MAD NOV 2016

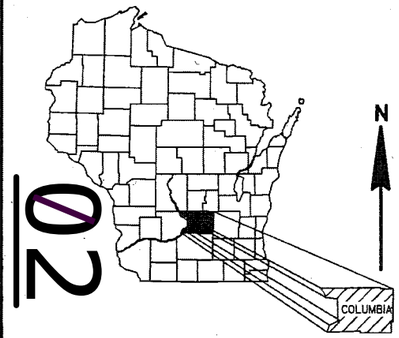
PROJECT ID: 1010-02-84

COUNTY: COLUMBIA

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 = 700



DESIGN DESIGNATION

A.A.D.T.	(2015)	= 63,000
A.A.D.T.	(2035)	= 72,500
D.H.V.		= 12.6%
D.D.		= 58/42
T.		= 21%
DESIGN SPEED		= 70 MPH
ESALS		= 23,000,000

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

MADISON - PORTAGE

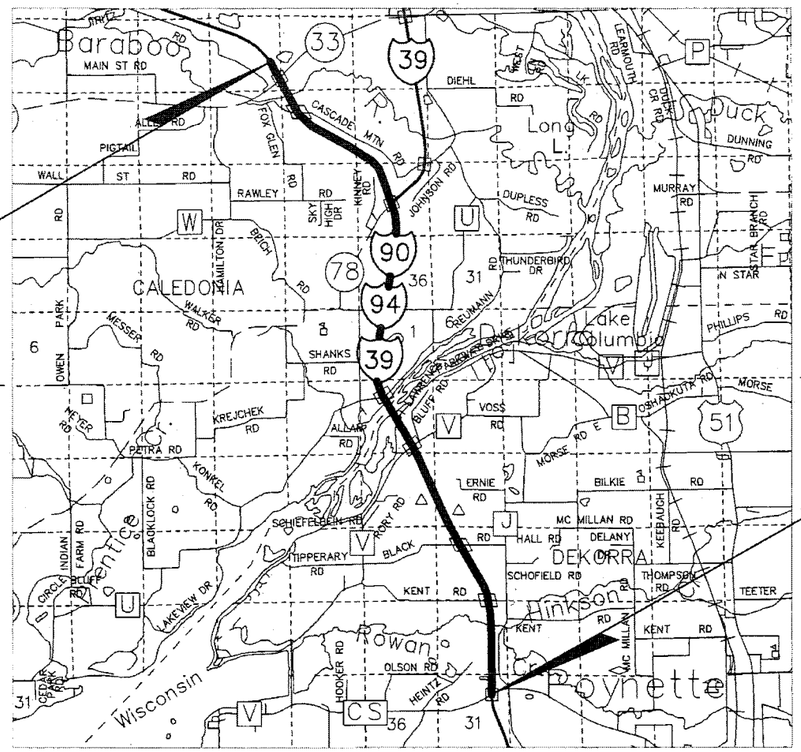
(CTH CS - PORTAGE INTERCHANGE)

IH 39

COLUMBIA COUNTY

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
1010-02-84	WISC 2016338	1

STATE PROJECT NUMBER
1010-02-84



LAYOUT
SCALE 0 2MI

BEGIN PROJECT 1010-02-84
STA 830+00.00SB
Y = 386,870.762
X = 518,941.572

END PROJECT 1010-02-84
STA 1344+69.55 SB

TOTAL NET LENGTH OF CENTERLINE = 9.748 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)

ORIGINAL PLANS PREPARED BY

Mead & Hunt
Mead & Hunt, Inc.
2440 Deming Way
Middleton, WI 53562
608.273.6380
fax: 608.273.6391
www.meadhunt.com

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

4/5/2016

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY	
Surveyor	MEAD & HUNT
Designer	MEAD & HUNT
Project Manager	MATTHEW DAPP
Regional Examiner	
Regional Supervisor	WILLIAM STROBEL
C.O. EXAMINER	JANE ENGLEBRETSEN

APPROVED FOR THE DEPARTMENT
DATE: 4/13/2016 Matthew 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.

PLACE 5" BASE PATCHING ASPHALT IN ONE 5" LAYER.

WHERE LISTED IN THE PLANS, HMA PAVEMENT OR HMA PAVEMENT 4 HT 58-28 S REFER TO BID ITEM HMA PAVEMENT 4 HT 58-28 S 3.0% Va REGRESSION SPECIAL

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

PAVEMENT THICKNESS (INCH)	LOWER (INCH)	UPPER (INCH)
3.5	1.75	1.75
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.

THE STRUCTURE ATTACHMENTS AT EXISTING STRUCTURES SHALL BE CONSIDERED INCIDENTAL TO THE ITEM OF MGS THRIE BEAM TRANSITION.

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 SEEDED AND E-MATTED AS DIRECTED BY THE ENGINEER.

THE CONTRACTOR WILL BE RESPONSIBLE FOR SEEDING 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 SIGNS AND DEVICES, AS SHOWN IN THE PLANS SHALL BE ADJUSTED TO FIT FIELD CONDITIONS.

ORDER OF SECTION 2 SHEETS

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

OTHER CONTACTS

CONSULTANT CONTACT

MEAD & HUNT, INC.

2440 DEMING WAY
MIDDLETON, WI 53562

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DNR LIAISON

DEPARTMENT OF NATURAL RESOURCES SOUTH CENTRAL HQ

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FITCHBURG, WI 53711

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

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TELEPHONE: 608-796-5543
E-MAIL: steve.blado@centurytel.com

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920-219-0112 MOBILE
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COMMUNICATION

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2701 DANIELS STREET
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E-MAIL: brandon.storm@charter.com

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E-MAIL: harlow.jarvis@charter.com

AT&T LEGACY
COMMUNICATION

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866 ROCK CREEK ROAD
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TELEPHONE: 815-833-2054
E-MAIL: cdonahue@att.com

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TELEPHONE: 608-628-0575
E-MAIL: wekornig@att.net

WISCONSIN DEPARTMENT OF TRANSPORTATION
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MILWAUKEE, WI 53203

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E-MAIL: Jeffery.Madson@dot.wi.gov

NORTHERN NATURAL GAS COMPANY
GAS

ATTN: TOM DICKSON
1120 CENTRE POINT DR.
MENDOTA HEIGHTS, MN 55120

TELEPHONE: 651-456-1777
E-MAIL: tom.dickson@nngco.com

ALLIANT ENERGY
ELECTRICITY/GAS

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MADISON, WI 53718

TELEPHONE: 608-458-4871
E-MAIL: jasonhogan@alliantenergy.com

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608-963-3644 MOBILE
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FRONTIER COMMUNICATIONS OF WI LLC
COMMUNICATION

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PORTAGE, WI 53901

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E-MAIL: robert.church@ftr.com

CONSTRUCTION FIELD CONTACT

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PORTAGE, WI 53920

TELEPHONE:
608-742-9507 OFFICE
608-346-0353 MOBILE
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DEKORRA UTILITY DISTRICT 1
SEWER

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

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

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

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MADISON, WI 53718

TELEPHONE:
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608-438-7670 MOBILE
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COMMUNICATIONS

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327 PALLISADES STREET
MERRIMAC, WI 53561

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E-MAIL: kolson@merr.com

CONSTRUCTION FIELD CONTACT

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608-370-1608 MOBILE
E-MAIL: brandon.suchla3@gmail.com

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

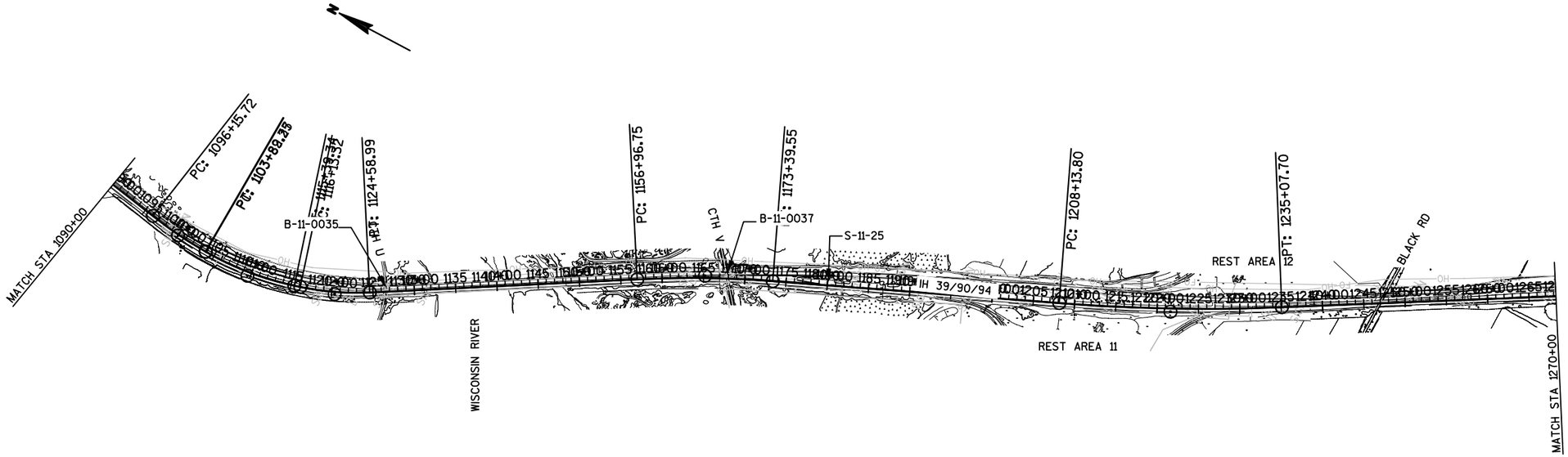
STANDARD ABBREVIATIONS

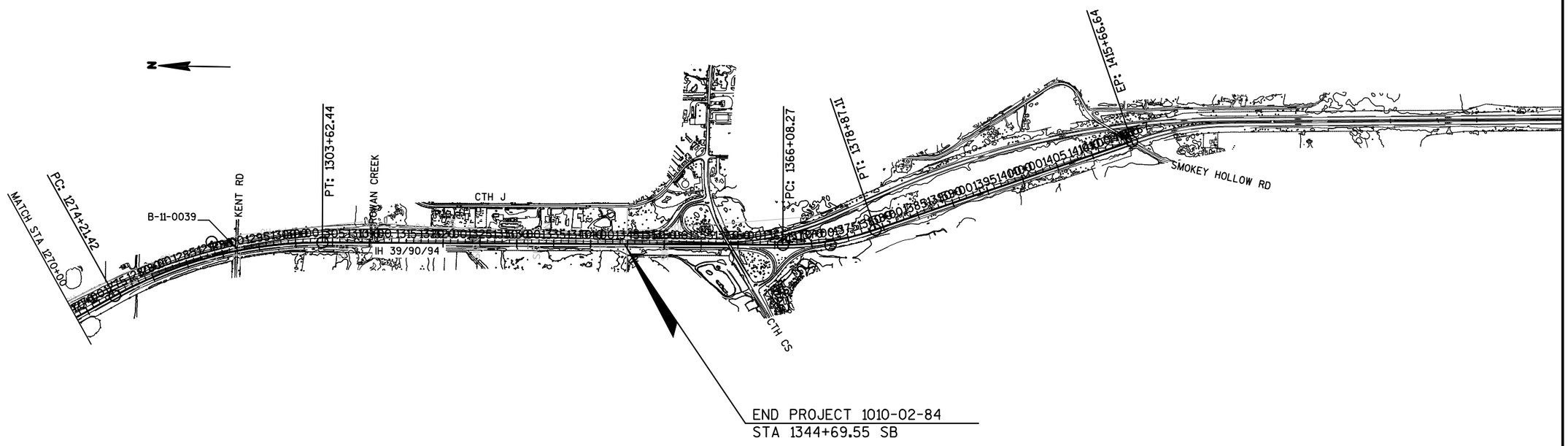
ABUT	ABUTMENT
AP	ACCESS POINT
AR	ACCESS RIGHTS
AC	ACRE
AGG	AGGREGATE
AH	AHEAD
ET AL	AND OTHERS
∠	ANGLE
ASPH	ASPHALTIC
APM	ASPHALTIC PLANT MIX
AVG	AVERAGE
AADT	ANNUAL AVERAGE DAILY TRAFFIC
BK	BACK
BF	BACK FACE
BL or B/L	BASE LINE
BM	BENCH MARK
BLK	BLOCK
BR	BRIDGE
CB	CATCH BASIN
CL or C/L	CENTER LINE
CC	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
CMC	CROSS MEDIAN CRASH
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

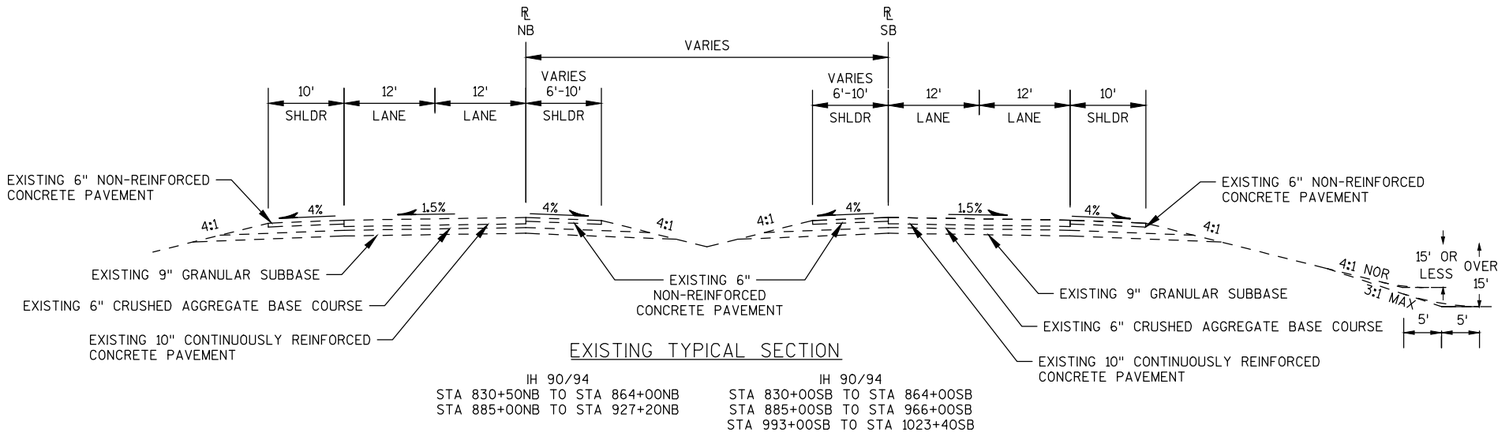


PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	PROJECT OVERVIEW	SHEET 4	E





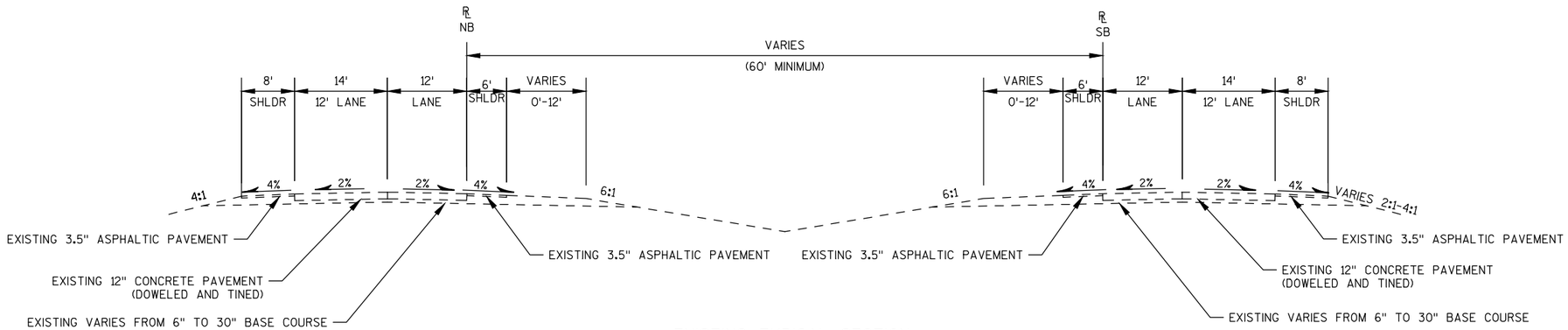
PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	PROJECT OVERVIEW	SHEET 5	E



EXISTING TYPICAL SECTION

IH 90/94
STA 830+50NB TO STA 864+00NB
STA 885+00NB TO STA 927+20NB

IH 90/94
STA 830+00SB TO STA 864+00SB
STA 885+00SB TO STA 966+00SB
STA 993+00SB TO STA 1023+40SB



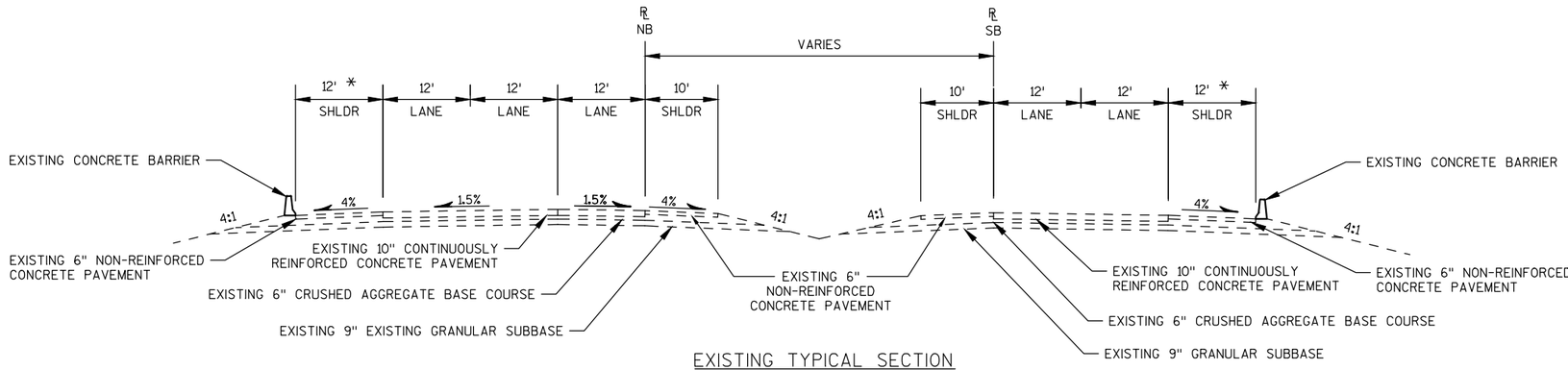
EXISTING TYPICAL SECTION

IH 90/94
STA 864+00NB TO STA 885+00NB

IH 90/94
STA 864+00SB TO STA 885+00SB

PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	TYPICAL SECTIONS	SHEET 6	E

2



EXISTING TYPICAL SECTION

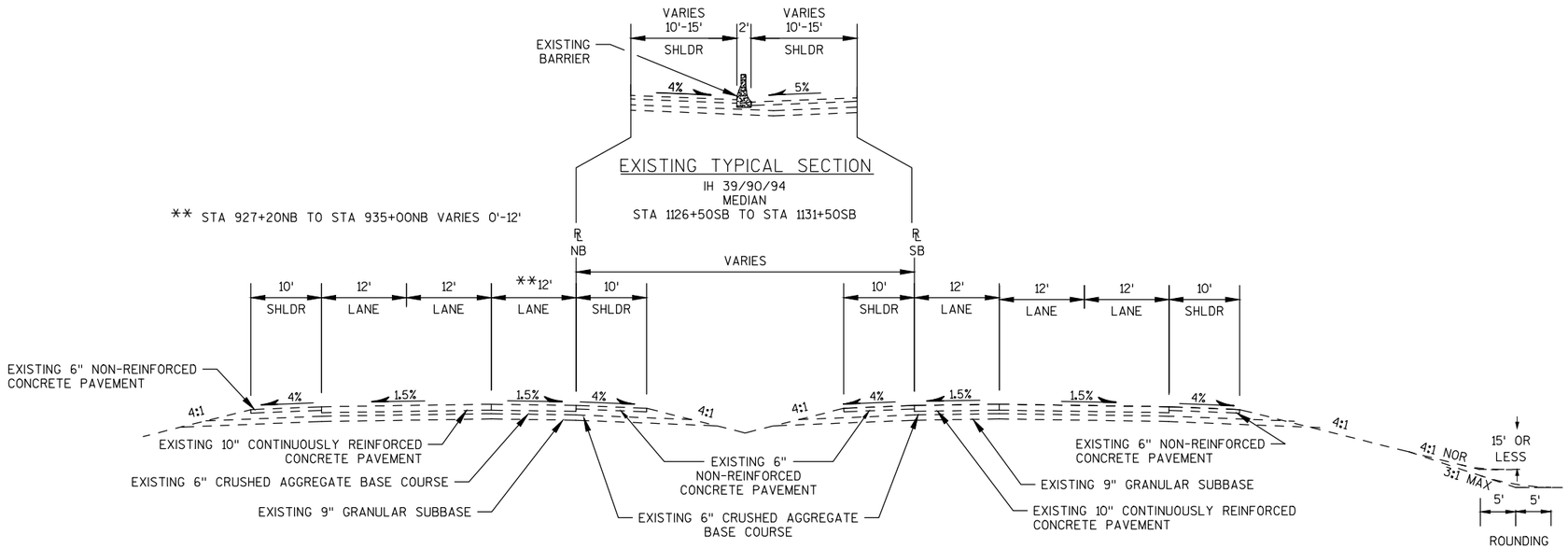
IH 39/90/94
STA 981+00NB TO STA 1009+30NB

IH 39/90/94
STA 966+00SB TO STA 993+00SB

*VARIES AT BARRIER WALL TAPER TRANSITION

PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	TYPICAL SECTIONS	SHEET 7	E

FILE NAME : X:\3230900\131208.01\TECH\CAD\10100202\SHEETSPLAN\CONSTRUCTION PROJECT 1, 1010-02-84\020302_TS-MAINLINE.DWG PLOT DATE : 3/14/2016 1:55 PM PLOT BY : JASON KLEIST PLOT NAME : PLOT SCALE : 1 IN:20 FT
WISDOT/CADDS SHEET 42

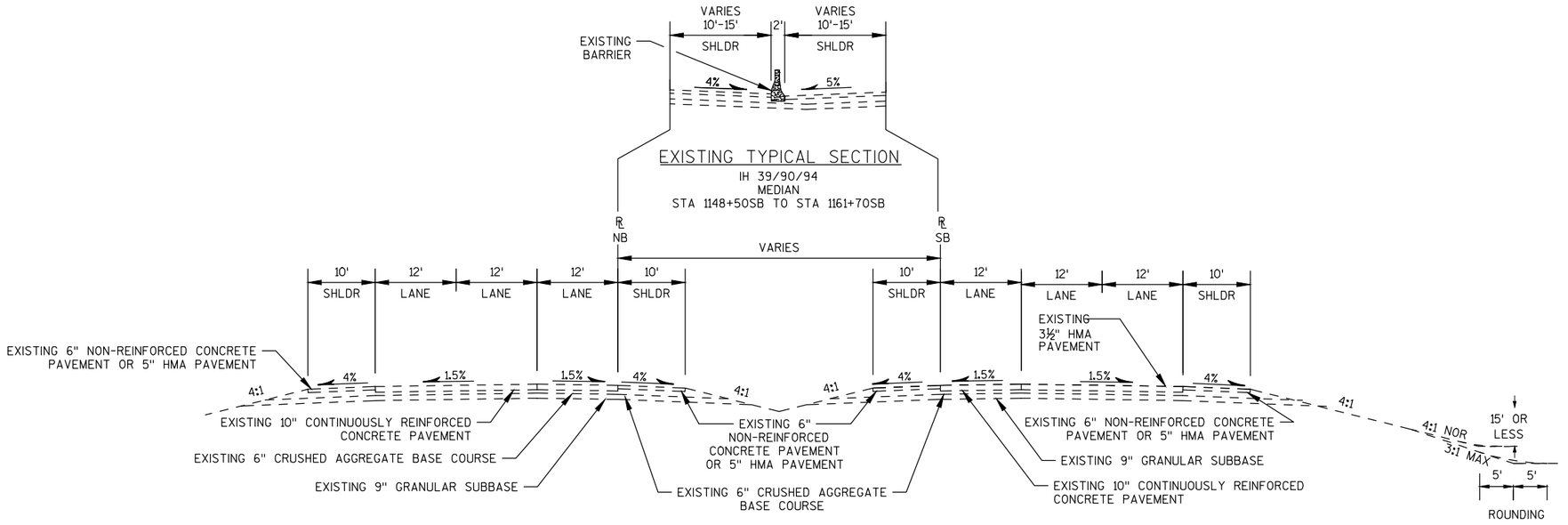


EXISTING TYPICAL SECTION

IH 39/90/94
MEDIAN
STA 1126+50SB TO STA 1131+50SB

IH 39/90/94
STA 927+20NB TO STA 981+00NB
STA 1009+30NB TO STA 1131+80NB

IH 39/90/94
STA 1023+40SB TO STA 1131+48SB



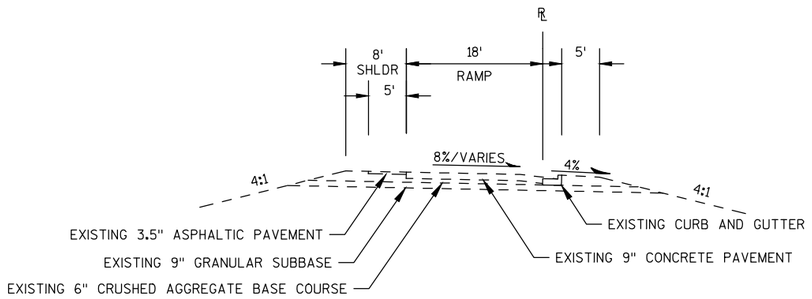
EXISTING TYPICAL SECTION

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

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

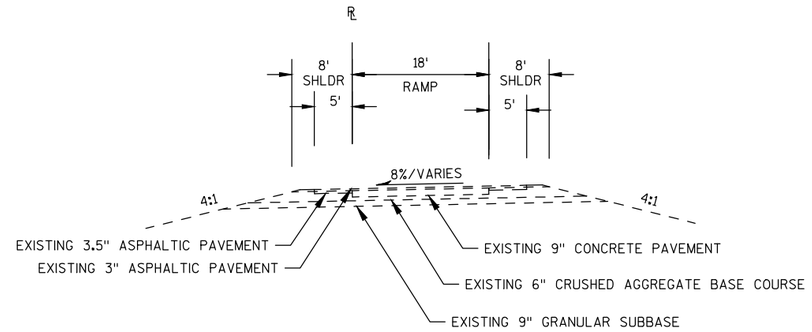
IH 39/90/94
STA 1148+36SB TO STA 1344+69SB

PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	TYPICAL SECTIONS	SHEET 8	E



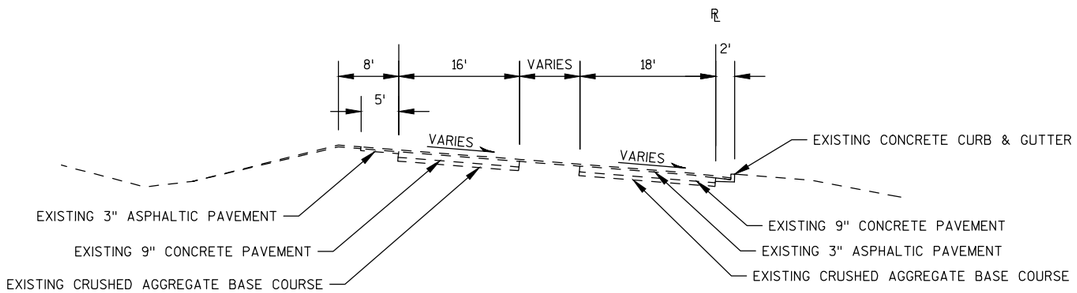
EXISTING TYPICAL SECTION WITH CURB AND GUTTER

STH 33 RAMPS
STA 62+80B TO STA 70+38B
STA 33+50C TO STA 41+00C



EXISTING TYPICAL SECTION

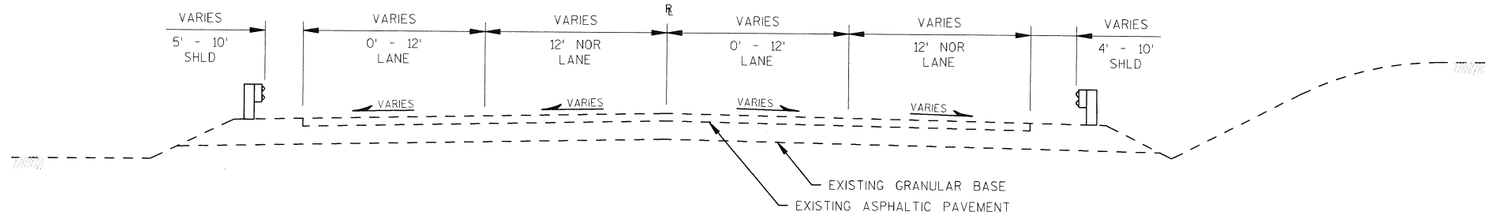
STH 33 RAMPS
STA 861+50A TO STA 865+25A
STA 10+00D TO STA 24+00D



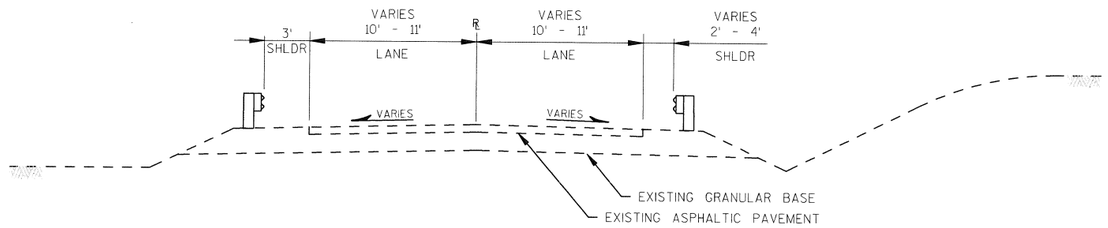
EXISTING TYPICAL SECTION

STH 33 RAMPS
STA 66+70B TO STA 69+60B
STA 39+40C TO STA 41+50C

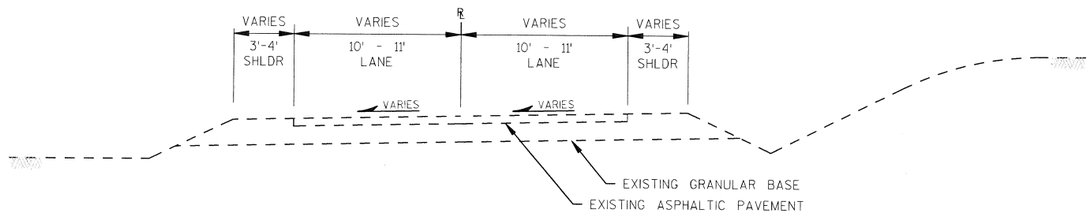
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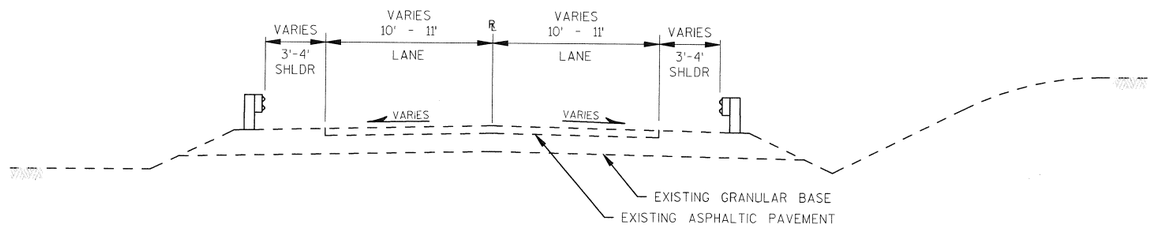
EXISTING TYPICAL SECTION
STH 33



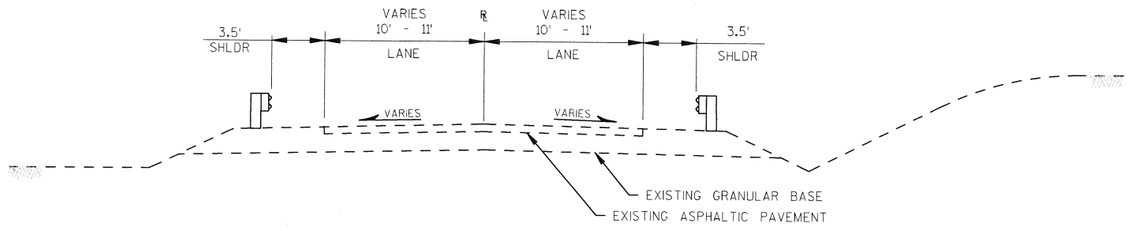
EXISTING TYPICAL SECTION
CASCADE MOUNTAIN ROAD



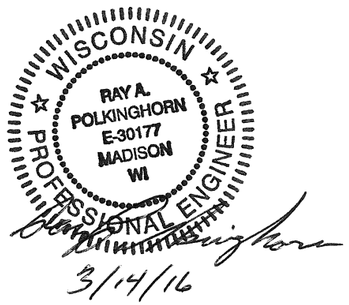
EXISTING TYPICAL SECTION
CTH U



EXISTING TYPICAL SECTION
CTH V

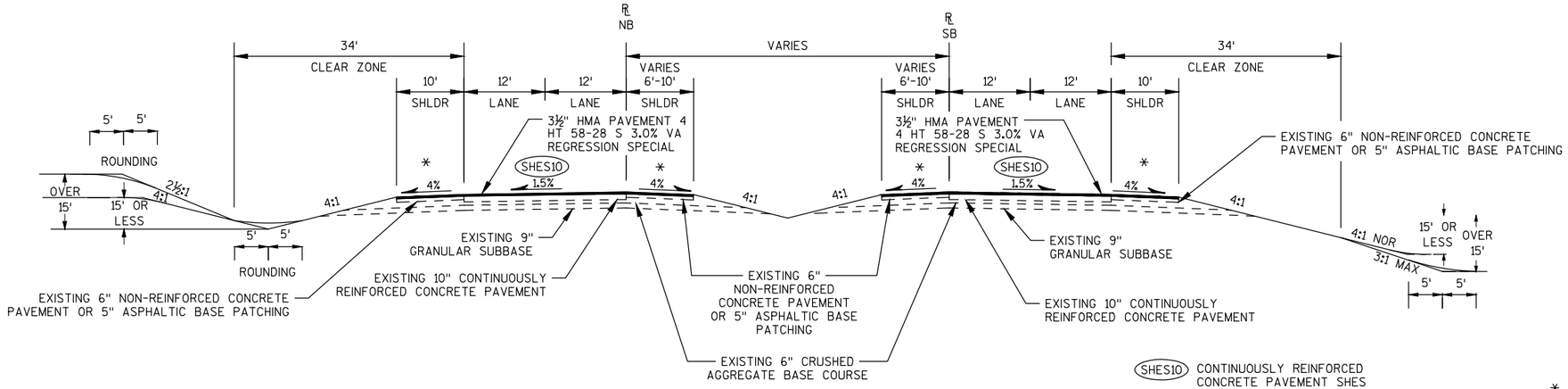


EXISTING TYPICAL SECTION
KENT ROAD



3/14/16

PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	EXISTING TYPICAL SECTIONS	SHEET 10 E

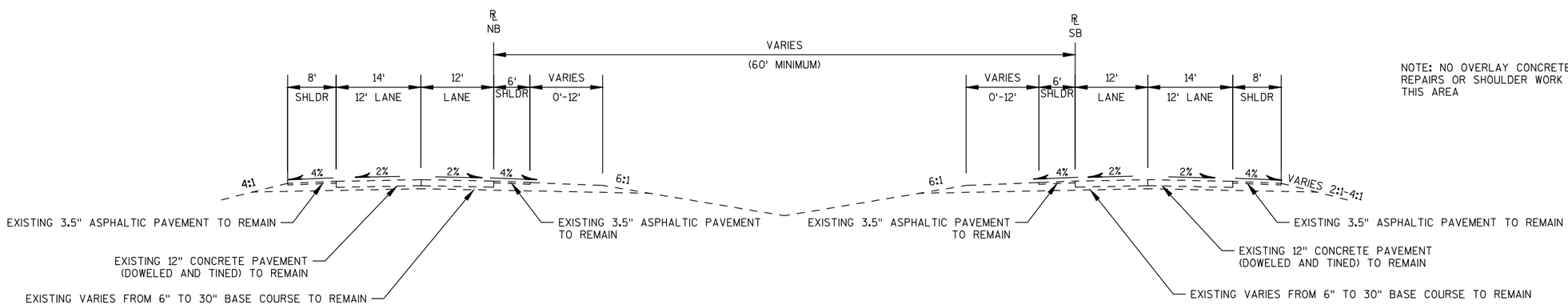


FINISHED TYPICAL SECTION

IH 39
STA 830+50NB TO STA 864+00NB
STA 885+00NB TO STA 927+20NB

IH 39
STA 830+00SB TO STA 864+00SB
STA 885+00SB TO STA 966+00SB
STA 993+00SB TO STA 1023+40SB

* SEE PLAN DETAILS FOR LOCATIONS
REVERSE DETAIL FOR OPPOSITE SIDE



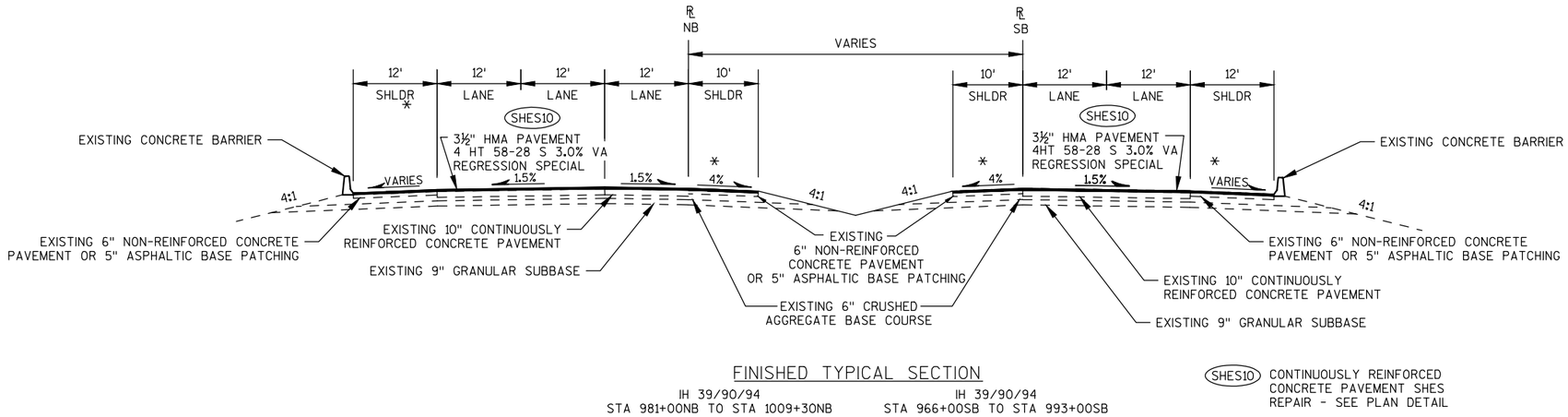
NOTE: NO OVERLAY CONCRETE
REPAIRS OR SHOULDER WORK IN
THIS AREA

FINISHED TYPICAL SECTION

IH 90/94
STA 864+00NB TO STA 885+00NB

IH 90/94
STA 864+00SB TO STA 885+00SB

PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	TYPICAL SECTIONS	SHEET 11	E



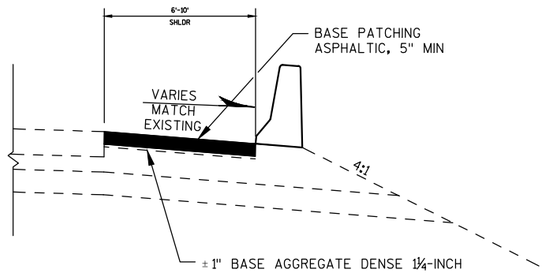
FINISHED TYPICAL SECTION

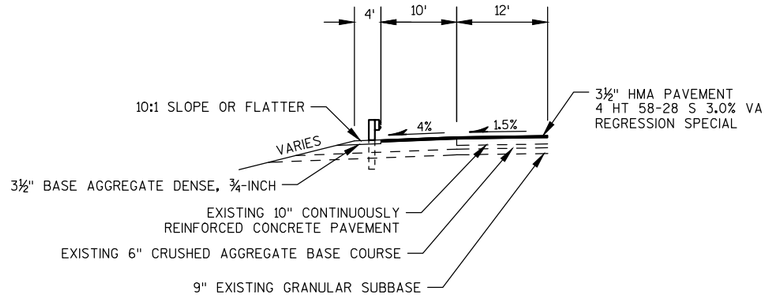
IH 39/90/94
STA 981+00NB TO STA 1009+30NB

IH 39/90/94
STA 966+00SB TO STA 993+00SB

SHES10 CONTINUOUSLY REINFORCED CONCRETE PAVEMENT SHES REPAIR - SEE PLAN DETAIL

* SEE PLAN DETAILS FOR LOCATIONS
REVERSE DETAIL FOR OPPOSITE SIDE



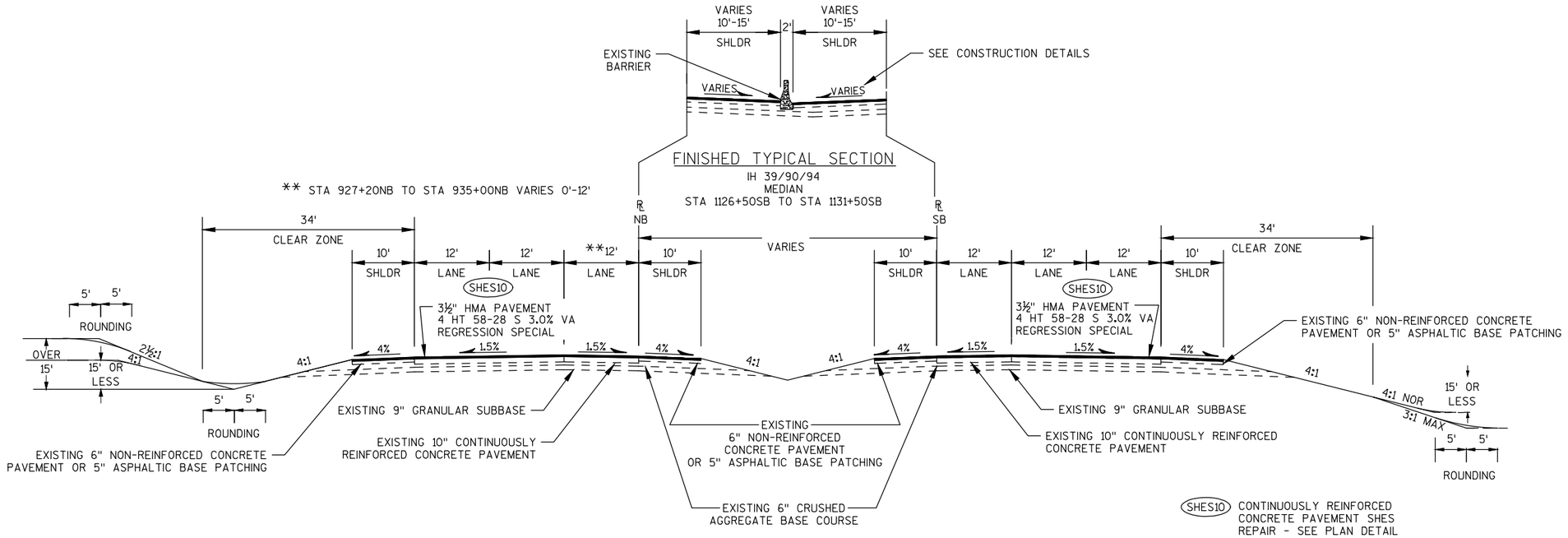


FINISHED TYPICAL SECTION FOR BEAM GUARD INSTALLATION

IH 39/90/94

PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	TYPICAL SECTIONS	SHEET 12	E

2



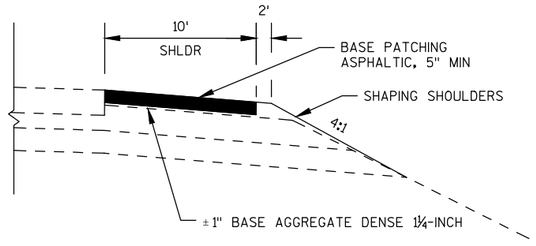
FINISHED TYPICAL SECTION

IH 39/90/94
MEDIAN
STA 1126+50SB TO STA 1131+50SB

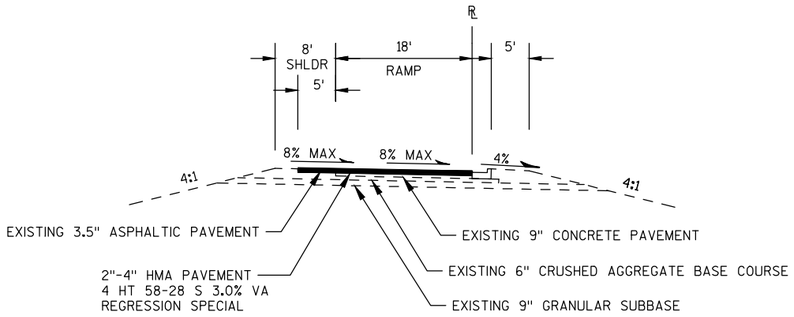
FINISHED TYPICAL SECTION

IH 39/90/94
STA 927+20NB TO STA 981+00NB
STA 1009+30NB TO STA 1130+26NB

IH 39/90/94
STA 1023+40SB TO STA 1129+94SB

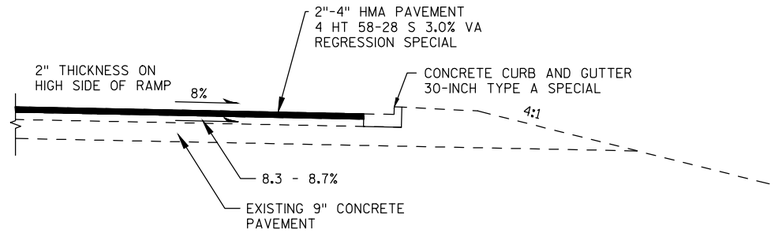


PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	TYPICAL SECTIONS	SHEET 13	E

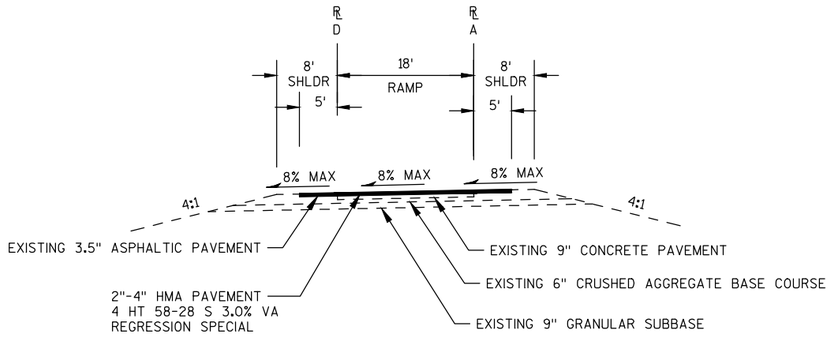


FINISHED TYPICAL SECTION WITH CURB AND GUTTER

STH 33 RAMPS
STA 62+80B TO STA 70+38B
STA 33+50C TO STA 41+00C



FINISHED TYPICAL SECTION WITH CONCRETE
CURB AND GUTTER 30-INCH TYPE A SPECIAL



FINISHED TYPICAL SECTION

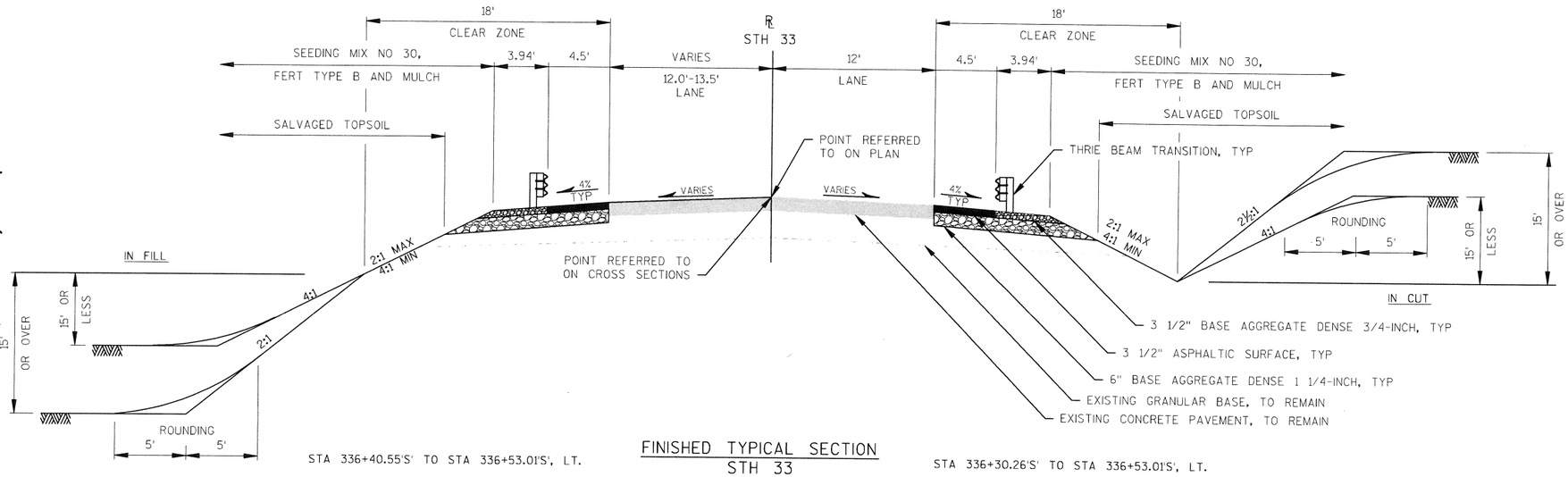
STH 33 RAMPS
STA 861+50A TO STA 865+25A
STA 10+00D TO STA 24+00D

2

WISCONSIN
RAY A. POLKINGHORN
E-30177
MADISON
WI
PROFESSIONAL ENGINEER

3/14/16

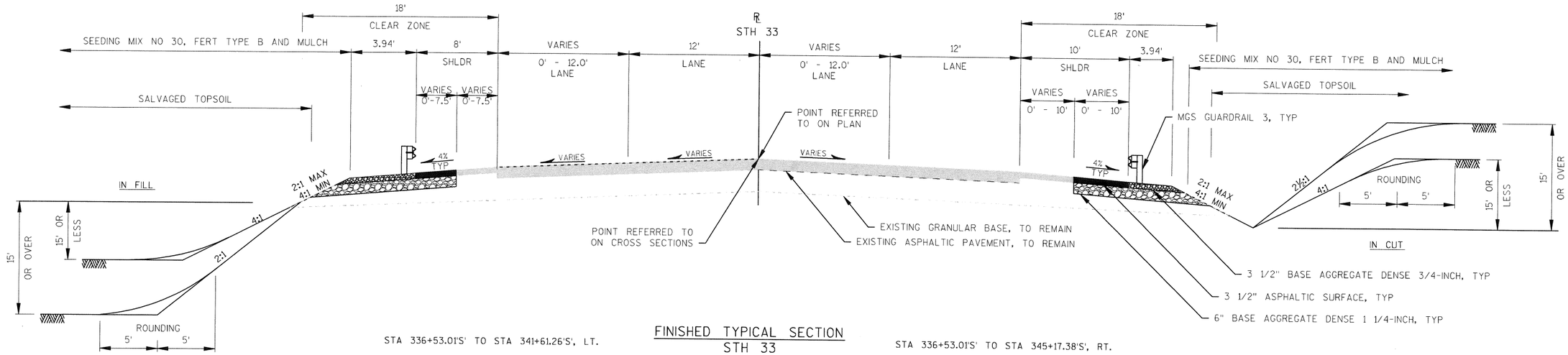
This stamp covers 5 Typical section sheets for STH 33, Cascade Mountain Rd, CTH U, CTH V, and Kent Rd.



STA 336+40.55'S' TO STA 336+53.01'S', LT.

FINISHED TYPICAL SECTION
STH 33

STA 336+30.26'S' TO STA 336+53.01'S', LT.



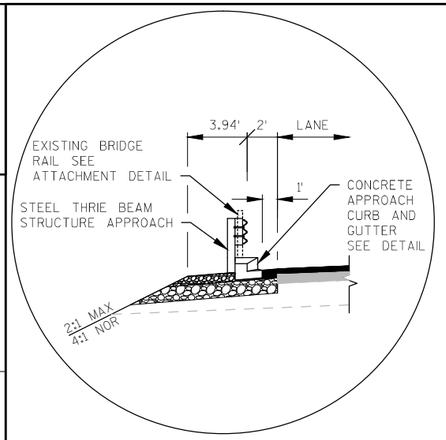
STA 336+53.01'S' TO STA 341+61.26'S', LT.

FINISHED TYPICAL SECTION
STH 33

STA 336+53.01'S' TO STA 345+17.38'S', RT.

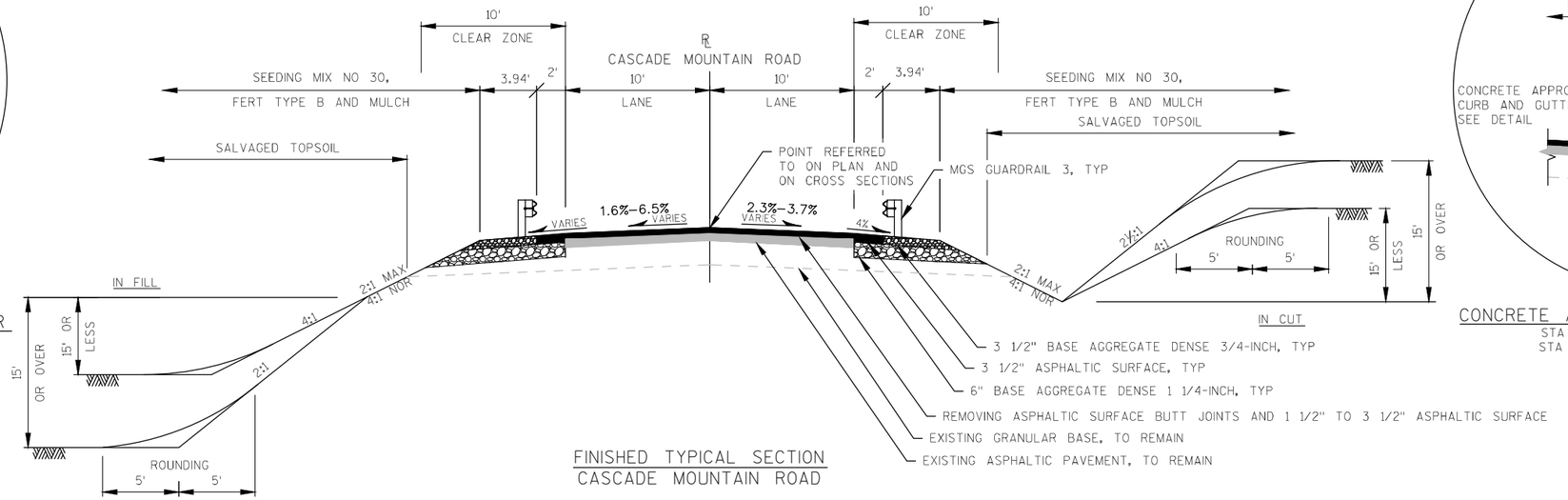
PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	FINISHED TYPICAL SECTIONS	SHEET 15 E

FILE NAME : S:\PROJECTS\SW\COLUMBIA COUNTY\1010-02-02_IH 39\500_CADD\501_C3D\10100202\SHEETSPLAN\020301_TS.DWG
LAYOUT NAME - 020302_TS
PLOT DATE : 3/14/2016 12:19 PM PLOT BY : BOBBY JONES PLOT NAME : ---------- PLOT SCALE : 10_XREF
WISDOT/CADDS SHEET 42



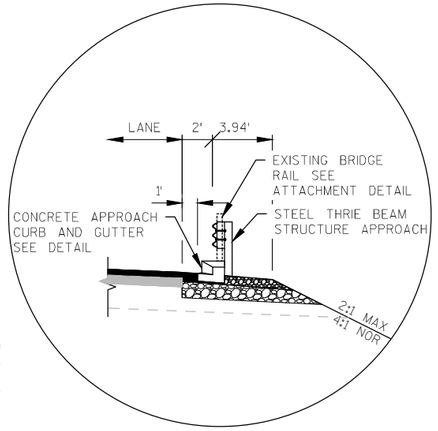
CONCRETE APPROACH CURB AND GUTTER

STA 48+22'P' - STA 48+32'P', LT.
STA 51+00'P' - STA 51+10'P', LT.



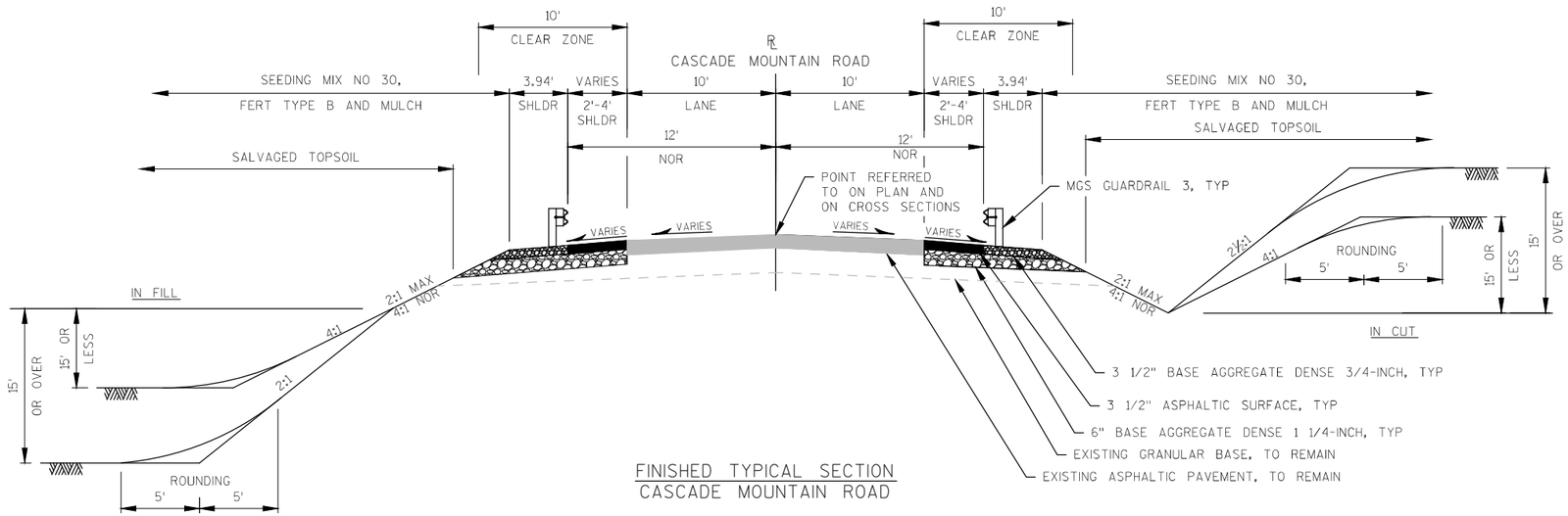
FINISHED TYPICAL SECTION
CASCADE MOUNTAIN ROAD

STA 47+50.00'P' TO STA 48+31.68'P'
STA 50+85.31'P' TO STA 51+50.00'P'



CONCRETE APPROACH CURB AND GUTTER

STA 48+06'P' - STA 48+16'P', RT.
STA 50+86'P' - STA 50+96'P', RT.



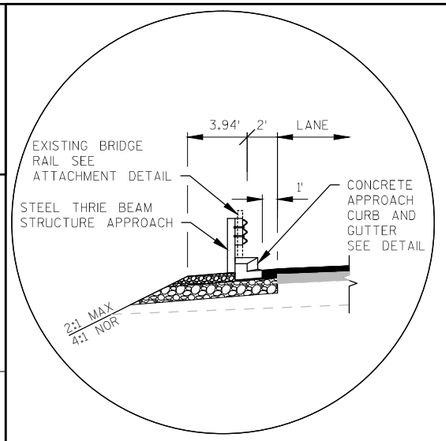
FINISHED TYPICAL SECTION
CASCADE MOUNTAIN ROAD

STA 42+64.03'P' TO STA 47+50.00'P', LT.
STA 51+50.00'P' TO STA 53+61.47'P', LT.

STA 43+86.95'P' TO STA 47+50.00'P', RT.
STA 51+50.00'P' TO STA 53+60.95'P', RT.

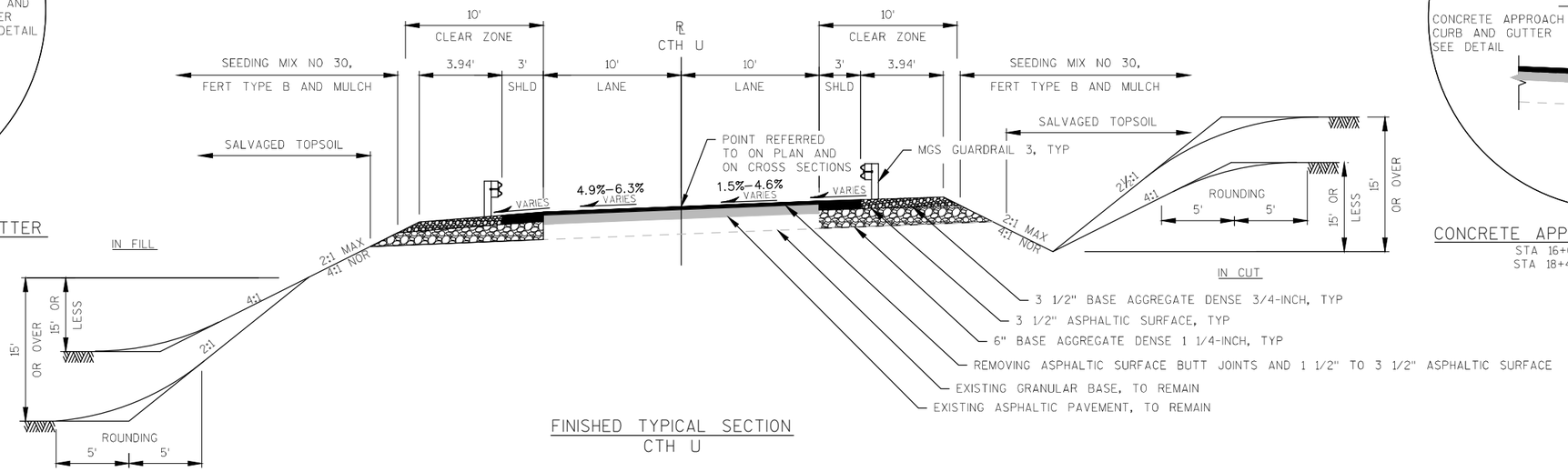
PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	FINISHED TYPICAL SECTIONS	SHEET 16	E

FILE NAME : S:\PROJECTS\SW\COLUMBIA COUNTY\1010-02-02_IH 39\500_CADD\501_C3D\10100202\SHEETSPLAN\020301_TS.DWG
LAYOUT NAME - 020304_TS
PLOT DATE : 3/14/2016 12:37 PM PLOT BY : RAY POLKINGHORN, PE PLOT NAME : ---------- PLOT SCALE : 10_XREF
WISDOT/CADDS SHEET 42



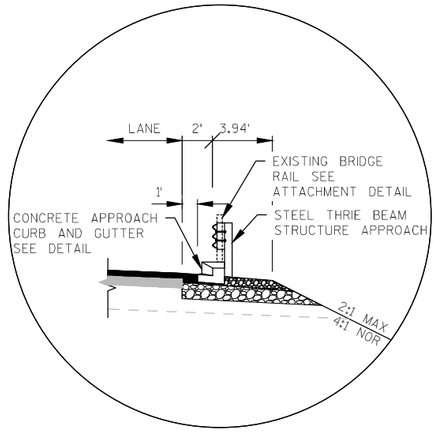
CONCRETE APPROACH CURB AND GUTTER

STA 15+94'U' - STA 16+04'U', LT.
STA 18+40'U' - STA 18+50'U', LT.



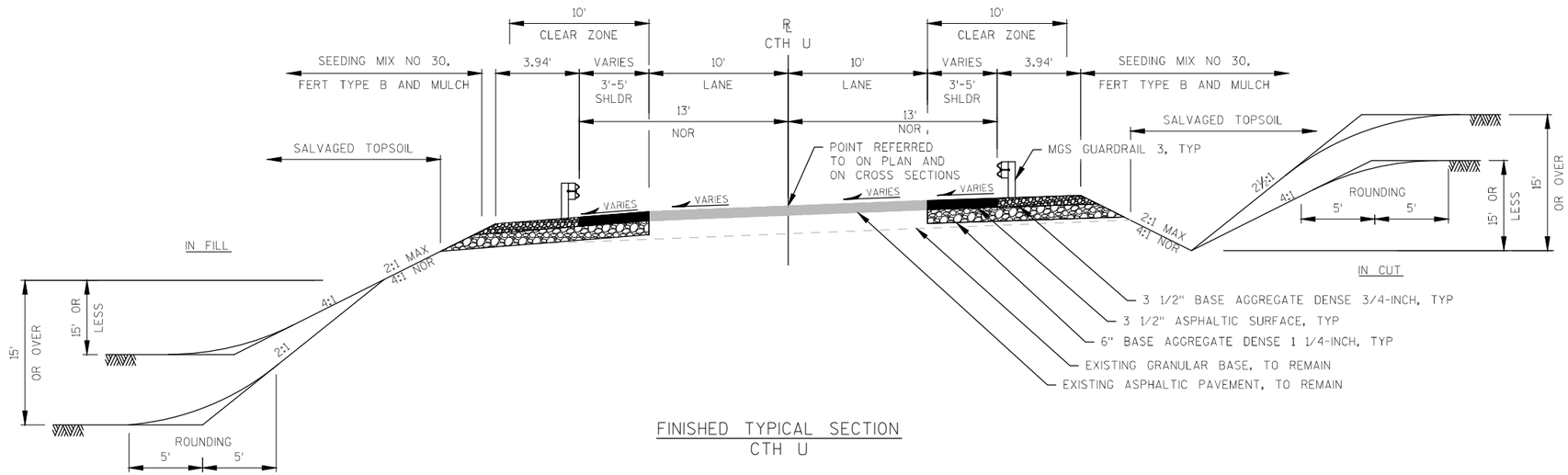
FINISHED TYPICAL SECTION
CTH U

STA 15+50.00'U' TO STA 16+18.60'U'
STA 18+29.90'U' TO STA 19+00.00'U'



CONCRETE APPROACH CURB AND GUTTER

STA 16+02'U' - STA 16+12'U', RT.
STA 18+40'U' - STA 18+50'U', RT.

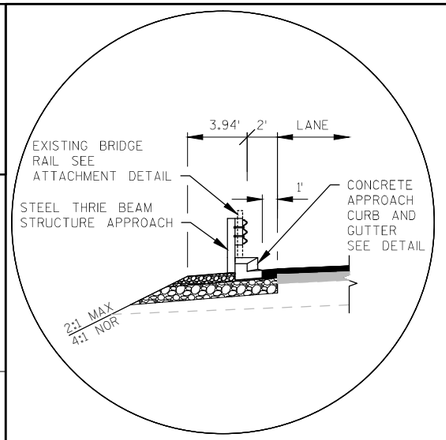


FINISHED TYPICAL SECTION
CTH U

STA 13+75.85'U' TO STA 15+50.00'U', LT.
STA 19+00.00'U' TO STA 22+15.81'U', LT.

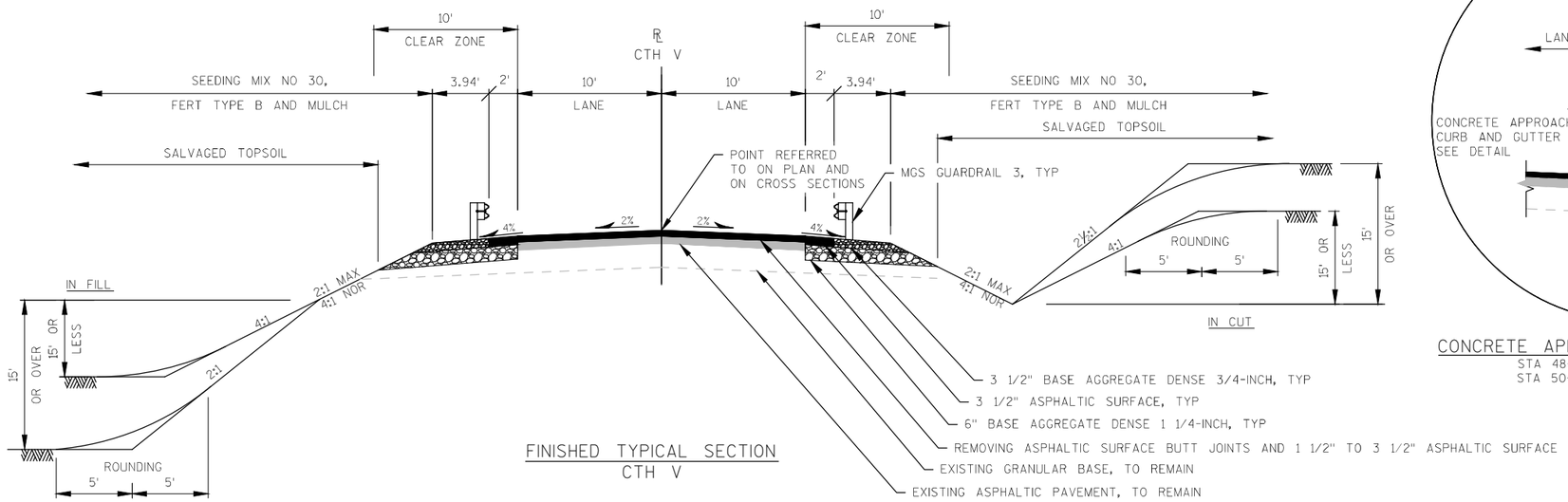
STA 14+15.60'U' TO STA 15+50.00'U', RT.
STA 19+00.00'U" TO STA 19+17.11'U', RT.

PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	FINISHED TYPICAL SECTIONS	SHEET 17	E



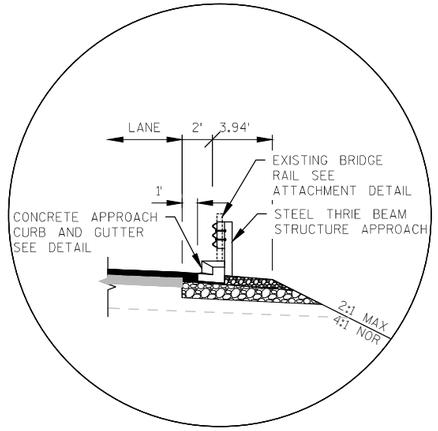
CONCRETE APPROACH CURB AND GUTTER

STA 48+38'V' - STA 48+48'V', LT.
STA 50+84'V' - STA 50+94'V', LT.



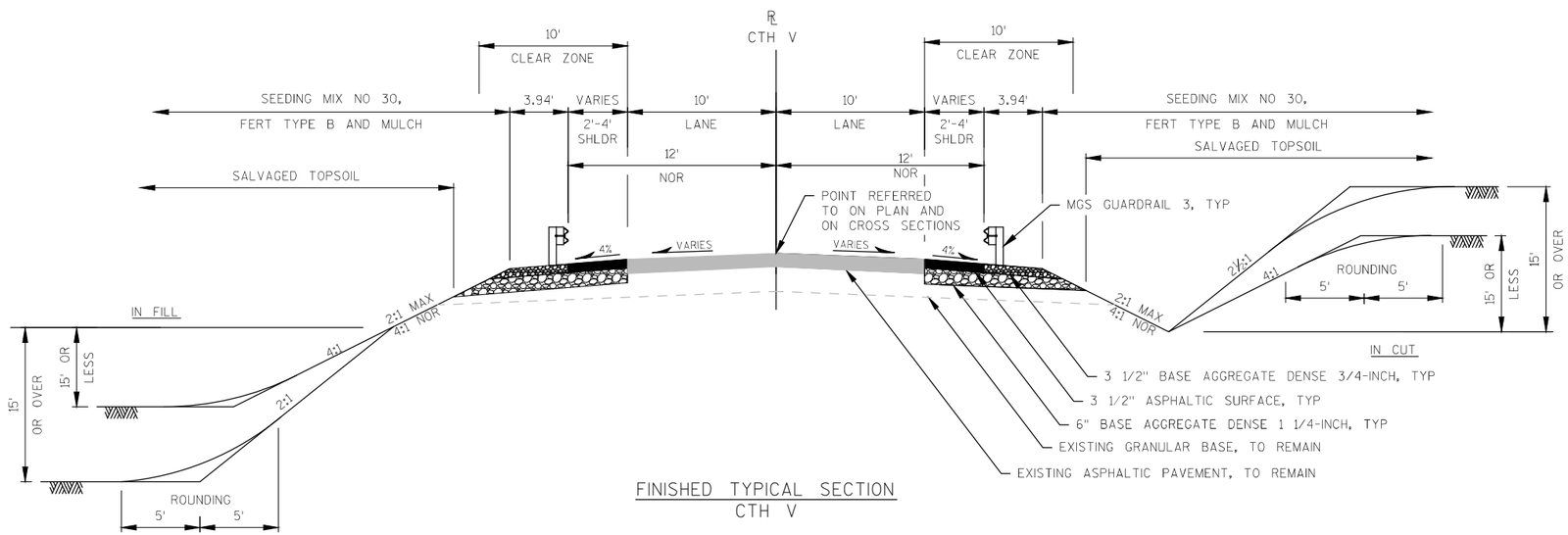
FINISHED TYPICAL SECTION
CTH V

STA 47+75.00'V' TO STA 48+52.55'V'
STA 50+73.28'V' TO STA 51+50.00'V'



CONCRETE APPROACH CURB AND GUTTER

STA 48+32'V' - STA 48+42'V', RT.
STA 50+79'V' - STA 50+89'V', RT.



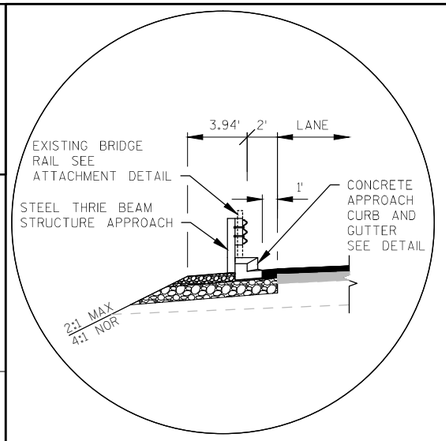
FINISHED TYPICAL SECTION
CTH V

STA 44+60.69'V' TO STA 47+75.00'V', LT.
STA 51+50.00'V TO STA 58+84.64'V', LT.

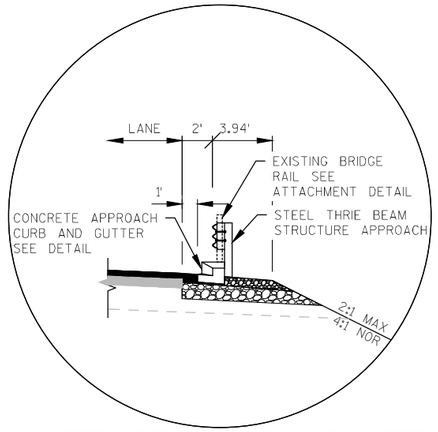
STA 44+70.59'V' TO STA 47+75.00'V', RT.
STA 51+50.00'V' TO STA 57+47.30'V', RT.

PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	FINISHED TYPICAL SECTIONS	SHEET 18	E

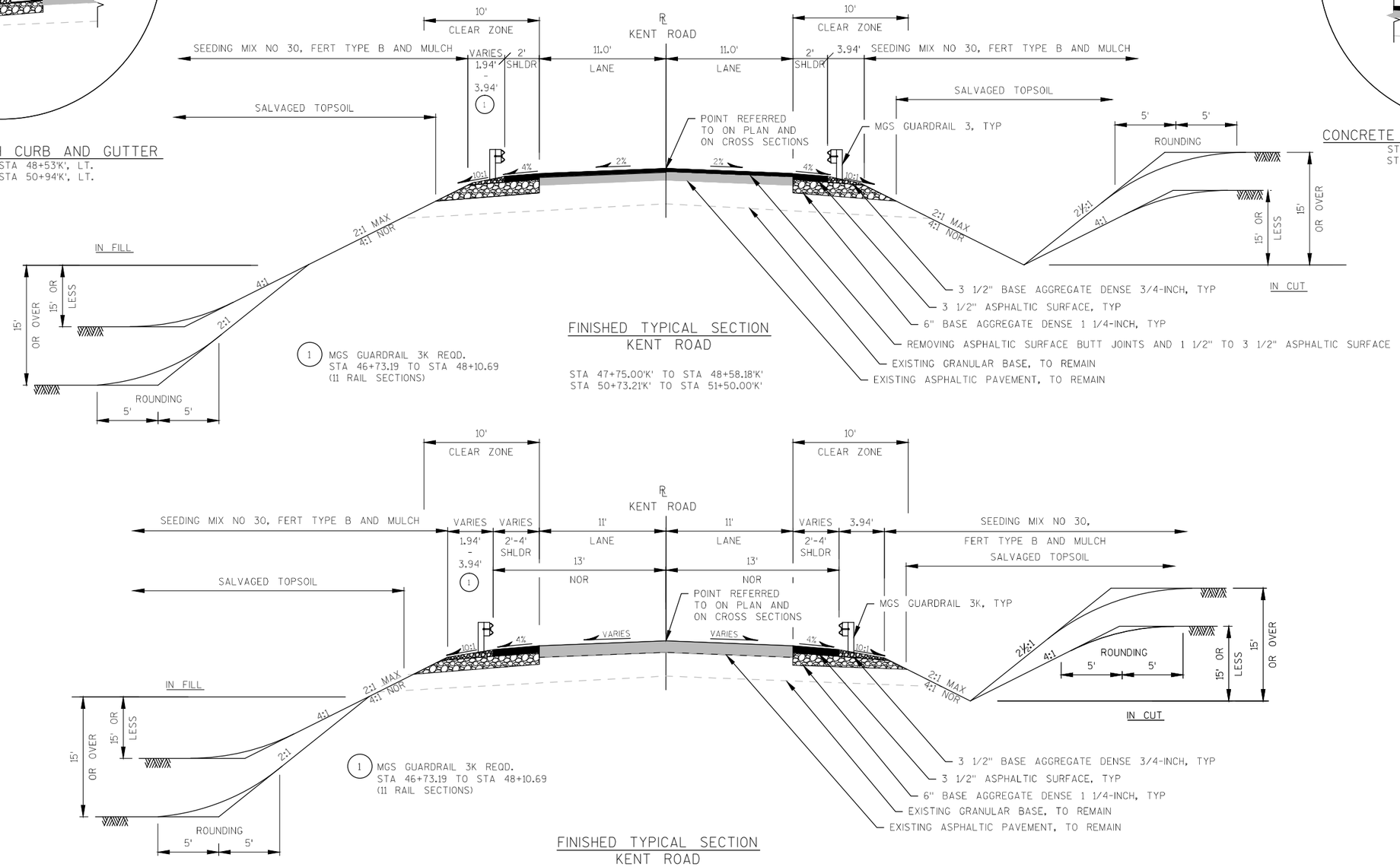
FILE NAME : S:\PROJECTS\SW\COLUMBIA COUNTY\1010-02-02_IH 39\500_CADD\501_C3D\10100202\SHEETSPLAN\020301_TS.DWG
LAYOUT NAME - 020306_TS
PLOT DATE : 3/14/2016 12:38 PM PLOT BY : RAY POLKINGHORN, PE PLOT NAME : ---------- PLOT SCALE : 10_XREF
WISDOT/CADDS SHEET 42



CONCRETE APPROACH CURB AND GUTTER
STA 48+43'K' - STA 48+53'K', LT.
STA 50+84'K' - STA 50+94'K', LT.



CONCRETE APPROACH CURB AND GUTTER
STA 48+37'K' - STA 48+47'K', RT.
STA 50+78'K' - STA 50+88'K', RT.



FINISHED TYPICAL SECTION
KENT ROAD

STA 47+75.00'K' TO STA 48+58.18'K'
STA 50+73.21'K' TO STA 51+50.00'K'

FINISHED TYPICAL SECTION
KENT ROAD

STA 44+41.96'K' TO STA 47+75.00'K', LT.
STA 51+50.00'K' TO STA 54+45.02'K', LT.

STA 43+69.50'K' TO STA 47+75.00'K', RT.
STA 51+50.00'K' TO STA 54+16.03'K', RT.

PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	FINISHED TYPICAL SECTIONS	SHEET 19	E

2

2

R/W

LEGEND:

STB STEEL THRIE BEAM

STBBT STEEL THRIE BEAM BULLNOSE TERMINAL

STBSA STEEL THRIE BEAM STRUCTURE APPROACH

SEE SDD STEEL THRIE BEAM BULLNOSE TERMINAL FOR ADDITIONAL DETAIL OF LAYOUT & INSTALLATION OF BULLNOSE.

WISDOT AND AT&T FIBER OPTIC

BARABOO RIVER

B-11-038

SLOPE INTERCEPT

IH 90/94 WB

872+00NB 873+00NB 874+00NB 875+00NB 876+00NB 877+00NB

+01SB 30.1'LT

+17SB 37.7'LT POST 5

+55SB 37.7'LT POST 12

+92SB 37.7'LT POST 12

+30SB 36.7'LT POST 5

+45SB 29.0'LT

STBBT STB STBSA STBBT

16.30'

60'

SLOPE INTERCEPT

+17SB 22.4'LT POST 5

+55SB 21.4'LT POST 12

+92SB 11.9'LT POST 12

+30SB 21.4'LT POST 5

STBSA STB

872+00SB 873+00SB 874+00SB 875 876+00SB 877+00SB

IH 90/94 EB

B-11-037

BARABOO RIVER

R/W

R/W

PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	CONSTRUCTION DETAILS - BARABOO RIVER BRIDGE GUARDRAIL	SHEET 20	E

FILE NAME : X:\3230900\131208.01\TECH\CAD\10100202\SHEETSPLAN\CONSTRUCTION PROJECT 1, 1010-02-84\021001_CD-PROJECT 1.DWG PLOT DATE : 3/14/2016 1:59 PM PLOT BY : JASON KLEIST PLOT NAME : PLOT SCALE : 1:1

LEGEND:

STB STEEL THRIE BEAM

STBBT STEEL THRIE BEAM BULLNOSE TERMINAL

SEE SDD STEEL THRIE BEAM BULLNOSE TERMINAL FOR ADDITIONAL DETAIL OF LAYOUT & INSTALLATION OF BULLNOSE.

