MAD

NOVEMBER 2017

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 = 444

PROJECT ID: 1010-02-85

WITH: N/A

COUNTY: COLUMBIA

03

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

MADISON - PORTAGE

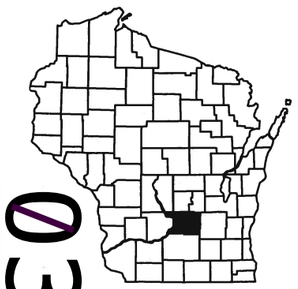
CTH CS TO PORTAGE INTERCHANGE

IH 39

COLUMBIA COUNTY

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
1010-02-85	WISC 2017501	1

STATE PROJECT NUMBER
1010-02-85



DESIGN DESIGNATION

A.A.D.T.	(2015)	=	63,000
A.A.D.T.	(2035)	=	72,500
D.H.V.		=	9,200
D.D.		=	58/42
T.		=	21%
DESIGN SPEED		=	70
ESALS		=	23,000,000

BEGIN CONSTRUCTION
IH 90/94 STA 955+00SB

BEGIN CONSTRUCTION
STH 78 STA 67+00N

BEGIN PROJECT 1010-02-85
STA 1148+36.28SB
Y = 359,775.726
X = 529,115.423

BEGIN CONSTRUCTION
IH 39 STA 955+00F

B-11-98
STA 978+28.83F

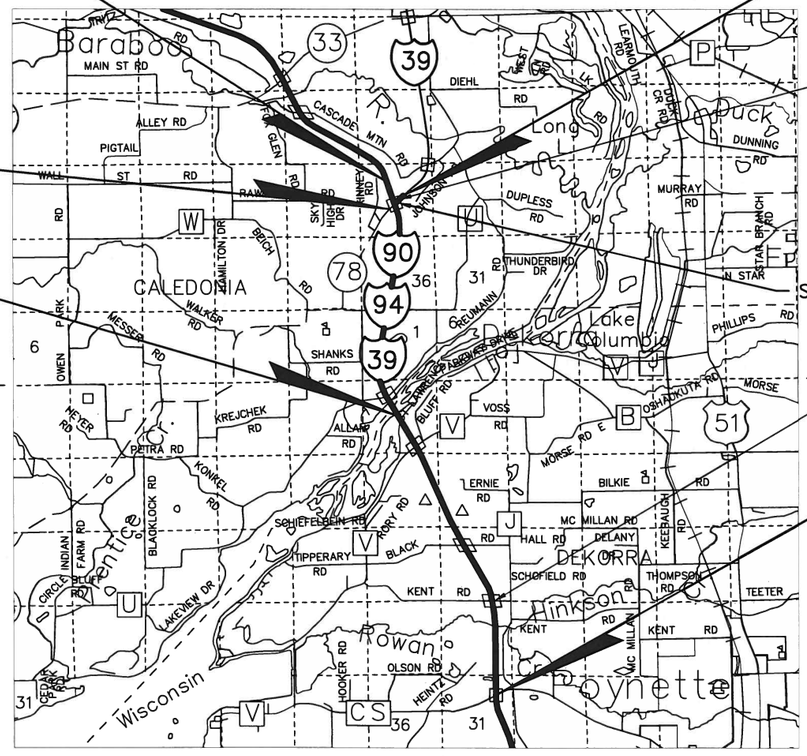
S-11-26

B-11-39
STA 1291+88SB

END PROJECT 1010-02-85
STA 1344+69.55SB

T-12-N

T-11-N



R-8-E | R-9-E

LAYOUT
SCALE 0 2MI

TOTAL NET LENGTH OF CENTERLINE = 3.718 MI.

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
		TELEPHONE	T
MARSH AREA		WATER	W
		UTILITY PEDESTAL	
		POWER POLE	
WOODED OR SHRUB AREA		TELEPHONE POLE	

COORDINATES ON THIS PLAN ARE REFERENCED TO THE WISCONSIN COUNTY COORDINATE SYSTEM (WCCS), COLUMBIA COUNTY. NAD 83 (2007), NAVD 88 (2007)

ORIGINAL PLANS PREPARED BY

Mead & Hunt

Mead & Hunt, Inc.
6501 Watts Road
Madison, WI 53719
608.273.6380
fax: 608.273.6391
www.meadhunt.com

WISCONSIN
SCOTT A. HASBURGH
E-33329
BARNEVELD, WI
PROFESSIONAL ENGINEER

4-7-17

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor	MEAD & HUNT, INC
Designer	MEAD & HUNT, INC
Project Manager	MATTHEW DAPP, PE
Regional Examiner	
Regional Supervisor	WILLIAM STROBEL, PE
C.O. EXAMINER	

APPROVED FOR THE DEPARTMENT

DATE: 4/7/17 Matthew A. Dapp (Signature)

E

GENERAL NOTES

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

BEARINGS SHOWN ON THE PLANS ARE TRUE BEARINGS TO THE NEAREST SECOND.

ALL DISTANCES ARE GROUND DISTANCE.

ALL COORDINATES ARE GROUND COORDINATES.

ALL TIES ON THIS PLAN ARE HORIZONTAL UNLESS DESCRIBED OTHERWISE.

CURVE DATA IS BASED ON THE ARC DEFINITION.

HMA PAVEMENT WEIGHT CALCULATIONS ARE BASED ON 112 LB/SY/IN.

THE CONTRACTOR'S PAVING OPERATIONS SHALL BE CONSISTENT WITH THE PLAN TYPICAL SECTIONS AND CONSTRUCTED TO PREVENT HMA PAVEMENT LONGITUDINAL JOINTS FROM BEING LOCATED WITHIN A DRIVING LANE OR RAMP TAPER.

ASPHALTIC SURFACE/HMA PAVEMENT SHALL BE CONSTRUCTED WITH THE FOLLOWING LAYER THICKNESS.

PAVEMENT THICKNESS (INCH)	LOWER (INCH)	UPPER (INCH)
3.50	1.75	1.75
3.00	---	3.00
2.00	---	2.00
1.75	---	1.75

NO TREES OR SHRUBS ARE TO BE REMOVED WITHOUT APPROVAL OF THE ENGINEER.

PRIOR TO THE PLACEMENT OF GUARDRAIL, THE SHOULDERS SHALL BE PLACED, SHAPED AND COMPACTED.

SECTIONS AS SHOWN ON THE CROSS-SECTIONS INCLUDE THE THICKNESS OF TOPSOIL. TOPSOIL SHALL BE AT A 4-INCH MINIMUM DEPTH.

DISTURBED AREAS WITHIN THE RIGHT-OF-WAY, EXCEPT THE AREAS WITHIN THE FINISHED SHOULDER POINTS, ARE TO BE RESTORED AS DIRECTED BY THE ENGINEER.

THE CONTRACTOR WILL BE RESPONSIBLE FOR RESTORING ANY PREVIOUSLY GRASSED AREAS WHICH ARE DISTURBED BY HIS OPERATIONS OUTSIDE OF THE NORMAL CONSTRUCTION LIMITS.

ESTIMATED QUANTITIES OF SALVAGED TOPSOIL, SEEDING, MULCHING OR EROSION MAT AND FERTILIZER HAVE BEEN COMPUTED BY A DIRECT MEASURMENT ON THE CROSS-SECTION PLUS FIVE (5) FEET BEYOND THE TOE OF SLOPE.

EROSION CONTROL ITEMS SHOWN ON THE PLANS ARE AT SUGGESTED LOCATIONS. THE ENGINEER SHALL DETERMINE THE EXACT LOCATIONS OF EROSION CONTROL ITEMS. ALL EROSION CONTROL MEASURES SHALL BE MAINTAINED UNTIL SUCH TIME AS THE ENGINEER DETERMINES THE MEASURE IS NO LONGER NECESSARY. THE PRIME CONTRACTOR IS RESPONSIBLE FOR REMOVING THESE ITEMS WHEN NO LONGER NECESSARY.

NUMBER, LOCATION, AND SPACING OF TRAFFIC CONTROL SIGNS AND OTHER TRAFFIC CONTROL DEVICES, AS SHOWN IN THE PLANS SHALL BE ADJUSTED TO FIT FIELD CONDITIONS.

ORDER OF SECTION 2 SHEETS

PROJECT OVERVIEW
TYPICAL SECTIONS
CONSTRUCTION DETAILS
EROSION CONTROL AND DRAINAGE DETAILS
SIGNING DETAILS
PAVEMENT MARKING DETAILS
TRAFFIC CONTROL DETAILS
ALIGNMENT DETAILS

OTHER CONTACTS

CONSULTANT CONTACT
MEAD & HUNT, INC.

2440 DEMMING WAY MIDDLETON, WI 53562

ATTN: MR. SCOTT HASBURGH, P.E.
TELEPHONE: 608-273-6380
E-MAIL:scott.hasburgh@meadhunt.com

WISDOT CONTACT
PROJECT MANAGER

2101 WRIGHT STREET MADISON, WI 53704

ATTN: MR. MATTHEW DAPP
TELEPHONE: 608-246-5353
E-MAIL:matthew.dapp@dot.wi.gov

DNR LIAISON

DEPARTMENT OF NATURAL RESOURCES SOUTH CENTRAL HQ

3911 SOUTH FISH HATCHERY ROAD
FITCHBURG, WI 53711

ATTN: MR. ERIC HEGGELUND
TELEPHONE: 608-275-3301
E-MAIL: eric.heggelund@wi.gov

UTILITY CONTACTS

ALLIANT ENERGY
ELECTRICITY/GAS

ATTN: MR. CRAIG HENDRICKS
SUITE 1000
4902 N. BILTMORE LANE
MADISON, WI 53718

TELEPHONE: 608-458-8481
E-MAIL: craighendricks@alliantenergy.com

CENTURYLINK
COMMUNICATION

ATTN: MR. KEVIN ZICKERT
224 INDUSTRIAL DR
NORTH PRAIRIE, WI 53153

E-MAIL: Kevin.Zickert@centurylink.com

FRONTIER COMMUNICATIONS OF WI LLC
COMMUNICATION

ATTN: MR. RUSS RYAN
118 DIVISION STREET
PLYMOUTH, WI 53073

TELEPHONE: 920737-9662
E-MAIL: russell.w.ryan@ftr.com

ATC MANAGEMENT, LLC
ELECTRICITY

ATTN: MR. ALEX METZ
5303 FEN OAK DR.
MADISON, WI 53718
(608) 877-7105

TELEPHONE: 920-338-6582
E-MAIL: ametz@atcllc.com

CHARTER COMMUNICATIONS
COMMUNICATION

ATTN: MR. BRANDON STORM
2701 DANIELS STREET
MADISON, WI 53718

TELEPHONE: 608-274-3822
E-MAIL: brandon.storm@charter.com

MERRIMAC COMMUNICATIONS, LTD
COMMUNICATIONS

ATTN: MR. KIRK OLSON
327 PALLISADES STREET
MERRIMAC, WI 53561

TELEPHONE: 608-493-2291
E-MAIL: kolson@merr.com

AT&T LEGACY
COMMUNICATION

ATTN: MR. CARL DONAHUE
866 ROCK CREEK ROAD
PLANO, IL 60545

TELEPHONE: 815-833-2054
E-MAIL: cdonahue@att.com

DEKORRA UTILITY DISTRICT 1
SEWER

ATTN: MR. JERRY FOELLMI
916 SILVER LAKE DRIVE
P.O. BOX 340
PORTAGE, WI 53901

TELEPHONE: 608-742-2169
E-MAIL: jfoellmi@generalengineering.net
-NON DIGGERS HOTLINE MEMBER

WISCONSIN DEPARTMENT OF TRANSPORTATION
COMMUNICATION

ATTN: MR. MIKE ADAMS
P.O. BOX 7986
MADISON, WI 53532

TELEPHONE: 608-266-5004
E-MAIL: michael.adams@dot.wi.gov

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

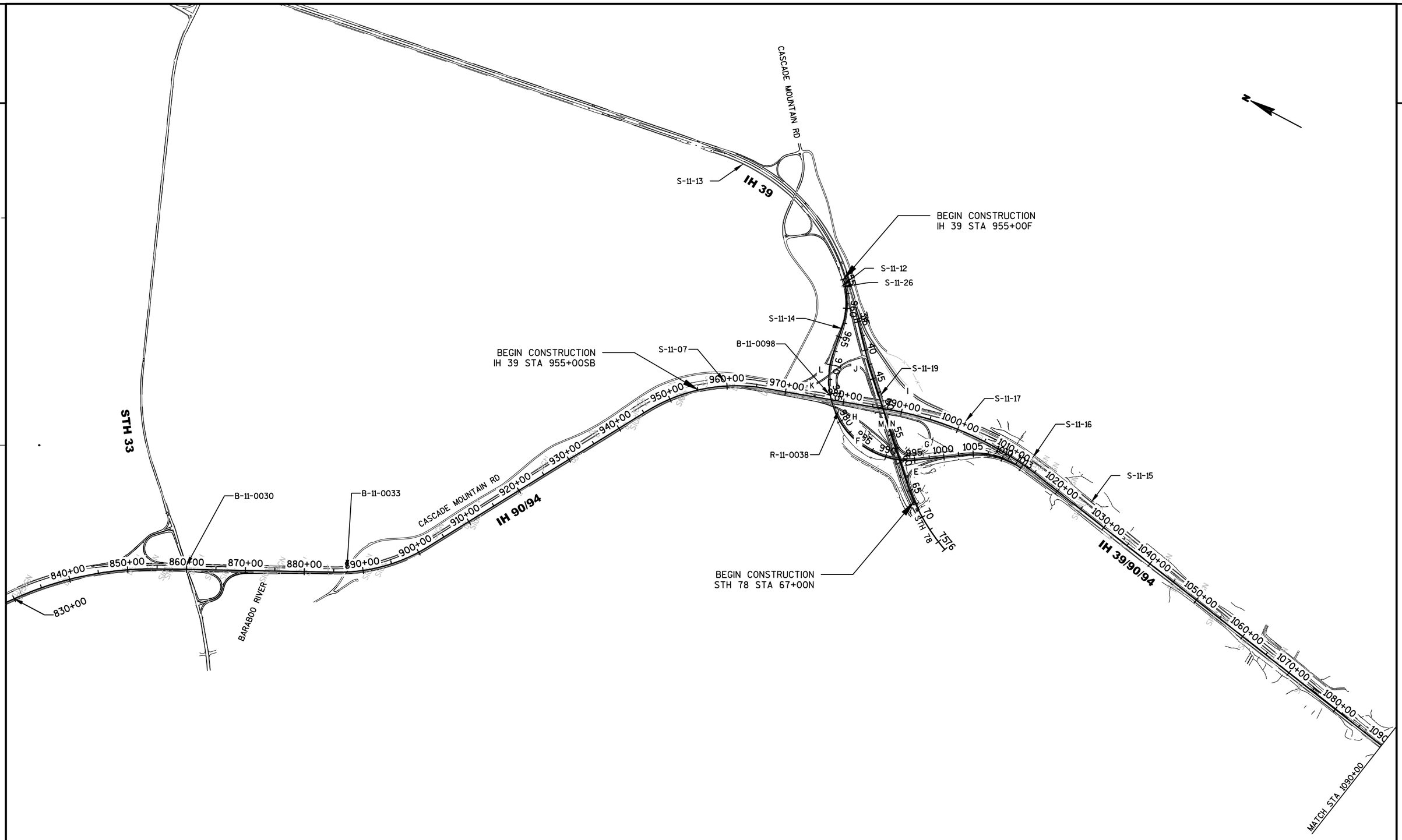
PROJECT NO:1010-02-85	HWY: IH 39	COUNTY: COLUMBIA	GENERAL NOTES	SHEET 2	E

FILE NAME : X:\3230900\131208.01\TECH\CAD\10100202\SHEETSPLAN\CONSTRUCTION PROJECT 2, 1010-02-85\020101_GN.DWG PLOT DATE : 4/24/2017 1:12 PM PLOT BY : TIMOTHY VELTE PLOT NAME : ---------- PLOT SCALE : 1" = 1'

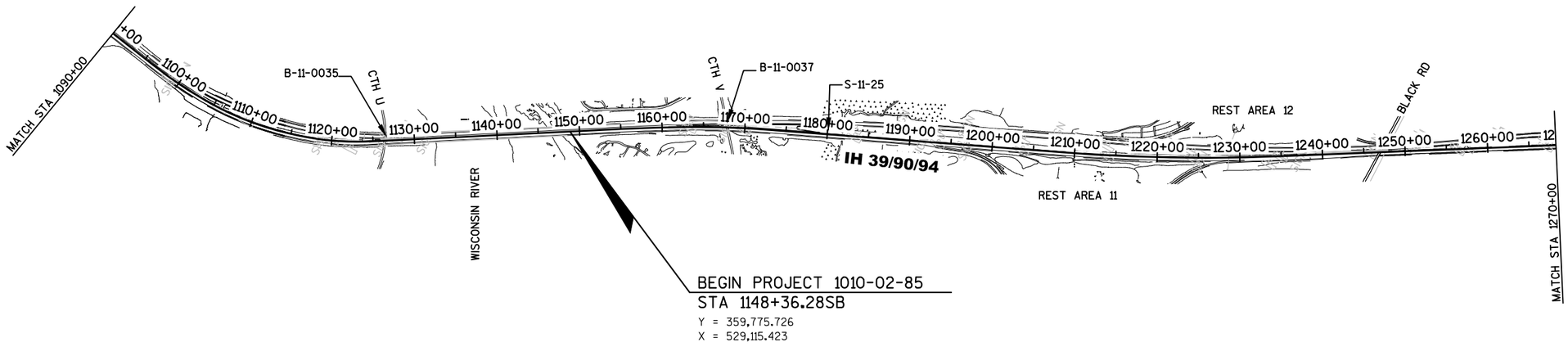
STANDARD ABBREVIATIONS

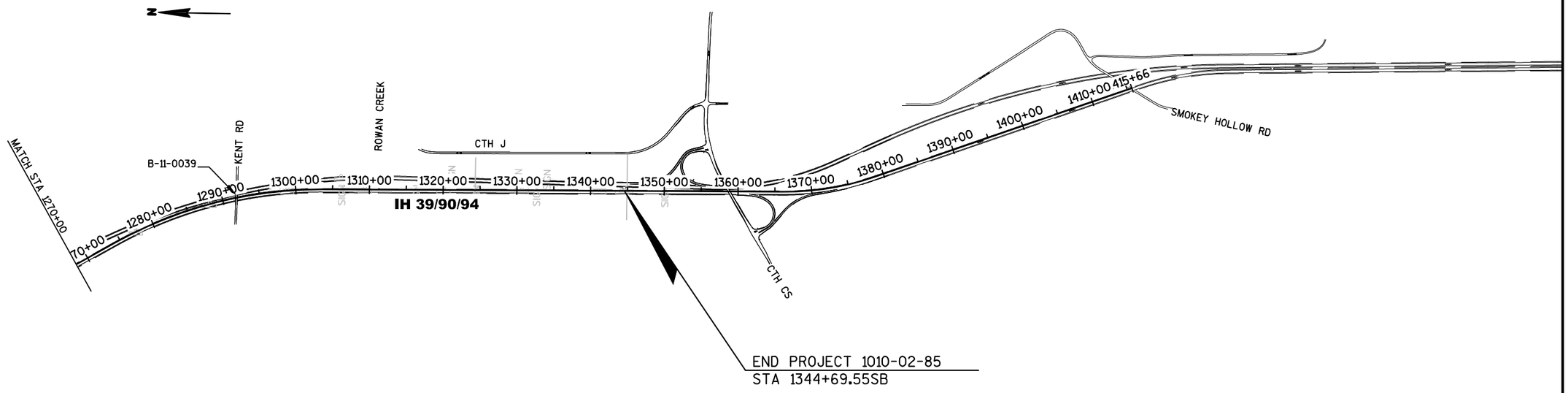
ABUT	ABUTMENT
AP	ACCESS POINT
AR	ACCESS RIGHTS
AC	ACRE
AGG	AGGREGATE
AH	AHEAD
ET AL	AND OTHERS
∠	ANGLE
ASPH	ASPHALTIC
APM	ASPHALTIC PLANT MIX
AVG	AVERAGE
AADT	ANNUAL AVERAGE DAILY TRAFFIC
BK	BACK
BF	BACK FACE
BL or B/L	BASE LINE
BM	BENCH MARK
BLK	BLOCK
BR	BRIDGE
CB	CATCH BASIN
CL or C/L	CENTER LINE
CC	CENTER TO CENTER
	CENTRAL ANGLE OR DELTA
CH	CHORD
CH BRG	CHORD BEARING
CE	COMMERCIAL ENTRANCE
CONC	CONCRETE
CB#	CONTROL BASE
CORR	CORRUGATED
CACP	CORRUGATED ALUMINUM CULVERT PIPE
CAPA	CORRUGATED ALUMINUM PIPE ARCH
CSCP	CORRUGATED STEEL CULVERT PIPE
CSPA	CORRUGATED STEEL PIPE ARCH
CSPCP	CORRUGATED STEEL PIPE CATTLE PASS
CO	COUNTY
CTH	COUNTY TRUNK HIGHWAY
CR	CREEK
CR	CRUSHED
CABC	CRUSHED AGGREGATE BASE COURSE
CY or CUYD	CUBIC YARD
CULV	CULVERT
CP	CULVERT PIPE
CG	C & G CURB AND GUTTER
D	DEGREE OF CURVE
DHV	DESIGN HOUR VOLUME
DIA	DIAMETER
DD	DIRECTIONAL DISTRIBUTION
DISCH	DISCHARGE
DIST	DISTRICT
DG	DITCH GRADE
DOC	DOCUMENT
DWY	DRIVEWAY
E	EAST
X	EAST GRID COORDINATE
EB	EASTBOUND
ELEC	ELECTRIC (AL)
EL or ELEV	ELEVATION
EMB	EMBANKMENT
EVP	EMERGENCY VEHICLE PREEMPT
EVPR	EMERGENCY VEHICLE PREEMPT RECEIVER
EW	ENDWALL
ENT	ENTRANCE
ESALS	EQUIVALENT SINGLE AXLE LOADS
EXC	EXCAVATION
EBS	EXCAVATION BELOW SUBGRADE
EX or EXIST	EXISTING
FL or F/L	FLOW LINE
FT	FOOT
FTG	FOOTING
FDN	FOUNDATION
FTMS	FREEWAY TRAFFIC MANAGEMENT SYSTEM
G	GARAGE
GN	GRID NORTH
EXP	EXPANSION
FF	FACE TO FACE OR FRONT FACE
FP	FENCE POST
FERT	FERTILIZE
FE	FIELD ENTRANCE
F	FILL
FG	FINISH GRADE
FAB	FLASHING ARROW BOARD
HES	HIGH EARLY STRENGTH
H	HOUSE
HYD	HYDRANT
IN DIA	INCH DIAMETER
INTERS	INTERSECTION
INV	INVERT
IP	IRON PIPE OR PIN
JT	JOINT
JCT	JUNCTION
LT	LEFT
LHF	LEFT-HAND FORWARD
L	LENGTH OF CURVE
LIN FT or LF	LINEAR FOOT
LC	LONG CHORD OF CURVE
LS	LUMP SUM
MAINT	MAINTENANCE
MH	MANHOLE
MP	MARKER POST
M	MARSH
ML or M/L	MATCH LINE
MATL	MATERIAL
MB	MESSAGE BOARD
NOM	NOMINAL
NRCPSS	NON REINFORCED CONCRETE PIPE STORM SEWER
NC	NORMAL CROWN
NW or N/W	NORMAL WATER
N	NORTH
Y	NORTH GRID COORDINATE
NB	NORTHBOUND
NO	NUMBER
OBLIT	OBLITERATE
OL	OUT LOT
OD	OUTSIDE DIAMETER
PAVT	PAVEMENT
PERM	PERMANENT
PLE	PERMANENT LIMITED EASEMENT
PU	PIPE UNDERDRAIN
PUDT	PIPE UNDERDRAIN DRAIN
PUU	PIPE UNDERDRAIN UNPERFORATED
PT	POINT
PCC	POINT OF COMPOUND CURVE
PC	POINT OF CURVATURE
PI	POINT OF INTERSECTION
PT	POINT OF TANGENCY
PVC	POLYVINYL CHLORIDE
PCC	PORTLAND CEMENT CONCRETE
LB Pound	LB POUND
PSI	POUNDS PER SQUARE INCH
PE	PRIVATE ENTRANCE
PROJ	PROJECT
PL	PROPERTY LINE
R	RADIUS
RP	RADIUS POINT
RR	RAILROAD
RM	RAMP METER
R	RANGE
RECY	RECYCLED
RL or R/L	REFERENCE LINE
RP	REFERENCE POINT
RCCP	REINFORCED CONCRETE CULVERT PIPE
CP	CULVERT PIPE
RCHECP	REINFORCED CONCRETE HORIZONTAL ELLIPTICAL CULVERT PIPE
RCPA	REINFORCED CONCRETE PIPE ARCH
RCPCP	REINFORCED CONCRETE PIPE CATTLE PASS
RCPSS	REINFORCED CONCRETE PIPE STORM SEWER
REBAR	REINFORCEMENT BAR
REINF	REINFORCING OR REINFORCEMENT
REL	RELOCATE (D)
REM	REMAINING
REQD	REQUIRED
RES	RESIDENCE OR RESIDENTIAL
RW	RETAINING WALL
RT	RIGHT
RHF	RIGHT-HAND FORWARD
R/W	RIGHT-OF-WAY
R	RIVER
RD	ROAD
RDWY	ROADWAY
SALV	SALVAGED
SSS	SANITARY AND STORM SEWER
SAN S	SANITARY SEWER
SEC	SECTION
SHLDR	SHOULDER
SHR	SHRINKAGE
SW	SIDEWALK
SB#	SIGNAL BASE
S	SOUTH
SB	SOUTHBOUND
SP	SPECIAL
SC	SPECIAL CROSSING
SPECS	SPECIFICATIONS
SQ	SQUARE
SF or SQ FT	SQUARE FEET
SY or SQ YD	SQUARE YARD
STD	STANDARD
SDD	STANDARD DETAIL DRAWINGS
STH	STATE TRUNK HIGHWAYS
STA	STATION
SS	STORM SEWER
SE	SUPERELEVATION
SURF	SURFACE
T	TANGENT
TEL	TELEPHONE
TEMP	TEMPORARY
TI	TEMPORARY INTEREST
TLE	TEMPORARY LIMITED EASEMENT
TPM	TEMPORARY PAVEMENT MARKING
TPMRT	TEMPORARY PAVEMENT MARKING REMOVABLE TAPE
†	TON
TC	TOP OF CURB
T or TN	TOWN
TRANS	TRANSITION
TL or T/L	TRANSIT LINE
T	TRUCKS (PERCENT OF)
TYP	TYPICAL
UG	UNDERGROUND
USH	UNITED STATES HIGHWAY
VAR	VARIABLE
V	VELOCITY OR DESIGN SPEED
VERT	VERTICAL
VC	VERTICAL CURVE
VPCC	VERTICAL POINT OF COMPOUND
Curve	CURVE
VPC	VERTICAL POINT OF CURVE
VPI	VERTICAL POINT OF INTERSECTION
VPRC	VERTICAL POINT OF REVERSE CURVE
VPT	VERTICAL POINT OF TANGENCY
VIT	VITRIFIED
VOL	VOLUME
W	WATER
WM	WATER MAIN
WV	WATER VALVE
W	WELL
W	WEST
WB	WESTBOUND
YD	YARD

2

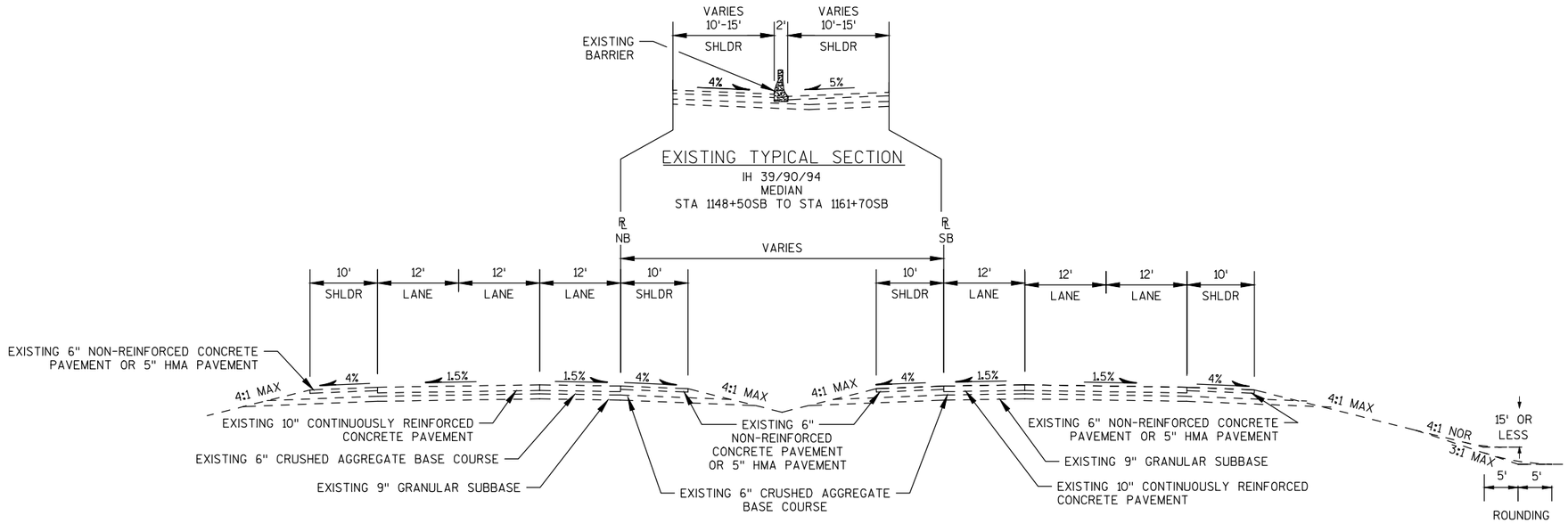


PROJECT NO: 1010-02-85	HWY: IH 39	COUNTY: COLUMBIA	PROJECT OVERVIEW	SHEET 4	E





PROJECT NO: 1010-02-85	HWY: IH 39	COUNTY: COLUMBIA	PROJECT OVERVIEW	SHEET 5	E



EXISTING TYPICAL SECTION

IH 39/90/94
MEDIAN
STA 1148+50SB TO STA 1161+70SB

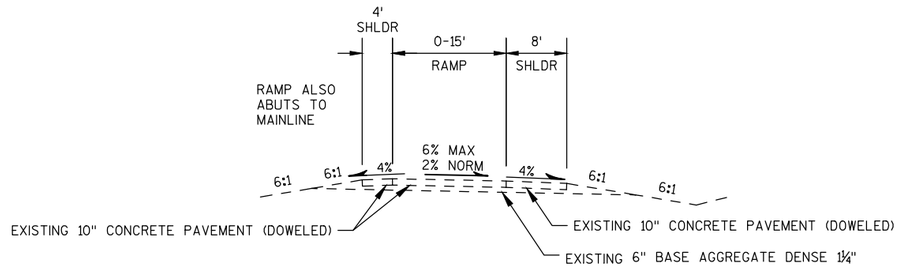
EXISTING TYPICAL SECTION

IH 39/90/94
STA 1167+23NB TO STA 1345+28NB

IH 39/90/94
STA 1148+36SB TO STA 1344+69SB

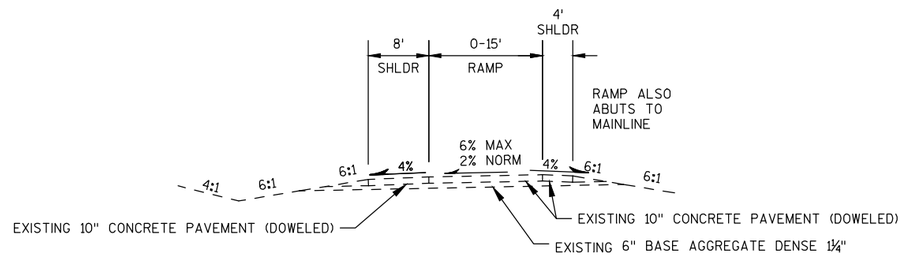
PROJECT NO: 1010-02-85	HWY: IH 39	COUNTY: COLUMBIA	TYPICAL SECTIONS	SHEET 6	E

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WISDOT/CADDS SHEET 42



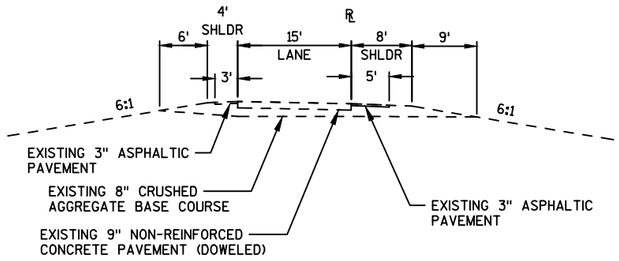
EXISTING TYPICAL SECTION

REST AREA 11 RAMPS
STA 1191+35SB TO STA 1196+33SB
STA 1227+26SB TO STA 1245+08SB
STATIONING REFERS TO MAINLINE



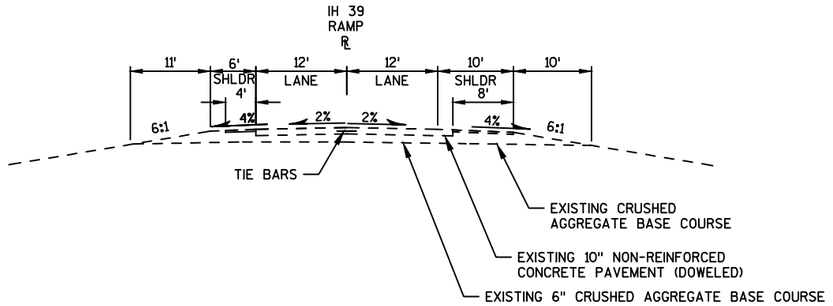
EXISTING TYPICAL SECTION

REST AREA 12 RAMPS
STA 1205+05NB TO STA 1218+98NB
STA 1250+30NB TO STA 1246+65NB
STATIONING REFERS TO MAINLINE



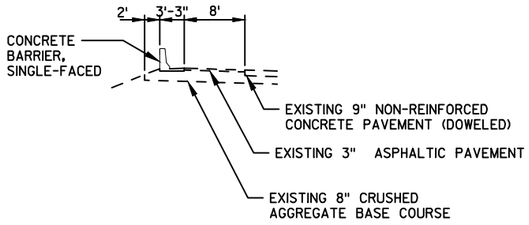
EXISTING TYPICAL SECTION
SINGLE LANE INTERCHANGE RAMPS

STA 10+00E TO STA 20+98E
STA 976+00H TO STA 991+44H
STA 968+78K TO STA 984+31K (SECTION REVERSED)
STA 978+00L TO STA 991+00L (SECTION REVERSED)



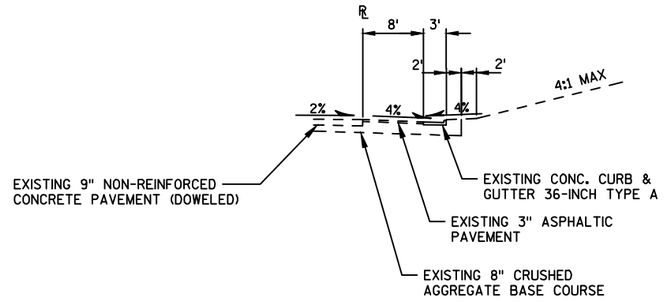
EXISTING TYPICAL SECTION
IH 39 NB & IH 39 SB

STA 955+00F TO STA 1013+58F
STA 967+50 I TO STA 998+50 I (SECTION REVERSED)



EXISTING TYPICAL SECTION WITH CONCRETE BARRIER

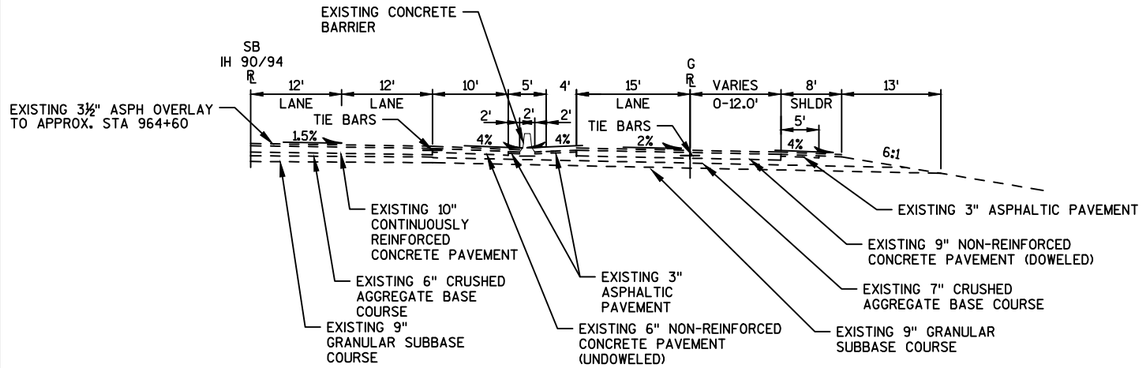
STA 976+00H TO STA 978+50H, LT



EXISTING PARTIAL TYPICAL SECTION WITH CONCRETE CURB & GUTTER

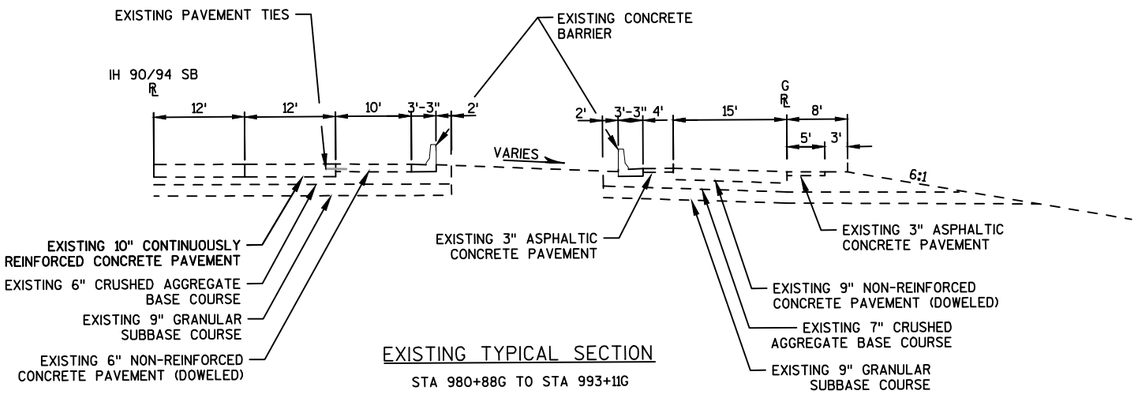
STA 976+00H TO STA 981+40H RT

PROJECT NO: 1010-02-85	HWY: IH 39	COUNTY: COLUMBIA	TYPICAL SECTIONS	SHEET 8	E



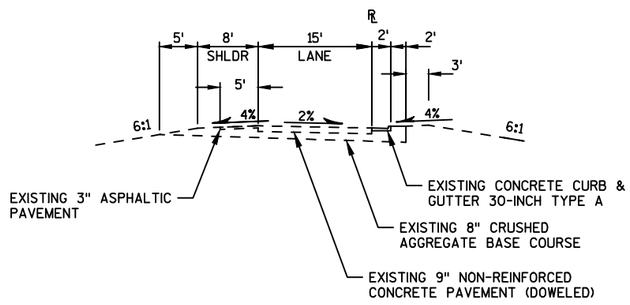
EXISTING TYPICAL SECTION

STA 963+06G TO STA 980+88G



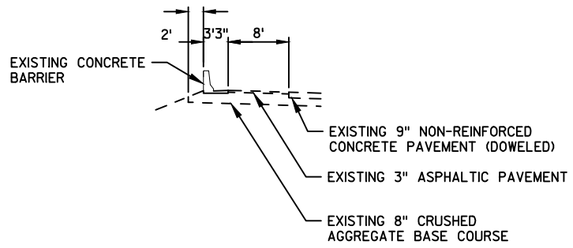
EXISTING TYPICAL SECTION

STA 980+88G TO STA 993+11G



EXISTING TYPICAL SECTION
SINGLE LANE LOOP RAMPS

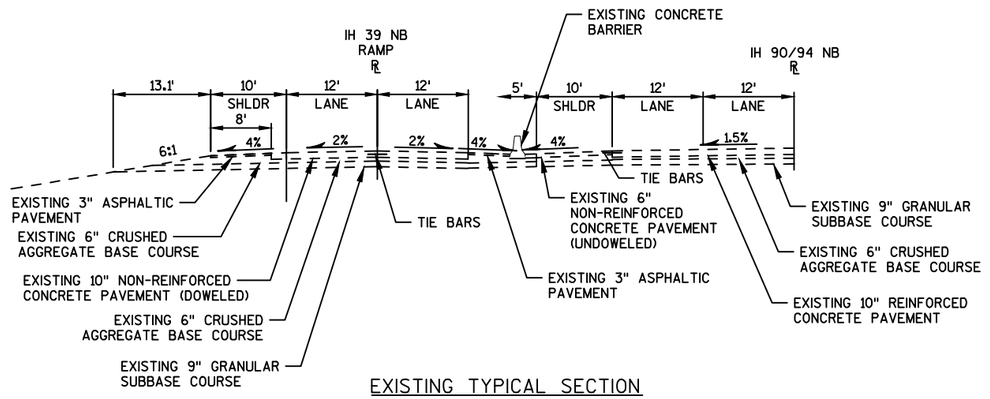
STA 993+11G TO STA 1004+75G
STA 970+20J TO STA 980+84J (SECTION REVERSED)



EXISTING PARTIAL TYPICAL SECTION
WITH CONCRETE BARRIER

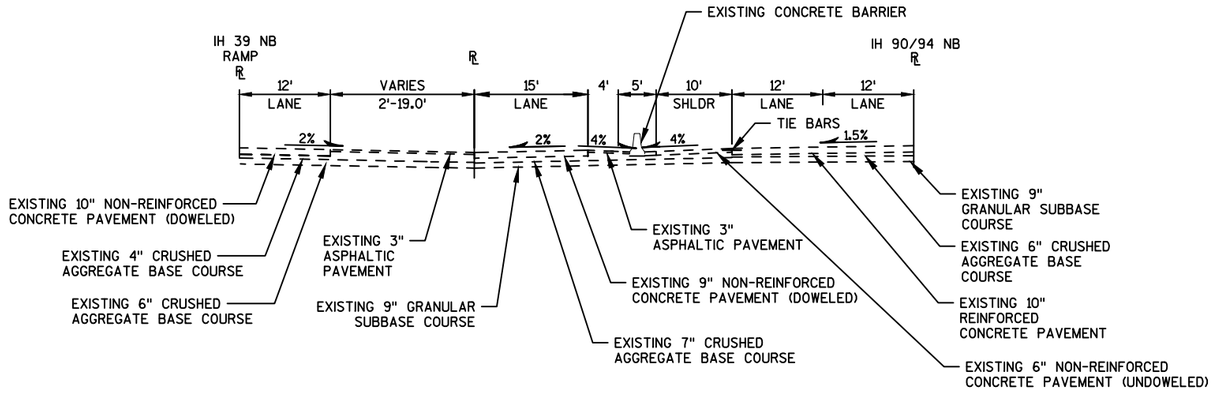
STA 1000+00G TO STA 1003+00G LT
STA 974+50J TO STA 975+00J RT

PROJECT NO: 1010-02-85	HWY: IH 39	COUNTY: COLUMBIA	TYPICAL SECTIONS	SHEET 9	E



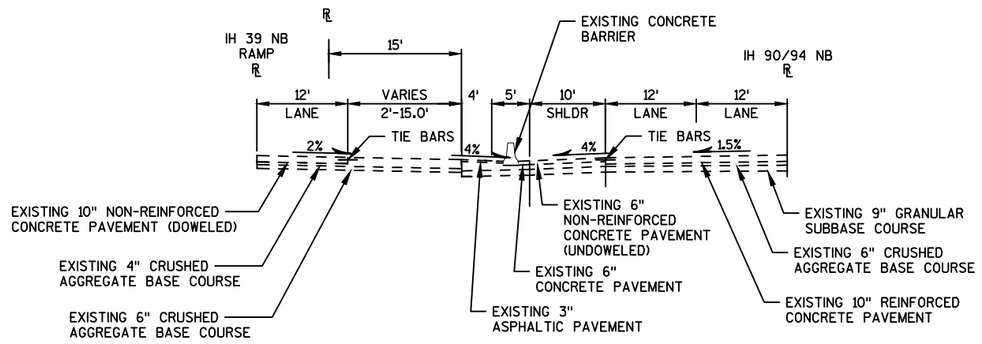
EXISTING TYPICAL SECTION

STA 1003+48 I TO STA 1011+80 I



EXISTING PARTIAL TYPICAL SECTION
GORE SECTION

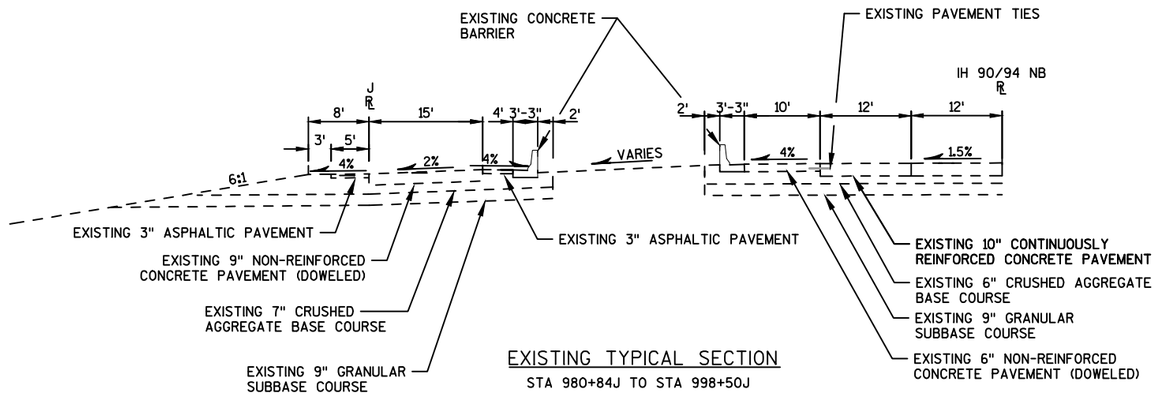
STA 998+50 I TO STA 1000+56 I
STA 998+50J TO STA 1000+71J



EXISTING PARTIAL TYPICAL SECTION

STA 1000+56 I TO STA 1003+48 I
STA 1000+71J TO STA 1003+62J

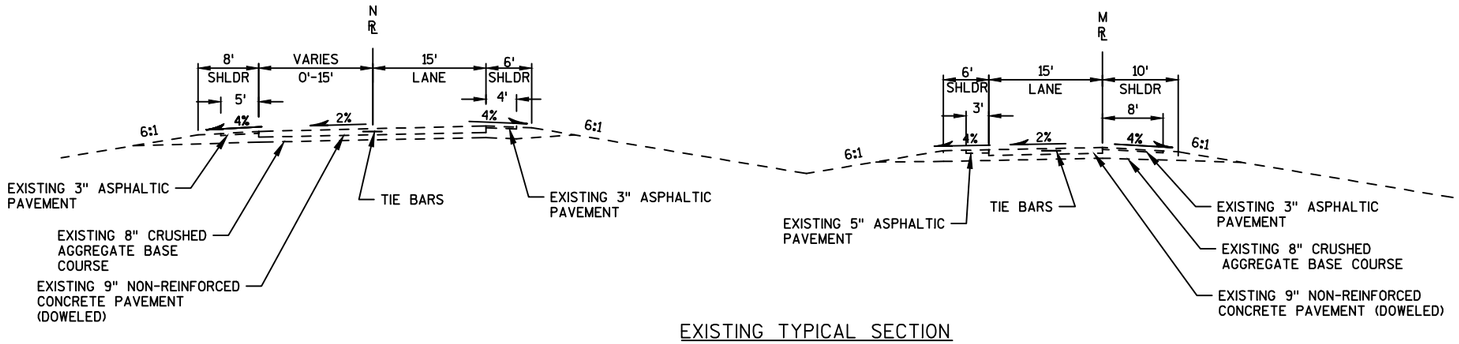
PROJECT NO: 1010-02-85	HWY: IH 39	COUNTY: COLUMBIA	TYPICAL SECTIONS	SHEET 10	E



EXISTING TYPICAL SECTION

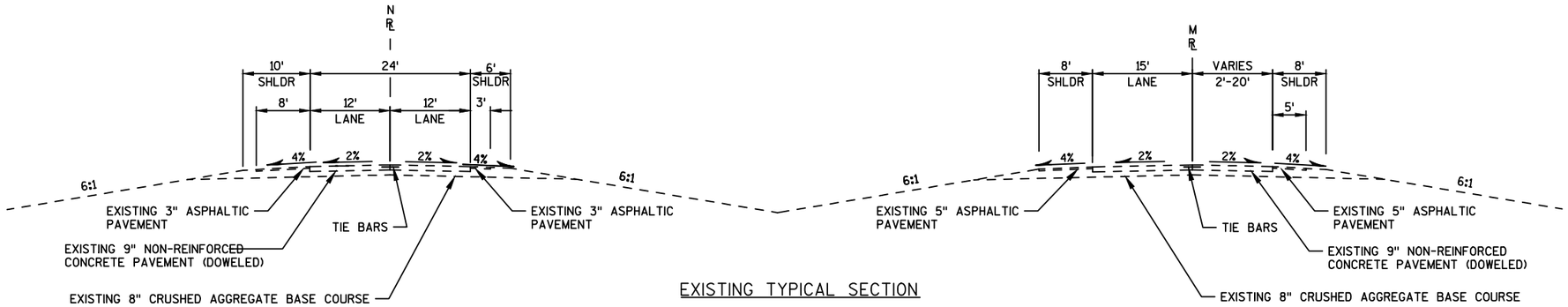
STA 980+84J TO STA 998+50J

PROJECT NO: 1010-02-85	HWY: IH 39	COUNTY: COLUMBIA	TYPICAL SECTIONS	SHEET 11	E



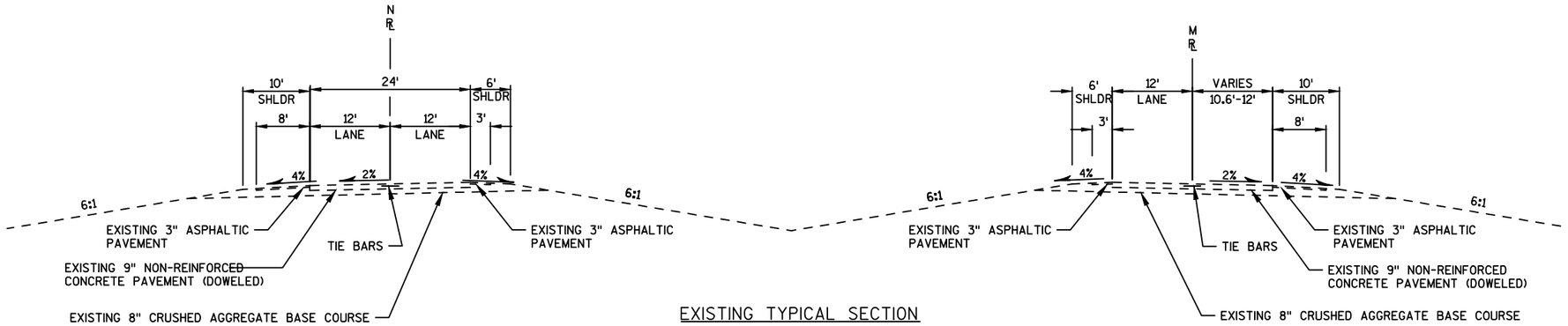
EXISTING TYPICAL SECTION

STH 78
STA 31+50M TO STA 44+23M
STA 31+53N TO STA 40+75N



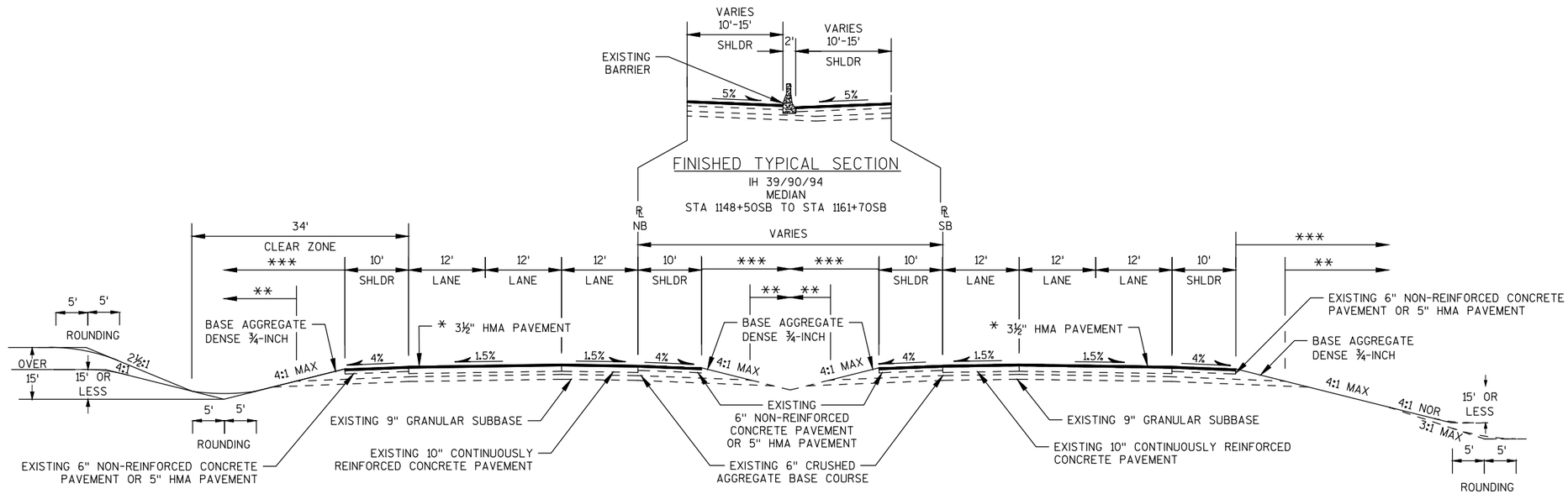
EXISTING TYPICAL SECTION

STH 78
STA 44+23M TO STA 62+15M
STA 40+75N TO STA 62+14N



EXISTING TYPICAL SECTION

STH 78
STA 62+15M TO STA 73+80M
STA 62+14N TO STA 73+68N



FINISHED TYPICAL SECTION

IH 39/90/94
MEDIAN
STA 1148+50SB TO STA 1161+70SB

FINISHED TYPICAL SECTION

IH 39/90/94
STA 1167+23NB TO STA 1345+28NB

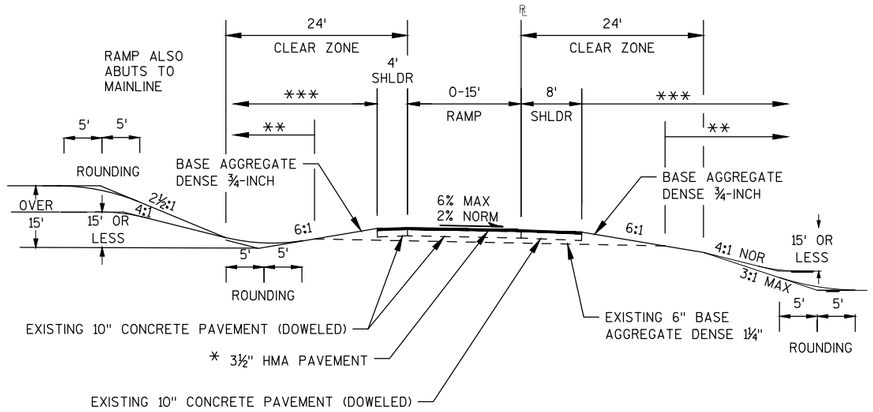
IH 39/90/94
STA 1148+36SB TO STA 1344+69SB

* HMA PAVEMENT TO CONSIST OF:
1¾" 4 HT 58-28 S LOWER LIFT
1¾" 4 HT 58-28 H UPPER LIFT

** SALVAGED TOPSOIL, EROSION MAT CLASS I, TYPE A

*** SEEDING MIXTURE NO. 30, FERTILIZER TYPE B

PROJECT NO: 1010-02-85	HWY: IH 39	COUNTY: COLUMBIA	TYPICAL SECTIONS	SHEET 13	E



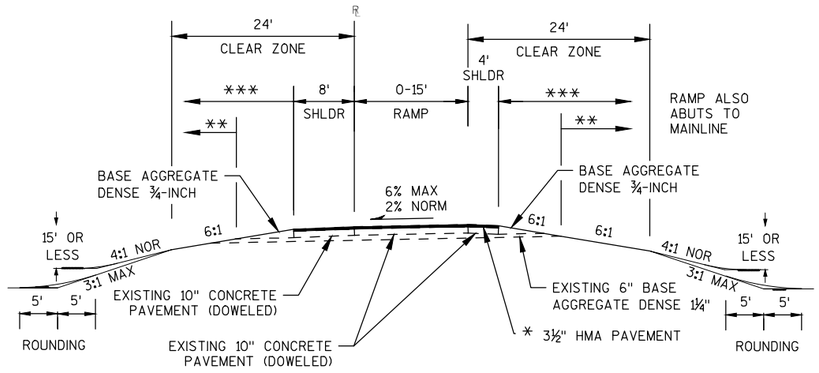
FINISHED TYPICAL SECTION

REST AREA 11 RAMPS
STA 1191+35SB TO STA 1196+32SB
STA 1227+26SB TO STA 1239+93SB
STATIONING REFERS TO MAINLINE

* HMA PAVEMENT TO CONSIST OF:
1¾" 4 HT 58-28 S LOWER LIFT
1¾" 4 HT 58-28 H UPPER LIFT

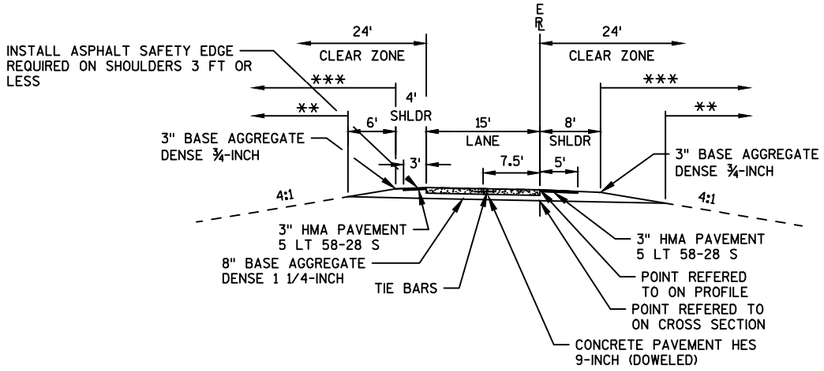
** SALVAGED TOPSOIL, EROSION MAT CLASS I, TYPE A

*** SEEDING MIXTURE NO. 30, FERTILIZER TYPE B



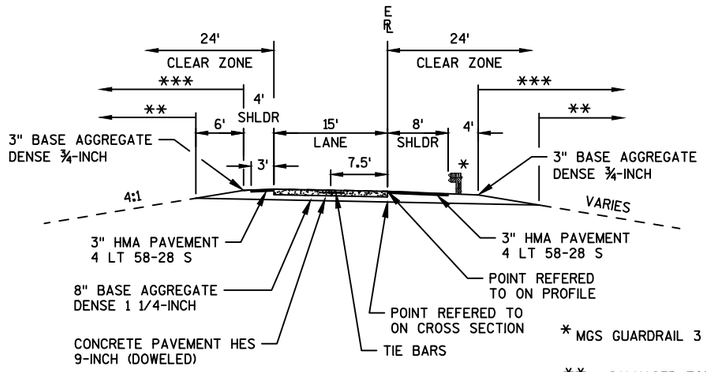
FINISHED TYPICAL SECTION

REST AREA 12 RAMPS
STA 1205+05NB TO STA 1218+98NB
STA 1250+30NB TO STA 1246+65NB
STATIONING REFERS TO MAINLINE



FINISHED TYPICAL SECTION

STA 10+58E TO STA 16+54E



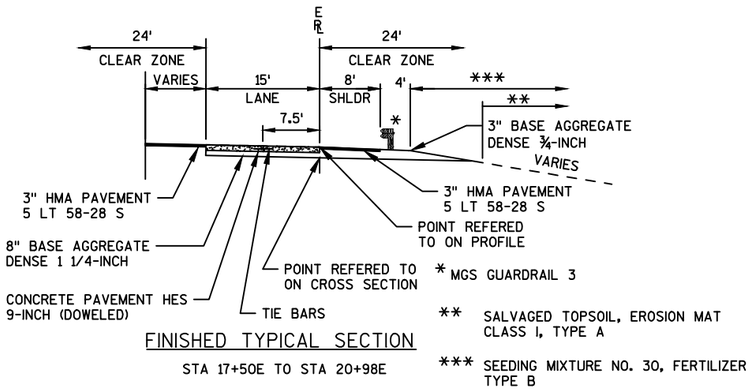
FINISHED TYPICAL SECTION

STA 16+54E TO STA 17+50E

* MGS GUARDRAIL 3

** SALVAGED TOPSOIL, EROSION MAT CLASS I, TYPE A

*** SEEDING MIXTURE NO. 30, FERTILIZER TYPE B



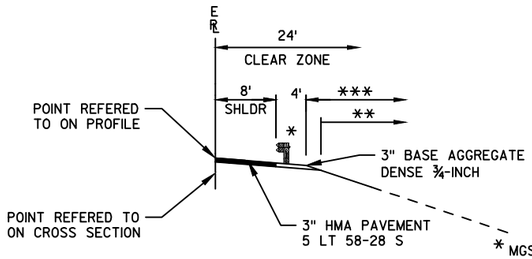
FINISHED TYPICAL SECTION

STA 17+50E TO STA 20+98E

* MGS GUARDRAIL 3

** SALVAGED TOPSOIL, EROSION MAT CLASS I, TYPE A

*** SEEDING MIXTURE NO. 30, FERTILIZER TYPE B



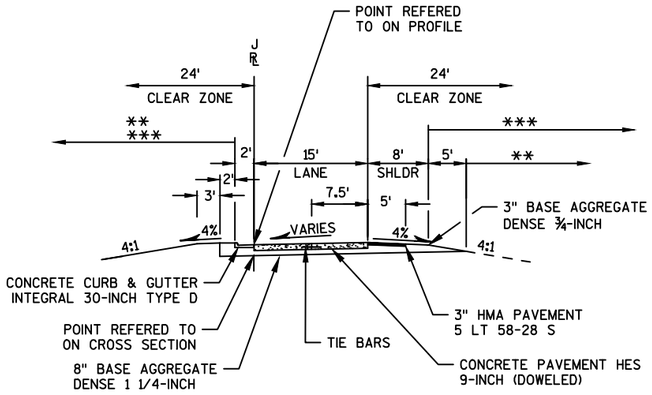
FINISHED TYPICAL SECTION

STA 20+98E TO STA 22+46E

* MGS GUARDRAIL 3

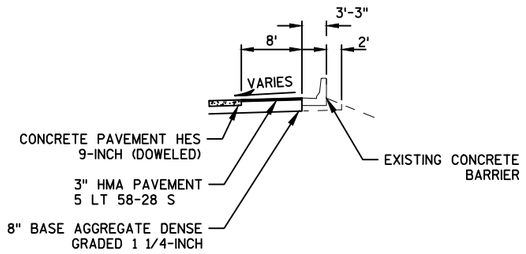
** SALVAGED TOPSOIL, EROSION MAT CLASS I, TYPE A

*** SEEDING MIXTURE NO. 30, FERTILIZER TYPE B



FINISHED TYPICAL SECTION SINGLE LANE LOOP RAMPS

STA 971+59J TO STA 974+01J
STA 976+01J TO STA 980+84J

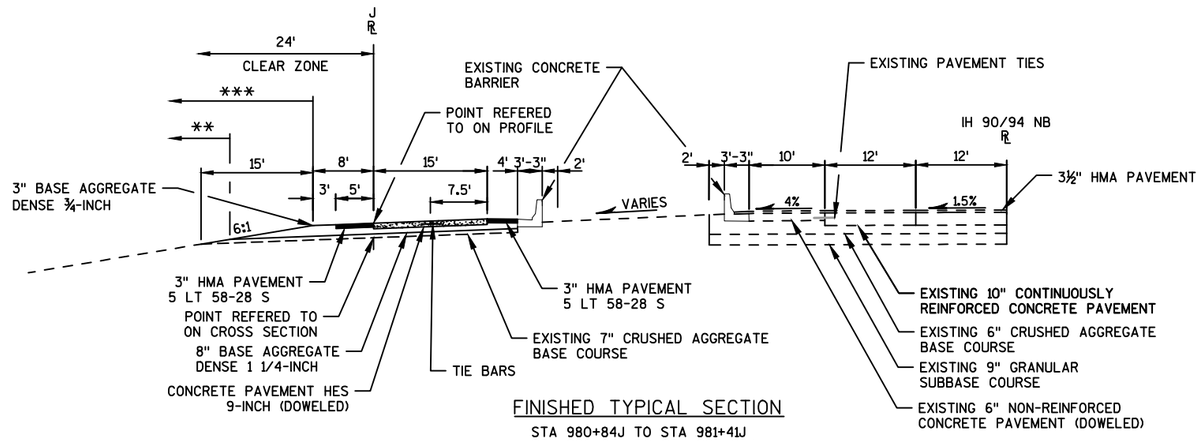


FINISHED PARTIAL TYPICAL SECTION
WITH CONCRETE BARRIER

STA 974+01J TO STA 976+01J RT

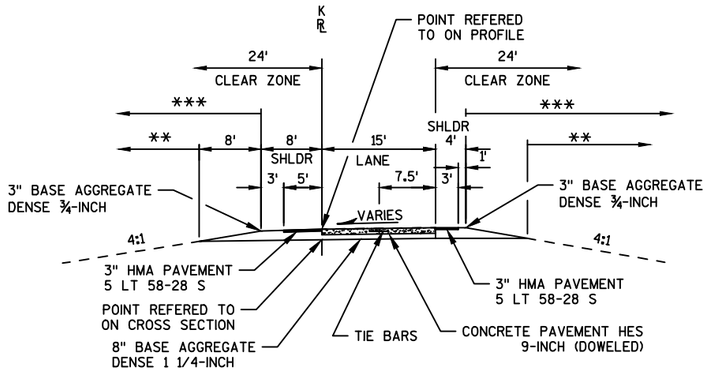
** SALVAGED TOPSOIL, EROSION MAT CLASS I, TYPE A

*** SEEDING MIXTURE NO. 30, FERTILIZER TYPE B



FINISHED TYPICAL SECTION

STA 980+84J TO STA 981+41J
STA 990+03J TO STA 993+03J

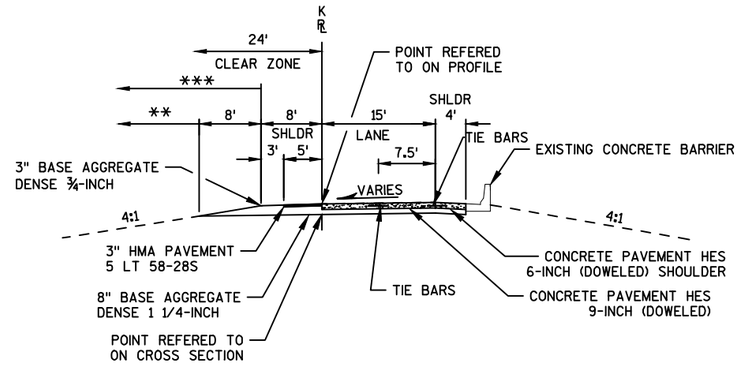


FINISHED TYPICAL SECTION

STA 974+91K TO STA 977+38K
STA 982+18K to STA 982+85K

** SALVAGED TOPSOIL, EROSION MAT CLASS I, TYPE A

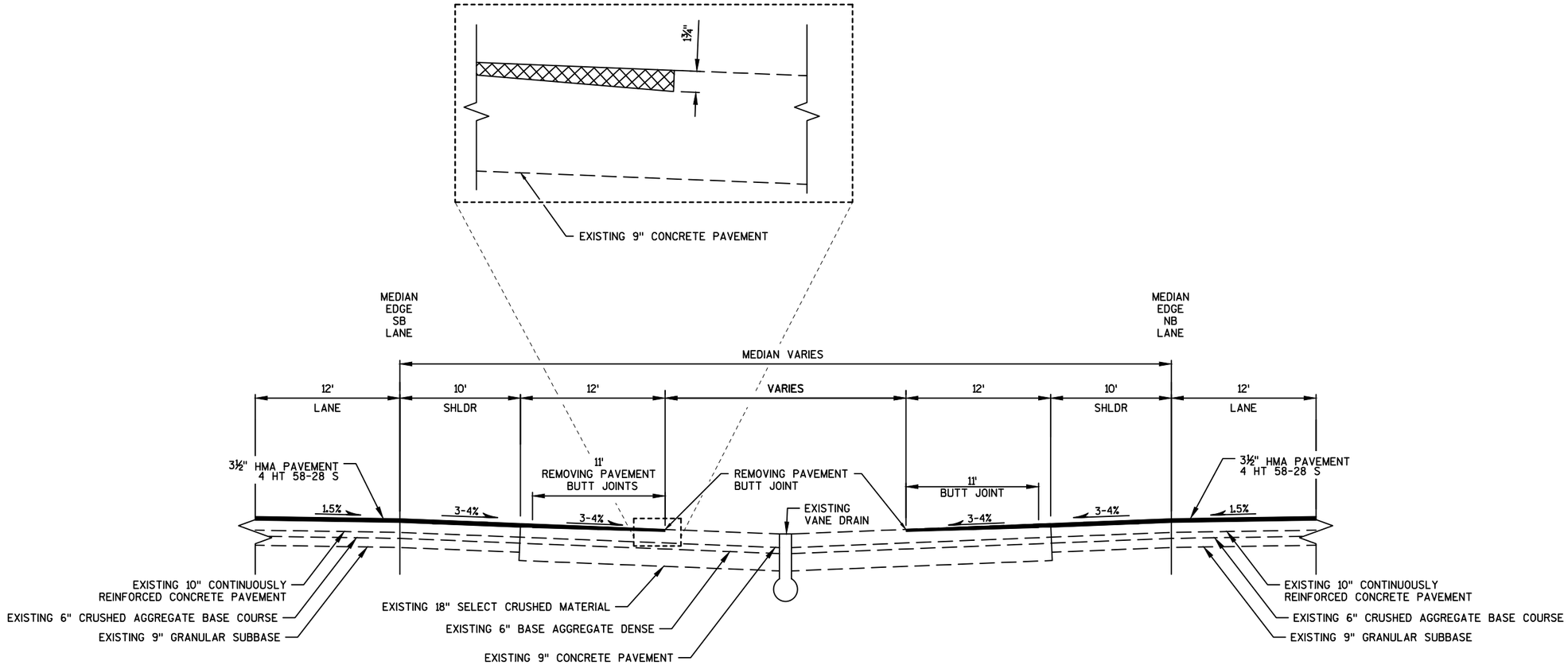
*** SEEDING MIXTURE NO. 30, FERTILIZER TYPE B



FINISHED TYPICAL SECTION

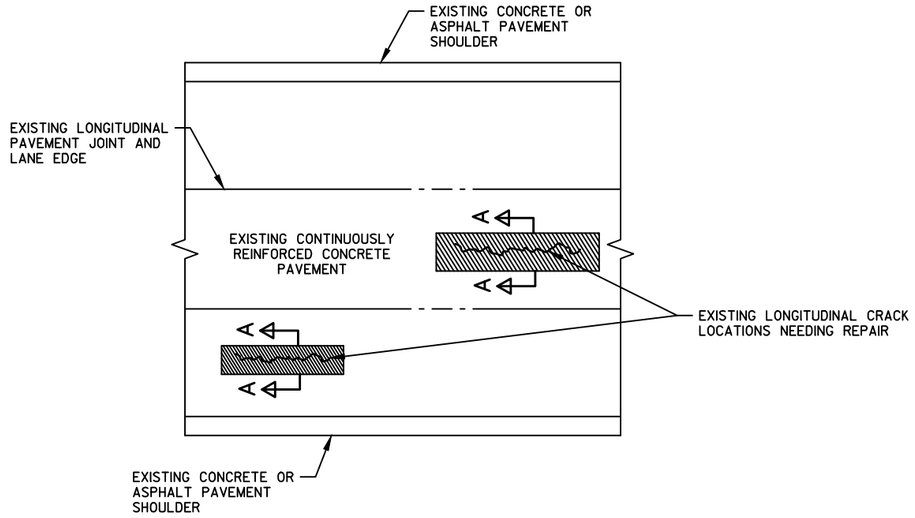
STA 977+38K TO STA 982+18K

PROJECT NO: 1010-02-85	HWY: IH 39	COUNTY: COLUMBIA	TYPICAL SECTIONS	SHEET 17	E

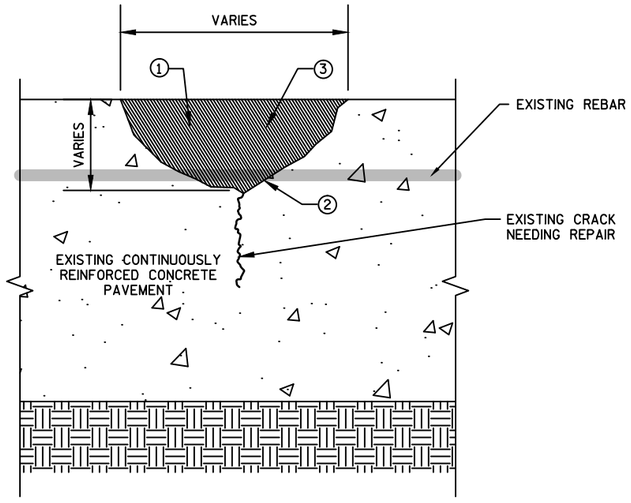


DETAIL OF PROPOSED PAVING AT EXISTING CROSS OVER

STA 1170+01SB TO STA 1179+08SB
STA 1169+31NB TO STA 1179+70NB



PLAN VIEW

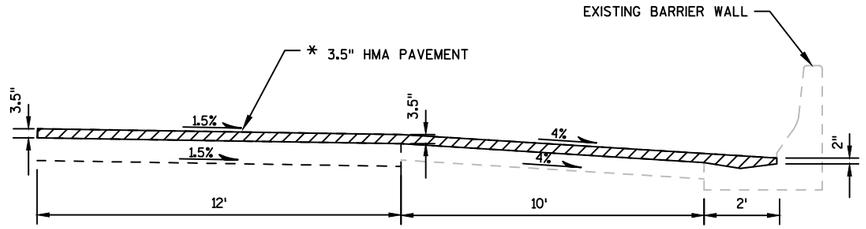


SECTION A-A

1. REMOVE ALL UNSOUND AND DETERIORATED MATERIAL.
2. BLOW OUT REPAIR AREAS WITH 80 PSI MINIMUM COMPRESSED AIR.
3. ASPHALTIC SURFACE WITH TACK COAT. (INCIDENTAL)

DETAIL OF CLEAN AND FILL CRACK TREATMENT

* HMA PAVEMENT TO CONSIST OF:
1¾" 4 HT 58-28 S LOWER LIFT
1¾" 4 HT 58-28 H UPPER LIFT

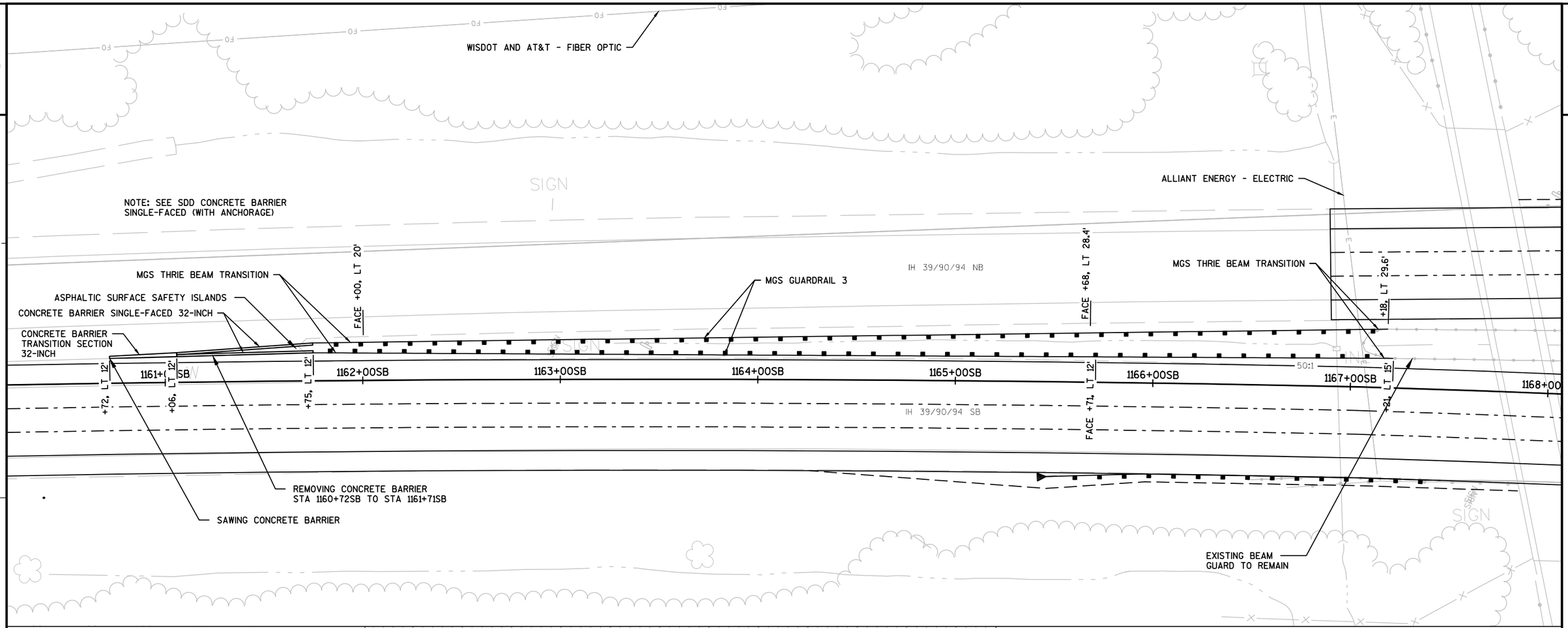


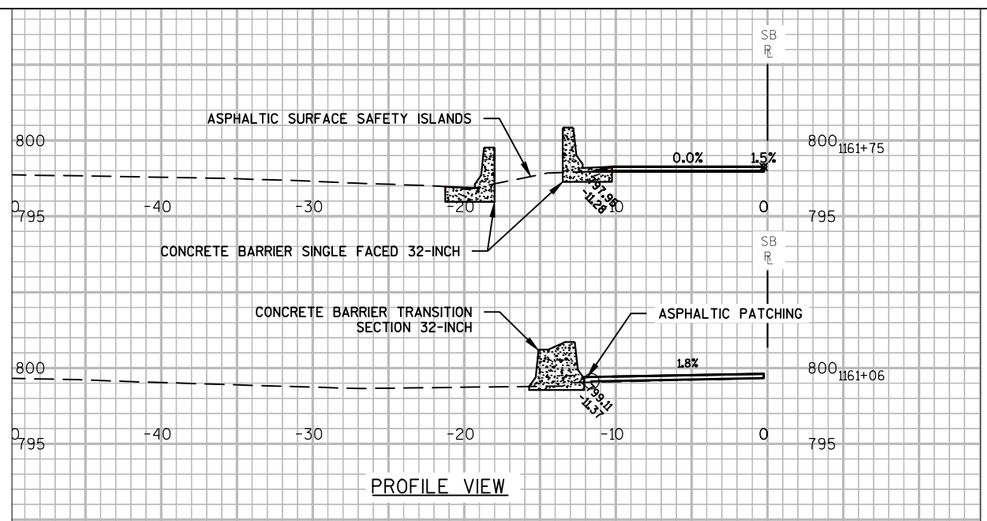
DETAIL OF PROPOSED SHOULDER PAVING AT EXISTING BARRIER WALL WITH 10' SHOULDERS

RUNOFF COEFFICIENT TABLE

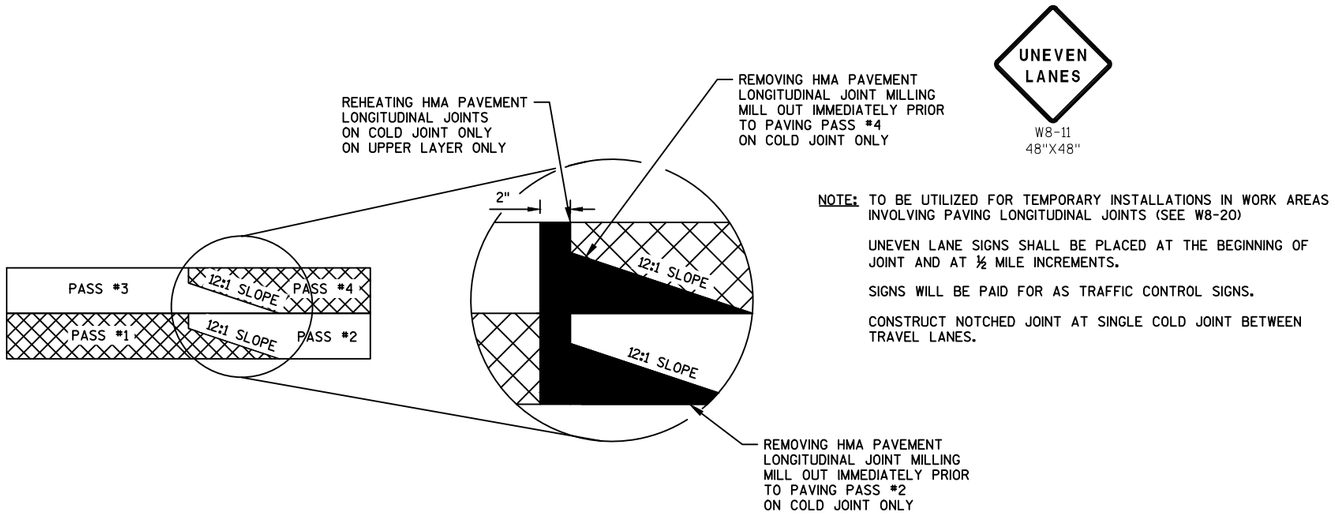
	HYDROLOGIC SOIL GROUP											
	A			B			C			D		
	SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)		
LAND USE:	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER
ROW CROPS	.08 .22	.16 .30	.22 .38	.12 .26	.20 .34	.27 .44	.15 .30	.24 .37	.33 .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 = 8 ACRES
TOTAL AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES = 8 ACRES





PROJECT NO: 1010-02-85	HWY: IH 39	COUNTY: COLUMBIA	CONSTRUCTION DETAILS	SHEET 21	E



W8-11
48"X48"

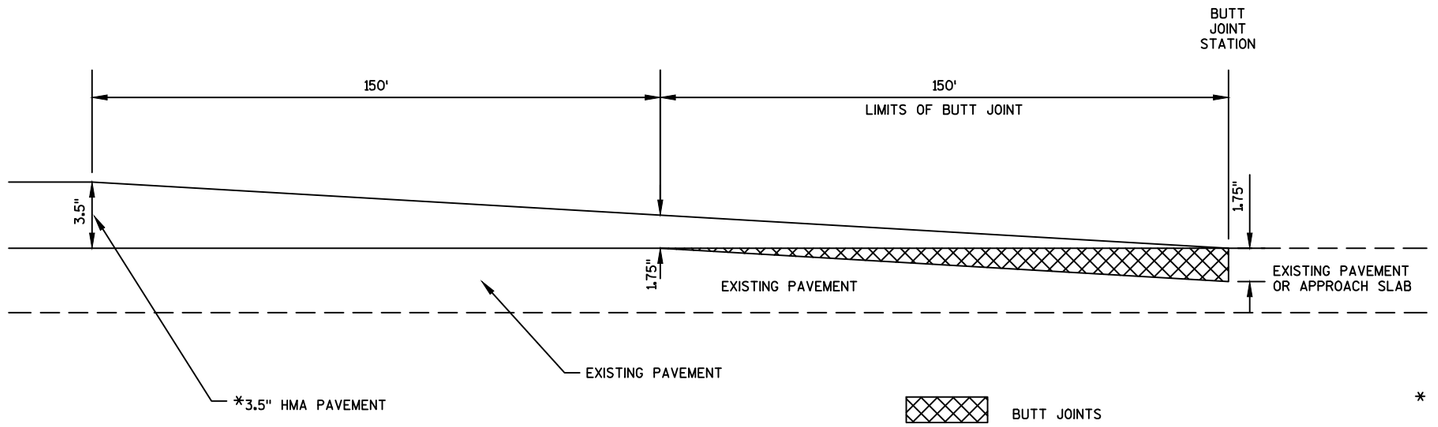
NOTE: TO BE UTILIZED FOR TEMPORARY INSTALLATIONS IN WORK AREAS INVOLVING PAVING LONGITUDINAL JOINTS (SEE W8-20)

UNEVEN LANE SIGNS SHALL BE PLACED AT THE BEGINNING OF JOINT AND AT ½ MILE INCREMENTS.

SIGNS WILL BE PAID FOR AS TRAFFIC CONTROL SIGNS.

CONSTRUCT NOTCHED JOINT AT SINGLE COLD JOINT BETWEEN TRAVEL LANES.

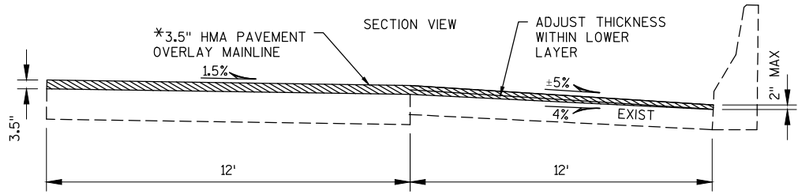
DETAIL OF TYPICAL PAVEMENT CROSS SECTIONS OF TAPERED & NOTCHED LONGITUDINAL JOINTS



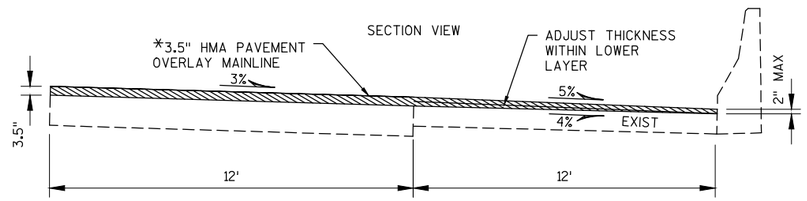
* HMA PAVEMENT TO CONSIST OF:
1¾" 4 HT 58-28 S LOWER LIFT
1¾" 4 HT 58-28 H UPPER LIFT

DETAIL OF REMOVING ASPHALTIC SURFACE BUTT JOINTS AND REMOVING PAVEMENT BUTT JOINTS

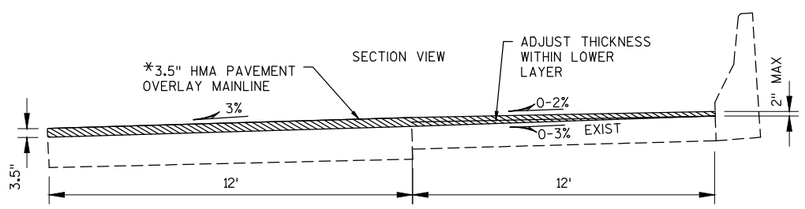
PROJECT NO: 1010-02-85	HWY: IH 39	COUNTY: COLUMBIA	CONSTRUCTION DETAILS	SHEET 22	E



PROPOSED SHOULDER PAVING AT EXISTING
BARRIER WALL WITH 12' SHOULDERS
-NORMAL CROWN CONDITION

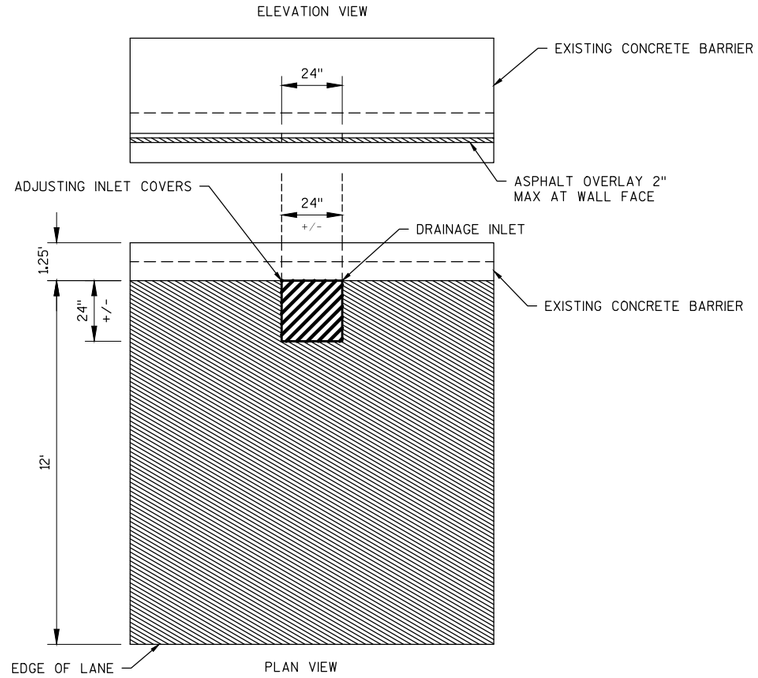


PROPOSED SHOULDER PAVING AT EXISTING
BARRIER WALL WITH 12' SHOULDERS
-LOW SIDE OF SUPERELEVATION CONDITION

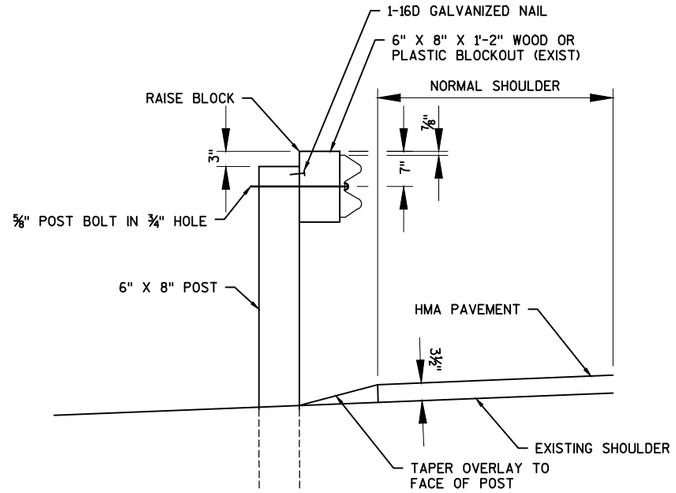


PROPOSED SHOULDER PAVING AT EXISTING
BARRIER WALL WITH 12' SHOULDERS
-HIGH SIDE OF SUPERELEVATION CONDITION

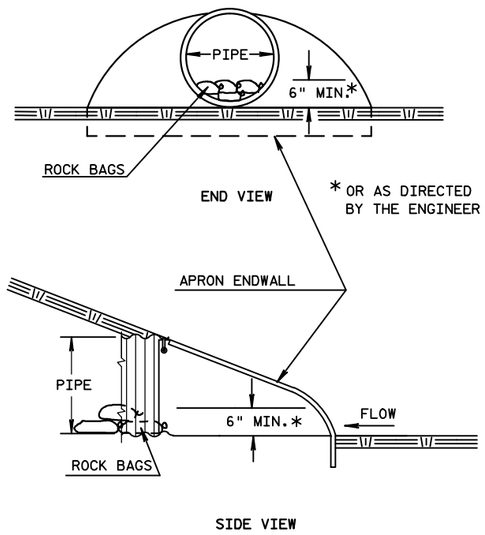
* HMA PAVEMENT TO CONSIST OF:
1¾" 4 HT 58-28 S LOWER LIFT
1¾" 4 HT 58-28 H UPPER LIFT



DETAIL OF SHOULDER PAVING AT CONCRETE BARRIER



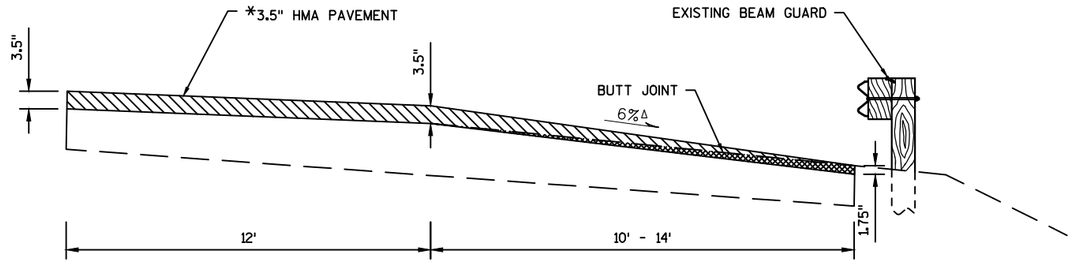
DETAIL OF ADJUSTING STEEL PLATE BEAMGUARD



ESTIMATED BAG SIZE = 18" x 12" x 6"	
PIPE SIZE	ESTIMATED NO. OF BAGS
12"	1
15"	2
18"	2
21"	3
14" x 23"	3
24"	3
27"	4
30"	5
19" x 30"	5
36"	7
24" X 36"	8
42"	8
29" X 45"	10
48"	10
34" X 53"	10
38" X 60"	13
60"	13
66"	15
53" X 83"	19

DETAIL OF CULVERT PIPE CHECKS

* HMA PAVEMENT TO CONSIST OF:
1¾" 4 HT 58-28 S LOWER LIFT
1¾" 4 HT 58-28 H UPPER LIFT

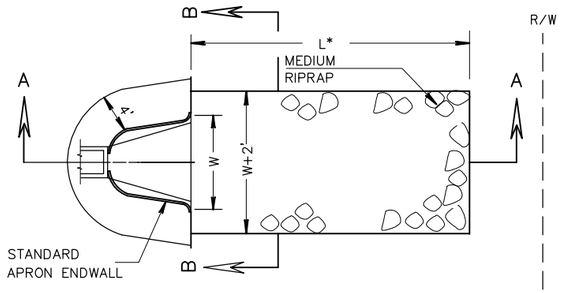


Δ SLOPE SHOULDER TO MATCH INTO EXISTING AT FACE OF BEAM GUARD OR CRASH CUSHION

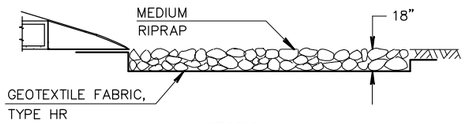
BUTT JOINT

DETAIL OF PROPOSED SHOULDER PAVING AT EXISTING GUARD RAIL

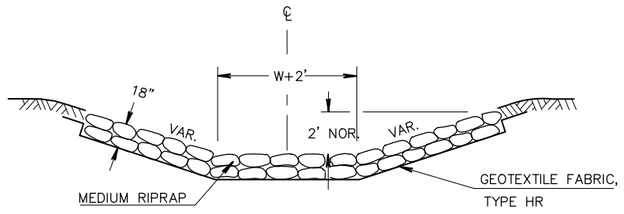
STA 1245+20SB TO STA 1246+70SB, LT
STA 1247+50NB TO STA 1249+00NB, RT
STA 1256+90NB TO STA 1258+00NB, RT
STA 1306+50SB TO STA 1308+28SB, LT
STA 1306+50SB TO STA 1308+28SB, RT
STA 1313+76NB TO STA 1315+50NB, LT
STA 1313+76NB TO STA 1315+50NB, RT



* L = 3 TIMES DIAMETER (NOR.) OR 10' MIN. OR AS DIRECTED BY THE ENGINEER. DO NOT EXTEND OUTSIDE OF R/W

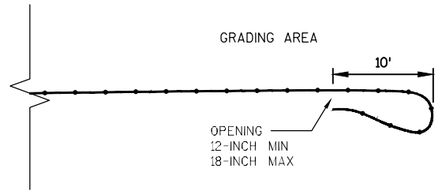


SECTION A–A

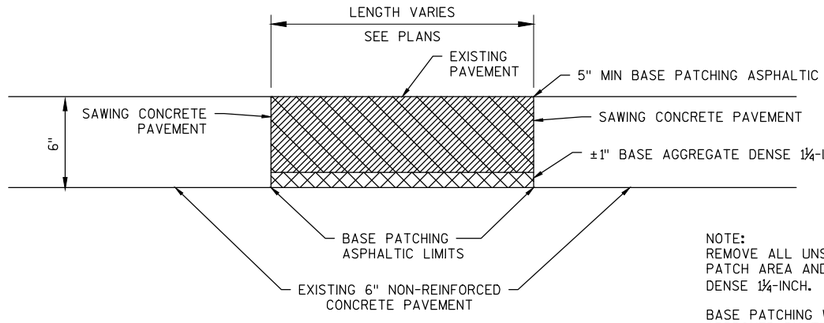


SECTION B–B

DETAIL OF MEDIUM RIPRAP AND GEOTEXTILE FABRIC AT APRON ENDWALLS



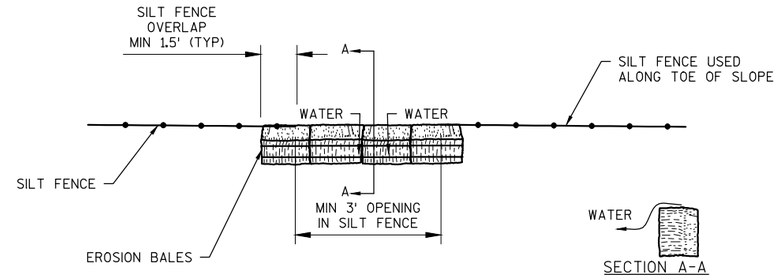
DETAIL OF LOOP AT SILT FENCE TERMINI EXCLUSION FENCING



DETAIL OF BASE PATCHING ASPHALTIC

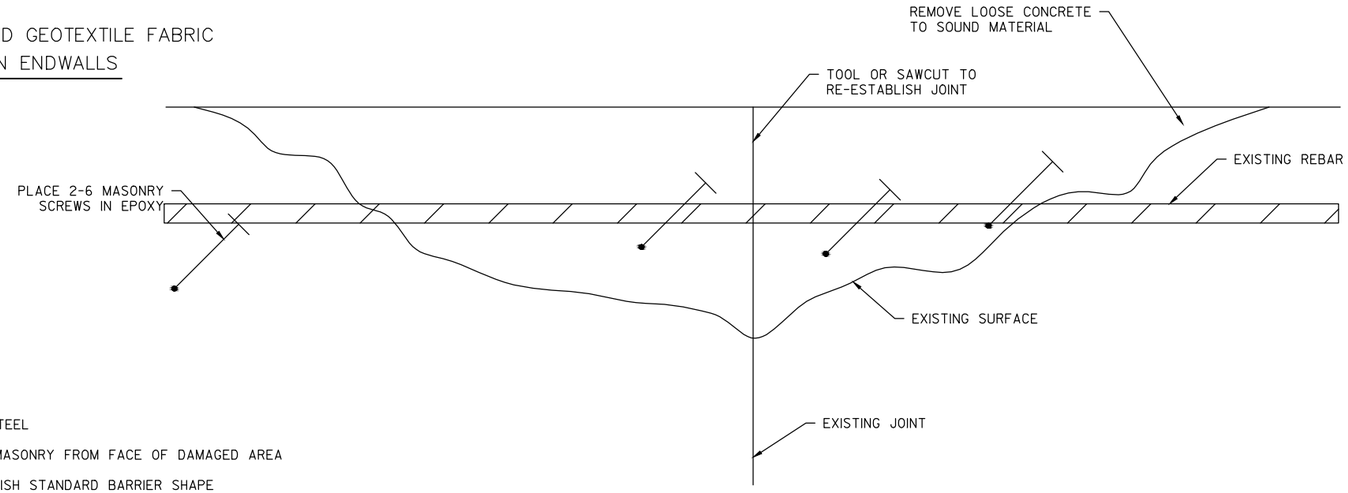
NOTE:
REMOVE ALL UNSUITABLE MATERIAL BELOW BASE PATCH AREA AND REPLACE WITH BASE AGGREGATE DENSE 1¼-INCH.

BASE PATCHING WIDTHS AND LOCATIONS TO BE APPROVED BY THE ENGINEER.



TOP VIEW

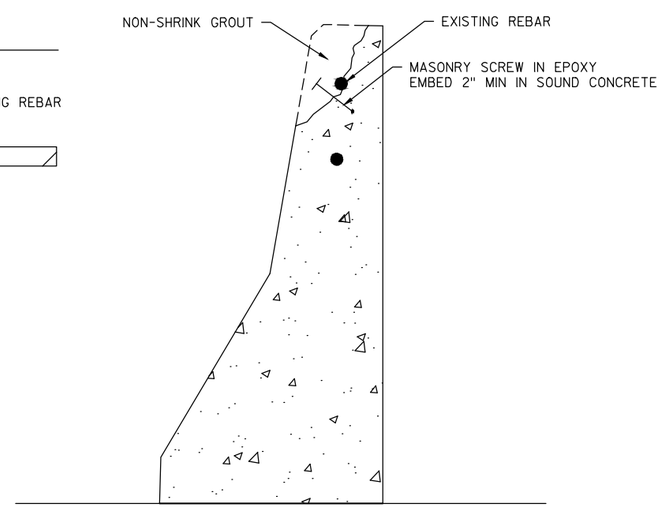
DETAIL OF SILT FENCE RELIEF
SEE EROSION CONTROL PLANS FOR LOCATIONS



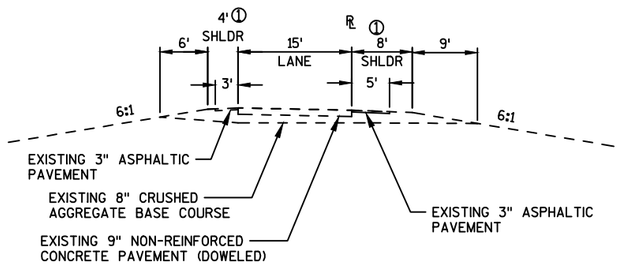
DETAIL OF CONCRETE BARRIER WALL SURFACE REPAIR SECTION

CONSTRUCTION NOTES:

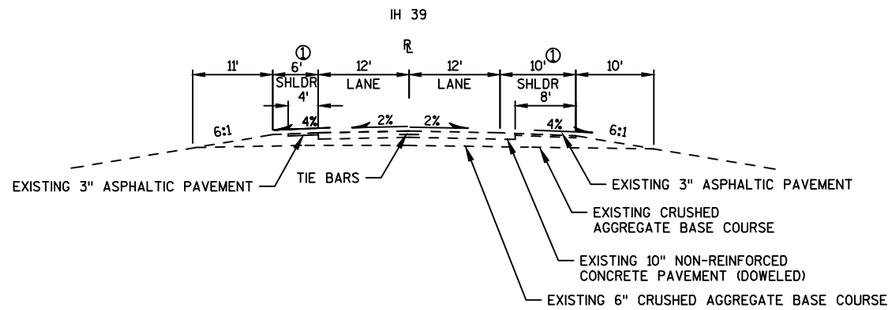
1. CLEAN CORROSION FROM EXPOSED BAR STEEL
2. REMOVE LOOSE OR UNSOUND CONCRETE MASONRY FROM FACE OF DAMAGED AREA
3. PLACE NON-SHRINK GROUT TO RE-ESTABLISH STANDARD BARRIER SHAPE
4. DO NOT PLACE DELINEATOR BRACKETS IN CONCRETE REPAIR



PROJECT NO: 1010-02-85	HWY: IH 39	COUNTY: COLUMBIA	CONSTRUCTION DETAILS	SHEET 25	E

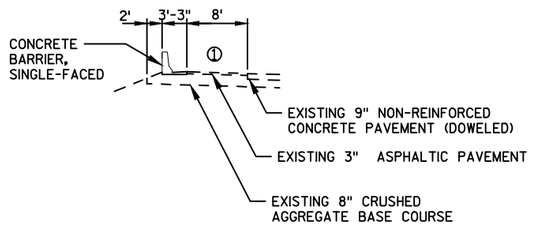


SINGLE LANE INTERCHANGE RAMP SECTION



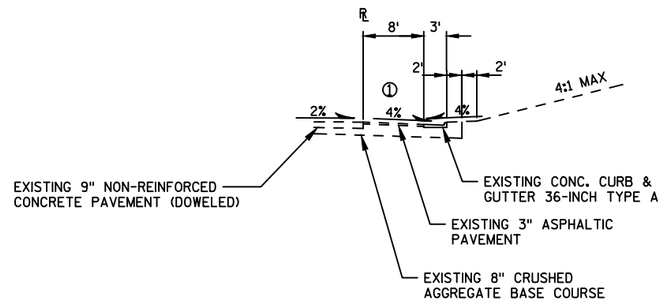
IH 39

① VARIOUS LOCATIONS & WIDTHS ON SHOULDERS SEE MISCELLANEOUS QUANTITIES FOR LOCATIONS
- REMOVING ASPHALTIC SURFACE MILLING
- 3" HMA PAVEMENT 5 LT 58-28S
- BASE AGGREGATE DENSE 3/4-INCH, AS NEEDED
- ASPHALTIC SHOULDER RUMBLE STRIPS



PARTIAL SECTION WITH CONCRETE BARRIER

VARIOUS RAMPS



PARTIAL SECTION WITH CONCRETE CURB & GUTTER

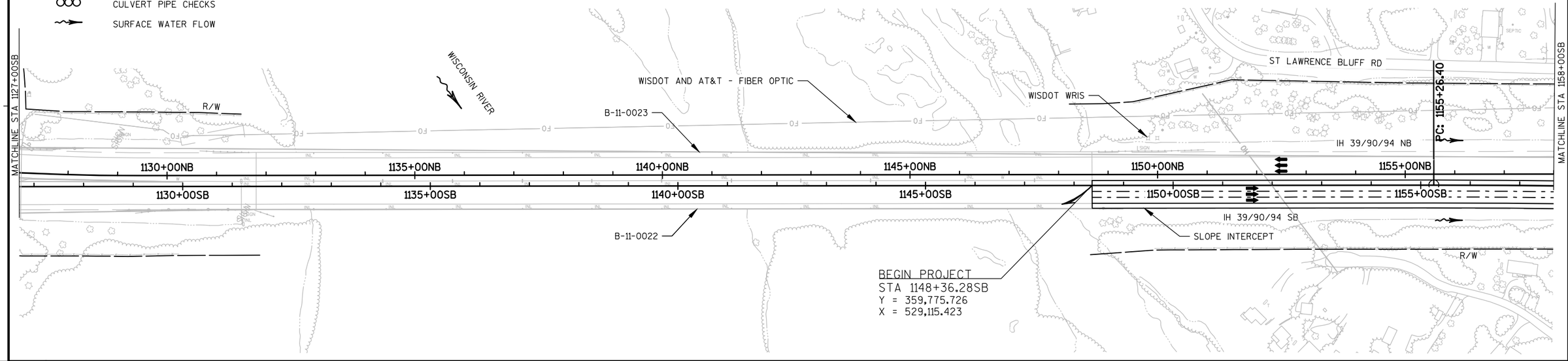
VARIOUS RAMPS

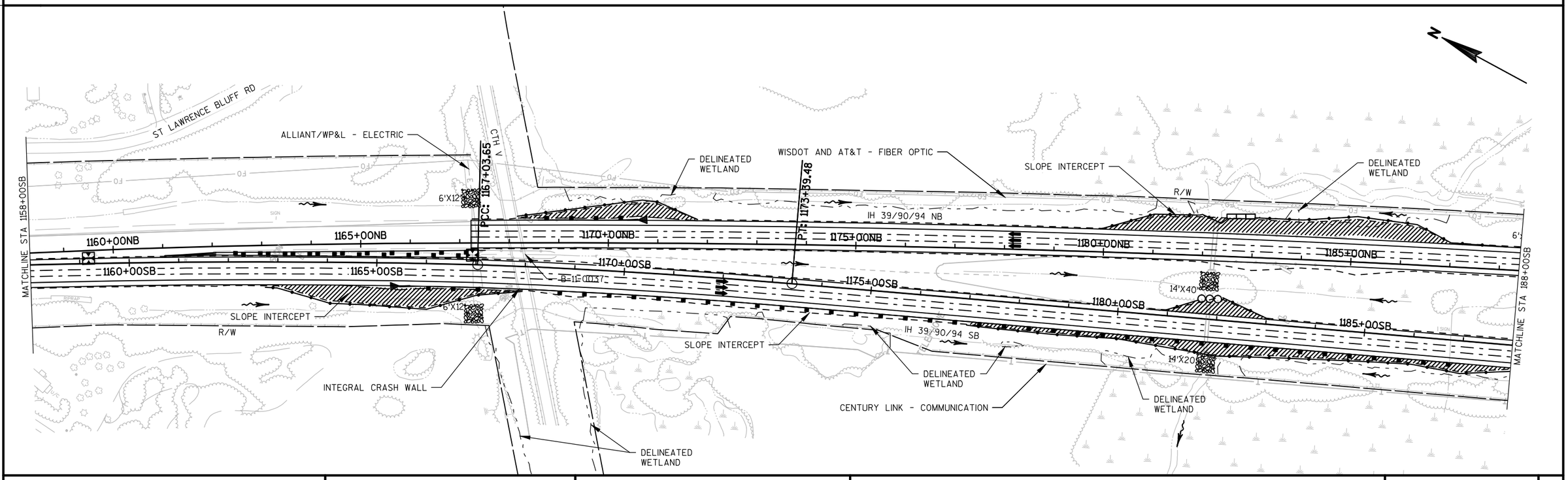
DETAILS OF ASPHALTIC SHOULDER REPLACEMENT

2

LEGEND

- EROSION MAT CLASS I, TYPE A
- SILT FENCE
- SLOPE INTERCEPT
- INLET PROTECTION TYPE A
- TEMPORARY DITCH CHECKS
- CULVERT PIPE CHECKS
- SURFACE WATER FLOW
- RIPRAP AND GEOTEXTILE FABRIC
- EROSION BALES (EACH)

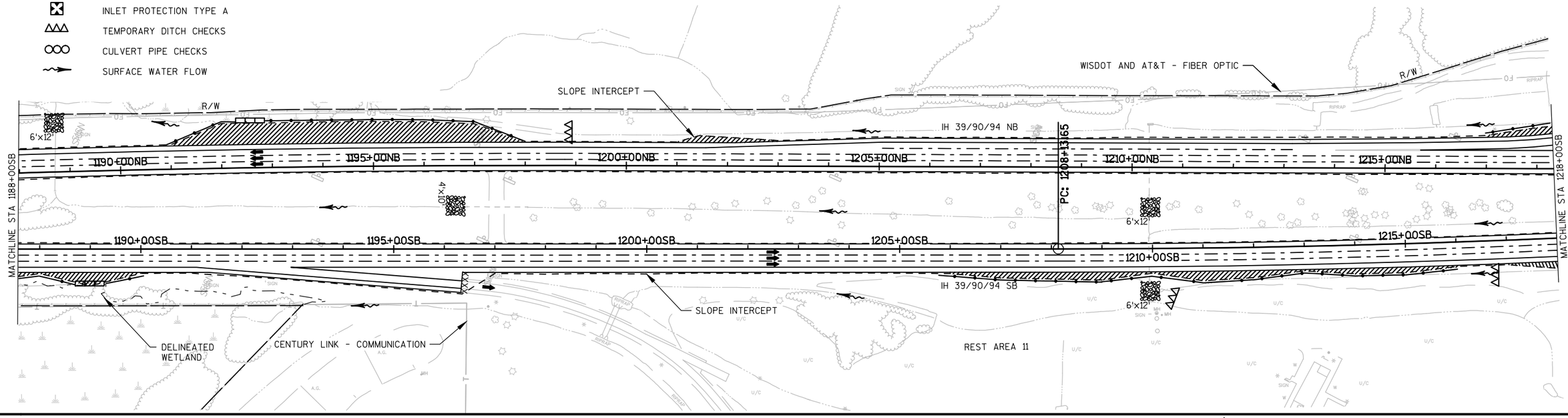


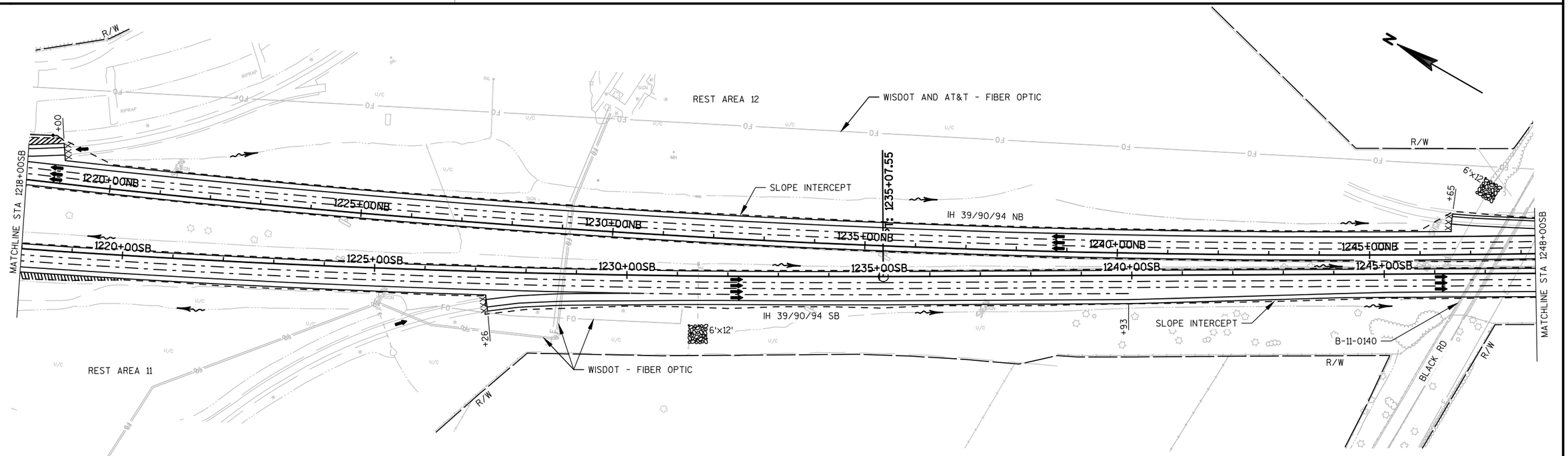


PROJECT NO: 1010-02-85	HWY: IH 39	COUNTY: COLUMBIA	EROSION CONTROL	SHEET 27	E

LEGEND

- EROSION MAT CLASS I, TYPE A
- SILT FENCE
- SLOPE INTERCEPT
- INLET PROTECTION TYPE A
- TEMPORARY DITCH CHECKS
- CULVERT PIPE CHECKS
- SURFACE WATER FLOW
- RIPRAP AND GEOTEXTILE FABRIC
- EROSION BALES (EACH)

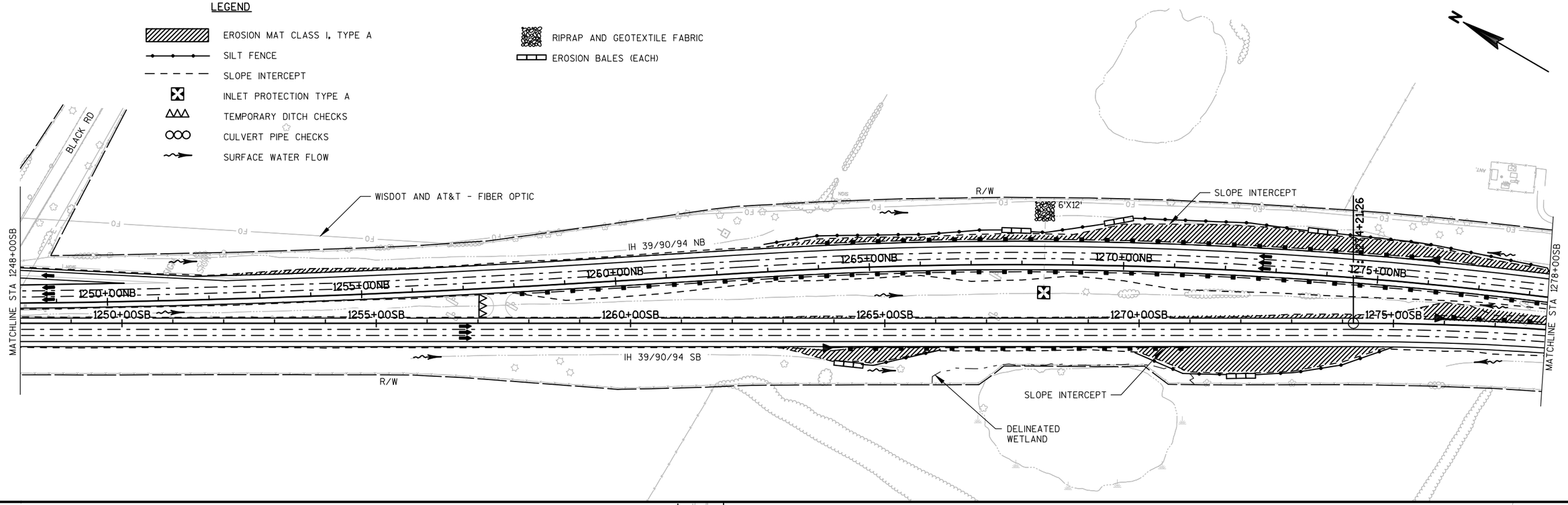




PROJECT NO: 1010-02-85	HWY: IH 39	COUNTY: COLUMBIA	EROSION CONTROL	SHEET 28	E

LEGEND

- EROSION MAT CLASS I, TYPE A
- SILT FENCE
- SLOPE INTERCEPT
- INLET PROTECTION TYPE A
- TEMPORARY DITCH CHECKS
- CULVERT PIPE CHECKS
- SURFACE WATER FLOW
- RIPRAP AND GEOTEXTILE FABRIC
- EROSION BALES (EACH)



PROJECT NO: 1010-02-85	HWY: IH 39	COUNTY: COLUMBIA	EROSION CONTROL	SHEET 29	E

LEGEND

- EROSION MAT CLASS I, TYPE A
- SILT FENCE
- SLOPE INTERCEPT
- INLET PROTECTION TYPE A
- TEMPORARY DITCH CHECKS
- CULVERT PIPE CHECKS
- SURFACE WATER FLOW
- RIPRAP AND GEOTEXTILE FABRIC
- EROSION BALES (EACH)

N

CTH J

WISDOT AND AT&T - FIBER OPTIC

SLOPE INTERCEPT

B-11-0041

R/W

MATCHLINE STA 1309+00SB

1310+00NB

1315+00NB

1320+00NB

1325+00NB

1330+00NB

1335+00NB

IH 39/90/94 NB

1315+00SB

1320+00SB

1325+00SB

1330+00SB

1335+00SB

1310+00SB

B-11-0040

IH 39/90/94 SB

SLOPE INTERCEPT

R/W

DELINEATED WETLAND

MATCHLINE STA 1339+00SB

ROWAN CREEK

R/W

DEKORA SANITARY SEWER DISTRICT - SEWER

WISDOT AND AT&T - FIBER OPTIC

DELINEATED WETLAND

SLOPE INTERCEPT

R/W

8'x16'

MATCHLINE STA 1339+00SB

1340+00NB

1345+00NB

1350+00NB

IH 39/90/94 NB

1355+00NB

1360+00NB

1365+00NB

PC: 1366+08.12

1370+00N

1340+00SB

1350+00SB

1355+00SB

1360+00SB

1365+00SB

IH 39/90/94 SB

CTH CS

8'x16'

DELINEATED WETLAND

SLOPE INTERCEPT

DELINEATED WETLAND

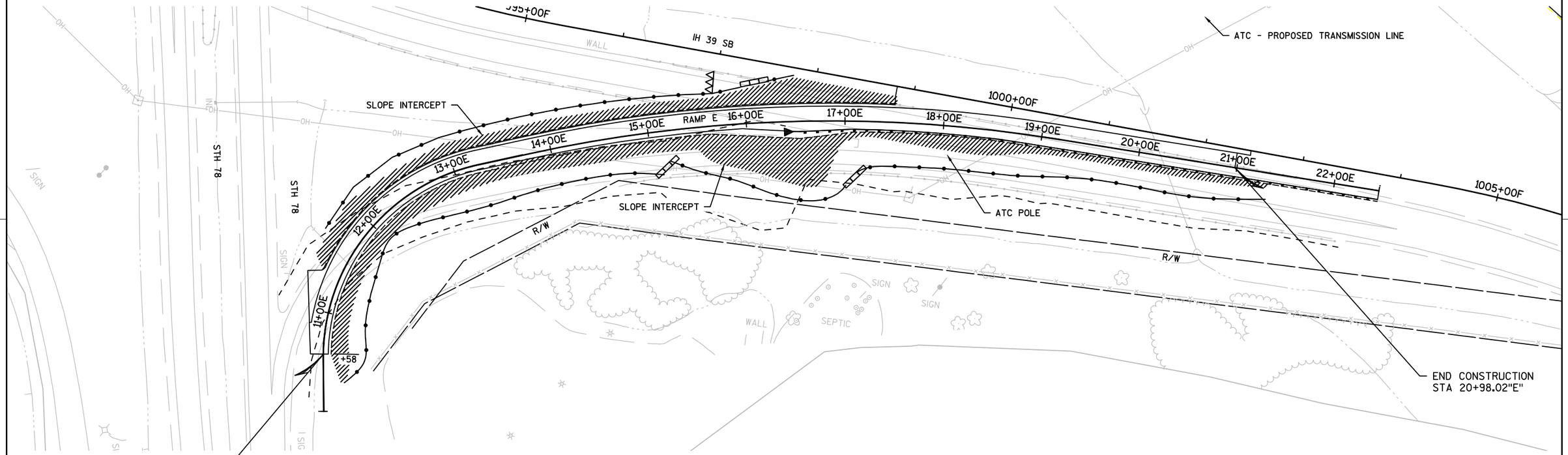
END PROJECT 1010-02-85
STA 1344+69.55 SB
MATCH EXISTING
SAWCUT REQ'D

PROJECT NO: 1010-02-85	HWY: IH 39	COUNTY: COLUMBIA	EROSION CONTROL	SHEET 30	E

FILE NAME : X:\3230900\131208.01\TECH\CAD\10100202\SHEETSPLAN\CONSTRUCTION PROJECT 2, 1010-02-85\022001_EC-PROJECT 2.DWG PLOT DATE : 4/24/2017 1:19 PM PLOT BY : TIMOTHY VELTE PLOT NAME : PLOT SCALE : 1" = 200'_XREF

WISDOT/CADDS SHEET 44

2



LEGEND

- EROSION MAT CLASS I, TYPE A
- SILT FENCE
- TEMPORARY DITCH CHECKS
- CULVERT PIPE CHECKS
- SURFACE WATER FLOW
- EROSION BALES

PROJECT NO: 1010-02-85	HWY: IH 39	COUNTY: COLUMBIA	EROSION CONTROL - RAMP E	SHEET 31	E

FILE NAME : X:\3230900\131208.01\TECH\CAD\10100202\SHEETSPLAN\CONSTRUCTION PROJECT 2, 1010-02-85\022001_EC-RAMP E.DWG PLOT DATE : 9/3/2008 9:41 AM PLOT BY : TIMOTHY VELTE PLOT NAME : _____ PLOT SCALE : 1" = 100'_XREF

WISDOT/CADDS SHEET 45

2

2

SLOPE INTERCEPT

BEGIN CONSTRUCTION
STA 971+59.34 J

RECONSTRUCT INLET

EXISTING CONCRETE BARRIER
TO REMAIN

RAMP K

RECONSTRUCT INLET

PC: 970+25.69

970+00J

45+00N

45+00M

STH 78

RECONSTRUCT INLET

SLOPE INTERCEPT

BP: 967+30.43

PT: 980+86.97

RECONSTRUCT INLET

SLOPE INTERCEPT

980+00J

RAMP J

EXISTING CONCRETE BARRIER

IH 90/94 WB

980+00WB

980+00EB

IH 90/94 EB

IH 39 SB

RAMP H

PC: 986+63.71

985+00J

PI: 965+98.58

985+00WB

985+00EB

50+00N

50+00M

PI: 988+83.35

PT: 991+02.90

END CONSTRUCTION
STA 981+41.06 J

990+00J

990+00WB

990+00EB

IH 39 NB

LEGEND

- EROSION MAT CLASS I, TYPE A
- SILT FENCE
- SLOPE INTERCEPT
- TYPE — INLET PROTECTION TYPE C
- TEMPORARY DITCH CHECKS
- CULVERT PIPE CHECKS
- SURFACE WATER FLOW
- RIPRAP AND GEOTEXTILE FABRIC
- EROSION BALES (EACH)

PROJECT NO: 1010-02-85	HWY: IH 39	COUNTY: COLUMBIA	EROSION CONTROL - RAMP J	SHEET	E

FILE NAME : X:\3230900\131208.01\TECH\CAD\10100202\SHEETSPLAN\CONSTRUCTION PROJECT 2, 1010-02-85\022001_EC-RAMP J.DWG PLOT DATE : 7/14/2017 12:49 PM PLOT BY : SCOTT BEACH PLOT NAME : PLOT SCALE : 1" = 100'_XREF

WISDOT/CADDS SHEET 42

2

AT&T - FIBER OPTIC

ALLIANT ENERGY - ELECTRIC

BP: 968+78.45

FRONTIER - FIBER OPTIC

R/W

PC: 970+71.18

970+00K

970+00

970+00

ALLIANT ENERGY - GAS

CAUTION

MERRIMAC - COMMUNICATION

WISDOT AND AT&T - FIBER OPTIC

PI: 974+00.19

R/W

IH 90/94 EB

975+00

IH 90/94 WB

975+00

WATER TREATMENT PONDS

LEGEND

- EROSION MAT CLASS I, TYPE A
- SILT FENCE
- SLOPE INTERCEPT
- INLET PROTECTION TYPE A
- TEMPORARY DITCH CHECKS
- CULVERT PIPE CHECKS
- SURFACE WATER FLOW
- RIPRAP AND GEOTEXTILE FABRIC
- EROSION BALES (EACH)

RAMP L

SLOPE INTERCEPT

A

975+00K

PI: 976+33.09

SLOPE INTERCEPT

IH 39 SB

RAMP K

SLOPE INTERCEPT

980+00K

PC: 980+27.17

PI: 981+65.25

PT: 983+01.01

EP: 984+31.13

N

SLOPE INTERCEPT

RAMP J

NOTE: RAMP J EROSION CONTROL SHOWN ELSEWHERE

RAMP J

980+00

980+00

B-11-98
WING WALL
REPLACEMENT

R-11-38

985+

PROJECT NO: 1010-02-85	HWY: IH 39	COUNTY: COLUMBIA	EROSION CONTROL - RAMP K	SHEET	E

FILE NAME : X:\3230900\131208.01\TECH\CAD\10100202\SHEETSPLAN\CONSTRUCTION PROJECT 2, 1010-02-85\022001_EC-RAMP K.DWG PLOT DATE : 4/19/2017 3:53 PM PLOT BY : TIMOTHY VELTE PLOT NAME : PLOT SCALE : 1:100_XREF

2

WISCONSIN
SUZANNE K
SCHLEEPER
E-34019
MADISON
WI
PROFESSIONAL ENGINEER

THIS STAMP COVERS FOUR DRAINAGE PLAN SHEETS.

Suzanne K. Schleeper
8-4-17

LEGEND

AEW	APRON ENDWALL
CPCS	CULVERT PIPE CORRUGATED STEEL
CPS	CULVERT PIPE STEEL
~→	SURFACE WATER FLOW

N

WISCONSIN RIVER

WISDOT AND AT&T

ST LAWRENCE BLUFF RD

MATCH LINE 1130+00'SB'

1135'NB' 1140'NB' 1145'NB' 1150'NB' IH 39/90/94 NB 1155'NB'

1135'SB' 1140'SB' 1145'SB' 1150'SB' IH 39/90/94 SB 1155'SB'

MATCH LINE 1160+00'SB'

ALLIANT / WPL

ST LAWRENCE BLUFF RD

CTH V

WISDOT AND AT&T

MATCH LINE 1160+00'SB'

1165'NB' 1170'NB' IH 39/90/94 NB 1175'NB' 1180'NB' 1185'NB'

1165'SB' 1170'SB' IH 39/90/94 SB 1175'SB' 1180'SB'

CENTURY LINK

MATCH LINE 1190+00'SB'

PIPE - C18
STA 1188+71'NB'

EXISTING
112' - 30" CPCS @ 0.11%
AEW 43.2' RT, UP INV. 776.03
AEW 77.2' LT, DOWN INV. 775.91
Q(50) = 70 CFS

PROPOSED
CLEANING CULVERT PIPES FOR LINER
VERIFICATION REQ'D

C18

C17

PIPE - C17
STA 1186+75'SB'

EXISTING
119' - 30" CPCS @ -0.24%
AEW 51.9' LT, UP INV. 775.14
AEW 75.2' RT, DOWN INV. 775.42
Q(50) = 80 CFS

PROPOSED
CLEANING CULVERT PIPES FOR LINER
VERIFICATION REQ'D

PROJECT NO: 1010-02-85	HWY: IH 39	COUNTY: COLUMBIA	DRAINAGE PLAN	SHEET 34	E

FILE NAME : S:\PROJECTS\SW\COLUMBIA COUNTY\1010-02-02_IH 39\500_CADD\501_C3D\10100202\SHEETSPLAN\022501-SS_UPDATES.DWG PLOT DATE : 8/4/2017 9:07 AM PLOT BY : SUZANNE SCHLEEPER, PE PLOT NAME : PLOT SCALE : 1"=200'_XREF

2

PIPE - C20
STA 1210+33'NB'

EXISTING
133' - 42" CPCS @ 3.00%
AEW 83.3' LT, UP INV. 817.10
AEW 55.3' RT, DOWN INV. 813.12
Q(50) = 42 CFS

PROPOSED
CLEANING CULVERT PIPES FOR LINER
VERIFICATION REQ'D

WISDOT AND AT&T

MATCH LINE

1195'NB' 1200'NB' 1205'NB' IH 39/90/94 NB 1210'NB' 1215'NB'

C20

1195'SB' 1200'SB' IH 39/90/94 SB 1210'SB' 1215'SB'

C19

1190+00'SB'

1220+00'SB'

CENTURY LINK

PIPE - C19
STA 1209+93'SB'

EXISTING
74' - 42" CPCS @ 0.99%
AEW 22.1' LT, UP INV. 807.06
AEW 63.8' RT, DOWN INV. 806.33
Q(50) = 96 CFS

PROPOSED
CLEANING CULVERT PIPES FOR LINER
VERIFICATION REQ'D

REST AREA 11

LEGEND

AEW	APRON ENDWALL
CPCS	CULVERT PIPE CORRUGATED STEEL
CPS	CULVERT PIPE STEEL
~~	SURFACE WATER FLOW

REST AREA 12

PIPE - C23
STA 1231+70'NB'

EXISTING
131' - 36" CPCS @ 2.45%
INLET 80.2' LT, UP INV. 814.35
INLET 50.4' RT, DOWN INV. 811.15
Q(50) = 24 CFS

PROPOSED
CLEANING CULVERT PIPES FOR LINER
VERIFICATION REQ'D

WISDOT AND AT&T

MATCH LINE

1225'NB' 1230'NB' 1235'NB' 1240'NB' IH 39/90/94 NB 1245'NB'

C23

1225'SB' 1230'SB' 1235'SB' 1240'SB' IH 39/90/94 SB 1245'SB'

C22

1220+00'SB'

1250+00'SB'

STA 1225+14.32'SB'
91.53' RT

STA 1225+39.62'SB'
155.87' RT

WISDOT

AT&T

REST AREA 11

BLACK RD

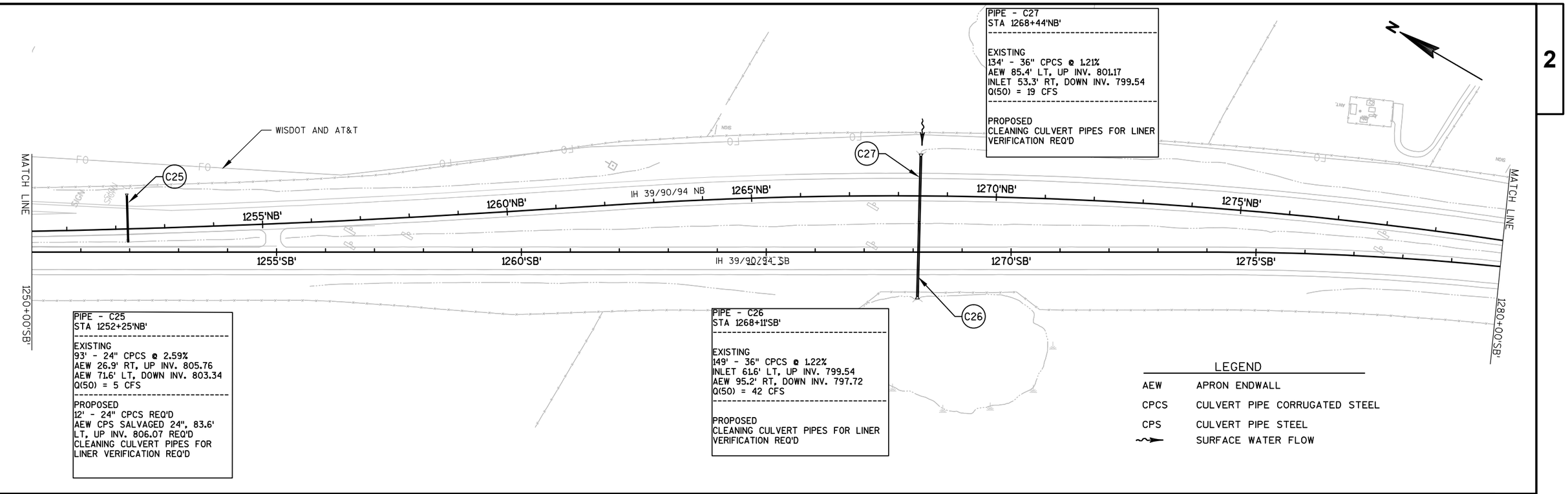
PIPE - C22
STA 1231+42'SB'

EXISTING
115' - 42" CPCS @ 2.01%
INLET 21.2' LT, UP INV. 811.18
AEW 100.0' RT, DOWN INV. 808.86
Q(50) = 30 CFS

PROPOSED
CLEANING CULVERT PIPES FOR LINER
VERIFICATION REQ'D

PROJECT NO: 1010-02-85	HWY: IH 39	COUNTY: COLUMBIA	DRAINAGE PLAN	SHEET 35	E

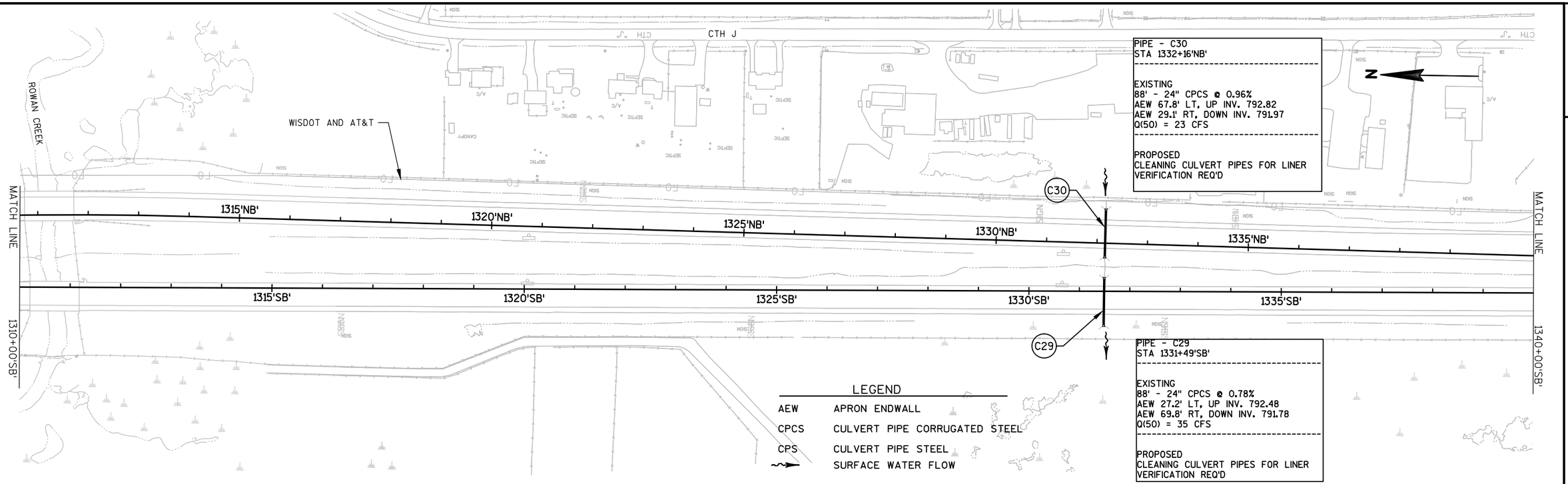
FILE NAME : S:\PROJECTS\SW\COLUMBIA COUNTY\1010-02-02_IH 39\500_CADD\501_C3D\10100202\SHEETSPLAN\022501-SS_UPDATES.DWG PLOT DATE : 8/4/2017 9:52 AM PLOT BY : SUZANNE SCHLEEPER, PE PLOT NAME : PLOT SCALE : 1"=200'_XREF

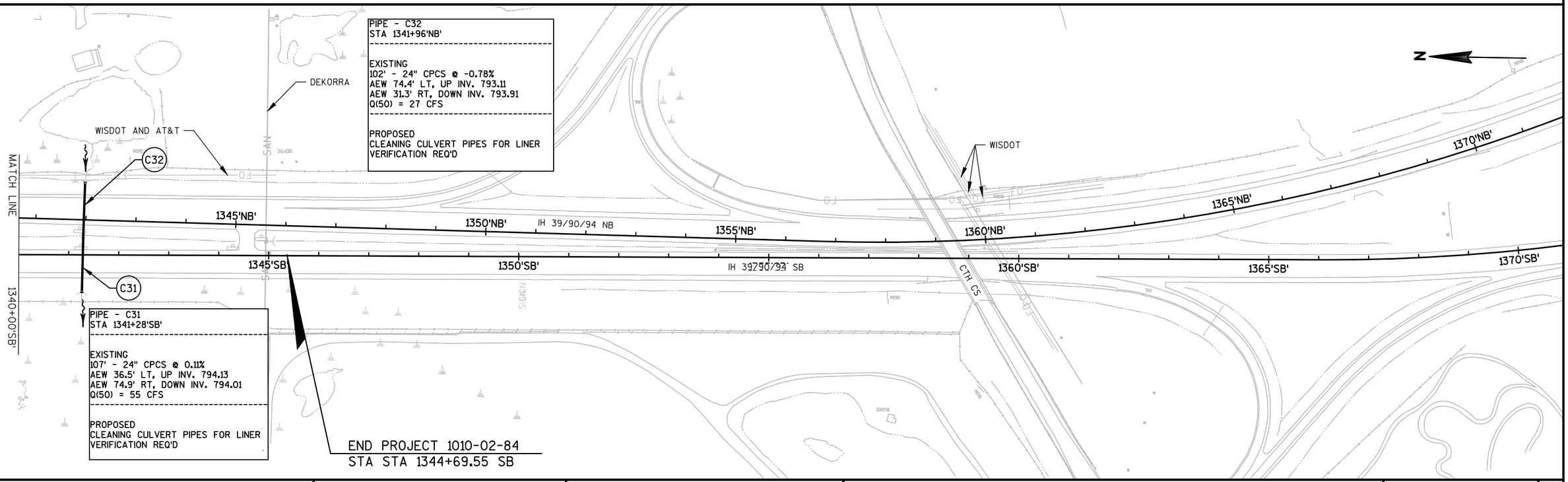


PROJECT NO: 1010-02-85	HWY: IH 39	COUNTY: COLUMBIA	DRAINAGE PLAN	SHEET 36	E

FILE NAME : S:\PROJECTS\SW\COLUMBIA COUNTY\1010-02-02_IH 39\500_CADD\501_C3D\10100202\SHEETSPLAN\022501-SS_UPDATES.DWG PLOT DATE : 8/4/2017 12:46 PM PLOT BY : SUZANNE SCHLEEPER, PE PLOT NAME : PLOT SCALE : 1"=200'_XREF

2





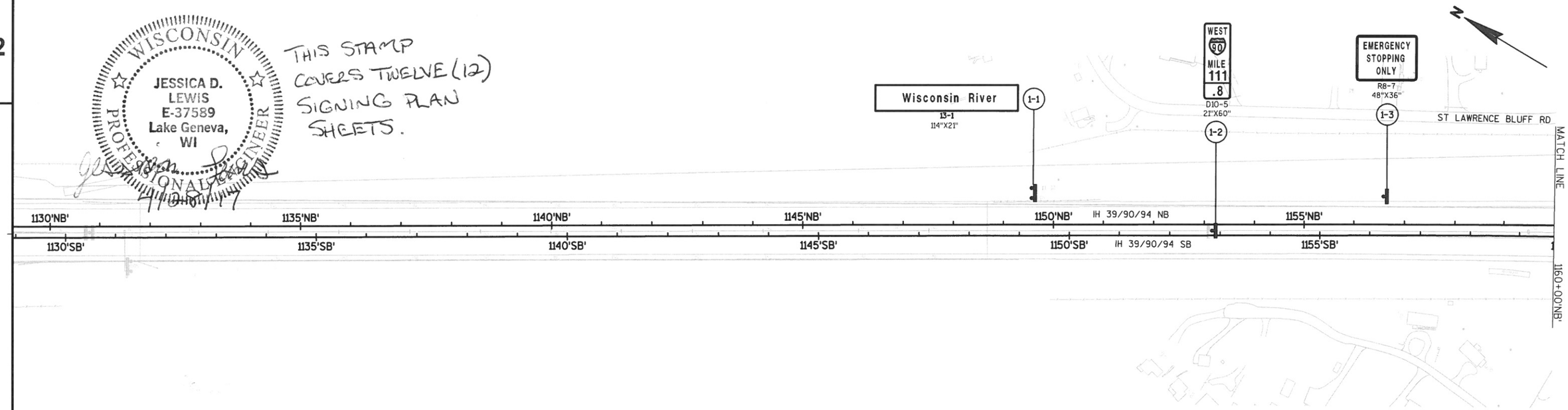
PROJECT NO: 1010-02-85	HWY: IH 39	COUNTY: COLUMBIA	DRAINAGE PLAN	SHEET 37	E

2

WISCONSIN
JESSICA D. LEWIS
E-37589
Lake Geneva, WI
PROFESSIONAL ENGINEER

THIS STAMP COVERS TWELVE (12) SIGNING PLAN SHEETS.

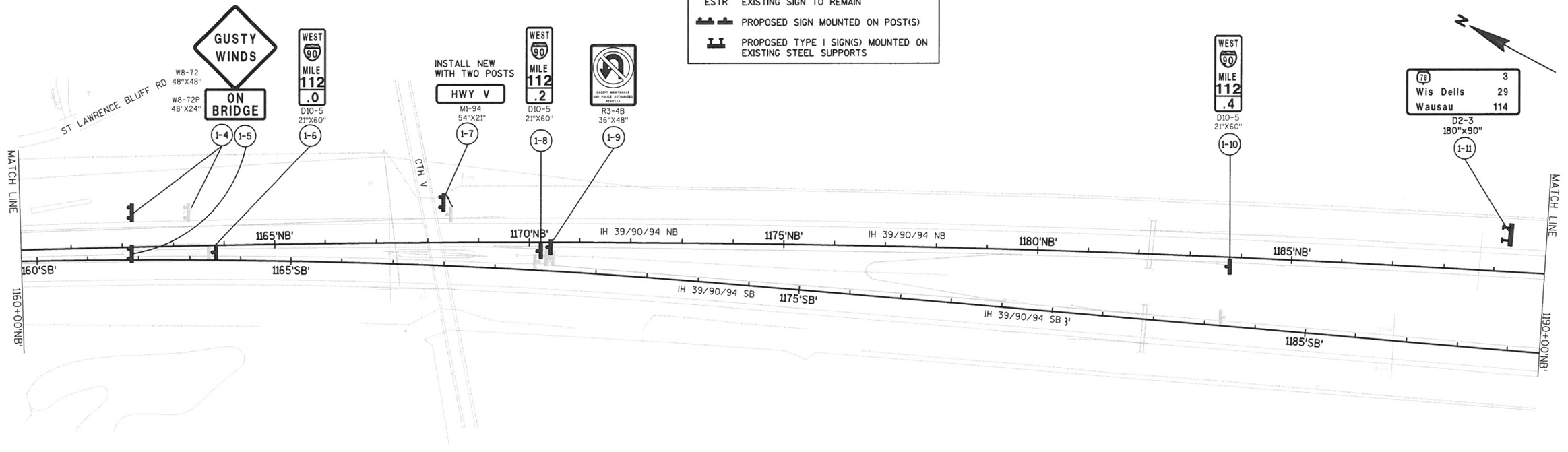
2/16/2017



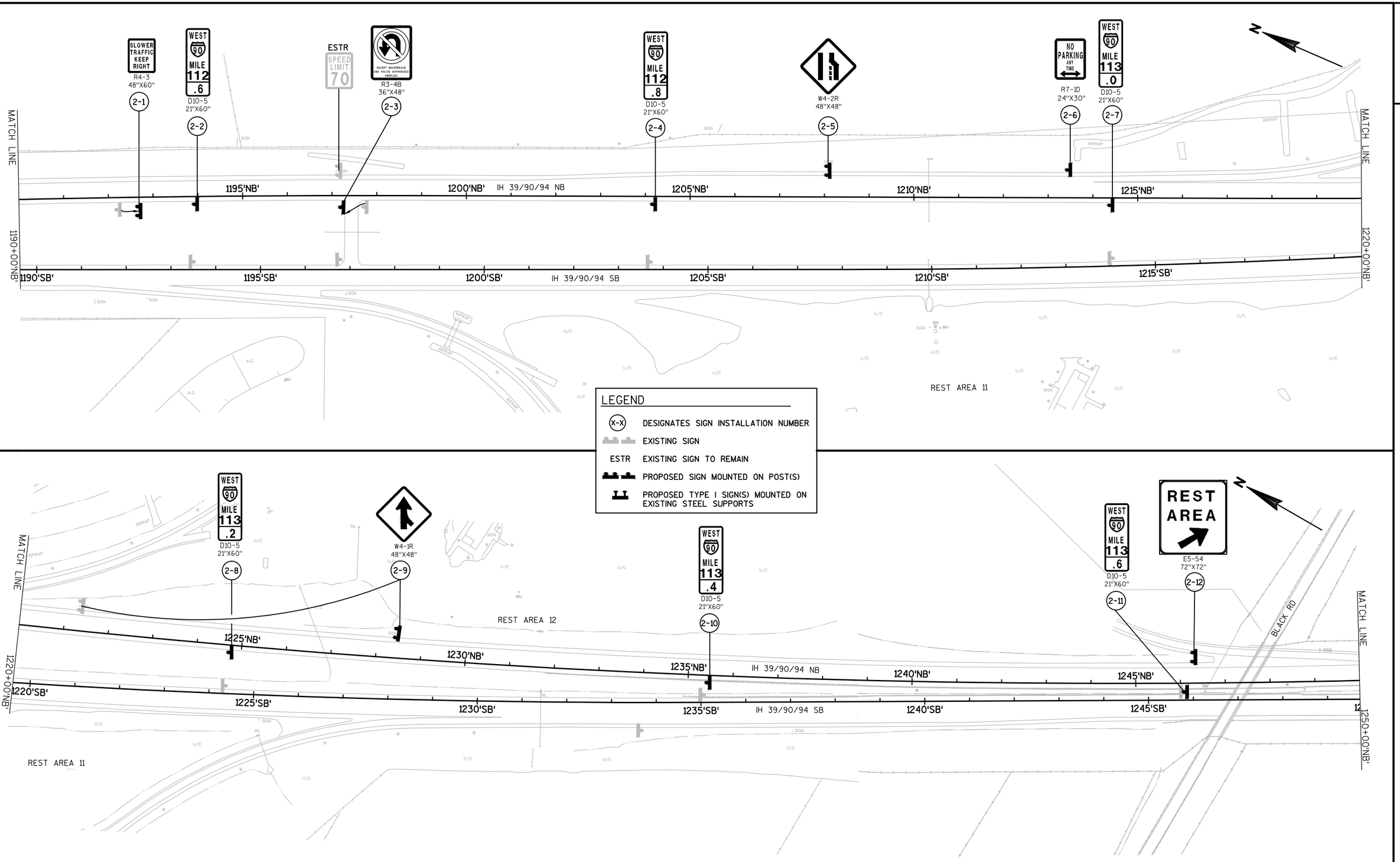
LEGEND

(X-X)	DESIGNATES SIGN INSTALLATION NUMBER
	EXISTING SIGN
ESTR	EXISTING SIGN TO REMAIN
	PROPOSED SIGN MOUNTED ON POST(S)
	PROPOSED TYPE I SIGN(S) MOUNTED ON EXISTING STEEL SUPPORTS

NOTE:
SIGNS NOT SHOWN IN PLANS ARE EXISTING SIGNS TO REMAIN.



PROJECT NO: 1010-02-85	HWY: IH 39	COUNTY: COLUMBIA	PERMANENT SIGNING - IH 39 (NB)	SHEET 38 E

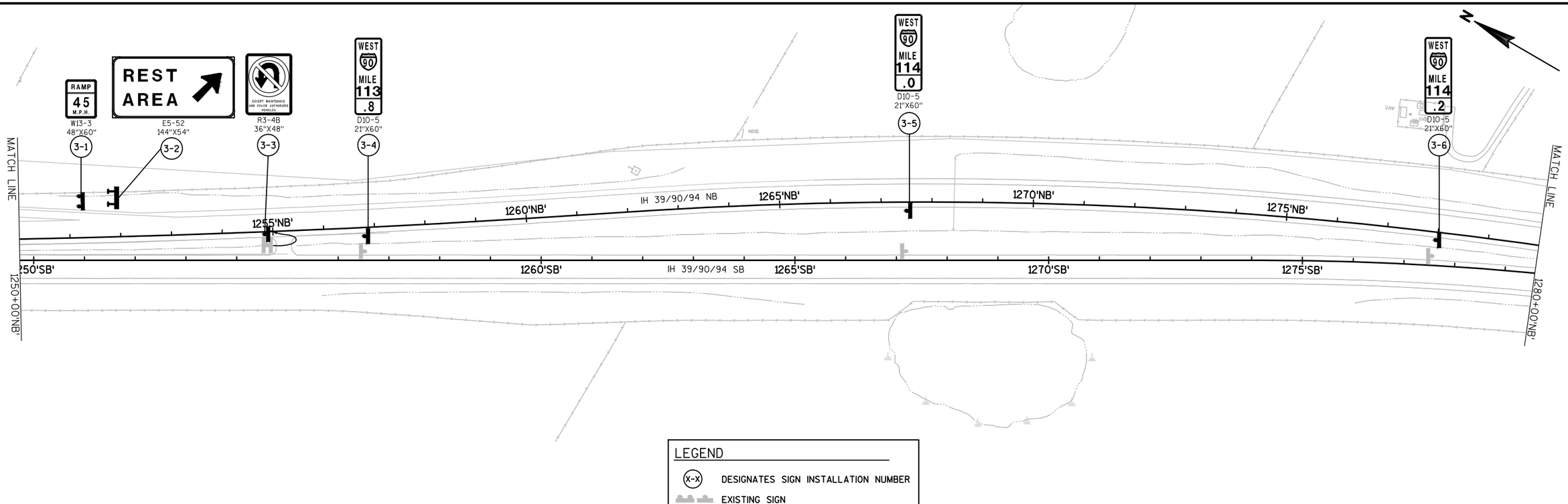


LEGEND

(X-X)	DESIGNATES SIGN INSTALLATION NUMBER
	EXISTING SIGN
ESTR	EXISTING SIGN TO REMAIN
	PROPOSED SIGN MOUNTED ON POST(S)
	PROPOSED TYPE I SIGN(S) MOUNTED ON EXISTING STEEL SUPPORTS

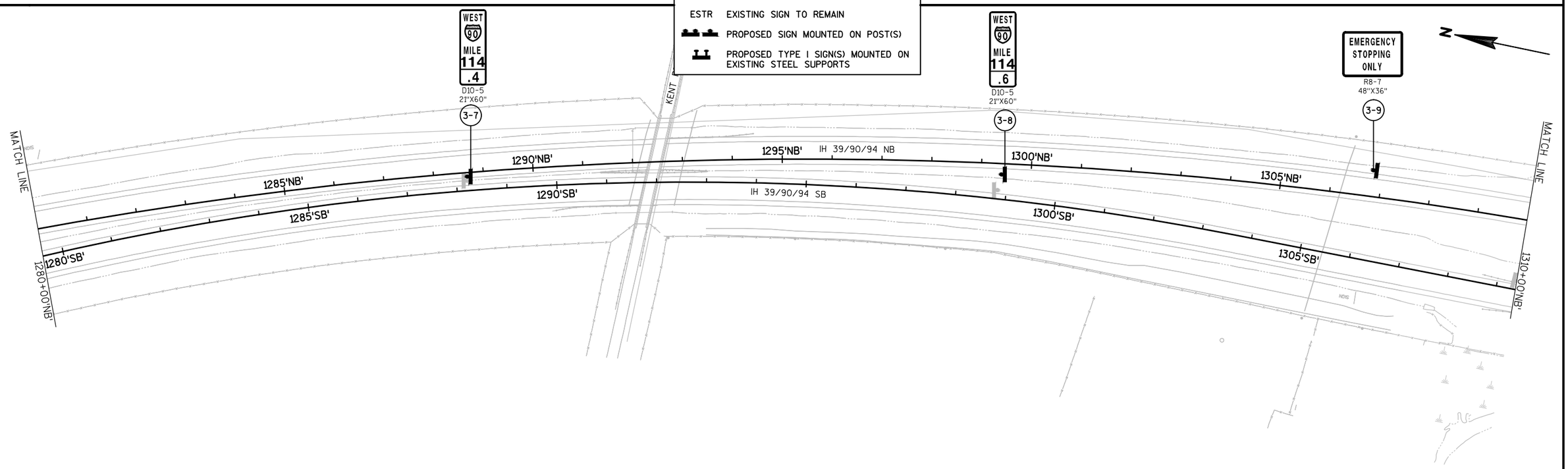
PROJECT NO: 1010-02-85	HWY: IH 39	COUNTY: COLUMBIA	PERMANENT SIGNING - IH 39 (NB)	SHEET 39	E

FILE NAME : S:\PROJECTS\SW\COLUMBIA COUNTY\1010-02-02_IH 39\500_CADD\501_C3D\10100202\SHEETSPLAN\023202_NB-PS.DWG PLOT DATE : 2/16/2017 2:59 PM PLOT BY : BOBBY JONES PLOT NAME : PLOT SCALE : 1"=200'_XREF



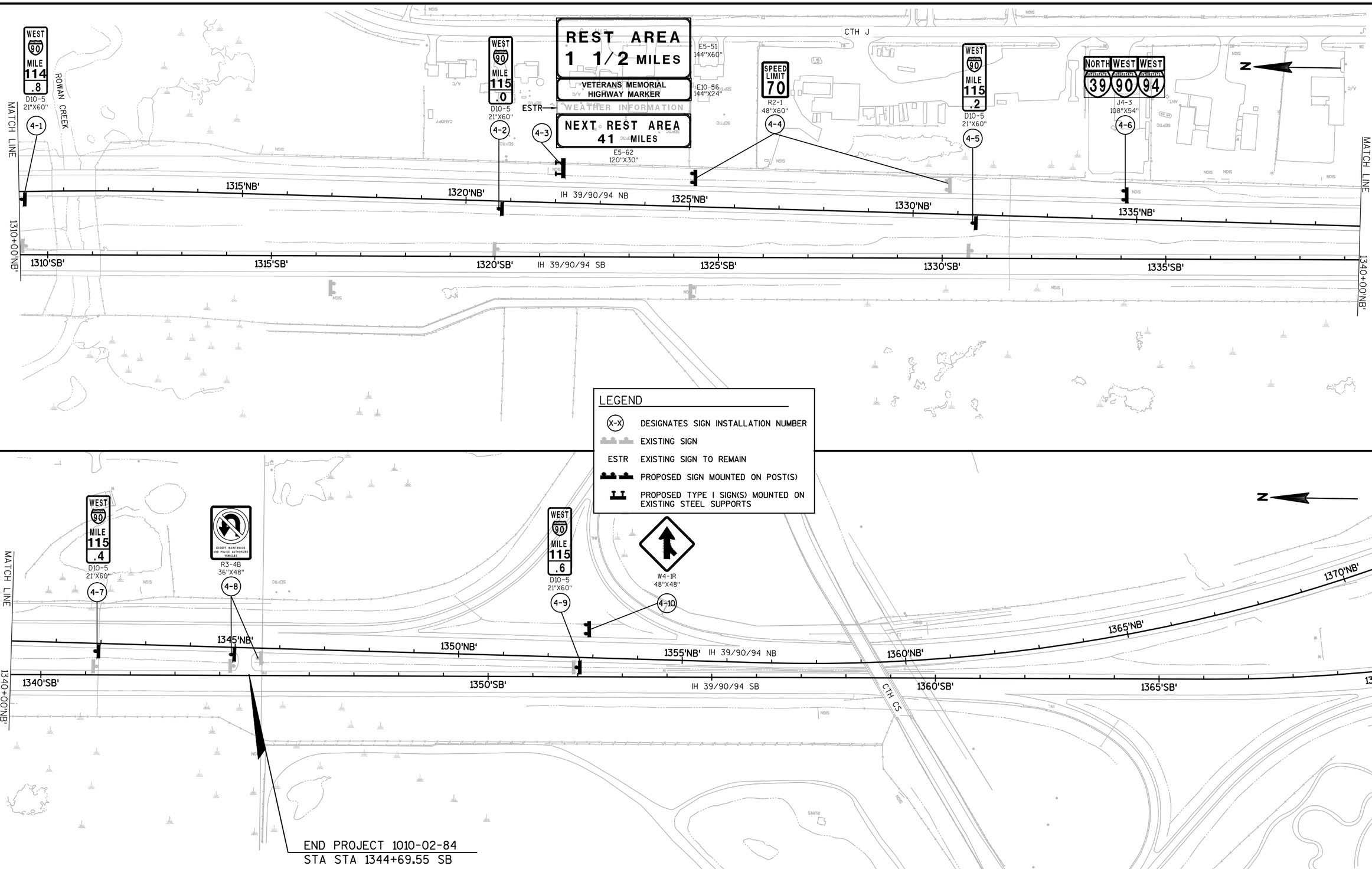
LEGEND

(X-X)	DESIGNATES SIGN INSTALLATION NUMBER
	EXISTING SIGN
ESTR	EXISTING SIGN TO REMAIN
	PROPOSED SIGN MOUNTED ON POST(S)
	PROPOSED TYPE I SIGN(S) MOUNTED ON EXISTING STEEL SUPPORTS

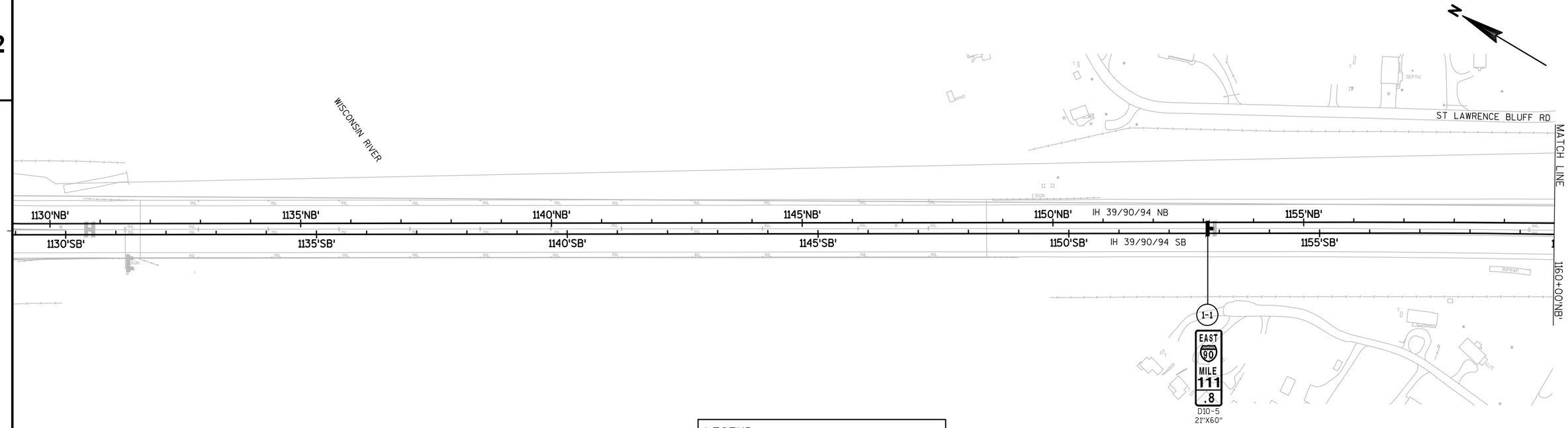


PROJECT NO: 1010-02-85	HWY: IH 39	COUNTY: COLUMBIA	PERMANENT SIGNING - IH 39 (NB)	SHEET 40	E

FILE NAME : S:\PROJECTS\SW\COLUMBIA COUNTY\1010-02-02_IH 39\500_CADD\501_C3D\10100202\SHEETSPLAN\023202_NB-PS.DWG PLOT DATE : 2/16/2017 2:59 PM PLOT BY : BOBBY JONES PLOT NAME : PLOT SCALE : 1"=200'_XREF



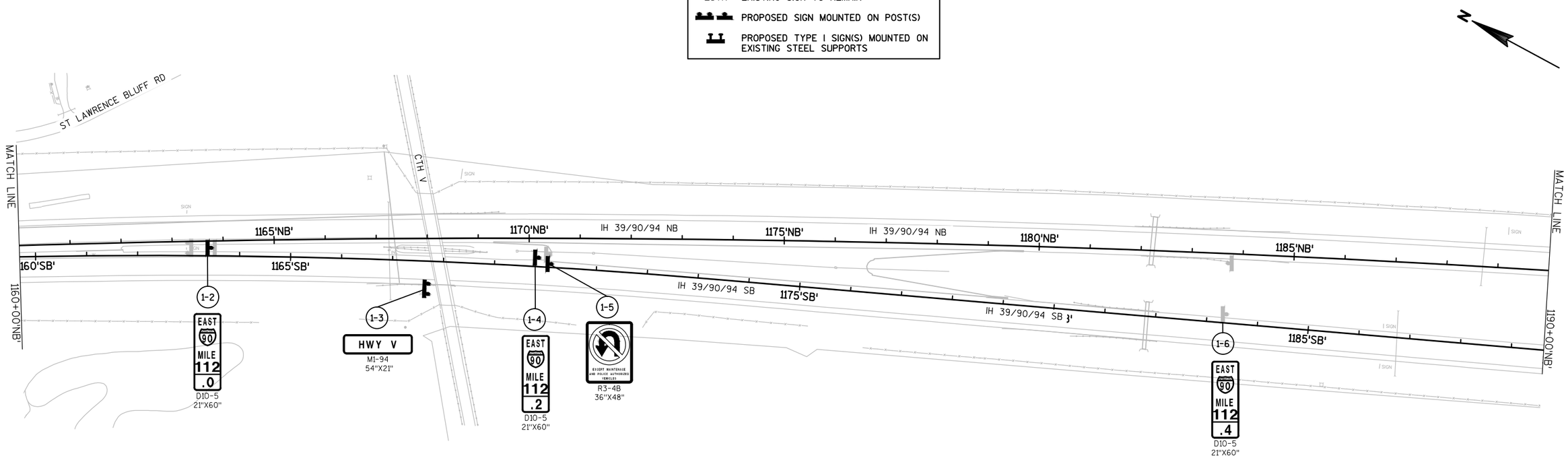
PROJECT NO: 1010-02-85	HWY: IH 39	COUNTY: COLUMBIA	PERMANENT SIGNING - IH 39 (NB)	SHEET 41	E



LEGEND

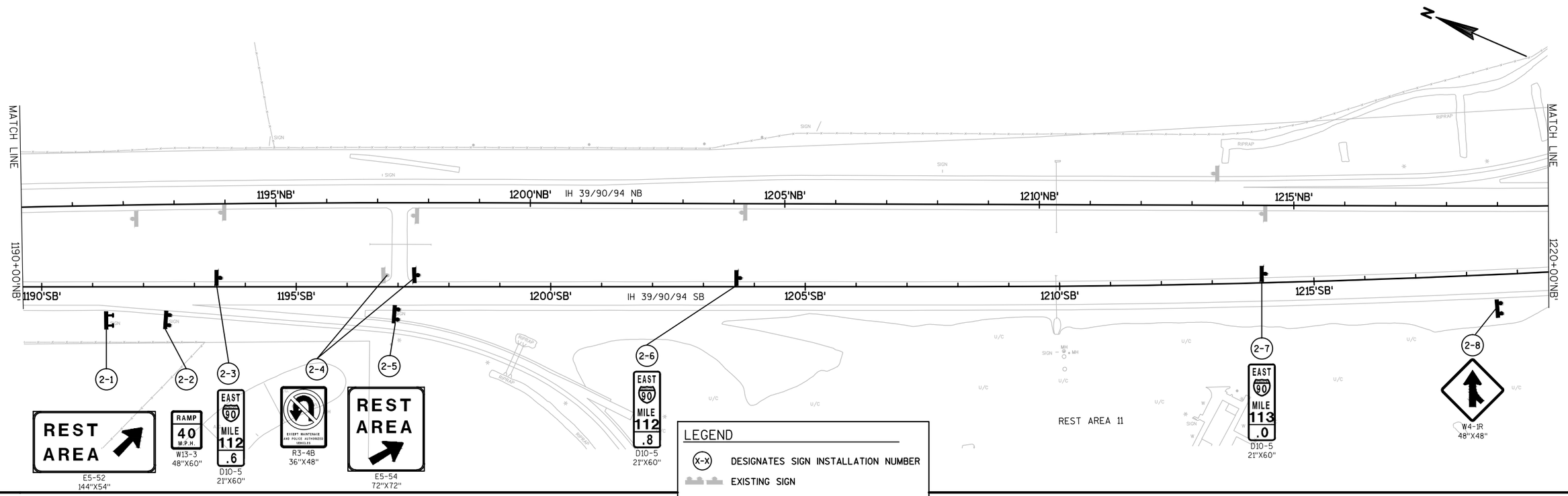
(X-X)	DESIGNATES SIGN INSTALLATION NUMBER
	EXISTING SIGN
ESTR	EXISTING SIGN TO REMAIN
	PROPOSED SIGN MOUNTED ON POST(S)
	PROPOSED TYPE I SIGN(S) MOUNTED ON EXISTING STEEL SUPPORTS

NOTE:
SIGNS NOT SHOWN IN PLANS
ARE EXISTING SIGNS TO REMAIN.



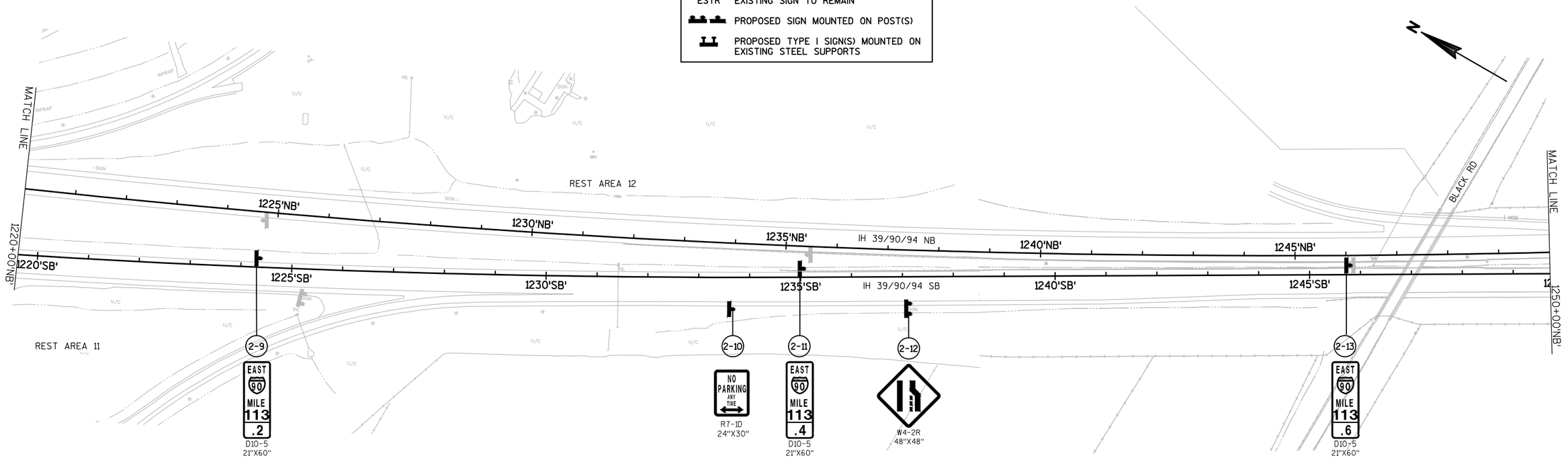
PROJECT NO: 1010-02-85	HWY: IH 39	COUNTY: COLUMBIA	PERMANENT SIGNING - IH 39 (SB)	SHEET 42 E

2

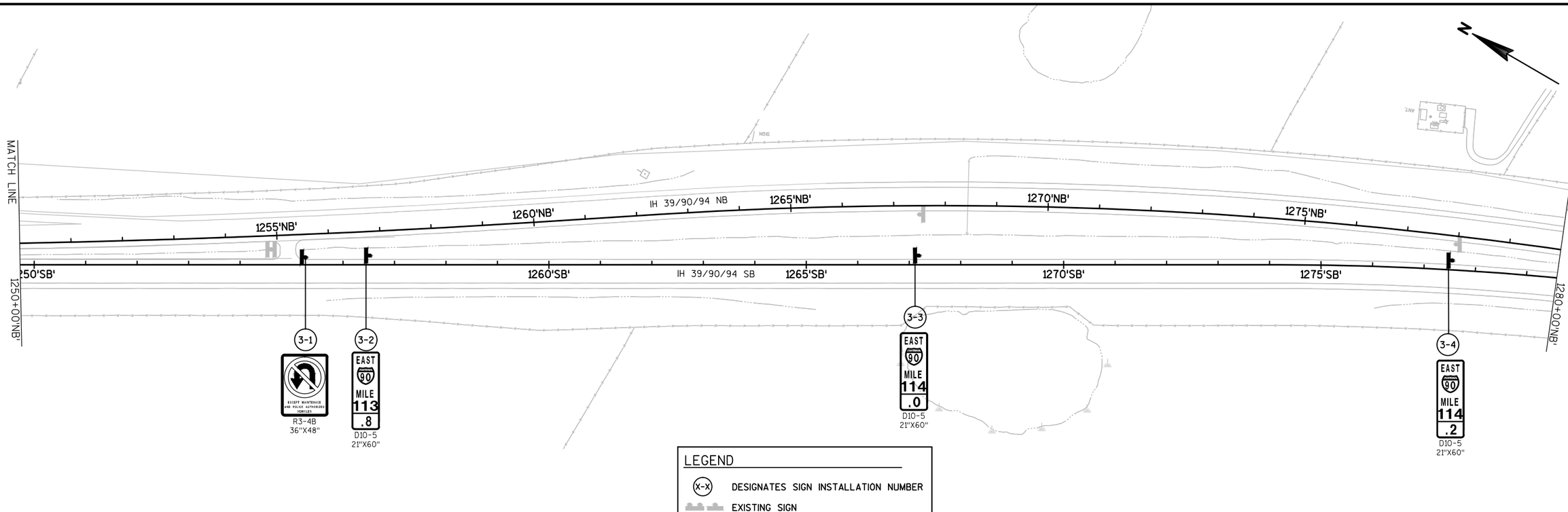


LEGEND

(X-X)	DESIGNATES SIGN INSTALLATION NUMBER
	EXISTING SIGN
ESTR	EXISTING SIGN TO REMAIN
	PROPOSED SIGN MOUNTED ON POST(S)
	PROPOSED TYPE I SIGN(S) MOUNTED ON EXISTING STEEL SUPPORTS

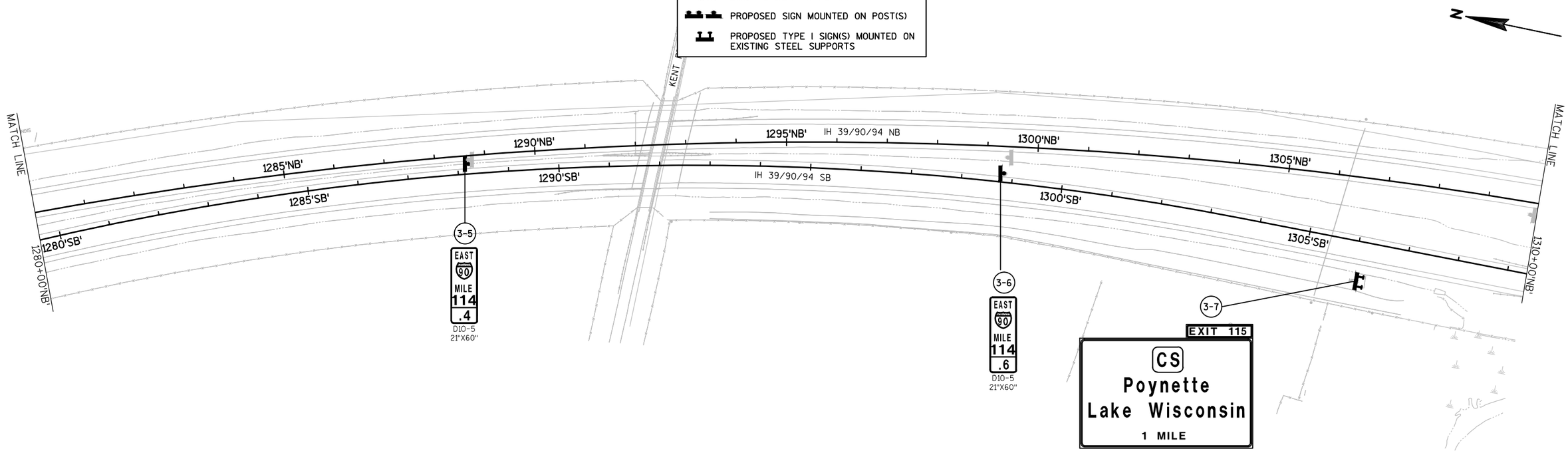


PROJECT NO: 1010-02-85	HWY: IH 39	COUNTY: COLUMBIA	PERMANENT SIGNING - IH 39 (SB)	SHEET 43	E



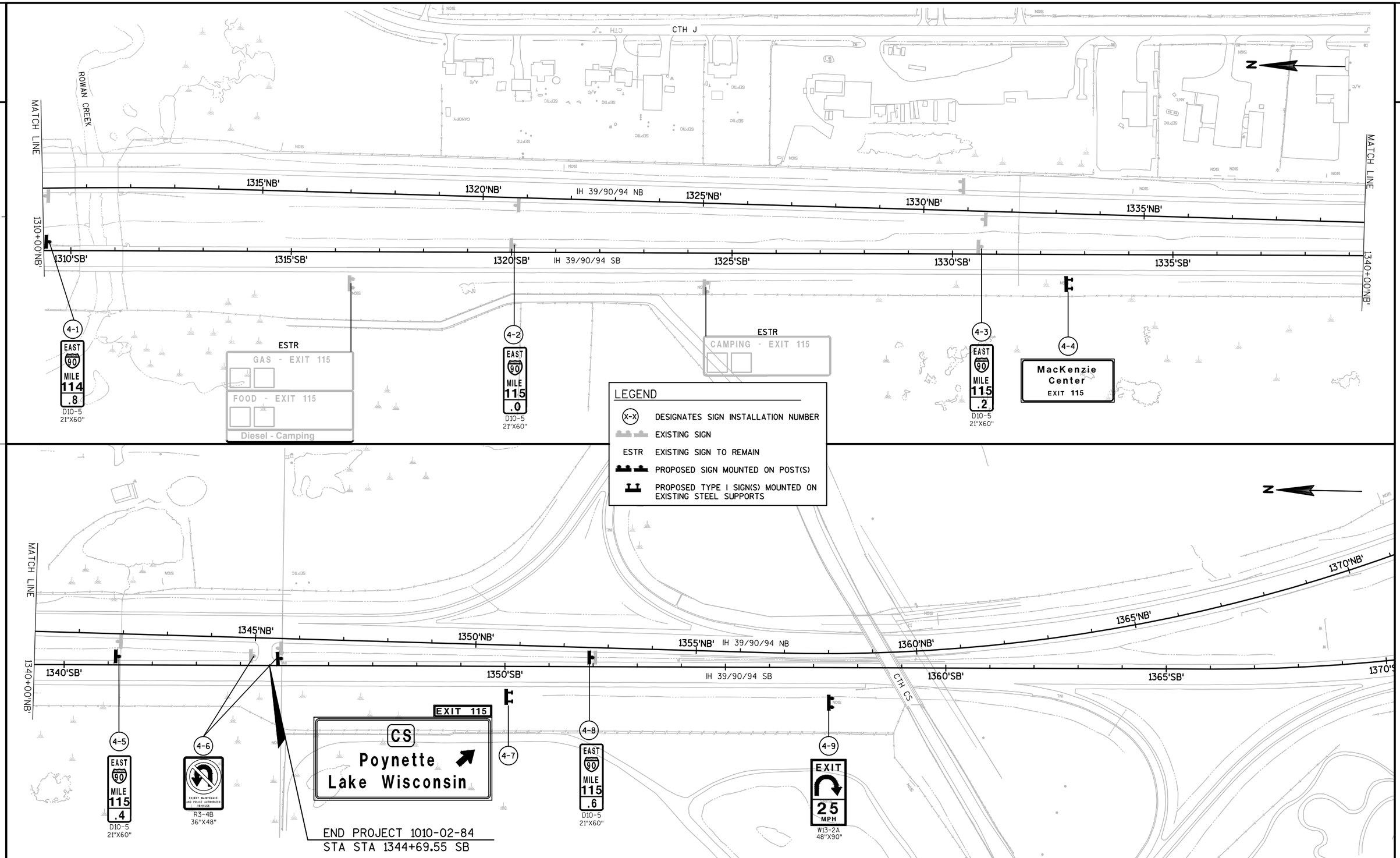
LEGEND

(X-X)	DESIGNATES SIGN INSTALLATION NUMBER
	EXISTING SIGN
ESTR	EXISTING SIGN TO REMAIN
	PROPOSED SIGN MOUNTED ON POST(S)
	PROPOSED TYPE I SIGN(S) MOUNTED ON EXISTING STEEL SUPPORTS

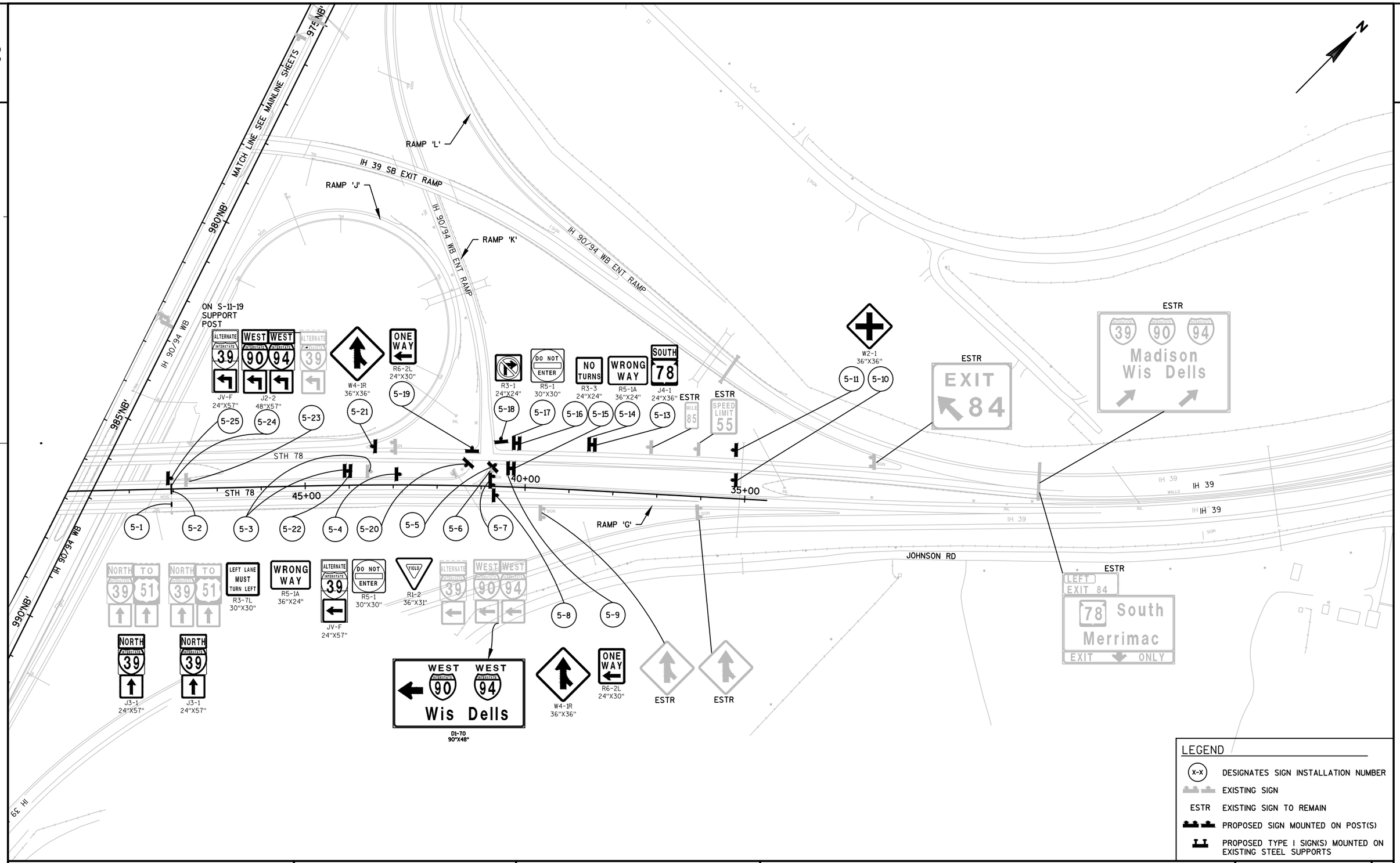


PROJECT NO: 1010-02-85	HWY: IH 39	COUNTY: COLUMBIA	PERMANENT SIGNING - IH 39 (SB)	SHEET 44	E

FILE NAME : S:\PROJECTS\SW\COLUMBIA COUNTY\1010-02-02_IH 39\500_CADD\501_C3D\10100202\SHEETSPLAN\023202_SB-PS.DWG PLOT DATE : 2/16/2017 3:01 PM PLOT BY : BOBBY JONES PLOT NAME : PLOT SCALE : 1" = 200'_XREF



PROJECT NO: 1010-02-85	HWY: IH 39	COUNTY: COLUMBIA	PERMANENT SIGNING - IH 39 (SB)	SHEET 45	E



PROJECT NO: 1010-02-85	HWY: IH 39	COUNTY: COLUMBIA	PERMANENT SIGNING - IH 39/90 INTERCHANGE (EAST)	SHEET 46	E

2

N

Merrimac 12
Sauk City 22
D2-2
84"x24"
6-29

ESTR

WRONG WAY
6-28

R4-7
36"X48"
6-27 6-5

DO NOT ENTER
R5-1
36"X36"
6-26

DO NOT ENTER
R5-1
36"X36"
6-25 6-24

DO NOT ENTER
R5-1
36"X36"
6-6 6-23

SPEED LIMIT 55
R2-1
24"X30"
6-22

WRONG WAY
R5-1A
36"X24"
6-9 6-21

SOUTH 78
J4-1
24"X36"
Merrimac 12
6-20

WEST 39 90 94 TO 51
6-11

W4-2R
36"X36"
6-19 6-18

RIGHT LANE ENDS
W9-1R
36"X36"
6-17 6-16

RAMP 'F'
IH 39 SB EXIT RAMP
RAMP 'H'

NEW SIGN ON 1 POST
6-15
W4-1R
36"X36"

985'SB'

STH 78
65+00
60+00
55+00
STH 78

IH 90/94 EB

70+00
200'
75+00
76+71
6-1
6-2
6-3
6-4
6-7
6-8
6-10
6-12
6-13
6-14

Madison
Portage
Wisconsin Dells

SOUTH 39 EAST 90 EAST 94
J3-3
72"X57"

PEDESTRIANS
BICYCLES
NON MOTORIZED TRAFFIC
MOTOR BICYCLES
PROHIBITED
R5-57
36"X36"

990'SB'

IH 90/94 EB

995'SB'

JCT 39 JCT 90 JCT 94 END 78
J1-4
96"X39"

North 39 West 90 West 94
KEEP LEFT
South 39 East 90 East 94
KEEP RIGHT
D1-72
168"x66"

DO NOT ENTER
R5-1
36"X36"

ONE WAY

North 39 West 90 West 94
Portage
Wis Dells
South 39 East 90 East 94
Madison
D1-71
120"x120"

RAMP 'E'
RAMP 'G'

LEGEND

- (X-X) DESIGNATES SIGN INSTALLATION NUMBER
- EXISTING SIGN
- ESTR EXISTING SIGN TO REMAIN
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED TYPE I SIGN(S) MOUNTED ON EXISTING STEEL SUPPORTS
- SIGN FLAGS PERMANENT TYPE II

PROJECT NO: 1010-02-85	HWY: IH 39	COUNTY: COLUMBIA	PERMANENT SIGNING - IH 39/90 INTERCHANGE (WEST)	SHEET 47	E

FILE NAME : S:\PROJECTS\SW\COLUMBIA COUNTY\1010-02-02_IH 39\500_CADD\501_C3D\10100202\SHEETSPLAN\023203_78-PS.DWG PLOT DATE : 4/12/2017 7:39 AM PLOT BY : BOBBY JONES PLOT NAME : PLOT SCALE : 1"=200'_XREF

2

970'NB'

MATCH LINE SEE MAINLINE SHEETS

975'NB'

980'NB'

985'NB'

990'NB'

IH 90/94 WB

IH 90/94 WB ENT RAMP

RAMP J

RAMP K

RAMP L

7-1

7-2

7-3

7-4

7-5

7-6

7-7

7-8

W4-1R
48"X48"

W1-8
24"X30"
7 AT
120' SPACING

ESTR

EXIT

55 M.P.H.

RAMP
45
M.P.H.
W13-3
48"X60"

WEST
90 94
Wis Dells

South East East
39 90 94
Madison

W1-60
36"X36"

30 M.P.H.
W13-1
24"X24"

W1-8
24"X30"
13 AT
80' SPACING

EXIT
30 M.P.H.
REMOVE

PEDESTRIANS
BICYCLES
NON MOTORIZED TRAFFIC
MOTOR BICYCLES
PROHIBITED
R5-57
36"X36"

STH 78

45+00

40+00

35+00

IH 39

RAMP
00
M.P.H.
REMOVE

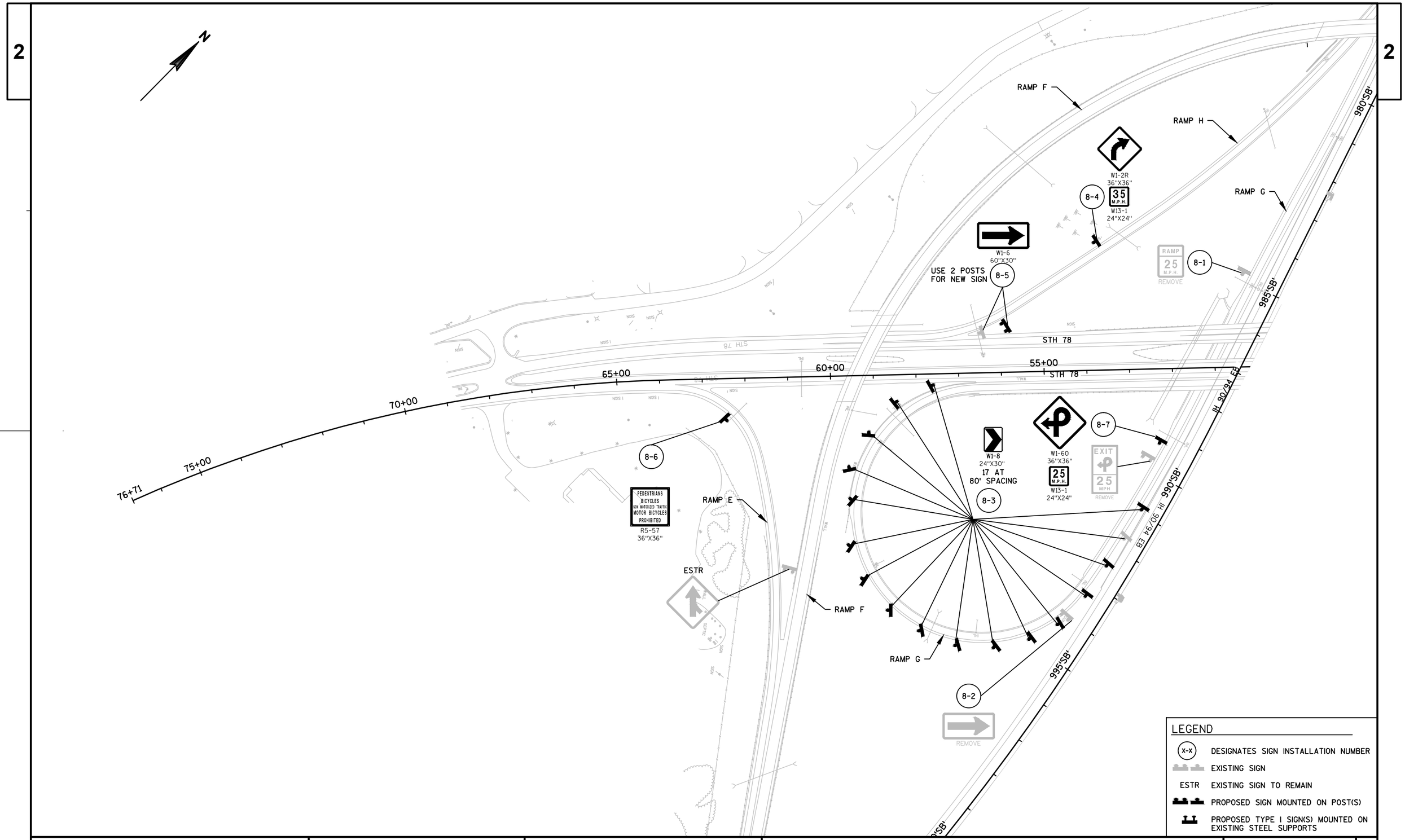
ESTR
ALTERNATE
39

LEGEND

- (X-X) DESIGNATES SIGN INSTALLATION NUMBER
- EXISTING SIGN
- ESTR EXISTING SIGN TO REMAIN
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED TYPE I SIGN(S) MOUNTED ON EXISTING STEEL SUPPORTS

PROJECT NO: 1010-02-85	HWY: IH 39	COUNTY: COLUMBIA	PERMANENT SIGNING - IH 39/90 INTERCHANGE (EAST)	SHEET 48	E

FILE NAME : S:\PROJECTS\SW\COLUMBIA COUNTY\1010-02-02_IH 39\500_CADD\501_C3D\10100202\SHEETSPLAN\023203_78-PS.DWG PLOT DATE : 2/16/2017 3:03 PM PLOT BY : BOBBY JONES PLOT NAME : PLOT SCALE : 1 IN:200 FT



PROJECT NO: 1010-02-85	HWY: IH 39	COUNTY: COLUMBIA	PERMANENT SIGNING - IH 39/90 INTERCHANGE (WEST)	SHEET 49	E

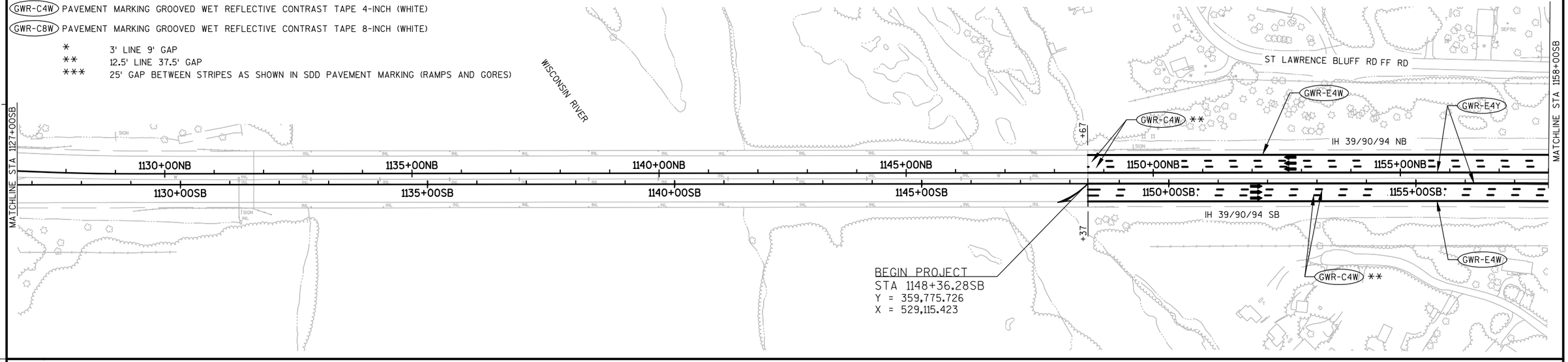
FILE NAME : S:\PROJECTS\SW\COLUMBIA COUNTY\1010-02-02_IH 39\500_CADD\501_C3D\10100202\SHEETSPLAN\023203_78-PS.DWG PLOT DATE : 4/12/2017 8:57 AM PLOT BY : BOBBY JONES PLOT NAME : PLOT SCALE : **********

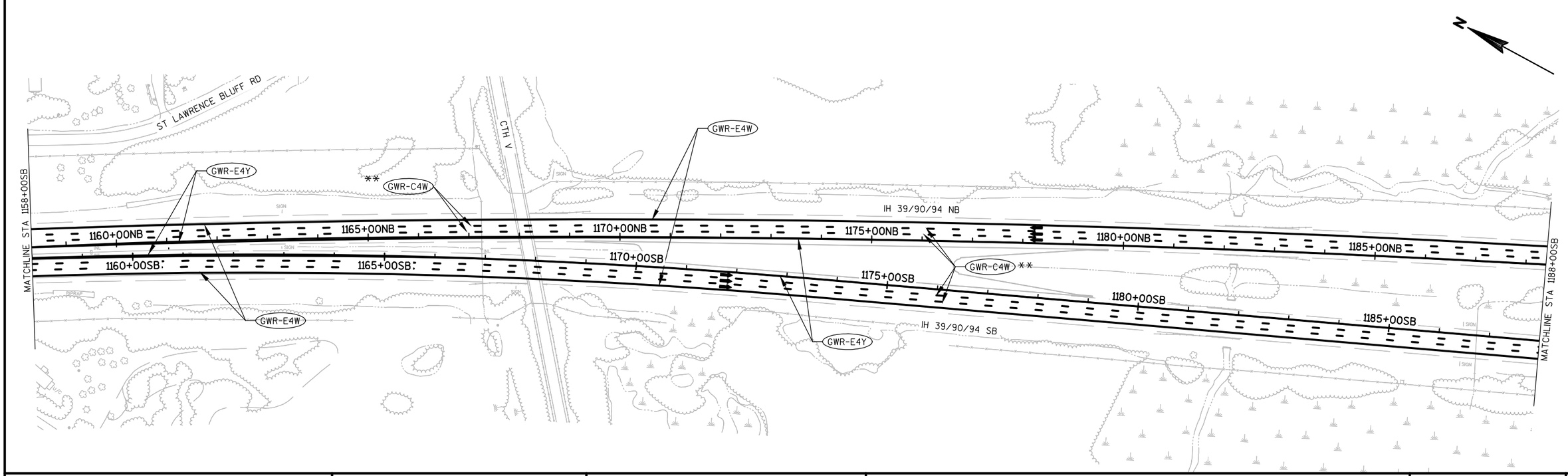
2

LEGEND

E4Y	PAVEMENT MARKING EPOXY 4-INCH (YELLOW)
E4W	PAVEMENT MARKING EPOXY 4-INCH (WHITE)
E8W	PAVEMENT MARKING EPOXY 8-INCH (WHITE)
DIA-E24W	PAVEMENT MARKING DIAGONAL EPOXY 24-INCH (WHITE)
GWR-E4W	PAVEMENT MARKING GROOVED WET REFLECTIVE EPOXY 4-INCH (WHITE)
GWR-E4Y	PAVEMENT MARKING GROOVED WET REFLECTIVE EPOXY 4-INCH (YELLOW)
GWR-C4W	PAVEMENT MARKING GROOVED WET REFLECTIVE CONTRAST TAPE 4-INCH (WHITE)
GWR-C8W	PAVEMENT MARKING GROOVED WET REFLECTIVE CONTRAST TAPE 8-INCH (WHITE)

* 3' LINE 9' GAP
** 12.5' LINE 37.5' GAP
*** 25' GAP BETWEEN STRIPES AS SHOWN IN SDD PAVEMENT MARKING (RAMPS AND GORES)





PROJECT NO: 1010-02-85	HWY: IH 39	COUNTY: COLUMBIA	PAVEMENT MARKING	SHEET 50	E

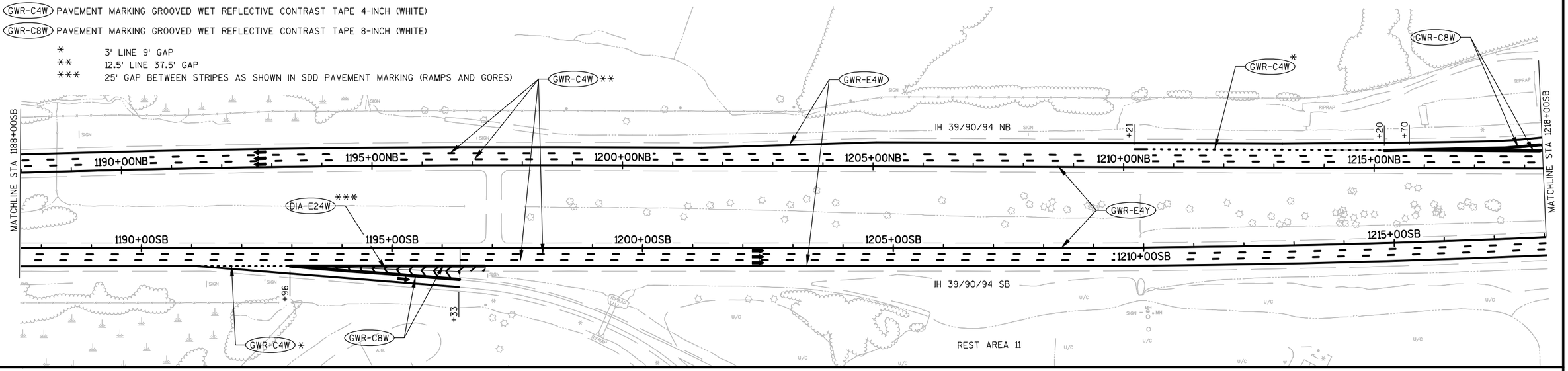
FILE NAME : X:\3230900\131208.01\TECH\CAD\10100202\SHEETSPLAN\CONSTRUCTION PROJECT 2, 1010-02-85\024501_PM-PROJECT 2.DWG PLOT DATE : 4/24/2017 1:24 PM PLOT BY : TIMOTHY VELTE PLOT NAME : PLOT SCALE : 1"=200'_XREF

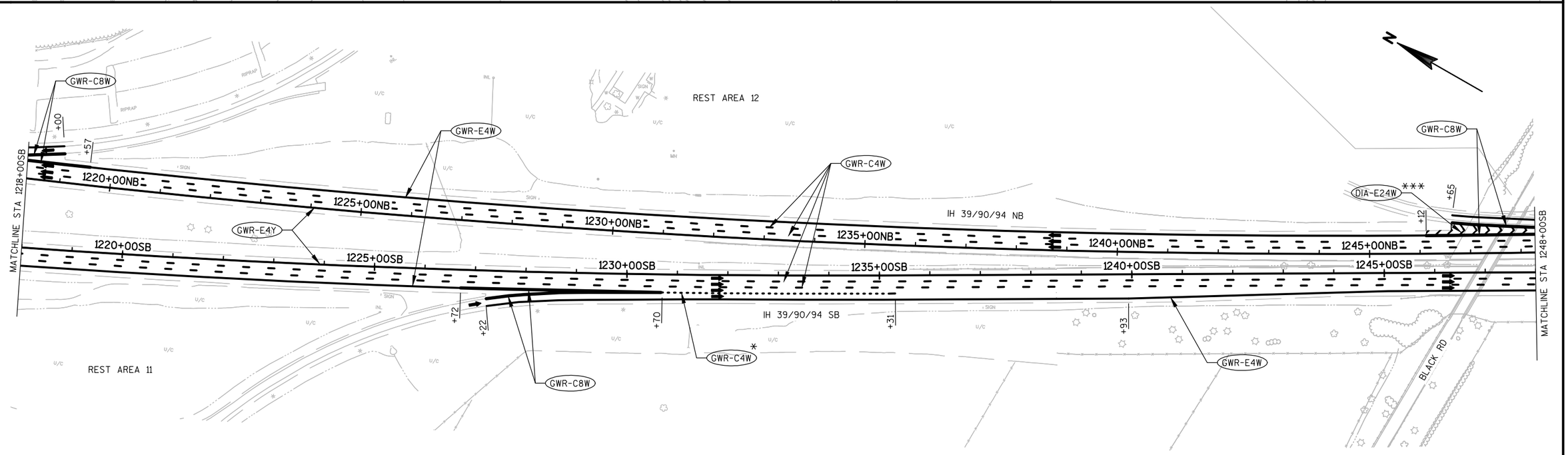
2

LEGEND

- E4Y PAVEMENT MARKING EPOXY 4-INCH (YELLOW)
- E4W PAVEMENT MARKING EPOXY 4-INCH (WHITE)
- E8W PAVEMENT MARKING EPOXY 8-INCH (WHITE)
- DIA-E24W PAVEMENT MARKING DIAGONAL EPOXY 24-INCH (WHITE)
- GWR-E4W PAVEMENT MARKING GROOVED WET REFLECTIVE EPOXY 4-INCH (WHITE)
- GWR-E4Y PAVEMENT MARKING GROOVED WET REFLECTIVE EPOXY 4-INCH (YELLOW)
- GWR-C4W PAVEMENT MARKING GROOVED WET REFLECTIVE CONTRAST TAPE 4-INCH (WHITE)
- GWR-C8W PAVEMENT MARKING GROOVED WET REFLECTIVE CONTRAST TAPE 8-INCH (WHITE)

* 3' LINE 9' GAP
** 12.5' LINE 37.5' GAP
*** 25' GAP BETWEEN STRIPES AS SHOWN IN SDD PAVEMENT MARKING (RAMPS AND GORES)





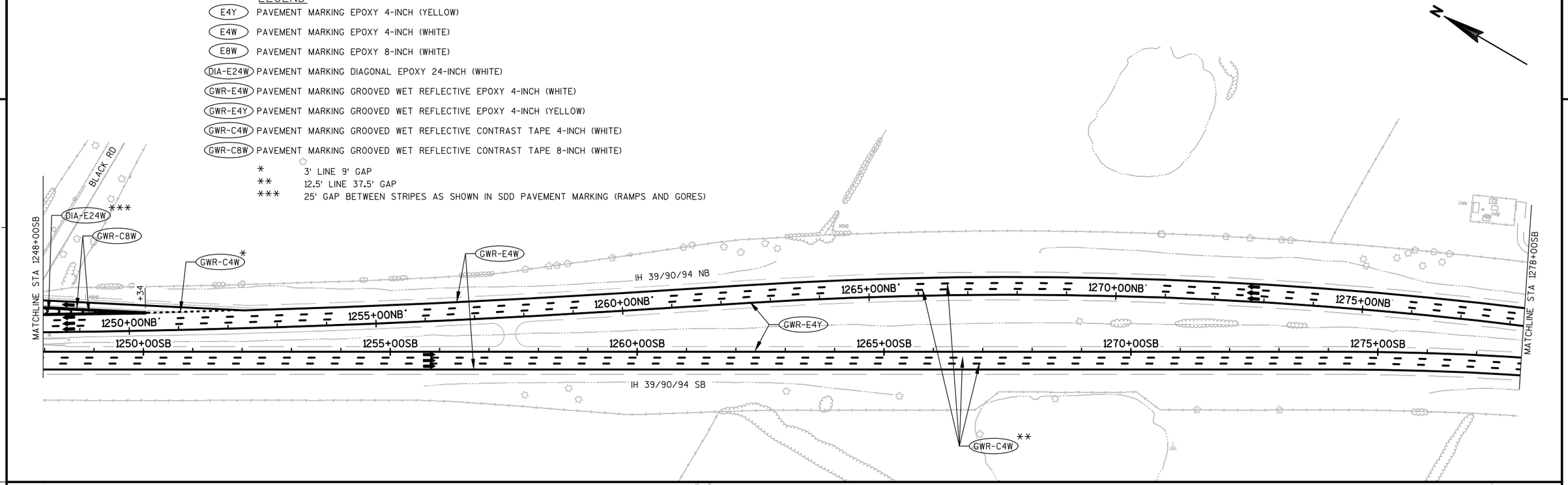
PROJECT NO: 1010-02-85	HWY: IH 39	COUNTY: COLUMBIA	PAVEMENT MARKING	SHEET 51	E

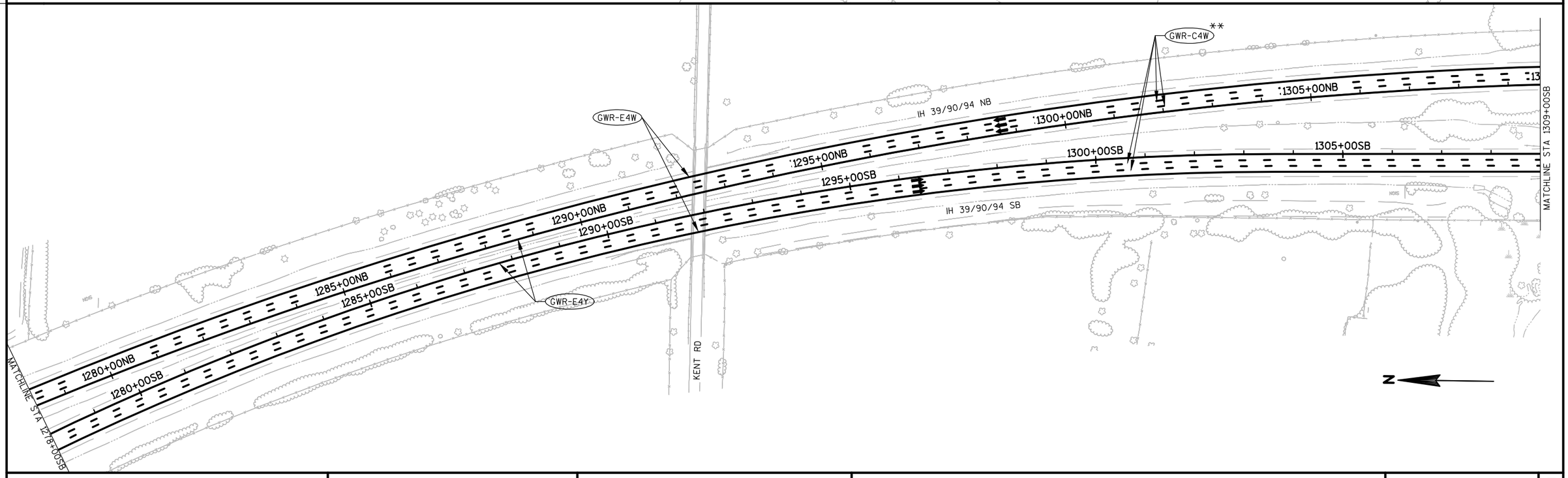
FILE NAME : X:\3230900\131208.01\TECH\CAD\10100202\SHEETSPLAN\CONSTRUCTION PROJECT 2, 1010-02-85\024501_PM-PROJECT 2.DWG PLOT DATE : 4/24/2017 1:25 PM PLOT BY : TIMOTHY VELTE PLOT NAME : PLOT SCALE : 1"=200'_XREF

LEGEND

E4Y	PAVEMENT MARKING EPOXY 4-INCH (YELLOW)
E4W	PAVEMENT MARKING EPOXY 4-INCH (WHITE)
E8W	PAVEMENT MARKING EPOXY 8-INCH (WHITE)
DIA-E24W	PAVEMENT MARKING DIAGONAL EPOXY 24-INCH (WHITE)
GWR-E4W	PAVEMENT MARKING GROOVED WET REFLECTIVE EPOXY 4-INCH (WHITE)
GWR-E4Y	PAVEMENT MARKING GROOVED WET REFLECTIVE EPOXY 4-INCH (YELLOW)
GWR-C4W	PAVEMENT MARKING GROOVED WET REFLECTIVE CONTRAST TAPE 4-INCH (WHITE)
GWR-C8W	PAVEMENT MARKING GROOVED WET REFLECTIVE CONTRAST TAPE 8-INCH (WHITE)

* 3' LINE 9' GAP
** 12.5' LINE 37.5' GAP
*** 25' GAP BETWEEN STRIPES AS SHOWN IN SDD PAVEMENT MARKING (RAMPS AND GORES)





PROJECT NO: 1010-02-85	HWY: IH 39	COUNTY: COLUMBIA	PAVEMENT MARKING	SHEET 52	E

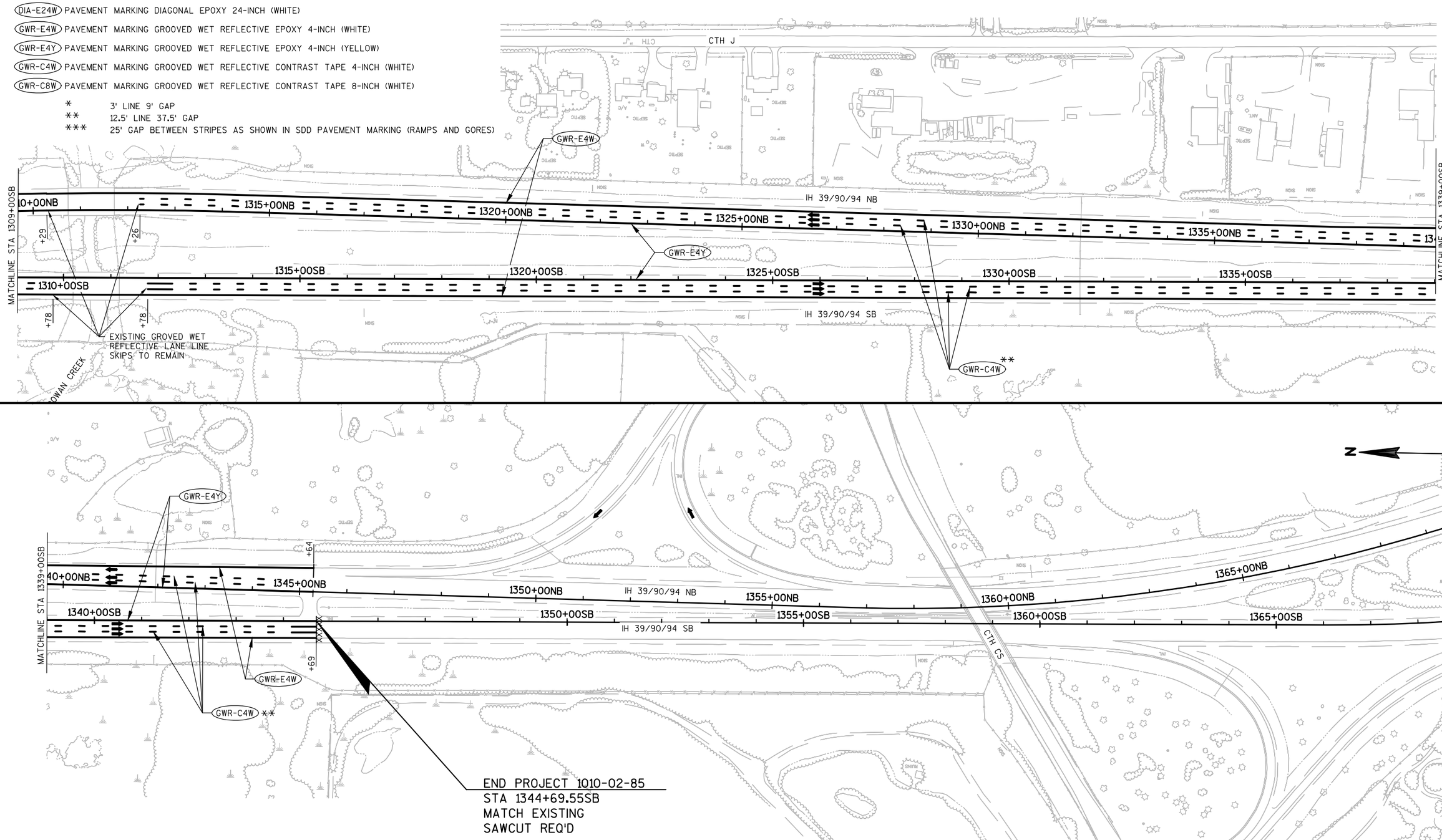
FILE NAME : X:\3230900\131208.01\TECH\CAD\10100202\SHEETSPLAN\CONSTRUCTION PROJECT 2, 1010-02-85\024501_PM-PROJECT 2.DWG PLOT DATE : 4/24/2017 1:26 PM PLOT BY : TIMOTHY VELTE PLOT NAME : PLOT SCALE : 1"=200'_XREF
WISDOT/CADDS SHEET 44

2

LEGEND

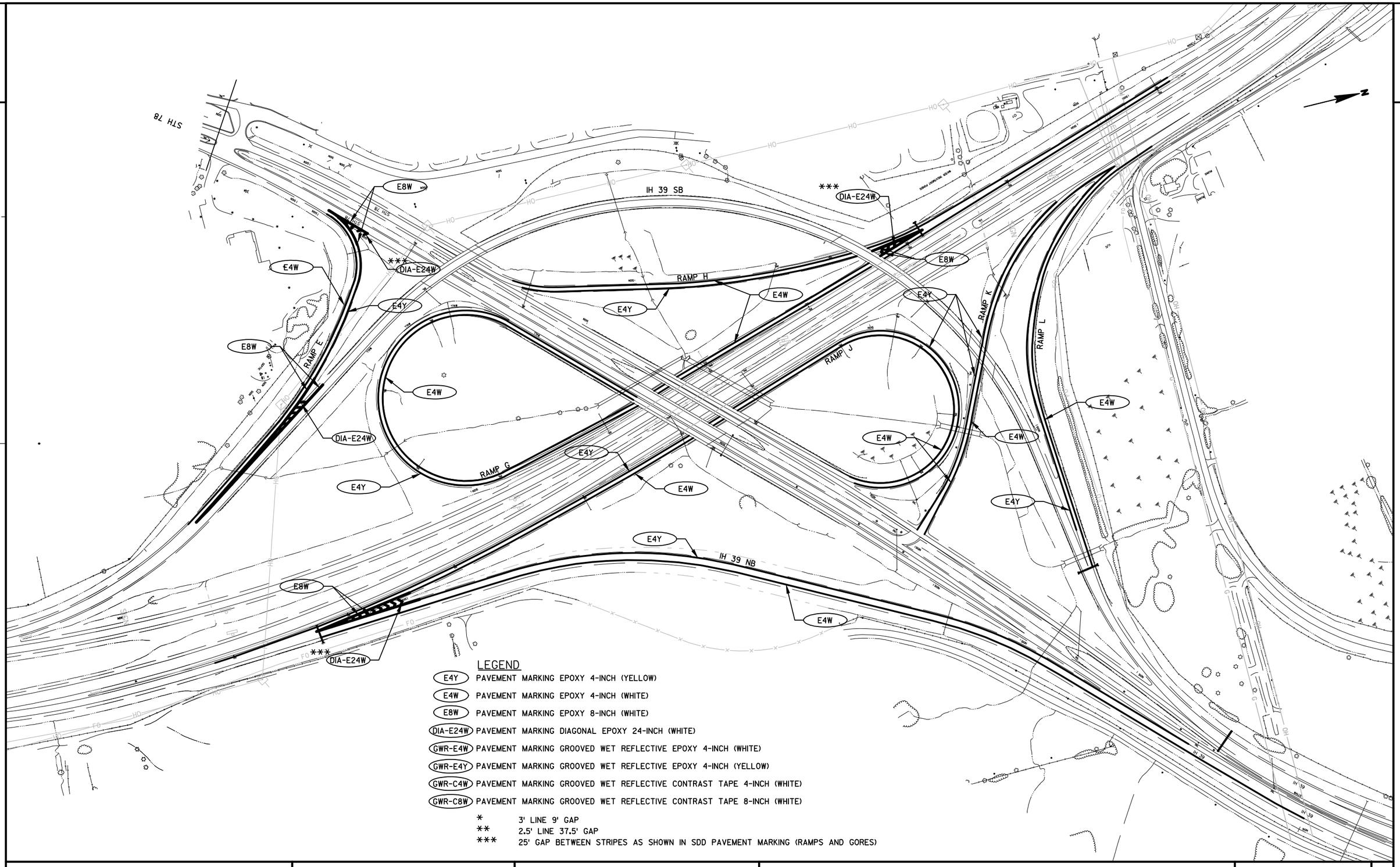
E4Y	PAVEMENT MARKING EPOXY 4-INCH (YELLOW)
E4W	PAVEMENT MARKING EPOXY 4-INCH (WHITE)
E8W	PAVEMENT MARKING EPOXY 8-INCH (WHITE)
DIA-E24W	PAVEMENT MARKING DIAGONAL EPOXY 24-INCH (WHITE)
GWR-E4W	PAVEMENT MARKING GROOVED WET REFLECTIVE EPOXY 4-INCH (WHITE)
GWR-E4Y	PAVEMENT MARKING GROOVED WET REFLECTIVE EPOXY 4-INCH (YELLOW)
GWR-C4W	PAVEMENT MARKING GROOVED WET REFLECTIVE CONTRAST TAPE 4-INCH (WHITE)
GWR-C8W	PAVEMENT MARKING GROOVED WET REFLECTIVE CONTRAST TAPE 8-INCH (WHITE)

* 3' LINE 9' GAP
** 12.5' LINE 37.5' GAP
*** 25' GAP BETWEEN STRIPES AS SHOWN IN SDD PAVEMENT MARKING (RAMPS AND GORES)



PROJECT NO: 1010-02-85	HWY: IH 39	COUNTY: COLUMBIA	PAVEMENT MARKING	SHEET 53	E

2

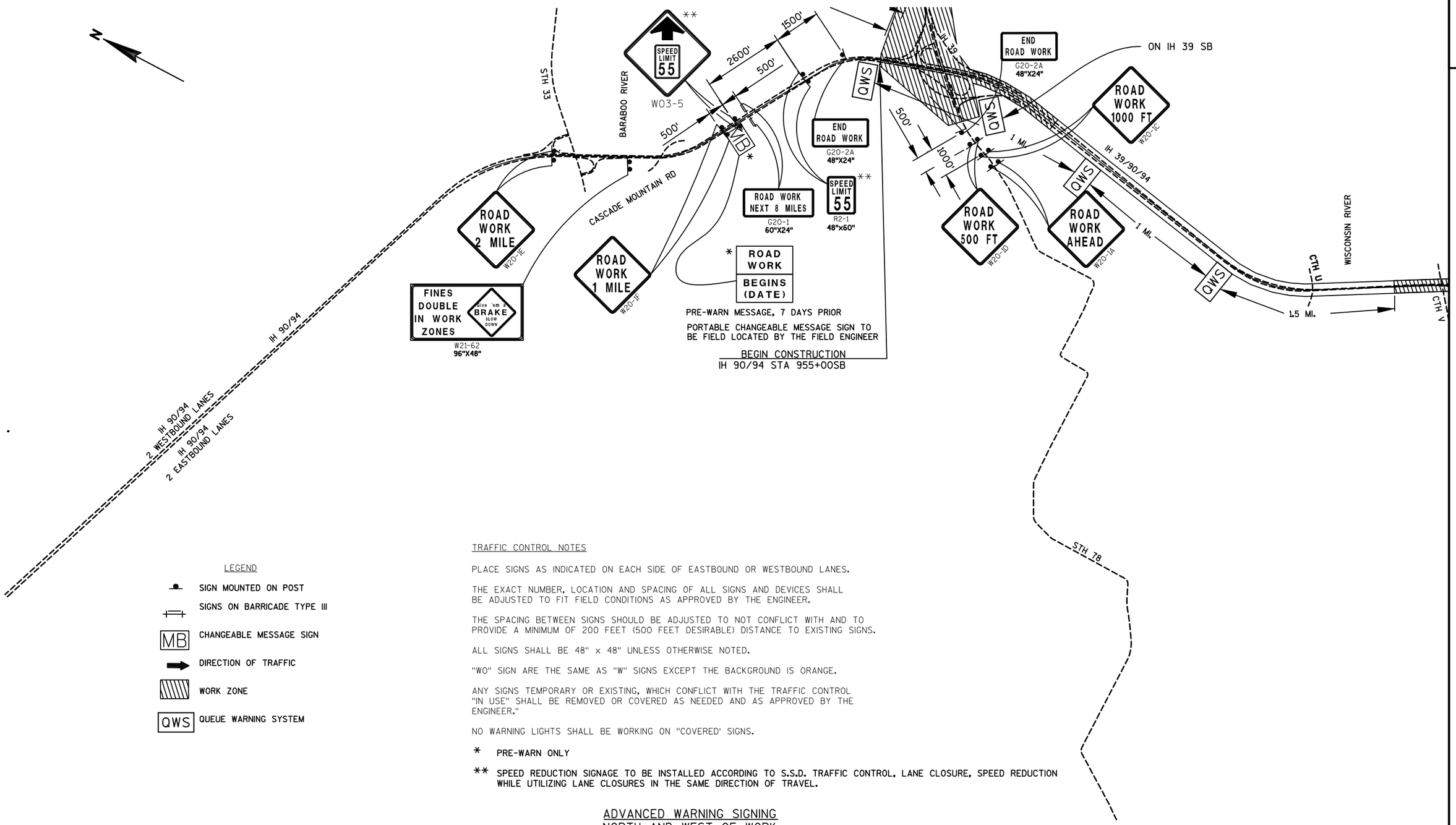


LEGEND

E4Y	PAVEMENT MARKING EPOXY 4-INCH (YELLOW)
E4W	PAVEMENT MARKING EPOXY 4-INCH (WHITE)
E8W	PAVEMENT MARKING EPOXY 8-INCH (WHITE)
DIA-E24W	PAVEMENT MARKING DIAGONAL EPOXY 24-INCH (WHITE)
GWR-E4W	PAVEMENT MARKING GROOVED WET REFLECTIVE EPOXY 4-INCH (WHITE)
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GWR-C4W	PAVEMENT MARKING GROOVED WET REFLECTIVE CONTRAST TAPE 4-INCH (WHITE)
GWR-C8W	PAVEMENT MARKING GROOVED WET REFLECTIVE CONTRAST TAPE 8-INCH (WHITE)

* 3' LINE 9' GAP
** 2.5' LINE 37.5' GAP
*** 25' GAP BETWEEN STRIPES AS SHOWN IN SDD PAVEMENT MARKING (RAMPS AND GORES)

PROJECT NO: 1010-02-85	HWY: IH 39	COUNTY: COLUMBIA	PAVEMENT MARKING	SHEET 54	E



LEGEND

- SIGN MOUNTED ON POST
- SIGNS ON BARRICADE TYPE III
- MB — CHANGEABLE MESSAGE SIGN
- DIRECTION OF TRAFFIC
- WORK ZONE
- QWS — QUEUE WARNING SYSTEM

TRAFFIC CONTROL NOTES

PLACE SIGNS AS INDICATED ON EACH SIDE OF EASTBOUND OR WESTBOUND LANES.

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.

ALL SIGNS SHALL BE 48" x 48" UNLESS OTHERWISE NOTED.

"WO" SIGN ARE THE SAME AS "W" SIGNS 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' SIGNS.

* PRE-WARN ONLY

** SPEED REDUCTION SIGNAGE TO BE INSTALLED ACCORDING TO S.S.D. TRAFFIC CONTROL, LANE CLOSURE, SPEED REDUCTION WHILE UTILIZING LANE CLOSURES IN THE SAME DIRECTION OF TRAVEL.

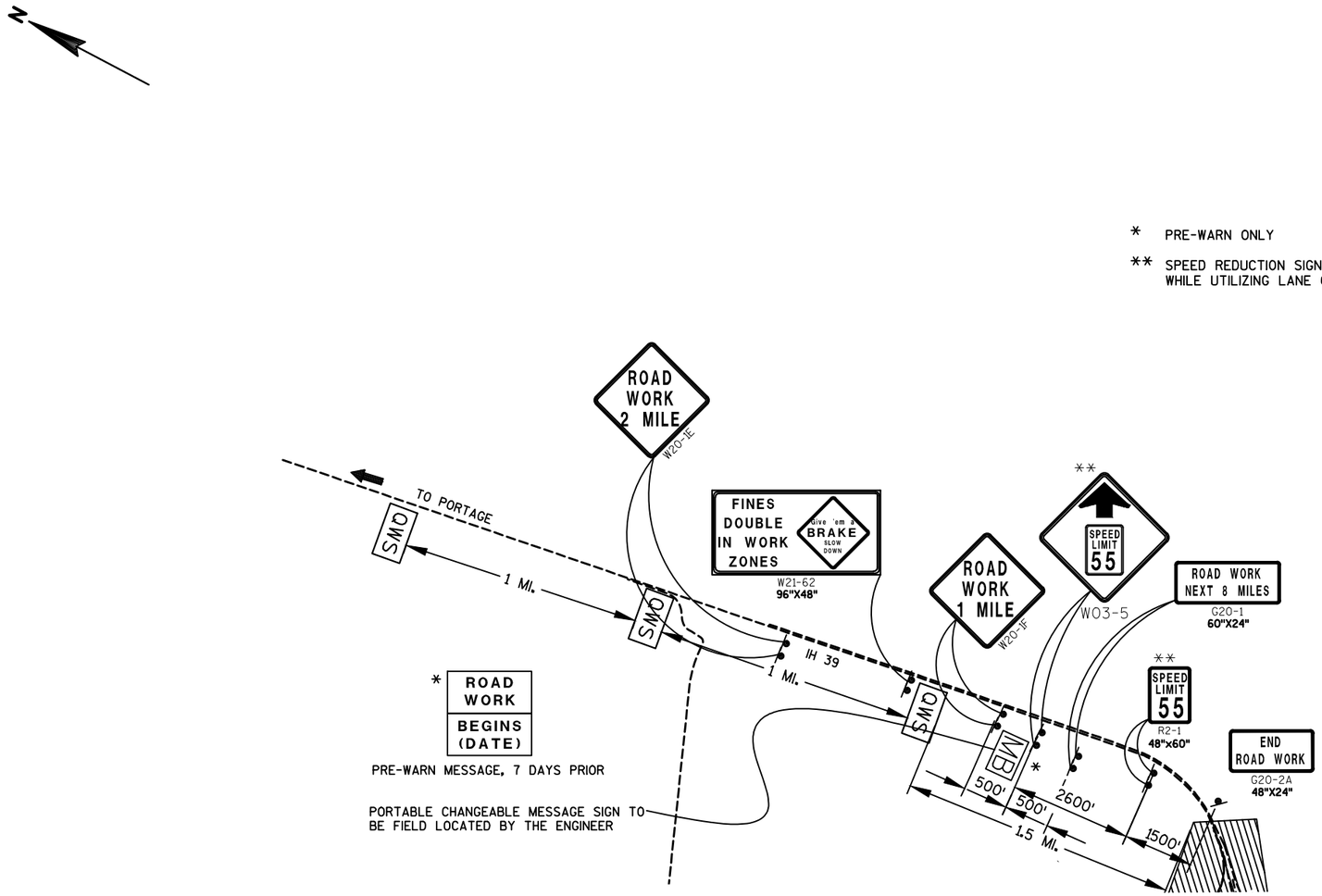
ADVANCED WARNING SIGNING NORTH AND WEST OF WORK ZONE

PROJECT NO: 1010-02-85	HWY: IH 39	COUNTY: COLUMBIA	TRAFFIC CONTROL - ADVANCED WARNING SIGNING	SHEET 55	E

2

* PRE-WARN ONLY

** SPEED REDUCTION SIGNAGE TO BE INSTALLED ACCORDING TO S.S.D. TRAFFIC CONTROL, LANE CLOSURE, SPEED REDUCTION WHILE UTILIZING LANE CLOSURES IN THE SAME DIRECTION OF TRAVEL.



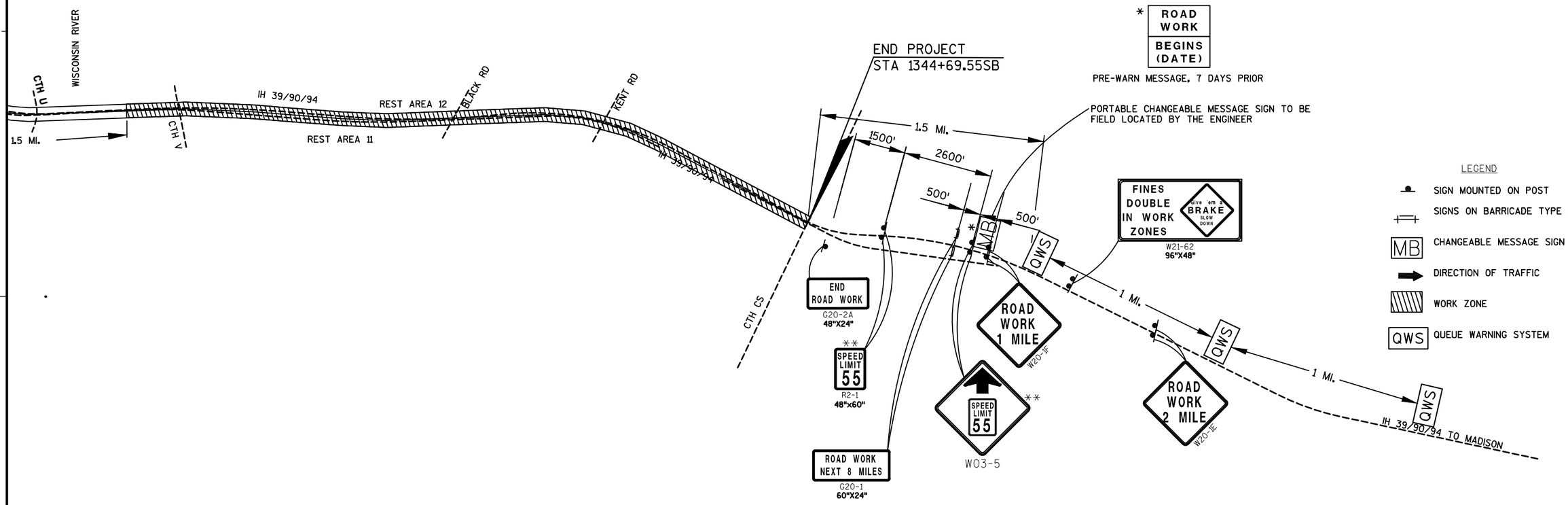
LEGEND

- SIGN MOUNTED ON POST
- SIGNS ON BARRICADE TYPE III
- MB — CHANGEABLE MESSAGE SIGN
- DIRECTION OF TRAFFIC
- WORK ZONE
- QWS — QUEUE WARNING SYSTEM

ADVANCED WARNING SIGNING
NORTH END OF IH 39

PROJECT NO: 1010-02-85	HWY: IH 39	COUNTY: COLUMBIA	TRAFFIC CONTROL - ADVANCED WARNING SIGNING	SHEET 56	E

2

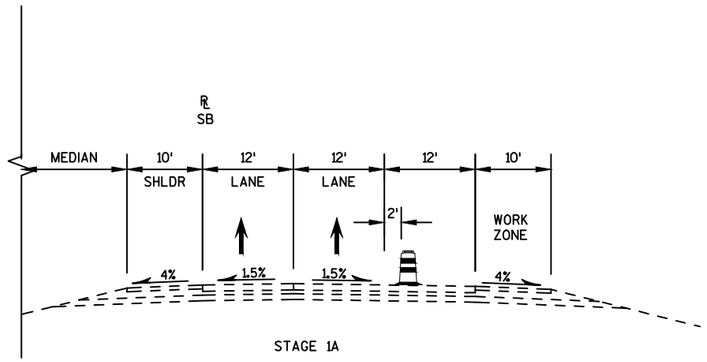


* PRE-WARN ONLY

** SPEED REDUCTION SIGNAGE TO BE INSTALLED ACCORDING TO S.S.D. TRAFFIC CONTROL, LANE CLOSURE, SPEED REDUCTION WHILE UTILIZING LANE CLOSURES IN THE SAME DIRECTION OF TRAVEL.

ADVANCED WARNING SIGNING
SOUTH OF WORK ZONE

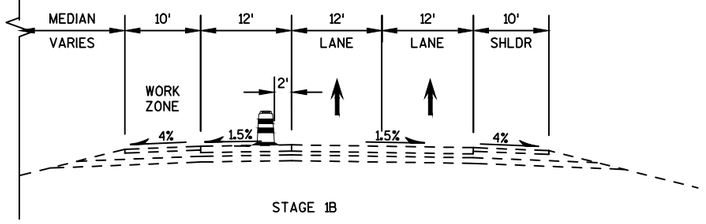
NOTE: REVERSE SECTIONS FOR OPPOSITE SIDE



STAGE 1A

6-LANE TYPICAL SECTION

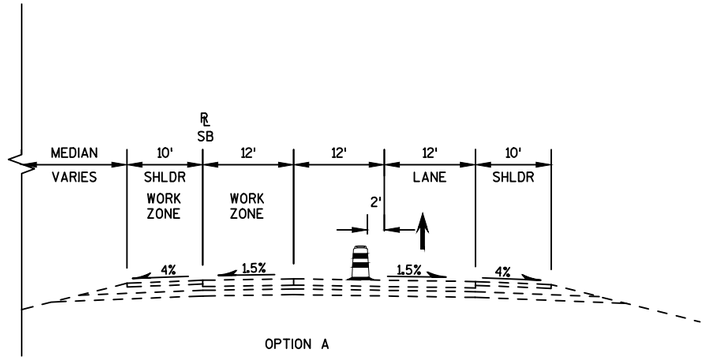
IH 39/90/94
OUTSIDE SHOULDER SLOPE GRADING



STAGE 1B

6-LANE TYPICAL SECTION

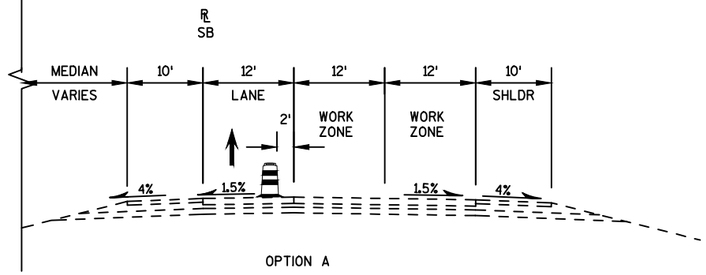
IH 39/90/94
MEDIAN SHOULDER SLOPE GRADING



OPTION A

6-LANE TYPICAL SECTION

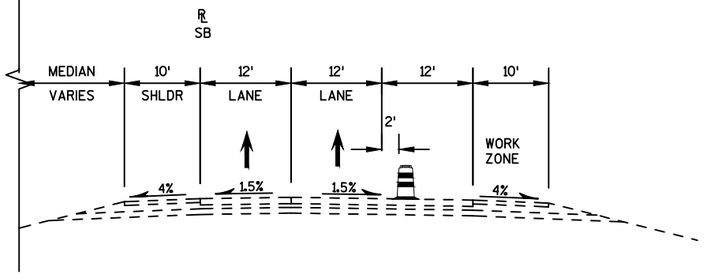
IH 39/90/94
MEDIAN LANE & SHOULDER WORK



OPTION A

6-LANE TYPICAL SECTION

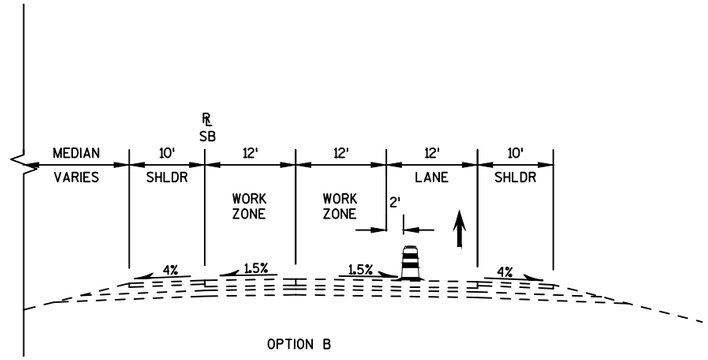
IH 39/90/94
CENTER & OUTSIDE LANE WORK



OPTION A

6-LANE TYPICAL SECTION

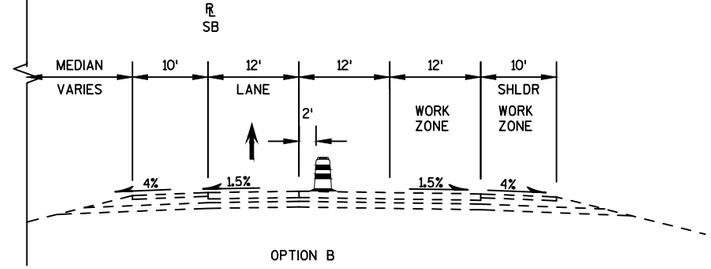
IH 39/90/94
OUTSIDE SHOULDER WORK



OPTION B

6-LANE TYPICAL SECTION

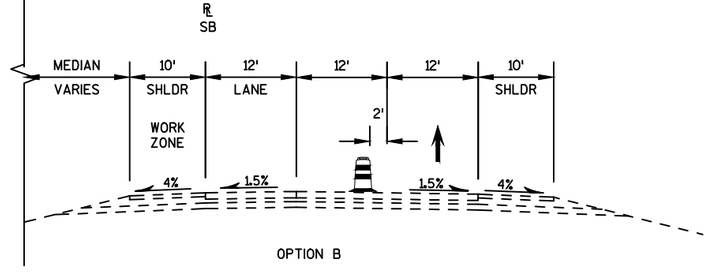
IH 39/90/94
MEDIAN & CENTER LANE WORK



OPTION B

6-LANE TYPICAL SECTION

IH 39/90/94
OUTSIDE LANE & OUTSIDE SHOULDER WORK



OPTION B

6-LANE TYPICAL SECTION

IH 39/90/94
OUTSIDE LANE WORK

PROJECT NO: 1010-02-85	HWY: IH 39	COUNTY: COLUMBIA	CONSTRUCTION STAGING TYPICAL SECTIONS - STAGE 1 & 2 & 3	SHEET 58	E

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WTH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- CONCRETE BARRIER TEMPORARY PRECAST
- WORK AREA
- DIRECTION OF TRAFFIC
- MB PORTABLE CHANGEABLE MESSAGE BOARD

ATC - PROPOSED TRANSMISSION LINE

R/W

WISDOT AND AT&T - FIBER OPTIC

ALLIANT ENERGY - ELECTRIC

CRASH CUSHIONS TEMPORARY

CONCRETE BARRIER TEMPORARY PRECAST

+25

+21

SDD TRAFFIC CONTROL, SHOULDER CLOSURE ON
DIVIDED ROADWAY, SPEEDS GREATER THAN 40 M.P.H.

IH 39/90/94 NB

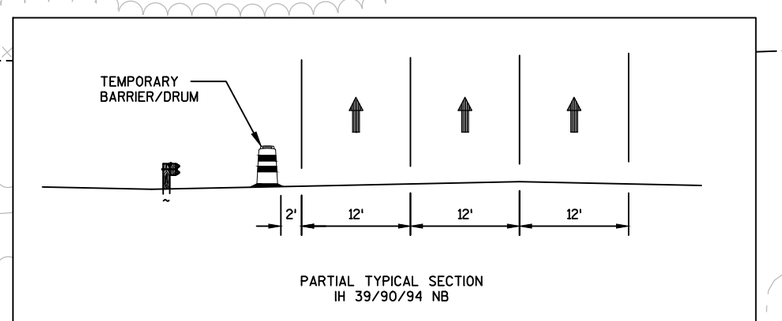
1161+00SB 1162+00SB 1163+00SB 1164+00SB 1165+00SB 1166+00SB 1167+00SB 1168+0

IH 39/90/94 SB

SDD TRAFFIC CONTROL, SHOULDER CLOSURE ON
DIVIDED ROADWAY, SPEEDS GREATER THAN 40 M.P.H.

SIGN

SIGN



PARTIAL TYPICAL SECTION
IH 39/90/94 NB

PROJECT NO: 1010-02-85	HWY: IH 39	COUNTY: COLUMBIA	TRAFFIC CONTROL - STAGE 1A	SHEET 59	E

2

2

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WTH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- CONCRETE BARRIER TEMPORARY PRECAST
- WORK AREA
- DIRECTION OF TRAFFIC
- MB PORTABLE CHANGEABLE MESSAGE BOARD

N

STRUCTURE B-11-39

ALLIANT ENERGY - ELECTRIC

CONCRETE BARRIER TEMPORARY PRECAST

CRASH CUSHION TEMPORARY

SDD TRAFFIC CONTROL, SHOULDER CLOSURE ON DIVIDED ROADWAY, SPEEDS GREATER THAN 40 M.P.H.

+00SB

1295+00SB

1290+00SB

1285+00SB

IH 39/90/94 NB

+76

+03

1300+00NB

1295+00NB

1290+00NB

1285+00NB

IH 39/90/94 SB

B-11-0039

+00

+73

SDD TRAFFIC CONTROL, SHOULDER CLOSURE ON DIVIDED ROADWAY, SPEEDS GREATER THAN 40 M.P.H.

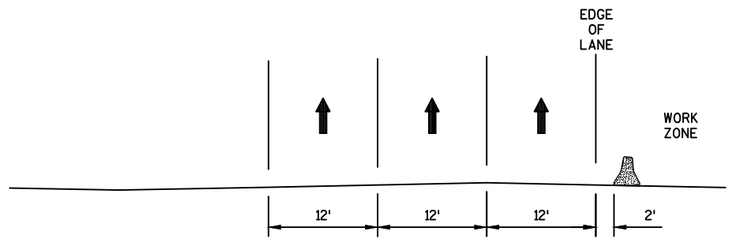
CRASH CUSHION TEMPORARY

AT&T - FIBER OPTIC

CONCRETE BARRIER TEMPORARY PRECAST

ATC - PROPOSED TRANSMISSION LINE

KENT RD

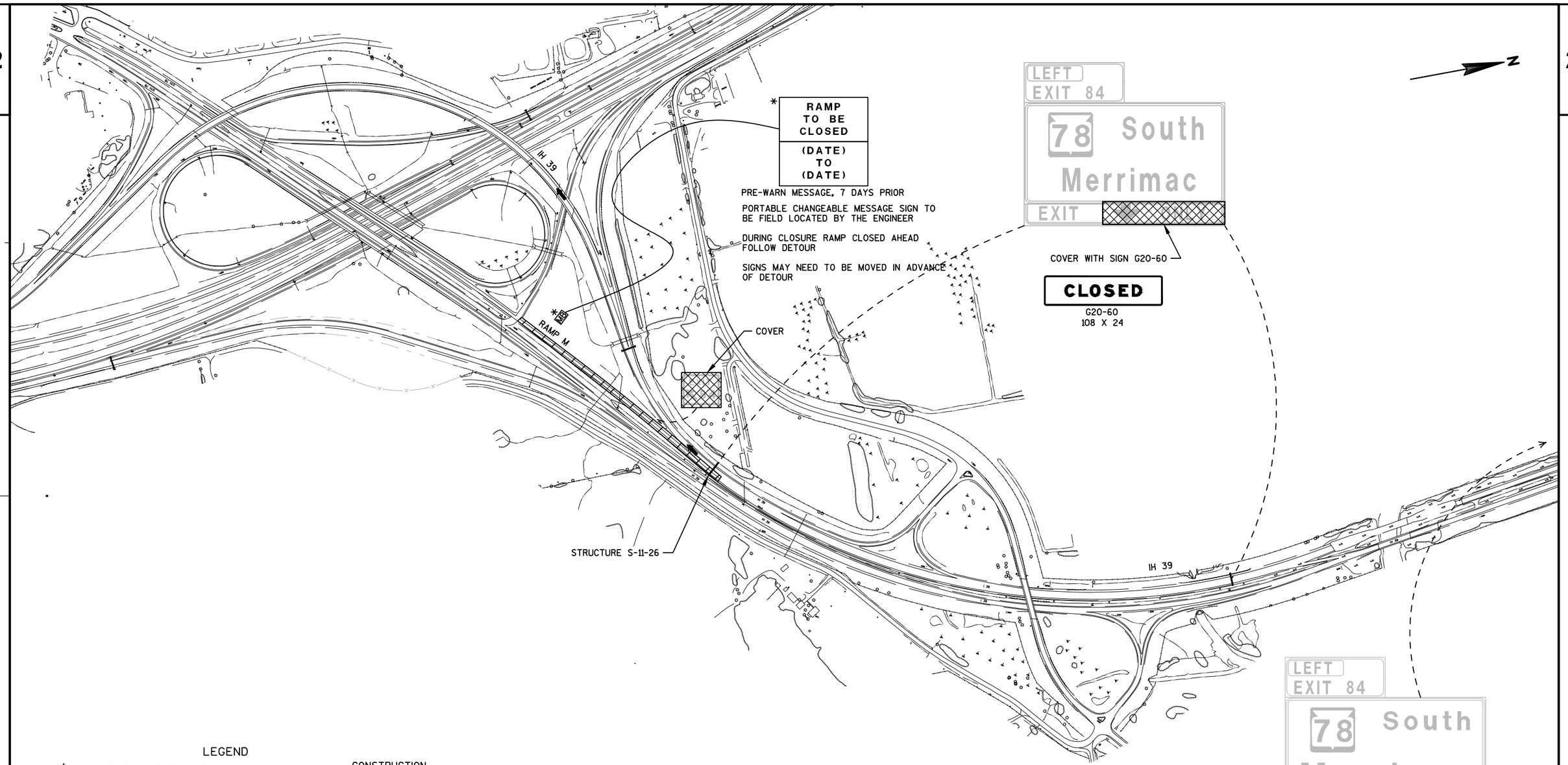


PROJECT NO: 1010-02-85	HWY: IH 39	COUNTY: COLUMBIA	TRAFFIC CONTROL - STAGE 1A	SHEET 60	E

FILE NAME : X:\3230900\131208.01\TECH\CAD\10100202\SHEETSPLAN\CONSTRUCTION PROJECT 2, 1010-02-85\025001_TC-KENT RD.DWG PLOT DATE : 4/24/2017 1:29 PM PLOT BY : TIMOTHY VELTE PLOT NAME : PLOT SCALE : 1" = 100'_XREF

WISDOT/CADDS SHEET 42

2



LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WTH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- CONCRETE BARRIER TEMPORARY PRECAST
- WORK AREA
- DIRECTION OF TRAFFIC
- MB PORTABLE CHANGEABLE MESSAGE BOARD

CONSTRUCTION

CONCRETE PAVEMENT REPAIR & REPLACEMENT RAMP M

TRAFFIC

CLOSE RAMP M FROM SB IH 39 TO SB STH 78 CONTINUOUSLY FOR DURATION OF STAGE

CLOSE LEFT EXIT LANE SB IH 39 CONTINUOUSLY FROM START OF TAPER TO SB STH 78 EXIT (RAMP M)

SB IH 39 TRAFFIC TO SB STH 78 WILL BE DETOURED (SEE TRAFFIC CONTROL DETOUR - STH 78 - STAGE 4A)

STAGE 4A MAY NOT BE CONSTRUCTED CONCURRENTLYWITH ANY OTHER STAGE 4 SUBSTAGES

PROJECT NO:1010-02-85	HWY: IH 39	COUNTY: COLUMBIA	TRAFFIC CONTROL - STAGE 4A - OVERVIEW	SHEET 61	E

2

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WTH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- CONCRETE BARRIER TEMPORARY PRECAST
- WORK AREA
- DIRECTION OF TRAFFIC
- MB PORTABLE CHANGEABLE MESSAGE BOARD

NOTE:
LEFT LANE AND EXIT RAMP CLOSED CONTINUOUSLY.

