60" DIAMETER PIPE AND LARGER SHALL HAVE 0.109" SIDES AND 0.138" CENTER PANELS. ALL THREE PIECE ALUMINUM APRON ENDWALLS FOR 60" DIAMETER PIPE AND LARGER SHALL HAVE 0.105" SIDES AND 0.134" CENTER PANELS. THE WIDTH OF CENTER PANELS SHALL BE GREATER THAN 20 PERCENT OF THE PIPE PERIMETER.

LAP SEAMS SHALL BE TIGHTLY JOINED BY GALVANIZED RIVETS OR BOLTS FOR STEEL UNITS AND ALUMINUM RIVETS AND BOLTS FOR ALUMINUM UNITS. FOR THE 60" THROUGH 96" DIAMETER APRON ENDWALL SIZES, THE REINFORCED EDGES AND CENTER PANEL SEAMS SHALL BE FURTHER REINFORCED WITH GALVANIZED STEEL OR ALUMINUM STIFFENER ANGLES. THE ANGLES SHALL BE ATTACHED BY GALVANIZED NUTS AND BOLTS FOR STEEL UNITS AND ALUMINUM NUTS AND BOLTS FOR ALUMINUM UNITS.

WHERE TWO OR MORE PIPES WITH APRON ENDWALLS ARE LAID ADJACENT TO EACH OTHER, THEY SHALL BE SEPARATED BY A DISTANCE SUFFICIENT TO PROVIDE A MINIMUM CLEARANCE OF 6 INCHES BETWEEN APRON ENDWALLS.

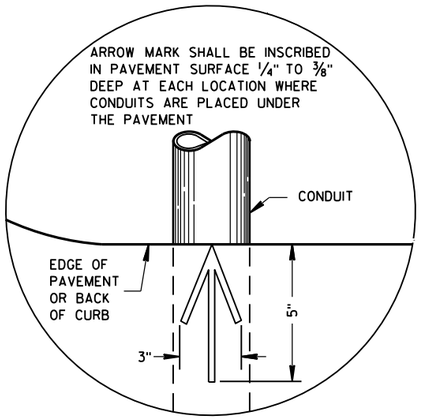
① FOR PIPE SIZES UP TO 60" DIAMETER, A 180° ROLLED EDGE MAY BE USED INSTEAD OF STEEL ROD REINFORCEMENT. SEE SECTION A-A.

APRON ENDWALLS FOR CULVERT PIPE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

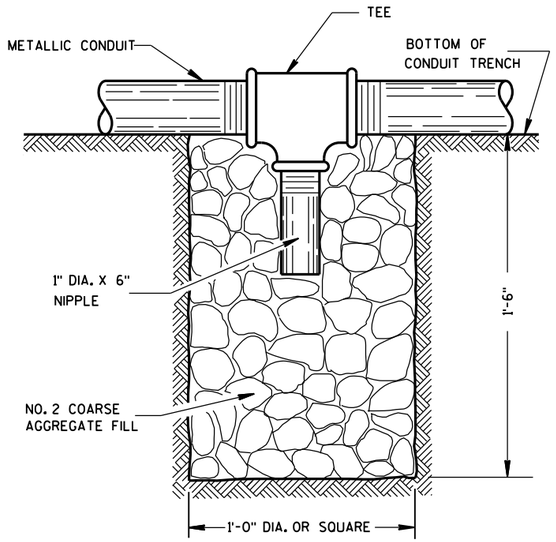
APPROVED
11/30/94 DATE
/S/ Rory L. Rhinesmith
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

6
S.D.D. 8 F 1-11



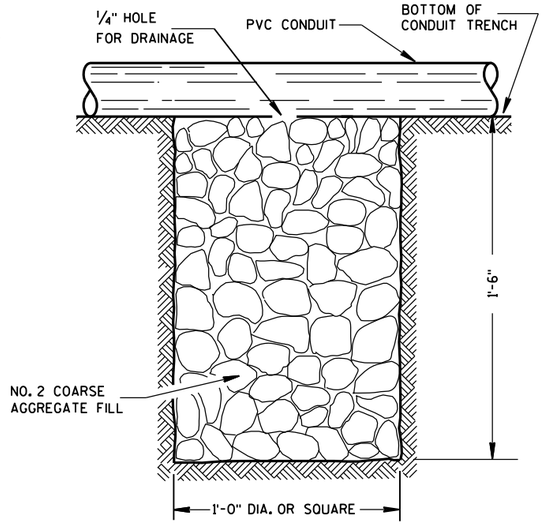
PLAN VIEW

ARROW MARK



NOTE: INSTALL AT LOCATIONS WHERE METALLIC CONDUITS CANNOT BE PITCHED TO DRAIN INTO A PULL BOX.

DRAIN SUMP FOR METALLIC CONDUIT



NOTE: INSTALL AT LOCATIONS WHERE PVC CONDUITS CANNOT BE PITCHED TO DRAIN INTO A PULL BOX.

DRAIN SUMP FOR PVC CONDUIT

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

METALLIC (STANDARD SPECIFICATION 652.2.2) OR NONMETALLIC (STANDARD SPECIFICATION 652.2.3) CONDUIT SHALL BE FURNISHED AND PLACED AS SHOWN.

DEPTH OF CONDUIT INSTALLED BELOW THE TRAVELED WAY SHALL BE 24 INCHES MINIMUM AND 36 INCHES MAXIMUM.

DEPTH OF CONDUIT INSTALLED THAT IS NOT BELOW THE TRAVELED WAY SHALL BE 18 INCHES MINIMUM AND 36 INCHES MAXIMUM.

ANY EXCEPTION TO THE MAXIMUM DEPTH SHALL BE ONLY WITH THE WRITTEN APPROVAL OF THE ENGINEER.

THE TRENCH SHALL NOT BE BACKFILLED PRIOR TO INSPECTION OF THE CONDUIT.

ALL METALLIC CONDUIT RACEWAY ENDS SHALL BE REAMED AND THREADED.

ALL METALLIC CONDUIT IN WHICH WIRE OR CABLE IS TO BE INSTALLED SHALL BE BUSHED WITH APPROVED THREADED BUSHINGS BEFORE INSTALLATION OF THE WIRE OR CABLE.

ALL METALLIC CONDUITS IN WHICH WIRE OR CABLE IS NOT TO BE INSTALLED SHALL BE CAPPED WITH THREADED PROTECTIVE CAPS, AS APPROVED BY THE ENGINEER.

ALL NONMETALLIC CONDUIT SHALL BE CAPPED OR PLUGGED IMMEDIATELY AFTER INSTALLATION AND SHALL REMAIN CAPPED OR PLUGGED UNTIL WIRE/CABLES ARE INSTALLED.

NONMETALLIC CONDUITS IN WHICH WIRE OR CABLE IS NOT BEING INSTALLED SHALL REMAIN CAPPED OR PLUGGED.

BENDING OF PVC ELECTRICAL CONDUIT SHALL BE ACCOMPLISHED BY USING A BLANKET OR EMERSION TYPE TANK DESIGNED FOR THE PURPOSE OF BENDING PVC ELECTRICAL CONDUIT.

ALL CUT ENDS SHALL BE TRIMMED INSIDE AND OUTSIDE TO REMOVE ALL ROUGH EDGES ON NONMETALLIC CONDUIT. (SEE NEC 347.5)

WHEN REQUIRED TO CONNECT NONMETALLIC CONDUIT TO METALLIC CONDUIT, ONLY U.L. LISTED ADAPTER FITTINGS SHALL BE USED.

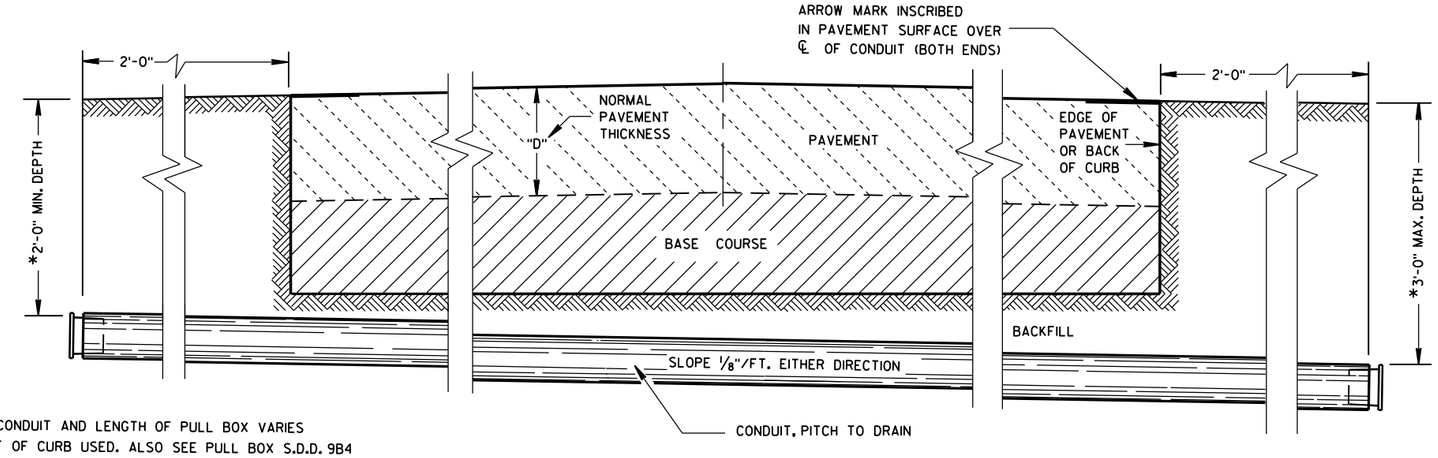
PRIOR TO CONDUIT ACCEPTANCE, CONDUIT CAPS OR PLUGS SHALL BE REMOVED, AND THE CAPS, PLUGS AND CONDUIT ENDS SHALL BE THOROUGHLY CLEANED AND THEN THE CAPS OR PLUGS REINSTALLED TO ENSURE THAT THE CAPS OR PLUGS CAN BE EASILY REMOVED IN THE FUTURE.

ALL CONDUIT BEING FURNISHED AND INSTALLED SHALL HAVE THE U.L. LABEL FIRMLY ATTACHED.

CONDUIT RUNS SHALL BE THE SAME SIZE OF CONDUIT FROM ONE END TO THE OTHER (FROM PULL BOX TO PULL BOX-OR-JUNCTION BOX TO JUNCTION BOX-OR-BASE TO BASE, ETC.).

TRACER WIRE SHALL BE INSTALLED AS STATED IN THE STANDARD SPECIFICATION, ITEM 652.3.1.1.

ALL CONDUIT RUNS SHALL BE STRAIGHT (WITHOUT BENDS) FROM PULL BOX TO PULL BOX, PULL BOX TO BASE AND BASE TO BASE AS SHOWN ON THE PLANS.



*DEPTH OF CONDUIT AND LENGTH OF PULL BOX VARIES WITH HEIGHT OF CURB USED. ALSO SEE PULL BOX S.D.D. 9B4

SIDE ELEVATION

DETAIL FOR CONDUIT UNDER PAVED HIGHWAYS

CONDUIT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June, 2015 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL
FHWA

6

S.D.D. 9 B 2-9

6

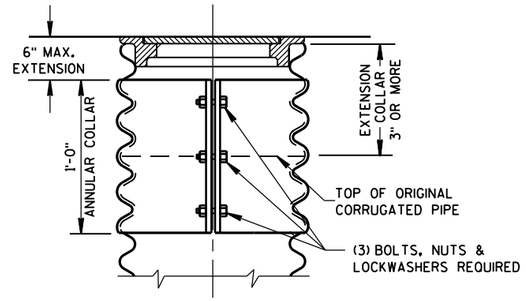
S.D.D. 9 B 2-9

TABLE OF NOMINAL DIMENSIONS AND WEIGHTS

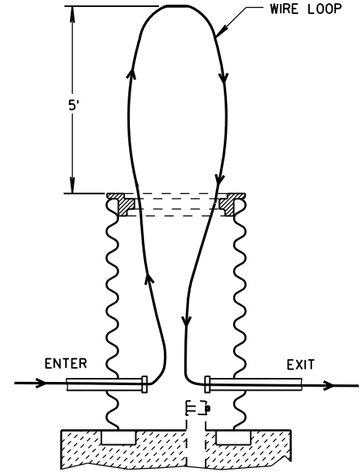
DIMENSION IN INCHES		CORRUGATED STEEL PIPE								
PIPE DIAMETER (INSIDE)	A	12	12	12	18	18	18	24	24	24
PIPE LENGTH **	B	24	30	36	24	30	36	36	42	48
WALL THICKNESS	C	0.064	0.064	0.064	0.064	0.064	0.064	0.064	0.064	0.064
COVER	D	10 1/4	10 1/4	10 1/4	16 1/4	16 1/4	16 1/4	22 1/4	22 1/4	22 1/4
FRAME	E	14 1/2	14 1/2	14 1/2	20 1/2	20 1/2	20 1/2	26 1/2	26 1/2	26 1/2
FRAME	F	8 1/2	8 1/2	8 1/2	14 1/2	14 1/2	14 1/2	20 1/2	20 1/2	20 1/2
FRAME	G	11 1/2	11 1/2	11 1/2	17 1/2	17 1/2	17 1/2	23 1/2	23 1/2	23 1/2
WEIGHT IN POUNDS *										
FRAME AND COVER		60	60	60	110	110	110	155	155	155

* THE ACTUAL WEIGHT OF THE MANHOLE FRAME AND COVER MAY VARY WITHIN 5 PERCENT PLUS OR MINUS OF THE WEIGHTS SHOWN.

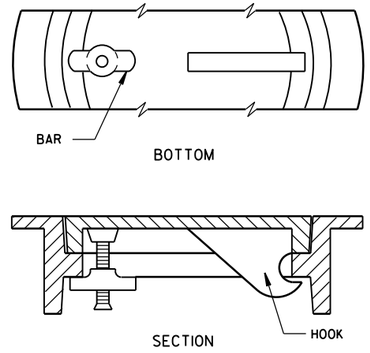
** NORMALLY USED LENGTHS. THE PROJECT ENGINEER SHALL DETERMINE IF PIPE LENGTHS, OTHER THAN THOSE SPECIFIED, SHALL BE USED, TO A MAXIMUM OF 48" (CONTINUOUS LENGTH, NON-SPLICED). THE ADDITIONAL LENGTH SHALL BE INCIDENTAL TO THE PULL BOX BID PRICE.



CORRUGATED PIPE EXTENDER

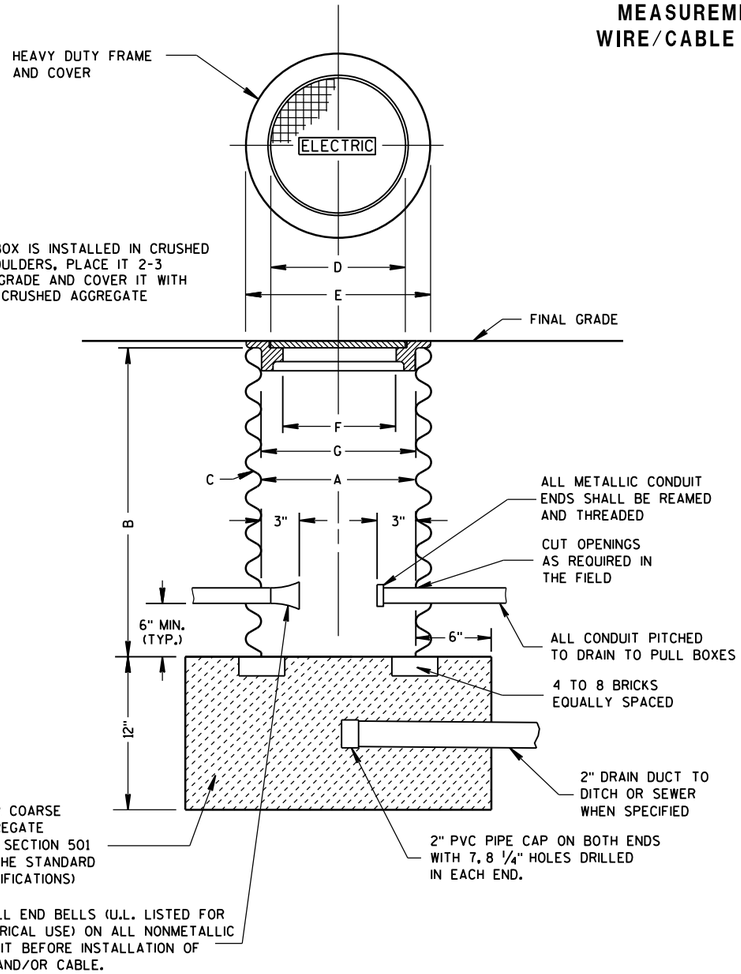


MEASUREMENT DETAIL FOR WIRE/CABLE IN THE PULL BOX



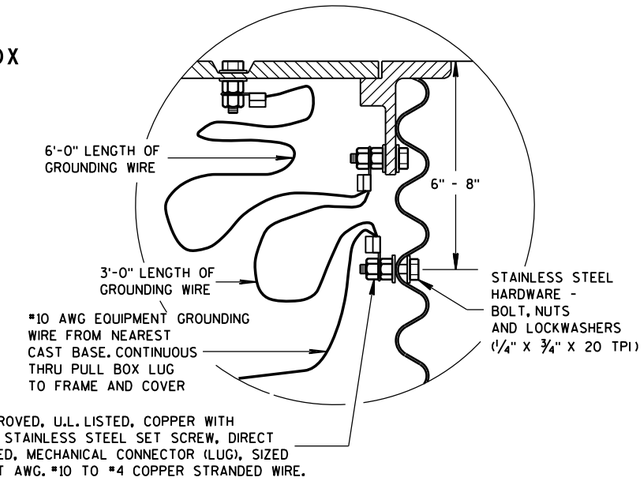
ALTERNATE COVER (LOCKING)

TIGHTENING BAR TYPE

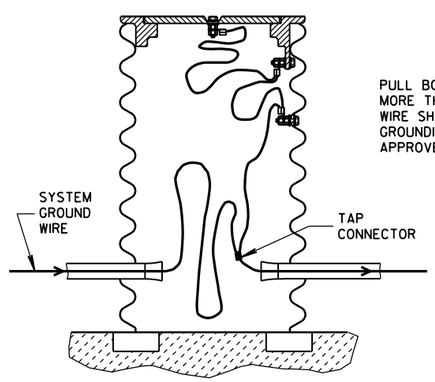


WHEN A PULL BOX IS INSTALLED IN CRUSHED AGGREGATE SHOULDERS, PLACE IT 2-3 INCHES BELOW GRADE AND COVER IT WITH 2-3 INCHES OF CRUSHED AGGREGATE

PULL BOX



EQUIPMENT GROUNDING LUG AND LOCATION IN STEEL PULL BOXES



PULL BOX TO NEAREST BASE DISTANCE MORE THAN 20 FEET. PULL BOX GROUND WIRE SHALL CONNECT AT SYSTEM GROUNDING WIRE. USE DEPARTMENT APPROVED TAP CONNECTOR.

EQUIPMENT GROUNDING LUG AND LOCATION IN STEEL PULL BOXES

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

ALL FRAMES AND COVERS SHALL BE HEAVY DUTY TYPE, SUITABLE FOR VEHICULAR TRAFFIC LOADS.

PULL BOXES LOCATED IN THE ROADWAYS SHALL HAVE LOCKING COVERS.

ENTRANCE HOLES INTO PULL BOXES SHALL BE CUT WITH A CIRCULAR HOLE SAW OR HYDRAULIC CONDUIT PUNCH. HOLE SIZE SHALL BE THE OUTSIDE DIAMETER OF THE CONDUIT THAT IS TO FIT IN THE OPENING PLUS NO MORE THAN 1/4".

THE CONTRACTOR SHALL NOT INSTALL WIRE IN ANY PULL BOX UNTIL ITS INSTALLATION HAS BEEN INSPECTED AND ACCEPTED BY THE ENGINEER.

GROUNDING LUGS (MECHANICAL CONNECTORS) SHALL BE U.L. LISTED AND APPROVED FOR USE WITH COPPER WIRE.

ALL METALLIC CONDUIT IN WHICH WIRE AND/OR CABLE IS TO BE INSTALLED, SHALL BE BUSHED BEFORE INSTALLATION OF THE WIRE AND/OR CABLE.

WHEN PULL BOXES ARE INSTALLED FOR FUTURE USE, DO NOT INSTALL THE EQUIPMENT GROUNDING LUG. THE EQUIPMENT GROUNDING LUG, THE EQUIPMENT GROUNDING ELECTRODE AND THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE REQUIRED AND INSTALLED UNDER A FUTURE WIRING CONTRACT.

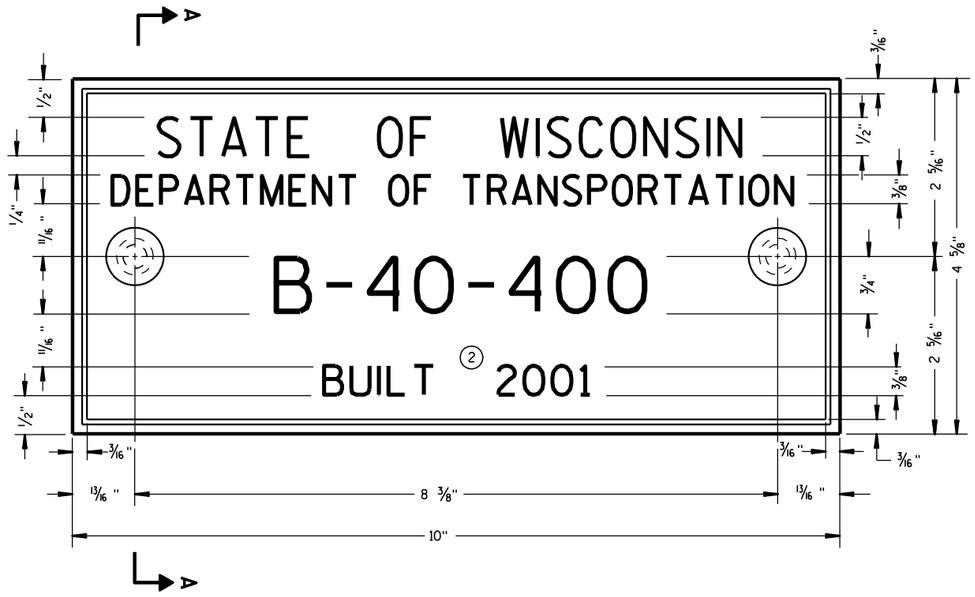
PULL BOX

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Sept. 2014 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL
FHWA

6

S.D.D. 9 B 4-11



TYPICAL NAME PLATE
(BRIDGES, CULVERTS, AND RETAINING WALLS)

FOR MULTI-UNIT STRUCTURES
LINE 3 ABOVE SHALL READ

B = BRIDGE
C = CULVERT
R = RETAINING WALL

COUNTY NO.

BRIDGE NO.

UNIT NO. FOR MULTIPLE UNIT BRIDGE

B-40-400-1A

NUMBERING DESIGNATION
MULTI-UNIT STRUCTURES

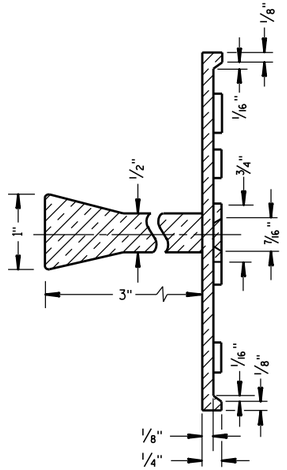
GENERAL NOTES

NAME PLATES TO BE INSTALLED ON BRIDGES, CULVERTS, AND RETAINING WALLS SHALL CONFORM TO THE REQUIREMENTS OF SECTION 502.3.11 OF THE STANDARD SPECIFICATIONS.

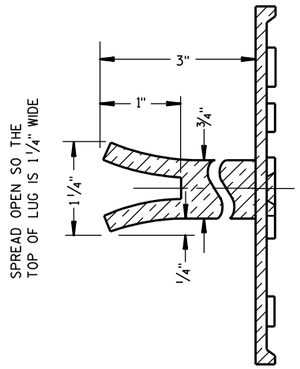
THE BRIDGE NUMBER AND YEAR BUILT SHOWN ON THIS DRAWING ARE EXAMPLES ONLY. SEE CONSTRUCTION PLANS FOR INDIVIDUAL NUMBERING AND YEAR BUILT.

(1) EPOXY RESIN SHALL BE FROM AN APPROVED MANUFACTURER AND USED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.

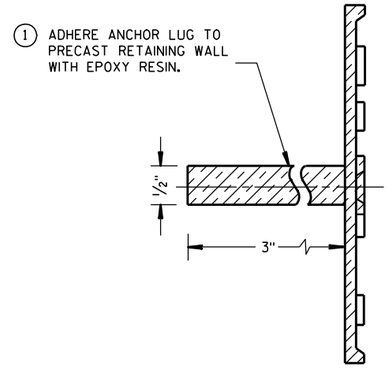
(2) REHABILITATION OF AN EXISTING STRUCTURE SHOULD USE THE DATE OF ORIGINAL STRUCTURE CONSTRUCTION.



SECTION A-A



ALTERNATE LUG



ALTERNATE LUG
(FOR ATTACHMENT TO PRECAST STRUCTURES)

NAME PLATE (STRUCTURES)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

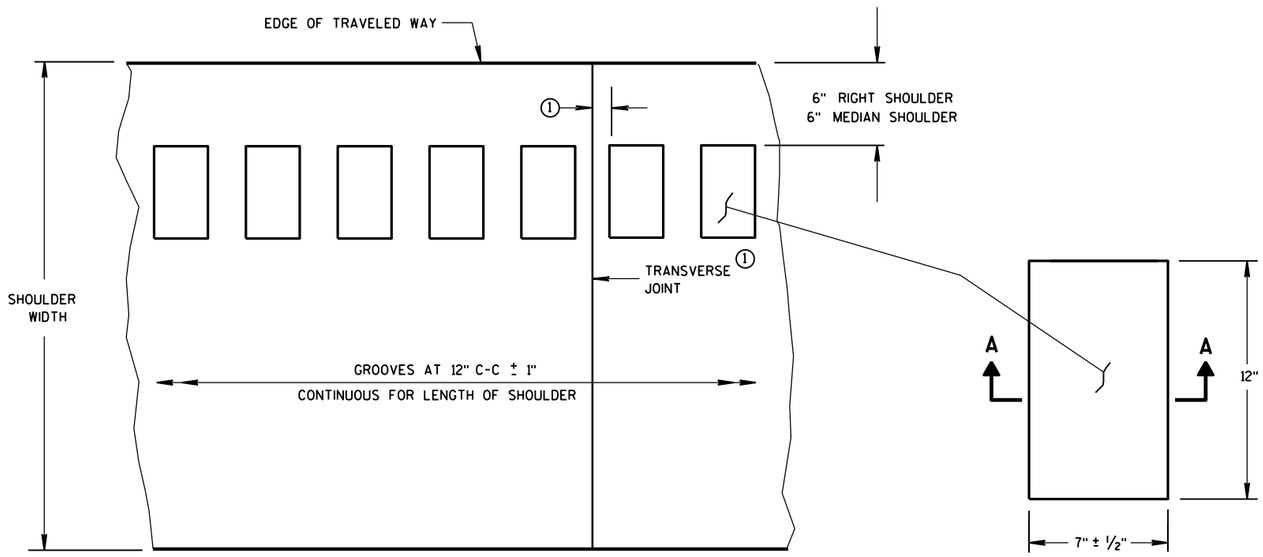
3/26/10 DATE

/S/ Scot Beck-- CHIEF STRUCTURAL DEVELOP ENGINEER

FHWA

6

S.D.D. 12 A 3-10



PLAN VIEW
SHOULDER WITH GROOVES

PLAN VIEW
(SINGLE GROOVE)

PLACEMENT DETAIL FOR MILLED RUMBLE STRIP

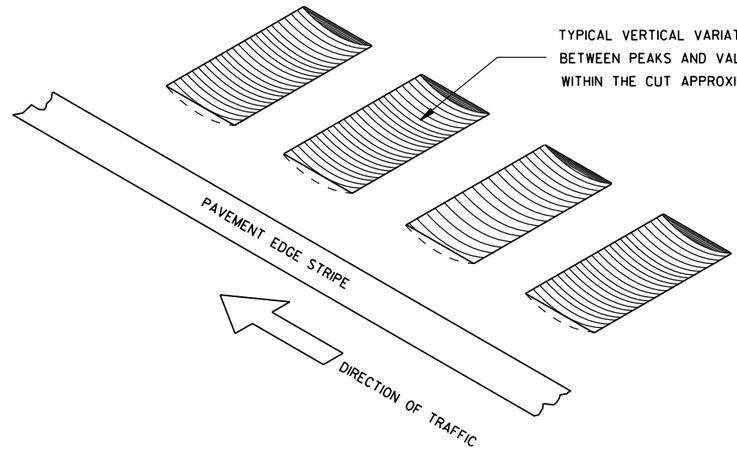
GENERAL NOTES

DETAILS OF CONSTRUCTION SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

RUMBLE STRIPS ON EXPRESSWAYS

DO NOT INSTALL RUMBLE STRIPS ACROSS SIDE ROAD INTERSECTIONS, COMMERCIAL DRIVEWAYS, PRIVATE DRIVEWAYS OR ADJACENT TO RIGHT TURN LANES, LEFT TURN LANES, TURN LANE TAPERS, BRIDGE DECKS, BRIDGE APPROACHES, OR 100 FEET IN ADVANCE OF RAILROAD CROSSING. THE ATTACHED STANDARD DETAIL DRAWING SHOWS THE LOCATION OF THE RUMBLE STRIPS AT INTERCHANGE AREAS.

(1) CONCRETE PAVEMENT - RUMBLE STRIPS SHALL BE A MINIMUM OF 6" AWAY FROM TRANSVERSE JOINTS.



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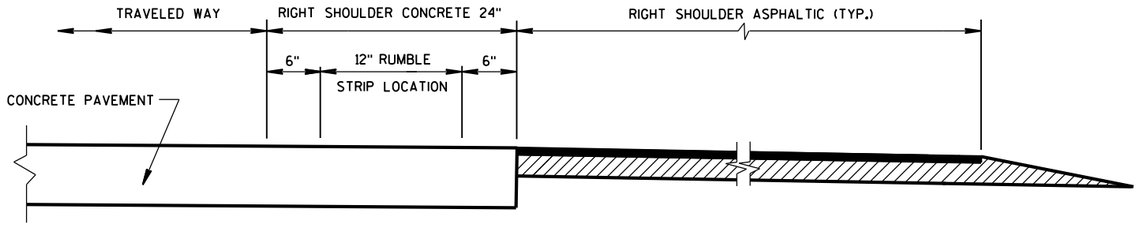
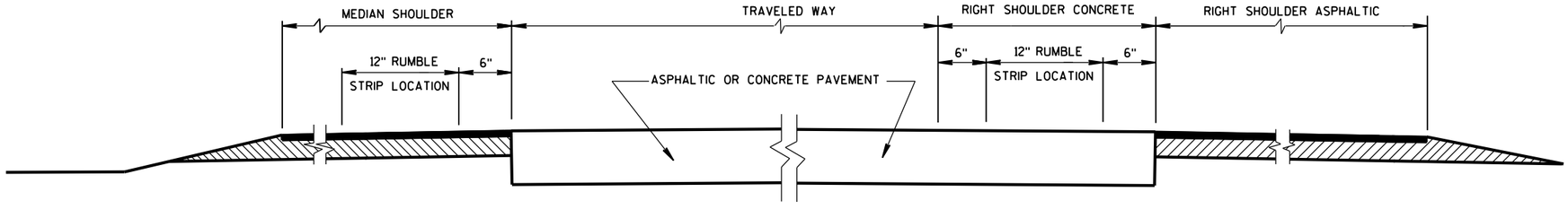


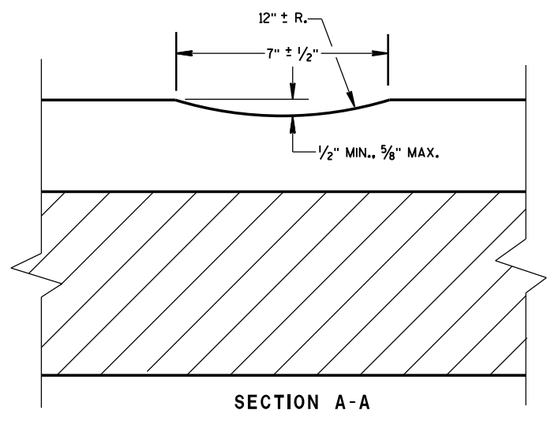
SECTION VIEW
CONCRETE PAVEMENT EXTENDS INTO RIGHT SHOULDER)



SECTION VIEW

TYPICAL LOCATIONS OF SHOULDER RUMBLE STRIPS IN RURAL DIVIDED HIGHWAYS

(ONE ROADWAY IS SHOWN)



SECTION A-A

SHOULDER RUMBLE STRIP, MILLING

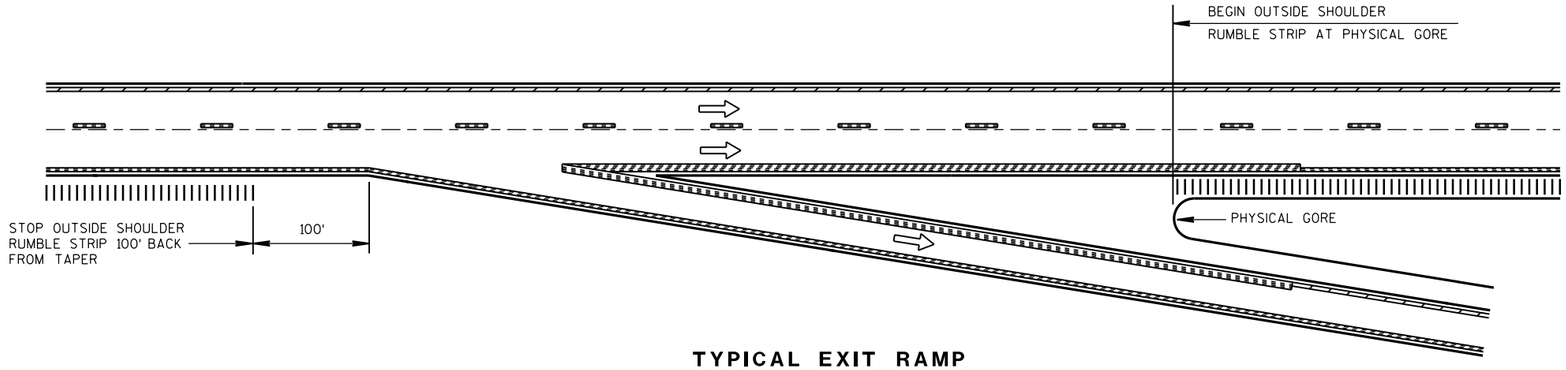
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6

S.D.D. 13 A 5-5a

6

S.D.D. 13 A 5-5a



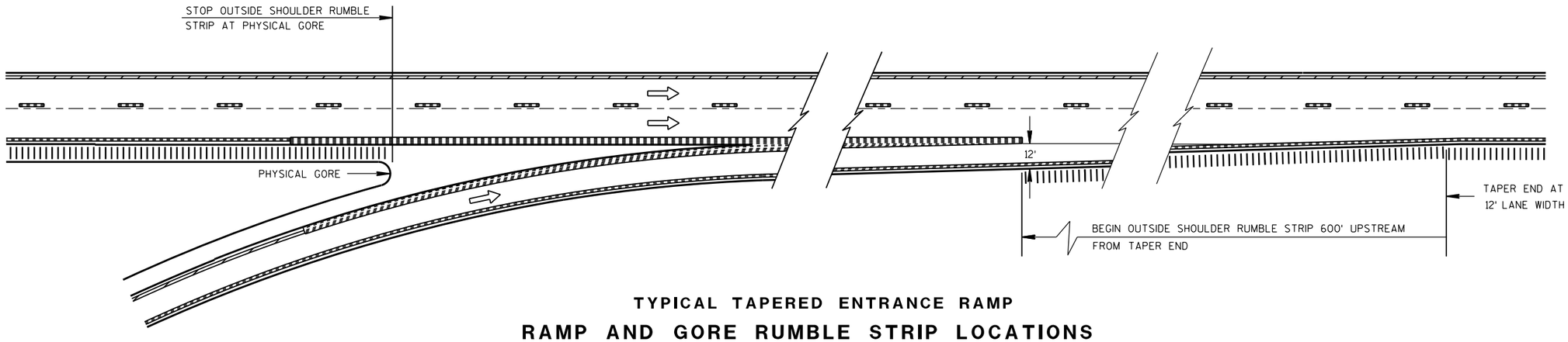
TYPICAL EXIT RAMP

NOTES:

NO RUMBLE STRIP ON EXIT, DIRECTIONAL, OR ENTRANCE RAMPS, EXCEPT NEAR THE ENTRANCE TAPER END AND ALONG THE PARALLEL RAMP AREA AS SHOWN.

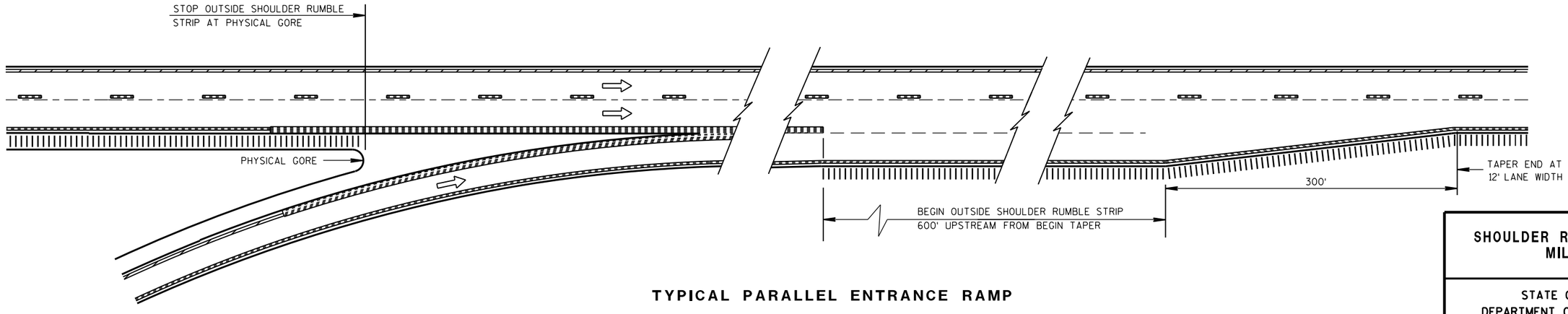
PAVEMENT MARKING DETAILS AND SPECIFICATIONS ARE PROVIDED ELSEWHERE IN THE CONTRACT.

NOTE:
ARROW SYMBOL (⇨)
SHOWS DIRECTION OF TRAVEL



TYPICAL TAPERED ENTRANCE RAMP

RAMP AND GORE RUMBLE STRIP LOCATIONS



TYPICAL PARALLEL ENTRANCE RAMP

RAMP AND GORE RUMBLE STRIP LOCATIONS

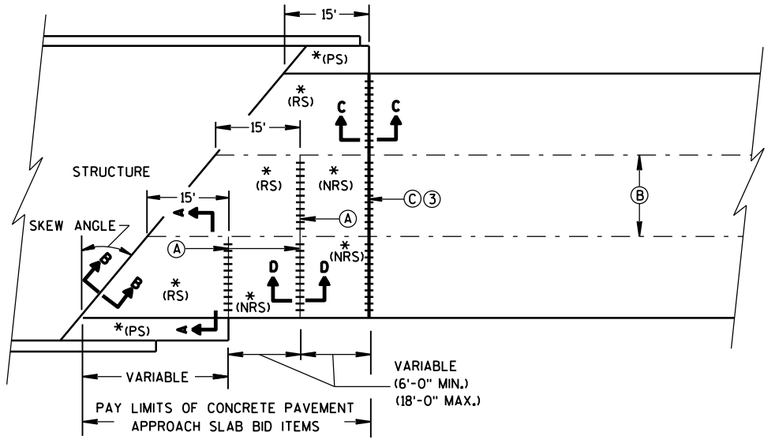
SHOULDER RUMBLE STRIP, MILLING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

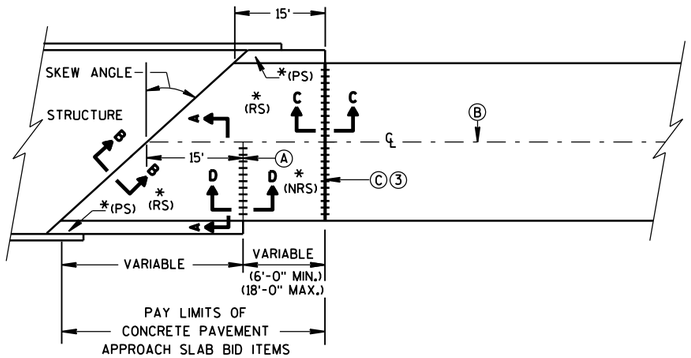
APPROVED
12/17/2012 — DATE
/S/ Jerry H. Zoga — ROADWAY STANDARDS ENGINEER
FHWA

6

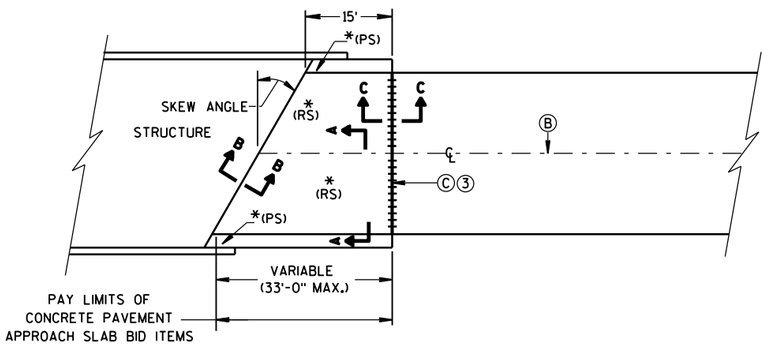
S.D.D. 13 A 5-5b



SKEWED APPROACH
(PAVEMENT MORE THAN 2 LANES)



SKEWS >20°
(PAVEMENT WIDTH ≤30')



SKEWS ≤20°
(PAVEMENT WIDTH ≤30')

APPROACH SLAB AND ADJACENT PAVEMENT

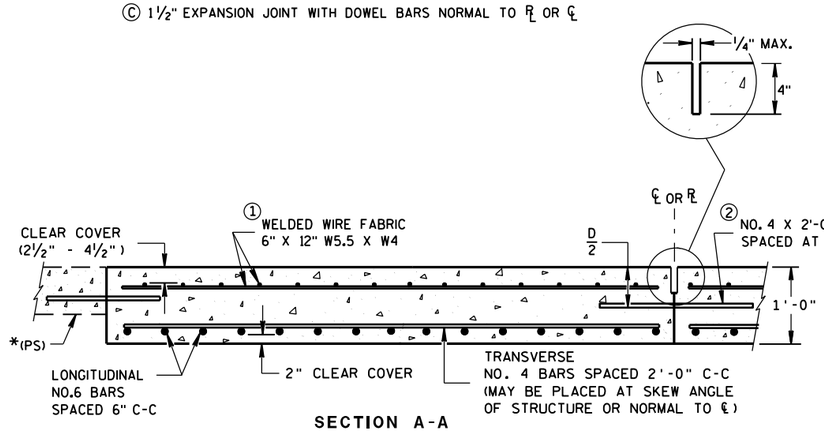
*(RS) = REINFORCED CONCRETE SLAB
*(PS) = PAVED CONCRETE SHOULDER OR CONCRETE DRAINAGE SLAB
(SEE DETAILS ELSEWHERE IN THE PLAN)
*(NRS) = NON-REINFORCED CONCRETE SLAB

***STANDARD DOWEL BAR DIAMETER
(SEE SDD 13C11, & SDD 13C13)

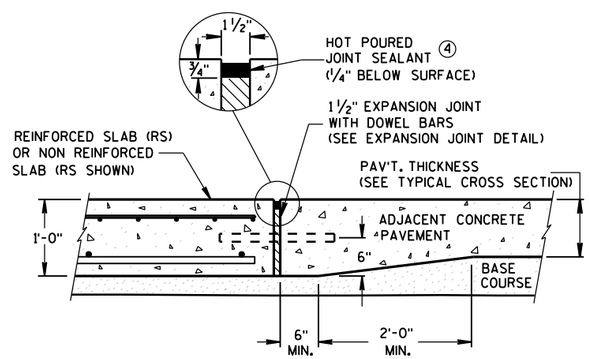
Ⓐ STANDARD CONTRACTION JOINT NORMAL TO ℄ OR ℄

Ⓑ STANDARD LONGITUDINAL JOINT WITH TIE BARS.

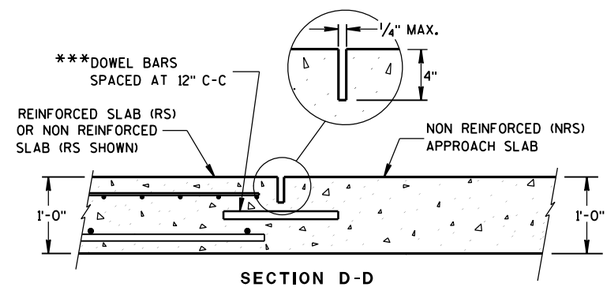
Ⓒ 1½" EXPANSION JOINT WITH DOWEL BARS NORMAL TO ℄ OR ℄



SECTION A-A
REINFORCEMENT POSITIONING DETAIL



SECTION C-C
TRANSITION DETAIL
APPROACH SLAB TO ADJACENT PAVEMENT



SECTION D-D
CONTRACTION JOINT

GENERAL NOTES

THE CONTRACTOR MAY SPLICE NO. 6 BARS IN THE APPROACH SLAB FOR SKEWED STRUCTURES ONLY. STAGGER SPLICES WITH A MAXIMUM OF ONE SPLICE PER BAR. THE LENGTH OF LAP IS 20 INCHES.

TACK WELD DOWEL BARS TO THE BASKETS ON ALTERNATE ENDS.

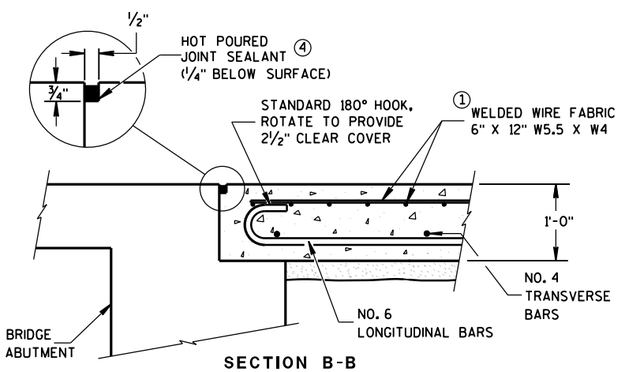
① THE CONTRACTOR MAY USE NO. 4 BARS SPACED AT 2'-0" C-C IN BOTH THE LONGITUDINAL AND TRANSVERSE DIRECTIONS FOR TOP REINFORCEMENT AS AN ALTERNATIVE TO THE WELDED WIRE FABRIC.

② THE CONTRACTOR MAY OMIT TIE BARS BETWEEN REINFORCED SLABS WHERE SLAB REINFORCEMENT BARS EXTEND ACROSS THE CENTERLINE OR REFERENCE LINE.

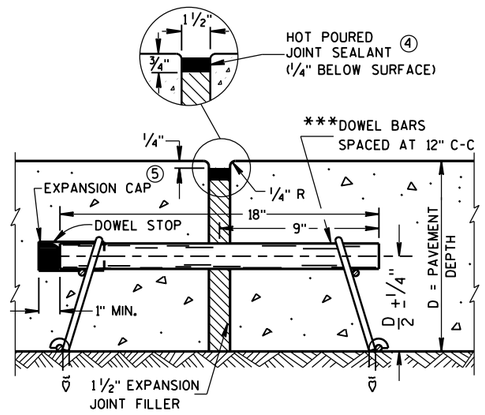
③ DO NOT CONSTRUCT AN EXPANSION JOINT OR INSTALL DOWEL BARS WHEN ABUTTING AN HMA PAVEMENT.

④ USE A JOINT SEALANT MEETING THE REQUIREMENTS OF ASTM D6690.

⑤ PLACE EXPANSION CAP ON THE END OF THE DOWEL THAT IS NOT TACK WELDED TO THE BASKET. DO NOT FORCE DOWEL BAR PAST THE DOWEL STOP.



SECTION B-B
BEND DETAIL
BOTTOM REINFORCEMENT



EXPANSION JOINT DETAIL

CONCRETE PAVEMENT APPROVED SLAB

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

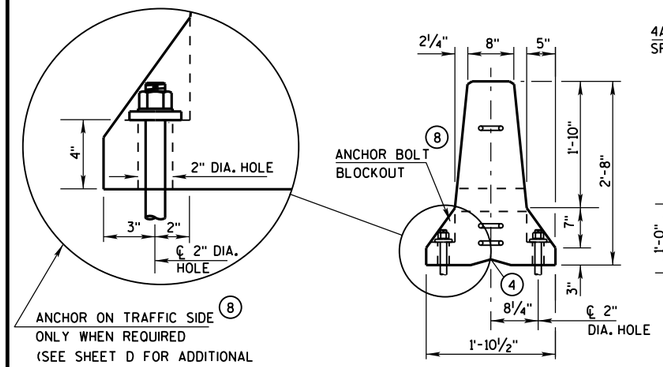
APPROVED
June, 2015
DATE
/S/ Peter Kemp, P.E.
PAVEMENT SUPER
FHWA

6

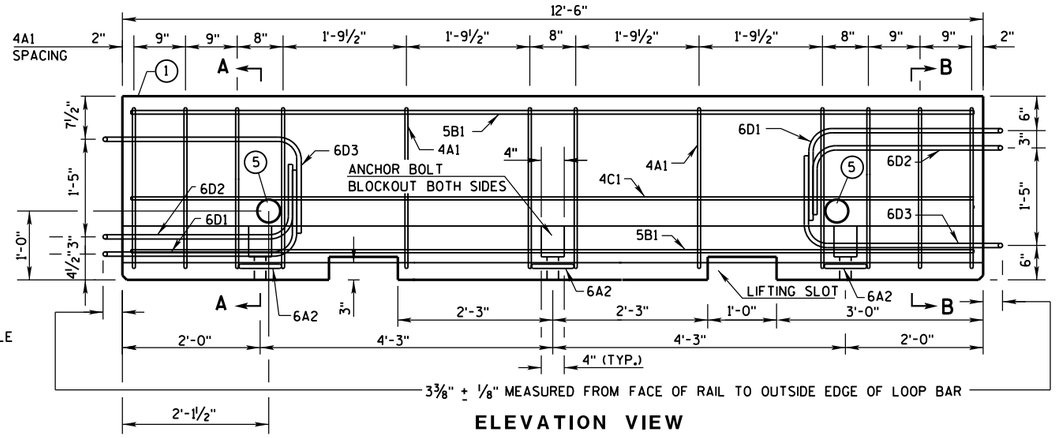
S.D.D. 13 B 2-8a

6

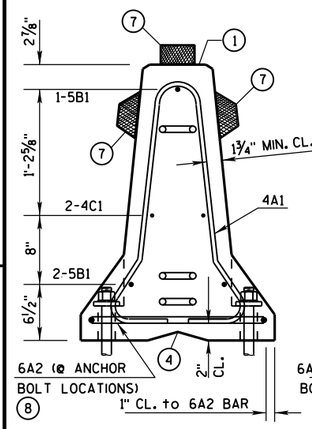
S.D.D. 13 B 2-8a



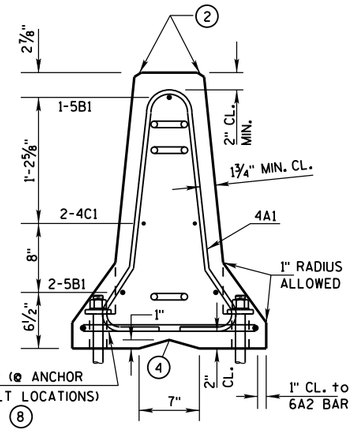
END VIEW



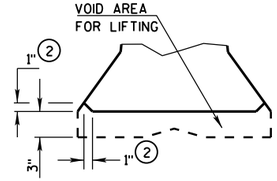
ELEVATION VIEW



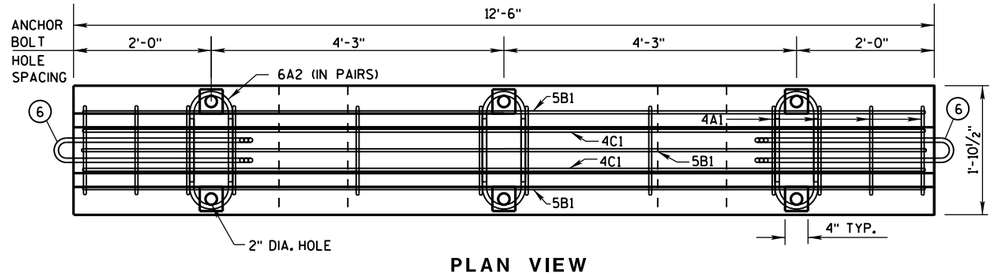
SECTION A-A
(STIRRUP PLACEMENT)



SECTION B-B
(STIRRUP PLACEMENT)

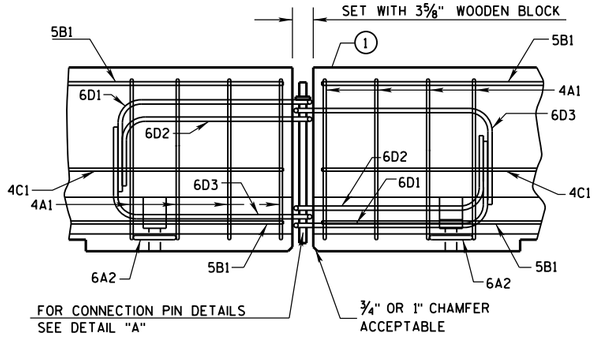


DETAIL "B"
LIFTING SLOT DETAIL

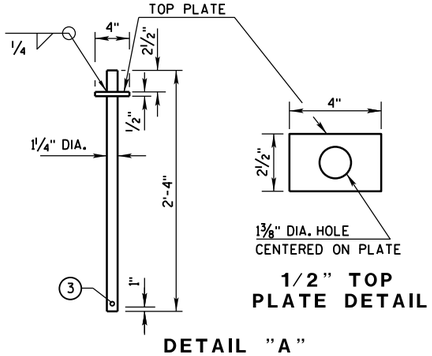


PLAN VIEW

DETAILS OF BARRIER SECTION

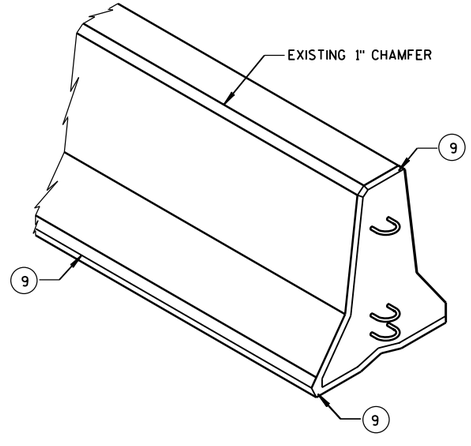


DETAILS OF BARRIER CONNECTION



1/2" TOP PLATE DETAIL

DETAIL "A"
CONNECTION PIN
(A36 STEEL (10.9 LB EACH))



GENERAL NOTES

THESE GENERAL NOTES APPLY TO SHEETS 14B7-14(a) THRU 14B7-14(h).

DO NOT INTERMIX CONCRETE BARRIER TEMPORARY PRCAST, 12'-6" (CBTP12.5) WITH OTHER TEMPORARY CONCRETE BARRIERS.

USE ASTM A-615, GRADE 60, DEFORMED STEEL BARS FOR BARS 4A1, 6A2, 5B1 AND 4C1 IN THE BARRIER SECTION AND FOR 4V1, 4V2, 4V3, 4V4, 4V5, 4V6, 4F1, 4F2 AND 5F3 IN THE BARRIER TAPER SECTION.

LOOP BARS 6D1, 6D2 AND 6D3 SHALL BE ¾" SMOOTH STEEL BARS WITH A MINIMUM YIELD STRENGTH OF 60 KSI, A TENSILE STRENGTH OF NOT LESS THAN 1.25 TIMES THE YIELD STRENGTH BUT A MINIMUM OF 80 KSI, A MINIMUM 14% ELONGATION IN 8 INCHES AND PASSING A 180 DEGREE BEND TEST USING A 3-½" PIN BEND DIAMETER FOR BEND TESTS. THE LOOPS SHALL BE INSTALLED WITHIN ⅛" OF THE PLAN DIMENSION.

CONSTRUCT LIFTING SLOTS AS SPECIFIED ON THE PLANS TO FACILITATE THE DRAINAGE OF WATER AFTER INSTALLATION.

PLACE BARRIER ON A PAVED SURFACE. REMOVE ALL LOOSE DIRT AND SAND FROM THE ROADWAY SURFACE PRIOR TO PLACEMENT OF THE BARRIER.

INSTALL MECHANICAL OR ADHESIVE ANCHORS PER MANUFACTURER'S RECOMMENDATIONS. PROVIDE MANUFACTURER'S INFORMATION TO PROJECT ENGINEER.

(1) MARK ONE END OF EACH BARRIER PERMANENTLY BY FORMING INTO THE BARRIER THE FOLLOWING INFORMATION:
- a. TYPE: WI CBTP
- b. MANUFACTURER
- c. DATE MANUFACTURED (MONTH AND YEAR)

(2) 1" CHAMFER TO PREVENT SPALLING.

(3) A ⅜" HOLE IN THE CONNECTION PIN, AT THE LOCATION SHOWN, IS ACCEPTABLE, BUT NOT REQUIRED..

(4) "V" NOTCH IS OPTIONAL.

(5) THE 4" DIAMETER, 11 GAUGE STEEL, ROUND MECHANICAL TUBING SLEEVE FOR LIFTING (OPTIONAL).

(6) NEVER USE LOOP BARS (6D1, 6D2 OR 6D3) TO LIFT, MOVE OR REPOSITION THE BARRIER.

(7) USE DELINEATORS CONFORMING TO SECTION 633 OF THE STANDARD SPECIFICATIONS. CONTRACTOR MAY USE ALTERNATE SHAPES AND HOUSING. INSTALL DELINEATORS ACCORDING TO MANUFACTURES INSTRUCTION. INSTALL YELLOW REFLECTORS WHEN BARRIER IS LOCATED TO THE LEFT OF TRAFFIC AND WHITE REFLECTORS WHEN BARRIER IS LOCATED TO THE RIGHT OF TRAFFIC. SPACE DELINEATORS A MAXIMUM OF 25 FEET APART. PROVIDE TOP MOUNTED DELINEATORS IN ADDITION TO THE SIDE MOUNTED DELINEATORS ON ALL BARRIER INSTALLATIONS LOCATED ON A CURVED ALIGNMENT LONGER THAN 200 FEET AND ON BARRIERS USED TO SEPARATE OPPOSING TRAFFIC.

(8) SEE SHEET D FOR ANCHORING CRITERIA.

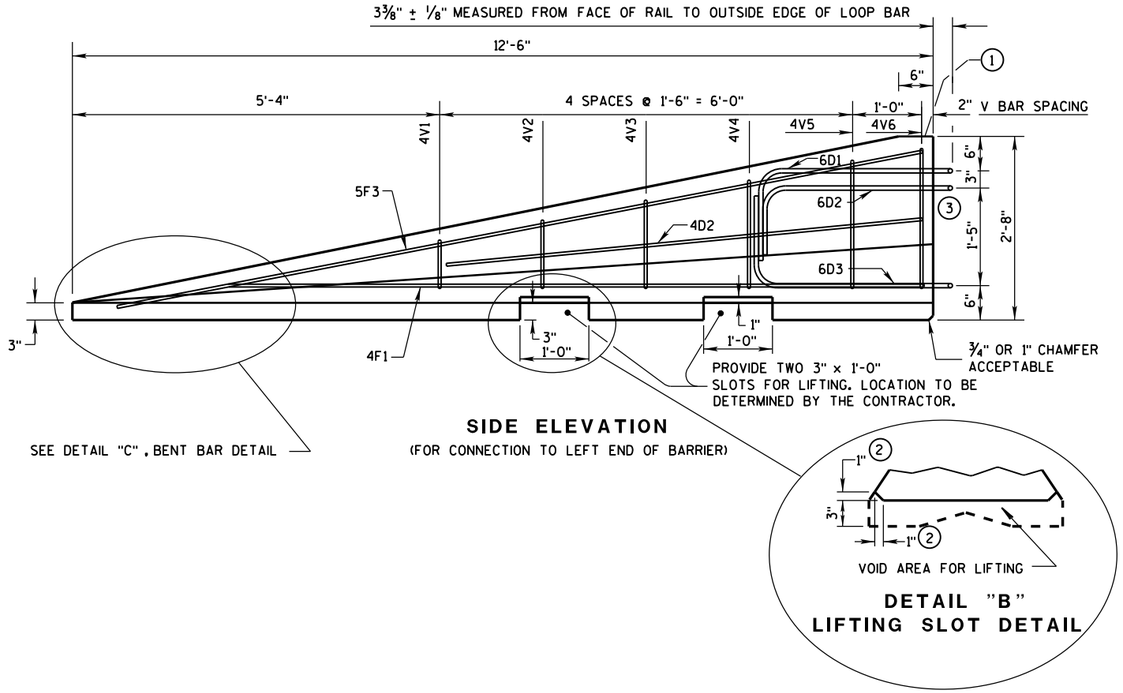
(9) 1" CHAMFER OPTIONAL.

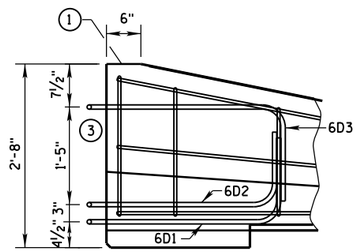
CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

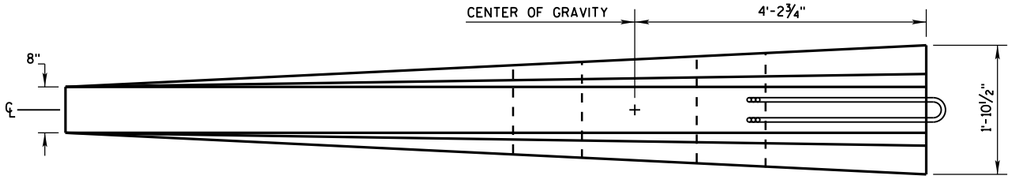
S.D.D. 14 B 7-14a

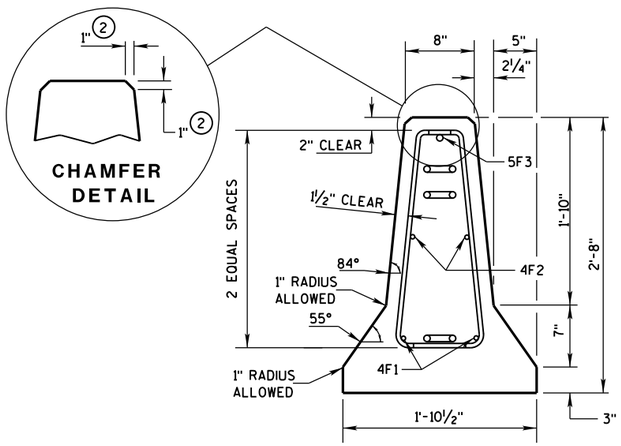


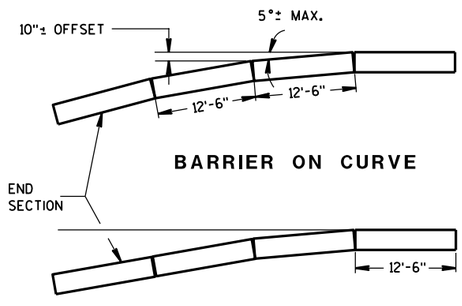


GENERAL NOTES

1. MARK ONE END OF EACH BARRIER PERMANENTLY BY FORMING INTO THE BARRIER THE FOLLOWING INFORMATION:
   a. TYPE WICBTP
   b. MANUFACTURER
   c. DATE MANUFACTURED (MONTH AND YEAR)
2. 1" CHAMFER TO PREVENT SPALLING.
3. NEVER USE LOOP BARS (6D1, 6D2 OR 6D3) TO LIFT, MOVE OR REPOSITION THE BARRIER.







POSTED SPEED, (MPH)	FLARE RATE
40 OR LESS	6:1
45 OR GREATER	8:1

DETAILS OF BARRIER TAPER SECTION

CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

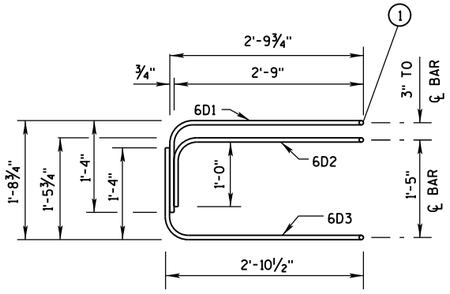
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6
S.D.D. 14 B 7-14b

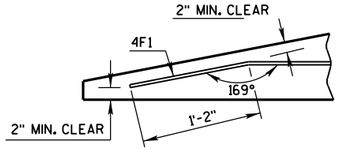
BARRIER TAPER SECTION BILL OF MATERIALS

(PER 12'-6" BARRIER TAPER SECTION)

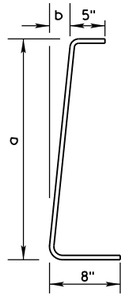
BAR	BAR SIZE	NO. OF BARS	LENGTH FT.
4V1	4	2	1'-11"
4V2	4	2	2'-2"
4V3	4	2	2'-6"
4V4	4	2	2'-9"
4V5	4	2	3'-2"
4V6	4	2	3'-4"
4F1	4	2	12'-0"
4F2	4	2	7'-6"
5F3	5	1	11'-9"
LOOP ASSEMBLY			
6D1	6	1	8'-5"
6D2	6	1	7'-7"
6D3	6	1	8'-6"



ELEVATION
LOOP BAR ASSEMBLY



DETAIL "C"
BENT BAR DETAIL



BAR	a	b
V1	10"	1"
V2	1'-1"	1¼"
V3	1'-5"	1⅝"
V4	1'-8"	1⅞"
V5	2'-0½"	2⅜"
V6	2'-3"	2¾"

4V BARS
2 AT EACH SIZE REQUIRED
FOR STIRRUP ASSEMBLY

TAPER BARRIER SECTION

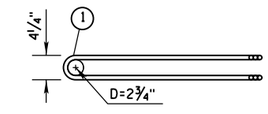
GENERAL NOTES

(1) NEVER USE LOOP BARS (6D1, 6D2 OR 6D3) TO LIFT, MOVE OR REPOSITION THE BARRIER.

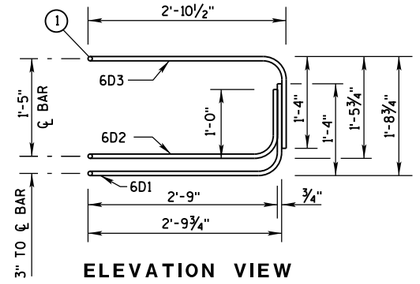
BARRIER SECTION BILL OF MATERIALS

(PER 12'-6" BARRIER SECTION)

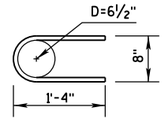
BAR	BAR SIZE	NO. OF BARS	LENGTH FT.
4A1	4	12	6'-0"
6A2	6	6	2'-11"
5B1	5	3	12'-2"
4C1	4	2	12'-2"
LOOP ASSEMBLY			
6D1	6	2	8'-5"
6D2	6	2	7'-7"
6D3	6	2	8'-6"



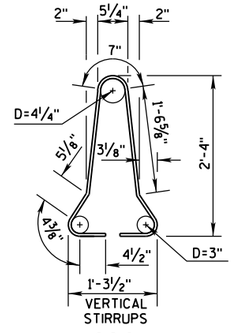
PLAN VIEW
LOOP BAR ASSEMBLY
(MARKED END SHOWN, INVERT FOR OTHER END)



ELEVATION VIEW



6A2



4A1

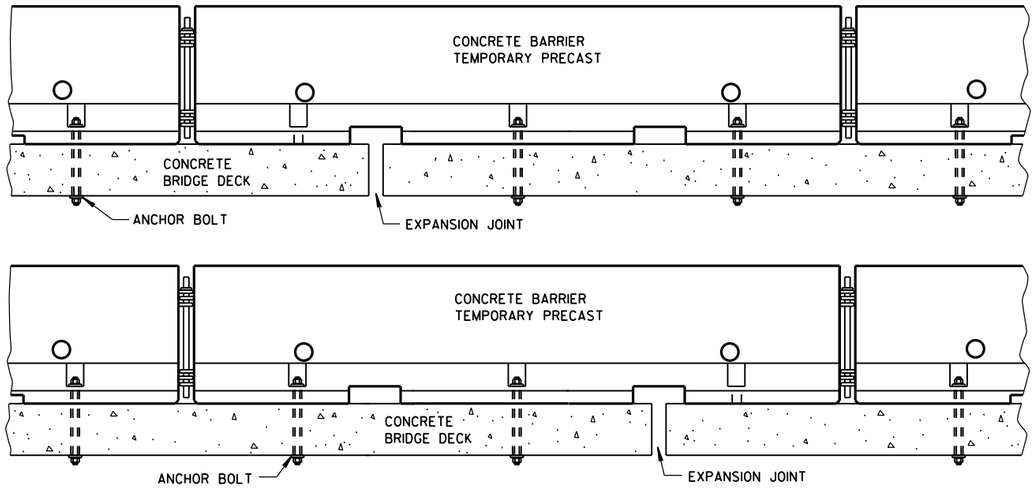
BARRIER SECTION

CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

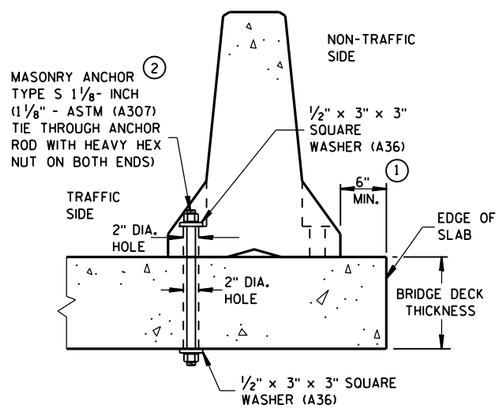
6

S.D.D. 14 B 7-14c



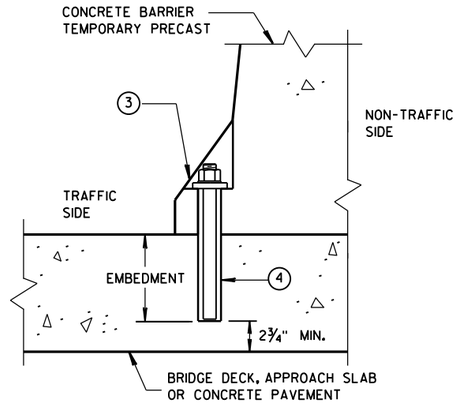
TREATMENT AT BRIDGE DECK EXPANSION JOINTS

(NO SINGLE CONCRETE BARRIER SECTION SHALL BE ANCHORED TO BOTH THE BRIDGE DECK AND THE APPROACH SLAB. ALL ANCHOR BOLT LOCATIONS SHALL BE ANCHORED TO THE DECK IN ACCORDANCE WITH THE DETAIL. NO MORE THAN ONE ANCHOR BOLT SHALL BE ELIMINATED FROM A BARRIER SECTION WHEN SPANNING AN EXPANSION JOINT.)



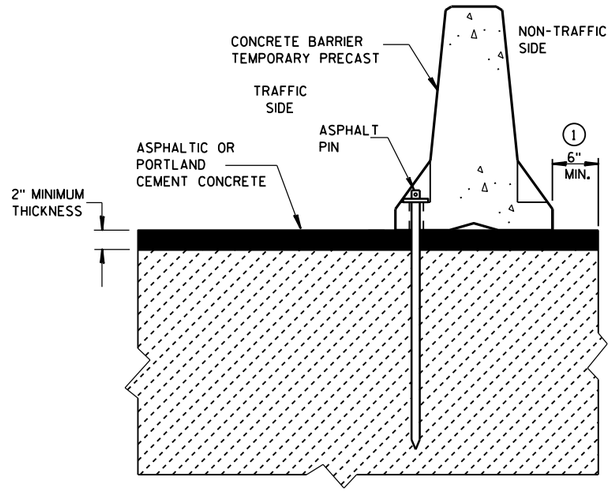
THROUGH BOLTED ANCHOR INSTALLATION ON BRIDGE DECK

(DO NOTUSE ON CONCRETE BRIDGE DECK WITH ASPHALT OVERLAY)



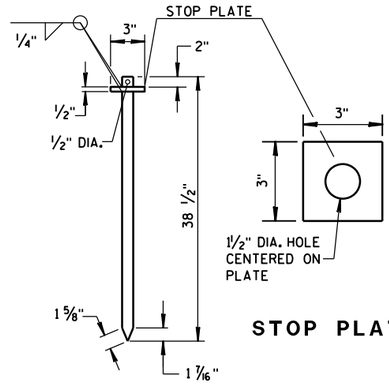
REMOVABLE ADHESIVE BONDED ANCHOR ② INSTALLATION ON CONCRETE BRIDGE DECK, CONCRETE APPROACH SLAB, OR CONCRETE PAVEMENT

(DO NOT USE ON CONCRETE WITH AN ASPHALTIC OVERLAY)



STAKE DOWN INSTALLATION FOR ASPHALTIC OR PORTLAND CEMENT CONCRETE SURFACE

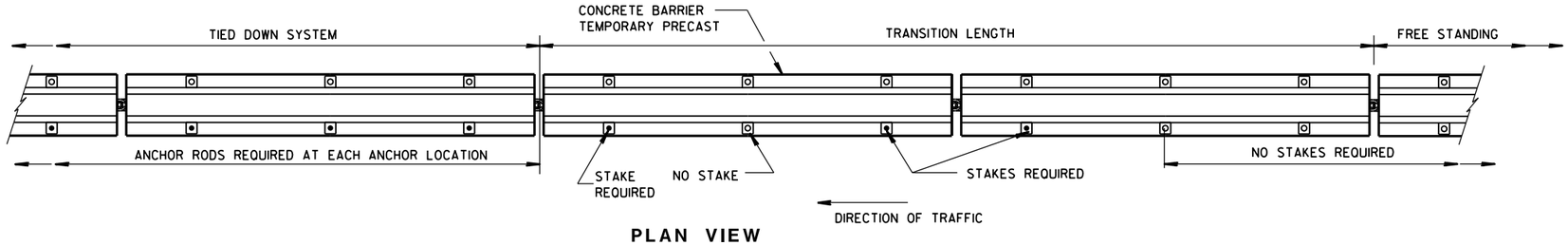
(STAKING IS INCIDENTAL TO CONCRETE BARRIER TEMPORARY PRECAST)



STOP PLATE

ASPHALT PIN

(ASTM A36 STEEL)



PLAN VIEW

FREE STANDING TRANSITION TO TIED-DOWN SYSTEM

(PLACE TRANSITION IN A TANGENT SECTION OF BARRIER PARALLEL TO THE ROADWAY. IF TRANSITION OCCURS ON STRUCTURAL SLAB, ANCHOR AS SHOWN.)

GENERAL NOTES

① CONCRETE BARRIER TEMPORARY PRECAST, 12'-6" SHALL BE ANCHORED IF:
THE DISTANCE TO A 2 FOOT OR GREATER DROPOFF THAT IS STEEPER THAN 3H : 1V, FOR EXAMPLE THE EDGE OF A BRIDGE DECK OR A DROPOFF AT THE EDGE OF PAVEMENT, IS LESS THAN 4 FEET FROM THE SIDE OF THE BARRIER CLOSEST TO THE DROPOFF AND THE POSTED SPEED IS 45 MPH OR GREATER, OR

THE DISTANCE TO A 2 FOOT OR GREATER DROPOFF THAT IS STEEPER THAN 3H : 1V, FOR EXAMPLE THE EDGE OF A BRIDGE DECK OR A DROPOFF AT THE EDGE OF PAVEMENT, IS LESS THAN 2 FEET FROM THE SIDE OF THE BARRIER CLOSEST TO THE DROPOFF AND THE POSTED SPEED IS 40 MPH OR LESS.

② ANCHORING IS INCIDENTAL TO CONCRETE BARRIER TEMPORARY PRECAST.

WITH THE APPROVAL OF THE ENGINEER, REMOVABLE ADHESIVE BONDED ANCHOR BOLT INSTALLATION MAY BE USED IN LIEU OF THROUGH BOLTED ANCHOR INSTALLATION. THE ADHESIVE BONDED ANCHOR BOLT MUST BE REMOVABLE. USE ASTM (A307) MASONRY ANCHORS TYPE S 1⅛-INCH, EMBEDDED TO A DEPTH SUFFICIENT TO DEVELOP THE ULTIMATE CAPACITY OF THE ANCHOR BOLT AND PROVIDE DOCUMENTATION TO CONFIRM THIS.

UPON REMOVAL OR RELOCATION OF THE BARRIER UNITS, REMOVE ALL ANCHOR BOLTS AND COMPLETELY FILL IN THE REMAINING HOLES IN CONCRETE BRIDGE DECKS, CONCRETE APPROACH SLABS AND CONCRETE PAVEMENTS THAT ARE TO REMAIN, WITH A NON-SHRINK COMMERICAL GROUT OR MATERIAL IDENTIFIED ON THE CURRENT WISDOT APPROVED PRODUCTS LIST.

③ 1⅛" DIAMENTER A307 THREADED ROD, ½" X 3" X 3" SQUARE PLATE WASHER WITH ASTM A36 STEEL, ASTM A563A HEAVY HEX NUT.

④ ADHESIVE ANCHORS WITH A MINIMUM BOND STRENGTH OF 1,800 PSI AND 5¼" EMBEDMENT. SEE 603.2 AND 603.3.1.2 OF THE WISCONSIN STANDARD SPECIFICATIONS FOR MORE INFORMATION ON ADHESIVE ANCHORS.

CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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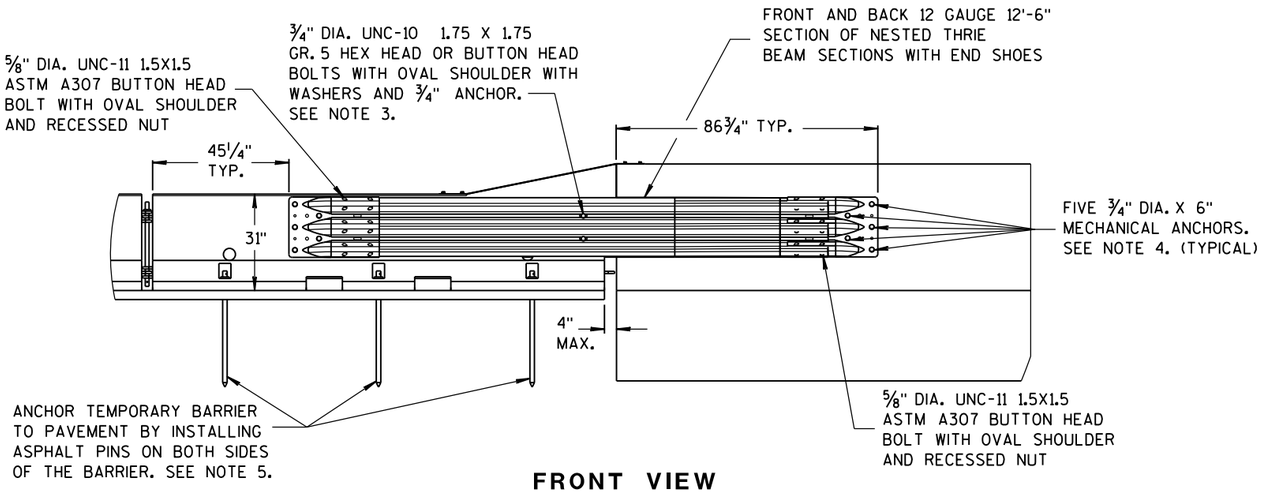
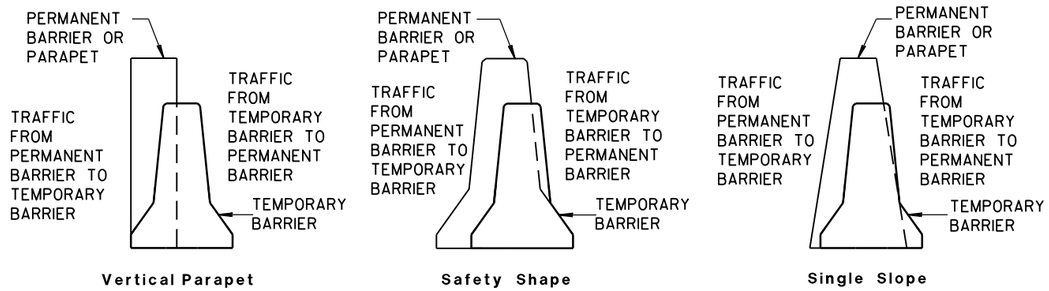
S.D.D. 14 B 7-14d



FRONT VIEW

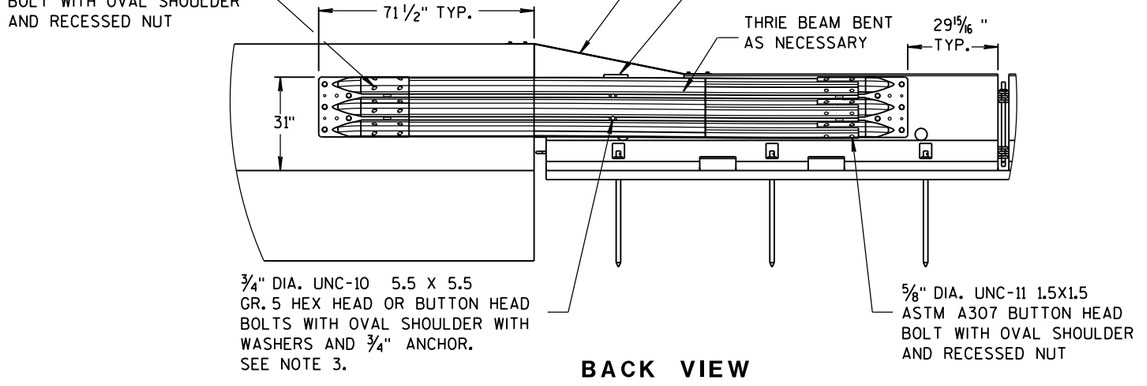


TEMPORARY BARRIER PLACEMENT FOR BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM

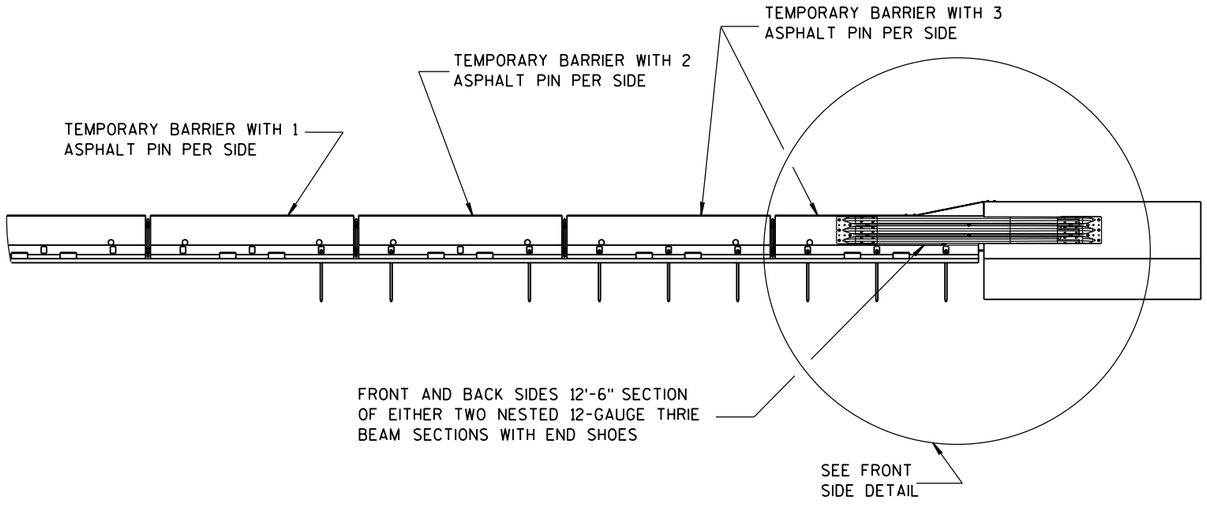
NOTES

NESTED THRIE BEAM IS REQUIRED ON BOTH SIDES OF THE TEMPORARY BARRIER FOR ALL INSTALLATIONS.

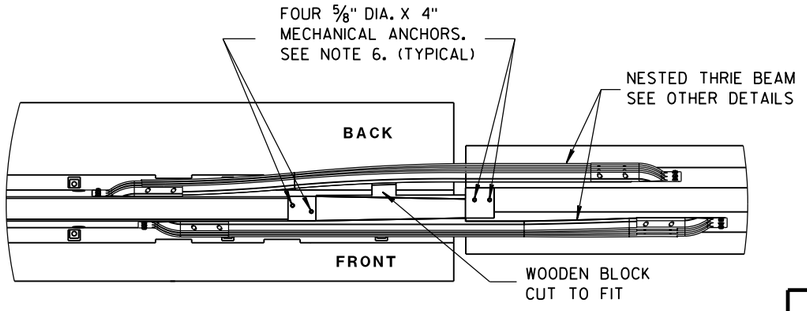
1. CAP END PLATE PLACED FLUSH WITH UPSTREAM END OF PERMANENT BARRIER OR PARAPET.
2. THRIE BEAM PIECES ARE OFFSET 15 1/4" TO PREVENT INTERFERENCE FROM THE ANCHORS ON OPPOSING SIDES.
3. MINIMUM MECHANICAL OR ADHESIVE ANCHOR STRENGTH REQUIREMENTS: ULTIMATE TENSILE LOAD 9.48 KIPS AND ULTIMATE SHEAR LOAD 10.48 KIPS.
4. MINIMUM MECHANICAL OR ADHESIVE ANCHOR STRENGTH REQUIREMENTS: ULTIMATE TENSILE LOAD 17.9 KIPS AND ULTIMATE SHEAR LOAD 21.96 KIPS.
5. MAY BE USED ON CONCRETE OR ASPHALT PAVEMENTS. ASPHALT OPTION SHOWN. FOR CONCRETE OPTION SEE OTHER DETAILS.
6. MINIMUM MECHANICAL OR ADHESIVE ANCHOR STRENGTH REQUIREMENTS: ULTIMATE TENSILE LOAD 12.14 KIPS AND ULTIMATE SHEAR LOAD 17.5 KIPS.



BACK VIEW



FRONT VIEW



PLAN VIEW

BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM

CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPO

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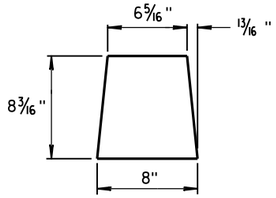
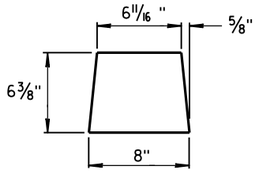
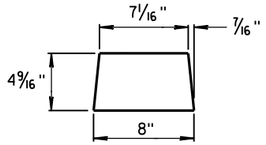


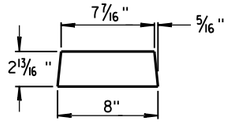
GUSSET 1



GUSSET 2

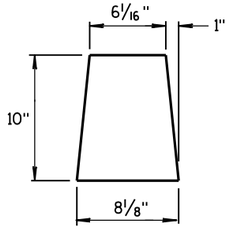


GUSSET 3

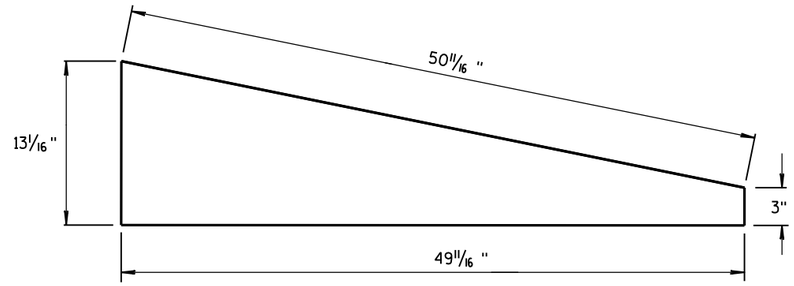


GUSSET 4

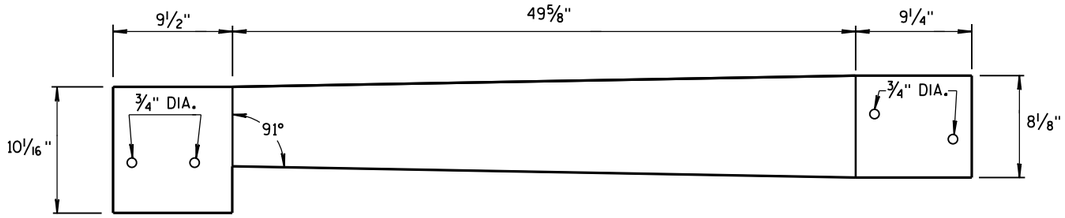
GUSSETS

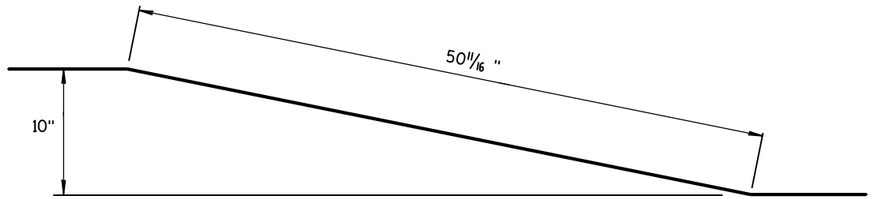


END PLATE



SIDE PLATE

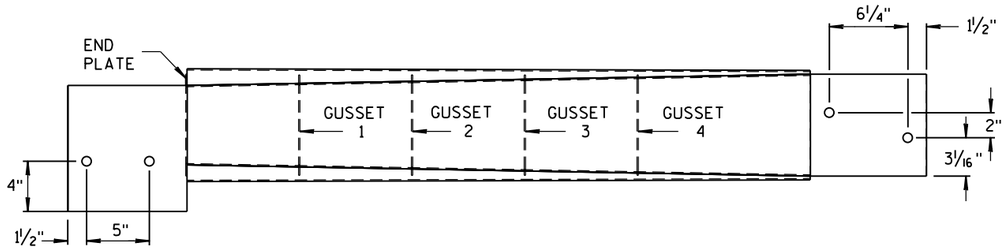


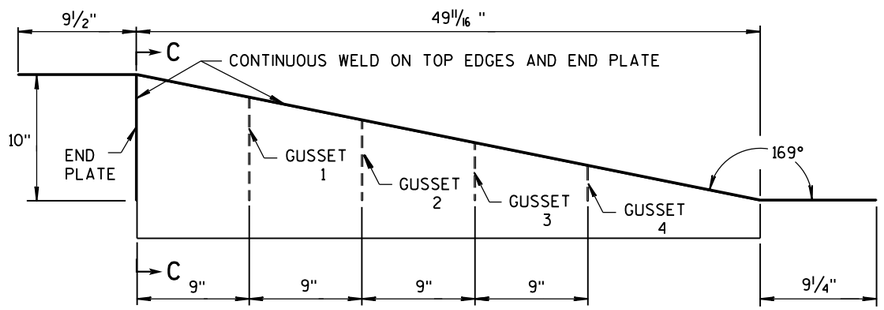


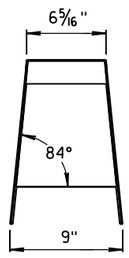
TOP PLATE

SIDE, TOP AND END PLATES FOR CAP FROM TEMPORARY CONCRETE BARRIER TO 42" PERMANENT CONCRETE BARRIER

SIDE PLATES, TOP PLATE, END PLATE AND GUSSETS ARE 12 GAUGE ASTM A36 GALVANIZED STEEL.







SECTION C-C

NOTES

1. FOUR GUSSETS AND END PLATE ARE STITCH WELDED ON THREE SIDES.
2. TWO TRIANGULAR SIDE PLATES ARE STITCH WELDED TO TOP PLATE, END PLATE, AND GUSSETS.

CAP DETAILS FOR TEMPORARY CONCRETE BARRIER TO 42" PERMANENT CONCRETE BARRIER

CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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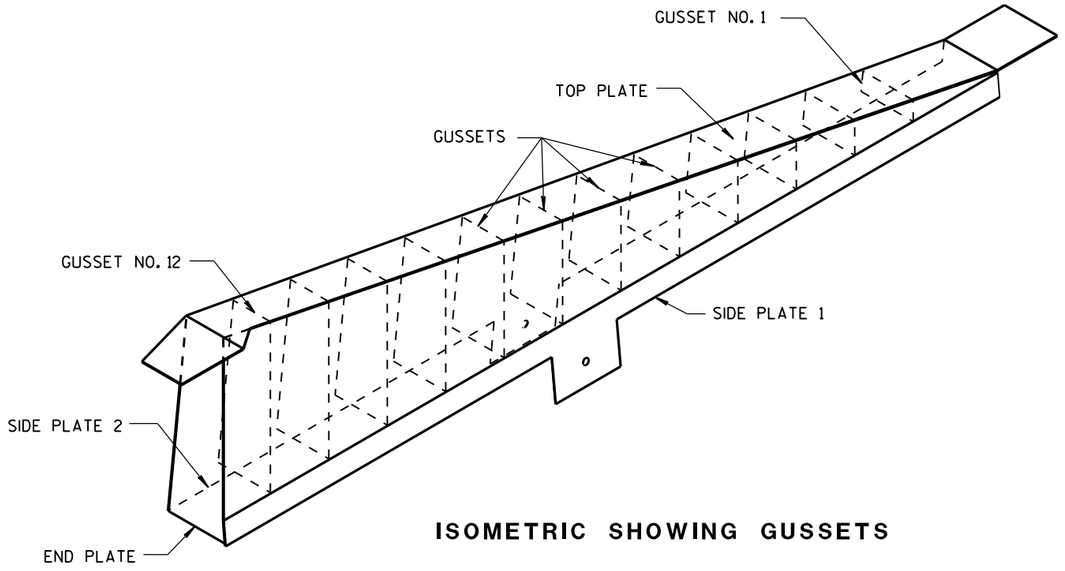
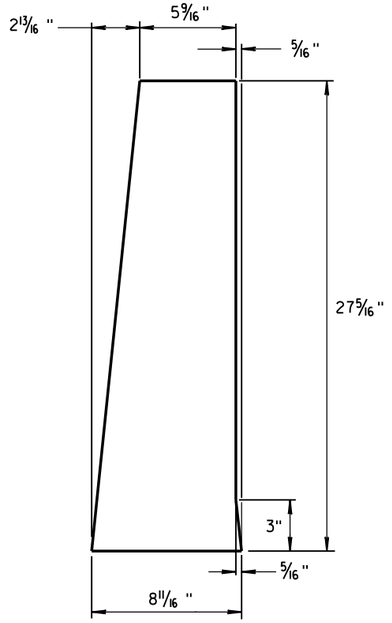
S.D.D. 14 B 7-14f

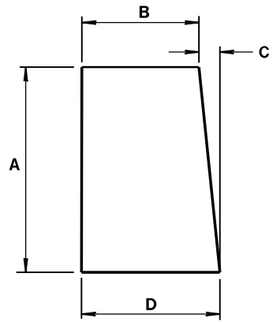


ISOMETRIC SHOWING GUSSETS



END PLATE

1/8" STEEL PLATE



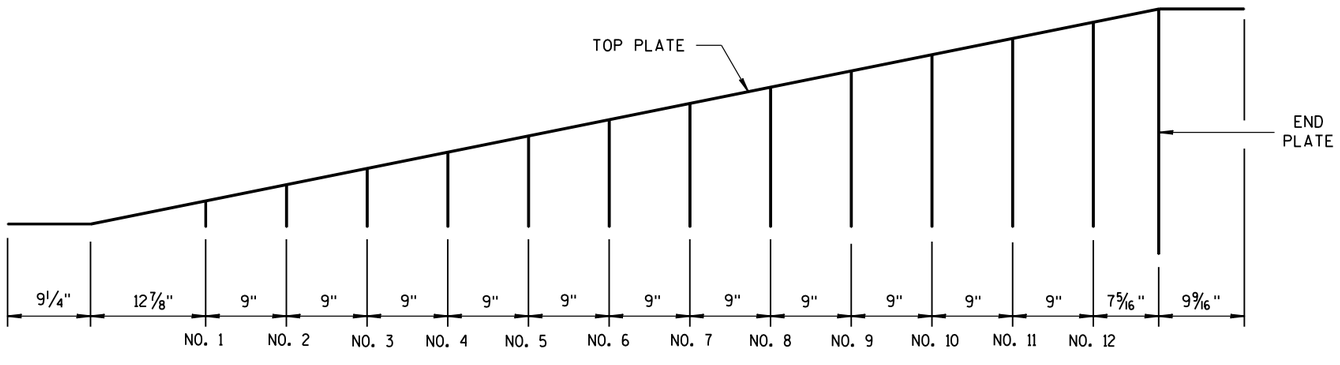
GUSSETS 1 - 12

ALL GUSSETS 1/8" STEEL PLATE

GUSSET DIMENSIONS				
GUSSET NO.	A	B	C	D
1	2 7/8"	7 3/4"	1/4"	8
2	4 11/16 "	7 9/16 "	1/2"	8
3	6 1/2"	7 3/8"	11/16 "	8 1/16 "
4	8 5/16 "	7 3/16 "	7/8"	8 1/16 "
5	10 1/8"	7"	1 1/16 "	8 1/16 "
6	11 15/16 "	6 13/16 "	1 1/4"	8 1/16 "
7	13 3/4"	6 5/8"	1 7/16 "	8 1/16 "
8	15 9/16 "	6 7/16 "	1 9/16 "	8 1/16 "
9	17 3/8"	6 1/4"	1 13/16 "	8 1/16 "
10	19 3/16 "	6 1/16 "	1 15/16 "	8 1/16 "
11	21"	5 7/8"	2 3/16 "	8 1/16 "
12	22 13/16 "	5 11/16 "	2 5/16 "	8 1/16 "

SIDE PLATES, TOP PLATE, END PLATE AND GUSSETS ARE 12 GAUGE ASTM A36 STEEL AND GALVANIZED.

GUSSETS AND END PLATE ARE STITCH WELDED ON 3 SIDES. TWO TRIANGULAR SIDE PLATES ARE STITCH WELDED TO TOP PLATE, END PLATE AND GUSSETS.