R/W

WISDOT AND AT&T FIBER OPTIC

INTEGRAL BARRIER

B-11-033

CASCADE MOUNTAIN ROAD

SLOPE INTERCEPT

IH 90/94 WB

884+00NB

885+00NB

886+00NB

889+00NB

890+00NB

STBBT

STB

+42SB 32.6'LT

+58SB 39.8'LT POST 5

+96SB 39.8'LT POST 12

+59SB 39.8'LT POST 12

+97SB 39.8'LT POST 5

+13SB 33.1'LT

14.2'

60'

SLOPE INTERCEPT

PC: 885+39.49

884+00SB

885+00SB

886+00SB

889+00SB

890+00SB

-25.6'LT POST 5

-25.6'LT POST 12

IH 90/94 EB

SLOPE INTERCEPT

CAUTION

NORTHERN NATURAL GAS - GAS

INTEGRAL BARRIER

STEEL THRIE BEAM STRUCTURE APPROACH

ATC - PROPOSED TRANSMISSION LINE

CAUTION

ALLIANT GAS - PROPOSED GAS LINE

R/W

R/W

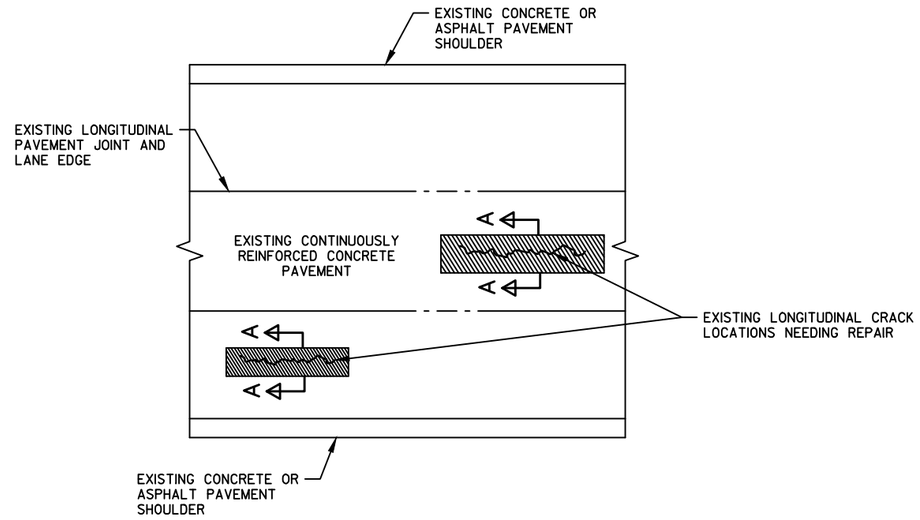
PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	CONSTRUCTION DETAILS - STRUCTURE B-11-33 BULLNOSE	SHEET 21	E

2

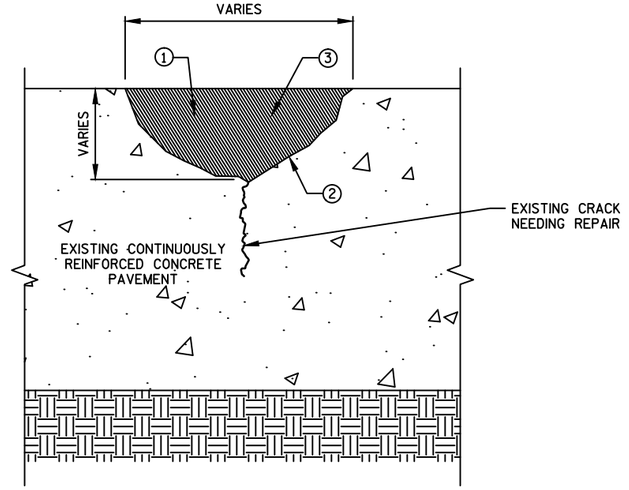
RUNOFF COEFFICIENT TABLE

	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 = 153 ACRES
TOTAL AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES = 14.4 ACRES



PLAN VIEW

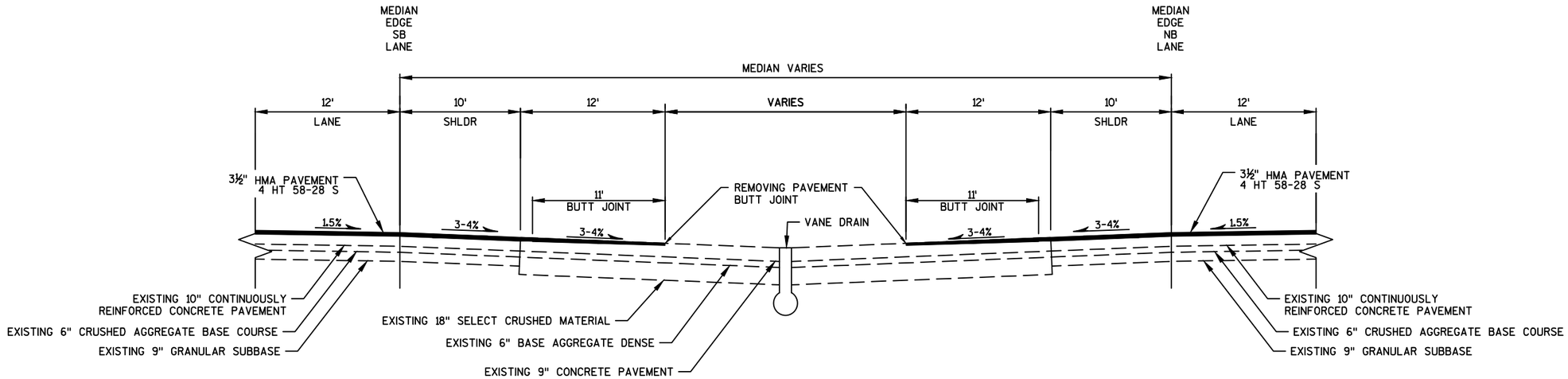


SECTION A-A

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

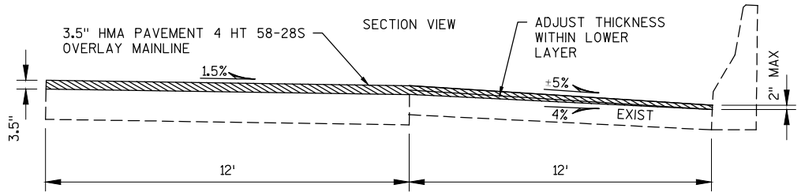
DETAIL OF CLEAN AND FILL CRACK TREATMENT

2

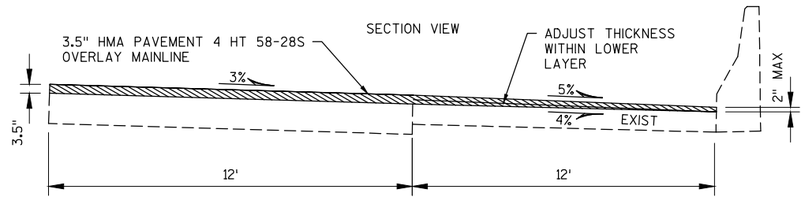


DETAIL OF PROPOSED PAVING AT EXISTING CROSS OVER

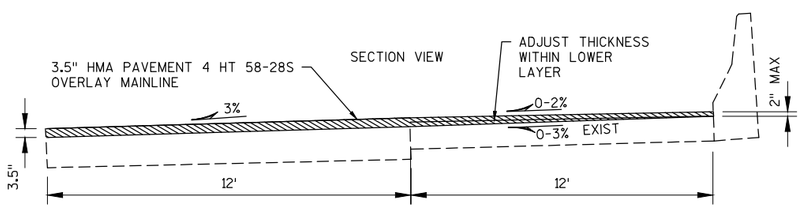
STA 1074+50SB TO STA 1082+60SB



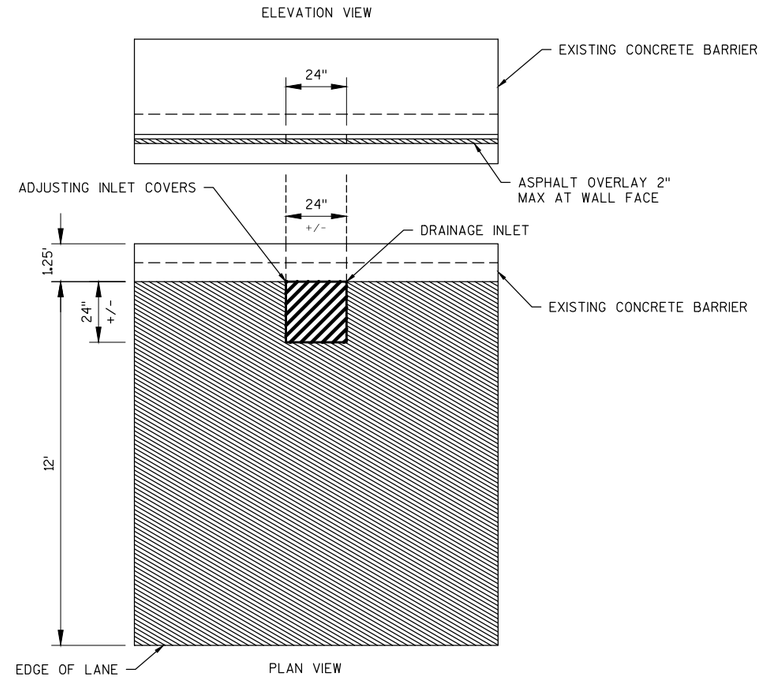
PROPOSED SHOULDER PAVING AT EXISTING
BARRIER WALL WITH 12' SHOULDERS
-NORMAL CROWN CONDITION



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

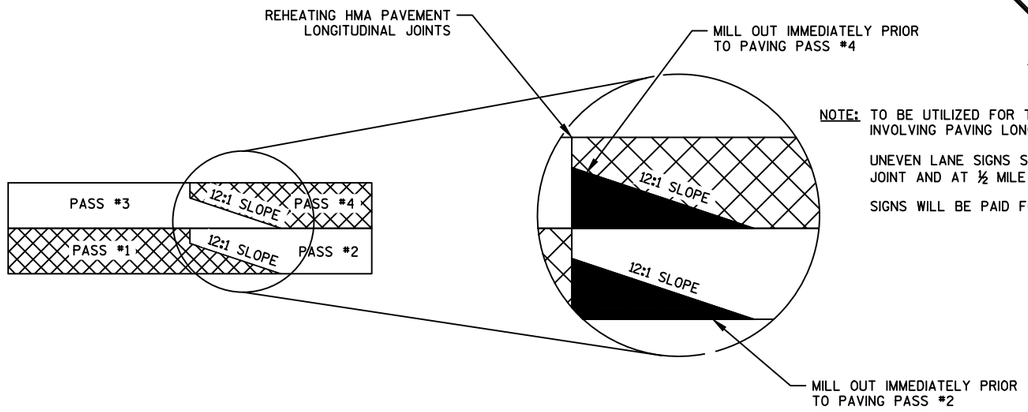


PROPOSED SHOULDER PAVING AT EXISTING
BARRIER WALL WITH 12' SHOULDERS
-HIGH SIDE OF SUPERELEVATION CONDITION



DETAIL OF SHOULDER PAVING AT CONCRETE BARRIER

2





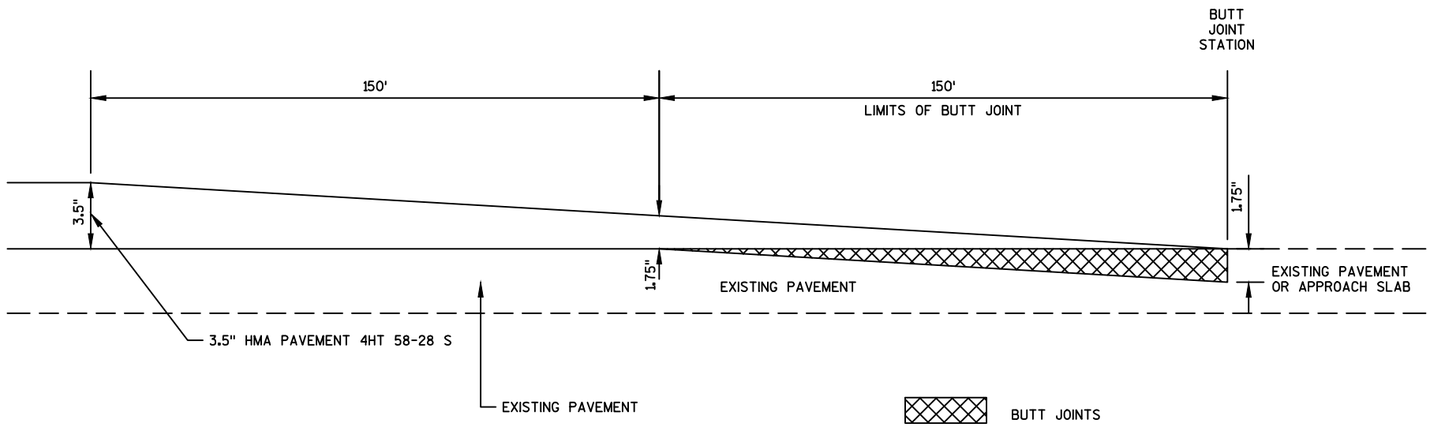
W8-11
48"X48"

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

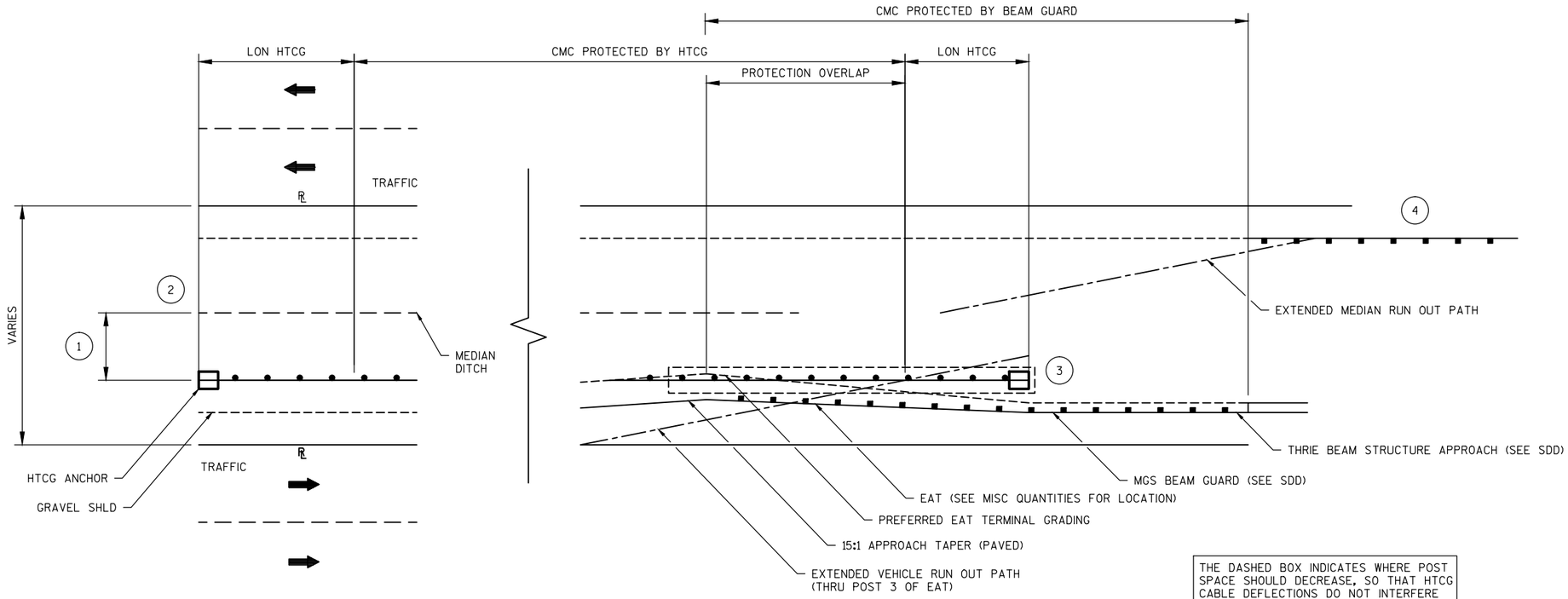
UNEVEN LANE SIGNS SHALL BE PLACED AT THE BEGINING OF JOINT AND AT ½ MILE INCREMENTS.

SIGNS WILL BE PAID FOR AS TRAFFIC CONTROL SIGNS.

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



DETAIL OF BUTT JOINT DETAIL



THE DASHED BOX INDICATES WHERE POST SPACE SHOULD DECREASE, SO THAT HTCG CABLE DEFLECTIONS DO NOT INTERFERE WITH OTHER ROADSIDE SAFETY DEVICES.

DETAIL OF E.A.T. & GENERAL INSTALLATION

NOTE: COMPLETE RUNS OF HTCG (TERMINAL TO TERMINAL) CAN BE ON EITHER SIDE OF MEDIAN. HOWEVER, A RUN OF HTCG (TERMINAL TO TERMINAL) MAY NOT TRAVERSE FROM ONE SIDE OF THE MEDIAN TO THE OTHER.

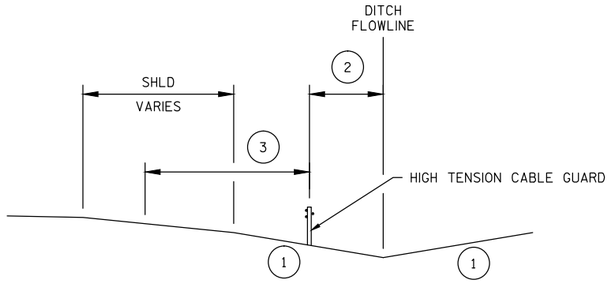
(1) OFFSET OF HTCG:
DESIRABLE: 10'
MINIMUM: 8'

(2) BEGIN STATION FOR HTCG MAY BE ADJUSTED IN FIELD --SEE PROJECT ENGINEER

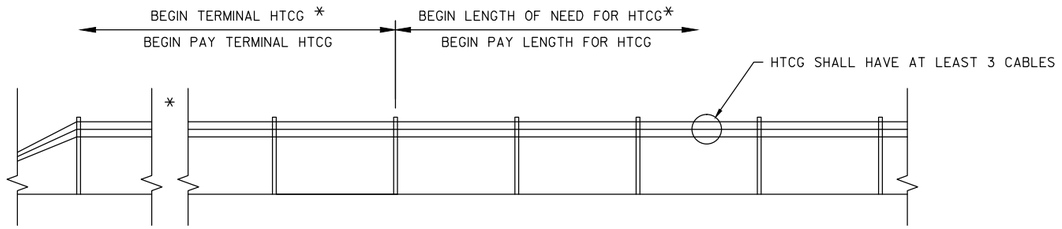
(3) END STATION FOR HTCG MAY BE ADJUSTED IN FIELD --SEE PROJECT ENGINEER

(4) IT IS PREFERRED THAT TERMINAL FOR HTCG IS INSTALLED IN A LOCATION THAT PROTECT IT FROM BEING STRUCK FRIM OPPOSITE DIRECTION OF TRAVEL.

CMC - CROSS MEDIAN CRASH
HTCG - HIGH TENSION CABLE GUARD

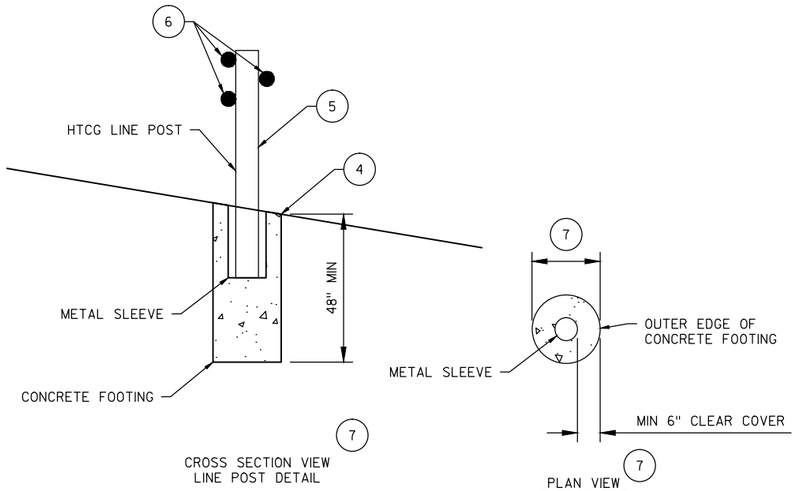


HIGH TENSION CABLE GUARD LINE POST PLACEMENT



* AS DETERMINED BY MANUFACTURER

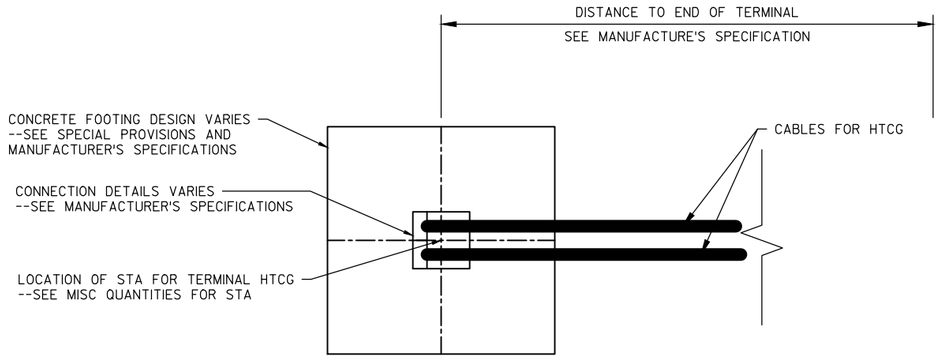
TERMINAL, HIGH TENSION CABLE GUARD, PAY LIMIT DETAIL
AND
HIGH TENSION CABLE GUARD, PAY LIMIT DETAIL



CROSS SECTION VIEW
LINE POST DETAIL

PLAN VIEW
LINE POST DETAIL
(CABLES OMITTED FOR CLARITY)

NOTE: IT IS DESIRABLE TO HAVE THE HTCG INSTALLED AS FAR AWAY FROM EDGE OF LANE AS POSSIBLE.

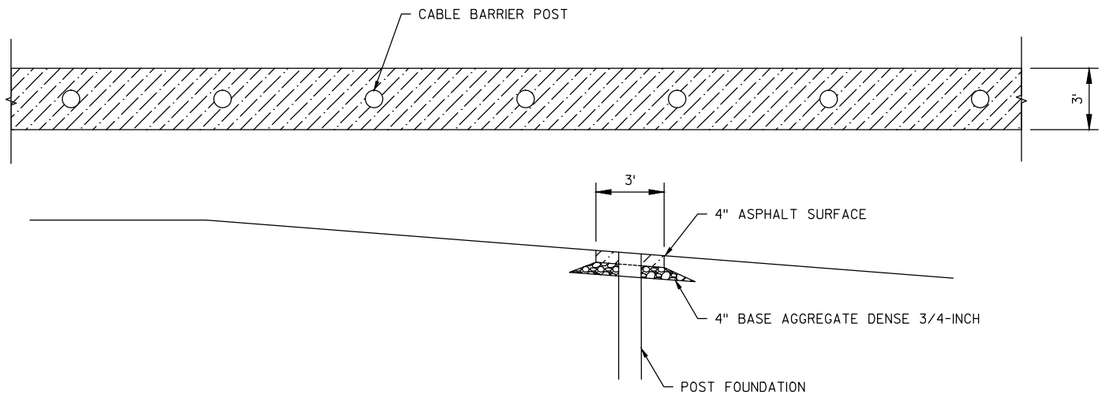


PLAN VIEW OF CONCRETE ANCHOR

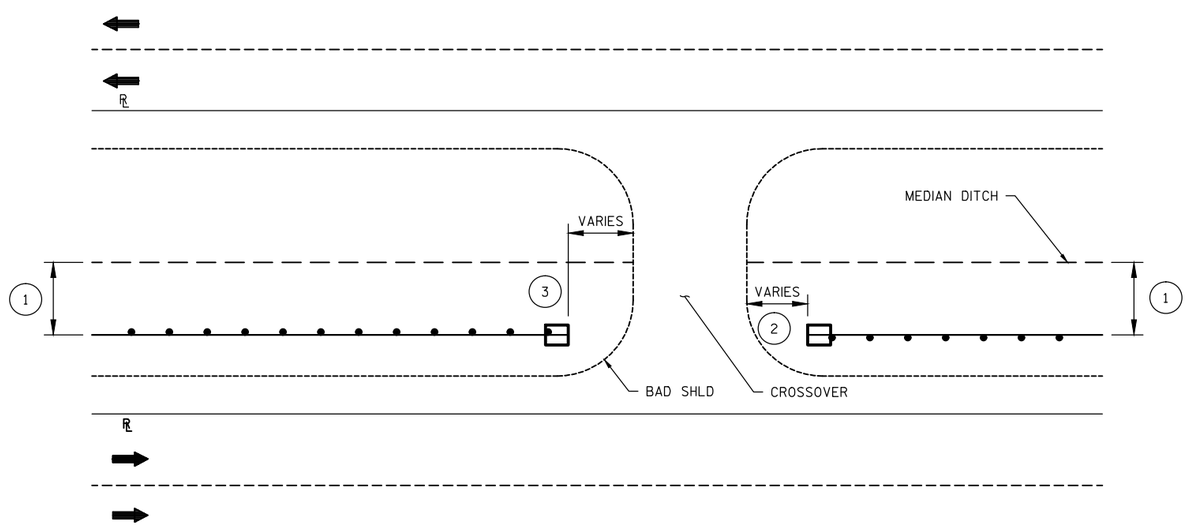
CONCRETE ANCHORS FOR TERMINAL FOR HTCG SHALL BE FLUSH WITH FINISHED SURFACE +/-¾" TOLERANCE

1. DO NOT INSTALL HIGH TENSION CABLE GUARD ON SLOPES STEEPER THAN 6:1
2. OFFSET OF HTCG:
   DESIRABLE: 10'
   MINIMUM: 8'
3. DEFLECTION IS MEASURED FROM MIDPOINT OF SHOULDER TO LINE POST. FOR DEFLECTION CRITERIA SEE SPECIAL PROVISIONS.
4. CONCRETE FOOTING FOR HTCG LINE POST SHALL BE FLUSH WITH FINISH SURFACE +/-¾" TOLERANCE
5. LINE POST FOR HTCG SHALL BE PLUMB, EASILY REMOVED FROM STEEL SLEEVE, AND MAINTAIN CABLES AT THE CORRECT ELEVATION.
6. HTCG SHALL HAVE A MINIMUM OF 3 CABLES. CABLES SHALL HOLD DESIRED TENSION PER MANUFACTURER'S SPECIFICATIONS. SEE MANUFACTURER'S SPECIFICATION FOR CORRECT HEIGHT OF CABLES AND CABLE CONFIGURATION.
7. SEE MAUFACTURER'S DETAILS AND SPECIFICATIONS FOR LINE POST FOOTING DESIGN.

PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	CONSTRUCTION DETAIL	SHEET 27	E



DETAIL FOR CABLE GUARD MOW STRIP, ASPHALT



(1) OFFSET OF HTCG:
DESIRABLE: 10'
MINIMUM: 8'

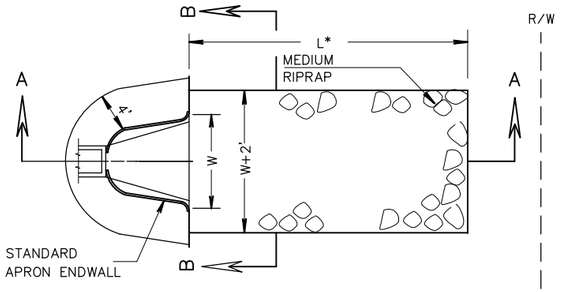
(2) BEGIN STATION FOR HTCG MAY BE ADJUSTED IN FIELD --SEE PROJECT ENGINEER

(3) END STATION FOR HTCG MAY BE ADJUSTED IN FIELD --SEE PROJECT ENGINEER

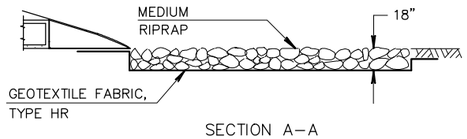
* THE PREFERRED ALTERNATIVE IS TO INSTALL HTCG TERMINALS IN AREAS WHERE HTCG TERMINALS ARE PROTECTED BY OTHER ROADSIDE BARRIERS. IF NOT POSSIBLE INSTALL TWO TERMINAL AS SHOWN.

HIGH TENSION CABLE GUARD CROSSOVER INSTALLATION A

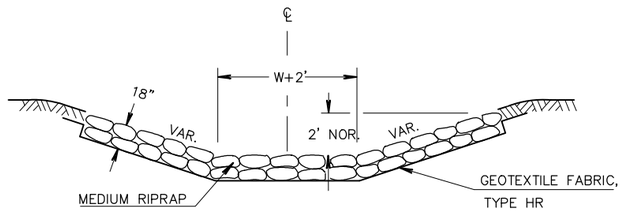
PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	CONSTRUCTION DETAIL	SHEET 28	E



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

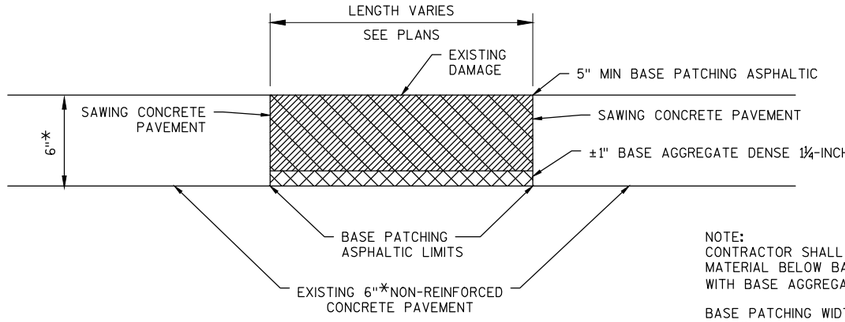


SECTION A–A



SECTION B–B

DETAIL OF SOD, MEDIUM RIPRAP AND GEOTEXTILE FABRIC AT APRON ENDWALLS

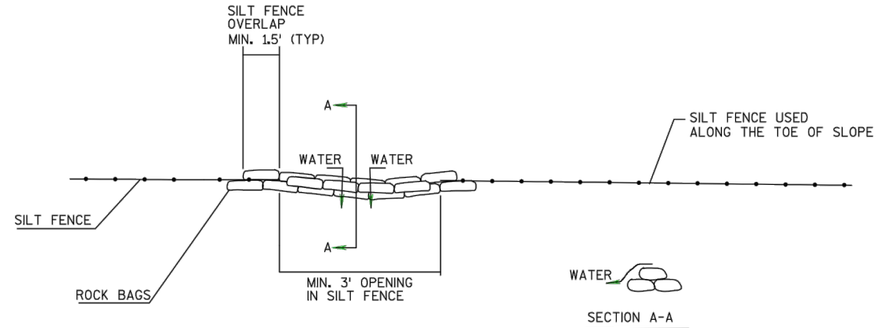


DETAIL OF BASE PATCHING ASPHALTIC

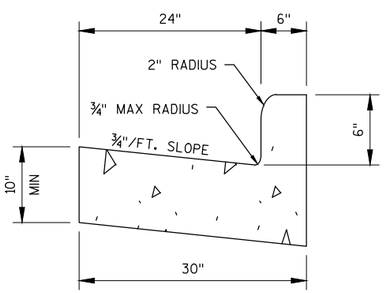
NOTE:
CONTRACTOR SHALL REMOVE ALL UNSUITABLE MATERIAL BELOW BASE PATCH AREA AND REPLACE WITH BASE AGGREGATE DENSE 1¼-INCH.

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

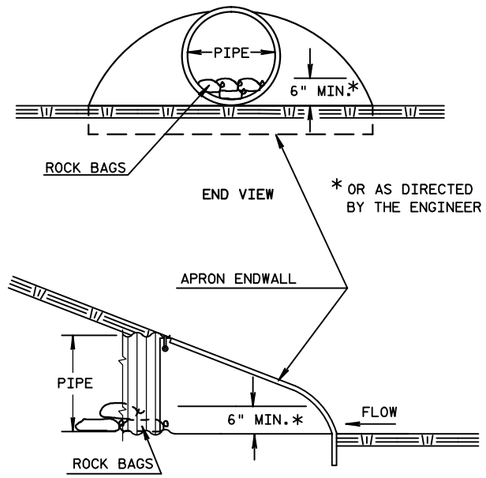
* RAMP "G" 9" EXISTING PAVEMENT THICKNESS



TOP VIEW



CONCRETE CURB AND GUTTER 30-INCH TYPE A SPECIAL



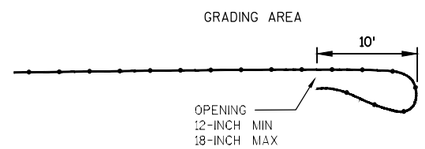
SIDE VIEW

CULVERT PIPE CHECKS

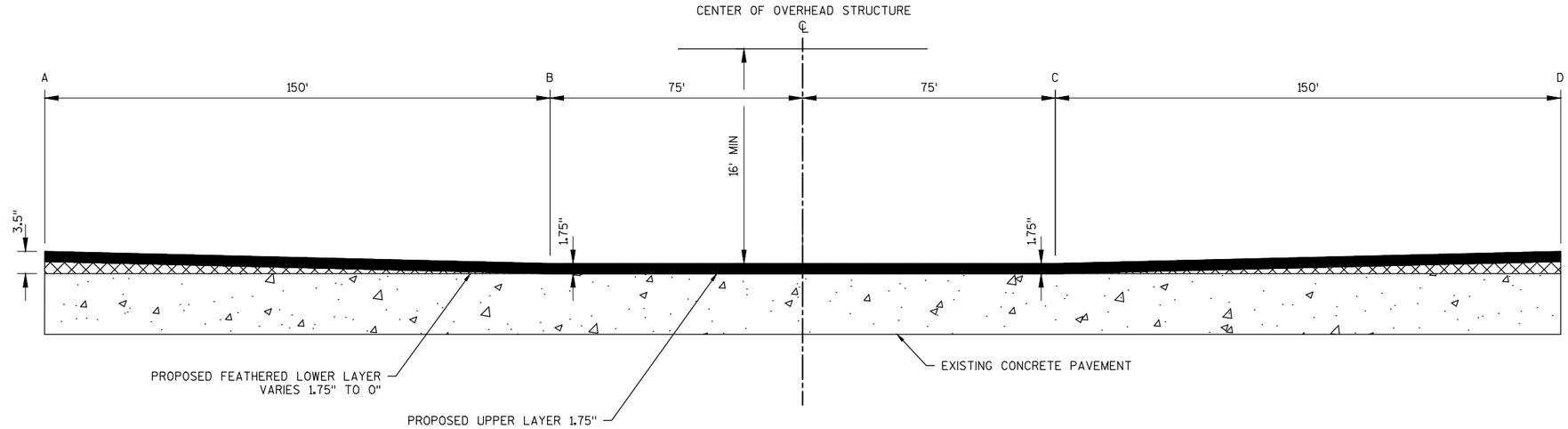
ESTIMATED BAG SIZE = 18" x 12" x 6"	
PIPE SIZE	ESTIMATED NO. OF BAGS
12"	1
15"	2
18"	2
21"	3
14" x 23"	3
24"	3
27"	4
30"	5
19" x 30"	5
36"	7
24" X 36"	8
42"	8
29" X 45"	10
48"	10
34" X 53"	10
38" X 60"	13
60"	13
66"	15
53" X 83"	19

ROCK BAGS USED FOR SILT FENCE RELIEF DETAIL

SEE EROSION CONTROL PLANS FOR LOCATIONS



LOOP AT SILT FENCE TERMINI EXCLUSION FENCING



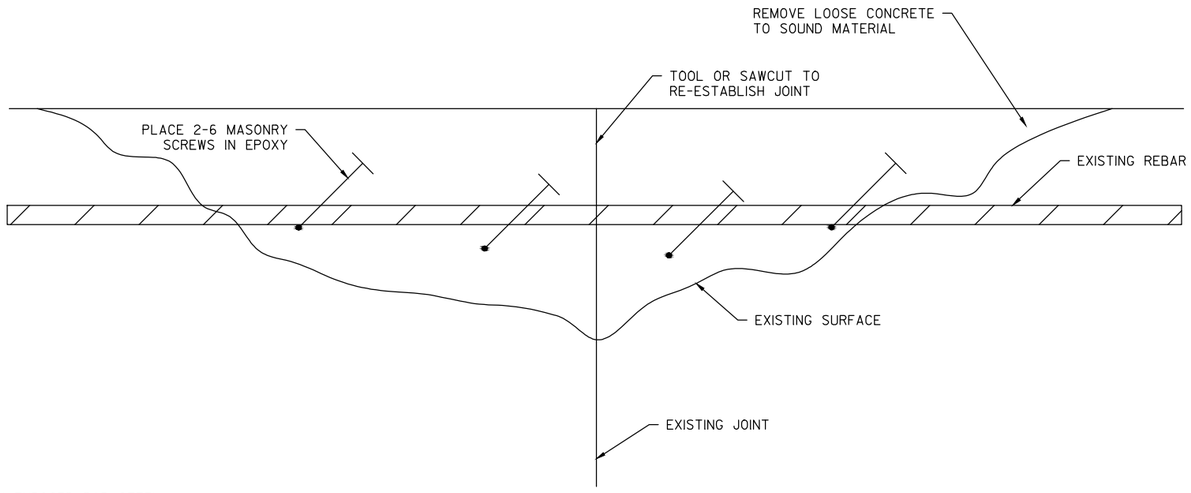
CONSTRUCTION NOTES:

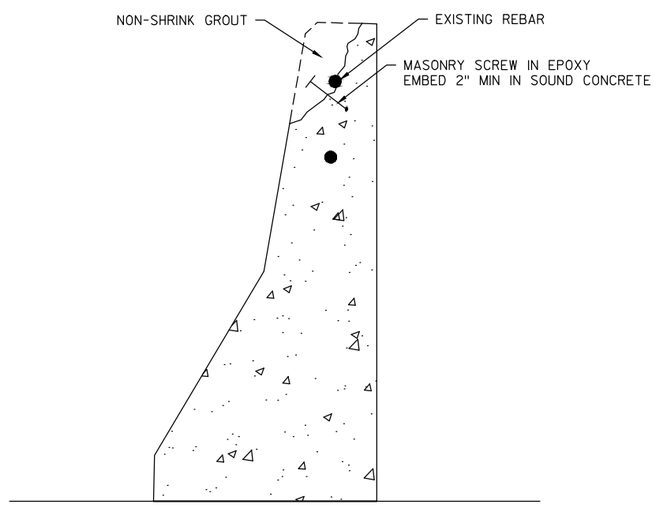
1. REMOVE RAISED PAVEMENT MARKERS AND PLACE HMA PAVEMENT 4HT 58-28 S IN RECESS VOID.
2. PLACE 1.75" LOWER LAYER HMA PAVEMENT 4HT 58-28 S TO LINE A. TRANSITION FROM 1.75" TO 0" LOWER LAYER HMA PAVEMENT 4HT 58-28 S FROM LINE A TO LINE B. PLACE NO LOWER LAYER LINE B TO LINE C. TRANSITION FROM 0 TO 1.75" LOWER LAYER HMA PAVEMENT 4HT 58-28 S FROM LINE C TO LINE D. AT LINE D CONTINUE PAVING 1.75" LOWER LAYER HMA PAVEMENT 4HT 58-28 S
3. PLACE 1.75" UPPER LAYER HMA PAVEMENT 4HT 58-28 S.

DETAIL OF IH 90/94 WB PAVING DETAIL AT OVERHEAD STRUCTURE

B-11-30 (STH 33)

NOTE:
EXISTING STRUCTURE CLEARANCE = 16.19'
PROPOSED STRUCTURE CLEARANCE = 16.05'
DOES NOT APPLY TO IH 90/94 EB



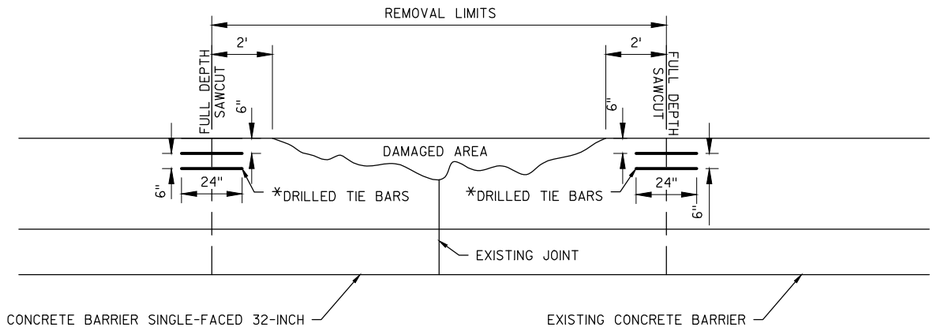


CONSTRUCTION NOTES:

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

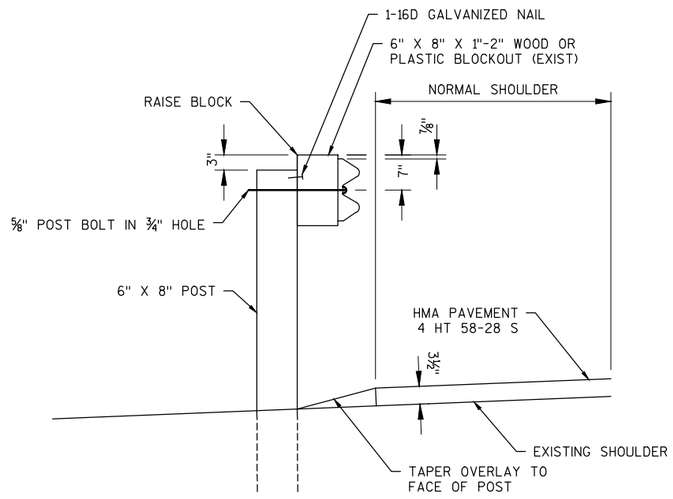
DETAIL OF CONCRETE BARRIER WALL SURFACE REPAIR SECTION

2

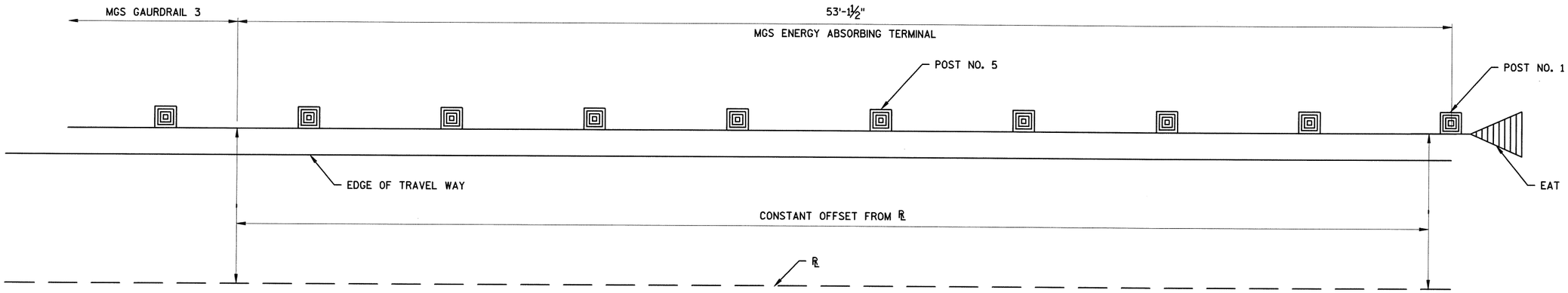


DETAIL OF CONCRETE BARRIER REPLACEMENT

*DRILLED TIE BARS ARE INCIDENTAL TO
CONCRETE BARRIER REPLACEMENT



DETAIL OF ADJUSTING STEEL PLATE BEAMGUARD



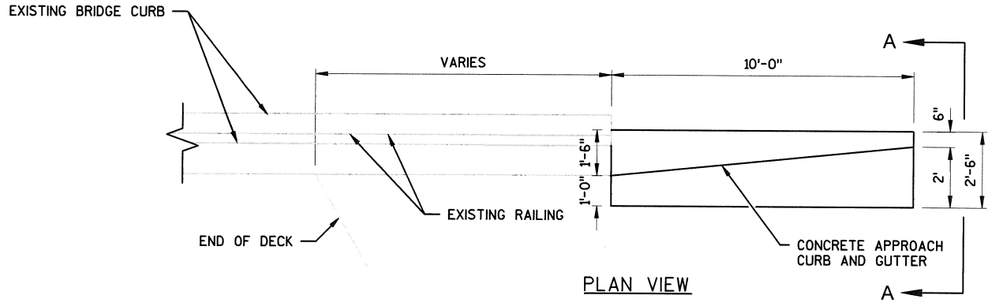
NO OFFSET MGS GUARDRAIL TERMINAL EAT DETAIL

STH 33
STA 342+54.7'S' - STA 343+07.7'S' RT

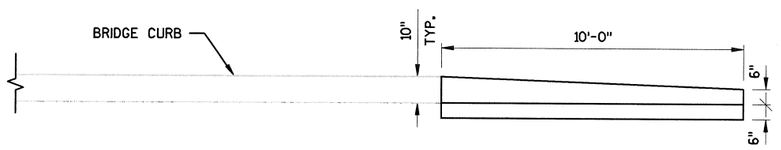
CASCADE MOUNTAIN ROAD
STA 52+38.2'P' - STA 52+92.1'P' RT

CTH U
STA 14+52.0'U' - STA 15+05.7'U' LT

KENT ROAD
STA 44+07.6'K' - STA 44+60.7'K' RT



PLAN VIEW



ELEVATION VIEW

CONCRETE APPROACH CURB AND GUTTER

CASCADE MOUNTAIN ROAD
STA 48+22'P' - STA 48+32'P' LT
STA 51+00'P' - STA 51+10'P' LT

CTH U
STA 15+94'U' - STA 16+04'U' LT
STA 18+40'U' - STA 18+50'U' LT

CTH V
STA 48+38'V' - STA 48+48'V' LT
STA 50+84'V' - STA 50+94'V' LT

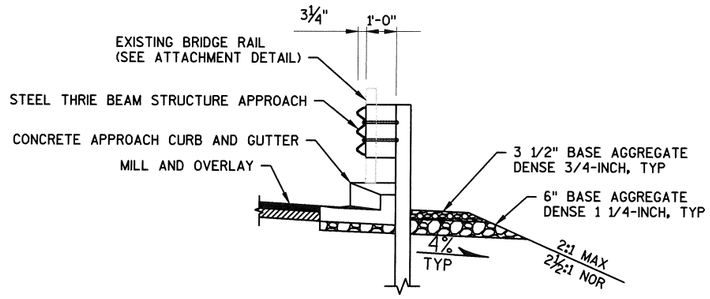
KENT ROAD
STA 48+43'K' - STA 48+53'K' LT
STA 50+84'K' - STA 50+94'K' LT

CASCADE MOUNTAIN ROAD
STA 48+06'P' - STA 48+16'P' RT
STA 50+86'P' - STA 50+96'P' RT

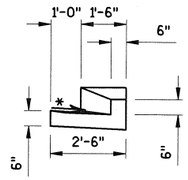
CTH U
STA 16+02'U' - STA 16+12'U' RT
STA 18+40'U' - STA 18+50'U' RT

CTH V
STA 48+32'V' - STA 48+42'V' RT
STA 50+79'V' - STA 50+89'V' RT

KENT ROAD
STA 48+37'K' - STA 48+47'K' RT
STA 50+78'K' - STA 50+88'K' RT



MGS THRIE BEAM TRANSITION DETAIL



* SLOPE 3/4 - INCH PER FOOT

SECTION A-A

WISCONSIN
RAY A. POLKINGHORN
E-30177
MADISON
WI
PROFESSIONAL ENGINEER
3/14/16

PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	PLAN: CONSTRUCTION DETAILS	SHEET 32	E

FILE NAME : S:\PROJECTS\SW\COLUMBIA COUNTY\1010-02-02_IH 39\500_CADD\501_C3D\10100202\SHEETSPLAN\021001-CD.DWG
LAYOUT NAME - 021001-CD
PLOT DATE : 3/14/2016 9:04 AM PLOT BY : BOBBY JONES PLOT NAME : PLOT SCALE : 1 IN:5 FT
WISDOT/CADDS SHEET 42

2

WISDOT AND AT&T - FIBER OPTIC

DELINEATED WETLAND

R/W

830+00NB

835+00NB

840+00NB

845+00NB

850+00NB

855+00NB

IH 90/94 WB

830+00SB

835+00SB

840+00SB

845+00SB

850+00SB

855+00SB

IH 90/94 EB

DELINEATED WETLAND

ATC - PROPOSED TRANSMISSION LINE

SHES10

PT: 851+84.24

DELINEATED WETLAND

B-11-030

MATCHLINE STA 859+00NB

PT: 855+39.50

BEGIN PROJECT 1010-02-84
STA 830+00.00SB
Y = 386,870.762
X = 518,941.572
MATCH EXISTING

BASE PATCHING ASPHALTIC

CLEAN AND FILL CRACK TREATMENT

SHES10 CONTINUOUSLY REINFORCED CONCRETE PAVEMENT SHES REPAIR

STH 33

MATCHLINE STA 859+00NB

860+00NB

865+00NB

870+00NB

875+00NB

880+00NB

885+00NB

865+00SB

870+00SB

875+00SB

880+00SB

885+00SB

MATCHLINE STA 889+00 NB

BARABOO RIVER

AT&T - FIBER OPTIC

WISDOT AND AT&T - FIBER OPTIC

DELINEATED WETLAND

B-11-0138
NO WORK

IH 90/94 WB

IH 90/94 EB

B-11-0137
NO WORK

B-11-030
REHABILITATION SEE PLANS

DELINEATED WETLAND

CHARTER - COMMUNICATION

FRONTIER - COMMUNICATION

AT&T - FIBER OPTIC

ATC - PROPOSED TRANSMISSION LINE

NORTHERN NATURAL GAS - GAS

ALLIANT ENERGY - ELECTRIC

DELINEATED WETLAND

B-11-033
DECK OVERLAY
SEE PLANS

PC: 884+82.90

PC: 885+39.49

CAUTION

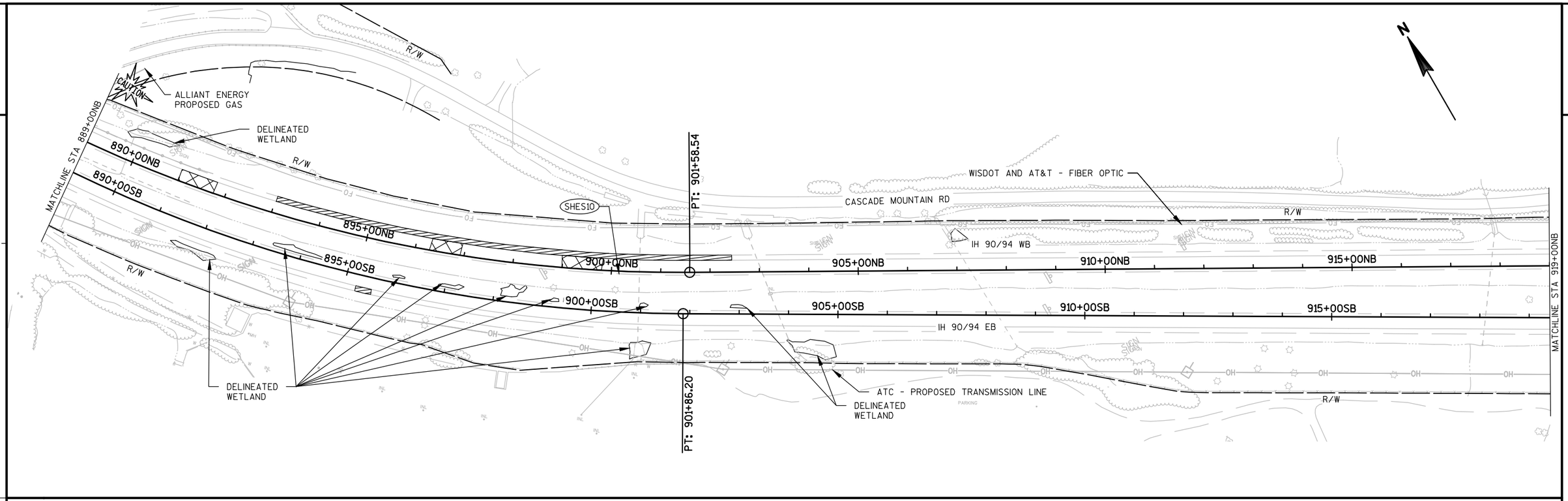
ALLIANT ENERGY PROPOSED GAS

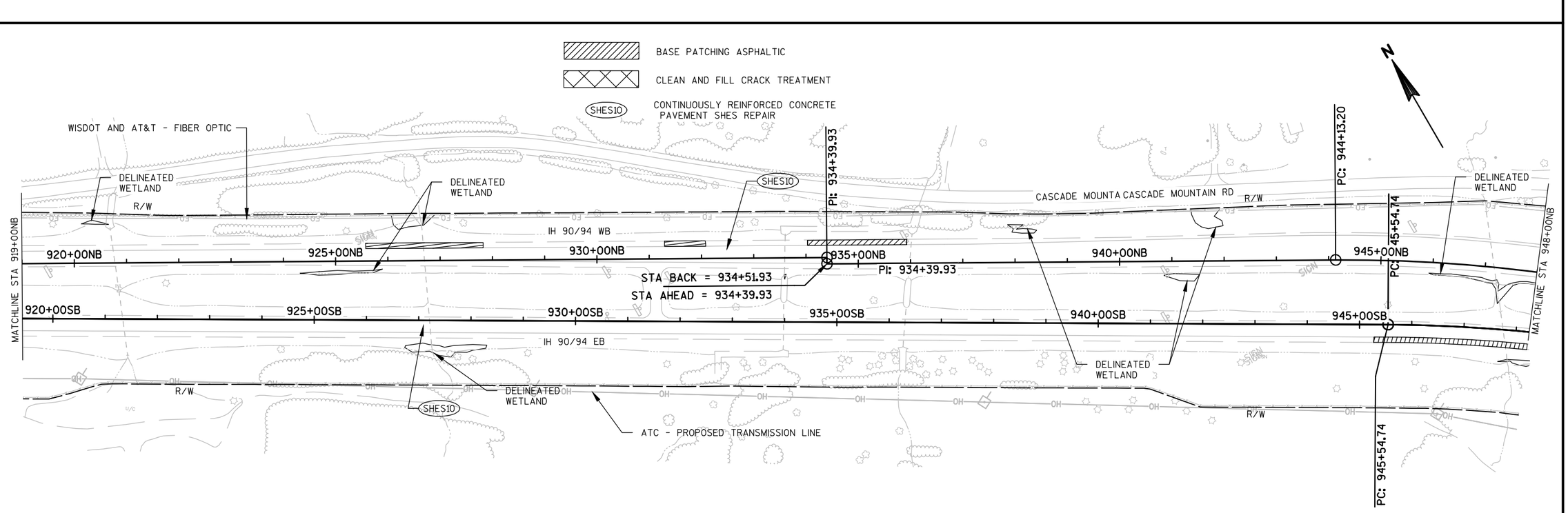
CASCADE MOUNTAIN RD

PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	PLAN DETAIL - PAVEMENT REPAIR	SHEET 33	E

FILE NAME : X:\3230900\131208.01\TECH\CAD\10100202\SHEETSPLAN\CONSTRUCTION PROJECT 1, 1010-02-84\021201_PD-PROJECT 1.DWG PLOT DATE : 3/14/2016 2:03 PM PLOT BY : JASON KLEIST PLOT NAME : PLOT SCALE : 1"=200'_XREF

WISDOT/CADDS SHEET 44





PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	PLAN DETAIL - PAVEMENT REPAIR	SHEET 34	E

2

2

AT&T - FIBER OPTIC

PT: 965+31.76

PT: 966+39.24

DELINEATED WETLAND

S-11-07

CASCADE MOUNTAIN RD

R/W

IH 90/94 WB

965+00NB

970+00NB

975+00NB

965+00SB

970+00SB

975+00SB

960+00NB

960+00SB

955+00NB

955+00SB

950+00NB

950+00SB

WISDOT AND AT&T - FIBER OPTIC

IH 90/94 EB

DELINEATED WETLAND

CAUTION

FRONTIER - FIBER OPTIC

ALLIANT ENERGY - GAS

AT&T - FIBER OPTIC

MERRIMAC - COMMUNICATION

SHES10

WATER TREATMENT PONDS

DELINEATED WETLAND

IH 39 SB

ATC - PROPOSED TRANSMISSION LINE

BASE PATCHING ASPHALTIC

CLEAN AND FILL CRACK TREATMENT

SHES10 CONTINUOUSLY REINFORCED CONCRETE PAVEMENT SHES REPAIR

DELINEATED WETLAND

B-11-0102
NO WORK

PC: 990+58.45

PC: 987+68.

SHES10

980+00NB

985+00NB

990+00NB

980+00SB

985+00SB

990+00SB

IH 90/94 WB

995+00NB

995+00SB

1000+00NB

1000+00SB

1005+00NB

1005+00SB

WISDOT AND AT&T - FIBER OPTIC

IH 39 NB

B-11-0098

B-11-0101
NO WORK

PC: 987+68.84

STH 78

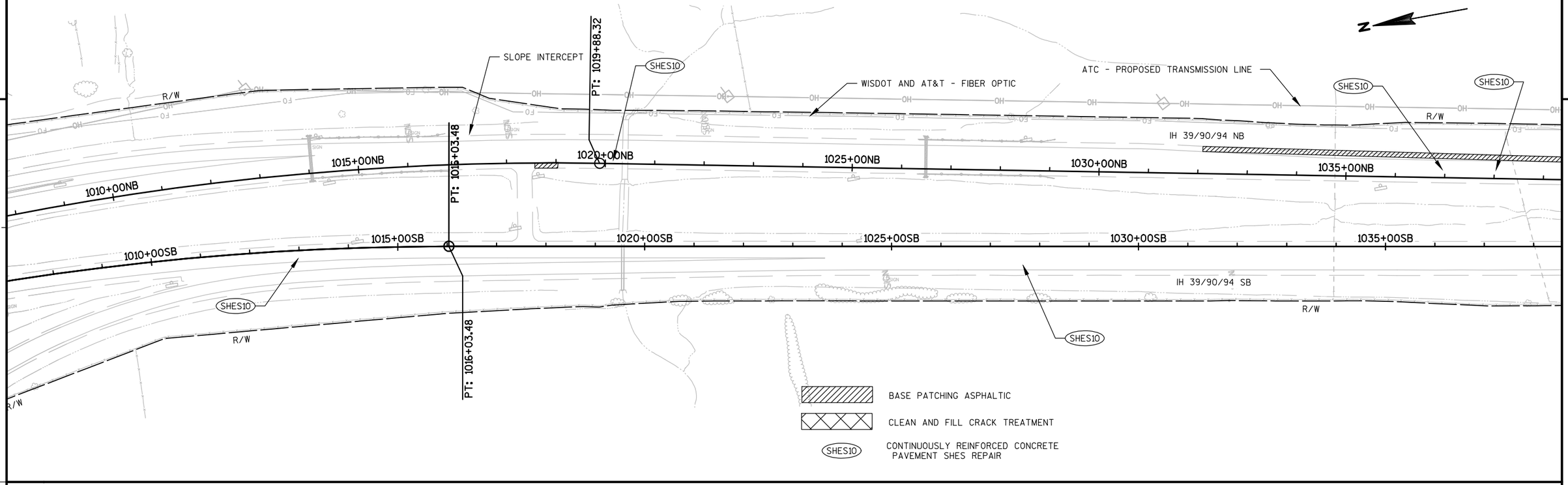
DELINEATED WETLAND

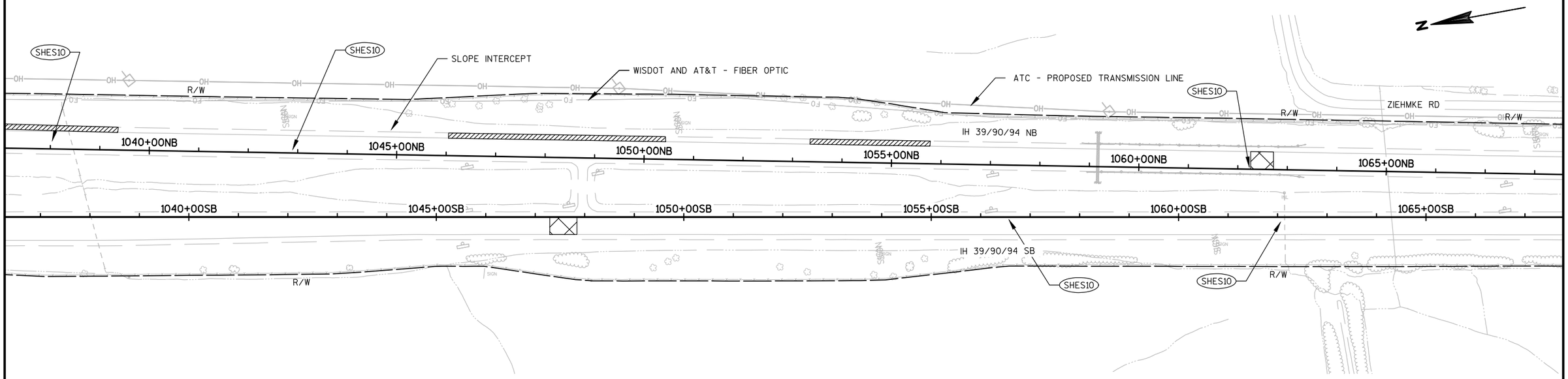
ATC - PROPOSED TRANSMISSION LINE

IH 39 SB

PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	PLAN DETAIL - PAVEMENT REPAIR	SHEET 35	E

FILE NAME : X:\3230900\131208.01\TECH\CAD\10100202\SHEETSPLAN\CONSTRUCTION PROJECT 1, 1010-02-84\021201_PD-PROJECT 1.DWG PLOT DATE : 3/14/2016 2:05 PM PLOT BY : JASON KLEIST PLOT NAME : PLOT SCALE : 1"=200'_XREF





PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	PLAN DETAIL - PAVEMENT REPAIR	SHEET 36	E

FILE NAME : X:\3230900\131208.01\TECH\CAD\10100202\SHEETSPLAN\CONSTRUCTION PROJECT 1, 1010-02-84\021201_PD-PROJECT 1.DWG PLOT DATE : 3/14/2016 2:07 PM PLOT BY : JASON KLEIST PLOT NAME : PLOT SCALE : 1"=200'_XREF

2

2

ATC - PROPOSED TRANSMISSION LINE

WISDOT AND AT&T - FIBER OPTIC

ZIEHMKE RD

R/W

IH 39/90/94 NB

1070+00NB 1075+00NB 1080+00NB 1085+00NB 1090+00NB 1095+00NB

1070+00SB 1075+00SB 1080+00SB 1085+00SB 1090+00SB 1095+00SB

IH 39/90/94 SB

PC: 1095+02.18

PC: 1096+15.72

SHES10

BASE PATCHING ASPHALTIC

CLEAN AND FILL CRACK TREATMENT

SHES10 CONTINUOUSLY REINFORCED CONCRETE PAVEMENT SHES REPAIR

PC: 1096+15.72

PT: 1102+36.31

PC: 1102+45.76

PT: 1103+82.35

PC: 1103+89.27

PT: 1115+39.34

PC: 1116+13.32

PT: 1116+72.01

PC: 1116+75.68

WISDOT AND AT&T - FIBER OPTIC

CTH U

B-11-0035

PT: 1124+58.99

1100+00NB 1105+00NB 1110+00NB 1115+00NB 1120+00NB 1125+00NB

1100+00SB 1105+00SB 1110+00SB 1115+00SB 1120+00SB 1125+00SB

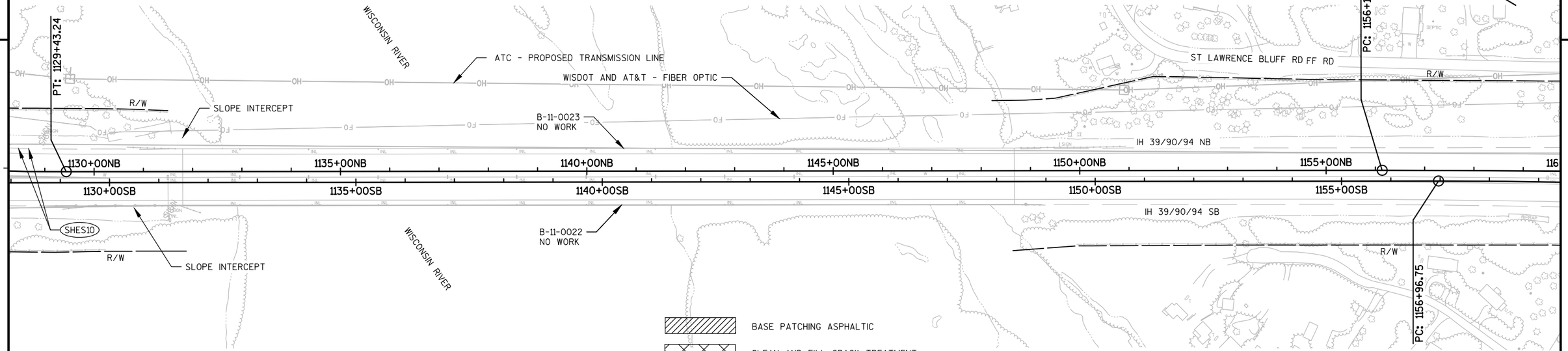
B-11-0035 DECK OVERLAY SEE PLANS

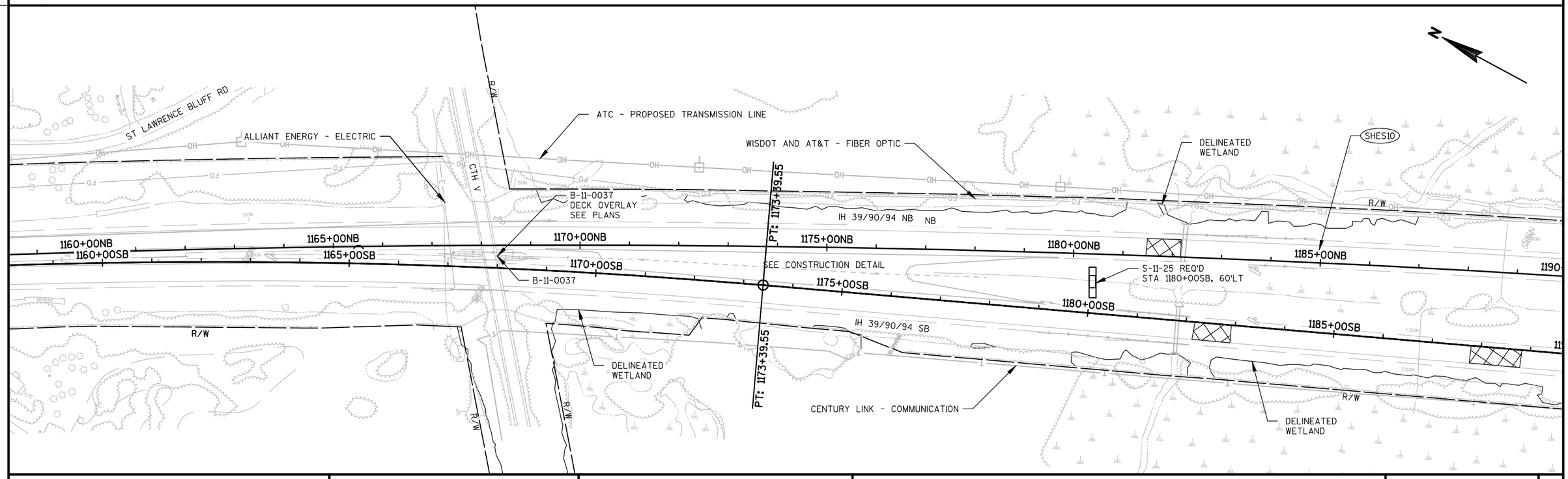
PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	PLAN DETAIL - PAVEMENT REPAIR	SHEET	E

FILE NAME : X:\3230900\131208.01\TECH\CAD\10100202\SHEETSPLAN\CONSTRUCTION PROJECT 1, 1010-02-84\021201_PD-PROJECT 1.DWG PLOT DATE : 3/14/2016 2:08 PM PLOT BY : JASON KLEIST PLOT NAME : PLOT SCALE : 1"=200'_XREF

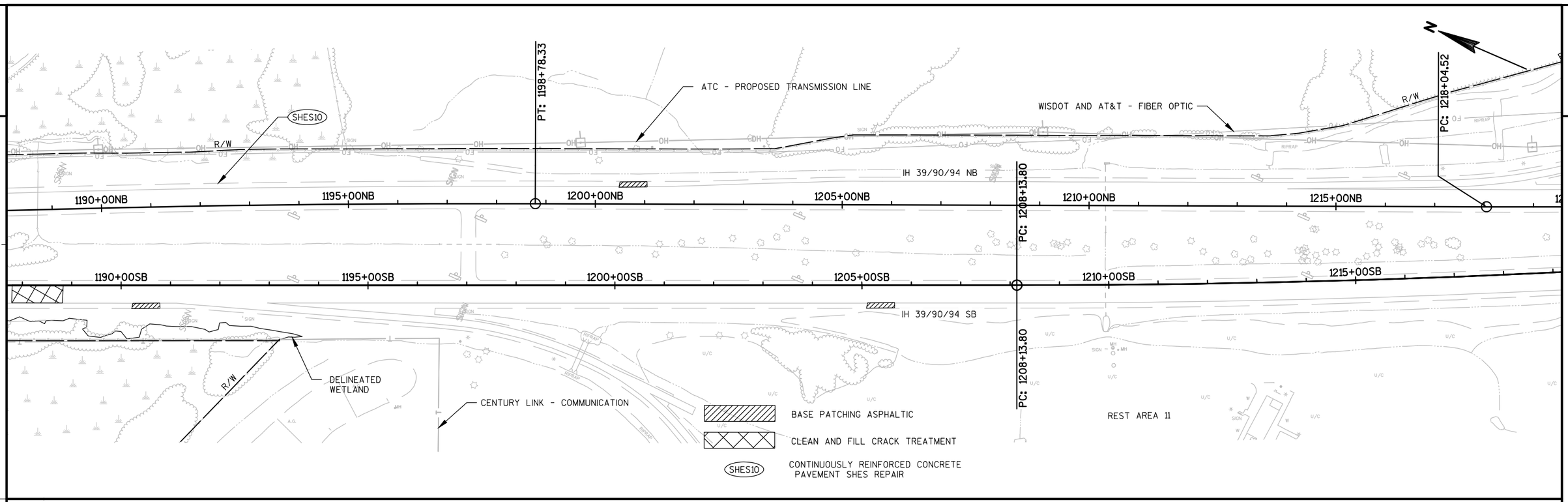
WISDOT/CADDS SHEET 44

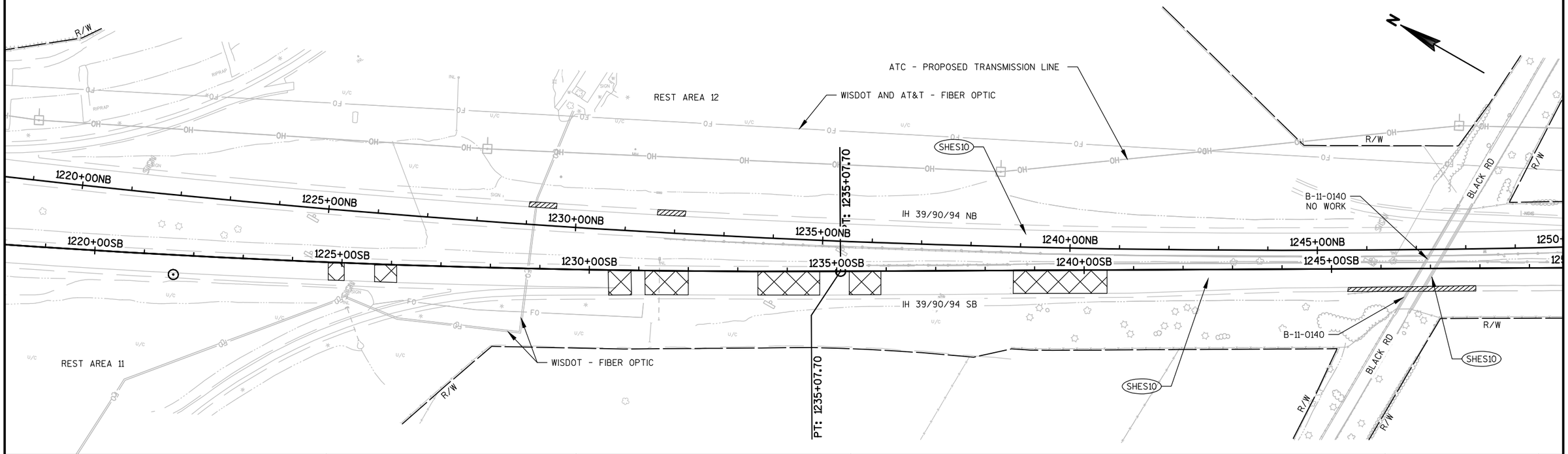
2





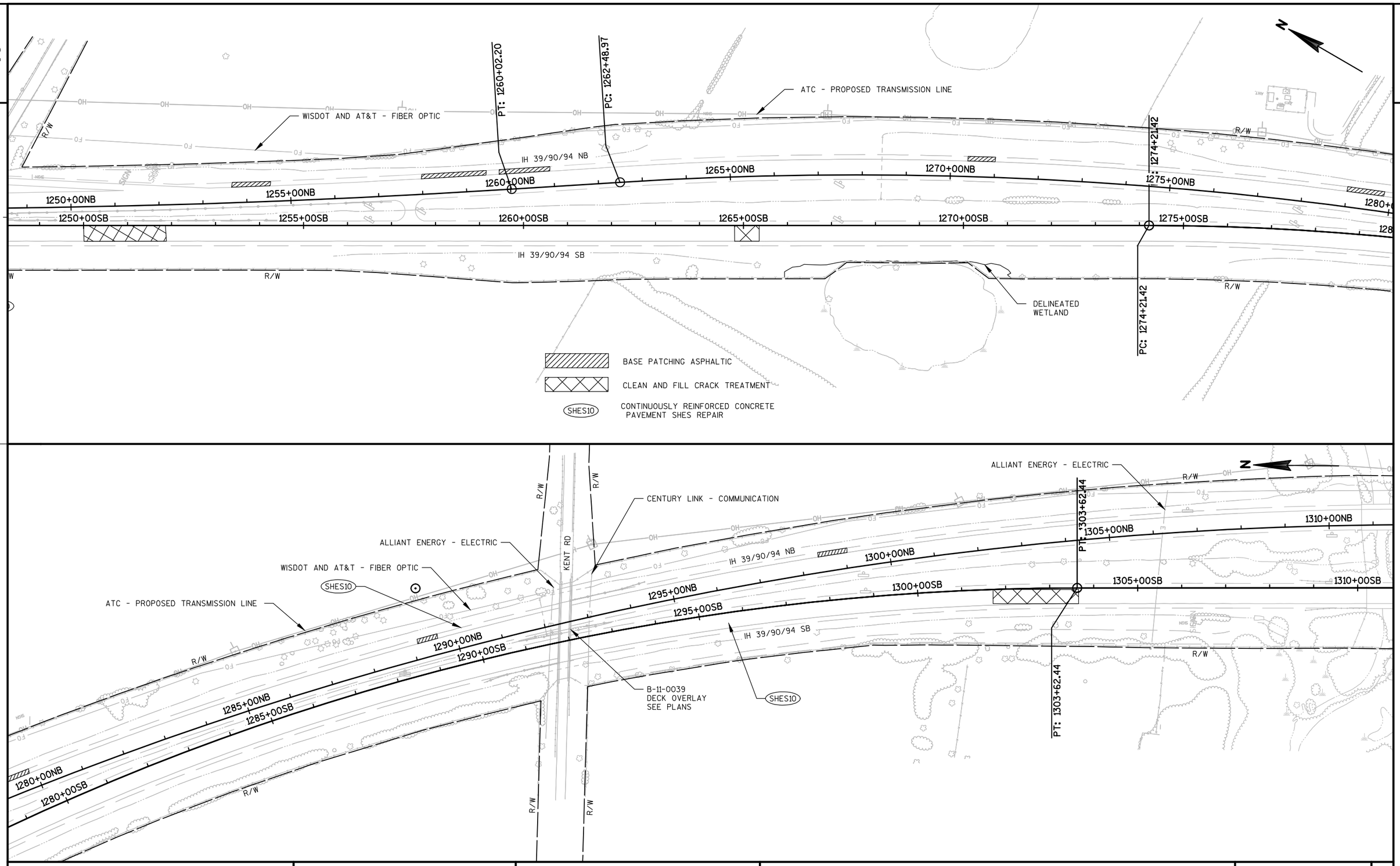
PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	PLAN DETAIL - PAVEMENT REPAIR	SHEET 38	E





PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	PLAN DETAIL - PAVEMENT REPAIR	SHEET 39	E

FILE NAME : X:\3230900\131208.01\TECH\CAD\10100202\SHEETSPLAN\CONSTRUCTION PROJECT 1, 1010-02-84\021201_PD-PROJECT 1.DWG PLOT DATE : 3/14/2016 2:10 PM PLOT BY : JASON KLEIST PLOT NAME : PLOT SCALE : 1"=200'_XREF


PT: 1260+02.20
PC: 1262+48.97
ATC - PROPOSED TRANSMISSION LINE
WISDOT AND AT&T - FIBER OPTIC
IH 39/90/94 NB
IH 39/90/94 SB
R/W
1250+00NB
1255+00NB
1260+00NB
1265+00NB
1270+00NB
1275+00NB
1250+00SB
1255+00SB
1260+00SB
1265+00SB
1270+00SB
1275+00SB
PC: 1274+21.42
DELINEATED WETLAND
BASE PATCHING ASPHALTIC
CLEAN AND FILL CRACK TREATMENT
SHES10
CONTINUOUSLY REINFORCED CONCRETE PAVEMENT SHES REPAIR
ALLIANT ENERGY - ELECTRIC
CENTURY LINK - COMMUNICATION
KENT RD
1280+00NB
1280+00SB
1285+00NB
1285+00SB
1290+00NB
1290+00SB
1295+00NB
1295+00SB
1300+00NB
1300+00SB
1305+00NB
1305+00SB
1310+00NB
1310+00SB
PT: 1303+62.44
B-11-0039
DECK OVERLAY
SEE PLANS

2

2

CTH J

ROWAN CREEK

PT: 1314+16.09

B-11-0041
NO WORK

R/W

SHES10

SHES10

WISDOT AND AT&T - FIBER OPTIC

SHES10

ATC - PROPOSED TRANSMISSION LINE

IH 39/90/94 NB

R/W

0NB

1315+00NB

1320+00NB

1325+00NB

1330+00NB

1335+00NB

1340+00NB

1310+00SB

1315+00SB

1320+00SB

1325+00SB

1330+00SB

1335+00SB

1340+00SB

IH 39/90/94 SB

B-11-0040
NO WORK

R/W

SHES10

DELINEATED
WETLAND

R/W

BASE PATCHING ASPHALTIC

CLEAN AND FILL CRACK TREATMENT

SHES10

CONTINUOUSLY REINFORCED CONCRETE
PAVEMENT SHES REPAIR

N

R/W

ATC - PROPOSED TRANSMISSION LINE

DEKORA SANITARY SEWER DISTRICT - SEWER

DELINEATED
WETLAND

WISDOT AND AT&T - FIBER OPTIC

R/W

PC: 1356+78.31

PC: 1366+08.27

0ONB

1345+00NB

1350+00NB

IH 39/90/94 NB

1355+00NB

1360+00NB

1365+00NB

1370+00NB

1340+00SB

1345

1350+00SB

1355+00SB

1360+00SB

1365+00SB

1370+00SB

IH 39/90/94 SB

CTH CS

DELINEATED
WETLAND

R/W

PC: 1366+08.27

END PROJECT 1010-02-84
STA STA 1344+69.55 SB

PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	PLAN DETAIL - PAVEMENT REPAIR	SHEET 41	E

LEGEND

ASBJ	REMOVING ASPHALTIC SURFACE BUTT JOINTS
AS	3 1/2" ASPHALTIC SURFACE
BAD1	BASE AGGREGATE DENSE 3/4-INCH
MGS3	MGS GUARDRAIL 3
MGSTB	MGS THRIE BEAM TRANSITION
STBSA	STEEL THRIE BEAM STRUCTURE APPROACH
MGSEAT	MGS GUARDRAIL TERMINAL EAT
MGST2	MGS GUARDRAIL TERMINAL TYPE 2
MGS3K	MGS GUARDRAIL 3K

WETLANDS

IH 90/94 SB

859'SB'

859'NB'

IH 90/94 NB

SLOPE INTERCEPT

WETLANDS

MGS3

REMOVING GUARDRAIL

AS

BAD1

STBSA

+41.22 17.8 LT

+78.08 17.8 LT

+90.57 18.2 LT

+03.04 19.1 LT

+15.55 20.5 LT

3.94' TYP

+27.86 22.1 LT

+40.25 23.7 LT

+52.72 25.5 LT

+65.10 27.2 LT

+77.49 28.8 LT

+89.90 29.9 LT

BEGIN CONSTRUCTION
STA 336+30.97'S'
MATCH EXISTING

STA 338+00'S'

332'S' ASPH 333'S' 334'S' N43° 59' 07"E 860'SB' 335'S' 336'S' 337'S' ASPH

℄ STH 33

STH 33

STH 33

MATCH LINE

B-11-30

STA 334+88.99'S'=
STA 860+02.76'SB'

860'NB'

STA 335+52.53'S'=
STA 859+83.30'NB'

+30.97 17.6 RT

+67.88 17.6 RT

+80.37 18.0 RT

+92.84 18.9 RT

+05.27 20.2 RT

+17.70 21.5 RT

+30.13 22.8 RT

+42.55 23.8 RT

3.94' TYP

MGS3

AS

BAD1

STBSA

WISDOT

REMOVING GUARDRAIL

SLOPE INTERCEPT

FRONTIER

WETLANDS

WISCONSIN
RAY A. POLKINGHORN
E-30177
MADISON
WI
PROFESSIONAL ENGINEER

This stamp covers 9 Plan Detail sheets for STH 33, Cascade Mountain Rd, CTH U, CTH V, and Kent Rd.