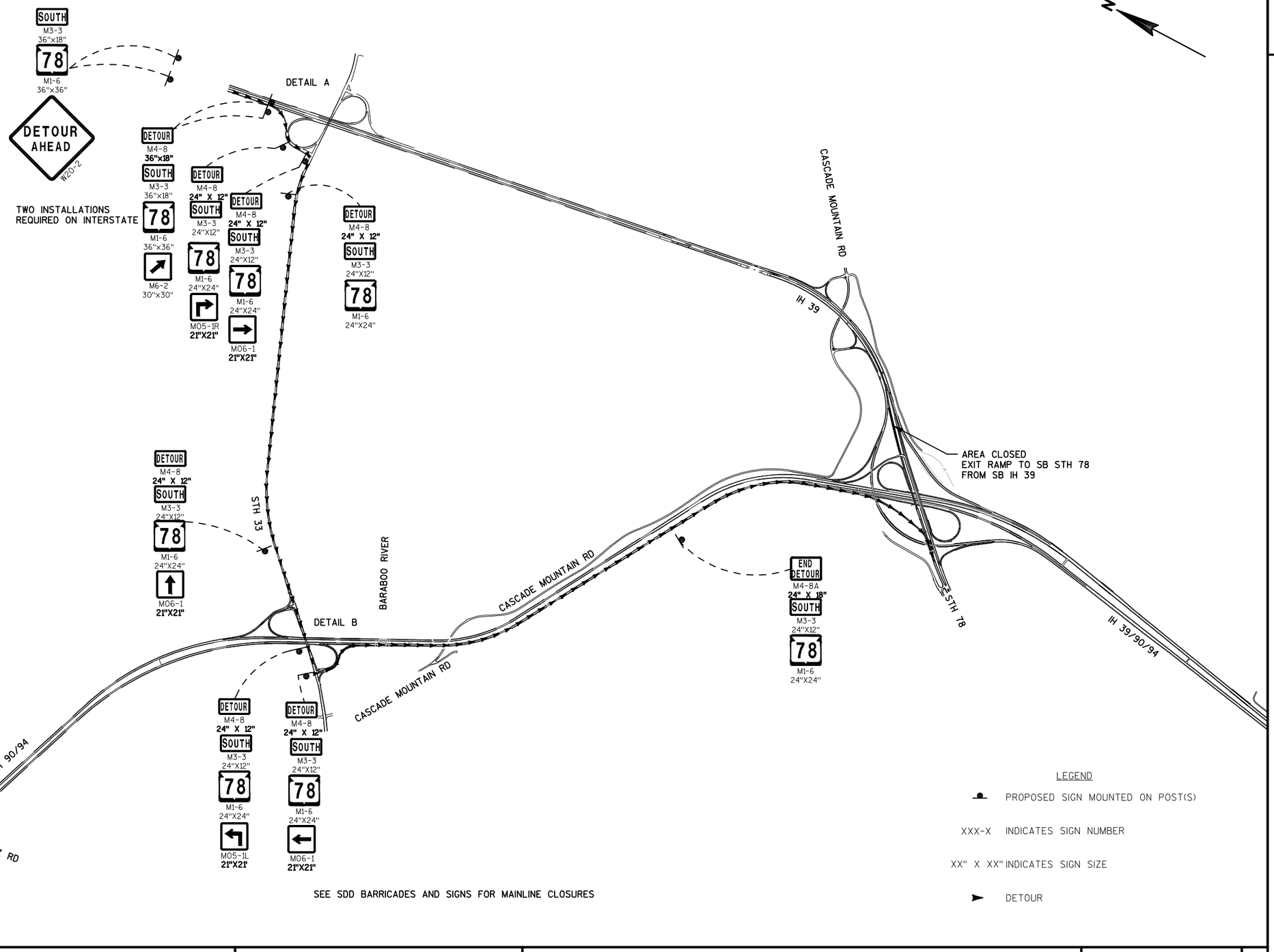
R11-2
48" X 30"
RAMP CLOSED
TYPE III BARRICADE

RAMP F
IH 39 SB
RAMP L
975+00L
ALLIANT/WP&L - GAS
RAMP M
STH 78
970+00L
975+00I
IH 39 970+00I
967+50I
CONSTRUCT LEFT BASE OF S-11-26
965+00L
964+40L
CASCADE MOUNTAIN RD TO IH 39 SB
IH 39 SB TO CASCADE MOUNTAIN RD
IH 39 SB
IH 39 NB
JOHNSON RD
CASCADE MOUNTAIN RD
SEE SDD TRAFFIC CONTROL
EXIT RAMP CLOSURE
CLOSE TO BEGINNING OF EXIT
TAPER

2

PROJECT NO: 1010-02-85	HWY: IH 39	COUNTY: COLUMBIA	TRAFFIC CONTROL - STAGE 4A	SHEET 62	E

2



PROJECT NO: 1010-02-85	HWY: IH 39	COUNTY: COLUMBIA	TRAFFIC CONTROL DETOUR - SB STH 78 - STAGE 4A	SHEET 63	E

FILE NAME : X:\3230900\131208.01\TECH\CAD\10100202\SHEETSPLAN\CONSTRUCTION PROJECT 2, 1010-02-85\027001_DT - STAGE 4A.DWG PLOT DATE : 4/24/2017 1:31 PM PLOT BY : TIMOTHY VELTE PLOT NAME : PLOT SCALE : 1" = 2000'_XREF

2

(PLACE AT TYPE I SIGN)

TWO INSTALLATIONS REQUIRED ON INTERSTATE

DETOUR M4-8 36"x18"
SOUTH M3-3 36"x18"
78 M1-6 36"x36"
M06-2 30"x30"

DETOUR M4-8 24" X 12"
SOUTH M3-3 24"X12"
78 M1-6 24"X24"
M05-1R 21"X21"

DETOUR M4-8 24" X 12"
SOUTH M3-3 24"X12"
78 M1-6 24"X24"
M06-1 21"X21"

DETAIL A

N

STH 33

IH 39

DETOUR SB IH 39 TO SB STH 78

DETAIL B

N

DETOUR M4-8 24" X 12"
SOUTH M3-3 24"X12"
78 M1-6 24"X24"
M05-1L 21"X21"

DETOUR M4-8 24" X 12"
SOUTH M3-3 24"X12"
78 M1-6 24"X24"
M06-1 21"X21"

STH 33

BARABOO RIVER

IH 90/94

CASCADE MOUNTAIN RD

DETOUR SB IH 39 TO SB STH 78

2

PROJECT NO:1010-02-85	HWY:IH 39	COUNTY:COLUMBIA	TRAFFIC CONTROL DETOUR-SB STH 78 - STAGE 4A DETAIL A & B	SHEET 64	E

2

N

* RAMP TO BE CLOSED (DATE) TO (DATE)

PRE-WARN MESSAGE, 7 DAYS PRIOR

PORTABLE CHANGEABLE MESSAGE SIGN TO BE FIELD LOCATED BY THE ENGINEER

DURING CLOSURE RAMP CLOSED AHEAD FOLLOW DETOUR

SIGNS MAY NEED TO BE MOVED IN ADVANCE OF DETOUR

STH 78

COVER

IH 39 "F"

B-11-98

RAMP E

RAMP L

MB

INTERSTATE 90 INTERSTATE 94 WEST
Wis Dells
CLOSED
G20-60
(120"X30")

COVER

COVER

INTERSTATE 39 INTERSTATE 90 INTERSTATE 94
Madison

COVER

* RAMP TO BE CLOSED (DATE) TO (DATE)

PRE-WARN MESSAGE, 7 DAYS PRIOR

PORTABLE CHANGEABLE MESSAGE SIGN TO BE FIELD LOCATED BY THE ENGINEER

DURING CLOSURE RAMP CLOSED AHEAD FOLLOW DETOUR

SIGNS MAY NEED TO BE MOVED IN ADVANCE OF DETOUR

S-11-26

S-11-12

IH 39

CASCADE MOUNTAIN RD

INTERSTATE 39 INTERSTATE 90 INTERSTATE 94
Madison

COVER

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WTH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- CONCRETE BARRIER TEMPORARY PRECAST
- WORK ZONE
- DIRECTION OF TRAFFIC
- MB PORTABLE CHANGEABLE MESSAGE BOARD

CONSTRUCTION

RECONSTRUCT WING WALL B-11-98 SB IH 39

RECONSTRUCT RAMP E

CONCRETE PAVEMENT REPAIR AND REPLACEMENT RAMP L.

CONCRETE PAVEMENT REPAIR AND REPLACEMENT NB STH 78

REPLACE SIGN STRUCTURE S-11-12 WITH S-11-26

TRAFFIC

CLOSE RIGHT LANE SB IH 39 CONTINUOUSLY FOR DURATION OF STAGE.

CLOSE RAMP L THROUGH COMPLETION OF WORK. RAMP L WILL BE DETOURED (SEE TRAFFIC CONTROL DETOUR - RAMP L - STAGE 4B)

CLOSE RAMP E. RAMP E MAY BE CLOSED PRIOR TO RIGHT LANE CLOSURE OF SB IH39. RAMP E WILL BE DETOURED (SEE TRAFFIC CONTROL DETOUR - RAMP E - STAGE 4B)

MAINTAIN THROUGH TRAFFIC ON NB STH 78 UTILIZING ALTERNATING LANE CLOSURES.

UTILIZE ROLLING STOPS FOR REMOVAL OF S-11-12 AND INSTALL OF S-11-26.

STAGE 4B MAY NOT BE CONSTRUCTED CONCURRENTLYWITH STAGES 4A, 4C OR 4E

PROJECT NO:1010-02-85	HWY: IH 39	COUNTY: COLUMBIA	TRAFFIC CONTROL STAGE 4B OVERVIEW	SHEET 65	E

FILE NAME : X:\3230900\131208.01\TECH\CAD\10100202\SHEETSPLAN\CONSTRUCTION PROJECT 2, 1010-02-85\025002_TC-STAGE 3B OVERVIEW.DWG PLOT DATE : 4/24/2017 1:32 PM PLOT BY : TIMOTHY VELTE PLOT NAME : PLOT SCALE : 1" = 500'_XREF

WISDOT/CADDS SHEET 42

2

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WTH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- CONCRETE BARRIER TEMPORARY PRECAST
- WORK ZONE
- DIRECTION OF TRAFFIC
- MB PORTABLE CHANGEABLE MESSAGE BOARD

ATC - PROPOSED TRANSMISSION LINE

R/W

B-11-0098

IH 90/94EB

IH 90/94WB

975+00SB

975+00NB

980+00SB

980+00NB

CONCRETE BARRIER TEMPORARY PRECAST

TEMPORARY CRASH CUSHION

B-11-0100

IH 39 SB RAMP F

980+00F

975+00F

970+00F

985+00F

EXTEND CLOSURE THROUGH RAMP E

N

MOVE S-11-12

CONSTRUCT S-11-26

AT&T - FIBER OPTIC

RAMP CLOSED
R11-2-R
48"X30"

SEE SDD TRAFFIC CONTROL,
EXIT RAMP CLOSURE

RAMP L

IH 39 SB

965+00F

960+00F

IH 39 NB

2

PROJECT NO: 1010-02-85	HWY: IH 39	COUNTY: COLUMBIA	TRAFFIC CONTROL STAGE 4B - SB IH 39	SHEET 66	E

2

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WTH ATTACHED SIGN
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- TRAFFIC CONTROL DRUM
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- CONCRETE BARRIER TEMPORARY PRECAST
- WORK ZONE
- DIRECTION OF TRAFFIC
- MB — PORTABLE CHANGEABLE MESSAGE BOARD

NOTE:
FOR ADDITIONAL DETAILS SEE:

FOR RIGHT LANE CLOSURE, SEE SDD TRAFFIC CONTROL, LANE CLOSURE, SPEEDS GREATER THAN 40 MPH WITH BARRIER

SEE SDD TRAFFIC CONTROL, EXIT AND ENTRANCE RAMP WITHIN LANE CLOSURE FOR RAMP DETAILS & BUFFER BETWEEN LANE CLOSURE AND EXIT RAMP

W03-2

CASCADE MOUNTAIN RD TO IH 39 SB

YIELD
R1-2
48"x42"

IH 39 SB TO CASCADE MOUNTAIN RD

EXIT
E5-1
60" X 48"

CLOSE RIGHT LANE

RPM

T-T8

T-RT4

ALLIANT ENERGY - ELECTRIC

JOHNSON RD

IH 39 SB

IH 39 NB

CASCADE MOUNTAIN RD

SIGN

SIGNS

XXXXXXXXXXXXXXXXXXXX

XXXXXXXX

ANT.

(T-T8) TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 8-INCH
(T-RT4) TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH
(RPM) REMOVING PAVEMENT MARKINGS

PROJECT NO: 1010-02-85	HWY: IH 39	COUNTY: COLUMBIA	TRAFFIC CONTROL STAGE 4B - SB IH 39	SHEET 67	E

2

DETOUR AHEAD
W20-2
STH 78
W/EXIST SIGNS

DETOUR M4-8 36"X18" | DETOUR M4-8 36"X18" | DETOUR M4-8 36"X18"
SOUTH MB3-3 36"X18" | EAST MB3-2 36"X18" | EAST MB3-2 36"X18"
INTERSTATE 39 M1-1 36"X36" | INTERSTATE 90 M1-1 36"X36" | INTERSTATE 94 M1-1 36"X36"
M06-1 30"X30" | M06-1 30"X30" | M06-1 30"X30"
COVER EXIST SIGN

TWO INSTALLATIONS
REQUIRED ON INTERSTATE

IH 39 "F"

RAMP E

RAMP L

DETOUR M4-8 24" X 12" | DETOUR M4-8 24" X 12" | DETOUR M4-8 24" X 12"
SOUTH MB3-3 24"X12" | EAST MB3-2 24"X12" | EAST MB3-2 24"X12"
INTERSTATE 39 M1-1 24"X24" | INTERSTATE 90 M1-1 24"X24" | INTERSTATE 94 M1-1 24"X24"
M06-1 21"X21" | M06-1 21"X21" | M06-1 21"X21"

END DETOUR M4-8A 30"X24" | END DETOUR M4-8A 30"X24"
EAST MB3-2 36"X18" | EAST MB3-2 36"X18"
INTERSTATE 90 M1-1 36"X36" | INTERSTATE 94 M1-1 36"X36"
TWO INSTALLATIONS
REQUIRED ON INTERSTATE

IH 39

TO STH 33

CASCADE MOUNTAIN RD

WORK ZONE

DETOUR RAMP 'E' (STH 78 TO SB IH 39 / EB IH 90/94)

PROJECT NO: 1010-02-85	HWY: IH 39	COUNTY: COLUMBIA	TRAFFIC CONTROL DETOUR RAMP E - STAGE 4B	SHEET 68	E

FILE NAME : X:\3230900\131208.01\TECH\CAD\10100202\SHEETSPLAN\CONSTRUCTION PROJECT 2, 1010-02-85\027001_DT-STAGE 4B OVERVIEW.DWG PLOT DATE : 4/24/2017 1:34 PM PLOT BY : TIMOTHY VELTE PLOT NAME : PLOT SCALE : 1" = 500'_XREF

2

N

STH 33

IH 39

DETOUR M4-8 24" X 12" | DETOUR M4-8 24" X 12" | DETOUR M4-8 24" X 12"
SOUTH MB3-3 24"X12" | EAST MB3-2 24"X12" | EAST MB3-2 24"X12"
INTERSTATE 39 | INTERSTATE 90 | INTERSTATE 94
M1-1 24"X24"
M06-1 21"X21"

END DETOUR M4-8A 24" X 18" | DETOUR M4-8 24" X 12" | DETOUR M4-8 24" X 12"
SOUTH MB3-3 24"X12" | EAST MB3-2 24"X12" | EAST MB3-2 24"X12"
INTERSTATE 39 | INTERSTATE 90 | INTERSTATE 94
M1-1 24"X24"
M06-1 21"X21"

DETOUR M4-8 24" X 12" | DETOUR M4-8 24" X 12" | DETOUR M4-8 24" X 12"
SOUTH MB3-3 24"X12" | EAST MB3-2 24"X12" | EAST MB3-2 24"X12"
INTERSTATE 39 | INTERSTATE 90 | INTERSTATE 94
M1-1 24"X24"
M05-1L 21"X21"

DETOUR M4-8 36" X 18" | DETOUR M4-8 36" X 18" | DETOUR M4-8 36" X 18"
SOUTH MB3-3 36"X18" | EAST MB3-2 36"X18" | EAST MB3-2 36"X18"
INTERSTATE 39 | INTERSTATE 90 | INTERSTATE 94
M1-1 36"X36"
M06-2 30"X30"

TWO INSTALLATIONS REQUIRED ON INTERSTATE

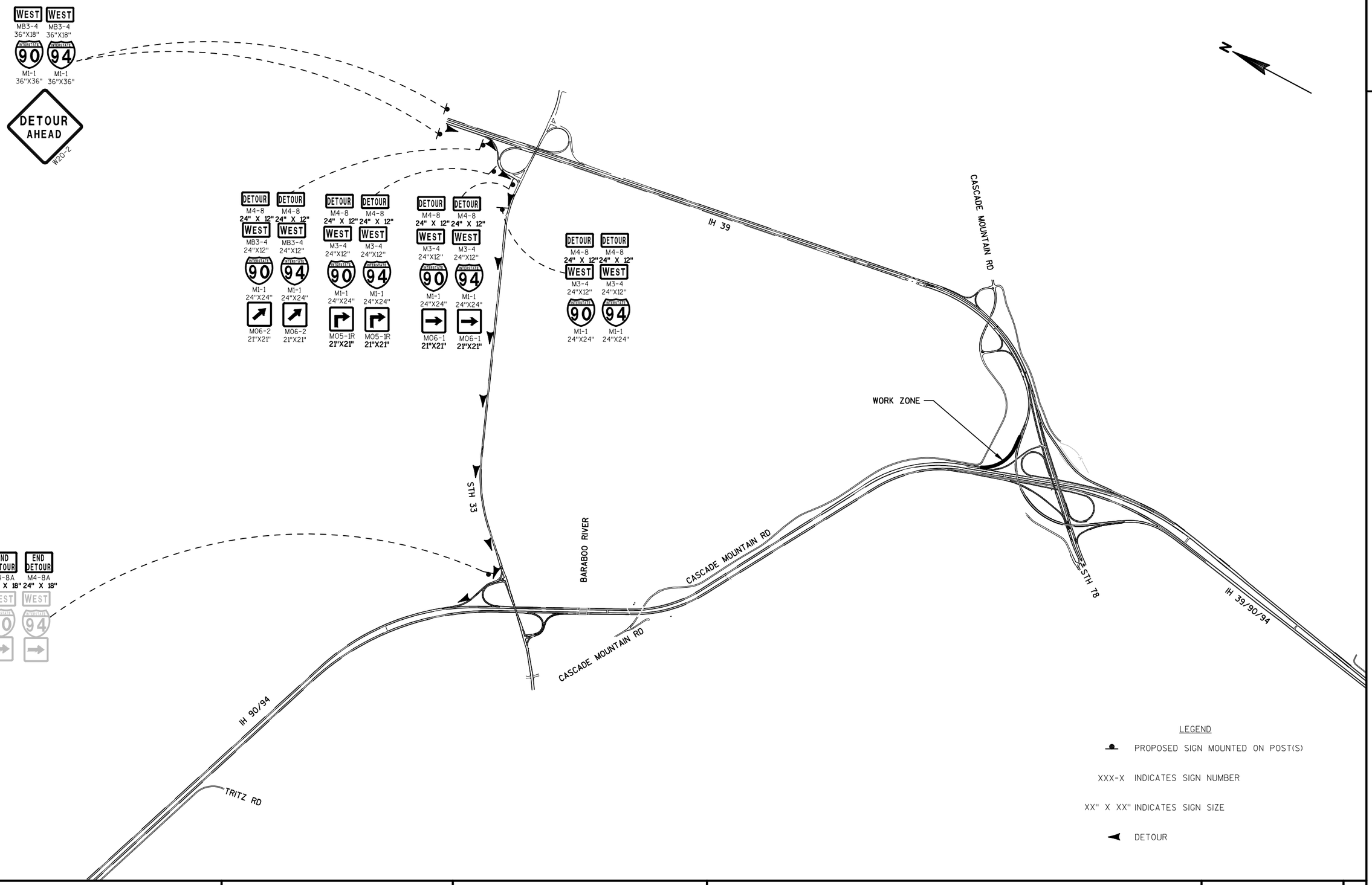
AT TYPE 1 SIGN

LEGEND

- PROPOSED SIGN MOUNTED ON POST(S)
- XXX-X INDICATES SIGN NUMBER
- XX" X XX" INDICATES SIGN SIZE
- DETOUR RAMP E (STH 78 TO SB IH 39 / EB IH 90/94)

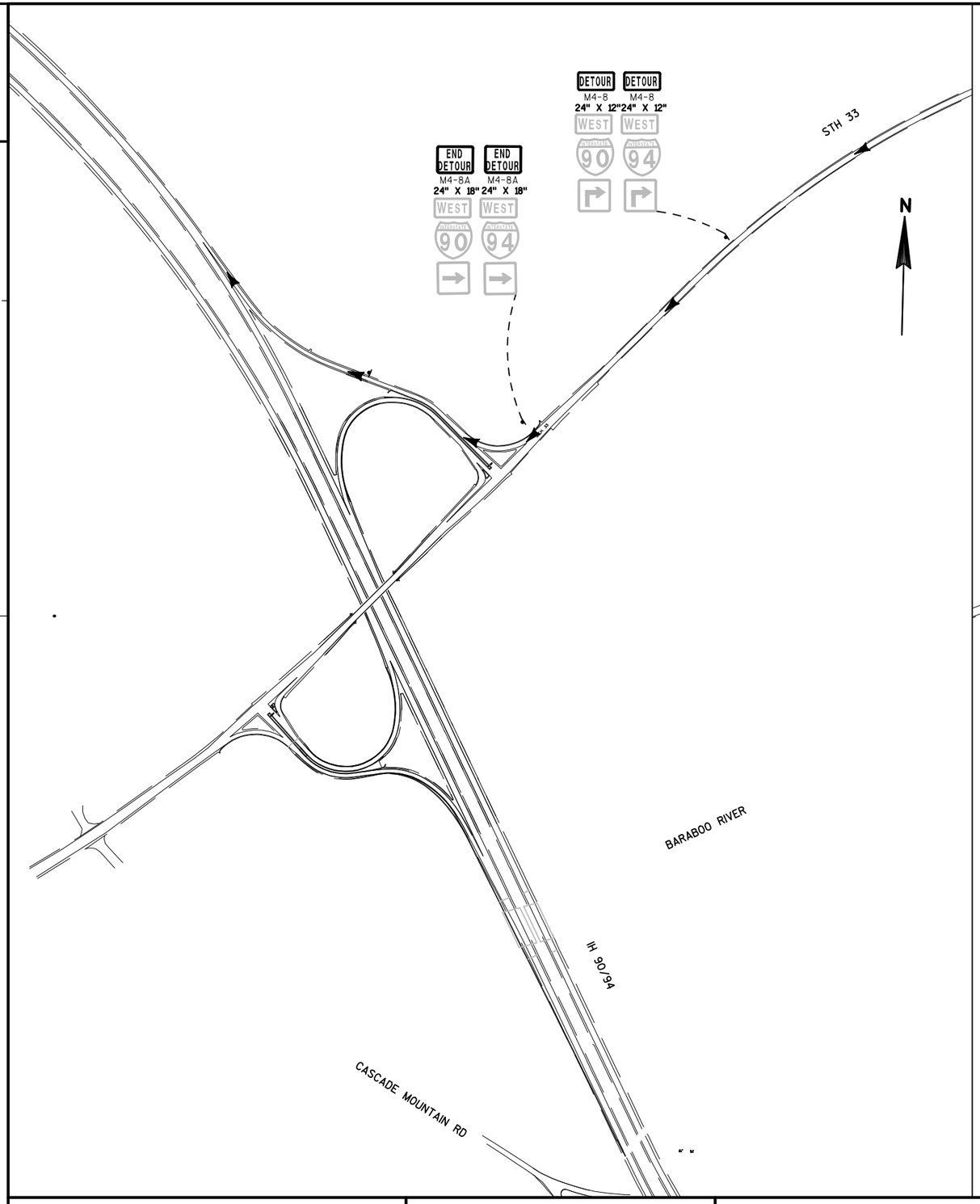
PROJECT NO:1010-02-85	HWY: IH 39	COUNTY: COLUMBIA	TRAFFIC CONTROL DETOUR RAMP E - STAGE 4B	SHEET 69	E

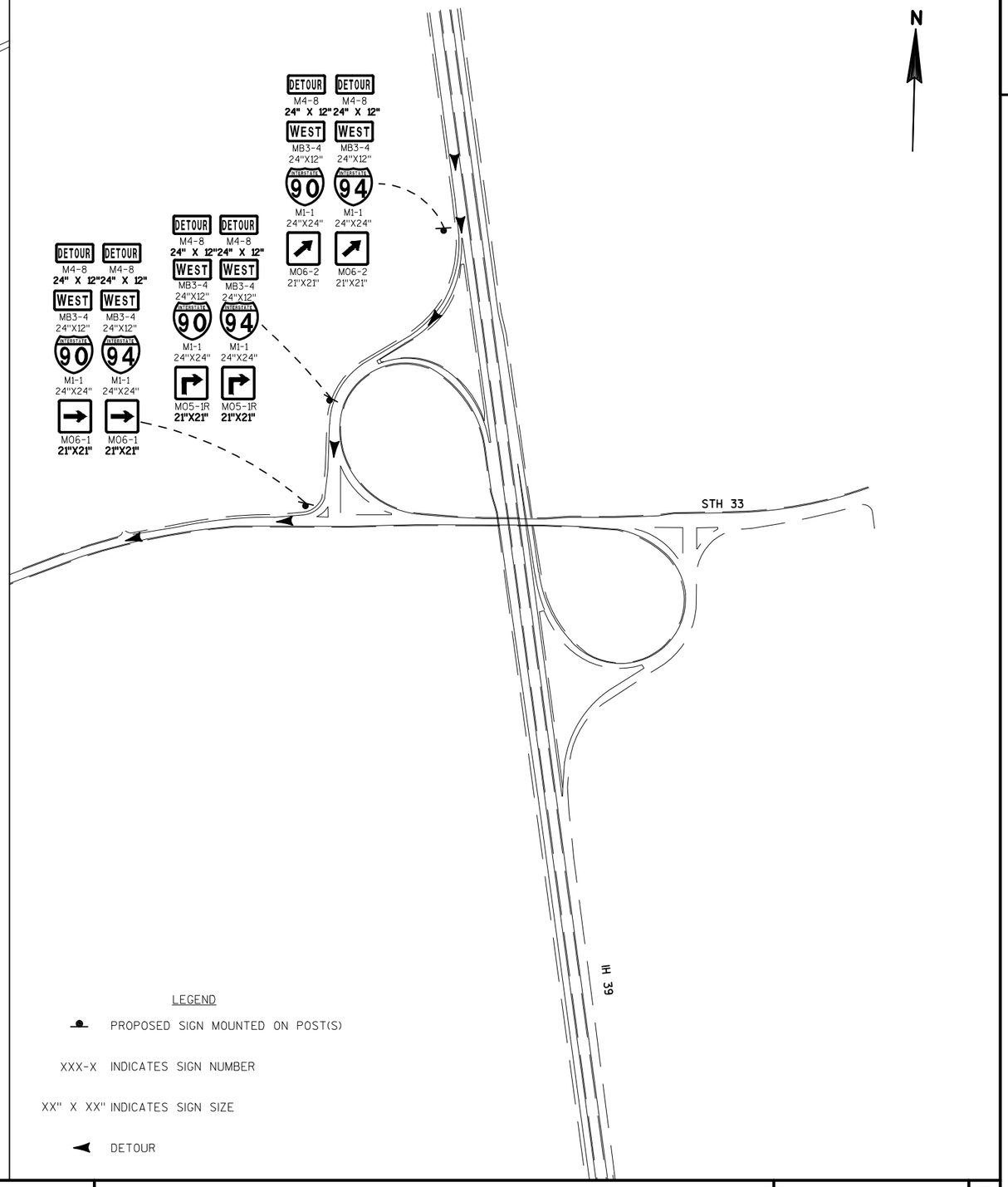
FILE NAME : X:\3230900\131208.01\TECH\CAD\10100202\SHEETSPLAN\CONSTRUCTION PROJECT 2, 1010-02-85\027002_DT RAMP E -STAGE 4B.DWG PLOT DATE : 4/24/2017 1:35 PM PLOT BY : TIMOTHY VELTE PLOT NAME : PLOT SCALE : 1" = 500'_XREF



PROJECT NO: 1010-02-85	HWY: IH 39	COUNTY: COLUMBIA	TRAFFIC CONTROL DETOUR RAMP L - STAGE 4B	SHEET 70	E

FILE NAME : X:\3230900\131208.01\TECH\CAD\10100202\SHEETSPLAN\CONSTRUCTION PROJECT 2, 1010-02-85\027001_DT - RAMP L - STAGE 4B.DWG PLOT DATE : 4/24/2017 1:36 PM PLOT BY : TIMOTHY VELTE PLOT NAME : PLOT SCALE : 1" = 2000'_XREF





LEGEND

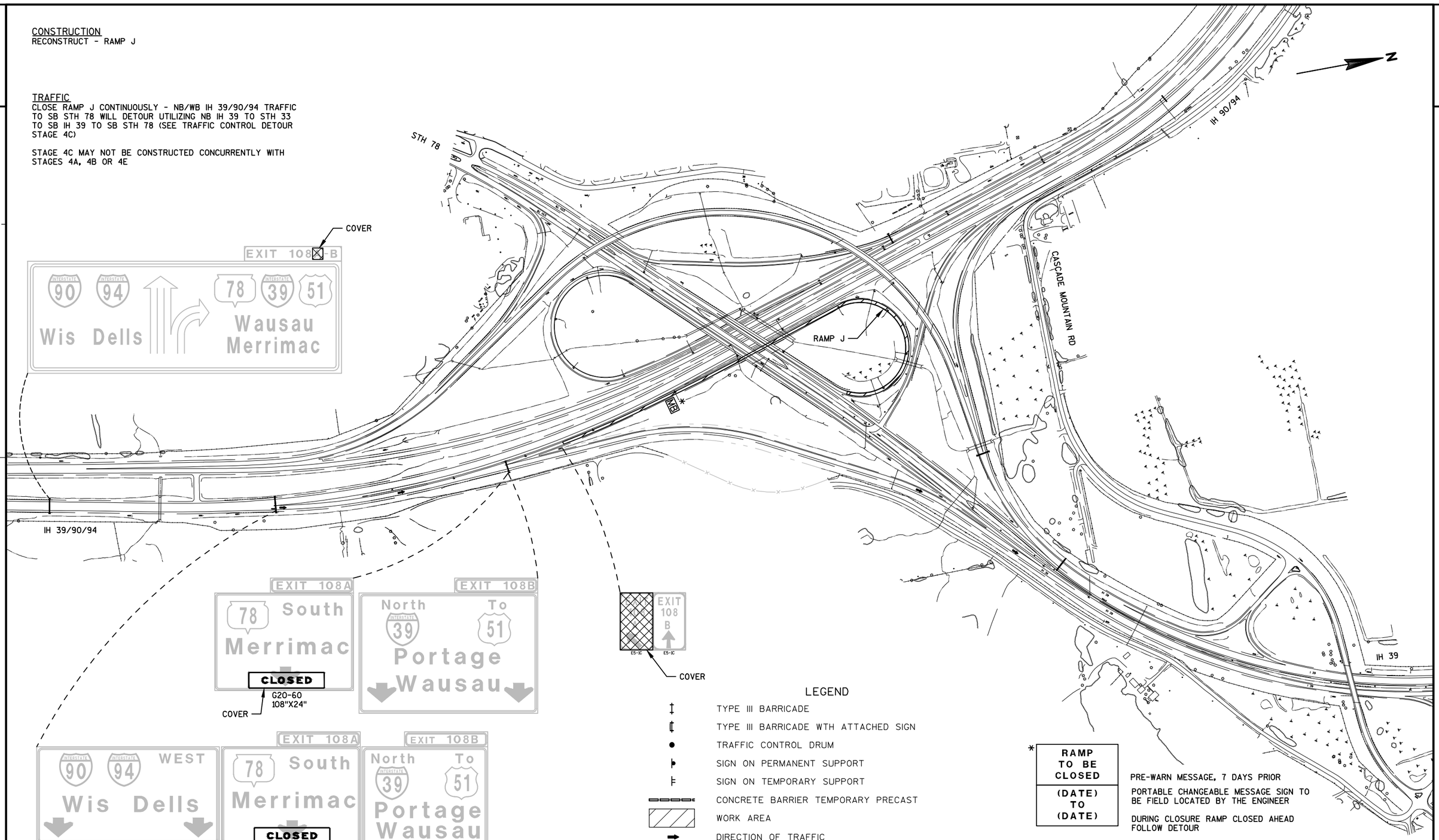
- PROPOSED SIGN MOUNTED ON POST(S)
- XXX-X INDICATES SIGN NUMBER
- XX" X XX" INDICATES SIGN SIZE
- DETOUR

PROJECT NO: 1010-02-85	HWY: IH 39	COUNTY: COLUMBIA	TRAFFIC CONTROL DETOUR RAMP L - STAGE 4B	SHEET 71	E

CONSTRUCTION
RECONSTRUCT - RAMP J

TRAFFIC
CLOSE RAMP J CONTINUOUSLY - NB/WB IH 39/90/94 TRAFFIC TO SB STH 78 WILL DETOUR UTILIZING NB IH 39 TO STH 33 TO SB IH 39 TO SB STH 78 (SEE TRAFFIC CONTROL DETOUR STAGE 4C)

STAGE 4C MAY NOT BE CONSTRUCTED CONCURRENTLY WITH STAGES 4A, 4B OR 4E



LEGEND

‡	TYPE III BARRICADE
‡	TYPE III BARRICADE WTH ATTACHED SIGN
●	TRAFFIC CONTROL DRUM
	SIGN ON PERMANENT SUPPORT
⊦	SIGN ON TEMPORARY SUPPORT
	CONCRETE BARRIER TEMPORARY PRECAST
	WORK AREA
➡	DIRECTION OF TRAFFIC
MB	PORTABLE CHANGEABLE MESSAGE BOARD
*	PRE-WARN ONLY

* RAMP TO BE CLOSED (DATE) TO (DATE)

PRE-WARN MESSAGE, 7 DAYS PRIOR

PORTABLE CHANGEABLE MESSAGE SIGN TO BE FIELD LOCATED BY THE ENGINEER

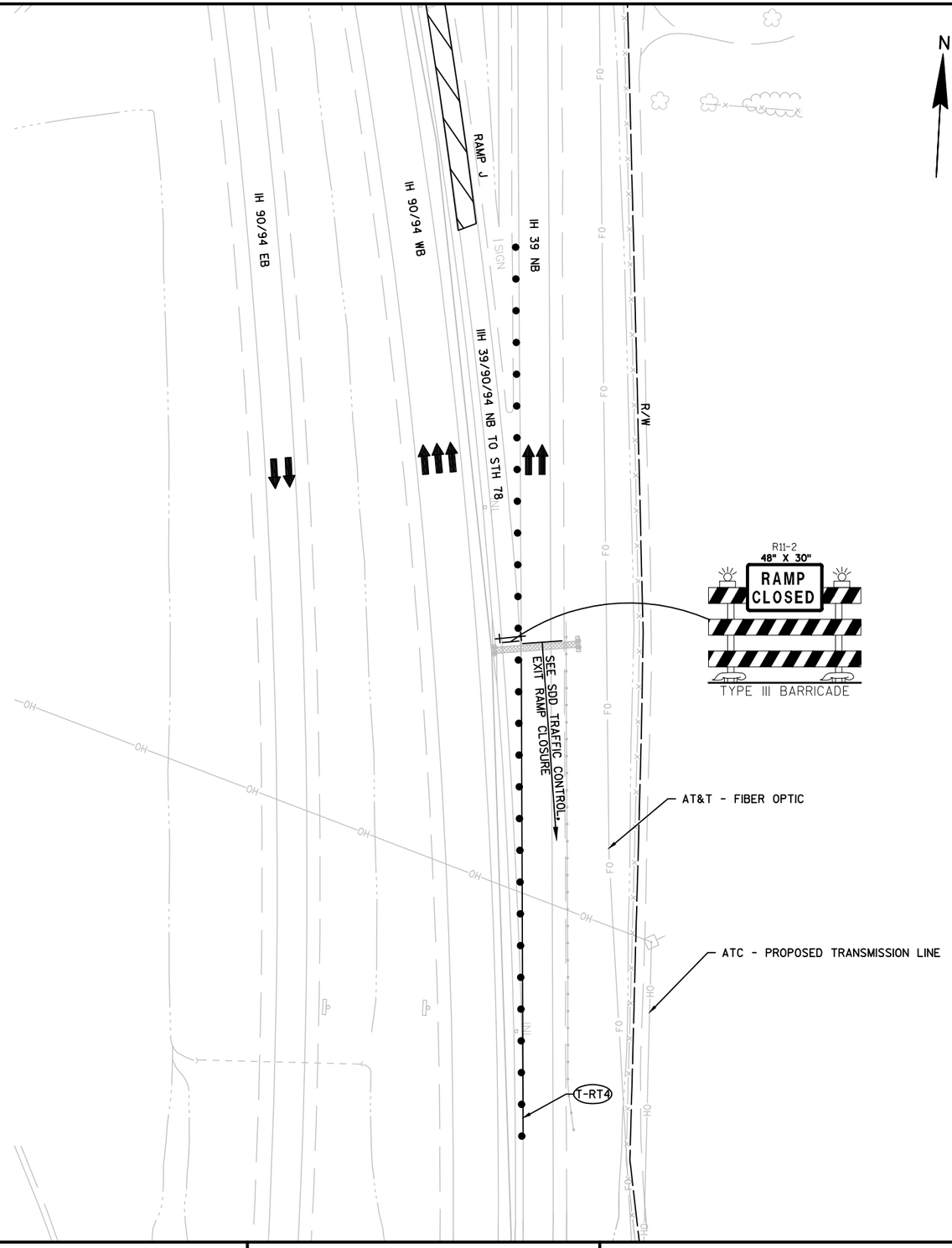
DURING CLOSURE RAMP CLOSED AHEAD FOLLOW DETOUR

SIGNS MAY NEED TO BE MOVED IN ADVANCE OF DETOUR

PROJECT NO: 1010-02-85	HWY: IH 39	COUNTY: COLUMBIA	TRAFFIC CONTROL - STAGE 4C - OVERVIEW	SHEET 72	E

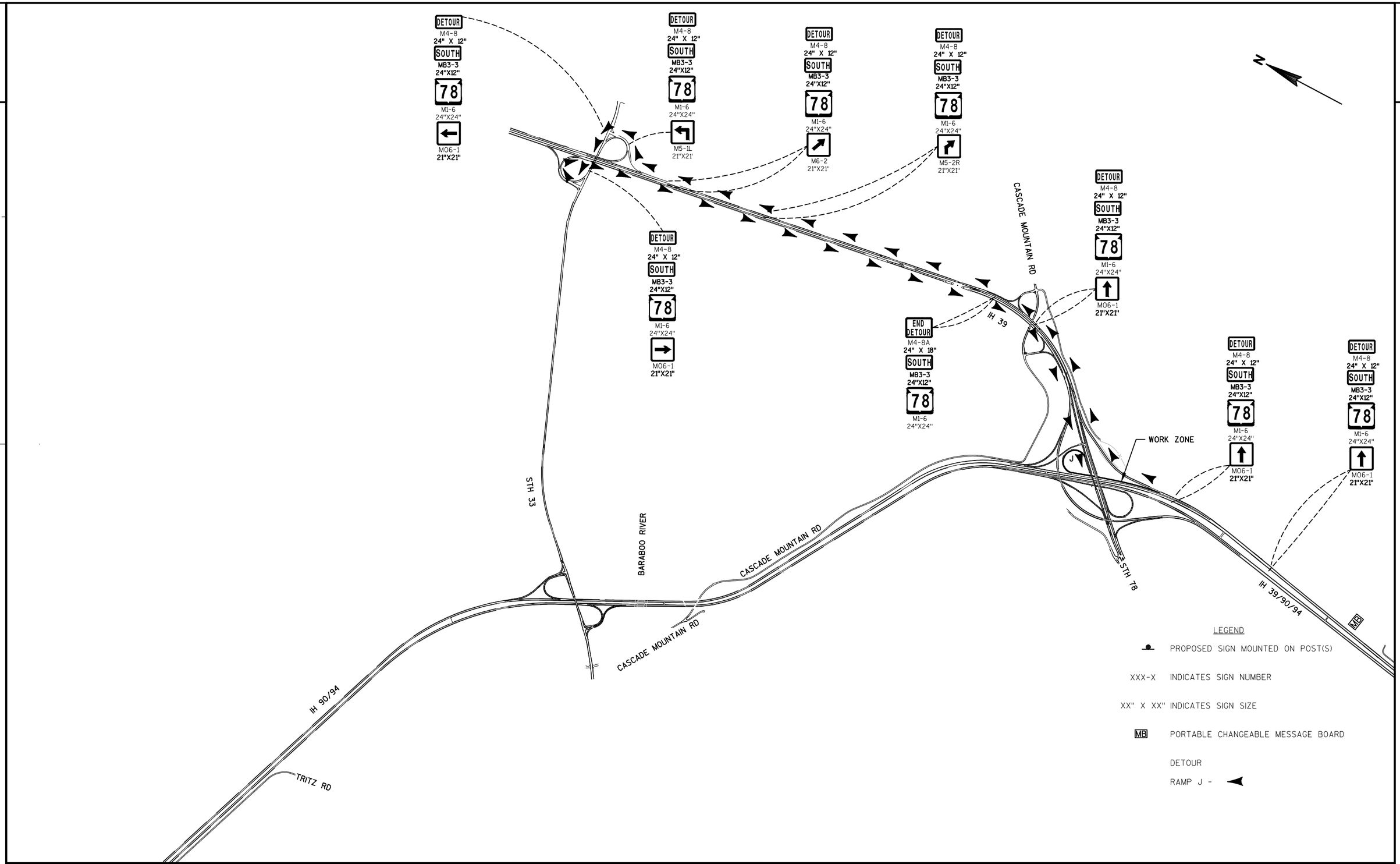
LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WTH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- CONCRETE BARRIER TEMPORARY PRECAST
- WORK AREA
- DIRECTION OF TRAFFIC
- MB — PORTABLE CHANGEABLE MESSAGE BOARD
- T-RT4 — TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH



PROJECT NO: 1010-02-85	HWY: IH 39	COUNTY: COLUMBIA	TRAFFIC CONTROL - STAGE 4C	SHEET 73	E

2



PROJECT NO:1010-02-85	HWY: IH 39	COUNTY: COLUMBIA	TRAFFIC CONTROL DETOUR - STAGE 4C	SHEET 74	E

2

CONSTRUCTION
CONCRETE PAVEMENT REPAIR AND REPLACEMENT RAMP H

CONCRETE PAVEMENT REPAIR AND REPLACEMENT RAMP G

REPAIR RETAINING WALL R-11-38

TRAFFIC
COMBINED EXIT TO RAMPS G & H TO BE CLOSED CONTINUOUSLY FOR DURATION OF STAGE.

EB IH 90/94 TRAFFIC TO SB STH 78 WILL BE DETOURED TO EB STH 33 TO SB IH 39 TO SB STH 78 (SEE TRAFFIC CONTROL DETOUR - STAGE 4D)
EB IH 90/94 TRAFFIC TO NB IH 39 WILL BE DETOURED TO EB STH 33 TO NB IH 39 (SEE TRAFFIC CONTROL DETOUR - STAGE 4D)

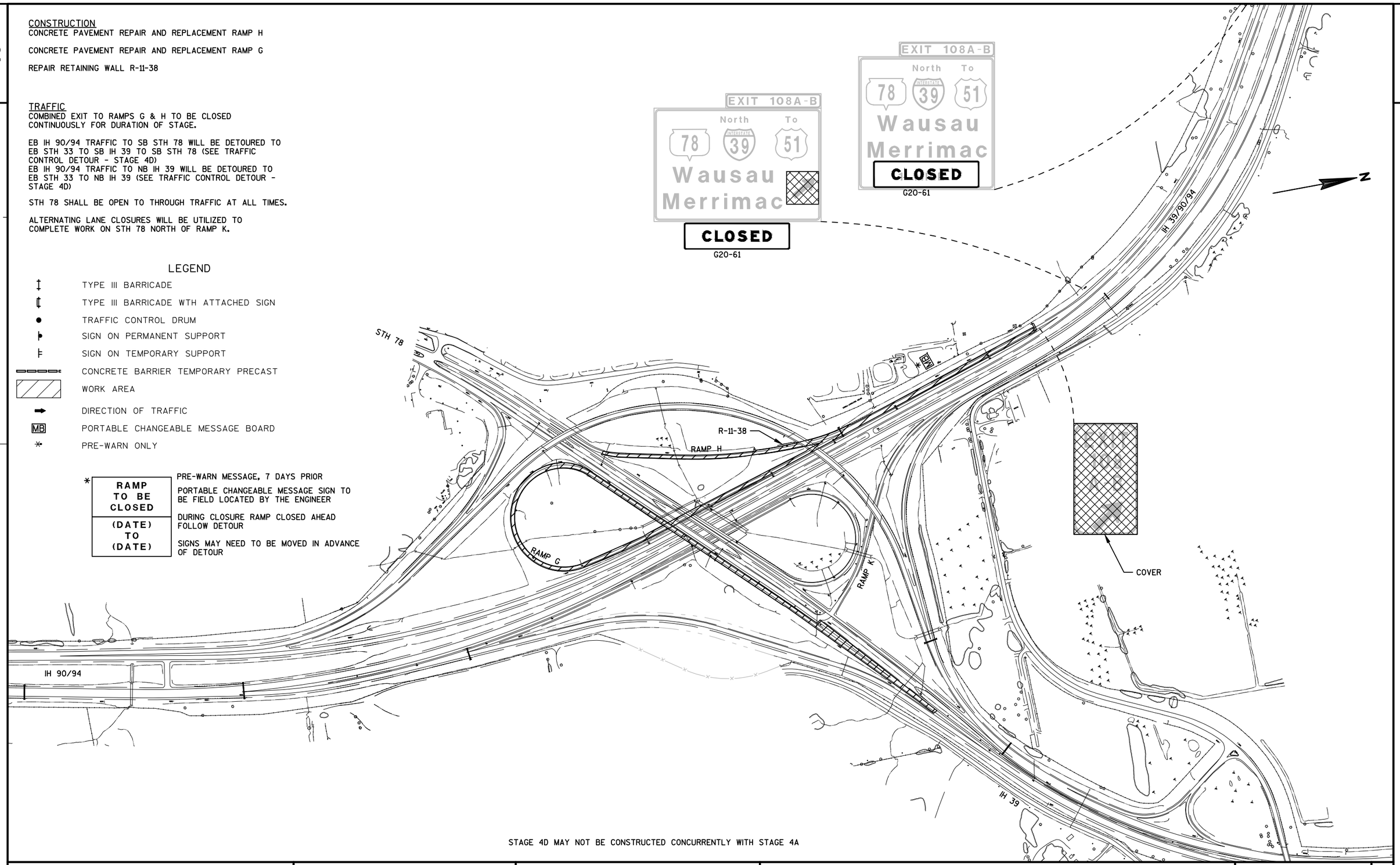
STH 78 SHALL BE OPEN TO THROUGH TRAFFIC AT ALL TIMES.

ALTERNATING LANE CLOSURES WILL BE UTILIZED TO COMPLETE WORK ON STH 78 NORTH OF RAMP K.

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WTH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- CONCRETE BARRIER TEMPORARY PRECAST
- WORK AREA
- DIRECTION OF TRAFFIC
- MB PORTABLE CHANGEABLE MESSAGE BOARD
- * PRE-WARN ONLY

* | RAMP TO BE CLOSED / (DATE) TO (DATE) | PRE-WARN MESSAGE, 7 DAYS PRIOR; PORTABLE CHANGEABLE MESSAGE SIGN TO BE FIELD LOCATED BY THE ENGINEER; DURING CLOSURE RAMP CLOSED AHEAD FOLLOW DETOUR; SIGNS MAY NEED TO BE MOVED IN ADVANCE OF DETOUR



STAGE 4D MAY NOT BE CONSTRUCTED CONCURRENTLY WITH STAGE 4A

PROJECT NO: 1010-02-85	HWY: IH 39	COUNTY: COLUMBIA	TRAFFIC CONTROL STAGE 4D OVERVIEW	SHEET 75	E

FILE NAME : X:\3230900\131208.01\TECH\CAD\10100202\SHEETSPLAN\CONSTRUCTION PROJECT 2, 1010-02-85\025002_TC-STAGE 4D OVERVIEW.DWG PLOT DATE : 4/24/2017 1:38 PM PLOT BY : TIMOTHY VELTE PLOT NAME : PLOT SCALE : 1" = 500'_XREF

WISDOT/CADDS SHEET 42

2

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WTH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- CONCRETE BARRIER TEMPORARY PRECAST
- WORK AREA
- DIRECTION OF TRAFFIC
- MB — PORTABLE CHANGEABLE MESSAGE BOARD
- * — PRE-WARN ONLY

R11-2
48" X 30"
RAMP CLOSED
TYPE III BARRICADE

ATC - PROPOSED TRANSMISSION LINE

SEE SDD TRAFFIC CONTROL, EXIT RAMP CLOSURE

IH 90/94

IH 90/94

CASCADE MOUNTAIN RD

R/W

SIGN

SIGN

TOWER

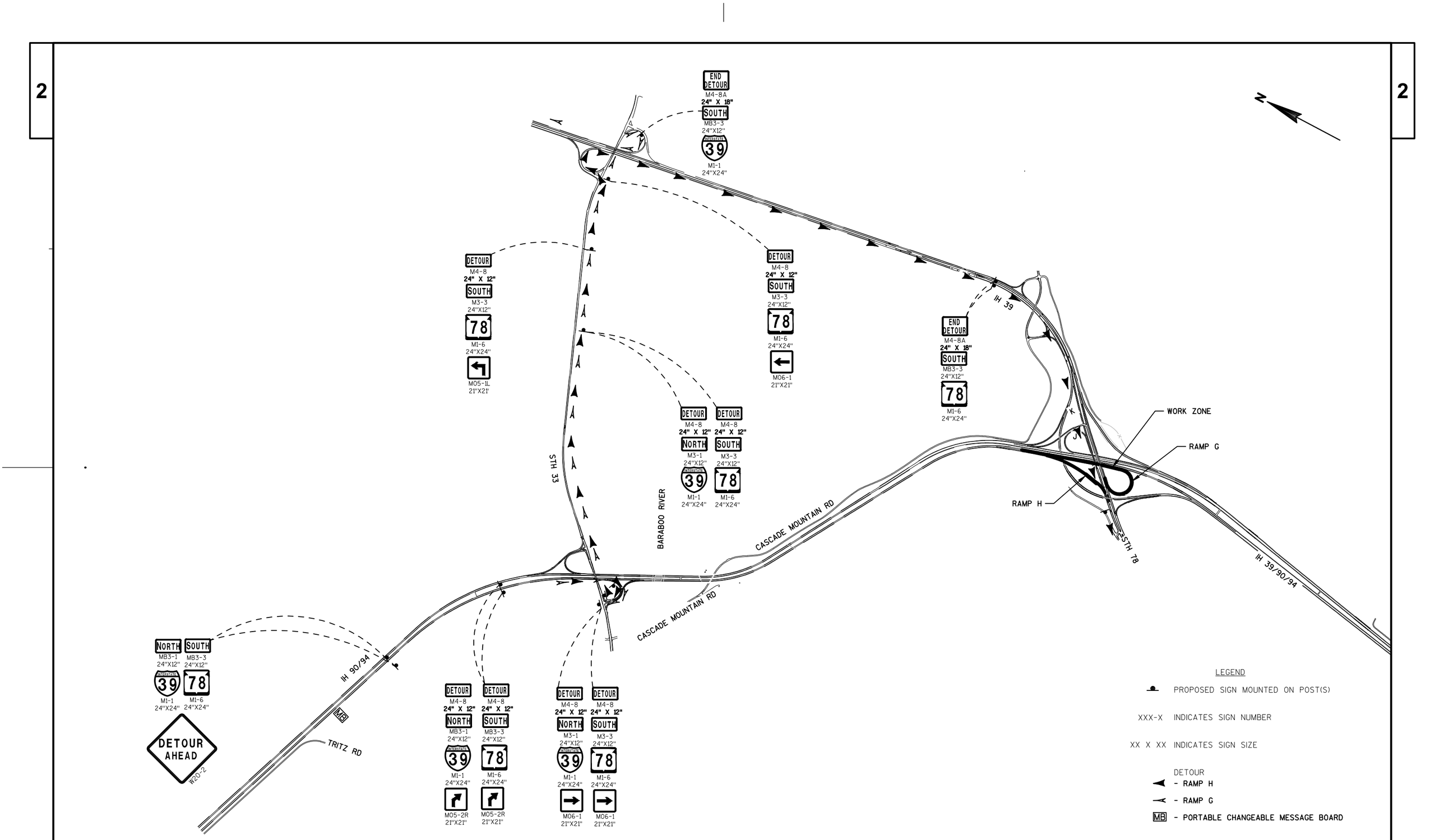
RUINS

RUINS

2

PROJECT NO: 1010-02-85	HWY: IH 39	COUNTY: COLUMBIA	TRAFFIC CONTROL STAGE 4D	SHEET 76	E

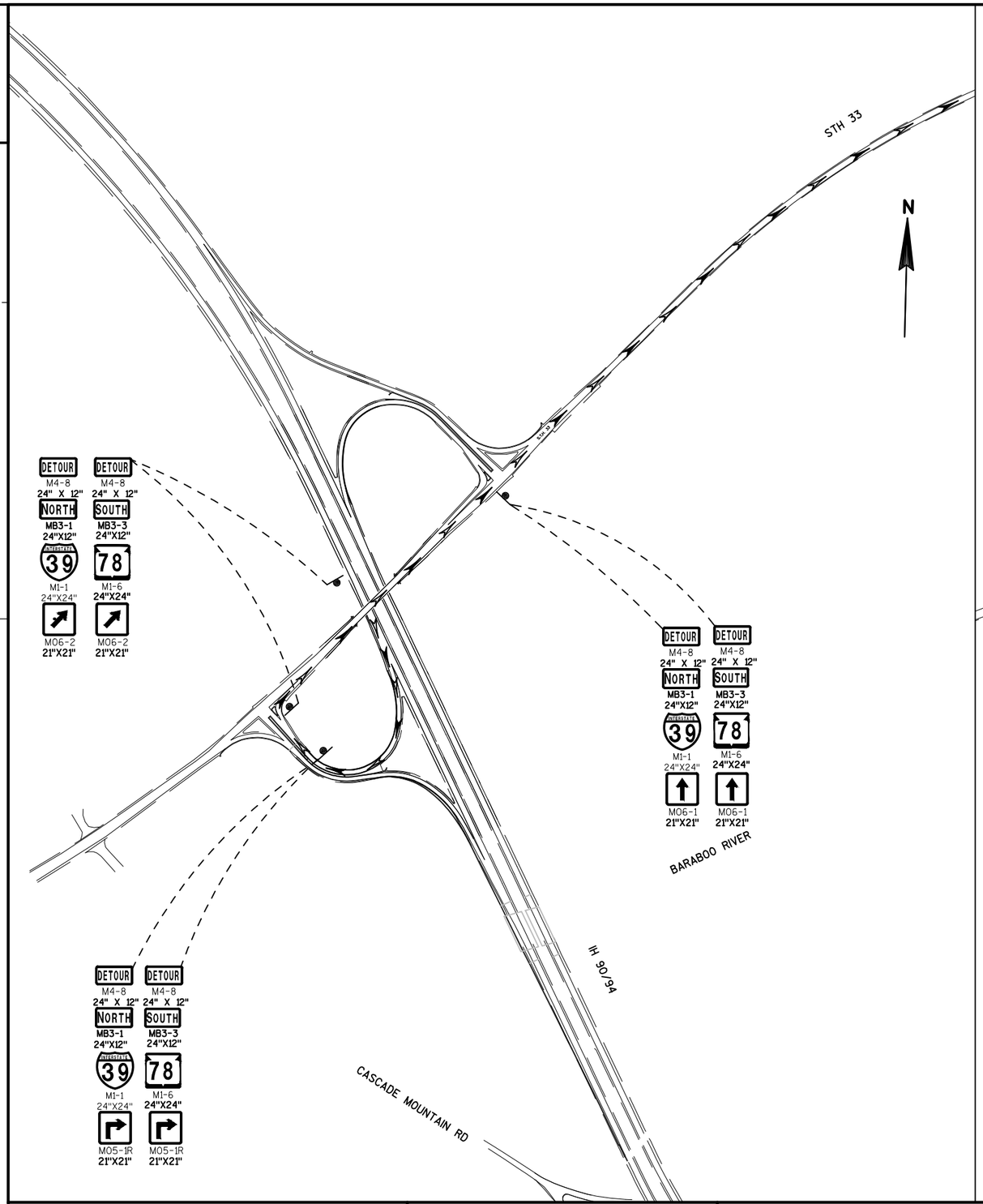
FILE NAME : X:\3230900\131208.01\TECH\CAD\10100202\SHEETSPLAN\CONSTRUCTION PROJECT 2, 1010-02-85\025002_TC-STAGE 4D.DWG PLOT DATE : 4/24/2017 1:39 PM PLOT BY : TIMOTHY VELTE PLOT NAME : PLOT SCALE : 1" = 100'_XREF

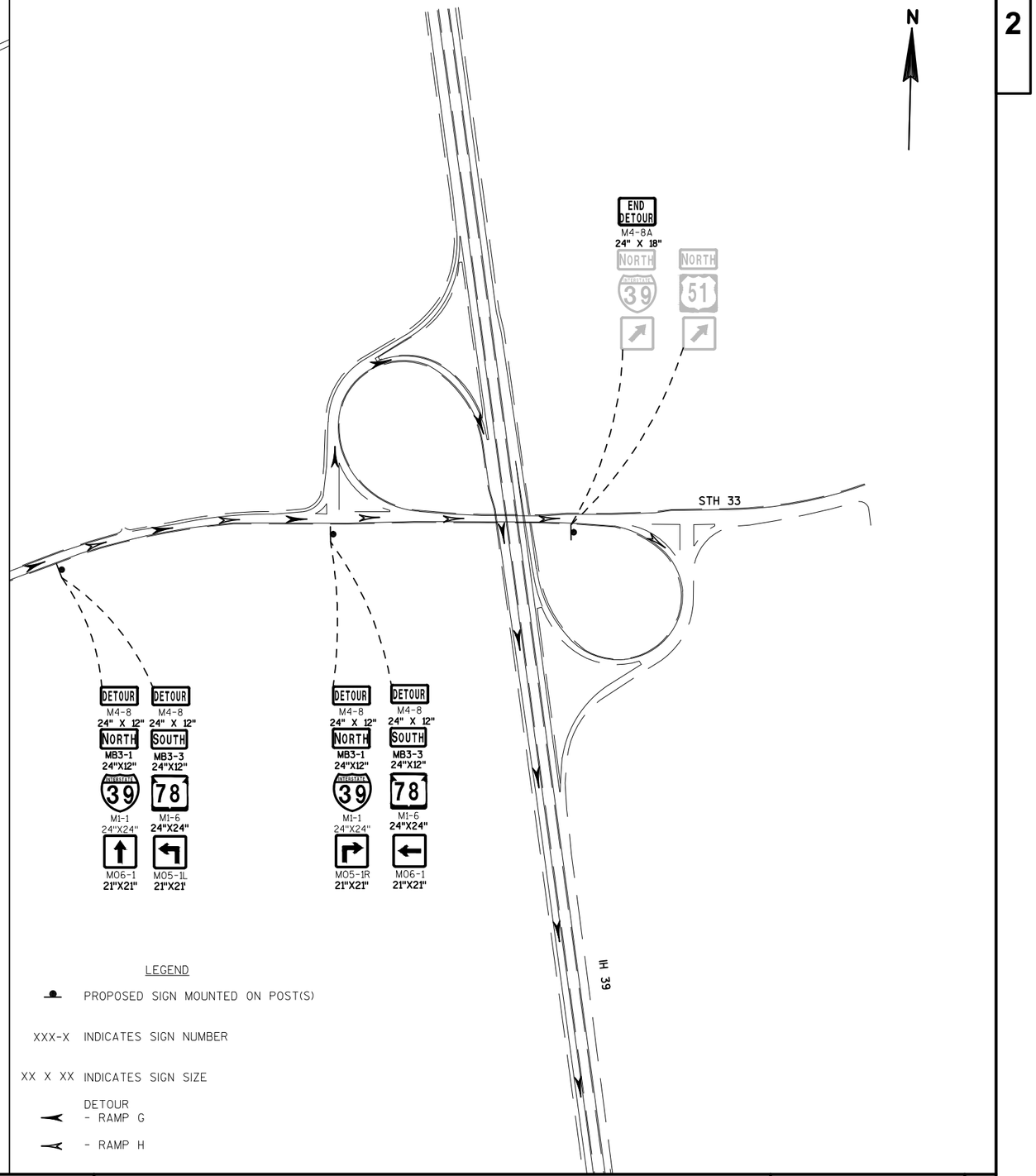


PROJECT NO: 1010-02-85	HWY: IH 39	COUNTY: COLUMBIA	TRAFFIC CONTROL DETOUR - STAGE 4D	SHEET 77	E

FILE NAME : X:\3230900\131208.01\TECH\CAD\10100202\SHEETSPLAN\CONSTRUCTION PROJECT 2, 1010-02-85\027001_DT-STAGE 4D.DWG PLOT DATE : 4/24/2017 1:40 PM PLOT BY : TIMOTHY VELTE PLOT NAME : PLOT SCALE : 1" = 2000'_XREF

WISDOT/CADDS SHEET 42





LEGEND

- PROPOSED SIGN MOUNTED ON POST(S)
- XXX-X INDICATES SIGN NUMBER
- XX X XX INDICATES SIGN SIZE
- DETOUR - RAMP G
- DETOUR - RAMP H

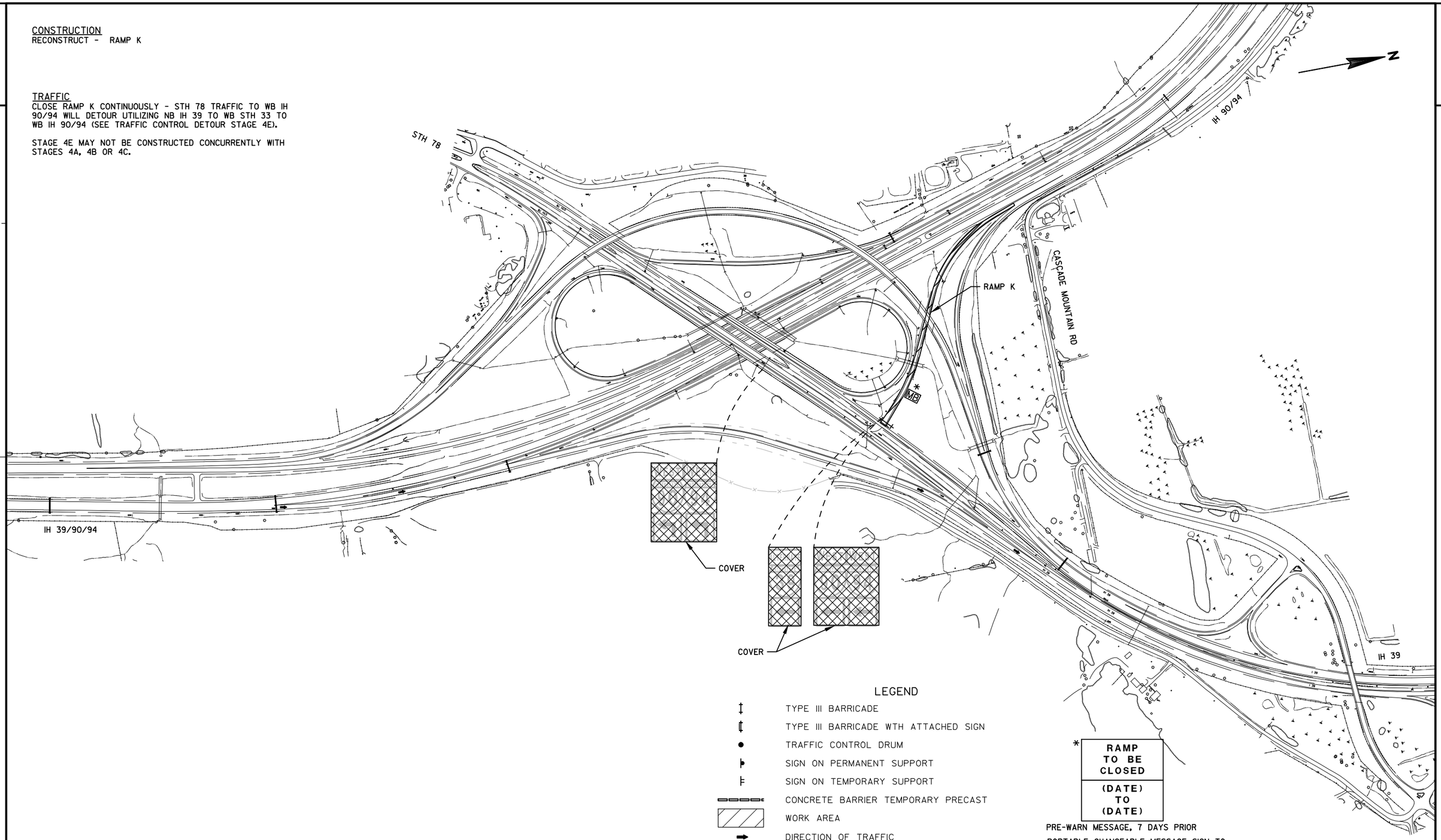
PROJECT NO: 1010-02-85	HWY: IH 39	COUNTY: COLUMBIA	TRAFFIC CONTROL DETOUR - STAGE 4D	SHEET 78	E

2

CONSTRUCTION
RECONSTRUCT - RAMP K

TRAFFIC
CLOSE RAMP K CONTINUOUSLY - STH 78 TRAFFIC TO WB IH 90/94 WILL DETOUR UTILIZING NB IH 39 TO WB STH 33 TO WB IH 90/94 (SEE TRAFFIC CONTROL DETOUR STAGE 4E).

STAGE 4E MAY NOT BE CONSTRUCTED CONCURRENTLY WITH STAGES 4A, 4B OR 4C.

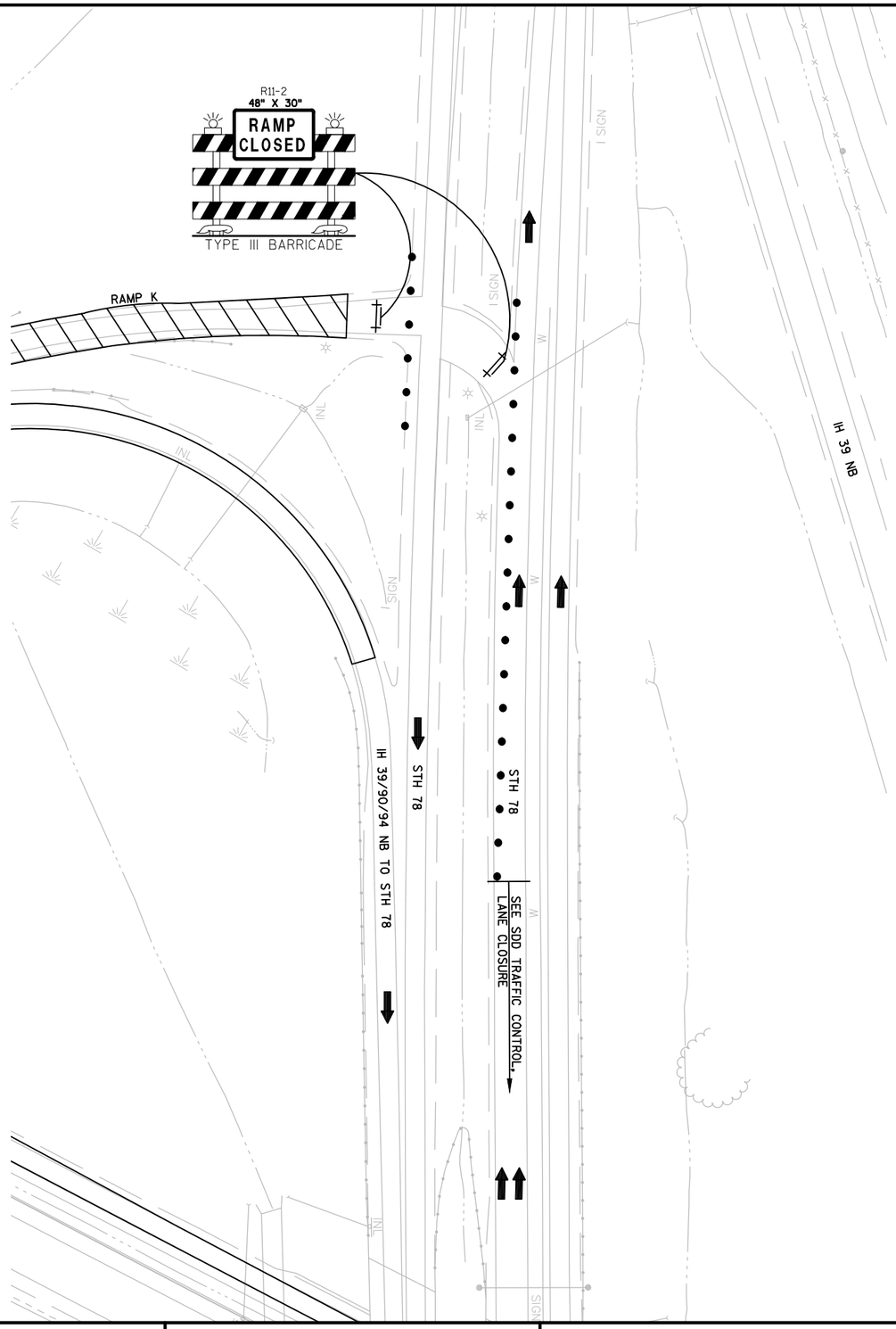


PROJECT NO: 1010-02-85	HWY: IH 39	COUNTY: COLUMBIA	TRAFFIC CONTROL - STAGE 4E - OVERVIEW	SHEET 79	E

2

LEGEND

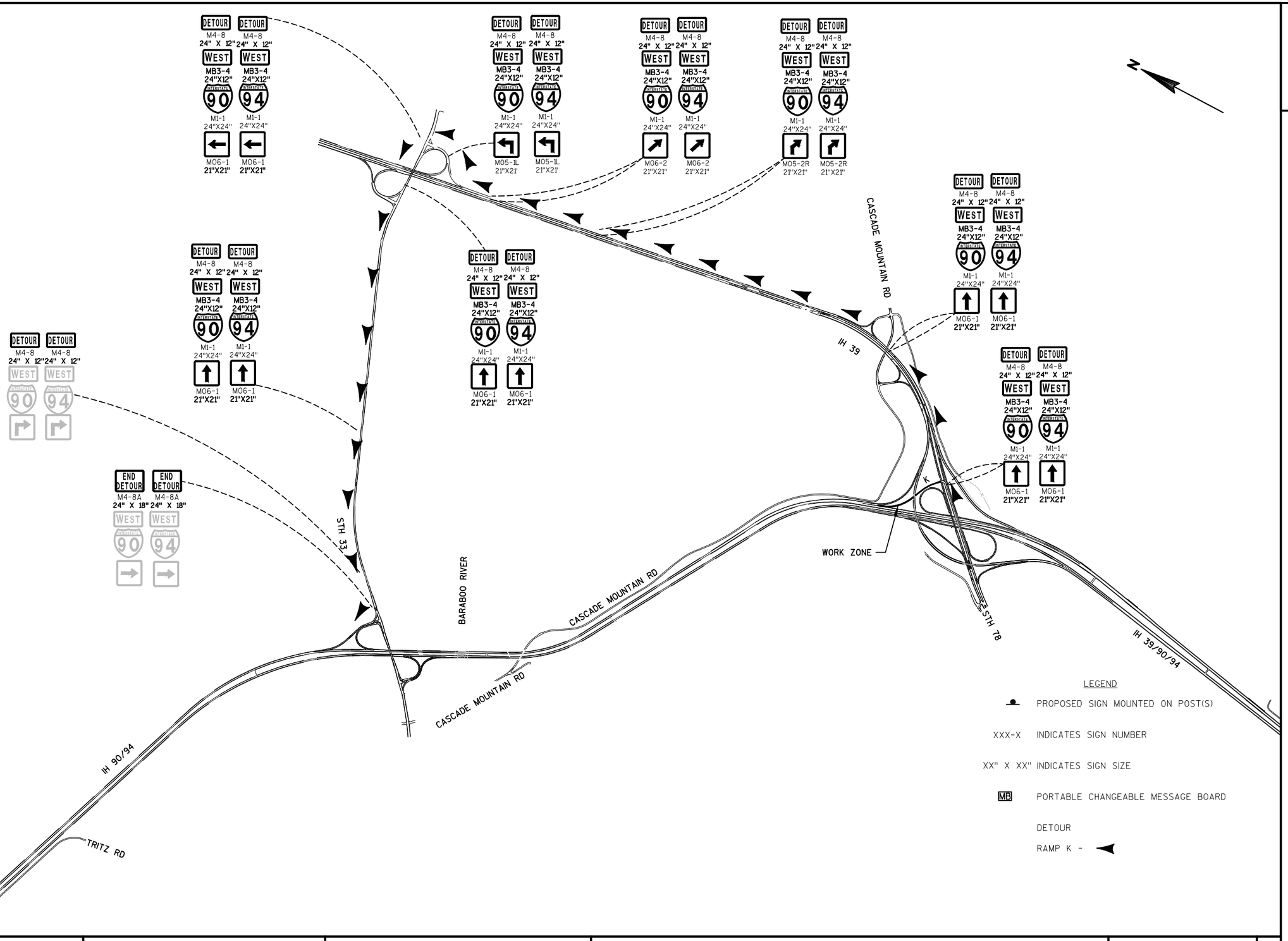
- TYPE III BARRICADE
- TYPE III BARRICADE WTH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- CONCRETE BARRIER TEMPORARY PRECAST
- WORK AREA
- DIRECTION OF TRAFFIC
- MB PORTABLE CHANGEABLE MESSAGE BOARD



2

PROJECT NO:1010-02-85	HWY: IH 39	COUNTY: COLUMBIA	TRAFFIC CONTROL - STAGE 4E	SHEET 80	E

2



PROJECT NO: 1010-02-85	HWY: IH 39	COUNTY: COLUMBIA	TRAFFIC CONTROL DETOUR - STAGE 4E	SHEET	E

FILE NAME : X:\3230900\131208.01\TECH\CAD\10100202\SHEETSPLAN\CONSTRUCTION PROJECT 2, 1010-02-85\027001_DT-STAGE 4E.DWG PLOT DATE : 4/24/2017 1:42 PM PLOT BY : TIMOTHY VELTE PLOT NAME : PLOT SCALE : 1" = 2000'_XREF

CURVE 15
PI STA = 955+23.35
Y = 378473.58
X = 527724.14
DELTA = 42°17'39"
D = 1°59'47"
T = 1110.15
L = 2118.56
R = 2870.00
PC STA = 944+13.20
PT STA = 965+31.76

CURVE 16
PI STA = 956+45.36
Y = 378314.40
X = 527725.56
DELTA = 41°36'52"
D = 1°59'47"
T = 1090.62
L = 2084.50
R = 2870.00
PC STA = 945+54.74
PT STA = 966+39.24

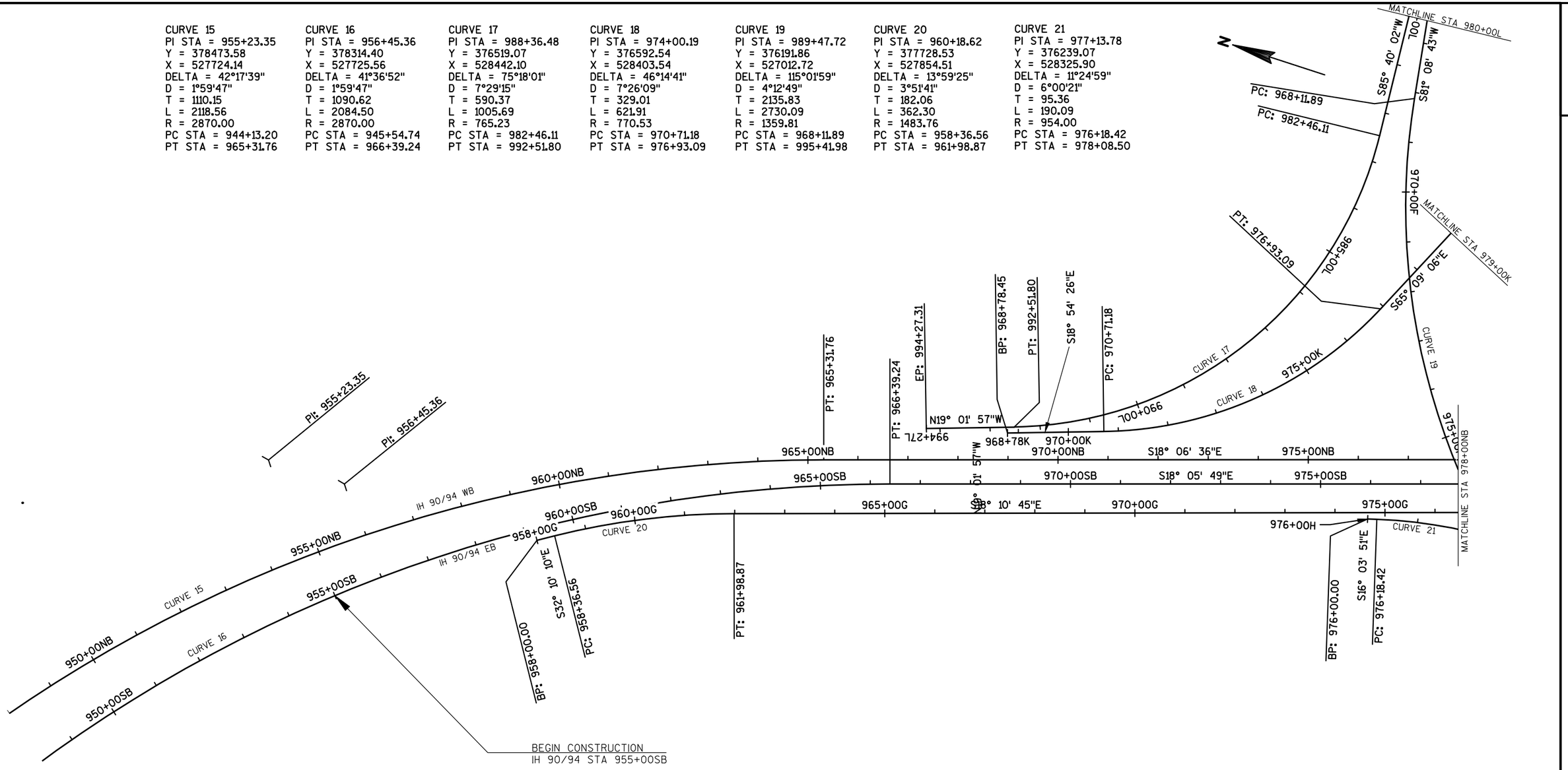
CURVE 17
PI STA = 988+36.48
Y = 376519.07
X = 528442.10
DELTA = 75°18'01"
D = 7°29'15"
T = 590.37
L = 1005.69
R = 765.23
PC STA = 982+46.11
PT STA = 992+51.80

CURVE 18
PI STA = 974+00.19
Y = 376592.54
X = 528403.54
DELTA = 46°14'41"
D = 7°26'09"
T = 329.01
L = 621.91
R = 770.53
PC STA = 970+71.18
PT STA = 976+93.09

CURVE 19
PI STA = 989+47.72
Y = 376191.86
X = 527012.72
DELTA = 115°01'59"
D = 4°12'49"
T = 2135.83
L = 2730.09
R = 1359.81
PC STA = 968+11.89
PT STA = 995+41.98

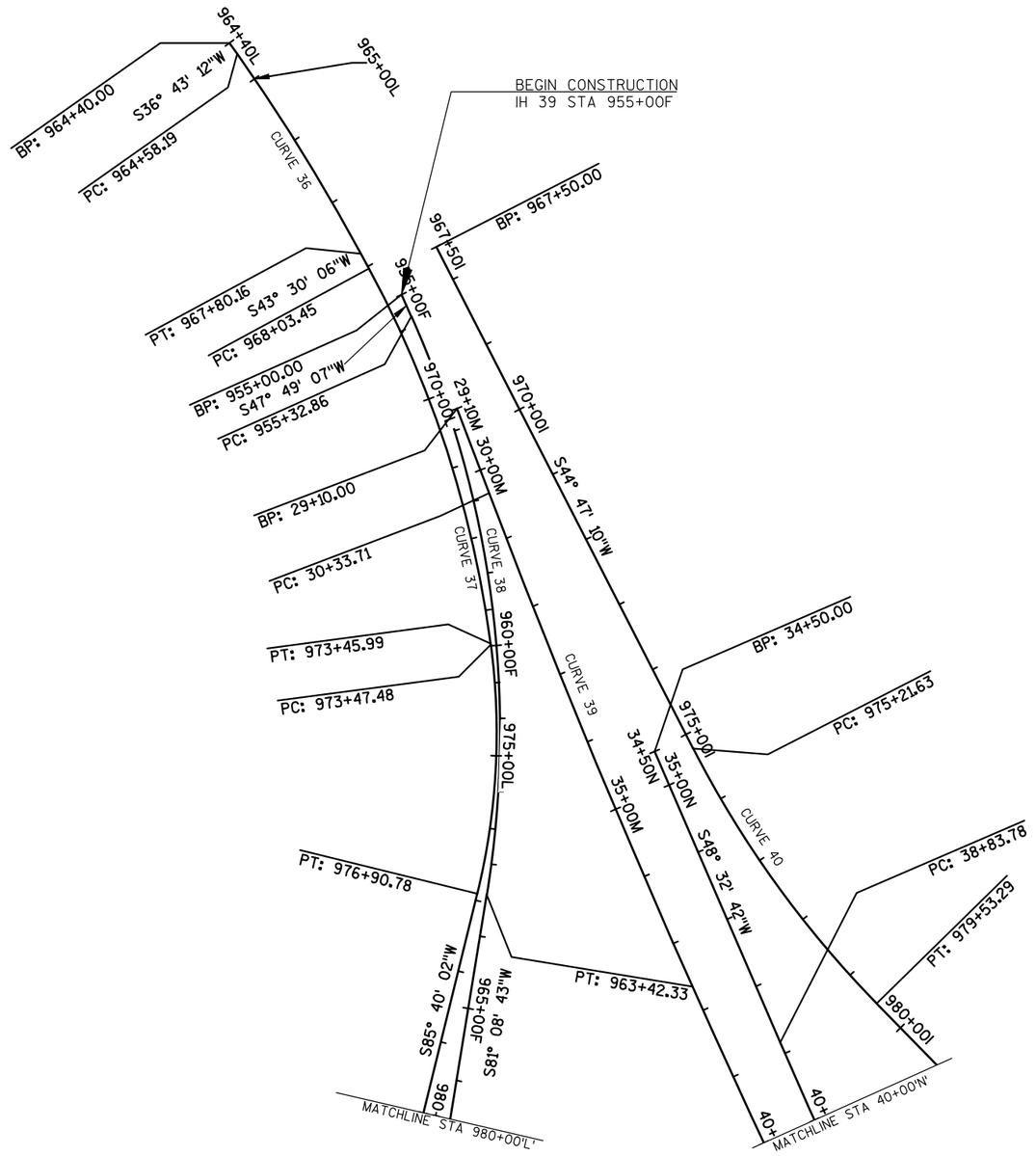
CURVE 20
PI STA = 960+18.62
Y = 377728.53
X = 527854.51
DELTA = 13°59'25"
D = 3°51'41"
T = 182.06
L = 362.30
R = 1483.76
PC STA = 958+36.56
PT STA = 961+98.87

CURVE 21
PI STA = 977+13.78
Y = 376239.07
X = 528325.90
DELTA = 11°24'59"
D = 6°00'21"
T = 95.36
L = 190.09
R = 954.00
PC STA = 976+18.42
PT STA = 978+08.50



PROJECT NO: 1010-02-85	HWY: IH 39	COUNTY: COLUMBIA	ALIGNMENT DETAIL	SHEET 82	E

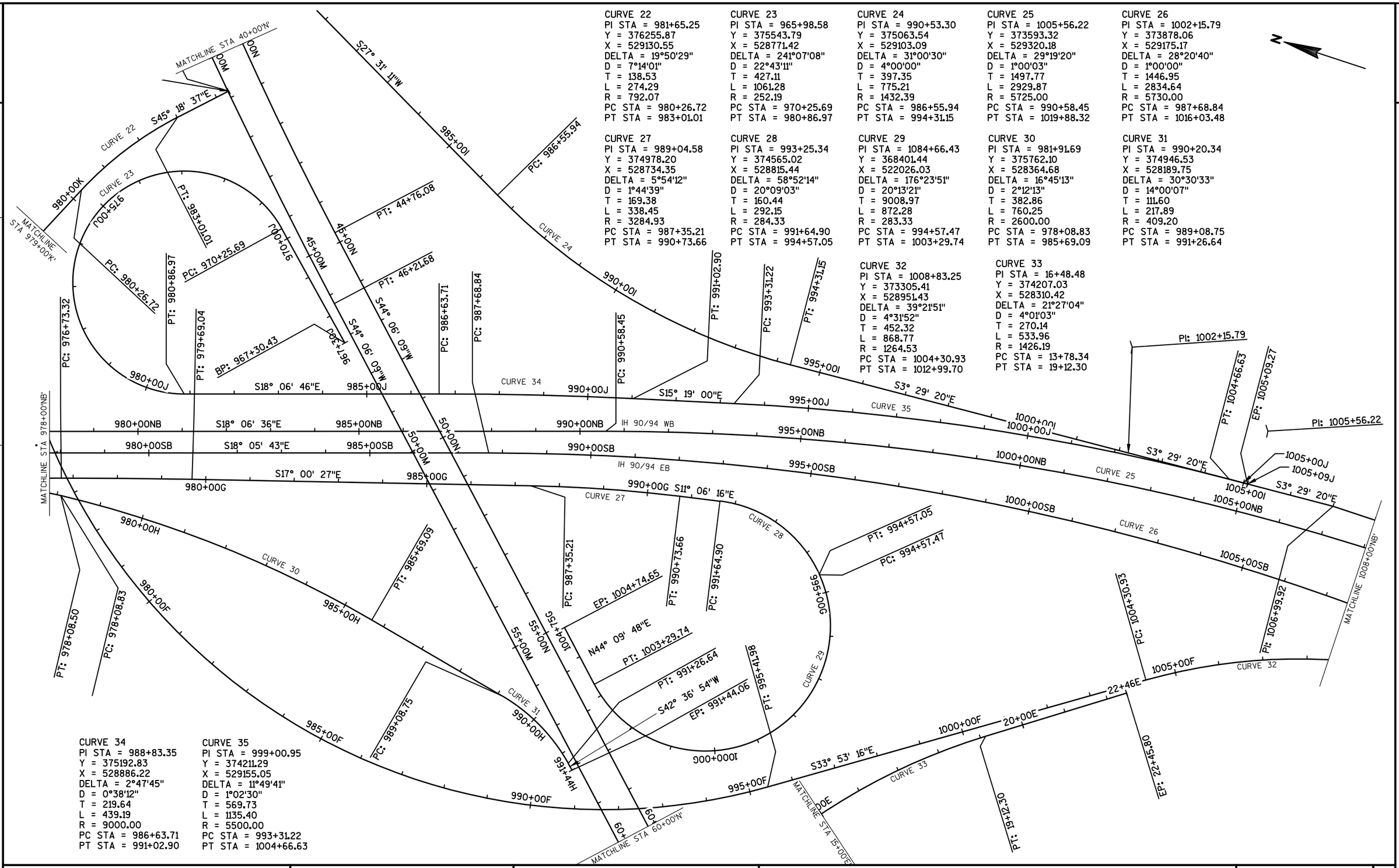
CURVE 36	CURVE 37	CURVE 38	CURVE 39	CURVE 40
PI STA = 966+19.36	PI STA = 970+77.75	PI STA = 959+49.41	PI STA = 38+28.68	PI STA = 977+39.11
Y = 377146.01	Y = 376813.24	Y = 376657.02	Y = 376261.37	Y = 376231.95
X = 530478.68	X = 530162.88	X = 529998.63	X = 529491.98	X = 529711.84
DELTA = 6°46'54"	DELTA = 20°51'26"	DELTA = 33°19'36"	DELTA = 6°59'56"	DELTA = 17°15'59"
D = 2°06'23"	D = 3°50'40"	D = 4°07'02"	D = 0°26'27"	D = 4°00'00"
T = 161.17	T = 274.30	T = 416.54	T = 794.97	T = 217.48
L = 321.97	L = 542.54	L = 809.46	L = 1587.97	L = 431.66
R = 2720.21	R = 1490.38	R = 1391.64	R = 13000.00	R = 1432.39
PC STA = 964+58.19	PC STA = 968+03.45	PC STA = 955+32.86	PC STA = 30+33.71	PC STA = 975+21.63
PT STA = 967+80.16	PT STA = 973+45.99	PT STA = 963+42.33	PT STA = 46+21.68	PT STA = 979+53.29



PROJECT NO: 1010-02-85	HWY: IH 39	COUNTY: COLUMBIA	ALIGNMENT DETAIL	SHEET 83	E

FILE NAME : X:\3230900\131208.01\TECH\CAD\10100202\SHEETSPLAN\CONSTRUCTION PROJECT 2, 1010-02-85\027201_AD.DWG PLOT DATE : 4/24/2017 1:42 PM PLOT BY : TIMOTHY VELTE PLOT NAME : PLOT SCALE : 1"=200'_XREF
WISDOT/CADDS SHEET 44

2



CURVE 22
PI STA = 981+65.25
Y = 376255.87
X = 529130.55
DELTA = 19°50'29"
D = 7°14'01"
T = 138.53
L = 274.29
R = 792.07
PC STA = 980+26.72
PT STA = 983+01.01

CURVE 23
PI STA = 965+98.58
Y = 375543.79
X = 528771.42
DELTA = 241°07'08"
D = 22°43'11"
T = 427.11
L = 1061.28
R = 252.19
PC STA = 970+25.69
PT STA = 980+86.97

CURVE 24
PI STA = 990+53.30
Y = 375063.54
X = 529103.09
DELTA = 31°00'30"
D = 4°00'00"
T = 397.35
L = 775.21
R = 1432.39
PC STA = 986+55.94
PT STA = 994+31.15

CURVE 25
PI STA = 1005+56.22
Y = 373593.32
X = 529320.18
DELTA = 29°19'20"
D = 1°00'03"
T = 1497.77
L = 2929.87
R = 5725.00
PC STA = 990+58.45
PT STA = 1019+88.32

CURVE 26
PI STA = 1002+15.79
Y = 373878.06
X = 529175.17
DELTA = 28°20'40"
D = 1°00'00"
T = 1446.95
L = 2834.64
R = 5730.00
PC STA = 987+68.84
PT STA = 1016+03.48

CURVE 27
PI STA = 989+04.58
Y = 374978.20
X = 528734.35
DELTA = 5°54'12"
D = 1°44'39"
T = 169.38
L = 338.45
R = 3284.93
PC STA = 987+35.21
PT STA = 990+73.66

CURVE 28
PI STA = 993+25.34
Y = 374565.02
X = 528815.44
DELTA = 58°52'14"
D = 20°09'03"
T = 160.44
L = 292.15
R = 284.33
PC STA = 991+64.90
PT STA = 994+57.05

CURVE 29
PI STA = 1084+66.43
Y = 368401.44
X = 522026.03
DELTA = 176°23'51"
D = 20°13'21"
T = 9008.97
L = 872.28
R = 283.33
PC STA = 994+57.47
PT STA = 1003+29.74

CURVE 30
PI STA = 981+91.69
Y = 375762.10
X = 528364.68
DELTA = 16°45'13"
D = 2°12'13"
T = 382.86
L = 760.25
R = 2600.00
PC STA = 978+08.83
PT STA = 985+69.09

CURVE 31
PI STA = 990+20.34
Y = 374946.53
X = 528189.75
DELTA = 30°30'33"
D = 14°00'07"
T = 111.60
L = 217.89
R = 409.20
PC STA = 989+08.75
PT STA = 991+26.64

CURVE 32
PI STA = 1008+83.25
Y = 373305.41
X = 528951.43
DELTA = 39°21'51"
D = 4°31'52"
T = 452.32
L = 868.77
R = 1264.53
PC STA = 1004+30.93
PT STA = 1012+99.70

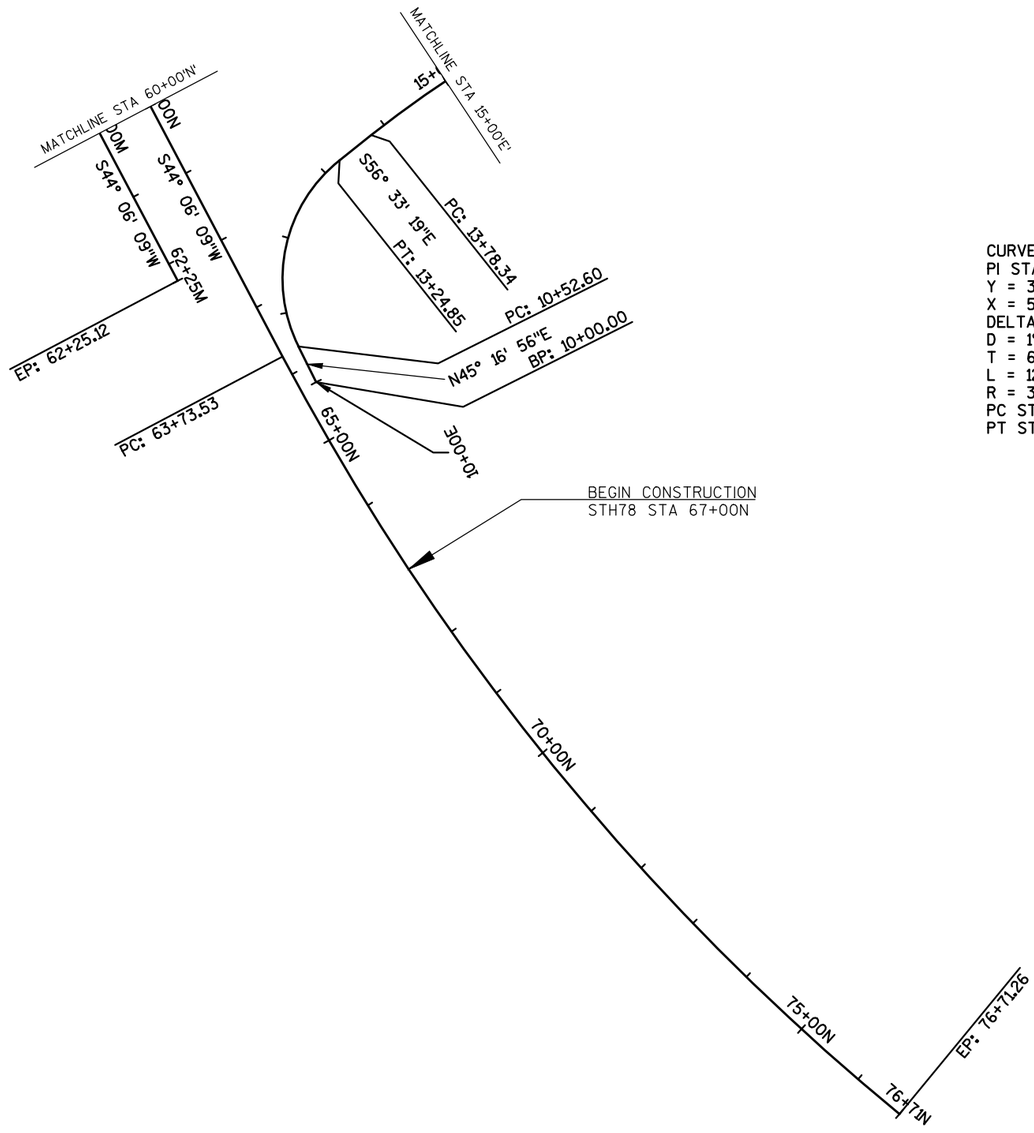
CURVE 33
PI STA = 16+48.48
Y = 374207.03
X = 528310.42
DELTA = 21°27'04"
D = 4°01'03"
T = 270.14
L = 533.96
R = 1426.19
PC STA = 13+78.34
PT STA = 19+12.30

CURVE 34
PI STA = 988+83.35
Y = 375192.83
X = 528886.22
DELTA = 2°47'45"
D = 0°38'12"
T = 219.64
L = 439.19
R = 9000.00
PC STA = 986+63.71
PT STA = 991+02.90

CURVE 35
PI STA = 999+00.95
Y = 374211.29
X = 529155.05
DELTA = 11°49'41"
D = 1°02'30"
T = 569.73
L = 1135.40
R = 5500.00
PC STA = 993+31.22
PT STA = 1004+66.63

PROJECT NO: 1010-02-85	HWY: IH 39	COUNTY: COLUMBIA	ALIGNMENT DETAIL	SHEET 84	E

2



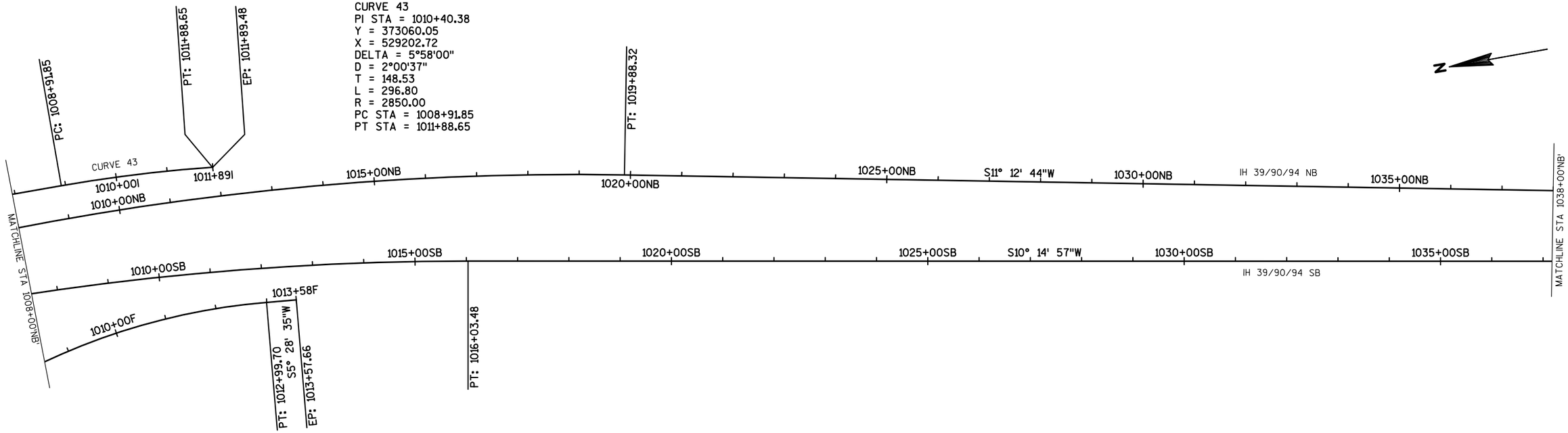
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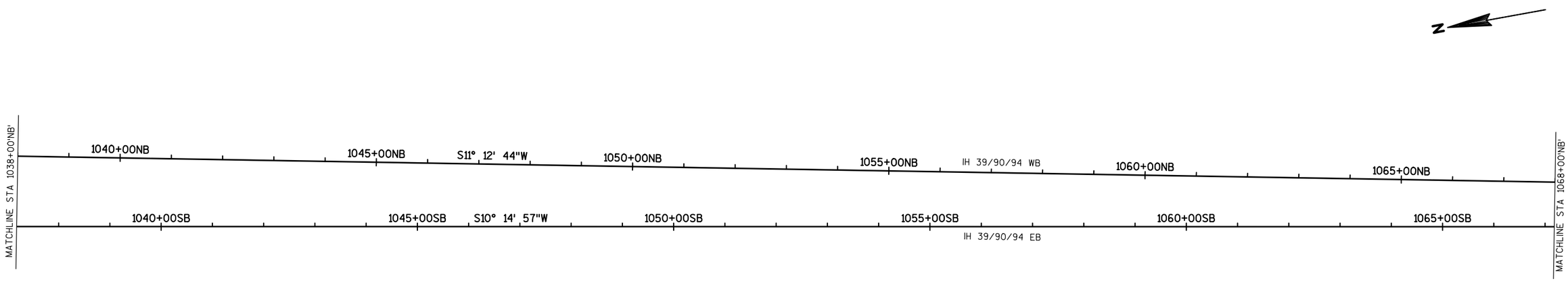
CURVE 41
PI STA = 70+31.03
Y = 373904.25
X = 527313.40
DELTA = 22°42'37"
D = 1°45'00"
T = 657.49
L = 1297.73
R = 3274.04
PC STA = 63+73.53
PT STA = 76+71.26

CURVE 42
PI STA = 12+14.68
Y = 374474.72
X = 527905.13
DELTA = 78°09'45"
D = 28°42'36"
T = 162.08
L = 272.25
R = 199.57
PC STA = 10+52.60
PT STA = 13+24.85

2

CURVE 43
PI STA = 1010+40.38
Y = 373060.05
X = 529202.72
DELTA = 5°58'00"
D = 2°00'37"
T = 148.53
L = 296.80
R = 2850.00
PC STA = 1008+91.85
PT STA = 1011+88.65

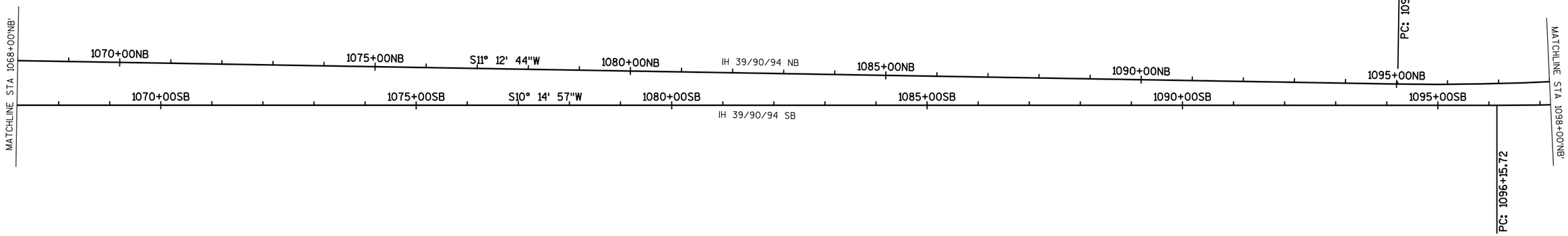




PROJECT NO: 1010-02-85	HWY: IH 39	COUNTY: COLUMBIA	ALIGNMENT DETAIL	SHEET 86	E

FILE NAME : X:\3230900\131208.01\TECH\CAD\10100202\SHEETSPLAN\CONSTRUCTION PROJECT 2, 1010-02-85\027201_AD.DWG PLOT DATE : 4/24/2017 1:43 PM PLOT BY : TIMOTHY VELTE PLOT NAME : PLOT SCALE : 1"=200'_XREF
WISDOT/CADDS SHEET 44

2



CURVE 44
PI STA = 1098+70.00
Y = 364392.90
X = 527496.40
DELTA = 8°56'58"
D = 1°13'09"
T = 367.81
L = 734.12
R = 4700.00
PC STA = 1095+02.18
PT STA = 1102+36.31

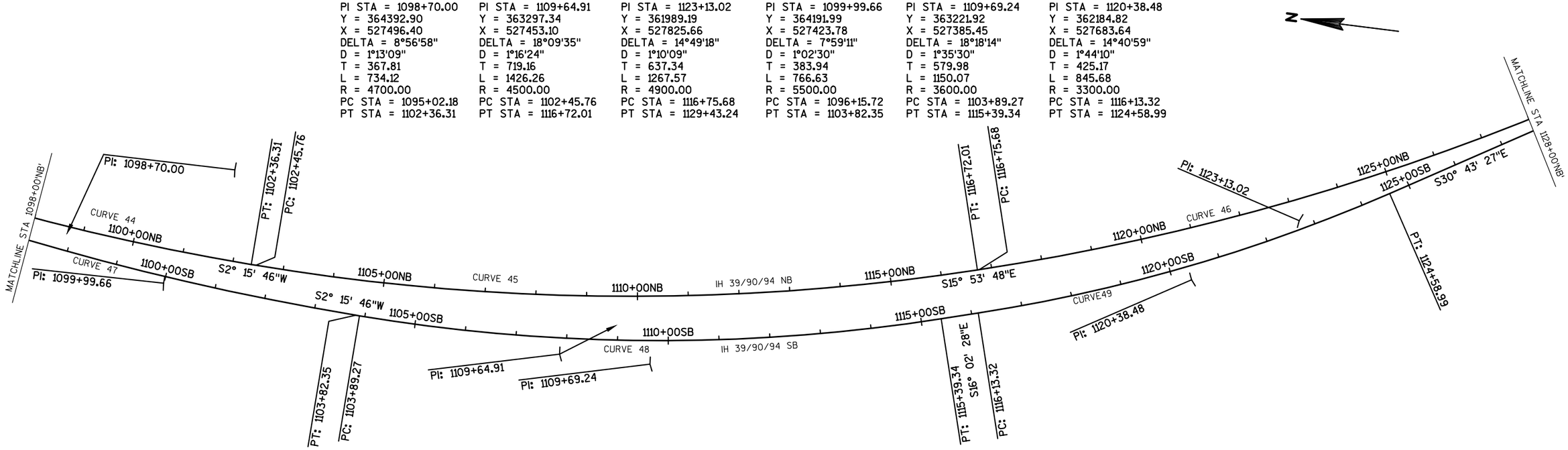
CURVE 45
PI STA = 1109+64.91
Y = 363297.34
X = 527453.10
DELTA = 18°09'35"
D = 1°16'24"
T = 719.16
L = 1426.26
R = 4500.00
PC STA = 1102+45.76
PT STA = 1116+72.01

CURVE 46
PI STA = 1123+13.02
Y = 361989.19
X = 527825.66
DELTA = 14°49'18"
D = 1°10'09"
T = 637.34
L = 1267.57
R = 4900.00
PC STA = 1116+75.68
PT STA = 1129+43.24

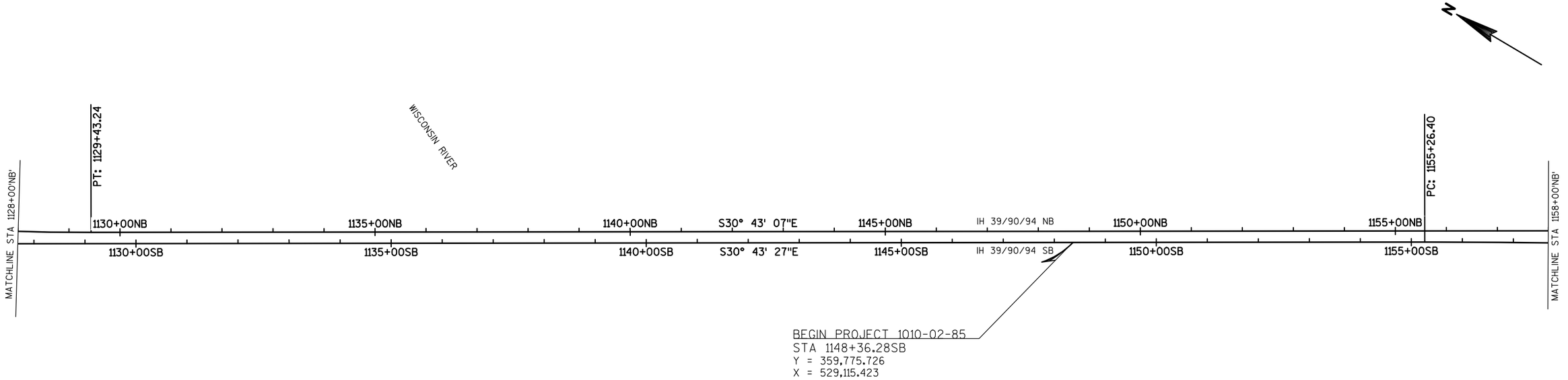
CURVE 47
PI STA = 1099+99.66
Y = 364191.99
X = 527423.78
DELTA = 7°59'11"
D = 1°02'30"
T = 383.94
L = 766.63
R = 5500.00
PC STA = 1096+15.72
PT STA = 1103+82.35

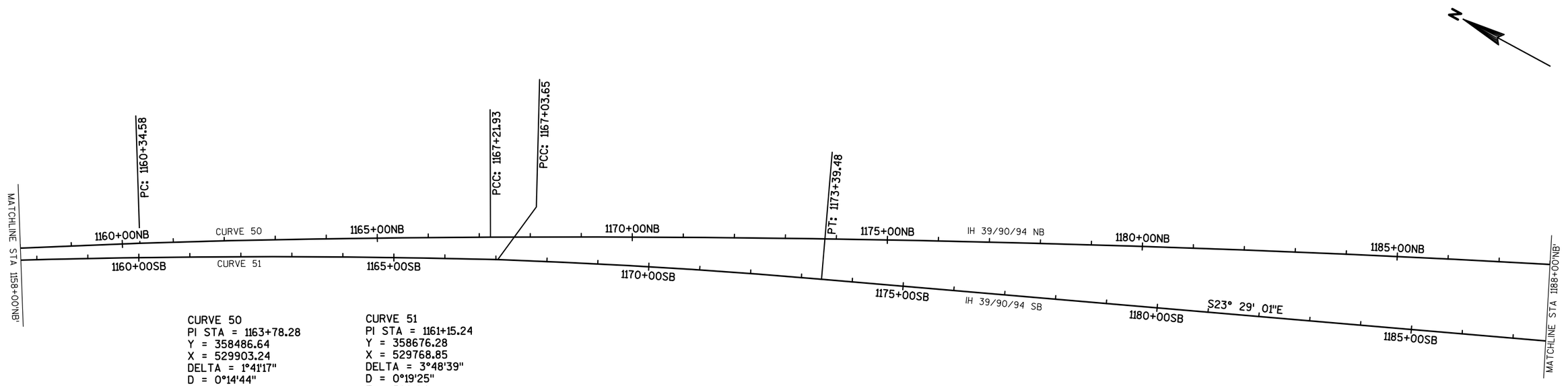
CURVE 48
PI STA = 1109+69.24
Y = 363221.92
X = 527385.45
DELTA = 18°18'14"
D = 1°35'30"
T = 579.98
L = 1150.07
R = 3600.00
PC STA = 1103+89.27
PT STA = 1115+39.34

CURVE 49
PI STA = 1120+38.48
Y = 362184.82
X = 527683.64
DELTA = 14°40'59"
D = 1°44'10"
T = 425.17
L = 845.68
R = 3300.00
PC STA = 1116+13.32
PT STA = 1124+58.99



PROJECT NO: 1010-02-85	HWY: IH 39	COUNTY: COLUMBIA	ALIGNMENT DETAIL	SHEET 87	E

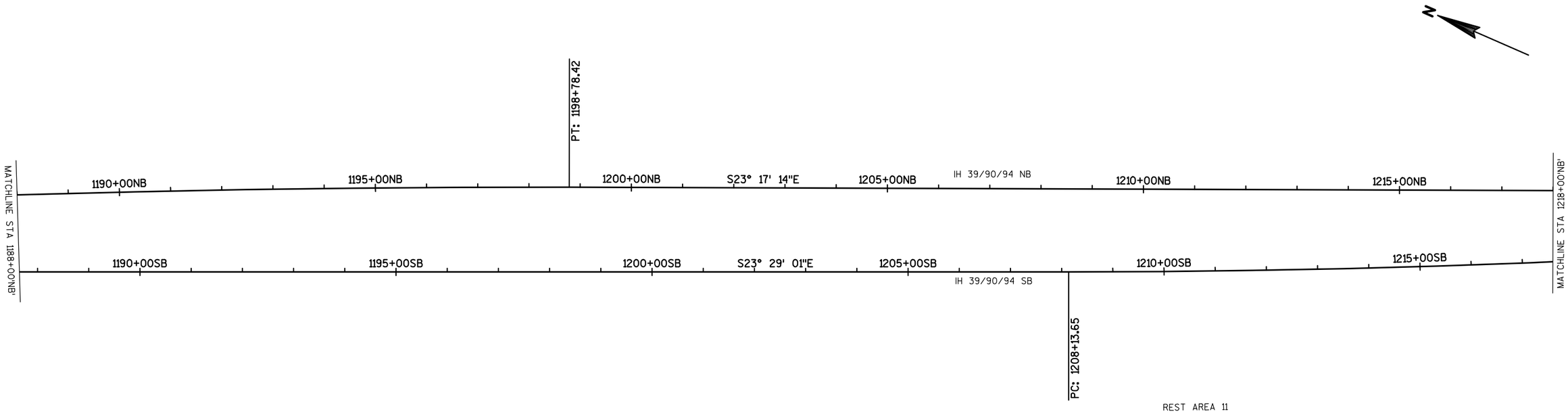




CURVE 50
PI STA = 1163+78.28
Y = 358486.64
X = 529903.24
DELTA = 1°41'17"
D = 0°14'44"
T = 343.70
L = 687.35
R = 23330.00
PC STA = 1160+34.58
PT STA = 1167+21.93

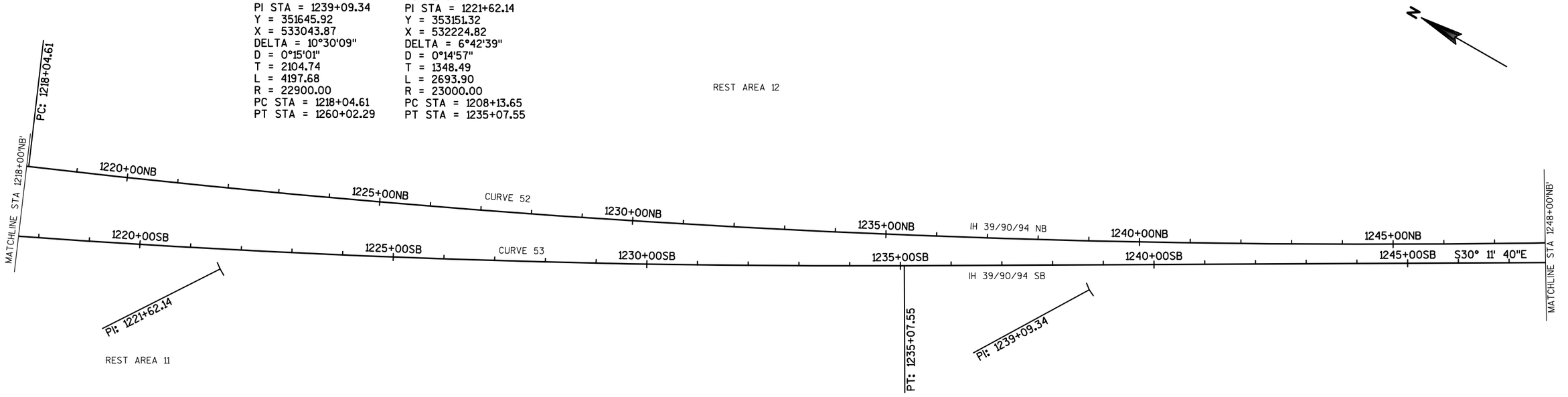
CURVE 51
PI STA = 1161+15.24
Y = 358676.28
X = 529768.85
DELTA = 3°48'39"
D = 0°19'25"
T = 588.84
L = 1177.24
R = 17700.00
PC STA = 1155+26.40
PT STA = 1167+03.65

PROJECT NO: 1010-02-85	HWY: IH 39	COUNTY: COLUMBIA	ALIGNMENT DETAIL	SHEET 88	E

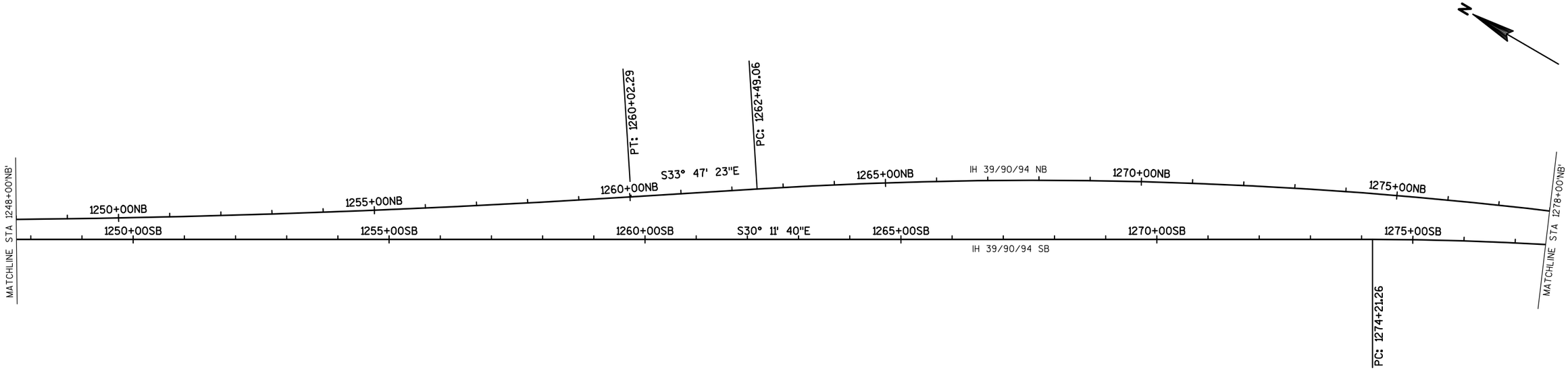


CURVE 52
PI STA = 1239+09.34
Y = 351645.92
X = 533043.87
DELTA = 10°30'09"
D = 0°15'01"
T = 2104.74
L = 4197.68
R = 22900.00
PC STA = 1218+04.61
PT STA = 1260+02.29

CURVE 53
PI STA = 1221+62.14
Y = 353151.32
X = 532224.82
DELTA = 6°42'39"
D = 0°14'57"
T = 1348.49
L = 2693.90
R = 23000.00
PC STA = 1208+13.65
PT STA = 1235+07.55

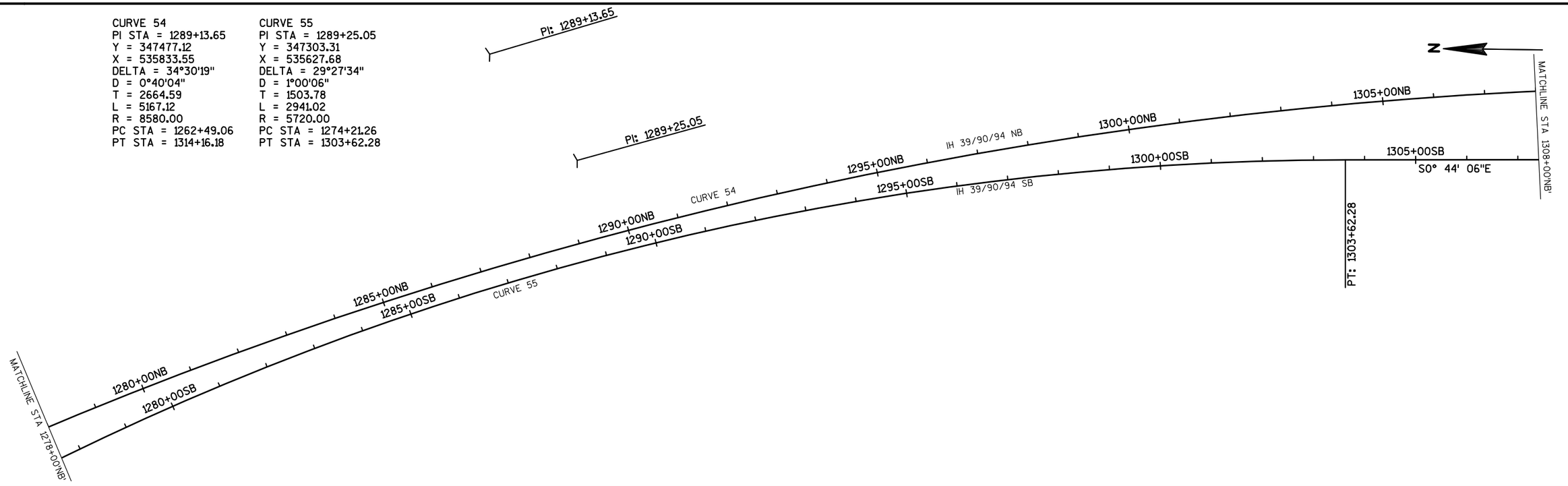


PROJECT NO: 1010-02-85	HWY: IH 39	COUNTY: COLUMBIA	ALIGNMENT DETAIL	SHEET 89	E



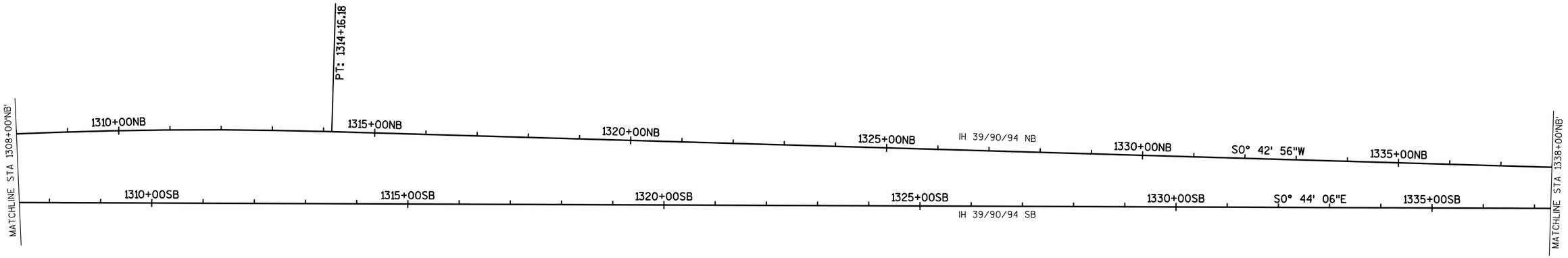
CURVE 54
PI STA = 1289+13.65
Y = 347477.12
X = 535833.55
DELTA = 34°30'19"
D = 0°40'04"
T = 2664.59
L = 5167.12
R = 8580.00
PC STA = 1262+49.06
PT STA = 1314+16.18

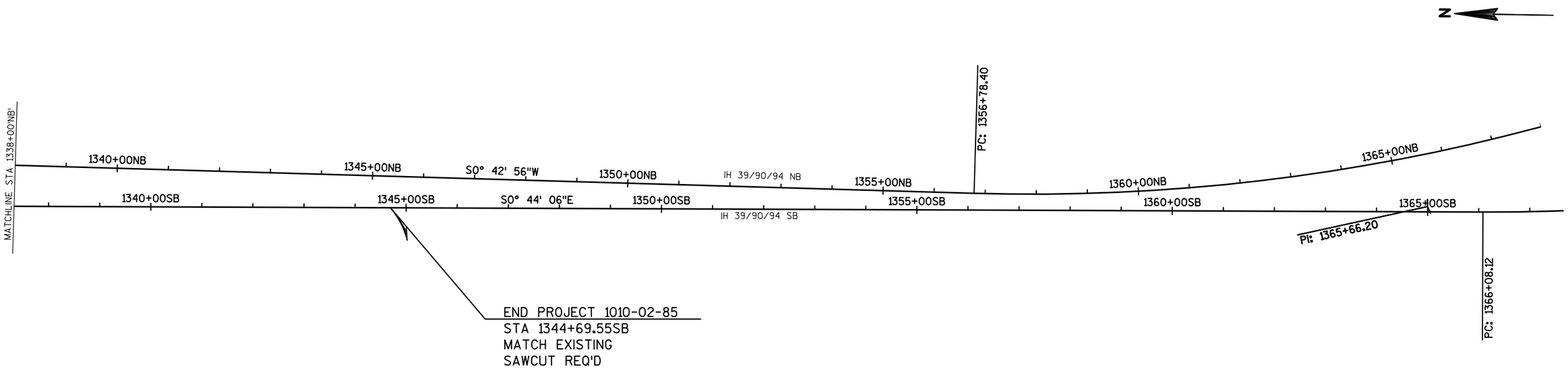
CURVE 55
PI STA = 1289+25.05
Y = 347303.31
X = 535627.68
DELTA = 29°27'34"
D = 1°00'06"
T = 1503.78
L = 2941.02
R = 5720.00
PC STA = 1274+21.26
PT STA = 1303+62.28



PROJECT NO: 1010-02-85	HWY: IH 39	COUNTY: COLUMBIA	ALIGNMENT DETAIL	SHEET 90	E

2





PROJECT NO: 1010-02-85	HWY: IH 39	COUNTY: COLUMBIA	ALIGNMENT DETAIL	SHEET 91	E

1010-02-85

Line	Item	Item Description	Unit	Total	Qty
0002	203.0200	Removing Old Structure (station) 01. 977+35 'S-E'	LS	1.000	1.000
0004	204.0100	Removing Pavement	SY	5,773.000	5,773.000
0006	204.0105	Removing Pavement Butt Joints	SY	13,357.000	13,357.000
0008	204.0110	Removing Asphaltic Surface	SY	1,173.000	1,173.000
0010	204.0115	Removing Asphaltic Surface Butt Joints	SY	83.000	83.000
0012	204.0120	Removing Asphaltic Surface Milling	SY	9,320.000	9,320.000
0014	204.0157	Removing Concrete Barrier	LF	99.000	99.000
0016	204.0165	Removing Guardrail	LF	2,753.000	2,753.000
0018	204.0180	Removing Delineators and Markers	EACH	268.000	268.000
0020	204.9060.S	Removing (item description) 01. Removing Flexible Tubular Markers	EACH	118.000	118.000
0022	205.0100	Excavation Common	CY	5,420.000	5,420.000
0024	206.1000	Excavation for Structures Bridges (structure) 01. B-11-98	LS	1.000	1.000
0026	208.0100	Borrow	CY	5,074.000	5,074.000
0028	210.1100	Backfill Structure Type A	CY	20.000	20.000
0030	211.0200	Prepare Foundation for Concrete Pavement (project) 01. 1010-02-85	LS	1.000	1.000
0032	211.0400	Prepare Foundation for Asphaltic Shoulders	STA	20.000	20.000
0034	213.0100	Finishing Roadway (project) 01. 1010-02-85	EACH	1.000	1.000
0036	305.0110	Base Aggregate Dense 3/4-Inch	TON	6,303.000	6,303.000
0038	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	6,449.000	6,449.000
0040	305.0125	Base Aggregate Dense 1 1/4-Inch	CY	27.000	27.000
0042	312.0115	Select Crushed Material	CY	32.000	32.000
0044	390.0203	Base Patching Asphaltic	SY	80.000	80.000
0046	415.1090	Concrete Pavement HES 9-Inch	SY	5,193.000	5,193.000
0048	416.0610	Drilled Tie Bars	EACH	209.000	209.000
0050	416.0620	Drilled Dowel Bars	EACH	900.000	900.000
0052	416.1015	Concrete Surface Drains HES	CY	5.000	5.000
0054	416.1710	Concrete Pavement Repair	SY	340.000	340.000
0056	416.1720	Concrete Pavement Replacement	SY	2,510.000	2,510.000
0058	440.4410	Incentive IRI Ride	DOL	42,000.000	42,000.000
0060	450.4000	HMA Cold Weather Paving	TON	9,920.000	9,920.000
0062	455.0605	Tack Coat	GAL	17,385.000	17,385.000
0064	460.2005	Incentive Density PWL HMA Pavement	DOL	49,890.000	49,890.000
0066	460.2010	Incentive Air Voids HMA Pavement	DOL	49,890.000	49,890.000
0068	460.4110.S	Reheating HMA Pavement Longitudinal Joints	LF	75,563.000	75,563.000
0070	460.5225	HMA Pavement 5 LT 58-28 S	TON	2,185.000	2,185.000
0072	460.7224	HMA Pavement 4 HT 58-28 S	TON	24,561.000	24,561.000
0074	460.7424	HMA Pavement 4 HT 58-28 H	TON	24,561.000	24,561.000

1010-02-85

Line	Item	Item Description	Unit	Total	Qty
0076	465.0105	Asphaltic Surface	TON	70.000	70.000
0078	465.0110	Asphaltic Surface Patching	TON	15.000	15.000
0080	465.0305	Asphaltic Surface Safety Islands	TON	2.000	2.000
0082	465.0400	Asphaltic Shoulder Rumble Strips	LF	82,982.000	82,982.000
0084	502.0100	Concrete Masonry Bridges	CY	59.000	59.000
0086	502.3100	Expansion Device (structure) 01. B-11-98	LS	1.000	1.000
0088	502.3200	Protective Surface Treatment	SY	65.000	65.000
0090	502.3210	Pigmented Surface Sealer	SY	9.000	9.000
0092	502.4204	Adhesive Anchors No. 4 Bar	EACH	76.000	76.000
0094	502.4205	Adhesive Anchors No. 5 Bar	EACH	4.000	4.000
0096	502.4206	Adhesive Anchors No. 6 Bar	EACH	71.000	71.000
0098	505.0600	Bar Steel Reinforcement HS Coated Structures	LB	7,190.000	7,190.000
0100	509.1500	Concrete Surface Repair	SF	3.000	3.000
0102	511.1200	Temporary Shoring (structure) 01. B-11-98	SF	185.000	185.000
0104	516.0500	Rubberized Membrane Waterproofing	SY	5.000	5.000
0106	520.9700.S	Culvert Pipe Liners (size) 01. 24-Inch	LF	572.000	572.000
0108	520.9700.S	Culvert Pipe Liners (size) 02. 30-Inch	LF	231.000	231.000
0110	520.9700.S	Culvert Pipe Liners (size) 03. 36-Inch	LF	414.000	414.000
0112	520.9700.S	Culvert Pipe Liners (size) 04. 42-Inch	LF	322.000	322.000
0114	520.9750.S	Cleaning Culvert Pipes for Liner Verification	EACH	14.000	14.000
0116	521.0124	Culvert Pipe Corrugated Steel 24-Inch	LF	12.000	12.000
0118	524.0624	Apron Endwalls for Culvert Pipe Salvaged 24-Inch	EACH	1.000	1.000
0120	601.0150	Concrete Curb Integral Type D	LF	939.000	939.000
0122	603.0105	Concrete Barrier Single-Faced 32-Inch	LF	138.000	138.000
0124	603.0405	Concrete Barrier Transition Section 32-Inch	LF	34.000	34.000
0126	603.8000	Concrete Barrier Temporary Precast Delivered	LF	1,506.000	1,506.000
0128	603.8125	Concrete Barrier Temporary Precast Installed	LF	1,506.000	1,506.000
0130	606.0200	Riprap Medium	CY	108.000	108.000
0132	611.0430	Reconstructing Inlets	EACH	4.000	4.000
0134	611.8115	Adjusting Inlet Covers	EACH	1.000	1.000
0136	614.0150	Anchor Assemblies for Steel Plate Beam Guard	EACH	3.000	3.000
0138	614.0400	Adjusting Steel Plate Beam Guard	LF	3,851.000	3,851.000
0140	614.0905	Crash Cushions Temporary	EACH	4.000	4.000
0142	614.2300	MGS Guardrail 3	LF	11,527.000	11,527.000
0144	614.2320	MGS Guardrail 3 QS	LF	100.000	100.000
0146	614.2330	MGS Guardrail 3 K	LF	650.000	650.000
0148	614.2500	MGS Thrie Beam Transition	LF	365.000	365.000
0150	614.2610	MGS Guardrail Terminal EAT	EACH	12.000	12.000
0152	614.2620	MGS Guardrail Terminal Type 2	EACH	7.000	7.000
0154	618.0100	Maintenance And Repair of Haul Roads (project) 01.	EACH	1.000	1.000

1010-02-85

Line	Item	Item Description	Unit	Total	Qty
		1010-02-85			
0156	619.1000	Mobilization	EACH	1.000	1.000
0158	624.0100	Water	MGAL	260.000	260.000
0160	625.0105	Topsoil	CY	1,500.000	1,500.000
0162	625.0500	Salvaged Topsoil	SY	32,092.000	32,092.000
0164	627.0200	Mulching	SY	5,500.000	5,500.000
0166	628.1104	Erosion Bales	EACH	24.000	24.000
0168	628.1504	Silt Fence	LF	16,175.000	16,175.000
0170	628.1520	Silt Fence Maintenance	LF	16,175.000	16,175.000
0172	628.1905	Mobilizations Erosion Control	EACH	12.000	12.000
0174	628.1910	Mobilizations Emergency Erosion Control	EACH	6.000	6.000
0176	628.2002	Erosion Mat Class I Type A	SY	32,092.000	32,092.000
0178	628.7005	Inlet Protection Type A	EACH	5.000	5.000
0180	628.7015	Inlet Protection Type C	EACH	5.000	5.000
0182	628.7504	Temporary Ditch Checks	LF	195.000	195.000
0184	628.7555	Culvert Pipe Checks	EACH	18.000	18.000
0186	628.7560	Tracking Pads	EACH	2.000	2.000
0188	628.7570	Rock Bags	EACH	15.000	15.000
0190	629.0210	Fertilizer Type B	CWT	21.000	21.000
0192	630.0130	Seeding Mixture No. 30	LB	610.000	610.000
0194	630.0200	Seeding Temporary	LB	350.000	350.000
0196	630.0300	Seeding Borrow Pit	LB	75.000	75.000
0198	633.0100	Delineator Posts Steel	EACH	466.000	466.000
0200	633.0500	Delineator Reflectors	EACH	535.000	535.000
0202	633.1000	Delineator Brackets	EACH	12.000	12.000
0204	634.0612	Posts Wood 4x6-Inch X 12-FT	EACH	37.000	37.000
0206	634.0614	Posts Wood 4x6-Inch X 14-FT	EACH	40.000	40.000
0208	634.0616	Posts Wood 4x6-Inch X 16-FT	EACH	49.000	49.000
0210	634.0618	Posts Wood 4x6-Inch X 18-FT	EACH	37.000	37.000
0212	634.0620	Posts Wood 4x6-Inch X 20-FT	EACH	15.000	15.000
0214	634.0622	Posts Wood 4x6-Inch X 22-FT	EACH	2.000	2.000
0216	636.0100	Sign Supports Concrete Masonry	CY	25.000	25.000
0218	636.1000	Sign Supports Steel Reinforcement HS	LB	370.000	370.000
0220	636.1500	Sign Supports Steel Coated Reinforcement HS	LB	2,270.000	2,270.000
0222	637.0620	Sign Flags Permanent Type II	EACH	6.000	6.000
0224	637.1220	Signs Type I Reflective SH	SF	1,190.000	1,190.000
0226	637.2210	Signs Type II Reflective H	SF	1,004.010	1,004.010
0228	637.2215	Signs Type II Reflective H Folding	SF	19.000	19.000
0230	637.2230	Signs Type II Reflective F	SF	552.750	552.750
0232	638.2101	Moving Signs Type I	EACH	3.000	3.000

1010-02-85

Line	Item	Item Description	Unit	Total	Qty
0234	638.2601	Removing Signs Type I	EACH	9.000	9.000
0236	638.2602	Removing Signs Type II	EACH	229.000	229.000
0238	638.3000	Removing Small Sign Supports	EACH	183.000	183.000
0240	638.3100	Removing Structural Steel Sign Supports	EACH	1.000	1.000
0242	641.6600	Sign Bridge (structure) 01. S-11-26	LS	1.000	1.000
0244	642.5401	Field Office Type D	EACH	1.000	1.000
0246	643.0200.S	Traffic Control Surveillance and Maintenance (project) 01. 1010-02-85	DAY	170.000	170.000
0248	643.0300	Traffic Control Drums	DAY	82,975.000	82,975.000
0250	643.0420	Traffic Control Barricades Type III	DAY	3,130.000	3,130.000
0252	643.0500	Traffic Control Flexible Tubular Marker Posts	EACH	118.000	118.000
0254	643.0600	Traffic Control Flexible Tubular Marker Bases	EACH	118.000	118.000
0256	643.0705	Traffic Control Warning Lights Type A	DAY	6,015.000	6,015.000
0258	643.0715	Traffic Control Warning Lights Type C	DAY	3,935.000	3,935.000
0260	643.0800	Traffic Control Arrow Boards	DAY	595.000	595.000
0262	643.0900	Traffic Control Signs	DAY	17,950.000	17,950.000
0264	643.0910	Traffic Control Covering Signs Type I	EACH	33.000	33.000
0266	643.0920	Traffic Control Covering Signs Type II	EACH	1,410.000	1,410.000
0268	643.1050	Traffic Control Signs PCMS	DAY	800.000	800.000
0270	643.1055.S	Truck or Trailer Mounted Attenuator	DAY	6.000	6.000
0272	643.2000	Traffic Control Detour (project) 01.1010-02-85	EACH	1.000	1.000
0274	643.3000	Traffic Control Detour Signs	DAY	8,025.000	8,025.000
0276	645.0120	Geotextile Type HR	SY	345.000	345.000
0278	646.0106	Pavement Marking Epoxy 4-Inch	LF	33,070.000	33,070.000
0280	646.0126	Pavement Marking Epoxy 8-Inch	LF	2,462.000	2,462.000
0282	646.0600	Removing Pavement Markings	LF	575.000	575.000
0284	646.0790.S	Removing Raised Pavement Markers	EACH	658.000	658.000
0286	646.0841.S	Pavement Marking Grooved Wet Reflective Contrast Tape 4-Inch	LF	19,780.000	19,780.000
0288	646.0843.S	Pavement Marking Grooved Wet Reflective Contrast Tape 8-Inch	LF	2,908.000	2,908.000
0290	646.2304.S	Pavement Marking Grooved Wet Reflective Epoxy 4-Inch	LF	78,472.000	78,472.000
0292	647.0746	Pavement Marking Diagonal Epoxy 24-Inch	LF	1,000.000	1,000.000
0294	649.0400	Temporary Pavement Marking Removable Tape 4-Inch	LF	4,020.000	4,020.000
0296	649.0403	Temporary Pavement Marking Epoxy 4-Inch	LF	193,020.000	193,020.000
0298	649.0801	Temporary Pavement Marking Removable Tape 8-Inch	LF	600.000	600.000
0300	650.4500	Construction Staking Subgrade	LF	3,116.000	3,116.000
0302	650.6500	Construction Staking Structure Layout (structure) 01. S-11-0026	LS	1.000	1.000
0304	650.6500	Construction Staking Structure Layout (structure) 02. B-	LS	1.000	1.000

1010-02-85

Line	Item	Item Description	Unit	Total	Qty
		11-98			
0306	650.7000	Construction Staking Concrete Pavement	LF	3,116.000	3,116.000
0308	650.7500	Construction Staking Concrete Barrier	LF	172.000	172.000
0310	650.8000	Construction Staking Resurfacing Reference	LF	37,434.000	37,434.000
0312	650.9910	Construction Staking Supplemental Control (project) 01. 1010-02-85	LS	1.000	1.000
0314	650.9920	Construction Staking Slope Stakes	LF	3,116.000	3,116.000
0316	690.0150	Sawing Asphalt	LF	73.000	73.000
0318	690.0250	Sawing Concrete	LF	5,213.000	5,213.000
0320	715.0415	Incentive Strength Concrete Pavement	DOL	2,480.000	2,480.000
0322	715.0502	Incentive Strength Concrete Structures	DOL	150.000	150.000
0324	ASP.1T0A	On-the-Job Training Apprentice at $5.00/HR	HRS	1,200.000	1,200.000
0326	ASP.1T0G	On-the-Job Training Graduate at $5.00/HR	HRS	800.000	800.000
0328	SPV.0045	Special 01. Portable Automated Real-Time Traffic Queue Warning System (QWS)	DAY	185.000	185.000
0330	SPV.0060	Special 01. Tension Anchor Rods	EACH	2.000	2.000
0332	SPV.0060	Special 02. Concrete Barrier Wall Surface Repair	EACH	10.000	10.000
0334	SPV.0060	Special 03. Replace Sign Bridge ID Plaque	EACH	1.000	1.000
0336	SPV.0060	Special 04. Sawing Concrete Barrier Wall	EACH	1.000	1.000
0338	SPV.0060	Special 05. HMA Percent Within Limits (PWL) Test Strip	EACH	2.000	2.000
0340	SPV.0060	Special 06. Replace Rodent Screen	EACH	2.000	2.000
0342	SPV.0090	Special 01. Removing HMA Pavement Longitudinal Joint Milling	LF	75,563.000	75,563.000
0344	SPV.0090	Special 02. Sawing Concrete Partial Sawcut	LF	48.000	48.000
0346	SPV.0090	Special 03. Clean and Fill Crack Treatment	LF	6,431.000	6,431.000
0348	SPV.0105	Special 01. Removing Sign Structure Station 956+12F	LS	1.000	1.000
0350	SPV.0105	Special 02. Remove and Replace Guardrail	LS	1.000	1.000
0352	SPV.0165	Special 01. Modular Block Wall Repair	SF	70.000	70.000
0354	SPV.0165	Special 02. Shotcrete Facing	SF	875.000	875.000
0356	SPV.0180	Special 01. Continuously Reinforced Concrete Pavement SHES Repair	SY	30.000	30.000
0358	SPV.0180	Special 03. Concrete Pavement HES 6-Inch	SY	227.000	227.000

REMOVING BUTT JOINTS

STAGE	STATION - STATION	LOCATION	204.0100 REMOVING PAVEMENT (SY)	204.0105 REMOVING PAVEMENT BUTT JOINTS (SY)	204.0110 REMOVING ASPHALTIC SURFACE (SY)	204.0115 REMOVING ASPHALTIC SURFACE BUTT JOINTS (SY)	204.0120 REMOVING ASPHALTIC SURFACE MILLING (SY)	211.0200 PREPARE FOUNDATION FOR CONCRETE PAVEMENT (LS)	211.0400 PREPARE FOUNDATION FOR ASPHALTIC SHOULDERS (STA)
1A	1160+72 NB - 1161+70 NB	RT	65	-	-	-	-	-	-
1A	1160+72 SB - 1161+70 SB	LT	22	-	-	-	-	-	-
3	1148+37 SB - 1149+87 SB	LT&RT	-	935	-	-	-	-	-
3	1167+23 NB - 1168+73 NB	LT&RT	-	935	-	-	-	-	-
3	1169+31 NB - 1179+70 NB	RT	-	1,204	-	-	-	-	-
3	1170+01 SB - 1179+75 SB	LT	-	1,178	-	-	-	-	-
3	1184+15 NB - 1185+15 NB	RT	-	111	-	-	-	-	-
3	1184+15 NB - 1185+15 NB	LT	-	111	-	-	-	-	-
3	1194+83 SB - 1196+33 SB	RT	-	566	-	-	-	-	-
3	1217+56 NB - 1219+06 NB	LT	-	442	-	-	-	-	-
3	1227+26 SB - 1228+76 SB	RT	-	400	-	-	-	-	-
3	1234+33 SB - 1235+33 SB	LT	-	111	-	-	-	-	-
3	1238+65 SB - 1239+55 SB	LT	-	100	-	-	-	-	-
3	1238+97 NB - 1239+57 NB	RT	-	67	-	-	-	-	-
3	1246+63 NB - 1248+13 NB	LT	-	504	-	-	-	-	-
3	1247+63 SB - 1248+23 SB	LT	-	67	-	-	-	-	-
3	1247+90 NB - 1248+80 NB	RT	-	100	-	-	-	-	-
3	1256+74 NB - 1258+00 NB	RT	-	140	-	-	-	-	-
3	1306+50 SB - 1308+25 SB	RT	-	194	-	-	-	-	-
3	1306+50 SB - 1308+25 SB	LT	-	194	-	-	-	-	-
3	1308+28 SB - 1309+78 SB		-	935	-	-	-	-	-
3	1308+79 NB - 1310+29 NB		-	935	-	-	-	-	-
3	1311+78 SB - 1313+28 SB		-	935	-	-	-	-	-
3	1312+26 NB - 1313+76 NB		-	935	-	-	-	-	-
3	1313+76 NB - 1315+51 NB	RT	-	194	-	-	-	-	-
3	1313+76 NB - 1315+51 NB	LT	-	194	-	-	-	-	-
3	1343+19 SB - 1344+69 SB		-	935	-	-	-	-	-
3	1343+75 NB 1345+25 NB	LT	-	-	-	83	-	-	-
3	1343+75 NB - 1345+25 NB		-	935	-	-	-	-	-
4B	10+58 E - 20+98 E		1,733	-	-	-	-	-	-
4B	10+88 E - 11+40 E	LT	-	-	-	-	-	-	2
4B	10+90 E - 11+40 E	LT	-	-	64	-	-	-	-
4B	17+50 E - 21+11 E	LT	-	-	408	-	-	-	5
4B	20+98 E - 22+46 E	RT	-	-	82	-	-	-	-
4B	21+00 E - 22+40 E	RT	-	-	150	-	-	-	2
4B	978+18 F - 978+50 F	RT	21	-	13	-	-	-	-
4C	971+59 J - 981+41 J		1,909	-		-	-	-	-
4C	974+00 J - 976+00 J	RT	-	-	211	-	-	-	2
4C	980+80 J - 981+50 J	RT	-	-	27	-	-	-	2
4C	989+90 J - 993+15 J	RT	-	-	186	-	-	-	5
4C	990+03 J - 993+03 J		500	-	-	-	-	-	-
4C	974+91 K - 982+85 K		1,323	-	-	-	-	-	-
4C	977+37 K - 982+18 K		200	-	-	-	-	-	-
4C	982+85 K - 983+58 K	RT	-	-	32	-	-	-	2
4	60+00 N - 63+00 N	LT	-	-	-	-	340	-	-
4	64+00 N - 74+00 N	LT	-	-	-	-	800	-	-
4	52+00 N - 58+50 N	LT	-	-	-	-	750	-	-
4	38+00 N - 44+00 N	LT	-	-	-	-	550	-	-
4	967+00 G - 970+00 G	RT	-	-	-	-	170	-	-
4	978+75 H - 980+00 H	RT	-	-	-	-	120	-	-
4	989+00 H - 990+25 H	RT	-	-	-	-	100	-	-
4	990+00 I - 1005+00 I	LT	-	-	-	-	1,700	-	-
4	974+00 I - 996+00 I	LT	-	-	-	-	2,450	-	-
4	980+00 I - 984+00 I	RT	-	-	-	-	200	-	-
4	981+50 J - 984+50 J	LT	-	-	-	-	170	-	-
4	990+03 J - 993+03 J	LT	-	-	-	-	170	-	-
4	992+75 J - 1005+00 J	RT	-	-	-	-	700	-	-
4	985+00 L - 988+00 L	RT	-	-	-	-	300	-	-
	UNDIST		-	-	-	-	800	-	-
	PROJECT LIMITS		-	-	-	-	-	1	-
		TOTAL	5,773	13,357	1,173	83	9,320	1	20

* ADDITIONAL QUANTITY SHOWN ELSEWHERE

ALL ITEMS CATEGORY 0010 UNLESS OTHERWISE NOTED

REMOVING GUARDRAIL

STATION - STATION	LOCATION	204.0165 REMOVING GUARDRAIL (LF)
1167+07 SB-1167+22 SB	LT	34
1166+58 SB-1167+54 SB	RT	96
1168+30 NB-1169+26 NB	LT	96
1179+00 SB-1182+15 SB	RT	315
1289+88 SB-1292+00 SB	RT	212
1290+88 SB-1293+08 SB	LT	220
1291+35 NB-1293+55 NB	RT	220
1292+43 NB-1294+55 NB	LT	212
15+15 E - 22+46 E	RT	730
973+43 J - 974+00 J	RT	57
976+00 J - 977+21 J	RT	121
977+70 K - 981+40 K	LT	370
982+18 K - 982+88 K	RT	70
	TOTAL	2,753

SHAPING SHOULDERS

STATION - STATION	LOCATION	305.0500 SHAPING SHOULDERS (STA)
1161+75 - 1167+18 NB	RT	7
	TOTAL	7

FLEXIBLE TUBULAR MARKERS

STATION - STATION	LOCATION	204.9060.S REMOVING FLEXIBLE TUBULAR MARKERS (EACH)	643.0500 TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER POSTS (EACH)	643.0600 TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER BASES (EACH)
1170+00 SB - 1179+00 SB	LT	118	118	118
	TOTAL	118	118	118

EARTHWORK SUMMARY

STAGE	LOCATION	205.0100 EXCAVATION COMMON CUT (CY)	205.0100 EXCAVATION COMMON EBS (CY)	AVAILABLE MATERIAL (CY)	FILL (CY)	MASS ORDINATE (+/-)	WASTE	208.0100 BORROW (CY)	625.0105 TOPSOIL (CY)
1	IH 39/90/94 SOUTHBOUND	0	0	0	4,207	-4,207	-	4,207	1,000
1	IH 39/90/94 NORTHBOUND	0	0	0	6,373	-6,373	-	6,373	500
4B	E RAMP	1,988	0	1,751	315	1,437	1,437	-	-
4C	J RAMP	2,070	0	1,755	351	1,404	1,404	-	-
4C	K RAMP	1,362	0	1,171	7	1,164	1,164	-	-
	BORROW REDUCTION FOR TOPSOIL							-1,500	-
	TOTAL	5,420	0	4,677	11,251	-6,574	0	5,074	1,500

1) Common Excavation is the sum of the Cut and EBS Excavation columns. Item number 205.0100
2) Salvaged/Unsuable Pavement Material is included in Cut, but is excluded from Available Material.
3) 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.
4) Topsoil is used to offset Borrow in silver fills. See special provisions.
5) Waste excavation from Stage 4 may be used in Stage 1.

BASE AGGREGATE

STAGE	STATION	-	STATION	LOCATION	305.0110 BASE AGGREGATE DENSE 3/4-INCH (TON)	305.0120 BASE AGGREGATE DENSE 1 1/4-INCH (TON)	624.0100 WATER (MGAL)
5	1148+36 SB	-	1344+70 SB	RT	1,325	-	27
5	1162+00 SB	-	1344+70 SB	LT	1,647	-	33
5	1167+23 NB	-	1345+28 NB	LT	1244	-	25
5	1167+23 NB	-	1345+28 NB	RT	1528	-	31
4	10+58 E	-	22+50 E		141	2,268	48
4	971+59 J	-	981+41 J		76	1,865	39
4	990+03 J	-	993+03 J		30	528	11
4	974+91 K	-	982+85 K		112	1,688	36
	UNDIST				200	100	10
				TOTAL	6,303	6,449	260

PAVEMENT REPLACEMENT AND REPAIR

STATION	-	STATION	LOCATION	390.0203 BASE PATCHING ASPHALTIC (SY)	415.1090 CONCRETE PAVEMENT HES 9-INCH (SY)	416.0610 DRILLED TIE BARS (EACH)	416.0620 DRILLED DOWELS BARS (EACH)	416.1015 CONCRETE SURFACE DRAINS HES (CY)	416.1710 CONCRETE PAVEMENT REPAIR (SY)	416.1720 CONCRETE PAVEMENT REPLACEMENT (SY)	690.0250 SAWING CONCRETE (LF)	SPV.0090.02 SAW CONCRETE PARTIAL SAWCUT (LF)	SPV.0180.03 CONCRETE PAVEMENT HES 6-INCH (SY)	SPV.0180.01 CONTINUOUSLY REINFORCED CONCRETE PAVEMENT SHES REPAIR (SY)
1160+72 NB	-	1161+75 NB	RT	-	-	34	-	-	-	-	104	-	27	-
1161+06 SB		1161+75 SB	LT	-	-	23	-	-	-	-	100	-	-	-
967+34 G	-	968+27 G		-	-	-	20	-	-	155	210	-	-	-
968+70 G	-	969+80 G		-	-	-	20	-	-	183	240	-	-	-
968+70 G	-	969+80 G		-	-	-		-	24	-	32	-	-	-
995+16 G	-	995+59 G		-	-	13	20	-	-	72	148	-	-	-
996+62 G	-	996+79 G		-	-	5	20	-	-	28	62	-	-	-
997+05 G	-	997+83 G		-	-	25	20	-	-	130	258	-	-	-
999+27 G	-	999+41 G		-	-	8	20	-	23	-	73	-	-	-
979+07 H	-	979+63 H		-	-	-	20	-	-	93	135	-	-	-
980+58 H	-	980+66 H		-	-	-	20	-	13	-	30	-	-	-
982+90 H	-	982+97 H		-	-	-	20	-	12	-	30	-	-	-
989+58 H	-	990+24 H		-	-	-	20	-	-	110	240	-	-	-
969+34 I	-	969+40 I	LT	-	-	1	20	-	9	-	34	-	-	-
973+37 I	-	973+46 I	LT	-	-	2	20	-	14	-	37	-	-	-
982+12 I	-	982+29 I	RT	-	-	5	16	-	-	23	53	-	-	-
982+69 I	-	982+80 I	LT	-	-	-	20	-	17	-	53	-	-	-
982+69 I	-	982+80 I	RT	-	-	-	16	-	15	-	36	-	-	-
984+19 I	-	984+25 I	RT	-	-	1	16	-	8	-	30	-	-	-
994+07 I	-	994+13 I	RT	-	-	1	16	-	8	-	30	-	-	-
999+59 I	-	999+66 I	RT	-	-	1	16	-	9	-	33	-	-	-
1001+81 I	-	1001+87 I	RT	-	-	1	16	-	8	-	30	-	-	-
1004+26 I	-	1004+32 I	RT	-	-	1	16	-	8	-	30	-	-	-
1004+99 I	-	1005+09 I	LT	-	-	3	20	-	16	-	38	-	-	-
1007+21 I	-	1007+41 I	RT	-	-	6	16	-	-	27	56	-	-	-
1009+22 I	-	1009+28 I	RT	-	-	1	16	-	8	-	30	-	-	-
971+59 J	-	981+41 J		-	1,637	-	20	-	-	-	33	-	-	-
987+07 J	-	987+17 J		-	-	-	20	-	17	-	30	-	-	-
990+03 J	-	993+03 J		-	500	-	20	-	-	-	30	-	-	-
970+00 K	-	970+98 K		-	-	-	20	-	-	163	225	-	-	-
974+91 K	-	982+85 K		-	1,323	-	20	-	-	-	30	-	-	-
977+37 K	-	982+18 K	RT	-	-	35	-	-	-	-	214	-	200	-
989+71 L	-	990+37 L		-	-	-	20	-	-	110	150	-	-	-
32+37 M	-	33+10 M		-	-	-	20	-	-	122	165	-	-	-
34+02 M	-	35+32 M		-	-	-	20	-	-	217	285	-	-	-
37+56 M	-	40+10 M		-	-	-	20	-	-	423	555	-	-	-
42+36 M	-	43+22 M		-	-	-	20	-	-	143	195	-	-	-
61+64 M	-	61+71 M	RT	-	-	1	16	-	9	-	31	-	-	-
37+24 N	-	37+45 N	LT	-	-	-	20	-	-	35	60	-	-	-
47+14 N	-	47+40 N	LT	-	-	8	20	-	-	43	86	-	-	-
47+84 N	-	47+95 N	LT	-	-	3	16	-	15	-	35	-	-	-
54+34 N	-	54+43 N	LT	-	-	2	16	-	12	-	33	-	-	-
65+74 N	-	65+87 N	LT	-	-	-	16	-	17	-	49	-	-	-
65+74 N	-	65+87 N	RT	-	-	-	16	-	17	-	49	-	-	-
66+28 N	-	66+36 N	LT	-	-	2	16	-	11	-	30	-	-	-
66+47 N	-	66+72 N	LT	-	-	7	16	-	-	33	98	-	-	-
10+58 E	-	20+98 E		-	1,733	-	20	-	-	-	30	-	-	-
10+58 E	-	11+00 E		-	-	-	-	-	-	-	32	-	-	-
978+18 F	-	978+40 F	RT	-	-	-	-	5	-	-	16	-	-	-
UNDISTRIBUTED				80	-	20	104	-	50	400	600	48	-	30
			TOTAL	80	5,193	209	900	5	340	2,510	5,213	48	227	30

ASPHALTIC SHOULDER RUMBLE STRIPS

STATION	-	STATION	LOCATION	465.0400 ASPHALTIC SHOULDER RUMBLE STRIPS (LF)
1148+36 SB	-	1189+10 SB	RT	4,074
1196+33 SB	-	1227+26 SB	RT	3,093
1233+94 SB	-	1309+78 SB	RT	7,584
1311+78 SB	-	1344+70 SB	RT	3,292
1148+36 SB	-	1309+78 SB	LT	16,142
1311+78 SB	-	1344+70 SB	LT	3,292
1167+23 NB	-	1310+29 NB	RT	14,306
1312+26 NB	-	1345+28 NB	RT	3,302
1167+23 NB	-	1211+06 NB	LT	4,383
1219+00 NB	-	1246+65 NB	LT	2,765
1254+15 NB	-	1310+29 NB	LT	5,614
1312+26 NB	-	1345+28 NB	LT	3,302
10+58 E	-	22+46 E	RT	1,188
989+90 J	-	993+10 J	LT	320
60+00 N	-	63+00 N	LT	300
64+00 N	-	74+00 N	LT	1,000
52+00 N	-	58+50 N	LT	650
38+00 N	-	44+00 N	LT	600
967+00 G	-	970+00 G	RT	300
978+75 H	-	980+00 H	RT	125
989+00 H	-	990+25 H	RT	125
990+00 I	-	1005+00 I	LT	1,500
974+00 I	-	996+00 I	LT	2,200
980+00 I	-	984+00 I	RT	400
981+50 J	-	984+50 J	LT	300
990+03 J	-	993+03 J	LT	300
992+75 J	-	1005+00 J	RT	1,225
985+00 L	-	988+00 L	RT	300
UNDIST				1,000
			TOTAL	82,982

JOINT HEATING AND REMOVAL

LOCATION	460.4110.S REHEATING HMA PAVEMENT LONGITUDINAL JOINT (LF)	SPV.0090.01 REMOVING HMA PAVEMENT LONGITUDINAL JOINT MILLING (LF)
SOUTHBOUND LANES	39,667	39,667
NORTHBOUND LANES	35,896	35,896
TOTAL	75,563	75,563

NOTE: REMOVING HMA PAVEMENT LONGITUDINAL JOINT MILLING IS ONLY REQUIRED BETWEEN TRAVEL LANES.

* ADDITIONAL QUANTITY SHOWN ELSEWHERE

ALL ITEMS CATEGORY 0010 UNLESS OTHERWISE NOTED

ASPHALTIC PAVEMENT

STAGE	STATION	-	STATION	LOCATION	450.4000 HMA COLD WEATHER PAVING (TON)	455.0605 TACK COAT (GAL)	460.5225 HMA PAVEMENT 5 LT 58-28 S (TON)	460.7224 HMA PAVEMENT 4 HT 58-28 S (TON)	460.7424 HMA PAVEMENT 4 HT 58-28 H (TON)	465.0105 ASPHALTIC SURFACE (TON)	465.0110 ASPHALTIC SURFACE PATCHING (TON)	465.0305 ASPHALTIC SURFACE SAFETY ISLAND (TON)
1	1160+72 SB	-	1161+06 SB	LT	-	-	-	-	-	-	3	-
1	1161+06SB	-	1161+75SB	LT	-	-	-	-	-	-	-	2
1	UNDISTRIBUTED				-	-	-	-	-	-	10	-
2, 3	1167+23 NB	-	1345+25 NB	MAIN	4,450	7,755	-	11,145	11,145	-	-	-
2, 3	1148+36 SB	-	1161+70 SB	MAIN	350	625	-	895	895	-	-	-
2, 3	1161+70 SB	-	1344+69 SB	MAIN	4,600	7,970	-	11,458	11,458	-	-	-
2, 3	1191+35 SB	-	1196+32 SB	RAMP	50	105	-	150	150	-	-	-
2, 3	1227+26 SB	-	1239+93 SB	RAMP	150	265	-	383	383	-	-	-
2, 3	1205+05 NB	-	1218+98 NB	RAMP	160	295	-	420	420	-	-	-
2, 3	1250+30 NB	-	1246+65 NB	RAMP	50	80	-	110	110	-	-	-
3	1197+00SB			X OVER	-	35	-	-	-	51	-	-
3	1257+30SB			X OVER	-	15	-	-	-	19	-	-
4	RAMP E				50	110	-	-	-	-	-	-
4	10+90 E	-	21+11 E	LT	-	-	116	-	-	-	-	-
4	10+58 E	-	22+46 E	RT	-	-	152	-	-	-	-	-
4	978+40 F	-	978+50 F	RT	-	-	-	-	-	-	2	-
4	RAMP J				30	75	-	-	-	-	-	-
4	971+54 J	-	981+50 J	RT	-	-	124	-	-	-	-	-
4	980+98 J	-	981+50 J	LT	-	-	5	-	-	-	-	-
4	989+90 J	-	993+15 J	RT	-	-	27	-	-	-	-	-
4	989+90 J	-	993+15 J	LT	-	-	31	-	-	-	-	-
4	RAMP K				30	55		-	-	-	-	-
4	974+80 K	-	983+00 K	LT	-	-	108	-	-	-	-	-
4	974+80 K	-	983+58 K	RT	-	-	27	-	-	-	-	-
4	60+00 N	-	63+00 N	LT	-	-	60	-	-	-	-	-
4	64+00 N	-	74+00 N	LT	-	-	135	-	-	-	-	-
4	52+00 N	-	58+50 N	LT	-	-	130	-	-	-	-	-
4	38+00 N	-	44+00 N	LT	-	-	95	-	-	-	-	-
4	967+00 G	-	970+00 G	RT	-	-	30	-	-	-	-	-
4	978+75 H	-	980+00 H	RT	-	-	20	-	-	-	-	-
4	989+00 H	-	990+25 H	RT	-	-	20	-	-	-	-	-
4	990+00 I	-	1005+00 I	LT	-	-	290	-	-	-	-	-
4	974+00 I	-	996+00 I	LT	-	-	415	-	-	-	-	-
4	980+00 I	-	984+00 I	RT	-	-	35	-	-	-	-	-
4	981+50 J	-	984+50 J	LT	-	-	30	-	-	-	-	-
4	990+03 J	-	993+03 J	LT	-	-	30	-	-	-	-	-
4	992+75 J	-	1005+00 J	RT	-	-	120	-	-	-	-	-
4	985+00 L	-	988+00 L	RT	-	-	50	-	-	-	-	-
	UNDISTRIBUTED				-	-	135	-	-	-	-	-
				TOTAL	9,920	17,385	2,185	24,561	24,561	70	15	2

CONCRETE BARRIER

STATION	-	STATION	LOCATION	204.0157 REMOVING CONCRETE BARRIER (LF)	603.0105 CONCRETE BARRIER SINGLE-FACED 32-INCH (LF)	603.0405 CONCRETE BARRIER TRANSITION SECTION 32-INCH (LF)	650.7500 CONSTRUCTION STAKING CONCRETE BARRIER (LF)	SPV.0060.04 SAWING CONCRETE BARRIER WALL (EACH)
1160+72 SB	-	1161+06 SB		-	-	34	-	-
1160+72 SB	-	1161+71 SB		99	-	-	-	-
1160+72 SB			LT	-	-	-	-	1
1160+72 SB	-	1161+75 SB	LT	-	-	-	103	-
1161+06 NB	-	1161+75 NB	LT	-	-	-	69	-
1161+06 NB	-	1161+75 NB		-	69	-	-	-
1161+06 SB	-	1161+75 SB		-	69	-	-	-
		TOTAL		99	138	34	172	1

CONCRETE CURB

STATION	-	STATION	LOCATION	601.0150 CONCRETE CURB INTEGRAL TYPE D (LF)
971+59 J	-	980+98 J	MAIN	939
			TOTAL	939

DRAINAGE ITEMS

PIPE NO.	LOCATION	INLET ELEVATION	DISCHARGE ELEVATION	520.9700.S.01 CULVERT PIPE LINERS, 24-INCH (LF)	520.9700.S.02 CULVERT PIPE LINERS, 30-INCH (LF)	520.9700.S.03 CULVERT PIPE LINERS, 36-INCH (LF)	520.9700.S.04 CULVERT PIPE LINERS, 42-INCH (LF)	520.9750.S CLEANING CULVERT PIPES FOR LINER VERIFICATION (EACH)	521.0124 CULVERT PIPE CORRUGATED STEEL 24-INCH (LF)	524.0624 APRON ENDWALLS FOR CULVERT PIPE SALVAGED 24-INCH (EACH)
C17	1186+75SB	775.14	775.42	-	119	-	-	1	-	-
C18	1188+71NB	776.03	775.91	-	112	-	-	1	-	-
C19	1209+93SB	807.06	806.33	-	-	-	74	1	-	-
C20	1210+33NB	817.10	813.12	-	-	-	133	1	-	-
C22	1231+42SB	811.18	808.86	-	-	-	115	1	-	-
C23	1231+70NB	814.35	811.15	-	-	131	-	1	-	-
C25	1252+25NB	805.76	803.34	105	-	-	-	1	12	1
C26	1268+11SB	799.54	797.72	-	-	149	-	1	-	-
C27	1268+44NB	801.17	799.54	-	-	134	-	1	-	-
C28	1292+01NB	808.95	807.71	82	-	-	-	1	-	-
C29	1331+49SB	792.48	791.78	88	-	-	-	1	-	-
C30	1332+16NB	792.82	791.97	88	-	-	-	1	-	-
C31	1341+28SB	794.13	794.01	107	-	-	-	1	-	-
C32	1341+96NB	793.11	793.91	102	-	-	-	1	-	-
			TOTAL	572	231	414	322	14	12	1

* ADDITIONAL QUANTITY SHOWN ELSEWHERE

ALL ITEMS CATEGORY 0010 UNLESS OTHERWISE NOTED

TEMPORARY PRECAST BARRIER

STAGE	STATION	-	STATION	LOCATION	603.8000 CONCRETE BARRIER TEMPORARY PRECAST DELIVERED (LF)	603.8125 CONCRETE BARRIER TEMPORARY PRECAST INSTALLED (LF)	614.0905 CRASH CUSHIONS TEMPORARY (EACH)	BACK WIDTH	OBJECT MARKING PATTERN	CRASH TEST LEVEL	TRAFFIC DIRECTION	TRAFFIC LOCATION	CRASH CUSHION SHIELDS
1	1160+50 NB		1163+50 NB		300	300	-	-	-	-	-	-	-
1	1163+56 NB				-	-	1	2 FT	OM-3L	TL-3	UNIDIRECT	RIGHT	TEMP BARRIER
1	1291+73 NB	-	1295+00 NB		327	327	-	-	-	-	-	-	-
1	1289+03 SB	-	1292+76 SB		373	373	-	-	-	-	-	-	-
1	1289+03 SB				-	-	1	2 FT	OM-3R	TL-3	UNIDIRECT	LEFT	TEMP BARRIER
1	1295+00 NB				-	-	1	2 FT	OM-3R	TL-3	UNIDIRECT	LEFT	TEMP BARRIER
4B	974+00 F				-	-	1	2 FT	OM-3R	TL-3	UNIDIRECT	LEFT	TEMP BARRIER
4B	974+00 F	-	979+06 F		506	506	-	-	-	-	-	-	-
				TOTAL	1,506	1,506	4						

RIPRAP SUMMARY

STATION	LOCATION	606.0200 RIPRAP MEDIUM (CY)	645.0120 GEOTEXTILE FABRIC TYPE HR (SY)
1167+20 NB	LT	4	15
1166+90SB	RT	4	15
1181+75 SB	LT	31	81
1181+75 SB	RT	16	43
1188+70 NB	LT	4	15
1196+20 SB	LT	3	10
1209+95 SB	LT	4	15
1209+95 SB	RT	4	15
1231+40 SB	RT	4	15
1247+25 NB	LT	4	15
1268+45 NB	LT	4	15
1340+00 NB	LT	7	23
1341+25 SB	RT	7	23
UNDISTRIBUTED		12	45
	TOTAL	108	345

INLET SUMMARY

STATION	LOCATION	611.0430 RECONSTRUCTING INLETS (EACH)	611.8115 ADJUSTING INLET COVERS (EACH)
1159+18 SB	LT	-	1
973+01 J	LT	1	-
975032 J	LT	1	-
978+01 J	LT	1	-
980+87 J	LT	1	-
	TOTAL	4	1

GUARDRAIL IH 39 NB

CATEGORY	STATION	-	STATION	LOCATION	614.0400 *ADJUSTING STEEL PLATE BEAM GUARD (LF)	614.2300 *MGS GUARDRAIL 3 (LF)	614.2320 MGS GUARDRAIL 3 QS (LF)	614.2500 *MGS THRIE BEAM TRANSITION (LF)	614.2610 *MGS GUARDRAIL TERMINAL EAT (EACH)	614.2620 *MGS GUARDRAIL TERMINAL TYPE 2 (EACH)
0010	1161+75	-	1167+21	RT	-	500	-	46	-	-
0010	1168+58	-	1170+60	LT	-	113	-	39	1	-
0010	1181+75	-	1184+90	RT	315	-	-	-	-	-
0010	1181+75	-	1184+90	LT	315	-	-	-	-	-
0010	1231+50	-	1239+32	RT	782	-	-	-	-	-
0010	1248+15	-	1257+49	RT	934	-	-	-	-	-
0010	1264+00	-	1276+00	LT	-	1,150	-	-	1	1
0010	1293+00	-	1295+15	LT	-	-	-	39	1	-
0010	976+00 J	-	977+65 J	RT	-	75	-	39	1	-
0010	977+58 K	-	982+09 K	LT	-	300	100	-	1	1
0010	982+18 K	-	983+33 K	RT	-	25	-	39	1	-
0050	1258+12	-	1301+00	RT	-	4,238	-	-	1	1
			CAT 0010	SUBTOTAL	2,346	2,163	100	202	6	2
			CAT 0050	SUBTOTAL	0	4,238	0	0	1	1
			PROJECT	TOTAL	2,346	6,401	100	202	7	3

GUARDRAIL IH 39 SB

CATEGORY	STATION	-	STATION	LOCATION	614.0400 *ADJUSTING STEEL PLATE BEAM GUARD (LF)	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)
0010	1161+75	-	1167+21	LT	-	500	-	46	-	-
0010	1165+47	-	1167+47	RT	-	113	-	39	1	-
0010	1168+16	-	1187+05	RT	-	1,850	-	39	-	1
0010	1179+00	-	1182+15	LT	315	-	-	-	-	-
0010	1234+58	-	1239+30	LT	472	-	-	-	-	-
0010	1247+88	-	1255+06	LT	718	-	-	-	-	-
0010	1263+97	-	1271+00	RT	-	-	650	-	1	1
0010	1289+21	-	1291+36	RT	-	125	-	39	1	-
0010	16+54 E	-	22+45 E	RT	-	538	-	-	1	1
0050	1276+00	-	1296+50	LT	-	2,000	-	-	1	1
			CAT 0010	SUBTOTAL	1,505	3,126	650	163	4	3
			CAT 0050	SUBTOTAL	0	2,000	0	0	1	1
			PROJECT	TOTAL	1,505	5,126	650	163	5	4

EROSION CONTROL TURF ESTABLISHMENT

STAGE	STATION	-	STATION	LOCATION	625.0500 SALVAGED TOPSOIL (SY)	627.0200 MULCHING (SY)	628.1504 SILT FENCE (LF)	628.1104 EROSION BALES (EACH)	628.1520 SILT FENCE MAINTENANCE (LF)	628.1905 MOBILIZATIONS EROSION CONTROL (EACH)	628.1910 MOBILIZATIONS EMERGENCY EROSION CONTROL (EACH)	628.2002 EROSION MAT CLASS I TYPE A (SY)	628.7005 INLET PROTECTION TYPE A (EACH)	628.7015 INLET PROTECTION TYPE C (EACH)	628.7555 CULVERT PIPE CHECKS (EACH)	628.7570 ROCK BAGS (EACH)	628.7504 TEMPORARY DITCH CHECKS (LF)	628.7560 TRACKING PADS (EACH)	629.0210 FERTILIZER TYPE B (CWT)	630.0130 SEEDING MIXTURE NO. 30 (LB)	630.0200 SEEDING TEMPORARY (LB)	630.0300 SEEDING BORROW PIT (LB)
1	1148+36 SB	-	1344+69 SB	RT	5,990	-	4,405	3	4,405	-	-	5,990	-	-	-	-	90	-	3.8	108	-	-
1	1148+36 SB	-	1344+69 SB	LT	1,975	-	300	-	300	-	-	1,975	2	-	-	-	45	-	1.3	36	-	-
1	1167+23 NB	-	1345+28 NB	RT	4,195	-	225	-	225	-	-	4,195	1	-	12	-	-	-	2.7	76	-	-
1	1167+23 NB	-	1345+28 NB	LT	9,905	-	5,475	5	5,475	-	-	9,905	-	-	-	-	15	-	6.3	179	-	-
4	RAMP E			RT	2,650	-	1,500	2	1,500	-	-	2,650	-	-	-	-	15	-	1.7	48	-	-
4	RAMP J				2,750	-	1,715	6	1,715	-	-	2,750	-	5	-	-	-	-	1.7	50	-	-
4	RAMP K				1,127	-	1,055	4	1,055	-	-	1,127	1	-	-	-	-	-	0.7	20	-	-
	UNDISTRIBUTED				3,500	5,500	1,500	4	1,500	12	6	3,500	1	-	6	15	30	2	3.1	93	350	75
				TOTAL	32,092	5,500	16,175	24	16,175	12	6	32,092	5	5	18	15	195	2	21	610	350	75

* ADDITIONAL QUANTITY SHOWN ELSEWHERE

ALL ITEMS CATEGORY 0010 UNLESS OTHERWISE NOTED

PERMANENT SIGNING TYPE I

SIGN NUMBER		SIGN SIZE (IN)	637.1220 SIGNS TYPE I REFLECTIVE SH (SF)	REMARKS
1-11	NB	180 X 90	112.50	DISTANCE / DESTINATION STH 78 / WIS DELLS / WAUSAU
3-2	NB	144 X 54	54.00	REST AREA
4-3	NB	144 X 60	60.00	REST AREA 1 1/2 MILES
	NB	144 X 24	24.00	VETERANS MEMORIAL HIGHWAY MARKER
	NB	120 X 30	25.00	NEXT REST AREA 41 MILES
2-1	SB	144 X 54	54.00	REST AREA
3-7	SB	108 X 30	22.50	EXIT 115
	SB	276 X 156	299.00	CTH CS POYNETTE LAKE WISCONSIN 1 MILE
4-7	SB	108 X 30	22.50	EXIT 115
	SB	300 X 126	262.50	CTH CS POYNETTE LAKE WISCONSIN
4-4	SB	132 X 84	77.00	MACKENZIE CENTER EXIT 115
6-2	INTERCHANGE (WEST)	168 X 66	77.00	LANE DESTINATIONS MADISON EXIT
6-10	INTERCHANGE (WEST)	120 X 120	100.00	LANE DESTINATIONS MADISON EXIT
		TOTALS	1190	

PERMANENT SIGNING TYPE II

SIGN NUMBER	ROADWAY	SIGN CODE	SIGN SIZE (IN)	637.0620 SIGN FLAGS PERMANENT TYPE II (EACH)	637.2210 SIGNS TYPE II REFLECTIVE H (SF)	637.2215 SIGNS TYPE II REFLECTIVE H FOLDING (SF)	637.2230 SIGNS TYPE II REFLECTIVE F (SF)	634.0612 POSTS WOOD 4X6INCH 12FT (EACH)	634.0614 14FT (EACH)	634.0616 16FT (EACH)	634.0618 18FT (EACH)	634.0620 20FT (EACH)	634.0622 22FT (EACH)	SIGN MOUNTED ON SAME POST AS	REMARKS
11	NB	I31	114 X 21	-	16.63	-	-	-	-	2	-	-	-	-	RIVER NAME WISCONSIN RIVER
12	NB	D105	21 X 60	-	8.75	-	-	-	1	-	-	-	-	-	MILE MARKER
13	NB	R87	48 X 36	-	12.00	-	-	-	-	1	-	-	-	-	EMERGENCY STOPPING ONLY
14	NB	W872	48 X 48	-	-	-	16.00	-	-	-	-	2	-		GUSTY WINDS
	NB	W872P	48 X 24	-	-	-	8.00	-	-	-	-	-	-	13	ON BRIDGE
15	NB	W872	48 X 48	-	-	-	16.00	-	-	-	-	2	-		GUSTY WINDS
	NB	W872P	48 X 24	-	-	-	8.00	-	-	-	-	-	-	13	ON BRIDGE
16	NB	D105	21 X 60	-	8.75	-	-	-	1	-	-	-	-		MILE MARKER
17	NB	M194	54 X 21	-	7.88	-	-	-	-	2	-	-	-	-	CROSS ROAD NAME HWY V
18	NB	D105	21 X 60	-	8.75	-	-	-	1	-	-	-	-	-	MILE MARKER
19	NB	R34B	36 X 48	-	12.00	-	-	-	-	-	1	-	-	-	NO UTURN SIGN COMBINED WITH MAINT. AND POLICE VEH
110	NB	D105	21 X 60	-	8.75	-	-	-	1	-	-	-	-	-	MILE MARKER
21	NB	R43	48 X 60	-	20.00	-	-	-	-	-	1	-	-	-	SLOWER TRAFFIC KEEP RIGHT
22	NB	D105	21 X 60	-	8.75	-	-	-	1	-	-	-	-	-	NO PARKING ANY TIME
23	NB	R34B	36 X 48	-	12.00	-	-	-	-	-	1	-	-	-	NO UTURN SIGN COMBINED WITH MAINT. AND POLICE VEH
24	NB	D105	21 X 60	-	8.75	-	-	-	1	-	-	-	-	-	NO PARKING ANY TIME
25	NB	W42R	48 X 48	-		-	16.00	-	-	-	2	-	-	-	LANE REDUCTION TRANSITION SYMBOL RIGHT
26	NB	R71D	24 X 30	-	5.00	-	-	-	-	1	-	-	-	-	NO PARKING ANY TIME
27	NB	D105	21 X 60	-	8.75	-	-	-	1	-	-	-	-	-	NO PARKING ANY TIME
28	NB	D105	21 X 60	-	8.75	-	-	-	1	-	-	-	-	-	NO PARKING ANY TIME
29	NB	W41R	48 X 48	-		-	16.00	-		-	1	-	-	-	MERGING TRAFFIC SYMBOL RIGHT
210	NB	D105	21 X 60	-	8.75	-	-	-	1	-	-	-	-	-	NO PARKING ANY TIME
211	NB	D105	21 X 60	-	8.75	-	-	-	1	-	-	-	-	-	NO PARKING ANY TIME
212	NB	E554	72 X 72	-	36.00	-	-	-	-	-	-	2	-	-	REST AREA ARROW RIGHT
31	NB	W133	48 X 60	-		-	20.00	-	-	-	-	-	-	-	RAMP SPEED 45 MPH
33	NB	R34B	36 X 48	-	12.00	-	-	-	-	-	1	-	-	-	NO UTURN SIGN COMBINED WITH MAINT. AND POLICE VEH
34	NB	D105	21 X 60	-	8.75	-	-	-	1	-	-	-	-	-	MILE MARKER
35	NB	D105	21 X 60	-	8.75	-	-	-	1	-	-	-	-	-	MILE MARKER
36	NB	D105	21 X 60	-	8.75	-	-	-	1	-	-	-	-	-	MILE MARKER
37	NB	D105	21 X 60	-	8.75	-	-	-	1	-	-	-	-	-	MILE MARKER
38	NB	D105	21 X 60	-	8.75	-	-	-	1	-	-	-	-	-	MILE MARKER
39	NB	R87	48 X 36	-	12.00	-	-	-	-	1	-	-	-	-	EMERGENCY STOPPING ONLY
41	NB	D105	21 X 60	-	8.75	-	-	-	1	-	-	-	-	-	MILE MARKER
42	NB	D105	21 X 60	-	8.75	-	-	-	1	-	-	-	-	-	MILE MARKER
44	NB	R21	48 X 60	-	20.00	-	-	-	-	-	-	2	-	-	SPEED LIMIT 70
45	NB	D105	21 X 60	-	8.75	-	-	-	1	-	-	-	-	-	MILE MARKER
46	NB	J43	108 X 54	-	40.50	-	-	-	-	-	-	2	-	-	REASSURANCE ASSEMBLY 3 HEADED ROUTE PANEL

* ADDITIONAL QUANTITY SHOWN ELSEWHERE

ALL ITEMS CATEGORY 0010 UNLESS OTHERWISE NOTED

PERMANENT SIGNING TYPE II

				637.0620	637.2210	637.2215	637.2230	634.0612	634.0614	634.0616	634.0618	634.0620	634.0622		
								POSTS WOOD 4X6INCH							
SIGN NUMBER	ROADWAY	SIGN CODE	SIGN SIZE (IN)	SIGN FLAGS PERMANENT TYPE II (EACH)	SIGNS TYPE II REFLECTIVE H (SF)	SIGNS TYPE II REFLECTIVE H FOLDING (SF)	SIGNS TYPE II REFLECTIVE F (SF)	12FT (EACH)	14FT (EACH)	16FT (EACH)	18FT (EACH)	20FT (EACH)	22FT (EACH)	SIGN MOUNTED ON SAME POST AS	REMARKS
47	NB	D105	21 X 60	-	8.75	-	-	-	1	-	-	-	-	-	MILE MARKER
48	NB	R34B	36 X 48	-	12.00	-	-	-	-	-	1	-	-	-	NO UTURN SIGN COMBINED WITH MAINT. AND POLICE VEH
49	NB	D105	21 X 60	-	8.75	-	-	-	1	-	-	-	-	-	MILE MARKER
410	NB	W41R	48 X 48	-		-	16.00	-	-	-	1	-	-	-	MERGING TRAFFIC SYMBOL RIGHT
11	SB	D105	21 X 60	-	8.75	-	-	-	1	-	-	-	-	-	MILE MARKER
12	SB	D105	21 X 60	-	8.75	-	-	-	1	-	-	-	-	-	MILE MARKER
13	SB	M194	54 X 21	-	7.88	-	-	-	-	2	-	-	-	-	CROSS ROAD NAME HWY V
14	SB	D105	21 X 60	-	8.75	-	-	-	1	-	-	-	-	-	MILE MARKER
15	SB	R34B	36 X 48	-	12.00	-	-	-	-	-	1	-	-	-	NO UTURN SIGN COMBINED WITH MAINT. AND POLICE VEH
16	SB	D105	21 X 60	-	8.75	-	-	-	1	-	-	-	-	-	MILE MARKER
22	SB	W133	48 X 60	-		-	20.00	-		-	1	-	-	-	RAMP SPEED 40 MPH
23	SB	D105	21 X 60	-	8.75	-	-	-	1	-	-	-	-	-	MILE MARKER
24	SB	R34B	36 X 48	-	12.00	-	-	-	-	-	1	-	-	-	NO UTURN SIGN COMBINED WITH MAINT. AND POLICE VEH
25	SB	E554	72 X 72	-	36.00	-	-	-	-	-	-	2	-	-	REST AREA ARROW RIGHT
26	SB	D105	21 X 60	-	8.75	-	-	-	1	-	-	-	-	-	MILE MARKER
27	SB	D105	21 X 60	-	8.75	-	-	-	1	-	-	-	-	-	MILE MARKER
28	SB	W41R	48 X 48	-		-	16.00	-	-	-	2	-	-	-	MERGING TRAFFIC SYMBOL RIGHT
29	SB	D105	21 X 60	-	8.75	-	-	-	1	-	-	-	-	-	MILE MARKER
210	SB	R71D	24 X 30	-	5.00	-	-	-	-	1	-	-	-	-	NO PARKING ANY TIME
211	SB	D105	21 X 60	-	8.75	-	-	-	1	-	-	-	-	-	MILE MARKER
212	SB	W42R	48 X 48	-		-	16.00	-	-	-	2	-	-	-	LANE REDUCTION TRANSITION SYMBOL RIGHT
213	SB	D105	21 X 60	-	8.75	-	-	-	1	-	-	-	-	-	MILE MARKER
31	SB	R34B	36 X 48	-	12.00	-	-	-	-	-	1	-	-	-	NO UTURN SIGN COMBINED WITH MAINT. AND POLICE VEH
32	SB	D105	21 X 60	-	8.75	-	-	-	1	-	-	-	-	-	MILE MARKER
33	SB	D105	21 X 60	-	8.75	-	-	-	1	-	-	-	-	-	MILE MARKER
34	SB	D105	21 X 60	-	8.75	-	-	-	1	-	-	-	-	-	MILE MARKER
35	SB	D105	21 X 60	-	8.75	-	-	-	1	-	-	-	-	-	MILE MARKER
36	SB	D105	21 X 60	-	8.75	-	-	-	1	-	-	-	-	-	MILE MARKER
41	SB	D105	21 X 60	-	8.75	-	-	-	1	-	-	-	-	-	MILE MARKER
42	SB	D105	21 X 60	-	8.75	-	-	-	1	-	-	-	-	-	MILE MARKER
43	SB	D105	21 X 60	-	8.75	-	-	-	1	-	-	-	-	-	MILE MARKER
45	SB	D105	21 X 60	-	8.75	-	-	-	1	-	-	-	-	-	MILE MARKER
46	SB	R34B	36 X 48	-	12.00	-	-	-	-	-	-	-	-	-	NO UTURN SIGN COMBINED WITH MAINT. AND POLICE VEH
48	SB	D105	21 X 60	-	8.75	-	-	-	1	-	-	-	-	-	MILE MARKER
49	SB	W132A	48 X 90	-	-	-	30.00	-	-	-	-	-	2	-	ADVISORY EXIT SPEED W/90 DEGREE LOOP ARROW 25 MPH
51	STH 78	J31	24 X 57	-	9.50	-	-	-	-	-	1	-	-	S1119	DIRECTIONAL ASSEMBLY 1 HEADED ROUTE PANEL
52	STH 78	J31	24 X 57	-	9.50	-	-	-	-	-	-	1	-	S1119	DIRECTIONAL ASSEMBLY 1 HEADED ROUTE PANEL
53	STH 78	R37L	30 X 30	-	6.25	-	-	-	-	1	-	-	-		LEFT LANE MUST TURN LEFT

* ADDITIONAL QUANTITY SHOWN ELSEWHERE

ALL ITEMS CATEGORY 0010 UNLESS OTHERWISE NOTED

PERMANENT SIGNING TYPE II

SIGN NUMBER	ROADWAY	SIGN CODE	SIGN SIZE (IN)	637.0620 SIGN FLAGS PERMANENT TYPE II (EACH)	637.2210 SIGNS TYPE II REFLECTIVE H (SF)	637.2215 SIGNS TYPE II REFLECTIVE H FOLDING (SF)	637.2230 SIGNS TYPE II REFLECTIVE F (SF)	634.0612 POSTS WOOD 4X6INCH 12FT (EACH)	634.0614 14FT (EACH)	634.0616 16FT (EACH)	634.0618 18FT (EACH)	634.0620 20FT (EACH)	634.0622 22FT (EACH)	SIGN MOUNTED ON SAME POST AS	REMARKS
54	STH 78	JVF	24 X 57	-	-	9.50	-	-	-	-	1	-	-	-	FOLDING J PANEL
55	STH 78	R12	36 X 31	-	3.88	-	-	-	-	-	1	-	-	-	YEILD
57	STH 78	D170	90 X 48	-	30.00	-	-	-	-		2	-	-	-	DIRECTIONAL ASSEMBLY WIS DELLS
58	STH 78	W41R	36 X 36	-	-	-	9.00	-	-	1	-	-	-	-	MERGING TRAFFIC SYMBOL RIGHT
59	STH 78	R62L	24 X 30	-	5.00	-	-	-	-	1	-	-	-	-	ONE WAY
510	STH 78	W21	36 X 36	-	-	-	9.00	-	-	1	-	-	-	-	CROSS ROAD
511	STH 78	W21	36 X 36	-	-	-	9.00	-	-	1	-	-	-	-	CROSS ROAD
513	STH 78	J41	24 X 36	-	6.00	-	-	-	-	1	-	-	-	-	REASSURANCE ASSEMBLY 1 HEADED ROUTE PANEL
514	STH 78	R51A	36 X 24	-	6.00	-	-	-	-	1	-	-	-	513	WRONG WAY
515	STH 78	R33	24 X 24	-	4.00	-	-	-	-	1	-	-	-	-	NO TURNS
516	STH 78	R33	24 X 24	-	4.00	-	-	-	-	1	-	-	-	-	NO TURNS
517	STH 78	R51	30 X 30	-	6.25	-	-	-	-	1	-	-	-	516	DO NOT ENTER
518	STH 78	R31	24 X 24	-	4.00	-	-	-	-	1	-	-	-	-	NO RIGHT TURN SYMBOL
519	STH 78	R62L	24 X 30	-	5.00	-	-	-	-	1	-	-	-	-	ONE WAY LEFT ARROW
520	STH 78	R51	30 X 30	-	6.25	-	-	-	-	1	-	-	-	-	DO NOT ENTER
521	STH 78	W41R	36 X 36	-		-	9.00	-	-	1	-	-	-	-	MERGING TRAFFIC SYMBOL RIGHT
522	STH 78	R51A	36 X 24	-	6.00	-	-	-	-	1	-	-	-	53	WRONG WAY
524	STH 78	J22	48 X 57	-	19.00	-	-	-	-	-	1	-	-	S1119	ROUTE TURN ASSEMBLY 2 HEAD PANEL
525	STH 78	JVF	24 X 57	-	-	9.50	-	-	-	-	1	-	-	POLE S1119	FOLDING J PANEL
				-	-	-	-	-	-			-	-	-	
61	STH 78	J14	96 X 39	-	26.00	-	-	-	-	2	-	-	-	-	JUNCTION OR END ASSEMBLY 4 HEADED ROUTE PANEL
63	STH 78	R51	36 X 36	-	9.00	-	-	-	-	1	-	-	-	-	DO NOT ENTER
65	STH 78	R47	36 X 48	-	12.00	-	-	-	-	1	-	-	-	-	KEEP RIGHT
66	STH 78	R51	36 X 36	-	9.00	-	-	-	-	1	-	-	-	-	DO NOT ENTER
69	STH 78	R51A	36 X 24	-	6.00	-	-	-	-	1	-	-	-	622	WRONG WAY
612	STH 78	J33	72 X 57	-	28.50	-	-	-	-	-	2	-	-	-	DIRECTIONAL ASSEMBLY 3 HEADED ROUTE PANEL
613	STH 78	R557	36 X 36	-	9.00	-	-	-	-	1	-	-	-	-	PEDESTRIANS ETC, PROHIBITED
615	STH 78	W41R	36 X 36	-	-	-	9.00	-	-	1	-	-	-	-	MERGING TRAFFIC SYMBOL RIGHT
616	STH 78	W91R	36 X 36	-	-	-	9.00	-	-	1	-	-	-	-	RIGHT LANE ENDS
617	STH 78	W91R	36 X 36	-	-	-	9.00	-	-	1	-	-	-	-	RIGHT LANE ENDS
618	STH 78	W42R	36 X 36	-	-	-	9.00	-	-	1	-	-	-	-	LANE REDUCTION TRANSITION SYMBOL RIGHT
619	STH 78	W42R	36 X 36	-	-	-	9.00	-	-	1	-	-	-	-	LANE REDUCTION TRANSITION SYMBOL RIGHT
620	STH 78	J41	24 X 36	-	6.00	-	-	-	-	1	-	-	-	-	REASSURANCE ASSEMBLY 1 HEADED ROUTE PANEL
621	STH 78	R51A	36 X 24	-	6.00	-	-	-	-	1	-	-	-	622	WRONG WAY
622	STH 78	R21	24 X 30	-	5.00	-	-	-	-	1	-	-	-	-	SPEED LIMIT 55 MPH
623	STH 78	R51	36 X 36	-	9.00	-	-	-	-	1	-	-	-	622	DO NOT ENTER
624	STH 78	R51	36 X 36	2	9.00	-	-	-	-	-	1	-	-	-	DO NOT ENTER
	STH 78	R51A	36 X 24	-	6.00	-	-	-	-	-	-	-	-	624	WRONG WAY
625	STH 78	R51	36 X 36	2	9.00	-	-	-	-	-	1	-	-	-	DO NOT ENTER
	STH 78	R51A	36 X 24	-	6.00	-	-	-	-	-	-	-	-	625	WRONG WAY
626	STH 78	R51	36 X 36	2	9.00	-	-	-	-	1	-	-	-	622	DO NOT ENTER
627	STH 78	R47	36 X 48	-	12.00	-	-	-	-	-	1	-	-	-	KEEP RIGHT
629	STH 78	D22	84 X 24	-	14.00	-	-	-	-	2	-	-	-	-	DESTINATION / DISTANCE MERRIMAC 12, SAUK CITY 22
71	STH 78	W133	48 X 60	-	-	-	20.00	-	-	-	-	2	-	-	RAMP SPEED 45 MPH
72	STH 78	W18	24 X 30	-	-	-	5.00	1	-	-	-	-	-	-	CHEVRON RIGHT
	STH 78	W18	24 X 30	-	-	-	5.00	1	-	-	-	-	-	-	CHEVRON RIGHT
	STH 78	W18	24 X 30	-	-	-	5.00	1	-	-	-	-	-	-	CHEVRON RIGHT
	STH 78	W18	24 X 30	-	-	-	5.00	1	-	-	-	-	-	-	CHEVRON RIGHT

* ADDITIONAL QUANTITY SHOWN ELSEWHERE

ALL ITEMS CATEGORY 0010 UNLESS OTHERWISE NOTED

PERMANENT SIGNING TYPE II

SIGN NUMBER	ROADWAY	SIGN CODE	SIGN SIZE (IN)	SIGN FLAGS PERMANENT TYPE II (EACH) 637.0620	SIGNS TYPE II REFLECTIVE H (SF) 637.2210	SIGNS TYPE II REFLECTIVE H FOLDING (SF) 637.2215	SIGNS TYPE II REFLECTIVE F (SF) 637.2230	POSTS WOOD 4X6INCH 12FT (EACH) 634.0612	14FT (EACH) 634.0614	16FT (EACH) 634.0616	18FT (EACH) 634.0618	20FT (EACH) 634.0620	22FT (EACH) 634.0622	SIGN MOUNTED ON SAME POST AS	REMARKS
	STH 78	W18	24 X 30	-	-	-	5.00	1	-	-	-	-	-	-	CHEVRON RIGHT
	STH 78	W18	24 X 30	-	-	-	5.00	1	-	-	-	-	-	-	CHEVRON RIGHT
	STH 78	W18	24 X 30	-	-	-	5.00	1	-	-	-	-	-	-	CHEVRON RIGHT
75	STH 78	W41R	48 X 48	-	-	-	16.00	-	-	-	2	-	-	-	MERGING TRAFFIC SYMBOL RIGHT
76	STH 78	W18	24 X 30	-	-	-	5.00	1	-	-	-	-	-	-	CHEVRON RIGHT
	STH 78	W18	24 X 30	-	-	-	5.00	1	-	-	-	-	-	-	CHEVRON RIGHT
	STH 78	W18	24 X 30	-	-	-	5.00	1	-	-	-	-	-	-	CHEVRON RIGHT
	STH 78	W18	24 X 30	-	-	-	5.00	1	-	-	-	-	-	-	CHEVRON RIGHT
	STH 78	W18	24 X 30	-	-	-	5.00	1	-	-	-	-	-	-	CHEVRON RIGHT
	STH 78	W18	24 X 30	-	-	-	5.00	1	-	-	-	-	-	-	CHEVRON RIGHT
	STH 78	W18	24 X 30	-	-	-	5.00	1	-	-	-	-	-	-	CHEVRON RIGHT
	STH 78	W18	24 X 30	-	-	-	5.00	1	-	-	-	-	-	-	CHEVRON RIGHT
	STH 78	W18	24 X 30	-	-	-	5.00	1	-	-	-	-	-	-	CHEVRON RIGHT
	STH 78	W18	24 X 30	-	-	-	5.00	1	-	-	-	-	-	-	CHEVRON RIGHT
77	STH 78	R557	36 X 36	-	9.00	-	-	-	-	1	-	-	-	-	PEDESTRIANS ETC. PROHIBITED
78	STH 78	W41R	48 X 48	-	-	-	16.00	-	-	-	2	-	-	-	MERGING TRAFFIC SYMBOL RIGHT
79	STH 78	W160	36 X 36	-	-	-	9.00	-	-	-	2	-	-	-	PRETZEL LOOP SYMBOL
	STH 78	W131	24 X 24	-	-	-	4.00	-	-	-	-	-	-	-	30 MPH
83	STH 78	W18	24 X 30	-	-	-	5.00	1	-	-	-	-	-	-	CHEVRON RIGHT
	STH 78	W18	24 X 30	-	-	-	5.00	1	-	-	-	-	-	-	CHEVRON RIGHT
	STH 78	W18	24 X 30	-	-	-	5.00	1	-	-	-	-	-	-	CHEVRON RIGHT
	STH 78	W18	24 X 30	-	-	-	5.00	1	-	-	-	-	-	-	CHEVRON RIGHT
	STH 78	W18	24 X 30	-	-	-	5.00	1	-	-	-	-	-	-	CHEVRON RIGHT
	STH 78	W18	24 X 30	-	-	-	5.00	1	-	-	-	-	-	-	CHEVRON RIGHT
	STH 78	W18	24 X 30	-	-	-	5.00	1	-	-	-	-	-	-	CHEVRON RIGHT
	STH 78	W18	24 X 30	-	-	-	5.00	1	-	-	-	-	-	-	CHEVRON RIGHT
	STH 78	W18	24 X 30	-	-	-	5.00	1	-	-	-	-	-	-	CHEVRON RIGHT
	STH 78	W18	24 X 30	-	-	-	5.00	1	-	-	-	-	-	-	CHEVRON RIGHT
	STH 78	W18	24 X 30	-	-	-	5.00	1	-	-	-	-	-	-	CHEVRON RIGHT
	STH 78	W18	24 X 30	-	-	-	5.00	1	-	-	-	-	-	-	CHEVRON RIGHT
	STH 78	W18	24 X 30	-	-	-	5.00	1	-	-	-	-	-	-	CHEVRON RIGHT
	STH 78	W18	24 X 30	-	-	-	5.00	1	-	-	-	-	-	-	CHEVRON RIGHT
	STH 78	W18	24 X 30	-	-	-	5.00	1	-	-	-	-	-	-	CHEVRON RIGHT
	STH 78	W18	24 X 30	-	-	-	5.00	1	-	-	-	-	-	-	CHEVRON RIGHT
	STH 78	W18	24 X 30	-	-	-	5.00	1	-	-	-	-	-	-	CHEVRON RIGHT
	STH 78	W18	24 X 30	-	-	-	5.00	1	-	-	-	-	-	-	CHEVRON RIGHT
84	STH 78	W12R	36 X 36	-	-	-	9.00	-	-	-	2	-	-	-	RIGHT CURVE
	STH 78	W131	18 X 18	-	-	-	2.25	-	-	2	-	-	-	84	ADVISORY SPEED PLATE (YELLOW BACK) 35 MPH
85	STH 78	W16	60 X 30	-	-	-	12.50	-	-	2	-	-	-	-	NIGHT ARROW RIGHT
86	STH 78	R557	36 X 36	-	9.00	-	-	-	-	-	-	-	-	-	PEDESTRIANS ETC. PROHIBITED
		TOTAL		6	1004.01	19.00	552.75	37.0	40.0	49.0	37.0	15.0	2.0		

* ADDITIONAL QUANTITY SHOWN ELSEWHERE

ALL ITEMS CATEGORY 0010 UNLESS OTHERWISE NOTED

SIGN REMOVALS

	ROADWAY		638.2601 REMOVING SIGNS TYPE I (EACH)	638.2602 REMOVING SIGNS TYPE II (EACH)	638.3000 REMOVING SMALL SIGN SUPPORTS (EACH)	REMARKS
1-1	NB	I3-1	-	1	2	RIVER NAME - WISCONSIN RIVER
1-2	NB	D10-5	-	1	1	MILE MARKER
1-3	NB	R8-7	-	1	1	EMERGENCY STOPPING ONLY
1-4	NB	W8-72/W8-72P	-	1	2	GUSTY WINDS/ON BRIDGE
1-6	NB	D10-5	-	1	1	MILE MARKER
1-7	NB	M1-94	-	1	2	CROSS ROAD NAME - HWY V
1-8	NB	D10-5	-	1	1	MILE MARKER
1-9	NB	R3-4B	-	1	1	NO U-TURN SIGN COMBINED WITH MAINT. AND POLICE VEH
1-10	NB	D10-5	-	1	1	MILE MARKER
1-11	NB	D2-3	1	-	-	DESTINATION / DISTANCE - HWY 78 - 3, WIS DELLS - 29, WAUSAU - 114
2-1	NB	R4-3	-	1	1	SLOWER TRAFFIC KEEP RIGHT
2-2	NB	D10-5	-	1	1	MILE MARKER
2-3	NB	R3-4B	-	1	1	NO U-TURN SIGN COMBINED WITH MAINT. AND POLICE VEH
2-4	NB	D10-5	-	1	1	MILE MARKER
2-5	NB	W4-2R	-	1	2	LANE REDUCTION TRANSITION SYMBOL - RIGHT
2-6	NB	R7-1D	-	1	1	NO PARKING ANY TIME
2-7	NB	D10-5	-	1	1	MILE MARKER
2-8	NB	D10-5	-	1	1	MILE MARKER
2-9	NB	W4-1R	-	1	2	MERGING TRAFFIC SYMBOL - RIGHT
2-10	NB	D10-5	-	1	1	MILE MARKER
2-11	NB	D10-5	-	1	1	MILE MARKER
2-12	NB	E5-54	-	1	2	REST AREA ARROW RIGHT
3-1	NB	W13-3	-	1	2	RAMP SPEED 45 MPH
3-2	NB	E5-52	1	-	-	REST AREA ARROW (ON SIDE) TAPER
3-3	NB	R3-4B	-	1	1	NO U-TURN SIGN COMBINED WITH MAINT. AND POLICE VEH
3-4	NB	D10-5	-	1	1	MILE MARKER
3-5	NB	D10-5	-	1	1	MILE MARKER
3-6	NB	D10-5	-	1	1	MILE MARKER
3-7	NB	D10-5	-	1	1	MILE MARKER
3-8	NB	D10-5	-	1	1	MILE MARKER
3-9	NB	R8-7	-	1	1	EMERGENCY STOPPING ONLY
4-1	NB	D10-5	-	1	1	MILE MARKER
4-2	NB	D10-5	-	1	1	MILE MARKER
4-3	NB	E5-51/E10-55/E5-62	3	-	-	REST AREA 1 1/2 MILES/VETERANS MEMORIAL HIGHWAY MARKER/NEXT REST AREA 41 MILES
4-4	NB	R2-1	-	1	2	SPEED LIMIT 70
4-5	NB	D10-5	-	1	1	MILE MARKER
4-6	NB	J4-3	-	1	2	REASSURANCE ASSEMBLY - 3 HEADED ROUTE PANEL
4-7	NB	D10-5	-	1	1	MILE MARKER
4-8	NB	R3-4B	-	1	1	NO U-TURN SIGN COMBINED WITH MAINT. AND POLICE VEH
4-9	NB	D10-5	-	1	1	MILE MARKER
4-10	NB	W4-1R	-	1	1	MERGING TRAFFIC SYMBOL - RIGHT
1-1	SB	D10-5	-	1	1	MILE MARKER
1-2	SB	D10-5	-	1	1	MILE MARKER
1-3	SB	M1-94	-	1	2	CROSS ROAD NAME - HWY V
1-4	SB	D10-5	-	1	1	MILE MARKER
1-5	SB	R3-4B	-	1	1	NO U-TURN SIGN COMBINED WITH MAINT. AND POLICE VEH
1-6	SB	D10-5	-	1	1	MILE MARKER
2-1	SB	E5-52	1	-	-	REST AREA ARROW (ON SIDE) TAPER
2-2	SB	W13-3	-	1	2	RAMP SPEED 40 MPH
2-3	SB	D10-5	-	1	1	MILE MARKER
2-4	SB	R3-4B	-	1	1	NO U-TURN SIGN COMBINED WITH MAINT. AND POLICE VEH
2-5	SB	E5-54	-	1	2	REST AREA ARROW RIGHT
2-6	SB	D10-5	-	1	1	MILE MARKER
2-7	SB	D10-5	-	1	1	MILE MARKER
2-8	SB	W4-1R	-	1	2	MERGING TRAFFIC SYMBOL - RIGHT
2-9	SB	D10-5	-	1	1	MILE MARKER
2-10	NB	R7-1D	-	1	1	NO PARKING ANY TIME
2-11	SB	D10-5	-	1	1	MILE MARKER
2-12	SB	W4-2R	-	1	2	LANE REDUCTION TRANSITION SYMBOL - RIGHT
2-13	SB	D10-5	-	1	1	MILE MARKER
3-1	SB	R3-4B	-	1	1	NO U-TURN SIGN COMBINED WITH MAINT. AND POLICE VEH

* ADDITIONAL QUANTITY SHOWN ELSEWHERE

ALL ITEMS CATEGORY 0010 UNLESS OTHERWISE NOTED

SIGN REMOVALS

	ROADWAY		638.2601 REMOVING SIGNS TYPE I (EACH)	638.2602 REMOVING SIGNS TYPE II (EACH)	638.3000 REMOVING SMALL SIGN SUPPORTS (EACH)	REMARKS
3-2	SB	D10-5	-	1	1	MILE MARKER
3-3	SB	D10-5	-	1	1	MILE MARKER
3-4	SB	D10-5	-	1	1	MILE MARKER
3-5	SB	D10-5	-	1	1	MILE MARKER
3-6	SB	D10-5	-	1	1	MILE MARKER
3-7	SB	E1-51A	1	-	-	ADVANCE EXIT GUIDE SIGN, 1 MILE
4-1	SB	D10-5	-	1	1	MILE MARKER
4-2	SB	D10-5	-	1	1	MILE MARKER
4-3	SB	D10-5	-	1	1	MILE MARKER
4-4	SB	-	1	-	-	DESTINATION GUIDE SIGN, MACKENZIE CENTER, EXIT 115
4-5	SB	D10-5	-	1	1	MILE MARKER
4-6	SB	R3-4B	-	1	1	NO U-TURN SIGN COMBINED WITH MAINT. AND POLICE VEH
4-7	SB	E4-1A	1	-	-	EXIT DIRECTION SIGN WITH ARROW - RIGHT, EXIT 115
4-8	SB	D10-5	-	1	1	MILE MARKER
4-9	SB	W13-2A	-	1	2	ADVISORY EXIT SPEED w/90 DEGREE LOOP ARROW - 25 MPH
5-1	STH 78	J2-2	-	6	-	DIRECTIONAL ASSEMBLY - 2 HEADED ROUTE PANEL
5-2	STH 78	J2-2	-	6	-	DIRECTIONAL ASSEMBLY - 2 HEADED ROUTE PANEL
5-3	STH 78	R3-7L	-	1	1	LEFT LANE MUST TURN LEFT
5-5	STH 78	R1-2	-	1	1	YEILD
5-6	STH 78	J2-1	-	3	1	ROUTE TURN ASSEMBLY - 1 HEAD PANEL
5-7	STH 78	J2-2	-	6	2	ROUTE TURN ASSEMBLY - 2 HEADED PANEL
5-8	STH 78	W4-1R	-	1	1	MERGING TRAFFIC SYMBOL - RIGHT
5-9	STH 78	R6-2L	-	1	1	ONE WAY LEFT ARROW
5-10	STH 78	W2-1	-	1	1	CROSS ROAD
5-11	STH 78	W2-1	-	1	1	CROSS ROAD
5-13	STH 78	J4-1	-	2	1	REASSURANCE ASSEMBLY - 1 HEADED ROUTE PANEL
5-14	STH 78	R5-1A	-	1	-	WRONG WAY
5-15	STH 78	R3-3	-	1	1	NO TURNS
5-16	STH 78	R3-3	-	1	1	NO TURNS
5-17	STH 78	R5-1	-	1	-	DO NOT ENTER
5-18	STH 78	R3-1	-	1	1	NO RIGHT TURN SYMBOL
5-19	STH 78	R6-2L	-	1	1	ONE WAY LEFT ARROW
5-20	STH 78	R5-1	-	1	1	DO NOT ENTER
5-21	STH 78	W4-1R	-	1	2	MERGING TRAFFIC SYMBOL - RIGHT
5-23	STH 78	J2-1	-	3	1	ROUTE TURN ASSEMBLY - 1 HEAD PANEL
5-24	STH 78	J2-2	-	6	-	ROUTE TURN ASSEMBLY - 2 HEAD PANEL
6-1	STH 78	J1-4	-	8	2	JUNCTION OR END ASSEMBLY - 4 HEADED ROUTE PANEL
6-4	STH 78	R6-2L	-	1	1	ONE WAY
6-5	STH 78	R4-7	-	1	1	KEEP RIGHT
6-6	STH 78	R5-1	-	1	1	DO NOT ENTER
6-7	STH 78	D1-3	-	2	2	THREE DESTINATIONS ARROWS - PORTAGE / WISCONSIN DELLS / MADISON
6-8	STH 78	D1-1	-	1	2	ONE DESTINATION ARROW - MADISON
6-9	STH 78	R5-1A	-	1	1	WRONG WAY
6-10	STH 78	J3-3	-	9	-	DIRECTIONAL ASSEMBLY - 3 HEADED ROUTE PANEL
6-11	STH 78	J3-4	-	12	2	DIRECTIONAL ASSEMBLY - 4 HEADED ROUTE PANEL
6-12	STH 78	J3-3	-	9	2	DIRECTIONAL ASSEMBLY - 3 HEADED ROUTE PANEL
6-13	STH 78	R5-57	-	1	1	PEDESTRIANS ETC, PROHIBITED
6-14	STH 78	D1-2	-	2	2	TWO DESTINATIONS ARROWS - PORTAGE / WISCONSIN DELLS
6-15	STH 78	W4-1R	-	1	2	MERGING TRAFFIC SYMBOL - RIGHT
6-16	STH 78	W9-1R	-	1	1	RIGHT LANE ENDS
6-17	STH 78	W9-1R	-	1	1	RIGHT LANE ENDS
6-18	STH 78	W4-2R	-	1	1	LANE REDUCTION TRANSITION SYMBOL - RIGHT
6-19	STH 78	W4-2R	-	1	1	LANE REDUCTION TRANSITION SYMBOL - RIGHT
6-20	STH 78	D2-1/J4-1	-	3	2	DESTINATION / DISTANCE - MERRIMAC 12
6-21	STH 78	R5-1A	-	1	-	WRONG WAY
6-22	STH 78	R2-1	-	1	1	SPEED LIMIT - 55 MPH
6-23	STH 78	R5-1	-	1	-	DO NOT ENTER
6-24	STH 78	R5-1/R5-1A	-	2	1	DO NOT ENTER
6-25	STH 78	R5-1/R5-1A	-	2	1	DO NOT ENTER
6-26	STH 78	R5-1	-	1	1	DO NOT ENTER
6-27	STH 78	R4-7	-	1	1	KEEP RIGHT

SIGN REMOVALS

	ROADWAY		638.2601 REMOVING SIGNS TYPE I (EACH)	638.2602 REMOVING SIGNS TYPE II (EACH)	638.3000 REMOVING SMALL SIGN SUPPORTS (EACH)	REMARKS
6-28	STH 78	R5-1A	-	1	1	WRONG WAY
7-1	STH 78	W13-3	-	1	-	RAMP SPEED 45 MPH
7-2	STH 78	W1-8	-	7	7	CHEVRON RIGHT
7-3	STH 78	W13-3	-	1	1	RAMP SPEED 30 MPH
7-5	STH 78	W4-1R	-	1	2	MERGING TRAFFIC SYMBOL - RIGHT
7-6	STH 78	W1-8	-	13	13	CHEVRON RIGHT
7-7	STH 78	R5-57	-	1	1	PEDESTRIANS ETC. PROHIBITED
7-8	STH 78	W4-1R	-	1	2	MERGING TRAFFIC SYMBOL - RIGHT
7-9	STH 78	-	-	1	2	EXIT PRETZEL 30 MPH
8-1	STH 78	W13-3	-	-	-	RAMP SPEED 25 MPH
8-2	STH 78	W1-6	-	1	2	NIGHT ARROW - RIGHT
8-3	STH 78	W1-8	-	17	17	CHEVRON RIGHT
8-4	STH 78	W1-2R/W13-1	-	2	1	RIGHT CURVE/ADVISORY 35 MPH
8-5	STH 78	W1-6	-	1	1	NIGHT ARROW - RIGHT
8-6	STH 78	R5-57	-	1	1	PEDESTRIANS ETC. PROHIBITED
		TOTAL	9	229	183	

* ADDITIONAL QUANTITY SHOWN ELSEWHERE

ALL ITEMS CATEGORY 0010 UNLESS OTHERWISE NOTED

DELINEATOR POSTS AND REFLECTORS

STATION	-	STATION	LOCATION	204.0180 REMOVING DELINEATORS AND MARKERS (EACH)	633.0100 DELINEATOR POSTS STEEL (EACH)	633.0500 DELINEATOR REFLECTORS (EACH)	633.1000 DELINEATOR BRACKETS (EACH)
1167+23 NB	-	1345+25 NB	LT	30	50	50	-
1148+37 SB	-	1344+69 SB	RT	32	55	55	-
1191+35 SB	-	1196+32 SB	RA11	-	5	10	-
1227+26 SB	-	1239+93 SB	RA11	-	13	20	-
1205+05 NB	-	1218+98 NB	RA12	-	14	21	-
1250+30 NB	-	1246+65 NB	RA12	-	4	6	-
10+00 E	-	21+33 E	RT	7	11	15	-
955+00 F	-	1014+00 F	RT	35	64	68	-
959+00 G	-	1004+00 G	RT	30	50	55	-
976+00 H	-	991+00 H	RT	9	15	20	-
967+00 I	-	1010+00 I		27	-		-
967+00 I	-	1012+00 I	LT	-	45	50	-
970+00 J	-	1000+00 J	RT	18	30	35	-
970+00 K	-	984+00 K	RT	8	14	19	-
956+00 L	-	991+00 L	LT	16	26	31	-
30+00 M	-	60+00 M	RT	18	30	35	-
35+00 N	-	65+00 N	RT	18	30	30	-
UNDISTRIBUTED				20	10	15	12
			TOTAL	268	466	535	12

TEMPORARY PAVEMENT MARKINGS

STAGE	LOCATION	646.0600 REMOVING PAVEMENT MARKINGS (LF)	649.0403 TEMPORARY PAVEMENT MARKING EPOXY 4-INCH (WHITE) (LF)	649.0403 TEMPORARY PAVEMENT MARKING EPOXY 4-INCH (YELLOW) (LF)	649.0400 TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (LF)	649.0801 TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 8-INCH (LF)
2	MAINLINE SOUTHBOUND	-	29,520	19,050	-	-
2	MAINLINE NORTHBOUND	-	28,400	18,540	-	-
3	MAINLINE SOUTHBOUND	-	29,520	19,050	-	-
3	MAINLINE NORTHBOUND	-	28,400	18,540	-	-
4A	IH 39 SB EXIT RAMP TAPER	-	-	-	325	-
4B	IH 39 SB / CASCADE MT RD	225	-	-	1,400	600
4B	IH 39 SB LANE CLOSURE	200	-	-	700	-
4B	STH 78 NB EXIT RAMP TAPER	-	-	-	500	-
4C	IH 39 NB EXIT RAMP TAPER	-	-	-	320	-
4C	STH 78 NB LANE CLOSURE	150	-	-	600	-
4D	IH 90/94 EB EXIT RAMP TAPER	-	-	-	175	-
	UNDISTRIBUTED	-	2,000		-	-
	TOTAL	575	193,020		4,020	600

TRAFFIC CONTROL SUMMARY

LOCATION / STAGE	643.0300 TRAFFIC CONTROL DRUMS (DAY)	643.0420 TRAFFIC CONTROL BARRICADES TYPE III (DAY)	643.0705 TRAFFIC CONTROL WARNING LIGHTS TYPE A (DAY)	643.0715 TRAFFIC CONTROL WARNING LIGHTS TYPE C (DAY)	643.0800 TRAFFIC CONTROL ARROW BOARDS (DAY)	643.0900 TRAFFIC CONTROL SIGNS (DAY)	643.0910 TRAFFIC CONTROL COVERING SIGNS TYPE I (EACH)	643.0920 TRAFFIC CONTROL COVERING SIGNS TYPE II (EACH)	NUMBER OF CYCLES	NUMBER OF SIGNS	643.1050 TRAFFIC CONTROL SIGNS PCMS (DAY)	643.2000 TRAFFIC CONTROL DETOUR 1010-02-85 (EACH)	643.3000 TRAFFIC CONTROL DETOUR SIGNS (DAY)
ADVANCE WARNING	3,400	-	-	-	-	11,560	-	-	-	-	680	-	-
STAGE 1	18,000	630	1,260	450	135	1,260	-	360	36	10	-	-	-
STAGE 2	14,000	490	980	350	105	980	-	280	28	10	-	-	-
STAGE 3	14,000	490	980	350	105	980	-	280	28	10	-	-	-
STAGE 4	16,575	850	1,455	2,185	110	1,830	28	150	15	10	70	1	7,525
STAGE 5	12,000	420	840	300	90	840	-	240	24	10	-	-	-
UNDISTRIBUTED	5,000	250	500	300	50	500	5	100	-	-	50		500
TOTAL	82,975	3,130	6,015	3,935	595	17,950	33	1,410			800	1	8,025

NOTE: TRAFFIC CONTROL COVERING SIGNS TYPE 1 SIGNS HAS ONLY ONE CYCLE

* ADDITIONAL QUANTITY SHOWN ELSEWHERE

ALL ITEMS CATEGORY 0010 UNLESS OTHERWISE NOTED

PAVEMENT MARKINGS

STAGE	STATION - STATION	LOCATION	646.0106		646.0126	646.0841.S	646.0843.S	646.2304.S		647.0746
					PAVEMENT MARKING EPOXY 8-INCH (LF)	PAVEMENT MARKING GROOVED WET REFLECTIVE CONTRAST TAPE 4-INCH (LF)	PAVEMENT MARKING GROOVED WET REFLECTIVE CONTRAST TAPE 8-INCH (LF)	PAVEMENT MARKING GROOVED WET REFLECTIVE EPOXY 4-INCH (WHITE) (LF)	(YELLOW) (LF)	PAVEMENT MARKING DIAGONAL EPOXY 24-INCH (LF)
4	RAMP E		1,050	535	750	-	-	-	-	307
4	RAMP F		-	-	637	-	-	-	-	-
4	RAMP G		4,130	4,350	220	-	-	-	-	72
4	RAMP H		1,580	1,175	255	-	-	-	-	-
4	IH 39 NB I		4,940	3,315	225	-	-	-	-	80
4	IH 39 SB I		425	-	-	-	-	-	-	-
4	RAMP J		2,870	2,995	225	-	-	-	-	-
4	RAMP K		1,180	1,180	-	-	-	-	-	-
4	RAMP L		975	975	-	-	-	-	-	-
4	RAMP M		558	560	12	-	-	-	-	-
4	RAMP N		232	45	138	-	-			-
5	1148+37 SB - 1344+69 SB	LT/RT	-	-	-	-	-	19,554	19,634	-
5	1148+67 NB - 1345+64 NB	LT/RT	-	-	-	-	-	19,587	19,697	-
5	1148+37 SB - 1309+78 SB	SKIPS	-	-	-	8,075	-	-	-	-
5	1311+78 SB - 1344+70 SB	SKIPS	-	-	-	1,625	-	-	-	-
5	1148+67 NB - 1167+23 NB	SKIPS	-	-	-	925	-	-	-	-
5	1167+23 NB - 1310+29 NB	SKIPS	-	-	-	7,150	-	-	-	-
5	1312+26 NB - 1345+64 NB	SKIPS	-	-	-	1,675	-	-	-	-
5	1191+17 SB - 1192+96 SB	DASH	-	-	-	45	-	-	-	-
5	1230+70 SB - 1235+32 SB	DASH	-	-	-	114	-	-	-	-
5	1210+20 NB - 1215+20 NB	DASH	-	-	-	126	-	-	-	-
5	1250+34 NB - 1252+14 NB	DASH	-	-	-	45	-	-	-	-
5	1193+00 SB - 1196+33 SB	GORE	-	-	-	-	674	-	-	268
5	1215+20 NB - 1219+57 NB	GORE	-	-	-	-	767	-	-	-
5	1226+72 SB - 1230+70 SB	GORE	-	-	-	-	676	-	-	-
5	1246+12 NB - 1250+34 NB	GORE	-	-	-	-	791	-	-	273
		TOTAL	33,070		2,462	19,780	2,908	78,472		1,000

REMOVING RAISED PAVEMENT MARKERS

646.0790.S

STATION - STATION	REMOVING RAISED PAVEMENT MARKERS (EACH)
1177+00 SB - 1309+78 SB	264
1311+78 SB - 1344+70 SB	64
1178+00 NB - 1310+29 NB	264
1312+26 NB - 1345+28 NB	66
TOTAL	658

CLEAN AND FILL CRACK TREATMENT

SPV.0090.03

STATION - STATION	LANE	CLEAN AND FILL CRACK TREATMENT (LF)
1151+00 SB - 1154+00 SB	C	300
1180+00 SB - 1182+00 SB	C,R	200
1182+30 SB - 1182+80 SB	R	50
1187+80 SB - 1188+40 SB	R	60
1188+50 SB - 1191+00 SB	R	250
1198+00 SB - 1199+00 SB	R	100
1202+00 SB - 1203+00 SB	R	100
1207+00 SB - 1208+00 SB	R	100
1211+00 SB - 1212+00 SB	R	100
1217+00 SB - 1218+00 SB	R	100
1221+00 SB - 1222+00 SB	R	100
1224+74 SB - 1225+04 SB	R	30
1225+50 SB - 1228+00 SB	R	200
1230+39 SB - 1230+85 SB	C,R	90
1231+13 SB - 1232+00 SB	R	87
1233+41 SB - 1234+63 SB	R	122
1235+25 SB - 1235+89 SB	R	64
1237+00 SB - 1243+00 SB	C,R	700
1245+00 SB - 1246+00 SB	R	50
1247+00 SB - 1252+00 SB	C,R	700
1254+00 SB - 1256+00 SB	C,R	200
1259+00 SB - 1263+00 SB	R	150
1265+00 SB - 1267+00 SB	R	200
1272+00 SB - 1273+00 SB	C	50
1280+00 SB - 1281+00 SB	R	100
1284+00 SB - 1286+00 SB	C,R	200
1290+00 SB - 1291+00 SB	R	50
1293+00 SB - 1296+00 SB	R	150
1297+00 SB - 1301+00 SB	R	200
1301+70 SB - 1303+66 SB	R	198
1306+00 SB - 1307+00 SB	R	50
1315+00 SB - 1317+00 SB	C,R	100
1332+00 SB - 1333+00 SB	C	50
1181+80 NB - 1182+30 NB	C,R	75
1193+00 NB - 1194+00NB	R	100
1196+00 NB - 1197+00 NB	R	100
1200+00 NB - 1201+00 NB	R	50
1213+00 NB - 1214+00 NB	R	100
1222+00 NB - 1223+00 NB	C	50
1233+00 NB - 1234+00 NB	C	50
1246+00 NB - 1247+00 NB	C	50
1249+00 NB - 1250+00 NB	C	50
1290+00 NB - 1291+00 NB	R	50
1304+00 NB - 1305+00 NB	R	50
1345+26 NB - 1347+13 NB	C,R	180
UNDISTRIBUTED		825
TOTAL		6,431

CONSTRUCTION STAKING SUMMARY

STATION - STATION	650.4500 CONSTRUCTION STAKING SUBGRADE (LF)	650.9920 CONSTRUCTION STAKING SLOPE STAKES (LF)	650.7000 CONSTRUCTION STAKING CONCRETE PAVEMENT (LF)	650.8000 CONSTRUCTION STAKING RESURFACE REFERENCE (LF)
1167+23 NB - 1345+25 NB	-	-	-	17,802
1148+37 SB - 1344+69 SB	-	-	-	19,632
10+58 E - 20+98 E	1,040	1,040	1,040	-
971+59 J - 981+41 J	982	982	982	-
990+03 J - 993+03 J	300	300	300	-
974+91 K - 982+85 K	794	794	794	-
TOTAL	3,116	3,116	3,116	37,434

CONSTRUCTION STAKING SUPPLEMENTAL CONTROL

650.9910

LOCATION	CONSTRUCTION STAKING SUPPLEMENTAL CONTROL (LS)
PROJECT LIMITS	1
	1

REMOVING SIGN STRUCTURE STATION 956+12F

SPV.0105.01

LOCATION	REMOVING SIGN STRUCTURE STATION 956+12F (LS)
S-11-12	1
TOTAL	1

CONCRETE BARRIER WALL SURFACE REPAIR

SPV.0060.02

LOCATION	CONCRETE BARRIER WALL SURFACE REPAIR (EACH)
UNDISTRIBUTED	10
TOTAL	10

SAWING ASPHALT

690.0150

STATION	LOCATION	SAWING ASPHALT (LF)
10+58 E	RT	5
10+40 E	LT	10
17+50 E	LT	10
22+46 E	RT	5
978+50 F	RT	10
971+54 J	RT	5
981+50 J	RT	4
981+50 J	LT	5
989+90 J	LT	5
989+90 J	RT	4
993+15 J	LT	5
993+15J	RT	5
	TOTAL	73

REMOVE AND REPLACE GUARD RAIL

SPV.0105.02

LOCATION	REMOVE AND REPLACE GUARD RAIL (LS)
B-11-98	1
TOTAL	1

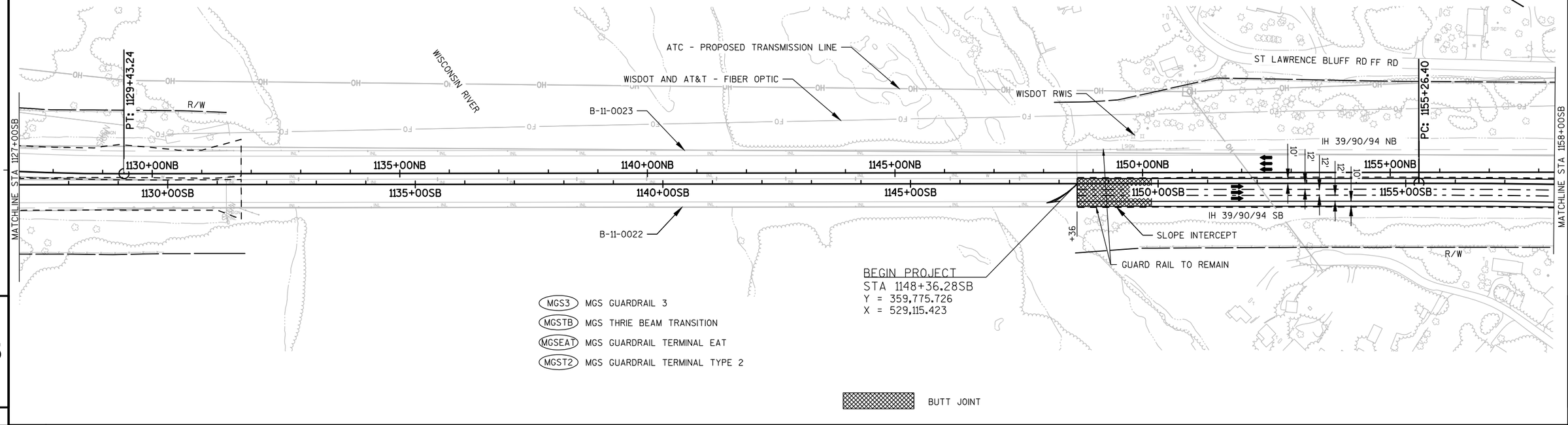
PORTABLE AUTOMATED REAL-TIME TRAFFIC QUEUE WARNING SYSTEM (QWS)

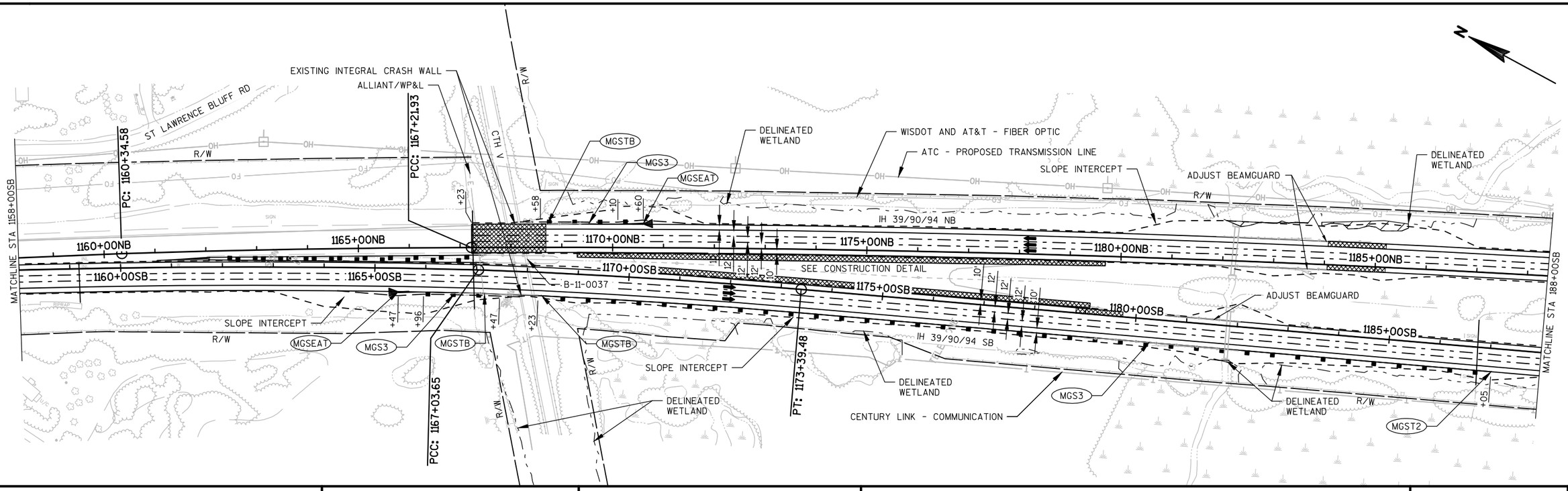
SPV.0045.01

LOCATION	STAGE	PCMS BOARDS	APPROXIMATE STAGE USAGE (DAYS)	QUEUE WARNING SYSTEM (DAY)
IH 94 EB	2, 3	4	20	80
IH 39/90/94 NB	2, 3	3	20	60
IH 39 SB	2, 3	3	15	45
	TOTAL			185

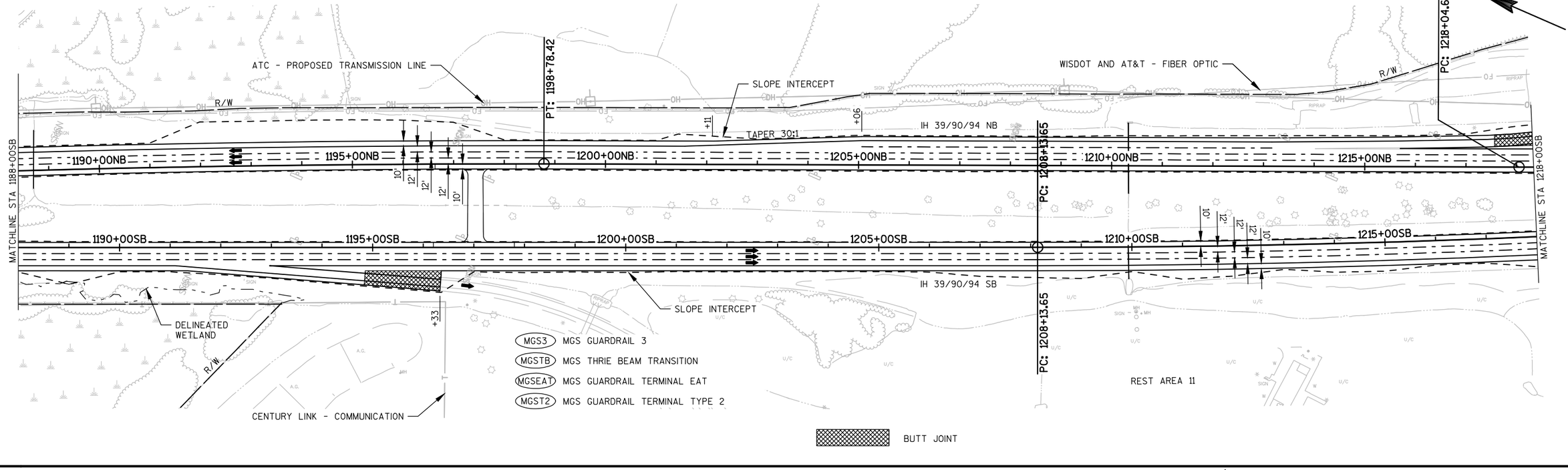
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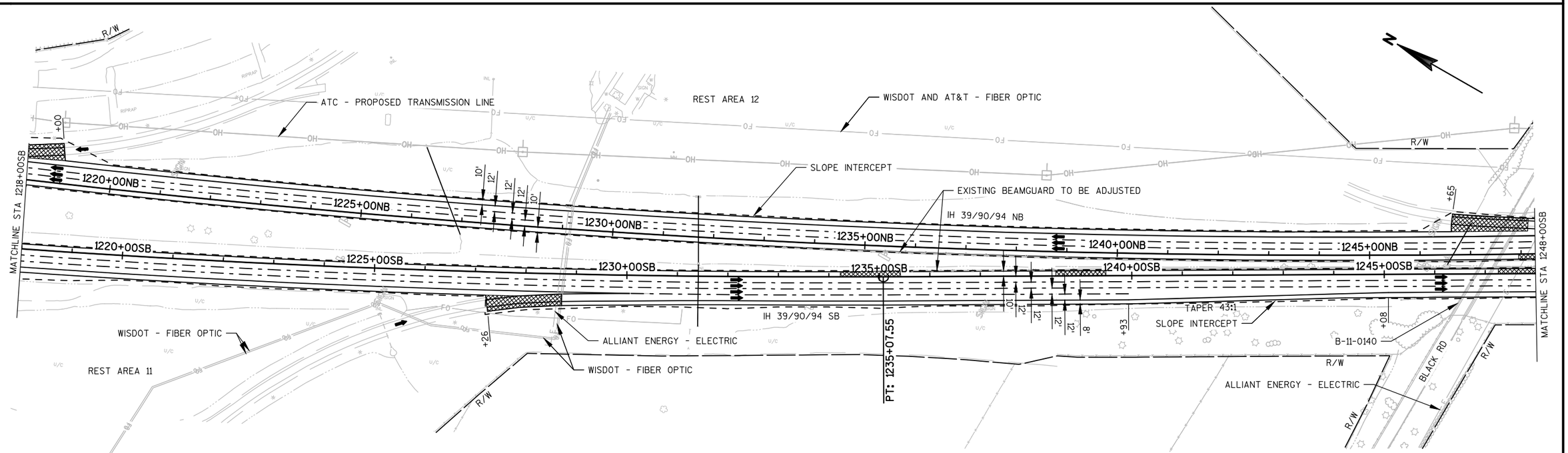
ALL ITEMS CATEGORY 0010 UNLESS OTHERWISE NOTED



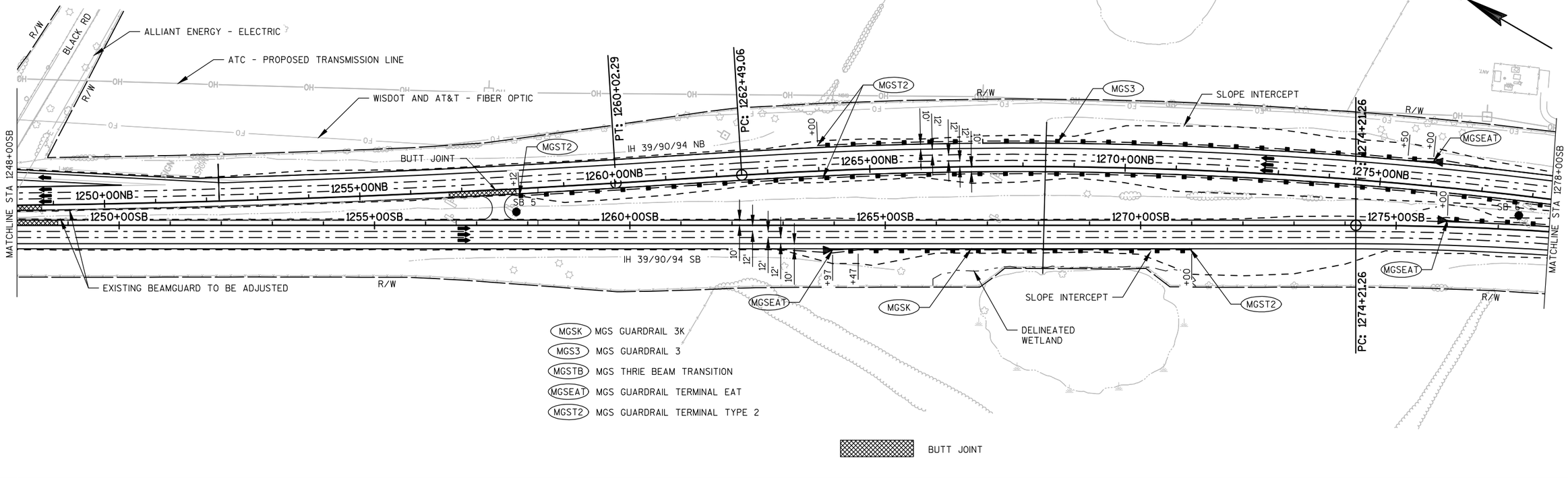


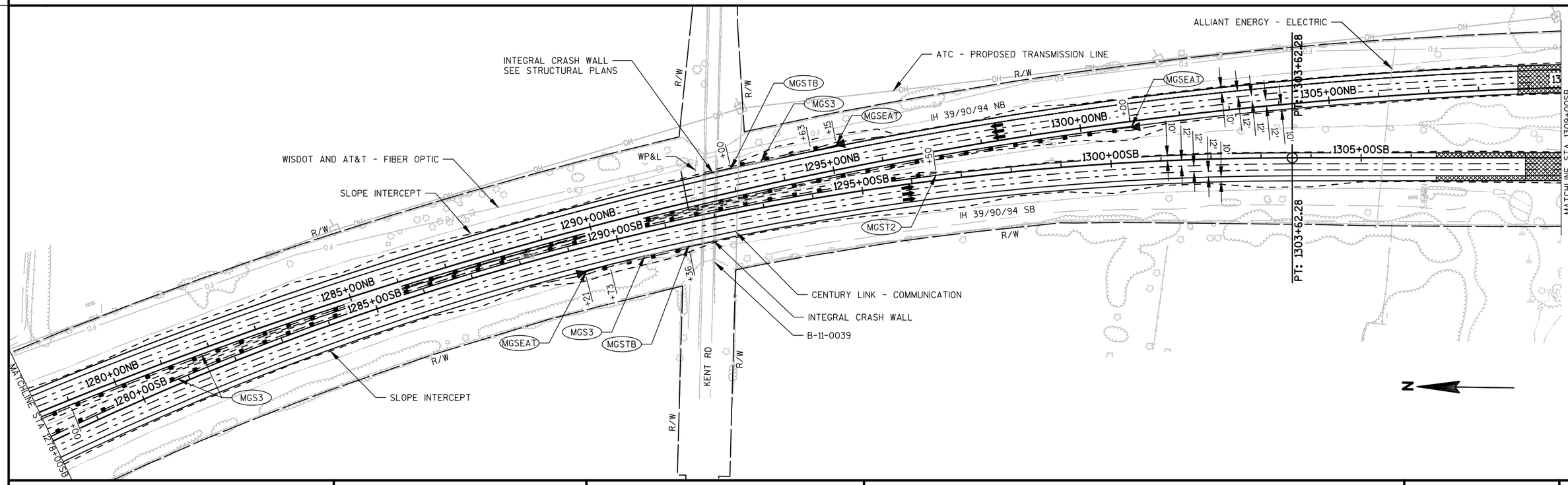
PROJECT NO: 1010-02-85	HWY: IH 39	COUNTY: COLUMBIA	PLAN	SHEET 109	E



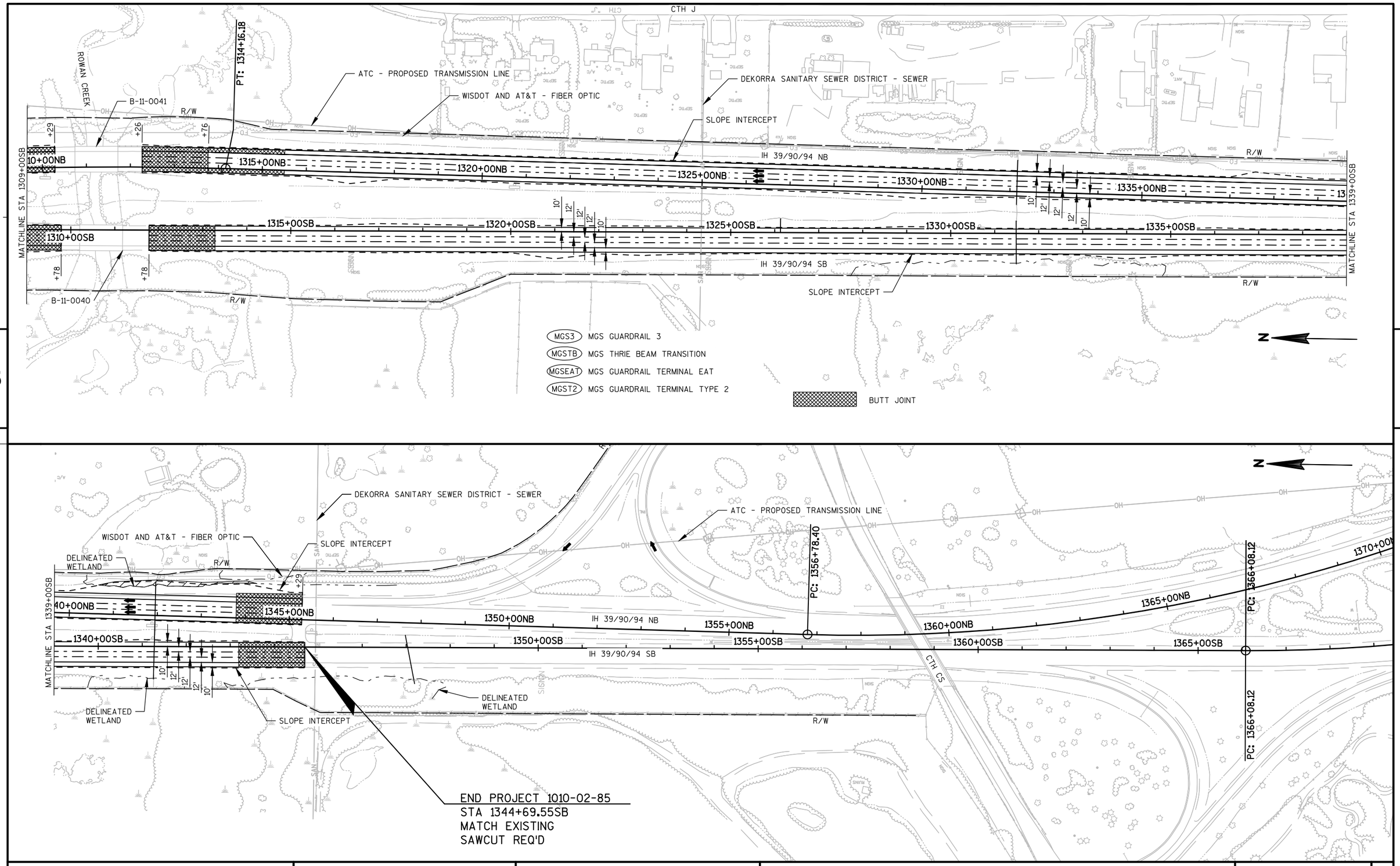


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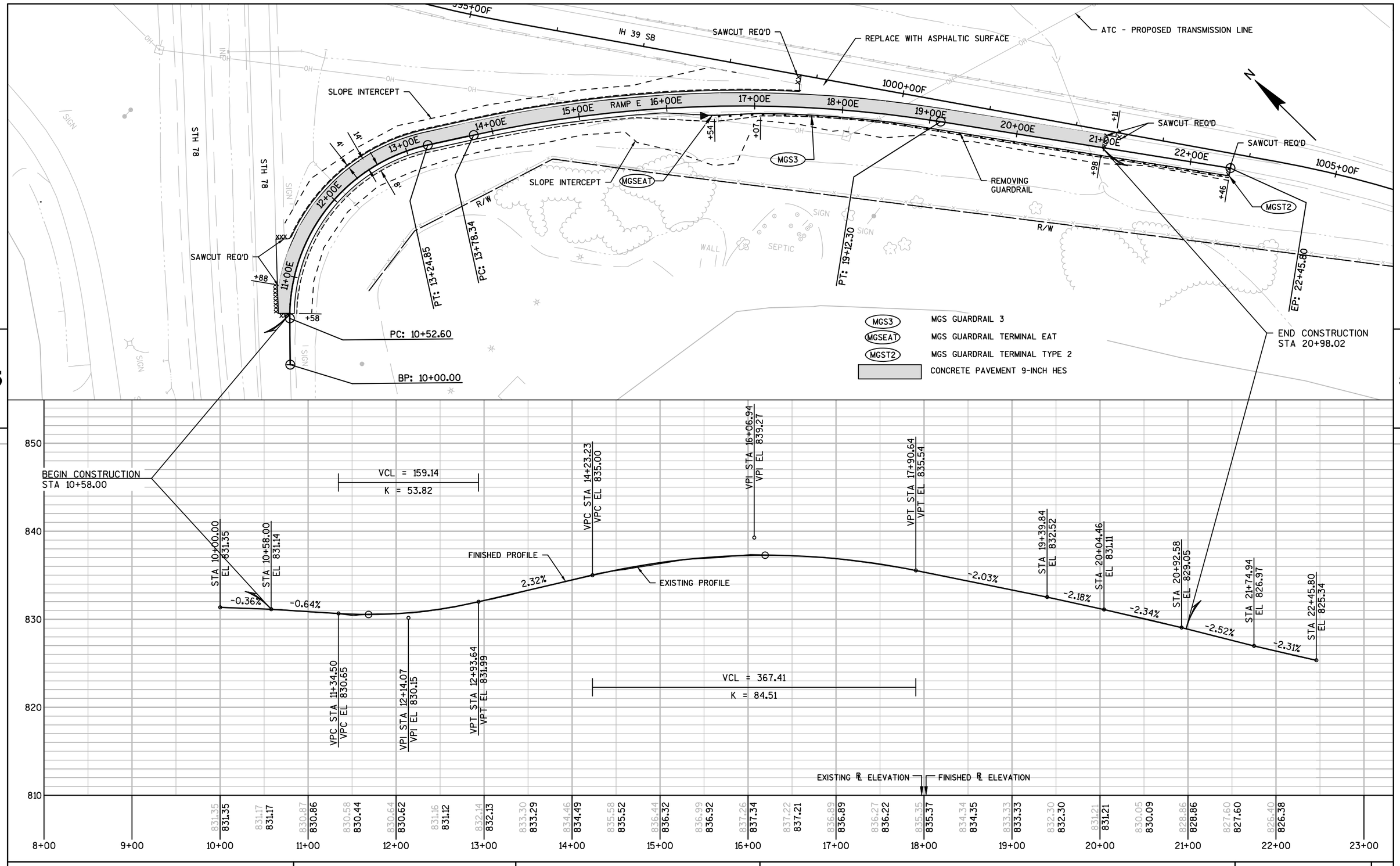
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PROJECT NO: 1010-02-85	HWY: IH 39	COUNTY: COLUMBIA	PLAN	SHEET 112	E