GUSSET LOCATION

CAP DETAILS FOR TEMPORARY CONCRETE BARRIER TO 56" PERMANENT CONCRETE BARRIER

CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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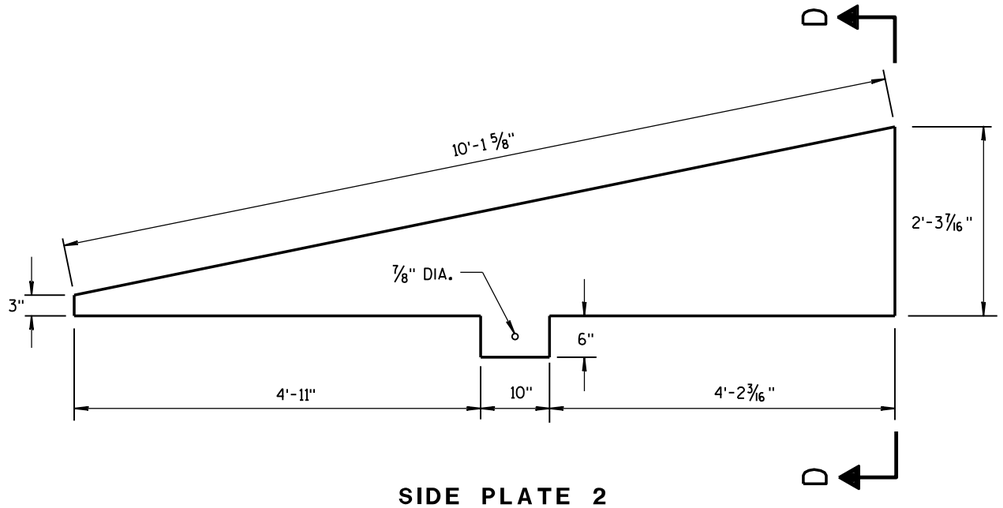
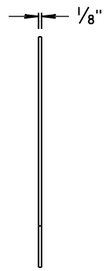
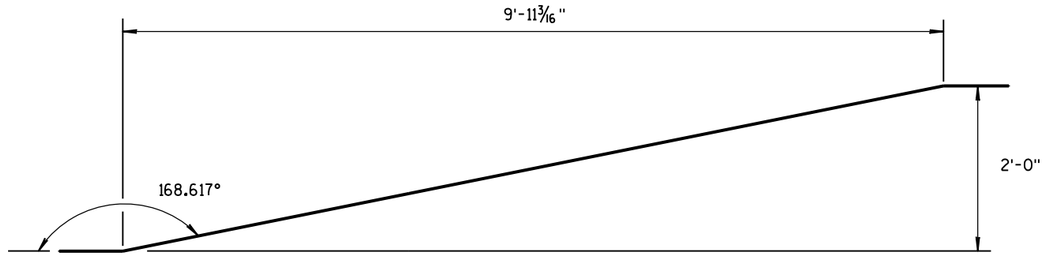


SIDE PLATE 2

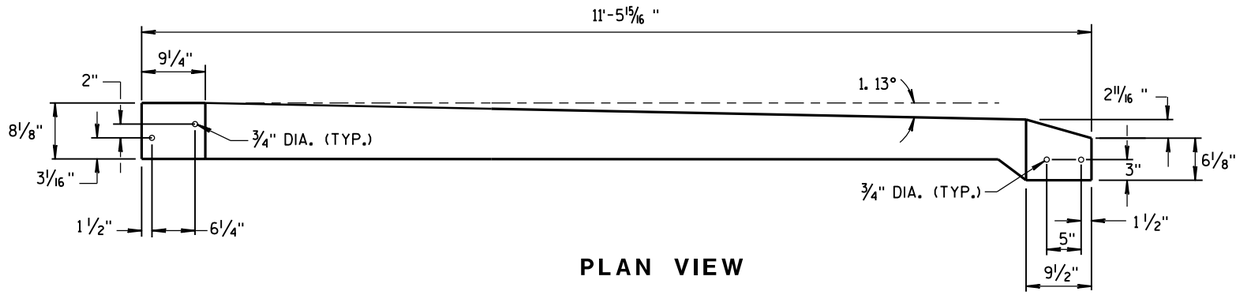


END VIEW



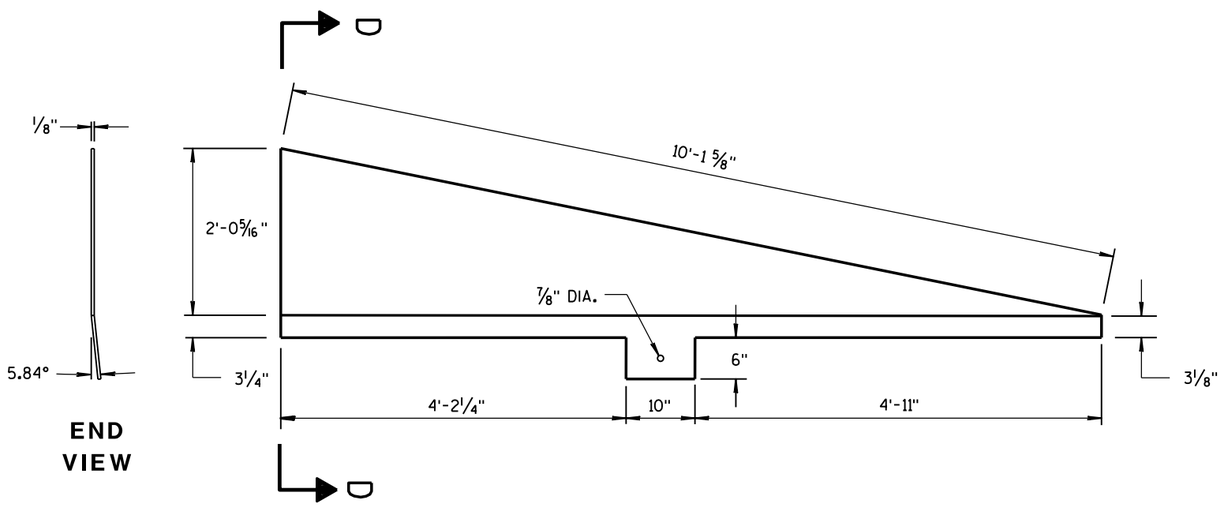
SIDE VIEW

TOP PLATE



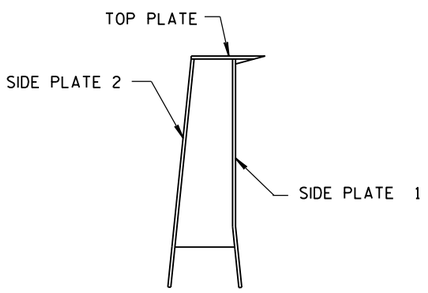
PLAN VIEW

TOP PLATE



END VIEW

SIDE PLATE 1



SECTION D-D

CAP DETAILS FOR TEMPORARY CONCRETE BARRIER TO 56" PERMANENT CONCRETE BARRIER

CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2014 — DATE
/S/ Jerry H. Zoda — ROADWAY STANDARD DEVELOPMENT ENGINEER
FHWA

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S.D.D. 14 B 7-14h

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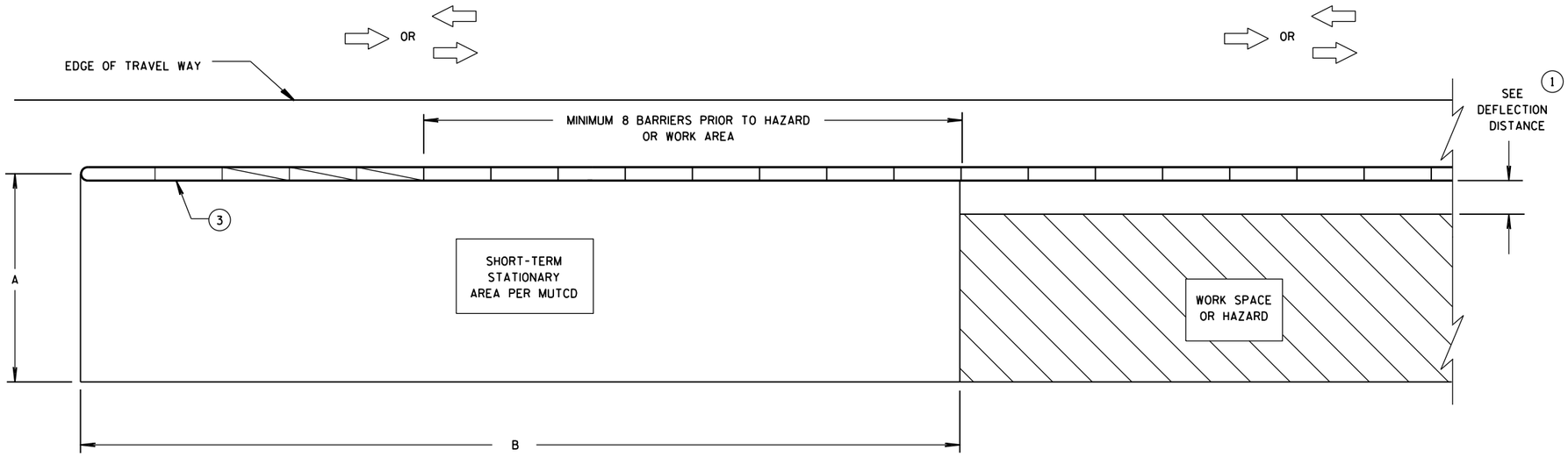
S.D.D. 14 B 7-14h



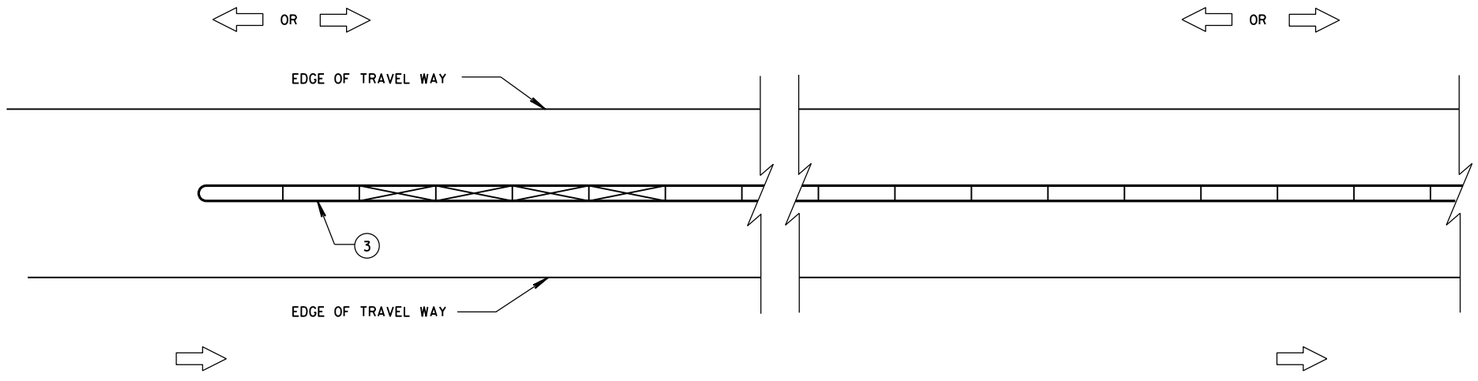
CRASH CUSHION/SAND BARREL ARRAY AND TEMPORARY BARRIER INSTALLATION FOR TRAFFIC ON ONE SIDE OF BARRIER

DIMENSION A TABLE (2)

FACILITY	POSTED SPEED MPH	DIMENSION A	
		MIN. FT	MAX. FT
FREEWAY/EXPRESSWAY	ALL	15	20
NON-FREEWAY/EXPRESSWAY	GREATER THAN OR EQUAL TO 45	10	15
NON-FREEWAY/EXPRESSWAY	LESS THAN 45	8	10
AADT LESS THAN 1,500	ALL	8	10

DIMENSION B TABLE (2)

POSTED SPEEDS MPH	DIMENSION B FT
20	115
25	155
30	200
35	250
40	305
45	360
50	425
55	495
60	570
65	645



CRASH CUSHION/SAND BARREL ARRAY AND TEMPORARY BARRIER INSTALLATION FOR TRAFFIC ON BOTH SIDES OF BARRIER

LEGEND

- DIRECTION OF TRAVEL
- CRASH CUSHION OR SAND BARREL ARRAY
- SEE FREE STANDING TRANSITION TO TIED-DOWN SYSTEM DETAILS
- SEE BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM DETAILS
- 3 PINS PLACED ON TRAFFIC SIDE OF BARRIER
- PERMANENT CONCRETE BARRIER OR CONCRETE PARAPET
- FREE STANDING TEMPORARY BARRIER

GENERAL NOTES

SEE STANDARD DETAIL DRAWING 14B7 FOR MORE INFORMATION.

DETAILS PROVIDE A GENERAL LAYOUT OF TEMPORARY CONCRETE BARRIER, CRASH CUSHIONS, SAND BARREL ARRAYS AND TIE DOWN TRANSITIONS. DETAILS PROVIDED MAY NOT FIT ALL POSSIBLE SITUATIONS OR SITE CONDITIONS. SEE OTHER SECTIONS OF THE CONTRACT OR PROJECT ENGINEER FOR MORE DETAILS.

ADDITIONAL TEMPORARY BARRIER MAY BE REQUIRED TO PROTECT TRAVELING PUBLIC FROM HAZARDS, CONTRACTOR'S OPERATIONS OR TO CONTROL TRAFFIC.

TEMPORARY BARRIER MAY BE REQUIRED TO BE ANCHORED TO PAVEMENT OR BRIDGE DECK.

FOR DETAILS ON CRASH CUSHION OR SAND BARREL ARRAYS SEE OTHER SECTIONS OF THE PLAN AND MANUFACTURE'S DETAILS.

SLOPES LEADING TO TEMPORARY BARRIER, CRASH CUSHION OR SAND BARREL ARRAY ARE 10:1 OR LESS.

(1) FOR DEFLECTION INFORMATION SEE STANDARD DETAIL DRAWING 14B7.

(2) VALUES PROVIDED MAY NOT FIT ALL POSSIBLE SITUATIONS OR SITE CONDITIONS. SEE OTHER SECTIONS OF THE CONTRACT OR PROJECT ENGINEER FOR MORE DETAILS.

(3) ANCHOR TEMPORARY BARRIER ACCORDING TO CRASH CUSHION OR SAND BARREL MANUFACTURER'S RECOMMENDATIONS. IF MANUFACTURER'S RECOMMENDATIONS ARE NOT PROVIDED, ANCHOR 3 PINS ON TRAFFIC SIDE.

CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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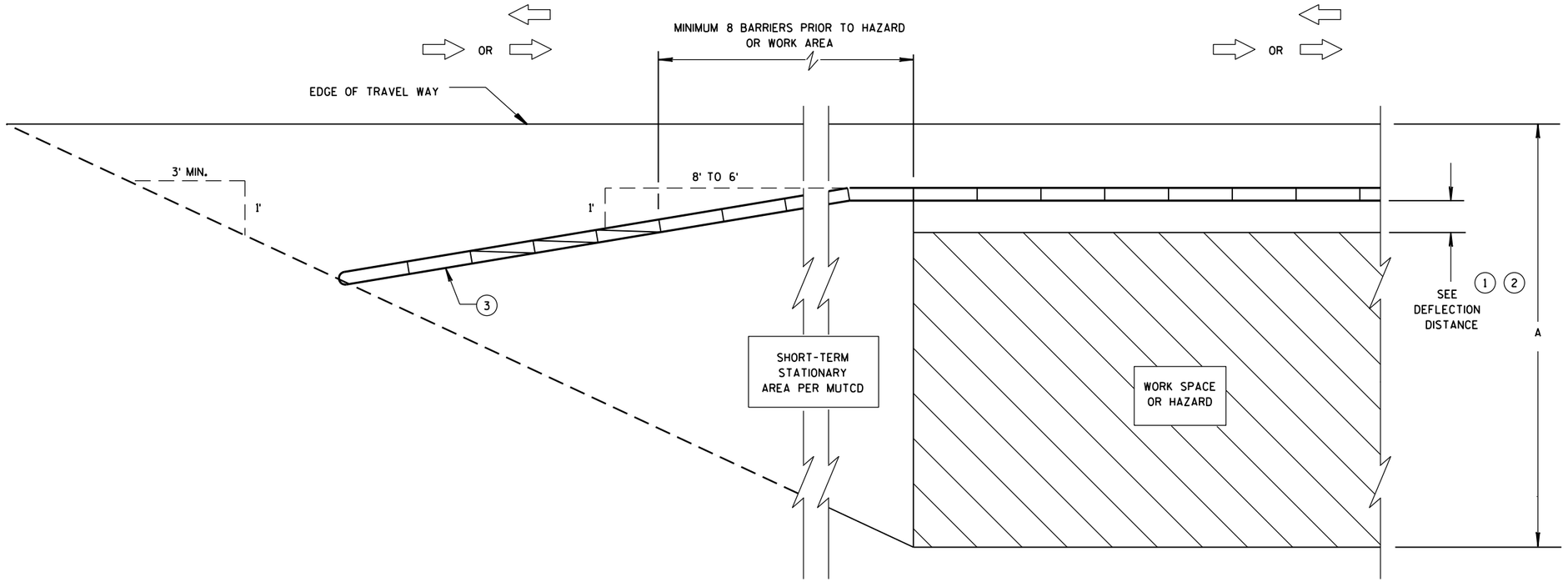
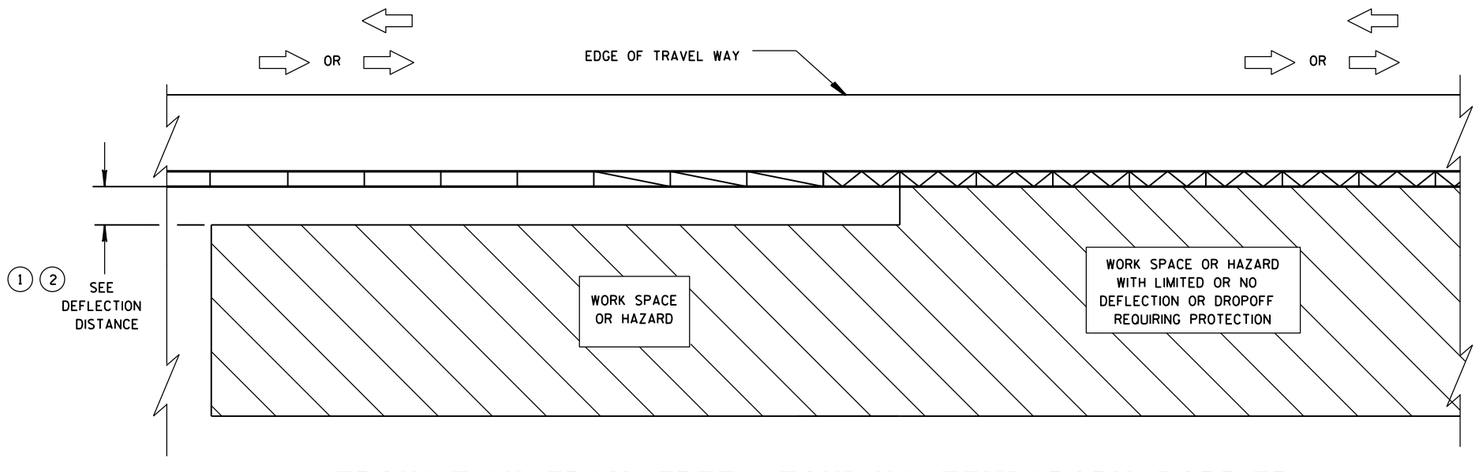


CRASH CUSHION/SAND BARREL ARRAY AND TEMPORARY BARRIER INSTALLATION FOR TRAFFIC ON ONE SIDE - FLARED INSTALLATION



TRANSITION FROM FREE STANDING TEMPORARY BARRIER TO ANCHORED BARRIER

LEGEND

- DIRECTION OF TRAVEL
- CRASH CUSHION OR SAND BARREL ARRAY
- SEE FREE STANDING TRANSITION TO TIED-DOWN SYSTEM DETAILS
- SEE BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM DETAILS
- 3 PINS PLACED ON TRAFFIC SIDE OF BARRIER
- PERMANENT CONCRETE BARRIER OR CONCRETE PARAPET
- FREE STANDING TEMPORARY BARRIER

CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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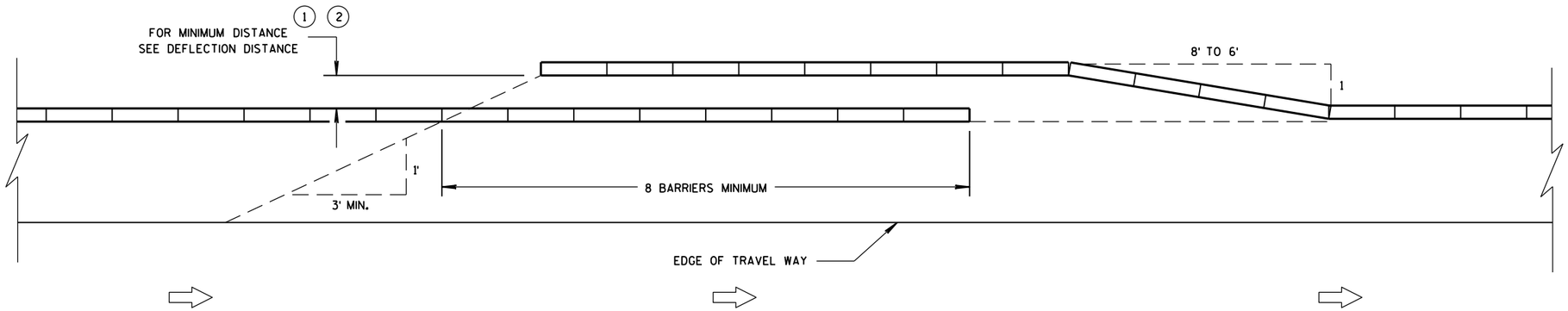
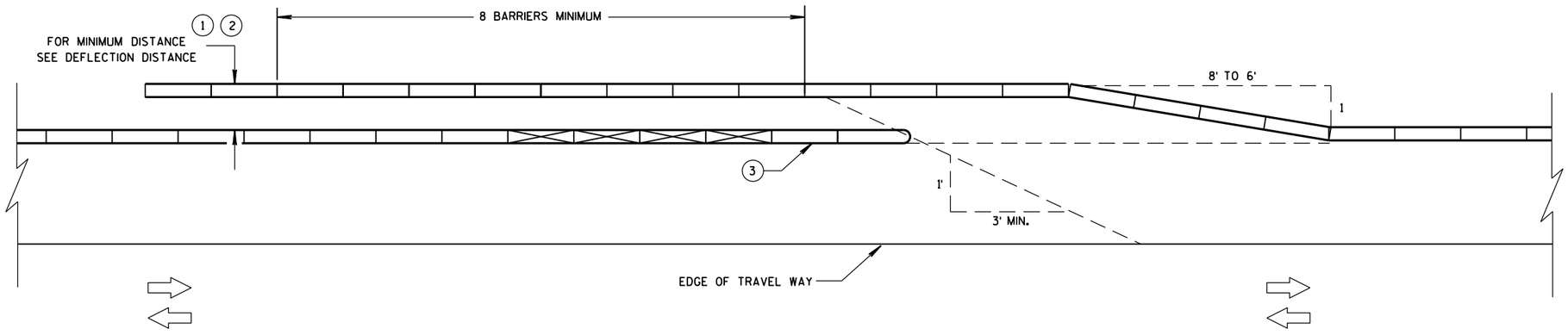
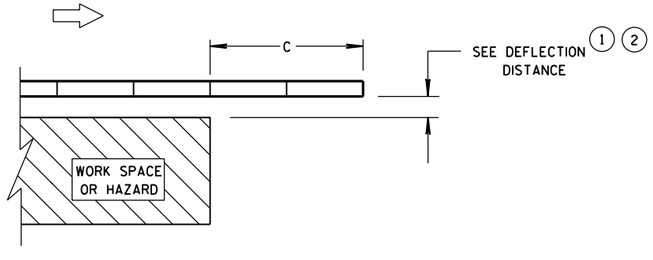
S.D.D. 14 B 8-2b



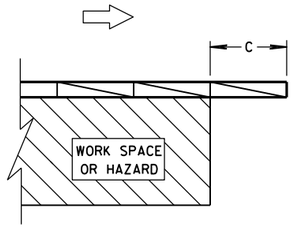
TEMPORARY BARRIER OVERLAP - ONE-WAY TRAFFIC



TEMPORARY BARRIER OVERLAP - TWO-WAY TRAFFIC



ENDING TEMPORARY BARRIER DOWNSTREAM - UNANCHORED



ENDING TEMPORARY BARRIER DOWNSTREAM - ANCHORED

LEGEND

- DIRECTION OF TRAVEL
- CRASH CUSHION OR SAND BARREL ARRAY
- SEE FREE STANDING TRANSITION TO TIED-DOWN SYSTEM DETAILS
- SEE BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM DETAILS
- 3 PINS PLACED ON TRAFFIC SIDE OF BARRIER
- PERMANENT CONCRETE BARRIER OR CONCRETE PARAPET
- FREE STANDING TEMPORARY BARRIER

CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

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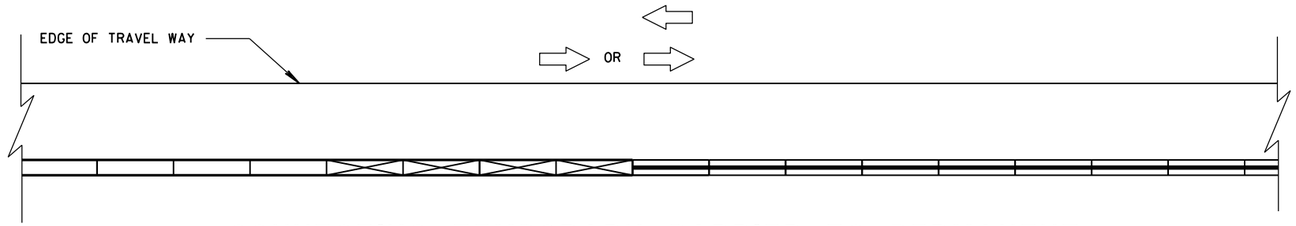
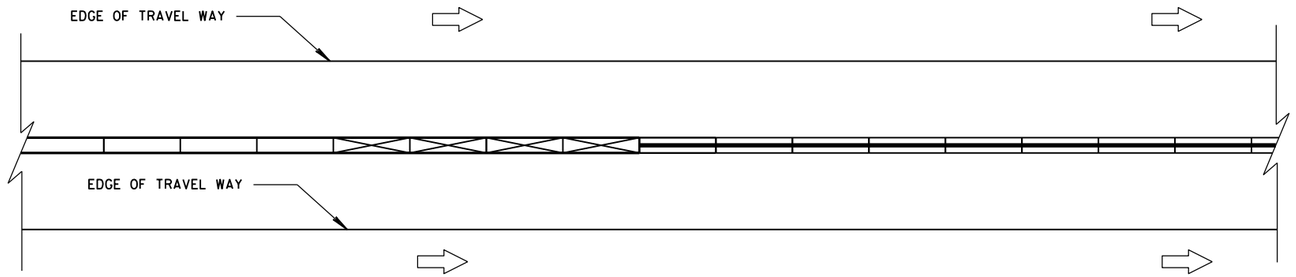
S.D.D. 14 B 8-2c



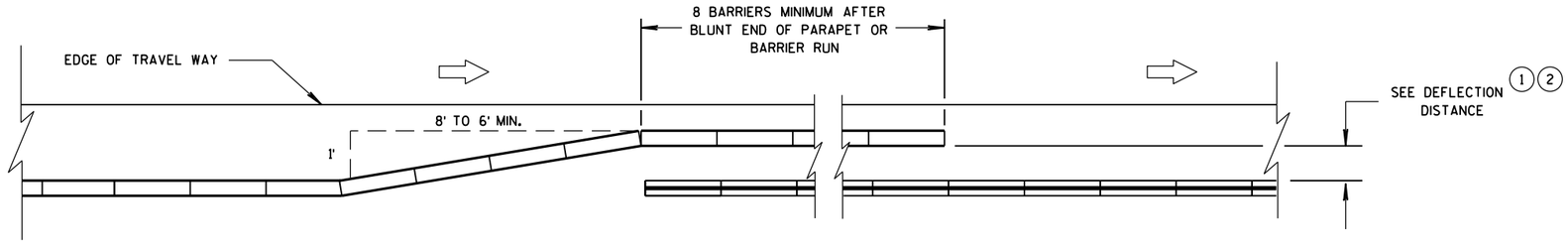
CONNECTING TEMPORARY BARRIER TO PERMANENT
CONCRETE BARRIER-TRAFFIC ON ONE SIDE



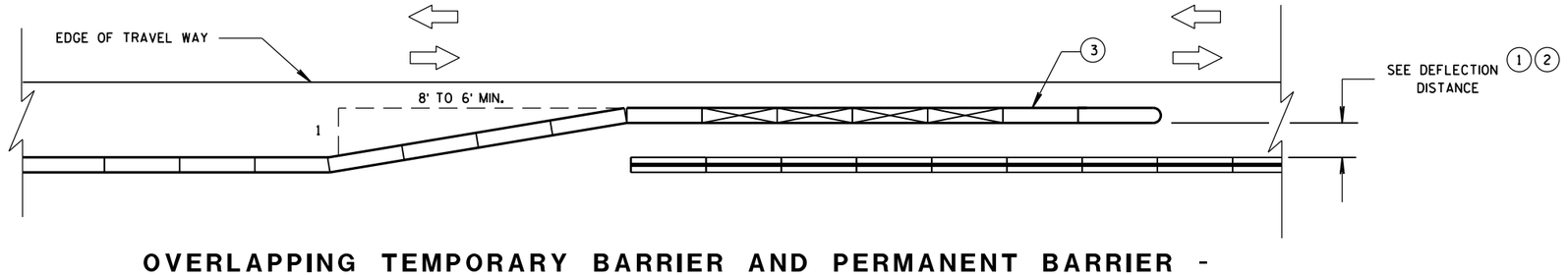
CONNECTING TEMPORARY BARRIER TO PERMANENT
CONCRETE BARRIER-TRAFFIC ON BOTH SIDES

LEGEND

- DIRECTION OF TRAVEL
- CRASH CUSHION OR SAND BARREL ARRAY
- SEE FREE STANDING TRANSITION TO TIED-DOWN SYSTEM DETAILS
- SEE BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM DETAILS
- 3 PINS PLACED ON TRAFFIC SIDE OF BARRIER
- PERMANENT CONCRETE BARRIER OR CONCRETE PARAPET
- FREE STANDING TEMPORARY BARRIER



OVERLAPPING TEMPORARY BARRIER AND PERMANENT BARRIER -
ONE WAY TRAFFIC



OVERLAPPING TEMPORARY BARRIER AND PERMANENT BARRIER -
TWO WAY TRAFFIC

CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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LEGEND

DIRECTION OF TRAVEL

CRASH CUSHION OR SAND BARREL ARRAY

SEE FREE STANDING TRANSITION TO TIED-DOWN SYSTEM DETAILS

SEE BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM DETAILS

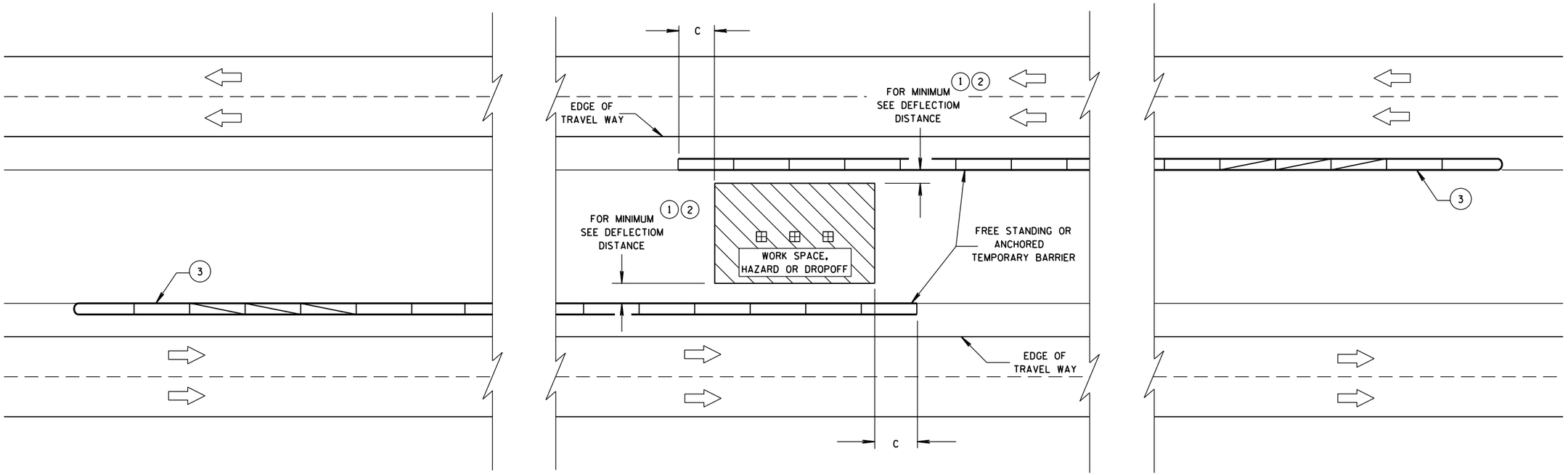
3 PINS PLACED ON TRAFFIC SIDE OF BARRIER

PERMANENT CONCRETE BARRIER OR CONCRETE PARAPET

FREE STANDING TEMPORARY BARRIER

DIMENSION C TABLE (2)

AVAILABLE DEFLECTION DISTANCE	MINIMUM LENGTH OF BARRIER BEYOND HAZARD FT
GREATER THAN 8'	12.5
LESS THAN OR EQUAL TO 8' BUT GREATER THAN 4'	50
LESS THAN OR EQUAL TO 4'	100



CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June, 2015
DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS ENGINNER
FHWA

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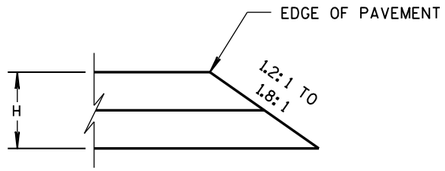
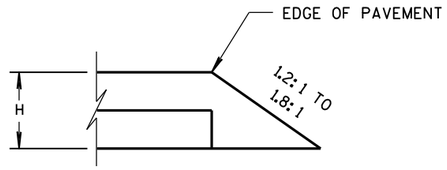
S.D.D. 14 B 8-2e



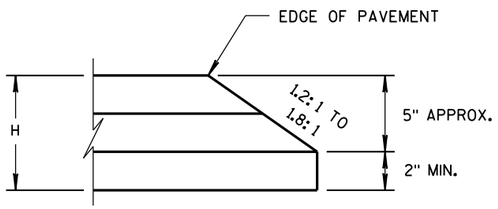
CONSTRUCTED WITH FINAL TWO LAYERS

FOR H 5" OR LESS



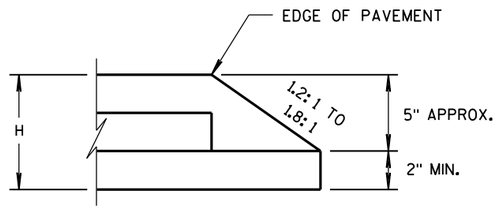
CONSTRUCTED WITH FINAL LAYER

FOR H 5" OR LESS



CONSTRUCTED WITH FINAL TWO LAYERS

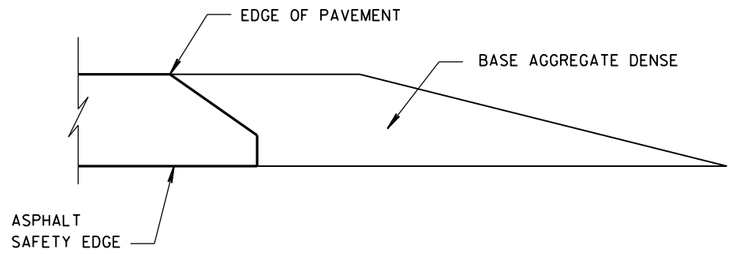
FOR H GREATER THAN 5"



CONSTRUCTED WITH FINAL LAYER

FOR H GREATER THAN 5"

HMA PAVEMENT AND HMA OVERLAYS



FINISHED SHOULDER AGGREGATE PLACEMENT

6

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S.D.D. 14 B 29-1

SAFETY EDGE SM

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

11/30/2012
DATE

/S/ Jerry H. Zoda
ROADWAY STANDARDS DEVELOPMENT ENGINEER

FHWA

GENERAL NOTES

(1) WOOD OR STEEL POSTS (w6X9 OR w6X8.5) MAY BE USED. DO NOT INTERMIX WOOD AND STEEL POSTS. INSTALL STEEL POSTS WITH HOLES ON APPROACHING TRAFFIC SIDE.

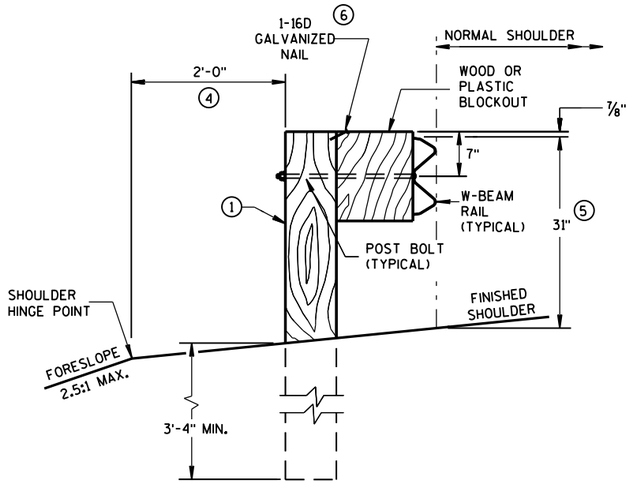
(2) USE WOOD OR APPROVED PLASTIC BLOCKOUTS. WOOD BLOCKOUTS MAY BE CONSTRUCTED OUT OF TWO OR MORE WOOD BLOCKOUTS. SEE ALTERNATE WOOD BLOCKOUT DETAIL. DIMENSIONS OF APPROVED PLASTIC BLOCKOUTS MAY VARY.

(3) IF ROCK IS ENCOUNTERED DURING EXCAVATION, PROVIDE A HOLE 12 INCHES IN DIAMETER EXTENDING 20 INCHES DEEP INTO THE ROCK. PLACE APPROXIMATELY 2½ INCHES OF GRANULAR MATERIAL IN THE BOTTOM OF THE HOLE. CUT THE POSTS THE TO LENGTH AMD INSTALL. BACKFILL WITH EXCAVATED MATERIAL AND COMPACT. BACKFILL IS TO BE FREE OF LARGE ROCKS.

(4) WHEN THE DISTANCE FROM BACK OF POST TO SHOULDER HINGE POINT IS LESS THAN 2 FEET INSTALL LONGER POST AT HALF POST SPACING (K).

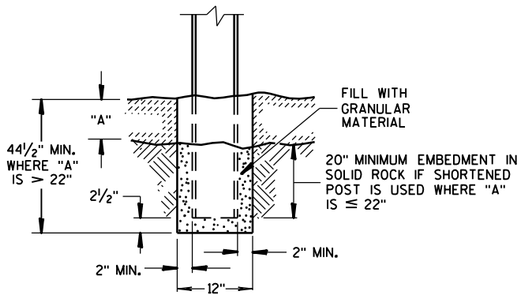
(5) FOR NEW MGS INSTALLATION TOP OF W-BEAM RAIL TOLERANCE IS ± 1". FOR EXISTING MGS INSTALLATION TOP OF W-BEAM IS BETWEEN 27¾" TO 32".

(6) WHEN USING STEEL POST AND WOOD BLOCKOUTS INSTALL FOUR 16D GALVANIZED NAILS. INSTALL NAILS AT THE BACK CORNERS OF THE BLOCK AND BEND THE NAILS OVER THE FLANGE OF THE STEEL POST.



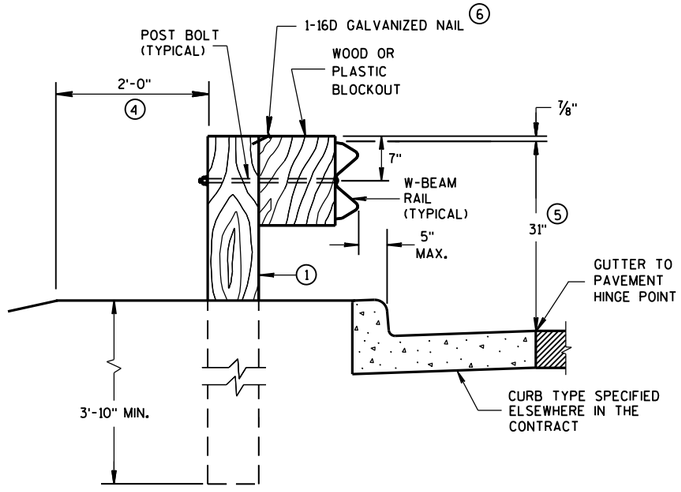
END VIEW

LOCATED ALONG A ROADWAY SHOULDER
STANDARD INSTALLATION



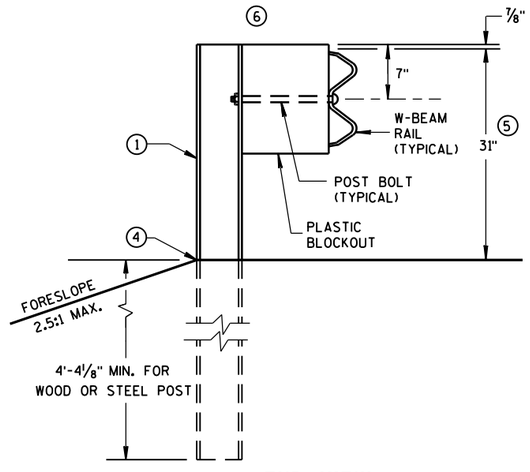
END VIEW

SETTING STEEL OR WOOD POST IN ROCK (3)



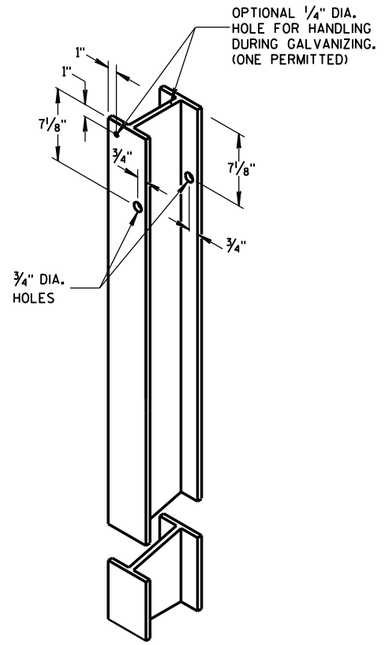
END VIEW

LOCATED ALONG A CURBED ROADWAY

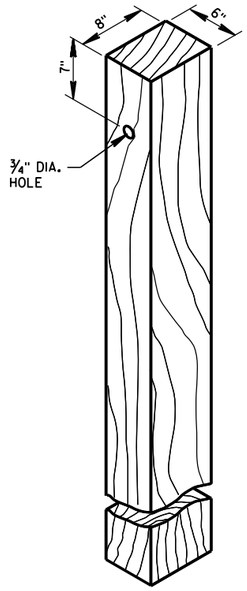


END VIEW

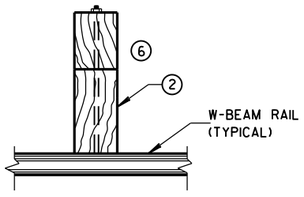
MGS LONGER POST AT HALFPOST SPACING W BEAM (K)



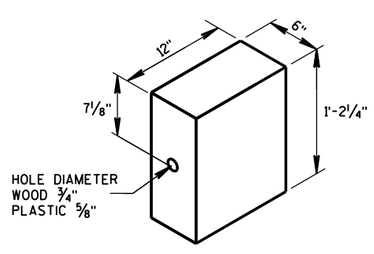
STEEL POST &
HOLE PUNCHING DETAIL
(w6X9) (1)



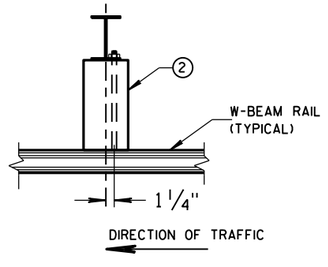
WOOD POST
(6" X 8") NOMINAL (1)



PLAN VIEW
WOOD POST,
BLOCKOUT & BEAM



WOOD OR
PLASTIC BLOCKOUT (2)



PLAN VIEW
STEEL POST,
PLASTIC BLOCKOUT & BEAM

MIDWEST GUARDRAIL SYSTEM
(MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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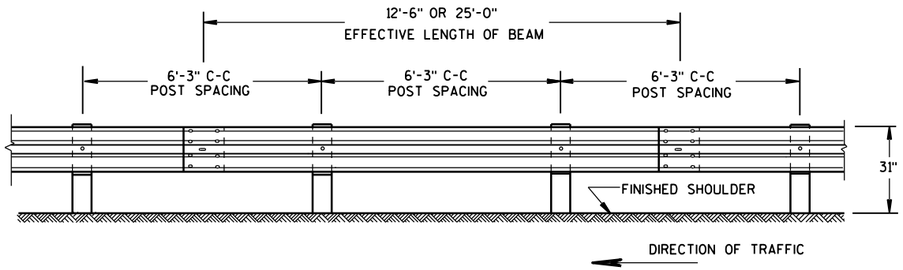
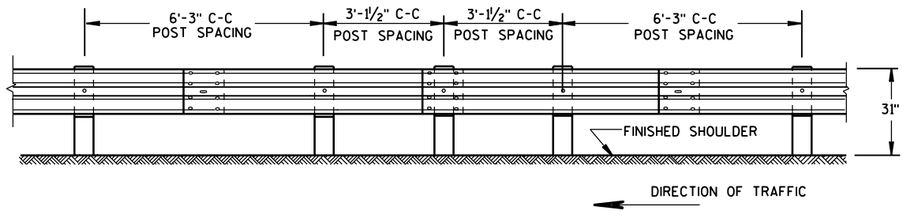


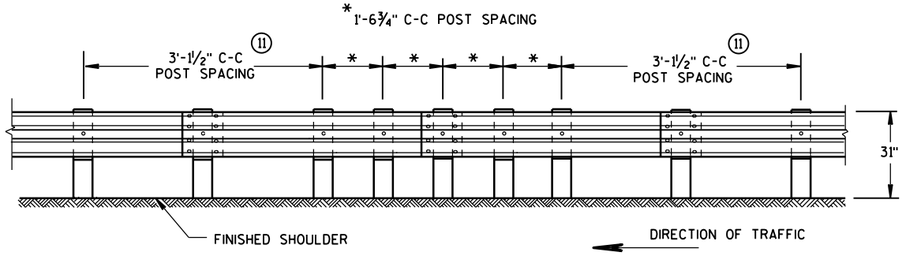
FRONT VIEW

POST SPACING STANDARD INSTALLATION



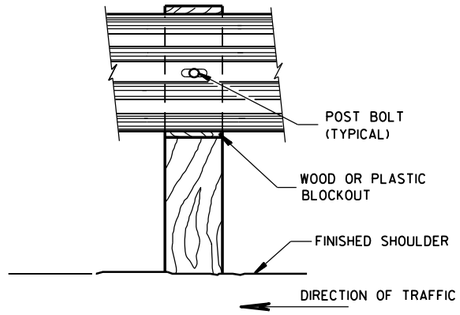
FRONT VIEW

HALF POST SPACING (HS) AND HALF POST SPACING WITH LONGER POSTS (K)

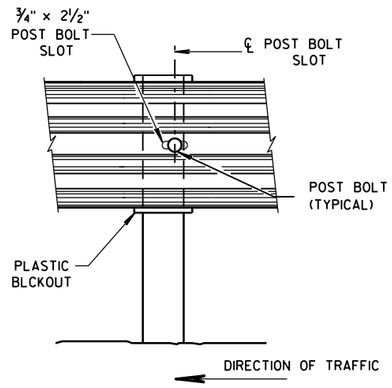


FRONT VIEW

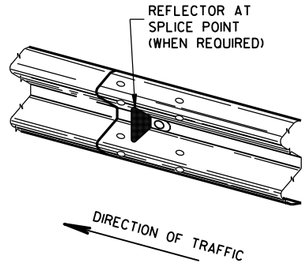
QUARTER POST SPACING (QS)

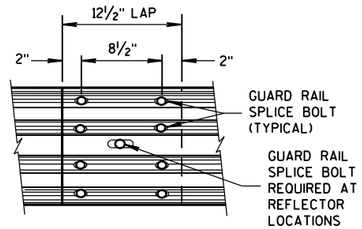


FRONT VIEW AT WOOD POST



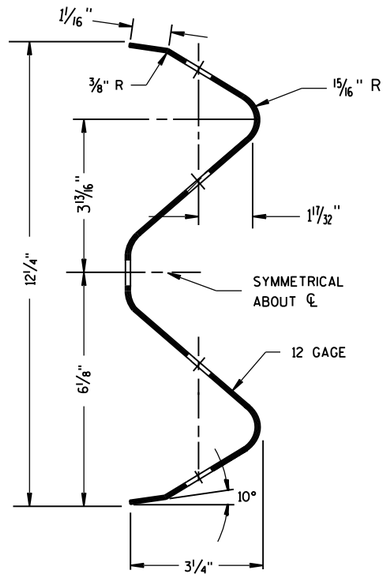
FRONT VIEW AT STEEL POST



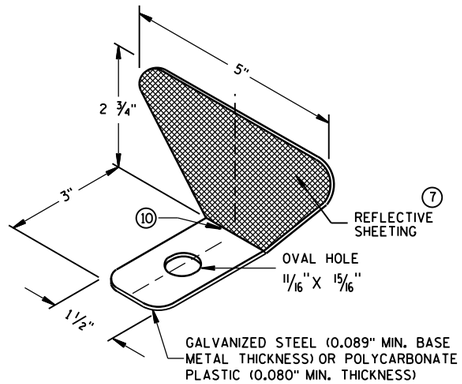


FRONT VIEW

MID-SPAN BEAM SPLICE



SECTION THRU W-BEAM RAIL



ONE SIDED REFLECTOR DETAIL AND TYPICAL INSTALLATION ⑦

GENERAL NOTES

⑦ PROVIDE SILVER REFLECTIVE SHEETING ON ALL REFLECTORS EXCEPT THOSE LOCATED ALONG THE LEFT EDGE OF ONE-WAY ROADWAYS, WHICH SHALL BE PROVIDED WITH YELLOW REFLECTIVE SHEETING. SHEETING IS TYPE H. SEE STANDARD SPECIFICATION 637.

⑧ DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL. RAIL SPLICE LOCATIONS ARE THE ONLY ACCEPTABLE LOCATIONS FOR REFLECTORS.

⑨ REVERSE EVERY OTHER REFLECTOR FOR 2-WAY VISIBILITY. THE CONTRACTOR MAY FURNISH TWO-SIDED REFLECTORS IN LIEU OF ONE-SIDED REFLECTORS.

⑩ PROVIDE AN ANGLE OF BEND OF 90° ± 1° FOR TWO-SIDED REFLECTORS.

⑪ 25 FEET OF HALF POST SPACING IS REQUIRED ON APPROACH AND DEPARTURE ENDS OF QUARTER POST SPACING.

POST BOLTS ARE A ⅝" DIAMETER ASTM A307 GUARDRAIL BOLT. A POST BOLT REQUIRES ⅝" DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX NUT AND ⅝" DIAMETER F844 FLAT WASHER. POST BOLTS MAY BE LONGER IF MULTIPLE BLOCKOUTS ARE BEING USED.

GUARD RAIL SPLICE BOLTS ARE A ⅝" DIAMETER ASTM A307 GUARDRAIL HEAD BOLT. A GUARDRAIL SPLICE BOLT REQUIRES ⅝" DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX NUT.

REFLECTOR SPACING ⑧

	BEAM GUARD LENGTH	REFLECTOR SPACING	NO. SURFACES REFLECTORIZED	MIN. NO. REFLECTORS
ONE WAY TRAFFIC	< 200'	50' C-C	1	3
	> 200'	100' C-C	1	
TWO WAY TRAFFIC	< 200'	25' C-C	1 ⑨	6
	> 200'	50' C-C	1	
TWO WAY TRAFFIC	< 200'	50' C-C	2	3
	> 200'	100' C-C	2 ⑩	

MIDWEST GUARDRAIL SYSTEM
(MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPO

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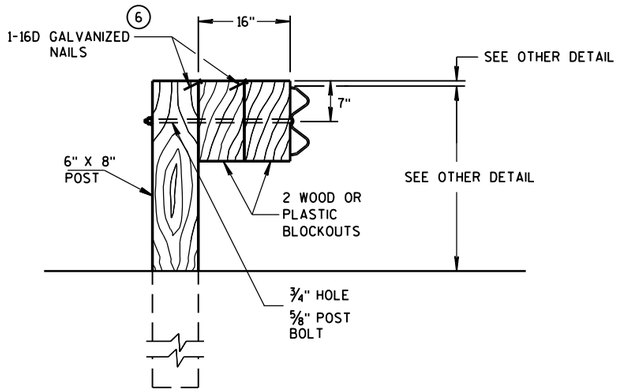
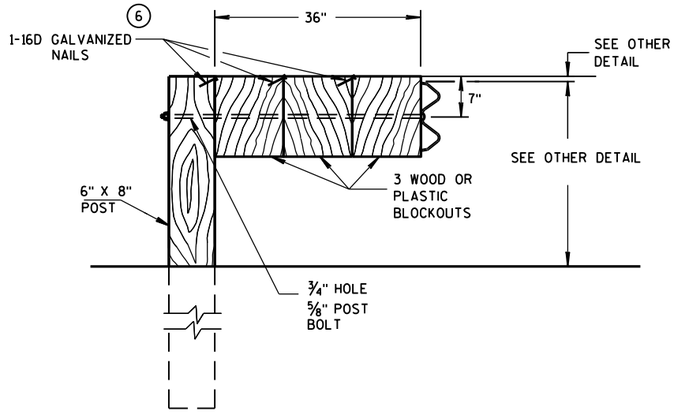


DETAIL FOR 16" BLOCKOUT DEPTH

IT IS ACCEPTABLE TO USE BLOCKOUTS UP TO 16" DEEP TO INCREASE THE POST OFFSET TO AVOID UNDERGROUND OBSTACLES. THERE IS NO LIMIT TO THE NUMBER OF POSTS THAT CAN HAVE ADDITIONAL BLOCKOUTS UP TO 16" DEEP.

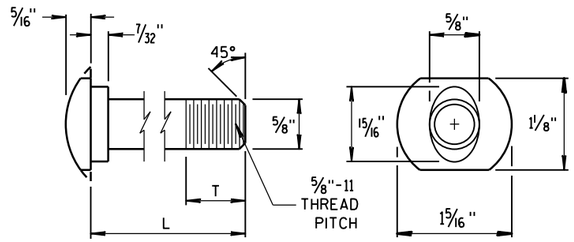


DETAIL FOR 36" BLOCKOUT DEPTH

NOTES: UNDER SPECIAL CIRCUMSTANCES, SUCH AS AVOIDING OBSTACLES THAT ARE NOT RELOCATED, IT IS ACCEPTABLE TO INSTALL ADDITIONAL BLOCKOUTS TO OBTAIN UP TO 36" DEPTH FOR ONE OR TWO POSTS IN A SECTION OF GUARDRAIL.

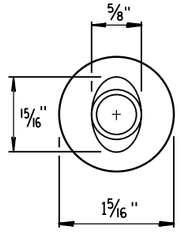
DO NOT USE 16" OR 36" BLOCKOUTS IF IT CAUSES THE POST TO BE DRIVEN BEYOND SHOULDER HINGE POINT OR CAUSES A FIXED OBJECT TO BE WITHIN THE DEFLECTION DISTANCE OF THE BARRIER.

NOTE: 1. ALL FILLETS SHALL HAVE A MINIMUM RADIUS OF 1/16".
2. IF THE BOLT EXTENDS MORE THAN 1/4" FROM THE NUT THE BOLT SHOULD BE TRIMMED BACK.

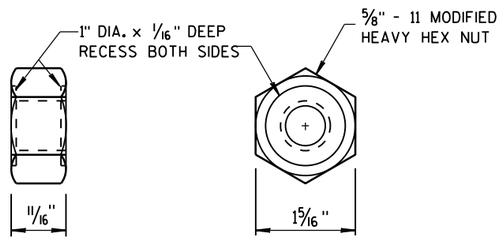


POST BOLT TABLE

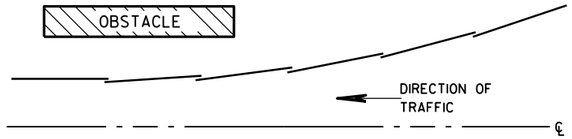
L	T (MIN.)
1 1/4"	1 1/8"
2"	1 3/4"
10"	4"
14"	4 1/16"
18"	4"
21"	4 1/16"
25"	4"



ALTERNATE BOLT HEAD

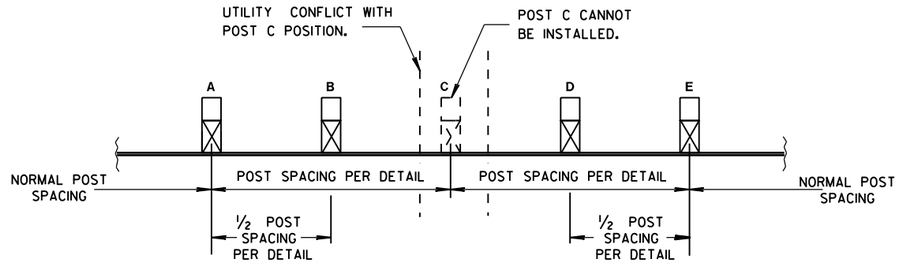


POST BOLT AND RECESS NUT

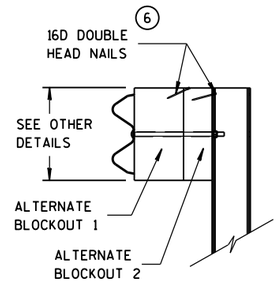


PLAN VIEW

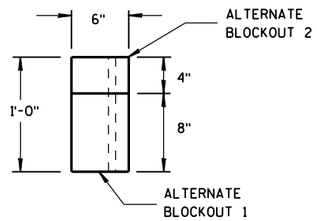
BEAM LAPPING DETAIL



POST DRIVING FOR CONTINUOUS UNDERGROUND OBSTRUCTION



SIDE VIEW



TOP VIEW

ALTERNATE WOOD BLOCKOUT DETAIL

MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2014
DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS ENGINEER
FHWA

6
S.D.D. 14 B 42-3c

GENERAL NOTES

(A) THE SLOPE IN THE AREA BOUNDED BY THE GRADELINE, THE HINGE POINT LINE (HPL), AND THE CLEAR ZONE LIMITS (CZL) SHALL BE 4:1 OR FLATTER.

(B) AFTER FINAL ASSEMBLY, RECHECK CABLE TO BE SURE IT IS TAUT AND HAS NOT RELAXED.

(C) DIFFERENT MANUFACTURES REQUIRE DIFFERENT PERFORATED W-BEAM RAIL END PANELS. SEE MANUFACTURES INFORMATION.

(D) THE TOP OF THE STEEL TUBE ON POST 1 AND POST 2 SHALL NOT BE MORE THAN 3" ABOVE THE FINISH GROUND ELEVATION.

(F) ATTACH ALUMINUM SHEET TO E.A.T. HEAD USING 4 STAINLESS STEEL SELF-TAPPING SCREWS. ONE SCREW PER CORNER.

(G) ½" DIAMETER X 3" LONG LAG BOLT AND WASHER.

(H) HARDWARE VARIES BETWEEN DIFFERENT MANUFACTURES. SEE MANUFACTURE'S DRAWING FOR INFORMATION.

(I) DIMENSIONS MAY VARY. SEE MANUFACTURE'S INFORMATION.

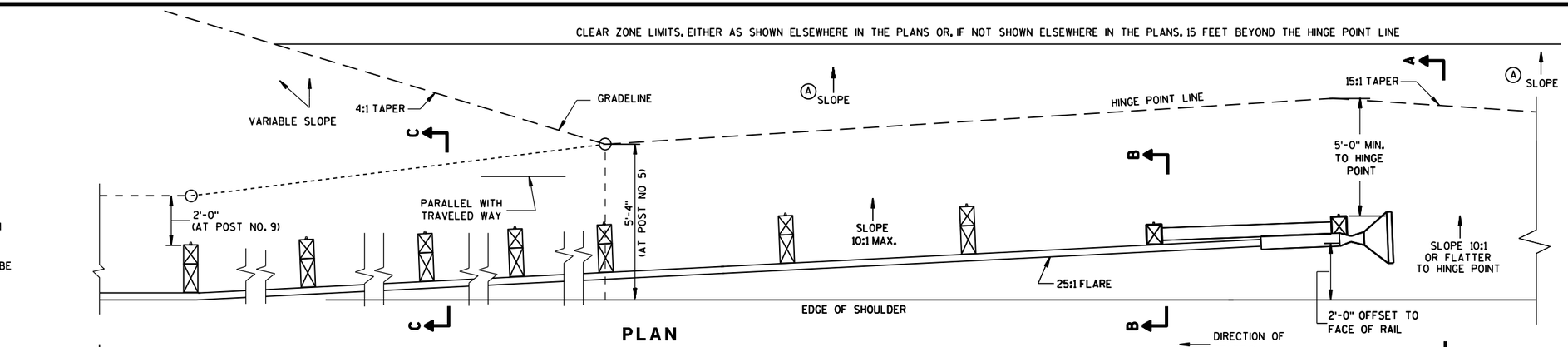
SEE SDD 14B42 FOR MORE INFORMATION.

* DO NOT ATTACH BLOCKOUTS TO POSTS 1 AND 2.

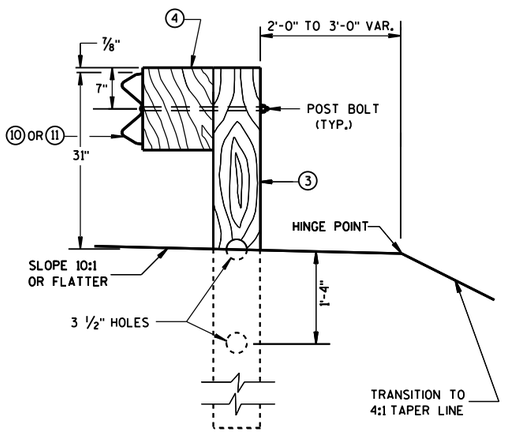
DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL.

W-BEAM RAIL SPLICES ARE LOCATED AT POST NUMBER 3, AND BETWEEN POST 5 AND 6, BETWEEN POSTS 7 AND 8, AND MIDDLE OF THE SPAN AFTER POST 9.

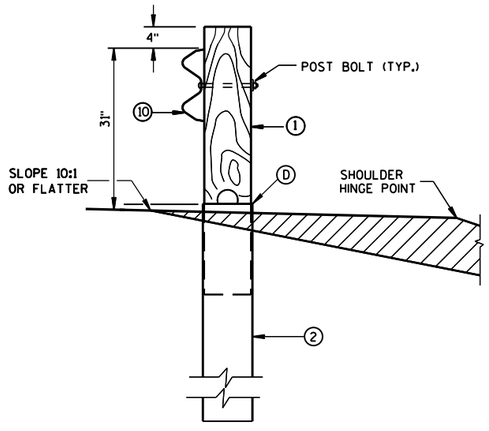
THE CENTER OF THE UPPER 3½" DIAMETER HOLE ON POST NUMBER 3 THROUGH POST 9 IS TO BE FLUSH WITH THE GROUND LINE UP TO A MAXIMUM OF 2" ABOVE GROUND LINE.



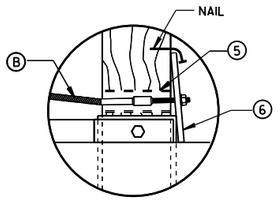
ELEVATION



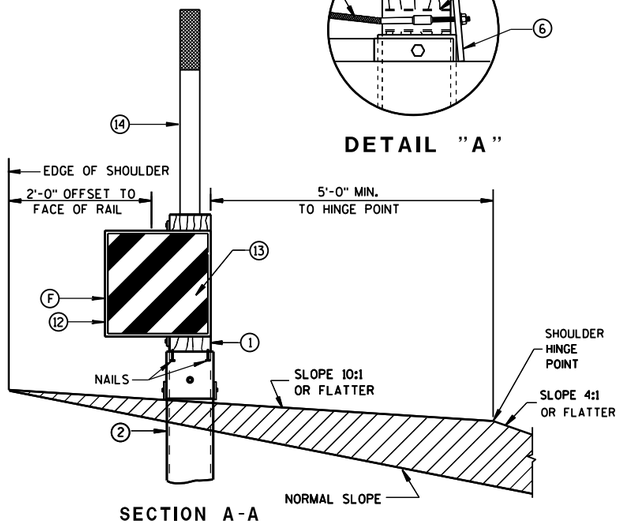
SECTION C-C
TYPICAL AT POST NOS. 3-9



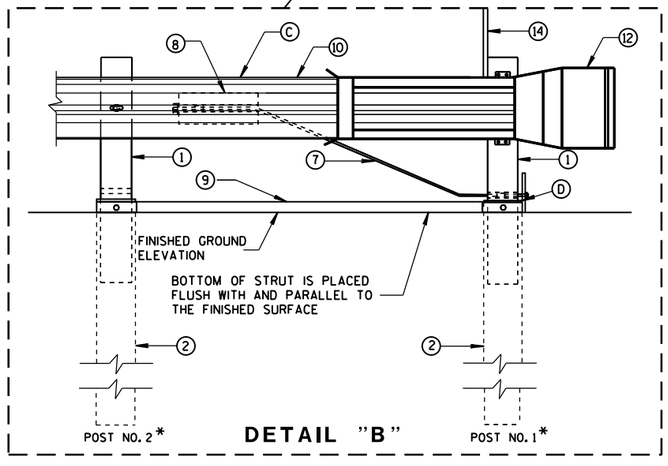
SECTION B-B
TYPICAL AT POST NO. 2*



DETAIL "A"



SECTION A-A
TYPICAL AT POST NO. 1*



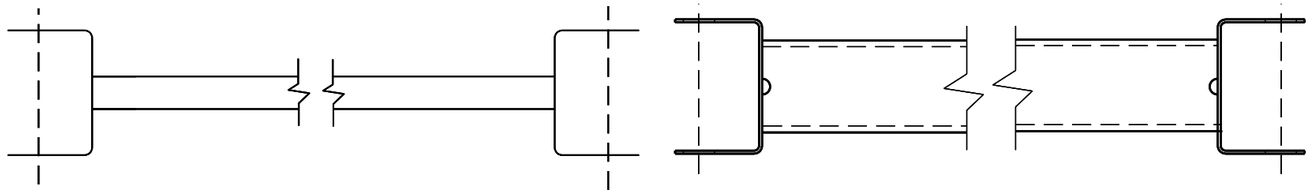
DETAIL "B"

MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL
(MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

S.D.D. 14 B 44-2a

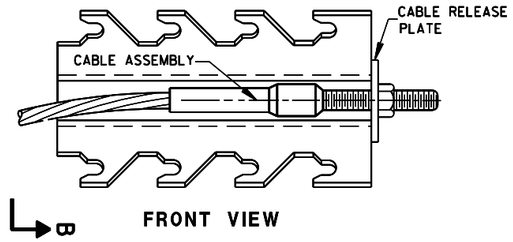
S.D.D. 14 B 44-2a



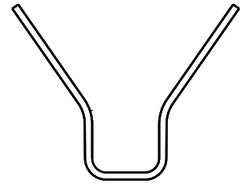
GENERIC GROUND STRUT (9) (H)

BILL OF MATERIALS

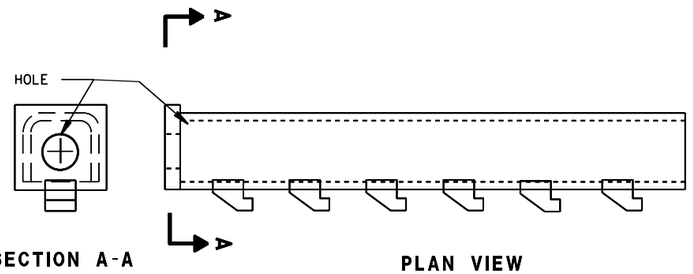
PART NO.	DESCRIPTION MATERIALS PROVIDED BY MGS EAT MANUFACTURER. SEE MANUFACTURER'S DETAILS FOR MORE INFORMATION.
(1)	WOOD BREAKAWAY POST
(2)	6" X 8" X 0.188", 6'-0" LONG FOUNDATION TUBE AT POSTS 1 AND 2
(3)	WOOD CRT
(4)	WOOD BLOCKOUT
(5)	PIPE SLEEVE
(6)	BEARING PLATE
(7)	BCT CABLE ASSEMBLY
(8)	ANCHOR CABLE BOX
(9)	GROUND STRUT
(10)	PERFORATED W-BEAM RAIL END PANEL, 12'-6" LONG.
(11)	STANDARD W-BEAM RAIL. MULTIPLE SECTIONS REQUIRED. SECTIONS VARY IN LENGTH.
(12)	END SECTION EAT
(13)	0.040" ALUMINUM SHEET WITH REFLECTIVE SHEETING TYPE F PER SECTION 637 OF THE STANDARD SPECIFICATIONS
(14)	EAT MARKER POST - YELLOW (SEE APPROVED PRODUCTS LIST)



FRONT VIEW



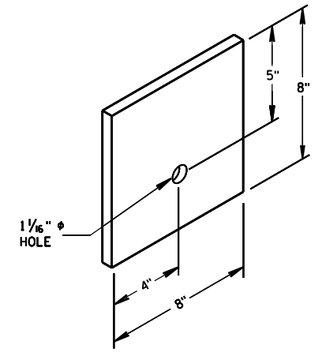
SECTION B-B



SECTION A-A

PLAN VIEW

GENERIC ANCHOR CABLE BOX (8) (H)



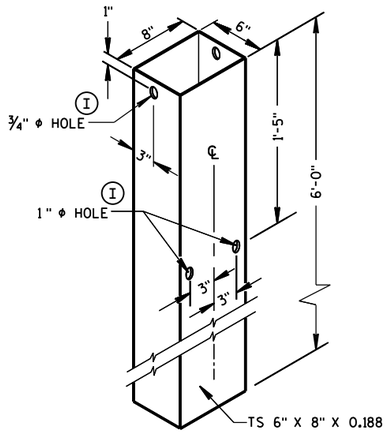
BEARING PLATE (6)

MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL
(MGS)

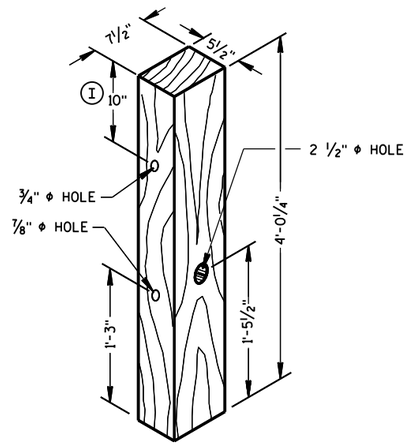
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6

S.D.D. 14 B 44-2b

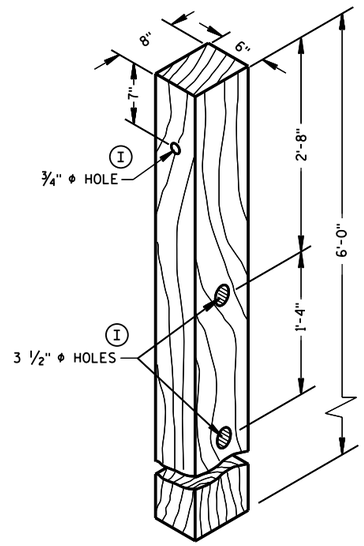


FOUNDATION TUBE (2)



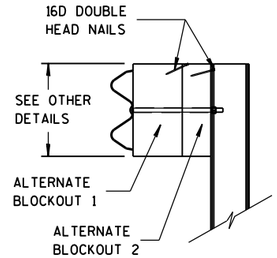
POSTS NUMBER 1 AND 2

WOOD BREAKAWAY POST (1)

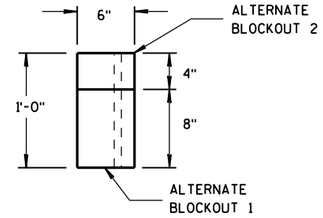


POSTS NUMBER 3-9

WOOD CRT POST (3)

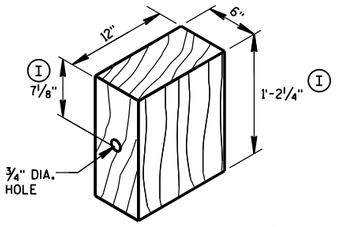


SIDE VIEW



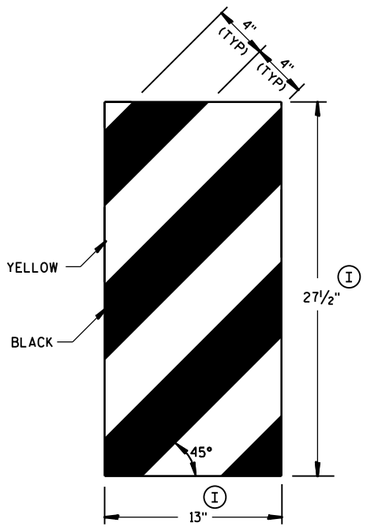
TOP VIEW

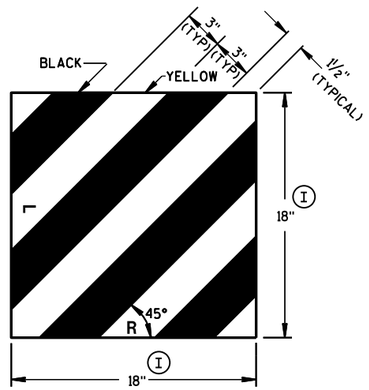
ALTERNATE WOOD BLOCKOUT DETAIL



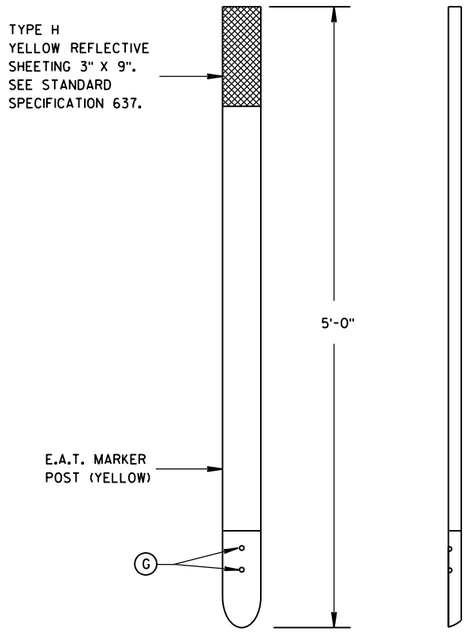
WOOD BLOCKOUT (4)

REQ'D. AT ALL POSTS EXCEPT POST NO'S 1 & 2





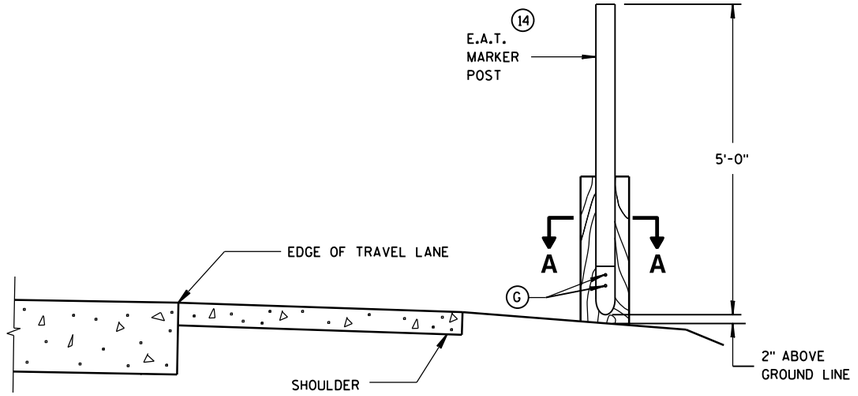
GENERIC REFLECTIVE SHEETING (13) (H)



FRONT VIEW

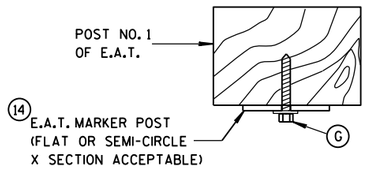
SIDE VIEW

E.A.T. MARKER POST (14)



TYPICAL INSTALLATION OF E.A.T. MARKER POST BACKSIDE OF POST NO. 1

(E.A.T. AND RAIL REMOVED FOR CLARITY)



SECTION A-A

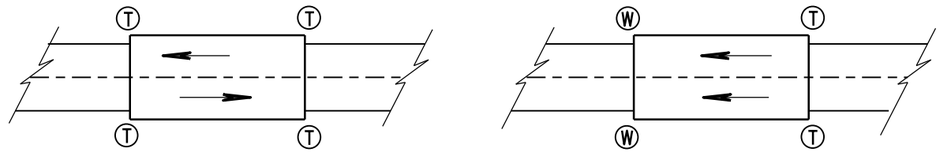
MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2014 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS ENGINEER
FHWA

6

S.D.D. 14 B 44-2c



TWO WAY TRAFFIC

ONE WAY TRAFFIC

Ⓣ THRIE BEAM CONNECTION

Ⓦ W-BEAM CONNECTION WHEN REQUIRED

TYPICAL LOCATIONS OF THRIE BEAM AND W-BEAM CONNECTIONS TO BRIDGE

GENERAL NOTES

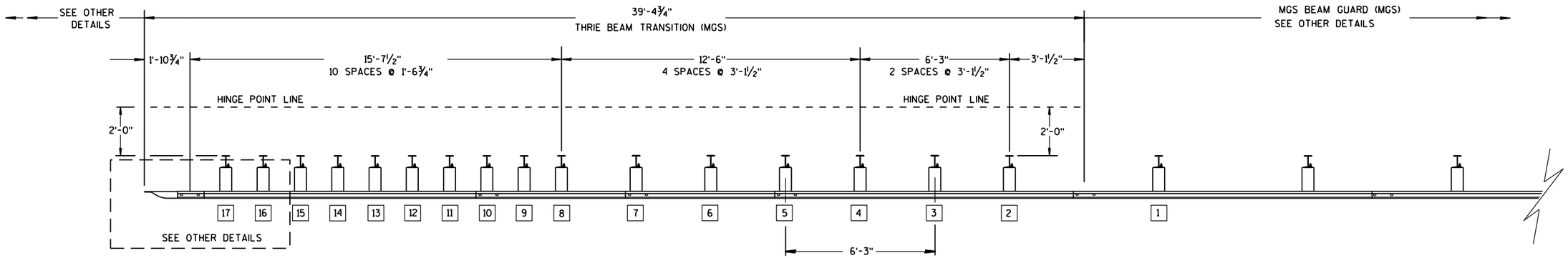
IF ROCK IS ENCOUNTERED, REMOVE ROCK TO FULL DEPTH OF POST PLUS 2½", AND 12" DIAMETER AROUND POST. SEE 14B42 FOR MORE DETAILS.

TRANSITION USES STEEL POSTS ONLY.

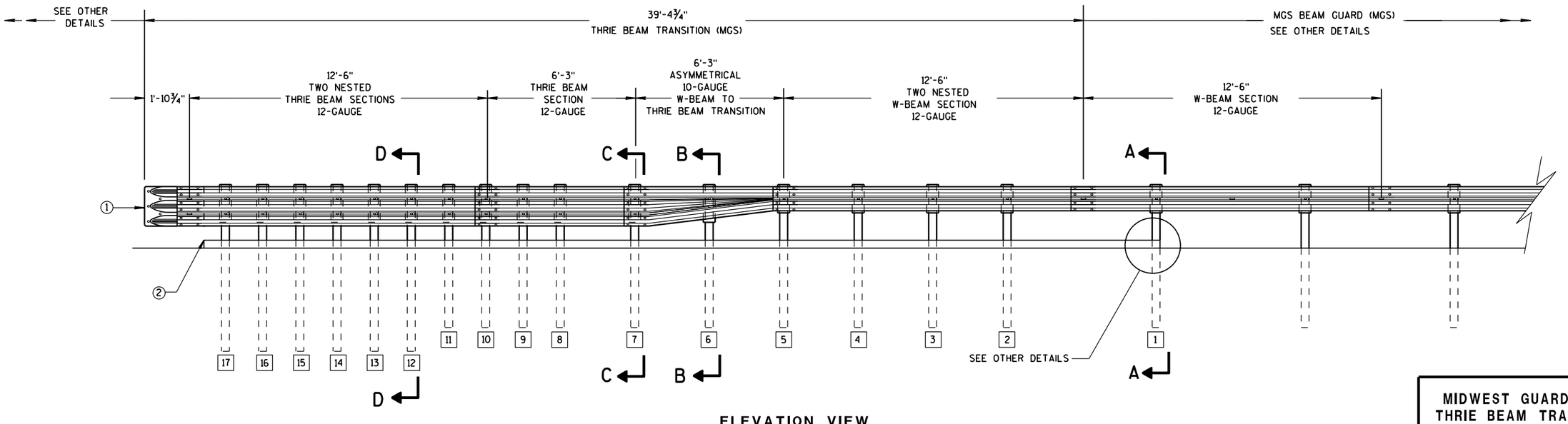
SEE STANDARD DETAIL DRAWING 14 B 42 FOR MORE INFORMATION.

① BRIDGE RAILING TYPE "W" DOES NOT REQUIRE A TERMINAL CONNECTOR.

② OPTIONAL CURB AND GUTTER OR DRAINAGE FEATURE SEE PLAN FOR INFORMATION.



PLAN VIEW



ELEVATION VIEW

MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

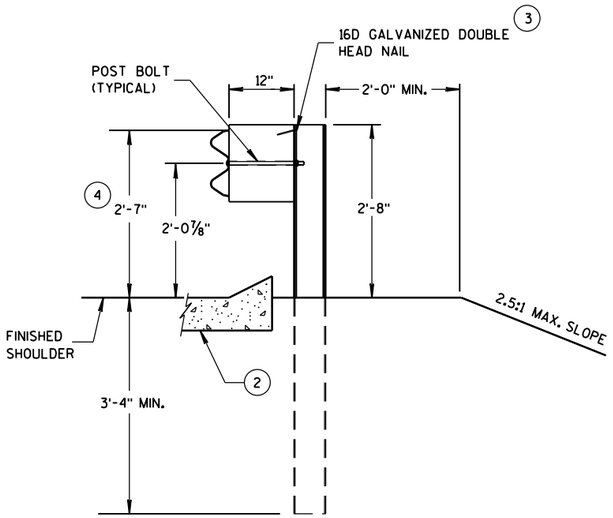
S.D.D. 14 B 45-4a

GENERAL NOTES

(2) OPTIONAL CURB AND GUTTER OR DRAINAGE_FEATURE SEE PLAN FOR INFORMATION.

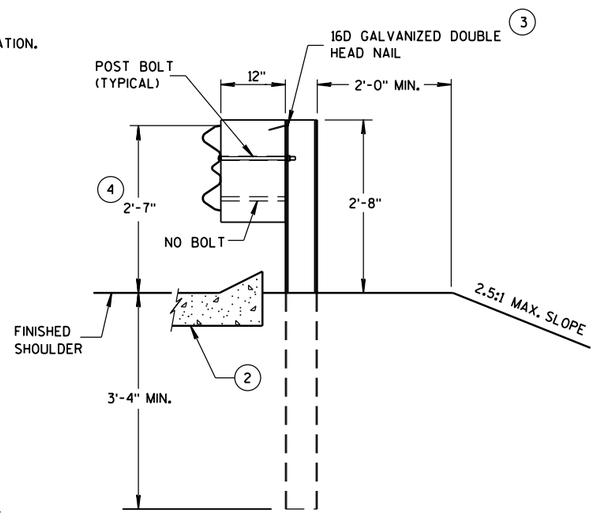
(3) WHEN USING STEEL POSTS AND WOOD BLOCKOUTS INSTALL FOUR 10D GALVANIZED NAILS. INSTALL NAILS AT THE BACK CORNERS OF THE BLOCK AND BEND THE NAILS OVER THE FLANGE OF THE STEEL POST.

(4) TOLERANCE FOR TOP OF W-BEAM RAIL IS ± 1".



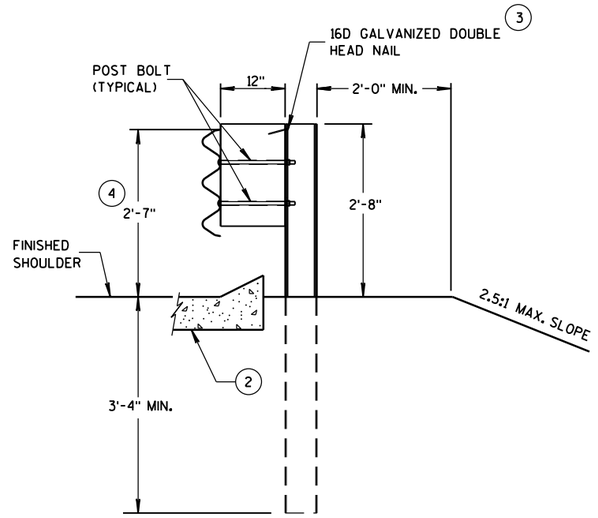
SECTION A-A

POSTS 1-5



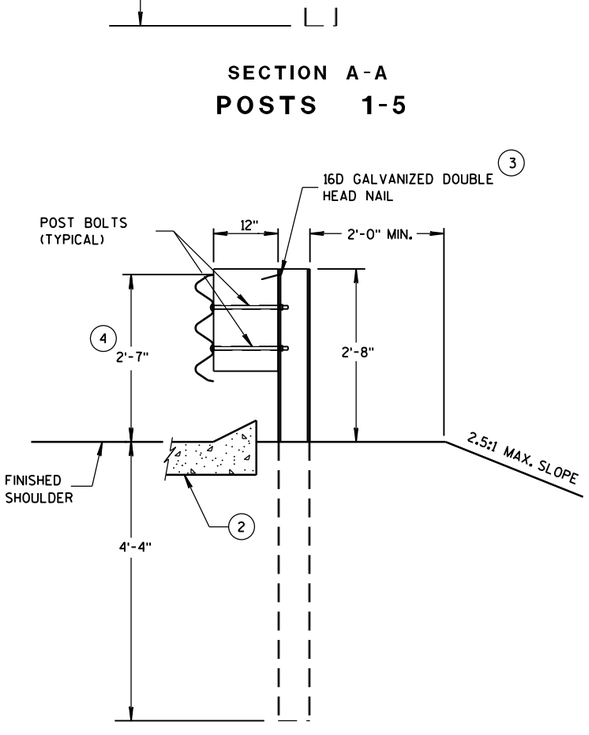
SECTION B-B

POST 6



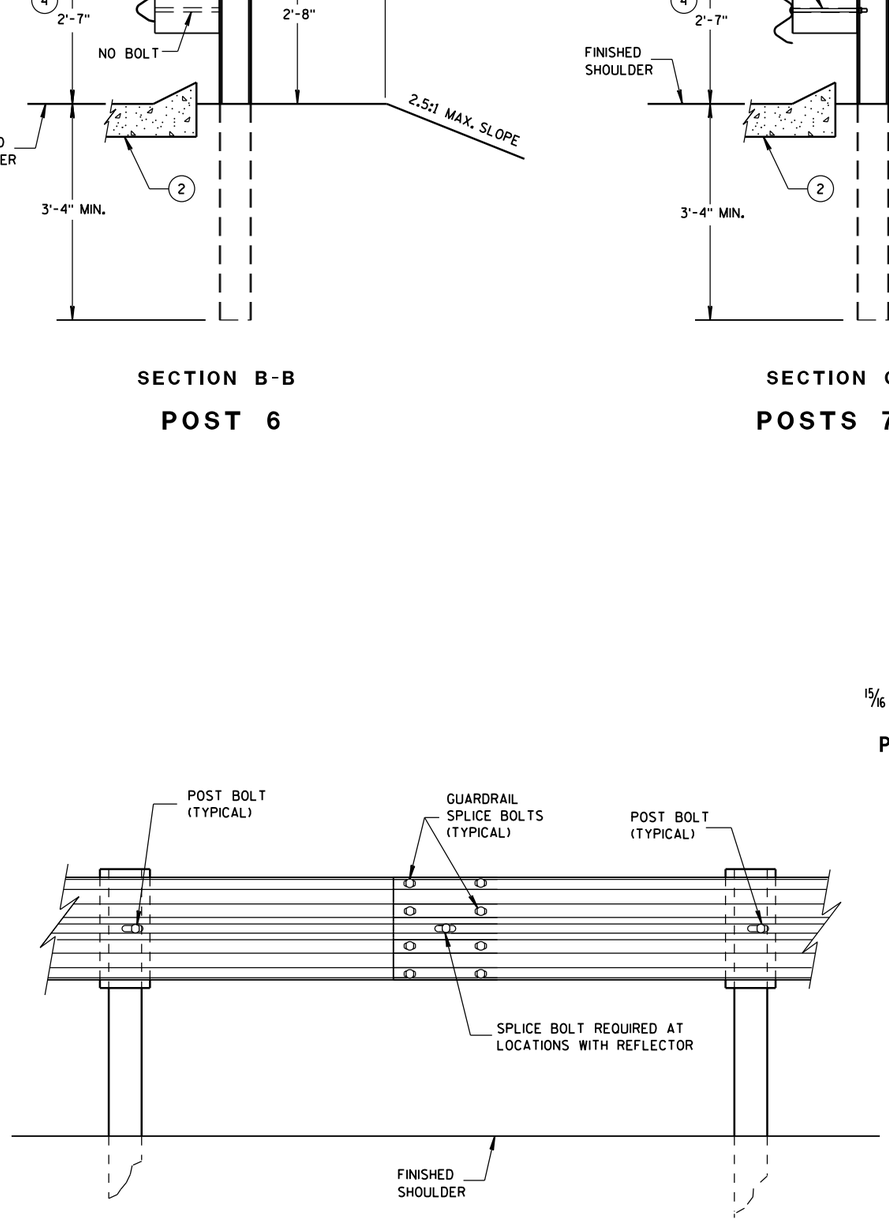
SECTION C-C

POSTS 7-11



SECTION D-D

POSTS 12-17



SPLICE DETAIL

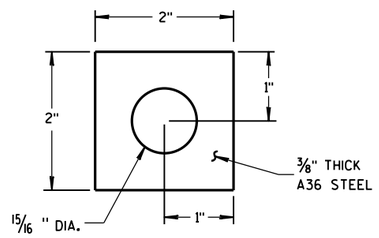
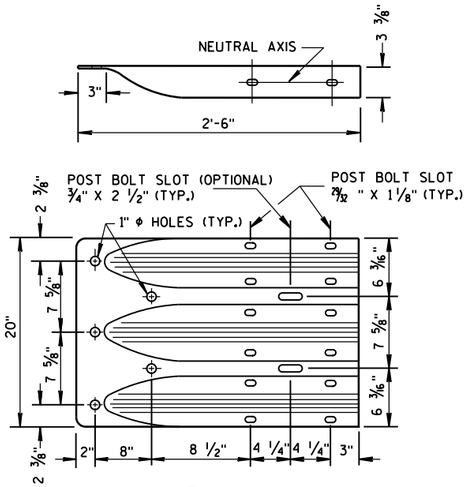
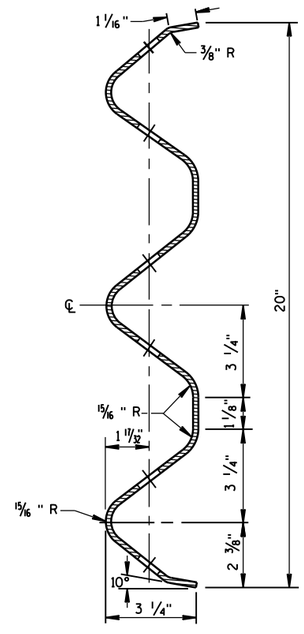


PLATE WASHER DETAIL



THRIE BEAM TERMINAL CONNECTOR



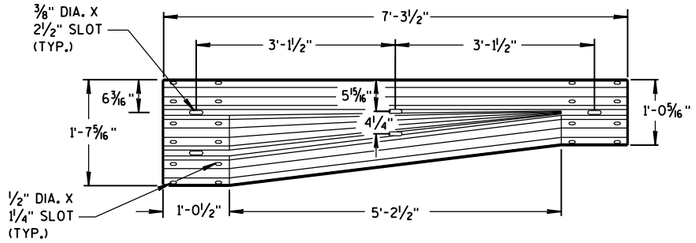
SECTION THRU THRIE BEAM RAIL ELEMENT

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

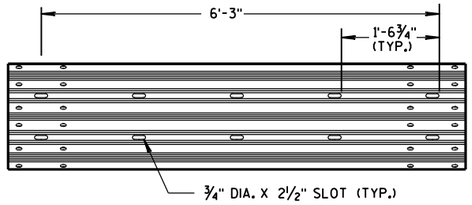
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

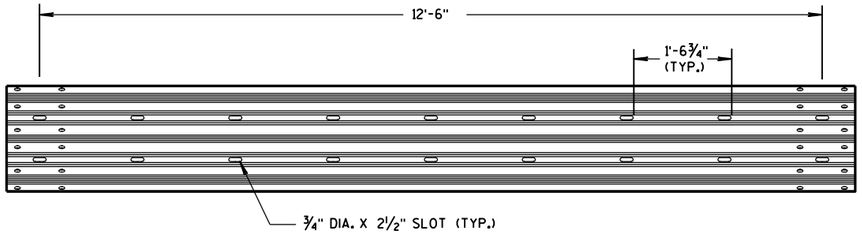
S.D.D. 14 B 45-4b



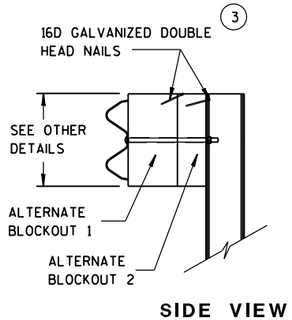
W-BEAM TO THRIE BEAM TRANSITION SECTION



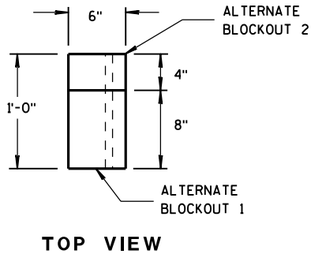
6'-3" THRIE BEAM SECTION



12'-6" THRIE BEAM SECTION

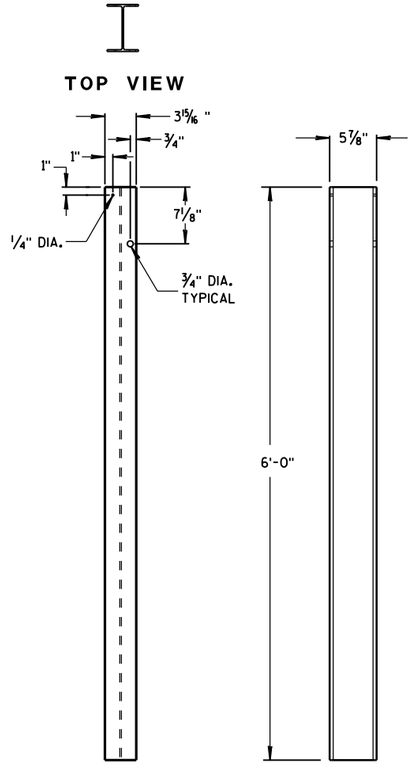


SIDE VIEW

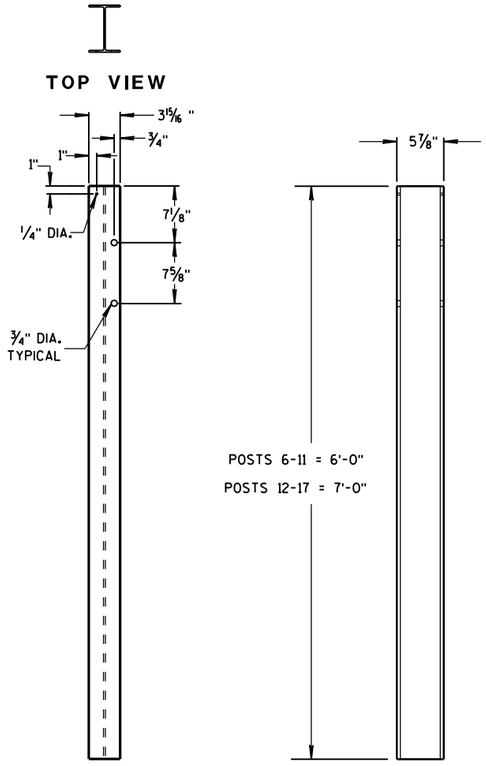


TOP VIEW

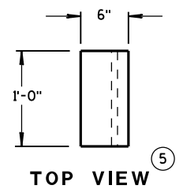
ALTERNATE WOOD BLOCKOUT DETAIL



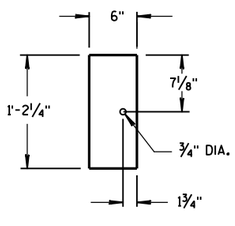
STEEL POSTS 1-5



STEEL POSTS 6-17

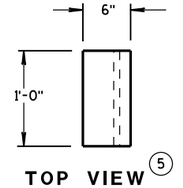


TOP VIEW

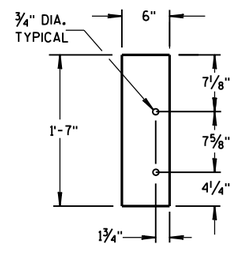


FRONT VIEW

BLOCKOUT POSTS 1-5



TOP VIEW



FRONT VIEW

BLOCKOUT POSTS 6-17

GENERAL NOTES

STEEL POSTS ARE W6X9 OR W6X8.5.

BOLT HOLES FOR POST ARE ON FRONT AND OF SIDE OF POST.

(3) WHEN USING STEEL POSTS AND WOOD BLOCKOUTS INSTALL FOUR 16D GALVANIZED NAILS. INSTALL NAILS AT THE BACK CORNERS OF THE BLOCK AND BEND THE NAILS OVER THE FLANGE OF THE STEEL POST.

(5) WOOD BLOCKS MAY BE CONSTRUCTED OUT OF 2 WOOD BLOCKS. SEE ALTERNATE WOOD BLOCK DETAIL.

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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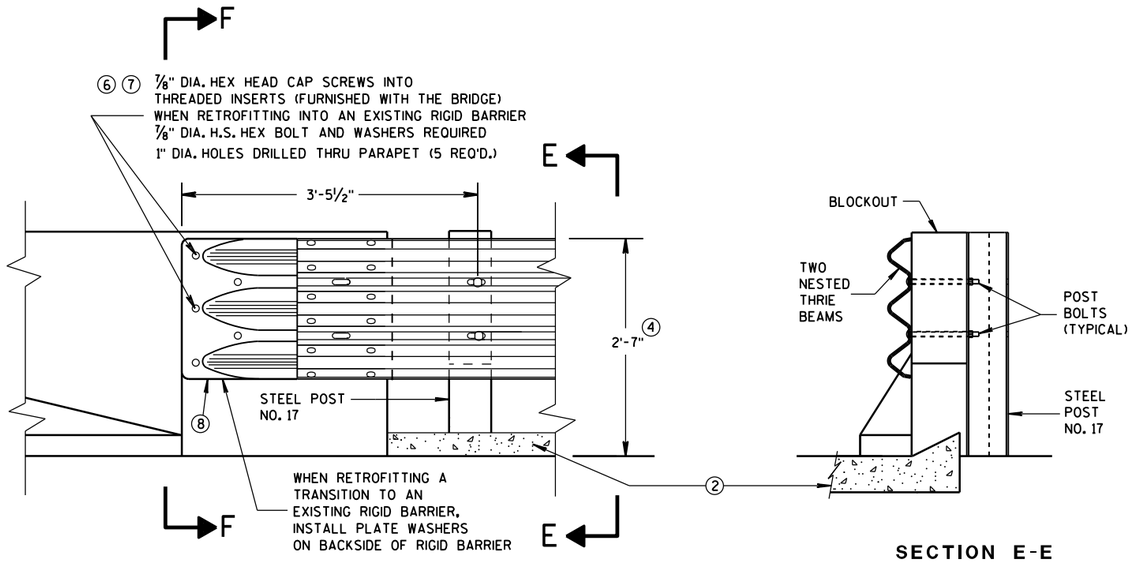
S.D.D. 14 B 45-4c



FRONT VIEW

SECTION E-E

THRIE BEAM CONNECTION TO BRIDGE PARAPET WITH SQUARE ENDS

GENERAL NOTES

THESE ARE TYPICAL CONNECTION DETAILS. ADJUST THE POSTION OF CONNECTIONS TO EXISTING BRIDGES TO FIT THE ACTUAL BRIDGE AND SITE DIMENSIONS.

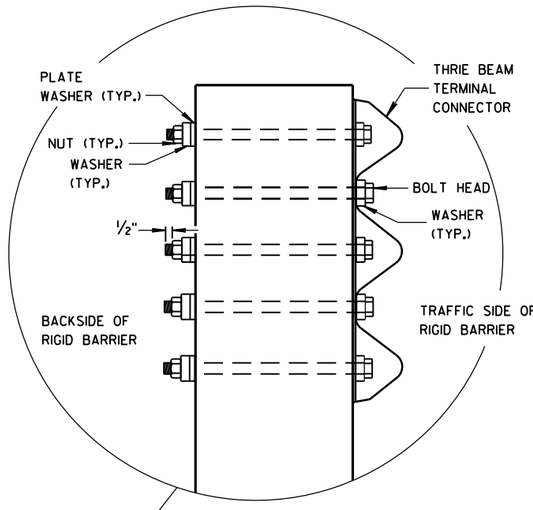
② OPTIONAL CURB AND GUTTER OR DRAINAGE FEATURE SEE PLAN FOR INFORMATION.

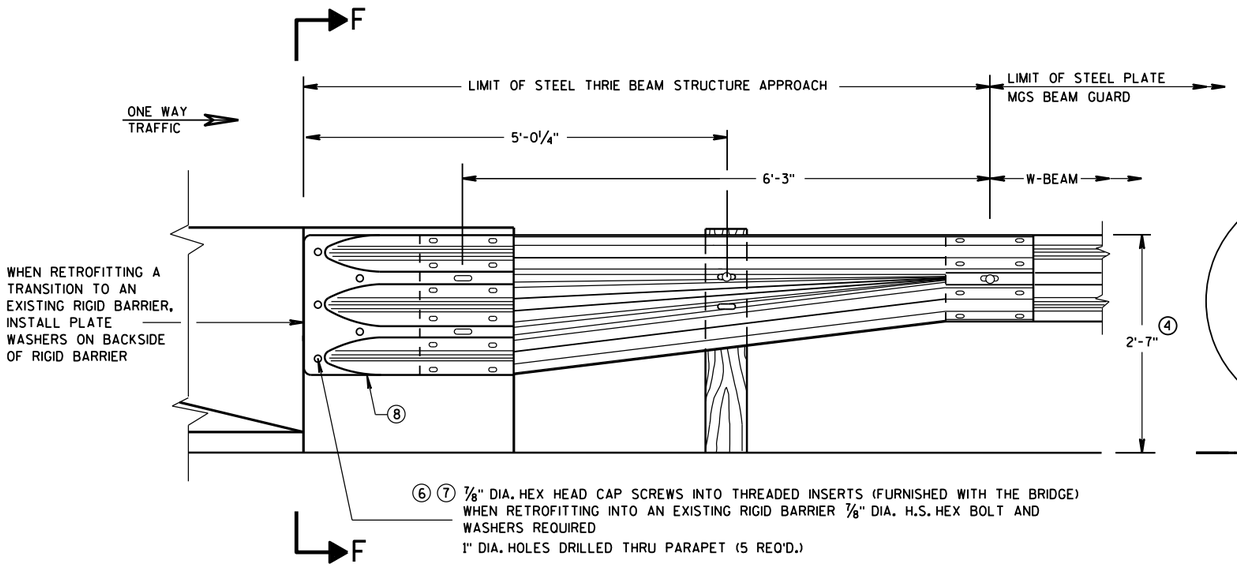
④ TOLERANCE FOR TOP OF BEAM IS ± 1".

⑥ DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

⑦ BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE. BOLTS THAT EXTEND THROUGH THE PARAPET AND OUT THE BACK FACE REQUIRE A HARDENED ROUND STEEL WASHER THAT IS 2" O.D. X 5/8" THICK AND ONE PLATE WASHER. REPAIR ANY DAMAGED CONCRETE FROM BOLT INSTALLATION.

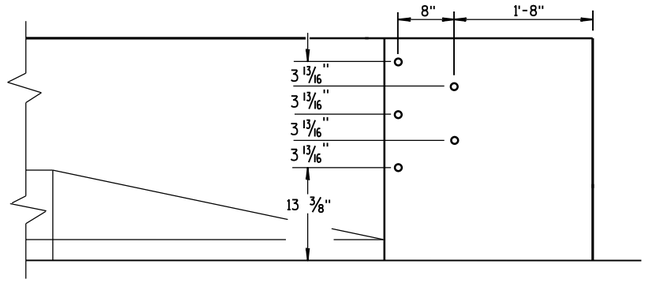
⑧ THE RECESS FOR A W-BEAM CONNECTION, WHICH EXISTS ON SOME PARAPETS OF THIS TYPE, SHALL BE FILLED WITH A TREATED TIMBER BLOCKOUT. BLOCKOUT SIZE IS 1'-6" X 2'-0" X 3 1/2".





FRONT VIEW

SECTION F-F



DRILL HOLE LOCATION

W BEAM TRANSITION AND CONNECTION TO BRIDGE PARAPETS WITH SQUARE ENDS

(USE ONLY ON THE TRAFFIC EXIT END OF ONE WAY BRIDGES)

MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION
APPROVED June, 2015 — DATE /S/ Jerry H. Zogg — ROADWAY STANDARDS DEVELOPMENT ENGINEER FHWA NT

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S.D.D. 14 B 45-4d

GENERAL NOTES

THESE ARE TYPICAL CONNECTION DETAILS. ADJUST THE POSTION OF CONNECTIONS TO EXISTING BRIDGES TO FIT THE ACTUAL BRIDGE AND SITE DIMENSIONS.

(2) OPTIONAL CURB AND GUTTER OR DRAINAGE FEATURE SEE PLAN FOR INFORMATION.

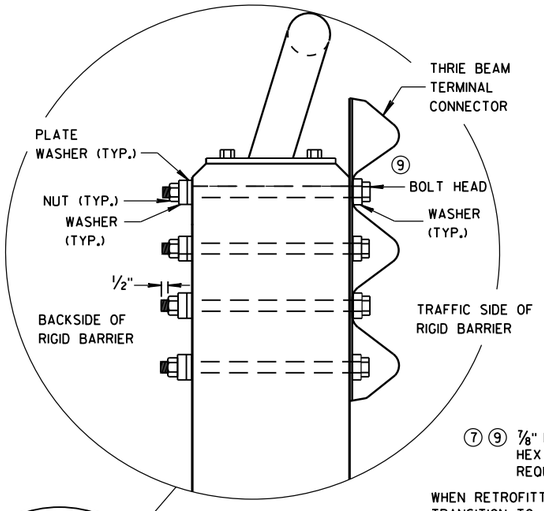
(4) TOLERANCE FOR TOP OF BEAM IS ± 1".

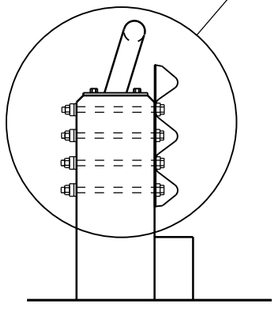
(6) DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

(7) BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE. BOLTS THAT EXTEND THROUGH THE PARAPET AND OUT THE BACK FACE REQUIRE A HARDENED ROUND STEEL WASHER THAT IS 2" O.D. X 5/8" THICK AND ONE PLATE WASHER. REPAIR ANY DAMAGED CONCRETE FROM BOLT INSTALLATION.