3/14/16

WETLANDS

SLOPE INTERCEPT

STA 338+00'S'

PI: 338+07.59'S'

3.94' TYP

AS

+26.99 33.5 LT

MGS3

BAD1

REMOVING GUARDRAIL

+79.97 40.0 LT

MGSEAT

+29.84 44.1 LT

+29.59 50.1 LT

+61.26 50.2 LT

12:1

15:1

EXIT RAMP IH 90/94 SB

PI: 341+76.70'S'

ENTRANCE RAMP IH 90/94 NB

ENTRANCE RAMP IH 90/94 NB

STA 344+00'S'

ASPH

339'S' N44° 14' 33"E 340'S' 341'S' 342'S' 343'S' N43° 35' 18"E

℄ STH 33

STH 33

STH 33

MATCH LINE

MATCH LINE

3.94' TYP

WETLANDS

REMOVING GUARDRAIL

AS

BAD1

MGS3

SLOPE INTERCEPT

+67.55 33.8 RT

+79.66 34.0 RT

+57.71 34.0 RT

MGSEAT

+07.71 32.1 RT

+31.87 26.0 RT

WETLANDS

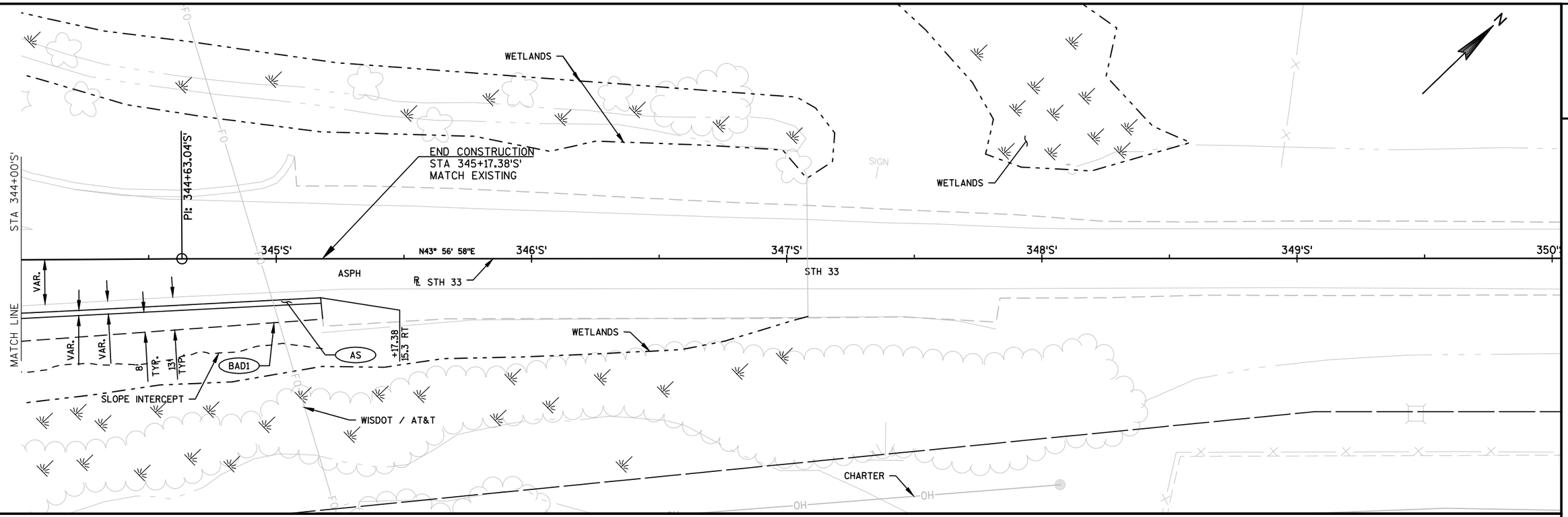
PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	PLAN DETAIL - STH 33	SHEET 42	E

FILE NAME : S:\PROJECTS\SW\COLUMBIA COUNTY\1010-02-02_IH 39\500_CADD\501_C3D\10100202\SHEETSPLAN\050101_PP.DWG
LAYOUT NAME - 050101_PP

PLOT DATE : 3/14/2016 9:15 AM PLOT BY : BOBBY JONES PLOT NAME : PLOT SCALE : 1:40_XREF

WISDOT/CADDS SHEET 44

2



LEGEND

ASBJ	REMOVING ASPHALTIC SURFACE BUTT JOINTS
AS	3 1/2" ASPHALTIC SURFACE
BAD1	BASE AGGREGATE DENSE 3/4-INCH
MGS3	MGS GUARDRAIL 3
MGSTB	MGS THRIE BEAM TRANSITION
STBSA	STEEL THRIE BEAM STRUCTURE APPROACH
MGSEAT	MGS GUARDRAIL TERMINAL EAT
MGST2	MGS GUARDRAIL TERMINAL TYPE 2
MGS3K	MGS GUARDRAIL 3K

2

PI STA = 40+90.12
Y = 381768.784
X = 522782.518
DELTA = 10°14'52"
D = 7°03'50"
T = 72.73'
L = 145.07'
R = 811.10'
PC STA = 40+17.39
PT STA = 41+62.46

PI STA = 43+17.31
Y = 381941.485
X = 522634.304
DELTA = 22°54'50"
D = 7°29'56"
T = 154.85'
L = 305.56'
R = 764.06'
PC STA = 41+62.46
RT STA = 44+68.02

PI STA = 46+34.21
Y = 382084.478
X = 522346.872
DELTA = 23°18'13"
D = 7°32'06"
T = 156.80'
L = 309.27'
R = 760.39'
PC STA = 44+77.41
PT STA = 47+86.67

N

41+00'P'
42+00'P'
43+00'P'
44+00'P'
45+00'P'
STA 46+00'P'
PCC: 41+62.46
PI: 40+90.12
PI: 43+17.31
PT: 44+68.02
PC: 44+77.41
WETLAND
+64.03 10.9 LT
+38.32 12.7 LT
+45.74 12.0 LT
+95.74 12.0 LT
MGSEAT
BAD1
AS
REMOVING GUARDRAIL
SLOPE INTERCEPT
3.94'
2'
10'
MGS3
SAWING ASPHALT REQ'D
BEGIN CONSTRUCTION
STA 42+64.03'P'
℄ CASCADE MOUNTAIN ROAD
CASCADE MOUNTAIN ROAD
N63° 33' 01"W
MATCH LINE
+86.95 20.3 RT
+98.91 19.9 RT
+98.91 14.0 RT
+48.91 12.0 RT
BULGRIEN DR

LEGEND

ASBJ	REMOVING ASPHALTIC SURFACE BUTT JOINTS
AS	3 1/2" ASPHALTIC SURFACE
BAD1	BASE AGGREGATE DENSE 3/4-INCH
MGS3	MGS GUARDRAIL 3
MGSTB	MGS THRIE BEAM TRANSITION
STBSA	STEEL THRIE BEAM STRUCTURE APPROACH
MGSEAT	MGS GUARDRAIL TERMINAL EAT
MGST2	MGS GUARDRAIL TERMINAL TYPE 2

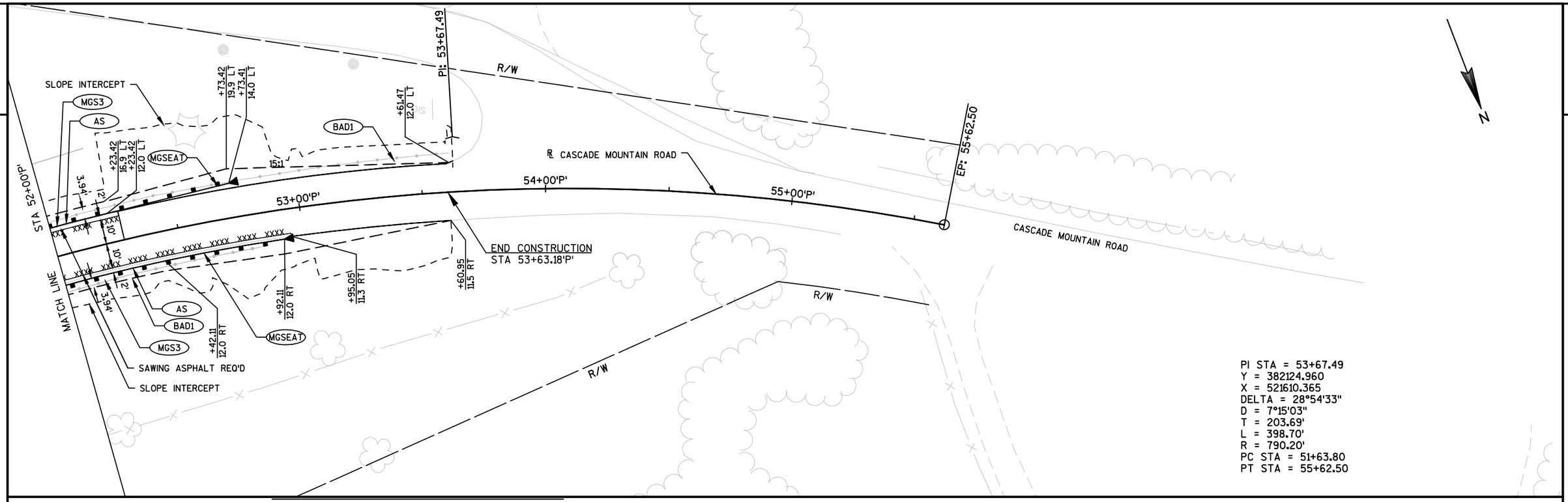
PI STA = 46+34.21
Y = 382084.478
X = 522346.872
DELTA = 23°18'13"
D = 7°32'06"
T = 156.80'
L = 309.27'
R = 760.39'
PC STA = 44+77.41
PT STA = 47+86.67

STA 46+00'P'
MATCH LINE
PI: 46+34.21
WISDOT AND AT&T
WP&L PROPOSED GAS LINE
PT: 47+86.67
ASPHALT FLUMES +03.47, LT
B-11-33
ASBJ
STBSA
47+00'P'
48+00'P'
49+00'P'
50+00'P'
51+00'P'
N86° 51' 14"W
℄ CASCADE MOUNTAIN ROAD
CASCADE MOUNTAIN ROAD
888'SB'
888'NB'
887'SB'
887'NB'
IH 90/94 SB
IH 90/94 NB
BEGIN MILL AND OVERLAY
STA 47+50.00'P'
ASPHALTIC SURFACE BUTT JOINT
MATCH EXISTING
REMOVING GUARDRAIL
SLOPE INTERCEPT
ASPHALT FLUMES +19.37, RT
CONCRETE APPORACH CURB & GUTTER
STA 49+22.62'P'= STA 887+45.59'NB'
STA 49+99.87'P'= STA 887+05.32'SB'
WETLAND
BULGRIEN DR

END MILL AND OVERLAY
STA 51+50.00'P'
ASPHALTIC SURFACE BUTT JOINT
MATCH EXISTING

PC: 51+63.80
STA 52+00'P'
CONCRETE APPORACH CURB & GUTTER

PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	PLAN DETAIL - CASCADE MOUNTAIN ROAD	SHEET 44 E



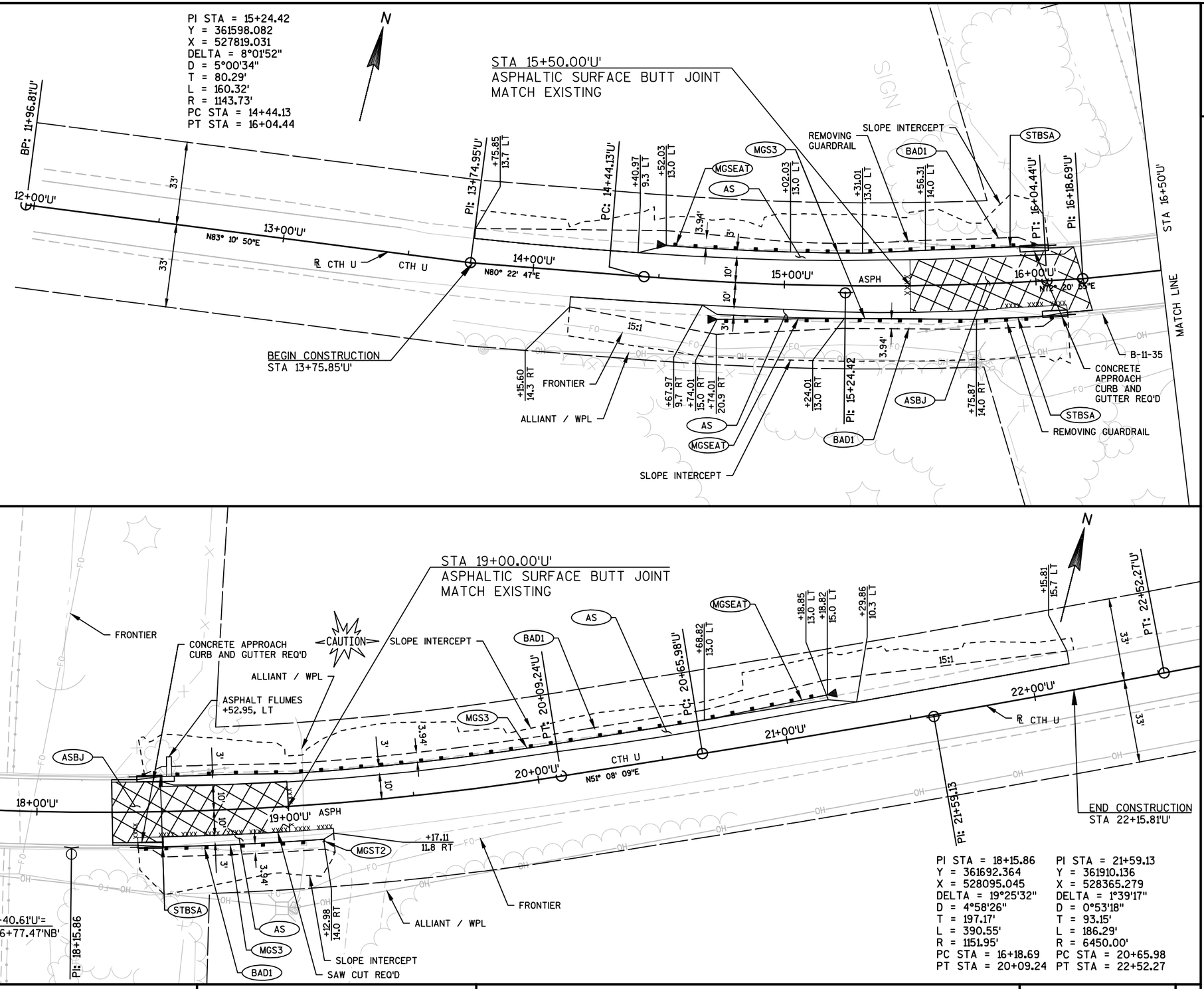
PI STA = 53+67.49
Y = 382124.960
X = 521610.365
DELTA = 28°54'33"
D = 7°15'03"
T = 203.69'
L = 398.70'
R = 790.20'
PC STA = 51+63.80
PT STA = 55+62.50

LEGEND

ASBJ	REMOVING ASPHALTIC SURFACE BUTT JOINTS
AS	3 1/2" ASPHALTIC SURFACE
BAD1	BASE AGGREGATE DENSE 3/4-INCH
MGS3	MGS GUARDRAIL 3
MGSTB	MGS THRIE BEAM TRANSITION
STBSA	STEEL THRIE BEAM STRUCTURE APPROACH
MGSEAT	MGS GUARDRAIL TERMINAL EAT
MGST2	MGS GUARDRAIL TERMINAL TYPE 2

LEGEND

ASBJ	REMOVING ASPHALTIC SURFACE BUTT JOINTS
AS	3 1/2" ASPHALTIC SURFACE
BAD1	BASE AGGREGATE DENSE 3/4-INCH
MGS3	MGS GUARDRAIL 3
MGSTB	MGS THRIE BEAM TRANSITION
STBSA	STEEL THRIE BEAM STRUCTURE APPROACH
MGSEAT	MGS GUARDRAIL TERMINAL EAT
MGST2	MGS GUARDRAIL TERMINAL TYPE 2



PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	PLAN DETAIL - CTH U	SHEET 46 E

PI STA = 44+47.50
Y = 358416.855
X = 530491.019
DELTA = 4°47'11"
D = 2°00'12"
T = 119.53'
L = 238.91'
R = 2860.00'
PC STA = 43+27.97
PT STA = 45+66.88

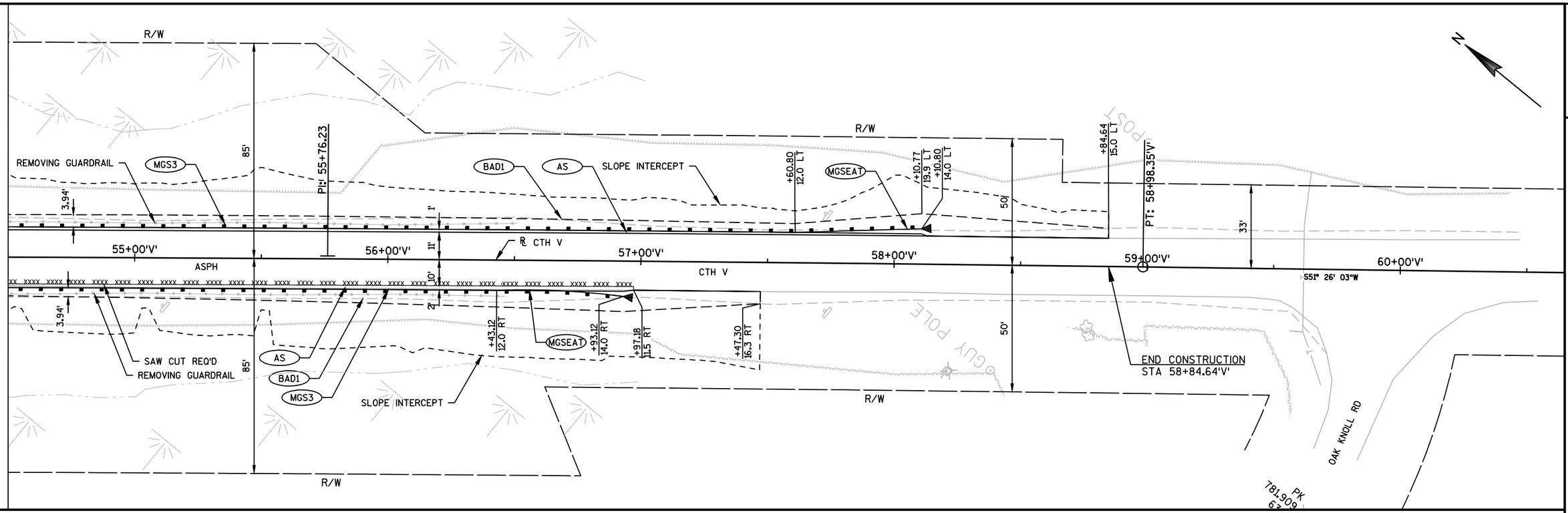
BP: 42+90.00'V'
PC: 43+27.97'V'
PT: 45+66.88'V'
PI: 48+15.44'V'
PI: 44+47.50
BEGIN CONSTRUCTION
STA 44+60.69'V'
STA 47+75.00'V'
ASPHALTIC SURFACE BUTT JOINT
MATCH EXISTING
43+00'V'
44+00'V'
45+00'V'
46+00'V'
47+00'V'
48+00'V'
S55° 21' 31"W
S50° 34' 21"W
40'
65'
10'
2'
3.94'
R/W
CTH V
ASPH
SLOPE INTERCEPT
REMOVING GUARDRAIL
SAW CUT REQ'D
ASPHALT FLUMES
+35.28, LT
ASPHALT FLUMES
+29.21, RT
CONCRETE APPROACH
CURB AND GUTTER REQ'D
ALLIANT / WPL
WISDOT AND AT&T
ST LAWRENCE BLUFF RD
+60.69 11.7 LT
+21.15 14.0 LT
+74.47 12.0 LT
+61.94 12.0 LT
+11.90 14.0 LT
+98.01 10.4 LT
+66.06 10.3 RT
+83.40 12.0 RT
+91.54 19.9 RT
+91.49 14.0 RT
+41.49 12.0 RT
+70.59 19.6 RT
+50.71 57.8 RT
+55.88 12.0 RT
+05.85 14.0 RT
+45.30 14.1 RT

LEGEND

ASBJ	REMOVING ASPHALTIC SURFACE BUTT JOINTS
AS	3 1/2" ASPHALTIC SURFACE
BAD1	BASE AGGREGATE DENSE 3/4-INCH
MGS3	MGS GUARDRAIL 3
MGSTB	MGS THRIE BEAM TRANSITION
STBSA	STEEL THRIE BEAM STRUCTURE APPROACH
MGSEAT	MGS GUARDRAIL TERMINAL EAT
MGST2	MGS GUARDRAIL TERMINAL TYPE 2

STA 48+50'V'
MATCH LINE
49+00'V'
50+00'V'
S50° 37' 22"W
1169'NB'
1168'NB'
1168'SB'
1167'SB'
STA 49+41.49'V'=
STA 1168+12.70'NB'
STA 49+89.53'V'=
STA 1167+90.79'SB'
IH 39/90/94 NB
IH 39/90/94 SB
B-11-37
ASPHALT FLUMES
+96.93, LT
CONCRETE APPROACH
CURB AND GUTTER REQ'D
+20.34 14.0 LT
+70.30 12.0 LT
+54.10 12.0 LT
52+54.10'V'
85'
+15.01 14.0 RT
+64.97 12.0 RT
+54.10 12.0 RT
ASPHALT FLUMES
+91.57, RT
STA 51+50.00'V'
ASPHALTIC SURFACE BUTT JOINT
MATCH EXISTING
CENTURY LINK
STA 54+50'V'
MATCH LINE
PI STA = 55+76.23
Y = 357700.420
X = 529618.620
DELTA = 0°48'41"
D = 0°07'33"
T = 322.13'
L = 644.25'
R = 45500.00'
PC STA = 52+54.10
PT STA = 58+98.35

PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	PLAN DETAILS - CTH V	SHEET 47	E

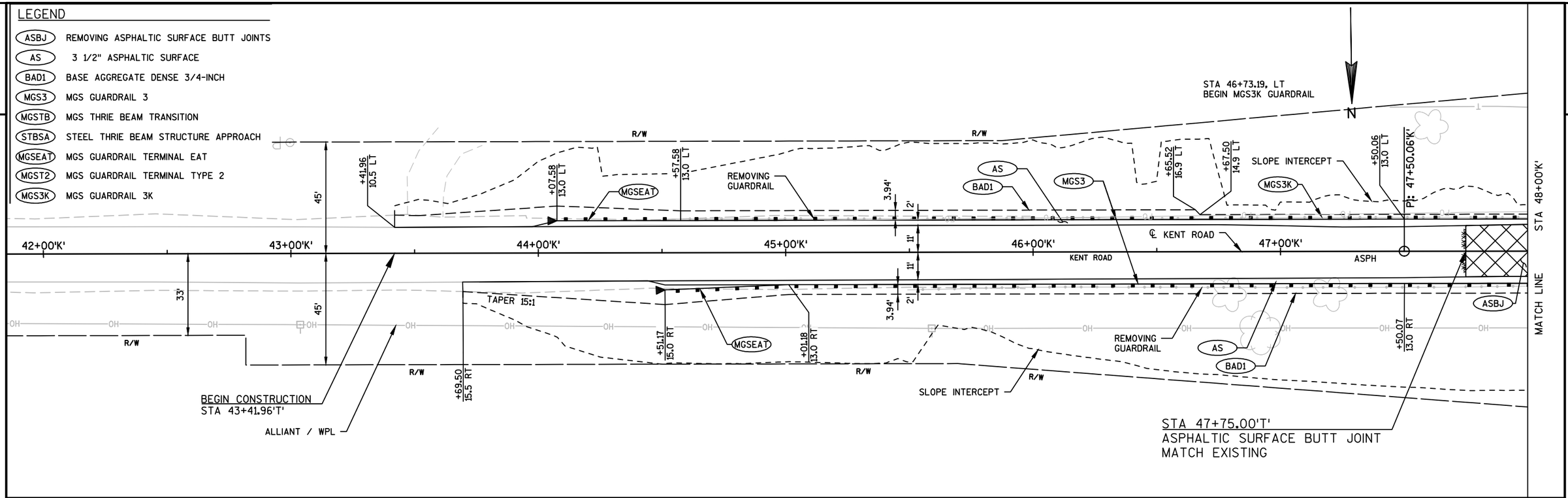


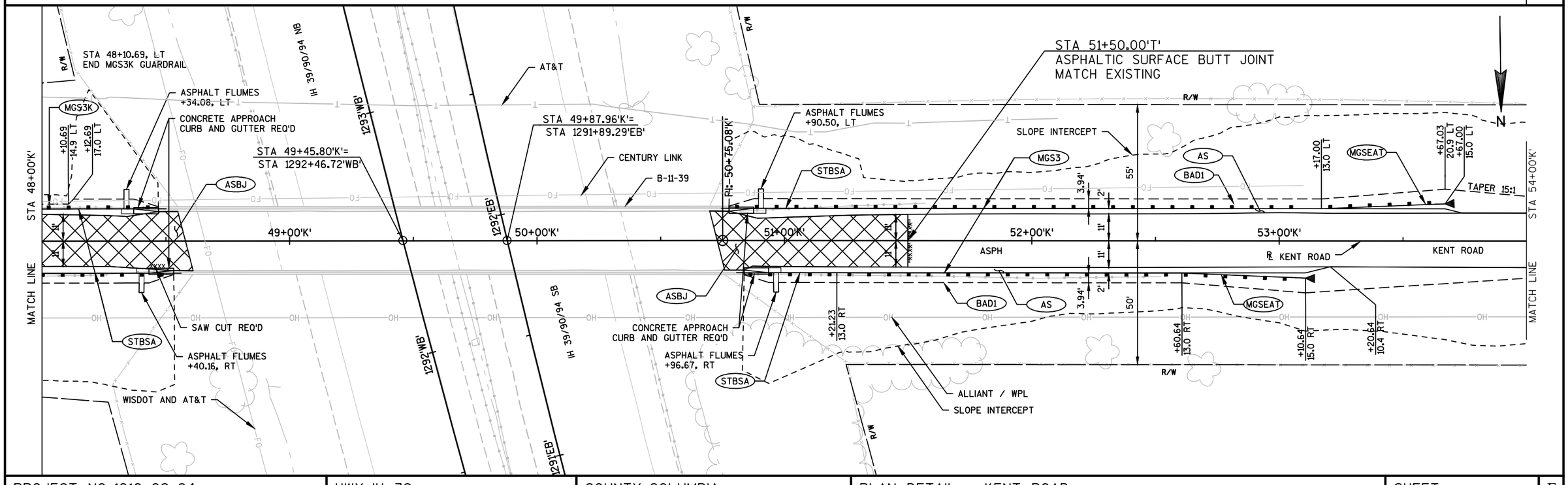
LEGEND

ASBJ	REMOVING ASPHALTIC SURFACE BUTT JOINTS
AS	3 1/2" ASPHALTIC SURFACE
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MGSEAT	MGS GUARDRAIL TERMINAL EAT
MGST2	MGS GUARDRAIL TERMINAL TYPE 2

LEGEND

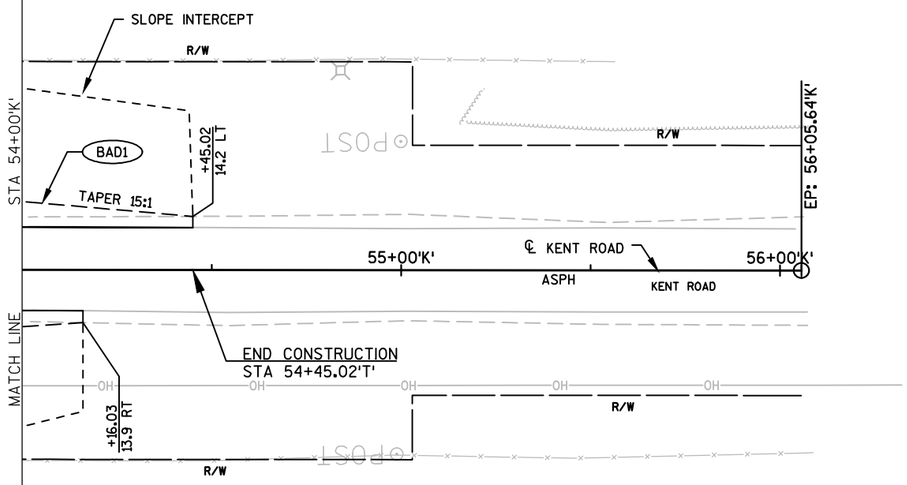
- ASBJ — REMOVING ASPHALTIC SURFACE BUTT JOINTS
- AS — 3 1/2" ASPHALTIC SURFACE
- BAD1 — BASE AGGREGATE DENSE 3/4-INCH
- MGS3 — MGS GUARDRAIL 3
- MGSTB — MGS THRIE BEAM TRANSITION
- STBSA — STEEL THRIE BEAM STRUCTURE APPROACH
- MGSEAT — MGS GUARDRAIL TERMINAL EAT
- MGST2 — MGS GUARDRAIL TERMINAL TYPE 2
- MGS3K — MGS GUARDRAIL 3K





PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	PLAN DETAIL - KENT ROAD	SHEET 49	E

2



N

LEGEND

ASBJ	REMOVING ASPHALTIC SURFACE BUTT JOINTS
AS	3 1/2" ASPHALTIC SURFACE
BAD1	BASE AGGREGATE DENSE 3/4-INCH
MGS3	MGS GUARDRAIL 3
MGSTB	MGS THRIE BEAM TRANSITION
STBSA	STEEL THRIE BEAM STRUCTURE APPROACH
MGSEAT	MGS GUARDRAIL TERMINAL EAT

PROJECT NO:1010-02-84	HWY:IH 39	COUNTY:COLUMBIA	PLAN DETAIL - KENT ROAD	SHEET 50 E

FILE NAME : S:\PROJECTS\SW\COLUMBIA COUNTY\1010-02-02_IH 39\500_CADD\501_C3D\10100202\SHEETSPLAN\050109_PP.DWG
LAYOUT NAME - 050902_PP
PLOT DATE : 3/14/2016 1:02 PM PLOT BY : RAY POLKINGHORN, PE PLOT NAME : PLOT SCALE : 1"=40'_XREF

NOT TO SCALE

ITS GENERAL NOTES

THESE PLANS AND THE ASSOCIATED SPECIAL PROVISIONS REFLECT CONDITIONS KNOWN DURING THE DEVELOPMENT OF THE PLANS AND SPECIAL PROVISIONS. ALL SCALES, DIMENSIONS, AND LOCATIONS SHOWN IN THESE PLANS ARE APPROXIMATE. ACTUAL PHYSICAL FIELD CONDITIONS SHALL PROVIDE THE BASIS FOR THE APPLICATION OF WORK SHOWN IN THE PLANS. THE CONTRACTOR IS FULLY RESPONSIBLE FOR THE APPLICATION OF ALL WORK SHOWN IN THE PLANS TO THE ACTUAL PHYSICAL FIELD CONDITIONS TO PROVIDE A COMPLETE AND ACCEPTED PROJECT. IN THE EVENT THAT ACTUAL PHYSICAL FIELD CONDITIONS AFFECT OR PREVENT THE APPLICATION OR PROGRESSION OF ANY WORK SHOWN IN THE PLANS OR SPECIAL PROVISIONS, THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY, AND PRIOR TO ANY FURTHER WORK ACTIVITY. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER OF ANY LOCATION CHANGES.

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

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

NO TEST BORINGS WERE MADE WHERE CONDUIT, PULL BOXES, POLES, FOUNDATIONS, OR OTHER EQUIPMENT IS TO BE INSTALLED.

THE CONTRACTOR IS FULLY RESPONSIBLE FOR EXAMINING THE JOB SITE CONDITIONS BEFORE SUBMITTING BID PROPOSALS.

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

AREAS WITHIN RIGHT-OF-WAY DISTURBED SPECIFICALLY FOR ITS CONSTRUCTION ARE TO BE RESTORED TO THE ORIGINAL CONDITION WITH TOPSOIL, FERTILIZER, SEED, AND MULCH. RESTORATION FOR AREAS DISTURBED FOR OTHER CONSTRUCTION OPERATIONS, BUT ALSO CONTAINING ITS CONSTRUCTION, WILL BE DONE ACCORDING TO REQUIREMENTS AND PAYMENT PROVISIONS FOR THE OTHER CONSTRUCTION OPERATIONS. NO PAYMENT WILL BE MADE FOR RESTORING AREAS DISTURBED FOR ITS CONSTRUCTION OPERATIONS.

DUE TO RAMP, LANE, AND SHOULDER CLOSURE RESTRICTIONS AND WORK UNDER OTHER CONTRACTS, SOME WORK MAY BE REQUIRED TO BE PERFORMED AT NIGHT. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING RAMP, LANE, SHOULDER, AND ROADWAY CLOSURES WITH OTHER CONTRACTS IN THE AREA.

NOTIFY THE REGIONAL TRAFFIC UNIT (PRIMARY 608-246-5367, SECONDARY 608-246-5362), A MINIMUM OF TWO (2) WEEKS PRIOR TO STAKING THE ITS ITEMS.

HAND DIG TRENCHES NEAR EXISTING CONDUIT CONTAINING FIBER OPTIC CABLE. VERIFY DEPTHS OF EXISTING CONDUITS CONTAINING FIBER OPTIC CABLE PRIOR TO CROSSING BY DIRECTIONAL BORE.

ITS LEGEND

DESCRIPTION	SYMBOL
JUNCTION BOX	
CCTV CAMERA	
BASE MOUNTED CABINET	
POLE MOUNTED CABINET	
POLE	
PULL BOX 24X36	
PULL BOX 24X42	
COMMUNICATION VAULT	V
COMMUNICATION MANHOLE	M
MICROWAVE DETECTOR	
ITS CONDUIT	
DYNAMIC MESSAGE SIGN, OVERHEAD	
DYNAMIC MESSAGE SIGN, ROADSIDE	
DYNAMIC MESSAGE SIGN, BUTTERFLY	
DYNAMIC MESSAGE SIGN, CANTILEVER	
PORTABLE CHANGEABLE MESSAGE SIGN	PCMS
ROAD WEATHER INFORMATION SYSTEM	
METER BREAKER PEDESTAL	
METER SOCKET	
BREAKER DISCONNECT BOX	
RAMP CLOSURE GATE	
BLUETOOTH SENSOR	B
WIRELESS MESH NODE	W
AUTOMATIC TRAFFIC RECORDER	ATR
WOODEN POWER POLE	
WOOD POST	
TRANSFORMER	
DETECTION ZONE	
QUANTITY POINT	
IP RADIO	

ITS STANDARD ABBREVIATIONS

ATR	-----	AUTOMATIC TRAFFIC RECORDER
CB	-----	CONTROLLER CABINET
CCTV	-----	CLOSED CIRCUIT TELEVISION
CP	-----	CAMERA POLE
CV	-----	COMMUNICATION VAULT
DMS	-----	DYNAMIC MESSAGE SIGN
DP	-----	DETECTOR POLE
EX	-----	EXISTING
FO	-----	FIBER OPTIC
G	-----	RAMP CLOSURE GATE
JB	-----	JUNCTION BOX
MB	-----	METER BREAKER
MD	-----	MICROWAVE DETECTOR
MH	-----	MANHOLE
MM	-----	MULTIMODE
PB	-----	PULL BOX
PCMS	-----	PORTABLE CHANGEABLE MESSAGE SIGN
PF	-----	POLE FOUNDATION
PP	-----	POWER POLE
QP	-----	QUANTITY POINT
RCG	-----	RAMP CLOSURE GATE
RWIS	-----	ROAD WEATHER INFORMATION SYSTEM
S	-----	OVERHEAD SIGNAL SUPPORT
SB	-----	SIGNAL BASE
SDS	-----	SYSTEM DETECTOR STATION
SM	-----	SINGLE MODE
SWEF	-----	SAFETY AND WEIGHT ENFORCEMENT FACILITY
WDS	-----	WIRELESS DETECTION SENSOR
WIM	-----	WEIGH IN MOTION
WMN	-----	WIRELESS MESH NODE

ITS CONTACTS

WISCONSIN DEPARTMENT OF TRANSPORTATION
SOUTHWEST REGION ITS
MR. KYLE HEMP
608-246-5367
MR. GRAHAM HEITZ
608-246-5362
2101 WRIGHT ST
MADISON, WI 53704

WISCONSIN DEPARTMENT OF TRANSPORTATION
STATEWIDE TRAFFIC OPERATIONS CENTER
MR. DEAN BEEKMAN
414-227-2154
MR. DON SCHELL
414-227-2148
433 W. ST. PAUL AVENUE, SUITE 300
MILWAUKEE, WI 53203

SRF CONSULTING GROUP
INTELLIGENT TRANSPORTATION SYSTEMS
MR. JACOB FOLKERINGA
763-452-4730
MR. NICK GRAGE
763-452-4834
1 CARLSON PARKWAY NORTH, SUITE 150
MINNEAPOLIS, MN 55447

ORIGINAL PLANS PREPARED BY

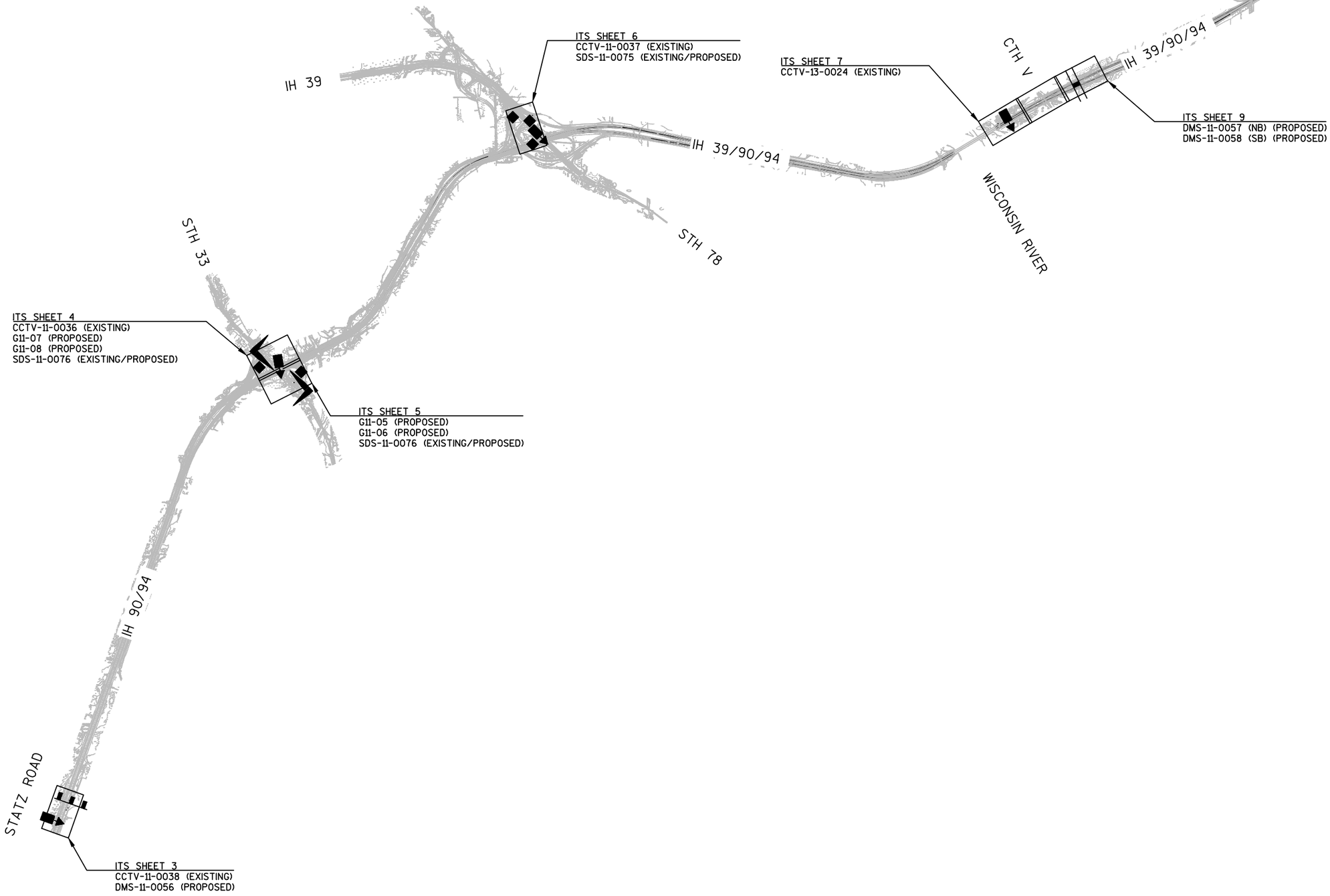
SRF Consulting Group, Inc. | ENGINEERS PLANNERS DESIGNERS

ITS SHEETS 1-22

WISCONSIN
JACOB HW FOLKERINGA
E-43224
MINNEAPOLIS, MN
PROFESSIONAL ENGINEER

4/11/2016 (Date)

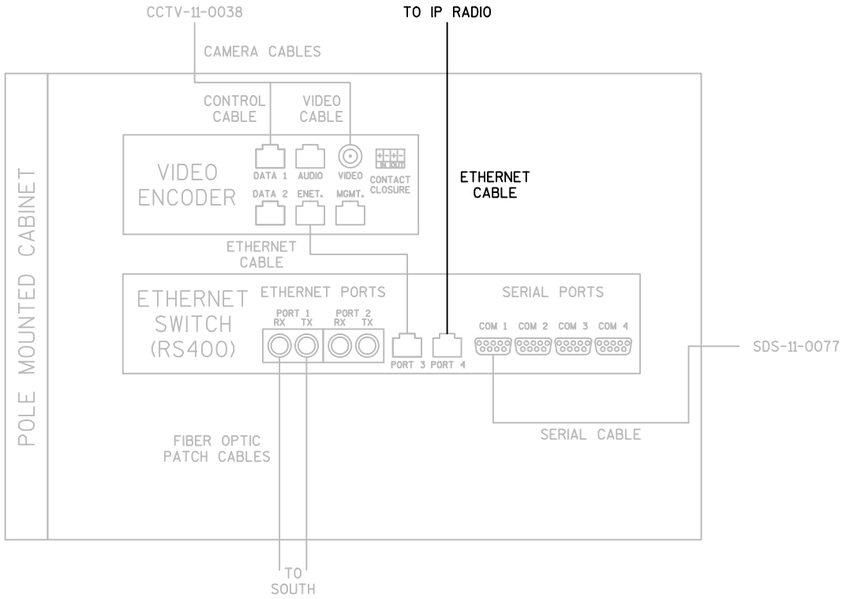
(Signature)



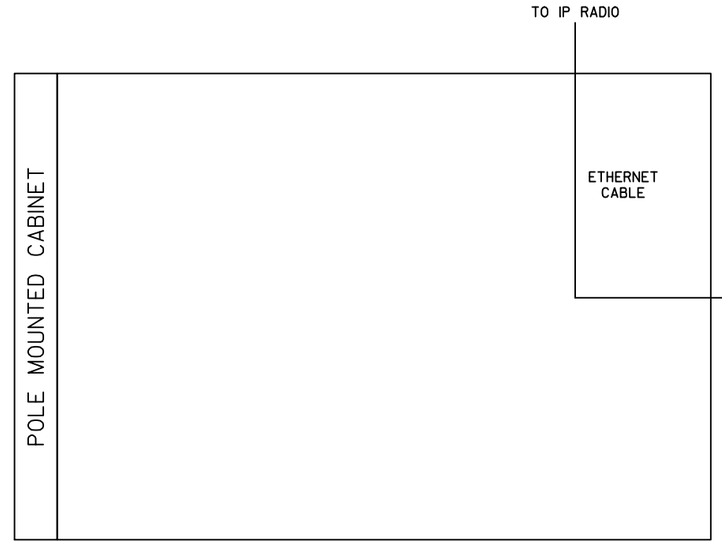
PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	ITS PROJECT OVERVIEW	SHEET E

FILE NAME : H:\PROJMDSN\8130\CAD_BIM\PLAN\SR_ITS PLANS_1010-02-84.DWG PLOT DATE : 1/12/2016 1:13 AM PLOT BY : JACOB FOLKERINGA PLOT NAME : PLOT SCALE : 1:3500
WISDOT/CADDS SHEET 42

NOT TO SCALE



CCTV-11-0038 & SDS-11-0077 - IH 90/94 @ STATZ ROAD



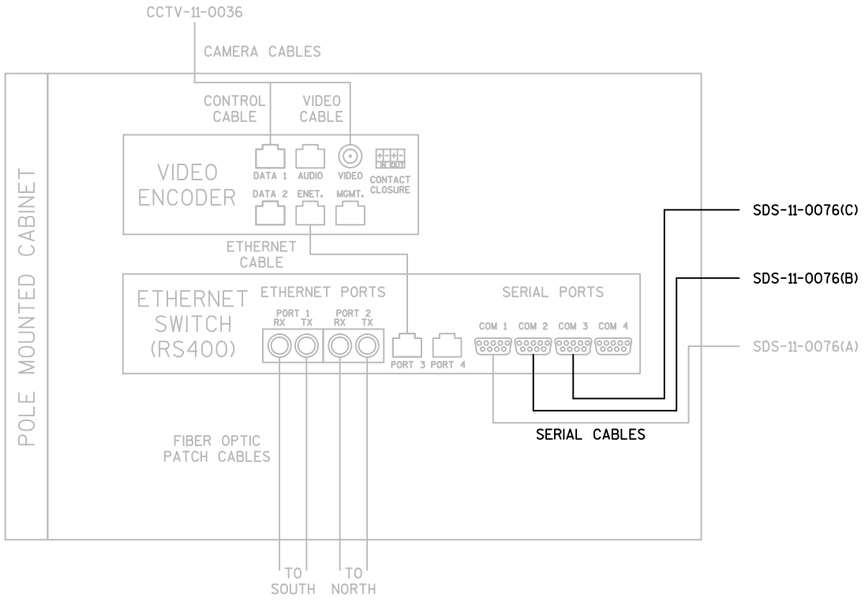
DMS-11-0056 - IH 39/90 @ STATZ ROAD

NOTES

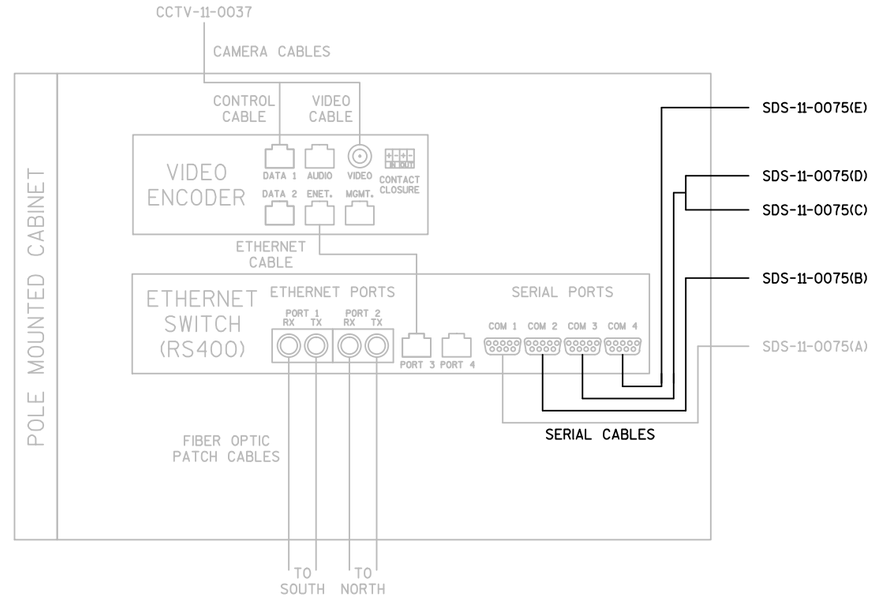
ALL CABLES INCIDENTAL TO DEVICE INSTALLATION.

NOT ALL EXISTING COMPONENTS SHOWN.

NOT TO SCALE



CCTV-11-0036 & SDS-11-0076 - IH 90/94 @ STH 33 INTERCHANGE



CCTV-11-0037 & SDS-11-0075 - IH 90/94 @ IH 39 INTERCHANGE

NOTES

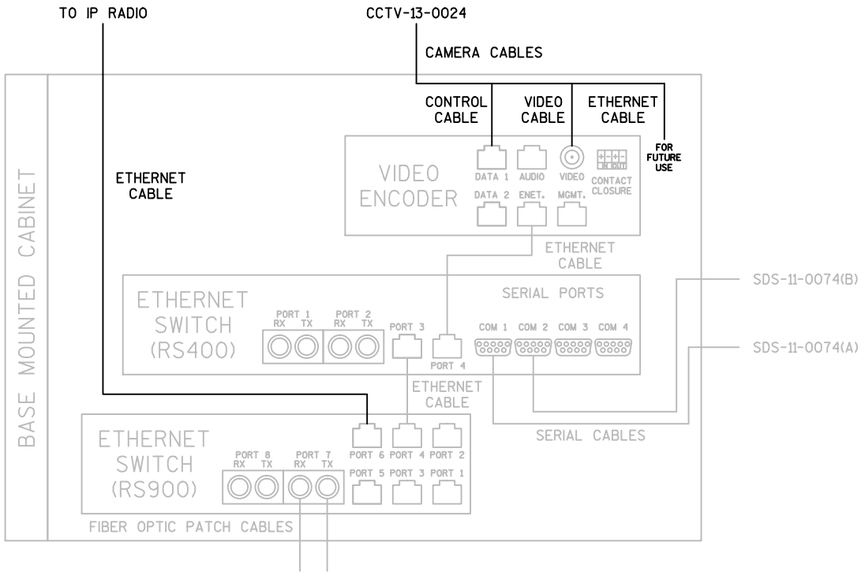
ALL CABLES INCIDENTAL TO DEVICE INSTALLATION.

NOT ALL EXISTING COMPONENTS SHOWN.

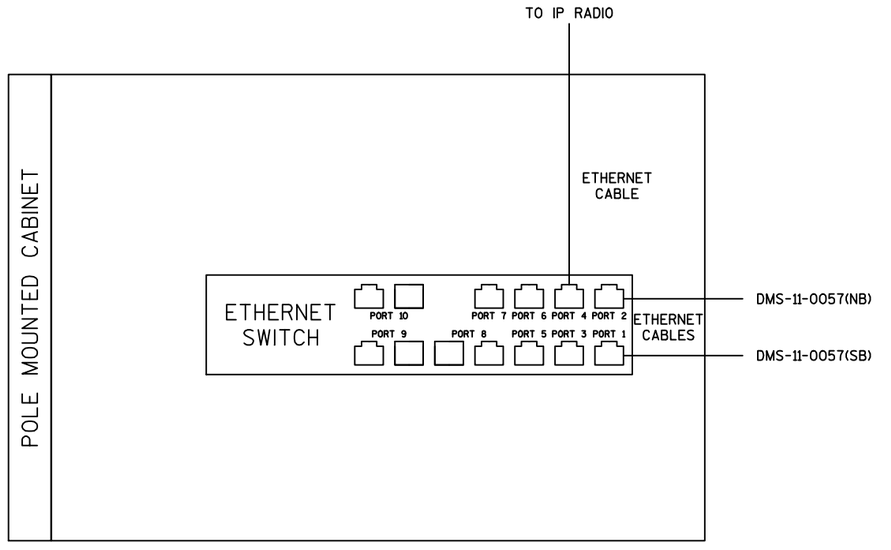
PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	ITS COMMUNICATION SCHEMATICS	SHEET	E

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WISDOT/CADDS SHEET 42

NOT TO SCALE



CCTV-13-0024 & SDS-11-0074 - IH 39/90/94 @ WISCONSIN RIVER



DMS-11-0057/DMS-11-0058 - IH 39/90/94 SOUTH OF CTH V

NOTES

ALL CABLES INCIDENTAL TO DEVICE INSTALLATION.

NOT ALL EXISTING COMPONENTS SHOWN.

PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	ITS COMMUNICATION SCHEMATICS	SHEET 55	E

TABLE OF NOMINAL DIMENSIONS AND WEIGHTS

DIMENSION IN INCHES		NON-CONDUCTIVE PULL BOX	
BOX DIAMETER (INSIDE)**	A	24	24
BOX DIAMETER (OUTSIDE)**	B	25	25
BOX LENGTH	C	36	42
COVER	D	25 1/2	25 1/2
FRAME	E	27	27
FRAME	F	25 3/4	25 3/4
FRAME	G	22 1/2	22 1/2
WEIGHT IN POUNDS*			
COVER		50	50

* THE ACTUAL WEIGHT OF THE COVER MAY VARY NOT TO EXCEED 100 LBS.

** DIAMETER VARIES FROM TOP TO BOTTOM WITH THE DIAMETER LARGER AT THE BOTTOM TO PREVENT FROST HEAVE

GENERAL NOTES

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

ALL BOXES, FRAMES, AND COVERS SHALL BE SUITABLE FOR TIER 15 LOADING AS SPECIFIED IN ANSI/SCTE 77.

PROVIDE AN OPENING FOR TOOL ASSISTED COVER REMOVAL NOT LARGE ENOUGH TO PERMIT PASSAGE OF A SPHERE MORE THAN 1/2" DIAMETER.

ENSURE COVER SURFACE IS SKID RESISTANT WITH A COEFFICIENT OF FRICTION OF AT LEAST 0.5 AND VERTICAL SURFACE DICONTINUITIES LESS THAN 1/4".

BOXES AND EXTENSIONS ARE TRIMMABLE FOR CUSTOM LENGTHS. TRIMMED PIECES SHALL MAINTAIN A UNIFORM LENGTH.

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

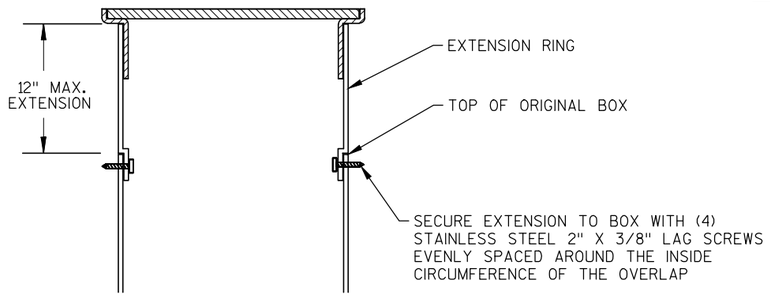
THE CONTRACTOR SHALL NOT INSTALL WIRE IN ANY PULL BOX UNTIL ITS INSTALLATION HAS BEEN INSPECTED AND ACCEPTED BY THE ENGINEER.

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

ENTIRE BOX MUST BE CONSTRUCTED OF NON-CONDUCTIVE MATERIALS WITH THE EXCEPTION OF STAINLESS STEEL FASTENERS.

WHEN A PULL BOX IS INSTALLED IN CRUSHED AGGREGATE SHOULDERS, PLACE IT 2-3 INCHES BELOW GRADE AND COVER IT WITH 2-3 INCHES OF CRUSHED AGGREGATE

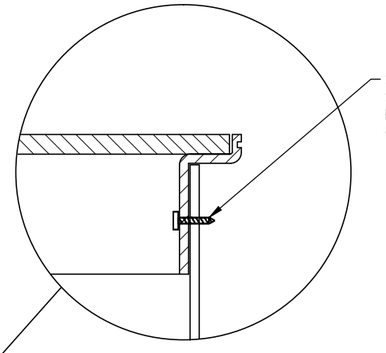
LABEL ON COVER SHALL READ "ELECTRIC" FOR SIGNAL OR LIGHTING SYSTEMS, "WISDOT COMMUNICATIONS" FOR COMMUNICATIONS SYSTEMS,



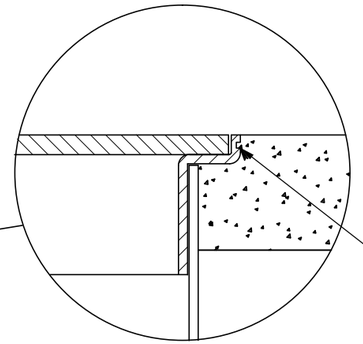
BOX EXTENSION

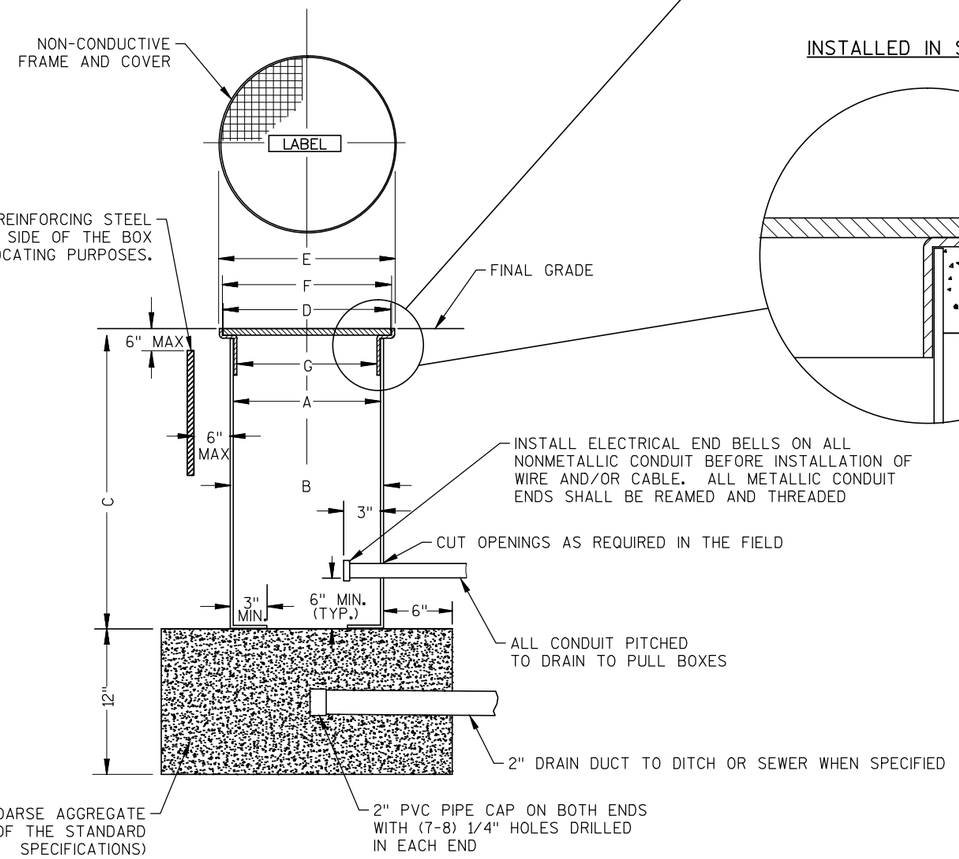
NOT TO SCALE

INSTALLED IN SOD OR CRUSHED AGGREGATE



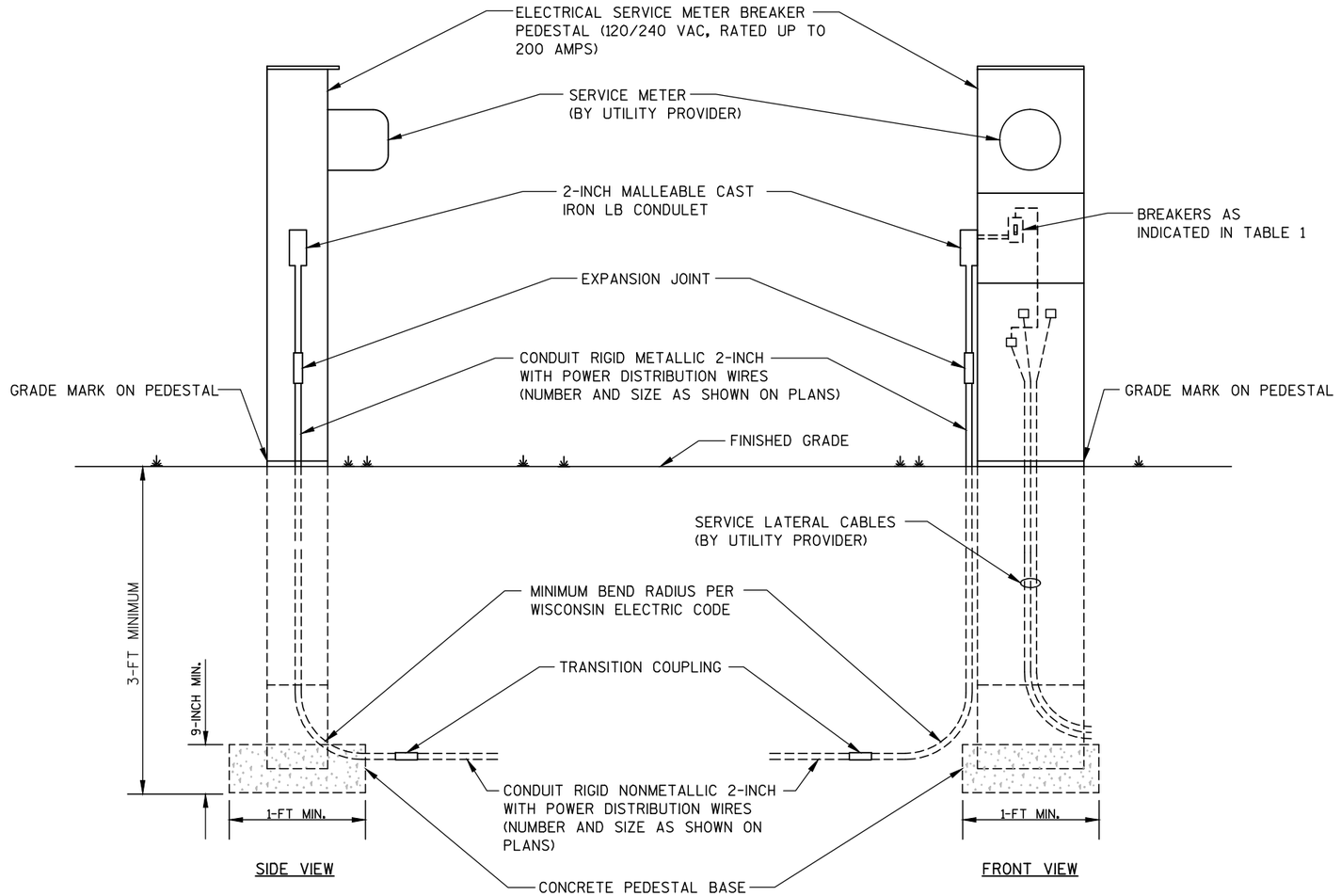
INSTALLED IN SIDEWALK





NON-CONDUCTIVE PULL BOX

NOT TO SCALE



ELECTRICAL SERVICE METER BREAKER PEDESTAL

IH 90/94 @ STATZ ROAD (EXISTING)

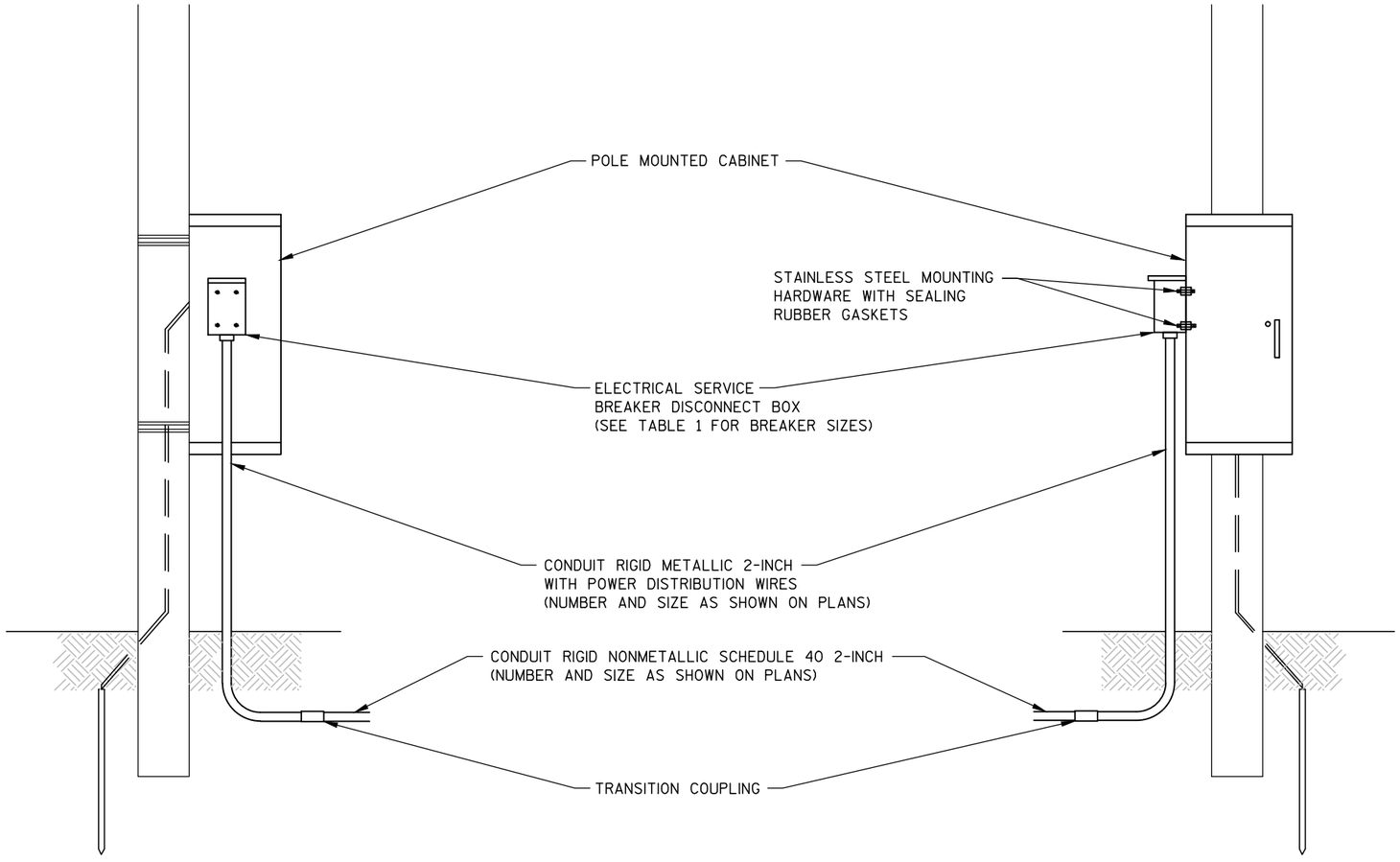
IH 39/90/94 @ CTH V (PROPOSED)

TABLE 1

BREAKER SIZES BY LOCATION

LOCATION	ID	MAIN BREAKER SIZE	SUB-BREAKER #1 SIZE	SUB-BREAKER #2 SIZE	SUB-BREAKER #3 SIZE
IH 90/94 @ STATZ ROAD	CCTV-11-0038 DMS-11-0056 SDS-11-0077	50 AMPS (2P)	40 AMPS (DMS)		
IH 39/90/94 @ CTH V	DMS-11-0057 DMS-11-0058	100 AMPS (2P)	100 AMPS (2P) (CB)		

NOT TO SCALE



SIDE VIEW

FRONT VIEW

ELECTRICAL SERVICE BREAKER DISCONNECT BOX

(POLE MOUNTED CABINET)

IH 90/94 @ STATZ ROAD (PROPOSED)

IH 90/94 @ STH 33 INTERCHANGE (EXISTING)

IH 39/90/94 SOUTH OF CTH V (PROPOSED)

TABLE 1

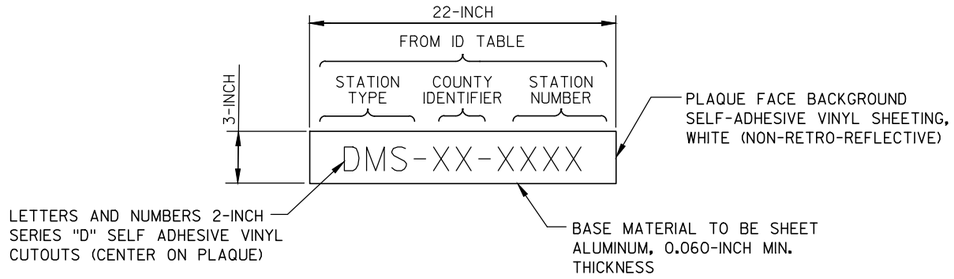
BREAKER SIZES BY LOCATION

LOCATION	ID	MAIN BREAKER SIZE	SUB-BREAKER #1 SIZE	SUB-BREAKER #2 SIZE	SUB-BREAKER #3 SIZE
IH 90/94 @ STATZ ROAD	DMS-11-0056	40 AMPS (CB)			
IH 90/94 @ STH 33 INTERCHANGE	CCTV-11-0036 SDS-11-0076 G-11-05,06,07,08	30 AMPS (CB)	10 AMPS (RCG)	10 AMPS (RCG)	
IH 39/90/94 SOUTH OF CTH V	DMS-11-0057 DMS-11-0058	100 AMPS (2P) (CB)	60 AMPS (2P) (DMS)	60 AMPS (2P) (DMS)	30 AMPS (CB)

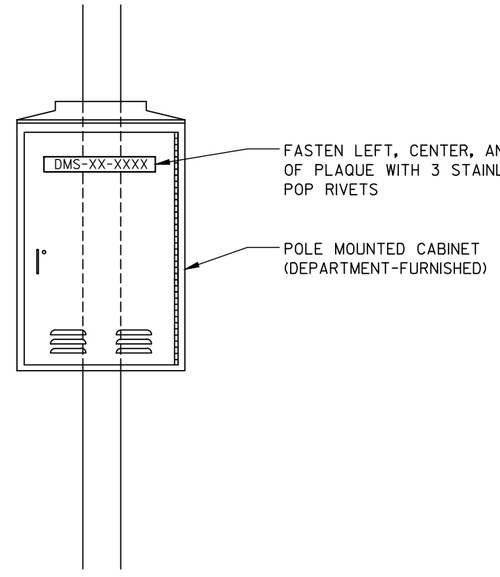
NOTES

MOUNT EQUIPMENT UTILIZING STAINLESS STEEL BANDS OR METHOD APPROVED BY THE ENGINEER.

NOT TO SCALE



CONTROL CABINET IDENTIFICATION PLAQUE



PLAQUES SEQUENCE IDENTIFICATION

PLAQUES SEQUENCE IDENTIFICATION TABLE		
SITE LOCATION	ID PLAQUE	NO. OF PLAQUES
IH 90/94 @ STATZ ROAD	DMS-11-0056	2
IH 39/90/94 @ SOUTH OF CTH V	DMS-11-0057	2
	DMS-11-0058	2

STATION TYPE LEGEND

ATR - AUTOMATIC TRAFFIC RECORDER
CCTV - CLOSED CIRCUIT TELEVISION
DMS - DYNAMIC MESSAGE SIGN
SDS - SYSTEM DETECTOR STATION
WDS - WIRELESS DETECTION SENSOR

NOTES

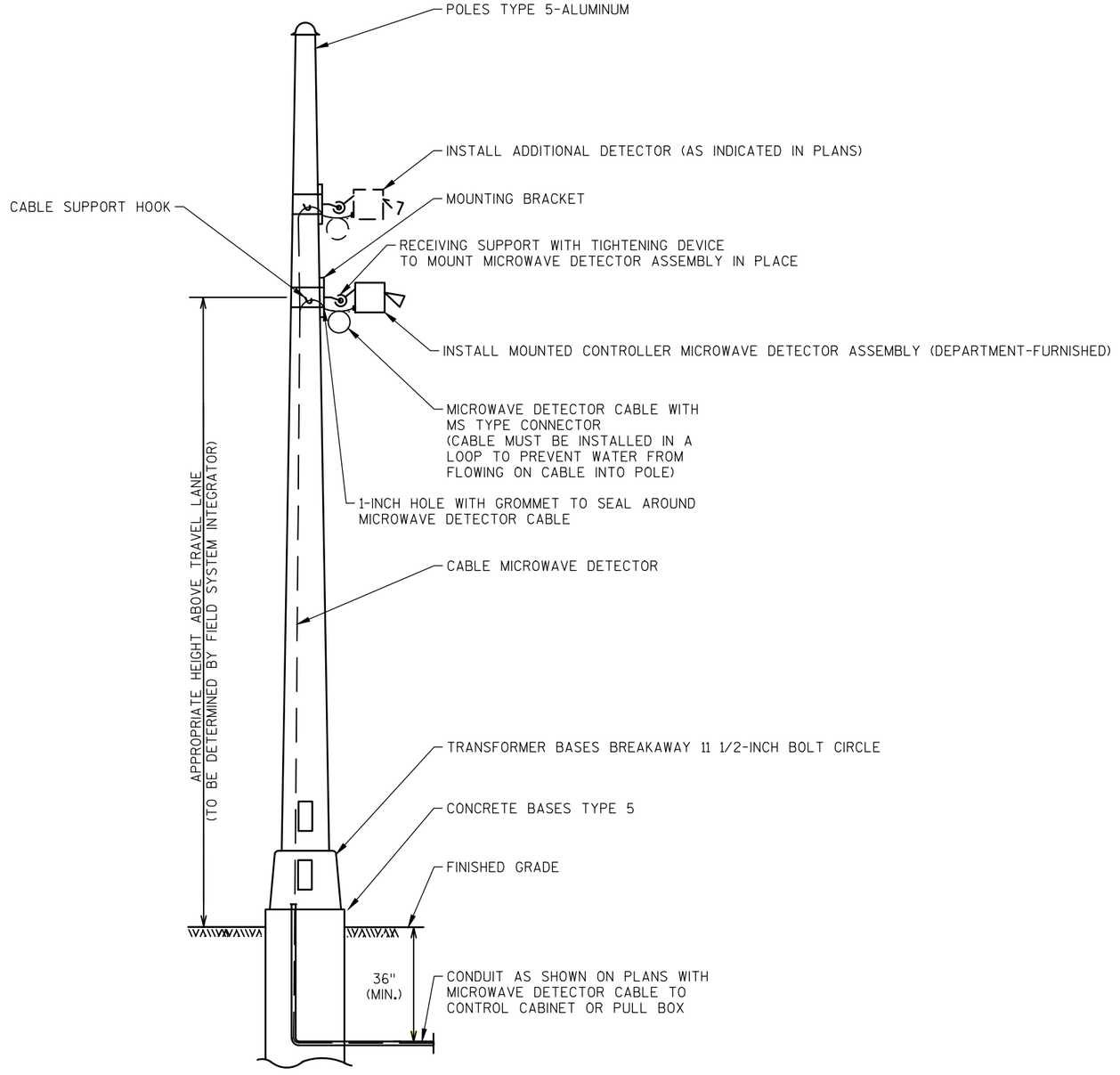
TWO PLAQUES PER DEVICE REQUIRED ON CONTROL CABINET.

FASTEN ONE PLAQUE ON FRONT DOOR, UPPER HALF.

FASTEN ONE PLAQUE ON SIDE FACING LOCAL STREET. IF NO LOCAL STREET NEARBY, OR IF SUCH LOCATION COINCIDES WITH LOCATION OF PLAQUE IN PREVIOUS NOTE, FASTEN PLAQUE ON REAR OF CABINET, UPPER HALF.

FOR BLUETOOTH SENSOR ENCLOSURES LOCATED IN A CONTROL CABINET, FASTEN PLAQUES TO CONTROL CABINET.

NOT TO SCALE



ELEVATION VIEW

INSTALL MOUNTED CONTROLLER MICROWAVE DETECTOR ASSEMBLY

SDS-11-0076 - IH 90/94 @ STH 33 INTERCHANGE

SDS-11-0075 - IH 90/94 @ IH 39 INTERCHANGE

NOTES

ALL HARDWARE AND FASTENERS SHALL BE STAINLESS STEEL.

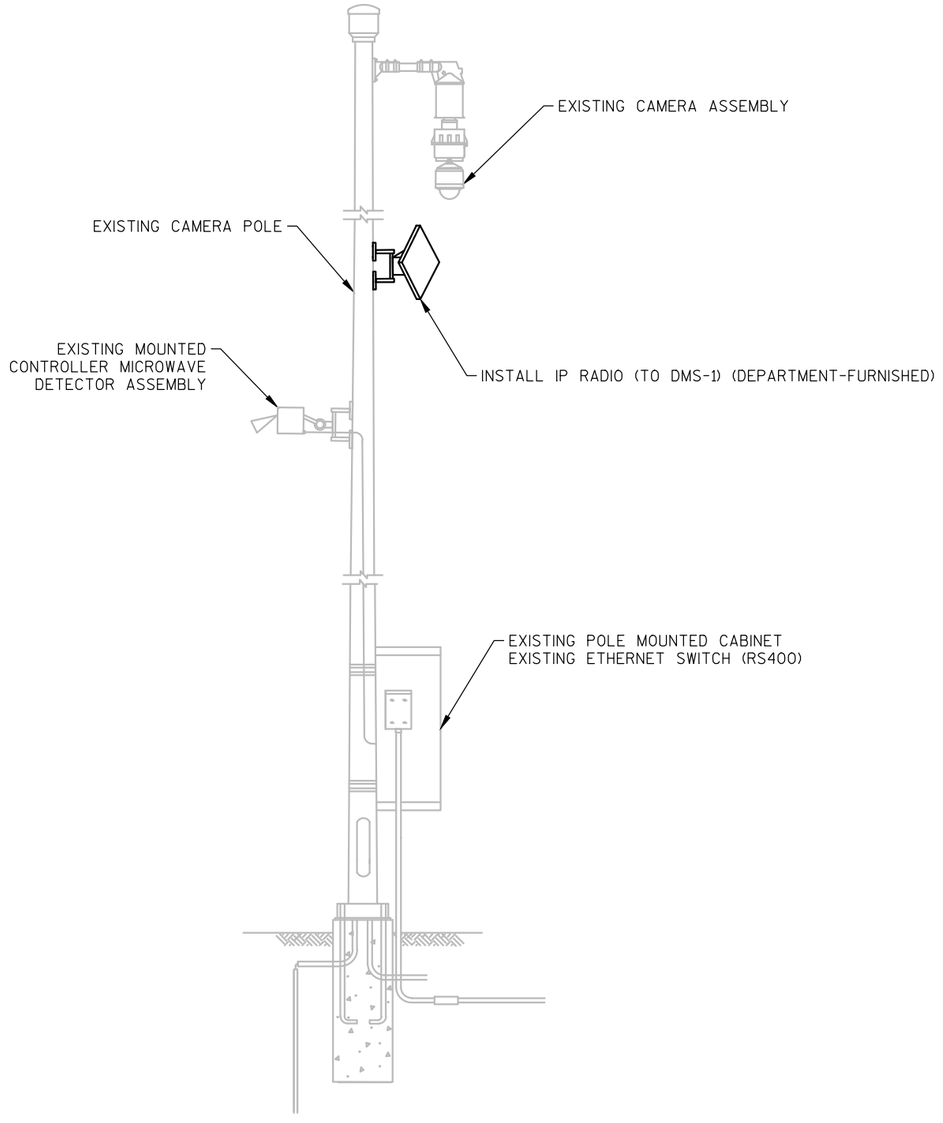
THE CONTRACTOR SHALL FURNISH AND INSTALL LIGHTNING ARRESTERS IN THE TRANSFORMER BASE AND CONNECT TO THE MICROWAVE DETECTOR CABLES PER THE MANUFACTURER'S RECOMMENDATION.

PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	ITS CONSTRUCTION DETAILS	SHEET	E

FILE NAME : H:\PROJMDSN\8130\CAD_BIM\PLAN\SR_ITS CONSTRUCTION DETAILS_1010-02-84.DWG PLOT DATE : 1/12/2016 1:13 AM PLOT BY : JACOB FOLKERINGA PLOT NAME : PLOT SCALE : 1IN:100_XREF

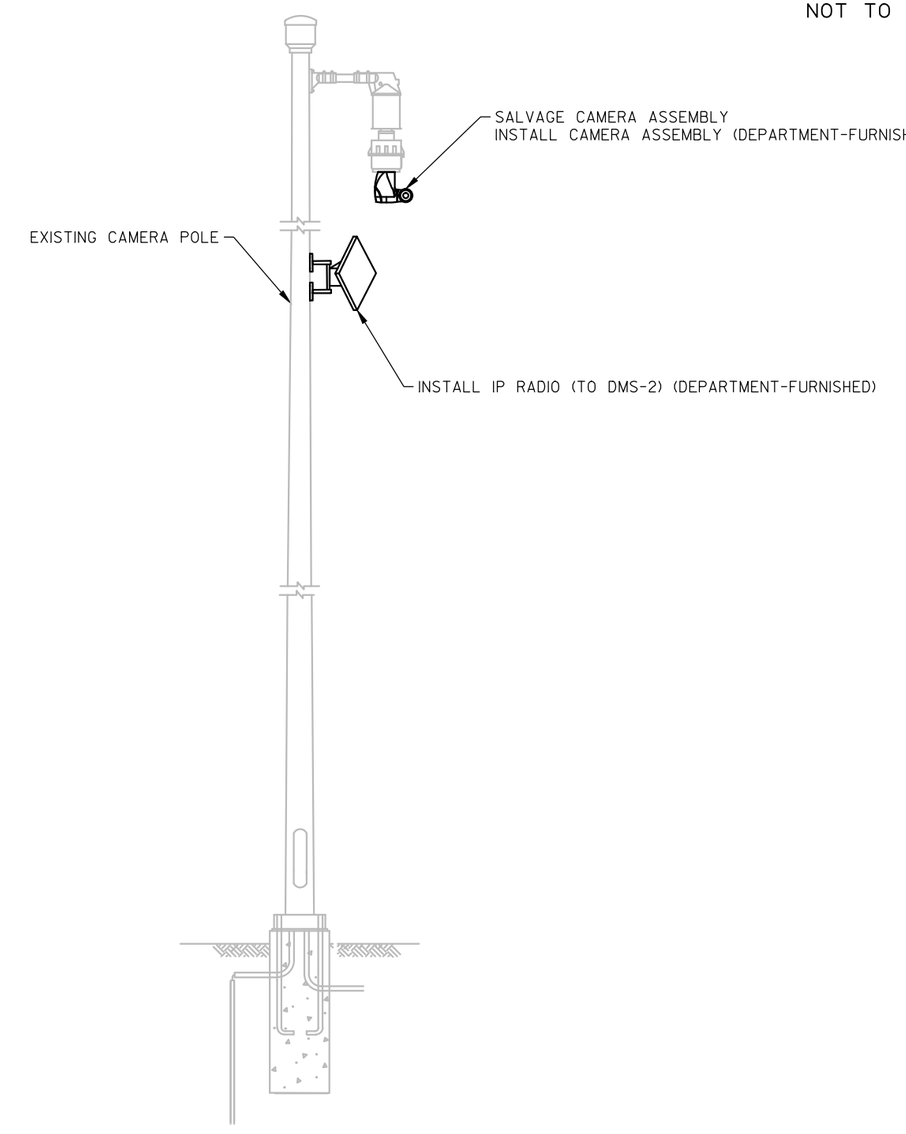
WISDOT/CADDS SHEET 42

NOT TO SCALE



IP RADIO MOUNTING

CCTV-11-0038 - IH 90/94 @ STATZ ROAD



CAMERA & IP RADIO MOUNTING

CCTV-13-0024 - IH 39/90/94 @ WISCONSIN RIVER

NOTES

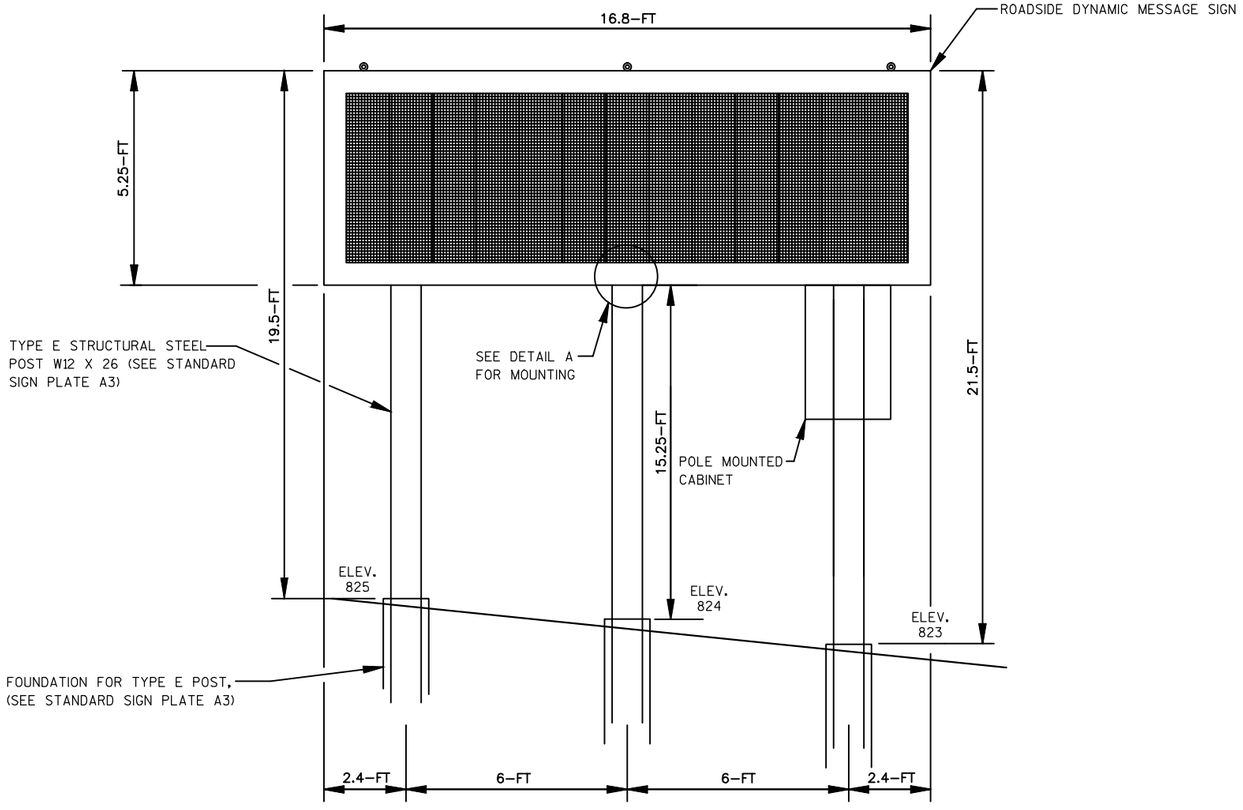
ALL HARDWARE AND FASTENERS SHALL BE STAINLESS STEEL.

SECURE LOOSE CABLES TO POLE AT 5-FT INTERVALS.

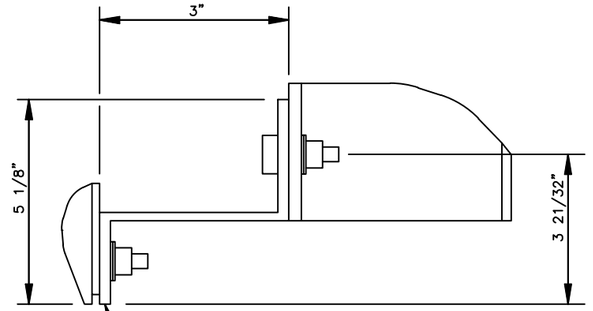
PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	ITS CONSTRUCTION DETAILS	SHEET	E

FILE NAME : H:\PROJMDSN\8130\CAD_BIM\PLAN\SR_ITS CONSTRUCTION DETAILS_1010-02-84.DWG PLOT DATE : 1/12/2016 1:13 AM PLOT BY : JACOB FOLKERINGA PLOT NAME : PLOT SCALE : 1IN:100_XREF
WISDOT/CADDS SHEET 42

NOT TO SCALE



ELEVATION VIEW



TWO Z-BRACKETS ARE BOLTED TO THE REAR OF THE DISPLAY. THE VERTICAL SUPPORTS SHOWN ARE STRUCTURAL STEEL SIGN SUPPORTS. EACH Z-BRACKET IS ATTACHED TO THE SIGN ENCLOSURE USING 1/2" A325 MECHANICALLY GALVANIZED STRUCTURAL GRADE HARDWARE.

DETAIL A
SIGN ATTACHMENT

DYNAMIC MESSAGE SIGN MOUNTING

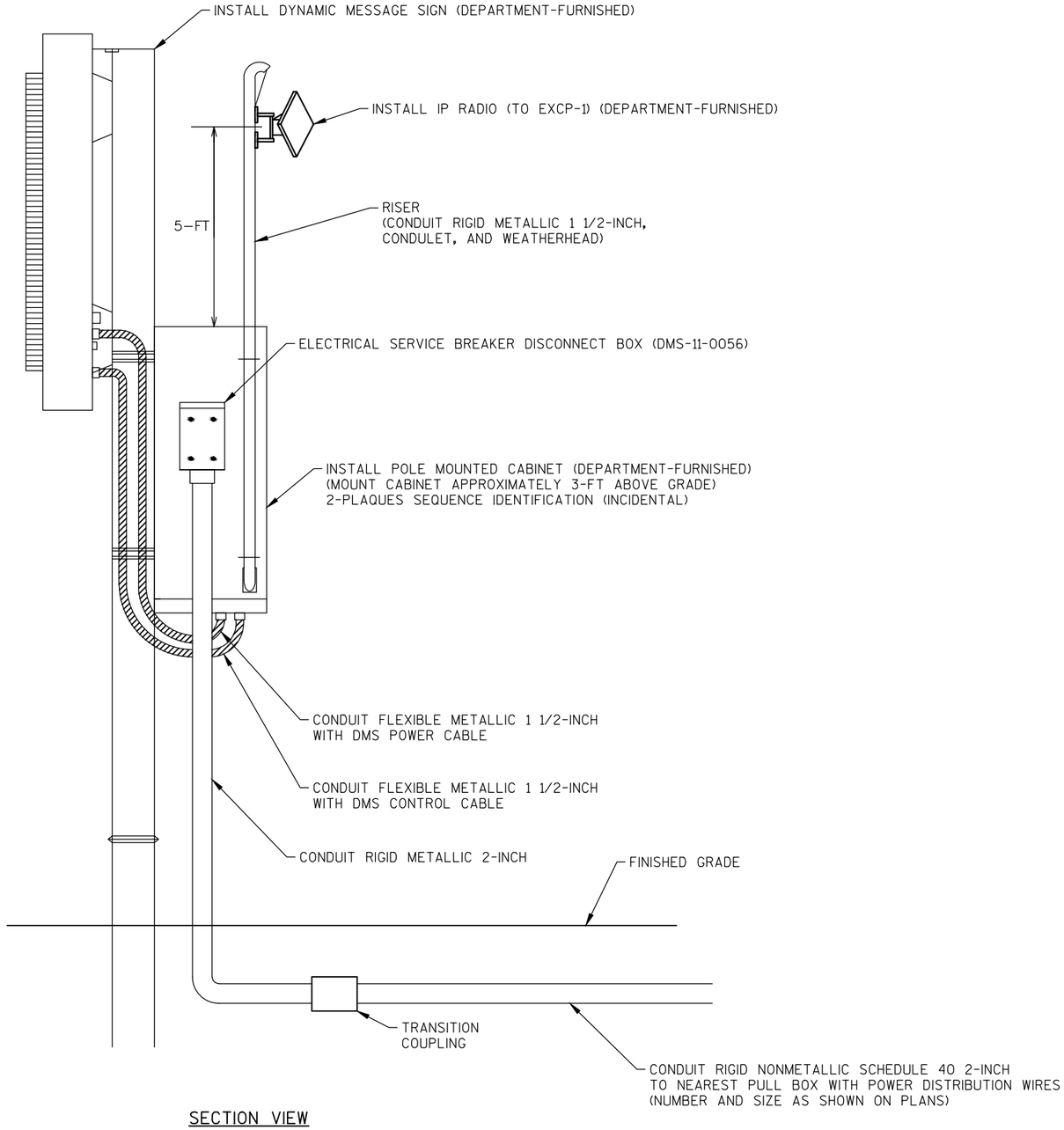
DMS-11-0056 - IH 90/94 @ STATZ ROAD

NOTES

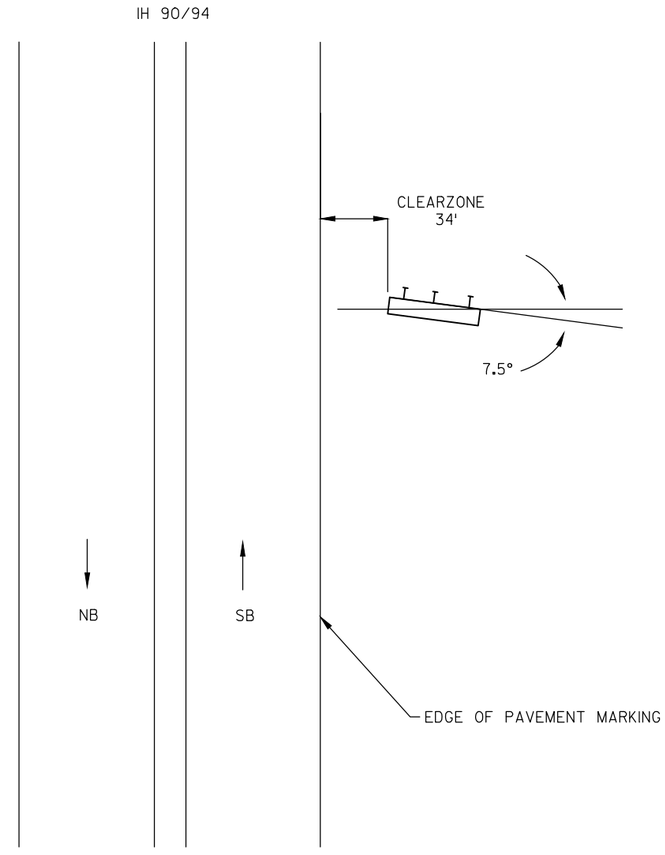
MOUNT EQUIPMENT UTILIZING STAINLESS STEEL BANDS OR METHOD APPROVED BY THE ENGINEER.

POST LENGTHS AND ELEVATIONS ARE APPROXIMATE. THE CONTRACTOR SHALL VERIFY POST LENGTHS PRIOR TO INSTALLATION.

NOT TO SCALE



SECTION VIEW



PLAN VIEW

ROADSIDE DYNAMIC MESSAGE SIGN & POLE MOUNTED CABINET MOUNTING

DMS-11-0056 - IH 90/94 @ STATZ ROAD

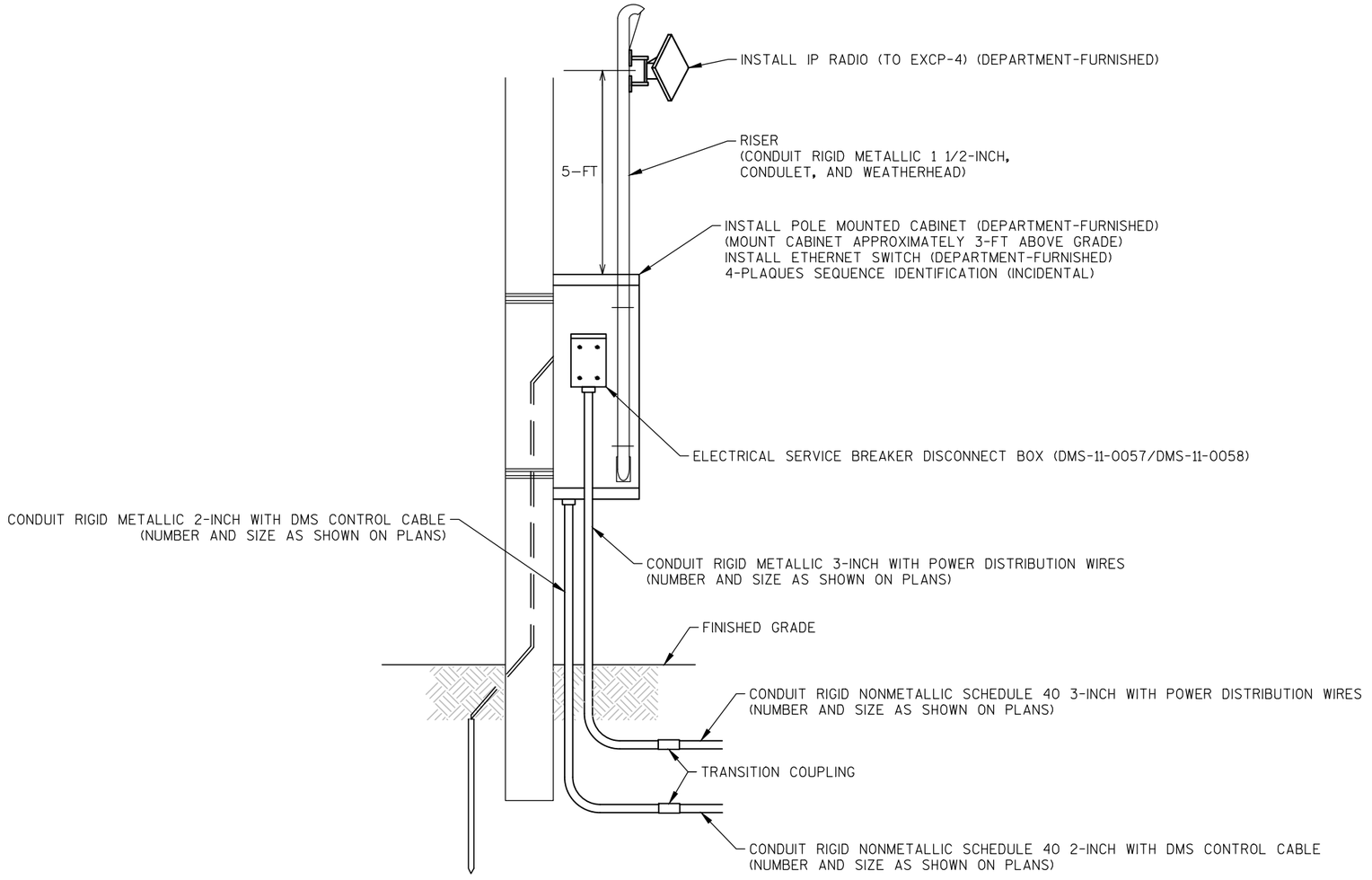
NOTES

MOUNT EQUIPMENT UTILIZING STAINLESS STEEL BANDS OR METHOD APPROVED BY THE ENGINEER.