FILE NAME : X:\3230900\131208.01\TECH\CAD\10100202\SHEETSPLAN\CONSTRUCTION PROJECT 2, 1010-02-85\021201_PD-PROJECT 2.DWG PLOT DATE : 7/14/2017 1:52 PM PLOT BY : SCOTT BEACH PLOT NAME : PLOT SCALE : 1" = 200'_XREF

WISDOT/CADDS SHEET 44



PROJECT NO: 1010-02-85	HWY: IH 39	COUNTY: COLUMBIA	PLAN AND PROFILE: RAMP E	SHEET 113	E

5

JOHNSON ROAD

IH 39 NB

STH 78

RAMP G

RAMP J

RAMP K

RAMP L

IH 39 SB

BP: 955+00.00

PC: 955+32.86

PI: 959+49.41

PT: 963+42.33

PC: 968+11.89

30+00'M'

35+00'N'

35+00'M'

40+00'M'

960+00F

965+00F

970+00F

NO WORK

STA 956+16.01'F'
CONSTRUCT S-11-26
SEE STRUCTURE PLANS

REMOVE S-11-12

BEGIN CONSTRUCTION
IH 39 STA 955+00F

MATCHLINE STA 970+00F

WISDOT AND AT&T - FIBER OPTIC

CAUTION

ALLIANT ENERGY - GAS

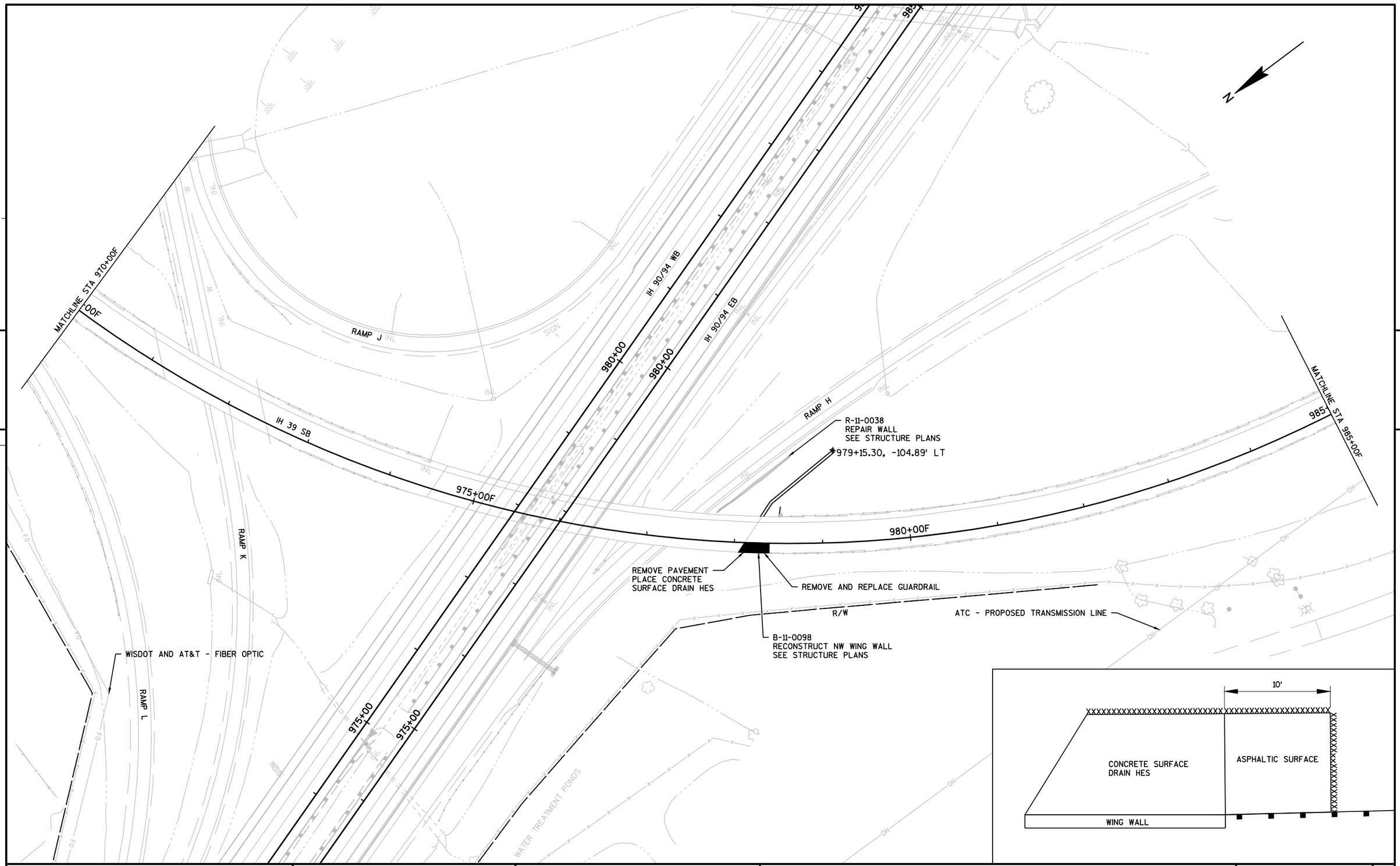
ATC - PROPOSED TRANSMISSION LINE

N

PROJECT NO: 1010-02-85	HWY: IH 39	COUNTY: COLUMBIA	PLAN IH 39 SB	SHEET 114	E

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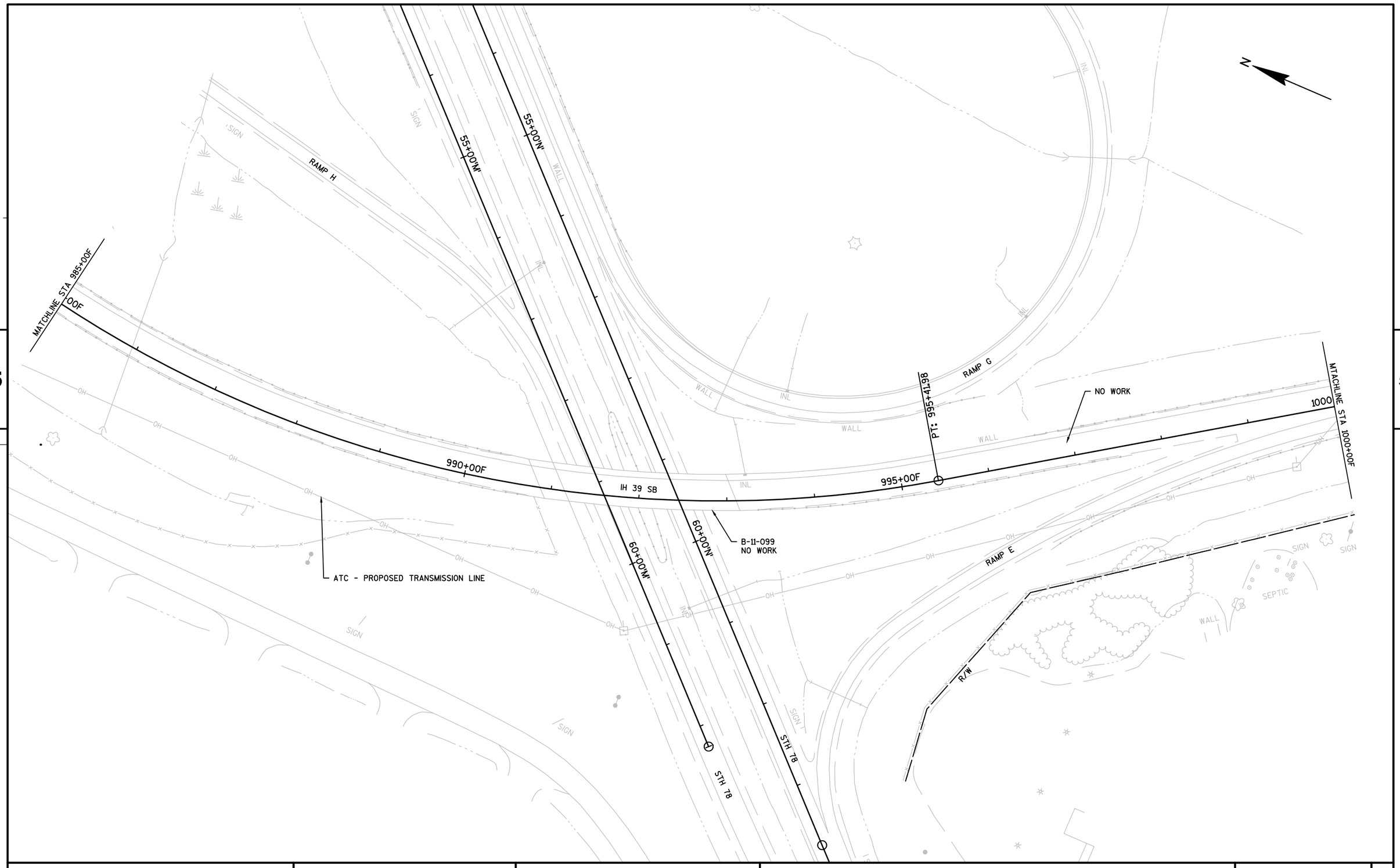
WISDOT/CADDS SHEET 42



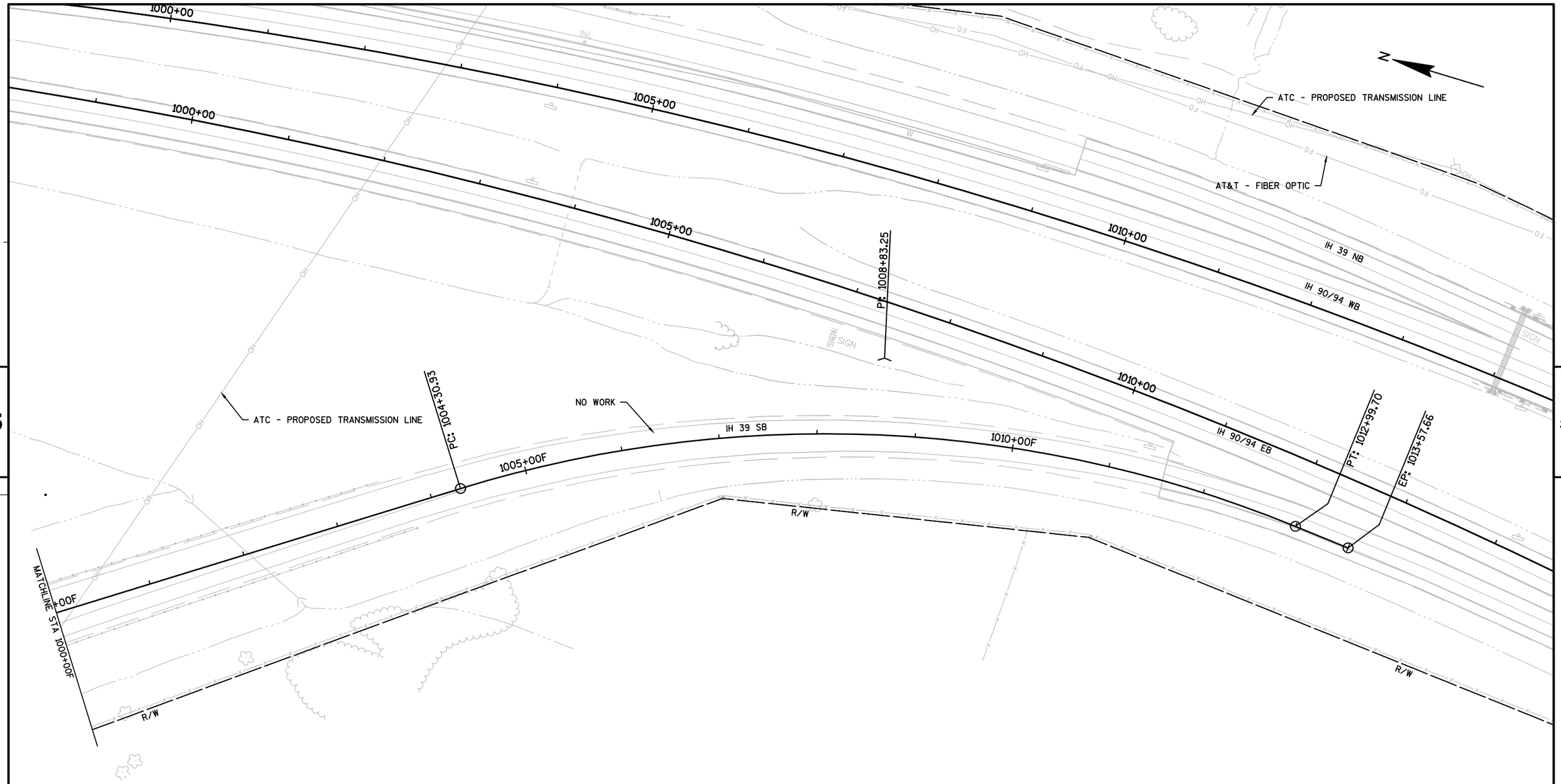
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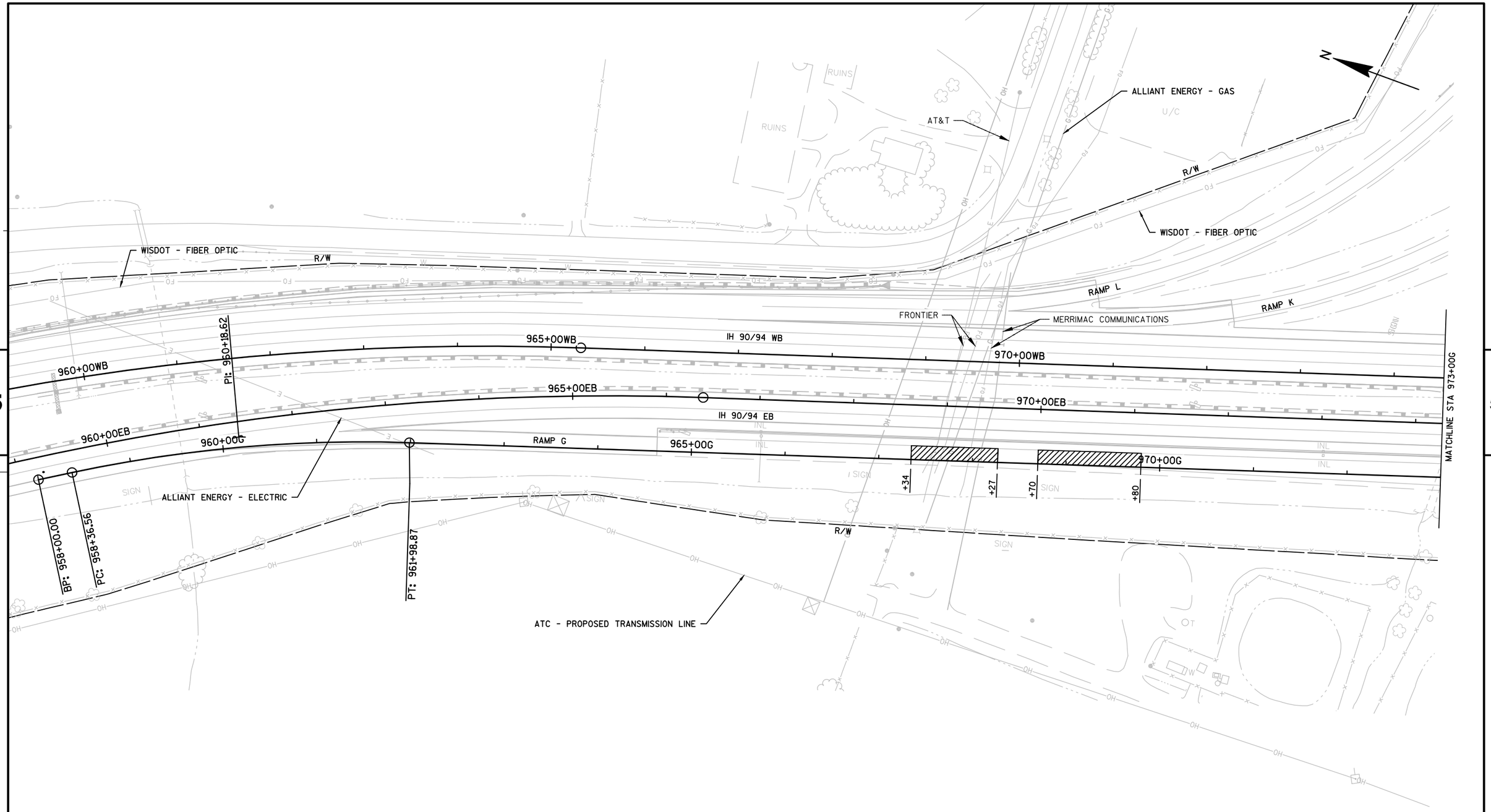
WISDOT/CADDS SHEET 42



PROJECT NO: 1010-02-85	HWY: IH 39	COUNTY: COLUMBIA	PLAN IH 39 SB	SHEET 116	E



PROJECT NO: 1010-02-85	HWY: IH 39	COUNTY: COLUMBIA	PLAN IH 39 SB	SHEET 117	E



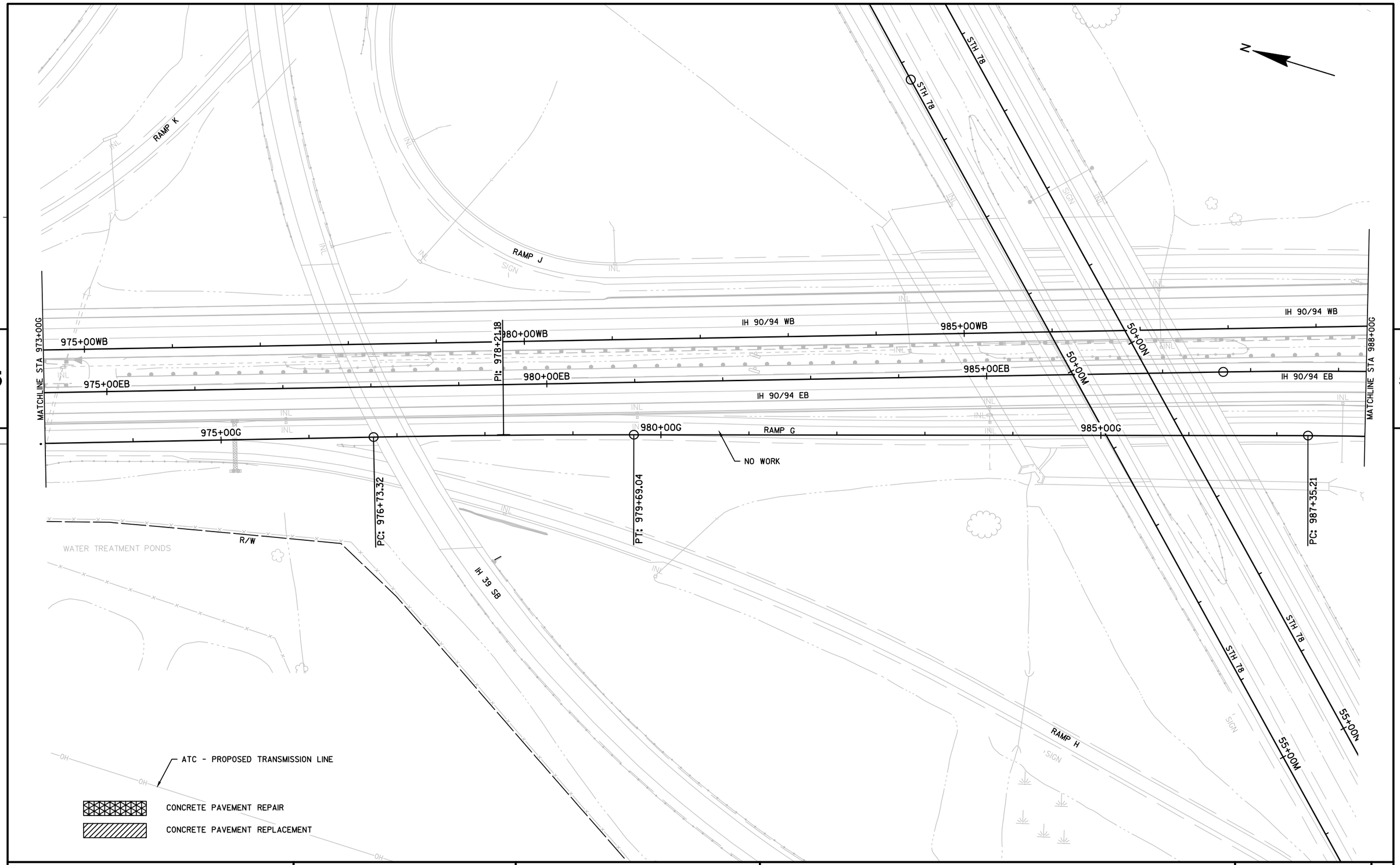
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5

CONCRETE PAVEMENT REPAIR

CONCRETE PAVEMENT REPLACEMENT

PROJECT NO: 1010-02-85	HWY: IH 39	COUNTY: COLUMBIA	PLAN: RAMP G	SHEET 118	E



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PROJECT NO: 1010-02-85	HWY: IH 39	COUNTY: COLUMBIA	PLAN: RAMP G	SHEET 119	E

FILE NAME : X:\3230900\131208.01\TECH\CAD\10100202\SHEETSPLAN\CONSTRUCTION PROJECT 2, 1010-02-85\021202_PD-RAMP G.DWG PLOT DATE : 4/24/2017 1:52 PM PLOT BY : TIMOTHY VELTE PLOT NAME : PLOT SCALE : 1" = 100'_XREF

WISDOT/CADDS SHEET 42

CONCRETE PAVEMENT REPAIR

CONCRETE PAVEMENT REPLACEMENT

IH 90/94 WB

990+00WB

995+00WB

MATCHLINE STA 888+00G

990+00EB

IH 90/94 EB

PI: 989+04.58

PI: 993+25.34

995+00EB

990+00G

PC: 987+35.21

PT: 990+73.66

PC: 991+64.90

PT: 994+57.05

PC: 994+57.47

995+00G

+16

+59

RAMP G

+62

+79

+05

+83

EP: 1004+74.65

55+00N

55+00M

PT: 1003+29.74

1000+00G

+41

+27

RAMP H

ATC - PROPOSED TRANSMISSION LINE

IH 39 SB

R/W

SIGN

WALL

INL

OH

SEPTIC

PROJECT NO: 1010-02-85	HWY: IH 39	COUNTY: COLUMBIA	PLAN: RAMP G	SHEET 120	E

FILE NAME : X:\3230900\131208.01\TECH\CAD\10100202\SHEETSPLAN\CONSTRUCTION PROJECT 2, 1010-02-85\021202_PD-RAMP G.DWG PLOT DATE : 4/24/2017 1:52 PM PLOT BY : TIMOTHY VELTE PLOT NAME : PLOT SCALE : 1" = 100'_XREF

WISDOT/CADDS SHEET 42

RAMP J

980+00WB

IH 90/94 WB

985+00WB

990+00WB

980+00EB

985+00EB

990+00EB

IH 90/94 EB

50+00N

50+00M

RAMP G

BP: 976+00.00

PC: 976+18.42

PC: 978+08.83

PT: 978+08.50

R/W

+07

+63

980+00H

+58

+66

R-11-0038
SEE STRUCTURE PLANS

+90

+97

IH 39 SB

985+00H

PT: 985+69.09

55+00M

55+00N

STH 78

RAMP G

WALL

PC: 989+08.75

+58

990+00H

+24

PT: 991+26.64

EP: 991+44.06

ATC - PROPOSED TRANSMISSION LINE

CONCRETE PAVEMENT REPAIR

CONCRETE PAVEMENT REPLACEMENT

PROJECT NO: 1010-02-85	HWY: IH 39	COUNTY: COLUMBIA	PLAN: RAMP H	SHEET 121	E

FILE NAME : X:\3230900\131208.01\TECH\CAD\10100202\SHEETSPLAN\CONSTRUCTION PROJECT 2, 1010-02-85\021202_PD-RAMP H.DWG PLOT DATE : 4/24/2017 1:53 PM PLOT BY : TIMOTHY VELTE PLOT NAME : PLOT SCALE : 1:100_XREF

WISDOT/CADDS SHEET 42

CONCRETE PAVEMENT REPAIR

CONCRETE PAVEMENT REPLACEMENT

N

BP: 967+50.00

+34

+40

970+00

+37

+46

PC: 975+21.63

975+00

JOHNSON ROAD

IH 39 NB

PT: 979+53.29

980+00

+23

+69

+80

MATCHLINE STA 983+00

NO WORK

STH 78

RAMP G

STH 78

CAUTION

ALLIANT ENERGY - GAS

IH 39 SB

RAMP L

RAMP K

RAMP J

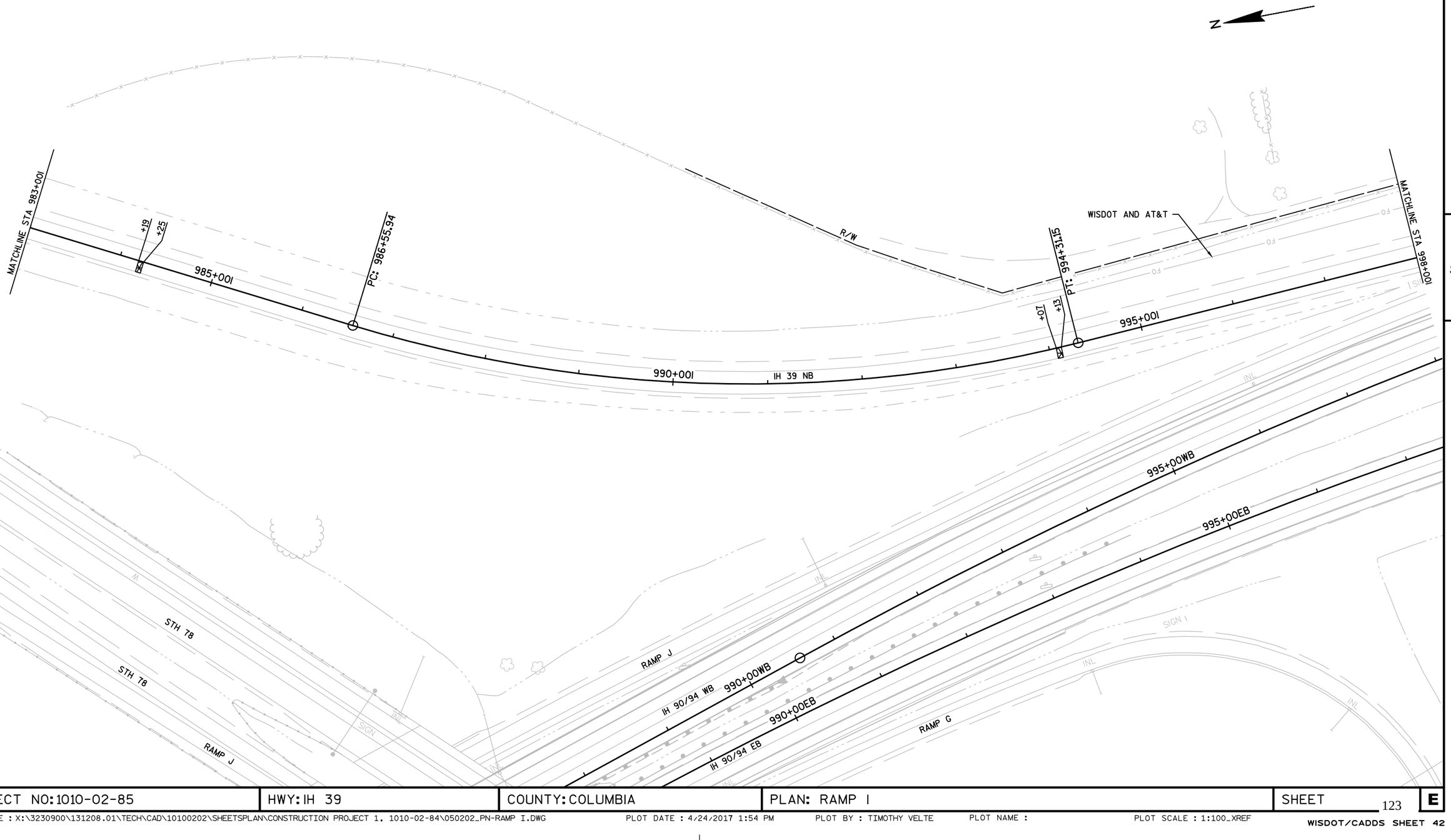
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PROJECT NO: 1010-02-85	HWY: IH 39	COUNTY: COLUMBIA	PLAN: RAMP I	SHEET 122	E

CONCRETE PAVEMENT REPAIR

CONCRETE PAVEMENT REPLACEMENT



PROJECT NO: 1010-02-85	HWY: IH 39	COUNTY: COLUMBIA	PLAN: RAMP 1	SHEET 123 E

CONCRETE PAVEMENT REPAIR

CONCRETE PAVEMENT REPLACEMENT

N

WISDOT AND AT&T

ATC - PROPOSED TRANSMISSION LINE

R/W

PI: 1006+99.92

PC: 1008+91.85

PT: 1011+88.65

EP: 1011+89.48

MATCHLINE STA 998+00

1000+00

1005+00

1010+00

+59 +66 +81 +87 +26 +32 +99 +09 +21 +41 +22 +28

RAMP J

IH 90/94 WB

1000+00WB

1005+00WB

1010+00WB

IH 90/94 EB

1000+00EB

1005+00EB

1010+00EB

IH 39 NB

IH 39 SB

SIGN

OH

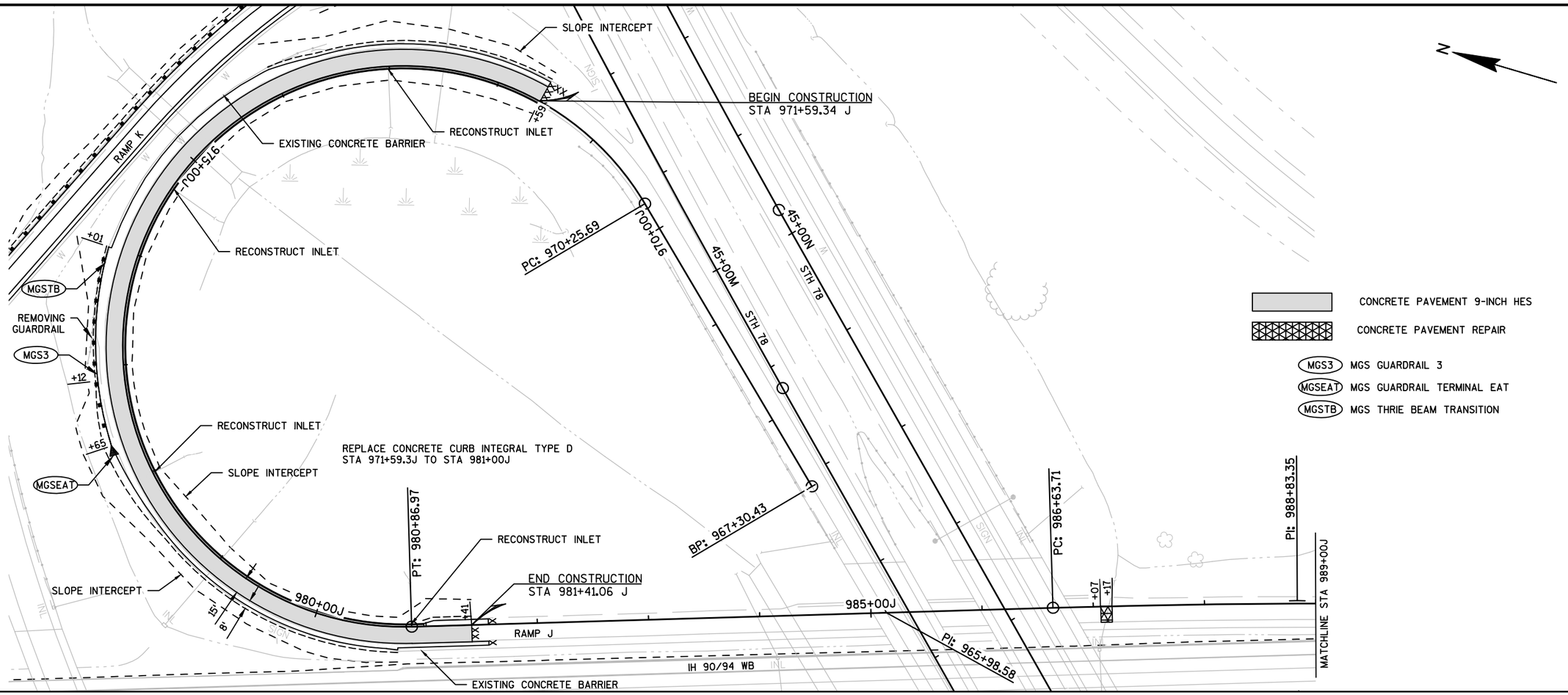
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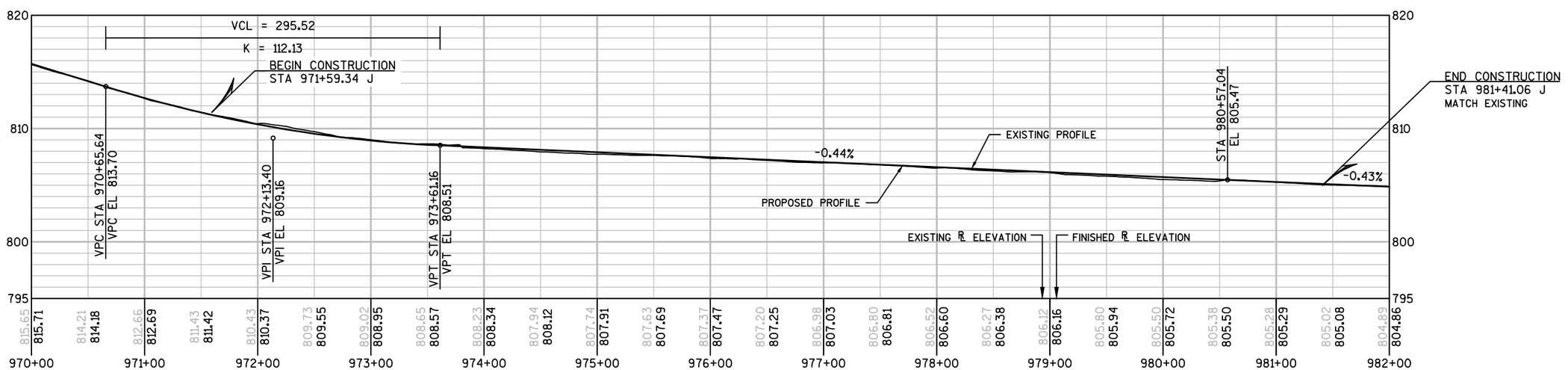
INL

W

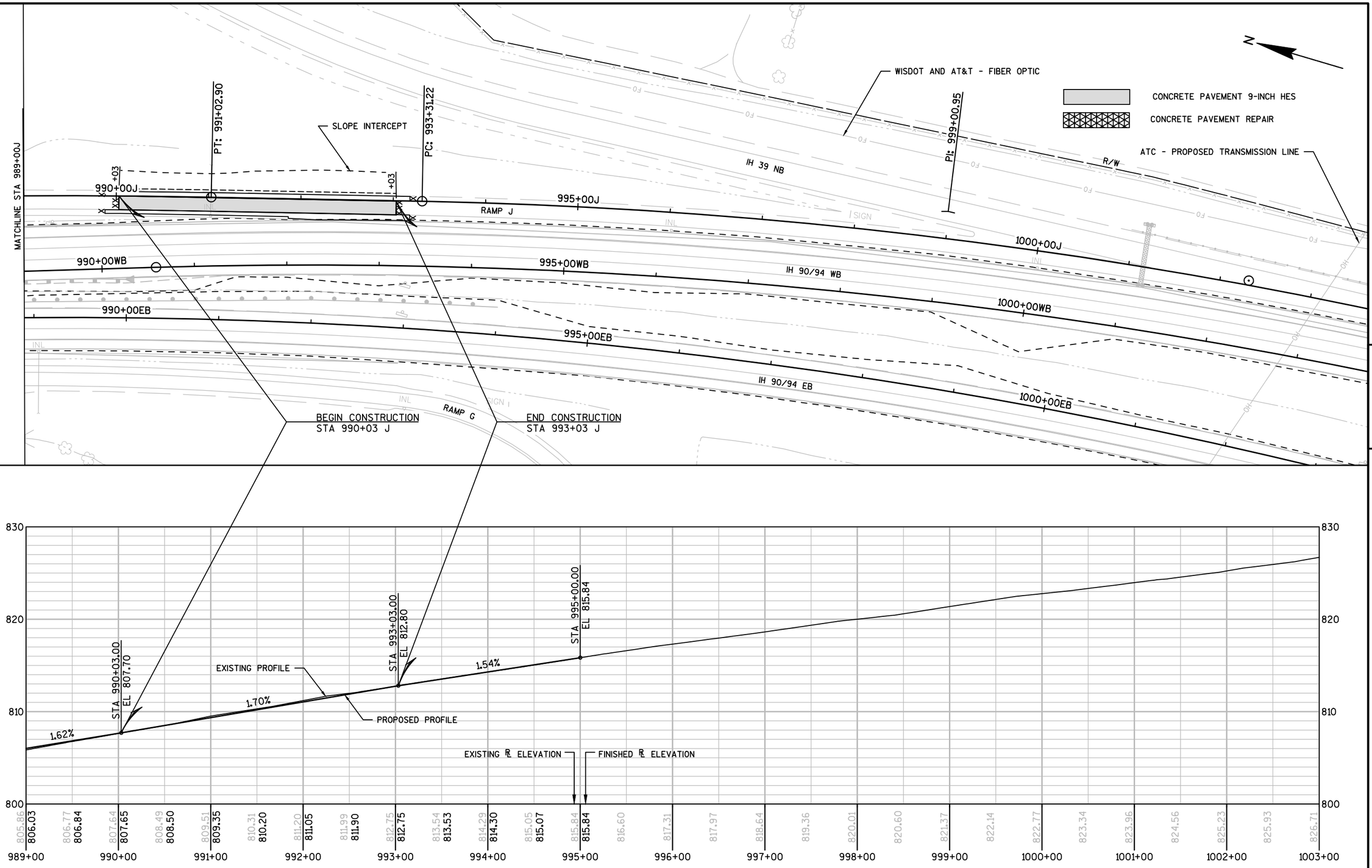
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FILE NAME : X:\3230900\131208.01\TECH\CAD\10100202\SHEETSPLAN\CONSTRUCTION PROJECT 1, 1010-02-84\050202_PN-RAMP I.DWG PLOT DATE : 4/24/2017 1:54 PM PLOT BY : TIMOTHY VELTE PLOT NAME : PLOT SCALE : 1:100_XREF

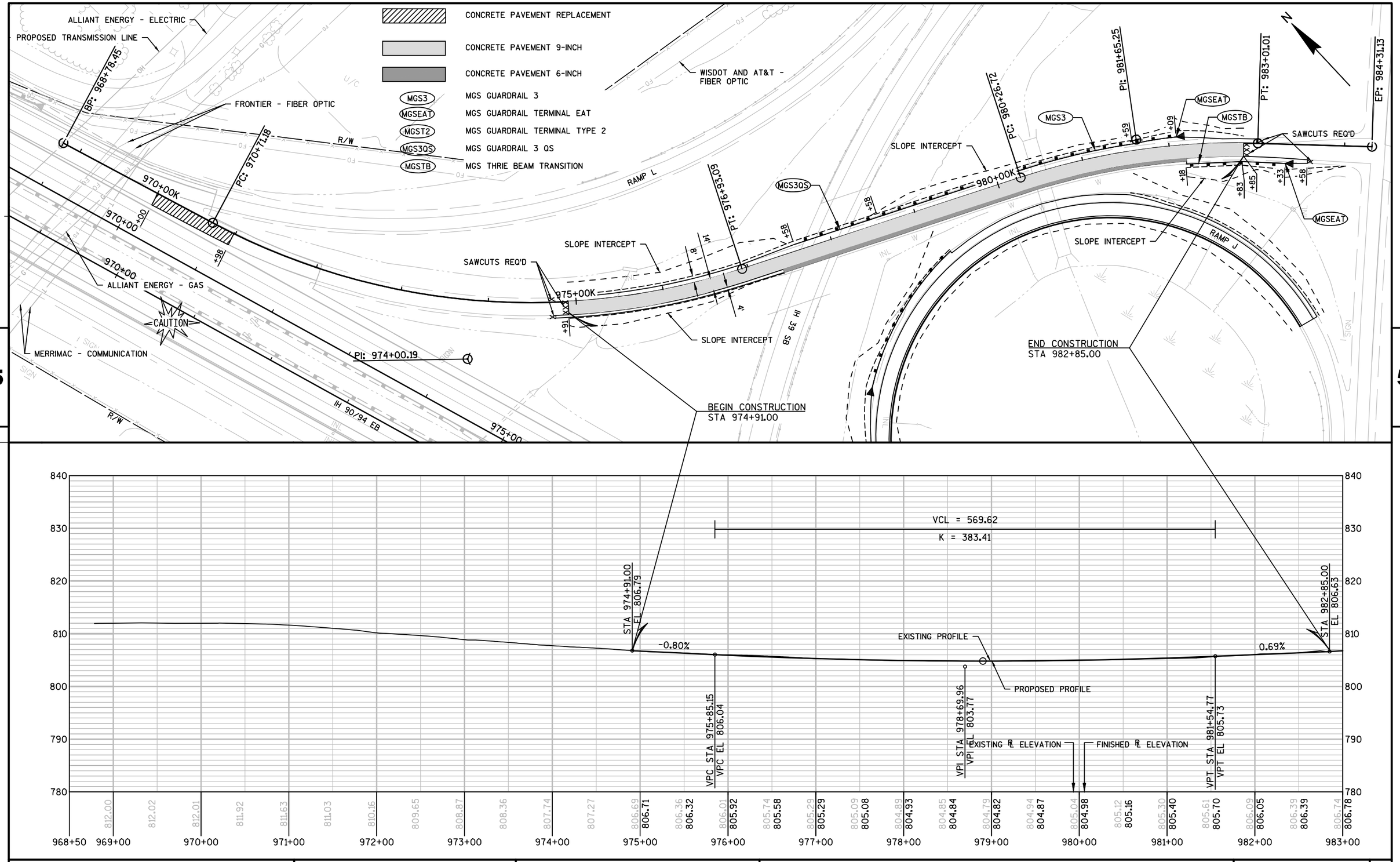




PROJECT NO: 1010-02-85	HWY: IH 39	COUNTY: COLUMBIA	PLAN AND PROFILE: RAMP J	SHEET 125	E



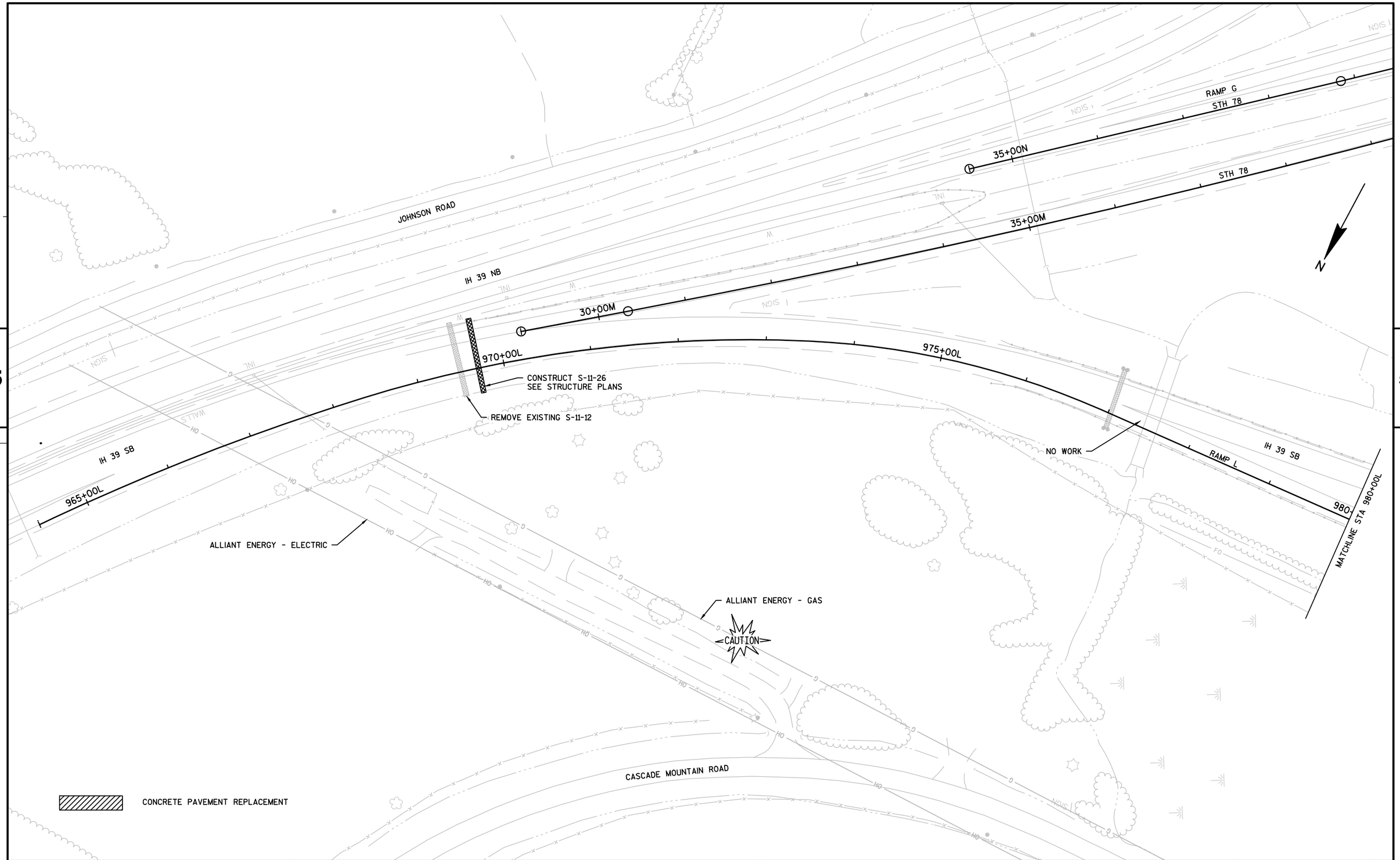
PROJECT NO: 1010-02-85	HWY: IH 39	COUNTY: COLUMBIA	PLAN AND PROFILE: RAMP J	SHEET 126	E



PROJECT NO: 1010-02-85	HWY: IH 39	COUNTY: COLUMBIA	PLAN AND PROFILE: RAMP K	SHEET 127 E

FILE NAME : X:\3230900\131208.01\TECH\CAD\10100202\SHEETSPLAN\CONSTRUCTION PROJECT 2, 1010-02-85\021202_PD-RAMP K.DWG PLOT DATE : 4/24/2017 1:58 PM PLOT BY : TIMOTHY VELTE PLOT NAME : PLOT SCALE : 1:100_XREF

WISDOT/CADDS SHEET 44

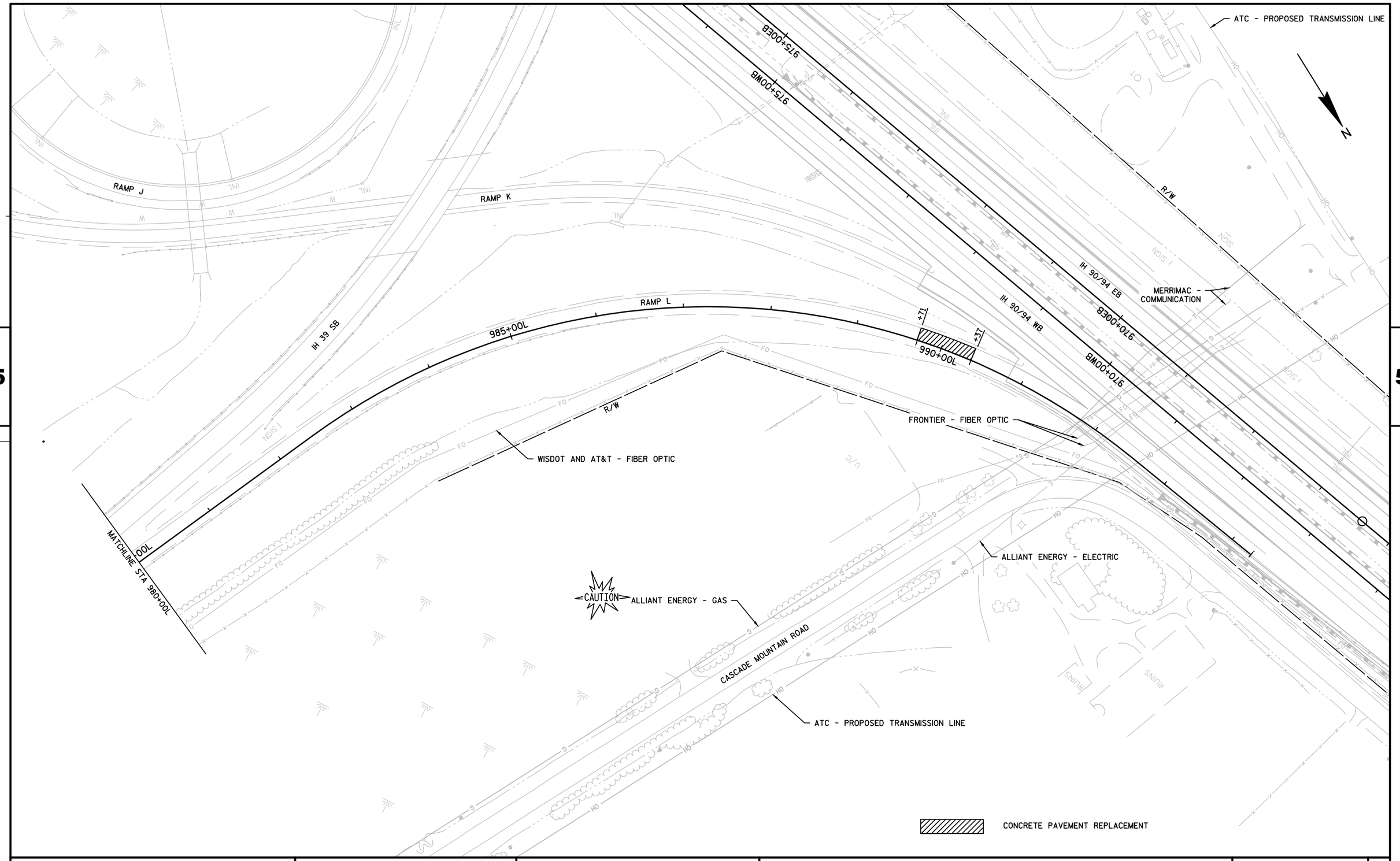


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PROJECT NO: 1010-02-85	HWY: IH 39	COUNTY: COLUMBIA	PLAN: RAMP L	SHEET 128	E

FILE NAME : X:\3230900\131208.01\TECH\CAD\10100202\SHEETSPLAN\CONSTRUCTION PROJECT 2, 1010-02-85\050218_PN-RAMP L.DWG PLOT DATE : 4/24/2017 1:59 PM PLOT BY : TIMOTHY VELTE PLOT NAME : PLOT SCALE : 1:100_XREF



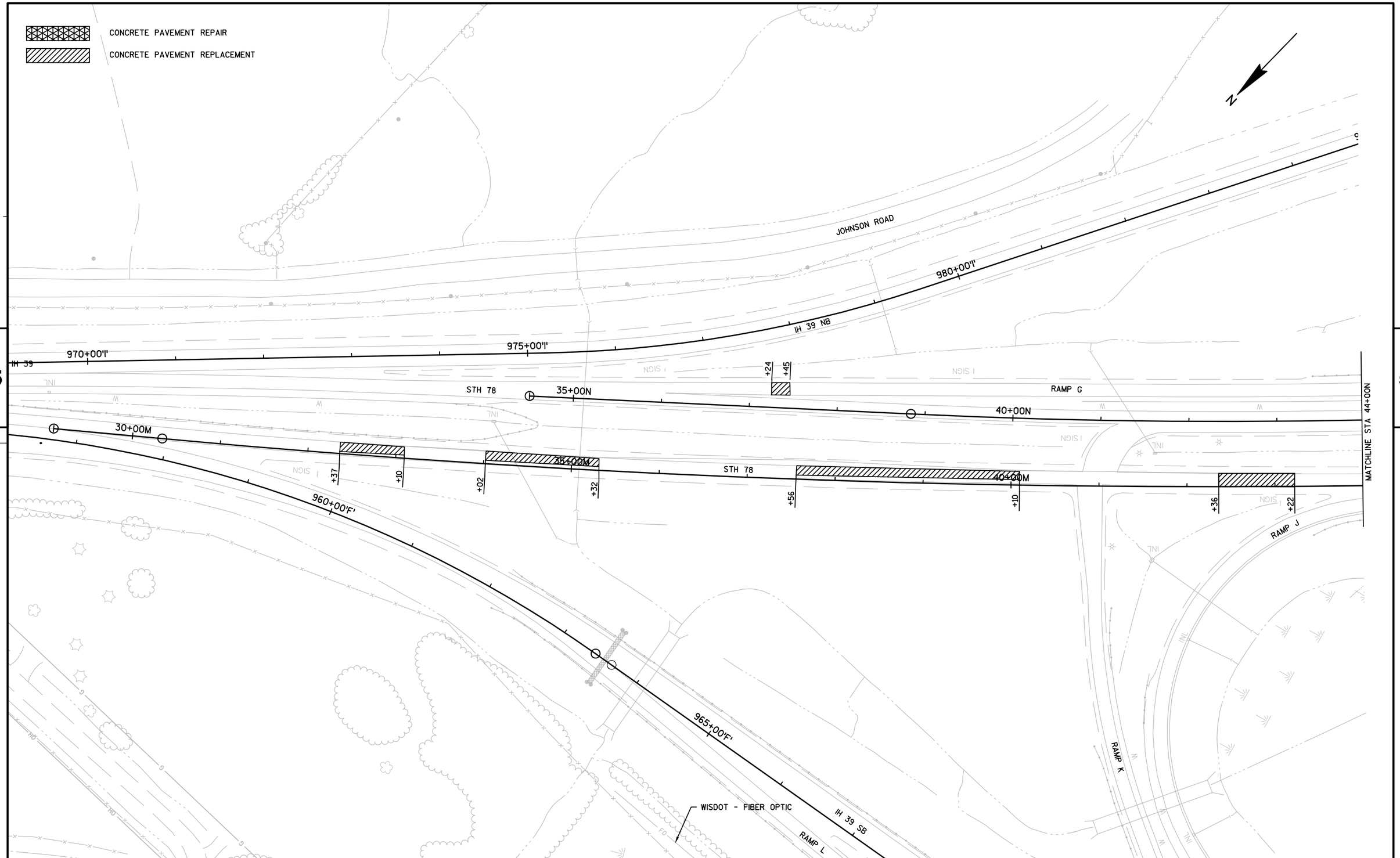
PROJECT NO: 1010-02-85	HWY: IH 39	COUNTY: COLUMBIA	PLAN: RAMP L	SHEET 129	E

FILE NAME : X:\3230900\131208.01\TECH\CAD\10100202\SHEETSPLAN\CONSTRUCTION PROJECT 2, 1010-02-85\050218_PN-RAMP L.DWG PLOT DATE : 4/24/2017 1:59 PM PLOT BY : TIMOTHY VELTE PLOT NAME : PLOT SCALE : 1:100_XREF

WISDOT/CADDS SHEET 42

CONCRETE PAVEMENT REPAIR

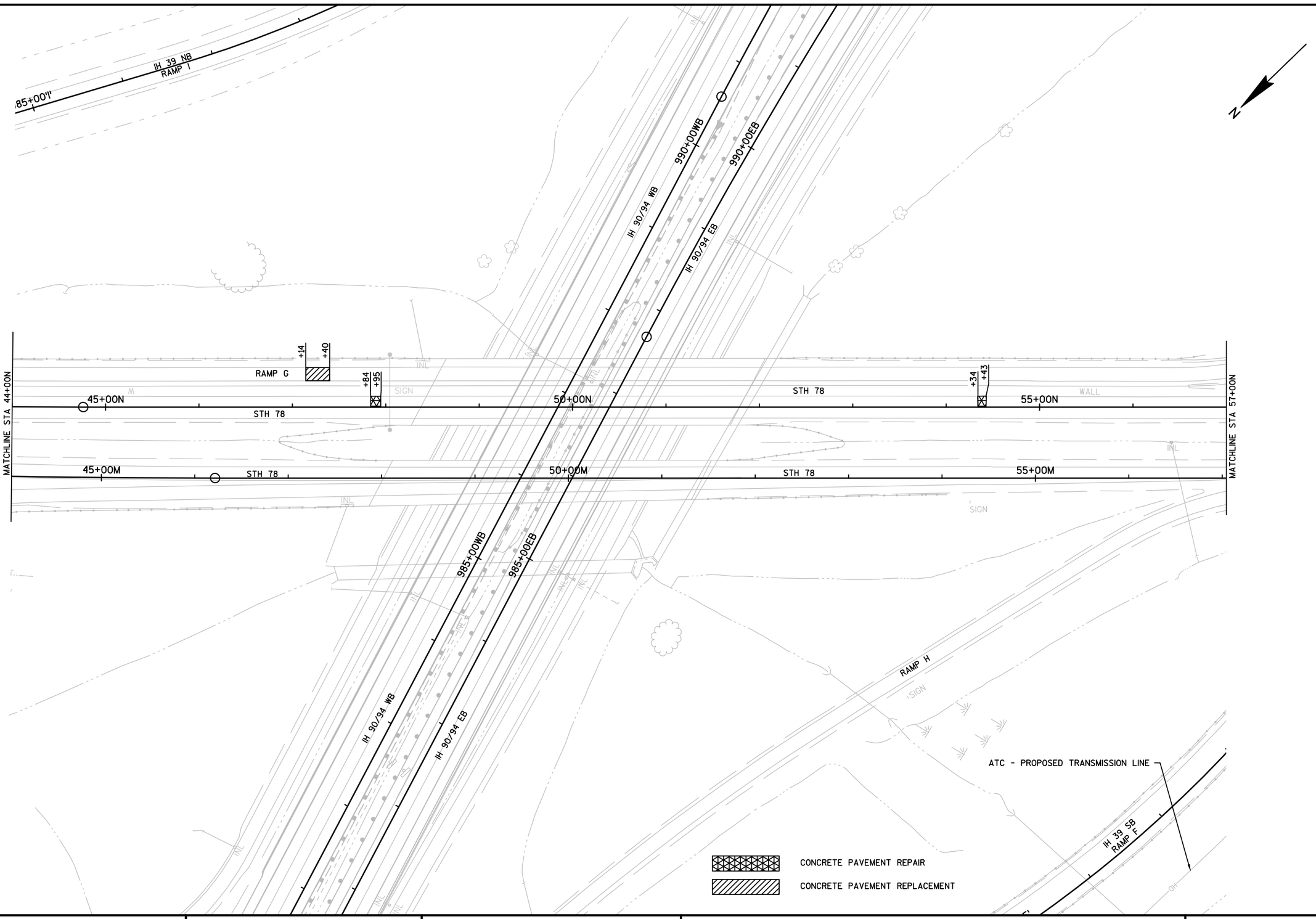
CONCRETE PAVEMENT REPLACEMENT



PROJECT NO: 1010-02-85	HWY: IH 39	COUNTY: COLUMBIA	PLAN: STH 78	SHEET 130	E

FILE NAME : X:\3230900\131208.01\TECH\CAD\10100202\SHEETSPLAN\CONSTRUCTION PROJECT 2, 1010-02-85\050220_PN-RAMP MN.DWG PLOT DATE : 4/24/2017 2:00 PM PLOT BY : TIMOTHY VELTE PLOT NAME : PLOT SCALE : 1:100_XREF

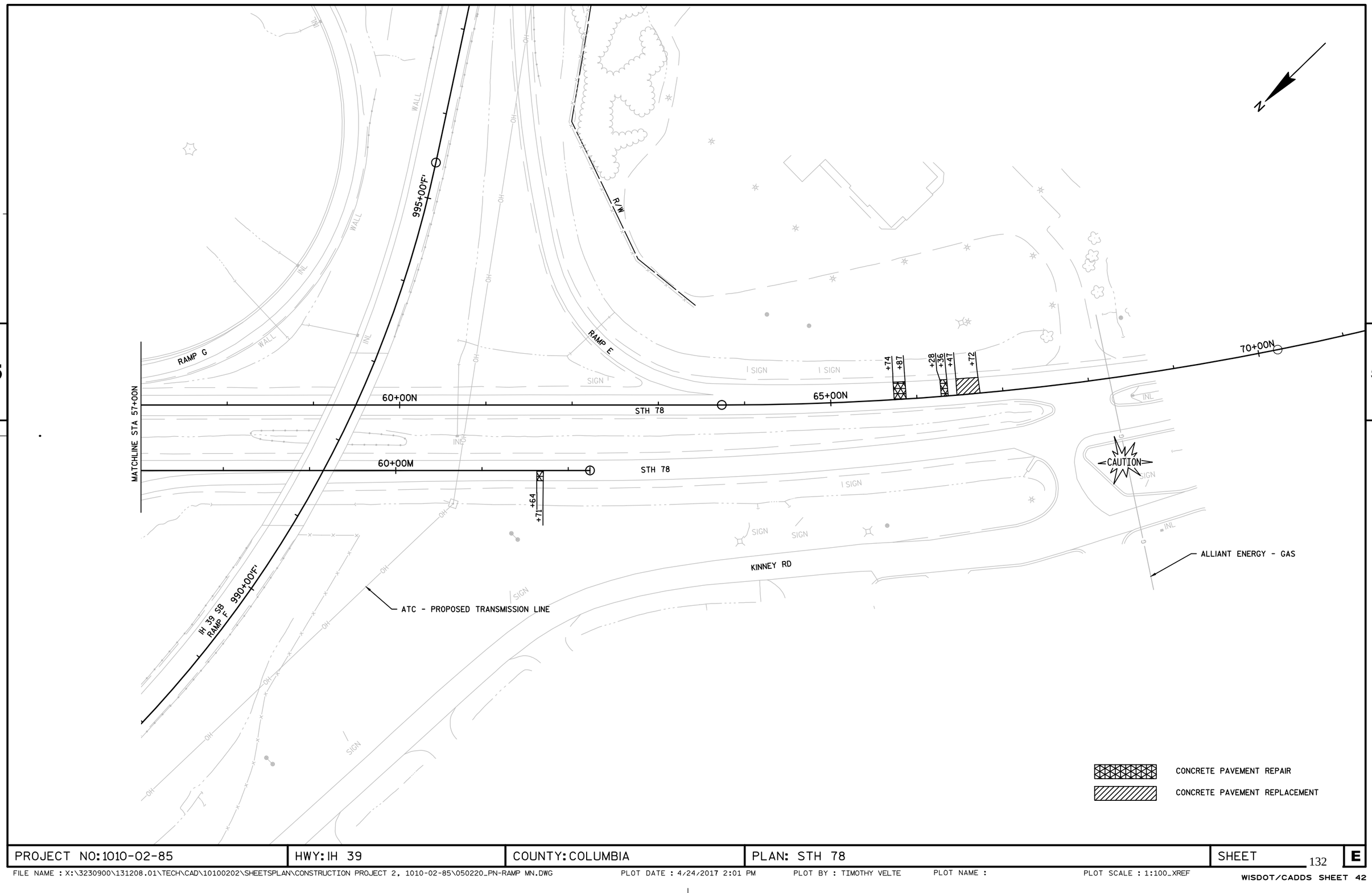
WISDOT/CADDS SHEET 42



5

PROJECT NO: 1010-02-85	HWY: IH 39	COUNTY: COLUMBIA	PLAN: STH 78	SHEET	E

FILE NAME : X:\3230900\131208.01\TECH\CAD\10100202\SHEETSPLAN\CONSTRUCTION PROJECT 2, 1010-02-85\050220_PN-RAMP MN.DWG PLOT DATE : 4/24/2017 2:00 PM PLOT BY : TIMOTHY VELTE PLOT NAME : PLOT SCALE : 1:100_XREF
WISDOT/CADDS SHEET 42



PROJECT NO: 1010-02-85	HWY: IH 39	COUNTY: COLUMBIA	PLAN: STH 78	SHEET 132	E

FILE NAME : X:\3230900\131208.01\TECH\CAD\10100202\SHEETSPLAN\CONSTRUCTION PROJECT 2, 1010-02-85\050220_PN-RAMP MN.DWG PLOT DATE : 4/24/2017 2:01 PM PLOT BY : TIMOTHY VELTE PLOT NAME : PLOT SCALE : 1:100_XREF

Standard Detail Drawing List

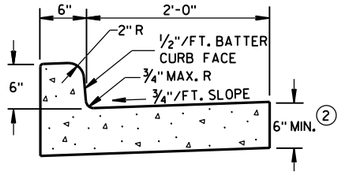
08D01-19	CONCRETE CURB, CONCRETE CURB AND GUTTER AND TIES
08D02-06	CONCRETE SURFACE DRAINS FLUME TYPE AT STRUCTURES
08E08-03	TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS
08E09-06	SILT FENCE
08E10-02	INLET PROTECTION TYPE A, B, C AND D
08E14-01	TRACKING PAD
08F01-11	APRON ENDWALLS FOR CULVERT PIPE
12A03-10	NAME PLATE (STRUCTURES)
12A04-03	STRUCTURE IDENTIFICATION PLAQUES, RAMP GATES, SIGN BRIDGES & OVERHEAD SIGN SUPPORTS & TRAFFIC SIGNALS
13A03-06	CONCRETE PAVEMENT SHOULDERS
13A05-05A	SHOULDER RUMBLE STRIP, MILLING
13A05-05B	SHOULDER RUMBLE STRIP, MILLING
13A07-02	CONTINUOUSLY REINFORCED CONCRETE PAVEMENT REPAIR AND REPLACEMENT
13B02-08A	CONCRETE PAVEMENT APPROACH SLAB
13B02-08B	STRUCTURAL APPROACH SLAB AND CONCRETE PAVEMENT APPROACH SLAB
13C01-18	CONCRETE PAVEMENT LONGITUDINAL JOINTS AND TIES
13C09-13A	CONCRETE PAVEMENT REPAIR AND REPLACEMENT
13C09-13B	CONCRETE PAVEMENT REPAIR AND REPLACEMENT
13C09-13C	CONCRETE PAVEMENT REPAIR AND REPLACEMENT
13C11-11A	RURAL DOWELED CONCRETE PAVEMENT
13C11-11B	RURAL DOWELED CONCRETE PAVEMENT
13C13-08	URBAN DOWELED CONCRETE PAVEMENT
13C18-05A	CONCRETE PAVEMENT JOINTING
13C18-05B	CONCRETE PAVEMENT STEEL REINFORCEMENT
13C18-05C	CONCRETE PAVEMENT JOINT TYPES
13C18-05D	CONCRETE PAVEMENT JOINTING AT UTILITY FIXTURES
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
14B20-11B	STEEL THRIE BEAM STRUCTURE APPROACH, CONNECTION TO SQUARE END PARAPETS
14B22-06A	CONCRETE BARRIER, SINGLE-FACED (WITH ANCHORAGE)
14B22-06B	CONCRETE BARRIER, SINGLE-FACED (WITH ANCHORAGE)
14B42-04A	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-04B	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-04C	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
15A02-09	DELINEATOR POST, DELINEATOR REFLECTOR AND DELINEATOR BRACKET WITH REFLECTIVE SHEETING
15A06-02	DELINEATOR LAYOUT
15C02-06A	BARRICADES AND SIGNS FOR MAINLINE CLOSURES

6

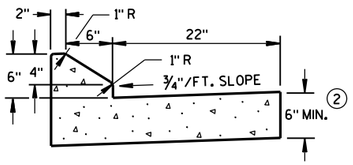
Standard Detail Drawing List

15C02-06B	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-06C	DETOUR SIGNING FOR MAINLINE CLOSURES
15C04-03	TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45 M.P.H. OR GREATER TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC
15C08-17A	LONGITUDINAL MARKING (MAINLINE)
15C11-06	FLEXIBLE TUBULAR MARKER POST
15C31-02A	PAVEMENT MARKING (RAMPS AND GORES)
15C31-02B	PAVEMENT MARKING MAJOR SPLIT FREEWAY TO FREEWAY
15C31-02C	PAVEMENT MARKING FOR PARALLEL ON-RAMP AND PARALLEL OFF-RAMP
15D03-04	TRAFFIC CONTROL, LANE CLOSURE, SPEEDS GREATER THAN 40 M.P.H. WITH BARRIER
15D12-06A	TRAFFIC CONTROL, LANE CLOSURE
15D12-06B	TRAFFIC CONTROL, LANE CLOSURE, SPEED REDUCTION
15D14-03	TRAFFIC CONTROL, TWO LANE CLOSURE ON FREEWAY OR EXPRESSWAY, SHORT-TERM (LESS THAN 24 HOURS)
15D15-02	TRAFFIC CONTROL, EXIT AND ENTRANCE RAMP WITHIN LANE CLOSURE
15D16-03	TRAFFIC CONTROL, EXIT RAMP CLOSURE
15D27-03	TRAFFIC CONTROL, SHOULDER CLOSURE ON DIVIDED ROADWAY, SPEEDS GREATER THAN 40 MPH
15D38-01A	TEMPORARY TRAFFIC CONTROL FIXED MESSAGE SIGNS
15D38-01B	ATTACHMENT OF SIGNS TO POSTS

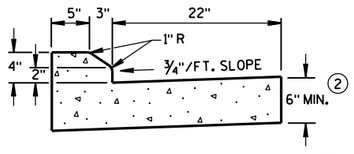
6



TYPES A & D ①

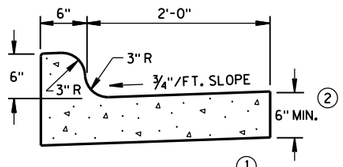


6" SLOPED CURB TYPES G & J ①

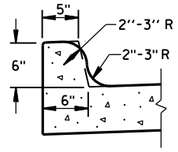


4" SLOPED CURB TYPES G & J ①

CONCRETE CURB & GUTTER 30"

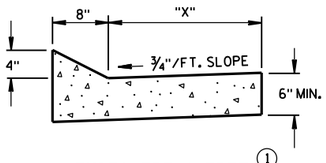


TYPES K & L ①



OPTIONAL CURB SHAPE FOR TYPES K & L ①

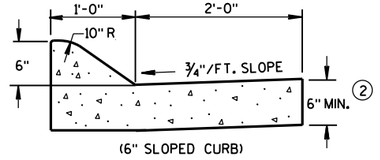
CONCRETE CURB & GUTTER 30"



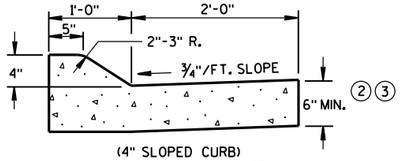
TYPES TBT & TBTT ①

CONCRETE CURB & GUTTER

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

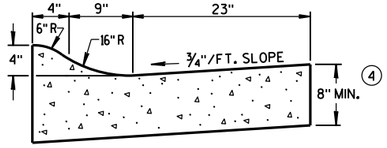


(6" SLOPED CURB)



(4" SLOPED CURB)

TYPES A & D ①



4" SLOPED CURB TYPES R & T ①⑤

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.

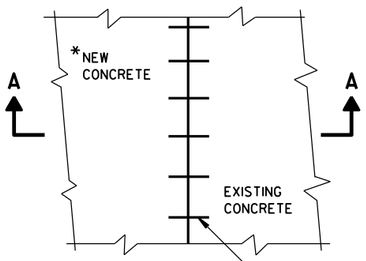
② THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 6" MINIMUM GUTTER THICKNESS IS MAINTAINED.

③ USE 8" MINIMUM GUTTER THICKNESS WHEN USED WITH AN ADJACENT CONCRETE TRUCK APRON PLACED BEHIND BACK OF CURB.

④ 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.

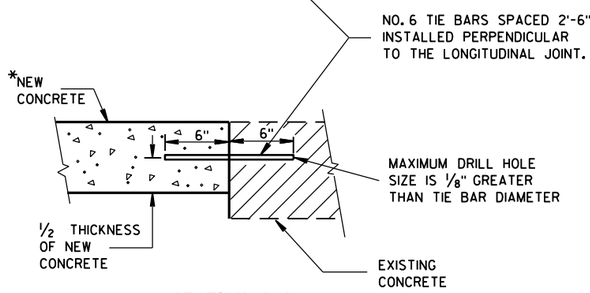
⑤ THE FACE OF CURB IS 6" FROM THE BACK OF CURB.

⑥ WHEN REVERSE SLOPE GUTTER IS REQUIRED, THE LOCATION(S) WILL BE SHOWN ELSEWHERE IN THE PLAN.



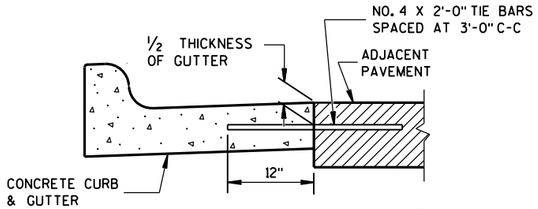
PLAN VIEW

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

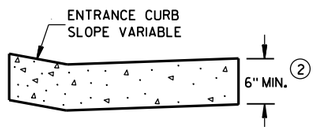


SECTION A-A

TIE BARS DRILLED INTO EXISTING PAVEMENT

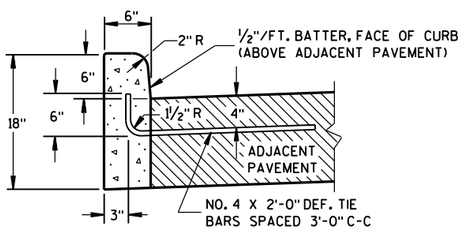


TYPICAL TIE BAR LOCATION ①

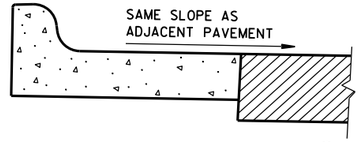


DRIVEWAY ENTRANCE CURB

(WHEN DIRECTED BY THE ENGINEER)

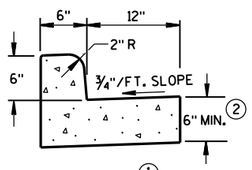


① TYPES A & D



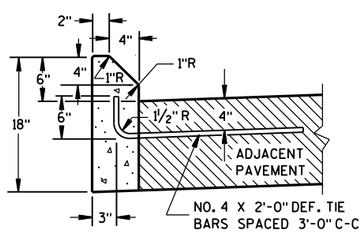
⑥ REVERSE SLOPE GUTTER

(TYPICAL FOR ALL CURB & GUTTER TYPES)



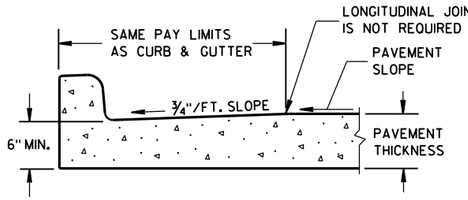
① TYPES A & D

CONCRETE CURB & GUTTER 18"

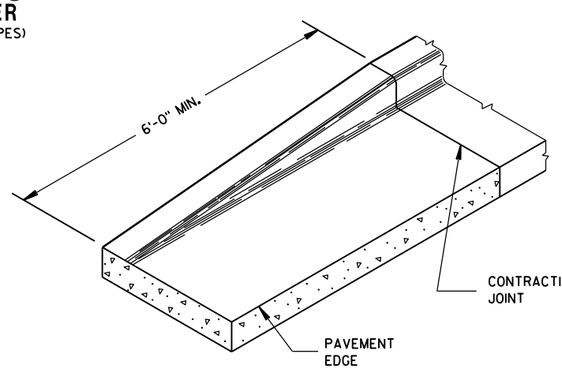


① TYPES G & J

CONCRETE CURB



PARTIAL SECTION OF PAVEMENT WITH INTEGRAL CURB & GUTTER



END SECTION CURB & GUTTER

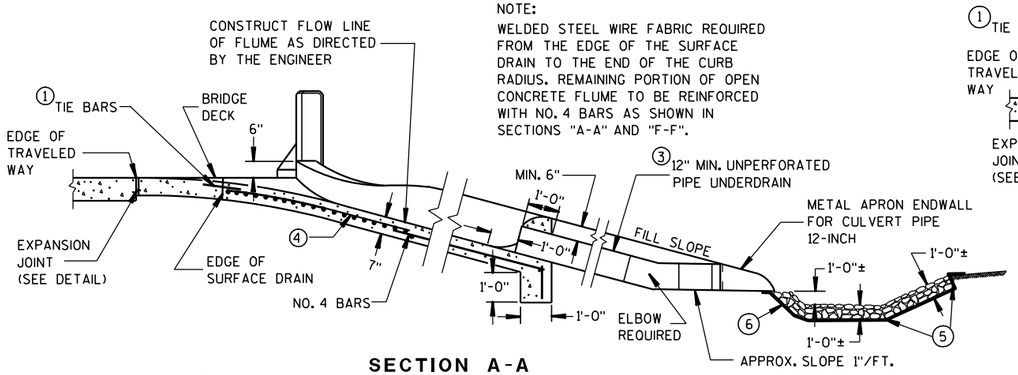
CONCRETE CURB, CONCRETE CURB & GUTTER AND TIES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

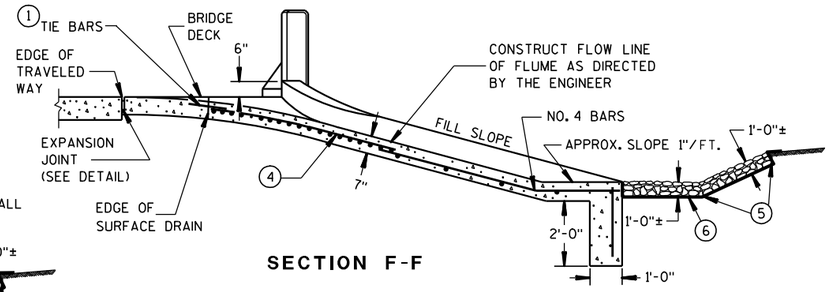
APPROVED
June, 2016 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA

6

S.D.D. 8 D 1-19



SECTION A-A



SECTION F-F

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) PIPE UNDERDRAIN MAY BE ANY OF THE MATERIALS LISTED IN SECTION 612.2 OF THE STANDARD SPECIFICATIONS EXCEPT DRAIN TILE.

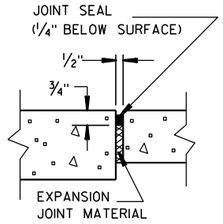
(4) MINIMUM REINFORCEMENT SHALL BE 6" X 6" - W4.0 X W4.0 OR NO. 3 BARS LONGITUDINAL AND TRANSVERSE SPACING 12" C-C.

(5) LIMITS OF ADDITIONAL RIPRAP WHEN SPECIAL DITCH IS REQUIRED.

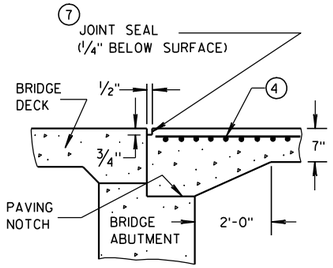
(6) GEOTEXTILE FABRIC, TYPE 'R"

(7) HOT POURED SEALANT UNLESS OTHERWISE SPECIFIED.

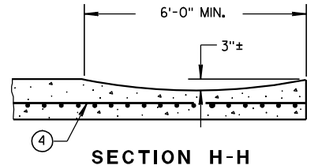
(8) THIS DIMENSION MAY VARY DEPENDING ON THE SPACING OF POSTS FOR THE STEEL PLATE BEAM GUARD. THE TYPICAL LOCATION FOR THE SURFACE DRAIN IS WHERE THE POST SPACING WIDENS TO 3'-1½".



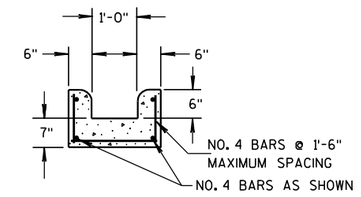
EXPANSION JOINT DETAIL



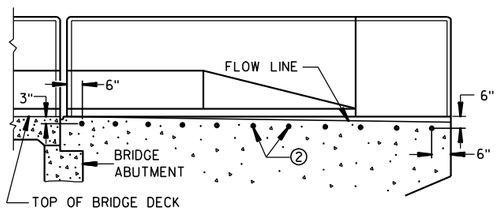
SECTION D-D



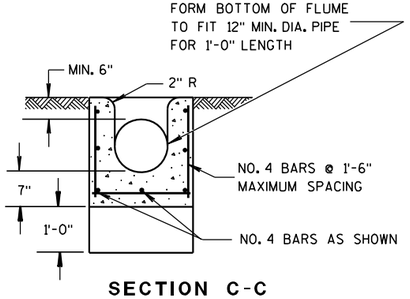
SECTION H-H



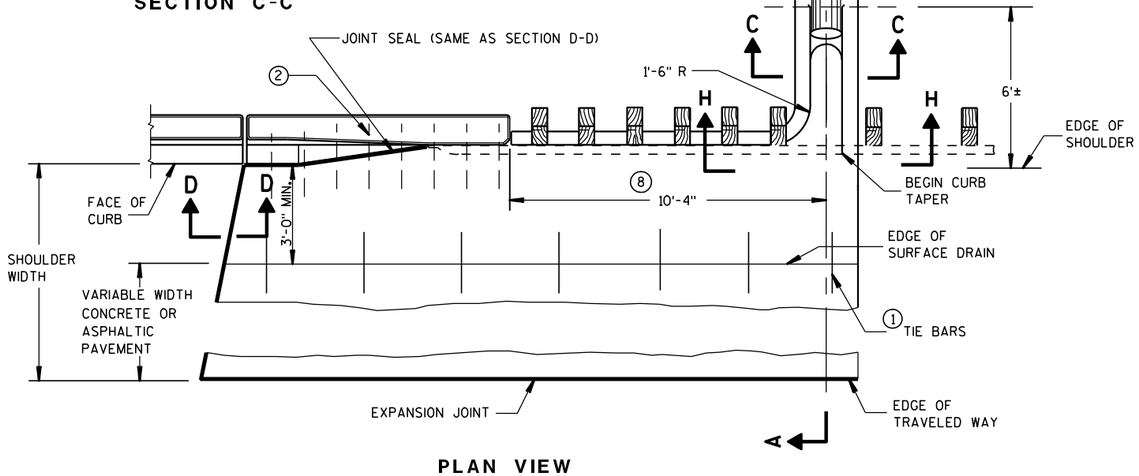
SECTION E-E



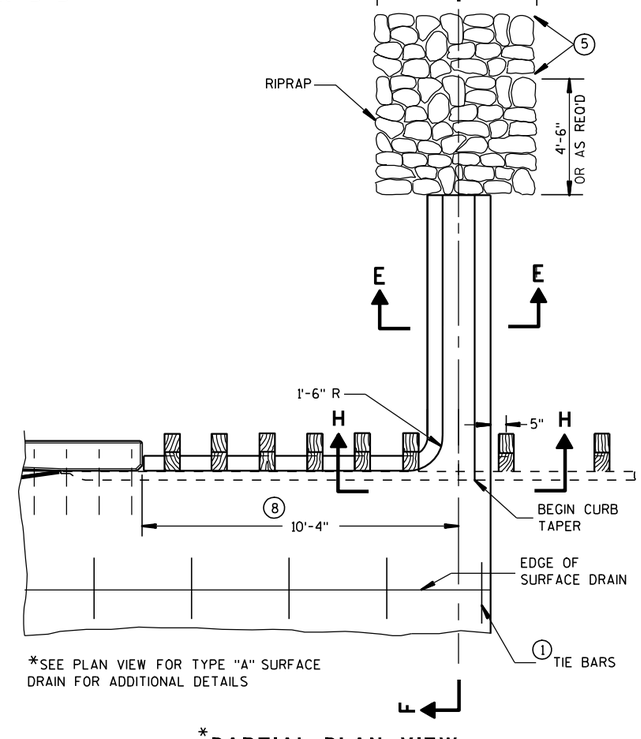
LOCATION OF TIE BARS IN WINGWALL



SECTION C-C



PLAN VIEW
SURFACE DRAIN WITH PIPE
TYPE "A"



*SEE PLAN VIEW FOR TYPE "A" SURFACE DRAIN FOR ADDITIONAL DETAILS

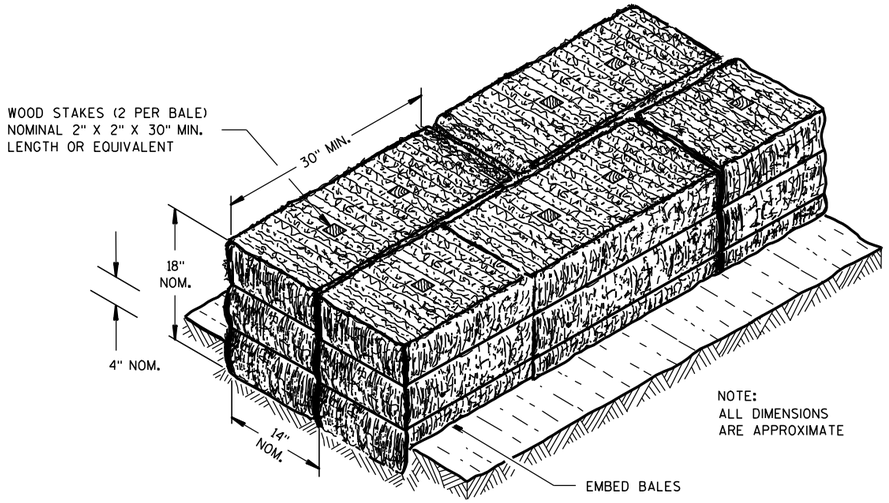
***PARTIAL PLAN VIEW**
SURFACE DRAIN WITHOUT PIPE
TYPE "B"

CONCRETE SURFACE DRAINS
FLUME TYPE
AT STRUCTURES

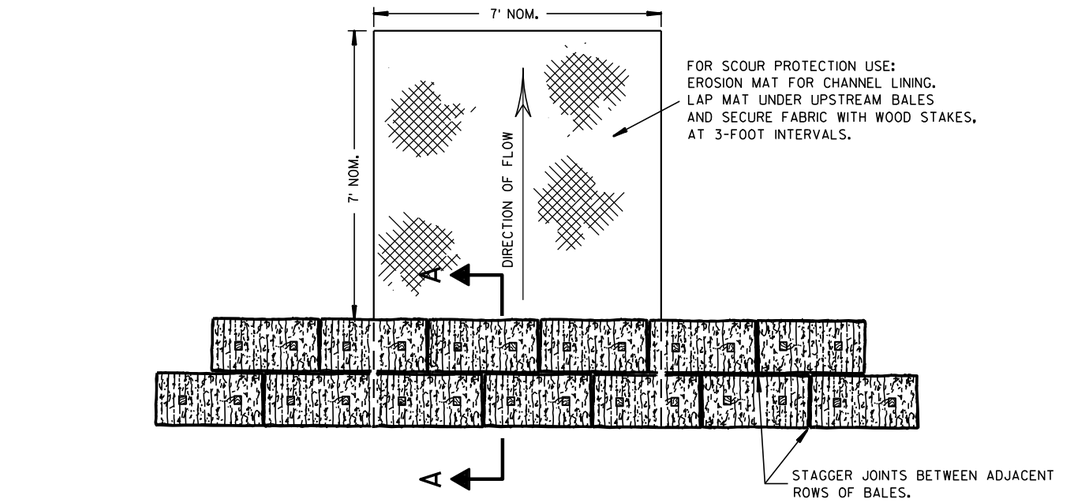
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
9/4/08 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS ENGINEER
FHWA

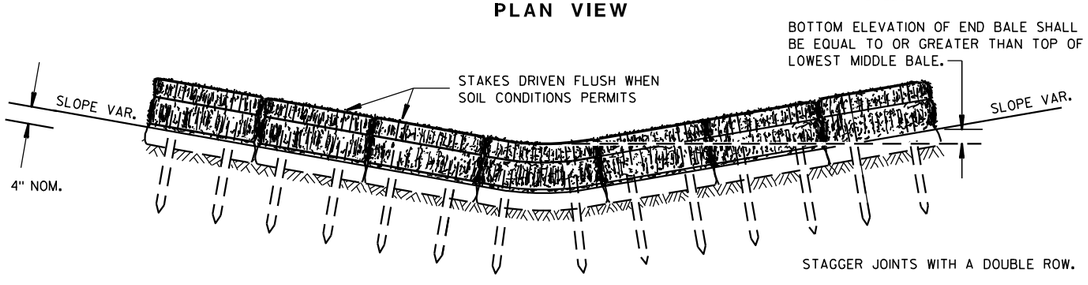
6
S.D.D. 8 D 2-6



SECTION A-A



PLAN VIEW



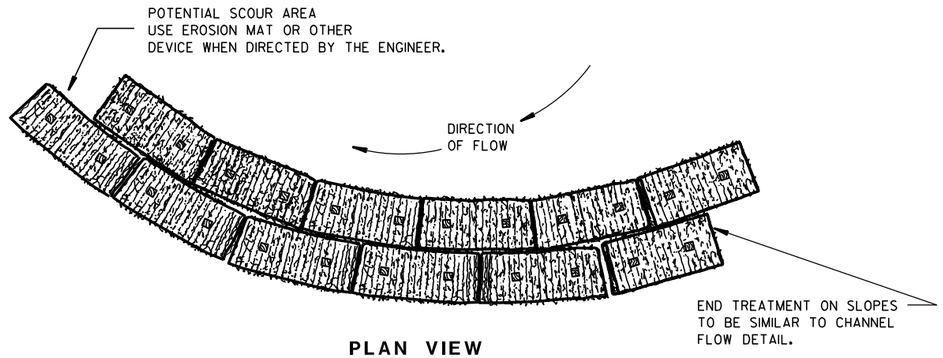
FRONT ELEVATION

TEMPORARY DITCH CHECK USING EROSION BALES (1)

GENERAL NOTES

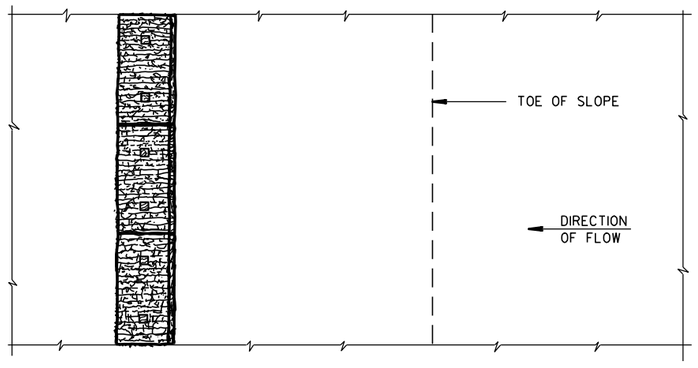
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

(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.

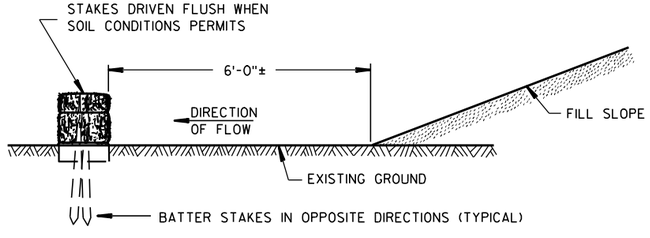


PLAN VIEW

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

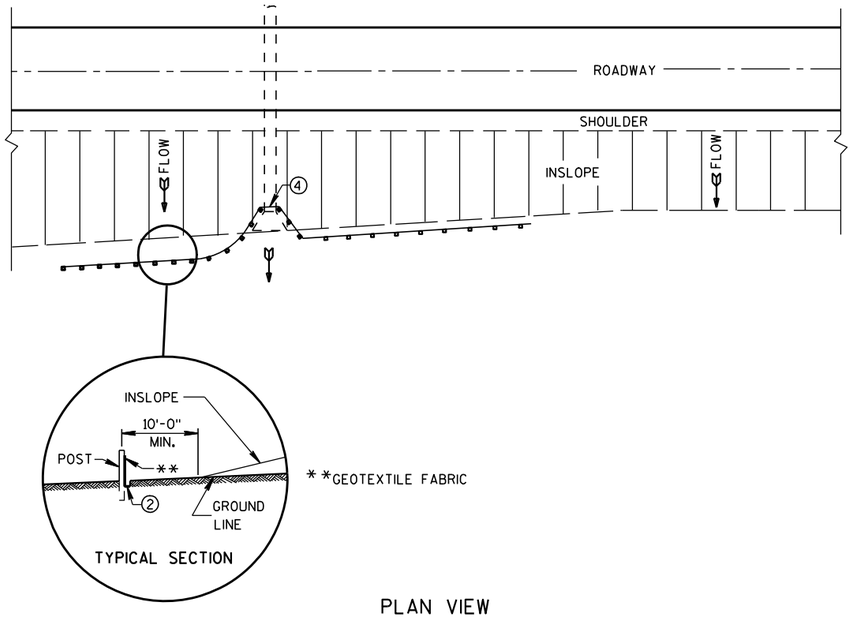
APPROVED
6/04/02 — DATE
/S/ Beth Cannestra — CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

6

S.D.D. 8 E 8-3

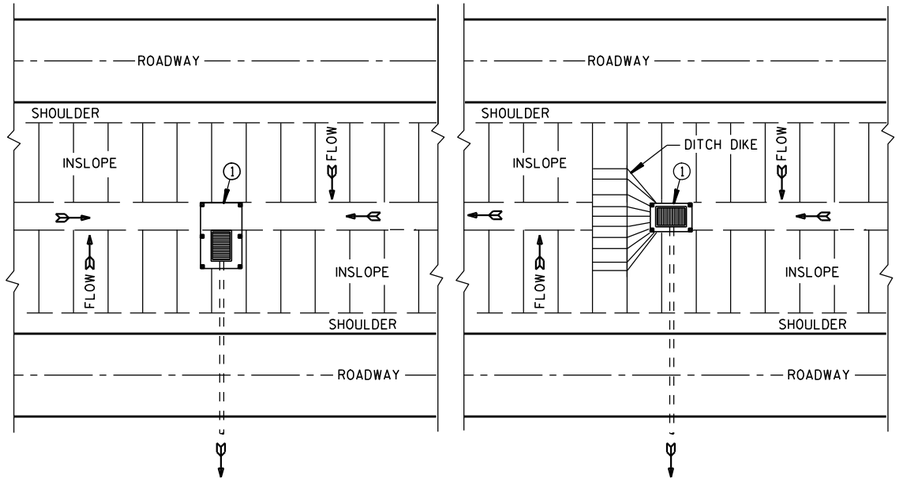
6

S.D.D. 8 E 8-3



PLAN VIEW

TYPICAL APPLICATION OF SILT FENCE



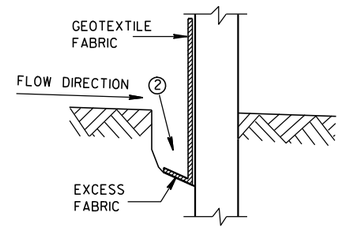
PLAN VIEW

SILT FENCE AT MEDIAN SURFACE DRAINS

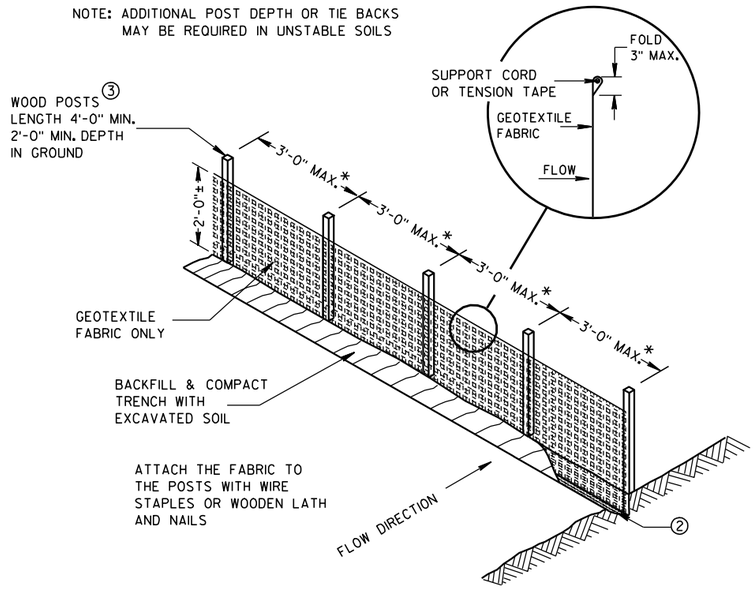
GENERAL NOTES

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

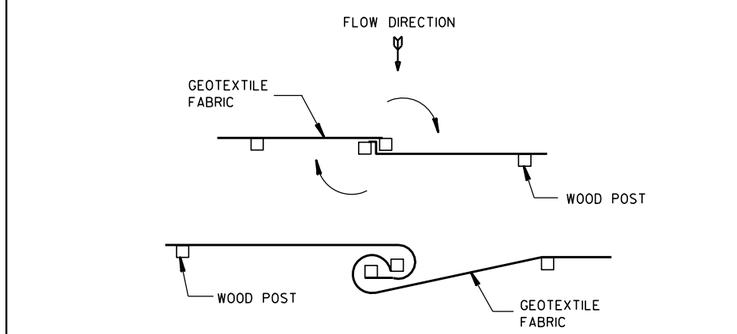
1. HORIZONTAL BRACE REQUIRED WITH 2" X 4" WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS.
2. FOR MANUAL INSTALLATIONS THE TRENCH SHALL BE A MINIMUM OF 4" WIDE & 6" DEEP TO BURY AND ANCHOR THE GEOTEXTILE FABRIC. FOLD MATERIAL TO FIT TRENCH AND BACKFILL & COMPACT TRENCH WITH EXCAVATED SOIL.
3. WOOD POSTS SHALL 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.



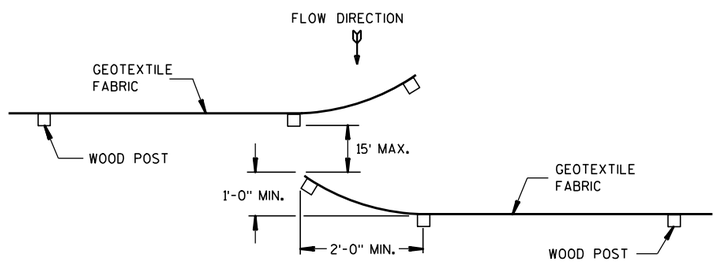
TRENCH DETAIL



SILT FENCE

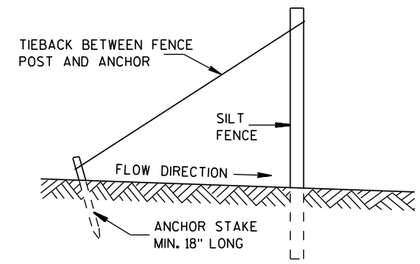


TWIST METHOD



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

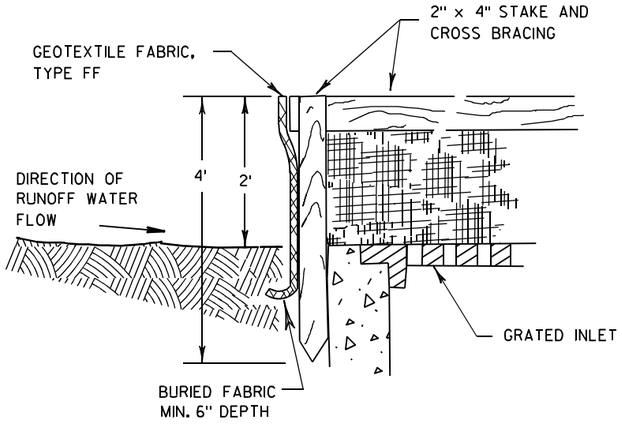
APPROVED
4-29-05 DATE
/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

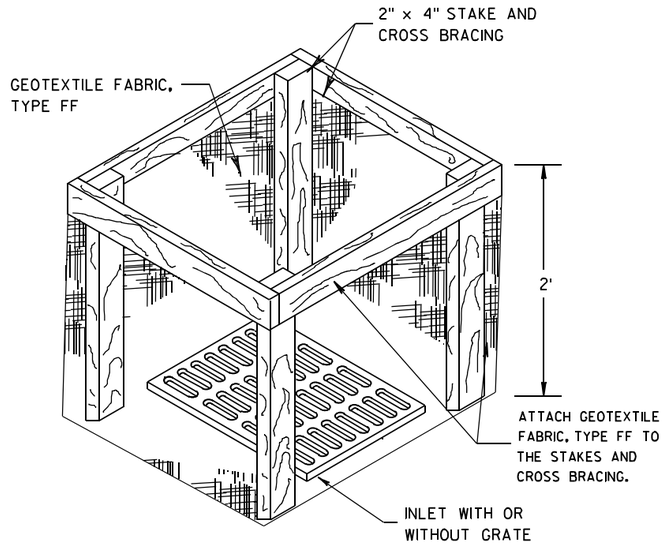
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S.D.D. 8 E 9-6

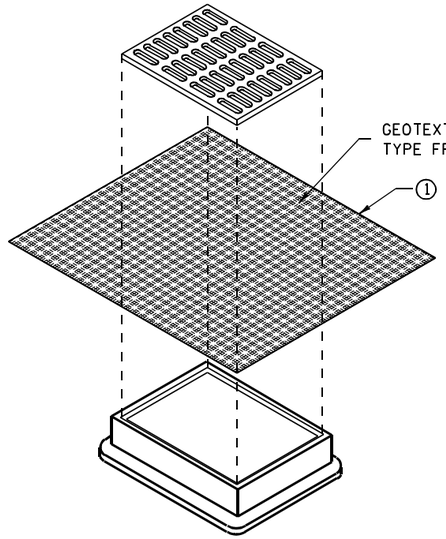
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S.D.D. 8 E 9-6



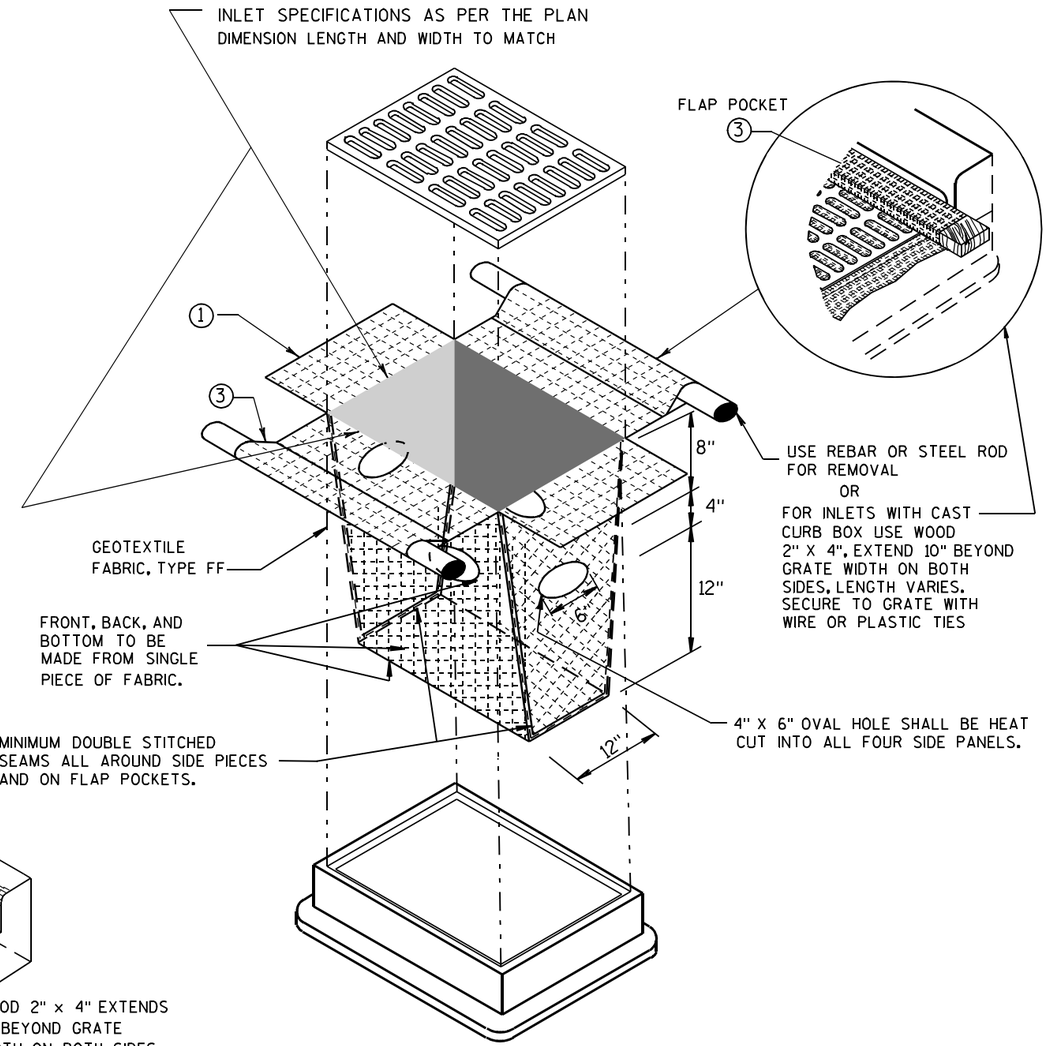


INLET PROTECTION, TYPE A



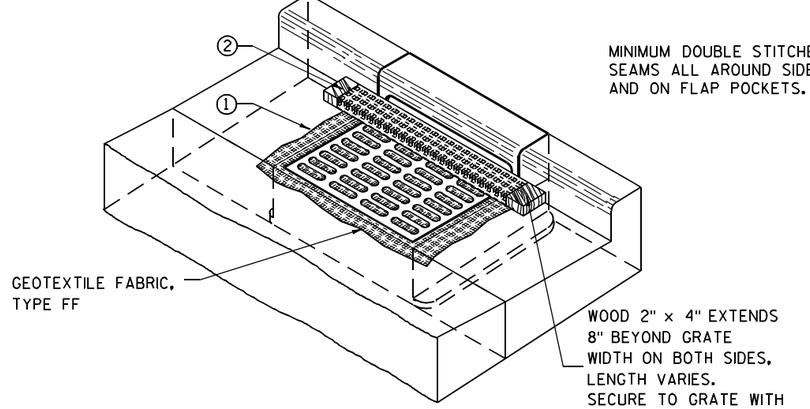
INLET PROTECTION, TYPE B
(WITHOUT CURB BOX)

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



INLET PROTECTION, TYPE D

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



INLET PROTECTION, TYPE C (WITH CURB BOX)

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.

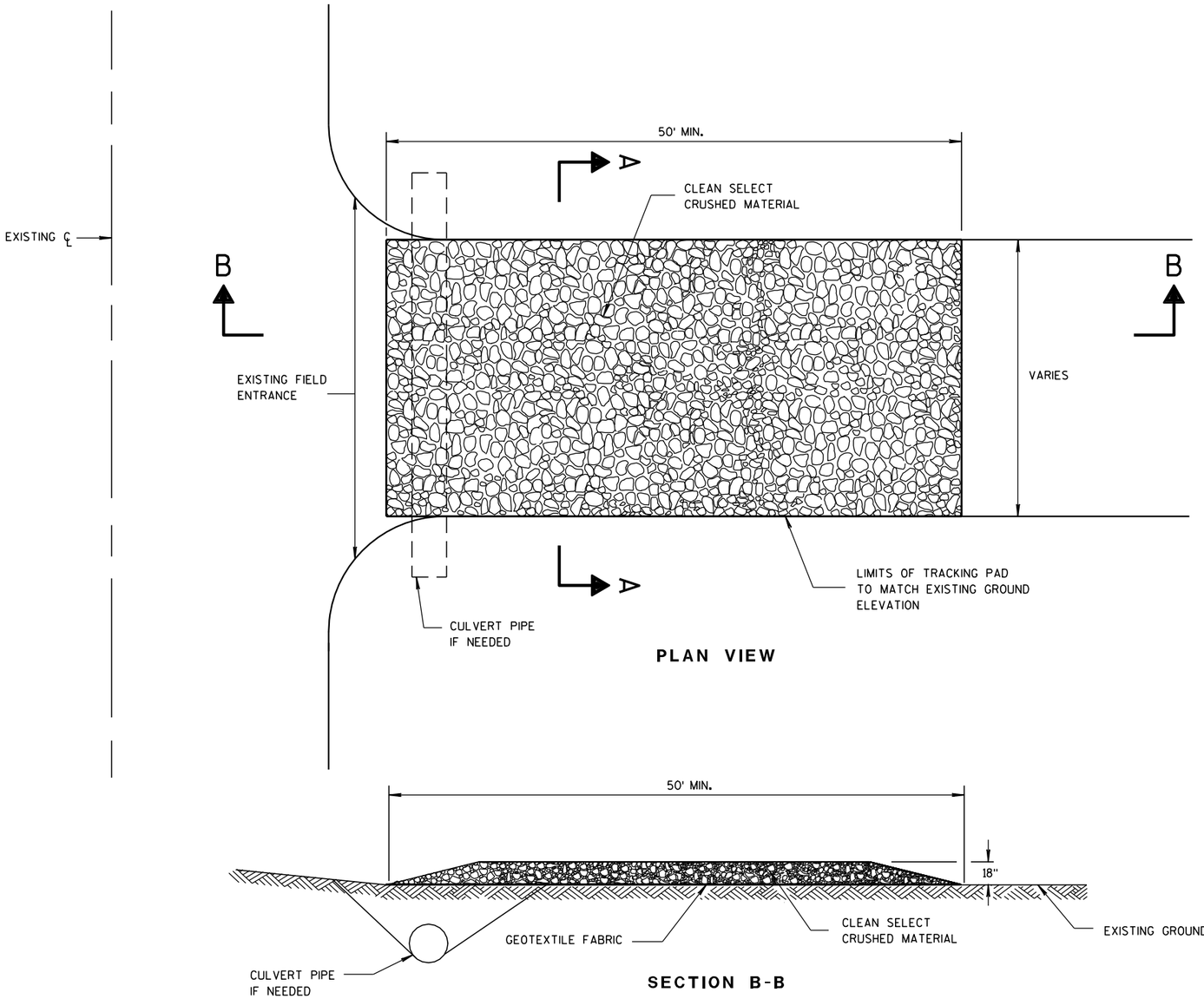
THE INSTALLED BAG SHALL HAVE A MINIMUM SIDE CLEARANCE, BETWEEN THE INLET WALLS AND THE BAG, MEASURED AT THE BOTTOM OF THE OVERFLOW HOLES, OF 3". WHERE NECESSARY THE CONTRACTOR SHALL CINCH THE BAG, USING PLASTIC ZIP TIES, TO ACHIEVE THE 3" CLEARANCE. THE TIES SHALL BE PLACED AT A MAXIMUM OF 4" FROM THE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



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.

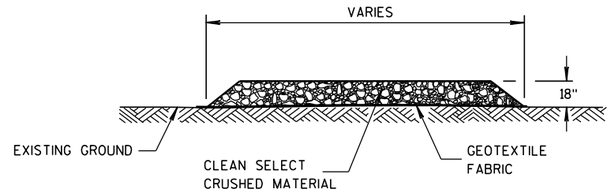
TRACKING PAD TO BE REMOVED AFTER CONSTRUCTION IS COMPLETED.

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

6

S.D.D. 8 E 14-1

6

S.D.D. 8 E 14-1

METAL APRON ENDWALLS

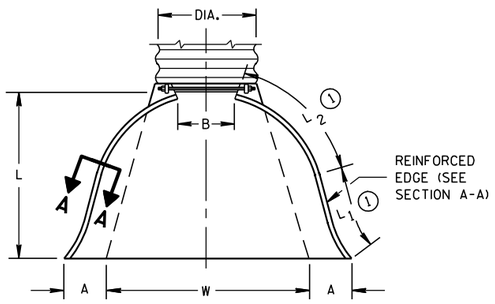
PIPE DIA. (IN.)	MIN. THICK. (Inches) STEEL	MIN. THICK. (Inches) ALUM.	DIMENSIONS (Inches) A (±1")	B (MAX.)	H (±1")	L (±1 1/2")	L1 ①	L2 ①	W (±2")	APPROX. SLOPE	BODY
12	.064	.060	6	6	6	21	12	17 1/2	24	2 1/2 to 1	1 Pc.
15	.064	.060	7	8	6	26	14	21 3/4	30	2 1/2 to 1	1 Pc.
18	.064	.060	8	10	6	31	15	28 1/4	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

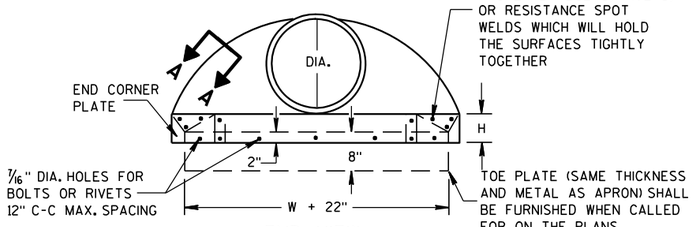
REINFORCED CONCRETE APRON ENDWALLS

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

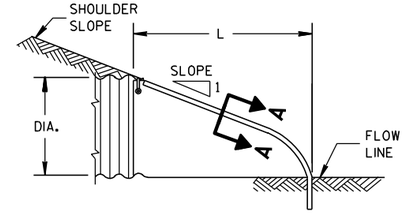
* MINIMUM
** MAXIMUM



PLAN VIEW

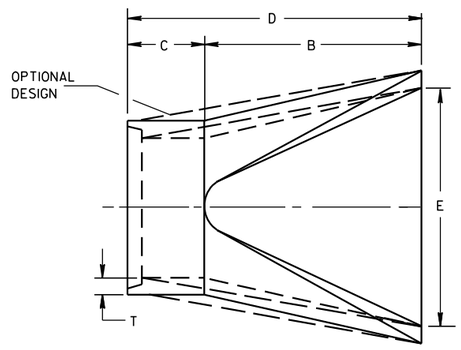


END VIEW

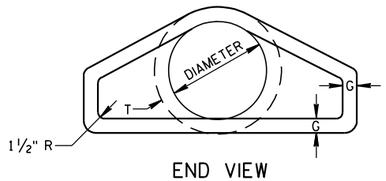


SIDE ELEVATION

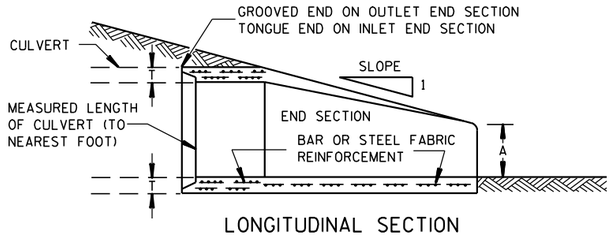
METAL ENDWALLS



PLAN

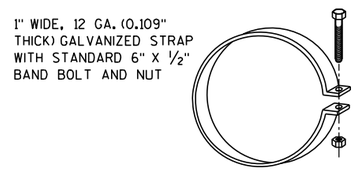


END VIEW



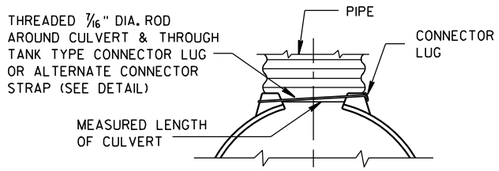
LONGITUDINAL SECTION

CONCRETE ENDWALLS

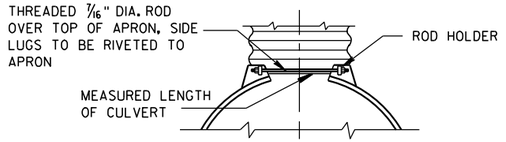


ALTERNATE FOR TYPE 1 CONNECTION

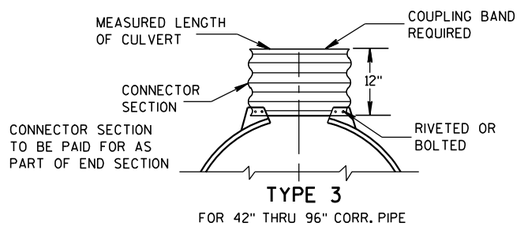
END SECTION CONNECTOR STRAP



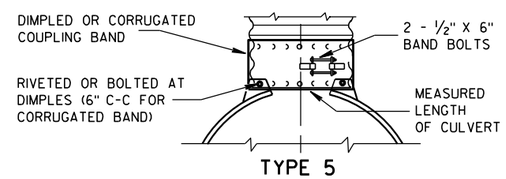
TYPE 1
FOR 12" THRU 24" CORR. PIPE



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

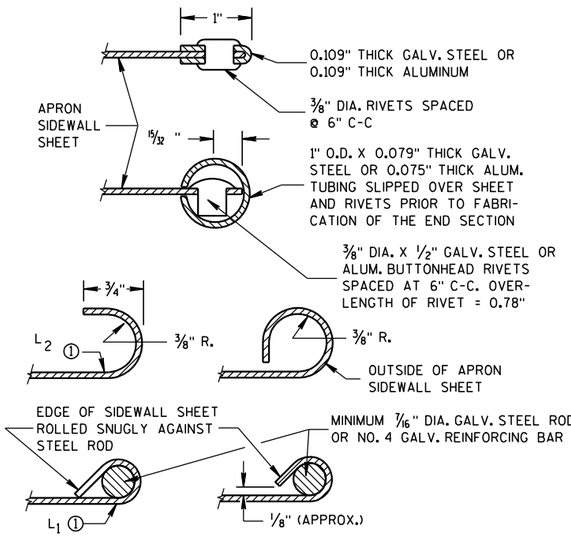
NOTE: DIMPLED BAND FITS OVER OUTSIDE OF ENDWALL. AND CORRUGATED BAND FITS INSIDE ENDWALL. DIMPLED BAND MAY BE USED WITH HELICALLY CORRUGATED PIPE.

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.

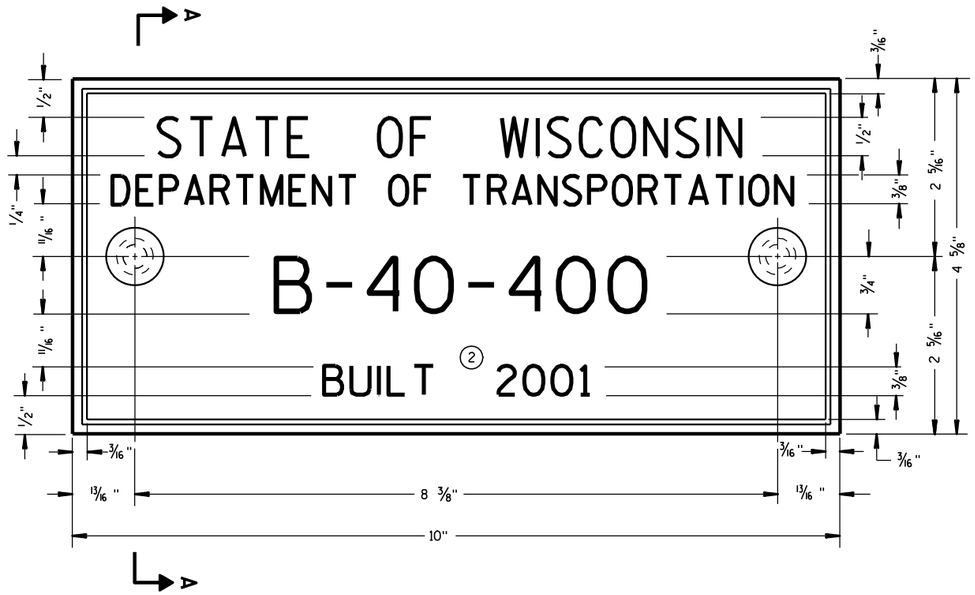
① FOR PIPE SIZES UP TO 60" DIAMETER, A 180° ROLLED EDGE MAY BE USED INSTEAD OF STEEL ROD REINFORCEMENT. SEE SECTION A-A.

APRON ENDWALLS FOR CULVERT PIPE

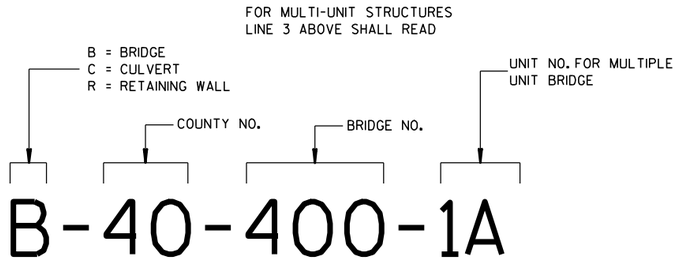
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

6
S.D.D. 8 F 1-11



TYPICAL NAME PLATE
(BRIDGES, CULVERTS, AND RETAINING WALLS)



NUMBERING DESIGNATION
MULTI-UNIT STRUCTURES

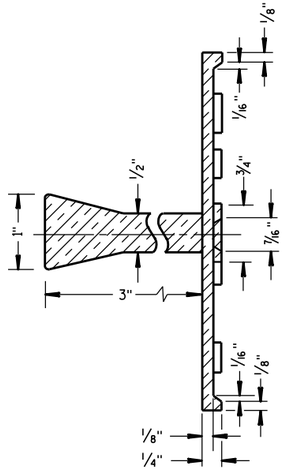
GENERAL NOTES

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.

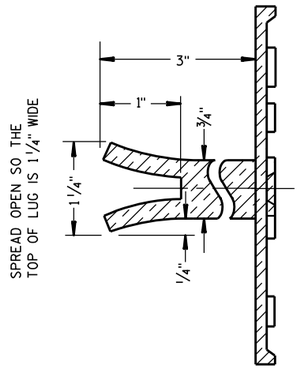
THE BRIDGE NUMBER AND YEAR BUILT SHOWN ON THIS DRAWING ARE EXAMPLES ONLY. SEE CONSTRUCTION PLANS FOR INDIVIDUAL NUMBERING AND YEAR BUILT.

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

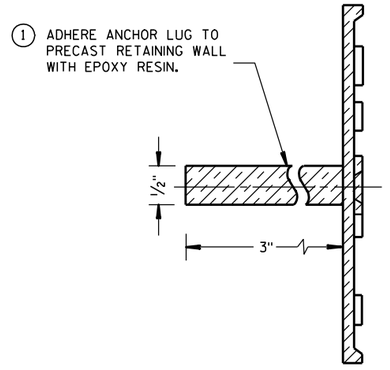
(2) REHABILITATION OF AN EXISTING STRUCTURE SHOULD USE THE DATE OF ORIGINAL STRUCTURE CONSTRUCTION.



SECTION A-A



ALTERNATE LUG



ALTERNATE LUG
(FOR ATTACHMENT TO PRECAST STRUCTURES)

NAME PLATE (STRUCTURES)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

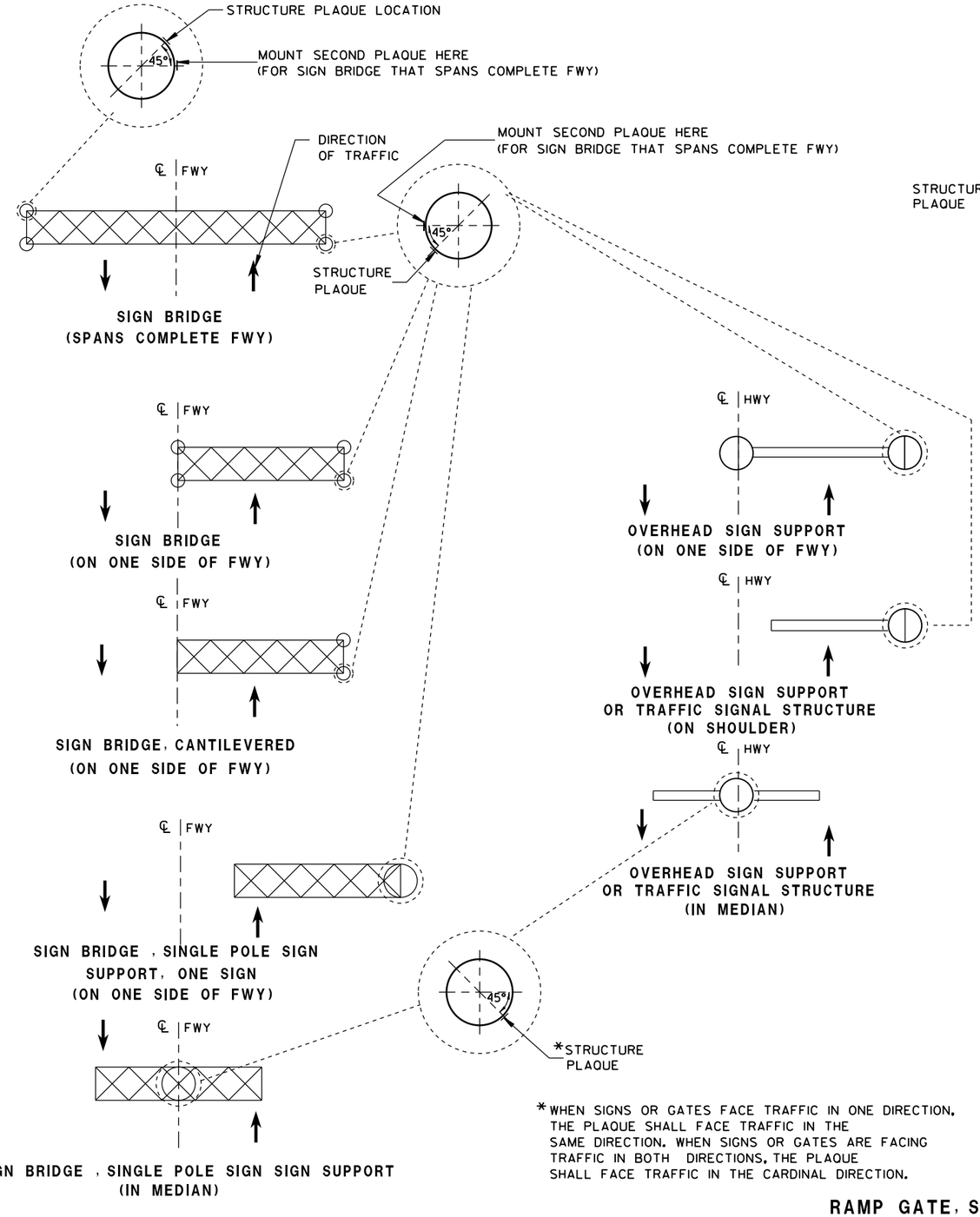
3/26/10 DATE

/S/ Scot Beck -- CHIEF STRUCTURAL DEVELOP ENGINEER

FHWA

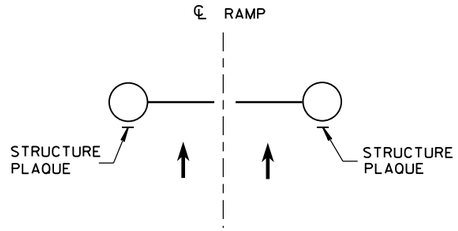
6

S.D.D. 12 A 3-10

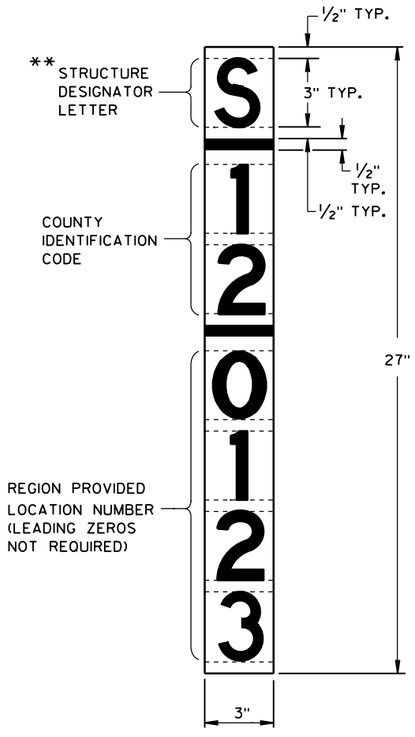


*WHEN SIGNS OR GATES FACE TRAFFIC IN ONE DIRECTION, THE PLAQUE SHALL FACE TRAFFIC IN THE SAME DIRECTION. WHEN SIGNS OR GATES ARE FACING TRAFFIC IN BOTH DIRECTIONS, THE PLAQUE SHALL FACE TRAFFIC IN THE CARDINAL DIRECTION.

LOCATION OF RAMP GATE, SIGN BRIDGE, OVERHEAD SIGN SUPPORT & TRAFFIC SIGNAL STRUCTURE PLAQUES



**RAMP GATE
(ACROSS FWY ON-RAMP)**



RAMP GATE, SIGN BRIDGE, OVERHEAD SIGN SUPPORT AND TRAFFIC SIGNAL STRUCTURE PLAQUE FOR SIGN BRIDGES AND OVERHEAD SIGN SUPPORT WHICH ARE NOT STRUCTURE MOUNTED

** LETTER "G" UTILIZED FOR RAMP GATES. LETTER "S" UTILIZED FOR SIGN BRIDGES, OVERHEAD SIGN SUPPORTS, AND TRAFFIC SIGNALS.

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.

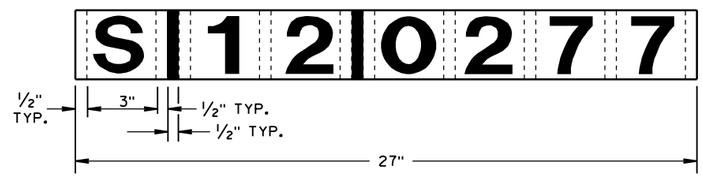
FACE - WHITE, SELF-ADHESIVE VINYL SHEETING, NON-RETROREFLECTIVE

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

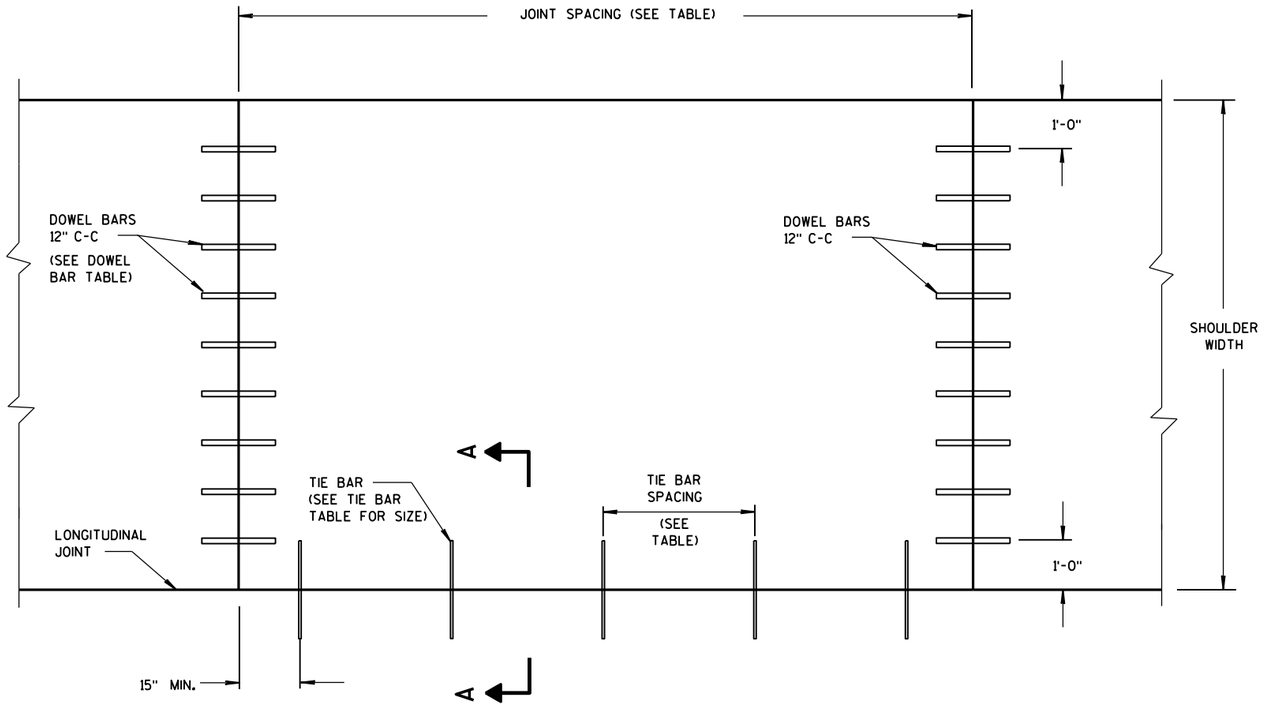
APPROVED
12/4/2012 — DATE
/S/ Travis Feltes — STATE TRAFFIC ENGINEER
FHWA

6

S.D.D. 12 A 4-3

6

S.D.D. 12 A 4-3



PLAN VIEW

CONCRETE PAVEMENT SHOULDER

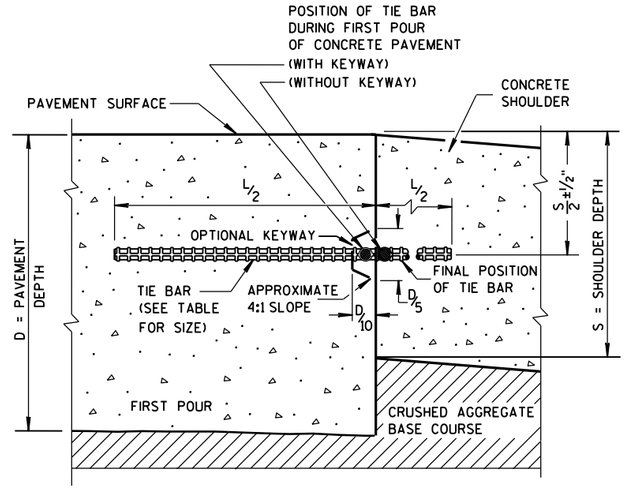
GENERAL NOTES

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.

TRANSVERSE JOINT DETAILS ARE SHOWN ELSEWHERE IN THE PLAN.

FINISH THE SHOULDER PAVEMENT CONFORMING TO SUBSECTION 415.3.8 OF THE STANDARD SPECIFICATIONS.

TIE BARS SHALL CONFORM TO SUBSECTION 505.2.4 OF THE STANDARD SPECIFICATIONS.



SECTION A-A

LONGITUDINAL CONSTRUCTION JOINT

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.

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'

*** FOR DOWELED CONCRETE SHOULDERS WITH TRAPEZOIDAL CROSS SECTIONS, CHOSE THE APPROPRIATE DOWEL BAR DIAMETER BASED ON THE SMALLER PAVEMENT DEPTH (LIKELY THE OUTSIDE EDGE OF THE SHOULDER). IF USING BASKETS, USE BASKETS FOR THE AVERAGE THICKNESS OF THE CROSS SECTION.

CONCRETE PAVEMENT SHOULDERS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

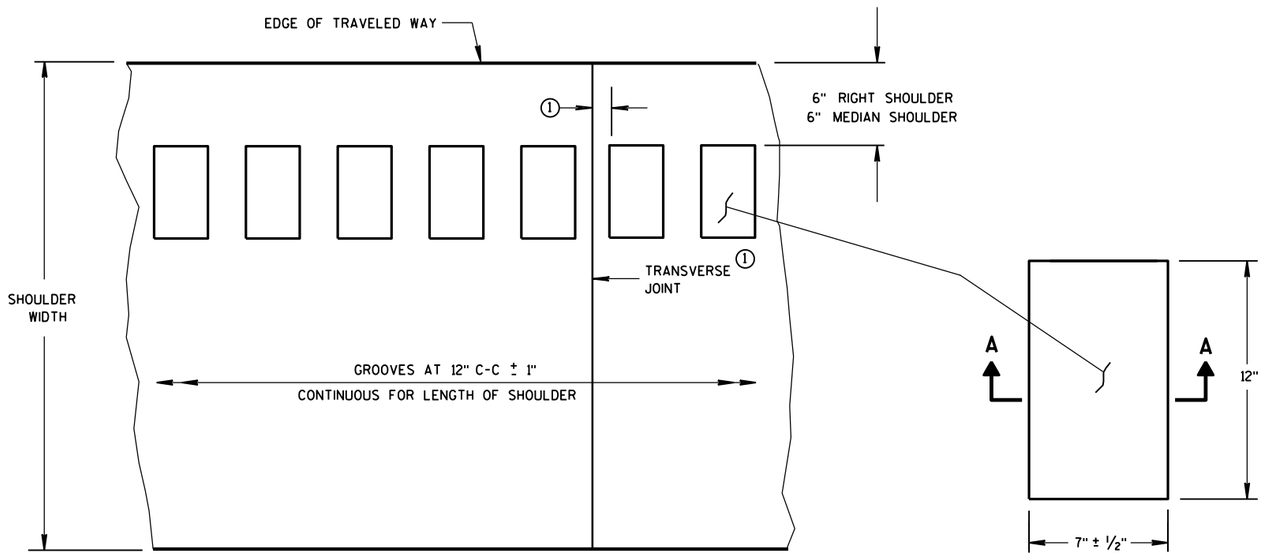
APPROVED
June, 2015 — DATE
/S/ Peter Kemp, P.E. — PAVEMENT SUPEF
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S.D.D. 13 A 3-6

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S.D.D. 13 A 3-6



PLAN VIEW
SHOULDER WITH GROOVES

PLAN VIEW
(SINGLE GROOVE)

PLACEMENT DETAIL FOR MILLED RUMBLE STRIP

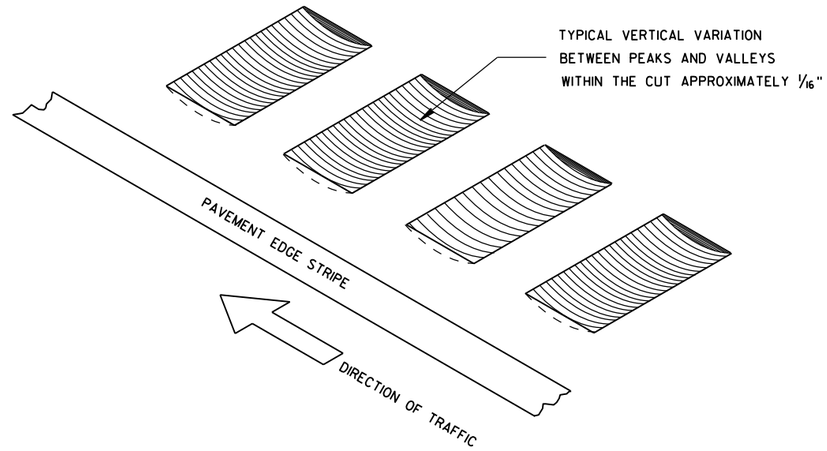
GENERAL NOTES

DETAILS OF CONSTRUCTION SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

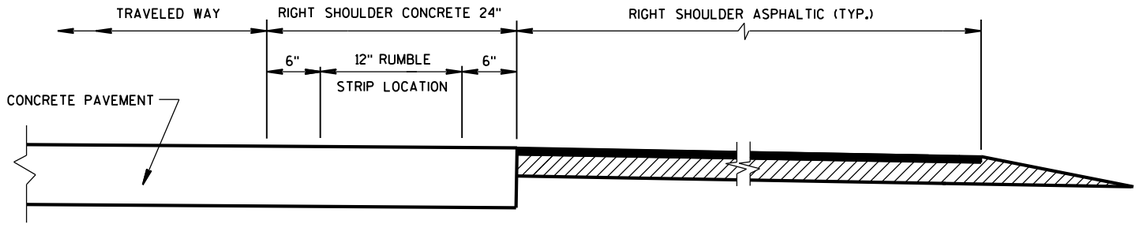
RUMBLE STRIPS ON EXPRESSWAYS

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.

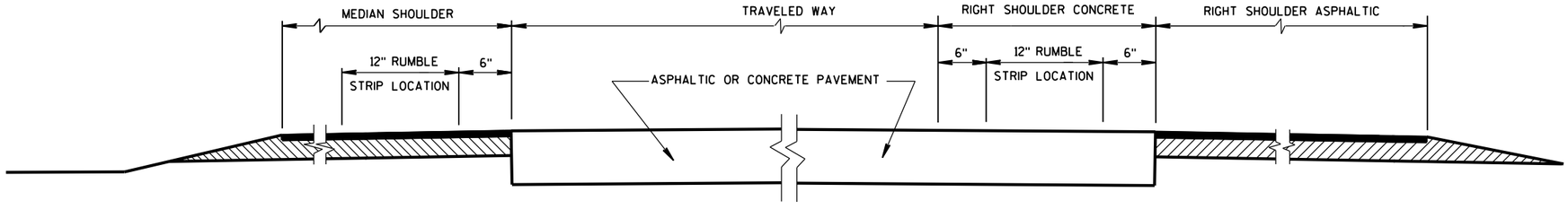
(1) CONCRETE PAVEMENT - RUMBLE STRIPS SHALL BE A MINIMUM OF 6" AWAY FROM TRANSVERSE JOINTS.



ISOMETRIC



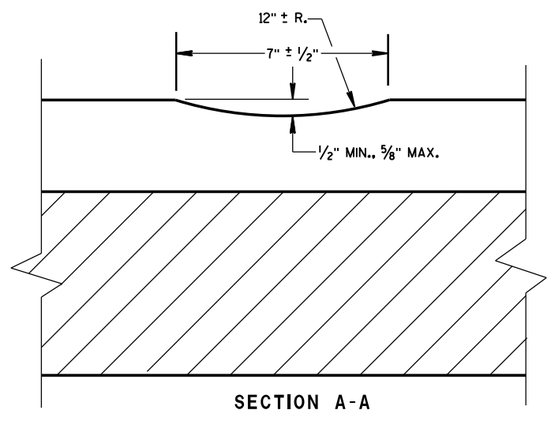
SECTION VIEW
CONCRETE PAVEMENT EXTENDS INTO RIGHT SHOULDER)



SECTION VIEW

TYPICAL LOCATIONS OF SHOULDER RUMBLE STRIPS IN RURAL DIVIDED HIGHWAYS

(ONE ROADWAY IS SHOWN)



SECTION A-A

SHOULDER RUMBLE STRIP, MILLING

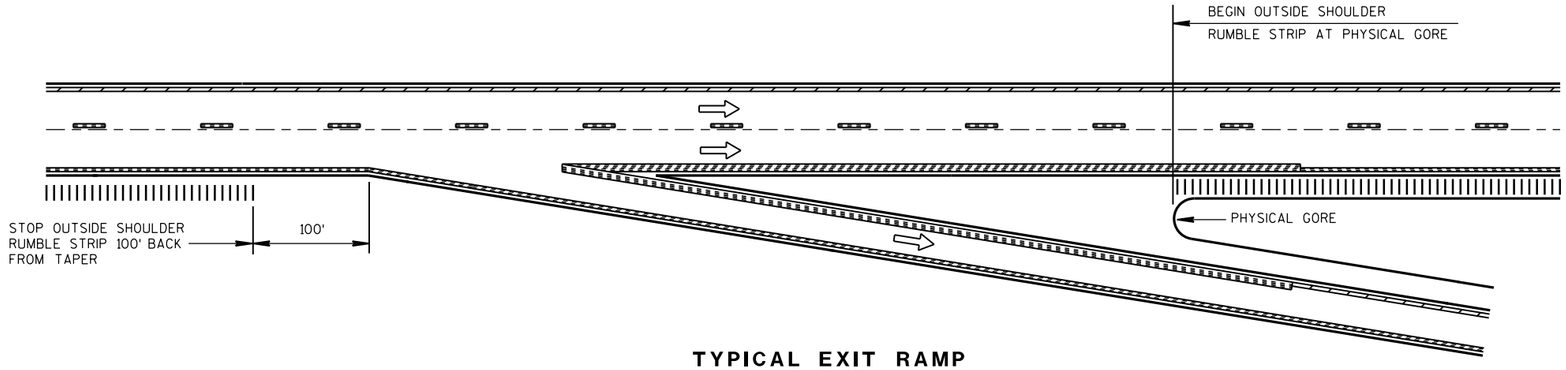
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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S.D.D. 13 A 5-5a

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S.D.D. 13 A 5-5a



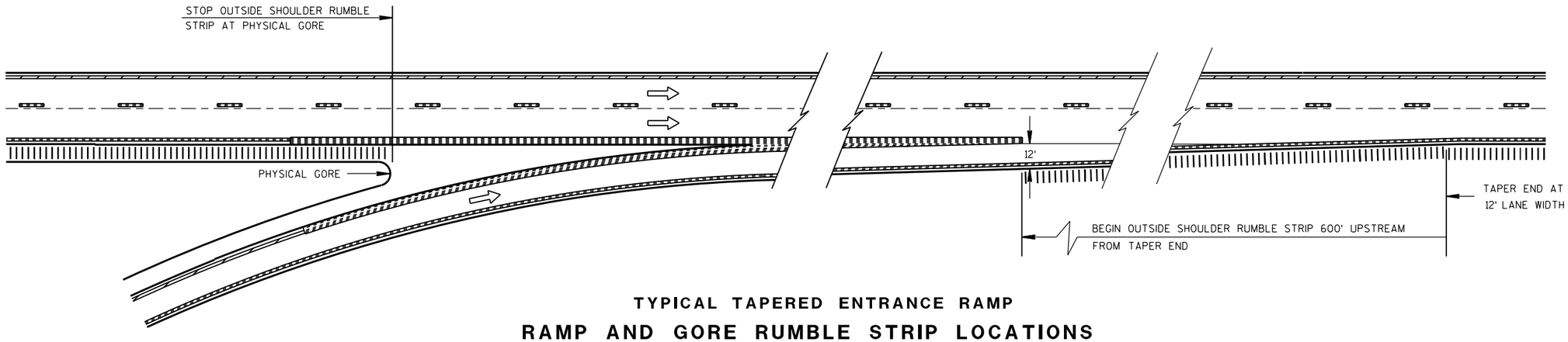
TYPICAL EXIT RAMP

NOTES:

NO RUMBLE STRIP ON EXIT, DIRECTIONAL, OR ENTRANCE RAMPS, EXCEPT NEAR THE ENTRANCE TAPER END AND ALONG THE PARALLEL RAMP AREA AS SHOWN.

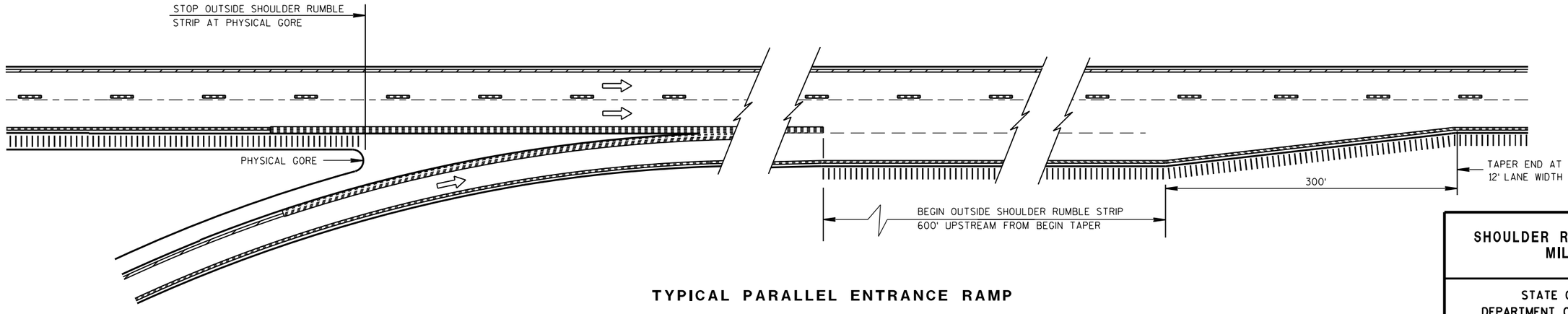
PAVEMENT MARKING DETAILS AND SPECIFICATIONS ARE PROVIDED ELSEWHERE IN THE CONTRACT.

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

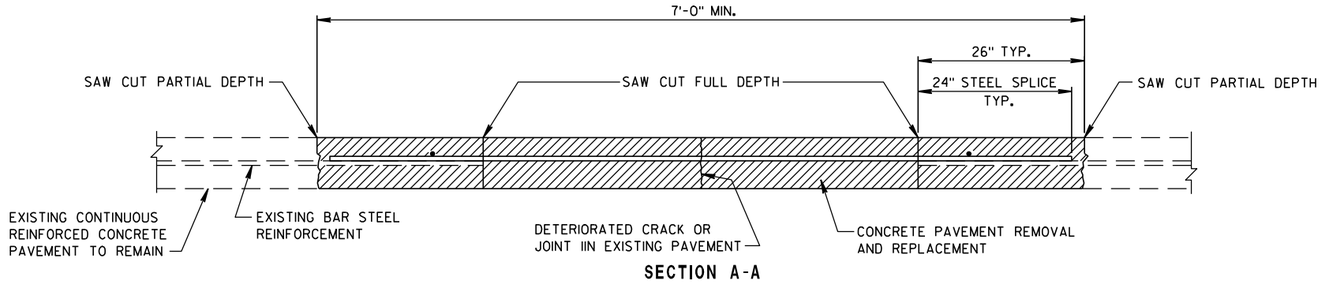
SHOULDER RUMBLE STRIP, MILLING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

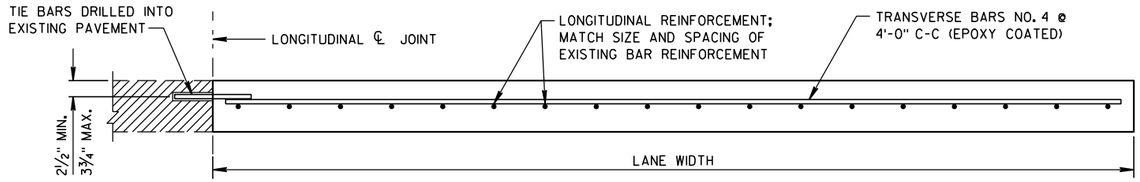
APPROVED
12/17/2012 — DATE
/S/ Jerry H. Zoga — ROADWAY STANDARDS ENGINEER
FHWA

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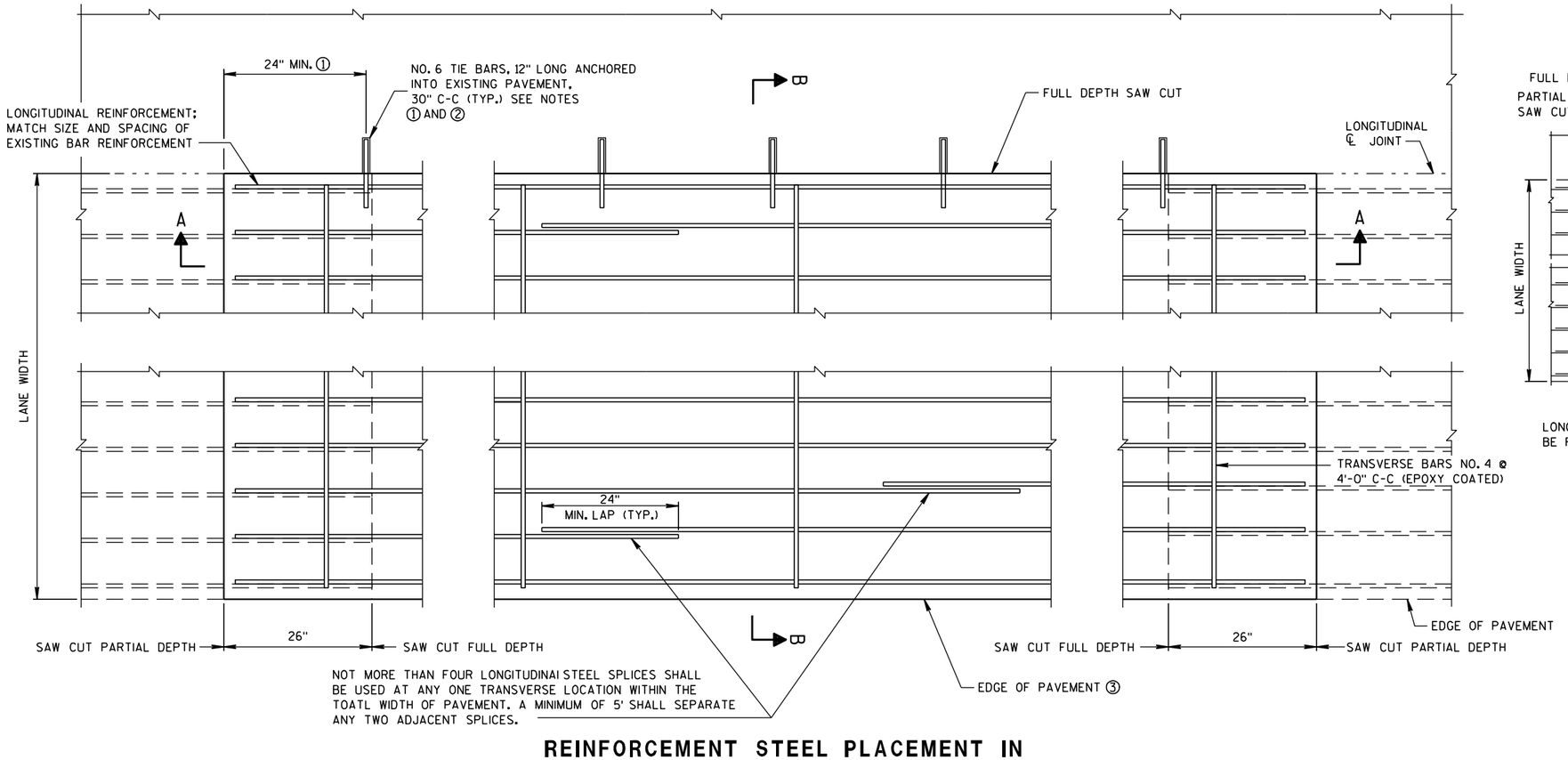
S.D.D. 13 A 5-5b



SECTION A-A



SECTION B-B



REINFORCEMENT STEEL PLACEMENT IN CONTINUOUSLY REINFORCED CONCRETE PAVEMENT REPLACEMENT

GENERAL NOTES

PLACE ALL BAR STEEL REINFORCEMENT AT MID PAVEMENT DEPTH UNLESS OTHERWISE NOTED.

PAY FOR THE TRANSVERSE AND LONGITUDINAL JOINT SAW CUT AS LINEAR FEET OF "SAWING CONCRETE".

WHEN THE PASSING AND TRAVELING LANES ARE TO BE REPLACED, REPLACE THE PASSING LANE FIRST.

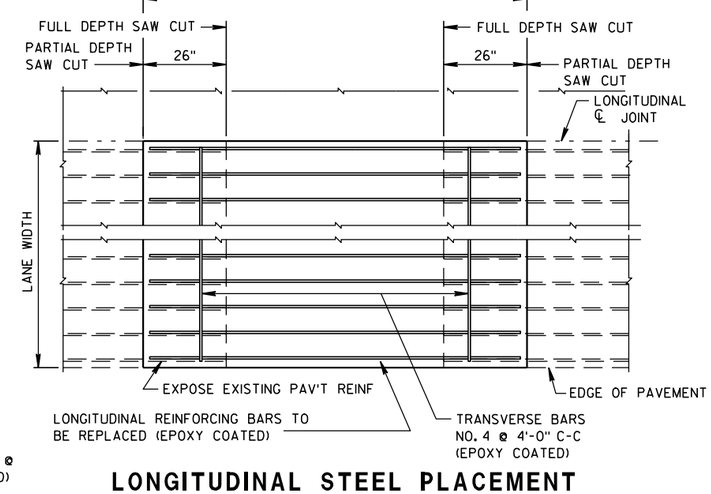
ADD TRANSVERSE STEEL BARS TO REPAIRS GREATER THAN 6'IN LENGTH, USE NO. 4 BARS PLACED TRANSVERSELY AND SPACED 4'C-C. PAYMENT SHALL BE INCIDENTAL TO "CONCRETE PAVEMENT CONTINUOUS REINFORCEMENT".

TIE ALL CONCRETE PAVEMENT REPAIRS WHICH ARE GREATER THAN 15'IN LENGTH, AND ARE ADJACENT TO EXISING CONCRETE PAVEMENT, TO THE EXISTING PAVEMENT USING TIE BARS. DETAILS FOR TIE BAR CONSTRUCTION SHALL CONFORM TO THE STANDARD SPECIFICATIONS AND STANDARD DETAIL DRAWINGS.

① PROVIDE A MINIMUM DISTANCE OF 24 INCHES FROM AN EXISTING TRANSVERSE JOINT OR THE EDGE OF REPLACEMENT TO THE CENTER OF THE TIE BAR NEAREST THAT JOINT OR EDGE.

② ANCHOR TIE BARS INTO DRILLED HOLES WITH AN EPOXY.

③ SAW CUT THE LONGITUDINAL EDGE JOINT IF THE ADJACENT SHOULDER IS CONCRETE.



LONGITUDINAL STEEL PLACEMENT IN CRCP REPAIRS

PLAN VIEW

CONTINUOUSLY REINFORCED CONCRETE PAVEMENT REPAIR AND REPLACEMENT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

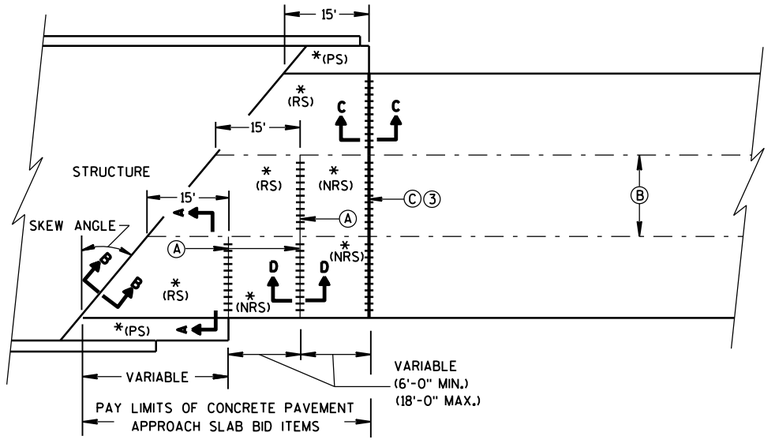
11/1/2011 — DATE

/S/ Deb Bischoff — PAVEMENT POLICY & DE NEER

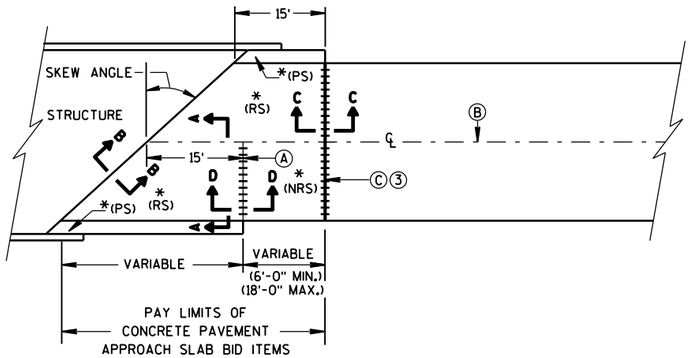
FHWA

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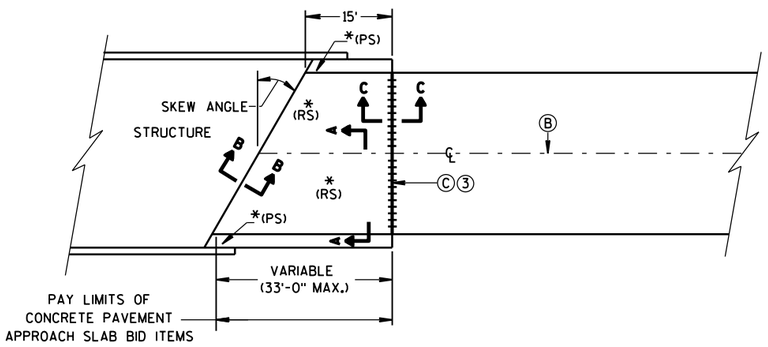
S.D.D. 13 A 7-2



SKEWED APPROACH
(PAVEMENT MORE THAN 2 LANES)



SKEWS >20°
(PAVEMENT WIDTH ≤30')



SKEWS ≤20°
(PAVEMENT WIDTH ≤30')

APPROACH SLAB AND ADJACENT PAVEMENT

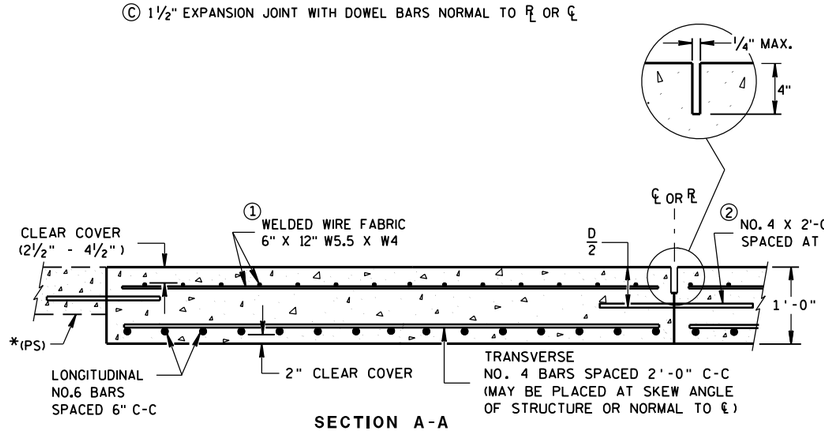
*(RS) = REINFORCED CONCRETE SLAB
*(PS) = PAVED CONCRETE SHOULDER OR CONCRETE DRAINAGE SLAB
(SEE DETAILS ELSEWHERE IN THE PLAN)
*(NRS) = NON-REINFORCED CONCRETE SLAB

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

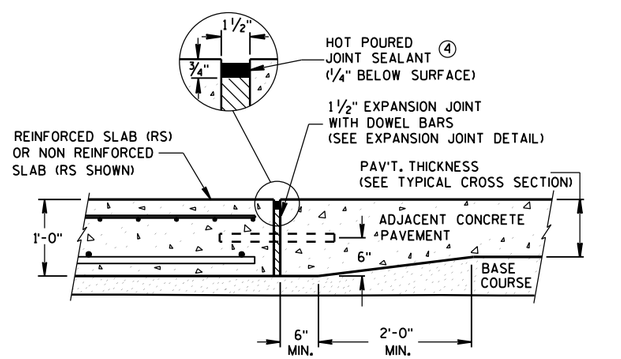
Ⓐ STANDARD CONTRACTION JOINT NORMAL TO ℄ OR ℄

Ⓑ STANDARD LONGITUDINAL JOINT WITH TIE BARS.

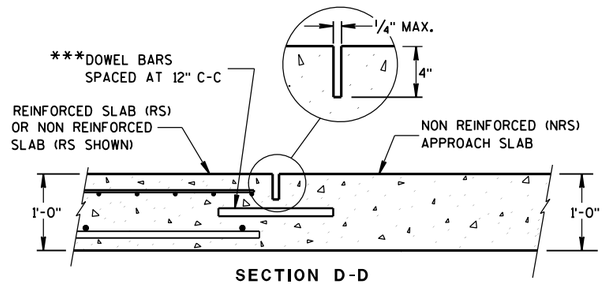
Ⓒ 1½" EXPANSION JOINT WITH DOWEL BARS NORMAL TO ℄ OR ℄



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.

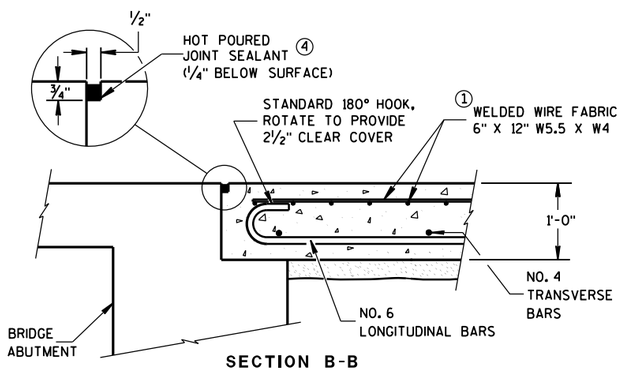
① THE CONTRACTOR MAY USE NO. 4 BARS SPACED AT 2'-0" C-C IN BOTH THE LONGITUDINAL AND TRANSVERSE DIRECTIONS FOR TOP REINFORCEMENT AS AN ALTERNATIVE TO THE WELDED WIRE FABRIC.

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

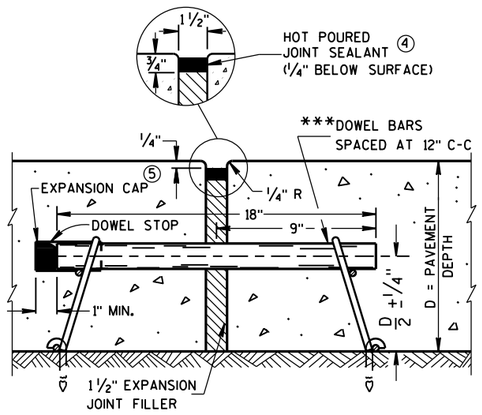
③ DO NOT CONSTRUCT AN EXPANSION JOINT OR INSTALL DOWEL BARS WHEN ABUTTING AN HMA PAVEMENT.

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

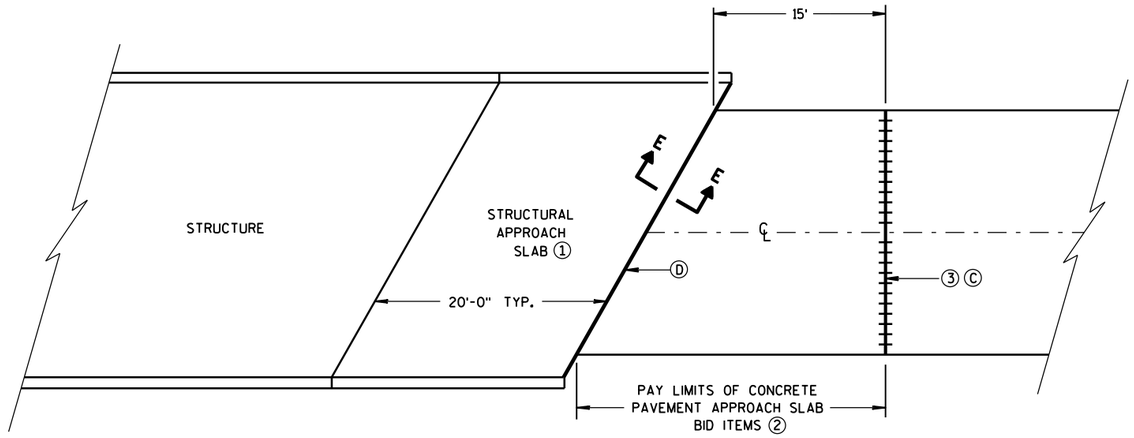
APPROVED
June, 2015
DATE
/S/ Peter Kemp, P.E.
PAVEMENT SUPER
FHWA

6

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

6

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.

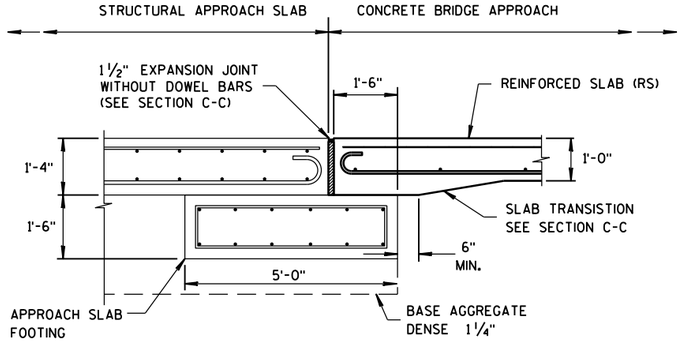
① SEE BRIDGE PLAN.

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

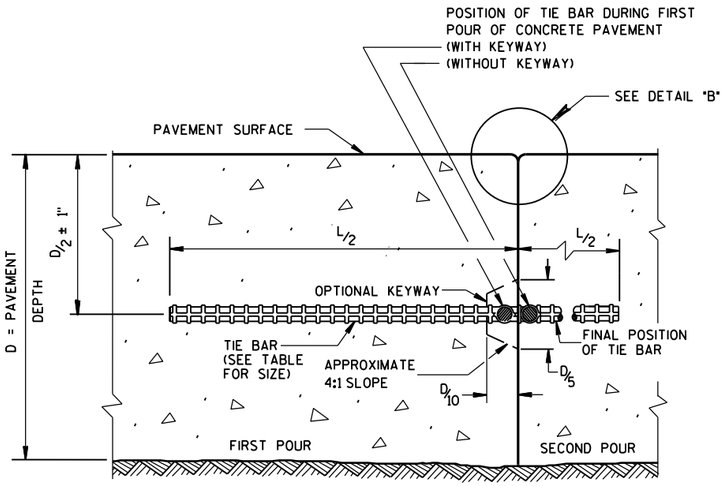
June, 2015
DATE

/S/ Peter Kemp, P.E.
PAVEMENT SUPEF

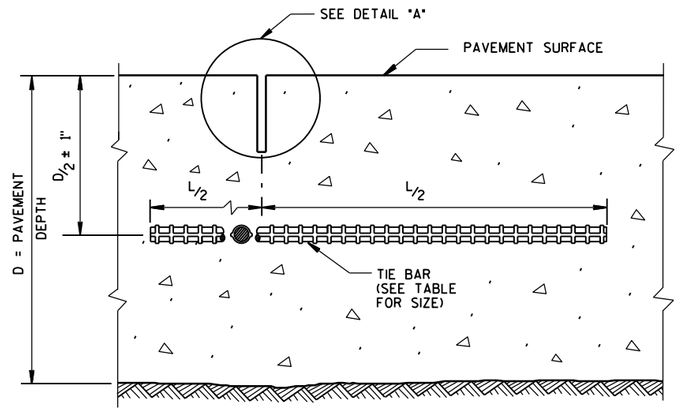
FHWA

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S.D.D. 13 B 2-8b



CONSTRUCTION JOINT



SAWED JOINT

GENERAL NOTES

DO NOT SEAL OR FILL LONGITUDINAL JOINTS.

CREATE A LONGITUDINAL JOINT FOR PAVEMENT WIDTHS GREATER THAN 15 FEET.

CORRELATE LONGITUDINAL JOINTS WITH LANE LINES WHEN POSSIBLE.

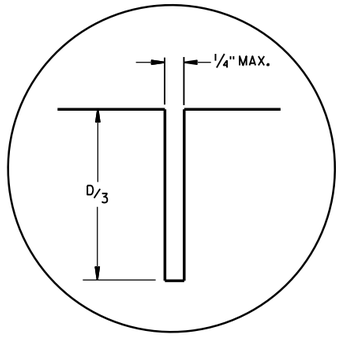
(1) ANCHOR TIE BARS INTO DRILLED HOLES WITH AN EPOXY.

(2) PAVEMENT THAT WAS IN PLACE PRIOR TO THE CONTRACT.

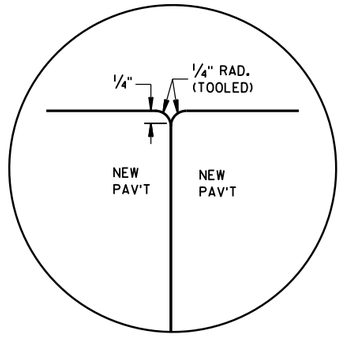
PLAN VIEW

SECTION A-A

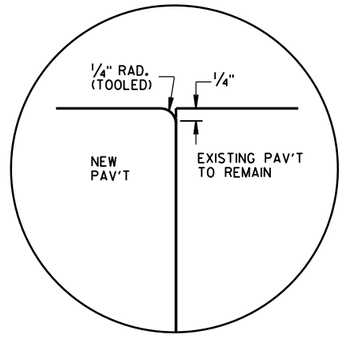
LONGITUDINAL CONSTRUCTION JOINT TIE BARS ANCHORED INTO EXISTING PAVEMENT



DETAIL "A"



DETAIL "B"



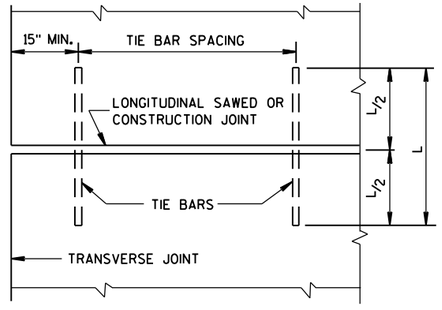
DETAIL "C"

TIE BAR TABLE

PAVEMENT DEPTH (D)	TIE BAR SIZE	TIE BAR LENGTH (L)	MAX. TIE BAR SPACING
< 10 1/2"	NO. 4	30"	36"
≥ 10 1/2"	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.



PLAN VIEW
SHOWING LOCATION OF TIE BARS

CONCRETE PAVEMENT LONGITUDINAL JOINTS AND TIES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

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S.D.D. 13 C 1-18

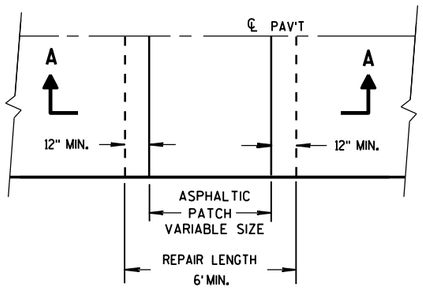
GENERAL NOTES

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.

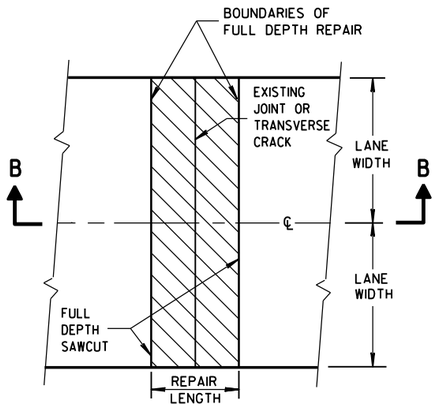
PROVIDE A 6-FOOT MINIMUM DISTANCE FROM BOUNDARIES OF CONCRETE REPAIR AREAS TO ADJACENT TRANSVERSE JOINT OR CRACK IN THE SAME LANE.

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.

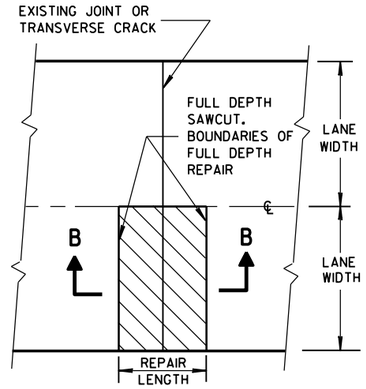
(1) DOWEL BARS MIGHT NOT EXIST.



PLAN VIEW

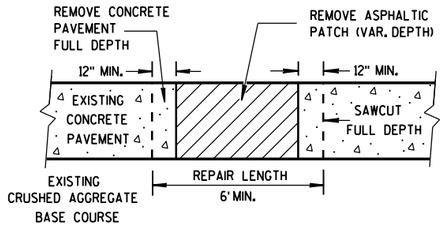


PLAN VIEW
(DOUBLE LANE REPAIR)



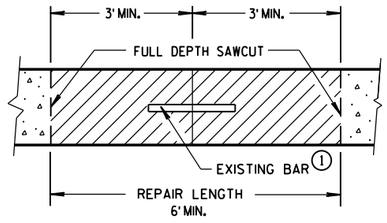
PLAN VIEW
(SINGLE LANE REPAIR)

FULL DEPTH CONCRETE PAVEMENT REMOVAL



SECTION A-A

HMA PATCH REMOVAL



SECTION B-B

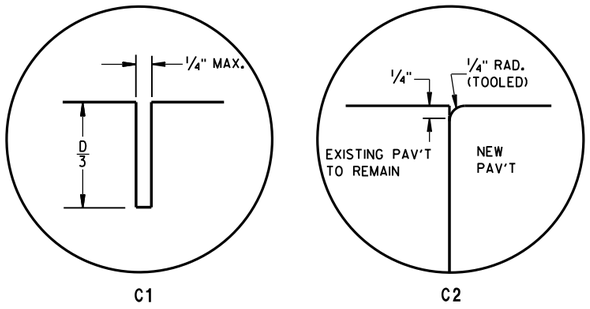
CONCRETE REMOVAL

CONCRETE PAVEMENT REPAIR AND REPLACEMENT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6

S.D.D. 13 C 9-13a



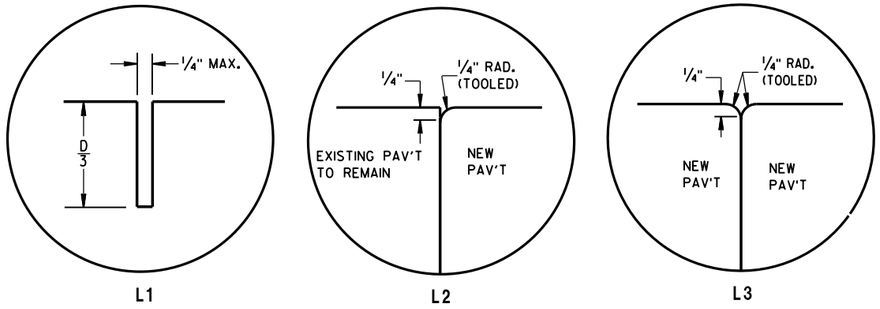
TRANSVERSE JOINTS

TIE BAR TABLE

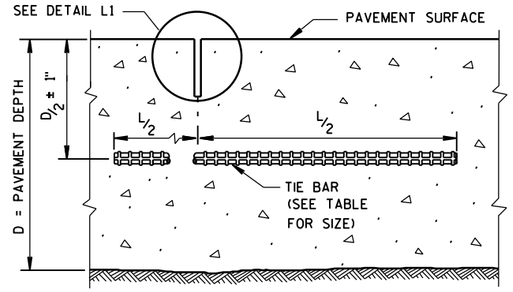
PAVEMENT DEPTH (D)	TIE BAR SIZE	TIE BAR LENGTH (L)	MAX. TIE BAR SPACING
< 10 ½"	NO. 4	30"	36"
≥ 10 ½"	NO. 5	36"	36"
	NO. 4 *	30"	24"**

* 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.

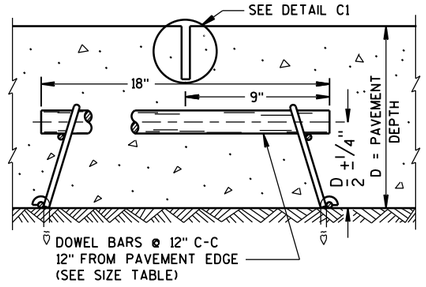
CONCRETE PAVEMENT REPAIRS OF EXISTING NONDOWELED CONCRETE PAVEMENTS DO NOT NEED TO BE DOWELED.

DO NOT SEAL OR FILL JOINTS.

ANCHOR DOWEL BARS AND TIE BARS INTO DRILLED HOLES WITH AN EPOXY.

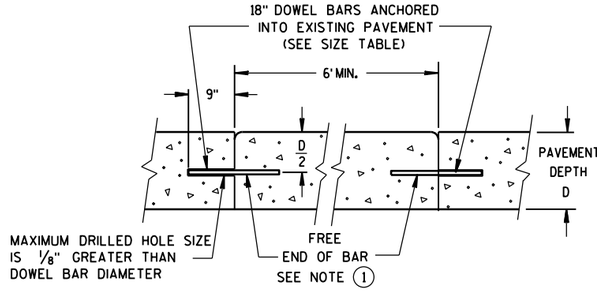
FOR MULTI-LANE CONCRETE PAVEMENT REPLACEMENTS, PROVIDE A MINIMUM DISTANCE OF 15 INCHES FROM ALL TRANSVERSE JOINTS OR EDGES OF REPLACEMENT TO THE CENTER OF THE TIE BAR NEAREST THAT JOINT OR EDGE.

(1) APPLY A THIN UNIFORM COATING OF SURFACE TREATMENT TO THE FREE END OF DOWEL BARS TO PREVENT BONDING.

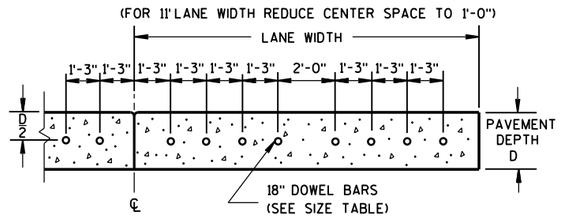


SECTION F-F

CONTRACTION JOINT



SECTION D-D

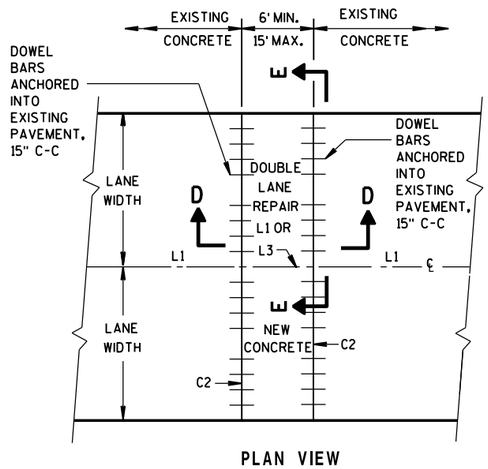


SECTION E-E

DRILLED DOWEL BAR CONSTRUCTION JOINT

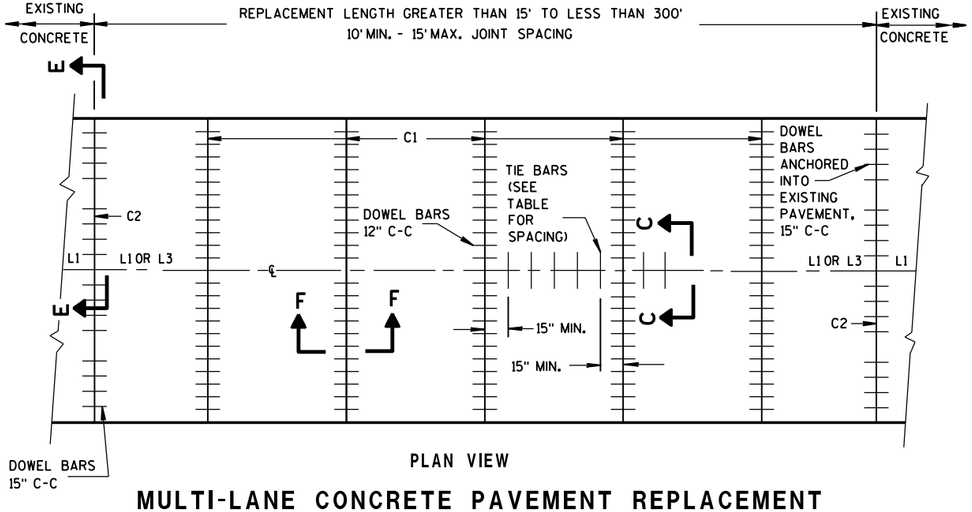
PAVEMENT DEPTH, DOWEL BAR SIZE AND JOINT SPACING TABLE

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



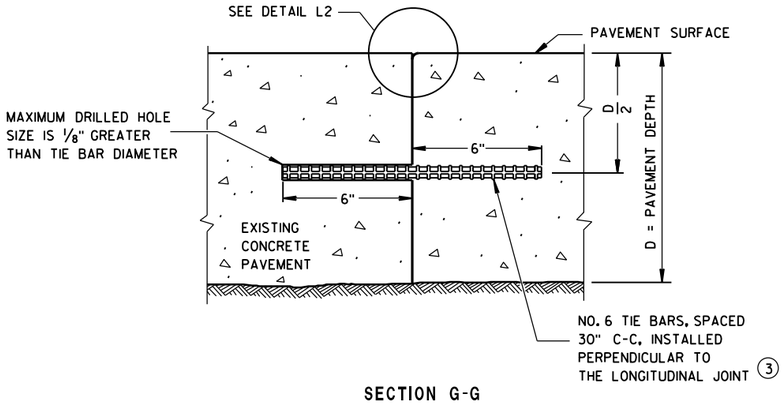
PLAN VIEW

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

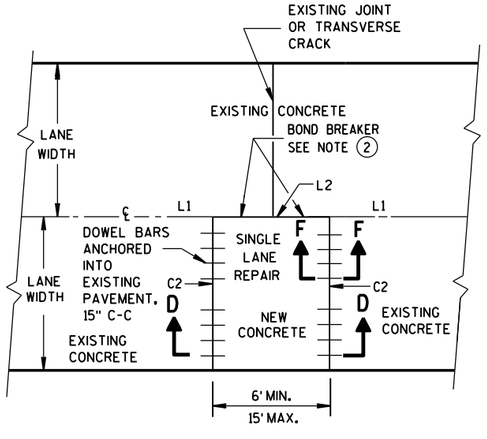
TIE BARS ANCHORED INTO EXISTING PAVEMENT

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.

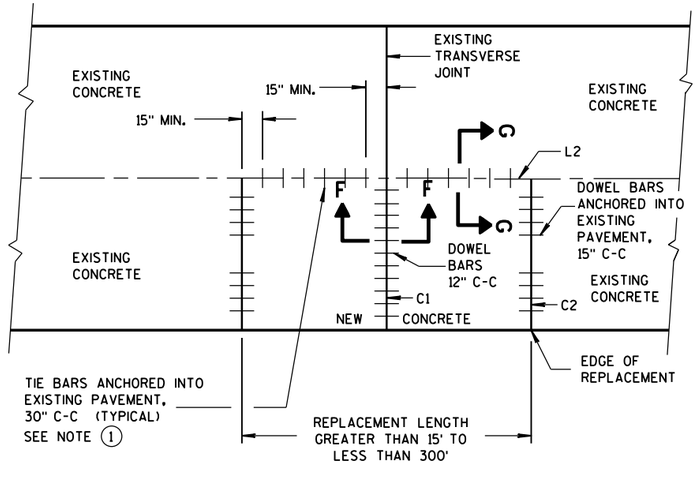
(2) USE AN ENGINEER-APPROVED BOND BREAKER (E.G. RELEASE AGENT, CURING COMPOUND) FOR SINGLE LANE REPAIRS UP TO 15 FEET IN LENGTH.

(3) ANCHOR TIE BARS INTO DRILLED HOLES WITH AN EPOXY.



PLAN VIEW

SINGLE LANE CONCRETE PAVEMENT REPAIR



PLAN VIEW

SINGLE LANE CONCRETE PAVEMENT REPLACEMENT

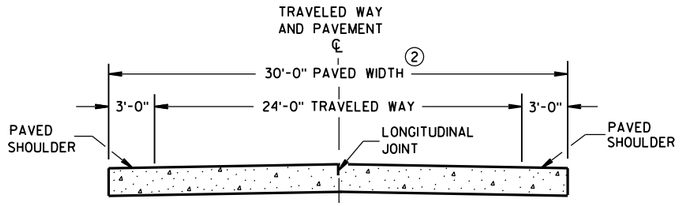
CONCRETE PAVEMENT REPAIR AND REPLACEMENT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Sept., 2015 — DATE
/S/ Peter Kemp, P.E. — PAVEMENT SUPER
FHWA

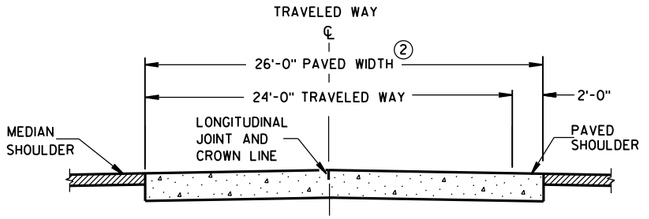
6

S.D.D. 13 C 9-13c

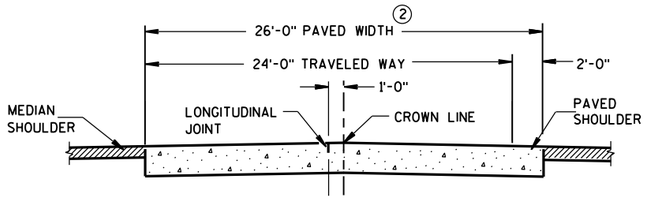


SECTION A-A ①

TWO-LANE TWO-WAY HIGHWAY



SECTION B-B



ALTERNATIVE SECTION B-B ①

DIVIDED HIGHWAY

GENERAL NOTES

CONTRACTION JOINTS

CONSTRUCT TRANSVERSE CONTRACTION JOINTS NORMAL TO THE CENTERLINE. SHOW THE LOCATION OF CONTRACTION JOINTS THROUGH INTERSECTIONS ON THE PLANS OR AS DIRECTED BY THE ENGINEER.

DO NOT SEAL OR FILL CONTRACTION JOINTS.

INSTALL DOWEL BARS PARALLEL TO THE PAVEMENT CENTERLINE AND PAVEMENT SURFACE.

FOR PAVEMENT SLABS OF VARYING WIDTHS, LOCATE THE OUTER MOST DOWEL BAR SO THAT THE CENTER OF THE BAR IS A MINIMUM OF 6 INCHES AND A MAXIMUM OF 18 INCHES FROM THE FREE EDGE OF PAVEMENT.

CONSTRUCTION JOINTS

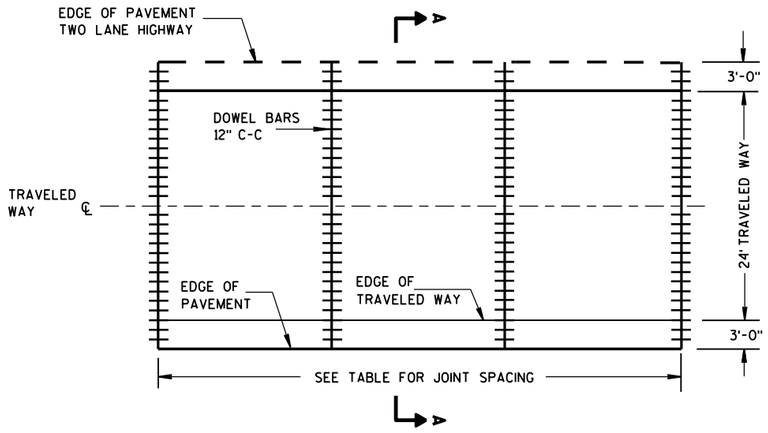
LOCATE CONSTRUCTION JOINTS A MINIMUM OF 6 FEET FROM THE NEAREST CONTRACTION JOINT AND ALIGN PARALLEL TO CONTRACTION JOINTS.

① REFER TO TYPICAL CROSS SECTIONS FOR ADDITIONAL DETAILS.

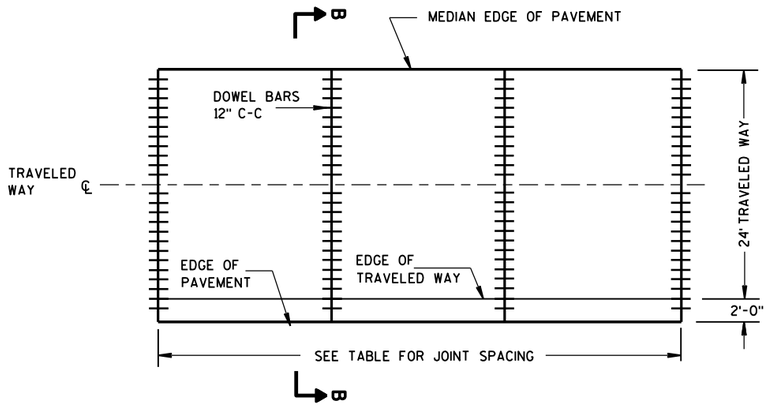
② MEASURE THE ENTIRE PAVED WIDTH INCLUDING THE PORTION(S) LABELED PAVED SHOULDER AS CONCRETE PAVEMENT.

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'



CONTRACTION JOINT LAYOUT
FOR TWO-LANE TWO-WAY HIGHWAY



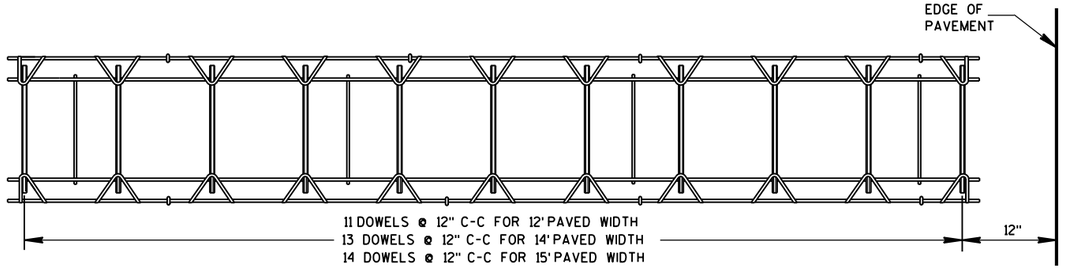
CONTRACTION JOINT LAYOUT
FOR DIVIDED HIGHWAY

RURAL DOWELED
CONCRETE PAVEMENT

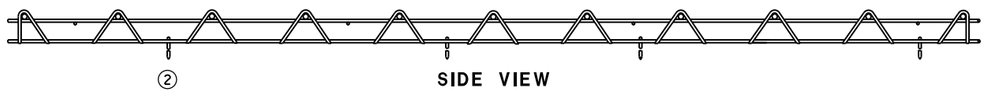
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6

S.D.D. 13 C 11-11a



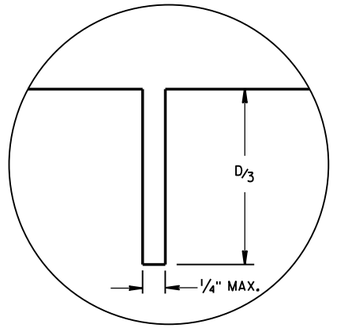
PLAN VIEW



SIDE VIEW

(NORMAL TO CENTERLINE)

CONTRACTION JOINT DOWEL ASSEMBLY ①



JOINT DETAIL

GENERAL NOTES

① OBTAIN THE ENGINEER'S APPROVAL FOR THE USE OF ALTERNATIVE DESIGNS OF THE DOWEL ASSEMBLY. USE MECHANICAL DOWEL BAR INSERTERS OR DOWEL ASSEMBLIES WHEN CONSTRUCTING CONTRACTION JOINTS.

② SECURE BASKETS WITH ANCHORS TO HOLD DOWEL BARS IN THE CORRECT POSITION AND ALIGNMENT. TYPE, LOCATION, NUMBER AND LENGTH OF ANCHORS ARE DEPENDENT UPON FIELD CONDITIONS.

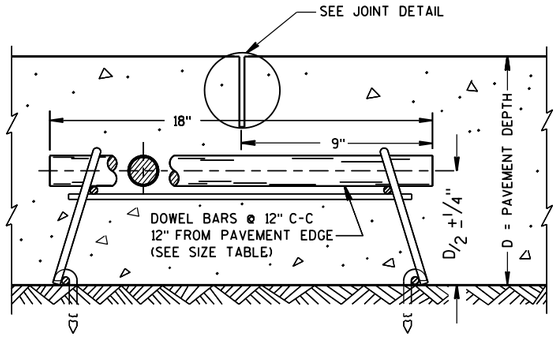
③ FORM OR SAW CONSTRUCTION JOINTS. PROVIDE A 1/4-INCH RADIUS AT FORMED JOINTS.

④ PROVIDE A SMOOTH VERTICAL FACE FOR THE ENTIRE DEPTH OF THE PAVEMENT WHEN FORMING CONSTRUCTION JOINTS.

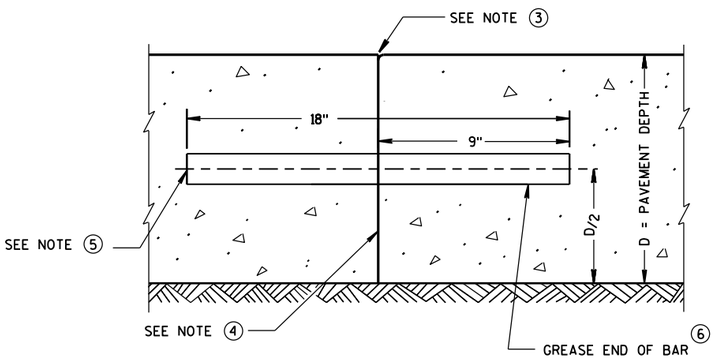
⑤ INSTALL DOWEL BARS AT CONSTRUCTION JOINTS BY FORMING OR DRILLING. INSTALL FORMED DOWEL BARS 12 INCHES C-C AND 12 INCHES FROM PAVEMENT EDGE. REMOVE EXCESS CONCRETE FROM THE FREE END OF THE DOWEL BAR IF DOWEL BARS ARE FORMED THROUGH A HEADER BOARD. INSTALL DRILLED DOWEL BARS ACCORDING TO *DRILLED DOWEL BAR CONSTRUCTION JOINT* DETAIL.

⑥ APPLY A THIN UNIFORM COATING OF SURFACE TREATMENT TO THE FREE END OF DOWEL BARS TO PREVENT BONDING.

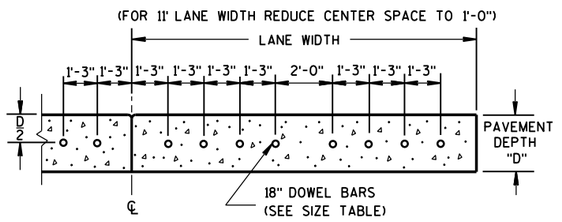
⑦ ANCHOR DOWEL BARS INTO DRILLED HOLES WITH AN EPOXY. MAXIMUM DRILLED HOLE SIZE IS 1/8-INCH GREATER THAN DOWEL BAR DIAMETER, 9 INCHES IN LENGTH.



DOWELED CONTRACTION JOINT



TRANSVERSE CONSTRUCTION JOINT



DRILLED DOWEL BAR CONSTRUCTION JOINT ⑦

RURAL DOWELED CONCRETE PAVEMENT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

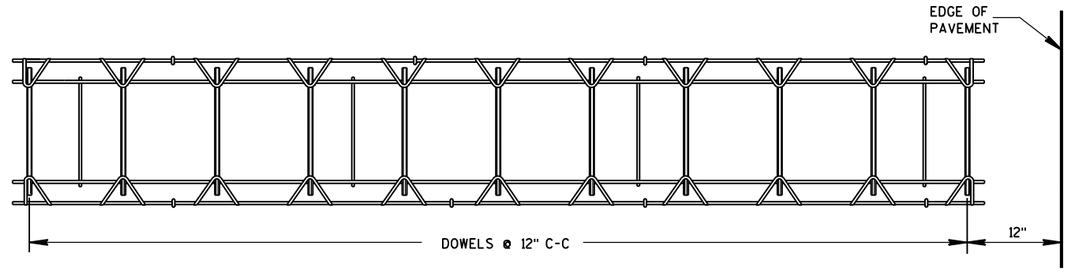
APPROVED
5/3/2013 DATE
/S/ Deb Bischoff PAVEMENT POLICY & DE ENGINEER
FHWA

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S.D.D. 13 C 11-11b

6

S.D.D. 13 C 11-11b

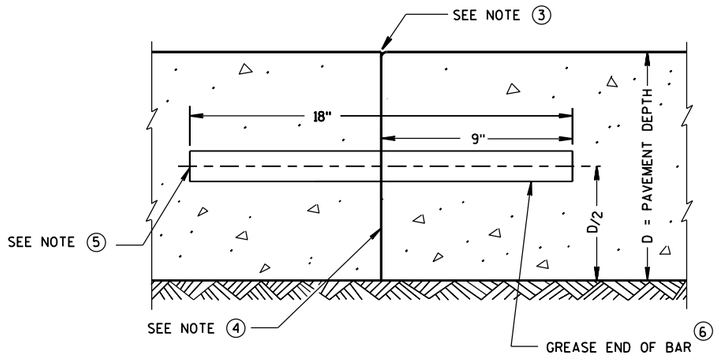


PLAN VIEW

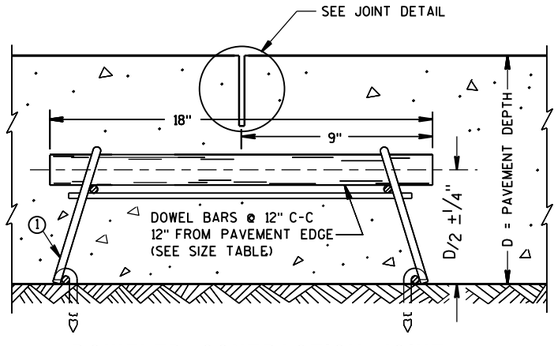


SIDE VIEW

CONTRACTION JOINT DOWEL ASSEMBLY ①



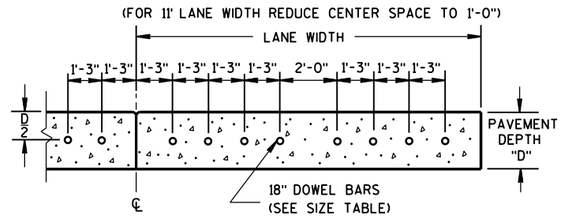
TRANSVERSE CONSTRUCTION JOINT



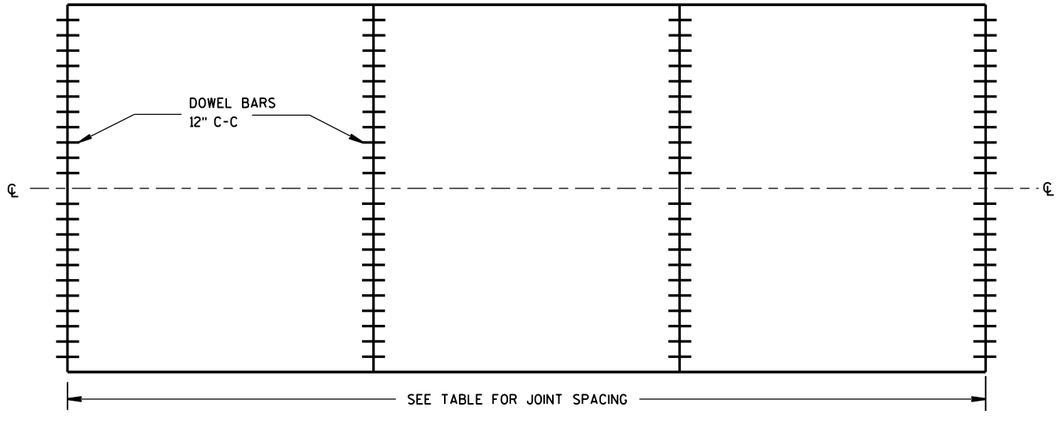
DOWELED CONTRACTION JOINT

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'



DRILLED DOWEL BAR CONSTRUCTION JOINT ⑦



CONTRACTION JOINT LOCATIONS

GENERAL NOTES

CONTRACTION JOINTS

CONSTRUCT TRANSVERSE CONTRACTION JOINTS NORMAL TO THE CENTERLINE. SHOW THE LOCATION OF CONTRACTION JOINTS THROUGH INTERSECTIONS ON THE PLANS OR AS DIRECTED BY THE ENGINEER.

DO NOT SEAL OR FILL CONTRACTION JOINTS.

INSTALL DOWEL BARS PARALLEL TO THE PAVEMENT CENTERLINE AND PAVEMENT SURFACE.

FOR PAVEMENT SLABS OF VARYING WIDTHS, LOCATE THE OUTER MOST DOWEL BAR SO THAT THE CENTER OF THE BAR IS A MINIMUM OF 6 INCHES AND A MAXIMUM OF 18 INCHES FROM THE LONGITUDINAL JOINT AND THE FREE EDGE OF PAVEMENT.

CONSTRUCTION JOINTS

LOCATE CONSTRUCTION JOINTS A MINIMUM OF 6 FEET FROM THE NEAREST CONTRACTION JOINT AND ALIGN PARALLEL TO CONTRACTION JOINTS.

① **OBTAIN THE ENGINEER'S APPROVAL FOR THE USE OF ALTERNATIVE DESIGNS OF THE DOWEL ASSEMBLY. USE MECHANICAL DOWEL BAR INSERTERS OR DOWEL ASSEMBLIES WHEN CONSTRUCTING CONTRACTION JOINTS.**

② SECURE BASKETS WITH ANCHORS TO HOLD DOWEL BARS IN THE CORRECT POSITION AND ALIGNMENT. TYPE, LOCATION, NUMBER AND LENGTH OF ANCHORS ARE DEPENDENT UPON FIELD CONDITIONS.

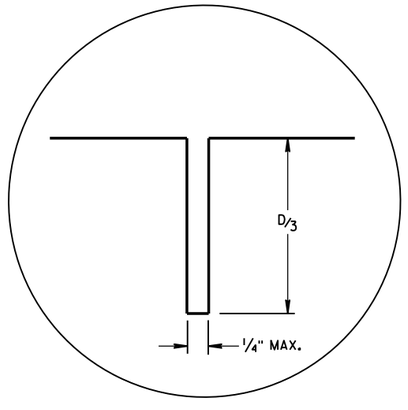
③ FORM OR SAW CONSTRUCTION JOINTS. PROVIDE A ¼-INCH RADIUS AT FORMED JOINTS.

④ PROVIDE A SMOOTH VERTICAL FACE FOR THE ENTIRE DEPTH OF THE PAVEMENT WHEN FORMING CONSTRUCTION JOINTS.

⑤ INSTALL DOWEL BARS AT CONSTRUCTION JOINTS BY FORMING OR DRILLING. INSTALL FORMED DOWEL BARS 12 INCHES C-C AND 12 INCHES FROM PAVEMENT EDGE. REMOVE EXCESS CONCRETE FROM THE FREE END OF THE DOWEL BAR IF DOWEL BARS ARE FORMED THROUGH A HEADER BOARD. INSTALL DRILLED DOWEL BARS ACCORDING TO *DRILLED DOWEL BAR CONSTRUCTION JOINT* DETAIL.

⑥ APPLY A THIN UNIFORM COATING OF SURFACE TREATMENT TO THE FREE END OF DOWEL BARS TO PREVENT BONDING.

⑦ ANCHOR DOWEL BARS INTO DRILLED HOLES WITH AN EPOXY. MAXIMUM DRILLED HOLE SIZE IS ⅛-INCH GREATER THAN DOWEL BAR DIAMETER, 9 INCHES IN LENGTH.



JOINT DETAIL

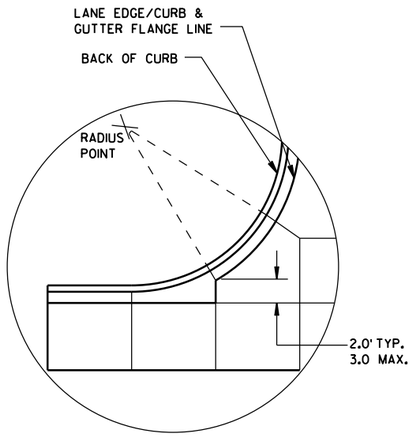
URBAN DOWELED CONCRETE PAVEMENT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

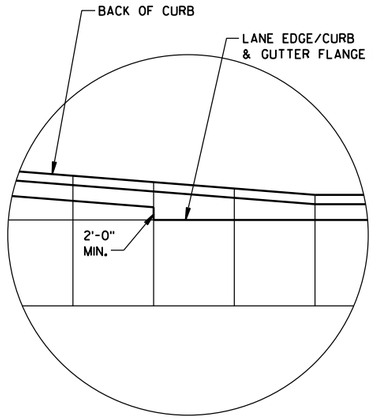
APPROVED
5/3/2013 DATE
/S/ Deb Bischoff
PAVEMENT POLICY & DE ENGINEER
FHWA

6

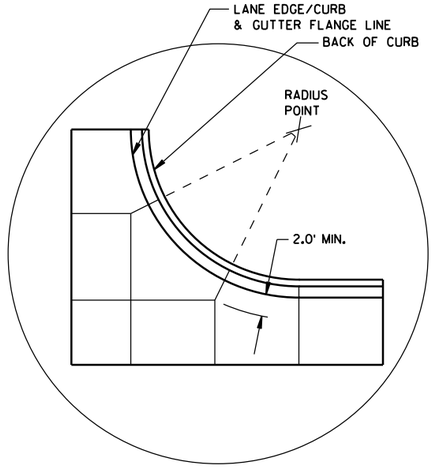
S.D.D. 13 C 13-8



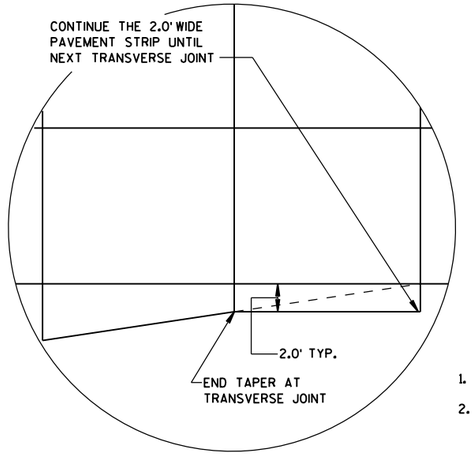
DETAIL "A"



DETAIL "B"



DETAIL "C"



DETAIL "D"

GENERAL NOTES

THE PRIMARY ROADWAY CONTROLS THE TRANSVERSE JOINT PATTERN.

ALIGN NEW JOINTS WITH EXISTING JOINTS OR CRACKS.

CONSTRUCT TRANSVERSE JOINTS PERPENDICULAR TO THE ROADWAY.

ADJUST TRANSVERSE JOINTS TO ALIGN WITH UTILITY FIXTURES (E.G. MANHOLES AND INLETS) IN THE PAVEMENT STRUCTURE WHEN POSSIBLE. WATER VALVES DO NOT REQUIRE JOINT ADJUSTMENT.

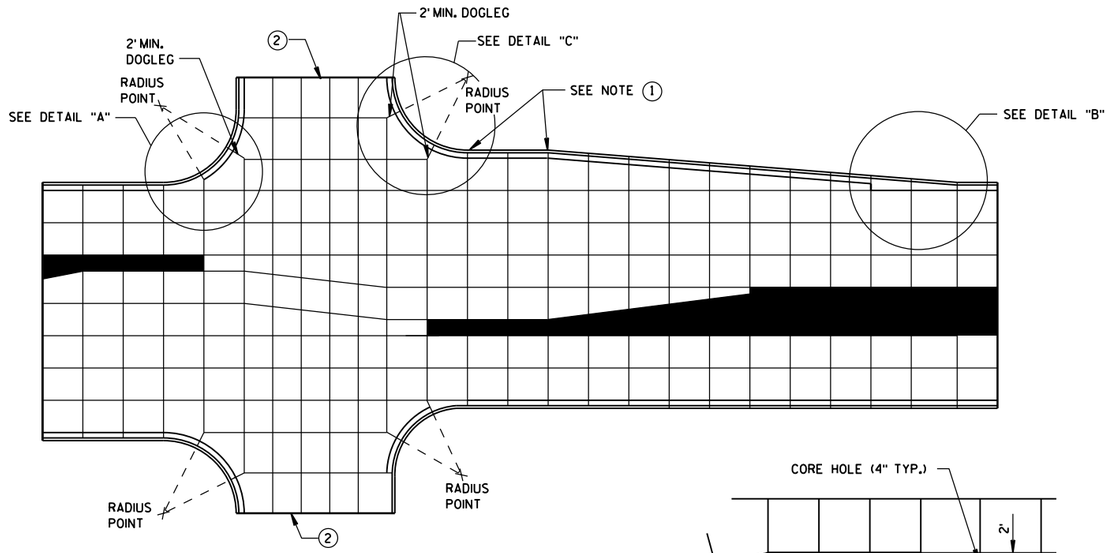
AVOID SLABS LESS THAN 2 FEET WIDE OR GREATER THAN 15 FEET WIDE.

SEE TABLE FOR TRANSVERSE JOINT SPACING. JOINT SPACING SPECIFIED IS MAXIMUM AND ACTUAL SPACING CAN BE ADJUSTED TO ACCOMMODATE INTERSECTIONS.

AVOID ANGLES LESS THAN 60° BY DOGLEGGING JOINTS THROUGH CURVE RADIUS POINTS. USE 90° ANGLES WHEN POSSIBLE.

CORRELATE LONGITUDINAL JOINTS WITH LANE LINES WHEN POSSIBLE.

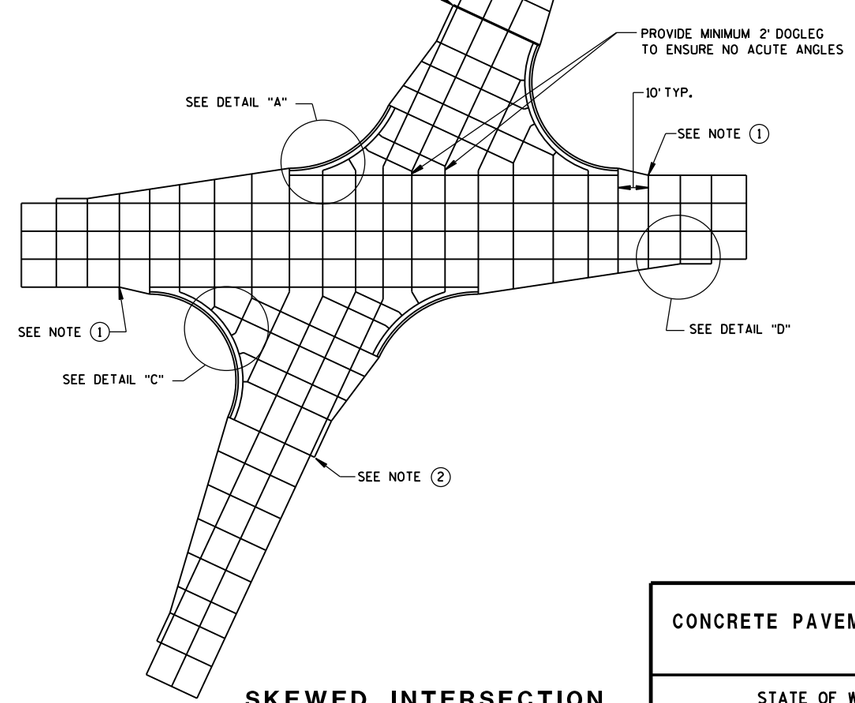
1. PROVIDE TRANSVERSE JOINTS AT ALL PAVEMENT WIDTH CHANGES.
2. CONSTRUCT DOWELED EXPANSION JOINT ON THE SIDE ROAD OF AN INTERSECTION IF THE SIDE ROAD IS CONCRETE PAVEMENT AND GREATER THAN 300 FEET IN LENGTH. ALIGN EXPANSION JOINT WITH EDGE OF RADIUS.
3. THE ENGINEER MAY APPROVE SLIGHT VARIATIONS FROM THESE JOINTING DETAILS.



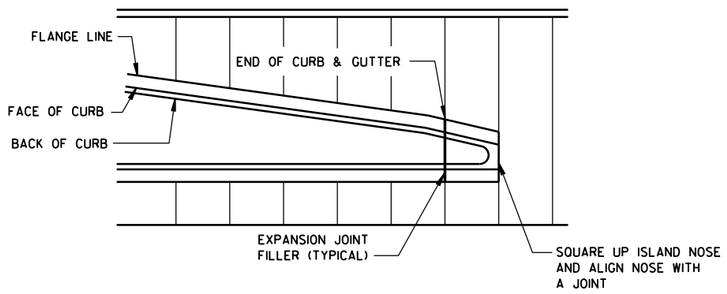
STANDARD INTERSECTION

PAVEMENT DEPTH AND JOINT SPACING TABLE

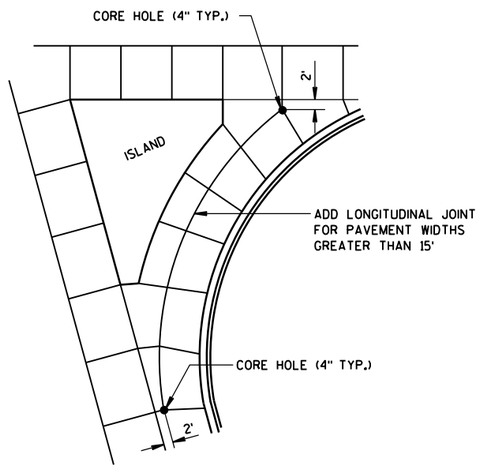
PAVEMENT DEPTH (D)	CONTRACTION JOINT SPACING
6", 6½"	12'
7", 7½"	14'
8" & ABOVE	15'



SKEWED INTERSECTION



APPROACH TO MEDIAN



LARGE RIGHT TURN

CONCRETE PAVEMENT JOINTING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

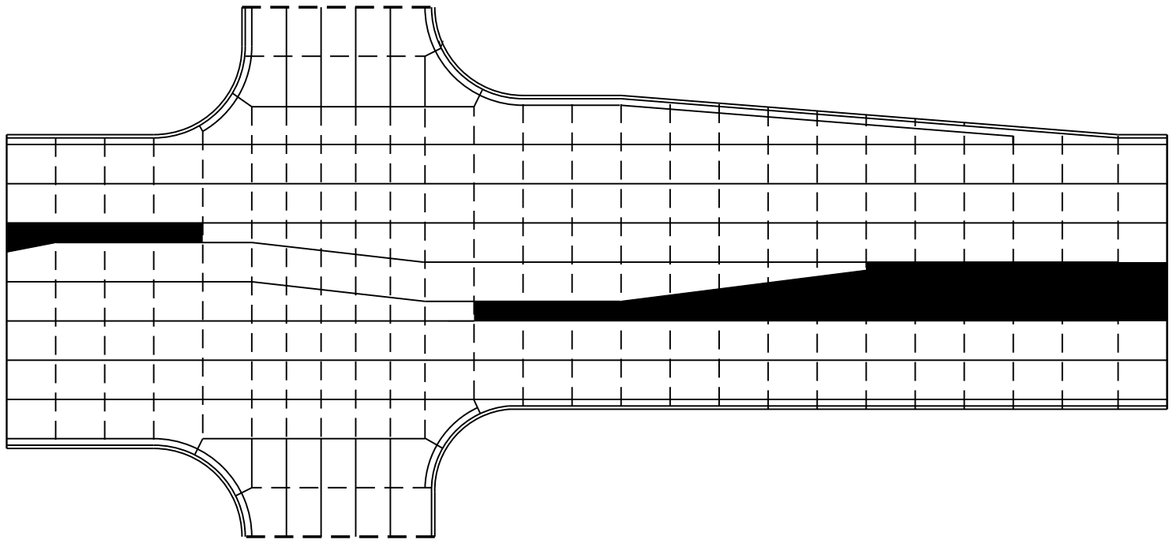
6
S.D.D. 13 C 18-5a

LEGEND

POTENTIAL DOWELED EXPANSION JOINT

DOWELED JOINT

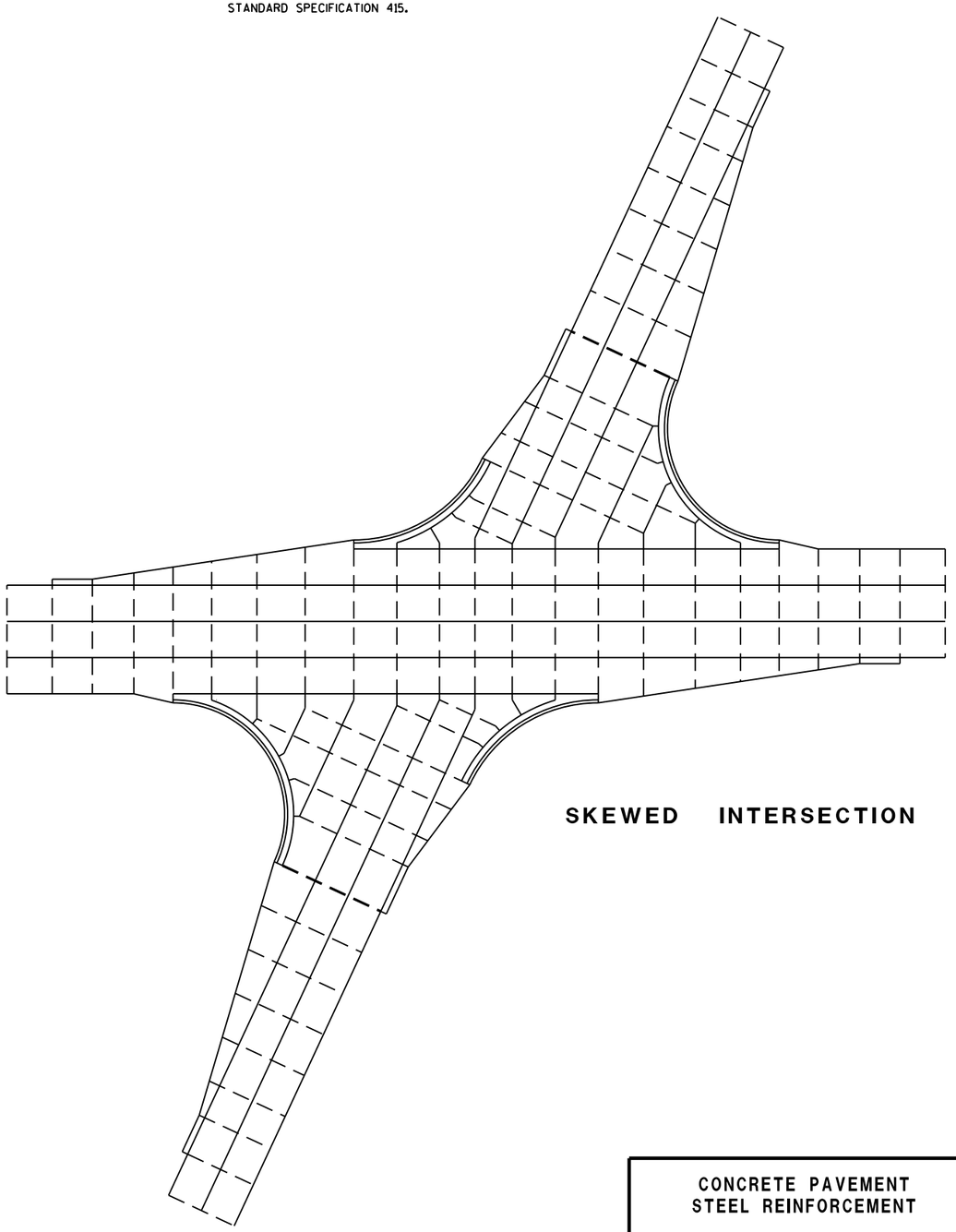
TIED JOINT



STANDARD INTERSECTION

GENERAL NOTES

USE AN EXPANSION JOINT FILLER MEETING THE REQUIREMENTS OF STANDARD SPECIFICATION 415.



SKEWED INTERSECTION

6

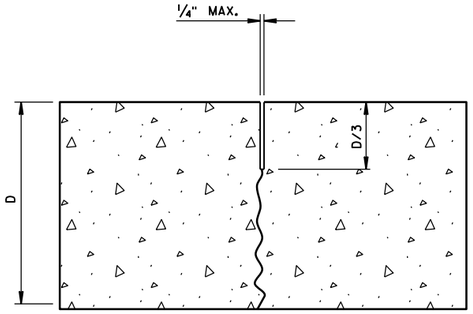
S.D.D. 13 C 18-5b

CONCRETE PAVEMENT
STEEL REINFORCEMENT

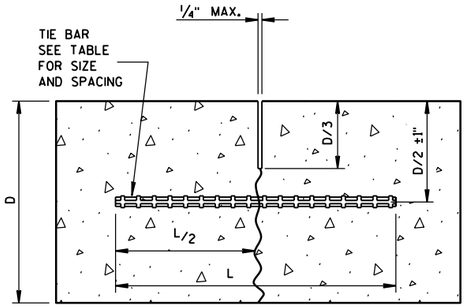
STATE OF WISCONSIN
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6

S.D.D. 13 C 18-5b



UNDOWELED-TRANSVERSE



TIED LONGITUDINAL

TIE BAR TABLE

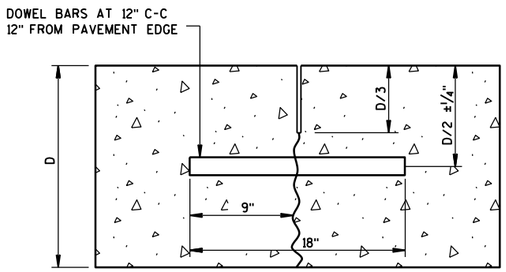
PAVEMENT DEPTH (D)	TIE BAR SIZE	TIE BAR LENGTH (L)	MAX. TIE BAR SPACING
< 10 1/2"	NO. 4	30"	36"
≥ 10 1/2"	NO. 5	36"	36"
	NO. 4*	30"	24"**

* 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.

GENERAL NOTES

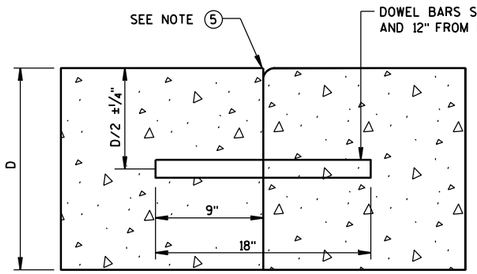
1. USE DOWELED EXPANSION JOINTS ON SIDE ROADS AT INTERSECTIONS (TO ISOLATE THE SIDE ROAD FROM THE THROUGH STREET) IF THE SIDE ROAD IS CONCRETE PAVEMENT AND GREATER THAN 300 FEET IN LENGTH.
2. SPACE CONTRACTION JOINTS IN ACCORDANCE WITH 13C4, 13C11 OR 13C13.
3. LOCATE CONSTRUCTION JOINTS A MINIMUM OF 6 FEET FROM THE NEAREST CONTRACTION JOINT AND ALIGN PARALLEL TO CONTRACTION JOINTS.
4. CONSTRUCTION JOINTS CAN BE FORMED OR SAWED.
5. IF JOINT IS FORMED, PROVIDE A 1/4-INCH RADIUS.
6. ANCHOR TIE BARS INTO DRILLED HOLES WITH AN EPOXY.



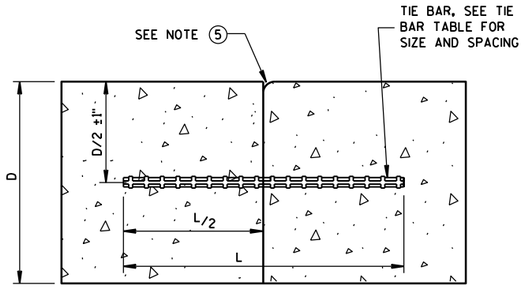
DOWELED-TRANSVERSE

CONTRACTION JOINTS

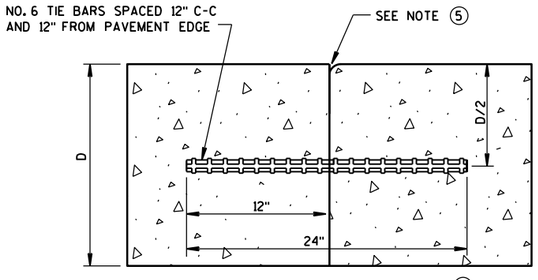
SEE NOTE (2)



DOWELED TRANSVERSE (3)

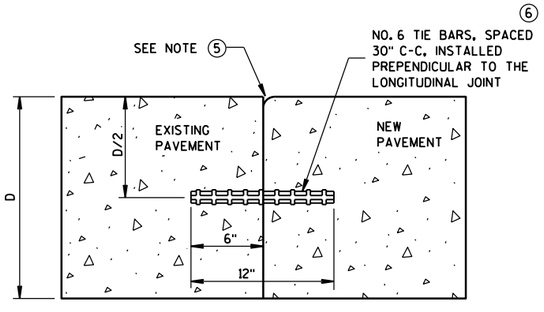


TIED LONGITUDINAL



TIED TRANSVERSE (3)

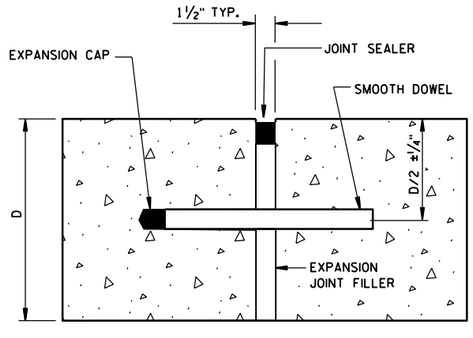
(FOR USE ON NON-DOWELED PAVEMENTS ONLY)



TIED LONGITUDINAL TO EXISTING

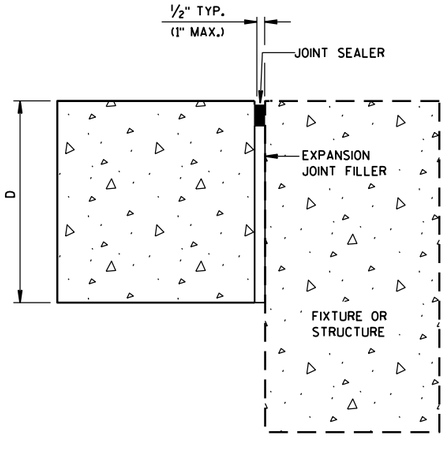
CONSTRUCTION JOINTS

SEE NOTE (4)



DOWELED-TRANSVERSE

SEE NOTE (1)



UNTIED-LONGITUDINAL

EXPANSION JOINTS

6

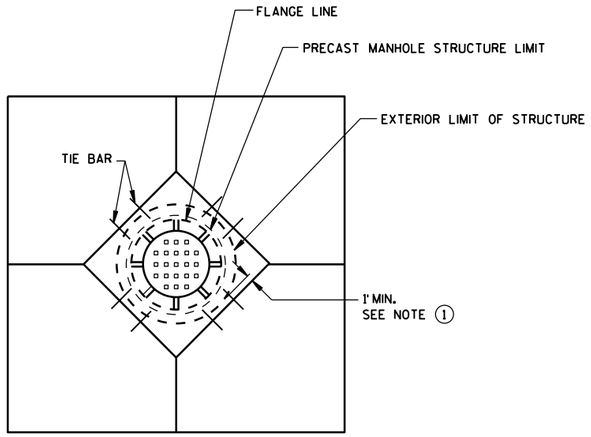
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S.D.D. 13 C 18-5c

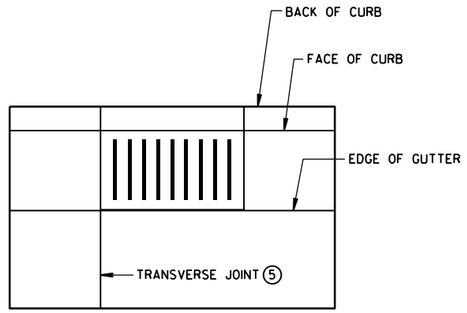
S.D.D. 13 C 18-5c

CONCRETE PAVEMENT
JOINT TYPES

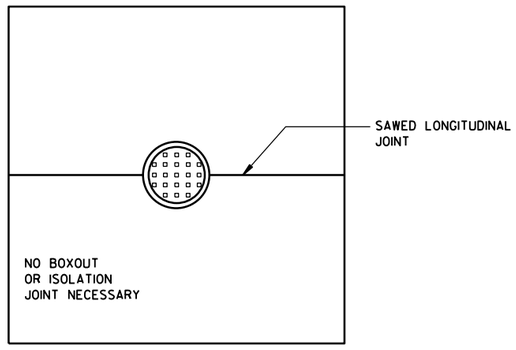
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI



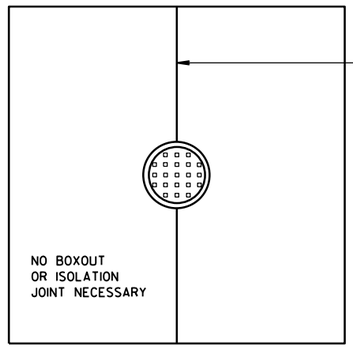
DIAGONAL MANHOLE BOXOUT FOR CONSTRUCTION JOINTS



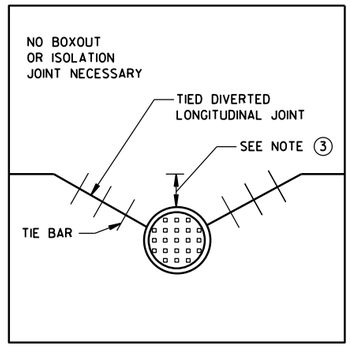
INLET WITH TRANSVERSE JOINT



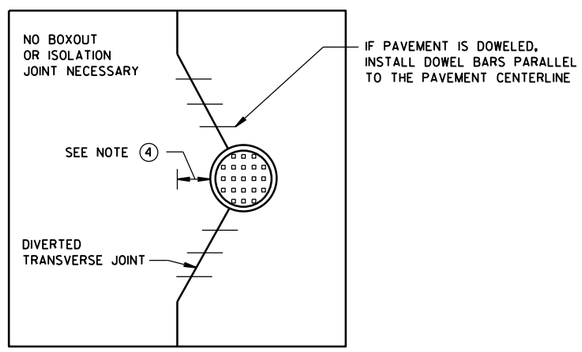
MANHOLE WITH LONGITUDINAL JOINT



MANHOLE WITH TRANSVERSE JOINT



MANHOLE WITH DIVERTED LONGITUDINAL CONTRACTION JOINT



MANHOLE WITH DIVERTED TRANSVERSE CONTRACTION JOINT

GENERAL NOTES

(1) USE BOXOUTS WHEN UTILITY STRUCTURE IS IN THE PATH OF CONSTRUCTION JOINTS. PROVIDE A 1-FOOT MINIMUM CLEARANCE BETWEEN THE EXTERIOR LIMIT OF THE STRUCTURE TO THE DIAMOND BOXOUT.

(2) ADJUST TRANSVERSE JOINT TO INTERSECT MANHOLE IF POSSIBLE.

(3) IF DISTANCE BETWEEN THE LONGITUDINAL JOINT AND THE EDGE OF MANHOLE IS 2 FEET OR LESS, DIVERT THE LONGITUDIAL JOINT AT A 2:1 TAPER RATE TO THE CENTER OF THE MANHOLE. IF THE DISTANCE IS GREATER THAN 2 FEET, DO NOT DIVERT THE JOINT AND SAW AS NORMAL. PLACE REBAR REINFORCEMENT AROUND THE MANHOLE.

(4) IF DISTANCE FROM THE EDGE OF THE MANHOLE TO THE NEAREST TRANSVERSE JOINT IS 4 FEET OR LESS, REDIRECT JOINT TO INTERSECT THE CENTER OF THE MANHOLE. IF DISTANCE IS GREATER THAN 4 FEET, DO NOT DIVERT THE JOINT AND SAW AS NORMAL. PLACE REBAR REINFORCEMENT AROUND THE MANHOLE.

(5) ALIGN TRANSVERSE JOINT WITH ONE EDGE OF INLET WHEN PRACTICAL.

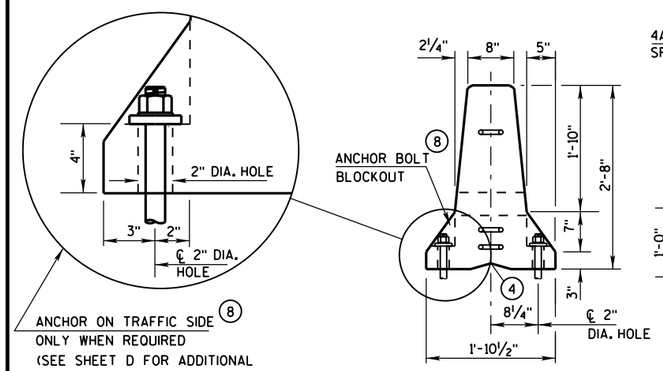
CONCRETE PAVEMENT JOINTING AT UTILITY FIXTURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

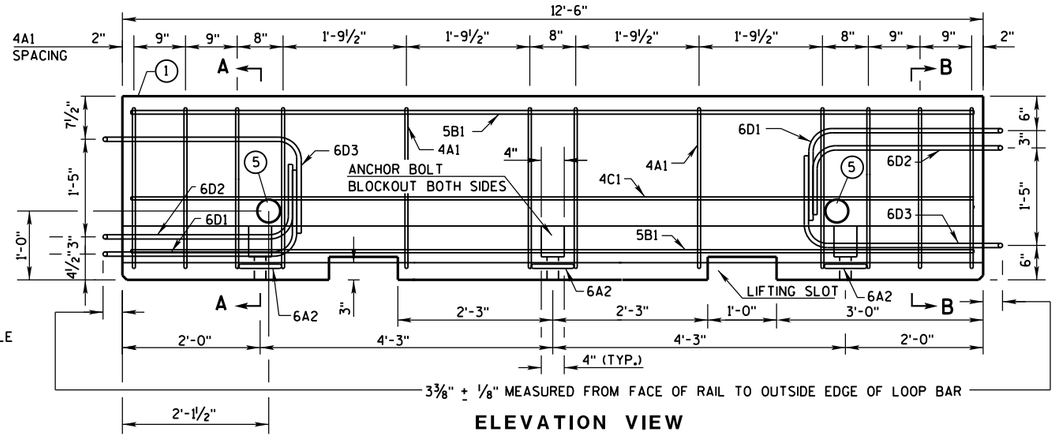
APPROVED
December, 2016 — /S/ Peter Kemp, P.E.
DATE — PAVEMENT SUPEF
FHWA

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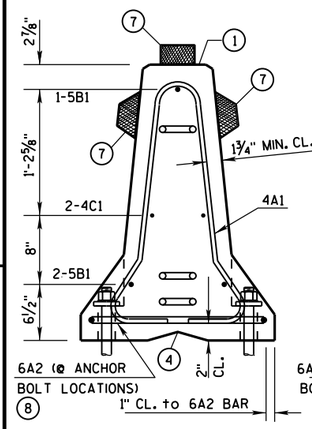
S.D.D. 13 C 18-5d



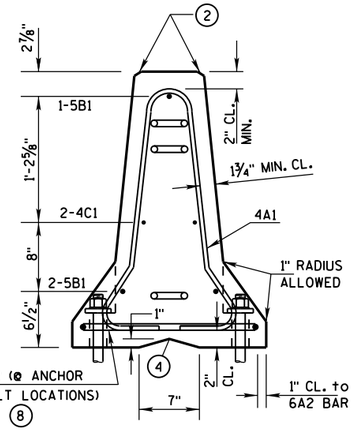
END VIEW



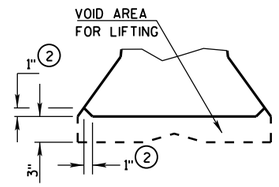
ELEVATION VIEW



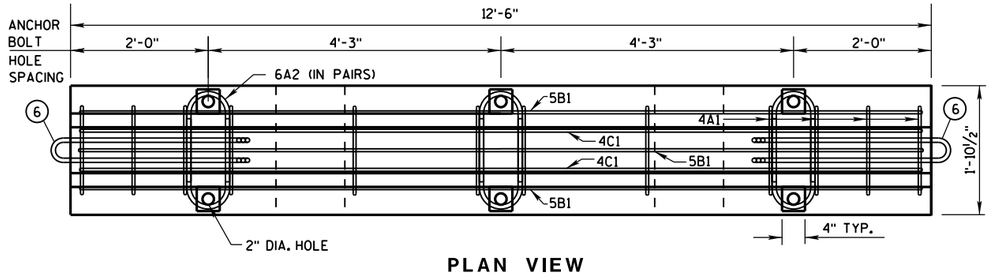
SECTION A-A
(STIRRUP PLACEMENT)



SECTION B-B
(STIRRUP PLACEMENT)

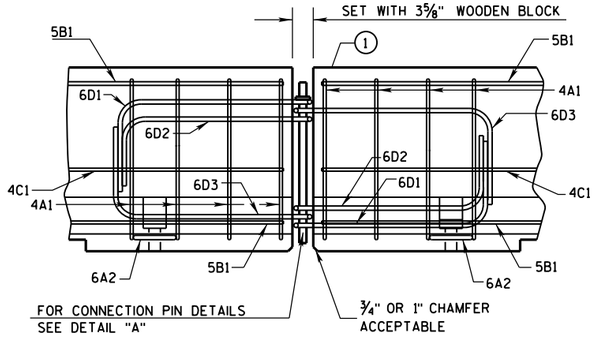


DETAIL "B"
LIFTING SLOT DETAIL

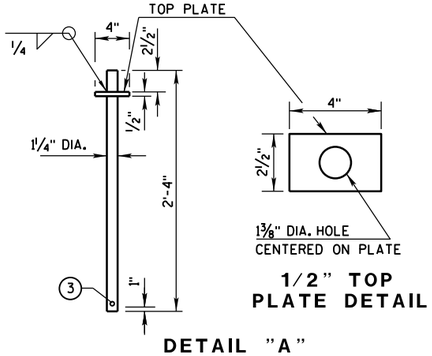


PLAN VIEW

DETAILS OF BARRIER SECTION

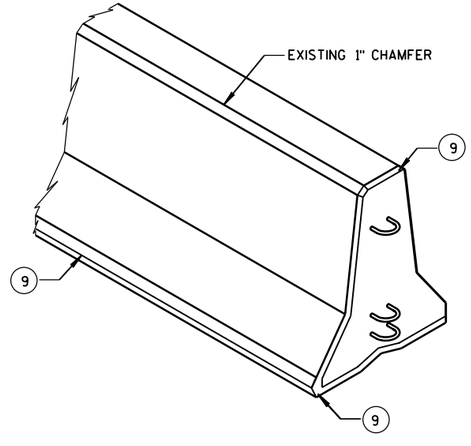


DETAILS OF BARRIER CONNECTION



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.

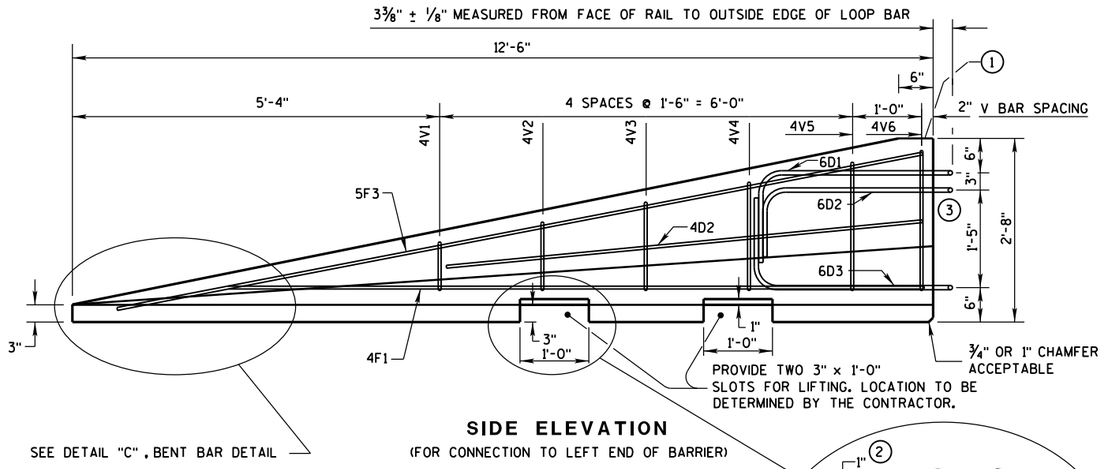
(9) 1" CHAMFER OPTIONAL.

CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"

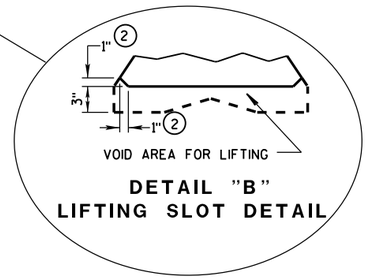
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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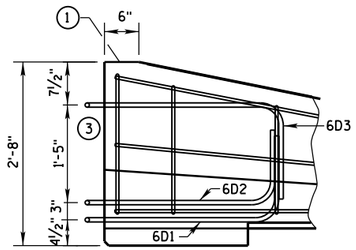
S.D.D. 14 B 7-14a



SIDE ELEVATION
(FOR CONNECTION TO LEFT END OF BARRIER)



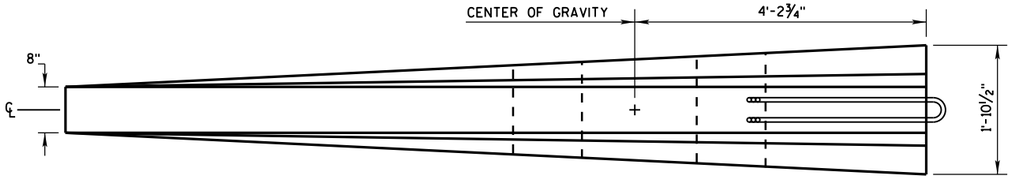
DETAIL "B"
LIFTING SLOT DETAIL



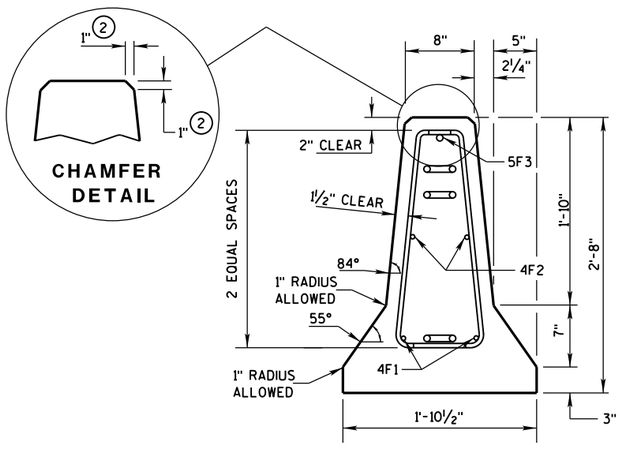
SIDE ELEVATION
LOOP BAR ASSEMBLY INVERTED
FOR OPPOSITE END.
(FOR CONNECTION TO RIGHT END OF BARRIER)

GENERAL NOTES

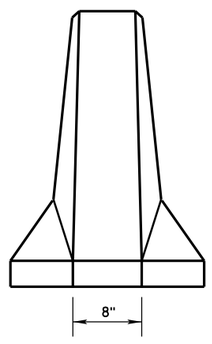
1. MARK ONE END OF EACH BARRIER PERMANENTLY BY FORMING INTO THE BARRIER THE FOLLOWING INFORMATION:
   a. TYPE WICBTP
   b. MANUFACTURER
   c. DATE MANUFACTURED (MONTH AND YEAR)
2. 1" CHAMFER TO PREVENT SPALLING.
3. NEVER USE LOOP BARS (6D1, 6D2 OR 6D3) TO LIFT, MOVE OR REPOSITION THE BARRIER.