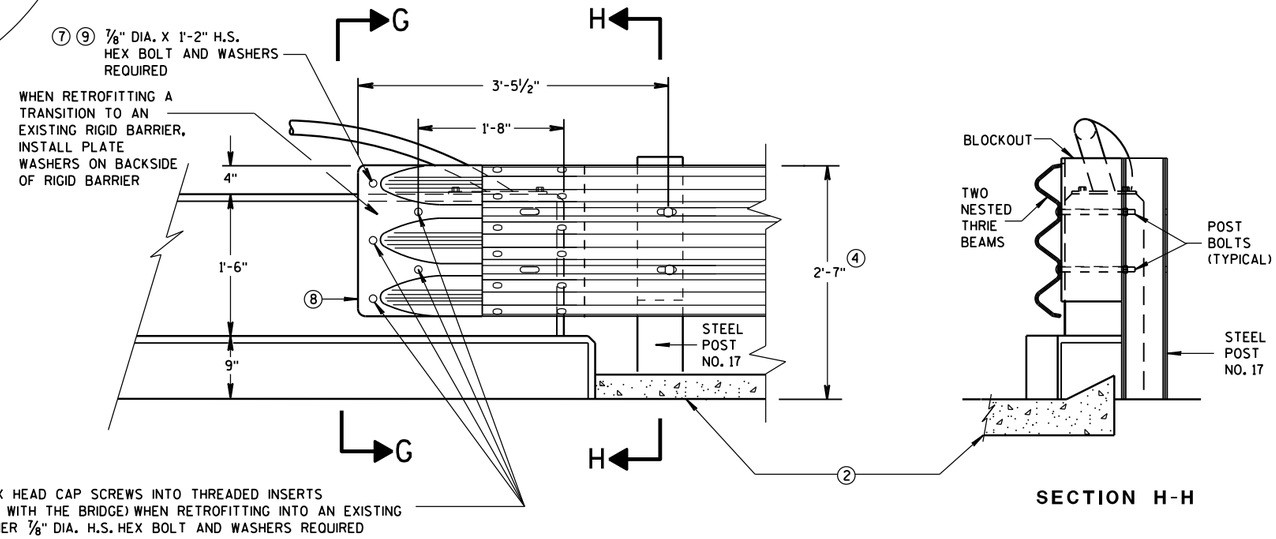
(8) THE RECESS FOR A W-BEAM CONNECTION, WHICH EXISTS ON SOME PARAPETS OF THIS TYPE, SHALL BE FILLED WITH A TREATED TIMBER BLOCKOUT. BLOCKOUT SIZE IS 1'-6" X 2'-0" X 3 1/2".

(9) BOLT, NUT AND WASHERS NOT REQUIRED FOR THIS LOCATION WHEN RETROFITTING AN EXISTING PAPAPET AND THE HOLE IS EITHER ABOVE PARAPET OR WITHIN 4 INCHES OF THE EDGE OF PARAPET.





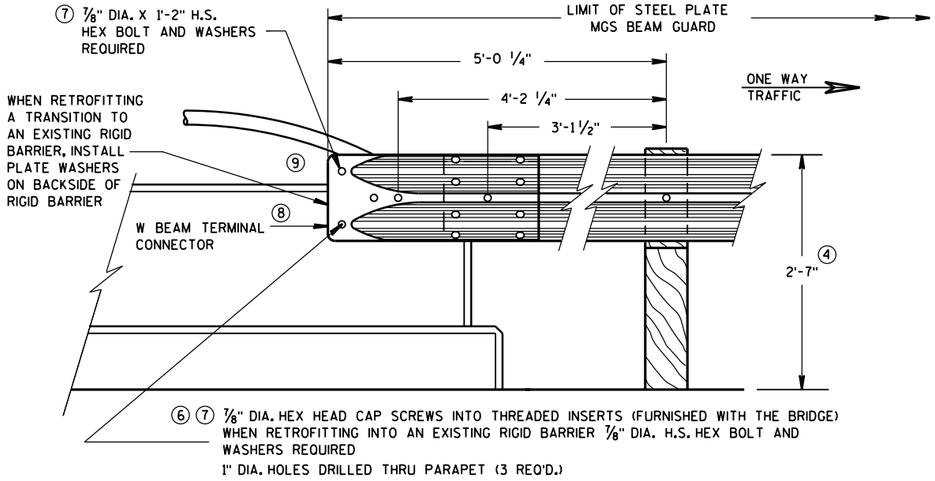
SECTION G-G



FRONT VIEW

SECTION H-H

THRIE BEAM CONNECTION TO VERTICAL FACED PARAPETS



FRONT VIEW

W BEAM CONNECTION TO VERTICAL FACE PARAPET

(USE ONLY ON THE TRAFFIC EXIT END OF ONE WAY BRIDGES)

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
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APPROVED
June, 2015 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA

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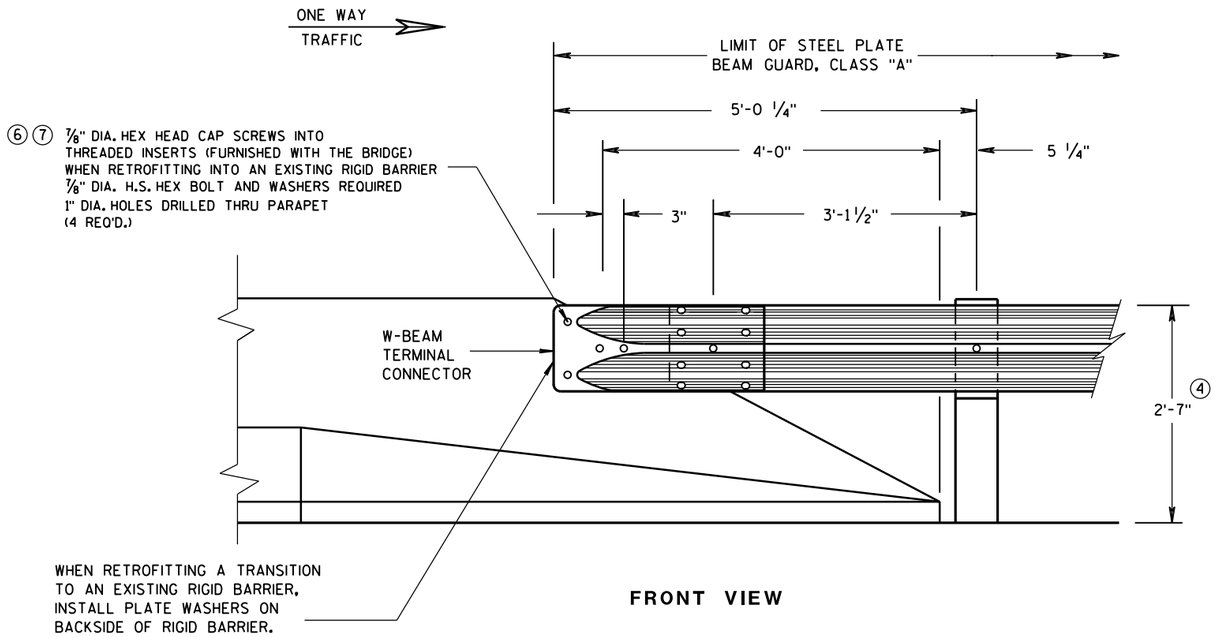


FRONT VIEW

W BEAM CONNECTION TO PARAPETS WITH SLOPED ENDS

(USE ONLY AT TRAFFIC EXIT END OF ONE WAY BRIDGE)

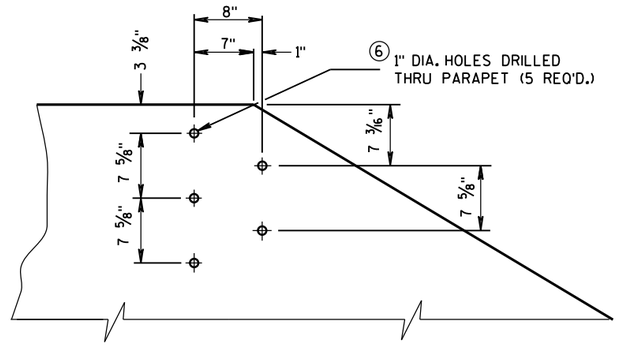
GENERAL NOTES

② OPTIONAL CURB AND GUTTER OR DRAINAGE FEATURE SEE PLAN FOR INFORMATION.

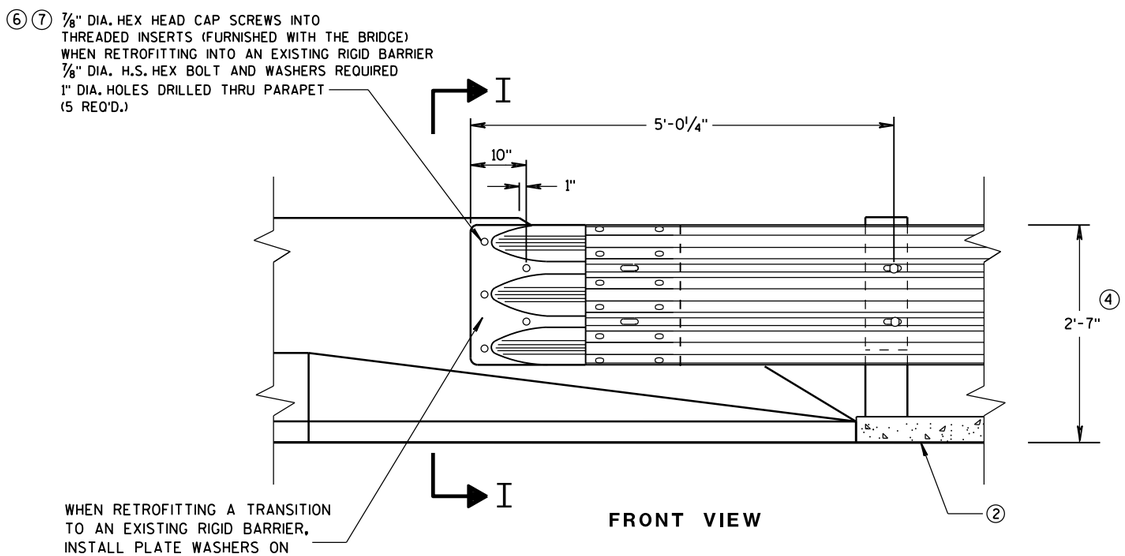
④ TOLERANCE FOR TOP OF BEAM IS ± 1".

⑥ DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

⑦ BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE. BOLTS THAT EXTEND THROUGH THE PARAPET AND OUT THE BACK FACE REQUIRE A HARDENED ROUND STEEL WASHER THAT IS 2" O.D. X 5/8" THICK AND ONE PLATE WASHER. REPAIR ANY DAMAGED CONCRETE FROM BOLT INSTALLATION.

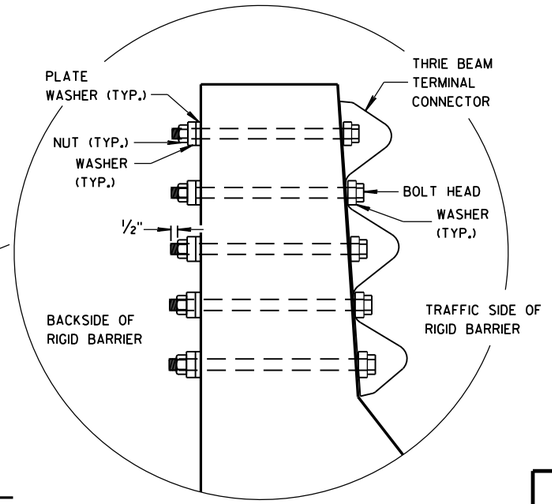


DRILL HOLE LOCATION AND PATTERN
FOR THRIE BEAM CONNECTION



FRONT VIEW

SECTION I-I



THRIE BEAM CONNECTION TO BRIDGE PARAPETS WITH SLOPED ENDS

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June, 2015 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS DEVELOPMENT ENGINEER
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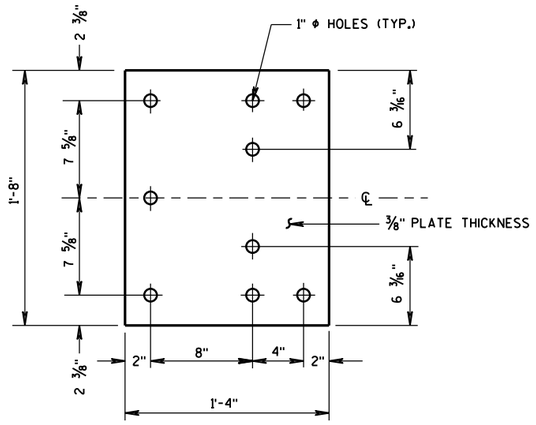
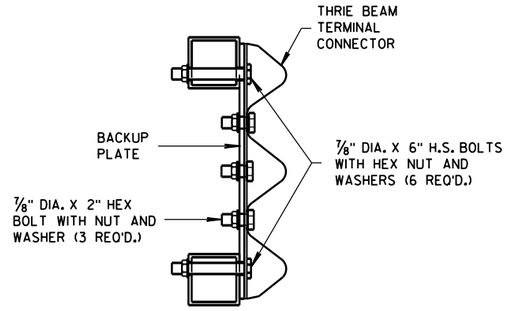
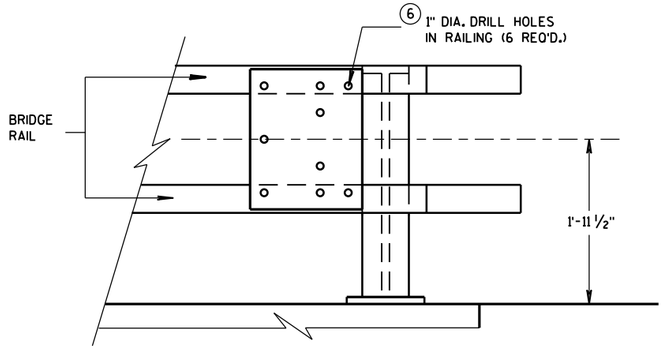


BACK-UP PLATE DETAIL



SECTION J-J

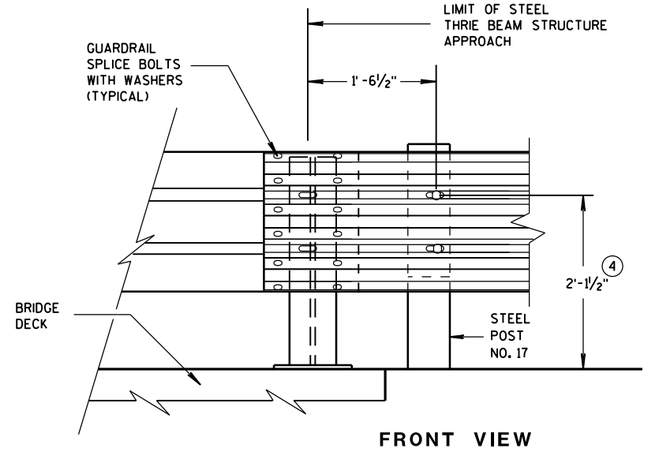


BACK-UP PLATE MOUNTING ONTO BRIDGE RAILING

GENERAL NOTES

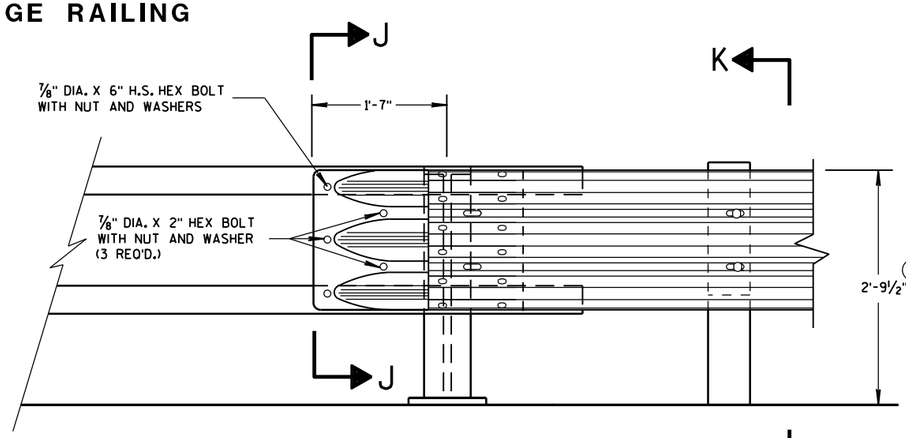
4 TOLERANCE FOR TOP OF BEAM IS ± 1".

6 DRILLING HOLES THROUGH THE PAPRPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

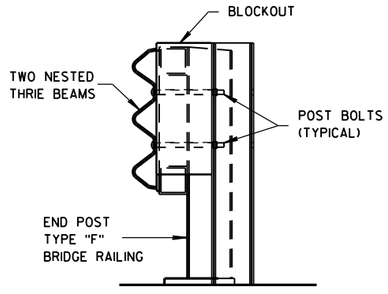


FRONT VIEW

THRIE BEAM CONNECTION TO STEEL RAILING TYPE "W"



FRONT VIEW



SECTION K-K

THRIE BEAM CONNECTION TO TUBULAR RAILING TYPE "F"

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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June, 2015 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS DEVELOPMENT ENGINEER
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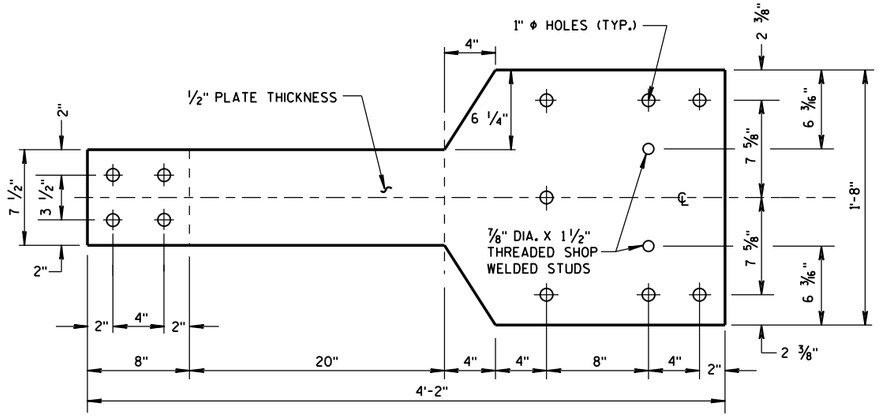
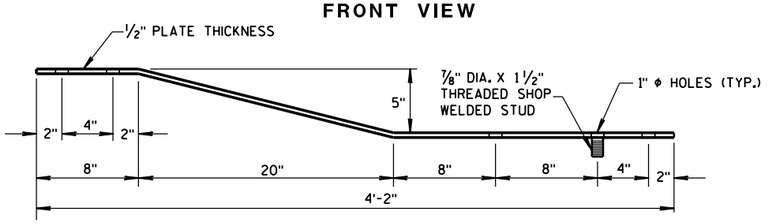
S.D.D. 14 B 45-4g

GENERAL NOTES

(4) TOLERANCE FOR TOP OF W-BEAM RAIL IS ± 1".

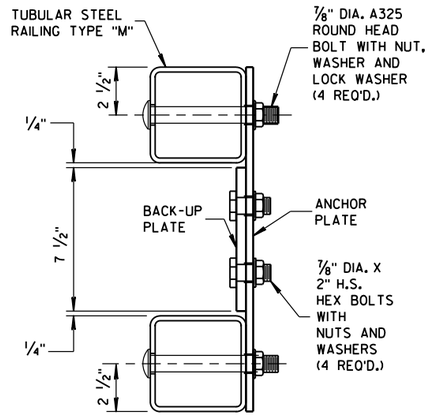


FRONT VIEW

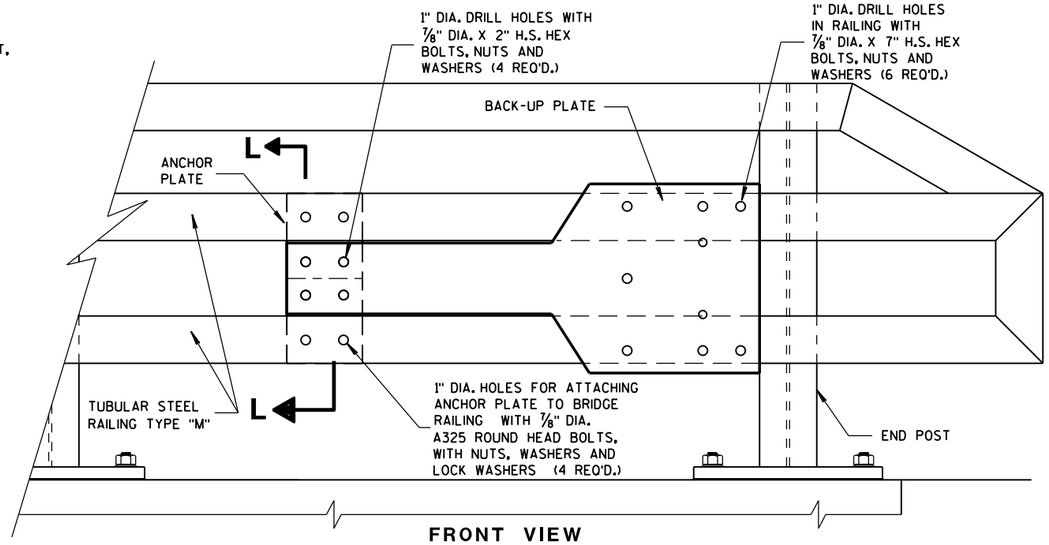


PLAN VIEW

BACK-UP PLATE DETAIL, TYPE "M"

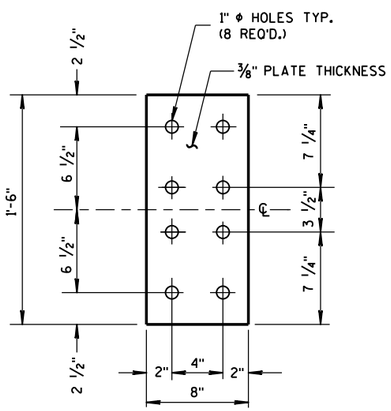


SECTION L-L



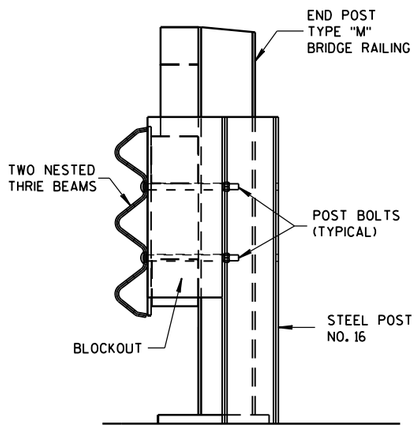
FRONT VIEW

ANCHOR AND BACK-UP PLATE MOUNTING TO BRIDGE RAILING, TYPE "M"

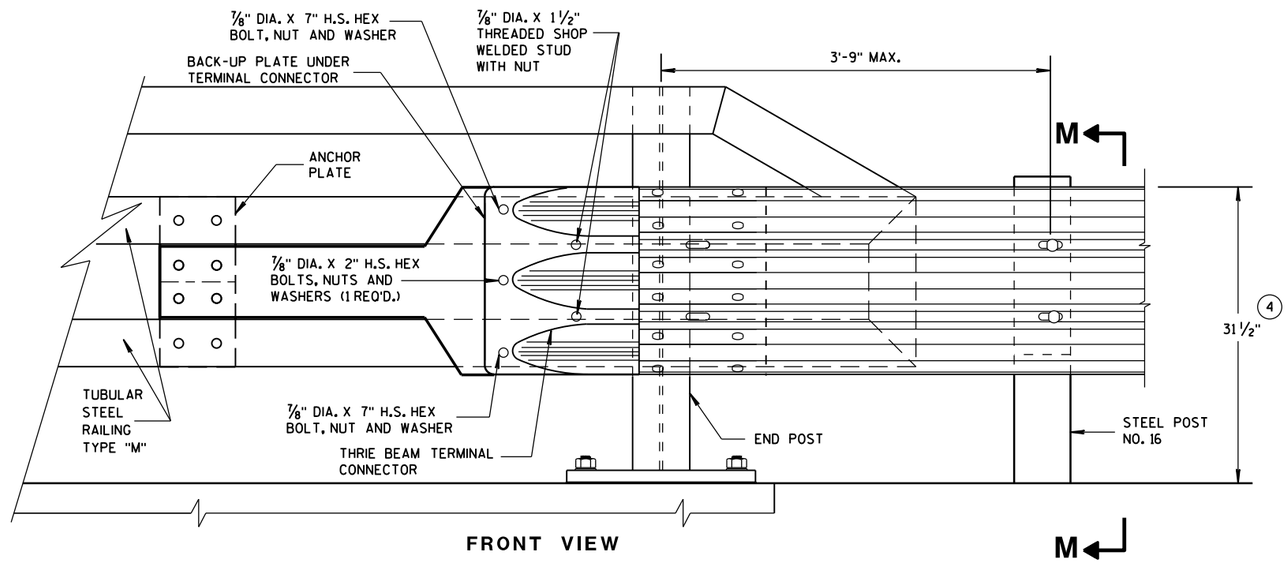


FRONT VIEW

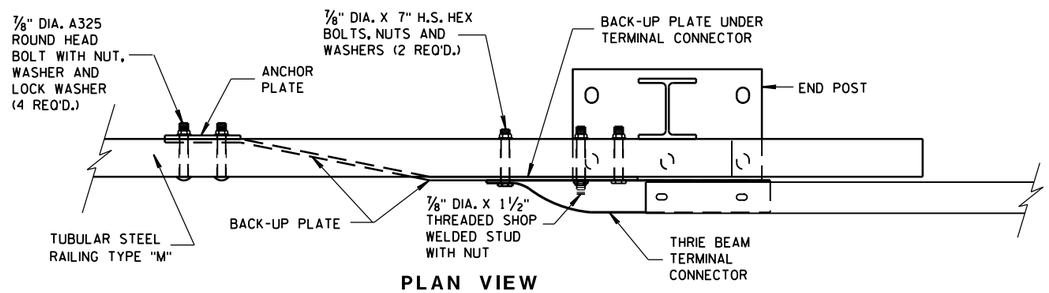
ANCHOR PLATE DETAIL, TYPE "M"



SECTION M-M



FRONT VIEW



PLAN VIEW

THRIE BEAM CONNECTION TO TUBULAR RAILING, TYPE "M"

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June, 2015 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS DEVELOPMENT ENGINEER
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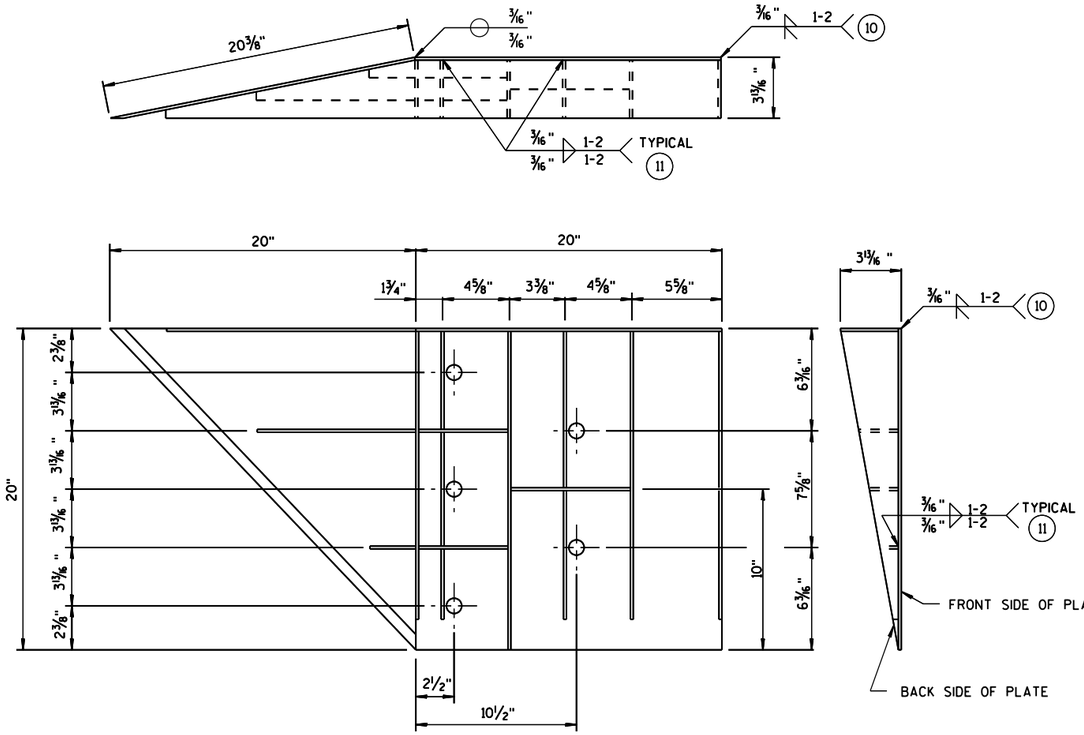

WELDING INSTRUCTION

(VIEWED FROM BACK SIDE OF PLATE)

GENERAL NOTES

COVER PLATE PANELS ARE 3/16" THICK.

ALL STIFFENERS ARE 1/4" THICK.

CONNECTOR PLATE SHALL BE FABRICATED FROM ASTM GRADE A36 STEEL AND GALVANIZED.

FOR GALVANIZED REQUIREMENTS, SEE SECTION 614 OF THE STANDARD SPECIFICATIONS.

ALL HOLE DIAMETERS SHALL BE 1".

FOR OPPOSITE SIDE INSTALLATION MIRROR DRAWINGS.

(10) STIFFENERS LOCATED AT THE OUTSIDE EDGES OF THE COVER PLATES SHALL BE WELDED AS FOLLOWS:
SINGLE BEVEL GROOVE WELD ON EXTERNAL SIDES AND 3/16" FILLET WELD BY 1" LONG SPACED AT 2" ON INTERNAL SIDES.

(11) STIFFENERS LOCATED ON THE INSIDE OF THE COVER PLATE SHALL BE WELDED AS FOLLOWS:
3/16" FILLET WELD BY 1" LONG SPACED AT 2".

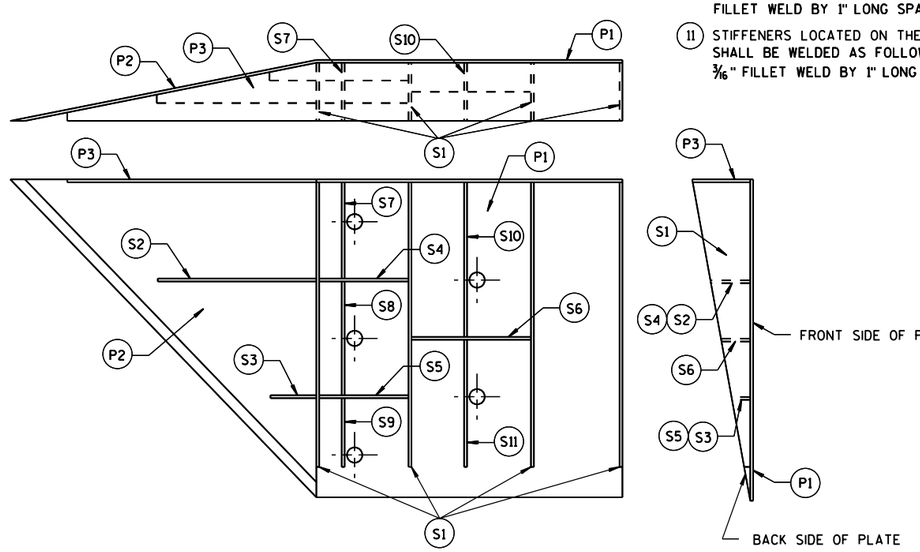

PLATE AND STIFFENER IDENTIFICATION

(VIEWED FROM BACK SIDE OF PLATE)

CONNECTOR PLATE DIMENSION (PER ASSEMBLY)

PLATE	QUANTITY	SHAPE	SIZE (A x B x C x D)	THICKNESS
P1	1		20" x 20"	3/16"
P2	1		20" x 20" x 28 9/16"	3/16"
P3	1		39" x 3 5/8" x 20" x 19 5/16"	3/16"
S1	4		18 7/16" x 3 3/8" x 18 3/4"	1/4"
S2	1		10 1/4" x 2 7/16" x 10 3/8" x 1/2"	1/4"
S3	1		3" x 1 1/16" x 3 1/8" x 1/2"	1/4"
S4	1		6 1/8" x 2 7/16"	1/4"
S5	1		6 1/8" x 1 1/16"	1/4"
S6	1		7 3/4" x 1 3/4"	1/4"
S7	1		2 9/16" x 6" x 3 5/8" x 5 7/8"	1/4"
S8	1		1 5/32" x 7 1/2" x 2 1/2" x 7 3/8"	1/4"
S9	1		6 1/16" x 6 3/16" x 1 1/32"	1/4"
S10	1		1 7/8" x 9 7/8" x 3 5/8" x 9 11/16"	1/4"
S11	1		8 1/2" x 8 3/4" x 1 13/16"	1/4"

SINGLE SLOPE CONNECTION PLATE

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June, 2015 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS ENGINEER
FHWA

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S.D.D. 14 B 45-4i

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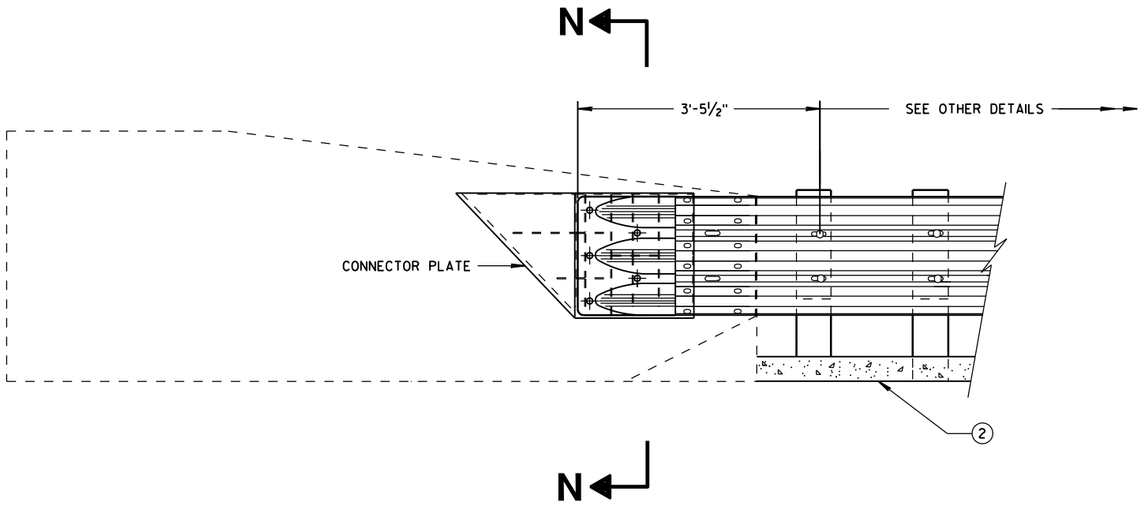
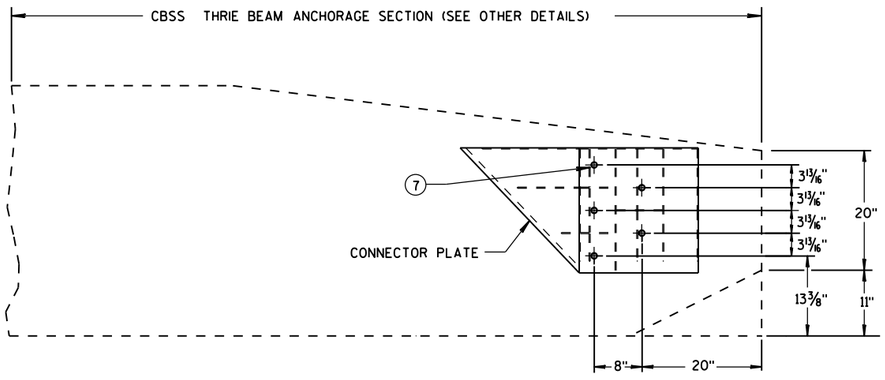
S.D.D. 14 B 45-4i



THRIE BEAM CONNECTION TO SINGLE SLOPE BARRIER



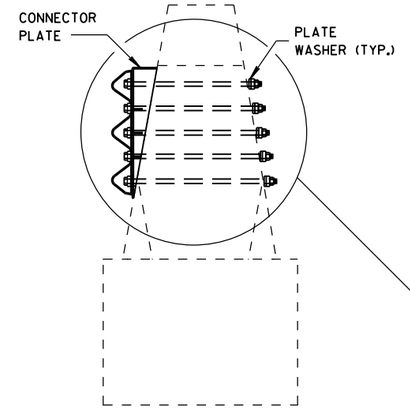
SINGLE SLOPE CONNECTION PLATE PLACEMENT

GENERAL NOTES

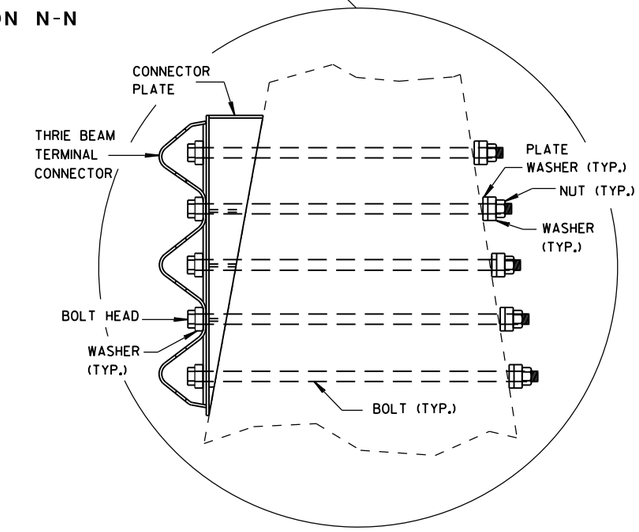
CONNECTOR PLATE, DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

(2) OPTIONAL CURB AND GUTTER OR DRAINAGE FEATURE SEE PLAN FOR INFORMATION.

(7) BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE. BOLTS THAT EXTEND THROUGH THE PARAPET AND OUT THE BACK FACE REQUIRE A HARDENED ROUND STEEL WASHER THAT IS 2" O.D. X 5/8" THICK AND ONE PLATE WASHER. REPAIR ANY DAMAGED CONCRETE FROM BOLT INSTALLATION.



SECTION N-N



MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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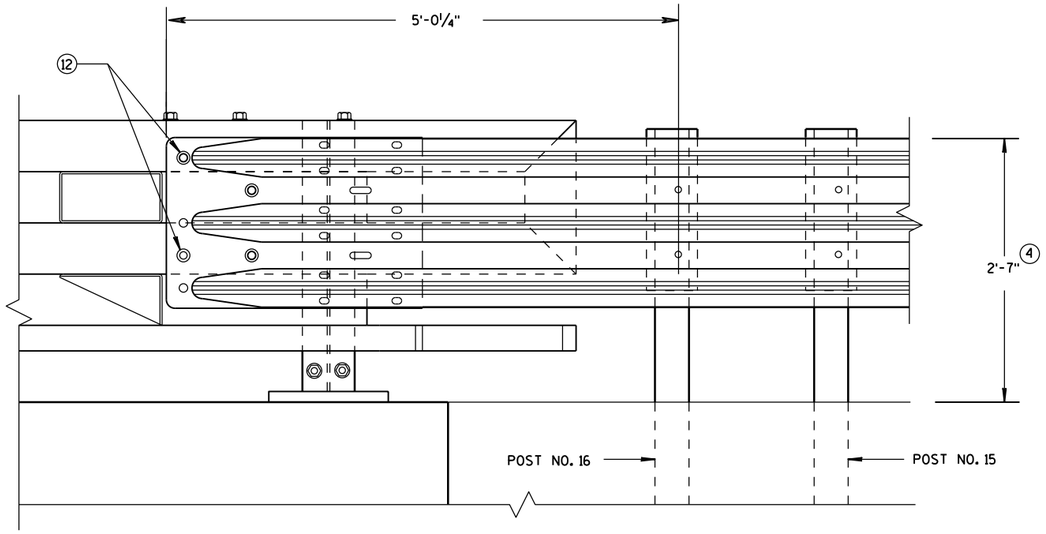
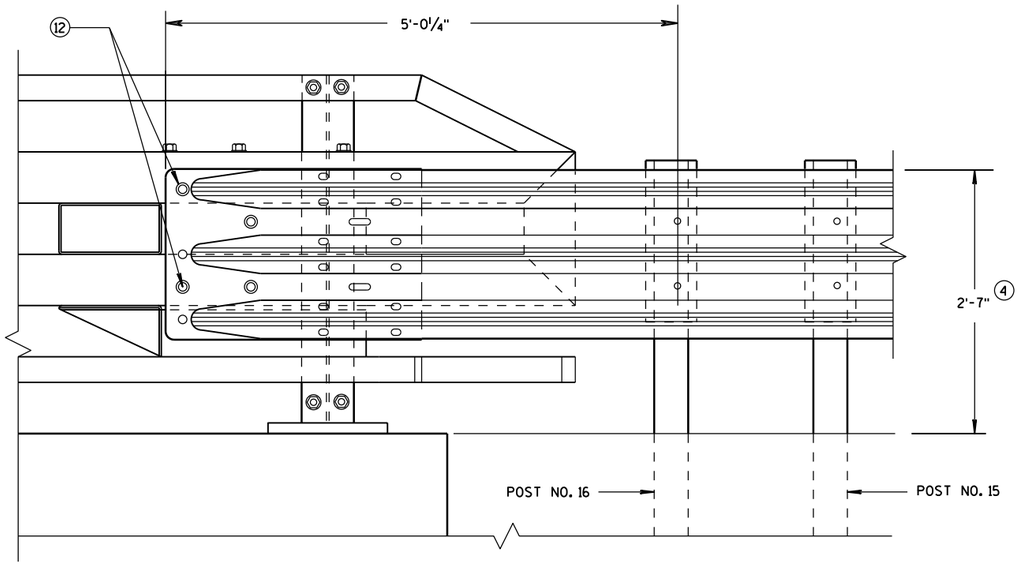


ELEVATION OF DETAIL AT NY3 END POST

THRIE BEAM RAIL ATTACHMENT



ELEVATION OF DETAIL AT NY4 END POST

THRIE BEAM RAIL ATTACHMENT

GENERAL NOTES

(4) TOLERANCE FOR TOP OF BEAM IS ± 1".

(12) BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE. ON BACKSIDE OF PARAPET ONE ROUND WASHER, AND NUT REQUIRED. BOLT THREAD IS TO EXTEND ½-INCH BEYOND NUT.

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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June, 2015
DATE

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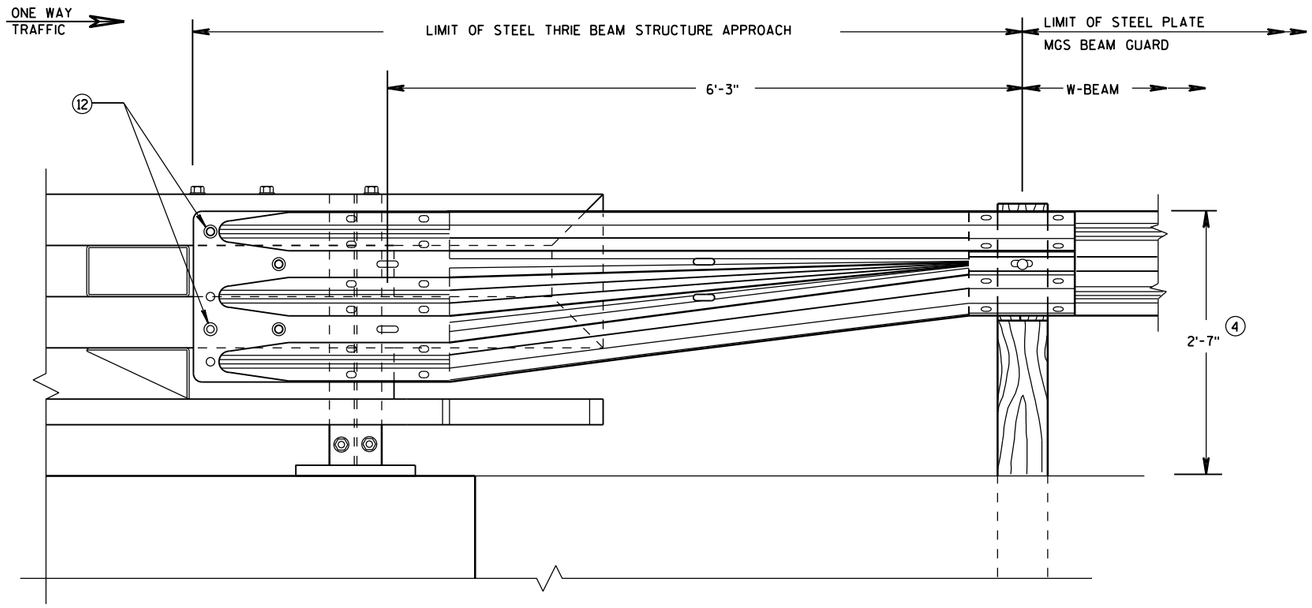
S.D.D. 14 B 45-4k



FRONT VIEW

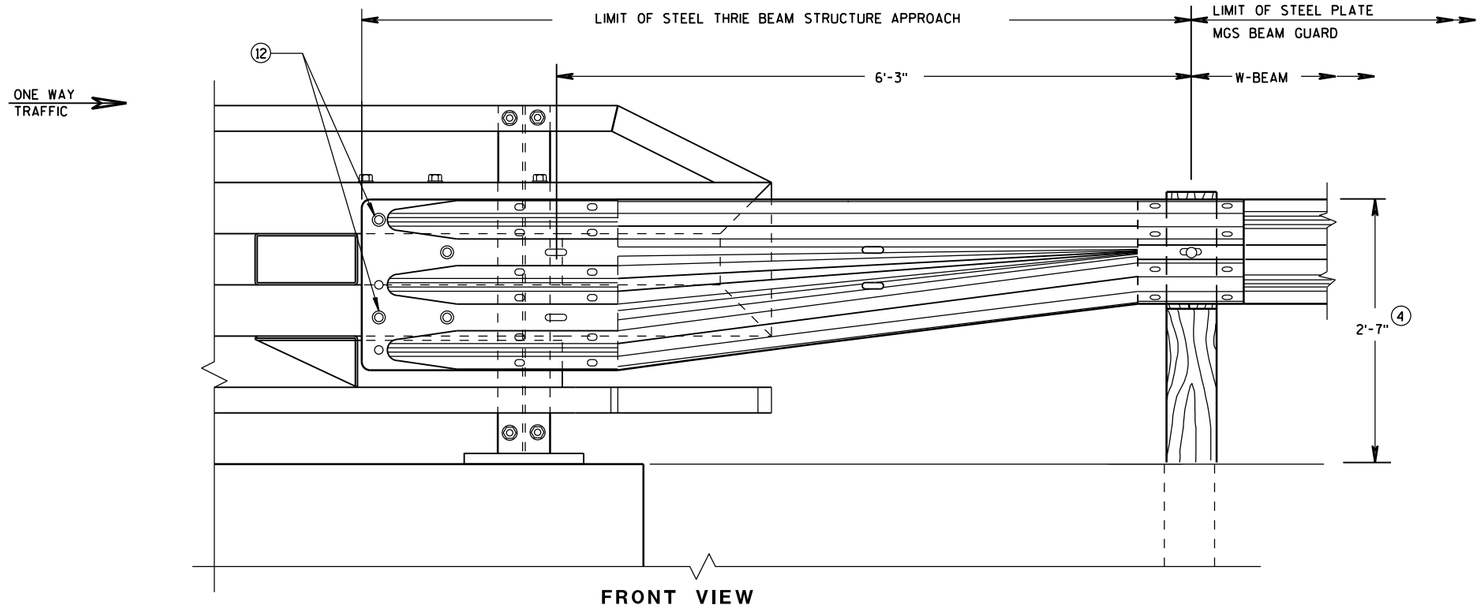
W BEAM TRANSITION AND CONNECTION TO BRIDGE RAILING TYPE "NY3"

(USE ONLY ON THE TRAFFIC EXIT END OF ONE WAY BRIDGES)

GENERAL NOTES

(4) TOLERANCE FOR TOP OF BEAM IS ± 1".

(12) BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE. ON BACKSIDE OF PARAPET ONE ROUND WASHER, AND NUT REQUIRED. BOLT THREAD IS TO EXTEND ½-INCH BEYOND NUT.



FRONT VIEW

W BEAM TRANSITION AND CONNECTION TO BRIDGE RAILING TYPE "NY4"

(USE ONLY ON THE TRAFFIC EXIT END OF ONE WAY BRIDGES)

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June, 2015
DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA

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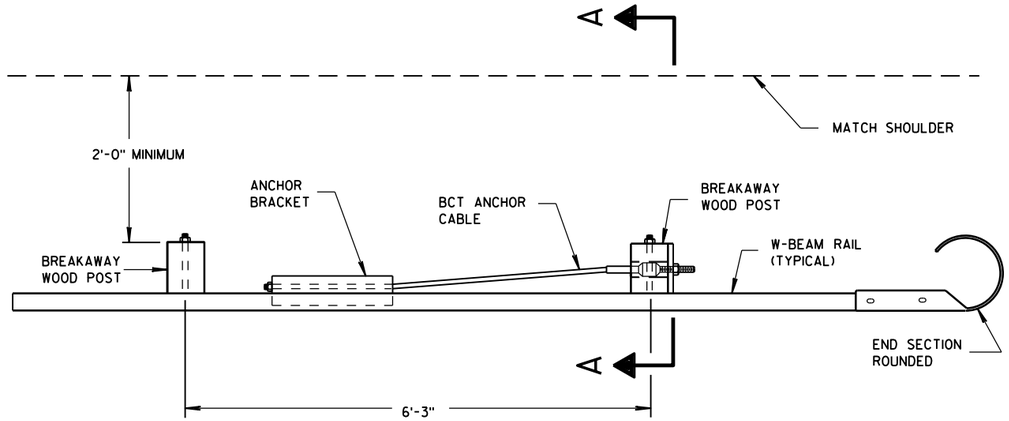
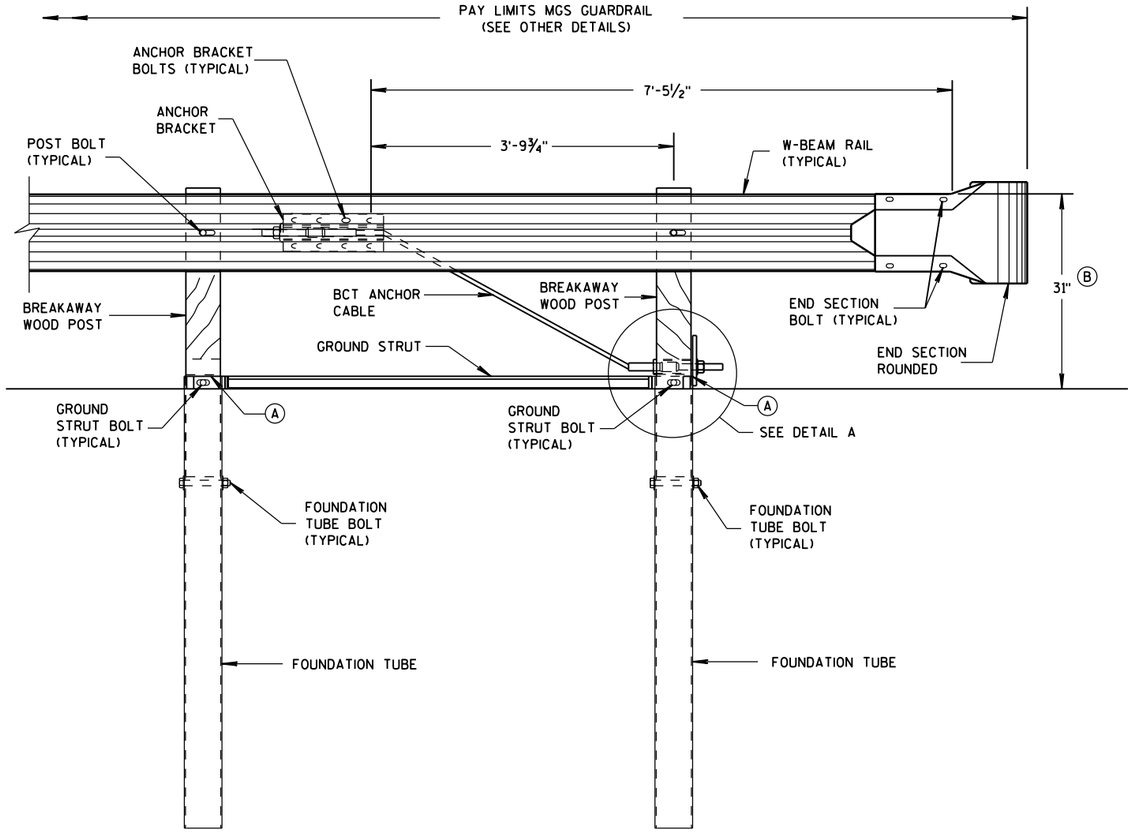
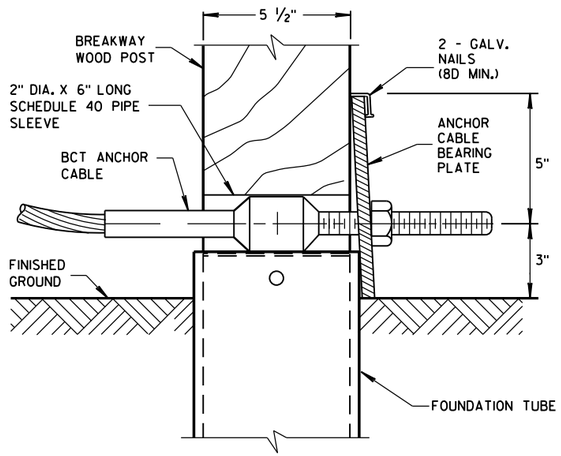


PLAN VIEW



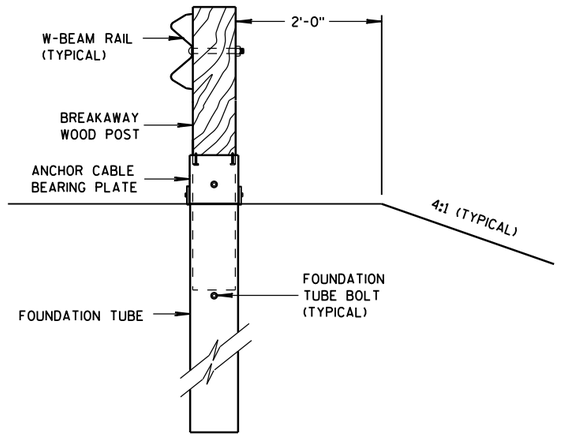
FRONT VIEW

END RAIL DETAIL



DETAIL A

POST NO. 1
GROUNG STRUT NOT SHOWN FOR CLARITY.



SECTION A-A

GENERAL NOTES

SEE SDD 14 B 42 FOR MORE INFORMATION.

END SECTION BOLTS AND NUTS HAVE THE SAME MATERIAL REQUIREMENTS AS SPLICE BOLTS.

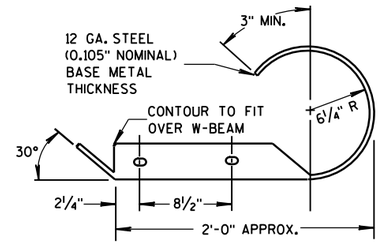
FOUNDATION TUBE BOLTS ARE ⅞" DIAMETER ASTM A307 HEX HEAD BOLT. FOUNDATION TUBE BOLTS REQUIRE ASTM A563 A NUT AND TWO ASTM F844 ⅞" DIAMETER FLAT WASHERS. INSTALL ONE WASHER UNDER BOLT HEAD AND ONE WASHER UNDER NUT.

ANCHOR BRACKET AND GROUND STRUT BOLTS ARE A ⅝" DIAMETER ASTM A307 HEX HEAD BOLT. ANCHOR BRACKET BOLTS REQUIRE ASTM A563 A NUT AND TWO ASTM F844 ⅝" DIAMETER FLAT WASHERS. INSTALL ONE WASHER UNDER BOLT HEAD AND ONE WASHER UNDER NUT.

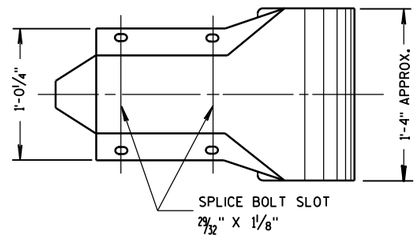
W-BEAM END SECTION ROUNDED HAS THE SAME MATERIAL PROPERTIES AS STANDARD STEEL RAIL.

(A) TOP OF FOUNDATION TUBE SHALL BE NO MORE THAN 3" ABOVE FINISHED GROUND.

(B) FOR NEW CONSTRUCTION TOP OF RAIL IS 31" ± 1".
FOR EXISTING INSTALLATIONS TOP OF RAIL IS BETWEEN 27¾" TO 32" ± 1".



PLAN VIEW



FRONT VIEW

W BEAM END
SECTION ROUNDED

MIDWEST GUARDRAIL
SYSTEM (MGS) TYPE 2 TERMINAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPO

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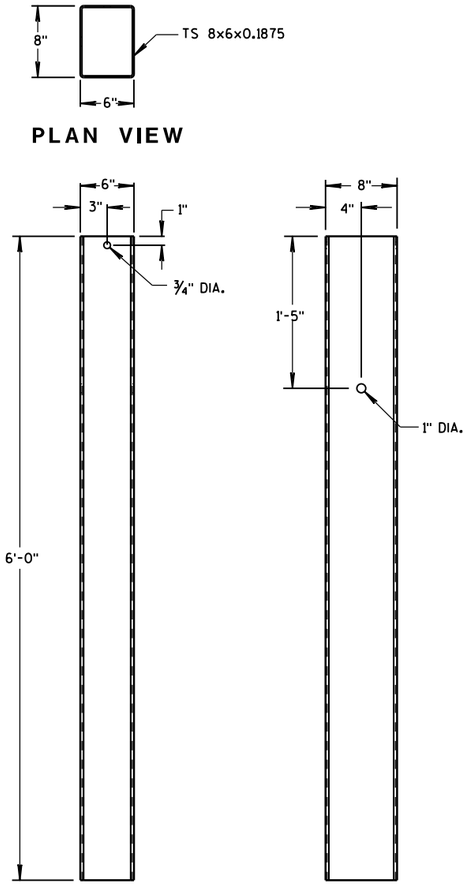
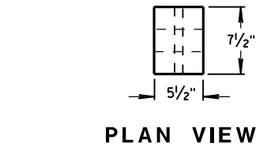
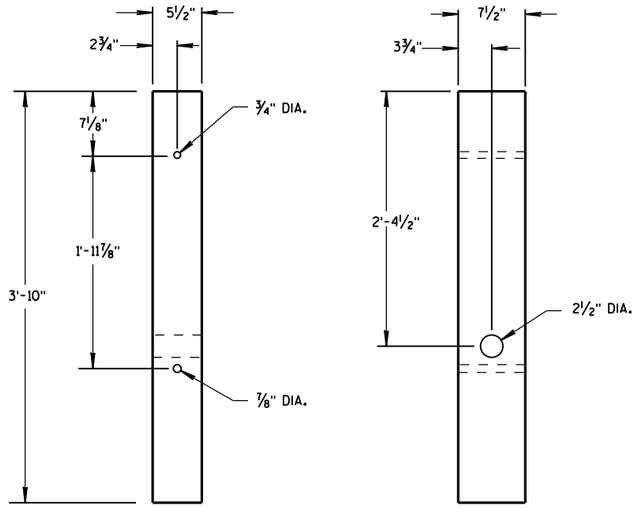
S.D.D. 14 B 47-2a



FOUNDATION TUBE



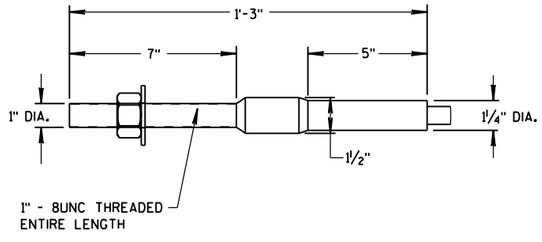


BREAKAWAY WOOD POST

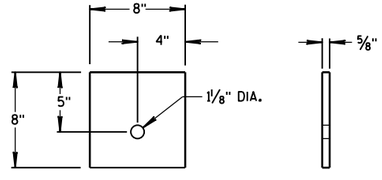
GENERAL NOTES

BCT ANCHOR CABLE IS A ¾" DIAMETER 6X19 IWRC IPS GALVANIZED WIRE ROPE. THE SWAGED FITTINGS AND STUD ARE REQUIRED. END FITTING SHALL BE MACHINED FROM HOT-ROLLED CARBON STEEL CONFORMING TO ASTM A576 GRADE 1035 AND GALVANIZED ACCORDING TO ASTM A123. TREADED STUD SHALL CONFORM TO ASTM A325 OR SAE GRADE 5. MINIMUM BREAKING STRENGTH OF WIRE ROPE IS 43,000 LB. WIRE ROPE IS TO BE TAUT.

BCT ANCHOR CABLE



DETAIL B



ANCHOR CABLE
BEARING PLATE

MIDWEST GUARDRAIL
SYSTEM (MGS) TYPE 2 TERMINAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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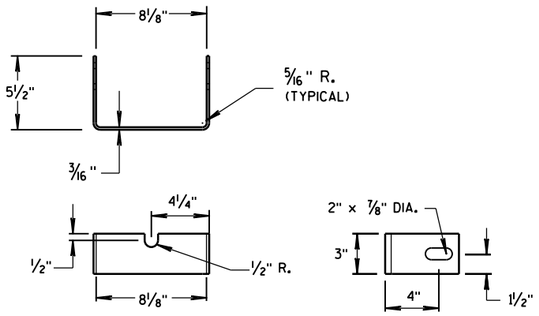
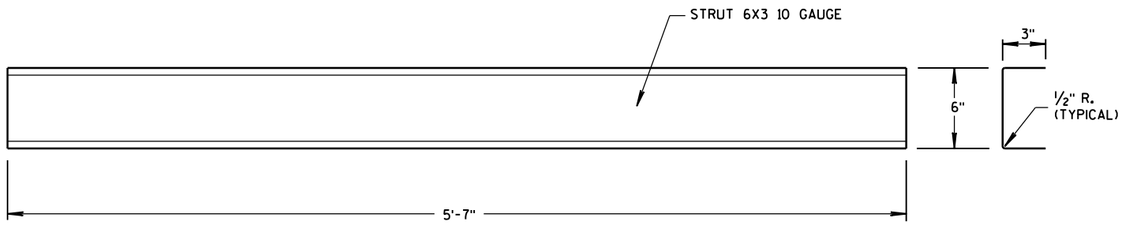
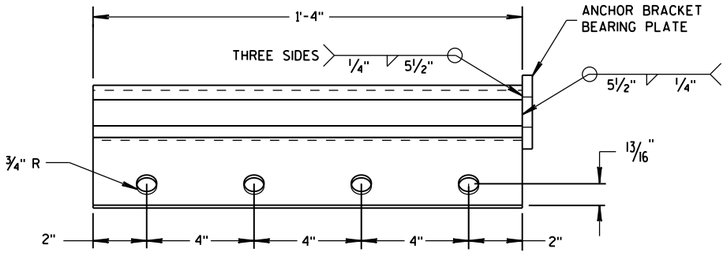
S.D.D. 14 B 47-2b

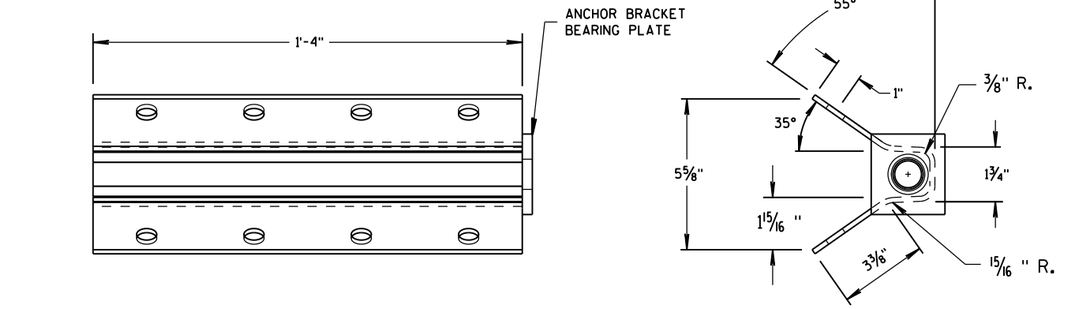


YOKE DETAIL

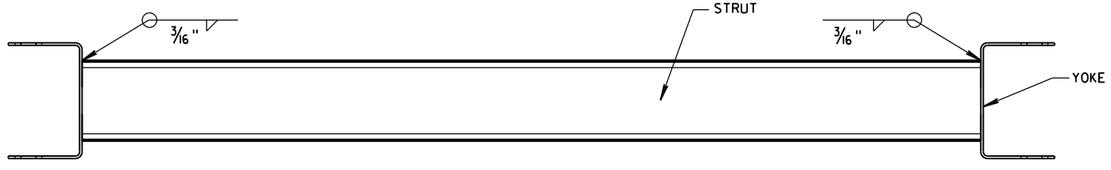


STRUT DETAIL

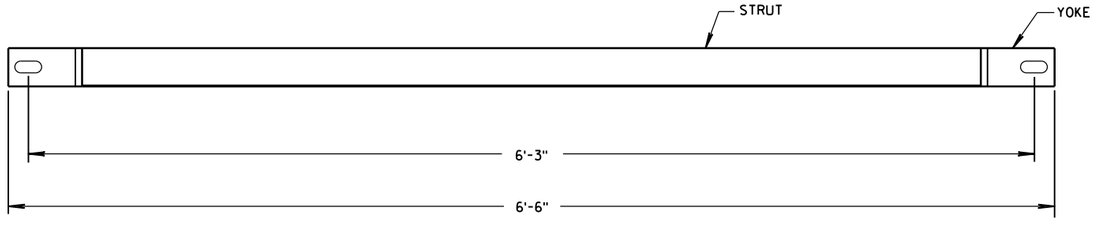




ANCHOR BRACKET

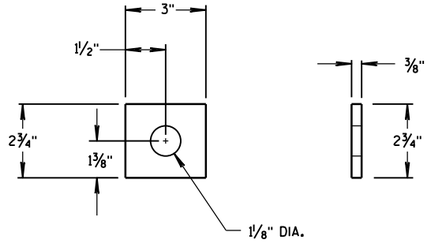


PLAN VIEW



FRONT VIEW

GROUND STRUT DETAIL



ANCHOR BRACKET BEARING PLATE

MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL

STATE OF WISCONSIN
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June 2014
DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS ENGINEER
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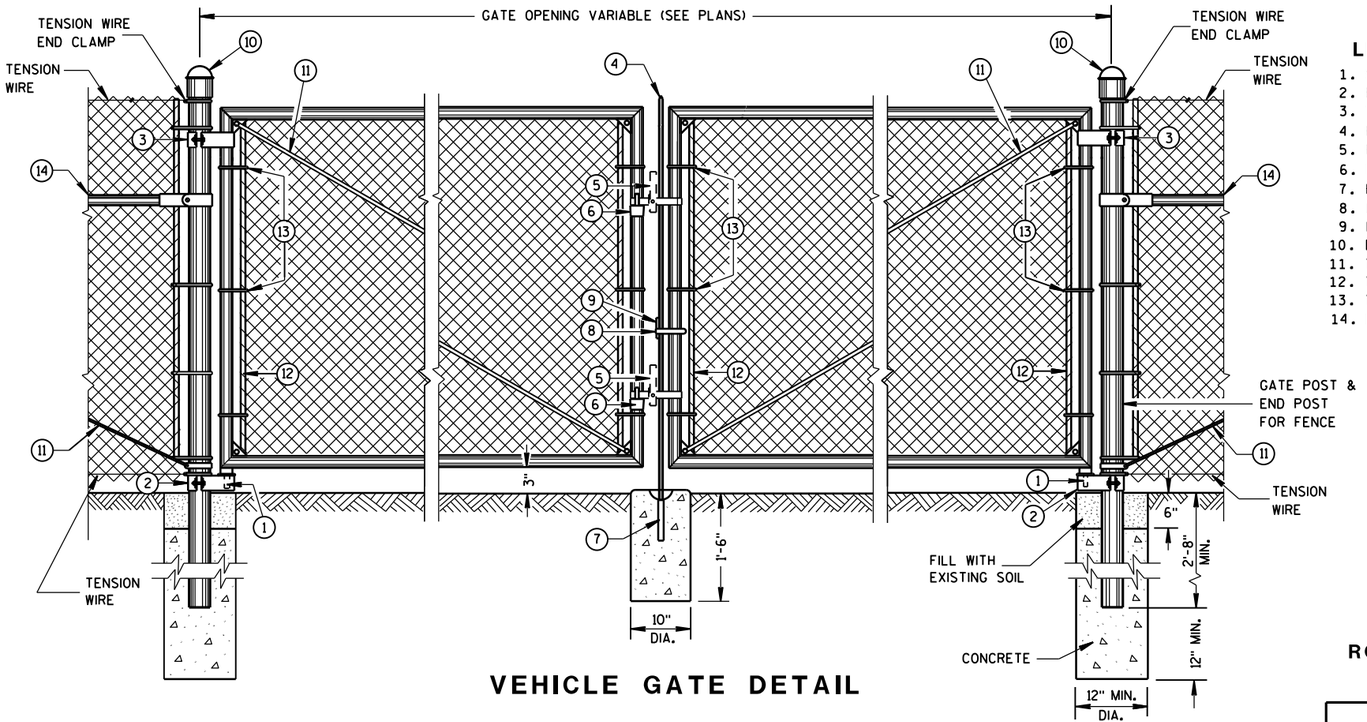
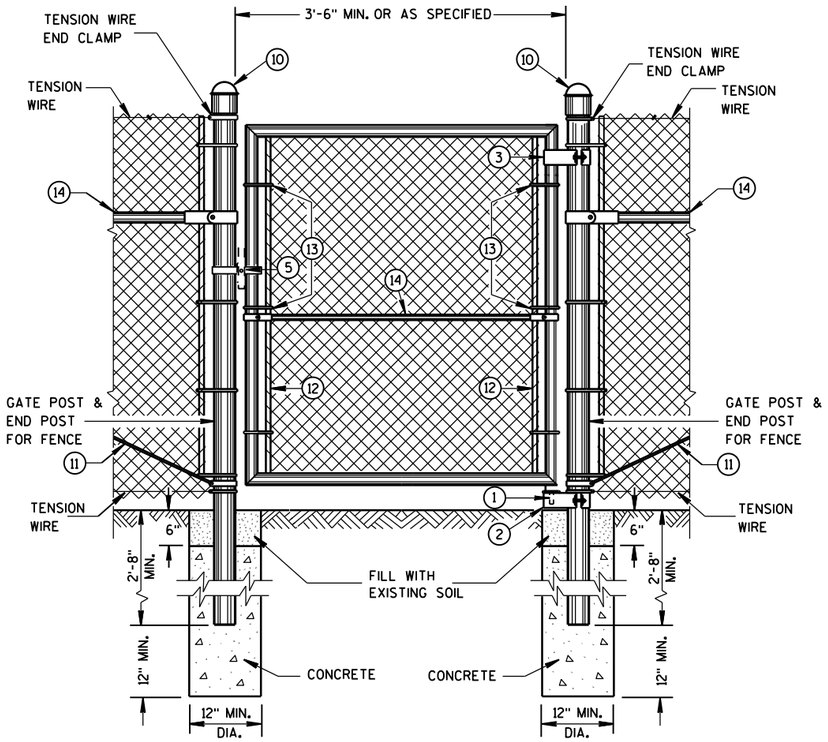
S.D.D. 14 B 47-2c



VEHICLE GATE DETAIL



PEDESTRIAN GATE DETAIL

LEGEND

1. STRAIGHT PLUG
2. BOTTOM HINGE
3. TOP HINGE
4. PLUNGER ROD
5. FULCRUM LATCH
6. FORK CATCH *
7. PLUNGER ROD CATCH
8. LOCK KEEPER GUIDE
9. LOCK KEEPER
10. DOME TOPS
11. TRUSS RODS
12. TENSION BAR
13. TENSION BANDS
14. BRACE RAIL

*NOT REQUIRED ON SINGLE SWING PEDESTRIAN GATE

GENERAL NOTES

FENCE POSTS INSTALLED ON CONCRETE WALLS SHALL BE ANCHORED INTO EMBEDDED METAL SLEEVES OR CORED HOLE BY FILLING THE ANNULAR SPACE WITH PEA GRAVEL FOLLOWED BY AN EPOXY RESIN ADHESIVE. THE EPOXY RESIN ADHESIVE SHALL CONFORM TO THE REQUIREMENTS OF AASHTO M 235, CLASS A, B OR C.

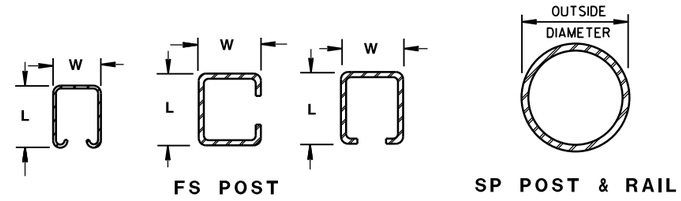
USE FENCE FABRIC KNUCKLED AT BOTH SELVAGES.

FOR LEAF GATES GREATER THAN 8 FEET WIDE, INSTALL INTERIOR VERTICAL BRACE RAIL AT 8 FOOT INTERVALS.

FOR FABRIC HEIGHTS GREATER THAN 8 FEET, INSTALL INTERIOR HORIZONTAL BRACE RAILS TO LEAF GATE.

MAXIMUM SAG FOR OUTER GATE MEMBER SHALL NOT EXCEED THE GREATER OF 1% OF THE LEAF GATE WIDTH OR 2 INCHES.

USE TYPE 2, CLASS 3, MARCELLED/CRIMPED, TENSION WIRE PER ASTM A 817.



CROSS SECTIONS OF POSTS AND RAILS

ROLLED-FORMED STEEL FENCE POST (2.0 OZ./SQ. FT. COATING)

POST TYPE	LENGTH (L) INCH	WIDTH (W) INCH	WEIGHT LBS/FT
FS1	1.625	1.25	1.35
FS2†	1.875	1.625	1.850
FS2	1.875	1.625	2.400
FS3	2.250	1.700	2.780

ROUND STEEL FENCE POST (1.8 OZ./SQ. FT. COATING)

POST TYPE	OUTSIDE DIMENSION INCH	WALL THICKNESS INCH	WEIGHT LBS/FT
SP1	1.660	0.140	2.270
SP2	1.900	0.145	2.720
SP3	2.375	0.154	3.650
SP4	2.875	0.203	5.800
SP5	4.000	0.226	9.120
SP6	6.625	0.280	18.990
SP7	8.625	0.322	28.580

REQUIRED FENCE POST SIZES

USE	FABRIC HEIGHTS FEET	POST TYPE
TERMINAL POSTS **	LESS THAN OR EQUAL TO 6 FT.	SP3
	GREATER THAN OR EQUAL TO 6 FT.	SP4
LINE POSTS	LESS THAN OR EQUAL TO 6 FT.	SP2
	LESS THAN OR EQUAL TO 8 FT.	SP3
	GREATER THAN OR EQUAL TO 8 FT.	SP4
	LESS THAN OR EQUAL TO 8 FT.	FS2 OR FS2†
	GREATER THAN OR EQUAL TO 8 FT.	FS3

REQUIRED POST SIZE FOR GATES

USE	LEAF WIDTHS FEET	POST TYPE
GATES	LESS THAN OR EQUAL TO 6 FT.	SP4
	LESS THAN OR EQUAL TO 13 FT.	SP5
	LESS THAN OR EQUAL TO 18 FT.	SP6
	LESS THAN OR EQUAL TO 23 FT.	SP7

BRACE RAIL TYPES

USE		TYPE
BRACE RAIL		SP1 OR FS1

** INCLUDES END, CORNER, ANGLE, INTERSECTION AND INTERMEDIATE BRACED POSTS

FENCE CHAIN LINK

STATE OF WISCONSIN
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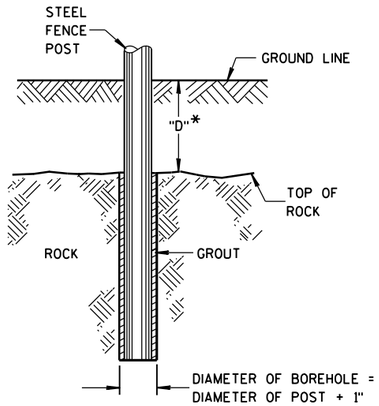
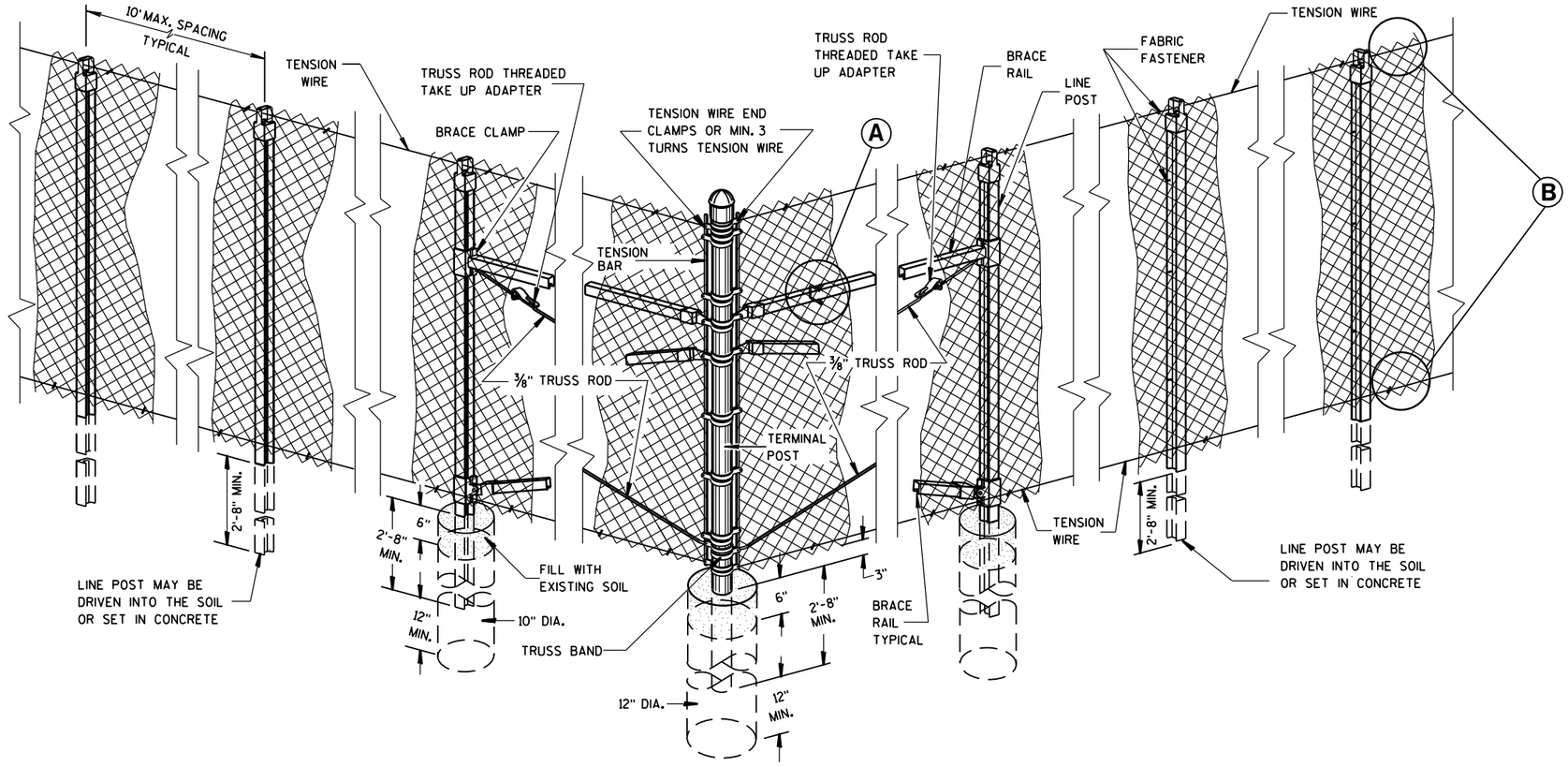
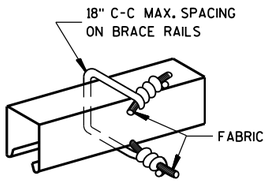


*IF "D" IS LESS THAN 2'-6", DRILL ROCK AND INSTALL GROUT

ROCK INSTALLATION OF LINE POST



END, CORNER, ANGLE INTERSECTION & INTERMEDIATE BRACED POSTS



BRACE RAIL

FABRIC FASTENER

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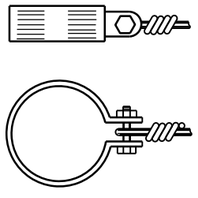
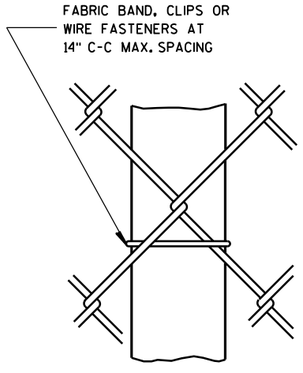


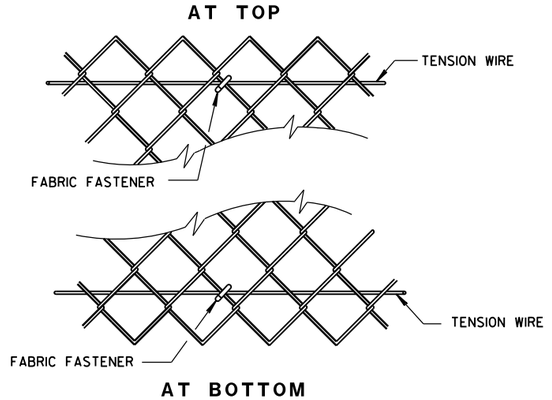
TENSION WIRE END CLAMP



LINE POST

FABRIC FASTENER

AT TOP



AT BOTTOM

SELVAGES

Ⓑ

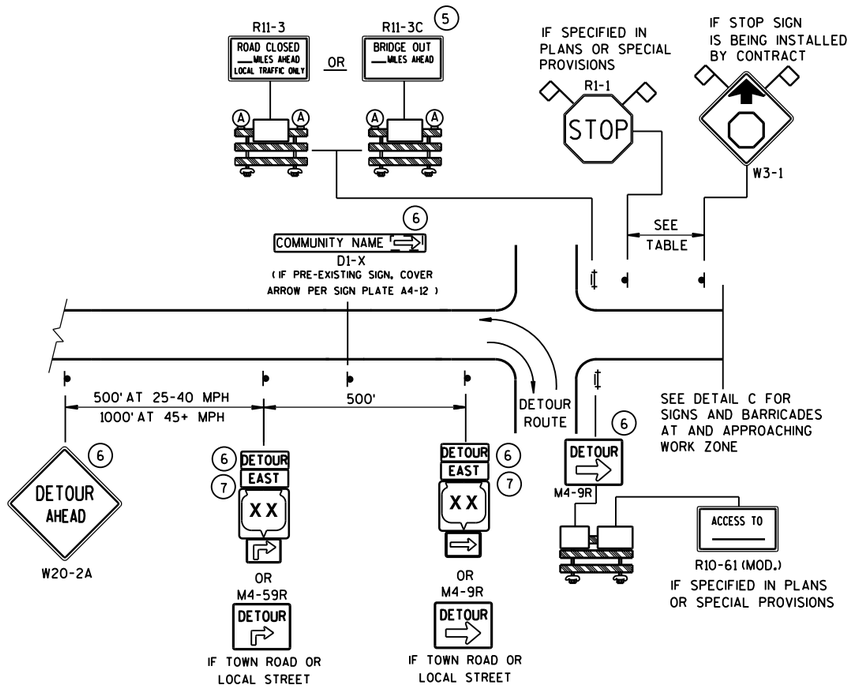
FENCE CHAIN LINK

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
FEB. 2015 DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA

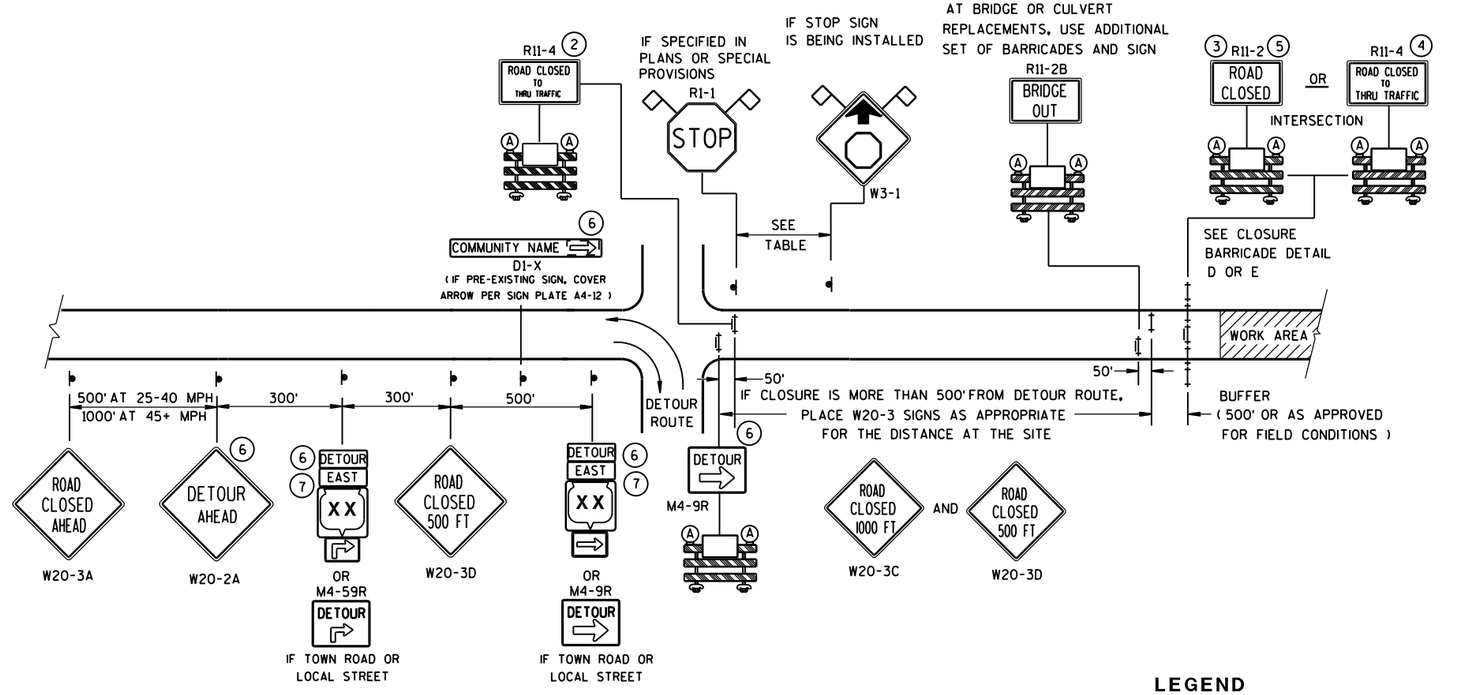
6

S.D.D. 15 B 3-15b



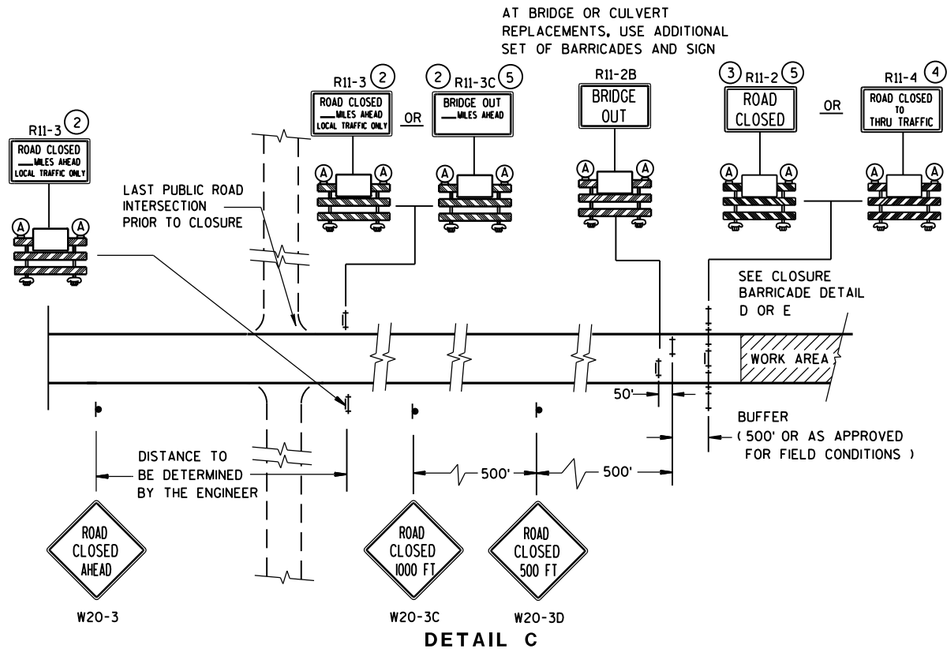
DETAIL A
MAINLINE CLOSURE WITH POSTED DETOUR

WORK ZONE GREATER THAN ½ MILE FROM DETOUR ROUTE (1000 FEET IF URBAN)



DETAIL B
MAINLINE CLOSURE WITH POSTED DETOUR

WORK ZONE LESS THAN ½ MILE FROM DETOUR ROUTE (1000 FEET IF URBAN)



DETAIL C
MAINLINE CLOSURE, NO POSTED DETOUR

SPEED LIMIT (MPH)	"STOP AHEAD" ADVANCE WARNING DISTANCE (FT)
25	200
30	200
35	350
40	350
45	500
50	550
55	750

LEGEND

- SIGN ON PERMANENT SUPPORT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- (A) TYPE "A" WARNING LIGHT (FLASHING)
- WORK AREA
- DETOUR / EAST — M4-8 / M3-X
- XX — M1-4; COUNTY XX — M1-5A; XX — M1-6
- M05-1 OR M06-1
- FLAGS, 16" X 16" MIN., (ORANGE)

SEE SDD 15C2-SHEET "**b**" FOR GENERAL NOTES AND FOOTNOTES (1) THROUGH (7)

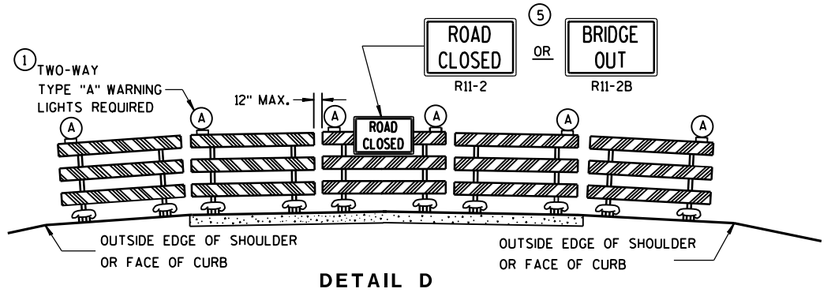
BARRICADES AND SIGNS FOR MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

Sept. 2015 — DATE
/S/ Peter Amakobe Atepe
STATEWIDE WORK ZONE TRAFFIC SAFETY ENGINEER
FHWA

S.D.D. 15 C 2-6a

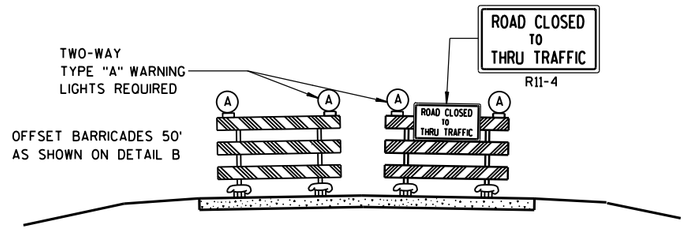
6



DETAIL D

ROAD CLOSURE BARRICADE DETAIL

APPROACH VIEW



DETAIL E

LANE CLOSURE BARRICADE DETAIL

APPROACH VIEW

SEE SDD 15C2-SHEET "**a**" FOR LEGEND

GENERAL NOTES

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND BARRICADES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A DESIRABLE MINIMUM OF 200 FEET CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

BARRICADES THAT MUST BE MOVED FOR A WORK OPERATION SHALL BE IMMEDIATELY RE-ESTABLISHED UPON COMPLETION OF THE OPERATION OR, FOR CONTINUING OPERATIONS, AT THE END OF EACH WORKING DAY.

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

ALL TYPE III BARRICADES SHALL HAVE RAILS REFLECTORIZED ON BOTH FACES. STRIPES SHALL BE PROPERLY SLOPED DOWN TOWARD THE TRAFFIC SIDE OR AS SHOWN IN THE ROAD CLOSURE BARRICADE DETAIL D FOR FULL ROAD CLOSURES.

TYPE "A" LOW-INTENSITY FLASHING WARNING LIGHTS SHALL BE VISIBLE ON BOTH SIDES OF THE BARRICADE.

THE R11-2, R11-3, M4-9, R11-4 AND R10-61 SIGNS PLACED ON BARRICADES SHALL COVER NO MORE THAN THE TOP RAIL. THE SIGNS SHALL NOT COVER ANY PORTION OF THE MIDDLE OR BOTTOM RAILS.

"WO AND "MO" SIGNS ARE THE SAME AS "W" AND "M" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

ALL SIGNS SHALL BE 48" X 48" UNLESS OTHERWISE NOTED BELOW:
- R11-2 SHALL BE 48" X 30".
- R11-3, R11-4 AND R10-61 SHALL BE 60" X 30".
- M4-9 SHALL BE 30" X 24".
- M3-X SHALL BE 24" X 12". (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS.)
- M4-8 SHALL BE 24" X 12". (30" X 15" IF NEEDED TO MATCH EXISTING SIGNS.)
- M1-4, M1-5A, AND M1-6 SHALL BE 24" X 24". (36" X 36" IF NEEDED TO MATCH EXISTING SIGNS.)
- M05-1 AND M06-1 SHALL BE 21" X 21". (30" X 30" IF NEEDED TO MATCH EXISTING SIGNS.)
- D1-X SHALL BE AS SHOWN ON SPECIFIC PROJECT SIGNING DETAIL SHEETS.
- R1-1 SHALL BE 36" X 36".

(1) TWO WARNING LIGHTS SHALL BE PROVIDED ON THE CENTER BARRICADE AND A MINIMUM OF ONE WARNING LIGHT SHALL BE PROVIDED ON EACH OF THE OTHER BARRICADES WITHIN THE ROADWAY LIMITS. SPACING OF THE WARNING LIGHTS SHALL BE UNIFORM TO THE EDGE OF ROADWAY AS SHOWN (APPROX. 8-FOOT LIGHT SPACING).

(2) THESE SIGNS AND BARRICADES ARE NOT REQUIRED IF ROAD CLOSURE BEGINS AT INTERSECTION.

(3) FOR ROAD CLOSURE WITHOUT LOCAL ACCESS TO PROJECT, SEE ROAD CLOSURE BARRICADE DETAIL D.

(4) FOR ROAD CLOSURE WITH LOCAL ACCESS TO PROJECT, SEE LANE CLOSURE BARRICADE DETAIL E.

(5) FOR BRIDGE OR CULVERT REPLACEMENTS, SUBSTITUTE "BRIDGE OUT" INSTEAD OF "ROAD CLOSED" ON R11-2 AND R11-3 SIGNS.

(6) INSTALL DETOUR AND COMMUNITY GUIDE SIGNS AND ARROWS ONLY IF SPECIFIED IN THE CONTRACT. IF THERE ARE EXISTING ROUTE MARKER ASSEMBLIES THAT WILL REMAIN IN PLACE, ADJUST THE LOCATION OF THE DETOUR ROUTE SIGNS TO CORRESPOND WITH THE EXISTING ASSEMBLIES. MODIFY EXISTING SIGNS WHERE POSSIBLE. SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS. IF DETOUR SIGNS ARE BEING INSTALLED BY OTHERS, PLACE THE CONTRACTED TRAFFIC CONTROL SIGNS TO ALLOW FOR PLACEMENT OF ALL WARNING, DETOUR AND GUIDE SIGNS AS SHOWN.

(7) "EAST" CARDINAL DIRECTION MARKERS AND RIGHT TURN ARROWS ARE SHOWN. USE OTHER CARDINAL DIRECTIONS AND ARROWS AS APPROPRIATE.

BARRICADES AND SIGNS FOR MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

Sept. 2015 — DATE
/S/ Peter Amakobe Atepe — STATEWIDE WORK ZO SAFETY ENGI
FHWA

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S.D.D. 15 C 2-6b

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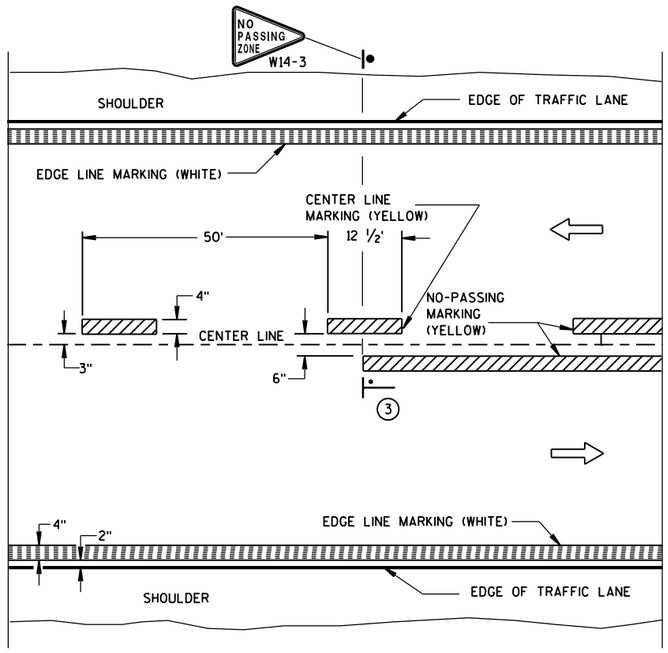
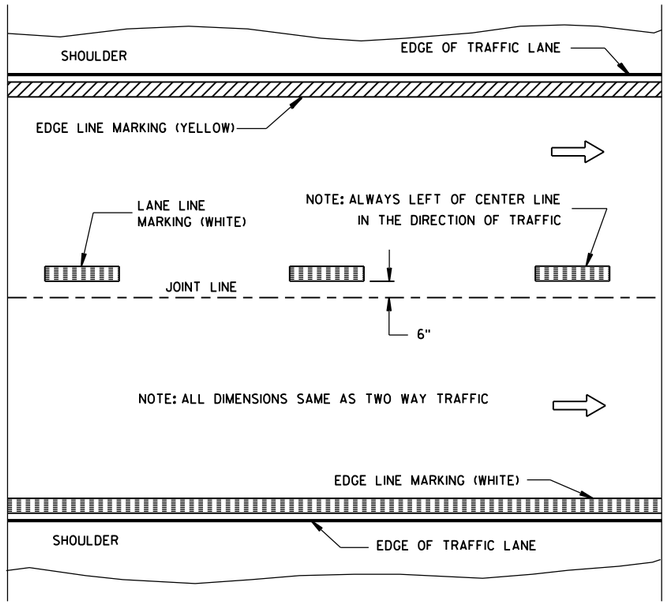
S.D.D. 15 C 2-6b

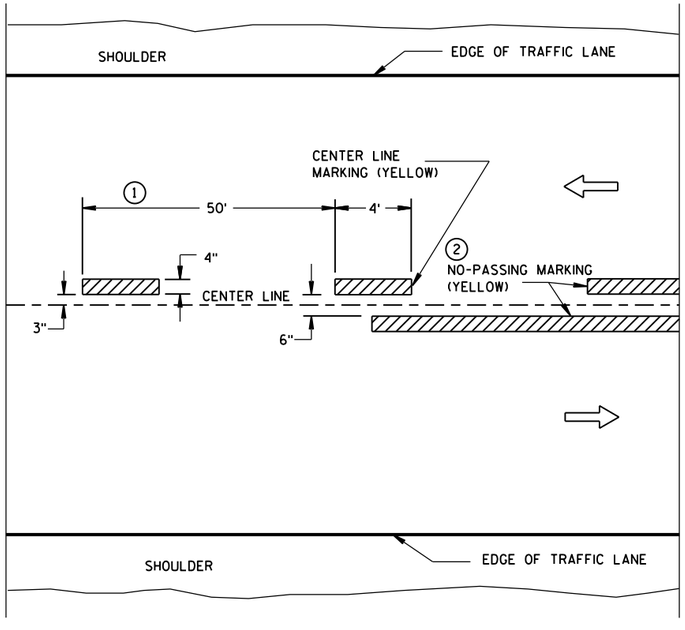


TWO WAY TRAFFIC

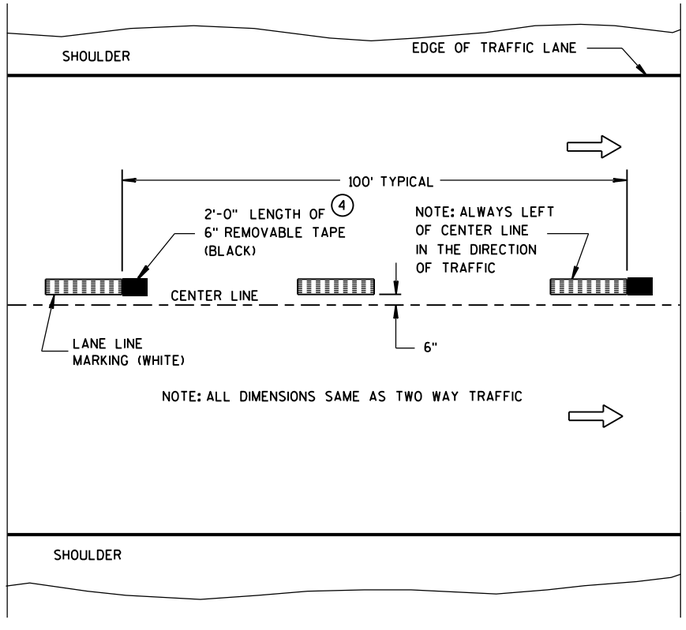


ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING



TWO WAY TRAFFIC



ONE WAY TRAFFIC

TEMPORARY (INTERMEDIATE) PAVEMENT MARKING

(SHOWS CYCLE FOR TEMPORARY CENTER LINE OR TEMPORARY LANE LINE MARKING)

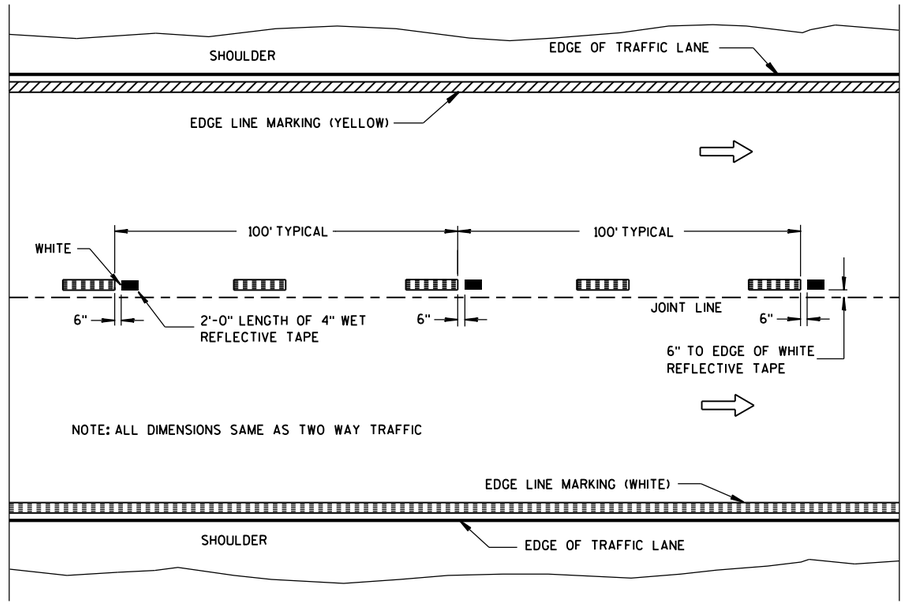
GENERAL NOTES

DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO STANDARD SPECIFICATIONS AND SPECIAL PROVISIONS.