CONDUIT FLEXIBLE METALLIC SHOULD BE LIQUID TIGHT AND SECURED TO DMS STRUCTURE AT 5-FT INTERVALS.

PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	ITS CONSTRUCTION DETAILS	SHEET 63	E

NOT TO SCALE

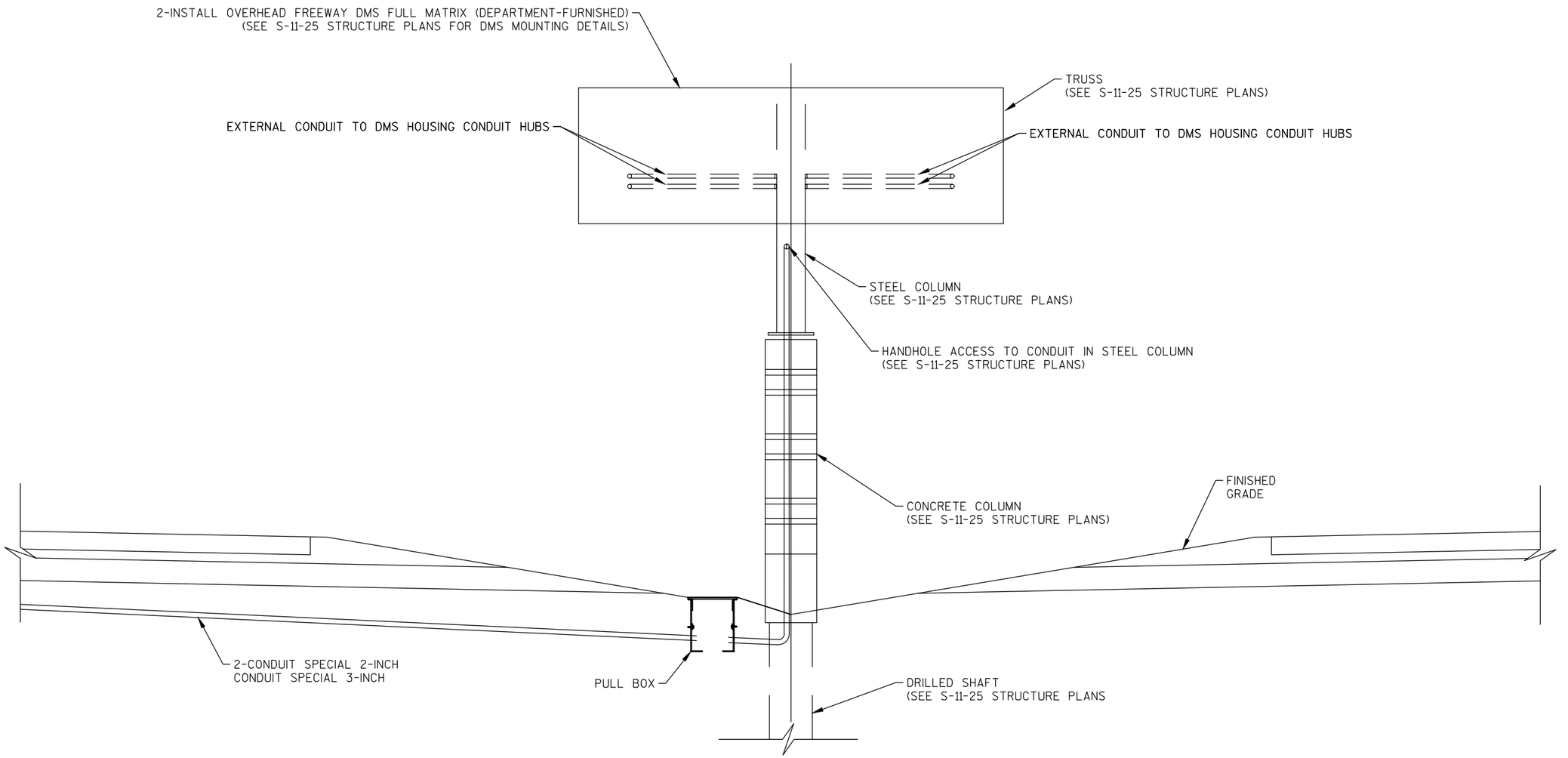


SIDE VIEW

POLE MOUNTED CABINET MOUNTING

DMS-11-0057/DMS-11-0058 - IH 39/90/94 SOUTH OF CTH V

NOT TO SCALE



ELEVATION VIEW
(LOOKING NORTH)

OVERHEAD FREEWAY DMS FULL MATRIX MOUNTING

DMS-11-0057/DMS-11-0058 - IH 39/90/94 SOUTH OF CTH V

NOTES

SEE S-11-25 STRUCTURE PLANS FOR STRUCTURAL DETAILS.

2

2

EXISTING CCTV-11-0038 & SDS-11-0077
INSTALL IP RADIO (TO DMS-1) (DEPARTMENT-FURNISHED)

EXISTING CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH
EXISTING 3-ELECTRICAL WIRE LIGHTING 4 AWG
EXISTING ELECTRICAL WIRE LIGHTING 10 AWG
3-ELECTRICAL WIRE LIGHTING 2 AWG

EXISTING ELECTRICAL SERVICE METER BREAKER PEDESTAL

CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH
3-ELECTRICAL WIRE LIGHTING 2 AWG

EXCP-1

EXMB-1

EXPB-1

PB-1

INSTALL CONDUIT INTO EXISTING ITEM

IH 90/94 NB

CONDUIT SPECIAL 2-INCH
3-ELECTRICAL WIRE LIGHTING 2 AWG
CONDUIT SPECIAL 2-INCH
(INCLUDING LOCATE WIRE - INCIDENTAL)
(FOR FUTURE USE)

IH 90/94 SB

800'

DMS-1

PB-2

DMS-11-0056
INSTALL ROADSIDE DYNAMIC MESSAGE SIGN (DEPARTMENT-FURNISHED)
INSTALL POLE MOUNTED CABINET (DEPARTMENT-FURNISHED)
INSTALL IP RADIO (TO EXCP-1) (DEPARTMENT-FURNISHED)
ELECTRICAL SERVICE BREAKER DISCONNECT BOX (DMS-11-0056)
2-PLAQUES SEQUENCE IDENTIFICATION (INCIDENTAL)

CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH
3-ELECTRICAL WIRE LIGHTING 2 AWG

SEPTIC

N

0 50 100
scale in feet

NOTIFY THE REGIONAL TRAFFIC UNIT (PRIMARY 608-246-5367, SECONDARY 608-246-5362), A MINIMUM OF TWO (2) WEEKS PRIOR TO STAKING THE ITS ITEMS.

PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	ITS PLANS	SHEET	E

FILE NAME : H:\PROJMDSN\8130\CAD_BIM\PLAN\SR_ITS PLANS_1010-02-84.DWG PLOT DATE : 1/12/2016 1:15 AM PLOT BY : JACOB FOLKERINGA PLOT NAME : PLOT SCALE : 1" = 100'_XREF
WISDOT/CADDS SHEET 42

2

2

G11-07
RAMP CLOSURE GATES HARDWIRED 30-FT
CONCRETE BASES TYPE 5
TRANSFORMER BASES BREAKAWAY 11 1/2-INCH BOLT CIRCLE
CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH
(BETWEEN RCG-2 AND PB-6)
3-ELECTRICAL WIRE LIGHTING 10 AWG

G11-08
RAMP CLOSURE GATES HARDWIRED 37-FT
CONCRETE BASES TYPE 5
TRANSFORMER BASES BREAKAWAY 11 1/2-INCH BOLT CIRCLE
CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH
(BETWEEN RCG-1 AND PB-5)
6-ELECTRICAL WIRE LIGHTING 10 AWG

CONDUIT SPECIAL 2-INCH
CABLE MICROWAVE DETECTOR

R/W

STH 33

RCG-2

PB-5

RCG-1

PB-4

EXPB-2

CONDUIT SPECIAL 2-INCH
3-ELECTRICAL WIRE LIGHTING 10 AWG

CONDUIT SPECIAL 2-INCH
CABLE MICROWAVE DETECTOR
CONDUIT SPECIAL 2-INCH
3-ELECTRICAL WIRE LIGHTING 10 AWG

EXISTING CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH
EXISTING FIBER OPTIC CABLE OUTDOOR PLANT 6-CT
CABLE MICROWAVE DETECTOR
EXISTING CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH
3-ELECTRICAL WIRE LIGHTING 10 AWG

PB-3

DP-1

INSTALL CONDUIT INTO EXISTING ITEM

R/W

SDS-11-0076(B)
CONCRETE BASES TYPE 5
TRANSFORMER BASES BREAKAWAY 11 1/2-INCH BOLT CIRCLE
POLES TYPE 5-ALUMINUM
INSTALL MOUNTED CONTROLLER MICROWAVE DETECTOR ASSEMBLY
(DEPARTMENT-FURNISHED)
CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH
(BETWEEN DP-1 AND PB-4)
CABLE MICROWAVE DETECTOR

EXPB-3

EXISTING CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH
EXISTING FIBER OPTIC CABLE OUTDOOR PLANT 6-CT
CABLE MICROWAVE DETECTOR
EXISTING CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH
3-ELECTRICAL WIRE LIGHTING 10 AWG

EXISTING ELECTRICAL SERVICE METER BREAKER PEDESTAL

EXMB-2

EXISTING CCTV-11-0036
EXISTING CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH
(BETWEEN EXCP-2 AND EXPB-4)
EXISTING CABLE MICROWAVE DETECTOR
2-CABLE MICROWAVE DETECTOR
EXISTING CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH
(BETWEEN EXCP-2 AND EXPB-4)
EXISTING FIBER OPTIC CABLE OUTDOOR PLANT 6-CT
EXISTING CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH
(BETWEEN EXCP-2 AND EXPB-4)
EXISTING 3-ELECTRICAL WIRE LIGHTING 6 AWG
EXISTING ELECTRICAL WIRE LIGHTING 10 AWG
6-ELECTRICAL WIRE LIGHTING 10 AWG

EXISTING CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH
EXISTING 3-ELECTRICAL WIRE LIGHTING 6 AWG
EXISTING ELECTRICAL WIRE LIGHTING 10 AWG

INSTALL CONDUIT INTO EXISTING ITEM

CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH
CABLE MICROWAVE DETECTOR
CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH
3-ELECTRICAL WIRE LIGHTING 10 AWG

EXPB-4

EXCP-2

EXDP-1

PB-6

EXISTING SDS-11-0076(A)
CONDUIT SPECIAL 2-INCH
CABLE MICROWAVE DETECTOR
CONDUIT SPECIAL 2-INCH
3-ELECTRICAL WIRE LIGHTING 10 AWG
CONDUIT SPECIAL 2-INCH
(INCLUDING LOCATE WIRE - INCIDENTAL)
(FOR FUTURE USE)

IH 90/94 NB

860+00

865+00

NOTIFY THE REGIONAL TRAFFIC UNIT (PRIMARY 608-246-5367, SECONDARY 608-246-5362), A MINIMUM OF TWO (2) WEEKS PRIOR TO STAKING THE ITS ITEMS.

SEE SIGNING PLANS FOR RAMP CLOSURE GATE SIGNING.

MATCH LINE "A"
SEE ITS SHEET 5

N

0 50 100
scale in feet

PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	ITS PLANS	SHEET	E

FILE NAME : H:\PROJMDSN\8130\CAD_BIM\PLAN\SR_ITS PLANS_1010-02-84.DWG PLOT DATE : 1/12/2016 1:16 AM PLOT BY : JACOB FOLKERINGA PLOT NAME : PLOT SCALE : 1" = 100'_XREF

MATCH LINE "A"
SEE ITS SHEET 4

2

855+00

860+00

865+00

IH 90/94 SB

R/W

CONDUIT SPECIAL 2-INCH
CABLE MICROWAVE DETECTOR
CONDUIT SPECIAL 2-INCH
3-ELECTRICAL WIRE LIGHTING 10 AWG
CONDUIT SPECIAL 2-INCH
(INCLUDING LOCATE WIRE - INCIDENTAL)
(FOR FUTURE USE)

PB-7

CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH
CABLE MICROWAVE DETECTOR
CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH
3-ELECTRICAL WIRE LIGHTING 10 AWG

PB-8

CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH
CABLE MICROWAVE DETECTOR

SDS-11-0076(C)
CONCRETE BASES TYPE 5
TRANSFORMER BASES BREAKAWAY 11 1/2-INCH BOLT CIRCLE
POLES TYPE 5-ALUMINUM
INSTALL MOUNTED CONTROLLER MICROWAVE DETECTOR ASSEMBLY
(DEPARTMENT-FURNISHED)
CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH
(BETWEEN DP-2 AND PB-11)
CABLE MICROWAVE DETECTOR

CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH
CABLE MICROWAVE DETECTOR
CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH
3-ELECTRICAL WIRE LIGHTING 10 AWG

PB-9

PB-10

DP-2

R/W

CONDUIT SPECIAL 2-INCH
3-ELECTRICAL WIRE LIGHTING 10 AWG

RCG-3

PB-11

G11-06
RAMP CLOSURE GATES HARDWIRED 37-FT
CONCRETE BASES TYPE 5
TRANSFORMER BASES BREAKAWAY 11 1/2-INCH BOLT CIRCLE
CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH
(BETWEEN RCG-3 AND PB-12)
6-ELECTRICAL WIRE LIGHTING 10 AWG

CONDUIT SPECIAL 2-INCH
3-ELECTRICAL WIRE LIGHTING 10 AWG

PB-12

RCG-4

G11-05
RAMP CLOSURE GATES HARDWIRED 30-FT
CONCRETE BASES TYPE 5
TRANSFORMER BASES BREAKAWAY 11 1/2-INCH BOLT CIRCLE
CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH
(BETWEEN RCG-4 AND PB-13)
3-ELECTRICAL WIRE LIGHTING 10 AWG

STH 33

N

0 50 100
scale in feet

NOTIFY THE REGIONAL TRAFFIC UNIT (PRIMARY 608-246-5367, SECONDARY 608-246-5362), A MINIMUM OF TWO (2) WEEKS PRIOR TO STAKING THE ITS ITEMS.

SEE SIGNING PLANS FOR RAMP CLOSURE GATE SIGNING.

PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	ITS PLANS	SHEET 68	E

2

2

R/W

IH 90/94 SB

IH 90/94 NB

980+00

985+00

DP-4

PB-17

SDS-11-0075(E)
CONCRETE BASES TYPE 5
TRANSFORMER BASES BREAKAWAY 11 1/2-INCH BOLT CIRCLE
POLES TYPE 5-ALUMINUM
INSTALL MOUNTED CONTROLLER MICROWAVE DETECTOR ASSEMBLY (DEPARTMENT-FURNISHED)
CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH
(BETWEEN DP-4 AND PB-18)
CABLE MICROWAVE DETECTOR

CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH
CABLE MICROWAVE DETECTOR

IH 39 SB

IH 39 NB

CONDUIT SPECIAL 2-INCH
CABLE MICROWAVE DETECTOR
CONDUIT SPECIAL 2-INCH
(INCLUDING LOCATE WIRE - INCIDENTAL)
(FOR FUTURE USE)

PB-16

PB-15

CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH
CABLE MICROWAVE DETECTOR

PB-14

CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH
2-CABLE MICROWAVE DETECTOR

CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH
3-CABLE MICROWAVE DETECTOR

PB-13

DP-3

SDS-11-0075(C/D)
CONCRETE BASES TYPE 5
TRANSFORMER BASES BREAKAWAY 11 1/2-INCH BOLT CIRCLE
POLES TYPE 5-ALUMINUM
2-INSTALL MOUNTED CONTROLLER MICROWAVE DETECTOR ASSEMBLY (DEPARTMENT-FURNISHED)
CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH
(BETWEEN DP-3 AND PB-14)
2-CABLE MICROWAVE DETECTOR

EXISTING SDS-11-0075(A) & PROPOSED SDS-11-0075(B)
EXISTING CONCRETE BASES TYPE 5
EXISTING TRANSFORMER BASES BREAKAWAY 11 1/2-INCH BOLT CIRCLE
EXISTING POLES TYPE 5-ALUMINUM
INSTALL MOUNTED CONTROLLER MICROWAVE DETECTOR ASSEMBLY
(DEPARTMENT-FURNISHED)
EXISTING CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH
(BETWEEN EXDP-1 AND EXPB-5)
EXISTING CABLE MICROWAVE DETECTOR
CABLE MICROWAVE DETECTOR
EXISTING CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH
(BETWEEN EXDP-1 AND EXPB-5)
(FOR FUTURE USE)

EXDP-2

EXPB-5

EXISTING CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH
EXISTING CABLE MICROWAVE DETECTOR
CABLE MICROWAVE DETECTOR
EXISTING CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH
(FOR FUTURE USE)

EXPB-7

INSTALL CONDUIT INTO EXISTING ITEM

EXPB-6

EXISTING CCTV-11-0037

EXCP-3

EXISTING CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH
EXISTING FIBER OPTIC CABLE OUTDOOR PLANT 6-CT
3-CABLE MICROWAVE DETECTOR
EXISTING CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH
EXISTING 3-ELECTRICAL WIRE LIGHTING 4 AWG
EXISTING ELECTRICAL WIRE LIGHTING 10 AWG

EXISTING CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH
EXISTING FIBER OPTIC CABLE OUTDOOR PLANT 6-CT
EXISTING CABLE MICROWAVE DETECTOR
4-CABLE MICROWAVE DETECTOR
EXISTING CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH
EXISTING 3-ELECTRICAL WIRE LIGHTING 4 AWG
EXISTING ELECTRICAL WIRE LIGHTING 10 AWG
EXISTING CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH
(FOR FUTURE USE)

NOTIFY THE REGIONAL TRAFFIC UNIT (PRIMARY 608-246-5367, SECONDARY 608-246-5362), A MINIMUM OF TWO (2) WEEKS PRIOR TO STAKING THE ITS ITEMS.

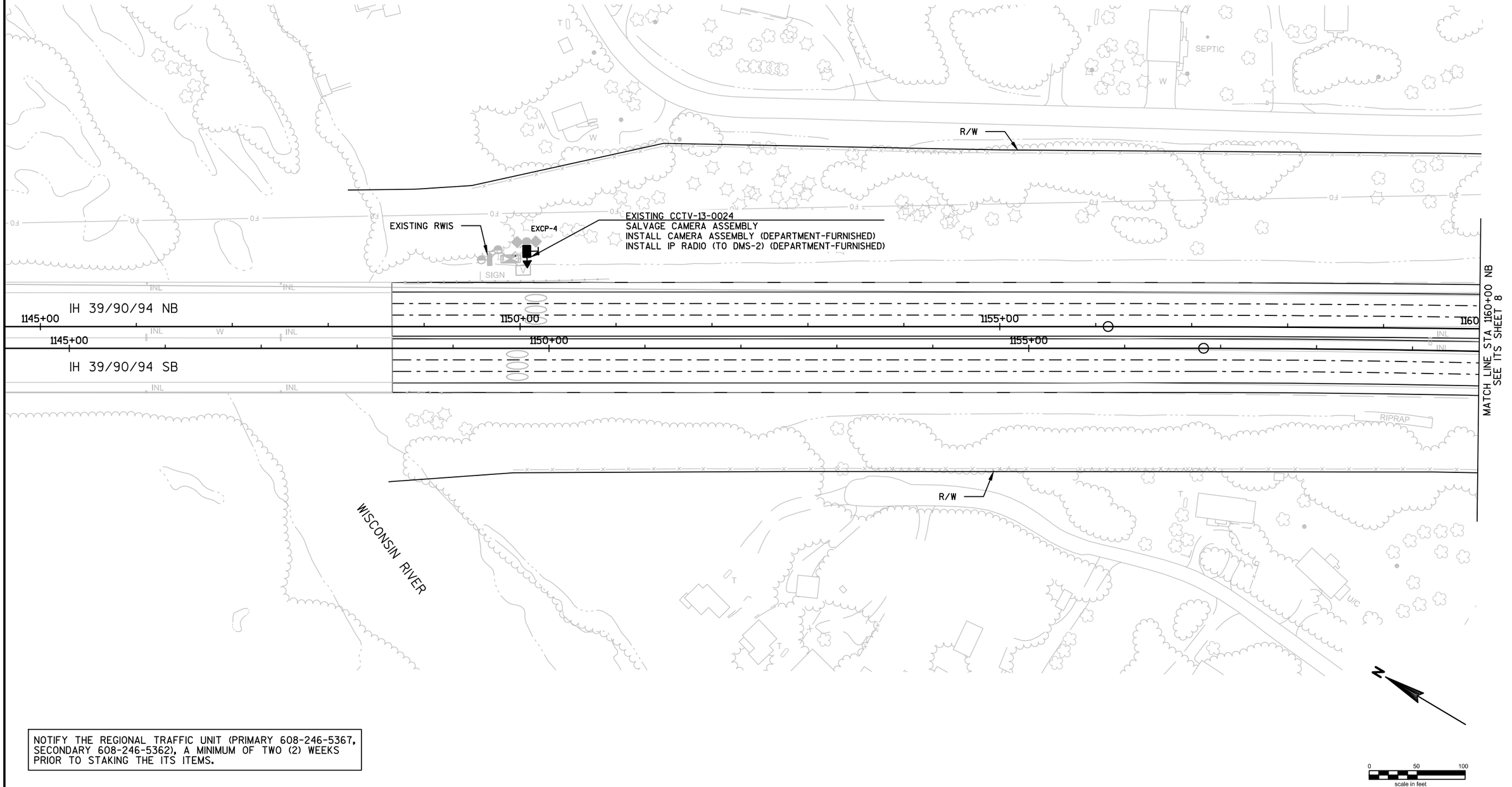
N

0 50 100
scale in feet

PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	ITS PLANS	SHEET	E

FILE NAME : H:\PROJMDSN\8130\CAD_BIM\PLAN\SR_ITS PLANS_1010-02-84.DWG PLOT DATE : 1/12/2016 1:17 AM PLOT BY : JACOB FOLKERINGA PLOT NAME : PLOT SCALE : 1" = 100'_XREF

2



NOTIFY THE REGIONAL TRAFFIC UNIT (PRIMARY 608-246-5367, SECONDARY 608-246-5362), A MINIMUM OF TWO (2) WEEKS PRIOR TO STAKING THE ITS ITEMS.

PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	ITS PLANS	SHEET 70	E

2

2

ELECTRICAL SERVICE METER BREAKER PEDESTAL (DMS-11-0057(NB)/DMS-11-0058(SB))
CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH
(BETWEEN MB-1 AND PB-19)
4-ELECTRICAL WIRE LIGHTING 2 AWG

R/W

POWER SERVICE BY ALLIANT ENERGY

CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH
4-ELECTRICAL WIRE LIGHTING 2 AWG

CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH
4-ELECTRICAL WIRE LIGHTING 2 AWG

MB-1
PB-18
PB-19
PB-20

CTH V

IH 39/90/94 NB

IH 39/90/94 SB

1160+00
1165+00
1170+00

MATCH LINE STA 1160+00 NB
SEE ITS SHEET 7

MATCH LINE STA 1175+00 NB
SEE ITS SHEET 9

R/W

NOTIFY THE REGIONAL TRAFFIC UNIT (PRIMARY 608-246-5367, SECONDARY 608-246-5362), A MINIMUM OF TWO (2) WEEKS PRIOR TO STAKING THE ITS ITEMS.

0 50 100
scale in feet

PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	ITS PLANS	SHEET	E

FILE NAME : H:\PROJMDSN\8130\CAD_BIM\PLAN\SR_ITS PLANS_1010-02-84.DWG PLOT DATE : 1/12/2016 1:18 AM PLOT BY : JACOB FOLKERINGA PLOT NAME : PLOT SCALE : 1" = 100'_XREF

2

2

CONCRETE BASES TYPE 5
TRANSFORMER BASES BREAKAWAY 11 1/2-INCH BOLT CIRCLE
POLES TYPE 5-ALUMINUM
INSTALL POLE MOUNTED CABINET (DEPARTMENT-FURNISHED)
INSTALL ETHERNET SWITCH (DEPARTMENT-FURNISHED)
INSTALL IP RADIO (TO EXCP-4) (DEPARTMENT-FURNISHED)
ELECTRICAL SERVICE BREAKER DISCONNECT BOX (DMS-11-0057(NB)/DMS-11-0058(SB))
4-PLAQUES SEQUENCE IDENTIFICATION (INCIDENTAL)
CONDUIT RIGID NONMETALLIC SCHEDULE 40 3-INCH
(BETWEEN CB-1 AND PB-23)
12-ELECTRICAL WIRE LIGHTING 2 AWG
CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH
(BETWEEN CB-1 AND PB-23)
2-INSTALL DMS CONTROL CABLE (DEPARTMENT-FURNISHED) (INCIDENTAL)

CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH
4-ELECTRICAL WIRE LIGHTING 2 AWG

CONDUIT RIGID NONMETALLIC SCHEDULE 40 3-INCH
8-ELECTRICAL WIRE LIGHTING 2 AWG
CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH
2-INSTALL DMS CONTROL CABLE (DEPARTMENT-FURNISHED) (INCIDENTAL)

R/W

MATCH LINE STA 1175+00 NB
SEE ITS SHEET 8

PB-21
PB-22
CB-1
PB-23

CONDUIT SPECIAL 3-INCH
8-ELECTRICAL WIRE LIGHTING 2 AWG
CONDUIT SPECIAL 2-INCH
2-INSTALL DMS CONTROL CABLE (DEPARTMENT-FURNISHED) (INCIDENTAL)
CONDUIT SPECIAL 2-INCH
(INCLUDING LOCATE WIRE - INCIDENTAL)
(FOR FUTURE USE)

1180+00
1185+00
1190+00
IH 39/90/94 NB

PB-24
DMS-2

DMS-11-0057(NB) & DMS-11-0058(SB)
2-INSTALL OVERHEAD FREEWAY DMS FULL MATRIX (DEPARTMENT-FURNISHED)
CONDUIT RIGID NONMETALLIC SCHEDULE 40 3-INCH
(BETWEEN DMS-2 AND PB-24)
8-ELECTRICAL WIRE LIGHTING 2 AWG
CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH
(BETWEEN DMS-2 AND PB-24)
2-INSTALL DMS CONTROL CABLE (DEPARTMENT-FURNISHED) (INCIDENTAL)

1175+00
1185+00
IH 39/90/94 SB

SIGN
SIGN
SIGN

R/W

N

NOTIFY THE REGIONAL TRAFFIC UNIT (PRIMARY 608-246-5367, SECONDARY 608-246-5362), A MINIMUM OF TWO (2) WEEKS PRIOR TO STAKING THE ITS ITEMS.

0 50 100
scale in feet

PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	ITS PLANS	SHEET 72	E

LEGEND

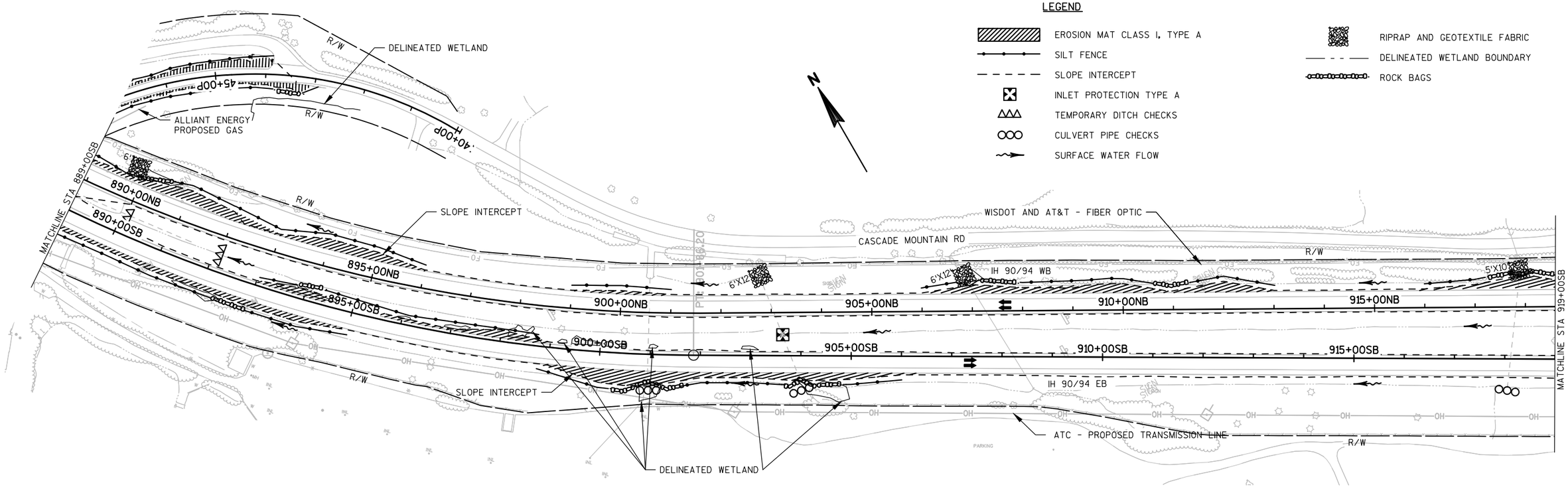
- EROSION MAT CLASS I, TYPE A
- SILT FENCE
- SLOPE INTERCEPT
- INLET PROTECTION TYPE A
- TEMPORARY DITCH CHECKS
- CULVERT PIPE CHECKS
- SURFACE WATER FLOW
- RIPRAP AND GEOTEXTILE FABRIC
- DELINEATED WETLAND BOUNDARY
- ROCK BAGS

BEGIN PROJECT 1010-02-84
STA 830+00.00SB
Y = 386,870.762
X = 518,941.572
MATCH EXISTING

MATCHLINE STA 858+00SB

MATCHLINE STA 889+00SB

PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	EROSION CONTROL	SHEET 73	E



PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	EROSION CONTROL	SHEET 74	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
- DELINEATED WETLAND BOUNDARY
- ROCK BAGS

2

2

CASCADE MOUNTAIN RD
R/W
IH 90/94 WB
IH 90/94 EB
IH 39 SB
IH 39 NB
WISDOT AND AT&T - FIBER OPTIC
AT&T - FIBER OPTIC
SLOPE INTERCEPT
S-11-07
4'X10'
4'X10'
960+00NB
965+00NB
970+00NB
975+00NB
965+00SB
970+00SB
975+00SB
955+00NB
955+00SB
950+00NB
950+00SB
7'x14'
6'X12'
DELINEATED WETLAND
FRONTIER - FIBER OPTIC
MERRIMAC - COMMUNICATION
WATER TREATMENT PONDS
ATC - PROPOSED TRANSMISSION LINE
MATCHLINE STA 948+00OSB
MATCHLINE STA 978+00OSB
P 966+39.24
9'X21'
RUINS
U/C
SIGN
INL
OH
FO

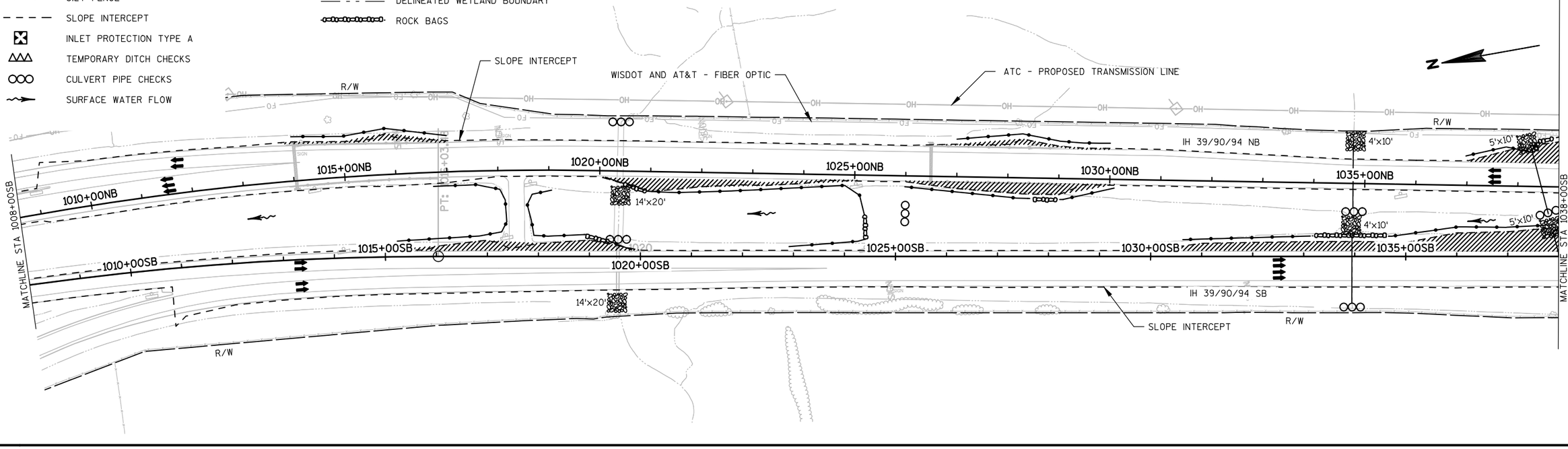
DELINEATED WETLAND
16'x20'
B-11-0102
4'x10'
6'X12'
P 967+86.84
SLOPE INTERCEPT
980+00NB
980+00SB
985+00SB
990+00NB
990+00SB
995+00NB
995+00SB
1000+00NB
1000+00SB
1005+00NB
1005+00SB
MATCHLINE STA 978+00OSB
MATCHLINE STA 1008+00SB
B-11-0098
B-11-0101
6'X12'
DELINEATED WETLAND
STH 78
DELINEATED WETLAND
4'x10'
ATC - PROPOSED TRANSMISSION LINE
WISDOT AND AT&T - FIBER OPTIC
IH 39 SB
R/W
N

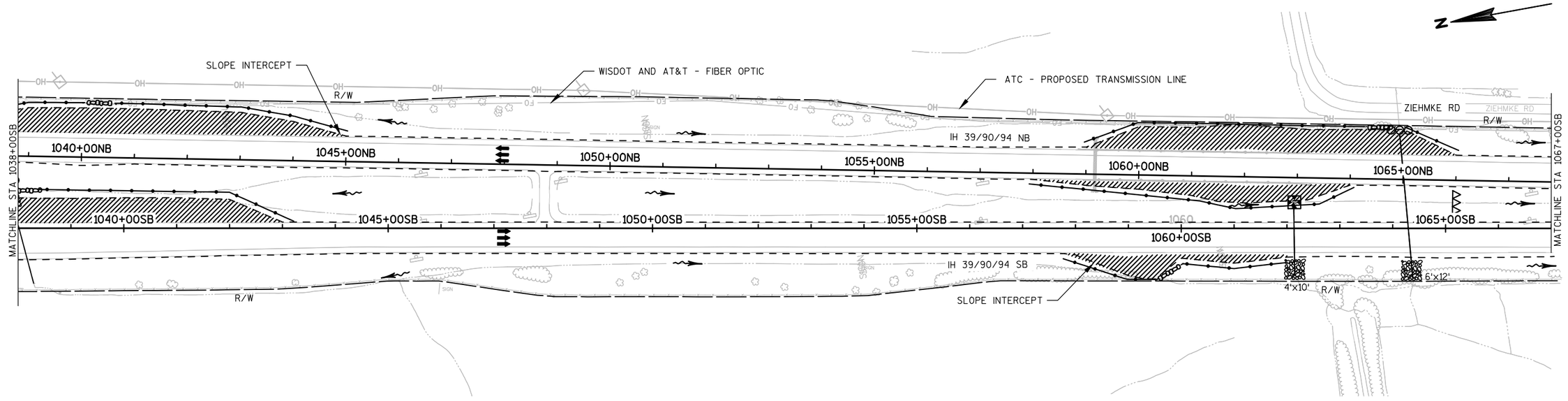
PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	EROSION CONTROL	SHEET 75	E

FILE NAME : X:\3230900\131208.01\TECH\CAD\10100202\SHEETSPLAN\CONSTRUCTION PROJECT 1, 1010-02-84\022001_EC.DWG PLOT DATE : 7/25/2016 12:33 PM PLOT BY : DAVID YAHNKE PLOT NAME : PLOT SCALE : 1" = 200'_XREF

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
- DELINEATED WETLAND BOUNDARY
- ROCK BAGS



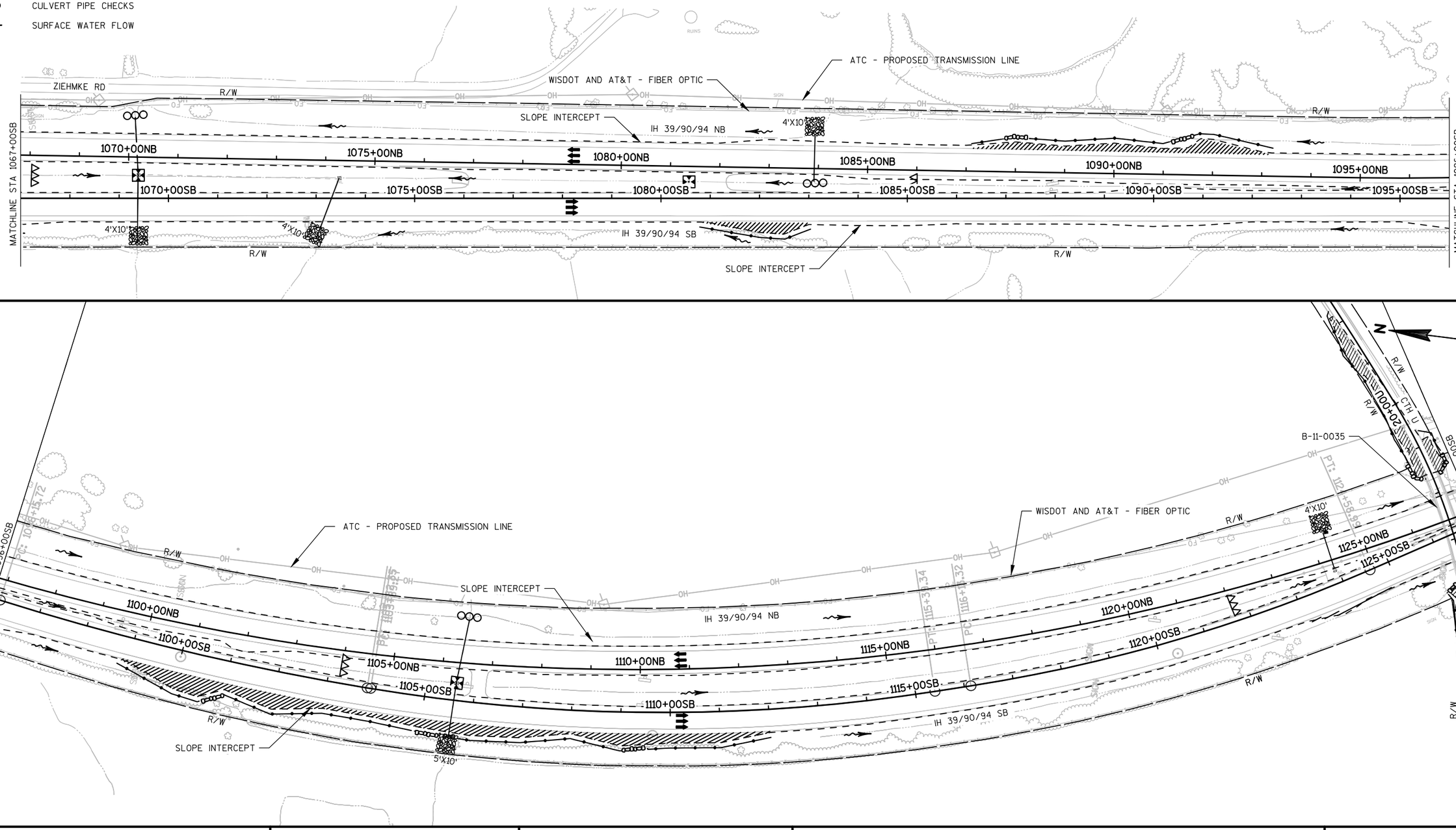


PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	EROSION CONTROL	SHEET 76	E

2

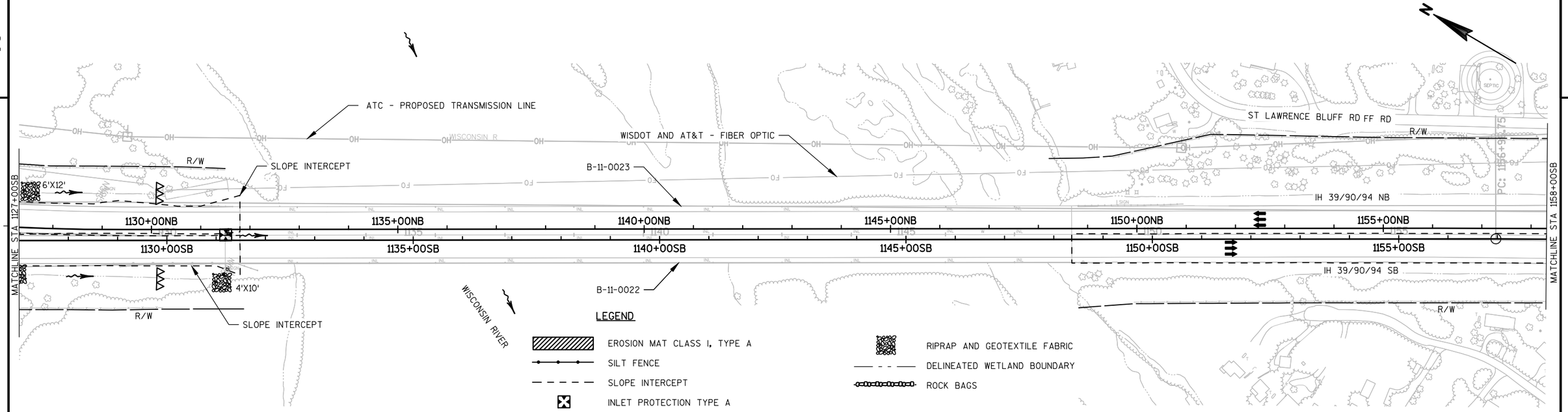
LEGEND

- 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
- DELINEATED WETLAND BOUNDARY
- ROCK BAGS



PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	EROSION CONTROL	SHEET 77	E

FILE NAME : X:\3230900\131208.01\TECH\CAD\10100202\SHEETSPLAN\CONSTRUCTION PROJECT 1, 1010-02-84\022001_EC.DWG PLOT DATE : 7/25/2016 12:37 PM PLOT BY : DAVID YAHNKE PLOT NAME : PLOT SCALE : 1" = 200'_XREF



PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	EROSION CONTROL	SHEET 78	E

2

ALLIANT ENERGY - ELECTRIC

R/W

B-11-030

330+00

335+00

340+00

345+00

350+00

353+78

STH 33

FRONTIER - COMMUNICATION

SLOPE INTERCEPT

WISDOT - FIBER OPTIC

ATC - PROPOSED TRANSMISSION LINE

IH 90/94 SB

IH 90/94 NB

865+00SB

865+00NB

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
- DELINEATED WETLAND BOUNDARY
- ROCK BAGS

N

ATC - PROPOSED TRANSMISSION LINE

IH 39 NB

IH 39 SB

1170+00NB

1170+00SB

B-11-0037

45+00V

50+00V

55+00V

CTH V

ALLIANT ENERGY - ELECTRIC

1165+00NB

1165+00SB

1290+00NB

1290+00SB

KENT RD

45+00

50+00

55+00

56+06

CENTURY LINK - COMMUNICATION

1295+00SB

1295+00NB

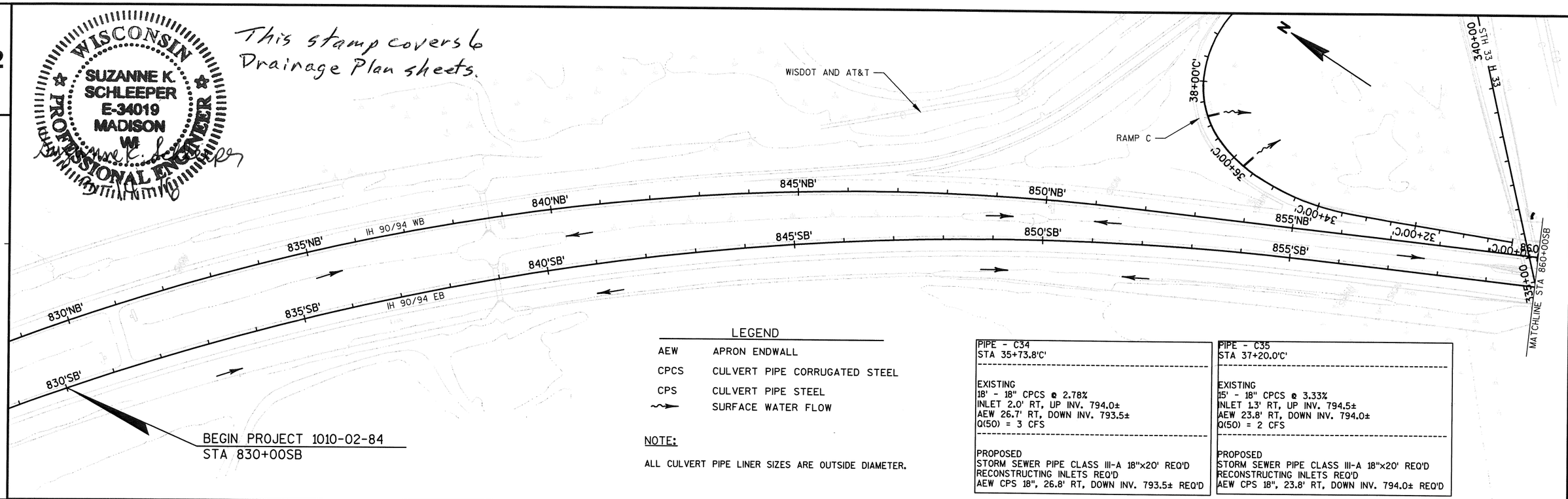
IH 39/90/94 SB

IH 39/90/94 NB

PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	EROSION CONTROL	SHEET 79	E

FILE NAME : X:\3230900\131208.01\TECH\CAD\10100202\SHEETSPLAN\CONSTRUCTION PROJECT 1, 1010-02-84\022001_EC.DWG PLOT DATE : 7/25/2016 12:41 PM PLOT BY : DAVID YAHNKE PLOT NAME : PLOT SCALE : 1" = 200'_XREF

This stamp covers 6 Drainage Plan sheets.



LEGEND

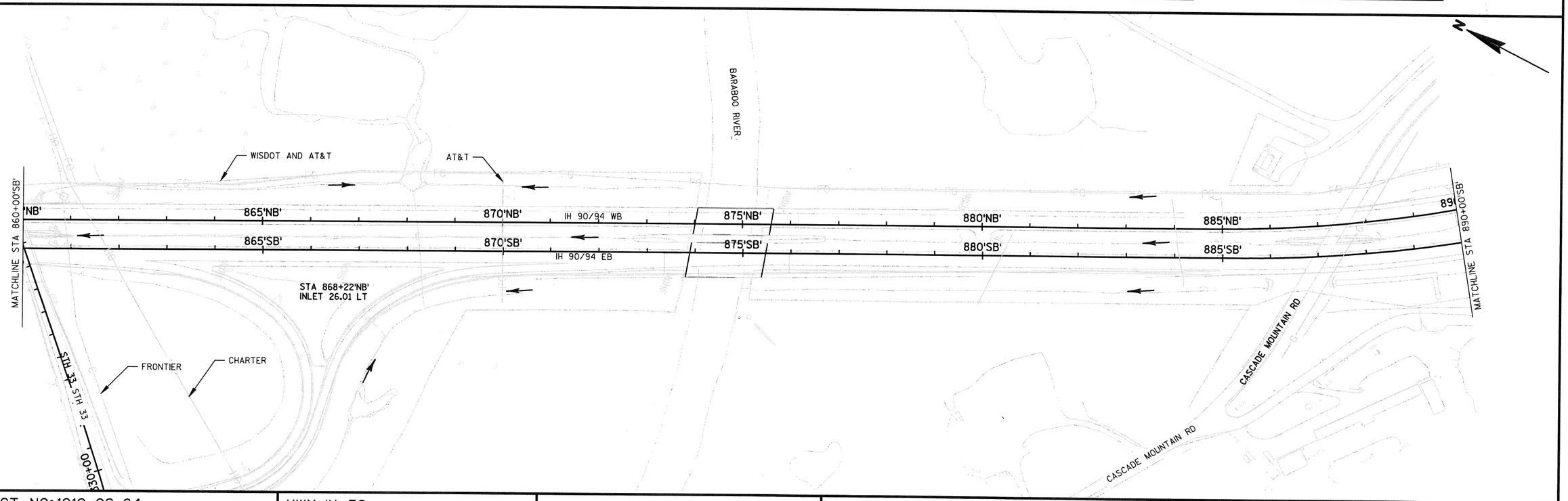
AEW	APRON ENDWALL
CPCS	CULVERT PIPE CORRUGATED STEEL
CPS	CULVERT PIPE STEEL
~~	SURFACE WATER FLOW

NOTE:

ALL CULVERT PIPE LINER SIZES ARE OUTSIDE DIAMETER.

PIPE - C34 STA 35+73.8'C'
EXISTING 18' - 18" CPCS @ 2.78% INLET 2.0' RT, UP INV. 794.0± AEW 26.7' RT, DOWN INV. 793.5± Q(50) = 3 CFS
PROPOSED STORM SEWER PIPE CLASS III-A 18"x20' REQ'D RECONSTRUCTING INLETS REQ'D AEW CPS 18", 26.8' RT, DOWN INV. 793.5± REQ'D

PIPE - C35 STA 37+20.0'C'
EXISTING 15' - 18" CPCS @ 3.33% INLET 1.3' RT, UP INV. 794.5± AEW 23.8' RT, DOWN INV. 794.0± Q(50) = 2 CFS
PROPOSED STORM SEWER PIPE CLASS III-A 18"x20' REQ'D RECONSTRUCTING INLETS REQ'D AEW CPS 18", 23.8' RT, DOWN INV. 794.0± REQ'D



PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	DRAINAGE PLAN	SHEET 80 E

FILE NAME : S:\PROJECTS\SW\COLUMBIA COUNTY\1010-02-02_IH 39\500_CADD\501_C3D\10100202\SHEETSPLAN\022501-SS.DWG PLOT DATE : 3/14/2016 9:11 AM PLOT BY : BOBBY JONES PLOT NAME : PLOT SCALE : 1" = 200'_XREF

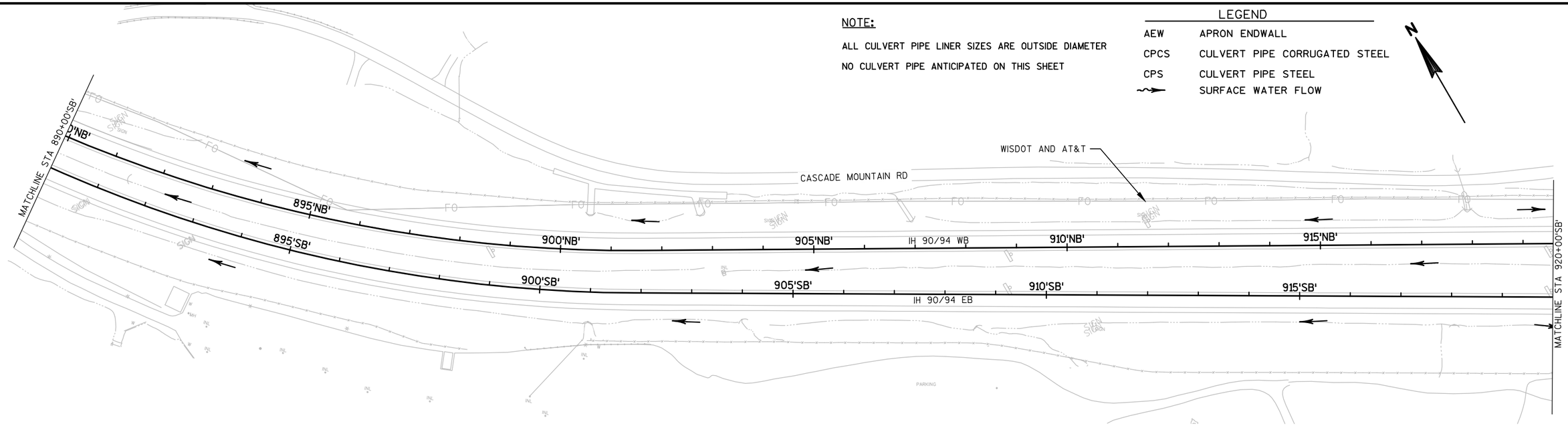
NOTE:

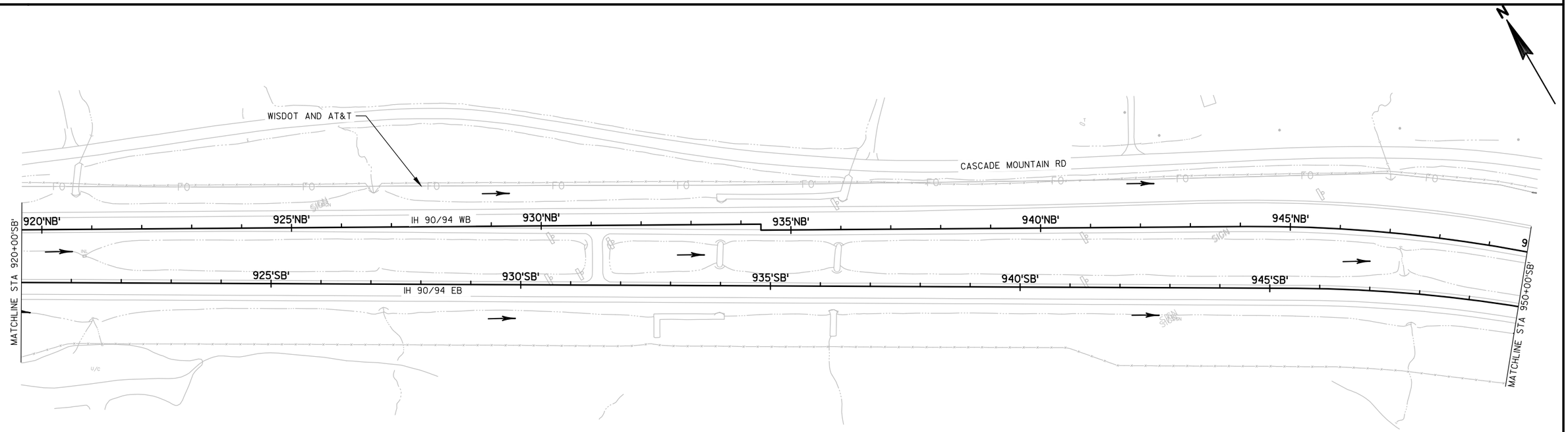
ALL CULVERT PIPE LINER SIZES ARE OUTSIDE DIAMETER

NO CULVERT PIPE ANTICIPATED ON THIS SHEET

LEGEND

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

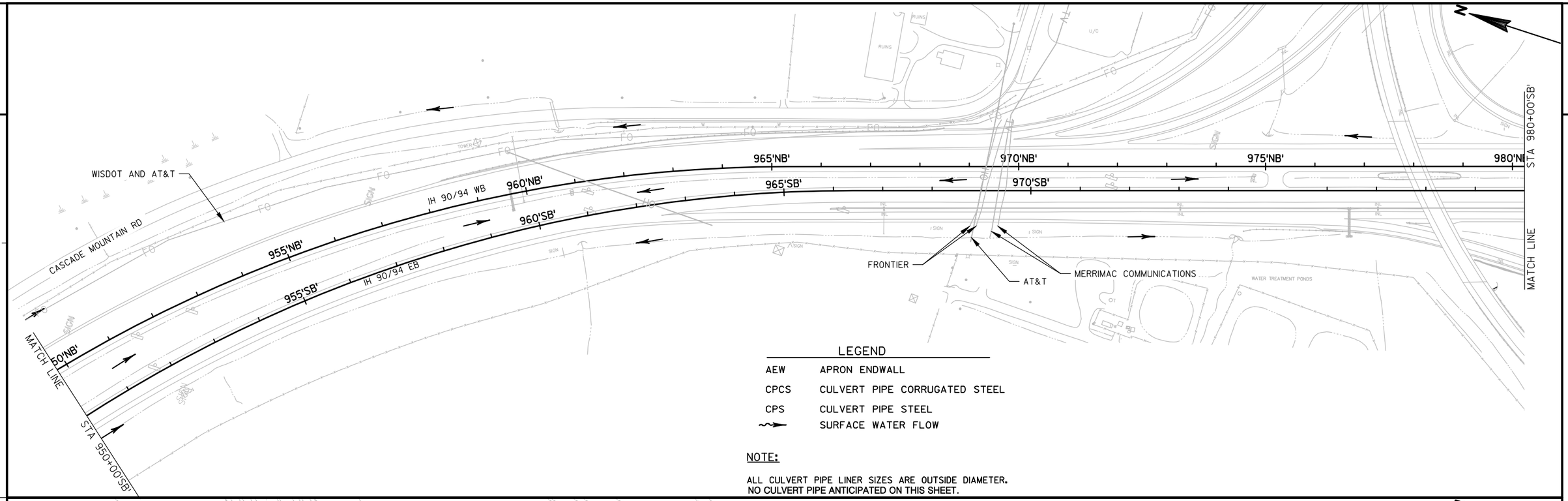




PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	DRAINAGE PLAN	SHEET 81	E

FILE NAME : S:\PROJECTS\SW\COLUMBIA COUNTY\1010-02-02_IH 39\500_CADD\501_C3D\10100202\SHEETSPLAN\022501-SS.DWG PLOT DATE : 3/14/2016 9:12 AM PLOT BY : BOBBY JONES PLOT NAME : PLOT SCALE : 1" = 200'_XREF

WISDOT/CADDS SHEET 44

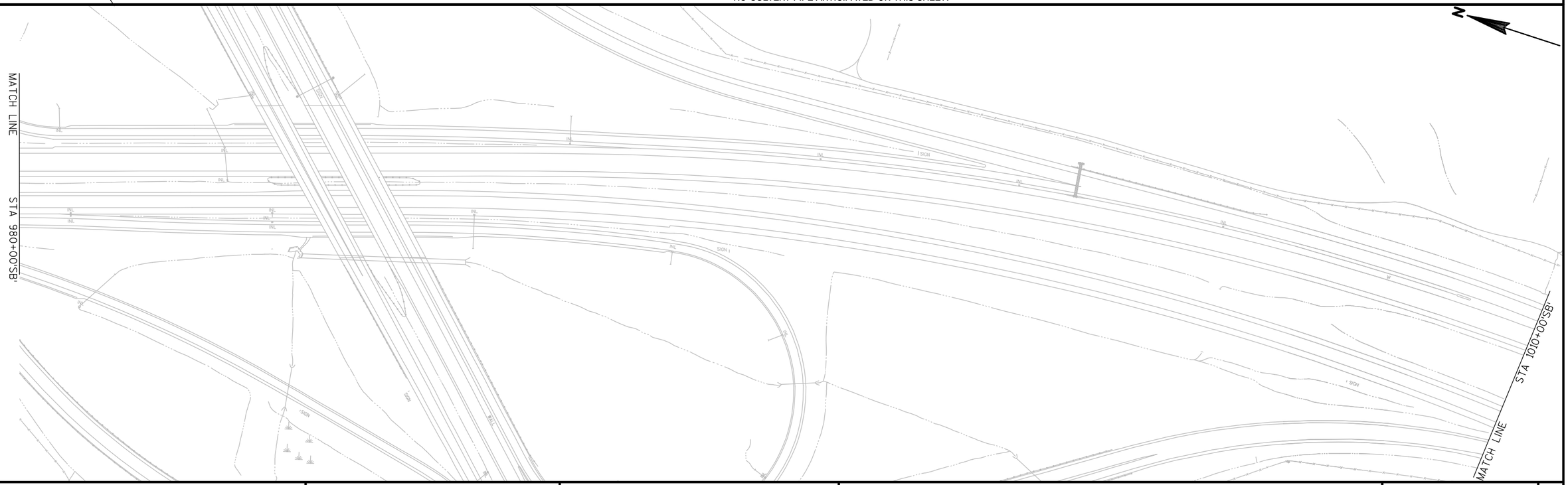


LEGEND

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

NOTE:

ALL CULVERT PIPE LINER SIZES ARE OUTSIDE DIAMETER.
NO CULVERT PIPE ANTICIPATED ON THIS SHEET.



PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	DRAINAGE PLAN	SHEET 82	E

FILE NAME : S:\PROJECTS\SW\COLUMBIA COUNTY\1010-02-02_IH 39\500_CADD\501_C3D\10100202\SHEETSPLAN\022501-SS.DWG PLOT DATE : 3/14/2016 9:12 AM PLOT BY : BOBBY JONES PLOT NAME : PLOT SCALE : 1" = 200'_XREF

WISDOT/CADDS SHEET 44

2

LEGEND

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

NOTE:

ALL CULVERT PIPE LINER SIZES ARE OUTSIDE DIAMETER.

PIPE - C1
STA 1034+78'NB'

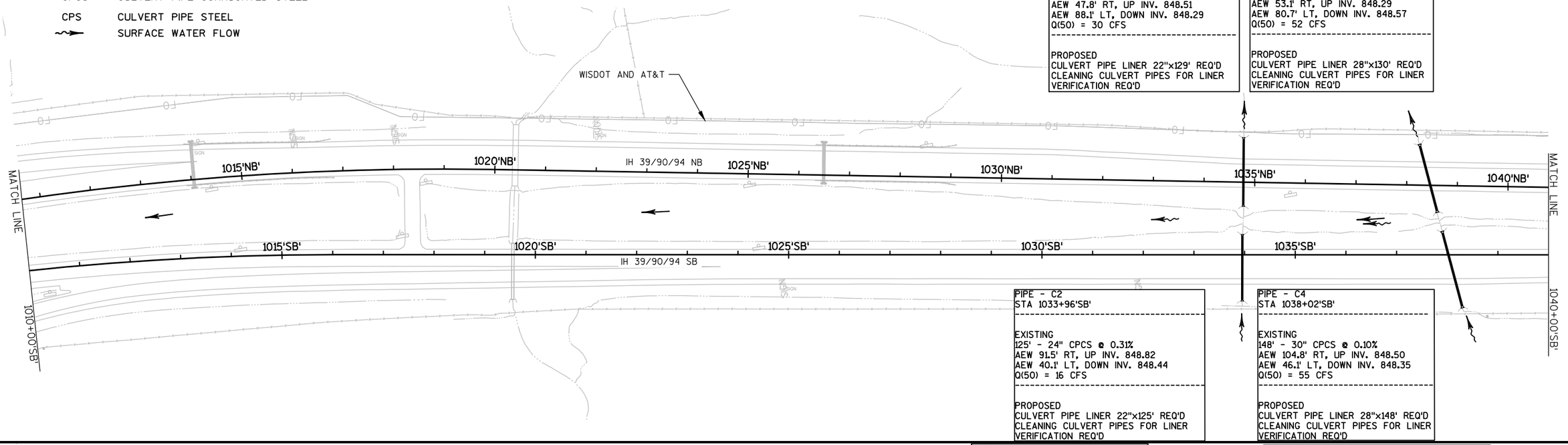
EXISTING
129' - 24" CPCS @ 0.17%
AEW 47.8' RT, UP INV. 848.51
AEW 88.1' LT, DOWN INV. 848.29
Q(50) = 30 CFS

PROPOSED
CULVERT PIPE LINER 22"x129' REQ'D
CLEANING CULVERT PIPES FOR LINER
VERIFICATION REQ'D

PIPE - C3
STA 1038+47'NB'

EXISTING
130' - 30" CPCS @ -0.21%
AEW 53.1' RT, UP INV. 848.29
AEW 80.7' LT, DOWN INV. 848.57
Q(50) = 52 CFS

PROPOSED
CULVERT PIPE LINER 28"x130' REQ'D
CLEANING CULVERT PIPES FOR LINER
VERIFICATION REQ'D



PIPE - C2
STA 1033+96'SB'

EXISTING
125' - 24" CPCS @ 0.31%
AEW 91.5' RT, UP INV. 848.82
AEW 40.1' LT, DOWN INV. 848.44
Q(50) = 16 CFS

PROPOSED
CULVERT PIPE LINER 22"x125' REQ'D
CLEANING CULVERT PIPES FOR LINER
VERIFICATION REQ'D

PIPE - C4
STA 1038+02'SB'

EXISTING
148' - 30" CPCS @ 0.10%
AEW 104.8' RT, UP INV. 848.50
AEW 46.1' LT, DOWN INV. 848.35
Q(50) = 55 CFS

PROPOSED
CULVERT PIPE LINER 28"x148' REQ'D
CLEANING CULVERT PIPES FOR LINER
VERIFICATION REQ'D

PIPE - C6
STA 1065+02'NB'

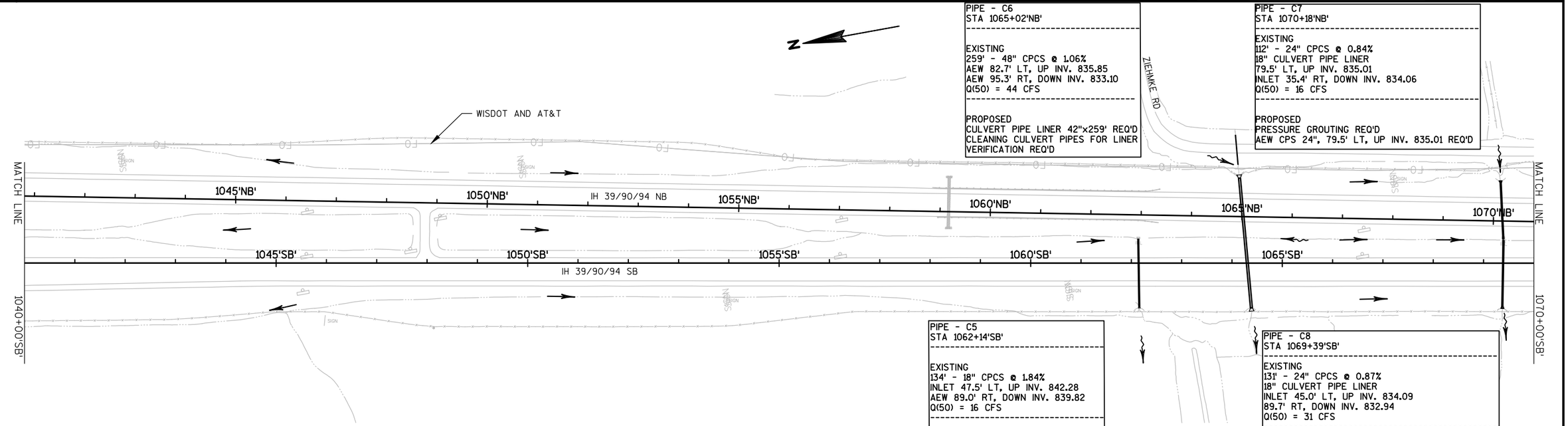
EXISTING
259' - 48" CPCS @ 1.06%
AEW 82.7' LT, UP INV. 835.85
AEW 95.3' RT, DOWN INV. 833.10
Q(50) = 44 CFS

PROPOSED
CULVERT PIPE LINER 42"x259' REQ'D
CLEANING CULVERT PIPES FOR LINER
VERIFICATION REQ'D

PIPE - C7
STA 1070+18'NB'

EXISTING
112' - 24" CPCS @ 0.84%
18" CULVERT PIPE LINER
79.5' LT, UP INV. 835.01
INLET 35.4' RT, DOWN INV. 834.06
Q(50) = 16 CFS

PROPOSED
PRESSURE GROUTING REQ'D
AEW CPS 24", 79.5' LT, UP INV. 835.01 REQ'D



PIPE - C5
STA 1062+14'SB'

EXISTING
134' - 18" CPCS @ 1.84%
INLET 47.5' LT, UP INV. 842.28
AEW 89.0' RT, DOWN INV. 839.82
Q(50) = 16 CFS

PROPOSED
CULVERT PIPE LINER 16"x134' REQ'D
CLEANING CULVERT PIPES FOR LINER
VERIFICATION REQ'D

PIPE - C8
STA 1069+39'SB'

EXISTING
131' - 24" CPCS @ 0.87%
18" CULVERT PIPE LINER
INLET 45.0' LT, UP INV. 834.09
89.7' RT, DOWN INV. 832.94
Q(50) = 31 CFS

PROPOSED
PRESSURE GROUTING REQ'D
AEW CPS 24", 89.7' RT, DOWN INV. 832.94 REQ'D

PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	DRAINAGE PLAN	SHEET 83	E

FILE NAME : S:\PROJECTS\SW\COLUMBIA COUNTY\1010-02-02_IH 39\500_CADD\501_C3D\10100202\SHEETSPLAN\022501-SS.DWG PLOT DATE : 3/14/2016 9:12 AM PLOT BY : BOBBY JONES PLOT NAME : PLOT SCALE : 1" = 200'_XREF

PIPE - C10
STA 1083+93'NB'

EXISTING
86' - 18" CPCS @ 2.86%
12" CULVERT PIPE LINER
AEW 26.8' RT, UP INV. 844.85
AEW 64.6' LT, DOWN INV. 842.38
Q(50) = 9 CFS

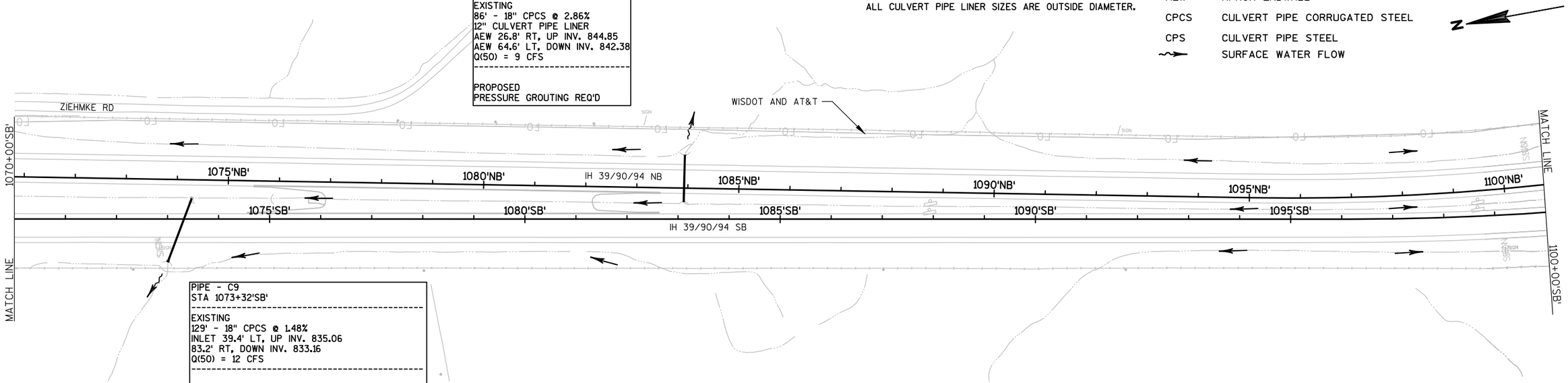
PROPOSED
PRESSURE GROUTING REQ'D

NOTE:

ALL CULVERT PIPE LINER SIZES ARE OUTSIDE DIAMETER.

LEGEND

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



PIPE - C9
STA 1073+32'SB'

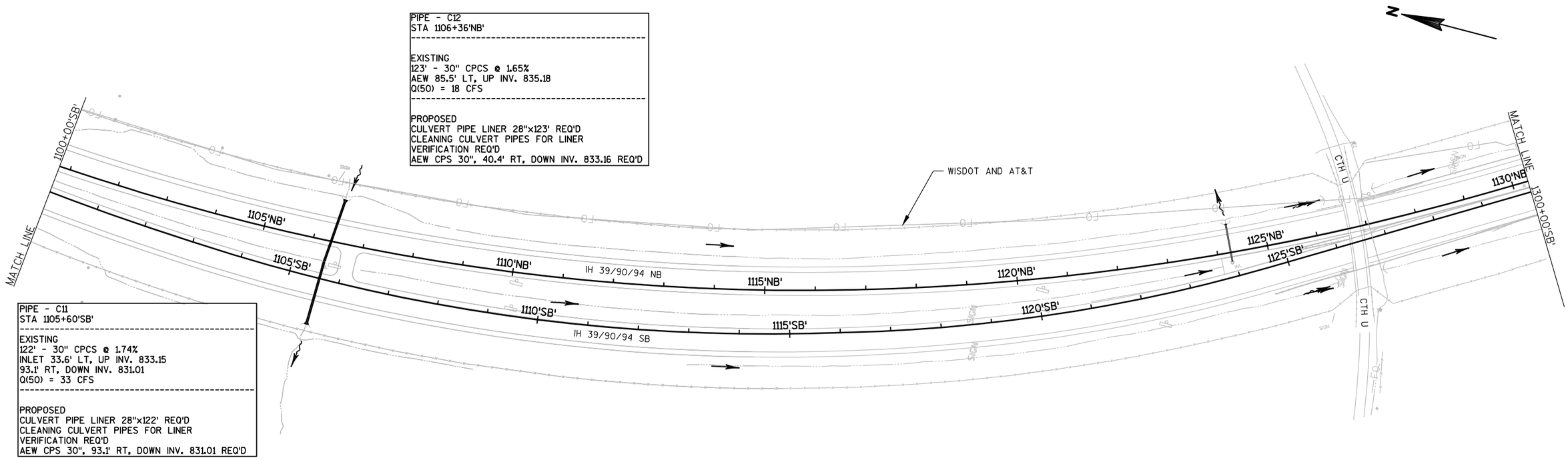
EXISTING
129' - 18" CPCS @ 1.48%
INLET 39.4' LT, UP INV. 835.06
83.2' RT, DOWN INV. 833.16
Q(50) = 12 CFS

PROPOSED
CULVERT PIPE LINER 16"x129' REQ'D
CLEANING CULVERT PIPES FOR LINER
VERIFICATION REQ'D
AEW CPS 18", 83.2' RT, DOWN INV. 833.16 REQ'D

PIPE - C12
STA 1106+36'NB'

EXISTING
123' - 30" CPCS @ 1.65%
AEW 85.5' LT, UP INV. 835.18
Q(50) = 18 CFS

PROPOSED
CULVERT PIPE LINER 28"x123' REQ'D
CLEANING CULVERT PIPES FOR LINER
VERIFICATION REQ'D
AEW CPS 30", 40.4' RT, DOWN INV. 833.16 REQ'D



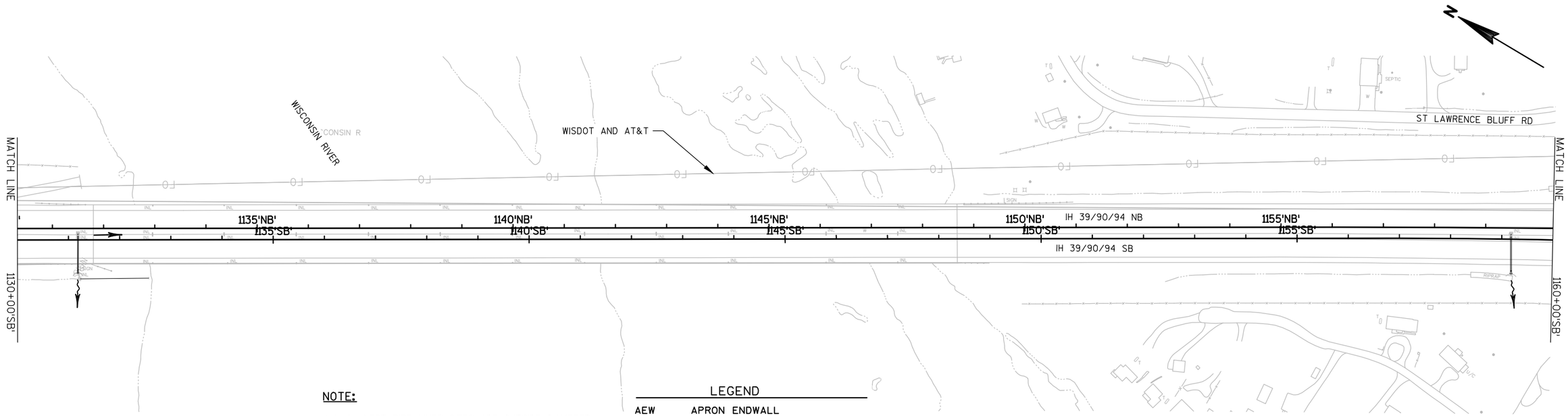
PIPE - C11
STA 1105+60'SB'

EXISTING
122' - 30" CPCS @ 1.74%
INLET 33.6' LT, UP INV. 833.15
93.1' RT, DOWN INV. 831.01
Q(50) = 33 CFS

PROPOSED
CULVERT PIPE LINER 28"x122' REQ'D
CLEANING CULVERT PIPES FOR LINER
VERIFICATION REQ'D
AEW CPS 30", 93.1' RT, DOWN INV. 831.01 REQ'D

PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	DRAINAGE PLAN	SHEET 84	E

2



NOTE:

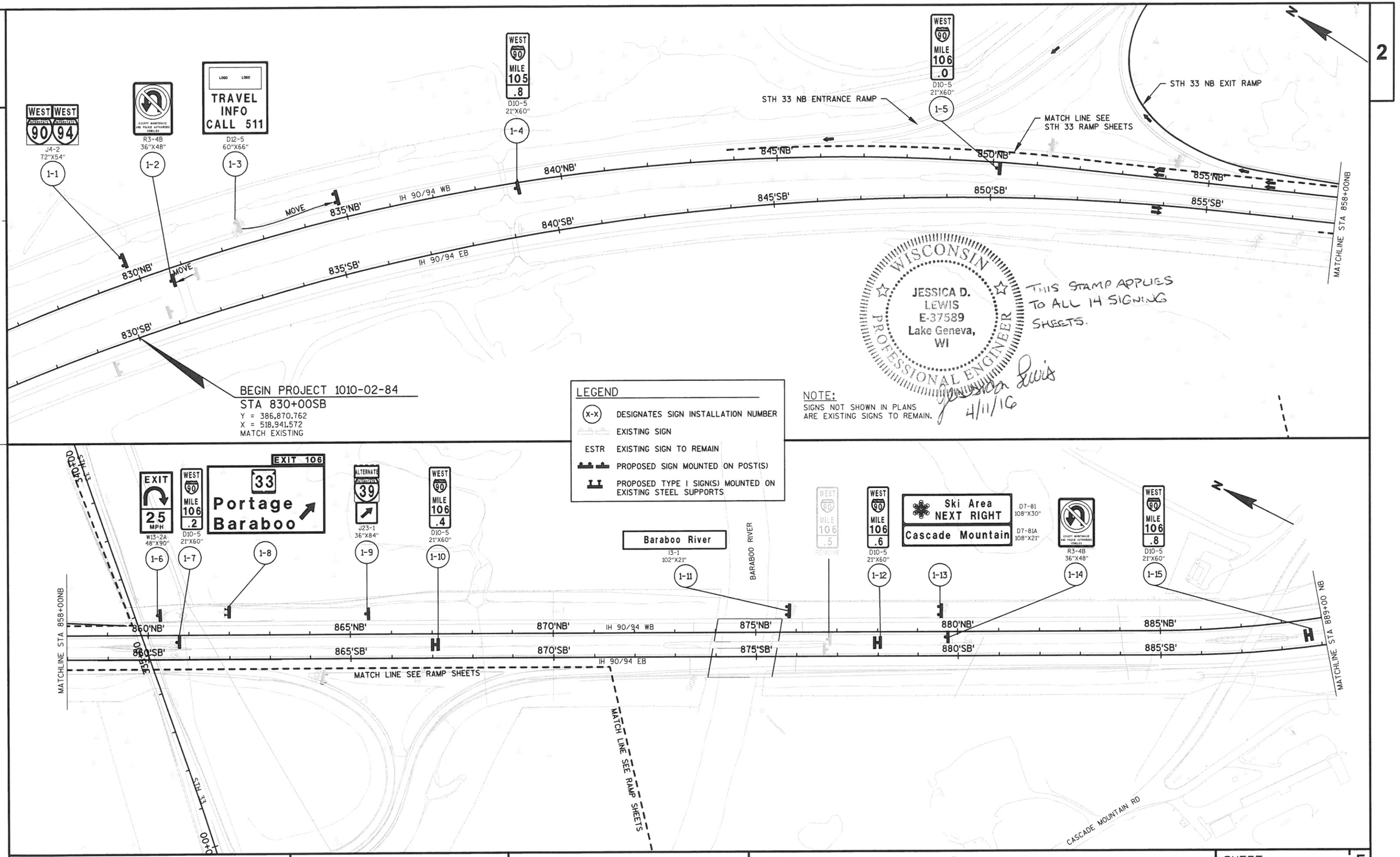
ALL CULVERT PIPE LINER SIZES ARE OUTSIDE DIAMETER.
NO CULVERT PIPE ANTICIPATED ON THIS SHEET.