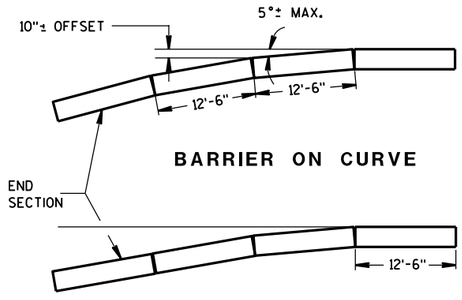
PLAN VIEW



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"

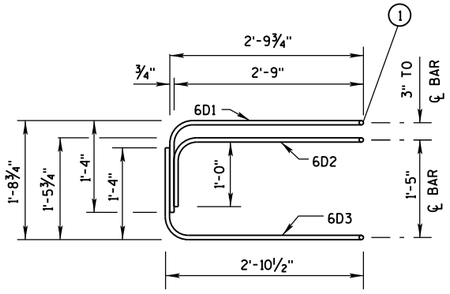
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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

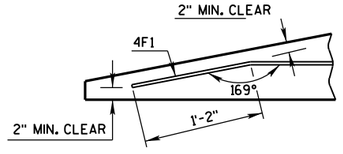
BARRIER TAPER SECTION BILL OF MATERIALS

(PER 12'-6" BARRIER TAPER SECTION)

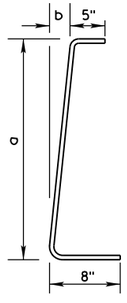
BAR	BAR SIZE	NO. OF BARS	LENGTH FT.
4V1	4	2	1'-11"
4V2	4	2	2'-2"
4V3	4	2	2'-6"
4V4	4	2	2'-9"
4V5	4	2	3'-2"
4V6	4	2	3'-4"
4F1	4	2	12'-0"
4F2	4	2	7'-6"
5F3	5	1	11'-9"
LOOP ASSEMBLY			
6D1	6	1	8'-5"
6D2	6	1	7'-7"
6D3	6	1	8'-6"



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

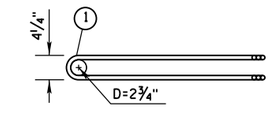
GENERAL NOTES

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

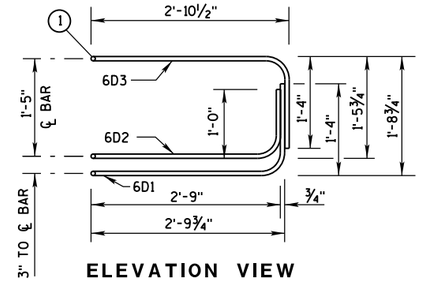
BARRIER SECTION BILL OF MATERIALS

(PER 12'-6" BARRIER SECTION)

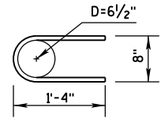
BAR	BAR SIZE	NO. OF BARS	LENGTH FT.
4A1	4	12	6'-0"
6A2	6	6	2'-11"
5B1	5	3	12'-2"
4C1	4	2	12'-2"
LOOP ASSEMBLY			
6D1	6	2	8'-5"
6D2	6	2	7'-7"
6D3	6	2	8'-6"



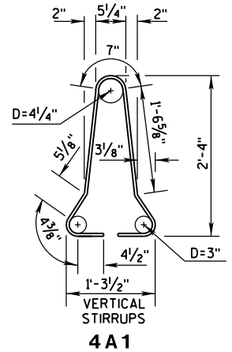
PLAN VIEW
LOOP BAR ASSEMBLY
(MARKED END SHOWN, INVERT FOR OTHER END)



ELEVATION VIEW



6A2



4A1

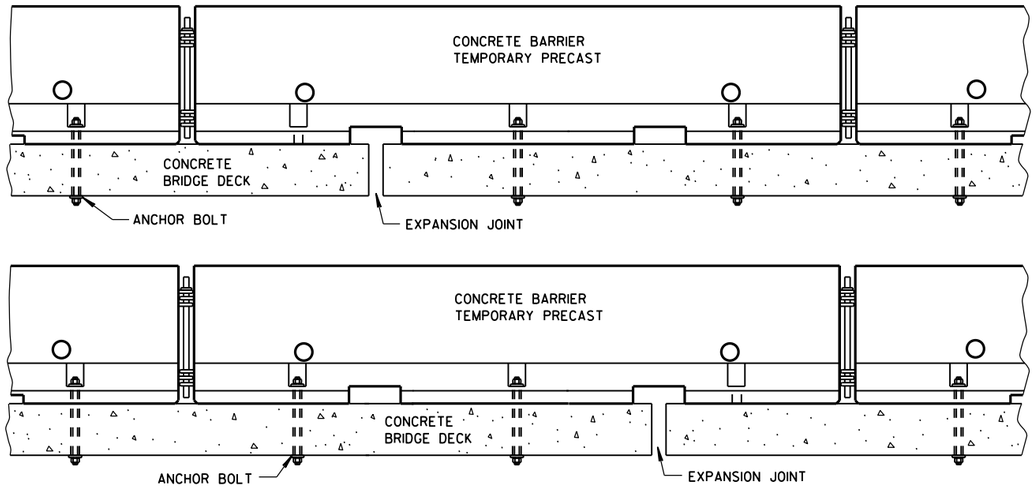
BARRIER SECTION

CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

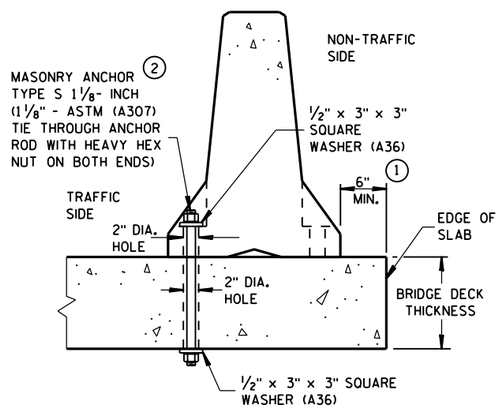
6

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



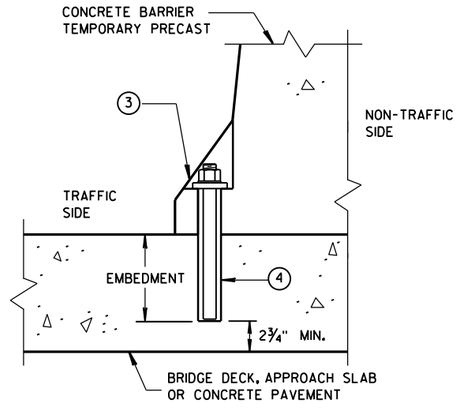
TREATMENT AT BRIDGE DECK EXPANSION JOINTS

(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.

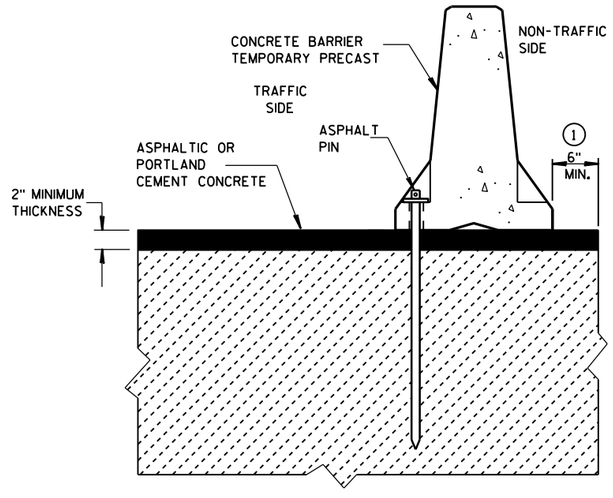
② ANCHORING IS INCIDENTAL TO CONCRETE BARRIER TEMPORARY PRECAST.

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.

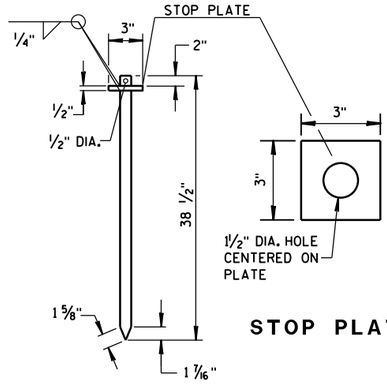
③ 1⅛" DIAMENTER A307 THREADED ROD, ½" X 3" X 3" SQUARE PLATE WASHER WITH ASTM A36 STEEL, ASTM A563A HEAVY HEX NUT.

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

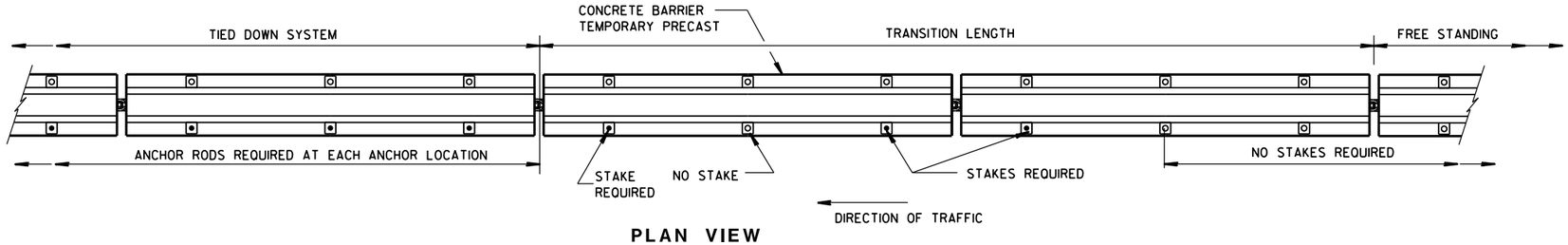
(STAKING IS INCIDENTAL TO CONCRETE BARRIER TEMPORARY PRECAST)



STOP PLATE

ASPHALT PIN

(ASTM A36 STEEL)



PLAN VIEW

FREE STANDING TRANSITION TO TIED-DOWN SYSTEM

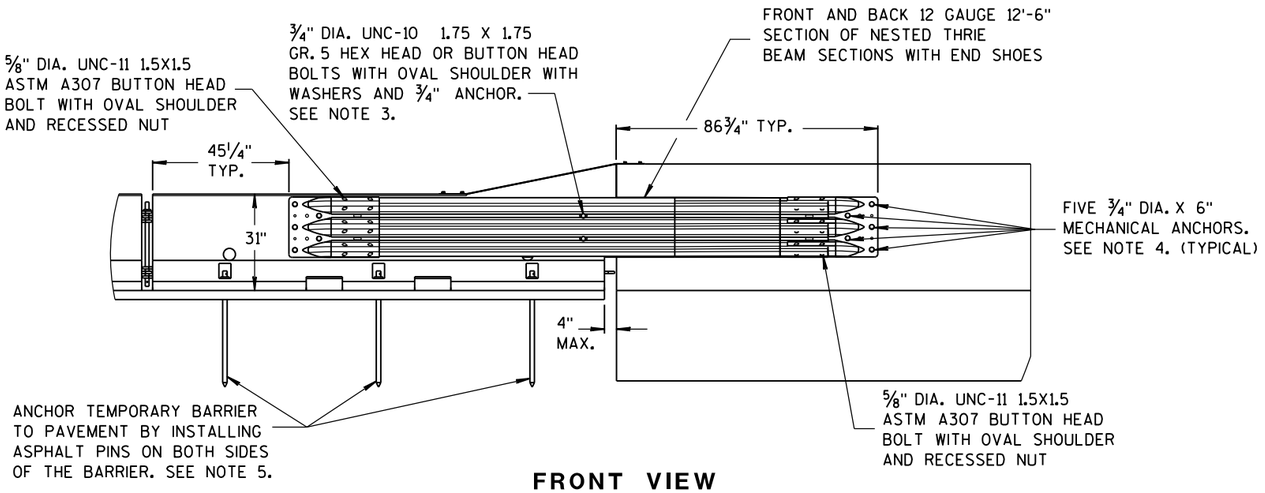
(PLACE TRANSITION IN A TANGENT SECTION OF BARRIER PARALLEL TO THE ROADWAY. IF TRANSITION OCCURS ON STRUCTURAL SLAB, ANCHOR AS SHOWN.)

CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

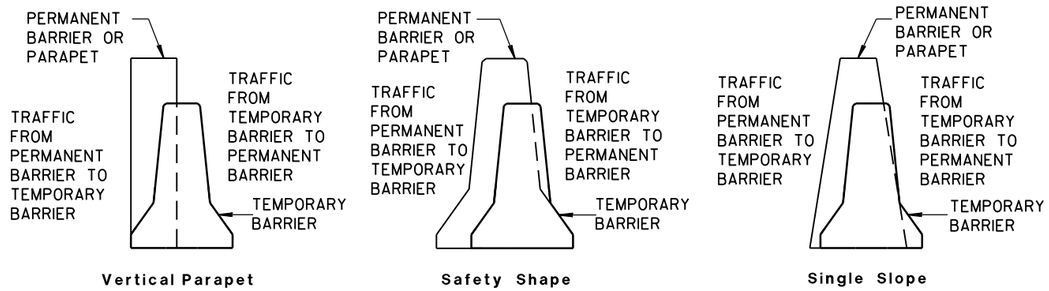
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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FRONT VIEW



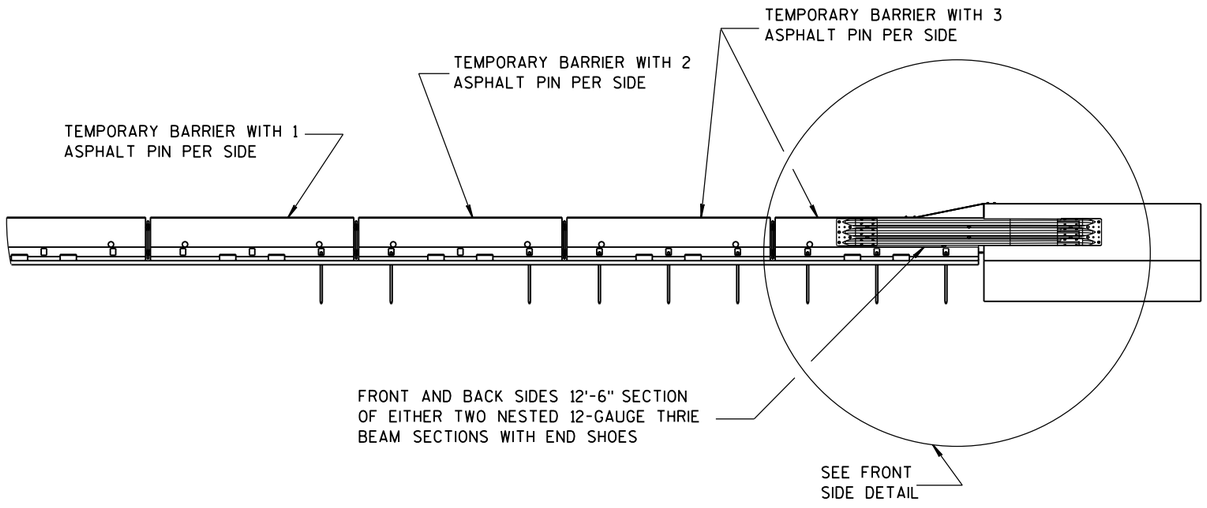
TEMPORARY BARRIER PLACEMENT FOR BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM

NOTES

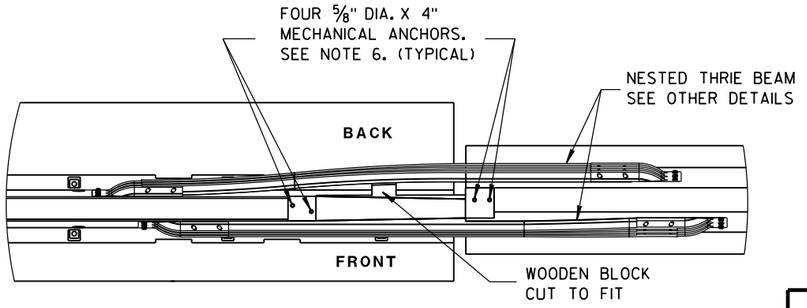
NESTED THRIE BEAM IS REQUIRED ON BOTH SIDES OF THE TEMPORARY BARRIER FOR ALL INSTALLATIONS.

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



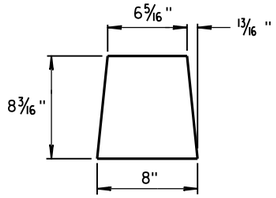
PLAN VIEW

BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM

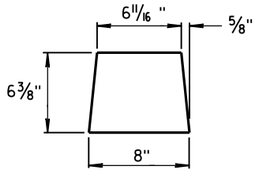
CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPO

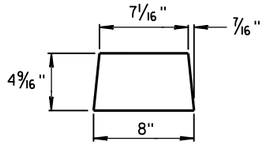
6
S.D.D. 14 B 7-14e



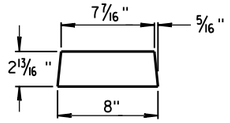
GUSSET 1



GUSSET 2

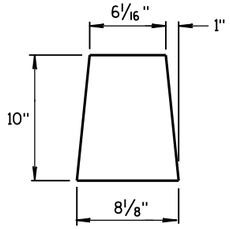


GUSSET 3

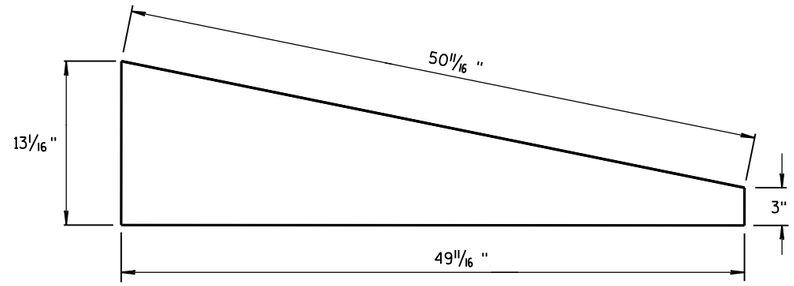


GUSSET 4

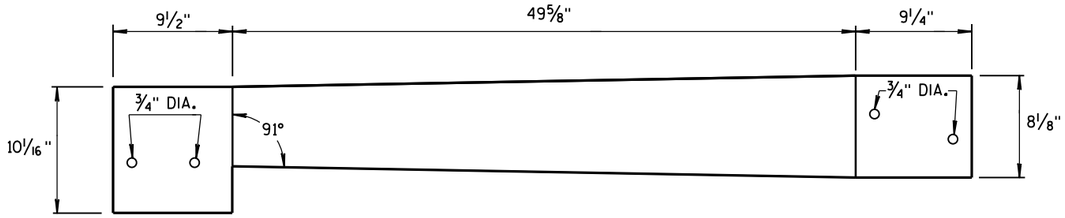
GUSSETS

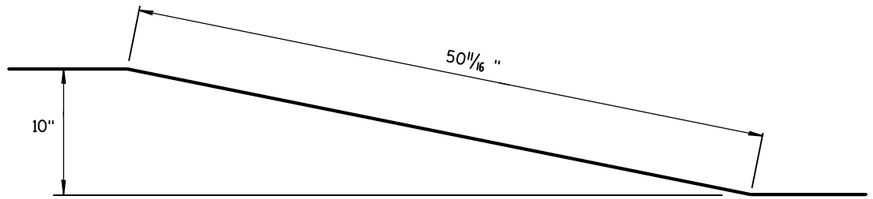


END PLATE



SIDE PLATE

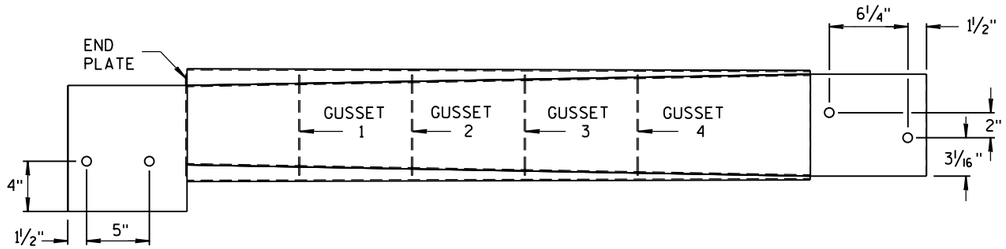


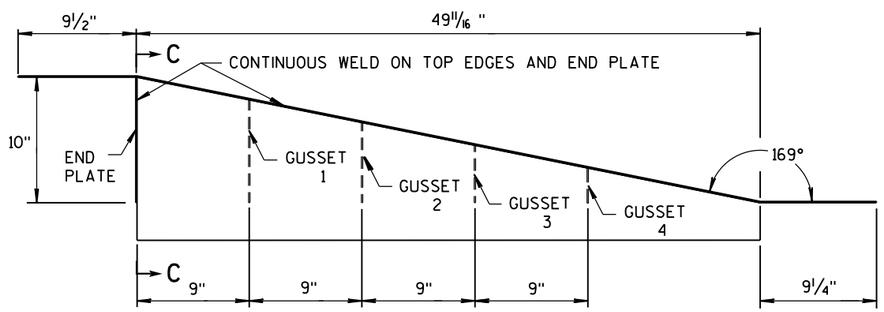


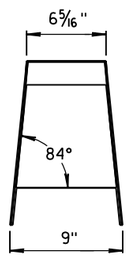
TOP PLATE

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.

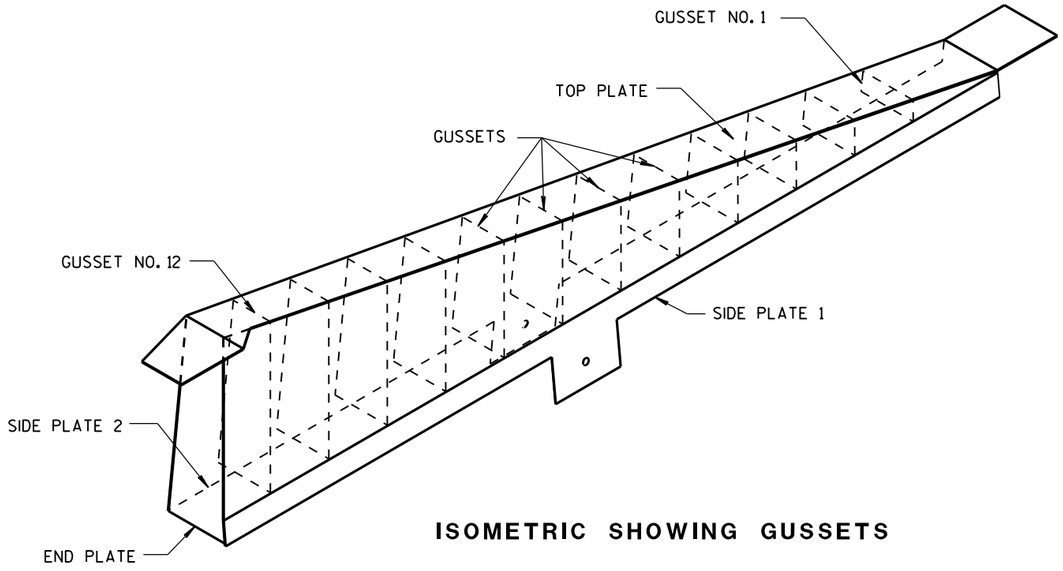
CAP DETAILS FOR TEMPORARY CONCRETE BARRIER TO 42" PERMANENT CONCRETE BARRIER

CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

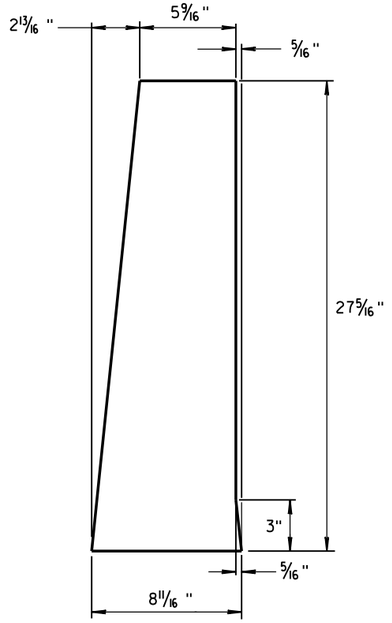
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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

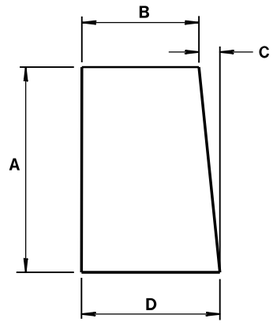


ISOMETRIC SHOWING GUSSETS



END PLATE

1/8" STEEL PLATE



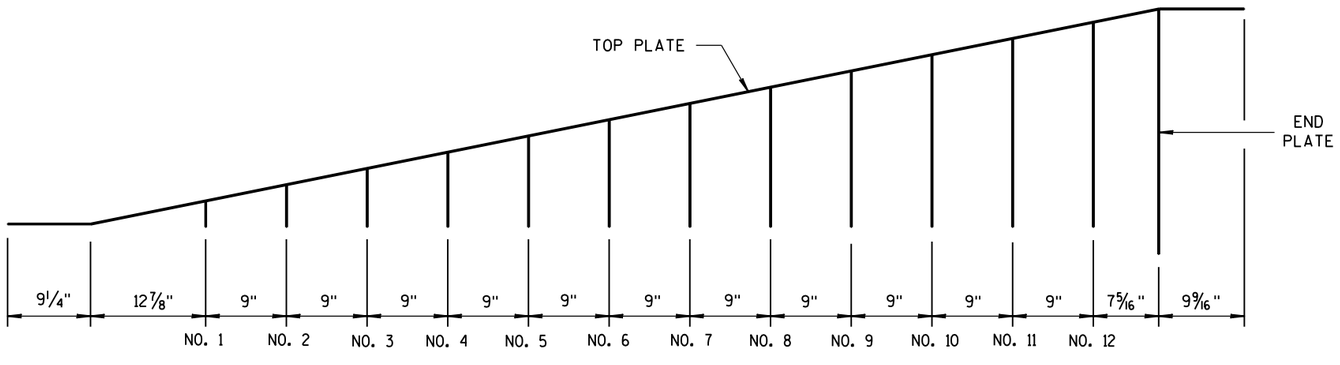
GUSSETS 1 - 12

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"

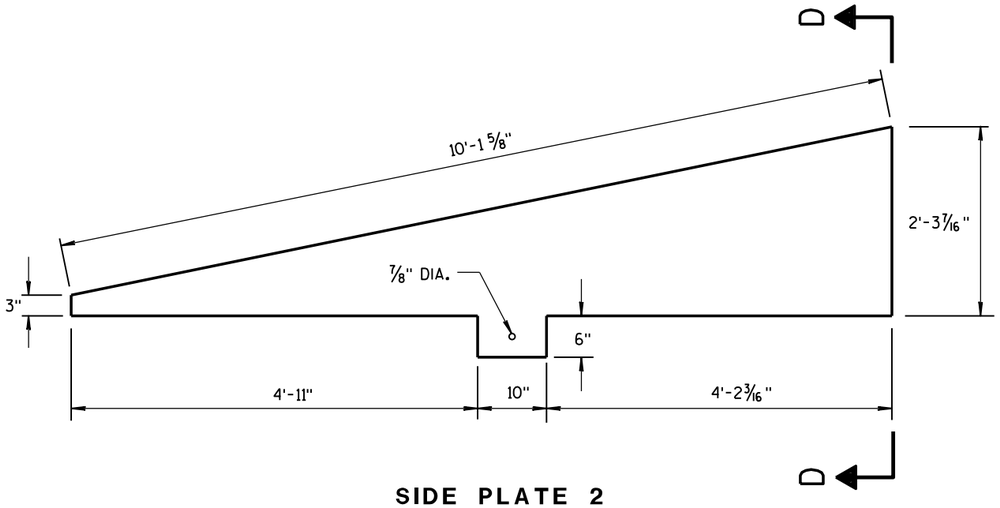
STATE OF WISCONSIN
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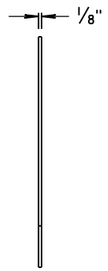
S.D.D. 14 B 7-14g

6

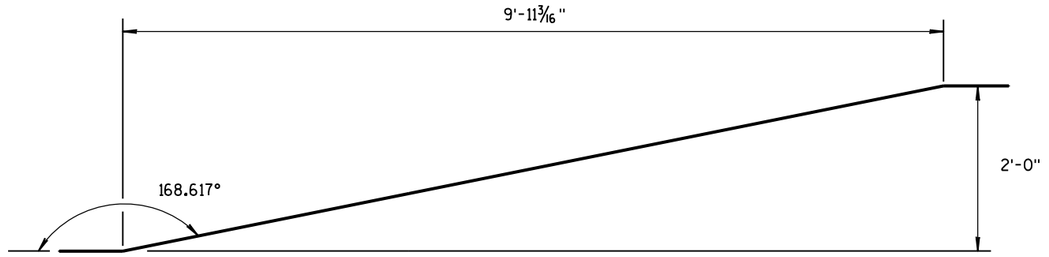
S.D.D. 14 B 7-14g



SIDE PLATE 2

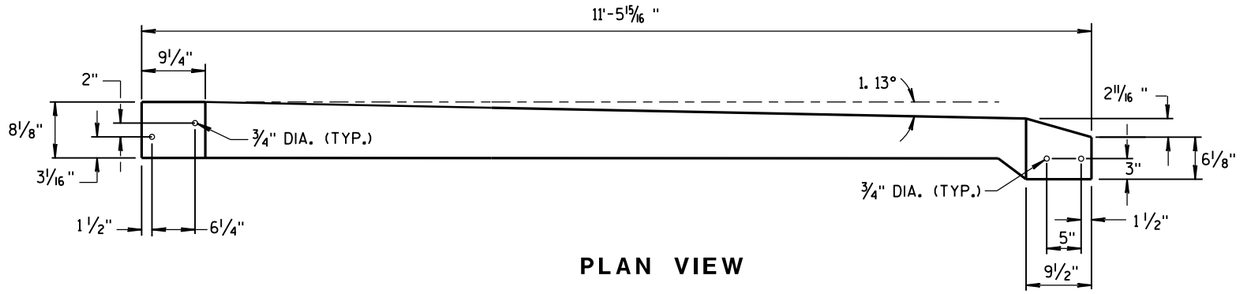


END VIEW



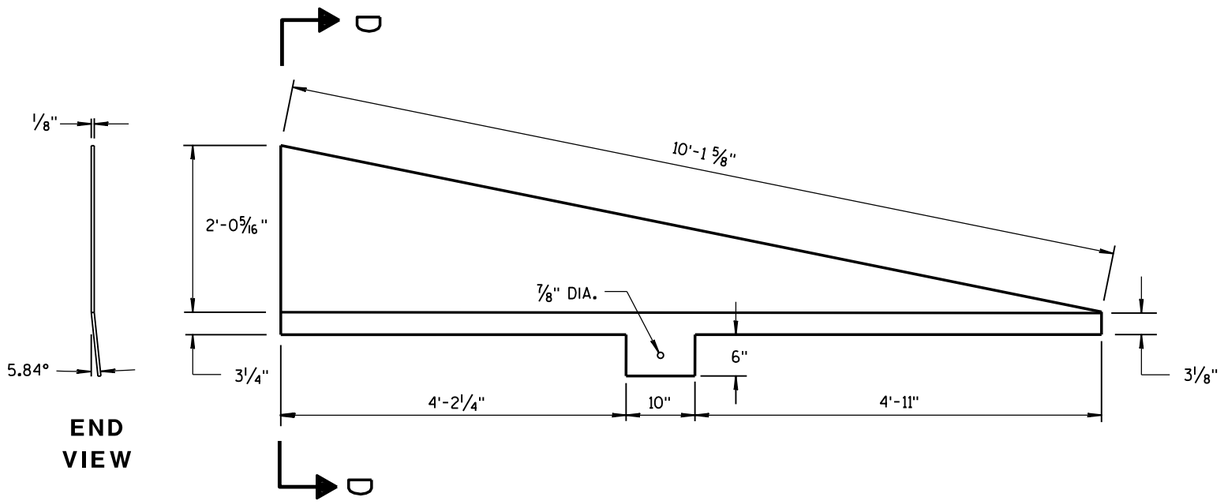
SIDE VIEW

TOP PLATE



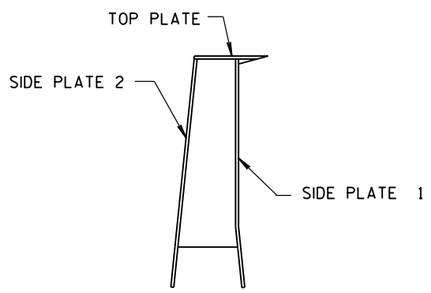
PLAN VIEW

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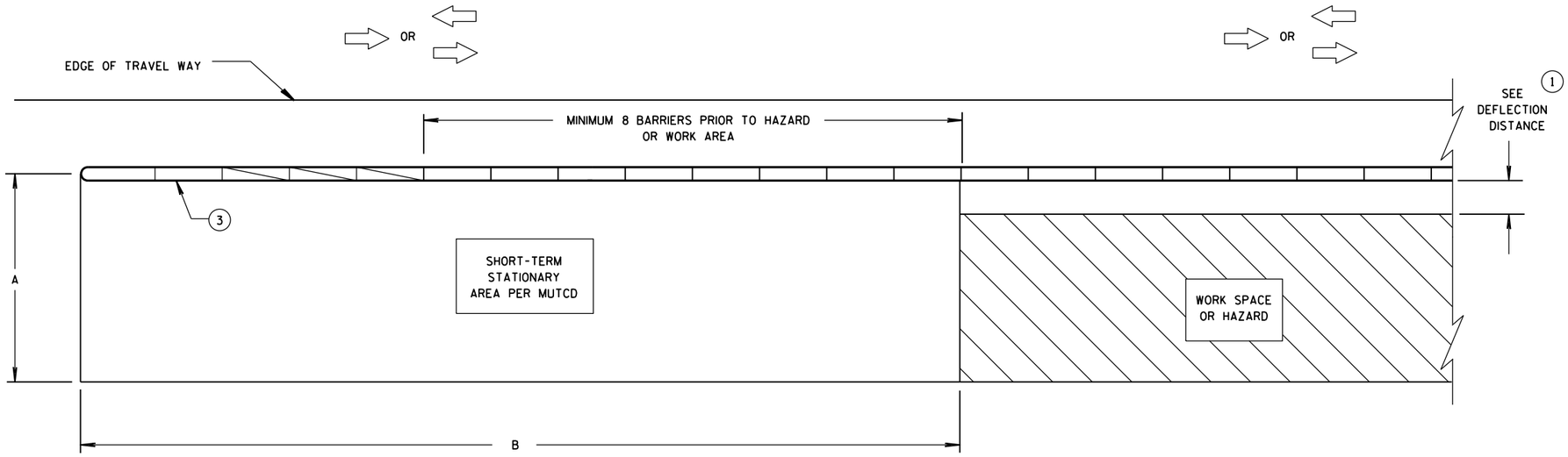
APPROVED
June 2014 — DATE
/S/ Jerry H. Zoda — ROADWAY STANDARD D ENGINEER
FHWA

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

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



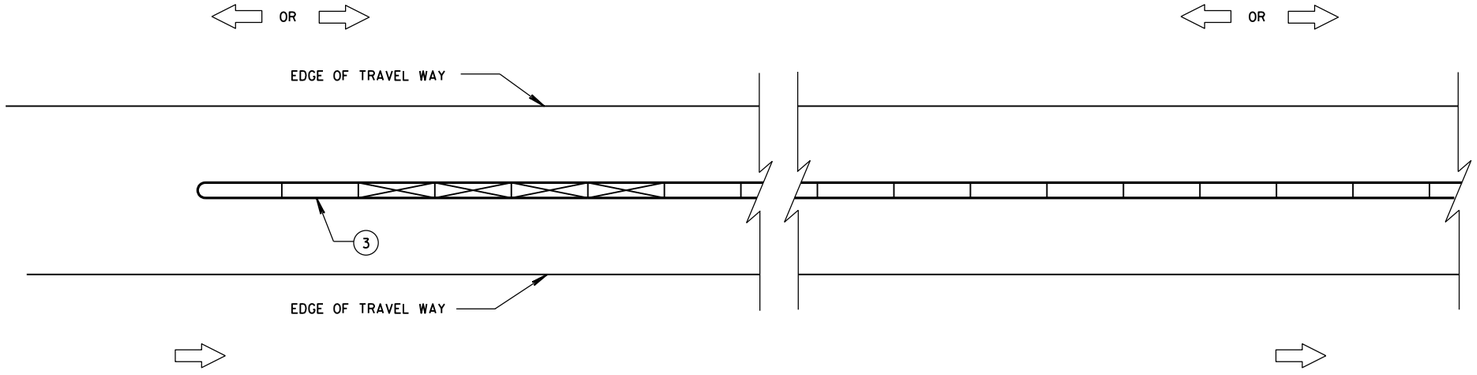
CRASH CUSHION/SAND BARREL ARRAY AND TEMPORARY BARRIER INSTALLATION FOR TRAFFIC ON ONE SIDE OF BARRIER

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.

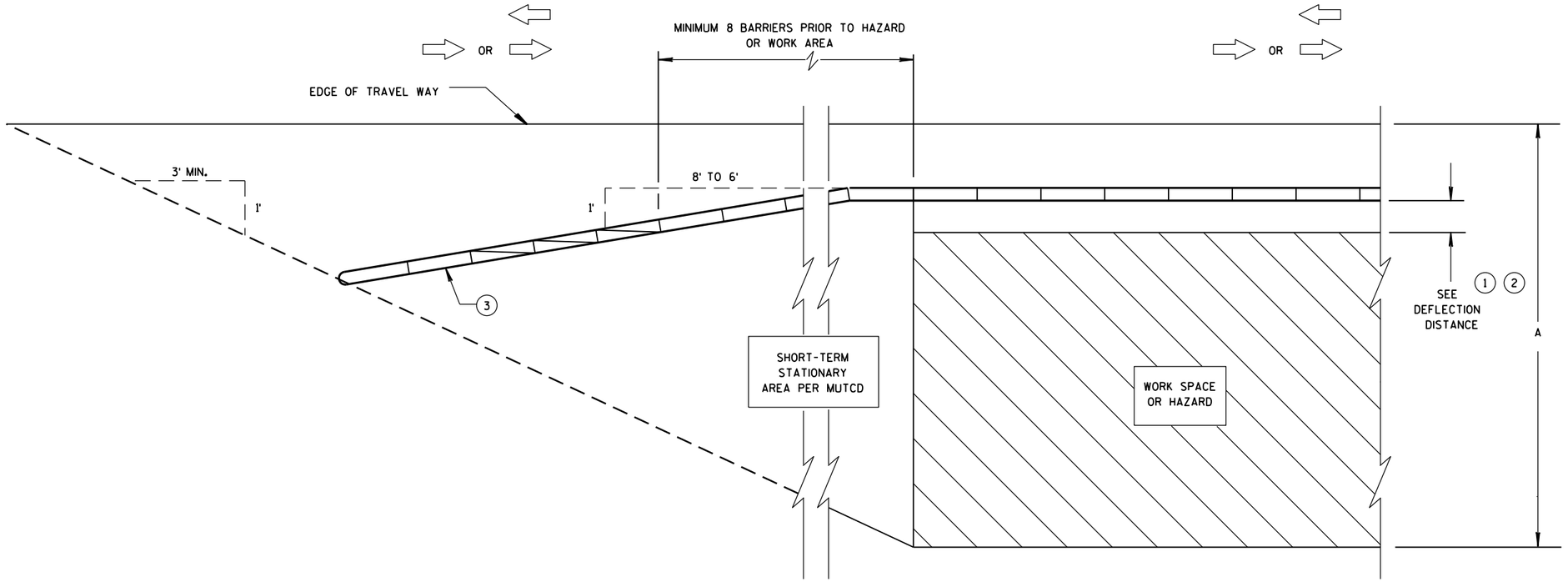
(3) ANCHOR TEMPORARY BARRIER ACCORDING TO CRASH CUSHION OR SAND BARREL MANUFACTURER'S RECOMMENDATIONS. IF MANUFACTURER'S RECOMMENDATIONS ARE NOT PROVIDED, ANCHOR 3 PINS ON TRAFFIC SIDE.

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

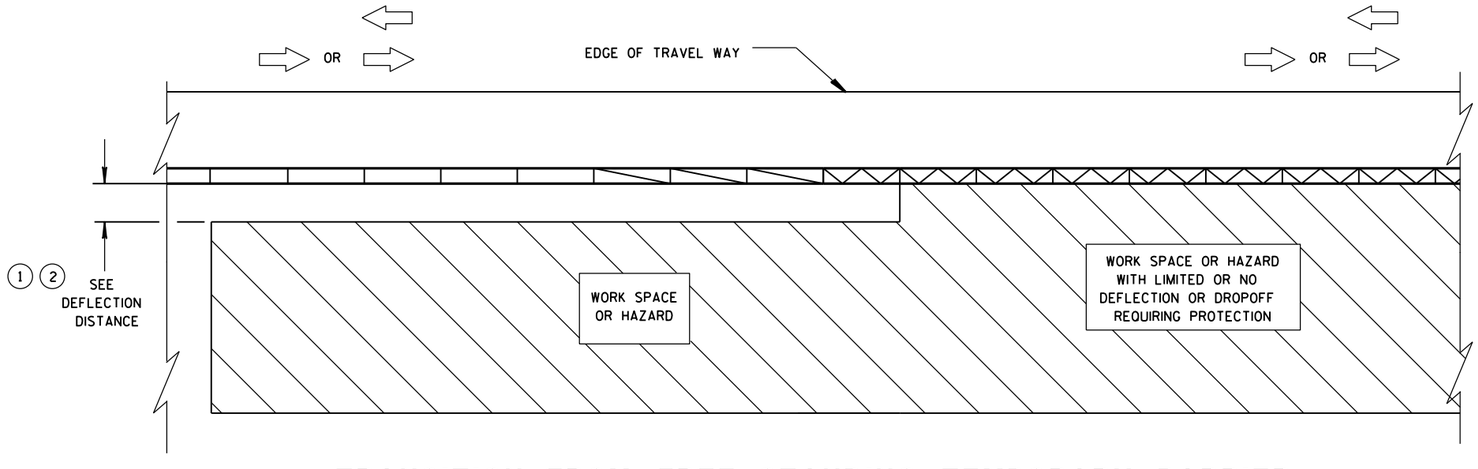
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S.D.D. 14 B 8-2a



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

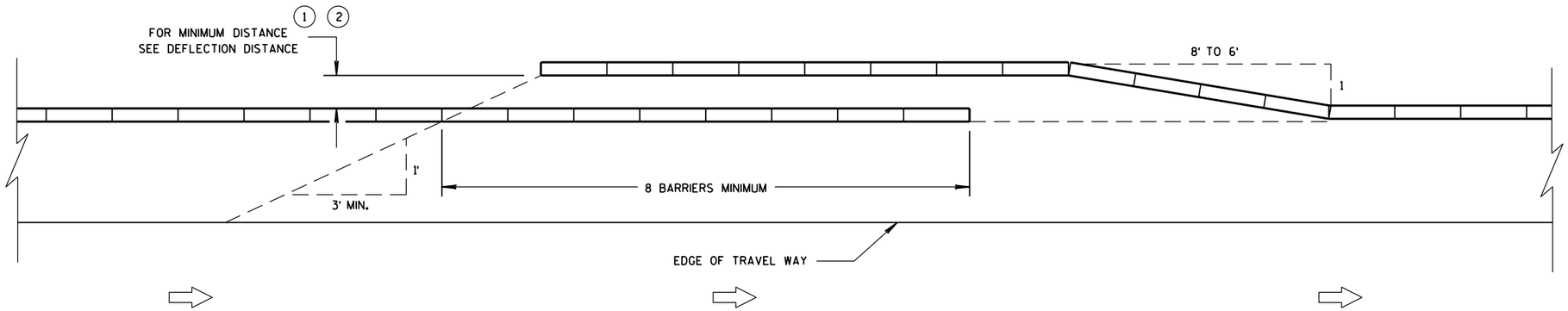
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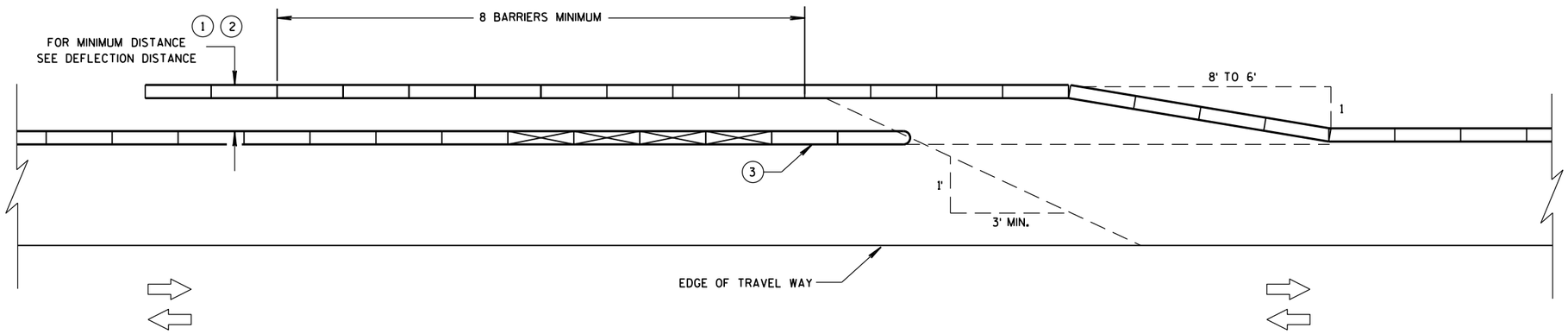
S.D.D. 14 B 8-2b

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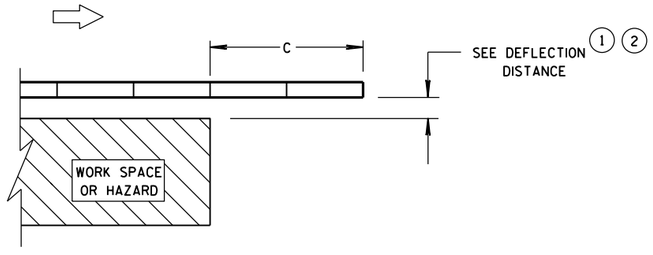
S.D.D. 14 B 8-2b



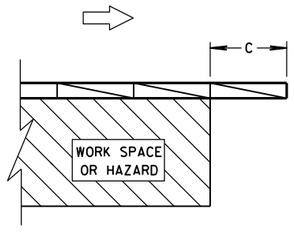
TEMPORARY BARRIER OVERLAP - ONE-WAY TRAFFIC



TEMPORARY BARRIER OVERLAP - TWO-WAY TRAFFIC



ENDING TEMPORARY BARRIER DOWNSTREAM - UNANCHORED



ENDING TEMPORARY BARRIER DOWNSTREAM - ANCHORED

LEGEND

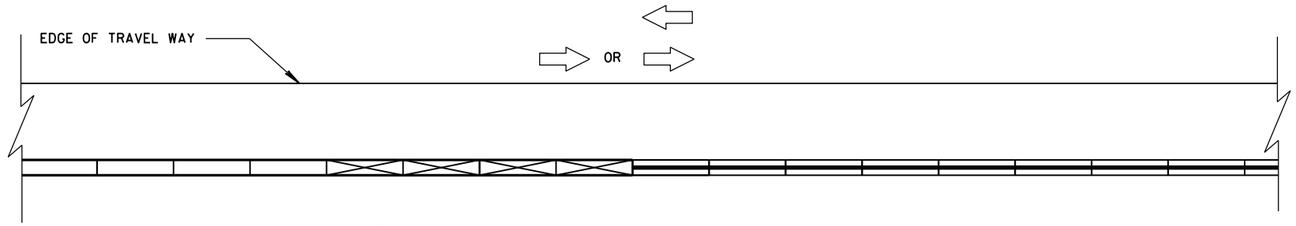
- DIRECTION OF TRAVEL
- CRASH CUSHION OR SAND BARREL ARRAY
- SEE FREE STANDING TRANSITION TO TIED-DOWN SYSTEM DETAILS
- SEE BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM DETAILS
- 3 PINS PLACED ON TRAFFIC SIDE OF BARRIER
- PERMANENT CONCRETE BARRIER OR CONCRETE PARAPET
- FREE STANDING TEMPORARY BARRIER

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

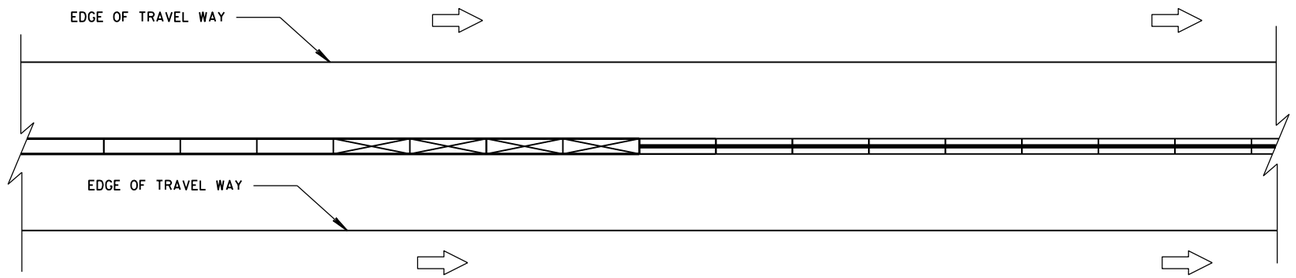
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

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



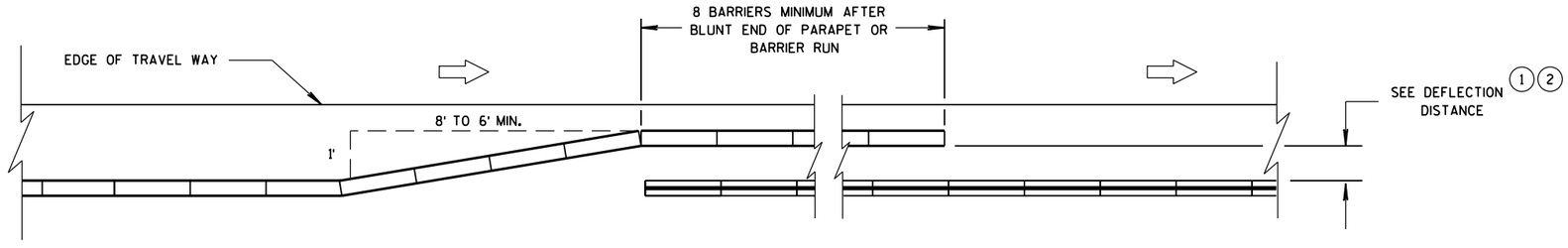
CONNECTING TEMPORARY BARRIER TO PERMANENT
CONCRETE BARRIER-TRAFFIC ON ONE SIDE



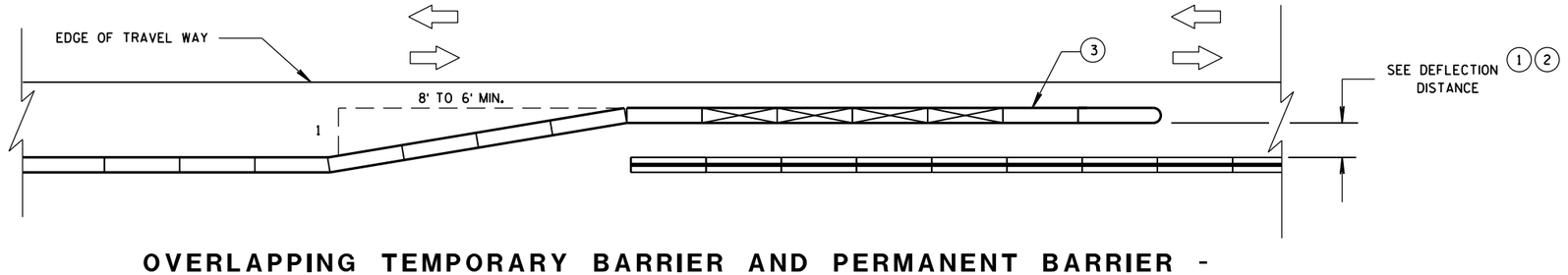
CONNECTING TEMPORARY BARRIER TO PERMANENT
CONCRETE BARRIER-TRAFFIC ON BOTH SIDES

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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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

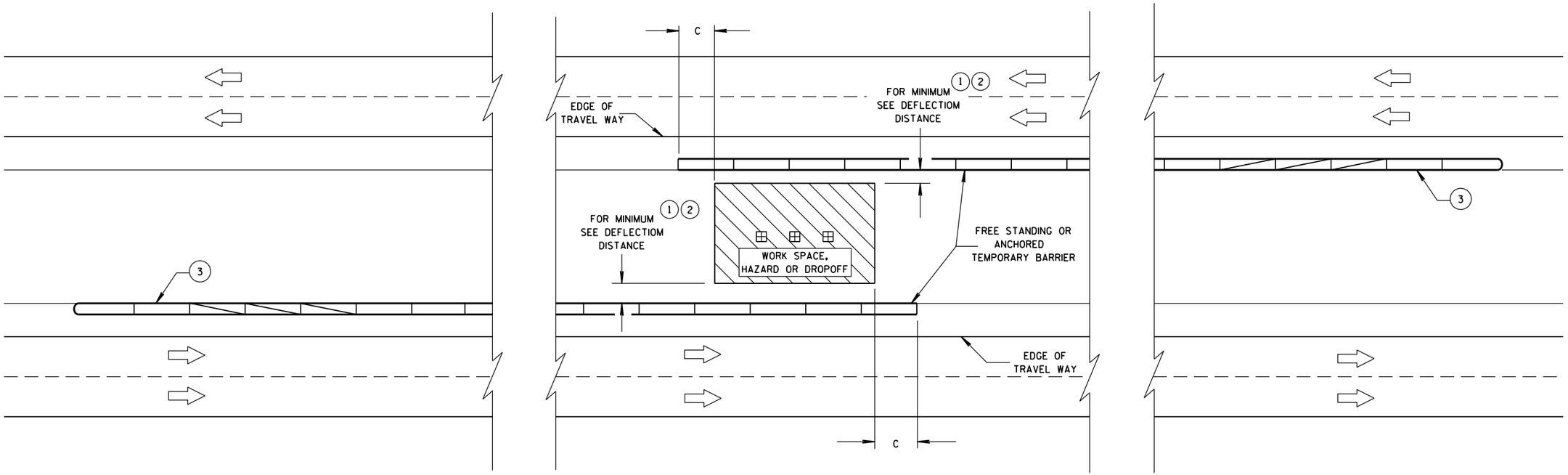
3 PINS PLACED ON TRAFFIC SIDE OF BARRIER

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



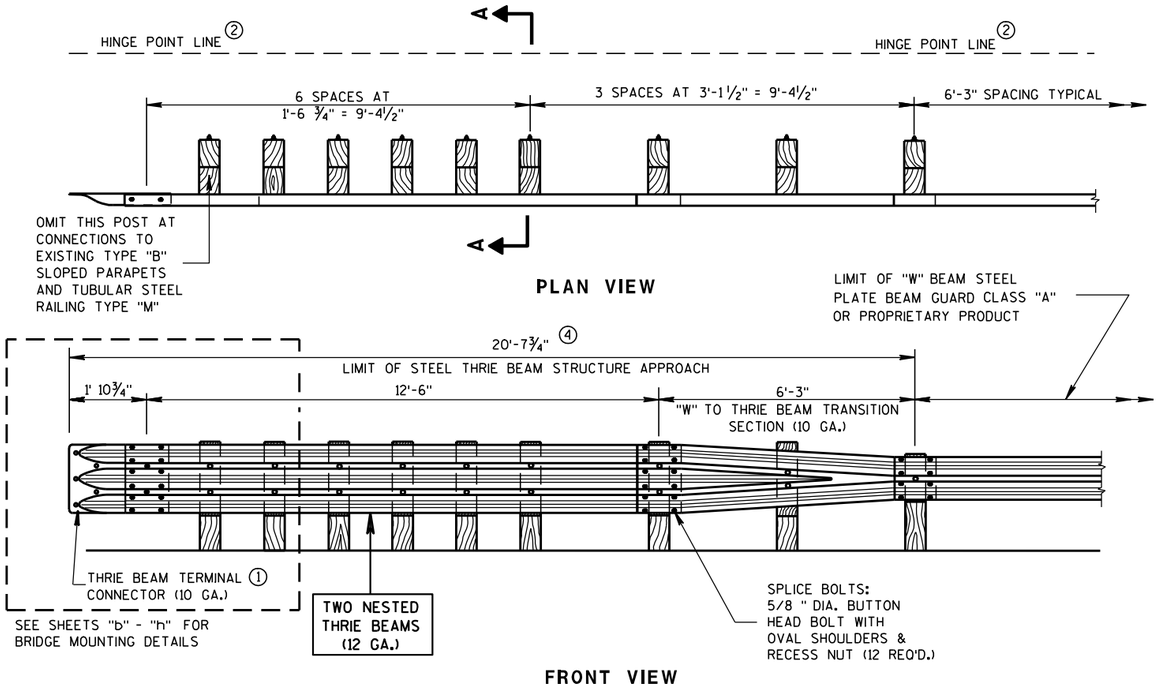
CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

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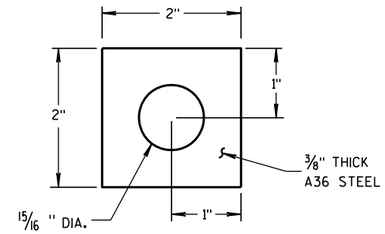


PLATE WASHER DETAIL

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.

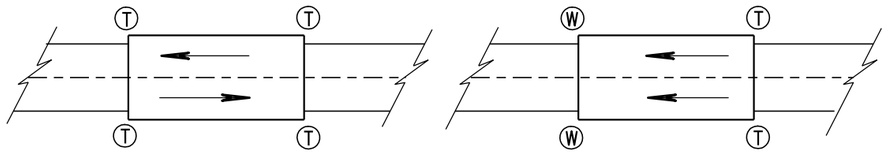
IF ROCK IS ENCOUNTERED, REMOVE ROCK TO FULL DEPTH OF POST PLUS 2 1/2" , AND 12" DIAMETER AROUND POST. SEE 14B15 FOR MORE DETAILS.

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.



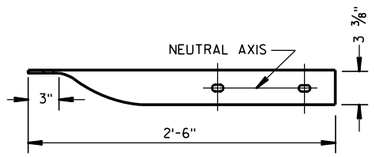
TWO WAY TRAFFIC

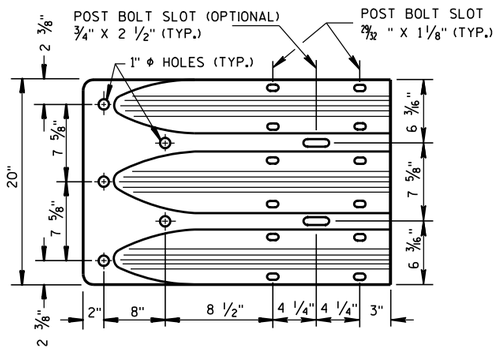
ONE WAY TRAFFIC

T THRIE BEAM CONNECTION

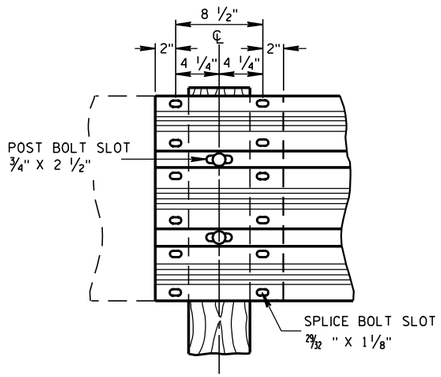
W W-BEAM CONNECTION WHEN REQUIRED

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

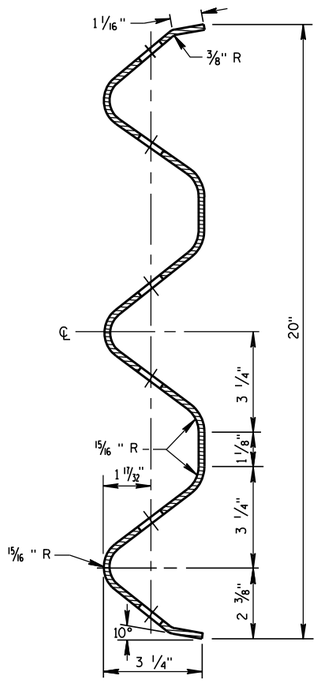




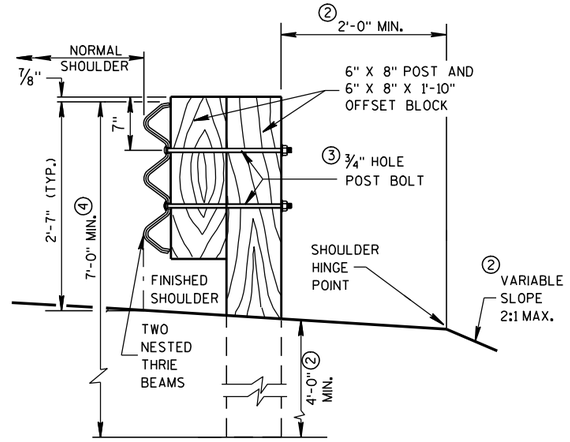
THRIE BEAM TERMINAL CONNECTOR



THRIE BEAM SPLICE



SECTION THRU THRIE BEAM RAIL ELEMENT



SECTION A-A

STEEL THRIE BEAM STRUCTURE APPROACH

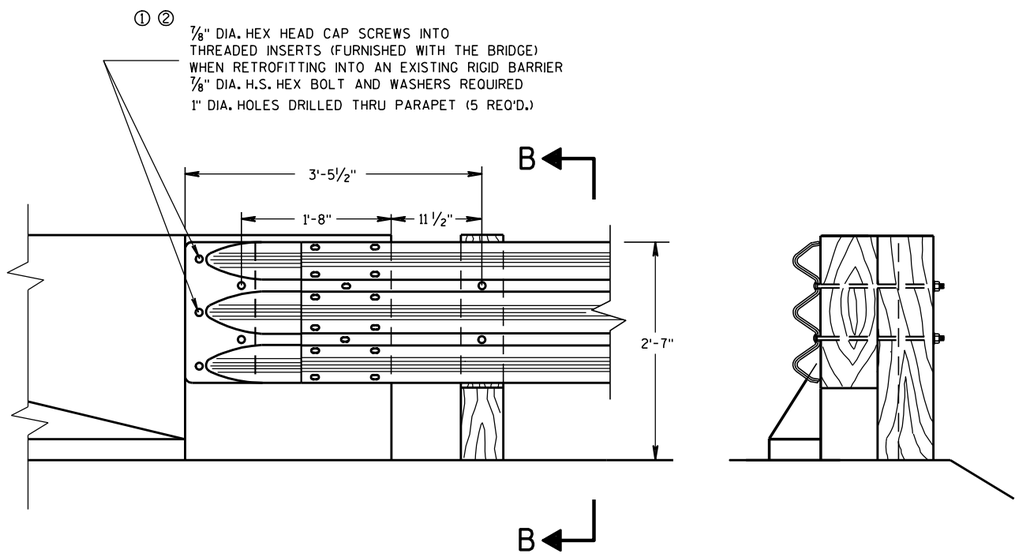
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

8/31/2012
DATE

/S/ Jerry H. Zogg
ROADWAY STANDARDS ENGINEER

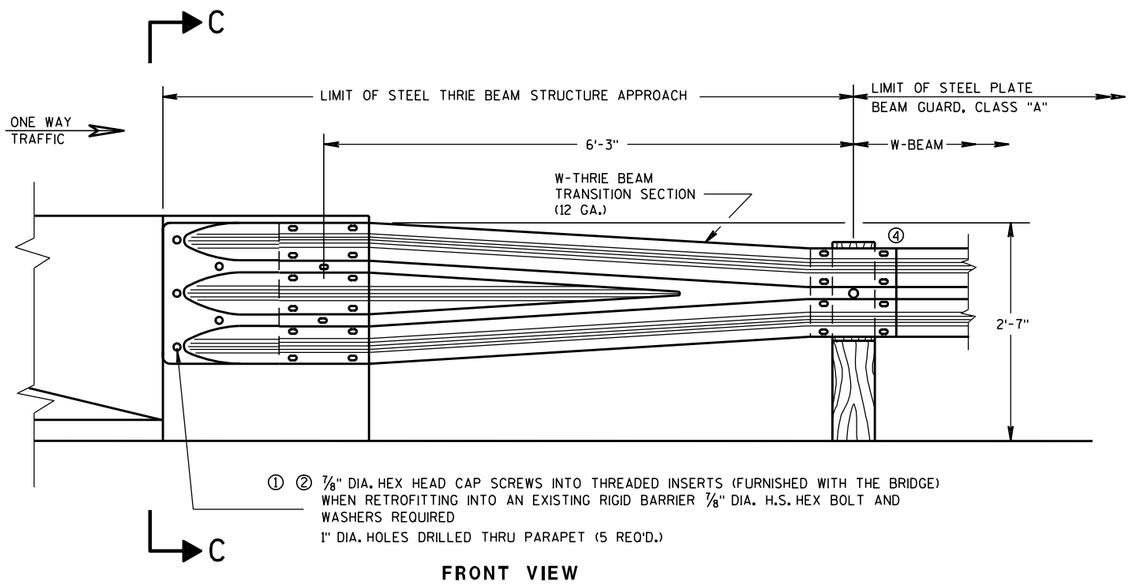
FHWA



FRONT VIEW

SECTION B-B

THRIE BEAM CONNECTION TO BRIDGE PARAPET WITH SQUARE ENDS



① ② ⅞" DIA. HEX HEAD CAP SCREWS INTO THREADED INSERTS (FURNISHED WITH THE BRIDGE) WHEN RETROFITTING INTO AN EXISTING RIGID BARRIER ⅞" DIA. H.S. HEX BOLT AND WASHERS REQUIRED
1" DIA. HOLES DRILLED THRU PARAPET (5 REQ'D.)

FRONT VIEW

W BEAM TRANSITION AND CONNECTION TO BRIDGE PARAPETS WITH SQUARE ENDS

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

GENERAL NOTES

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

BOLTS, NUTS AND WASHERS SHALL CONFORM TO ASTM A325, A449 AND GALVANIZED PER STANDARD SPECIFICATIONS 614.

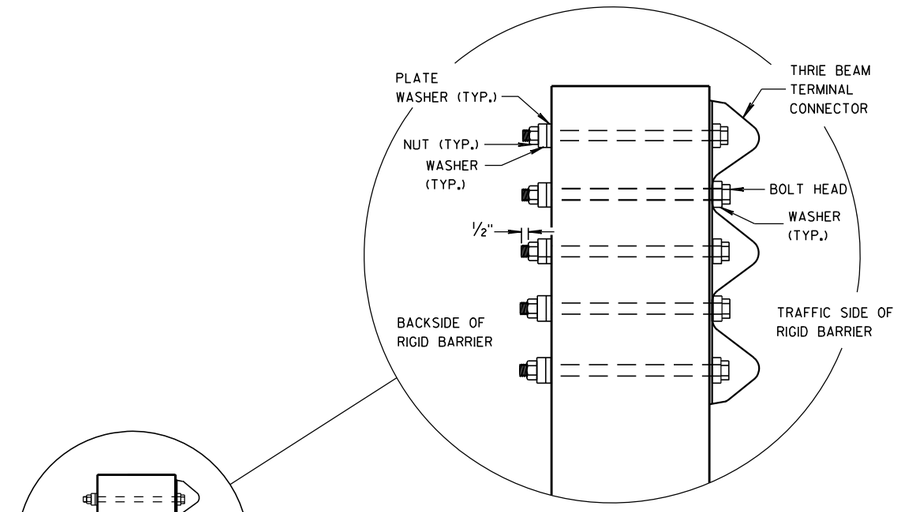
① DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

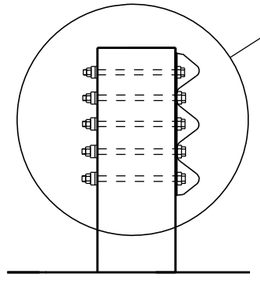
② BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM TERMINAL CONNECTOR. BOLTS THAT EXTEND THROUGH THE PARAPET AND OUT THE BACK FACE REQUIRE A HARDENED ROUND STEEL WASHER THAT IS 2" O.D. X ⅝" THICK AND ONE PLATE WASHER. REPAIR ANY DAMAGED CONCRETE FROM BOLT INSTALLATION.

③ 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 ½".

④ W6 X 9 OR W6 X 8.5 STEEL POSTS AND NOTCHED PLASTIC BLOCKOUTS ARE ACCEPTABLE ALTERNATIVES FOR 6" X 8" WOOD POST WITH WOOD OR PLASTIC BLOCKOUTS. USE APPROVED NOTCHED PLASTIC BLOCKOUTS WITH STEEL POSTS.

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.





SECTION C-C

STEEL THRIE BEAM STRUCTURE APPROACH, CONNECTION TO SQUARE END PARAPETS

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DEPARTMENT OF TRANSPORTATION

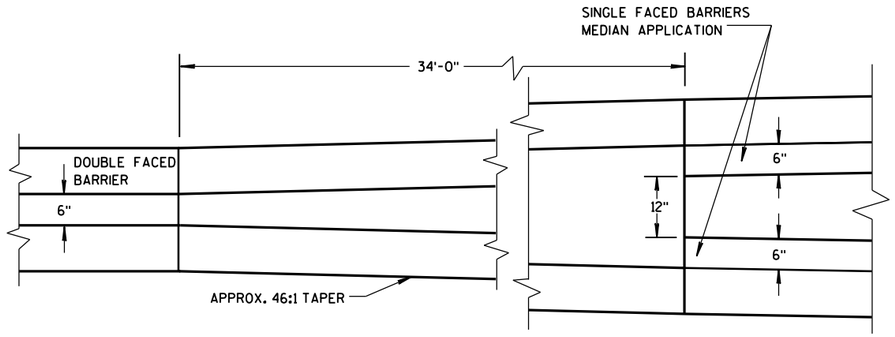
APPROVED
8/31/2012
DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS 1175
ENGINEER
FHWA

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S.D.D. 14 B 20-11b

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S.D.D. 14 B 20-11b



PLAN VIEW

TRANSITION DETAILS OF DOUBLE FACED TO SINGLE FACED CONCRETE MEDIAN BARRIER

(FOOTINGS ARE NOT SHOWN)

GENERAL NOTES

SPLICES OF LONGITUDINAL BARS SHALL BE MADE WITH BARS LAPPED AT LEAST 18-INCHES AND FIRMLY TIED OR FASTENED TOGETHER.

ALL BAR STEEL REINFORCEMENT SHALL CONFORM TO REQUIREMENTS OF AASHTO M31, GRADE 60.

(1) BARRIER SHALL BE INSTALLED ON A CONCRETE SHOULDER INSTEAD OF THE CONCRETE FOOTING WHEN SPECIFIED OR SHOWN ELSEWHERE IN CONTRACT.

(2) OPENINGS FOR DRAINAGE SHALL BE PLACED AT LOW POINTS OF VERTICAL CURVES OR WHERE DIRECTED BY THE ENGINEER.

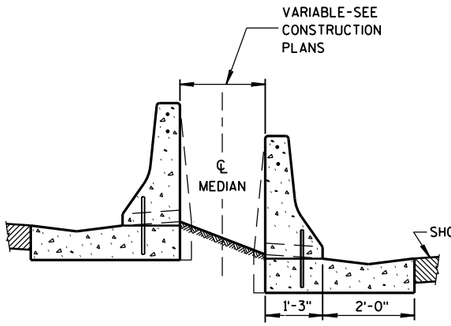
(3) 3/4-INCH BEVEL OR 1-INCH RADIUS (TYPICAL).

(4) NO. 4 BARS SHALL BE CONTINUED THROUGH CONSTRUCTION JOINTS.

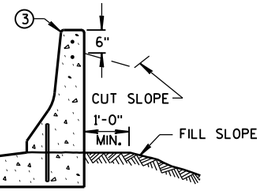
(5) EXPANSION JOINTS SHALL BE PLACED AT EXISTING EXPANSION JOINTS IN THE PAVEMENT AND AT STRUCTURES. SEE REINFORCEMENT AT BARRIER END DETAIL.

(6) SAWED CONTRACTION JOINTS SHALL BE PROVIDED ACROSS THE FULL WIDTH OF THE BARRIER FOOTING, AND IN FRONT, TOP AND BACK FACE OF THE BARRIER AT EXISTING PAVEMENT JOINTS AND AT UNIFORM INTERVALS BETWEEN WITH A MAXIMUM SPACING OF 25 FEET.

HIGH SIDE
CONCRETE BARRIER DETAIL

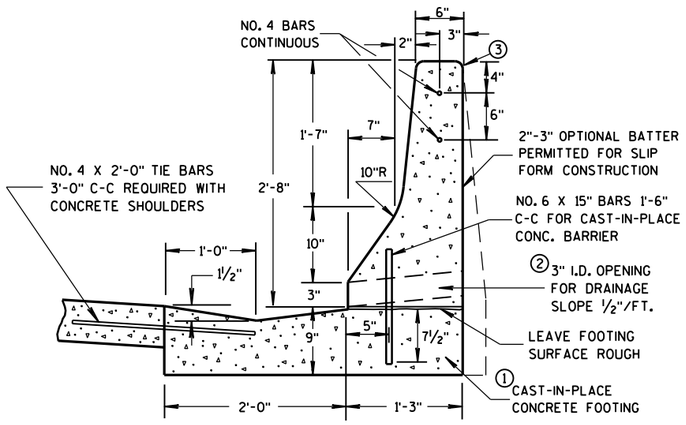


MEDIAN

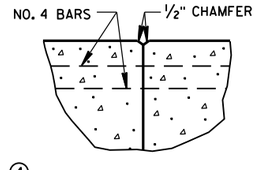


SHOULDER

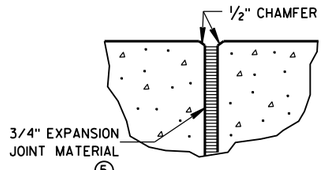
TYPICAL APPLICATIONS



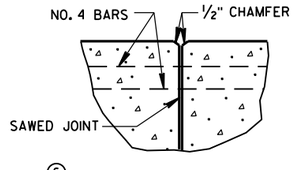
SECTION VIEW



4 CONSTRUCTION JOINT



5 EXPANSION JOINT



6 CONTRACTION JOINT

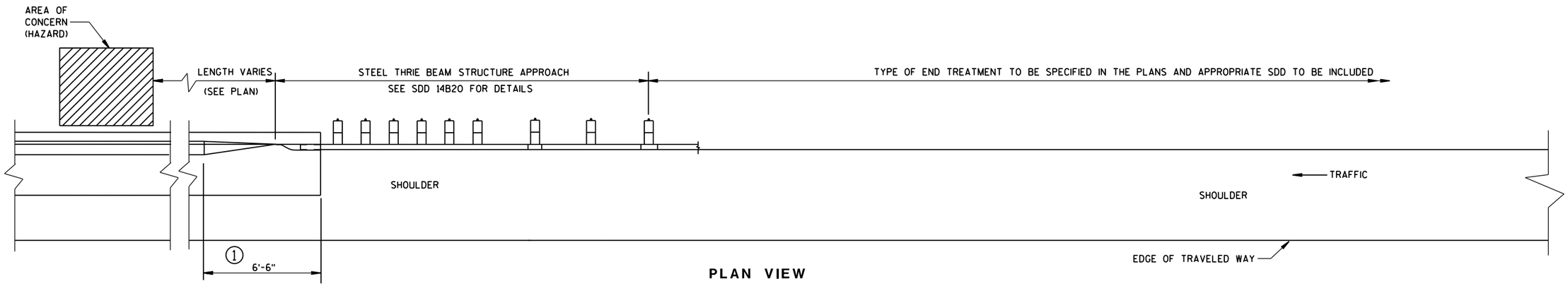
JOINT DETAILS

CONCRETE BARRIER,
SINGLE-FACED
(WITH ANCHORAGE)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

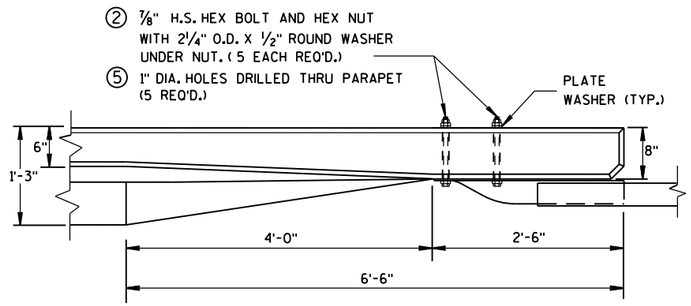
6

S.D.D. 14 B 22-6a



PLAN VIEW

TRANSITION TO STEEL PLATE BEAM GUARD AND END TERMINAL



PLAN VIEW

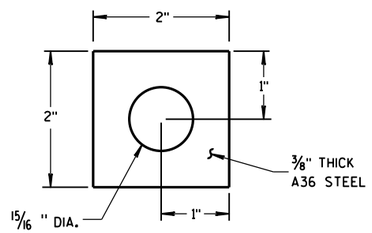
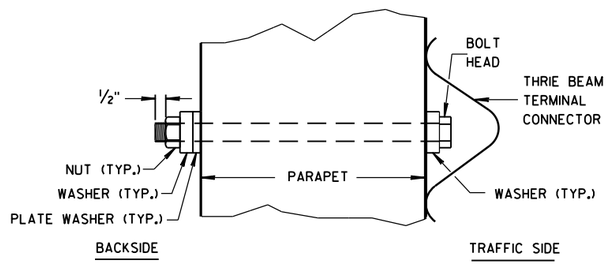


PLATE WASHER DETAIL



THRIE BEAM BOLT DETAIL

GENERAL NOTES

① A SPECIAL END IS REQUIRED ON THE CONCRETE BARRIER TO TRANSITION TO A CONNECTION WITH THE STEEL THRIE BEAM STRUCTURE APPROACH. SEE THE DETAILS ON THIS SHEET.

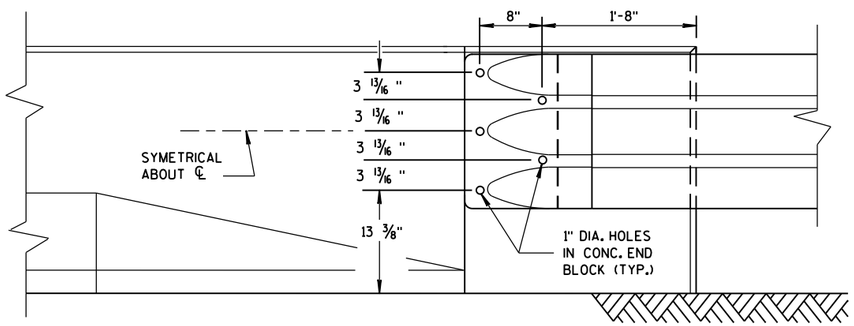
② BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM TERMINAL CONNECTOR. 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.

③ REINFORCEMENT REQUIRED AT EXPANSION JOINTS AND WHERE CONCRETE BARRIER IS TERMINATED.

④ PLACE REINFORCEMENT SUCH THAT IT WILL NOT CONFLICT WITH THE BOLT HOLES IN THE THRIE BEAM TERMINAL CONNECTOR.

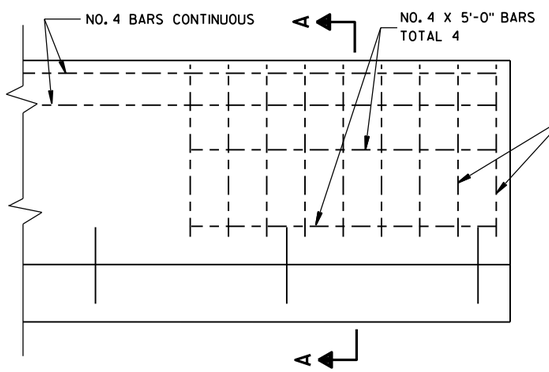
⑤ INCLUDE THE PAYMENT FOR DRILLING BOLT HOLES THROUGH THE PARAPET, AND ALL BOLTS, NUTS AND WASHERS IN THE ITEM "STEEL THRIE BEAM STRUCTURAL APPROACH".

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.

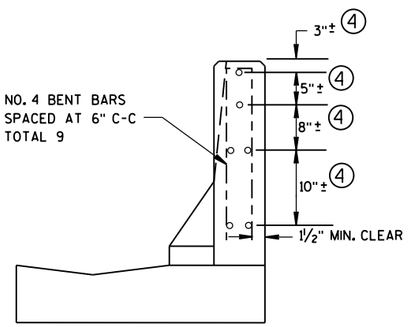


FRONT VIEW

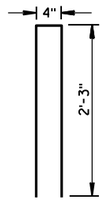
CONCRETE BARRIER TRANSITION TO THRIE BEAM



FRONT VIEW



SECTION A-A



BENT BAR DETAIL

③ REINFORCEMENT AT BARRIER END

CONCRETE BARRIER, SINGLE-FACED (WITH ANCHORAGE)

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 22-6b

6

S.D.D. 14 B 22-6b

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.

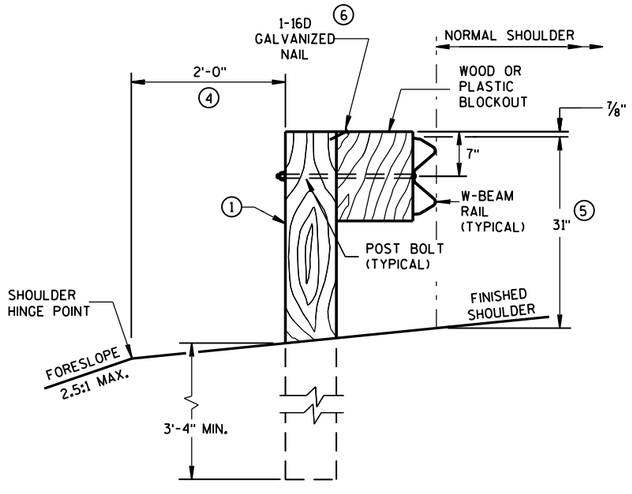
② USE WOOD OR APPROVED PLASTIC BLOCKOUTS. WOOD BLOCKOUTS MAY BE CONSTRUCTED OUT OF TWO OR MORE WOOD BLOCKOUTS. SEE ALTERNATE WOOD BLOCKOUT DETAIL. DIMENSIONS OF APPROVED PLASTIC BLOCKOUTS MAY VARY.

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).

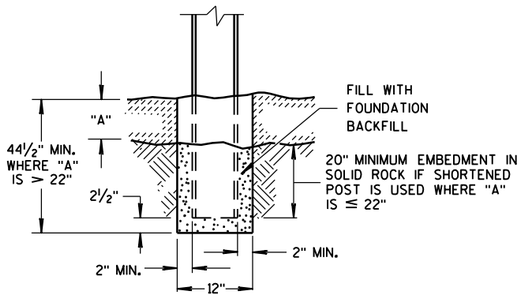
⑤ FOR NEW MGS INSTALLATION TOP OF W-BEAM RAIL TOLERANCE IS ± 1". FOR EXISTING MGS INSTALLATION TOP OF W-BEAM IS BETWEEN 27¾" TO 32".

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.



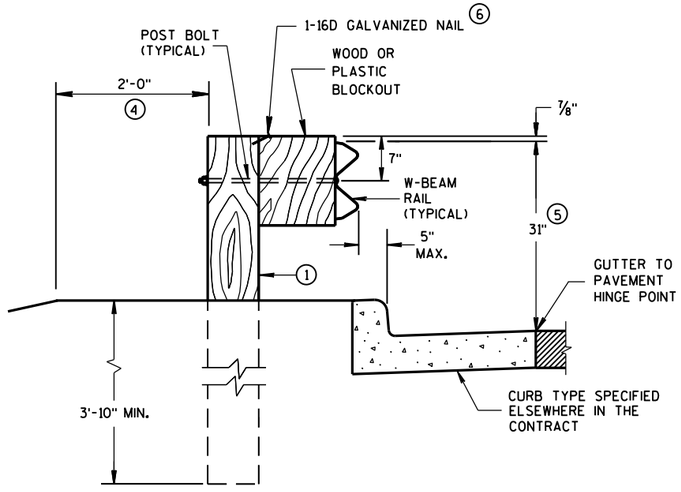
END VIEW

LOCATED ALONG A ROADWAY SHOULDER
STANDARD INSTALLATION



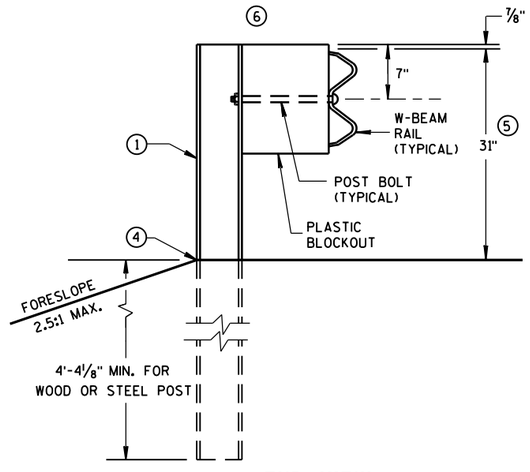
END VIEW

SETTING STEEL OR WOOD POST IN ROCK ③



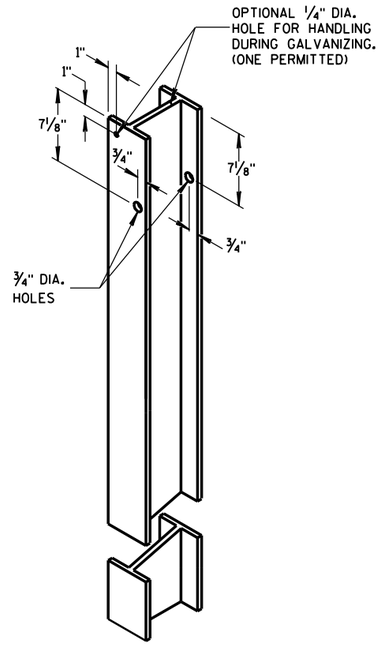
END VIEW

LOCATED ALONG A CURBED ROADWAY

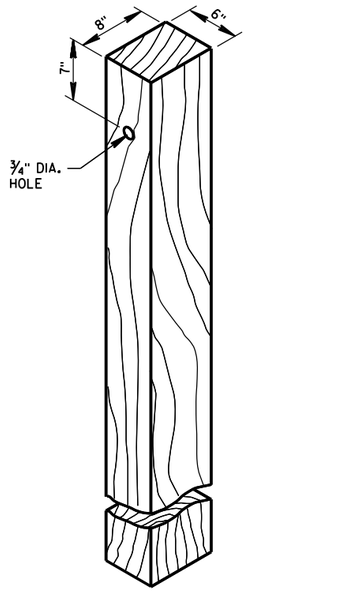


END VIEW

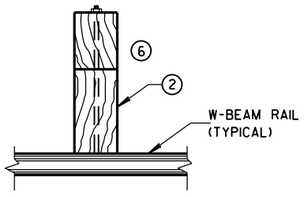
MGS LONGER POST AT HALFPOST SPACING W BEAM (K)



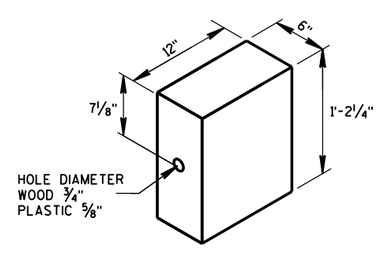
STEEL POST &
HOLE PUNCHING DETAIL
(w6X9) ①



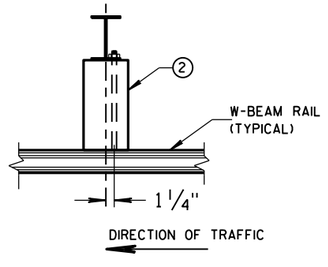
WOOD POST
(6" X 8") NOMINAL ①



PLAN VIEW
WOOD POST,
BLOCKOUT & BEAM



WOOD OR
PLASTIC BLOCKOUT ②



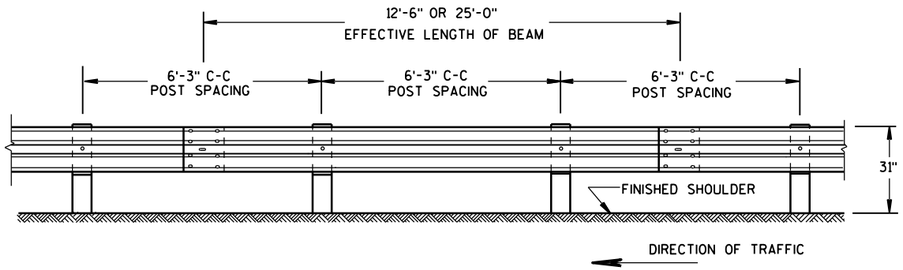
PLAN VIEW
STEEL POST,
PLASTIC BLOCKOUT & BEAM

MIDWEST GUARDRAIL SYSTEM
(MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

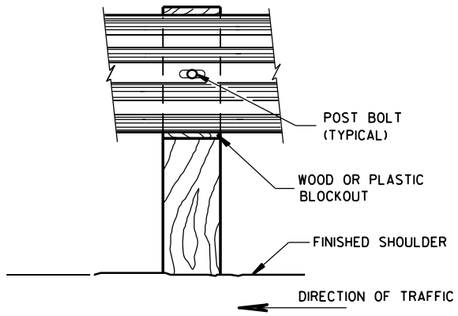
6

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FRONT VIEW

POST SPACING STANDARD INSTALLATION



FRONT VIEW AT WOOD POST

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.

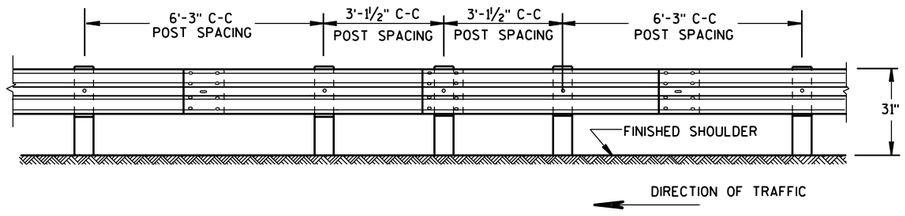
9. REVERSE EVERY OTHER REFLECTOR FOR 2-WAY VISIBILITY. THE CONTRACTOR MAY FURNISH TWO-SIDED REFLECTORS IN LIEU OF ONE-SIDED REFLECTORS.

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.

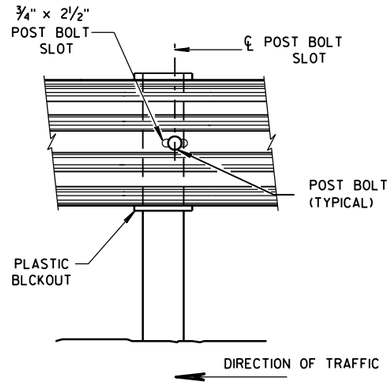
POST BOLTS ARE A 5/8" DIAMETER ASTM A307 GUARDRAIL BOLT. A POST BOLT REQUIRES 5/8" DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX NUT AND 5/8" DIAMETER F844 FLAT WASHER. POST BOLTS MAY BE LONGER IF MULTIPLE BLOCKOUTS ARE BEING USED.

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.

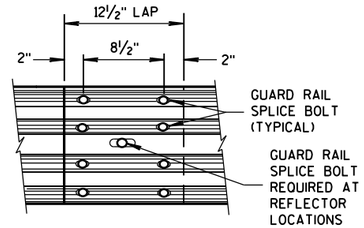


FRONT VIEW

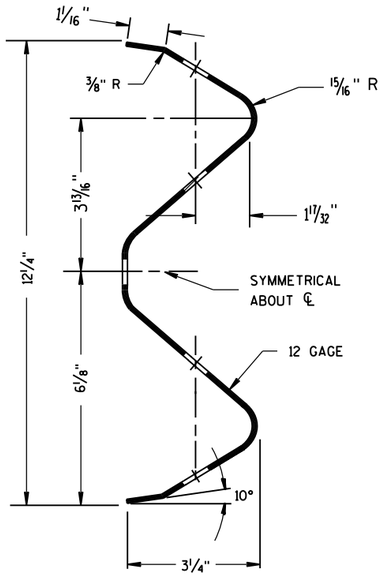
HALF POST SPACING (HS) AND HALF POST SPACING WITH LONGER POSTS (K)



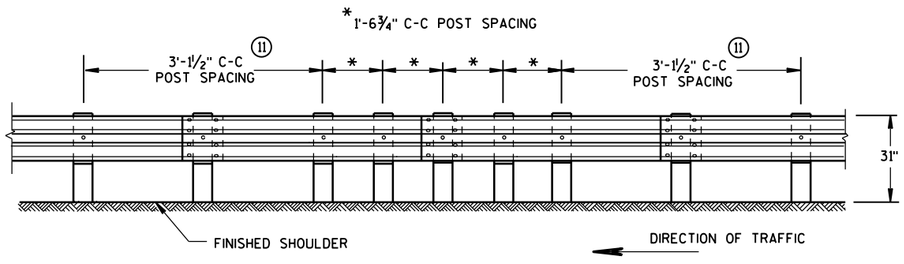
FRONT VIEW AT STEEL POST



FRONT VIEW
MID-SPAN BEAM SPLICE

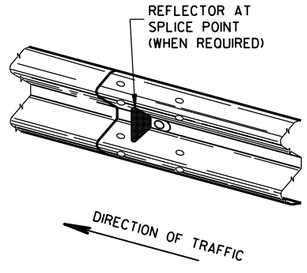


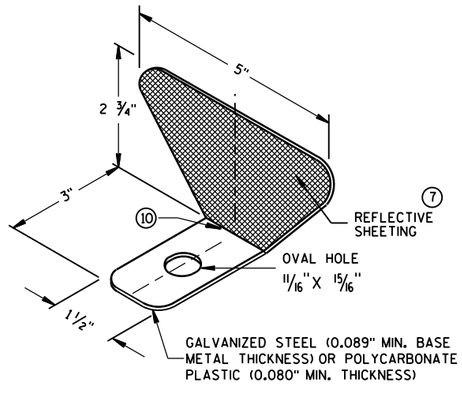
SECTION THRU W-BEAM RAIL



FRONT VIEW

QUARTER POST SPACING (QS)





ONE SIDED REFLECTOR DETAIL AND TYPICAL INSTALLATION (7)

REFLECTOR SPACING (8)

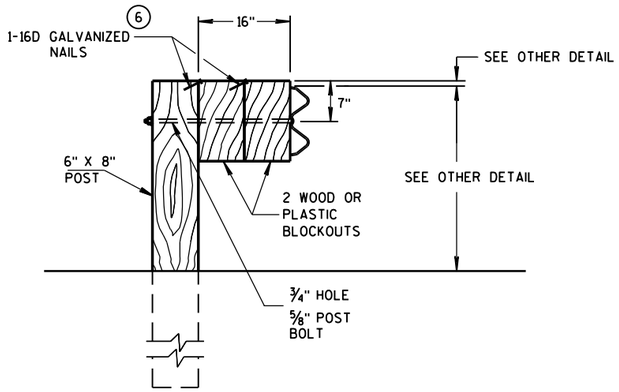
	BEAM GUARD LENGTH	REFLECTOR SPACING	NO. SURFACES REFLECTORIZED	MIN. NO. REFLECTORS
ONE WAY TRAFFIC	< 200'	50' C-C	1	3
	> 200'	100' C-C	1	
TWO WAY TRAFFIC	< 200'	25' C-C	1 (9)	6
	> 200'	50' C-C	1	
TWO WAY TRAFFIC	< 200'	50' C-C	2	3
	> 200'	100' C-C	2 (10)	

MIDWEST GUARDRAIL SYSTEM
(MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPO

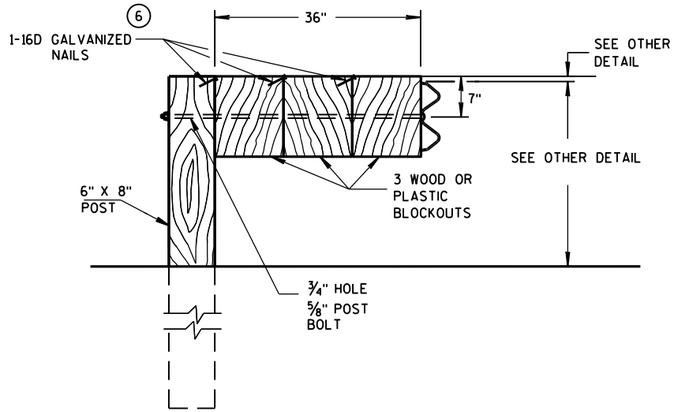
S.D.D. 14 B 42-4b

S.D.D. 14 B 42-4b



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.

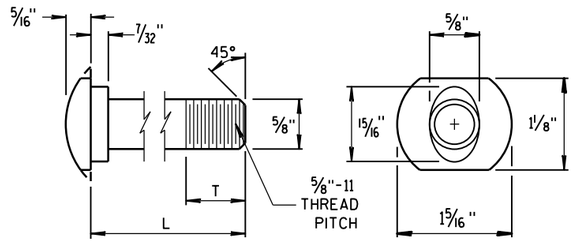


DETAIL FOR 36" BLOCKOUT DEPTH

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.

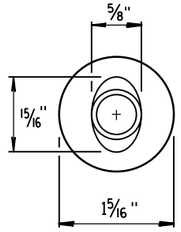
DO NOT USE 16" OR 36" BLOCKOUTS IF IT CAUSES THE POST TO BE DRIVEN BEYOND SHOULDER HINGE POINT OR CAUSES A FIXED OBJECT TO BE WITHIN THE DEFLECTION DISTANCE OF THE BARRIER.

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.

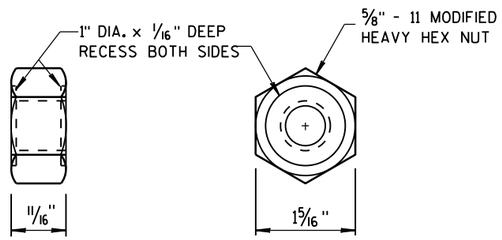


POST BOLT TABLE

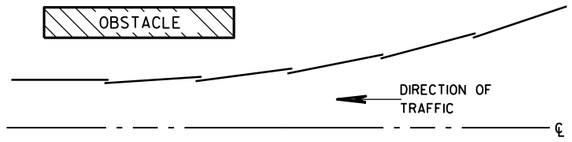
L	T (MIN.)
1¼"	1⅛"
2"	1¾"
10"	4"
14"	4 1/16"
18"	4"
21"	4 1/16"
25"	4"



ALTERNATE BOLT HEAD

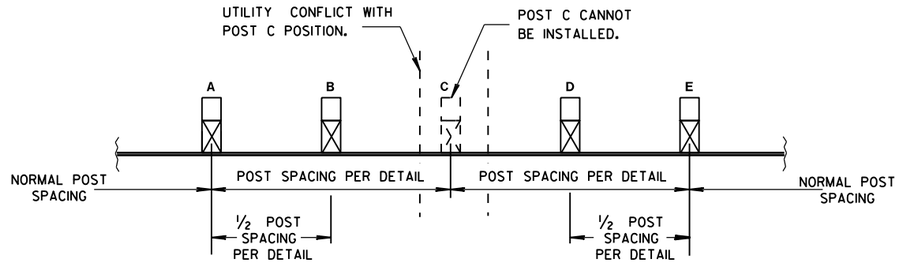


POST BOLT, SPLICE BOLT AND RECESS NUT

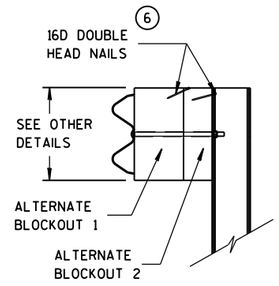


PLAN VIEW

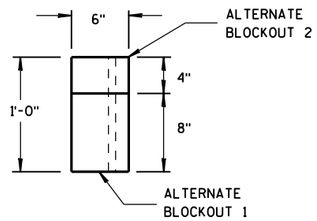
BEAM LAPPING DETAIL



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 2016 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA

6
S.D.D. 14 B 42-4c

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.

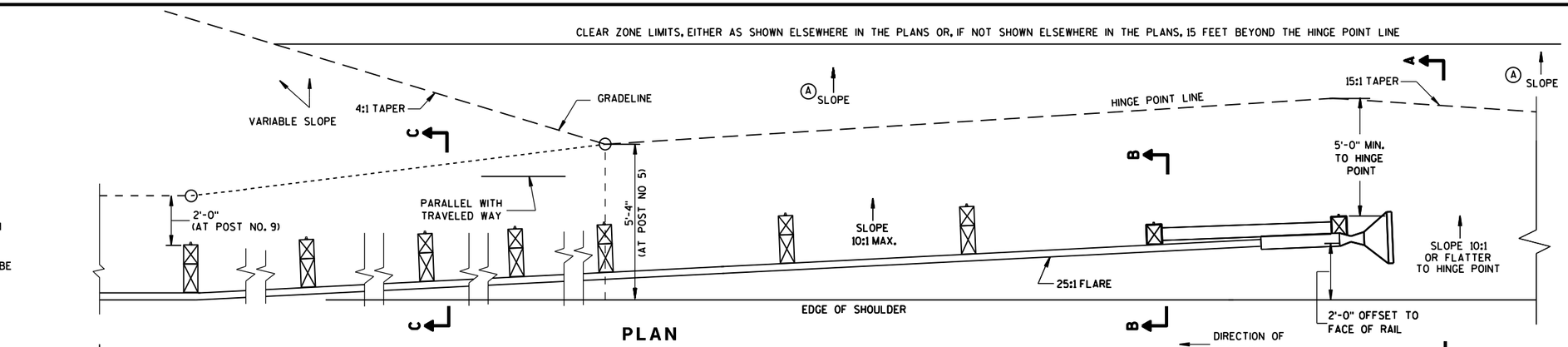
SEE SDD 14B42 FOR MORE INFORMATION.

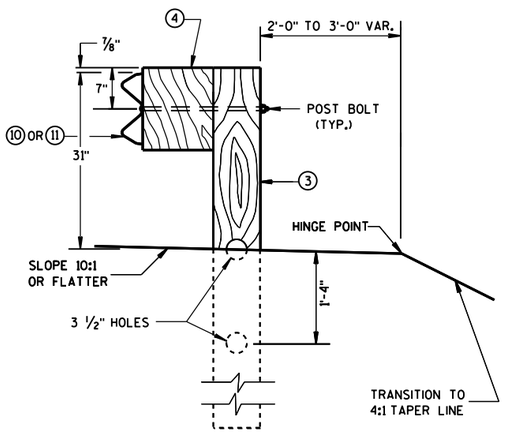
* DO NOT ATTACH BLOCKOUTS TO POSTS 1 AND 2.

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

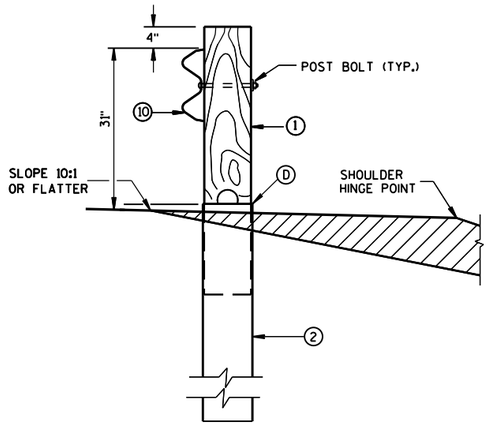
W-BEAM RAIL SPLICES ARE LOCATED AT POST NUMBER 3, AND BETWEEN POST 5 AND 6, BETWEEN POSTS 7 AND 8, AND MIDDLE OF THE SPAN AFTER POST 9.

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.

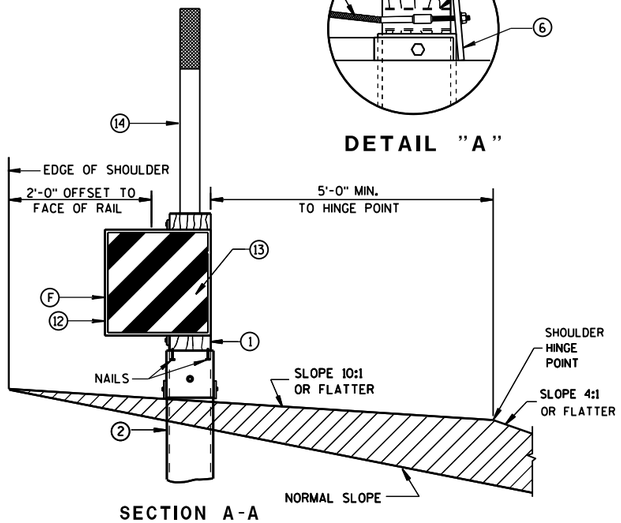




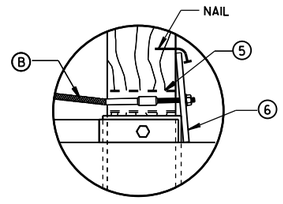
SECTION C-C
TYPICAL AT POST NOS. 3-9



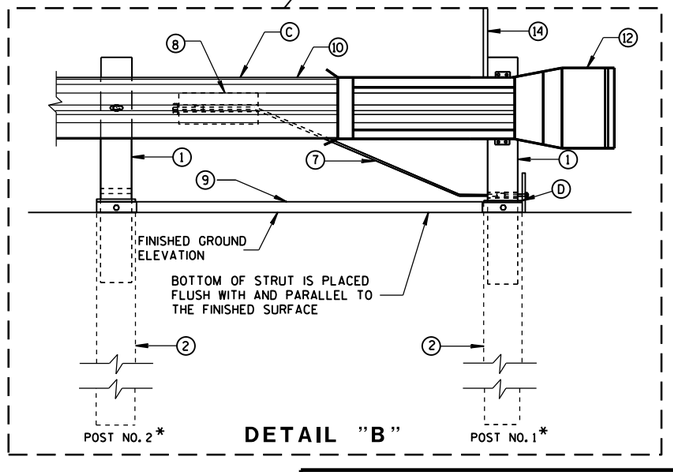
SECTION B-B
TYPICAL AT POST NO. 2*



SECTION A-A
TYPICAL AT POST NO. 1*



DETAIL "A"



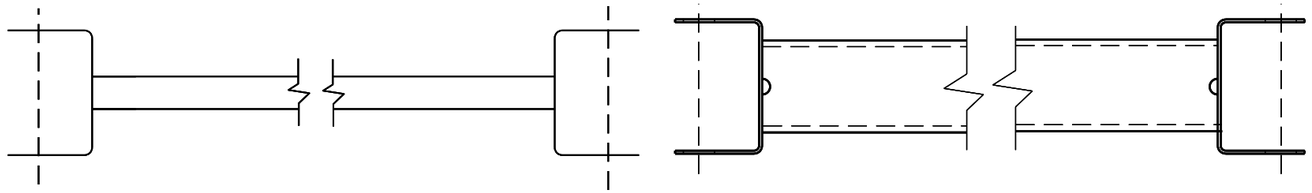
DETAIL "B"

MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL
(MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPO

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

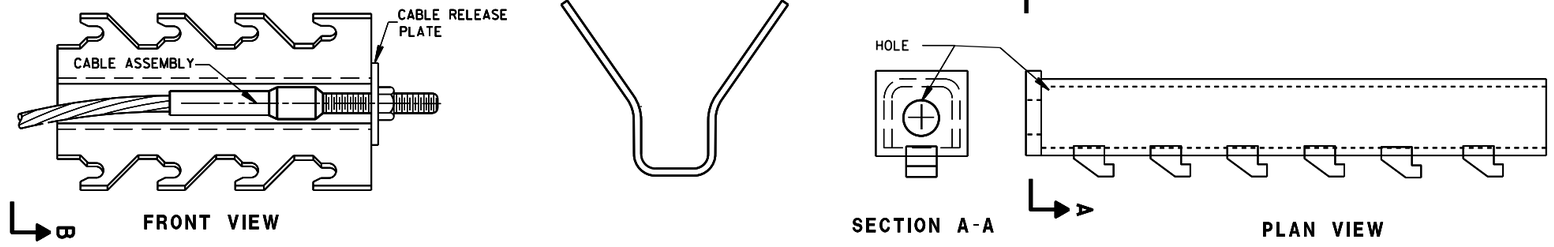
S.D.D. 14 B 44-2a



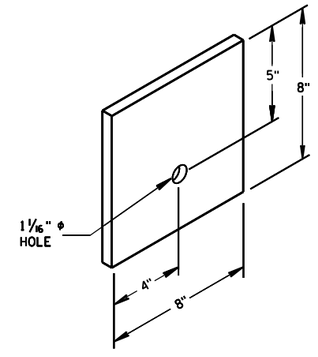
GENERIC GROUND STRUT (9) (H)

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)



GENERIC ANCHOR CABLE BOX (8) (H)

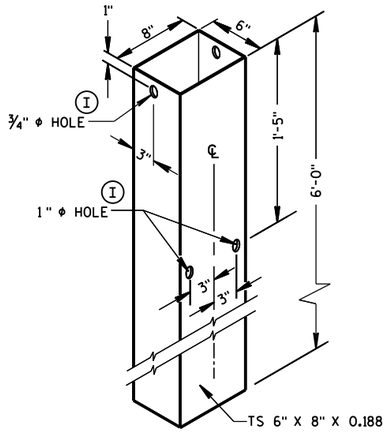


BEARING PLATE (6)

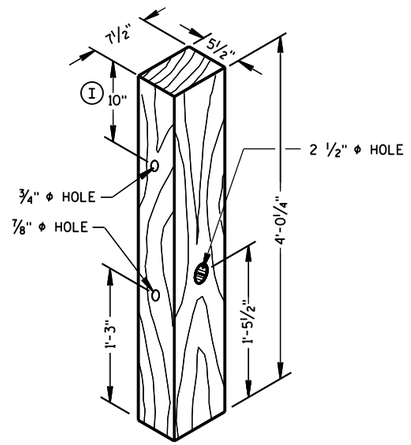
MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL
(MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6
S.D.D. 14 B 44-2b

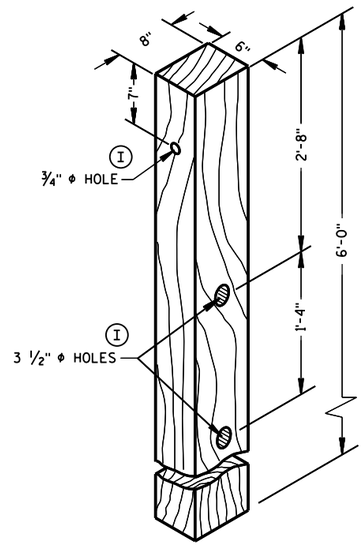


FOUNDATION TUBE (2)



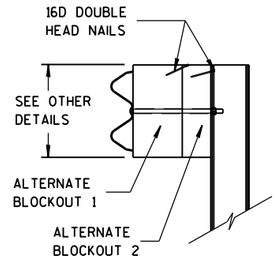
POSTS NUMBER 1 AND 2

WOOD BREAKAWAY POST (1)

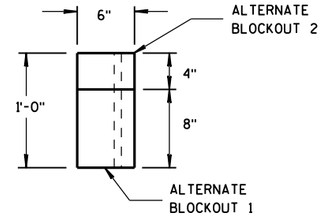


POSTS NUMBER 3-9

WOOD CRT POST (3)

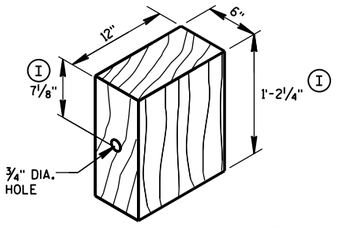


SIDE VIEW



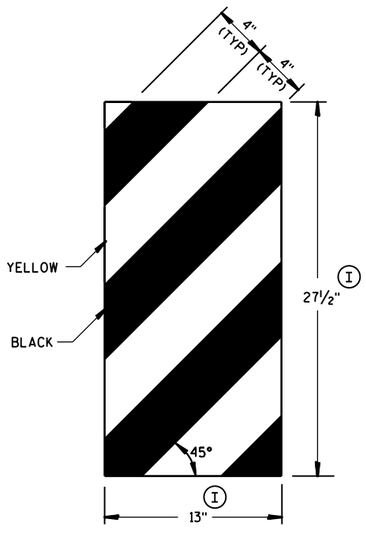
TOP VIEW

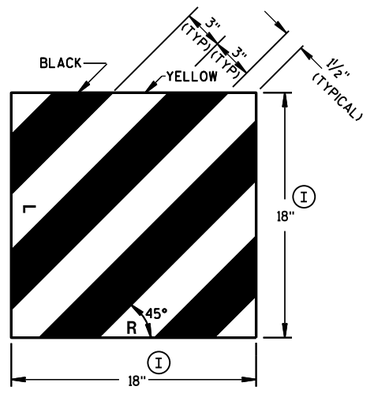
ALTERNATE WOOD BLOCKOUT DETAIL



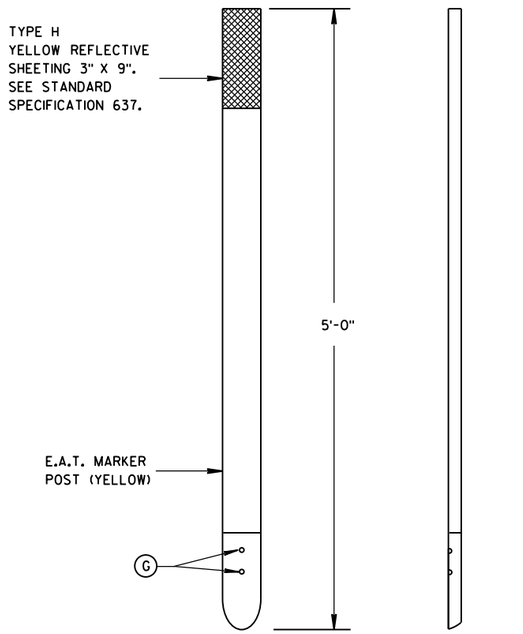
WOOD BLOCKOUT (4)

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





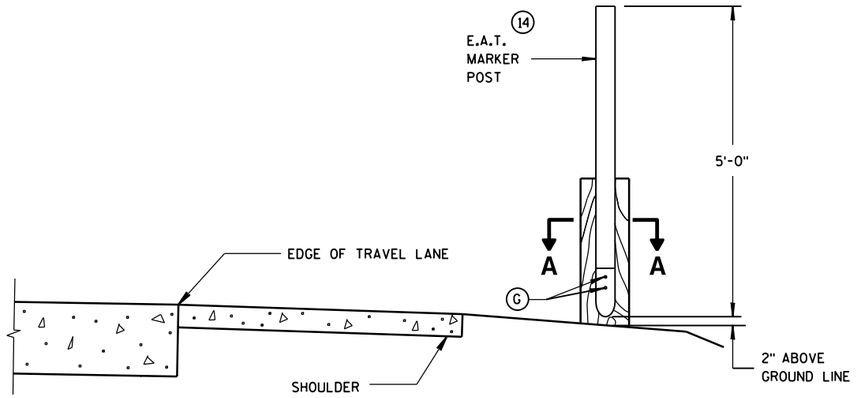
GENERIC REFLECTIVE SHEETING (13) (H)



FRONT VIEW

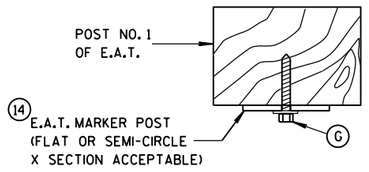
SIDE VIEW

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

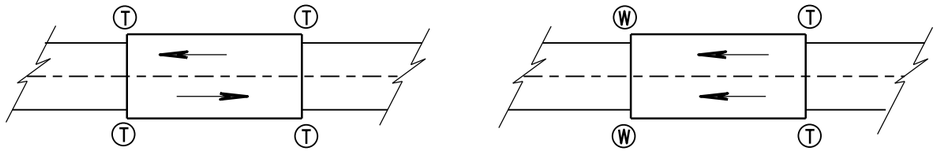
MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

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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

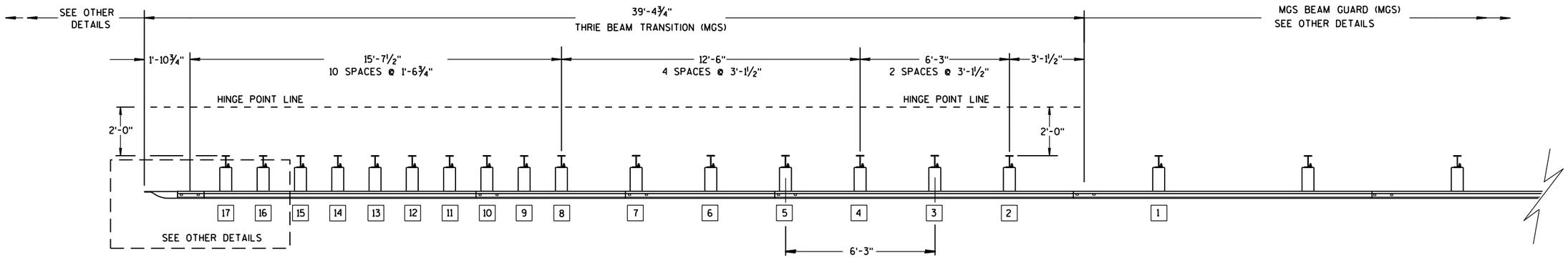
IF ROCK IS ENCOUNTERED, REMOVE ROCK TO FULL DEPTH OF POST PLUS 2½", AND 12" DIAMETER AROUND POST. SEE 14B42 FOR MORE DETAILS.

TRANSITION USES STEEL POSTS ONLY.

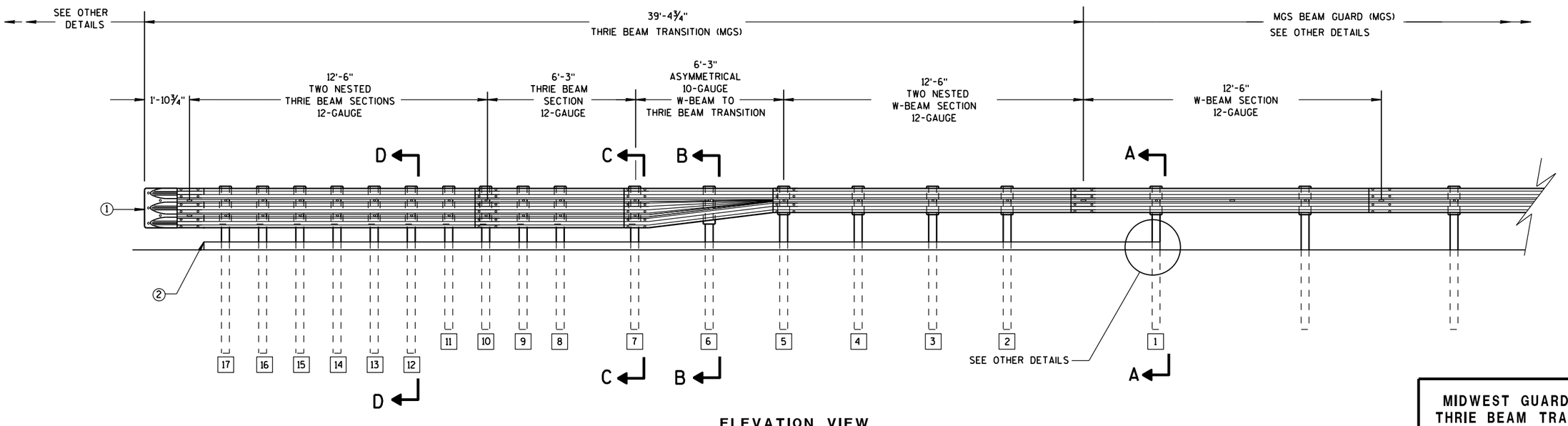
SEE STANDARD DETAIL DRAWING 14 B 42 FOR MORE INFORMATION.

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

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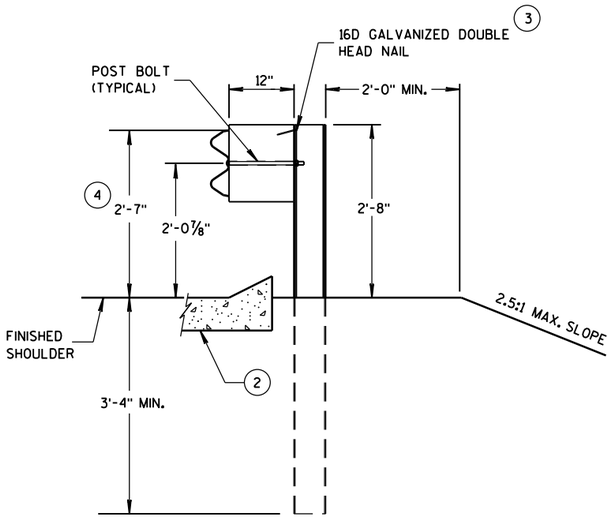
S.D.D. 14 B 45-4a

GENERAL NOTES

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

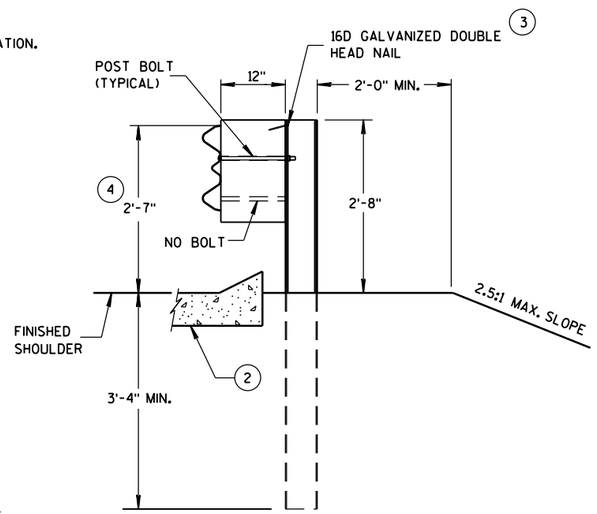
(3) WHEN USING STEEL POSTS AND WOOD BLOCKOUTS INSTALL FOUR 10D GALVANIZED NAILS. INSTALL NAILS AT THE BACK CORNERS OF THE BLOCK AND BEND THE NAILS OVER THE FLANGE OF THE STEEL POST.

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



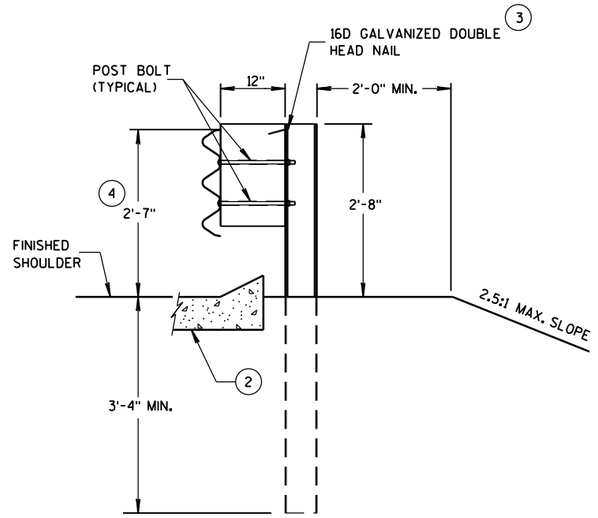
SECTION A-A

POSTS 1-5



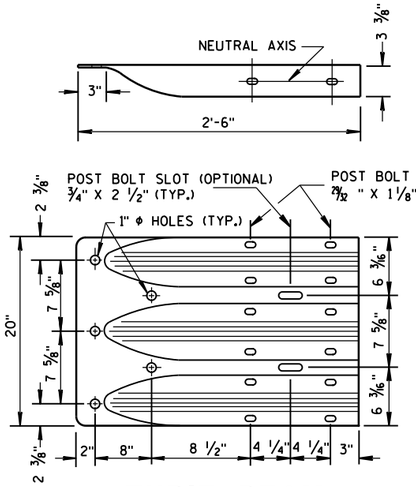
SECTION B-B

POST 6



SECTION C-C

POSTS 7-11



THRIE BEAM TERMINAL CONNECTOR

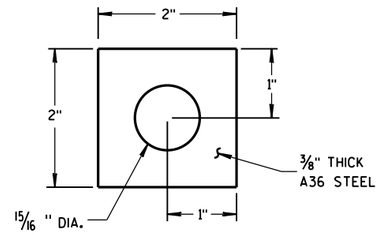
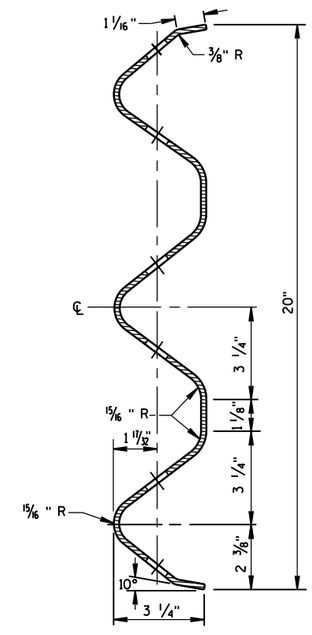
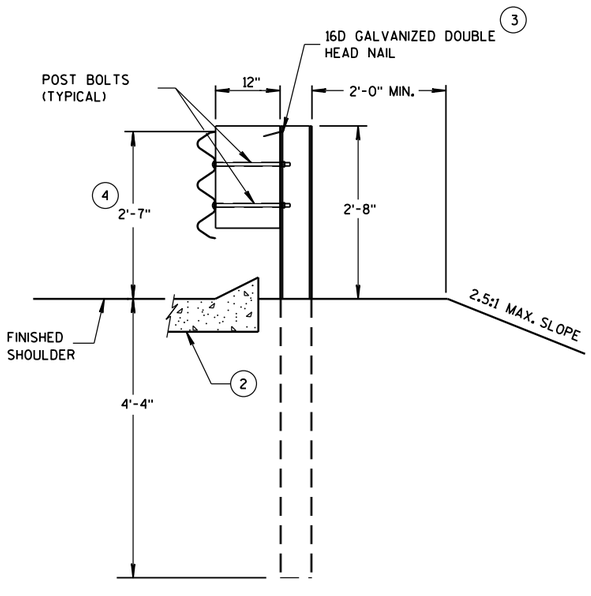


PLATE WASHER DETAIL

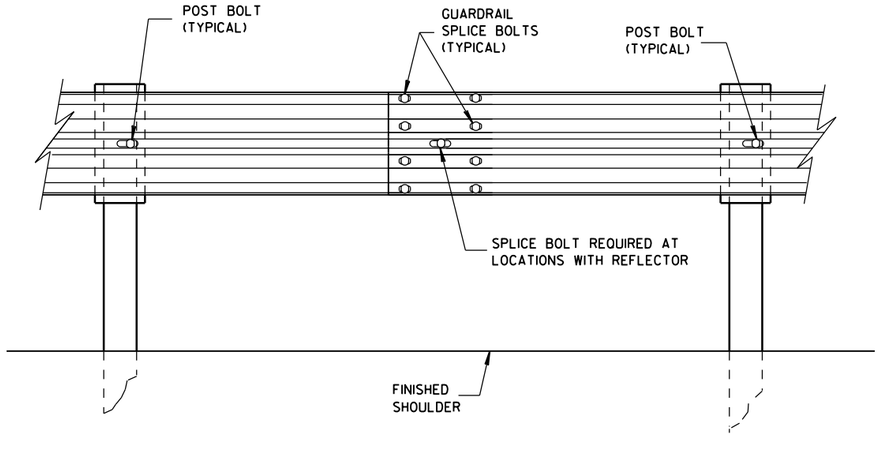


SECTION THRU THRIE BEAM RAIL ELEMENT



SECTION D-D

POSTS 12-17



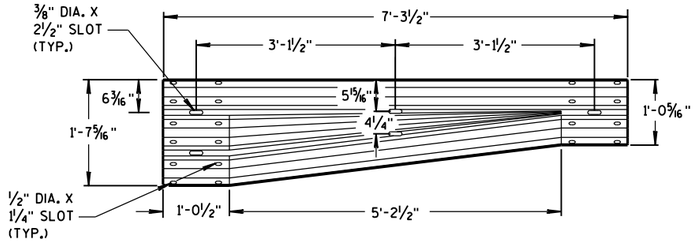
SPLICE DETAIL

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

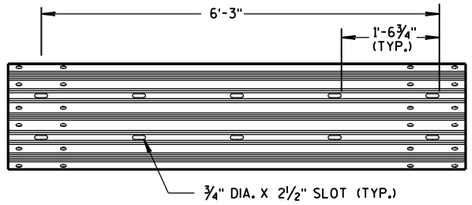
STATE OF WISCONSIN
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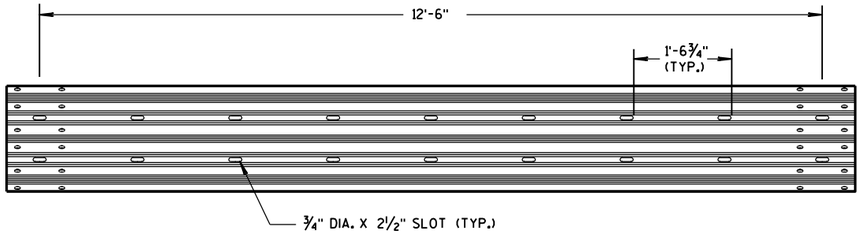
S.D.D. 14 B 45-4b



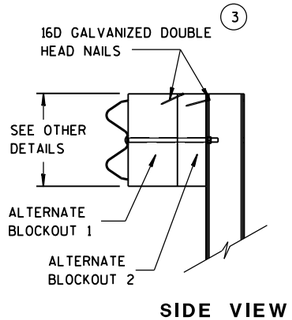
W-BEAM TO THRIE BEAM TRANSITION SECTION



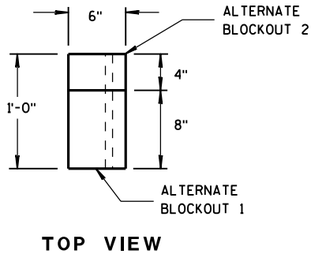
6'-3" THRIE BEAM SECTION



12'-6" THRIE BEAM SECTION

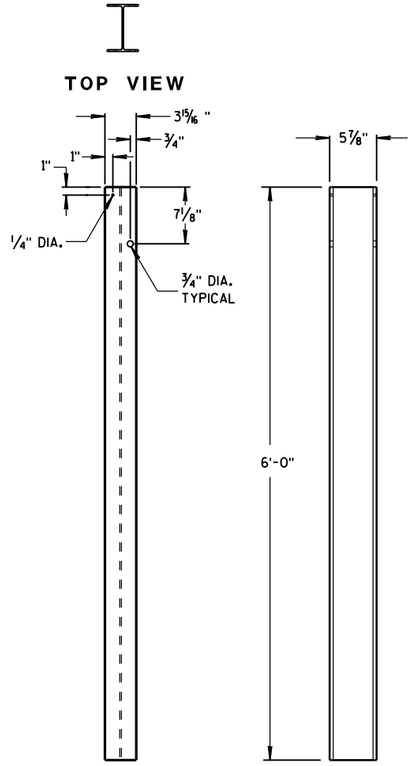


SIDE VIEW

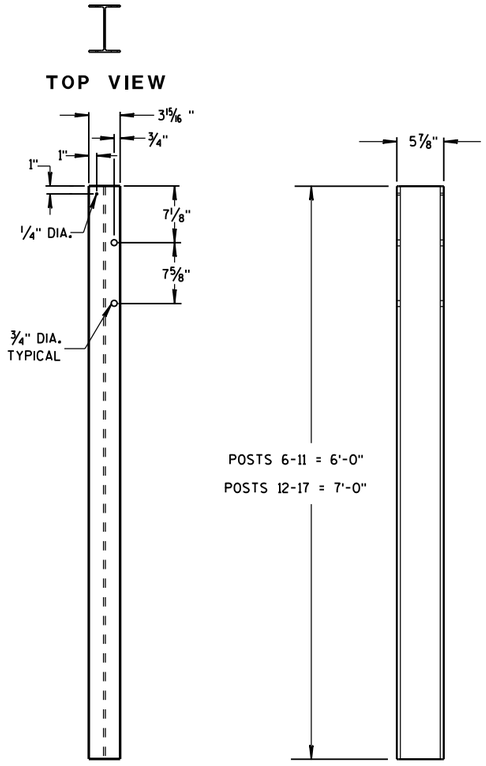


TOP VIEW

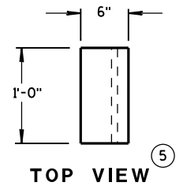
ALTERNATE WOOD BLOCKOUT DETAIL



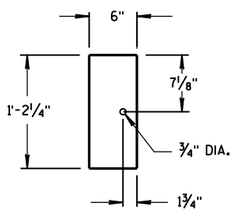
STEEL POSTS 1-5



STEEL POSTS 6-17

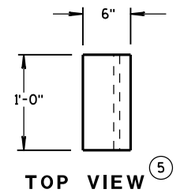


TOP VIEW

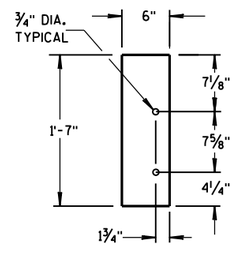


FRONT VIEW

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.

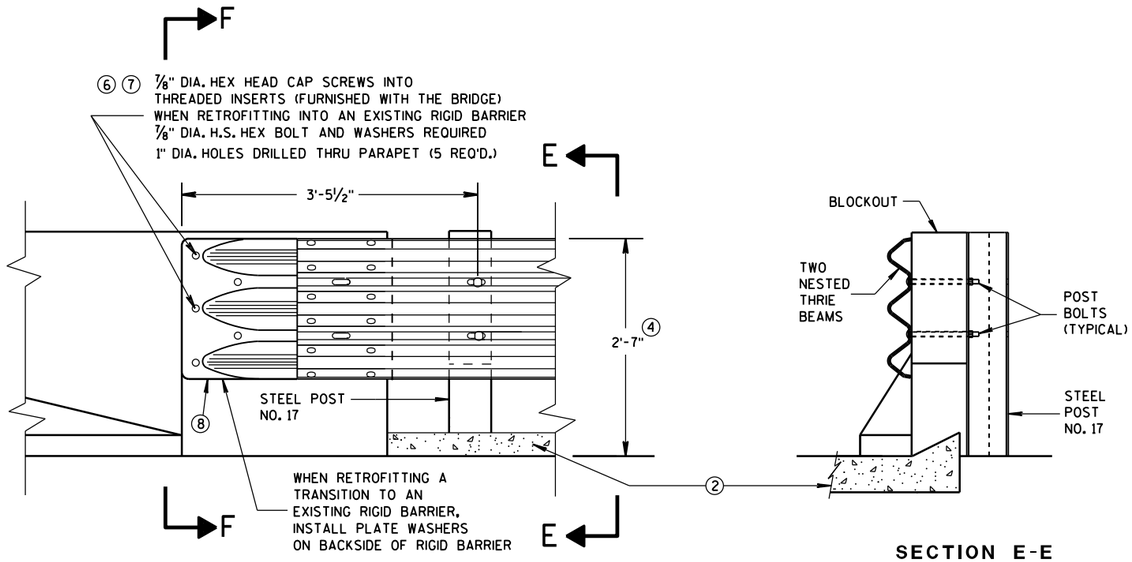
(5) WOOD BLOCKS MAY BE CONSTRUCTED OUT OF 2 WOOD BLOCKS. SEE ALTERNATE WOOD BLOCK DETAIL.

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF 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.

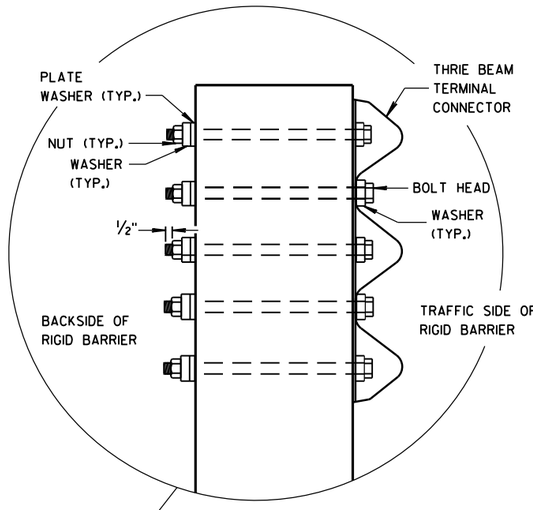
② OPTIONAL CURB AND GUTTER OR DRAINAGE FEATURE SEE PLAN FOR INFORMATION.

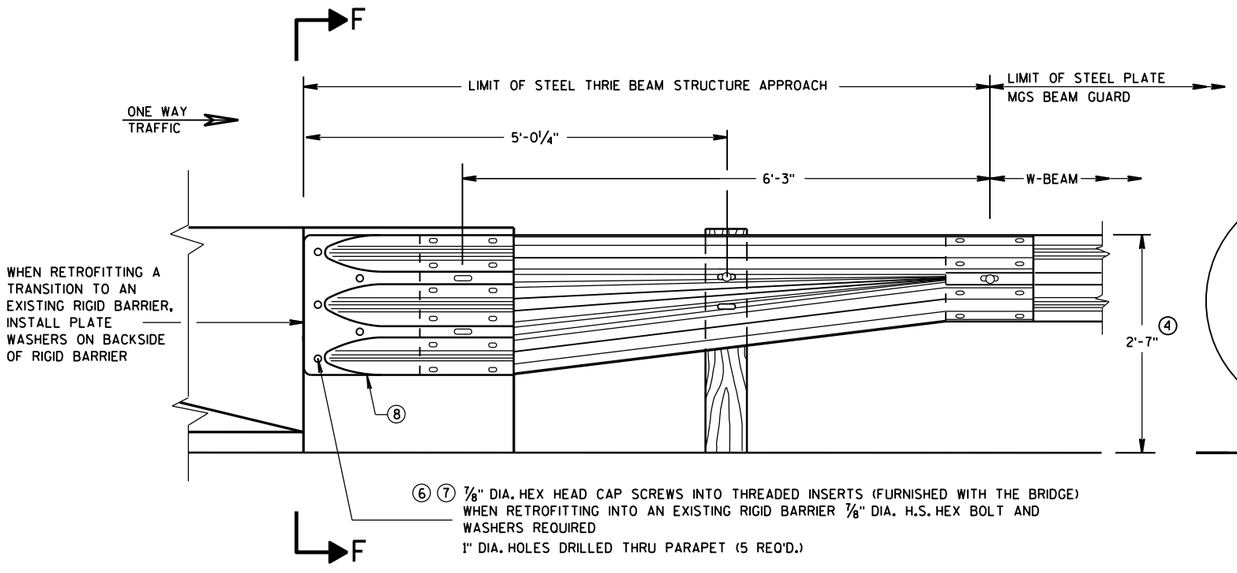
④ TOLERANCE FOR TOP OF BEAM IS ± 1".

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

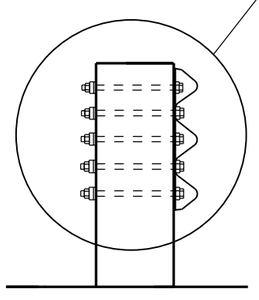
⑦ BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE. 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".

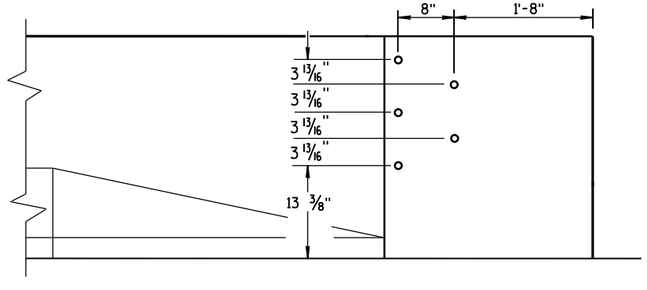




FRONT VIEW



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

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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.

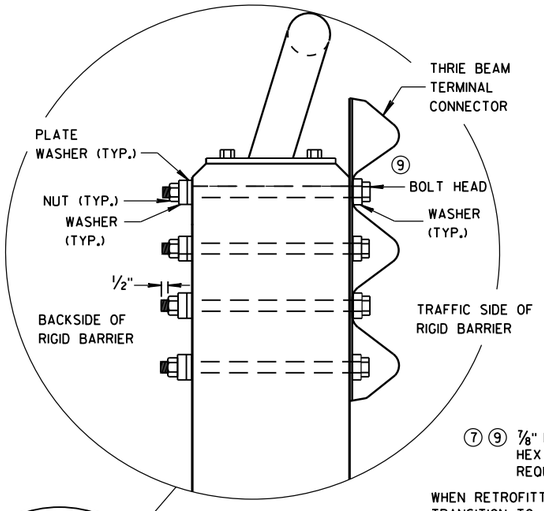
(4) TOLERANCE FOR TOP OF BEAM IS ± 1".

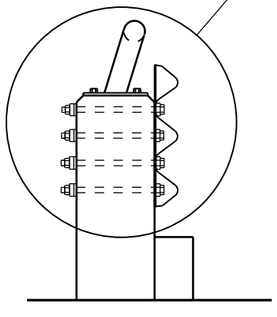
(6) DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

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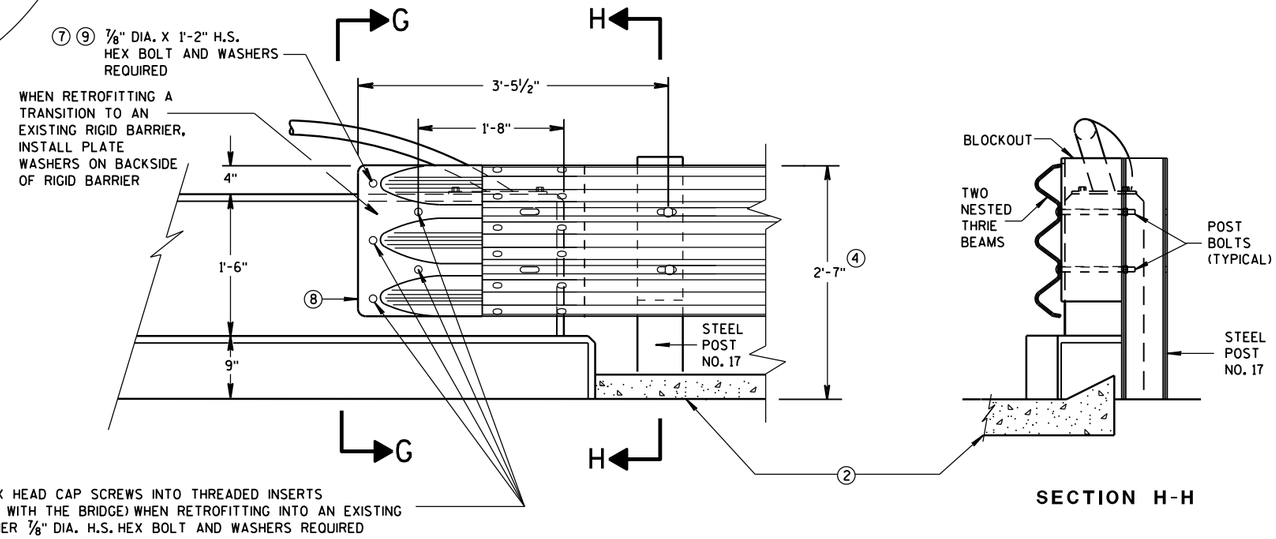
(8) THE RECESS FOR A W-BEAM CONNECTION, WHICH EXISTS ON SOME PARAPETS OF THIS TYPE, SHALL BE FILLED WITH A TREATED TIMBER BLOCKOUT. BLOCKOUT SIZE IS 1'-6" X 2'-0" X 3 1/2".

(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.





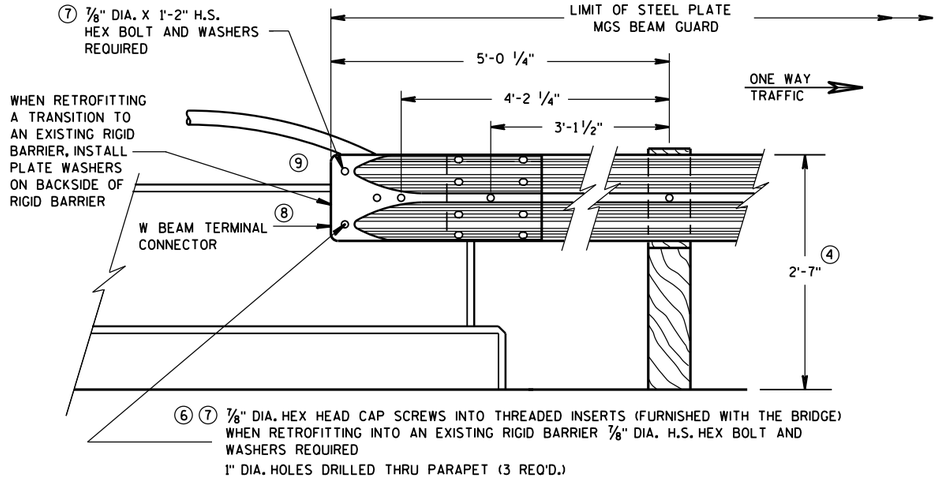
SECTION G-G



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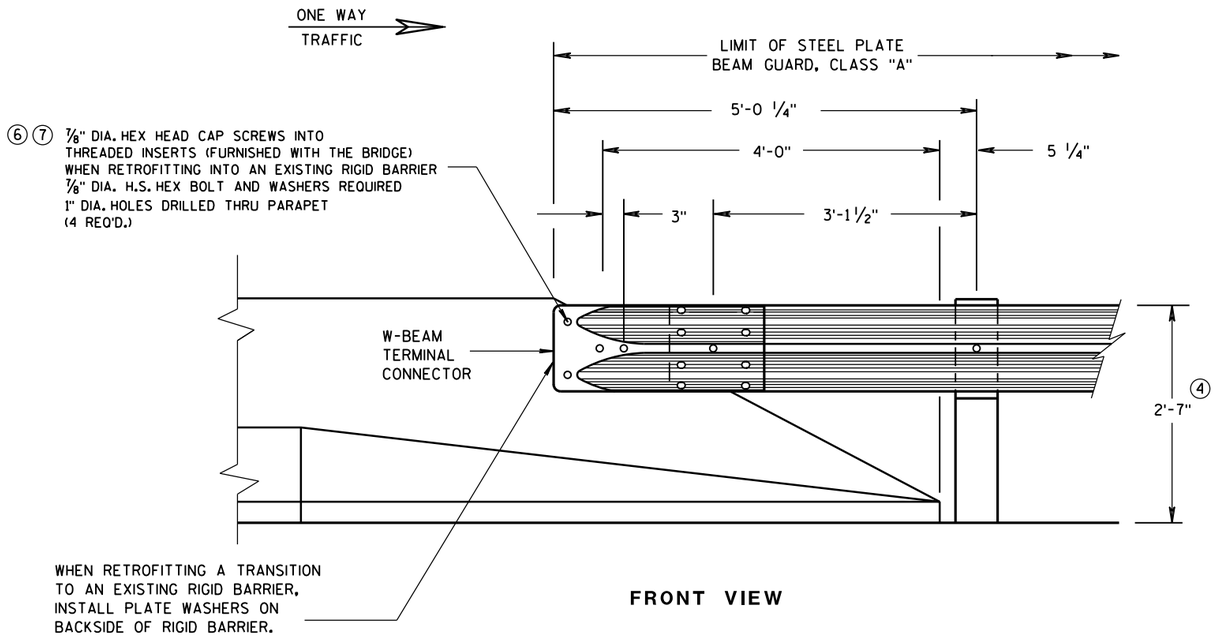
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S.D.D. 14 B 45-4e



FRONT VIEW

W BEAM CONNECTION TO PARAPETS WITH SLOPED ENDS

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

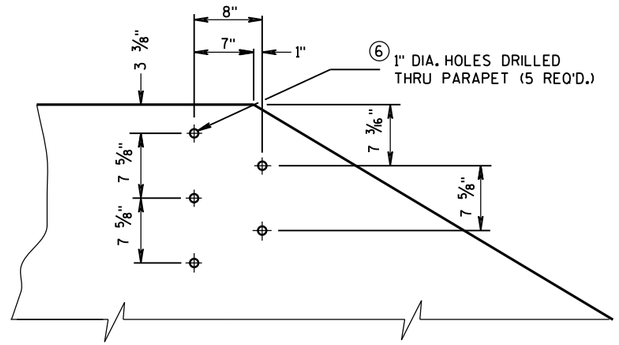
GENERAL NOTES

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

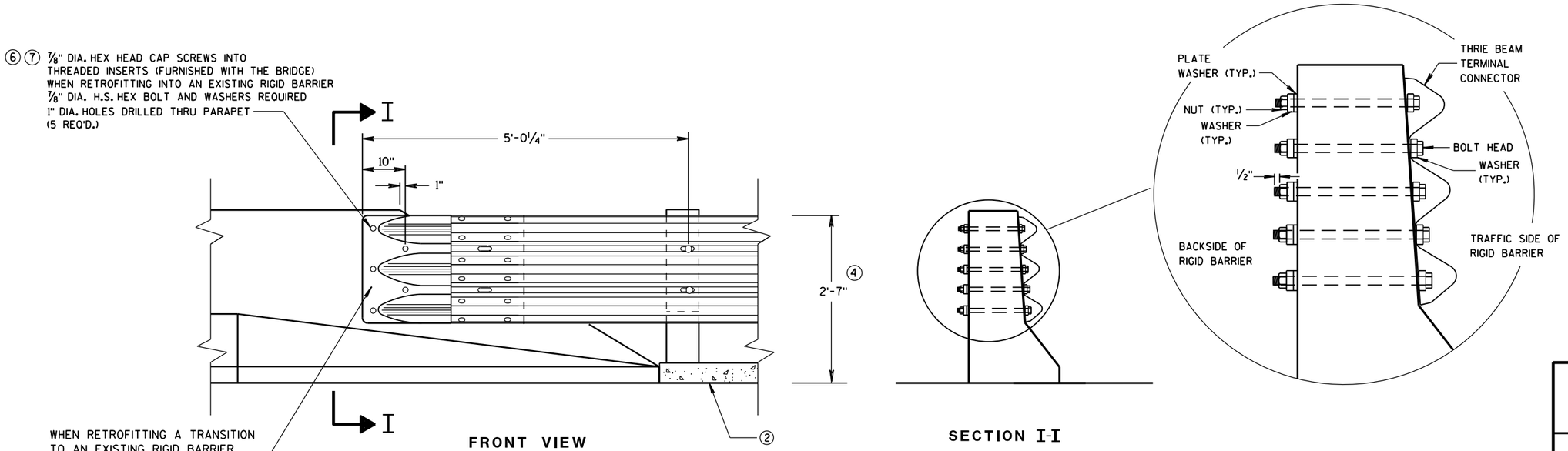
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DRILL HOLE LOCATION AND PATTERN
FOR THRIE BEAM CONNECTION



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

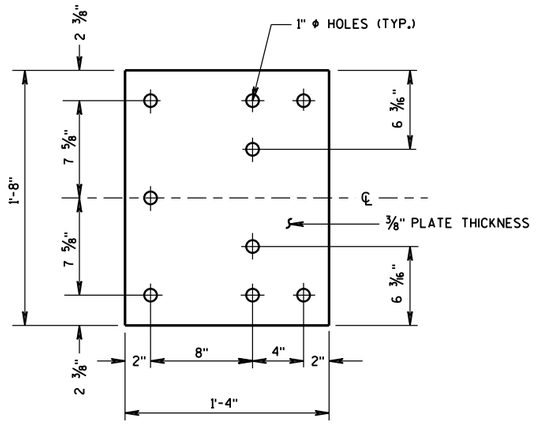
APPROVED
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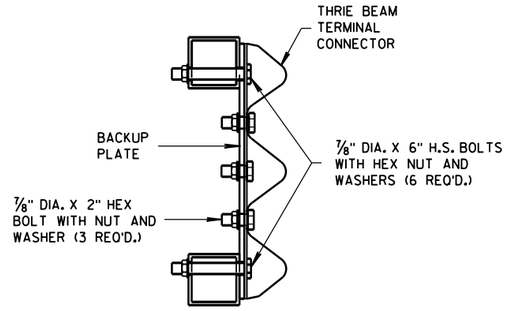
S.D.D. 14 B 45-4f

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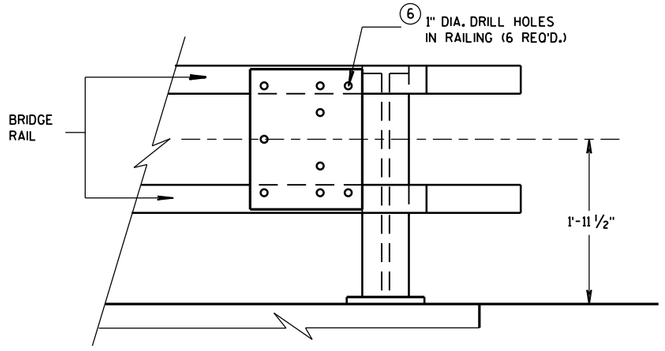
S.D.D. 14 B 45-4f



BACK-UP PLATE DETAIL



SECTION J-J

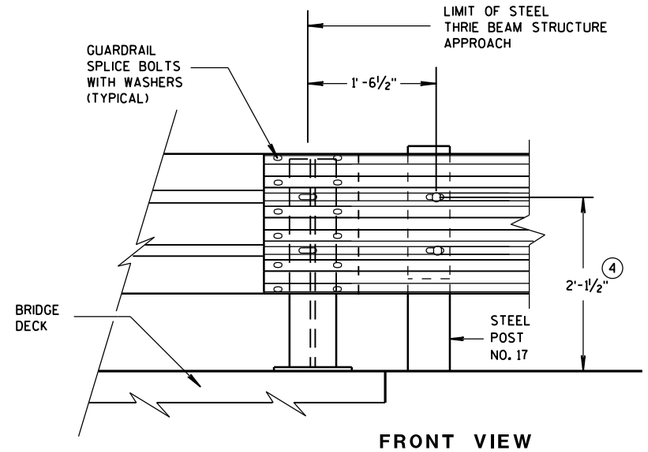


BACK-UP PLATE MOUNTING ONTO BRIDGE RAILING

GENERAL NOTES

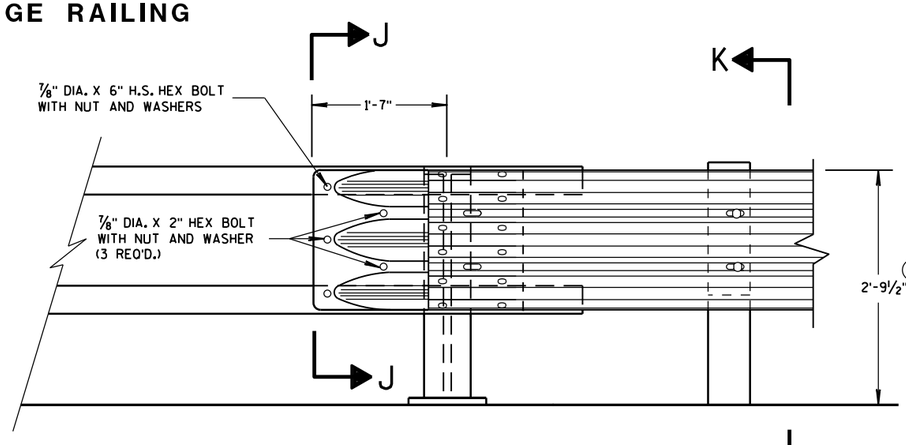
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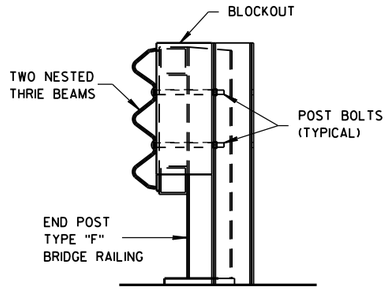


FRONT VIEW

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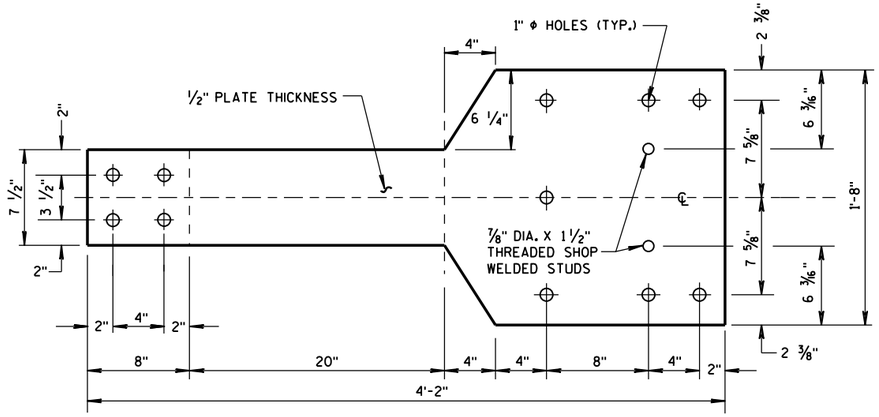
S.D.D. 14 B 45-4g

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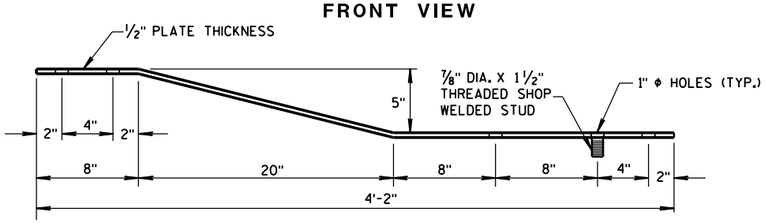
S.D.D. 14 B 45-4g

GENERAL NOTES

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

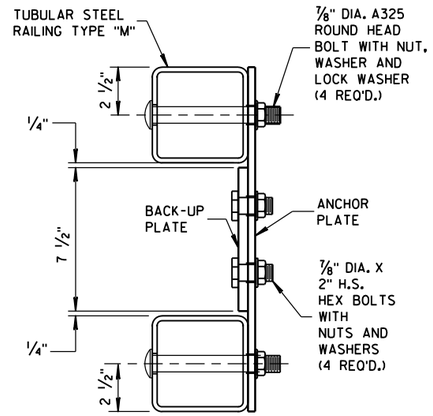


FRONT VIEW

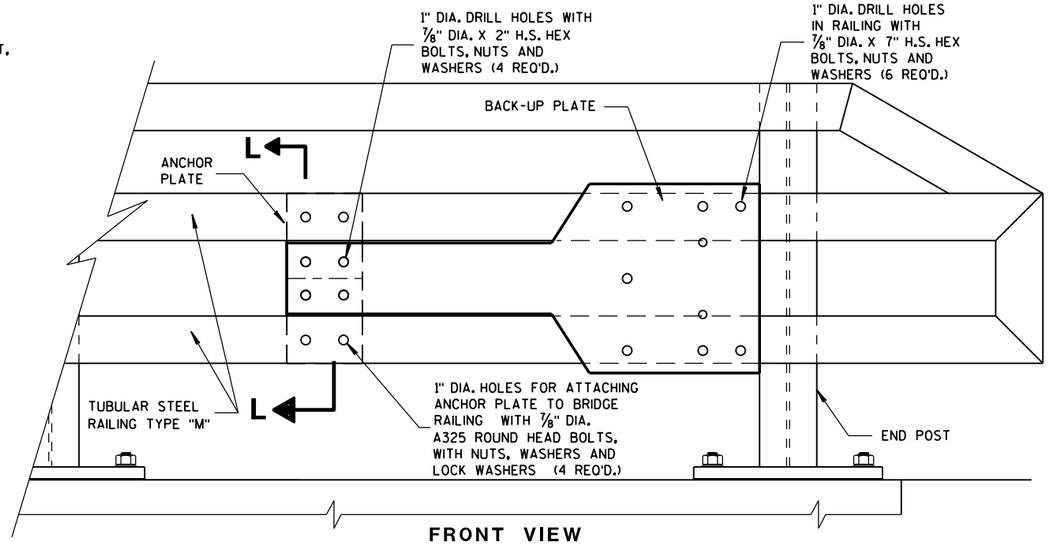


PLAN VIEW

BACK-UP PLATE DETAIL, TYPE "M"

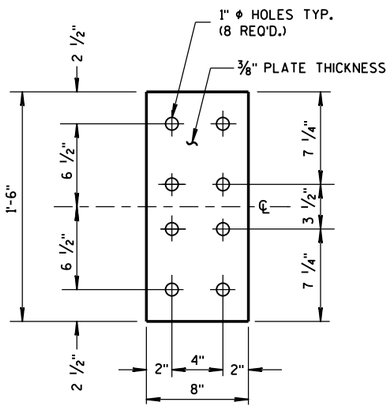


SECTION L-L



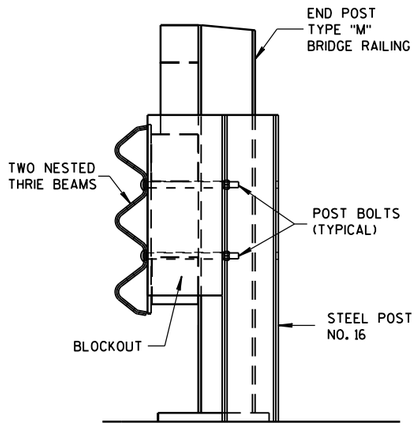
FRONT VIEW

ANCHOR AND BACK-UP PLATE MOUNTING TO BRIDGE RAILING, TYPE "M"

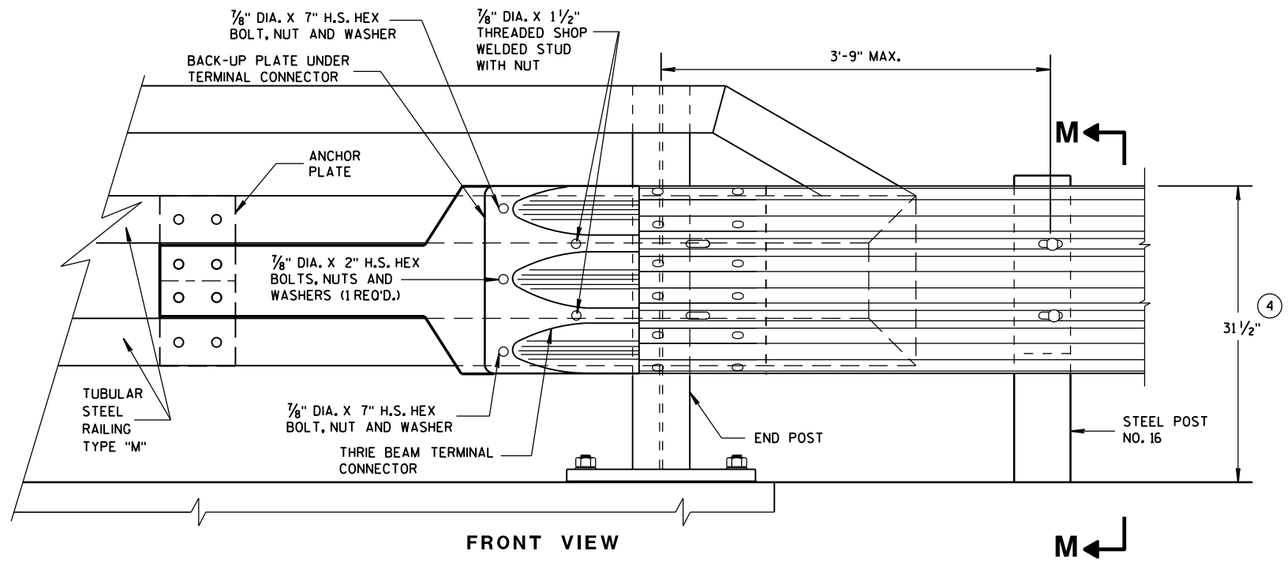


FRONT VIEW

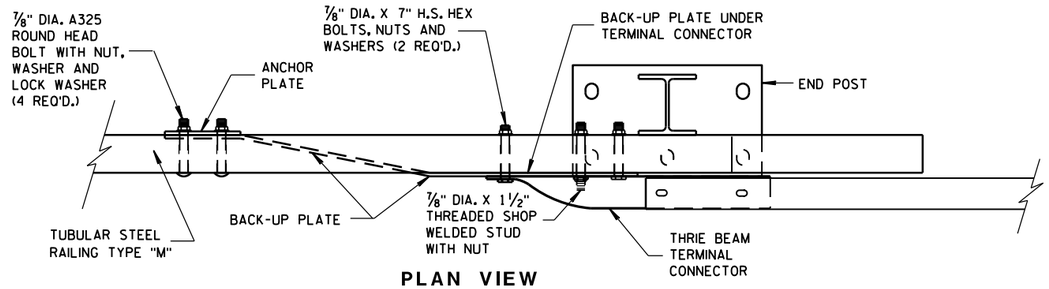
ANCHOR PLATE DETAIL, TYPE "M"



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

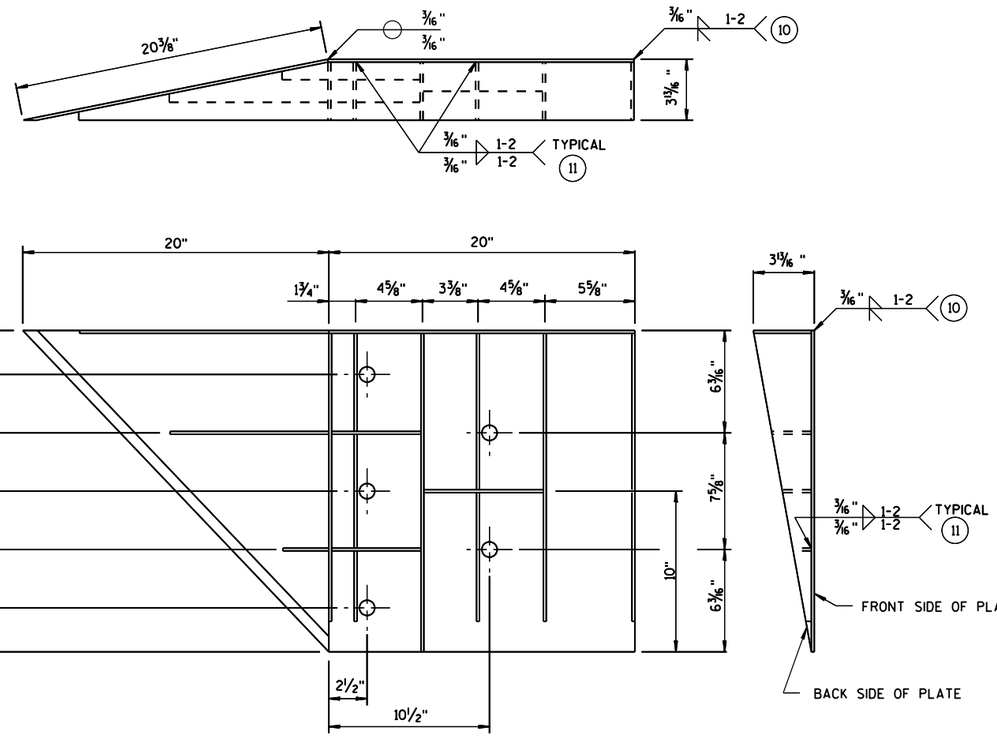
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S.D.D. 14 B 45-4h



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".

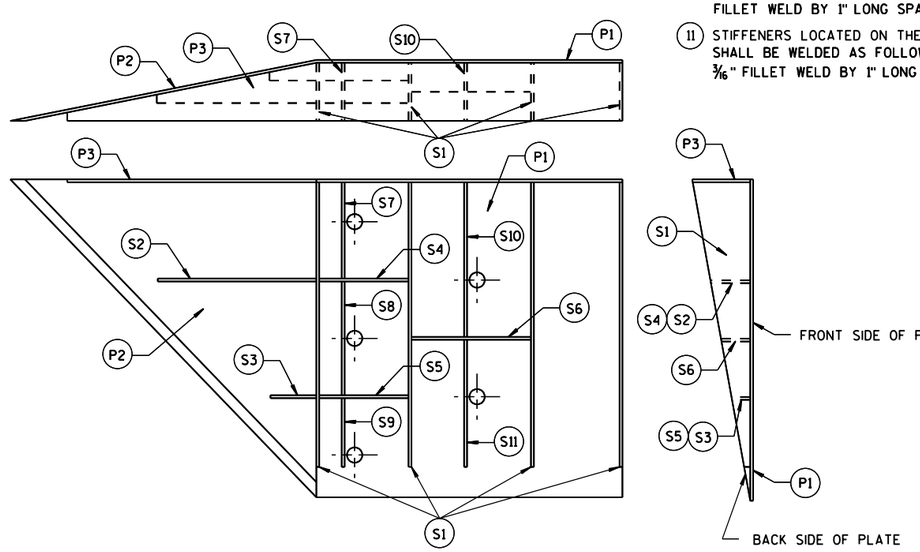


PLATE AND STIFFENER IDENTIFICATION

(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

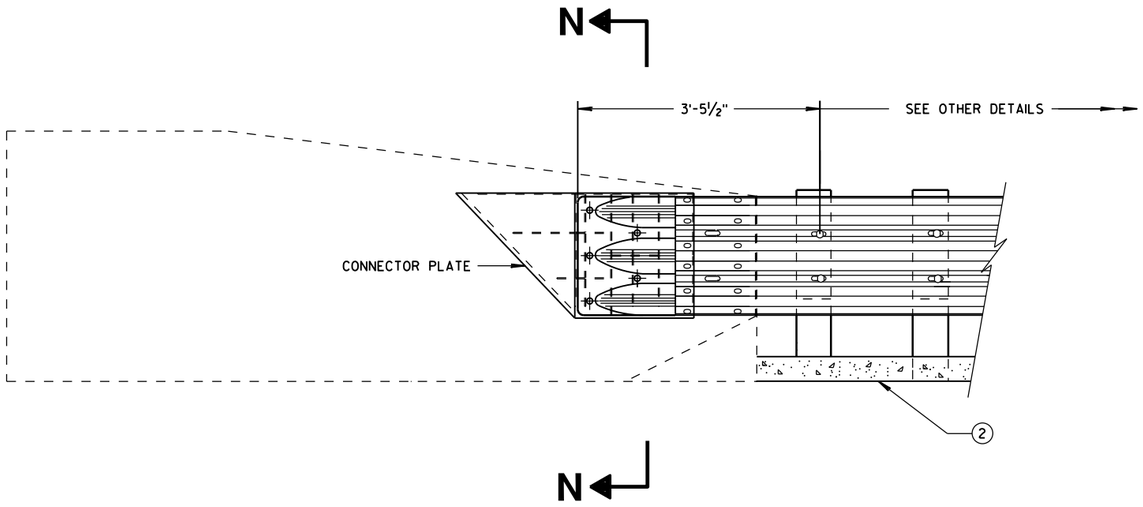
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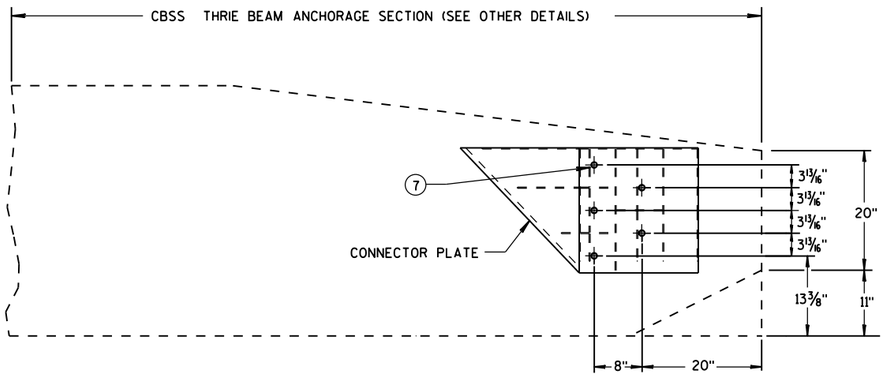
S.D.D. 14 B 45-4i

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



THRIE BEAM CONNECTION TO SINGLE SLOPE BARRIER



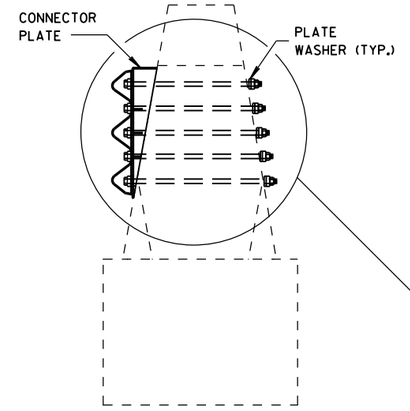
SINGLE SLOPE CONNECTION PLATE PLACEMENT

GENERAL NOTES

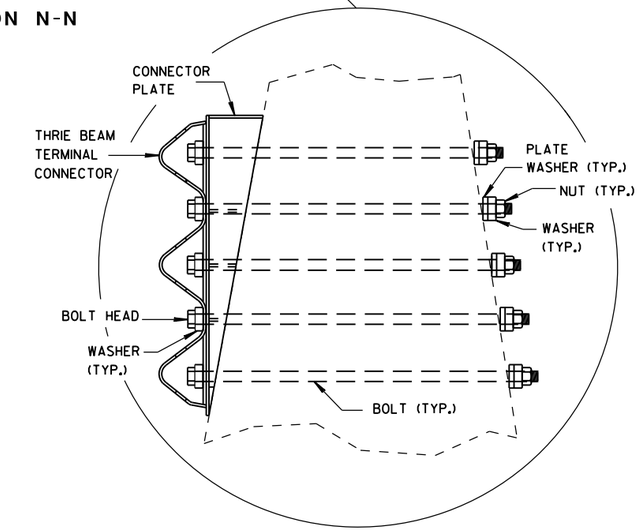
CONNECTOR PLATE, DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

(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

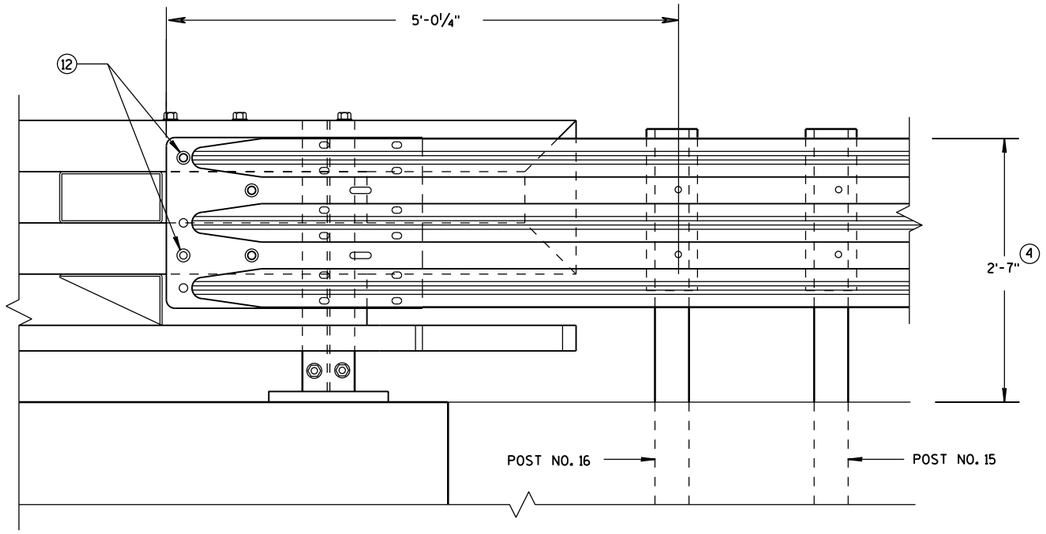
APPROVED
June, 2015 — DATE
/S/ Jerry H. Zoga — ROADWAY STANDARDS DEVELOPMENT ENGINEER
NT
FHWA

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

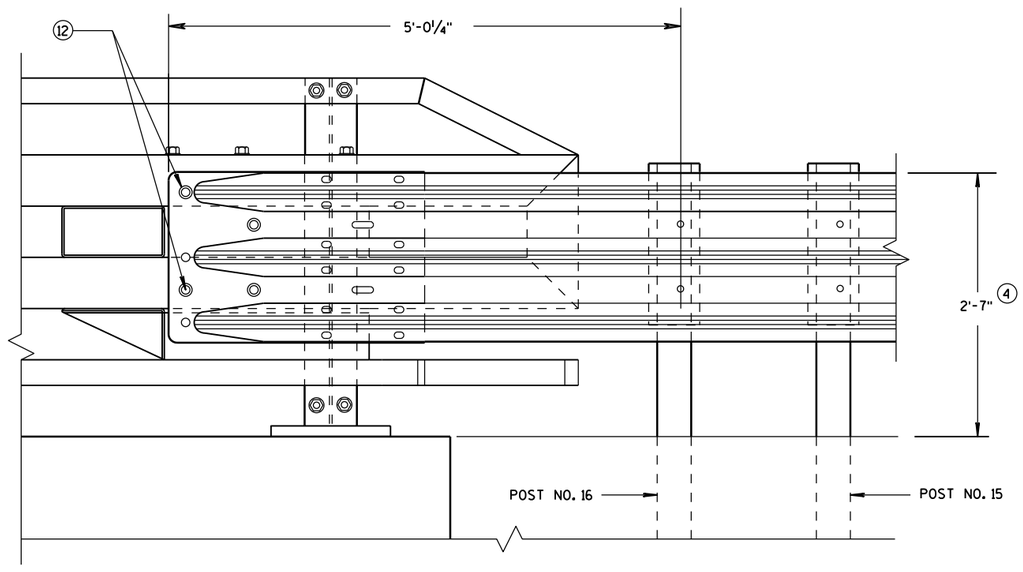
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S.D.D. 14 B 45-4j



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

APPROVED
June, 2015
DATE

/S/ Jerry H. Zogg
ROADWAY STANDARDS D 194 NT
ENGINEER

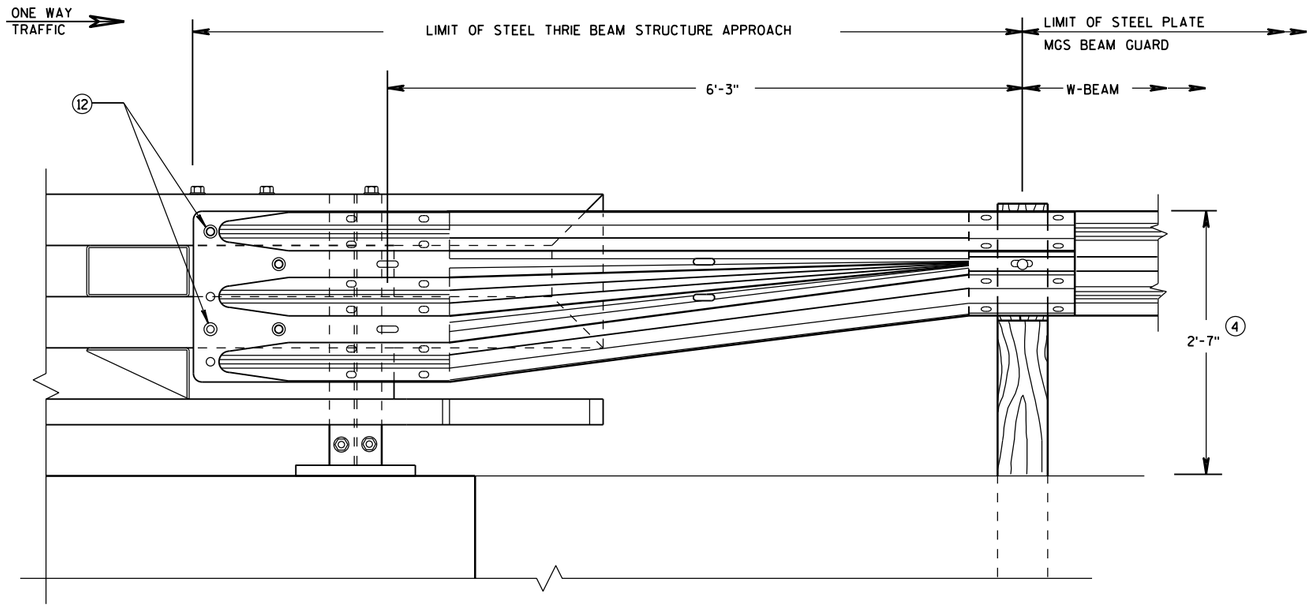
FHWA

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

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



FRONT VIEW

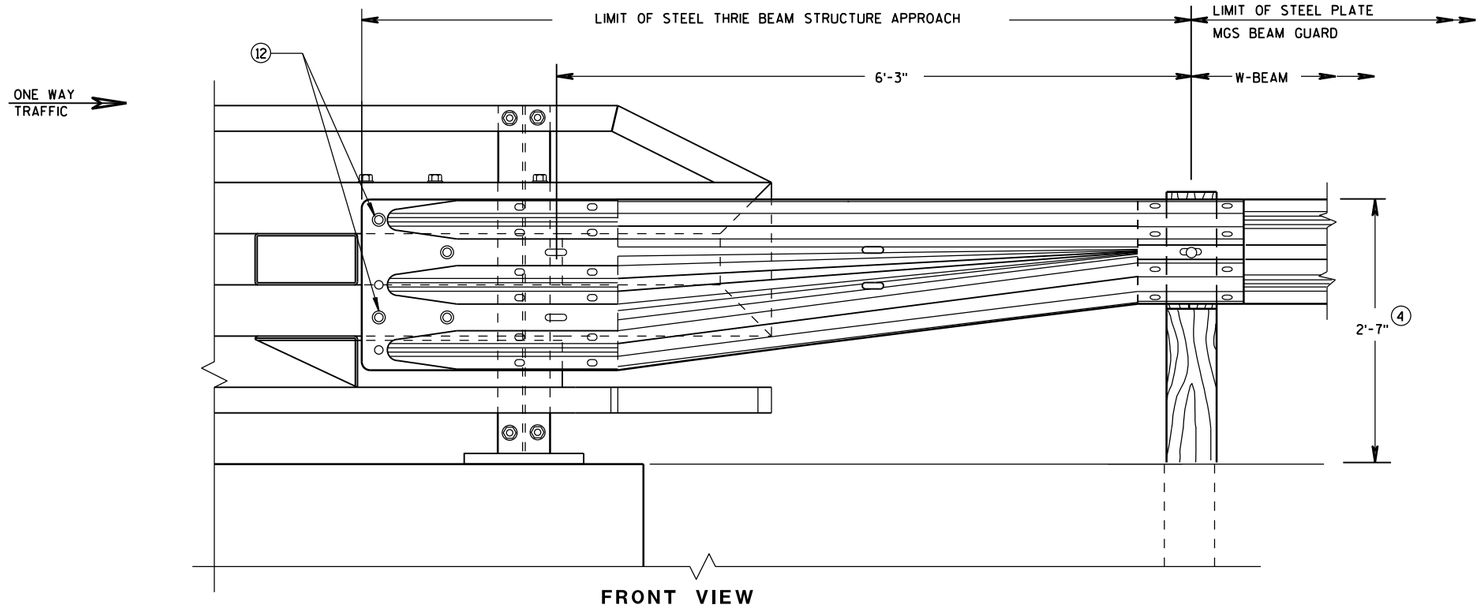
W BEAM TRANSITION AND CONNECTION TO BRIDGE RAILING TYPE "NY3"

(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

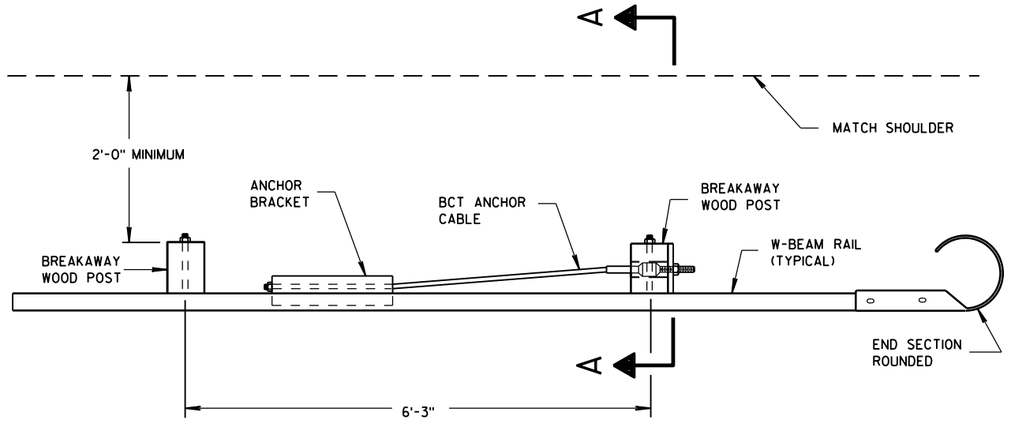
APPROVED
June, 2015 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA

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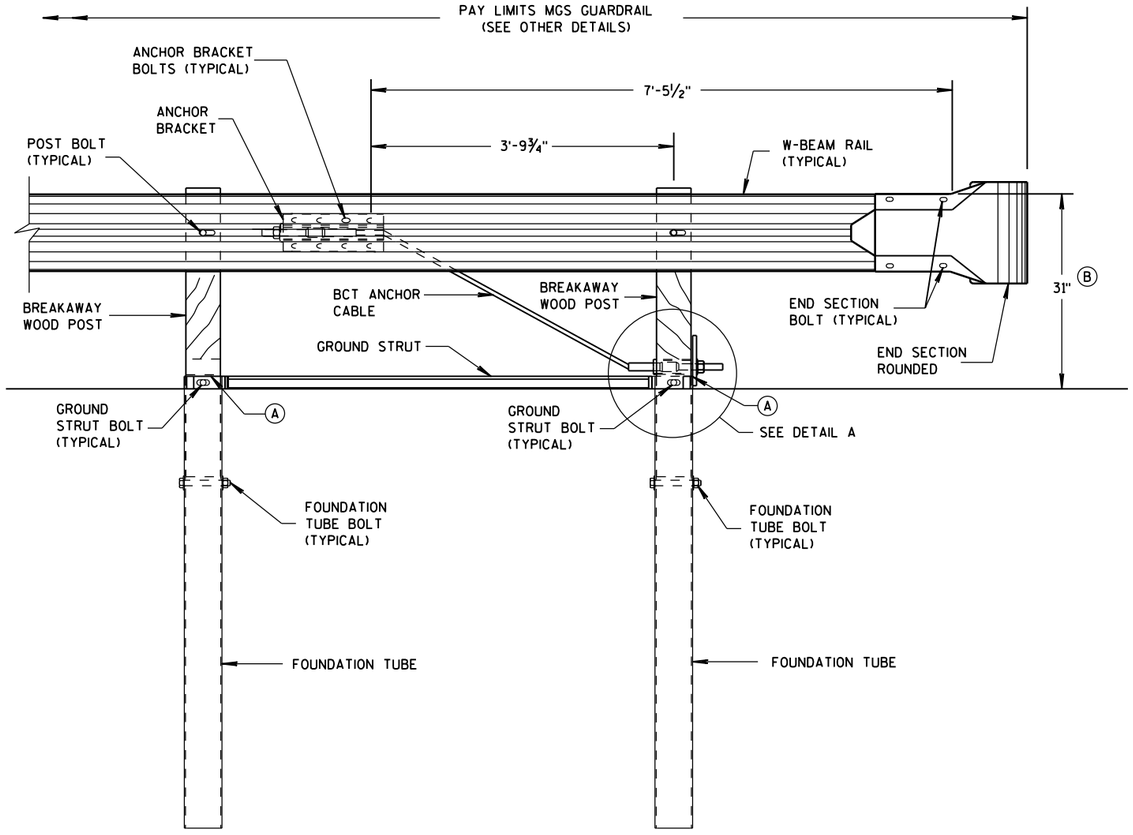
S.D.D. 14 B 45-4L

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

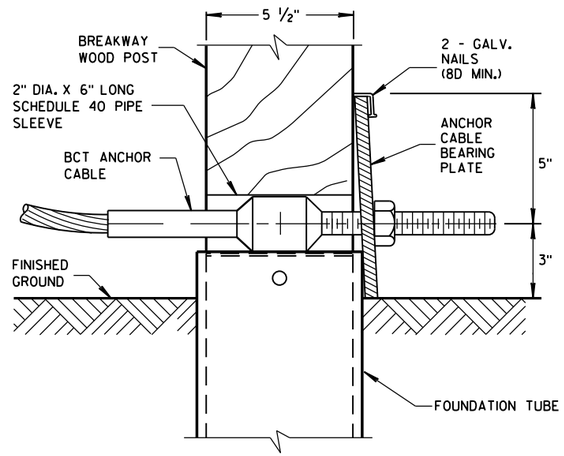


PLAN VIEW



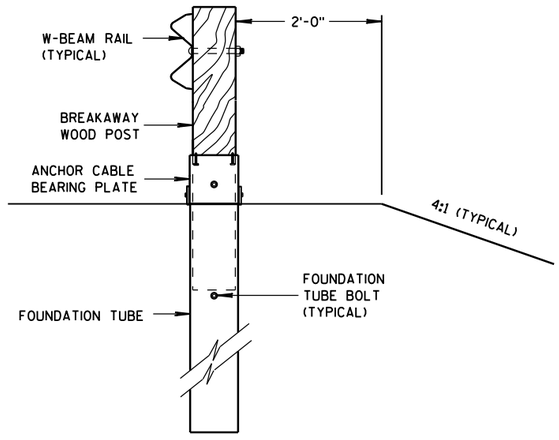
FRONT VIEW

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.

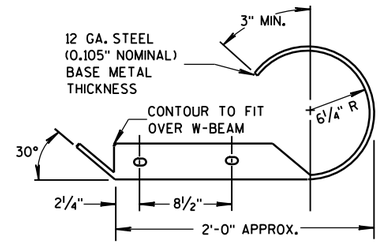
FOUNDATION TUBE BOLTS ARE ⅞" DIAMETER ASTM A307 HEX HEAD BOLT. FOUNDATION TUBE BOLTS REQUIRE ASTM A563 A NUT AND TWO ASTM F844 ⅞" DIAMETER FLAT WASHERS. INSTALL ONE WASHER UNDER BOLT HEAD AND ONE WASHER UNDER NUT.

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.

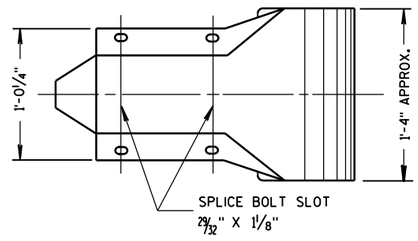
W-BEAM END SECTION ROUNDED HAS THE SAME MATERIAL PROPERTIES AS STANDARD STEEL RAIL.

(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



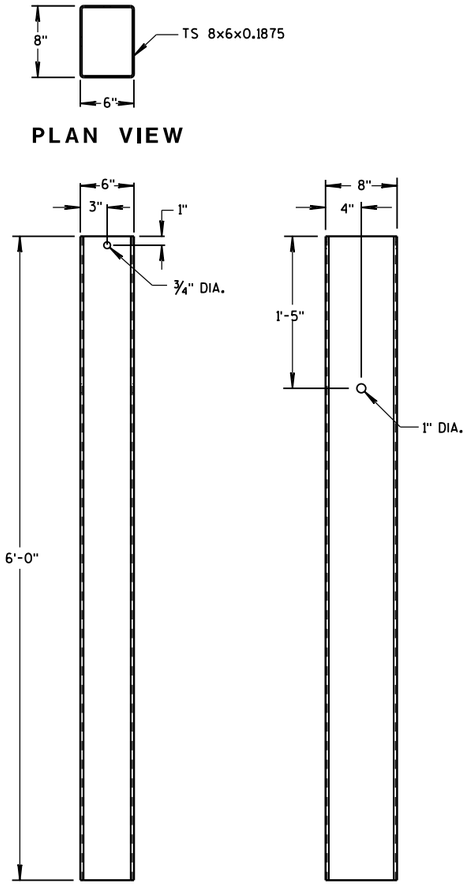
FRONT VIEW

W BEAM END SECTION ROUNDED

MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPO

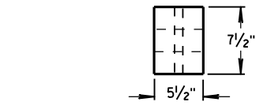
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S.D.D. 14 B 47-2a



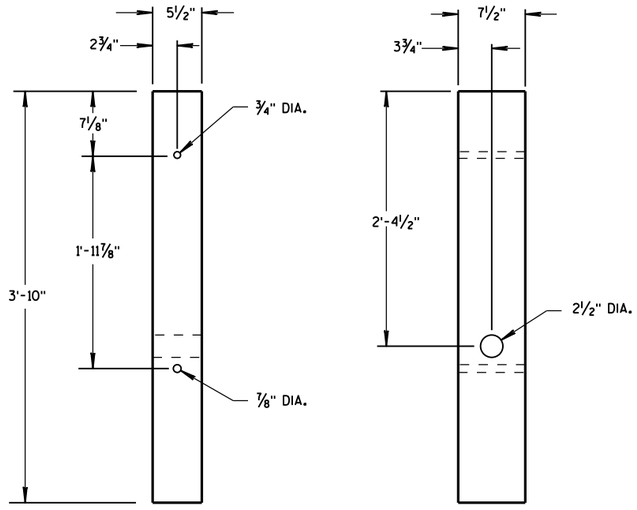
PLAN VIEW

FRONT VIEW SIDE VIEW

FOUNDATION TUBE



PLAN VIEW



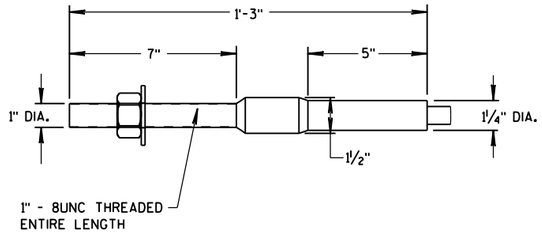
FRONT VIEW SIDE VIEW

BREAKAWAY WOOD POST

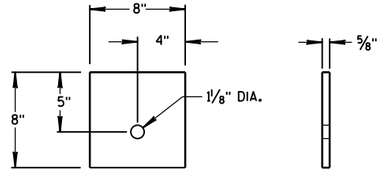
GENERAL NOTES

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

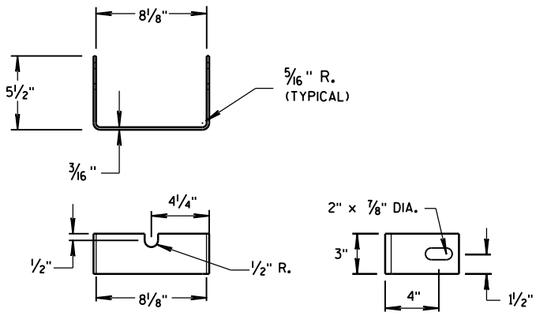
ANCHOR CABLE
BEARING PLATE

MIDWEST GUARDRAIL
SYSTEM (MGS) TYPE 2 TERMINAL

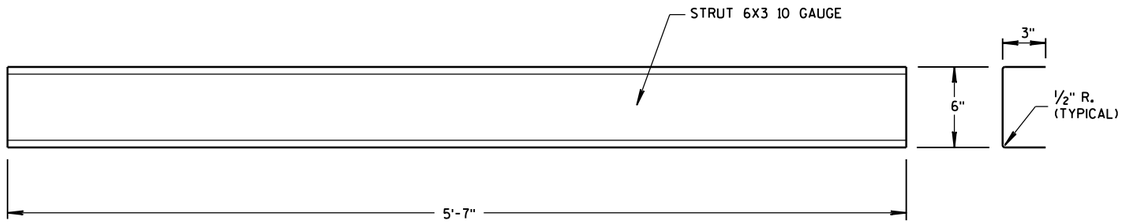
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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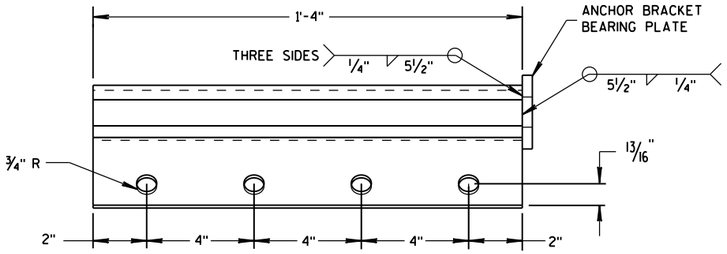
S.D.D. 14 B 47-2b

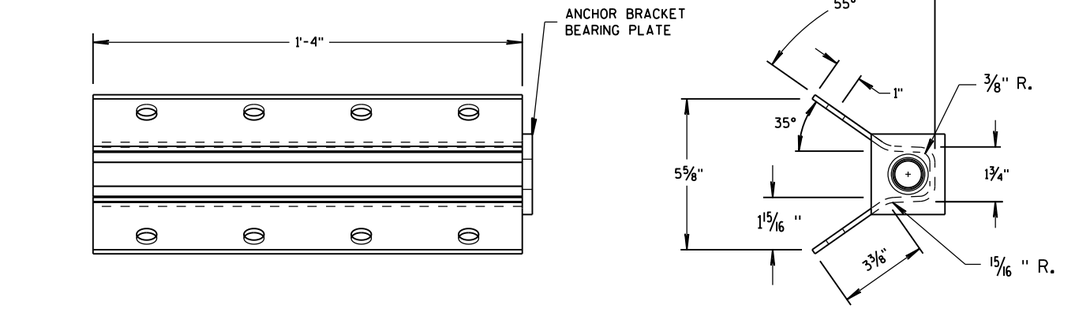


YOKE DETAIL

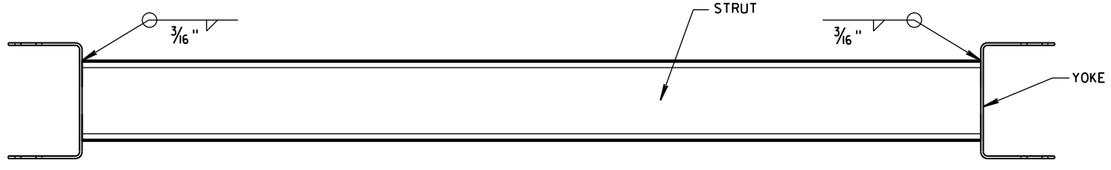


STRUT DETAIL

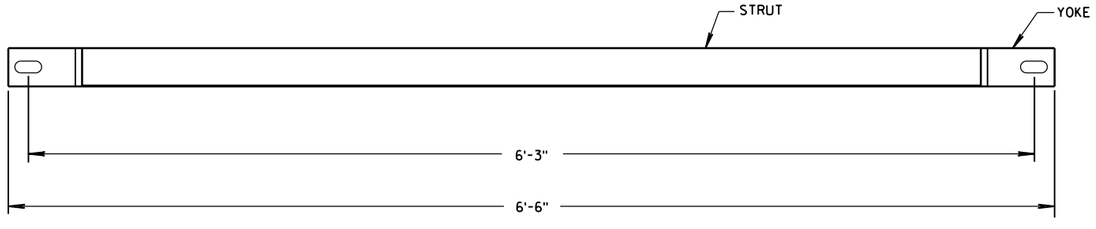




ANCHOR BRACKET

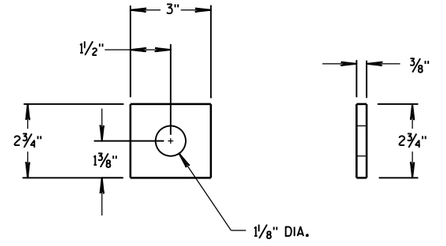


PLAN VIEW



FRONT VIEW

GROUND STRUT DETAIL



ANCHOR BRACKET BEARING PLATE

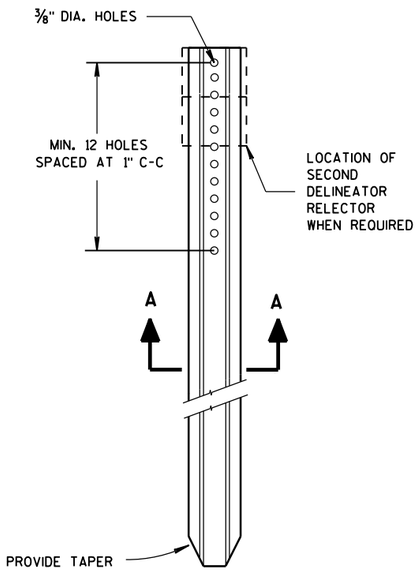
MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

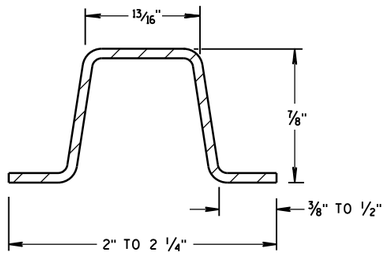
APPROVED
June 2014
DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS ENGINEER
FHWA

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S.D.D. 14 B 47-2c

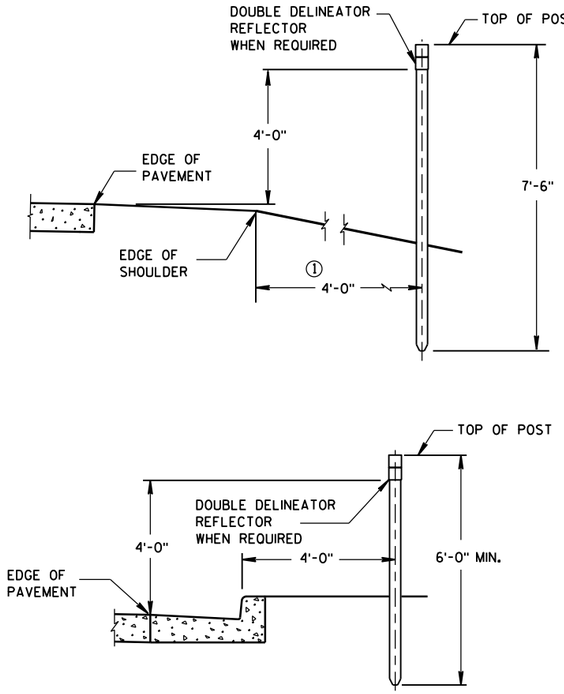


DELINEATOR POST



SECTION A-A

WEIGHT 1.12 LBS PER FT. ± 0.1 LB.

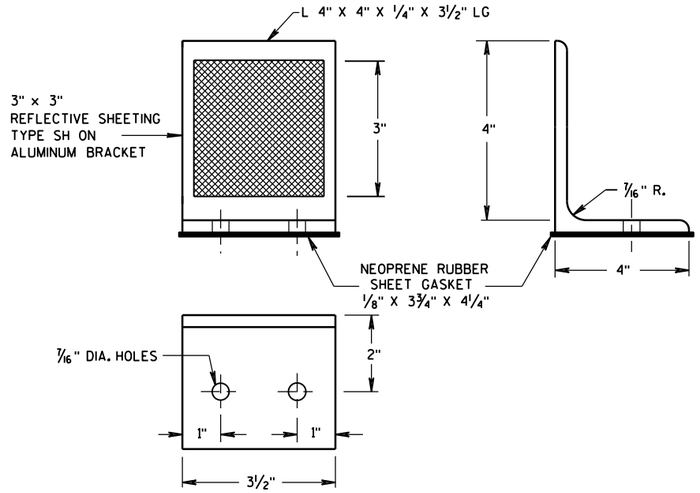


TYPICAL INSTALLATIONS OF DELINEATOR POSTS

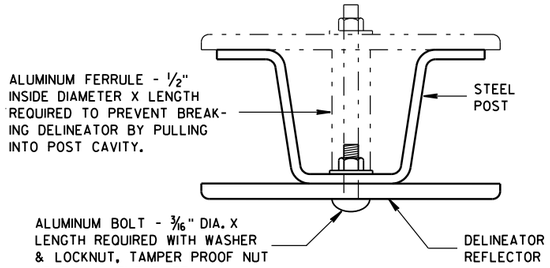
GENERAL NOTES

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

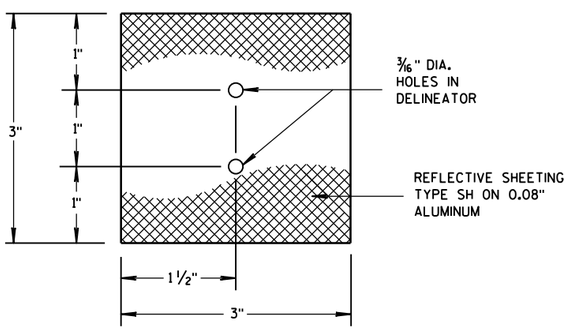
① DELINEATORS SHALL BE PLACED AT A CONSTANT DISTANCE FROM THE EDGE OF THE SHOULDER FOR THE LENGTH OF THE INSTALLATION.



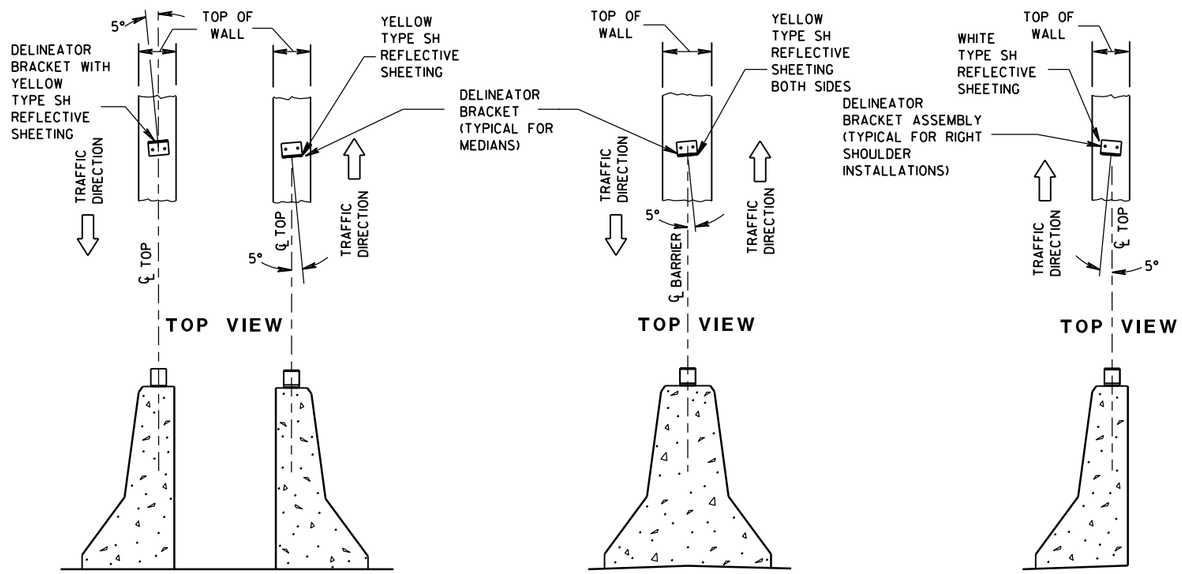
DELINEATOR BRACKET



MOUNTING DETAIL FOR DELINEATOR REFLECTOR

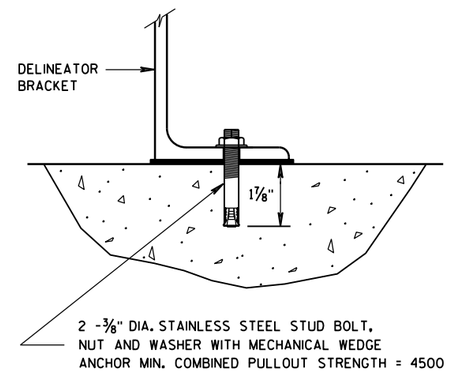


3"x 3" DELINEATOR REFLECTOR



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 REFLECTOR AND DELINEATOR BRACKET WITH REFLECTIVE SHEETING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
4-18-16 DATE
/S/ Matthew R. Rauch
STATE SIGNING AND MAR[illegible] GINEER
FHWA

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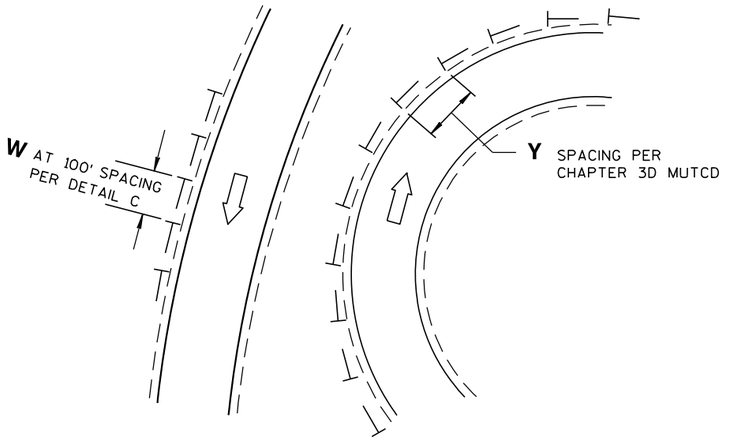
S.D.D. 15 A 2-9

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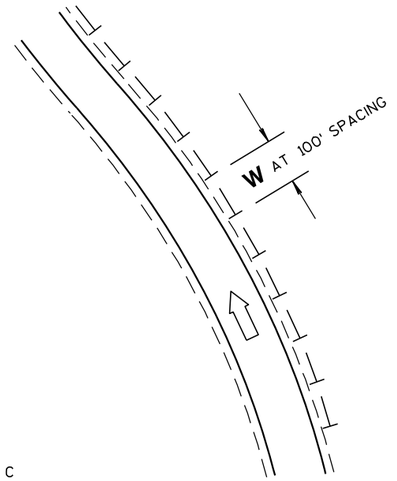
S.D.D. 15 A 2-9

GENERAL NOTES

* USE DOUBLE DELINEATOR ALONG ACCELERATION-DECELERATION LANES AND TAPERS. USE SINGLE DELINEATOR WHEN RAMP PAVEMENT IS FULL WIDTH.



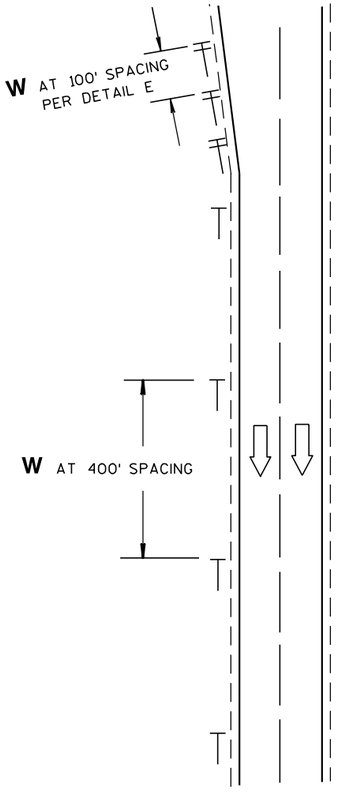
DETAIL A
DELINEATOR LAYOUT AT CURVED RAMP



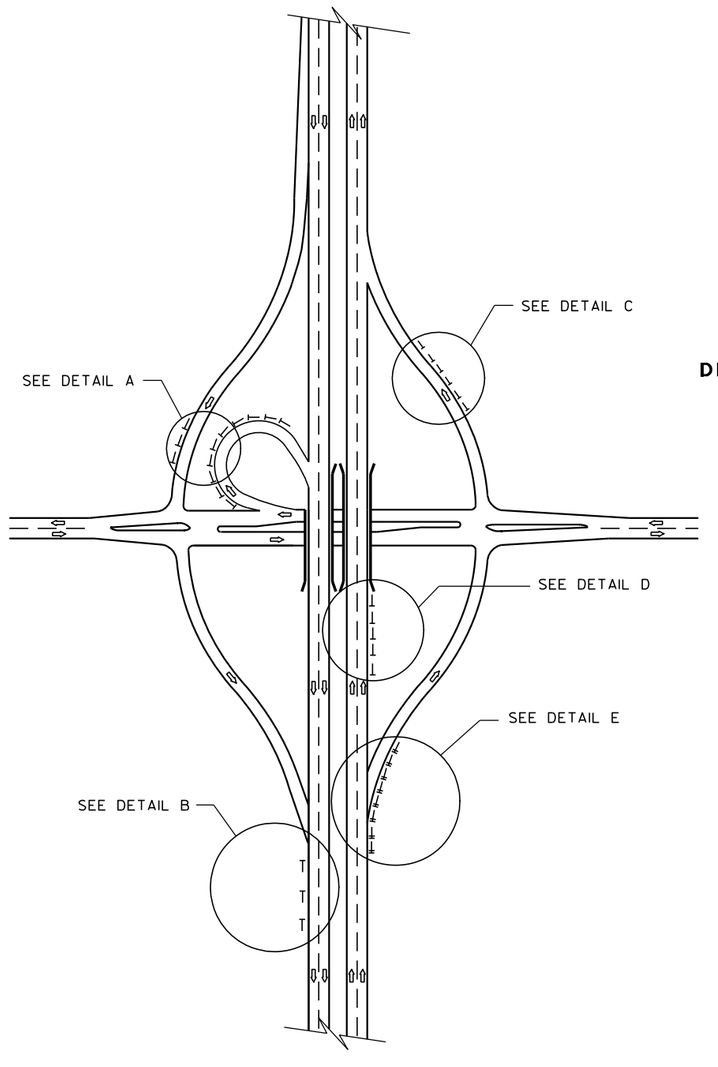
DETAIL C
DELINEATOR LAYOUT ALONG RAMP

LEGEND

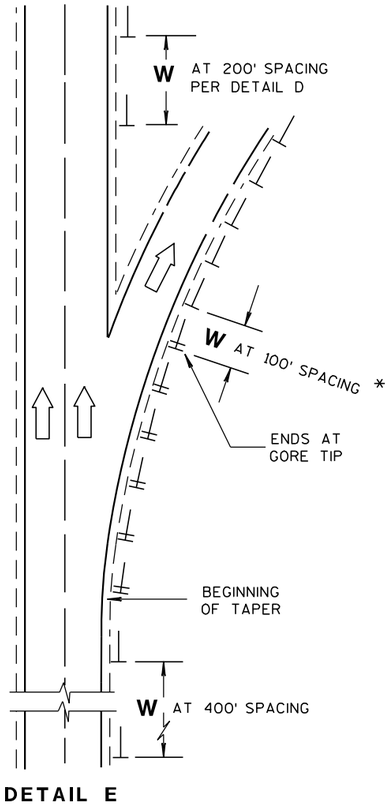
- DIRECTION OF TRAFFIC FLOW
- SINGLE DELINEATOR
- DOUBLE DELINEATOR
- W — WHITE
- Y — YELLOW



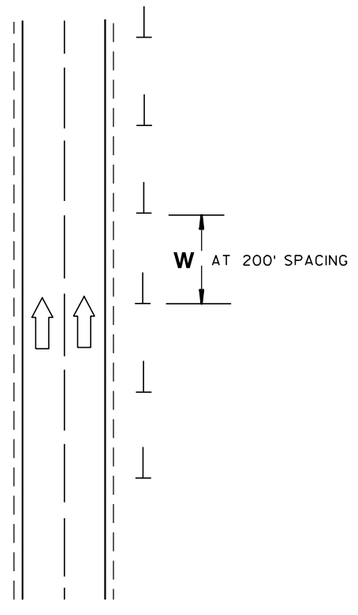
DETAIL B
DELINEATOR LAYOUT ALONG MAINLINE



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

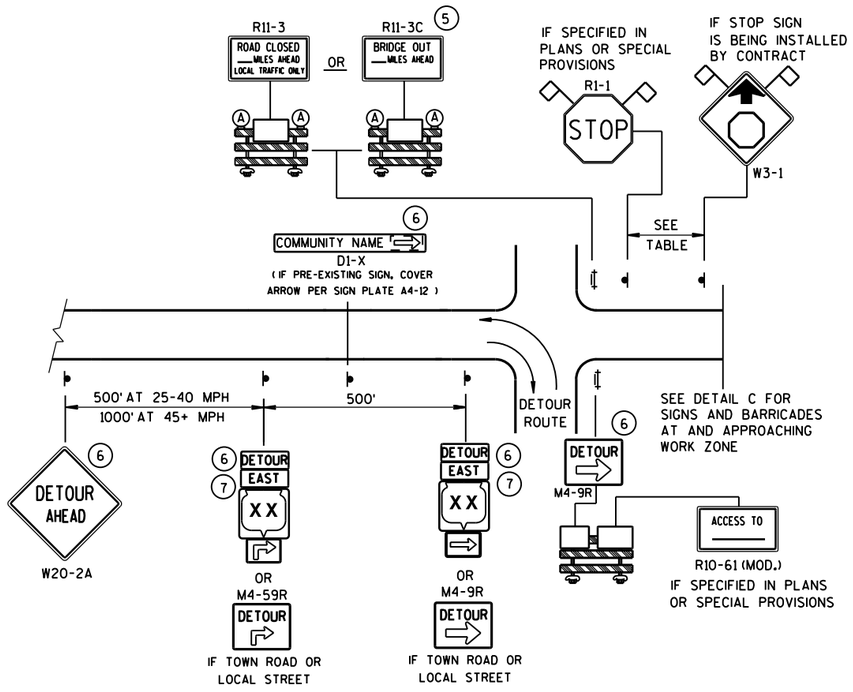
APPROVED
2/5/09 DATE
/S/ Thomas N. Nothdurft STATE TRAFFIC ENGINEER
FHWA

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S.D.D. 15 A 6-2

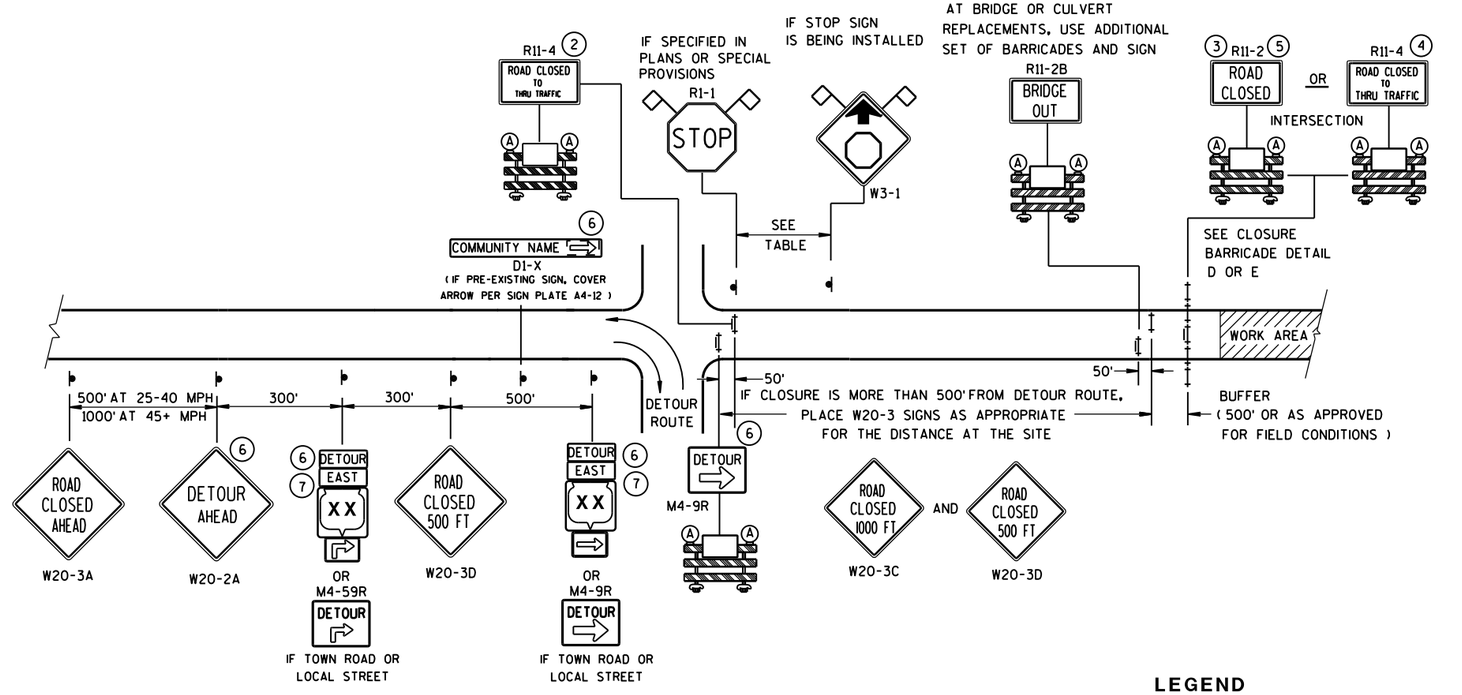
6

S.D.D. 15 A 6-2



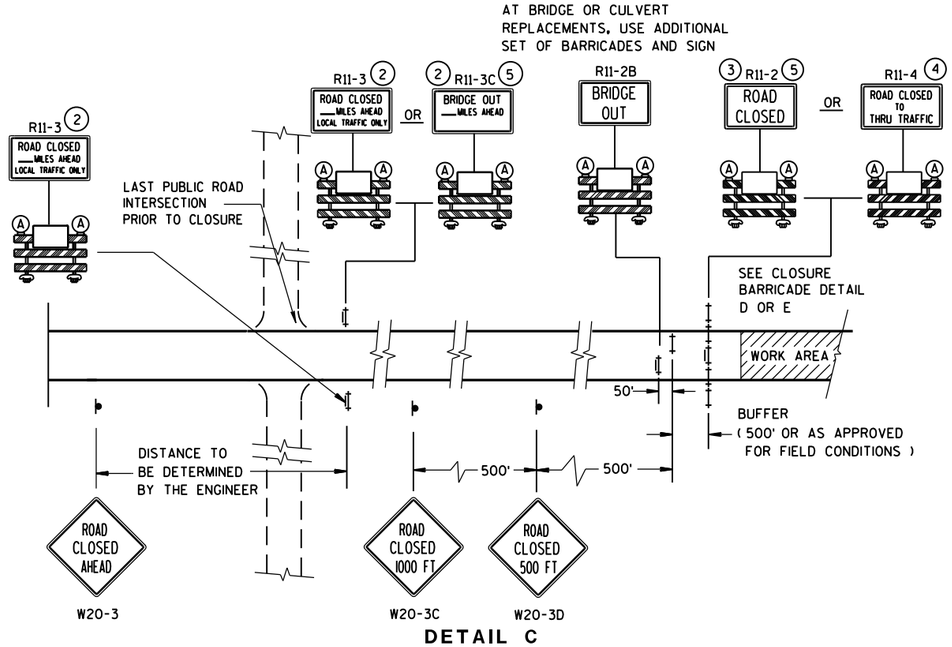
DETAIL A
MAINLINE CLOSURE WITH POSTED DETOUR

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

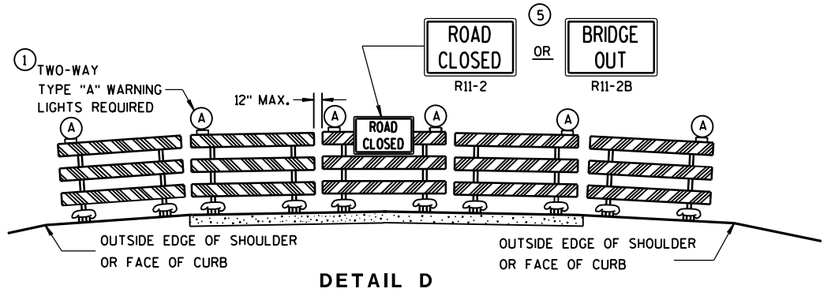
Sept. 2015 — DATE
/S/ Peter Amakobe Atepe
STATEWIDE WORK ZONE TRAFFIC SAFETY ENGINEER
FHWA

6

S.D.D. 15 C 2-6a

6

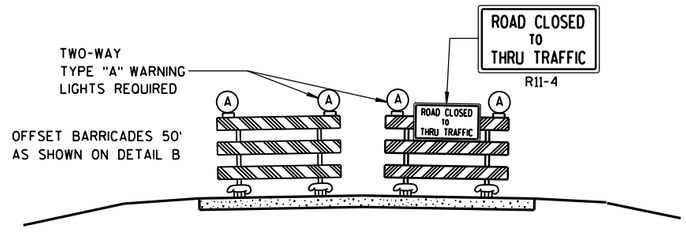
S.D.D. 15 C 2-6a



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

6

S.D.D. 15 C 2-6b

THIS DRAWING PROVIDES GENERAL GUIDANCE ON TYPICAL DETOUR SIGN LAYOUT AND SPACING. SEE PROJECT DETOUR SIGNING SHEETS FOR SPECIFIC DETAILS FOR EACH PROJECT.

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. SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS. MODIFY EXISTING SIGNS WHERE POSSIBLE.

THE SPACING BETWEEN TRAFFIC CONTROL AND DETOUR SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH 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.

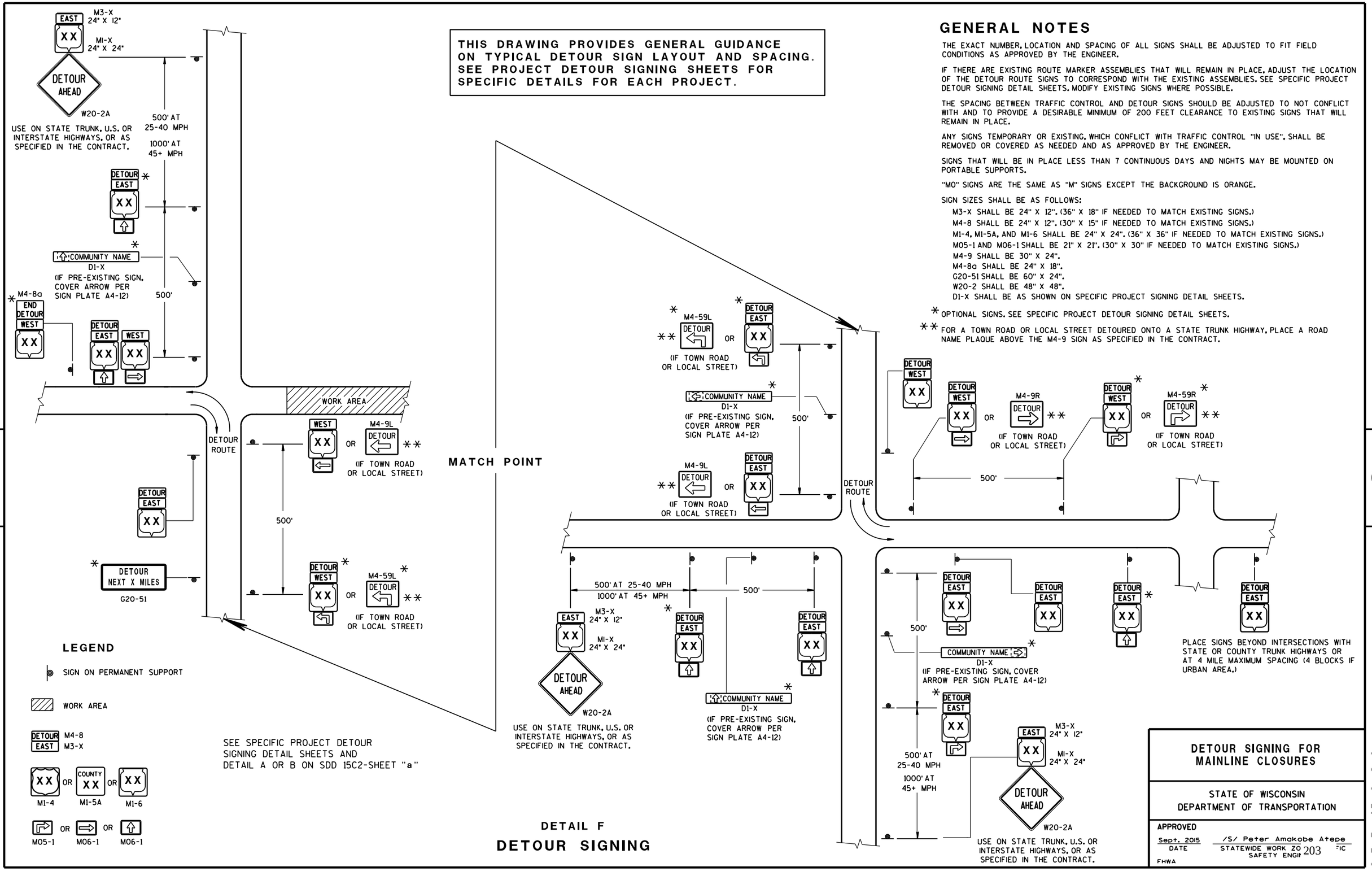
"MO" SIGNS ARE THE SAME AS "M" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

SIGN SIZES SHALL BE AS FOLLOWS:

- 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.)
- M4-9 SHALL BE 30" X 24".
- M4-8a SHALL BE 24" X 18".
- G20-51 SHALL BE 60" X 24".
- W20-2 SHALL BE 48" X 48".
- D1-X SHALL BE AS SHOWN ON SPECIFIC PROJECT SIGNING DETAIL SHEETS.

* OPTIONAL SIGNS. SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS.

** FOR A TOWN ROAD OR LOCAL STREET DETOURED ONTO A STATE TRUNK HIGHWAY, PLACE A ROAD NAME PLAQUE ABOVE THE M4-9 SIGN AS SPECIFIED IN THE CONTRACT.



LEGEND

- SIGN ON PERMANENT SUPPORT
- WORK AREA
- DETOUR EAST — M4-8 / M3-X
- XX OR COUNTY XX OR XX — M1-4 / M1-5A / M1-6
- M05-1 OR M06-1 OR M06-1

SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS AND DETAIL A OR B ON SDD 15C2-SHEET "a"

DETAIL F

DETOUR SIGNING

DETOUR SIGNING FOR MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

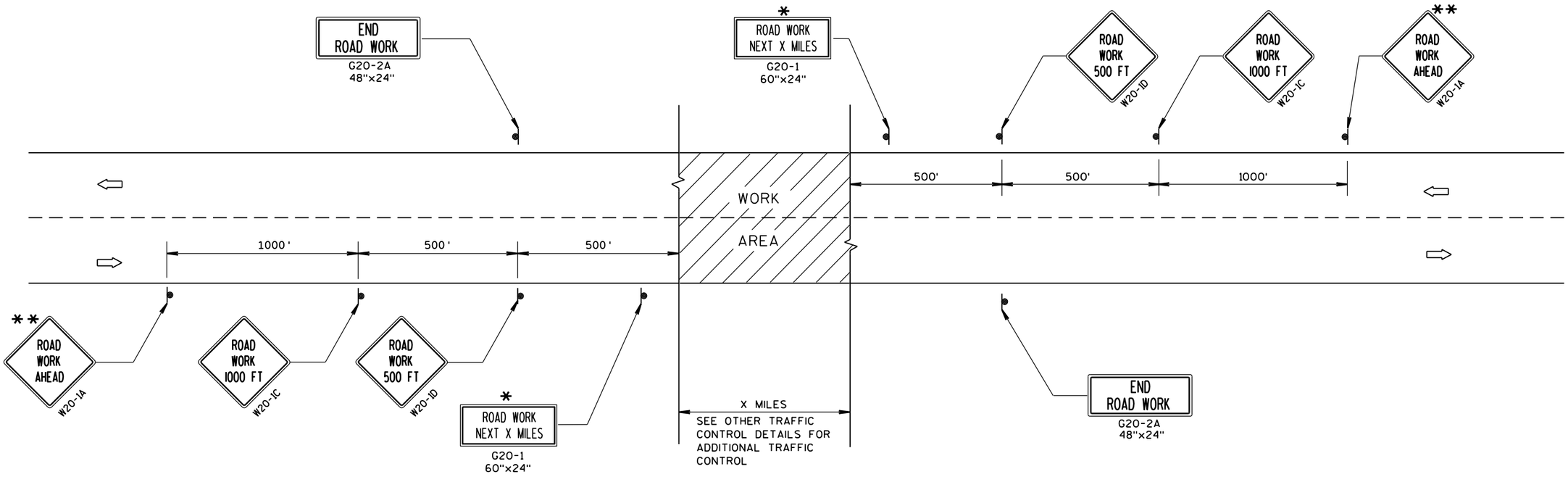
Sept. 2015 — DATE

/S/ Peter Amakobe Atepe
STATEWIDE WORK ZO... SAFETY ENGI...

FHWA

S.D.D. 15 C 2-6c

6



TYPICAL SIDEROAD APPROACH WARNING SIGN DETAIL

GENERAL NOTES

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

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.

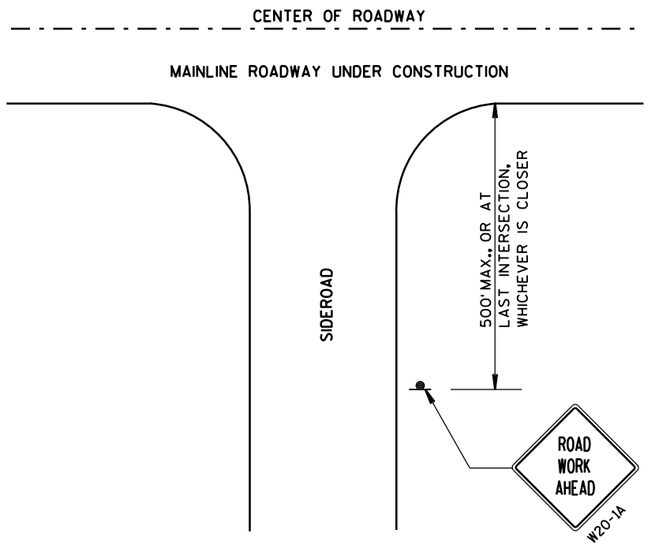
ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED.

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

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.

* OMIT G20-1 SIGNS IF LENGTH OF WORK AREA IS 2 MILES OR LESS.

** PLACE ADDITIONAL W20-1A "ROAD WORK AHEAD" SIGN IF WORK AREA WITHIN THE PROJECT IS SEPARATED BY MORE THAN 2 MILES FROM PREVIOUS WORK AREA.



LEGEND

- SIGN ON PERMANENT SUPPORT
- DIRECTION OF TRAFFIC
- WORK AREA

TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45 M.P.H. OR GREATER TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

Sept. 2015 — DATE

/S/ Peter Amakobe Atepe — STATEWIDE WORK ZONE SAFETY ENGINEER

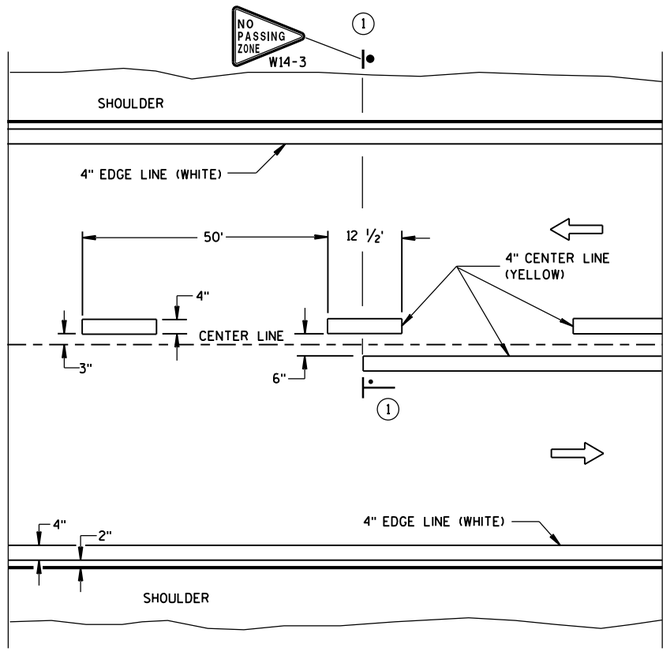
FHWA

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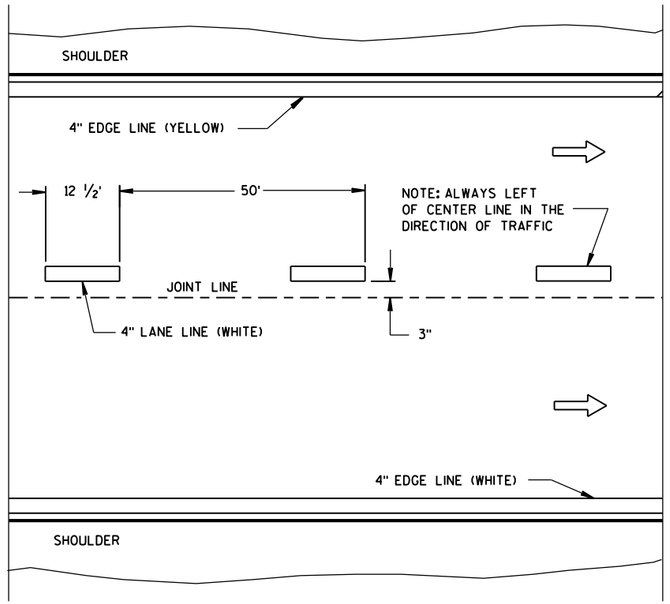
S.D.D. 15 C 4-3

6

S.D.D. 15 C 4-3



TWO WAY TRAFFIC



ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING

GENERAL NOTES

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

(1) NO PASSING ZONE W14-3 SIGN SHALL BE LOCATED WITHIN 50 FEET OF THE "T" MARKING.

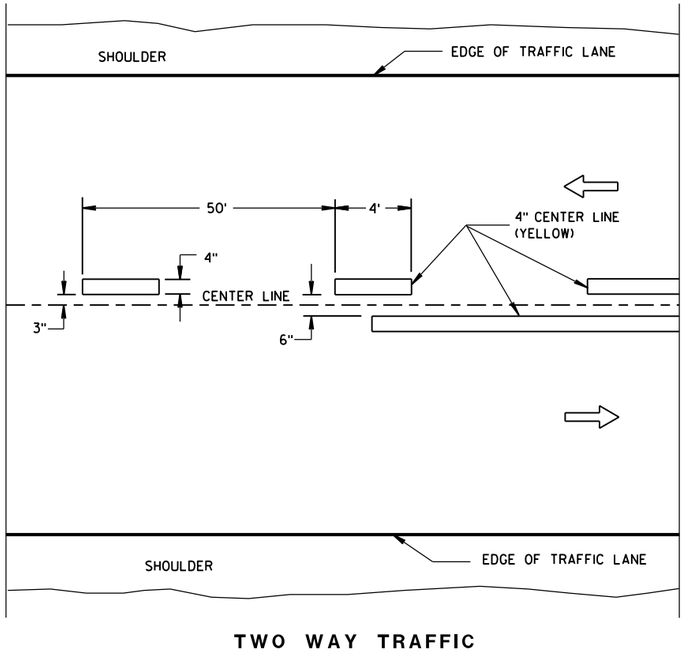
NOTE

ARROW SYMBOL (⇨) SHOWS DIRECTION OF TRAVEL

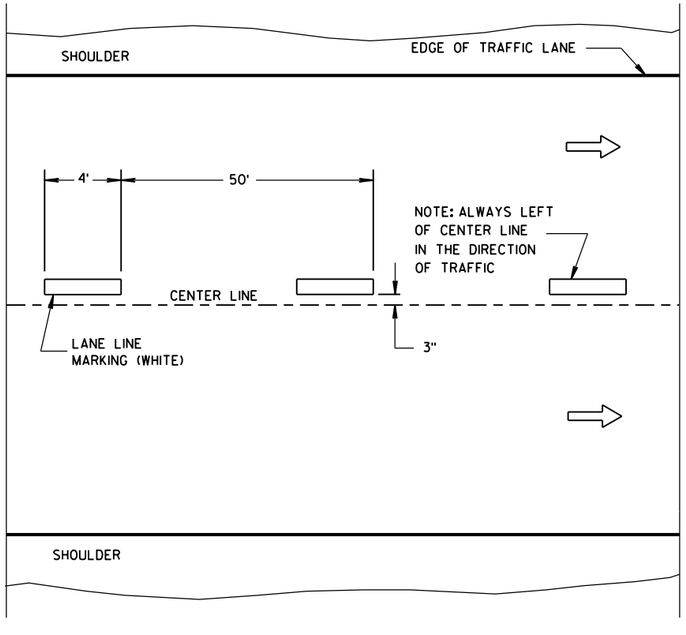
LEGEND

"T" MARKING

POST MOUNTED SIGN



TWO WAY TRAFFIC



ONE WAY TRAFFIC

TEMPORARY PAVEMENT MARKING

LONGITUDINAL MARKING (MAINLINE)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

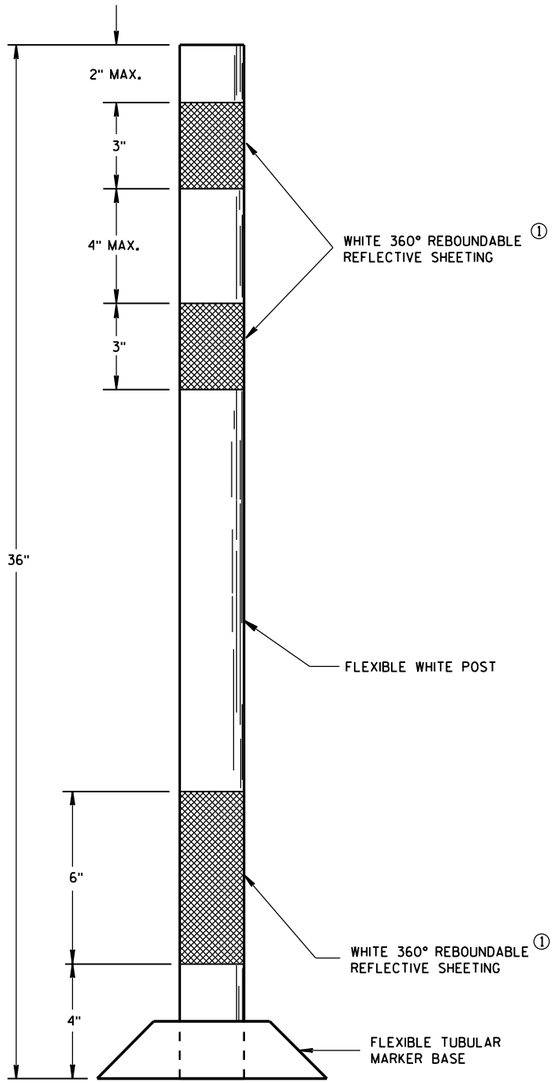
APPROVED
Sept., 2016 — DATE
/S/ Matthew R. Rauch — STATE SIGNING AND MAR[illegible]INEER
FHWA

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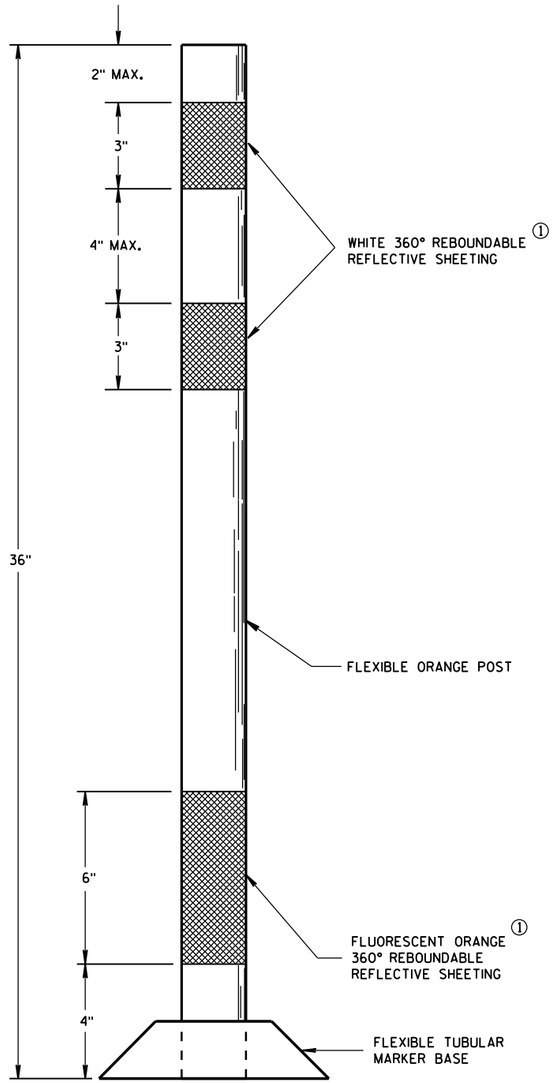
S.D.D. 15 C 8-17a

6

S.D.D. 15 C 8-17a



FLEXIBLE
TUBULAR MARKER POST
PERMANENT CROSSOVER



FLEXIBLE
TUBULAR MARKER POST
WORK ZONE

GENERAL NOTES

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

SURFACE MOUNTED BASES SHALL BE FURNISHED IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS TO BE COMPATIBLE WITH FLEXIBLE TUBULAR MARKER POSTS TO A SIZE AND SHAPE THAT WILL PROVIDE A STABLE POST FOUNDATION WHEN SECURED TO THE PAVEMENT.

THE ASPHALTIC ADHESIVE OR BUTYL PAD FURNISHED SHALL BE IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS.

① REFLECTIVE SHEETING SHALL FOLLOW THE REQUIREMENTS IN THE APPROVED PRODUCTS LISTING FOR SIGN SHEETING.

FLEXIBLE TUBULAR MARKER POST

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

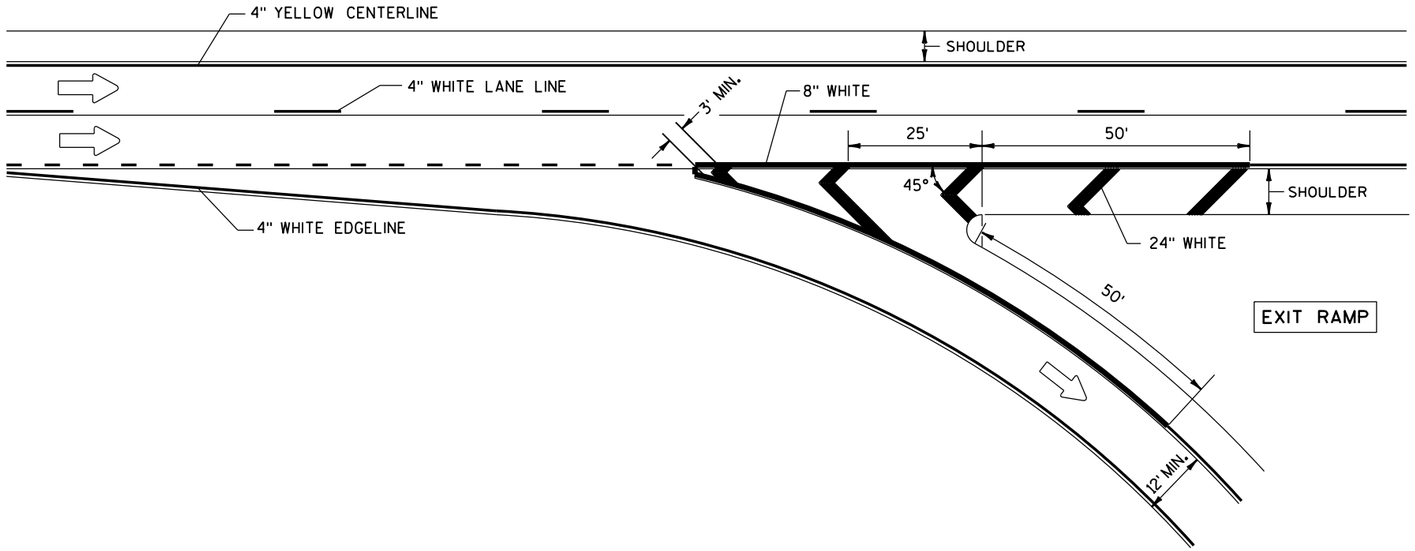
APPROVED
10-16-2015
DATE
/S/ Peter Amakobe Atepe
STATEWIDE WORK ZON
SAFETY ENGINE
FHWA

6

S.D.D. 15 C 11-6

6

S.D.D. 15 C 11-6



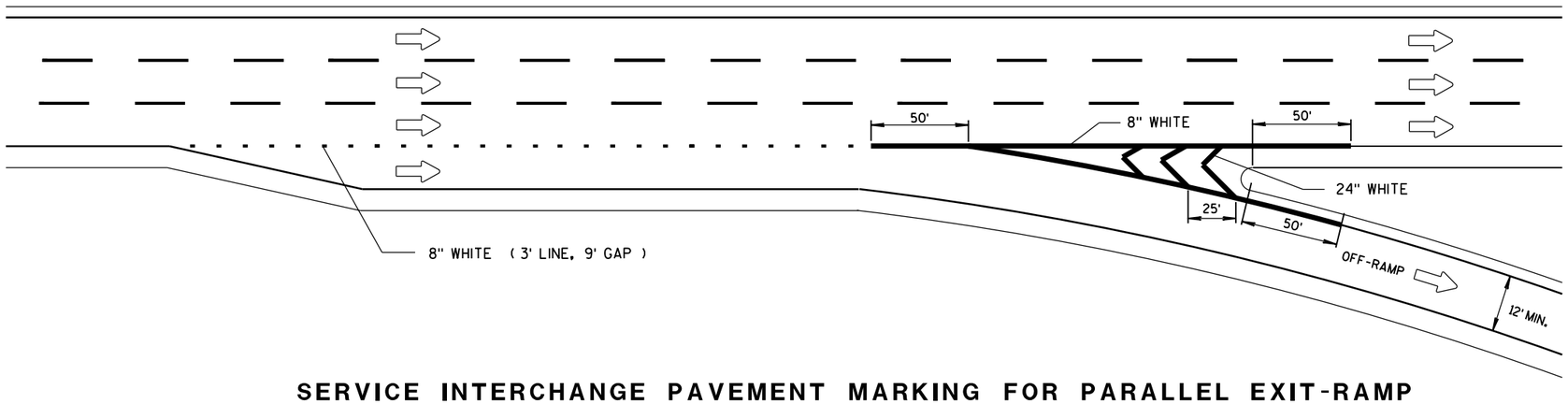
PAVEMENT MARKING FOR EXIT RAMP

GENERAL NOTES

PLACE GROOVE 3 INCHES LEFT OF JOINT.

LEGEND

DIRECTION OF TRAVEL



SERVICE INTERCHANGE PAVEMENT MARKING FOR PARALLEL EXIT-RAMP

6

S.D.D. 15 C 31-2a

PAVEMENT MARKING
(RAMPS AND GORES)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6

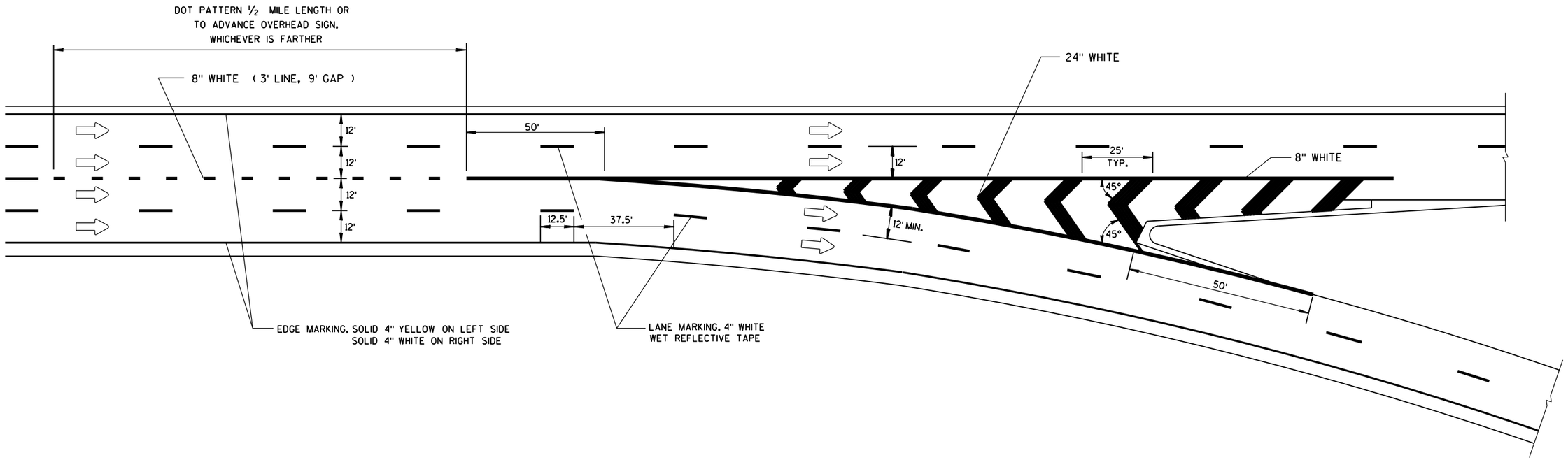
S.D.D. 15 C 31-2a

GENERAL NOTES

PLACE GROOVE 3 INCHES LEFT OF JOINT.