1. HALF CYCLE LENGTHS (25'±) WITH 2' MINIMUM STRIPE LENGTHS SHALL BE PROVIDED ON ROADWAYS (INCLUDING TEMPORARY TRAVELED WAYS) WITH REVERSE CURVATURE, CURVATURE OF OVER 5 DEGREES OR WHEN DIRECTED BY THE ENGINEER TO MARK UNUSUAL ALIGNMENT OF THE TRAVELED WAY.
2. NO PASSING ZONE TEMPORARY PAVEMENT MARKING IS REQUIRED TO BE PLACED, WHERE APPROPRIATE, ALONG WITH CENTERLINE TEMPORARY PAVEMENT MARKING WHEN A SAME DAY PERMANENT PAVEMENT MARKING ITEM IS INCLUDED IN THE CONTRACT.
3. NO PASSING ZONE MARKINGS ARE PLACED ACCORDING TO "T" MARKINGS. IF EXISTING NO PASSING ZONE W14-3 SIGNS ARE BEYOND 50 FEET IN EITHER DIRECTION, THE SIGNS SHALL BE MOVED TO THE "T" MARKINGS.
4. CONCRETE ONLY.

NOTE

ARROW SYMBOL (⇨) SHOWS DIRECTION OF TRAVEL



WET REFLECTIVE TAPE SUPPLEMENT TO
SPRAYED OR NON WET REFLECTIVE TAPE LANE LINE

LEGEND

"T" MARKING

POST MOUNTED SIGN

PAVEMENT MARKING (MAINLINE)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

5-13-2013 DATE

/S/ Travis Feltes STATE TRAFFIC E

FHWA

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S.D.D. 15 C 8-16a

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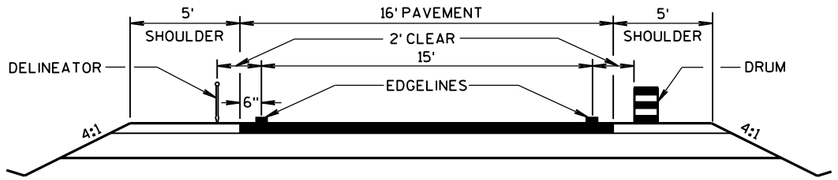
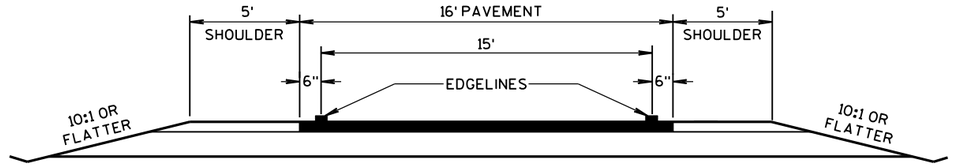
S.D.D. 15 C 8-16a



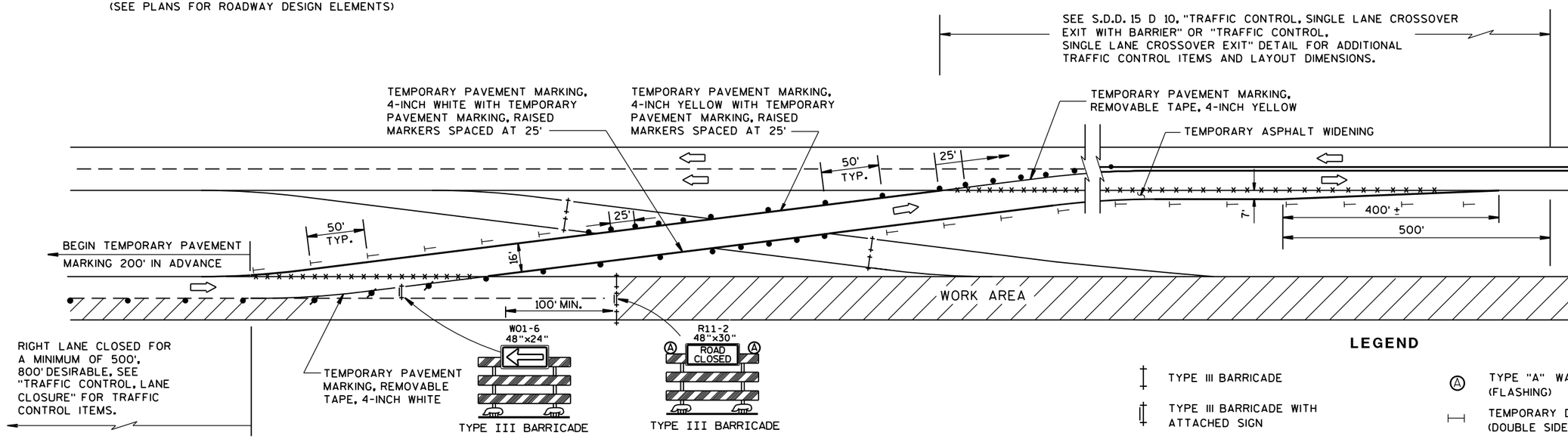
TYPICAL TEMPORARY CROSSOVER ROADWAY DIMENSIONS

(SEE PLANS FOR ROADWAY DESIGN ELEMENTS)



TYPICAL CROSSOVER TO REMAIN IN PLACE ROADWAY DIMENSIONS

(SEE PLANS FOR ROADWAY DESIGN ELEMENTS)



LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- TRAFFIC CONTROL DRUM
- TEMPORARY DELINEATOR (STEEL POST W/SINGLE DELINEATOR) COLOR OF DELINEATOR SHALL MATCH THE COLOR OF THE RESPECTIVE EDGELINE MARKING
- TYPE "A" WARNING LIGHT (FLASHING)
- TEMPORARY DELINEATOR (DOUBLE SIDED)
- REMOVING PAVEMENT MARKINGS
- DELINEATOR FLEXIBLE/ TUBULAR MARKER
- DIRECTION OF TRAFFIC
- WORK AREA

GENERAL NOTES

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

THE SPACING BETWEEN PROPOSED SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND TO PROVIDE A MINIMUM OF 200 FEET (500 FEET DESIRABLE) DISTANCE TO EXISTING SIGNS.

TEMPORARY PAVEMENT MARKING REMOVABLE TAPE SHALL BE USED WHEN CROSSING PERMANENT ROADWAY SURFACES THAT WILL REMAIN AFTER USE OF CROSSOVER AND TEMPORARY PAVEMENT MARKING WHERE USED.

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED.

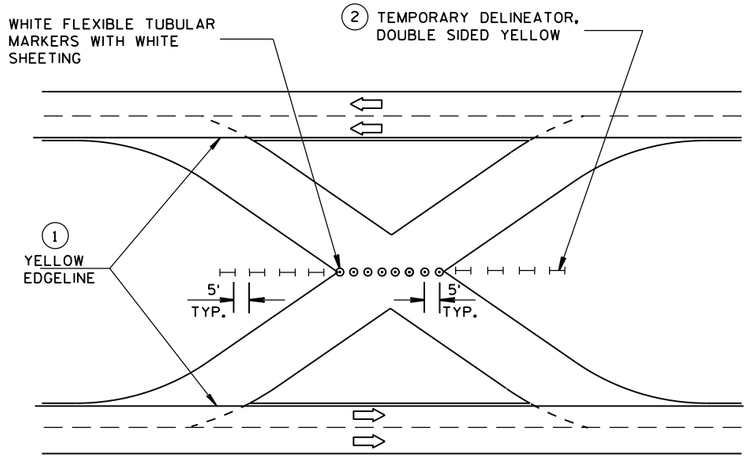
"WO" IS THE SAME AS "W" EXCEPT THE BACKGROUND IS ORANGE.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH THE TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER. NO WARNING LIGHTS SHALL BE WORKING ON "COVERED" OR "DOWNED" SIGNS.

REVERSE DEVICES WHEN OTHER LEG OF CROSSOVER IS IN USE.

(1) FOR PERMANENT CROSSOVER, PAVEMENT MARKING SHOULD CONFORM TO SECTION 646 OF THE STANDARD SPECIFICATIONS.

(2) FOR PERMANENT CROSSOVER, INSTALL PERMANENT DELINEATORS ACCORDING TO SECTION 633 OF THE STANDARD SPECIFICATIONS.



TRAFFIC CONTROL FOR CROSSOVER THAT IS NOT IN USE

TRAFFIC CONTROL, SINGLE LANE CROSSOVER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

10-16-2015
DATE

/S/ Peter Amakobe Atepe
STATEWIDE WORK ZONE SAFETY ENGINEER

FHWA

6

S.D.D. 15 D 11-6

6

S.D.D. 15 D 11-6

LEGEND

- TYPE III BARRICADE WITH ATTACHED SIGN
- SIGN ON PERMENENT SUPPORT
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- TRAFFIC CONTROL DRUM
- FLASHING ARROW BOARD
- (A) TYPE "A" WARNING LIGHT (FLASHING)
- REMOVING PAVEMENT MARKING
- DIRECTION OF TRAFFIC
- WORK AREA

GENERAL NOTES

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

THE SPACING BETWEEN SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND TO PROVIDE A MINIMUM OF 200 FEET, (500 FEET DESIREABLE) DISTANCE TO EXISTING SIGNS.

THIS LANE CLOSURE IS TYPICAL FOR CLOSING RIGHT LANE - REVERSE FOR CLOSING LEFT LANE.

ALL SIGNS ARE 48"×48" UNLESS OTHERWISE NOTED.

"WO" IS THE SAME AS "W" EXCEPT THE BACKGROUND IS ORANGE.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER. NO WARNING LIGHTS SHALL BE WORKING ON "COVERED" OR "DOWNED" SIGNS.

CONSIDER GEOMETRICS WHEN LOCATING SIGNS AND ARROW BOARD SO THE DRIVER HAS A CLEAR VIEW OF THE ARROW BOARD AND LANE CLOSURE DRUMS FOR A MINIMUM 1500 FEET IN FRONT OF DRUMS.

FOR A LANE CLOSURE THAT IS IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS, THE ADVANCED WARNING SIGNS MAY BE MOUNTED ON PORTABLE SUPPORTS.

REMOVE PAVEMENT MARKINGS IF LANE CLOSURE IS TO BE IN PLACE FOR LONGER THAN 4 OR MORE DAYS AND NIGHTS.

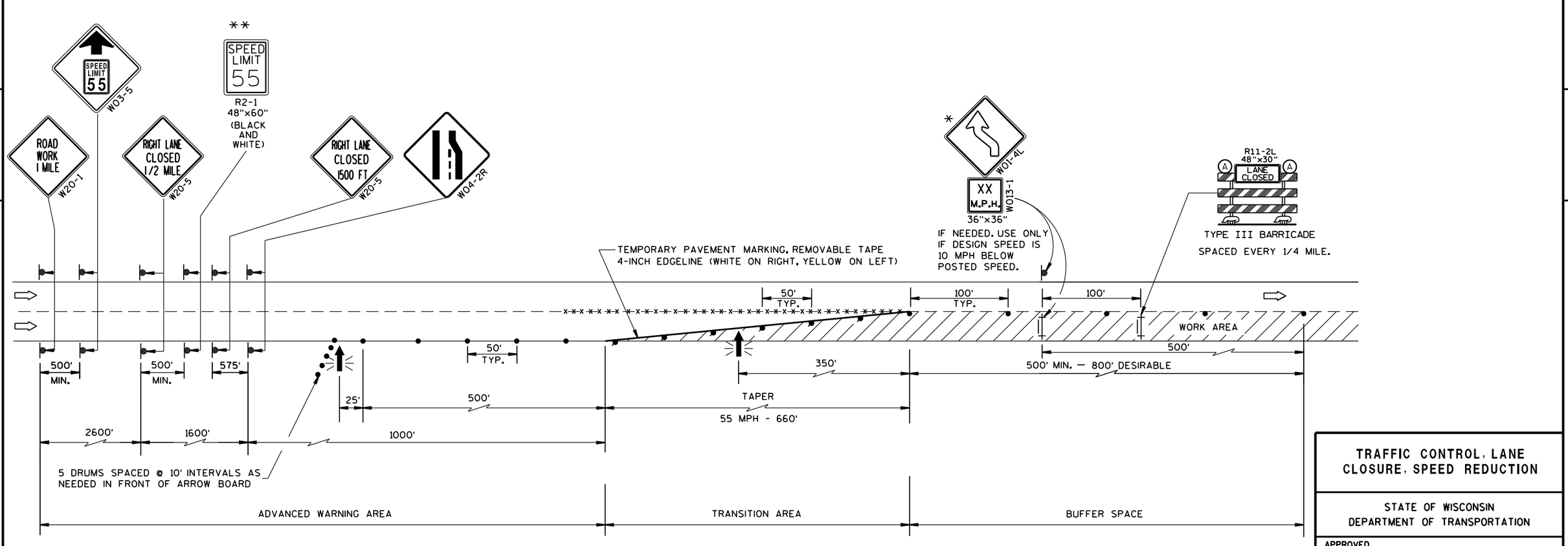
WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

IF THE HORIZONTAL ALIGNMENT IS SUCH THAT A CURVE MAY REQUIRE ADDITIONAL DELINEATION, THE DEVICE SPACING MAY BE DECREASED TO 50 FEET.

ADJUSTMENTS IN BUFFER SPACE NEED TO BE INCORPORATED WHEN THE LANE CLOSURE OCCURS NEAR AN INTERCHANGE EXIT OR ENTRANCE RAMP. THE LANE CLOSURE MUST MUST TAKE PLACE FAR ENOUGH IN ADVANCE OF AN EXIT OR ENTRANCE RAMP TO STILL ALLOW FOR ADEQUATE BUFFER SPACE. THE MINIMUM LENGTH OF THE BUFFER SPACE BEFORE AN EXIT RAMP SHOULD BE 1/2 THE LENGTH OF THE TRANSITION AREA. THE ENTRANCE RAMP SHOULD BE FOLLOWED BY THE ORIGINAL BUFFER SPACE LENGTH OF 800 FEET DESIRABLE PRIOR TO ANOTHER TRAFFIC CONTROL CHANGE SUCH AS A CROSSOVER MANEUVER.

* THE LEFT REVERSE CURVE SIGN (WO1-4L) IS ONLY REQUIRED WHEN THIS DETAIL IS USED IN COMBINATION WITH "SINGLE LANE CROSSOVER" DETAIL.

** A SPEED LIMIT SIGN SHALL BE LOCATED 1500 FEET BEYOND THE END OF THE ACCELERATION LANE OF EACH ENTRANCE RAMP. THERE SHOULD BE A SPEED LIMIT SIGN INCORPORATED A MINIMUM OF EVERY 2 OR 3 MILES. INCLUDE A 65 MPH RESUME SPEED LIMIT SIGN 200 FEET MINIMUM (500 FEET DESIREABLE) BEYOND THE "END OF ROADWORK" SIGN.



TRAFFIC CONTROL, LANE CLOSURE, SPEED REDUCTION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

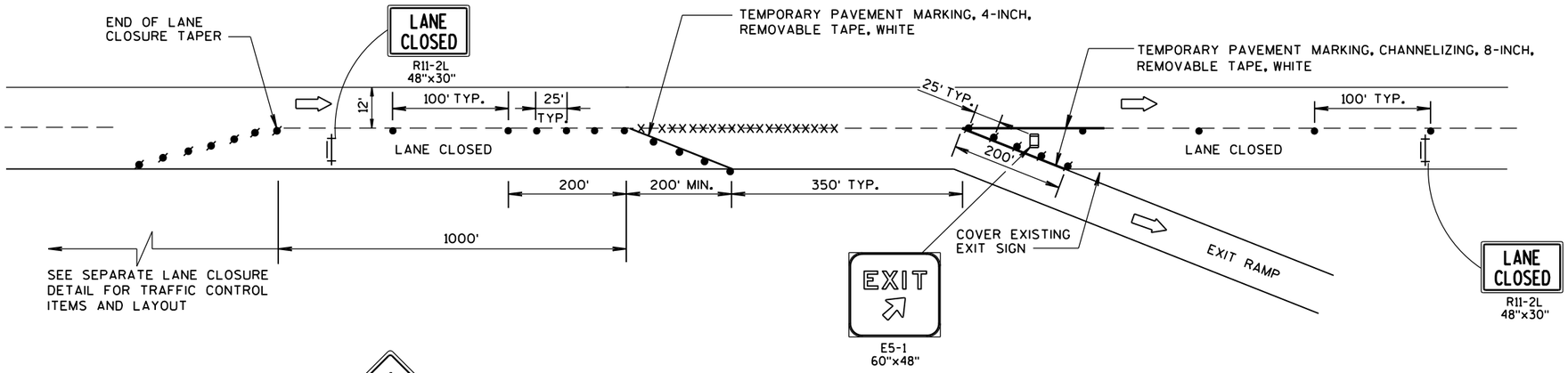
Feb. 2015 — DATE

/S/ Travis Feltes — STATE TRAFFIC ENGINEER

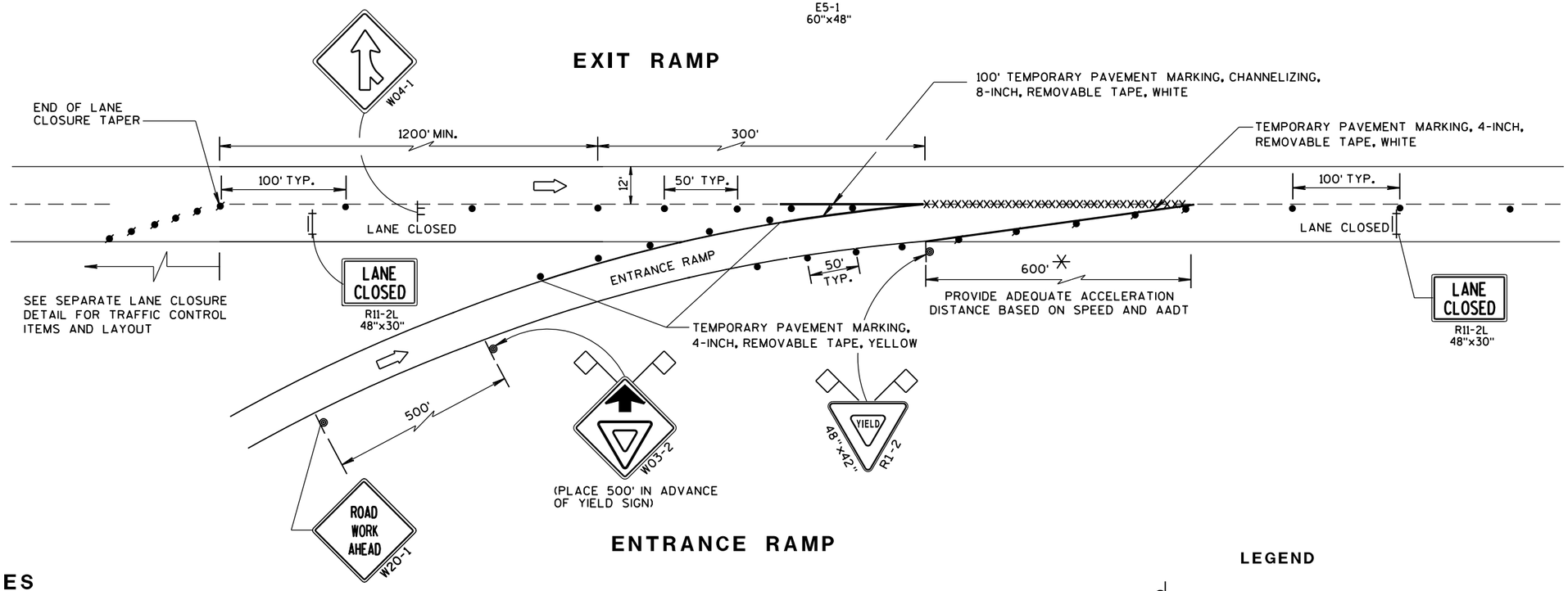
FHWA

S.D.D. 15 D 12-5b

S.D.D. 15 D 12-5b



EXIT RAMP



ENTRANCE RAMP

GENERAL NOTES

THE INSTALLATIONS SHOWN ON THIS SHEET ARE TYPICAL EXAMPLES AND ARE NOT INTENDED TO REPRESENT ANY PARTICULAR RAMP. AT SPECIFIC FIELD LOCATIONS, SIMILAR INSTALLATIONS SHALL BE USED AND ADJUSTED TO THE GEOMETRICS OF THE RAMP AS COORDINATED WITH THE ENGINEER.

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A MINIMUM OF 200 FEET, (500 FEET DESIRABLE) CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED.

"WO" IS THE SAME AS "W" EXCEPT THE BACKGROUND IS ORANGE.

SEE SEPARATE LANE CLOSURE DETAIL FOR TYPICAL SPACING OF TYPE III BARRICADES AND R11-2L "LANE CLOSED" SIGNS.

YIELD SIGN AND WARNING SIGNS ON ENTRANCE RAMP ARE ALSO APPROPRIATE FOR CLOSURE OF THE MAINLINE LEFT LANE. OMIT THE YIELD SIGN IF MORE THAN ONE LANE REMAINS OPEN ON THE MAINLINE AND THE RAMP TAPER IS AT LEAST AS LONG AS THE NORMAL ENTRANCE RAMP TAPER AT THE SITE.

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS, OR THAT WILL BE PLACED IN A CLOSED LANE, MAY BE MOUNTED ON PORTABLE SUPPORTS.

IF INDICATED IN MISCELLANEOUS QUANTITIES, SUBSTITUTE FLEXIBLE TUBULAR MARKERS FOR DRUMS IN THE GORE BETWEEN THE ENTRANCE RAMP AND MAINLINE TRAFFIC.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

REMOVE PAVEMENT MARKINGS AND PLACE TEMPORARY PAVEMENT MARKING, REMOVABLE TAPE IF LANE CLOSURE IS TO BE IN PLACE FOR 7 OR MORE CONTINUOUS DAYS AND NIGHTS.

WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

* LENGTH OF OPENING MAY BE REDUCED TO 150 FEET DURING STAGING OF WORK IN IMMEDIATE AREA OF RAMP TAPER.

LEGEND

- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- REMOVING PAVEMENT MARKING (SEE GENERAL NOTES)
- TYPE III BARRICADE WITH ATTACHED SIGN
- FLAGS, 16" x 16" MIN., (ORANGE)
- DIRECTION OF TRAFFIC

TRAFFIC CONTROL, EXIT AND ENTRANCE RAMP WITHIN LANE CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Sept. 2015 — DATE
/S/ Peter Amakobe Atepe
STATEWIDE WORK ZONE SAFETY ENGINEER
FHWA

6
S.D.D. 15 D 15-2

LEGEND

- TRAFFIC CONTROL DRUM
- SIGN ON PERMANENT SUPPORT
- DIRECTION OF TRAFFIC
- FLASHING ARROW BOARD
- WORK AREA

GENERAL NOTES

THIS DETAIL IS TYPICAL FOR CLOSING THE RIGHT SHOULDER. FOR CLOSING THE LEFT SHOULDER, REVERSE THE TRAFFIC CONTROL.

THIS DETAIL MAY BE USED FOR DIVIDED ROADWAYS WITH ANY NUMBER OF TRAVEL LANES.

THE EXACT NUMBER, LOCATION AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.

SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE FHWA'S MANUAL OF STANDARD HIGHWAY SIGNS OR THE WISCONSIN STANDARD SIGN PLATES.

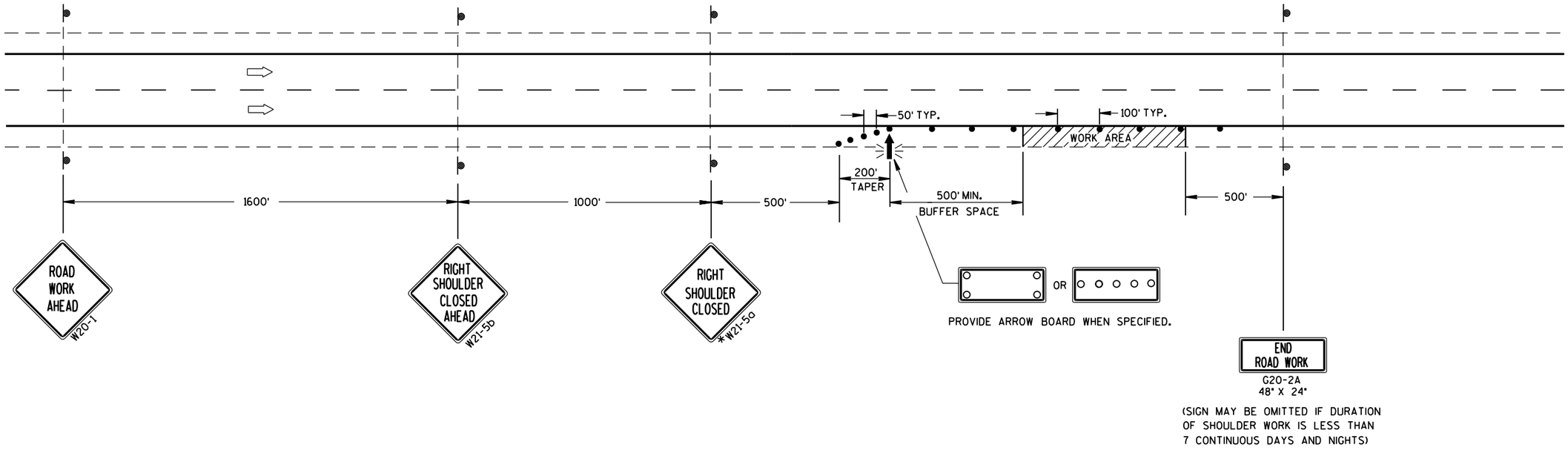
SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

CHANNELIZING DEVICES PLACED ADJACENT TO THE WORK AREA SHALL BE PULLED BACK FROM THE TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

WHEN A RAMP INTERSECTS THE FACILITY ON WHICH THE WORK IS BEING PERFORMED, ADDITIONAL TRAFFIC CONTROLS SHALL BE PROVIDED AS SPECIFIED IN THE PLANS AND/OR THE SPECIAL PROVISIONS OR AS APPROVED BY THE ENGINEER.

*FOR SHORT DURATION SHOULDER WORK OF LESS THAN ONE HOUR, THE W21-5a SIGN MAY BE OMITTED.



TRAFFIC CONTROL SHOULDER CLOSURE ON DIVIDED ROADWAY, SPEEDS GREATER THAN 40 MPH

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

8/2013 DATE

/S/ Travis Feltes
STATE TRAFFIC ENGINEER

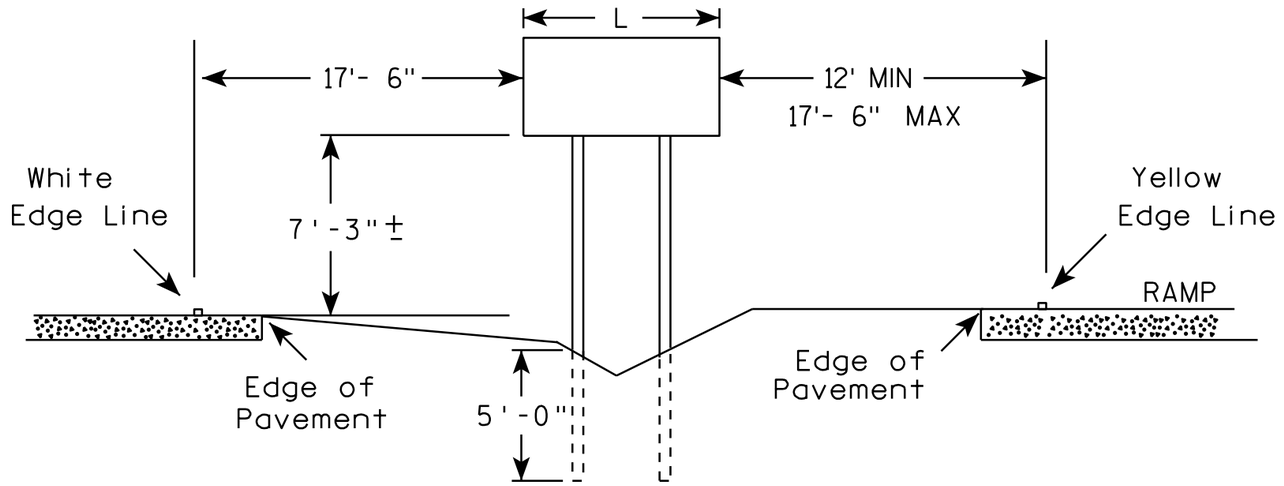
FHWA

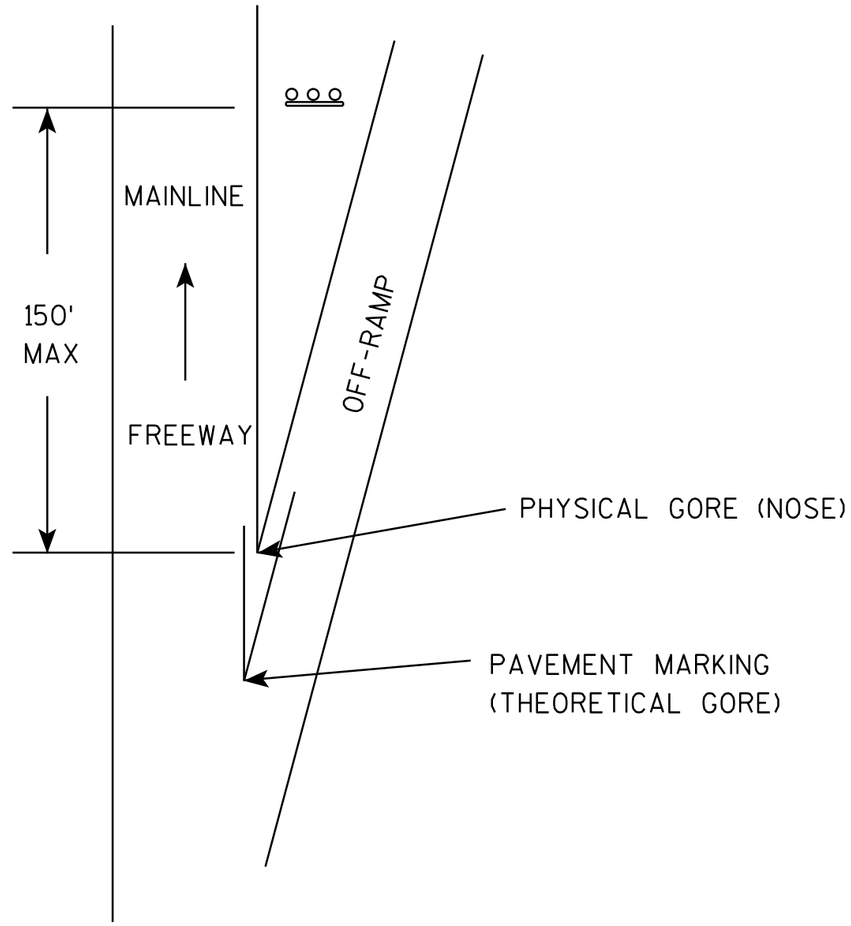
6

S.D.D. 15 D 27-2

6

S.D.D. 15 D 27-2





GENERAL NOTES

1. The 150 foot distance from the physical gore (where pavement ends) will normally provide the offsets as shown.
2. If roadway geometrics permit, the sign may be closer than the 150 foot distance as long as the offsets are maintained.
3. At no time shall the location be greater than 150 feet. If the normal offsets cannot be maintained, they can be reduced to 6 feet from the edge of the paved shoulder (both freeway and ramp).
4. The offset from edge of sign to the yellow edge line on the ramp is shown as a minimum of 12 feet and a maximum of 17 feet, 6 inches. Preference is adhering to the maximum rather than the minimum dimension.
5. When L is equal to or exceeds 10 feet, use 3 posts as per A4-4.
6. The (∓) tolerance for the mounting height is 3 inches.

TYPICAL INSTALLATION OF TYPE II SIGNS ON WOOD POSTS IN GORE

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

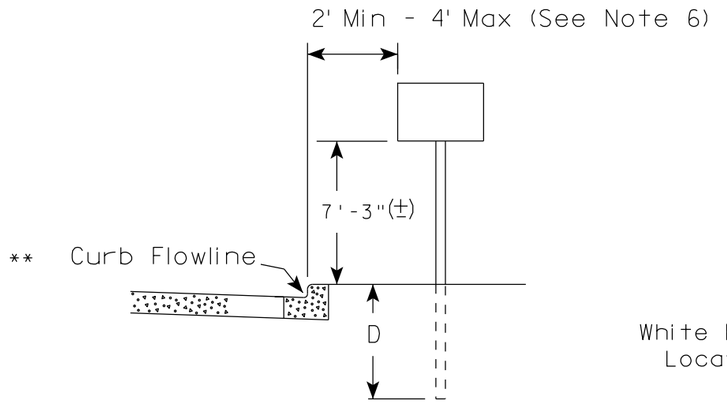
DATE 2/06/14 PLATE A4-2.3

PROJECT NO: SHEET NO: E

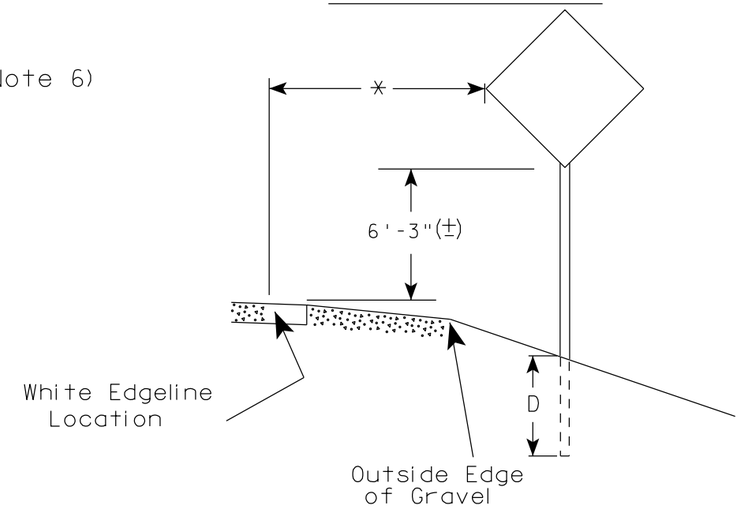
FILE NAME : C:\CAEFiles\Projects\tr_stdplate\A42.DGN PLOT DATE : 06-FEB-2014 12:36 PLOT BY : mscsja

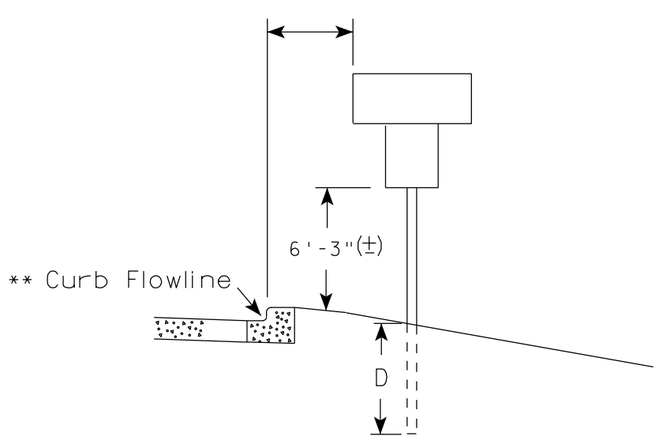
WISDOT/CADDS SHEET 42

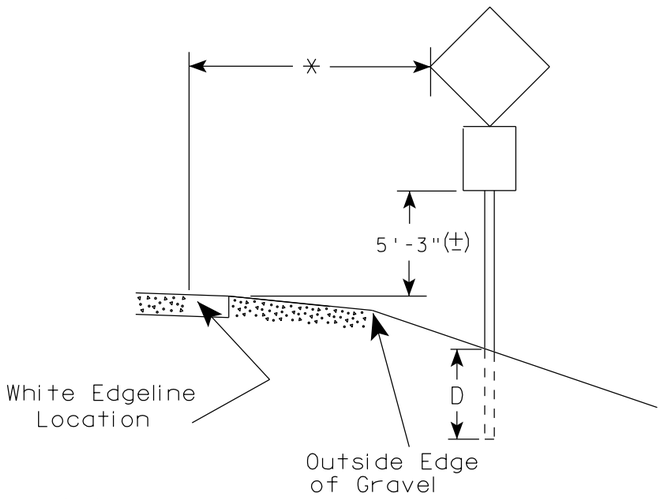
URBAN AREA



RURAL AREA (See Note 2)







** The existence of curb and gutter does not in itself mandate the vertical clearance illustrated. That height is typically measured where there is sidewalk adjacent to the roadway or parking is permitted. In the absence of sidewalk vertical clearance is measured from the top of the curb. Offset of signs is measured from the flow line.

* 6 feet from edge of a paved shoulder or 12 feet from the edge of pavement (edge line location) or 2 feet from outside edge of gravel, whichever is greater unless directed by project engineer.

POST EMBEDMENT DEPTH

Area of Sign Installation (Sq.Ft.)	D (Min)
20 or Less	4'
Greater than 20	5'

GENERAL NOTES

1. Signs wider than 4 feet or 20 sq.ft or larger, shall be mounted on multiple posts. Refer to plate A4-4.
2. If signs are mounted on barrier wall, see A4-10 sign plate.
3. For expressways and freeways, mounting height is 7'- 3" (±) or 6'-3" (±) depending upon existence of a sub-sign.
4. Minimum mounting height for J assemblies (A2-1S) is 7'-3" (±) or 6'-3" (±) per urban or rural detail respectively.
5. Minimum mounting height for signs mounted on traffic signal poles is 5'- 3" (±).
6. Offset distance shall be consistent with existing signs or consistent throughout length of project.
7. The (±) tolerance for mounting height is 3 inches.
8. Folding signs shall be mounted at a height of 5'-3" (±) or as directd by the Engineer.
9. The Double Arrow sign (W12-1) shall be mounted at a height of 2'-3" (±). The Chevron sign (W1-8), Roundabout Chevron panel (R6-4B), Enhanced Reference Markers, Clearance Markers (W5-52), Mile Markers (D10 series), In Road Object Markers (W5-54) & End of Road Markers (W5-56) shall be mounted at a height of 4'-3" (±).

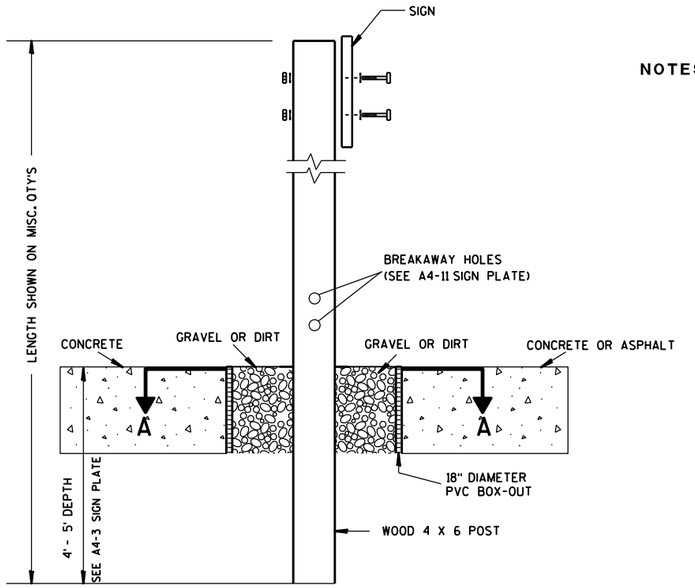
TYPICAL INSTALLATION OF PERMANENT TYPE II SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 7/23/15 PLATE NO. A4-3.20

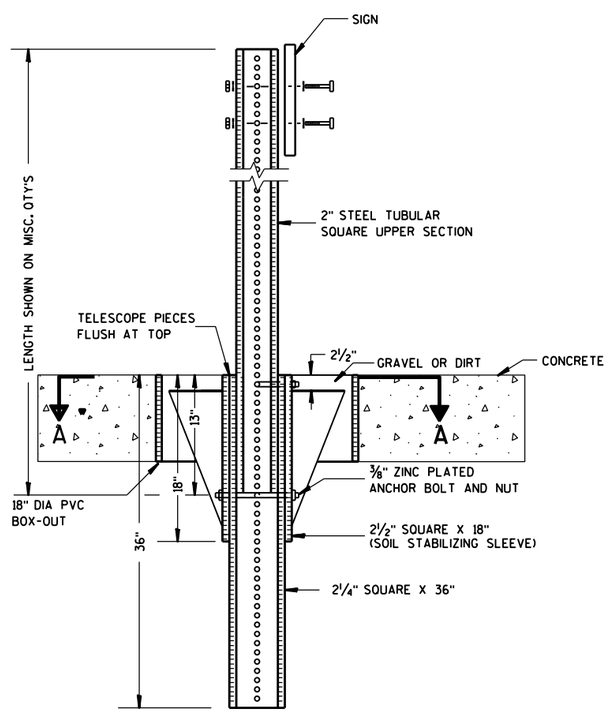
PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E



ELEVATION VIEW

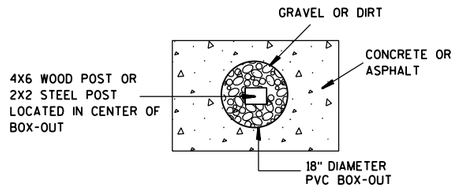
DETAIL OF WOOD 4 X 6 SIGN POST IN BOX-OUT

NOTES:
1. ALL MATERIAL TO BE APPROVED BY ENGINEER PRIOR TO INSTALLATION
2. SEE SIGN PLATE A4-8 FOR SIGN HARDWARE REQUIREMENTS
3. 18 INCH X 18 INCH SQUARE BOX-OUTS MAY BE USED FOR INSTALLATIONS IN EXISTING CONCRETE OR ASPHALT LOCATIONS.



ELEVATION VIEW

DETAIL OF STEEL 2 X 2 SIGN POST IN BOX-OUT



PLAN VIEW

FOR NEW CONCRETE/ASPHALT INSTALLATIONS

SIGN POST BOX-OUTS A4-3B

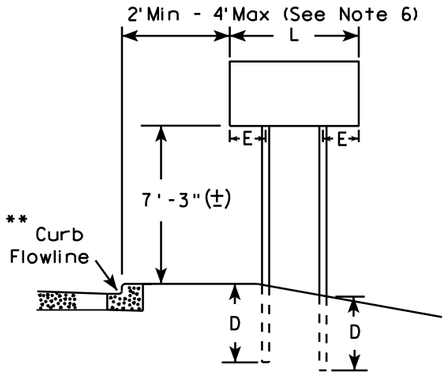
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

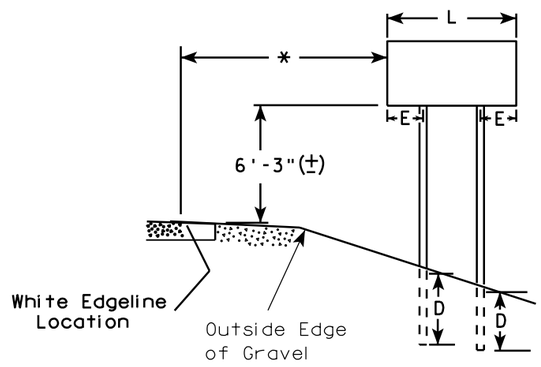
DATE 1/27/14 PLATE NO. A4-3B.1

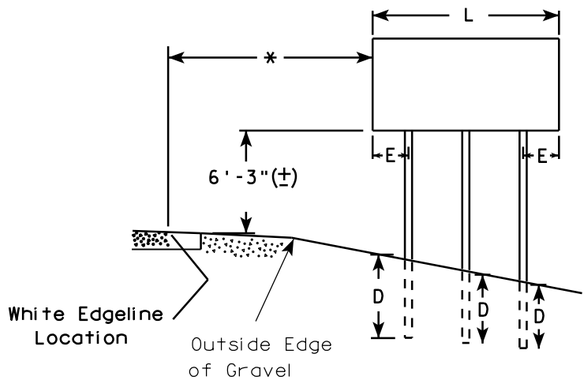
PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

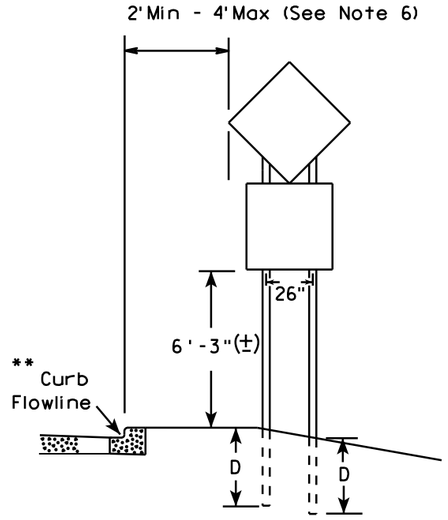
URBAN AREA



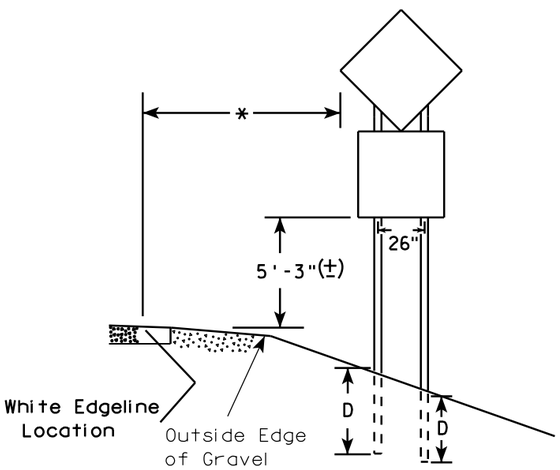
RURAL AREA (See Note 3)







48" DIAMOND WARNING SIGN



48" DIAMOND WARNING SIGN

GENERAL NOTES

1. For 3 or 4 post installations, individual post spacing shall be greater than 3'-6".
2. See tables below for required number of posts.
3. For expressways and freeways, mounting height is 7'-3" (±) or 6'-3" (±) depending upon existence of sub-sign.
4. The (±) tolerance for mounting height is 3 inches.
5. Minimum mounting height for J assemblies (A2-1S) is 7'-3" (±) or 6'-3" (±) per urban or rural detail respectively.
6. Offset distance shall be consistent with existing signs or consistent throughout length of project.
7. Folding signs shall be mounted at a height of 5'-3" (±) or as directed by the engineer.
8. The Double Arrow sign (W12-1) shall be mounted at a height of 2'-3" (±). The Chevron sign (W1-8), Roundabout Chevron panel (R6-4B), Clearance Markers (W5-52), Mile Markers (D10 series), In Road Object Markers (W5-54) & End of Road Markers (W5-56) shall be mounted at a height of 4"-3" (±).

* 6 feet from edge of a paved shoulder or 12 feet from the edge of pavement (edge line location) or 2 feet from outside edge of gravel, whichever is greater unless directed by project engineer.

** The existence of curb and gutter does not in itself mandate the vertical clearance illustrated. That height is typically measured where there is sidewalk adjacent to the roadway or parking is permitted. In the absence of sidewalk vertical clearance is measured from the top of the curb. Offset of signs is measured from the flow line.

*** See A4-3 sign plate for signs 4' or less in width and less than 20 S.F. in area.

SIGN SHAPE OTHER THAN DIAMOND (TWO POSTS REQUIRED)	
L	E
Greater than 48" Less than 60"	12"
60" to 120"	L/5

***

SIGN SHAPE OTHER THAN DIAMOND (THREE POSTS REQUIRED)	
L	E
Greater than 120" less than 168"	12"

SIGN SHAPE OTHER THAN DIAMOND (FOUR POSTS REQUIRED)	
L	E
168" and greater	12"

POST EMBEDMENT DEPTH

Area of Sign Installation (Sq. Ft.)	D (Min)
20 or Less	4'
Greater than 20	5'

TYPICAL INSTALLATION OF TYPE II SIGNS ON MULTIPLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

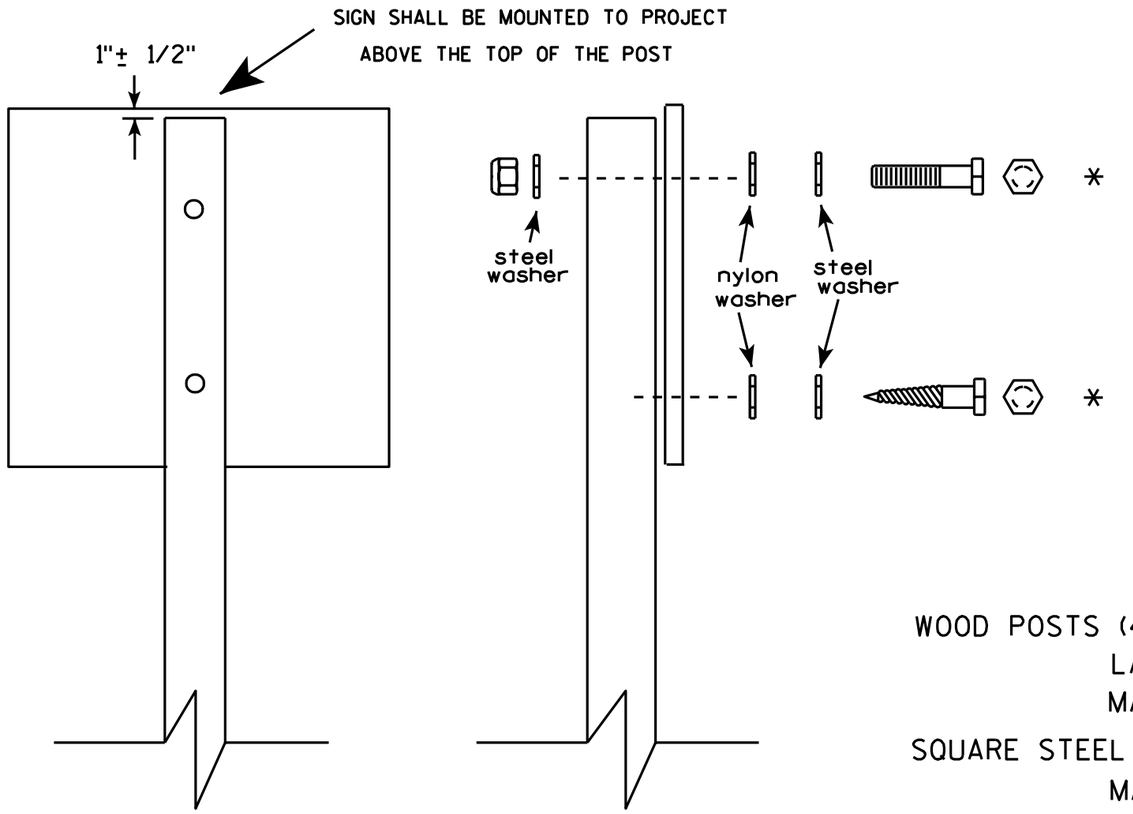
DATE 7/23/15 PLATE NO. A4-4 14

189

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\A44.DGN PLOT DATE : 23-JUL-2015 15:23 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 107.021305:1.000000

WISDOT/CADDS SHEET 42



Nuts, bolts and lags used for mounting signs shall have hexagonal heads and shall be either :

a. Hot dip galvanized in accordance with ASTM Designation: A 153, Class D, or SC 3

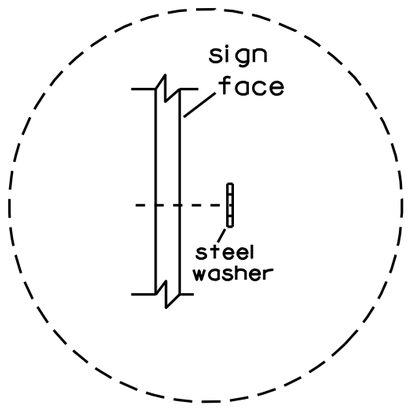
b. Electro-galvanized in accordance with ASTM Designation : B 633, TYPE III, SC 3.

Threads on bolts and nuts shall be manufactured with sufficient allowance for the cadmium plate or galvanized coating to permit the nuts to run freely on the bolts.

WOOD POSTS (4" x 4" or 4" x 6")
LAG SCREWS - 3/8" X 3"
MACHINE BOLTS - 5/16" X 6-1/2" or 7" Length w/ nuts

SQUARE STEEL POSTS (2" x 2")
MACHINE BOLTS - 3/8" X 3-1/4" Length w/ nuts
RIVETS - 9/32 " (6605-9-6) BULB-TITE, TRI-FOLD, ALUMINUM BODY/MANDREL
O.D. FLANGE .720-.765 INCH, GRIP RANGE .042-.375 INCH

WASHERS (ALL POSTS) -
1-1/4" O.D. X 3/8" I.D. X 1/16" STEEL
1-1/4" O.D. X 3/8" I.D. X .080 NYLON for all Type H signs.



Washer Placement when Sign Has Other Than Type H or Type F Face

* Two different fastening systems are shown for illustration purposes. On any individual sign, either one or the other system shall be used. Actual number of fasteners per sign varies with the sign area, but normally there are two. For a single post installation, all signs greater than 9 sq. ft. require the use of 3 fasteners.

ATTACHMENT OF SIGNS TO POSTS

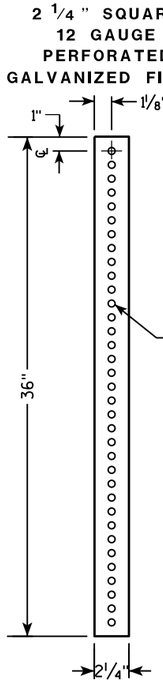
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

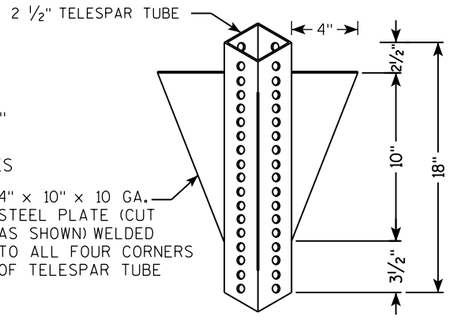
DATE 3/23/10 PLATE NO. A4-8.7

TELESCOPIC TUBING ANCHORS
TWO PIECE SYSTEM

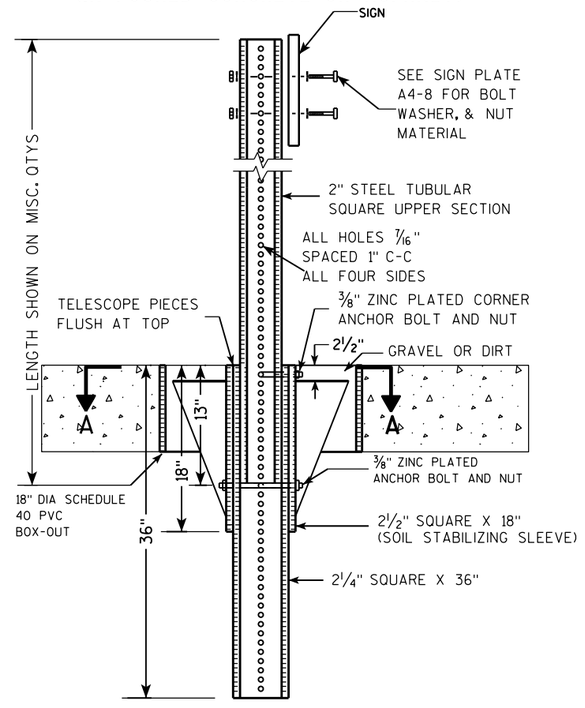
2 1/4 " SQUARE
12 GAUGE
PERFORATED
GALVANIZED FINISH



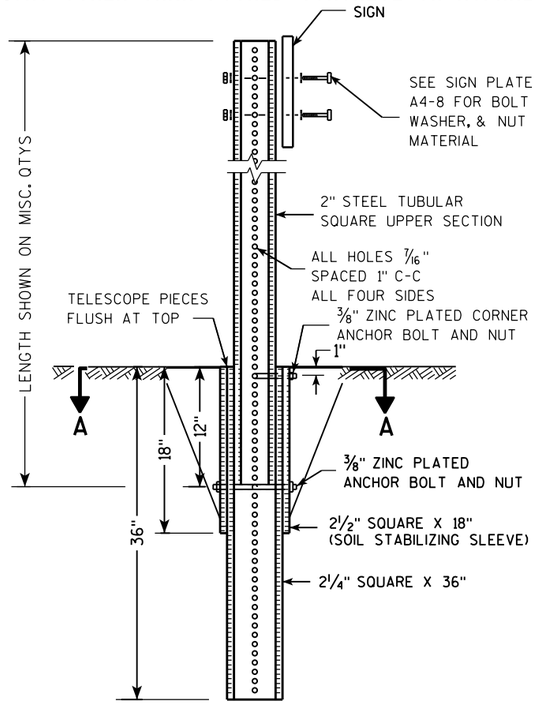
2 1/2 " SQUARE
12 GAUGE
OMNI-DIRECTIONAL
PERFORATED
SOIL STABILIZING SLEEVE
GALVANIZED FINISH

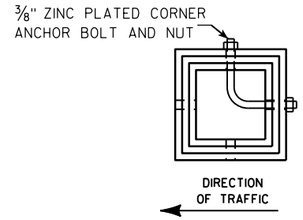


DETAIL OF TUBULAR STEEL SIGN POST
(IN POURED CONCRETE OR ASPHALT)



DETAIL OF TUBULAR STEEL SIGN POST
(IN LOCATIONS OTHER THAN POURED CONCRETE OR ASPHALT)





SECTION A-A

Area of Sign Installation (Sq. Ft.)	Number of Required Posts
9 or less	1
Greater than 9 less than or equal to 18	2
Greater than 18 less than or equal to 27	3

Signs wider than 3 feet or larger than 9 sq. ft shall be mounted on multiple posts (see above table).

TUBULAR STEEL
SIGN POST
A4-9

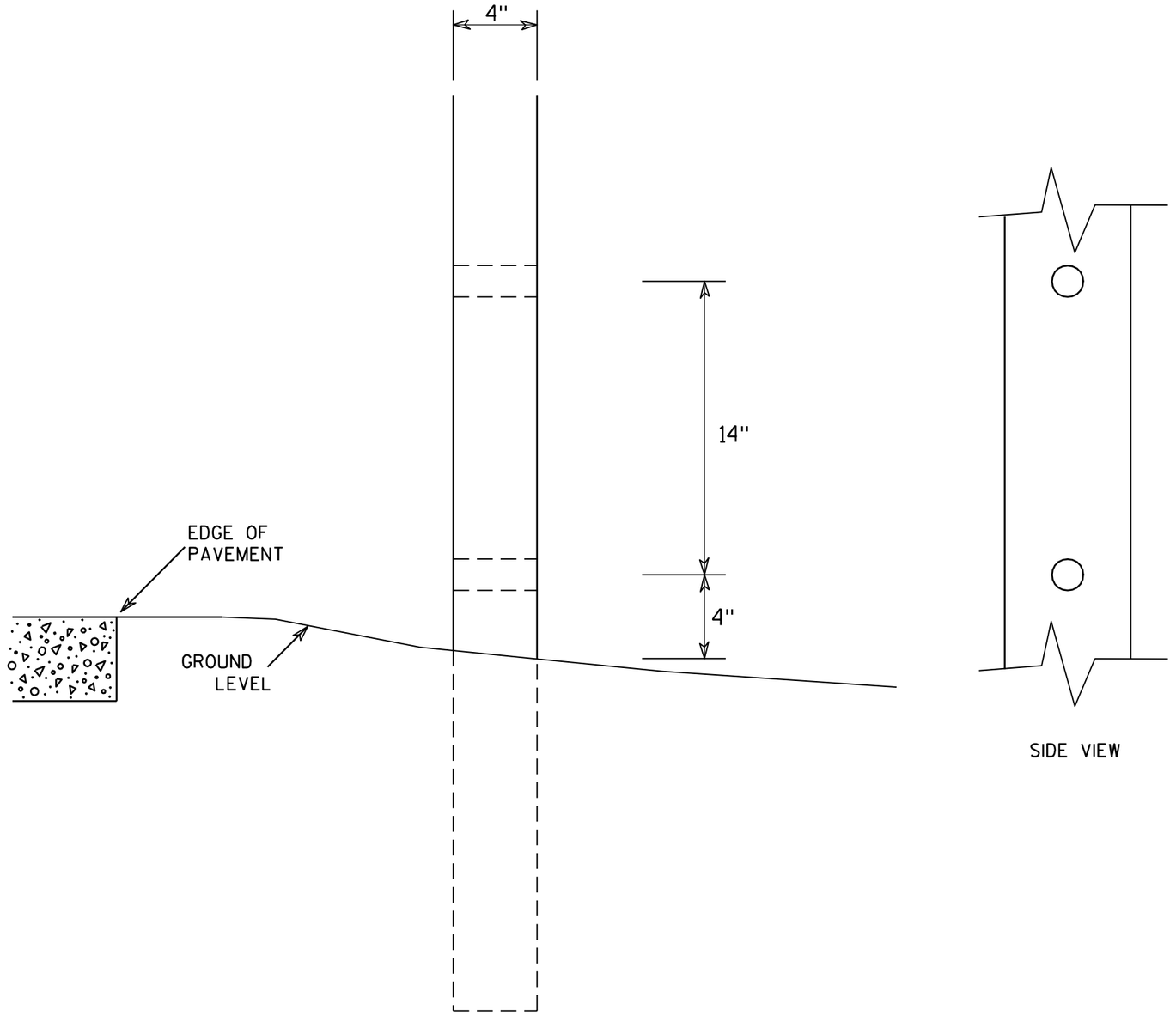
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/05/15 PLATE A4-9.9

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\A49.DGN PLOT DATE : 05-FEB-2015 17:09 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 13.659812:1.000000 WISDOT/CADDS SHEET 42



SIDE VIEW

GENERAL NOTES

1. All 4 x 6 Wood Posts shall be modified by having two 1½" diameter holes drilled perpendicular to the roadway centerline.

7

7

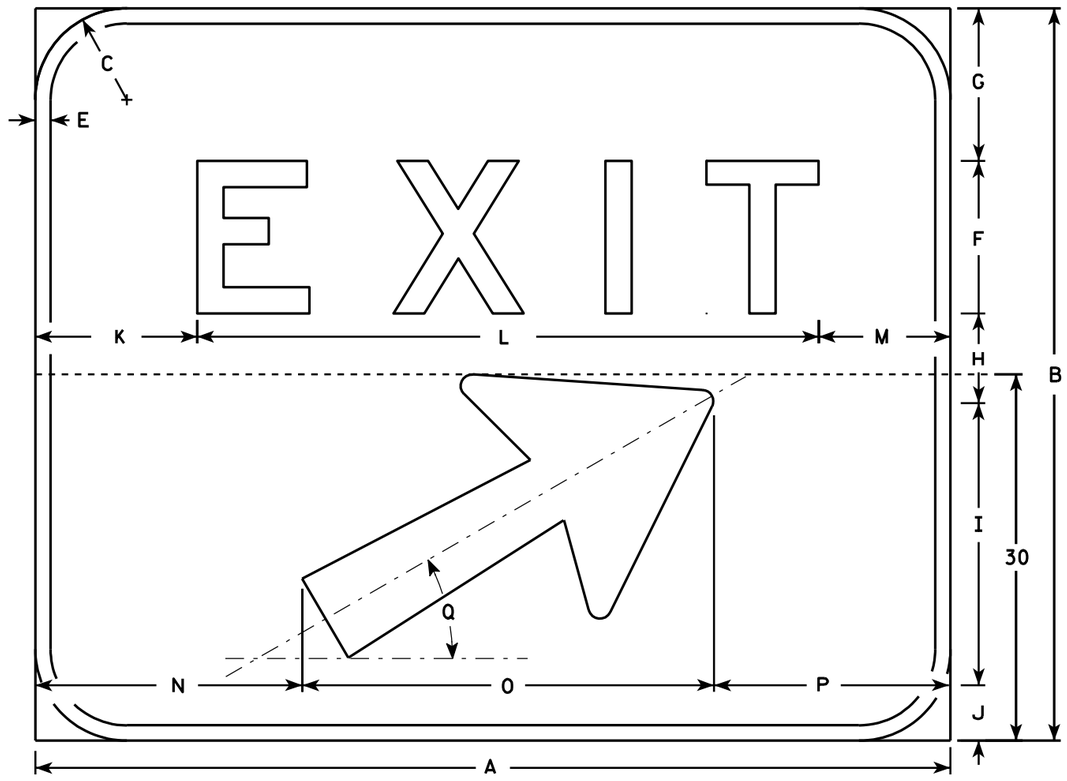
4 X 6 WOOD POST MODIFICATIONS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Chester J Spang
for State Traffic Engineer

DATE 3/27/97 PLATE NO. A4-11.2

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 192	E



E5-1

NOTES

1. Sign is Type II - Type H reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Green
   Message - White (Type H reflective)
3. Message Series - E
4. Corners may be square or rounded but borders shall be rounded as shown.
5. Base material for this sign shall be plywood and shall be split into two seperate pieces for the 72 x 60 size as shown on the detail by the dashed line (----------).
6. Arrow is Type "A" from sign plate A1-1.
7. As per the Standard Spec's, this sign shall not have a vertical joint.

Metric equivalent for this sign is:

SIZE	
1	
2	
3	
4	1500 mm X 1200 mm
5	1800 mm X 1500 mm

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.	Area m2
1																												
2																												
3																												
4	60	48	6		1	10	10	5 7/8	18 1/2	3 5/8	10 5/8	40 3/4	8 5/8	17 1/2	27	15 1/2	30°										20.0	1.80
5	72	60	6		1	12	12	10	18 1/2	7 1/2	13 1/4	48 1/2	10 1/4	23 1/2	27	21 1/2	30°										30.0	2.70

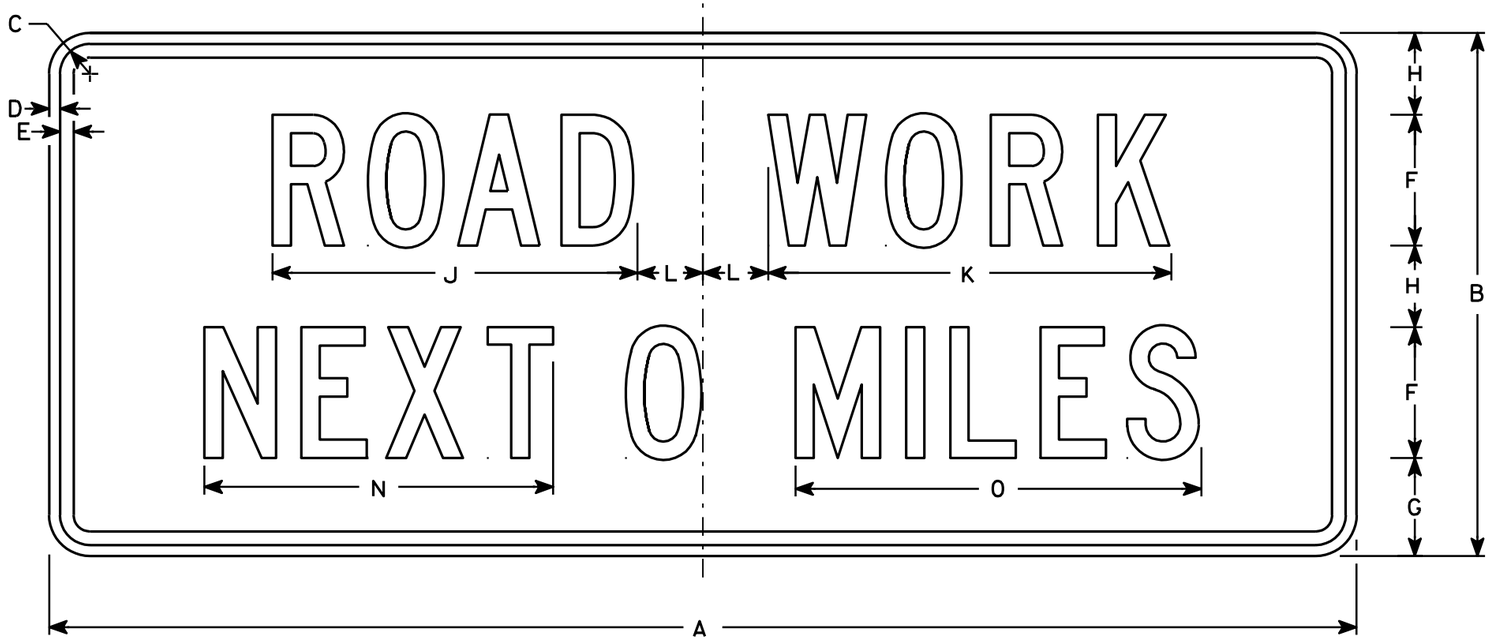
STANDARD SIGN
E5 - 1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Chester J Spang for State Traffic Engineer

DATE 6/22/00 PLATE NO. E5-1.8

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 193	E



G20-1

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Substitute appropriate numerals and optically adjust spacing to achieve proper balance

Metric equivalent for this sign is:

SIZE	
1	
2	1500 mm X 600 mm
3	
4	1500 mm X 600 mm
5	

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.	Area m2
1																												
2	60	24	1 3/8	1/2	5/8	6	4 1/2	3 3/4		16 3/4	18 1/2	3		16	18 5/8												10	.90
3																												
4	60	24	1 3/8	1/2	5/8	6	4 1/2	3 3/4		16 3/4	18 1/2	3		16	18 5/8												10	.90
5																												

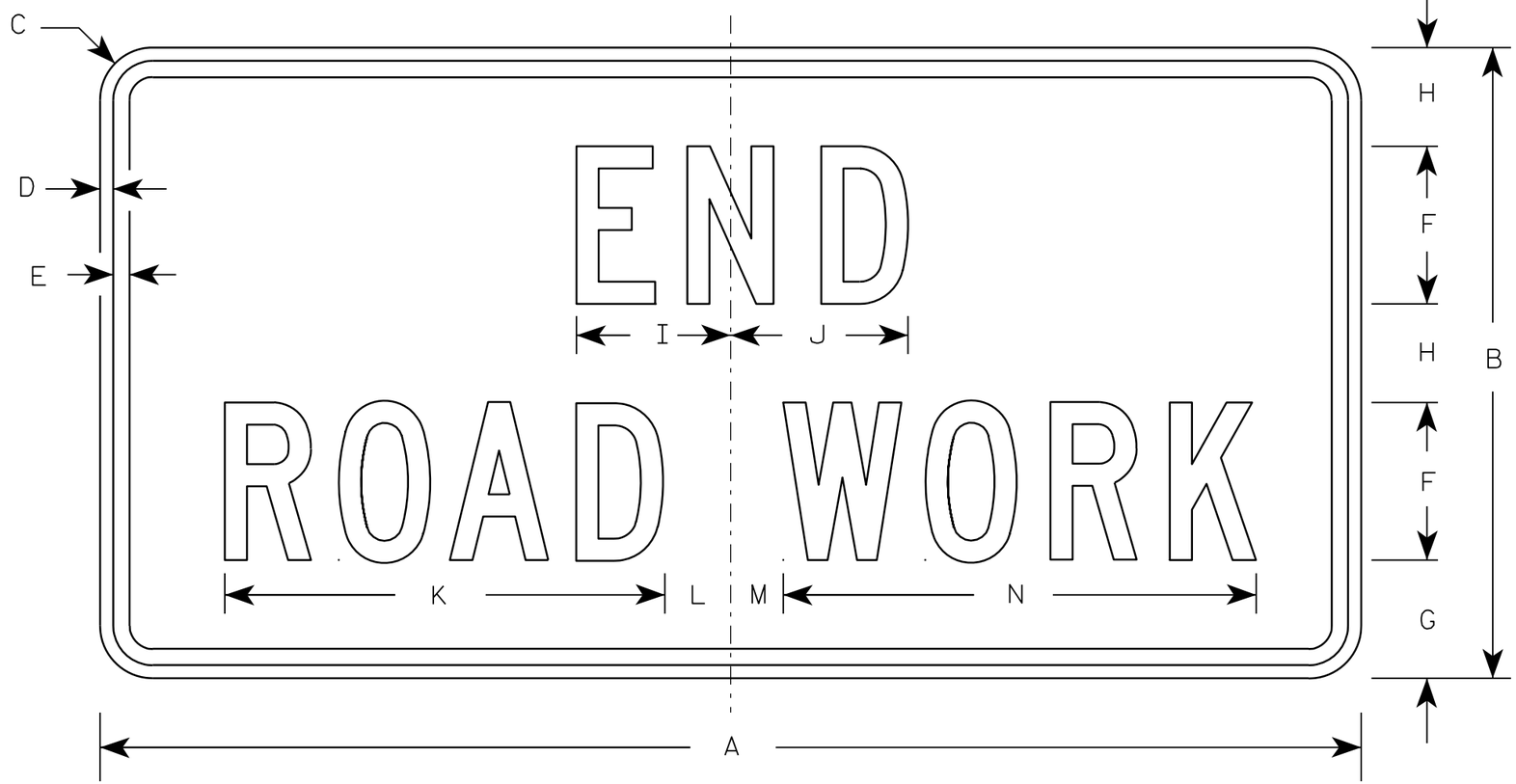
STANDARD SIGN
G20-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Chester J Spray for State Traffic Engineer

DATE 4/8/97 PLATE NO. G20-1.7

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 194	E



G20-2A

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

Metric equivalent for this sign is:

SIZE	
1	900 mm X 450 mm
2	1200 mm X 600 mm
3	1200 mm X 600 mm
4	1200 mm X 600 mm
5	1200 mm X 600 mm

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.	Area m2
1	36	18	1 1/8	3/8	1/2	4	3 3/4	2 1/2	4 1/8	4 1/8	11 1/8	2	1	12 1/8													4.5	0.41
2	48	24	1 1/2	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0	0.72
3	48	24	1 1/2	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0	0.72
4	48	24	1 1/2	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0	0.72
5	48	24	1 1/2	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0	0.72

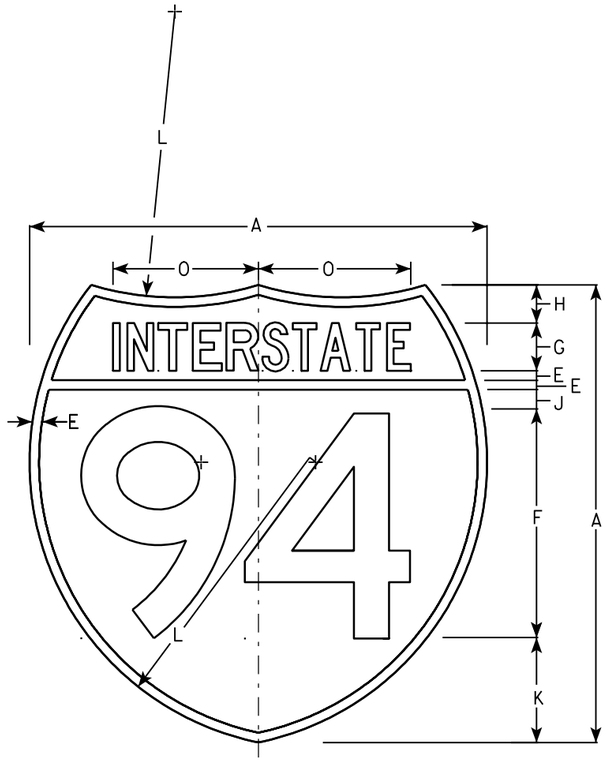
STANDARD SIGN
G20-2A

WISCONSIN DEPT OF TRANSPORTATION

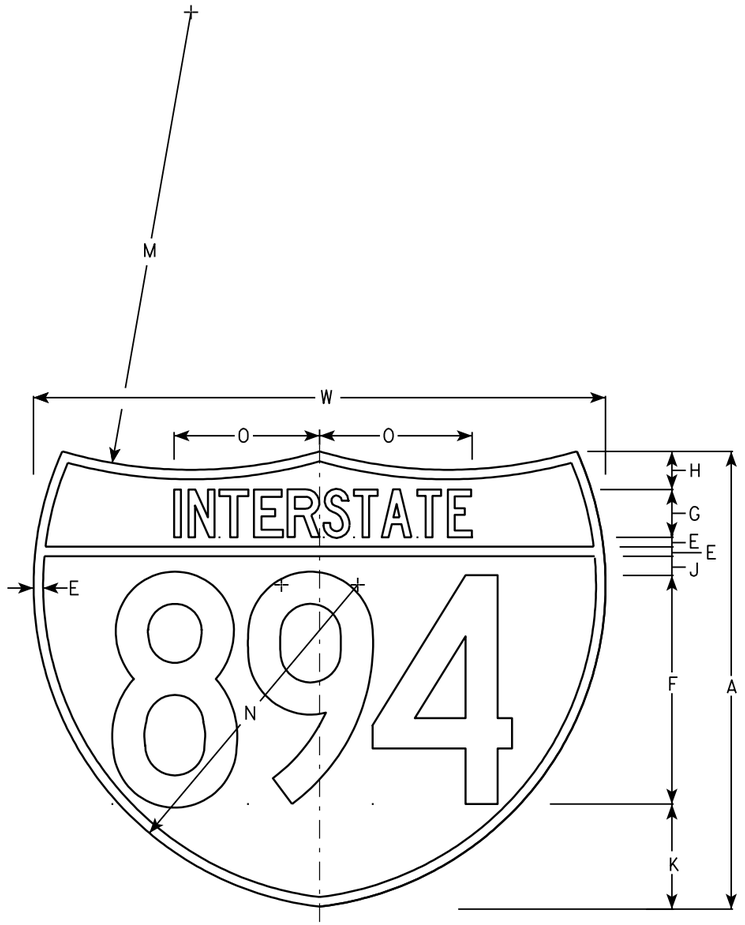
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 9/30/09 PLATE NO. G20-2A.8

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 195	E



M1-1



M1-1A

NOTES

1. Sign is Type II - See Note 6 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Top Red - Bottom Blue (See Note 6)
   Message - White - See Note 6
3. Message Series - See note 5
4. Substitute appropriate numerals & ajust spacing as per plate A10-1.
5. M1-1 - Numerals - D
   Interstate - C
   M1-1A - All copy - C
6. Permanent Signs
   Message - Type H Reflective
   Detour or other temporary signs
   Background - Reflective
   Message - Reflective

Metric equivalent for these signs are:

SIZE	M1-1	SIZE	M1-1A
1			
2	600 mm X 600 mm	2	600 mm X 750 mm
3	900 mm X 900 mm	3	900 mm X 1125 mm
4	900 mm X 900 mm	4	900 mm X 1125 mm
5	900 mm X 900 mm	5	900 mm X 1125 mm

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	M1-1 Area sq. ft.	M1-1A Area sq. ft.	M1-1 Area m2	M1-1A Area m2
1																													
2	24				1/2	12	2 1/2	2		1	5 1/2	15	24	17	7 7/8								30			3.13	3.91	.36	.46
3	36				3/4	18	3 3/4	3		1 1/2	8 1/4	22 1/2	36	25 1/2	11 3/4								45			7.03	8.79	.81	1.05
4	36				3/4	18	3 3/4	3		1 1/2	8 1/4	22 1/2	36	25 1/2	11 3/4								45			7.03	8.79	.81	1.05
5	36				3/4	18	3 3/4	3		1 1/2	8 1/4	22 1/2	36	25 1/2	11 3/4								45			7.03	8.79	.81	1.05

INTERSTATE ROUTE MARKER
M1-1 FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

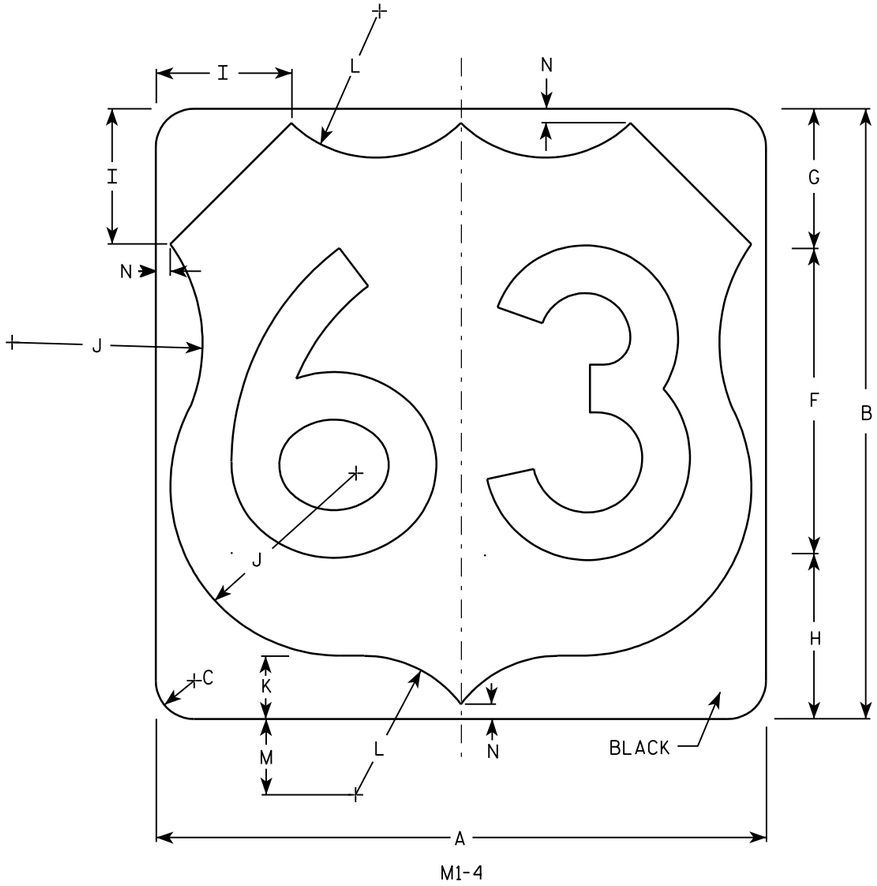
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 08/23/05 PLATE NO. M1-1.8

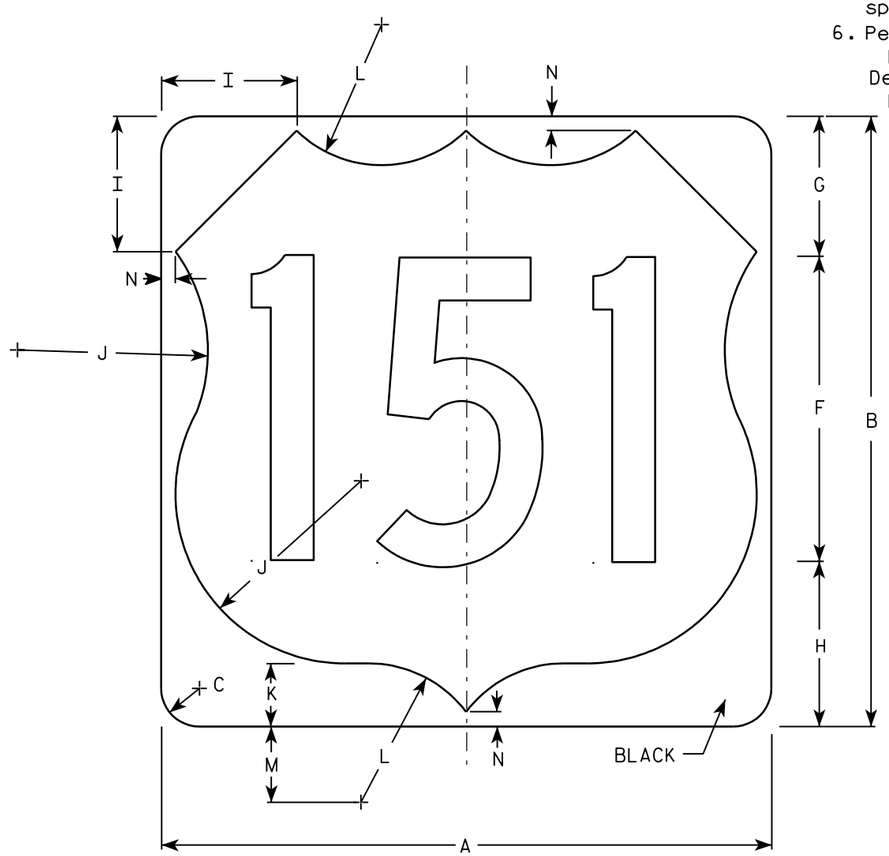
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 196	E

NOTES

1. Sign is Type II - See Note 6 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White & Black - See Note 6
   Message - Black
3. Message Series - See note 5
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Substitute appropriate numerals and adjust spacing as per Plate A10-1.
6. Permanent Signs
   Background - Type H Reflective
   Detour or other temporary signs
   Background - Reflective



M1-4



M1-4

7

7

Metric equivalent for this sign is:

SIZE	
1	
2	600 mm X 600 mm
3	900 mm X 900 mm
4	900 mm X 900 mm
5	900 mm X 900 mm

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.	Area m2
1																												
2	24	24	1 1/2			12	5 1/2	6 1/2	5	7 1/2	2 1/2	5 1/2	3	1/2													4.0	.36
3	36	36	2 1/4			18	8 1/4	9 1/4	7 1/4	11 1/4	3 3/4	8 1/4	4 1/2	3/4													9.0	.81
4	36	36	2 1/4			18	8 1/4	9 1/4	7 1/4	11 1/4	3 3/4	8 1/4	4 1/2	3/4													9.0	.81
5	36	36	2 1/4			18	8 1/4	9 1/4	7 1/4	11 1/4	3 3/4	8 1/4	4 1/2	3/4													9.0	.81

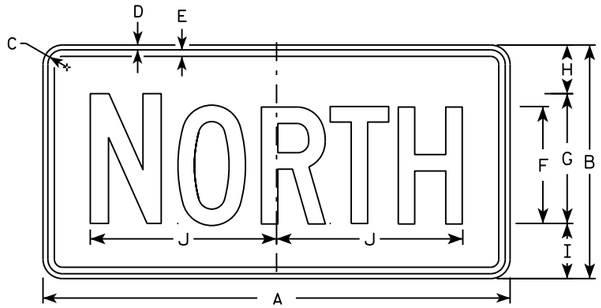
USH MARKER
M1-4 FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

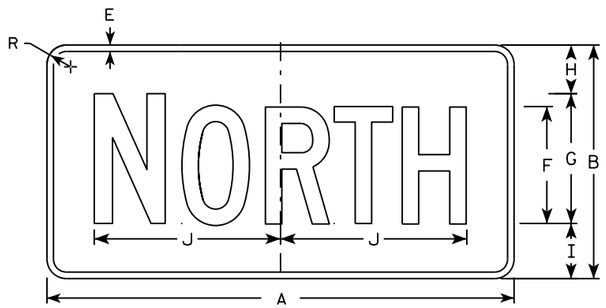
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 08/25/05 PLATE NO. M1-4.9

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 197	E



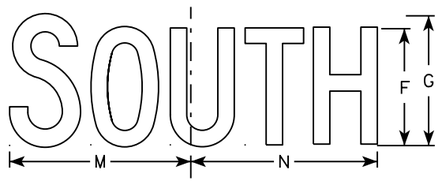
M3-1
MM3-1
MP3-1



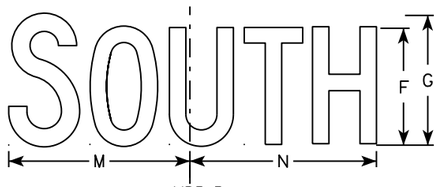
MB3-1
MK3-1
MN3-1

M3-2
MM3-2
MP3-2

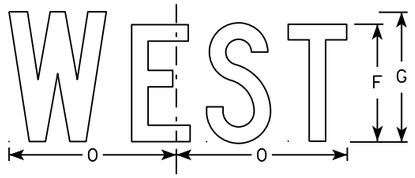
MB3-2
MK3-2
MN3-2



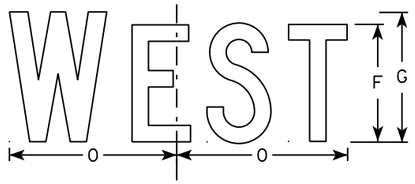
M3-3
MM3-3
MP3-3



MB3-3
MK3-3
MN3-3



M3-4
MM3-4
MP3-4



MB3-4
MK3-4
MN3-4

NOTES

1. All Signs Type II - Type H
2. Color:
   Background - See note 5
   Message - See note 5
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. M3-1 thru M3-4 Background - White
   Message - Black
   MB3-1 thru MB3-4 Background - Blue
   Message - White
   MK3-1 thru MK3-4 Background - Green
   Message - White
   MM3-1 thru MM3-4 Background - White
   Message - Green
   MN3-1 thru MN3-4 Background - Brown
   Message - White
   MP3-1 thru MP3-4 Background - White
   Message - Blue
6. Note the first letter of each direction is larger than the remainder of the message.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	24	12	1 1/8	3/8	3/8	6	7	2 1/4	2 3/4	10 1/4	7 7/8	8 3/8	10 1/4	9 3/4	8 3/4			1 1/2									2.00
3	36	18	1 1/8	3/8	1/2	9	10	3 3/4	4 1/4	14 3/8	12	12 1/8	14	14 1/8	13			1 1/2									4.5
4	36	18	1 1/8	3/8	1/2	9	10	3 3/4	4 1/4	14 3/8	12	12 1/8	14	14 1/8	13			1 1/2									4.5
5	36	18	1 1/8	3/8	1/2	9	10	3 3/4	4 1/4	14 3/8	12	12 1/8	14	14 1/8	13			1 1/2									4.5

STANDARD SIGNS
M3-1 thur M3-4
SERIES

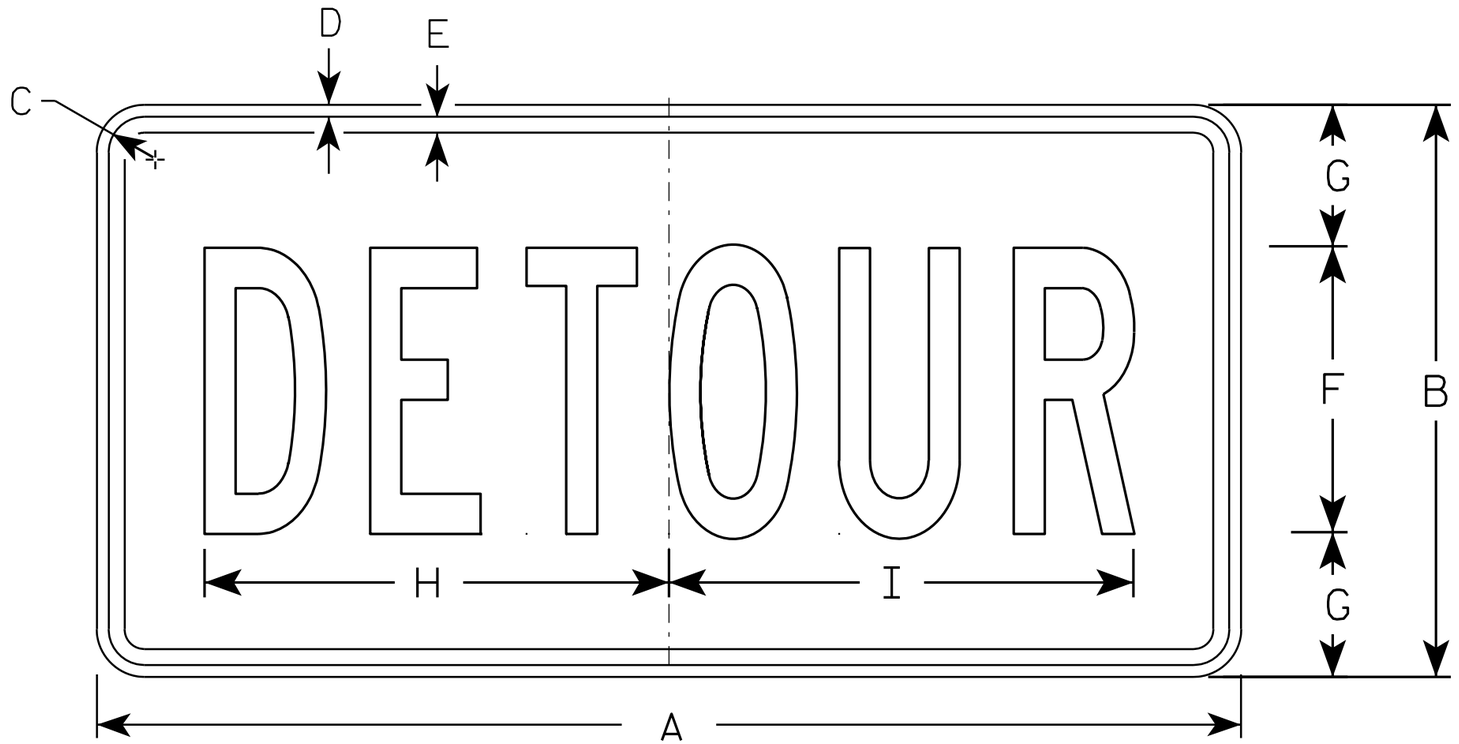
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew P Rauch for State Traffic Engineer

DATE 10/15/15 PLATE NO M3-1.14

PROJECT NO: | HWY: | COUNTY: | SHEET NO: E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\M31.DGN PLOT DATE : 01-DEC-2015 17:54 PLOT BY : $$ plotuser $$ PLOT NAME : PLOT SCALE : 11.675051:1.000000



M4-8

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Message Series - B
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	24	12	1 1/8	3/8	3/8	6	3	10	10 1/4																		2.0
3	36	18	1 1/8	3/8	1/2	9	4 1/2	14 5/8	14 1/2																		4.5
4																											
5																											

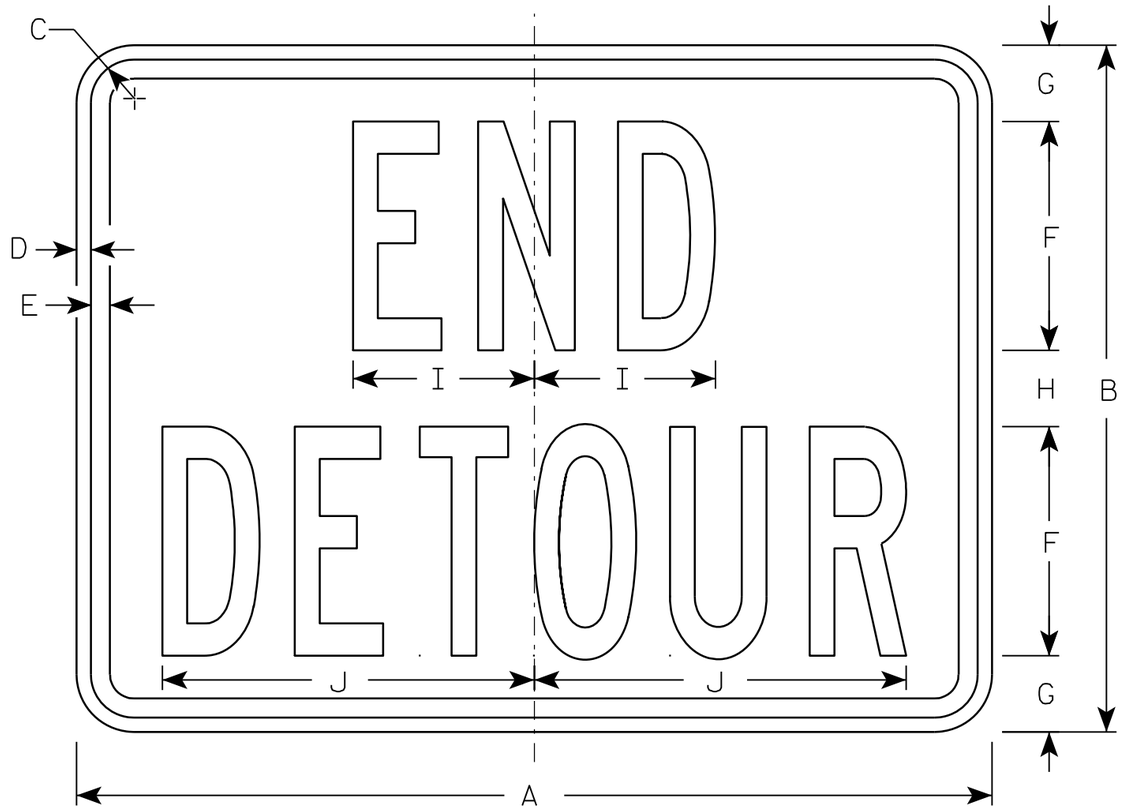
STANDARD SIGN
M4-8

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/10/10 PLATE NO. M4-8.2

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 199	E



M4-8A

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Message Series - B
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	24	18	1 1/8	3/8	1/2	6	2	2	4 3/4	9 3/4																	3.0
3	30	24	1 1/8	3/8	1/2	8	2 1/2	3	6 3/4	13																	5.0
4																											
5																											

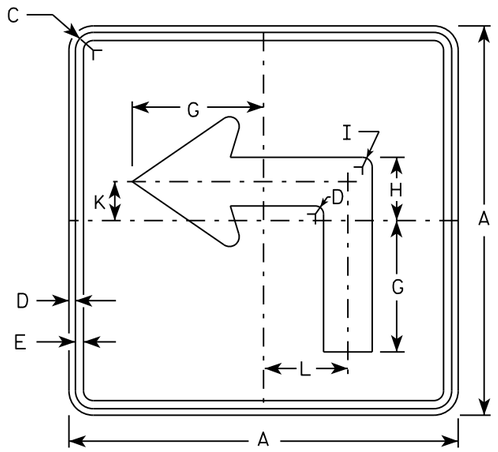
STANDARD SIGN
M4-8A

WISCONSIN DEPT OF TRANSPORTATION

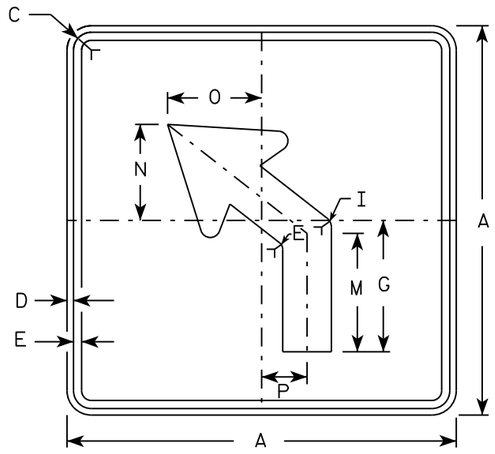
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/9/11 PLATE NO. M4-8A.2

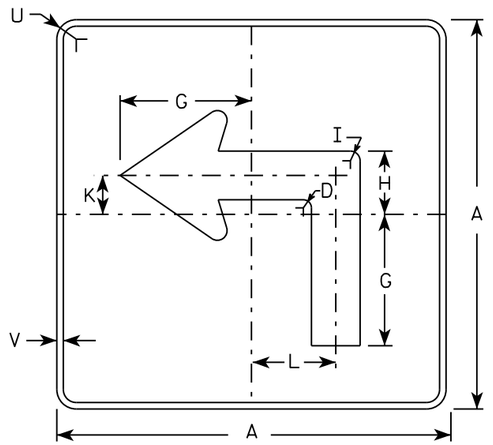
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 200	E



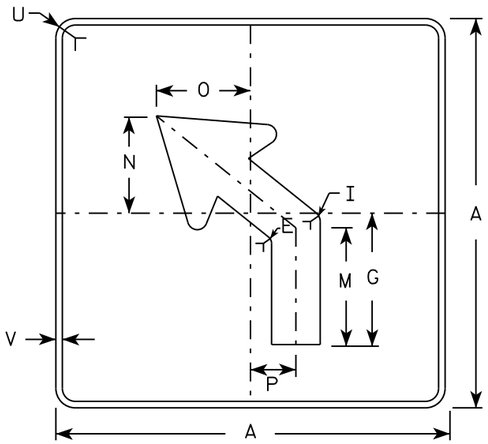
M5-1L
MM5-1L
MO5-1L
MP5-1L



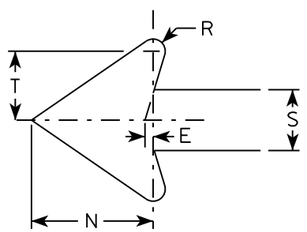
M5-2L
MM5-2L
MO5-2L
MP5-2L



MB5-1L
MK5-1L
MN5-1L
MR5-1L



MB5-2L
MK5-2L
MN5-2L
MR5-2L



NOTES

1. Signs are Type II - Type H reflective except as shown
2. Color:
   Background - See note 4
   Message - See note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. M5-1 and M5-2 Background - White
   Message - Black
   MB5-1 and MB5-2 Background - Blue
   Message - White
   MK5-1 and MK5-2 Background - Green
   Message - White
   MM5-1 and MM5-2 Background - White
   Message - Green
   MN5-1 and MN5-2 Background - Brown
   Message - White
   MO5-1 and MO5-2 Background - Orange - Type F Reflective
   Message - Black
   MP5-1 and MP5-2 Background - White - Type H Reflective
   Message - Blue
   MR5-1 and MR5-2 Background - Brown
   Message - Yellow
5. M5-1R same as M5-1L except arrow points right.
6. M5-2R same as M5-2L except arrow tilts right.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	21		1 1/8	3/8	3/8		7	3 3/8	5/8		2 1/8	4 1/2	6 3/8	5 1/4	5	2 1/2		1/2	2 5/8	3	1 1/2	1/2					3.06
3	30		1 3/8	1/2	5/8		10 1/8	4 7/8	7/8		3	6 1/2	9 1/8	7 1/2	7 1/4	3 1/2		3/4	3 3/4	4 1/4	1 7/8	1/2					6.25
4	30		1 3/8	1/2	5/8		10 1/8	4 7/8	7/8		3	6 1/2	9 1/8	7 1/2	7 1/4	3 1/2		3/4	3 3/4	4 1/4	1 7/8	1/2					6.25
5	30		1 3/8	1/2	5/8		10 1/8	4 7/8	7/8		3	6 1/2	9 1/8	7 1/2	7 1/4	3 1/2		3/4	3 3/4	4 1/4	1 7/8	1/2					6.25

STANDARD SIGN
M5-1 & M5-2

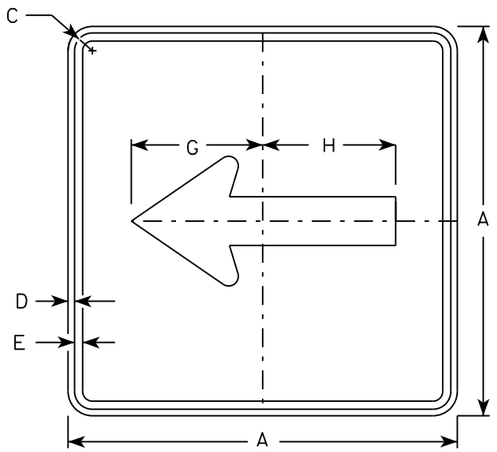
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

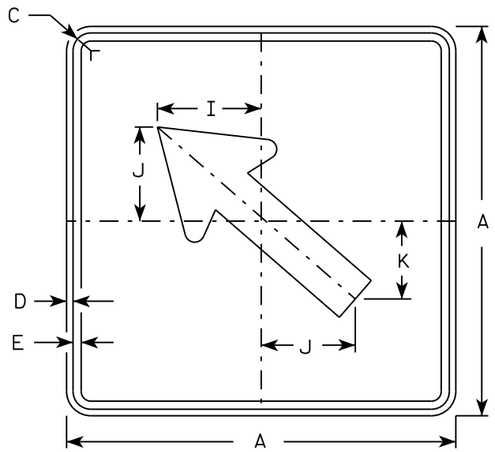
DATE 10/15/15 PLATE NO. M5-1.13

PROJECT NO: | HWY: | COUNTY: | SHEET NO: E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\M51.DGN PLOT DATE : 01-DEC-2015 18:07 PLOT BY : $$ plotuser $$ PLOT NAME : PLOT SCALE : 11.675051:1.000000



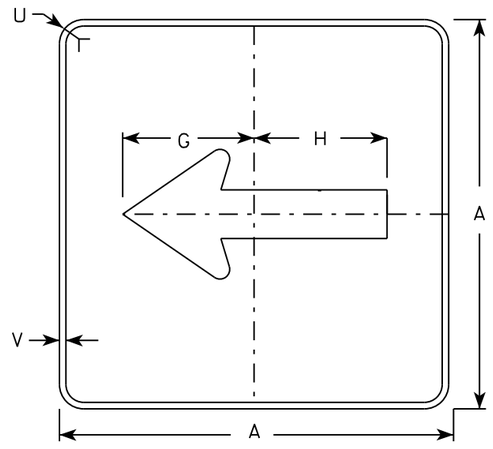
M6-1
MM6-1
MO6-1
MP6-1



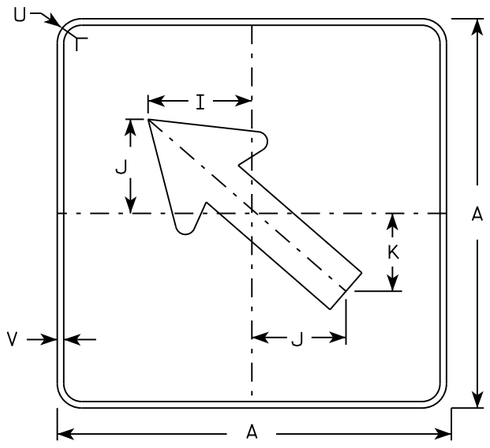
M6-2
MM6-2
MO6-2
MP6-2

NOTES

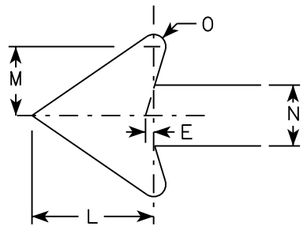
1. Signs are Type II - Type H except as Shown
2. Color:
   Background - See note 4
   Message - See note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. M6-1 and M6-2 Background - White
   Message - Black
   MB6-1 and MB6-2 Background - Blue
   Message - White
   MK6-1 and MK6-2 Background - Green
   Message - White
   MM6-1 and MM6-2 Background - White
   Message - Green
   MN6-1 and MN6-2 Background - Brown
   Message - White
   MO6-1 and MO6-2 Background - Orange - Type F Reflective
   Message - Black
   MP6-1 and MP6-2 Background - White
   Message - Blue
   MR6-1 and MR6-2 Background - Brown
   Message - Yellow



MB6-1
MK6-1
MN6-1
MR6-1



MB6-2
MK6-2
MN6-2
MR6-2



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	21		1 1/8	3/8	3/8		7 1/2	7 1/8	5 5/8	5	4 1/4	5 1/4	3	2 5/8	1/2						1 1/2	1/2						3.06
3	30		1 3/8	1/2	5/8		10 3/4	10 1/4	8	7 1/4	6	7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2						6.25
4	30		1 3/8	1/2	5/8		10 3/4	10 1/4	8	7 1/4	6	7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2						6.25
5	30		1 3/8	1/2	5/8		10 3/4	10 1/4	8	7 1/4	6	7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2						6.25

STANDARD SIGN
M6-1 & M6-2
SERIES

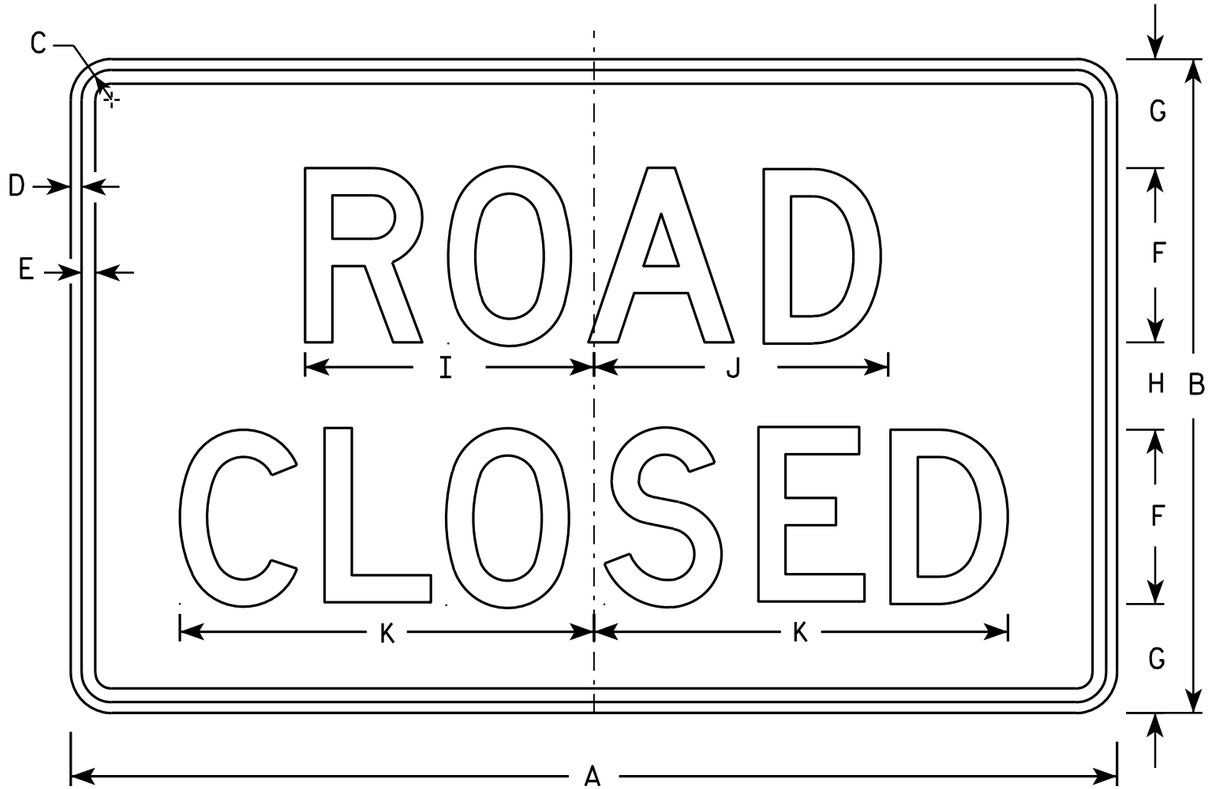
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 10/15/15 PLATI 202 M6-1.15

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

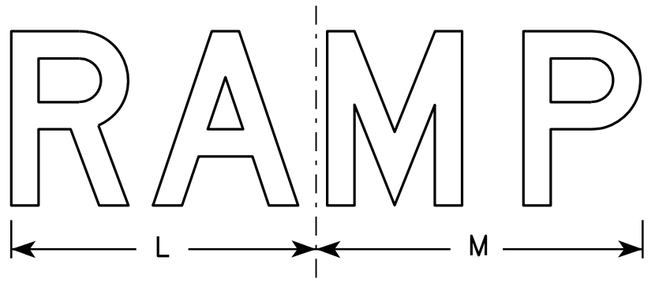
FILE NAME : C:\CAEfiles\Projects\tr_stdplate\M61.DGN PLOT DATE : 01-DEC-2015 17:57 PLOT BY : $$ plotuser $$ PLOT NAME : PLOT SCALE : 11.675051:1.000000



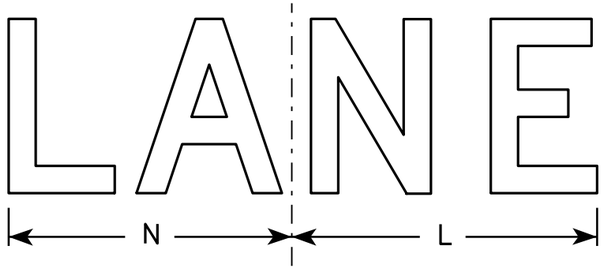
R11-2

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Modify the message as required.