LEGEND

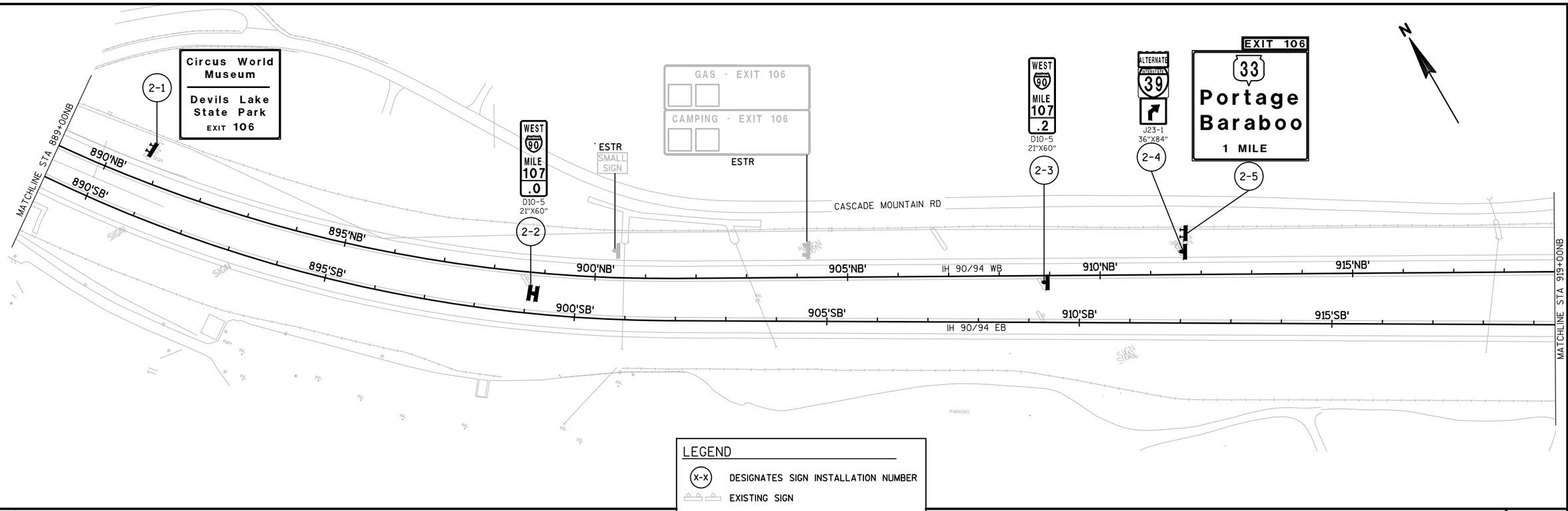
AEW	APRON ENDWALL
CPCS	CULVERT PIPE CORRUGATED STEEL
CPS	CULVERT PIPE STEEL
~~→	SURFACE WATER FLOW

PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	DRAINAGE PLAN	SHEET 85	E

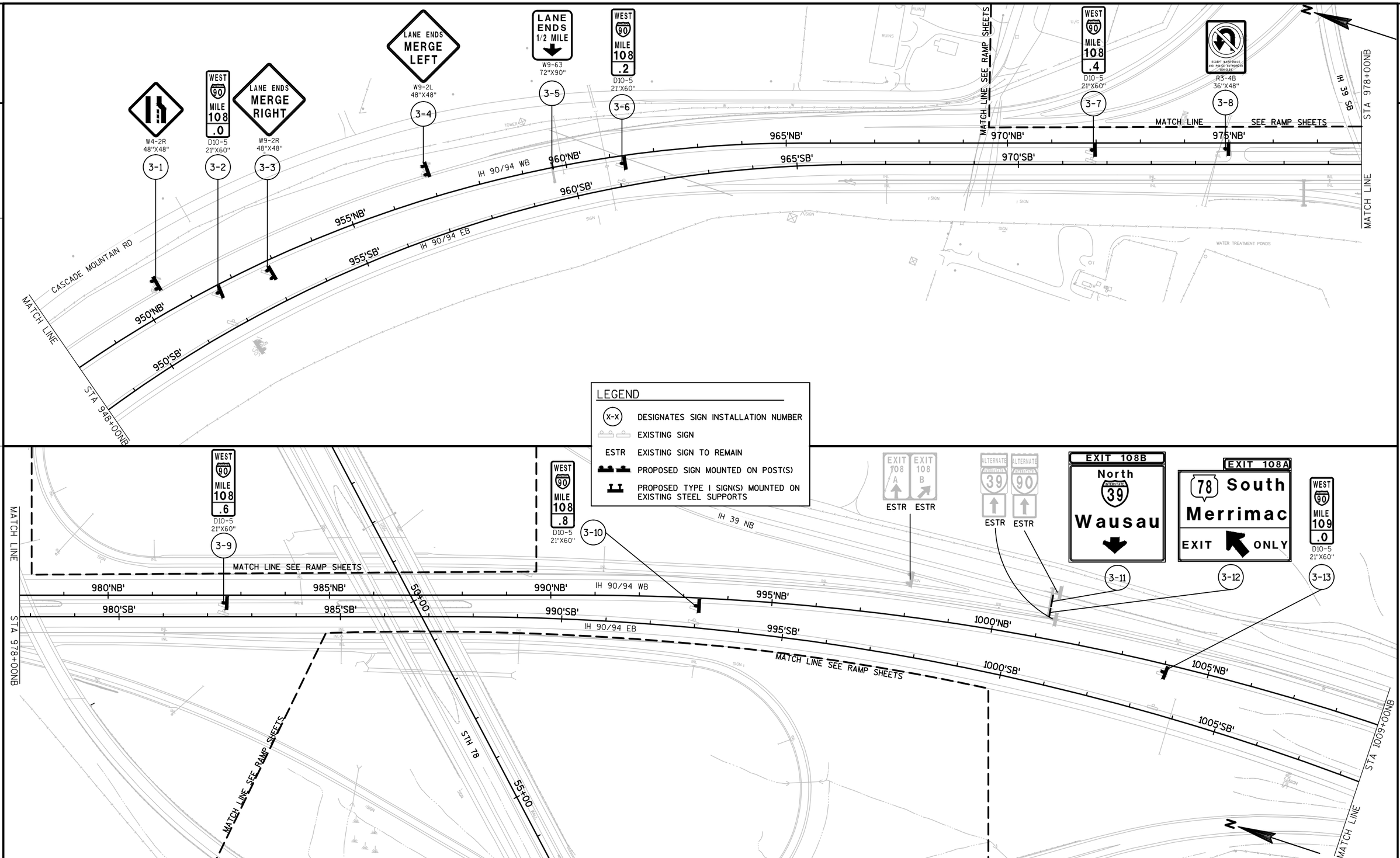
FILE NAME : S:\PROJECTS\SW\COLUMBIA COUNTY\1010-02-02_IH 39\500_CADD\501_C3D\10100202\SHEETSPLAN\022501-SS.DWG PLOT DATE : 3/14/2016 9:13 AM PLOT BY : BOBBY JONES PLOT NAME : PLOT SCALE : 1" = 200'_XREF



PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	PERMANENT SIGNING-IH 39 (NB)	SHEET 86 E



PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	PERMANENT SIGNING-IH 39 (NB)	SHEET 87	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: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	PERMANENT SIGNING-IH 39 (NB)	SHEET	E

FILE NAME : S:\PROJECTS\SW\COLUMBIA COUNTY\1010-02-02_IH 39\500_CADD\501_C3D\10100202\SHEETSPLAN\023201_NB-PS.DWG PLOT DATE : 4/7/2016 9:30 AM PLOT BY : BOBBY JONES PLOT NAME : PLOT SCALE : 1"=200'_XREF

WISDOT/CADDS SHEET 44

EXIT 108 A-B
E5-10
ESTR
4-1
W5-65D
36"X24"
4-2
ALTERNATE
INTERSTATE 90
J23-1
36"X84"
THIS LANE ENDS
W9-62
72"X90"
4-3
INTERSTATE 90 INTERSTATE 94 WEST
Wis Dells
4-4
EXIT 108A
78 South
Merrimac
4-5
EXIT 108B
North
INTERSTATE 39
Wausau
4-6
HOSPITAL
EXIT 108B
E10-61
144"X54"
4-8
EXIT 108A-B
INTERSTATE 90 INTERSTATE 94
Wis Dells
INTERSTATE 78 INTERSTATE 39 INTERSTATE 51
Wausau
Merrimac
4-11
EXIT 108A-B
INTERSTATE 90 INTERSTATE 94
Wis Dells
North South
INTERSTATE 39 78
Wausau
Merrimac

MATCH LINE
1010'NB'
1015'NB'
1020'NB'
IH 39/90/94 NB
1025'NB'
1030'NB'
1035'NB'
1009+00'NB'
1039+00'NB'
MATCH LINE
1010'SB'
1015'SB'
1020'SB'
IH 39/90/94 SB
1025'SB'
1030'SB'
1035'SB'

4-7
WEST 90 MILE 109 .2
D10-5
21"X60"
ESTR
GAS - LEFT LANE
LODGING - LEFT LANE
ESTR
FOOD - LEFT LANE
4-9
R3-4B
36"X48"
EXCEPT MAINTENANCE AND POLICE AUTHORIZED VEHICLES
4-10
ALTERNATE INTERSTATE 90
J23-1
36"X84"
4-12
WEST 90 MILE 109 .4
D10-5
21"X60"
4-13
RIGHT LANE MUST EXIT
R3-33-R
78"X36"
RIGHT LANE FOR EXIT ONLY
REMOVE
4-14
WEST 90 MILE 109 .6
D10-5
21"X60"

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

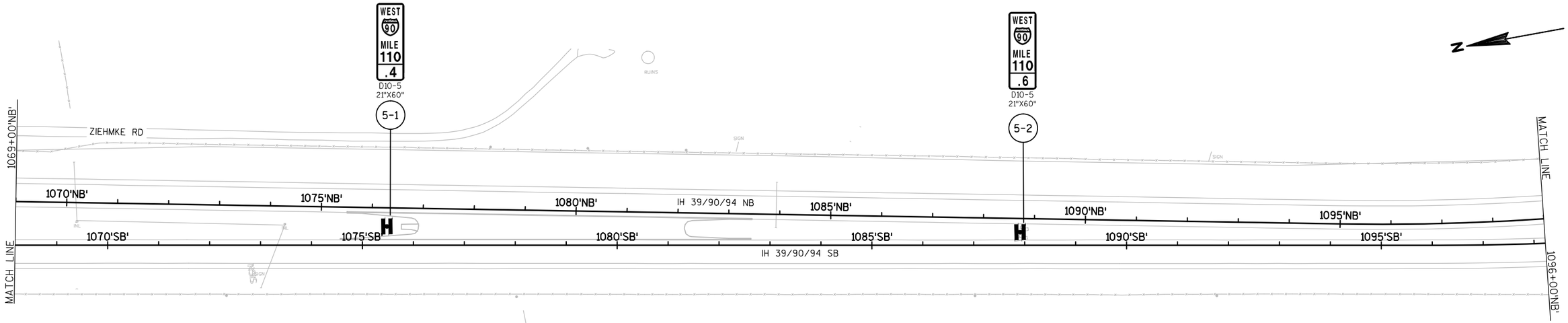
ESTR
GAS - EXIT 108A
LODGING - EXIT 108A
4-15
WEST 90 MILE 109 .8
D10-5
21"X60"
4-16
R3-4B
36"X48"
EXCEPT MAINTENANCE AND POLICE AUTHORIZED VEHICLES
ESTR
FOOD - EXIT 108A
4-17
WEST 90 MILE 110 .0
D10-5
21"X60"
EXIT 108A-B
North South
INTERSTATE 39 INTERSTATE 78
Wausau
Merrimac
1 MILE
EXIT 108A-B
South North To
INTERSTATE 78 INTERSTATE 39 INTERSTATE 51
Wausau
Merrimac
1 MILE
4-20
4-21
ALTERNATE INTERSTATE 90
J23-1
36"X84"
ZIEHMKE RD

MATCH LINE
1040'NB'
1045'NB'
1050'NB'
IH 39/90/94 NB
1055'NB'
1060'NB'
1065'NB'
1039+00'NB'
1069+00'NB'
MATCH LINE
1040'SB'
1045'SB'
1050'SB'
1055'SB'
1060'SB'
1065'SB'
IH 39/90/94 SB

MOVE
4-18
4-19
WEST 90 MILE 110 .2
D10-5
21"X60"
EXIT 108A-B
INTERSTATE 90 INTERSTATE 94
Wis Dells
INTERSTATE 78 INTERSTATE 39 INTERSTATE 51
Wausau
Merrimac
¾ MIILE
EXIT 108A-B
INTERSTATE 90 INTERSTATE 94
Wis Dells
North South
INTERSTATE 39 78
Wausau
Merrimac
¾ MILE

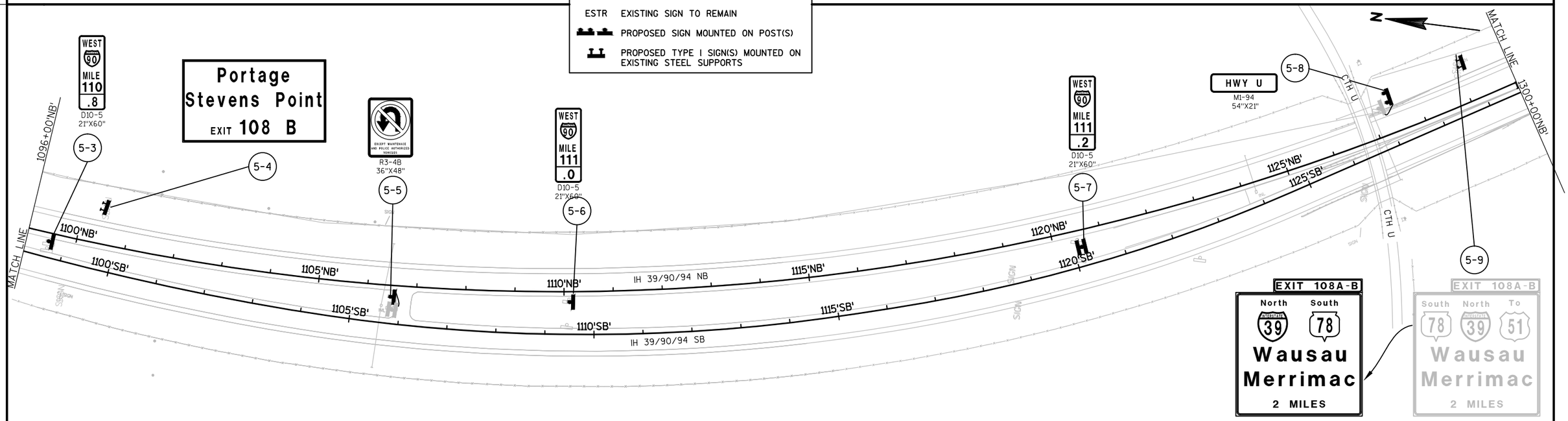
PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	PERMANENT SIGNING-IH 39 (NB)	SHEET 89	E

2

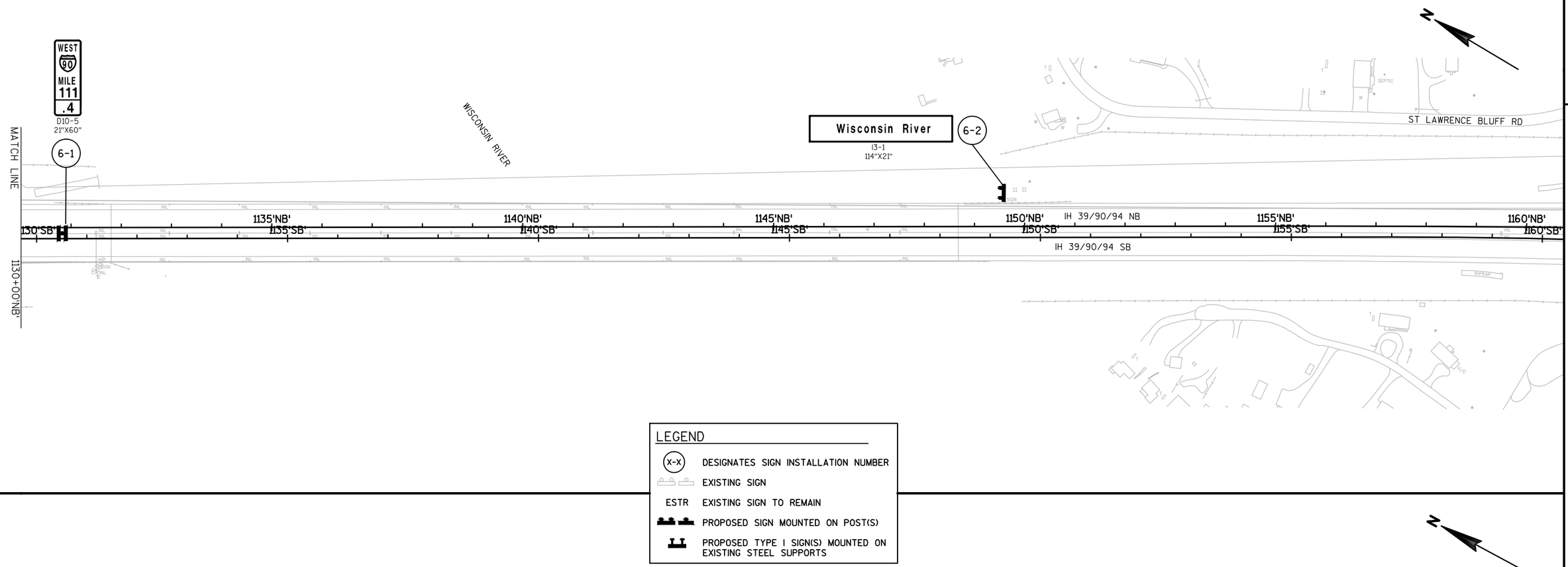


LEGEND

(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

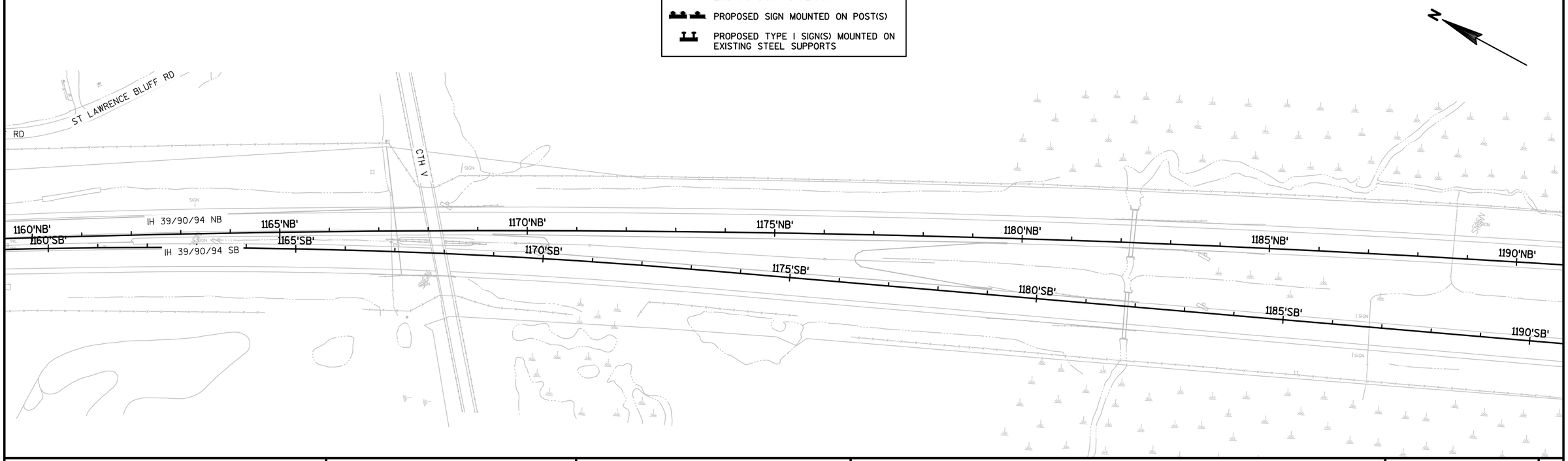


PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	PERMANENT SIGNING-IH 39 (NB)	SHEET 90	E



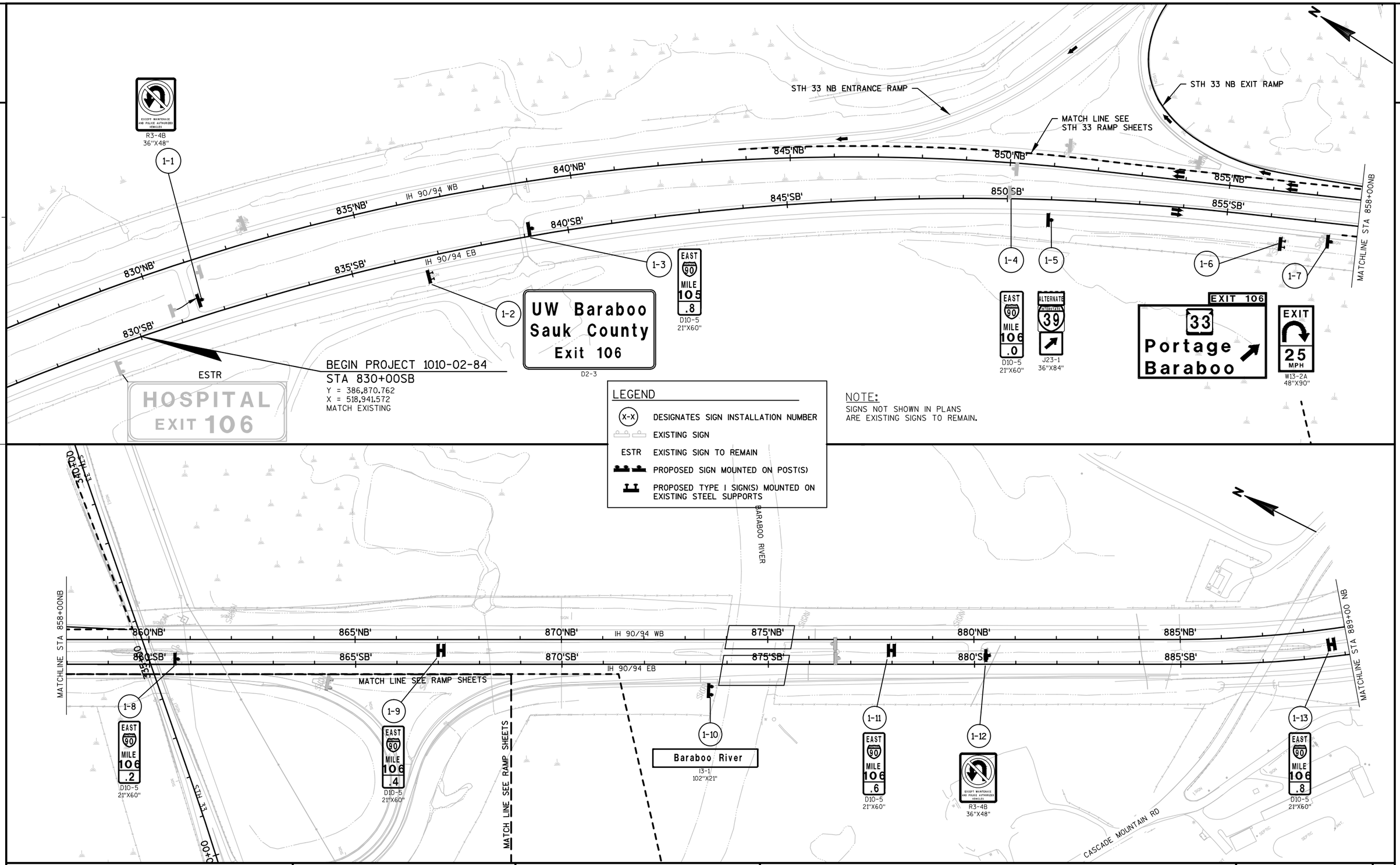
LEGEND

(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

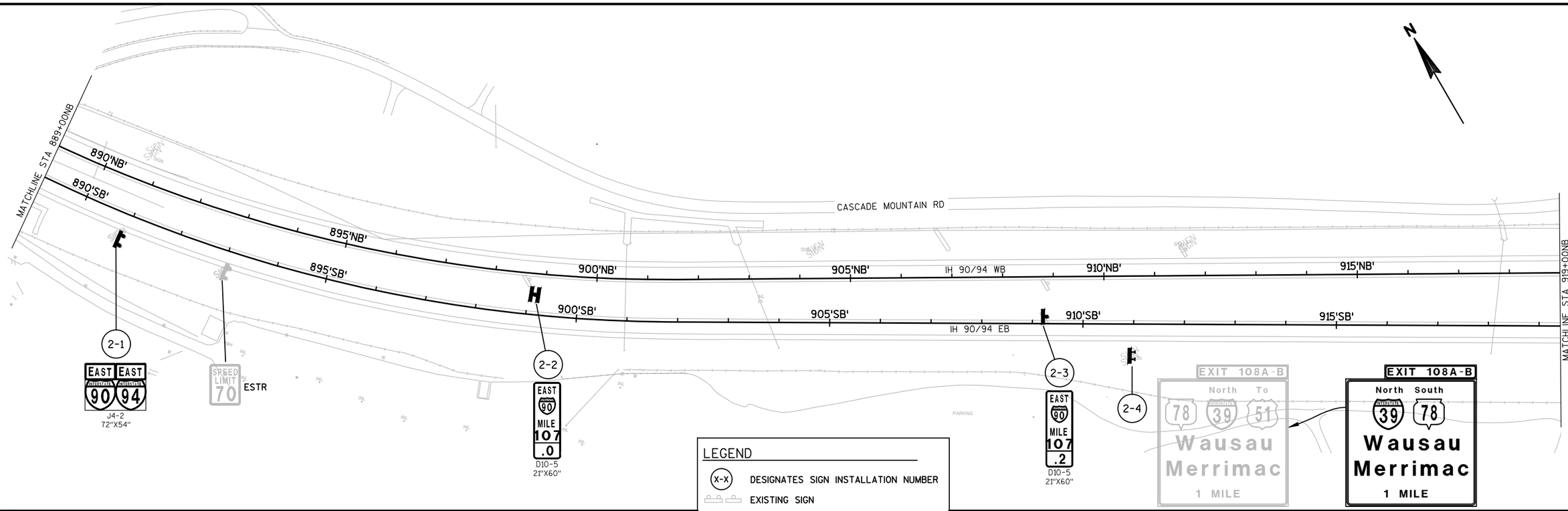


PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	PERMANENT SIGNING-IH 39 (NB)	SHEET 91	E

2

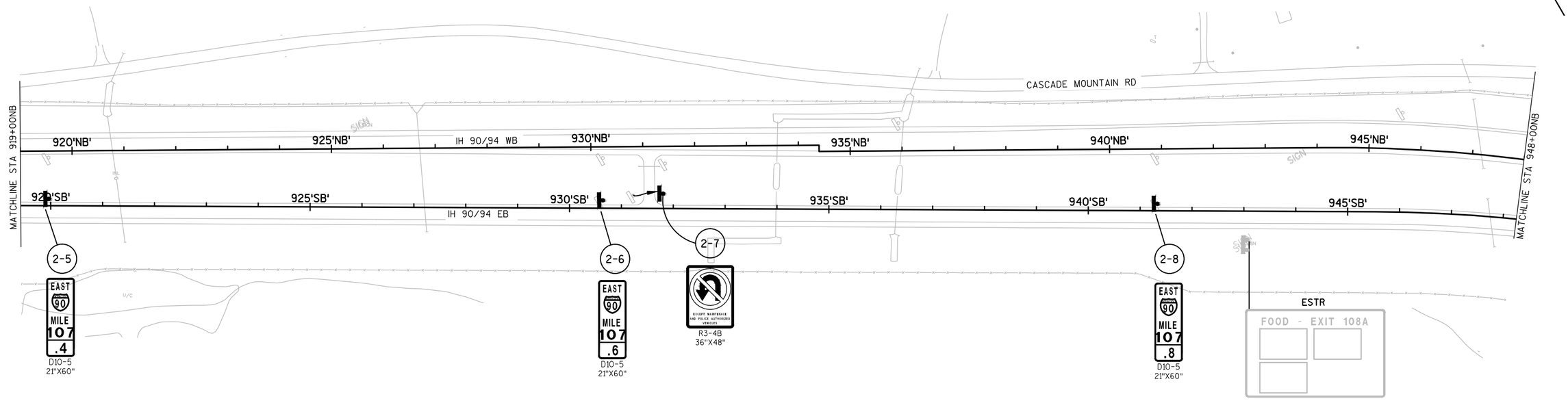


PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	PERMANENT SIGNING - IH 39 (SB)	SHEET 92	E

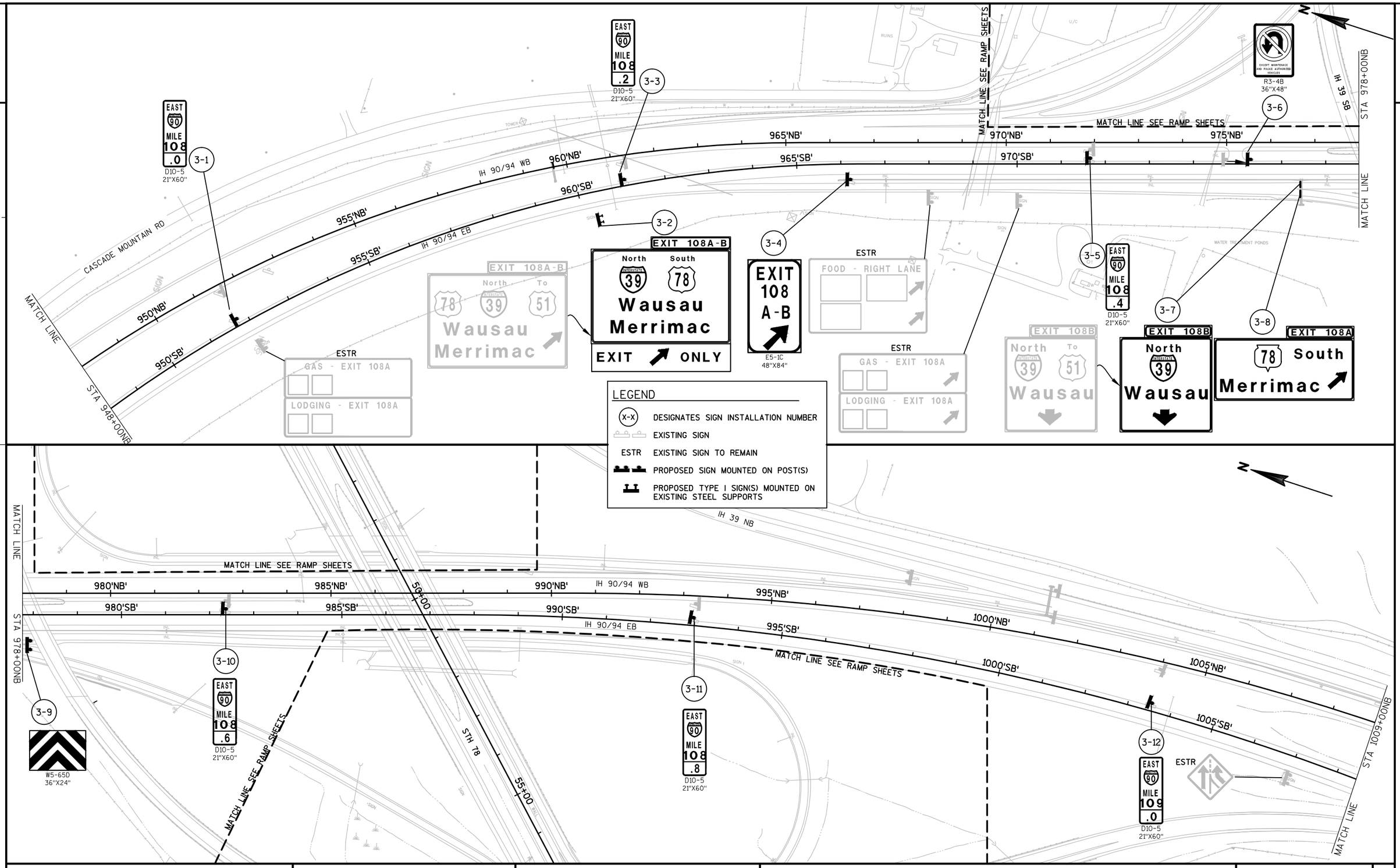


LEGEND

(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: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	PERMANENT SIGNING - IH 39 (SB)	SHEET 93	E

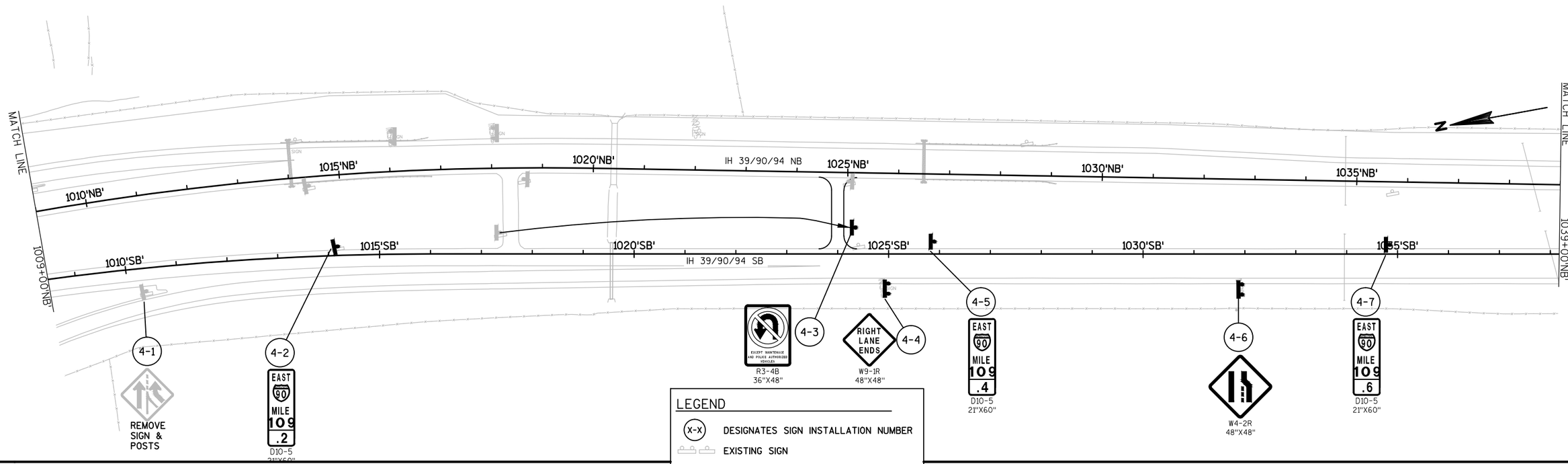


PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	PERMANENT SIGNING - IH 39 (SB)	SHEET 94	E

FILE NAME : S:\PROJECTS\SW\COLUMBIA COUNTY\1010-02-02_IH 39\500_CADD\501_C3D\10100202\SHEETSPLAN\023201_SB-PS.DWG PLOT DATE : 4/7/2016 9:33 AM PLOT BY : BOBBY JONES PLOT NAME : PLOT SCALE : 1"=200'_XREF

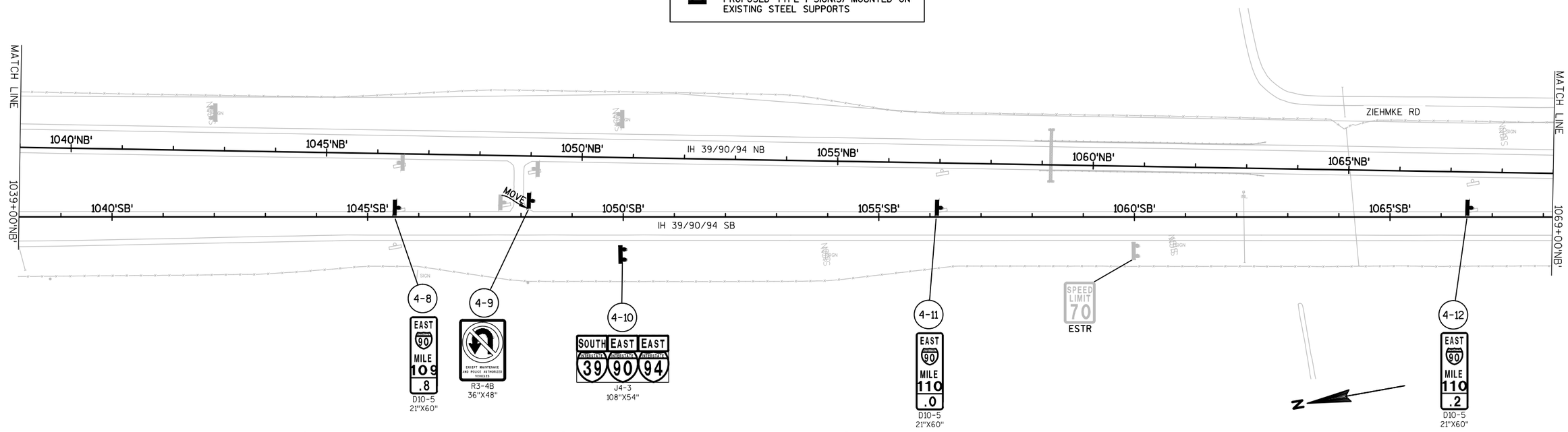
WISDOT/CADDS SHEET 44

2

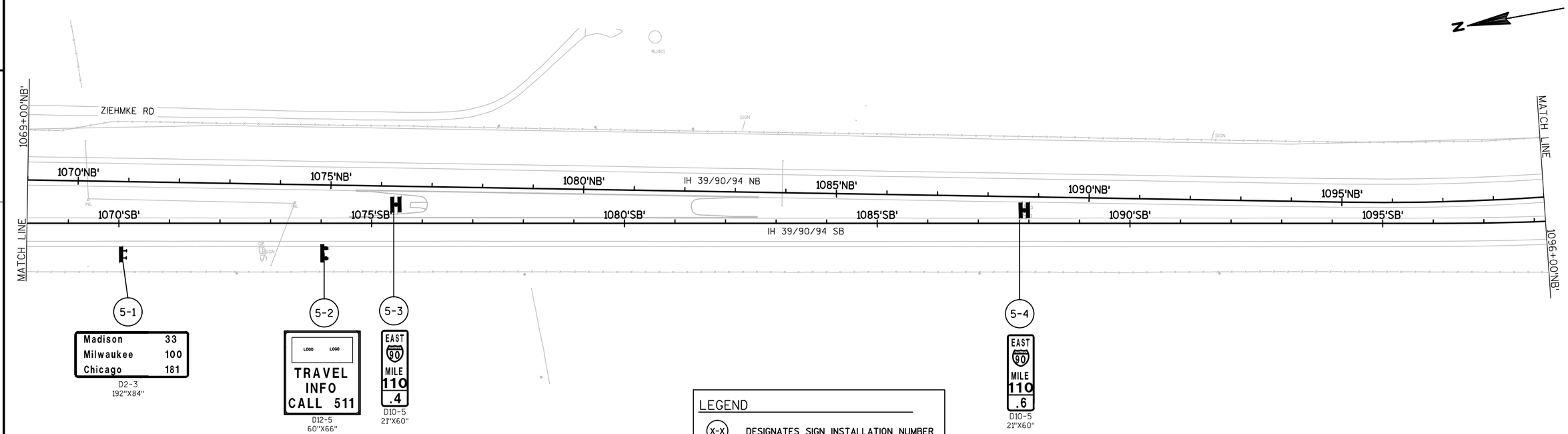


LEGEND

(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

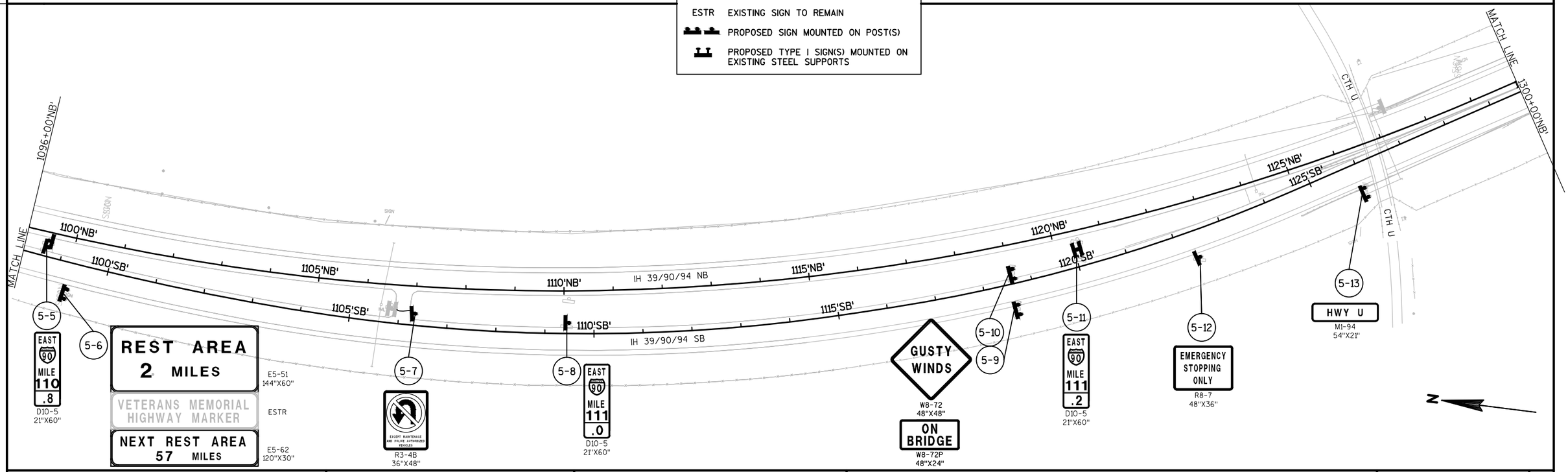


PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	PERMANENT SIGNING - IH 39 (SB)	SHEET 95	E



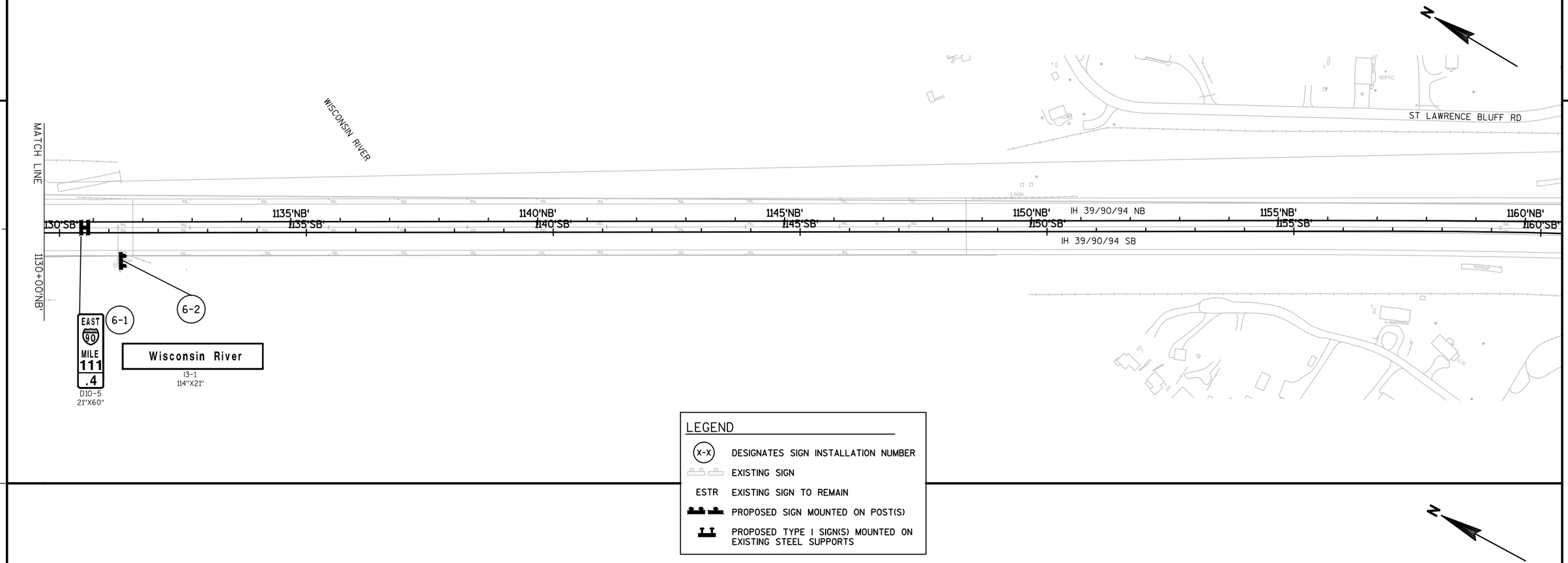
LEGEND

(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



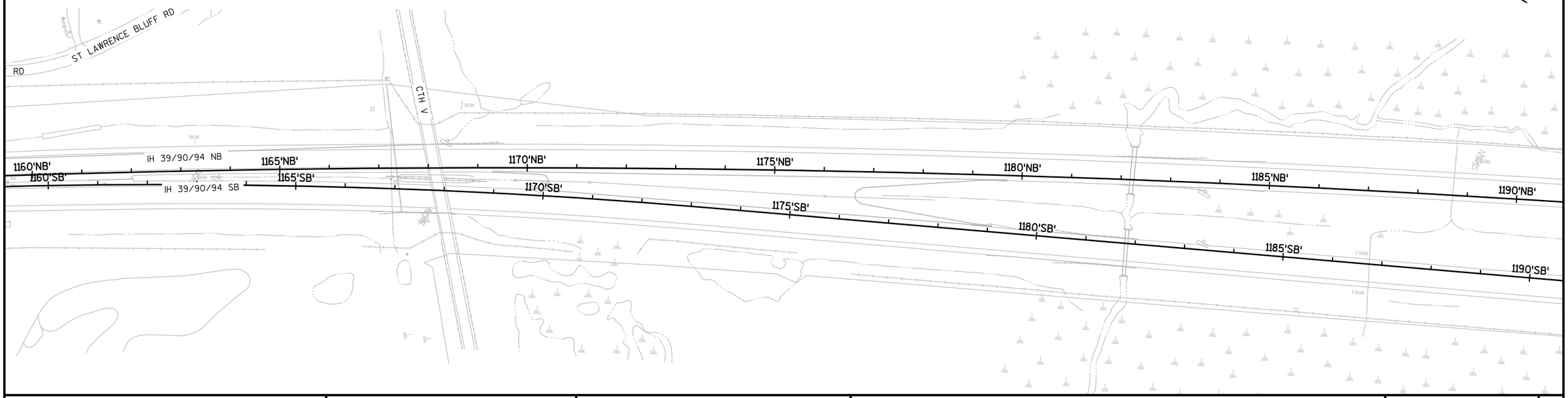
PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	PERMANENT SIGNING - IH 39 (SB)	SHEET 96 E

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: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	PERMANENT SIGNING - IH 39 (SB)	SHEET 97	E

2

EXIT 106
E5-1B
90"X60"

W3-1
36"X36"

W4-1R
48"X48"

DO NOT ENTER
R5-1
30"X30"

ALTERNATE INTERSTATE 39
ALTERNATE INTERSTATE 90
JV-F
24"X57"

8-1
8-2
8-3
8-4
8-5
8-7
8-8
8-9
8-10
8-11
8-12
8-13
8-14
8-15
8-16
8-17
8-18
8-19
8-20
8-21
8-22
8-23
8-24
8-25
8-26
8-27
8-28
8-29
8-30
8-31
8-32
8-33

W1-8
18"X24"
3 AT
80' SPACING

W1-8
18"X24"
4 AT
80' SPACING

W1-8
18"X24"
5 AT
80' SPACING

WRONG WAY
R5-1A
36"X24"

ESTR
UW Baraboo
Sauk County

RAMP C
RAMP D
RAMP A
RAMP B

865'NB
865'SB
855'NB
855'SB
850'NB
850'SB

MATCH LINE SEE MAINLINE SHEETS

ESTR
CAMPING

ESTR
GAS

ESTR
PEDESTRIANS
BICYCLES
NON MOTORIZED TRAFFIC
MOTOR BICYCLES
PROHIBITED

Baraboo
Portage
D1-2
66"X30"

Ski Area
CASCADE MT
D7-82
36"X36"
D7-82A
36"X15"

WEST EAST ALTERNATE INTERSTATE 33 33 90 H
J3-4
96"X57"

EAST WEST
33 33
J3-2
48"X57"

STOP
R1-1
36"X36"

R4-7
24"X30"

W12-1D
24"X24"

YIELD
R1-2
48"X42"

ALTERNATE INTERSTATE 39 90 94
J3-3
72"X57"

Devils Lake
State Park
Circus World
Museum
D1-2
78"X48"

Portage
Baraboo
D1-2
66"X30"

W1-6
48"X24"

ESTR
WEST EAST
33 33
STOP

J23-1
24"X57"

350+00
345+00
340+00
335+00
330+00
325+00
323+34

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

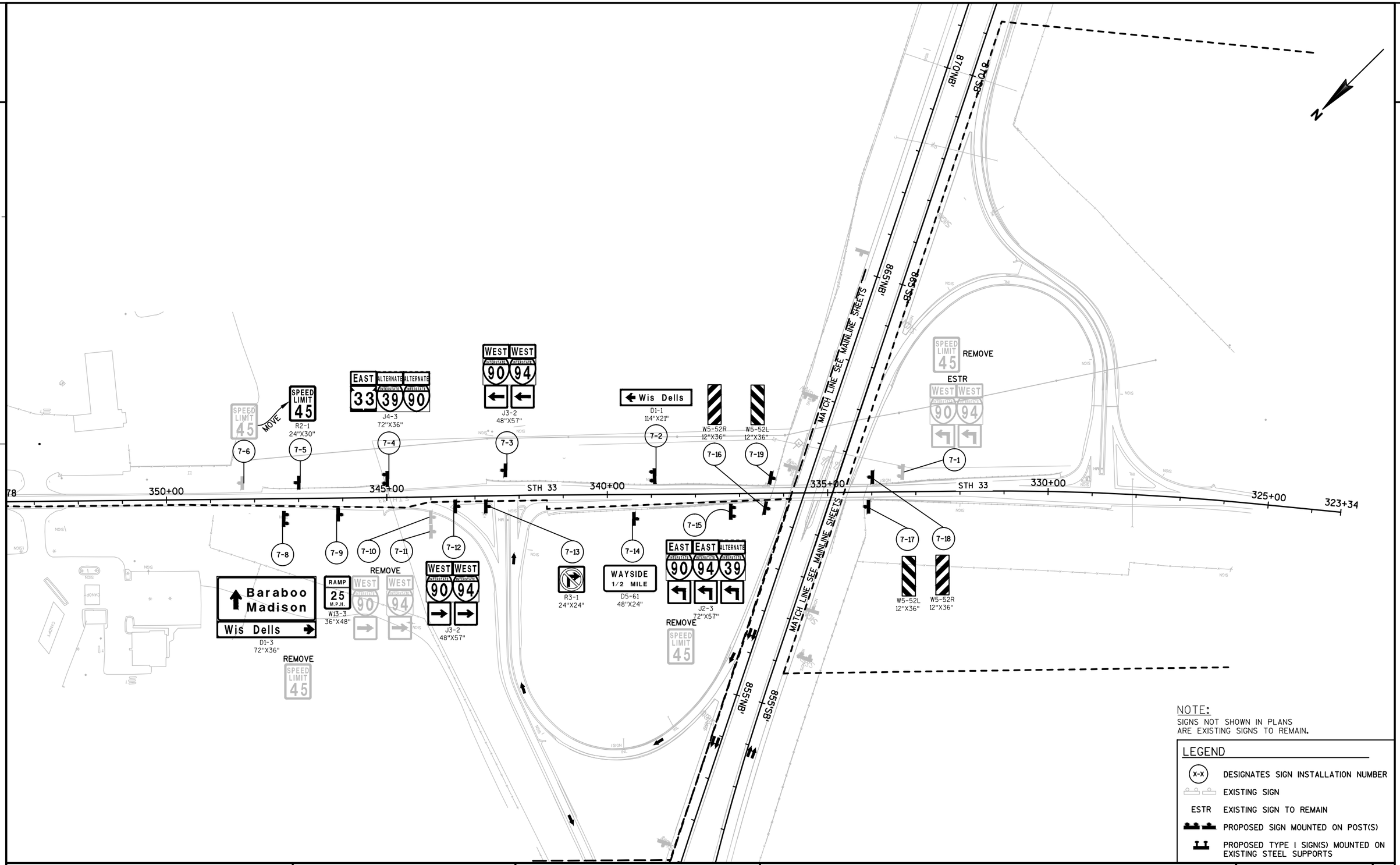
LEGEND

(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: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	PERMANENT SIGNING: STH 33 INTERCHANGE	SHEET 98	E

FILE NAME : S:\PROJECTS\SW\COLUMBIA COUNTY\1010-02-02_IH 39\500_CADD\501_C3D\10100202\SHEETSPLAN\023201_STH 33-PS.DWG PLOT DATE : 4/7/2016 9:35 AM PLOT BY : BOBBY JONES PLOT NAME : PLOT SCALE : **********

2



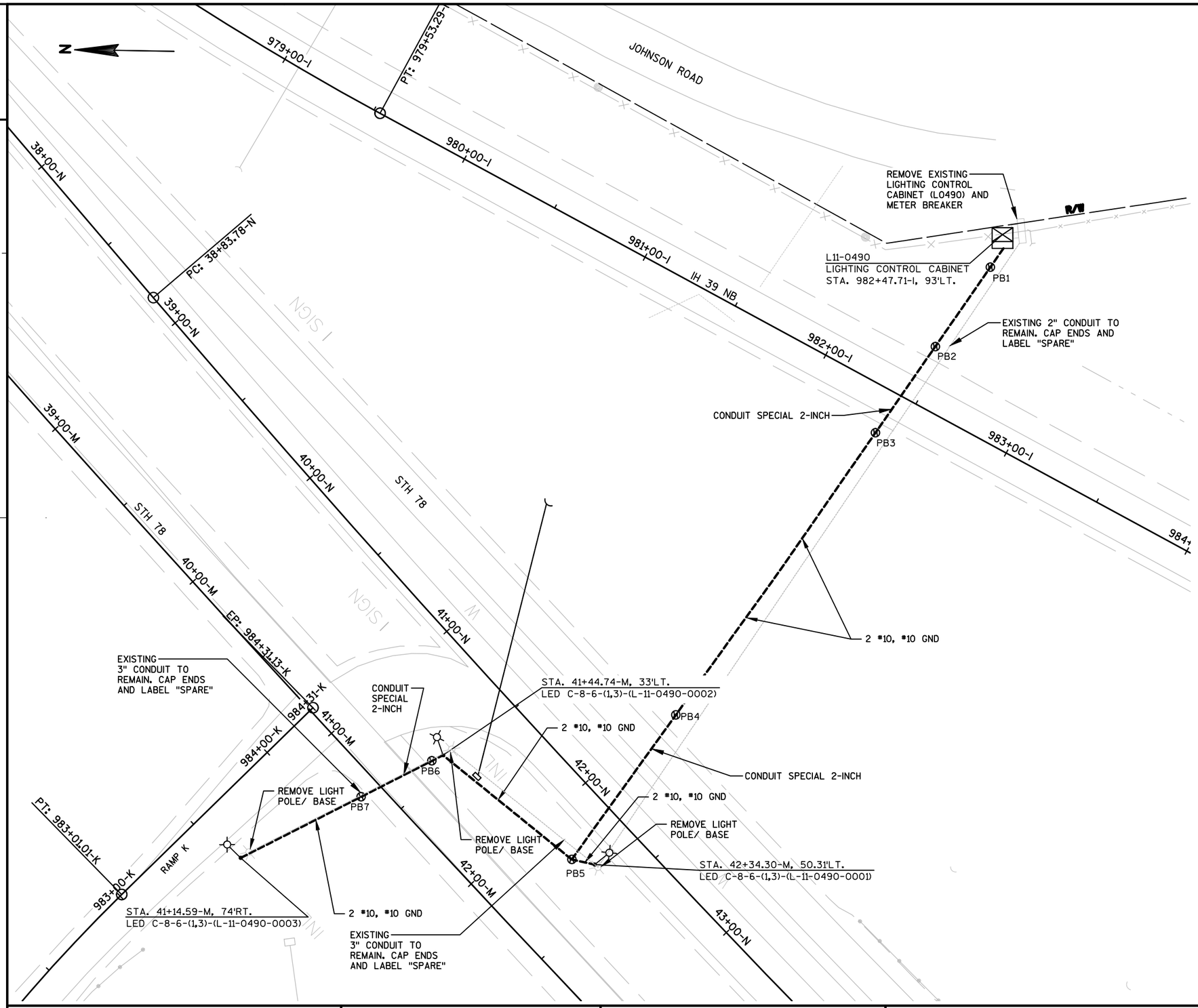
NOTE:
SIGNS NOT SHOWN IN PLANS
ARE EXISTING SIGNS TO REMAIN.

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: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	PERMANENT SIGNING: STH 33	SHEET 99	E

FILE NAME : S:\PROJECTS\SW\COLUMBIA COUNTY\1010-02-02_IH 39\500_CADD\501_C3D\10100202\SHEETSPLAN\023201_STH 33-PS.DWG PLOT DATE : 4/7/2016 9:35 AM PLOT BY : BOBBY JONES PLOT NAME : PLOT SCALE : **********



LEGEND

- LIGHTING CONTROL CABINET AND ELECTRICAL SERVICE METER BREAKER PEDESTAL ON CONCRETE CONTROL CABINET BASE TYPE L24
- PULL BOXES NON-CONDUCTIVE, 24×42-INCH
- CONDUIT RIGID NONMETALLIC SCHEDULE 40, 2-INCH UNLESS OTHERWISE NOTED.
- PROPOSED SINGLE ARM LIGHT FIXTURE AND CONCRETE BASE.

STA. XXX+XX, XX' LT.
LED C-8-6-(1,3)-(L-11-0490-0001)

- FIXTURE TYPE
- MAST ARM LENGTH IN FEET
- BASE TYPE
- CIRCUIT NUMBER
- POLE NUMBER

ELECTRICAL NOTES:

1. FINAL LOCATIONS FOR ALL CONCRETE BASES IN THE FIELD SHALL BE APPROVED BY THE RESIDENT ENGINEER.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING THE ACTUAL LOCATIONS OF ALL UTILITIES PRIOR TO CONSTRUCTION. KNOWN UTILITIES INCLUDE, BUT ARE NOT LIMITED TO UNDERGROUND ELECTRIC AND COMMUNICATION.

HIGHWAY LIGHTING
I90/94 & STH 78

TOWN OF CALEDONIA **COLUMBIA COUNTY**

INST NO. L 11-0490 SCALE 0 25 50

DIST. CONTACT: PAGE 1 OF 1

PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	LIGHTING PLAN	SHEET 100	E

LEGEND

- E4Y PAVEMENT MARKING EPOXY 4-INCH (YELLOW)
- E4W PAVEMENT MARKING EPOXY 4-INCH (WHITE)
- GWR-T4W PAVEMENT MARKING GROOVED WET REFLECTIVE TAPE 4-INCH (WHITE)
- GWR-T8W PAVEMENT MARKING GROOVED WET REFLECTIVE TAPE 8-INCH (WHITE)
- DIA-E24W PAVEMENT MARKING DIAGONAL EPOXY 24-INCH (WHITE)
- DIA-E24Y PAVEMENT MARKING DIAGONAL EPOXY 24-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

BEGIN PROJECT 1010-02-84
STA 830+00.00SB
Y = 386,870.762
X = 518,941.572
MATCH EXISTING

IH 90/94WB
IH 90/94 EB
BARABOO RIVER
CASCADE MOUNTAIN RD
MATCHLINE STA 858+00SB
MATCHLINE STA 889+00SB

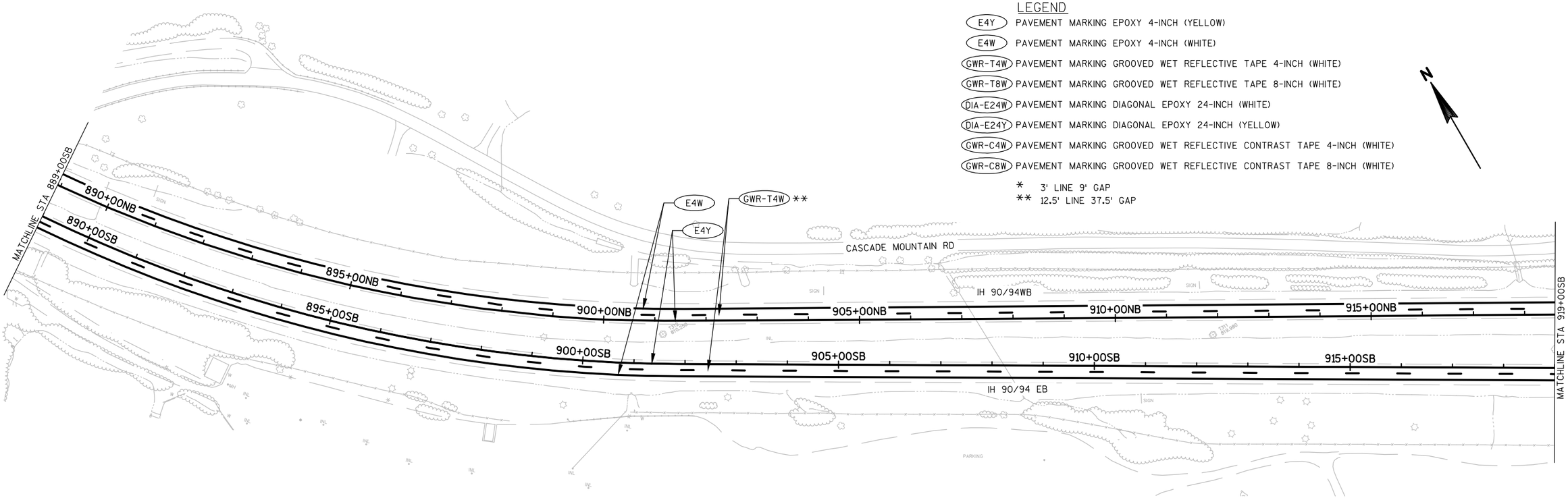
PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	PAVEMENT MARKING	SHEET 101	E

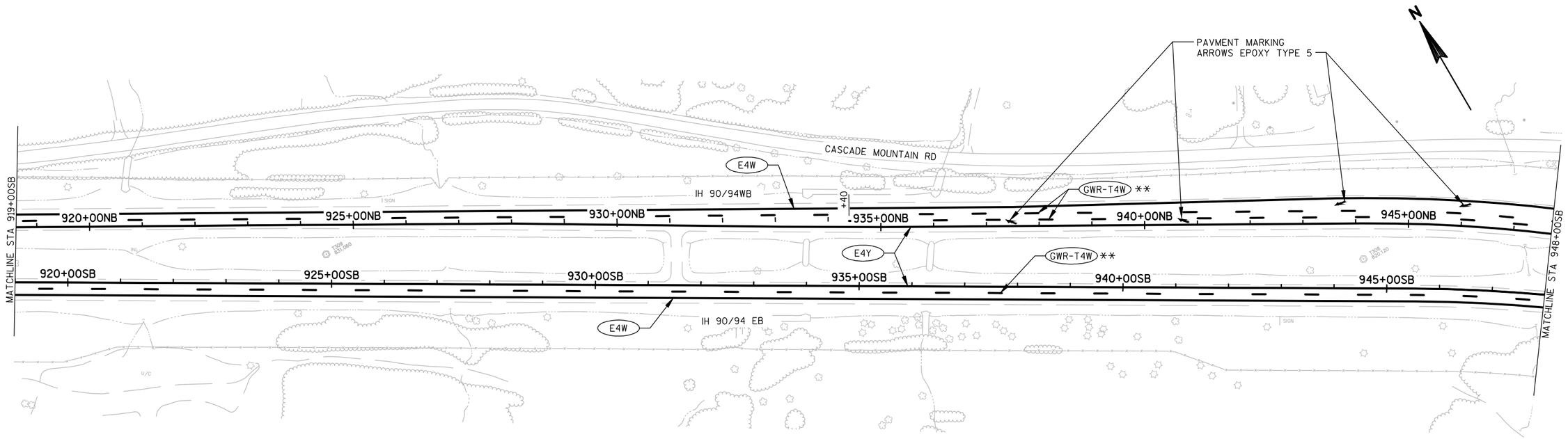
2

LEGEND

E4Y	PAVEMENT MARKING EPOXY 4-INCH (YELLOW)
E4W	PAVEMENT MARKING EPOXY 4-INCH (WHITE)
GWR-T4W	PAVEMENT MARKING GROOVED WET REFLECTIVE TAPE 4-INCH (WHITE)
GWR-T8W	PAVEMENT MARKING GROOVED WET REFLECTIVE TAPE 8-INCH (WHITE)
DIA-E24W	PAVEMENT MARKING DIAGONAL EPOXY 24-INCH (WHITE)
DIA-E24Y	PAVEMENT MARKING DIAGONAL EPOXY 24-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



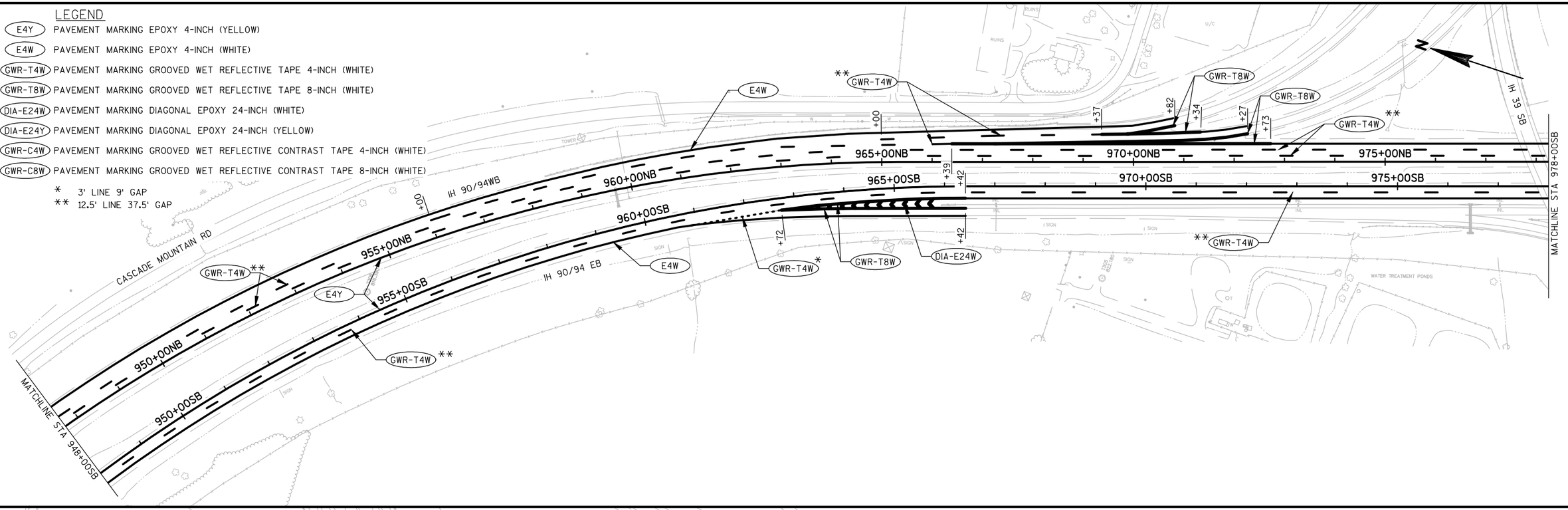


PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	PAVEMENT MARKING	SHEET 102	E

LEGEND

E4Y	PAVEMENT MARKING EPOXY 4-INCH (YELLOW)
E4W	PAVEMENT MARKING EPOXY 4-INCH (WHITE)
GWR-T4W	PAVEMENT MARKING GROOVED WET REFLECTIVE TAPE 4-INCH (WHITE)
GWR-T8W	PAVEMENT MARKING GROOVED WET REFLECTIVE TAPE 8-INCH (WHITE)
DIA-E24W	PAVEMENT MARKING DIAGONAL EPOXY 24-INCH (WHITE)
DIA-E24Y	PAVEMENT MARKING DIAGONAL EPOXY 24-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

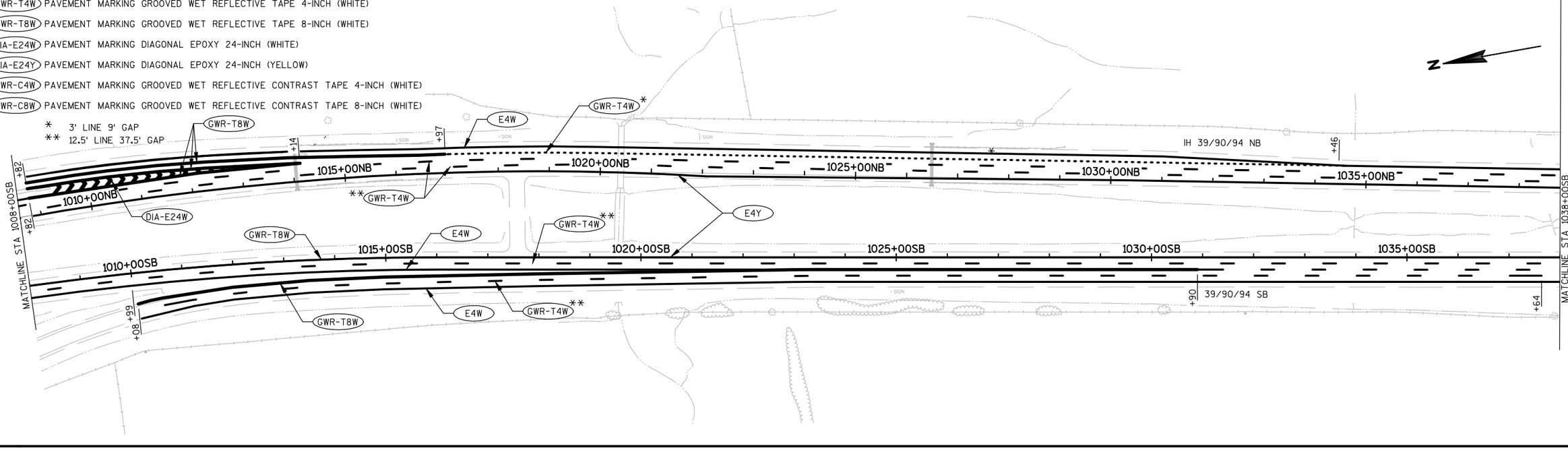


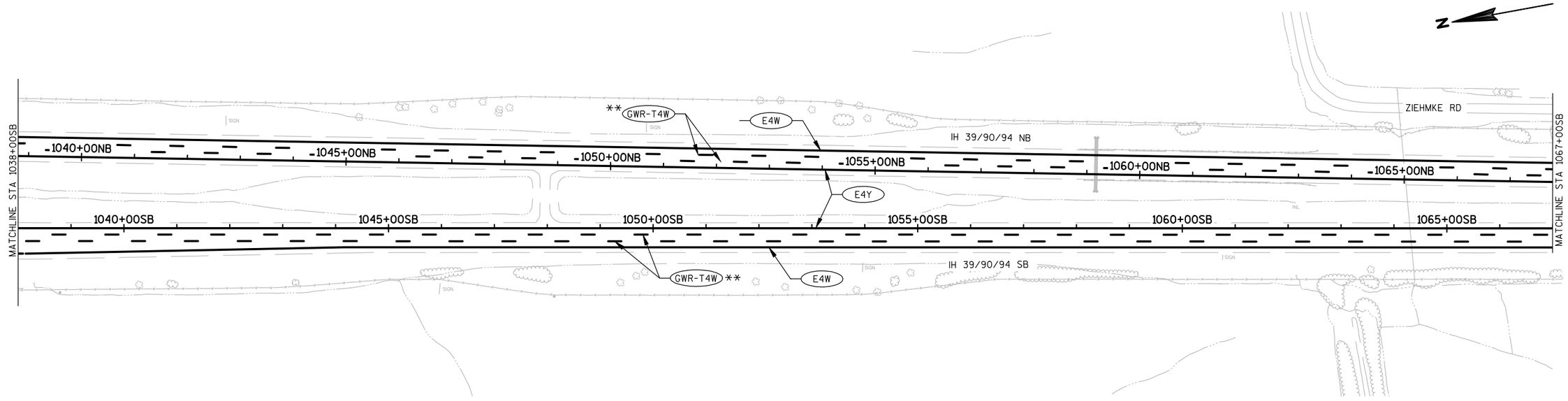
PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	PAVEMENT MARKING	SHEET 103	E

LEGEND

E4Y PAVEMENT MARKING EPOXY 4-INCH (YELLOW)
E4W PAVEMENT MARKING EPOXY 4-INCH (WHITE)
GWR-T4W PAVEMENT MARKING GROOVED WET REFLECTIVE TAPE 4-INCH (WHITE)
GWR-T8W PAVEMENT MARKING GROOVED WET REFLECTIVE TAPE 8-INCH (WHITE)
DIA-E24W PAVEMENT MARKING DIAGONAL EPOXY 24-INCH (WHITE)
DIA-E24Y PAVEMENT MARKING DIAGONAL EPOXY 24-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



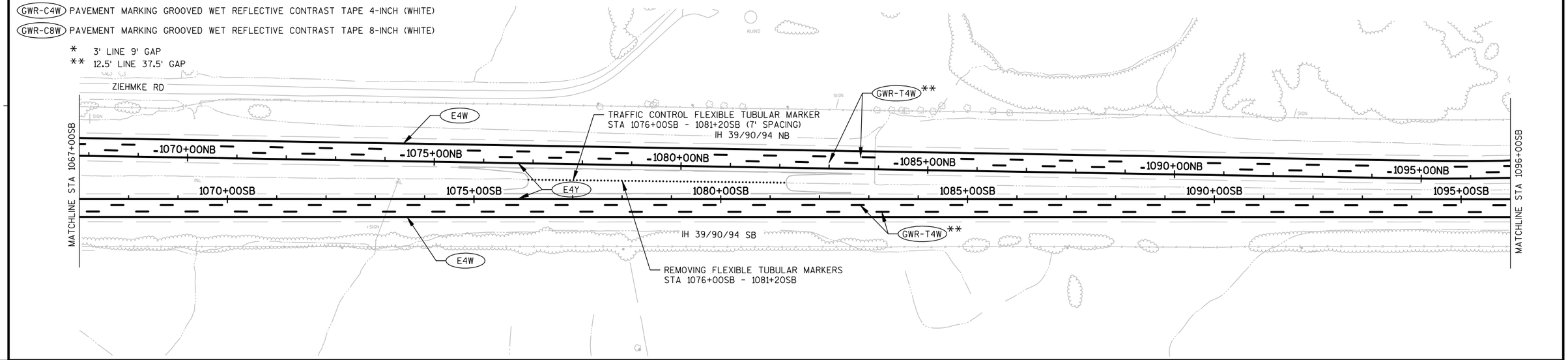


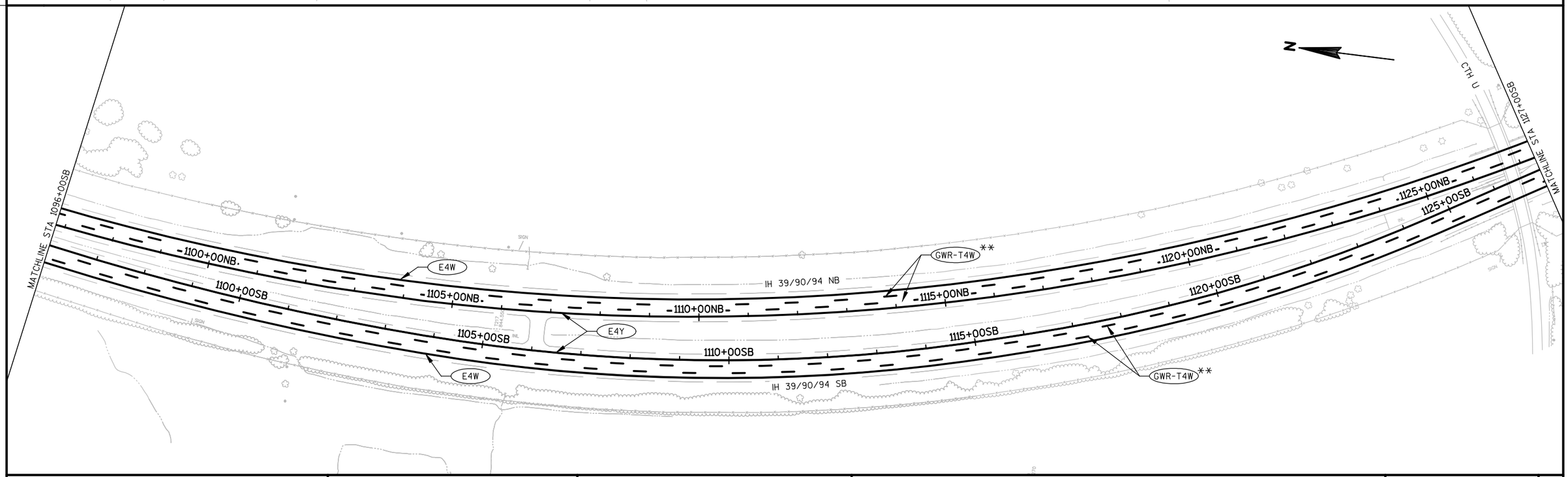
PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	PAVEMENT MARKING	SHEET 104	E

LEGEND

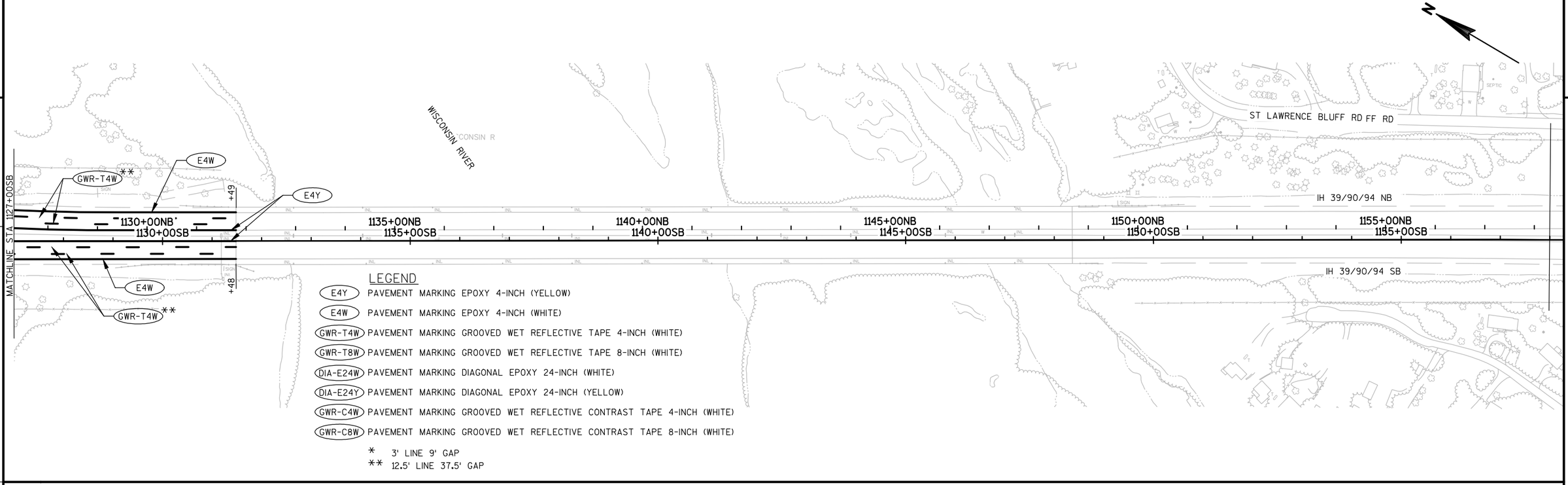
- (E4Y) PAVEMENT MARKING EPOXY 4-INCH (YELLOW)
- (E4W) PAVEMENT MARKING EPOXY 4-INCH (WHITE)
- (GWR-T4W) PAVEMENT MARKING GROOVED WET REFLECTIVE TAPE 4-INCH (WHITE)
- (GWR-T8W) PAVEMENT MARKING GROOVED WET REFLECTIVE TAPE 8-INCH (WHITE)
- (DIA-E24W) PAVEMENT MARKING DIAGONAL EPOXY 24-INCH (WHITE)
- (DIA-E24Y) PAVEMENT MARKING DIAGONAL EPOXY 24-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





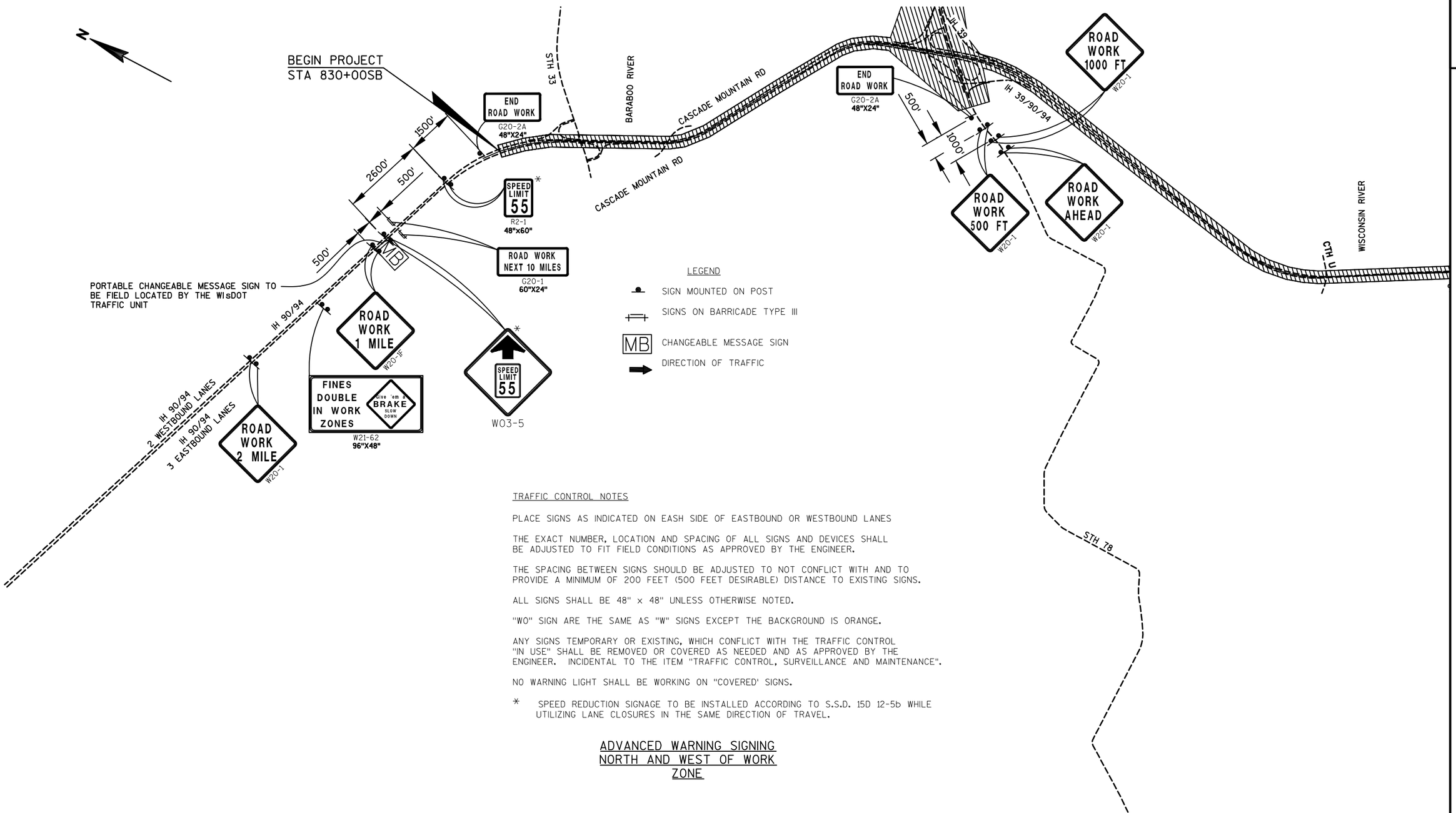
PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	PAVEMENT MARKING	SHEET 105	E



LEGEND

E4Y	PAVEMENT MARKING EPOXY 4-INCH (YELLOW)
E4W	PAVEMENT MARKING EPOXY 4-INCH (WHITE)
GWR-T4W	PAVEMENT MARKING GROOVED WET REFLECTIVE TAPE 4-INCH (WHITE)
GWR-T8W	PAVEMENT MARKING GROOVED WET REFLECTIVE TAPE 8-INCH (WHITE)
DIA-E24W	PAVEMENT MARKING DIAGONAL EPOXY 24-INCH (WHITE)
DIA-E24Y	PAVEMENT MARKING DIAGONAL EPOXY 24-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



TRAFFIC CONTROL NOTES

PLACE SIGNS AS INDICATED ON EASH 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. INCIDENTAL TO THE ITEM "TRAFFIC CONTROL, SURVEILLANCE AND MAINTENANCE".

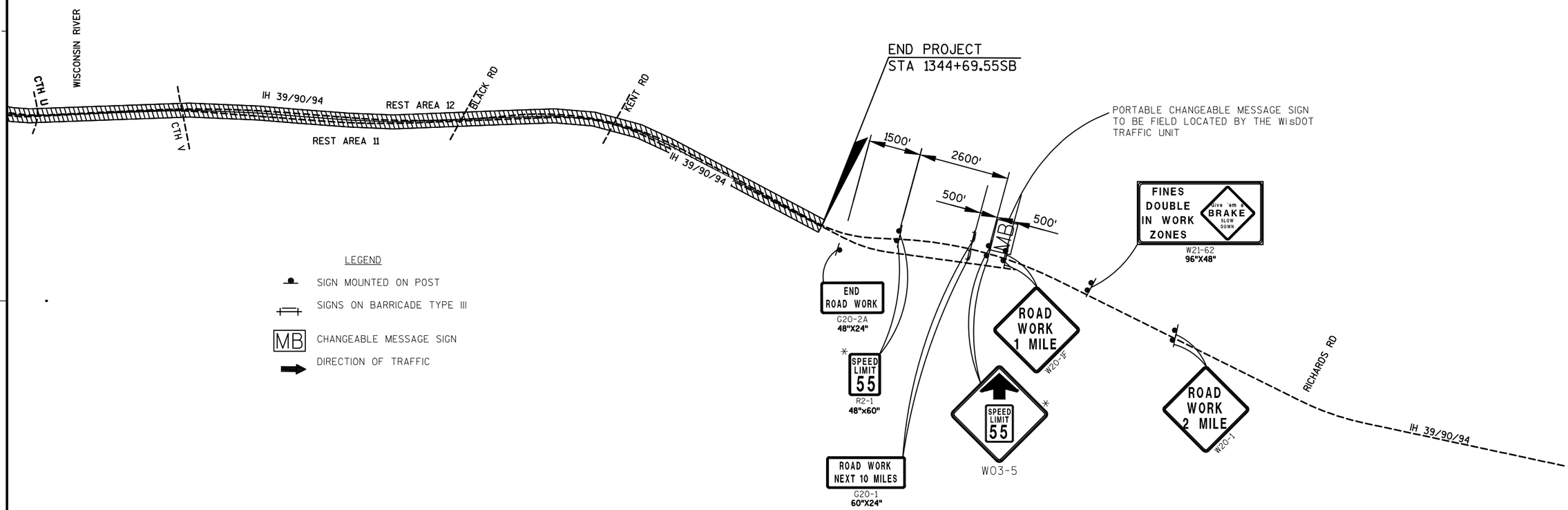
NO WARNING LIGHT SHALL BE WORKING ON "COVERED' SIGNS.

* SPEED REDUCTION SIGNAGE TO BE INSTALLED ACCORDING TO S.S.D. 15D 12-5b 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 107	E

2

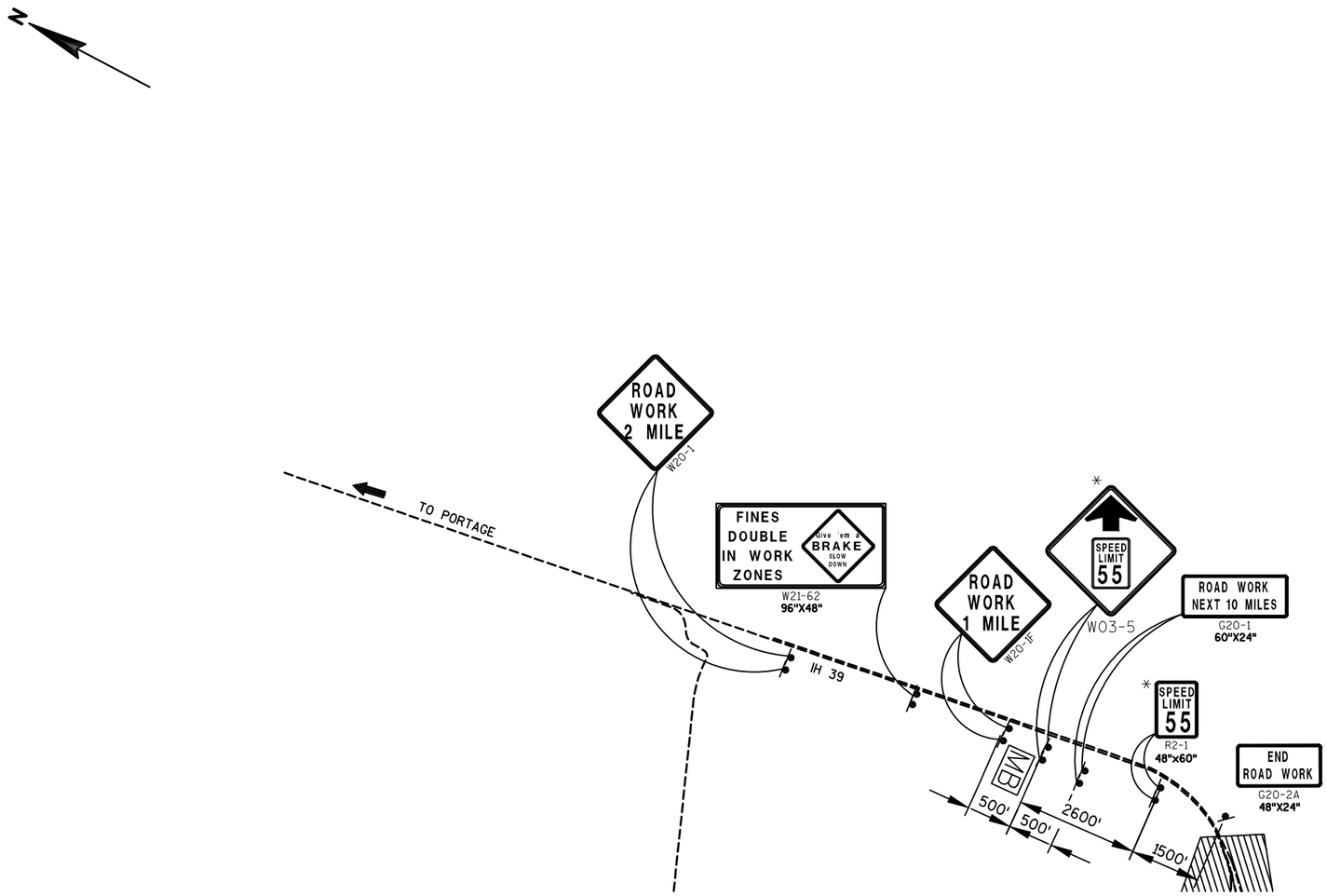


ADVANCED WARNING SIGNING
SOUTH OF WORK ZONE

* SPEED REDUCTION SIGNAGE TO BE INSTALLED ACCORDING TO S.S.D. 15D 12-5b WHILE UTILIZING LANE CLOSURES IN THE SAME DIRECTION OF TRAVEL.

PROJECT NO: 1010-02-85	HWY: IH 39	COUNTY: COLUMBIA	TRAFFIC CONTROL - ADVANCED WARNING SIGNING	SHEET 108	E

2



LEGEND

- SIGN MOUNTED ON POST
- SIGNS ON BARRICADE TYPE III
- MB CHANGEABLE MESSAGE SIGN
- DIRECTION OF TRAFFIC

* SPEED REDUCTION SIGNAGE TO BE INSTALLED ACCORDING TO S.S.D. 15D 12-5b WHILE UTILIZING LANE CLOSURES IN THE SAME DIRECTION OF TRAVEL.