LEGEND

DIRECTION OF TRAVEL



PAVEMENT MARKING
MAJOR SPLIT
FREEWAY TO FREEWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6

S.D.D. 15 C 31-2b

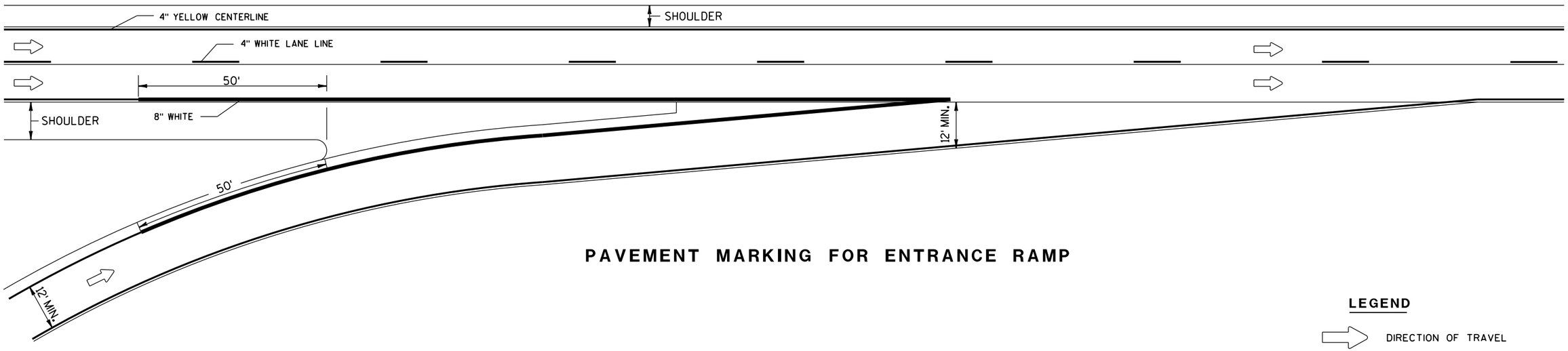
6

S.D.D. 15 C 31-2b

GENERAL NOTES

PLACE GROOVE 3 INCHES LEFT OF JOINT.

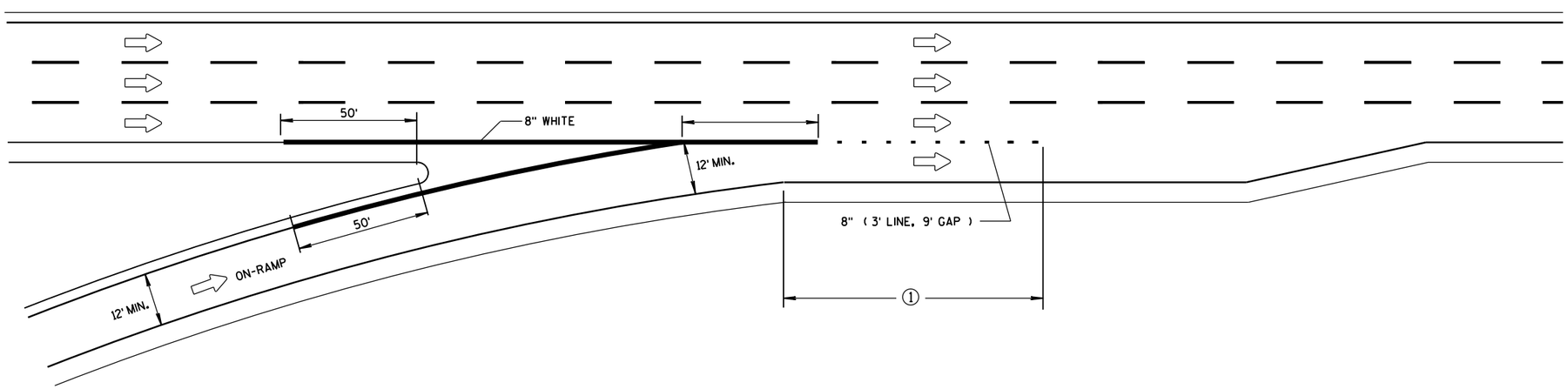
① ½ LENGTH OF FULL WIDTH ACCELERATION LANE.



PAVEMENT MARKING FOR ENTRANCE RAMP

LEGEND

DIRECTION OF TRAVEL



SERVICE INTERCHANGE PAVEMENT MARKING FOR PARALLEL ENTRANCE-RAMP

PAVEMENT MARKING FOR PARALLEL ON-RAMP AND PARALLEL OFF-RAMP

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

Sept., 2016
DATE

/S/ Matthew R. Rauch
STATE SIGNING AND MAR

NEER

FHWA

6

S.D.D. 15 C 31-2c

6

S.D.D. 15 C 31-2c

LEGEND

- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- TRAFFIC CONTROL DRUM
- FLASHING ARROW BOARD
- REMOVING PAVEMENT MARKING
- CONCRETE BARRIER TEMPORARY PRECAST
- DIRECTION OF TRAFFIC
- WORK AREA

L, TAPER LENGTH (MPH)							
SPEED (MPH)	W, LATERAL OFFSET (FT)						
	10	11	12	13	14	15	16
45	450	495	540	585	630	675	720
50	500	550	600	650	700	750	800
55	550	605	660	715	770	825	880
60	600	660	720	780	840	900	960
65	650	715	780	845	910	975	1040
70	700	770	840	910	980	1050	1120



INSTALL ON EACH APPROACH AT THE CLOSEST INTERSECTION WITH A STATE OR COUNTY TRUNK HIGHWAY, OR AS DIRECTED BY THE ENGINEER. WIDTH ON SIGN TO BE APPROX. 1 FOOT LESS THAN AVAILABLE WIDTH (OMIT IF AVAILABLE WIDTH IS MORE THAN 16 FEET).



OR



LOCATED 2600 FEET IN ADVANCE OF R2-1 SIGN AND 500 FEET BEYOND THE "ROAD WORK 1 MILE" SIGN.



OR



R2-1
48"x60"
(BLACK AND WHITE)
LOCATED 500 FEET BEYOND W20-5G SIGN.

IF THE REGULATORY SPEED HAS BEEN REDUCED, 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 RESUME SPEED LIMIT SIGN A MINIMUM OF 200 FEET (500 FEET DESIRABLE) AFTER END ROAD WORK SIGNS.

GENERAL NOTES

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

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) CLEARANCE TO EXISTING SIGNS.

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 OR AS APPROVED BY THE ENGINEER.

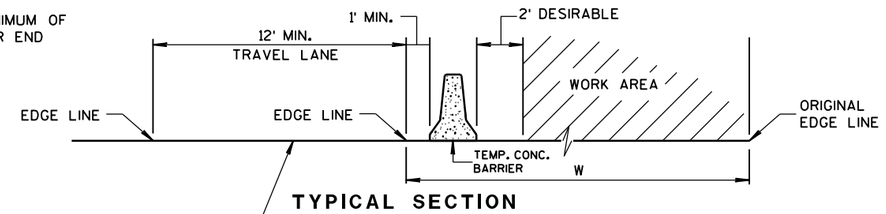
(1) CONSIDER ROADWAY GEOMETRICS WHEN LOCATING SIGNS AND ARROW BOARD SO THE DRIVER HAS A CLEAR VIEW OF THE ARROW BOARD AND LANE CLOSURE DRUMS FOR A MINIMUM 1500 FEET IN FRONT OF DRUM TAPER.

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.

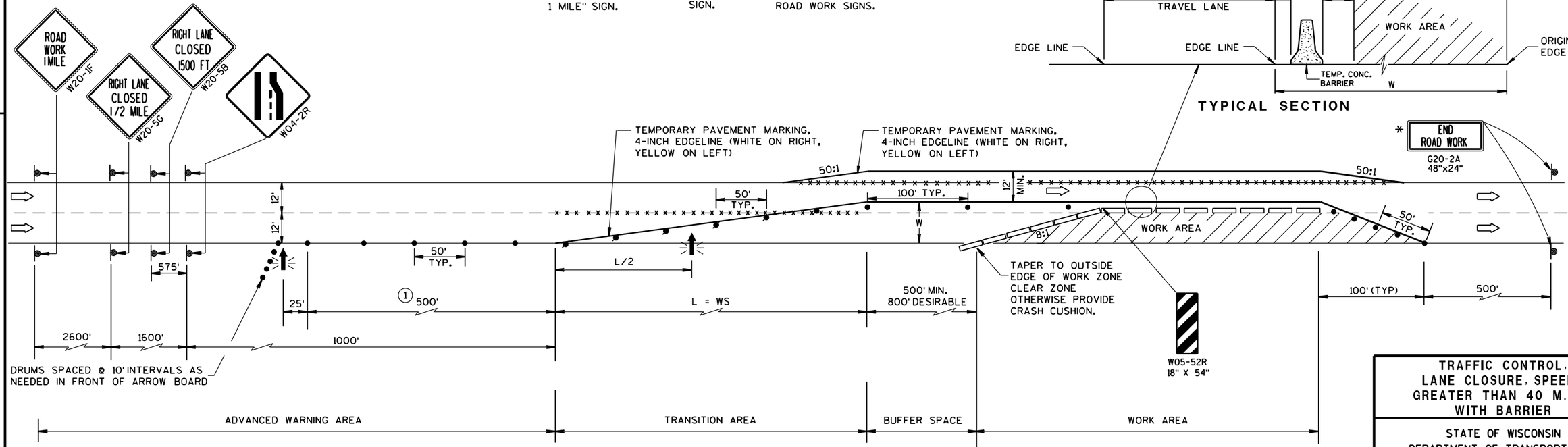
REMOVE PAVEMENT MARKINGS IF LANE CLOSURE IS TO BE IN PLACE FOR 4 OR MORE CONTINUOUS DAYS AND NIGHTS.

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 OR INTERSECTION. 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 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.



TYPICAL SECTION



TRAFFIC CONTROL, LANE CLOSURE, SPEEDS GREATER THAN 40 M.P.H. WITH BARRIER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Sept., 2016 — DATE
/S/ Peter Amakobe Atepe
STATEWIDE WORK ZOI SAFETY ENGIN
FHWA

6

S.D.D. 15 D 3-4

6

S.D.D. 15 D 3-4

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"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.

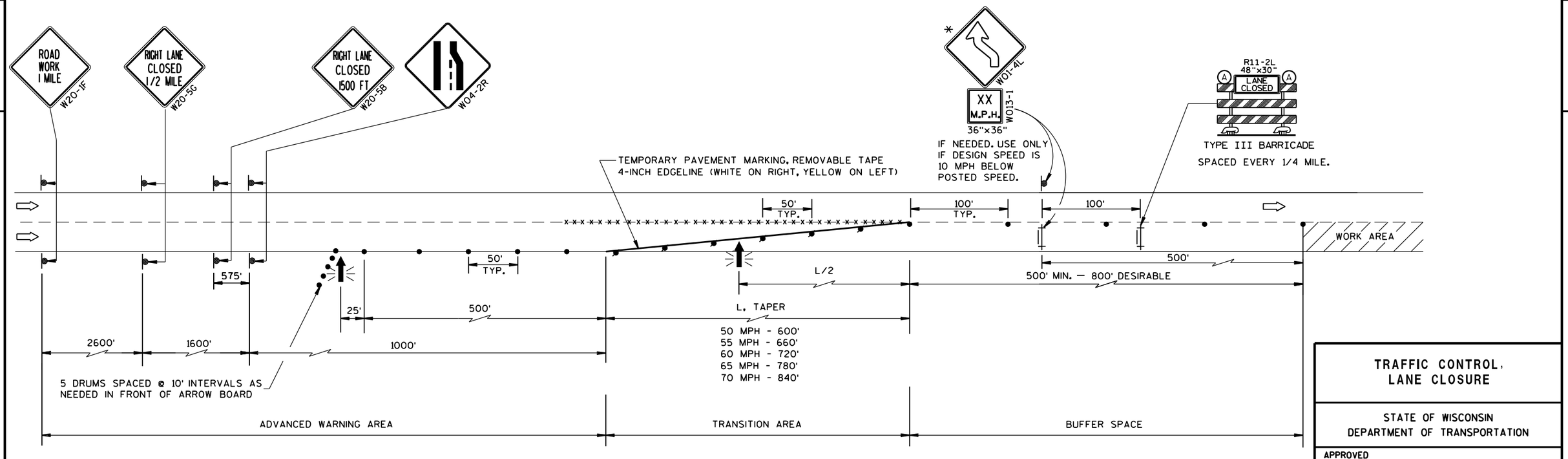
REMOVE PAVEMENT MARKINGS IF LANE CLOSURE IS TO BE IN PLACE FOR LONGER THAN 4 OR MORE DAYS AND NIGHTS.

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.

* THE LEFT REVERSE CURVE SIGN (WO1-4L) IS ONLY REQUIRED WHEN THIS DETAIL IS USED IN COMBINATION WITH "SINGLE LANE CROSSOVER" DETAIL.



TRAFFIC CONTROL, LANE CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
March 2016 — DATE
/S/ Peter Amakobe Atepe
STATEWIDE WORK ZONE TRAFFIC SAFETY ENGINEER
FHWA

6

S.D.D. 15 D 12-6a

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.

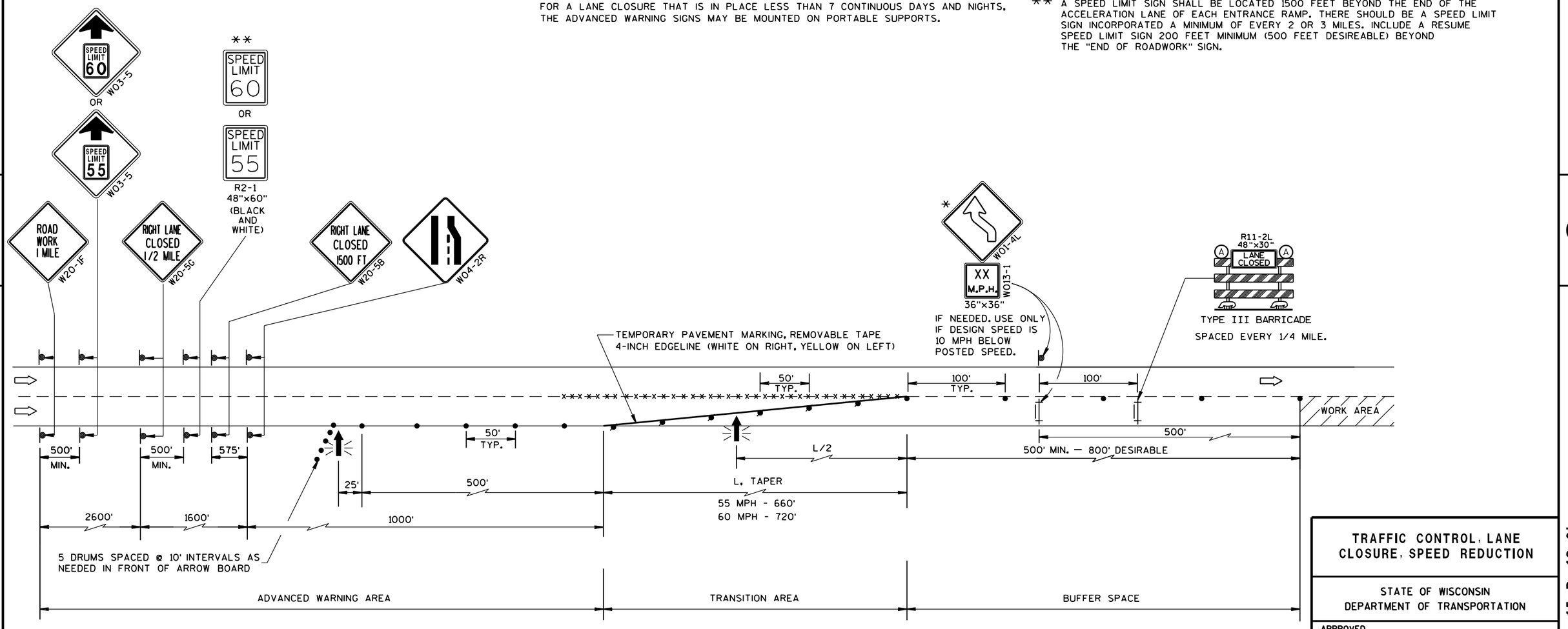
WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

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 (W01-4L) 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 RESUME SPEED LIMIT SIGN 200 FEET MINIMUM (500 FEET DESIREABLE) BEYOND THE "END OF ROADWORK" SIGN.



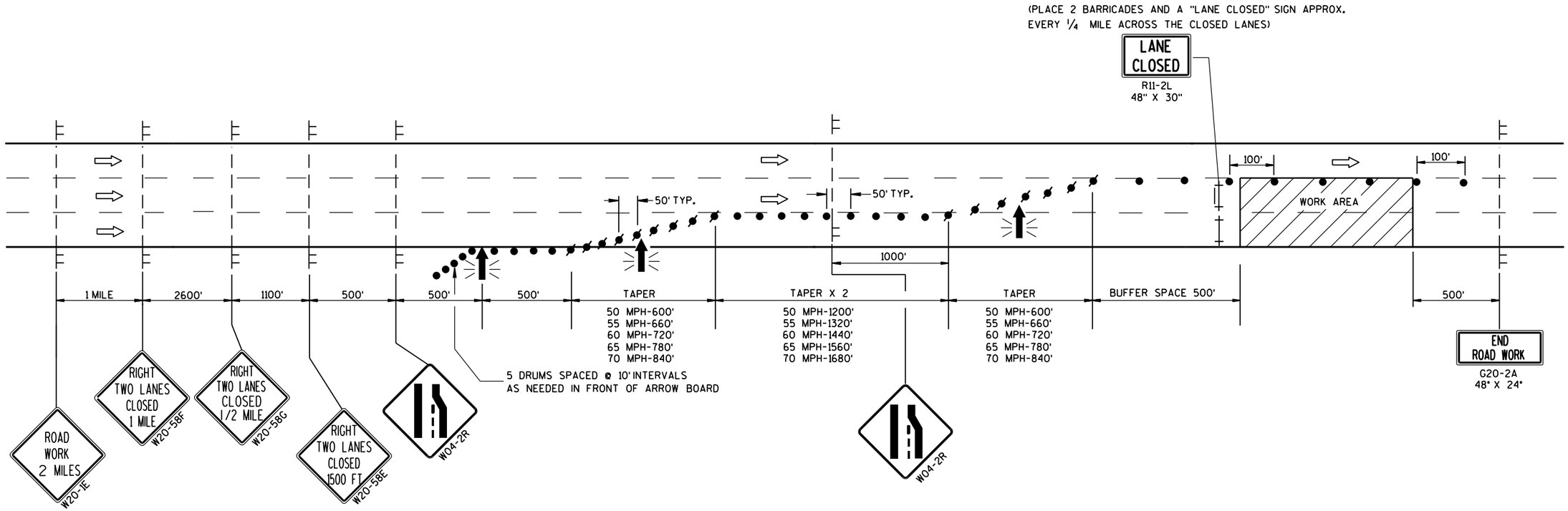
TRAFFIC CONTROL, LANE CLOSURE, SPEED REDUCTION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
March 2016 — DATE
/S/ Peter Amakobe Atepe
STATEWIDE WORK ZONE SAFETY ENGINEER
FHWA

6

S.D.D. 15 D 12-6b



LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- SIGN ON TEMPORARY SUPPORT
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- TRAFFIC CONTROL DRUM
- FLASHING ARROW BOARD
- DIRECTION OF TRAFFIC
- WORK AREA

GENERAL NOTES

THIS DETAIL IS TYPICAL FOR CLOSING THE RIGHT TWO LANES. FOR CLOSING THE LEFT TWO LANES, REVERSE THE TRAFFIC CONTROL.

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" X 48" UNLESS OTHERWISE NOTED.

"WO" SIGNS ARE THE SAME AS "W" SIGNS 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.

W20-1E AND G20-2A SIGNS ARE NOT REQUIRED IF THE LANE CLOSURE IS WITHIN A LARGER WORK ZONE WHERE THESE SIGNS ARE ALREADY PRESENT.

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

WHEN A RAMP OR SIDE ROAD INTERSECTS THE FACILITY ON WHICH THE WORK IS BEING PERFORMED, ADDITIONAL TRAFFIC CONTROLS SHALL BE PROVIDED AS SPECIFIED IN THE PLANS AND/OR SPECIAL PROVISIONS OR AS APPROVED BY THE ENGINEER.

BARRICADES IN A CLOSED LANE 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.

CHANNELIZING DEVICES PLACED ADJACENT TO WORK AREA SHALL BE PULLED BACK FROM THE TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

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

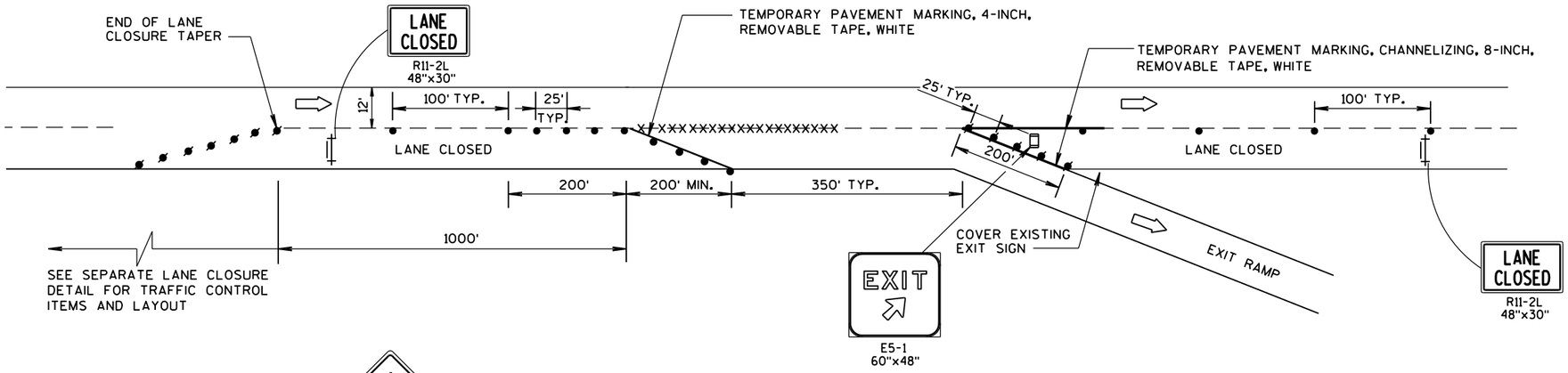
TRAFFIC CONTROL, TWO LANE CLOSURE ON FREEWAY OR EXPRESSWAY, SHORT TERM (LESS THAN 24 HOURS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

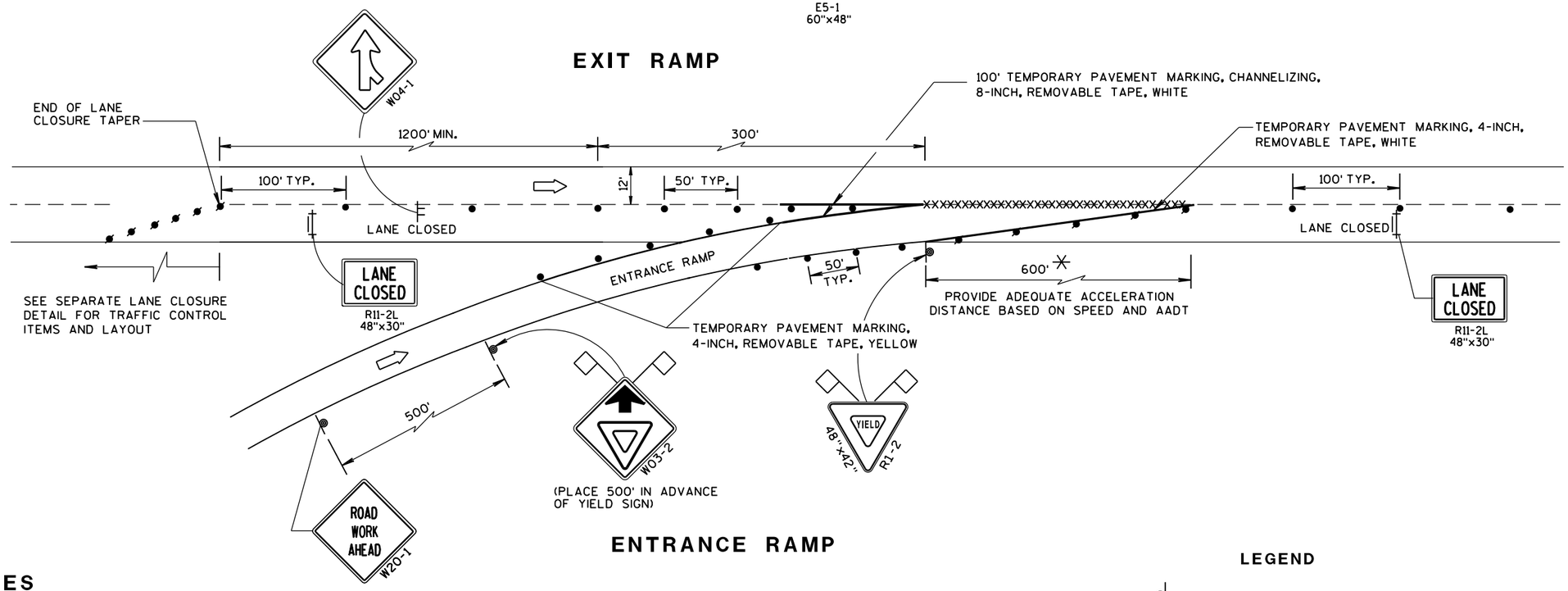
APPROVED
July 14, 2015 — DATE
/S/ Peter Amakobe Atepe — STATEWIDE WORK ZO[illegible] SAFETY ENGI[illegible]
FHWA

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S.D.D. 15 D 14-3



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

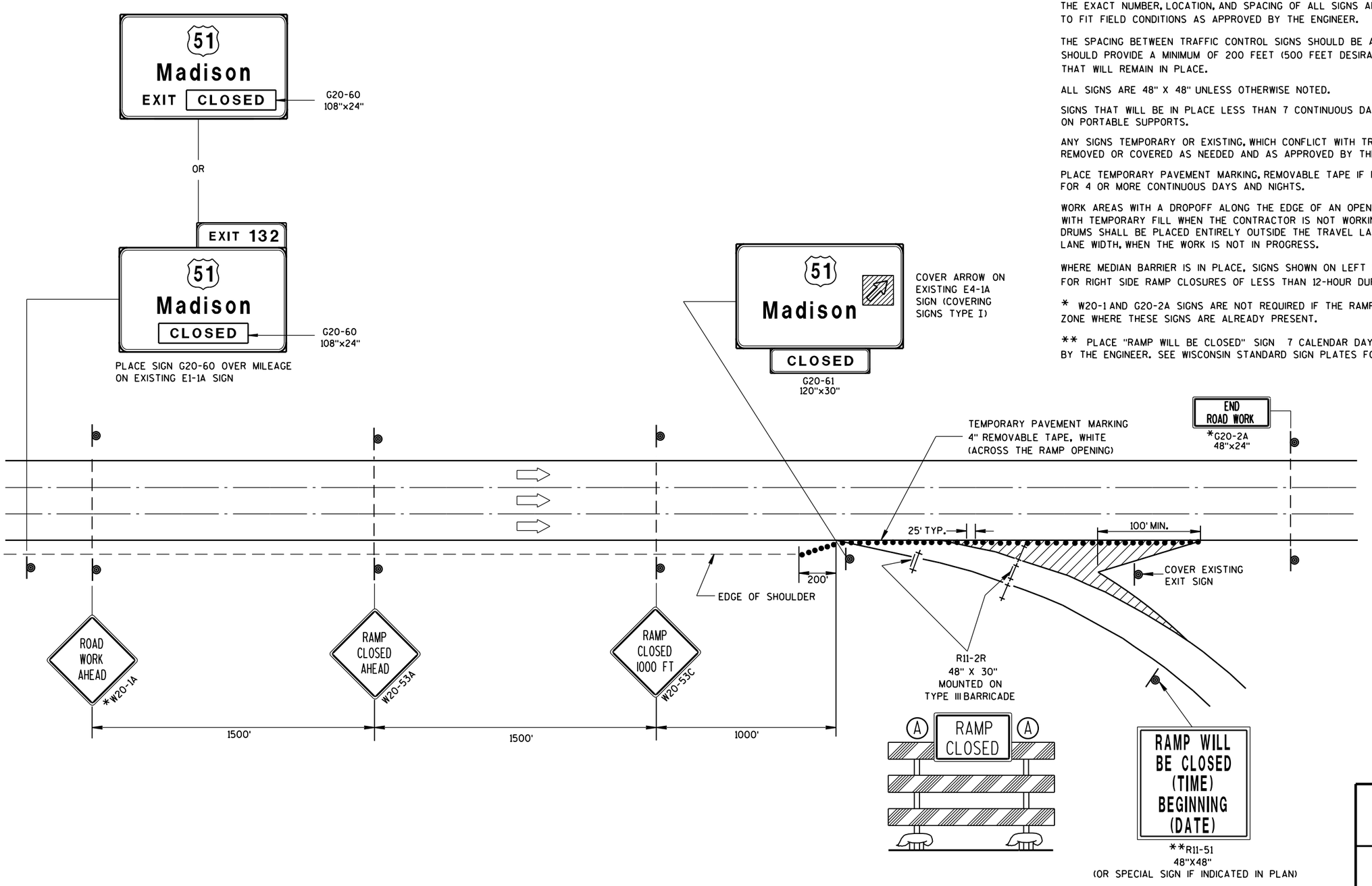
TRAFFIC CONTROL, EXIT AND ENTRANCE RAMP WITHIN LANE CLOSURE

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



GENERAL NOTES

THIS RAMP CLOSURE DETAIL IS TYPICAL FOR CLOSING A RIGHT SIDE EXIT RAMP. FOR A LEFT SIDE EXIT RAMP, REVERSE THE TRAFFIC CONTROL.

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" X 48" UNLESS OTHERWISE NOTED.

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.

PLACE TEMPORARY PAVEMENT MARKING, REMOVABLE TAPE IF RAMP CLOSURE IS TO BE IN PLACE FOR 4 OR MORE CONTINUOUS DAYS AND NIGHTS.

WORK AREAS WITH A DROPOFF ALONG THE EDGE OF AN OPEN TRAVEL LANE SHALL BE LEVELED WITH TEMPORARY FILL WHEN THE CONTRACTOR IS NOT WORKING ADJACENT TO THE TRAVEL LANE. DRUMS SHALL BE PLACED ENTIRELY OUTSIDE THE TRAVEL LANE, ALLOWING THE FULL UNOBSTRUCTED LANE WIDTH, WHEN THE WORK IS NOT IN PROGRESS.

WHERE MEDIAN BARRIER IS IN PLACE, SIGNS SHOWN ON LEFT SIDE OF ROADWAY MAY BE OMITTED FOR RIGHT SIDE RAMP CLOSURES OF LESS THAN 12-HOUR DURATION.

* W20-1 AND G20-2A SIGNS ARE NOT REQUIRED IF THE RAMP CLOSURE IS WITHIN A LARGER WORK ZONE WHERE THESE SIGNS ARE ALREADY PRESENT.

** PLACE "RAMP WILL BE CLOSED" SIGN 7 CALENDAR DAYS PRIOR TO CLOSURE OR AS DIRECTED BY THE ENGINEER. SEE WISCONSIN STANDARD SIGN PLATES FOR SIGN LAYOUT.

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- SIGN ON PERMANENT SUPPORT
- (A) TYPE "A" WARNING LIGHT (FLASHING)
- DIRECTION OF TRAFFIC

TRAFFIC CONTROL, EXIT RAMP CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Sept. 2015 — DATE
/S/ Peter Amakobe Atepe — STATEWIDE WORK ZO SAFETY ENGI FIC
FHWA

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S.D.D. 15 D 16-3

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S.D.D. 15 D 16-3

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.

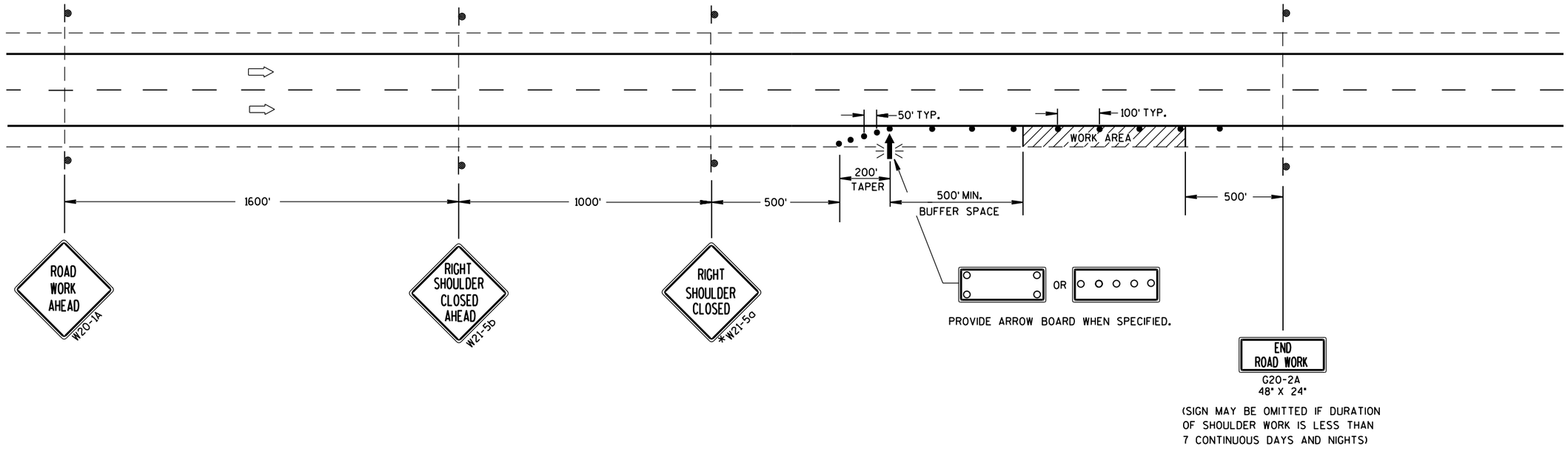
SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

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

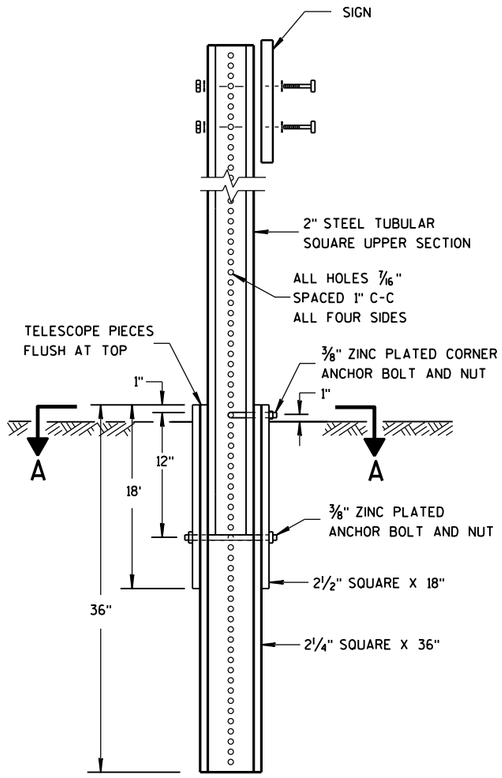
June 2016 — DATE

/S/ Peter Amakobe Atepe
STATEWIDE WORK ZO[illegible] SAFETY ENGI[illegible]

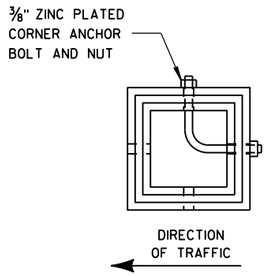
FHWA

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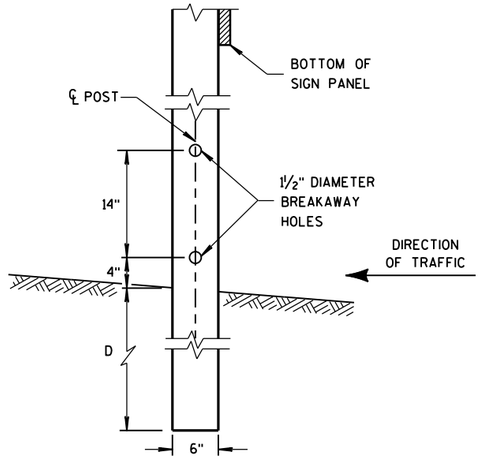
S.D.D. 15 D 27-3



DETAIL OF TUBULAR STEEL SIGN POST



SECTION A-A



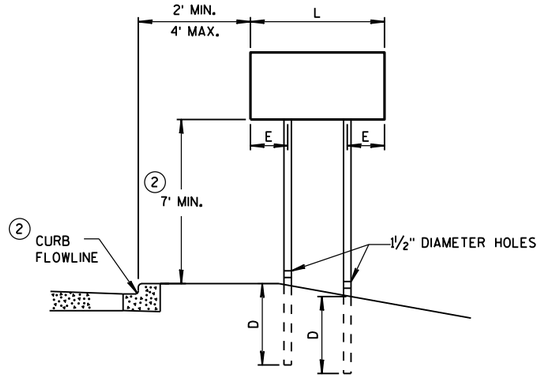
4"x6" WOOD POST MODIFICATION

GENERAL NOTES

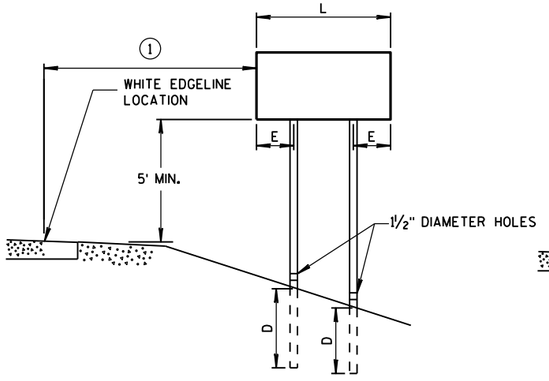
1. 6 FEET FROM THE EDGE OF PAVEMENT (EDGE LINE LOCATION) UNLESS OTHERWISE DIRECTED BY THE PROJECT ENGINEER. LATERAL OFFSET SHOULD BE ADJUSTED TO AVOID THE DITCH FLOWLINE.

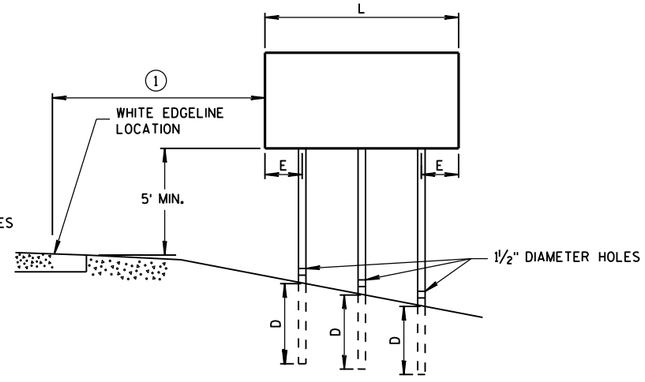
2. THE EXISTENCE OF CURB AND GUTTER DOES NOT IN ITSELF MANDATE THE VERTICAL CLEARANCE ILLUSTRATED. THAT HEIGHT IS TYPICALLY MEASURED WHERE THERE IS SIDEWALK ADJACENT TO THE ROADWAY OR PARKING IS PERMITTED. IN THE ABSENCE OF SIDEWALK, VERTICAL CLEARANCE IS MEASURED FROM THE TOP OF THE CURB. IF NO SIDEWALK AND NO PARKING, VERTICAL CLEARANCE MAY BE REDUCED TO 5 FOOT MINIMUM. OFFSET OF SIGNS IS MEASURED FROM THE CURB FLOWLINE.

3. FOR SIGNS REQUIRING 4 POSTS, SPACE INTERMEDIATE POSTS EVENLY.



URBAN AREA





RURAL AREA

POST MOUNTING DETAIL FOR TEMPORARY TRAFFIC CONTROL FIXED MESSAGE SIGNS

TUBULAR STEEL POSTS

AREA OF SIGN INSTALLATION (SQ. FT.)	NUMBER OF REQUIRED TUBULAR STEEL 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).

SIGNS LARGER THAN 27 SQ. FT. SHALL NOT BE MOUNTED ON TUBULAR STEEL POSTS.

WOOD POST EMBEDMENT DEPTH

AREA OF SIGN INSTALLATION (SQ. FT.)	D (MIN)
20 OR LESS	4'
GREATER THAN 20	5'

4" X 6" WOOD POST

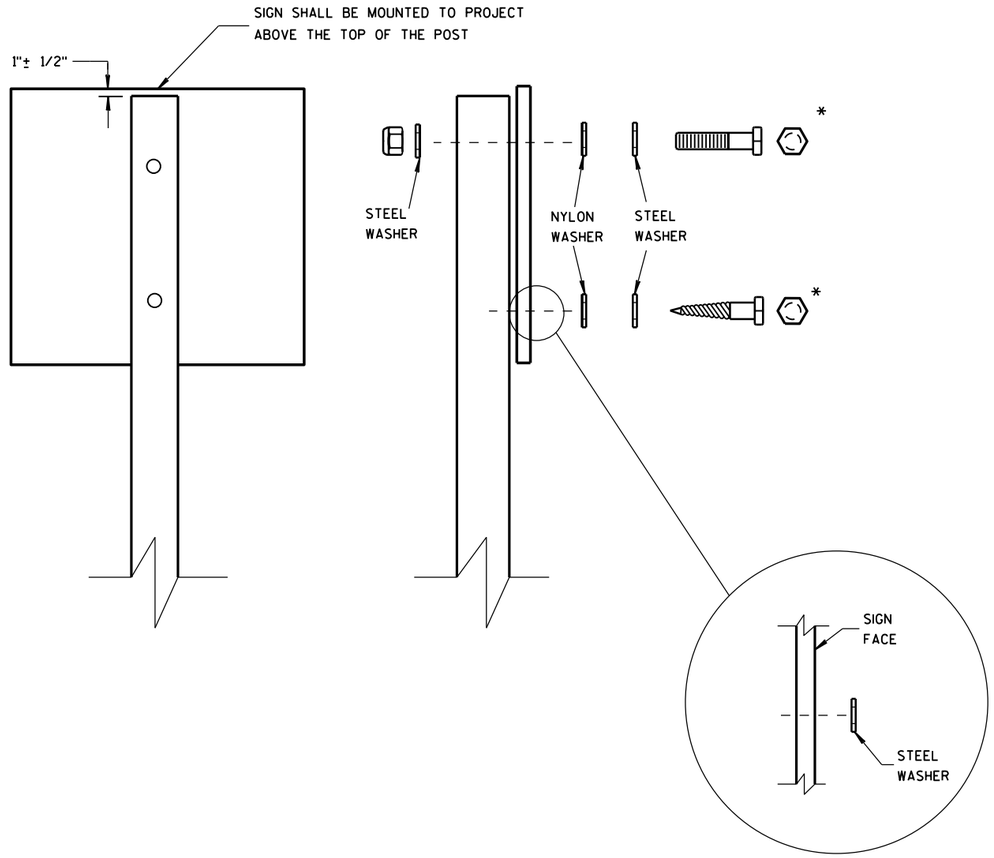
POST SPACING REQUIREMENTS		NUMBER OF WOOD POSTS REQUIRED
L	E	
48" OR LESS AND LESS THAN 20 SQ. FT.	-	1
LESS THAN 60"	12"	2
60" TO 120"	L/5	2
GREATER THAN 120" LESS THAN 168"	12"	3
168" AND GREATER	12"	4

SEE NOTE (3)

TEMPORARY TRAFFIC CONTROL FIXED MESSAGE SIGNS

STATE OF WISCONSIN DEPARTMENT OF TRANSPO

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S.D.D. 15 D 38-1a



WASHER PLACEMENT WHEN SIGN HAS OTHER THAN TYPE H OR TYPE F FACE

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

* 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. FOR A SINGLE POST INSTALLATION, ALL SIGNS GREATER THAN 9 SQ. FT. REQUIRE THE USE OF 3 FASTENERS.

6

6

S.D.D. 15 D 38-1b

S.D.D. 15 D 38-1b

ATTACHMENT OF SIGNS TO POSTS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

Feb. 2015 — DATE

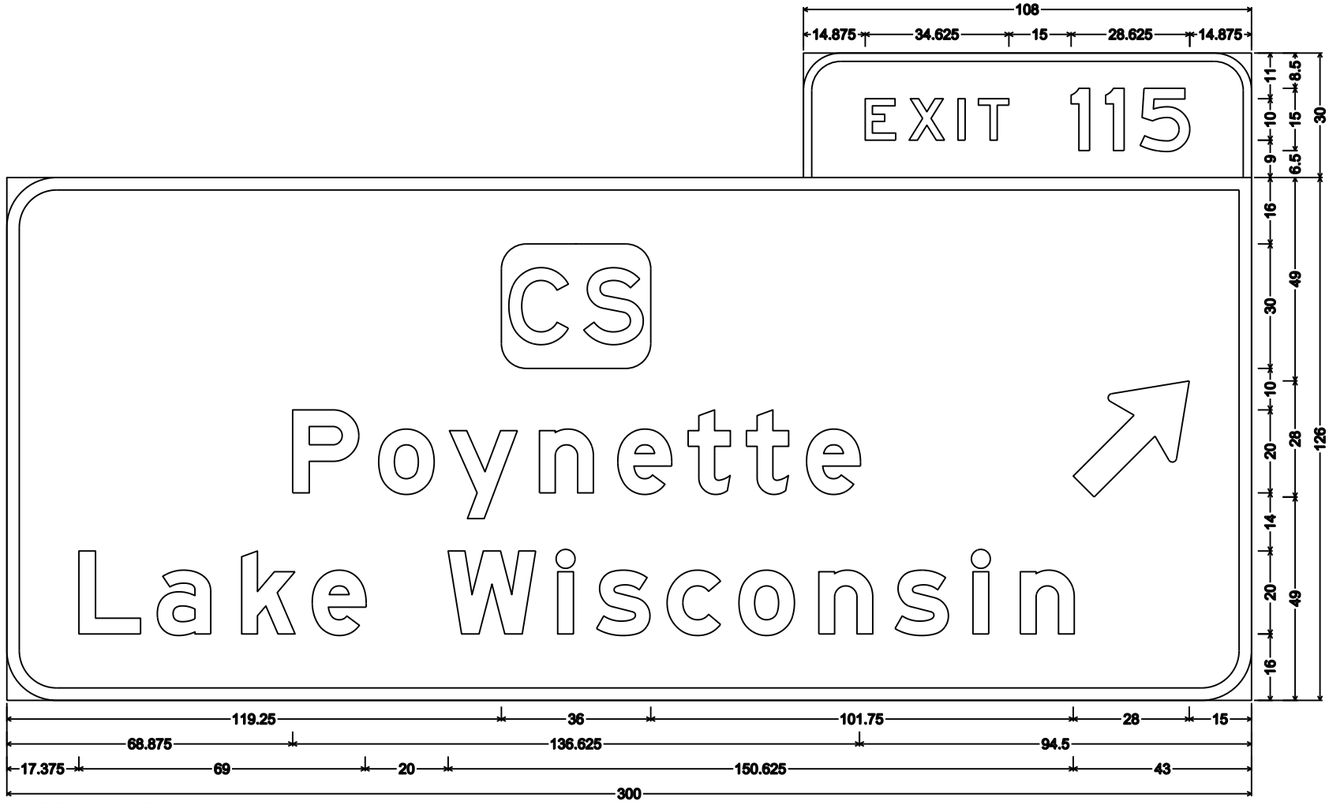
/S/ Travis Feltes — STATE TRAFFIC ENGINEER

FHWA

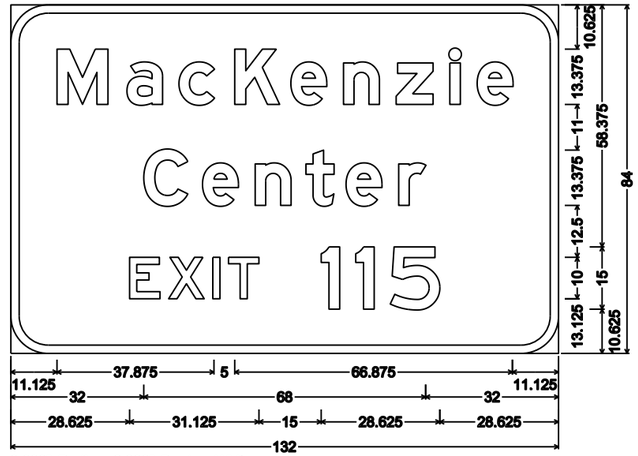
SIGN

NOTES

1. All Signs are Type I- Type SH Reflective
2. Color:
   Background - Green except as noted
   Message - White
3. Message Series - E Modified except as noted



9.000" Radius, 2.000" Border, White on Green;
"EXIT" E specified length; "115" E;
12.000" Radius, 3.000" Border, White on Green;
Square County CS M1-55-2; "Poynette" E Mod; "Lake" E Mod; "Wisconsin" E Mod; Standard Arrow Custom 36.000" X 22.500" 45°;

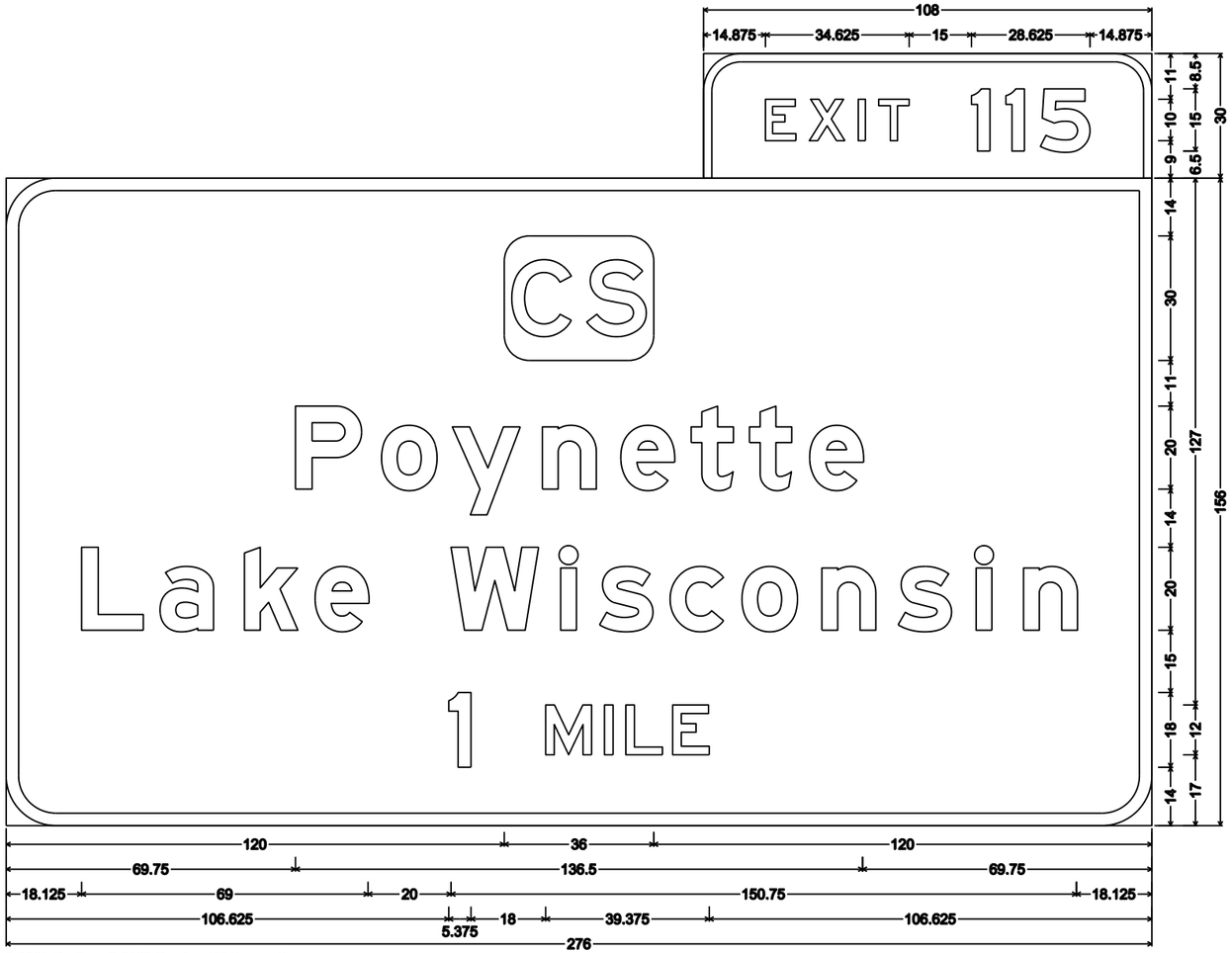


9.000" Radius, 2.000" Border, White on Brown;
"Mac" E Mod; "Kenzie" E Mod; "Center" E Mod; "EXIT" E; "115" E;

7

7

PROJECT NO: 1010-02-85	HWY: IH 39	COUNTY: COLUMBIA	PERMANENT SIGNING	SHEET NO PRI 219	E



9.000" Radius, 2.000" Border, White on Green;
"EXIT" E specified length; "115" E Mod;
12.000" Radius, 3.000" Border, White on Green;
Square County CS M1-55-2; "Poynette" E Mod; "Lake" E Mod; "Wisconsin" E Mod; "1" E; "MILE" E;

NOTES

1. All Signs are Type I - Type SH Reflective
2. Color:
   Background - Green
   Message - White
3. Message Series - E Modified except as noted

7

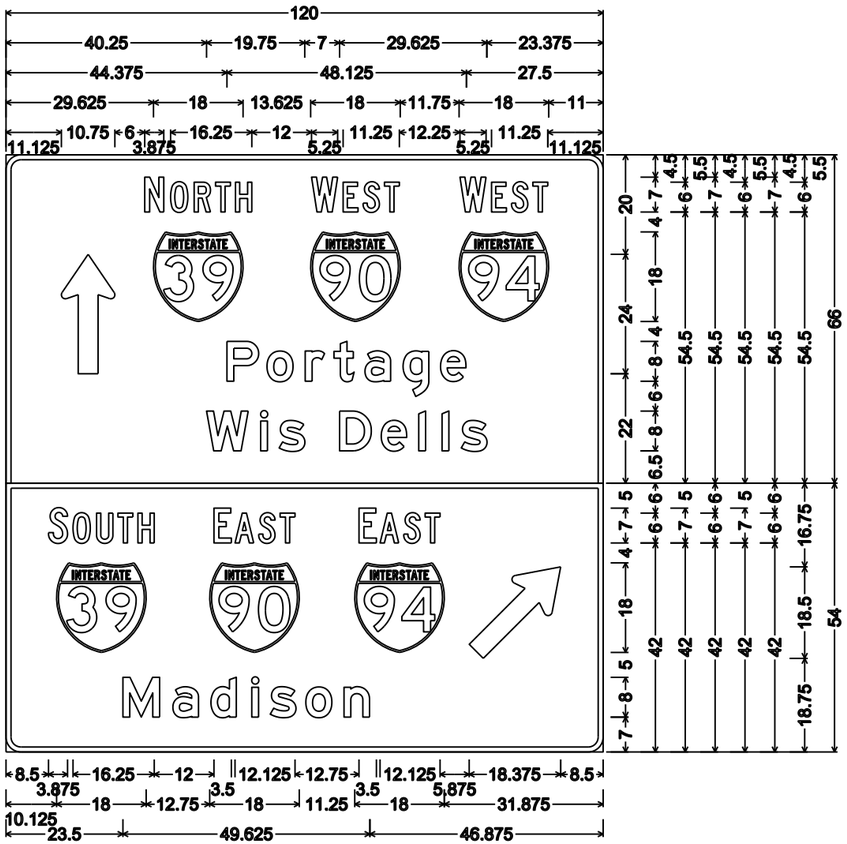
PRI 220

PROJECT NO: 1010-02-85	HWY: IH 39	COUNTY: COLUMBIA	PERMANENT SIGNING	SHEET NO:	E

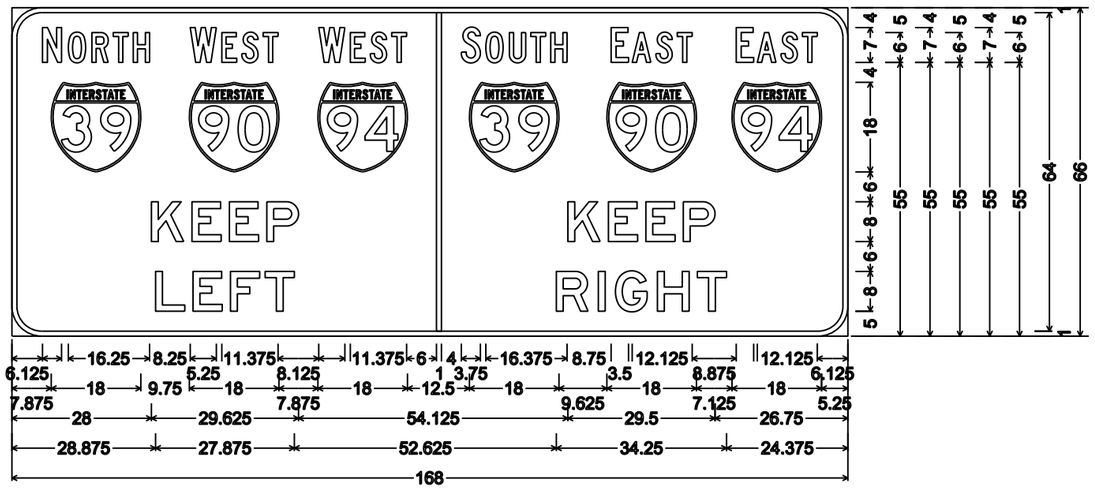
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NOTES

1. All Signs are Type I - Type SH Reflective
2. Color:
   Background - Green
   Message - White
3. Message Series - E Modified except as noted



3.000" Radius, 1.000" Border, White on Green;
Standard Arrow Custom 24.000" X 10.750" 90°; "NORTH" C; "WEST" C;
"WEST" C; "Portage" E; "Wis" E; "Dells" E;
3.000" Radius, 1.000" Border, White on Green;
"SOUTH" C; "EAST" C; "EAST" C; "Madison" E;
Standard Arrow Custom 24.000" X 10.750" 45°;

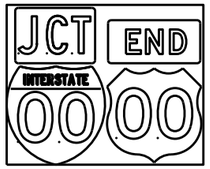


6.000" Radius, 1.000" Border, White on Green;
"NORTH" C; "WEST" C; "WEST" C; "KEEP" E; "LEFT" E; "SOUTH" C; "EAST" C; "EAST" C;
"KEEP" E; "RIGHT" E;

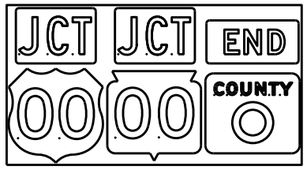
TYPICAL ASSEMBLIES



J1-1



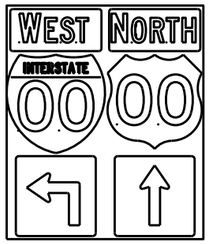
J1-2



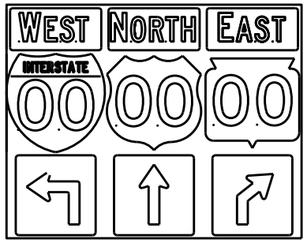
J1-3



J2-1



J2-2

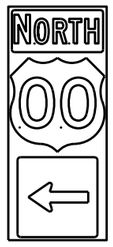


J2-3

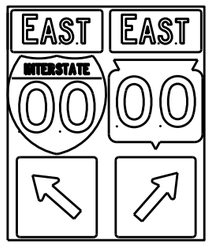


JV

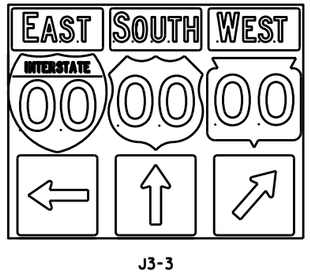
(Typical Vertical J-Assembly
See Note 10 and 11)



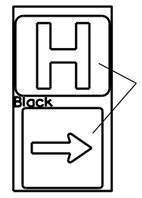
J3-1



J3-2



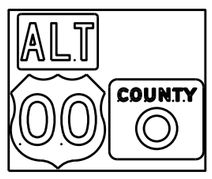
J3-3



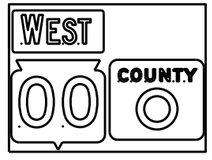
JH-1



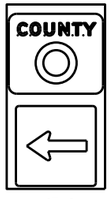
J4-1



J4-2



J4-2



J13-1



J12-1



J32-1



J33-1

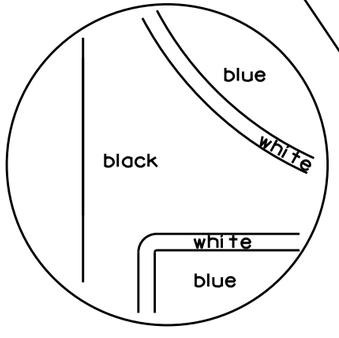


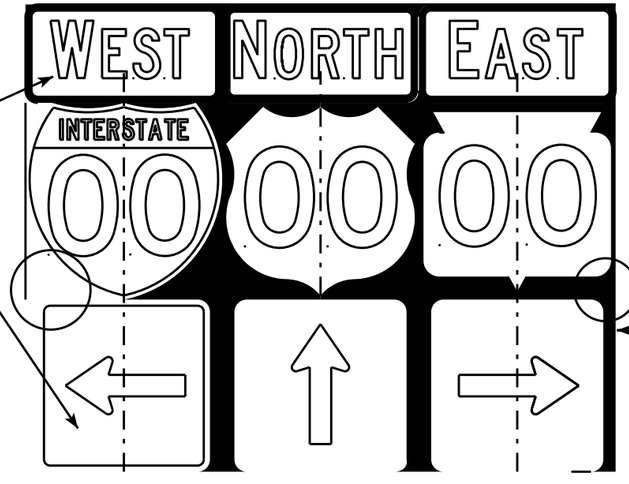
J23-1

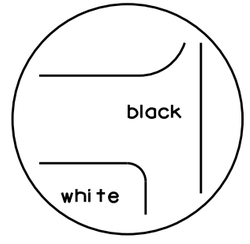


J22-1

blue background
with interstate







black background

NOTES

1. Signs are Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Black Non-reflective
   Message - see Note 5
3. Message Series - See Note 5
4. Corners shall be square or rounded if base material is plywood. If base material is metal the corners shall be rounded.
5. The colors and message spacing on each marker shall be according to the applicable route marker panel specifications.
6. Certain marker heads require the component pieces to be the same color. As an example, all the components used with an M1-1 Interstate marker shall be blue.
7. Single panel j-assemblies shall only be used with route marker shields that are same size. If the route marker shields are different size use multiple piece component.
8. Route assemblies that have 24 inch route shields and have dimensions greater than 48 inches (both vertical and horizontal) shall have one horizontal splice between the arrows and route shields. Vertical splices shall not be used on route assemblies with a horizontal dimension of 144 inches or less. The contractor shall not use more than one vertical joint per sign and the joint shall be between route shields.
9. Route assemblies that have 36 inch shields and have dimensions greater than 48 inchs (both vertical and horizontal) shall have two horizontal splices. One horizontal splice shall be between the cardinal direction and route shields and the other horizontal splice shall be between the arrows and route shields. Vertical splices shall not be used on route assemblies with a horizontal dimension of 144 or less. The contractor shall not use more than one vertical joint per sign and the joint shall be between route shields.
10. All Vertical J Assemblies are given a Sign Code of JV
11. For JV Assemblies that have a mixture of Interstate and non Interstate shields, arrows and cardinals shall be white on blue.

ROUTE MARKERS & COMPONENTS
IN TYPICAL ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

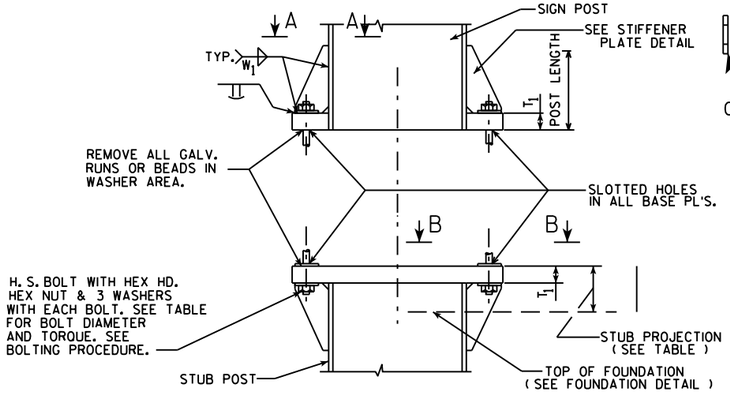
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/06/14 PL... A2-1S.8

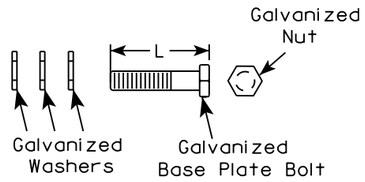
PROJECT NO: | SHEET NO: E

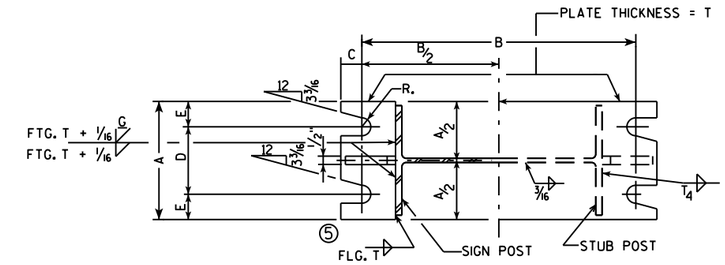
FILE NAME : C:\CAEFiles\Projects\tr_stdplate\A21S.DGN PLOT DATE : 06-FEB-2014 14:10 PLOT BY : mscsja PLOT NAME :

WISDOT/CADDS SHEET 42

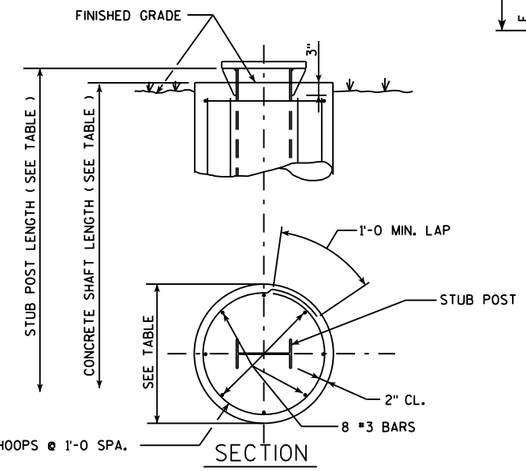


SIGN POST AND STUB POST ELEVATION

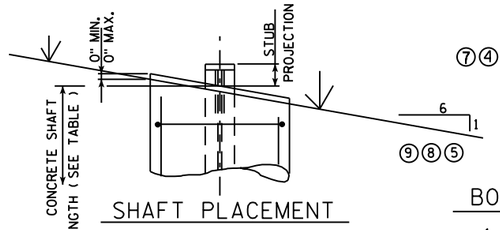




SECTION A-A SECTION B-B



SECTION



SHAFT PLACEMENT

⑨ ⑦④ ⑨⑧⑤

DESIGN DATA

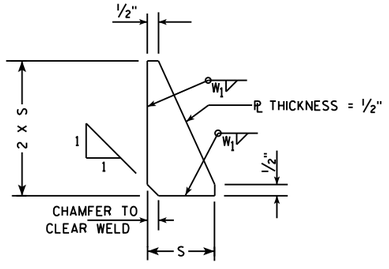
WIND PRESSURE = 75 M.P.H.
WIND COMPONENTS - NORMAL = 1.0 TRANSVERSE = 0.0
ICE LOAD = 3 P.S.F.

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.

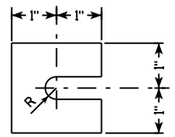
GENERAL NOTES

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.
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.



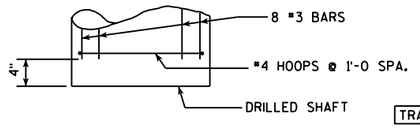
STIFFENER PLATE DETAIL

(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.

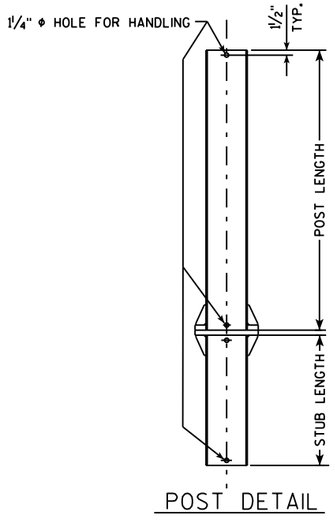
SHIM DETAIL



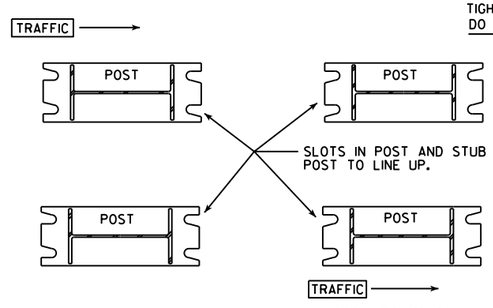
FOUNDATION DETAIL

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

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
⑦	E	8 @ 7'-11	9 @ 6'-3



POST DETAIL



POST SLOT ORIENTATION ⑦

	BASE CONNECTION DATA TABLE												FOUNDATION DATA				②
L	X	TYPE	DIMENSION / POST SIZE	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"	17/32"	3"	7'-0	3"	2'-0 Φ	8'-6	293.0# ③

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.

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.

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch for State Traffic Engineer

DATE 11/12/15 PLATE NO. A3-1.16

NO.	DATE	REVISION
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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

TYPE A, B, C, D, & E

CONST. SPEC. 2011 | DRAWN BY JPH | PLANS CK'D.

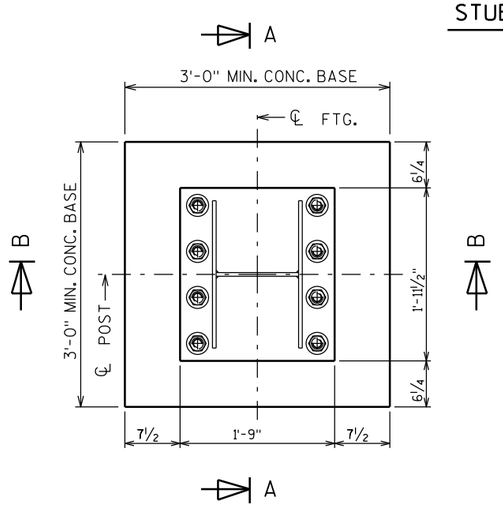
FTG. & SIGN SUPPORT DETAILS GROUND MOUNT BREAK-AWAY SIGNS | SHEET

223

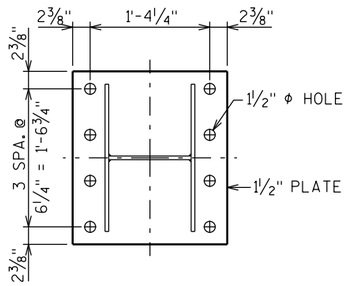
PROJECT NO: | HWY: | COUNTY: | SHEET NO: E

7

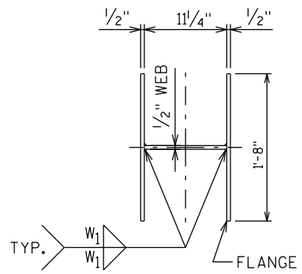
STUB AND MASONRY ANCHOR DETAILS



STUB SECTION



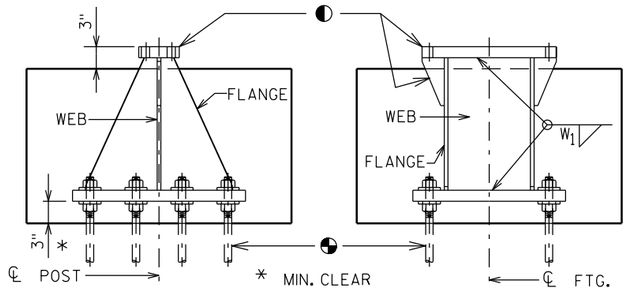
BASE PLATE



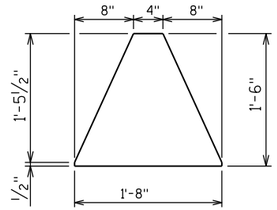
STUB

◐ 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



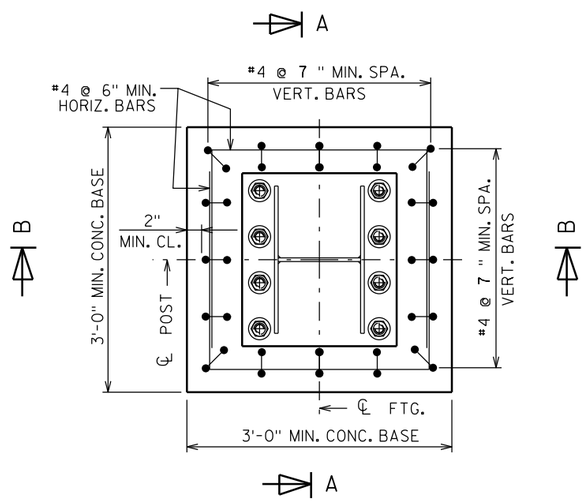
FLANGE

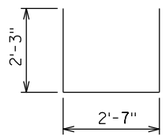
GENERAL NOTES

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

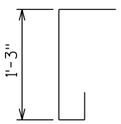
CONCRETE BASE SECTION





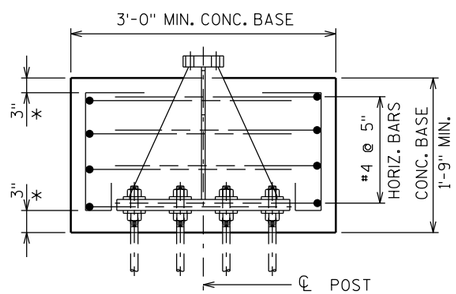
HORIZONTAL BAR

8 BARS @ 6'-11" LENGTH



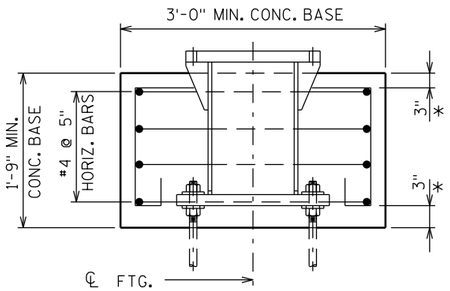
VERTICAL BARS

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

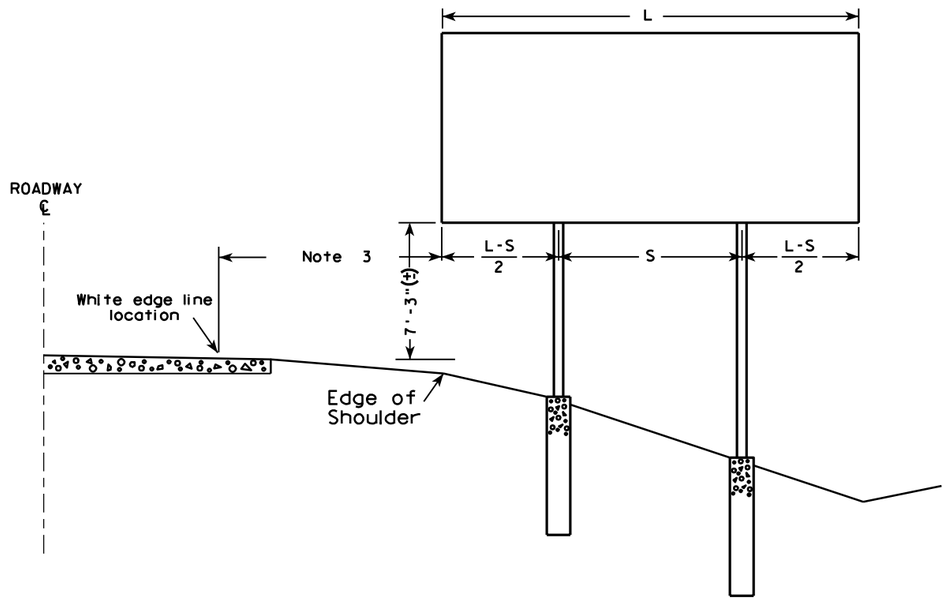
WISCONSIN DEPT OF TRANSPORTATION

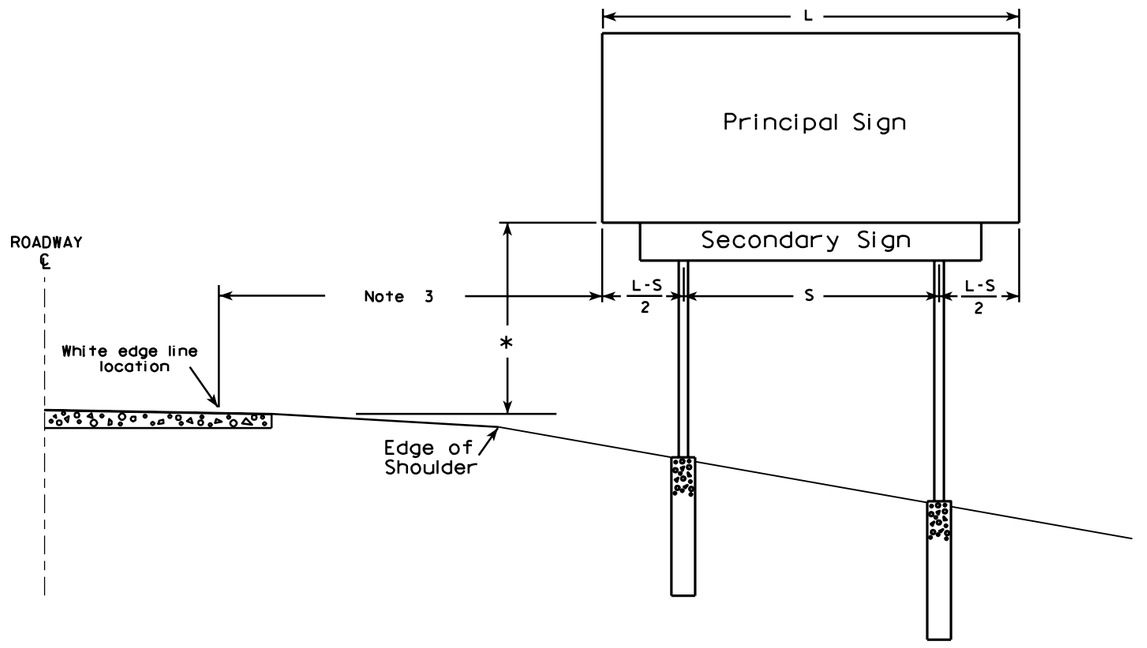
APPROVED Matthew R Rauch for State Traffic Engineer

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

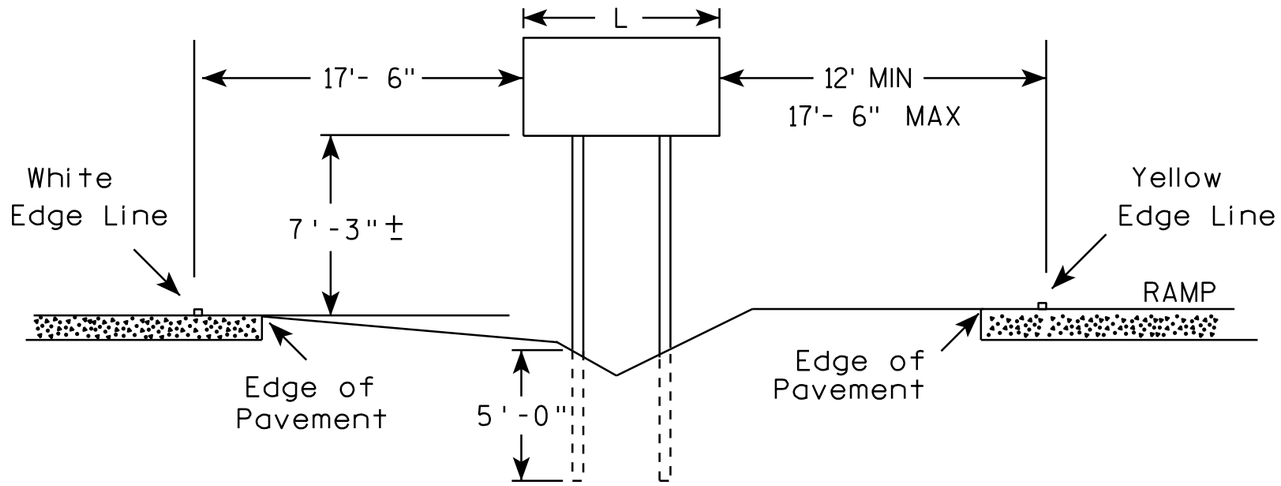
TYPICAL INSTALLATION
OF TYPE I SIGNS

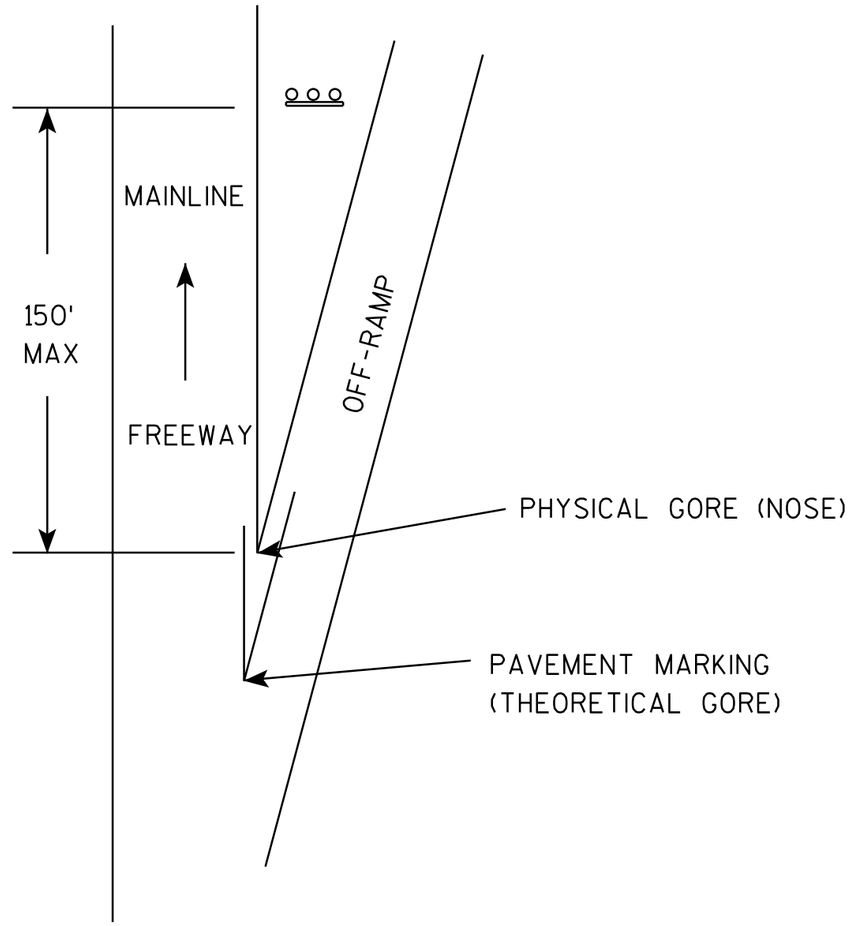
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 4/02/08 PLATE NO. A4-1.9

PROJECT NO:				SHEET NO: 225	E





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

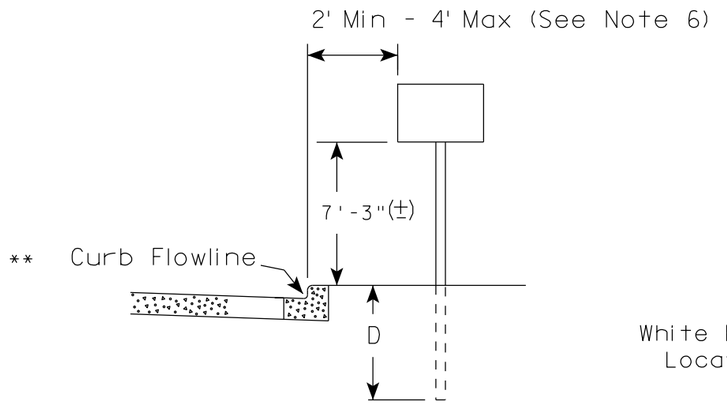
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/06/14 PLA... A4-2.3

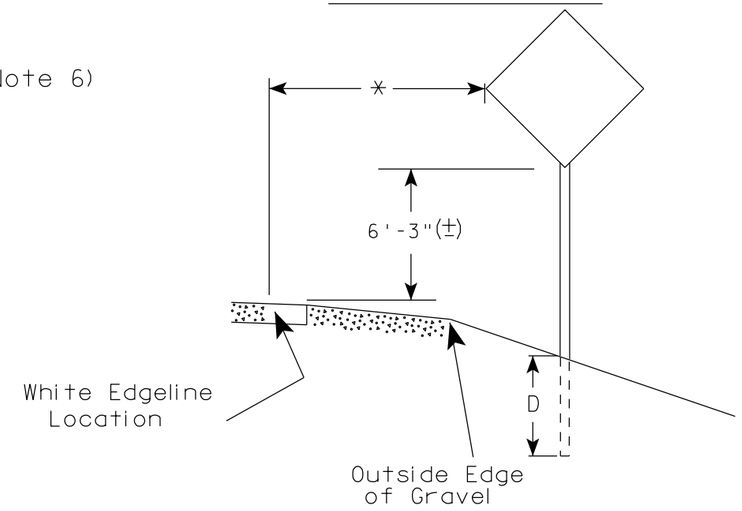
PROJECT NO: | SHEET NO: E

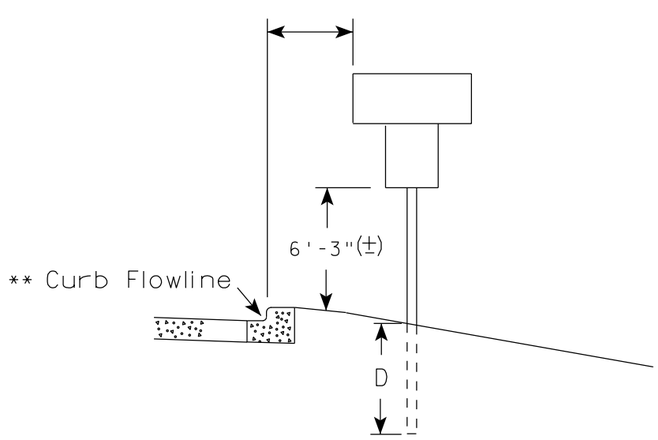
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WISDOT/CADDS SHEET 42

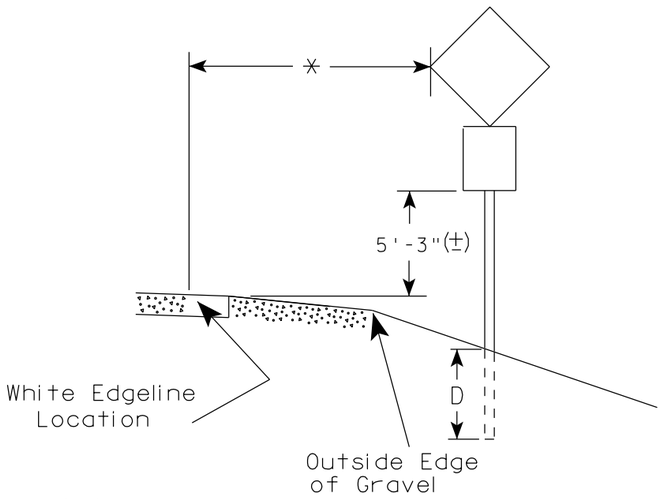
URBAN AREA



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" (±).

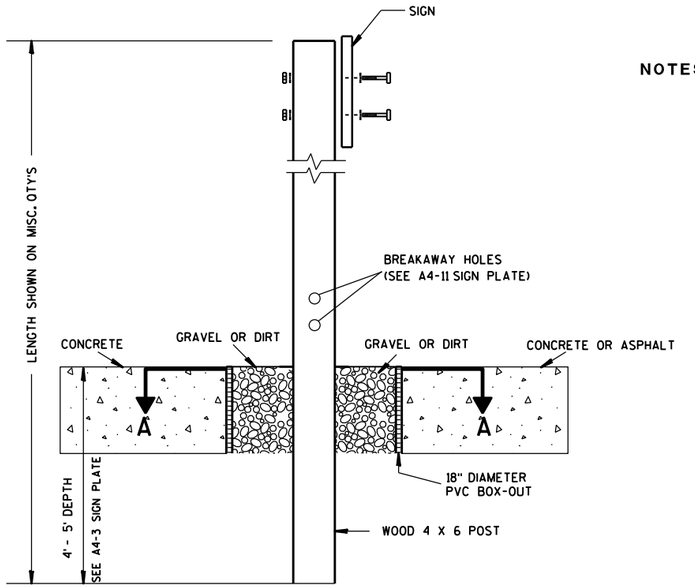
TYPICAL INSTALLATION OF PERMANENT TYPE II SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 7/23/15 PLATE NO. A4-3.20

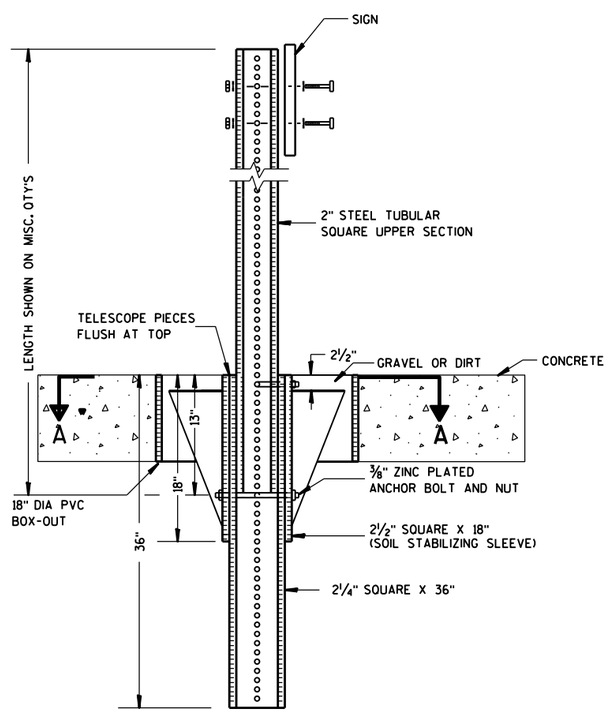
PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E



ELEVATION VIEW

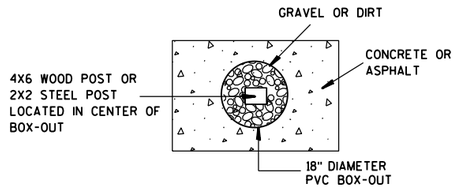
DETAIL OF WOOD 4 X 6 SIGN POST IN BOX-OUT

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

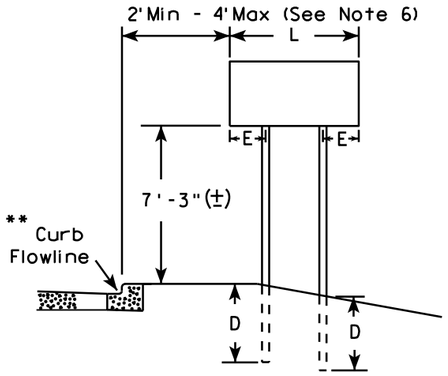
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 1/27/14 PLATE NO. A4-3B.1

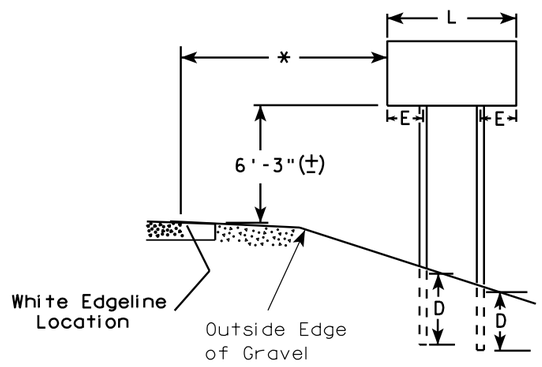
PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

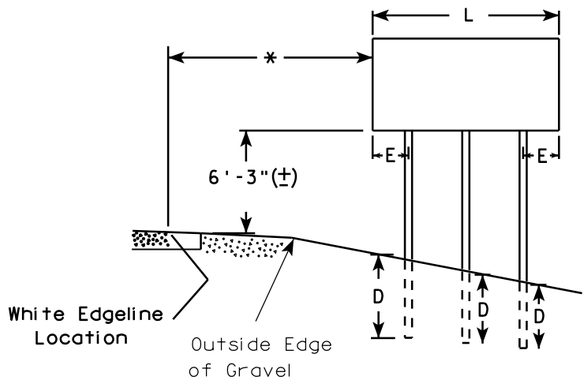
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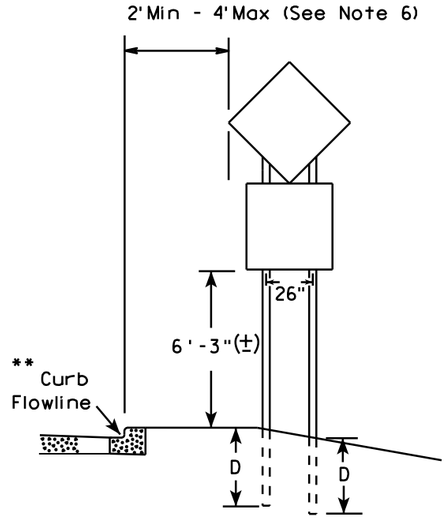
URBAN AREA



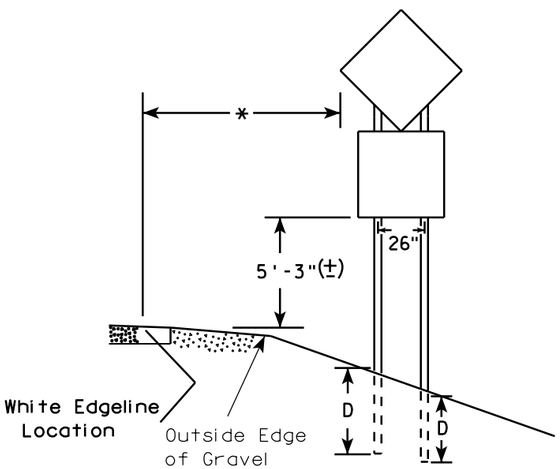
RURAL AREA (See Note 3)







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

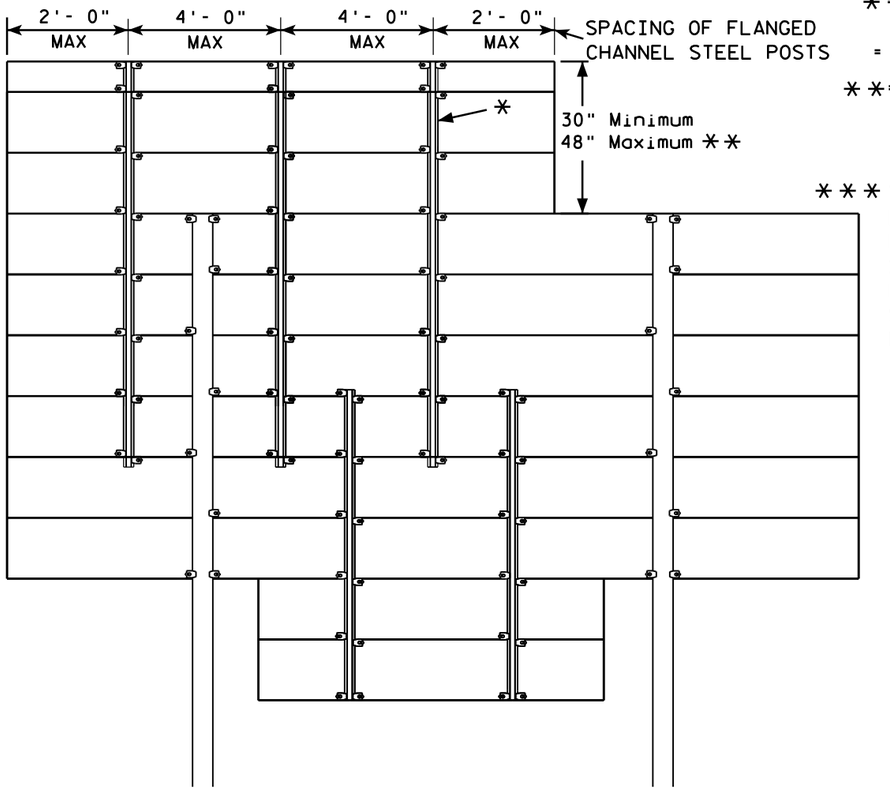
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 7/23/15 PLATE NO. A4-4 229 14

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

GROUND MOUNTED SIGN

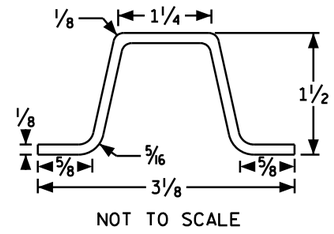


*=2.00 lb/ft FLANGED CHANNEL, MIN. YIELD STRENGTH = 60,000 PSI (GRADE 60) GALVANIZED

**=FOR 48" HEIGHT PANELS ON OVERHEAD STRUCTURES, ENTIRE SIGN SHALL BE CENTERED VERTICALLY ABOUT THE DEPTH OF THE TRUSS.

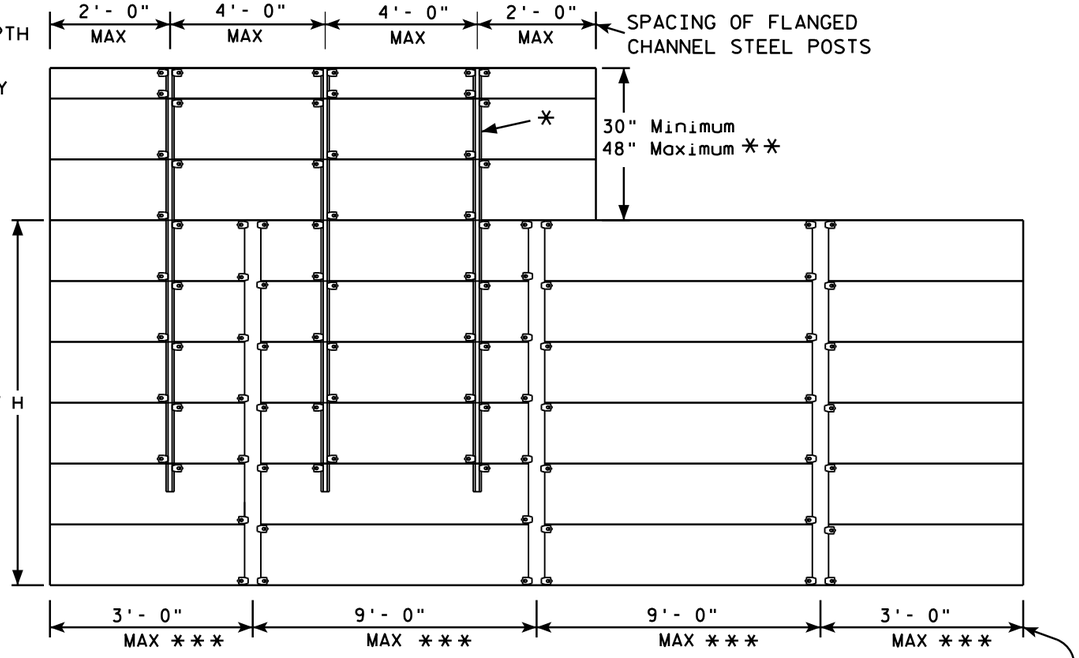
*** THESE SPACING DISTANCES SHALL ONLY BE USED WHEN THE MAIN SIGN HAS A MAXIMUM HEIGHT (DIMENSION H) OF 16 FT OR LESS. FOR SIGNS WITH A HEIGHT OF GREATER THAN 16 FT, STRUCTURAL CALCULATIONS SHALL BE PERFORMED.

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.

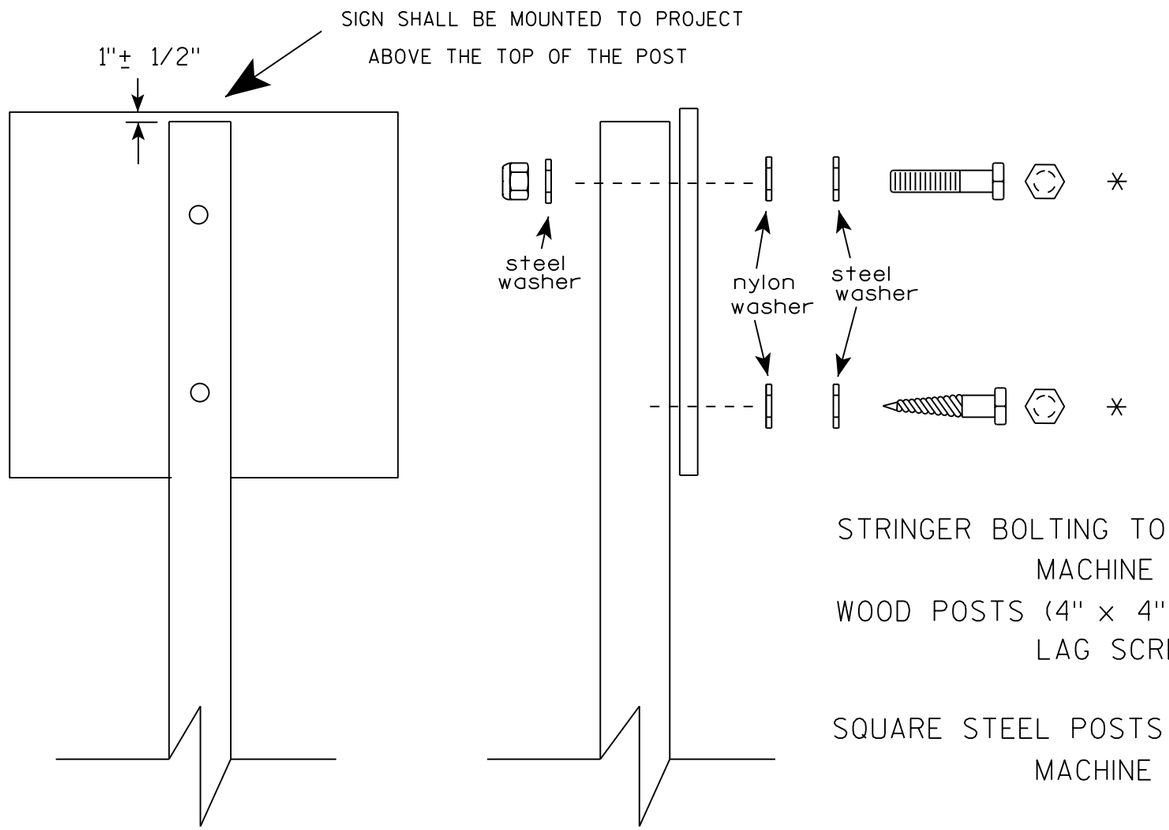
ATTACHMENT OF GUIDE SIGNS TO SUPPORTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/05/13 PLAT 230 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.

STRINGER BOLTING TO ALUMINUM SIGNS (SEE SIGN PLATE A4-18)

MACHINE BOLTS - 5/16" X 1-3/4" Length w/ lock nuts

WOOD POSTS (4" x 4" or 4" x 6")

LAG SCREWS - 3/8" X 3" (NO STRINGERS ON BACK OF SIGN)
3/8" X 4" (STRINGERS ON BACK OF SIGN)

SQUARE STEEL POSTS (2" x 2")

MACHINE BOLTS - 3/8" X 3-1/4" Length w/ nuts (NO STRINGER ON BACK OF SIGN)
3/8" X 5" Length w/ nuts (STRINGERS ON BACK OF SIGN)

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

* 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 8/11/16 PLATE NO. A4-8.8

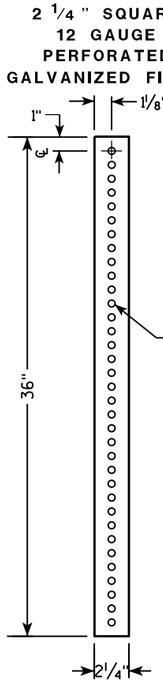
PROJECT NO:

SHEET NO: E

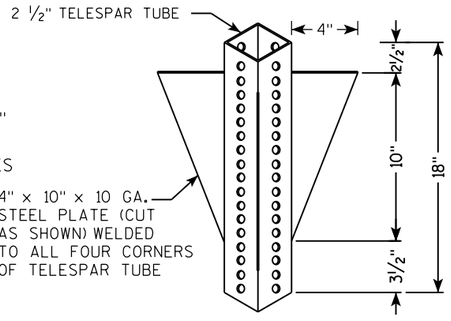
FILE NAME : C:\CADfiles\Projects\tr_stdplate\A48.DGN PLOT DATE : 11-AUG-2016 11:35 PLOT BY : $$ plotuser $$

TELESCOPIC TUBING ANCHORS
TWO PIECE SYSTEM

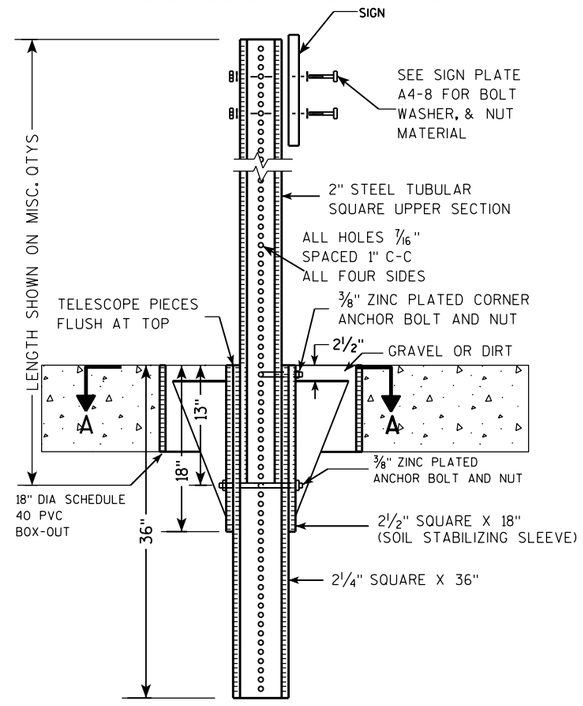
2 1/4 " SQUARE
12 GAUGE
PERFORATED
GALVANIZED FINISH



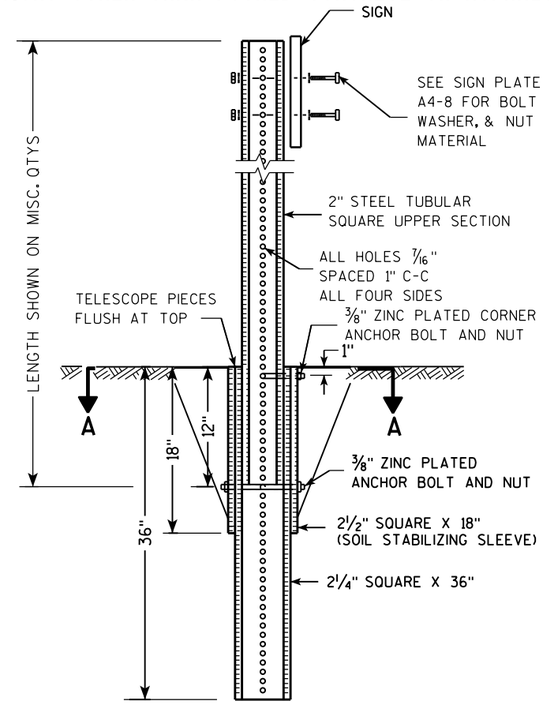
2 1/2 " SQUARE
12 GAUGE
OMNI-DIRECTIONAL
PERFORATED
SOIL STABILIZING SLEEVE
GALVANIZED FINISH

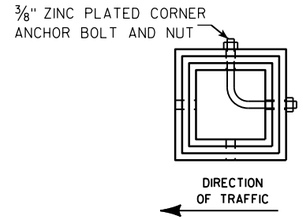


DETAIL OF TUBULAR STEEL SIGN POST
(IN POURED CONCRETE OR ASPHALT)



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

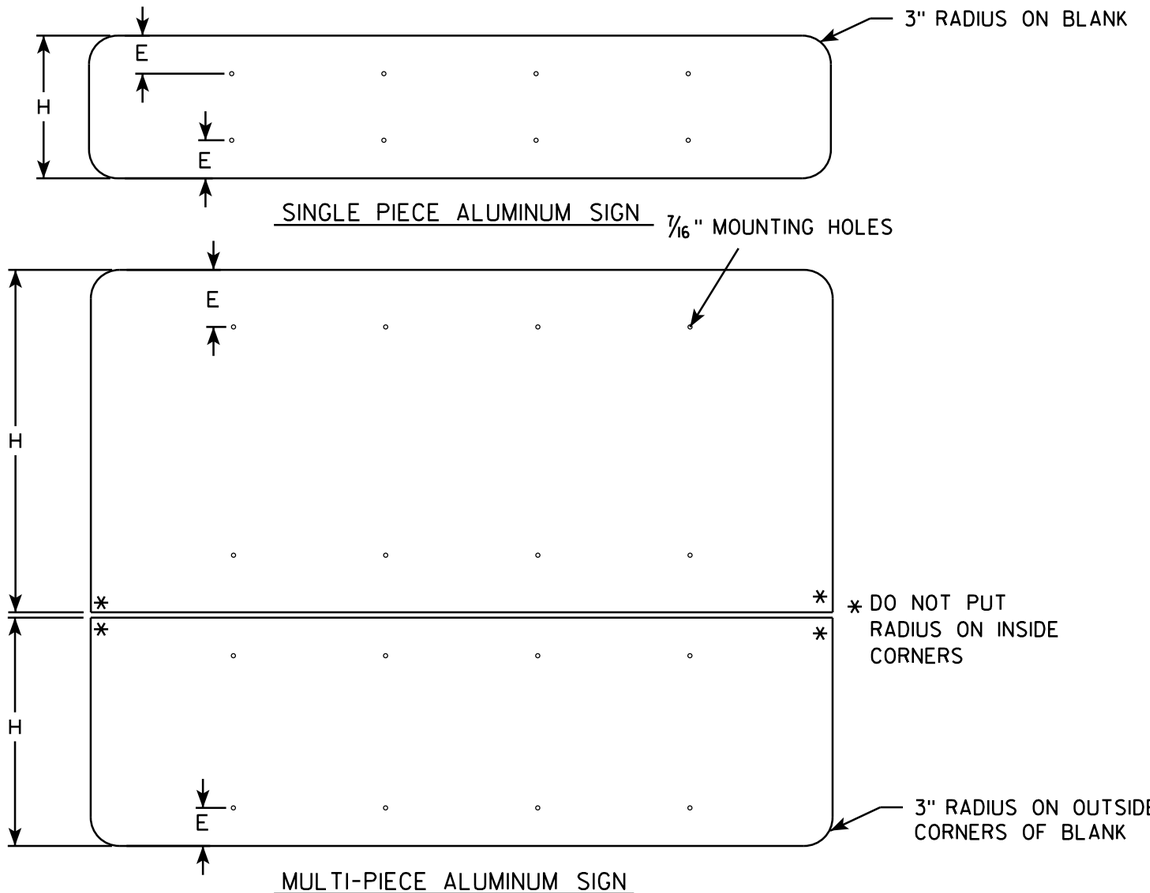
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/05/15 PLATE A4-9.9

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

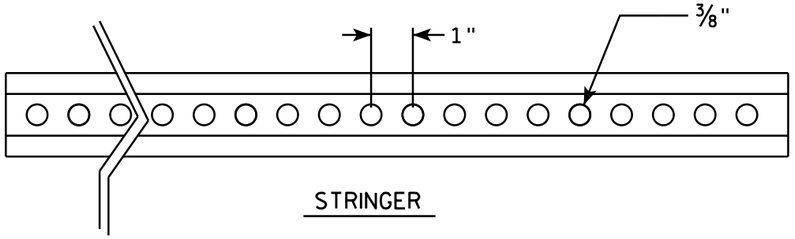
FILE NAME : C:\CAEFiles\Projects\tr_stdplate\A49.DGN PLOT DATE : 05-FEB-2015 17:09 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 13.659812:1.000000 WISDOT/CADDS SHEET 42



GENERAL NOTES

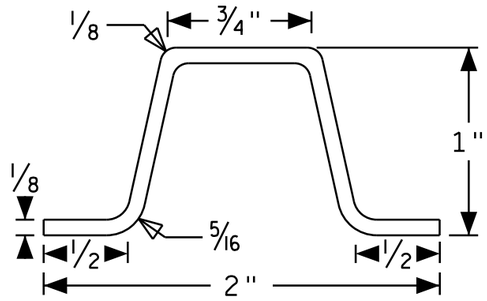
- ALL SIGNS OVER 60" IN WIDTH SHALL HAVE A 3" RADIUS ON THE OUTSIDE CORNERS OF THE ALUMINUM BLANK.
- MOUNTING HOLES SHALL BE 7/16" DIAMETER.
- SEE CHART FOR HOLE SPACING REQUIREMENTS
- FOR SIGN PANELS WITH DIMENSION (H) 36" AND OVER, DIMENSION E SHALL BE 6"
- FOR SIGN PANELS WITH DIMENSION (H) UNDER 36", DIMENSION E SHALL BE 4"
- SIGN STRINGER MATERIAL SHALL CONSIST OF STEEL CHANNEL POST SECTIONS, WEIGHING 1.12 LBS/FT IN ACCORDANCE WITH SECTION 633.2.1 OF THE STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION.
- SEE SIGN PLATE A4-8 FOR SIGN STRINGER BOLTING REQUIREMENTS.

SIGN WIDTH	STRINGER WIDTH	POSTS	HOLE SPACING	MOUNTING HOLES
78"	72"	2	16"	15" 31" 47" 63"
84"	72"	2	17"	16½" 33½" 50½" 67½"
90"	72"	2	18"	18" 36" 54" 72"
96"	90"	2	19"	19½" 38½" 57½" 76½"
102"	90"	2	20"	21" 41" 61" 81"
108"	90"	2	21"	22½" 43½" 64½" 85½"
114"	108"	3	15"	12" 27" 42" 57" 72" 87" 102"
120"	108"	3	16"	12" 28" 44" 60" 76" 92" 108"
126"	108"	3	17"	12" 29" 46" 63" 80" 97" 114"
132"	126"	3	18"	12" 30" 48" 66" 84" 102" 120"
138"	126"	3	19"	12" 31" 50" 69" 88" 107" 126"
144"	126"	3	20"	12" 32" 52" 72" 92" 112" 132"

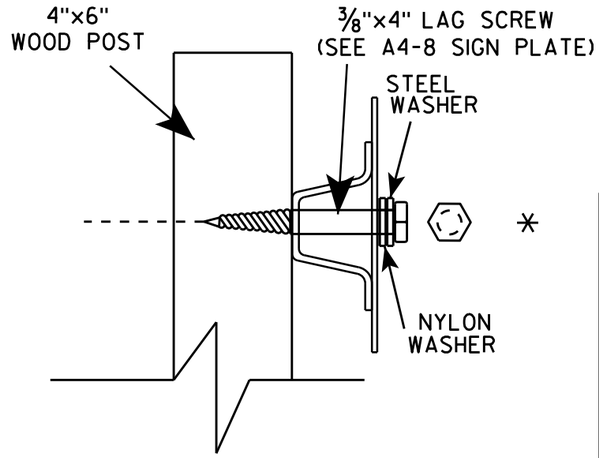


STRINGER

CROSS SECTION VIEW OF CHANNEL



POST MOUNTING



SIGN STRINGER MOUNTING REQUIREMENTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch

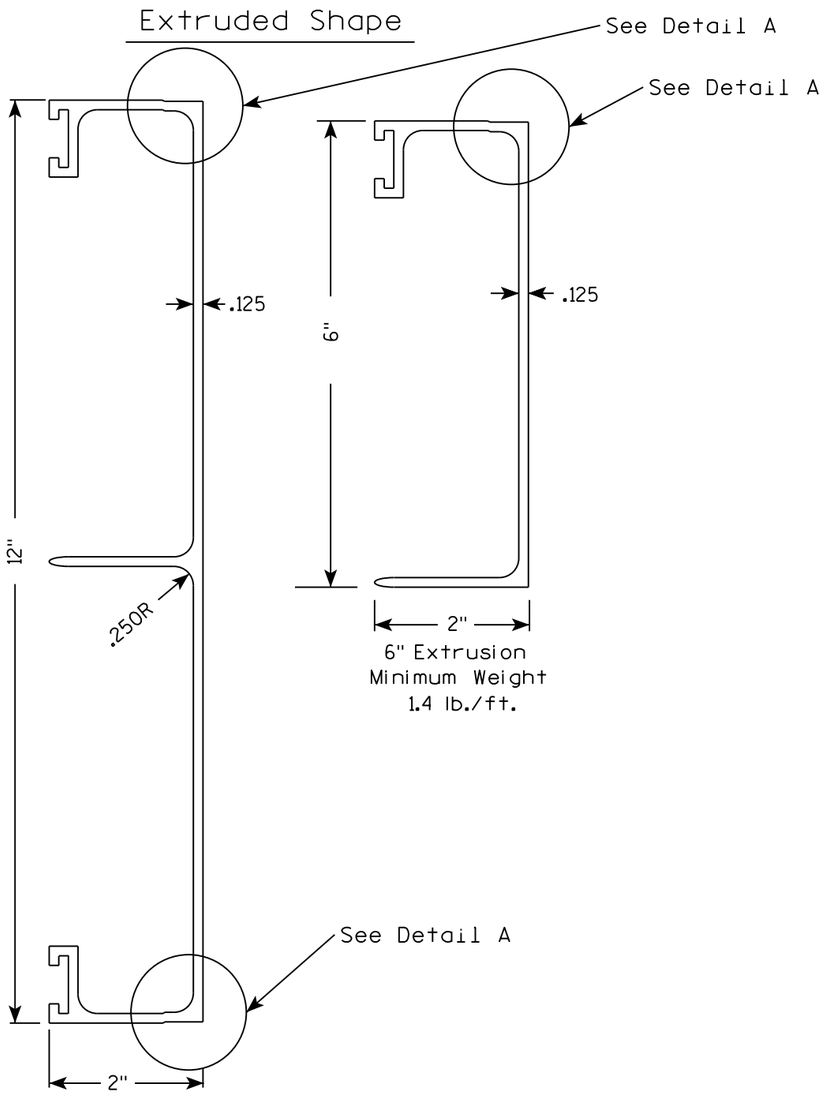
for State Traffic Engineer

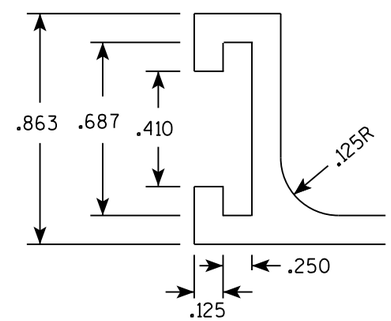
DATE 4/26/16 PLATE NO A4-18.1

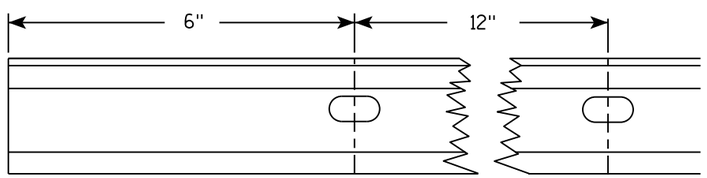
PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\A418.dgn PLOT DATE : 27-APR-2016 13:56 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 41.805205:1.000000 WISDOT/CADDS SHEET 42

Extruded Shape







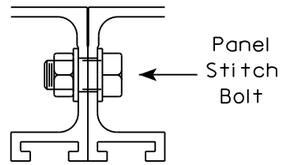
Punch 7/16" x 7/8" oval holes beginning 6" in from end of extrusion 12" CC on both edges of 6" and 12" panels.

Hardware

STITCH BOLT, WASHER & NUT

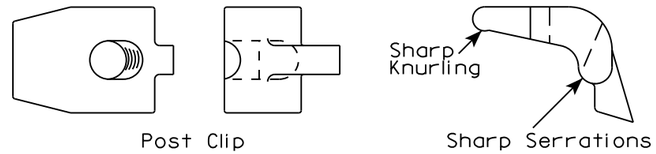
The hardware includes:

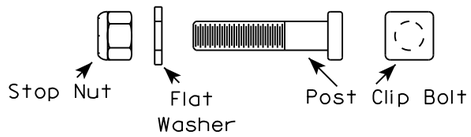
3/8 " - 16 X 3/4 " Economy Bolt 2024-T4 alloy
3/8 " - Stainless steel stop nut
3/8" X .064 Flat Washers, Alclad 2024-T4 alloy



POST CLIP, POST CLIP BOLT, WASHER & NUT

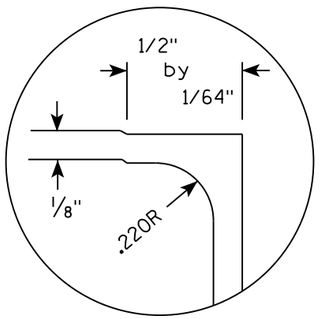
Post Clip shall be Alum. Alloy 356-T6
Post Clip Bolt shall be Stainless Steel.
Flat washer shall be 3/8" X .091, Stainless Steel.
Stop nut shall be stainless steel.





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.
4. Edge wrapping of sign sheeting required on all extrusions joints shown in Detail A.



DETAIL A (EDGE WRAP JOINT)

ALUMINUM EXTRUSIONS FOR TYPE I SIGNS

WISCONSIN DEPT OF TRANSPORTATION

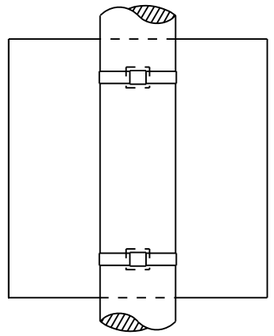
APPROVED Matthew R Rauch
for State Traffic Engineer

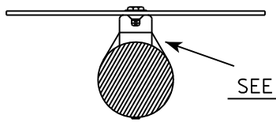
DATE 11/30/16 PLATE NO. A5-2.10

PROJECT NO:				SHEET NO: 234	E

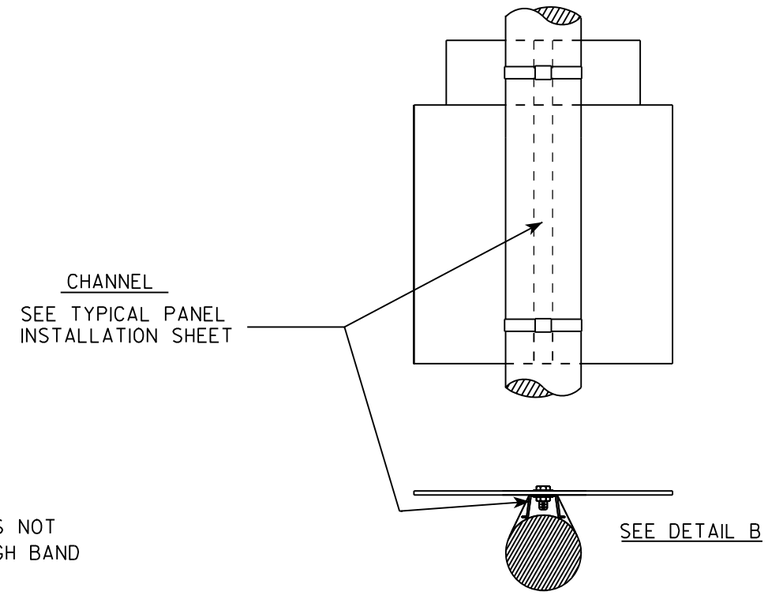
BANDING

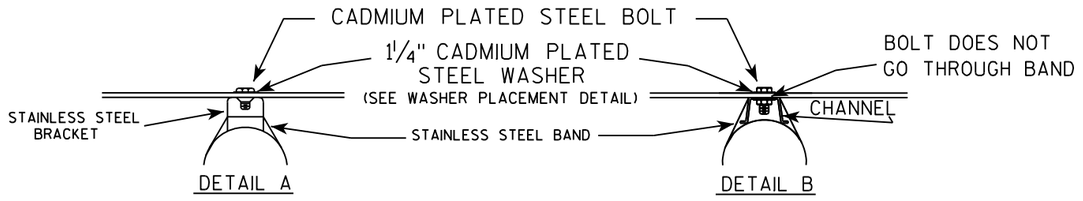
SINGLE SIGN



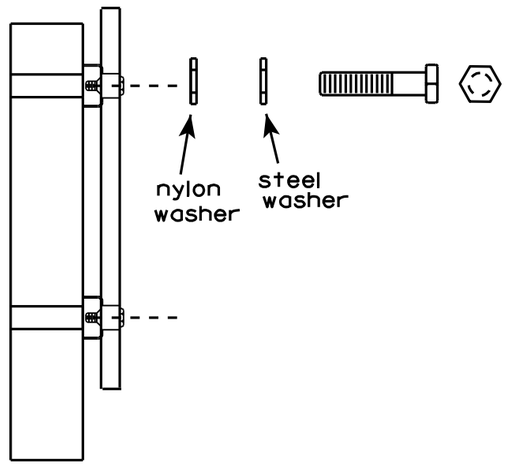


"J" ASSEMBLY





WASHER PLACEMENT



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

GENERAL NOTES

1. Any sign over 3 feet in width shall use the V-Block banding method. See A5-10 standard plate.
2. Signs 3 feet or greater in height shall have three bracket bands installed. Signs less than 3 feet in height shall have two bracket bands installed.
3. Banding and assembly bracket shall be stainless steel. All bands shall be 3/4" in width and 0.025" thickness.

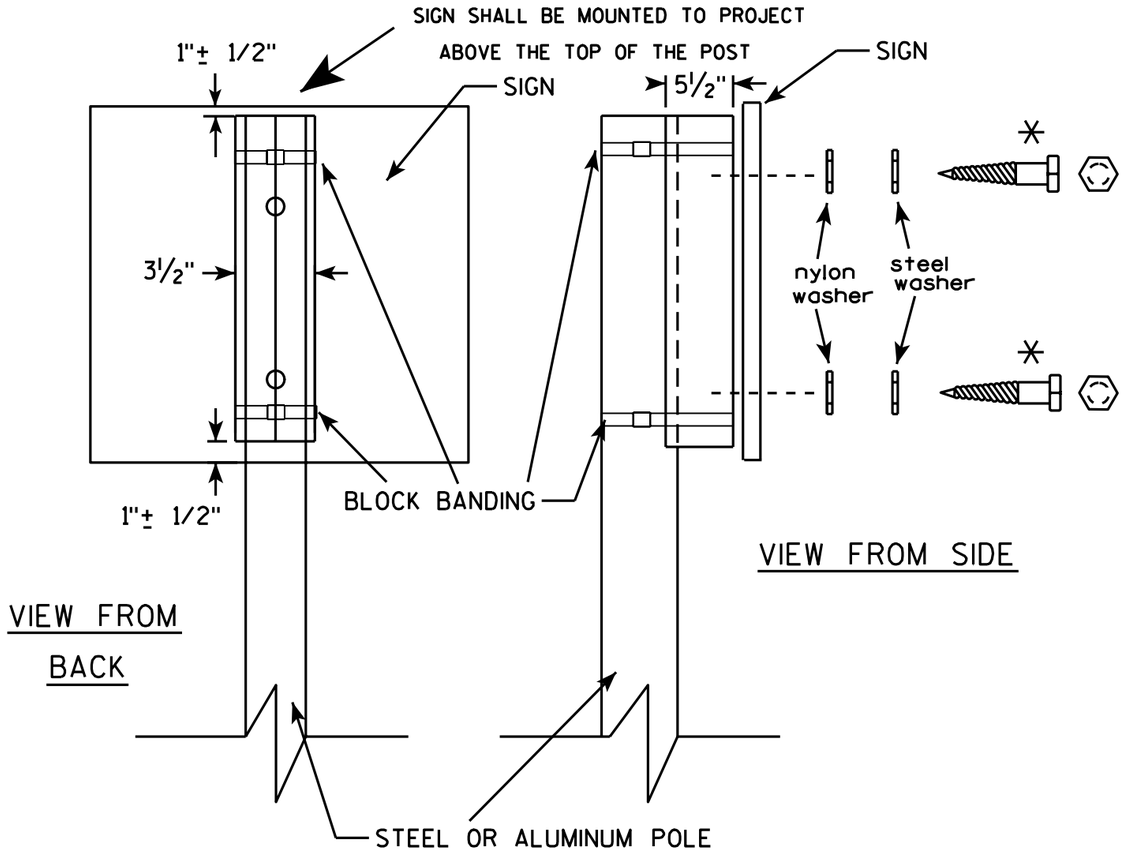
STANDARD SIGN
SIGN BANDING DETAILS

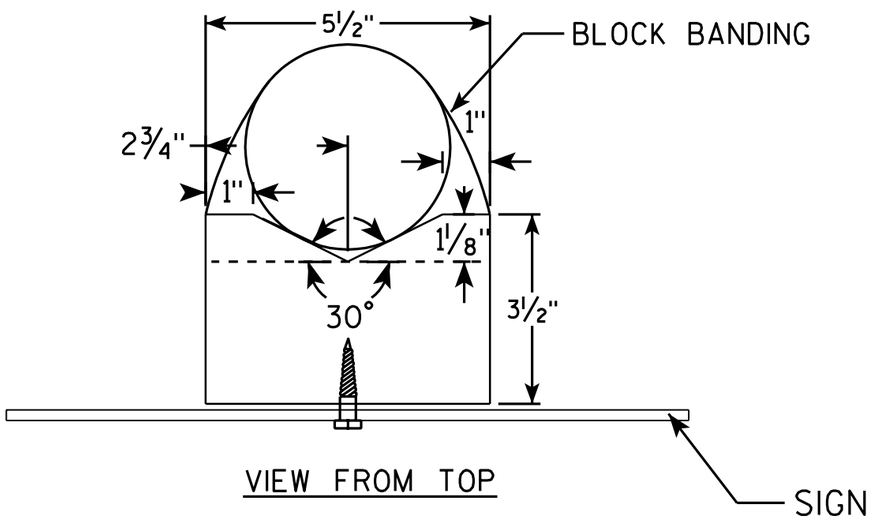
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch for State Traffic Engineer

DATE 8/16/13 PLATE NO. A5-9.3

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 235	E





GENERAL NOTES

1. WOOD 4"X6" POST MATERIAL SHALL CONFORM TO 507.2.2 OF THE WisDOT STANDARD SPECIFICATIONS
2. BLOCK BANDING AND CLIPS SHALL BE STAINLESS STEEL, ¾" WIDTH AND 0.025" THICKNESS
3. SIGNS 3' OR GREATER IN HEIGHT SHALL UTILIZE 3 BLOCK BANDS. SIGNS UNDER 3' IN HEIGHT SHALL UTILIZE 2 BLOCK BANDS
4. ACTUAL NUMBER OF FASTENERS PER SIGN VARIES WITH THE SIGN AREA, BUT NORNALLY THERE ARE TWO. FOR SIGNS GREATER THAN 9 S.F. 3 FASTENERS SHALL BE USED.
5. ALL SIGN MOUNTING BOLTS AND WASHERS SHALL BE EITHER:
   a. Hot dip or mechanically galvanized in accordance with ASTM Designation: A 153, Class D, or
   b. Cadmium plated in accordance with ASTM Designation : B 766 TYPE 3, Class 12, or
   c. Electro-galvanized in accordance with ASTM Designation : B 633, TYPE III, SC 3.
6. ALL BOLTS SHALL HAVE HEXAGONAL HEADS.
7. STEEL WASHERS SHALL BE 1¼" O.D. X ⅜" I.D. X 1/16"
8. NYLON WASHERS SHALL BE 1¼" O.D. X ⅜" I.D. X .080 FOR TYPE H OR TYPE F FACE SIGN

✳ LAG BOLTS SHALL BE ⅜" X 2½"

BLOCK BANDING DETAIL (V-BLOCK OPTION)

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

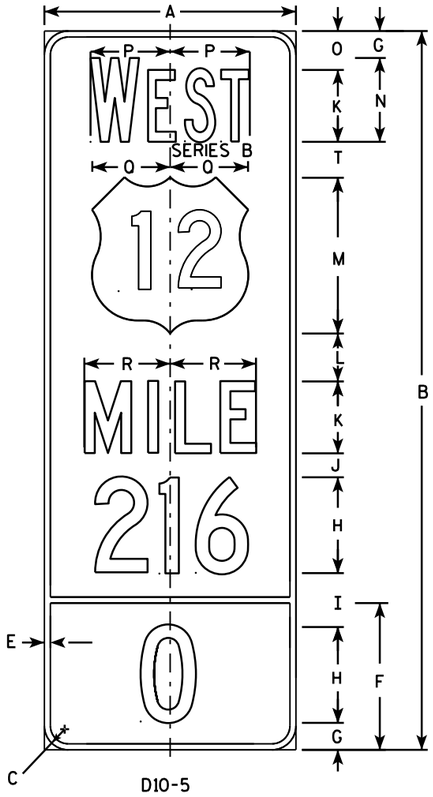
DATE 7/12/07 PLATE NO. A5-10.1

PROJECT NO:

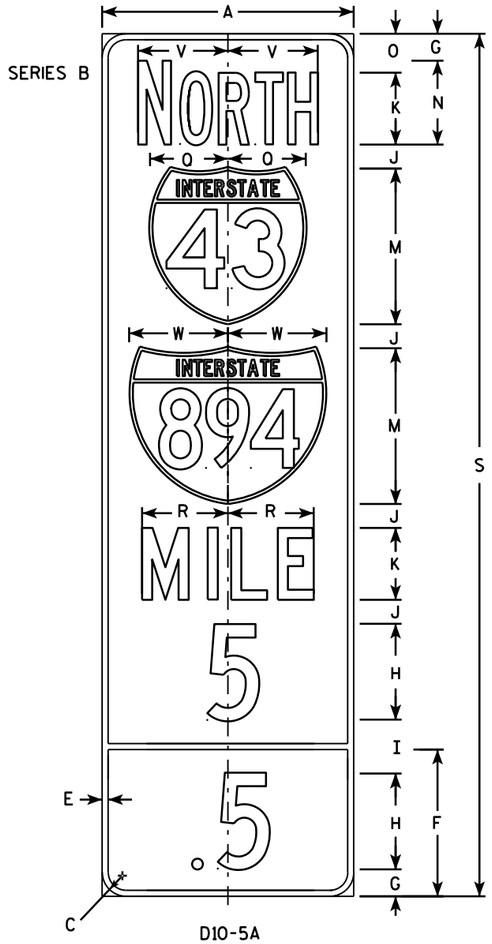
SHEET NO: 236 E

FILE NAME : C:\Users\Projects\tr_stdplate\A510.dgn PLOT DATE : 06-AUG-2007 13:37 PLOT BY : ditjph

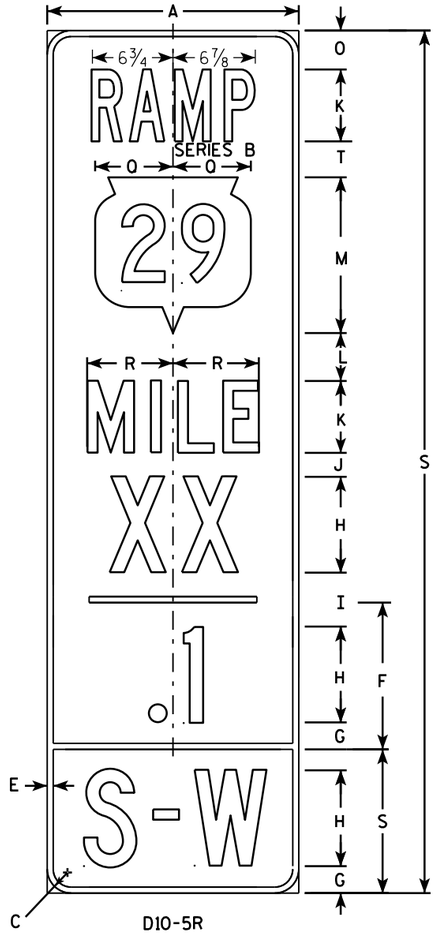
WISDOT/CADDS SHEET 42



D10-5



D10-5A



D10-5R

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - BLUE
   Message - WHITE
3. Interstate Shield Color
   Background - Top Red
   - Bottom Blue
   Message - White
4. Message Series - C or as noted on the Sign.
5. 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.
6. The decimal point is required for all digits except "0".
7. Optically adjust mileage numbers about the centerline of the sign to achieve proper balance.
8. Optically adjust Ramp direction letters about the centerline of the sign to achieve proper balance.



SERIES B



SERIES B

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	D10-5 Area sq. ft.	D10-5A Area sq. ft.	D10-5R Area sq. ft.
1																													
2																													
3																													
4	21	60	1 ½		½	12 ¼	2 ¼	8	4 ½	2	6	4	13	7	3 ¼	6 ⅝	6 ½	7 ⅛	72	3		7 ½	8 ¼				8.75	10.5	10.5
5	21	60	1 ½		½	12 ¼	2 ¼	8	4 ½	2	6	4	13	7	3 ¼	6 ⅝	6 ½	7 ⅛	72	3		7 ½	8 ¼				8.75	10.5	10.5

STANDARD SIGN
D10-5

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

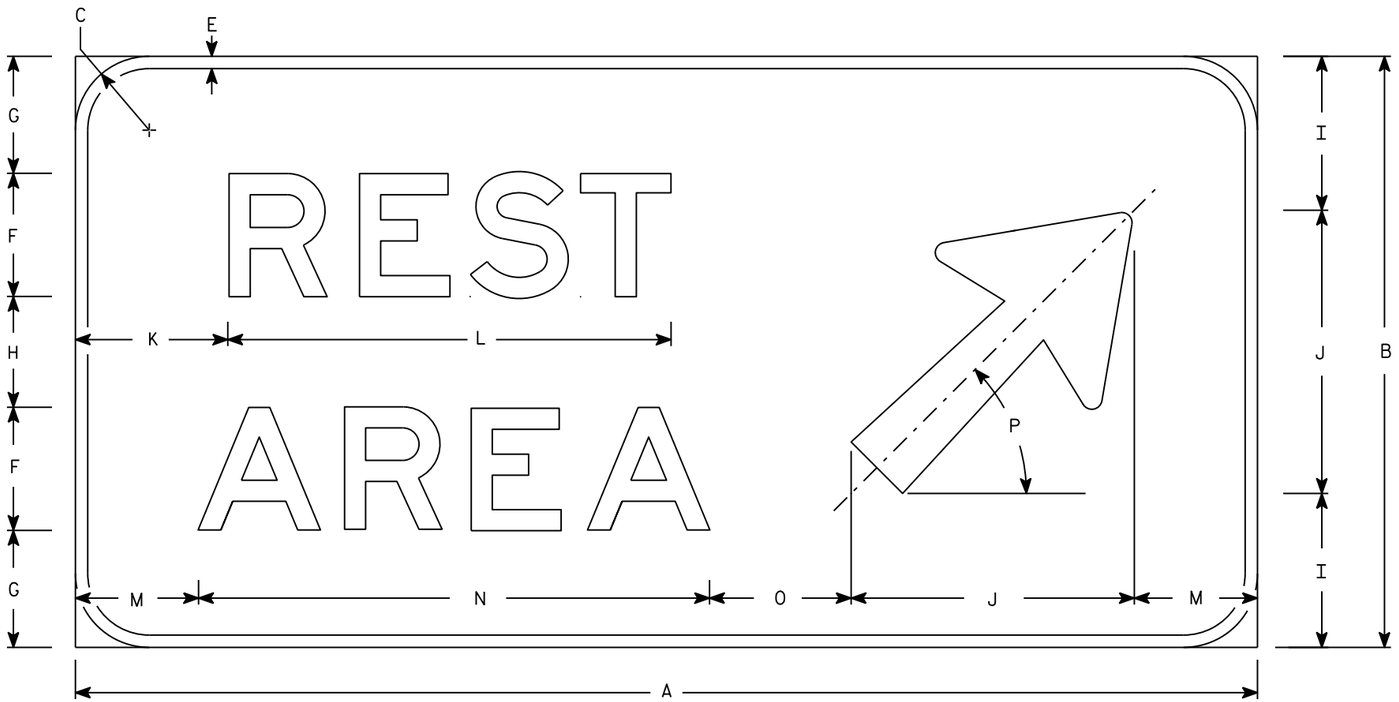
DATE 6/26/14 PL 237 D10-5.2

PROJECT NO:

SHEET NO: E

NOTES

1. Sign is Type I - Type SH Reflective
2. Color:
   Background - Blue
   Message - White
3. Message Series - E
4. Arrow is standard Interstate Type A.



E5-52

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																											
3																											
4	144	54	6		2	15	8	8	13	28	20 1/4	62	16 1/4	68	15 1/2	45°											54.0
5	144	54	6		2	15	8	8	13	28	20 1/4	62	16 1/4	68	15 1/2	45°											54.0

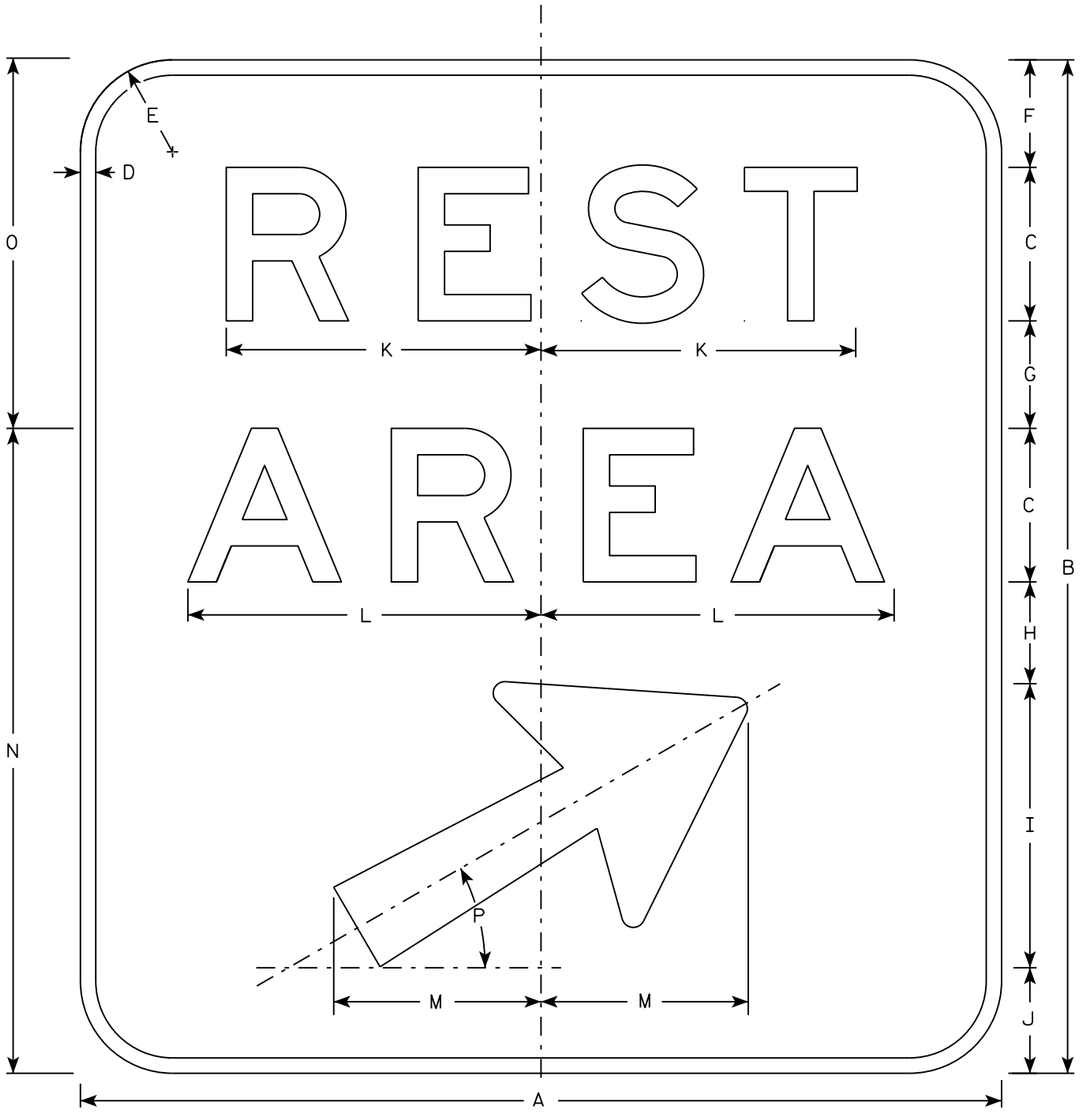
STANDARD SIGN
E5-52

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/23/17 PLATE NO. E5-52.11

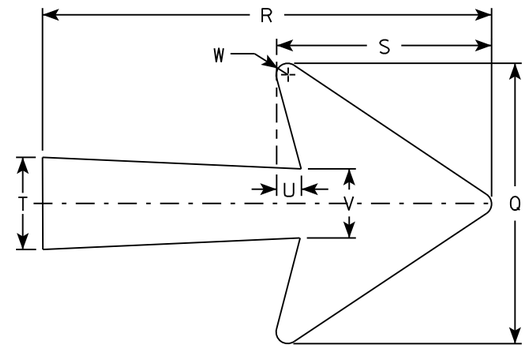
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 238 | E



E5-54

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - Blue
   Message - White
3. Message Series - E
4. Arrow is Type A as per A1-1 standard
5. Dimensions N & O Indicate cutting lines for splice.



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																											
2																											
3																											
4	60	66	10	1	6	7	7	6 5/8	18 1/2	6 7/8	21	23	13 1/2	42	24	30°	18 1/4	29 1/4	14	6	1 1/2	4 1/2	3/4				27.5
5	72	72	12	1	9	7 1/4	7	8	18 1/2	7 1/4	25	27	13 1/2	48	24	30°	18 1/4	29 1/4	14	6	1 1/2	4 1/2	3/4				36.0

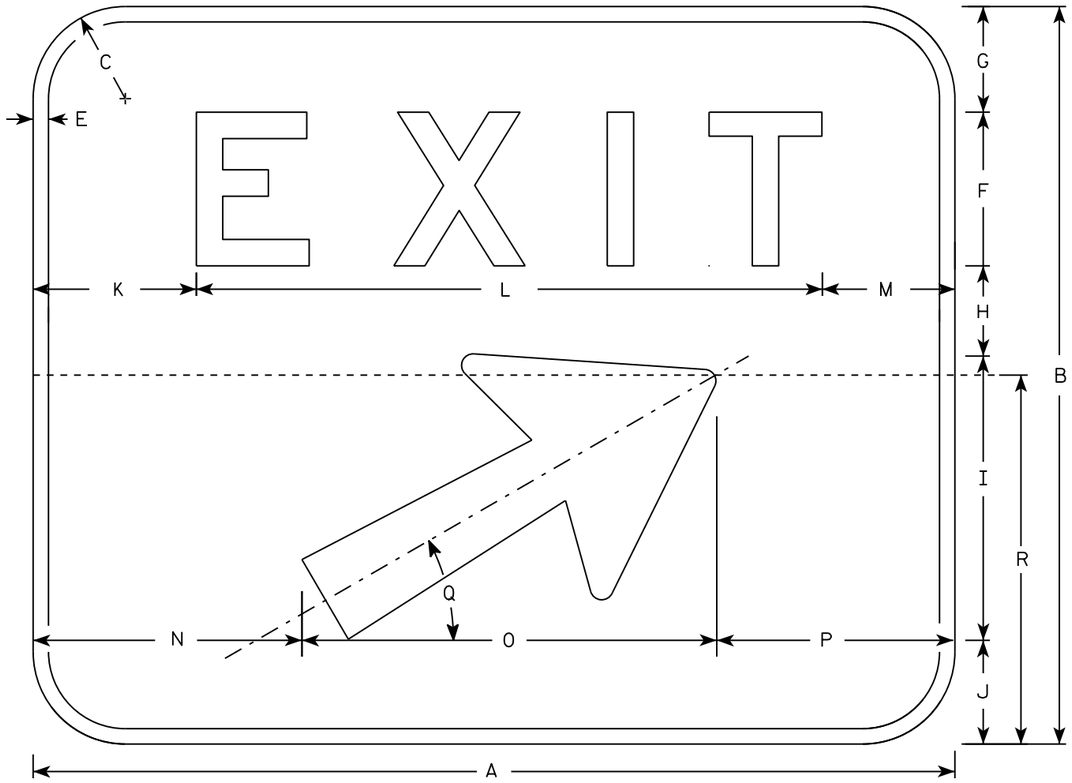
STANDARD SIGN
E5-54

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/20/17 PLATE NO. E5-54.8

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 239	E



E5-1

NOTES

1. Sign is Type II - Type H reflective
2. Color:
   Background - Green
   Message - White
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. When Base material for this sign is plywood sign 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.

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																											
3																											
4	60	48	6		1	10	6 7/8	5 7/8	18 1/2	6 3/4	10 5/8	40 3/4	8 5/8	17 1/2	27	15 1/2	30°	30									20.0
5	72	60	6		1	12	9 3/4	10	18 1/2	9 3/4	13 1/4	48 1/2	10 1/4	23 1/2	27	21 1/2	30°	30									30.0

STANDARD SIGN
E5 - 1

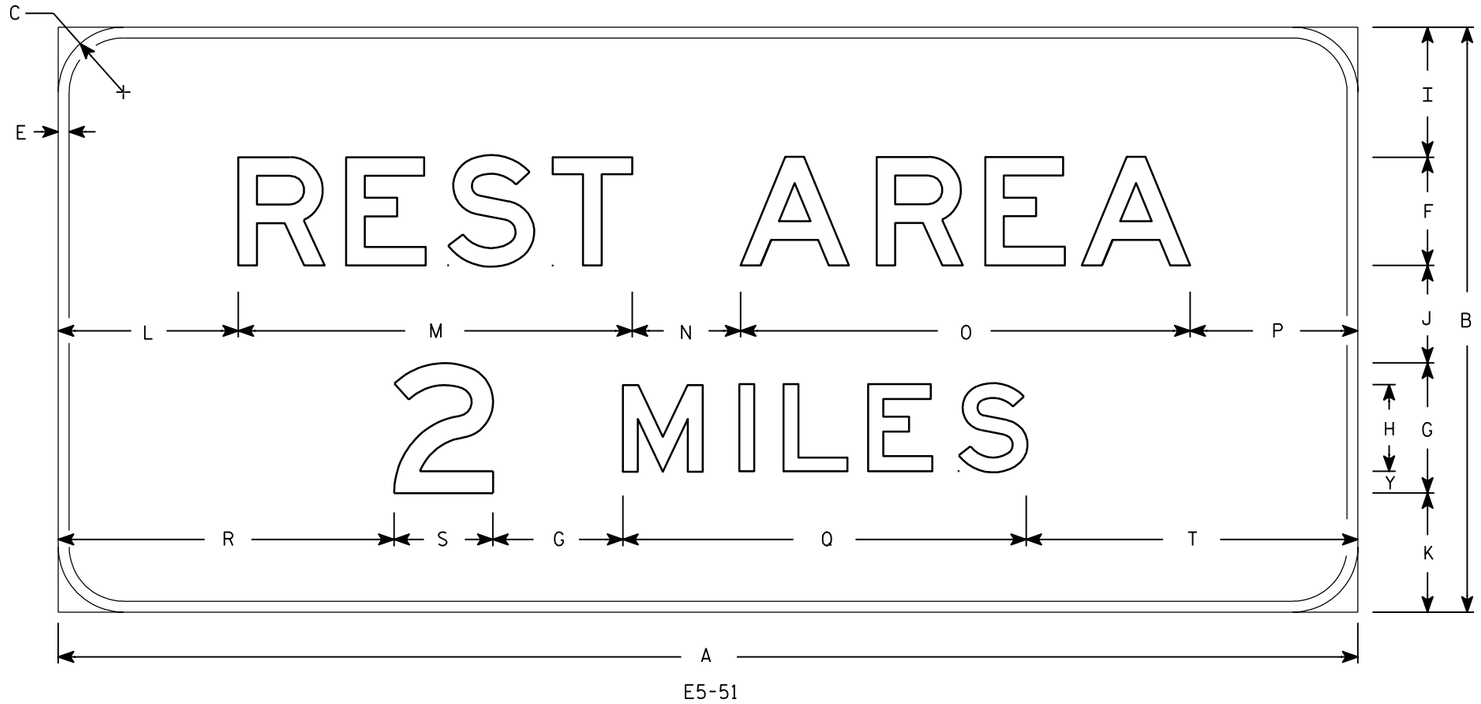
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

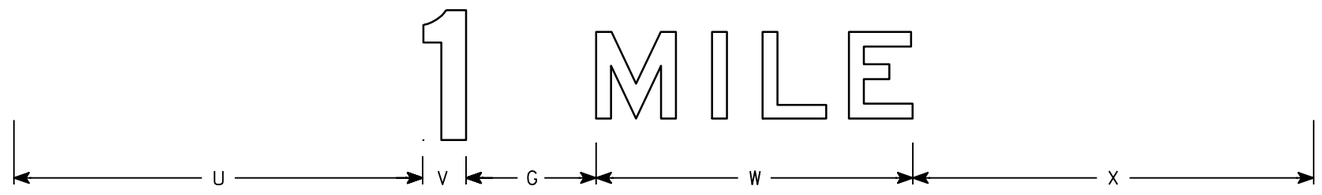
DATE 3/21/17 PLATE NO. E5-1.9

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 240 | E

7



E5-51



NOTES

1. Sign is Type I - Type SH Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Blue
   Message - White
3. Message Series - E
4. Substitute appropriate numeral and adjust spacing to achieve proper balance.

Metric equivalent for this sign is:

SIZE	
1	
2	
3	
4	3000 mm X 1350 mm
5	3600 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	120	54	6		1	10	12	8	12	9	11	16 5/8	36 3/8	10	41 1/2	15 1/2	37 1/4	31	9 1/8	30 5/8	37 3/4	4	29 1/4	37	2		45.0	4.05
5	144	60	6		2	12	15	10	12	10	11	19 3/4	44 3/4	12	49 1/2	18	46 1/4	36	11	35 3/4	44	4 7/8	36 1/4	43 7/8	2 1/2		60.0	5.40

STANDARD SIGN
E5-51

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
For State Traffic Engineer

DATE 12/8/08 PLATE NO. E5-51.8

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 241	E

FILE NAME : C:\Users\Projects\tr_stdplate\E551.DGN PLOT DATE : 14-JAN-2009 08:46 PLOT BY : ditjph PLOT NAME : PLOT SCALE : 13.991250:1.000000

WISDOT/CADDS SHEET 42

7

7

NOTES

1. Sign is Type I - Type SH Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Blue
   Message - White
3. Message Series - D for Line 1 & Series E for Line 2
4. Substitute appropriate numerals and optically adjust spacing.



E5-62

* See Note 4

Metric equivalent for this sign is:

SIZE	
1	
2	
3	
4	3000 mm X 750 mm
5	3000 mm X 750 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	120	30	6		1	8	5	25 3/8	9	14 7/8	11	29 1/8	25 1/2														25.0	2.25
5	120	30	6		1	8	5	25 3/8	9	14 7/8	11	29 1/8	25 1/2														25.0	2.25

STANDARD SIGN
E5-62

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

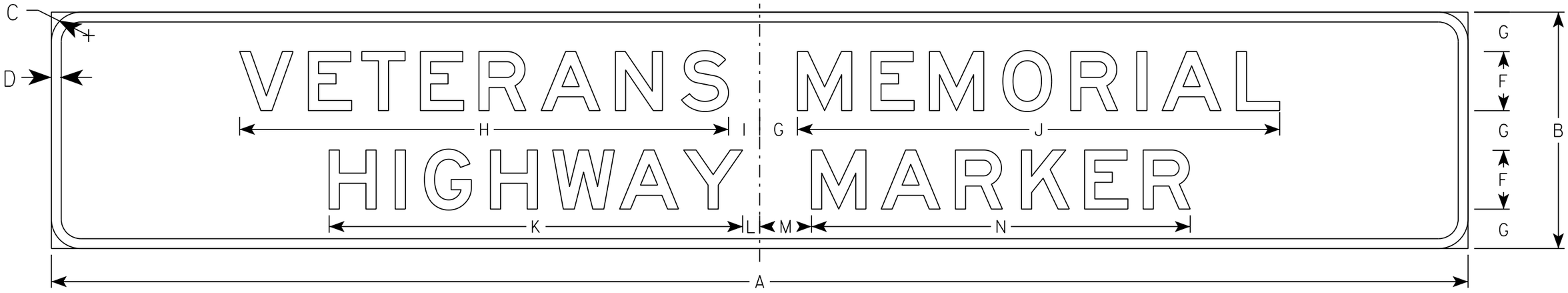
DATE 12/8/08 PLATE NO. E5-62.5

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 242	E

FILE NAME : C:\Users\Projects\tr_stdplate\E562.DGN PLOT DATE : 08-DEC-2008 13:22 PLOT BY : ditjph PLOT NAME : PLOT SCALE : 9.494060:1.000000

NOTES

1. Sign is Type I - Type SH Reflective
2. Color:
   Background - Blue
   Message - White
3. Message Series - E



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																											
3																											
4																											
5	144	24	3	1		6	4	49 3/4	3 1/8	49	42	1 3/4	5 1/4	38 1/2													24.0

STANDARD SIGN
E10-56

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

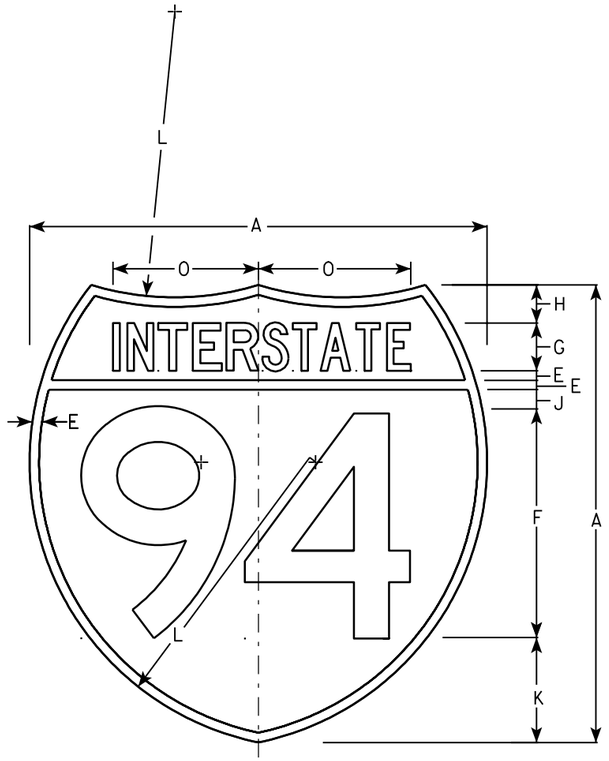
DATE 11/5/15 PLATE NO. E10-56.1

243

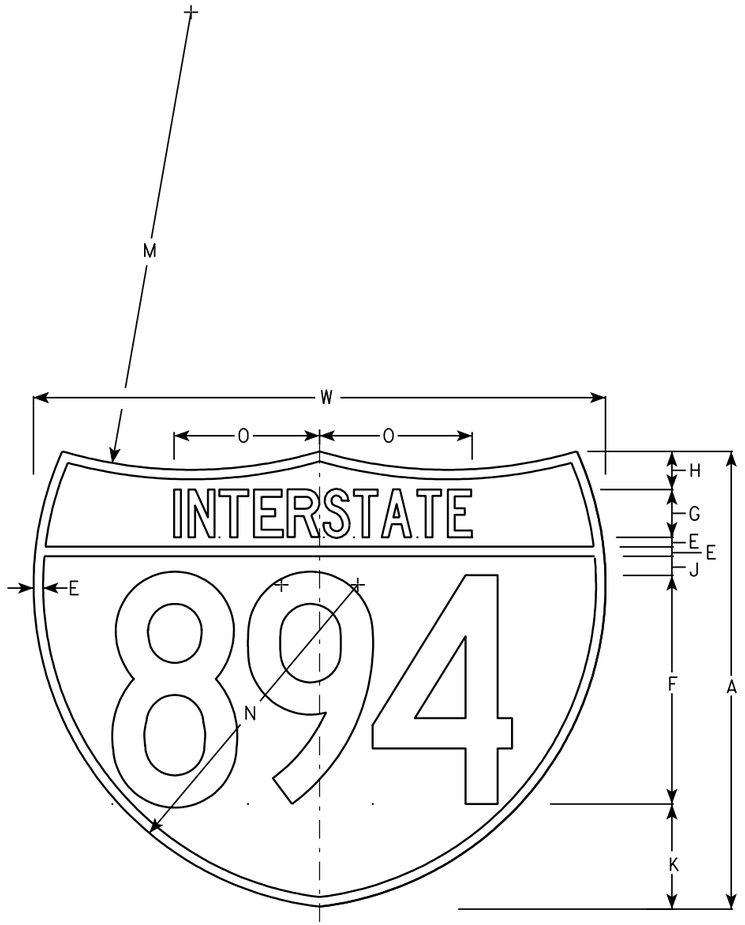
PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\E1056.DGN PLOT DATE : 01-DEC-2015 17:49 PLOT BY : $$ plotuser $$ PLOT NAME : PLOT SCALE : 10.265036:1.000000

7



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

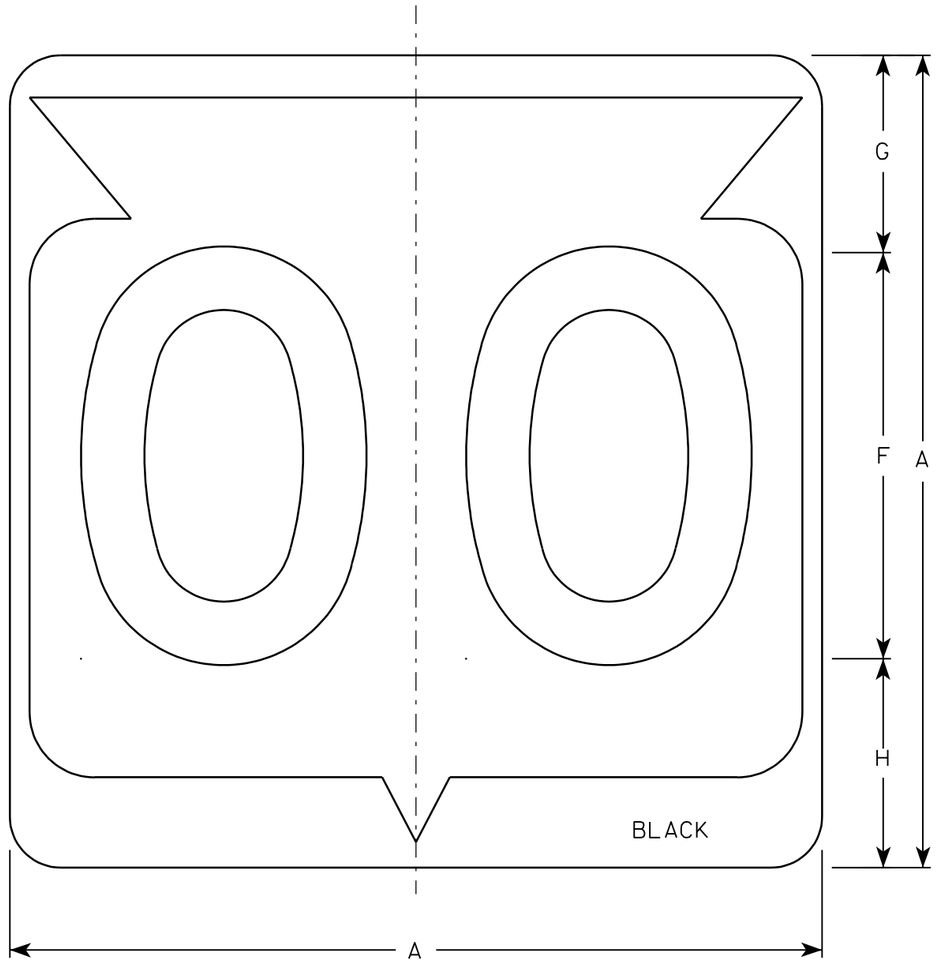
INTERSTATE ROUTE MARKER
M1-1 FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 08/23/05 PLATE NO. M1-1.8

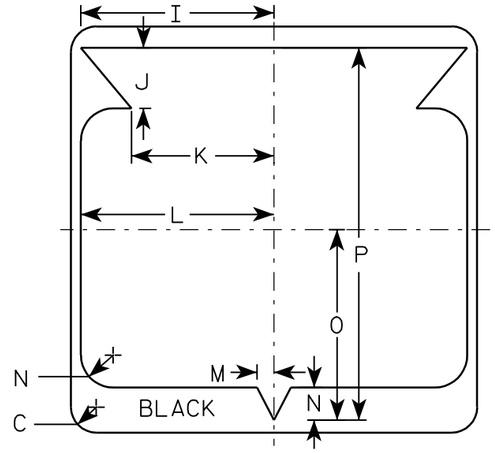
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 244	E



M1-6

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 Series numerals and adjust spacing as per plate A10-1.
6. Permanent Signs
   Background - Type H Reflective
   Detour or temporary Signs
   Background - Reflective



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		1 1/2			12	5 1/2	6 1/2	10 1/4	2 1/2	8 7/8	11 1/2	1	1 7/8	11 1/4	21 7/8											4.0	.36
3	36		2 1/4			18	8 3/4	9 1/4	15 3/8	5 3/8	12 5/8	17 1/8	1 1/2	2 7/8	16 7/8	33											9.0	.81
4	36		2 1/4			18	8 3/4	9 1/4	15 3/8	5 3/8	12 5/8	17 1/8	1 1/2	2 7/8	16 7/8	33											9.0	.81
5	36		2 1/4			18	8 3/4	9 1/4	15 3/8	5 3/8	12 5/8	17 1/8	1 1/2	2 7/8	16 7/8	33											9.0	.81

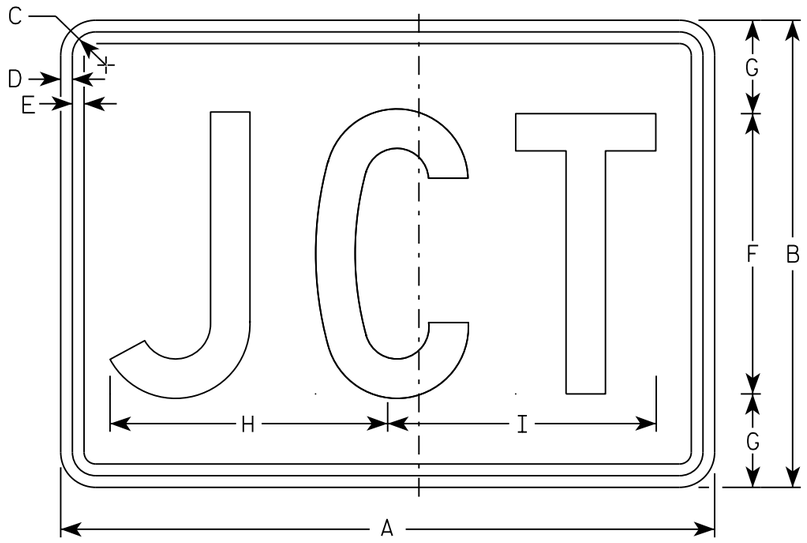
STATE ROUTE MARKER M1-6 FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

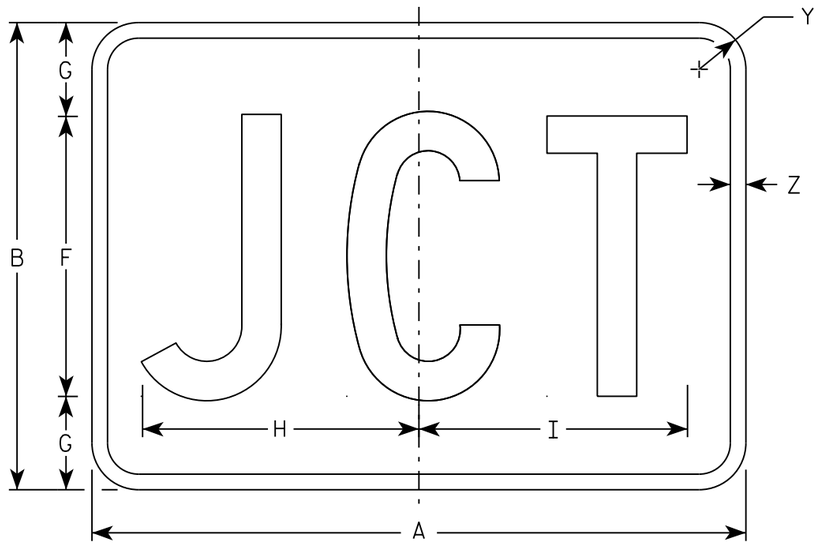
APPROVED *Chester J Spang* for State Traffic Engineer

DATE 3/20/02 PLATE NO. M1-6.9

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 245	E



M2-1
MM2-1
MP2-1



MB2-1
MK2-1
MN2-1
MR2-1

NOTES

1. Sign is 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. M2-1 Background - White
   Message - Black
   MB2-1 Background - Blue
   Message - White
   MK2-1 Background - Green
   Message - White
   MM2-1 Background - White
   Message - Green
   MN2-1 Background - Brown
   Message - White
   MP2-1 Background - White
   Message - Blue
   MR2-1 Background - Brown
   Message - Yellow

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	15	1 1/8	3/8	3/8	9	3	8 7/8	8 5/8																1 1/2	1/2	2.20
3	30	21	1 1/8	3/8	3/8	13	4	12 7/8	12 3/8																1 1/2	1/2	4.40
4	30	21	1 1/8	3/8	3/8	13	4	12 7/8	12 3/8																1 1/2	1/2	4.40
5	30	21	1 1/8	3/8	3/8	13	4	12 7/8	12 3/8																1 1/2	1/2	4.40

STANDARD SIGN
M2-1

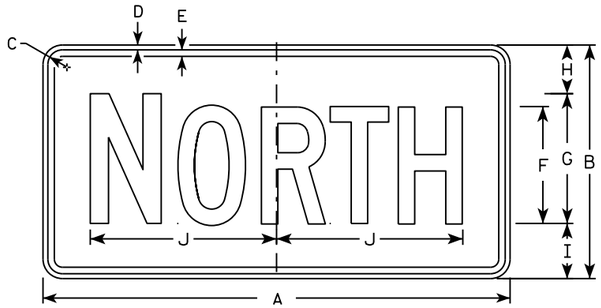
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

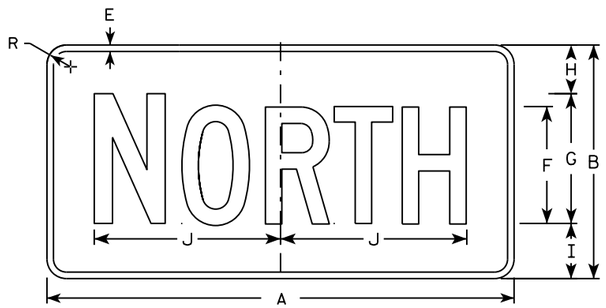
DATE 10/15/15 PLATE 246 12-1.12

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\M21.DGN PLOT DATE : 01-DEC-2015 17:54 PLOT BY : $$ plotuser $$ PLOT NAME : PLOT SCALE : 4.864603:1.000000



M3-1
MM3-1
MP3-1



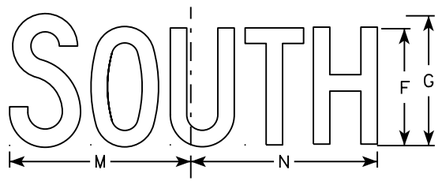
MB3-1
MK3-1
MN3-1



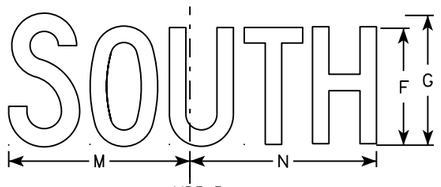
M3-2
MM3-2
MP3-2



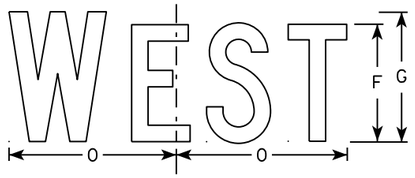
MB3-2
MK3-2
MN3-2



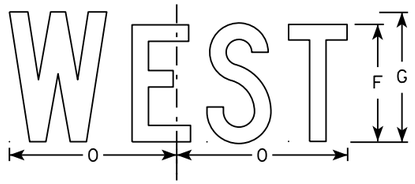
M3-3
MM3-3
MP3-3



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

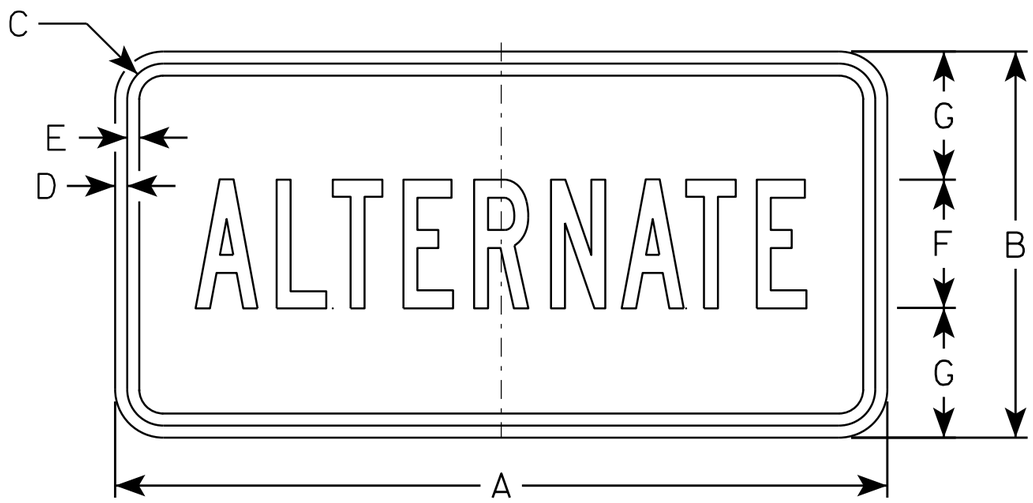
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew P Rauch for State Traffic Engineer

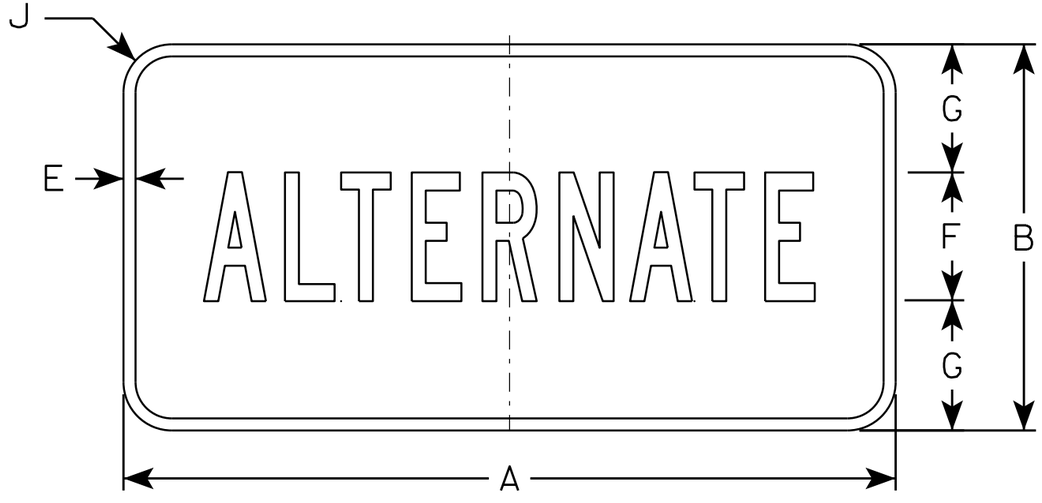
DATE 10/15/15 PLATE NO M3-1.14

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



M4-1
M04-1



MB4-1

NOTES

1. Sign is Type II - Type H except as Shown
2. Color:
   Background - See Note 5
   Message - See note 5
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.
5. M4-1 Background - White
   Message - Black

   MB4-1 Background - Blue
   Message - White

   M04-1 Background - Orange - Type F
   Message - Black

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	4	4	9 3/4	9 1/2	1 1/2																	2.00
3	36	18	1 1/8	3/8	1/2	7	5 1/2	16 3/8	16 1/2	1 1/2																	4.5
4	36	18	1 1/8	3/8	1/2	7	5 1/2	16 3/8	16 1/2	1 1/2																	4.5
5	36	18	1 1/8	3/8	1/2	7	5 1/2	16 3/8	16 1/2	1 1/2																	4.5

STANDARD SIGN
M4-1

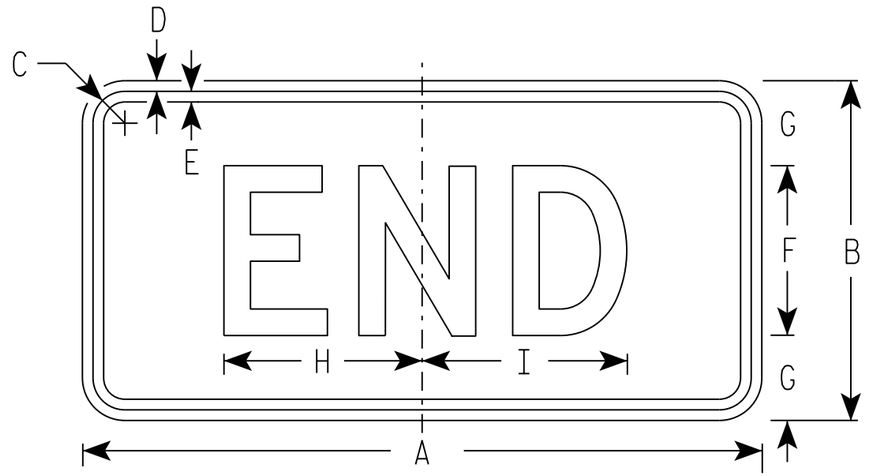
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

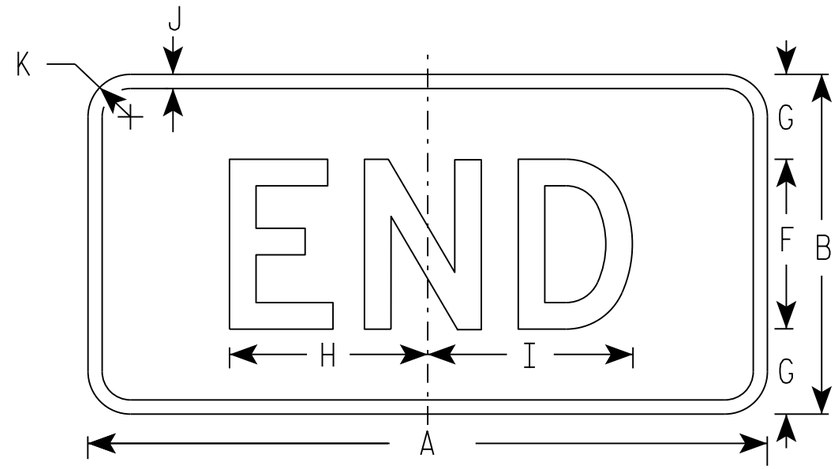
DATE 6/30/14 PLATE 14-1.8

PROJECT NO: | HWY: | COUNTY: | SHEET NO: E

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\M41.DGN PLOT DATE : 30-JUN-2014 15:38 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 4.708937:1.000000
WISDOT/CADDS SHEET 42



M4-6
MM4-6
MP4-6



MB4-6
MK4-6
MN4-6
MR4-6

NOTES

1. Sign is Type II - Type H
2. Color:
   Background - See note 5
   Message - See note 5
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. M4-6 Background - White
   Message - Black

   MB4-6 Background - Blue
   Message - White

   MK4-6 Background - Green
   Message - White

   MM4-6 Background - White
   Message - Green

   MN4-6 Background - Brown
   Message - White

   MP4-6 Background - White
   Message - Blue

   MR4-6 Background - Brown
   Message - Yellow

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	7	7 1/4	1/2	1 1/2																2.00
3	36	18	1 1/8	3/8	1/2	9	4 1/2	12	11 7/8	1/2	1 1/2																4.5
4	36	18	1 1/8	3/8	1/2	9	4 1/2	12	11 7/8	1/2	1 1/2																4.5
5	36	18	1 1/8	3/8	1/2	9	4 1/2	12	11 7/8	1/2	1 1/2																4.5

STANDARD SIGN
M4-6

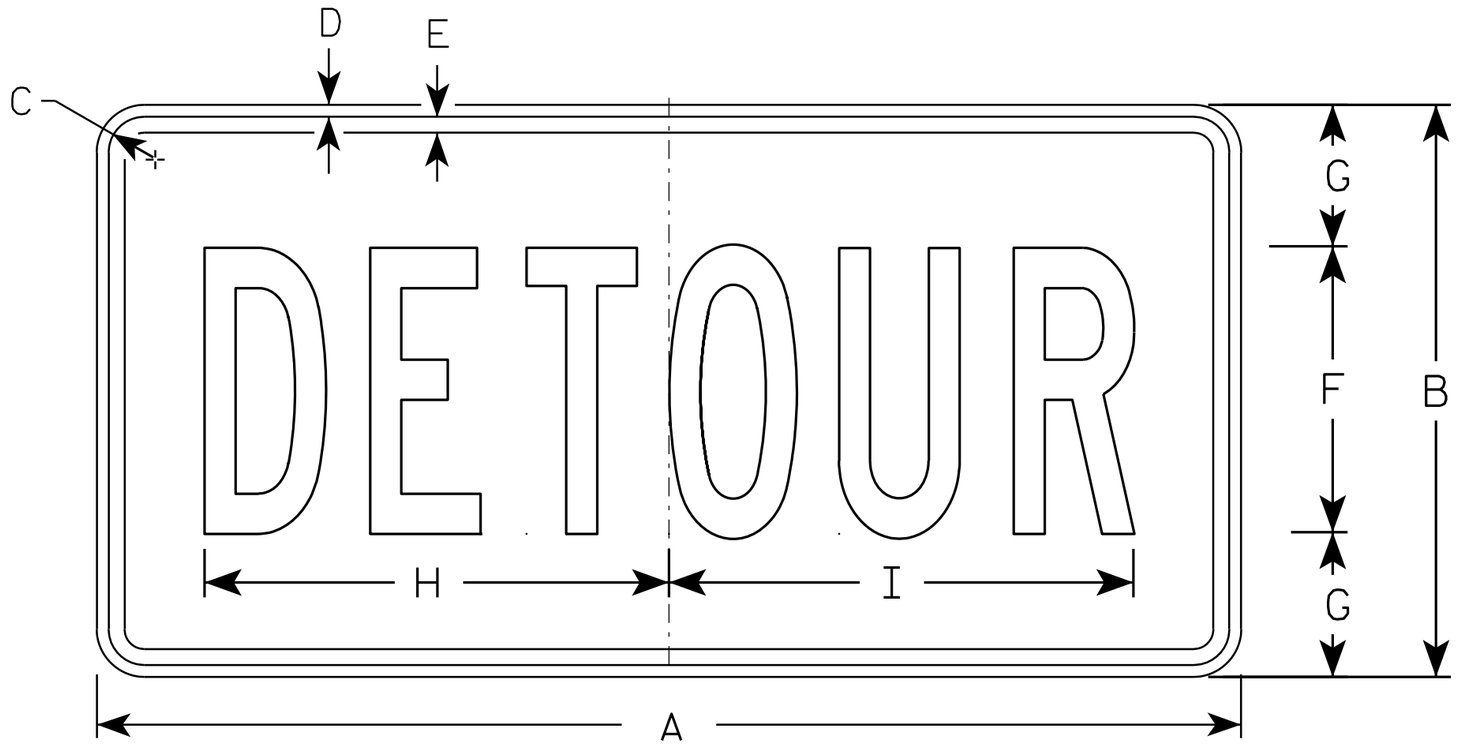
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 10/15/15 PLATE 249 '14-7.9

PROJECT NO: | HWY: | COUNTY: | SHEET NO: E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\M46.DGN PLOT DATE : 01-DEC-2015 17:55 PLOT BY : $$ plotuser $$ PLOT NAME : PLOT SCALE : 5.351066:1.000000



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																											

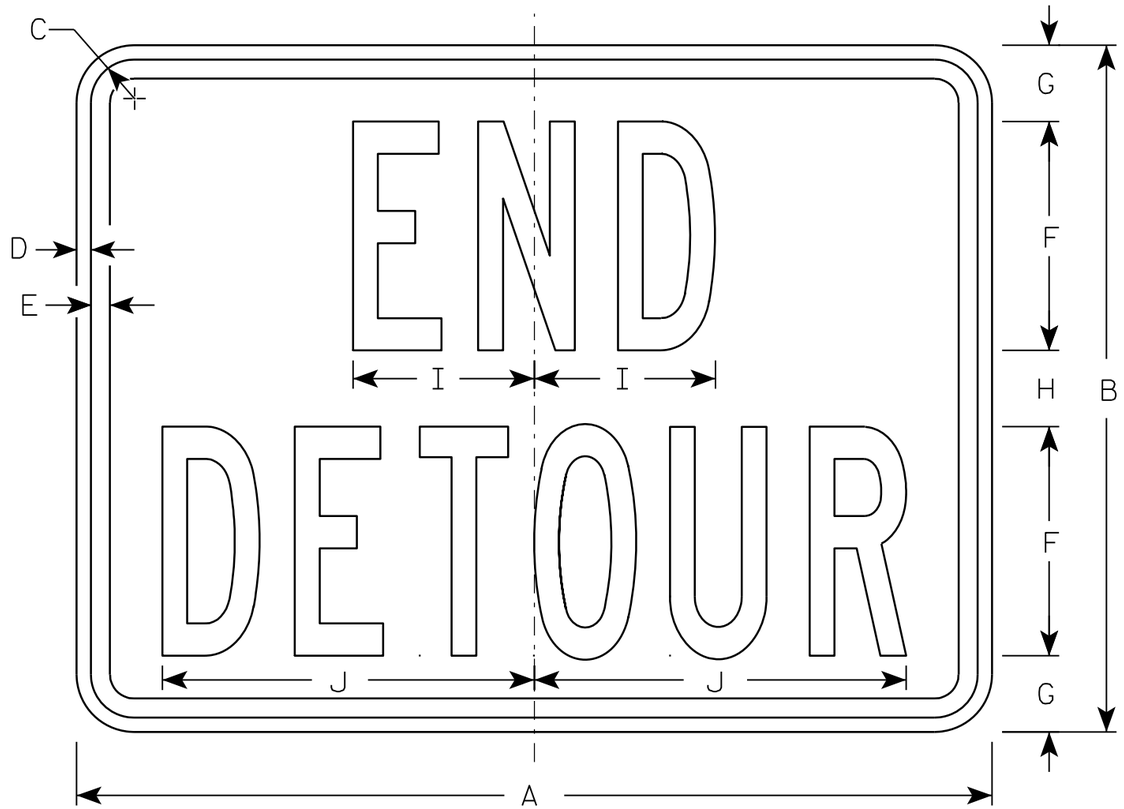
STANDARD SIGN
M4-8

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: 250	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																											

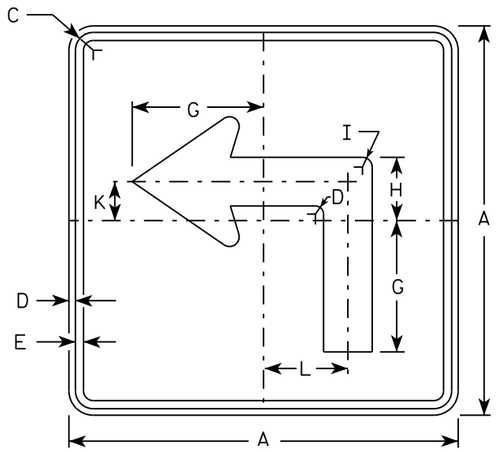
STANDARD SIGN
M4-8A

WISCONSIN DEPT OF TRANSPORTATION

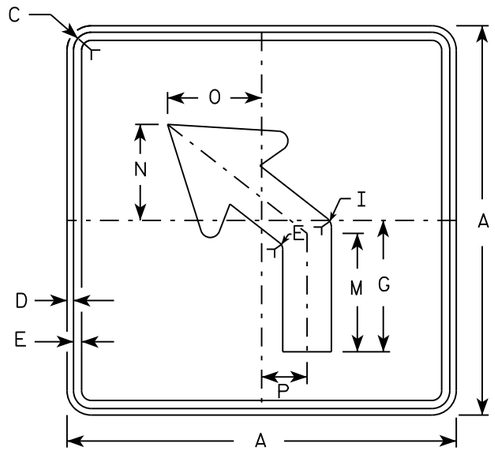
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/9/11 PLATE NO. M4-8A.2

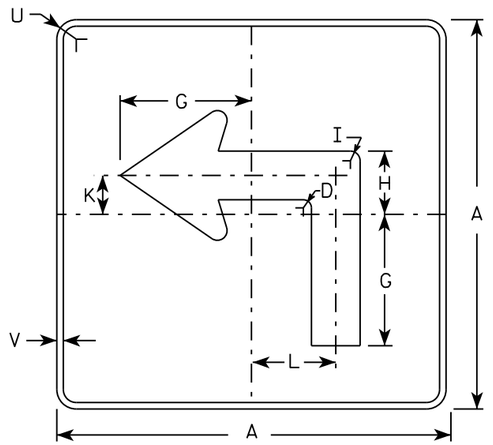
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 251	E



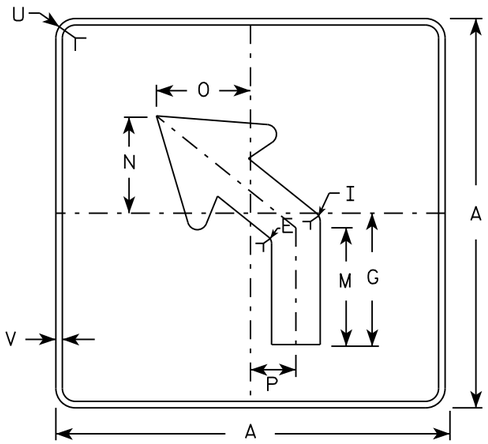
M5-1L
MM5-1L
MO5-1L
MP5-1L



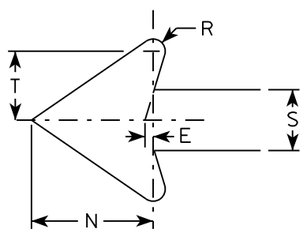
M5-2L
MM5-2L
MO5-2L
MP5-2L



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

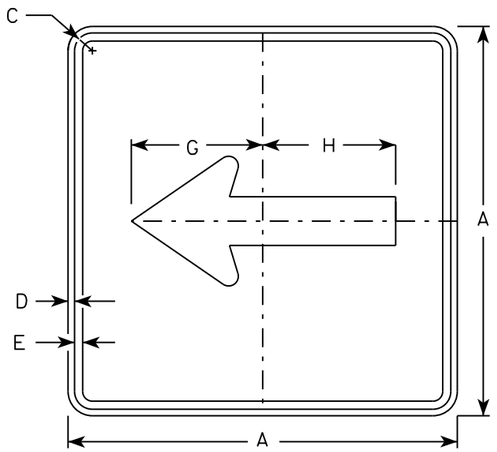
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

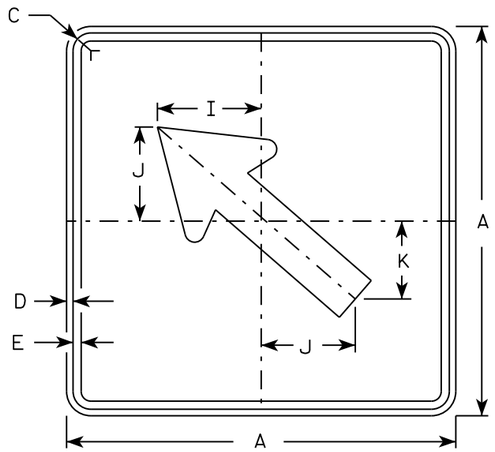
DATE 10/15/15 PLATE NO. M5-1.13

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



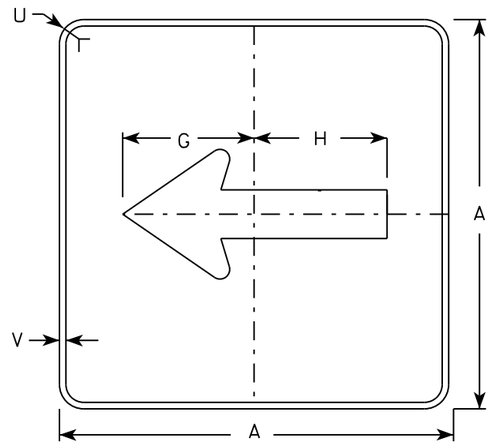
M6-1
MM6-1
MO6-1
MP6-1



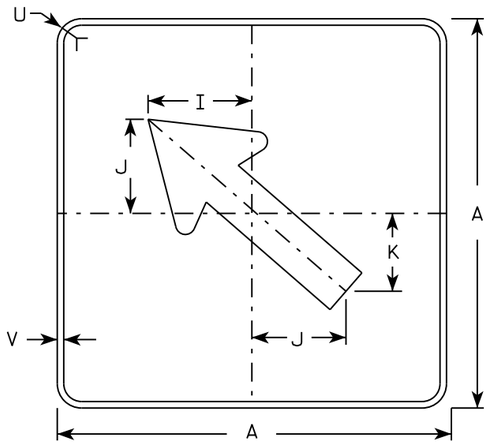
M6-2
MM6-2
MO6-2
MP6-2

NOTES

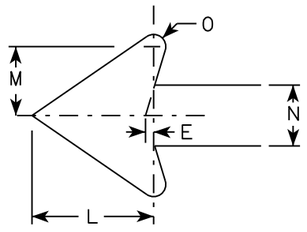
1. Signs are Type II - Type H except as Shown
2. Color:
   Background - See note 4
   Message - See note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. M6-1 and M6-2 Background - 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

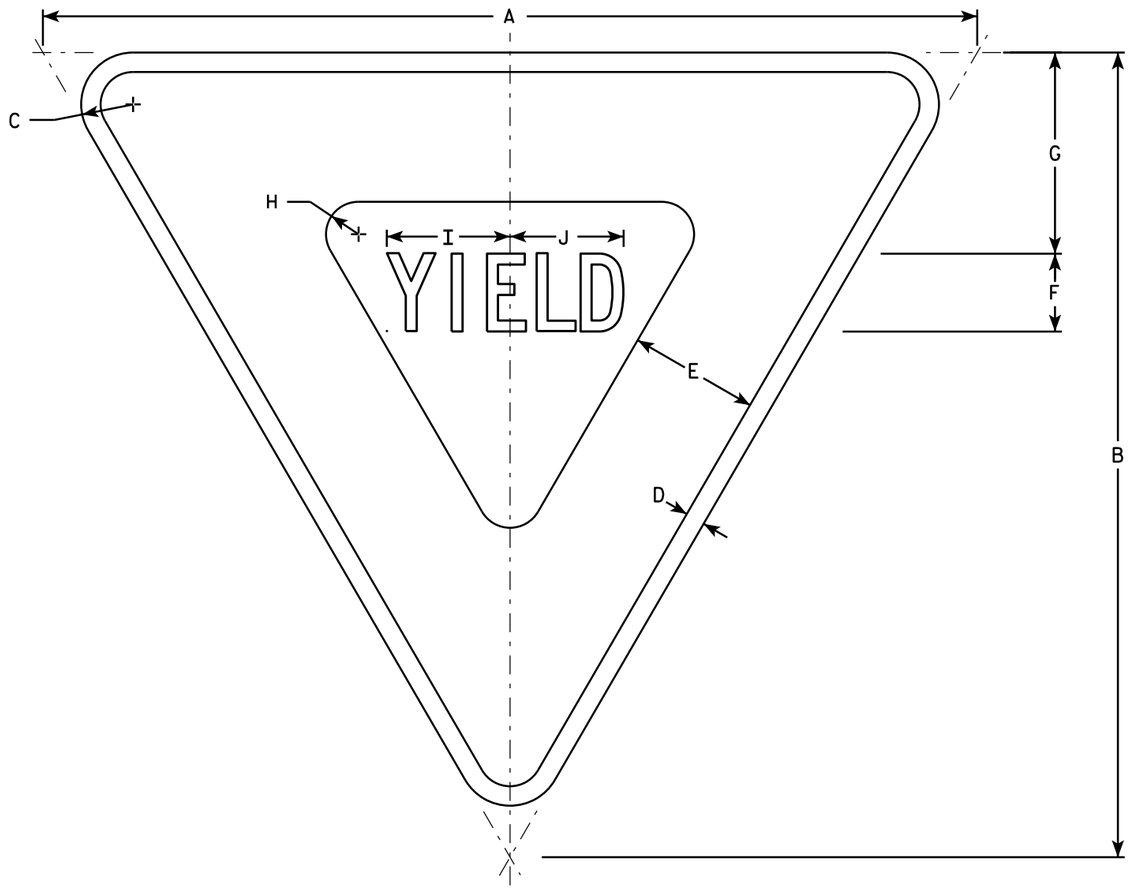
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 10/15/15 PLATE 253 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



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

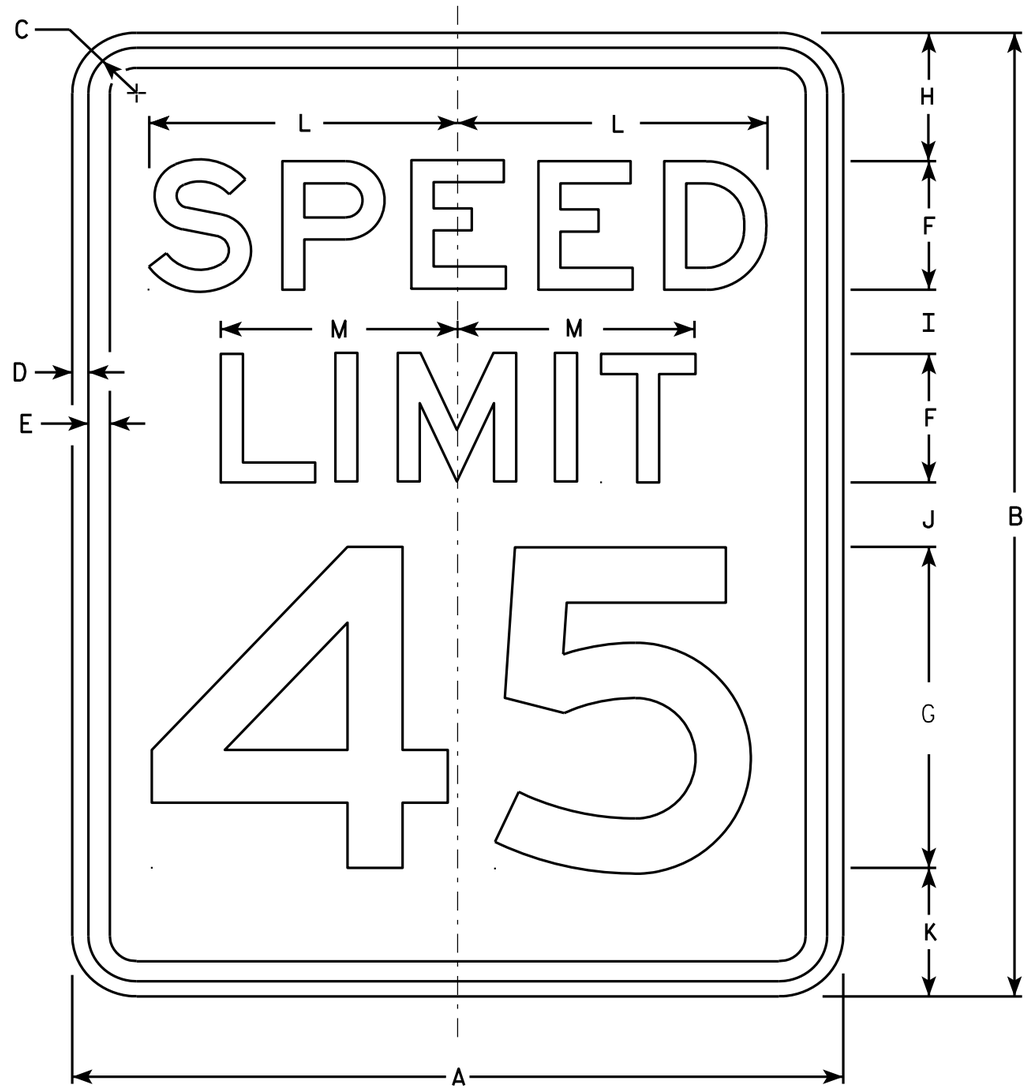
WISCONSIN DEPT OF TRANSPORTATION

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

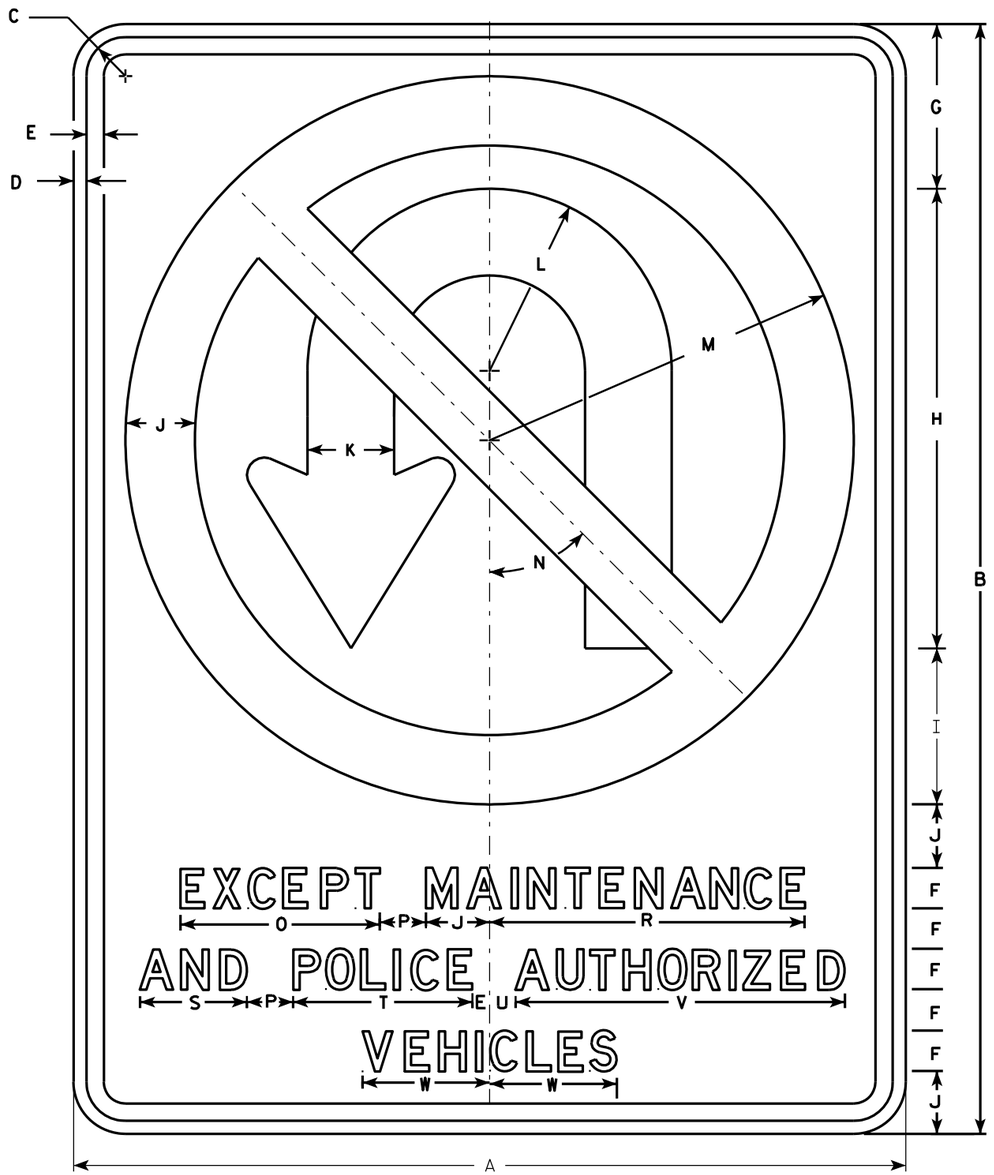
STANDARD SIGN
R2-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/26/10 PLATE NO. R2-1.13

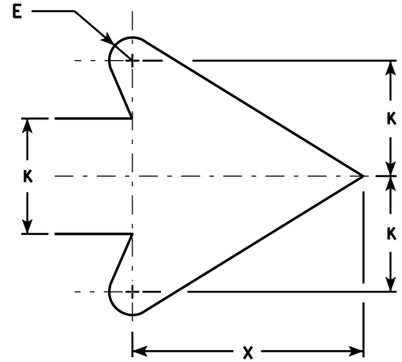
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 255 | E



R3-4B

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 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. Border & Arrow are non reflective black, the circle with diagonal bar is reflective red.



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																											
2S																											
2M																											
3																											
4	36	48	1 5/8	5/8	3/4	1 3/4	7 1/8	19 7/8	6 3/4	2 3/4	3 3/4	7 7/8	15 3/4	45°	8 5/8	2		13 5/8	4 5/8	7 3/4	1 1/8	14 1/4	5 1/2	7 5/8			12.0
5	36	48	1 5/8	5/8	3/4	1 3/4	7 1/8	19 7/8	6 3/4	2 3/4	3 3/4	7 7/8	15 3/4	45°	8 5/8	2		13 5/8	4 5/8	7 3/4	1 1/8	14 1/4	5 1/2	7 5/8			12.0

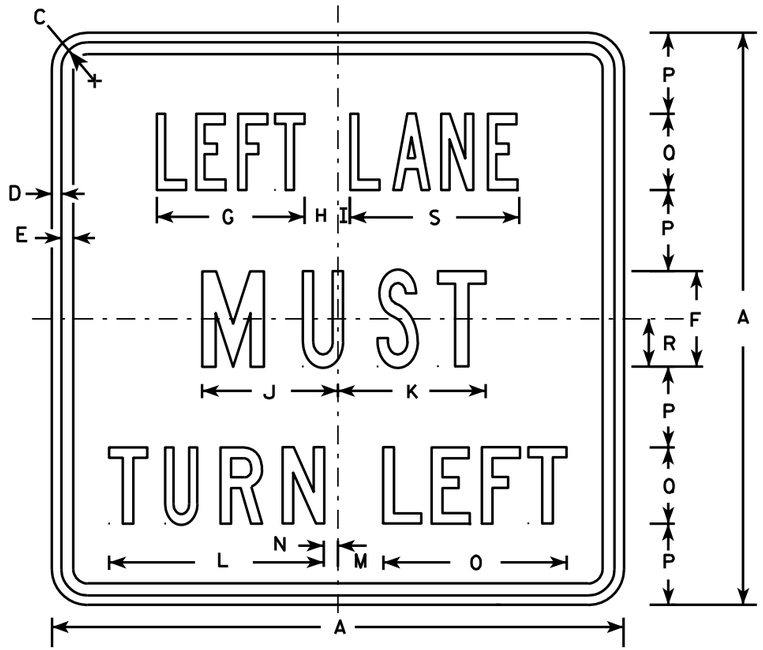
STANDARD SIGN
R3-4B

WISCONSIN DEPT OF TRANSPORTATION

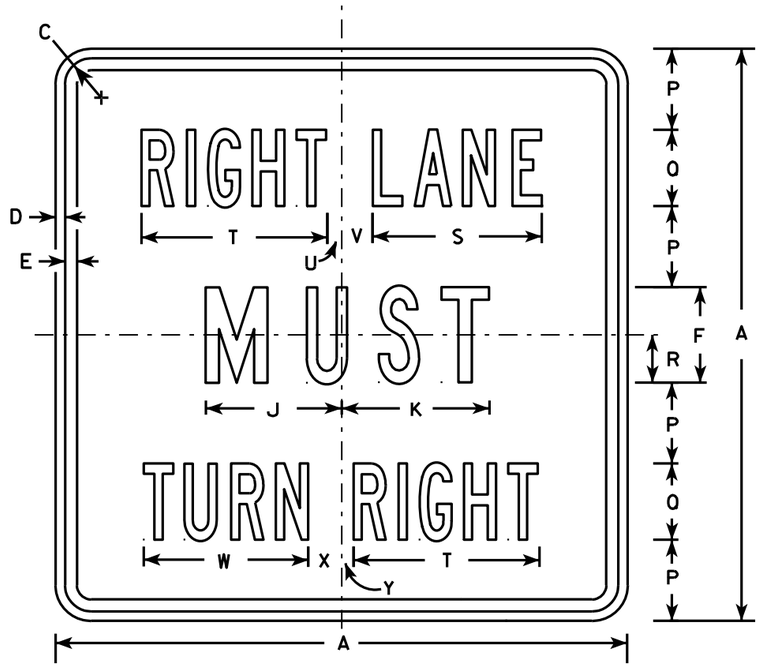
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/17/2011 PLATE NO. R3-4B.2

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 256	E



R3-7L



R3-7R

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 - Line 1 is Series B.
   Line 2 is Series C.
   Line 3 on plate R3-7R is Series B and Series C on plate R3-7L.
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	30		1 3/8	1/2	5/8	5	7 3/4	1 3/4	5/8	7 1/8	7 3/4	11 1/4	2 3/8	3/4	9 5/8	4 1/4	4	2 1/2	8 7/8	9 3/4	3/4	1 5/8	8 5/8	1 5/8	5/8		6.25
2S	30		1 3/8	1/2	5/8	5	7 3/4	1 3/4	5/8	7 1/8	7 3/4	11 1/4	2 3/8	3/4	9 5/8	4 1/4	4	2 1/2	8 7/8	9 3/4	3/4	1 5/8	8 5/8	1 5/8	5/8		6.25
2M	30		1 3/8	1/2	5/8	5	7 3/4	1 3/4	5/8	7 1/8	7 3/4	11 1/4	2 3/8	3/4	9 5/8	4 1/4	4	2 1/2	8 7/8	9 3/4	3/4	1 5/8	8 5/8	1 5/8	5/8		6.25
3	36		1 5/8	5/8	3/4	6	9 5/8	2	1 1/8	8 3/4	9	13 1/2	3 7/8	1 1/2	12 1/2	5	5	3	10 5/8	12	7/8	2 1/4	10 5/8	2 1/8	1		9.00
4	48		2 1/4	3/4	1	8	13 1/2	2 3/8	1 1/2	11 1/2	11 7/8	17 3/4	3 5/8	2 1/2	16 3/8	6 1/2	7	4	14 3/8	16 7/8	5/8	3 1/4	15 1/8	2 3/4	1 1/8		16.00
5																											

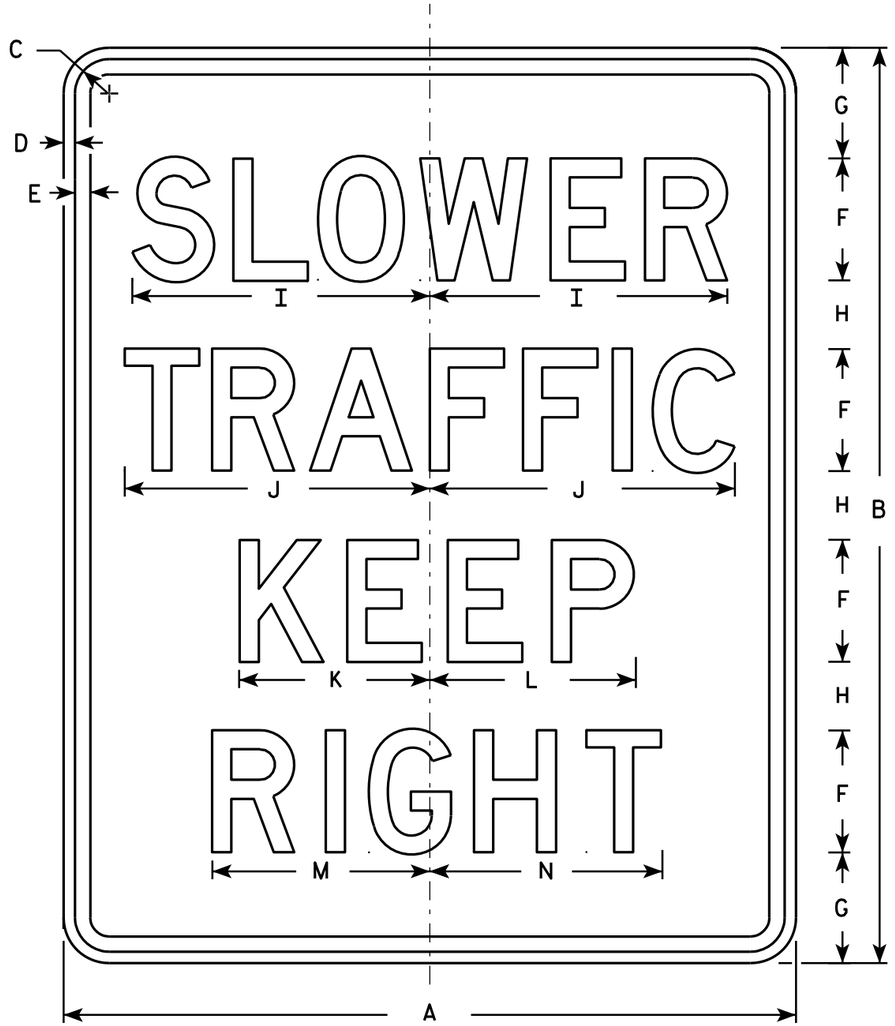
STANDARD SIGN
R3-7L & R3-7R

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/18/2011 PLATE NO. R3-7.3

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 257 | E



R4-3

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	24	30	1 1/8	3/8	1/2	4	3 5/8	2 1/4	9 3/4	10	6 1/4	6 3/4	7 1/8	7 5/8													5.0
2M	24	30	1 1/8	3/8	1/2	4	3 5/8	2 1/4	9 3/4	10	6 1/4	6 3/4	7 1/8	7 5/8													5.0
3	36	48	1 5/8	5/8	3/4	6	6	4	14 5/8	15	9 3/8	10	10 3/4	11 3/8													12.0
4	36	48	1 5/8	5/8	3/4	6	6	4	14 5/8	15	9 3/8	10	10 3/4	11 3/8													12.0
5	48	60	2 1/4	3/4	1	8	7 1/4	4 1/2	19 1/2	20	12 1/2	13 1/2	14 1/4	15 1/4													20.0

STANDARD SIGN
R4-3

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/25/2011 PLATE NO. R4-3.8

PROJECT NO:

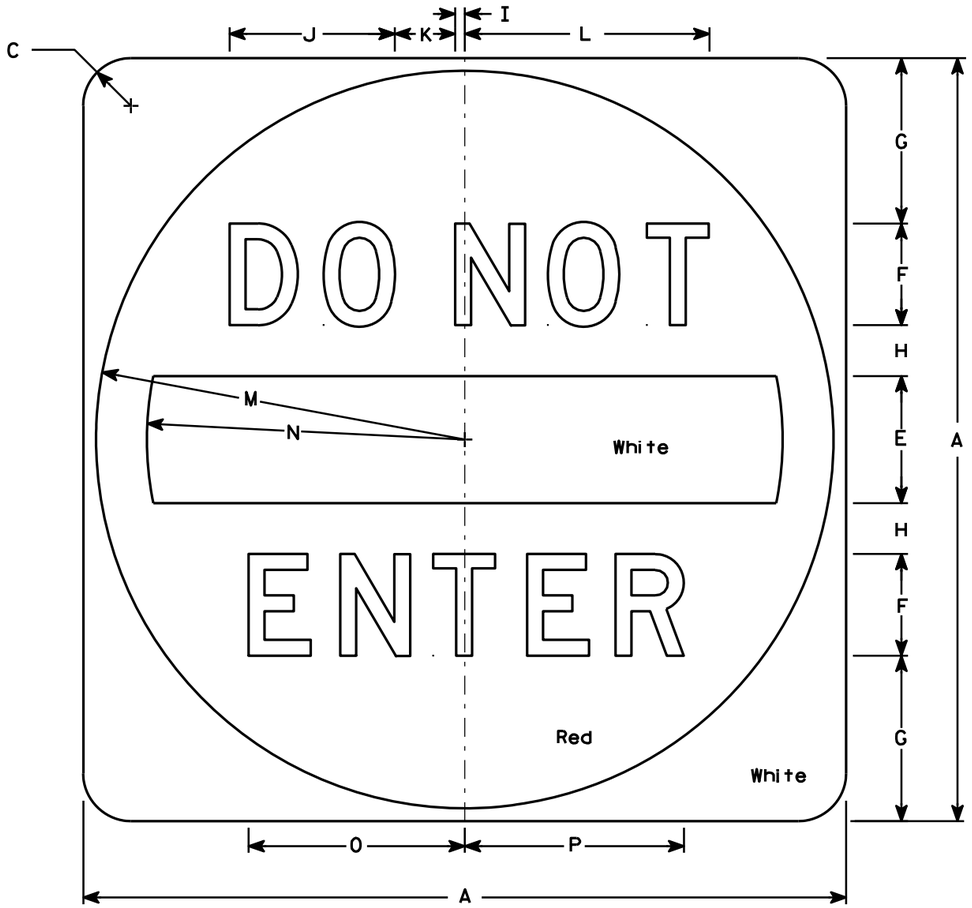
SHEET NO: 258 E

FILE NAME : C:\Users\PROJECTS\tr_stdplate\R43.DGN PLOT DATE : 25-MAR-2011 13:40 PLOT BY : mscsja

WISDOT/CADDS SHEET 42

7

7



R5-1

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - See detail
   Message - White - Type H Reflective
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but when base material is metal, the cornors 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	30		1 7/8		5	4	6 1/2	2	3/8	6 1/2	2 3/8	9 5/8	14 1/2	12 1/2	8 1/2	8 5/8											6.26
2M	36		2 1/4		6	5	7 1/2	2 1/2	1/2	8 1/8	3	12 1/8	17 1/2	15	10 5/8	10 3/4											9.0
3	36		2 1/4		6	5	7 1/2	2 1/2	1/2	8 1/8	3	12 1/8	17 1/2	15	10 5/8	10 3/4											9.0
4	36		2 1/4		6	5	7 1/2	2 1/2	1/2	8 1/8	3	12 1/8	17 1/2	15	10 5/8	10 3/4											9.0
5	48		3		8	6	11	3	5/8	9 3/4	3 5/8	14 1/2	23 1/2	20	12 3/4	12 7/8											16.0

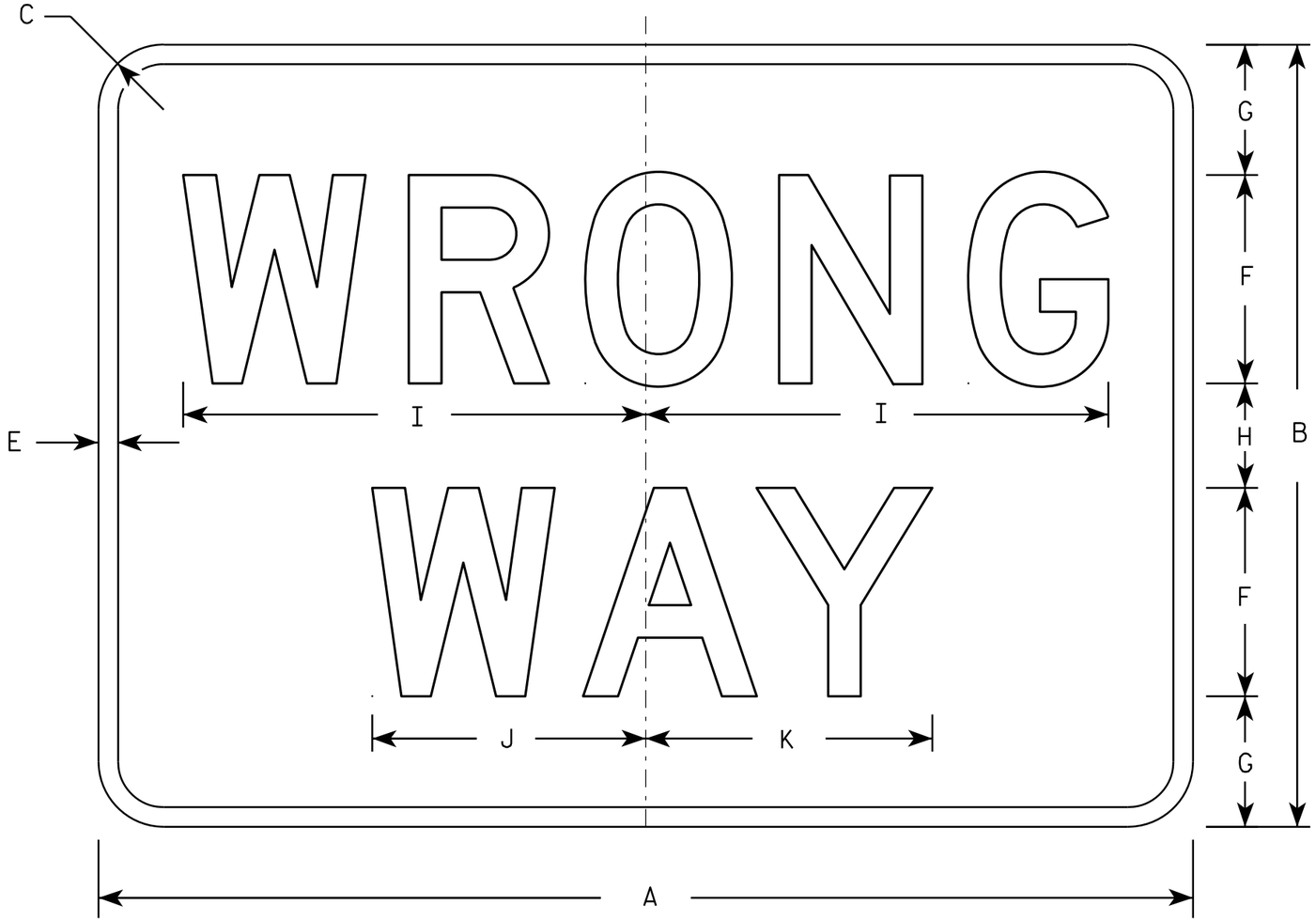
STANDARD SIGN
R5-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/17/10 PLATE NO. R5-1.15

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 259 | E



R5-1A

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 - 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	30	18	1 1/2		1/2	5	3	2	11	6 1/2	6 7/8																3.75
2S	36	24	2		5/8	6	4 1/2	3	13 1/4	7 7/8	8 1/4																6.00
2M	42	30	2 1/2		3/4	8	5	4	17 3/4	10 1/2	11																8.75
3	42	30	2 1/2		3/4	8	5	4	17 3/4	10 1/2	11																8.75
4	42	30	2 1/2		3/4	8	5	4	17 3/4	10 1/2	11																8.75
5	42	30	2 1/2		3/4	8	5	4	17 3/4	10 1/2	11																8.75

STANDARD SIGN
R5-1A

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/17/10 PLATE NO. R5-1A.2

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 260	E



R5-57

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 - Lines 1, 2, and 5 are Series C.
   Lines 3 and 4 are 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																											
2S																											
2M																											
3																											
4	36		1 5/8	5/8	3/4	4	3	2	3 1/2	14 1/4	14 7/8	11	11 1/2	4 3/4	1 3/4	9		1 3/8	10	11	2 1/2	1 3/4	15 1/2	13	13 5/8		9.0
5	36		1 5/8	5/8	3/4	4	3	2	3 1/2	14 1/4	14 7/8	11	11 1/2	4 3/4	1 3/4	9		1 3/8	10	11	2 1/2	1 3/4	15 1/2	13	13 5/8		9.0

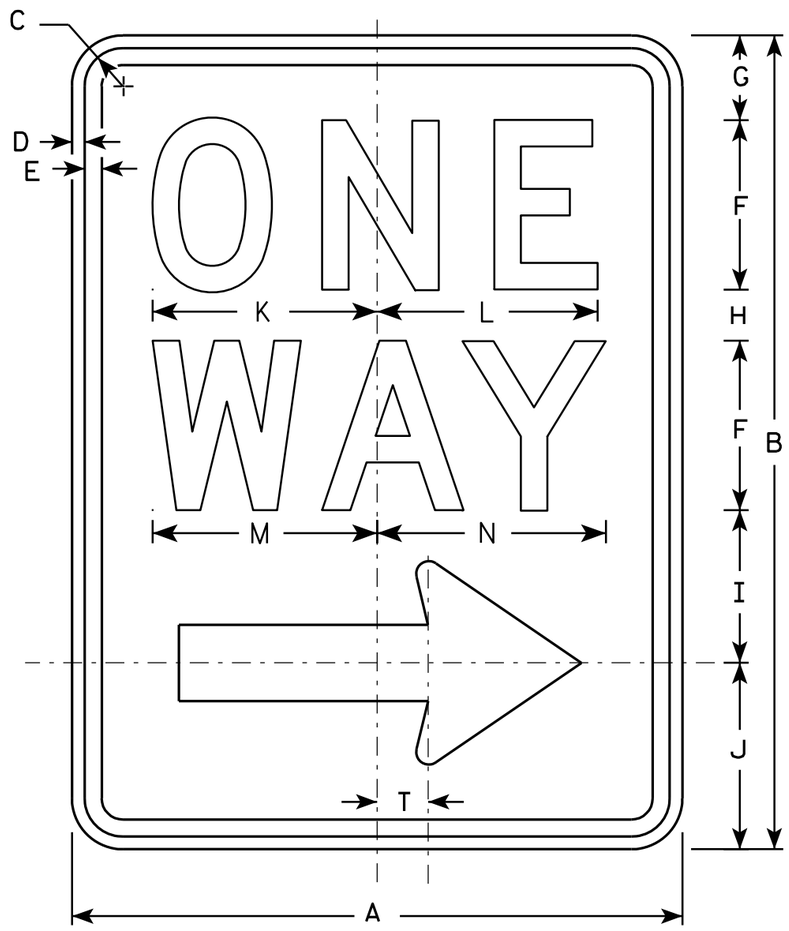
STANDARD SIGN
R5-57

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/29/2011 PLATE NO. R5-57.10

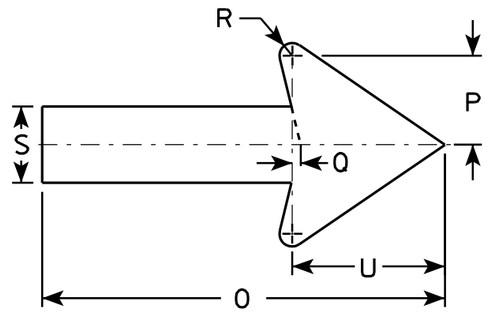
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 261 | E



R6-2R

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. R6-2L same as R6-2R except arrow points to the left.



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
1	18	24	1 1/8	3/8	1/2	5	2 1/2	1 1/2	4 1/2	5 1/2	6 5/8	6 1/2	6 5/8	6 3/4	11 7/8	2 5/8	1/4	3/8	2 1/4	1 1/2	4 1/2					
2S	24	30	1 1/8	3/8	1/2	6	3	2 1/2	5 1/2	7	8 1/8	8 1/8	8 1/2	8 5/8	16	3 1/2	3/8	1/2	3	2	6					
2M	30	36	1 3/8	1/2	5/8	8	2 1/2	2 5/8	6 7/8	8	10 1/2	10 1/2	11 1/4	11 1/4	20	4 3/8	1/2	5/8	3 3/4	2 1/2	7 1/2					
3	36	48	1 7/8	1/2	5/8	10	5 1/4	3 1/4	9	10 1/2	12 3/4	12 3/4	13 1/4	13 1/2	24	5 5/8	1/2	3/4	4 3/4	3	9					
4	36	48	1 7/8	1/2	5/8	10	5 1/4	3 1/4	9	10 1/2	12 3/4	12 3/4	13 1/4	13 1/2	24	5 5/8	1/2	3/4	4 3/4	3	9					
5																										

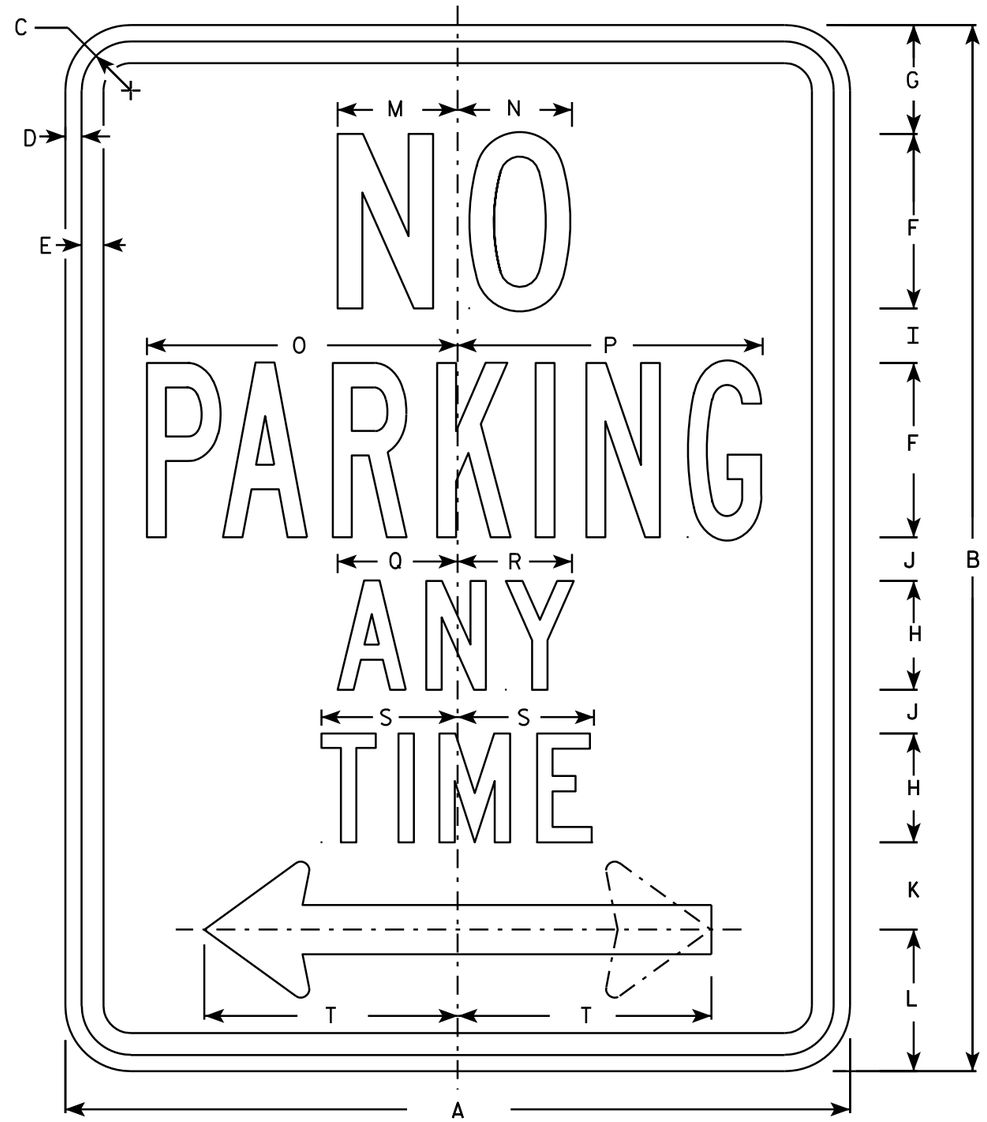
STANDARD SIGN
R6-2 R&L

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/2/10 PLATE NO. R6-2.8

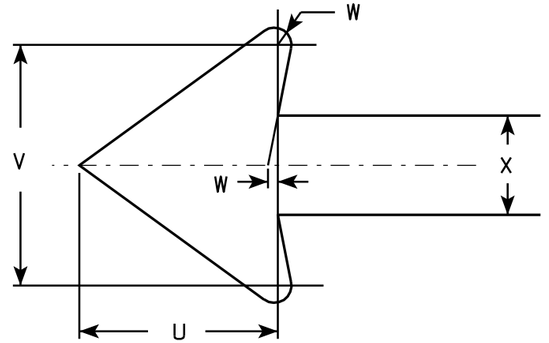
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 262	E



R7-1

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 - Red
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, 3 and 4 are series C, line 2 is series B.
6. R7-1D (double arrow)
   R7-1L (left arrow)
   R7-1R (right arrow)



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	12	18	1 1/8	3/8	3/8	3	1 7/8	2	7/8	5/8	1 1/2	2 1/2	2	2	4 7/8	4 7/8	2 1/4	2 1/8	2 1/2	3 7/8	1 1/2	1 3/4	1/8	3/4			1.5
2S	18	24	1 1/8	3/8	1/2	4	2 1/2	2 1/2	1 1/4	1	2	3 1/4	2 3/4	2 5/8	7 1/8	7	2 3/4	2 5/8	3 1/8	5 7/8	2 1/4	2 5/8	1/4	1 1/8			3.0
2M	24	30	1 1/8	3/8	1/2	5	3	3	2	1 1/4	2 1/2	4	3 1/4	3 3/8	9 1/4	9 1/4	3 1/4	3 1/4	3 3/4	7 3/4	3	3 1/2	1/4	1 1/2			5.0
3	24	30	1 1/8	3/8	1/2	5	3	3	2	1 1/4	2 1/2	4	3 1/4	3 3/8	9 1/4	9 1/4	3 1/4	3 1/4	3 3/4	7 3/4	3	3 1/2	1/4	1 1/2			5.0
4																											
5																											

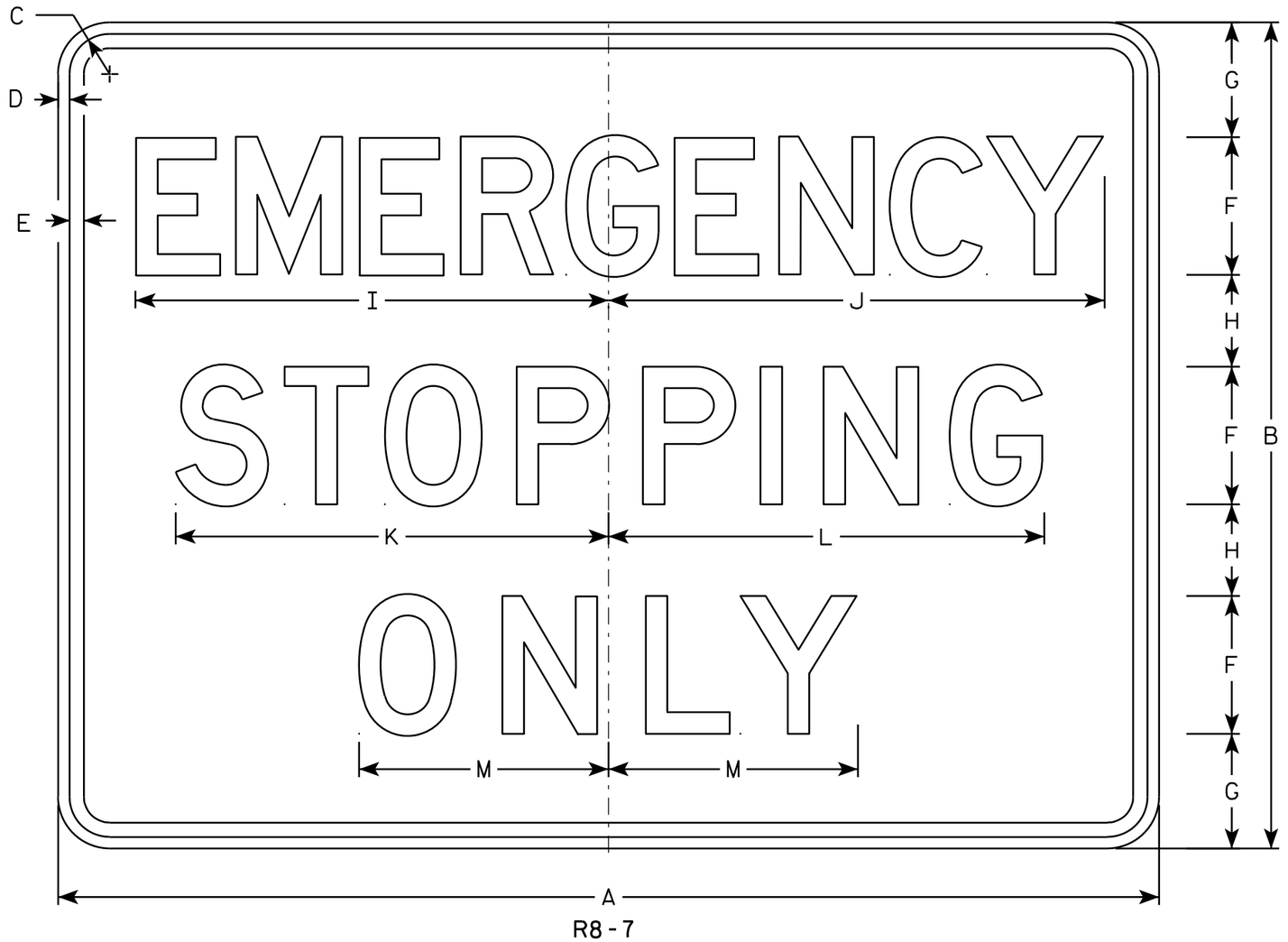
STANDARD SIGN
R7-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/31/2011 PLATE NO. R7-1.9

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 263 | E



R8-7

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																											
2M																											
3																											
4	48	36	1 3/4	1/2	5/8	6	5	4	20 5/8	21 5/8	18 7/8	19	10 7/8														12.0
5	48	36	1 3/4	1/2	5/8	6	5	4	20 5/8	21 5/8	18 7/8	19	10 7/8														12.0

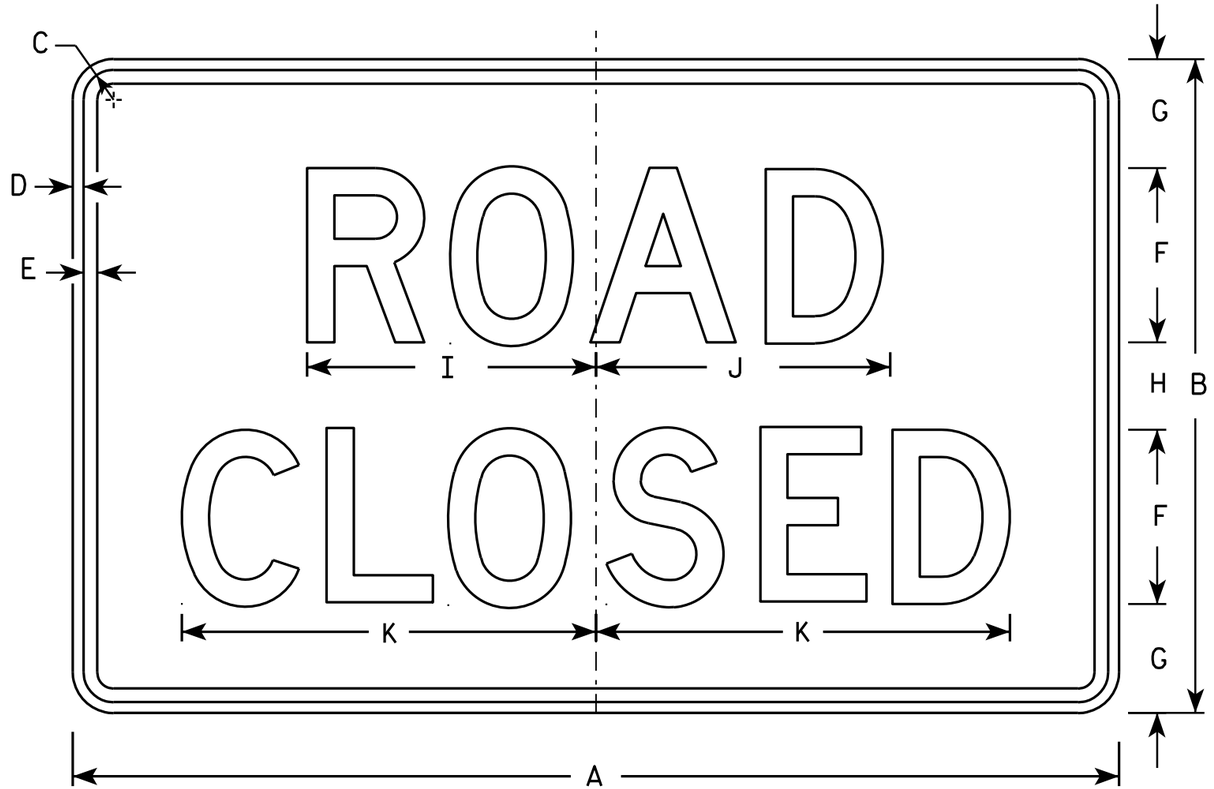
STANDARD SIGN
R8-7

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/31/2011 PLATE NO. R8-7.6

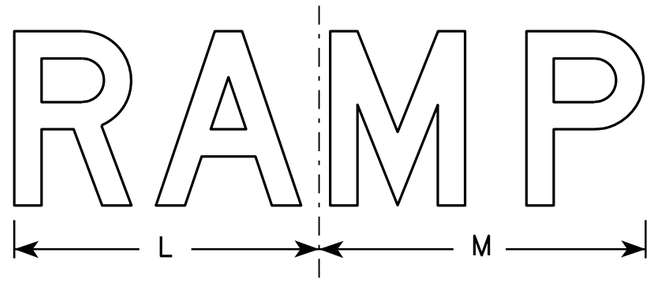
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 264 | E



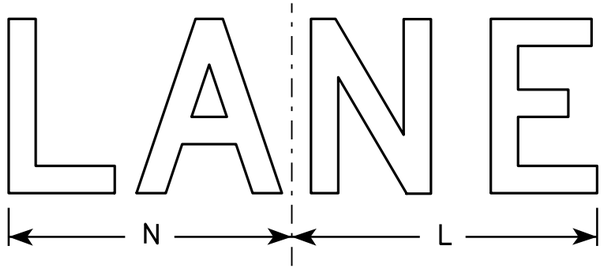
R11-2

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

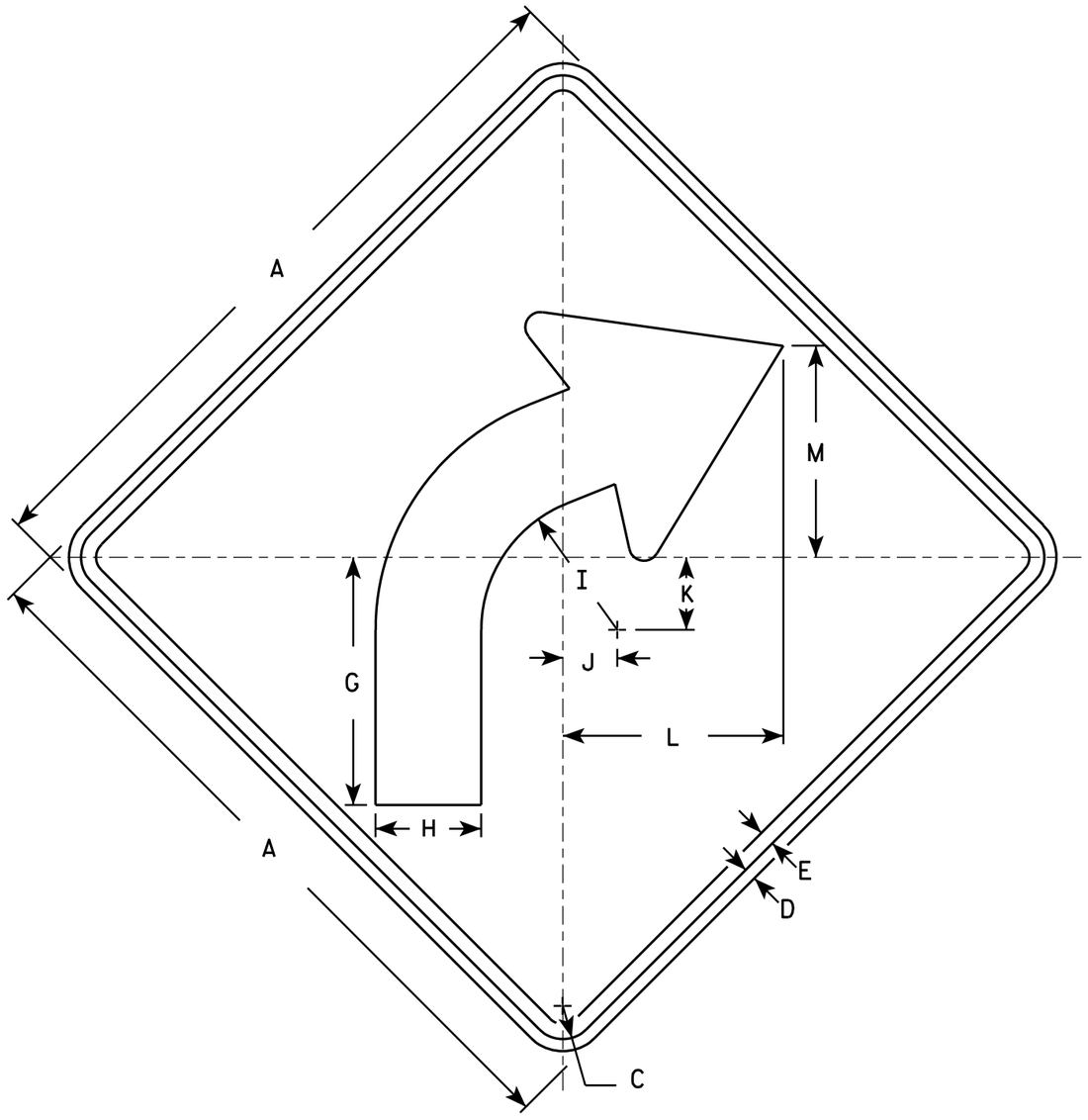
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 4/1/11 PLATE NO. R11-2.10

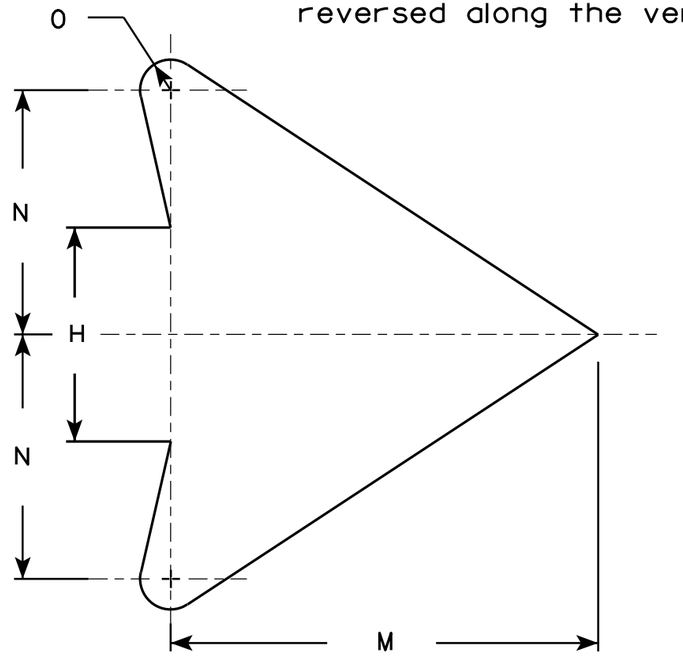
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 265	E

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. 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. W1-2L is the same as W1-2R except the arrow is reversed along the vertical centerline.