R11-2R



R11-2L

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	48	30	1 3/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13													10.0
2M	48	30	1 3/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13													10.0
3	48	30	1 3/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13													10.0
4	48	30	1 3/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13													10.0
5	48	30	1 3/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13													10.0

STANDARD SIGN
R11-2

WISCONSIN DEPT OF TRANSPORTATION

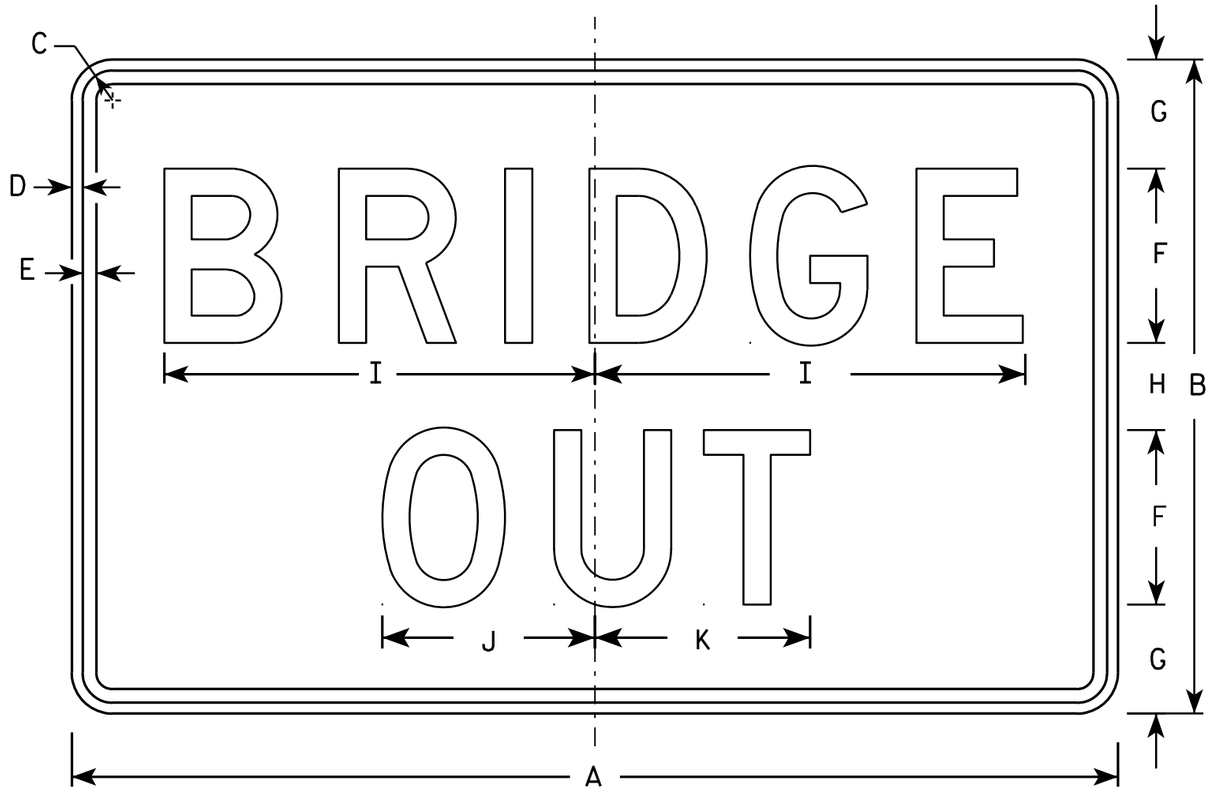
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 4/1/11 PLATE NO. R11-2.10

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 203	E

FILE NAME : C:\Users\PROJECTS\tr_stdplate\R112.DGN PLOT DATE : 01-APR-2011 14:25 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 6.952219:1.000000

WISDOT/CADDS SHEET 42



R11-2B

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	48	30	1 3/8	1/2	5/8	8	5	4	19 3/4	9 3/4	9 7/8																10.0
2M	48	30	1 3/8	1/2	5/8	8	5	4	19 3/4	9 3/4	9 7/8																10.0
3	48	30	1 3/8	1/2	5/8	8	5	4	19 3/4	9 3/4	9 7/8																10.0
4	48	30	1 3/8	1/2	5/8	8	5	4	19 3/4	9 3/4	9 7/8																10.0
5	48	30	1 3/8	1/2	5/8	8	5	4	19 3/4	9 3/4	9 7/8																10.0

STANDARD SIGN
R11-2B

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 4/1/11 PLATE NO. R11-2B.2

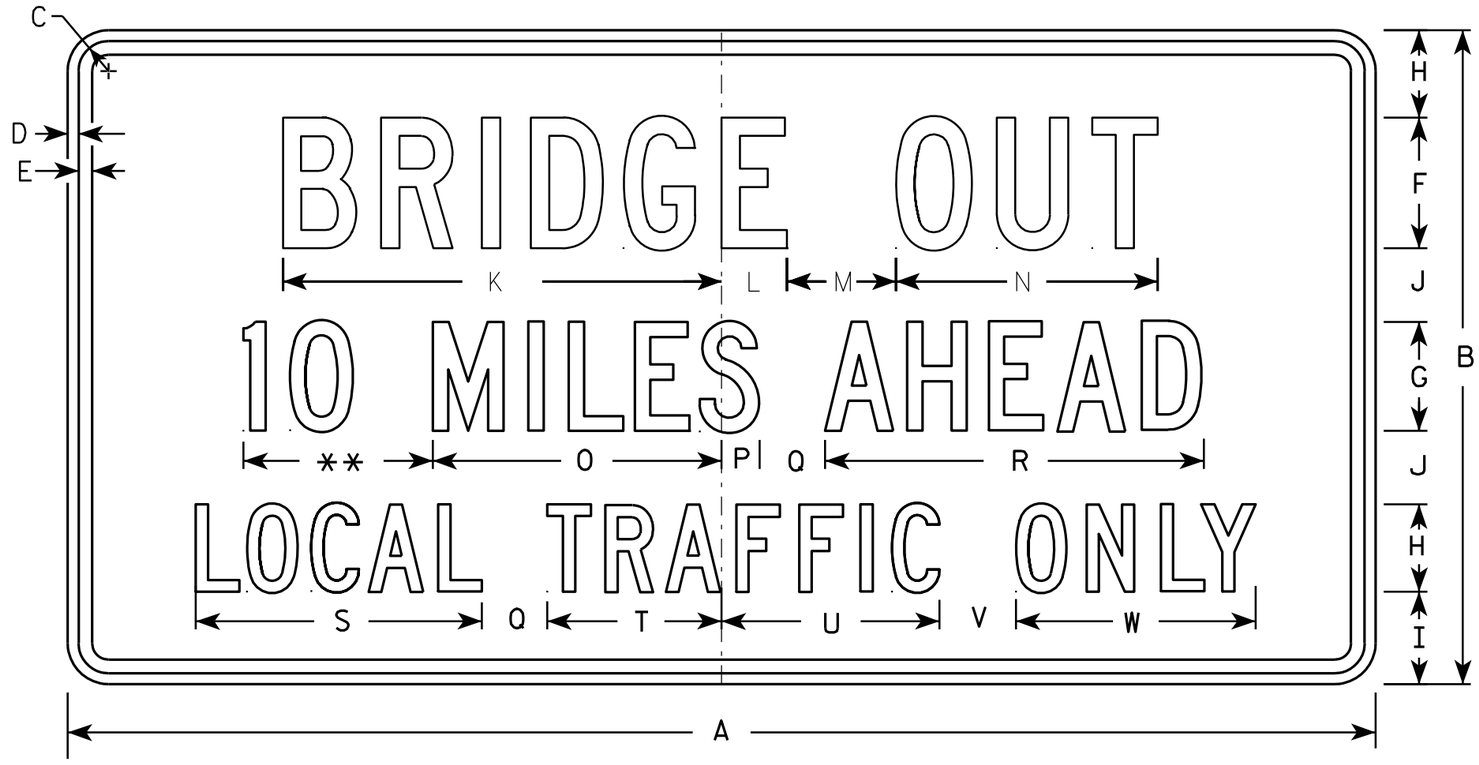
PROJECT NO:

SHEET NO: 204 E

7

FILE NAME : C:\Users\PROJECTS\tr_stdplate\R112B.DGN PLOT DATE : 01-APR-2011 14:23 PLOT BY : mscj9h

WISDOT/CADDS SHEET 42



R11-3B

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Substitute appropriate numerals and optically adjust spacing to achieve proper balance.

** See Note 5

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36	18	1 3/8	1/2	5/8	4	3	2 1/2	2	2	13 1/4	2 1/4	3	8	8	1 1/2	2	10 3/4	8 3/8	4 3/4	6 1/2	2	6 3/4				4.5
2S	60	30	1 3/8	1/2	5/8	6	5	4	4 1/4	3 3/8	20 1/8	3	5	12	13 1/4	1 3/4	3	17 3/8	13 1/8	8	10	3 1/2	11				12.5
2M	60	30	1 3/8	1/2	5/8	6	5	4	4 1/4	3 3/8	20 1/8	3	5	12	13 1/4	1 3/4	3	17 3/8	13 1/8	8	10	3 1/2	11				12.5
3																											
4																											
5																											

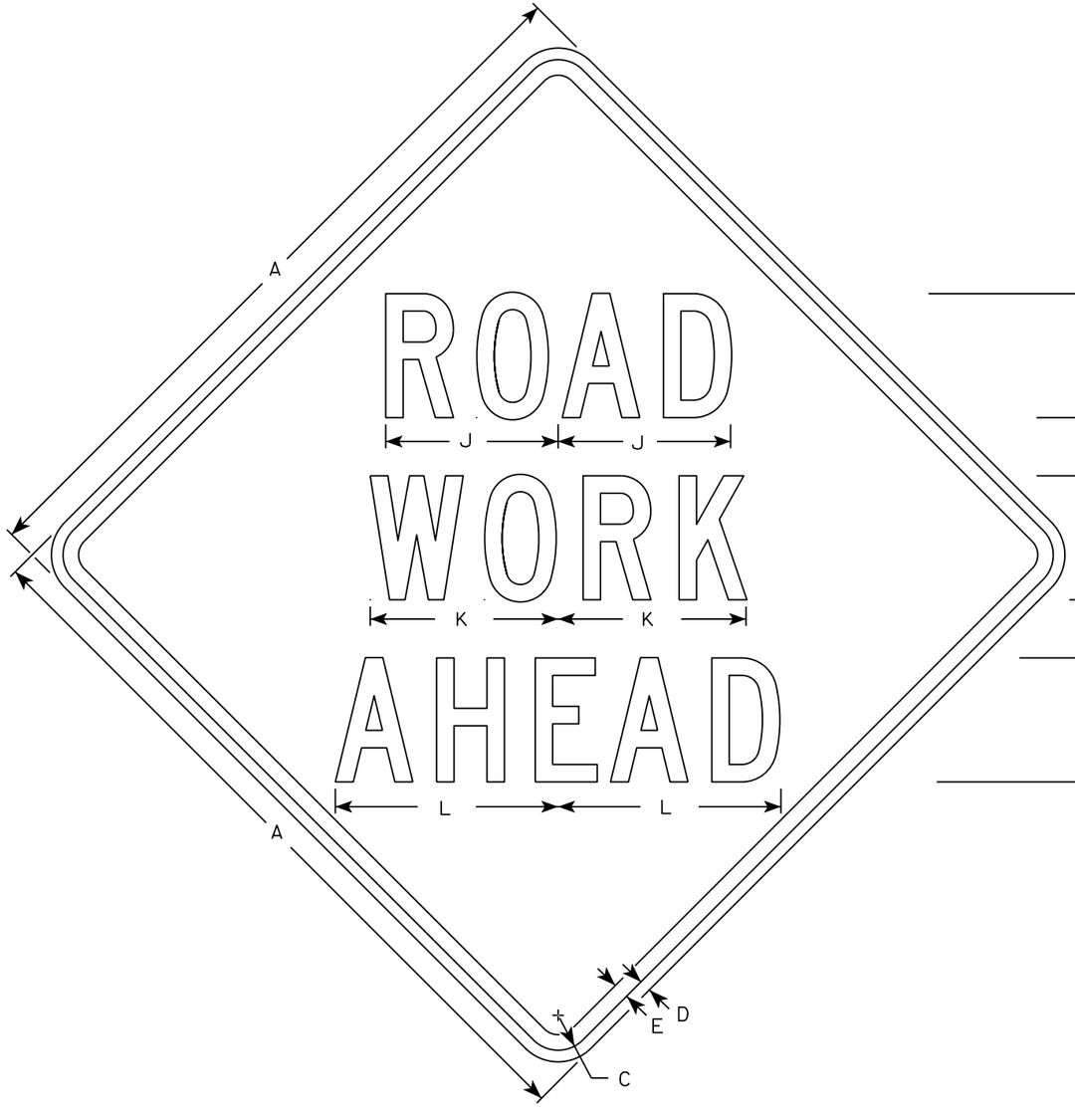
STANDARD SIGN
R11-3B

WISCONSIN DEPT OF TRANSPORTATION

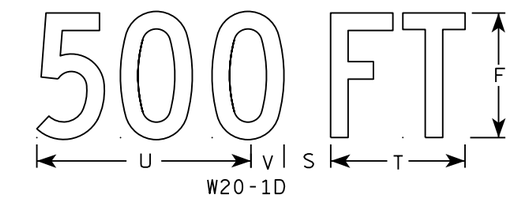
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 4/1/11 PLATE NO. R11-3B.2

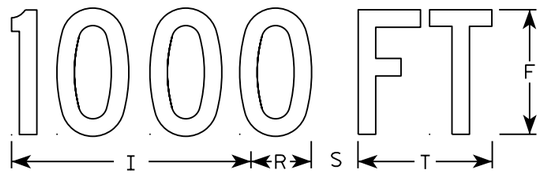
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 205 | E



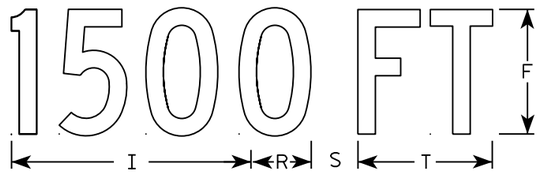
W20-1A



W20-1D

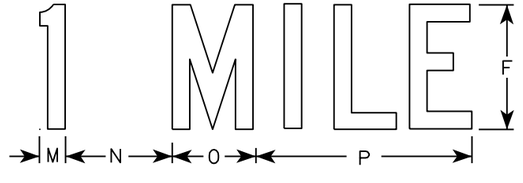


W20-1C

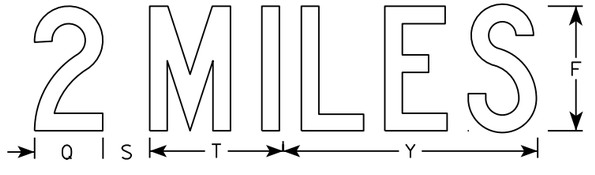


W20-1B

W20-1G



W20-1F



W20-1E

NOTES

1. Sign is Type II - Type F Reflective
2. Color:
   Background - Orange
   Message - Black
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 3/8	1/2	5/8	5	2 5/8	3 1/4	10 1/8	7	7 5/8	8 7/8	1 1/8	4 1/2	3 1/2	9		2 1/2	2 1/4	5 5/8	9	1 3/8	8	1 3/4	10 3/4	6	9.0
2S	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
2M	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
3	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
4	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
5	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0

STANDARD SIGN
W20-1A, B, C, D, F & G

WISCONSIN DEPT OF TRANSPORTATION

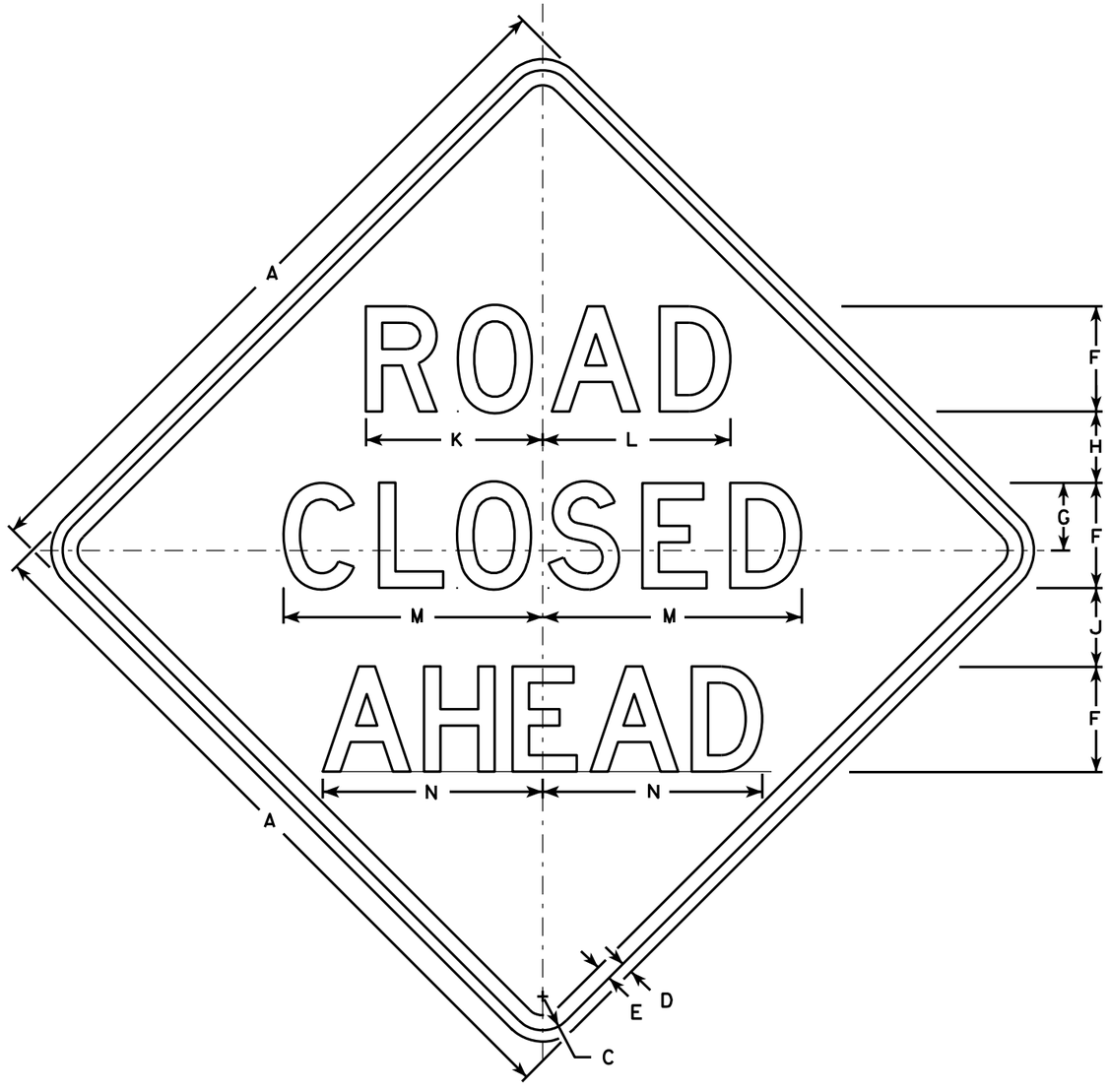
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/07/15 PLATE NO. W20-1.10

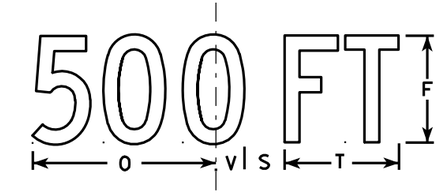
PROJECT NO:

SHEET NO: E

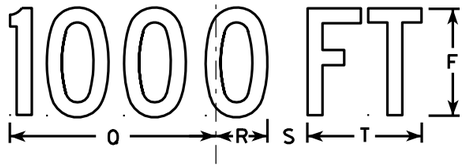
FILE NAME : C:\CAEfiles\Projects\tr_stdplate\W201.DGN PLOT DATE : 01-DEC-2015 18:24 PLOT BY : $$ plotuser $$



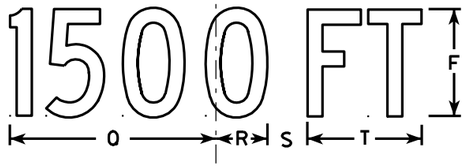
W20-3A



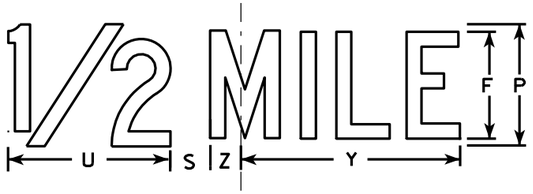
W20-3D



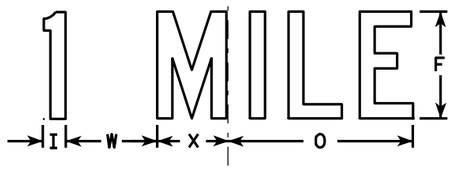
W20-3C



W20-3B



W20-3G



W20-3F

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Message Series - see note 5
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Lines 1 and 2 are Series D.
   Line 3 is Series D for AHEAD and Series C for all other distances.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 5/8	5/8	3/4	5	3 3/8	3 1/2	1 1/8	4	8 3/8	8 7/8	12 1/2	11	9	6	10 1/8	2 1/2	1 7/8	5 5/8	8	1 3/8	4 1/2	3 1/2	10 3/4	1 3/4	9.0
2S	48		2 1/4	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	11 3/4	12 1/2	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0
2M	48		2 1/4	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	11 3/4	12 1/2	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0
3	48		2 1/4	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	11 3/4	12 1/2	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0
4	48		2 1/4	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	11 3/4	12 1/2	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0
5	48		2 1/4	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	11 3/4	12 1/2	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0

STANDARD SIGN
W20-3A, B, C, D, F & G

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

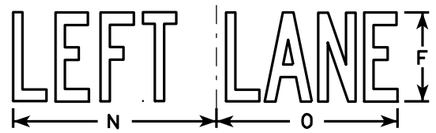
DATE 3/18/11 PLATE NO. W20-3.7

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 207 | E

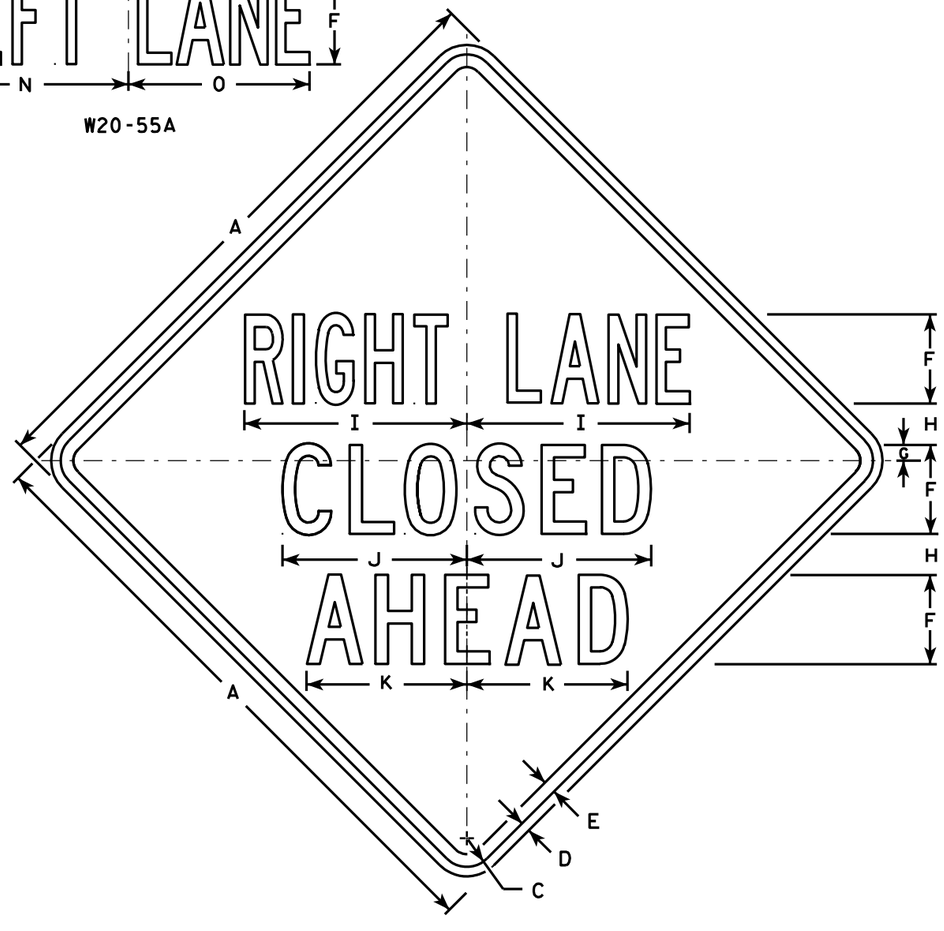
7

FILE NAME : C:\Users\PROJECTS\tr_stdplate\W203.DGN PLOT DATE : 18-MAR-2011 12:08 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 9.931739:1.000000
WISDOT/CADDS SHEET 42

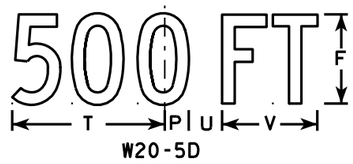
W20-56A



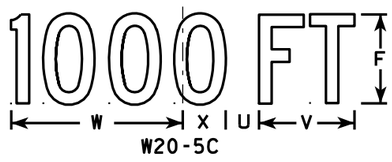
W20-55A



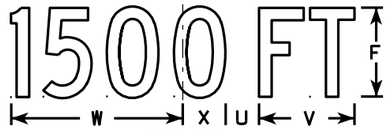
W20-5A



W20-5D



W20-5C



W20-5B

W20-5G

W20-5F

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Message Series - See Note 5
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. " _____ LANE" is Series B.
   All other copy is Series C.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36	6	1 5/8	5/8	3/4	5	1/8	2 1/2	13 1/8	10 3/4	9 1/2	14 1/4	13 5/8	12	12	1 3/8	1 1/8	4 1/2	3 1/2	9	1 1/8	5 5/8	10 1/8	2 1/2	1 3/4	8	9.0
2S	48	8	2 1/4	3/4	1	7	1 1/4	3 1/4	17 1/2	14 3/8	12 5/8	19	18 3/8	16	14 1/4	1 7/8	1 1/2	6	4 5/8	12	2 5/8	7 1/2	13 1/2	3 3/8	2 3/8	10 5/8	16.0
2M	48	8	2 1/4	3/4	1	7	1 1/4	3 1/4	17 1/2	14 3/8	12 5/8	19	18 3/8	16	14 1/4	1 7/8	1 1/2	6	4 5/8	12	2 5/8	7 1/2	13 1/2	3 3/8	2 3/8	10 5/8	16.0
3	48	8	2 1/4	3/4	1	7	1 1/4	3 1/4	17 1/2	14 3/8	12 5/8	19	18 3/8	16	14 1/4	1 7/8	1 1/2	6	4 5/8	12	2 5/8	7 1/2	13 1/2	3 3/8	2 3/8	10 5/8	16.0
4	48	8	2 1/4	3/4	1	7	1 1/4	3 1/4	17 1/2	14 3/8	12 5/8	19	18 3/8	16	14 1/4	1 7/8	1 1/2	6	4 5/8	12	2 5/8	7 1/2	13 1/2	3 3/8	2 3/8	10 5/8	16.0
5	48	8	2 1/4	3/4	1	7	1 1/4	3 1/4	17 1/2	14 3/8	12 5/8	19	18 3/8	16	14 1/4	1 7/8	1 1/2	6	4 5/8	12	2 5/8	7 1/2	13 1/2	3 3/8	2 3/8	10 5/8	16.0

STANDARD SIGN
W20-5A, B, C, D, F & G

WISCONSIN DEPT OF TRANSPORTATION

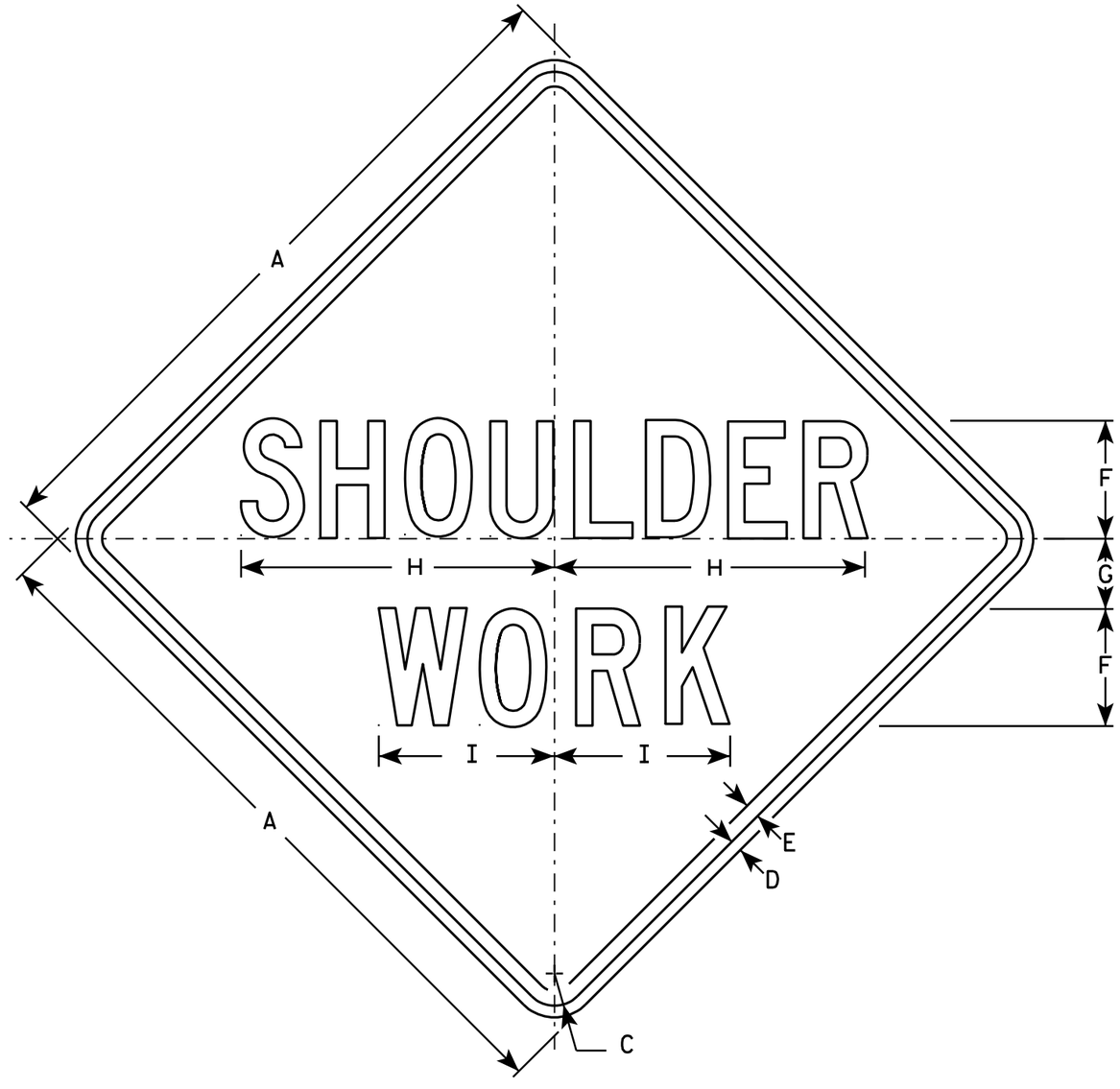
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/18/11 PLATE NO. W20-5.11

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 208	E

7

FILE NAME : C:\Users\PROJECTS\tr_stdplate\W205.DGN PLOT DATE : 18-MAR-2011 12:15 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 11.918087:1.000000
WISDOT/CADDS SHEET 42



W21-5

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24		1 1/8	3/8	1/2	4	2 1/2	10 3/4	6																		4.0
2S	30		1 3/8	1/2	5/8	5	3	13 3/8	7 1/2																		6.25
2M	30		1 3/8	1/2	5/8	5	3	13 3/8	7 1/2																		6.25
3	36		1 5/8	5/8	3/4	6	3 1/2	16	9																		9.0
4	48		2 1/4	3/4	1	8	5	21 3/8	11 1/4																		16.0
5	48		2 1/4	3/4	1	8	5	21 3/8	11 1/4																		16.0

STANDARD SIGN
W21-5

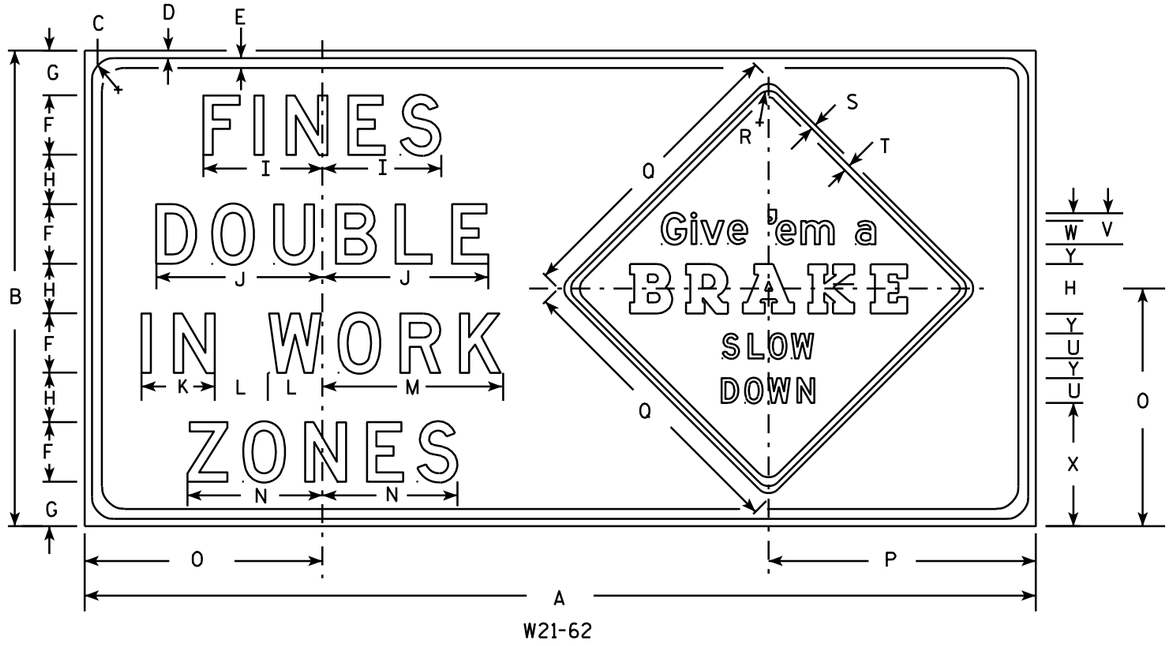
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

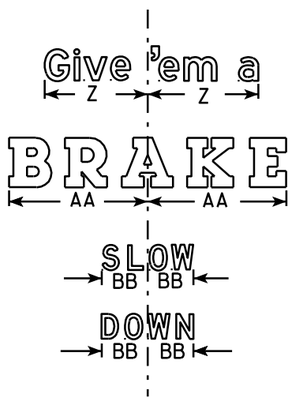
DATE 3/21/11 PLATE NO. W21-5.5

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 209 | E

FILE NAME : C:\Users\PROJECTS\tr_stdplate\W215.DGN PLOT DATE : 21-MAR-2011 08:01 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 6.207338:1.000000
WISDOT/CADDS SHEET 42



W21-62



W21-62P

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White - (See Note 5)
   Message - Black
3. Message Series -
   Fines Double Message - All lines are Series D
   Give 'em a Brake -
   Line one is Series E, line two is a Special Graphic Series and lines three and four are Series D.
4. The base material shall be plywood. Corners may be square or rounded, but borders shall be rounded as shown. The base material for Give 'em a Brake sign can be a seperate sheet of aluminum with the corners and borders rounded as shown. This seperate panel shall then be attached to the plywood with aluminum or stainless steel sheet metal screws.
5. Background for the Give 'em a Brake sign shall be Type F reflective orange.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA	BB	CC	DD	Area sq. ft.
1																															
2S																															
2M																															
3	96	48	2 1/4	3/4	1	6	4 1/2	5	12	16 3/4	7 3/8	5 1/2	18 1/4	13 5/8	24	27	30	1 3/8	1/2	5/8	2 1/2	3 1/8	2 3/8	12 1/2	2	10 3/4	14	4 5/8	34 1/2	4	32.0
4																															
5																															

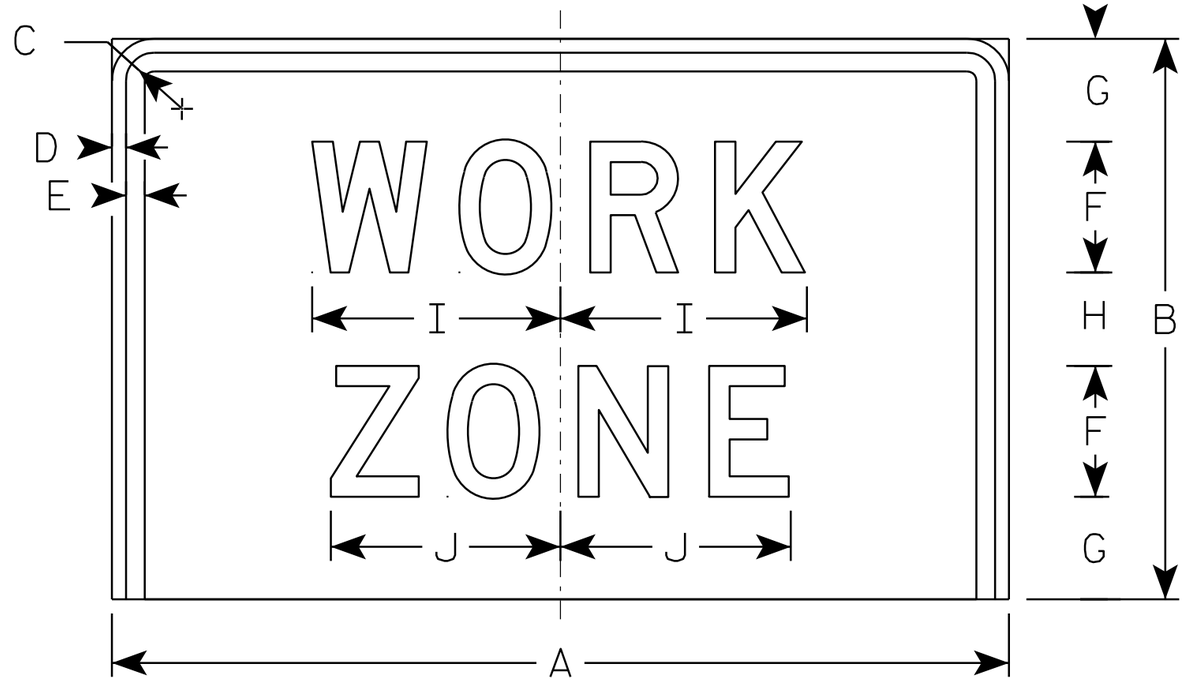
STANDARD SIGN
W21-62

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/21/11 PLATE NO. W21-62.5

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 210	E



W21-62Q

NOTES

1. Sign is Type II - Type F - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Message Series - D

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	48	30	2 1/4	3/4	1	7	5 1/2	5	13 1/4	12 1/4																	10.0
2M	48	30	2 1/4	3/4	1	7	5 1/2	5	13 1/4	12 1/4																	10.0
3																											
4																											
5																											

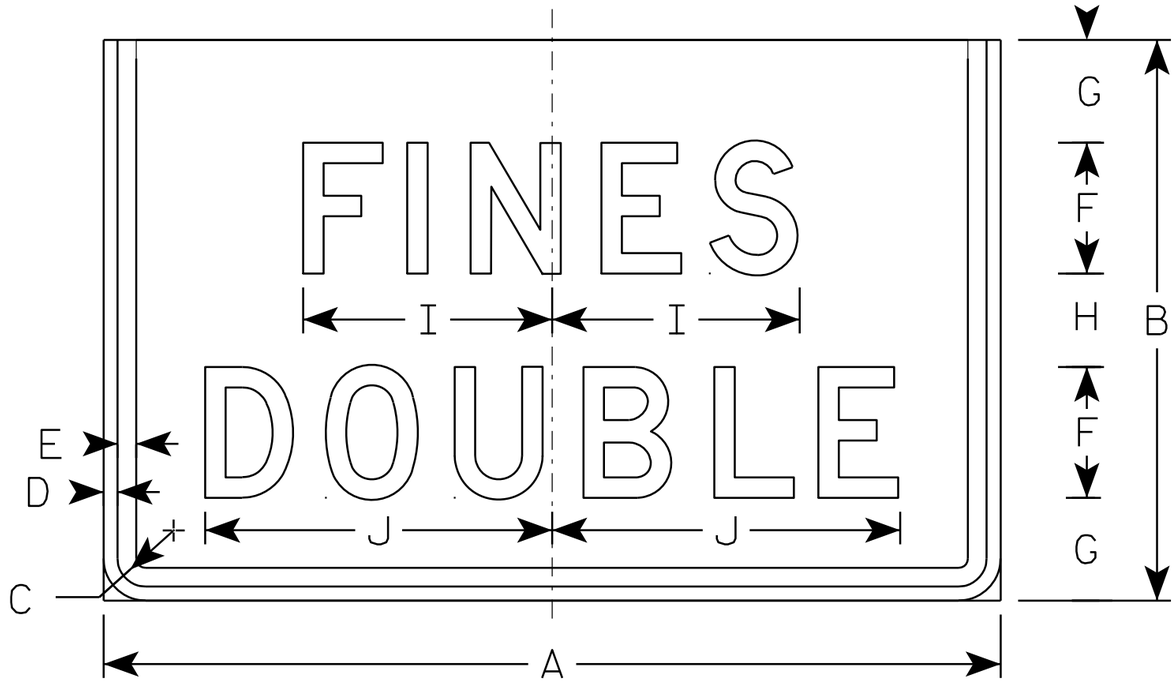
STANDARD SIGN
W21-62Q

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/21/11 PLATE NO. W21-620.2

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 211	E



W21-62R

NOTES

1. Sign is Type II - Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - D

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	48	30	2 1/4	3/4	1	7	5 1/2	5	13 1/4	18 5/8																	10.0
2M	48	30	2 1/4	3/4	1	7	5 1/2	5	13 1/4	18 5/8																	10.0
3																											
4																											
5																											

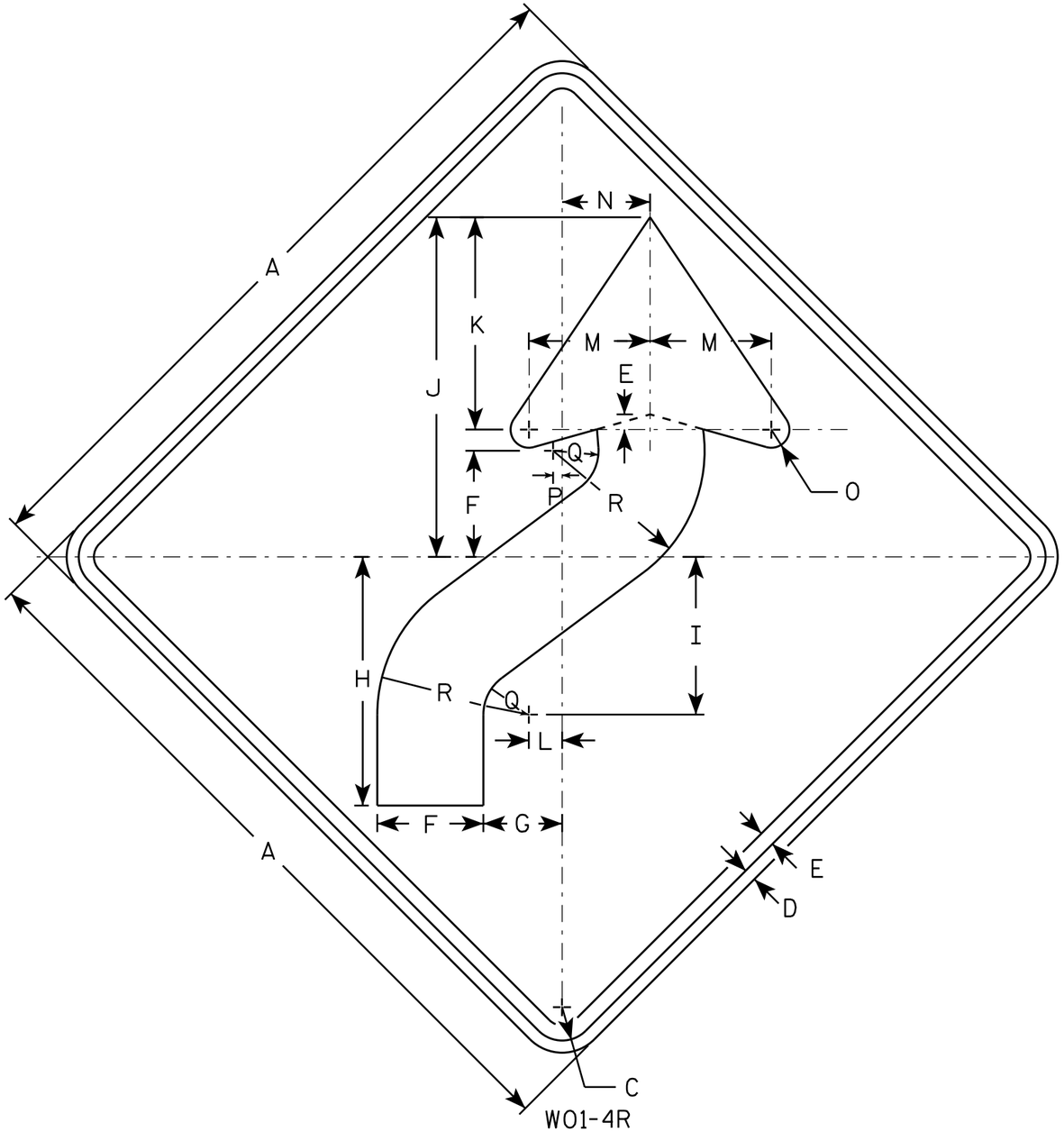
STANDARD SIGN
W21-62R

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/21/11 PLATE NO. W21-62R.2

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 212 | E



WO1-4R

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. WO1-4L is the same as WO1-4R except the arrow is reversed along the vertical centerline.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 5/8	5/8	3/4	5 1/4	4	12 3/8	7 7/8	16 7/8	10 1/2	1 5/8	6	4 1/2	1	1/2	2 1/4	7 1/2									9.0
2S	48		2 1/4	3/4	1	7	5 1/4	16 1/2	10 1/2	22 1/2	14	2 1/4	8	6	1 1/4	5/8	3	10									16.0
2M	48		2 1/4	3/4	1	7	5 1/4	16 1/2	10 1/2	22 1/2	14	2 1/4	8	6	1 1/4	5/8	3	10									16.0
3	48		2 1/4	3/4	1	7	5 1/4	16 1/2	10 1/2	22 1/2	14	2 1/4	8	6	1 1/4	5/8	3	10									16.0
4	48		2 1/4	3/4	1	7	5 1/4	16 1/2	10 1/2	22 1/2	14	2 1/4	8	6	1 1/4	5/8	3	10									16.0
5	48		2 1/4	3/4	1	7	5 1/4	16 1/2	10 1/2	22 1/2	14	2 1/4	8	6	1 1/4	5/8	3	10									16.0

STANDARD SIGN
WO1-4

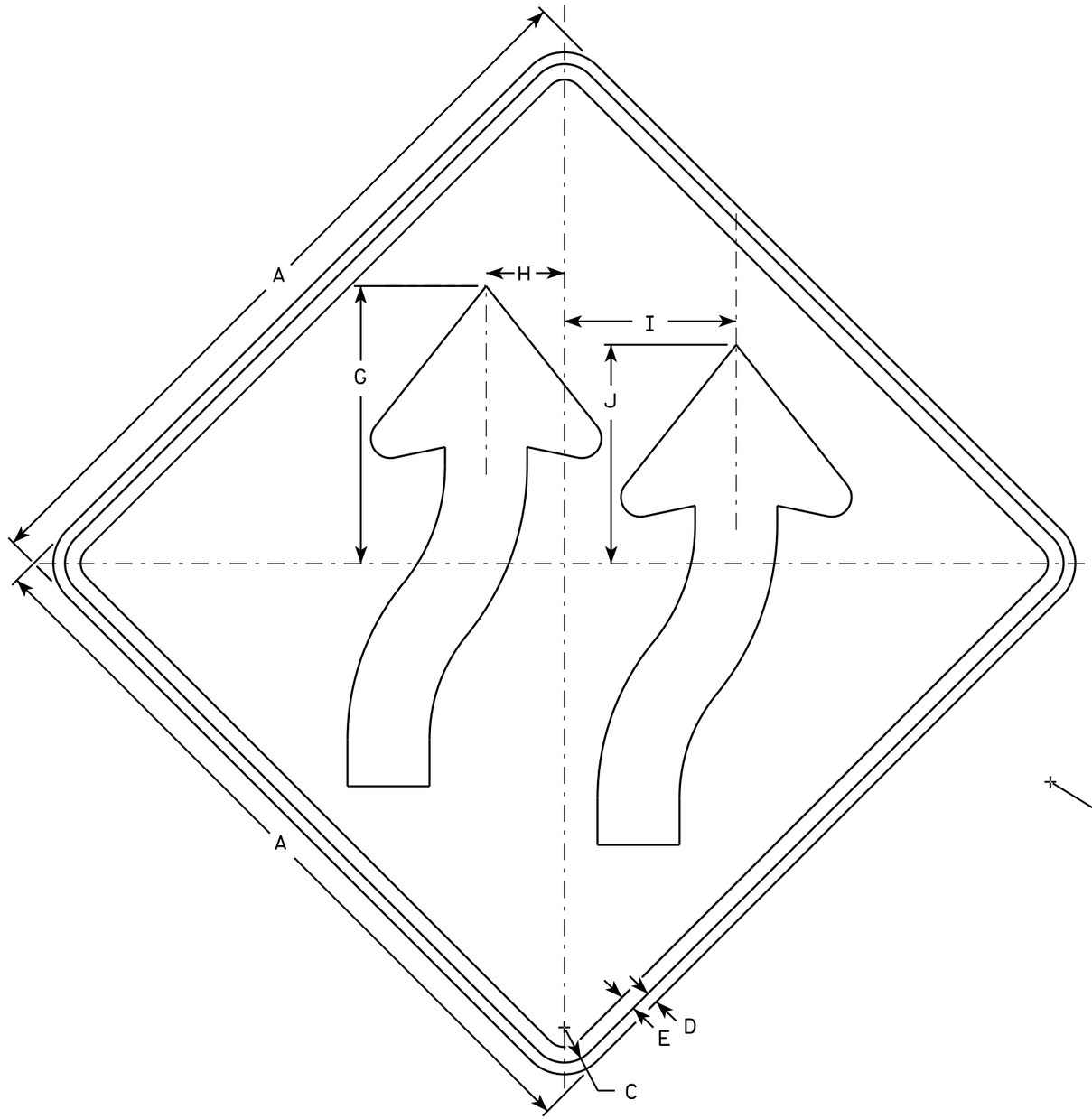
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

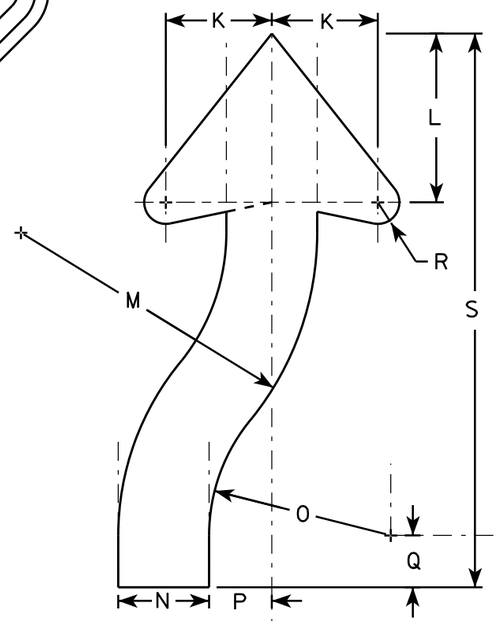
DATE 11/18/13 PLATE NO WO1-4.1

PROJECT NO: | HWY: | COUNTY: | SHEET NO: E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\WO14.DGN PLOT DATE : 28-FEB-2014 11:35 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 6.755110:1.000000
WISDOT/CADDS SHEET 42



W01-4bR



NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. W01-4bL is the same as W014-bR exept arrows are reversed along the vertical centerline

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 5/8	5/8	3/4		13 3/8	3 3/4	8 1/4	10 1/2	4 5/8	7 3/8	12 7/8	3 7/8	7 7/8	2 3/4	2 1/4	7/8	24								9.0
2S	48		2 1/4	3/4	1		17 3/4	5	11	14	6 1/8	9 3/4	17 1/8	5 1/4	10 1/2	3 5/8	3	1 1/4	32								16.0
2M	48		2 1/4	3/4	1		17 3/4	5	11	14	6 1/8	9 3/4	17 1/8	5 1/4	10 1/2	3 5/8	3	1 1/4	32								16.0
3	48		2 1/4	3/4	1		17 3/4	5	11	14	6 1/8	9 3/4	17 1/8	5 1/4	10 1/2	3 5/8	3	1 1/4	32								16.0
4	48		2 1/4	3/4	1		17 3/4	5	11	14	6 1/8	9 3/4	17 1/8	5 1/4	10 1/2	3 5/8	3	1 1/4	32								16.0
5	48		2 1/4	3/4	1		17 3/4	5	11	14	6 1/8	9 3/4	17 1/8	5 1/4	10 1/2	3 5/8	3	1 1/4	32								16.0

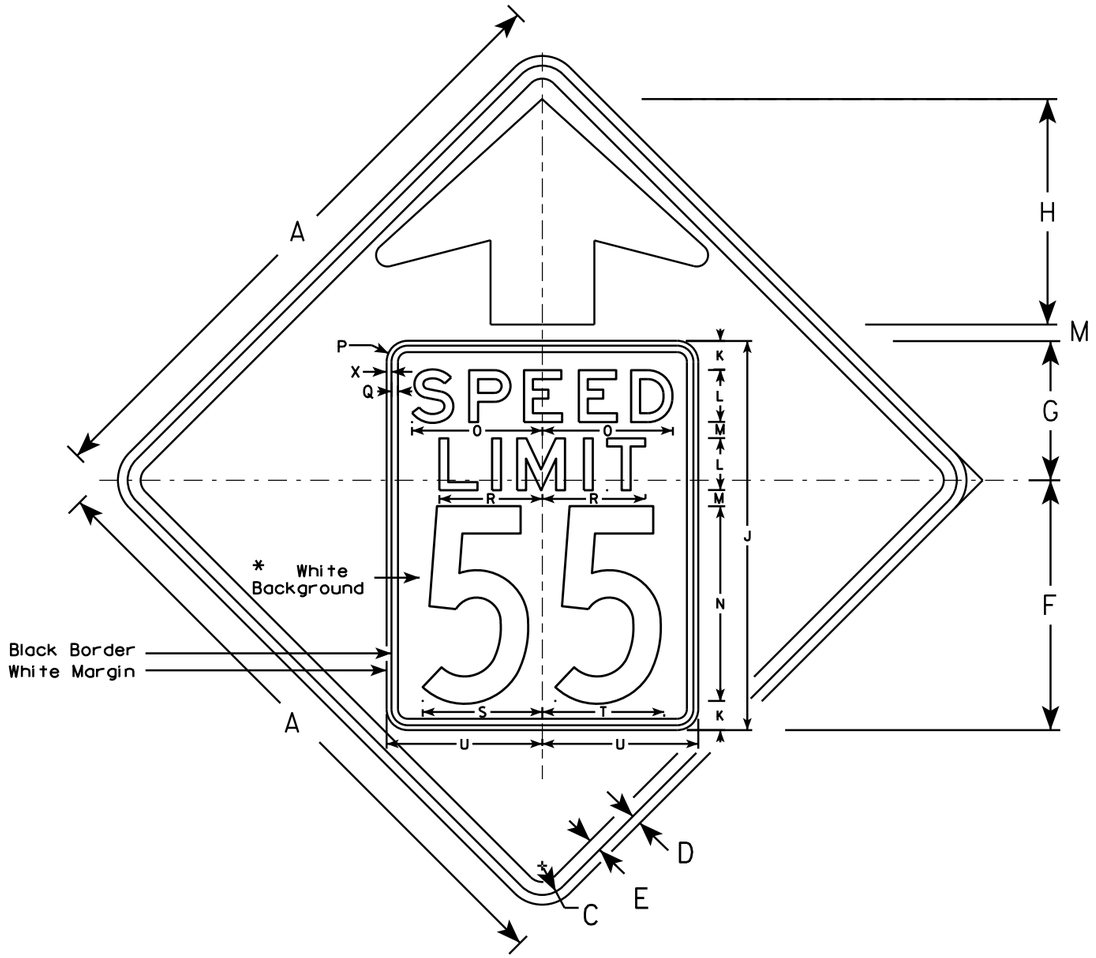
STANDARD SIGN
W01-4b

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/18/13 PLATE NO. W01-4b.1

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

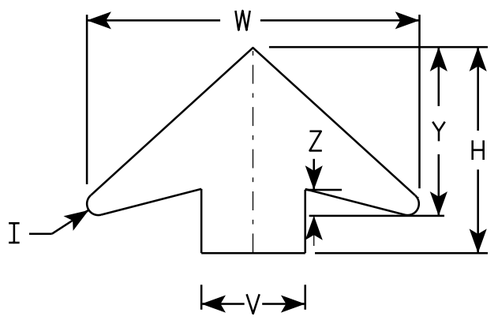


W03-5

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color: *
   Background - ORANGE*
   Message - BLACK
3. Message Series - C for numbers Series E for wording
4. Substitute appropriate numerals and optically adjust spacing to achieve proper balance

*Speed Limit Sign shall have a White Background



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 5/8	5/8	3/4	14 1/2	9 1/2	11 1/2	5/8	24	2	3	1	12	7 1/8	1 1/2	3/8	5 3/4	7 1/4	7 1/8	9	6	19 1/4	3/8	9 3/4	1 5/8	9.0
2S	48		2 1/4	3/4	1	19 1/4	10 3/4	17 3/8	7/8	30	2 1/4	4	1 1/4	15	10	1 5/8	1/2	8	9 1/4	9 3/8	12	8	25 5/8	3/8	13	2	16.0
2M	48		2 1/4	3/4	1	19 1/4	10 3/4	17 3/8	7/8	30	2 1/4	4	1 1/4	15	10	1 5/8	1/2	8	9 1/4	9 3/8	12	8	25 5/8	3/8	13	2	16.0
3	48		2 1/4	3/4	1	19 1/4	10 3/4	17 3/8	7/8	30	2 1/4	4	1 1/4	15	10	1 5/8	1/2	8	9 1/4	9 3/8	12	8	25 5/8	3/8	13	2	16.0
4	48		2 1/4	3/4	1	19 1/4	10 3/4	17 3/8	7/8	30	2 1/4	4	1 1/4	15	10	1 5/8	1/2	8	9 1/4	9 3/8	12	8	25 5/8	3/8	13	2	16.0
5	48		2 1/4	3/4	1	19 1/4	10 3/4	17 3/8	7/8	30	2 1/4	4	1 1/4	15	10	1 5/8	1/2	8	9 1/4	9 3/8	12	8	25 5/8	3/8	13	2	16.0

STANDARD SIGN
W03-5

WISCONSIN DEPT OF TRANSPORTATION

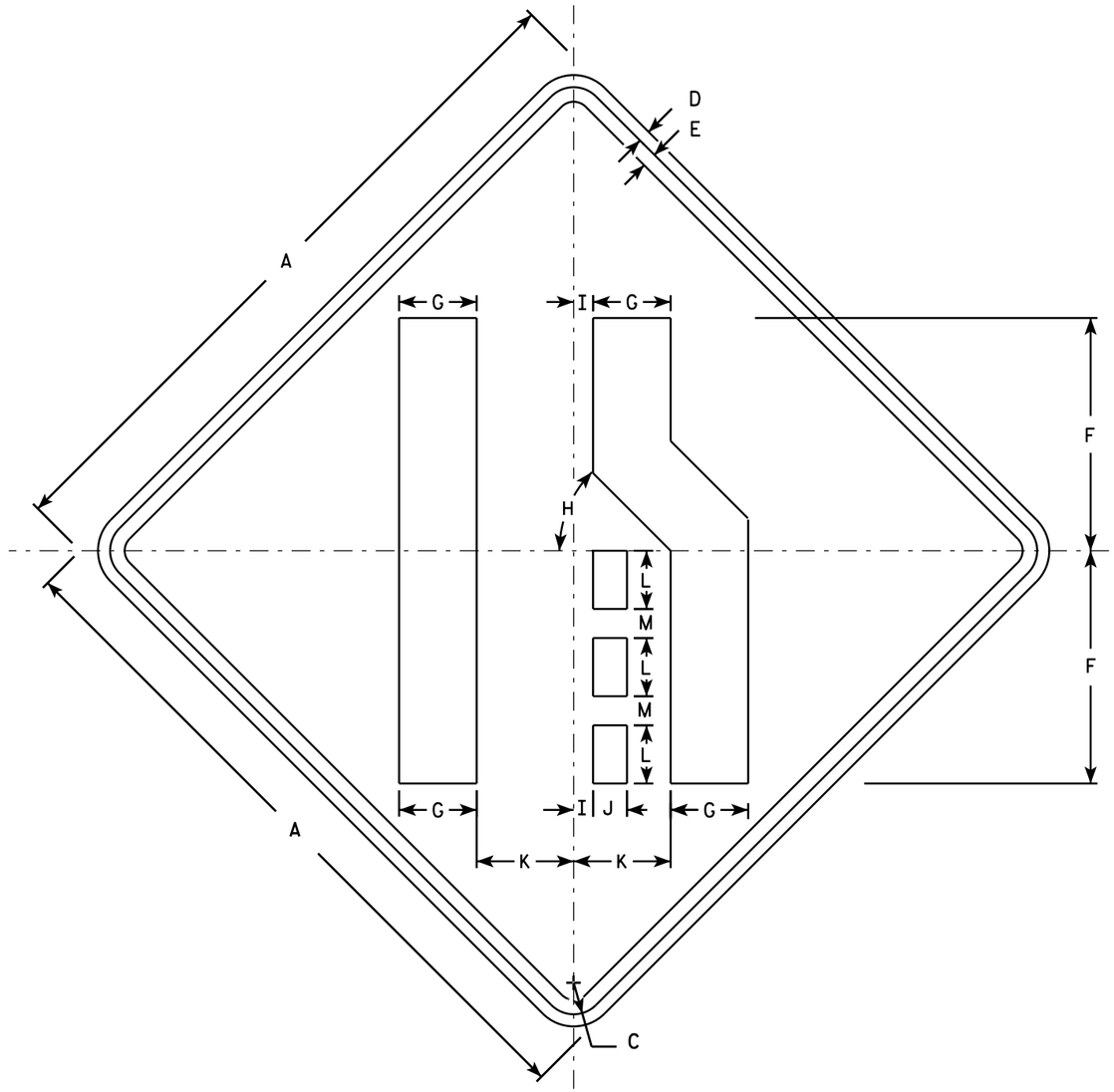
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/20/13 PLATE W03-5.1

PROJECT NO: SHEET NO: E

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\W035.DGN PLOT DATE : 20-NOV-2013 11:32 PLOT BY : mscsja

WISDOT/CADDS SHEET 42



W04-2R

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. W04-2L is the same as W04-2R except the symbol is reversed along the vertical centerline.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 5/8	5/8	3/4	12	4	45°	1	1 3/4	5	3	1 1/2														9.0
2S	48		2 1/4	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0
2M	48		2 1/4	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0
3	48		2 1/4	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0
4	48		2 1/4	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0
5	48		2 1/4	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0

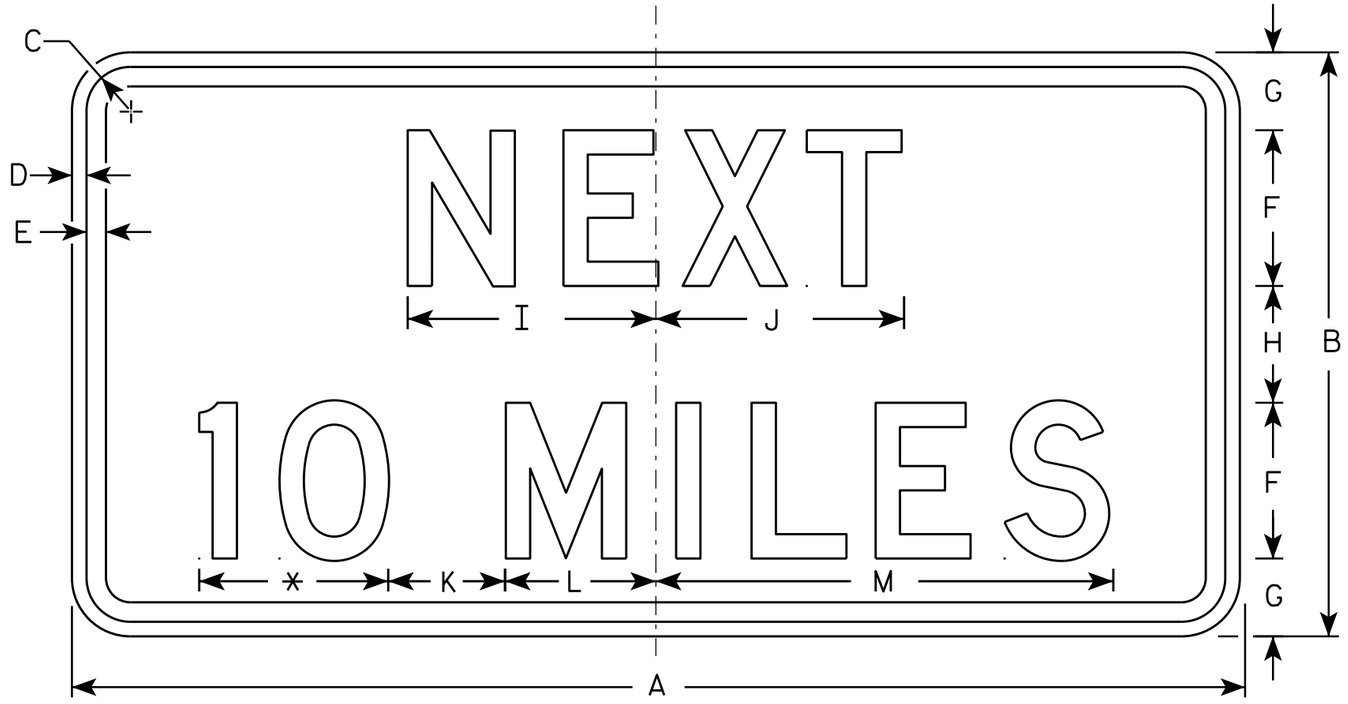
STANDARD SIGN
W04-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/20/13 PLATE 216 W04-2.1

PROJECT NO: | SHEET NO: E



W057-51

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Substitute appropriate numerals and optically adjust spacing to achieve proper balance.

* See note 5

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36	18	1 1/8	3/8	1/2	5	2 5/8	2 3/4	7 7/8	8	5	4 1/8	15 3/8														4.5
2S	48	24	1 3/8	1/2	5/8	6	3 1/2	5	10	10 1/8	6	5 5/8	19														8.0
2M	48	24	1 3/8	1/2	5/8	6	3 1/2	5	10	10 1/8	6	5 5/8	19														8.0
3	48	24	1 3/8	1/2	5/8	6	3 1/2	5	10	10 1/8	6	5 5/8	19														8.0
4	48	24	1 3/8	1/2	5/8	6	3 1/2	5	10	10 1/8	6	5 5/8	19														8.0
5	48	24	1 3/8	1/2	5/8	6	3 1/2	5	10	10 1/8	6	5 5/8	19														8.0

STANDARD SIGN
W057-51

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew L Rauch
for State Traffic Engineer

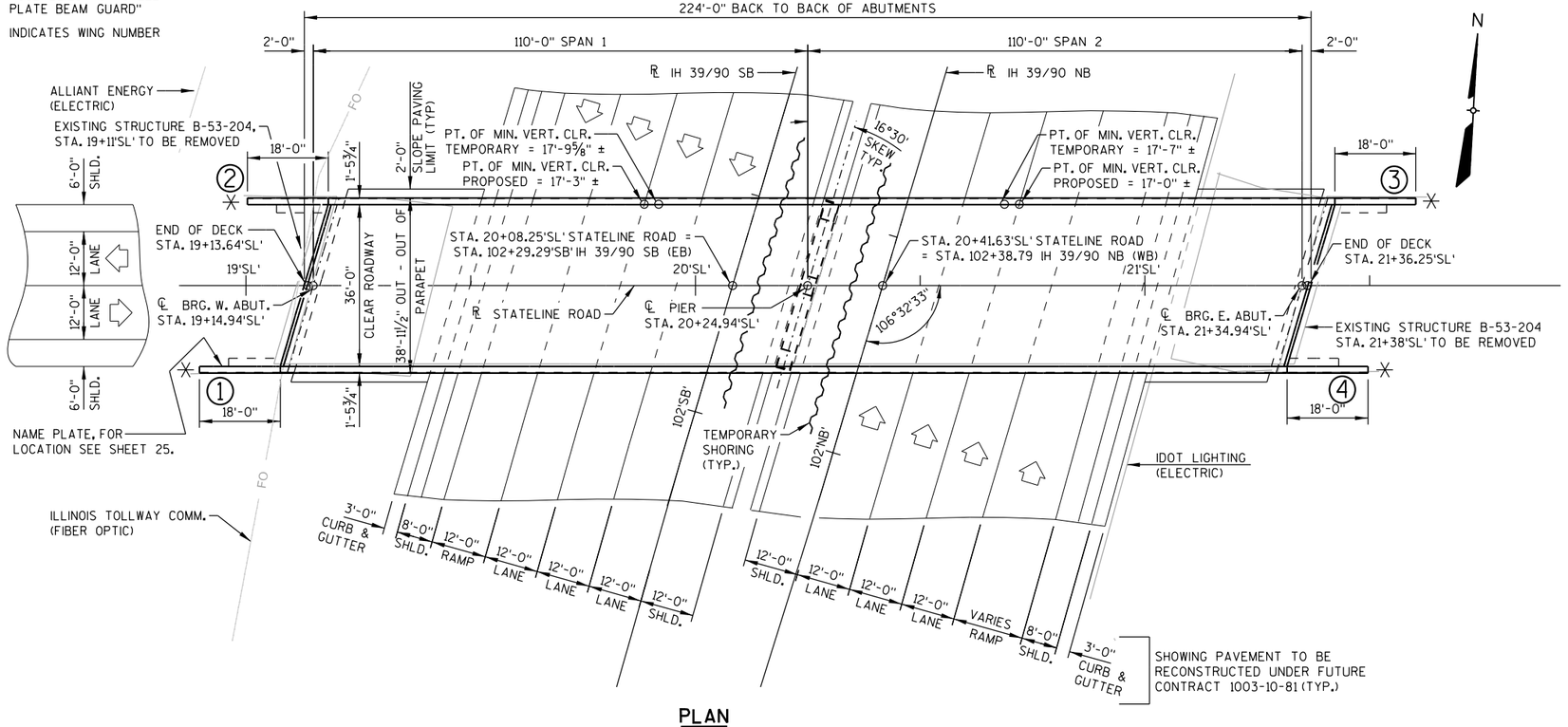
DATE 11/20/13 PLATE W057-51.1

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

7

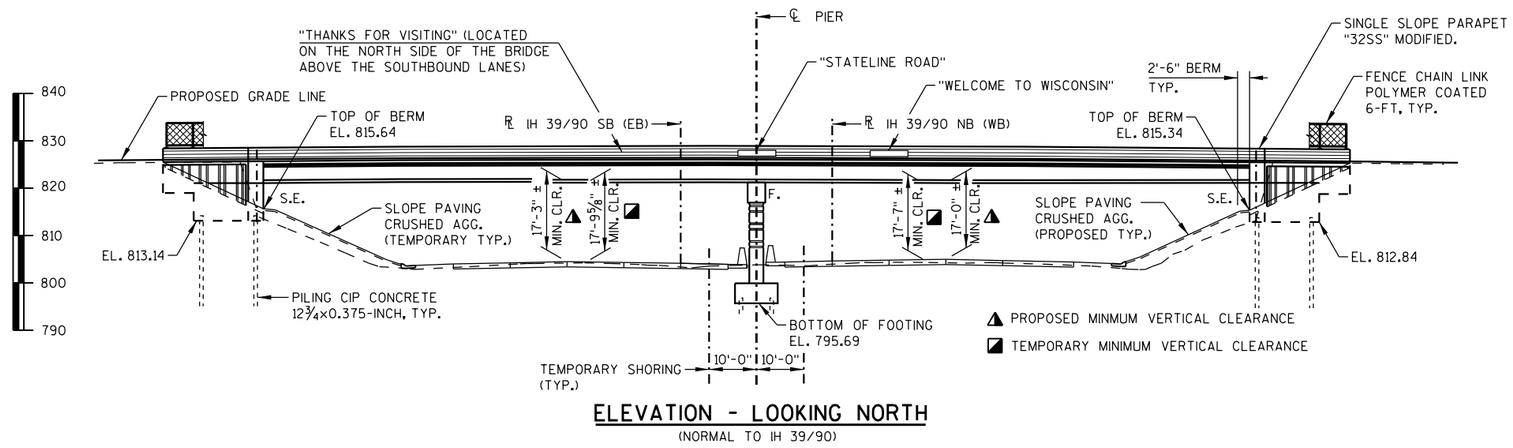
PROVIDE "ANCHOR ASSEMBLIES FOR STEEL PLATE BEAM GUARD"

(X) INDICATES WING NUMBER



PLAN

(2 SPAN - 45W-INCH PRESTRESSED GIRDERS)



ELEVATION - LOOKING NORTH

(NORMAL TO IH 39/90)

BENCH MARK TABLE

NO.	STATION	DESCRIPTION	ELEVATION
BM099T	18+17'SL', 376' RT.	N. BOLT ON SIGN BASE	803.54
BM111T	21+56'SL, 105' LT.	SW BOLT ON LIGHT POLE BASE	800.40

STATE PROJECT NUMBER

1003-10-82

DESIGN DATA

LIVE LOAD:

DESIGN LOADING: HL-93
INVENTORY RATING FACTOR : RF = 1.13
OPERATIONAL RATING FACTOR : RF = 1.81
WISCONSIN STANDARD PERMIT VEHICLE (WIS-SPV) = 250 KIPS

STRUCTURE IS DESIGNED FOR A FUTURE WEARING SURFACE OF 20 PSF.

ULTIMATE DESIGN STRESSES:

CONCRETE MASONRY - SUPERSTRUCTURE — f'c = 4,000 P.S.I.
ALL OTHER — f'c = 3,500 P.S.I.

BAR STEEL REINFORCEMENT, GRADE 60 — fy = 60,000 P.S.I.

45W" PRESTRESSED GIRDER CONCRETE MASONRY — f'c = 8,000 P.S.I.
STRANDS - 0.6" DIA. WITH ULTIMATE TENSILE STRENGTH OF — 270,000 P.S.I.

FOUNDATION DATA

ABUTMENTS TO BE SUPPORTED ON PILING CIP CONCRETE 12¾×0.375-INCH DRIVEN TO A REQUIRED DRIVING RESISTANCE OF 210 TONS** PER PILE AS DETERMINED BY THE MODIFIED GATES DYNAMIC FORMULA. ESTIMATED 35'LONG FOR THE WEST ABUTMENT AND 30'LONG FOR THE EAST ABUTMENT.

PIER TO BE SUPPORTED ON PILING CIP CONCRETE 12¾×0.375-INCH DRIVEN TO A REQUIRED DRIVING RESISTANCE OF 210 TONS** PER PILE AS DETERMINED BY THE MODIFIED GATES DYNAMIC FORMULA. ESTIMATED 30'LONG.

** THE FACTORED AXIAL RESISTANCE OF PILES IN COMPRESSION USED FOR DESIGN IS THE REQUIRED DRIVING RESISTANCE MULTIPLIED BY A RESISTANCE FACTOR OF 0.5 USING THE MODIFIED GATES DYNAMIC FORMULA TO DETERMINE DRIVEN PILE CAPACITY.

TRAFFIC VOLUME

IH 39/90 (NB & SB)	STATELINE ROAD
A.A.D.T. (2016) = 55,500	A.A.D.T. (2015) = 1,050
A.A.D.T. (2040) = 77,100	A.A.D.T. (2040) = 1,800
R.D.S. = 70 MPH	R.D.S. = 50 MPH

LIST OF DRAWINGS

1. GENERAL PLAN
2. CROSS SECTION
3. GENERAL NOTES & QUANTITIES
4. SUBSURFACE EXPLORATION-1
5. SUBSURFACE EXPLORATION-2
6. WEST ABUTMENT-1
7. WEST ABUTMENT-2
8. WING 1
9. WING 2
10. WEST ABUTMENT DETAILS
11. EAST ABUTMENT-1
12. EAST ABUTMENT-2
13. WING 3
14. WING 4
15. EAST ABUTMENT DETAILS
16. PIER
17. PIER DETAILS
18. 45W" PRESTRESSED GIRDER DETAILS-1
19. 45W" PRESTRESSED GIRDER DETAILS-2
20. INTERMEDIATE STEEL DIAPHRAGMS
21. SUPERSTRUCTURE-1
22. SUPERSTRUCTURE-2
23. SUPERSTRUCTURE-3
24. SUPERSTRUCTURE-4
25. SINGLE SLOPE PARAPET 32SS MODIFIED
26. FENCING DETAILS
27. SLOPE PAVING CRUSHED AGGREGATE DET'S
28. AESTHETIC DETAILS-1
29. AESTHETIC DETAILS-2
30. PARAPET AESTHETICS
31. CONDIUT DETAILS
32. PIER ALTERNATE

STRUCTURES DESIGN CONTACTS

BRIDGE OFFICE:
BILL DREHER (608) 266-8489

CONSULTANT:
MATT KRIPPNER (608) 828-8123

WISCONSIN
MATTHEW S. KRIPPNER
E-42470
VERONA
WI
PROFESSIONAL ENGINEER

3/14/2016

NO.	DATE	REVISION	BY

AECOM

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

ACCEPTED William C. Dreher SDR 03/15/16
CHIEF STRUCTURES DESIGN ENGINEER DATE

STRUCTURE B-53-325

STATELINE ROAD OVER IH 39/90 NB (WB) & SB (EB)

COUNTY	TOWN/CITY ~~VILLAGE~~
ROCK	TURTLE/BELOIT

DESIGN SPEC. AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS

DESIGNED BY	DESIGN CK'D.	DRAWN BY	PLANS CK'D.
MSK	TJR	MES	MSK

GENERAL PLAN

SHEET 1 OF 32
218

8

8

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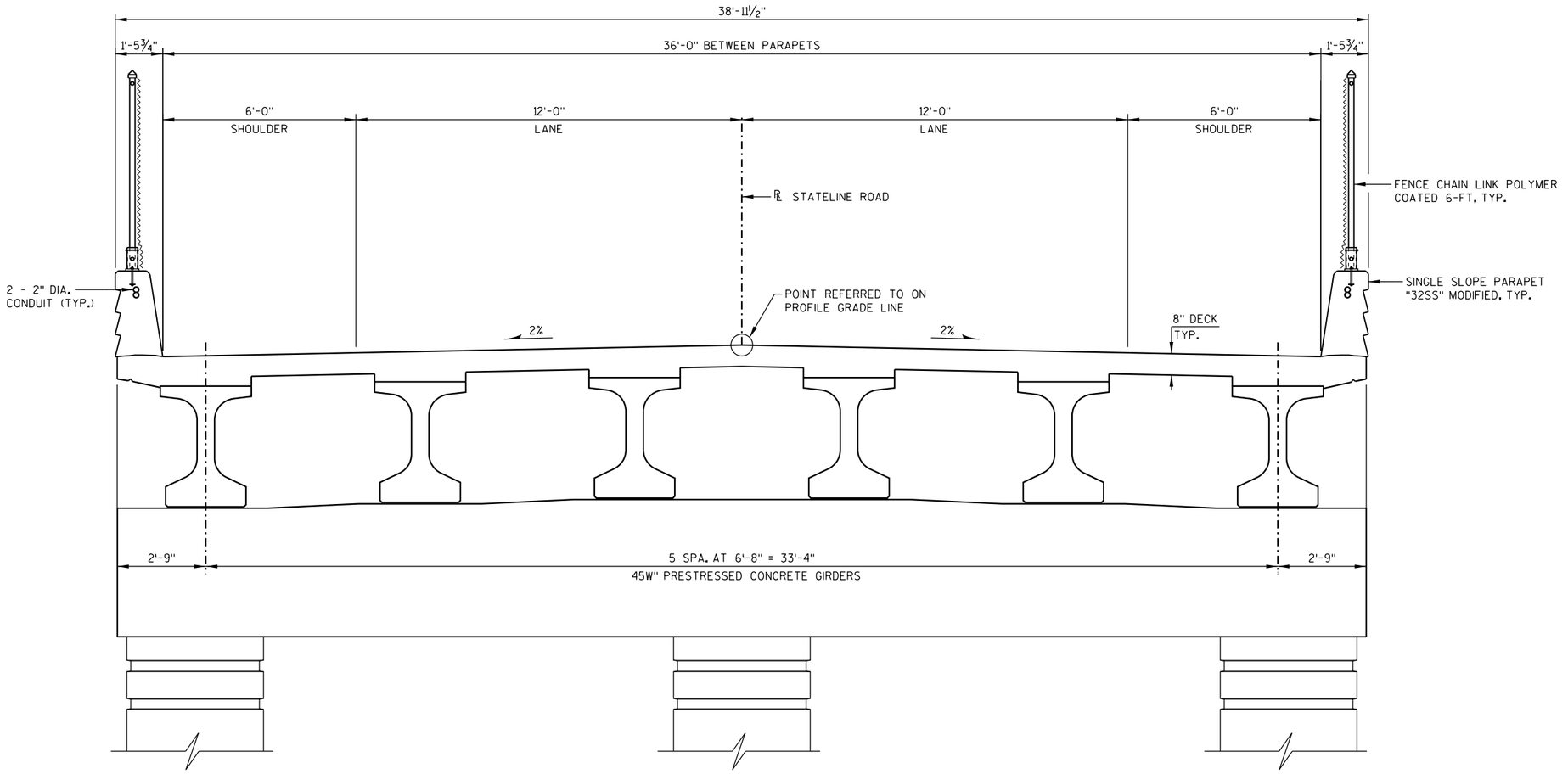
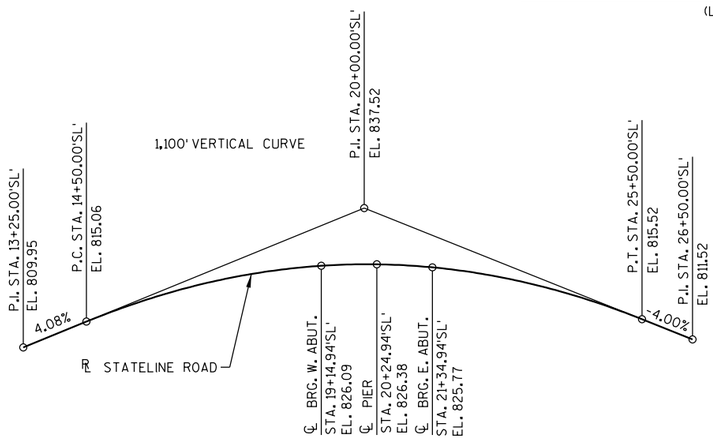
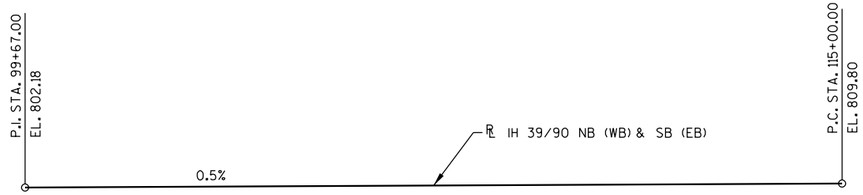


CROSS SECTION THRU ROADWAY AT PIER

(LOOKING EAST)



PROFILE GRADE LINE, STATELINE ROAD



PROFILE GRADE LINE, IH 39/90 NB (WB) & SB (EB)

(FOR INFORMATION ONLY - IH 39/90 TO BE RECONSTRUCTED UNDER FUTURE CONTRACT 1003-10-81)

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-53-325

DRAWN BY MES | PLANS CK'D. MSK

CROSS SECTION

SHEET 2 OF 32
219

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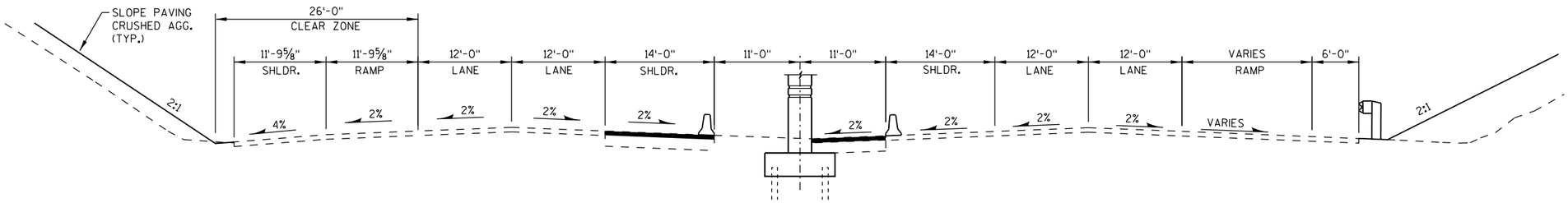
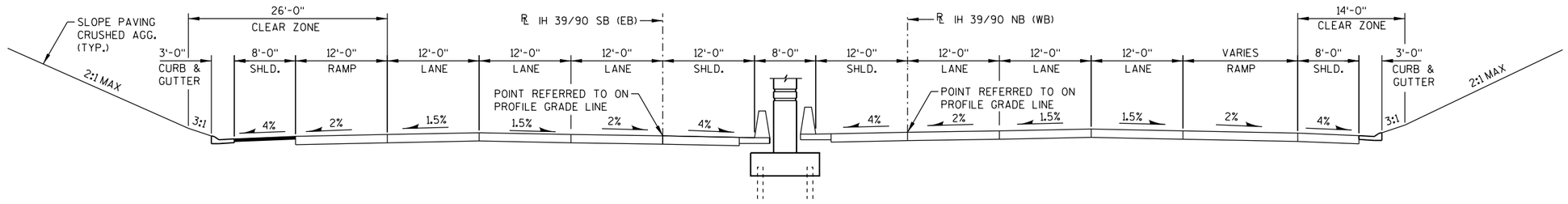
STATE PROJECT NUMBER
1003-10-82



TYPICAL FINISHED SECTION THRU IH 39/90

(NORMAL TO IH 39/90, LOOKING NORTH)



TYPICAL FUTURE SECTION THRU IH 39/90

(NORMAL TO IH 39/90, LOOKING NORTH)
(FOR INFORMATION ONLY - IH 39/90 TO BE RECONSTRUCTED UNDER FUTURE CONTRACT 1003-10-81)

TOTAL ESTIMATED QUANTITIES

BID ITEM NUMBER	BID ITEM	UNIT	WEST ABUTMENT	PIER	EAST ABUTMENT	SUPER.	TOTALS
203.0200	REMOVING OLD STRUCTURE STA 20+25	LS	———	———	———	———	1
203.0225.S.002	DEBRIS CONTAINMENT B-53-204	LS	———	———	———	———	1
206.1000	EXCAVATION FOR STRUCTURES BRIDGES B-53-325	LS	———	———	———	———	1
210.0100	BACKFILL STRUCTURE	CY	425	260	425	———	1,110
502.0100	CONCRETE MASONRY BRIDGES	CY	78	116	78	341	613
502.3200	PROTECTIVE SURFACE TREATMENT	SY	———	———	———	891	891
502.3210	PIGMENTED SURFACE SEALER	SY	15	———	15	187	217
503.0146	PRESTRESSED GIRDER TYPE I 45W-INCH	LF	———	———	———	1,325	1,325
505.0400	BAR STEEL REINFORCEMENT HS STRUCTURES	LB	3,810	3,200	3,800	———	10,810
505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB	4,015	11,840	4,015	79,310	99,180
506.2605	BEARING PADS ELASTOMERIC NON-LAMINATED	EACH	6	12	6	———	24
506.4000	STEEL DIAPHGRAMS B-53-325	EACH	———	———	———	20	20
511.1200	TEMPORARY SHORING B-53-325	SF	———	910	———	———	910
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	12	———	12	———	24
517.1010.S.002	CONCRETE STAINING B-53-325	SF	620	1,100	620	4,700	7,040
550.2126	PILING CIP CONCRETE 12 3/4 X 0.375-INCH	LF	420	780	360	———	1,560
604.0500	SLOPE PAVING CRUSHED AGGREGATE	SY	160	———	142	———	302
612.0406	PIPE UNDERDRAIN WRAPPED 6-INCH	LF	70	———	70	———	140
614.0150	ANCHOR ASSEMBLIES FOR STEEL PLATE BEAM GUARD	EACH	2	———	2	———	4
652.0125	CONDUIT RIGID METALLIC 2-INCH	LF	12	———	12	24	48
652.0225	CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH	LF	90	———	90	880	1060
653.0222	JUNCTION BOXES 18X12X6-INCH	EACH	———	———	———	4	4
SPV.0090.750	FENCE CHAIN LINK POLYMER COATED 6-FT	LF	36	———	36	448	520
	NON-BID ITEMS						
	FILLER	SIZE	———	———	———	———	1/2" & 3/4"

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2" CLEAR UNLESS SHOWN OR NOTED OTHERWISE.

THE SLOPE OF THE FILL IN FRONT OF THE ABUTMENTS SHALL BE COVERED WITH SLOPE PAVING MATERIAL TO THE EXTENT SHOWN ON SHEET 1, AND IN THE ABUTMENT DETAILS.

PROTECTIVE SURFACE TREATMENT TO BE APPLIED TO THE ENTIRE TOP OF DECK.

THE FIRST DIGIT OF A THREE DIGIT BAR MARK AND THE FIRST TWO DIGITS OF A FOUR DIGIT BAR MARK SIGNIFIES THE BAR SIZE.

THE EXISTING STRUCTURE (B-53-204) IS A 2 SPAN STEEL BOX GIRDER BRIDGE, 233.3' LONG x 38.8' WIDE, TO BE REMOVED.

AT THE BACKFACE OF ABUTMENTS ALL VOLUME WHICH CANNOT BE PLACED BEFORE ABUTMENT CONSTRUCTION AND IS NOT OCCUPIED BY THE NEW STRUCTURE SHALL BE BACKFILLED WITH STRUCTURE BACKFILL.

THE EXISTING GROUNDLINE SHALL BE THE UPPER LIMITS OF EXCAVATION AT THE PIERS.

ELASTOMERIC BEARING PADS NEED NOT BE INDIVIDUALLY MOLDED PROVIDED THE CUT EDGES ARE SMOOTH AND TRUE.

THE HAUNCH CONCRETE QUANTITY IS BASED ON THE AVERAGE HAUNCH SHOWN ON THE PRESTRESSED GIRDER DETAILS SHEET.

THE RUSTICATIONS IN THE ABUTMENTS AND PIERS ARE INCLUDED IN THE BID ITEM "CONCRETE MASONRY BRIDGES".

THE RUSTICATIONS IN THE BACK FACES OF PARAPETS ARE INCLUDED IN THE BID ITEM "CONCRETE MASONRY BRIDGES".