ADVANCED WARNING SIGNING
NORTH END OF IH 39

PROJECT NO: 1010-02-85	HWY: IH 39	COUNTY: COLUMBIA	TRAFFIC CONTROL - ADVANCED WARNING SIGNING	SHEET 109	E

FILE NAME : X:\3230900\131208.01\TECH\CAD\10100202\SHEETSPLAN\CONSTRUCTION PROJECT 1, 1010-02-84\023301_AW.DWG PLOT DATE : 3/14/2016 2:33 PM PLOT BY : JASON KLEIST PLOT NAME : PLOT SCALE : 1:3000
WISDOT/CADDS SHEET 42

2

2

RAMP CLOSED 1000 FT
W20-5SC

RAMP CLOSED 1000 FT
W20-5SC

MB

MB

MB

COVER

COVER

COVER

COVER

COVER

WEST WEST
M3-4 M3-4
INTERSTATE INTERSTATE
90 94
M1-1 M1-1
M6-1 M6-1

WEST WEST
M3-4 M3-4
INTERSTATE INTERSTATE
90 94
M1-1 M1-1
M5-1L M5-1L

WEST WEST
M3-4 M3-4
INTERSTATE INTERSTATE
90 94
M1-1 M1-1
M6-1 M6-1

WEST WEST
M3-4 M3-4
INTERSTATE INTERSTATE
90 94
M1-1 M1-1
M5-1R M5-1R

WIS DELLS

WIS DELLS

R11-2
48" X 30"
RAMP CLOSED

TYPE III BARRICADE

PT: 851+84.24

845+00SB
845+00NB
850+00SB
850+00NB
855+00SB
855+00NB
860+00NB
865+00SB
865+00NB
870+00SB
870+00NB
875+00

LEGEND

- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- SIGN ON TEMPORARY SUPPORT
- MB PORTABLE CHANGEABLE MESSAGE BOARD
- WORK ZONE
- * PREWARN ONLY

PROJECT NO:1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	TRAFFIC CONTROL - STH 33 TO WB IH 90/94 RAMP CLOSURE	SHEET 110	E

FILE NAME : X:\3230900\131208.01\TECH\CAD\10100202\SHEETSPLAN\CONSTRUCTION PROJECT 1, 1010-02-84\025003_TC.DWG PLOT DATE : 3/14/2016 2:34 PM PLOT BY : JASON KLEIST PLOT NAME : PLOT SCALE : 1" = 300'_XREF

2

MADISON

COVER

R11-2
48" X 30"
RAMP CLOSED

TYPE III BARRICADE

EAST EAST
90 94

COVER

EAST EAST ALT
90 94 39

COVER

EAST EAST ALT
90 94 39

COVER

500'

MB

RAMP CLOSED 1000 FT
W20-53C

RAMP CLOSED 1000 FT
W20-53C

EAST EAST
90 94

COVER

MADISON

COVER

R11-2
48" X 30"
RAMP CLOSED

TYPE III BARRICADE

EAST EAST
90 94

COVER

MB
*

STH 33

MB

IH 90/94

845+00SB
845+00NB
850+00SB
850+00NB
855+00SB
855+00NB
860+00NB
865+00SB
865+00NB
870+00SB
870+00NB
875+00SB
875+00NB

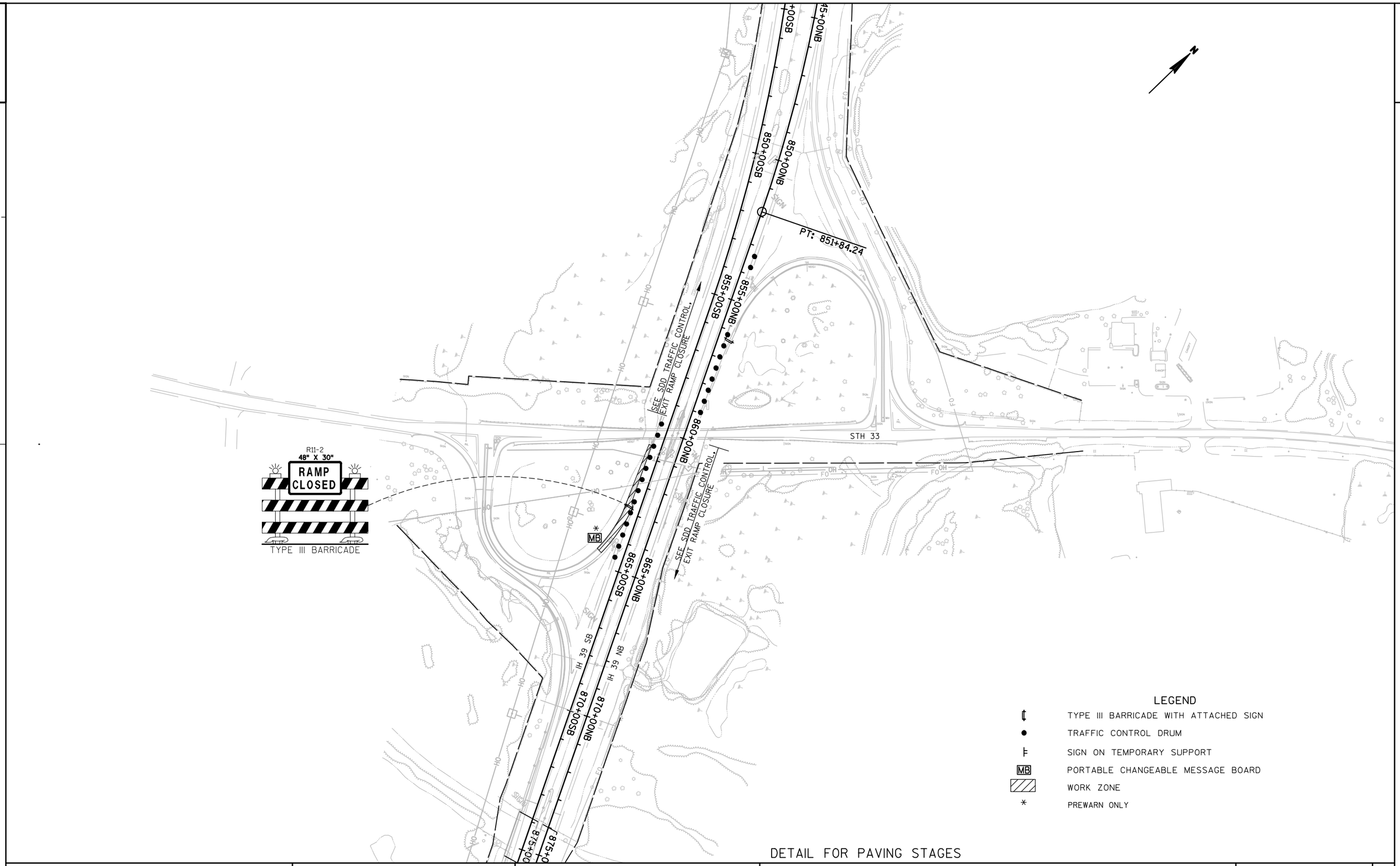
LEGEND

- TYPE III BARRICADE WTH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- MB PORTABLE CHANGEABLE MESSAGE BOARD
- WORK ZONE
- * PRE-WARN ONLY

PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	TRAFFIC CONTROL - STH 33 TO EB IH 90/94 RAMP CLOSURE	SHEET 111	E

2

2

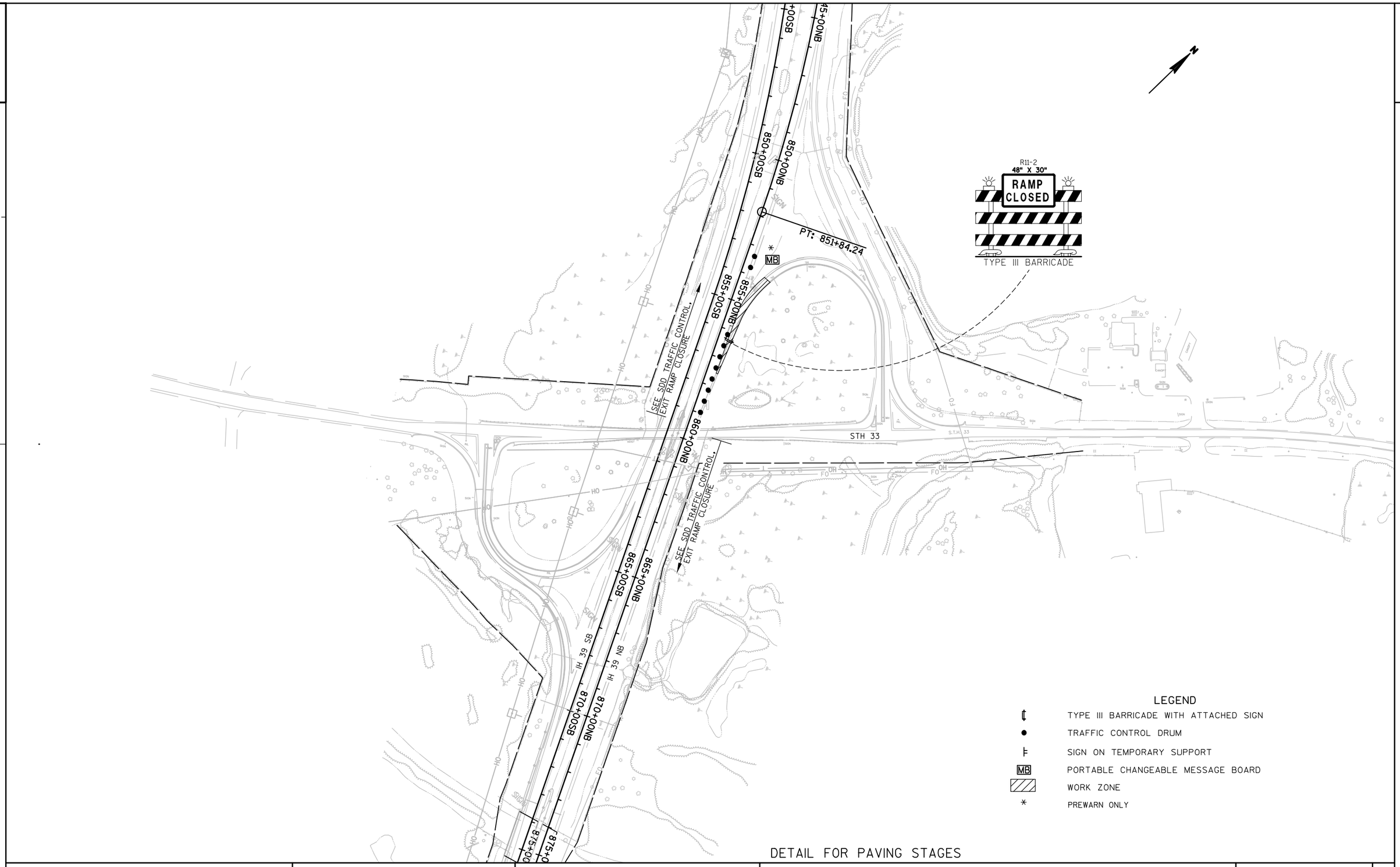


DETAIL FOR PAVING STAGES

PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	TRAFFIC CONTROL - EB IH 90/94 TO STH 33 RAMP CLOSURE	SHEET 112	E

2

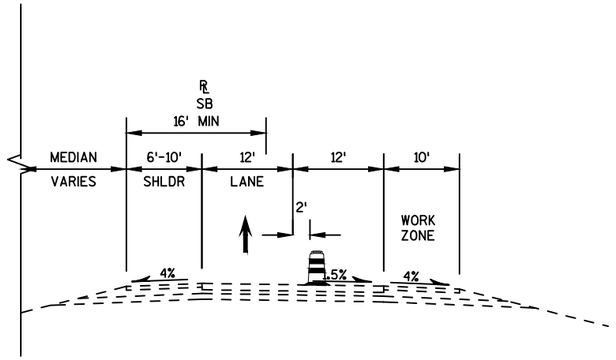
2



DETAIL FOR PAVING STAGES

PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	TRAFFIC CONTROL - WB IH 90/94 TO STH 33 RAMP CLOSURE	SHEET 113	E

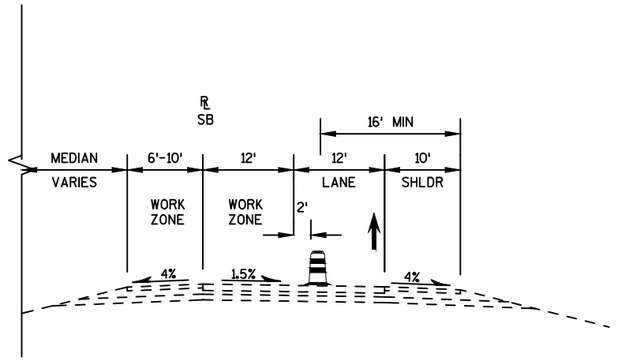
NOTE: REVERSE SECTIONS FOR OPPOSITE SIDE



STAGE 1A

4-LANE TYPICAL SECTION

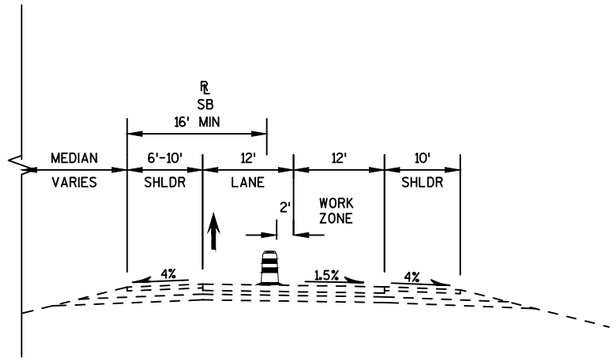
IH 90/94
OUTSIDE SHOULDER WORK



STAGE 1B

4-LANE TYPICAL SECTION

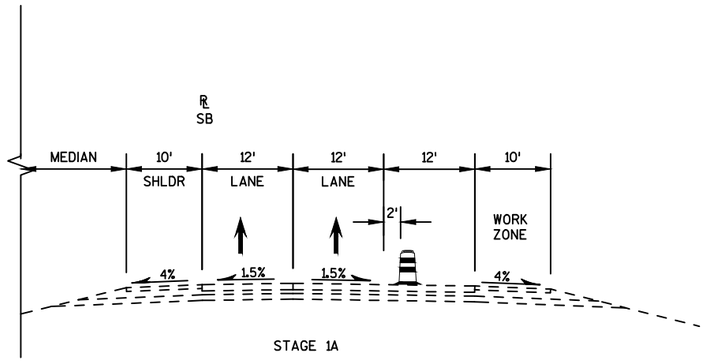
IH 90/94
MEDIAN LANE AND MEDIAN SHOULDER WORK



STAGE 1C

4-LANE TYPICAL SECTION

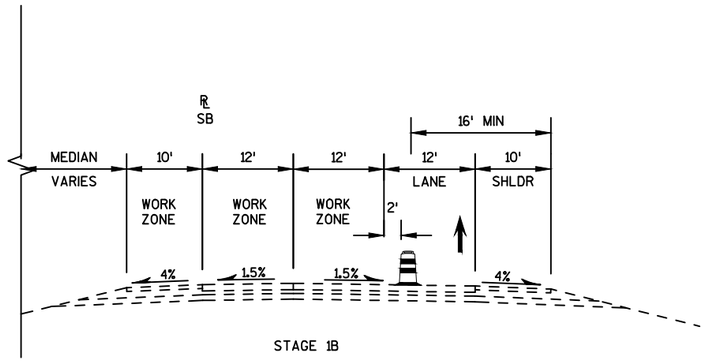
IH 90/94
OUTSIDE LANE WORK



STAGE 1A

6-LANE TYPICAL SECTION

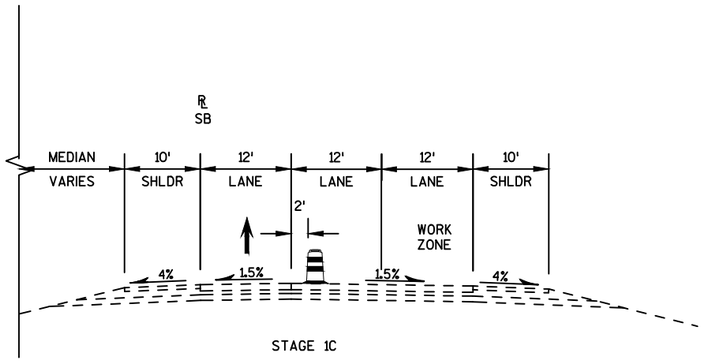
IH 39/90/94
OUTSIDE SHOULDER WORK



STAGE 1B

6-LANE TYPICAL SECTION

IH 39/90/94
CENTER LANE, MEDIAN LANE AND
MEDIAN SHOULDER WORK

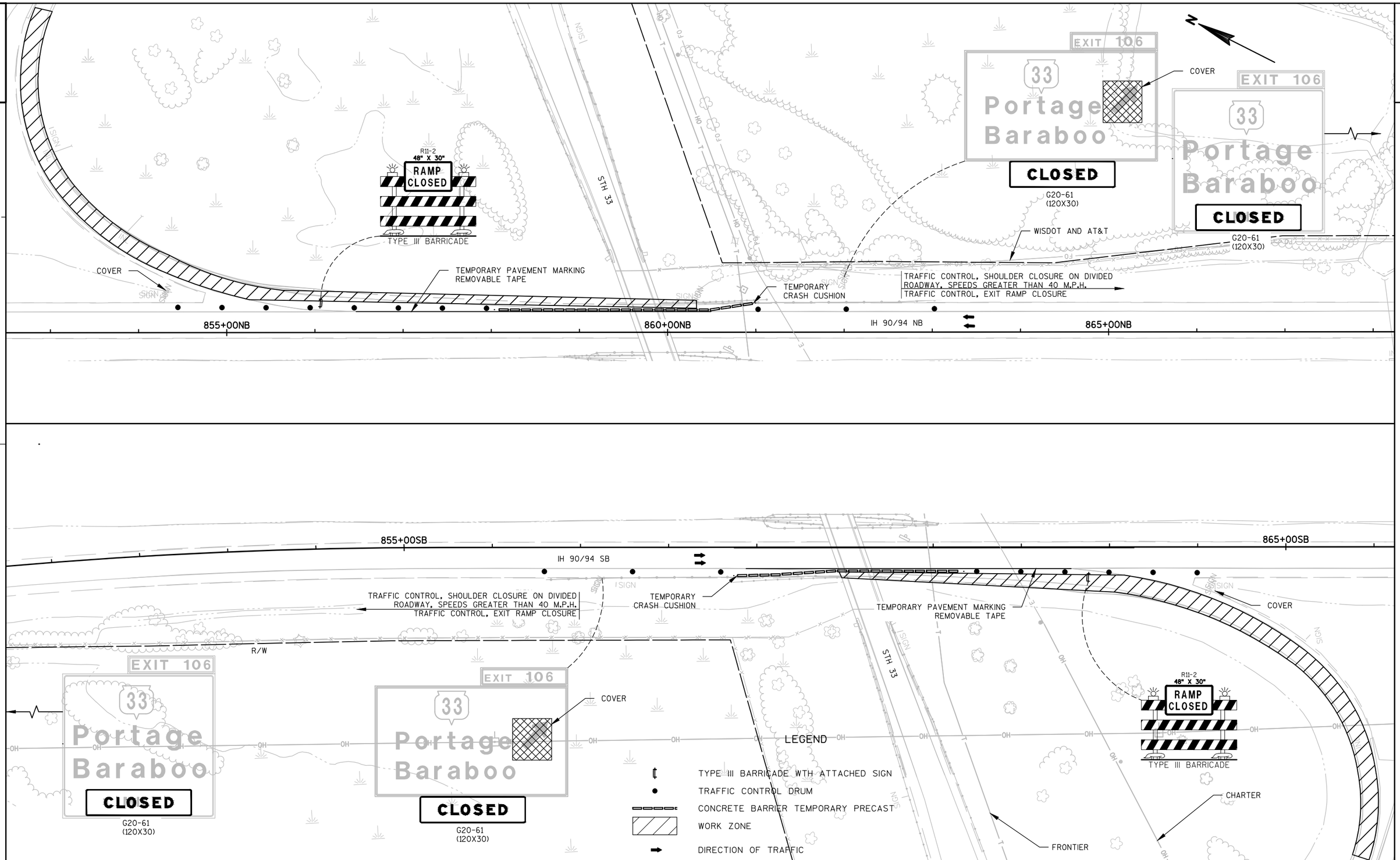


STAGE 1C

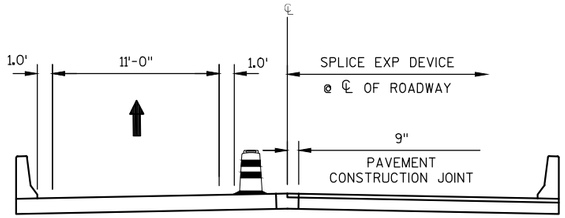
6-LANE TYPICAL SECTION

IH 39/90/94
OUTSIDE LANE WORK

PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	CONSTRUCTION STAGING TYPICAL SECTIONS - STAGE 1	SHEET 114	E



PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	STAGE 1A	SHEET 115	E



MIRROR DETAIL FOR WB HALF OF THE BRIDGE

EAST
M3-2
24"X12"
33
M1-6
24"X24"

MAX. 12' WIDTH
W12-52
48"X48"
1 MILES AHEAD
W057-52
36" X 24"

PLACE SIGNS AT CTH M

TEMPORARY PAVEMENT MARKING
REMOVABLE TAPE, 4-INCH, TYP.

SEE SDD TRAFFIC CONTROL, ONE LANE
ROAD WITH TEMPORARY SIGNALS

TEMPORARY PAVEMENT MARKING
STOP LINE 24", TYP.

REMOVE PAVEMENT
MARKINGS, TYP.

TEMPORARY PAVEMENT MARKING
REMOVABLE TAPE, 4-INCH, TYP.

FRONTIER - COMMUNICATION

STOP HERE ON RED
R10-6
24"X36"

W05-52R
12" X 36"

DO NOT BLOCK INTERSECTION
R10-7
24"X30"

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

W01-6
48" X 24"
TYPE III BARRICADE

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

COVER

WISDOT AND AT&T - FIBER OPTIC

B-11-030

W05-52L
12" X 36"

CHARTER - COMMUNICATION

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

COVER

PT: 855+39.50

855+00NB

855+00SB

W01-4R

STOP HERE ON RED
R10-6
24"X36"

DO NOT BLOCK INTERSECTION
R10-7
24"X30"

TEMPORARY PAVEMENT MARKING
STOP LINE 24", TYP.

TEMPORARY PAVEMENT MARKING
REMOVABLE TAPE, 4-INCH, TYP.

SEE SDD TRAFFIC CONTROL, ONE LANE
ROAD WITH TEMPORARY SIGNALS

REMOVE PAVEMENT MARKINGS, TYP.

STH 33

WEST
M3-4
24"X12"
33
M1-6
24"X24"

PLACE SIGNS AT IH 39
EXITS TO STH 33

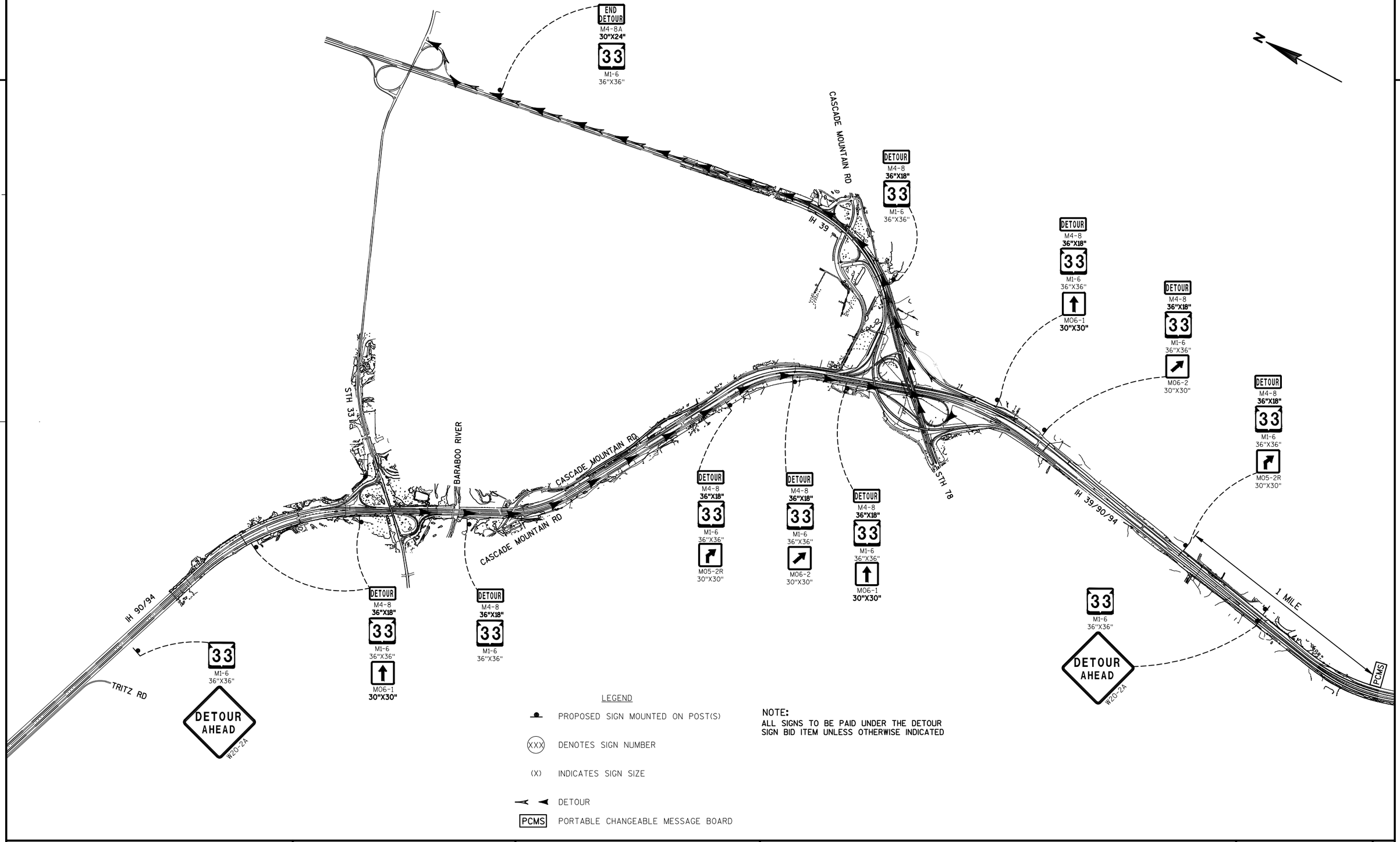
MAX. 12' WIDTH
W12-52
48"X48"
1.8 MILES AHEAD
W057-52
36" X 24"

LEGEND

- TYPE III BARRICADE WTH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- SIGN ON PERMANENT SUPPORT
- WORK ZONE
- DIRECTION OF TRAFFIC

N

PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	TRAFFIC CONTROL STAGE 4A	SHEET 116	E



LEGEND

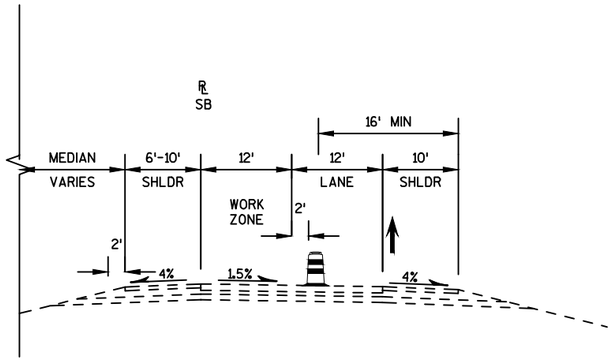
- PROPOSED SIGN MOUNTED ON POST(S)
- XXX — DENOTES SIGN NUMBER
- (X) — INDICATES SIGN SIZE
- DETOUR
- PCMS — PORTABLE CHANGEABLE MESSAGE BOARD

NOTE:
ALL SIGNS TO BE PAID UNDER THE DETOUR SIGN BID ITEM UNLESS OTHERWISE INDICATED

PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	TRAFFIC CONTROL DETOUR STAGE 1A	SHEET 117	E

FILE NAME : X:\3230900\131208.01\TECH\CAD\10100202\SHEETSPLAN\CONSTRUCTION PROJECT 1, 1010-02-84\027002_DT-STAGE 1A OVERVIEW.DWG PLOT DATE : 4/5/2016 9:04 AM PLOT BY : TIMOTHY VELTE PLOT NAME : PLOT SCALE : 1" = 2000'_XREF
WISDOT/CADDS SHEET 42

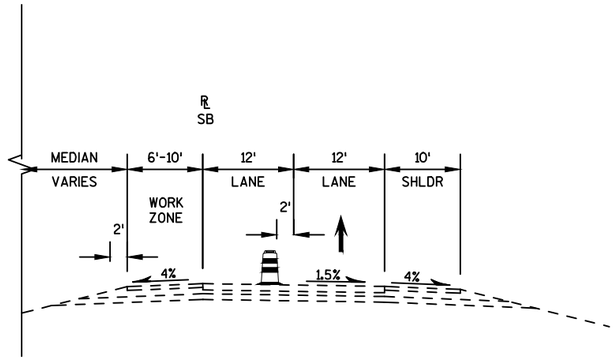
NOTE: REVERSE SECTIONS FOR OPPOSITE SIDE



STAGE 2A & 3A

4-LANE TYPICAL SECTION

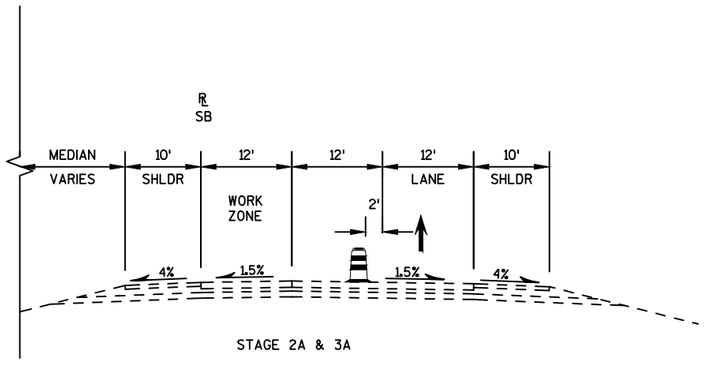
IH 90/94
MEDIAN LANE WORK



STAGE 2B & 3B

4-LANE TYPICAL SECTION

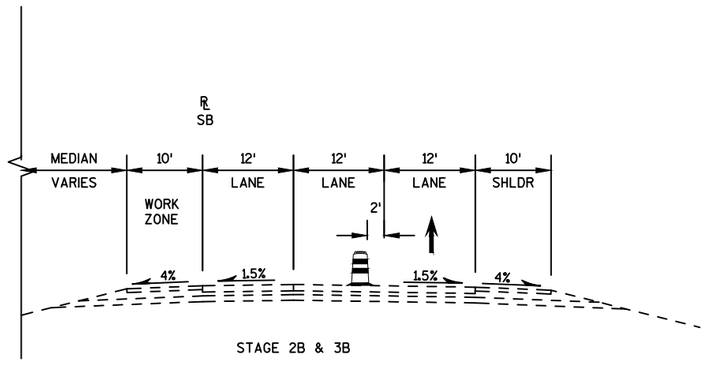
IH 90/94
MEDIAN SHOULDER WORK



STAGE 2A & 3A

6-LANE TYPICAL SECTION

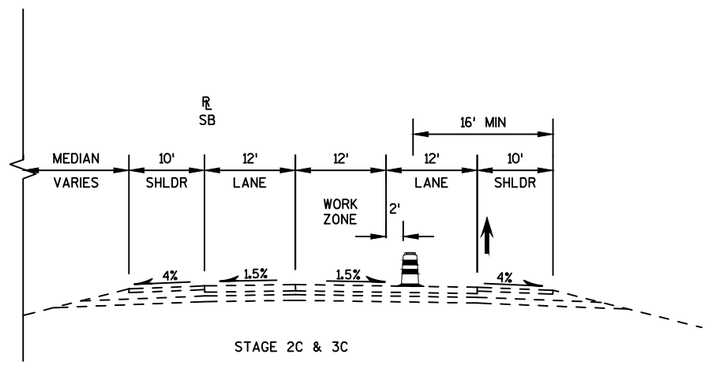
IH 39/90/94
MEDIAN LANE WORK



STAGE 2B & 3B

6-LANE TYPICAL SECTION

IH 39/90/94
MEDIAN SHOULDER WORK



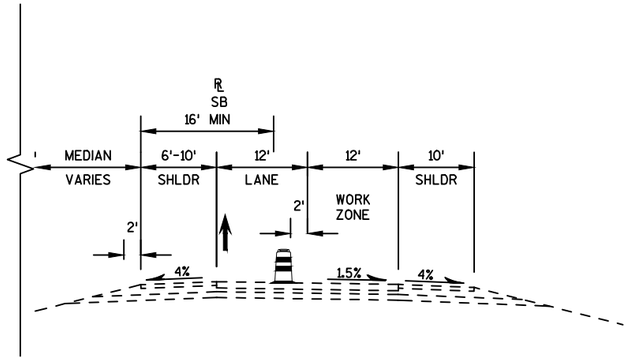
STAGE 2C & 3C

6-LANE TYPICAL SECTION

IH 39/90/94
CENTER LANE WORK

PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	CONSTRUCTION STAGING TYPICAL SECTIONS - STAGE 2 & 3	SHEET 118	E

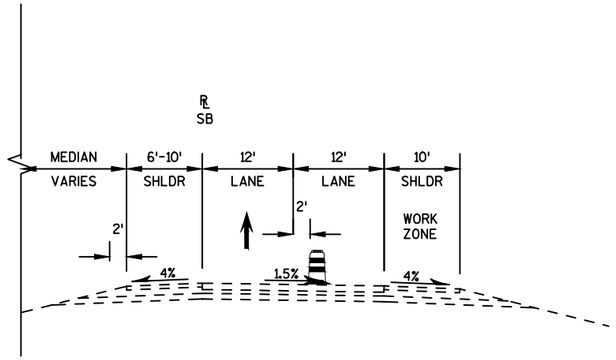
NOTE: REVERSE SECTIONS FOR OPPOSITE SIDE



STAGE 2D & 3D

4-LANE TYPICAL SECTION

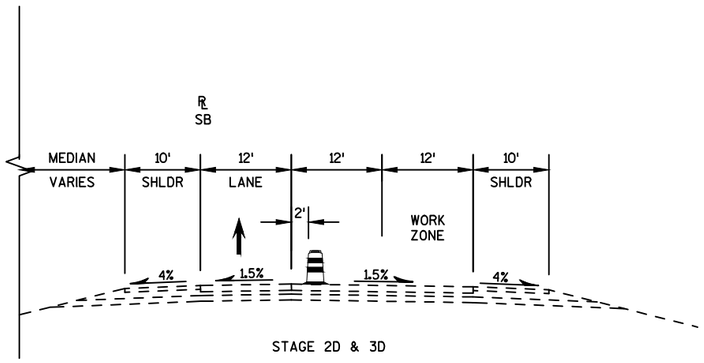
IH 90/94
OUTSIDE LANE WORK



STAGE 2E & 3E

4-LANE TYPICAL SECTION

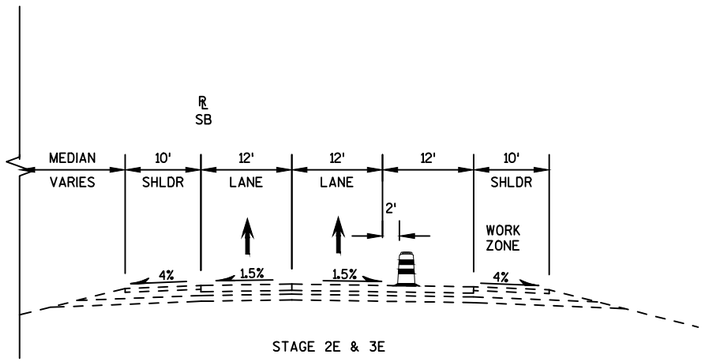
IH 90/94
OUTSIDE SHOULDER WORK



STAGE 2D & 3D

6-LANE TYPICAL SECTION

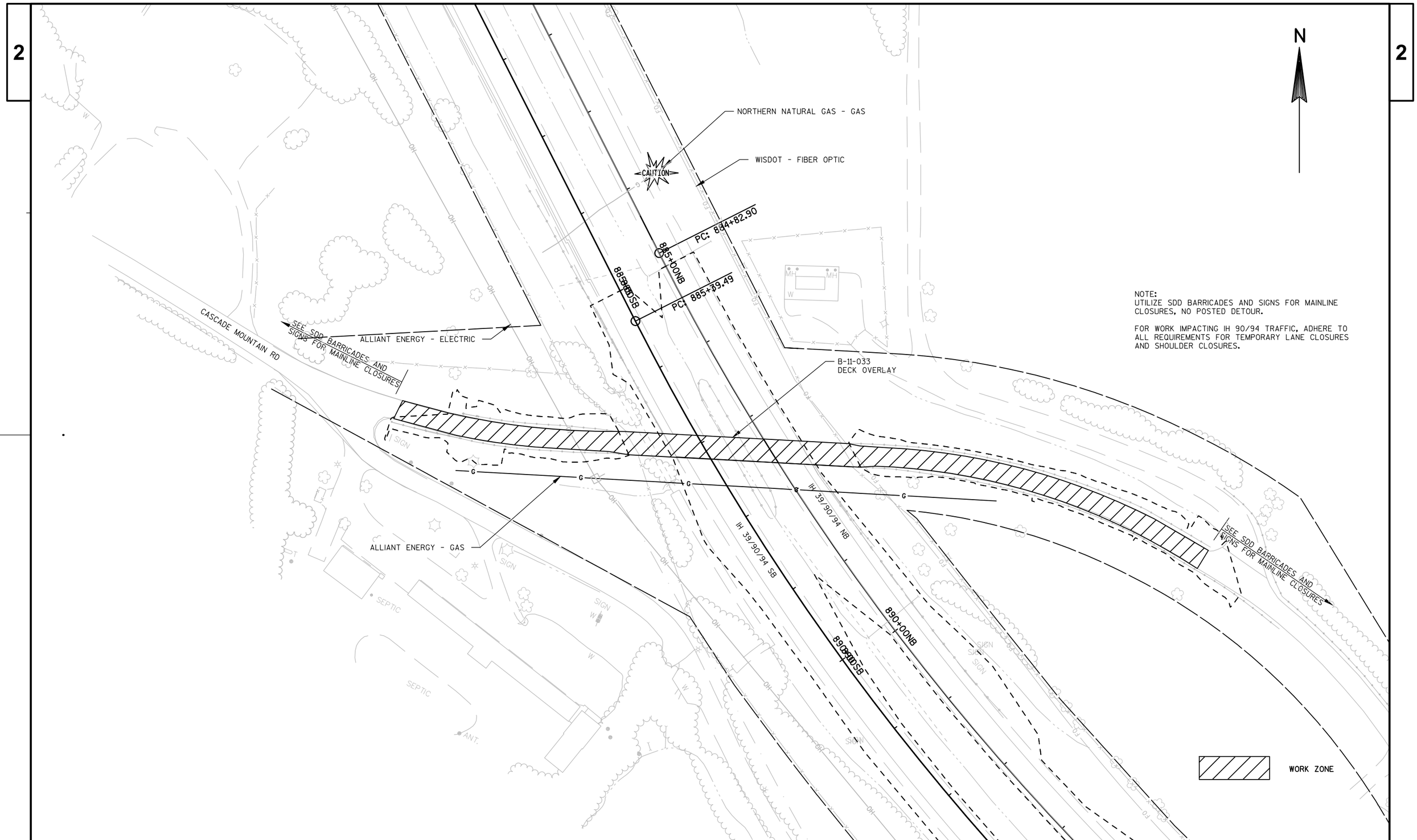
IH 39/90/94
OUTSIDE LANE WORK



STAGE 2E & 3E

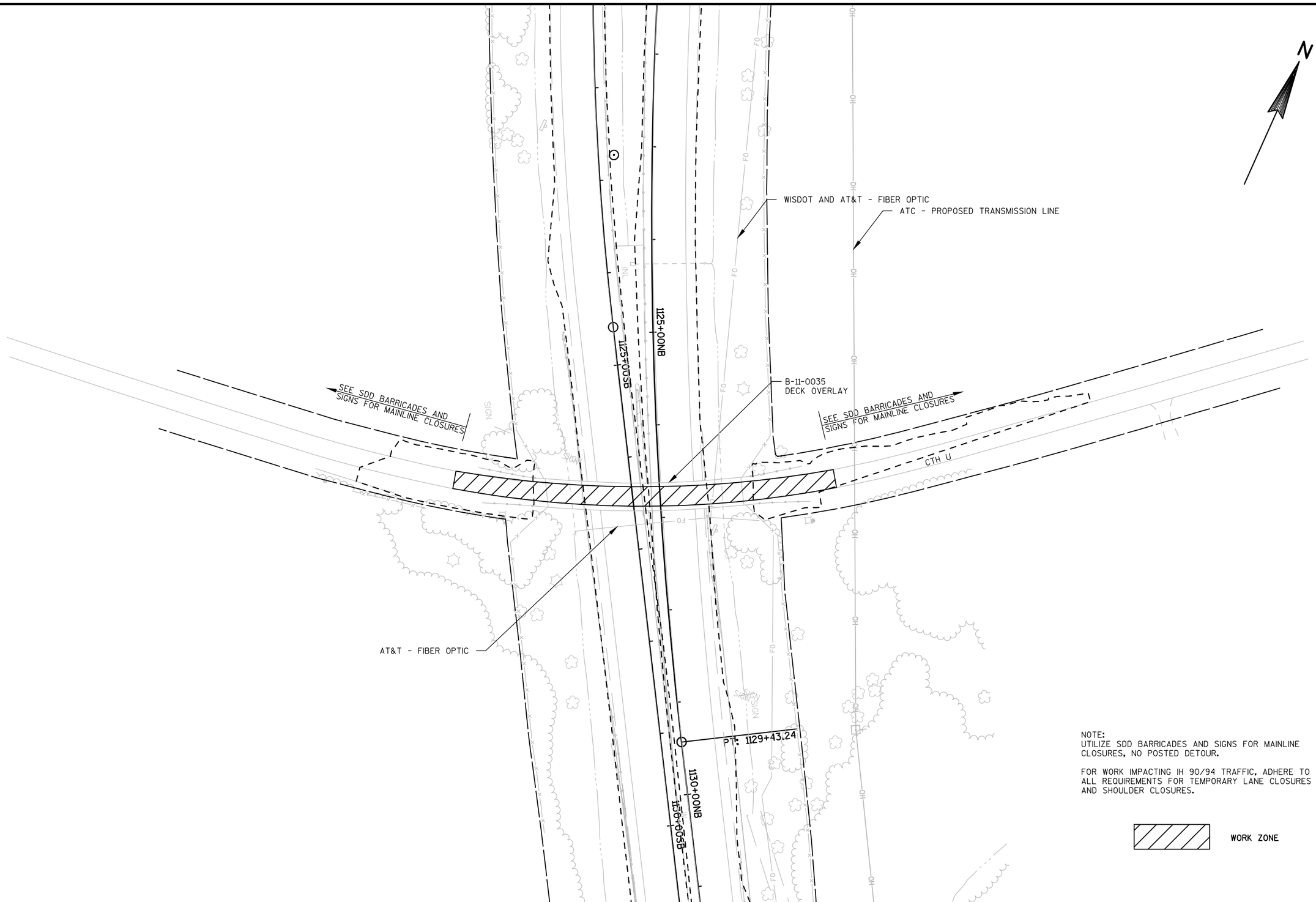
6-LANE TYPICAL SECTION

IH 39/90/94
OUTSIDE SHOULDER WORK



PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	TRAFFIC CONTROL STAGE 4B	SHEET 120	E

2



NOTE:
UTILIZE SDD BARRICADES AND SIGNS FOR MAINLINE CLOSURES, NO POSTED DETOUR.

FOR WORK IMPACTING IH 90/94 TRAFFIC, ADHERE TO ALL REQUIREMENTS FOR TEMPORARY LANE CLOSURES AND SHOULDER CLOSURES.

WORK ZONE

PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	TRAFFIC CONTROL 4C	SHEET 121	E

2

2

SLOPE INTERCEPT

ATC - PROPOSED TRANSMISSION LINE

1165+00NB

716+00SB

ST LAWRENCE BLUFF RD

ALLIANT ENERGY - ELECTRIC

SEE SDD BARRICADES AND
SIGNS FOR MAINLINE CLOSURES

CTH V

SEE SDD BARRICADES AND
SIGNS FOR MAINLINE CLOSURES

CENTURY LINK - COMMUNICATION

IH39/90/94 SB

IH39/90/94 NB

1170+00SB

1170+00NB

WISDOT AND AT&T - FIBER OPTIC

B-11-0037
DECK OVERLAY

SLOPE INTERCEPT

NOTE:
UTILIZE SDD BARRICADES AND SIGNS FOR MAINLINE CLOSURES, NO POSTED DETOUR.

COLUMBIA COUNTY WILL INSTALL A DETOUR FOR CTHV, COORDINATE WITH COLUMBIA COUNTY WHEN CLOSING.

FOR WORK IMPACTING IH 90/94 TRAFFIC, ADHERE TO ALL REQUIREMENTS FOR TEMPORARY LANE CLOSURES AND SHOULDER CLOSURES.

WORK ZONE

PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	TRAFFIC CONTROL STAGE 4D	SHEET 122	E

2

2

N

SLOPE INTERCEPT

WISDOT AND AT&T - FIBER OPTIC

ATC - PROPOSED TRANSMISSION LINE

ALLIANT ENERGY - ELECTRIC

1290+00NB

1290+00SB

IH 39/90/94 SB

IH 39/90/94 NB

SEE SDD BARRICADES AND SIGNS FOR MAINLINE CLOSURES

SEE SDD BARRICADES AND SIGNS FOR MAINLINE CLOSURES

KENT RD

B-11-0039
DECK OVERLAY

CENTURY LINK - FIBER OPTIC

1295+00NB

1295+00SB

SLOPE INTERCEPT

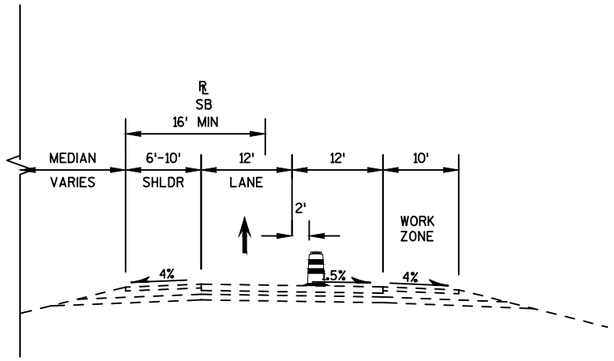
NOTE:
UTILIZE SDD BARRICADES AND SIGNS FOR MAINLINE CLOSURES, NO POSTED DETOUR.

FOR WORK IMPACTING IH 90/94 TRAFFIC, ADHERE TO ALL REQUIREMENTS FOR TEMPORARY LANE CLOSURES AND SHOULDER CLOSURES.

WORK ZONE

PROJECT NO:1010-02-84	HWY:IH 39	COUNTY:COLUMBIA	TRAFFIC CONTROL STAGE 4E	SHEET 123	E

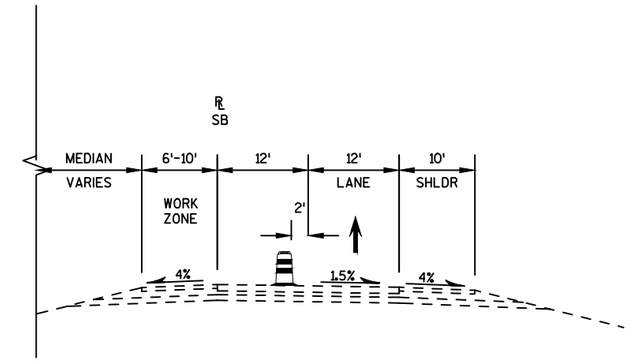
NOTE: REVERSE SECTIONS FOR OPPOSITE SIDE



STAGE 5A & 5C

4-LANE TYPICAL SECTION

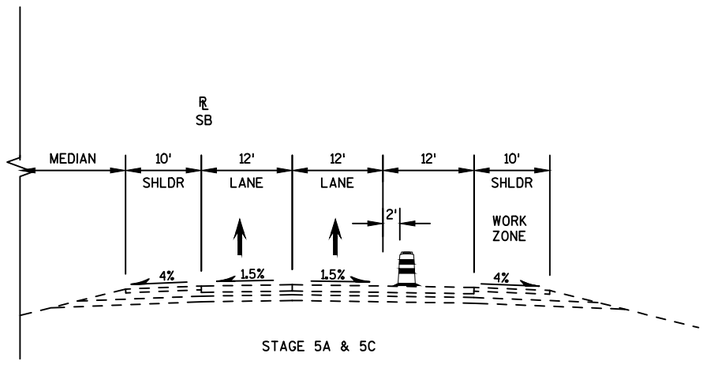
IH 90/94
OUTSIDE SHOULDER WORK



STAGE 5A & 5C

4-LANE TYPICAL SECTION

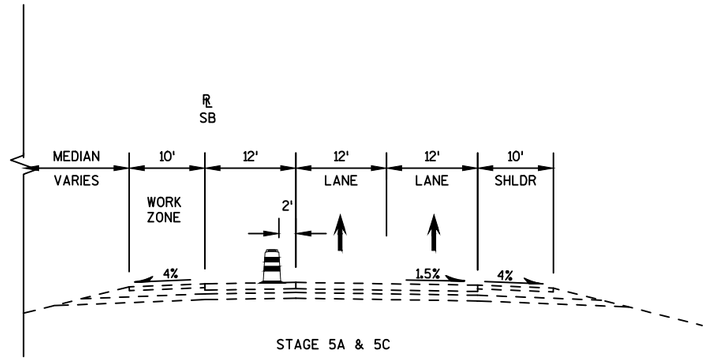
IH 90/94
MEDIAN SHOULDER WORK



STAGE 5A & 5C

6-LANE TYPICAL SECTION

IH 39/90/94
OUTSIDE SHOULDER WORK



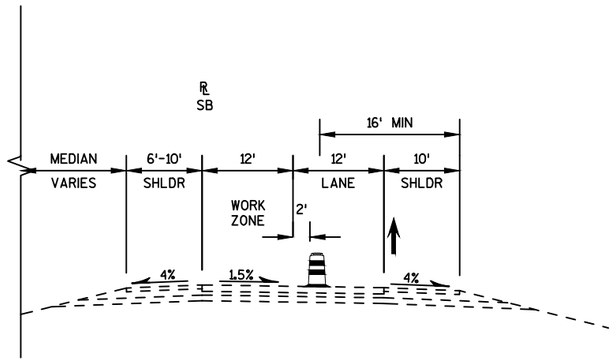
STAGE 5A & 5C

6-LANE TYPICAL SECTION

IH 39/90/94
MEDIAN SHOULDER WORK

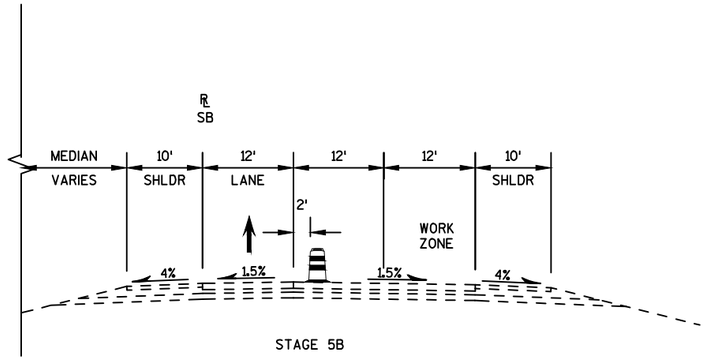
PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	CONSTRUCTION STAGING TYPICAL SECTIONS - STAGE 5A & C	SHEET 124	E

NOTE: REVERSE SECTIONS FOR OPPOSITE SIDE



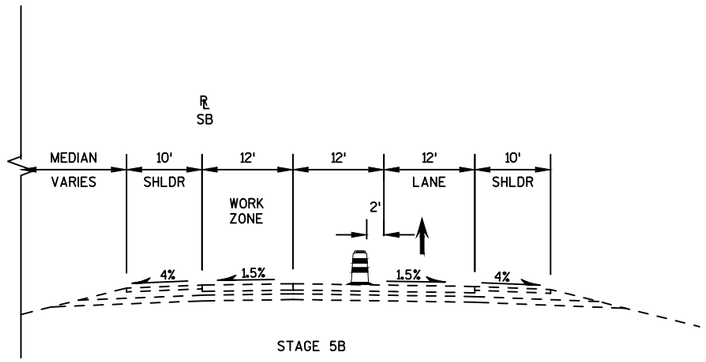
4-LANE TYPICAL SECTION

IH 90/94
CENTER LINE SKIPS



6-LANE TYPICAL SECTION

IH 39/90/94
CENTER LINE SKIPS



6-LANE TYPICAL SECTION

IH 39/90/94
CENTER LINE SKIPS

PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	CONSTRUCTION STAGING TYPICAL SECTIONS - STAGE 5B	SHEET 125	E

2

2

IH 90/94 SB

IH 90/94 NB

IH 90/94 NB TO STH 78

STH78 TO IH 90/94 NB

B-11-0101

985+00.58

BN00+98.6

IH 90/94 NB TO STH 78

STH 78

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

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

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

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

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

PC: 987+88.84

B-11-0102

BN00+066

IH 39 NB

NOTE:
EXCLUDE ARROW BOARD FROM SDD

LEGEND

TRAFFIC CONTROL DRUM

WORK ZONE

DIRECTION OF TRAFFIC

PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	TRAFFIC CONTROL STAGE 6	SHEET 126	E

CURVE 1
PI STA = 834+12.35
Y = 387023.13
X = 519551.09
DELTA = 43°26'02"
D = 1°09'48"
T = 1961.59
L = 3733.48
R = 4925.00
PC STA = 814+50.76
PT STA = 851+84.24

CURVE 2
PI STA = 834+69.61
Y = 386973.32
X = 519509.05
DELTA = 43°32'52"
D = 0°59'53"
T = 2292.80
L = 4362.70
R = 5740.00
PC STA = 811+76.81
PT STA = 855+39.50

CURVE 3
PI STA = 15+70.65
Y = 385563.19
X = 520366.36
DELTA = 32°46'42"
D = 7°20'44"
T = 229.41
L = 446.23
R = 780.00
PC STA = 13+41.24
PT STA = 17+87.47

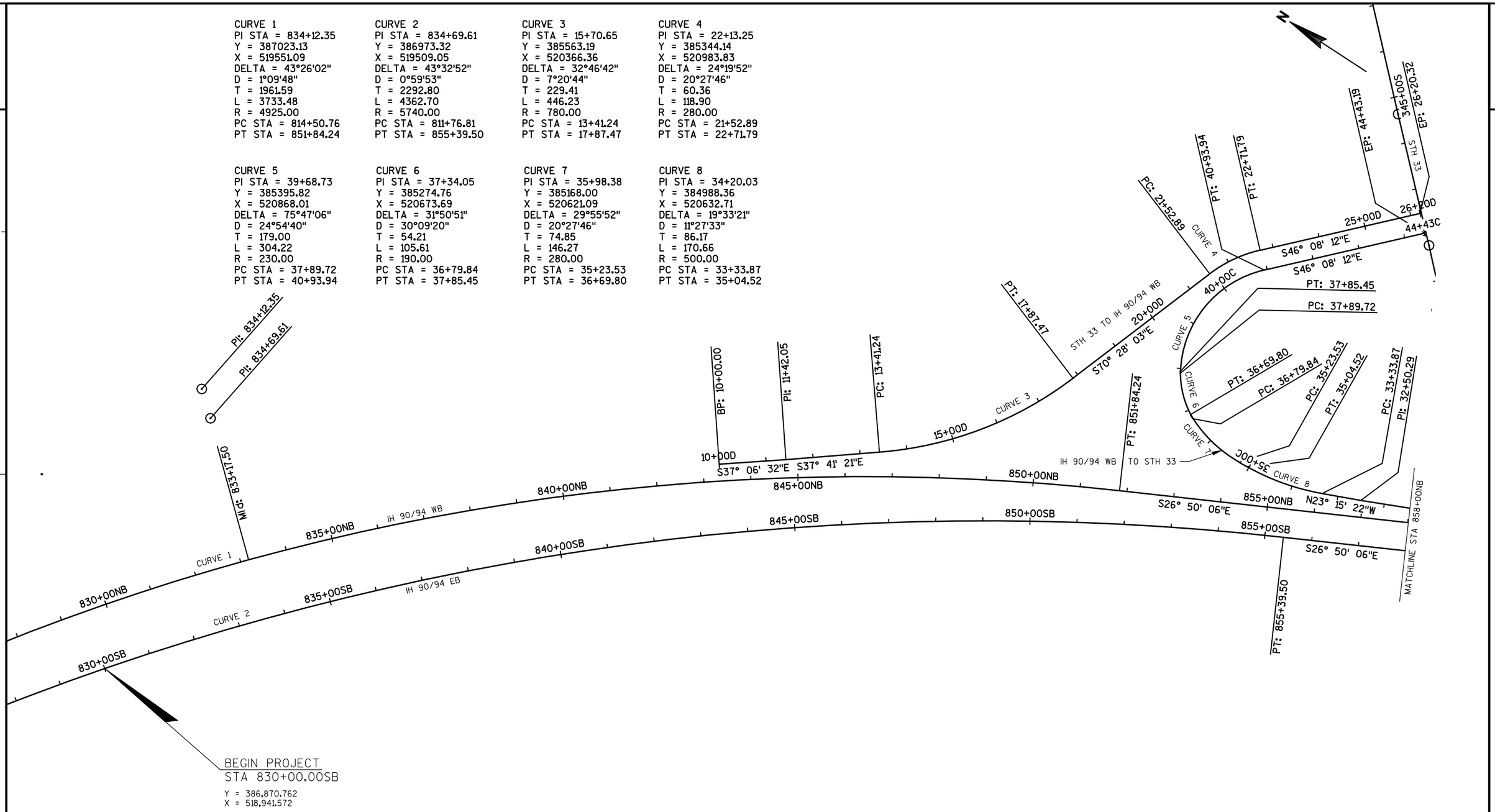
CURVE 4
PI STA = 22+13.25
Y = 385344.14
X = 520983.83
DELTA = 24°19'52"
D = 20°27'46"
T = 60.36
L = 118.90
R = 280.00
PC STA = 21+52.89
PT STA = 22+71.79

CURVE 5
PI STA = 39+68.73
Y = 385395.82
X = 520868.01
DELTA = 75°47'06"
D = 24°54'40"
T = 179.00
L = 304.22
R = 230.00
PC STA = 37+89.72
PT STA = 40+93.94

CURVE 6
PI STA = 37+34.05
Y = 385274.76
X = 520673.69
DELTA = 31°50'51"
D = 30°09'20"
T = 54.21
L = 105.61
R = 190.00
PC STA = 36+79.84
PT STA = 37+85.45

CURVE 7
PI STA = 35+98.38
Y = 385168.00
X = 520621.09
DELTA = 29°55'52"
D = 20°27'46"
T = 74.85
L = 146.27
R = 280.00
PC STA = 35+23.53
PT STA = 36+69.80

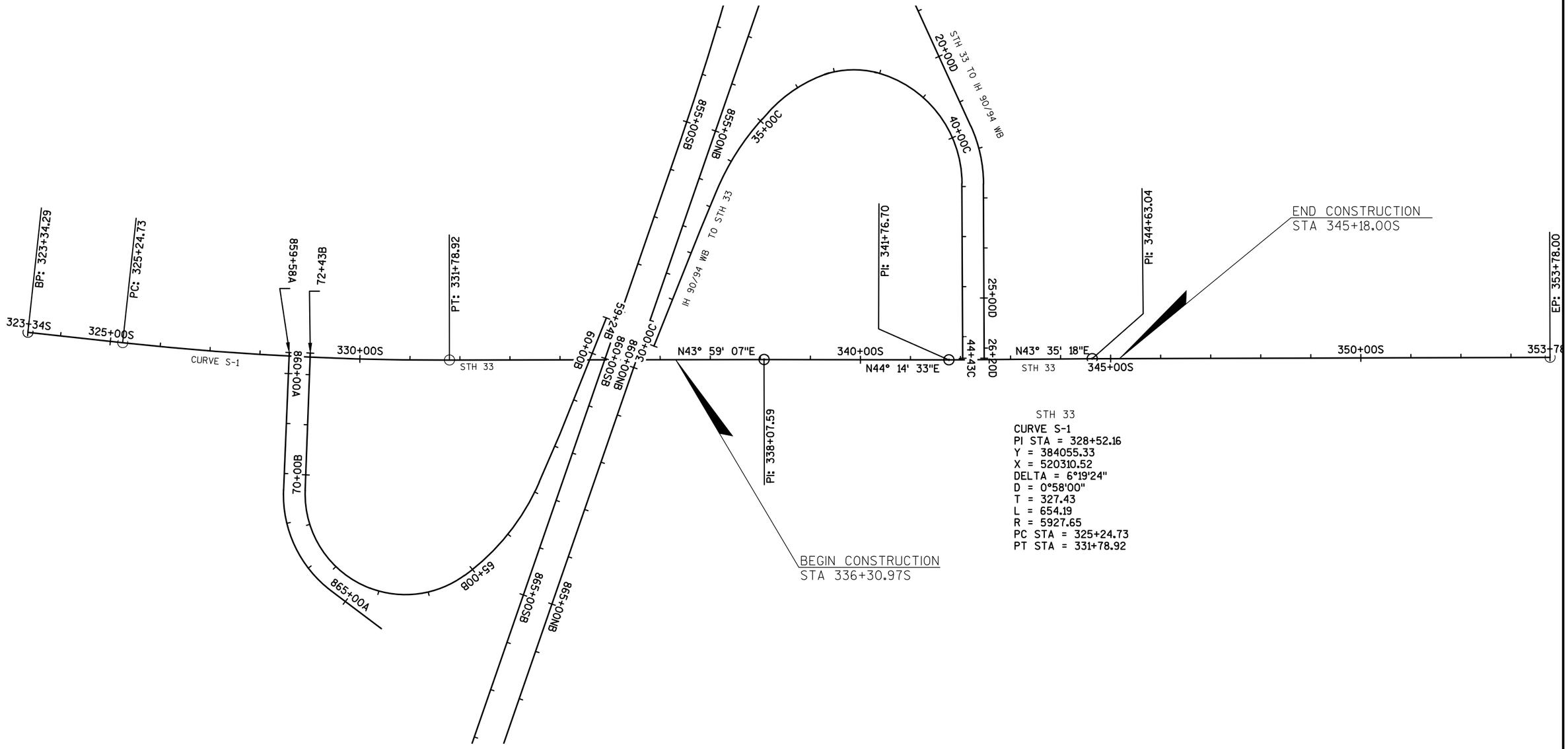
CURVE 8
PI STA = 34+20.03
Y = 384988.36
X = 520632.71
DELTA = 19°33'21"
D = 11°27'33"
T = 86.17
L = 170.66
R = 500.00
PC STA = 33+33.87
PT STA = 35+04.52



BEGIN PROJECT
STA 830+00.00SB
Y = 386,870.762
X = 518,941.572

PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	ALIGNMENT DETAIL	SHEET 127	E

2



STH 33
CURVE S-1
PI STA = 328+52.16
Y = 384055.33
X = 520310.52
DELTA = 6°19'24"
D = 0°58'00"
T = 327.43
L = 654.19
R = 5927.65
PC STA = 325+24.73
PT STA = 331+78.92

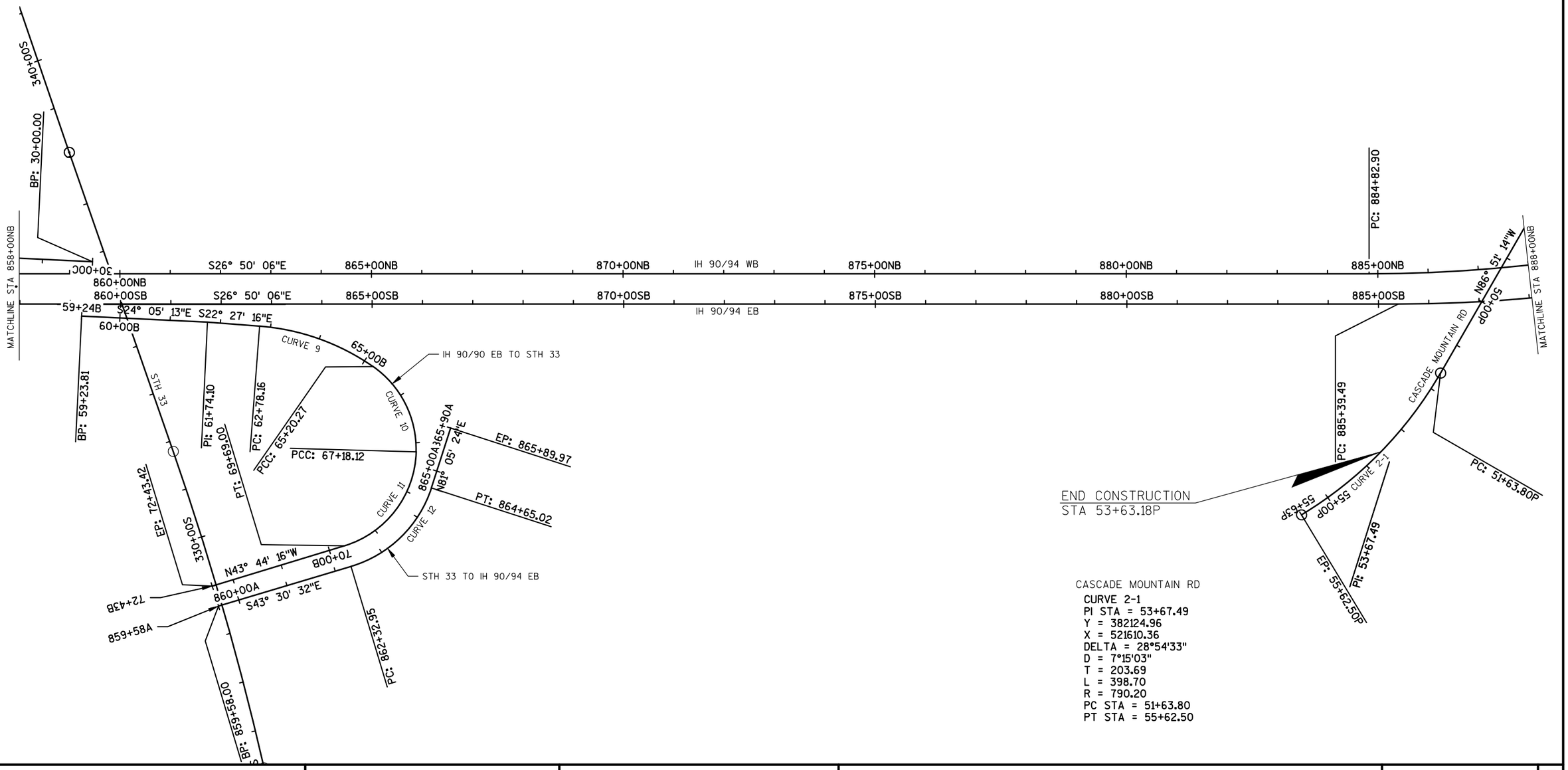
PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	ALIGNMENT DETAIL	SHEET 128	E

CURVE 9
PI STA = 64+02.14
Y = 384135.52
X = 520884.84
DELTA = 30°25'26"
D = 12°33'57"
T = 123.98
L = 242.11
R = 455.96
PC STA = 62+78.16
PT STA = 65+20.27

CURVE 10
PI STA = 66+28.19
Y = 383905.86
X = 520852.69
DELTA = 56°48'58"
D = 28°43'03"
T = 107.91
L = 197.84
R = 199.52
PC STA = 65+20.27
PT STA = 67+18.12

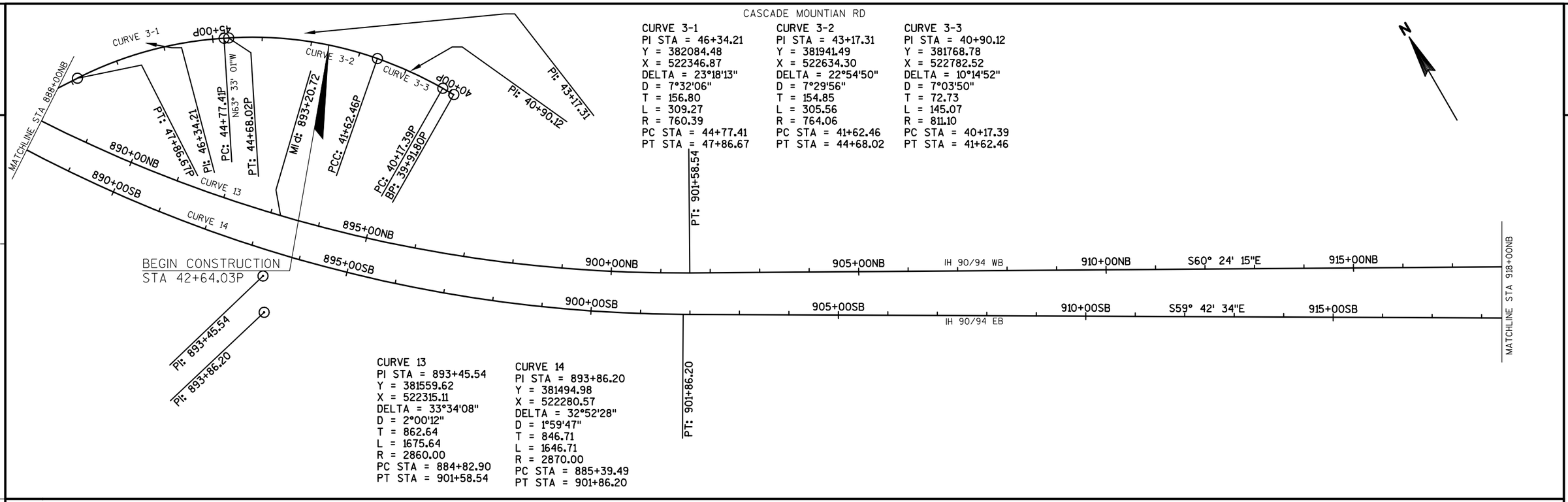
CURVE 11
PI STA = 68+62.84
Y = 383798.24
X = 520624.13
DELTA = 71°28'37"
D = 28°29'24"
T = 144.72
L = 250.88
R = 201.11
PC STA = 67+18.12
PT STA = 69+69.00

CURVE 12
PI STA = 863+58.96
Y = 383780.96
X = 520580.45
DELTA = 55°24'04"
D = 23°52'24"
T = 126.01
L = 232.06
R = 240.00
PC STA = 862+32.95
PT STA = 864+65.02



PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	ALIGNMENT DETAIL	SHEET 129	E

CASCADE MOUNTAIN RD
CURVE 2-1
PI STA = 53+67.49
Y = 382124.96
X = 521610.36
DELTA = 28°54'33"
D = 7°15'03"
T = 203.69
L = 398.70
R = 790.20
PC STA = 51+63.80
PT STA = 55+62.50


CASCADE MOUNTIAN RD
CURVE 3-1
PI STA = 46+34.21
Y = 382084.48
X = 522346.87
DELTA = 23°18'13"
D = 7°32'06"
T = 156.80
L = 309.27
R = 760.39
PC STA = 44+77.41
PT STA = 47+86.67
CURVE 3-2
PI STA = 43+17.31
Y = 381941.49
X = 522634.30
DELTA = 22°54'50"
D = 7°29'56"
T = 154.85
L = 305.56
R = 764.06
PC STA = 41+62.46
PT STA = 44+68.02
CURVE 3-3
PI STA = 40+90.12
Y = 381768.78
X = 522782.52
DELTA = 10°14'52"
D = 7°03'50"
T = 72.73
L = 145.07
R = 811.10
PC STA = 40+17.39
PT STA = 41+62.46
MATCHLINE STA 888+00NB
CURVE 3-1
45+00P
CURVE 3-2
CURVE 3-3
40+00P
PI: 43+17.31
PI: 40+90.12
PT: 47+86.67P
PI: 46+34.21P
PC: 44+77.41P
N63° 33' 01"W
PT: 44+68.02P
Mid: 893+20.72
PCC: 41+62.46P
PC: 40+17.39P
BP: 39+91.80P
890+00NB
890+00SB
CURVE 13
CURVE 14
895+00NB
895+00SB
BEGIN CONSTRUCTION
STA 42+64.03P
PI: 893+45.54
PI: 893+86.20
900+00NB
900+00SB
PT: 901+58.54
PT: 901+86.20
905+00NB
905+00SB
IH 90/94 WB
IH 90/94 EB
910+00NB
910+00SB
S60° 24' 15"E
S59° 42' 34"E
915+00NB
915+00SB
MATCHLINE STA 918+00NB
CURVE 13
PI STA = 893+45.54
Y = 381559.62
X = 522315.11
DELTA = 33°34'08"
D = 2°00'12"
T = 862.64
L = 1675.64
R = 2860.00
PC STA = 884+82.90
PT STA = 901+58.54
CURVE 14
PI STA = 893+86.20
Y = 381494.98
X = 522280.57
DELTA = 32°52'28"
D = 1°59'47"
T = 846.71
L = 1646.71
R = 2870.00
PC STA = 885+39.49
PT STA = 901+86.20
N
MATCHLINE STA 918+00NB
920+00NB
920+00SB
925+00NB
925+00SB
S60° 24' 15"E
S59° 42' 34"E
930+00NB
930+00SB
IH 90/94 WB
IH 90/94 EB
935+00NB
935+00SB
940+00NB
940+00SB
945+00NB
945+00SB
90° RT
PI: 934+39.93
PI: 934+39.93
S29° 35' 45"W
STA BACK = 934+51.93
STA AHEAD = 934+39.93
90° LT
PI: 934+51.93
PI: 934+39.93
PC: 944+13.20
PC: 945+54.74
MATCHLINE STA 948+00 NB
N

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

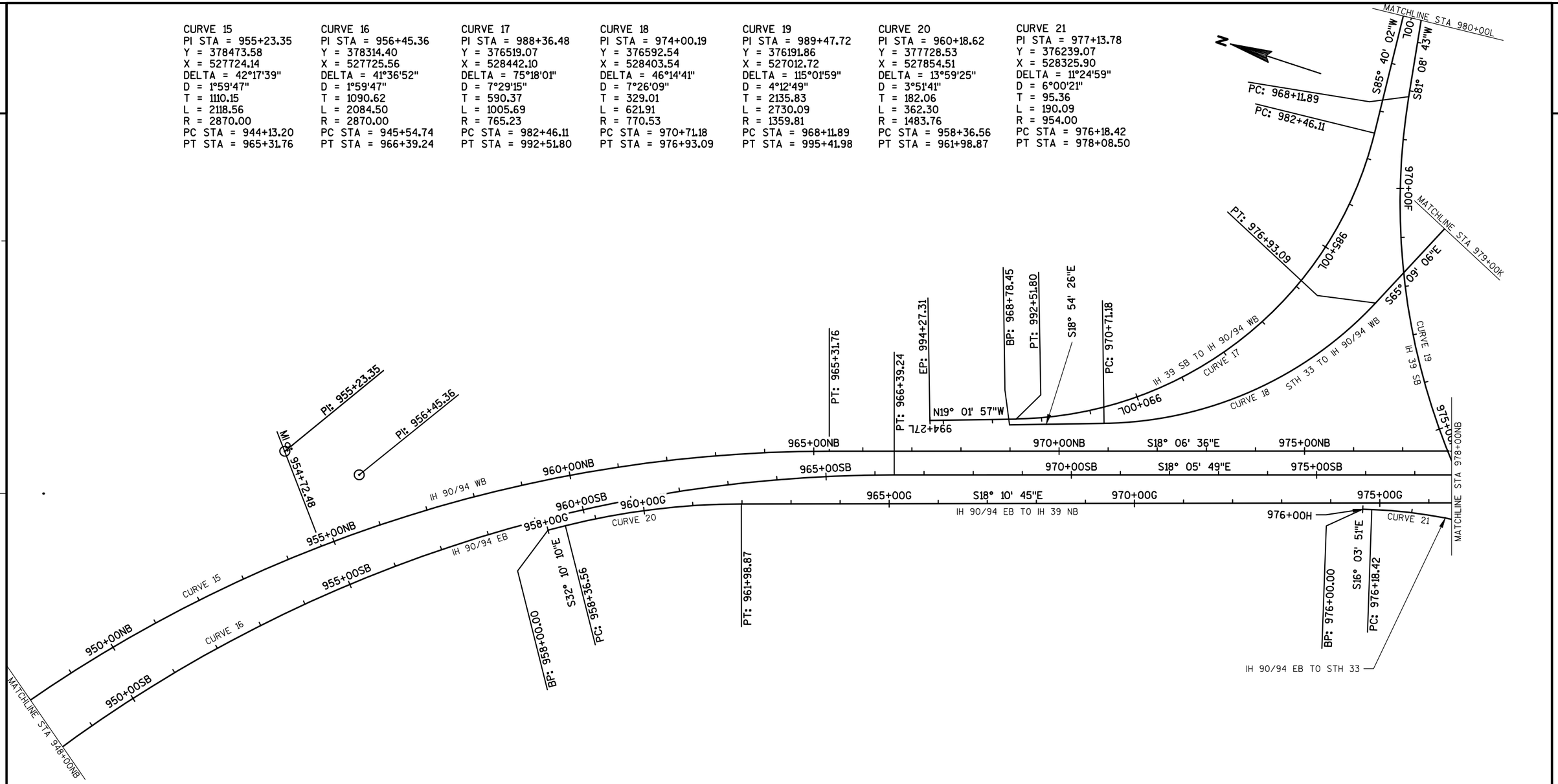
CURVE 17
PI STA = 988+36.48
Y = 376519.07
X = 528442.10
DELTA = 75°18'01"
D = 7°29'15"
T = 590.37
L = 1005.69
R = 765.23
PC STA = 982+46.11
PT STA = 992+51.80

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

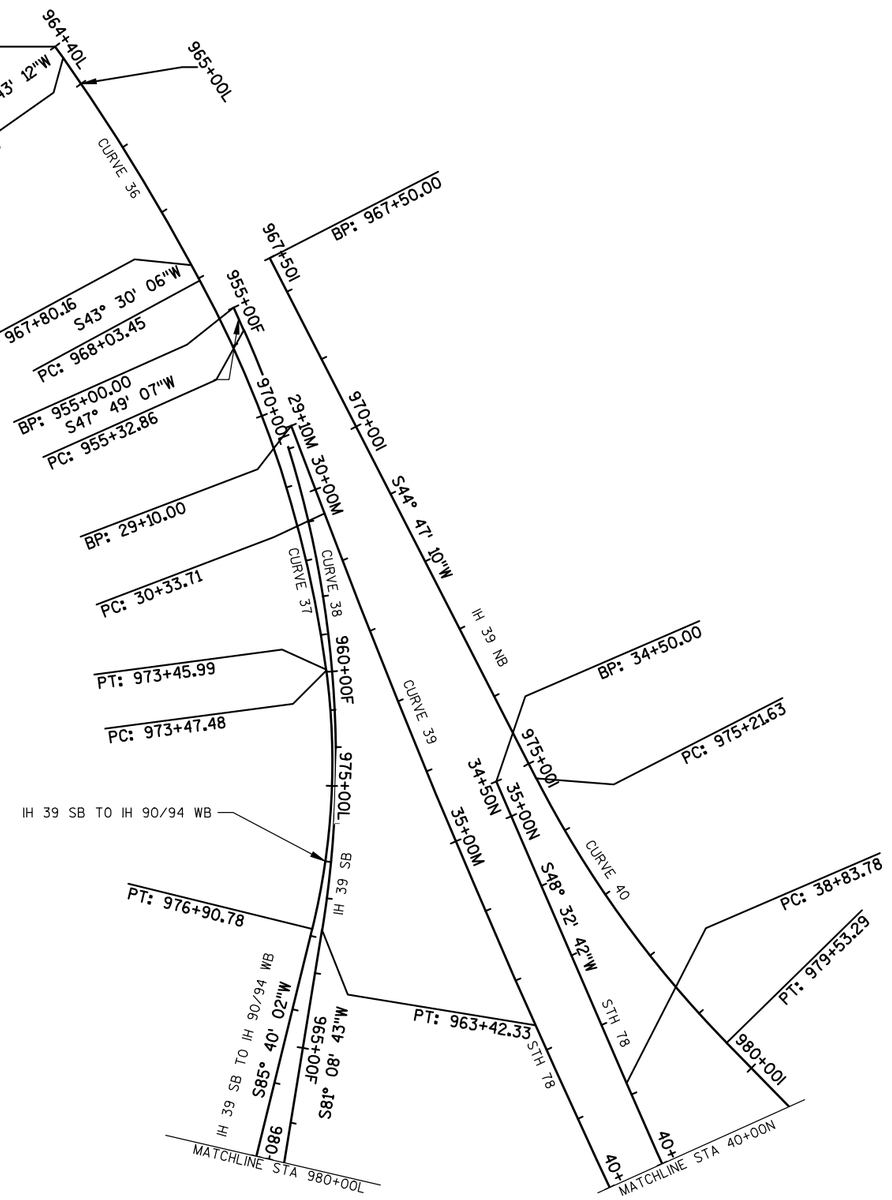
CURVE 21
PI STA = 977+13.78
Y = 376239.07
X = 528325.90
DELTA = 11°24'59"
D = 6°00'21"
T = 95.36
L = 190.09
R = 954.00
PC STA = 976+18.42
PT STA = 978+08.50



PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	ALIGNMENT DETAIL	SHEET 131	E

FILE NAME : X:\3230900\131208.01\TECH\CAD\10100202\SHEETSPLAN\CONSTRUCTION PROJECT 1, 1010-02-84\027201_AD.DWG PLOT DATE : 3/14/2016 2:47 PM PLOT BY : JASON KLEIST PLOT NAME : PLOT SCALE : 1 IN:200 FT
WISDOT/CADDS SHEET 44

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



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+38.58
Y = 374213.25
X = 528302.41
DELTA = 20°56'39"
D = 3°57'48"
T = 267.21
L = 528.46
R = 1445.68
PC STA = 13+71.37
PT STA = 18+99.83

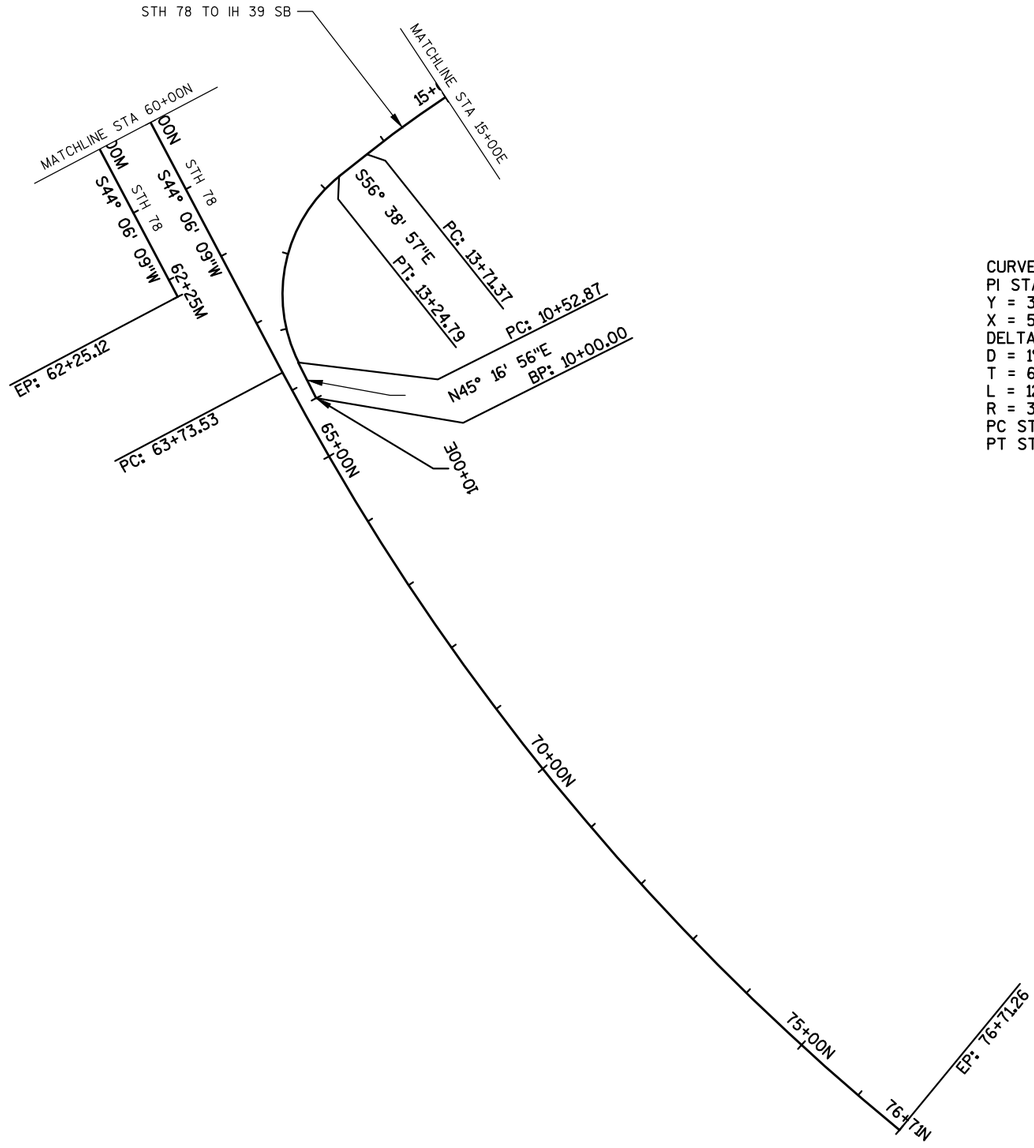
CURVE 34
PI STA = 988+83.35
Y = 375192.83
X = 528886.22
DELTA = 2°47'45"
D = 0°38'12"
T = 219.64
L = 439.19
R = 9000.00
PC STA = 986+63.71
PT STA = 991+02.90

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: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	ALIGNMENT DETAIL	SHEET 133 E

FILE NAME : X:\3230900\131208.01\TECH\CAD\10100202\SHEETSPLAN\CONSTRUCTION PROJECT 1, 1010-02-84\027201_AD.DWG PLOT DATE : 3/14/2016 2:48 PM PLOT BY : JASON KLEIST PLOT NAME : PLOT SCALE : 1 IN:200 FT