W1-2R



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	24		1 1/8	3/8	1/2		8 1/4	3 1/2	4 1/2	1 3/4	2 3/8	7 1/4	7	4	1/2												4.0
2S	30		1 3/8	1/2	5/8		10 1/4	4 3/8	5 5/8	2 1/4	3	9 1/8	8 3/4	5	5/8												6.25
2M	36		1 5/8	5/8	3/4		12 3/8	5 1/4	6 3/4	2 5/8	3 1/2	10 7/8	10 1/2	6	3/4												9.0
3	36		1 5/8	5/8	3/4		12 3/8	5 1/4	6 3/4	2 5/8	3 1/2	10 7/8	10 1/2	6	3/4												9.0
4	36		1 5/8	5/8	3/4		12 3/8	5 1/4	6 3/4	2 5/8	3 1/2	10 7/8	10 1/2	6	3/4												9.0
5	48		2 1/4	3/4	1		16 1/2	7	9	3 1/2	4 5/8	14 1/2	14	8	1												16.0

STANDARD SIGN
W1-2

WISCONSIN DEPT OF TRANSPORTATION

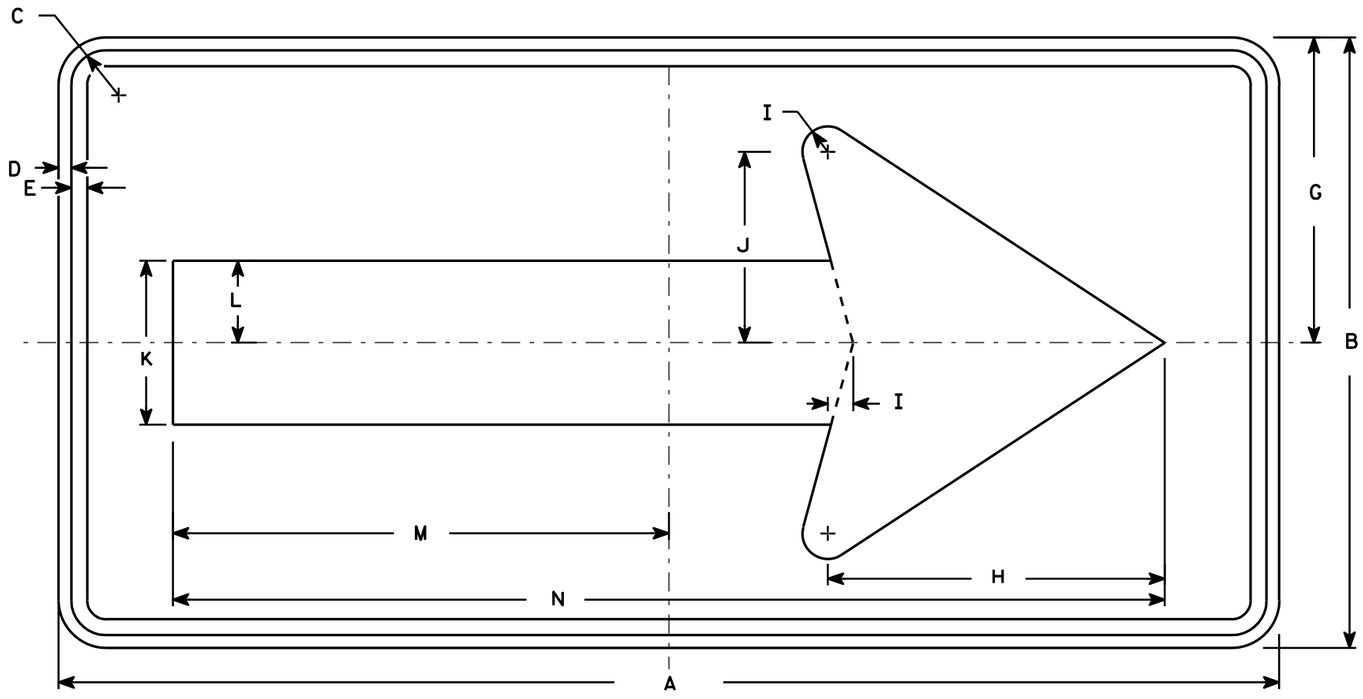
APPROVED Matthew R Rauch for State Traffic Engineer

DATE 5/15/12 PLATE NO. W1-2.10

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 266	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. 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.



W1-6

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	36	18	1 1/8	3/8	3/8		9	10	3/4	5 5/8	4 3/4	2 3/8	14 5/8	29 1/4													4.5
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	96	48	2 1/4	3/4	1		24	26 1/2	2	15	13	6 1/2	39	78													32.0

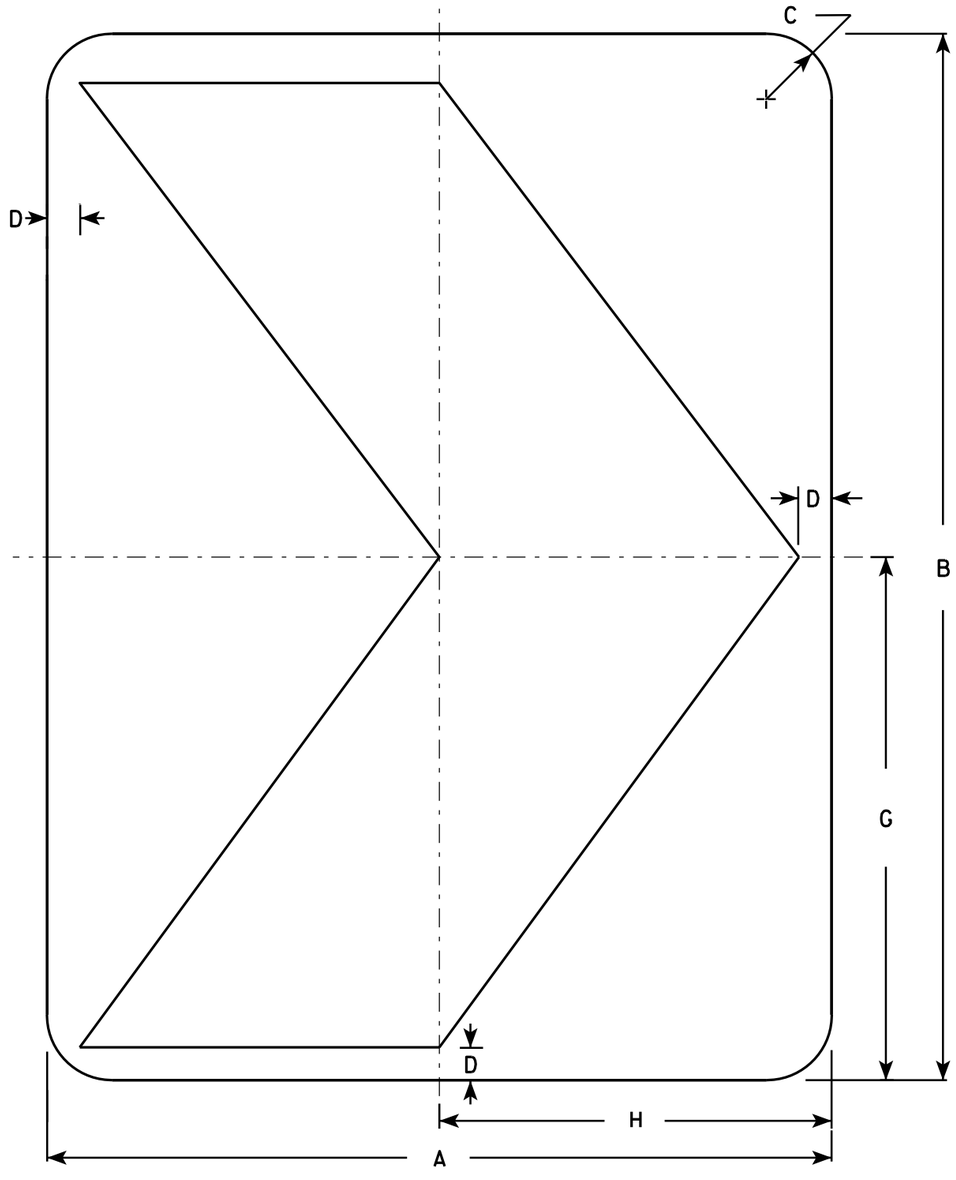
STANDARD SIGN
W1-6

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 6/7/10 PLATE NO. W1-6.8

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 267



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. 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.

W1-8

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	12	18	1 ½	½			9	6																			1.5
2S	18	24	1 ½	¾			12	9																			3.0
2M	18	24	1 ½	¾			12	9																			3.0
3	24	30	1 ½	1			15	12																			5.0
4	30	36	1 ⅞	1 ¼			18	15																			7.5
5	36	48	2 ¼	1 ½			24	18																			12.0

STANDARD SIGN
W1-8

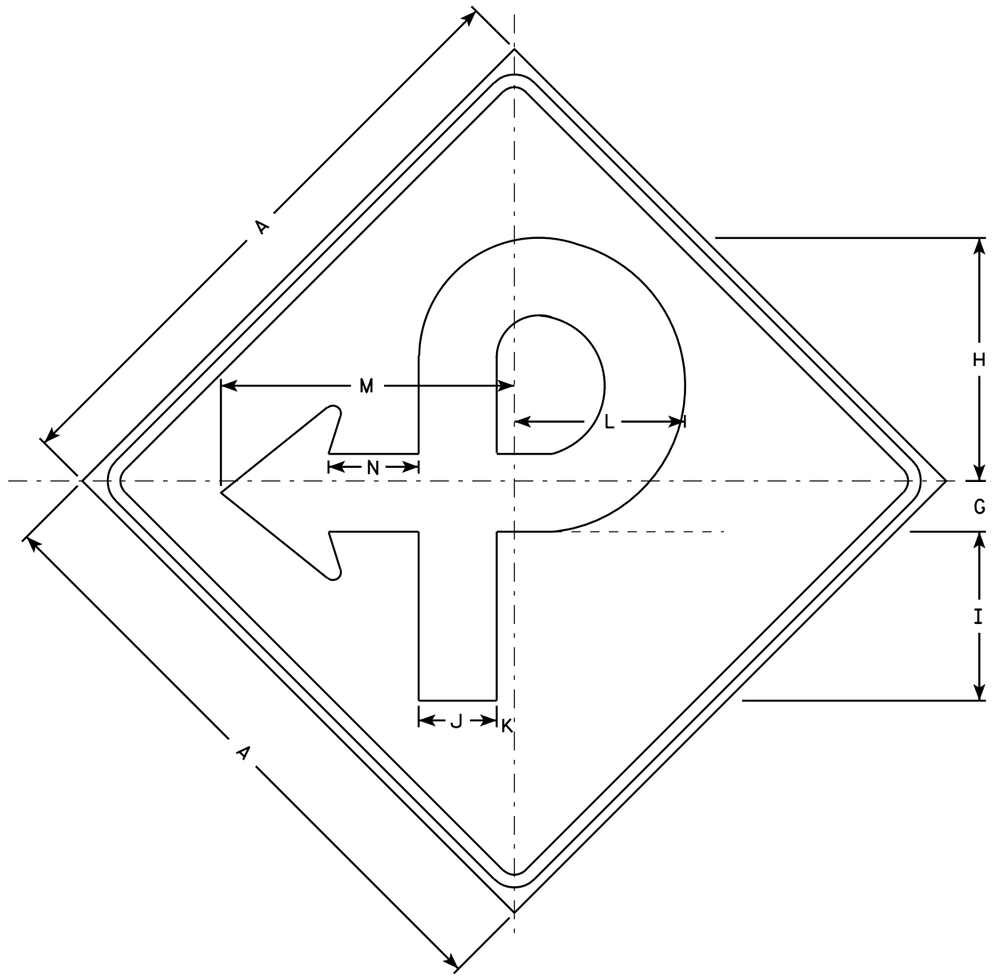
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 6/7/10 PLATE NO. W1-8.6

PROJECT NO:

SHEET NO: 268 E



W1-60

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. 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	36		1 5/8	5/8	3/4		3	14 3/8	10	4 5/8	1	10	17 1/4	5 1/4													9.0
2M	36		1 5/8	5/8	3/4		3	14 3/8	10	4 5/8	1	10	17 1/4	5 1/4													9.0
3	36		1 5/8	5/8	3/4		3	14 3/8	10	4 5/8	1	10	17 1/4	5 1/4													9.0
4	48		2 1/4	3/4	1		4	19 1/8	13 1/4	6 1/8	1 3/8	13 3/8	23	7 1/8													16.0
5	48		2 1/4	3/4	1		4	19 1/8	13 1/4	6 1/8	1 3/8	13 3/8	23	7 1/8													16.0

STANDARD SIGN
W1-60

WISCONSIN DEPT OF TRANSPORTATION

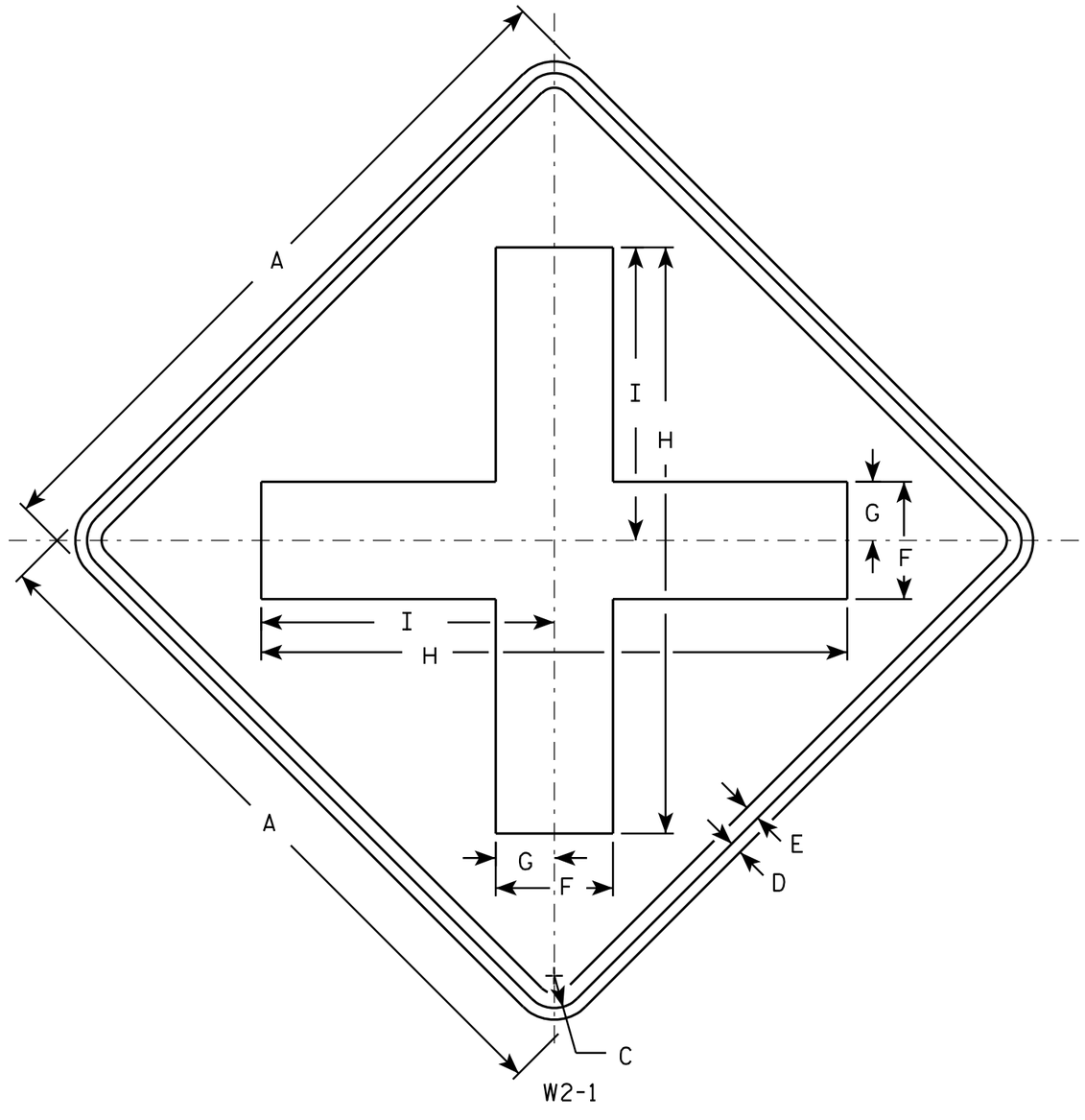
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/18/12 PLATE NO. W1-60.3

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 269 | E

7

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\W160.DGN PLOT DATE : 18-MAY-2012 13:20 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 11.908552:1.000000
WISDOT/CADDS SHEET 42



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. 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	20	10																		4.0
2S	30		1 3/8	1/2	5/8	5	2 1/2	25	12 1/2																		6.25
2M	30		1 3/8	1/2	5/8	5	2 1/2	25	12 1/2																		6.25
3	36		1 5/8	5/8	3/4	6	3	30	15																		9.0
4	48		2 1/4	3/4	1	8	4	40	20																		16.0
5																											

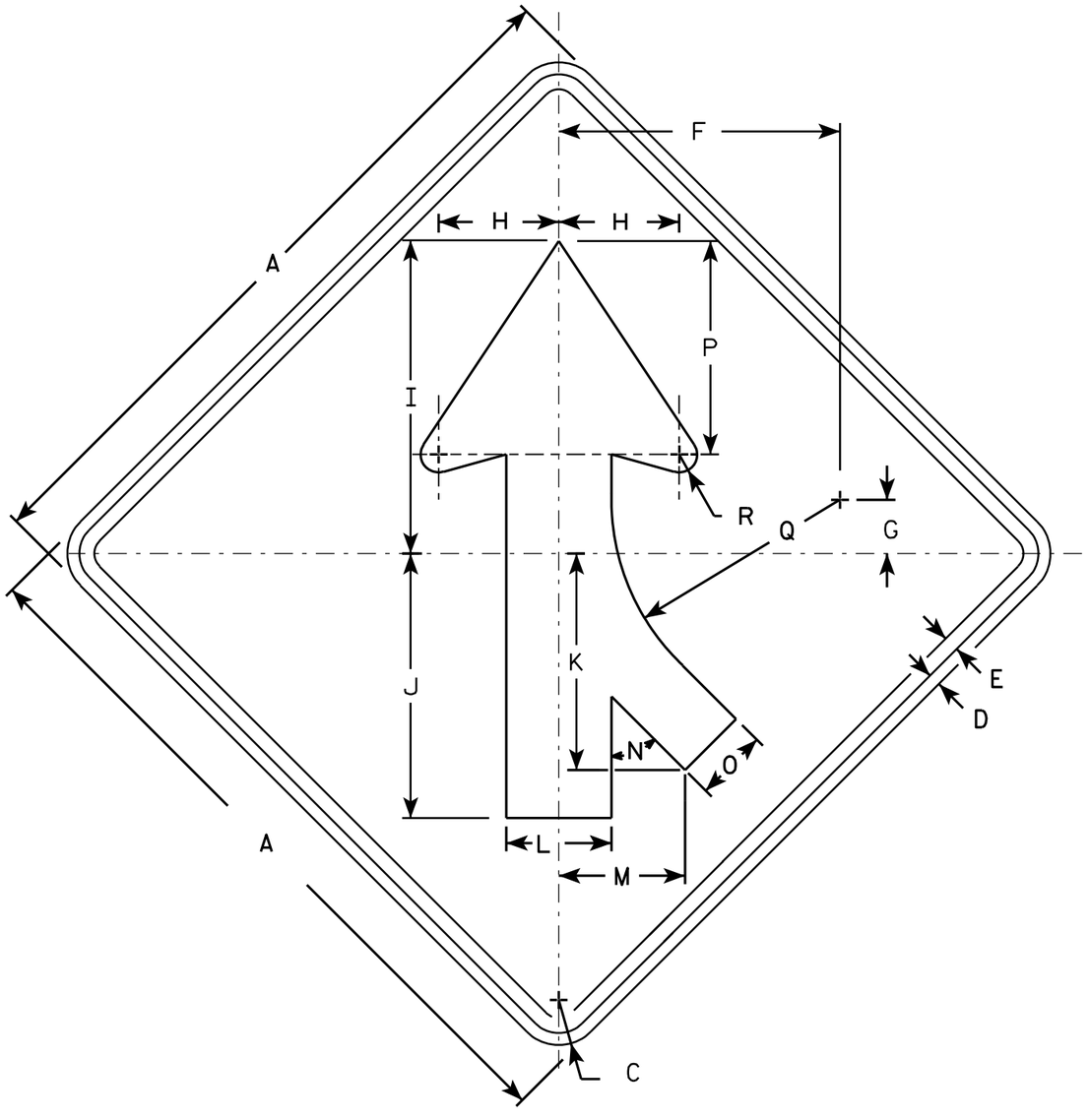
STANDARD SIGN
W2-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/29/12 PLATE NO. W2-1.9

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 270	E



W4-1 R

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. 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	30		1 3/8	1/2	5/8	11 5/8	2 1/2	5	13	11	9	4 3/8	5 1/4	45°	3	8 7/8	9 1/2	3/4									6.25
2S	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
2M	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
3	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
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

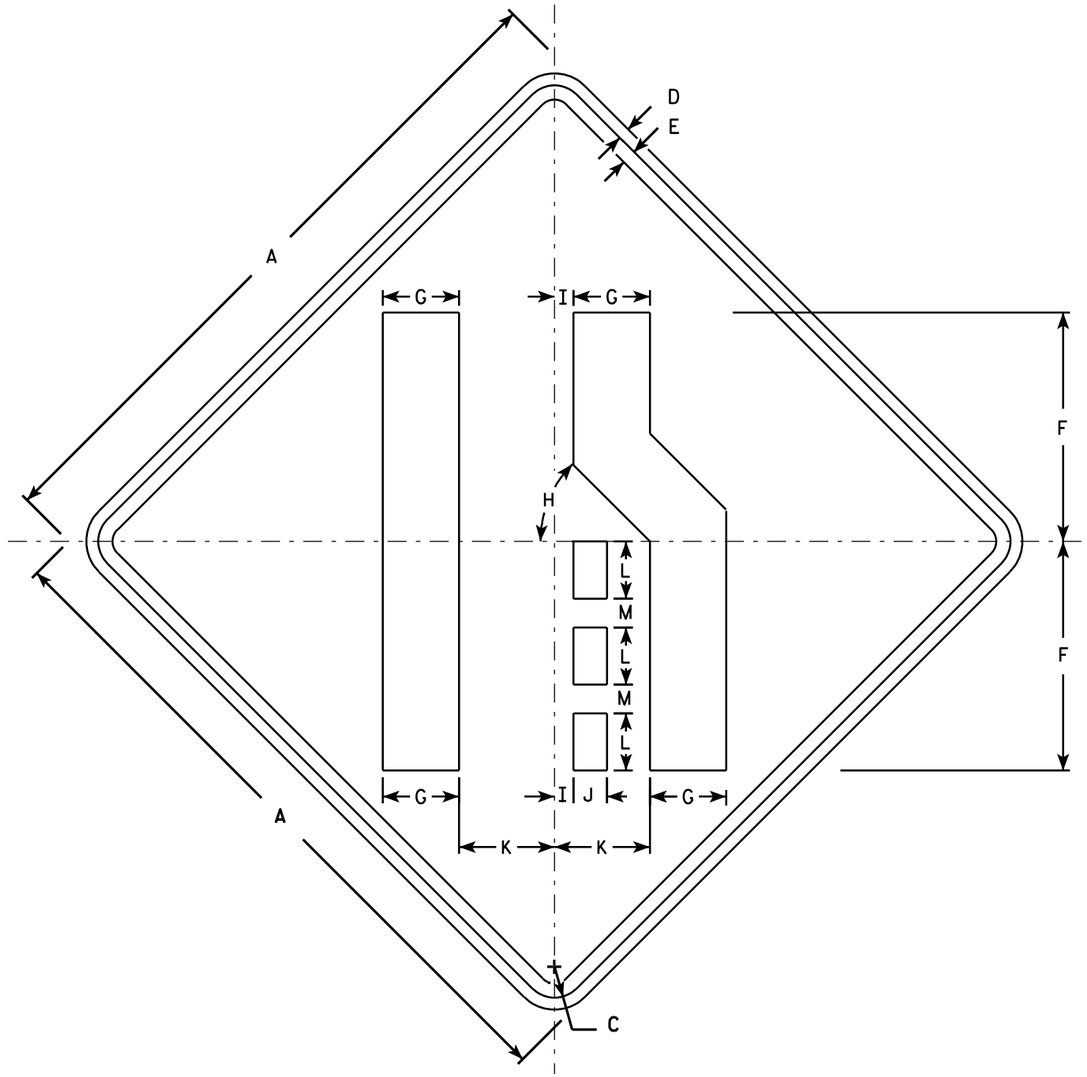
STANDARD SIGN
W4-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 03/12/13 PLATE NO. W4-1.14

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 271	E



W4-2R

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow
   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. W4-2L is the same as W4-2R 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	30		1 3/8	1/2	5/8	10	3 3/8	45°	7/8	1 1/2	4 1/4	2 1/2	1 1/4														6.25
2S	36		1 5/8	5/8	3/4	12	4	45°	1	1 3/4	5	3	1 1/2														9.0
2M	36		1 5/8	5/8	3/4	12	4	45°	1	1 3/4	5	3	1 1/2														9.0
3	36		1 5/8	5/8	3/4	12	4	45°	1	1 3/4	5	3	1 1/2														9.0
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
W4-2

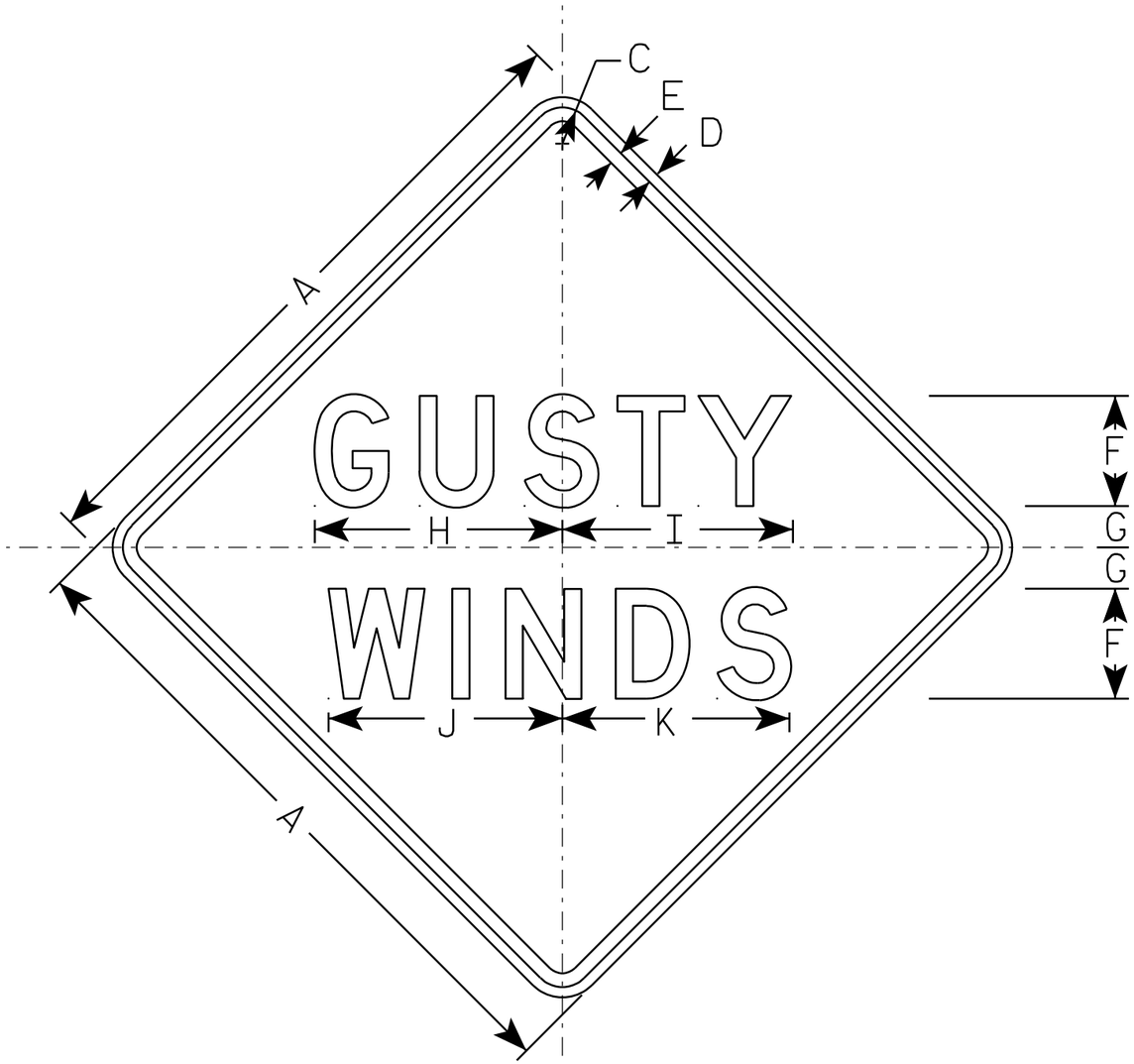
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/12/13 PLATE NO. W4-2.14

PROJECT NO:

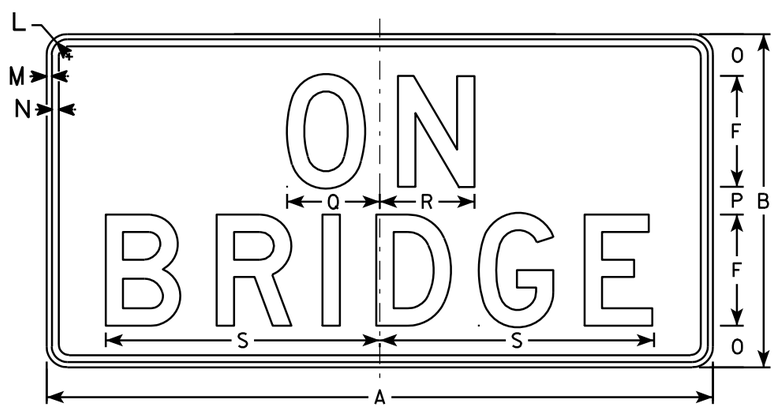
SHEET NO: 272 E



W8-72

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 - 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.



W8-72P

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	W8-72 Area sq. ft.	W8-72P Area sq. ft.
1																										
2S	48	24	2 1/4	3/4	1	8	3	18	16 3/4	17	16 1/2	1 1/8	3/8	1/2	3	2	6 3/4	6 7/8	19 3/4						16	8
2M	48	24	2 1/4	3/4	1	8	3	18	16 3/4	17	16 1/2	1 1/8	3/8	1/2	3	2	6 3/4	6 7/8	19 3/4						16	8
3																										
4																										
5																										

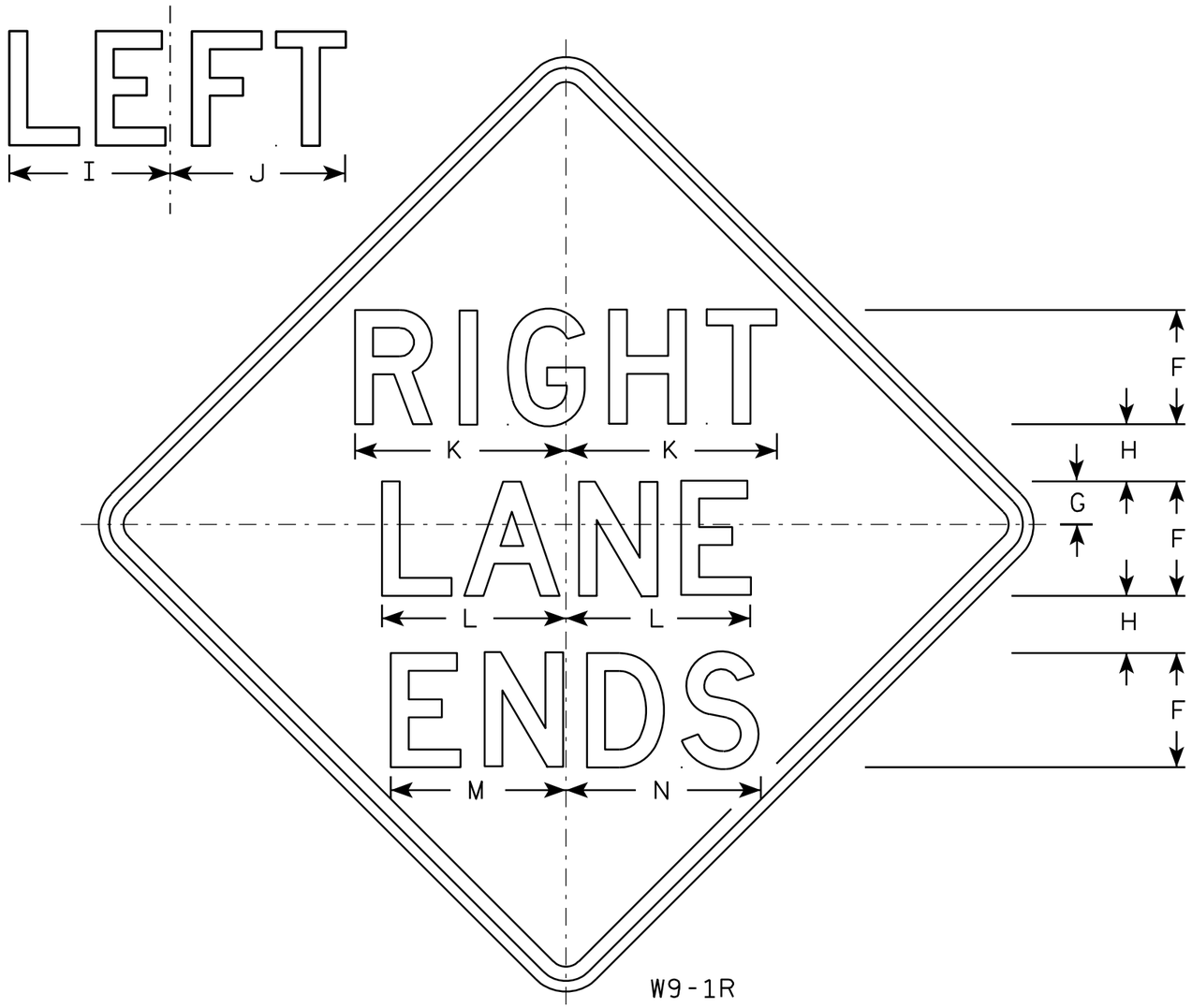
STANDARD SIGN
W8-72

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 03/18/13 PLATE NO. W8-72.3

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 273	E



W9-1R

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow
   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. W9-1L same as W9-1R except the word Left replaces 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	30		1 3/8	1/2	5/8	5	1 1/2	2 1/2	7 1/8	7 5/8	9 1/4	8 1/8	7 5/8	8 5/8													6.25
2S	36		1 5/8	5/8	3/4	6	2	3	8 1/2	9 1/8	11	9 3/4	9	10 3/8													9.0
2M	36		1 5/8	5/8	3/4	6	2	3	8 1/2	9 1/8	11	9 3/4	9	10 3/8													9.0
3	36		1 5/8	5/8	3/4	6	2	3	8 1/2	9 1/8	11	9 3/4	9	10 3/8													9.0
4	36		1 5/8	5/8	3/4	6	2	3	8 1/2	9 1/8	11	9 3/4	9	10 3/8													9.0
5	48		2 1/4	3/4	1	8	3	4	11 1/4	12 1/4	14 3/4	12 7/8	12 1/4	13 5/8													16.0

STANDARD SIGN
W9-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch for State Traffic Engineer

DATE 03/18/13 PLATE NO. W9-1.8

PROJECT NO:

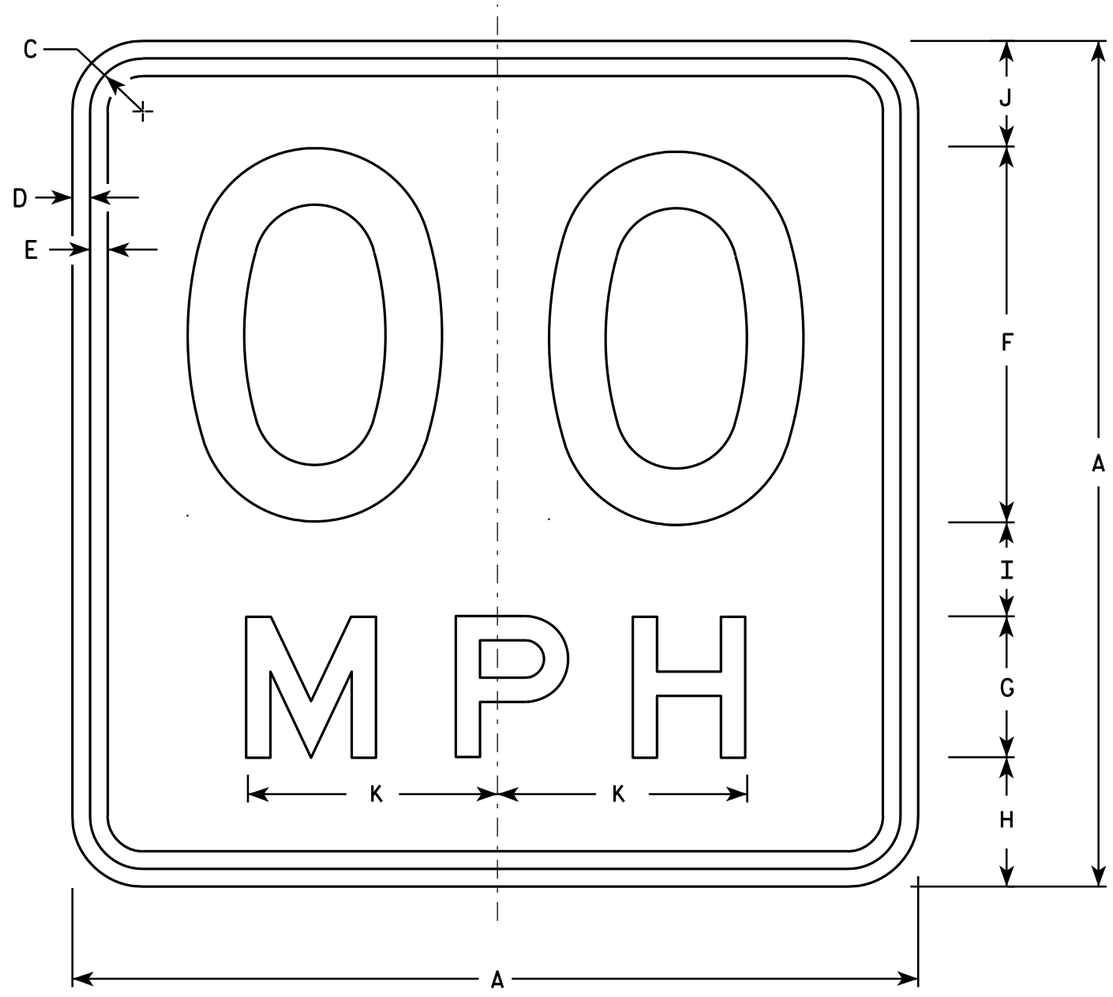
SHEET NO: 274 E

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\W91.DGN PLOT DATE : 18-MAR-2013 11:42 PLOT BY : mscsja

WISDOT/CADDS SHEET 42

7

7



W13-1

* For 30" x 30" Warning Signs, use 18" x 18" W13-1 signs.
For 36" x 36" Warning Signs, use 24" x 24" W13-1 signs.

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 6
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 space about centerline to achieve proper balance.
6. Line 1 is Series D
   Line 2 is Series E

	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		1 1/8	3/8	3/8	8	3	2 3/4	2	2 1/4	5 3/8																2.25
*	2S	18		1 1/8	3/8	3/8	8	3	2 3/4	2	2 1/4	5 3/8																2.25
*	2M	18		1 1/8	3/8	3/8	8	3	2 3/4	2	2 1/4	5 3/8																2.25
	3	24		1 1/8	3/8	1/2	10	4	4	2 3/4	3 1/4	6 5/8																4.00
	4	36		1 5/8	5/8	3/4	16	6	5 1/2	4	4 1/2	10 5/8																9.00
	5	36		1 5/8	5/8	3/4	16	6	5 1/2	4	4 1/2	10 5/8																9.00

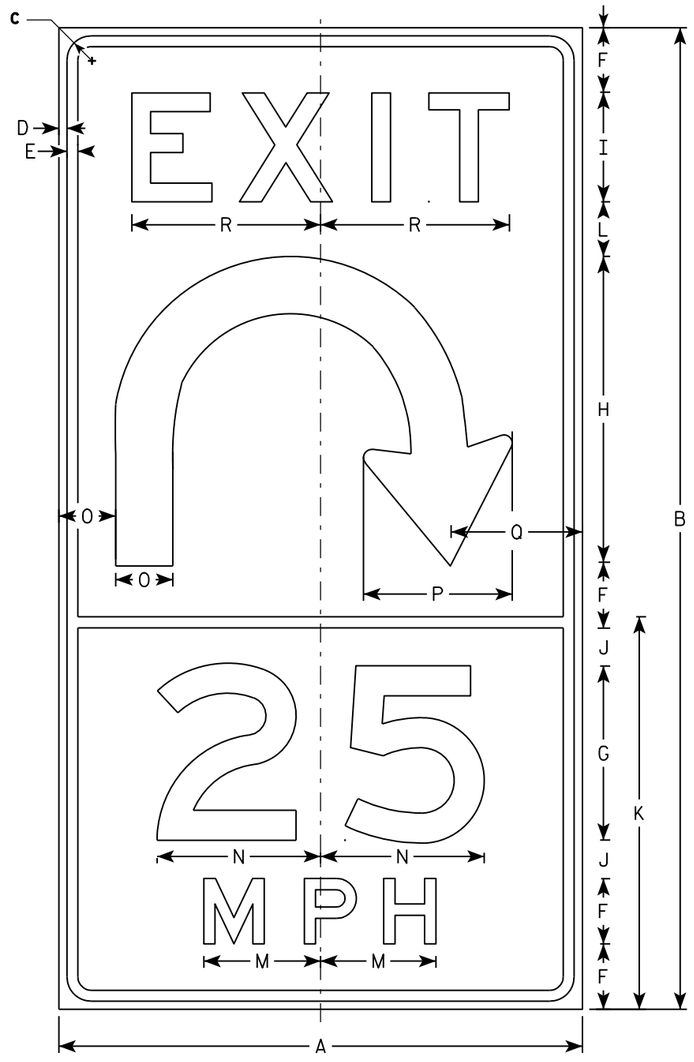
STANDARD SIGN
W13-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
For State Traffic Engineer

DATE 5/31/12 PLATE NO. W13-1.16

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 275 | E



W13-2A

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow
   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.

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	90	2 1/4	3/4	1	6	16	28	10	3 1/2	36	5	10 3/4	15	5 1/4	13 5/8	12	17 3/8									30
2M	48	90	2 1/4	3/4	1	6	16	28	10	3 1/2	36	5	10 3/4	15	5 1/4	13 5/8	12	17 3/8									30
3																											
4																											
5																											

STANDARD SIGN
W13-2A

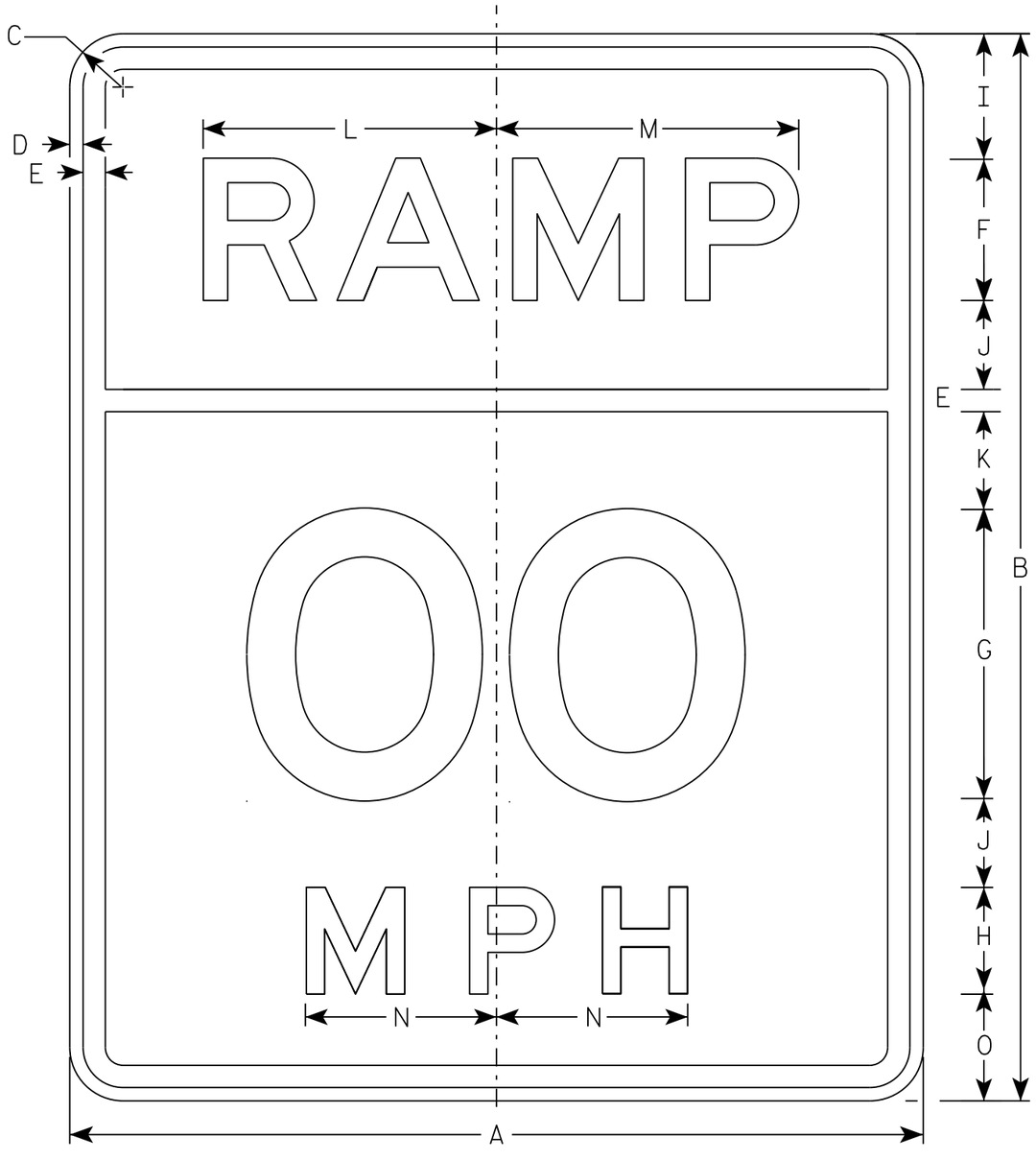
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/31/12 PLATE NO. W13-2A.3

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 276 | E

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\W132A.DGN PLOT DATE : 31-MAY-2012 11:45 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 13.893311:1.000000



W13-3

NOTES

1. Sign is Type II - Type F Reflective
2. Color:
   Background - Yellow
   Message - Black
3. Message Series - E
4. Substitute appropriate numerals and optically space about centerline 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	24	30	1 1/8	3/8	5/8	4	8	3	3 1/2	2 1/2	2 7/8	8 1/4	8 1/2	5 3/8	3												5.0
2S	24	30	1 1/8	3/8	5/8	4	8	3	3 1/2	2 1/2	2 7/8	8 1/4	8 1/2	5 3/8	3												5.0
2M	24	30	1 1/8	3/8	5/8	4	8	3	3 1/2	2 1/2	2 7/8	8 1/4	8 1/2	5 3/8	3												5.0
3	36	48	1 5/8	5/8	7/8	6	12	4	6	4 1/8	5 1/8	13 1/2	13 5/8	7 1/8	6												12.0
4	36	48	1 5/8	5/8	7/8	6	12	4	6	4 1/8	5 1/8	13 1/2	13 5/8	7 1/8	6												12.0
5	48	60	2 1/4	3/4	1 1/4	8	16	6	7	5	5 3/4	16 1/2	17	10 5/8	6												20.0

STANDARD SIGN
W13-3

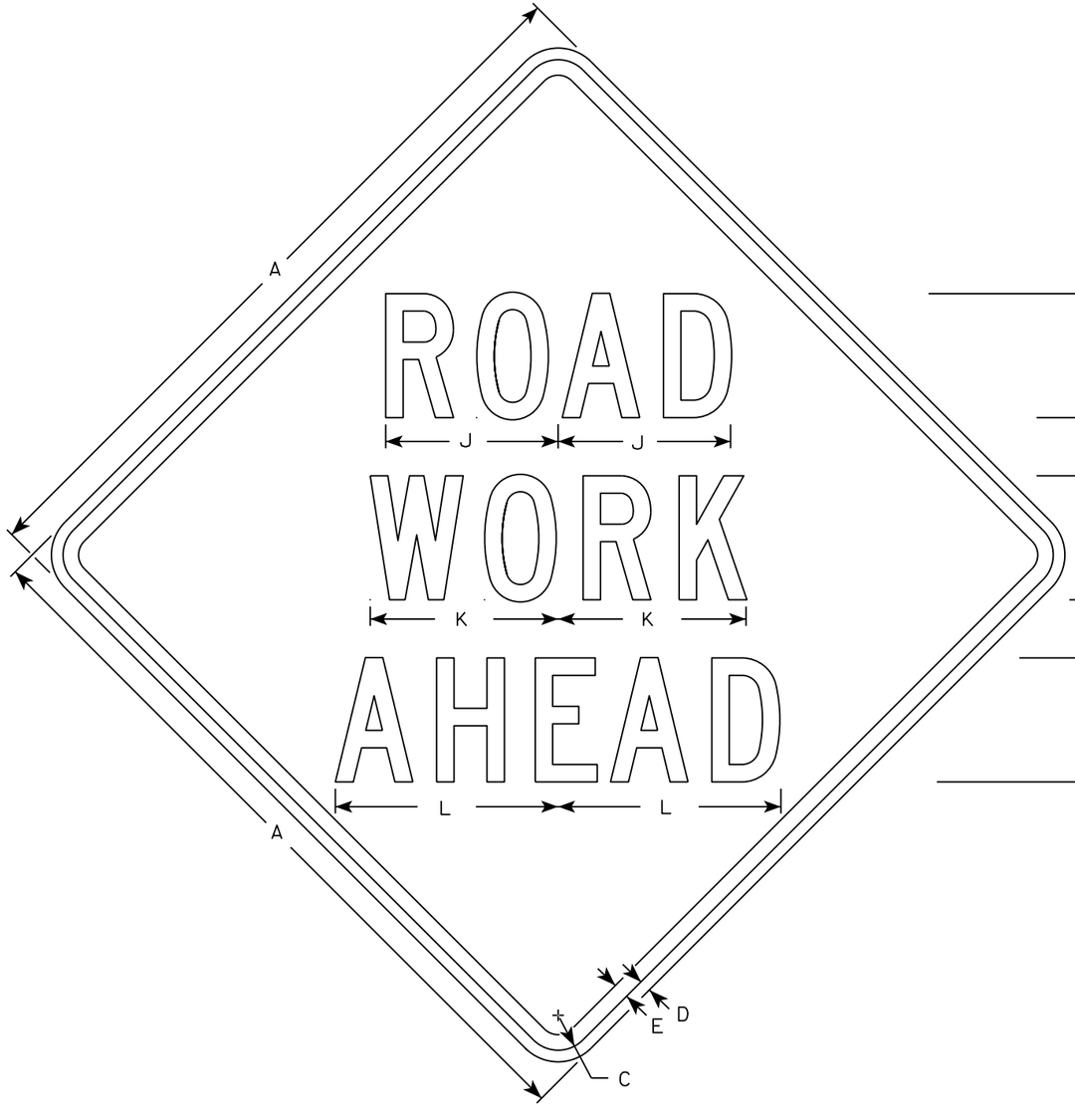
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
For State Traffic Engineer

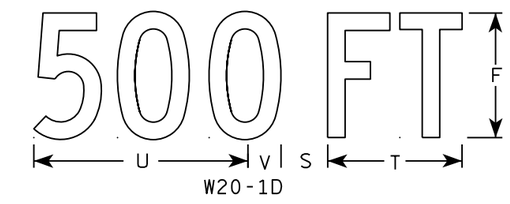
DATE 8/1/16 PLATE NO 277 W13-3.10

PROJECT NO: | HWY: | COUNTY: | SHEET NO: E

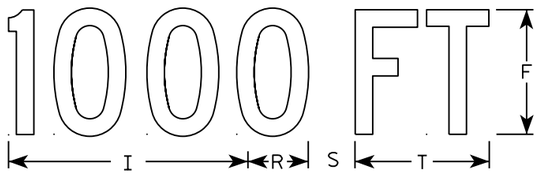
FILE NAME : C:\CAEfiles\Projects\tr_stdplate\W133.DGN PLOT DATE : 01-AUG-2016 09:57 PLOT BY : $$ platuser $$ PLOT NAME : PLOT SCALE : 4.086268:1.000000



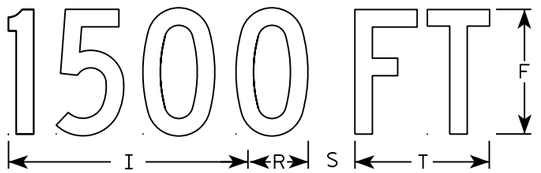
W20-1A



W20-1D



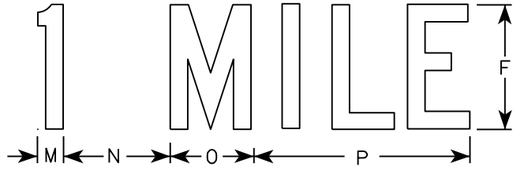
W20-1C



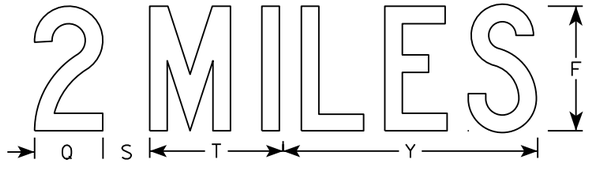
W20-1B



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

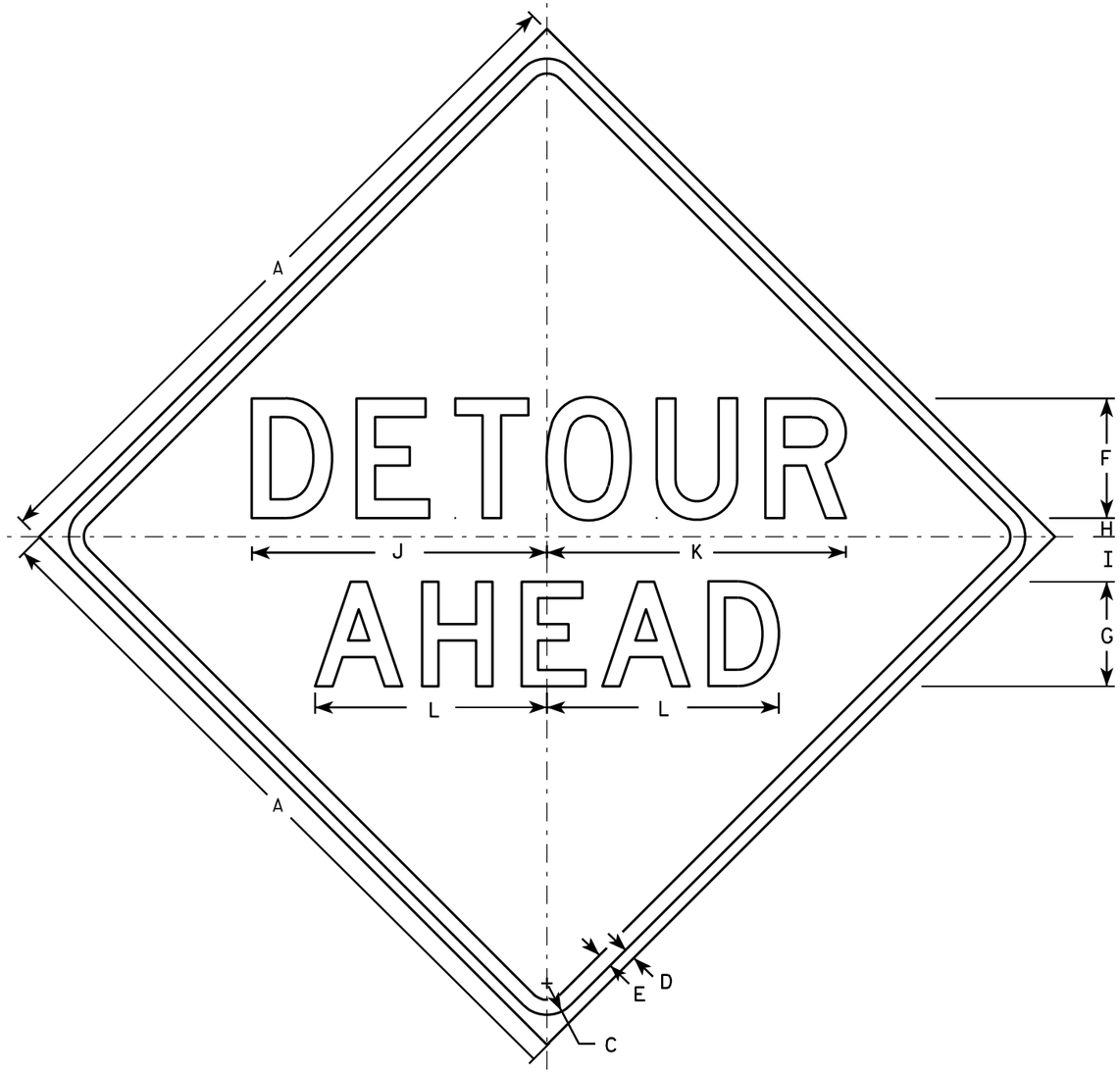
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/07/15 PLATE NO. W20-1.10

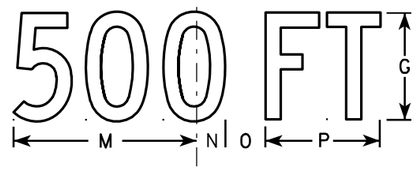
PROJECT NO:

SHEET NO: E

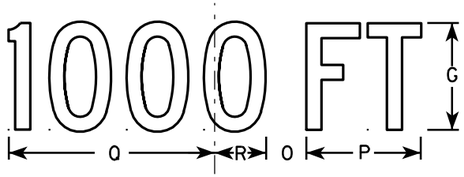
FILE NAME : C:\CAEfiles\Projects\tr_stdplate\W201.DGN PLOT DATE : 01-DEC-2015 18:24 PLOT BY : $$ plotuser $$



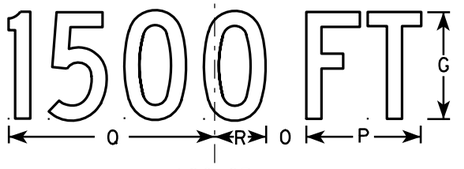
W20-2A



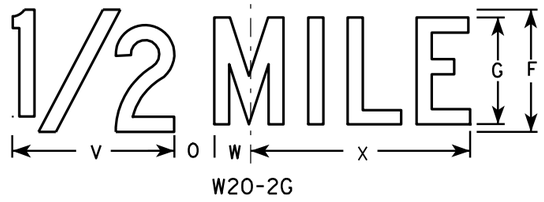
W20-2D



W20-2C



W20-2B



W20-2G



W20-2F

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. Line 1 is Series D.
   Line 2 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	6	5	1	2 1/4	14 3/4	15	11 5/8	9	1 3/8	1 7/8	5 5/8	10 1/8	2 1/2	1 1/8	4 1/2	3 1/2	8	1 3/4	10 3/4			9.0
2S	48		2 1/4	3/4	1	8	7	1 1/4	3	19 3/4	20	15 1/2	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	10 5/8	2 3/8	14 3/8			16.0
2M	48		2 1/4	3/4	1	8	7	1 1/4	3	19 3/4	20	15 1/2	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	10 5/8	2 3/8	14 3/8			16.0
3	48		2 1/4	3/4	1	8	7	1 1/4	3	19 3/4	20	15 1/2	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	10 5/8	2 3/8	14 3/8			16.0
4	48		2 1/4	3/4	1	8	7	1 1/4	3	19 3/4	20	15 1/2	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	10 5/8	2 3/8	14 3/8			16.0
5	48		2 1/4	3/4	1	8	7	1 1/4	3	19 3/4	20	15 1/2	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	10 5/8	2 3/8	14 3/8			16.0

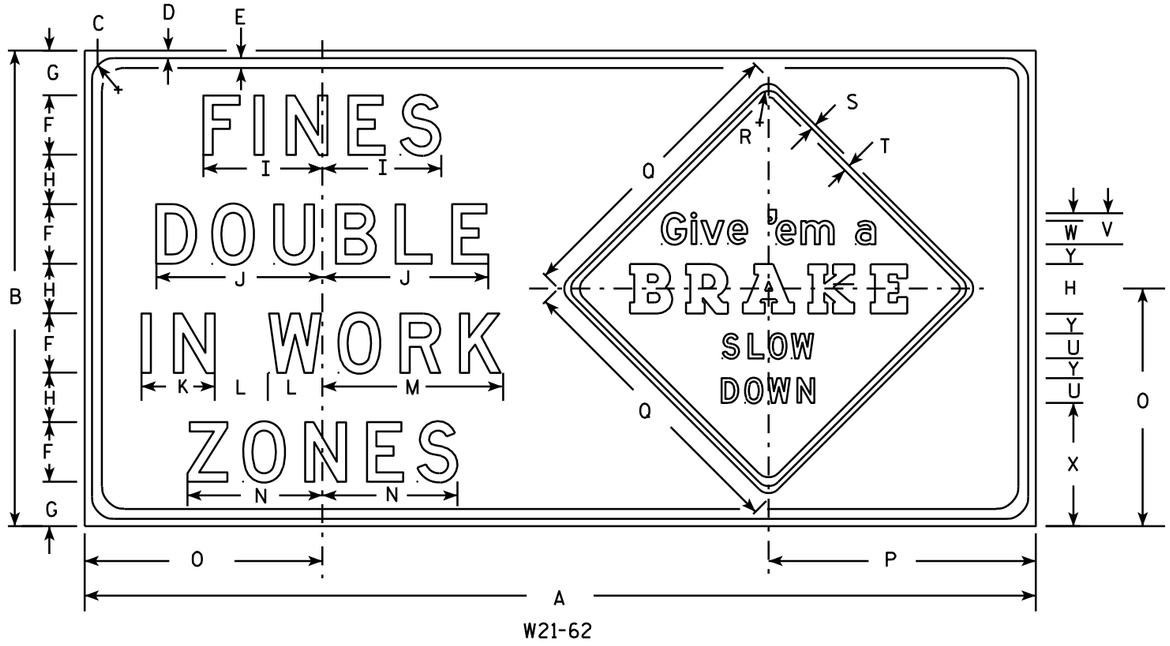
STANDARD SIGN
W20-2A,B,C,D,F & G

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/18/11 PLATE NO. W20-2.6

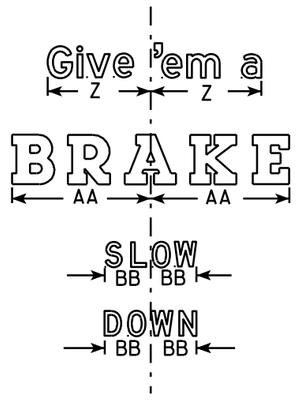
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 279	E



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

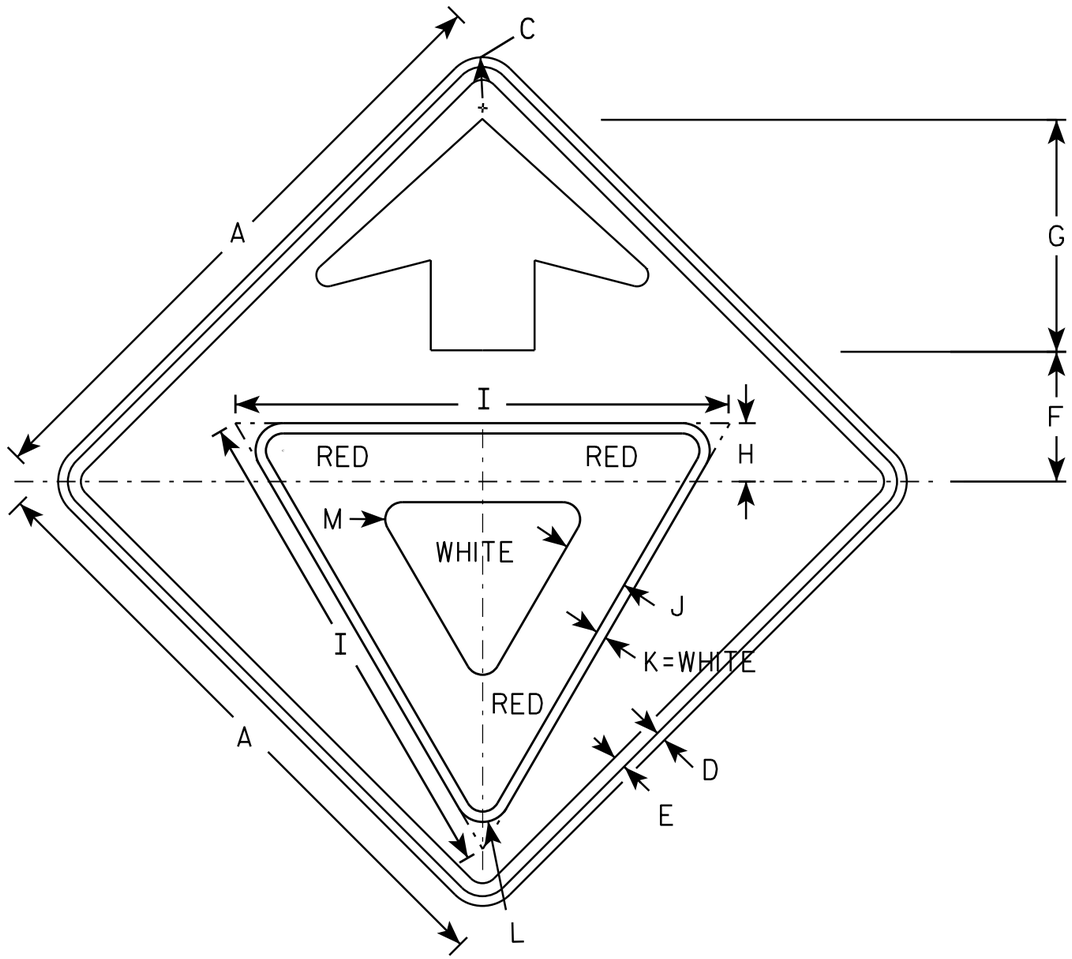
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/21/11 PLATE NO. W21-62.5

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 280 | E

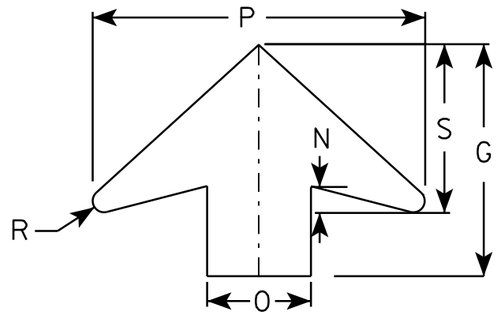
7



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

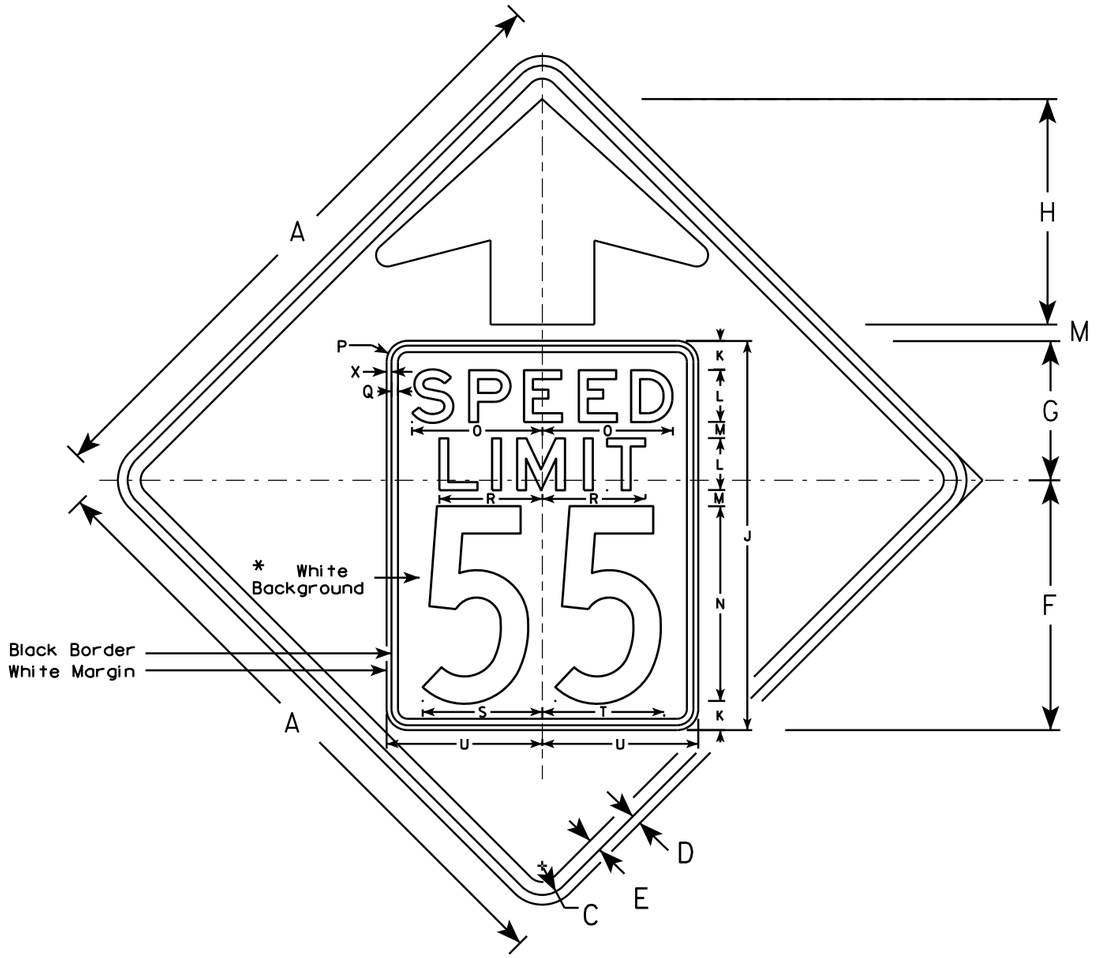
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/20/13 PLATE W03-2.1

PROJECT NO:

SHEET NO: E

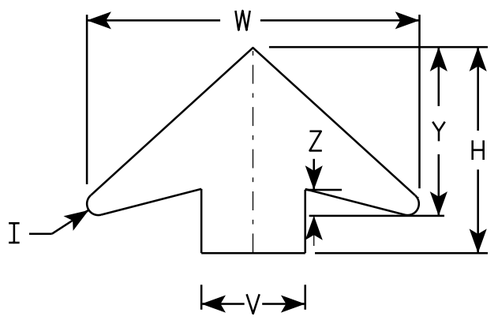


W03-5

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

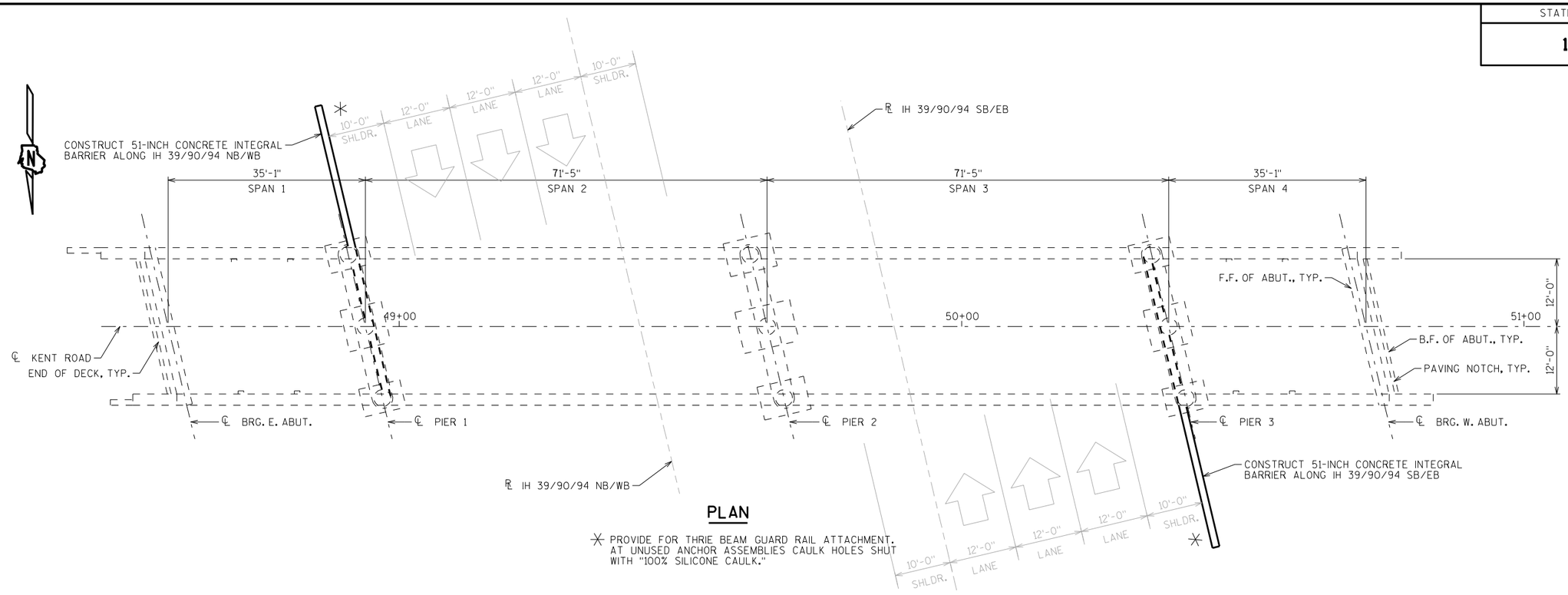
PROJECT NO: SHEET NO: E

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\W035.DGN PLOT DATE : 20-NOV-2013 11:32 PLOT BY : mscsja

WISDOT/CADDS SHEET 42

STATE PROJECT NUMBER

1010-02-85



PLAN

✳ PROVIDE FOR THRIE BEAM GUARD RAIL ATTACHMENT. AT UNUSED ANCHOR ASSEMBLIES CAULK HOLES SHUT WITH "100% SILICONE CAULK."

TOTAL ESTIMATED QUANTITIES

BID ITEM NUMBERS	BID ITEMS	UNIT	TOTALS
305.0125	BASE AGGREGATE DENSE 1 1/4-INCH	CY	27
312.0115	SELECT CRUSHED MATERIAL	CY	32
502.0100	CONCRETE MASONRY BRIDGES	CY	51
502.3200	PROTECTIVE SURFACE TREATMENT	SY	65
502.4206	ADHESIVE ANCHORS NO. 6 BAR	EACH	60
505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB	5,940
614.0150	ANCHOR ASSEMBLIES FOR STEEL PLATE BEAM GUARD	EACH	2

DESIGN DATA

MATERIAL PROPERTIES:
CONCRETE MASONRY ---------- f'_c = 4,000 P.S.I.
BAR STEEL REINFORCEMENT, GRADE 60 ----- f_y = 60,000 P.S.I.

LIST OF DRAWINGS

1. GENERAL PLAN
2. 51-INCH CONCRETE INTEGRAL BARRIER
3. 51-INCH CONCRETE BARRIER DETAILS

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

DIMENSIONS SHOWN ARE BASED ON THE ORIGINAL STRUCTURE PLANS, INSPECTION REPORTS, AND FIELD SURVEY.

BAR STEEL REINF. SHALL BE EMBEDDED 2" CLEAR. UNLESS OTHERWISE SHOWN OR NOTED.

STRUCTURE DESIGN CONTACTS:
PHILIP MEINEL (608) 261-2590
LAURA SHADEWALD (608) 267-9592

NO.	DATE	REVISION	BY

Plans Prepared By **WISDOT**
BUREAU OF STRUCTURES

ACCEPTED William C. Dreher LLS — CHIEF STRUCTURES DESIGN ENGINEER — 5/12/17 DATE

STRUCTURE B-11-39

KENT ROAD OVER IH 39/90/94

COUNTY	TOWN/~~CITY/VILLAGE~~
COLUMBIA	DEKORRA

DESIGN SPEC.	
REHABILITATION	N/A

DESIGNED BY	DESIGN CK'D.	DRAWN BY	PLANS CK'D.
PMM	CAD	PMM	CAD

GENERAL PLAN

SHEET 1 OF 3

283

I.D. 1010-02-02B

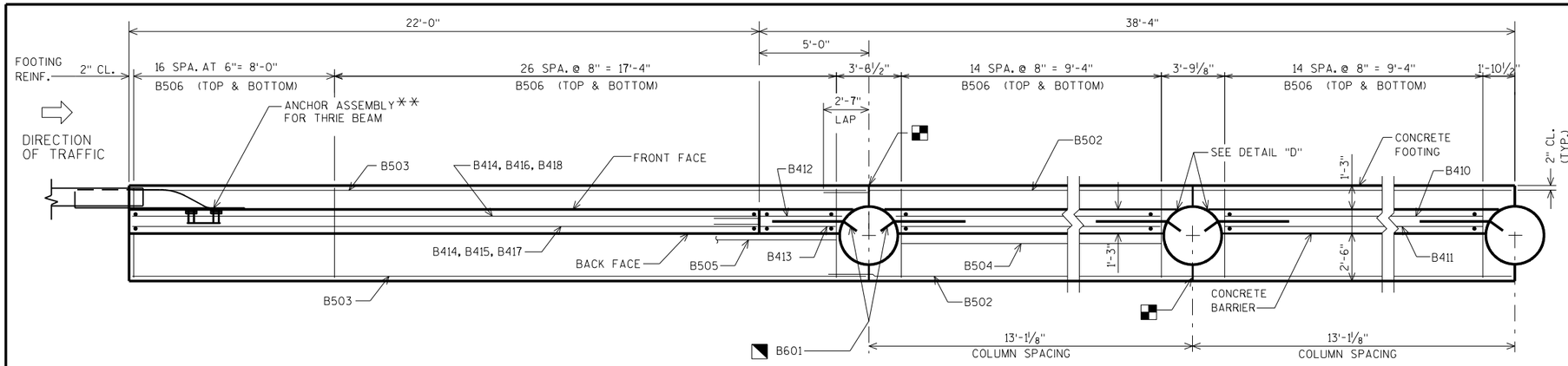
DATE: JAN 2017

SCALE = 10.0

8

8

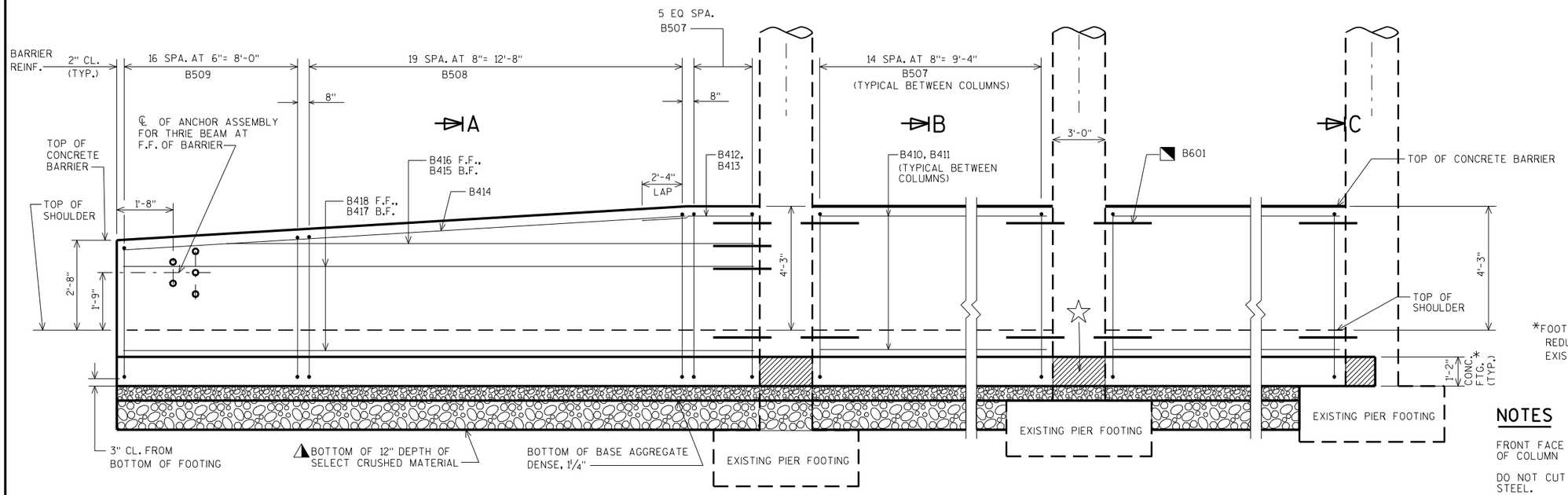
STATE PROJECT NUMBER
1010-02-85



PLAN

LEGEND

- ◥ ADHESIVE ANCHORS WITH NO. 6 BAR. EMBED 8" IN CONCRETE.
- ◩ OPTIONAL CONSTRUCTION JOINTS IN FOOTINGS PLACED ALONG ℄ OF COLUMN. IF USED, LAP LONGITUDINAL REINFORCEMENT 2'-7" IN ADJACENT POUR.
- ☆ PLACE ½" FILLER BETWEEN COLUMN AND CONCRETE FOOTING (TYP.)
- ◭ 12" SELECT CRUSHED MATERIAL MAY BE ELIMINATED IF IT IS DETERMINED BY THE ENGINEER THAT THE EXISTING MATERIAL IS COMPACTED, GRANULAR MATERIAL.
- ** AT UNUSED ANCHOR ASSEMBLIES CAULK HOLES SHUT WITH "100% SILICONE CAULK".



ELEVATION

LOOKING AT B.F. OF BARRIER

*FOOTING THICKNESS MAY BE REDUCED TO 1'-1" OVER EXISTING PIER FOOTING

NOTES

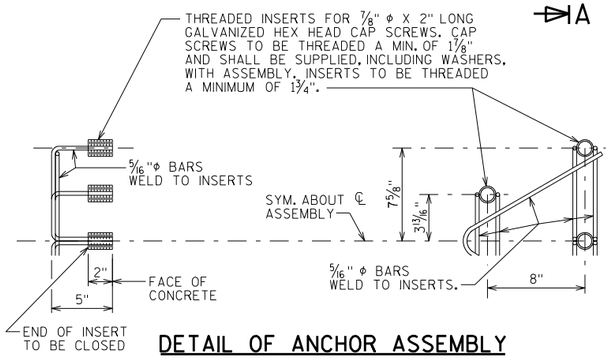
FRONT FACE OF BARRIER IS FLUSH WITH FACE OF COLUMN

DO NOT CUT OR DRILL INTO EXISTING COL. BAR STEEL.

PROVIDE ¾" BEVEL OR 1" RADIUS ON BARRIER EDGES, TOP, AND ENDS.

SEE SHEET '51-INCH CONCRETE BARRIER DETAILS' FOR SECTIONS A-A, B-B, AND C-C.

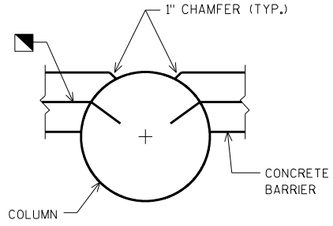
✳ WHERE BARRIER WALL FOOTING SITS ON EXISTING PIER FOOTING, APPLY POLYETHYLENE SHEET AS A BOND BREAKER BETWEEN FOOTINGS. COST IS INCIDENTAL TO BID ITEM 'CONCRETE MASONRY BRIDGES'.



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.



DETAIL D

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-11-39

DRAWN BY PMM | PLANS CK'D. CAD

51-INCH CONCRETE INTEGRAL BARRIER

SHEET 2

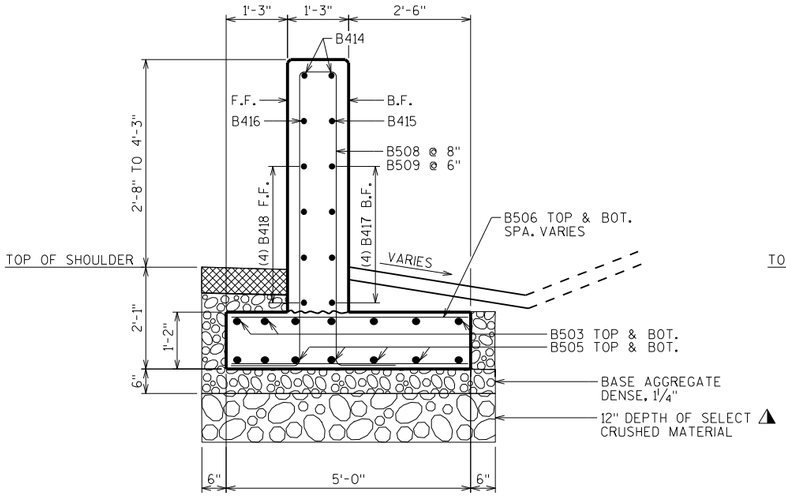
284

SCALE = 1

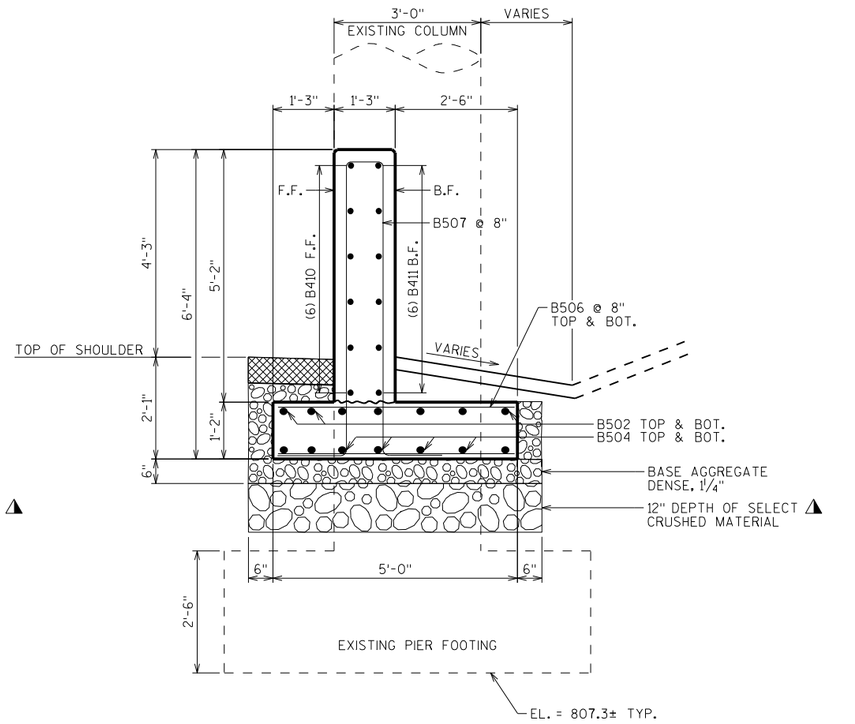
51BARRIER

STATE PROJECT NUMBER

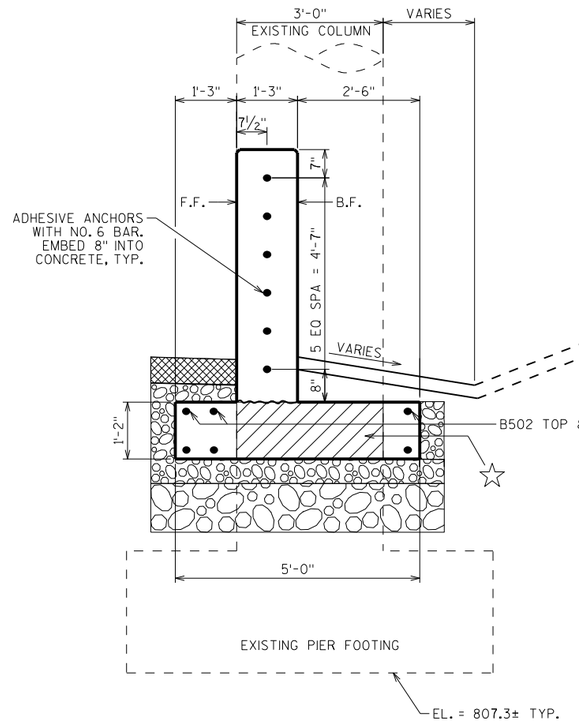
1010-02-85



SECTION A-A
TRANSITION REGION



SECTION B-B
BETWEEN COLUMNS



SECTION C-C
AT COLUMN

BILL OF BARS

NOTE: THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE.

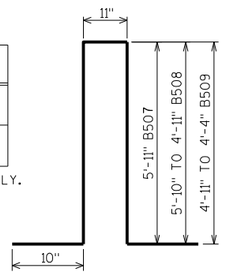
BAR MARK	COAT	NO. REQ'D. PIER 1	NO. REQ'D. PIER 3	LENGTH	BENT	BAR SERIES	LOCATION
B601	X	30	30	3'-2"	X		ADHESIVE ANCHORS AT EXIST COLUMNS
B502	X	6	6	28'-7"			FOOTING LONGIT.
B503	X	6	6	26'-10"			FOOTING LONGIT.
B504	X	16	16	9'-9"			FOOTING LONGIT. BTWN. COL.
B505	X	8	8	25'-2"			FOOTING LONGIT. IN TRANSITION
B506	X	146	146	4'-8"			FOOTING TRANSV.
B507	X	36	36	13'-11"	X		WALL VERT.-FULL HEIGHT
B508	X	20	20	12'-10"	X	◆	WALL VERT.-TRANSITION
B509	X	17	17	11'-4"	X	◆	WALL VERT.-TRANSITION
B410	X	12	12	10'-11"			WALL HORIZ.-BTWN. COL.-F.F.
B411	X	12	12	9'-10"			WALL HORIZ.-BTWN. COL.-B.F.
B412	X	1	1	6'-3"			WALL HORIZ.-TOP-F.F.
B413	X	1	1	5'-9"			WALL HORIZ.-TOP-B.F.
B414	X	2	2	21'-10"			WALL HORIZ.-TRANSITION-TOP
B415	X	1	1	16'-0"			WALL HORIZ.-MIDTRANSITION-B.F.
B416	X	1	1	16'-6"			WALL HORIZ.-MIDTRANSITION-F.F.
B417	X	4	4	25'-10"			WALL HORIZ.-TRANSITION-B.F.
B418	X	4	4	25'-2"			WALL HORIZ.-TRANSITION-F.F.

◆ LENGTH SHOWN FOR BAR IS AN AVERAGE LENGTH AND SHOULD ONLY BE USED FOR BAR WEIGHT CALCULATIONS. SEE BAR SERIES TABLE FOR ACTUAL LENGTHS.

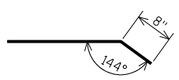
BAR SERIES TABLE

MARK	NO. REQD.	LENGTH
B508	2 SERIES OF 20	11'-11" TO 13'-9"
B509	2 SERIES OF 17	10'-9" TO 11'-11"

BUNDLE AND TAG EACH SERIES SEPARATELY.



B507, B508, B509



B601

NOTES

FRONT FACE OF BARRIER IS FLUSH WITH FACE OF COLUMN

LEGEND

☆ PLACE ½" FILLER BETWEEN COLUMN AND CONCRETE FOOTING (TYP.)

◭ 12" SELECT CRUSHED MATERIAL MAY BE ELIMINATED IF IT IS DETERMINED BY THE ENGINEER THAT THE EXISTING MATERIAL IS COMPACTED, GRANULAR MATERIAL.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-11-39

DRAWN BY PMM | PLANS CK'D. CAD

51-INCH CONCRETE BARRIER DETAILS

SHEET 3

285

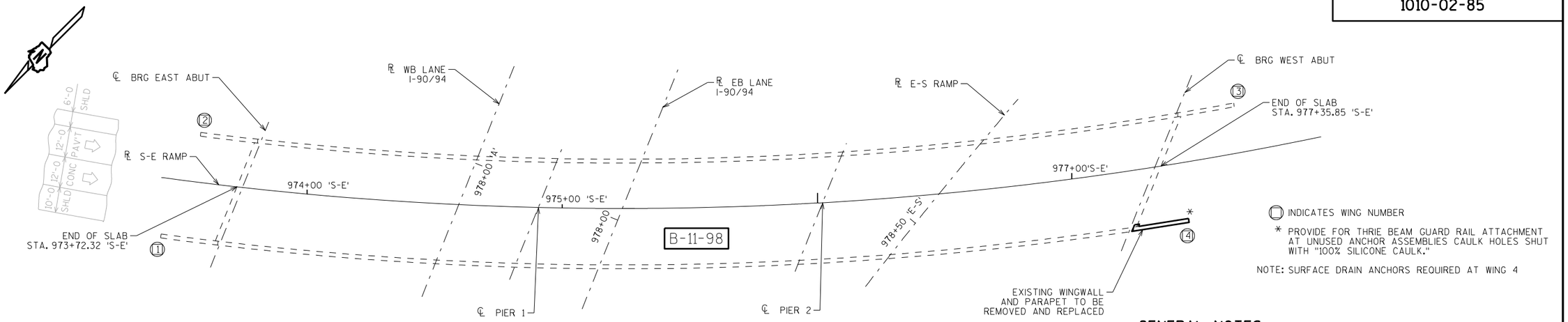
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51BARRIER

8

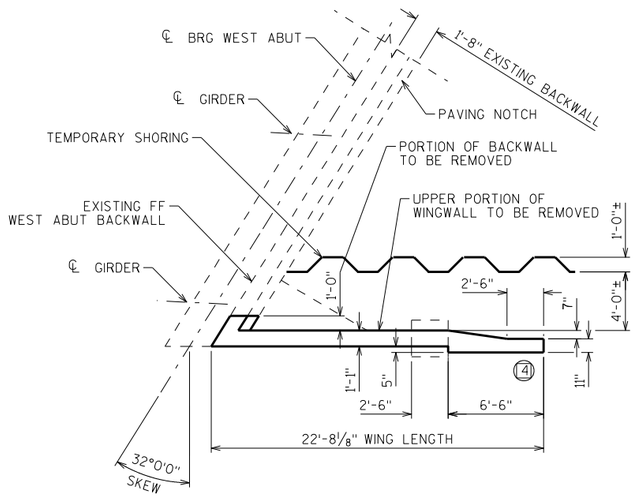
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STATE PROJECT NUMBER
1010-02-85

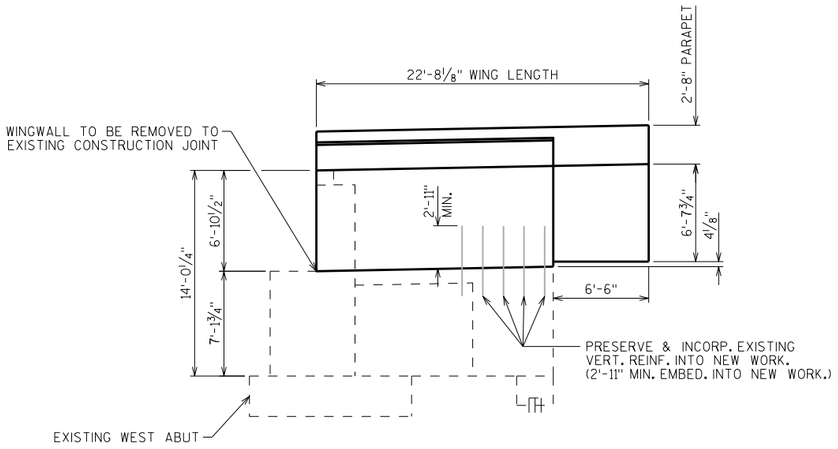


GENERAL PLAN

(EXISTING 3 SPAN - STEEL GIRDER BRIDGE)



ABUTMENT PLAN



WINGWALL ELEVATION

(LOOKING AT FF OF WING)

WING 4 REMOVAL/REPLACEMENT DETAILS

TOTAL ESTIMATED QUANTITIES

BID ITEM NUMBER	BID ITEMS	UNIT	TOTALS
203.0200	REMOVING OLD STRUCTURE STA. 977+35 'S-E'	LS	1
206.1000	EXCAVATION FOR STRUCTURES BRIDGES B-11-98	LS	1
210.1100	BACKFILL STRUCTURE TYPE A	CY	20
502.0100	CONCRETE MASONRY BRIDGES	CY	8
502.3100	EXPANSION DEVICE B-11-98	LS	1
502.3210	PIGMENTED SURFACE SEALER	SY	9
502.4205	ADHESIVE ANCHORS NO. 5 BAR	EACH	4
502.4206	ADHESIVE ANCHORS NO. 6 BAR	EACH	11
505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB	1,250
509.1500	CONCRETE SURFACE REPAIR	SF	3
511.1200	TEMPORARY SHORING B-11-98	SF	185
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	5
614.0150	ANCHOR ASSEMBLIES FOR STEEL PLATE BEAM GUARD	EACH	1

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 WING ALL VOLUME WHICH CANNOT BE PLACED BEFORE WING CONSTRUCTION AND IS NOT OCCUPIED BY THE NEW STRUCTURE SHALL BE BACKFILLED WITH STRUCTURE BACKFILL TYPE A.

DIMENSIONS SHOWN ARE BASED ON THE EXISTING ORIGINAL STRUCTURE PLANS.

CONCRETE SURFACE REPAIR IS ANTICIPATED AT EXPANSION DEVICE; HOWEVER, CONCRETE SURFACE REPAIR TO BE PERFORMED AT THE DIRECTION OF THE ENGINEER.

ALL CONCRETE REMOVAL SHALL BE DEFINED BY A ½" DEEP SAWCUT.

EXISTING STRIP SEAL EXPANSION JOINT TO BE PRESERVED. SEE SHEET "EXPANSION DEVICE" FOR DETAILS.

PIGMENTED SURFACE SEALER TO BE APPLIED TO THE THE FRONT FACE AND THE TOP OF THE NEW PARAPET.

DESIGN DATA

MATERIAL PROPERTIES:

CONCRETE MASONRY	f'c = 3,500 P.S.I.
BAR STEEL REINFORCEMENT, GRADE 60	fy = 60,000 P.S.I.

LIST OF DRAWINGS

1. REMOVAL DETAILS
2. WINGWALL DETAILS
3. SLOPED FACE PARAPET 'B'
4. EXPANSION DEVICE

STRUCTURE DESIGN CONTACTS:

PHILIP MEINEL (608) 261-2590
LAURA SHADEWALD (608) 267-9592

NO.	DATE	REVISION	BY

Plans Prepared By WISDOT
BUREAU OF STRUCTURES

ACCEPTED William C. Dreher 5/12/17
CHIEF STRUCTURES DESIGN ENGINEER — DATE

STRUCTURE B-11-98

S-E RAMP OVER INTERSTATE 90/94

COUNTY	TOWN/~~CITY/VILLAGE~~
COLUMBIA	CALEDONIA

DESIGN SPEC.	
REHABILITATION	N/A

DESIGNED BY	DESIGN CK'D.	DRAWN BY	PLANS CK'D.
PMM	DFD	PMM	DFD

REMOVAL DETAILS

SHEET 1 OF 4

286

I.D. 1010-02-02C DATE: JAN 2017

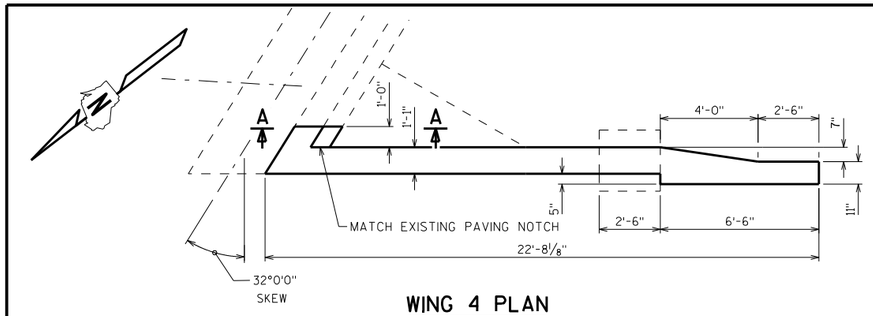
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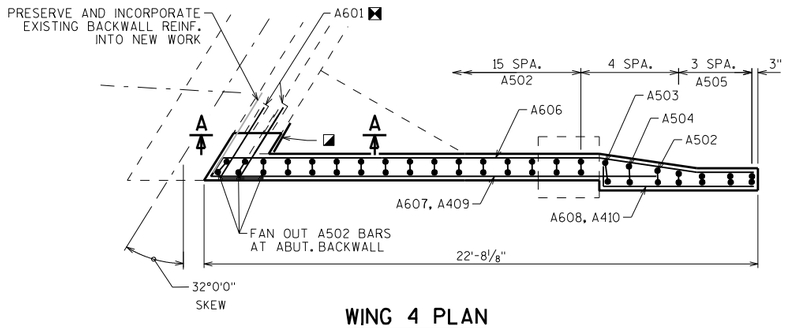
STATE PROJECT NUMBER

1010-02-85



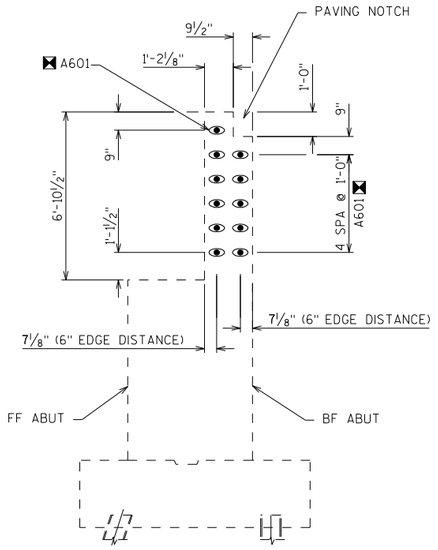
WING 4 PLAN

(SHOWING CONCRETE DIMENSIONS)



WING 4 PLAN

(SHOWING REINF. LAYOUT)



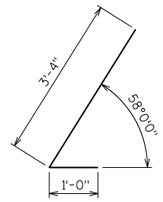
SECTION A-A

(PERPENDICULAR TO WING)

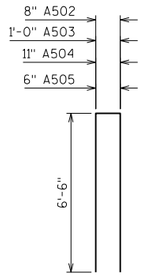
BILL OF BARS

NOTE: THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE.

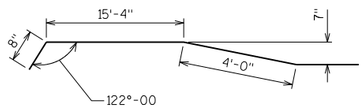
	BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	LOCATION
⧓	A601	X	11	4'-2"	X	ABUT. BACKWALL ANCHORS
	A502	X	17	13'-5"	X	WING - VERT.
	A503	X	1	13'-9"	X	WING - VERT.
	A504	X	1	13'-8"	X	WING - VERT.
	A505	X	4	13'-3"	X	WING TIP - VERT.
	A606	X	9	22'-3"	X	WING - HORIZ. - B.F.
	A607	X	1	18'-8"	X	WING - HORIZ. - F.F. - TOP
	A608	X	1	6'-10"	X	WING TIP - HORIZ. - F.F. - TOP
	A409	X	6	18'-1"	X	WING - HORIZ. - F.F.
	A410	X	6	6'-11"	X	WING TIP - HORIZ. - F.F.
	A411	X	21	1'-10"		SURFACE DRAIN ANCHORS
◪	A512	X	4	4'-2"		VERT. ANCHORS



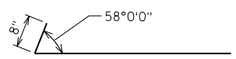
A601



A502, A503, A504, A505



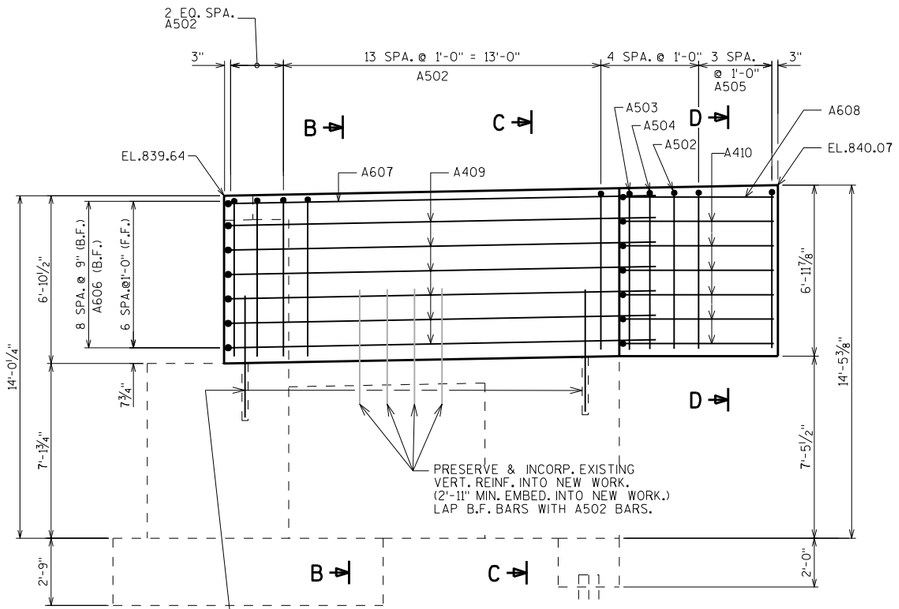
A606



A607, A409



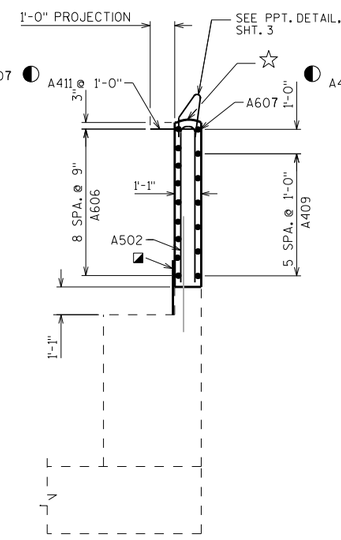
A608, A410



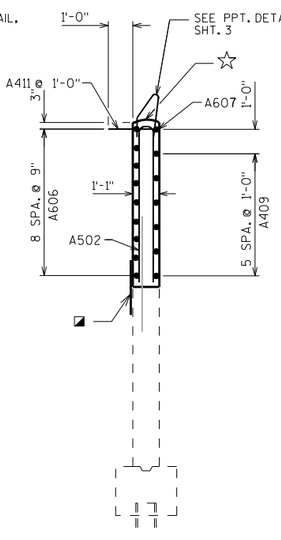
◪ USE CONC. ADHESIVE ANCHORS WITH NO. 5 BARS WHERE EXISTING REINF. IS NOT SALVAGABLE. EMBED ANCHOR 1'-1" INTO CONCRETE. QUANTITY IS ESTIMATED.

WING 4 ELEVATION

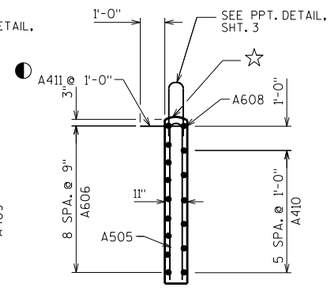
(SHOWING F.F. REINF.)



SECTION B-B



SECTION C-C



SECTION D-D

◪ 18" RUBBERIZED MEMBRANE WATERPROOFING SEAL ALL VERT. & HORIZ. JOINTS ON BACK-FACE ABOVE FOOTING.

⧓ ADHESIVE ANCHORS WITH NO. 6 BARS EMBED 1'-3" INTO CONCRETE.

☆ STRIKE OFF AS SHOWN AND LEAVE ROUGH.

◐ A411 BARS SPACED AT 1'-0" CENTERS. EMBED 10" INTO WING CONCRETE. LOCATE 3" DOWN FROM TOP OF WING AT BACKFACE TO 6" DOWN AT WING TIP.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-11-98

DRAWN BY PMM | PLANS CK'D. DFD

WINGWALL DETAILS

SHEET 2

287

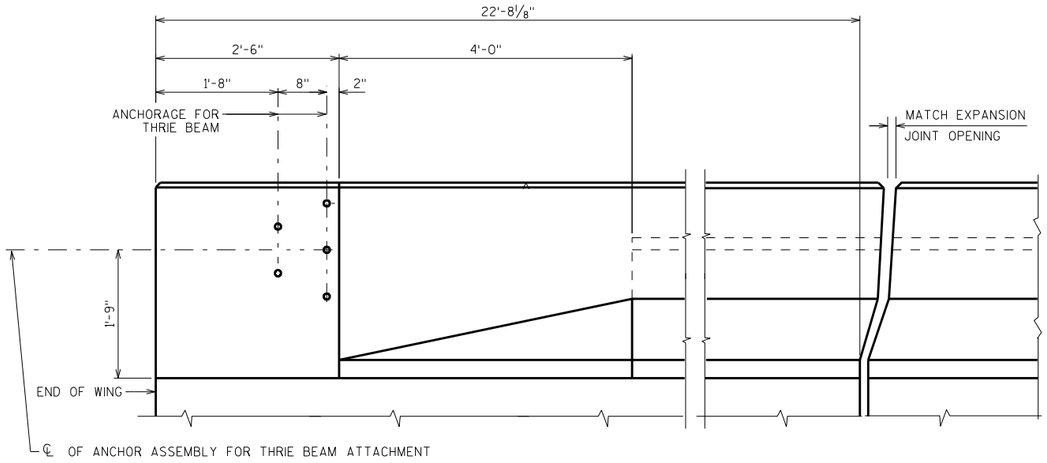
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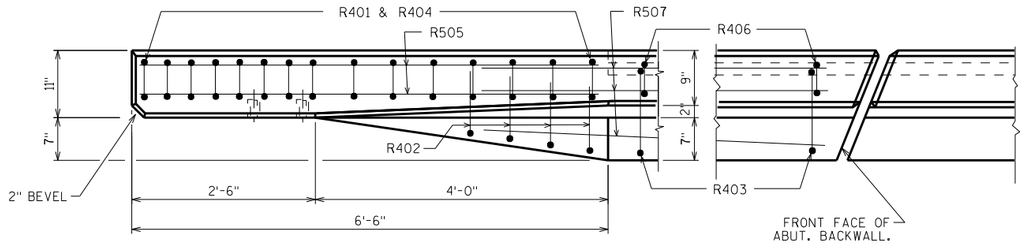
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STATE PROJECT NUMBER

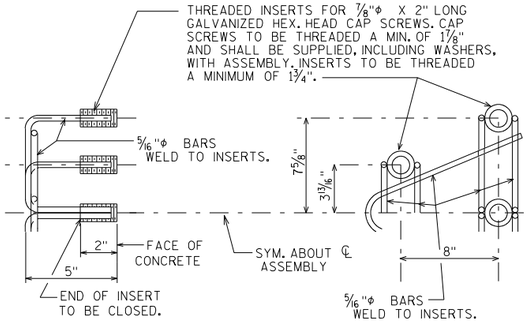
1010-02-85



INSIDE ELEVATION



PLAN

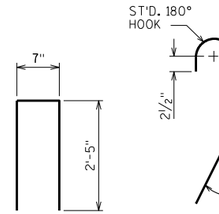


DETAIL OF ANCHOR ASSEMBLY

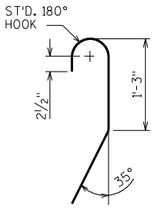
NOTE: HEX. HEAD CAP SCREWS & WASHERS TO BE GALVANIZED IN ACCORDANCE WITH AASHTO M232 CLASS C. SEE SHEET 1 FOR LOCATION.

BILL OF BARS NOTE: THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE.

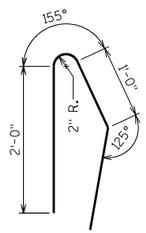
BAR MARK	COAT	WEST ABUT.	LENGTH	BENT	LOCATION
R401	X	15	5-3	X	PARAPET STIRRUPS
R402	X	4	3-1	X	PARAPET - VERT
R403	X	21	4-7	X	PARAPET STIRRUPS
R404	X	15	4-9	X	PARAPET STIRRUPS
R505	X	6	6-2		PARAPET - HORIZ
R406	X	21	4-10	X	PARAPET - VERT
R507	X	5	18-2		PARAPET - HORIZ



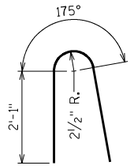
R401



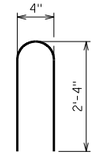
R402



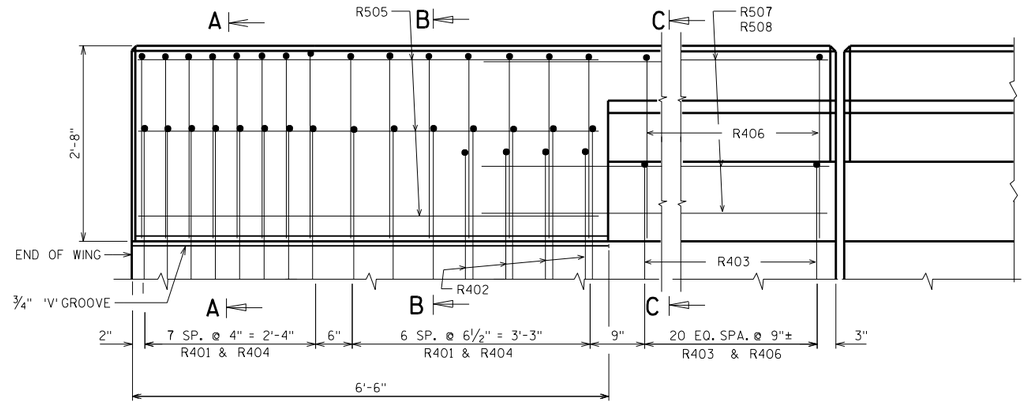
R403



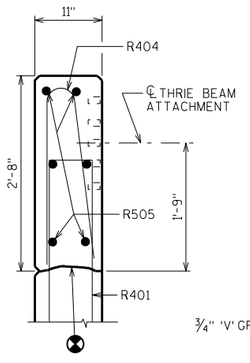
R404



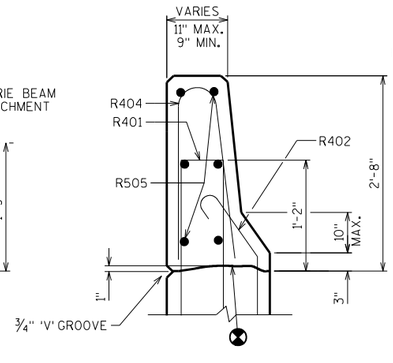
R406



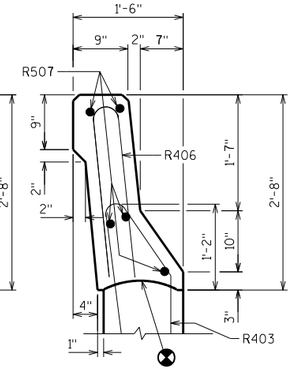
OUTSIDE ELEVATION



SECTION A



SECTION B



SECTION C

⊠ CONST. JOINT STRIKE OFF AS SHOWN

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-11-98

DRAWN BY PMM | PLANS CK'D. DFD

SLOPED FACE PARAPET 'B'

SHEET 3

288

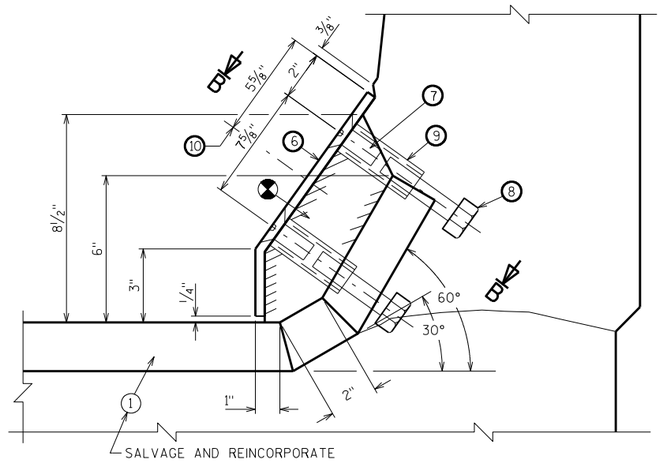
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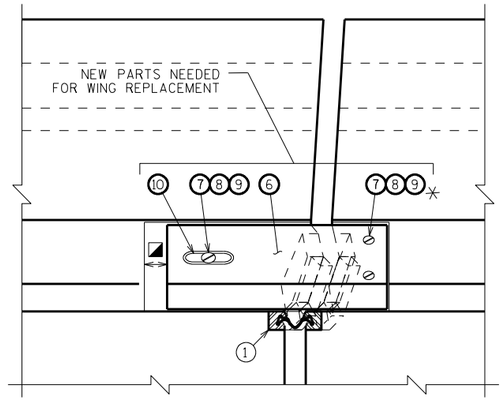
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STATE PROJECT NUMBER

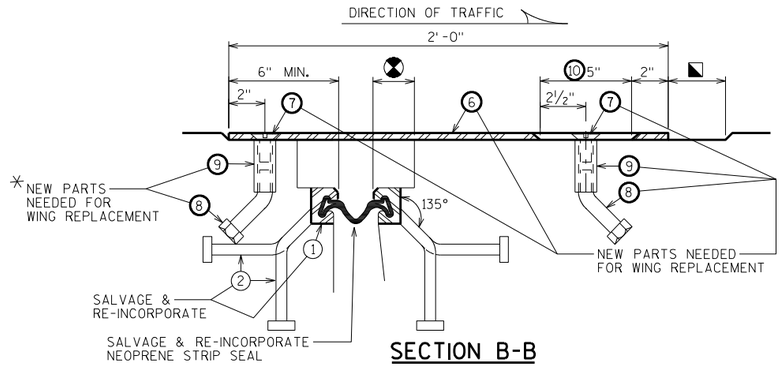
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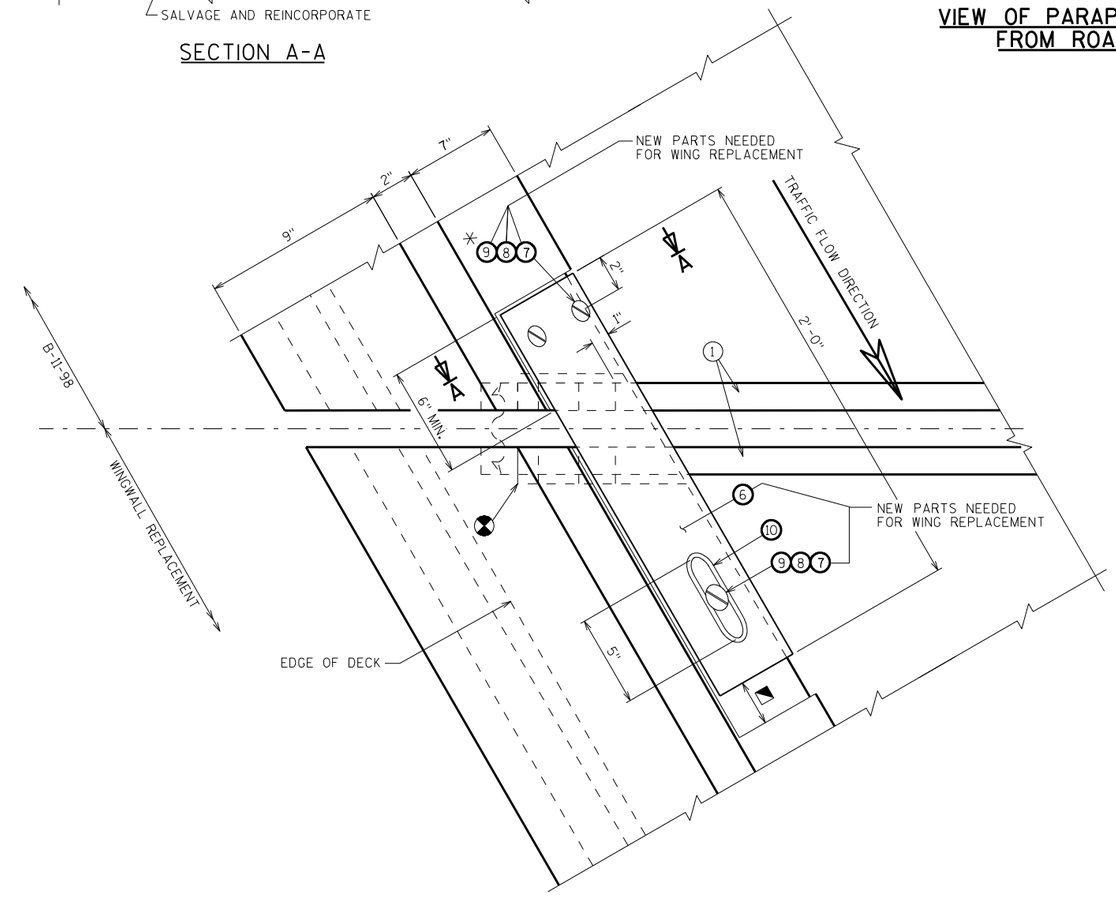
SECTION A-A



VIEW OF PARAPET PLATE FROM ROADWAY



SECTION B-B



PLAN OF COVER PLATE AT WING 4

LEGEND

(1) EXISTING NEOPRENE STRIP SEAL & STEEL EXTRUSIONS

(2) STUDS $\frac{5}{8}$"Φ X 6$\frac{3}{8}$" LONG AT 6" ALTERNATE CENTERS. WELD TO EXTRUSIONS & BEND AS SHOWN AFTER WELDING.

(6) GALVANIZED PLATE $\frac{3}{8}$" X 2'-0" WITH HOLES FOR NO. 7. BEND AS SHOWN.

(7) $\frac{3}{4}$"Φ X 1$\frac{1}{2}$" STAINLESS STEEL SOCKET FLAT HEAD SCREWS WITH ANTI-SEIZE LUBRICANT. RECESS $\frac{1}{16}$" BELOW PLATE SURFACE.

(8) $\frac{3}{4}$"Φ X 4" GALVANIZED HEX HEAD BOLT. BEND 45°.

(9) $\frac{3}{4}$"Φ X 2$\frac{1}{4}$" GALVANIZED THREADED COUPLING.

(10) 1" X 5" SLOTTED CSK. HOLE FOR NO. 7. SLOT PARALLEL TO DIRECTION OF MOVEMENT.

BLOCK OUT CONCRETE 2" EACH SIDE OF JOINT OPENING.

JOINT OPENING DIM. ALONG SKEW PLUS $\frac{1}{2}$".

✳ REMOVE COVER PLATE TO DETERMINE ADAQUACY OF EXISTING PARTS 8 & 9. IF ANCHORAGE IS SOUND, USE EXISTING PARTS 8 & 9. IF ANCHORAGE IS NOT SOUND, PERFORM CONCRETE SURFACE REPAIR WITH REPLACEMENT OF PARTS 8 & 9.

NOTES:

PARTS REQUIRED FOR INSTALLATION OF NEW COVER PLATE SHALL BE PAID FOR UNDER THE BID ITEM "EXPANSION DEVICE B-11-98".

CONTRACTOR SHALL ENSURE NEW PARTS ARE COMPATIBLE WITH EXISTING PARTS.

BOLD ITEMS IN LEGEND TO BE SUPPLIED FOR WORK.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-11-98

DRAWN BY PMM | PLANS CK'D. DFD

EXPANSION DEVICE

SHEET 4

289

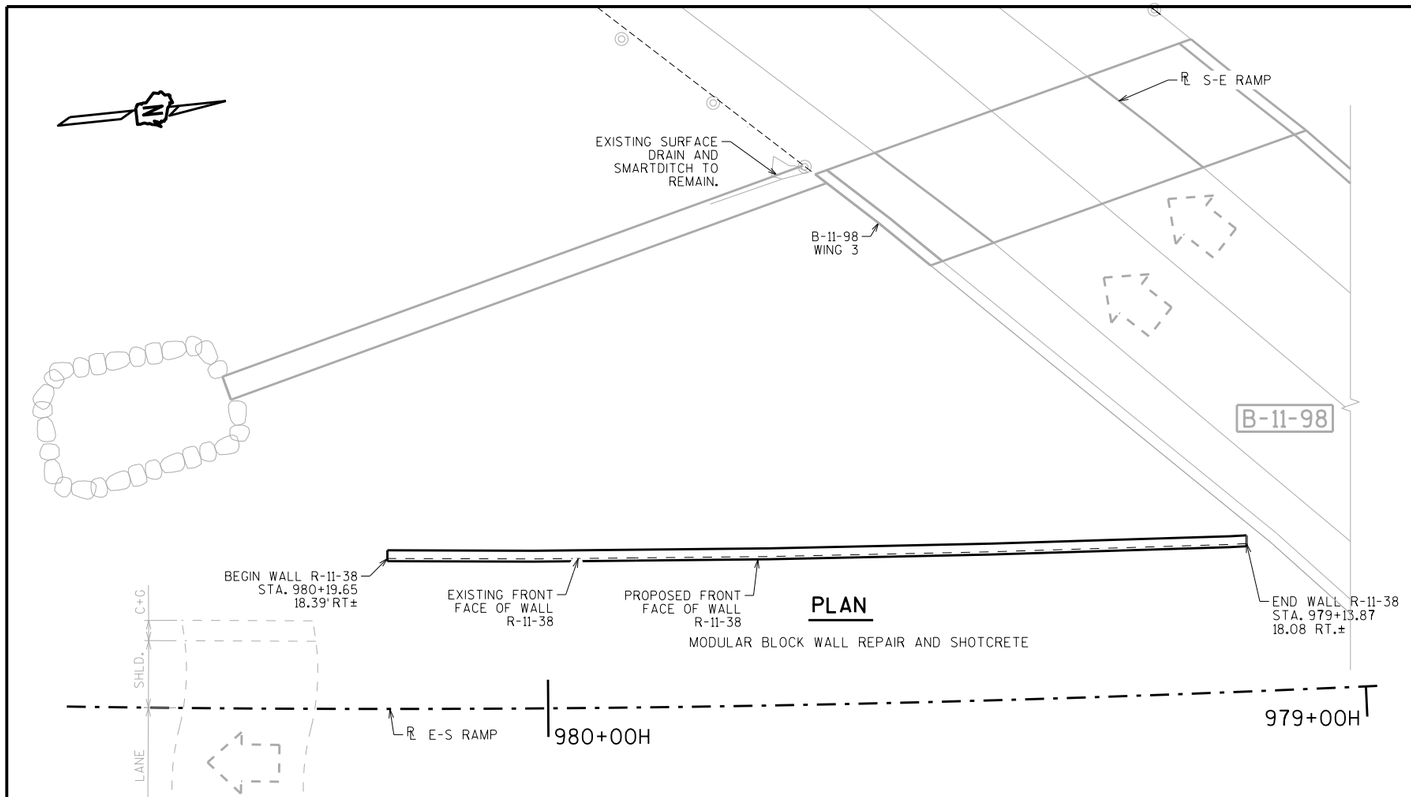
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8

22 15 12

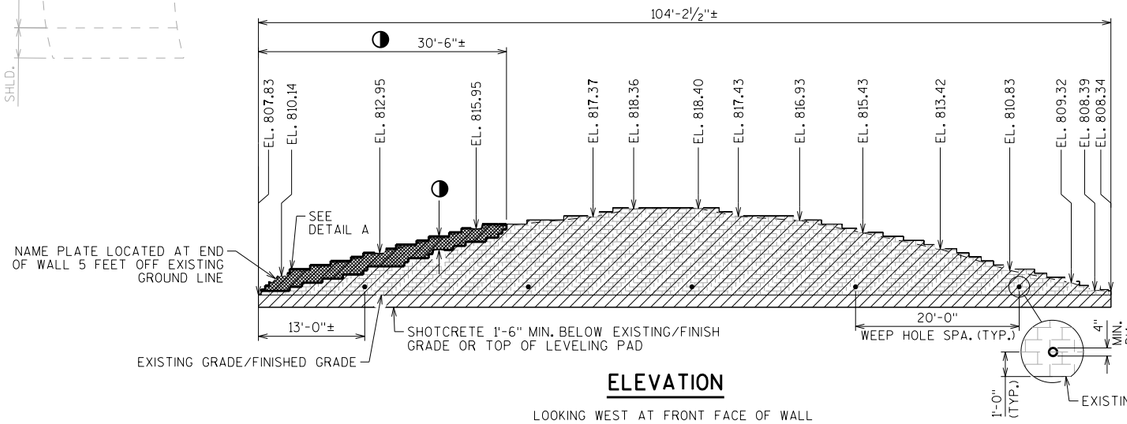
STATE PROJECT NUMBER

1010-02-85



PLAN

MODULAR BLOCK WALL REPAIR AND SHOTCRETE



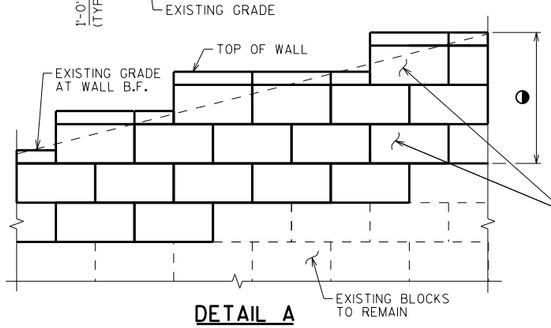
ELEVATION

LOOKING WEST AT FRONT FACE OF WALL

TOTAL ESTIMATED QUANTITIES

BID ITEM NUMBER	BID ITEMS	UNIT	TOTALS	
SPV.0165.01	MODULAR BLOCK WALL REPAIR	SF	70	
SPV.0165.02	SHOTCRETE FACING	SF	875	
	ADHESIVE ANCHORS NO. 4 BAR	EACH	76	✳
	COARSE AGGREGATE NO.1	CY	4	✳
	SALVAGED TOPSOIL	SY	20	✳
	NAME PLATE	EACH	1	✳

✳ FOR ESTIMATING INFORMATIONAL PURPOSES ONLY



DETAIL A

◑ BID ITEM "MODULAR BLOCK WALL REPAIR" PAY LIMITS.

DESIGN DATA

PLANS, ELEVATIONS, AND DETAILS SHOWN ON THESE DRAWINGS ARE INTENDED TO INDICATE WALL LOCATIONS, LENGTHS, HEIGHTS, AND DETAILS COMMON TO THE WALL SYSTEM SELECTED. THE CONTRACTOR SHALL VERIFY THAT THE WALL SYSTEM SELECTED WILL CONFORM TO THE REQUIRED ALIGNMENTS AND DETAILS.

THE CONTRACTOR SHALL PROVIDE COMPLETE DESIGN, PLANS, DETAILS, SPECIFICATIONS, AND SHOP DRAWINGS FOR THE RETAINING WALL IN ACCORDANCE WITH THE SPECIAL PROVISIONS. THE RETAINING WALL MANUFACTURER SHALL PROVIDE TECHNICAL ASSISTANCE TO THE CONTRACTOR DURING CONSTRUCTION. THE COST OF FURNISHING THESE ITEMS SHALL BE INCLUDED IN THE BID ITEM "MODULAR BLOCK WALL REPAIR".

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

THE COST OF FURNISHING AND PLACING BACKFILL IS TO BE INCLUDED IN THE BID ITEM "MODULAR BLOCK WALL REPAIR"

ALL WALL STATIONING AND OFFSETS ARE GIVEN AT THE FRONT FACE OF WALL.

THE PLAN QUANTITIES FOR THE BID ITEM "MODULAR BLOCK WALL REPAIR" IS BASED ON AREA OUTLINED IN THE ELEVATION VIEW. ADDITIONAL WALL REPAIR AREAS SHALL BE DETERMINED BY THE ENGINEER IN THE FIELD.

WALL REMOVAL LIMITS SHALL INCLUDE AT A MINIMUM THE CAP UNIT AND TO BE ANTICIPATED THE FIRST THREE COURSES. IF THE PROPOSED REMOVAL EXCEEDS THE CAP UNIT PLUS THREE COURSES CONTACT THE FIELD ENGINEER FIRST, THEN STRUCTURES DESIGN SECTION.

IF CONTRACTOR ENCOUNTERS MSE WALL REINFORCEMENT WHEN REMOVING A COURSE OF BLOCKS, IT IS UP TO THE FIELD ENGINEER'S DISCRETION TO DETERMINE IF REMOVAL IS NEEDED AND WHETHER TO PROCEED IN REMOVAL OF THE NEXT COURSE.

THE CONTRACTOR SHALL SUPPLY A NEW NAME PLATE IN ACCORDANCE WITH SECTION 502.3.11 OF THE STANDARD SPECIFICATIONS AND THE STANDARD DETAIL DRAWINGS. NAME PLATE TO SHOW ORIGINAL CONSTRUCTION YEAR 1992.

THE CONTRACTOR SHALL VERIFY THAT THE BLOCKS SELECTED FOR THE WALL SYSTEM REPAIRS WILL MATCH THE BATTER OF EXISTING BLOCKS ON THE WALL.

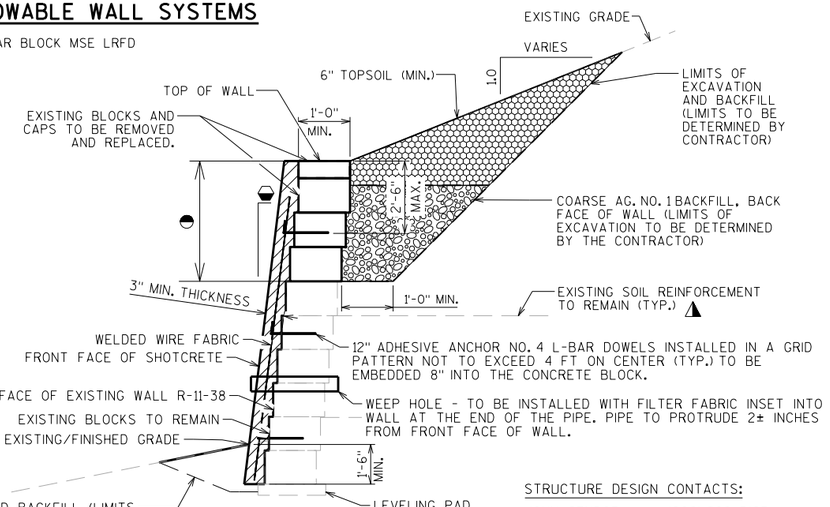
THE GRADATION OF COARSE AG. NO. 1 BACKFILL SHALL MEET THE REQUIREMENTS OF SECTION 501.2.5.4.5 OF THE STANDARD SPECIFICATIONS

SHOTCRETE FACING MATERIAL, AND INSTALLATION PAID UNDER BID ITEM "SHOTCRETE FACING".

THE PLAN QUANTITY FOR THE BID ITEM "SHOTCRETE FACING" IS BASED ON THE THE TOP OF WALL TO A CONSTANT DEPTH OF 1'-6" BELOW EXISTING/FINISHED GRADE".

ALLOWABLE WALL SYSTEMS

MODULAR BLOCK MSE LRFD



TYPICAL WALL CROSS SECTION

LOOKING SOUTH

- MATCH EXISTING WALL BATTER
- BID ITEM "MODULAR BLOCK WALL REPAIR" PAY LIMITS.
- IF REMOVAL OF EXISTING SOIL REINFORCEMENT IS REQUIRED, REPLACEMENT MATERIAL SHALL CONFORM TO THE MATERIAL COVERED IN THE "MODULAR BLOCK WALL REPAIR" SPECIAL PROVISION.
- SHOTCRETE

LIST OF DRAWINGS

1. GENERAL PLAN

STRUCTURE DESIGN CONTACTS:

JOHN SENDOR (608) 266-5163

AARON BONK (608) 261-0261

NO.	DATE	REVISION	BY

BUREAU OF STRUCTURES

ACCEPTED William C. Dreher 7/5/17

CHIEF STRUCTURES DESIGN ENGINEER — DATE

STRUCTURE R-11-38

REHAB RETAIN WALL FOR S-E RAMP OVER IH90/94

COUNTY: COLUMBIA — TOWN: CALEDONIA

DESIGN SPEC. AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS

DESIGNED BY	DESIGNED CK'D.	DRAWN BY	PLANS CK'D.
JJS	JDL	JJS	AMB

GENERAL PLAN

SHEET 1 OF 1

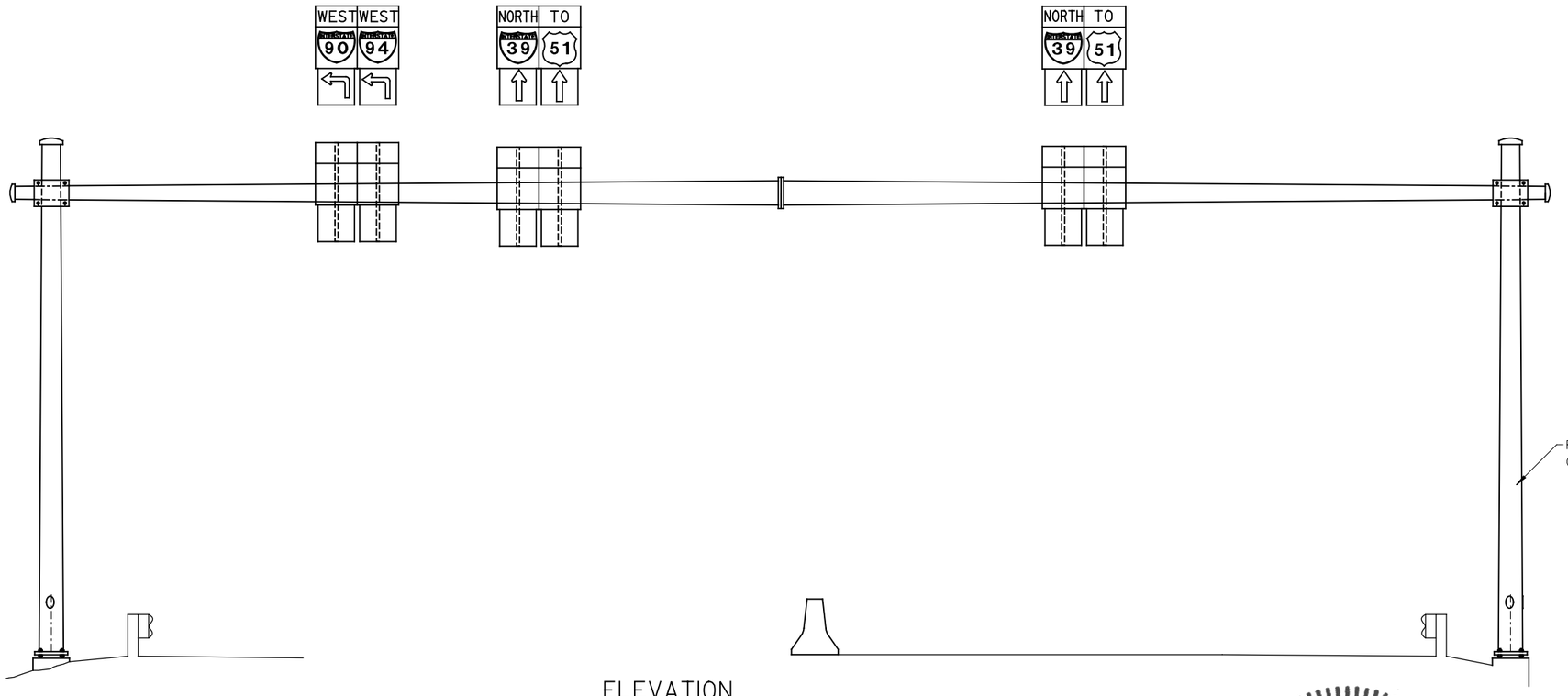
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I.D. 1010-02-02A

DATE: JUNE 2017

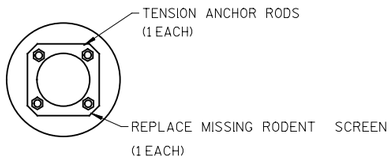
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STATE PROJECT NUMBER
1010-02-85

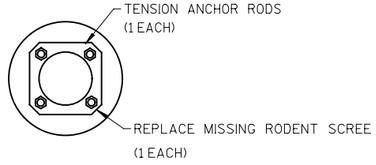


ELEVATION

IH-39, 1/8 MILES EAST OF IH-90/94 INTERCHANGE
(LOOKING NORTH AT FRONT FACE OF SIGN)



WEST FOUNDATION DETAIL



EAST FOUNDATION DETAIL

TOTAL ESTIMATED QUANTITIES

BID ITEM NUMBER	BID ITEMS	QTY	UNIT
SPV.0060.01	TENSION ANCHOR ROD	2	EA
SPV.0060.03	REPLACE SIGN BRIDGE ID PLAQUE	1	EA
SPV.0060.06	REPLACE RODENT SCREEN	2	EA

WISCONSIN
VERONICA CHAVEZ DE FERNANDEZ
E-42456
MILWAUKEE
WI
PROFESSIONAL ENGINEER

07/31/2017

BUREAU OF STRUCTURES CONTACT:
MATTHEW DAPP (608) 246-5353

CONSULTANT CONTACT:
VERONICA CHAVEZ DE FERNANDEZ
(414) 282-6905

NO.	DATE	REVISION	BY

COLLINS ENGINEERS INC

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

ACCEPTED William C. Dreher SDR 08/01/17
CHIEF STRUCTURES DESIGN ENGINEER DATE

STRUCTURE S-11-19

SB IH 39 AT THE STH 78 INTERCHANGE

COUNTY	TOWN/CITY/VILLAGE
COLUMBIA	CALEDONIA

DESIGN SPEC.
AASHTO STANDARD SPECS AND INTERM REVISIONS 6TH EDITION

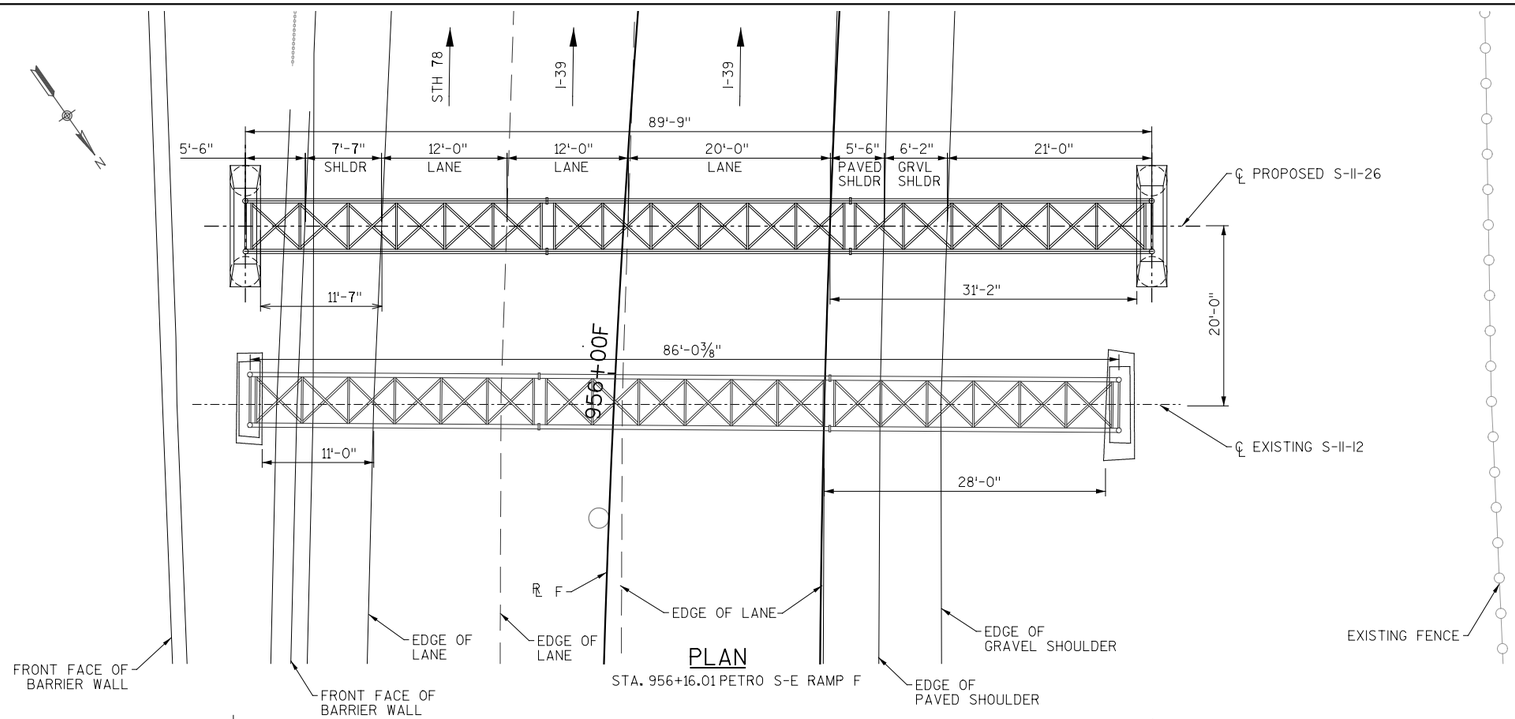
DESIGNED BY	DESIGN CK'D.	DRAWN BY	PLANS CK'D.
MR	VC	MR	MM

ELEVATION VIEW

SHEET 1 OF 1
291

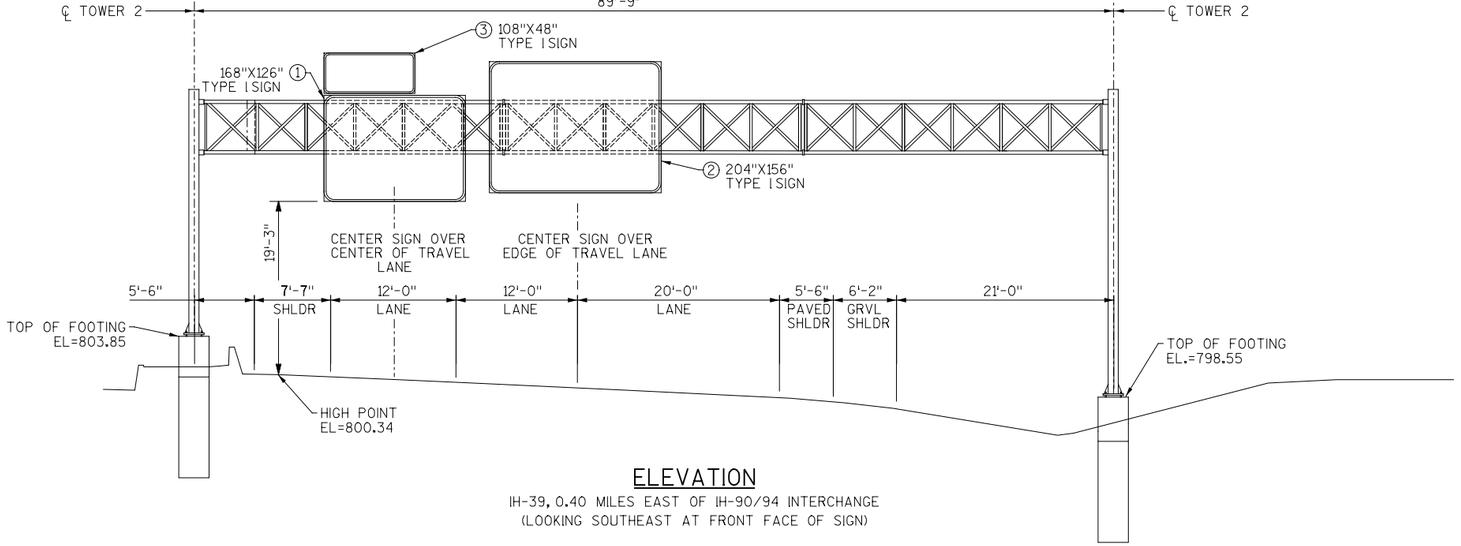
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FILE NAME :S-11-0019.dgn
PLOT DATE :3/1/2017
PLOT BY : Veronica Chavezv8i
DRV :Pdf_bw_HS.plt
PEN :CELTEXTSUB.TBL



PLAN

STA. 956+16.01 PETRO S-E RAMP F



ELEVATION

IH-39, 0.40 MILES EAST OF IH-90/94 INTERCHANGE
(LOOKING SOUTHEAST AT FRONT FACE OF SIGN)

LIST OF DRAWINGS

1. GENERAL LAYOUT
2. 4-CHORD GALVANIZED STEEL SIGN BRIDGE
3. 4-CHORD SIGN BRIDGE DETAILS
4. FOOTING DETAILS
5. SUBSURFACE EXPLORATION

TOTAL ESTIMATED QUANTITIES

	BID ITEM NUMBER	BID ITEMS	QTY	UNIT
⚠	636.0100	SIGN SUPPORTS CONCRETE MASONRY	25	CY
	636.1000	SIGN SUPPORTS STEEL REINFORCEMENT HS	370	LB
	636.1500	SIGN SUPPORTS STEEL COATED REINFORCEMENT HS	2270	LB
	638.2101	MOVING SIGNS TYPE I	3	EA
	638.3100	REMOVING STRUCTURE STEEL SIGN SUPPORTS	1	EA
	641.6600	SIGN BRIDGE S-11-26	1	LS

⚠ PAYMENT FOR EXCAVATION IS INCLUDED WITH "SIGN SUPPORTS CONCRETE MASONRY".

STATE PROJECT NUMBER

1010-02-85

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

ALTERNATE DESIGNS ARE NOT ALLOWED.

ALL STRUCTURAL STEEL MEMBERS, PLATES, ANCHOR RODS, H.S. BOLTS, NUTS AND WASHERS SHALL BE GALVANIZED PER SECTION 641 OF THE WISDOT STANDARD SPECIFICATIONS.

ALL H.S. BOLTED CONNECTIONS SHALL BE MADE WITH ¾" ϕ (DIAMETER) A325 GALVANIZED BOLTS. FIELD CONNECTIONS SHALL BE INSTALLED WITH DTI WASHERS.

WELDED CONNECTIONS CAN BE USED IN LIEU OF BOLTED CONNECTIONS, IF UNIT CAN BE GALVANIZED IN ONE PIECE.

CONTRACTOR SHALL VERIFY DIMENSIONS PRIOR TO FABRICATION OF STRUCTURE.

WELD TEST AS PER AWS D1.1.

THE STRUCTURE MUST BE ASSEMBLED IN THE SHOP TO ASSURE FIT UP PER SECTION 641.3.3 OF THE WISDOT STANDARD SPECIFICATIONS.

EXACT LOCATION OF SIGN BRIDGE SHALL BE DETERMINED BY THE REGION TRAFFIC ENGINEER.

CONTRACTOR SHALL VERIFY UTILITY CONFLICTS PRIOR TO CONSTRUCTION OF FOOTINGS.

CENTER PRIMARY TYPE I SIGNS VERTICALLY ON TRUSS.

ULTIMATE DESIGN STRESSES

CONCRETE MASONRY - ——— f'c = 3,500 P.S.I.

BAR STEEL REINFORCEMENT, GRADE 60 - ——— fy = 60,000 P.S.I.

COLUMN AND CHORD PIPE, API SPEC. 5L GRADE X42 - ——— fy = 42,000 P.S.I. **

PLATES, BARS AND STRUCTURAL ANGLES, ASTM A709 GRADE 36 - ——— fy = 36,000 P.S.I.

ANCHOR RODS, ASTM F1554, GRADE 55 - ——— fy = 55,000 P.S.I.
ASTM A563A HEAVY HEX NUTS, AND ASTM F436 WASHERS.

** CONTRACTOR MAY SUBSTITUTE ALTERNATE MATERIALS PER WISDOT BRIDGE MANUAL SECTION 39.3 AT NO ADDITIONAL COST, PROVIDED THAT APPROVAL IS OBTAINED FROM THE DEPARTMENT.

DESIGN DATA

DEAD LOAD - 3 PSF OF SIGN, WEIGHT OF SUPPORTING STRUCTURE.
ICE LOAD - 3 PSF TO ONE FACE OF SIGN & AROUND SURFACE OF MEMBERS.
WIND PRESSURE - 90 MPH (3-SECOND GUST SPEED) TO SIGN AREA & EXPOSED MEMBERS.
FATIGUE - CATERGORY 1 WITHOUT GALLOPING WIND EFFECTS

DESIGNED ACCORDING TO THE 6TH EDITION AND INTERIM REVISIONS OF AASHTO "STANDARD SPECIFICTIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES, AND TRAFFIC SIGNALS".

STRUCTURE	DESIGN SIGN AREA	MAX. SIGN DEPTH
S-11-26	700 SF	13 FEET

WISCONSIN
VERONICA CHAVEZ DE FERNANDEZ
E-42456
MILWAUKEE
WI
PROFESSIONAL ENGINEER

4/21/2017
(PAGES 1 TO 4)

NO.	DATE	REVISION	BY

COLLINS ENGINEERS INC

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

ACCEPTED William C. Dreher SDR 05/17/17
CHIEF STRUCTURES DESIGN ENGINEER — DATE

STRUCTURE S-11-26

SB IH 39 AT THE STH 78 INTERCHANGE

COUNTY	TOWN/CITY/VILLAGE
COLUMBIA	CALEDONIA

DESIGN SPEC.
AASHTO STANDARD SPECS AND INTERM REVISIONS 6TH EDITION

DESIGNED BY	DESIGN CK'D.	DRAWN BY	PLANS CK'D.
MR	VC	MR	MM

GENERAL LAYOUT

SHEET 1 OF 5
292

BUREAU OF STRUCTURES CONTACT:
MATTHEW DAPP (608) 246-5353

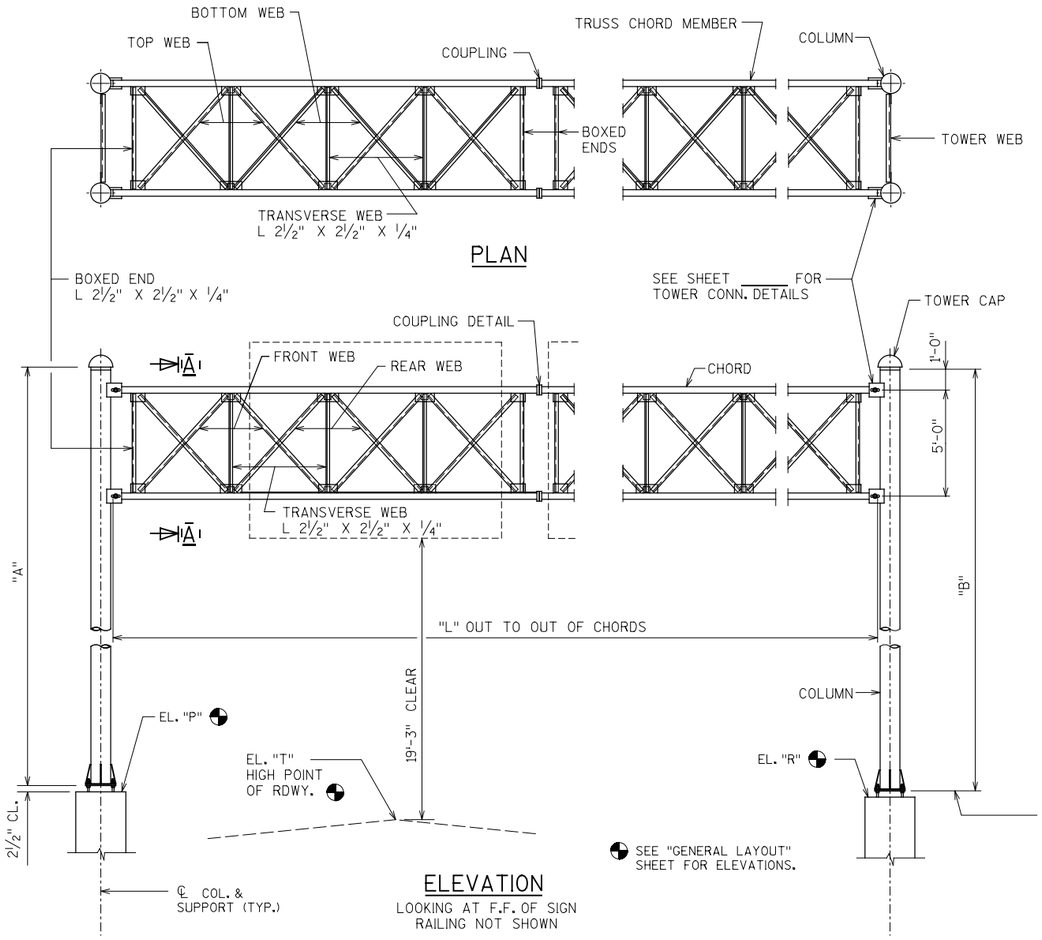
CONSULTANT CONTACT:
VERONICA CHAVEZ DE FERNANDEZ
(414) 282-6905

FILE NAME :L:Plan & Elevation.dgn
PLOT DATE :4/20/2017 PLOT BY : Veronica Chavezv8i DRV :Pdf_bw_HS.plt PEN :CEL_TEXTSUB.TBL

stfull1 7 /16

STATE PROJECT NUMBER

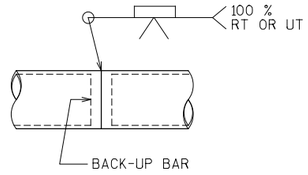
1010-02-85



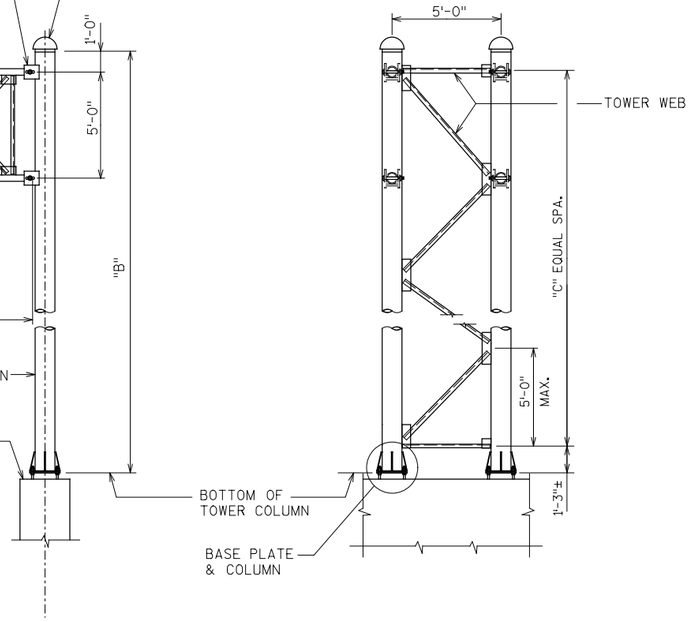
PLAN

ELEVATION

LOOKING AT F.F. OF SIGN
RAILING NOT SHOWN

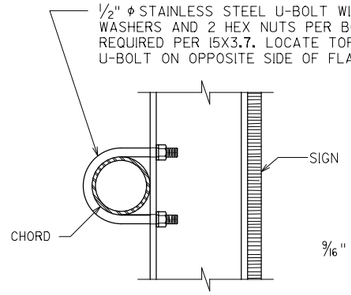


CHORD SHOP SPLICE

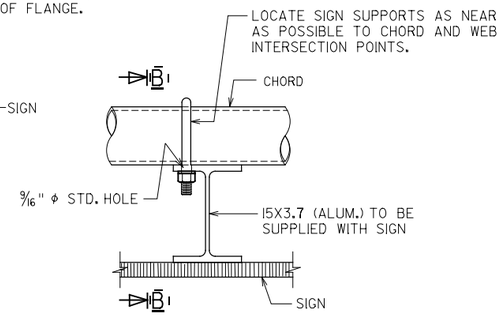


END VIEW

RAILING NOT SHOWN

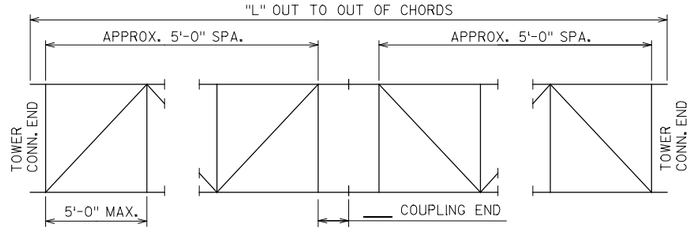


SECTION B-B



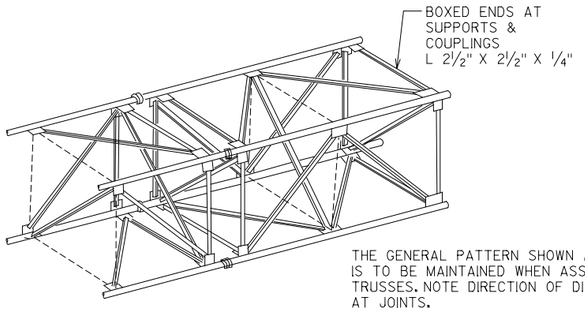
TYPICAL SIGN CONNECTION

FOR TYPE I AND II SIGNS ONLY

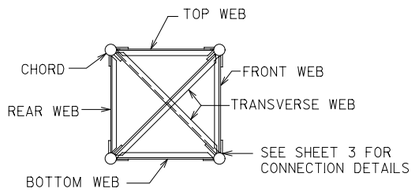


TRUSS ARRANGEMENT

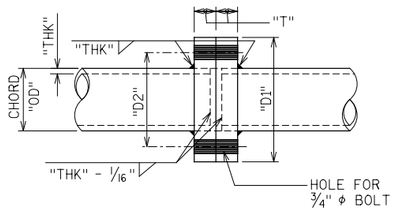
FABRICATOR MAY MAKE TRUSSES ANY LENGTH KEEPING A SECTION A MINIMUM OF 20'-0" & A MULTIPLE OF 5'-0". CHORD FIELD SPLICES SHALL BE MADE WITH COUPLINGS. CHORD SHOP SPLICE SHALL BE THE WELDED SPLICE SHOWN ABOVE.



TYPICAL TRUSS SECTION



SECTION A-A



COUPLING DETAIL

CONTRACTOR SHALL PROVIDE #16 GA. GALVANIZED STEEL SHIMS, AS REQUIRED TO PROVIDE FOR A CAMBER SHOWN IN THE TABLE.

DIMENSIONS, CAMBER & MEMBER SIZES

STRUCTURE	DIMENSIONS					CHORD	TRUSS WEB		COUPLING				COLUMN	TOWER WEB
	"L"	"A"	"B"	"C"	CAMBER	"OD" X "THK"	TOP & BOTTOM	FRONT & REAR	"D1"	"T"	"D2"	NO. OF BOLT	"OD" X "THK"	
S-11-26	88'-7¼"	26'-3⅜"	31'-7"	6	1¾"	4X0.226	3"X3"X5/16"	3"X3"X5/16"	10"	1"	7"	6	10.75X0.365	3"X3"X¼"

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE S-11-26

DRAWN BY MR | PLANS CK'D. VC

4-CHORD GALVANIZED STEEL SIGN BRIDGE

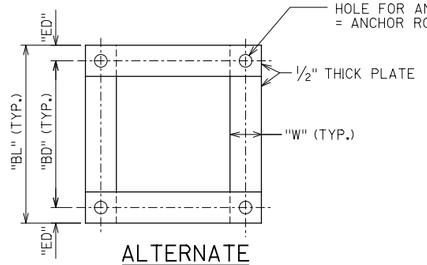
SHEET 2 OF 5
293

8

8

FILE NAME :2.Galvanized Steel Sign Bridge.dgn
PLOT DATE :4/20/2017 PLOT BY : Veronica Chavez-vt PRV :Pdf_bw_HS.plt PEN :CELTEXTSUB.TBL

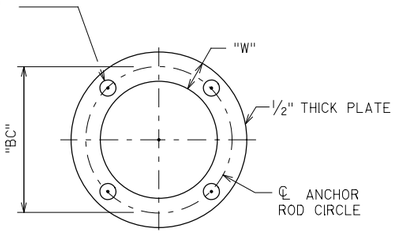
STATE PROJECT NUMBER
1010-02-85



ALTERNATE

ANCHOR PLATE/TOP TEMPLATE

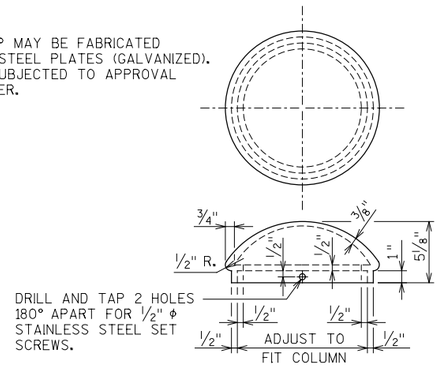
PLAN VIEW



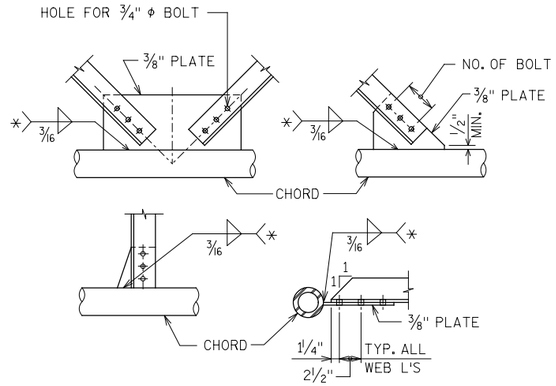
ANCHOR PLATE/TOP TEMPLATE

PLAN VIEW

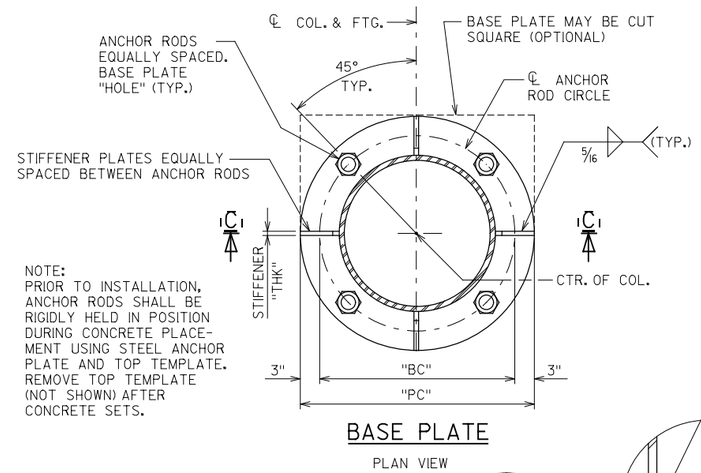
ALTERNATE CAP MAY BE FABRICATED FROM MIN. 3/16" STEEL PLATES (GALVANIZED). DETAILS ARE SUBJECTED TO APPROVAL BY THE ENGINEER.



TOWER CAP DETAIL

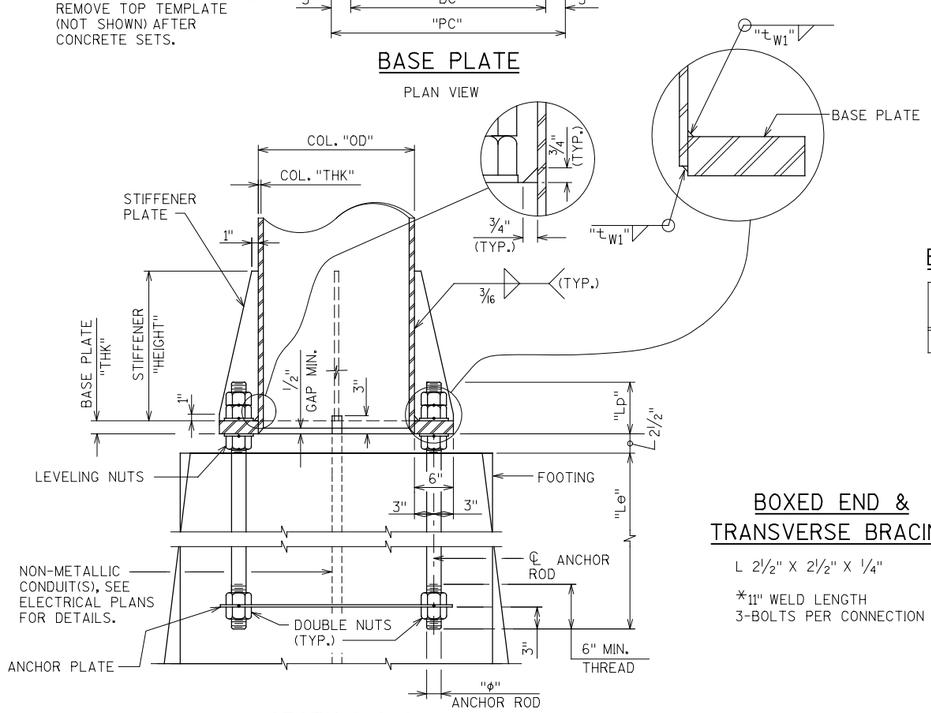


TYPICAL TRUSS CONNECTION DETAILS



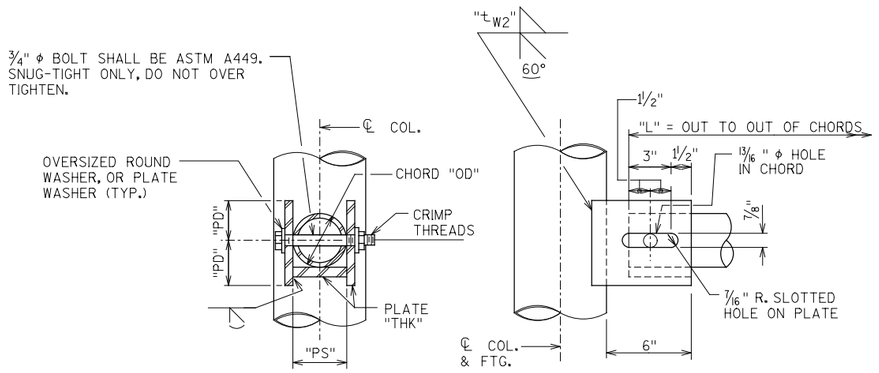
BASE PLATE

PLAN VIEW



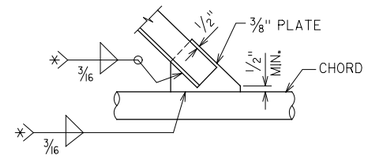
SECTION C-C

3/4" ϕ BOLT SHALL BE ASTM A449. SNUG-TIGHT ONLY, DO NOT OVER TIGHTEN.



TOWER CONNECTION DETAILS

BOLT AND HOLE DIMENSIONS SHOWN ARE MINIMUM



TYPICAL WELDED ALTERNATE

BASE PLATE, COLUMN STIFFENER, ANCHOR ROD & TOWER CONNECTION

STRUCTURE	BASE PLATE					ANCHOR PLATE/TOP TEMPLATE				STIFFENER PLATE		ANCHOR ROD			TOWER CONNECTION			
	"BC"	"PC"	"THK"	"HOLE"	"t W1"	"W"	"BD"	"ED"	"BL"	"THK"	"HEIGHT"	"ϕ"	"Le"	"Lp"	"PD"	"PS"	"THK"	"t W2"
S-11-26	16 3/4"	22 3/4"	1 1/2"	1 3/4"	1/4"	2 1/2"	11 27/32"	1 1/4"	14 3/8"	1/2"	12"	1 1/4"	2'-7"	5 1/4"	2 3/4"	4 3/16"	3/8"	3/16"

BOXED END & TRANSVERSE BRACING

L 2 1/2" X 2 1/2" X 1/4"

*11" WELD LENGTH
3-BOLTS PER CONNECTION

WEB MEMBER CONNECTIONS

STRUCTURE	TRUSS WEB			TOWER WEB		
	ANGLE SIZE	*WELD LENGTH	NO. OF BOLT	ANGLE SIZE	*WELD LENGTH	NO. OF BOLT
S-11-26	3X3X5/16	16 1/2"	5	3X3X1/4	13"	4

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE S-11-26

DRAWN BY MR | PLANS CK'D. VC

4-CHORD SIGN
BRIDGE DETAILS

SHEET 3 OF 5
294

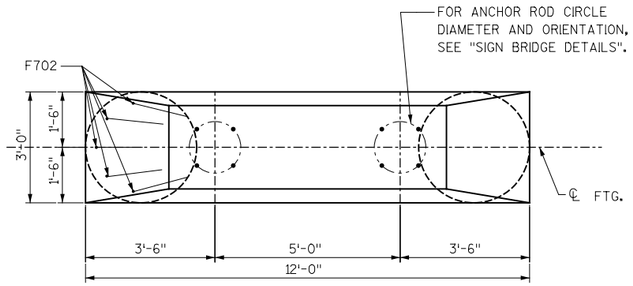
8

8

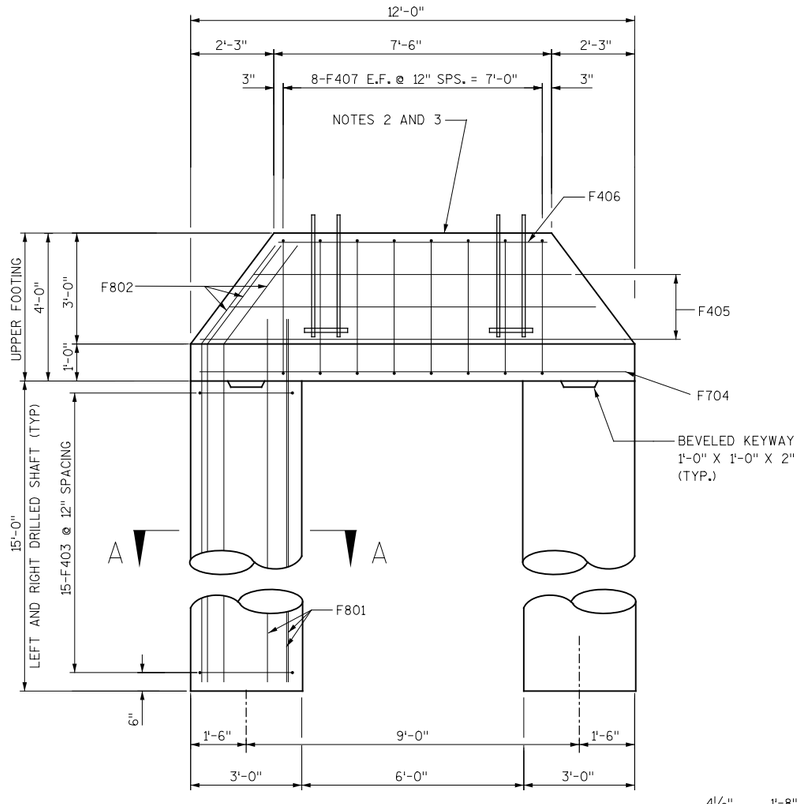
FILE NAME :13.Sign Bridge Details.dgn
PLOT DATE :4/20/2017
PLOT BY : Veronica Chavez-Vil
DRV :Pdf_bw_HS.pit
PEN :CELTEXTSUB.TBL

stfull3 7 /16

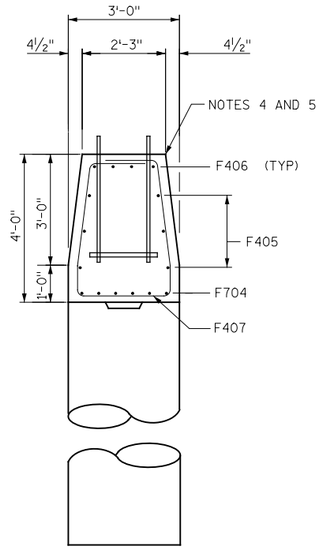
STATE PROJECT NUMBER
1010-02-85



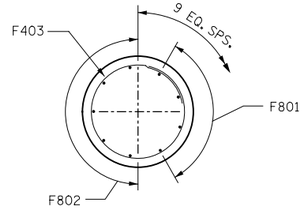
PLAN



ELEVATION



END VIEW



SECTION A-A

GENERAL NOTES

1. BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 3" CLEAR UNLESS OTHERWISE NOTED.
2. THE TOP OF THE FOOTING SURFACE SHALL BE SMOOTHED AND SLOPED TO DRAIN.
3. REFER TO THE PLAN AND ELEVATION SHEET FOR TOP OF FOOTING ELEVATIONS. BOTTOM OF FOOTING TO BE EMBEDDED 1'-0" BELOW GRADE.

FOUNDATION DATA

SOIL DESCRIPTION	FRICTION ANGLE	COHESION PSF	UNIT WEIGHT PCF	ALLOWABLE SHAFT RESISTANCE	ALLOWABLE BASE RESISTANCE
ELEVATION 794.7 FT. - 793.7 FT.	28	0	100	85	3200
ELEVATION 793.7 FT. - 788.7 FT.	31	0	115	160	3200
ELEVATION 788.7 FT. - 786.2 FT.	28	0	115	135	1200
ELEVATION 786.2 FT. - 784.7 FT.	32	0	120	300	6000
ELEVATION 784.7 FT. - 782.7 FT.	0	2.5	125	470	10000
ELEVATION 782.7 FT. 780.7 FT.	33	0	125	400	10000
ELEVATION 780.7 FT. 775.7 FT.	36	0	125	600	15000
ELEVATION 775.7 FT. - 769.7 FT.	38	0	135	900	20000

BILL OF BARS

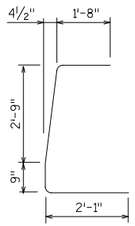
FOOTING AND SHAFTS = 2640 LBS.

BAR MARK	COAT	NO. REQ'D	LENGTH	BENT	BAR SERIES	LOCATION
F801	X	16	18'-8"			DRILLED SHAFT VERTICAL
F802	X	20	19'-0"	X		DRILLED SHAFT VERTICAL/UPPER FOOTING DIAGONAL
F403		60	9'-4"	X		DRILLED SHAFT HOOP
F704	X	12	11'-6"			UPPER FOOTING LONGITUDINAL
F405	X	12	9'-11" *		X	UPPER FOOTING LONGITUDINAL
F406	X	8	7'-0"			UPPER FOOTING LONGITUDINAL
F407	X	32	7'-3"	X		UPPER FOOTING STIRRUPS

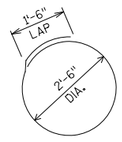
NOTE: THE FIRST DIGIT OF THE BAR MARK SIGNIFIES THE BAR SIZE.

* DENOTES THAT THE LENGTH SHOWN IS AN AVERAGE LENGTH AND SHOULD ONLY BE USED FOR REINFORCEMENT BAR WEIGHTS. REFERENCE BAR SERIES TABLE FOR THE VARYING BAR LENGTHS.

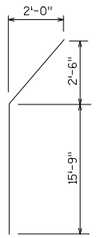
BAR SERIES TABLE		
BAR MARK	NO. REQ'D	LENGTH VARIES FROM
F405	4 SERIES OF 3	8'-6" TO 11'-4"



F407



F403



F802

8

8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE S-11-26

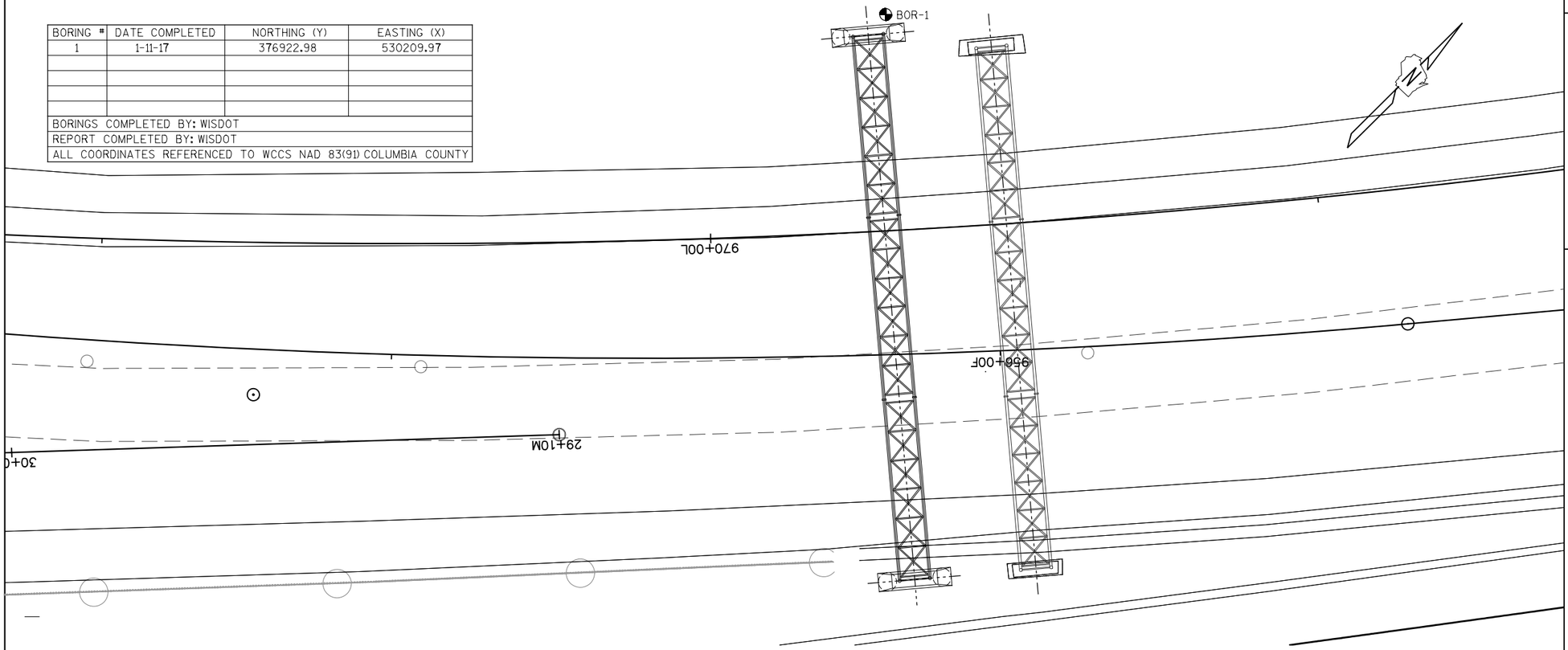
DRAWN BY MR | PLANS CK'D. VC

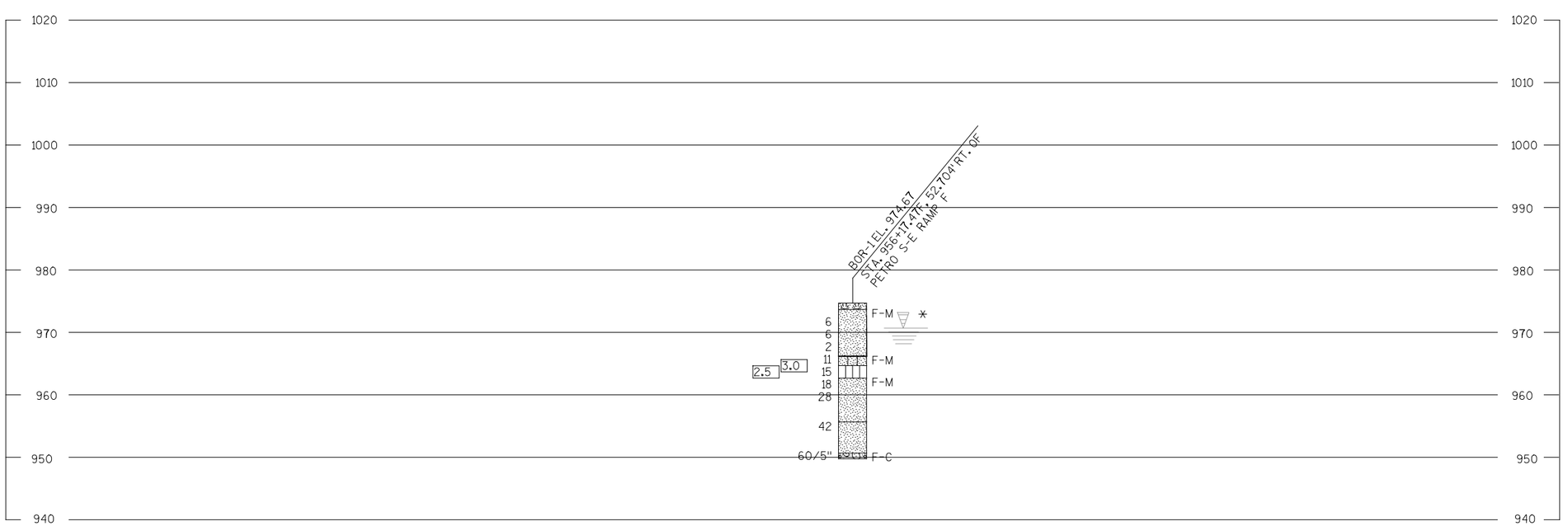
FOOTING DETAILS

SHEET 4 OF 5
295

FILE NAME :4_Footing Details.dgn
PLOT DATE :4/20/2017 PLOT BY : Veronica Chavez-vt DRV :Pdf_bw_HS.plt PEN :CELTEXTSUB.TBL

BORING #	DATE COMPLETED	NORTHING (Y)	EASTING (X)
1	1-11-17	376922.98	530209.97
BORINGS COMPLETED BY: WISDOT			
REPORT COMPLETED BY: WISDOT			
ALL COORDINATES REFERENCED TO WCCS NAD 83(91) COLUMBIA COUNTY			





* THE GROUND WATER ELEVATION WAS DETERMINED FROM WHERE THE SOIL SAMPLE WAS DESCRIBED AS WET.

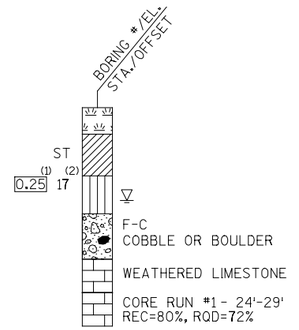
STATE PROJECT NUMBER

1010-02-02

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.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE S-11-26

DRAWN BY TLP | PLANS CK'D.

SUBSURFACE EXPLORATION

SHEET 5 OF 5

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SCALE =

EARTHWORK TABULATION - IH 39/90/94 SOUTHBOUND — EXPANSION FACTOR = 1.2

STATION	CUT AREA (SF)	CUT VOLUME (CY)	REUSABLE VOLUME (CY)	FILL AREA (SF)	FILL VOLUME (CY)	CUMMULATIVE CUT VOLUME (CY)	CUMMULATIVE REUSABLE VOLUME (CY)	CUMMULATIVE FILL VOLUME (CY)	CUMMULATIVE NET VOLUME (CY)
1148+36.598	0			0		0		0	
1149+00.000	0	0	0	0	0	0	0	0	0
1150+00.000	0	0	0	0	0	0	0	0	0
1151+00.000	0	0	0	0	0	0	0	0	0
1152+00.000	0	0	0	0	0	0	0	0	0
1153+00.000	0	0	0	0	0	0	0	0	0
1154+00.000	0	0	0	0	0	0	0	0	0
1155+00.000	0	0	0	0	0	0	0	0	0
1156+00.000	0	0	0	0	0	0	0	0	0
1157+00.000	0	0	0	0	0	0	0	0	0
1158+00.000	0	0	0	0	0	0	0	0	0
1159+00.000	0	0	0	0	0	0	0	0	0
1160+00.000	0	0	0	0	0	0	0	0	0
1161+00.000	0	0	0	0	0	0	0	0	0
1162+00.000	0	0	0	0	0	0	0	0	0
1163+00.000	0	0	0	0	0	0	0	0	0
1164+00.000	0	0	0	20	44	0	0	44	-44
1165+00.000	0	0	0	54	163	0	0	207	-207
1166+00.000	0	0	0	37	201	0	0	407	-407
1167+00.000	0	0	0	6	96	0	0	503	-503
1168+00.000	0	0	0	0	14	0	0	517	-517
1169+00.000	0	0	0	6	14	0	0	532	-532
1170+00.000	0	0	0	8	31	0	0	563	-563
1171+00.000	0	0	0	2	22	0	0	584	-584
1172+00.000	0	0	0	3	12	0	0	596	-596
1173+00.000	0	0	0	3	13	0	0	610	-610
1174+00.000	0	0	0	3	13	0	0	623	-623
1175+00.000	0	0	0	3	14	0	0	637	-637
1176+00.000	0	0	0	1	8	0	0	645	-645
1177+00.000	0	0	0	1	3	0	0	648	-648
1178+00.000	0	0	0	4	11	0	0	659	-659
1179+00.000	0	0	0	3	17	0	0	675	-675
1180+00.000	0	0	0	2	12	0	0	688	-688
1181+00.000	0	0	0	4	14	0	0	702	-702
1182+00.000	0	0	0	59	140	0	0	842	-842
1183+00.000	0	0	0	9	151	0	0	993	-993
1184+00.000	0	0	0	3	26	0	0	1,020	-1,020
1185+00.000	0	0	0	2	9	0	0	1,029	-1,029
1186+00.000	0	0	0	1	6	0	0	1,035	-1,035
1187+00.000	0	0	0	2	7	0	0	1,042	-1,042
1188+00.000	0	0	0	2	10	0	0	1,052	-1,052
1189+00.000	0	0	0	10	27	0	0	1,078	-1,078
1190+00.000	0	0	0	0	21	0	0	1,100	-1,100
1191+00.000	0	0	0	0	0	0	0	1,100	-1,100
1192+00.000	0	0	0	0	0	0	0	1,100	-1,100
1193+00.000	0	0	0	0	0	0	0	1,100	-1,100
1194+00.000	0	0	0	0	0	0	0	1,100	-1,100
1195+00.000	0	0	0	0	0	0	0	1,100	-1,100
1196+00.000	0	0	0	0	0	0	0	1,100	-1,100
1197+00.000	0	0	0	0	0	0	0	1,100	-1,100
1198+00.000	0	0	0	0	0	0	0	1,100	-1,100
1199+00.000	0	0	0	0	0	0	0	1,100	-1,100
1200+00.000	0	0	0	0	0	0	0	1,100	-1,100

EARTHWORK TABULATION - IH 39/90/94 SOUTHBOUND — EXPANSION FACTOR = 1.

STATION	CUT AREA (SF)	CUT VOLUME (CY)	REUSABLE VOLUME (CY)	FILL AREA (SF)	FILL VOLUME (CY)	CUMMULATIVE CUT VOLUME (CY)	CUMMULATIVE REUSABLE VOLUME (CY)	CUMMULATIVE FILL VOLUME (CY)	CUMMULATIVE NET VOLUME (CY)
1201+00.000	0	0	0	0	0	0	0	1,100	-1,100
1202+00.000	0	0	0	0	0	0	0	1,100	-1,100
1203+00.000	0	0	0	0	0	0	0	1,100	-1,100
1204+00.000	0	0	0	0	0	0	0	1,100	-1,100
1205+00.000	0	0	0	0	0	0	0	1,100	-1,100
1206+00.000	0	0	0	0	0	0	0	1,100	-1,100
1207+00.000	0	0	0	3	8	0	0	1,108	-1,108
1208+00.000	0	0	0	3	14	0	0	1,122	-1,122
1209+00.000	0	0	0	6	19	0	0	1,141	-1,141
1210+00.000	0	0	0	1	16	0	0	1,157	-1,157
1211+00.000	0	0	0	5	14	0	0	1,171	-1,171
1212+00.000	0	0	0	3	18	0	0	1,189	-1,189
1213+00.000	0	0	0	0	7	0	0	1,196	-1,196
1214+00.000	0	0	0	2	4	0	0	1,200	-1,200
1215+00.000	0	0	0	1	6	0	0	1,206	-1,206
1216+00.000	0	0	0	0	2	0	0	1,207	-1,207
1217+00.000	0	0	0	0	0	0	0	1,207	-1,207
1218+00.000	0	0	0	8	17	0	0	1,224	-1,224
1219+00.000	0	0	0	4	25	0	0	1,249	-1,249
1220+00.000	0	0	0	0	8	0	0	1,257	-1,257
1221+00.000	0	0	0	0	0	0	0	1,257	-1,257
1222+00.000	0	0	0	0	0	0	0	1,257	-1,257
1223+00.000	0	0	0	0	0	0	0	1,257	-1,257
1224+00.000	0	0	0	0	0	0	0	1,257	-1,257
1225+00.000	0	0	0	0	0	0	0	1,257	-1,257
1226+00.000	0	0	0	0	0	0	0	1,257	-1,257
1227+00.000	0	0	0	0	0	0	0	1,257	-1,257
1228+00.000	0	0	0	2	5	0	0	1,261	-1,261
1229+00.000	0	0	0	3	12	0	0	1,273	-1,273
1230+00.000	0	0	0	0	7	0	0	1,280	-1,280
1231+00.000	0	0	0	4	10	0	0	1,290	-1,290
1232+00.000	0	0	0	7	24	0	0	1,314	-1,314
1233+00.000	0	0	0	12	41	0	0	1,356	-1,356
1234+00.000	0	0	0	4	34	0	0	1,390	-1,390
1235+00.000	0	0	0	6	22	0	0	1,412	-1,412
1236+00.000	0	0	0	1	16	0	0	1,428	-1,428
1237+00.000	0	0	0	0	1	0	0	1,429	-1,429
1238+00.000	0	0	0	0	0	0	0	1,429	-1,429
1239+00.000	0	0	0	0	0	0	0	1,429	-1,429
1240+00.000	0	0	0	0	0	0	0	1,429	-1,429
1241+00.000	0	0	0	0	0	0	0	1,429	-1,429
1242+00.000	0	0	0	0	0	0	0	1,429	-1,429
1243+00.000	0	0	0	0	0	0	0	1,429	-1,429
1244+00.000	0	0	0	0	0	0	0	1,429	-1,429
1245+00.000	0	0	0	0	0	0	0	1,429	-1,429
1246+00.000	0	0	0	0	0	0	0	1,429	-1,429
1247+00.000	0	0	0	0	0	0	0	1,429	-1,429
1248+00.000	0	0	0	0	0	0	0	1,429	-1,429
1249+00.000	0	0	0	0	0	0	0	1,429	-1,429
1250+00.000	0	0	0	0	0	0	0	1,429	-1,429
1251+00.000	0	0	0	0	0	0	0	1,429	-1,429
1252+00.000	0	0	0	0	0	0	0	1,429	-1,429
1253+00.000	0	0	0	0	0	0	0	1,429	-1,429

EARTHWORK TABULATION - IH 39/90/94 SOUTHBOUND — EXPANSION FACTOR = 1.2

STATION	CUT AREA (SF)	CUT VOLUME (CY)	REUSABLE VOLUME (CY)	FILL AREA (SF)	FILL VOLUME (CY)	CUMMULATIVE CUT VOLUME (CY)	CUMMULATIVE REUSABLE VOLUME (CY)	CUMMULATIVE FILL VOLUME (CY)	CUMMULATIVE NET VOLUME (CY)
1254+00.000	0	0	0	0	0	0	0	1,429	-1,429
1255+00.000	0	0	0	0	0	0	0	1,429	-1,429
1256+00.000	0	0	0	0	0	0	0	1,429	-1,429
1257+00.000	0	0	0	0	0	0	0	1,429	-1,429
1258+00.000	0	0	0	0	0	0	0	1,429	-1,429
1259+00.000	0	0	0	0	0	0	0	1,429	-1,429
1260+00.000	0	0	0	0	0	0	0	1,429	-1,429
1261+00.000	0	0	0	0	0	0	0	1,429	-1,429
1262+00.000	0	0	0	0	0	0	0	1,429	-1,429
1263+00.000	0	0	0	0	0	0	0	1,429	-1,429
1264+00.000	0	0	0	26	59	0	0	1,488	-1,488
1265+00.000	0	0	0	10	81	0	0	1,569	-1,569
1266+00.000	0	0	0	3	30	0	0	1,599	-1,599
1267+00.000	0	0	0	4	17	0	0	1,616	-1,616
1268+00.000	0	0	0	0	9	0	0	1,625	-1,625
1269+00.000	0	0	0	0	0	0	0	1,625	-1,625
1270+00.000	0	0	0	0	0	0	0	1,625	-1,625
1271+00.000	0	0	0	71	158	0	0	1,783	-1,783
1272+00.000	0	0	0	92	363	0	0	2,146	-2,146
1273+00.000	0	0	0	49	313	0	0	2,459	-2,459
1274+00.000	0	0	0	12	136	0	0	2,595	-2,595
1275+00.000	0	0	0	0	27	0	0	2,622	-2,622
1276+00.000	0	0	0	60	134	0	0	2,756	-2,756
1277+00.000	0	0	0	10	156	0	0	2,912	-2,912
1278+00.000	0	0	0	13	53	0	0	2,965	-2,965
1279+00.000	0	0	0	10	51	0	0	3,016	-3,016
1280+00.000	0	0	0	13	49	0	0	3,065	-3,065
1281+00.000	0	0	0	13	56	0	0	3,122	-3,122
1282+00.000	0	0	0	4	38	0	0	3,159	-3,159
1283+00.000	0	0	0	5	20	0	0	3,179	-3,179
1284+00.000	0	0	0	12	36	0	0	3,215	-3,215
1285+00.000	0	0	0	8	43	0	0	3,258	-3,258
1286+00.000	0	0	0	7	32	0	0	3,290	-3,290
1287+00.000	0	0	0	10	37	0	0	3,327	-3,327
1288+00.000	0	0	0	12	49	0	0	3,377	-3,377
1289+00.000	0	0	0	14	58	0	0	3,435	-3,435
1290+00.000	0	0	0	17	69	0	0	3,504	-3,504
1291+00.000	0	0	0	17	77	0	0	3,580	-3,580
1292+00.000	0	0	0	16	73	0	0	3,654	-3,654
1293+00.000	0	0	0	10	59	0	0	3,712	-3,712
1294+00.000	0	0	0	6	37	0	0	3,749	-3,749
1295+00.000	0	0	0	8	31	0	0	3,780	-3,780
1296+00.000	0	0	0	11	43	0	0	3,823	-3,823
1297+00.000	0	0	0	6	39	0	0	3,862	-3,862
1298+00.000	0	0	0	5	24	0	0	3,886	-3,886
1299+00.000	0	0	0	7	27	0	0	3,913	-3,913
1300+00.000	0	0	0	4	25	0	0	3,938	-3,938
1301+00.000	0	0	0	4	18	0	0	3,956	-3,956
1302+00.000	0	0	0	4	18	0	0	3,974	-3,974
1303+00.000	0	0	0	12	36	0	0	4,010	-4,010
1304+00.000	0	0	0	6	40	0	0	4,049	-4,049
1305+00.000	0	0	0	0	13	0	0	4,062	-4,062
1306+00.000	0	0	0	0	0	0	0	4,062	-4,062
1307+00.000	0	0	0	0	0	0	0	4,062	-4,062

EARTHWORK TABULATION - IH 39/90/94 SOUTHBOUND — EXPANSION FACTOR = 1.2

STATION	CUT AREA (SF)	CUT VOLUME (CY)	REUSABLE VOLUME (CY)	FILL AREA (SF)	FILL VOLUME (CY)	CUMMULATIVE CUT VOLUME (CY)	CUMMULATIVE REUSABLE VOLUME (CY)	CUMMULATIVE FILL VOLUME (CY)	CUMMULATIVE NET VOLUME (CY)
1308+00.000	0	0	0	0	0	0	0	4,062	-4,062
1309+00.000	0	0	0	0	0	0	0	4,062	-4,062
1310+00.000	0	0	0	0	0	0	0	4,062	-4,062
1311+00.000	0	0	0	0	0	0	0	4,062	-4,062
1312+00.000	0	0	0	0	0	0	0	4,062	-4,062
1313+00.000	0	0	0	0	0	0	0	4,062	-4,062
1314+00.000	0	0	0	0	0	0	0	4,062	-4,062
1315+00.000	0	0	0	0	0	0	0	4,062	-4,062
1316+00.000	0	0	0	0	0	0	0	4,062	-4,062
1317+00.000	0	0	0	0	0	0	0	4,062	-4,062
1318+00.000	0	0	0	0	0	0	0	4,062	-4,062
1319+00.000	0	0	0	0	0	0	0	4,062	-4,062
1320+00.000	0	0	0	0	0	0	0	4,062	-4,062
1321+00.000	0	0	0	12	28	0	0	4,090	-4,090
1322+00.000	0	0	0	7	43	0	0	4,133	-4,133
1323+00.000	0	0	0	6	29	0	0	4,162	-4,162
1324+00.000	0	0	0	0	13	0	0	4,175	-4,175
1325+00.000	0	0	0	0	0	0	0	4,175	-4,175
1326+00.000	0	0	0	0	0	0	0	4,175	-4,175
1327+00.000	0	0	0	0	0	0	0	4,175	-4,175
1328+00.000	0	0	0	0	0	0	0	4,175	-4,175
1329+00.000	0	0	0	0	0	0	0	4,175	-4,175
1330+00.000	0	0	0	0	0	0	0	4,175	-4,175
1331+00.000	0	0	0	0	0	0	0	4,175	-4,175
1332+00.000	0	0	0	0	0	0	0	4,175	-4,175
1333+00.000	0	0	0	0	0	0	0	4,175	-4,175
1334+00.000	0	0	0	5	10	0	0	4,186	-4,186
1335+00.000	0	0	0	0	10	0	0	4,196	-4,196
1336+00.000	0	0	0	0	0	0	0	4,196	-4,196
1337+00.000	0	0	0	0	0	0	0	4,196	-4,196
1338+00.000	0	0	0	0	0	0	0	4,196	-4,196
1339+00.000	0	0	0	0	0	0	0	4,196	-4,196
1340+00.000	0	0	0	0	0	0	0	4,196	-4,196
1341+00.000	0	0	0	2	5	0	0	4,201	-4,201
1342+00.000	0	0	0	0	5	0	0	4,207	-4,207
1343+00.000	0	0	0	0	0	0	0	4,207	-4,207
1344+00.000	0	0	0	0	0	0	0	4,207	-4,207
1344+69.559	0	0	0	0	0	0	0	4,207	-4,207
TOTAL		0			4,207				

EARTHWORK TABULATION - IH 39/90/94 NORTHBOUND — EXPANSION FACTOR = 1.2

STATION	CUT AREA (SF)	CUT VOLUME (CY)	REUSABLE VOLUME (CY)	FILL AREA (SF)	FILL VOLUME (CY)	CUMMULATIVE CUT VOLUME (CY)	CUMMULATIVE REUSABLE VOLUME (CY)	CUMMULATIVE FILL VOLUME (CY)	CUMMULATIVE NET VOLUME (CY)
1167+22.905	0			1		0		0	
1168+00.000	0	0	0	0	1	0	0	1	-1
1169+00.000	0	0	0	6	13	0	0	15	-15
1170+00.000	0	0	0	23	64	0	0	79	-79
1171+00.000	0	0	0	47	155	0	0	234	-234
1172+00.000	0	0	0	0	104	0	0	339	-339
1173+00.000	0	0	0	0	0	0	0	339	-339
1174+00.000	0	0	0	0	0	0	0	339	-339
1175+00.000	0	0	0	0	0	0	0	339	-339
1176+00.000	0	0	0	0	0	0	0	339	-339
1177+00.000	0	0	0	0	0	0	0	339	-339
1178+00.000	0	0	0	0	0	0	0	339	-339
1179+00.000	0	0	0	0	0	0	0	339	-339
1180+00.000	0	0	0	0	0	0	0	339	-339
1181+00.000	0	0	0	20	44	0	0	383	-383
1182+00.000	0	0	0	26	102	0	0	485	-485
1183+00.000	0	0	0	54	178	0	0	663	-663
1184+00.000	0	0	0	40	211	0	0	874	-874
1185+00.000	0	0	0	102	316	0	0	1,189	-1,189
1186+00.000	0	0	0	54	345	0	0	1,534	-1,534
1187+00.000	0	0	0	0	119	0	0	1,653	-1,653
1188+00.000	0	0	0	0	0	0	0	1,653	-1,653
1189+00.000	0	0	0	0	0	0	0	1,653	-1,653
1190+00.000	0	0	0	0	0	0	0	1,653	-1,653
1191+00.000	0	0	0	0	0	0	0	1,653	-1,653
1192+00.000	0	0	0	35	79	0	0	1,732	-1,732
1193+00.000	0	0	0	39	165	0	0	1,897	-1,897
1194+00.000	0	0	0	61	223	0	0	2,120	-2,120
1195+00.000	0	0	0	41	228	0	0	2,348	-2,348
1196+00.000	0	0	0	50	202	0	0	2,550	-2,550
1197+00.000	0	0	0	26	167	0	0	2,718	-2,718
1198+00.000	0	0	0	0	57	0	0	2,775	-2,775
1199+00.000	0	0	0	0	0	0	0	2,775	-2,775
1200+00.000	0	0	0	0	0	0	0	2,775	-2,775
1201+00.000	0	0	0	0	0	0	0	2,775	-2,775
1202+00.000	0	0	0	0	0	0	0	2,775	-2,775
1203+00.000	0	0	0	0	0	0	0	2,775	-2,775
1204+00.000	0	0	0	0	0	0	0	2,775	-2,775
1205+00.000	0	0	0	0	0	0	0	2,775	-2,775
1206+00.000	0	0	0	0	0	0	0	2,775	-2,775
1207+00.000	0	0	0	0	0	0	0	2,775	-2,775
1208+00.000	0	0	0	0	0	0	0	2,775	-2,775
1209+00.000	0	0	0	0	0	0	0	2,775	-2,775
1210+00.000	0	0	0	0	0	0	0	2,775	-2,775
1211+00.000	0	0	0	0	0	0	0	2,775	-2,775
1212+00.000	0	0	0	0	0	0	0	2,775	-2,775
1213+00.000	0	0	0	0	0	0	0	2,775	-2,775
1214+00.000	0	0	0	0	0	0	0	2,775	-2,775
1215+00.000	0	0	0	0	0	0	0	2,775	-2,775
1216+00.000	0	0	0	0	0	0	0	2,775	-2,775
1217+00.000	0	0	0	0	0	0	0	2,775	-2,775
1218+00.000	0	0	0	0	0	0	0	2,775	-2,775
1219+00.000	0	0	0	0	0	0	0	2,775	-2,775

EARTHWORK TABULATION - IH 39/90/94 NORTHBOUND — EXPANSION FACTOR = 1.2

STATION	CUT AREA (SF)	CUT VOLUME (CY)	REUSABLE VOLUME (CY)	FILL AREA (SF)	FILL VOLUME (CY)	CUMMULATIVE CUT VOLUME (CY)	CUMMULATIVE REUSABLE VOLUME (CY)	CUMMULATIVE FILL VOLUME (CY)	CUMMULATIVE NET VOLUME (CY)
1220+00.000	0	0	0	0	0	0	0	2,775	-2,775
1221+00.000	0	0	0	0	0	0	0	2,775	-2,775
1222+00.000	0	0	0	0	0	0	0	2,775	-2,775
1223+00.000	0	0	0	0	0	0	0	2,775	-2,775
1224+00.000	0	0	0	0	0	0	0	2,775	-2,775
1225+00.000	0	0	0	0	0	0	0	2,775	-2,775
1226+00.000	0	0	0	0	0	0	0	2,775	-2,775
1227+00.000	0	0	0	0	0	0	0	2,775	-2,775
1228+00.000	0	0	0	0	0	0	0	2,775	-2,775
1229+00.000	0	0	0	0	0	0	0	2,775	-2,775
1230+00.000	0	0	0	0	0	0	0	2,775	-2,775
1231+00.000	0	0	0	0	0	0	0	2,775	-2,775
1232+00.000	0	0	0	0	0	0	0	2,775	-2,775
1233+00.000	0	0	0	0	0	0	0	2,775	-2,775
1234+00.000	0	0	0	0	0	0	0	2,775	-2,775
1235+00.000	0	0	0	0	0	0	0	2,775	-2,775
1236+00.000	0	0	0	0	0	0	0	2,775	-2,775
1237+00.000	0	0	0	0	0	0	0	2,775	-2,775
1238+00.000	0	0	0	0	0	0	0	2,775	-2,775
1239+00.000	0	0	0	0	0	0	0	2,775	-2,775
1240+00.000	0	0	0	0	0	0	0	2,775	-2,775
1241+00.000	0	0	0	0	0	0	0	2,775	-2,775
1242+00.000	0	0	0	0	0	0	0	2,775	-2,775
1243+00.000	0	0	0	0	0	0	0	2,775	-2,775
1243+00.000	0	0	0	0	0	0	0	2,775	-2,775
1244+00.000	0	0	0	0	0	0	0	2,775	-2,775
1245+00.000	0	0	0	0	0	0	0	2,775	-2,775
1246+00.000	0	0	0	0	0	0	0	2,775	-2,775
1247+00.000	0	0	0	0	0	0	0	2,775	-2,775
1248+00.000	0	0	0	0	0	0	0	2,775	-2,775
1249+00.000	0	0	0	0	0	0	0	2,775	-2,775
1250+00.000	0	0	0	0	0	0	0	2,775	-2,775
1251+00.000	0	0	0	0	0	0	0	2,775	-2,775
1252+00.000	0	0	0	0	0	0	0	2,775	-2,775
1253+00.000	0	0	0	0	0	0	0	2,775	-2,775
1254+00.000	0	0	0	0	0	0	0	2,775	-2,775
1255+00.000	0	0	0	0	0	0	0	2,775	-2,775
1256+00.000	0	0	0	5	11	0	0	2,786	-2,786
1257+00.000	0	0	0	0	11	0	0	2,797	-2,797
1258+00.000	0	0	0	0	0	0	0	2,797	-2,797
1259+00.000	0	0	0	15	34	0	0	2,831	-2,831
1260+00.000	0	0	0	21	80	0	0	2,911	-2,911
1261+00.000	0	0	0	21	93	0	0	3,005	-3,005
1262+00.000	0	0	0	11	72	0	0	3,077	-3,077
1263+00.000	0	0	0	2	30	0	0	3,106	-3,106
1264+00.000	0	0	0	14	36	0	0	3,142	-3,142
1265+00.000	0	0	0	11	55	0	0	3,197	-3,197
1266+00.000	0	0	0	4	35	0	0	3,232	-3,232
1267+00.000	0	0	0	11	33	0	0	3,265	-3,265
1268+00.000	0	0	0	9	44	0	0	3,309	-3,309
1269+00.000	0	0	0	5	33	0	0	3,342	-3,342
1270+00.000	0	0	0	44	110	0	0	3,453	-3,453
1271+00.000	0	0	0	48	205	0	0	3,658	-3,658
1272+00.000	0	0	0	82	290	0	0	3,948	-3,948

EARTHWORK TABULATION - IH 39/90/94 NORTHBOUND — EXPANSION FACTOR = 1.2

STATION	CUT AREA (SF)	CUT VOLUME (CY)	REUSABLE VOLUME (CY)	FILL AREA (SF)	FILL VOLUME (CY)	CUMMULATIVE CUT VOLUME (CY)	CUMMULATIVE REUSABLE VOLUME (CY)	CUMMULATIVE FILL VOLUME (CY)	CUMMULATIVE NET VOLUME (CY)
1273+00.000	0	0	0	71	341	0	0	4,289	-4,289
1274+00.000	0	0	0	49	266	0	0	4,555	-4,555
1275+00.000	0	0	0	31	177	0	0	4,731	-4,731
1276+00.000	0	0	0	59	200	0	0	4,932	-4,932
1277+00.000	0	0	0	9	152	0	0	5,084	-5,084
1278+00.000	0	0	0	5	31	0	0	5,115	-5,115
1279+00.000	0	0	0	2	15	0	0	5,131	-5,131
1280+00.000	0	0	0	7	21	0	0	5,151	-5,151
1281+00.000	0	0	0	6	30	0	0	5,181	-5,181
1282+00.000	0	0	0	4	23	0	0	5,203	-5,203
1283+00.000	0	0	0	4	16	0	0	5,220	-5,220
1284+00.000	0	0	0	12	34	0	0	5,254	-5,254
1285+00.000	0	0	0	3	33	0	0	5,287	-5,287
1286+00.000	0	0	0	5	18	0	0	5,305	-5,305
1287+00.000	0	0	0	7	26	0	0	5,330	-5,330
1288+00.000	0	0	0	3	21	0	0	5,352	-5,352
1289+00.000	0	0	0	2	11	0	0	5,362	-5,362
1290+00.000	0	0	0	4	12	0	0	5,374	-5,374
1291+00.000	0	0	0	5	20	0	0	5,394	-5,394
1292+00.000	0	0	0	6	25	0	0	5,420	-5,420
1293+00.000	0	0	0	2	19	0	0	5,438	-5,438
1294+00.000	0	0	0	26	63	0	0	5,502	-5,502
1295+00.000	0	0	0	32	129	0	0	5,631	-5,631
1296+00.000	0	0	0	12	97	0	0	5,728	-5,728
1297+00.000	0	0	0	1	27	0	0	5,755	-5,755
1298+00.000	0	0	0	0	3	0	0	5,758	-5,758
1299+00.000	0	0	0	12	28	0	0	5,786	-5,786
1300+00.000	0	0	0	10	50	0	0	5,836	-5,836
1301+00.000	0	0	0	31	91	0	0	5,927	-5,927
1302+00.000	0	0	0	0	69	0	0	5,995	-5,995
1303+00.000	0	0	0	0	0	0	0	5,995	-5,995
1304+00.000	0	0	0	0	0	0	0	5,995	-5,995
1305+00.000	0	0	0	0	0	0	0	5,995	-5,995
1306+00.000	0	0	0	0	0	0	0	5,995	-5,995
1307+00.000	0	0	0	0	0	0	0	5,995	-5,995
1308+00.000	0	0	0	0	0	0	0	5,995	-5,995
1309+00.000	0	0	0	0	0	0	0	5,995	-5,995
1310+00.000	0	0	0	0	0	0	0	5,995	-5,995
1311+00.000	0	0	0	0	0	0	0	5,995	-5,995
1312+00.000	0	0	0	0	0	0	0	5,995	-5,995
1313+00.000	0	0	0	0	0	0	0	5,995	-5,995
1314+00.000	0	0	0	0	0	0	0	5,995	-5,995
1315+00.000	0	0	0	0	0	0	0	5,995	-5,995
1316+00.000	0	0	0	0	0	0	0	5,995	-5,995
1317+00.000	0	0	0	0	0	0	0	5,995	-5,995
1318+00.000	0	0	0	0	0	0	0	5,995	-5,995
1319+00.000	0	0	0	0	0	0	0	5,995	-5,995
1320+00.000	0	0	0	0	0	0	0	5,995	-5,995
1321+00.000	0	0	0	0	0	0	0	5,995	-5,995
1322+00.000	0	0	0	0	0	0	0	5,995	-5,995
1323+00.000	0	0	0	0	0	0	0	5,995	-5,995
1324+00.000	0	0	0	0	0	0	0	5,995	-5,995
1325+00.000	0	0	0	0	0	0	0	5,995	-5,995
1326+00.000	0	0	0	0	0	0	0	5,995	-5,995

EARTHWORK TABULATION - IH 39/90/94 NORTHBOUND — EXPANSION FACTOR = 1.2

STATION	CUT AREA (SF)	CUT VOLUME (CY)	REUSABLE VOLUME (CY)	FILL AREA (SF)	FILL VOLUME (CY)	CUMMULATIVE CUT VOLUME (CY)	CUMMULATIVE REUSABLE VOLUME (CY)	CUMMULATIVE FILL VOLUME (CY)	CUMMULATIVE NET VOLUME (CY)
1327+00.000	0	0	0	0	0	0	0	5,995	-5,995
1328+00.000	0	0	0	0	0	0	0	5,995	-5,995
1329+00.000	0	0	0	5	10	0	0	6,005	-6,005
1330+00.000	0	0	0	5	21	0	0	6,027	-6,027
1331+00.000	0	0	0	0	11	0	0	6,038	-6,038
1332+00.000	0	0	0	0	0	0	0	6,038	-6,038
1333+00.000	0	0	0	0	0	0	0	6,038	-6,038
1334+00.000	0	0	0	0	0	0	0	6,038	-6,038
1335+00.000	0	0	0	0	0	0	0	6,038	-6,038
1336+00.000	0	0	0	0	0	0	0	6,038	-6,038
1337+00.000	0	0	0	0	0	0	0	6,038	-6,038
1338+00.000	0	0	0	0	0	0	0	6,038	-6,038
1339+00.000	0	0	0	0	0	0	0	6,038	-6,038
1340+00.000	0	0	0	0	0	0	0	6,038	-6,038
1341+00.000	0	0	0	22	48	0	0	6,085	-6,085
1342+00.000	0	0	0	27	107	0	0	6,192	-6,192
1343+00.000	0	0	0	8	76	0	0	6,269	-6,269
1344+00.000	0	0	0	17	55	0	0	6,323	-6,323
1345+00.000	0	0	0	3	46	0	0	6,369	-6,369
1345+28.393	0	0	0	2	4	0	0	6,373	-6,373
TOTAL		0			6,373				

EARTHWORK TABULATION - E RAMP — EXPANSION FACTOR = 1.2

STATION	CUT AREA (SF)	CUT VOLUME (CY)	REUSABLE VOLUME (CY)	FILL AREA (SF)	FILL VOLUME (CY)	CUMMULATIVE CUT VOLUME (CY)	CUMMULATIVE REUSABLE VOLUME (CY)	CUMMULATIVE FILL VOLUME (CY)	CUMMULATIVE NET VOLUME (CY)
10+58.000	44			0		0		0	
11+00.000	46	70	59	0	0	70	59	0	59
11+50.000	53	92	81	0	0	162	140	0	140
12+00.000	53	98	87	3	4	261	227	4	223
12+50.000	56	101	90	0	4	362	317	7	310
13+00.000	58	106	94	1	1	468	412	9	403
13+50.000	51	101	90	0	1	569	501	10	491
14+00.000	55	98	87	0	0	667	588	10	578
14+50.000	53	100	89	0	0	767	677	10	667
15+00.000	49	94	83	0	0	861	760	10	750
15+50.000	52	93	82	0	1	954	842	11	831
16+00.000	61	105	93	21	24	1059	935	35	900
16+50.000	76	127	115	114	150	1185	1050	185	865
17+00.000	67	132	121	0	127	1317	1171	312	859
17+50.000	49	107	96	0	0	1425	1267	312	955
18+00.000	47	89	78	0	0	1514	1345	312	1033
18+50.000	47	87	76	0	0	1601	1421	312	1109
19+00.000	45	84	73	0	0	1685	1494	312	1182
19+50.000	44	82	70	0	0	1767	1564	312	1253
20+00.000	43	80	69	0	0	1847	1633	312	1321
20+50.000	45	82	71	0	0	1929	1704	312	1392
21+00.000	3	45	34	0	0	1974	1738	312	1426
21+50.000	3	5	5	0	0	1979	1743	312	1431
22+00.000	2	5	5	0	0	1984	1748	312	1435
22+45.795	2	4	4	2	2	1988	1751	315	1437
TOTAL		1,988			315				

EARTHWORK TABULATION - J RAMP — EXPANSION FACTOR = 1.