PIGMENTED SURFACE TREATMENT SHOULD BE APPLIED TO TOP AND INSIDE FACE OF PARAPET.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-53-325

DRAWN BY MES | PLANS CK'D. MSK

GENERAL NOTES & QUANTITIES

SHEET 3 OF 32
220

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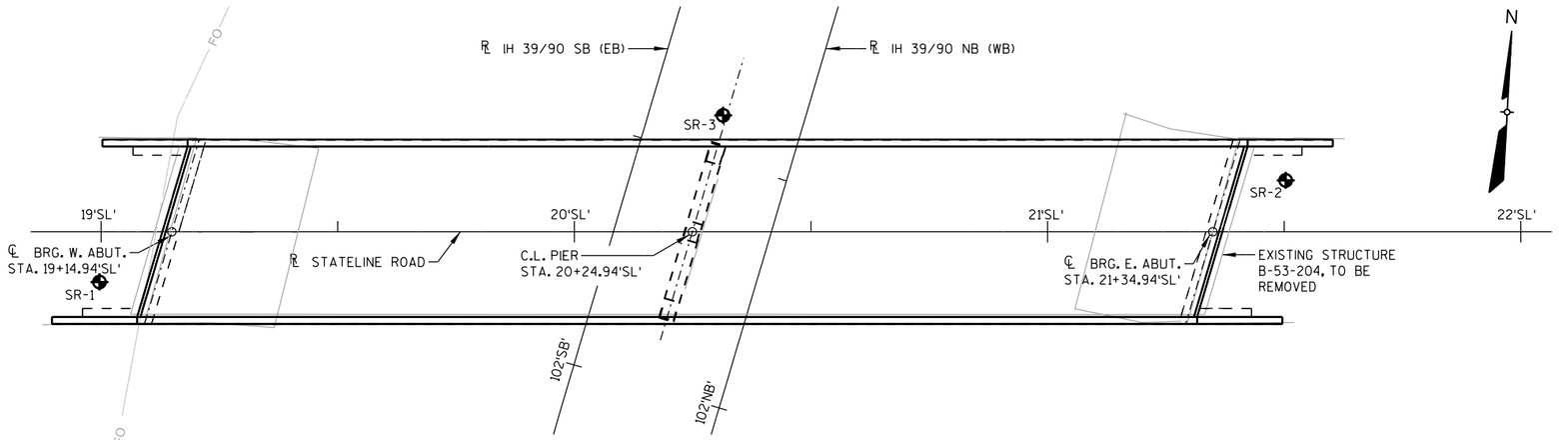
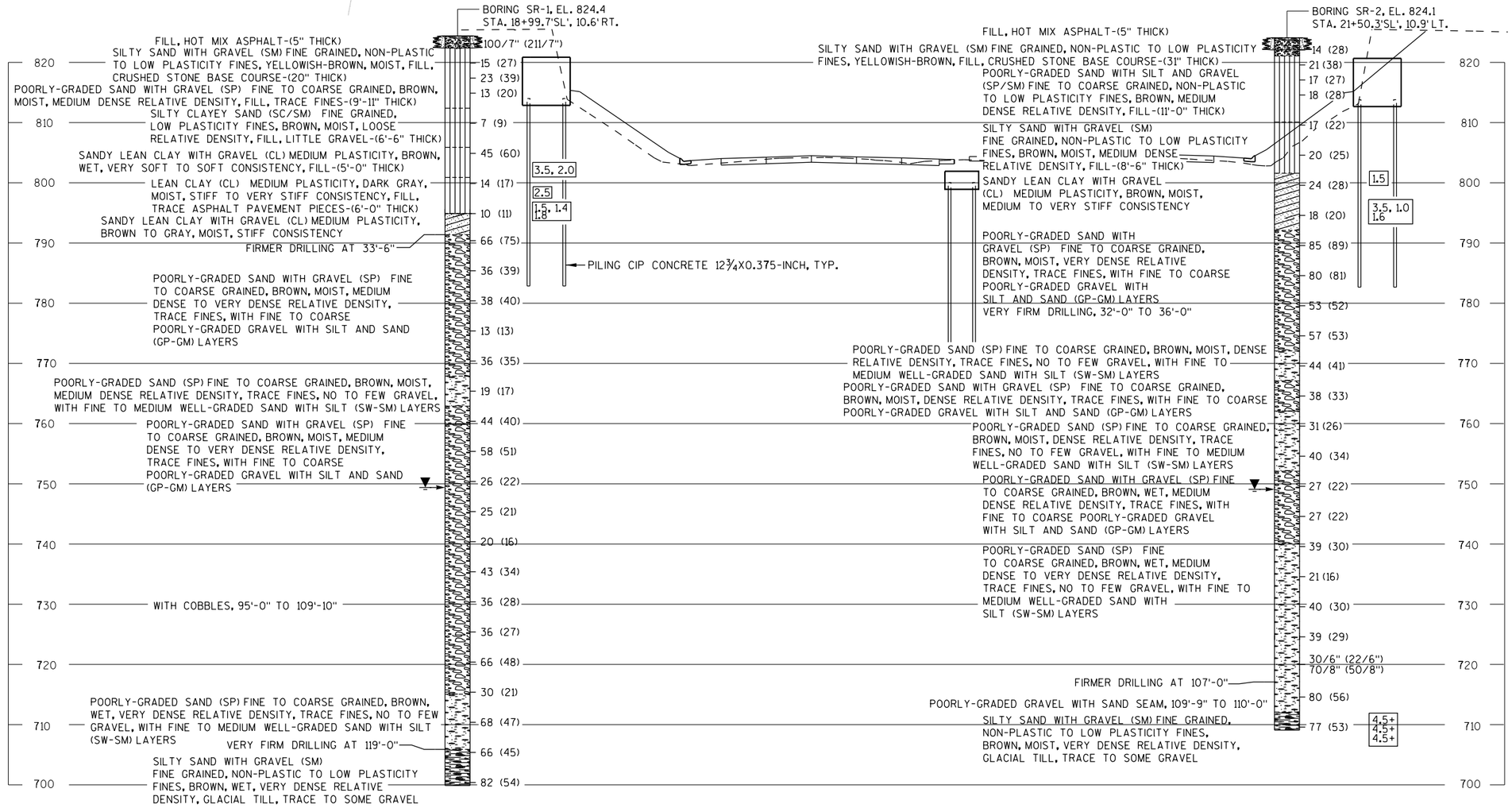
8

BORINGS AND REPORT BY:
SOILS AND ENGINEERING SERVICES, INC.
1102 STEWART STREET
MADISON, WI 53713-4648

BORINGS PERFORMED DECEMBER 3-19, 2013.



PLAN



STATE PROJECT NUMBER

1003-10-82

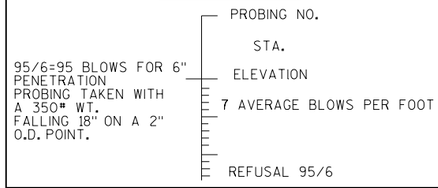
ABBREVIATIONS

F — FINE M — MEDIUM C — COARSE
WS — WEATHERED SO — SOUND

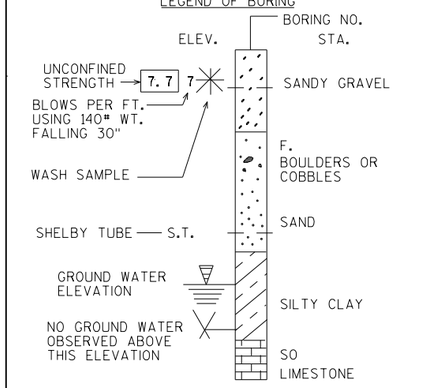
MATERIAL SYMBOLS

TOPSOIL, SILT, SANDSTONE, SAND, PEAT, LIMESTONE, GRAVEL, CLAY, IGNEOUS ROCK

LEGEND OF PROBING



LEGEND OF BORING



UNLESS OTHERWISE SPECIFIED, THE BLOWS PER FOOT AT THE LOCATIONS INDICATED ARE BASED ON DRIVING A 2" O.D. X 1.4" I.D. SPLIT SPOON SAMPLER WITH A 140# HAMMER HAVING A FREE FALL OF 30", THE BLOW COUNT IS TAKEN IN UNDISTURBED SOIL IMMEDIATELY BELOW A CASED OR OPEN HOLE ELIMINATING SIDE FRICTION ON THE DRIVE PIPE.

SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

TO OBTAIN RELATIVE DATA CONCERNING THE CHARACTER OF MATERIAL IN AND UPON WHICH THE FOUNDATION MIGHT BE BUILT, BORINGS AND/OR SOUNDINGS WERE MADE AT POINTS APPROXIMATELY AS INDICATED ON THIS DRAWING. THE DATA PRESENTED HEREIN REPRESENTS THE FINDINGS OF THE SUBSURFACE EXPLORATIONS MADE. HOWEVER, BECAUSE THE DEPTHS INVESTIGATED ARE LIMITED AND THE AREA OF THE BORINGS AND/OR SOUNDINGS IS VERY SMALL IN RELATION TO THE ENTIRE AREA, THE WISCONSIN DEPARTMENT OF TRANSPORTATION DOES NOT WARRANT CONDITIONS BELOW THE DEPTHS INVESTIGATED OR THAT THE CLASSIFICATION OF MATERIAL ENCOUNTERED IN THESE INVESTIGATIONS IS NECESSARILY TYPICAL OF THE ENTIRE SITE.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-53-325

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SUBSURFACE EXPLORATION-1

SHEET 4 OF 32
221

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SCALE =

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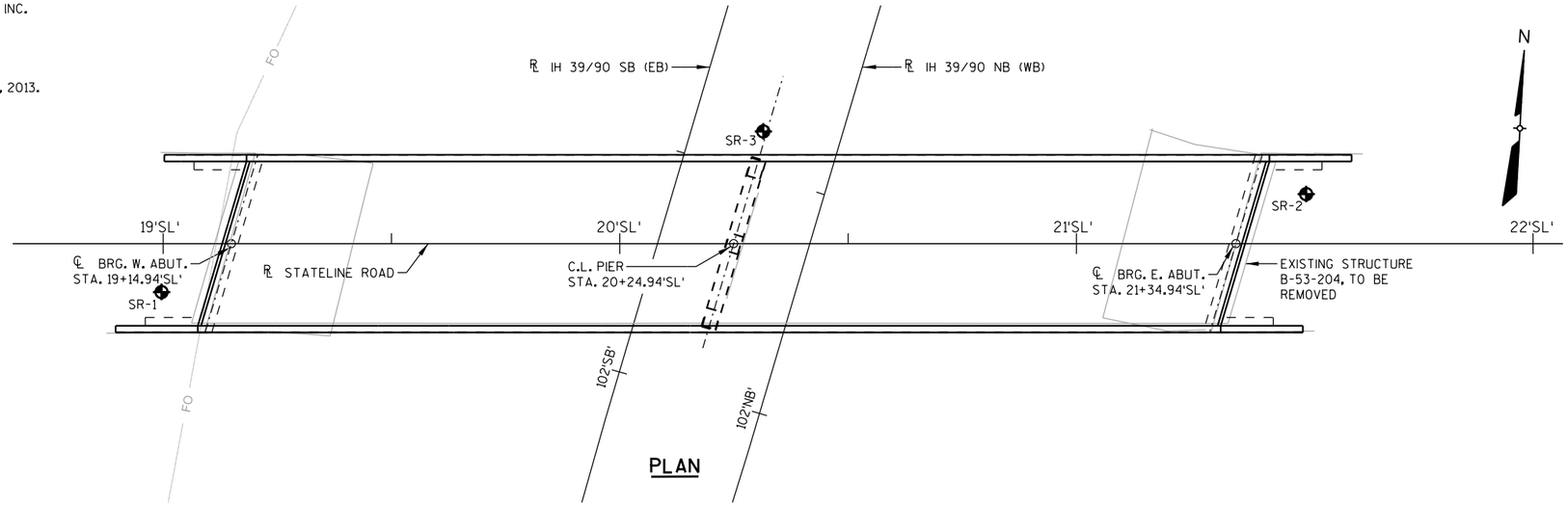
BORINGS AND REPORT BY:
SOILS AND ENGINEERING SERVICES, INC.
1102 STEWART STREET
MADISON, WI 53713-4648

BORINGS PERFORMED DECEMBER 3-19, 2013.



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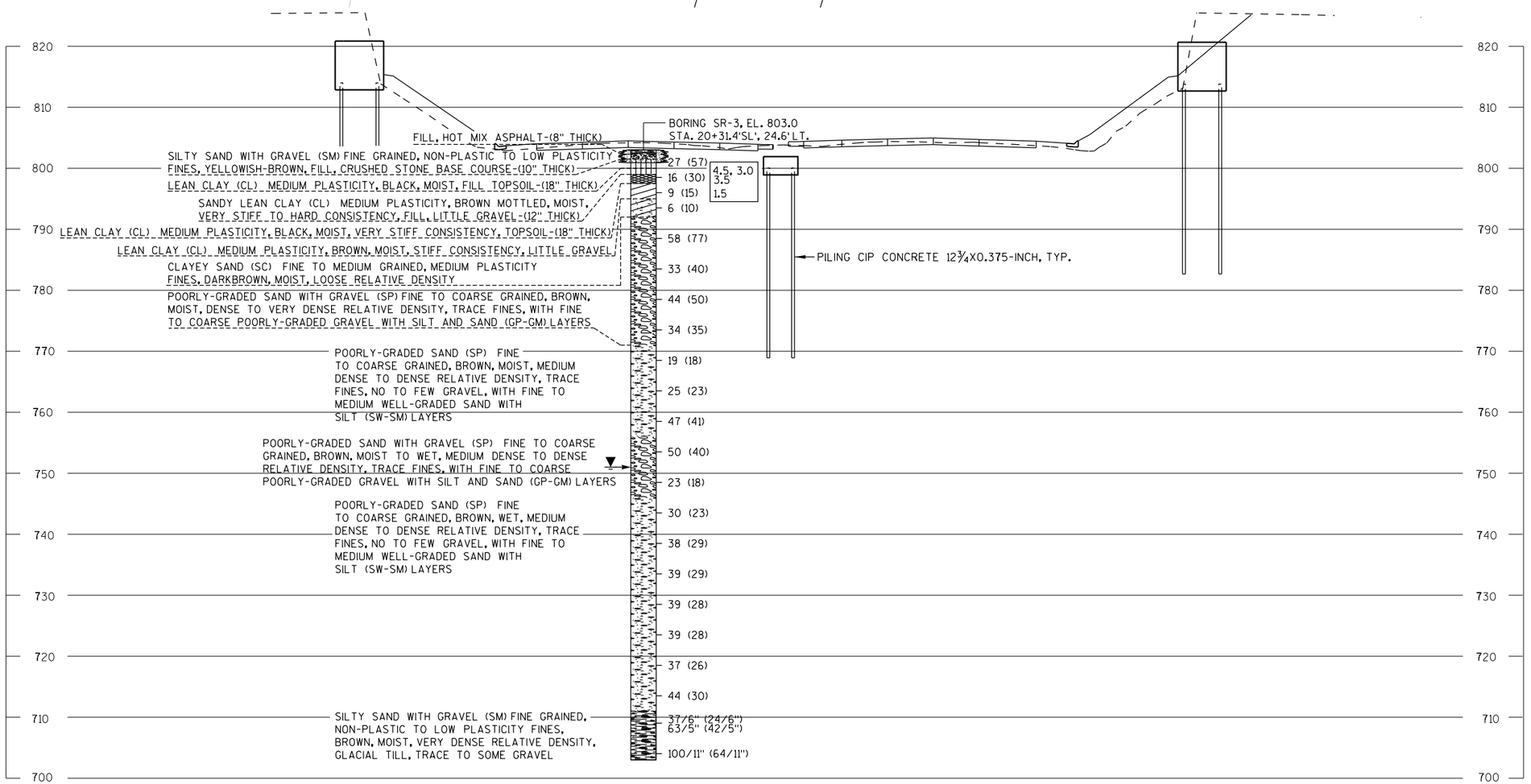


STATE PROJECT NUMBER

1003-10-82

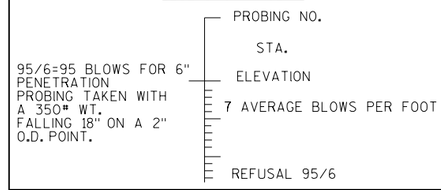
ABBREVIATIONS

F — FINE M — MEDIUM C — COARSE
WS — WEATHERED SO — SOUND

MATERIAL SYMBOLS

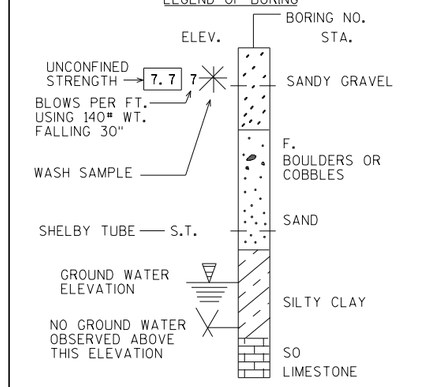
TOPSOIL, SILT, SANDSTONE, SAND, PEAT, LIMESTONE, GRAVEL, CLAY, IGNEOUS ROCK

LEGEND OF PROBING



95/6=95 BLOWS FOR 6" PENETRATION PROBING TAKEN WITH A 350# WT. FALLING 18" ON A 2" O.D. POINT.

LEGEND OF BORING



UNLESS OTHERWISE SPECIFIED, THE BLOWS PER FOOT AT THE LOCATIONS INDICATED ARE BASED ON DRIVING A 2" O.D. X 1.4" I.D. SPLIT SPOON SAMPLER WITH A 140# HAMMER HAVING A FREE FALL OF 30". THE BLOW COUNT IS TAKEN IN UNDISTURBED SOIL IMMEDIATELY BELOW A CASED OR OPEN HOLE ELIMINATING SIDE FRICTION ON THE DRIVE PIPE.

SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

TO OBTAIN RELATIVE DATA CONCERNING THE CHARACTER OF MATERIAL IN AND UPON WHICH THE FOUNDATION MIGHT BE BUILT, BORINGS AND/OR SOUNDINGS WERE MADE AT POINTS APPROXIMATELY AS INDICATED ON THIS DRAWING. THE DATA PRESENTED HEREIN REPRESENTS THE FINDINGS OF THE SUBSURFACE EXPLORATIONS MADE. HOWEVER, BECAUSE THE DEPTHS INVESTIGATED ARE LIMITED AND THE AREA OF THE BORINGS AND/OR SOUNDINGS IS VERY SMALL IN RELATION TO THE ENTIRE AREA, THE WISCONSIN DEPARTMENT OF TRANSPORTATION DOES NOT WARRANT CONDITIONS BELOW THE DEPTHS INVESTIGATED OR THAT THE CLASSIFICATION OF MATERIAL ENCOUNTERED IN THESE INVESTIGATIONS IS NECESSARILY TYPICAL OF THE ENTIRE SITE.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-53-325

DRAWN BY MES | PLANS CK'D. MSK

SUBSURFACE EXPLORATION-2

SHEET 5 OF 32
222

FILE =
SCALE =

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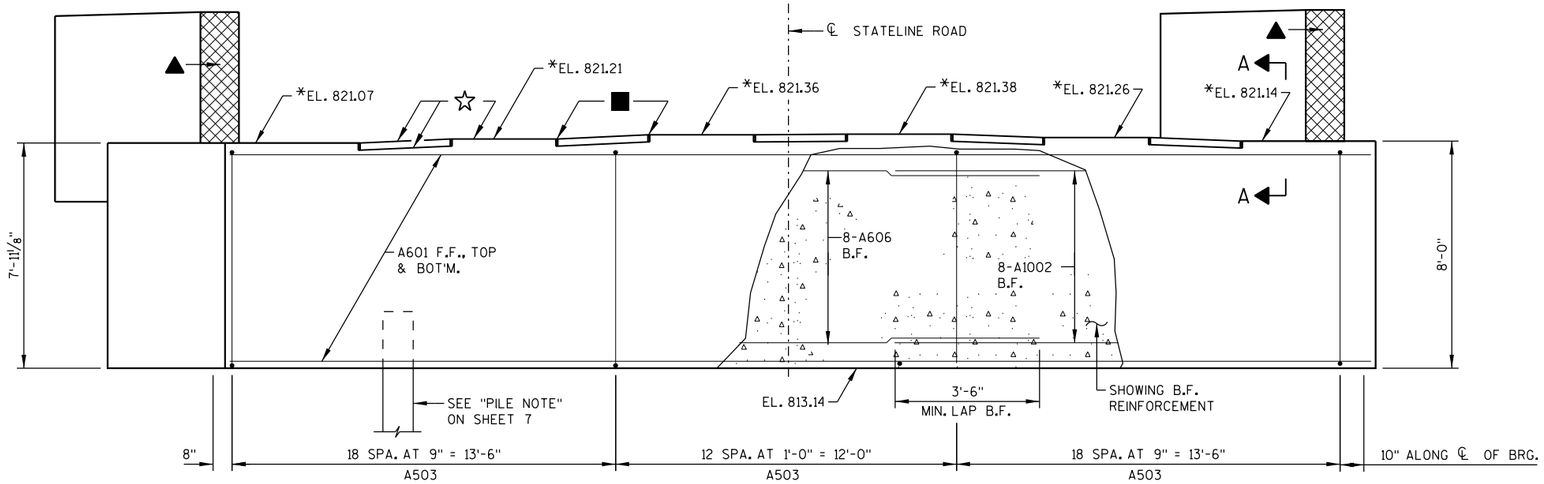
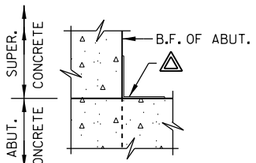


ELEVATION

(LOOKING WEST)

* ELEVATIONS ARE GIVEN AT TOP OF CONCRETE, ℄ OF BEARING

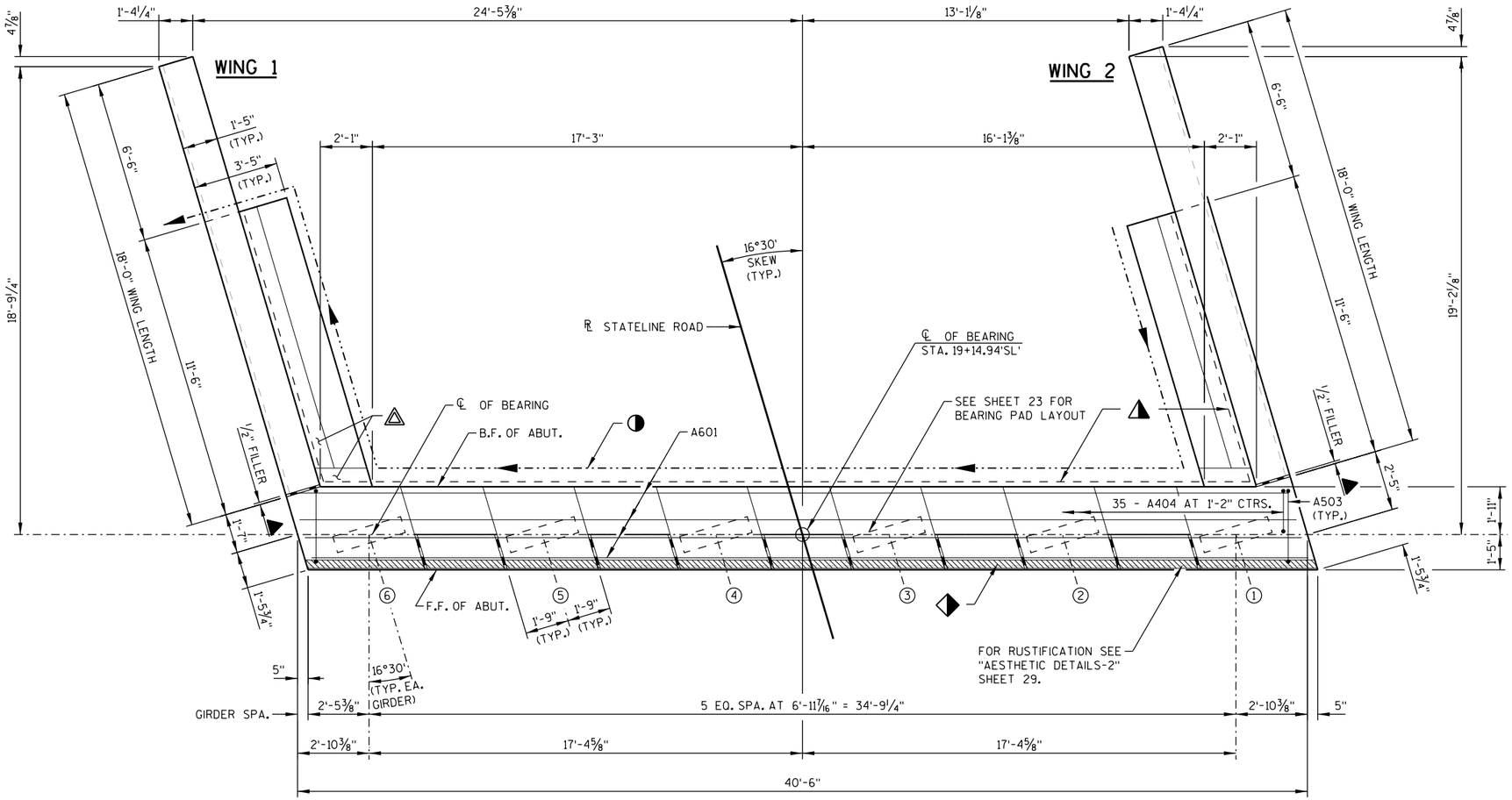
NOTE: SPACE A503 BARS TO MISS PILINGS.



SECTION A-A

LEGEND

FOR ADDITIONAL SYMBOL LEGEND SEE SHEET 7.



PLAN

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-53-325

DRAWN BY KAM | PLANS CK'D. MSK

WEST ABUTMENT-1

SHEET 6 OF 32
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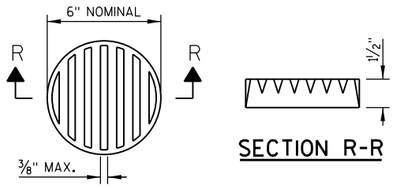
PLOT DATE: 3/14/2016 PLOT TIME: 1:49:41 PM BATCH PRINT SHEET 7 OF 32

LEGEND

- PIPE UNDERDRAIN WRAPPED (6-INCH). SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. PLACED AT BOTTOM OF EXCAVATION. ATTACH RODENT SHIELD AT ENDS OF PIPE UNDERDRAIN AS DETAILED ON THIS SHEET. DISCHARGE LOCATION TO BE DETERMINED BY ENGINEER IN THE FIELD.
- ½" FILLER TO EXTEND AS SHOWN. SEAL ALL EXPOSED HORIZONTAL AND VERTICAL SURFACES OF FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD ⅛" BELOW SURFACE OF CONCRETE).
- 18" RUBBERIZED MEMBRANE WATERPROOFING. SEAL ALL HORIZONTAL AND VERTICAL JOINTS ON BACK FACE.
- ¾" CORK FILLER ON VERTICAL BEAM SEAT FACES THAT RUN PARALLEL WITH GIRDER.
- 4" × ¾" FILLER - TO EXTEND FULL LENGTH OF ABUTMENT BODY.
- (X) INDICATES GIRDER NUMBER
- STEEL TROWEL TOP SURFACE OF ABUTMENT. PLACE MULTIPLE LAYERS OF POLYETHELENE SHEETS OVER ENTIRE ABUTMENT TOP BEFORE PLACING THE BEARING PADS AND SUPERSTRUCTURE. TOTAL THICKNESS OF SHEETS SHALL BE AT LEAST 0.03".
- PLACE BOTTOM HALF OF RUBBERIZED MEMBRANE WATERPROOFING HORIZONTAL IN THIS AREA. SEE SECTION A-A ON SHEET 6.
- OPTIONAL CONSTRUCTION JOINT FORMED BY BEVELED 2"×6" KEYWAY WITH R.M.W. ON BACK FACE.
- #4 DOWELS (COATED) 2'-0" LONG AT 1'-0" ALONG ENTIRE WING LENGTH. PLACE IN WING ADJACENT TO SURFACE DRAIN APRON ONLY.



SECTION R-R

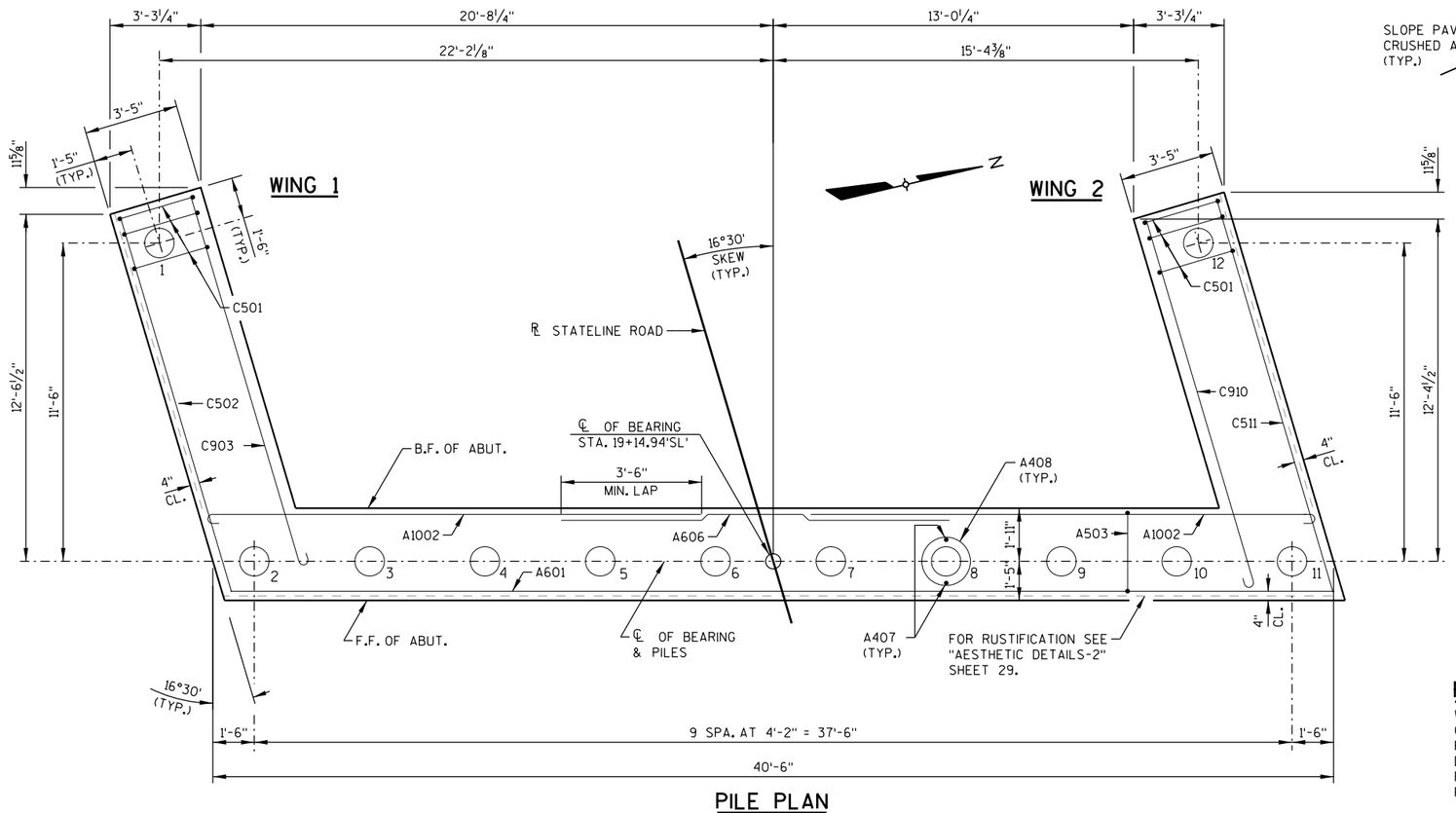
RODENT SHIELD DETAIL

DIMENSIONS ARE APPROXIMATE. THE GRATE IS SIZED TO FIT INTO A PIPE COUPLING.

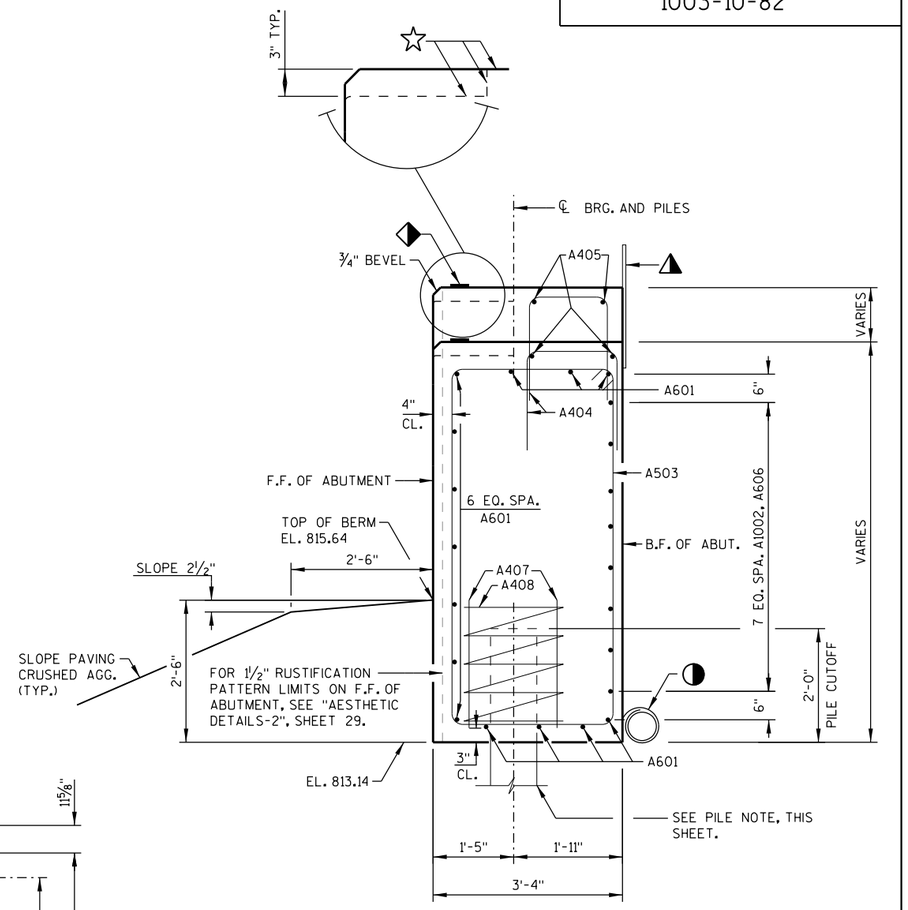
ORIENT SO SLOTS ARE VERTICAL.

THE RODENT SHIELD, PIPE COUPLING AND SCREWS SHALL BE CONSIDERED INCIDENTALTO THE BID ITEM "PIPE UNDERDRAIN WRAPPED 6-INCH".

THE RODENT SHIELD SHALL BE A PVC GRATE SIMILAR TO THIS DETAIL. THE GRATE IS COMMERCIALLY AVAILABLE AS A FLOOR STRAINER. A PIPE COUPLING IS REQUIRED FOR THE ATTACHMENT OF THIS SHIELD TO THE EXPOSED END OF THE PIPE UNDERDRAIN. THE SHIELD SHALL BE FASTENED TO THE PIPE COUPLING WITH TWO OR MORE NO. 10 X 1-INCH SHEET METAL SCREWS.



PILE PLAN



TYPICAL SECTION THRU BODY
(LOOKING SOUTH)

PILE NOTE

WEST ABUTMENT TO BE SUPPORTED ON PILING CIP CONCRETE 12¾×0.375-INCH WITH A DRIVING RESISTANCE OF 210 TONS PER PILE AS DETERMINED BY THE MODIFIED GATES DYNAMIC FORMULA. ESTIMATED 35'LONG. SEE SHEET 10 FOR PILE SPLICE DETAILS.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-53-325

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WEST ABUTMENT-2

SHEET 7 OF 32
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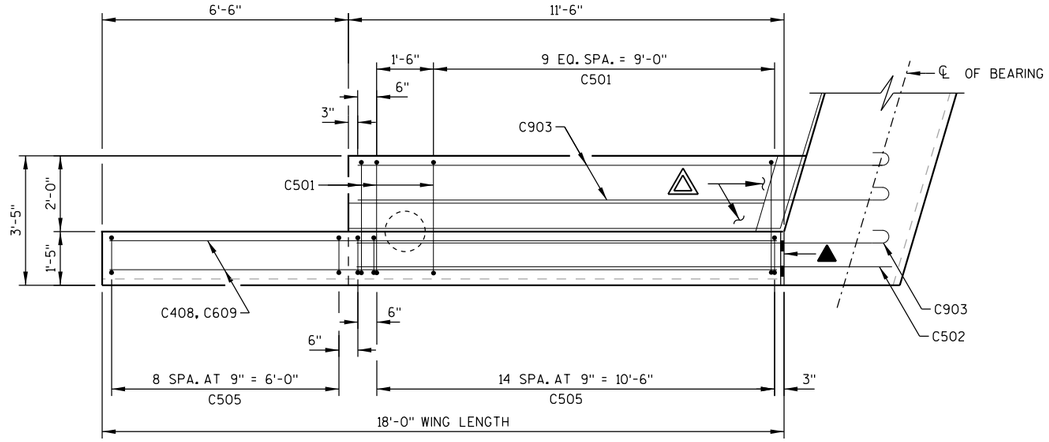
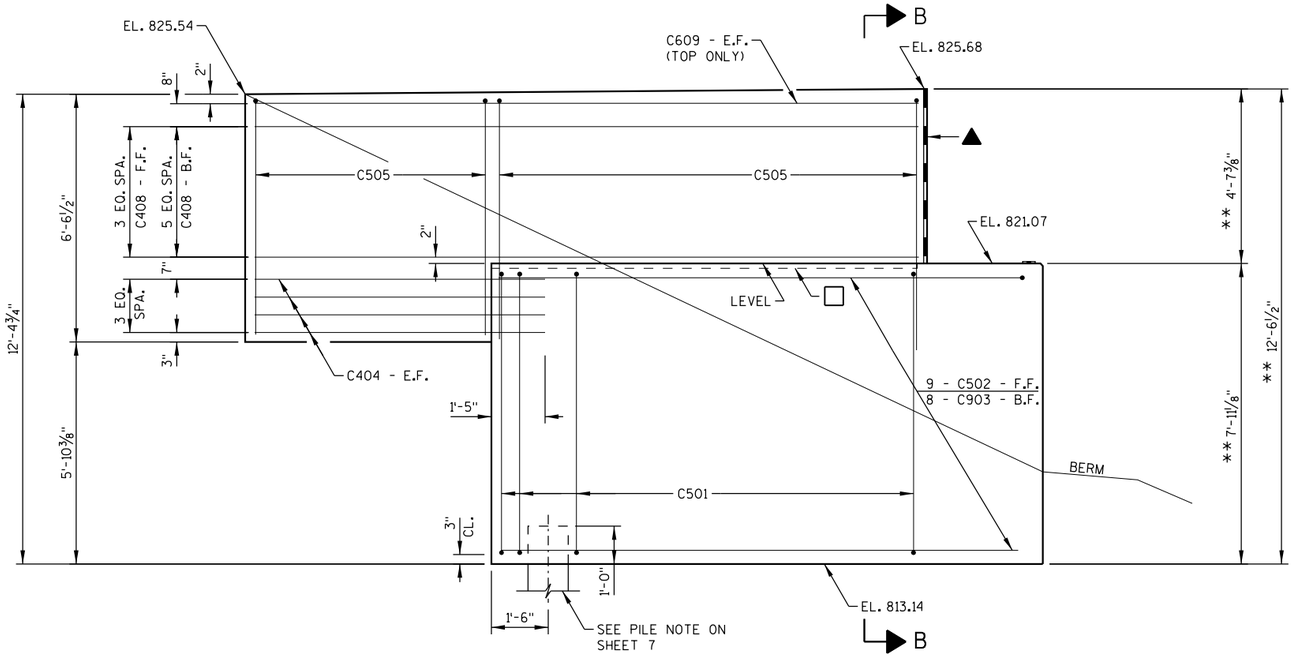


PLAN - WING 1

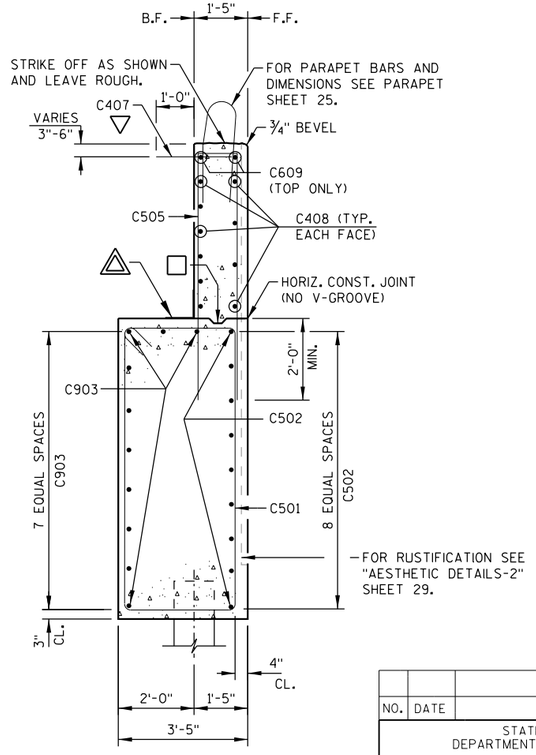
LEGEND

** DIMENSIONS AND ELEVATIONS ARE GIVEN AT THE B.F. OF ABUTMENT.

FOR ADDITIONAL SYMBOL LEGEND SEE SHEET 7.



ELEVATION - WING 1



SECTION B-B

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-53-325

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WING 1

SHEET 8 OF 32
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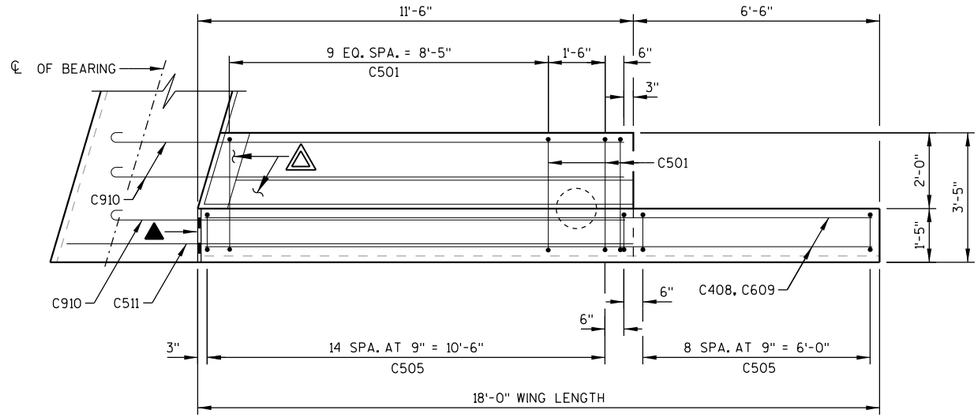

PLAN - WING 2

LEGEND

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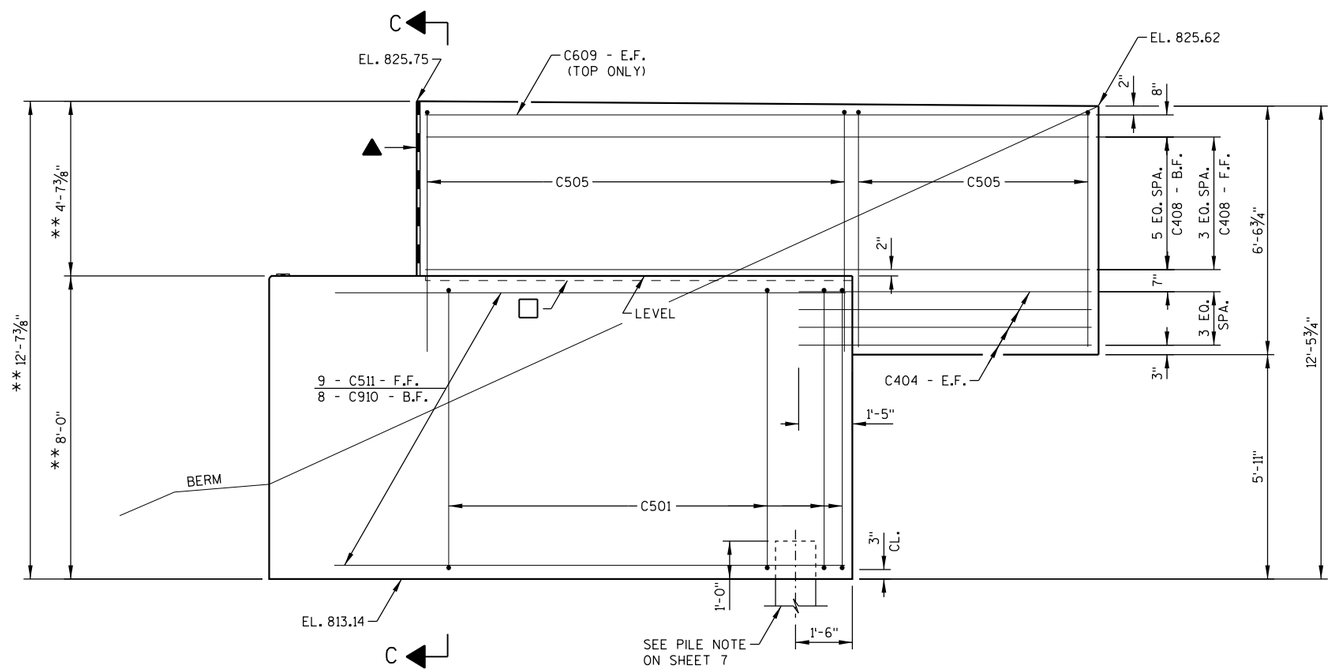
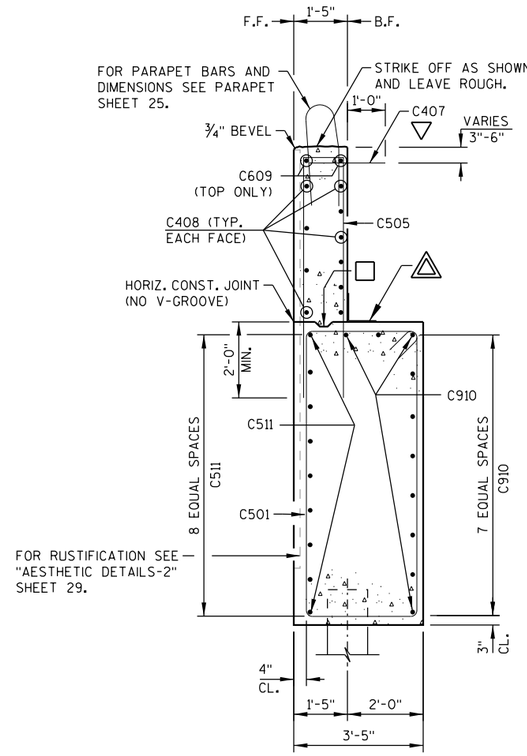
FOR ADDITIONAL SYMBOL LEGEND SEE SHEET 7.



ELEVATION - WING 2



SECTION C-C

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-53-325

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WING 2

SHEET 9 OF 32
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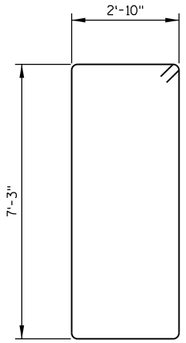

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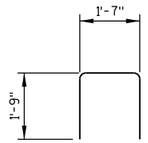

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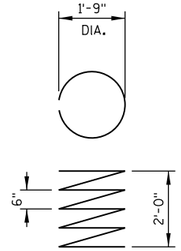

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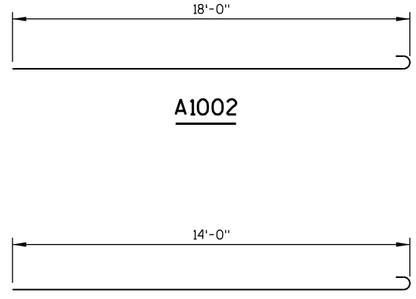
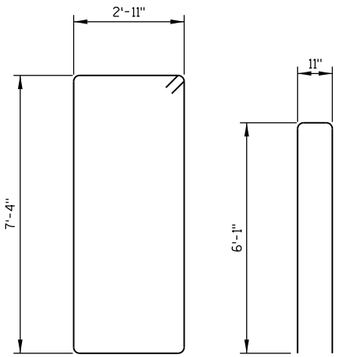


A1002

C903, C910



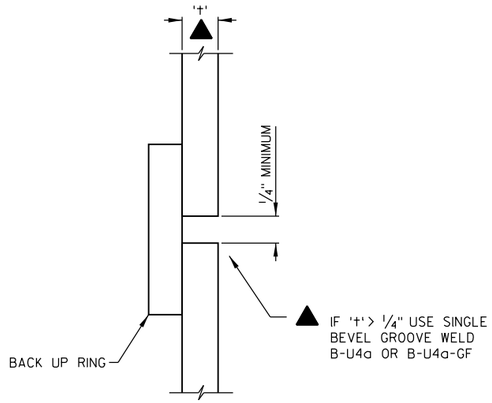
C501

C505

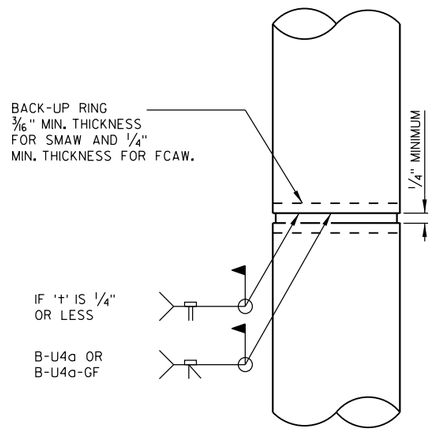
BILL OF BARS

DIMENSIONS IN BENDING DETAILS ARE OUT TO OUT OF BAR.

MARK	NO. REQ'D	LENGTH	BENT	LOCATION	
NON-COATED BARS					TOTAL WEIGHT = 3,810 LBS
A601	14	40 - 2		ABUTMENT BODY, FRONT FACE / TOP / BOTTTOM	HORIZ.
A1002	16	19 - 5	X	ABUTMENT BODY, BACK FACE	HORIZ.
A503	51	20 - 9	X	ABUTMENT BODY, STIRRUP	VERT.
A404	35	4 - 11	X	ABUTMENT BODY, TOP	VERT.
A405	2	40 - 2		ABUTMENT BODY, TOP	HORIZ.
A606	8	11 - 2		ABUTMENT BODY, BACK FACE	HORIZ.
A407	20	2 - 3		ABUTMENT BODY, PILE WRAP	VERT.
A408	10	28 - 0	X	ABUTMENT BODY, PILE WRAP	VERT.
COATED BARS					TOTAL WEIGHT = 3,010 LBS
C501	24	21 - 1	X	WING 1 & 2, STIRRUP	VERT.
C502	9	14 - 0		WING 1, FRONT FACE	HORIZ.
C903	10	15 - 3	X	WING 1, BACK FACE	HORIZ.
C404	16	7 - 9		WING 1 & 2, WING WALL BOTH FACES	HORIZ.
C505	50	13 - 6	X	WING 1 & 2, WINGWALL	VERT.
C407	34	2 - 0		WING 1 & 2, TOP DOWEL	HORIZ.
C408	20	17 - 7		WING 1 & 2, BOTH FACES	HORIZ.
C609	4	17 - 7		WING 1 & 2, TOP	HORIZ.
C910	10	15 - 3	X	WING 2, BACK FACE	HORIZ.
C511	9	14 - 8		WING 2, FRONT FACE	HORIZ.



C.I.P. PILE WELD DETAIL



C.I.P. PILE SPLICE DETAIL

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DEPARTMENT OF TRANSPORTATION

STRUCTURE B-53-325

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WEST ABUTMENT DETAILS

SHEET 10 OF 32
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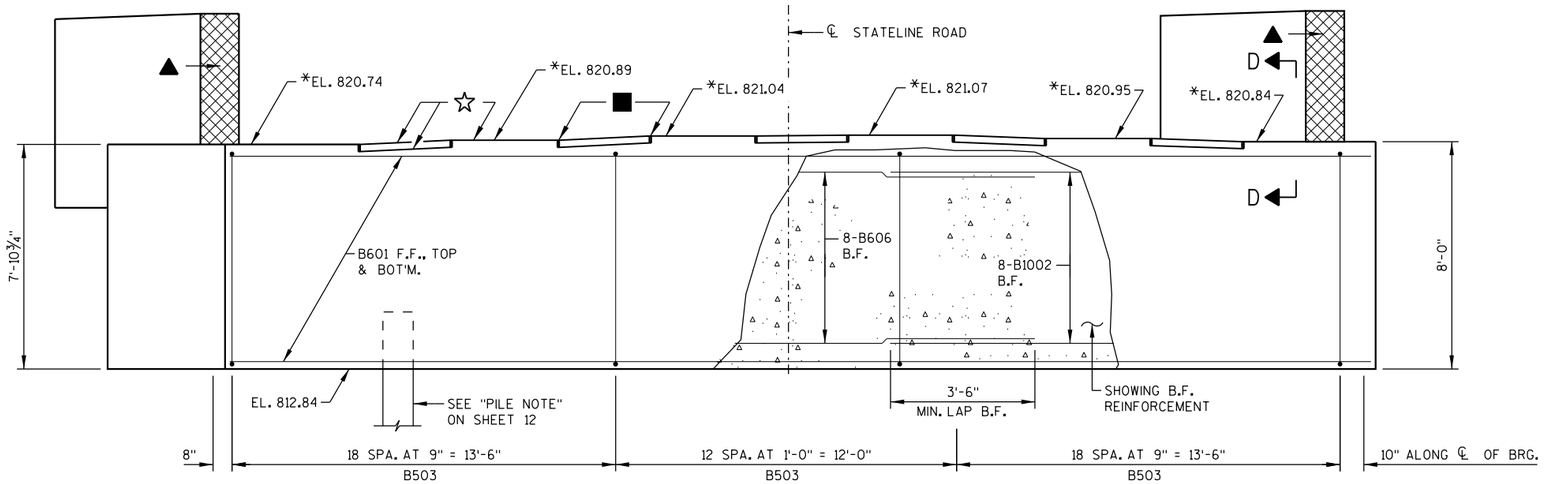
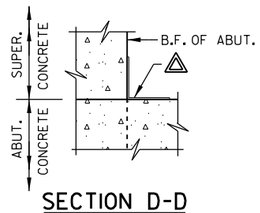


ELEVATION

(LOOKING EAST)

* ELEVATIONS ARE GIVEN AT TOP OF CONCRETE, ℄ OF BEARING

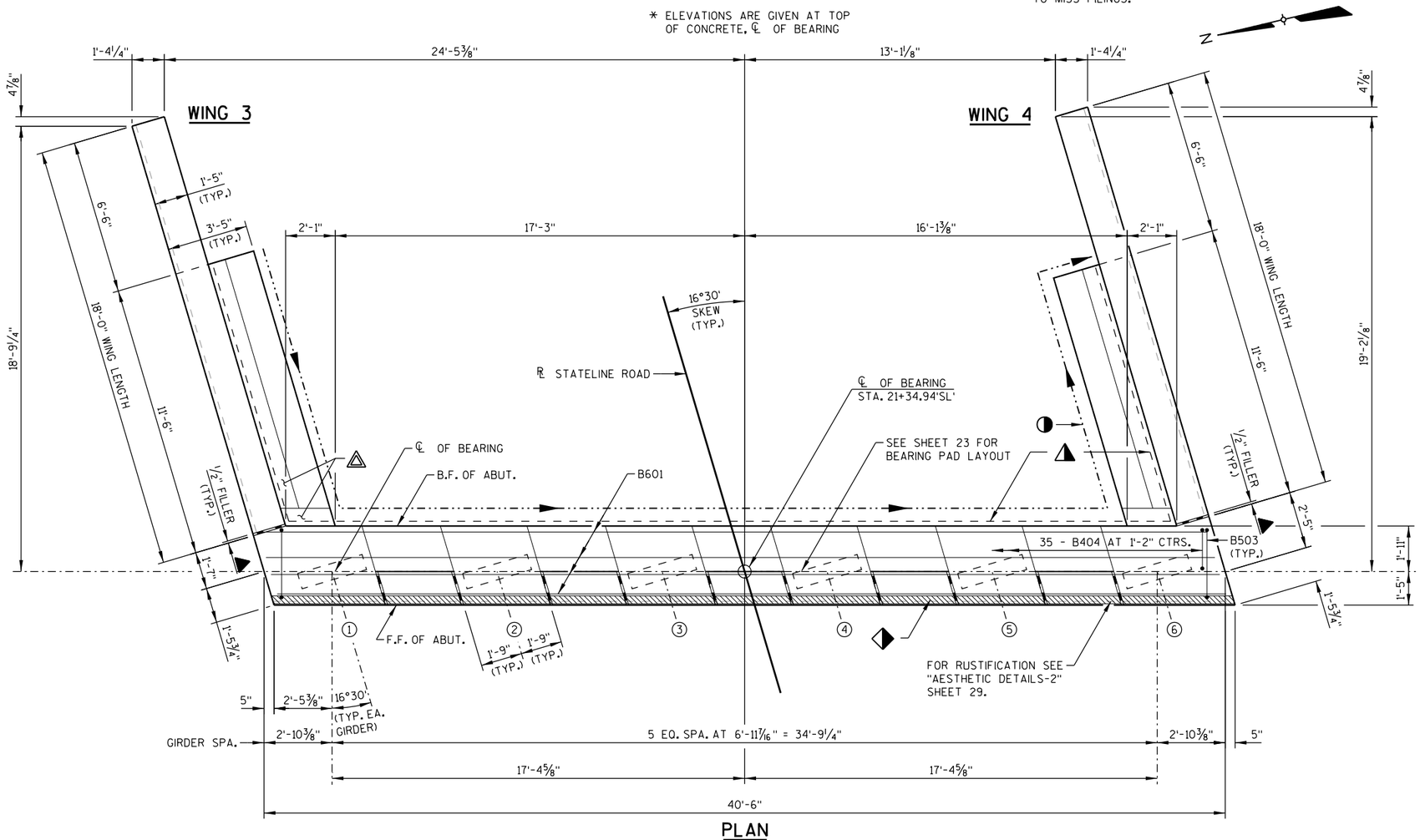
NOTE: SPACE B503 BARS TO MISS PILINGS.



SECTION D-D

LEGEND

FOR ADDITIONAL SYMBOL LEGEND SEE SHEET 12.



PLAN

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-53-325

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EAST ABUTMENT-1

SHEET 11 OF 32
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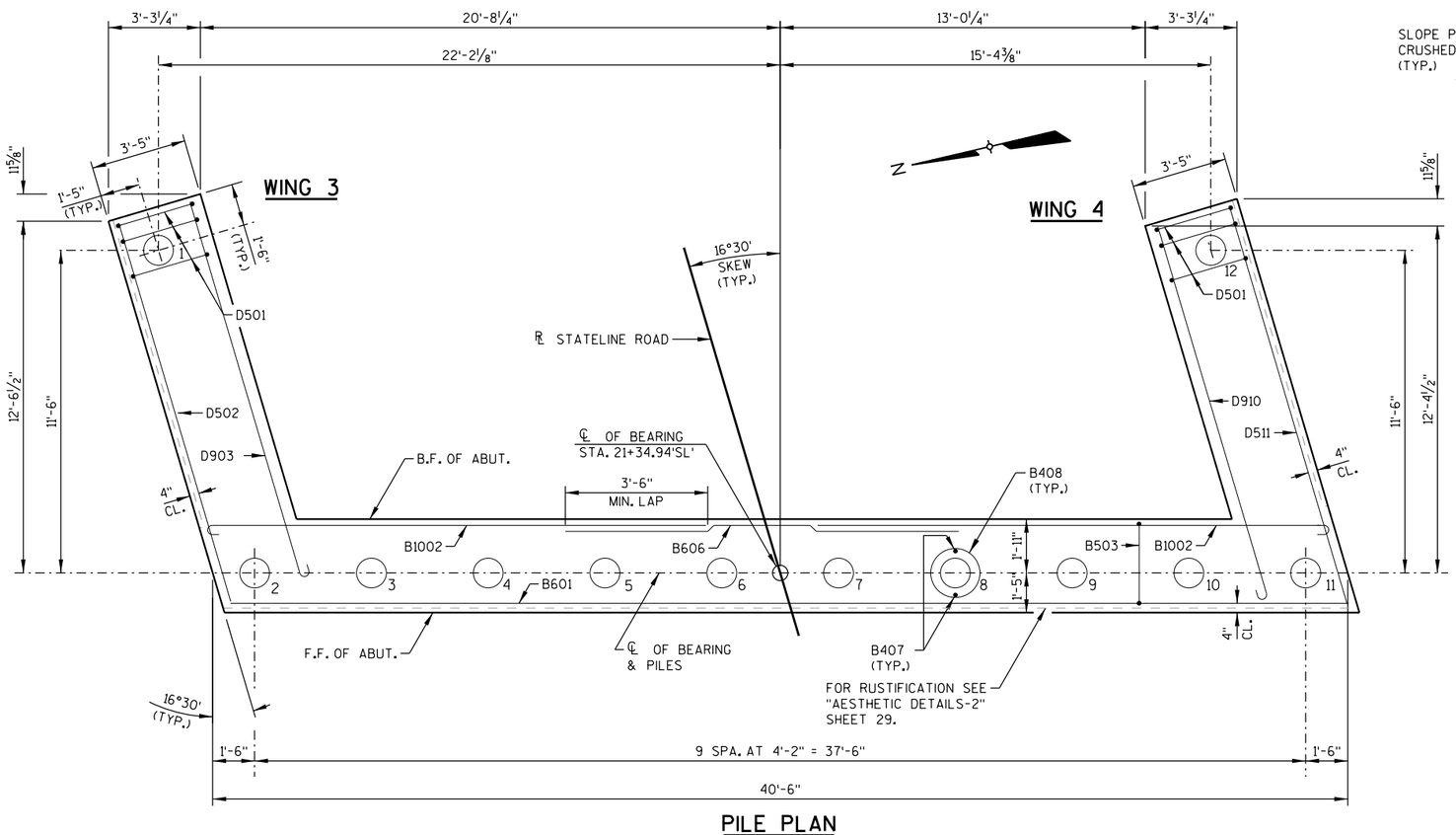
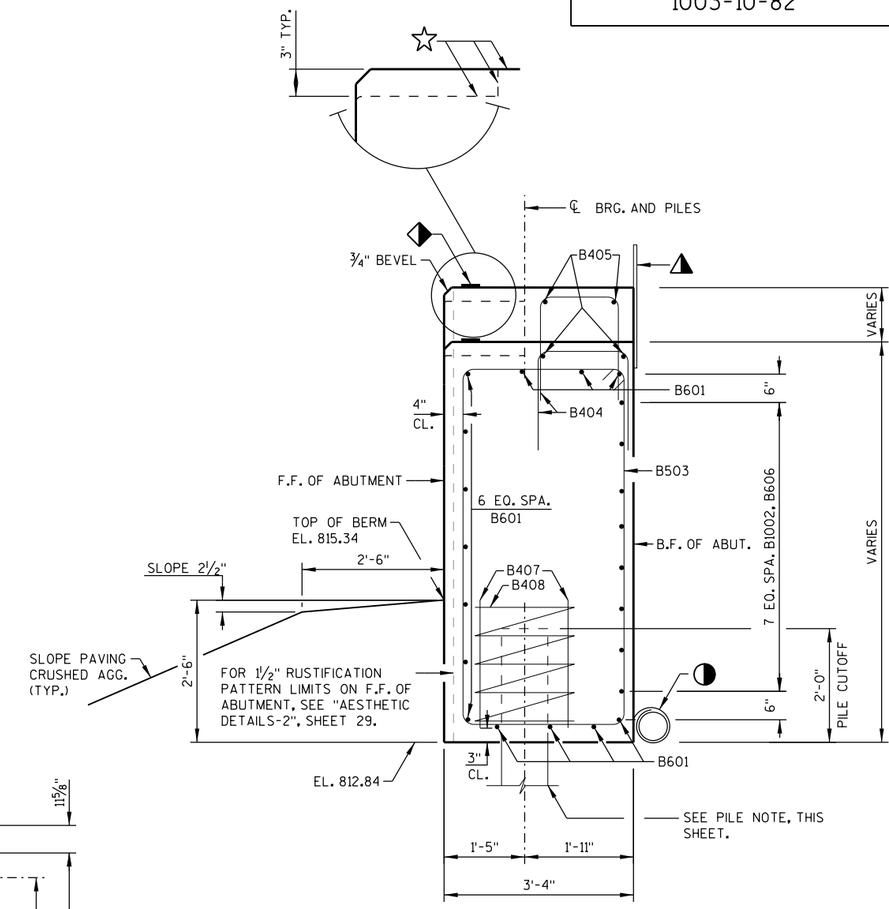
BATCH PRINT SHEET 12 OF 32

LEGEND

- PIPE UNDERDRAIN WRAPPED (6-INCH). SLOPE 0.5% MIN. TO SUITABLE DRAINAGE, PLACED AT BOTTOM OF EXCAVATION. ATTACH RODENT SHIELD AT ENDS OF PIPE UNDERDRAIN AS DETAILED ON SHEET 7. DISCHARGE LOCATION TO BE DETERMINED BY ENGINEER IN THE FIELD.
- ½" FILLER TO EXTEND AS SHOWN. SEAL ALL EXPOSED HORIZONTAL AND VERTICAL SURFACES OF FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD ⅛" BELOW SURFACE OF CONCRETE).
- 18" RUBBERIZED MEMBRANE WATERPROOFING. SEAL ALL HORIZONTAL AND VERTICAL JOINTS ON BACK FACE.
- ¾" CORK FILLER ON VERTICAL BEAM SEAT FACES THAT RUN PARALLEL WITH GIRDER.
- 4" × ¾" FILLER - TO EXTEND FULL LENGTH OF ABUTMENT BODY.
- (X) INDICATES GIRDER NUMBER
- STEEL TROWEL TOP SURFACE OF ABUTMENT. PLACE MULTIPLE LAYERS OF POLYETHELENE SHEETS OVER ENTIRE ABUTMENT TOP BEFORE PLACING THE BEARING PADS AND SUPERSTRUCTURE. TOTAL THICKNESS OF SHEETS SHALL BE AT LEAST 0.03".
- PLACE BOTTOM HALF OF RUBBERIZED MEMBRANE WATERPROOFING HORIZONTAL IN THIS AREA. SEE SECTION D-D ON SHEET 11.
- OPTIONAL CONSTRUCTION JOINT FORMED BY BEVELED 2"×6" KEYWAY WITH R.M.W. ON BACK FACE.
- #4 DOWELS (COATED) 2'-0" LONG AT 1'-0" ALONG ENTIRE WING LENGTH. PLACE IN WING ADJACENT TO SURFACE DRAIN APRON ONLY.



PILE PLAN



TYPICAL SECTION THRU BODY
(LOOKING NORTH)

PILE NOTE

EAST ABUTMENT TO BE SUPPORTED ON PILING CIP CONCRETE 12¾×0.375-INCH WITH A DRIVING RESISTANCE OF 210 TONS PER PILE AS DETERMINED BY THE MODIFIED GATES DYNAMIC FORMULA. ESTIMATED 30' LONG. SEE SHEET 10 FOR PILE SPLICE DETAILS.

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STRUCTURE B-53-325

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EAST ABUTMENT-2

SHEET 12 OF 32
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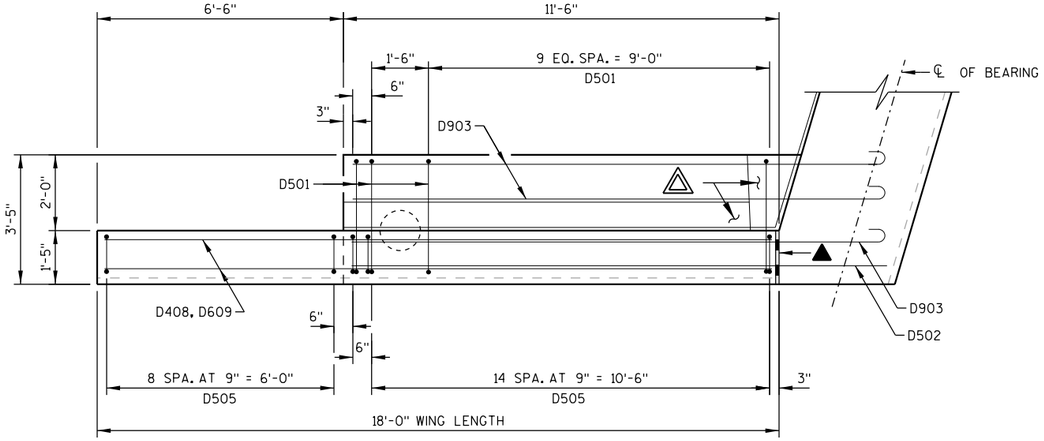
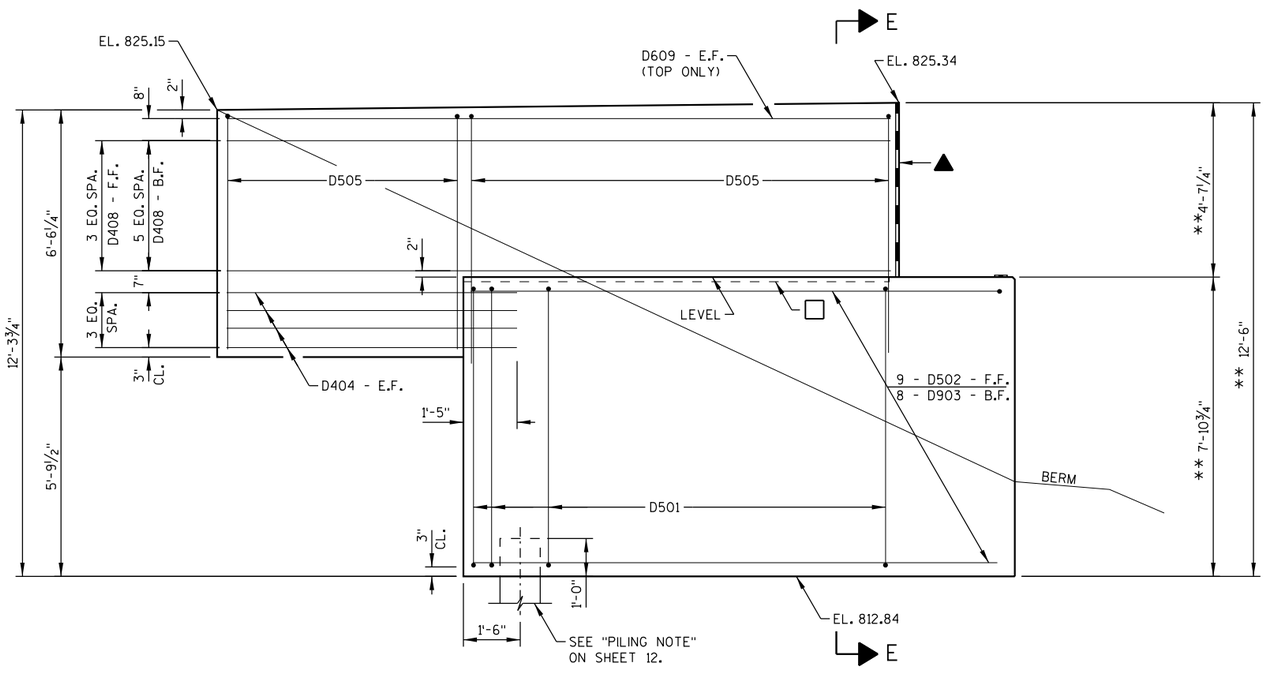


PLAN - WING 3

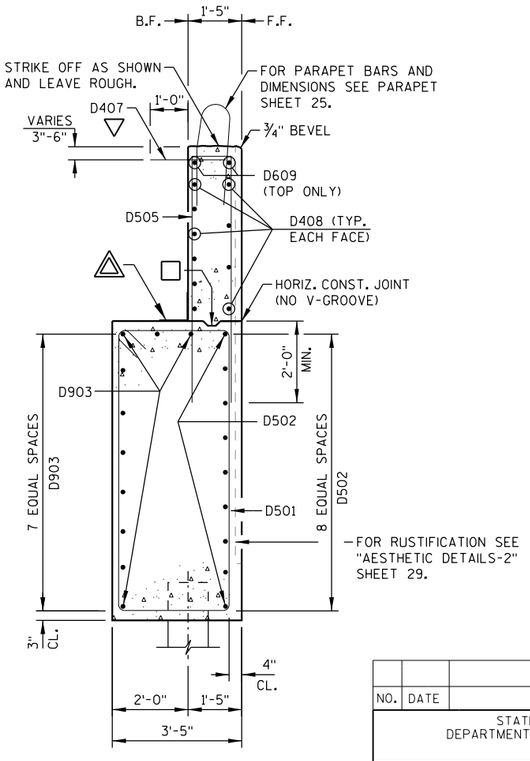
LEGEND

** DIMENSIONS AND ELEVATIONS ARE GIVEN AT THE B.F. OF ABUTMENT.

FOR ADDITIONAL SYMBOL LEGEND SEE SHEET 7.



ELEVATION - WING 3



SECTION E-E

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-53-325

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WING 3

SHEET 13 OF 32

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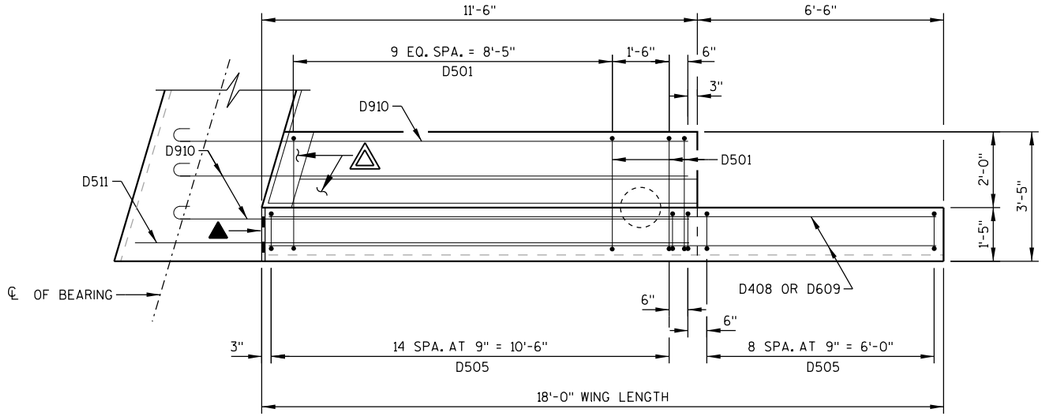
STATE PROJECT NUMBER
1003-10-82



PLAN - WING 4

LEGEND

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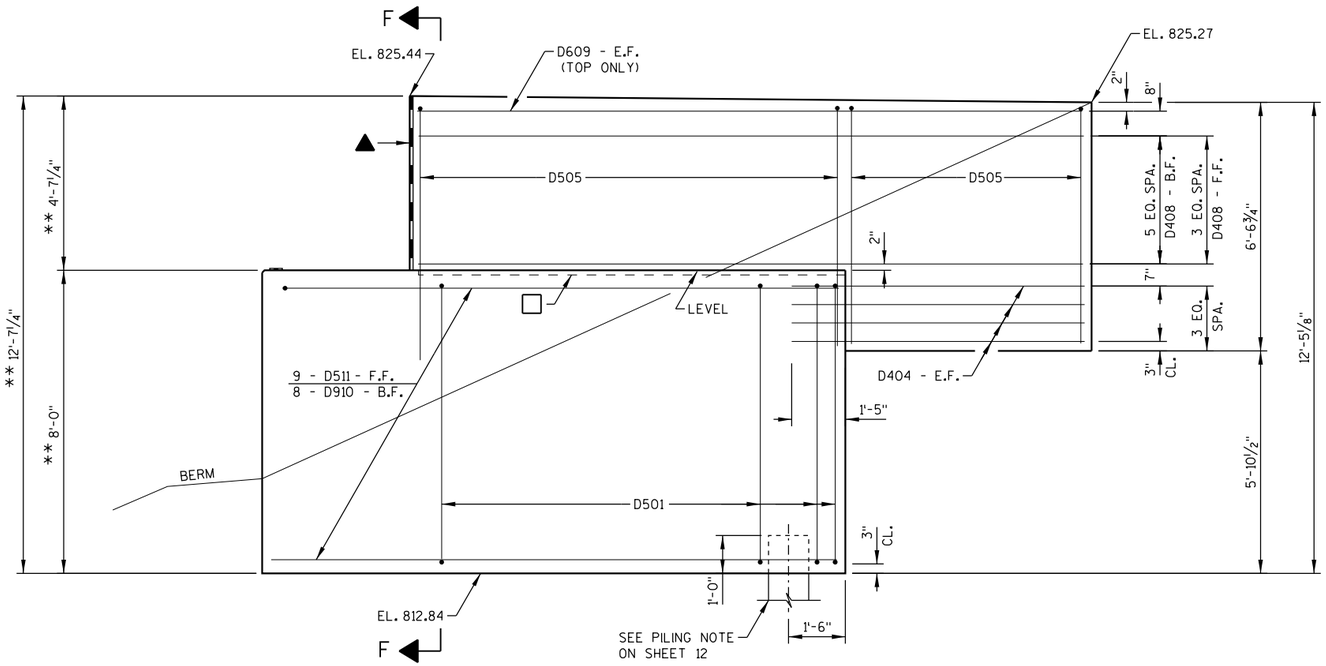
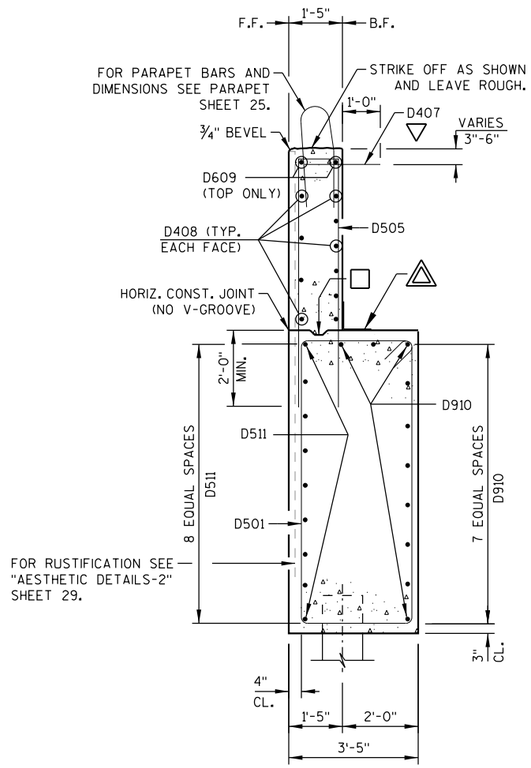
FOR ADDITIONAL SYMBOL LEGEND SEE SHEET 7.



ELEVATION - WING 4



SECTION F-F

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
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STRUCTURE B-53-325

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WING 4

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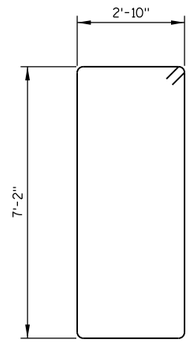

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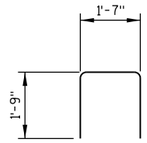

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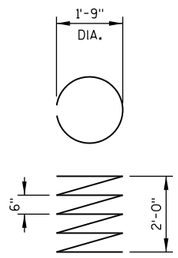

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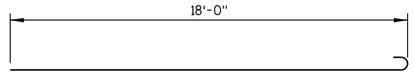

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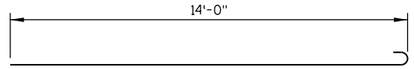
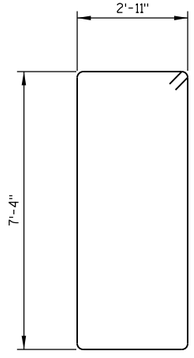


D903, D910



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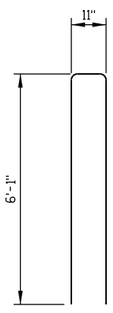

D505

BILL OF BARS

DIMENSIONS IN BENDING DETAILS ARE OUT TO OUT OF BAR.

MARK	NO. REQ'D	LENGTH	BENT	LOCATION	
NON-COATED BARS				TOTAL WEIGHT = 3,800 LBS	
B601	14	40 - 2		ABUTMENT BODY, FRONT FACE / TOP / BOTTTOM	HORIZ.
B1002	16	19 - 5	X	ABUTMENT BODY, BACK FACE	HORIZ.
B503	51	20 - 7	X	ABUTMENT BODY, STIRRUP	VERT.
B404	35	4 - 11	X	ABUTMENT BODY, TOP	VERT.
B405	2	40 - 2		ABUTMENT BODY, TOP	HORIZ.
B606	8	11 - 2		ABUTMENT BODY, BACK FACE	HORIZ.
B407	20	2 - 3		ABUTMENT BODY, PILE WRAP	VERT.
B408	10	28 - 0	X	ABUTMENT BODY, PILE WRAP	VERT.
COATED BARS				TOTAL WEIGHT = 3,010 LBS	
D501	24	21 - 1	X	WING 3 & 4, STIRRUP	VERT.
D502	9	14 - 0		WING 3, FRONT FACE	HORIZ.
D903	10	15 - 3	X	WING 3, BACK FACE	HORIZ.
D404	16	7 - 9		WING 3 & 4, WING WALL BOTH FACES	HORIZ.
D505	50	13 - 6	X	WING 3 & 4, WINGWALL	VERT.
D407	34	2 - 0		WING 3 & 4, TOP DOWEL	HORIZ.
D408	20	17 - 7		WING 3 & 4, BOTH FACES	HORIZ.
D609	4	17 - 7		WING 3 & 4, TOP	HORIZ.
D910	10	15 - 3	X	WING 4, BACK FACE	HORIZ.
D511	9	14 - 8		WING 4, FRONT FACE	HORIZ.

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STRUCTURE B-53-325

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EAST ABUTMENT DETAILS

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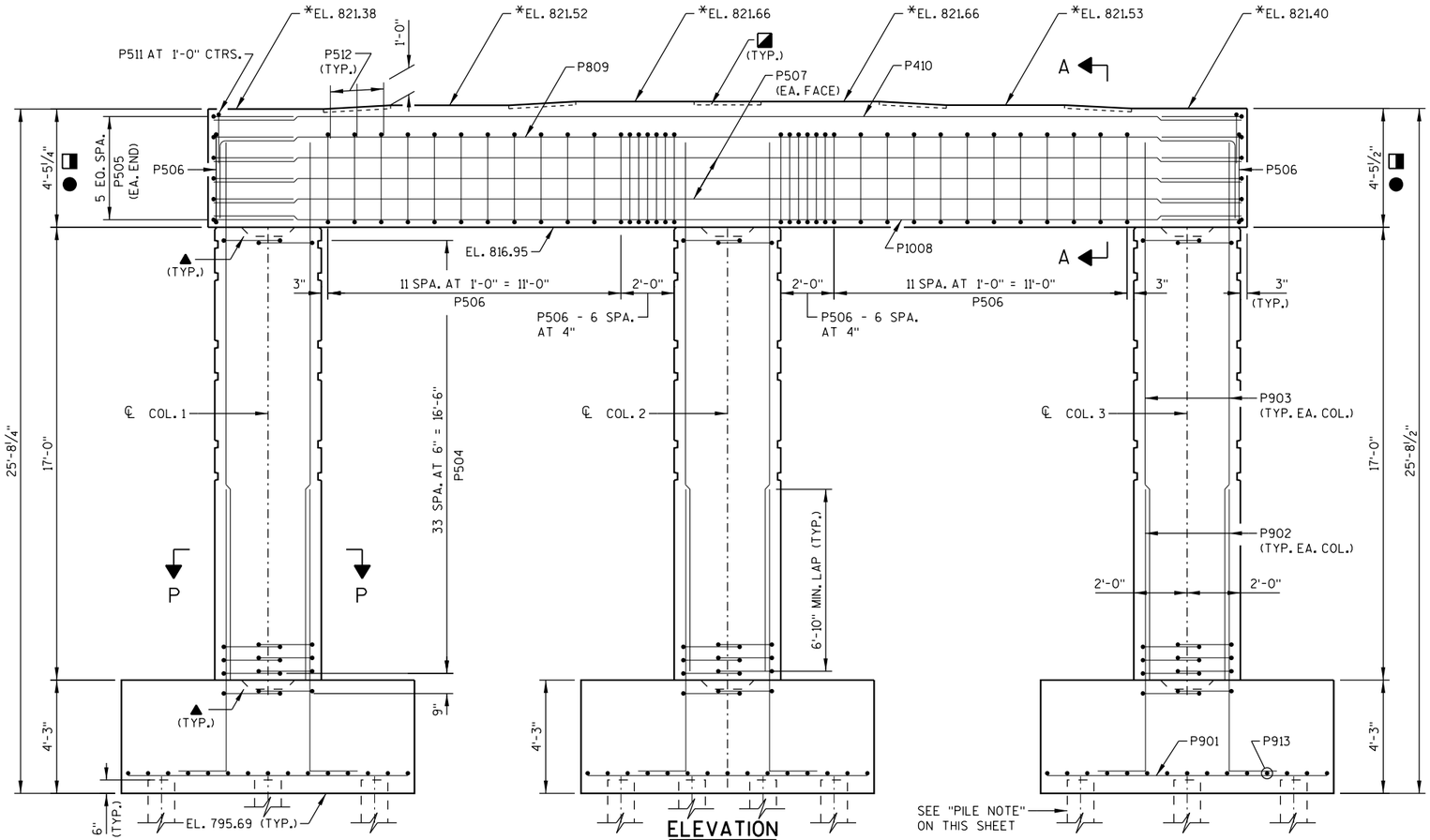
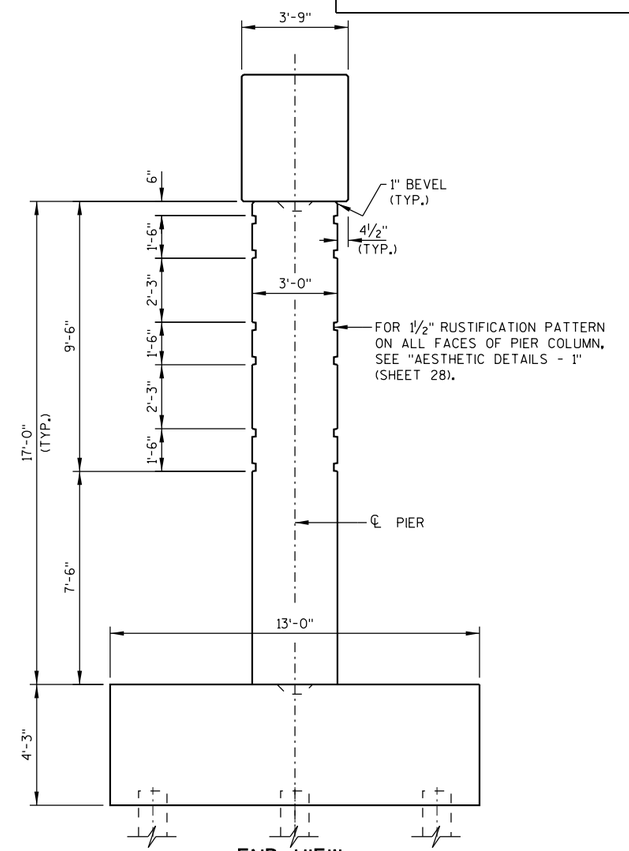
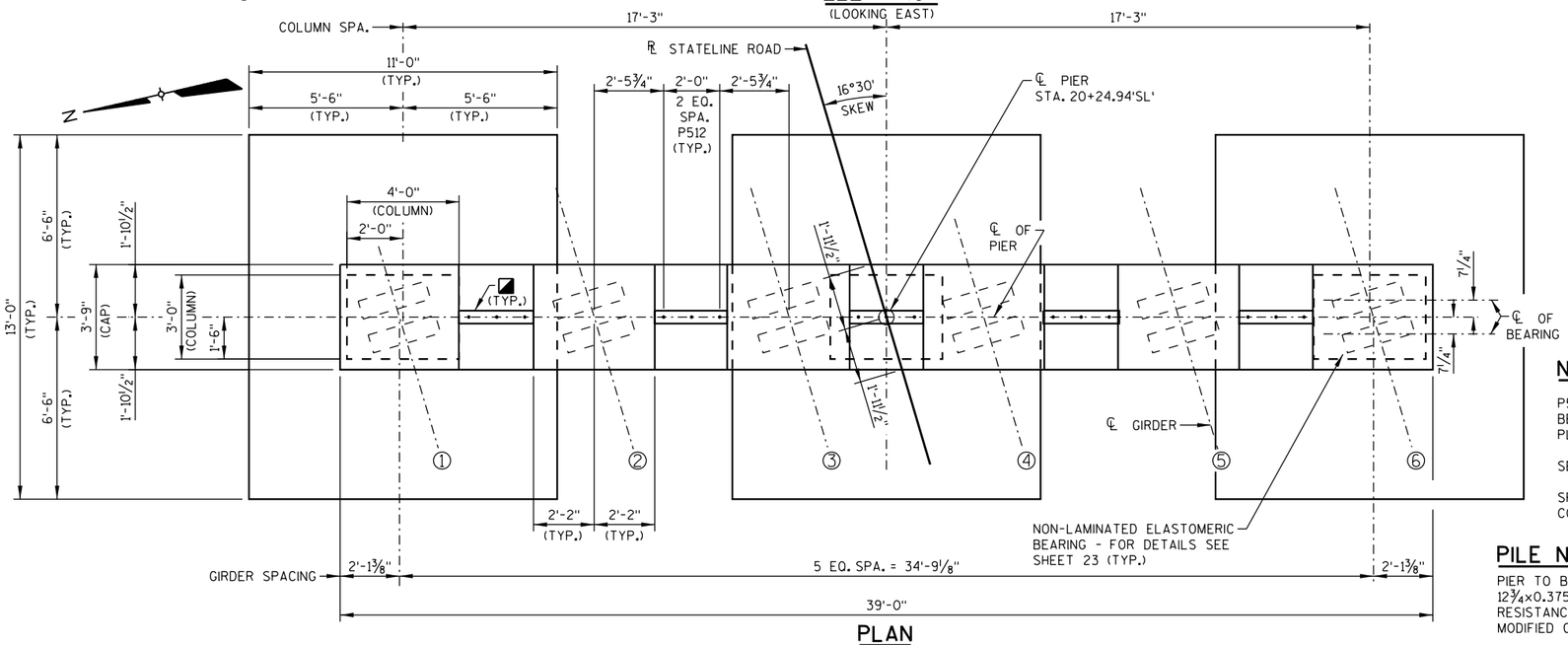


ELEVATION
(LOOKING EAST)



END VIEW
(LOOKING NORTH)



PLAN

LEGEND

- * ELEVATIONS AND DIMENSIONS ARE GIVEN AT THE TOP OF CONCRETE AT PIER ℄.
- ▲ CONSTRUCTION JOINT FORMED BY BEVELED 4" × 1'-3" × 2'-0" KEYWAY.
- ◪ KEYED CONST. JOINT FORMED BY BEVELED 2" × 6".
- ◨ THE CONTRACTOR MAY FURNISH PRECAST PIER CAPS, BEARING BLOCKS AND COLUMNS IN LIEU OF THE CAST-IN-PLACE PIER WITH THE ACCEPTANCE OF THE SHOP DRAWINGS BY THE STRUCTURES DESIGN SECTION. CONTACT DAVE KIEKBUSCH (608-266-5084) OR JAMES LUEBKE (608-266-5098) FOR PRECAST PIER MEMBER STANDARDS. THE PRECAST PIER SHALL CONFORM TO PRECAST DETAILS IN CHAPTER 7 STANDARDS OF THE CURRENT WISCONSIN DOT BRIDGE MANUAL. PAYMENT FOR THE PRECAST PIER SHALL BE BASED ON THE QUANTITIES AND PRICES BID FOR THE ITEMS LISTED IN THE "TOTAL ESTIMATED QUANTITIES".
- ● IF THE CONTRACTOR CHOOSES TO FURNISH PRECAST PIER MEMBERS, THE CAP HEIGHT SHALL BE 4'-0". THE REMAINING DIFFERENCE BETWEEN THE BEAM SEAT ELEVATIONS AND THE TOP OF THE 4'-0" CAP WILL BE THE "H" DIMENSION OF THE PRECAST BEARING BLOCKS.

NOTES

P512 BARS MAY BE PLACED AFTER CONCRETE HAS BEEN POURED, BUT BEFORE INITIAL SET HAS TAKEN PLACE.

SEE SHEET 17 FOR CAP AND FOOTING DETAILS.

SPACE LOWER CAP REINFORCEMENT TO MISS VERTICAL COLUMN STEEL.

PILE NOTE

PIER TO BE SUPPORTED ON PILING CIP CONCRETE 12¾×0.375-INCH DRIVEN TO A REQUIRED DRIVING RESISTANCE OF 210 TONS PER PILE AS DETERMINED BY THE MODIFIED GATES DYNAMIC FORMULA. ESTIMATED 30' LONG.

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STRUCTURE B-53-325

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PIER

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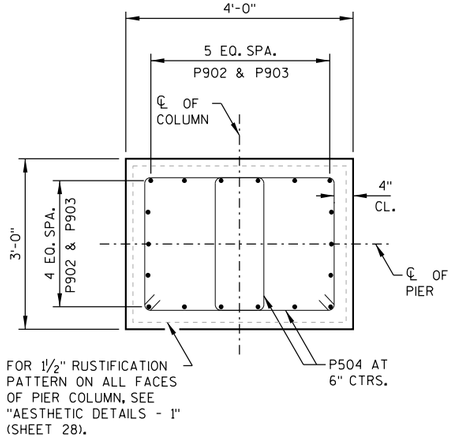
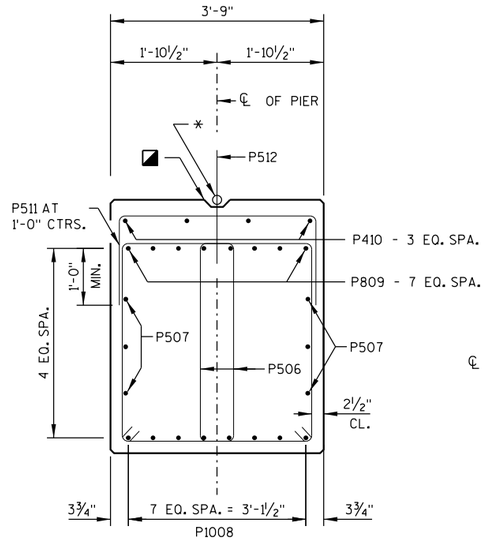
STATE PROJECT NUMBER

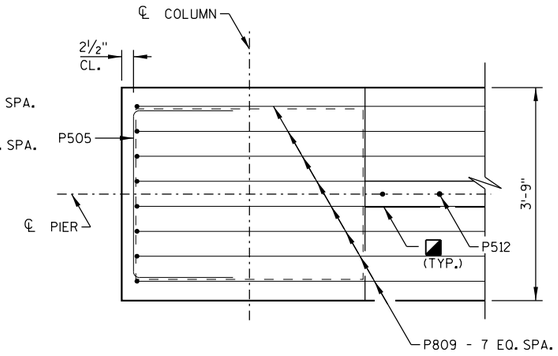
1003-10-82



SECTION P-P



SECTION A-A



PLAN VIEW SHOWING END OF CAP

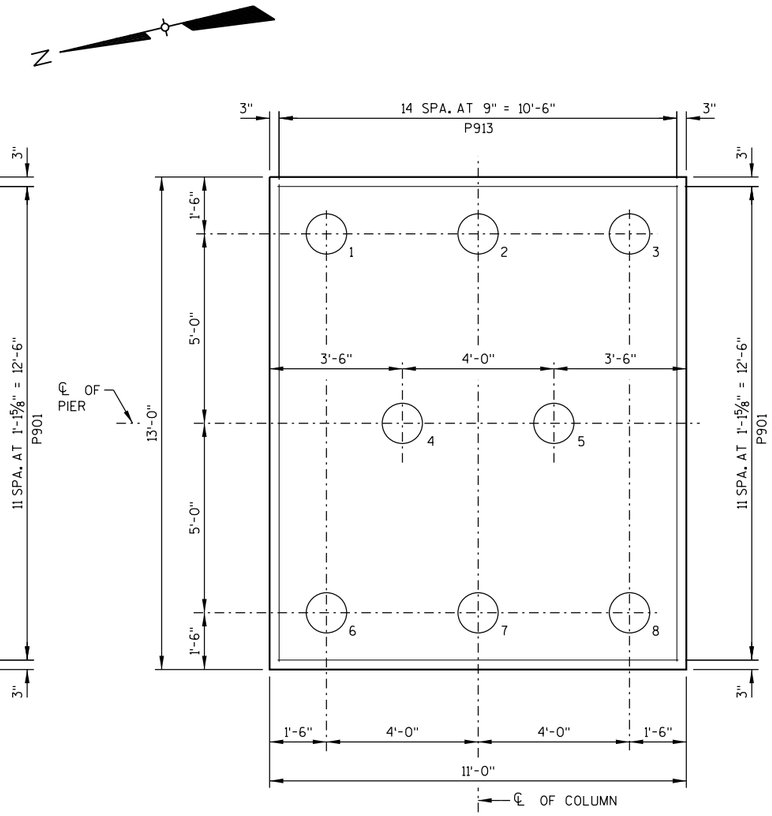
BILL OF BARS

DIMENSIONS IN BENDING DETAILS ARE OUT TO OUT OF BAR.

MARK	NO. REQ'D	LENGTH	BENT	LOCATION	
NON-COATED BARS					TOTAL WEIGHT = 3,200 LBS
P901	36	10 - 6		FOOTINGS	HORIZ.
P913	45	12 - 6		FOOTINGS	HORIZ.
COATED BARS					TOTAL WEIGHT = 11,840 LBS
P902	54	11 - 2	X	PIER, COLUMNS & FOOTINGS	VERT.
P903	54	20 - 4		PIER, COLUMNS & FOOTINGS	VERT.
P504	210	9 - 6	X	PIER, COLUMNS - STIRRUPS	HORIZ.
P505	12	6 - 6	X	PIER, CAP - ENDS	HORIZ.
P506	76	12 - 2	X	PIER, CAP - STIRRUPS	VERT.
P507	6	38 - 7		PIER, CAP - SIDES	HORIZ.
P1008	8	38 - 7		PIER, CAP - BOTTOM	HORIZ.
P809	8	45 - 2	X	PIER, CAP - TOP	HORIZ.
P410	4	38 - 7		PIER, CAP - TOP	HORIZ.
P511	40	6 - 3	X	PIER, CAP - TOP STIRRUPS	HORIZ.
P512	15	2 - 0		PEIR, CAP - DOWELS	VERT.

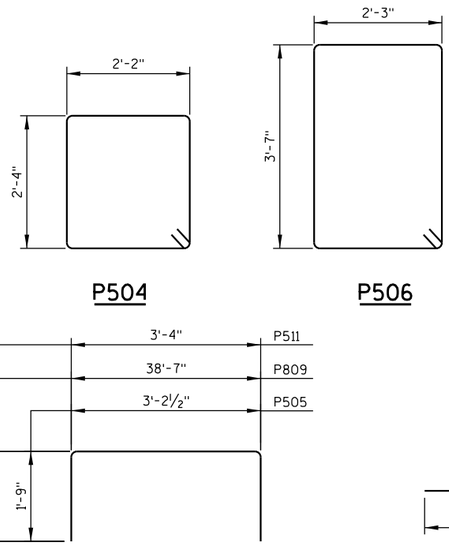
LEGEND

FOR SYMBOL LEGENDS SEE SHEET 16.



INTERIOR FOOTING PLAN

EXTERIOR FOOTING PLAN



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STRUCTURE B-53-325

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PIER DETAILS

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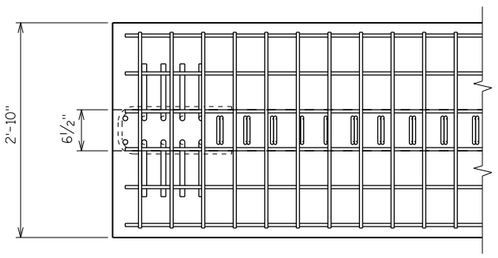
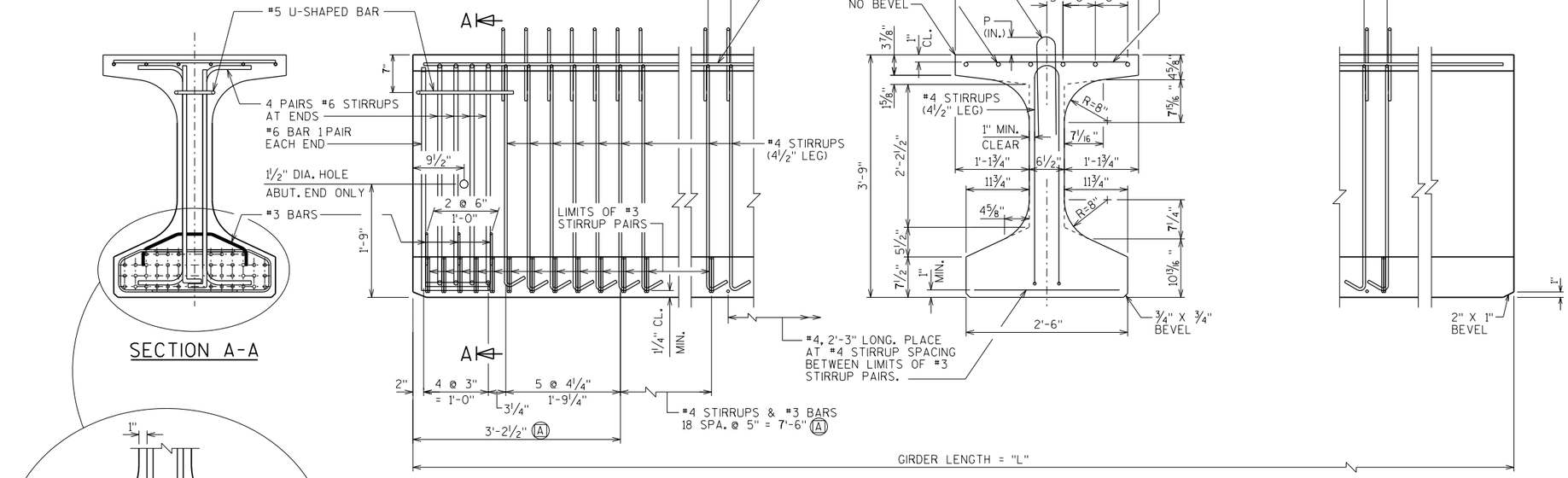


TOP FLANGE

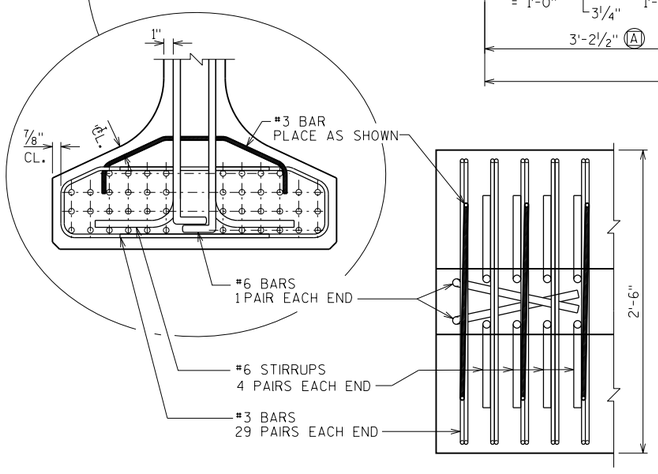


SECTION A-A

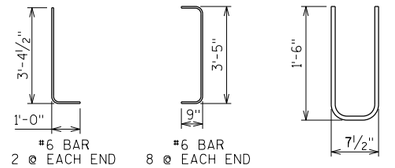
SIDE VIEW & TYPICAL SECTION IN SPAN

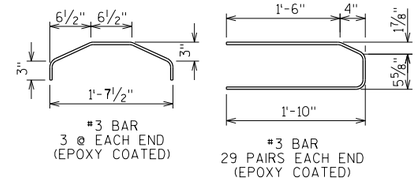
Ⓐ DETAIL TYP. AT EACH END

Ⓑ 6 #4 BARS, FULL LENGTH, MIN. LAP = 2'-4"



BOTTOM FLANGE





NOTES

TOP OF GIRDER TO BE ROUGH FLOATED AND BROOMED TRANSVERSELY, EXCEPT THE OUTSIDE 8" OF GIRDER, WHICH SHALL RECEIVE A SMOOTH FINISH. AN APPROVED CONCRETE SEALER SHALL BE APPLIED TO ALL SMOOTH SURFACES INCLUDING THE OUTSIDE 8" OF THE TOP FLANGE.

DO NOT APPLY CONCRETE SEALER TO SURFACES RECEIVING APPLICATION OF CONCRETE STAINING.

THE GIRDERS SHALL BE PROVIDED WITH A SUITABLE LIFTING DEVICE FOR HANDLING AND ERECTING THE GIRDERS.

STRANDS SHALL BE FLUSH WITH END OF GIRDER. FOR GIRDER ENDS EMBEDDED COMPLETELY IN CONCRETE, END OF STRANDS SHALL BE COATED WITH NON-BITUMINOUS JOINT SEALER. FOR GIRDER ENDS THAT ARE FINALLY EXPOSED, COAT THE GIRDER ENDS, EXPOSED STRAND ENDS AND ALL NON-BONDING SURFACES WITHIN 2 FEET OF THE GIRDER ENDS WITH A NON-PIGMENTED EPOXY CONFORMING TO AASHTO M-235 TYPE III, CLASS B OR C. THE EPOXY SHALL BE APPLIED AT LEAST 3 DAYS AFTER MOIST CURING HAS CEASED AND PRIOR TO THE APPLICATION OF THE SEALER.

ALL GIRDERS SHALL BE CAST FULL LENGTH AS SHOWN.

SPACING SHOWN FOR #4 STIRRUPS IS FOR GRADE 60 REINFORCEMENT.

AN ALTERNATE EQUIVALENT OF WELDED WIRE FABRIC (WWF) ASTM A497 MAY BE SUBSTITUTED FOR THE STIRRUP REINFORCEMENT SHOWN, UPON APPROVAL OF THE STRUCTURES DEVELOPMENT SECTION.

PRESTRESSING STRANDS SHALL BE (0.6" DIA.)-7 WIRE LOW-RELAXATION STRANDS WITH AN ULTIMATE STRENGTH OF 270,000 PSI.