2



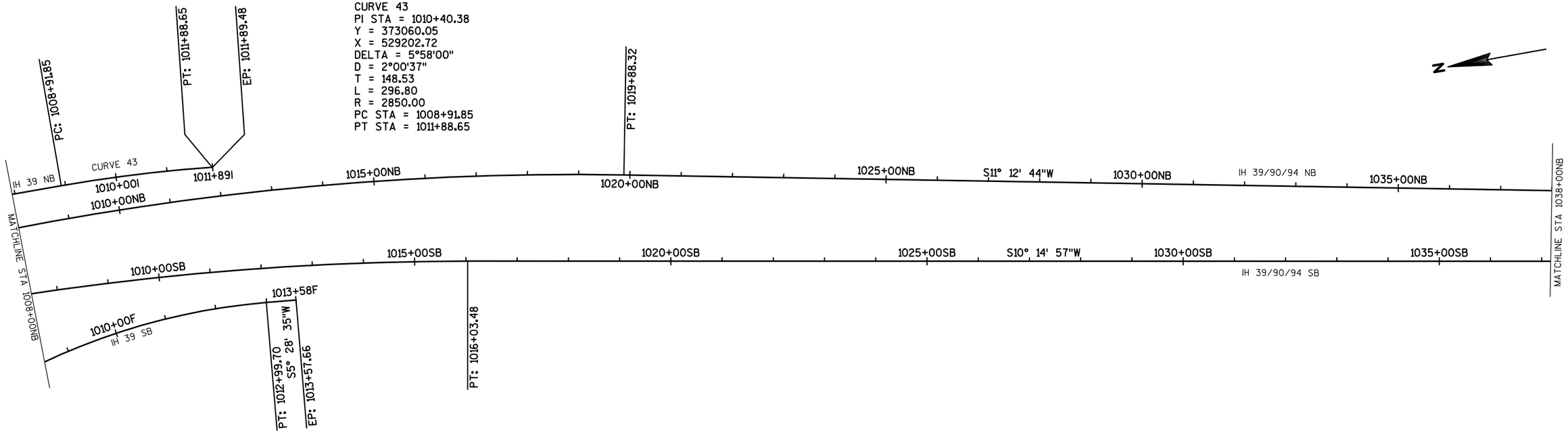
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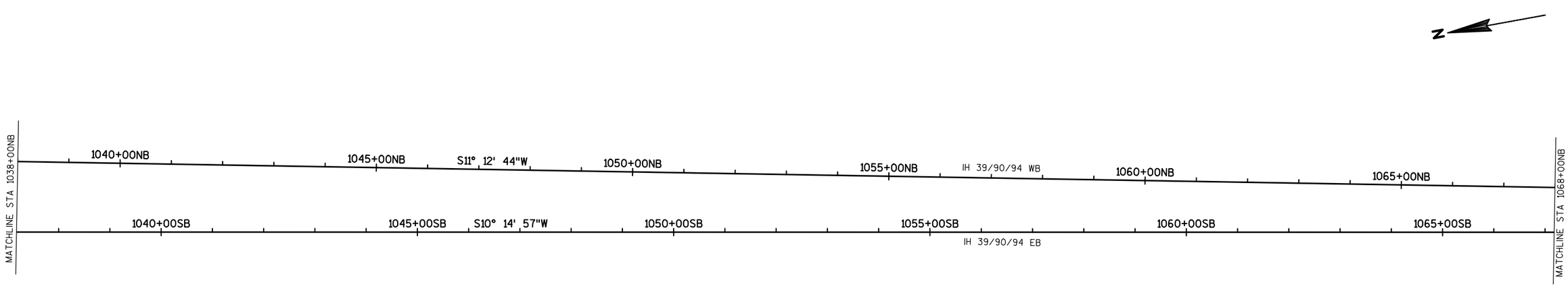
CURVE 41	CURVE 42
PI STA = 70+31.03	PI STA = 12+14.68
Y = 373904.25	Y = 374474.72
X = 527313.40	X = 527905.13
DELTA = 22°42'37"	DELTA = 78°04'07"
D = 1°45'00"	D = 28°42'36"
T = 657.49	T = 161.81
L = 1297.73	L = 271.92
R = 3274.04	R = 199.57
PC STA = 63+73.53	PC STA = 10+52.87
PT STA = 76+71.26	PT STA = 13+24.79

PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	ALIGNMENT DETAIL	SHEET 134	E

2

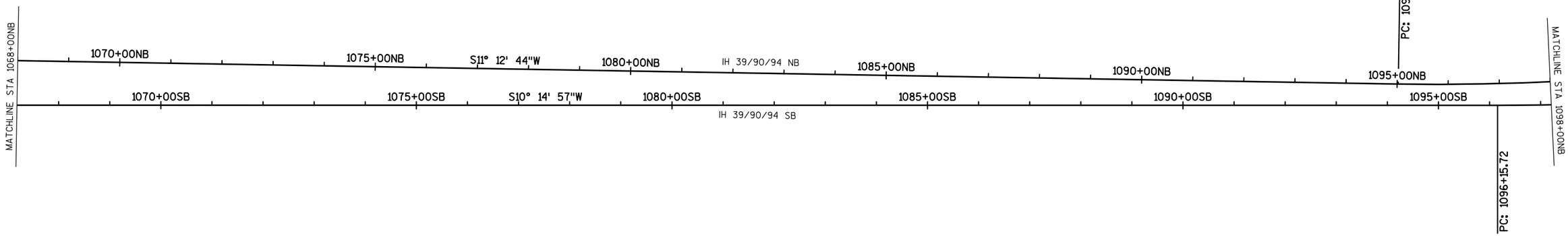
CURVE 43
PI STA = 1010+40.38
Y = 373060.05
X = 529202.72
DELTA = 5°58'00"
D = 2°00'37"
T = 148.53
L = 296.80
R = 2850.00
PC STA = 1008+91.85
PT STA = 1011+88.65





PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	ALIGNMENT DETAIL	SHEET 135	E

FILE NAME : X:\3230900\131208.01\TECH\CAD\10100202\SHEETSPLAN\CONSTRUCTION PROJECT 1, 1010-02-84\027201_AD.DWG PLOT DATE : 3/14/2016 2:48 PM PLOT BY : JASON KLEIST PLOT NAME : PLOT SCALE : 1 IN:200 FT
WISDOT/CADDS SHEET 44



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

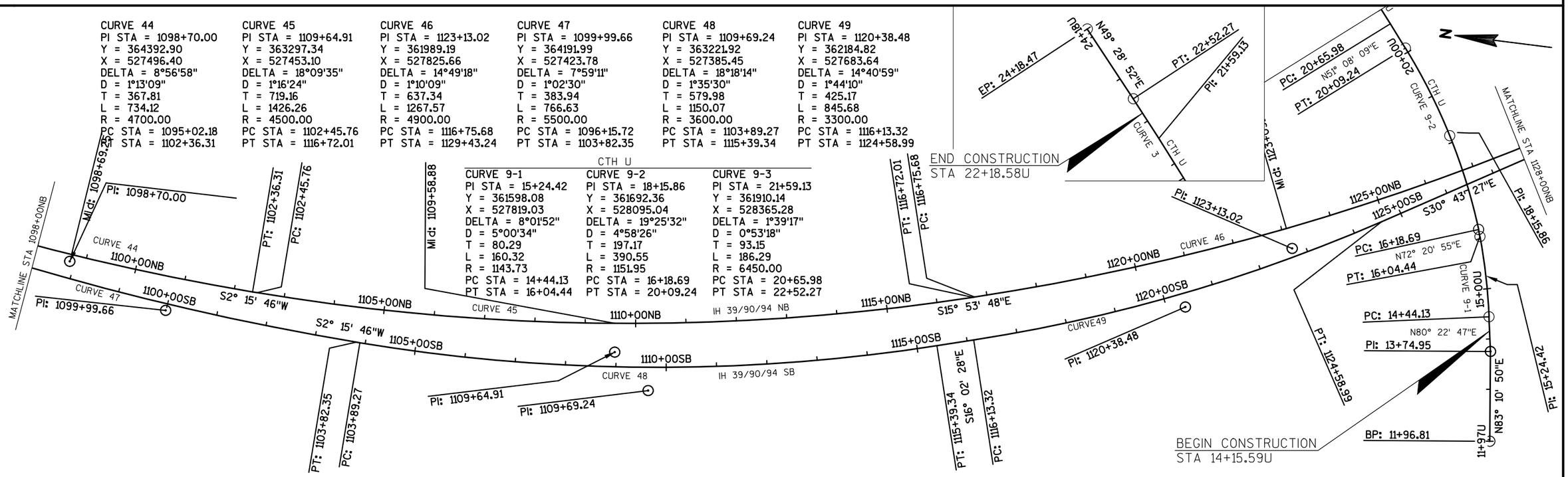
CURVE 49
PI STA = 1120+38.48
Y = 362184.82
X = 527683.64
DELTA = 14°40'59"
D = 1°44'10"
T = 425.17
L = 845.68
R = 3300.00
PC STA = 1116+13.32
PT STA = 1124+58.99

CTH U

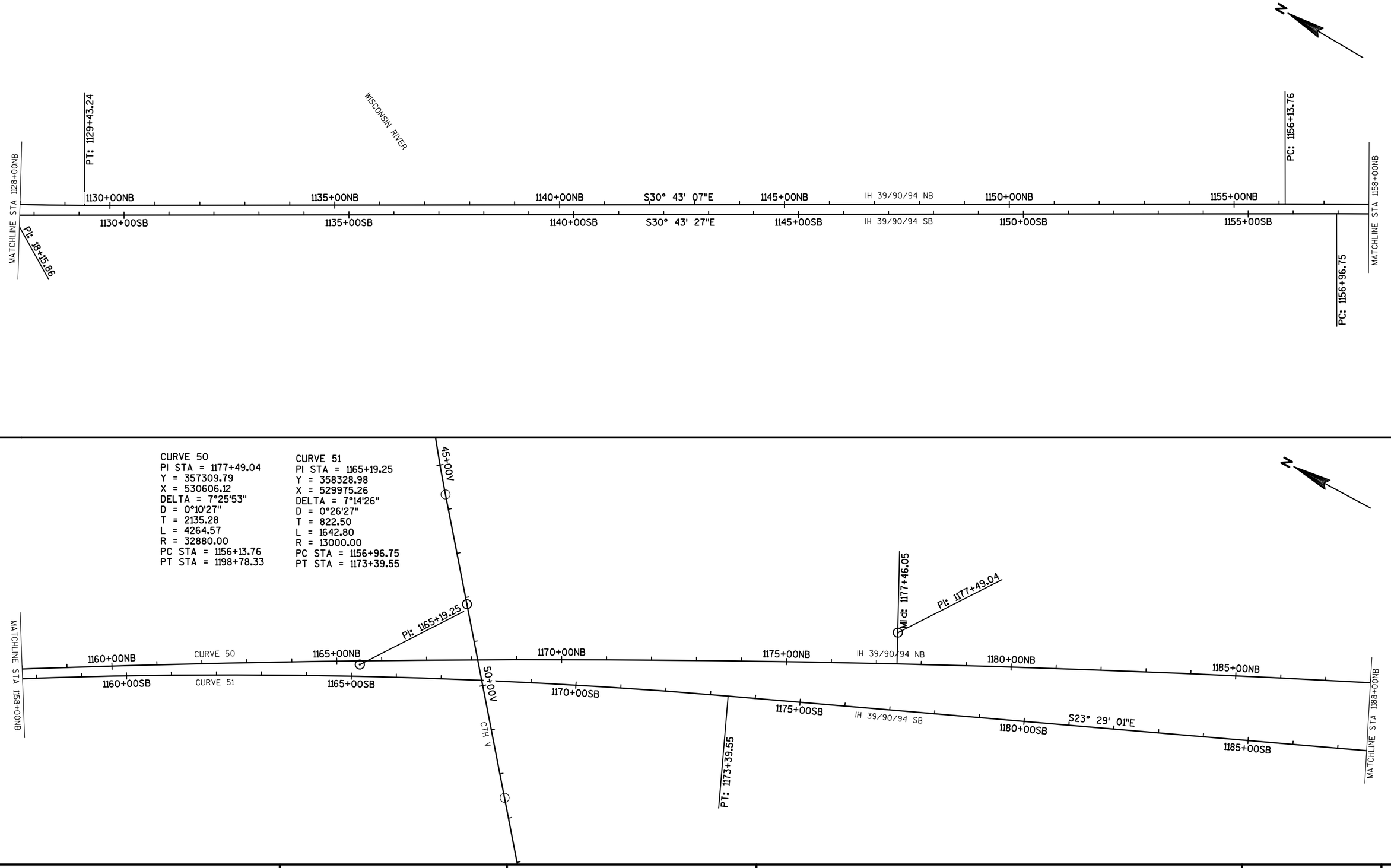
CURVE 9-1
PI STA = 15+24.42
Y = 361598.08
X = 527819.03
DELTA = 8°01'52"
D = 5°00'34"
T = 80.29
L = 160.32
R = 1143.73
PC STA = 14+44.13
PT STA = 16+04.44

CURVE 9-2
PI STA = 18+15.86
Y = 361692.36
X = 528095.04
DELTA = 19°25'32"
D = 4°58'26"
T = 197.17
L = 390.55
R = 1151.95
PC STA = 16+18.69
PT STA = 20+09.24

CURVE 9-3
PI STA = 21+59.13
Y = 361910.14
X = 528365.28
DELTA = 1°39'17"
D = 0°53'18"
T = 93.15
L = 186.29
R = 6450.00
PC STA = 20+65.98
PT STA = 22+52.27

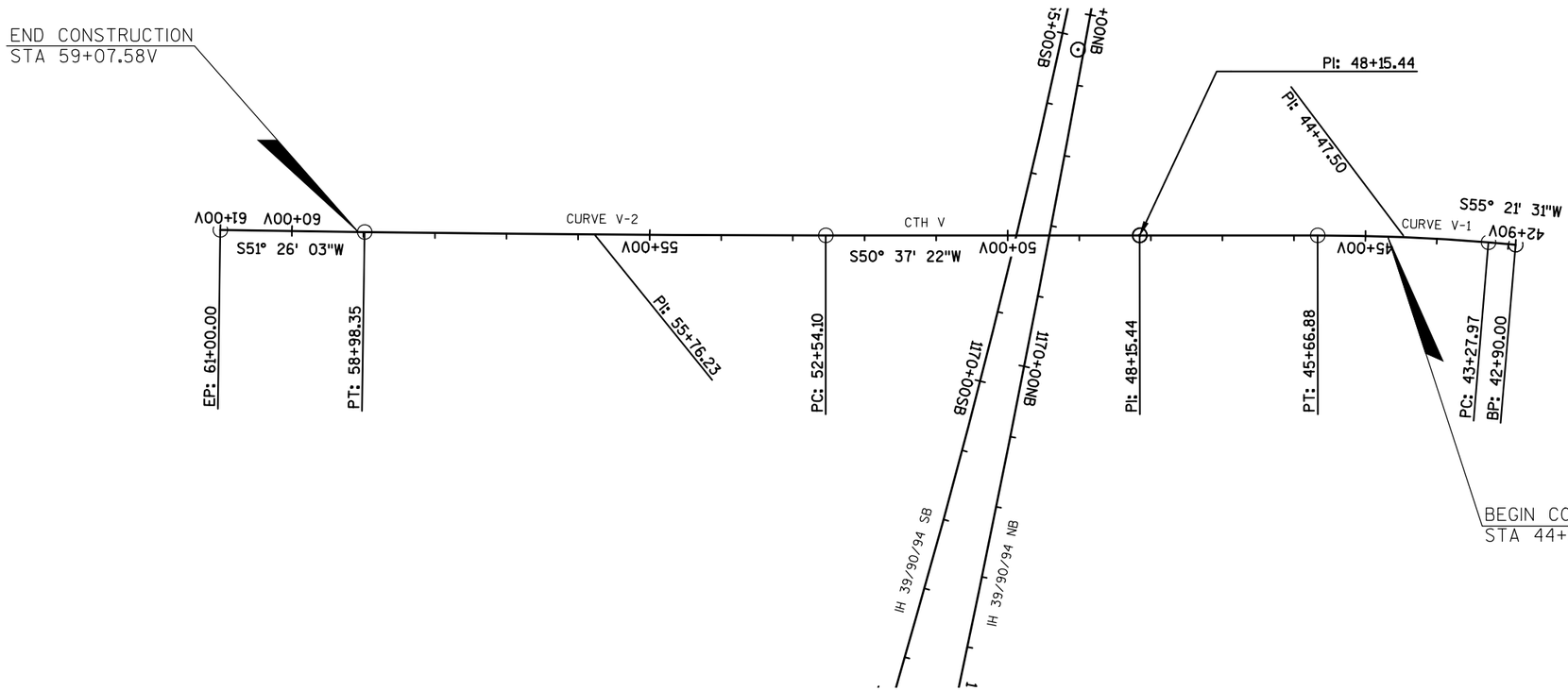


PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	ALIGNMENT DETAIL	SHEET 136	E



PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	ALIGNMENT DETAIL	SHEET 137	E

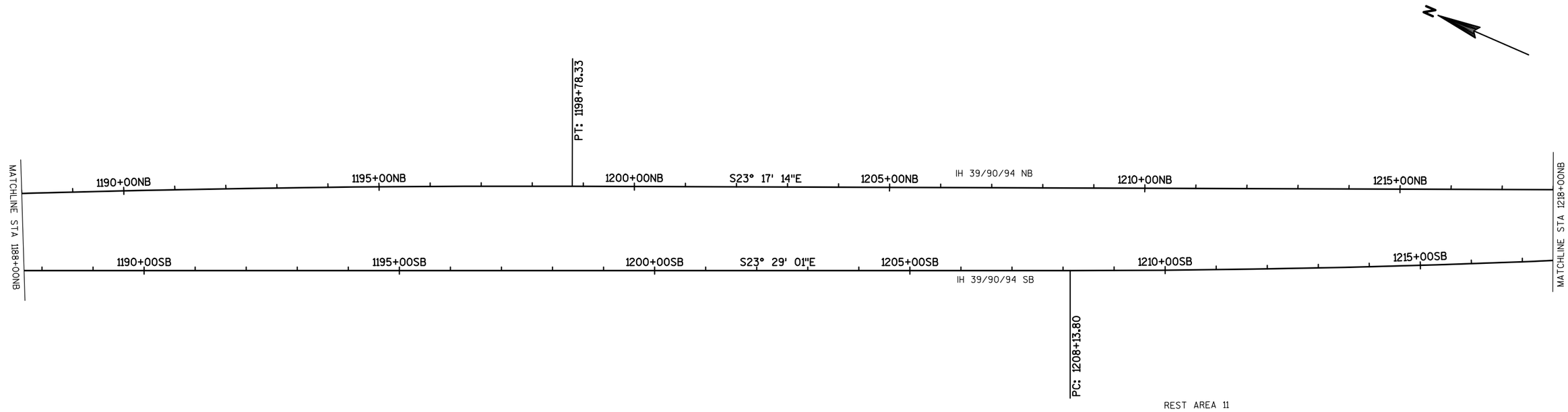
2



CURVE V-1
PI STA = 44+47.50
Y = 358416.86
X = 530491.02
DELTA = 4°47'11"
D = 2°00'12"
T = 119.53
L = 238.91
R = 2860.00
PC STA = 43+27.97
PT STA = 45+66.88

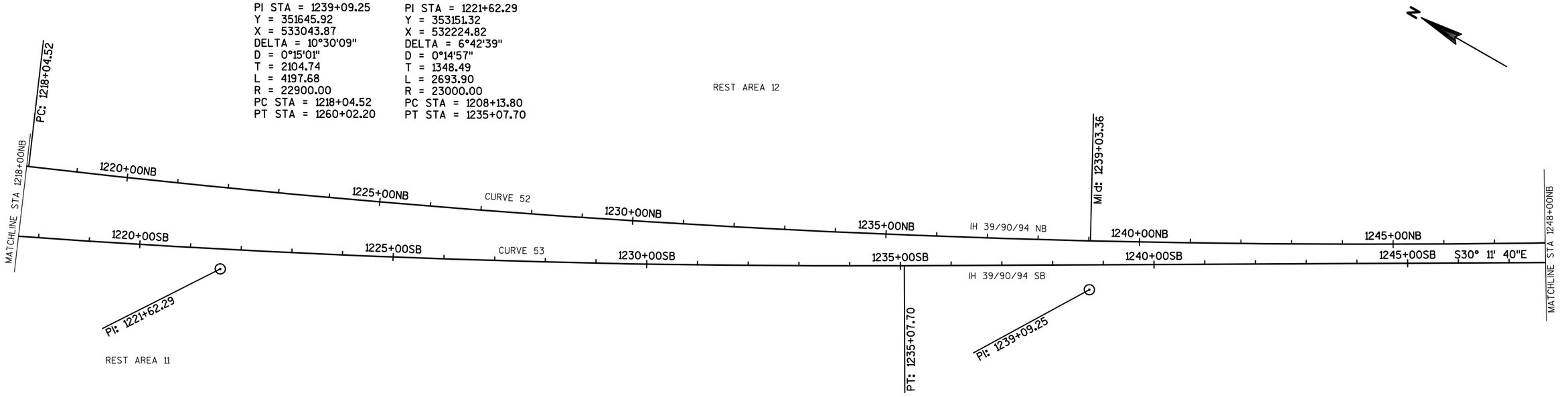
CURVE V-2
PI STA = 55+76.23
Y = 357700.42
X = 529618.62
DELTA = 0°48'41"
D = 0°07'33"
T = 322.13
L = 644.25
R = 45500.00
PC STA = 52+54.10
PT STA = 58+98.35

PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	ALIGNMENT DETAIL	SHEET 138	E

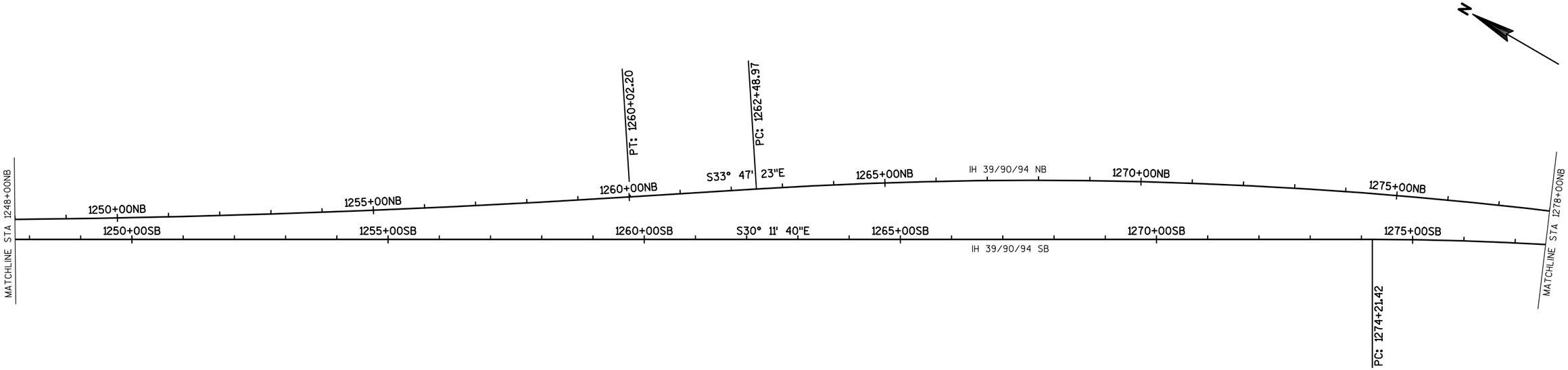


CURVE 52
PI STA = 1239+09.25
Y = 351645.92
X = 533043.87
DELTA = 10°30'09"
D = 0°15'01"
T = 2104.74
L = 4197.68
R = 22900.00
PC STA = 1218+04.52
PT STA = 1260+02.20

CURVE 53
PI STA = 1221+62.29
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+13.80
PT STA = 1235+07.70

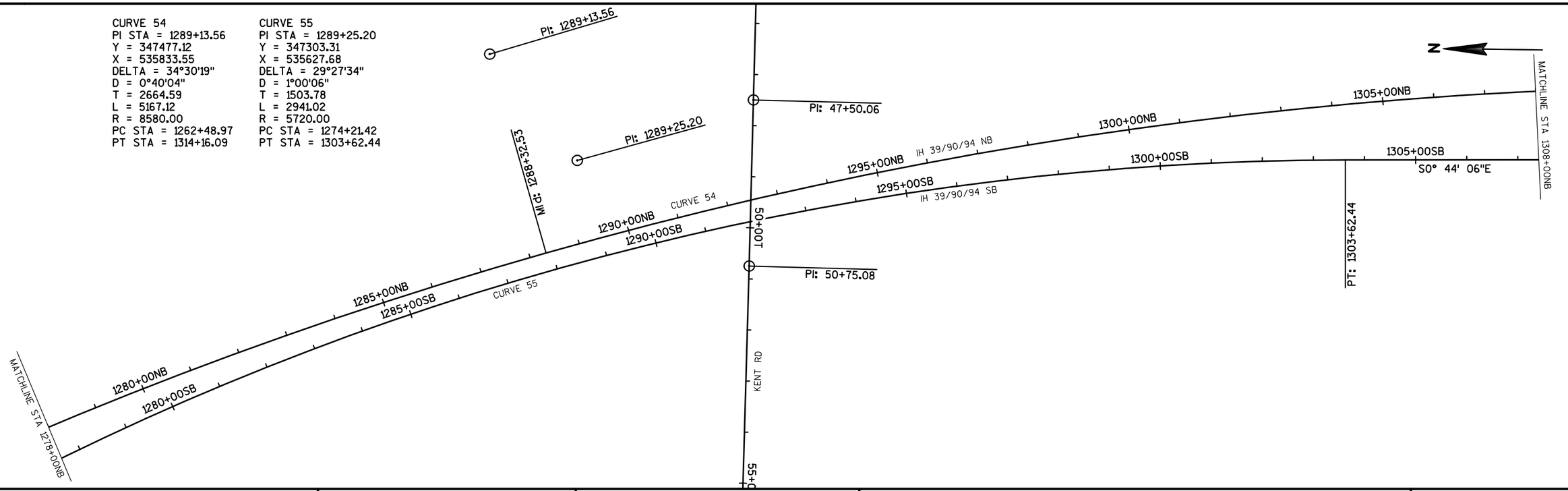


PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	ALIGNMENT DETAIL	SHEET 139	E



CURVE 54
PI STA = 1289+13.56
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+48.97
PT STA = 1314+16.09

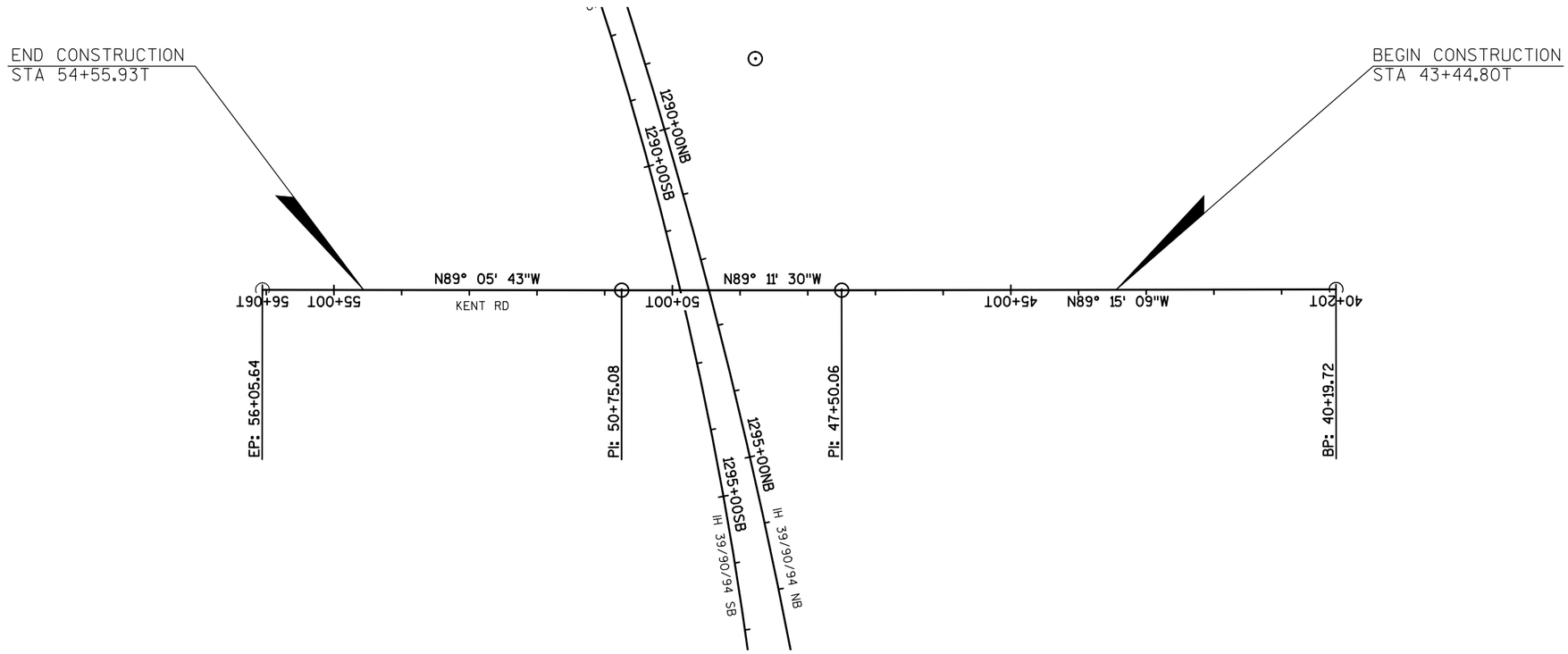
CURVE 55
PI STA = 1289+25.20
Y = 347303.31
X = 535627.68
DELTA = 29°27'34"
D = 1°00'06"
T = 1503.78
L = 2941.02
R = 5720.00
PC STA = 1274+21.42
PT STA = 1303+62.44



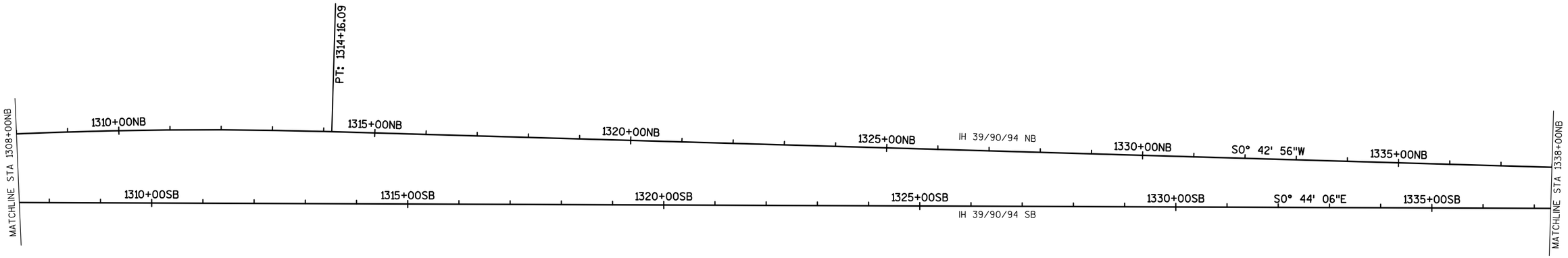
PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	ALIGNMENT DETAIL	SHEET 140	E

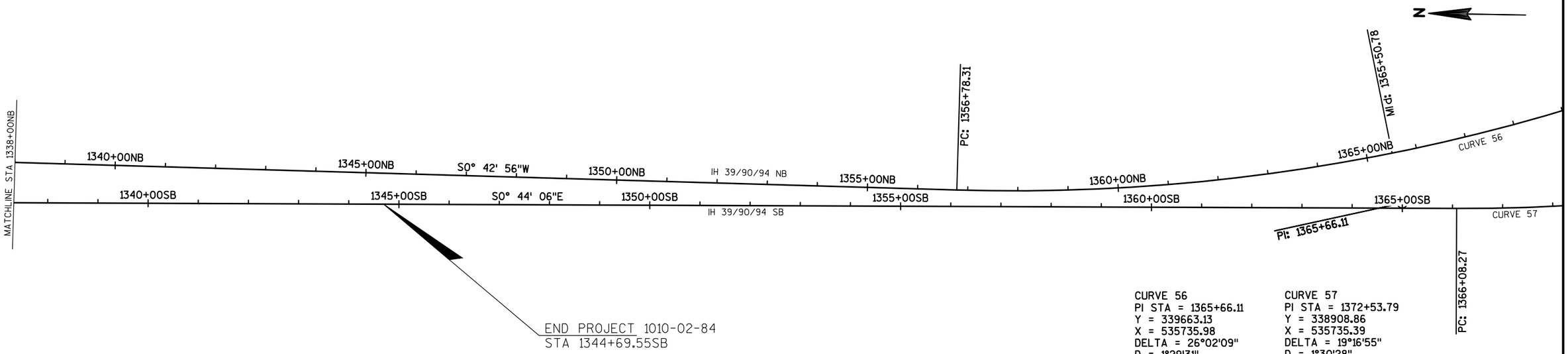
2

N



PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	ALIGNMENT DETAIL	SHEET 141	E

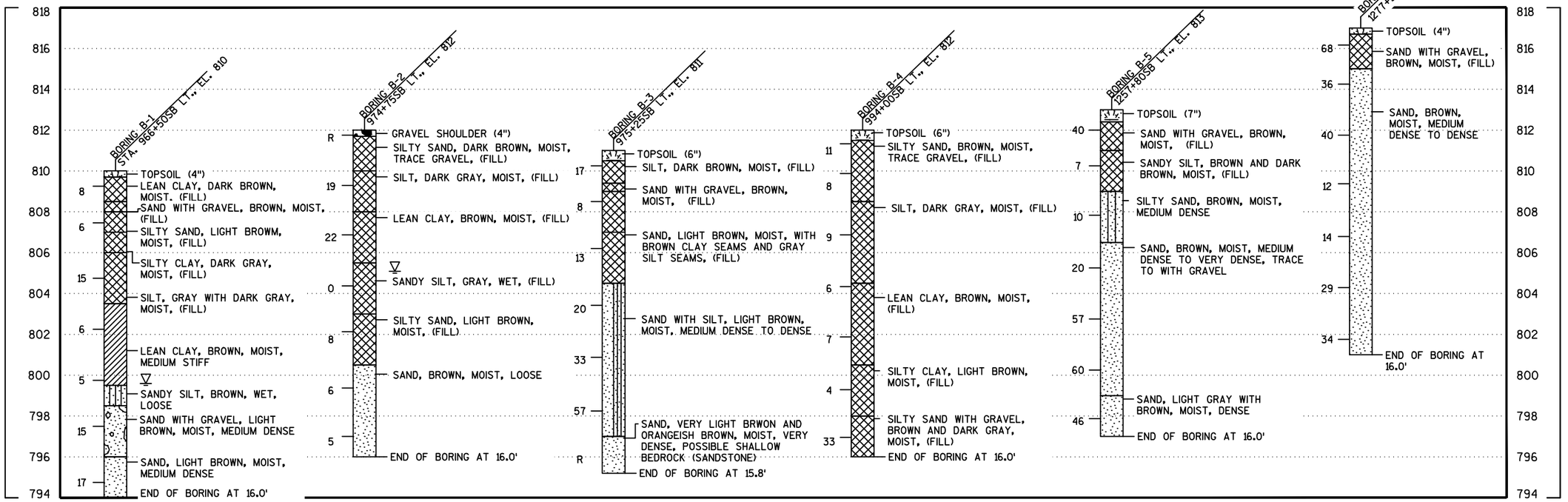




CURVE 56	CURVE 57
PI STA = 1365+66.11	PI STA = 1372+53.79
Y = 339663.13	Y = 338908.86
X = 535735.98	X = 535735.39
DELTA = 26°02'09"	DELTA = 19°16'55"
D = 1°29'31"	D = 1°30'28"
T = 887.79	T = 645.52
L = 1744.93	L = 1278.83
R = 3840.00	R = 3800.00
PC STA = 1356+78.31	PC STA = 1366+08.27
PT STA = 1374+23.24	PT STA = 1378+87.11

PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	ALIGNMENT DETAIL	SHEET 142	E

FILE NAME : X:\3230900\131208.01\TECH\CAD\10100202\SHEETSPLAN\CONSTRUCTION PROJECT 1, 1010-02-84\027201_AD.DWG PLOT DATE : 3/14/2016 2:49 PM PLOT BY : JASON KLEIST PLOT NAME : PLOT SCALE : 1 IN:200 FT
WISDOT/CADDS SHEET 44



BORING LOCATION WERE LOCATED IN THE FIELD USING A HANDHELD GPS UNIT. GPS COORDINATES WERE REFERNCE TO CROSS SECTION TO ESTIMATE APPROXIMATE ELEVATION OF BOREHOLE.

PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	SOIL BORINGS	SHEET 143	E

DATE 19SEP16 E S T I M A T E O F Q U A N T I T I E S

LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	1010-02-84 QUANTITY
0010	201.0105	Clearing	STA	21.000	21.000
0020	201.0205	Grubbing	STA	21.000	21.000
0030	203.0100	Removing Small Pipe Culverts	EACH	2.000	2.000
0040	204.0105	Removing Pavement Butt Joints	SY	9,390.000	9,390.000
0050	204.0115	Removing Asphaltic Surface Butt Joints	SY	1,409.000	1,409.000
0060	204.0157	Removing Concrete Barrier	LF	50.000	50.000
0070	204.0165	Removing Guardrail	LF	13,314.000	13,314.000
0080	204.0170	Removing Fence	LF	290.000	290.000
0090	204.0180	Removing Delineators and Markers	EACH	255.000	255.000
0100	204.0195	Removing Concrete Bases	EACH	4.000	4.000
0110	204.9060.S	Removing (item description) 01. Raised Pavement Markers	EACH	750.000	750.000
0120	204.9060.S	Removing (item description) 02. Lighting Control Cabinet	EACH	1.000	1.000
0130	204.9060.S	Removing (item description) 03. Electrical Meter Breaker	EACH	1.000	1.000
0140	204.9060.S	Removing (item description) 04. Light and Pole	EACH	3.000	3.000
0150	204.9060.S	Removing (item description) 05. Flexible Tubular Markers	EACH	70.000	70.000
0160	205.0100	Excavation Common	CY	12,407.000	12,407.000
0170	208.0100	Borrow	CY	10,758.000	10,758.000
0180	213.0100	Finishing Roadway (project) 01. 1010-02-84	EACH	1.000	1.000
0190	305.0110	Base Aggregate Dense 3/4-Inch	TON	10,039.000	10,039.000
0200	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	3,937.000	3,937.000
0210	305.0500	Shaping Shoulders	STA	384.000	384.000
0220	390.0203	Base Patching Asphaltic	SY	10,799.000	10,799.000
0230	416.0610	Drilled Tie Bars	EACH	372.000	372.000
0240	440.4410	Incentive IRI Ride	DOL	60,000.000	60,000.000
0250	455.0605	Tack Coat	GAL	44,361.000	44,361.000
0260	460.2000	Incentive Density HMA Pavement	DOL	82,720.000	82,720.000
0270	460.2010	Incentive Air Voids HMA Pavement	DOL	82,720.000	82,720.000
0280	460.4110.S	Reheating HMA Pavement Longitudinal Joints	LF	87,396.000	87,396.000
0290	465.0105	Asphaltic Surface	TON	498.000	498.000
0300	465.0315	Asphaltic Flumes	SY	27.000	27.000
0310	465.0400	Asphaltic Shoulder Rumble Strips	LF	116,572.000	116,572.000
0320	502.0100	Concrete Masonry Bridges	CY	117.000	117.000
0330	502.3100	Expansion Device (structure) 01. B-11-30	LS	1.000	1.000
0340	502.3100	Expansion Device (structure) 02. B-11-33	LS	1.000	1.000
0350	502.3200	Protective Surface Treatment	SY	2,984.000	2,984.000
0360	502.3210	Pigmented Surface Sealer	SY	8.000	8.000
0370	502.5005	Masonry Anchors Type L No. 5 Bars	EACH	72.000	72.000
0380	502.6110	Masonry Anchors Type S 3/4-Inch	EACH	126.000	126.000
0390	505.0600	Bar Steel Reinforcement HS Coated Structures	LB	19,020.000	19,020.000
0400	505.0905	Bar Couplers No. 5	EACH	12.000	12.000
0410	506.0605	Structural Steel HS	LB	475.000	475.000
0420	509.0301	Preparation Decks Type 1	SY	819.000	819.000
0430	509.0302	Preparation Decks Type 2	SY	615.000	615.000
0440	509.1000	Joint Repair	SY	54.000	54.000
0450	509.1200	Curb Repair	LF	425.000	425.000
0460	509.1500	Concrete Surface Repair	SF	840.000	840.000
0470	509.2000	Full-Depth Deck Repair	SY	6.000	6.000

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DATE 19SEP16 E S T I M A T E O F Q U A N T I T I E S

LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	1010-02-84 QUANTITY
0480	509.2500	Concrete Masonry Overlay Decks	CY	276.000	276.000
0490	509.9005.S	Removing Concrete Masonry Deck Overlay (structure) 02. B-11-33	SY	654.000	654.000
0500	509.9005.S	Removing Concrete Masonry Deck Overlay (structure) 03. B-11-35	SY	617.000	617.000
0510	509.9005.S	Removing Concrete Masonry Deck Overlay (structure) 04. B-11-37	SY	644.000	644.000
0520	509.9005.S	Removing Concrete Masonry Deck Overlay (structure) 05. B-11-39	SY	581.000	581.000
0530	509.9020.S	Epoxy Crack Sealing	LF	8.000	8.000
0540	517.1010.S	Concrete Staining (structure) 01. S-11-25	SF	545.000	545.000
0550	517.1800.S	Structure Repainting Recycled Abrasive (structure) 02. B-11-33	LS	1.000	1.000
0560	517.1800.S	Structure Repainting Recycled Abrasive (structure) 03. B-11-35	LS	1.000	1.000
0570	517.1800.S	Structure Repainting Recycled Abrasive (structure) 04. B-11-37	LS	1.000	1.000
0580	517.1800.S	Structure Repainting Recycled Abrasive (structure) 05. B-11-39	LS	1.000	1.000
0590	517.4500.S	Negative Pressure Containment and Collection of Waste Materials (structure) 02. B-11-33	LS	1.000	1.000
0600	517.4500.S	Negative Pressure Containment and Collection of Waste Materials (structure) 03. B-11-35	LS	1.000	1.000
0610	517.4500.S	Negative Pressure Containment and Collection of Waste Materials (structure) 04. B-11-37	LS	1.000	1.000
0620	517.4500.S	Negative Pressure Containment and Collection of Waste Materials (structure) 05. B-11-39	LS	1.000	1.000
0630	517.6001.S	Portable Decontamination Facility	EACH	4.000	4.000
0640	520.9700.S	Culvert Pipe Liners (size) 01. 16-Inch	LF	263.000	263.000
0650	520.9700.S	Culvert Pipe Liners (size) 02. 22-Inch	LF	254.000	254.000
0660	520.9700.S	Culvert Pipe Liners (size) 03. 28-Inch	LF	523.000	523.000
0670	520.9700.S	Culvert Pipe Liners (size) 04. 42-Inch	LF	259.000	259.000
0680	520.9750.S	Cleaning Culvert Pipes for Liner Verification	EACH	9.000	9.000
0690	521.1018	Apron Endwalls for Culvert Pipe Steel 18-Inch	EACH	1.000	1.000
0700	521.1024	Apron Endwalls for Culvert Pipe Steel 24-Inch	EACH	2.000	2.000
0710	521.1030	Apron Endwalls for Culvert Pipe Steel 30-Inch	EACH	2.000	2.000
0720	522.1018	Apron Endwalls for Culvert Pipe Reinforced Concrete 18-Inch	EACH	2.000	2.000
0730	528.0112	Culvert Pipe Corrugated Steel Polymer Coated 12-Inch	LF	50.000	50.000
0740	603.0105	Concrete Barrier Single-Faced 32-Inch	LF	50.000	50.000
0750	603.8000	Concrete Barrier Temporary Precast Delivered	LF	555.000	555.000
0760	603.8125	Concrete Barrier Temporary Precast Installed	LF	555.000	555.000
0770	604.9015.S	Reseal Crushed Aggregate Slope Paving	SY	290.000	290.000
0780	606.0200	Riprap Medium	CY	195.000	195.000
0790	608.0318	Storm Sewer Pipe Reinforced Concrete Class III 18-Inch	LF	40.000	40.000

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DATE 19SEP16 E S T I M A T E O F Q U A N T I T I E S

LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	1010-02-84 QUANTITY
0800	611.0430	Reconstructing Inlets	EACH	2.000	2.000
0810	611.8115	Adjusting Inlet Covers	EACH	12.000	12.000
0820	613.1100.S	Cable Barrier Type 1	LF	1,900.000	1,900.000
0830	613.1200.S	Cable Barrier End Terminal Type 1	EACH	2.000	2.000
0840	614.0150	Anchor Assemblies for Steel Plate Beam Guard	EACH	5.000	5.000
0850	614.0200	Steel Thrie Beam Structure Approach	LF	49.000	49.000
0860	614.0220	Steel Thrie Beam Bullnose Terminal	EACH	4.000	4.000
0870	614.0230	Steel Thrie Beam	LF	275.000	275.000
0880	614.0400	Adjusting Steel Plate Beam Guard	LF	1,060.000	1,060.000
0890	614.0905	Crash Cushions Temporary	EACH	2.000	2.000
0900	614.2300	MGS Guardrail 3	LF	24,123.000	24,123.000
0910	614.2330	MGS Guardrail 3 K	LF	212.500	212.500
0920	614.2500	MGS Thrie Beam Transition	LF	939.000	939.000
0930	614.2610	MGS Guardrail Terminal EAT	EACH	45.000	45.000
0940	614.2620	MGS Guardrail Terminal Type 2	EACH	29.000	29.000
0950	616.0100	Fence Woven Wire (height) 01. 4-FT	LF	230.000	230.000
0960	618.0100	Maintenance And Repair of Haul Roads (project) 01. ID 1010-02-84	EACH	1.000	1.000
0970	619.1000	Mobilization	EACH	1.000	1.000
0980	624.0100	Water	MGAL	279.000	279.000
0990	625.0105	Topsoil	CY	1,500.000	1,500.000
1000	625.0500	Salvaged Topsoil	SY	66,365.000	66,365.000
1010	627.0200	Mulching	SY	5,500.000	5,500.000
1020	628.1504	Silt Fence	LF	35,620.000	35,620.000
1030	628.1520	Silt Fence Maintenance	LF	35,620.000	35,620.000
1040	628.1905	Mobilizations Erosion Control	EACH	12.000	12.000
1050	628.1910	Mobilizations Emergency Erosion Control	EACH	8.000	8.000
1060	628.2002	Erosion Mat Class I Type A	SY	69,578.000	69,578.000
1070	628.7005	Inlet Protection Type A	EACH	22.000	22.000
1080	628.7504	Temporary Ditch Checks	LF	480.000	480.000
1090	628.7555	Culvert Pipe Checks	EACH	116.000	116.000
1100	628.7560	Tracking Pads	EACH	2.000	2.000
1110	628.7570	Rock Bags	EACH	1,180.000	1,180.000
1120	629.0210	Fertilizer Type B	CWT	48.100	48.100
1130	630.0120	Seeding Mixture No. 20	LB	50.000	50.000
1140	630.0130	Seeding Mixture No. 30	LB	1,257.000	1,257.000
1150	630.0200	Seeding Temporary	LB	120.000	120.000
1160	633.0100	Delineator Posts Steel	EACH	295.000	295.000
1170	633.0500	Delineator Reflectors	EACH	290.000	290.000
1180	633.1000	Delineator Brackets	EACH	25.000	25.000
1190	633.5200	Markers Culvert End	EACH	1.000	1.000
1200	634.0612	Posts Wood 4x6-Inch X 12-FT	EACH	74.000	74.000
1210	634.0616	Posts Wood 4x6-Inch X 16-FT	EACH	33.000	33.000
1220	634.0618	Posts Wood 4x6-Inch X 18-FT	EACH	44.000	44.000
1230	634.0620	Posts Wood 4x6-Inch X 20-FT	EACH	27.000	27.000
1240	634.0622	Posts Wood 4x6-Inch X 22-FT	EACH	20.000	20.000
1250	635.0200	Sign Supports Structural Steel HS	LB	2,361.000	2,361.000
1260	636.0100	Sign Supports Concrete Masonry	CY	36.000	36.000
1270	636.0500	Sign Supports Steel Reinforcement	LB	186.000	186.000
1280	636.1500	Sign Supports Steel Coated Reinforcement HS	LB	6,340.000	6,340.000
1290	637.1220	Signs Type I Reflective SH	SF	4,628.920	4,628.920
1300	637.1230	Signs Type I Reflective F	SF	49.000	49.000

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DATE 19SEP16 E S T I M A T E O F Q U A N T I T I E S

LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	1010-02-84 QUANTITY
1310	637.2210	Signs Type II Reflective H	SF	1,627.340	1,627.340
1320	637.2220	Signs Type II Reflective SH	SF	46.500	46.500
1330	637.2230	Signs Type II Reflective F	SF	417.000	417.000
1340	638.2102	Moving Signs Type II	EACH	10.000	10.000
1350	638.2601	Removing Signs Type I	EACH	20.000	20.000
1360	638.2602	Removing Signs Type II	EACH	147.000	147.000
1370	638.3000	Removing Small Sign Supports	EACH	175.000	175.000
1380	638.3100	Removing Structural Steel Sign Supports	EACH	18.000	18.000
1390	638.4000	Moving Small Sign Supports	EACH	9.000	9.000
1400	641.0600	Sign Bridge Single Pole Sign Support Two Signs (structure) 01. S-11-25	LS	1.000	1.000
1410	642.5401	Field Office Type D	EACH	1.000	1.000
1420	643.0200	Traffic Control Surveillance and Maintenance (project) 01. 1010-02-84	DAY	233.000	233.000
1430	643.0300	Traffic Control Drums	DAY	42,000.000	42,000.000
1440	643.0420	Traffic Control Barricades Type III	DAY	5,434.000	5,434.000
1450	643.0500	Traffic Control Flexible Tubular Marker Posts	EACH	75.000	75.000
1460	643.0600	Traffic Control Flexible Tubular Marker Bases	EACH	75.000	75.000
1470	643.0705	Traffic Control Warning Lights Type A	DAY	10,828.000	10,828.000
1480	643.0715	Traffic Control Warning Lights Type C	DAY	3,184.000	3,184.000
1490	643.0800	Traffic Control Arrow Boards	DAY	2,689.000	2,689.000
1500	643.0900	Traffic Control Signs	DAY	6,820.000	6,820.000
1510	643.0910	Traffic Control Covering Signs Type I	EACH	17.000	17.000
1520	643.0920	Traffic Control Covering Signs Type II	EACH	948.000	948.000
1530	643.1050	Traffic Control Signs PCMS	DAY	600.000	600.000
1540	643.2000	Traffic Control Detour (project) 01. 1010-02-84	EACH	1.000	1.000
1550	643.3000	Traffic Control Detour Signs	DAY	1,880.000	1,880.000
1560	645.0120	Geotextile Type HR	SY	719.000	719.000
1570	646.0103	Pavement Marking Paint 4-Inch	LF	5,094.000	5,094.000
1580	646.0106	Pavement Marking Epoxy 4-Inch	LF	154,237.000	154,237.000
1590	646.0600	Removing Pavement Markings	LF	950.000	950.000
1600	646.0841.S	Pavement Marking Grooved Wet Reflective Contrast Tape 4-Inch	LF	4,100.000	4,100.000
1610	646.0843.S	Pavement Marking Grooved Wet Reflective Contrast Tape 8-Inch	LF	390.000	390.000
1620	646.0881.S	Pavement Marking Grooved Wet Reflective Tape 4-Inch	LF	92,548.000	92,548.000
1630	646.0883.S	Pavement Marking Grooved Wet Reflective Tape 8-Inch	LF	7,157.000	7,157.000
1640	647.0196	Pavement Marking Arrows Epoxy Type 5	EACH	4.000	4.000
1650	647.0746	Pavement Marking Diagonal Epoxy 24-Inch	LF	1,430.000	1,430.000
1660	649.0400	Temporary Pavement Marking Removable Tape 4-Inch	LF	1,500.000	1,500.000
1670	649.0403	Temporary Pavement Marking Epoxy 4-Inch	LF	96,575.000	96,575.000
1680	649.1400	Temporary Pavement Marking Stop Line Removable Tape 24-Inch	LF	48.000	48.000
1690	650.4500	Construction Staking Subgrade	LF	4,395.000	4,395.000
1700	650.5000	Construction Staking Base	LF	4,395.000	4,395.000
1710	650.5500	Construction Staking Curb Gutter and Curb & Gutter	LF	1,589.000	1,589.000
1720	650.6000	Construction Staking Pipe Culverts	EACH	2.000	2.000

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DATE 19SEP16 E S T I M A T E O F Q U A N T I T I E S

LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	1010-02-84 QUANTITY
1730	650.6500	Construction Staking Structure Layout (structure) 01. S-11-25	LS	1.000	1.000
1740	650.8000	Construction Staking Resurfacing Reference	LF	57,411.000	57,411.000
1750	650.8500	Construction Staking Electrical Installations (project) 01. 1010-02-84	LS	1.000	1.000
1760	650.8500	Construction Staking Electrical Installations (project) 02. 1010-02-84 ITS	LS	1.000	1.000
1770	650.9910	Construction Staking Supplemental Control (project) 01. 1010-02-84	LS	1.000	1.000
1780	650.9920	Construction Staking Slope Stakes	LF	39,045.000	39,045.000
1790	652.0225	Conduit Rigid Nonmetallic Schedule 40 2-Inch	LF	4,180.000	4,180.000
1800	652.0235	Conduit Rigid Nonmetallic Schedule 40 3-Inch	LF	135.000	135.000
1810	652.0605	Conduit Special 2-Inch	LF	2,295.000	2,295.000
1820	652.0615	Conduit Special 3-Inch	LF	120.000	120.000
1830	652.0700.S	Install Conduit into Existing Item	EACH	4.000	4.000
1840	654.0105	Concrete Bases Type 5	EACH	9.000	9.000
1850	654.0106	Concrete Bases Type 6	EACH	3.000	3.000
1860	654.0230	Concrete Control Cabinet Bases Type L30	EACH	1.000	1.000
1870	655.0615	Electrical Wire Lighting 10 AWG	LF	8,733.000	8,733.000
1880	655.0635	Electrical Wire Lighting 2 AWG	LF	8,965.000	8,965.000
1890	656.0200	Electrical Service Meter Breaker Pedestal (location) 01. STH 78	LS	1.000	1.000
1900	656.0200	Electrical Service Meter Breaker Pedestal (location) 02. DMS-11-0057(NB)/DMS-11-0058(SB)	LS	1.000	1.000
1910	656.0500	Electrical Service Breaker Disconnect Box (location) 01. DMS-11-0056	LS	1.000	1.000
1920	656.0500	Electrical Service Breaker Disconnect Box (location) 02. DMS-11-0057(NB)/DMS-11-0058(SB)	LS	1.000	1.000
1930	657.0255	Transformer Bases Breakaway 11 1/2-Inch Bolt Circle	EACH	12.000	12.000
1940	657.0322	Poles Type 5-Aluminum	EACH	5.000	5.000
1950	657.0327	Poles Type 6-Aluminum	EACH	3.000	3.000
1960	657.0615	Luminaire Arms Single Member 4 1/2-Inch Clamp 8-FT	EACH	3.000	3.000
1970	659.1125	Luminaires Utility LED C	EACH	3.000	3.000
1980	659.2130	Lighting Control Cabinets 120/240 30-Inch	EACH	1.000	1.000
1990	661.0100	Temporary Traffic Signals for Bridges (structure) 01. B-11-30	LS	1.000	1.000
2000	662.1030.S	Ramp Closure Gates Hardwired 30-FT	EACH	2.000	2.000
2010	662.1037.S	Ramp Closure Gates Hardwired 37-FT	EACH	2.000	2.000
2020	670.0100	Field System Integrator	LS	1.000	1.000
2030	670.0200	ITS Documentation	LS	1.000	1.000
2040	673.0225.S	Install Pole Mounted Cabinet	EACH	2.000	2.000
2050	674.0200	Cable Microwave Detector	LF	5,936.000	5,936.000
2060	675.0300	Install Mounted Controller Microwave Detector Assembly	EACH	6.000	6.000
2070	675.0400.S	Install Ethernet Switch	EACH	1.000	1.000
2080	677.0200	Install Camera Assembly	EACH	1.000	1.000
2090	678.0100.S	Install Overhead Freeway DMS Full Matrix	EACH	2.000	2.000
2100	690.0150	Sawing Asphalt	LF	2,595.000	2,595.000

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DATE 19SEP16 E S T I M A T E O F Q U A N T I T I E S

LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	1010-02-84 QUANTITY
2110	690.0250	Sawing Concrete	LF	25,919.000	25,919.000
2120	ASP.1T0A	On-the-Job Training Apprentice at $5.00/HR	HRS	1,500.000	1,500.000
2130	ASP.1T0G	On-the-Job Training Graduate at $5.00/HR	HRS	1,050.000	1,050.000
2140	SPV.0035	Special 01. Pressure Grouting	CY	15.300	15.300
2150	SPV.0060	Special 01. Replace Conduit Plug	EACH	3.000	3.000
2160	SPV.0060	Special 02. Tension Post to Truss Connection Bolt	EACH	7.000	7.000
2170	SPV.0060	Special 03. Tension Anchor Rods	EACH	1.000	1.000
2180	SPV.0060	Special 04. Replace Sign Panel Connector	EACH	13.000	13.000
2190	SPV.0060	Special 05. Install / Replace U-Bolt	EACH	1.000	1.000
2200	SPV.0060	Special 06. Replace Sign Bridge ID Plaque	EACH	3.000	3.000
2210	SPV.0060	Special 07. Removing Raised Pavement Markers and Filling Voids	EACH	310.000	310.000
2220	SPV.0060	Special 08. Pull Box Non-Conductive 24x42-Inch	EACH	20.000	20.000
2230	SPV.0060	Special 09. Concrete Barrier Wall Surface Repair	EACH	100.000	100.000
2240	SPV.0060	Special 10. Pull Box Non-Conductive 24x36-Inch	EACH	11.000	11.000
2250	SPV.0060	Special 11. Cleaning And Painting Bearings	EACH	140.000	140.000
2260	SPV.0060	Special 12. Install Vibration Control Damper	EACH	1.000	1.000
2270	SPV.0060	Special 13. Bearing Repair	EACH	2.000	2.000
2280	SPV.0060	Special 14. Install IP Radio	EACH	4.000	4.000
2290	SPV.0060	Special 15. Install Roadway Dynamic Message Sign	EACH	1.000	1.000
2300	SPV.0060	Special 16. Salvage Camera Assembly	EACH	1.000	1.000
2310	SPV.0060	Special 17. HMA Percent Within Limits (PWL) Test Strip	EACH	2.000	2.000
2320	SPV.0090	Special 01. EMSEAL - Bridge Expansion Joint System	LF	446.000	446.000
2330	SPV.0090	Special 03. Removing HMA Pavement Longitudinal Joint Milling	LF	87,396.000	87,396.000
2340	SPV.0090	Special 04. Concrete Approach Curb and Gutter	LF	160.000	160.000
2350	SPV.0090	Special 05. Sawing Concrete Partial Sawcut	LF	1,992.000	1,992.000
2360	SPV.0090	Special 06. Cleaning Concrete Girder Ends	LF	196.000	196.000
2370	SPV.0090	Special 07. Concrete Curb & Gutter 30-Inch Type A Special	LF	1,450.000	1,450.000
2380	SPV.0090	Special 08. Clean and Fill Crack Treatment	LF	4,152.000	4,152.000
2390	SPV.0105	Special 01. Remove Catwalk	LS	1.000	1.000
2400	SPV.0180	Special 01. Cable Barrier Mow Strip, Asphalt	SY	650.000	650.000
2410	SPV.0180	Special 02. Continuously Reinforced Concrete Pavement SHES Repair	SY	1,430.000	1,430.000
2420	SPV.0180	Special 03. Deck Patching B-11-30	SY	9.000	9.000
2430	SPV.0195	Special 01. HMA Pavement 4 HT-28 S 3.0% Va Regression Special	TON	63,626.000	63,626.000

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CLEARING & GRUBBING

STATION	-	STATION	LOCATION	201.0105 CLEARING (STA)	201.0205 GRUBBING (STA)
56+00BP	-	57+00BP	RT	1	1
58+00BP	-	59+00BP	RT	1	1
62+00BP	-	63+00BP	RT	1	1
90+00BP	-	91+00BP	RT	1	1
15+00U	-	16+00U	LT	1	1
15+00U	-	16+00U	RT	1	1
18+00U	-	19+00U	LT	1	1
45+00V	-	49+00V	RT	4	4
47+00V	-	49+00V	LT	2	2
50+00V	-	57+00V	LT	7	7
50+00K	-	51+00K	RT	1	1
			TOTAL	21	21

REMOVING FENCE

STATION	-	STATION	LOCATION	204.0170 REMOVING FENCE (LF)
47+86P	-	48+26P	LT	50
47+50V	-	48+46V	RT	120
48+27K	-	48+58K	RT	60
50+76K	-	51+26K	RT	60
			TOTAL	290

REMOVING DELINEATORS AND MARKERS

STATION	-	STATION	204.0180 REMOVING DELINEATORS AND MARKERS (EACH)
830+00 SB	-	1131+48 SB	100
830+00 NB	-	1131+80 NB	100
RAMPS A, B, C, D			35
UNDISTRIBUTED			20
		TOTAL	255

REMOVING SMALL CULVERT PIPE

STATION	LOCATION	203.0100 REMOVING SMALL PIPE CULVERTS (EACH)	528.0112 CULVERT PIPE CORRUGATED STEEL POLYMER COATED 12-INCH (LF)	THICKNESS STEEL	THICKNESS ALUMINUM	REMARKS
35+75 C	RT	1	25	0.064	0.060	MATCH EXISTING INVERTS
37+20C	RT	1	25	0.064	0.060	MATCH EXISTING INVERTS
	TOTAL	2	50			

* ADDITIONAL QUANTITY SHOWN ELSEWHERE

ALL ITEMS CATEGORY 0010 UNLESS OTHERWISE NOTED

REMOVING GUARDRAIL

STATION	-	STATION	LOCATION	204.0165 REMOVING GUARDRAIL (LF)
860+00NB	-	863+10NB	LT	310
856+50SB	-	860+00SB	RT	310
871+00SB	-	873+79SB	RT	310
872+70NB	-	873+95NB	RT	250
875+00SB	-	880+00SB	RT	440
875+00SB	-	876+70SB	LT	250
875+51NB	-	879+50NB	LT	360
856+30NB	-	888+00NB	RT	370
883+00SB	-	886+42SB	RT	310
888+15NB	-	891+50NB	LT	360
958+00NB	-	968+75NB	LT	1,075
977+00NB	-	979+00NB	RT	330
985+00NB	-	988+10NB	RT	620
1013+80NB	-	1016+80NB	LT	300
1013+80NB	-	1016+80NB	RT	300
1026+30NB	-	1029+10NB	LT	280
1026+30NB	-	1029+10NB	RT	280
1059+00NB	-	1063+40NB	LT	450
1059+00NB	-	1063+40NB	RT	450
1126+30NB	-	1128+30NB	LT	100
1124+50SB	-	1125+60SB	RT	125
1128+30SB	-	1131+00SB	RT	270
336+28S	-	344+73S	RT	645
336+38S	-	341+33S	LT	495
42+77P	-	48+19P	LT	542
43+98P	-	48+35P	RT	437
50+82P	-	53+62P	LT	278
50+97P	-	52+82P	RT	184
15+52U	-	16+20U	RT	68
15+45U	-	16+13U	LT	68
18+32U	-	18+82U	RT	50
18+36U	-	18+77U	LT	40
45+49V	-	48+45V	RT	296
45+54V	-	48+51V	LT	297
50+78V	-	56+46V	RT	568
50+87V	-	56+50V	LT	564
44+54K		48+44K	LT	390
45+48K		48+50K	RT	302
50+82K	-	51+57K	LT	75
50+88K	-	52+52K	RT	165
			TOTAL	13,314

REMOVING BUTT JOINTS

STATION	-	STATION	LOCATION	204.0105 REMOVING PAVEMENT BUTT JOINTS (SY)	204.0115 REMOVING ASPHALTIC SURFACE BUTT JOINTS (SY)
830+00 NB	-	831+50 NB	LT	667	-
862+50 NB	-	864+00 NB	LT	500	-
885+00 NB	-	886+50 NB	LT	500	-
964+41 SB	-	965+91 SB	RT	500	-
1009+32 NB	-	1010+82 NB	RT	500	-
1128+76 NB	-	1130+26 NB	LT	933	-
830+00 SB	-	831+50 SB	RT	667	-
862+50 SB	-	864+00 SB	RT	667	-
885+00 SB	-	886+50 SB	RT	667	-
969+28 NB	-	970+78 NB	LT	333	-
970+73 SB	-	972+23 NB	LT	550	-
1010+64 SB	-	1012+14 SB	LT	583	-
1076+00SB	-	1081+20SB	LT	695	-
1076+00SB	-	1081+20SB	LT	695	-
1128+44 SB	-	1129+94 SB	RT	933	-
47+50P	-	48+34P	MAINLINE	-	195
53+83P	-	51+50P	MAINLINE	-	153
15+50U	-	16+20U	MAINLINE	-	162
18+29U	-	19+00U	MAINLINE	-	166
47+75V	-	48+53V	MAINLINE	-	179
50+74V	-	51+50V	MAINLINE	-	179
47+75K	-	48+58K	MAINLINE	-	196
50+73K	-	51+50K	MAINLINE	-	179
			TOTAL	9,390	1,409

REMOVING RAISED PAVEMENT MARKERS

STATION	-	STATION	204.9060.S.01 REMOVING RAISED PAVEMENT MARKERS (EACH)	SPV.0060.07 REMOVING RAISED PAVEMENT MARKERS AND FILLING VOIDS (EACH)
830+00 SB	-	864+50 SB	50	-
864+50 SB	-	975+00 SB	-	175
975+00 SB	-	1131+48 SB	350	-
830+00 NB	-	864+50 NB	50	-
864+50 NB	-	975+00 NB	-	135
975+00 NB	-	1131+48 NB	300	-
		TOTAL	750	310

3

REMOVING ELECTRICAL ITEMS

STATION	LOCATION	204.0195 REMOVING CONCRETE BASES (EACH)	204.9060.S.02 REMOVING LIGHTING CONTROL CABINET (EACH)	204.9060.S.03 REMOVING ELECTRICAL METER BREAKER (EACH)	204.9060.S.04 REMOVING LIGHT AND POLE (EACH)
990+00 I	95' LT	1	1	1	-
42+35 M	52' LT	1	-	-	1
41+45 M	37' LT	1	-	-	1
41+15 M	74' RT	1	-	-	1
	TOTAL	4	1	1	3

CONCRETE BARRIER

STATION	-	STATION	LOCATION	603.0105 CONCRETE BARRIER SINGLE-FACED 32-INCH (LF)	204.0157 REMOVING CONCRETE BARRIER (LF)
988+60SB	-	988+75SB	RT	15	15
UNDISTRIBUTED				35	35
			TOTAL	50	50

EARTHWORK SUMMARY

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)
IH 39/90/94 SOUTHBOUND	4,362	0	4,362	8,010	-3,648	-	3,648	1,000
IH 39/90/94 NORTHBOUND	6,039	0	6,039	8,020	-1,981	-	1,981	500
STH 33	465	0	465	1,866	-1,401	-	1,401	-
CASCADE MOUNTAIN ROAD	430	0	430	389	40	40	-	-
CTH U	160	0	160	408	-248	-	248	-
CTH V	664	0	664	3,318	-2,654	-	2,654	-
KENT ROAD	287	0	287	2,614	-2,327	-	2,327	-
BORROW REDUCTION FOR TOPSOIL							-1,500	-
TOTAL	12,407		12,407	24,624	-12,218	40	10,758	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.
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 sliver fills. See special provisions.

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)
STAGE 1	825+00 SB	-	925+00 SB	LT	1,160	-	23
STAGE 1	825+00 NB	-	925+00 NB	RT	726	-	15
STAGE 1	BASE PATCHING ASPHALTIC (PATCHES)				125	455	11
STAGE 5	830+00 SB	-	1131+48 SB		3,374	-	67
STAGE 5	830+50 NB	-	1131+80 NB		3,306	-	66
STAGE 5	UNDISTRIBUTED				250	-	5
	336+28S	-	345+18S	RT	110	430	11
	336+38S	-	341+61S	LT	56	216	5
	43+87P	-	48+32P	RT	48	144	4
	42+64P	-	48+16P	LT	56	166	4
	51+00P	-	53+61P	RT	26	80	2
	50+86P	-	53+67P	LT	30	80	2
	14+15U	-	16+11U	RT	50	124	3
	13+75U	-	16+05U	LT	50	138	4
	18+40U	-	19+17U	RT	12	48	1
	18+40U	-	22+20U	LT	88	256	7
	44+70V	-	48+43V	RT	74	230	6
	45+13V	-	48+48V	LT	60	204	5
	50+78V	-	57+00V	RT	110	362	9
	50+84V	-	58+84V	LT	182	520	14
	43+70K	-	48+58K	RT	56	160	4
	44+00K	-	48+50K	LT	36	124	3
	50+77K	-	54+45K	LT	32	124	3
	50+84K	-	53+17K	RT	22	76	2
				TOTAL	10,039	3,937	279

SHAPING SHOULDERS

STATION	-	STATION	LOCATION	305.0500 *SHAPING SHOULDERS (STA)
825+00 SB	-	985+00 SB	MEDIAN	160
825+00 NB	-	925+00 NB	MEDIAN	100
			TOTAL	260

* ADDITIONAL QUANTITY SHOWN ELSEWHERE

ALL ITEMS CATEGORY 0010 UNLESS OTHERWISE NOTED

PAVEMENT REPAIR

STATION	-	STATION	LOCATION	305.0500 *SHAPING SHOULDERS (STA)	390.0203 BASE PATCHING ASPHALTIC (SY)	416.0610 DRILLED TIE BARS (EACH)	690.0150 SAWING ASPHALT (LF)	690.0250 SAWING CONCRETE (LF)	SPV.0090.05 SAWING CONCRETE PARTIAL SAWCUT (LF)	SPV.0180.02 CONTINUOUSLY REINFORCED CONCRETE PAVEMENT SHES REPAIR (SY)
927+00 SB				-	-	5	-	60	24	16
974+66 SB				-	-	7	-	80	24	21
998+80 SB				-	-	5	-	60	24	16
1000+60 SB				-	-	3	-	36	24	8
1012+75 SB				-	-	4	-	44	24	13
1027+60 SB				-	-	10	-	108	24	32
1056+74 SB				-	-	7	-	80	24	21
1062+00 SB				-	-	3	-	36	24	8
1074+04 SB				-	-	3	-	36	24	8
1077+28 SB				-	-	4	-	44	24	13
1078+10 SB				-	-	3	-	36	24	8
1123+64 SB				-	-	3	-	36	24	8
1242+60 SB				-	-	4	-	78	48	27
1247+15 SB				-	-	10	-	252	72	96
1295+70 SB				-	-	4	-	78	48	27
1327+65 SB				-	-	5	-	108	48	32
848+81 NB				-	-	4	14	34	24	13
852+15 NB				-	-	4	14	34	24	13
858+80 NB				-	-	10	28	72	24	32
887+85 NB				-	-	7	20	52	24	21
900+00 NB				-	-	7	-	66	24	20
900+90 NB				-	-	10	-	98	24	33
932+50 NB				-	-	7	-	106	48	37
975+05 NB				-	-	4	-	44	24	13
985+40 NB				-	-	5	-	60	24	16
986+05 NB				-	-	7	-	72	24	24
988+15 NB				-	-	5	-	90	48	24
996+60 NB				-	-	19	-	196	24	67
998+15 NB				-	-	27	-	272	24	93
1000+50 NB				-	-	10	-	60	24	16
1020+25 NB				-	-	3	-	36	24	8
1036+91 NB				-	-	3	-	32	24	11
1037+02 NB				-	-	3	-	36	24	8
1043+00 NB				-	-	3	-	32	24	11
1060+22 NB				-	-	5	-	60	24	16
1110+00 NB				-	-	7	-	66	24	20
1121+60 NB				-	-	11	-	120	24	40
1122+10 NB				-	-	32	-	152	24	53
1122+75 NB				-	-	32	-	152	24	53
1123+40 NB				-	-	5	-	108	48	32
1125+80 NB				-	-	9	-	96	48	28
1128+50 NB				-	-	5	-	60	24	16
1128+75 NB				-	-	5	-	60	24	16
1185+00 NB				-	-	5	-	108	48	32
1192+39 NB				-	-	7	-	80	24	21
1239+40 NB				-	-	7	-	102	48	40
1290+12 NB				-	-	10	-	98	24	33
1314+98 NB				-	-	3	-	36	24	8
1316+84 NB				-	-	3	-	36	24	8
1318+46 NB				-	-	3	-	36	24	8
1324+60 NB				-	-	5	-	108	48	32
895+23 SB	-	895+56 SB	RT	1	37	-	-	83	-	-
945+27 SB	-	948+24 SB	RT	4	330	-	-	737	-	-
952+78 SB	-	954+17 SB	RT	3	154	-	-	349	-	-
955+70 SB	-	960+87 SB	RT	6	574	-	-	1,267	-	-
969+98 SB	-	971+10 SB	RT	-	124	-	-	394	-	-
976+10 SB	-	976+25 SB	RT	-	17	-	-	60	-	-
983+84 SB	-	984+27 SB	LT	-	29	-	-	113	-	-
987+63 SB	-	988+35 SB	LT	-	80	-	-	182	-	-
1190+40 SB	-	1190+60 SB	RT	1	22	-	-	60	-	-
1205+20 SB	-	1205+40 SB	RT	1	22	-	-	60	-	-

* ADDITIONAL QUANTITY SHOWN ELSEWHERE

ALL ITEMS CATEGORY 0010 UNLESS OTHERWISE NOTED

PAVEMENT REPAIR

STATION	-	STATION	LOCATION	305.0500 *SHAPING SHOULDERS (STA)	390.0203 BASE PATCHING ASPHALTIC (SY)	416.0610 DRILLED TIE BARS (EACH)	690.0150 SAWING ASPHALT (LF)	690.0250 SAWING CONCRETE (LF)	SPV.0090.05 SAWING CONCRETE PARTIAL SAWCUT (LF)	SPV.0180.02 CONTINUOUSLY REINFORCED CONCRETE PAVEMENT SHES REPAIR (SY)
1245+50 SB	-	1248+00 SB	RT	3	278	-	-	620	-	-
1332+57 SB	-	1344+73 SB	RT	13	1,351	-	-	2,966	-	-
849+60 NB	-	849+90 NB	LT	1	33	-	20		-	-
852+10 NB	-	852+20 NB	LT	1	11	-	20		-	-
893+03 NB	-	902+44 NB	LT	10	1,045	-	-	2,301	-	-
925+58 NB	-	927+83 NB	LT	3	250	-	-	565	-	-
931+30 NB	-	932+08 NB	LT	2	87	-	-	198	-	-
934+03 NB	-	935+93 NB	LT	2	211	-	-	480	-	-
969+56 NB	-	969+86 NB	LT	1	33	-	20		-	-
970+21 NB	-	971+21 NB	LT	-	67	-	10		-	-
972+84 NB	-	979+92 NB	LT	8	787	-	-	1,728	-	-
984+80 NB	-	986+20 NB	LT	-	156	-	-	490	-	-
987+53 NB	-	989+08 NB	RT	3	172	-	-	385	-	-
987+90 NB	-	988+05 NB	LT	-	17	-	-	70	-	-
995+30 NB	-	995+80 NB	LT	-	56	-	-	180	-	-
998+00 NB	-	998+30 NB	RT	1	33	-	-	80	-	-
998+10 NB	-	998+30 NB	LT	-	22	-	-	80	-	-
1003+10 NB	-	1003+60 NB	LT	-	56	-	-	180	-	-
1018+70 NB	-	1018+85 NB	RT	1	17	-	-	45	-	-
1032+10 NB	-	1039+37 NB	LT	8	808	-	10	1,117	-	-
1046+10 NB	-	1050+40 NB	LT	5	478	-	-	1,060	-	-
1053+35 NB	-	1055+78 NB	LT	3	270	-	-	603	-	-
1200+40 NB	-	1200+60 NB	LT	1	22	-	-	60	-	-
1228+80 NB	-	1229+30 NB	LT	2	56	-	-	140	-	-
1231+70 NB	-	1232+50 NB	LT	2	89	-	-	210	-	-
1253+70 NB	-	1254+30 NB	LT	2	67	-	-	160	-	-
1258+00 NB	-	1259+40 NB	LT	2	156	-	-	350	-	-
1259+80 NB	-	1260+90 NB	LT	2	122	-	-	280	-	-
1270+50 NB	-	1270+95 NB	LT	1	50	-	-	125	-	-
1279+10 NB	-	1279+90 NB	LT	1	89	-	-	210	-	-
1289+20 NB	-	1289+40 NB	LT	1	22	-	-	60	-	-
1298+60 NB	-	1298+90 NB	LT	1	33	-	-	90	-	-
1332+85 NB	-	1334+25 NB	LT	3	156	-	-	350	-	-
1334+70 NB	-	1335+40 NB	LT	2	78	-	-	180	-	-
1337+22 NB	-	1347+13	LT	11	1,101	-	10	110	-	-
961+41G	-	961+73G	RT	-	53	-	-	107	-	-
961+95G	-	962+42G	RT	-	78	-	-	152	-	-
43+38P	-	47+90P	LT	-	-	-	447	-	-	-
43+96P	-	47+00P	RT	-	-	-	308	-	-	-
---		47+50P		-	-	-	20	-	-	-
50+86P	-	52+28P	LT	-	-	-	146	-	-	-
51+01P	-	52+95P	RT	-	-	-	196	-	-	-
---		51+50P		-	-	-	20	-	-	-
---		15+50U		-	-	-	21	-	-	-
15+83U	-	16+11U	RT	-	-	-	31	-	-	-
---		19+00U		-	-	-	21	-	-	-
18+40U	-	18+50U	LT	-	-	-	10	-	-	-
18+40U	-	19+17U	RT	-	-	-	85	-	-	-
46+66V	-	48+45V	RT	-	-	-	179	-	-	-
---		47+75V		-	-	-	21	-	-	-
46+98V	-	48+51V	LT	-	-	-	153	-	-	-
50+84V	-	51+50V	LT	-	-	-	69	-	-	-
50+78V	-	56+99V	RT	-	-	-	621	-	-	-
---	-	51+50V		-	-	-	21	-	-	-
---		47+75K		-	-	-	22	-	-	-
48+38K	-	48+53K	RT	-	-	-	16	-	-	-
---		51+50K		-	-	-	22	-	-	-
UNDISTRIBUTED				12	1,000	-	-	2,840	480	160
TOTAL				124	10,799	372	2,595	25,919	1,992	1,430

* ADDITIONAL QUANTITY SHOWN ELSEWHERE

ALL ITEMS CATEGORY 0010 UNLESS OTHERWISE NOTED

ASPHALTIC PAVEMENT

STATION	-	STATION	LOCATION	455.0605 TACK COAT (GAL)	SPV.0195.01 HMA PAVEMENT 4 HT 58-28 S 3.0% VA REGRESSION SPECIAL (TON)	465.0105 ASPHALTIC SURFACE (TON)	465.0315 ASPHALTIC FLUMES (SY)
830+00 SB	-	1129+94 SB		20,845	29,966	-	-
830+00 NB	-	1130+26 NB		22,889	32,905	-	-
861+50 A	-	865+25 A		53	86	-	-
62+80 B	-	70+38 B		106	175	-	-
33+50 C	-	41+00 C		105	172	-	-
10+00 D	-	24+00 D		196	322	-	-
336+28S	-	345+18S	RT	22.5	-	87	-
336+38S	-	341+61S	LT	9.8	-	38	-
43+93P	-	48+32P	RT	4.7	-	18	-
44+77P	-	48+16P	LT	3.9	-	15	-
47+50P	-	48+32P		9.8	-	16	-
48+19P			RT	-	-	-	3
48+03P			LT	-	-	-	3
51+00P	-	52+95P	RT	2.5	-	10	-
50+85P	-	52+28P	LT	2.1	-	7	-
50+83P	-	51+50P		7.6	-	13	-
14+15U	-	16+11U	RT	4	-	17	-
15+50U	-	16+19U		8	-	14	-
13+75U	-	16+05U	LT	3	-	12	-
18+40U	-	19+17U	RT	2	-	6	-
18+50U	-	22+20U	LT	5	-	20	-
18+50U	-	19+00U		8	-	14	-
18+50U	-		LT	-	-	-	3
44+70V	-	48+43V	RT	3.8	-	15	-
47+75V	-	48+53V		8.9	-	15	-
48+29V	-		RT	-	-	-	3
45+13V	-	48+48V	LT	3.8	-	21	-
48+35V	-		LT	-	-	-	3
50+78V	-	56+99V	RT	6.3	-	24	-
50+74V	-	51+50V		9.0	-	15	-
50+84V	-	58+84V	LT	6.5	-	25	-
43+74K	-	48+58K	RT	5	-	18	-
44+00K		48+50K	LT	6	-	22	-
47+75K	-	48+58K		10	-	16	-
48+37K			LT	-	-	-	3
48+53K			RT	-	-	-	3
50+73K	-	51+50K		9	-	15	-
50+77K	-	54+45K	LT	3	-	14	-
50+84K	-	53+17K	RT	3	-	11	-
50+94K	-		RT	-	-	-	3
58+87K	-		LT	-	-	-	3
			TOTAL	44,361	63,626	498	27

ASPHALTIC SHOULDER RUMBLE STRIPS

STATION	-	STATION	LOCATION	465.0400 ASPHALTIC SHOULDER RUMBLE STRIPS (LF)
830+00 SB	-	1131+48 SB	RT	30,148
830+00 SB	-	862+00 SB	RT	3,200
863+00 SB	-	868+70 SB	RT	570
871+40 SB	-	962+00 SB	RT	9,060
966+00 SB	-	1009+50 SB	RT	4,350
1023+60 SB	-	1131+48 SB	RT	10,788
830+00 NB	-	1131+48 NB	RT	30,148
830+00 NB	-	843+80 NB	LT	1,380
847+25 NB	-	854+75 NB	LT	750
860+00 NB	-	870+85 NB	LT	1,385
875+65 NB	-	966+75 NB	LT	9,110
972+70 NB	-	999+30 NB	LT	2,660
1001+25 NB	-	1131+48 NB	LT	13,023
		TOTAL		116,572

REMOVING HMA LONGITUDINAL JOINTS

STATION	-	STATION	460.4110.S REHEATING HMA PAVEMENT LONGITUDINAL JOINTS (LF)	SPV.0090.03 REMOVING HMA PAVEMENT LONGITUDINAL JOINT MILLING (LF)
830+00 SB	-	1129+94 SB	35,456	35,456
830+00 NB	-	1130+26 NB	51,940	51,940
		TOTAL	87,396	87,396

HOT MIX ASPHALT

LOCATION	SPV.0060.17 HMA PERCENT WITHIN LIMITS (PWL) TEST STRIP (EACH)	REMARKS
PROJECT	1	1 TEST STRIP UPPER LAYER
PROJECT	1	1 TEST STRIP LOWER LAYER
TOTAL	2	

* ADDITIONAL QUANTITY SHOWN ELSEWHERE

ALL ITEMS CATEGORY 0010 UNLESS OTHERWISE NOTED

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DRAINAGE ITEMS

PIPE NO.	LOCATION	INLET ELEVATION	DISCHARGE ELEVATION	520.9700.S.01 CULVERT PIPE LINERS 16-INCH (LF)	520.9702.S.02 CULVERT PIPE LINERS 22-INCH (LF)	520.9703.S.03 CULVERT PIPE LINERS 28-INCH (LF)	520.9706.S.04 CULVERT PIPE LINERS 42-INCH (LF)	520.9750.S CLEANING CULVERT PIPES FOR LINER VERIFICATION (EACH)	521.1018 APRON ENDWALLS FOR CULVERT PIPE STEEL 18-INCH (EACH)	521.1024 APRON ENDWALLS FOR CULVERT PIPE STEEL 24-INCH (EACH)	521.1030 APRON ENDWALLS FOR CULVERT PIPE STEEL 30-INCH (EACH)	522.1018 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 18-INCH (EACH)	608.0318 STORM SEWER PIPE REINFORCED CONCRETE CLASS III 18-INCH (LF)	611.0430 RECONSTRUCTING INLETS (EACH)	SPV.0035.01 PRESSURE GROUTING (CY)
C1	1034+78NB	848.51	848.29	-	129	-	-	1	-	-	-	-	-	-	-
C2	1033+96SB	848.82	848.44	-	125	-	-	1	-	-	-	-	-	-	-
C3	1038+47NB	848.57	848.29	-	-	130	-	1	-	-	-	-	-	-	-
C4	1038+02SB	848.50	848.35	-	-	148	-	1	-	-	-	-	-	-	-
C5	1062+14SB	842.28	839.82	134	-	-	-	1	-	-	-	-	-	-	-
C6	1065+02NB	835.85	833.10	-	-	-	259	1	-	-	-	-	-	-	-
C7	1070+18NB	835.01	834.06	-	-	-	-	-	-	1	-	-	-	-	5.6
C8	1069+39SB	834.09	832.94	-	-	-	-	-	-	1	-	-	-	-	6.6
C9	1073+32SB	835.06	833.16	129	-	-	-	1	1	-	-	-	-	-	-
C10	1083+93NB	844.85	842.38	-	-	-	-	-	-	-	-	-	-	-	3.1
C11	1105+60SB	833.15	831.01	-	-	122	-	1	-	-	1	-	-	-	-
C12	1106+36NB	835.18	833.16	-	-	123	-	1	-	-	1	-	-	-	-
C34	35+73.8'C'	794.00	793.50	-	-	-	-	-	-	-	-	1	20	1	-
C35	37+20.0'C'	794.50	794.00	-	-	-	-	-	-	-	-	1	20	1	-
			TOTAL	263	254	523	259	9	1	2	2	2	40	2	15.3

TEMPORARY PRECAST BARRIER

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
858+75SB	-	861+30SB	RT	255	255	1	2	OM-3L	TL-3	UNIDIRECT	RIGHT	TEMP BARRIER
858+00NB	-	861+00NB	LT	300	300	1	2	OM-3R	TL-3	UNIDIRECT	LEFT	TEMP BARRIER
			TOTAL	555	555	2						

* ADDITIONAL QUANTITY SHOWN ELSEWHERE

ALL ITEMS CATEGORY 0010 UNLESS OTHERWISE NOTED

RIPRAP SUMMARY

STATION	LOCATION	606.0200 RIPRAP MEDIUM (CY)	645.0120 GEOTEXTILE FABRIC TYPE HR (SY)
839+00 SB	RT	8	30
960+70 SB	RT	6	19
967+00 SB	RT	2	10
985+00 SB	RT	2	10
989+10 SB	RT	2	10
1004+00 SB	RT	2	10
1020+50 SB	RT	16	43
1062+20 SB	RT	2	10
1064+40 SB	RT	4	15
1069+40 SB	RT	2	10
1073+00 SB	RT	2	10
1105+60 SB	RT	3	12
1127+00 SB	RT	2	10
1131+20 SB	RT	2	10
838+60 NB	LT	8	30
868+10 NB	LT	3	12
885+00 NB	LT	2	10
889+90 NB	LT	4	15
902+70 NB	LT	4	15
907+00 NB	LT	4	15
917+75 NB	LT	2	10
920+60 NB	LT	4	15
926+50 NB	LT	2	10
933+60 NB	LT	4	15
933+60 NB	RT	4	15
936+00 NB	LT	4	15
936+00 NB	RT	4	15
947+00 NB	LT	4	15
947+30 NB	RT	4	15
959+80 NB	LT	2	10
975+10 NB	LT	11	32
984+00 NB	LT	18	49
987+30 NB	LT	2	10
991+20 NB	LT	2	10
1020+40 NB	RT	16	43
1034+75 NB	LT	2	10
1034+75 NB	RT	2	10
1038+20 NB	LT	3	12
1038+70 NB	RT	3	12
1083+90 NB	RT	2	10
1124+30 NB	LT	2	10
1127+40 NB	LT	2	10
UNDISTRIBUTED		16	60
TOTAL		195	719

ADJUSTING INLET COVERS

STATION		STATION	LOCATION	611.8115 ADJUSTING INLET COVERS (EACH)
965+90SB	-	993+00SB	RT	6
981+00NB	-	1009+30NB	LT	6
			TOTAL	12