STATION	CUT AREA (SF)	CUT VOLUME (CY)	REUSABLE VOLUME (CY)	FILL AREA (SF)	FILL VOLUME (CY)	CUMMULATIVE CUT VOLUME (CY)	CUMMULATIVE REUSABLE VOLUME (CY)	CUMMULATIVE FILL VOLUME (CY)	CUMMULATIVE NET VOLUME (CY)
11+38.840	45			0		0		0	
11+50.000	46	19	8	0	0	19	8	0	8
12+00.000	52	91	80	1	1	110	87	1	86
12+50.000	51	95	84	0	1	205	171	3	168
13+00.000	45	89	78	1	1	294	249	4	245
13+50.000	49	88	76	0	2	382	326	6	320
14+00.000	36	79	67	0	1	461	393	6	387
14+50.000	25	56	45	1	2	517	438	9	429
15+00.000	28	49	37	0	2	565	475	11	464
15+50.000	30	54	42	1	2	619	518	13	505
16+00.000	41	66	54	17	40	684	572	52	519
16+50.000	44	78	67	0	39	763	639	91	548
17+00.000	46	83	72	6	14	846	711	105	605
17+50.000	44	83	72	37	95	929	783	200	582
18+00.000	45	83	72	7	97	1012	855	297	558
18+50.000	45	84	72	1	17	1096	927	314	613
19+00.000	43	81	70	1	6	1177	997	320	677
19+50.000	43	79	68	2	6	1256	1065	326	738
20+00.000	40	77	65	4	12	1333	1130	338	792
20+50.000	34	69	58	1	10	1401	1188	349	839
21+00.000	34	63	52	0	1	1464	1239	350	889
21+20.560	43	30	18	0	0	1494	1258	350	908
29+82.500	47			0		0	1258	0	1258
30+00.000	46	30	19	0	0	30	1277	0	1277
30+50.000	46	85	74	0	0	115	1350	0	1350
31+00.000	50	88	77	0	0	203	1427	0	1427
31+50.000	52	94	83	0	0	298	1510	0	1510
32+00.000	58	102	91	0	0	400	1601	0	1601
32+50.000	57	106	95	0	0	506	1696	0	1696
32+82.500	59	70	58	0	0	576	1755	0	1754
TOTAL		2,070			351				

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PROJECT NO: 1010-02-85	HWY: IH 39	COUNTY: COLUMBIA	EARTHWORK	SHEET 301	E

EARTHWORK TABULATION - K RAMP

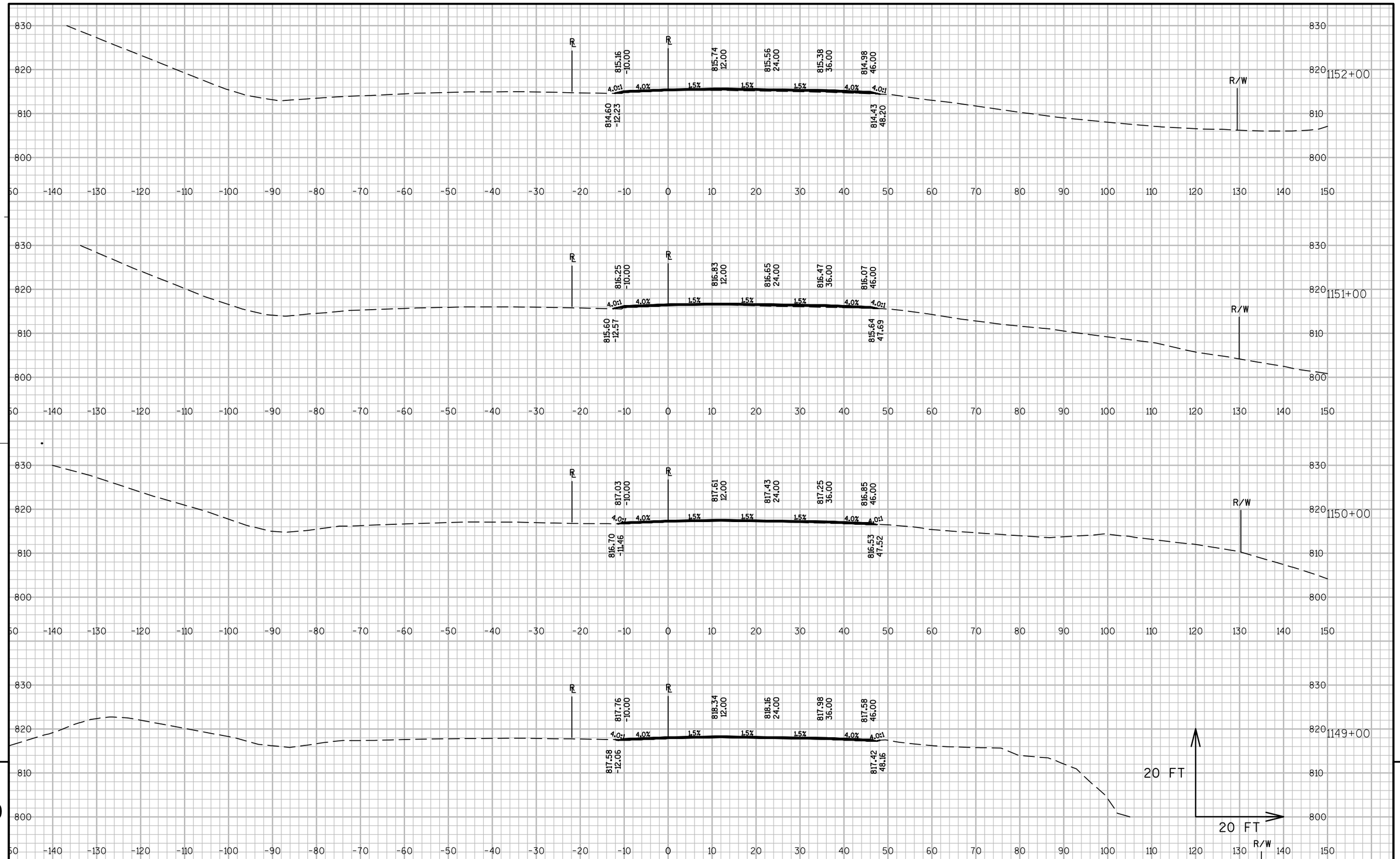
EXPANSION FACTOR = 1.2

STATION	CUT AREA (SF)	CUT VOLUME (CY)	REUSABLE VOLUME (CY)	FILL AREA (SF)	FILL VOLUME (CY)	CUMMULATIVE CUT VOLUME (CY)	CUMMULATIVE REUSABLE VOLUME (CY)	CUMMULATIVE FILL VOLUME (CY)	CUMMULATIVE NET VOLUME (CY)
19+91.000	55			0		0		0	
20+00.000	54	38	27	0	0	38	27	0	27
20+50.000	52	99	87	1	1	137	115	1	114
21+00.000	52	97	86	0	1	234	200	1	199
21+50.000	57	101	90	0	0	335	290	1	289
22+00.000	47	96	85	0	0	431	375	2	374
22+50.000	39	80	69	0	0	511	444	2	442
23+00.000	40	73	62	0	0	584	506	2	504
23+50.000	41	74	63	0	0	659	569	2	567
24+00.000	47	81	69	0	0	739	638	2	637
24+50.000	44	84	73	1	1	823	711	2	708
25+00.000	43	80	69	0	1	904	780	3	777
25+50.000	40	77	66	0	0	980	845	3	842
26+00.000	42	76	65	0	0	1057	911	3	907
26+50.000	38	74	63	0	0	1131	973	3	970
27+00.000	38	70	59	1	1	1201	1032	4	1028
27+50.000	56	87	76	1	2	1288	1108	6	1102
27+85.000	58	74	63	0	0	1362	1171	7	1164
TOTAL		1,362			7				

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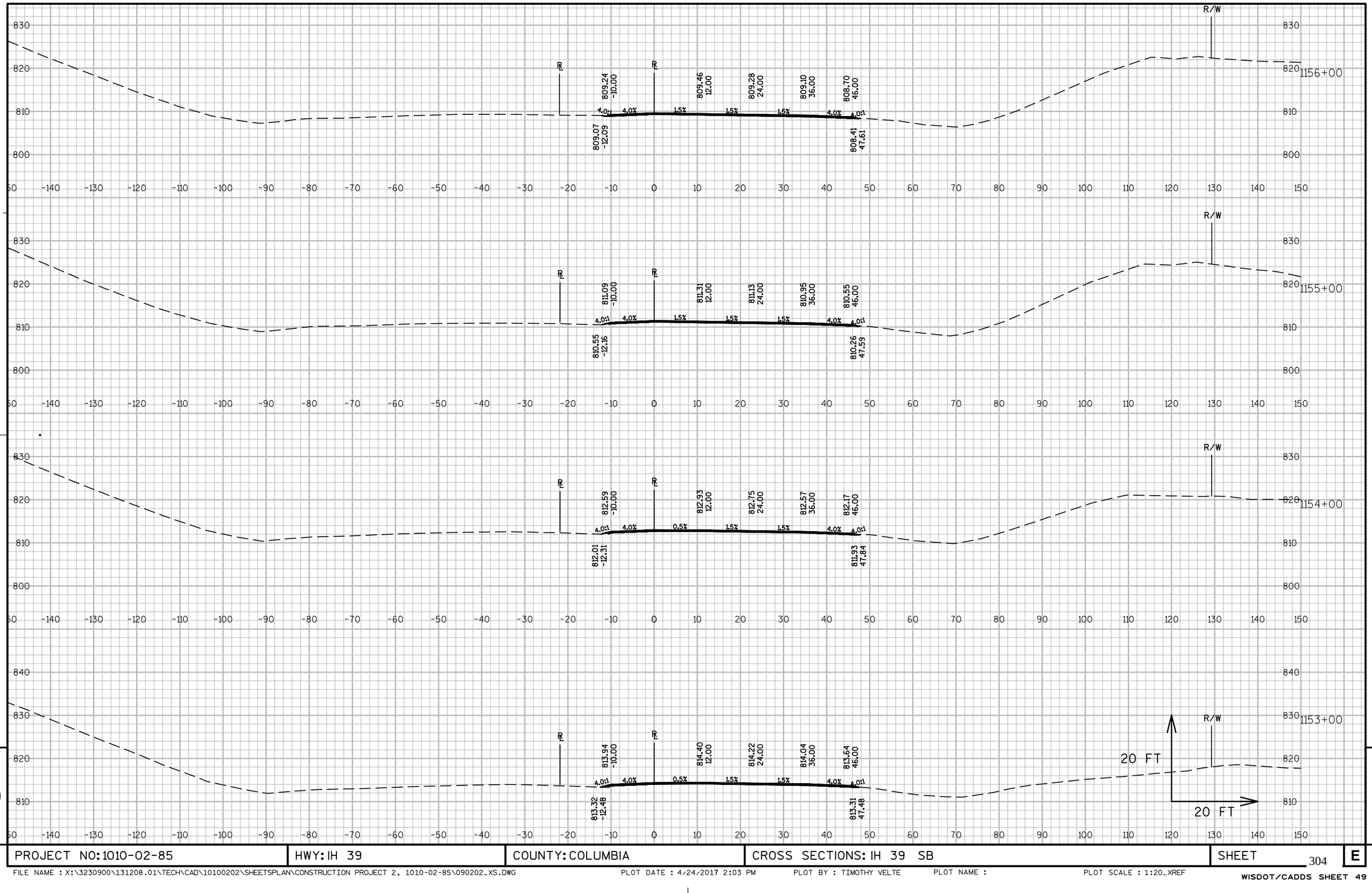
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PROJECT NO: 1010-02-85	HWY: IH 39	COUNTY: COLUMBIA	EARTHWORK	SHEET 302	E



PROJECT NO: 1010-02-85	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: IH 39 SB	SHEET 303	E

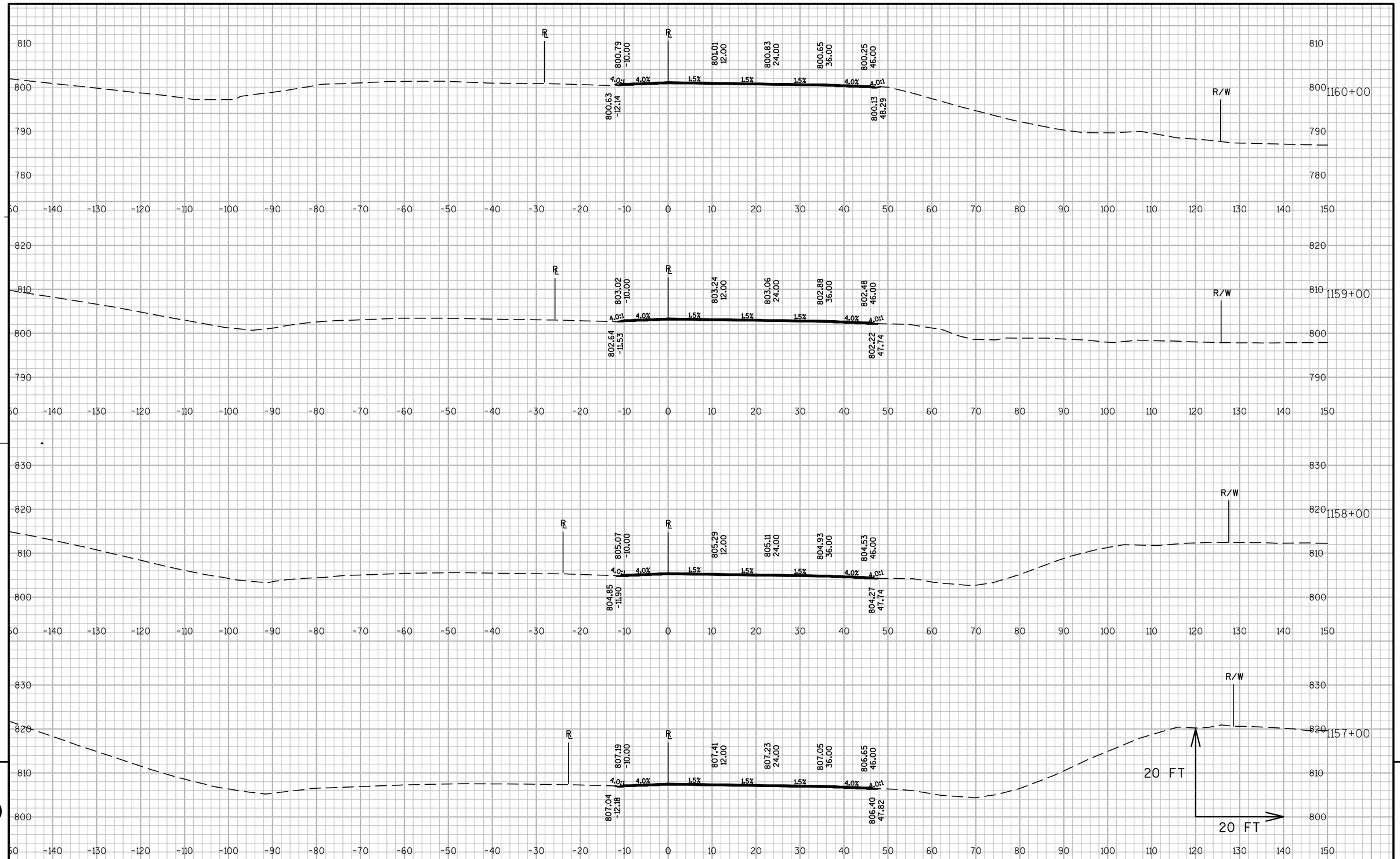
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PROJECT NO: 1010-02-85	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: IH 39 SB	SHEET 304	E

FILE NAME : X:\3230900\131208.01\TECH\CAD\10100202\SHEETSPLAN\CONSTRUCTION PROJECT 2, 1010-02-85\090202_XS.DWG PLOT DATE : 4/24/2017 2:03 PM PLOT BY : TIMOTHY VELTE PLOT NAME : PLOT SCALE : 1:20_XREF

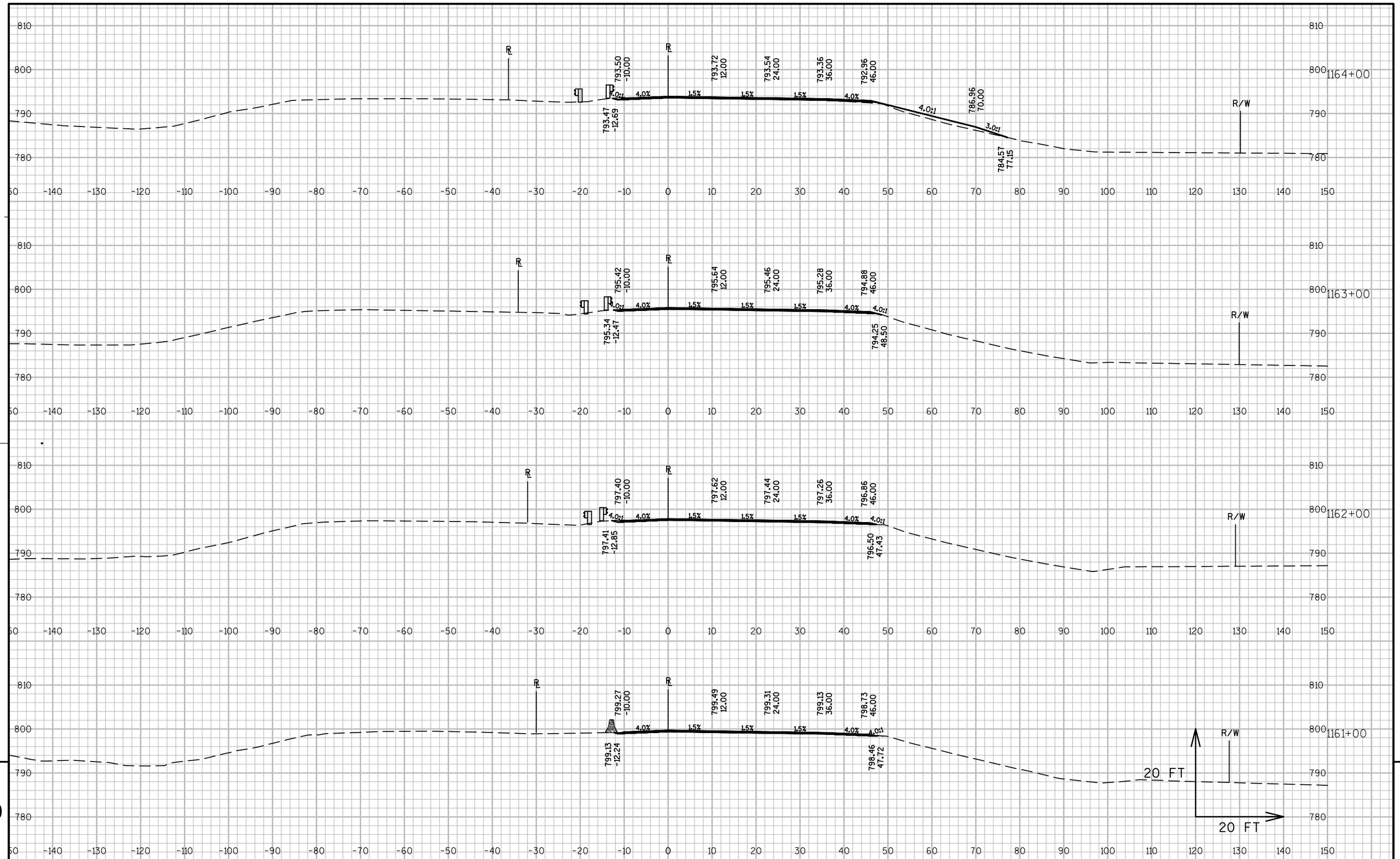
WISDOT/CADDS SHEET 49



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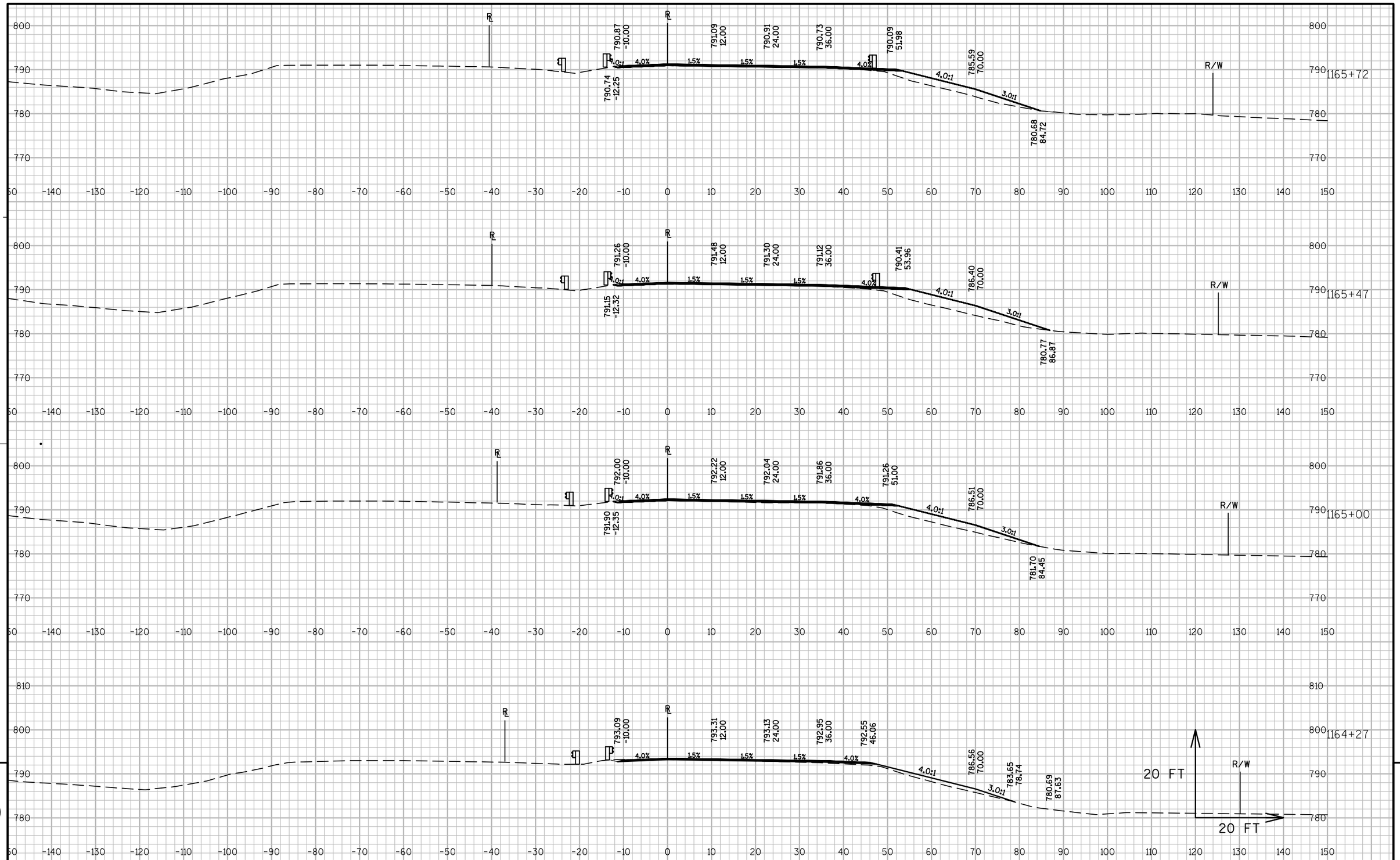
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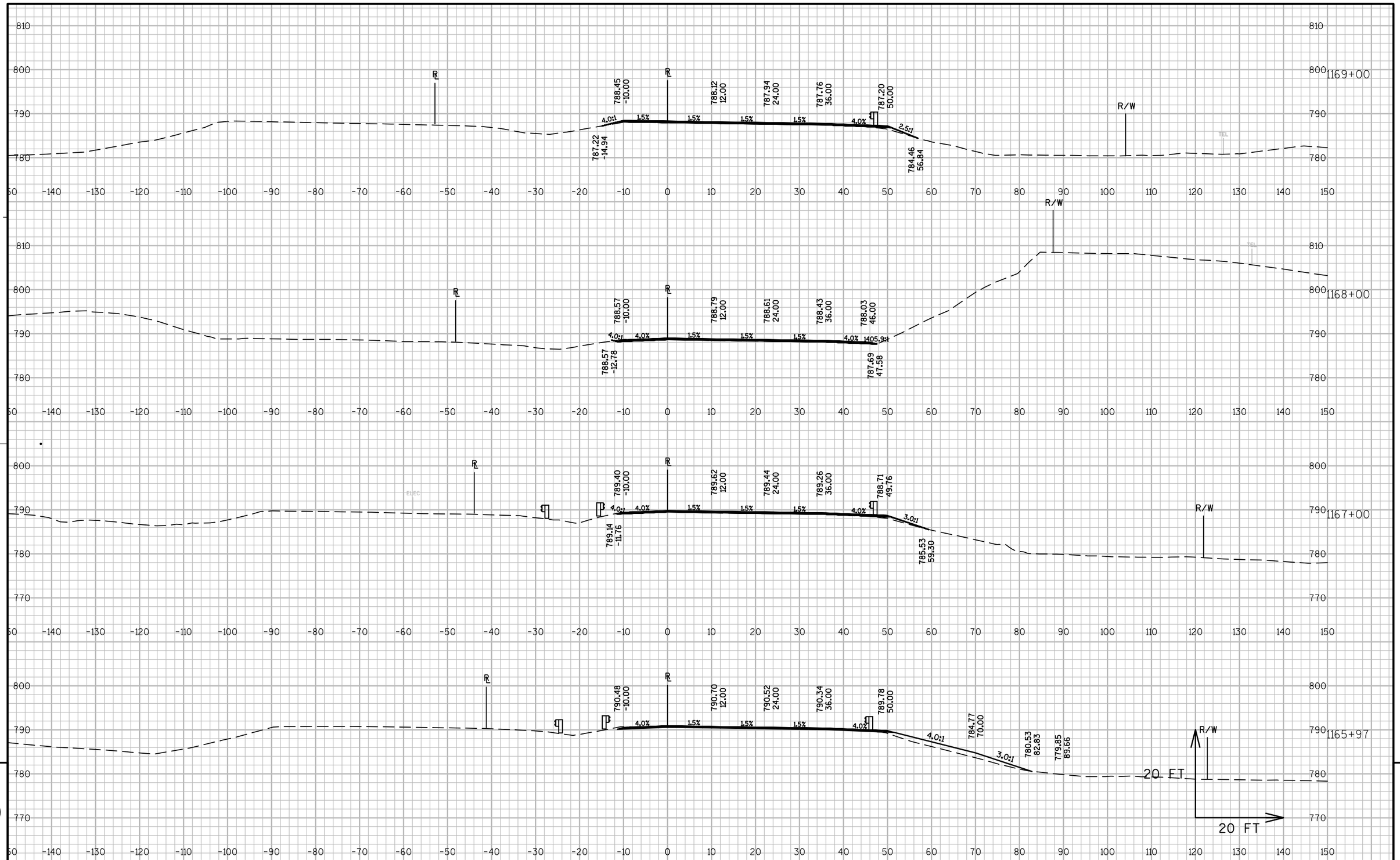
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WISDOT/CADDS SHEET 49



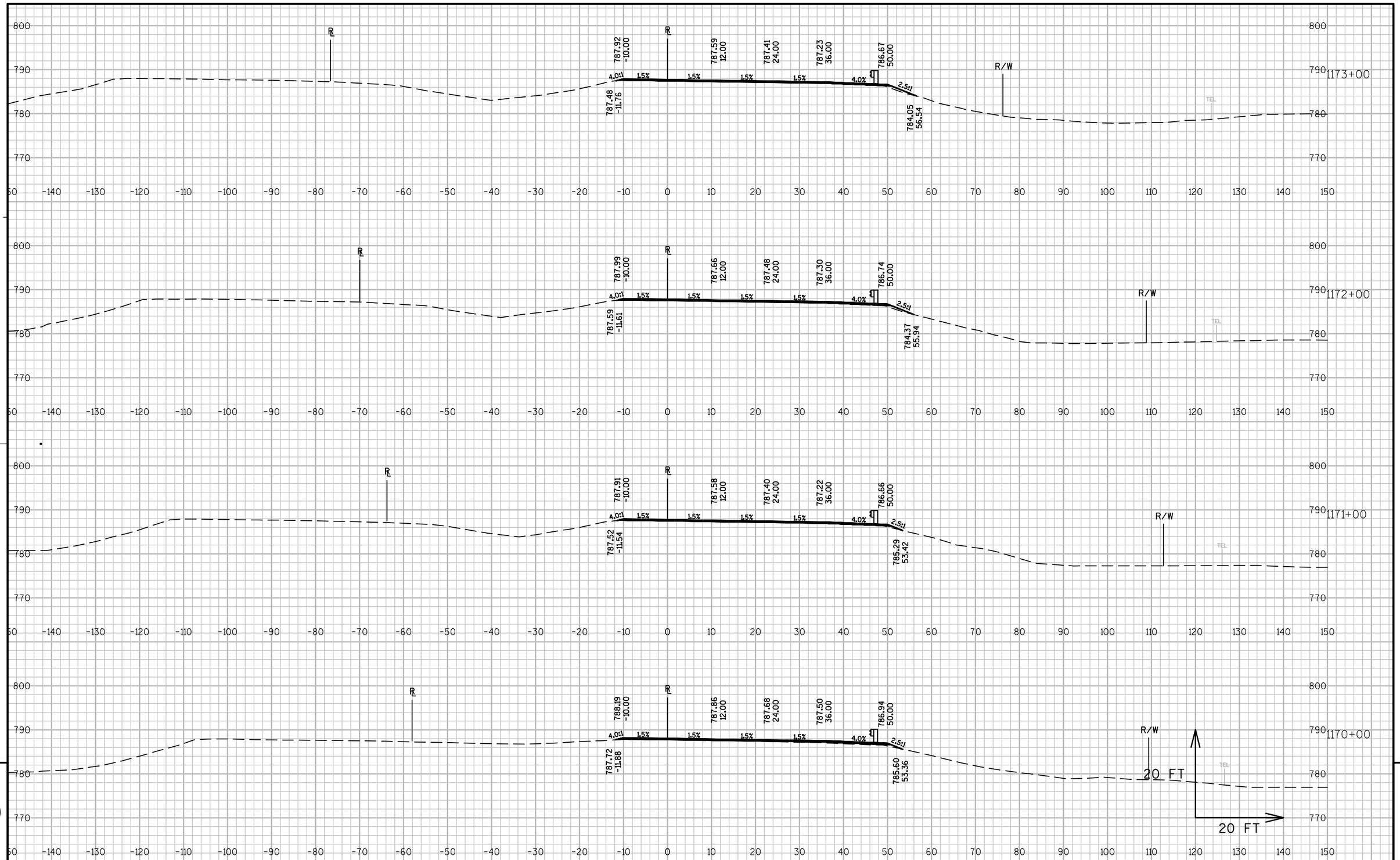
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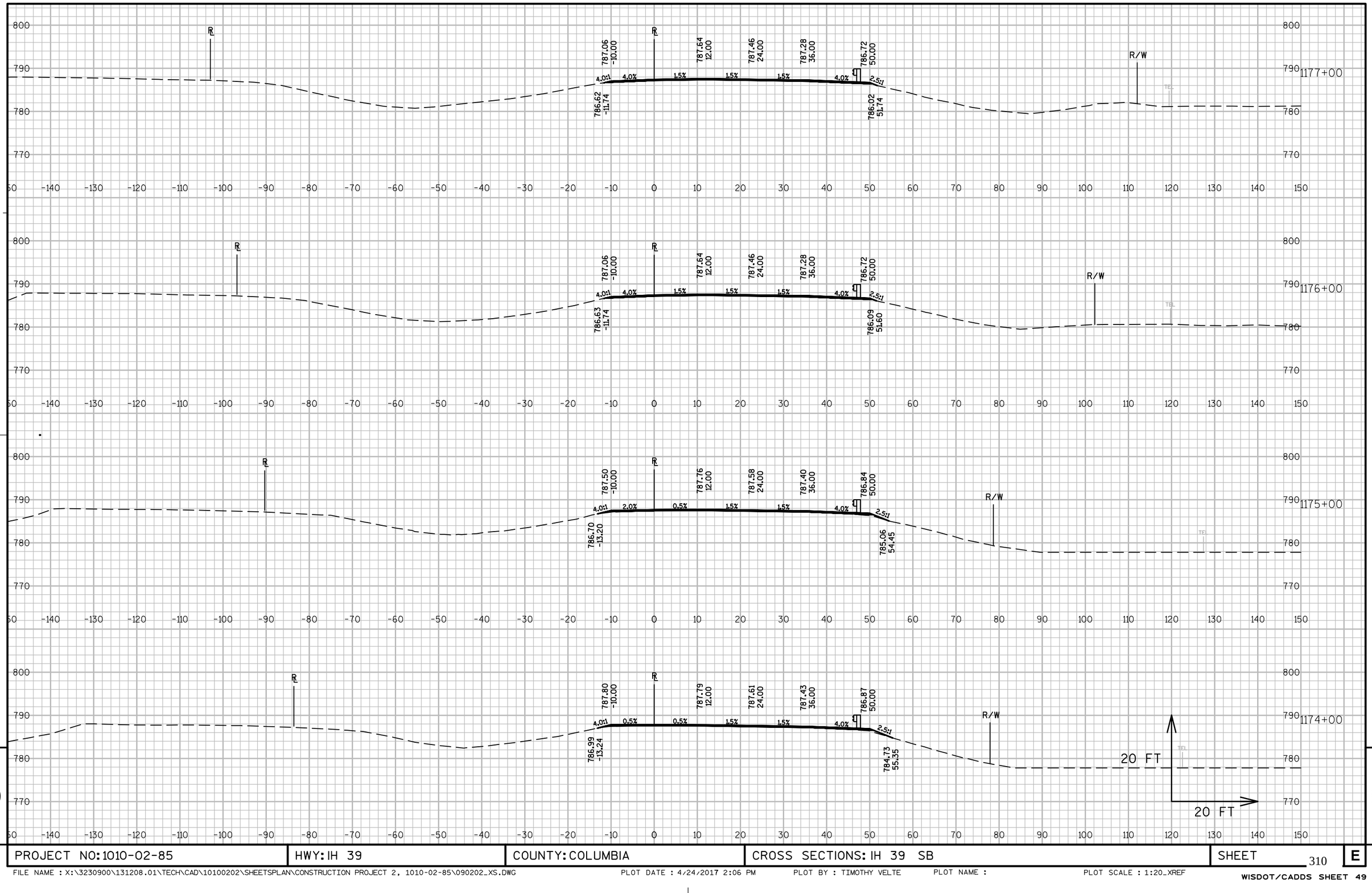
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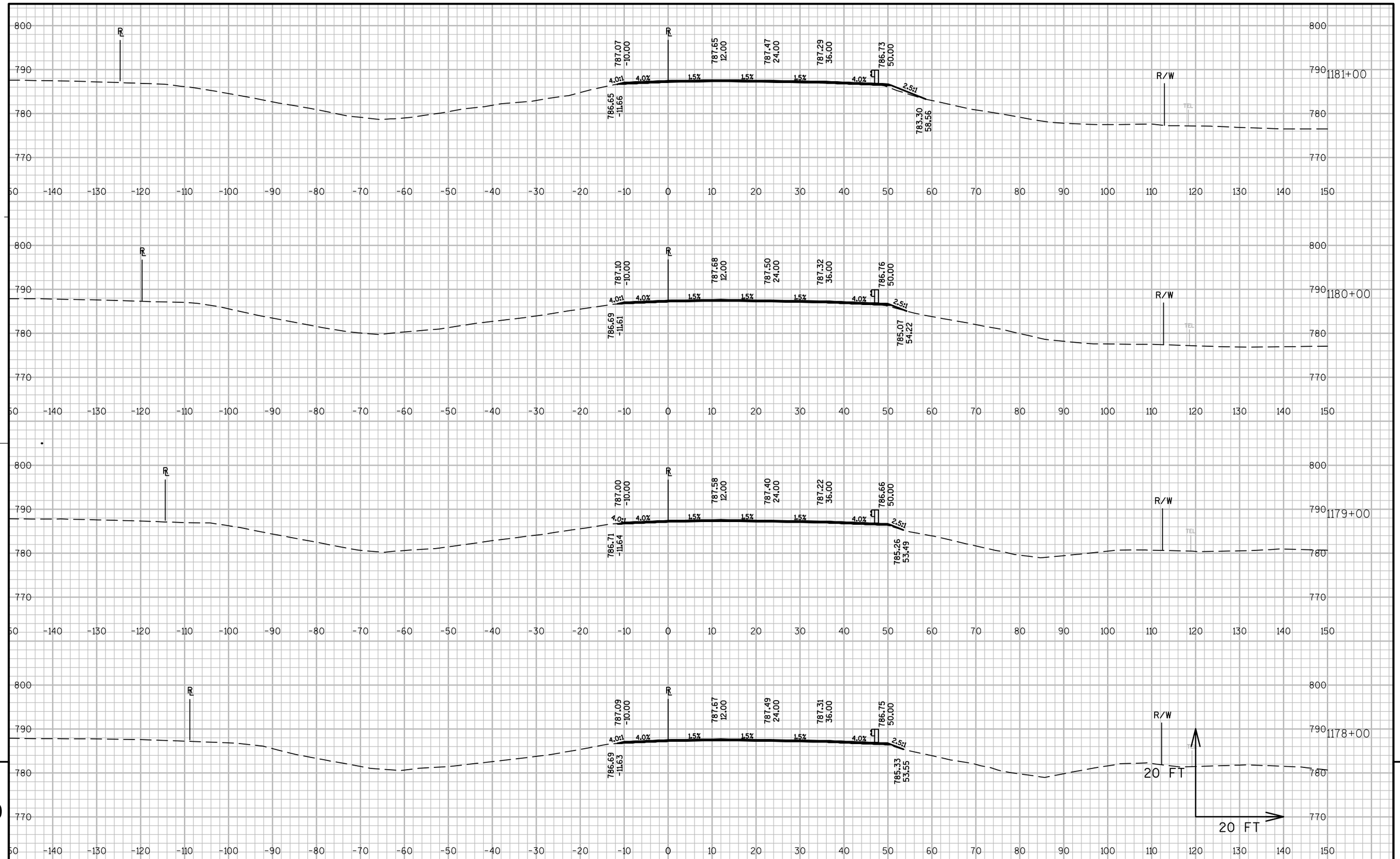
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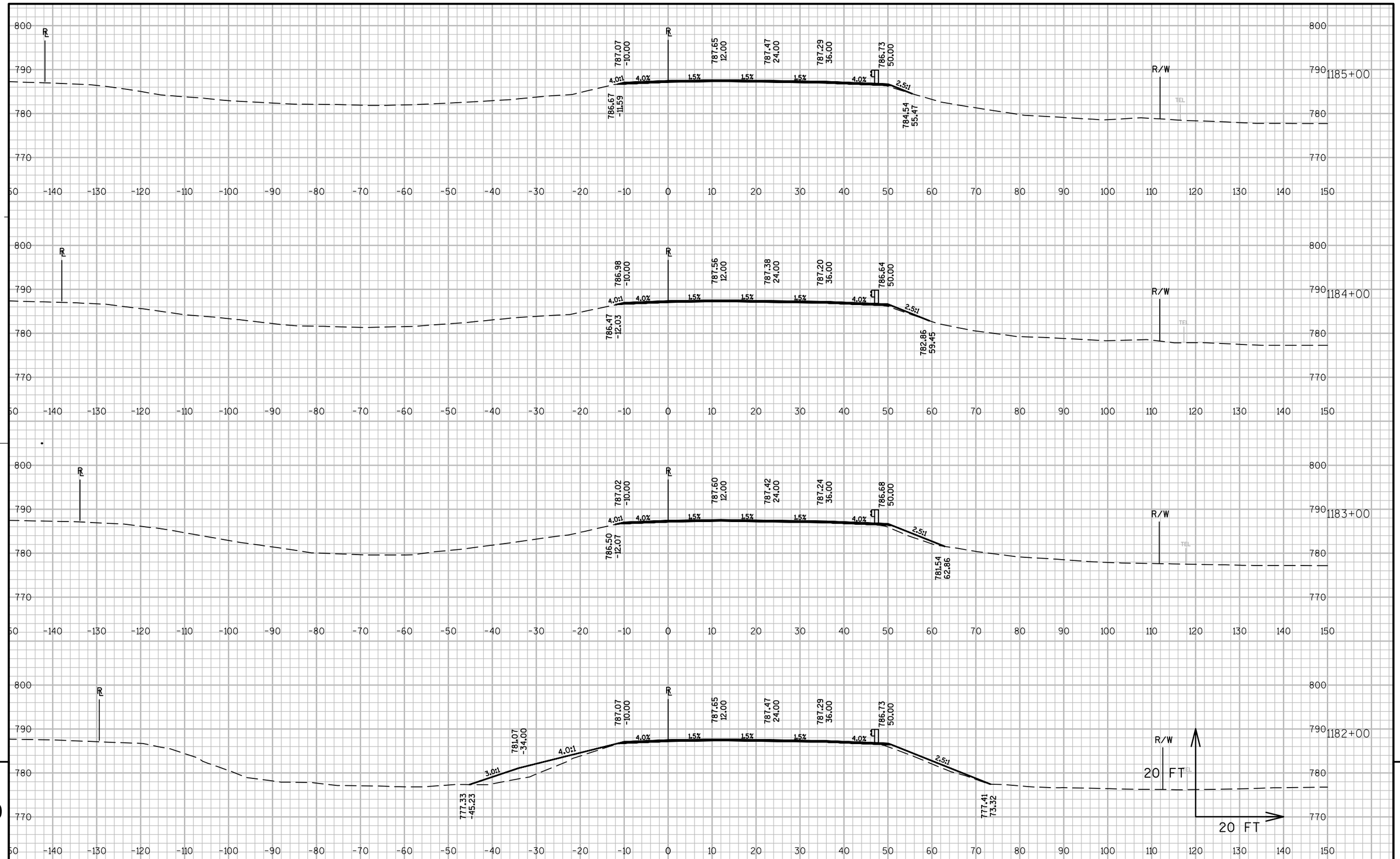
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PROJECT NO: 1010-02-85	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: IH 39 SB	SHEET 311	E



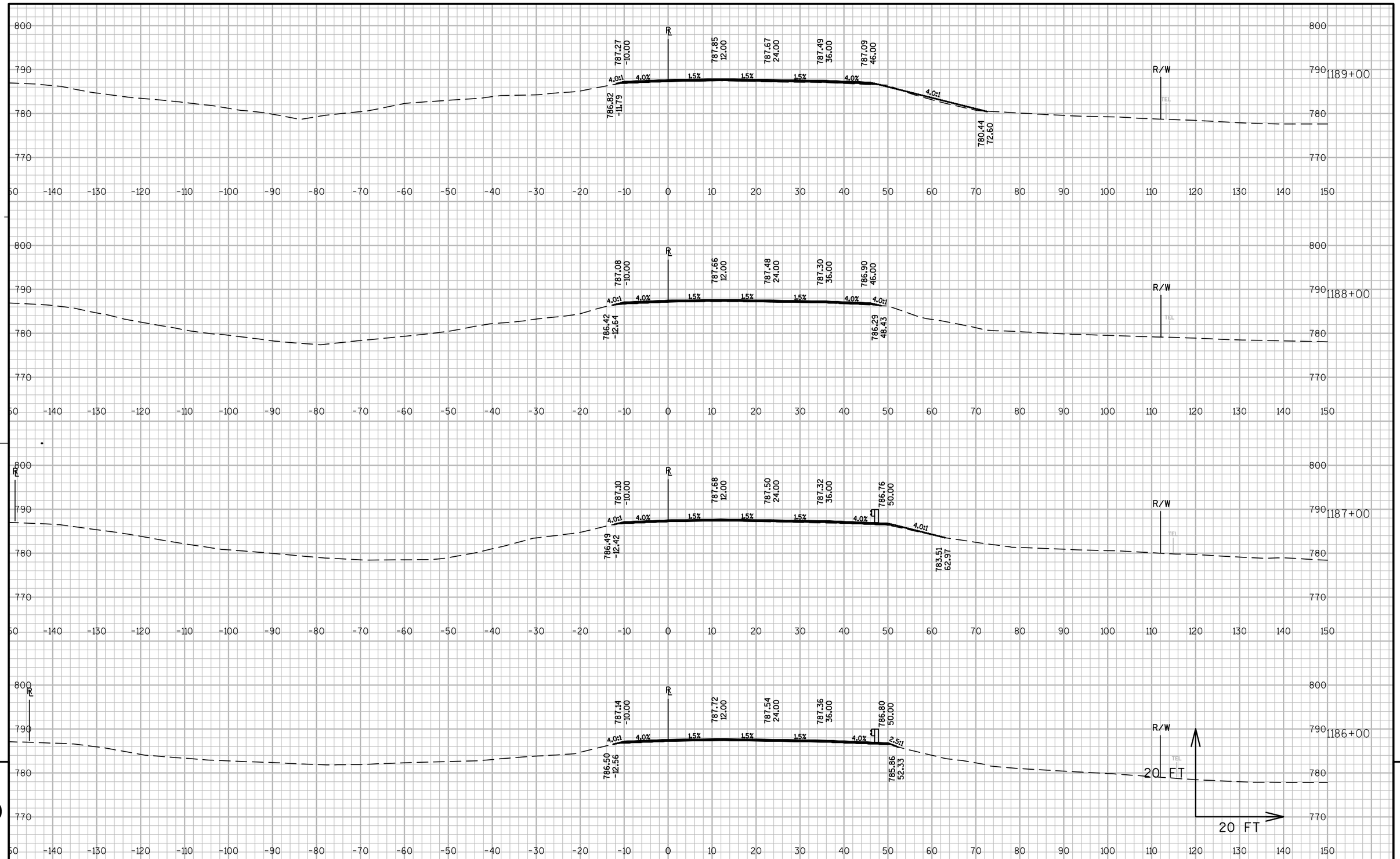
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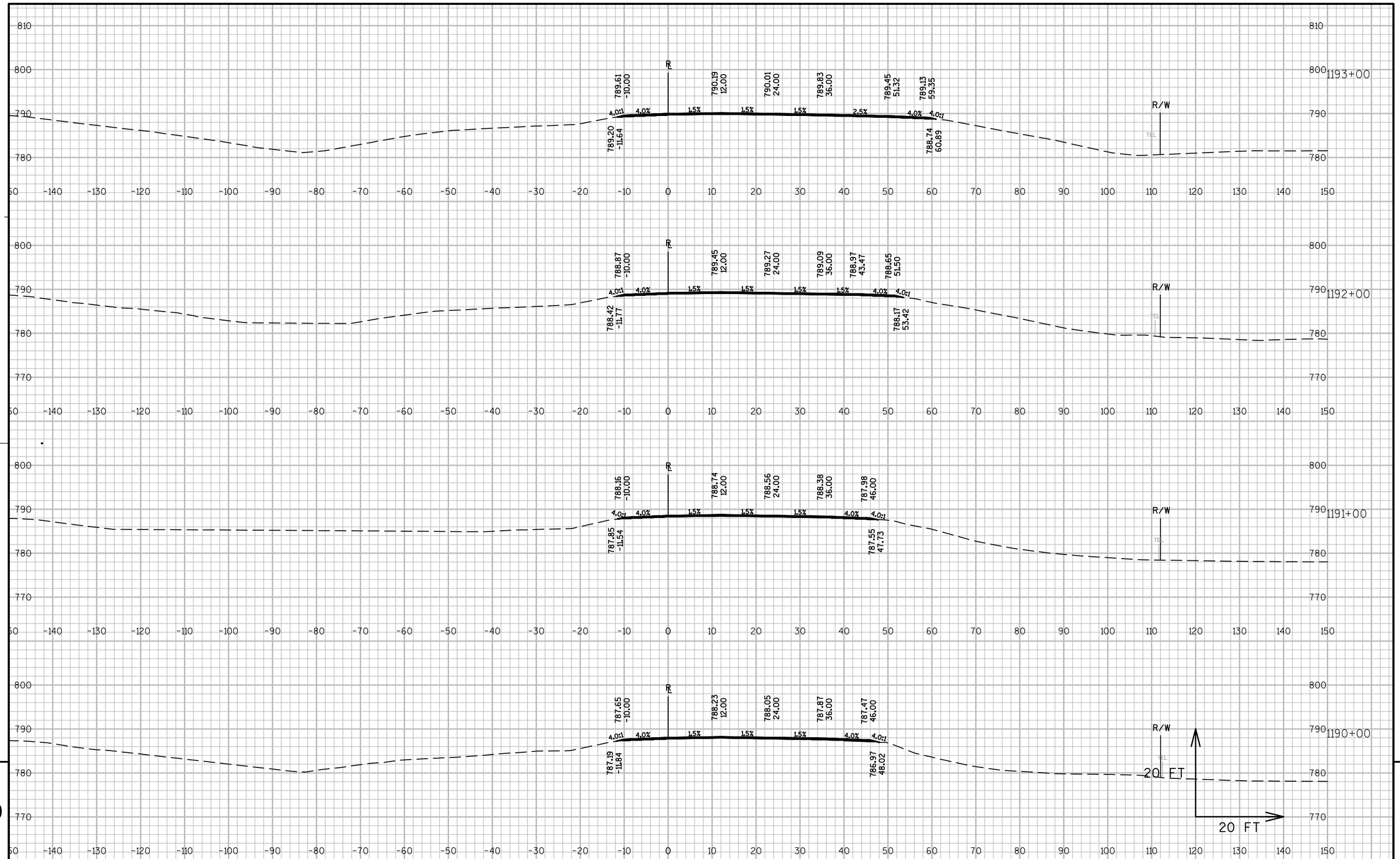
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WISDOT/CADDS SHEET 49



PROJECT NO: 1010-02-85	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: IH 39 SB	SHEET 313	E

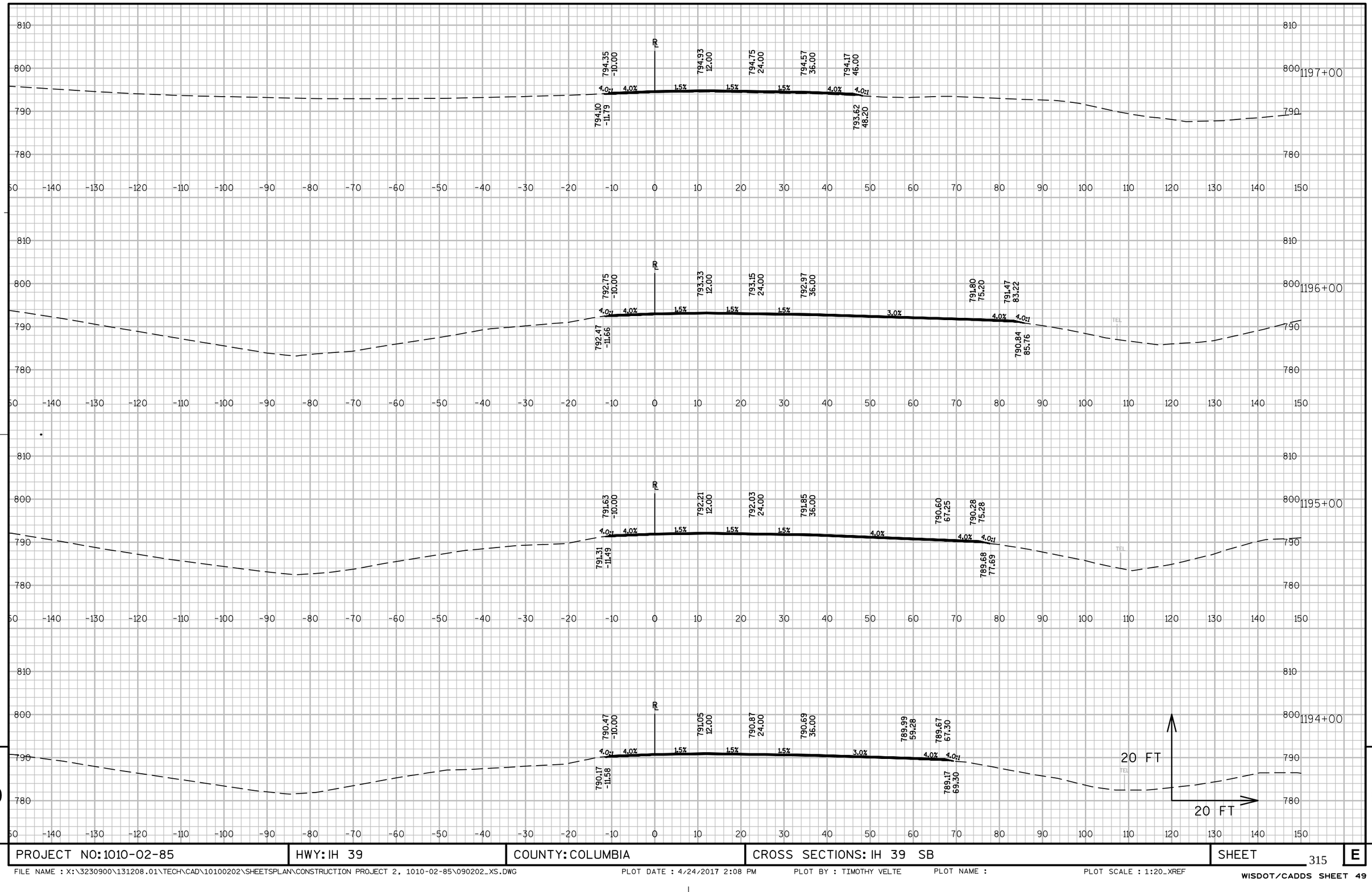
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PROJECT NO: 1010-02-85	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: IH 39 SB	SHEET 314	E

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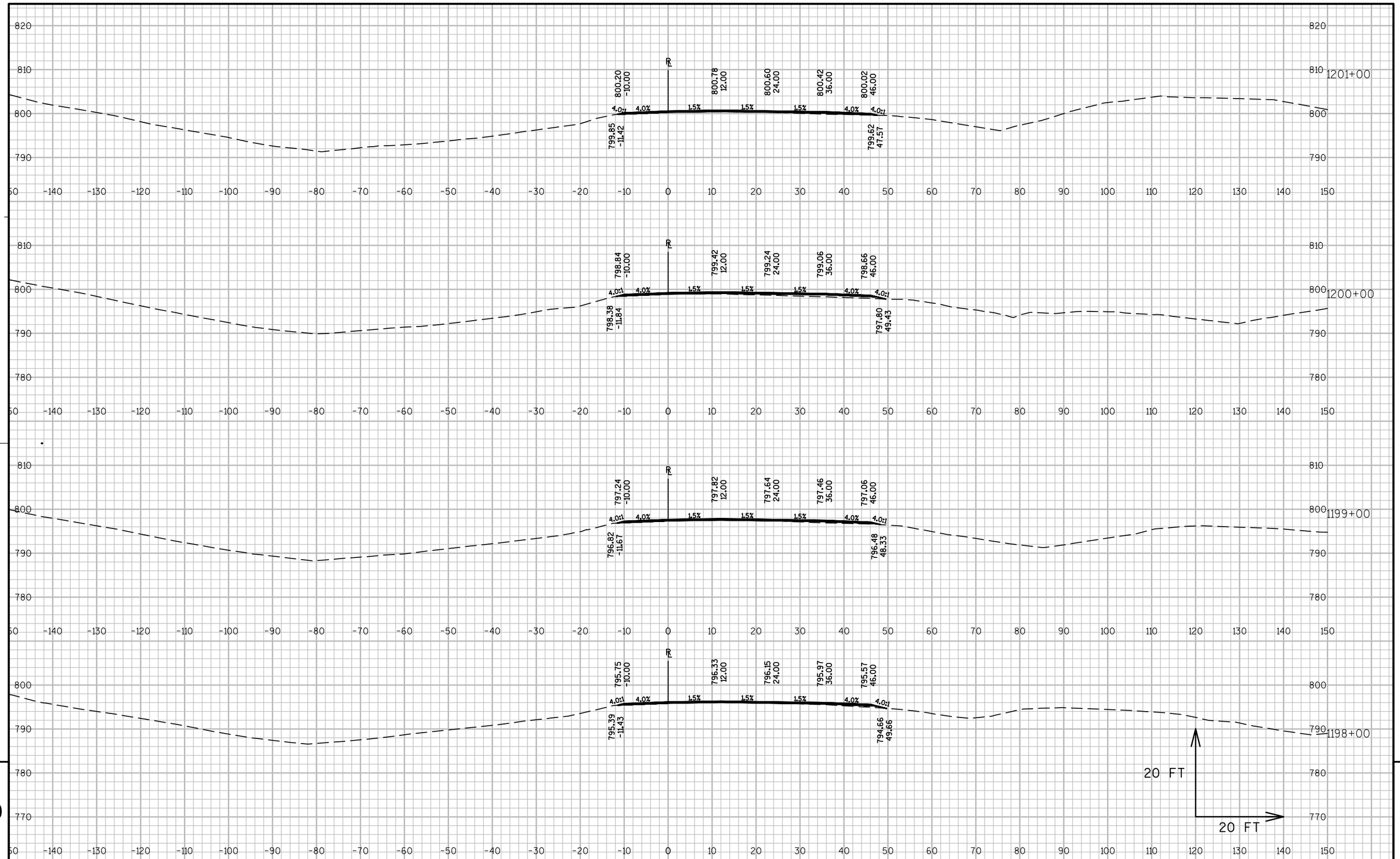
WISDOT/CADDS SHEET 49



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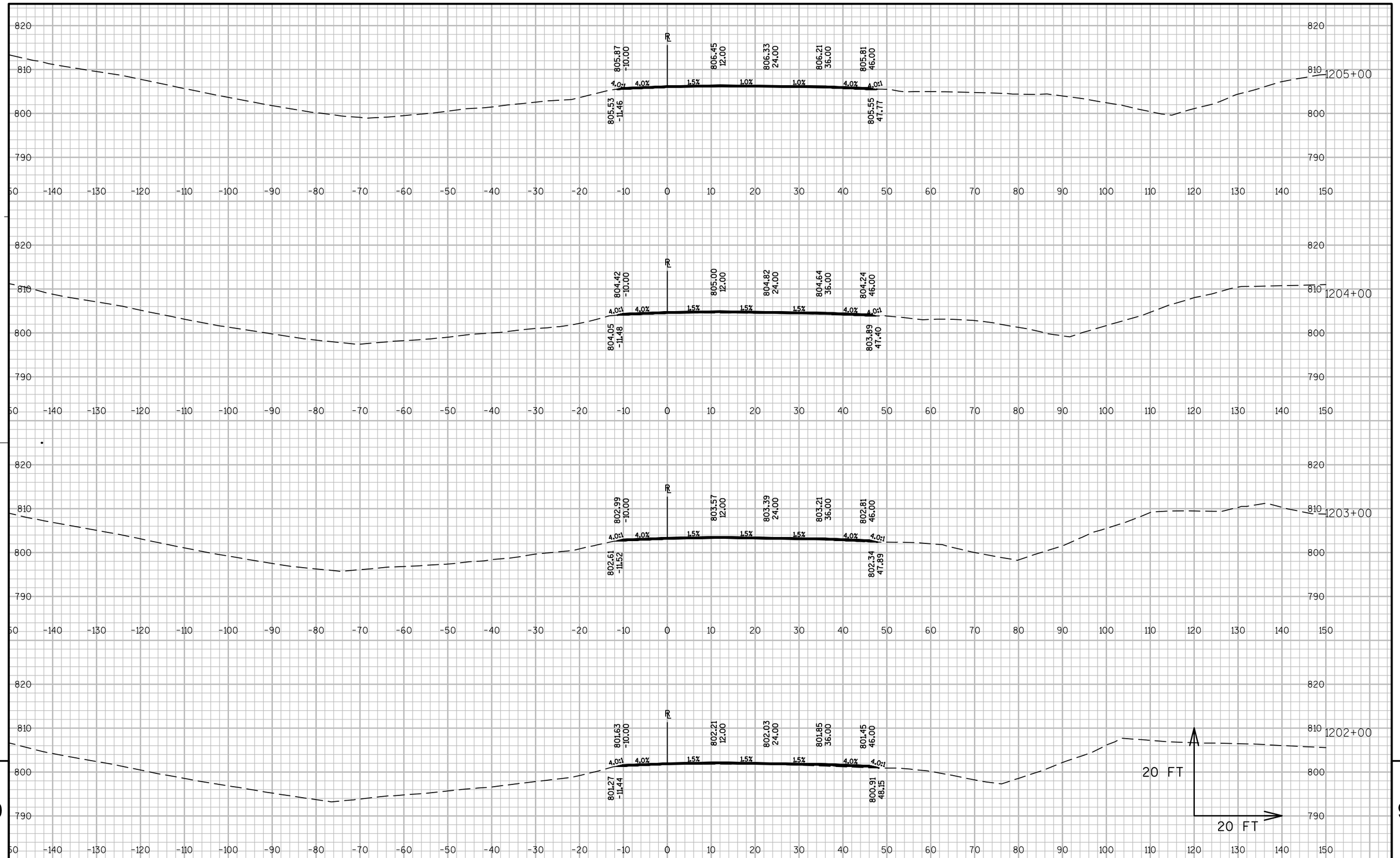
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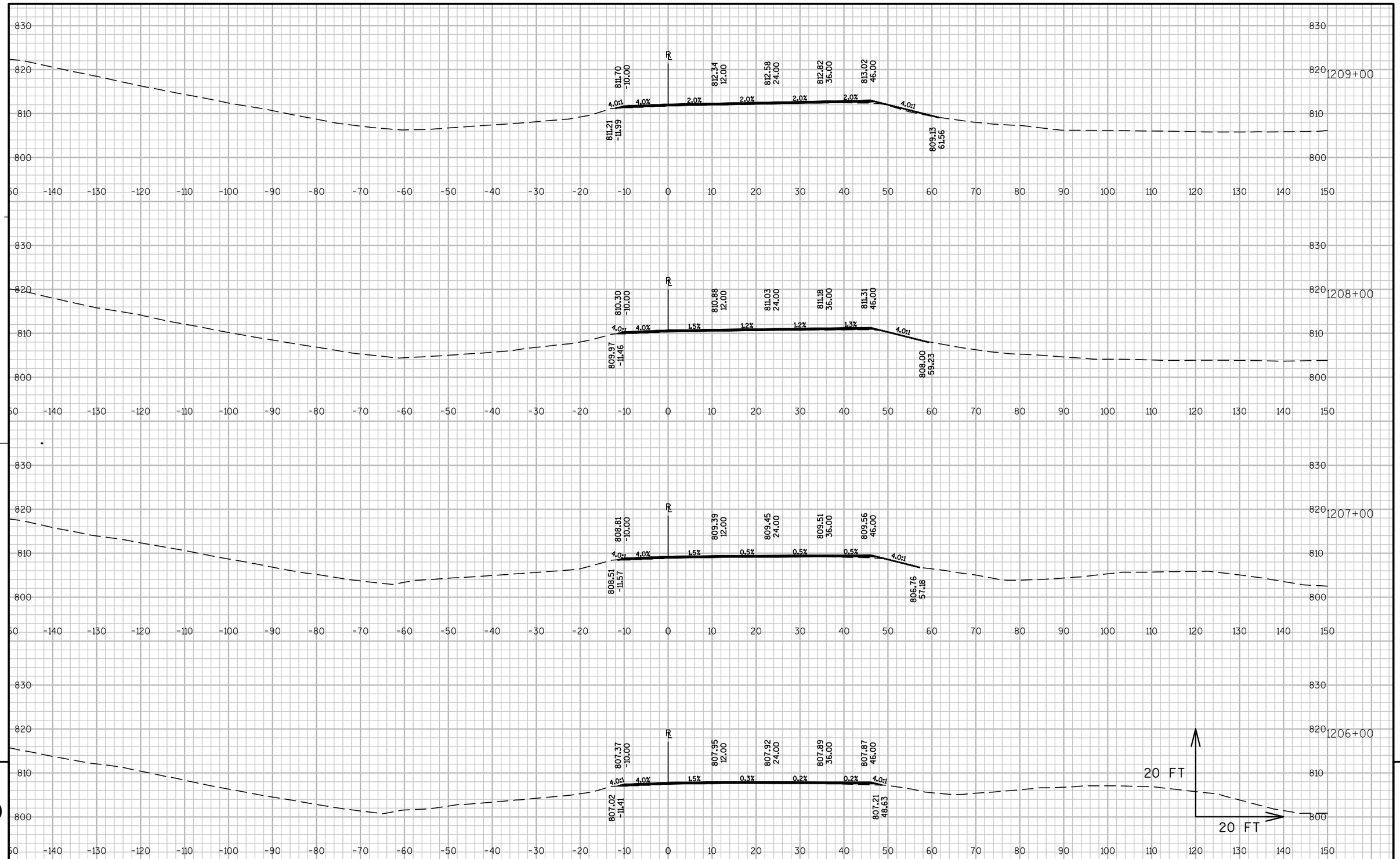
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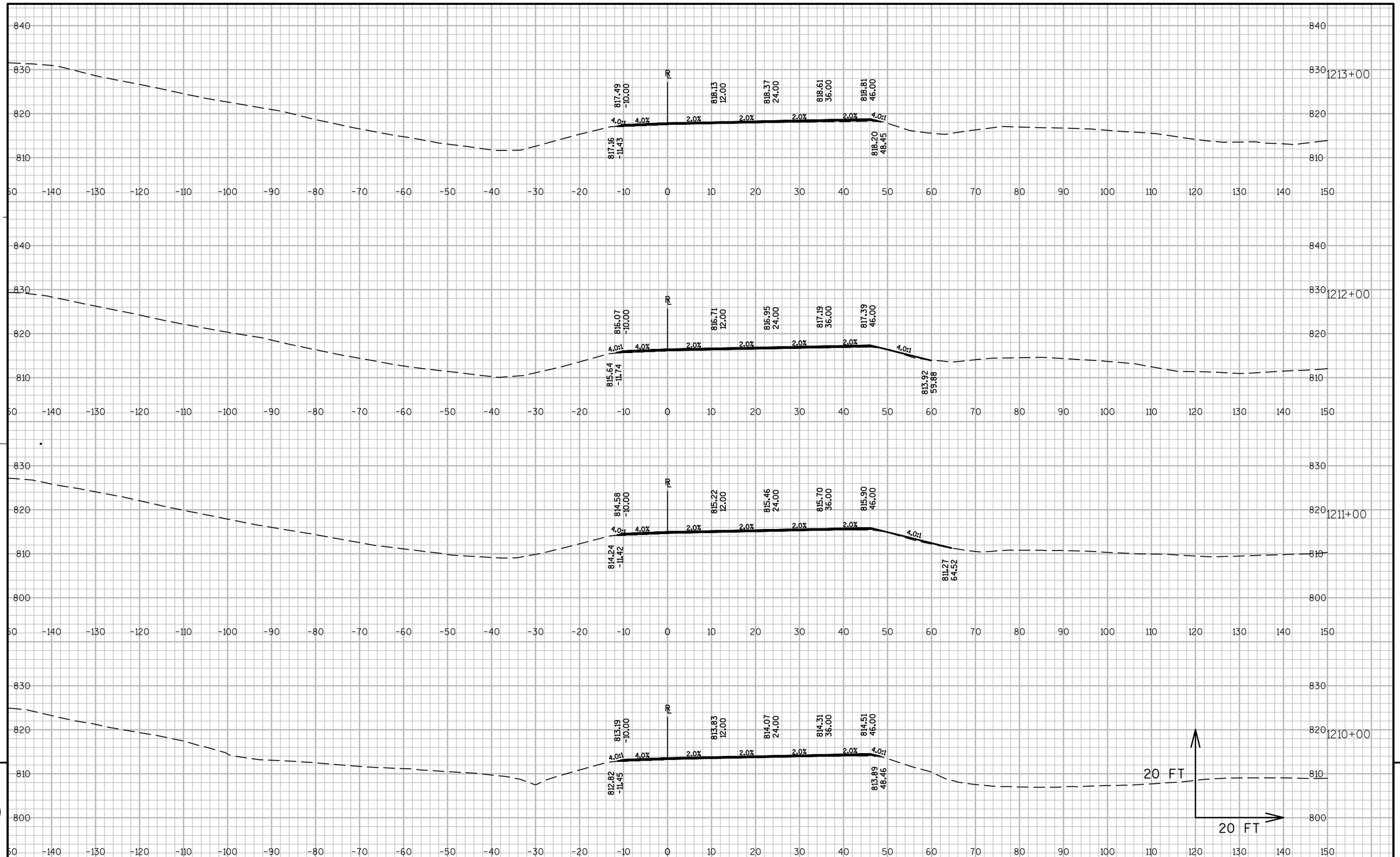
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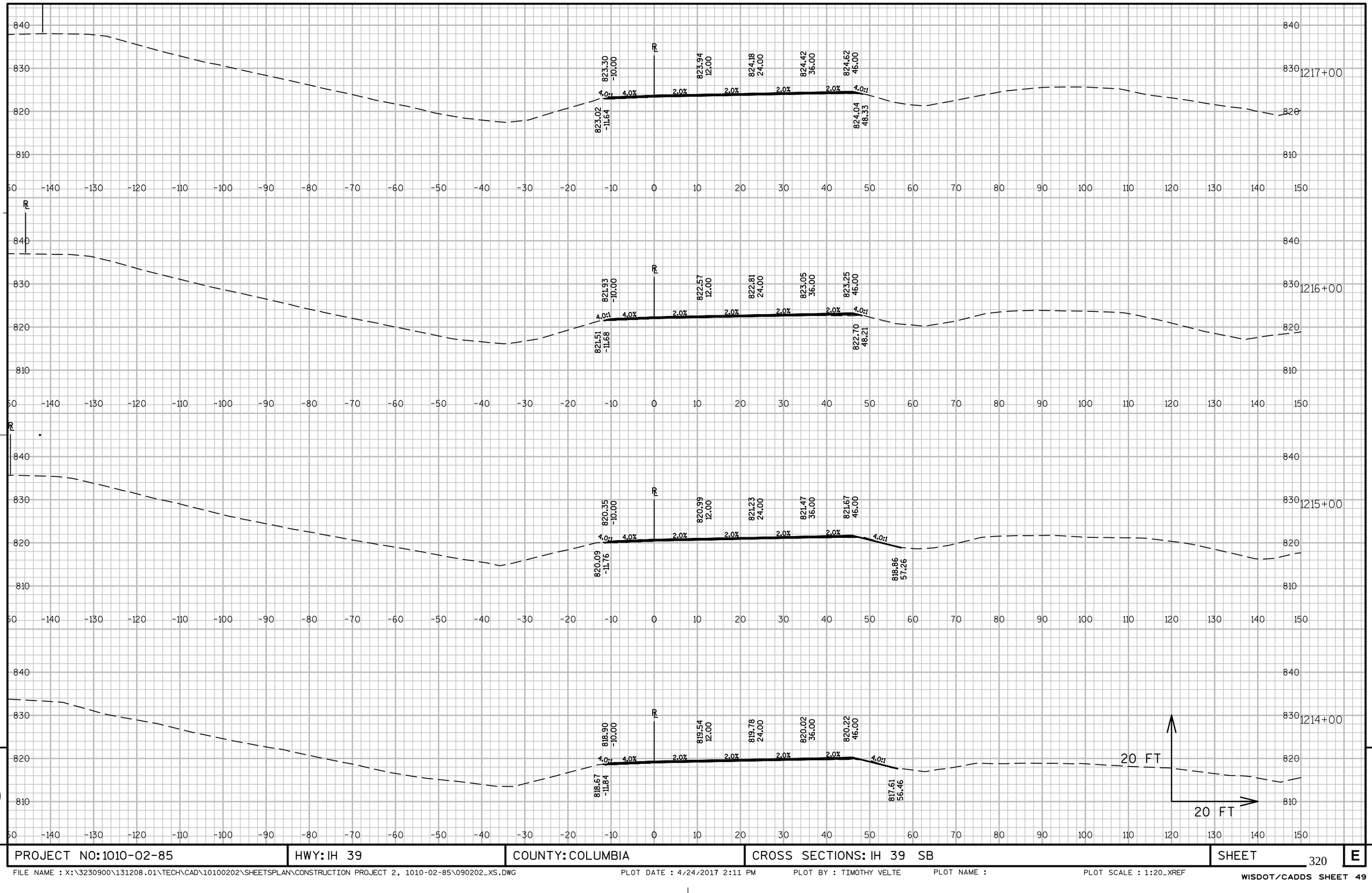
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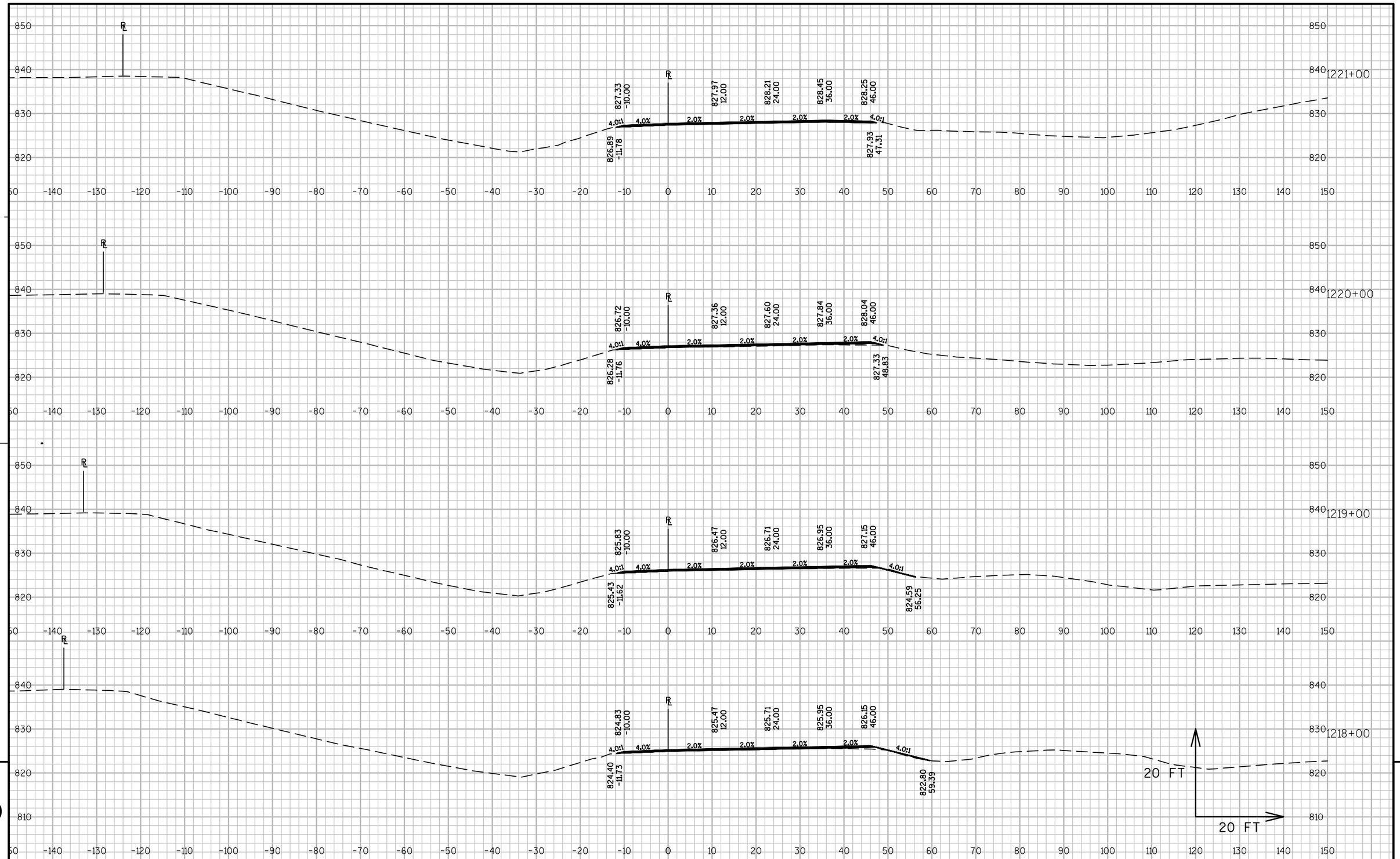
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PROJECT NO: 1010-02-85	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: IH 39 SB	SHEET 320	E

FILE NAME : X:\3230900\131208.01\TECH\CAD\10100202\SHEETSPLAN\CONSTRUCTION PROJECT 2, 1010-02-85\090202_XS.DWG PLOT DATE : 4/24/2017 2:11 PM PLOT BY : TIMOTHY VELTE PLOT NAME : PLOT SCALE : 1:20_XREF

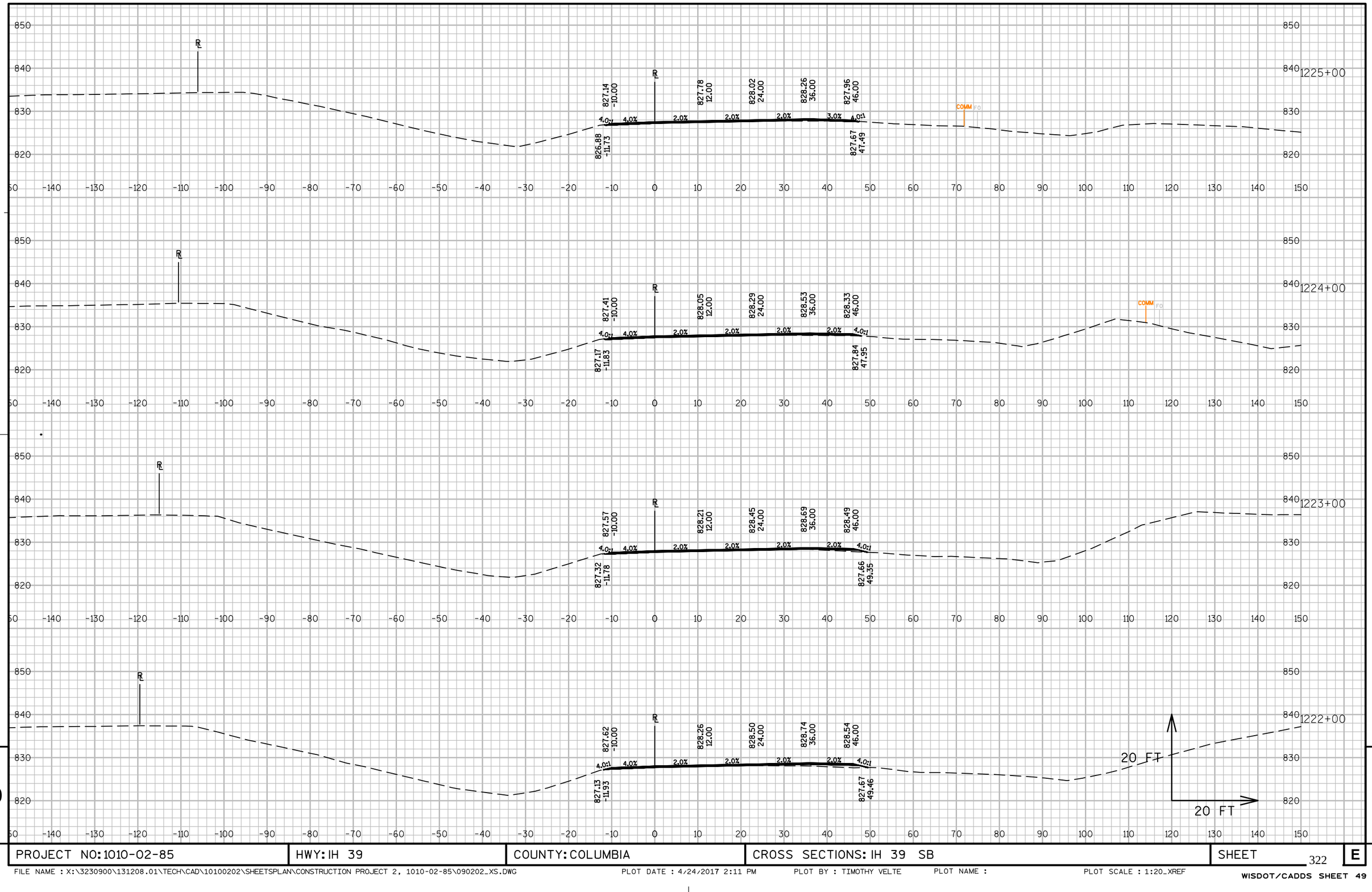
WISDOT/CADDS SHEET 49



PROJECT NO: 1010-02-85	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: IH 39 SB	SHEET 321	E

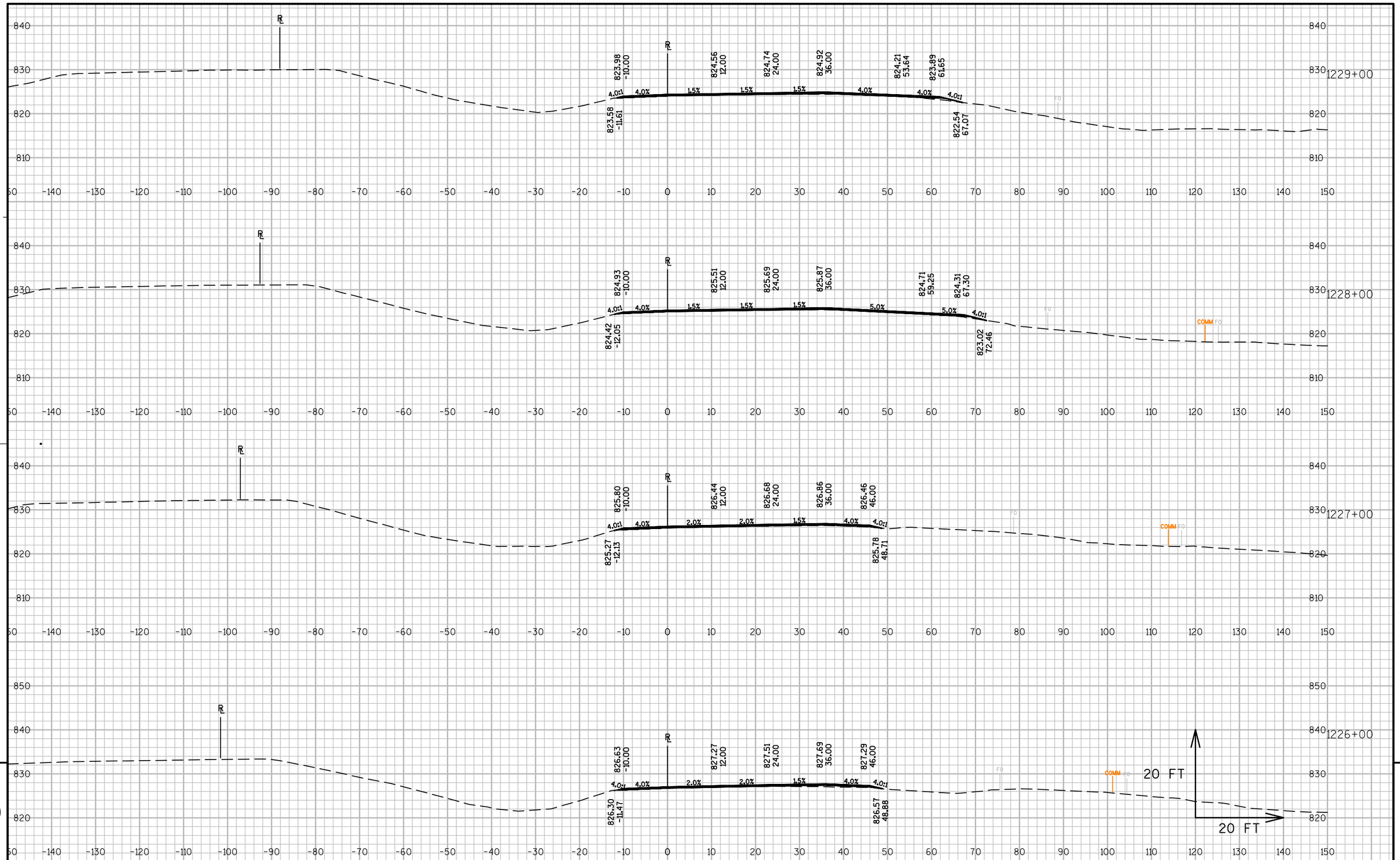
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WISDOT/CADDS SHEET 49



9 9

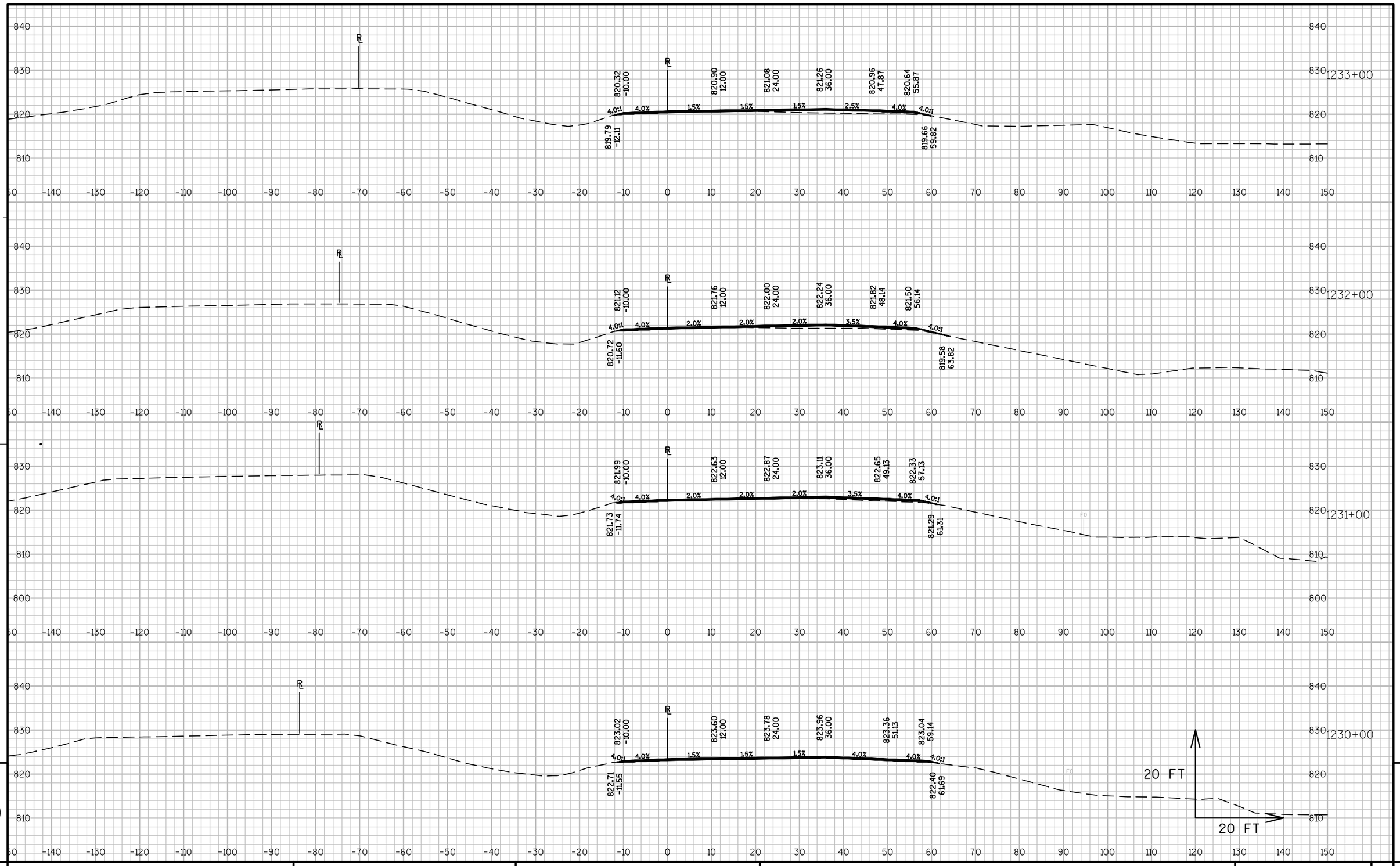
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PROJECT NO: 1010-02-85	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: IH 39 SB	SHEET 323	E

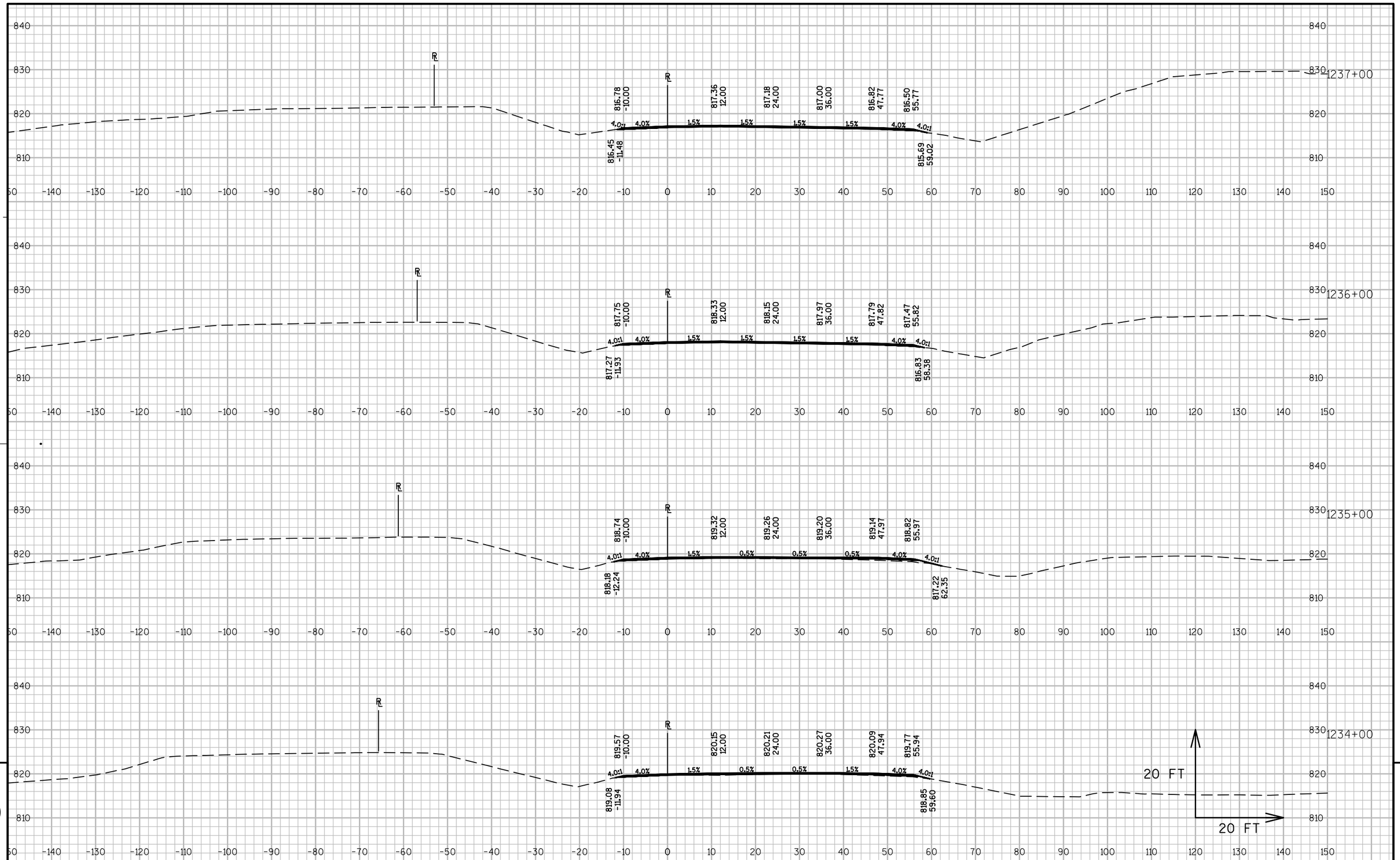
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WISDOT/CADDS SHEET 49



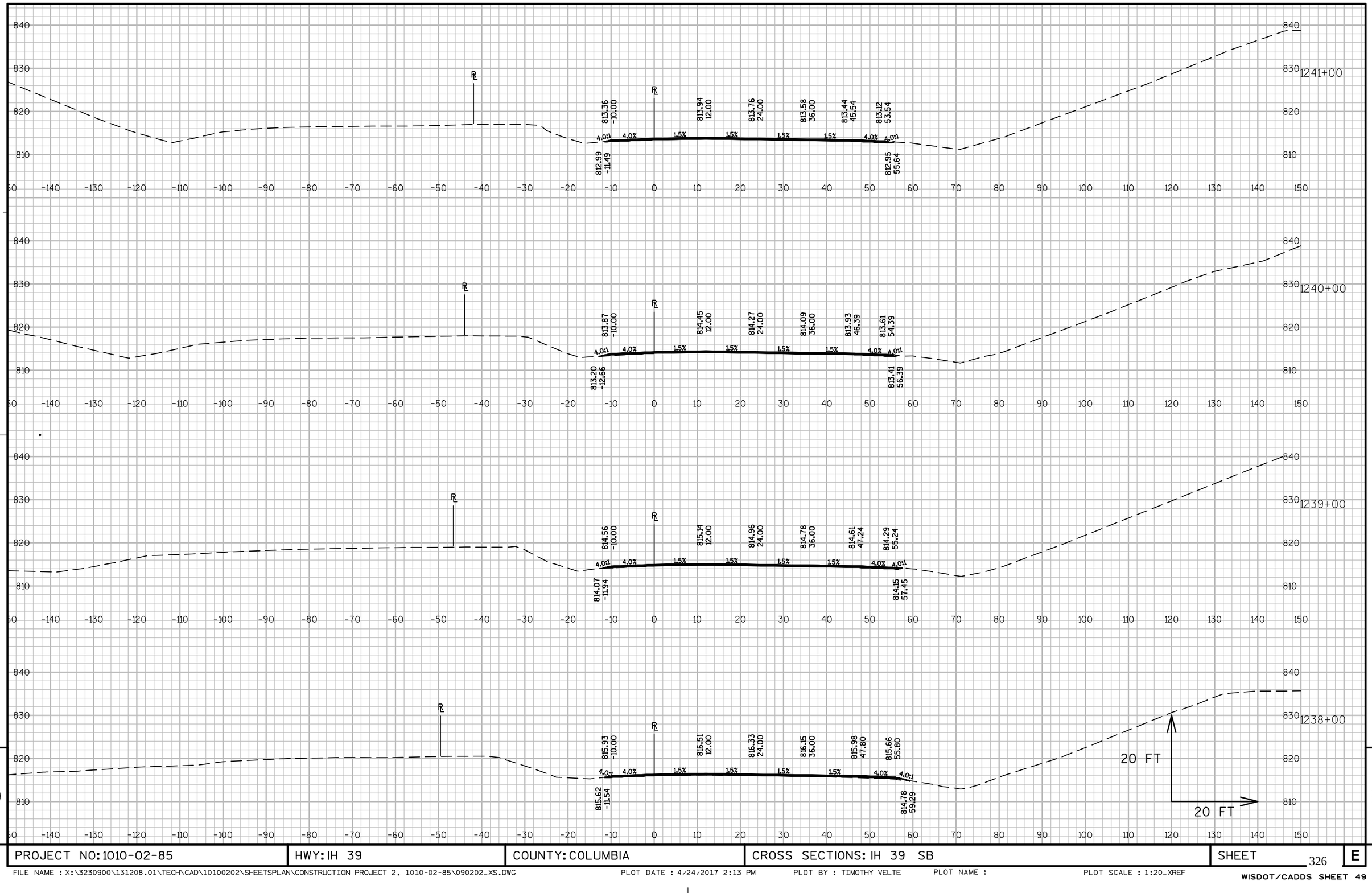
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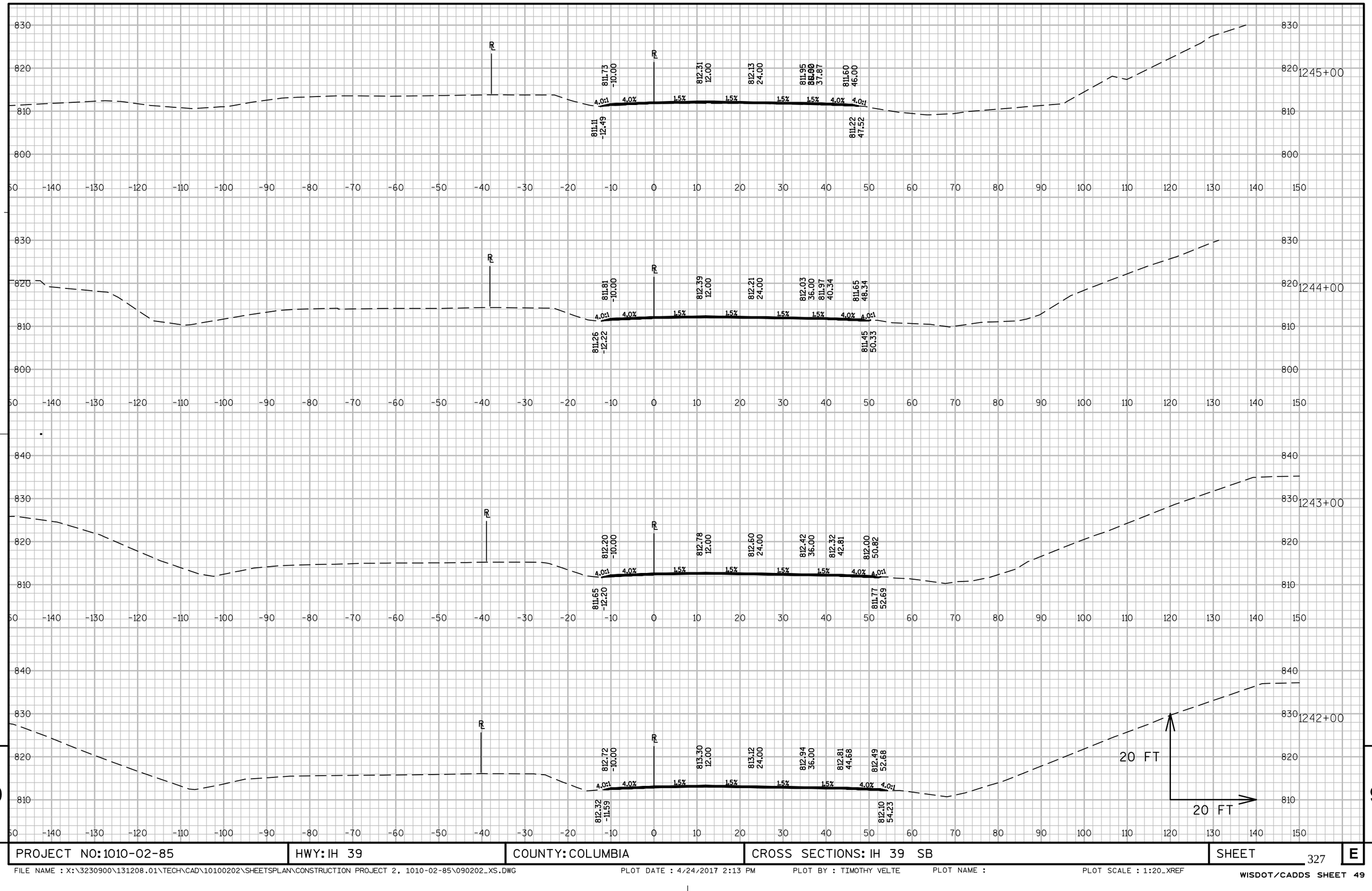
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9

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PROJECT NO: 1010-02-85	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: IH 39 SB	SHEET 326	E

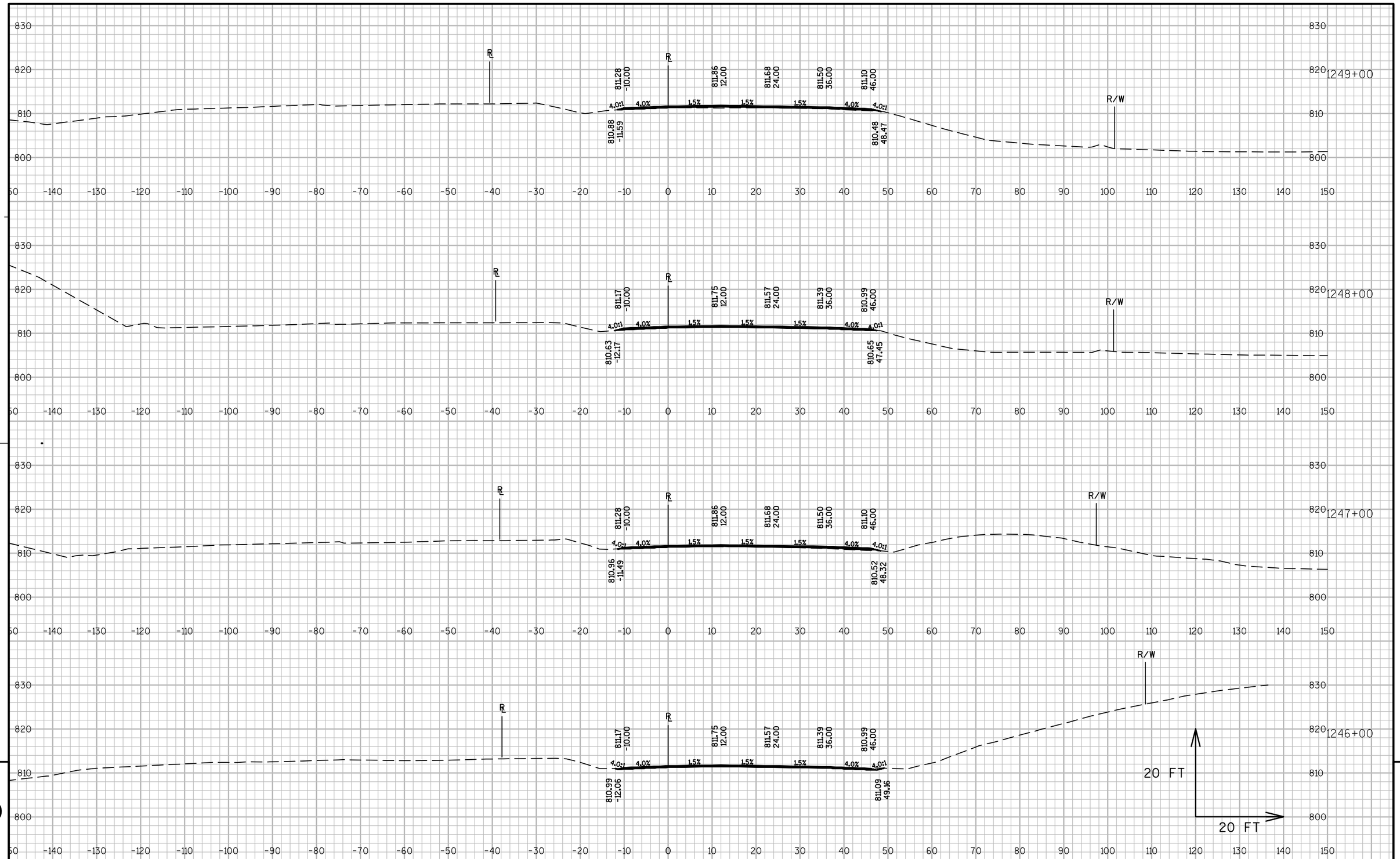


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PROJECT NO: 1010-02-85	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: IH 39 SB	SHEET 327	E

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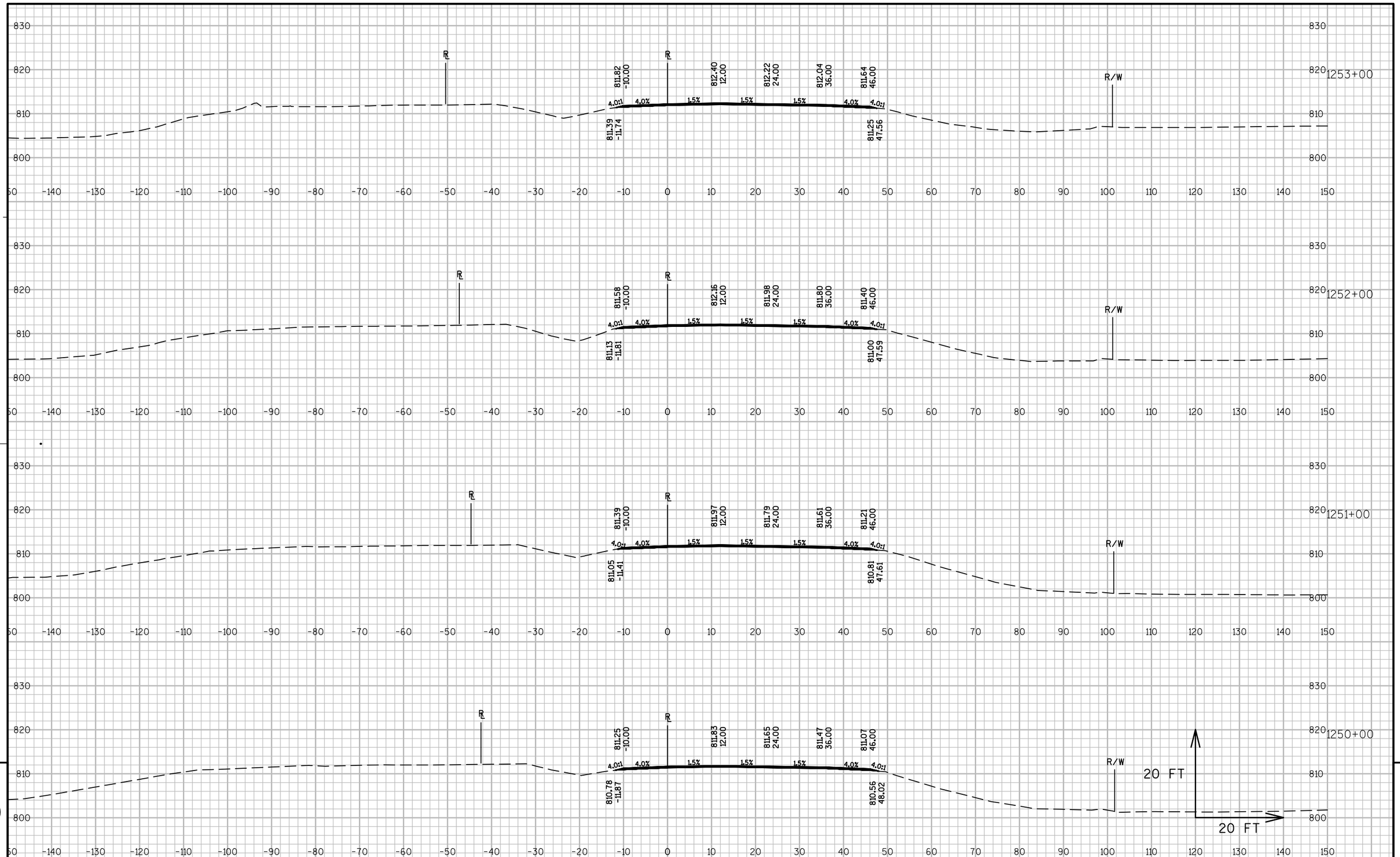


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PROJECT NO: 1010-02-85	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: IH 39 SB	SHEET 328	E

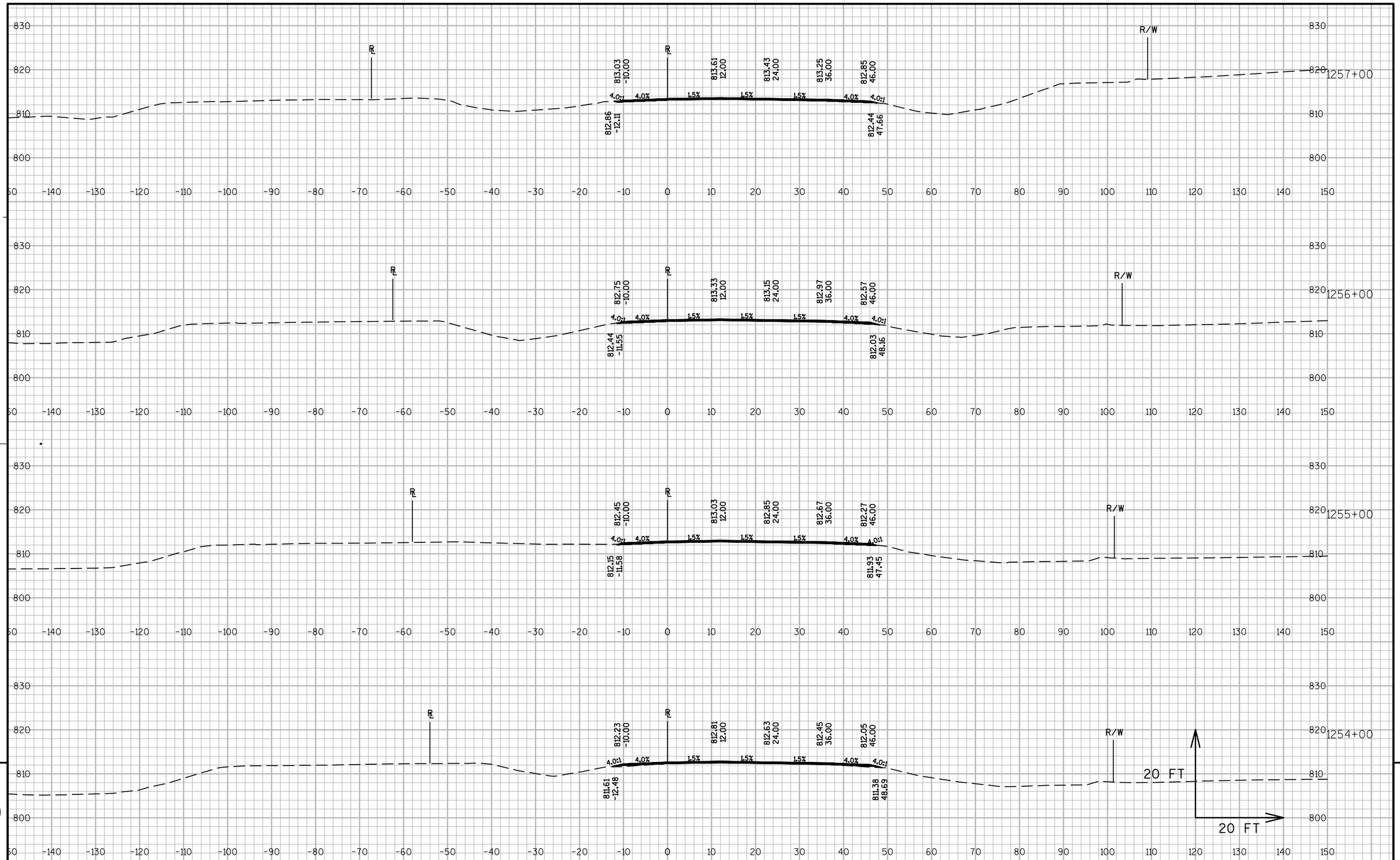
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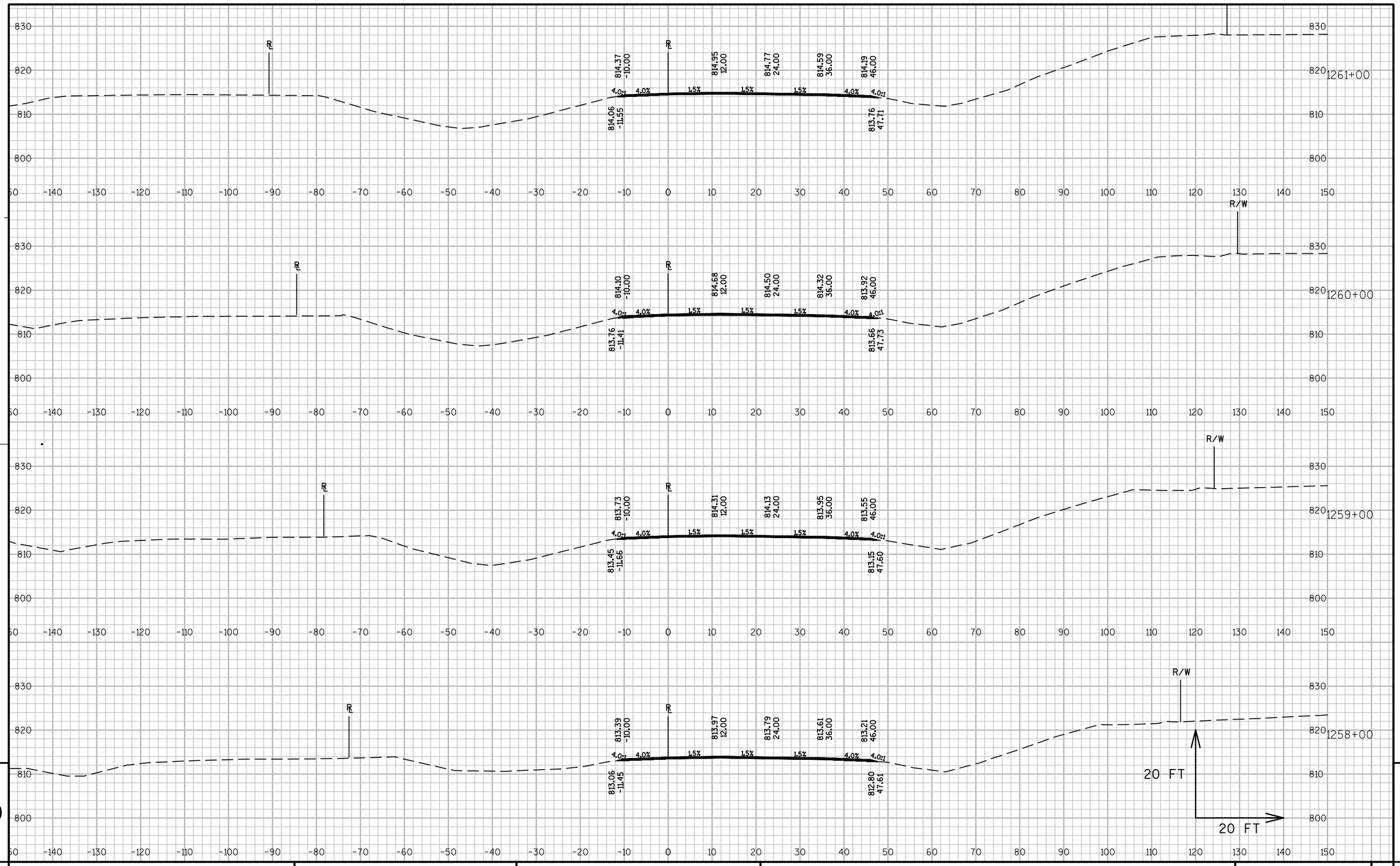
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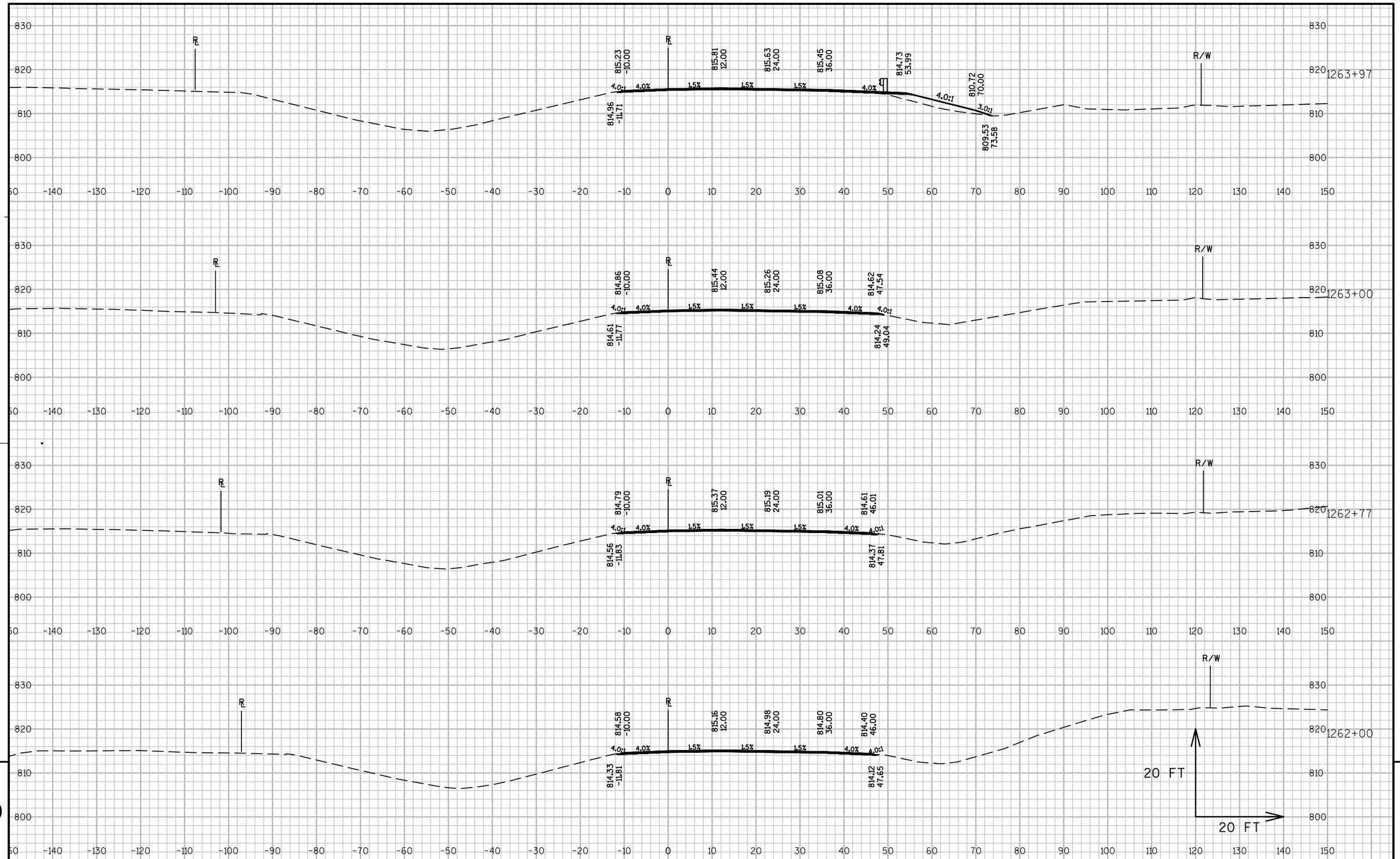
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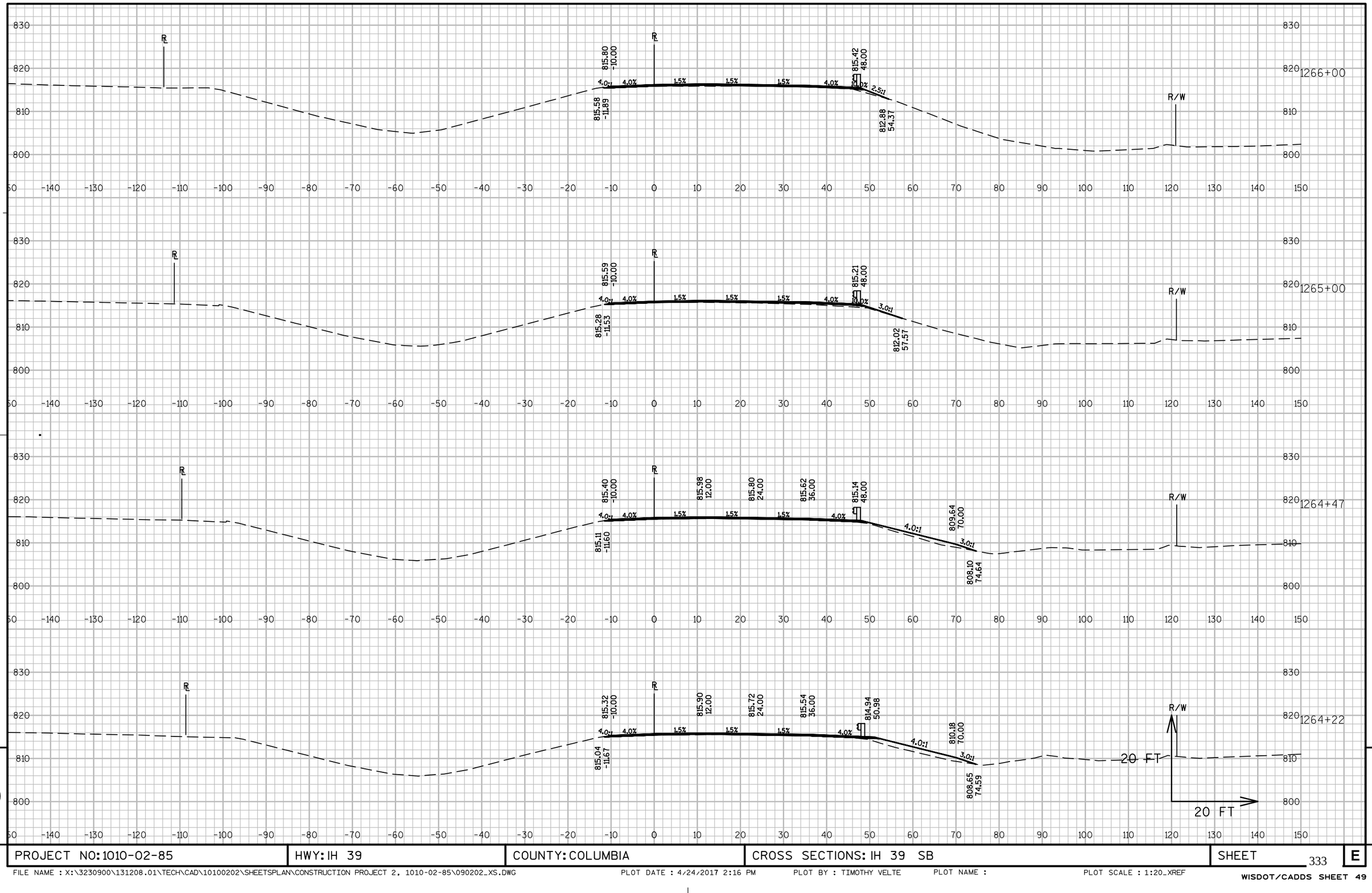
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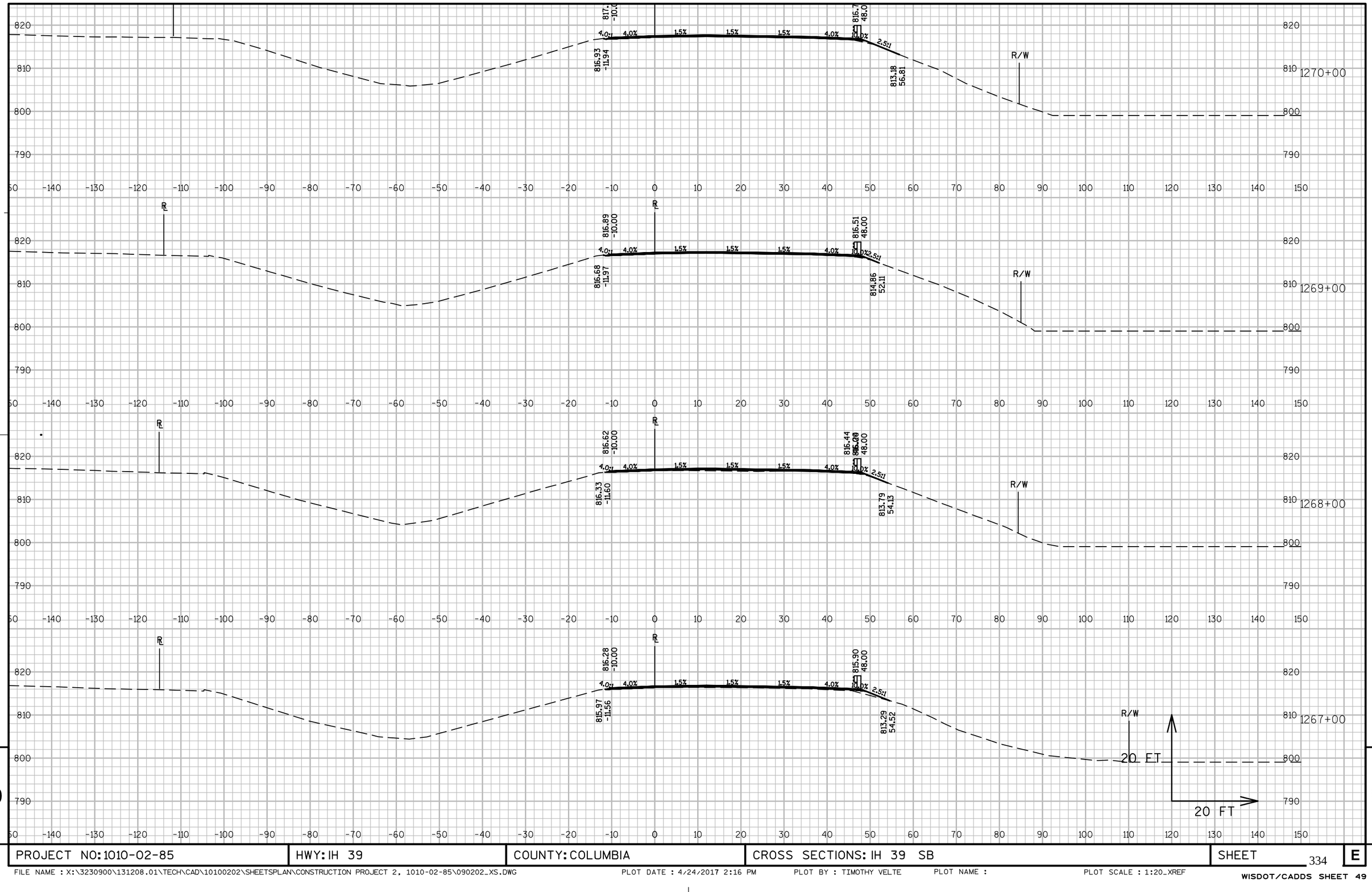
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PROJECT NO: 1010-02-85	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: IH 39 SB	SHEET 333	E



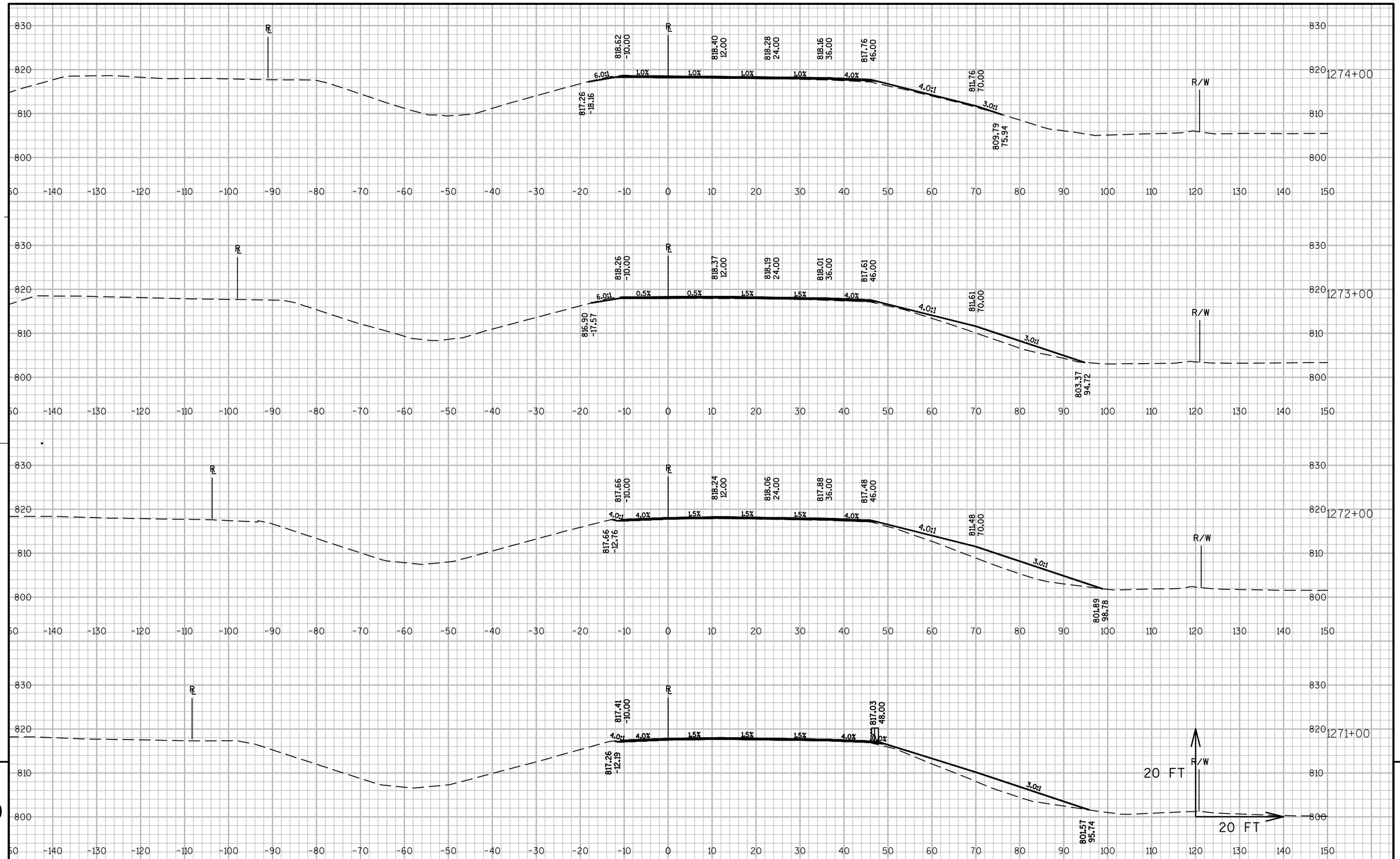
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PROJECT NO: 1010-02-85	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: IH 39 SB	SHEET 334	E

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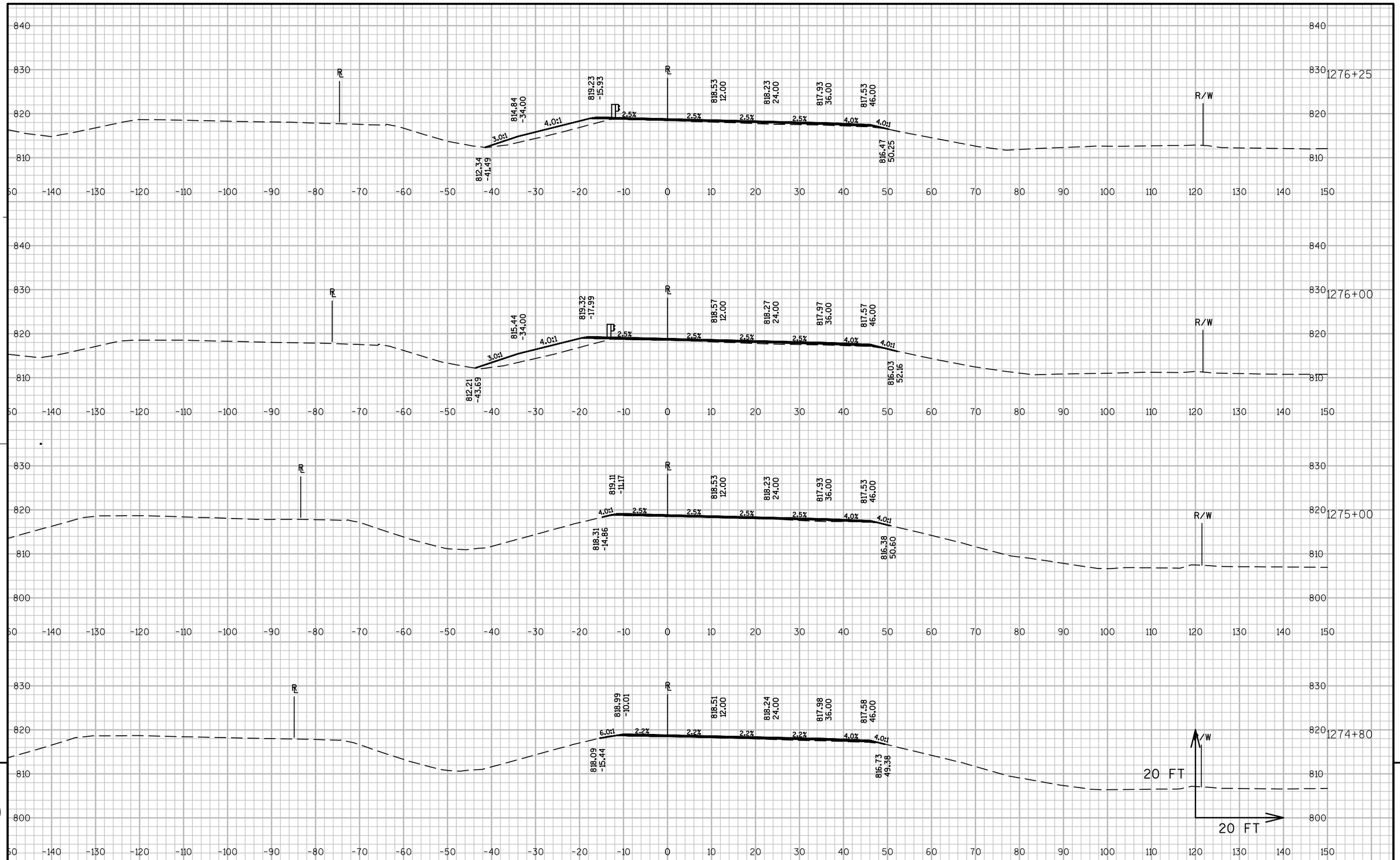
WISDOT/CADDS SHEET 49



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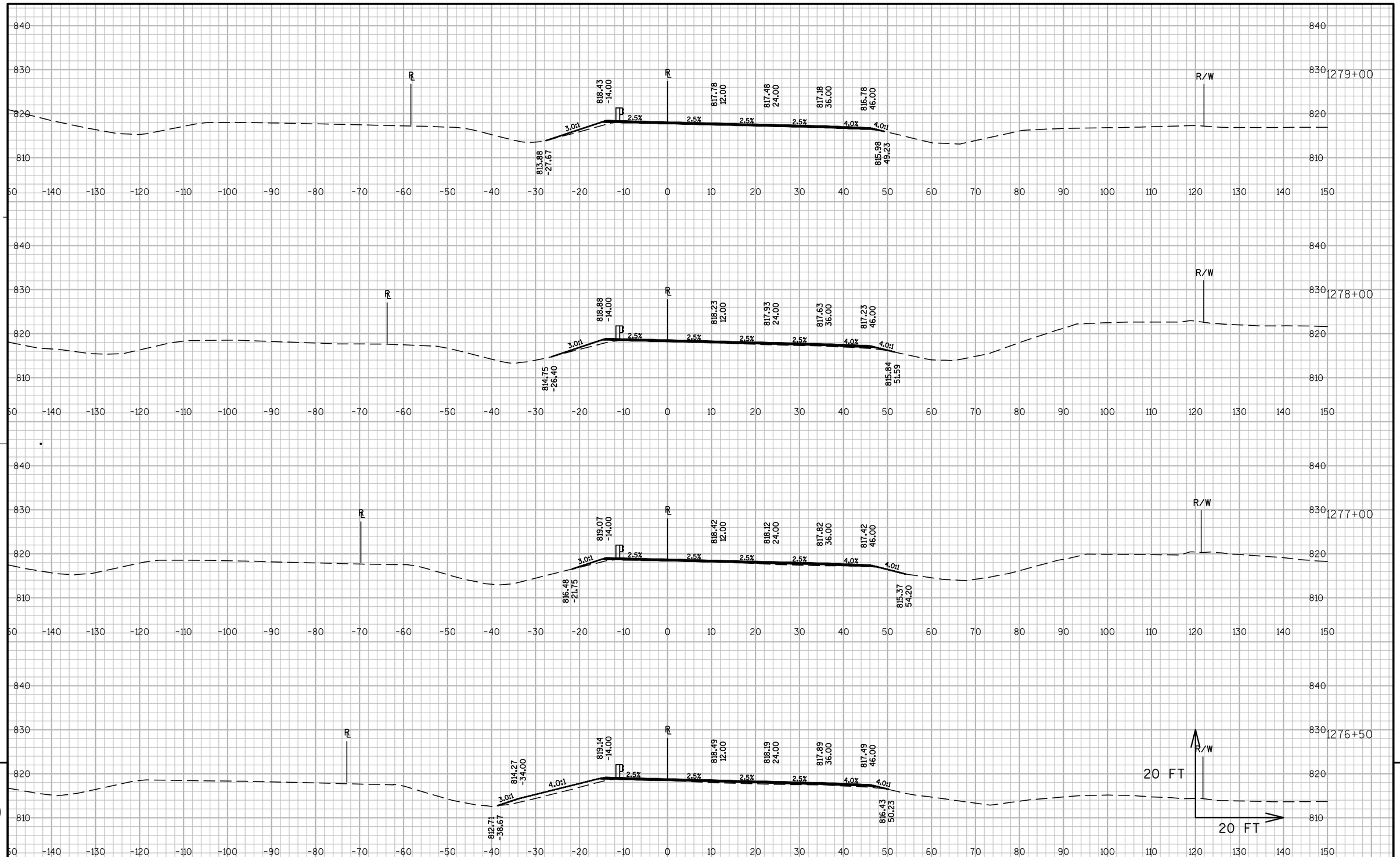
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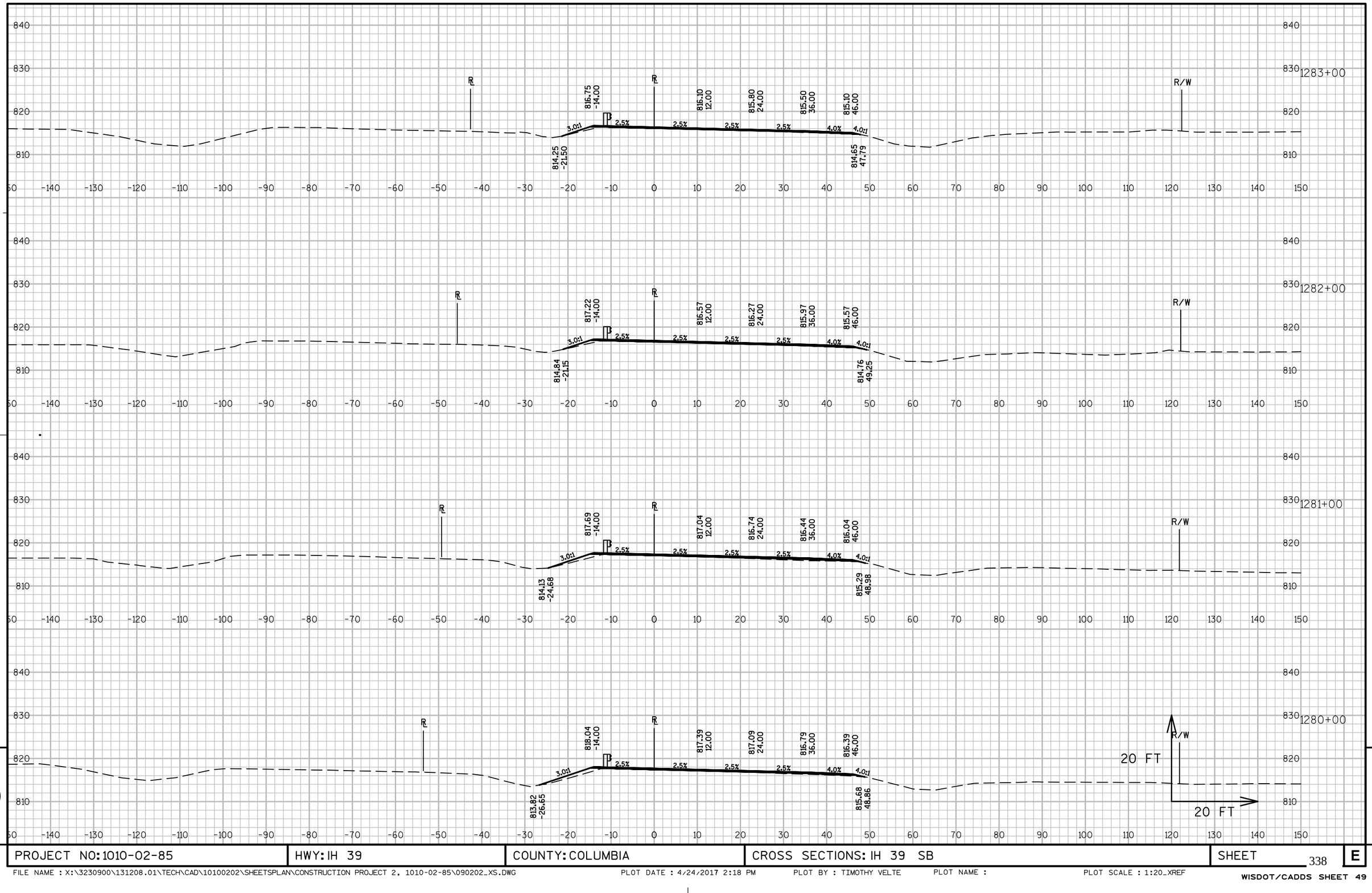
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PROJECT NO: 1010-02-85	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: IH 39 SB	SHEET 337	E

FILE NAME : X:\3230900\131208.01\TECH\CAD\10100202\SHEETSPLAN\CONSTRUCTION PROJECT 2, 1010-02-85\090202_XS.DWG PLOT DATE : 4/24/2017 2:18 PM PLOT BY : TIMOTHY VELTE PLOT NAME : PLOT SCALE : 1:20_XREF

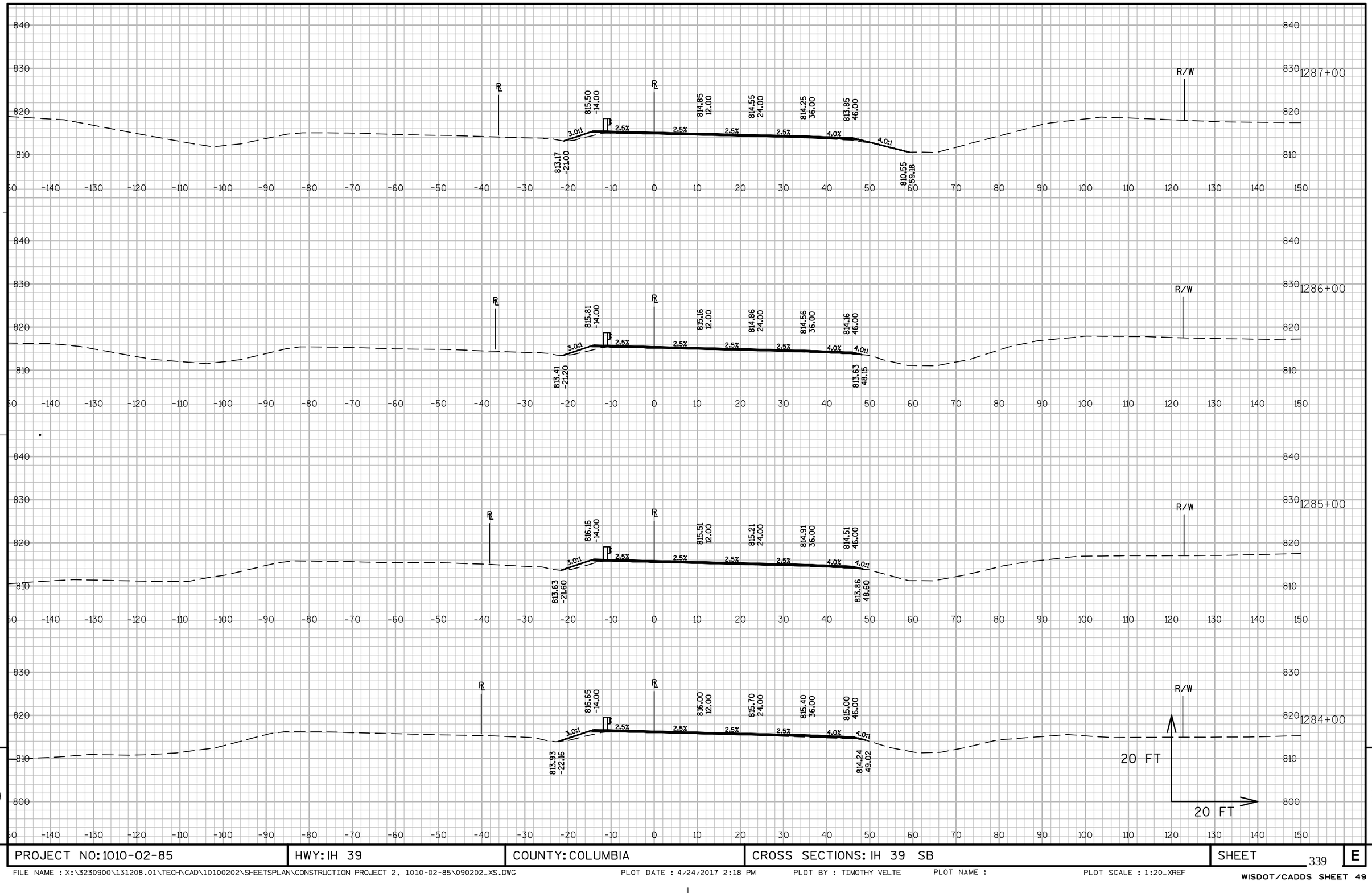
WISDOT/CADDS SHEET 49



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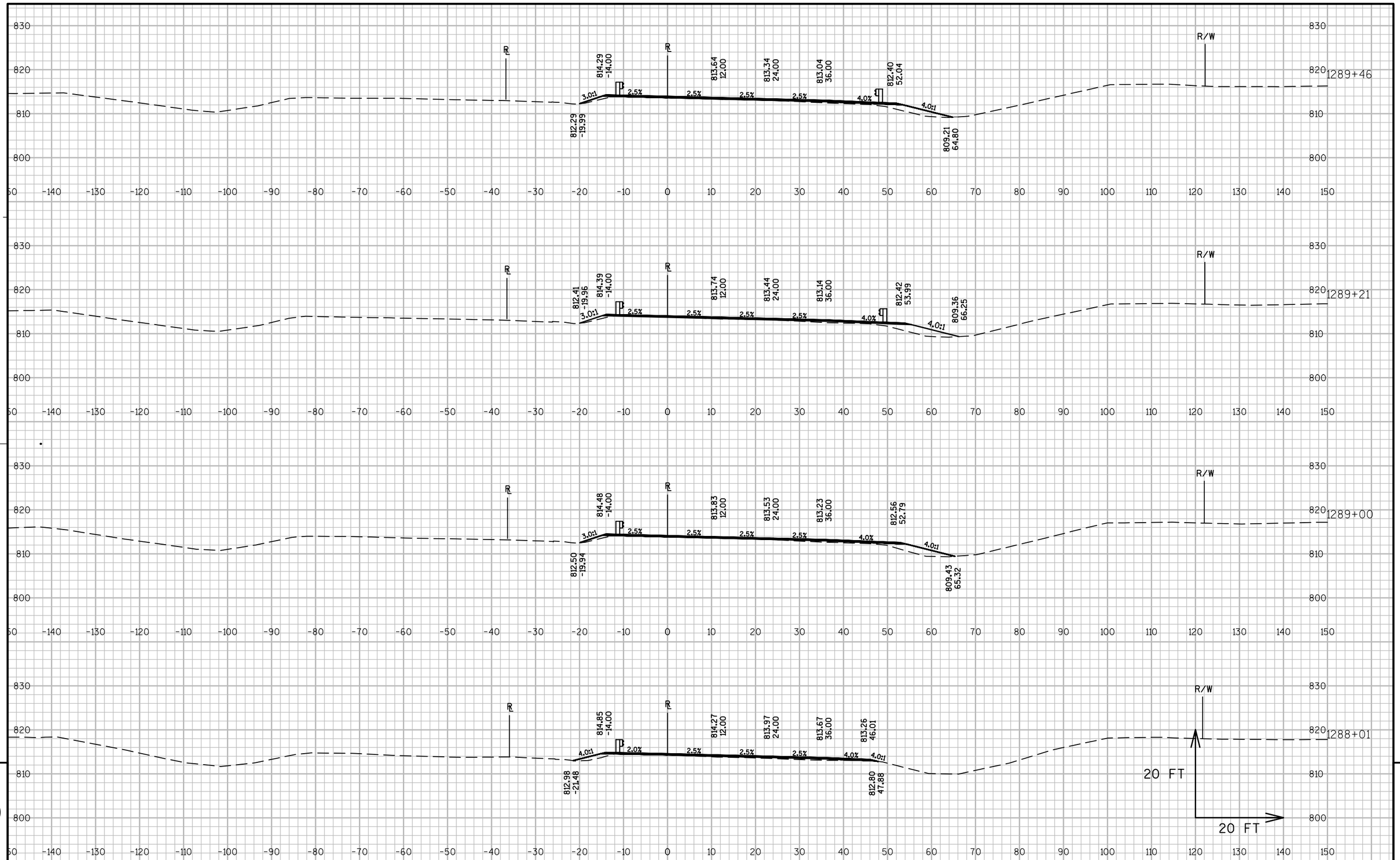
PROJECT NO: 1010-02-85	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: IH 39 SB	SHEET 338	E



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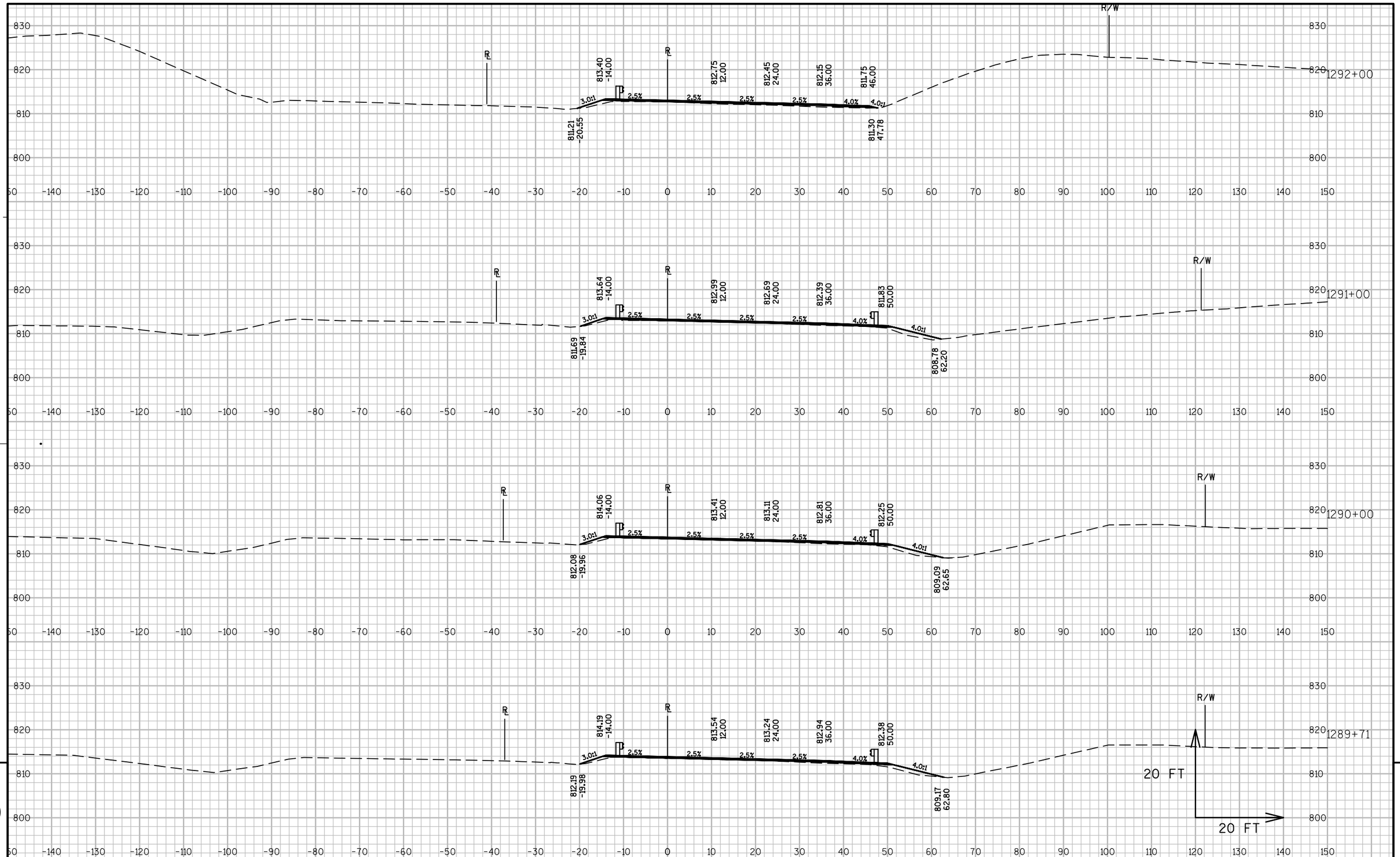
WISDOT/CADDS SHEET 49



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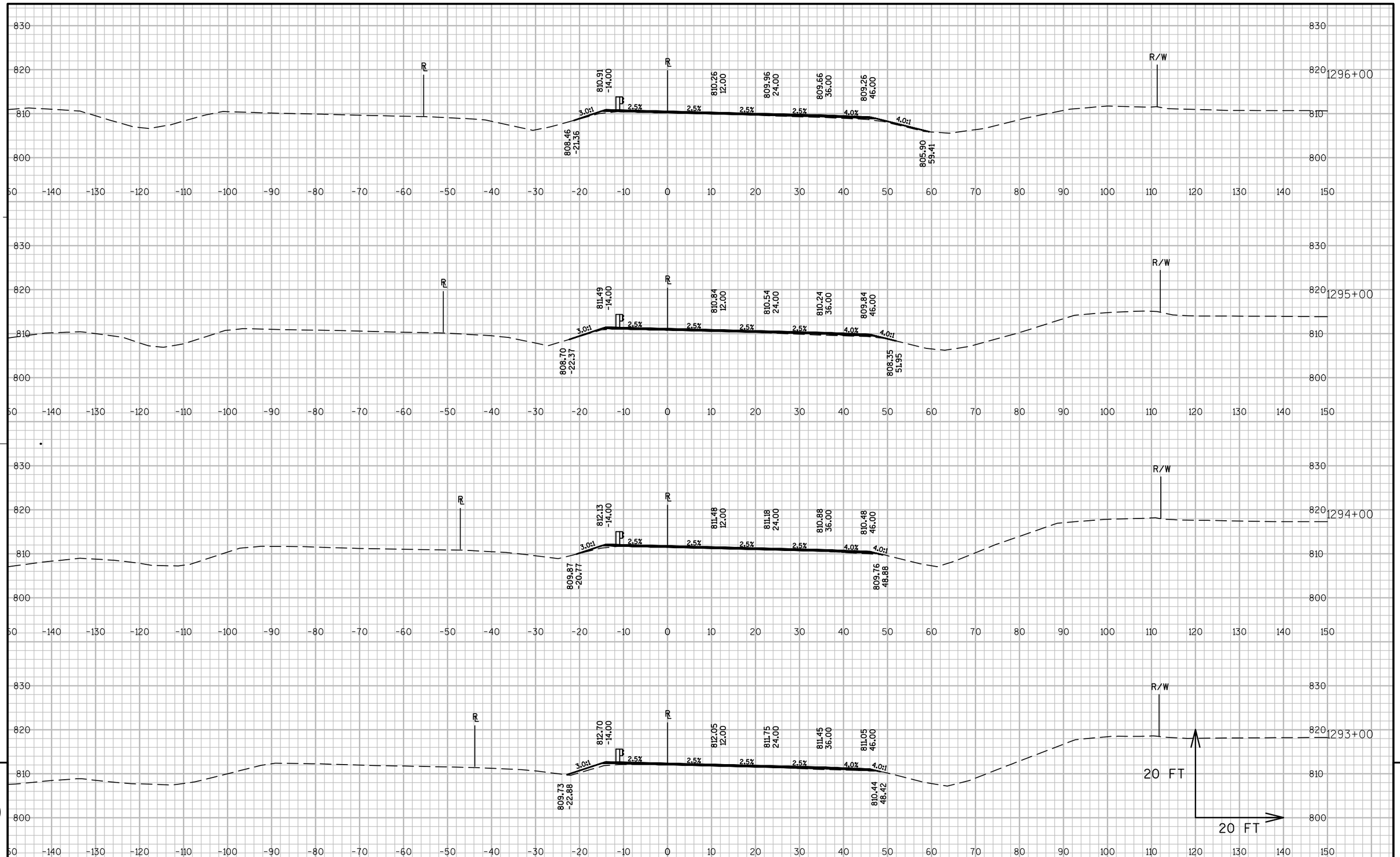
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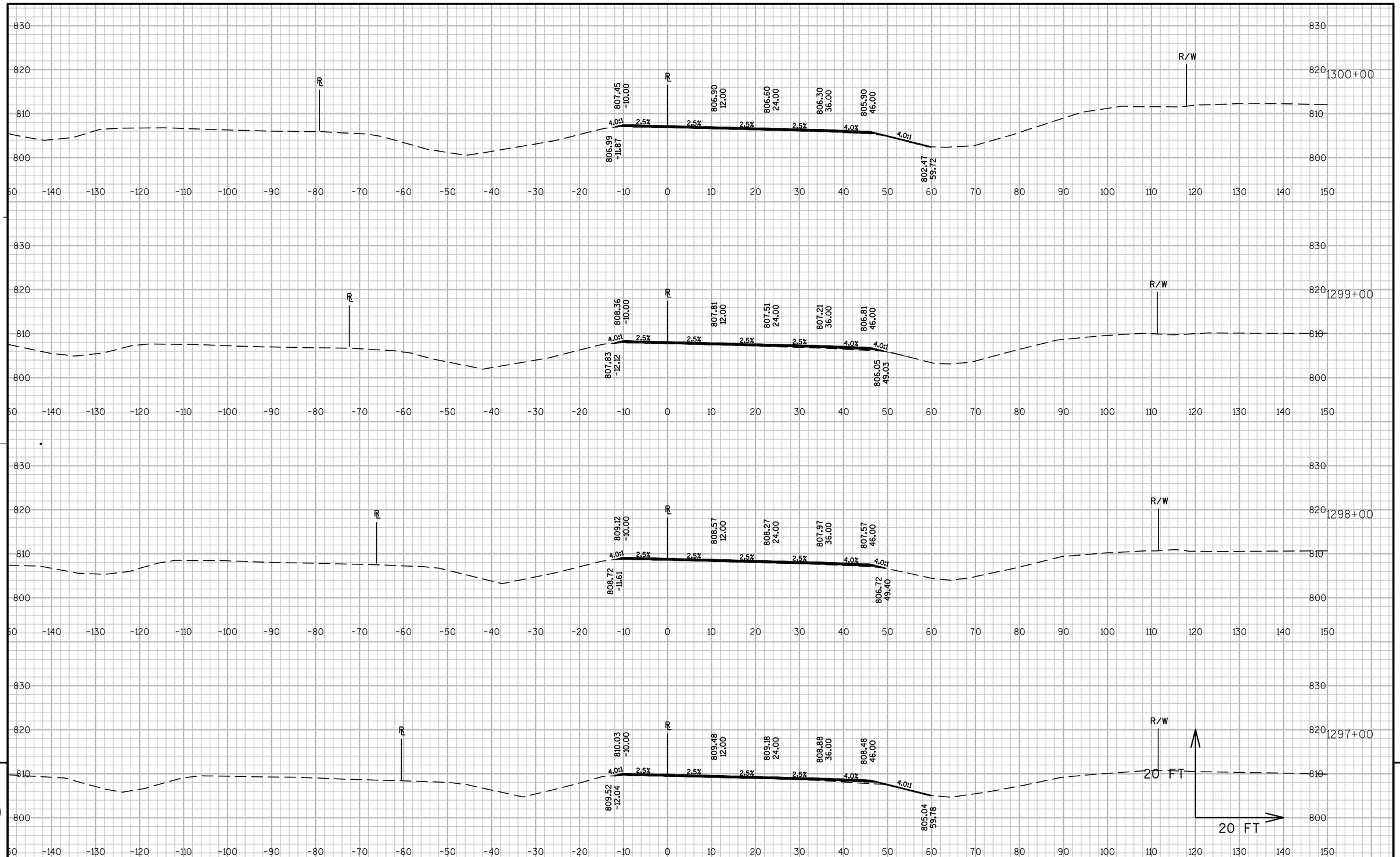
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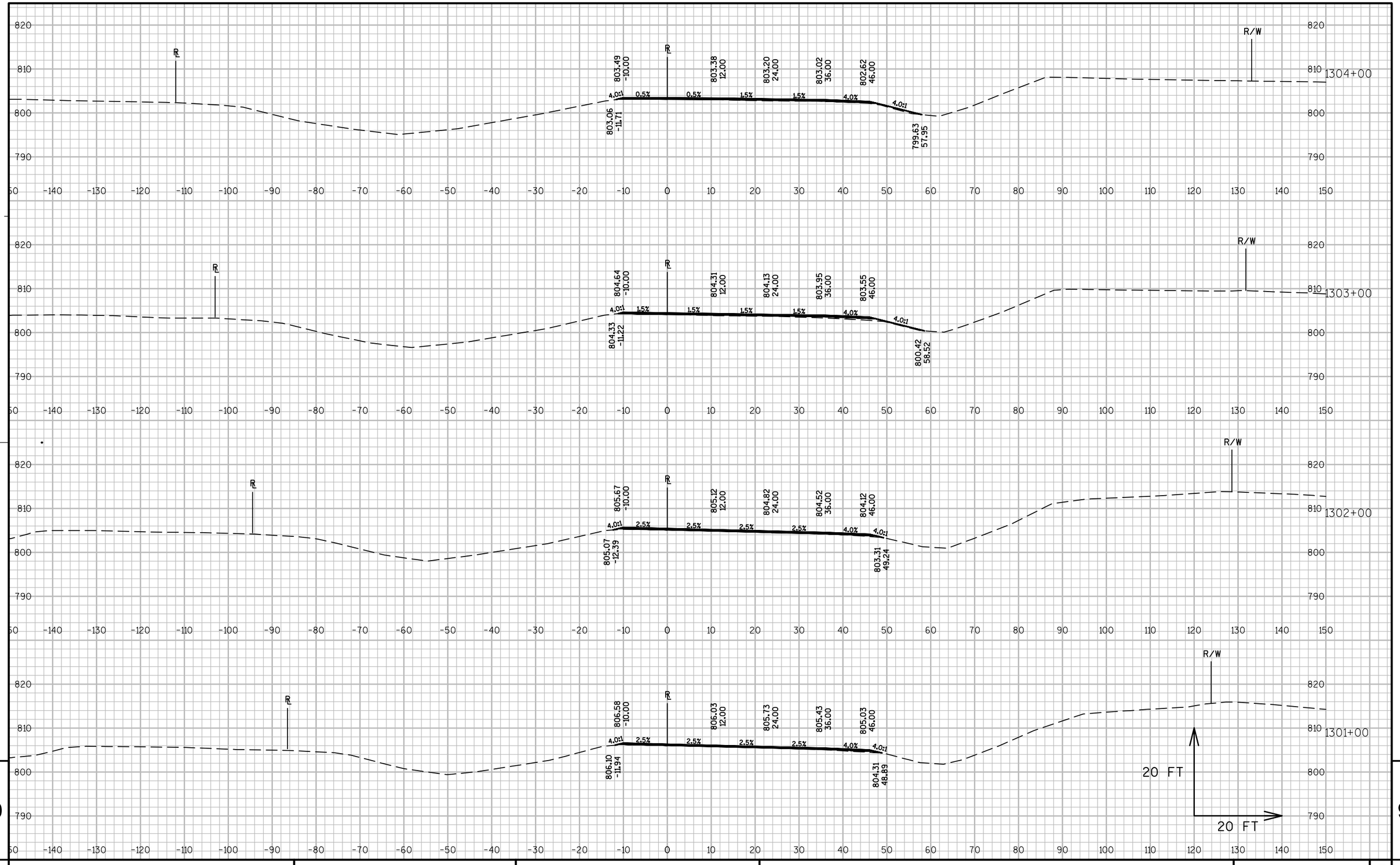
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PROJECT NO: 1010-02-85	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: IH 39 SB	SHEET 343	E

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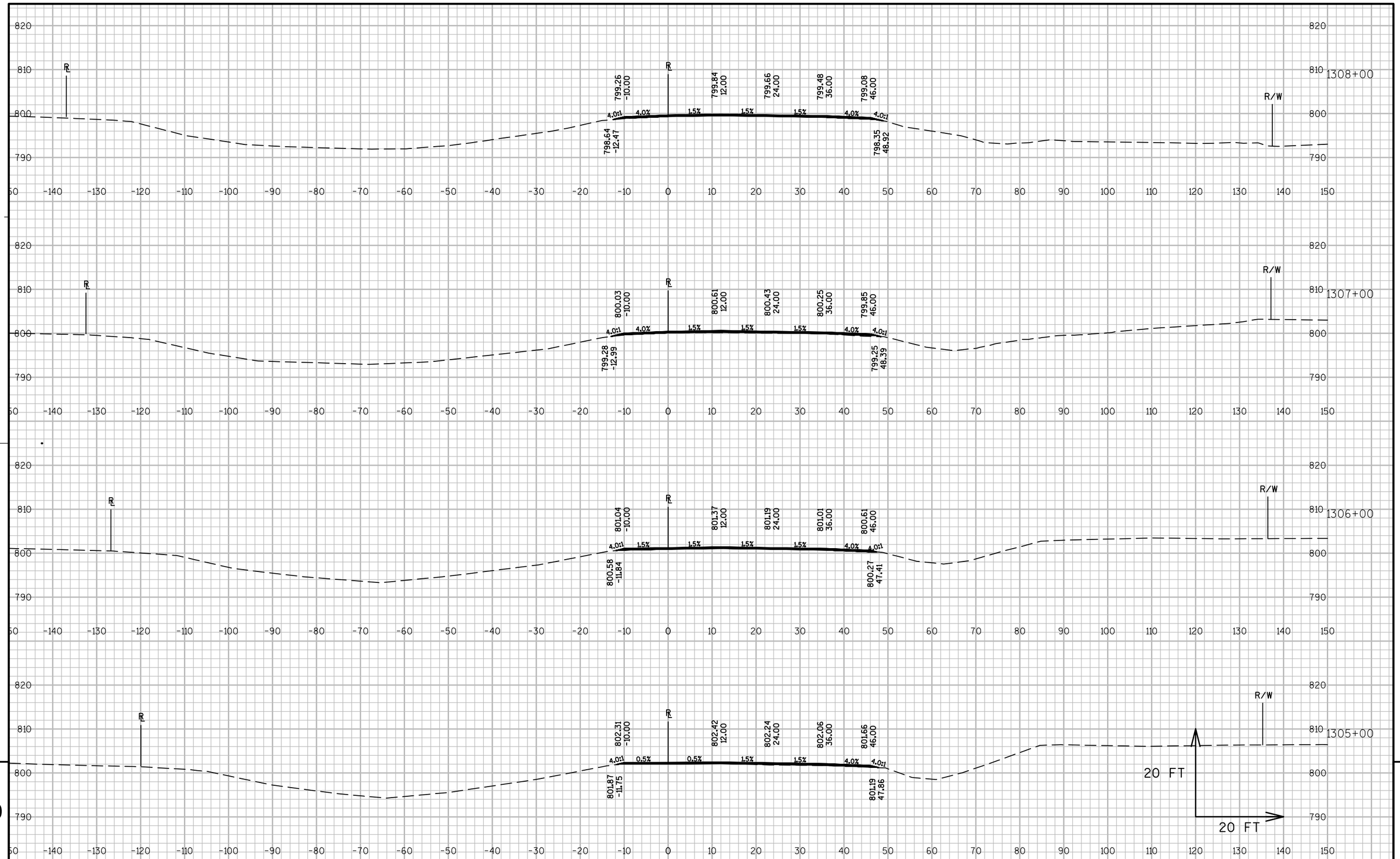
WISDOT/CADDS SHEET 49



PROJECT NO: 1010-02-85	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: IH 39 SB	SHEET 344	E

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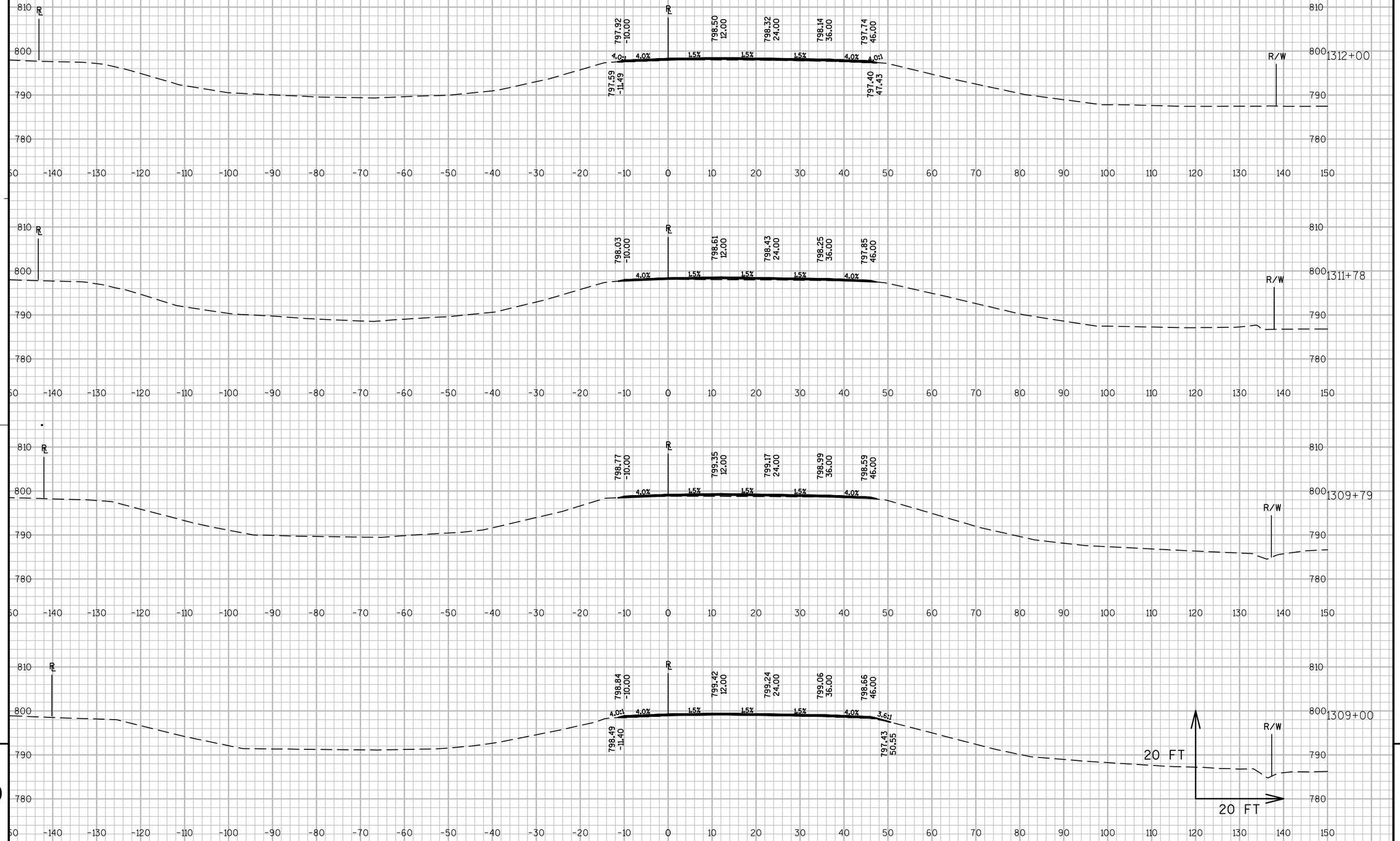
WISDOT/CADDS SHEET 49



PROJECT NO: 1010-02-85	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: IH 39 SB	SHEET 345	E

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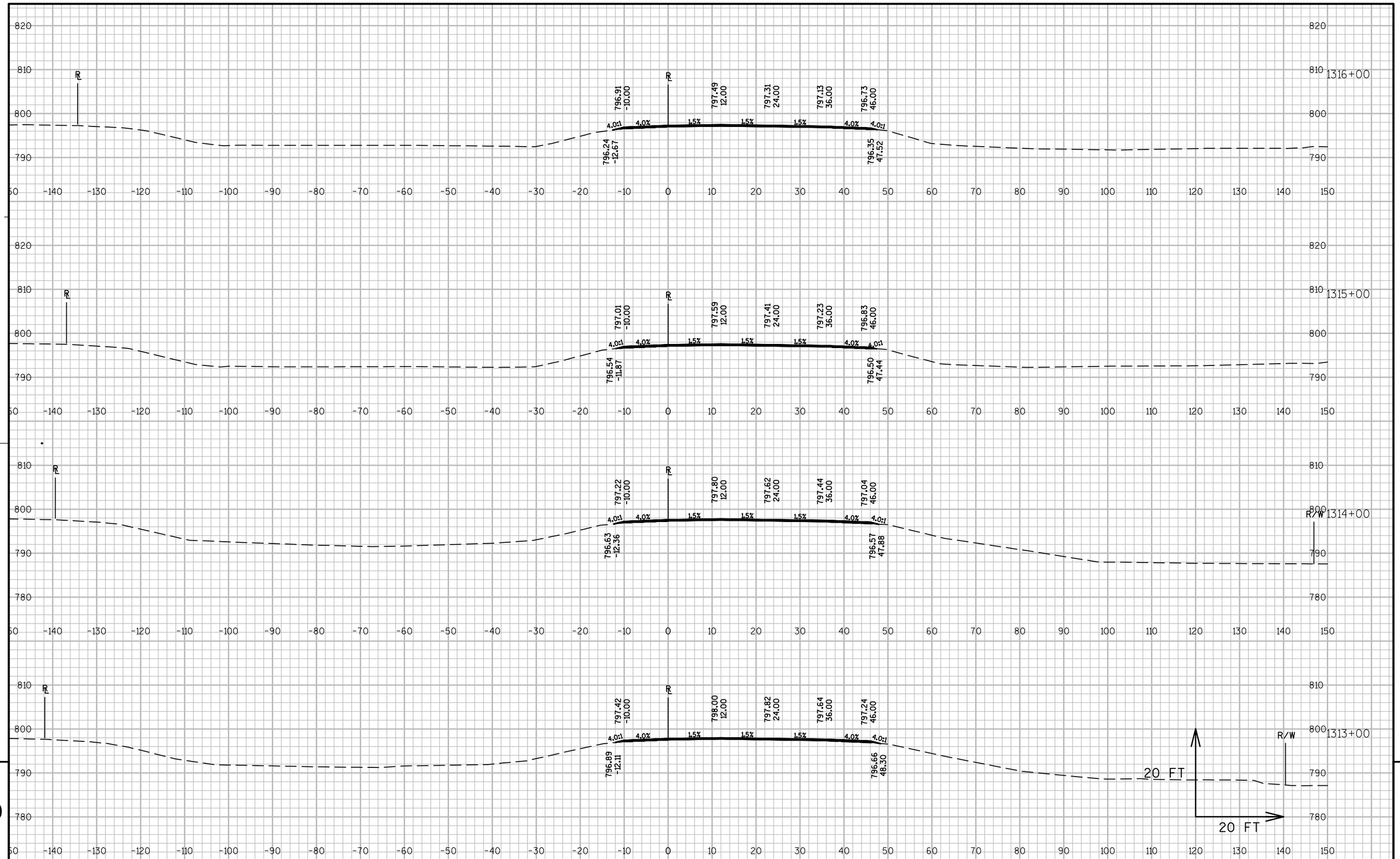
WISDOT/CADDS SHEET 49



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PROJECT NO: 1010-02-85	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: IH 39 SB	SHEET 346	E



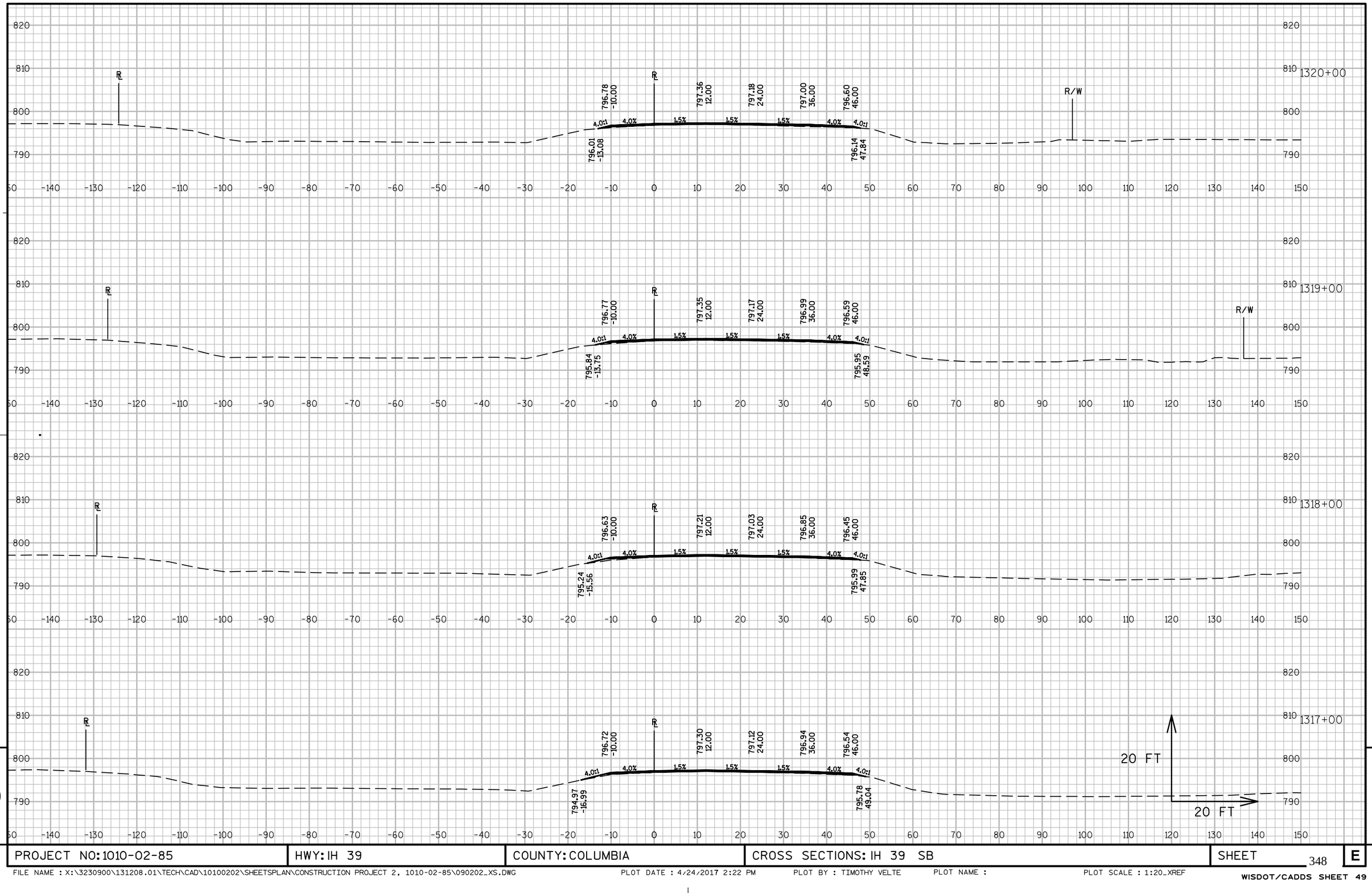
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PROJECT NO: 1010-02-85	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: IH 39 SB	SHEET 347	E

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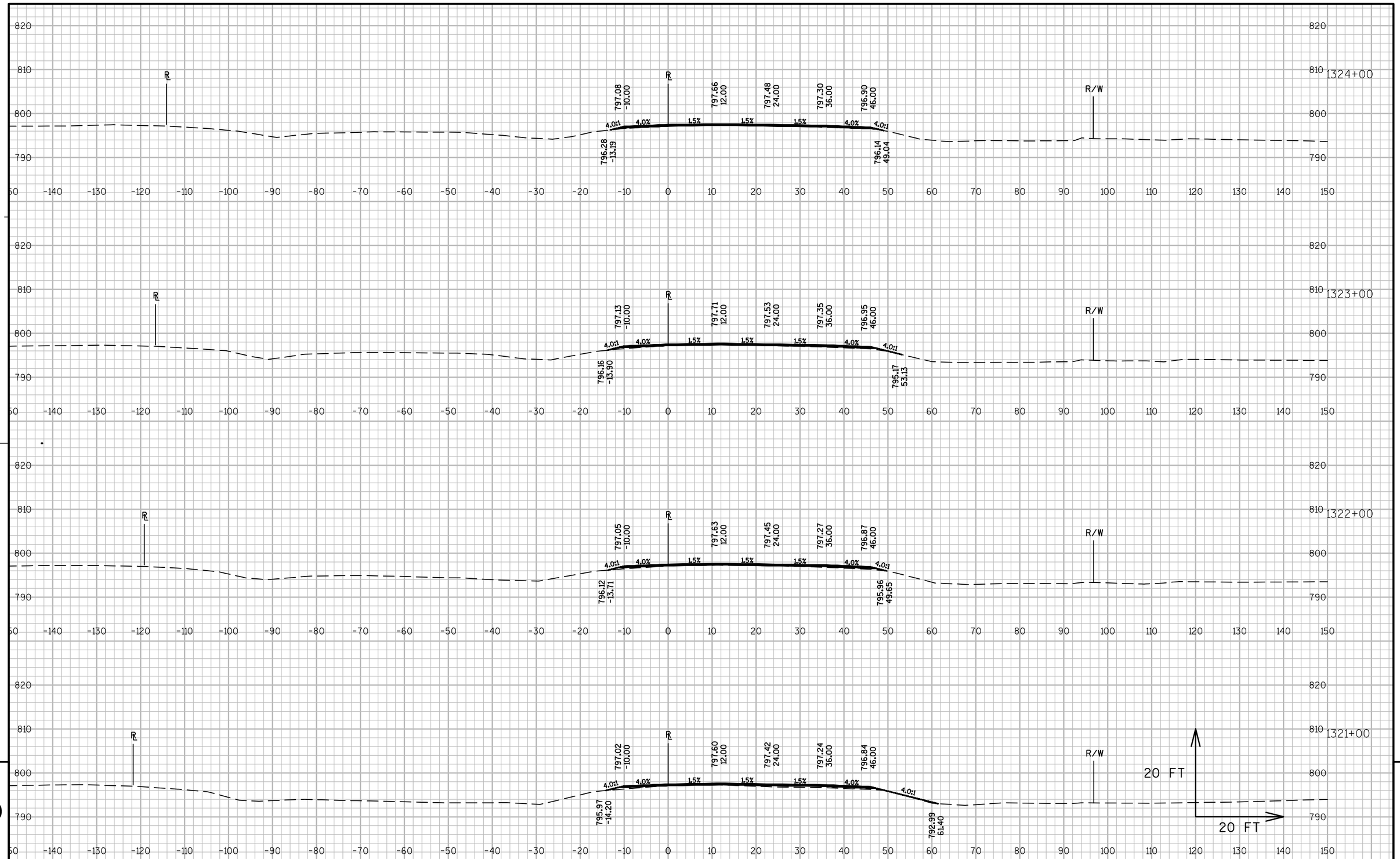
WISDOT/CADDS SHEET 49



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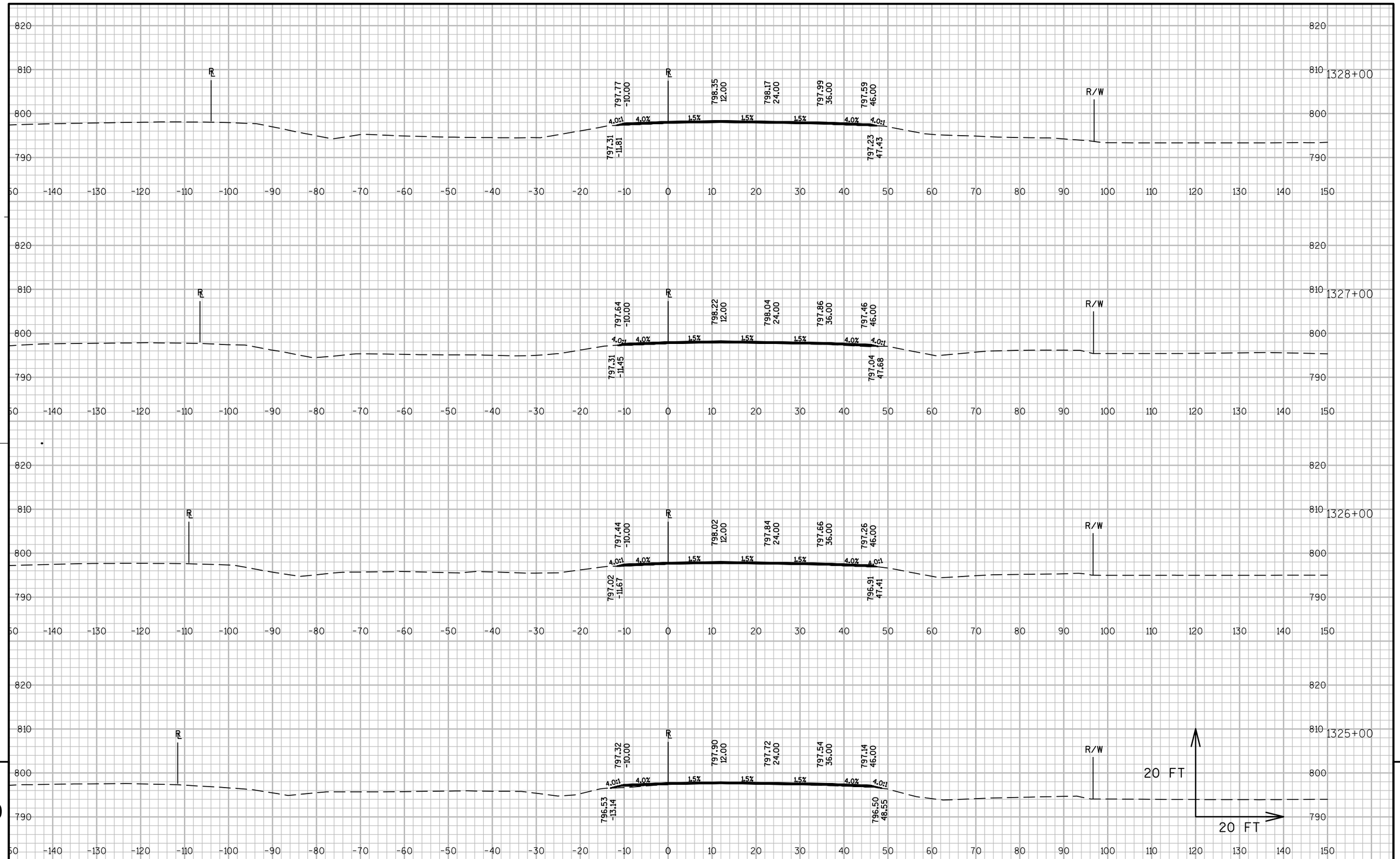
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PROJECT NO: 1010-02-85	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: IH 39 SB	SHEET 349	E

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WISDOT/CADDS SHEET 49

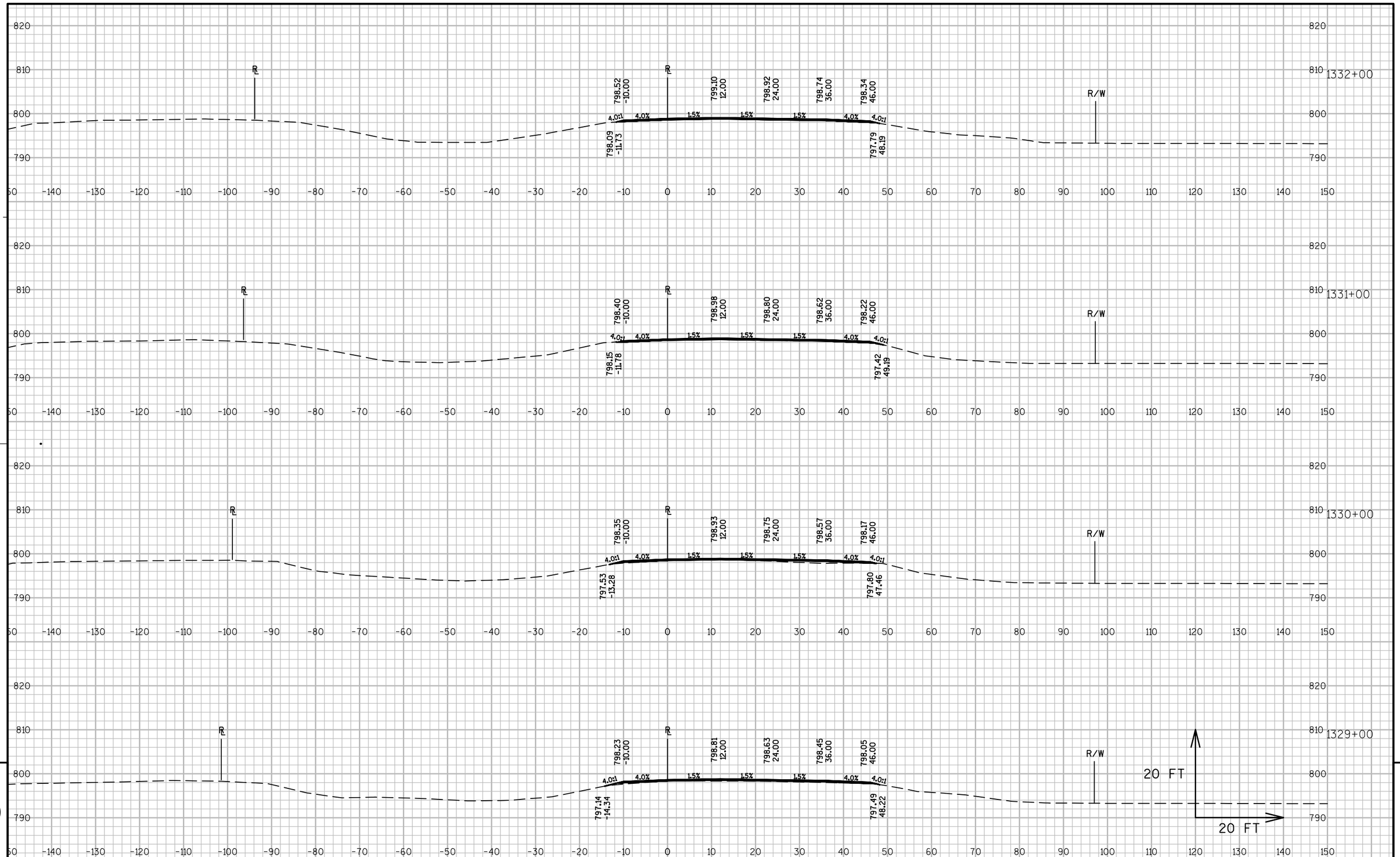


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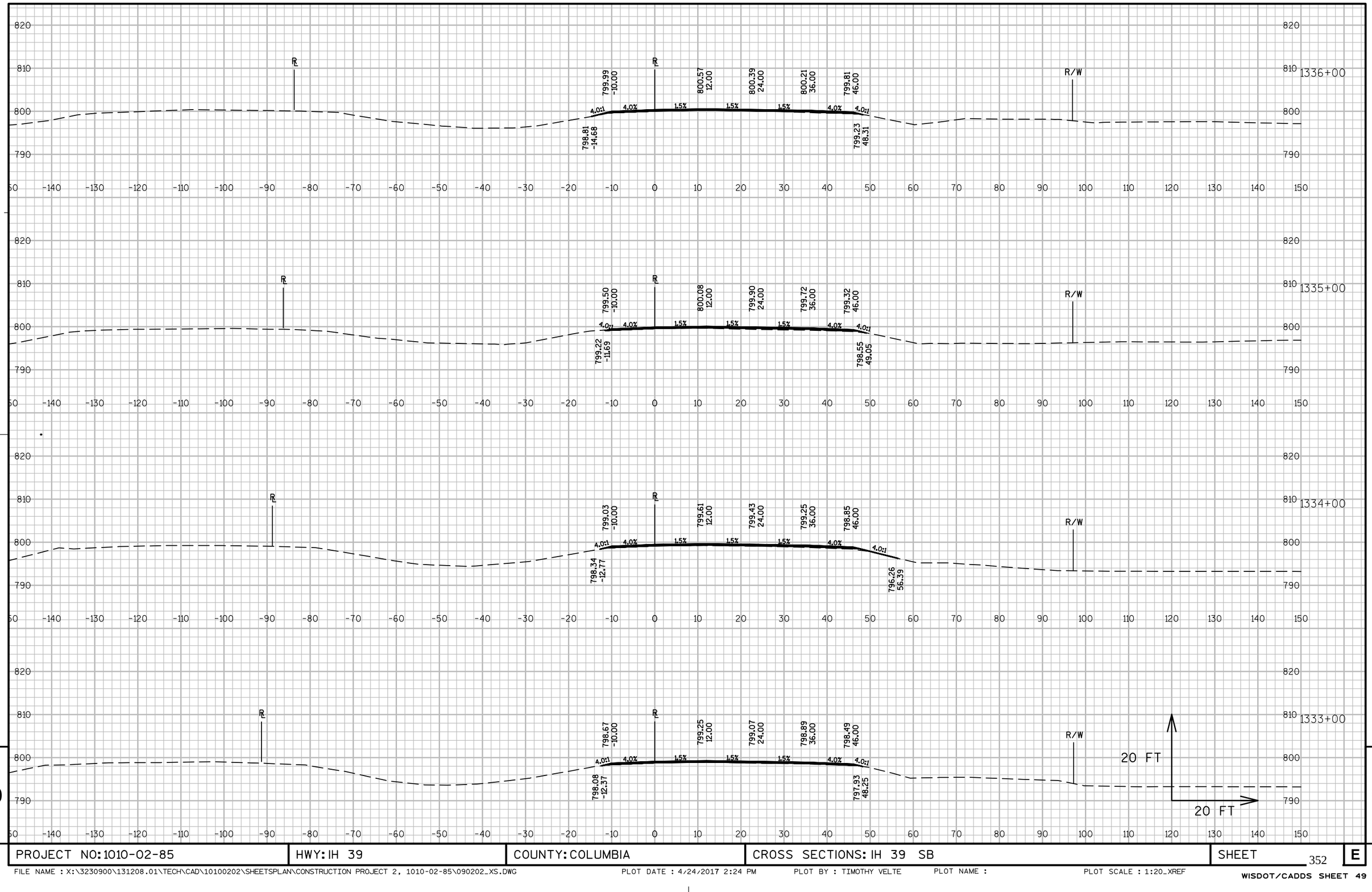
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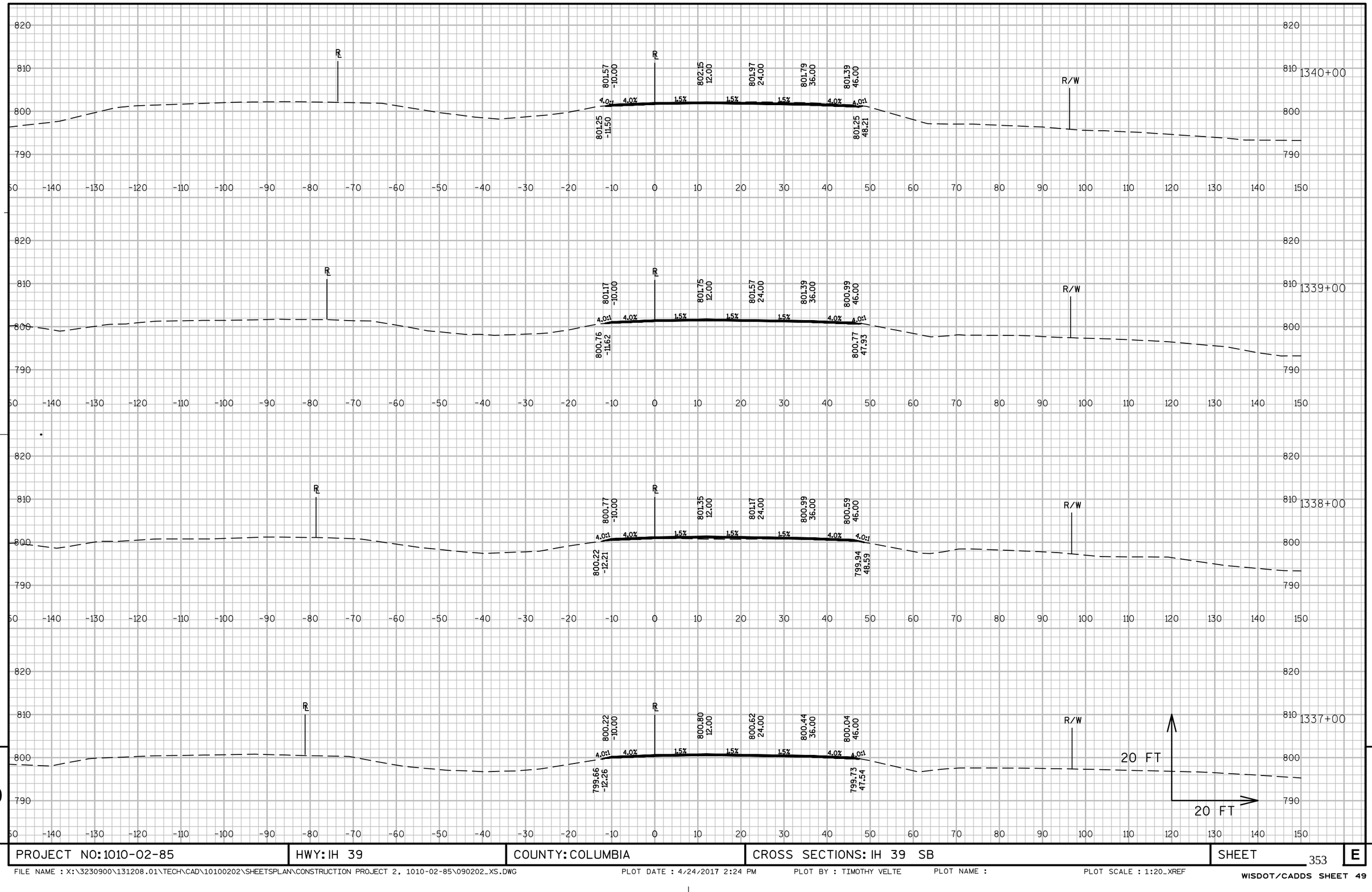
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WISDOT/CADDS SHEET 49



PROJECT NO: 1010-02-85	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: IH 39 SB	SHEET 352	E

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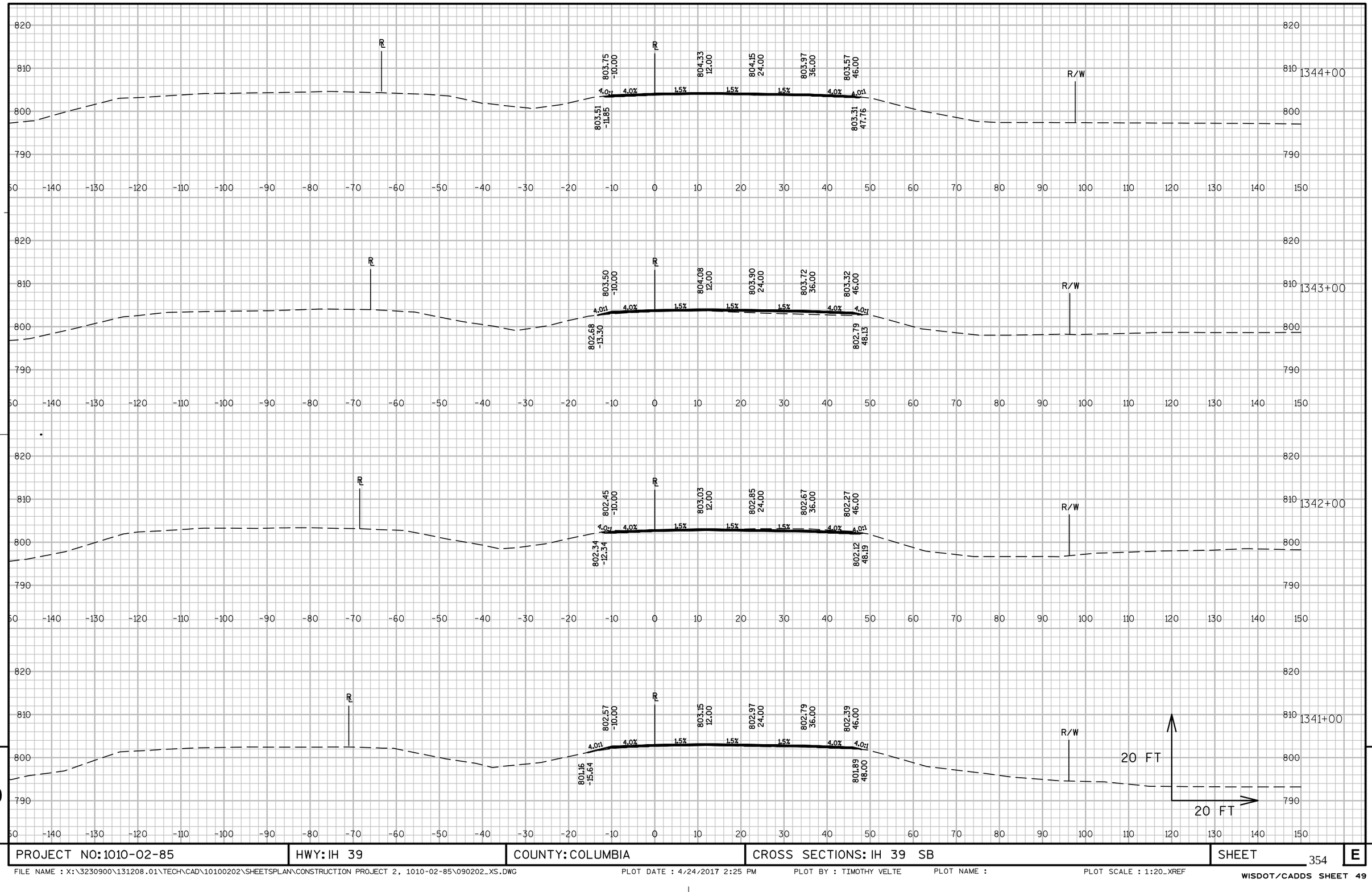


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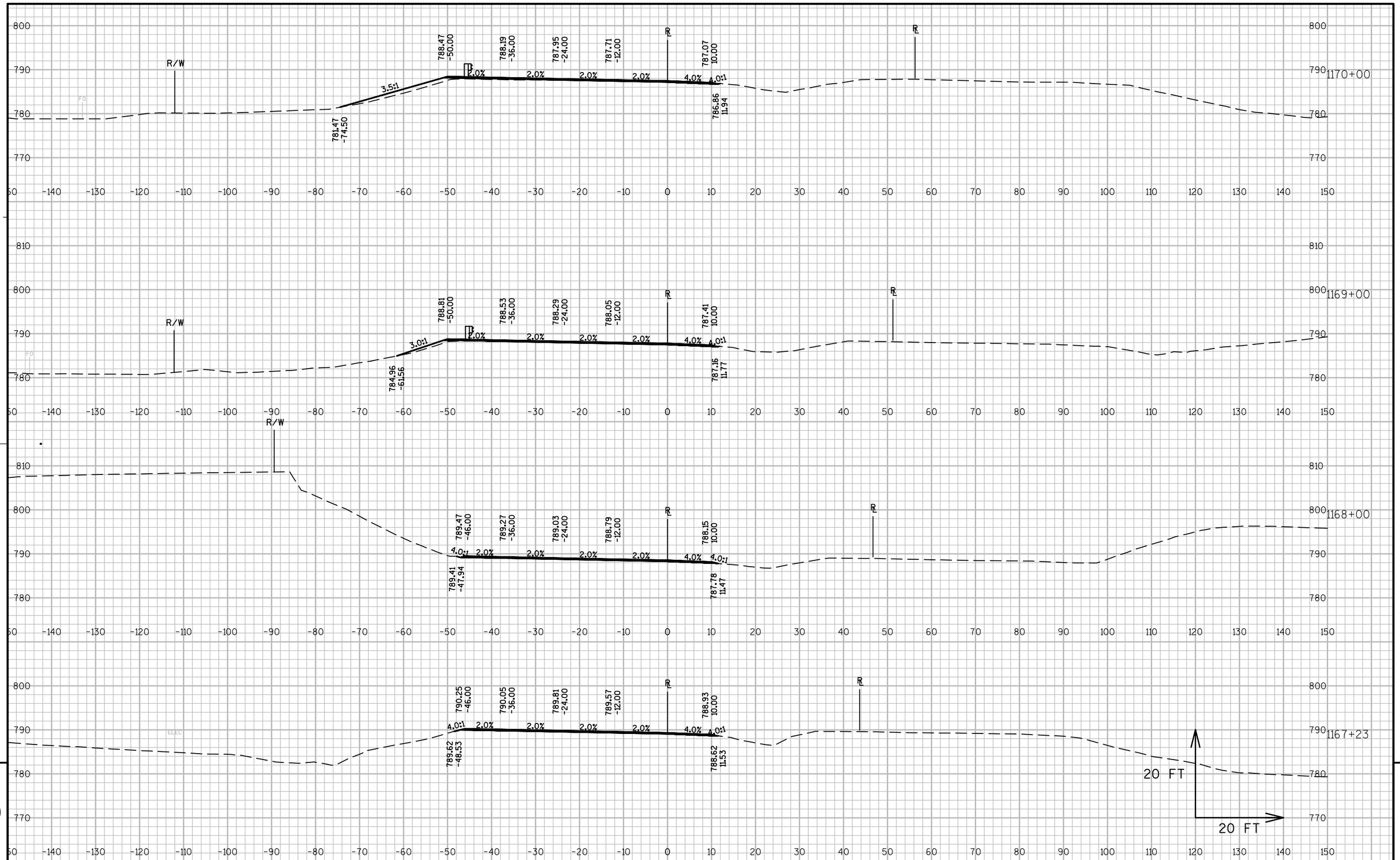
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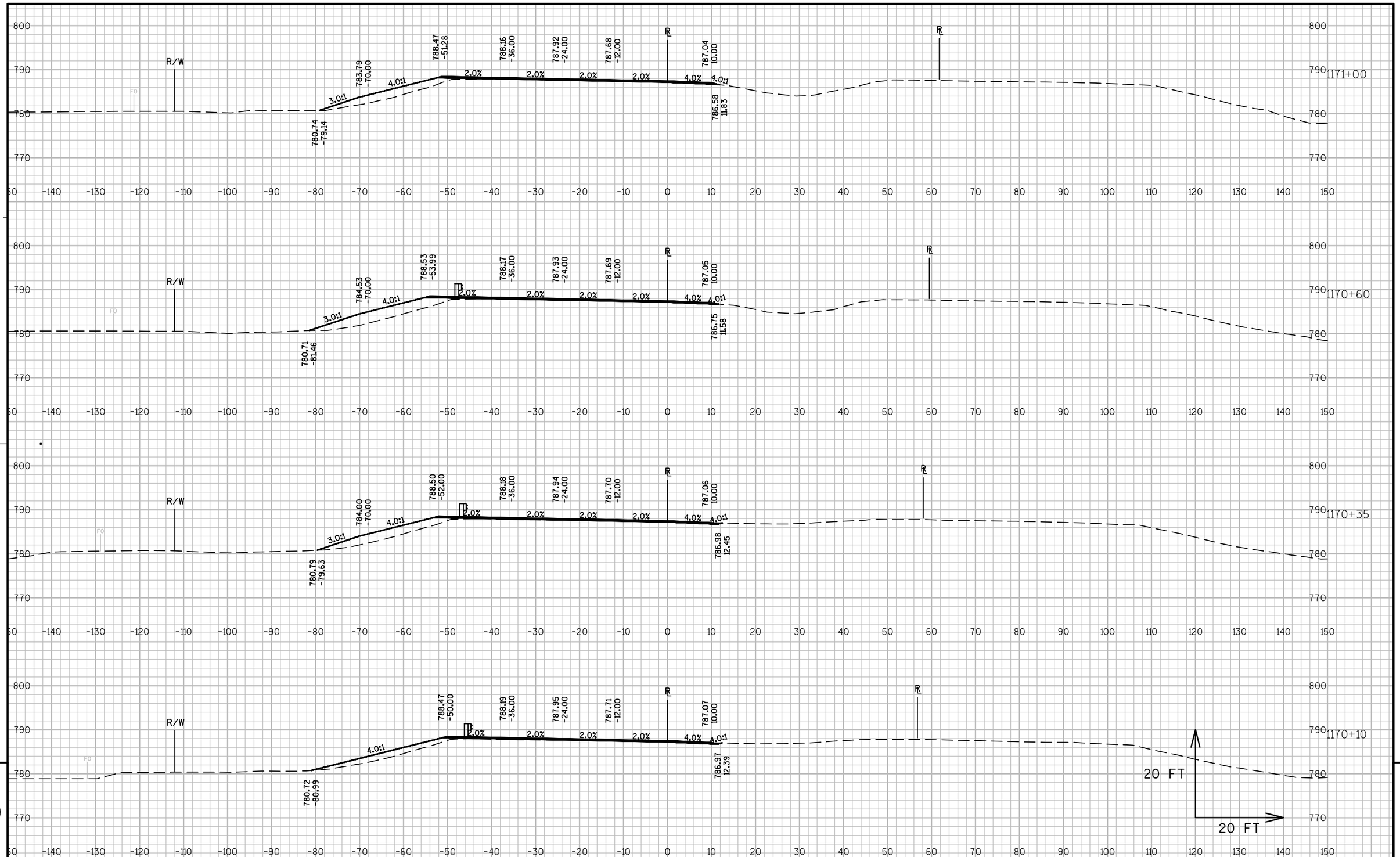
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PROJECT NO: 1010-02-85	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: IH 39 NB	SHEET 355	E

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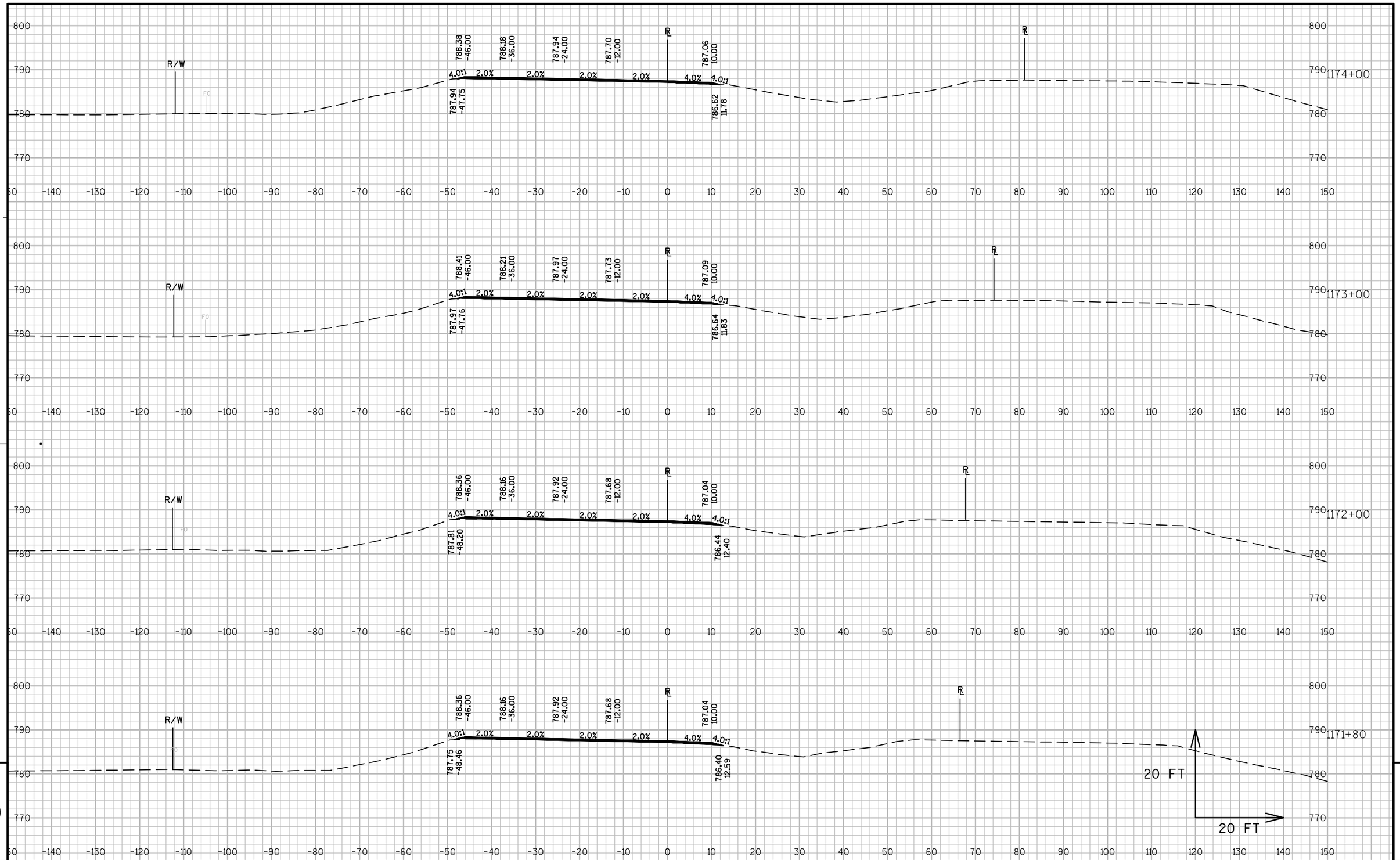
WISDOT/CADDS SHEET 49



PROJECT NO: 1010-02-85	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: IH 39 NB	SHEET 356	E

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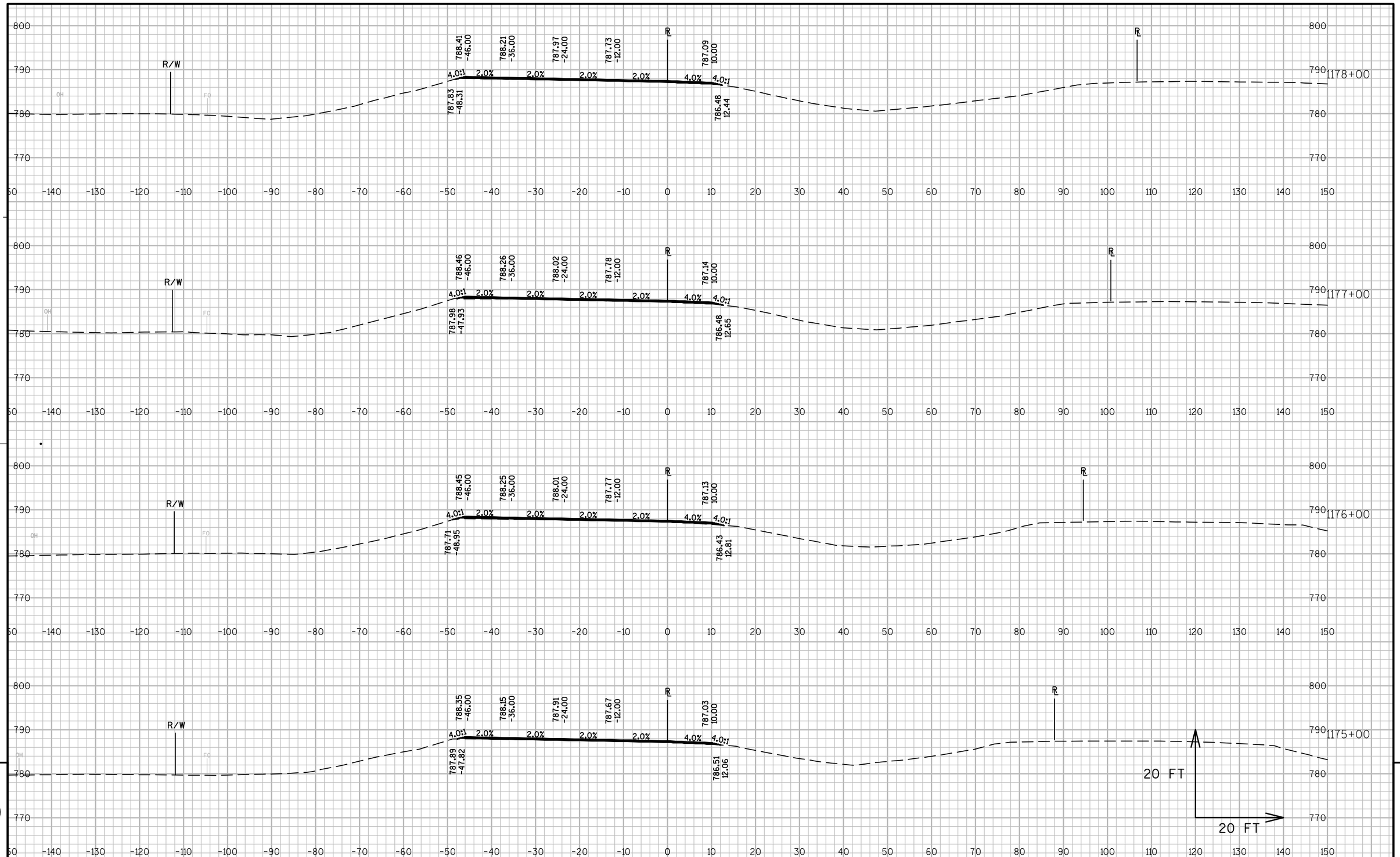
WISDOT/CADDS SHEET 49



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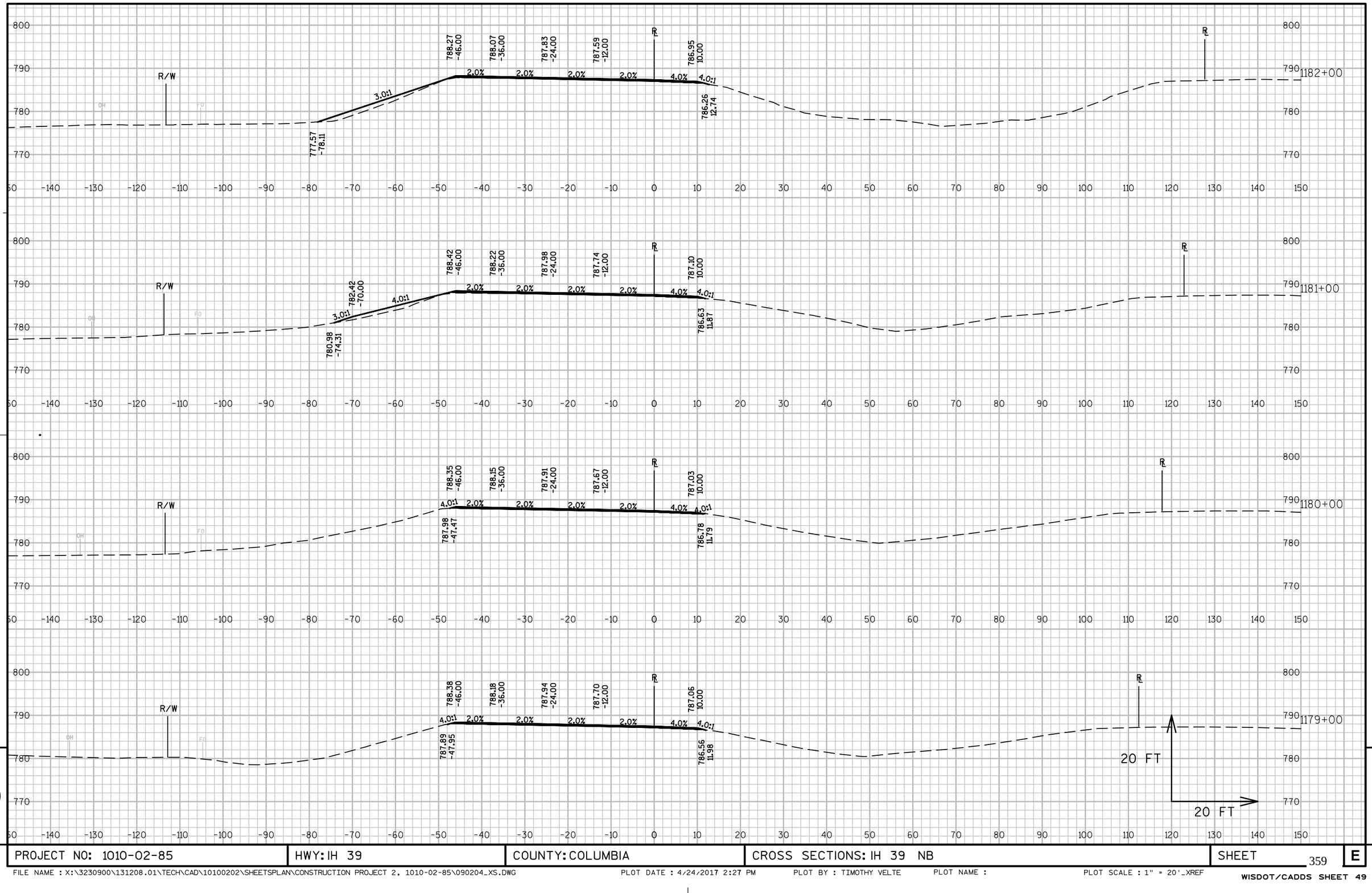
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PROJECT NO: 1010-02-85	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: IH 39 NB	SHEET 358	E

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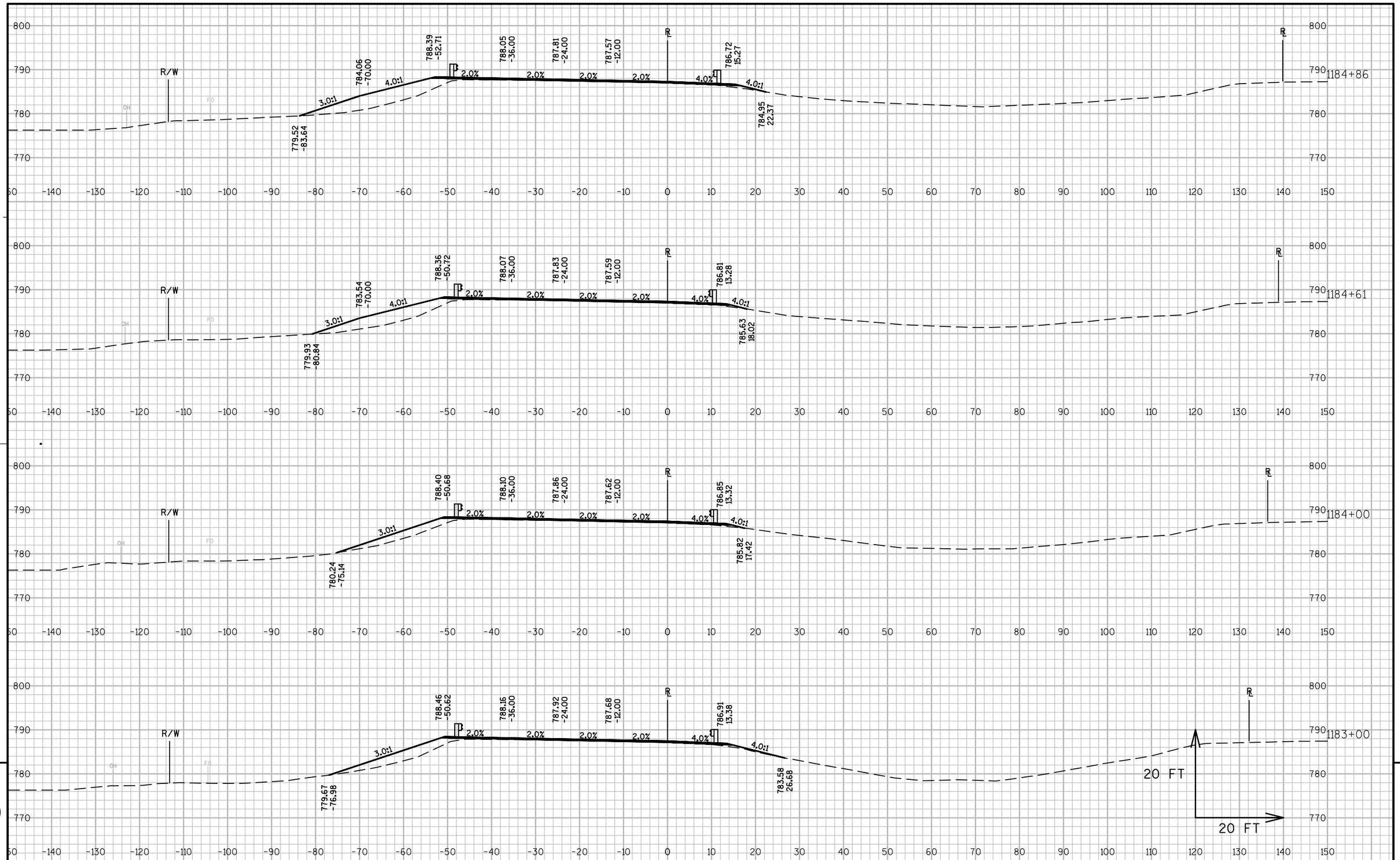
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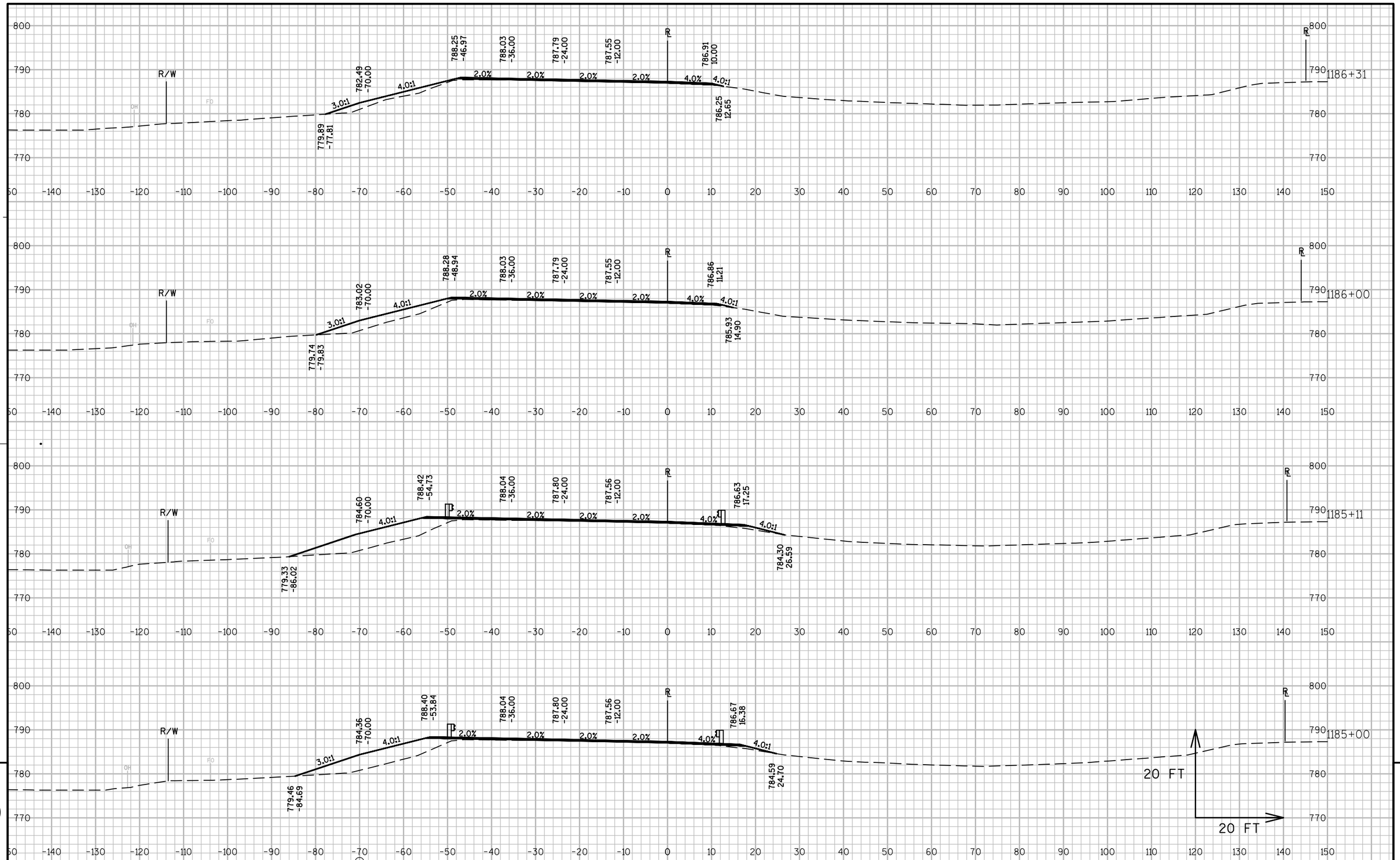
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PROJECT NO: 1010-02-85	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: IH 39 NB	SHEET 360	E

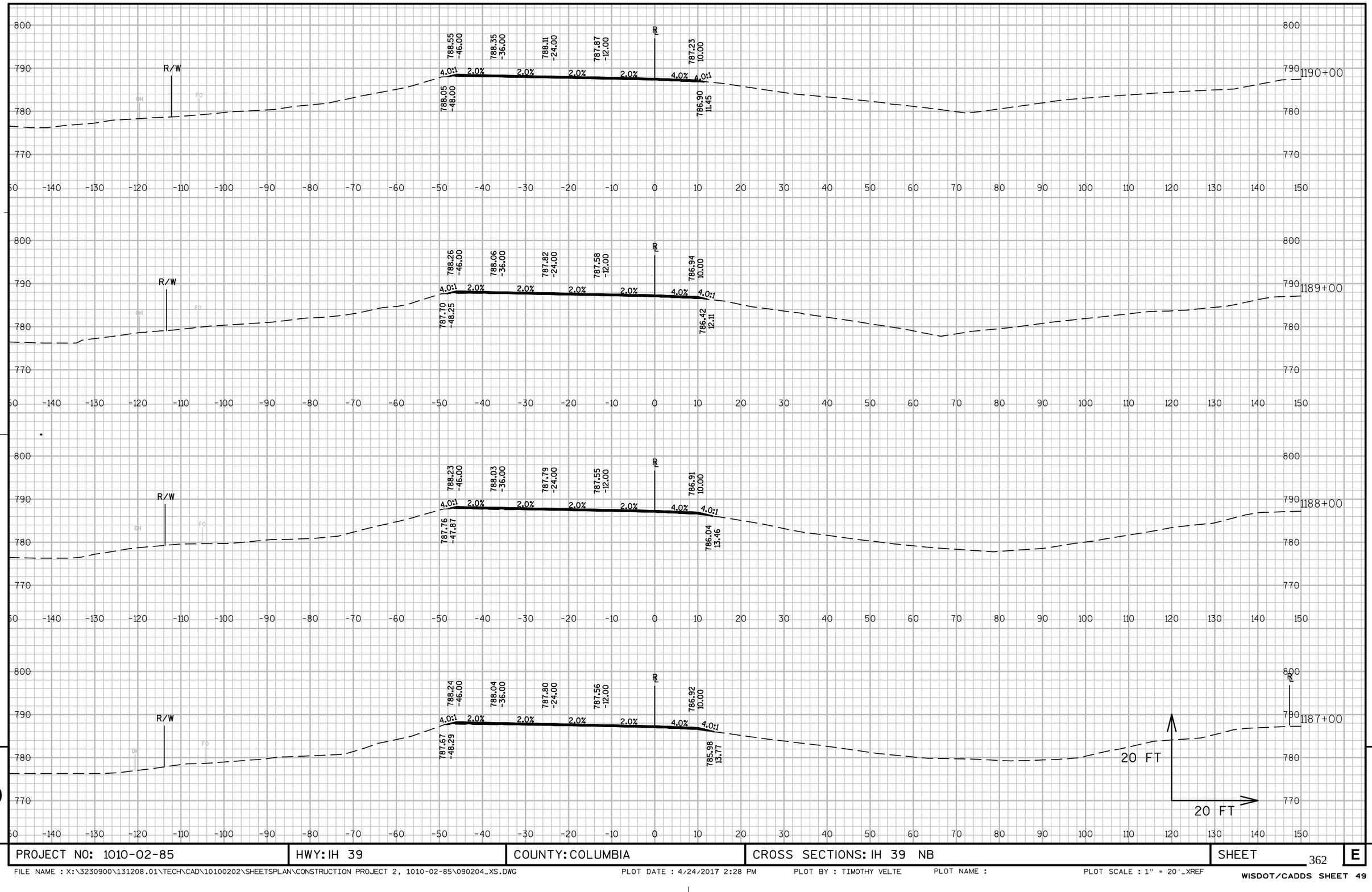
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PROJECT NO: 1010-02-85	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: IH 39 NB	SHEET 361	E

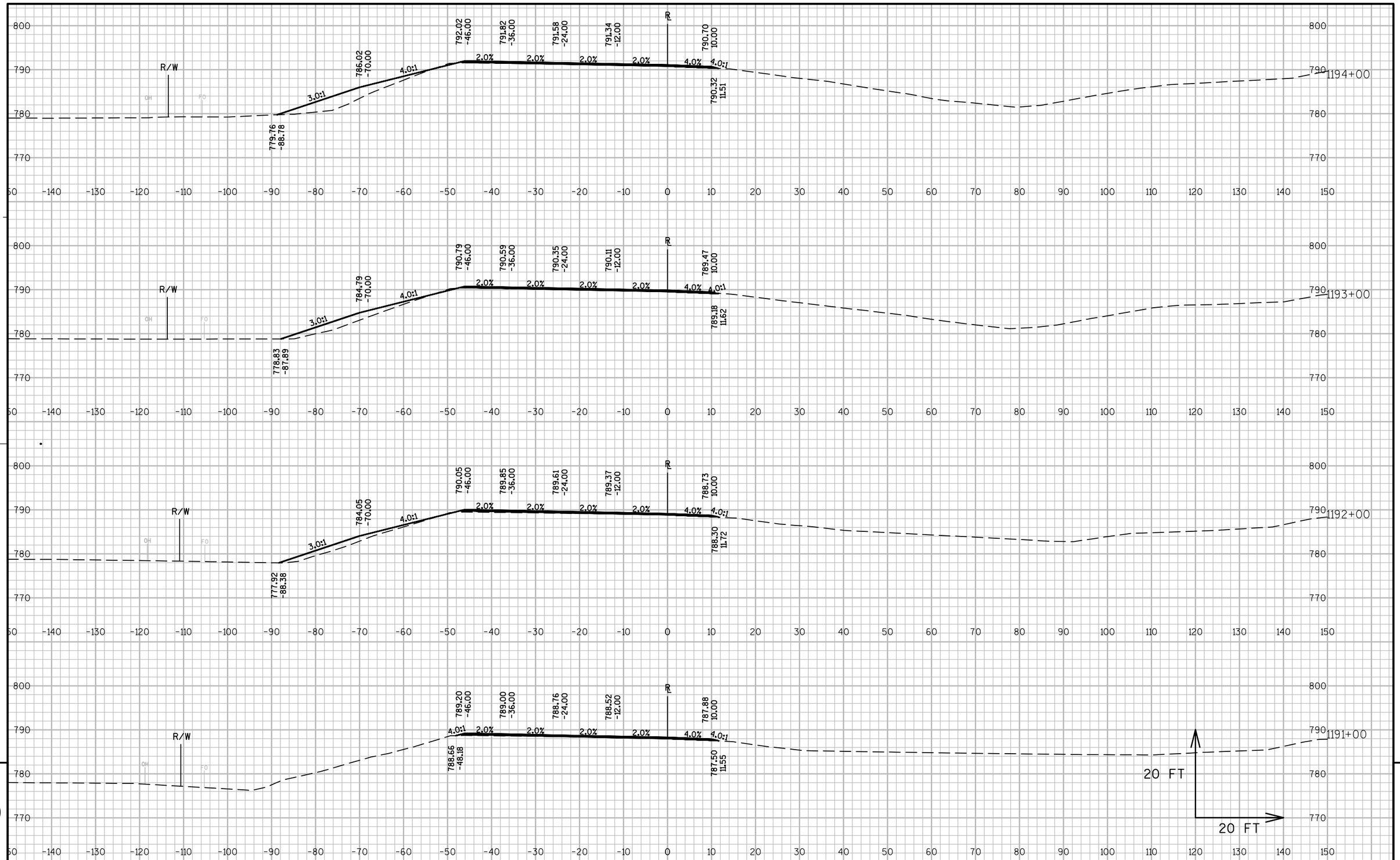
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WISDOT/CADDS SHEET 49



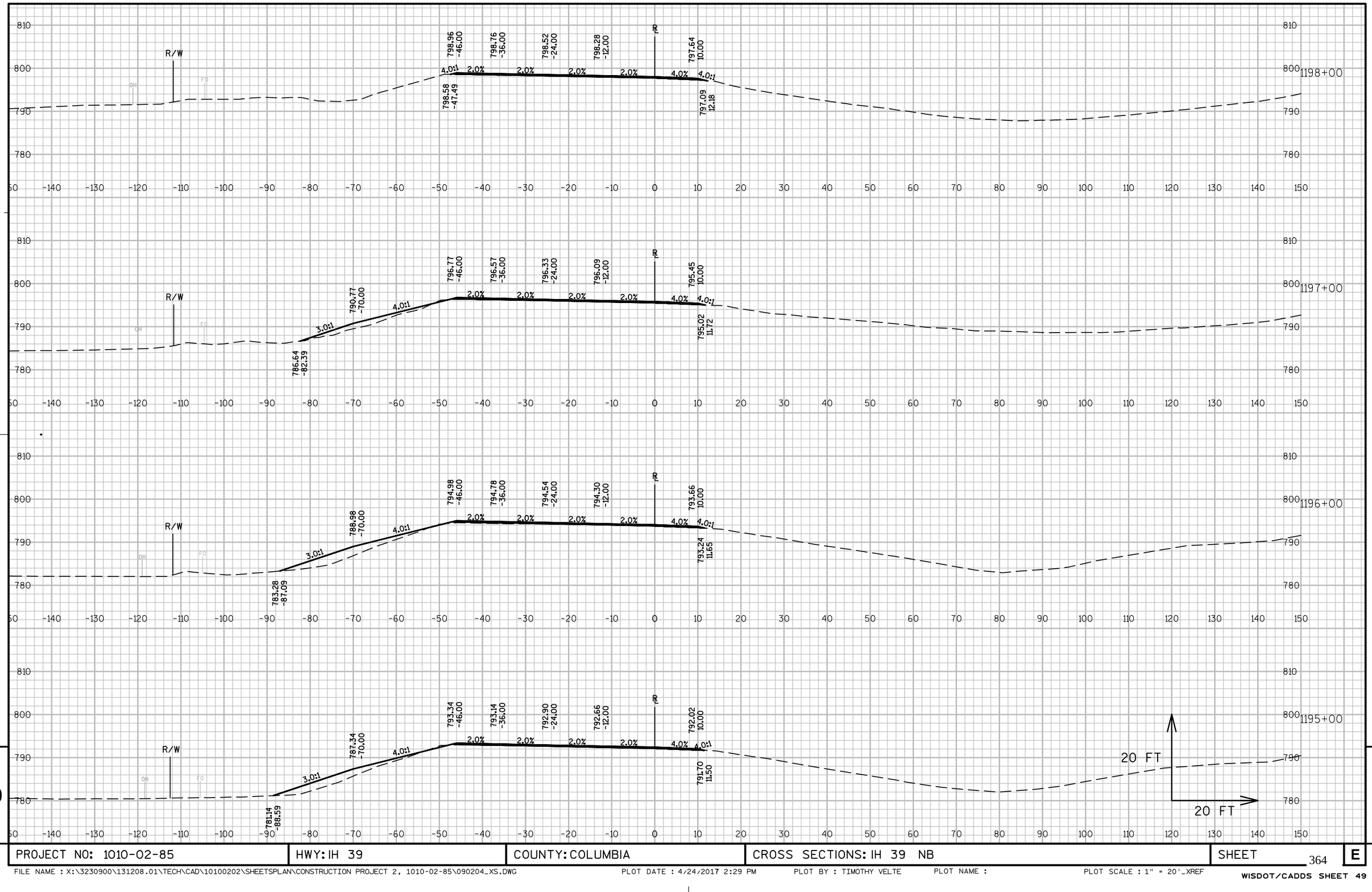
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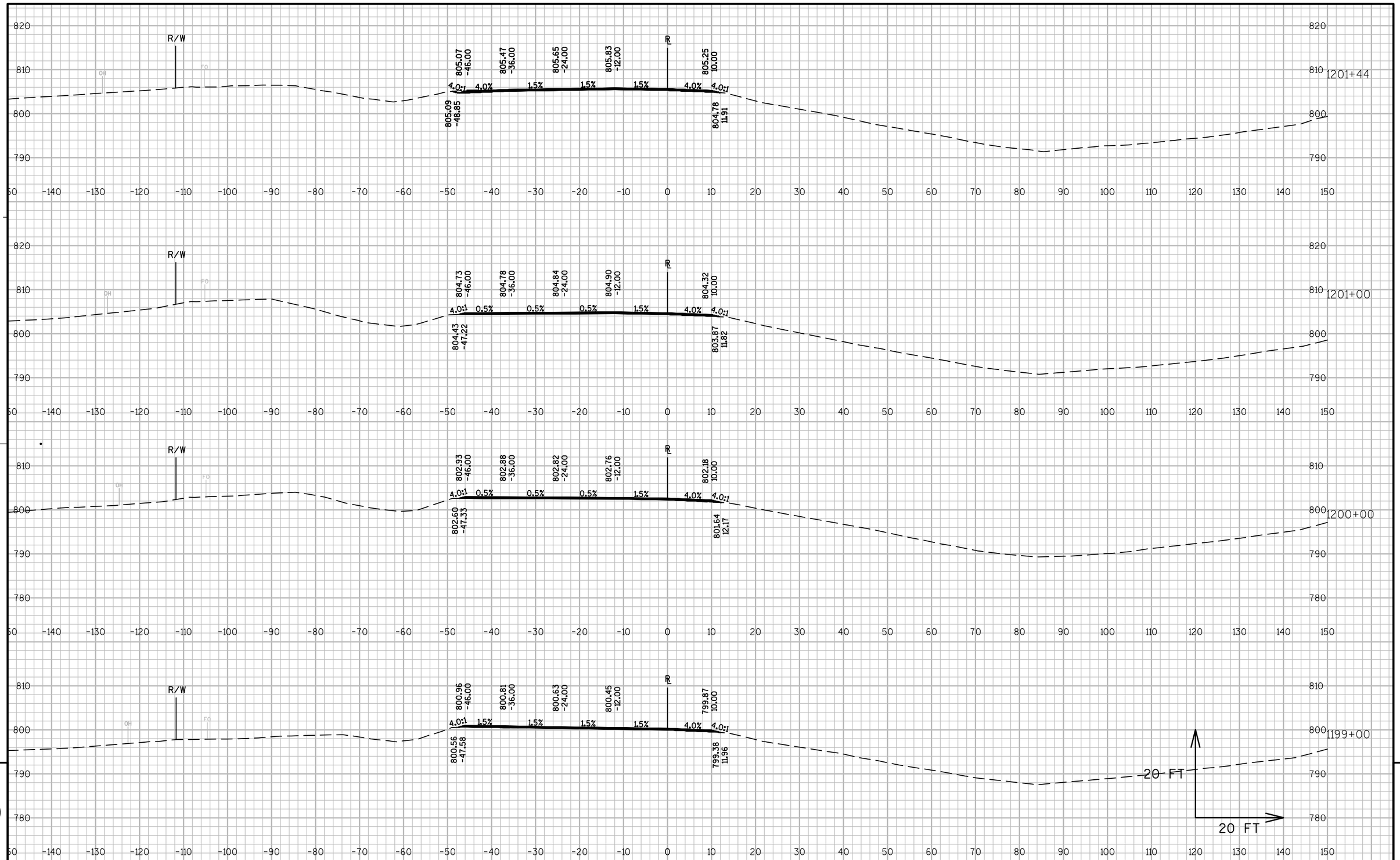
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WISDOT/CADDS SHEET 49



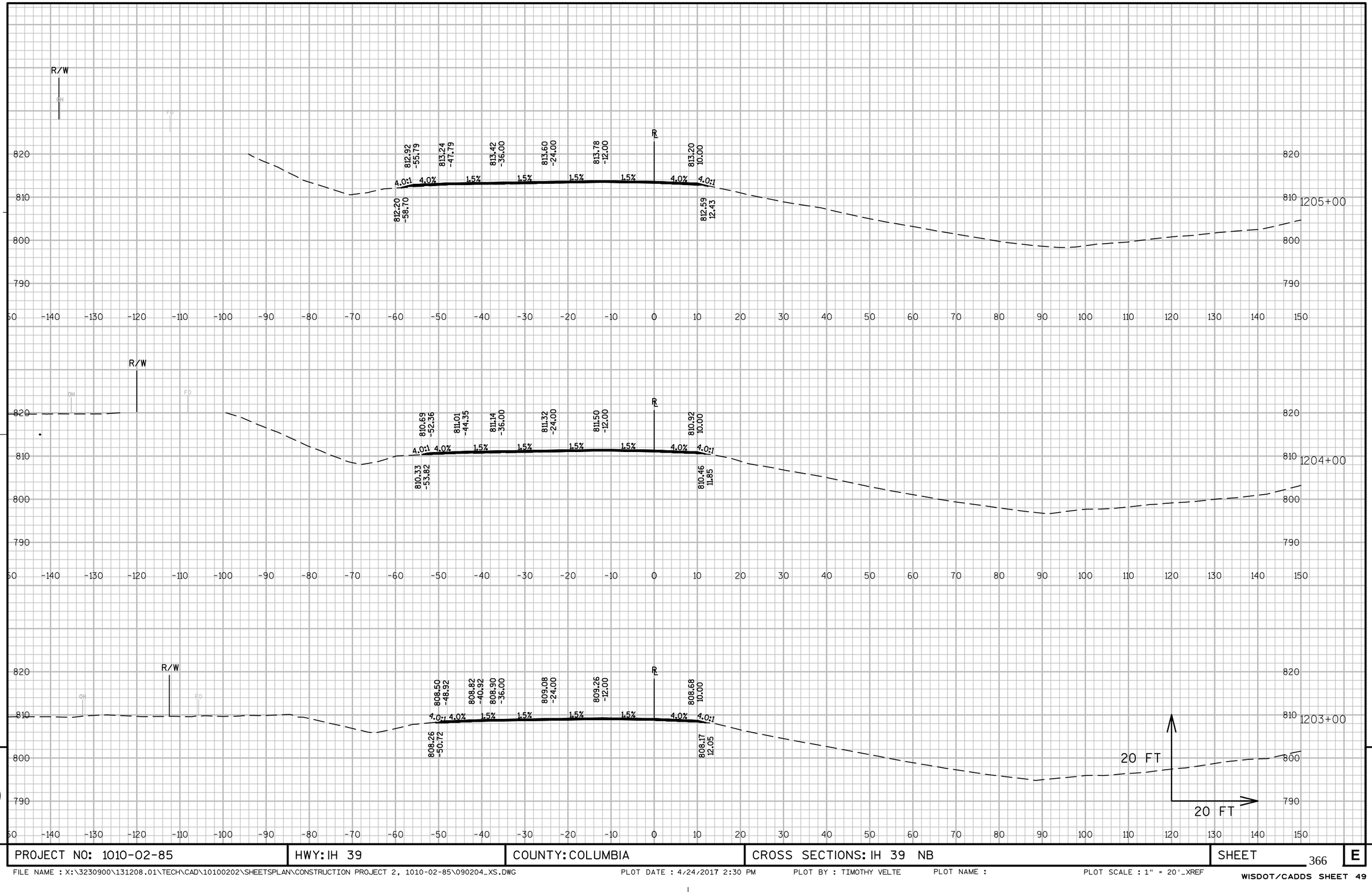
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PROJECT NO: 1010-02-85	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: IH 39 NB	SHEET 365	E

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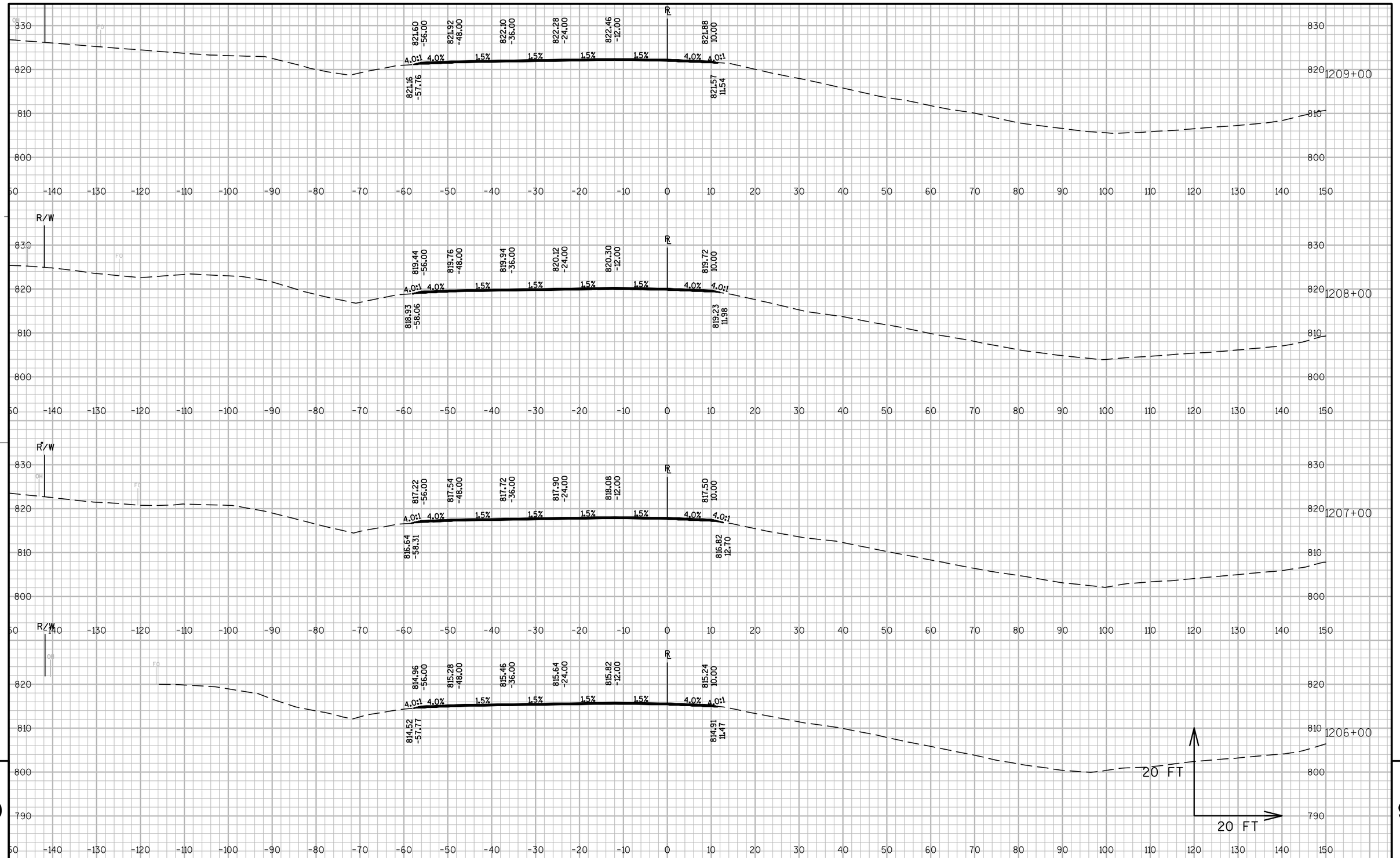
WISDOT/CADDS SHEET 49



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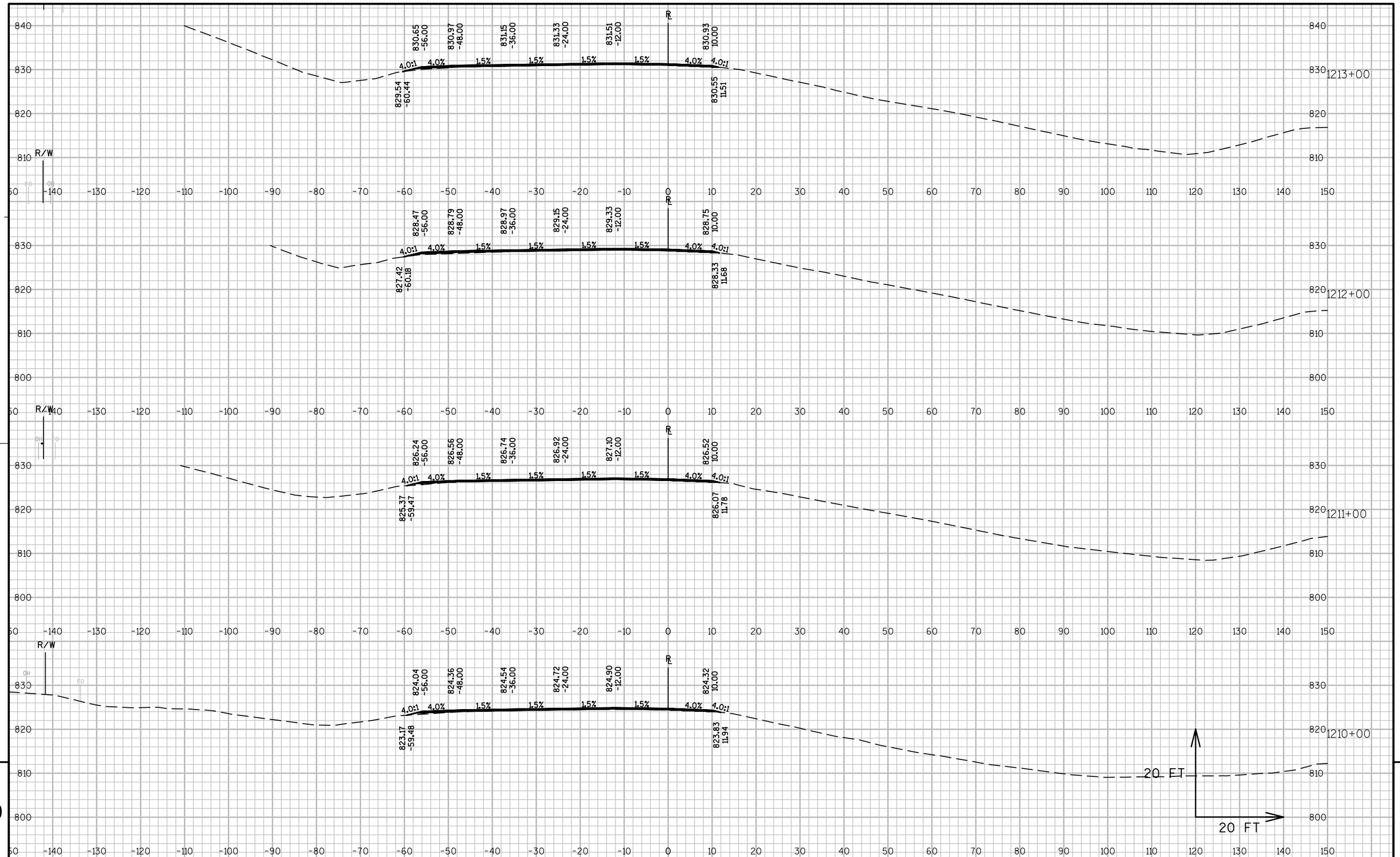
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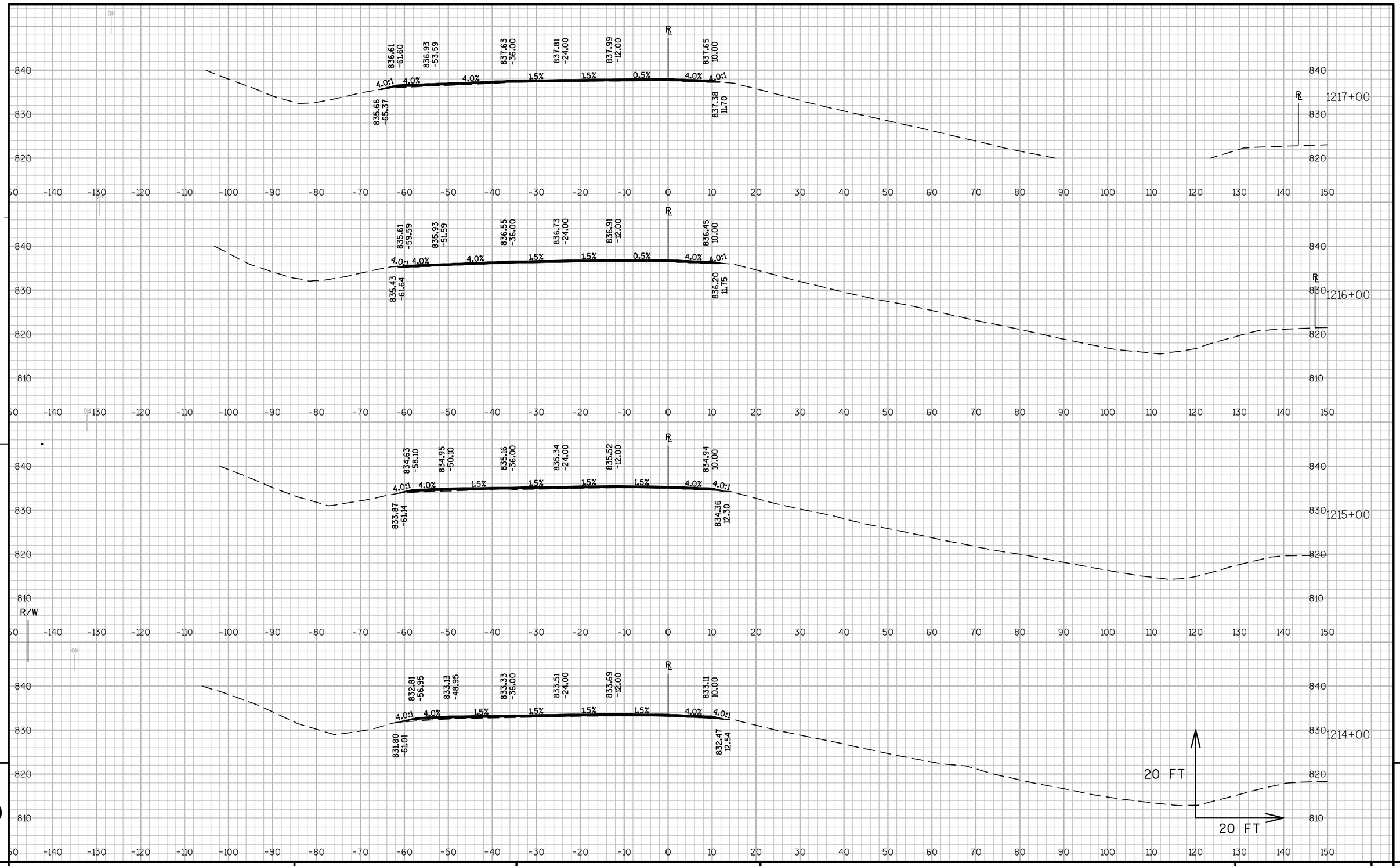
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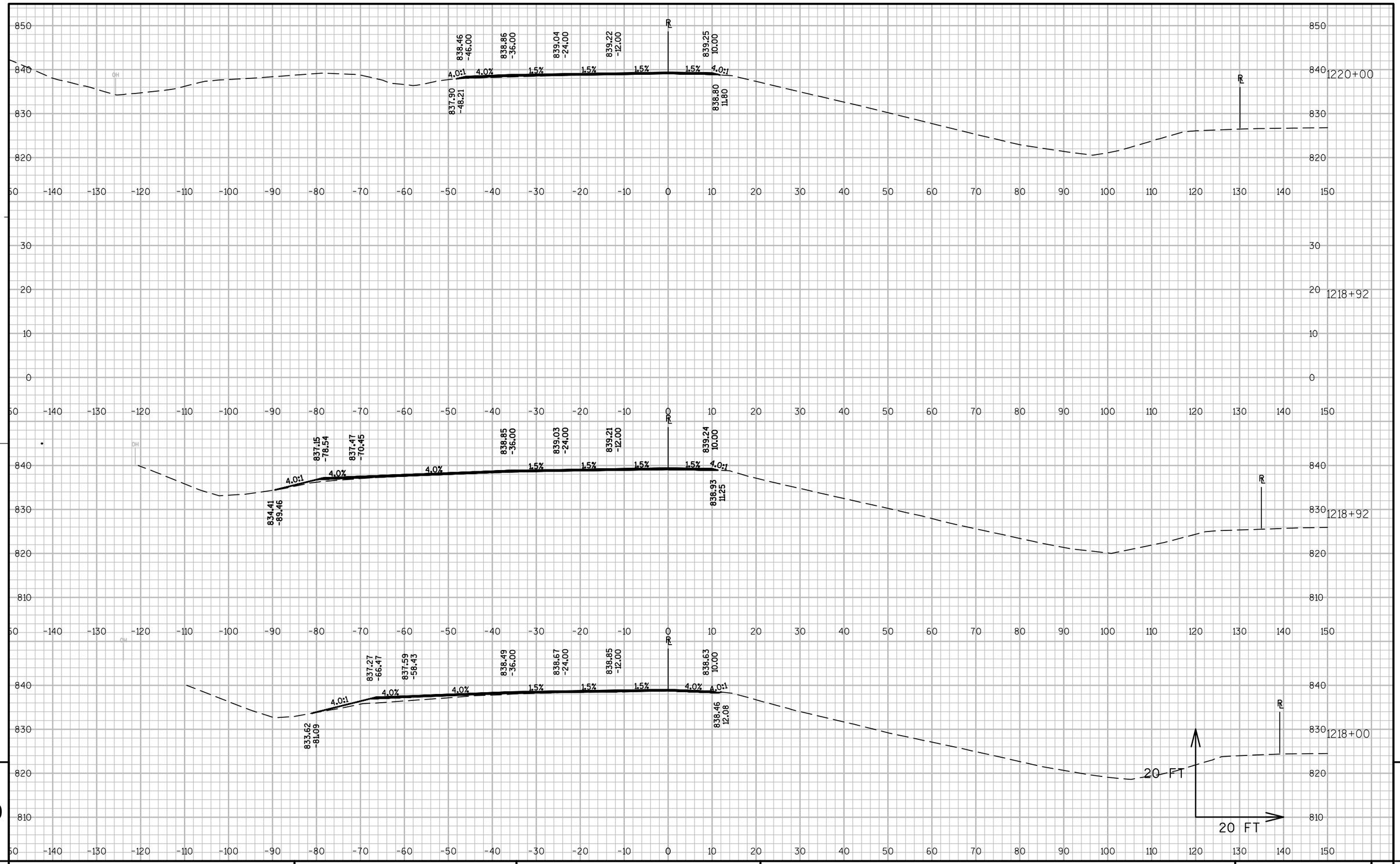
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WISDOT/CADDS SHEET 49



PROJECT NO: 1010-02-85	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: IH 39 NB	SHEET 369	E

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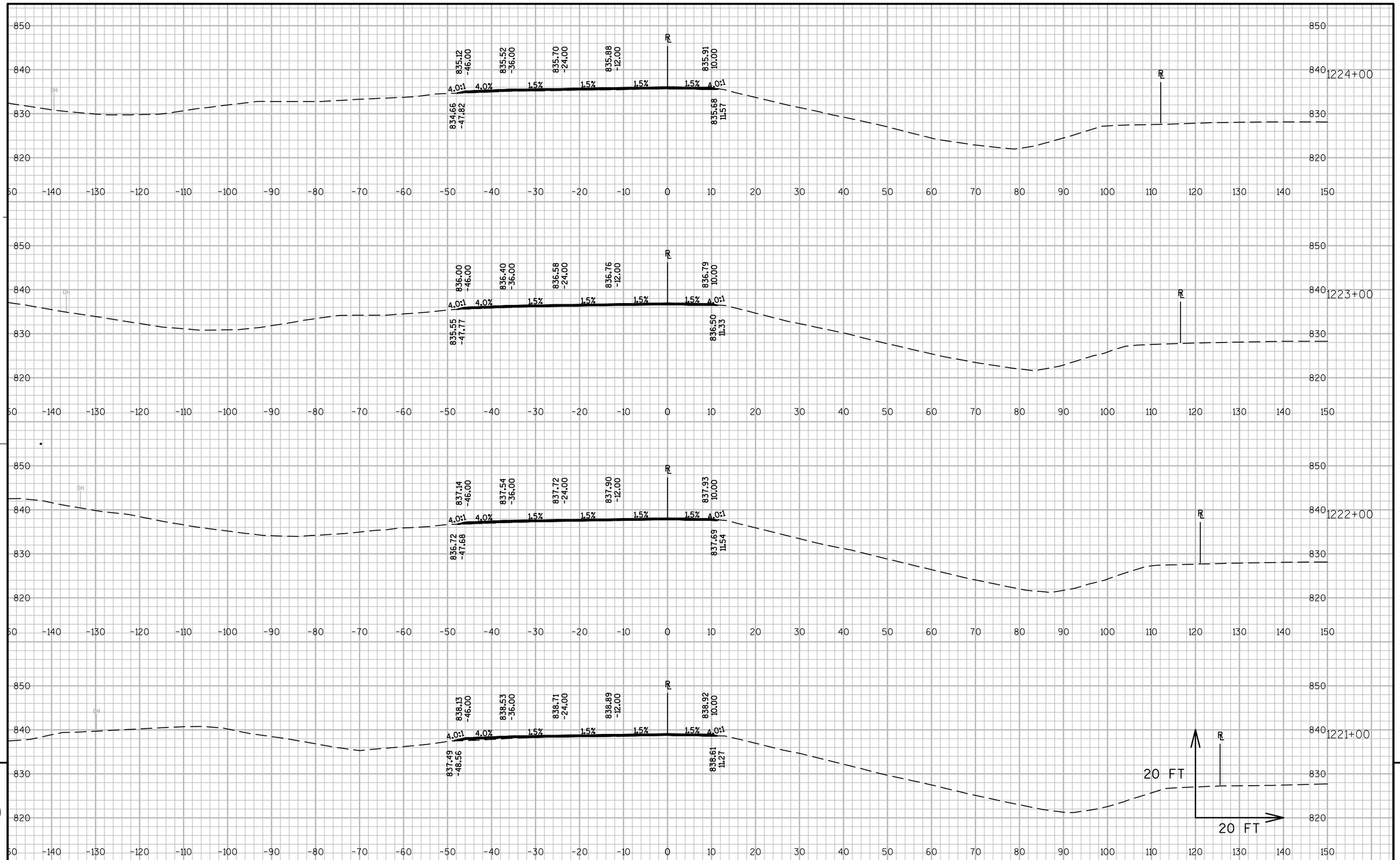


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PROJECT NO: 1010-02-85	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: IH 39 NB	SHEET 370	E

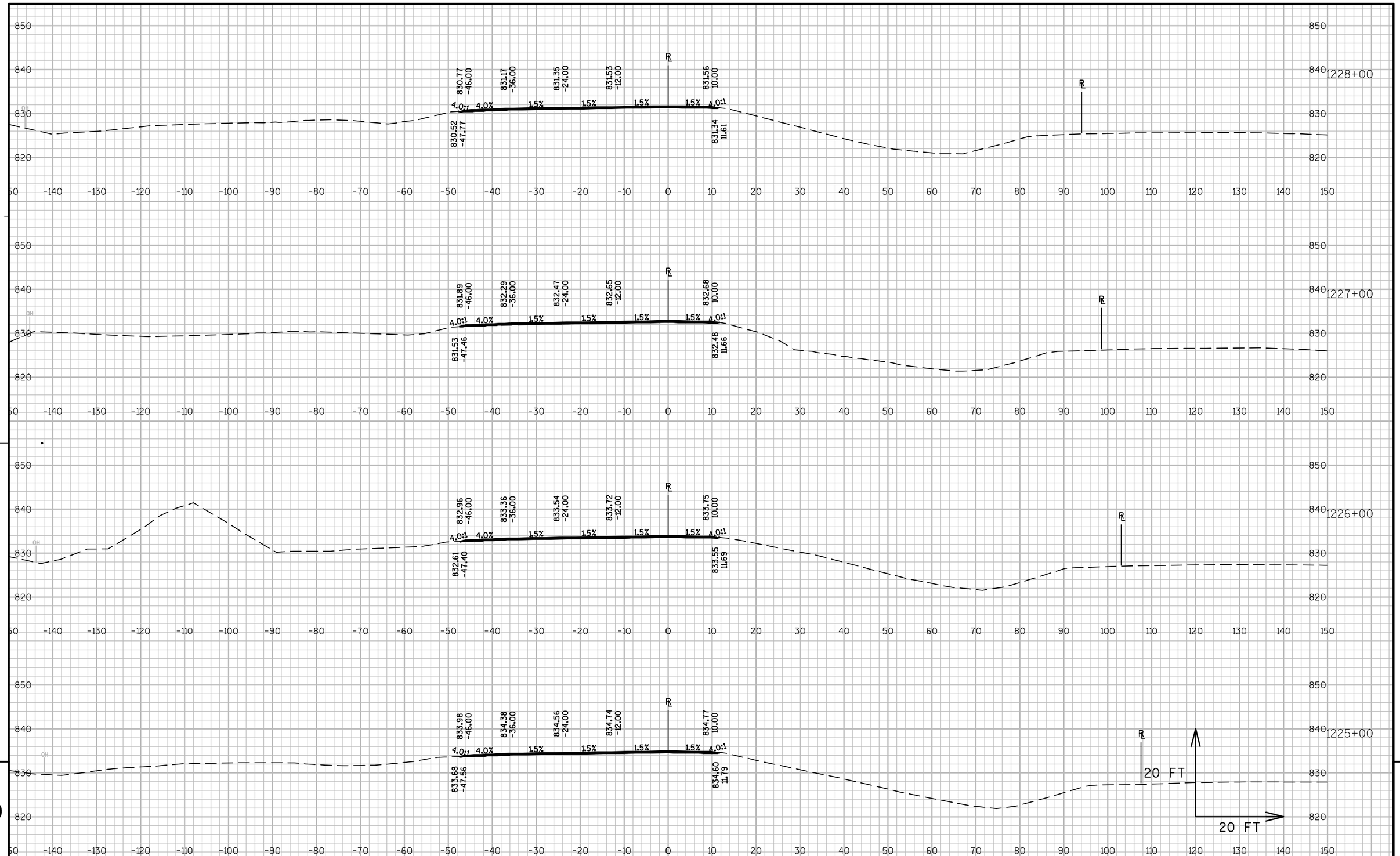
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PROJECT NO: 1010-02-85	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: IH 39 NB	SHEET 371	E

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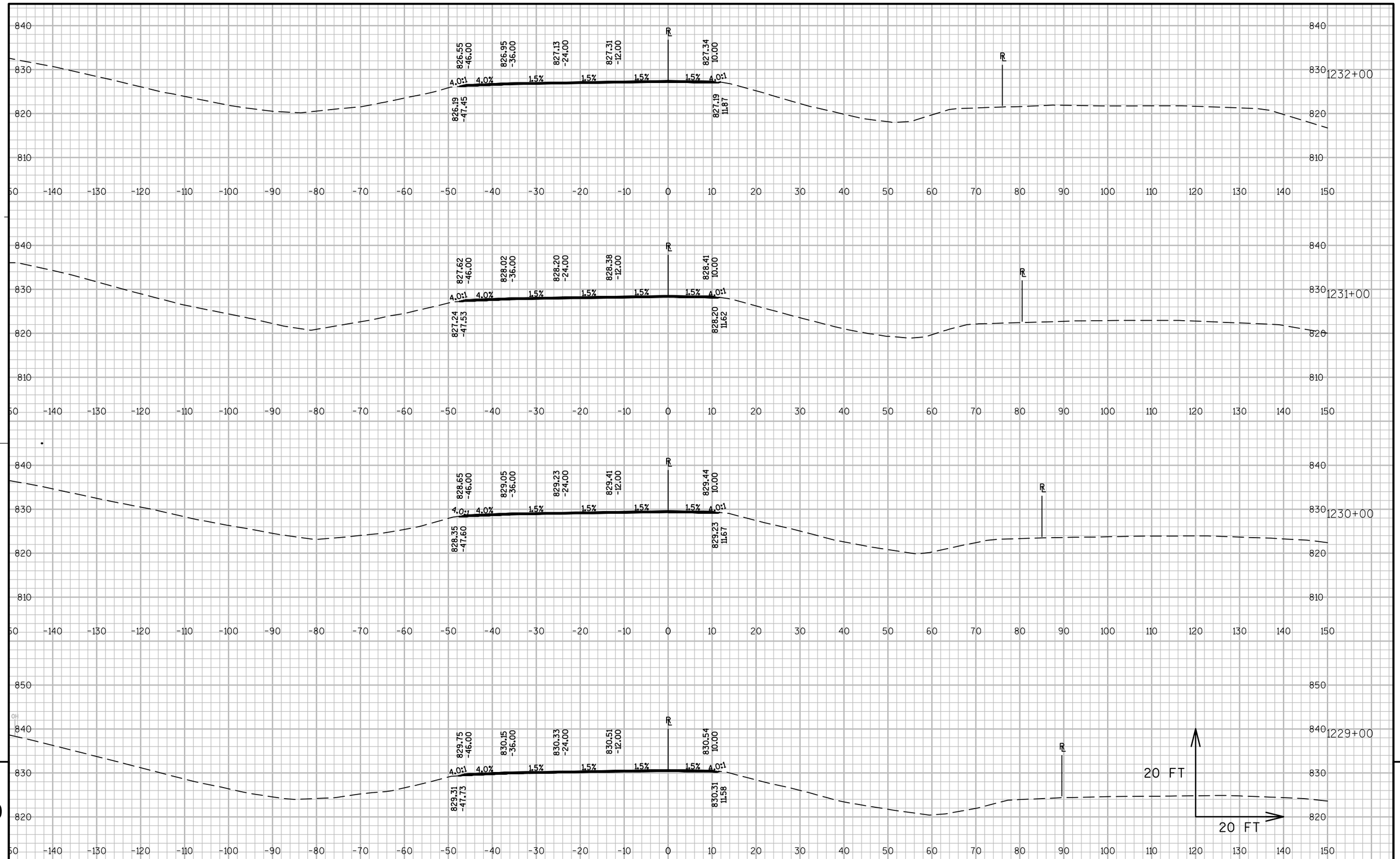
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PROJECT NO: 1010-02-85	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: IH 39 NB	SHEET 372	E

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WISDOT/CADDS SHEET 49



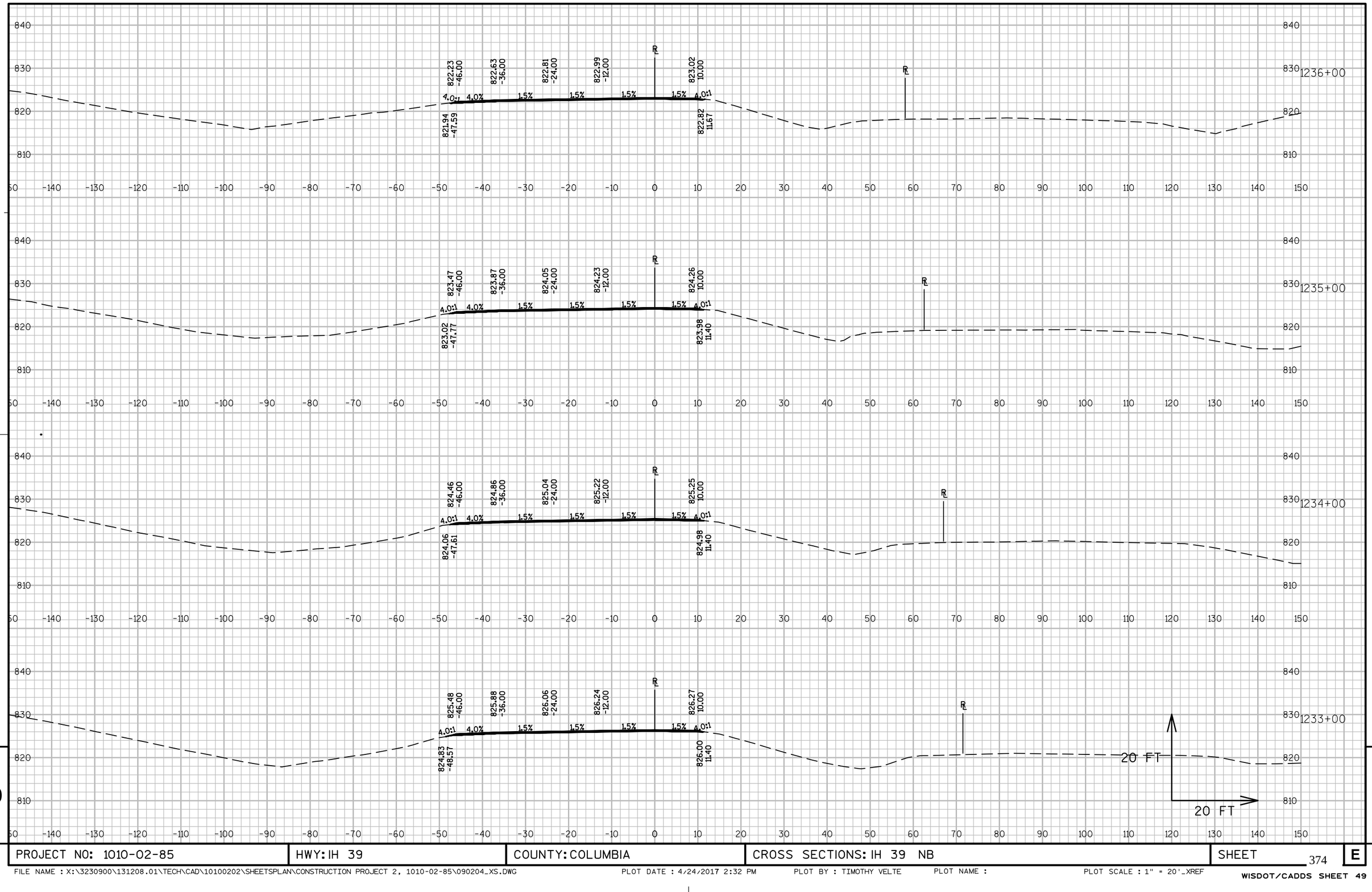
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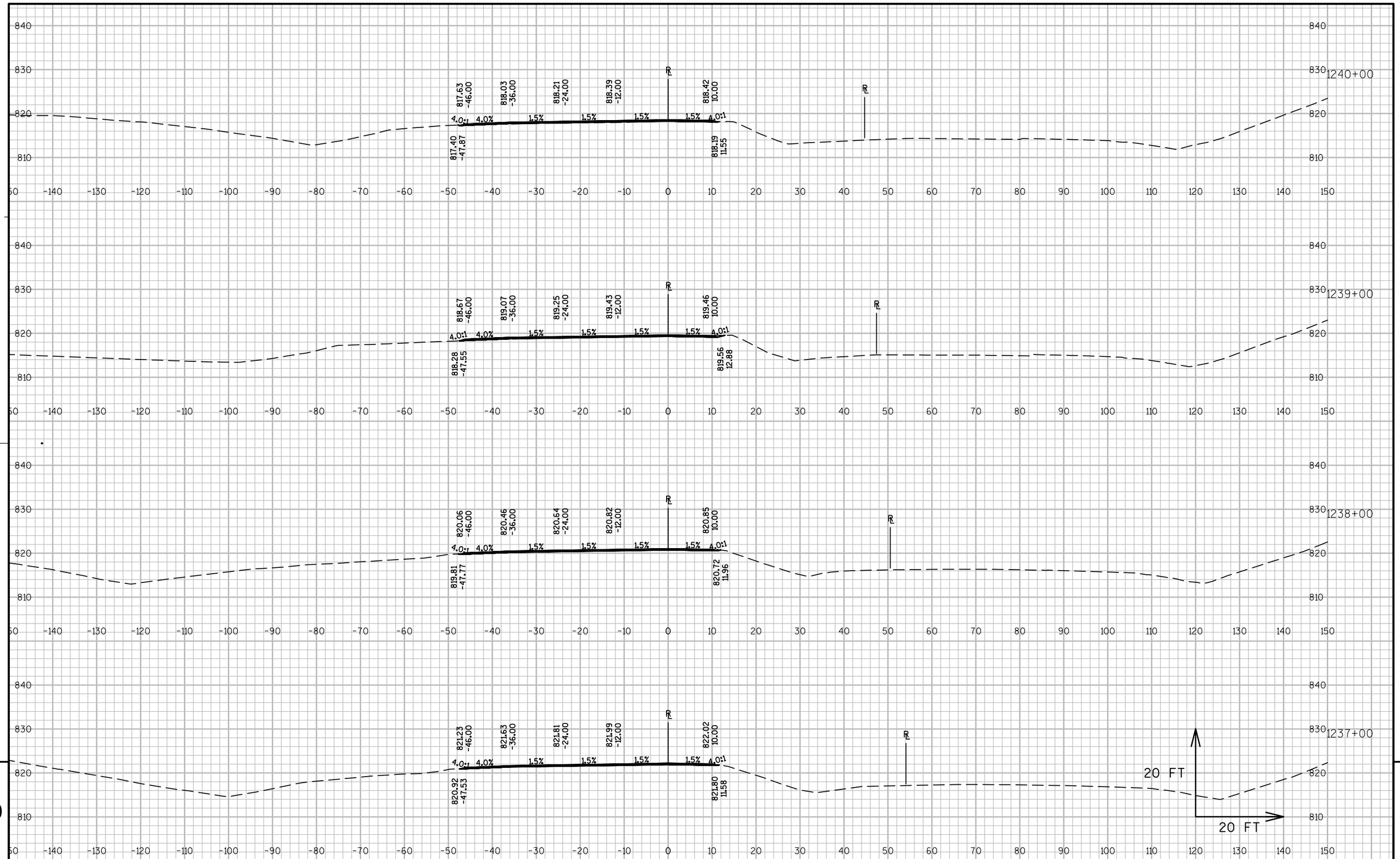
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WISDOT/CADDS SHEET 49