FOR DIAPHRAGM INSERT & CONNECTION DETAILS SEE "STEEL DIAPHRAGM" SHEET.

✳ MINIMUM CYLINDER STRENGTH OF CONCRETE @ TIME OF TRANSFER OF PRESTRESS FORCE.

GIRDER DATA

SPAN	GIRDER	GIRDER LENGTH "L"	DEAD LOAD DEFL. (IN.) 1/10	2/10	3/10	4/10	5/10	6/10	7/10	8/10	9/10	CONC. STRGTH. f'c (p.s.i.)	"P" 1ST ⅓ OF GIRDER	"P" MID ⅓ OF GIRDER	"P" END ⅓ OF GIRDER	DIA. OF STRAND (IN.)	DRAPED PATTERN TOTAL NO. OF STRANDS	f'ci (P.S.I.) ✳	(IN.) "A"	"B" MIN.	"B" MAX.	"C"	UNDRAPED PATTERN TOTAL NO. OF STRANDS	f'ci (P.S.I.) ✳
1 & 2	1-6	110'-4½"	0.70	1.35	1.87	2.19	2.29	2.19	1.87	1.35	0.70	8,000	7"	7"	7"	0.60	32	6,800	40	13.75	16.75	5.0		

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STRUCTURE B-53-325

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45W" PRESTRESSED GIRDER DETAILS-1

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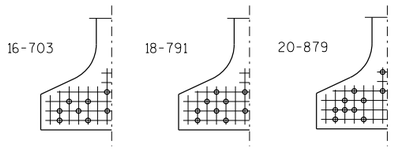
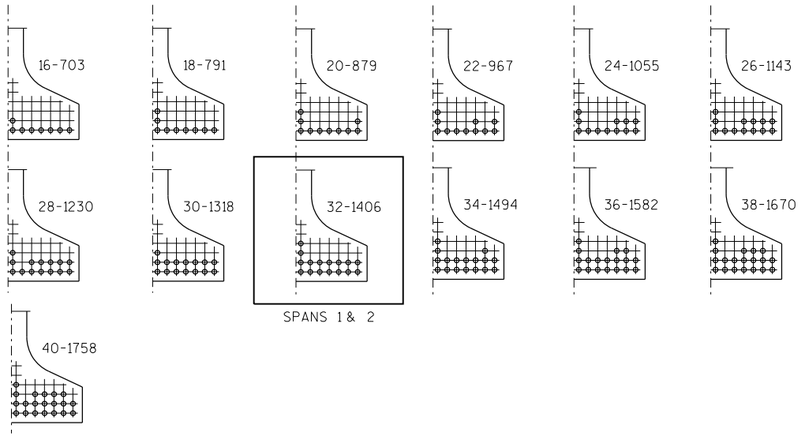


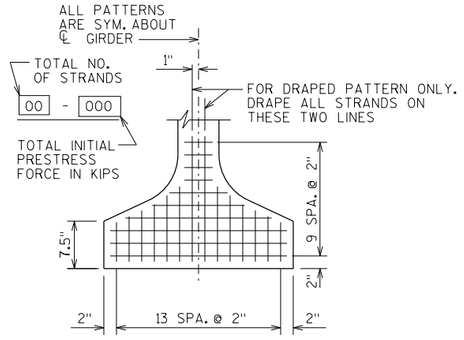
STANDARD ARRANGEMENTS TO RAISE CENTER OF GRAVITY TO AVOID DRAPING OF STRANDS

0.6"Φ STRANDS

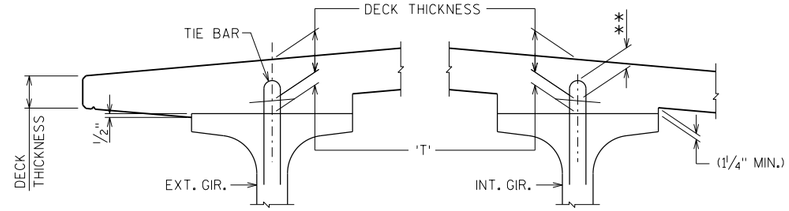


ARRANGEMENT AT ℄ SPAN - FOR GIRDERS WITH DRAPED STRANDS

0.6"Φ STRANDS



TYP. STRAND PATTERN



DECK HAUNCH DETAIL

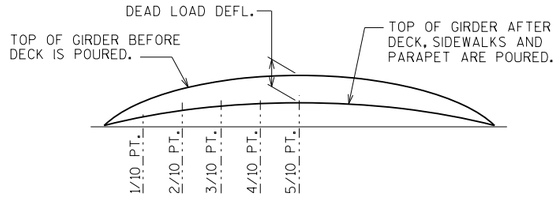
IF 1¼" MINIMUM HAUNCH HEIGHT AT EDGE OF GIRDER CANNOT BE MAINTAINED, THE GRADE LINE MAY BE REVISED BY THE ENGINEER AT THE OPTION OF THE CONTRACTOR, THE PLAN DECK THICKNESS SHALL BE HELD. NOTIFY THE STRUCTURES SECTION IF THE GRADE LINE IS RAISED FROM THE PLAN PROFILE BY MORE THAN ½" OR,

** IF 3" MINIMUM DECK EMBEDMENT OF TIE BAR CANNOT BE OBTAINED.

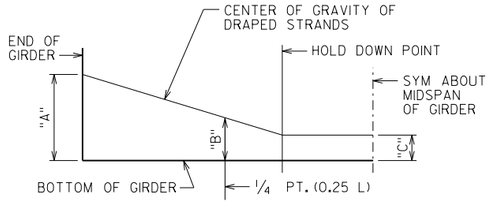
TO DETERMINE 'T', ELEV. OF TOP OF GIR'S. AT ℄ OF SUBSTRUCTURE UNITS & AT 1/10 POINTS OF EACH SPAN SHALL BE TAKEN. THEN FOLLOW THIS PROCESS:

TOP OF DECK ELEV. AT FINAL GRADE
- TOP OF GIRDER ELEVATION
+ DEAD LOAD DEFLECTION
- DECK THICKNESS
= HAUNCH HEIGHT 'T'

NOTE: AN AVERAGE HAUNCH ('T') OF 2⅝" WAS USED IN THE QUANTITY "CONCRETE MASONRY BRIDGES".



DEAD LOAD DEFLECTION DIAGRAM



DRAPED STRAND PROFILE

*THE THEORETICAL INITIAL CAMBER VALUE AT THE TIME OF STRAND RELEASE AT MIDSPAN MULTIPLIED BY A FACTOR OF 1.4 TO ACCOUNT FOR CAMBER GROWTH FROM THE TIME OF STRAND RELEASE TO JOBSITE PLACEMENT.

SPAN	CAMBER (IN.) *
1& 2	3.32

THESE VALUES ARE NOT TO BE USED IN DETERMINING 'T', USE ACTUAL GIRDER SHOTS.

THESE VALUES ARE FOR INFORMATIONAL PURPOSES ONLY.

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STRUCTURE B-53-325

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45W" PRESTRESSED GIRDER DETAILS-2

SHEET 19 OF 32
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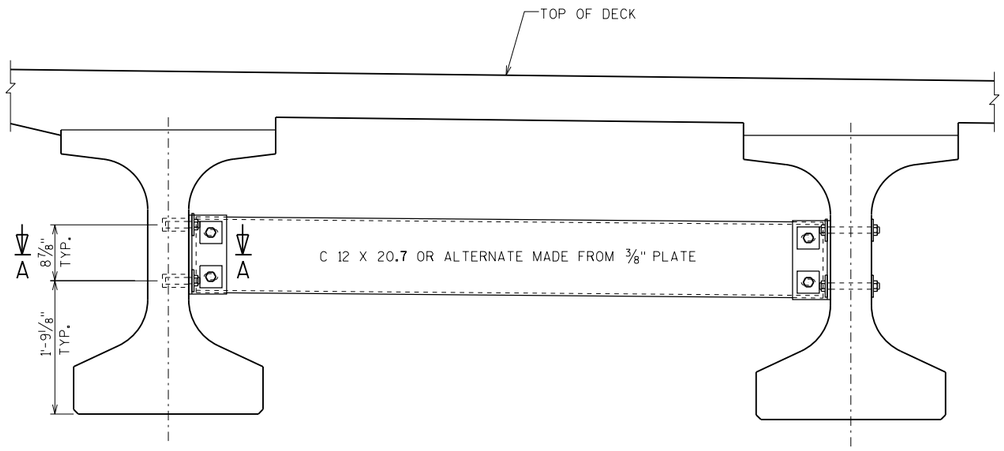


PART TRANSVERSE SECTION AT DIAPHRAGM

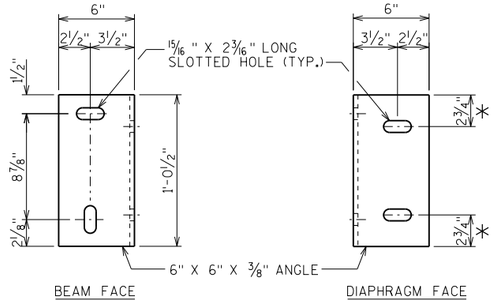
NOTES

ALL DIAPHRAGM MATERIAL NOT EMBEDDED IN THE CONCRETE GIRDER SHALL BE PAID FOR AT THE UNIT PRICE BID FOR "STEEL DIAPHRAGMS B-53-325", EACH.

EACH DIAPHRAGM BETWEEN GIRDERS SHALL CONSTITUTE ONE UNIT.

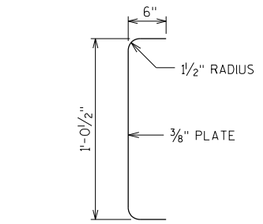
ALL DIAPHRAGM STRUCTURAL STEEL SHALL BE ASTM A709 GRADE 36. ALL BOLTS, NUTS AND WASHERS SHALL BE ASTM A325 TYPE 1.

ALL DIAPHRAGM STRUCTURAL STEEL SHOWN SHALL BE HOT-DIPPED GALVANIZED. ALL BOLTS, NUTS AND WASHERS SHALL BE HOT-DIPPED GALVANIZED IN ACCORDANCE WITH ASTM A153 CLASS C. GALVANIZED NUTS SHALL BE TAPPED OVERSIZED IN ACCORDANCE WITH THE REQUIREMENTS OF ASTM A563 AND SHALL MEET THE REQUIREMENTS OF SUPPLEMENTARY REQUIREMENT S1 OF ASTM A563, LUBRICANT AND TEST FOR COATED NUTS.

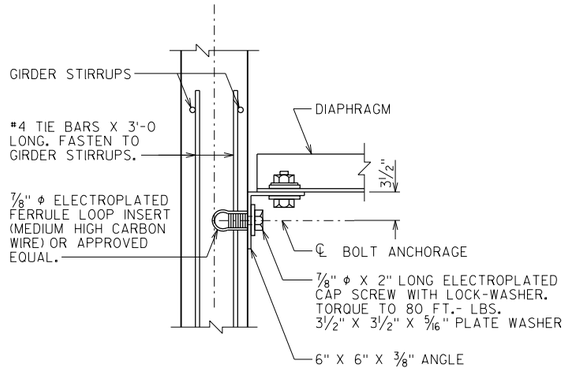


DIAPHRAGM SUPPORT

* 2 1/2" FOR ALTERNATE PLATE DIAPHRAGM

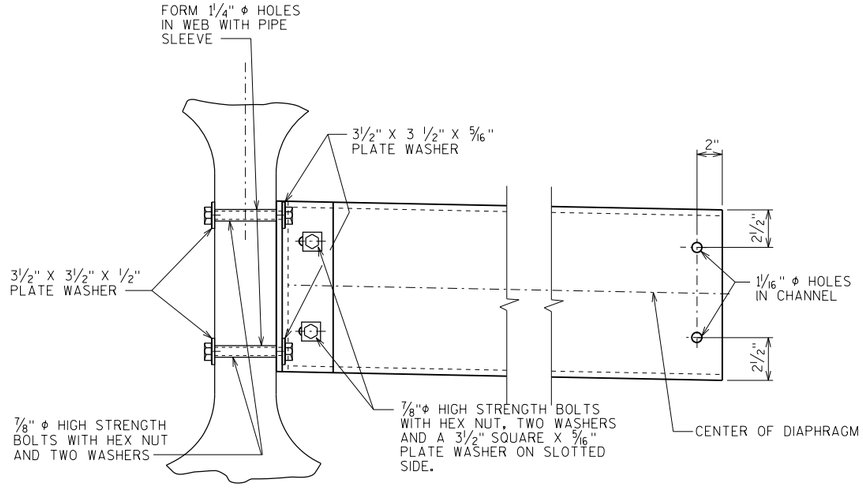


SECTION THRU ALTERNATE DIAPHRAGM



SECTION A-A

(FOR EXTERIOR ATTACHMENT)



SECTION AT INTERIOR GIRDERS THRU DIAPHRAGM FOR SKEW ANGLES > 10°

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STRUCTURE B-53-325

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INTERMEDIATE STEEL DIAPHRAGMS

SHEET 20 OF 32

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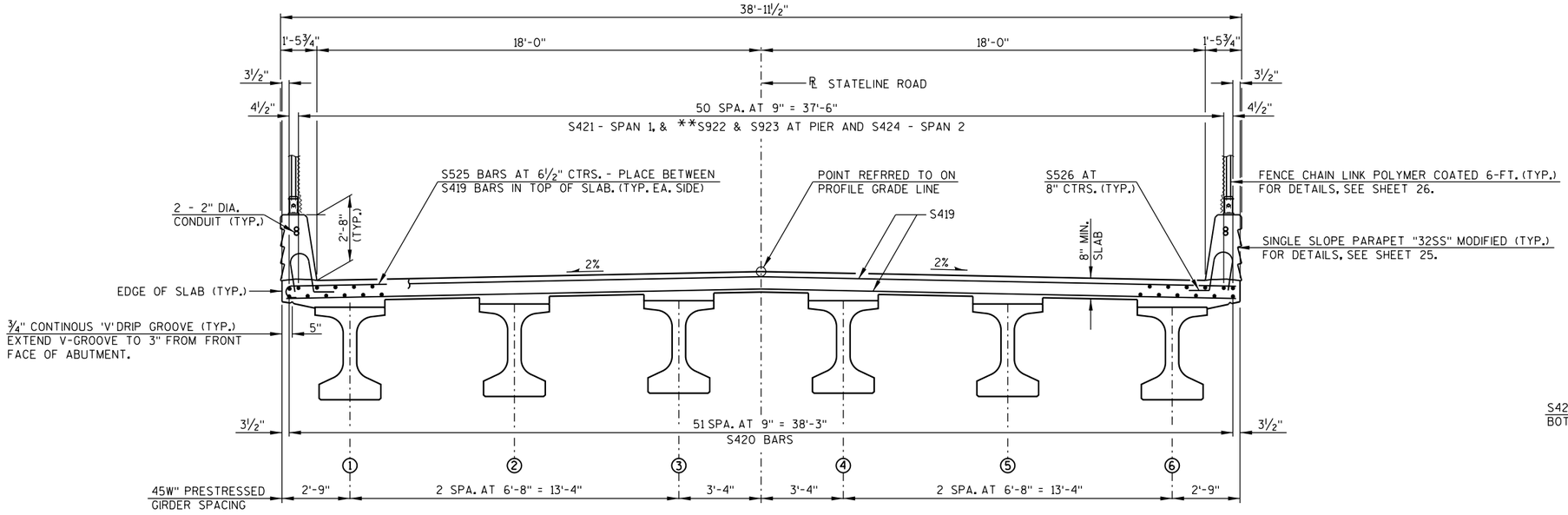
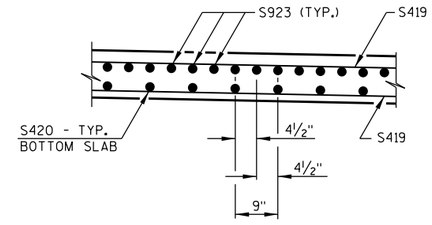


CROSS SECTION THRU ROADWAY

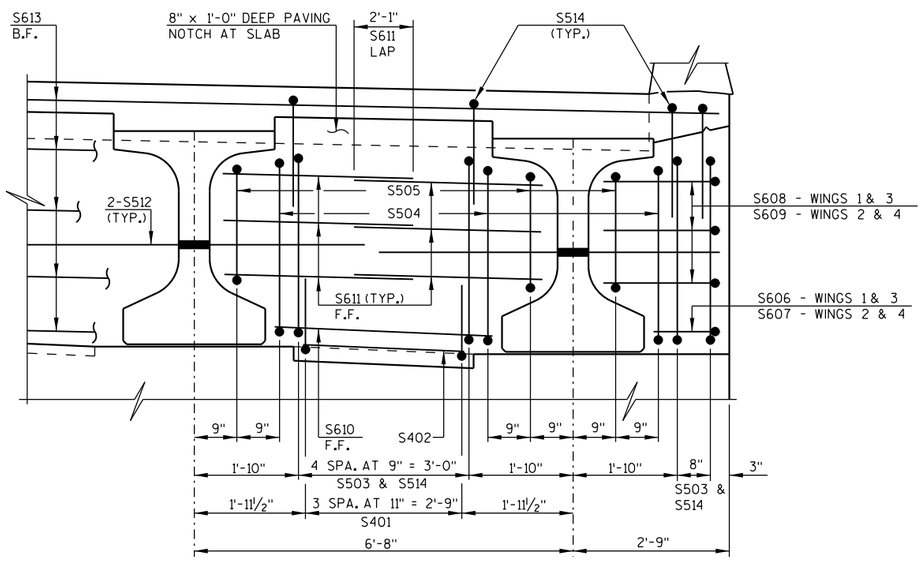
(LOOKING EAST)

**S922 & S923 BARS AT PIER ARE SPACED AT 4½" CTRS. SEE "CROSS SECTION THRU SLAB - AT PIER" DETAIL ON THIS SHEET.

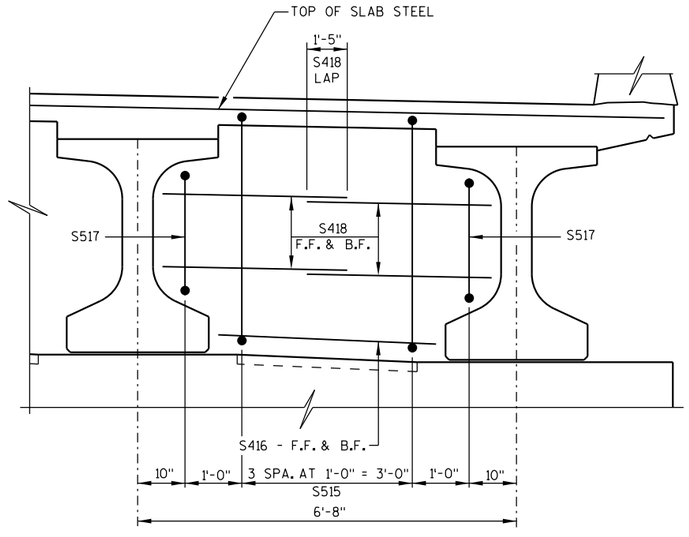


CROSS SECTION THRU SLAB - AT PIER

(LOOKING EAST)



ABUTMENT DIAPHRAGM DETAILS



PIER DIAPHRAGM DETAILS

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STRUCTURE B-53-325

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SUPERSTRUCTURE-1

SHEET 21 OF 32
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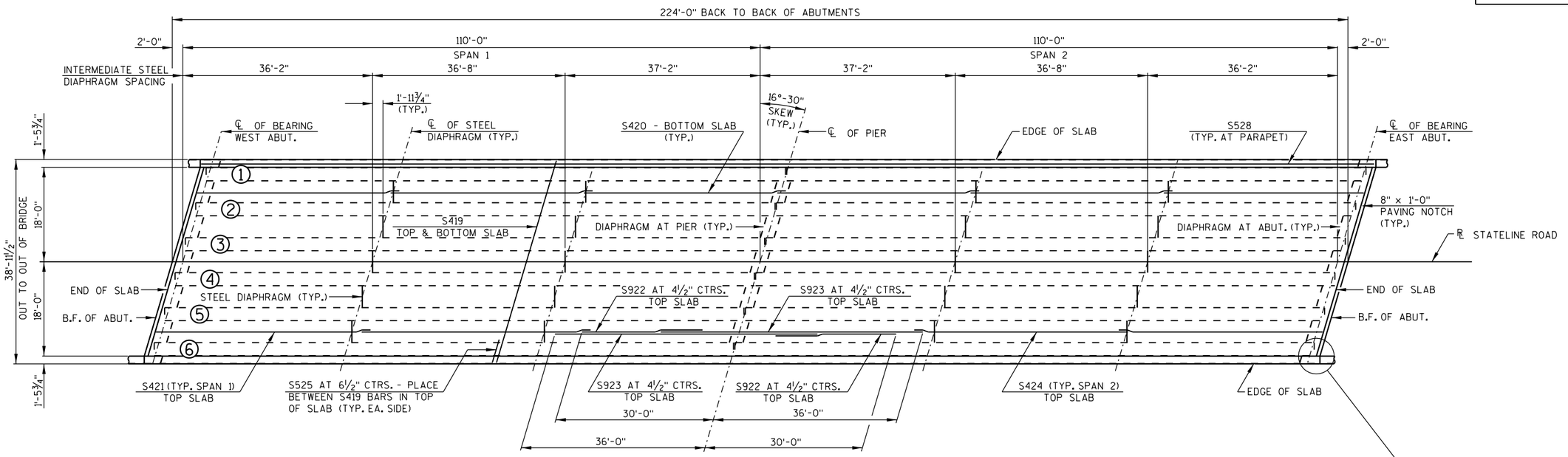
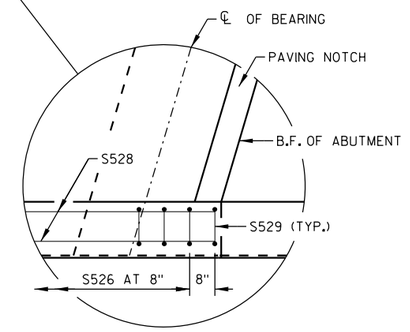


PLAN



TOP OF DECK ELEVATIONS

	℄ OF BRG. W. ABUT.	0.1 PT.	0.2 PT.	0.3 PT.	0.4 PT.	0.5 PT.	0.6 PT.	0.7 PT.	0.8 PT.	0.9 PT.	℄ OF PIER	0.1 PT.	0.2 PT.	0.3 PT.	0.4 PT.	0.5 PT.	0.6 PT.	0.7 PT.	0.8 PT.	0.9 PT.	℄ OF BRG. E. ABUT.
N. EOD	825.76	825.82	825.88	825.92	825.96	825.99	826.01	826.02	826.02	826.02	826.00	825.97	825.94	825.90	825.85	825.79	825.72	825.64	825.55	825.46	825.35
GIRDER 1	825.81	825.87	825.93	825.98	826.01	826.04	826.06	826.08	826.08	826.07	826.06	826.03	826.00	825.96	825.91	825.85	825.78	825.70	825.61	825.52	825.41
GIRDER 2	825.93	826.00	826.05	826.10	826.14	826.17	826.19	826.21	826.21	826.21	826.19	826.17	826.14	826.10	826.05	825.99	825.92	825.85	825.76	825.67	825.57
GIRDER 3	826.05	826.12	826.18	826.23	826.27	826.30	826.32	826.34	826.34	826.34	826.33	826.31	826.28	826.24	826.19	826.14	826.07	826.00	825.91	825.82	825.72
CROWN	826.11	826.18	826.24	826.29	826.33	826.36	826.39	826.40	826.41	826.41	826.40	826.38	826.35	826.31	826.26	826.21	826.14	826.07	825.99	825.90	825.80
GIRDER 4	826.04	826.11	826.17	826.22	826.26	826.30	826.32	826.34	826.34	826.34	826.33	826.31	826.28	826.25	826.20	826.15	826.08	826.01	825.93	825.84	825.74
GIRDER 5	825.89	825.96	826.02	826.08	826.12	826.16	826.18	826.20	826.21	826.21	826.20	826.18	826.16	826.12	826.08	826.02	825.96	825.89	825.81	825.72	825.62
GIRDER 6	825.74	825.82	825.88	825.93	825.98	826.02	826.05	826.07	826.08	826.08	826.07	826.05	826.03	825.99	825.95	825.90	825.84	825.77	825.69	825.60	825.51
S. EOD	825.68	825.76	825.82	825.88	825.92	825.96	825.99	826.01	826.02	826.02	826.02	826.00	825.98	825.94	825.90	825.85	825.79	825.72	825.64	825.56	825.46

NOTES

1. THE TOP LONGITUDINAL BAR STEEL REINFORCEMENT SHALL BE SUPPORTED BY CONTINUOUS BAR CHAIRS IN TRANSVERSE DIRECTION ON 4'-0" CENTERS.
2. THE BOTTOM TRANSVERSE BAR STEEL REINFORCEMENT SHALL BE SUPPORTED BY CONTINUOUS BAR CHAIRS WITH A CENTER TO CENTER SPACING NOT TO EXCEED 4'-0". ONE LINE OF CONTINUOUS BAR CHAIRS SHALL BE PLACED NEAR EACH EDGE OF SLAB TO SUPPORT THE ENDS OF THE BOTTOM TRANSVERSE BAR STEEL.
3. LAP NO. 6 BARS 3'-6" MIN. AT BACK OF ABUTMENT DIAPHRAGMS.
4. LAP LONGITUDINAL NO. 5 BARS IN PARAPET 1'-9" MIN.
5. LAP NO. 4 BARS 1'-8" MIN. AND NO. 9 BARS 8'-0" MIN. IN SLAB.
6. ALL TRANSVERSE BAR STEEL REINFORCEMENT SHALL BE PLACED PARALLEL TO SUBSTRUCTURE UNITS.
7. EDGE OF DECK (EOD) ELEVATIONS ARE CALCULATED ASSUMING CROSS SLOPE CONTINUES TO EDGE.

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STRUCTURE B-53-325

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SUPERSTRUCTURE-2

SHEET 22 OF 32
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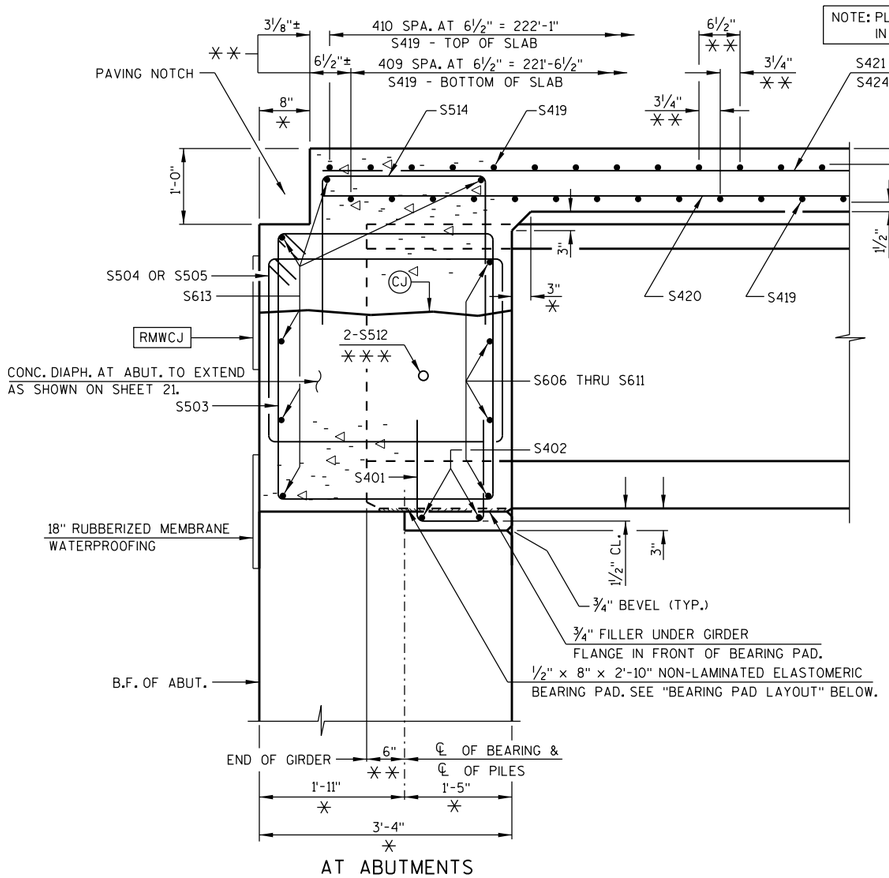
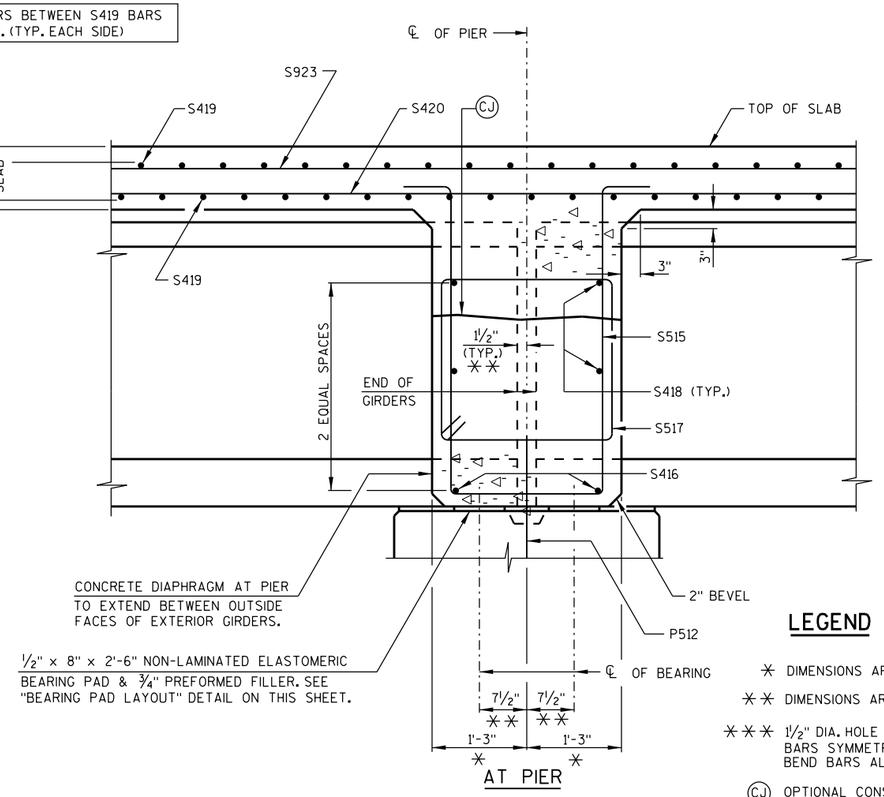


AT ABUTMENTS

NOTE: PLACE S525 BARS BETWEEN S419 BARS IN TOP OF SLAB. (TYP. EACH SIDE)



AT PIER

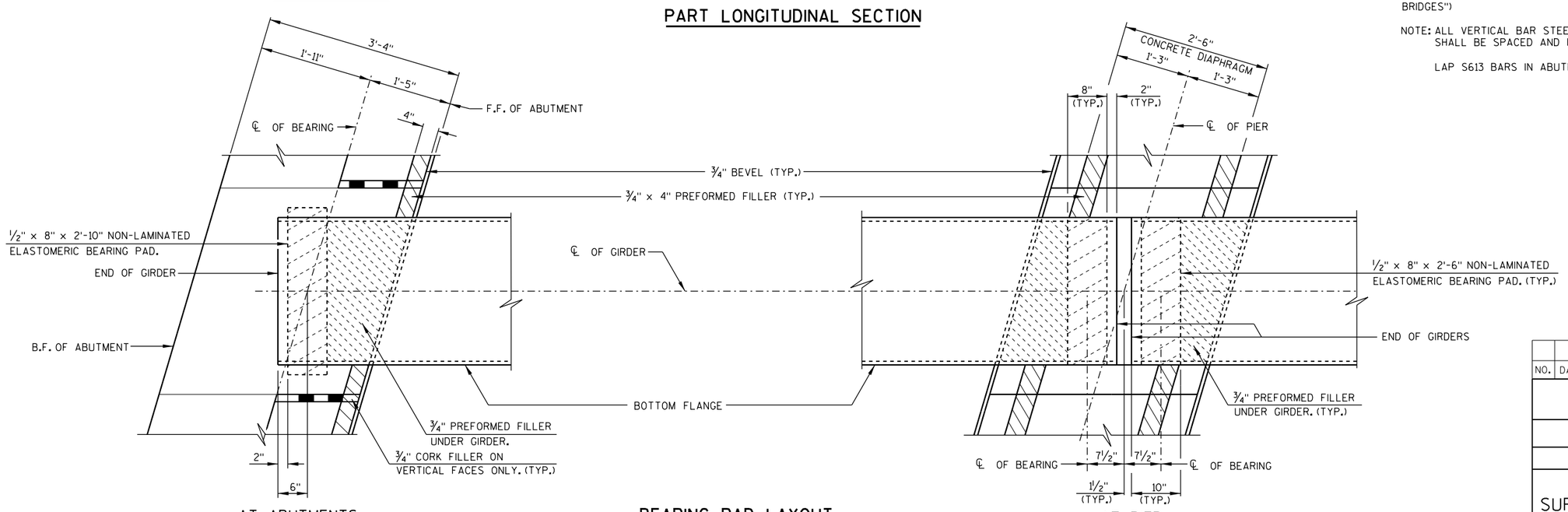
LEGEND

- ✳ DIMENSIONS ARE GIVEN NORMAL TO ℄ OF SUBSTRUCTURE UNITS.
- ✳✳ DIMENSIONS ARE GIVEN PARALLEL TO THE GIRDER ℄.
- ✳✳✳ 1½" DIA. HOLE IN WEB FOR S512 BARS. PLACE TWO S512 BARS SYMMETRICAL ABOUT THE ℄ OF EACH GIRDER. FIELD BEND BARS ALONG SKEW. SEE "SIDE VIEW" ON SHEET 18 FOR DETAILS.
- (CJ) OPTIONAL CONSTRUCTION JOINT 1'-2" BELOW TOP OF GIRDER. IF USED, DECK POUR MUST BE WITHIN 2 WEEKS FROM THE TIME OF THE DIAPHRAGM POUR.
- RMWCJ 18" RUBBERIZED MEMBRANE WATERPROOFING IF CONSTRUCTION JOINT IS USED. (COST INCIDENTAL TO BID ITEM "CONCRETE MASONRY BRIDGES")

NOTE: ALL VERTICAL BAR STEEL REINFORCEMENT IN CONCRETE DIAPHRAGMS SHALL BE SPACED AND PLACED PARALLEL TO GIRDERS.

LAP S613 BARS IN ABUTMENT DIAPHRAGM 3'-6" MIN.

PART LONGITUDINAL SECTION



AT ABUTMENTS

BEARING PAD LAYOUT

AT PIER

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STRUCTURE B-53-325

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SUPERSTRUCTURE-3

SHEET 23 OF 32
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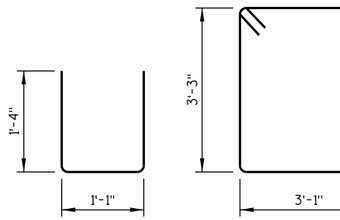

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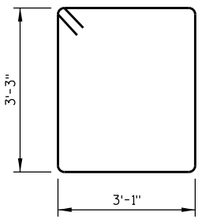

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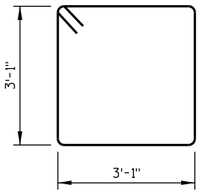

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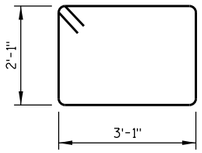

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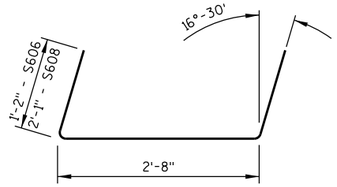

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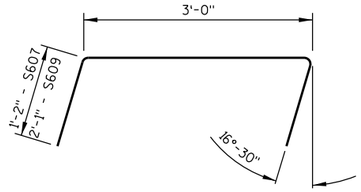

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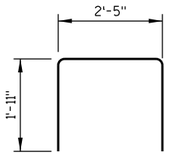

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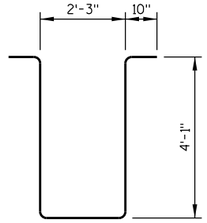

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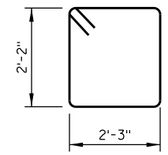

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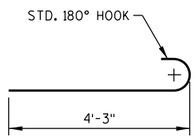

S525

S526

S527

S529

BILL OF BARS

DIMENSIONS IN BENDING DETAILS ARE OUT TO OUT OF BAR.

MARK	NO. REQ'D	LENGTH	BENT	BAR SERIES	LOCATION	
COATED BARS					TOTAL WEIGHT = 79,310 LBS	
S401	40	3 - 7	X		ABUTMENT DIAPHRAGM - BOTTOM	VERT.
S402	20	2 - 11			ABUTMENT DIAPHRAGM - BOTTOM	HORIZ.
S503	58	13 - 3	X		ABUTMENT DIAPHRAGM - STIRRUPS	VERT.
S504	24	12 - 11	X		ABUTMENT DIAPHRAGM - STIRRUPS	VERT.
S505	24	10 - 11	X		ABUTMENT DIAPHRAGM - STIRRUPS	VERT.
S606	2	4 - 8	X		ABUTMENT DIAPHRAGMS - ENDS - WINGS 1& 3	HORIZ.
S607	2	5 - 0	X		ABUTMENT DIAPHRAGMS - ENDS - WINGS 2 & 4	HORIZ.
S608	6	6 - 6	X		ABUTMENT DIAPHRAGMS - ENDS - WINGS 1 & 3	HORIZ.
S609	6	6 - 10	X		ABUTMENT DIAPHRAGMS - ENDS - WINGS 2 & 4	HORIZ.
S610	10	4 - 0			ABUTMENT DIAPHRAGM - BETWEEN GIRDERS	HORIZ.
S611	60	4 - 0			ABUTMENT DIAPHRAGM - BETWEEN GIRDERS	HORIZ.
S512	24	6 - 0			ABUTMENT DIAPHRAGM - THRU GIRDER WEB	HORIZ.
S613	24	21 - 10			ABUTMENT DIAPHRAGM - B.F.	HORIZ.
S514	58	6 - 0	X		ABUTMENT DIAPHRAGM - TOP	VERT.
S515	20	11 - 7	X		PIER DIAPHRAGM	VERT.
S416	10	4 - 0			PIER DIAPHRAGM	HORIZ.
S517	10	9 - 5	X		PIER DIAPHRAGM	VERT.
S418	40	3 - 9			PIER DIAPHRAGM	HORIZ.
S419	821	40 - 2			SLAB - TOP & BOTTOM	TRANS.
S420	312	38 - 6			SLAB - BOTTOM	LONGIT.
S421	106	42 - 3			SLAB - TOP - SPAN 1	LONGIT.
S922	103	23 - 0			SLAB - TOP - AT PIER	LONGIT.
S923	103	51 - 0			SLAB - TOP - AT PIER	LONGIT.
S424	106	39 - 3			SLAB - TOP - SPAN 2	LONGIT.
S525	820	4 - 10	X		SLAB - TOP - AT EACH EDGE	TRANS.
S526	670	4 - 5	X		PARAPET	VERT.
S527	674	5 - 0	X		PARAPET	VERT.
S528	84	33 - 6			PARAPET	HORIZ.
S529	4	5 - 10	X		PARAPET	VERT.

8

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SUPERSTRUCTURE-4

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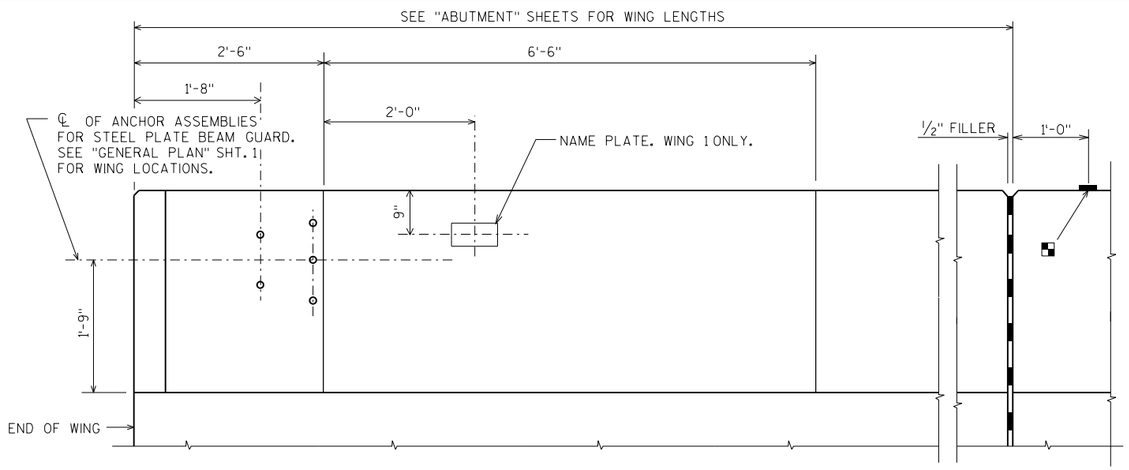
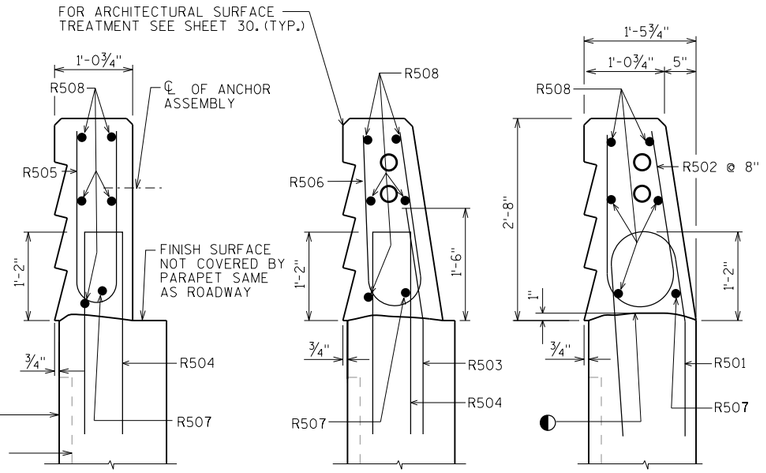
STATE PROJECT NUMBER

1003-10-82



INSIDE ELEVATION

(WING 2 SHOWN - WINGS 1, 3 & 4 SIMILIAR)



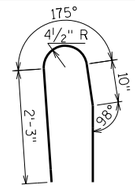
SECTION A | SECTION B | SECTION C

BILL OF BARS

DIMENSIONS IN BENDING DETAILS ARE OUT TO OUT OF BAR.

EAST ABUTMENT WEIGHT 1005 LBS., WEST ABUTMENT WEIGHT 1005 LBS.

MARK	NO. REQ'D	LENGTH	BENT	LOCATION
COATED BARS				TOTAL WEIGHT = 2,010 LBS
R501	60	5 - 10	X	PARAPET VERT.
R502	60	5 - 0	X	PARAPET VERT.
R503	48	3 - 0	X	PARAPET VERT.
R504	68	5 - 7	X	PARAPET VERT.
R505	44	4 - 9	X	PARAPET VERT.
R506	24	4 - 10	X	PARAPET VERT.
R507	4	17 - 6	X	PARAPET HORIZ.
R508	20	17 - 4		PARAPET HORIZ.



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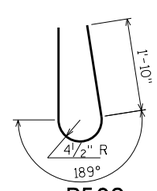

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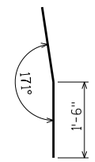
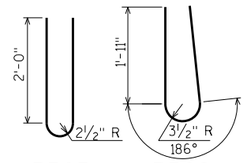
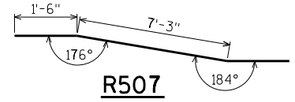


R503

R504



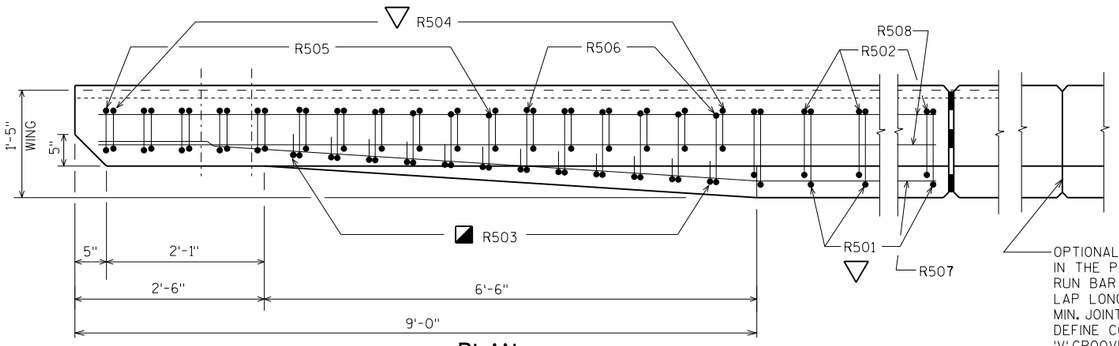
R505 R506



R507

LEGEND

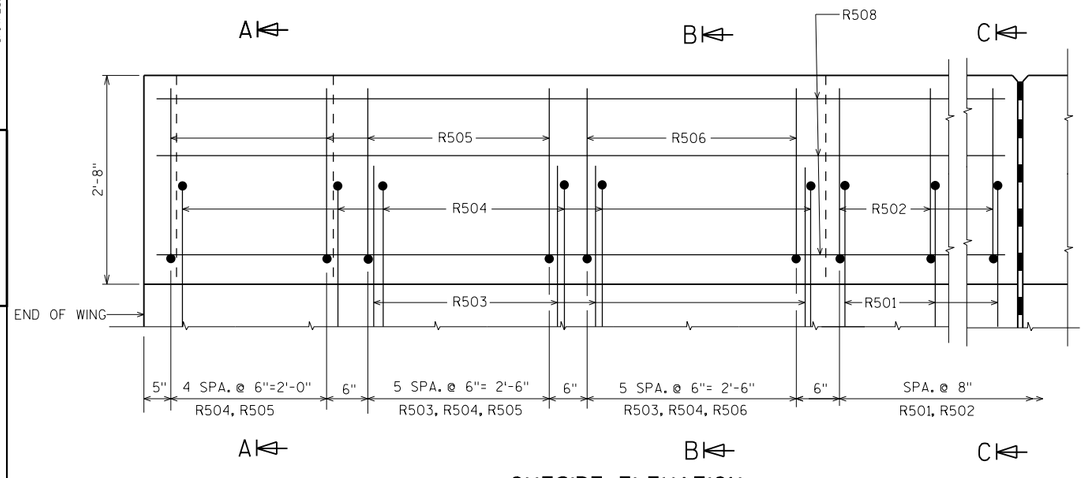
- ◐ CONST. JOINT - STRIKE OFF AS SHOWN.
- ◪ R503 BARS MAY BE PLACED AFTER CONCRETE IS POURED BUT BEFORE INITIAL SET HAS TAKEN PLACE. USE CARE TO PLACE R503 BARS CORRECTLY ALONG TRANSITION OF PARAPET.
- ▽ R501 AND R504 BARS TO BE TIED TO WING STEEL BEFORE WING IS POURED.
- ◾ BENCH MARK CAP (WHEN SUPPLIED) AVOID PLACING A BENCH MARK CAP BELOW A RAIL OR FENCE SYSTEM THAT IS ATTACHED TO THE TOP OF THE PARAPET.



OPTIONAL CONSTRUCTION JOINTS IN THE PARAPETS MAY BE USED. RUN BAR REINF. THRU THE JOINT. LAP LONGIT. BARS A MIN. OF 1'-9". MIN. JOINT SPACING OF 80'-0". DEFINE CONST. JOINT WITH A 3/4" - 'V' GROOVE.

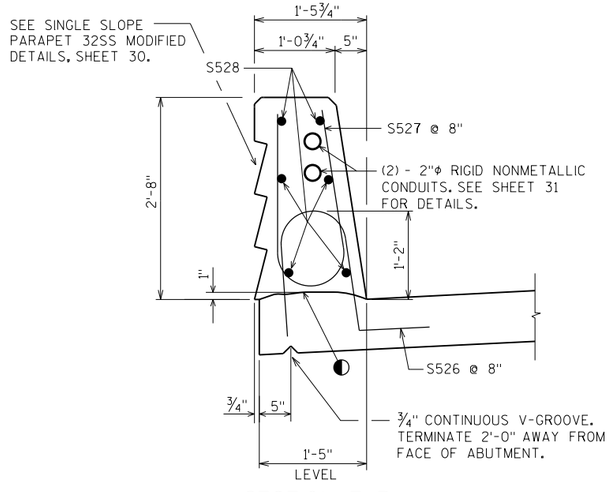
PLAN

(WING 2 SHOWN - WINGS 1, 3 & 4 SIMILIAR)

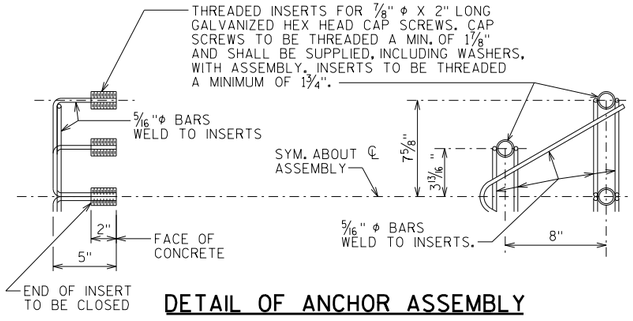


OUTSIDE ELEVATION

(ARCHITECTURAL SURFACE TREATMENT NOT SHOWN FOR CLARITY)



SECTION THRU PARAPET ON BRIDGE



DETAIL OF ANCHOR ASSEMBLY

NOTE: HEX HEAD CAP SCREWS & WASHERS TO BE GALVANIZED IN ACCORDANCE WITH AASHTO M232 CLASS C.

ASSEMBLY SHALL BE BID ITEM "ANCHOR ASSEMBLIES FOR STEEL PLATE BEAM GUARD", EACH.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-53-325

DRAWN BY KAM | PLANS CK'D. MSK

SINGLE SLOPE PARAPET 32SS MODIFIED

SHEET 25 OF 32

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8 7 1 2 3 4

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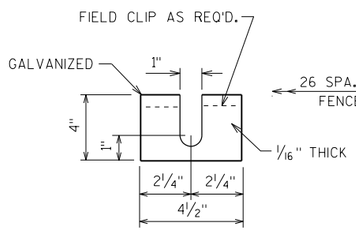
STATE PROJECT NUMBER
1003-10-82

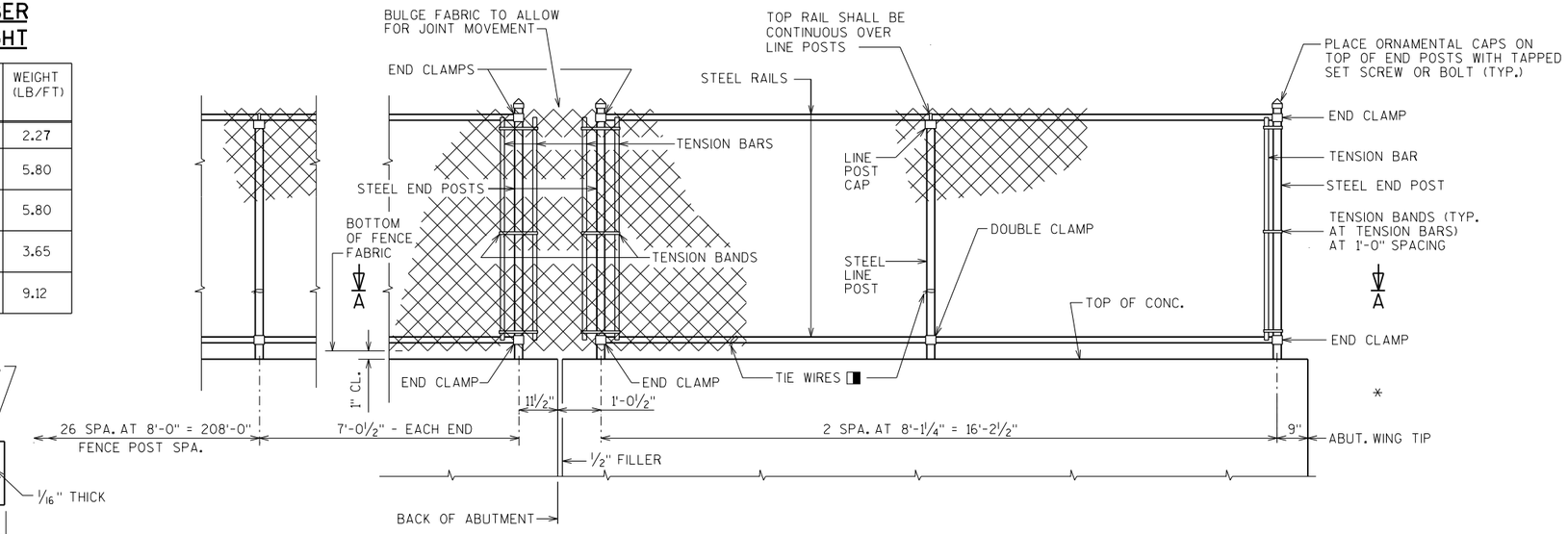
FENCE MEMBER SIZE & WEIGHT

STEEL FENCE MEMBER	OUTSIDE DIAMETER (INCHES)	WEIGHT (LB/FT)
RAILS	1.660	2.27
END POST	2.875	5.80
OVERHANG POST	2.875	5.80
LINE POST	2.375	3.65
POST SLEEVE	4.000	9.12



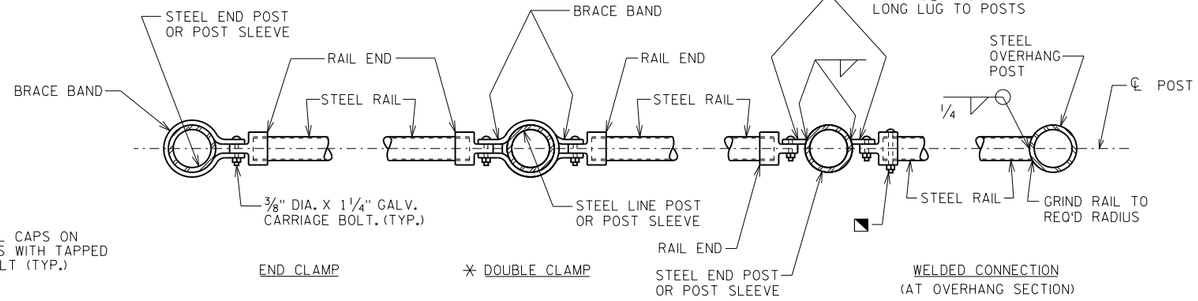
POST SHIM DETAILS

SHIMS REQUIRED ONLY WHEN END POSTS AND LINE POSTS ARE WELDED TO BASE PLATES. PROVIDE 4 SHIMS PER POST. USE WHERE REQUIRED FOR ALIGNMENT.



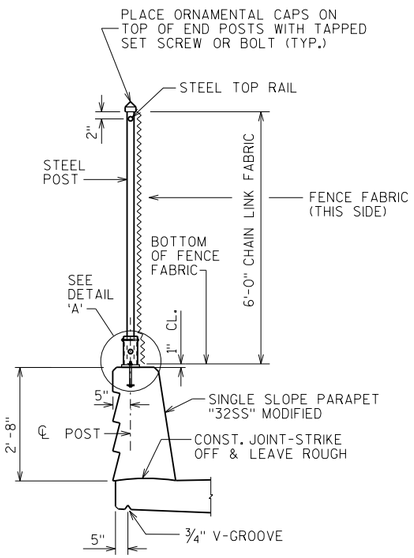
FENCE PART ELEVATION

VIEWING FABRIC SIDE

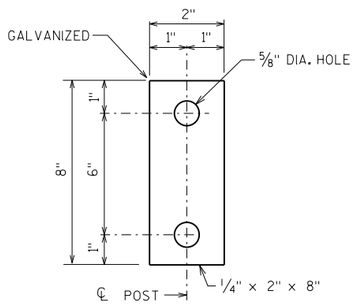


SECTION A-A

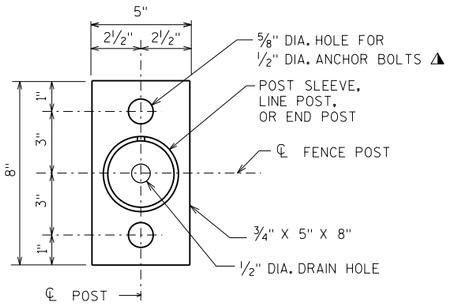
NOTE: PLACE ALL BOLT HEADS ON SIDE OF FENCE ADJACENT TO PEDESTRIANS



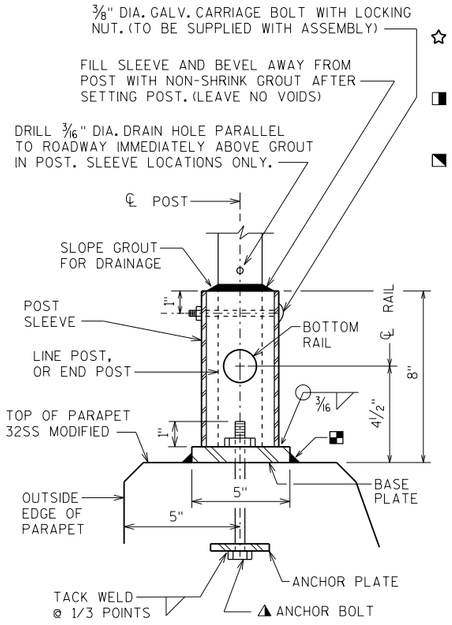
SECTION THRU FENCE



ANCHOR PLATE



BASE PLATE



DETAIL 'A'

UNIT SHALL BE GALVANIZED AFTER FABRICATION

NOTE: IN LIEU OF USING THE POST SLEEVE, THE FENCE POST MAY BE WELDED TO THE BASE PLATE.

GENERAL NOTES

POSTS ARE TO BE SET VERTICAL.

ALL FENCE COMPONENTS SHALL BE GALVANIZED STEEL WITH A COLORED POLYMER-COATING ON THE OUTSIDE.

FABRIC SHALL CONFORM TO ASTM F668, CLASS 2B. STEEL RAILS, POSTS AND POST SLEEVES SHALL CONFORM TO ASTM F1083, STANDARD WEIGHT PIPE (SCHEDULE 40). FITTINGS SHALL CONFORM TO ASTM F626. SEE THE "BRIDGE SPECIAL PROVISIONS" FOR ADDITIONAL DETAILS.

THE COLOR OF POLYMER-COATING FOR THIS STRUCTURE SHALL BE FEDERAL COLOR NUMBER 30140 IN ACCORDANCE WITH ASTM F934.

THE BID ITEM SHALL BE "FENCE CHAIN LINK POLYMER-COATED 6-FT.", LF.

COMPLETE ANY REQUIRED WELDING OF COMPONENTS BEFORE GALVANIZING.

POST BASE PLATES SHALL BE FLAT WITH ALL SURFACES SMOOTH AND FREE FROM WARP AND ALL EDGES SMOOTH, STRAIGHT AND VERTICAL. ALL PLATE CUTS SHALL BE MACHINE OR MACHINE FLAME CUT.

BASE PLATES, ANCHOR PLATES AND SHIMS SHALL BE ASTM A709, GRADE 36.

ALL POST SPACINGS ARE MEASURED HORIZONTALLY ALONG THE C/L OF THE POST.

◪ CAULK AROUND PERIMETER OF BASE PLATE AND FILL PORTION OF SLOTTED HOLE AROUND ANCHOR BOLT IN SHIM WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER.

✳ ALTERNATE TO DOUBLE CLAMP: USE LINE RAIL CLAMP (BOULEVARD) OR 180° BRACE BAND, WHICH MAY BE USED WHEN THE POSTS ARE EITHER BOLTED TO THE POST SLEEVES OR DIRECTLY WELDED TO THE BASE PLATE.

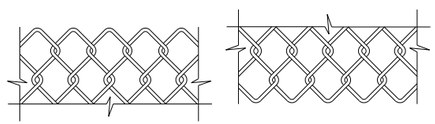
⚠ 1/2" DIA. X 6 7/8" LONG GALVANIZED HEX BOLT WITH NUT & WASHER. TYPE "S", 1/2" DIA. CONCRETE MASONRY ANCHORS MAY BE SUBSTITUTED FOR 1/2" DIA. BOLTS. ANCHOR PLATE NOT REQUIRED WHEN TYPE "S" ANCHORS ARE USED. SEE ☆

☆ MASONRY ANCHOR TYPE S 1/2-INCH. EMBED 6" IN CONCRETE. ANCHOR, WASHER, AND NUT SHALL BE GALVANIZED.

◨ ATTACH FABRIC TO RAILS, AND TO POSTS WITHOUT TENSION BANDS, WITH TIE WIRES (ROUND, 9-GAGE) SPACED AT 1'-0".

◥ BOLT RAIL TO RAIL END TO SECURE OVERHANG SECTION. ALTERNATE IS TO WELD RAIL DIRECTLY TO END POST.

MINIMUM LENGTH OF TOP RAIL BETWEEN SPLICES SHALL BE 20'-0". LOCATE SPLICES NEAR 1/4 POINT OF POST SPACING.



TOP DETAIL BOTTOM DETAIL

FENCE FABRIC

FENCE FABRIC WOVEN OF 9-GAGE WIRE IN 2" DIAMOND PATTERN MESH WITH BOTH THE TOP AND BOTTOM SELVAGES KNUCKLED.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-53-325

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FENCING DETAILS

SHEET 26 OF 32
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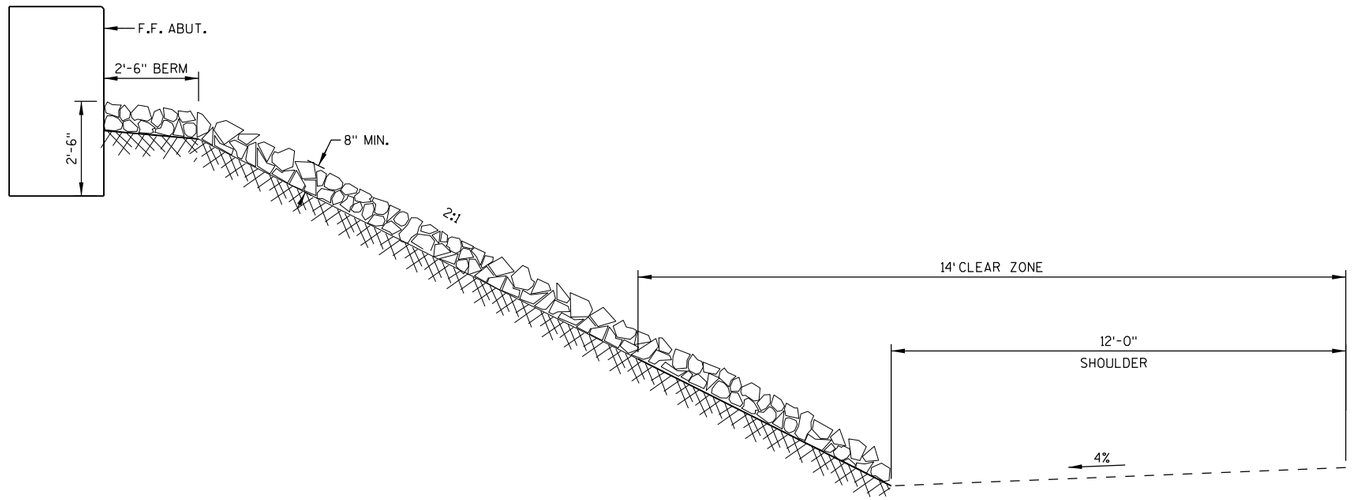
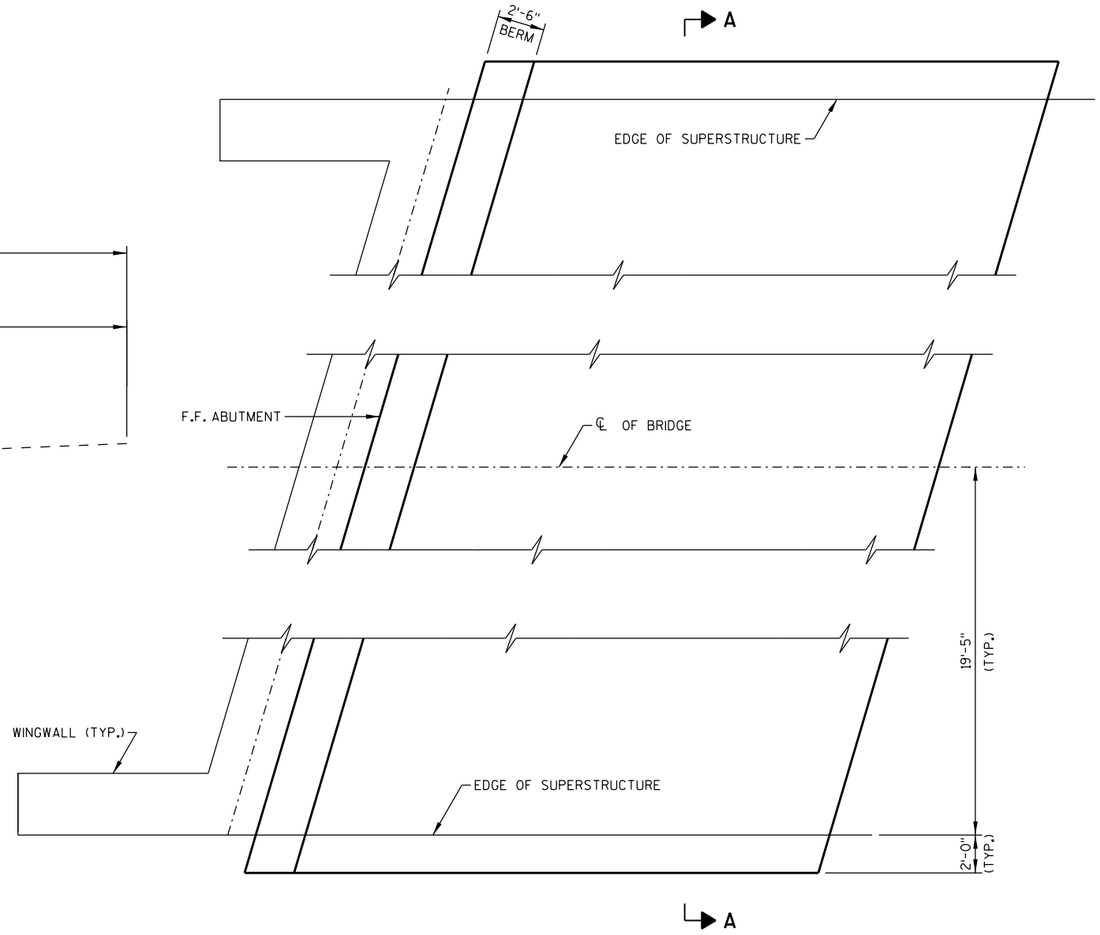


TYPICAL SECTION AT ABUTMENTS
(WEST ABUTMENT SHOWN, EAST ABUTMENT SIMILIAR)

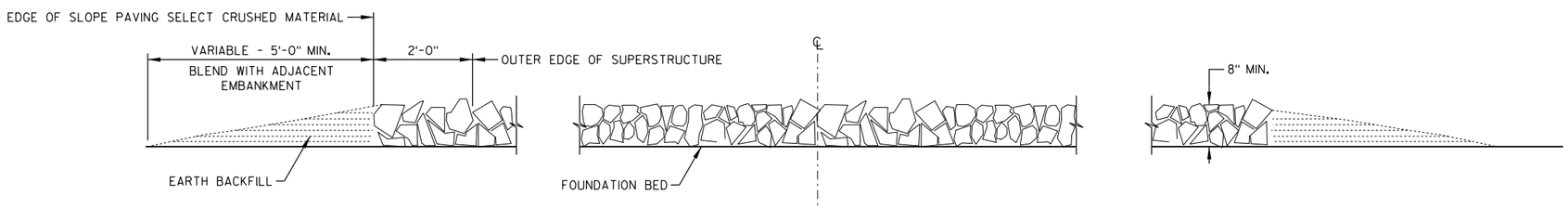
NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS.

WOOD FORMS MAY BE LEFT IN PLACE WHEN OF A QUALITY ACCEPTABLE TO THE ENGINEER.



PARTIAL PLAN
(WEST ABUTMENT SHOWN, EAST ABUTMENT SIMILIAR)



SECTION A - A

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-53-325

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SLOPE PAVING SELECT CRUSHED MATERIAL DETAILS

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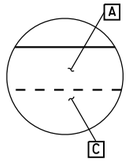
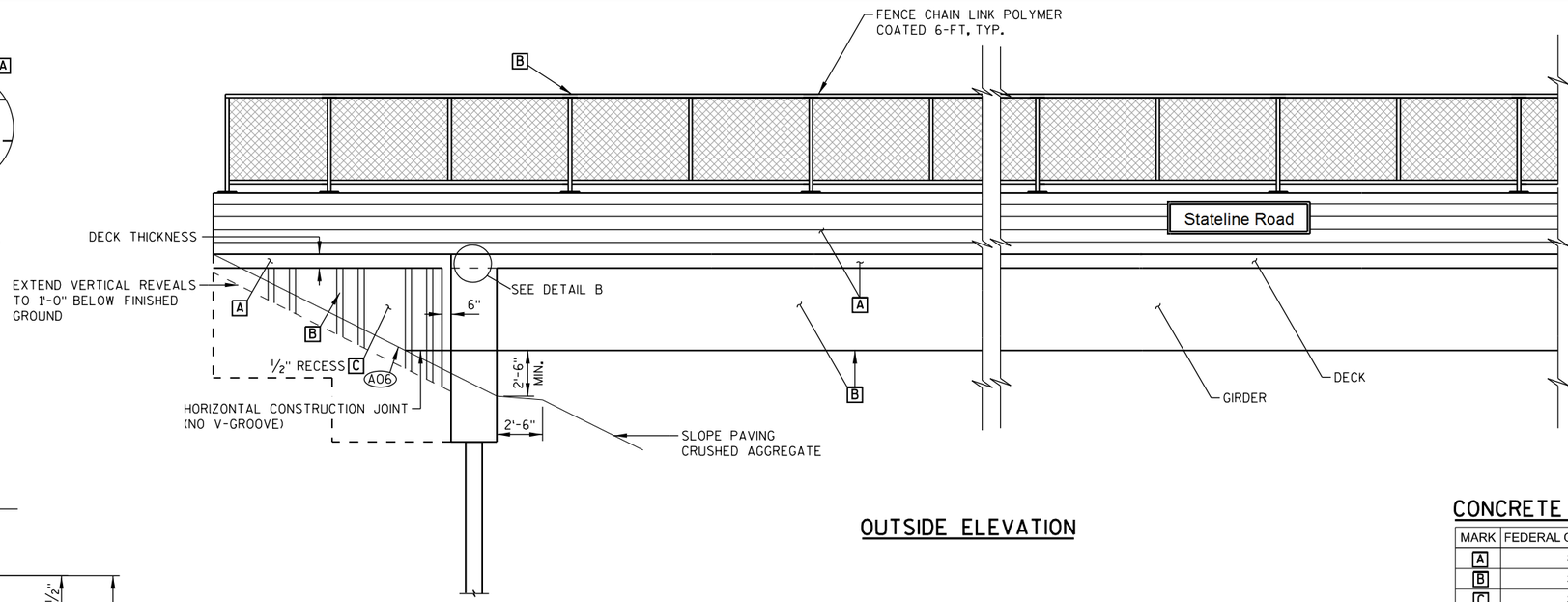
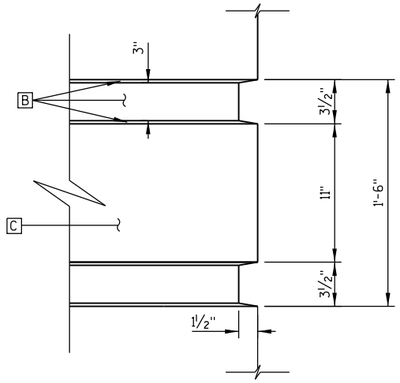


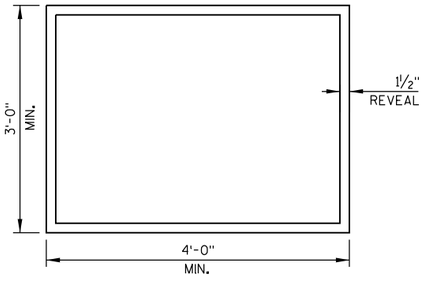
DETAIL B



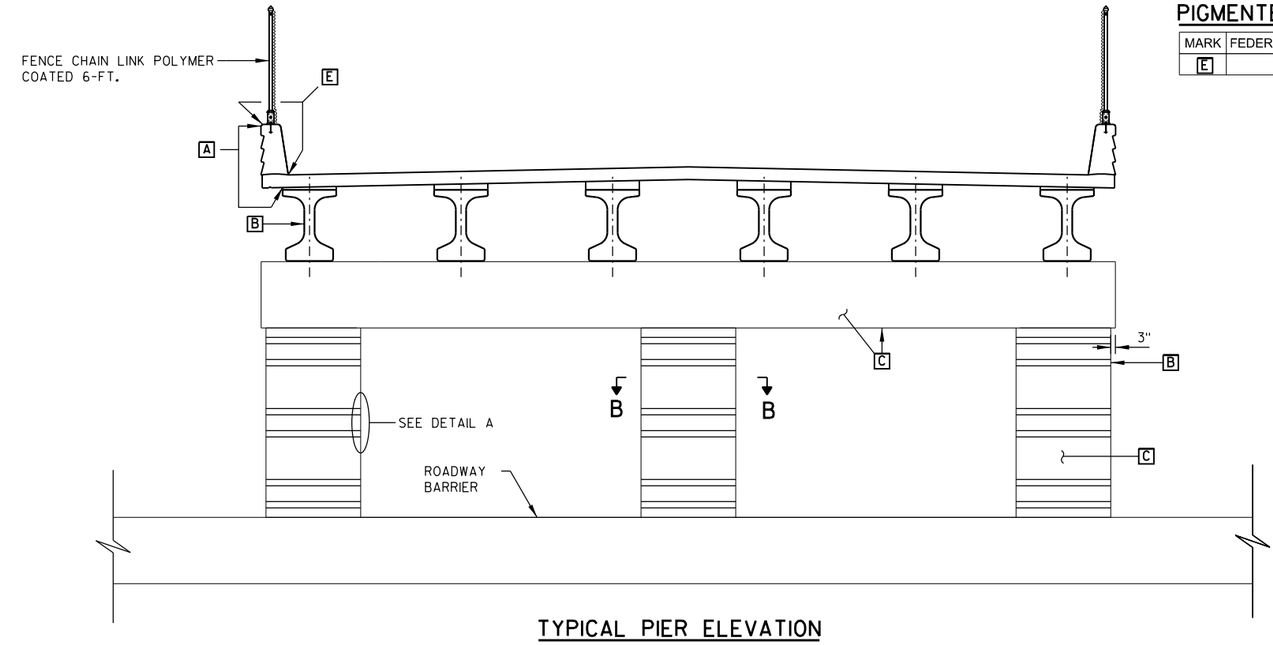
OUTSIDE ELEVATION



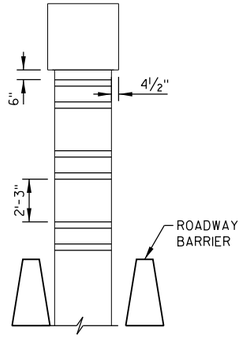
DETAIL A



SECTION B-B



TYPICAL PIER ELEVATION



PIER END VIEW

CONCRETE STAINING SCHEDULE

MARK	FEDERAL COLOR NUMBER	LOCATION
A	36642	PARAPET, EDGE OF DECK, WINGWALLS
B	30140	EXTERIOR GIRDER, REVEALS, FENCING
C	30372	PIER, ABUTMENT AND WINGWALL
D	27038	ROADWAY NAME LETTERING

PIGMENTED SURFACE TREATMENT SCHEDULE

MARK	FEDERAL COLOR NUMBER	LOCATION
E	36642	TOP AND INSIDE FACE OF PARAPET

LEGEND

(A06) STAIN TO 1-0" BELOW FINISHED GRADE.

NOTE

PIER WILL BE TEMPORARILY BACKFILLED AFTER STAINING. BEFORE PLACING TEMPORARY BACKFILL, COVER ALL SURFACES OF COLUMNS WITH 3 LAYERS OF POLYETHYLENE SHEETING. SHEETING TO EXTEND TO 1'-0" (MIN.) ABOVE TEMPORARY GROUND LINE. SHEETING TO BE INCLUDED WITH THE BID ITEM "CONCRETE STAINING".

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-53-325

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AESTHETIC DETAILS-1

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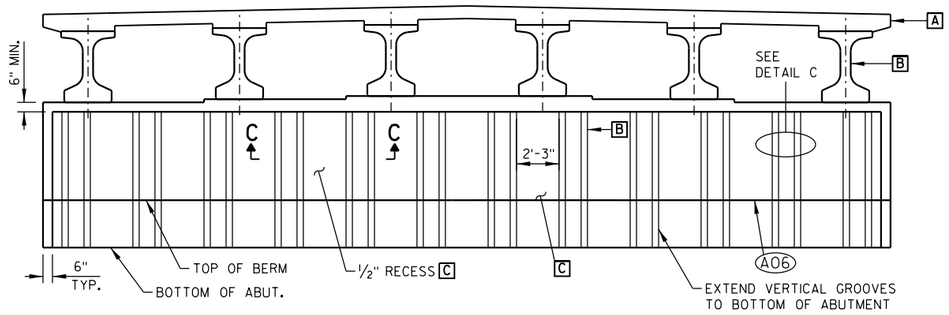
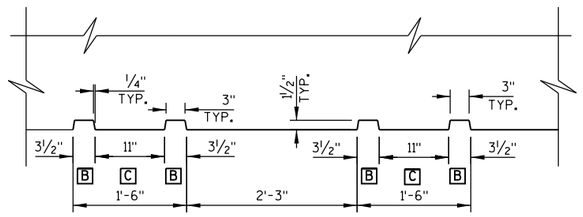
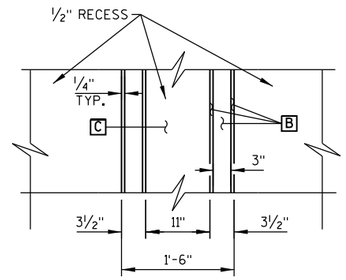


TYPICAL ABUTMENT ELEVATION VIEW



SECTION C-C



DETAIL C

LEGEND

(A06) STAIN TO 1-0" BELOW FINISHED GRADE

CONCRETE STAINING SCHEDULE

MARK	FEDERAL COLOR NUMBER	LOCATION
A	36642	PARAPET, EDGE OF DECK, WINGWALLS
B	30140	EXTERIOR GIRDER, REVEALS, FENCING
C	30372	PIER, ABUTMENT AND WINGWALL
D	27038	ROADWAY NAME LETTERING

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-53-325

DRAWN BY KAM | PLANS CK'D. MAH

AESTHETIC DETAILS-2

SHEET 29 OF 32

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PLOT DATE: 3/14/2016 PLOT TIME: 1:50:08 PM
BATCH PRINT SHEET 30 OF 32

STATE PROJECT NUMBER
1003-10-82

SOUTHBOUND INDENTED TEXT
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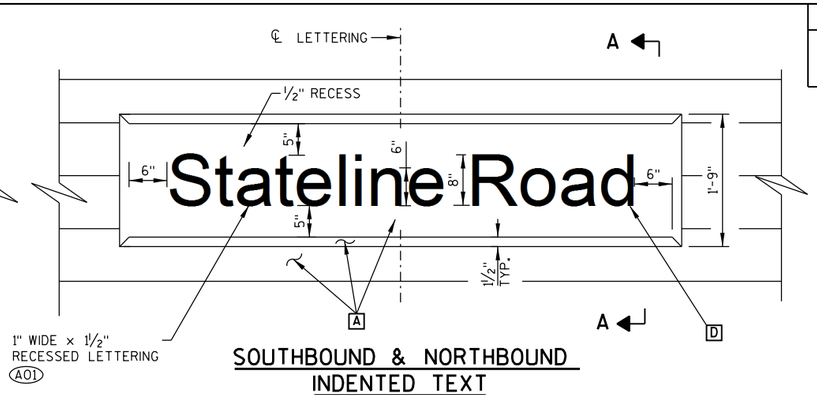

SOUTHBOUND & NORTHBOUND INDENTED TEXT
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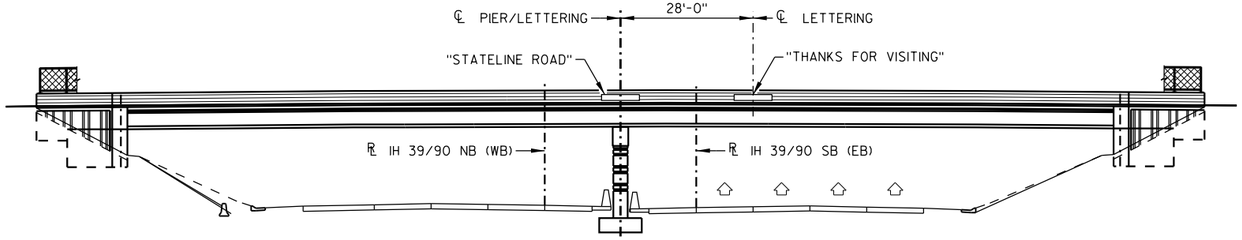
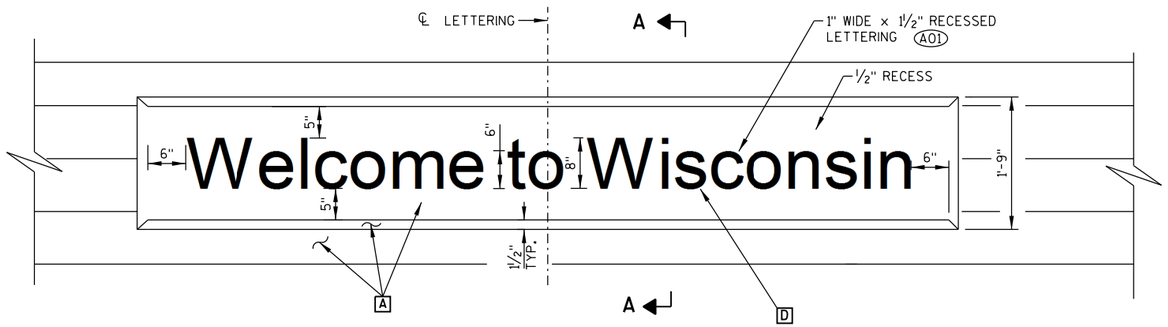


ELEVATION - LOOKING SOUTH
(NORMAL TO IH 39/90)

MARK	FEDERAL COLOR NUMBER	LOCATION
A	36642	PARAPET, EDGE OF DECK, WINGWALLS
B	30140	EXTERIOR GIRDER, REVEALS, FENCING
C	30372	PIER, ABUTMENT AND WINGWALL
D	27038	ROADWAY NAME LETTERING



NORTHBOUND INDENTED TEXT
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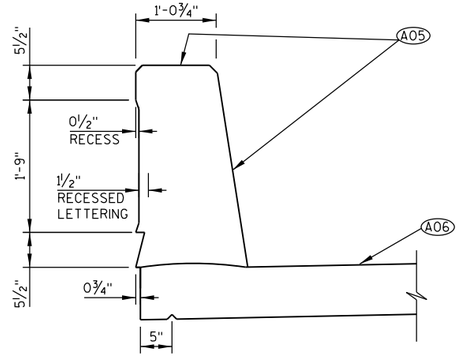
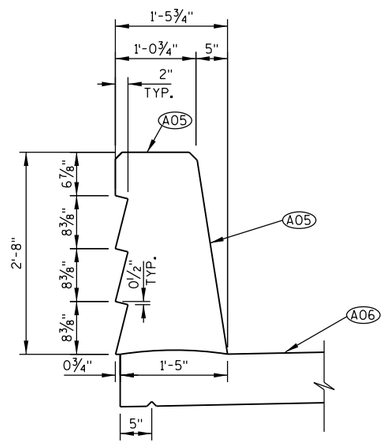
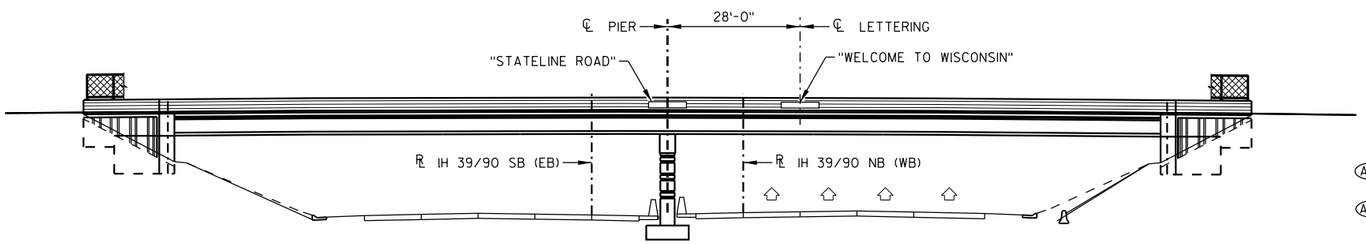


SECTION A-A



SINGLE SLOPE PARAPET 32SS MODIFIED



ELEVATION - LOOKING NORTH
(NORMAL TO IH 39/90)

NOTES & LEGEND

ROAD NAME TO BE CENTERED OVER PIER.

"WELCOME TO WISCONSIN" AND "THANKS FOR VISITING" TO BE CENTERED OVER 1ST AND 2ND LANES AS DIMENSIONED FROM THE MEDIAN.

LETTERING IS ONLY ON OUTSIDE FACE OF PARAPET.

FORMING LETTERING INCLUDED IN BID ITEM "CONCRETE MASONRY BRIDGES".

(A01) LETTERING SHALL BE HELVETICA. 8" UPPER CASE AND 6" LOWER CASE.

(A05) PIGMENTED SURFACE TREATMENT SHOULD BE APPLIED TO TOP AND INSIDE FACE OF PARAPET.

(A06) PROTECTIVE SURFACE TREATMENT TO BE APPLIED TO THE ENTIRE TOP OF DECK.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-53-325

DRAWN BY KAM | PLANS CK'D. KRH

PARAPET AESTHETICS

SHEET 30 OF 32
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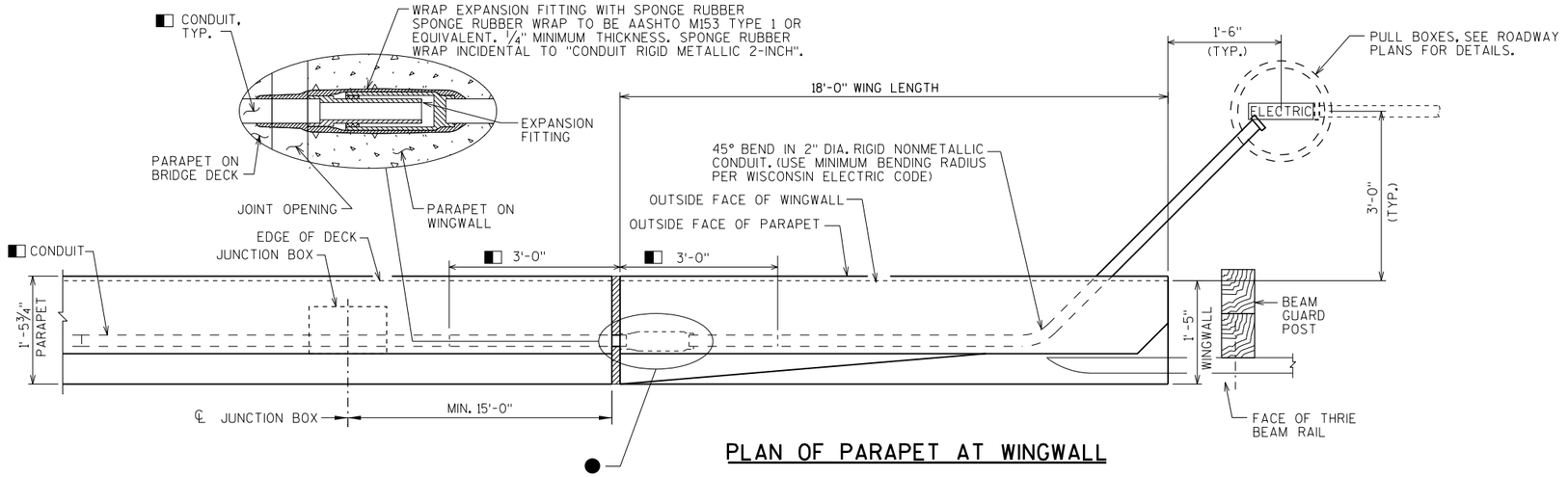
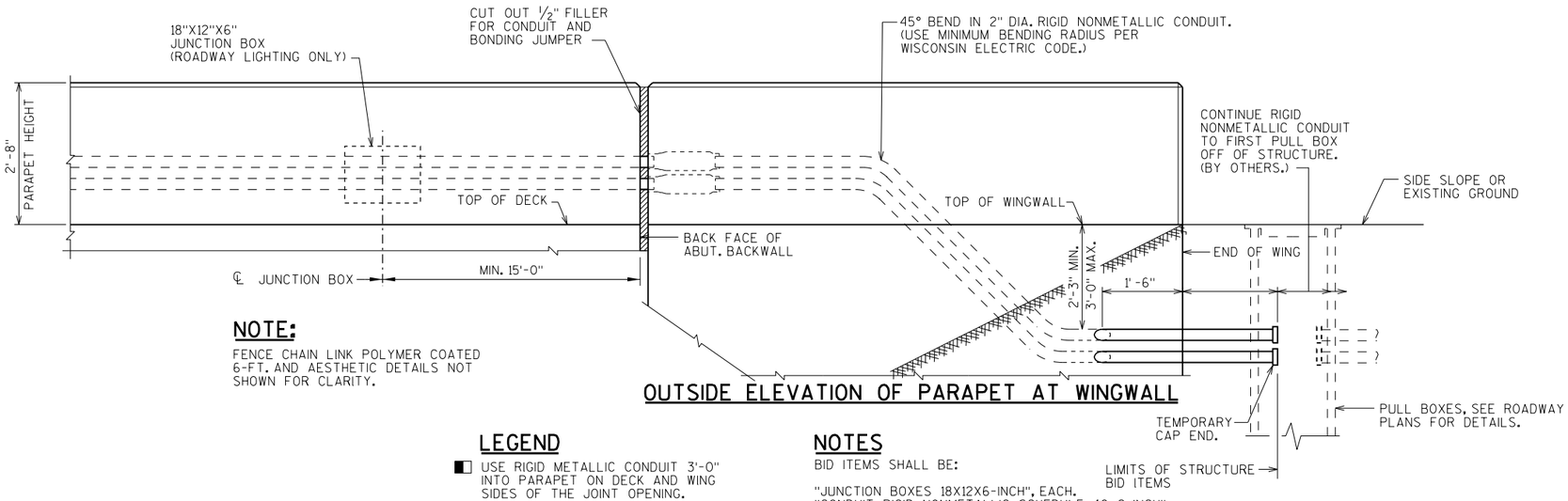
STATE PROJECT NUMBER

1003-10-82



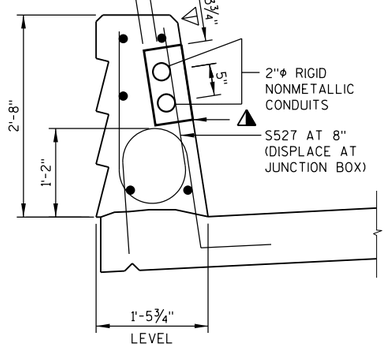
PLAN OF PARAPET AT WINGWALL



OUTSIDE ELEVATION OF PARAPET AT WINGWALL

NOTE:

FENCE CHAIN LINK POLYMER COATED 6-FT. AND AESTHETIC DETAILS NOT SHOWN FOR CLARITY.



SECTION THRU PARAPET ON BRIDGE

LEGEND

- ■ USE RIGID METALLIC CONDUIT 3'-0" INTO PARAPET ON DECK AND WING SIDES OF THE JOINT OPENING.
- ◭ CUT OUT ± 1" OF GASKET AT BOTTOM OF JUNCTION BOX COVER TO ALLOW FOR DRAINAGE.
- ▽ LOCATION OF CONDUIT IS MEASURED FROM OUTSIDE EDGE OF JUNCTION BOX.
- ● POSITION MOVABLE END OF CONDUIT INSIDE EXPANSION FITTING, SUCH THAT IT WILL HAVE THE SAME ALLOWANCE FOR MOVEMENT (EXPANSION/CONTRACTION) AS THE EXPANSION DEVICE SET IN THE DECK BELOW IT. TAKE CARE TO INSTALL EXPANSION FITTING AND CONDUIT EXACTLY PARALLEL TO BRIDGE MOVEMENT.

NOTES

BID ITEMS SHALL BE:

"JUNCTION BOXES 18X12X6-INCH", EACH.
"CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH"
"CONDUIT RIGID METALLIC 2-INCH".

APPROVED MANUFACTURERS - JUNCTION BOXES:
SEE APPROVED MATERIAL LIST.

APPROVED MANUFACTURER OR EQUIVALENT - EXPANSION FITTING:
O-Z/GEDNEY TYPE AX-200 AND BONDING JUMPER (4" TOTAL CONDUIT MOVEMENT).

EXPANSION FITTINGS, ANGLES AND ADAPTER FITTINGS TO BE INCIDENTAL TO "CONDUIT RIGID METALLIC 2-INCH".

WHEN CONNECTING NONMETALLIC CONDUIT TO METALLIC CONDUIT, ONLY ADAPTER FITTINGS U.L. LISTED FOR ELECTRICAL USE SHALL BE USED.

TERMINATE CONDUIT AT 24"X42" PULL BOX. REFER TO ROADWAY PLANS FOR LOCATION AND DETAILS.

PULL BOX QUANTITIES ARE NOT INCORPORATED INTO THE STRUCTURE "TOTAL ESTIMATED QUANTITIES".

VERIFY PULL BOX LOCATION BEFORE DETERMINING FINAL LENGTH OF RIGID NONMETALLIC CONDUIT EXTENDING OUTSIDE THE STRUCTURE LIMIT.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-53-325

DRAWN BY KAM | PLANS CK'D. MSK

CONDUIT DETAILS

SHEET 31 OF 32
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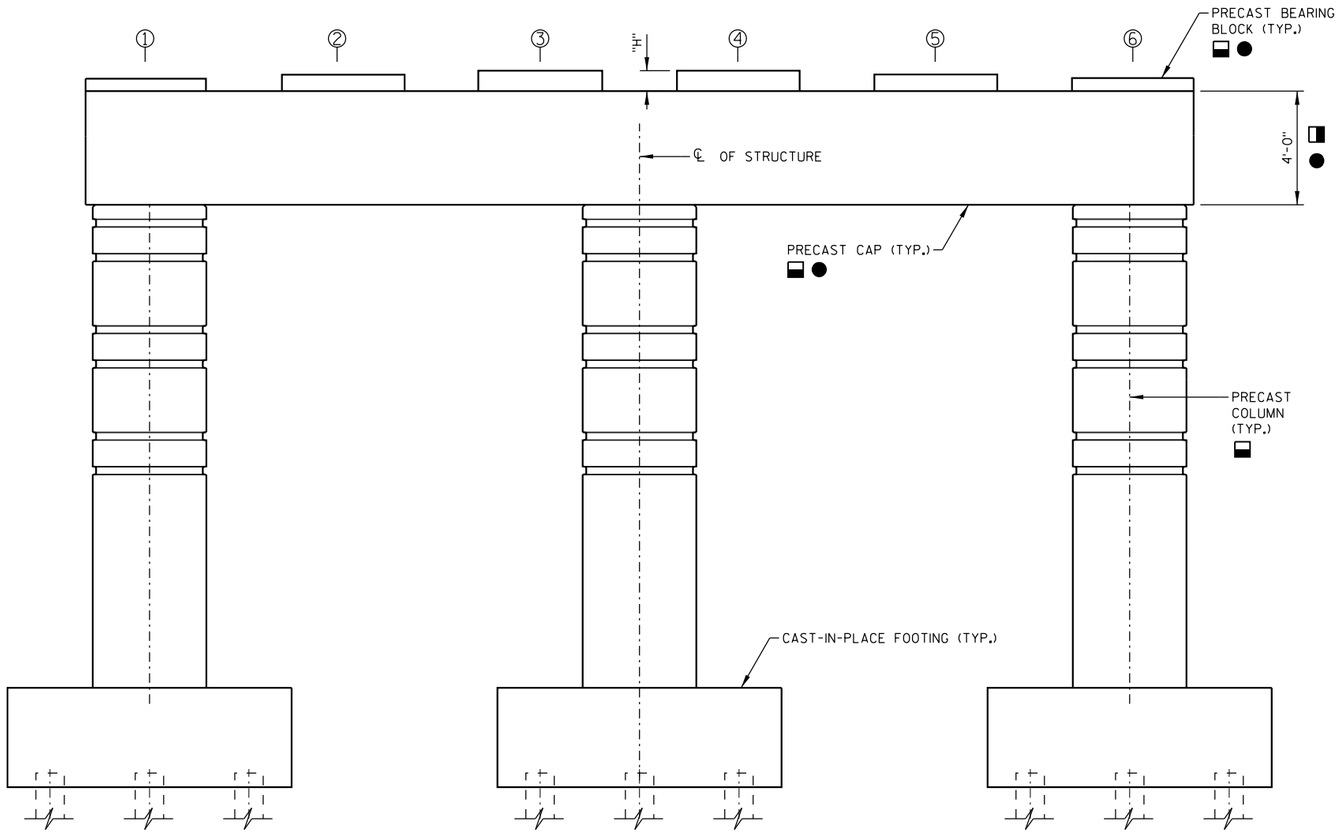

ELEVATION OF OPTIONAL PRECAST PIER

FOR INFORMATION ONLY
CONTACT DAVE KIEKBUSH (608-266-5084) OR
JAMES LUEBKE (608-266-5098) FOR PRECAST DETAILS

LEGEND

▬ THE CONTRACTOR MAY FURNISH PRECAST PIER CAPS, BEARING BLOCKS AND COLUMNS IN LIEU OF THE CAST-IN-PLACE PIER WITH THE ACCEPTANCE OF THE SHOP DRAWINGS BY THE STRUCTURES DESIGN SECTION. CONTACT DAVE KIEKBUSCH (608-266-5084) OR JAMES LUEBKE (608-266-5098) FOR PRECAST PIER MEMBER STANDARDS. THE PRECAST PIER SHALL CONFORM TO PRECAST DETAILS IN CHAPTER 7 STANDARDS OF THE CURRENT WISCONSIN DOT BRIDGE MANUAL. PAYMENT FOR THE PRECAST PIER SHALL BE BASED ON THE QUANTITIES AND PRICES BID FOR THE ITEMS LISTED IN THE "TOTAL ESTIMATED QUANTITIES".