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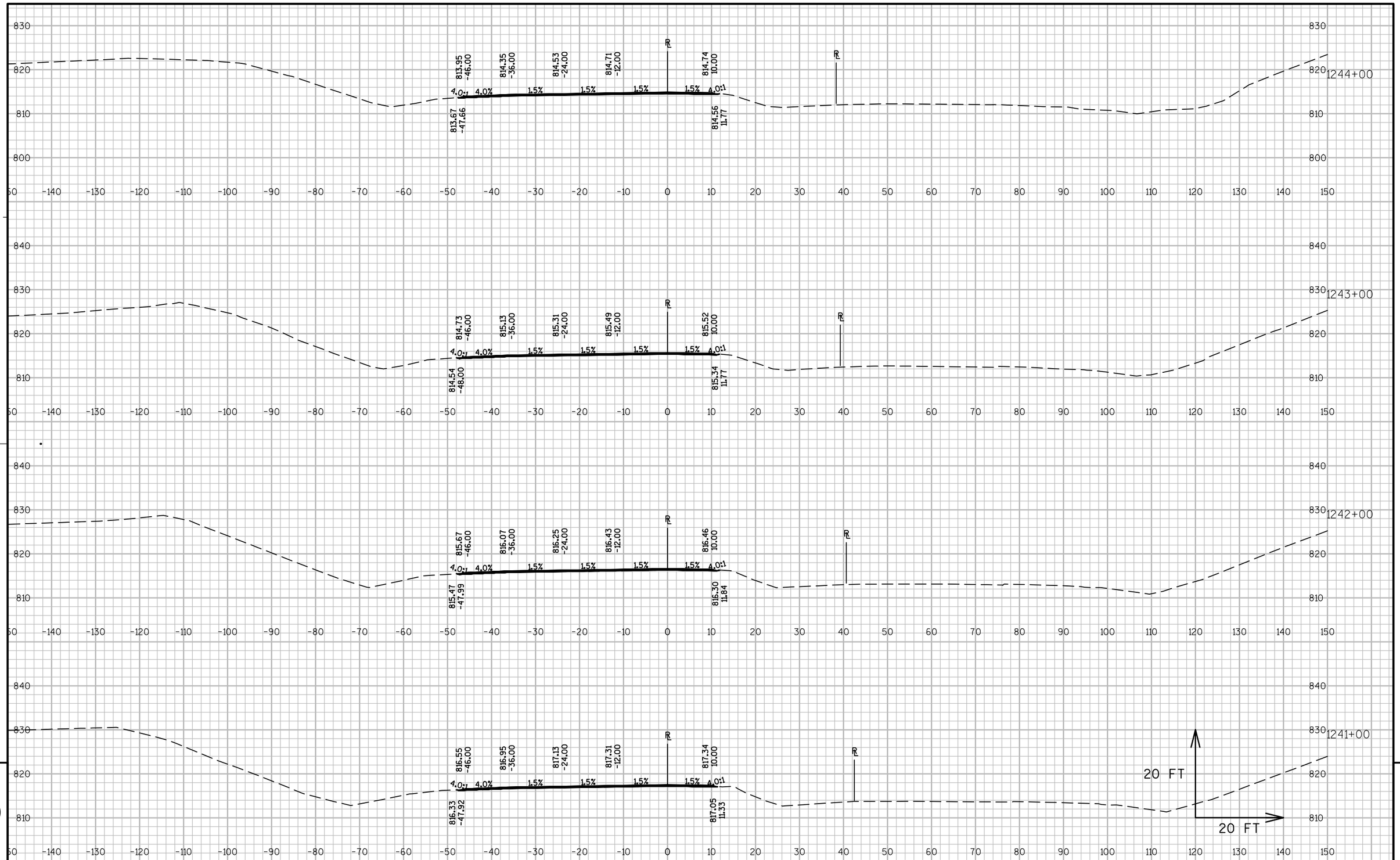
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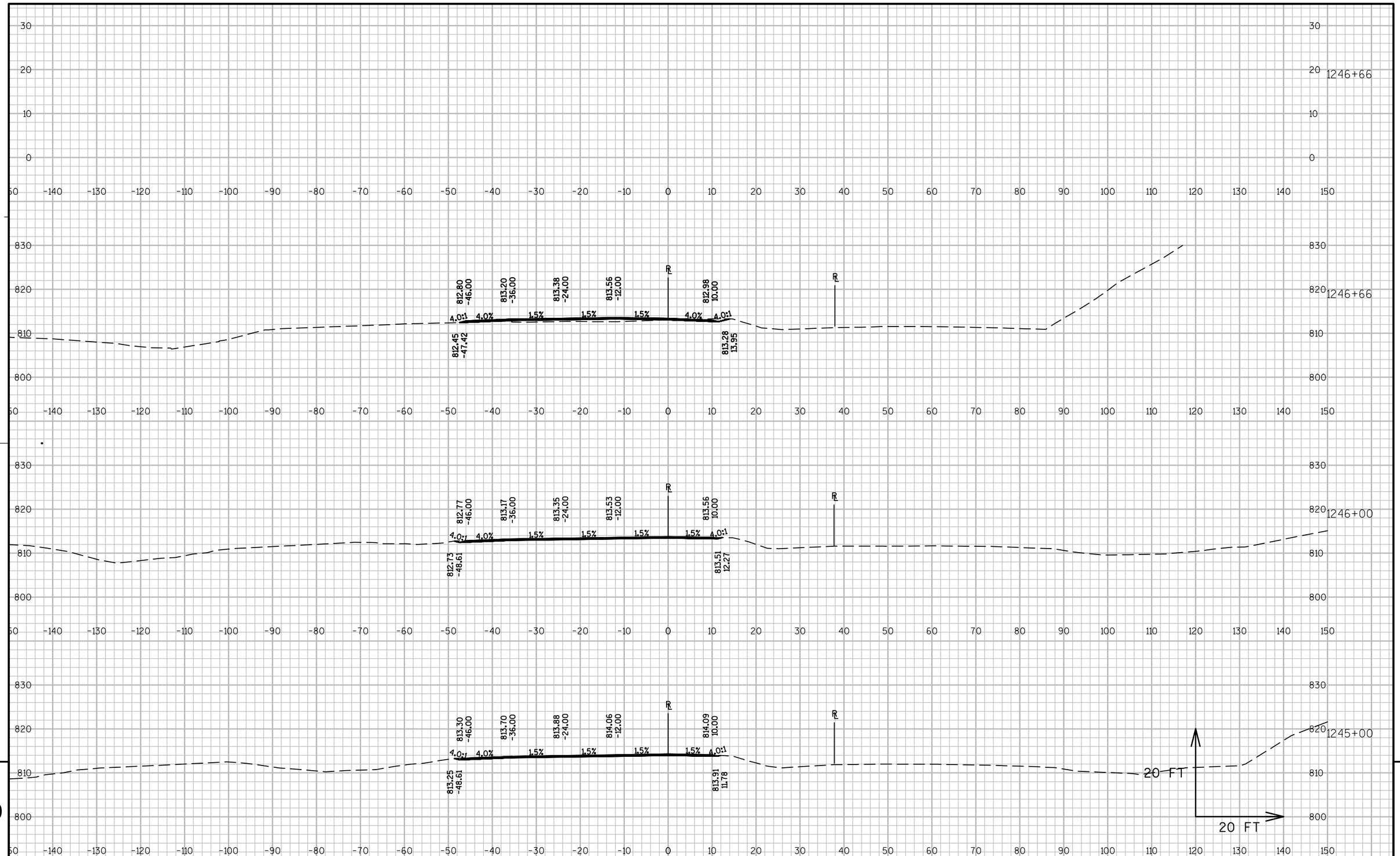
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WISDOT/CADDS SHEET 49



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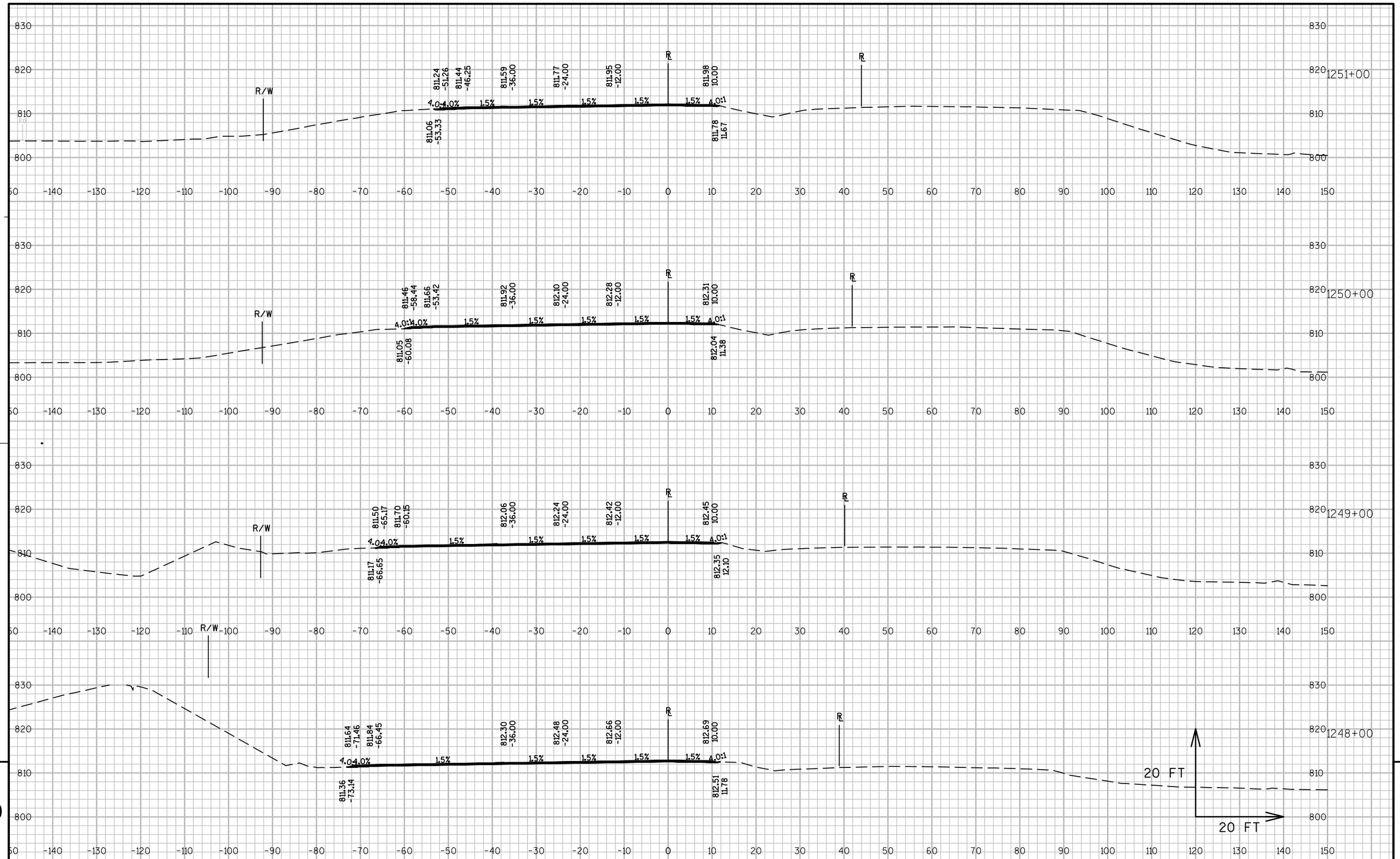
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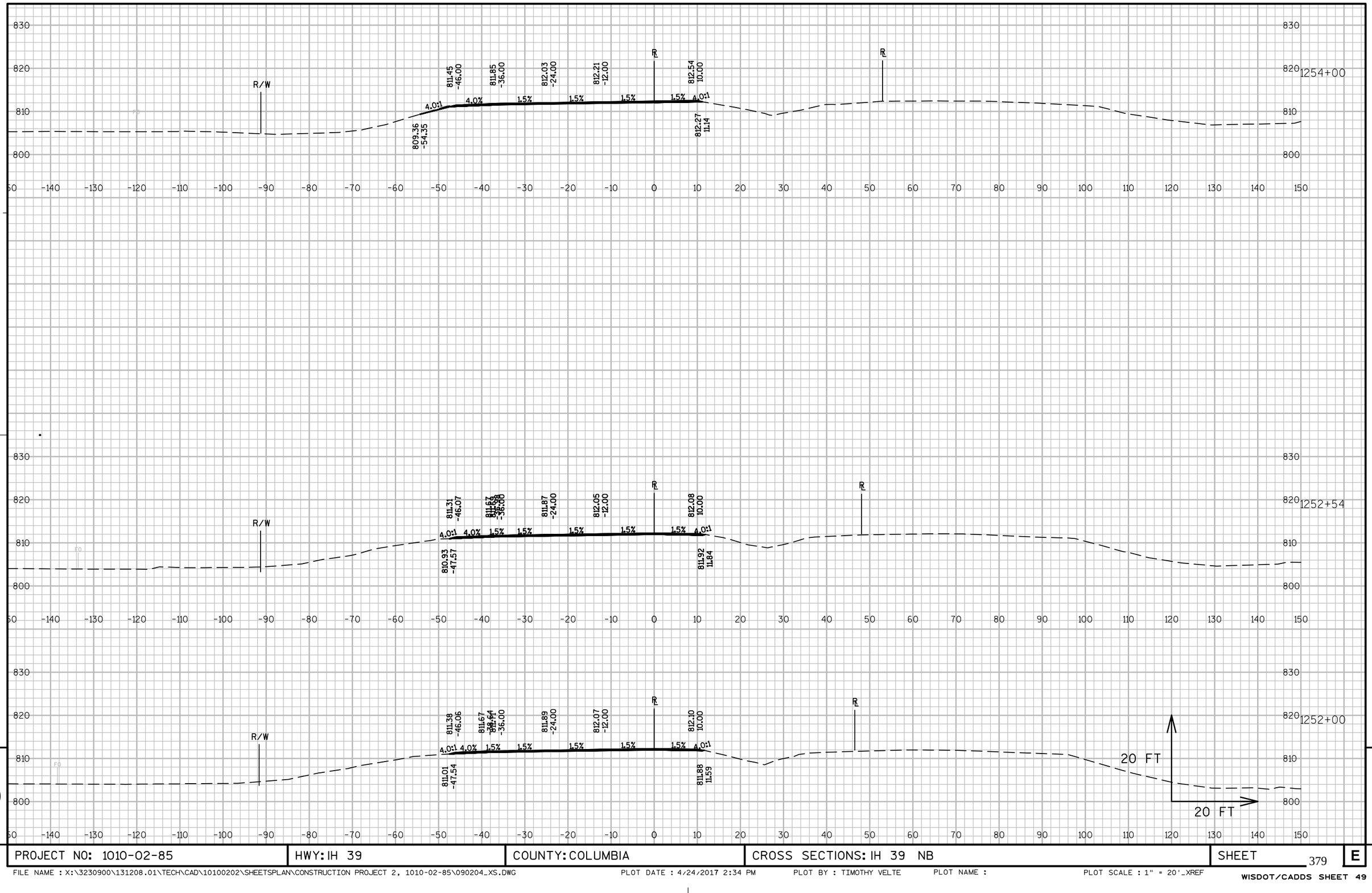
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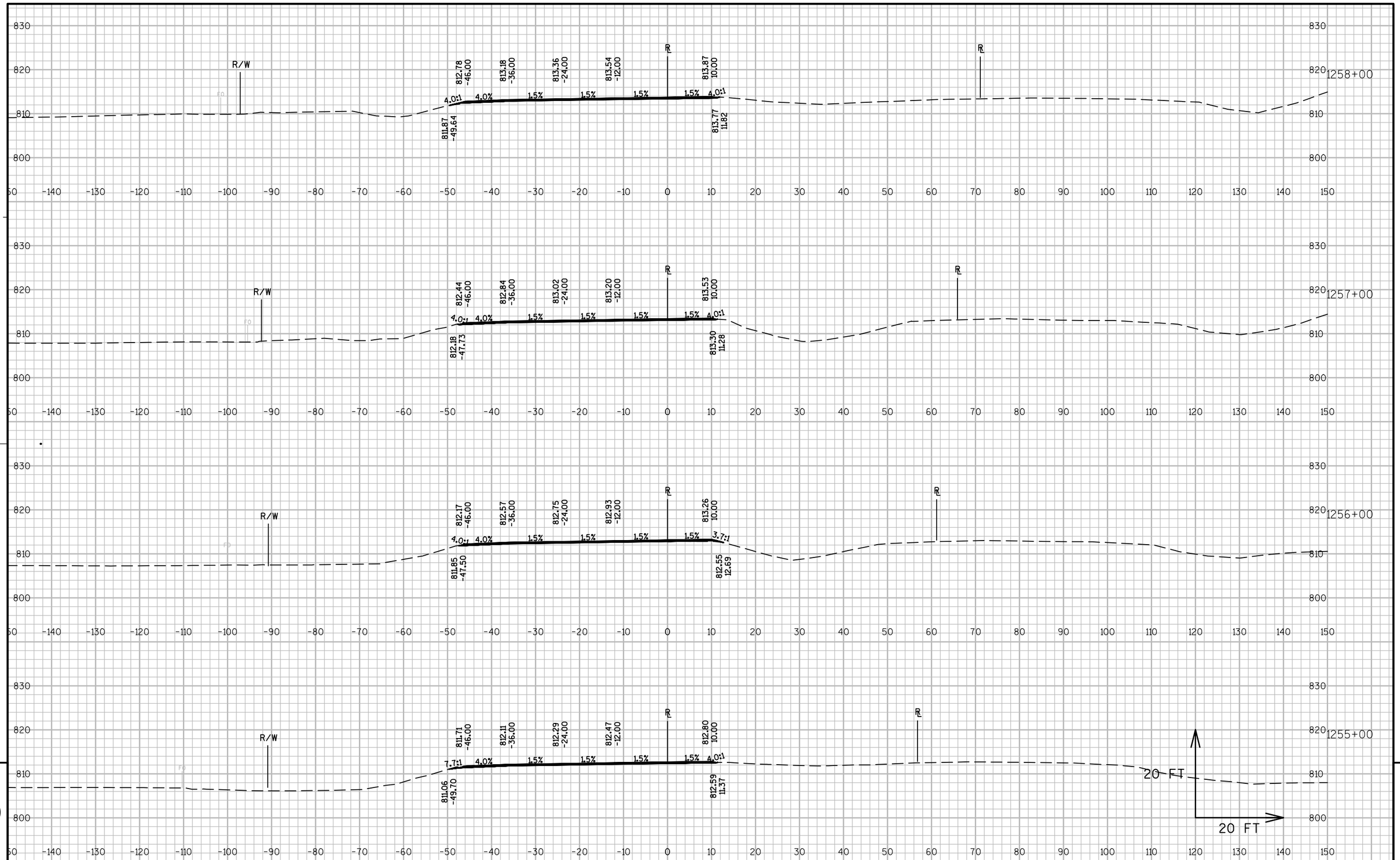
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PROJECT NO: 1010-02-85	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: IH 39 NB	SHEET 379	E

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WISDOT/CADDS SHEET 49

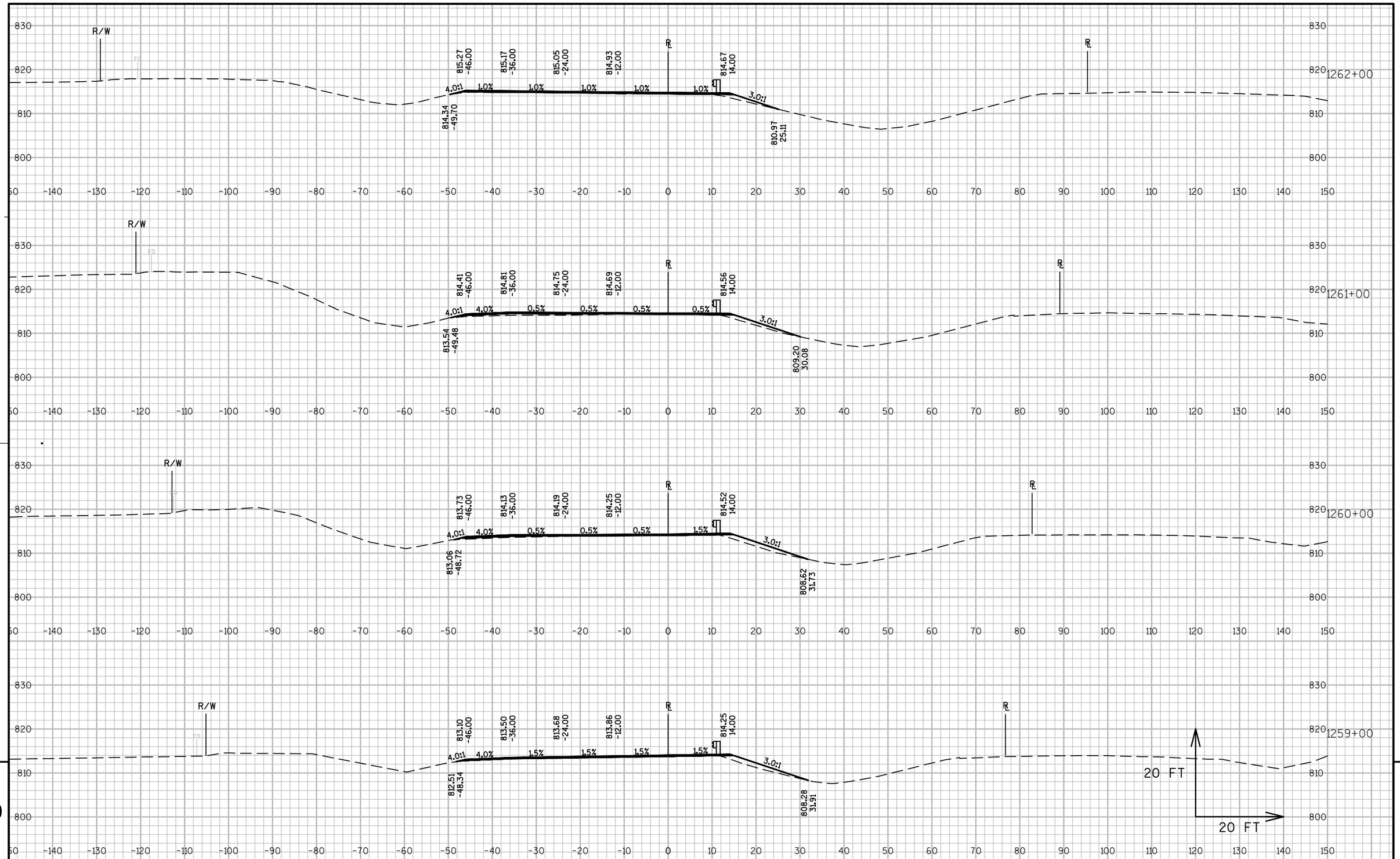


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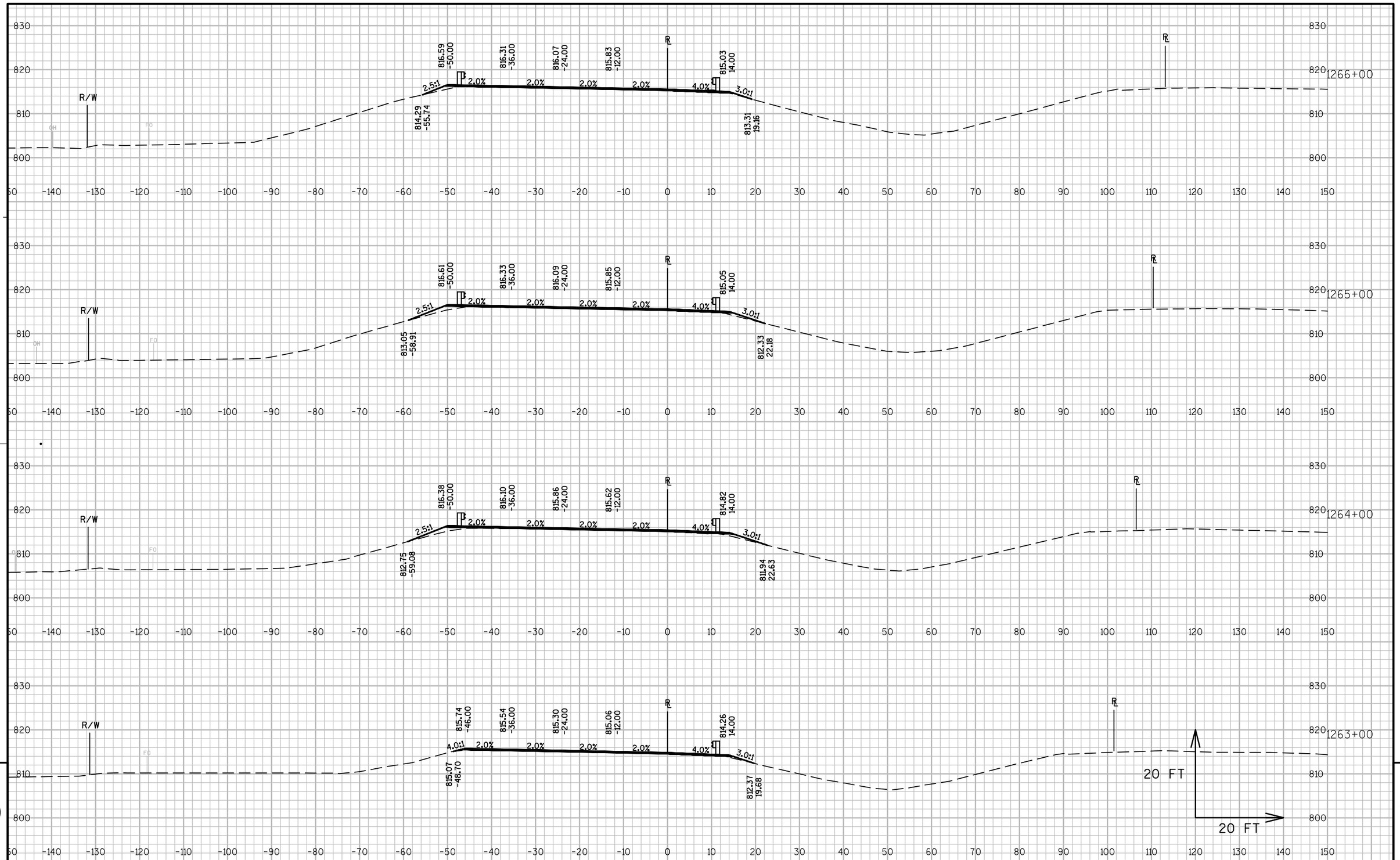
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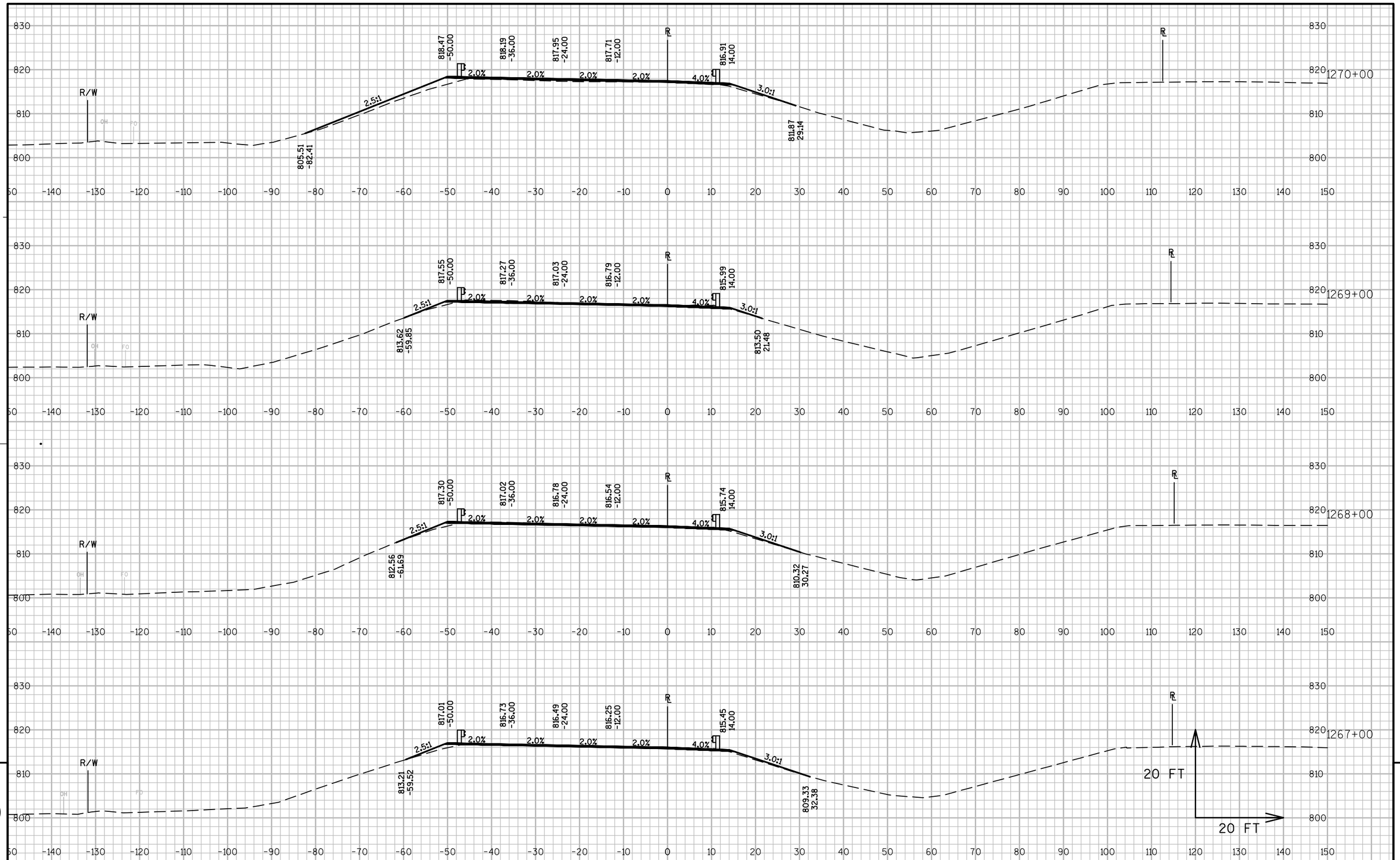
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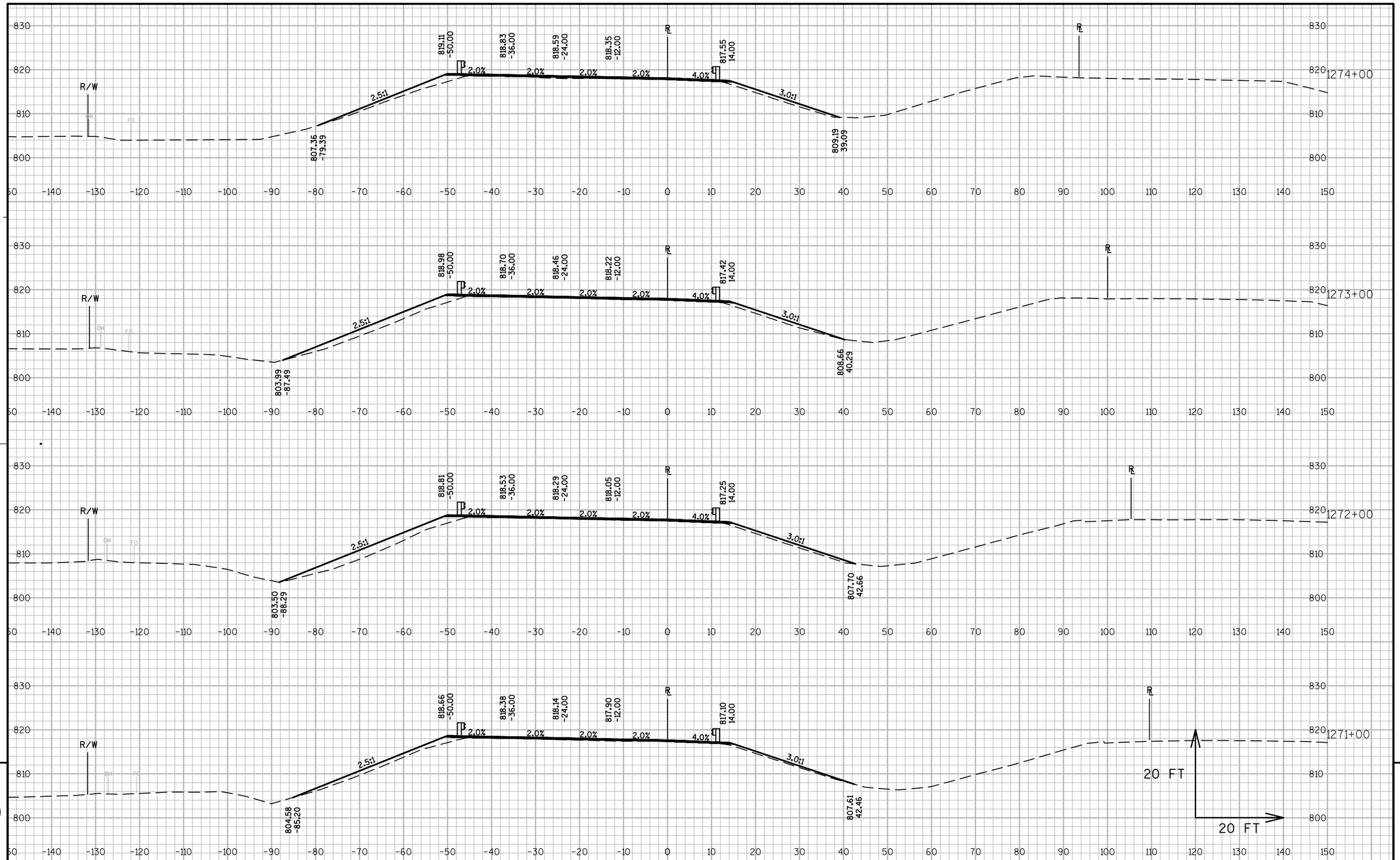
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WISDOT/CADDS SHEET 49



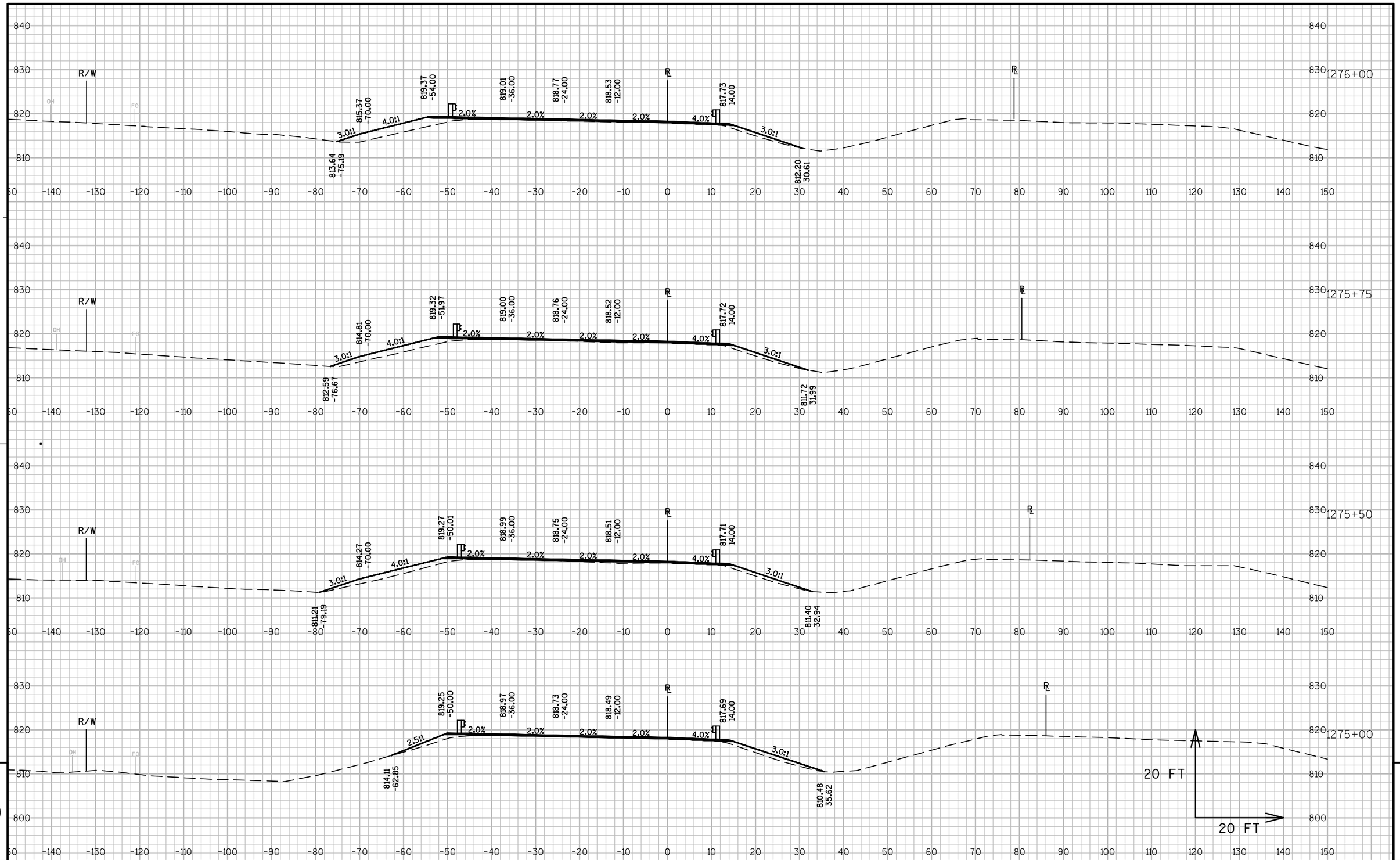
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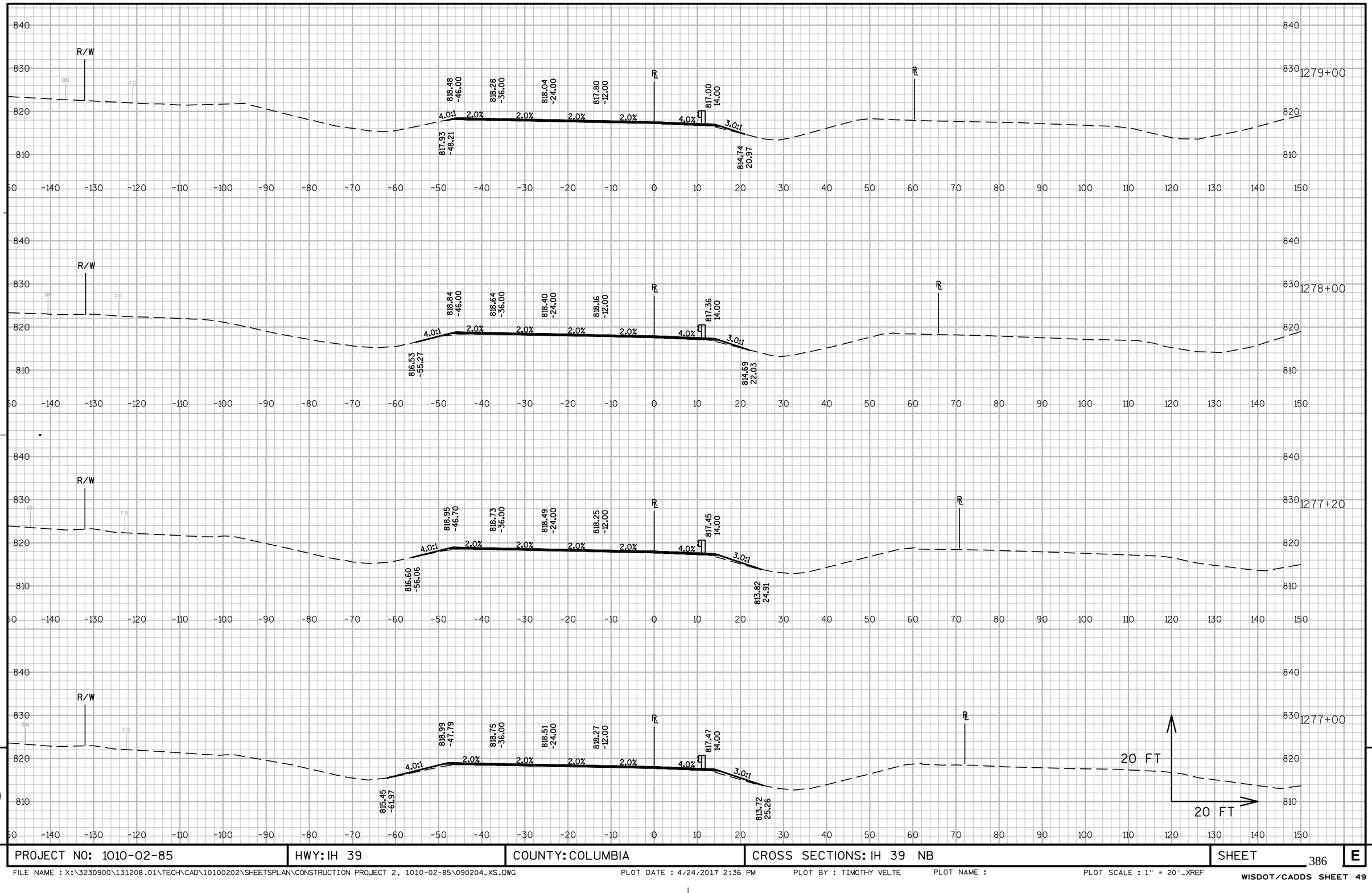
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PROJECT NO: 1010-02-85	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: IH 39 NB	SHEET 385 E

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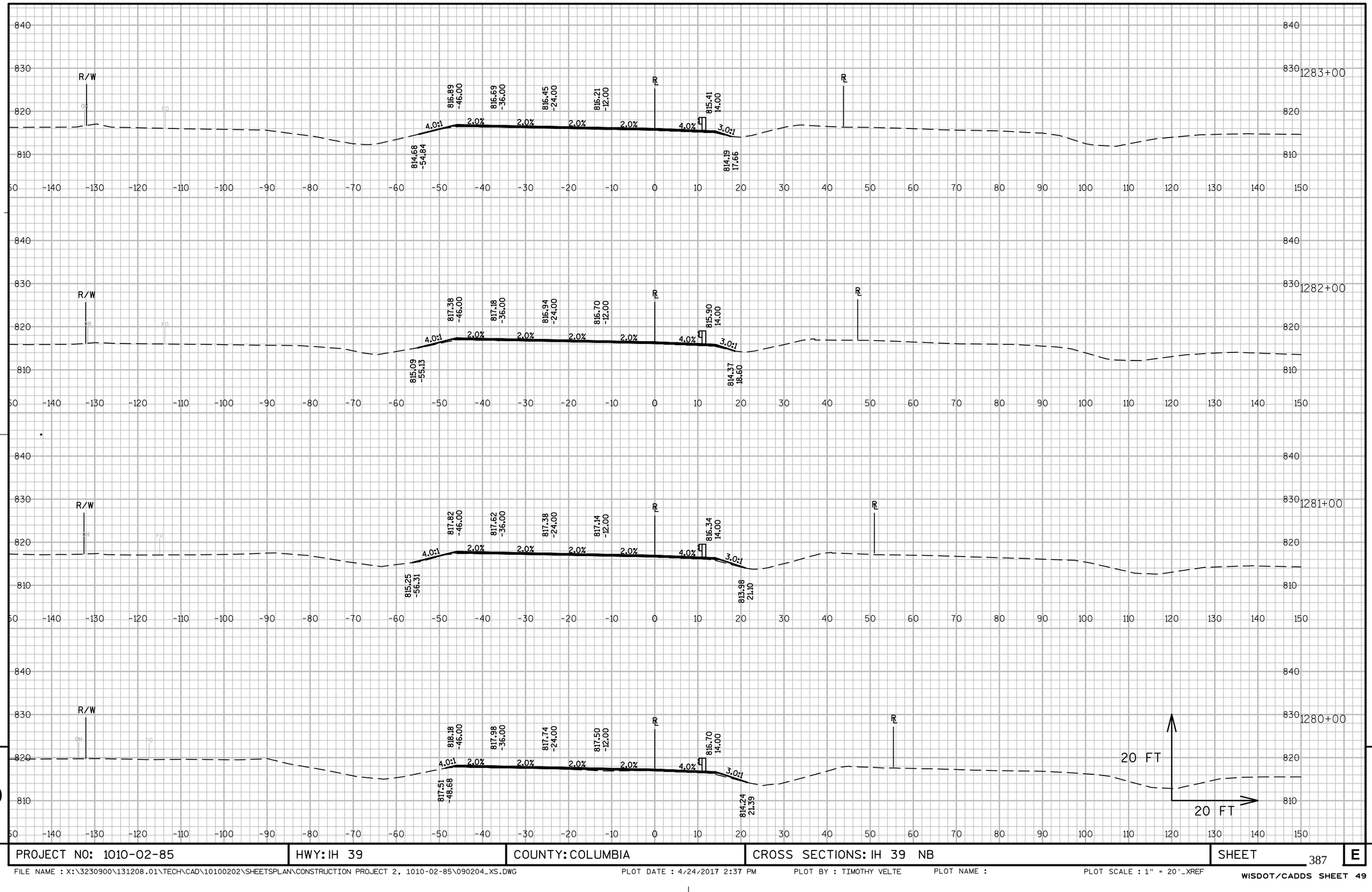
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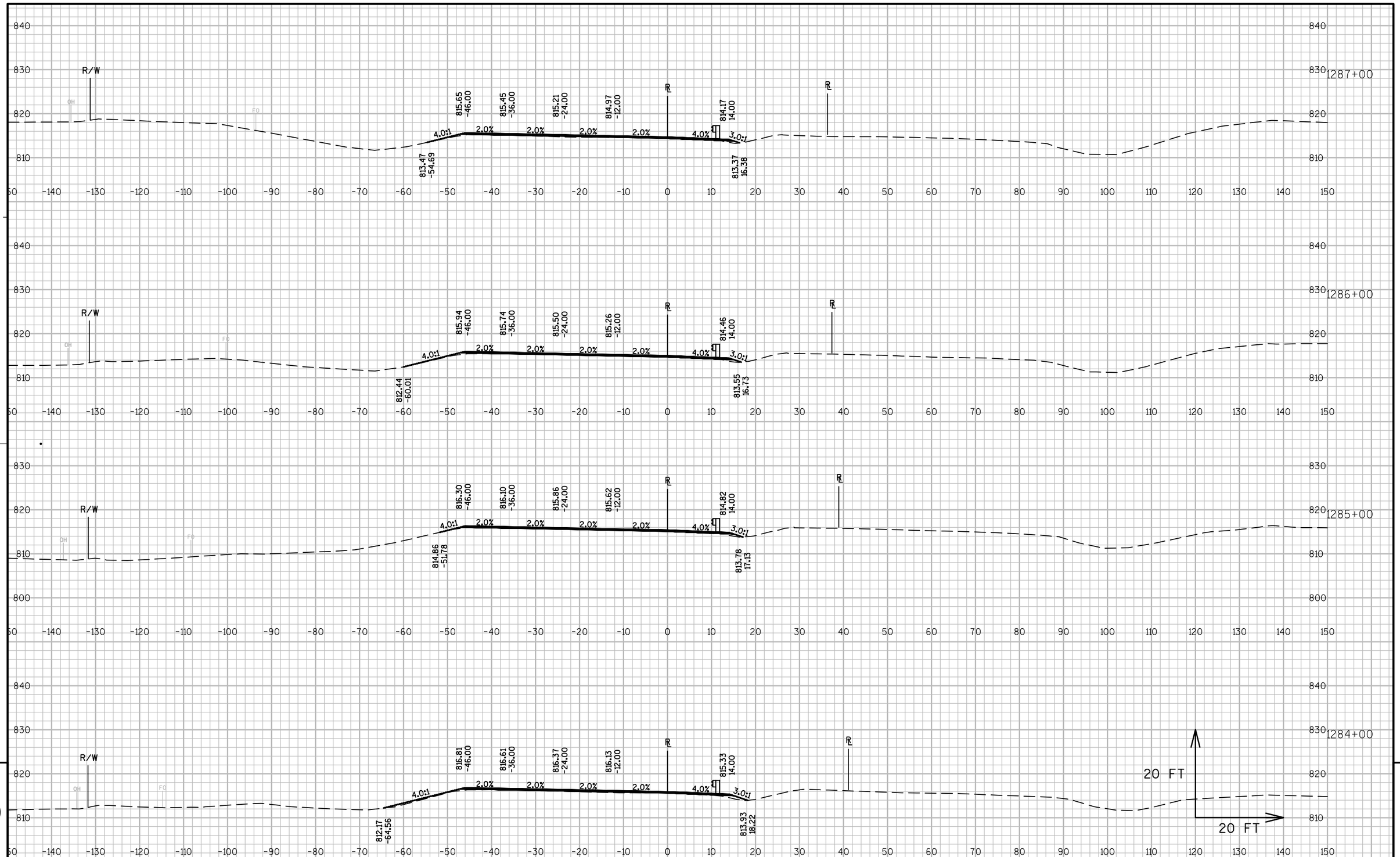
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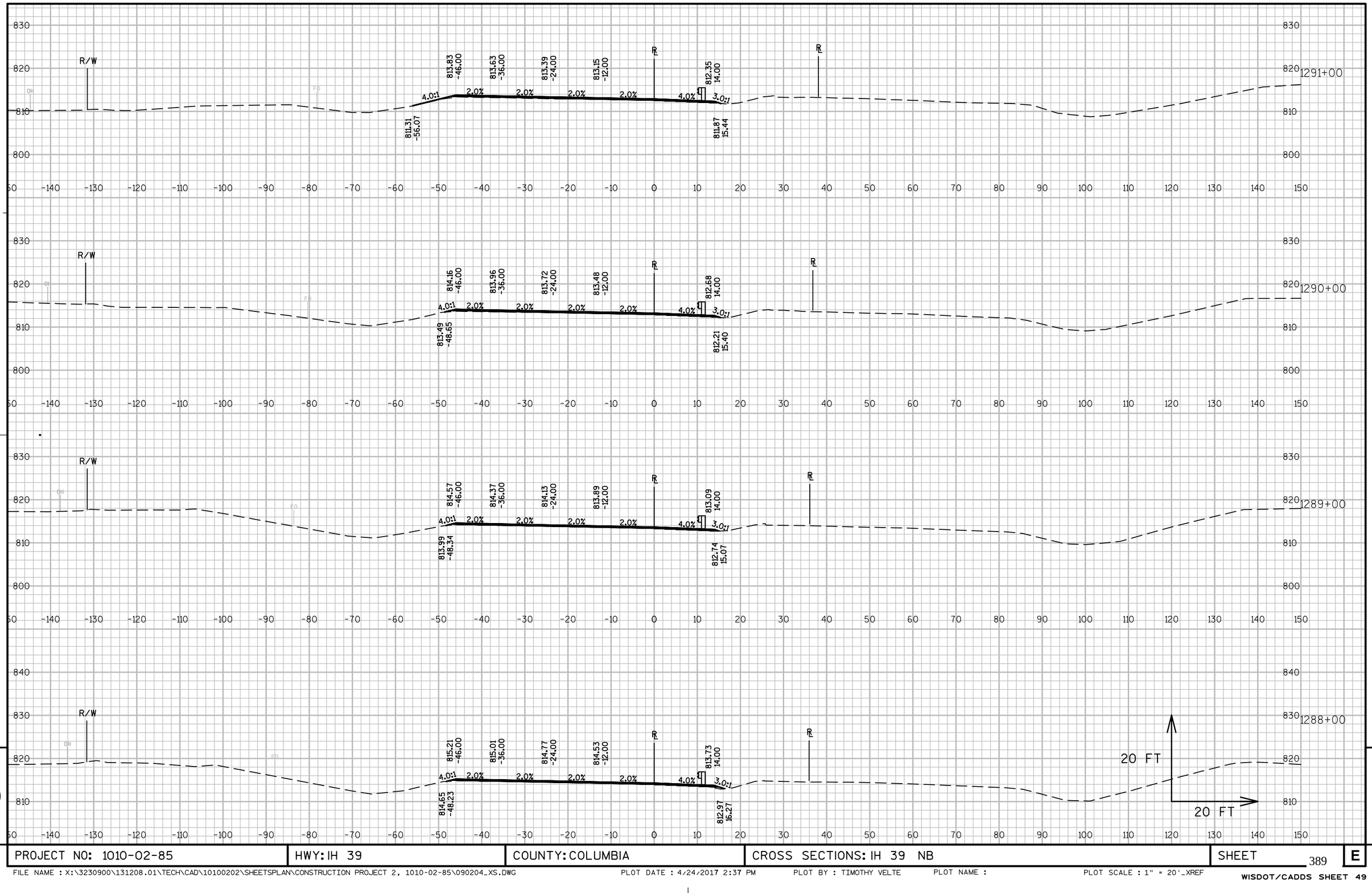
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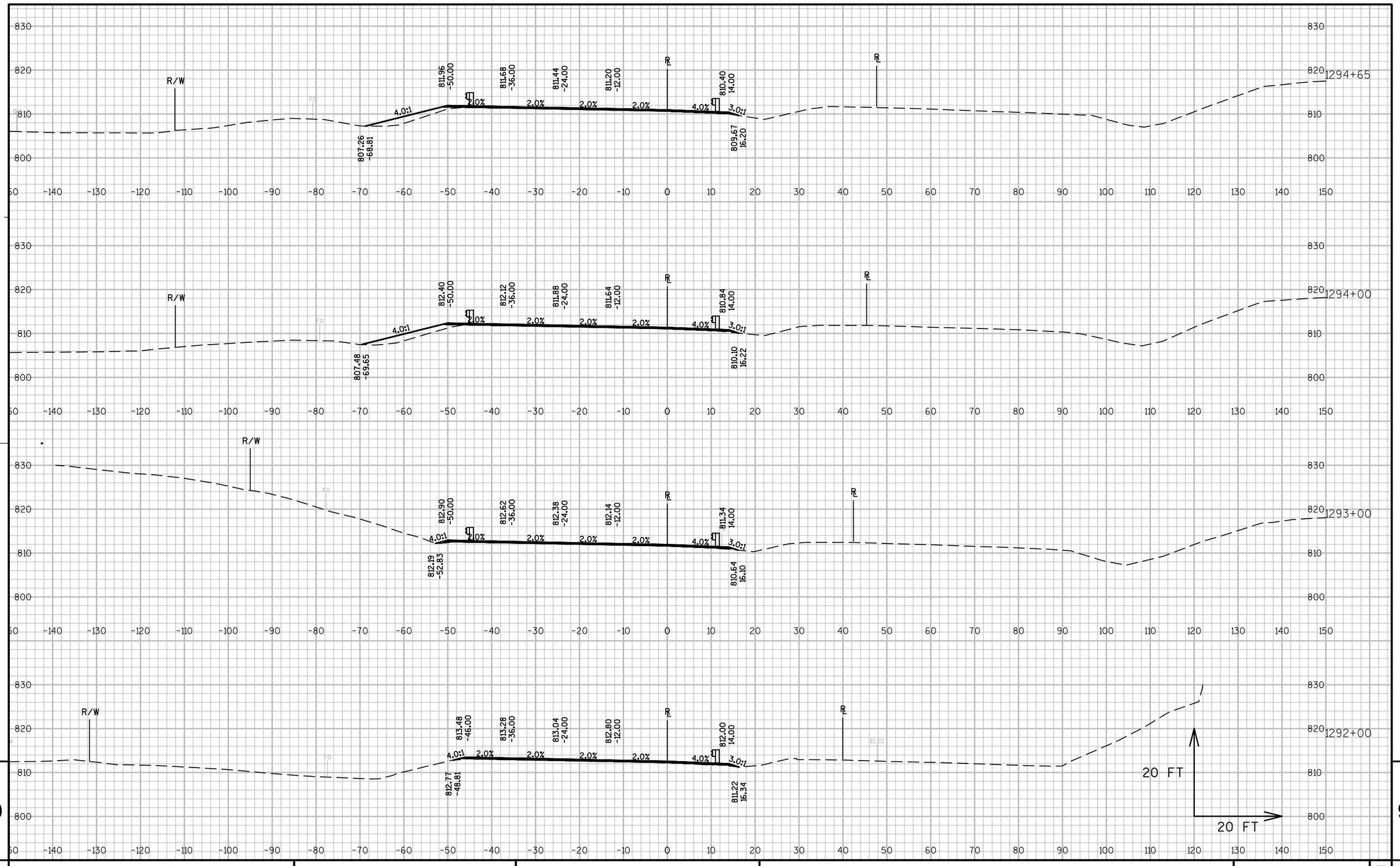
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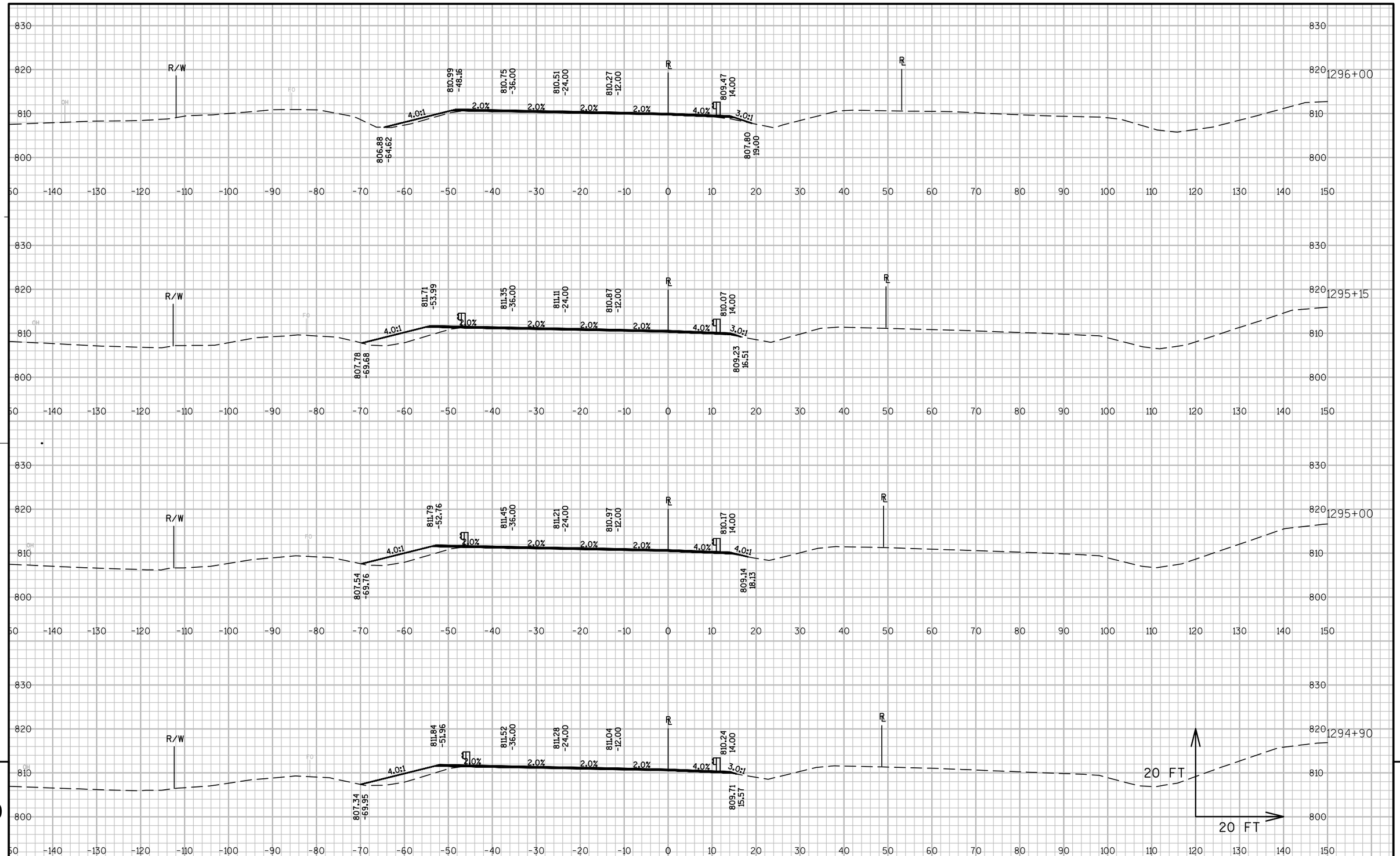
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WISDOT/CADDS SHEET 49



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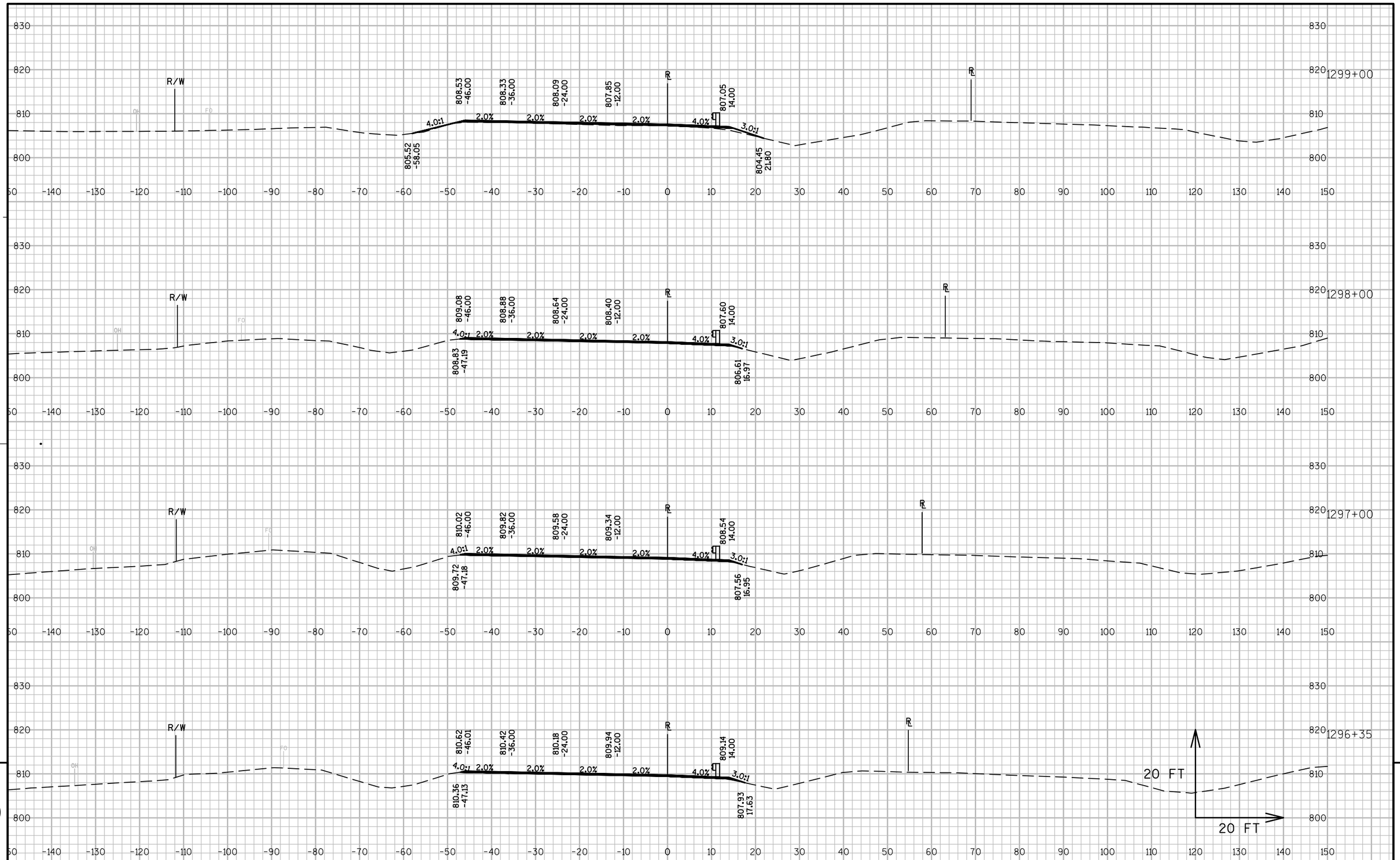
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PROJECT NO: 1010-02-85	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: IH 39 NB	SHEET 391	E

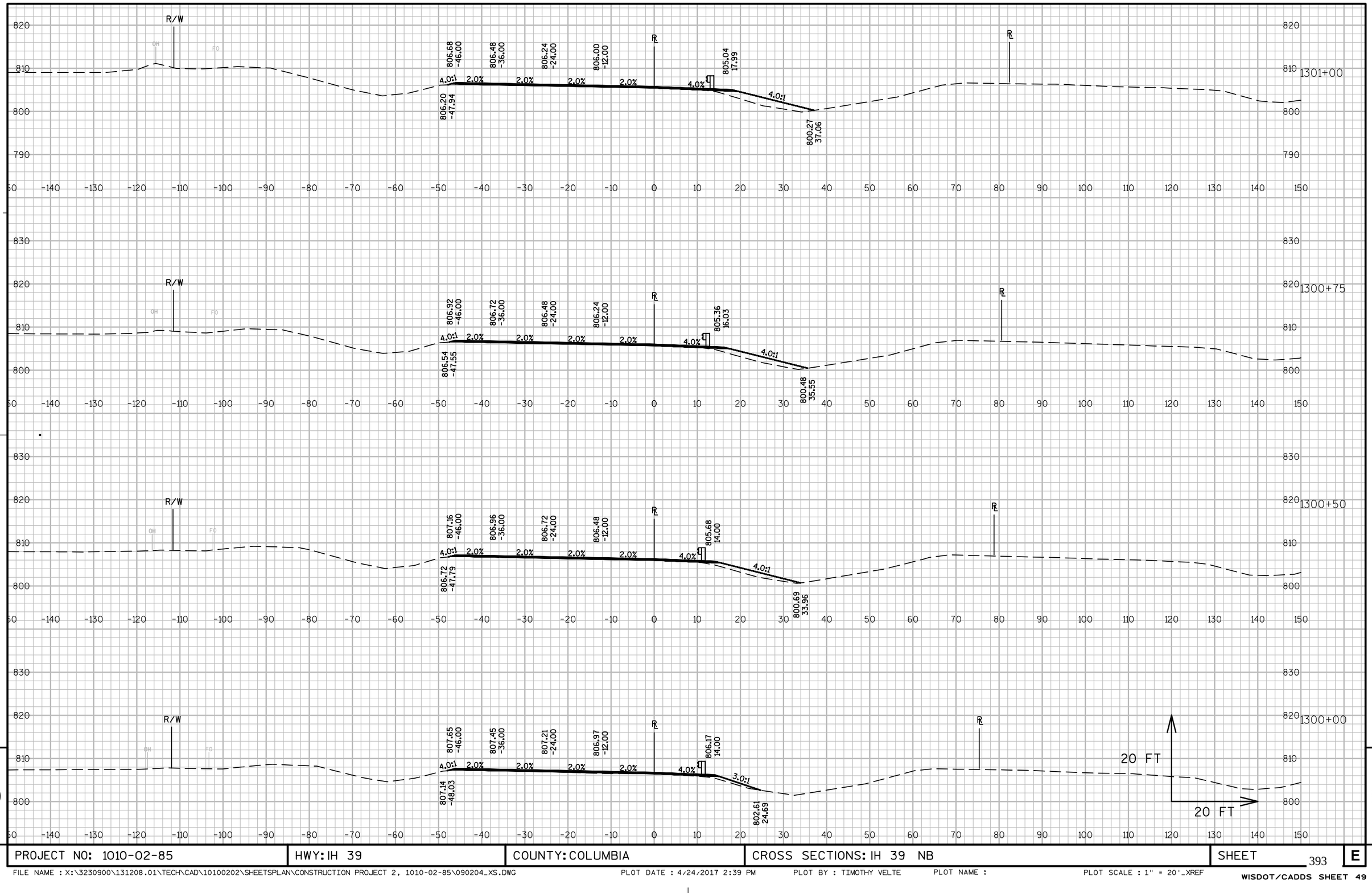
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WISDOT/CADDS SHEET 49



PROJECT NO: 1010-02-85	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: IH 39 NB	SHEET 392	E

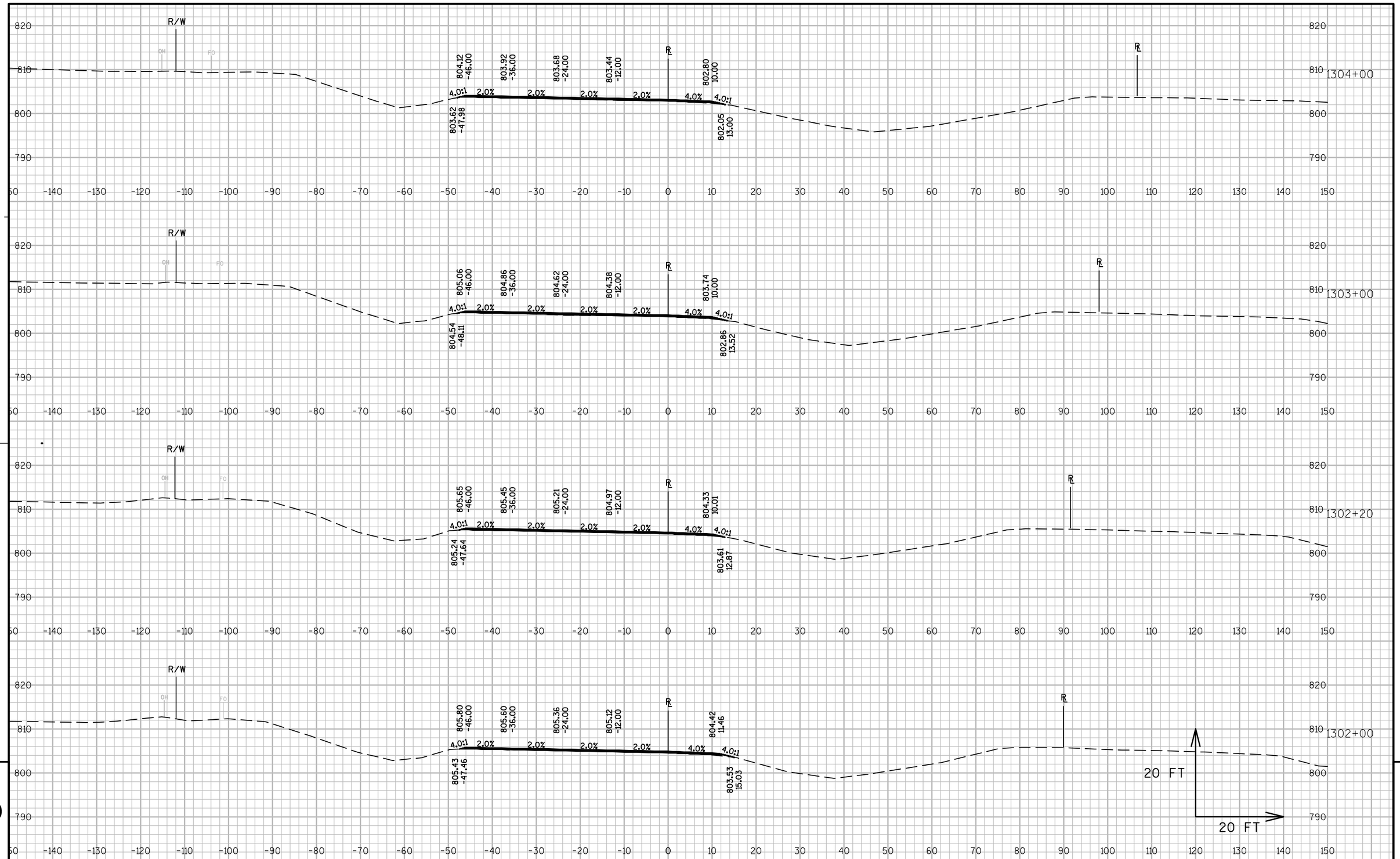
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PROJECT NO: 1010-02-85	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: IH 39 NB	SHEET 393	E

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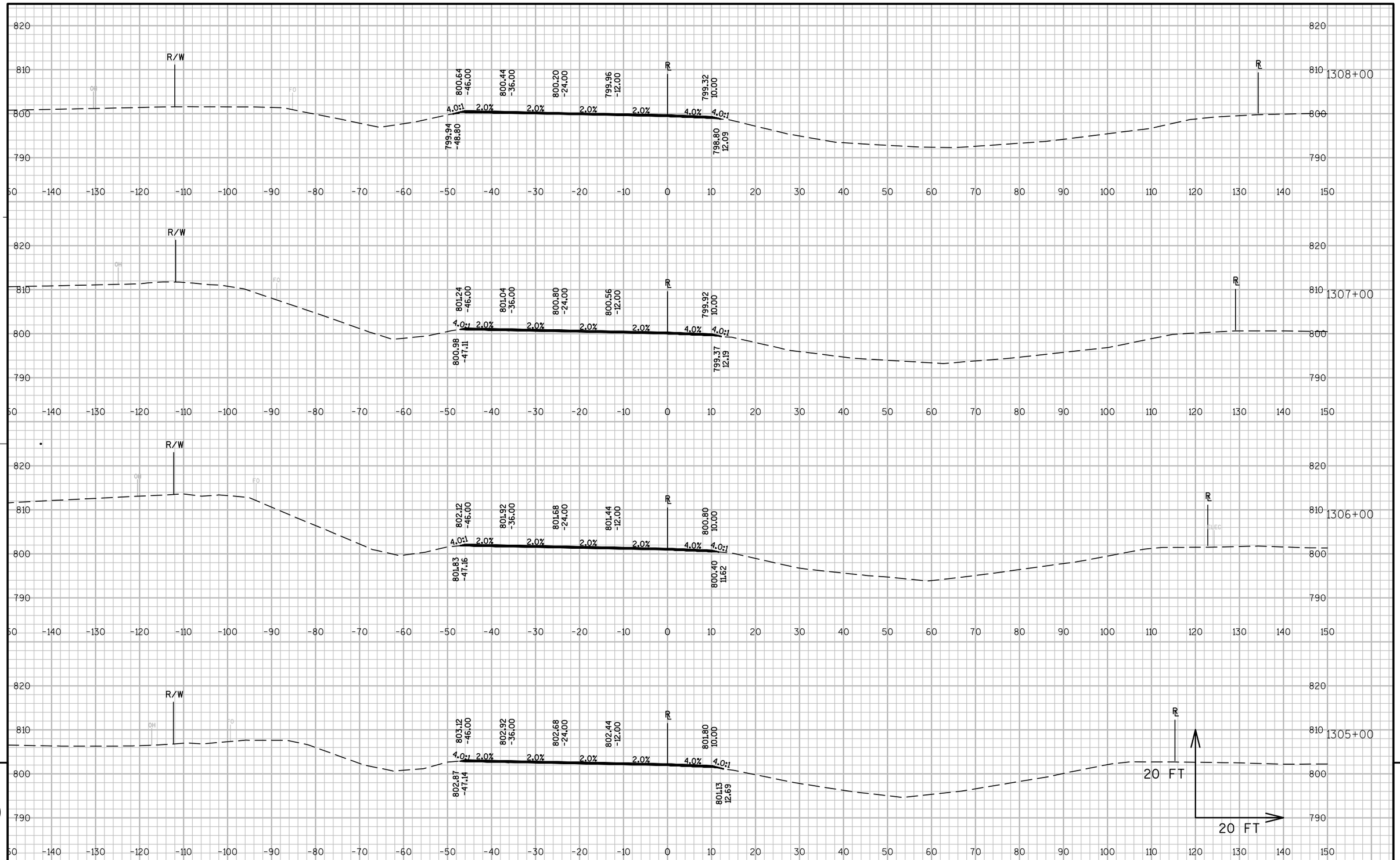
WISDOT/CADDS SHEET 49



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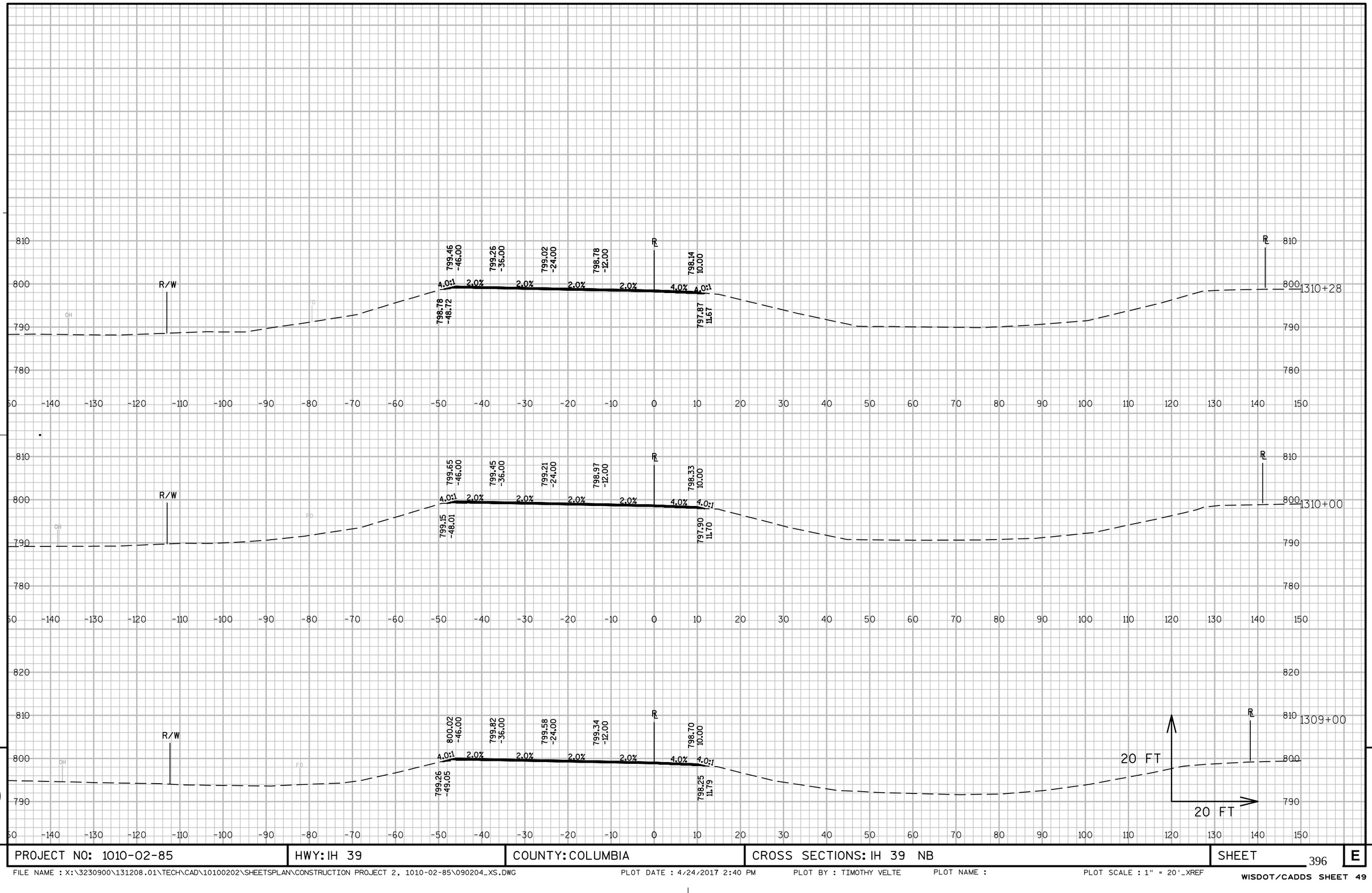
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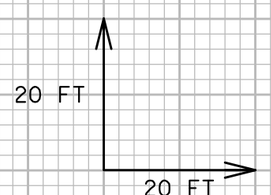
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WISDOT/CADDS SHEET 49



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PROJECT NO: 1010-02-85	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: IH 39 NB	SHEET 397	E

30
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1312+27

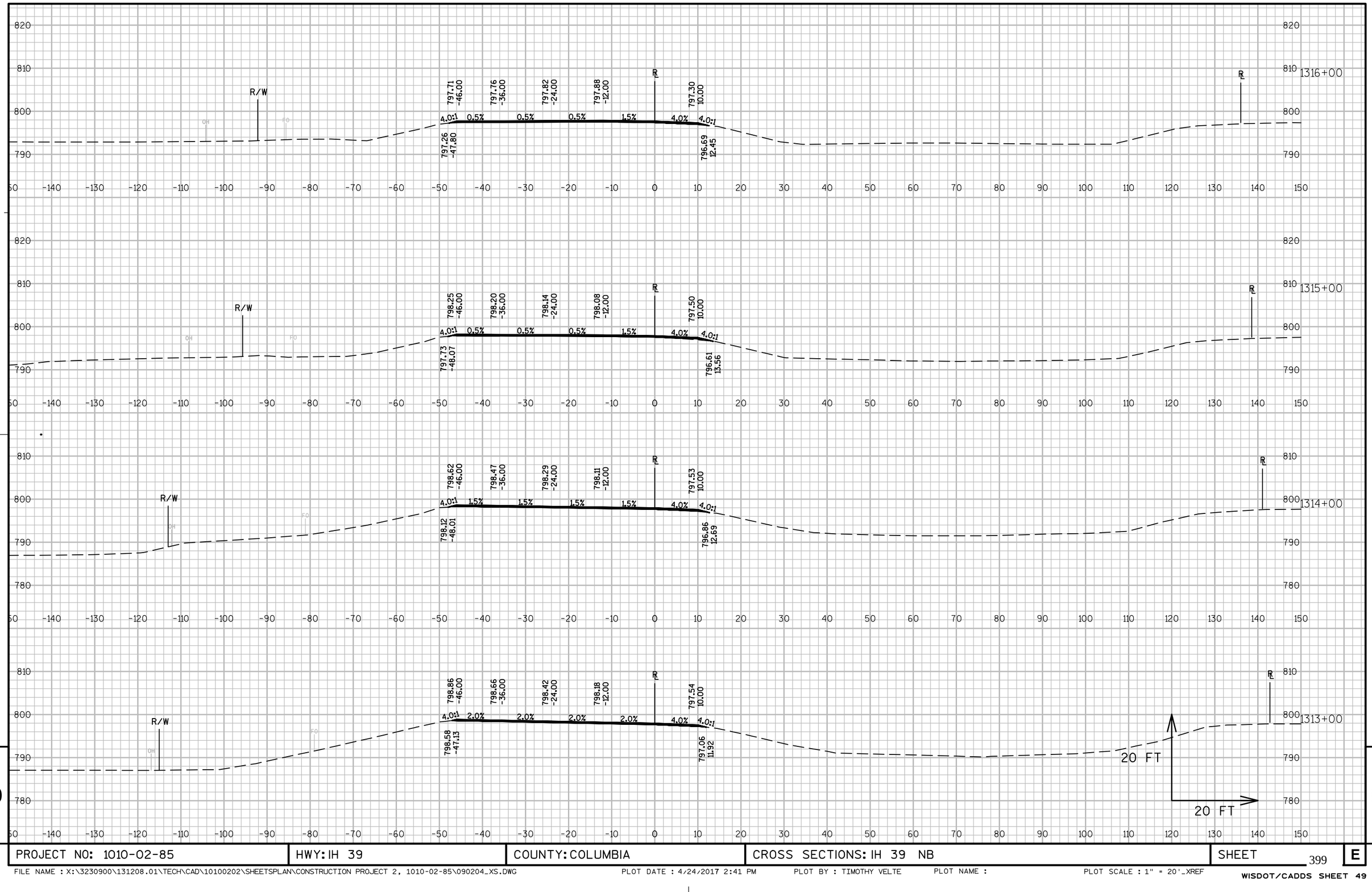
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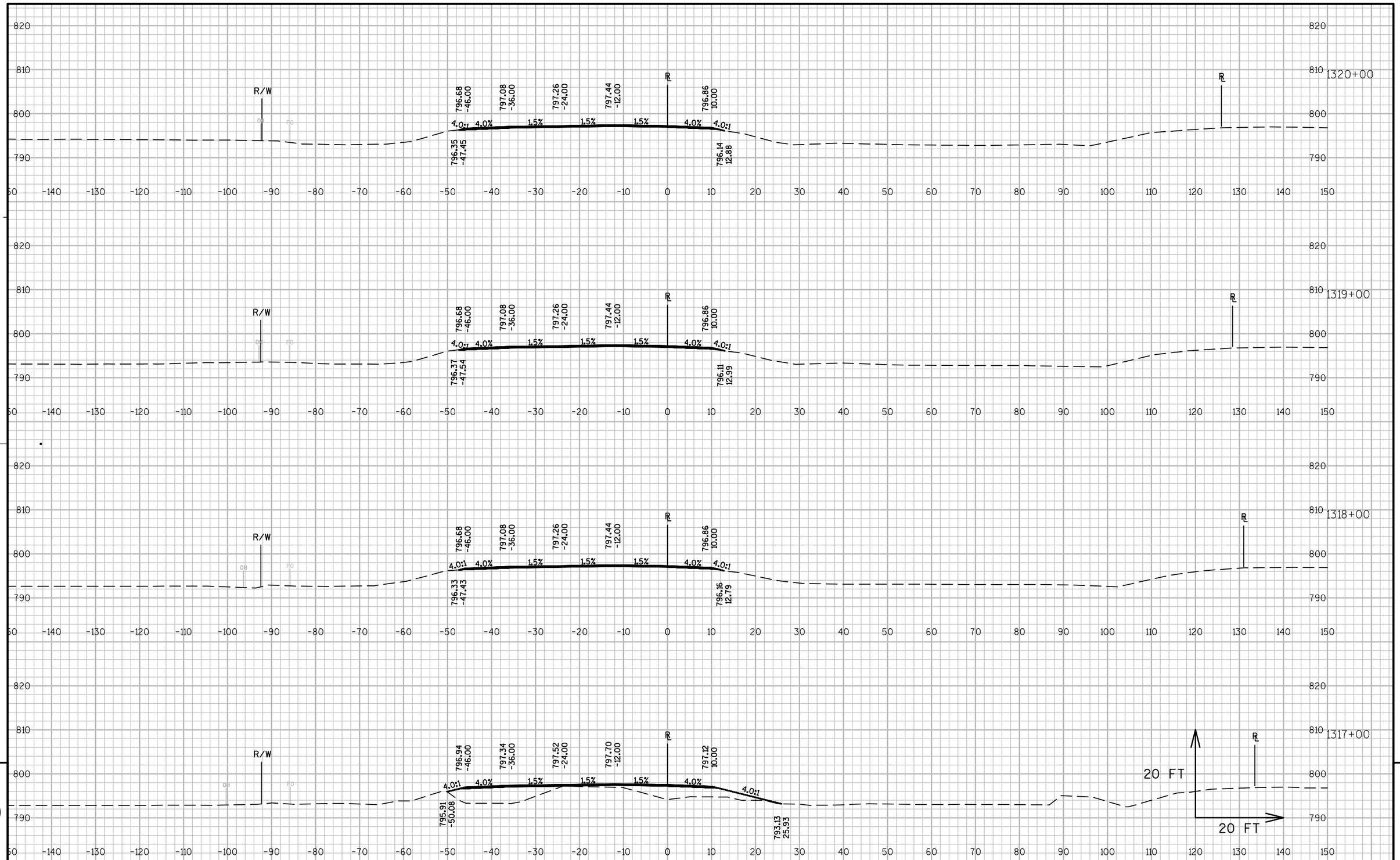


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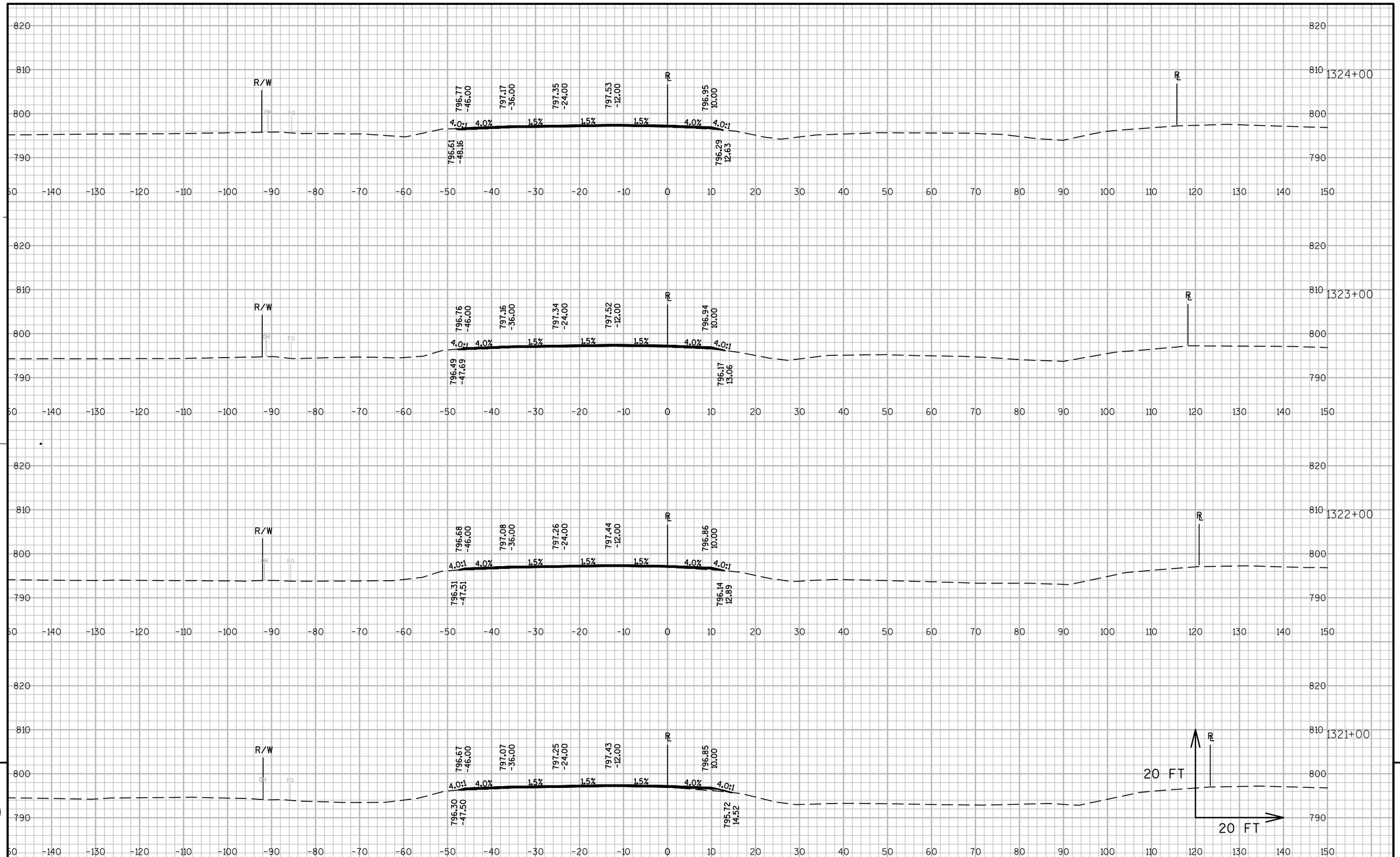
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WISDOT/CADDS SHEET 49



PROJECT NO: 1010-02-85	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: IH 39 NB	SHEET 400	E

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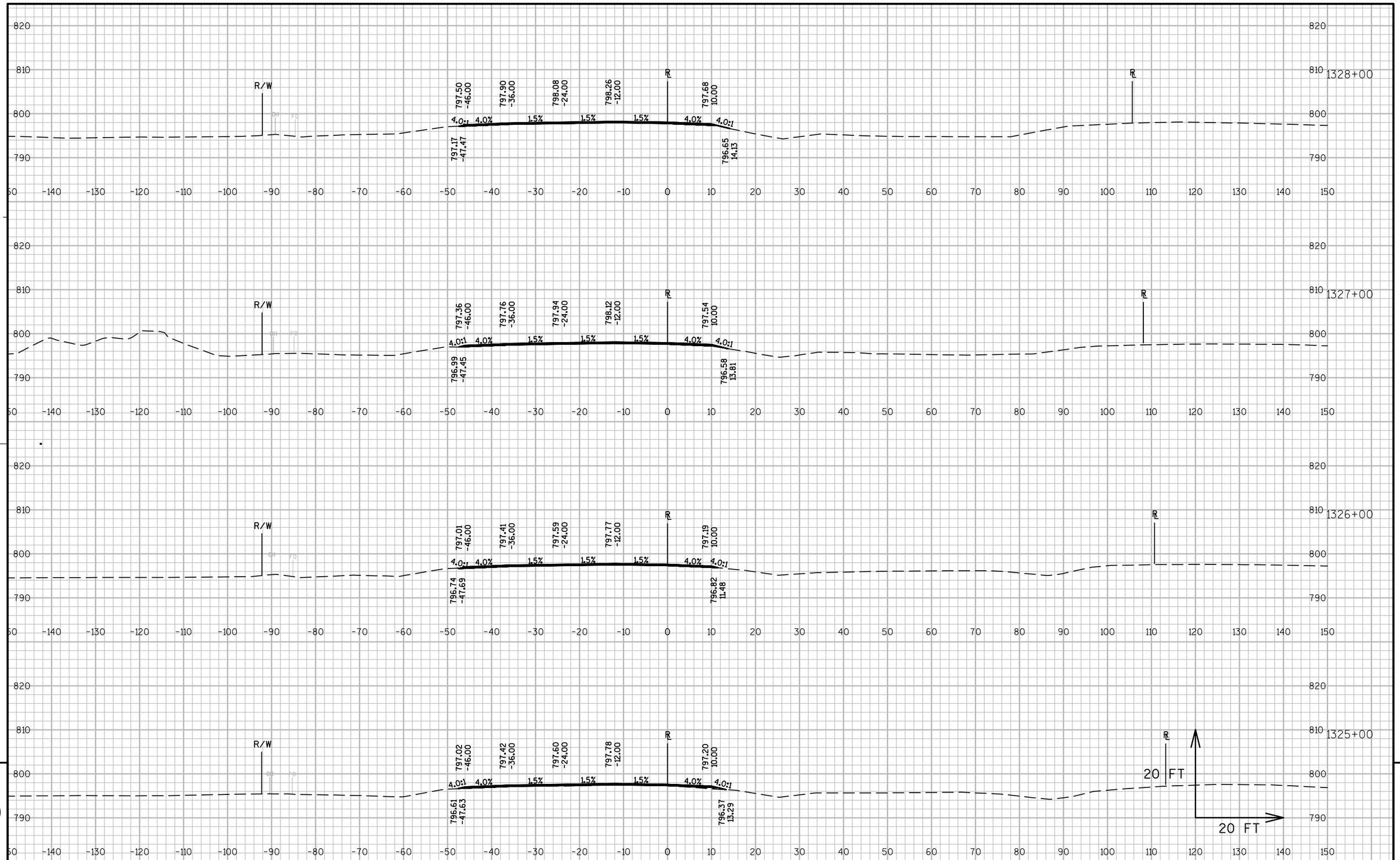
WISDOT/CADDS SHEET 49



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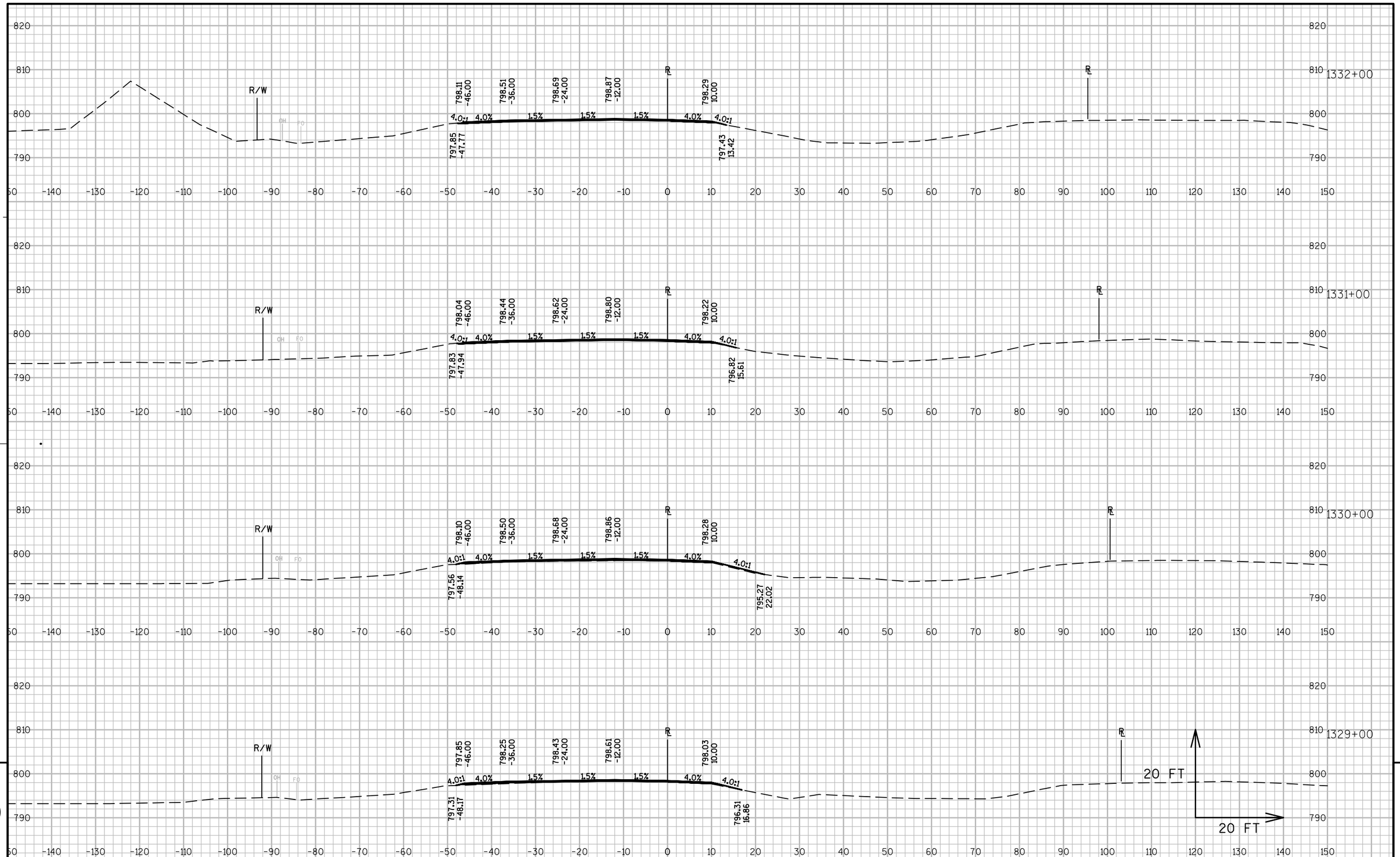
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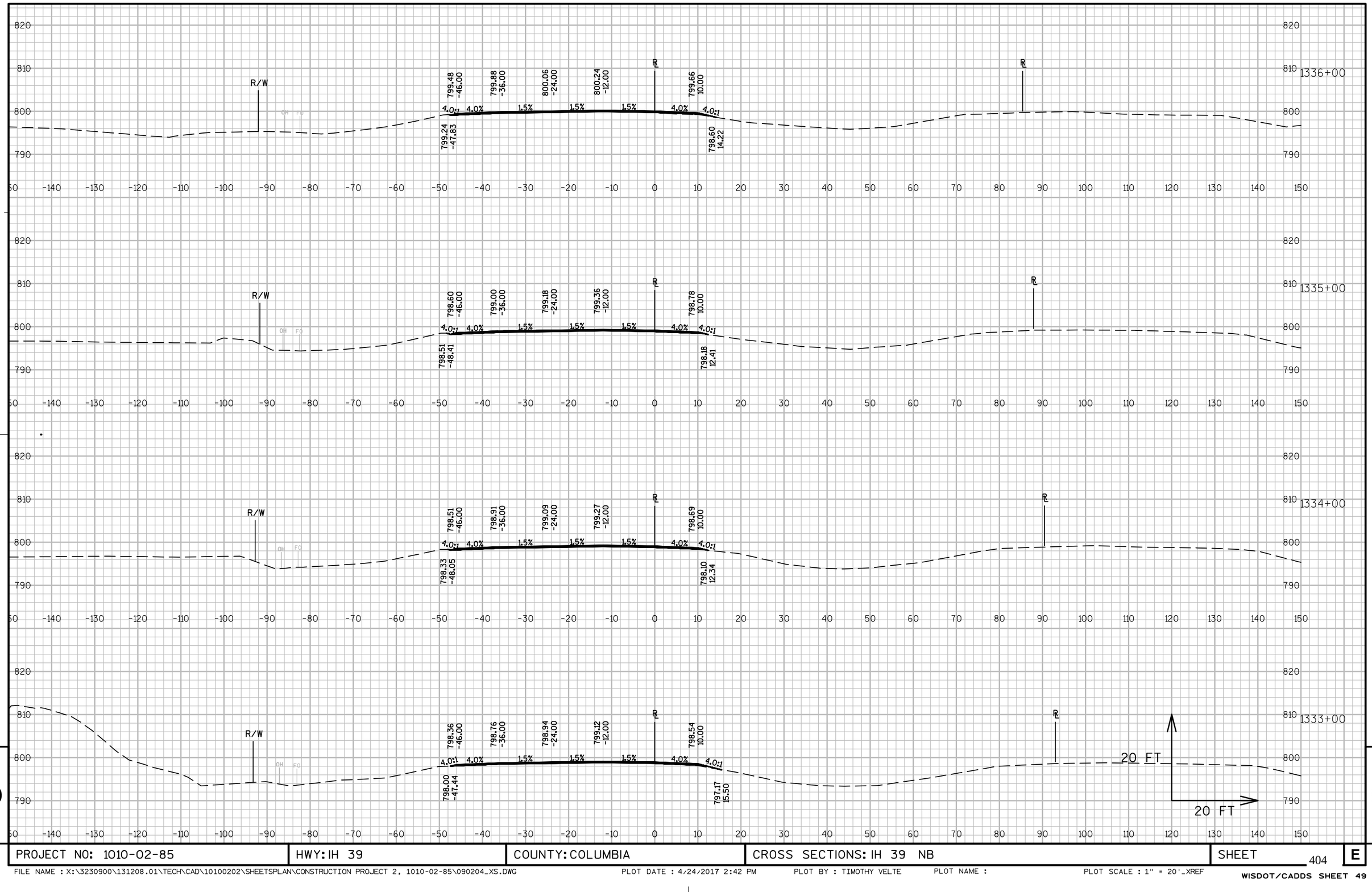
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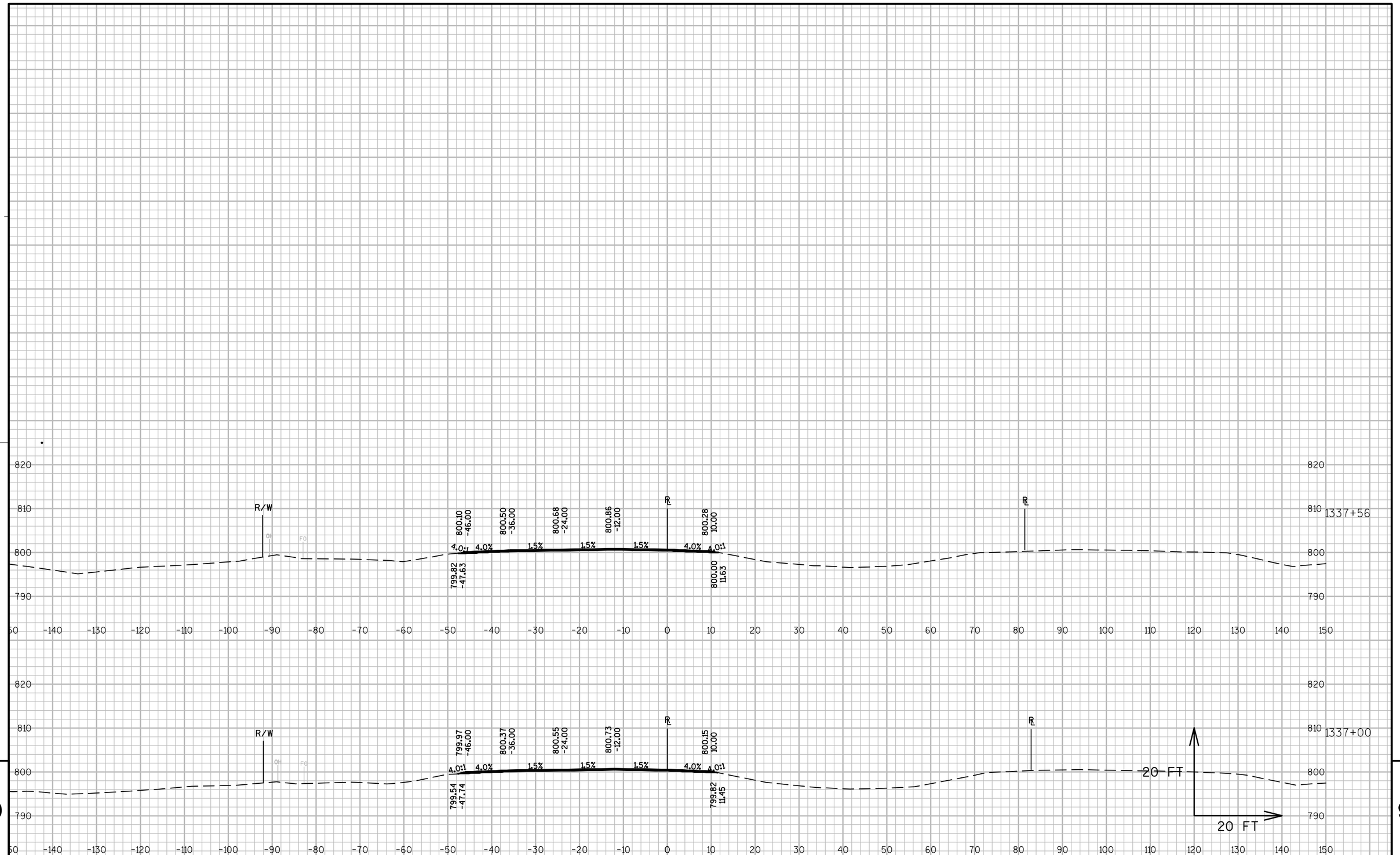
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WISDOT/CADDS SHEET 49



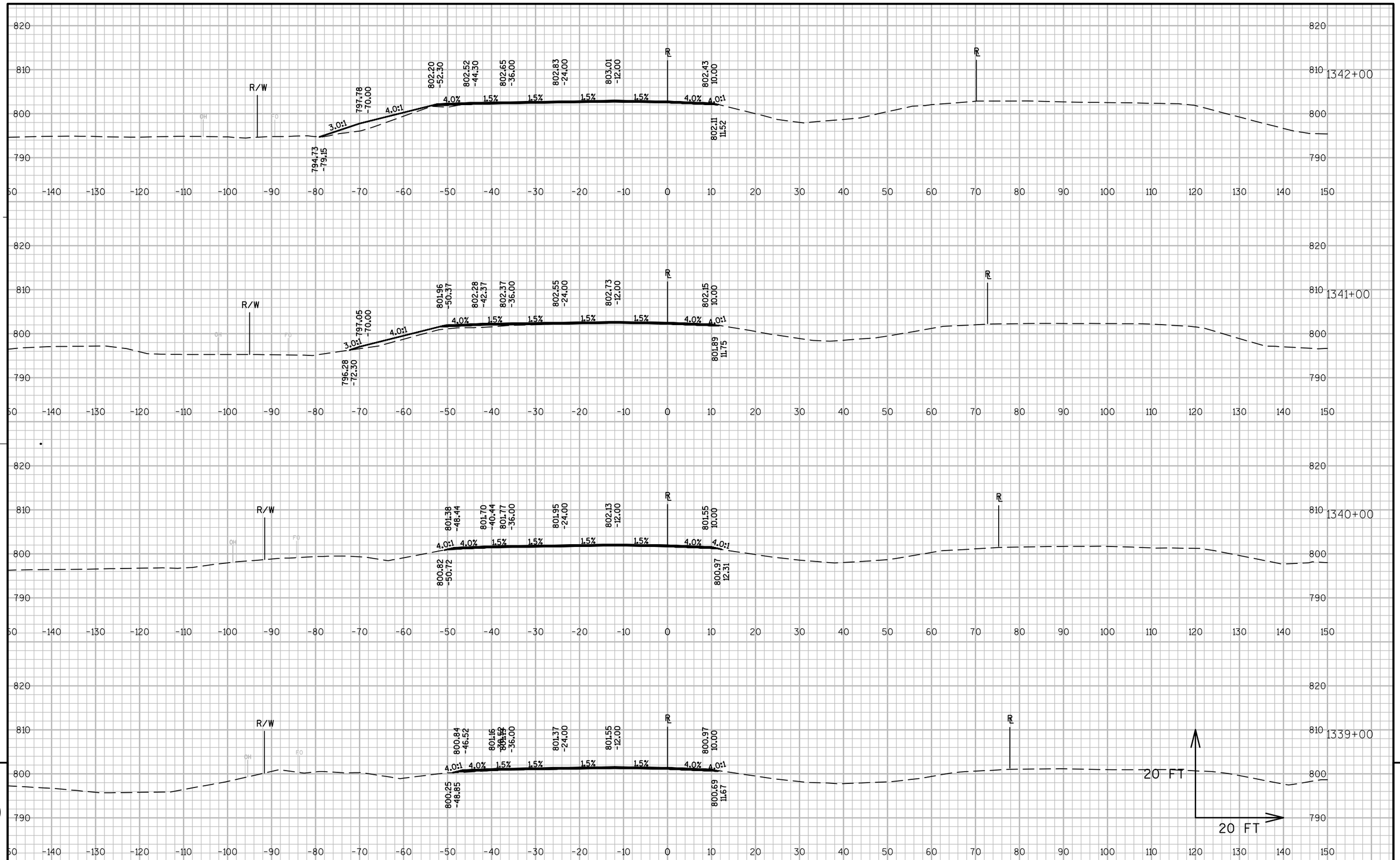
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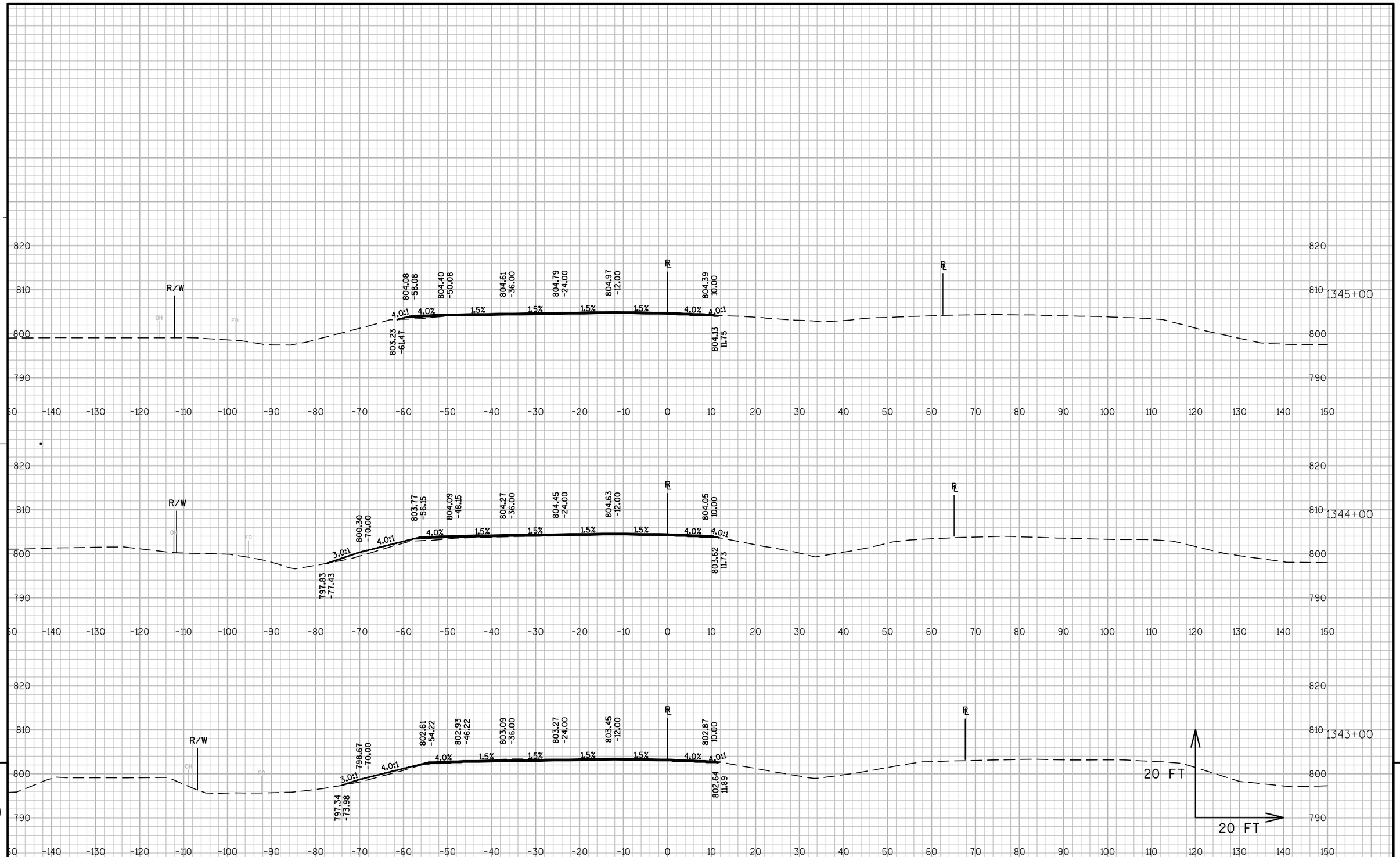
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WISDOT/CADDS SHEET 49



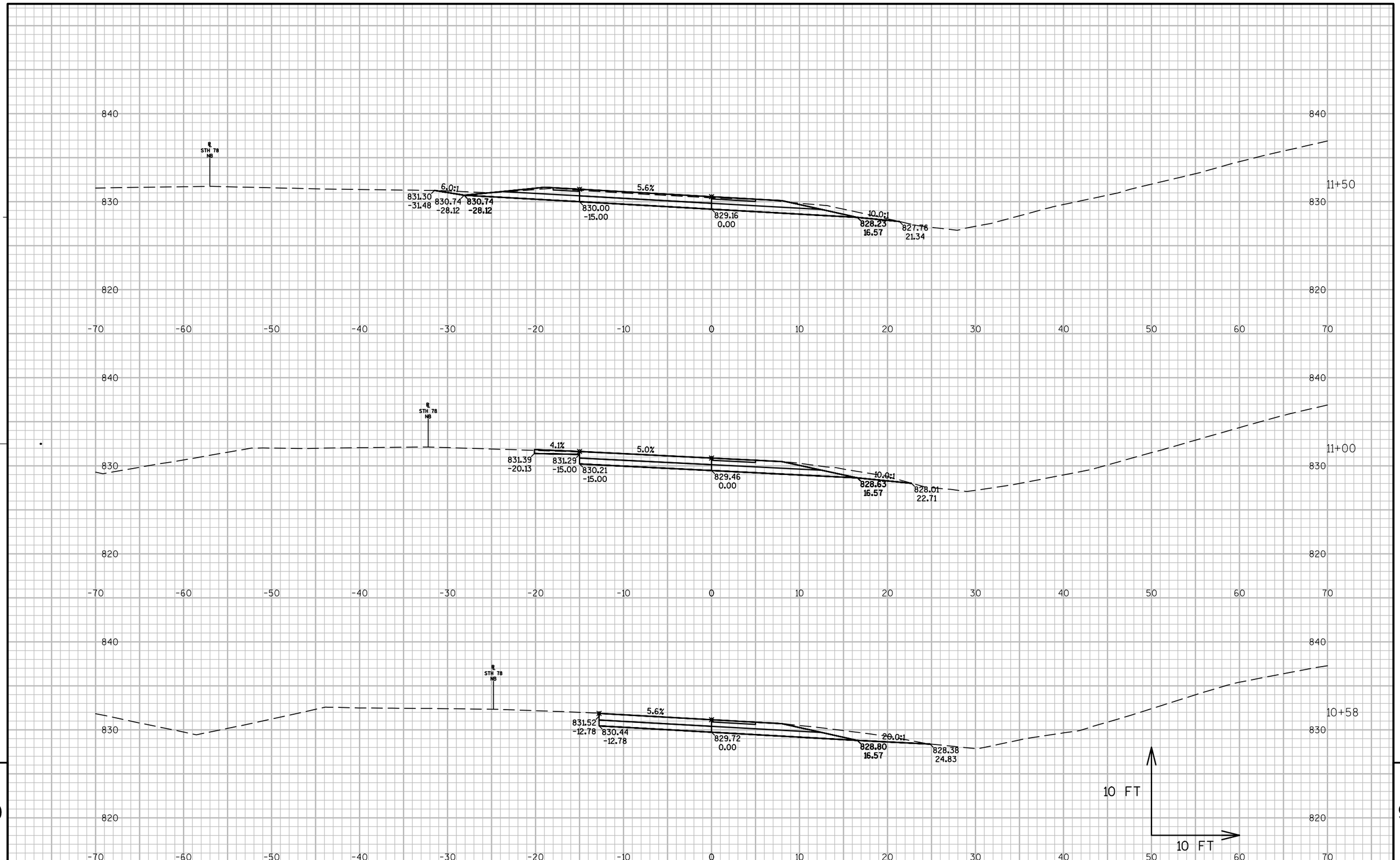
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PROJECT NO: 1010-02-85	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: IH 39 NB	SHEET 407	E

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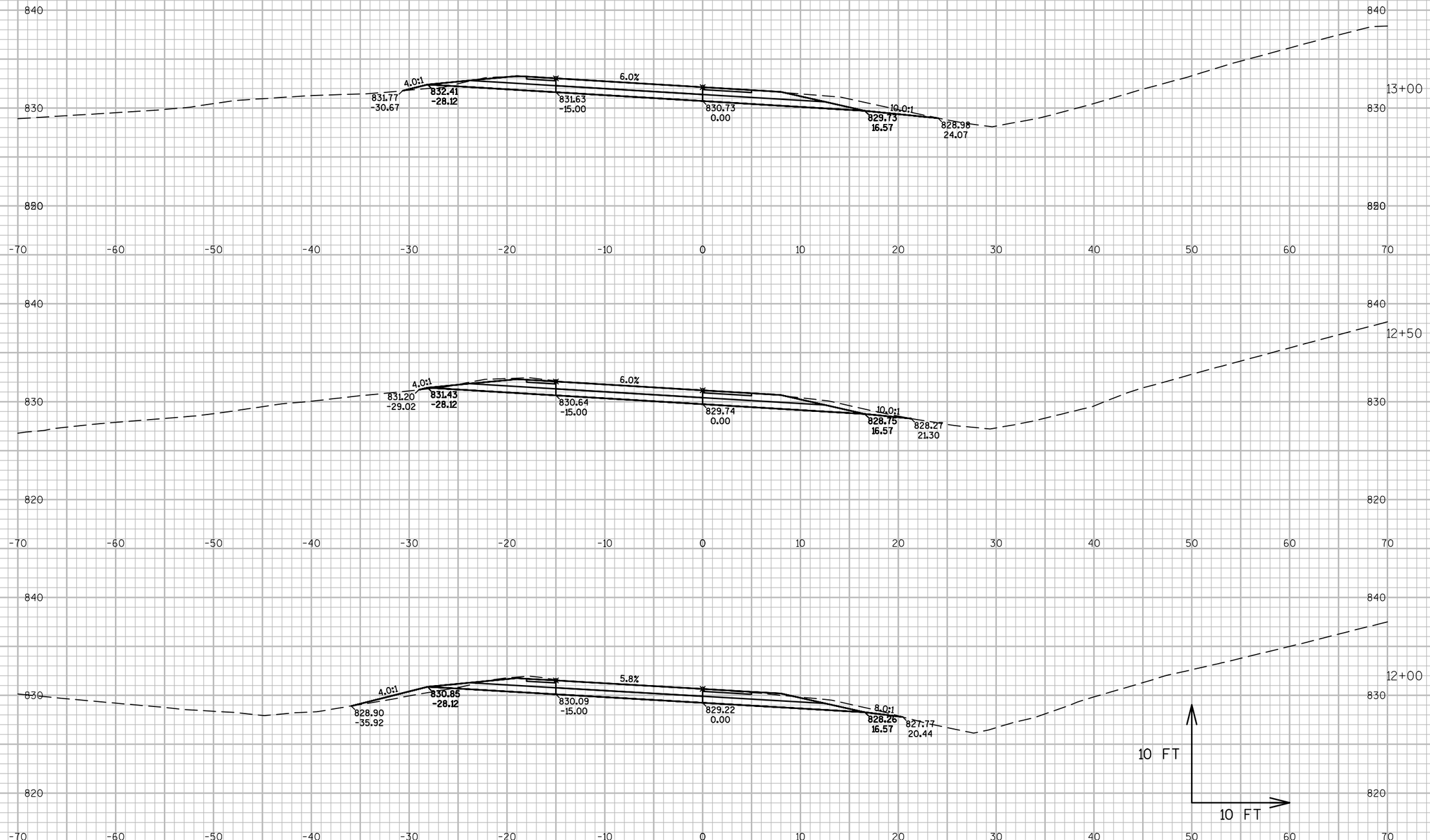
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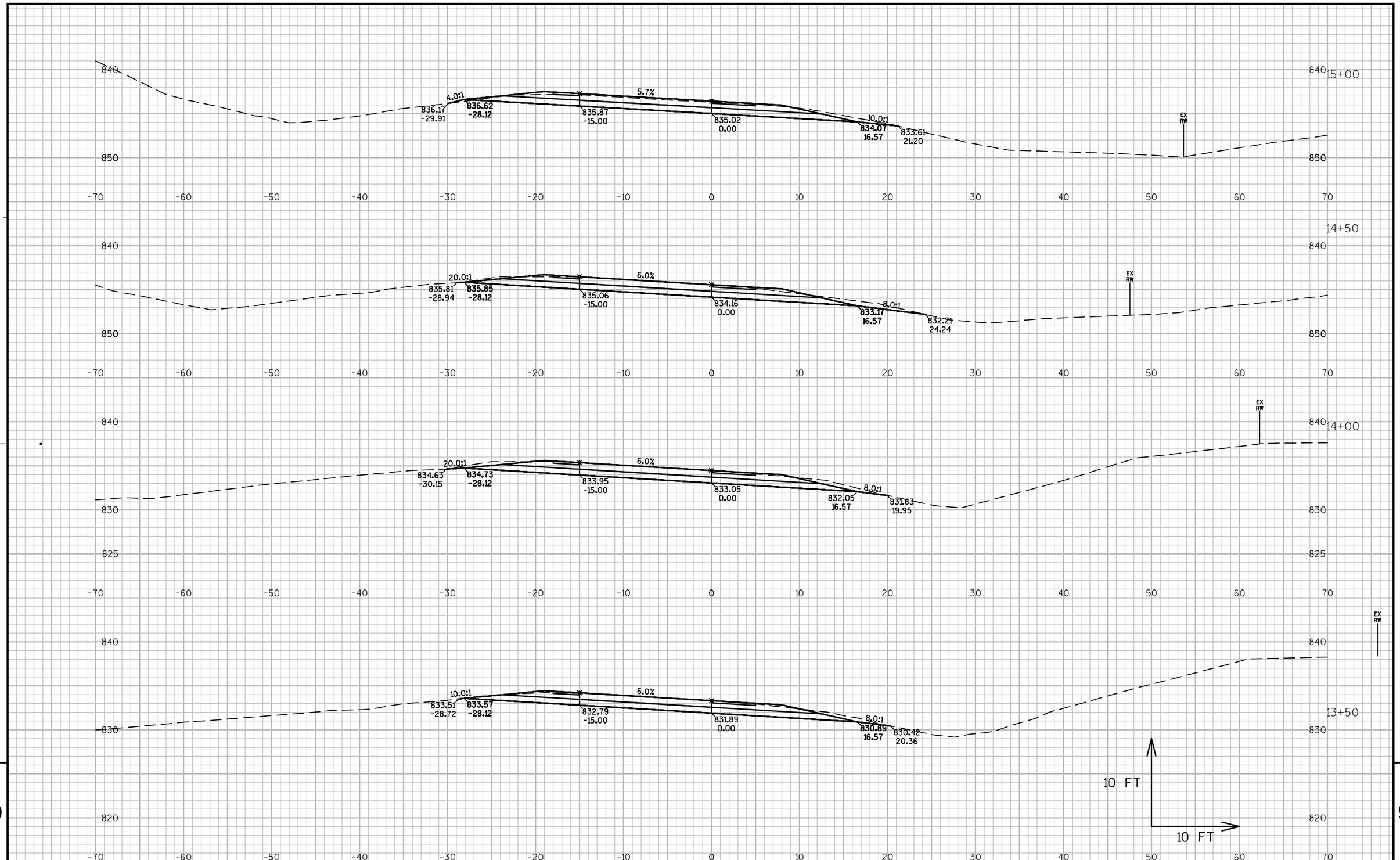
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WISDOT/CADDS SHEET 49



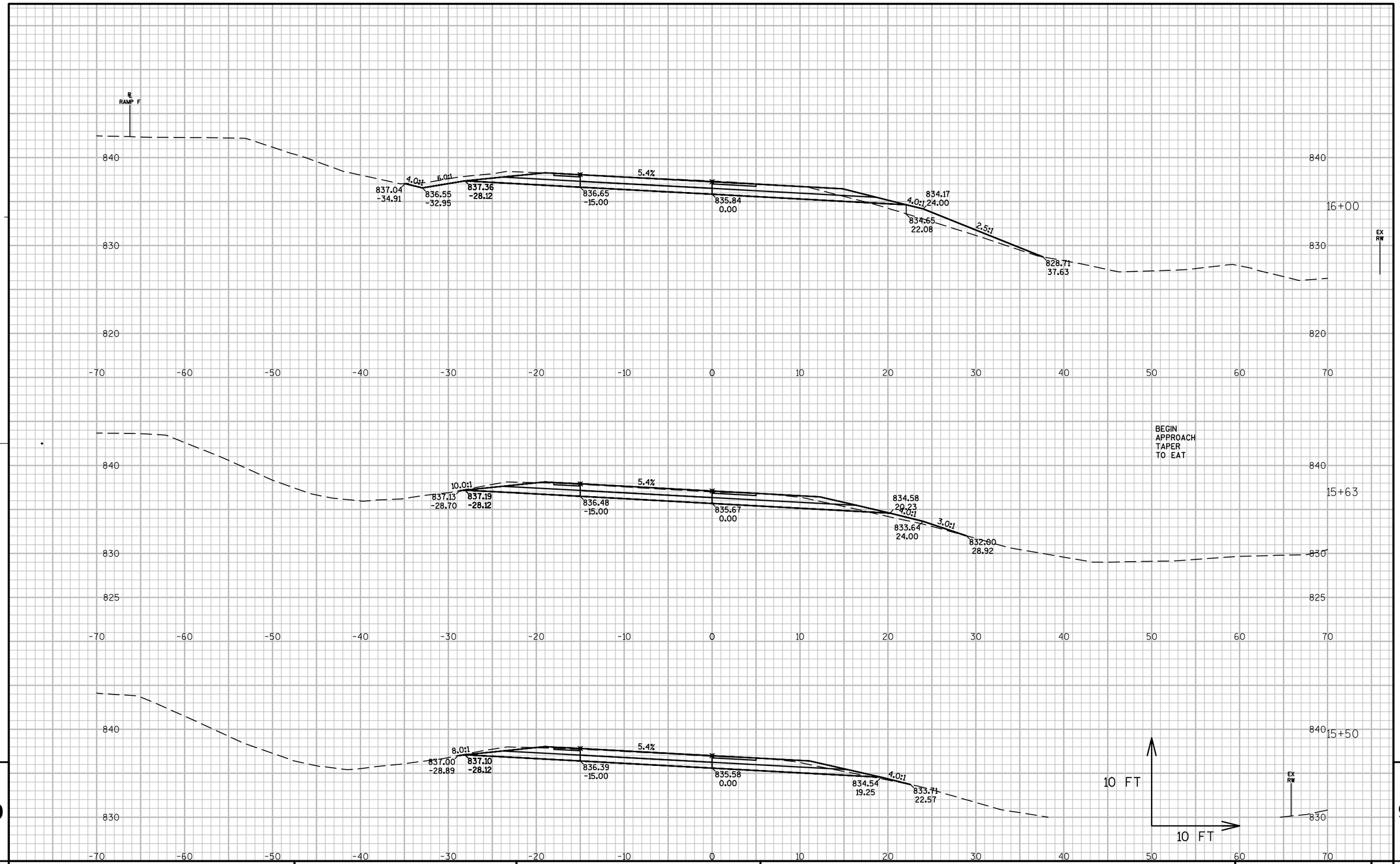
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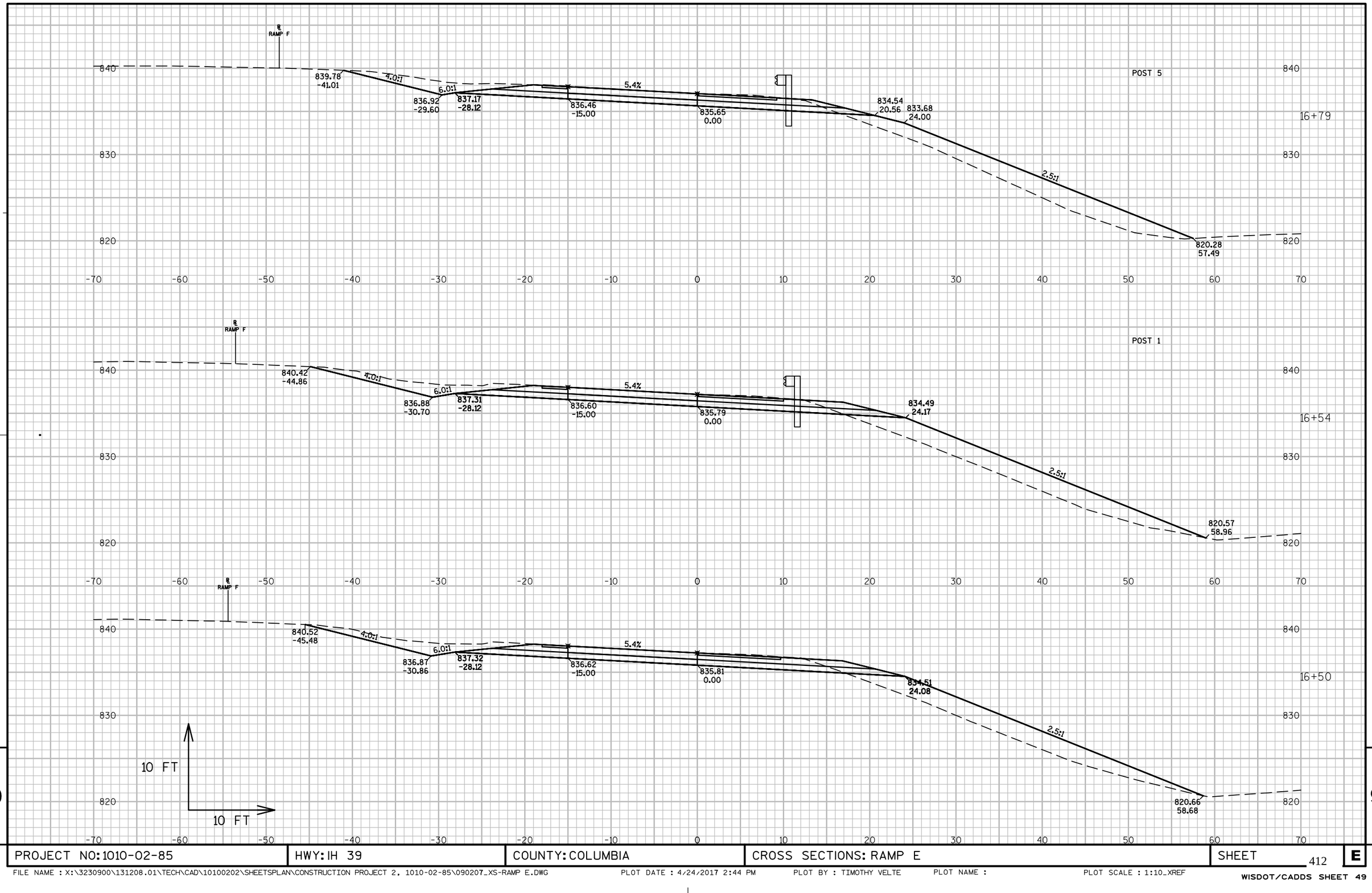
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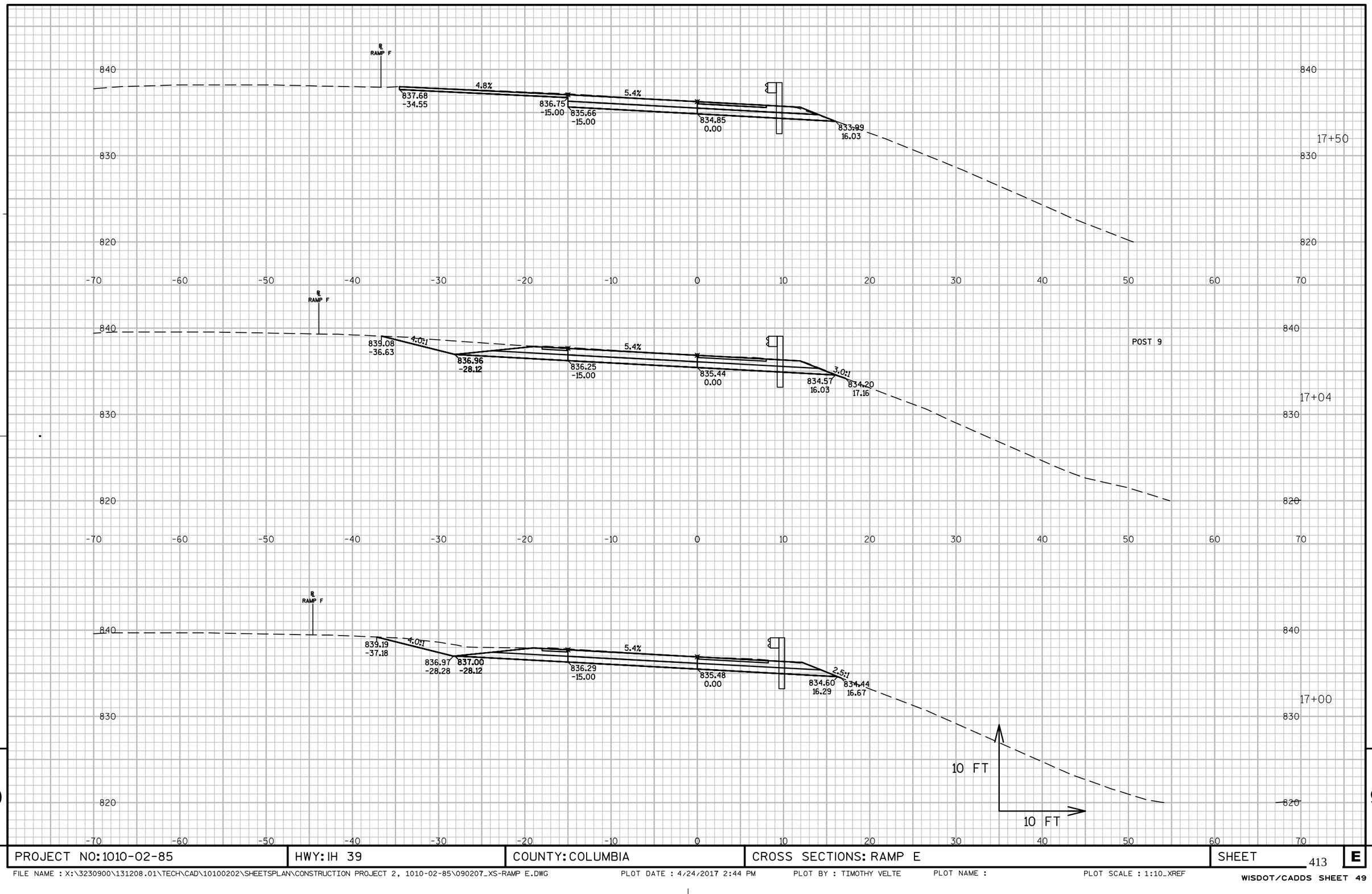
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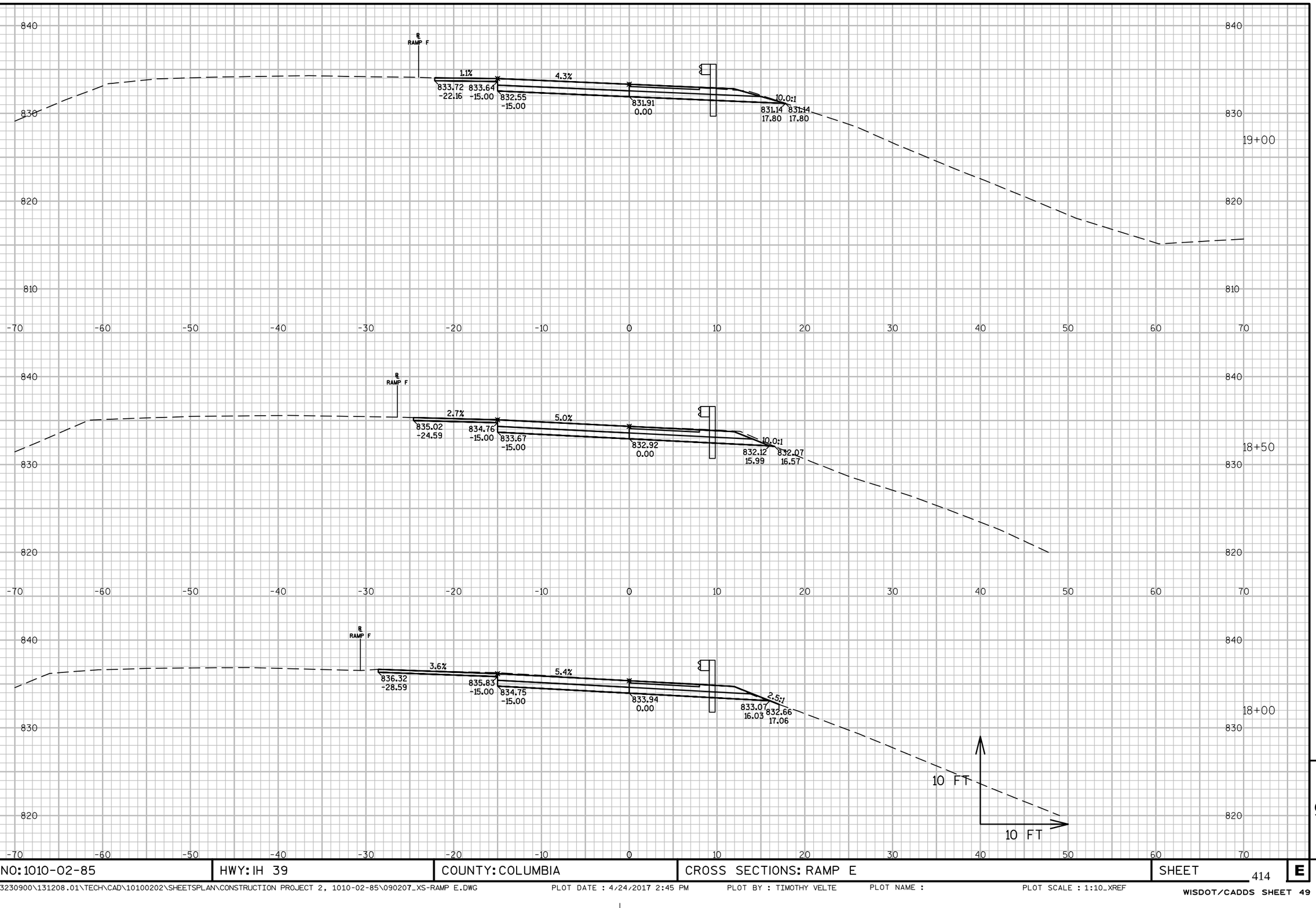
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PROJECT NO: 1010-02-85	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: RAMP E	SHEET 412 E



PROJECT NO: 1010-02-85	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: RAMP E	SHEET 413	E

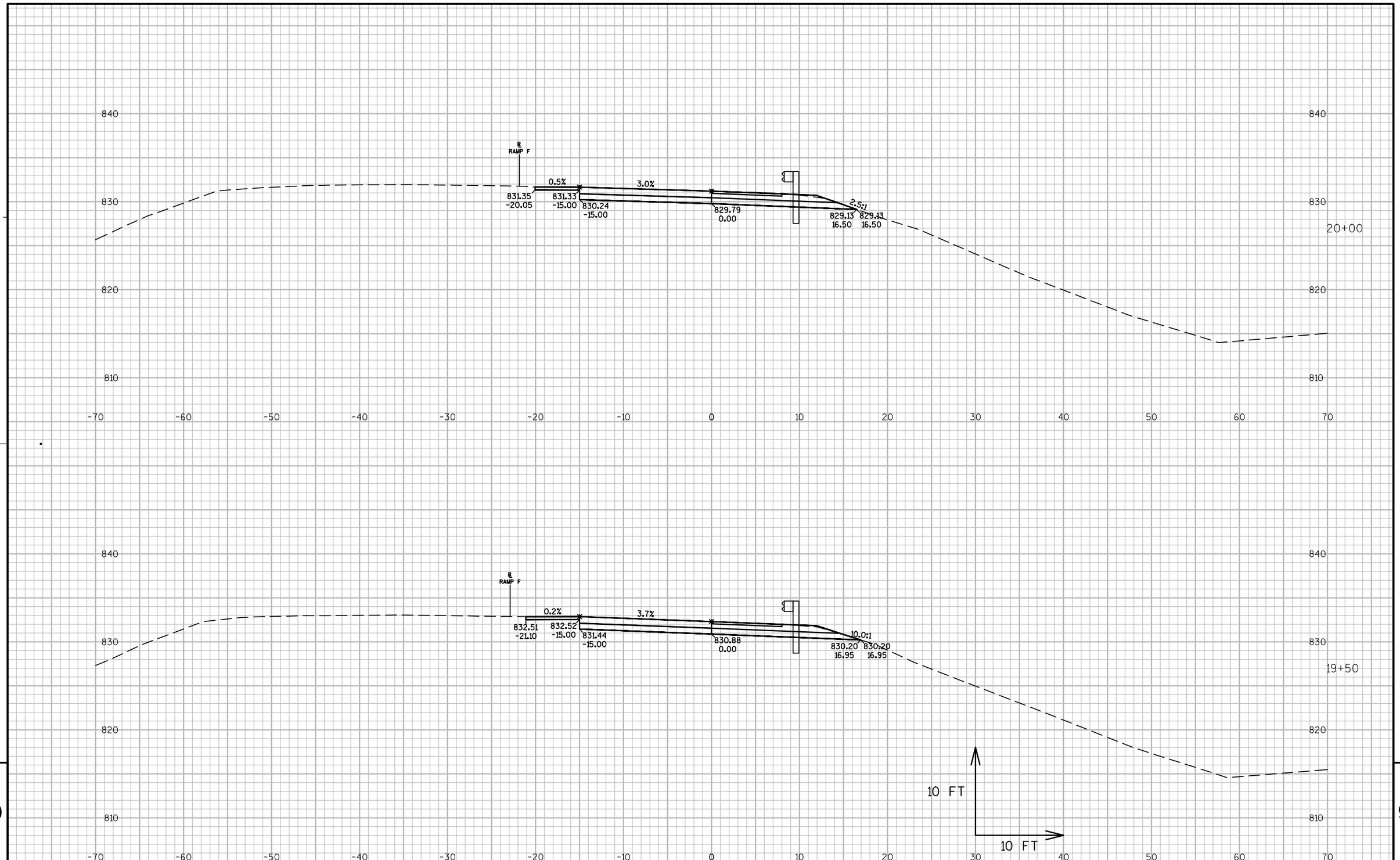


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PROJECT NO: 1010-02-85	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: RAMP E	SHEET 414	E

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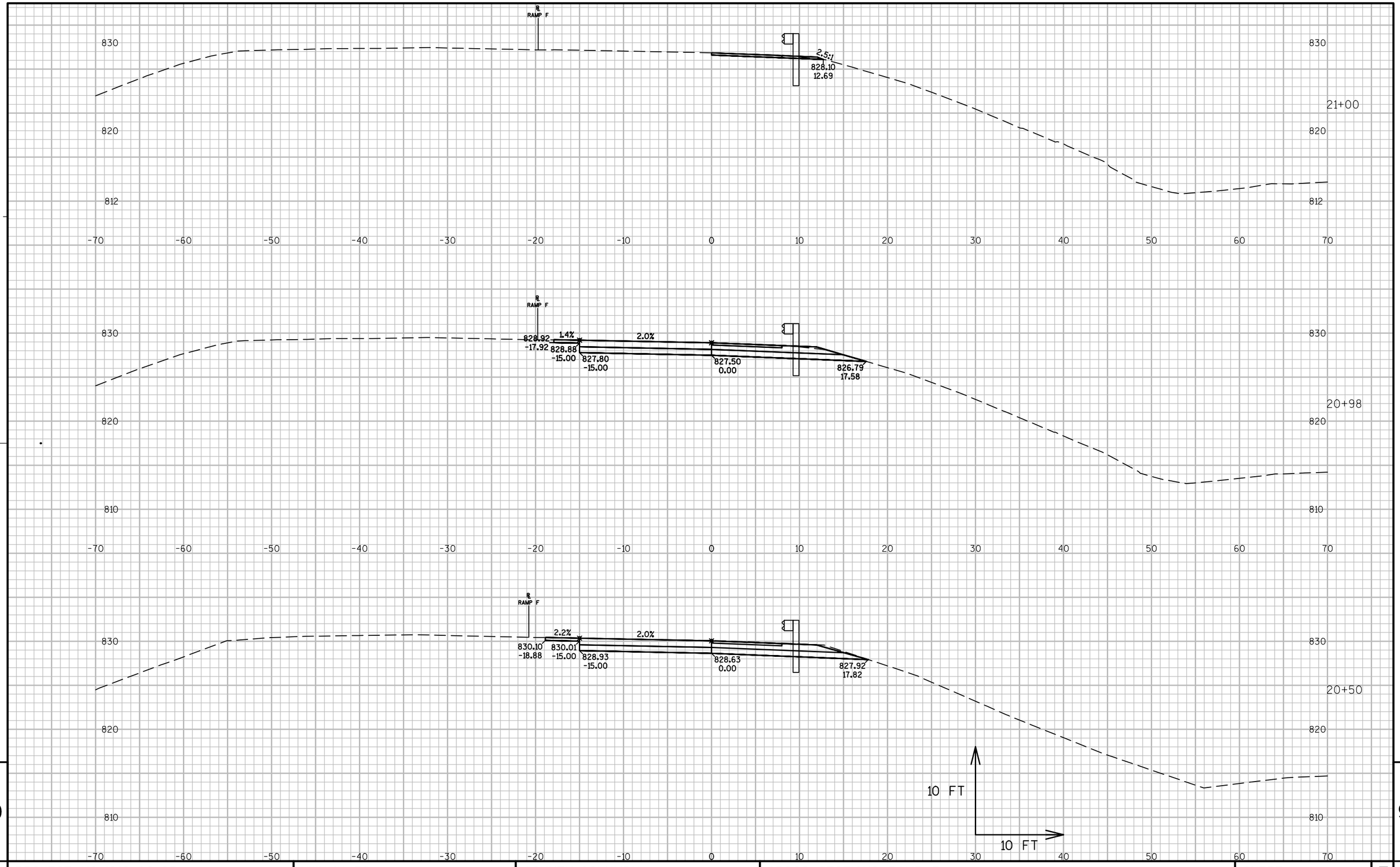


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PROJECT NO: 1010-02-85	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: RAMP E	SHEET 415	E

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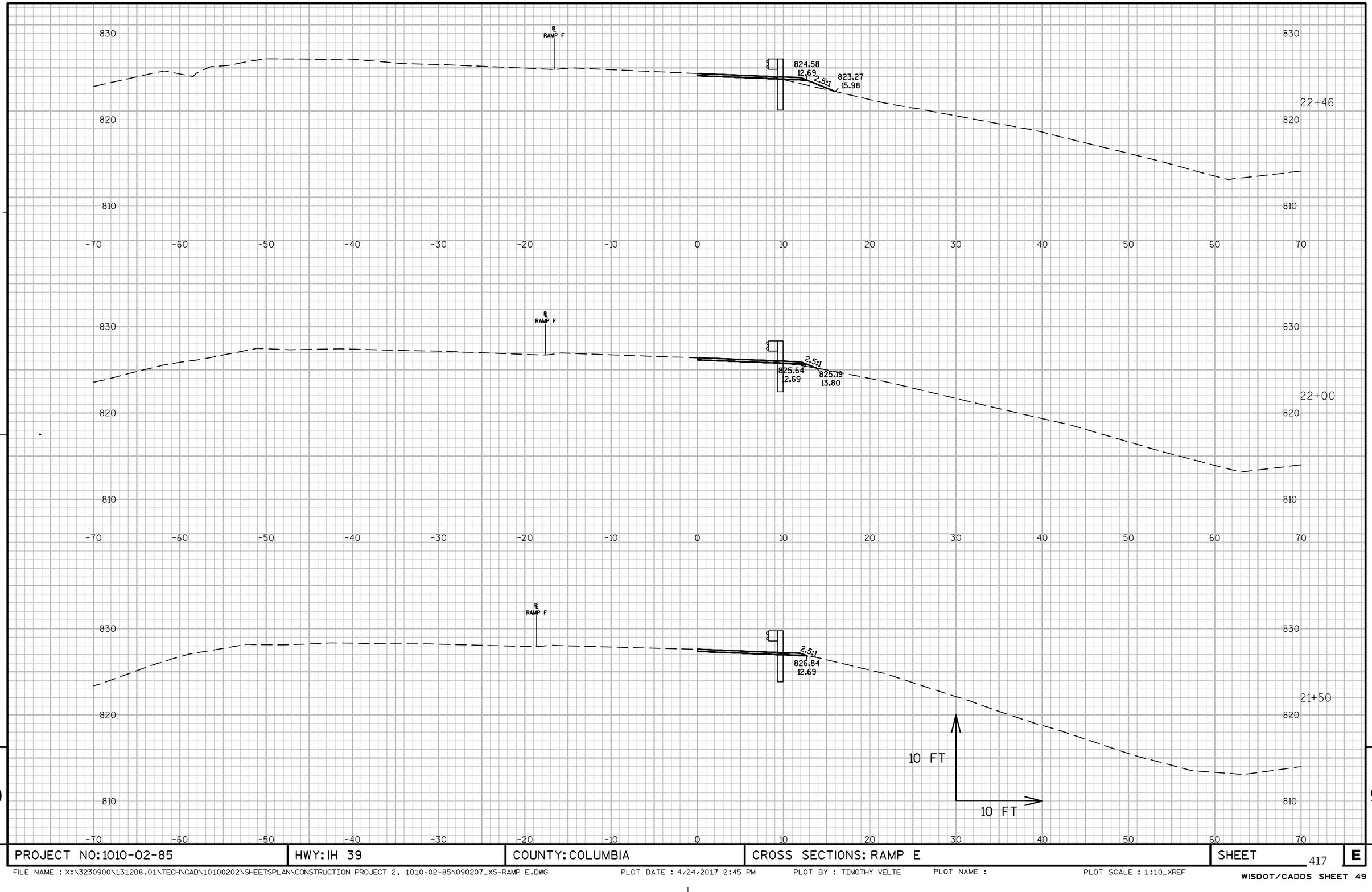
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WISDOT/CADDS SHEET 49



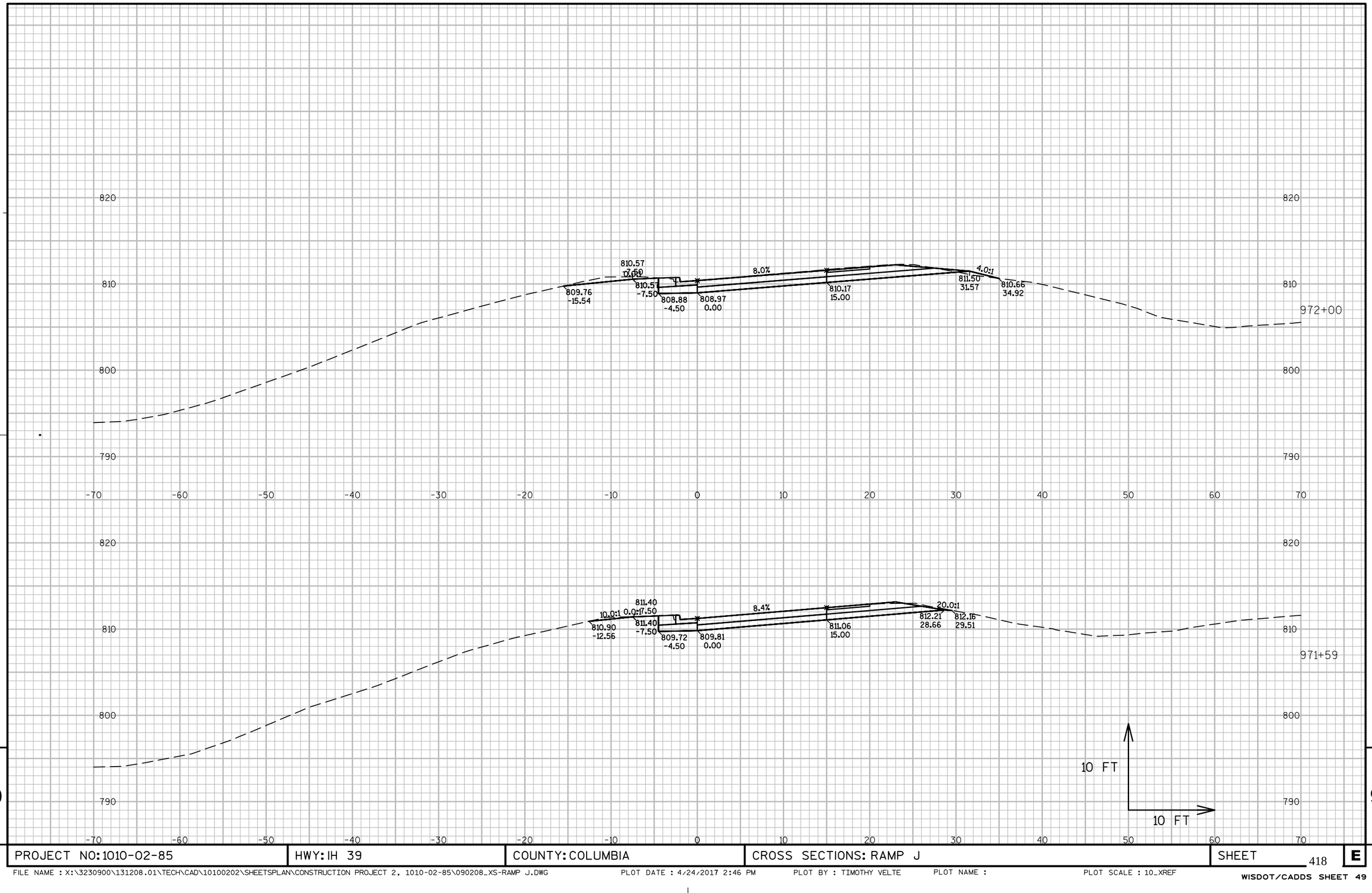
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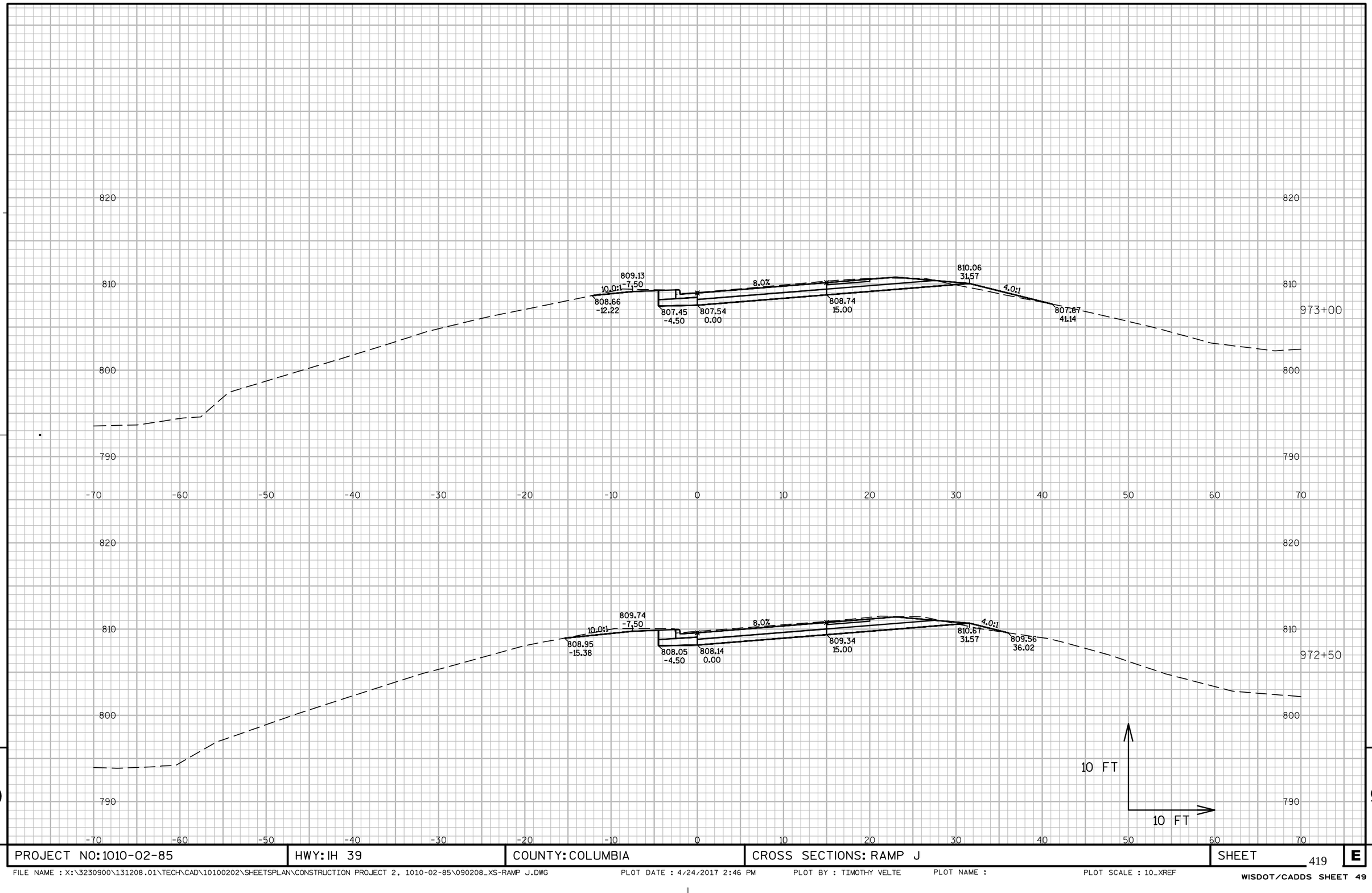
WISDOT/CADDS SHEET 49



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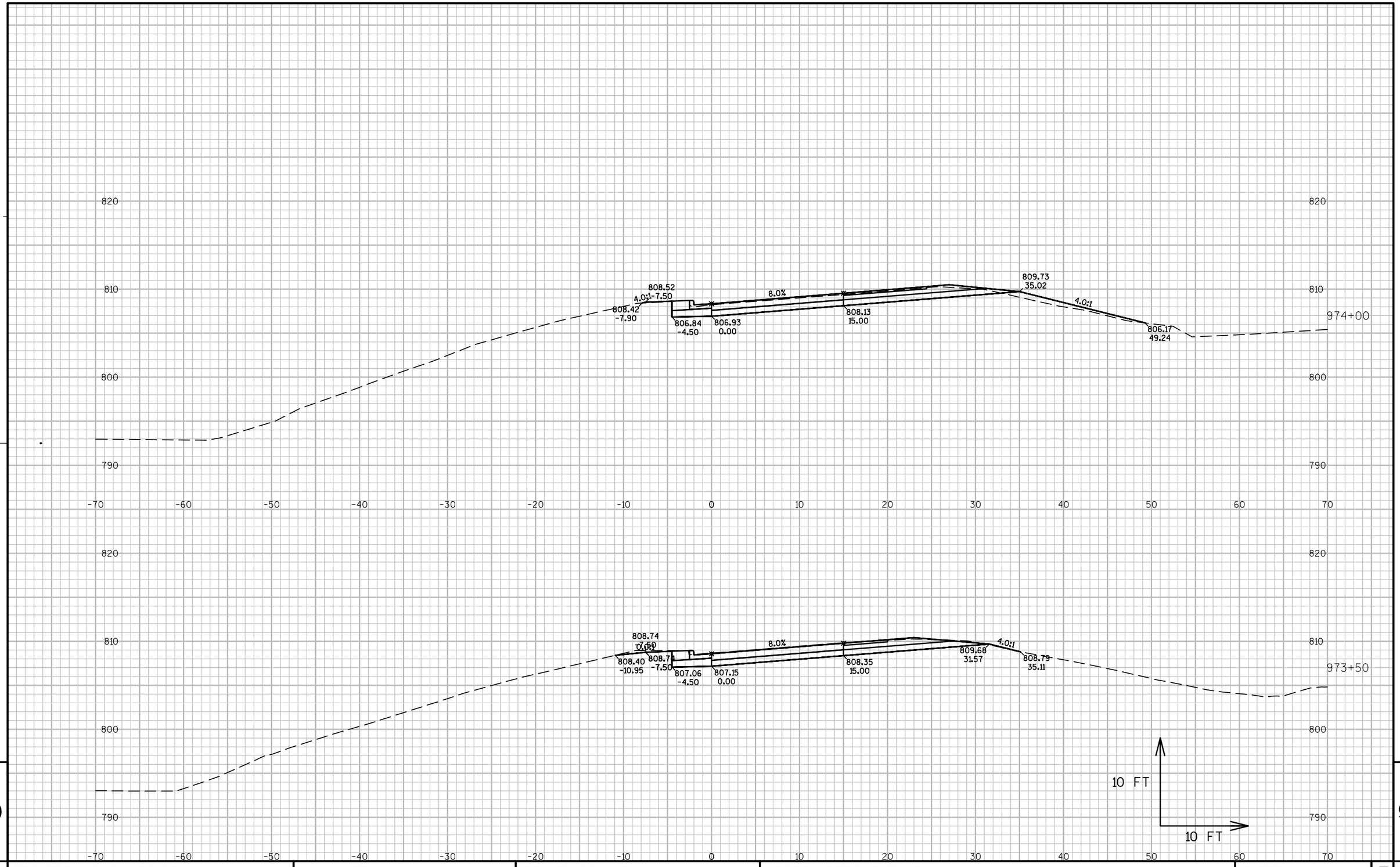


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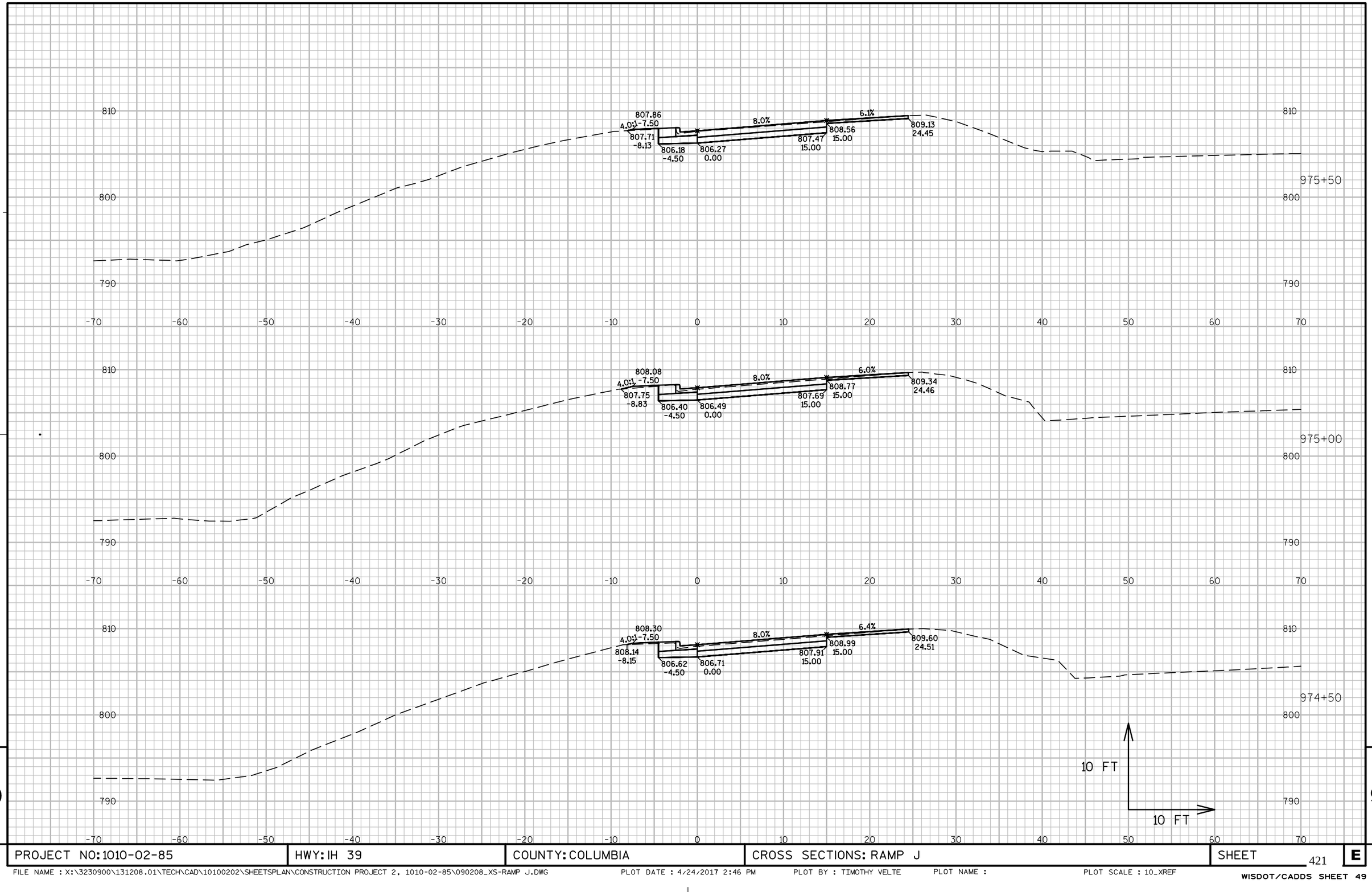
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WISDOT/CADDS SHEET 49



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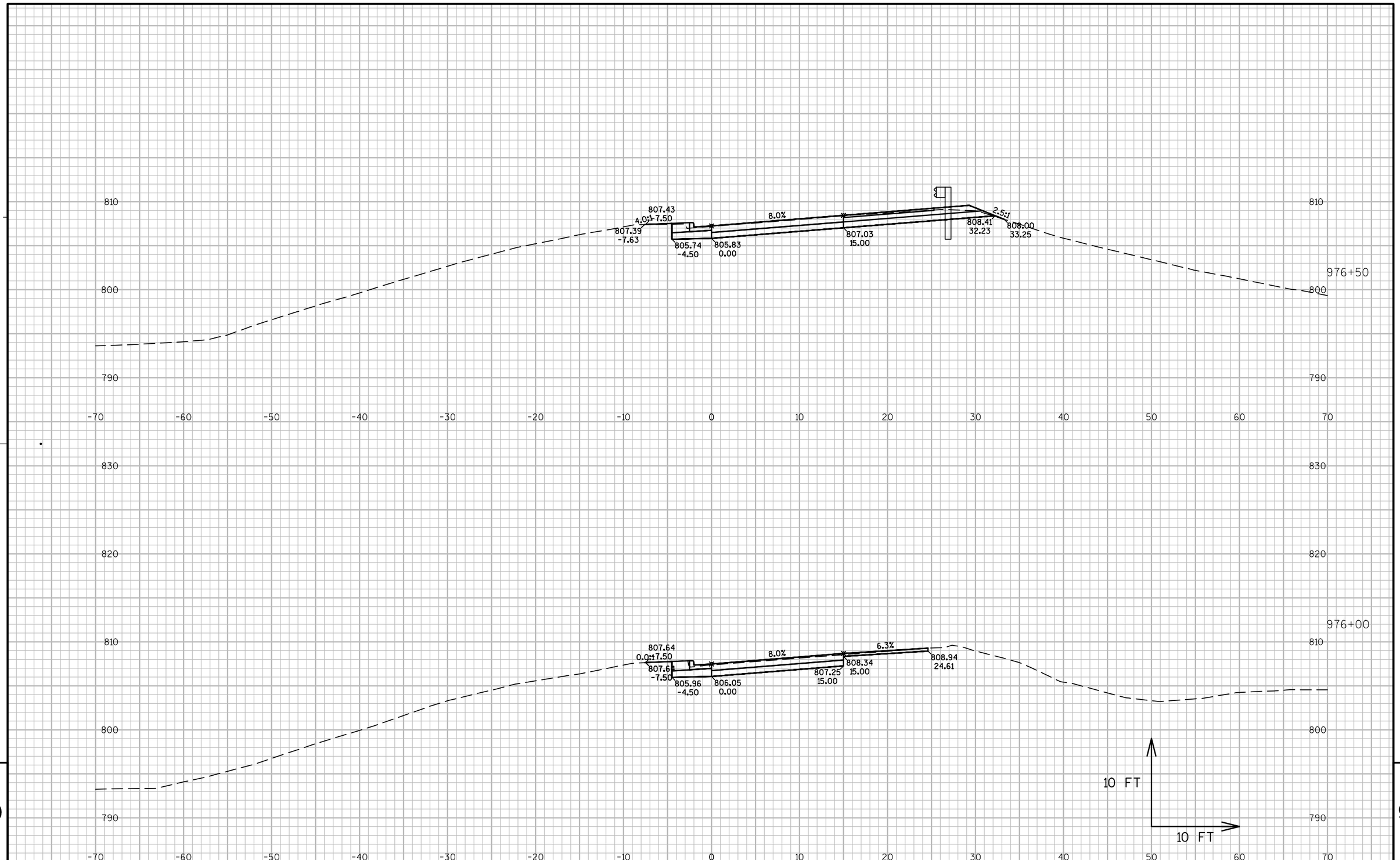
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PROJECT NO: 1010-02-85	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: RAMP J	SHEET 421	E

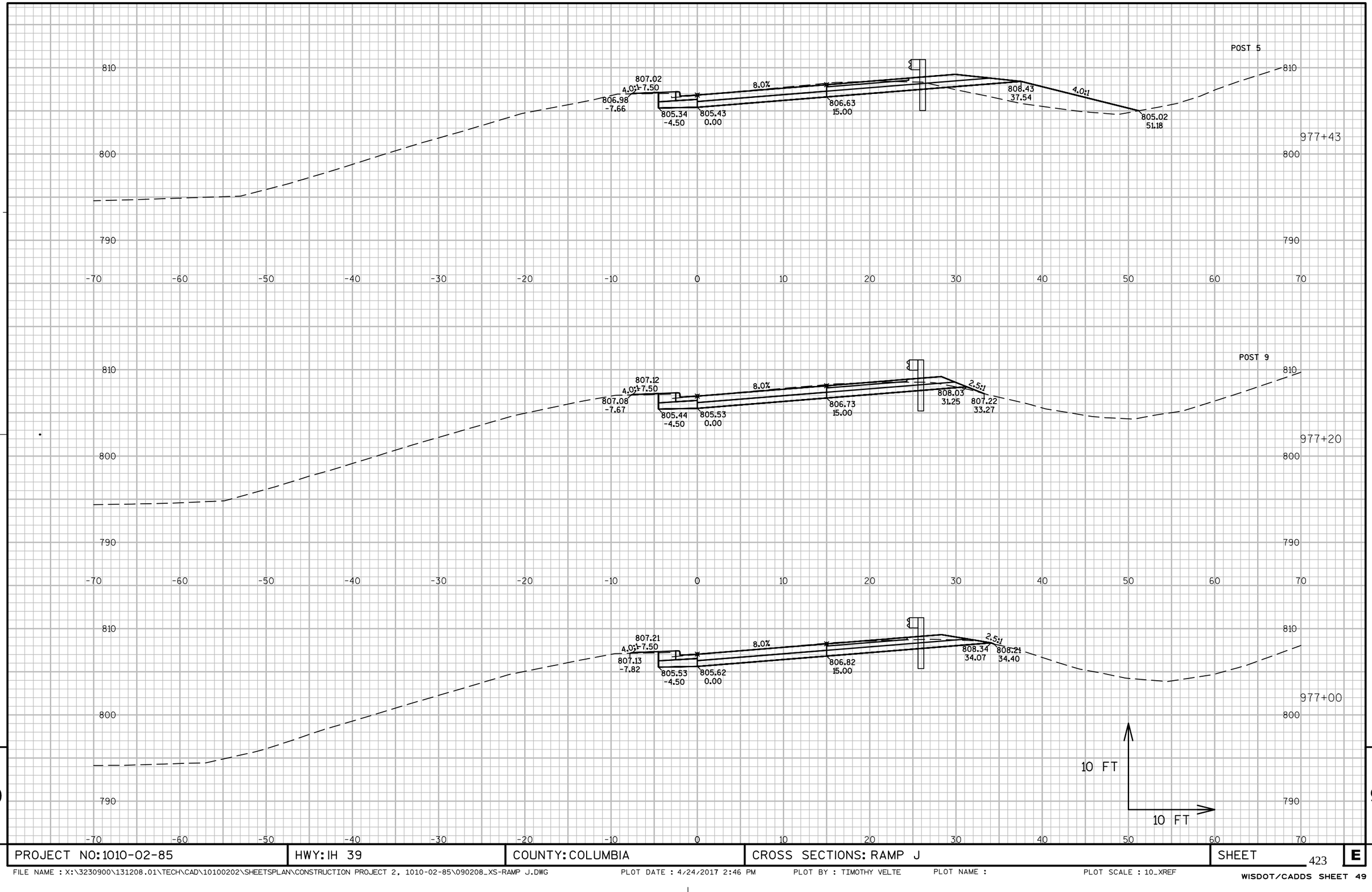
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PROJECT NO: 1010-02-85	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: RAMP J	SHEET 422	E

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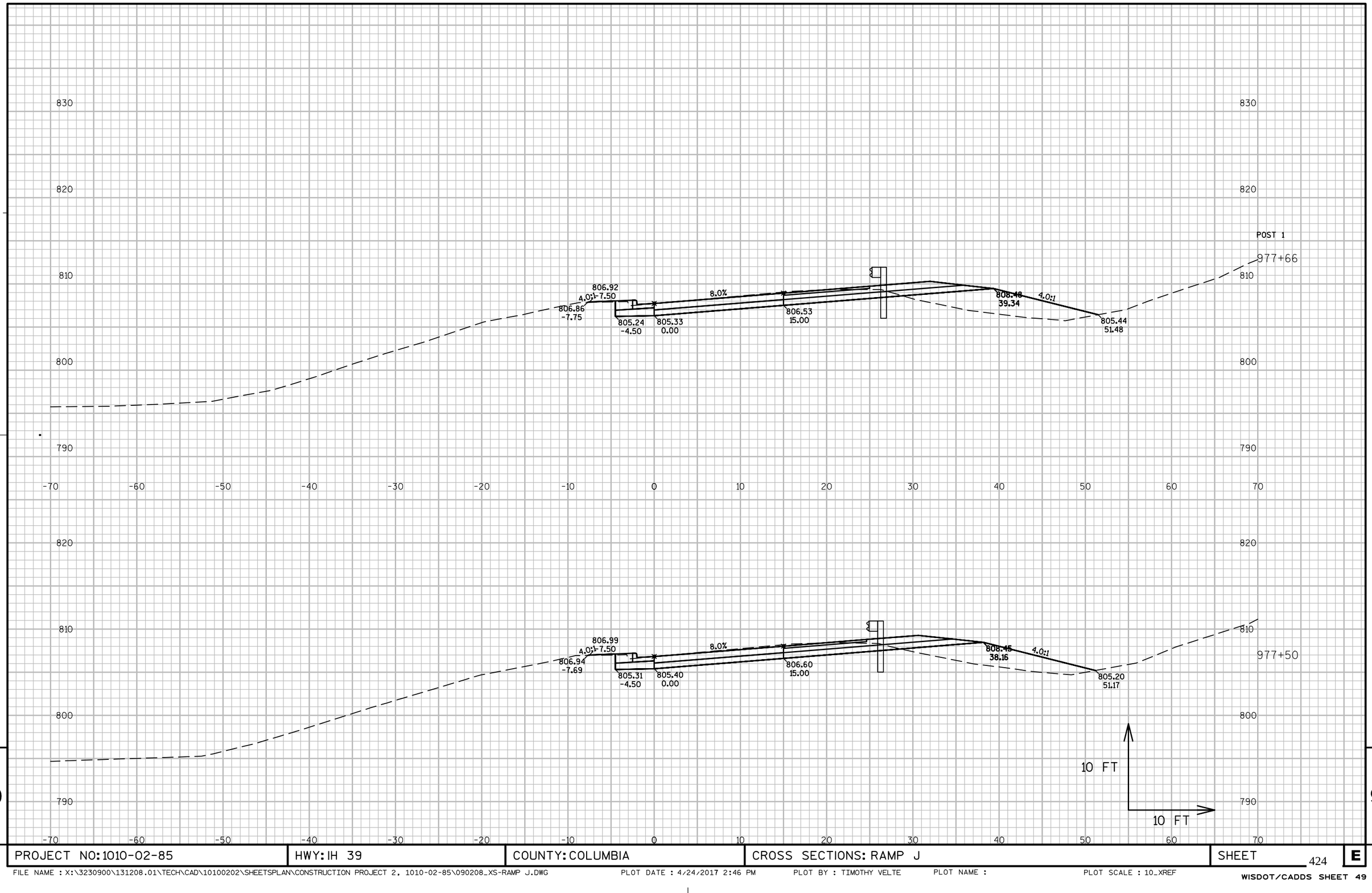
WISDOT/CADDS SHEET 49



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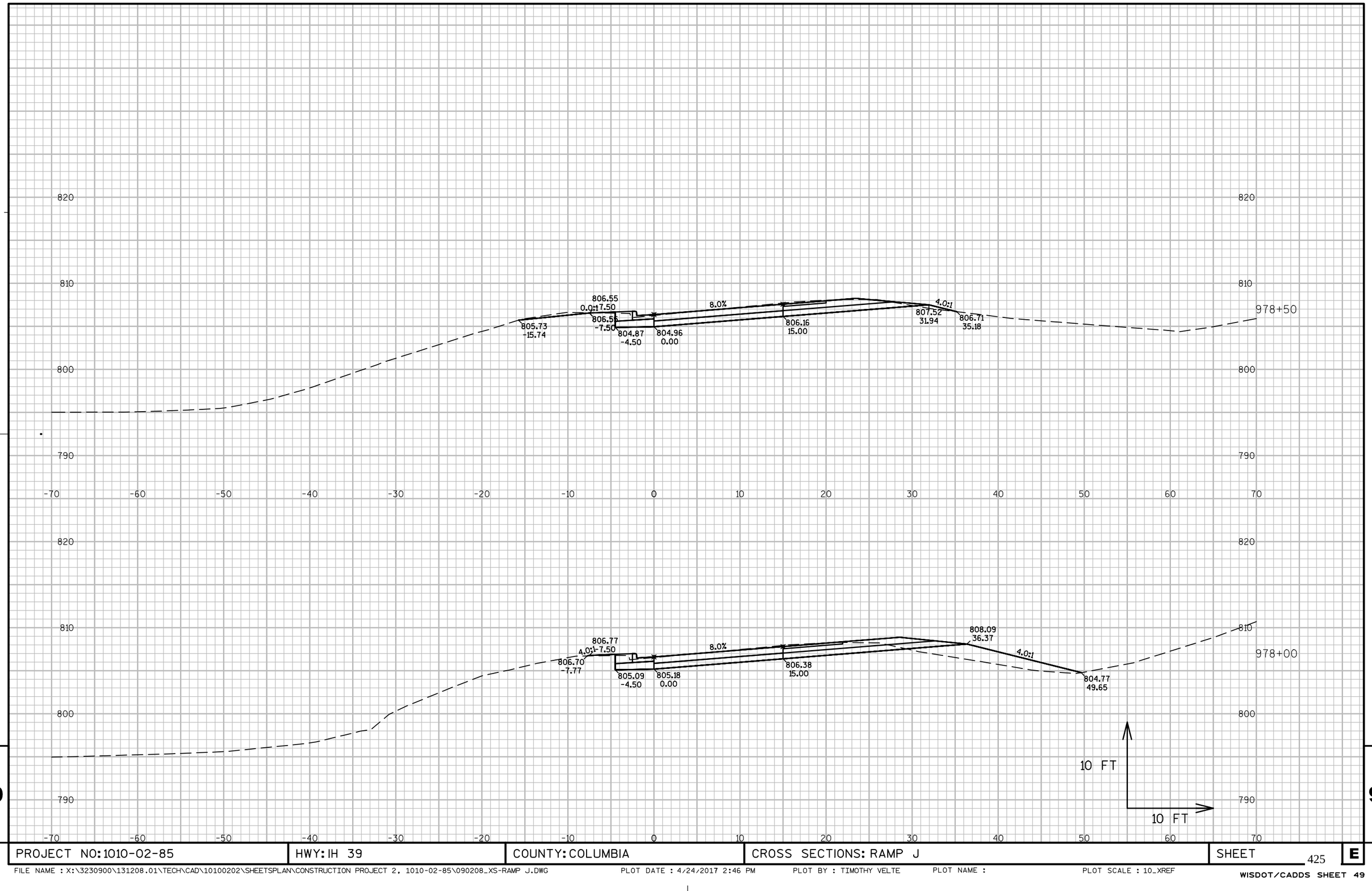
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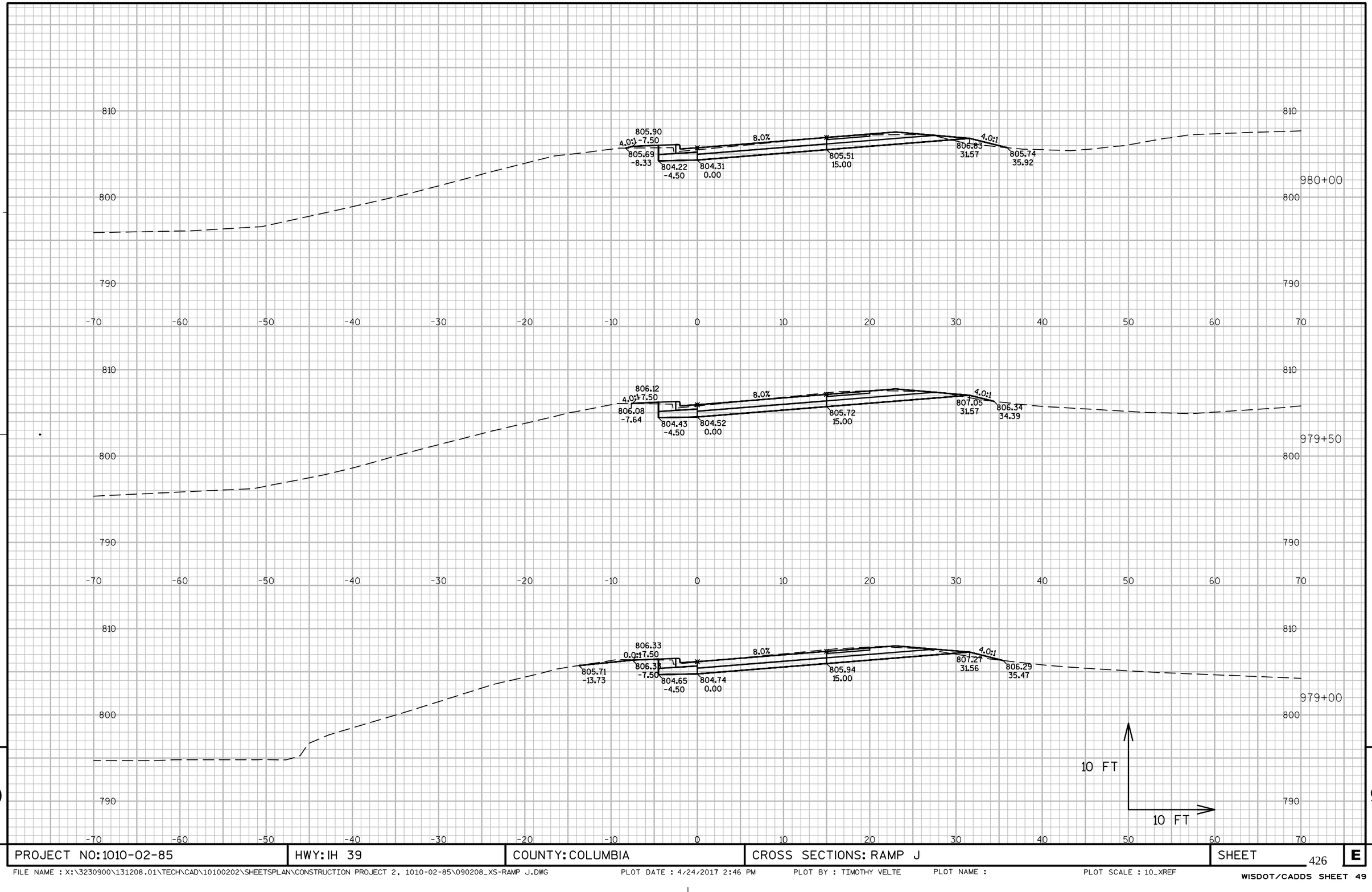
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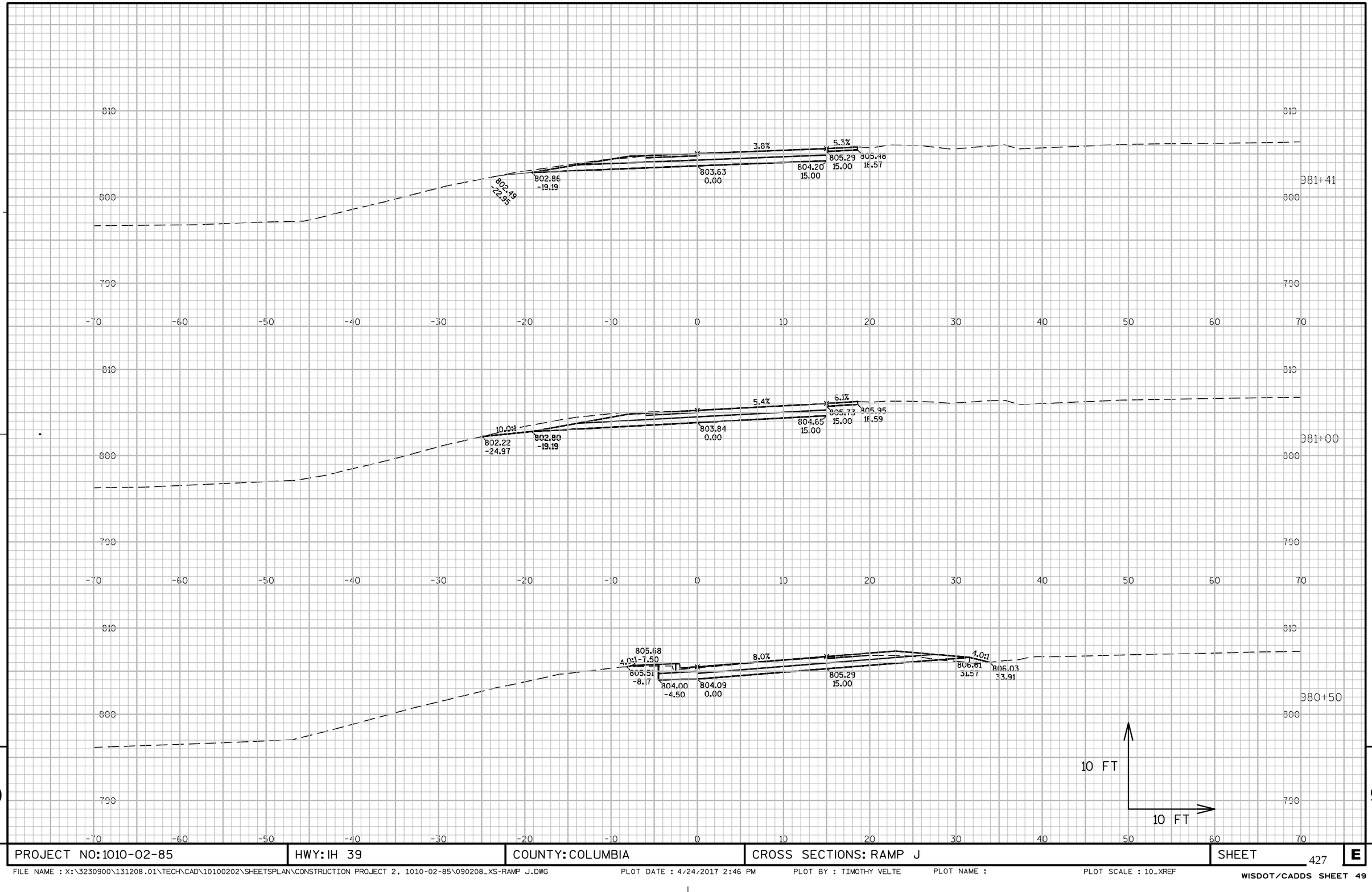
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WISDOT/CADDS SHEET 49



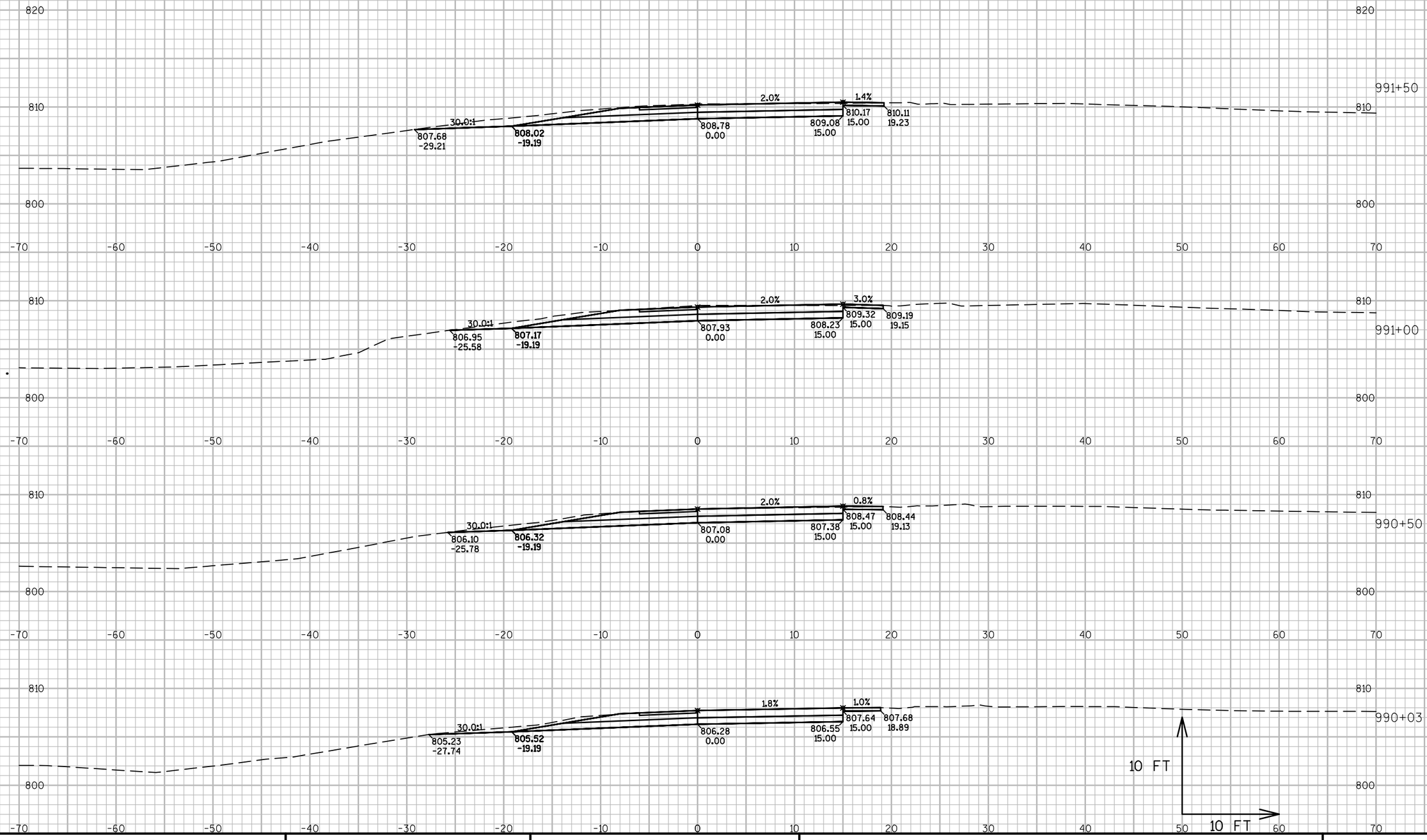
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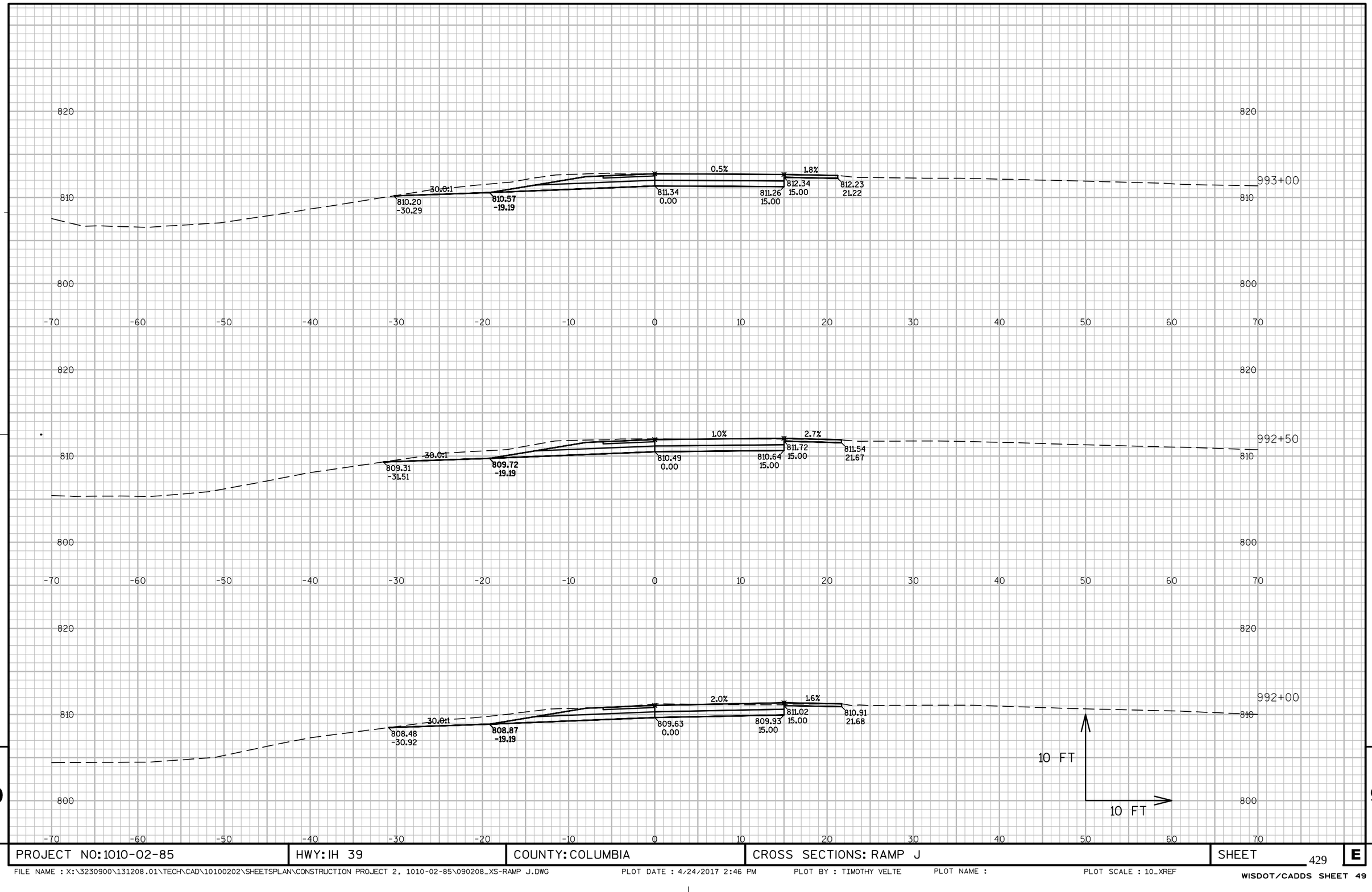
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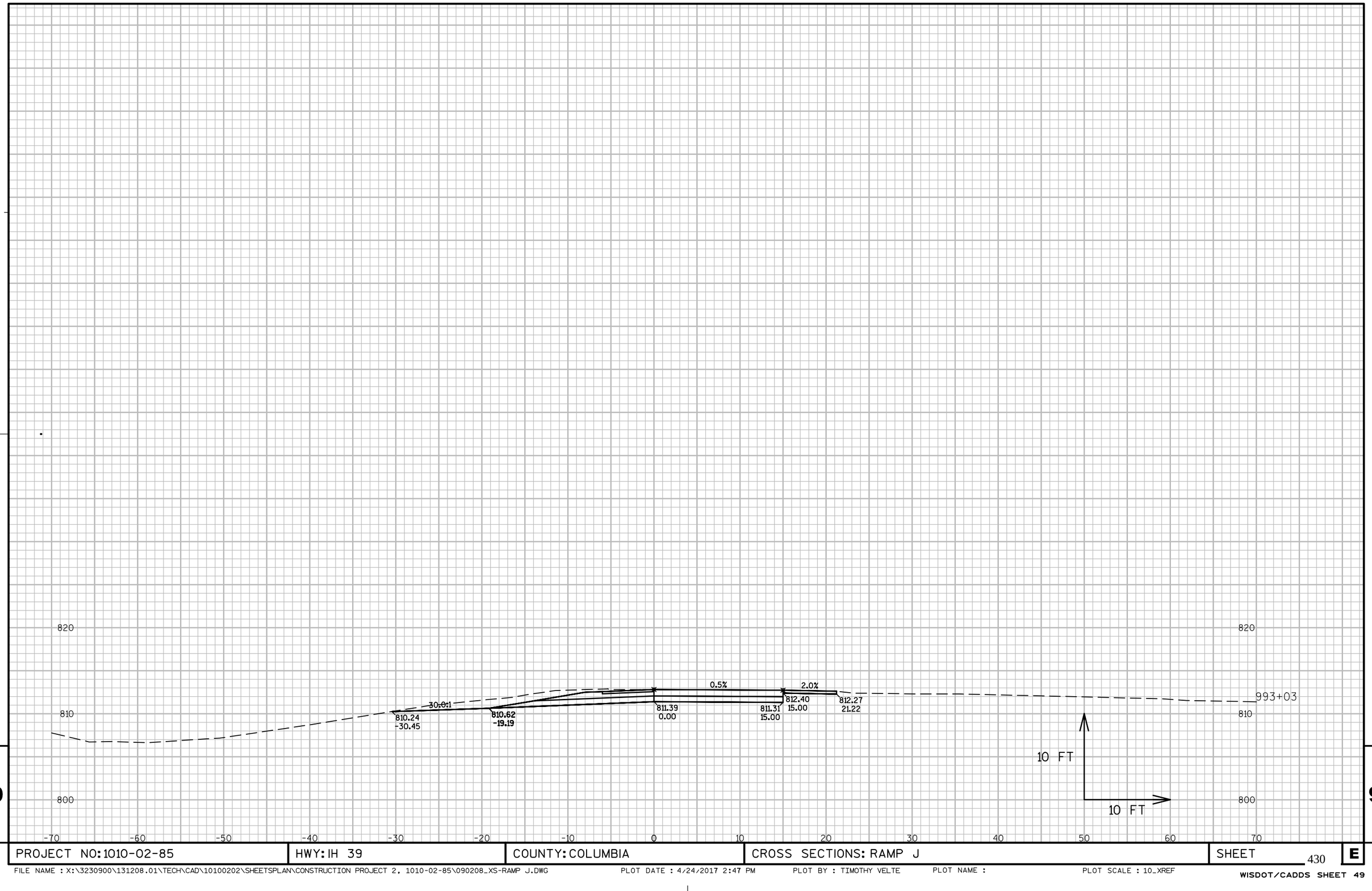
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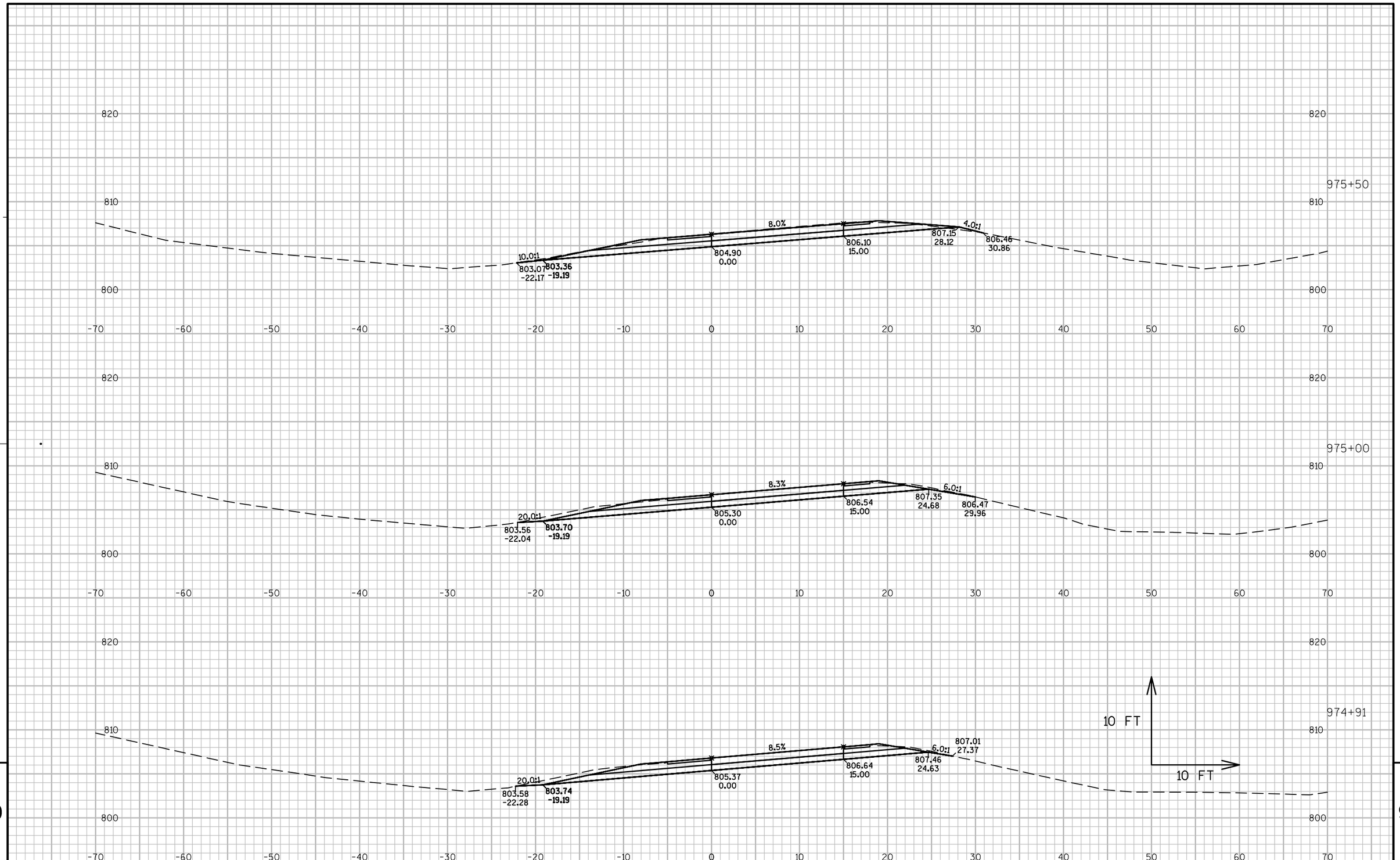
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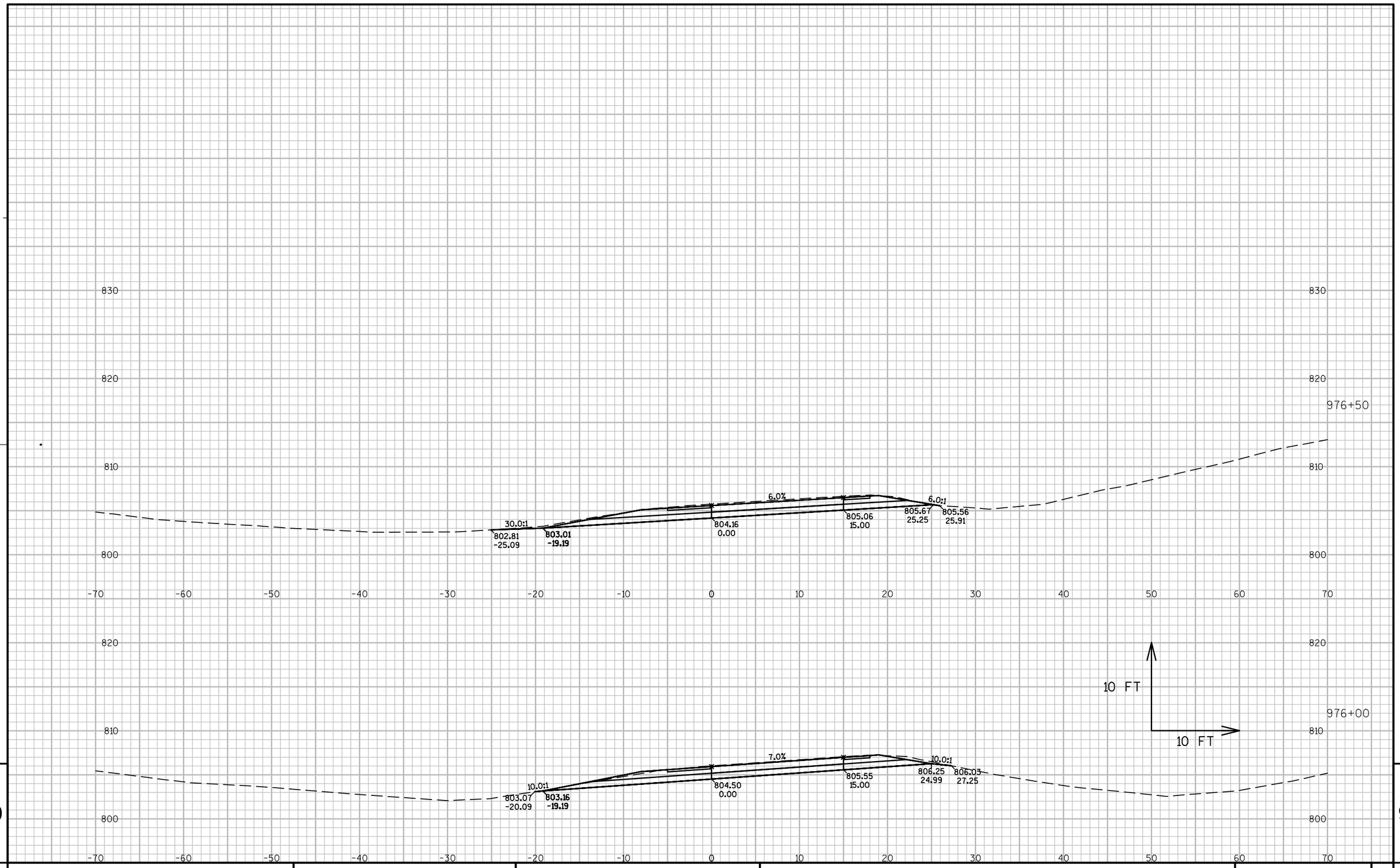
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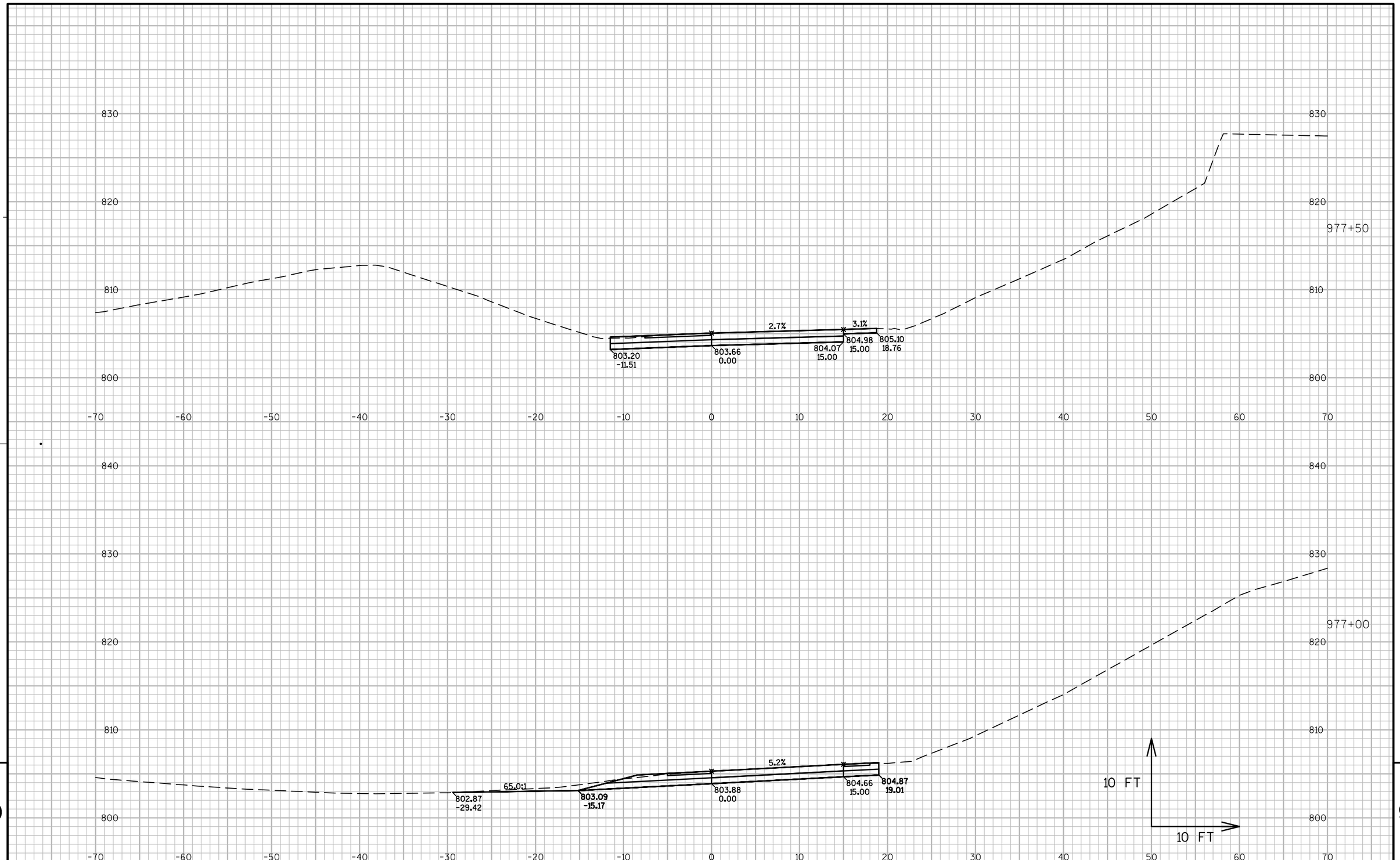
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WISDOT/CADDS SHEET 49



PROJECT NO: 1010-02-85	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: RAMP K	SHEET 432	E

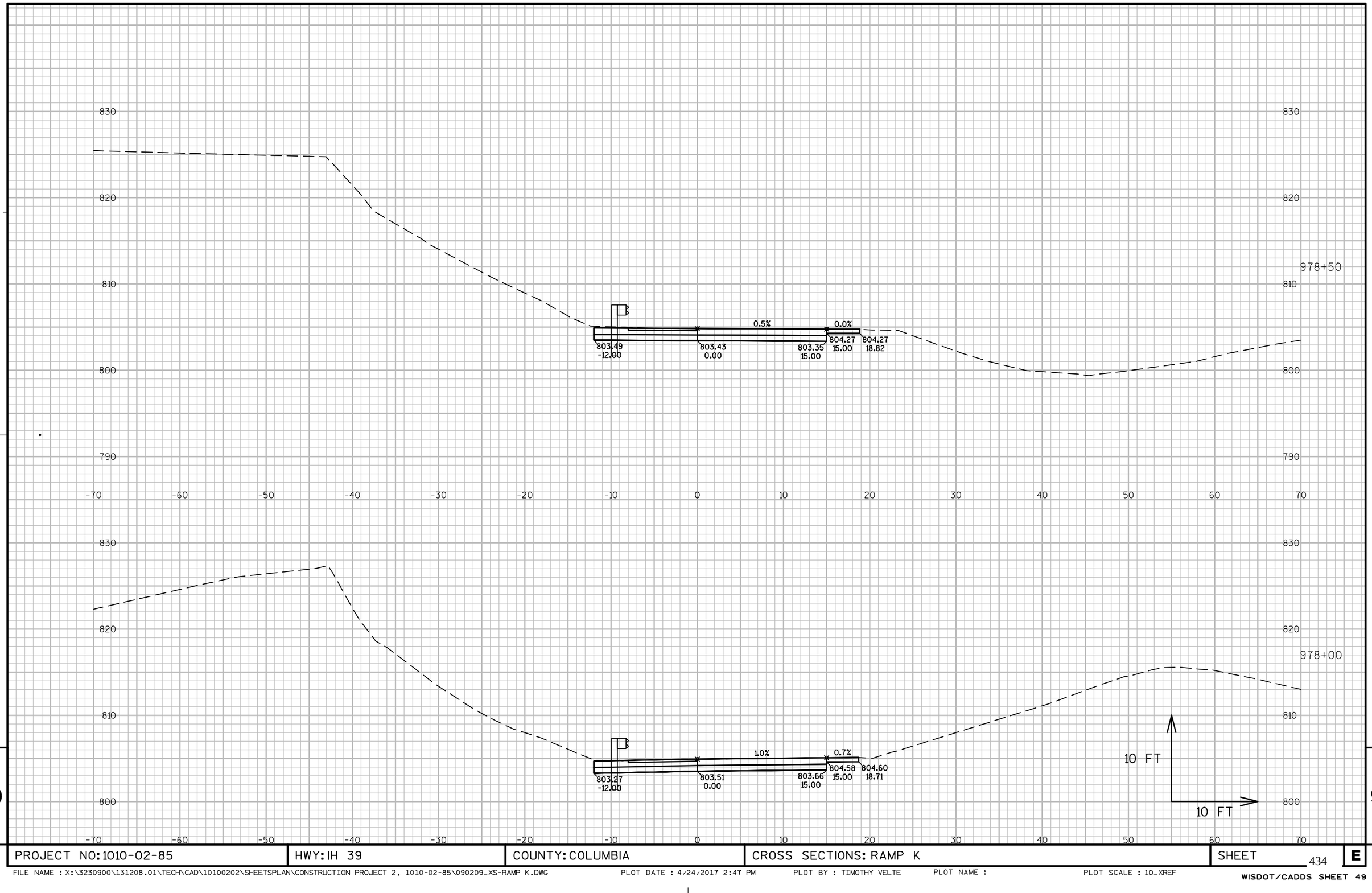
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PROJECT NO: 1010-02-85	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: RAMP K	SHEET 433 E

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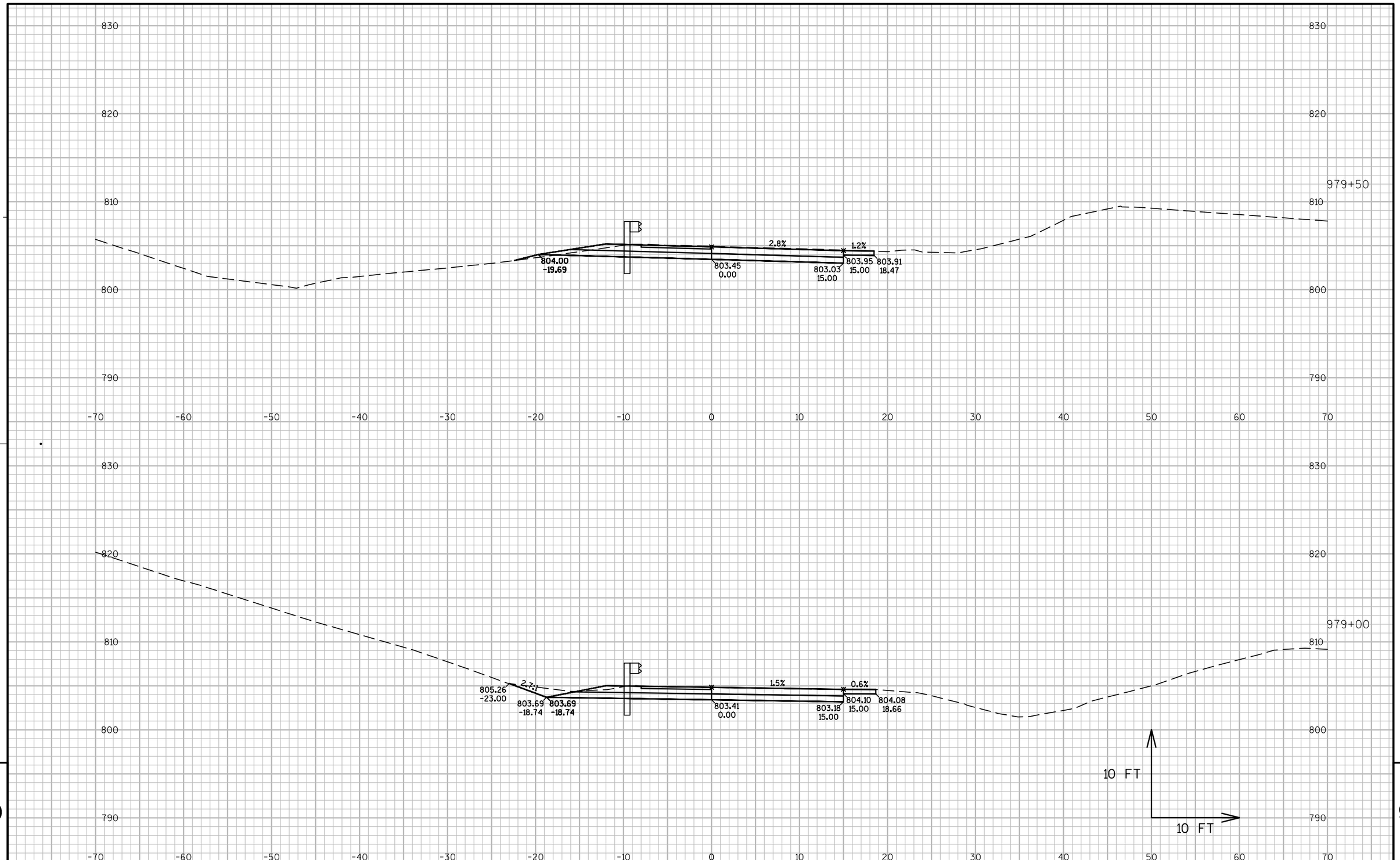
WISDOT/CADDS SHEET 49



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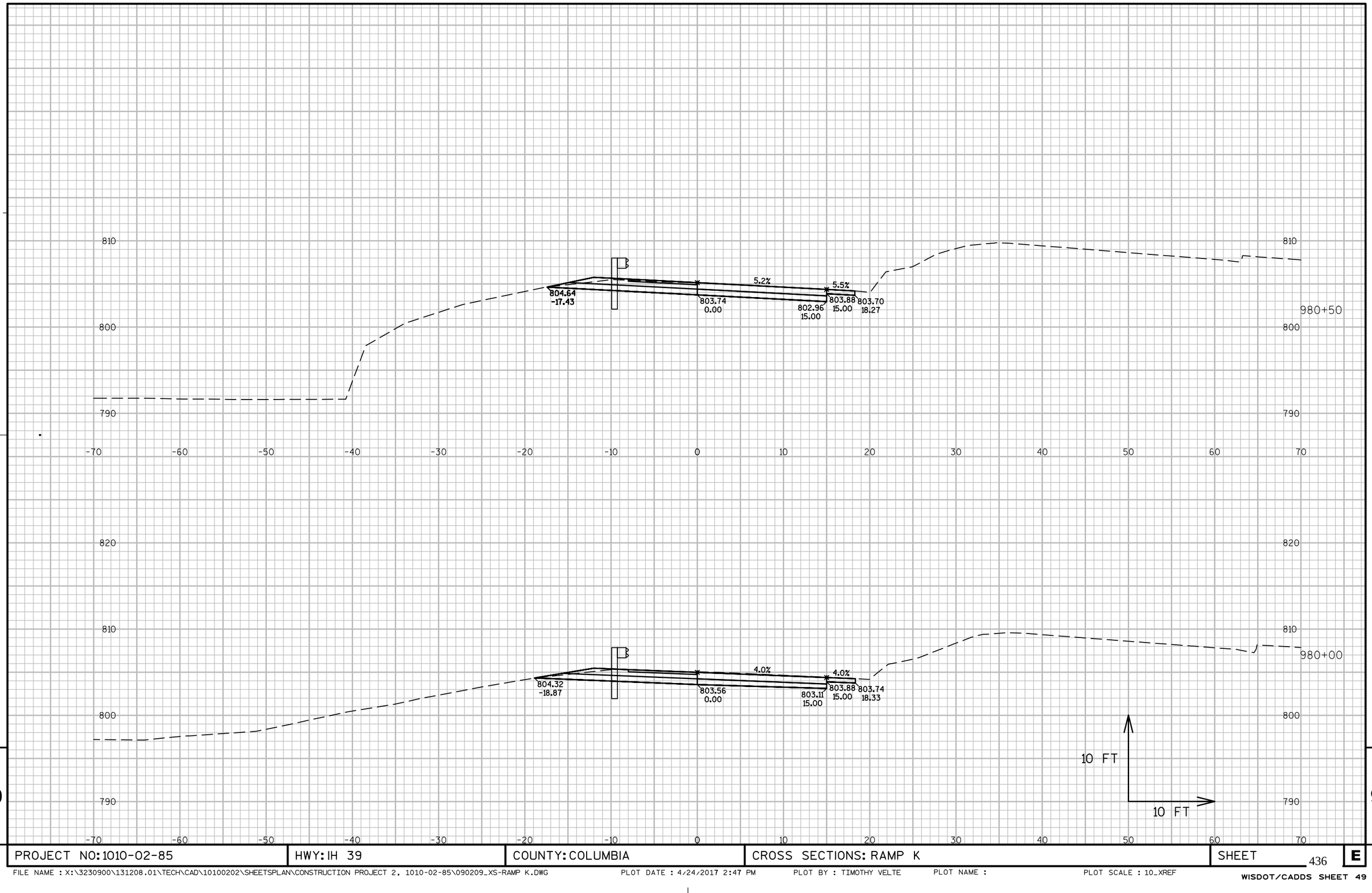
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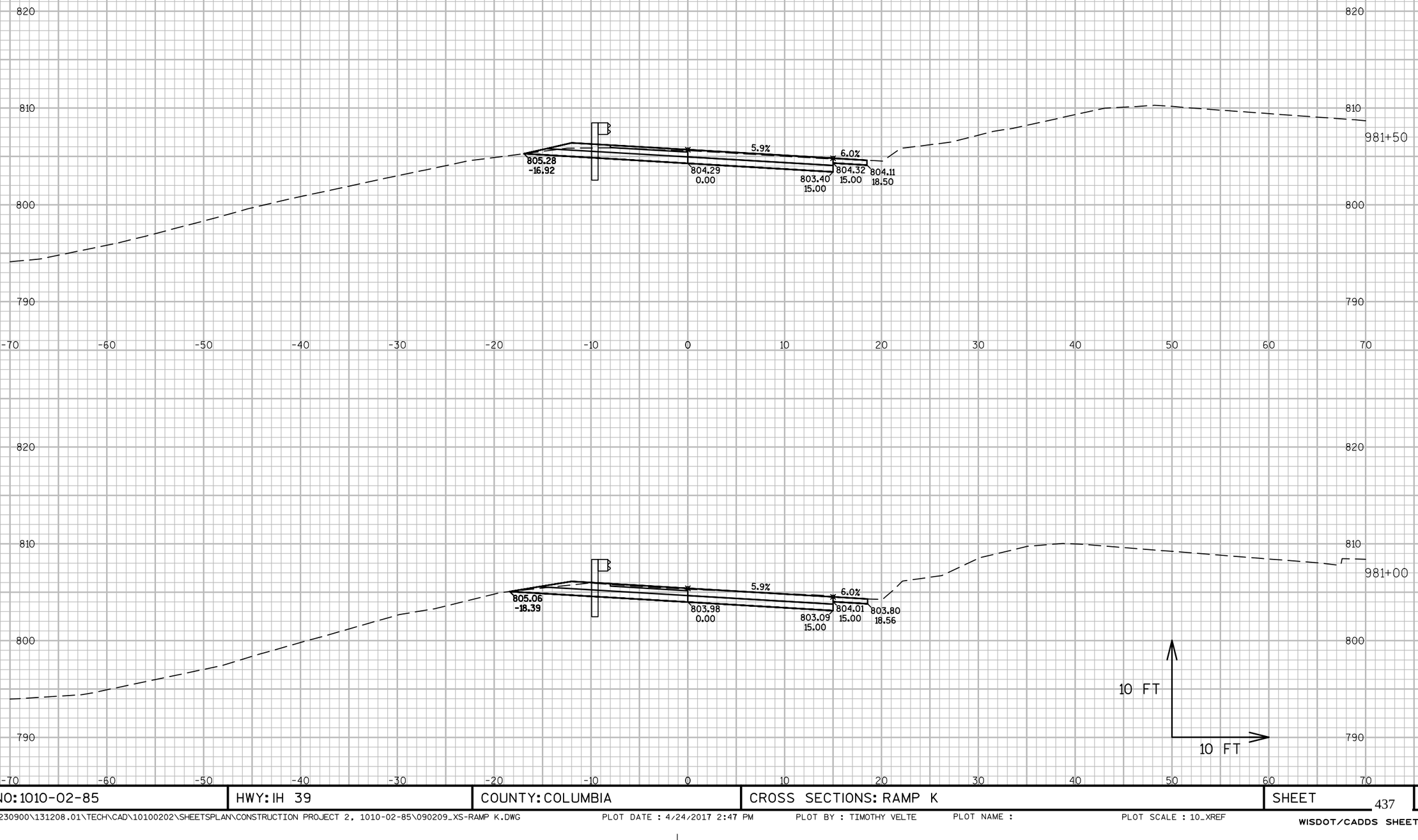
WISDOT/CADDS SHEET 49



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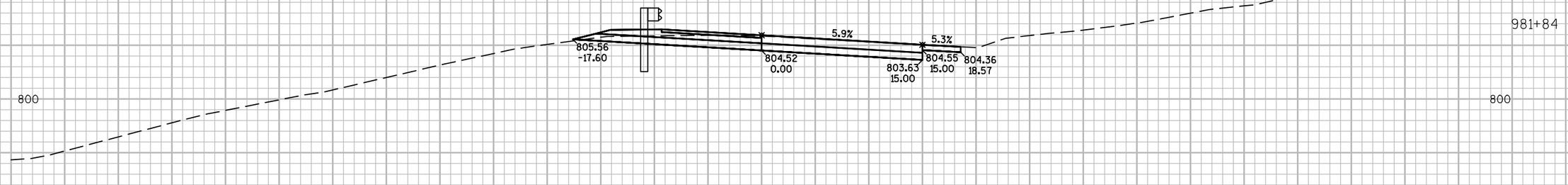
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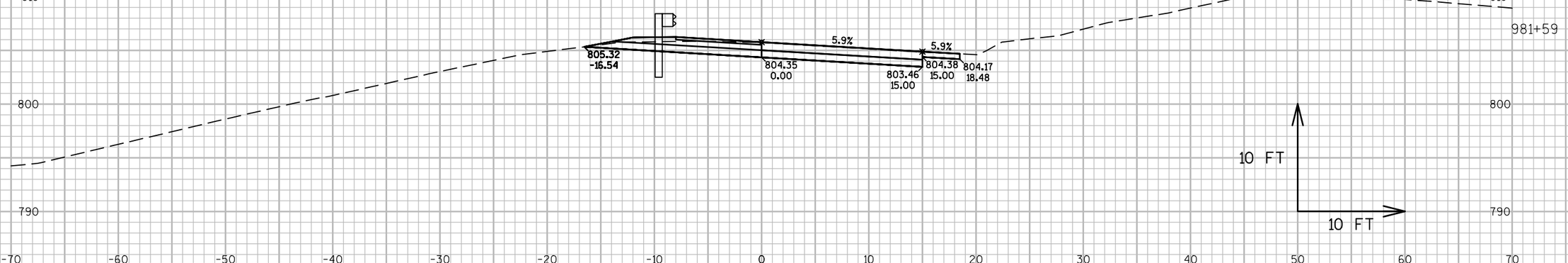


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POST 5



POST 9



9

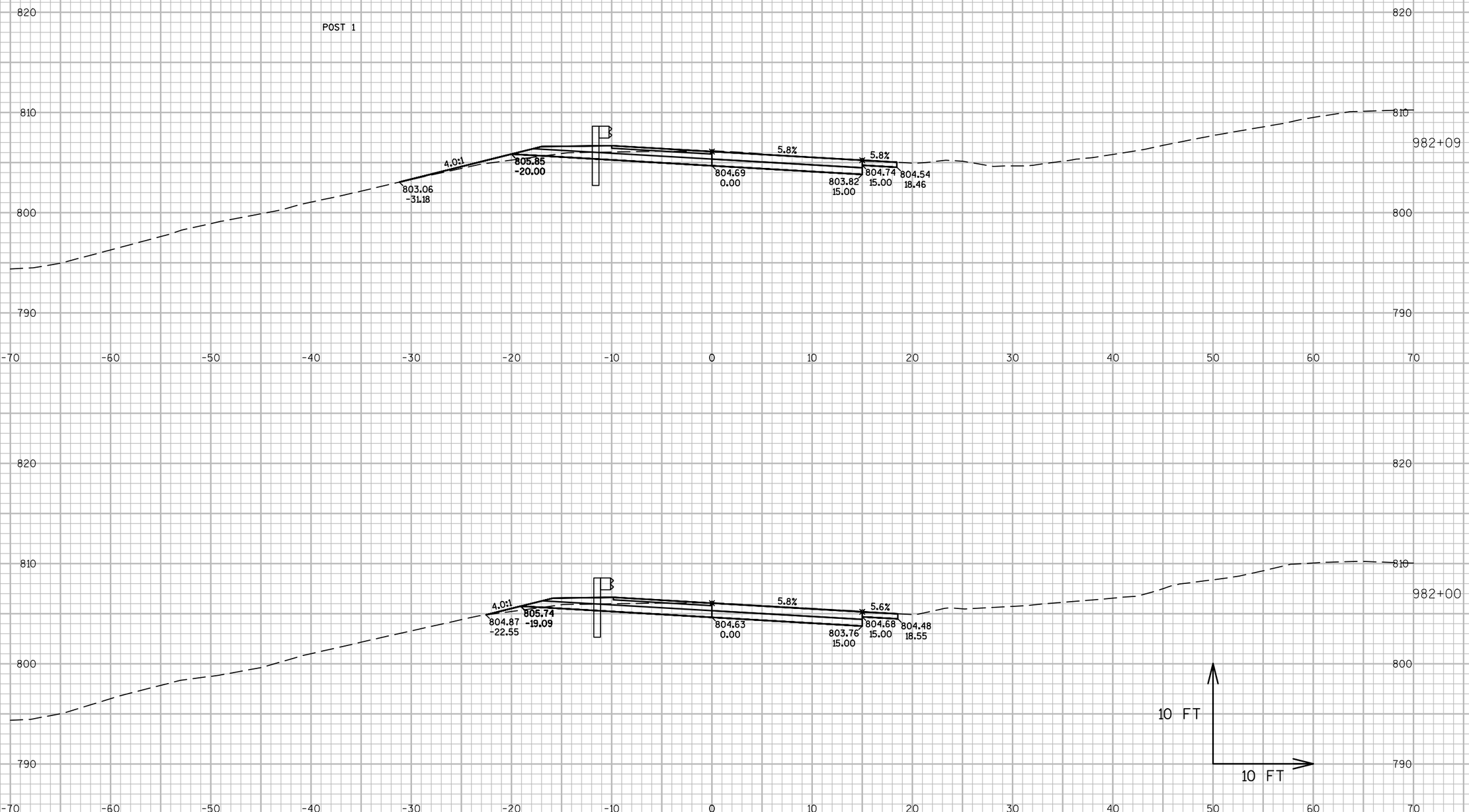
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WISDOT/CADDS SHEET 49

POST 1



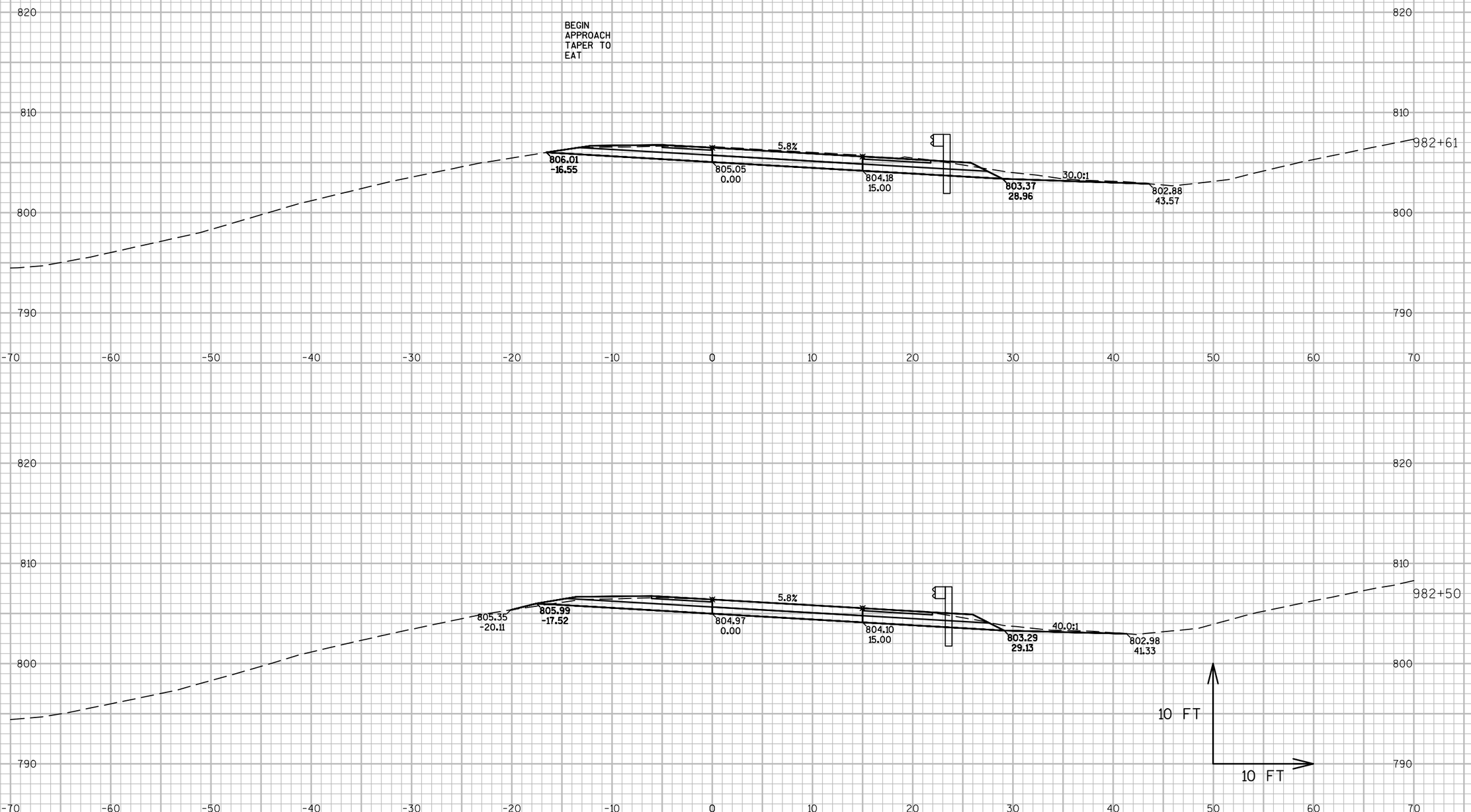
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PROJECT NO: 1010-02-85	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: RAMP K	SHEET 439	E

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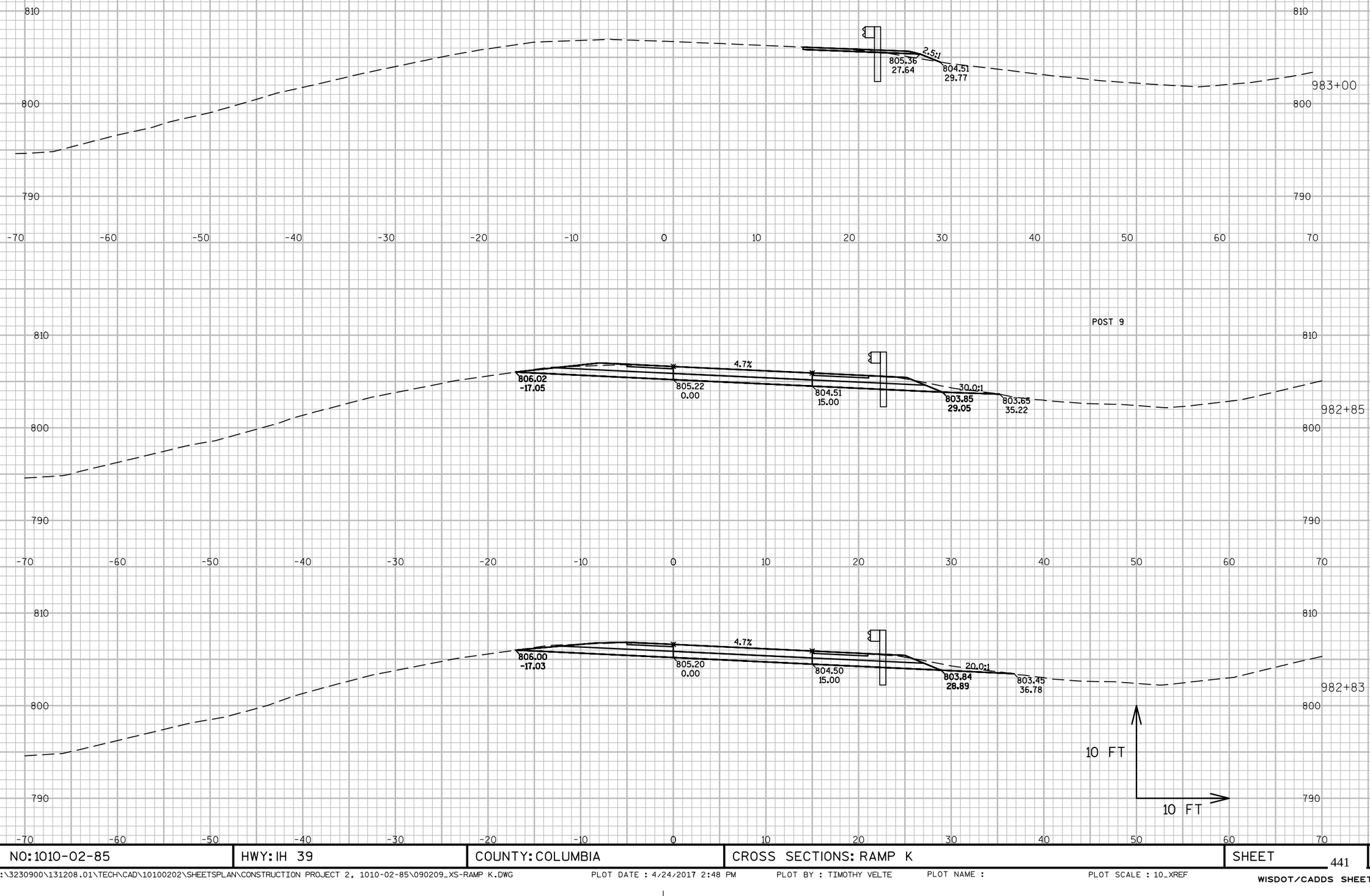
WISDOT/CADDS SHEET 49



PROJECT NO: 1010-02-85	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: RAMP K	SHEET 440	E

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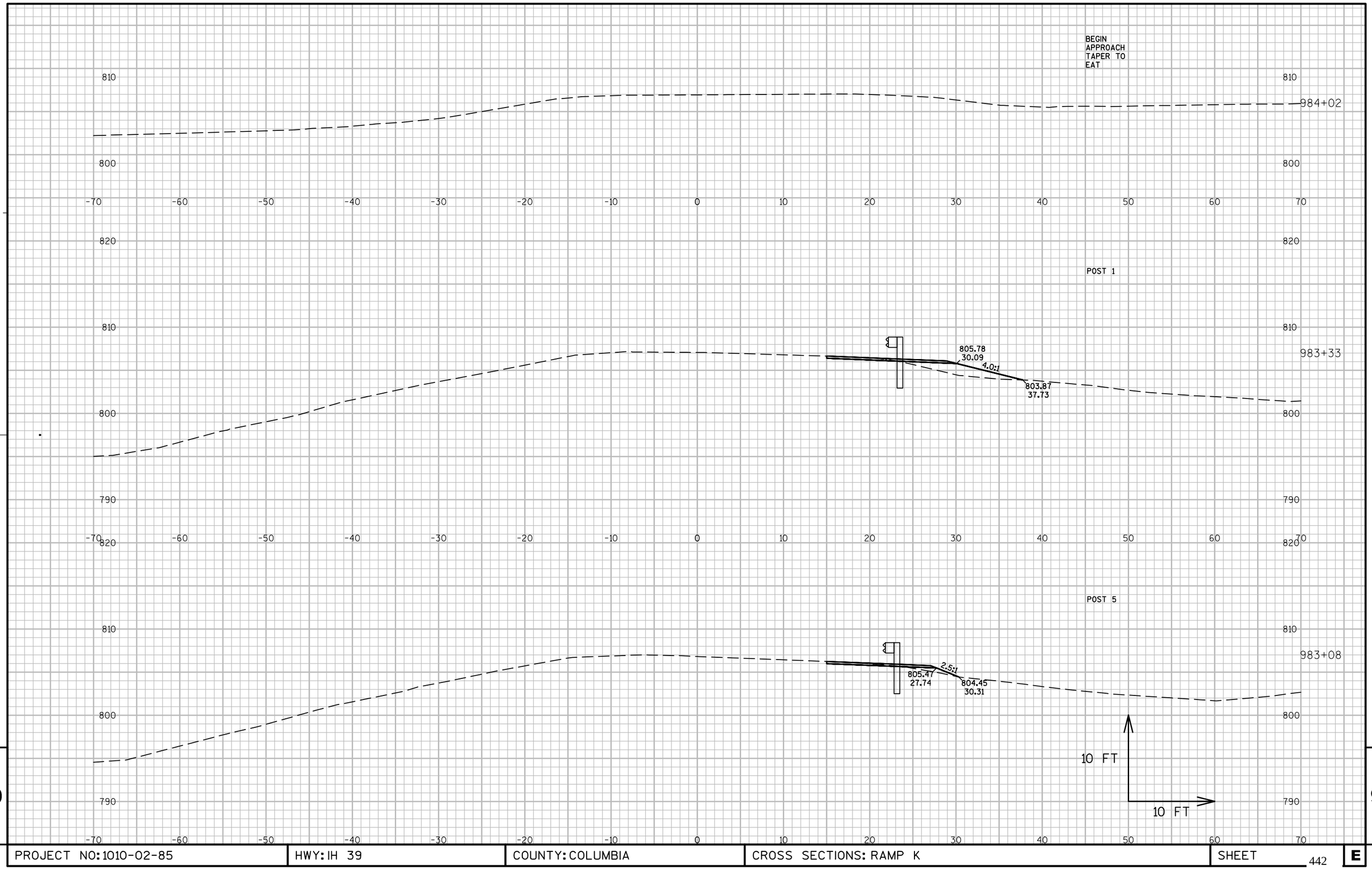
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PROJECT NO: 1010-02-85	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: RAMP K	SHEET 441	E

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WISDOT/CADDS SHEET 49



9

PROJECT NO: 1010-02-85	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: RAMP K	SHEET 442	E

Notes

Wisconsin Department of Transportation

Dedicated people creating transportation solutions
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