● IF THE CONTRACTOR CHOOSES TO FURNISH PRECAST PIER MEMBERS, THE CAP HEIGHT SHALL BE 4'-0". THE REMAINING DIFFERENCE BETWEEN THE BEAM SEAT ELEVATIONS AND THE TOP OF THE 4'-0" CAP WILL BE THE "H" DIMENSION OF THE PRECAST BEARING BLOCKS.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-53-325

DRAWN BY KAM | PLANS CK'D. MSK

PIER ALTERNATE

SHEET 32 OF 32

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BATCH PRINT SHEET 32 OF 32

PROJECT ID 1003-10-82

DIVISION 1 - Stateline Rd STA. 13+25'SL' - STA. 20+00'SL'

STATION		Distance	AREA (SF)			Incremental Vol (CY) (Unadjusted)			Cumulative Vol (CY)			Mass Ordinate
			Cut	Fill	EBS	Cut	Fill	EBS	Cut	Fill	EBS	
13+25'SL'	AH	0.00	17.27	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
13+60'SL'		34.99	15.85	18.86	0.00	21.46	12.22	0.00	21.46	12.22	0.00	9.24
13+62'SL'		1.78	15.62	19.44	0.00	1.04	1.26	0.00	22.50	13.48	0.00	9.01
14+00'SL'		38.22	15.17	44.08	0.00	21.79	44.96	0.00	44.29	58.44	0.00	-14.15
14+36'SL'		35.88	14.06	87.77	0.00	19.42	87.61	0.00	63.71	146.05	0.00	-82.34
14+87'SL'		51.25	11.13	167.81	0.00	23.91	242.57	0.00	87.62	388.62	0.00	-301.00
15+00'SL'		12.87	13.20	169.58	0.00	5.80	80.41	0.00	93.42	469.02	0.00	-375.60
15+12'SL'		12.11	13.07	164.38	0.00	5.89	74.90	0.00	99.31	543.92	0.00	-444.61
15+37'SL'		24.98	14.33	168.59	0.00	12.68	154.03	0.00	111.98	697.95	0.00	-585.97
15+85'SL'		47.90	13.01	85.24	0.00	24.25	225.14	0.00	136.23	923.09	0.00	-786.86
16+00'SL'		15.01	15.55	69.11	0.00	7.94	42.91	0.00	144.17	966.00	0.00	-821.83
16+59'SL'		59.06	15.16	123.20	0.00	33.59	210.33	0.00	177.76	1176.33	0.00	-998.57
17+00'SL'		40.94	14.92	151.62	0.00	22.81	208.35	0.00	200.57	1384.69	0.00	-1184.12
17+10'SL'		10.30	14.94	155.21	0.00	5.69	58.50	0.00	206.26	1443.18	0.00	-1236.92
17+35'SL'		24.98	17.59	37.24	0.00	15.05	89.03	0.00	221.31	1532.21	0.00	-1310.90
17+60'SL'		24.98	17.24	17.60	0.00	16.11	25.37	0.00	237.42	1557.58	0.00	-1320.16
18+00'SL'		39.74	14.17	17.76	0.00	23.12	26.03	0.00	260.54	1583.60	0.00	-1323.06
18+69'SL'		69.00	15.95	54.44	0.00	38.49	92.26	0.00	299.03	1675.86	0.00	-1376.83
18+79'SL'		10.00	13.94	95.37	0.00	5.53	27.74	0.00	304.56	1703.60	0.00	-1399.04
18+90'SL'		11.00	12.77	207.77	0.00	5.44	61.76	0.00	310.00	1765.36	0.00	-1455.36
18+95'SL'		5.08	13.15	129.93	0.00	2.44	31.79	0.00	312.44	1797.15	0.00	-1484.71
19+00'SL'		4.92	13.41	124.36	0.00	2.42	23.15	0.00	314.86	1820.30	0.00	-1505.44
19+00'SL'		0.28	13.40	115.50	0.00	0.14	1.23	0.00	315.00	1821.53	0.00	-1506.53
20+00'SL'	BK	99.72	0.00	0.00	0.00	24.75	213.29	0.00	339.74	2034.82	0.00	-1695.08
					Column totals	339.74	2034.82	0.00				

PROJECT ID 1003-10-82

DIVISION 1 - Stateline Rd STA. 21+00'SL' - STA. 26+50'SL'

STATION		Distance	AREA (SF)			Incremental Vol (CY) (Unadjusted)			Cumulative Vol (CY)			Mass Ordinate
			Cut	Fill	EBS	Cut	Fill	EBS	Cut	Fill	EBS	
21+00'SL'	AH	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
21+50'SL'		49.61	8.88	105.14	0.00	8.16	96.60	0.00	8.16	96.60	0.00	-88.44
21+55'SL'		5.19	9.56	82.61	0.00	1.77	18.05	0.00	9.93	114.64	0.00	-104.71
21+60'SL'		5.26	10.51	108.98	0.00	1.96	18.68	0.00	11.89	133.32	0.00	-121.43
21+71'SL'		10.94	12.65	25.40	0.00	4.69	27.22	0.00	16.58	160.54	0.00	-143.96
21+81'SL'		10.00	15.50	17.89	0.00	5.21	8.02	0.00	21.79	168.55	0.00	-146.76
22+00'SL'		19.00	16.20	9.48	0.00	11.15	9.63	0.00	32.94	178.18	0.00	-145.24
22+77'SL'		77.13	16.75	3.60	0.00	47.06	18.68	0.00	80.01	196.87	0.00	-116.86
23+00'SL'		22.87	15.83	7.52	0.00	13.80	4.71	0.00	93.81	201.58	0.00	-107.77
23+02'SL'		2.11	15.61	8.28	0.00	1.23	0.62	0.00	95.03	202.19	0.00	-107.16
23+27'SL'		24.98	12.69	50.81	0.00	13.09	27.33	0.00	108.13	229.53	0.00	-121.40
23+78'SL'		51.25	16.08	21.91	0.00	27.30	69.02	0.00	135.43	298.55	0.00	-163.12
24+00'SL'		21.66	15.17	11.76	0.00	12.53	13.50	0.00	147.96	312.05	0.00	-164.09
24+13'SL'		12.80	14.08	16.23	0.00	6.93	6.63	0.00	154.90	318.68	0.00	-163.79
24+38'SL'		24.98	12.84	75.56	0.00	12.45	42.46	0.00	167.35	361.14	0.00	-193.80
24+52'SL'		14.67	12.88	85.09	0.00	6.99	43.63	0.00	174.33	404.78	0.00	-230.44
24+63'SL'		10.31	14.26	96.14	0.00	5.18	34.61	0.00	179.52	439.39	0.00	-259.87
25+00'SL'		37.24	18.24	60.36	0.00	22.42	107.94	0.00	201.93	547.33	0.00	-345.40
25+14'SL'		14.00	16.76	56.68	0.00	9.08	30.35	0.00	211.01	577.68	0.00	-366.67
25+88'SL'		74.10	33.99	0.00	0.00	69.64	77.78	0.00	280.65	655.46	0.00	-374.81
26+00'SL'		11.90	22.26	0.31	0.00	12.39	0.07	0.00	293.04	655.53	0.00	-362.49
26+15'SL'		15.00	32.19	0.35	0.00	15.13	0.18	0.00	308.17	655.71	0.00	-347.55
26+50'SL'	BK	34.99	20.60	0.00	0.00	34.21	0.23	0.00	342.37	655.94	0.00	-313.57
					Column totals	342.37	655.94	0.00				

PROJECT ID 1003-10-82
DIVISION 1 - IH 39 Median

STATION		Distance	AREA (SF)			Incremental Vol (CY) (Unadjusted)			Cumulative Vol (CY)			Mass Ordinate
			Cut	Fill	EBS	Cut	Fill	EBS	Cut	Fill	EBS	
100+50	AH	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100+66		15.77	27.64	0.00	0.00	8.07	0.00	0.00	8.07	0.00	0.00	8.07
101+00		34.23	24.69	6.68	0.00	33.17	4.23	0.00	41.24	4.23	0.00	37.01
101+45		44.51	24.56	1.51	0.00	40.59	6.75	0.00	81.84	10.98	0.00	70.85
101+45		0.56	37.30	1.57	0.00	0.64	0.03	0.00	82.47	11.02	0.00	71.46
101+50		4.93	37.40	1.54	0.00	6.83	0.28	0.00	89.30	11.30	0.00	78.00
101+75		25.00	38.36	1.00	0.00	35.07	1.18	0.00	124.37	12.48	0.00	111.90
101+80		4.95	38.64	0.93	0.00	7.06	0.18	0.00	131.44	12.65	0.00	118.78
102+00		20.05	39.02	0.79	0.00	28.83	0.64	0.00	160.27	13.29	0.00	146.97
102+26		25.55	39.55	0.48	0.00	37.18	0.60	0.00	197.44	13.89	0.00	183.55
102+43		16.99	38.24	1.26	0.00	24.48	0.55	0.00	221.92	14.44	0.00	207.48
102+50		7.45	38.22	1.93	0.00	10.56	0.44	0.00	232.48	14.88	0.00	217.60
102+87		36.61	38.74	1.86	0.00	52.17	2.57	0.00	284.65	17.45	0.00	267.20
102+91		4.64	38.78	1.83	0.00	6.66	0.32	0.00	291.31	17.77	0.00	273.55
103+00		8.75	38.84	1.79	0.00	12.58	0.59	0.00	303.89	18.35	0.00	285.54
103+10		10.00	38.91	1.79	0.00	14.40	0.66	0.00	318.29	19.02	0.00	299.28
103+11		1.00	24.45	1.59	0.00	1.17	0.06	0.00	319.47	19.08	0.00	300.39
103+50		39.00	24.44	1.62	0.00	35.31	2.32	0.00	354.78	21.40	0.00	333.38
104+00		50.00	24.25	2.33	0.00	45.08	3.66	0.00	399.86	25.06	0.00	374.80
104+50		50.00	23.36	2.88	0.00	44.08	4.82	0.00	443.94	29.88	0.00	414.06
105+00		50.00	23.08	2.97	0.00	43.00	5.42	0.00	486.94	35.30	0.00	451.65
105+50		50.00	22.17	3.61	0.00	41.90	6.09	0.00	528.84	41.39	0.00	487.45
105+99		48.51	22.08	4.20	0.00	39.75	7.02	0.00	568.59	48.40	0.00	520.19
106+00		1.49	22.08	4.21	0.00	1.22	0.23	0.00	569.81	48.64	0.00	521.17
106+50		50.00	24.27	2.95	0.00	42.92	6.63	0.00	612.73	55.27	0.00	557.46
107+00		50.00	26.90	1.30	0.00	47.38	3.94	0.00	660.11	59.20	0.00	600.90
107+50		50.00	33.56	0.24	0.00	55.98	1.43	0.00	716.09	60.63	0.00	655.46
107+63		13.29	34.94	0.09	0.00	16.86	0.08	0.00	732.95	60.71	0.00	672.24
107+64		1.00	35.08	0.04	0.00	1.30	0.00	0.00	734.24	60.71	0.00	673.53
108+00		35.71	39.52	0.00	0.00	49.33	0.03	0.00	783.58	60.74	0.00	722.84
108+10	BK	9.75	42.90	0.00	0.00	14.88	0.00	0.00	798.46	60.74	0.00	737.72
					Column totals	798.46	60.74	0.00				

PROJECT ID 1003-10-82

DIVISION 1 - Between IH 39 & W. Abutment

STATION		Distance	AREA (SF)			Incremental Vol (CY) (Unadjusted)			Cumulative Vol (CY)			Mass Ordinate
			Cut	Fill	EBS	Cut	Fill	EBS	Cut	Fill	EBS	
101+00	AH	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
101+75		75.00	0.00	120.50	0.00	0.00	167.36	0.00	0.00	167.36	0.00	-167.36
101+80		4.95	0.00	66.90	0.00	0.00	17.19	0.00	0.00	184.55	0.00	-184.55
102+00		20.05	0.00	72.40	0.00	0.00	51.71	0.00	0.00	236.26	0.00	-236.26
102+26		25.55	0.00	81.10	0.00	0.00	72.63	0.00	0.00	308.89	0.00	-308.89
102+87	BK	61.06	0.00	0.00	0.00	0.00	91.70	0.00	0.00	400.59	0.00	-400.59
					Column totals	0.00	400.59	0.00				

PROJECT ID 1003-10-82

DIVISION 1 - Between IH 39 & E. Abutment

STATION		Distance	AREA (SF)			Incremental Vol (CY) (Unadjusted)			Cumulative Vol (CY)			Mass Ordinate
			Cut	Fill	EBS	Cut	Fill	EBS	Cut	Fill	EBS	
101+50	AH	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
102+43		92.55	0.00	100.40	0.00	0.00	172.07	0.00	0.00	172.07	0.00	-172.07
102+50		7.45	0.00	95.90	0.00	0.00	27.10	0.00	0.00	199.17	0.00	-199.17
102+87		36.61	0.00	81.00	0.00	0.00	119.92	0.00	0.00	319.08	0.00	-319.08
102+91		4.64	0.00	103.50	0.00	0.00	15.86	0.00	0.00	334.94	0.00	-334.94
103+50	BK	58.75	0.00	0.00	0.00	0.00	112.61	0.00	0.00	447.55	0.00	-447.55
					Column totals	0.00	447.55	0.00				

9

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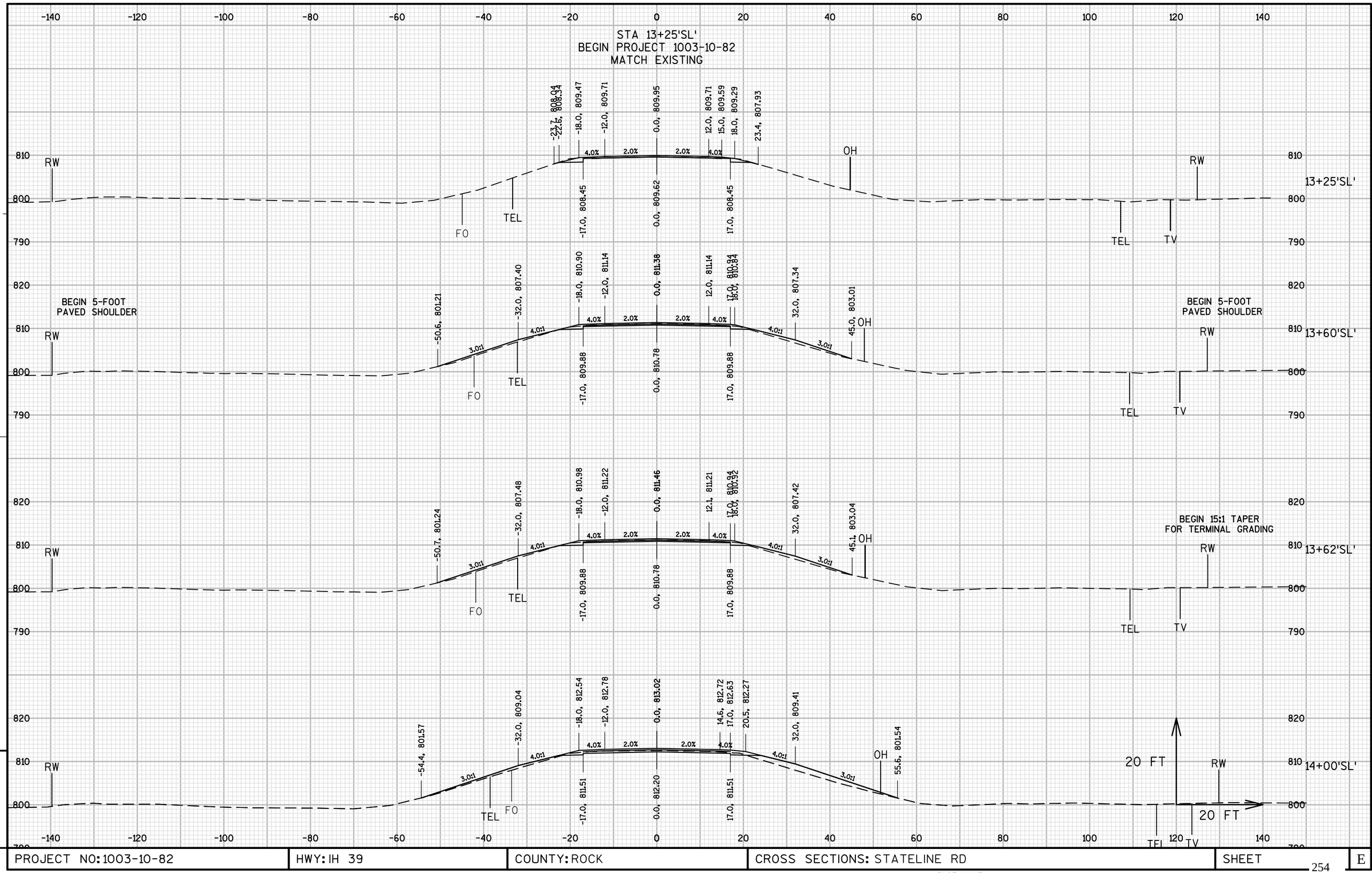
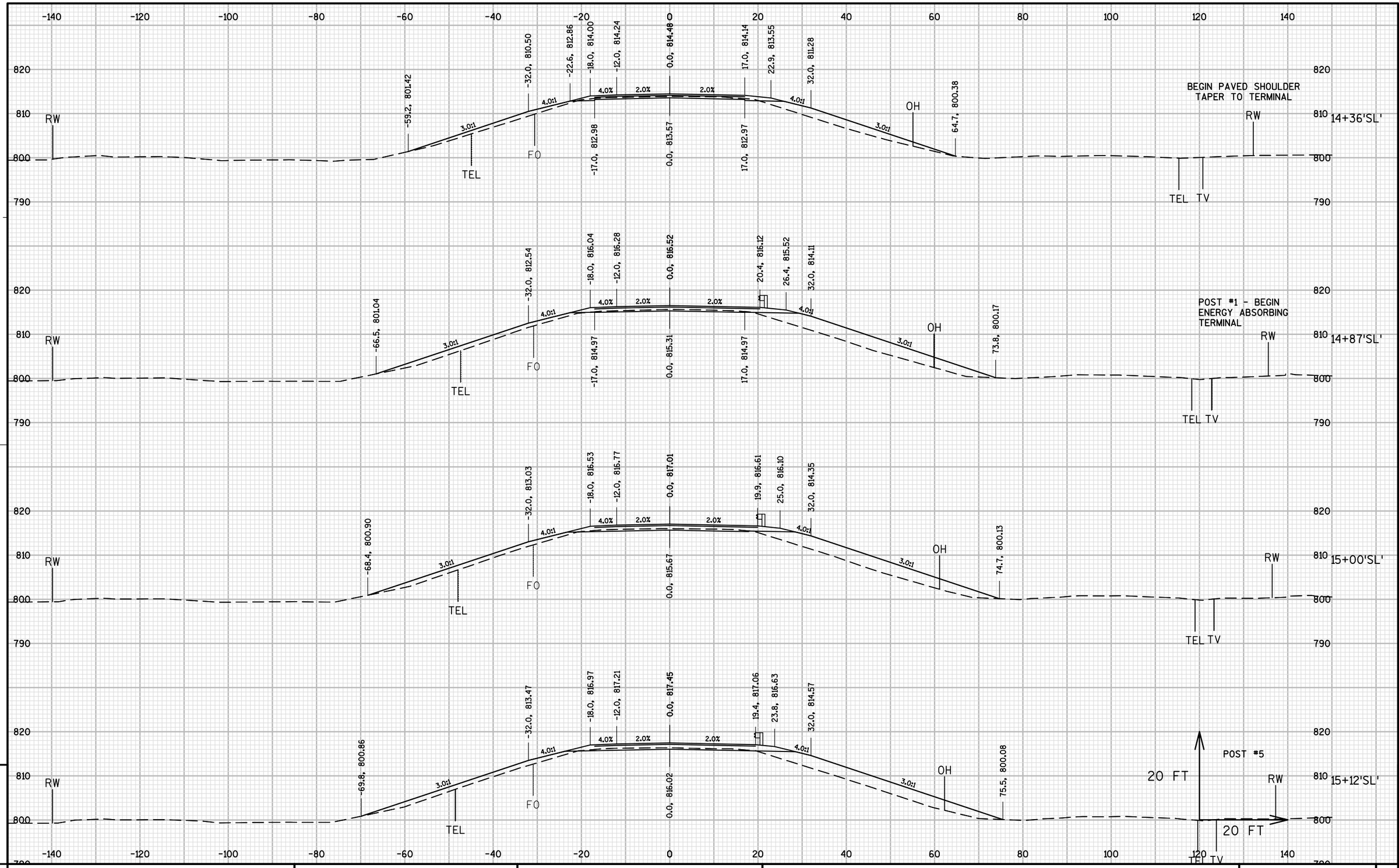
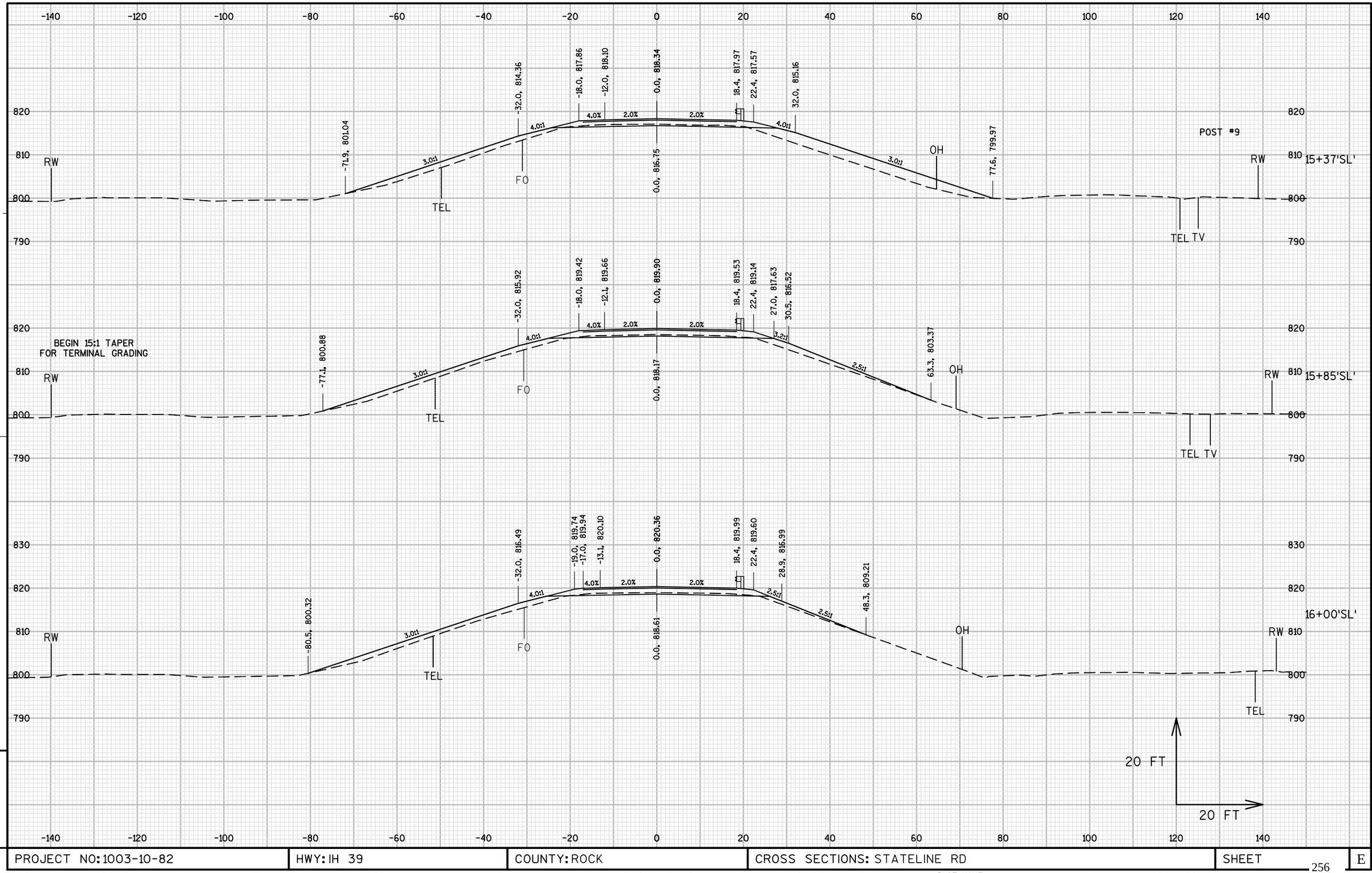


PROJECT NO: 1003-10-82	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: STATELINE RD	SHEET	E

FILE NAME : L:\WORK\PROJECTS\60242867\000_CAD\001_DRAWINGS\1003-10-82_STATELINE RD\100% +\090101_XS.DWG
PLOT DATE : 2/3/2016 1:43 PM
PLOT BY : CZECH, ANDREW
PLOT NAME :
PLOT SCALE : 1 IN:20 FT
WISDOT/CADDS SHEET 49



PROJECT NO: 1003-10-82	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: STATELINE RD	SHEET	E



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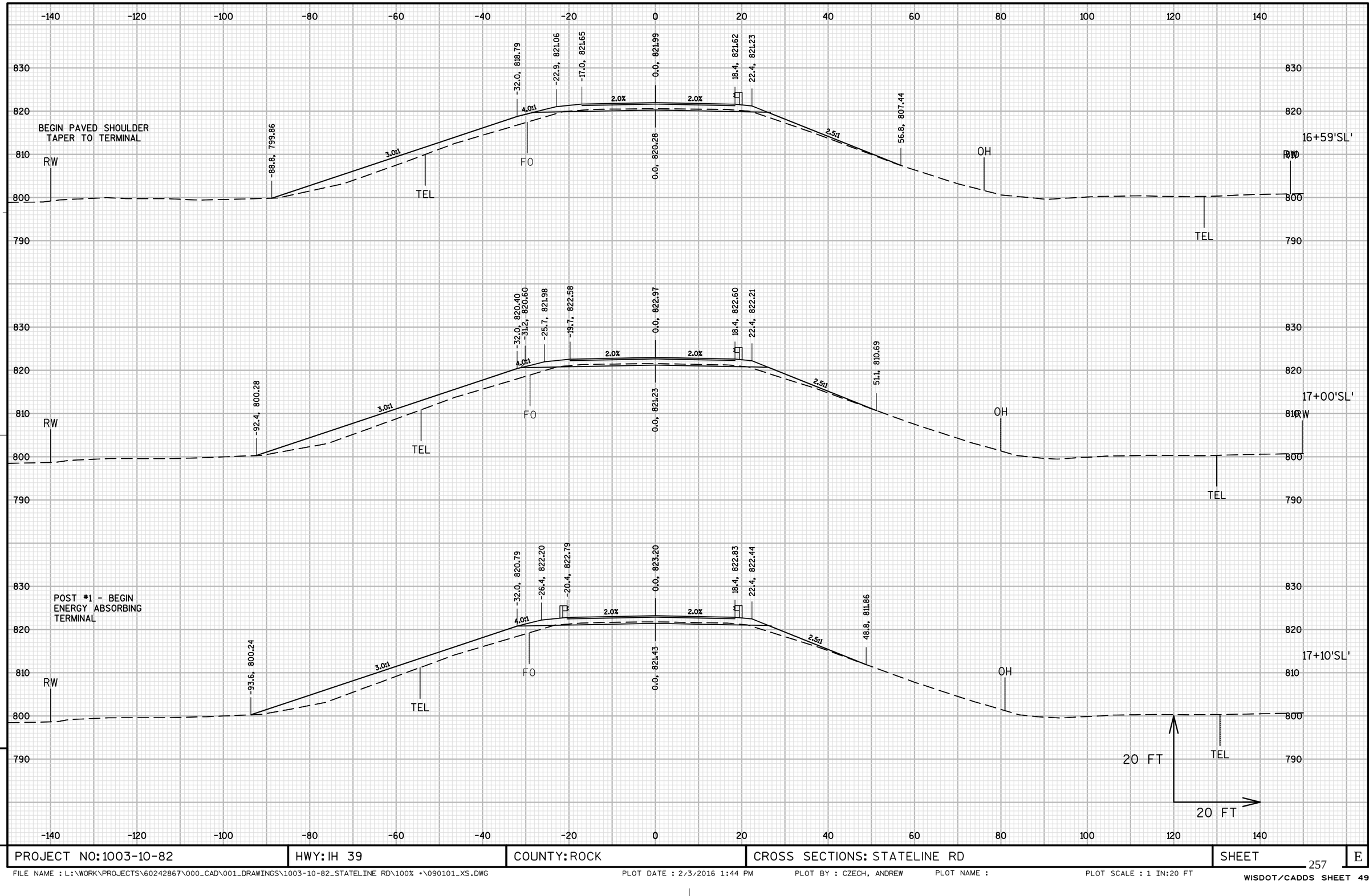
PROJECT NO: 1003-10-82	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: STATELINE RD	SHEET	E

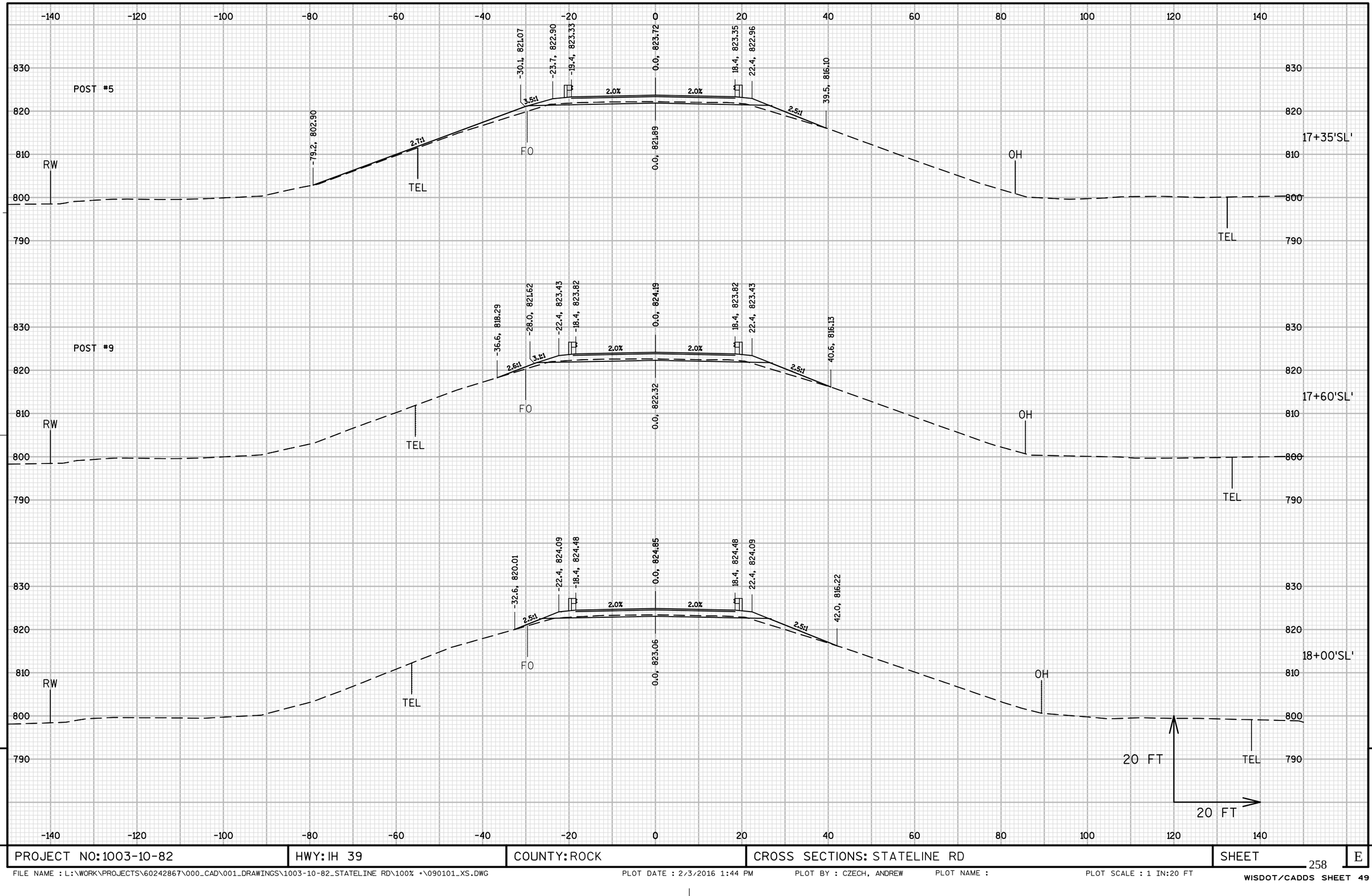
FILE NAME : L:\WORK\PROJECTS\60242867\000_CAD\001_DRAWINGS\1003-10-82_STATELINE RD\100% +\090101_XS.DWG PLOT DATE : 2/3/2016 1:43 PM PLOT BY : CZECH, ANDREW PLOT NAME : PLOT SCALE : 1 IN:20 FT



9 9

PROJECT NO: 1003-10-82	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: STATELINE RD	SHEET	E

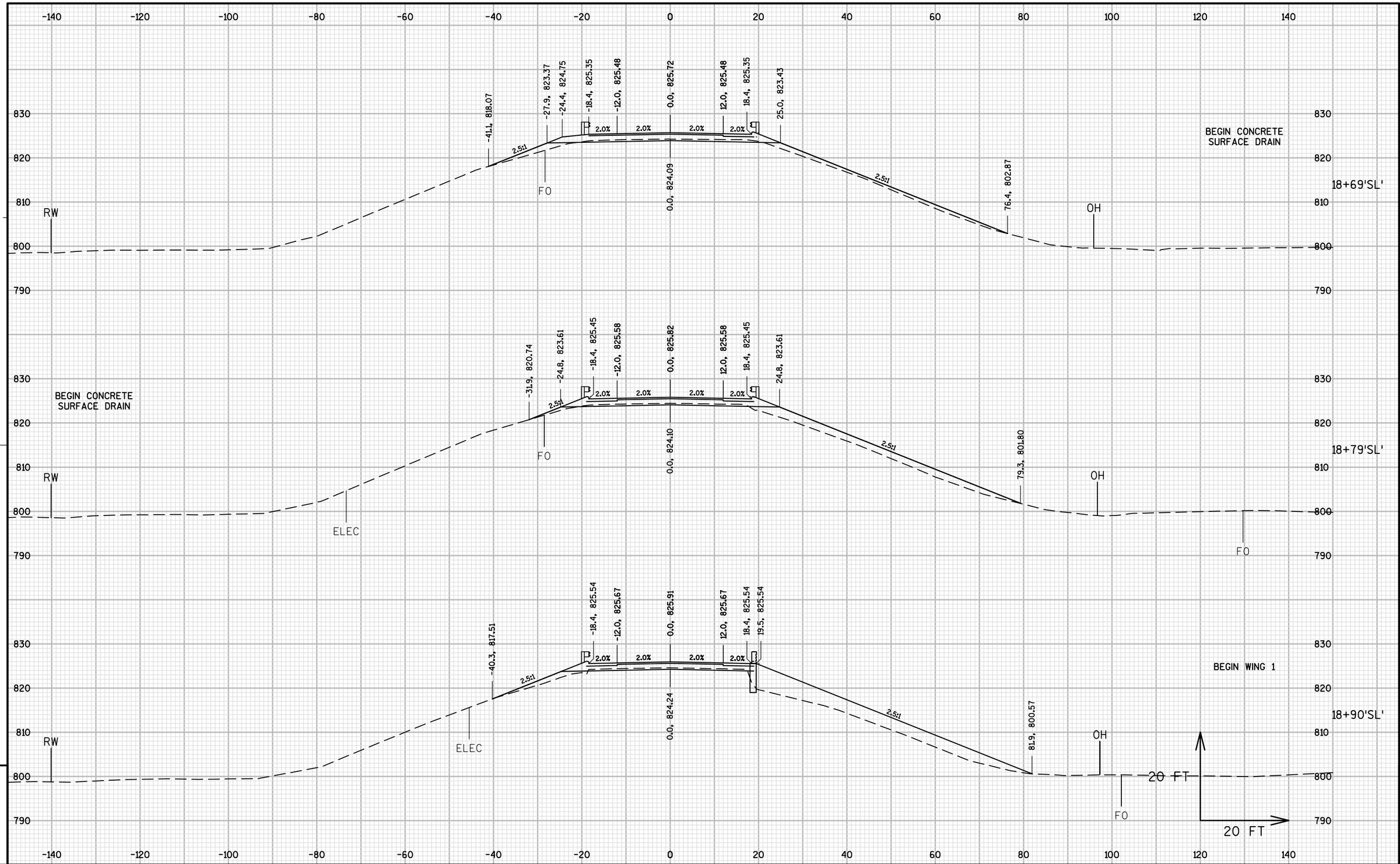
FILE NAME : L:\WORK\PROJECTS\60242867\000_CAD\001_DRAWINGS\1003-10-82_STATELINE RD\100% +\090101_XS.DWG PLOT DATE : 2/3/2016 1:44 PM PLOT BY : CZECH, ANDREW PLOT NAME : PLOT SCALE : 1 IN:20 FT



PROJECT NO: 1003-10-82	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: STATELINE RD	SHEET E

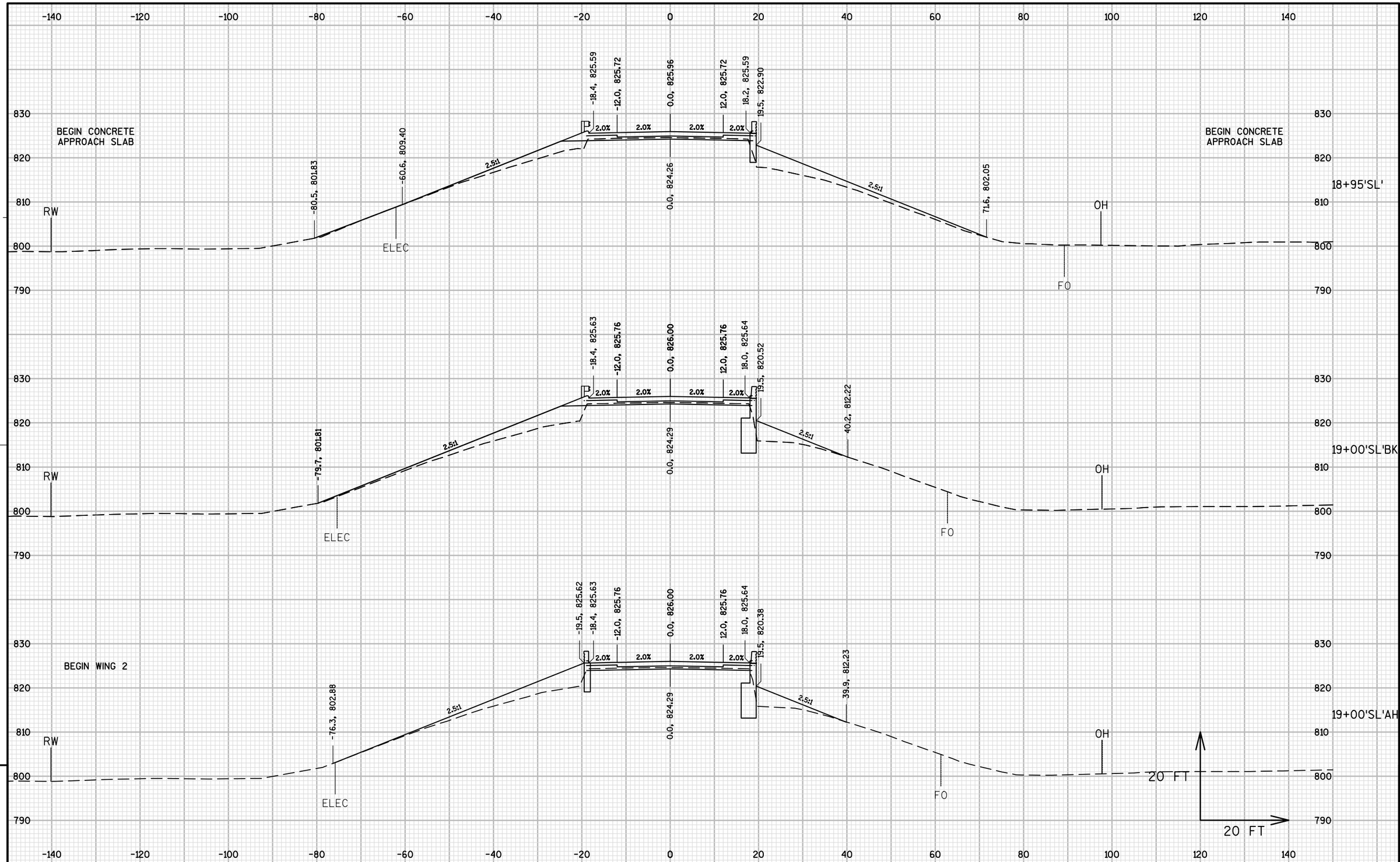
FILE NAME : L:\WORK\PROJECTS\60242867\000_CAD\001_DRAWINGS\1003-10-82_STATELINE RD\100% +\090101_XS.DWG PLOT DATE : 2/3/2016 1:44 PM PLOT BY : CZECH, ANDREW PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 49



PROJECT NO: 1003-10-82	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: STATELINE RD	SHEET	E

FILE NAME : L:\WORK\PROJECTS\60242867\000_CAD\001_DRAWINGS\1003-10-82_STATELINE RD\100% +\090101_XS.DWG PLOT DATE : 2/3/2016 1:44 PM PLOT BY : CZECH, ANDREW PLOT NAME : PLOT SCALE : 1 IN:20 FT
WISDOT/CADDS SHEET 49



PROJECT NO: 1003-10-82	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: STATELINE RD	SHEET	E

FILE NAME : L:\WORK\PROJECTS\60242867\000_CAD\001_DRAWINGS\1003-10-82_STATELINE RD\100% +\090101_XS.DWG PLOT DATE : 4/4/2016 10:53 AM PLOT BY : CZECH, ANDREW PLOT NAME : PLOT SCALE : 1 IN:20 FT
WISDOT/CADDS SHEET 49

STA 19+14'SL'
BEGIN STRUCTURE B-53-325

-18.0, 826.05 | 0.0, 826.41 | 18.0, 826.05
2.0% | 2.0%

-18.0, 825.72 | 0.0, 826.08 | 18.0, 825.72
2.0% | 2.0%

OH

20+00'SL'

21+00'SL'

OH

STA 21+36'SL'
END STRUCTURE B-53-325

-33.9, 814.29 | -19.5, 820.05 | -18.0, 825.29 | -12.0, 825.41 | 0.0, 825.65 | 12.0, 825.41 | 18.4, 825.28 | 19.5, 825.27
2.5:1 | 2.0% | 2.0% | 2.0% | 2.0%

0.0, 824.21

2.5:1

67.0, 806.25

END WING 4

21+50'SL'

OH

20 FT

20 FT

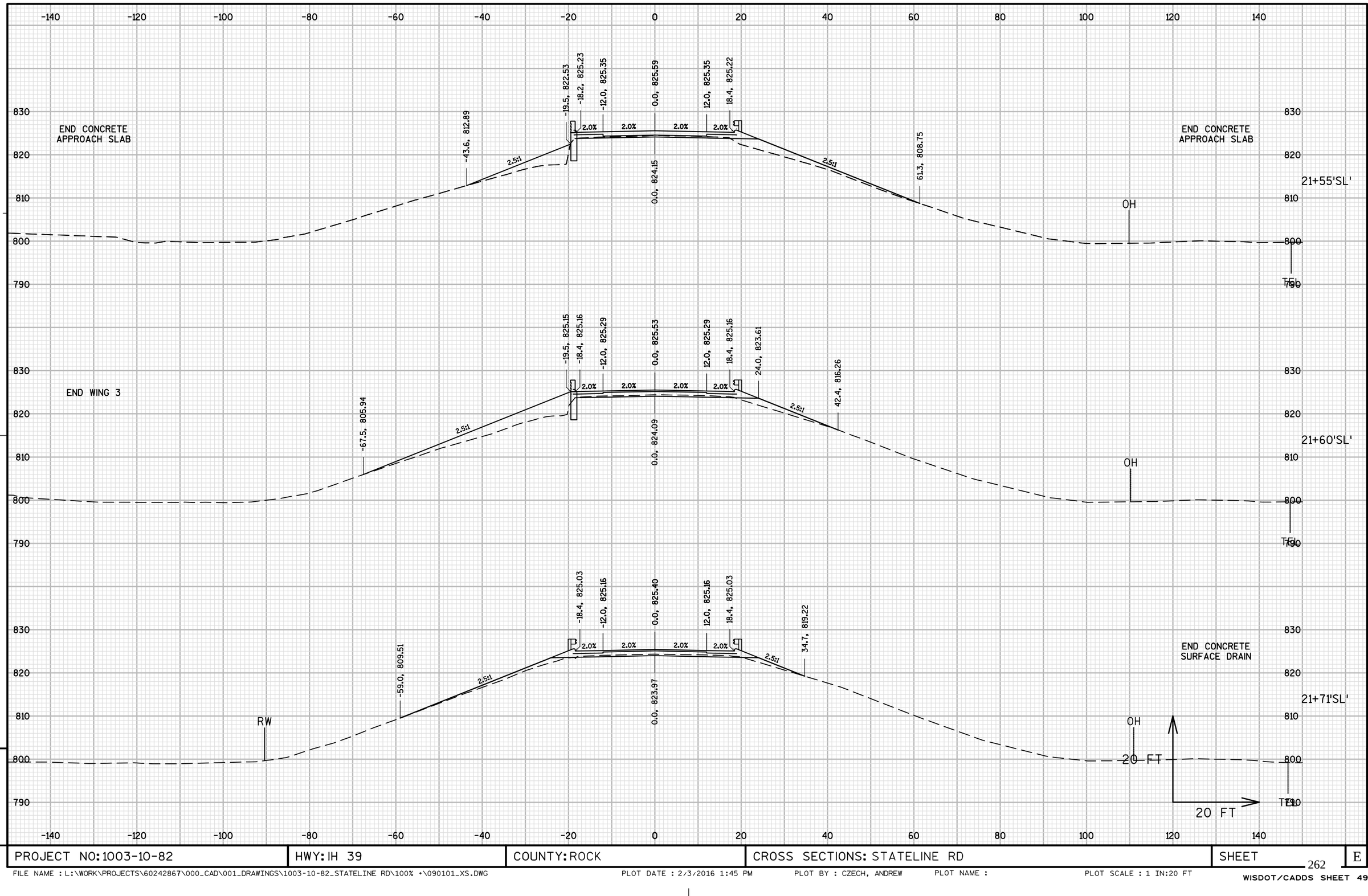
TEL

9

9

PROJECT NO: 1003-10-82	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: STATELINE RD	SHEET	E

FILE NAME : L:\WORK\PROJECTS\60242867\000_CAD\001_DRAWINGS\1003-10-82_STATELINE RD\100% +\090101_XS.DWG PLOT DATE : 2/3/2016 1:45 PM PLOT BY : CZECH, ANDREW PLOT NAME : PLOT SCALE : 1 IN:20 FT
WISDOT/CADDS SHEET 49

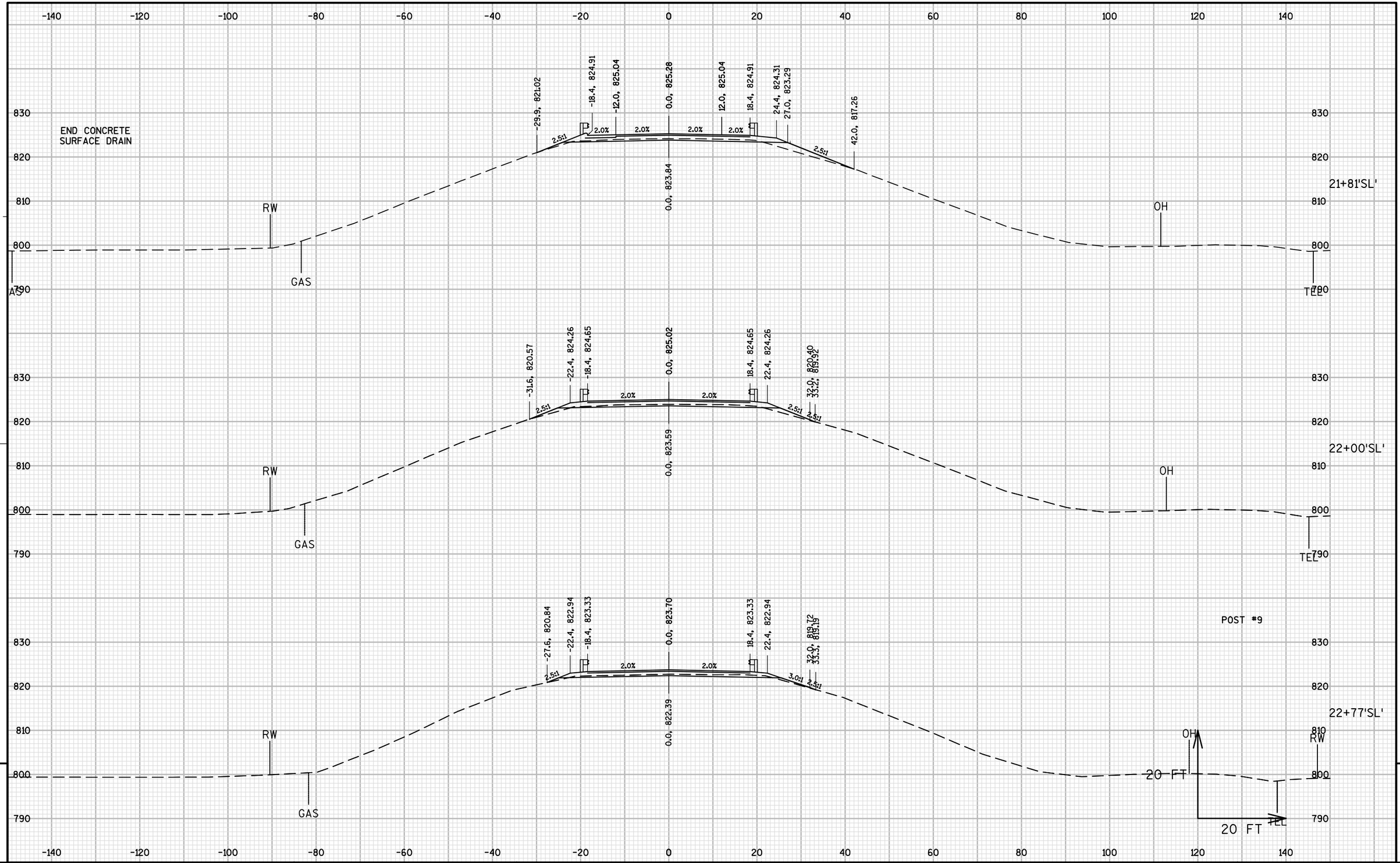


9

PROJECT NO: 1003-10-82	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: STATELINE RD	SHEET	E

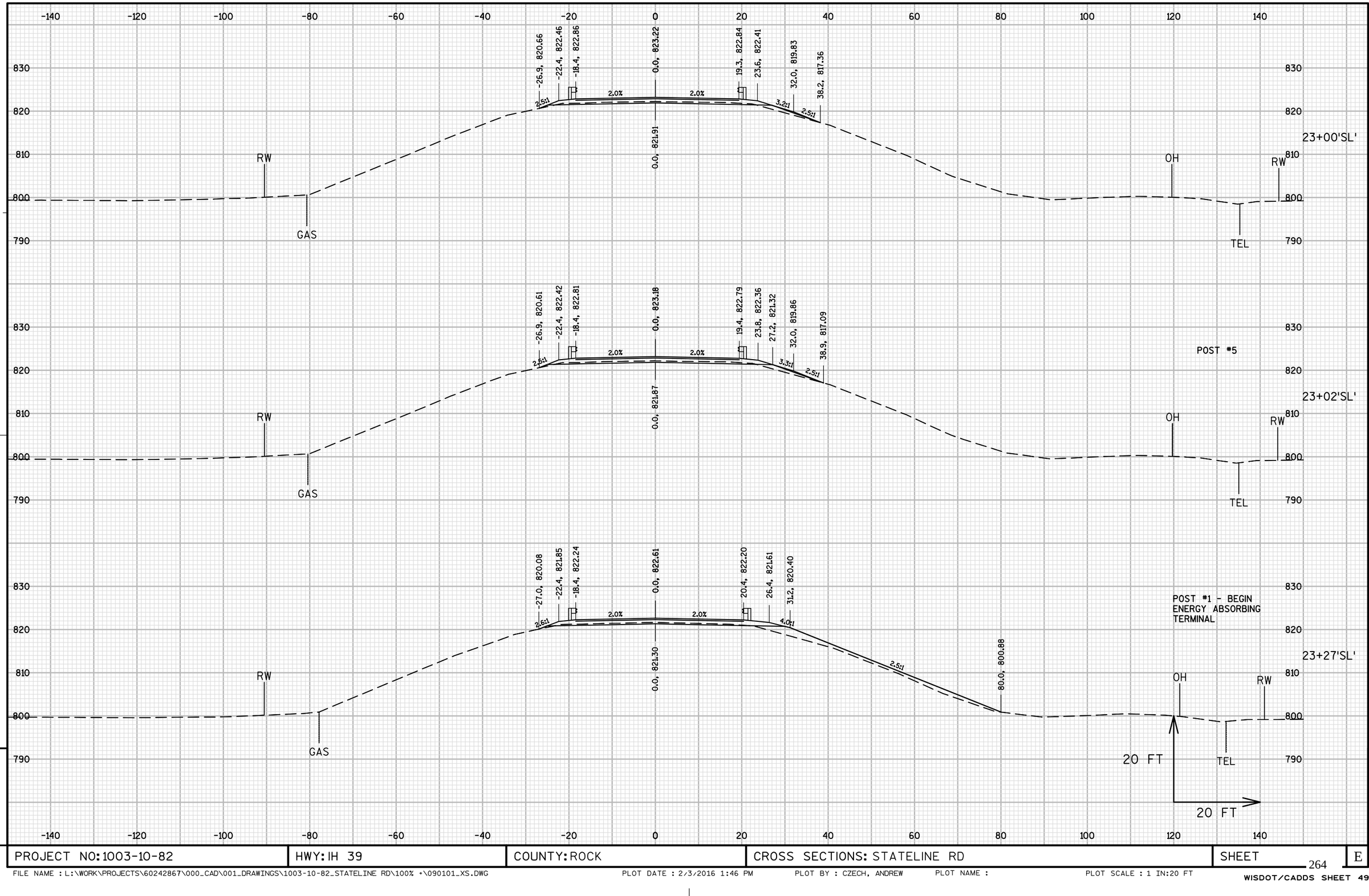
9

FILE NAME : L:\WORK\PROJECTS\60242867\000_CAD\001_DRAWINGS\1003-10-82_STATELINE RD\100% +\090101_XS.DWG PLOT DATE : 2/3/2016 1:45 PM PLOT BY : CZECH, ANDREW PLOT NAME : PLOT SCALE : 1 IN:20 FT
WISDOT/CADDS SHEET 49



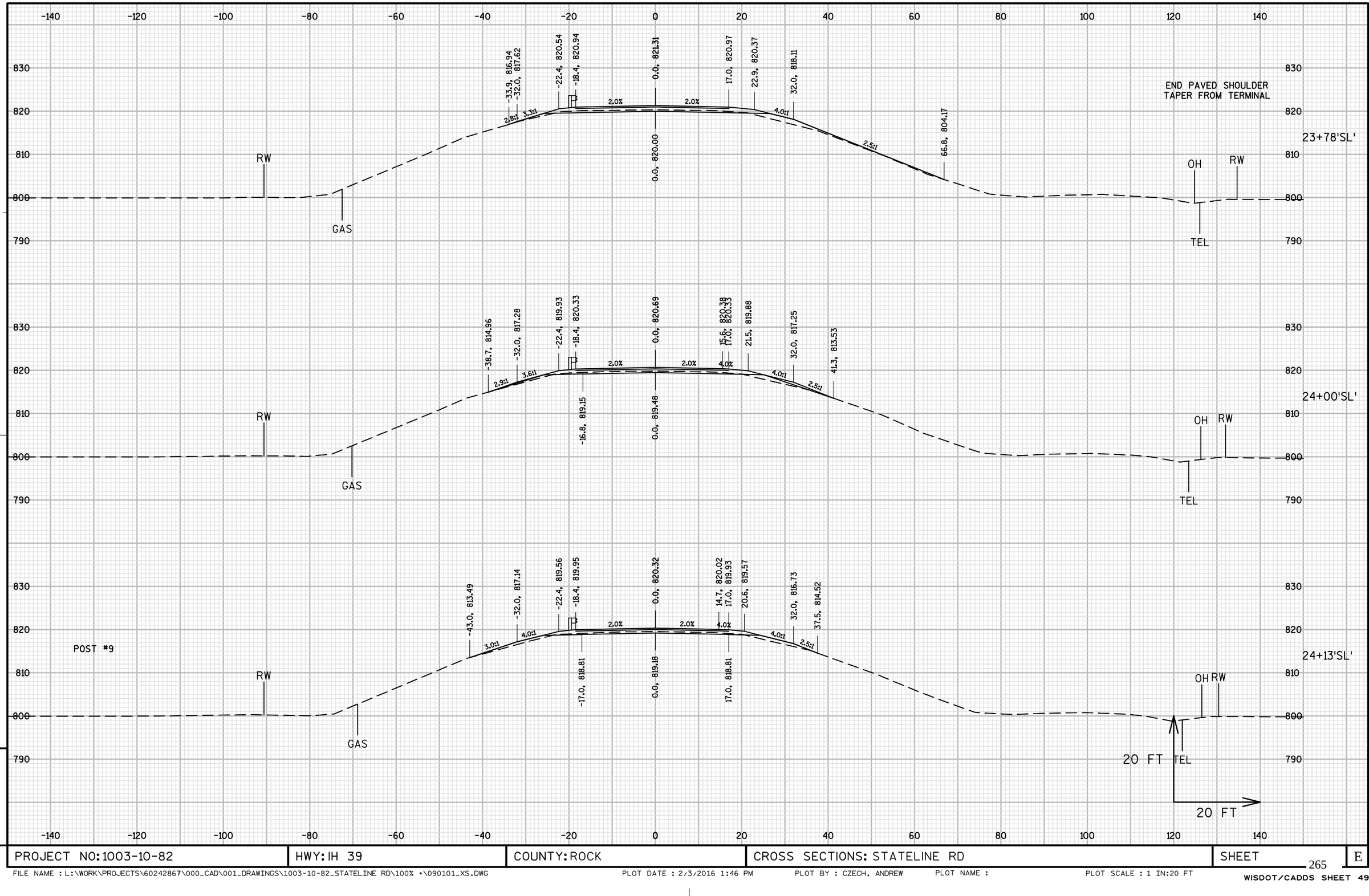
PROJECT NO: 1003-10-82	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: STATELINE RD	SHEET	E

FILE NAME : L:\WORK\PROJECTS\60242867\000_CAD\001_DRAWINGS\1003-10-82_STATELINE RD\100% +\090101_XS.DWG PLOT DATE : 2/3/2016 1:46 PM PLOT BY : CZECH, ANDREW PLOT NAME : PLOT SCALE : 1 IN:20 FT
WISDOT/CADDS SHEET 49



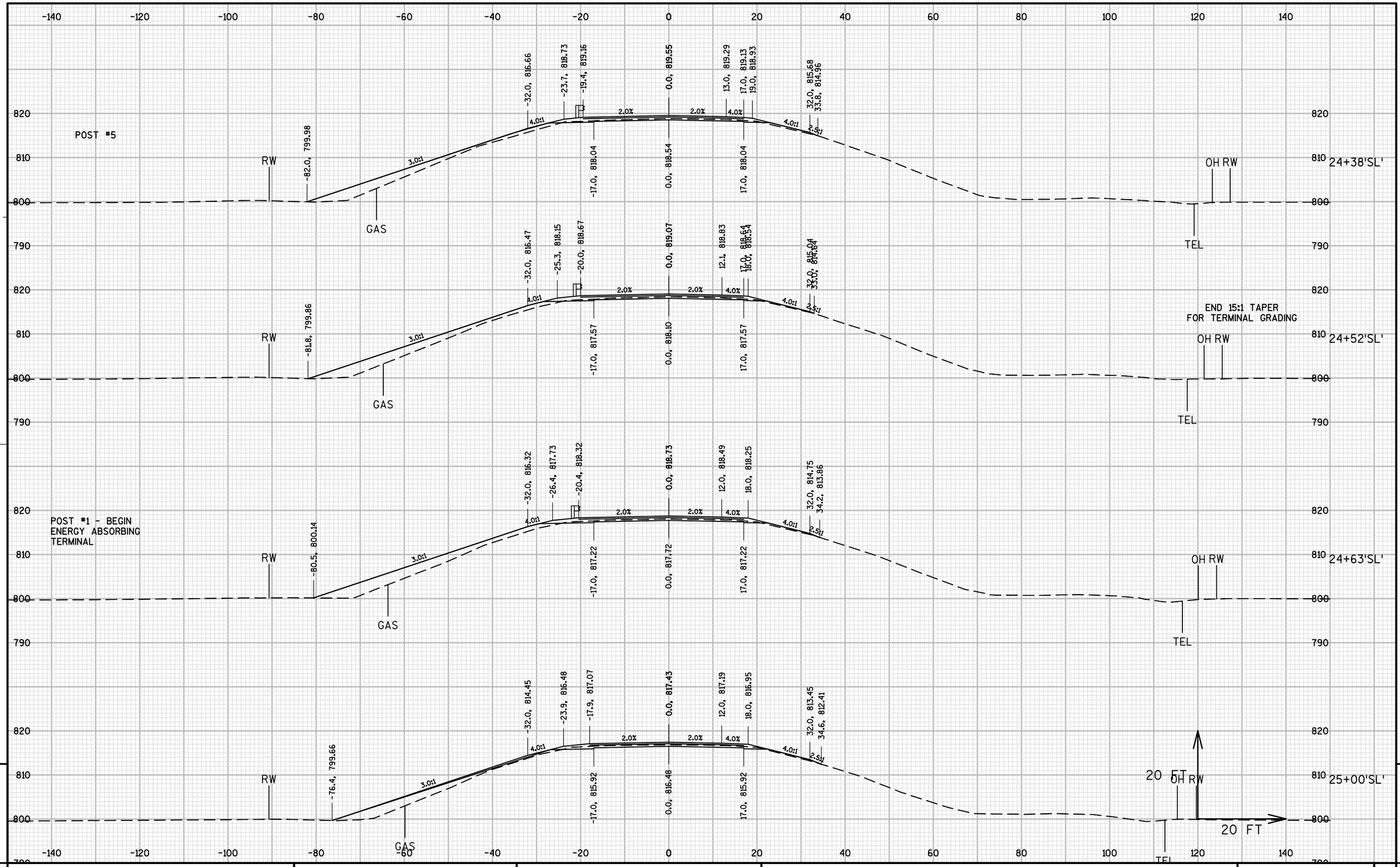
PROJECT NO: 1003-10-82	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: STATELINE RD	SHEET	E

FILE NAME : L:\WORK\PROJECTS\60242867\000_CAD\001_DRAWINGS\1003-10-82_STATELINE RD\100% +\090101_XS.DWG PLOT DATE : 2/3/2016 1:46 PM PLOT BY : CZECH, ANDREW PLOT NAME : PLOT SCALE : 1 IN:20 FT



PROJECT NO: 1003-10-82	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: STATELINE RD	SHEET	E

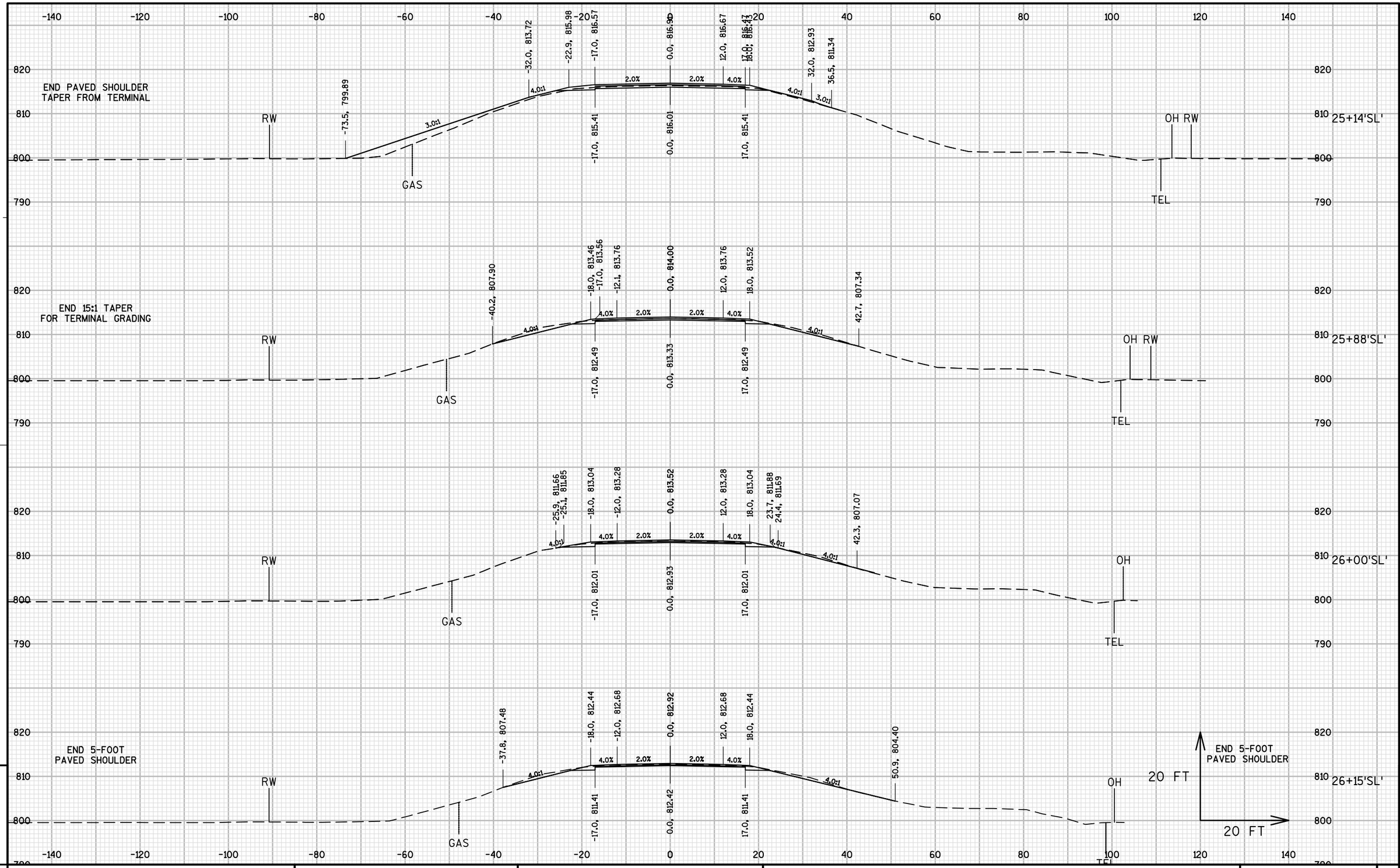
FILE NAME : L:\WORK\PROJECTS\60242867\000_CAD\001_DRAWINGS\1003-10-82_STATELINE RD\100% +\090101_XS.DWG PLOT DATE : 2/3/2016 1:46 PM PLOT BY : CZECH, ANDREW PLOT NAME : PLOT SCALE : 1 IN:20 FT



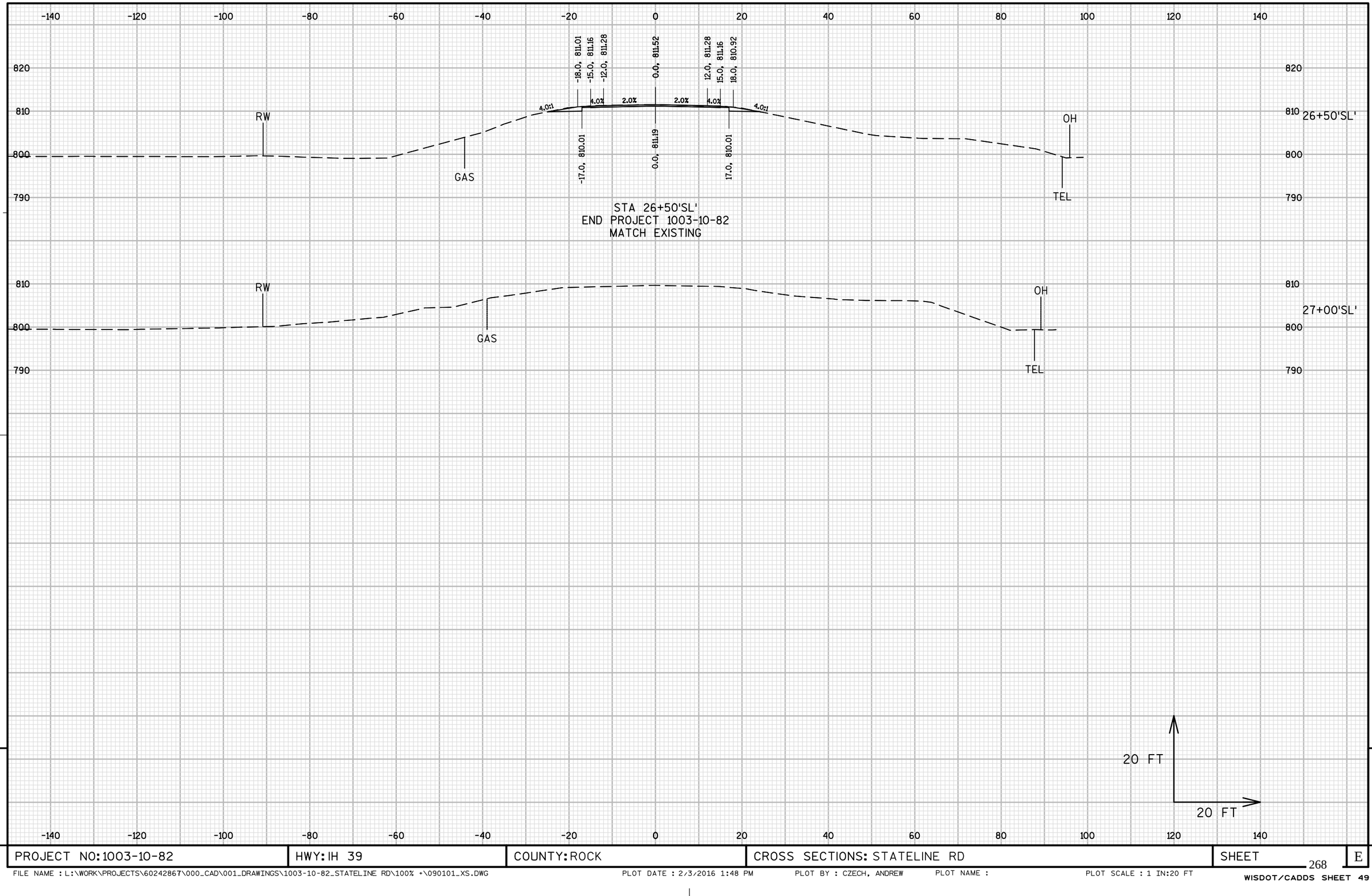
PROJECT NO: 1003-10-82	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: STATELINE RD	SHEET	E

FILE NAME : L:\WORK\PROJECTS\60242867\000_CAD\001_DRAWINGS\1003-10-82_STATELINE RD\100% +\090101_XS.DWG PLOT DATE : 2/3/2016 1:47 PM PLOT BY : CZECH, ANDREW PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 49



PROJECT NO: 1003-10-82	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: STATELINE RD	SHEET	E

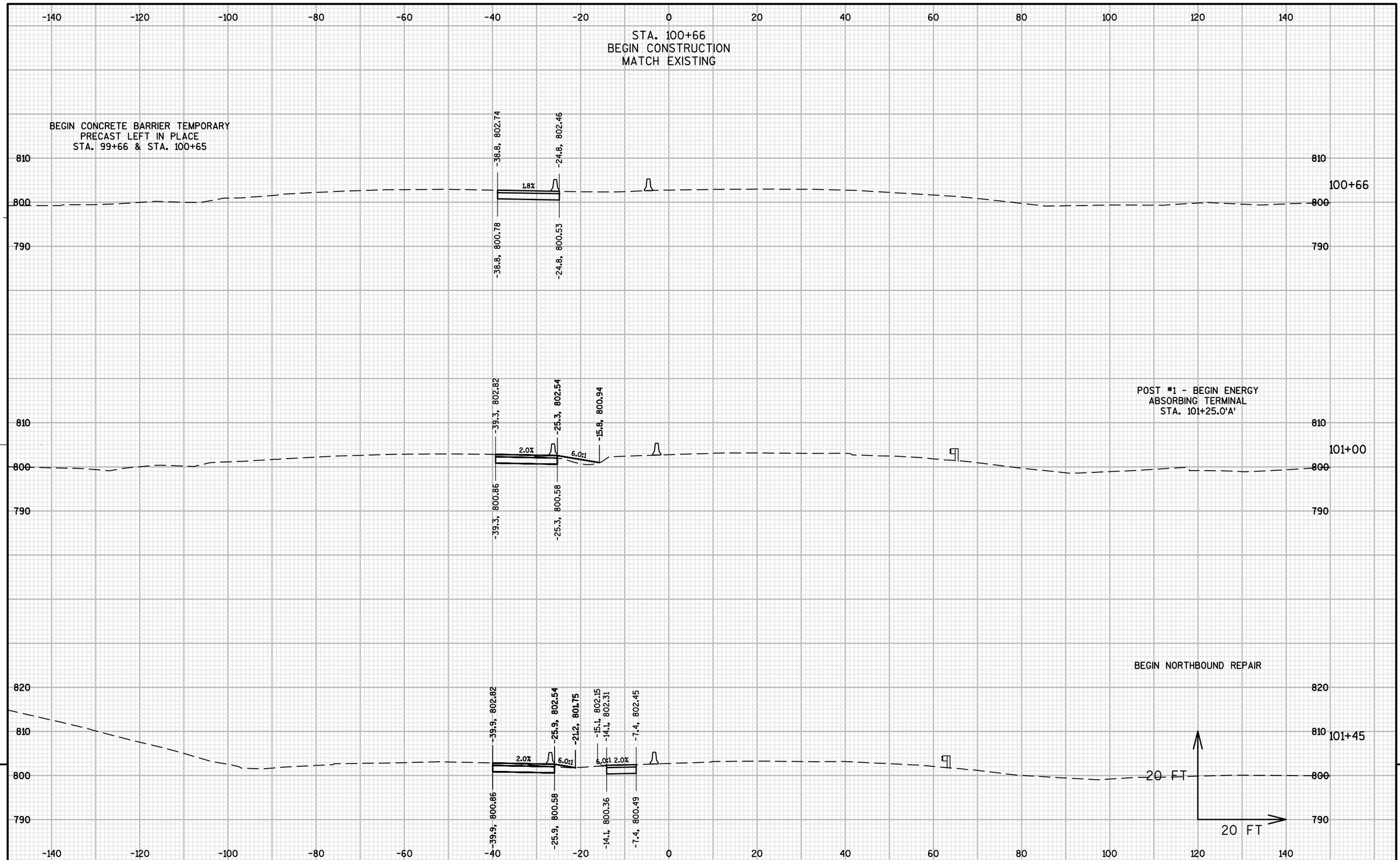


9

PROJECT NO: 1003-10-82	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: STATELINE RD	SHEET	E

FILE NAME : L:\WORK\PROJECTS\60242867\000_CAD\001_DRAWINGS\1003-10-82_STATELINE RD\100% +\090101_XS.DWG PLOT DATE : 2/3/2016 1:48 PM PLOT BY : CZECH, ANDREW PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 49



PROJECT NO: 1003-10-82	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: IH 39	SHEET	E

FILE NAME : L:\WORK\PROJECTS\60242867\000_CAD\001_DRAWINGS\1003-10-82_STATELINE RD\100% +\090102_XS.DWG PLOT DATE : 3/8/2016 7:58 AM PLOT BY : CZECH, ANDREW PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 49

-140 -120 -100 -80 -60 -40 -20 0 20 40 60 80 100 120 140

820 810 800 790

-40.0, 802.82 -26.0, 802.54 -21.4, 801.77 -15.2, 802.15 -14.2, 802.32 -7.5, 802.45

2.0% 6.0:1 6.0:1 2.0%

-40.0, 800.86 -26.0, 800.58 -14.2, 800.36 -7.5, 800.49

101+50

-140.0, 825.54

2.0:1

-93.1, 802.09

STA. 101+75
BEGIN WING 1
WEST ABUTMENT

-40.4, 802.82 -26.4, 802.54 -22.1, 801.83 -16.0, 802.13 -14.7, 802.34 -7.8, 802.48

2.0% 6.0:1 6.0:1 2.0%

-40.4, 800.86 -26.4, 800.58 -14.7, 800.39 -7.8, 800.52

101+75

-119.9, 815.64
-117.4, 812.43

2.0:1

-91.0, 802.03

STA. 101+80
BEGIN SLOPE PAVING
WEST ABUTMENT

-40.4, 802.82 -26.4, 802.54 -22.3, 801.86 -16.1, 802.15 -14.8, 802.37 -7.9, 802.51

2.0% 6.0:1 6.0:1 2.0%

-40.4, 800.87 -26.4, 800.59 -14.8, 800.41 -7.9, 800.55

101+80

20 FT

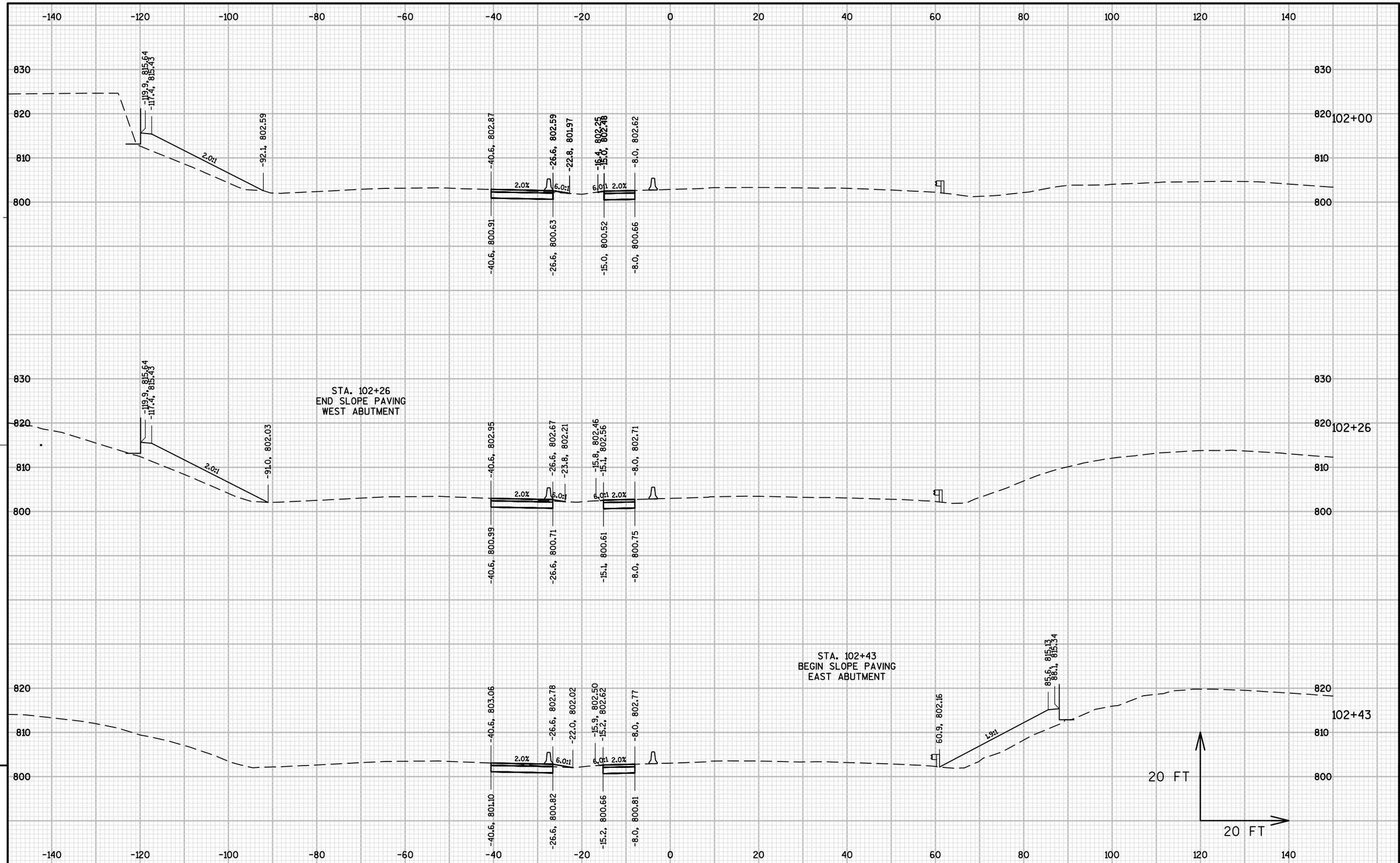
20 FT

-140 -120 -100 -80 -60 -40 -20 0 20 40 60 80 100 120 140

9 9

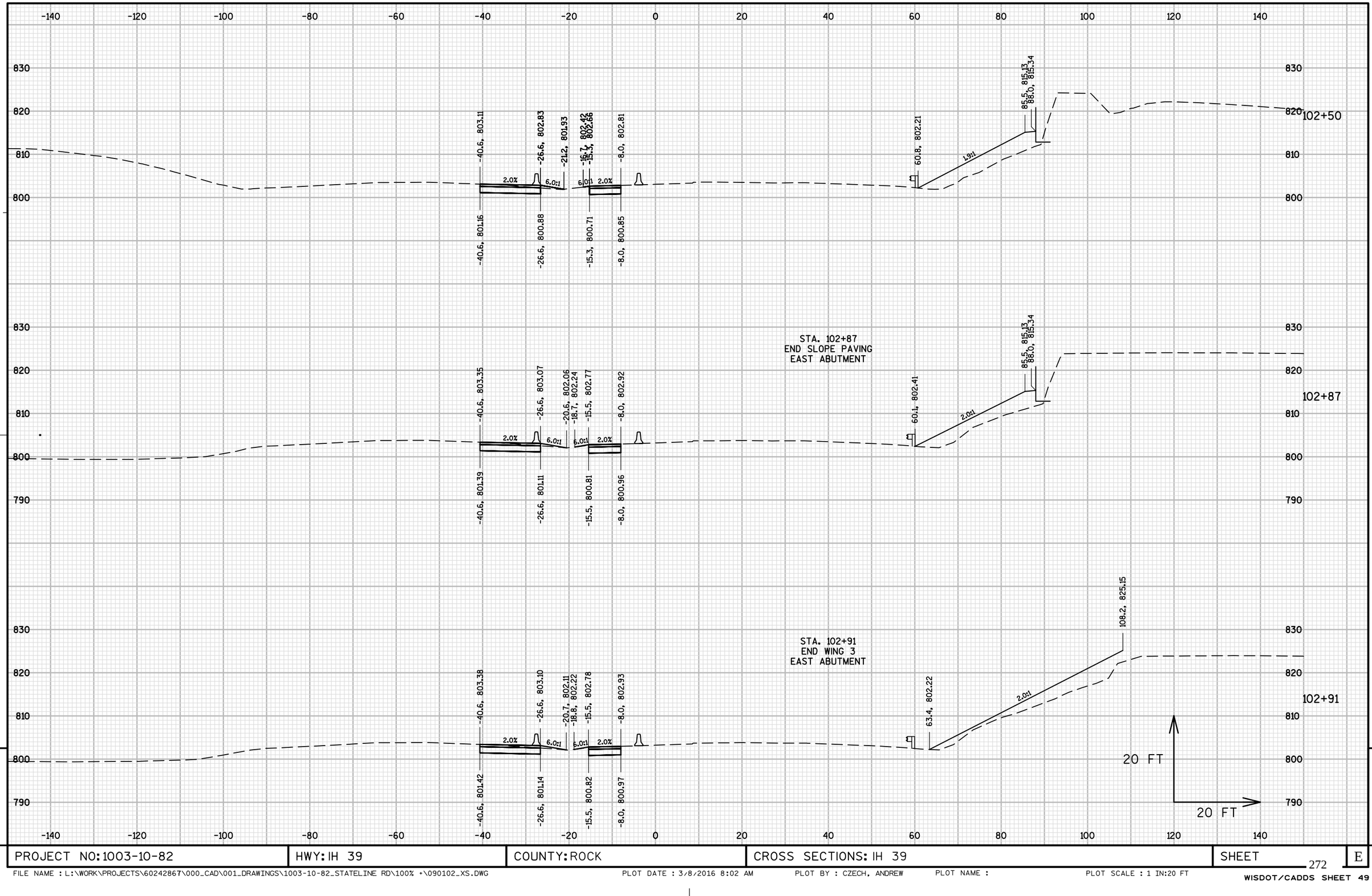
PROJECT NO: 1003-10-82	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: IH 39	SHEET	E

FILE NAME : L:\WORK\PROJECTS\60242867\000_CAD\001_DRAWINGS\1003-10-82_STATELINE RD\100% +\090102_XS.DWG PLOT DATE : 3/8/2016 7:59 AM PLOT BY : CZECH, ANDREW PLOT NAME : PLOT SCALE : 1 IN:20 FT
WISDOT/CADDS SHEET 49



PROJECT NO: 1003-10-82	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: IH 39	SHEET	E

FILE NAME : L:\WORK\PROJECTS\60242867\000_CAD\001_DRAWINGS\1003-10-82_STATELINE RD\100% +\090102_XS.DWG PLOT DATE : 3/8/2016 8:01 AM PLOT BY : CZECH, ANDREW PLOT NAME : PLOT SCALE : 1 IN:20 FT

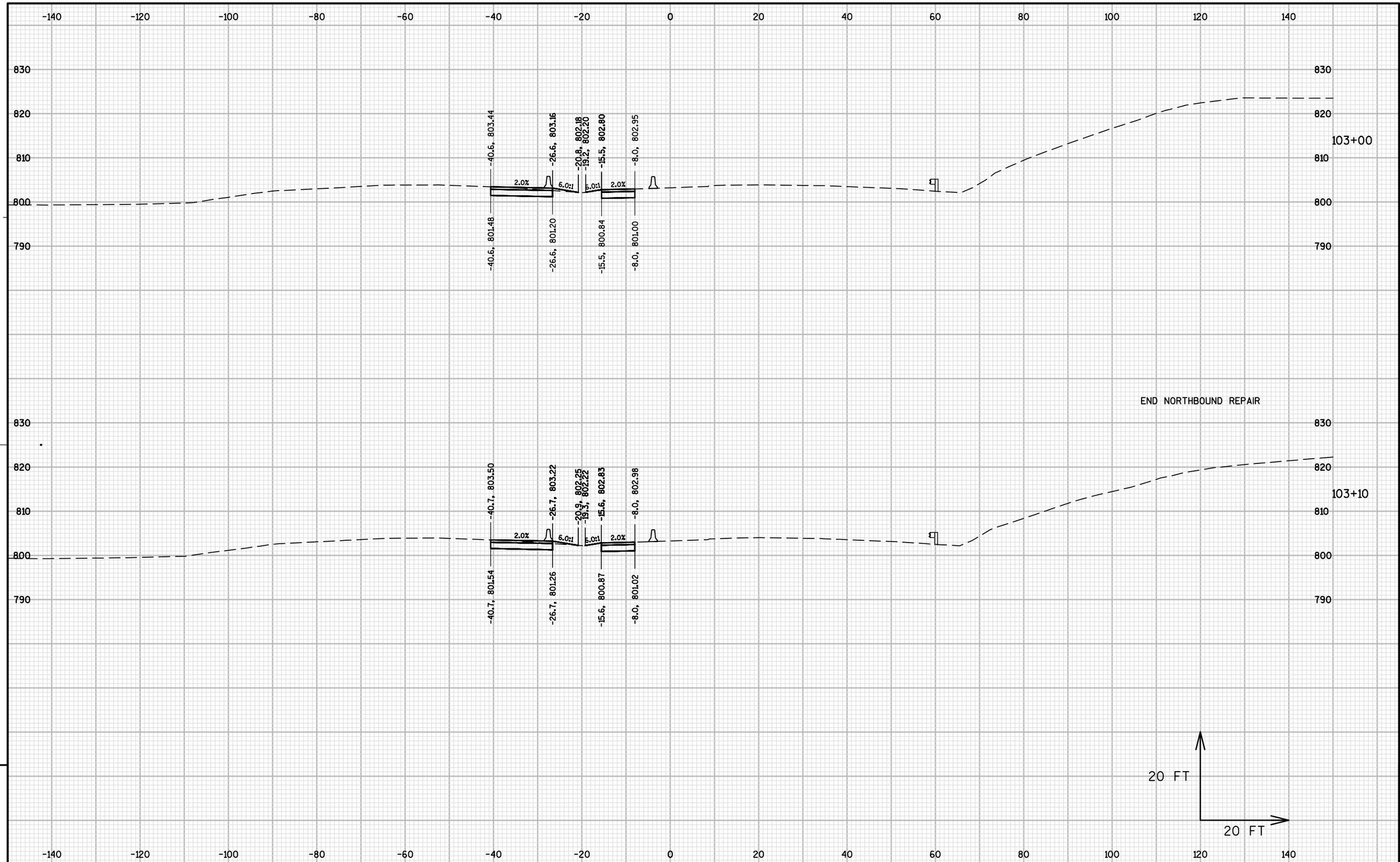


9

PROJECT NO: 1003-10-82	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: IH 39	SHEET	E

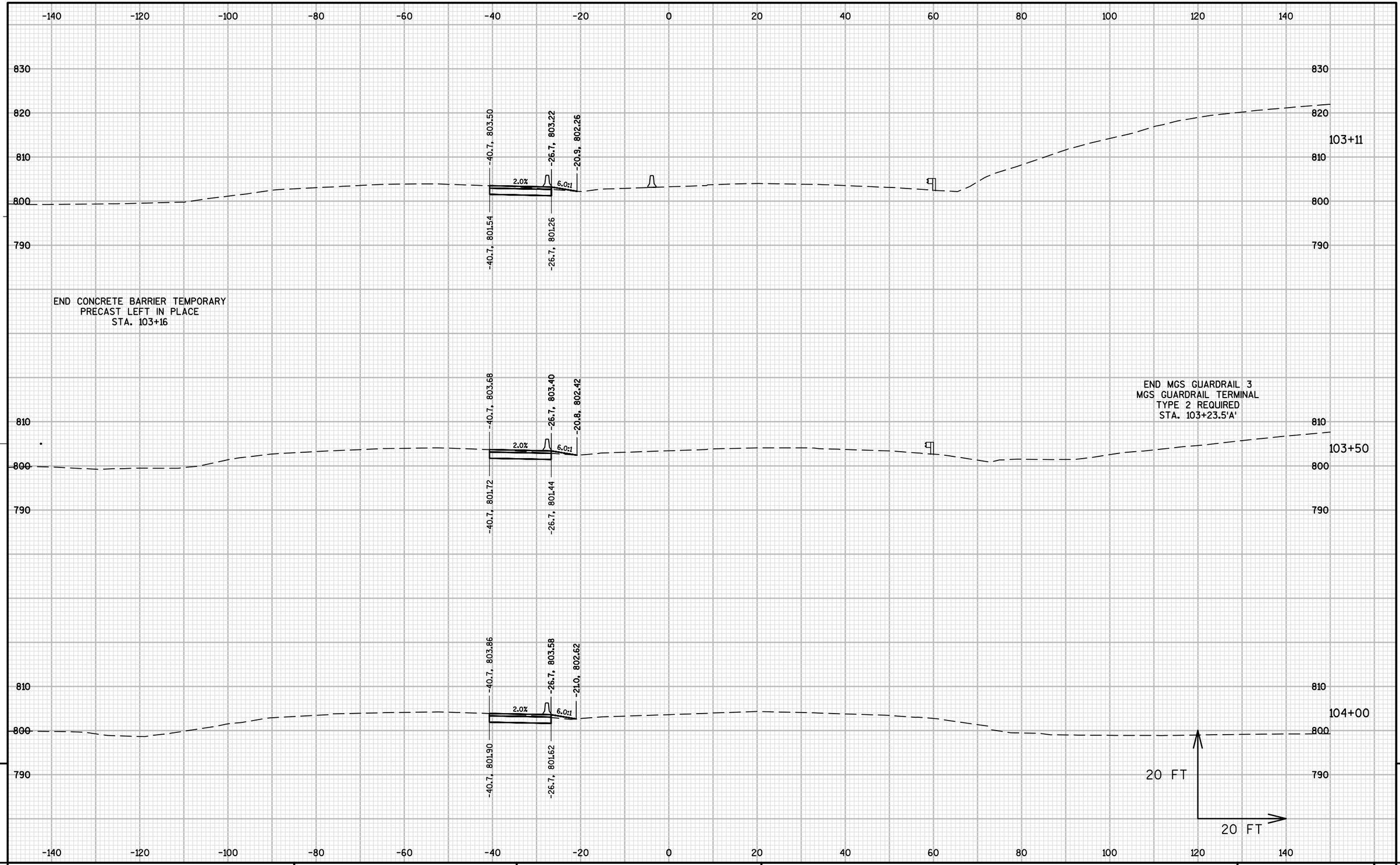
FILE NAME : L:\WORK\PROJECTS\60242867\000_CAD\001_DRAWINGS\1003-10-82_STATELINE RD\100% *\090102_XS.DWG PLOT DATE : 3/8/2016 8:02 AM PLOT BY : CZECH, ANDREW PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 49



PROJECT NO: 1003-10-82	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: IH 39	SHEET	E

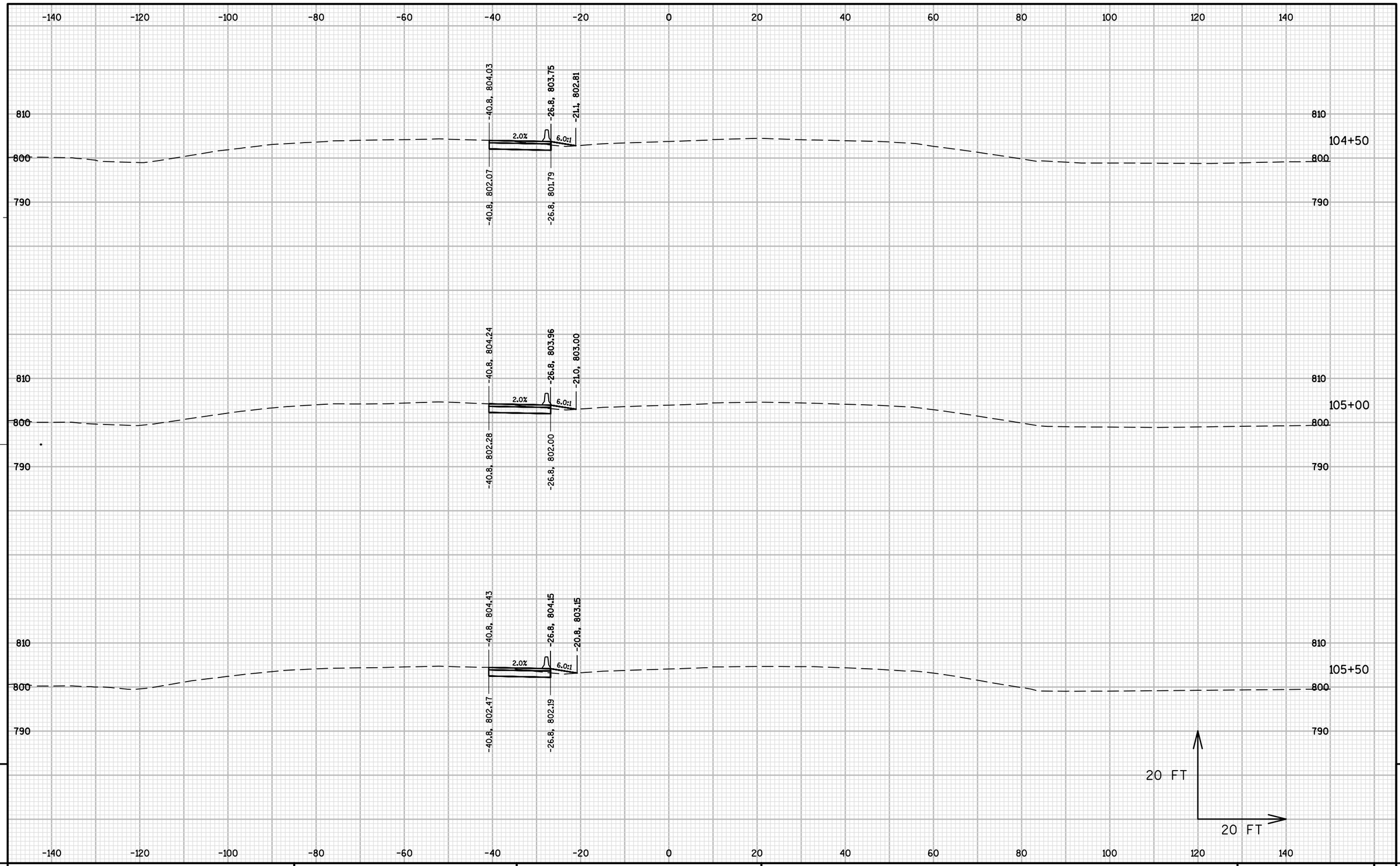
FILE NAME : L:\WORK\PROJECTS\60242867\000_CAD\001_DRAWINGS\1003-10-82_STATELINE RD\100% +\090102_XS.DWG PLOT DATE : 3/8/2016 8:03 AM PLOT BY : CZECH, ANDREW PLOT NAME : PLOT SCALE : 1 IN:20 FT



PROJECT NO: 1003-10-82	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: IH 39	SHEET 274	E

FILE NAME : L:\WORK\PROJECTS\60242867\000_CAD\001_DRAWINGS\1003-10-82_STATELINE RD\100% *\090102_XS.DWG PLOT DATE : 3/8/2016 8:04 AM PLOT BY : CZECH, ANDREW PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 49



9

9

PROJECT NO: 1003-10-82	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: IH 39	SHEET	E

FILE NAME : L:\WORK\PROJECTS\60242867\000_CAD\001_DRAWINGS\1003-10-82_STATELINE RD\100% +\090102_XS.DWG PLOT DATE : 3/8/2016 8:05 AM PLOT BY : CZECH, ANDREW PLOT NAME : PLOT SCALE : 1 IN:20 FT

END CONCRETE BARRIER TEMPORARY
PRECAST LEFT IN PLACE
STA. 105+66

-40.9, 804.59
-26.9, 804.31
-20.6, 803.27
2.0%
6.0:1
-40.9, 802.63
-26.9, 802.35

105+99

BEGIN TAPER

-40.9, 804.60
-26.9, 804.32
-20.6, 803.28
2.0%
6.0:1
-40.9, 802.64
-26.9, 802.36

106+00

-40.9, 804.76
-24.0, 804.43
-19.2, 803.61
2.0%
6.0:1
-40.9, 802.81
-24.0, 802.47

106+50

-140 -120 -100 -80 -60 -40 -20 0 20 40 60 80 100 120 140

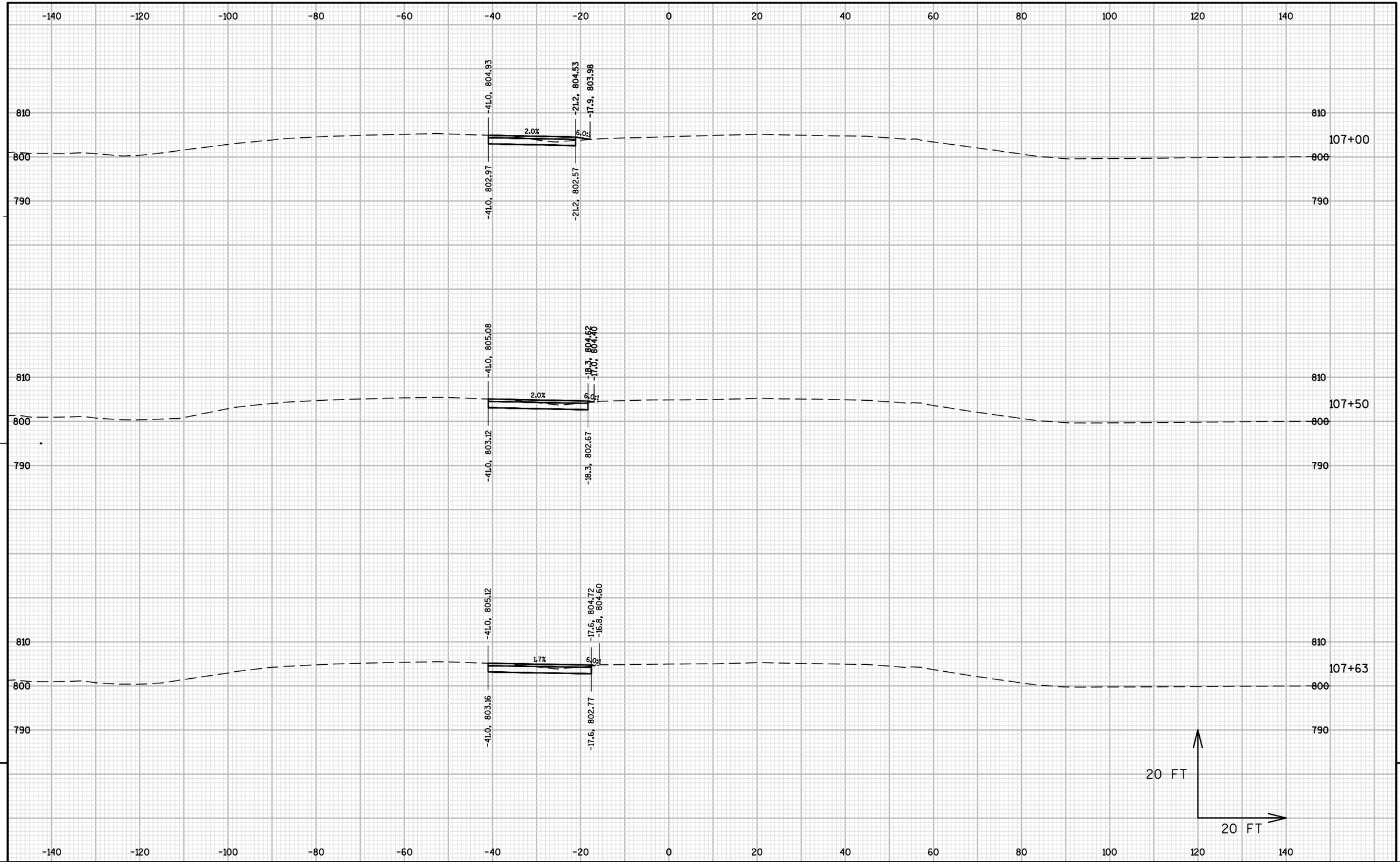
810
800
790

20 FT
20 FT

9

PROJECT NO: 1003-10-82	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: IH 39	SHEET	E

FILE NAME : L:\WORK\PROJECTS\60242867\000_CAD\001_DRAWINGS\1003-10-82_STATELINE RD\100% *\090102_XS.DWG PLOT DATE : 3/8/2016 8:07 AM PLOT BY : CZECH, ANDREW PLOT NAME : PLOT SCALE : 1 IN:20 FT
WISDOT/CADDS SHEET 49



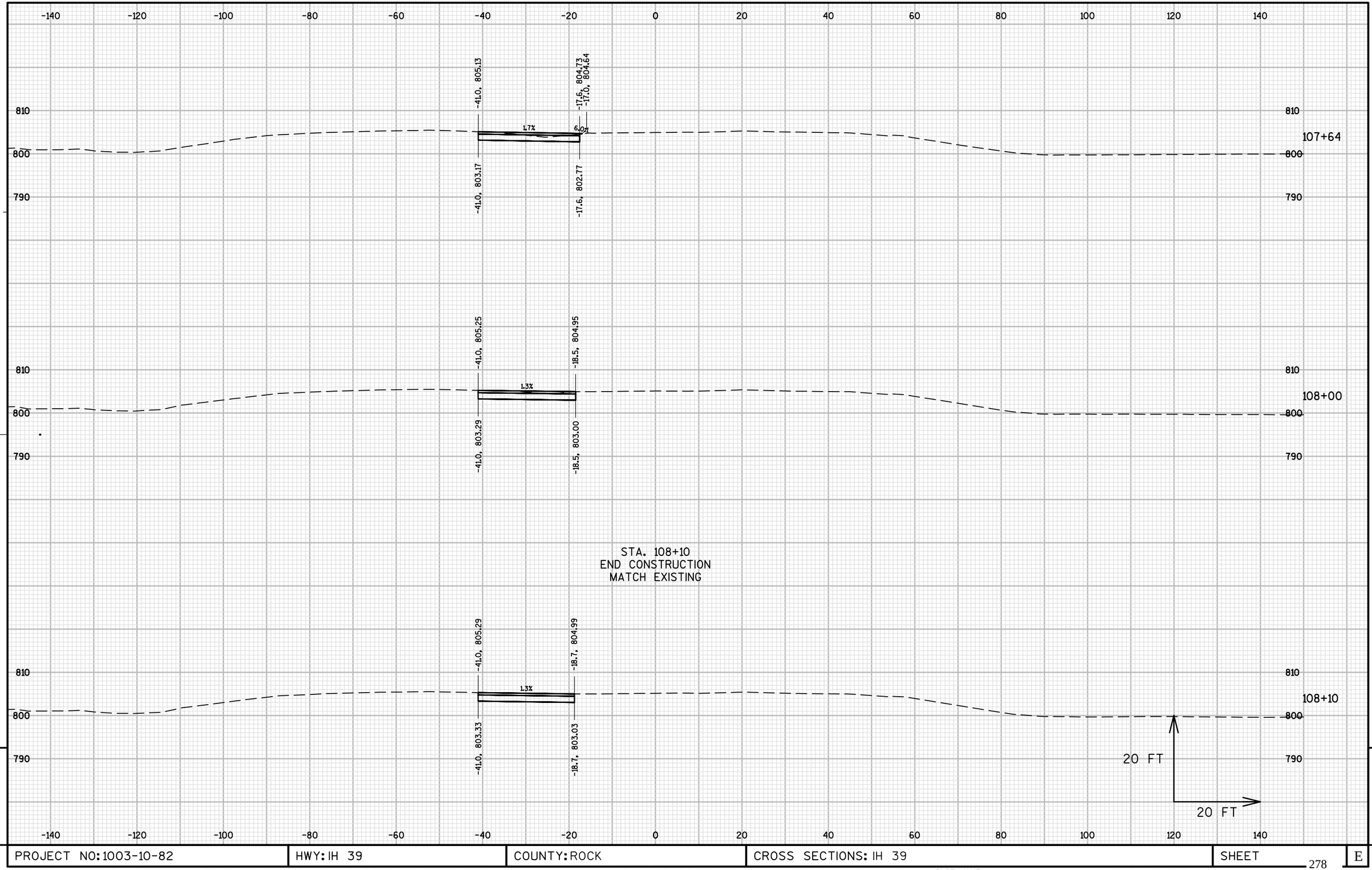
9

9

PROJECT NO: 1003-10-82	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: IH 39	SHEET 277	E

FILE NAME : L:\WORK\PROJECTS\60242867\000_CAD\001_DRAWINGS\1003-10-82_STATELINE RD\100% *\090102_XS.DWG PLOT DATE : 3/8/2016 8:08 AM PLOT BY : CZECH, ANDREW PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 49



9

9

PROJECT NO: 1003-10-82	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: IH 39	SHEET	E

FILE NAME : L:\WORK\PROJECTS\60242867\000_CAD\001_DRAWINGS\1003-10-82_STATELINE RD\100% +\090102_XS.DWG PLOT DATE : 3/8/2016 8:09 AM PLOT BY : CZECH, ANDREW PLOT NAME : PLOT SCALE : 1 IN:20 FT
WISDOT/CADDS SHEET 49

Notes

Wisconsin Department of Transportation

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