GUARDRAIL IH 39 SB

CATEGORY	STATION		STATION	LOCATION	613.1100.S CABLE BARRIER TYPE 1 (LF)	613.1200.S CABLE BARRIER END TERMINAL TYPE 1 (LF)	SPV.0180.01 CABLE BARRIER MOW STRIP, ASPHALT (SY)	614.0200 STEEL THRIE BEAM STRUCTURE APPROACH (LF)	614.0220 STEEL THRIE BEAM BULLNOSE TERMINAL (EACH)	614.0230 STEEL THRIE BEAM (LF)	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	836+12	-	839+15	LT	-	-	-	-	-	-	-	250	-	-	1	1
0010	836+12	-	839+15	RT	-	-	-	-	-	-	-	200	50	-	1	1
0010	854+04	-	859+69	RT	-	-	-	-	-	-	-	475	-	39	1	-
0010	870+63	-	873+79	RT	-	-	-	-	-	-	-	225	-	39	1	-
0010	873+01	-	876+45	LT	-	-	-	40	2	150	-	-	-	-	-	-
0010	875+25	-	886+42	RT	-	-	-	-	-	-	-	1,015	25	79	-	-
0010	886+42	-	888+13	LT	-	-	-	-	2	125	-	-	-	-	-	-
0010	886+99	-	894+13	RT	-	-	-	9	-	-	-	675	-	39	-	1
0010	900+00	-	905+00	RT	-	-	-	-	-	-	-	450	-	-	1	1
0010	929+63	-	937+13	RT	-	-	-	-	-	-	-	700	-	-	1	1
0080	952+00	-	974+60	LT	-	-	-	-	-	-	-	2,263	-	-	1	1
0080	975+00	-	994+00	LT	1,900	2	650	-	-	-	-	-	-	-	-	-
0010	1016+94	-	1019+69	LT	-	-	-	-	-	-	-	225	-	-	1	1
0010	1059+00	-	1067+00	RT	-	-	-	-	-	-	-	750	-	-	1	1
0010	1082+00	-	1091+00	RT	-	-	-	-	-	-	-	850	-	-	1	1
0010	1090+00	-	1098+00	LT	-	-	-	-	-	-	-	650	-	-	1	1
0010	1100+00	-	1107+00	RT	-	-	-	-	-	-	-	650	-	-	1	1
0010	1121+00	-	1126+30	LT	-	-	-	-	-	-	530	-	-	-	-	-
0010	1123+81	-	1126+21	RT	-	-	-	-	-	-	-	150	-	39	1	-
0010	1126+52	-	1131+48	RT	-	-	-	-	-	-	-	418	-	78	-	-
				CATEGORY 0010 SUBTOTAL	0	0	0	49	4	275	530	7,683	75	313	12	10
				CATEGORY 0080 SUBTOTAL	1,900	2	650	0	0	0	0	2,263	0	0	1	1
				TOTAL	1,900	2	650	49	4	275	530	9,946	75	313	13	11

GUARDRAIL IH 39 NB

CATEGORY	STATION		STATION	LOCATION	614.0400 ADJUSTING* STEEL PLATE BEAM GUARD (LF)	614.2300 *MGS GUARDRAIL 3 (LF)	614.2500 *MGS THRIE BEAM TRANSITION (LF)	614.2610 *MGS GUARDRAIL TERMINAL EAT (EACH)	614.2620 *MGS GUARDRAIL TERMINAL TYPE 2 (EACH)
0010	834+00	-	848+00	LT	-	1,313	-	1	1
0010	838+50	-	841+50	RT	-	250	-	1	1
0010	860+17	-	862+32	LT	-	125	39	1	-
0010	875+51	-	878+65	LT	-	225	39	1	-
0010	888+15	-	891+05	LT	-	200	39	1	-
0010	906+73	-	909+73	LT	-	250	-	1	1
0010	917+00	-	923+75	LT	-	625	-	1	1
0010	933+31	-	939+06	LT	-	525	-	1	1
0010	958+00	-	968+50	LT	-	1,000	-	1	1
0080	959+48	-	974+88	RT	-	1,538	-	1	1
0080	977+50	-	990+25	RT	-	1,225	-	1	1
0010	1013+83	-	1015+83	RT	-	150	-	1	1
0010	1013+83	-	1015+83	LT	-	150	-	1	1
0010	1020+25	-	1023+25	RT	-	250	-	1	1
0010	1026+13	-	1028+28	LT	-	150	-	1	1
0010	1026+13	-	1028+28	RT	-	150	-	1	1
0010	1058+87	-	1062+00	LT	-	263	-	1	1
0010	1058+87	-	1062+00	RT	-	263	-	1	1
0010	1083+00	-	1092+00	LT	-	850	-	1	1
0010	1085+00	-	1102+00	RT	-	1,650	-	1	1
0010	1121+30	-	1126+60	RT	530	-	-	-	-
0010	1126+93	-	1129+33	LT	-	150	39	1	-
				CATEGORY 0010 SUBTOTAL	530	8,539	158	19	15
				CATEGORY 0080 SUBTOTAL	0	2,763	0	2	2
				TOTAL	530	11,302	158	21	17

* ADDITIONAL QUANTITY SHOWN ELSEWHERE

ALL ITEMS CATEGORY 0010 UNLESS OTHERWISE NOTED

GUARDRAIL BRIDGE APPROACHES

STATION	-	STATION	LOCATION	614.2300 *MGS GUARDRAIL 3 (LF)	614.2330 *MGS GUARDRAIL 3K (LF)	614.2500 *MGS THRIE BEAM TRANSITION (LF)	614.2610 *MGS GUARDRAIL TERMINAL EAT (EACH)	614.2620 *MGS GUARDRAIL TERMINAL TYPE 2 (EACH)
336+28.5S	-	336+70.4S	RT	-	-	39	-	-
336+70.4S	-	342+54.7S	RT	587.5	-	-	-	-
342+54.7S	-	343+07.8S	RT	-	-	-	1	-
336+38.7S	-	336+80.6S	LT	--	-	39	-	-
336+80.6S	-	340+76.9S	LT	400.0	-	-	-	-
340+76.9S	-	341+30S	LT	-	-	-	1	-
43+45.1P	-	43+99.1P	LT	-	-	39	-	-
43+99.1P	-	47+79.9P	LT	375	-	-	-	-
47+79.9P	-	48+19.4P	LT	-	-	-	1	-
43+98.9P	-	44+51.1P	RT	-	-	39	-	-
44+51.1P	-	47+95.9P	RT	350	-	-	-	-
47+95.9P	-	48+35.3P	RT	-	-	-	1	-
50+82.6P	-	51+22.0P	LT	-	-	39	-	-
51+22.0P	-	52+21.2P	LT	100	-	-	-	-
52+21.2P	-	52+73.4P	LT	-	-	-	1	-
50+97.6P	-	51+37.0P	RT	-	-	39	-	-
51+37.0P	-	52+38.2P	RT	100	-	-	-	-
52+38.2P	-	52+92.1P	RT	-	-	-	1	-
14+74.0U	-	15+26.5U	RT	-	-	-	1	-
15+26.5U	-	15+75.9U	RT	50	-	-	-	-
15+75.9U	-	16+14.9U	RT	-	-	39	-	-
14+52.0U	-	15+05.7U	LT	-	-	-	1	-
15+05.7U	-	15+68.9U	LT	62.5	-	-	-	-
15+68.9U	-	16+08.8U	LT	-	-	39	-	-
18+37.0U	-	18+75.9U	RT	-	-	39	-	-
18+75.9U	-	19+13.0U	RT	37.5	-	-	-	-
19+13.0U	-	--	RT	-	-	-	-	1
18+36.8U	-	18+76.2U	LT	-	-	39	-	-
18+76.6U	-	20+69.9U	LT	200	-	-	-	-
20+69.9U	-	21+23.1U	LT	-	-	-	1	-
44+90.7V	-	45+43.5V	RT	-	-	-	1	-
45+43.5V	-	48+05.8V	RT	262.5	-	-	-	-
48+05.8V	-	48+45.3V	RT	-	-	39	-	-
45+21.2V	-	45+74.5V	LT	-	-	-	1	-
45+74.5V	-	48+11.9V	LT	237.5	-	-	-	-
48+11.9V	-	48+51.3V	LT	-	-	39	-	-
50+75.6V	-	51+15.0V	RT	-	-	39	-	-
51+15.0V	-	56+40.0V	RT	525	-	-	-	-
56+40.0V	-	56+93.2V	RT	-	-	-	1	-
50+81.0V	-	51+20.3V	LT	-	-	39	-	-
51+20.3V	-	57+57.7V	LT	637.5	-	-	-	-
57+57.7V	-	58+10.8V	LT	-	-	-	1	-
44+51.0K	-	45+04.0K	RT	-	-	-	1	-
45+04.0K	-	48+16.5K	RT	312.5	-	-	-	-
48+16.5K	-	48+55.9K	RT	-	-	39	-	-
44+07.6K	-	44+60.7K	LT	-	-	-	1	-
44+60.7K	-	46+73.2K	LT	212.5	-	-	-	-
46+73.2K	-	48+10.7K	LT	-	137.5	-	-	-
48+10.7K	-	48+50.1K	LT	-	-	39	-	-
50+80.7K	-	51+20.1K	RT	-	-	39	-	-
51+20.1K	-	52+57.6K	RT	137.5	-	-	-	-
52+57.6K	-	53+10.6K	RT	-	-	-	1	-
50+74.6K	-	51+14.0K	LT	-	-	39	-	-
51+14.0K	-	53+13.9K	LT	200	-	-	-	-
53+13.9K	-	53+67.0K	LT	-	-	-	1	-
			TOTALS	2,875	137.5	468	11	1

FENCE WOVEN WIRE

STATION	-	STATION	LOCATION	616.0100 FENCE WOVEN WIRE 4-FT (LF)
47+50 V	-	48+46 V	RT	120
48+40K	-	48+60K	RT	55
50+75K	-	51+20K	RT	55
TOTALS				230

* ADDITIONAL QUANTITY SHOWN ELSEWHERE

ALL ITEMS CATEGORY 0010 UNLESS OTHERWISE NOTED

EROSION CONTROL - TURF ESTABLISHMENT

STATION	-	STATION	LOCATION	625.0500 SALVAGED TOPSOIL (SY)	627.0200 MULCHING (SY)	628.2002 EROSION MAT CLASS I TYPE A (SY)	629.0210 FERTILIZER TYPE B (CWT)	630.0120 SEEDING MIXTURE NO. 20 (LB)	630.0130 SEEDING MIXTURE NO. 30 (LB)	630.0200 SEEDING TEMPORARY (LB)
830+00SB	-	864+00SB	RT	6640	-	6640	4.2	-	120	-
835+00SB	-	839+00SB	LT	490	-	490	0.3	-	9	-
885+00SB	-	895+00SB	RT	1020	-	1020	0.6	-	18	-
893+00SB	-	899+00SB	LT	590	-	590	0.4	-	11	-
899+00SB	-	906+00SB	RT	1260	-	1260	0.8	-	23	-
925+00SB	-	938+00SB	RT	1580	-	1580	1.0	-	28	-
950+00SB	-	1001+00SB	LT	7820	-	7820	4.9	-	141	-
1015+00SB	-	1020+00SB	LT	690	-	690	0.4	-	12	-
1030+00SB	-	1043+00SB	LT	4220	-	4220	2.7	-	76	-
1058+00SB	-	1062+00SB	RT	860	-	860	0.5	-	15	-
1081+00SB	-	1083+00SB	RT	320	-	320	0.2	-	6	-
1099+00SB	-	1102+00SB	RT	2590	-	2590	1.6	-	47	-
1123+00SB	-	1125+00SB	RT	130	-	130	0.1	-	2	-
833+00NB	-	864+00NB	LT	4250	-	4250	2.7	-	77	-
838+00NB	-	843+00NB	RT	1180	-	1180	0.7	-	21	-
849+00NB	-	852+00NB	RT	680	-	680	0.4	-	12	-
888+00NB	-	896+00NB	LT	1050	-	1050	0.7	-	19	-
899+00NB	-	901+00NB	LT	100	-	100	0.1	-	2	-
906+00NB	-	913+00NB	LT	940	-	940	0.6	-	17	-
916+00NB	-	940+00NB	LT	3270	-	3270	2.1	-	59	-
961+00NB	-	970+00NB	LT	850	-	850	0.5	-	15	-
991+00NB	-	994+00NB	RT	550	-	550	0.3	-	10	-
999+00NB	-	1001+00NB	RT	360	-	360	0.2	-	6	-
1006+00NB	-	1008+00NB	RT	240	-	240	0.2	-	4	-
1014+00NB	-	1017+00NB	LT	210	-	210	0.1	-	4	-
1020+00NB	-	1030+00NB	RT	1240	-	1240	0.8	-	22	-
1027+00NB	-	1030+00NB	LT	180	-	180	0.1	-	3	-
1037+00NB	-	1045+00NB	LT	3110	-	3110	2.0	-	56	-
1058+00NB	-	1064+00NB	RT	1230	-	1230	0.8	-	22	-
1059+00NB	-	1066+00NB	LT	2930	-	2930	1.8	-	53	-
1087+00NB	-	1093+00NB	LT	760	-	760	0.5	-	14	-
336+28S	-	345+18S	RT	1,633	-	2,189	1.4	-	39	-
336+38S	-	341+61S	LT	1,410	-	1,741	1.1	-	31	-
43+86P	-	48+32P	RT	818	-	999	0.6	-	18	-
42+64P	-	48+16P	LT	457	-	710	0.4	-	13	-
50+97P	-	53+60P	RT	140	-	238	0.2	-	4	-
50+85P	-	53+67P	LT	321	-	414	0.3	-	7	-
14+15U	-	16+11U	RT	223	-	260	0.2	-	5	-
13+75U	-	16+05U	LT	174	-	211	0.1	-	4	-
18+40U	-	19+17U	RT	78	-	93	0.1	-	2	-
18+40U	-	22+20U	LT	215	-	323	0.2	-	6	-
44+70V	-	48+46V	RT	1,586	-	1,756	1.1	-	32	-
45+13V	-	48+48V	LT	1,052	-	1,191	0.8	-	21	-
50+78V	-	57+00V	RT	989	-	1,248	0.8	-	22	-
50+84V	-	58+84V	LT	847	-	1,199	0.8	-	22	-
43+70K	-	48+58K	RT	1,272	-	1,474	0.9	-	27	-
44+00K	-	48+50K	LT	750	-	883	0.6	-	16	-
50+77K	-	54+45K	LT	760	-	914	0.6	-	16	-
50+84K	-	53+20K	RT	300	-	395	0.2	-	7	-
BORROW PIT				-	5,500	-	3.5	50	-	-
UNDISTRIBUTED				2,000	-	2,000	2.0	-	40	120
			TOTAL	66,365	5,500	69,578	48.1	50	1,257	120

MOBILIZATIONS EROSION CONTROL

STATION	-	STATION	LOCATION	628.1905 MOBILIZATIONS EROSION CONTROL (EACH)
830+00SB	-	1131+48SB	PROJECT	12
			TOTAL	12

MOBILIZATIONS EMERGENCY EROSION CONTROL

STATION	-	STATION	LOCATION	628.1905 MOBILIZATIONS EMERGENCY EROSION CONTROL (EACH)
830+00SB	-	1131+48SB	PROJECT	8
			TOTAL	8

* ADDITIONAL QUANTITY SHOWN ELSEWHERE

ALL ITEMS CATEGORY 0010 UNLESS OTHERWISE NOTED

EROSION CONTROL SUMMARY

STATION		STATION	LOCATION	628.1504 SILT FENCE (LF)	628.1520 SILT FENCE MAINTENANCE (LF)	628.7005 INLET PROTECTION TYPE A (EACH)	628.7555 CULVERT PIPE CHECKS (EACH)	628.7504 TEMPORARY DITCH CHECKS (LF)	628.7560 TRACKING PADS (EACH)	628.7570 ROCK BAGS (EACH)
830+00 SB	-	860+00 SB	RT	3,000	3,000	-	8	-	-	75
835+00 SB	-	839+50 SB	LT	450	450	-	-	-	-	15
868+20 SB			MEDIAN	-	-	1	-	-	-	-
885+00 SB				-	-	-	3	15	-	-
885+00 SB	-	895+00 SB	RT	1,000	1,000	-	-	-	-	30
899+00 SB	-	906+00 SB	RT	700	700	-	-	-	-	60
901+00 SB			RT	-	-	-	3	-	-	-
903+70 SB			MEDIAN	-	-	1	-	-	-	-
904+00 SB			RT	-	-	-	3	-	-	-
918+00 SB			RT	-	-	-	4	-	-	-
921+30 SB			MEDIAN	-	-	1	-	-	-	-
921+50 SB			RT	-	-	-	4	-	-	-
925+00 SB	-	938+00 SB	RT	1,300	1,300	-	-	-	-	60
927+25 SB			RT	-	-	-	4	-	-	-
934+00 SB			RT	-	-	-	4	-	-	-
936+30 SB			RT	-	-	-	4	-	-	-
943+90 SB			RT	-	-	-	4	-	-	-
954+00 SB			LT	-	-	-	-	15	-	-
956+00 SB			LT	-	-	-	-	15	-	-
958+00 SB			LT	-	-	-	-	15	-	-
960+25 SB			LT	-	-	-	-	15	-	-
967+00 SB			RT	-	-	1	-	-	-	-
973+00 SB			RT	-	-	1	-	-	-	-
974+00 SB			RT	-	-	-	4	-	-	-
974+50 SB			MEDIAN	-	-	1	-	-	-	-
982+15 SB			LT	-	-	-	-	15	-	-
984+00 SB			LT	-	-	-	-	15	-	15
984+10 SB			MEDIAN	-	-	1	-	-	-	-
985+00 SB			RT	-	-	1	-	-	-	-
985+50 SB			RT	-	-	-	6	-	-	-
987+00 SB			LT	-	-	-	-	-	-	15
987+00 SB			MEDIAN	-	-	1	-	-	-	-
987+50 SB			LT	-	-	-	-	15	-	-
989+00 SB			MEDIAN	-	-	1	-	-	-	-
989+15 SB			LT	-	-	-	-	15	-	-
990+60 SB			LT	-	-	-	-	15	-	-
1004+00 SB			LT	-	-	-	3	-	-	-
1015+00 SB	-	1017+30 SB	LT	420	420	-	-	-	-	-
1017+90 SB	-	1020+00 SB	LT	300	300	-	-	-	-	15
1019+50 SB			LT	-	-	-	6	-	-	-
1030+80 SB	-	1043+00 SB	LT	1220	1220	-	-	-	-	45
1033+90 SB			RT	-	-	-	3	-	-	-
1033+90 SB			LT	-	-	-	3	-	-	-
1038+00 SB			LT	-	-	-	3	-	-	-
1038+00 SB			RT	-	-	-	3	-	-	-
1057+50 SB	-	1062+00 SB	RT	450	450	-	-	-	-	15
1062+10 SB			MEDIAN	-	-	1	-	-	-	-
1069+40 SB			MEDIAN	-	-	1	-	-	-	-
1070+20 SB			MEDIAN	-	-	1	-	-	-	-
1080+60 SB			MEDIAN	-	-	1	-	-	-	-
1081+00 SB	-	1083+00 SB	RT	200	200	-	-	-	-	-
1099+00 SB	-	1112+00 SB	RT	1,300	1,300	-	-	-	-	45
1105+60 SB			MEDIAN	-	-	1	-	-	-	-
1124+00 SB			MEDIAN	-	-	1	-	-	-	-
1131+20 SB			MEDIAN	-	-	1	-	-	-	-
832+00 NB	-	847+00 NB	LT	1,500	1,500	-	-	-	-	45
836+00 NB			RT	-	-	-	-	15	-	-
838+00 NB			RT	-	-	-	-	15	-	-
838+00 NB	-	843+00 NB	RT	500	500	-	4	-	-	15
840+00 NB			RT	-	-	-	-	15	-	-
842+00 NB			RT	-	-	-	-	15	-	-
847+25 NB	-	854+00 NB	LT	675	675	-	-	-	-	15
849+00 NB	-	852+00 NB	RT	300	300	-	3	-	-	-
855+00 NB	-	864+00 NB	LT	900	900	-	-	-	-	30
886+00 NB			RT	-	-	-	-	15	-	-
883+00 NB			RT	-	-	-	-	15	-	-

EROSION CONTROL SUMMARY

STATION		STATION	LOCATION	628.1504 SILT FENCE (LF)	628.1520 SILT FENCE MAINTENANCE (LF)	628.7005 INLET PROTECTION TYPE A (EACH)	628.7555 CULVERT PIPE CHECKS (EACH)	628.7504 TEMPORARY DITCH CHECKS (LF)	628.7560 TRACKING PADS (EACH)	628.7570 ROCK BAGS (EACH)
888+00 NB	-	896+00 NB	LT	800	800	-	-	-	-	15
890+00 NB			RT	-	-	-	-	15	-	-
892+00 NB			RT	-	-	-	-	15	-	-
893+00 NB	-	899+00 NB	LT	600	600	-	-	-	-	15
899+00 NB	-	901+00 NB	LT	200	200	-	-	-	-	-
906+00 NB	-	913+00 NB	LT	700	700	-	-	-	-	30
916+00 NB	-	940+25 NB	LT	2,425	2,425	-	-	-	-	105
933+50 NB			RT	-	-	-	4	-	-	-
936+00 NB			RT	-	-	-	4	-	-	-
947+10 NB			RT	-	-	-	4	-	-	-
961+00 NB	-	970+00 NB	LT	900	900	-	-	-	-	30
960+00 NB			RT	-	-	-	3	-	-	-
960+90 NB			RT	-	-	1	-	-	-	-
960+90 NB	-	974+50 NB	RT	1360	1360	-	-	-	-	30
991+20 NB			LT	-	-	1	-	-	-	-
995+00 NB			RT	-	-	-	-	15	-	-
996+10 NB			LT	-	-	1	-	-	-	-
999+00 NB			RT	-	-	-	-	15	-	-
1000+10 NB			LT	-	-	1	-	-	-	-
1003+00 NB			RT	-	-	-	-	15	-	-
1004+20 NB			LT	-	-	1	-	-	-	-
1006+00 NB			RT	-	-	-	-	15	-	-
1014+00 NB	-	1017+00 NB	LT	300	300	-	-	-	-	-
1020+00 NB	-	1025+10 NB	RT	730	730	-	-	-	-	30
1020+50 NB			LT	-	-	-	6	-	-	-
1026+00 NB	-	1030+00 SB	RT	400	400	-	-	-	-	15
1027+00 NB	-	1030+00 NB	LT	300	300	-	-	-	-	-
1037+00 NB	-	1045+00 NB	LT	800	800	-	-	-	-	30
1057+00 NB	-	1064+00 NB	RT	700	700	-	-	-	-	-
1059+00 NB	-	1066+00 NB	LT	700	700	-	-	-	-	15
1066+00 NB			RT	-	-	-	-	15	-	-
1068+00 NB			RT	-	-	-	-	15	-	-
1070+20 NB			LT	-	-	-	3	-	-	-
1087+00 NB	-	1093+00 NB	LT	600	600	-	-	-	-	30
1083+90 NB			RT	-	-	-	3	-	-	-
1094+00 NB	-	1124+00 NB	LT	3,000	3,000	-	-	-	-	-
1106+30 NB			LT	-	-	-	3	-	-	-
1114+00 NB			RT	-	-	-	-	15	-	-
1122+00 NB			RT	-	-	-	-	15	-	-
336+30	-	345+50	RT	920	920	-	-	-	-	30
336+40	-	341+70	LT	530	530	-	-	-	-	30
43+82P	-	48+32P	RT	450	450	-	-	-	-	15
42+56P	-	48+16P	LT	560	560	-	-	-	-	15
51+00P	-	53+60P	RT	260	260	-	-	-	-	15
50+86P	-	53+76P	LT	290	290	-	-	-	-	-
14+10U	-	16+10U	RT	200	200	-	-	-	-	15
13+75U	-	16+05U	LT	230	230	-	-	-	-	15
18+40U	-	19+20U	RT	80	80	-	-	-	-	15
18+40U	-	22+20U	LT	380	380	-	-	-	-	15
44+63V	-	48+43V	RT	380	380	-	-	-	-	15
44+60V	-	48+50V	LT	390	390	-	-	-	-	15
50+70V	-	57+50V	RT	680	680	-	-	-	-	30
50+84V	-	58+84V	LT	800	800	-	-	-	-	30
43+70K	-	48+60K	RT	490	490	-	-	-	-	15
43+60K	-	48+50K	LT	490	490	-	-	-	-	15
50+77K	-	54+47K	LT	370	370	-	-	-	-	15
50+84K	-	54+24K	RT	340	340	-	-	-	-	30
UNDISTRIBUTED				2,500	2,500	-	15	90	2	100
			TOTAL	35,620	35,620	22	116	480	2	1180

* ADDITIONAL QUANTITY SHOWN ELSEWHERE

ALL ITEMS CATEGORY 0010 UNLESS OTHERWISE NOTED

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DELINEATOR POSTS AND REFLECTORS

STATION	-	STATION	633.0100 DELINEATOR POSTS STEEL (EACH)	633.0500 DELINEATOR REFLECTORS (EACH)	633.1000 DELINEATOR BRACKETS (EACH)
830+00 NB	-	1131+80 NB	115	100	-
830+00 SB	-	1131+48 SB	115	100	-
967+00SB	-	993+00SB	-	10	10
981+00NB	-	1009+25NB	-	10	10
1126+60SB	-	1131+48SB	-	5	5
RAMPS A, B, C, D			45	45	-
UNDISTRIBUTED			20	20	-
		TOTAL	295	290	25

CULVERT MARKERS

STATION	LOCATION	633.5200 MARKERS CULVERT END (EACH)
83+39	RT	1
	TOTAL	1

SIGN MOVING AND REMOVALS

SIGN NO.	ROADWAY	SIGN CODE	638.2102 MOVING SIGNS TYPE II (EACH)	638.2601 REMOVING SIGNS TYPE I (EACH)	638.2602 REMOVING SIGNS TYPE II (EACH)	638.3000 REMOVING SMALL SIGN SUPPORTS (EACH)	638.3100 REMOVING STRUCTURAL STEEL SIGN SUPPORTS (EACH)	638.4000 MOVING SMALL SIGN SUPPORTS (EACH)	
1 - 1	SB	R3-4B	1	-	-	-	-	1	NO U-TURN W/ MAINT. & POLICE VEH.
1 - 2	SB	-	-	1	-	-	-	-	UW BARABOO SAUK COUNTY EXIT 106
1 - 3	SB	D10-5	-	-	1	1	-	-	ENHANCED REFERENCE MARKER (1-SHIELD)
1 - 4	SB	D10-5	-	-	1	1	-	-	ENHANCED REFERENCE MARKER (1-SHIELD)
1 - 6	SB	-	-	1	-	-	2	-	EXIT 108 STH 33 / PORTAGE / BARABOO
1 - 7	SB	W13-2A	-	-	1	1	-	-	ADVISORY EXIT SPEED
1 - 8	SB	D10-5	-	-	1	1	-	-	ENHANCED REFERENCE MARKER (1-SHIELD)
1 - 10	SB	I3-1	-	1	-	2	-	-	BARABOO RIVER
1 - 12	SB	R3-4B	-	-	1	1	-	-	NO U-TURN W/ MAINT. & POLICE VEH.
2 - 1	SB	J4-2	-	-	1	-	-	-	REASSURANCE ASSEMBLY - 2 HEADED ROUTE PANEL
2 - 4	SB	-	-	1	-	-	2	-	ADVANCE EXIT 108 A-B GUIDE
2 - 7	SB	R3-4B	1	-	-	-	-	1	NO U-TURN W/ MAINT. & POLICE VEH.
3 - 1	SB	D10-5	-	-	1	1	-	-	ENHANCED REFERENCE MARKER (1-SHIELD)
3 - 2	SB	-	-	1	-	-	2	-	EXIT 108 A-B
3 - 3	SB	D10-5	-	-	1	1	-	-	ENHANCED REFERENCE MARKER (1-SHIELD)
3 - 4	SB	E5-1C	-	-	1	1	-	-	EXIT 108 A-B (ARROW)(CUSTOM NARROW GORES)
3 - 5	SB	D10-5	-	-	1	1	-	-	ENHANCED REFERENCE MARKER (1-SHIELD)
3 - 6	SB	R3-4B	-	-	1	1	-	-	NO U-TURN W/ MAINT. & POLICE VEH.
3 - 7	SB	-	-	-	1	-	-	-	EXIT 108B WAUSAU
3 - 8	SB	-	-	-	1	-	-	-	EXIT 108A MERRIMAC
3 - 9	SB	W12-1D	-	-	1	1	-	-	DOUBLE DOWN ARROWS
3 - 10	SB	D10-5	-	-	1	1	-	-	ENHANCED REFERENCE MARKER (1-SHIELD)
3 - 11	SB	D10-5	-	-	1	1	-	-	ENHANCED REFERENCE MARKER (1-SHIELD)
3 - 12	SB	D10-5	-	-	1	1	-	-	ENHANCED REFERENCE MARKER (1-SHIELD)
4 - 1	SB	W4-3R	1	-	1	1	-	-	MERGE ADDED LANE FROM RIGHT
4 - 2	SB	D10-5	-	-	1	1	-	-	ENHANCED REFERENCE MARKER (1-SHIELD)
4 - 3	SB	R3-4B	1	-	-	-	-	1	NO U-TURN W/ MAINT. & POLICE VEH.
4 - 4	SB	W9-1R	-	-	1	2	-	-	RIGHT LANES END
4 - 5	SB	D10-5	-	-	1	1	-	-	ENHANCED REFERENCE MARKER (1-SHIELD)
4 - 6	SB	W4-2R	-	-	1	2	-	-	LANE REDUCTION TRANSITION SYMBOL RIGHT
4 - 7	SB	D10-5	-	-	1	1	-	-	ENHANCED REFERENCE MARKER (1-SHIELD)
4 - 8	SB	D10-5	-	-	1	1	-	-	ENHANCED REFERENCE MARKER (1-SHIELD)
4 - 9	SB	R3-4B	1	-	-	-	-	1	NO U-TURN W/ MAINT. & POLICE VEH.
4 - 10	SB	D2-3	-	1	-	-	2	-	DESTINATION / DISTANCE THREE
4 - 11	SB	D10-5	-	-	1	1	-	-	ENHANCED REFERENCE MARKER (1-SHIELD)
4 - 12	SB	J4-3	-	-	1	2	-	-	REASSURANCE ASSEMBLY - 3 HEADED ROUTE PANEL
4 - 13	SB	D10-5	-	-	1	1	-	-	ENHANCED REFERENCE MARKER (1-SHIELD)
5 - 1	SB	D12-5	-	-	1	2	-	-	TRAVEL INFO CALL 511
5 - 3	SB	D10-5	-	-	1	1	-	-	ENHANCED REFERENCE MARKER (1-SHIELD)
5 - 4	SB	D10-5	-	-	1	1	-	-	ENHANCED REFERENCE MARKER (1-SHIELD)
5 - 5	SB	E5-51	-	-	1	-	-	-	REST AREA 2 MILES
5 - 5	SB	E5-62	-	-	-	-	-	-	NEXT REST AREA 57 MILES
5 - 6	SB	R3-4-B	-	-	1	1	-	-	NO U-TURN W/ MAINT. & POLICE VEH.
5 - 7	SB	D10-5	-	-	1	1	-	-	ENHANCED REFERENCE MARKER (1-SHIELD)
5 - 8	SB	W8-72	-	-	1	2	-	-	GUSTY WINDS
5 - 8	SB	W8-72P	-	-	-	-	-	-	ON BRIDGE
5 - 9	SB	W8-72	-	-	1	2	-	-	GUSTY WINDS
5 - 9	SB	W8-72P	-	-	-	-	-	-	ON BRIDGE
5 - 10	SB	D10-5	-	-	1	1	-	-	ENHANCED REFERENCE MARKER (1-SHIELD)
5 - 11	SB	R8-7	-	-	1	1	-	-	EMERGENCY STOPPING ONLY
5 - 12	SB	M1-94	-	-	1	2	-	-	HWY U
6 - 1	SB	D10-5	-	-	1	1	-	-	ENHANCED REFERENCE MARKER (1-SHIELD)
6 - 2	SB	I3-1	-	-	1	2	-	-	WISCONSIN RIVER
1 - 1	NB	J4-2	-	-	1	2	-	-	REASSURANCE ASSEMBLY - 2 HEADED ROUTE PANEL
1 - 2	NB	R3-4B	1	-	-	-	-	1	NO U-TURN W/ MAINT. & POLICE VEH.
1 - 3	NB	D12-5	1	-	-	-	-	2	TRAVEL INFO CALL 511
1 - 4	NB	D10-5	-	-	1	1	-	-	ENHANCED REFERENCE MARKER (1-SHIELD)
1 - 5	NB	D10-5	-	-	1	1	-	-	ENHANCED REFERENCE MARKER (1-SHIELD)
1 - 6	NB	W13-2A	-	-	1	2	-	-	ADVISORY EXIT SPEED W/ 180 DEGREE LOOP ARROW

* ADDITIONAL QUANTITY SHOWN ELSEWHERE

ALL ITEMS CATEGORY 0010 UNLESS OTHERWISE NOTED

SIGN MOVING AND REMOVALS

SIGN NO.	ROADWAY	SIGN CODE	638.2102 MOVING SIGNS TYPE II (EACH)	638.2601 REMOVING SIGNS TYPE I (EACH)	638.2602 REMOVING SIGNS TYPE II (EACH)	638.3000 REMOVING SMALL SIGN SUPPORTS (EACH)	638.3100 REMOVING STRUCTURAL STEEL SIGN SUPPORTS (EACH)	638.4000 MOVING SMALL SIGN SUPPORTS (EACH)	
1 - 7	NB	D10-5	-	-	1	1	-	-	ENHANCED REFERENCE MARKER (1-SHIELD)
1 - 8	NB	-	-	1	-	-	2	-	EXIT 106 PORTAGE / BARABOO
1 - 11	NB	I3-1	-	-	1	2	-	-	BARABOO RIVER
1 - 13	NB	D7-81	-	-	1	2	-	-	SKI AREA NEXT RIGHT
1 - 13	NB	D7-81A	-	-	-	-	-	-	SKI AREA CASCADE MOUNTAIN
1 - 14	NB	R3-4B	-	-	1	1	-	-	NO U-TURN W/ MAINT. & POLICE VEH.
2 - 1	NB	-	-	1	-	-	2	-	EXIT 106 CIRCUS WORLD DEVILS LAKE STATE PARK
2 - 4	NB	J23-1	-	-	1	1	-	-	DIRECTIONAL ASSEMBLY - 1 HEADED ROUTE PANEL
2 - 5	NB	-	-	1	-	-	2	-	ADVANCE EXIT 106 1 MILE
2 - 7	NB	J4-2	-	-	1	2	-	-	REASSURANCE ASSEMBLY - 2 HEADED ROUTE PANEL
2 - 9	NB	R3-4B	-	-	1	1	-	-	NO U-TURN W/ MAINT. & POLICE VEH.
2 - 11	NB	W4-2L	-	-	1	2	-	-	LANE REDUCTION TRANSITION SYMBOL LEFT
2 - 12	NB	J4-1	-	-	1	1	-	-	REASSURANCE ASSEMBLY - 1 HEADED ROUTE PANEL
3 - 1	NB	W4-2R	-	-	1	2	-	-	LANE REDUCTION TRANSITION SYMBOL RIGHT
3 - 2	NB	D10-5	-	-	1	1	-	-	ENHANCED REFERENCE MARKER (1-SHIELD)
3 - 3	NB	W9-2R	-	-	1	1	-	-	LANE ENDS MERGE RIGHT
3 - 4	NB	W9-2L	-	-	1	2	-	-	LANE ENDS MERGE LEFT
3 - 5	NB	W9-63	-	-	1	-	-	-	LANE ENDS 1/2 MILE
3 - 6	NB	D10-5	-	-	1	1	-	-	ENHANCED REFERENCE MARKER (1-SHIELD)
3 - 7	NB	D10-5	-	-	1	1	-	-	ENHANCED REFERENCE MARKER (1-SHIELD)
3 - 8	NB	R3-4B	-	-	1	1	-	-	NO U-TURN W/ MAINT. & POLICE VEH.
3 - 9	NB	D10-5	-	-	1	1	-	-	ENHANCED REFERENCE MARKER (1-SHIELD)
3 - 10	NB	D10-5	-	-	1	1	-	-	ENHANCED REFERENCE MARKER (1-SHIELD)
3 - 11	NB	-	-	1	-	-	-	-	EXIT 108 B WAUSAU
3 - 12	NB	-	-	1	-	-	-	-	EXIT 108 A MERRIMAC
3 - 13	NB	D10-5	-	-	1	1	-	-	ENHANCED REFERENCE MARKER (1-SHIELD)
4 - 1	NB	W12-1D	-	-	1	1	-	-	DOUBLE DOWN ARROWS
4 - 2	NB	J23-1	-	-	1	1	-	-	TRAIL BLAZER - DIRECTIONAL
4 - 3	NB	W9-62	-	-	1	-	-	-	THIS LANE ENDS WITH ARROW
4 - 4	NB	-	-	1	-	-	-	-	EXIT WIS DELLS
4 - 5	NB	-	-	1	-	-	-	-	EXIT 108 A MERRIMAC
4 - 6	NB	-	-	1	-	-	-	-	EXIT 108 B WAUSAU
4 - 7	NB	D10-5	-	-	1	1	-	-	ENHANCED REFERENCE MARKER (1-SHIELD)
4 - 8	NB	E10-61	-	-	1	2	-	-	HOSPITAL EXIT 108 B
4 - 9	NB	R3-4B	1	-	-	-	-	1	NO U-TURN W/ MAINT. & POLICE VEH.
4 - 10	NB	J23-1	-	-	1	1	-	-	ROUTE TURN ASSEMBLY - 2 HEADED PANEL
4 - 11	NB	-	-	1	-	-	-	-	EXIT 108 A-B
4 - 12	NB	D10-5	-	-	1	1	-	-	ENHANCED REFERENCE MARKER (1-SHIELD)
4 - 13	NB	R3-33	-	-	1	1	-	-	RIGHT LANE FOR EXIT ONLY
4 - 14	NB	D10-5	-	-	1	1	-	-	ENHANCED REFERENCE MARKER (1-SHIELD)
4 - 15	NB	D10-5	-	-	1	1	-	-	ENHANCED REFERENCE MARKER (1-SHIELD)
4 - 16	NB	R3-4B	1	-	-	-	-	1	NO U-TURN W/ MAINT. & POLICE VEH.
4 - 17	NB	D10-5	-	-	1	1	-	-	ENHANCED REFERENCE MARKER (1-SHIELD)
4 - 18	NB	-	-	1	-	-	-	-	ADVANCE EXIT 108 A-B 3/4 MILES
4 - 19	NB	D10-5	-	-	1	1	-	-	ENHANCED REFERENCE MARKER (1-SHIELD)
4 - 20	NB	-	-	1	-	-	2	-	ADVANCE EXIT 108 A-B 1 MILE
4 - 21	NB	J23-1	-	-	1	1	-	-	TRAIL BLAZER - DIRECTIONAL
5 - 2	NB	D10-5	-	-	1	1	-	-	ENHANCED REFERENCE MARKER (1-SHIELD)
5 - 3	NB	D10-5	-	-	1	1	-	-	ENHANCED REFERENCE MARKER (1-SHIELD)
5 - 4	NB	-	-	2	-	2	-	-	EXIT 108B PORTAGE / STEVENS POINT
5 - 5	NB	R3-4-B	-	-	1	1	-	-	NO U-TURN W/ MAINT. & POLICE VEH.
5 - 6	NB	D10-5	-	-	1	1	-	-	ENHANCED REFERENCE MARKER (1-SHIELD)
5 - 7	NB	D10-5	-	-	1	1	-	-	ENHANCED REFERENCE MARKER (1-SHIELD)
5 - 8	NB	M1-94	-	-	1	2	-	-	HWY U
5 - 9	NB	-	-	1	-	-	2	-	ADVANCE EXIT 108 A-B 2 MILES
7 - 1	STH 33	R2-1	-	-	1	-	-	-	SPEED LIMIT 45 MPH
7 - 2	STH 33	D1-3	-	-	1	2	-	-	Wis Dells LEFT ARROW
7 - 3	STH 33	J3-2	-	-	1	1	-	-	DIRECTIONAL ASSEMBLY - 2 HEADED ROUTE PANEL
7 - 4	STH 33	J4-3	-	-	1	2	-	-	DIRECTIONAL ASSEMBLY - 3 HEADED ROUTE PANEL
7 - 4	STH 33	I55-56	1	-	-	-	-	-	ADOPT A HIGHWAY

* ADDITIONAL QUANTITY SHOWN ELSEWHERE

ALL ITEMS CATEGORY 0010 UNLESS OTHERWISE NOTED

SIGN MOVING AND REMOVALS

SIGN NO.	ROADWAY	SIGN CODE	638.2102 MOVING SIGNS TYPE II (EACH)	638.2601 REMOVING SIGNS TYPE I (EACH)	638.2602 REMOVING SIGNS TYPE II (EACH)	638.3000 REMOVING SMALL SIGN SUPPORTS (EACH)	638.3100 REMOVING STRUCTURAL STEEL SIGN SUPPORTS (EACH)	638.4000 MOVING SMALL SIGN SUPPORTS (EACH)	
7 - 6	STH 33	R2-1	-	-	1	1	-	-	SPEED LIMIT 45 MPH
7 - 8	STH 33	D1-3	-	-	1	2	-	-	THREE DESTINATION - BARABOO , MADISON, Wis Dells
7 - 8	STH 33	R2-1	-	-	-	-	-	-	SPEED LIMIT 45 MPH
7 - 9	STH 33	W13-3	-	-	1	1	-	-	RAMP SPEED 25 MPH
7 - 10	STH 33	J3-1	-	-	1	1	-	-	DIRECTIONAL ASSEMBLY - 1 HEADED ROUTE PANEL
7 - 11	STH 33	J3-1	-	-	1	1	-	-	DIRECTIONAL ASSEMBLY - 1 HEADED ROUTE PANEL
7 - 12	STH 33	J3-2	-	-	1	1	-	-	DIRECTIONAL ASSEMBLY - 2 HEADED ROUTE PANEL
7 - 13	STH 33	R3-1	-	-	1	1	-	-	NO TURN RIGHT SYMBOL
7 - 14	STH 33	D5-61	-	-	1	2	-	-	WAYSIDE 1/2 MILE
7 - 15	STH 33	J2-3	-	-	1	2	-	-	ROUTE TURN ASSEMBLY - 3 HEADED ROUTE PANEL
7 - 15	STH 33	R2-1	-	-	-	-	-	-	SPEED LIMIT 45 MPH
7 - 16	STH 33	W5-52R	-	-	1	1	-	-	CLEARANCE STRIPER DOWN RIGHT
7 - 17	STH 33	W5-52L	-	-	1	1	-	-	CLEARANCE STRIPER DOWN LEFT
7 - 18	STH 33	W5-52R	-	-	1	1	-	-	CLEARANCE STRIPER DOWN RIGHT
7 - 19	STH 33	W5-52L	-	-	1	1	-	-	CLEARANCE STRIPER DOWN LEFT
8 - 1	SB RAMP	E5-1B	-	-	1	3	-	-	EXIT NUMBER NO LETTERS (ARROW) 1-4 DIGITS
8 - 1	SB RAMP	JV-F	-	-	1	-	-	-	FOLDING J PANEL
8 - 2	SB RAMP	D7-82	-	-	1	1	-	-	SKI AREA LEFT ARROW
8 - 2	SB RAMP	D7-82A	-	-	-	-	-	-	SKI AREA (CASCADE MOUNTAIN) ONE LINE SUPPLEMENTAL
8 - 3	SB RAMP	W1-8	-	-	4	4	-	-	CHEVRON
8 - 4	SB RAMP	W3-1	-	-	1	1	-	-	STOP AHEAD
8 - 5	SB RAMP	R5-1A	-	-	1	1	-	-	WRONG WAY
8 - 6	SB RAMP	R5-1A	-	-	1	1	-	-	WRONG WAY
8 - 7	SB RAMP	D1-2	-	-	1	2	-	-	TWO DESTINATIONS ARROWS PORTAGE / BARABOO
8 - 7	SB RAMP	R5-1A	-	-	-	-	-	-	WRONG WAY
8 - 8	SB RAMP	J3-4	-	-	1	2	-	-	DIRECTIONAL ASSEMBLY - 4 HEADED ROUTE PANEL
8 - 9	SB RAMP	R5-1A	-	-	1	-	-	-	DO NOT ENTER
8 - 10	SB RAMP	W1-8	-	-	4	4	-	-	CHEVRON
8 - 11	SB RAMP	W1-8	-	-	3	3	-	-	CHEVRON
8 - 12	SB RAMP	W4-1R	-	-	1	2			LANEMERGE SYMBOL RIGHT
9 - 1	NB RAMP	E5-1B	-	-	1	3	-	-	EXIT 106 RIGHT ARROW
9 - 1	NB RAMP	JV-F	-	-	-	-	-	-	FOLDING J PANEL
9 - 1	NB RAMP	JV-F	-	-	-	-	-	-	FOLDING J PANEL
9 - 2	NB RAMP	W1-8	-	-	5	5	-	-	CHEVRON RIGHT
9 - 3	NB RAMP	W3-1	-	-	1	1	-	-	STOP AHEAD
9 - 4	NB RAMP	R5-1A	-	-	1	1	-	-	WRONG WAY
9 - 5	NB RAMP	R5-1A	-	-	1	1	-	-	WRONG WAY
9 - 6	NB RAMP	D1-2	-	-	1	2	-	-	TWO DESTINATIONS ARROWS PORTAGE / BARABOO
9 - 6	NB RAMP	R5-1A	-	-	-	-	-	-	WRONG WAY
9 - 7	NB RAMP	J2-1	-	-	1	1	-	-	ROUTE TURN ASSEMBLY - 1 HEADED (INTERSTATE 90)
9 - 7	NB RAMP	J2-1	-	-	1	1	-	-	ROUTE TURN ASSEMBLY - 1 HEADED (INTERSTATE 39)
9 - 8	NB RAMP	D1-2	-	-	1	3	-	-	DESTINATION DEVILS LAKE STATE PARK / CIRCUS WORLD MUSEUM
9 - 9	NB RAMP	R1-2	-	-	1	1	-	-	YIELD
9 - 10	NB RAMP	R5-1	-	-	1	1	-	-	DO NOT ENTER
9 - 11	NB RAMP	W12-1D	-	-	1	1	-	-	ARROWS DOUBLE DOWN
9 - 12	NB RAMP	J3-2	-	-	1	1	-	-	DIRECTIONAL ASSEMBLY - 2 HEADED ROUTE PANEL
9 - 13	NB RAMP	R1-1	-	-	1	1	-	-	STOP
9 - 14	NB RAMP	R4-7	-	-	1	1	-	-	KEEP RIGHT
9 - 15	NB RAMP	W1-8	-	-	3	3	-	-	CHEVRON LEFT
9 - 16	NB RAMP	R4-7	-	-	1	1	-	-	KEEP RIGHT
9 - 17	NB RAMP	R5-1	-	-	1	1	-	-	DO NOT ENTER
9 - 18	NB RAMP	W1-6	-	-	1	1	-	-	NIGHT ARROW - SINGLE
9 - 19	NB RAMP	W4-1R	-	-	1	1	-	-	MERGING TRAFFIC SYMBOL - RIGHT
			10	20	147	175	18	9	

* ADDITIONAL QUANTITY SHOWN ELSEWHERE

ALL ITEMS CATEGORY 0010 UNLESS OTHERWISE NOTED

PERMANENT SIGNING TYPE I

				637.1220	637.1230		
				SIGNS TYPE I REFLECTIVE SH (SF)	SIGNS TYPE I REFLECTIVE F (SF)	SIGN MOUNTED ON	REMARKS
1 - 2	SB	156 X 84		91.00	-	EX. SUPPORTS	UW BARABOO SAUK COUNTY EXIT 106
1 - 6	SB	204 X 162		229.50	-	EX. SUPPORTS	EXIT 106 PORATGE / BARABOO
2 - 4	SB	216 X 216		324.00	-	EX. SUPPORTS	ADVANCE EXIT 108 A-B 1 MILE
3 - 2	SB	210 X 180		295.42	-	EX. SUPPORTS	EXIT 108 A-B
3 - 7	SB	144 X 174		174.00	-	SIGN BRIDGE	EXIT 108B WAUSAU
3 - 8	SB	192 X 114		152.00	-	SIGN BRIDGE	EXIT 108A MERRIMAC
5 - 1	SB	192 X 84		112.00	-	EX. SUPPORTS	DESTINATION / DISTANCE THREE
5 - 6	SB	144 X 60		60.00		EX. SUPPORTS	REST AREA 2 MILES
5 - 6	SB	120 X 30		25.00		EX. SUPPORTS	NEXT REST AREA 57 MILES
1 - 8	NB	204 X 132		187.00	-	EX. SUPPORTS	EXIT PORTAGE / BARABOO
1 - 8	NB	108 X 32		24.00	-	EX. SUPPORTS	EXIT 106
2 - 1	NB	168 X 132		154.00	-	EX. SUPPORTS	EXIT 106 CIRCUS WORLD DEVILS LAKE STATE PARK
2 - 5	NB	156 X 162		175.50	-	EX. SUPPORTS	ADVANCE EXIT 1 MILE
2 - 5	NB	108 X 30		22.50	-	EX. SUPPORTS	EXIT 106
3 - 11	NB	132 X 174		159.50	-	SIGN BRIDGE	EXIT 108 B WAUSAU
3 - 12	NB	168 X 90		132.50	-	SIGN BRIDGE	EXIT MERRIMAC
3 - 12	NB	132 X 30		55.00	-	SIGN BRIDGE	EXIT 108 A
3 - 12	NB	168 X 42		-	49.00	SIGN BRIDGE	EXIT ONLY
4 - 4	NB	204 X 120		170.00	-	SIGN BRIDGE	EXIT WIS DELLS
4 - 5	NB	144 X 150		150.00	-	SIGN BRIDGE	EXIT 108 A MERRIMAC
4 - 6	NB	132 X 174		159.50	-	SIGN BRIDGE	WAUSAU EXIT 108 B
4 - 11	NB	432 X 180		540.00	-	SIGN BRIDGE	EXIT 108 A-B
4 - 18	NB	396 X 198		544.50	-	SIGN BRIDGE	ADVANCE EXIT 108 A-B 3/4 MILE
4 - 20	NB	180 X 216		270.00	-	SIGN BRIDGE	ADVANCE EXIT 108 A-B 1 MILE
5 - 4	NB	168 X 84		98.00	-	EX. SUPPORTS	ADVANCE EXIT 108 B
5 - 9	NB	216 X 216		324.00	-	EX. SUPPORTS	ADVANCE EXIT 108 A-B 2 MILES
				4628.92	49.00		

* ADDITIONAL QUANTITY SHOWN ELSEWHERE

ALL ITEMS CATEGORY 0010 UNLESS OTHERWISE NOTED

PERMANENT SIGNING TYPE II

				637.2210	637.2220	637.2230	634.0612	634.0616	634.0618	634.0620	634.0622		
							POSTS WOOD 4X6-INCH						
SIGN NO.	ROADWAY	SIGN CODE	SIGN SIZE (IN)	SIGNS TYPE II REFLECTIVE H (SF)	SIGNS TYPE II REFLECTIVE SH (SF)	SIGNS TYPE II REFLECTIVE F (SF)	12-FT (EACH)	16-FT (EACH)	18-FT (EACH)	20-FT (EACH)	22-FT (EACH)	SIGN MOUNTED ON	REMARKS
1 - 3	SB	D10-5	21 X 60	8.75	-	-	1	-	-	-	-	-	ENHANCED REFERENCE MARKER (1-SHIELD)
1 - 4	SB	D10-5	21 X 60	8.75	-	-	1	-	-	-	-	-	ENHANCED REFERENCE MARKER (1-SHIELD)
1 - 5	SB	J23-1	36 X 84	21.00	-	-	-	-	1	-	-	-	DIRECTIONAL ASSEMBLY
	SB	M4-1	36 X 18	-	-	-	-	-	-	-	-	-	ALTERNATE
	SB	M1-1	36 X 36	-	-	-	-	-	-	-	-	-	INTERSTATE ROUTE MARKER
	SB	M6-2	30 X 30	-	-	-	-	-	-	-	-	-	ARROW TILT- RIGHT
1 - 7	SB	W13-2A	48 X 90	-	-	30.00	-	-	-	-	2	-	ADVISORY EXIT SPEED
1 - 8	SB	D10-5	21 X 60	8.75	-	-	1	-	-	-	-	-	ENHANCED REFERENCE MARKER (1-SHIELD)
1 - 9	SB	D10-5	21 X 60	8.75	-	-	1	-	-	-	-	-	ENHANCED REFERENCE MARKER (1-SHIELD)
1 - 10	SB	I3-1	102 X 21	14.88	-	-	-	2	-	-	-	-	BARABOO RIVER
1 - 11	SB	D10-5	21 X 60	8.75	-	-	1	-	-	-	-	-	ENHANCED REFERENCE MARKER (1-SHIELD)
1 - 12	SB	R3-4B	36 X 48	12.00	-	-	-	-	1	-	-	-	NO U-TURN W/ MAINT. & POLICE VEH.
1 - 13	SB	D10-5	21 X 60	8.75	-	-	1	-	-	-	-	-	ENHANCED REFERENCE MARKER (1-SHIELD)
2 - 1	SB	J4-2	72 X 54	27.00	-	-	-	-	2	-	-	-	REASSURANCE ASSEMBLY
	SB	M3-2	36 X 18	-	-	-	-	-	-	-	-	-	EAST CARDINAL ROUTE MARKER
	SB	M1-1	36 X 36	-	-	-	-	-	-	-	-	-	INTERSTATE SHIELD - 90
	SB	M3-2	36 X 18	-	-	-	-	-	-	-	-	-	EAST CARDINAL ROUTE MARKER
	SB	M1-1	36 X 36	-	-	-	-	-	-	-	-	-	INTERSTATE SHIELD - 94
2 - 2	SB	D10-5	21 X 60	8.75	-	-	1	-	-	-	-	-	ENHANCED REFERENCE MARKER (1-SHIELD)
2 - 3	SB	D10-5	21 X 60	8.75	-	-	1	-	-	-	-	-	ENHANCED REFERENCE MARKER (1-SHIELD)
2 - 5	SB	D10-5	21 X 60	8.75	-	-	1	-	-	-	-	-	ENHANCED REFERENCE MARKER (1-SHIELD)
2 - 6	SB	D10-5	21 X 60	8.75	-	-	1	-	-	-	-	-	ENHANCED REFERENCE MARKER (1-SHIELD)

PERMANENT SIGNING TYPE II

SIGN NO.	ROADWAY	SIGN CODE	SIGN SIZE (IN)	637.2210 SIGNS TYPE II REFLECTIVE H (SF)	637.2220 SIGNS TYPE II REFLECTIVE SH (SF)	637.2230 SIGNS TYPE II REFLECTIVE F (SF)	634.0612 POSTS WOOD 4X6-INCH 12-FT (EACH)	634.0616 16-FT (EACH)	634.0618 18-FT (EACH)	634.0620 20-FT (EACH)	634.0622 22-FT (EACH)	SIGN MOUNTED ON	REMARKS
2 - 8	SB	D10-5	21 X 60	8.75	-	-	1	-	-	-	-	-	ENHANCED REFERENCE MARKER (1-SHIELD)
3 - 1	SB	D10-5	21 X 60	8.75	-	-	1	-	-	-	-	-	ENHANCED REFERENCE MARKER (1-SHIELD)
3 - 3	SB	D10-5	21 X 60	8.75	-	-	1	-	-	-	-	-	ENHANCED REFERENCE MARKER (1-SHIELD)
3 - 4	SB	E5-1C	48 X 84	28.00	-	-	-	-	-	-	2	-	EXIT 108 A-B (ARROW)(CUSTOM NARROW GORES)
3 - 5	SB	D10-5	21 X 60	8.75	-	-	1	-	-	-	-	-	ENHANCED REFERENCE MARKER (1-SHIELD)
3 - 6	SB	R3-4B	36 X 36	9.00	-	-	-	-	1	-	-	-	NO U-TURN W/ MAINT. & POLICE VEH.
3 - 9	SB	W5-65D	24 X 36	-	-	6.00	-	-	2	-	-	-	DOUBLE DOWN ARROWS
3 - 10	SB	D10-5	21 X 60	8.75	-	-	1	-	-	-	-	-	ENHANCED REFERENCE MARKER (1-SHIELD)
3 - 11	SB	D10-5	21 X 60	8.75	-	-	1	-	-	-	-	-	ENHANCED REFERENCE MARKER (1-SHIELD)
3 - 12	SB	D10-5	21 X 60	8.75	-	-	1	-	-	-	-	-	ENHANCED REFERENCE MARKER (1-SHIELD)
4 - 2	SB	D10-5	21 X 60	8.75	-	-	1	-	-	-	-	-	ENHANCED REFERENCE MARKER (1-SHIELD)
4 - 3	SB	R3-4B	36 X 48	12.00	-	-	-	-	1	-	-	-	NO U-TURN W/ MAINT. & POLICE VEH.
4 - 4	SB	W9-1R	48 X 48	16.00	-	-	-	-	2	-	-	-	RIGHT LANES END
4 - 5	SB	D10-5	21 X 60	8.75	-	-	1	-	-	-	-	-	ENHANCED REFERENCE MARKER (1-SHIELD)
4 - 6	SB	W4-2R	48 X 48	16.00	-	-	-	-	2	-	-	-	LANE REDUCTION TRANSITION SYMBOL RIGHT
4 - 7	SB	D10-5	21 X 60	8.75	-	-	1	-	-	-	-	-	ENHANCED REFERENCE MARKER (1-SHIELD)
4 - 8	SB	D10-5	21 X 60	8.75	-	-	1	-	-	-	-	-	ENHANCED REFERENCE MARKER (1-SHIELD)
4 - 10	SB	J4-3	108 X 54	40.50	-	-	-	-	3	-	-	-	REASSURANCE ASSEMBLY - 3 HEADED ROUTE PANEL
	SB	M3-3	36 X 18	-	-	-	-	-	-	-	-	-	SOUTH CARDINAL ROUTE MARKER
	SB	M1-1	36 X 36	-	-	-	-	-	-	-	-	-	INTERSTATE SHIELD - 39
	SB	M3-2	36 X 18	-	-	-	-	-	-	-	-	-	EAST CARDINAL ROUTE MARKER
	SB	M1-1	36 X 36	-	-	-	-	-	-	-	-	-	INTERSTATE SHIELD - 90
	SB	M3-2	36 X 18	-	-	-	-	-	-	-	-	-	EAST CARDINAL ROUTE MARKER
	SB	M1-1	36 X 36	-	-	-	-	-	-	-	-	-	INTERSTATE SHIELD - 94
4 - 11	SB	D10-5	21 X 60	8.75	-	-	1	-	-	-	-	-	ENHANCED REFERENCE MARKER (1-SHIELD)
4 - 12	SB	D10-5	21 X 60	8.75	-	-	2	-	-	-	-	-	ENHANCED REFERENCE MARKER (1-SHIELD)
5 - 2	SB	D12-5	60 X 66	-	27.50	-	-	-	-	2	-	-	TRAVEL INFO CALL 511
5 - 3	SB	D10-5	21 X 60	8.75	-	-	1	-	-	-	-	-	ENHANCED REFERENCE MARKER (1-SHIELD)
5 - 4	SB	D10-5	21 X 60	8.75	-	-	1	-	-	-	-	-	ENHANCED REFERENCE MARKER (1-SHIELD)
5 - 5	SB	D10-5	21 X 60	8.75	-	-	1	-	-	-	-	-	ENHANCED REFERENCE MARKER (1-SHIELD)
5 - 7	SB	R3-4B	36 X 48	12.00	-	-	-	-	1	-	-	-	NO U-TURN W/ MAINT. & POLICE VEH.
5 - 8	SB	D10-5	21 X 60	8.75	-	-	1	-	-	-	-	-	ENHANCED REFERENCE MARKER (1-SHIELD)
5 - 9	SB	W8-72	48 X 48	-	-	16.00	-	-	-	2	-	-	GUSTY WINDS
5 - 9	SB	W8-72P	48 X 24	-	-	8.00	-	-	-	-	-	-	ON BRIDGE
5 - 10	SB	W8-72	48 X 48	-	-	16.00	-	-	-	2	-	-	GUSTY WINDS
5 - 10	SB	W8-72P	48 X 24	-	-	8.00	-	-	-	-	-	-	ON BRIDGE
5 - 11	SB	D10-5	21 X 60	8.75	-	-	1	-	-	-	-	-	ENHANCED REFERENCE MARKER (1-SHIELD)
5 - 12	SB	R8-7	48 X 36	12.00	-	-	-	1	-	-	-	-	EMERGENCY STOPPING ONLY
5 - 13	SB	M1-94	54 X 21	7.88	-	-	-	2	-	-	-	-	HWY U
6 - 1	SB	D10-5	21 X 60	8.75	-	-	1	-	-	-	-	-	ENHANCED REFERENCE MARKER (1-SHIELD)
6 - 2	SB	I3-1	114 X 21	16.63	-	-	-	-	2	-	-	-	WISCONSIN RIVER
1 - 1	NB	J4-2	72 X 54	27.00	-	-	-	-	2	-	-	-	REASSURANCE ASSEMBLY - 2 HEADED ROUTE PANEL
	NB	M3-4	36 X 18	-	-	-	-	-	-	-	-	-	WEST CARDINAL ROUTE MARKER
	NB	M1-1	36 X 36	-	-	-	-	-	-	-	-	-	INTERSTATE SHIELD - 90
	NB	M3-4	36 X 18	-	-	-	-	-	-	-	-	-	WEST CARDINAL ROUTE MARKER
	NB	M1-1	36 X 36	-	-	-	-	-	-	-	-	-	INTERSTATE SHIELD - 94
1 - 4	NB	D10-5	21 X 60	8.75	-	-	1	-	-	-	-	-	ENHANCED REFERENCE MARKER (1-SHIELD)
1 - 5	NB	D10-5	21 X 60	8.75	-	-	1	-	-	-	-	-	ENHANCED REFERENCE MARKER (1-SHIELD)
1 - 6	NB	W13-2A	48 X 90	-	-	30.00	-	-	-	-	2	-	ADVISORY EXIT SPEED W/ 180 DEGREE LOOP ARROW
1 - 7	NB	D10-5	21 X 60	8.75	-	-	1	-	-	-	-	-	ENHANCED REFERENCE MARKER (1-SHIELD)
1 - 9	NB	J23-1	36 X 84	21.00	-	-	-	-	-	2	-	-	TRAIL BLAZER - DIRECTIONAL
	NB	M4-1	36 X 18	-	-	-	-	-	-	-	-	-	ALTERNATE MARKER
	NB	M1-1	36 X 36	-	-	-	-	-	-	-	-	-	INTERSTATE SHIELD - 39
	NB	M6-2	30 X 30	-	-	-	-	-	-	-	-	-	ADVANCE ARROW RIGHT BENT
1 - 10	NB	D10-5	21 X 60	8.75	-	-	-	-	-	-	-	1-9 SB	ENHANCED REFERENCE MARKER (1-SHIELD)
1 - 11	NB	I3-1	102 X 21	14.88	-	-	-	2	-	-	-	-	BARABOO RIVER
1 - 12	NB	D10-5	21 X 60	8.75	-	-	-	-	-	-	-	1-11 SB	ENHANCED REFERENCE MARKER (1-SHIELD)
1 - 13	NB	D7-81	108 X 30	22.50	-	-	-	-	-	2	-	-	SKI AREA NEXT RIGHT
1 - 13	NB	D7-81A	108 X 21	15.75	-	-	-	-	-	-	-	-	SKI AREA CASCADE MOUNTAIN

* ADDITIONAL QUANTITY SHOWN ELSEWHERE

ALL ITEMS CATEGORY 0010 UNLESS OTHERWISE NOTED

PERMANENT SIGNING TYPE II

SIGN NO.	ROADWAY	SIGN CODE	SIGN SIZE (IN)	637.2210 SIGNS TYPE II REFLECTIVE H (SF)	637.2220 SIGNS TYPE II REFLECTIVE SH (SF)	637.2230 SIGNS TYPE II REFLECTIVE F (SF)	634.0612 POSTS WOOD 4X6-INCH 12-FT (EACH)	634.0616 16-FT (EACH)	634.0618 18-FT (EACH)	634.0620 20-FT (EACH)	634.0622 22-FT (EACH)	SIGN MOUNTED ON	REMARKS
1 - 14	NB	R3-4B	36 X 48	12.00	-	-	-	-	1	-	-	-	NO U-TURN W/ MAINT. & POLICE VEH.
1 - 15	NB	D10-5	21 X 60	8.75	-	-	-	-	-	-	-	1-13 SB	ENHANCED REFERENCE MARKER (1-SHIELD)
2 - 2	NB	D10-5	21 X 60	8.75	-	-	1	-	-	-	-	-	ENHANCED REFERENCE MARKER (1-SHIELD)
2 - 3	NB	D10-5	21 X 60	8.75	-	-	1	-	-	-	-	-	ENHANCED REFERENCE MARKER (1-SHIELD)
2 - 4	NB	J23-1	36 X 84	21.00	-	-	-	-	-	-	2	-	DIRECTIONAL ASSEMBLY - 1 HEADED ROUTE PANEL
	NB	M4-1	36 X 18	-	-	-	-	-	-	-	-	-	ALTERNATE
	NB	M1-1	36 X 36	-	-	-	-	-	-	-	-	-	INTERSTATE ROUTE MARKER
	NB	M5-2R	30 X 30	-	-	-	-	-	-	-	-	-	ADVANCE ARROW RIGHT BENT
2 - 6	NB	D10-5	21 X 60	8.75	-	-	1	-	-	-	-	-	ENHANCED REFERENCE MARKER (1-SHIELD)
2 - 7	NB	J4-2	72 X 54	27.00	-	-	-	-	-	2	-	-	REASSURANCE ASSEMBLY - 2 HEADED ROUTE PANEL
	NB	M3-4	36 X 18	-	-	-	-	-	-	-	-	-	WEST CARDINAL ROUTE MARKER
	NB	M1-1	36 X 36	-	-	-	-	-	-	-	-	-	INTERSTATE SHIELD - 90
	NB	M3-4	36 X 18	-	-	-	-	-	-	-	-	-	WEST CARDINAL ROUTE MARKER
	NB	M1-1	36 X 36	9.00	-	-	-	-	-	-	-	-	INTERSTATE SHIELD - 94
2 - 8	NB	D10-5	21 X 60	8.75	-	-	1	-	-	-	-	-	ENHANCED REFERENCE MARKER (1-SHIELD)
2 - 9	NB	R3-4B	36 X 48	12.00	-	-	-	-	1	-	-	-	NO U-TURN W/ MAINT. & POLICE VEH.
2 - 10	NB	D10-5	21 X 60	8.75	-	-	1	-	-	-	-	-	ENHANCED REFERENCE MARKER (1-SHIELD)
2 - 11	NB	W4-2L	48 X 48	-	-	16.00	-	-	-	2	-	-	LANE REDUCTION TRANSITION SYMBOL LEFT
2 - 12	NB	J4-1	36 X 54	13.50	-	-	-	-	-	1	-	-	ENHANCED REFERENCE MARKER (1-SHIELD)
	NB	M4-1	36 X 18	-	-	-	-	-	-	-	-	-	ALTERNATE MARKER
	NB	M1-1	36 X 36	-	-	-	-	-	-	-	-	-	INTERSTATE SHIELD - 91
3 - 1	NB	W4-2R	48 X 48	-	-	16.00	-	-	-	2	-	-	LANE REDUCTION TRANSITION SYMBOL RIGHT
3 - 2	NB	D10-5	21 X 60	8.75	-	-	1	-	-	-	-	-	ENHANCED REFERENCE MARKER (1-SHIELD)
3 - 3	NB	W9-2R	48 X 48	-	-	16.00	-	-	-	2	-	-	LANE ENDS MERGE RIGHT
3 - 4	NB	W9-2L	48 X 48	-	-	16.00	-	-	-	2	-	-	LANE ENDS MERGE LEFT
3 - 5	NB	W9-63	72 X 90	-	-	45.00	-	-	-	-	-	SIGN BRIDGE	LANE ENDS 1/2 MILE
3 - 6	NB	D10-5	21 X 60	8.75	-	-	1	-	-	-	-	-	ENHANCED REFERENCE MARKER (1-SHIELD)
3 - 7	NB	D10-5	21 X 60	8.75	-	-	1	-	-	-	-	-	ENHANCED REFERENCE MARKER (1-SHIELD)
3 - 8	NB	R3-4B	36 X 48	12.00	-	-	-	-	1	-	-	-	NO U-TURN W/ MAINT. & POLICE VEH.
3 - 9	NB	D10-5	21 X 60	8.75	-	-	1	-	-	-	-	-	ENHANCED REFERENCE MARKER (1-SHIELD)
3 - 10	NB	D10-5	21 X 60	8.75	-	-	1	-	-	-	-	-	ENHANCED REFERENCE MARKER (1-SHIELD)
3 - 13	NB	D10-5	21 X 60	8.75	-	-	1	-	-	-	-	-	ENHANCED REFERENCE MARKER (1-SHIELD)
4 - 1	NB	W5-65D	24 X 36	-	-	6.00	-	-	2	-	-	-	DOUBLE DOWN ARROWS
4 - 2	NB	J23-1	36 X 84	21.00	-	-	-	-	-	-	2	-	ROUTE TURN ASSEMBLY - 2 HEADED PANEL
	NB	M4-1	36 X 18	-	-	-	-	-	-	-	-	-	ALTERNATE MARKER
	NB	M1-1	36 X 36	-	-	-	-	-	-	-	-	-	INTERSTATE SHIELD - 91
	NB	M6-2	30 X 30	-	-	-	-	-	-	-	-	-	ARROW TILT RIGHT
4 - 3	NB	W9-62	72 X 90	-	-	45.00	-	-	-	-	-	SIGN BRIDGE	THIS LANE ENDS WITH ARROW
4 - 7	NB	D10-5	21 X 60	8.75	-	-	1	-	-	-	-	-	ENHANCED REFERENCE MARKER (1-SHIELD)
4 - 8	NB	E10-61	144 X 54	54.00	-	-	-	-	-	-	2	-	HOSPITAL EXIT 108 B
4 - 9	NB	R3-4B	36 X 48	12.00	-	-	-	-	1	-	-	-	NO U-TURN W/ MAINT. & POLICE VEH.
4 - 10	NB	J23-1	36 X 84	21.00	-	-	-	-	-	-	2	-	ROUTE TURN ASSEMBLY - 2 HEADED PANEL
	NB	M4-1	36 X 18	-	-	-	-	-	-	-	-	-	ALTERNATE MARKER
	NB	M1-1	36 X 36	-	-	-	-	-	-	-	-	-	INTERSTATE SHIELD - 91
	NB	M6-2	30 X 30	-	-	-	-	-	-	-	-	-	ARROW TILT RIGHT
4 - 12	NB	D10-5	21 X 60	8.75	-	-	1	-	-	-	-	-	ENHANCED REFERENCE MARKER (1-SHIELD)
4 - 13	NB	R3-33	78 X 36	19.50	-	-	-	-	2	-	-	-	RIGHT LANE MUST EXIT
4 - 14	NB	D10-5	21 X 60	8.75	-	-	1	-	-	-	-	-	ENHANCED REFERENCE MARKER (1-SHIELD)
4 - 15	NB	D10-5	21 X 60	8.75	-	-	1	-	-	-	-	-	ENHANCED REFERENCE MARKER (1-SHIELD)
4 - 17	NB	D10-5	21 X 60	8.75	-	-	1	-	-	-	-	-	ENHANCED REFERENCE MARKER (1-SHIELD)
4 - 19	NB	D10-5	21 X 60	8.75	-	-	1	-	-	-	-	-	ENHANCED REFERENCE MARKER (1-SHIELD)
	NB	M4-1	36 X 18	-	-	-	-	-	-	-	-	-	ALTERNATE MARKER
	NB	M1-1	36 X 36	-	-	-	-	-	-	-	-	-	INTERSTATE SHIELD - 39
	NB	M5-2R	30 X 30	-	-	-	-	-	-	-	-	-	ADVANCE ARROW RIGHT BENT
4 - 21	NB	J23-1	36 X 84	21.00	-	-	-	-	-	-	2	-	TRAIL BLAZER - DIRECTIONAL
5 - 1	NB	D10-5	21 X 60	8.75	-	-	-	-	-	-	-	5-2 SB	ENHANCED REFERENCE MARKER (1-SHIELD)
5 - 2	NB	D10-5	21 X 60	8.75	-	-	-	-	-	-	-	5-3 SB	ENHANCED REFERENCE MARKER (1-SHIELD)
5 - 3	NB	D10-5	21 X 60	8.75	-	-	-	-	-	-	-	5-4 SB	ENHANCED REFERENCE MARKER (1-SHIELD)
5 - 5	NB	R3-4B	36 X 48	12.00	-	-	-	-	1	-	-	-	NO U-TURN W/ MAINT. & POLICE VEH.
5 - 6	NB	D10-5	21 X 60	8.75	-	-	1	-	-	-	-	-	ENHANCED REFERENCE MARKER (1-SHIELD)
5 - 7	NB	D10-5	21 X 60	8.75	-	-	-	-	-	-	-	5-10 SB	ENHANCED REFERENCE MARKER (1-SHIELD)

* ADDITIONAL QUANTITY SHOWN ELSEWHERE

ALL ITEMS CATEGORY 0010 UNLESS OTHERWISE NOTED

PERMANENT SIGNING TYPE II

SIGN NO.	ROADWAY	SIGN CODE	SIGN SIZE (IN)	637.2210 SIGNS TYPE II REFLECTIVE H (SF)	637.2220 SIGNS TYPE II REFLECTIVE SH (SF)	637.2230 SIGNS TYPE II REFLECTIVE F (SF)	634.0612 POSTS WOOD 4X6-INCH 12-FT (EACH)	634.0616 16-FT (EACH)	634.0618 18-FT (EACH)	634.0620 20-FT (EACH)	634.0622 22-FT (EACH)	SIGN MOUNTED ON	REMARKS
5 - 8	SB	D10-5	21 X 60	8.75	-	-	1	-	-	-	-	-	ENHANCED REFERENCE MARKER (1-SHIELD)
5 - 9	SB	W8-72	48 X 48	-	-	16.00	-	-	-	2	-	-	GUSTY WINDS
5 - 9	SB	W8-72P	48 X 24	-	-	8.00	-	-	-	-	-	-	ON BRIDGE
5 - 10	SB	W8-72	48 X 48	-	-	16.00	-	-	-	2	-	-	GUSTY WINDS
5 - 10	SB	W8-72P	48 X 24	-	-	8.00	-	-	-	-	-	-	ON BRIDGE
5 - 11	SB	D10-5	21 X 60	8.75	-	-	1	-	-	-	-	-	ENHANCED REFERENCE MARKER (1-SHIELD)
5 - 12	SB	R8-7	48 X 36	12.00	-	-	-	1	-	-	-	-	EMERGENCY STOPPING ONLY
5 - 13	SB	M1-94	54 X 21	7.88	-	-	-	2	-	-	-	-	HWY U
6 - 1	SB	D10-5	21 X 60	8.75	-	-	1	-	-	-	-	-	ENHANCED REFERENCE MARKER (1-SHIELD)
6 - 2	SB	I3-1	114 X 21	16.63	-	-	-	-	2	-	-	-	WISCONSIN RIVER
1 - 1	NB	J4-2	72 X 54	27.00	-	-	-	-	2	-	-	-	REASSURANCE ASSEMBLY - 2 HEADED ROUTE PANEL
	NB	M3-4	36 X 18	-	-	-	-	-	-	-	-	-	WEST CARDINAL ROUTE MARKER
	NB	M1-1	36 X 36	-	-	-	-	-	-	-	-	-	INTERSTATE SHIELD - 90
	NB	M3-4	36 X 18	-	-	-	-	-	-	-	-	-	WEST CARDINAL ROUTE MARKER
	NB	M1-1	36 X 36	-	-	-	-	-	-	-	-	-	INTERSTATE SHIELD - 94
1 - 4	NB	D10-5	21 X 60	8.75	-	-	1	-	-	-	-	-	ENHANCED REFERENCE MARKER (1-SHIELD)
1 - 5	NB	D10-5	21 X 60	8.75	-	-	1	-	-	-	-	-	ENHANCED REFERENCE MARKER (1-SHIELD)
1 - 6	NB	W13-2A	48 X 90	-	-	30.00	-	-	-	-	2	-	ADVISORY EXIT SPEED W/ 180 DEGREE LOOP ARROW
1 - 7	NB	D10-5	21 X 60	8.75	-	-	1	-	-	-	-	-	ENHANCED REFERENCE MARKER (1-SHIELD)
1 - 9	NB	J23-1	36 X 84	21.00	-	-	-	-	-	2	-	-	TRAIL BLAZER - DIRECTIONAL
	NB	M4-1	36 X 18	-	-	-	-	-	-	-	-	-	ALTERNATE MARKER
	NB	M1-1	36 X 36	-	-	-	-	-	-	-	-	-	INTERSTATE SHIELD - 39
	NB	M6-2	30 X 30	-	-	-	-	-	-	-	-	-	ADVANCE ARROW RIGHT BENT
1 - 10	NB	D10-5	21 X 60	8.75	-	-	-	-	-	-	-	1-9 SB	ENHANCED REFERENCE MARKER (1-SHIELD)
1 - 11	NB	I3-1	102 X 21	14.88	-	-	-	2	-	-	-	-	BARABOO RIVER
1 - 12	NB	D10-5	21 X 60	8.75	-	-	-	-	-	-	-	1-11 SB	ENHANCED REFERENCE MARKER (1-SHIELD)
1 - 13	NB	D7-81	108 X 30	22.50	-	-	-	-	-	2	-	-	SKI AREA NEXT RIGHT
1 - 13	NB	D7-81A	108 X 21	15.75	-	-	-	-	-	-	-	-	SKI AREA CASCADE MOUNTAIN
1 - 14	NB	R3-4B	36 X 48	12.00	-	-	-	-	1	-	-	-	NO U-TURN W/ MAINT. & POLICE VEH.
1 - 15	NB	D10-5	21 X 60	8.75	-	-	-	-	-	-	-	1-13 SB	ENHANCED REFERENCE MARKER (1-SHIELD)
2 - 2	NB	D10-5	21 X 60	8.75	-	-	1	-	-	-	-	-	ENHANCED REFERENCE MARKER (1-SHIELD)
2 - 3	NB	D10-5	21 X 60	8.75	-	-	1	-	-	-	-	-	ENHANCED REFERENCE MARKER (1-SHIELD)
2 - 4	NB	J23-1	36 X 84	21.00	-	-	-	-	-	-	2	-	DIRECTIONAL ASSEMBLY - 1 HEADED ROUTE PANEL
	NB	M4-1	36 X 18	-	-	-	-	-	-	-	-	-	ALTERNATE
	NB	M1-1	36 X 36	-	-	-	-	-	-	-	-	-	INTERSTATE ROUTE MARKER
	NB	M5-2R	30 X 30	-	-	-	-	-	-	-	-	-	ADVANCE ARROW RIGHT BENT
2 - 6	NB	D10-5	21 X 60	8.75	-	-	1	-	-	-	-	-	ENHANCED REFERENCE MARKER (1-SHIELD)
2 - 7	NB	J4-2	72 X 54	27.00	-	-	-	-	-	2	-	-	REASSURANCE ASSEMBLY - 2 HEADED ROUTE PANEL
	NB	M3-4	36 X 18	-	-	-	-	-	-	-	-	-	WEST CARDINAL ROUTE MARKER
	NB	M1-1	36 X 36	-	-	-	-	-	-	-	-	-	INTERSTATE SHIELD - 90
	NB	M3-4	36 X 18	-	-	-	-	-	-	-	-	-	WEST CARDINAL ROUTE MARKER
	NB	M1-1	36 X 36	9.00	-	-	-	-	-	-	-	-	INTERSTATE SHIELD - 94
2 - 8	NB	D10-5	21 X 60	8.75	-	-	1	-	-	-	-	-	ENHANCED REFERENCE MARKER (1-SHIELD)
2 - 9	NB	R3-4B	36 X 48	12.00	-	-	-	-	1	-	-	-	NO U-TURN W/ MAINT. & POLICE VEH.
2 - 10	NB	D10-5	21 X 60	8.75	-	-	1	-	-	-	-	-	ENHANCED REFERENCE MARKER (1-SHIELD)
2 - 11	NB	W4-2L	48 X 48	-	-	16.00	-	-	-	2	-	-	LANE REDUCTION TRANSITION SYMBOL LEFT
2 - 12	NB	J4-1	36 X 54	13.50	-	-	-	-	-	1	-	-	ENHANCED REFERENCE MARKER (1-SHIELD)
	NB	M4-1	36 X 18	-	-	-	-	-	-	-	-	-	ALTERNATE MARKER
	NB	M1-1	36 X 36	-	-	-	-	-	-	-	-	-	INTERSTATE SHIELD - 91
3 - 1	NB	W4-2R	48 X 48	-	-	16.00	-	-	-	2	-	-	LANE REDUCTION TRANSITION SYMBOL RIGHT
3 - 2	NB	D10-5	21 X 60	8.75	-	-	1	-	-	-	-	-	ENHANCED REFERENCE MARKER (1-SHIELD)
3 - 3	NB	W9-2R	48 X 48	-	-	16.00	-	-	-	2	-	-	LANE ENDS MERGE RIGHT
3 - 4	NB	W9-2L	48 X 48	-	-	16.00	-	-	-	2	-	-	LANE ENDS MERGE LEFT
3 - 5	NB	W9-63	72 X 90	-	-	45.00	-	-	-	-	-	SIGN BRIDGE	LANE ENDS 1/2 MILE
3 - 6	NB	D10-5	21 X 60	8.75	-	-	1	-	-	-	-	-	ENHANCED REFERENCE MARKER (1-SHIELD)
3 - 7	NB	D10-5	21 X 60	8.75	-	-	1	-	-	-	-	-	ENHANCED REFERENCE MARKER (1-SHIELD)
3 - 8	NB	R3-4B	36 X 48	12.00	-	-	-	-	1	-	-	-	NO U-TURN W/ MAINT. & POLICE VEH.
3 - 9	NB	D10-5	21 X 60	8.75	-	-	1	-	-	-	-	-	ENHANCED REFERENCE MARKER (1-SHIELD)
3 - 10	NB	D10-5	21 X 60	8.75	-	-	1	-	-	-	-	-	ENHANCED REFERENCE MARKER (1-SHIELD)
3 - 13	NB	D10-5	21 X 60	8.75	-	-	1	-	-	-	-	-	ENHANCED REFERENCE MARKER (1-SHIELD)

* ADDITIONAL QUANTITY SHOWN ELSEWHERE

ALL ITEMS CATEGORY 0010 UNLESS OTHERWISE NOTED

PERMANENT SIGNING TYPE II

				637.2210	637.2220	637.2230	634.0612	634.0616	634.0618	634.0620	634.0622		
							POSTS WOOD 4X6-INCH						
SIGN NO.	ROADWAY	SIGN CODE	SIGN SIZE (IN)	SIGNS TYPE II REFLECTIVE H (SF)	SIGNS TYPE II REFLECTIVE SH (SF)	SIGNS TYPE II REFLECTIVE F (SF)	12-FT (EACH)	16-FT (EACH)	18-FT (EACH)	20-FT (EACH)	22-FT (EACH)	SIGN MOUNTED ON	REMARKS
4 - 1	NB	W5-65D	24 X 36	-	-	6.00	-	-	2	-	-	-	DOUBLE DOWN ARROWS
4 - 2	NB	J23-1	36 X 84	21.00	-	-	-	-	-	-	2	-	ROUTE TURN ASSEMBLY - 2 HEADED PANEL
	NB	M4-1	36 X 18	-	-	-	-	-	-	-	-	-	ALTERNATE MARKER
	NB	M1-1	36 X 36	-	-	-	-	-	-	-	-	-	INTERSTATE SHIELD - 91
	NB	M6-2	30 X 30	-	-	-	-	-	-	-	-	-	ARROW TILT RIGHT
4 - 3	NB	W9-62	72 X 90	-	-	45.00	-	-	-	-	-	SIGN BRIDGE	THIS LANE ENDS WITH ARROW
4 - 7	NB	D10-5	21 X 60	8.75	-	-	1	-	-	-	-	-	ENHANCED REFERENCE MARKER (1-SHIELD)
4 - 8	NB	E10-61	144 X 54	54.00	-	-	-	-	-	-	2	-	HOSPITAL EXIT 108 B
4 - 9	NB	R3-4B	36 X 48	12.00	-	-	-	-	1	-	-	-	NO U-TURN W/ MAINT. & POLICE VEH.
4 - 10	NB	J23-1	36 X 84	21.00	-	-	-	-	-	-	2	-	ROUTE TURN ASSEMBLY - 2 HEADED PANEL
	NB	M4-1	36 X 18	-	-	-	-	-	-	-	-	-	ALTERNATE MARKER
	NB	M1-1	36 X 36	-	-	-	-	-	-	-	-	-	INTERSTATE SHIELD - 91
	NB	M6-2	30 X 30	-	-	-	-	-	-	-	-	-	ARROW TILT RIGHT
4 - 12	NB	D10-5	21 X 60	8.75	-	-	1	-	-	-	-	-	ENHANCED REFERENCE MARKER (1-SHIELD)
4 - 13	NB	R3-33	78 X 36	19.50	-	-	-	-	2	-	-	-	RIGHT LANE MUST EXIT
4 - 14	NB	D10-5	21 X 60	8.75	-	-	1	-	-	-	-	-	ENHANCED REFERENCE MARKER (1-SHIELD)
4 - 15	NB	D10-5	21 X 60	8.75	-	-	1	-	-	-	-	-	ENHANCED REFERENCE MARKER (1-SHIELD)
4 - 17	NB	D10-5	21 X 60	8.75	-	-	1	-	-	-	-	-	ENHANCED REFERENCE MARKER (1-SHIELD)
4 - 19	NB	D10-5	21 X 60	8.75	-	-	1	-	-	-	-	-	ENHANCED REFERENCE MARKER (1-SHIELD)
	NB	M4-1	36 X 18	-	-	-	-	-	-	-	-	-	ALTERNATE MARKER
	NB	M1-1	36 X 36	-	-	-	-	-	-	-	-	-	INTERSTATE SHIELD - 39
	NB	M5-2R	30 X 30	-	-	-	-	-	-	-	-	-	ADVANCE ARROW RIGHT BENT
4 - 21	NB	J23-1	36 X 84	21.00	-	-	-	-	-	-	2	-	TRAIL BLAZER - DIRECTIONAL
5 - 1	NB	D10-5	21 X 60	8.75	-	-	-	-	-	-	-	5-2 SB	ENHANCED REFERENCE MARKER (1-SHIELD)
5 - 2	NB	D10-5	21 X 60	8.75	-	-	-	-	-	-	-	5-3 SB	ENHANCED REFERENCE MARKER (1-SHIELD)
5 - 3	NB	D10-5	21 X 60	8.75	-	-	-	-	-	-	-	5-4 SB	ENHANCED REFERENCE MARKER (1-SHIELD)
5 - 5	NB	R3-4B	36 X 48	12.00	-	-	-	-	1	-	-	-	NO U-TURN W/ MAINT. & POLICE VEH.
5 - 6	NB	D10-5	21 X 60	8.75	-	-	1	-	-	-	-	-	ENHANCED REFERENCE MARKER (1-SHIELD)
5 - 7	NB	D10-5	21 X 60	8.75	-	-	-	-	-	-	-	5-10 SB	ENHANCED REFERENCE MARKER (1-SHIELD)
5 - 8	NB	M1-94	54 X 21	7.88	-	-	-	2	-	-	-	-	HWY U
6 - 1	NB	D10-5	21 X 60	8.75	-	-	-	-	-	-	-	6-1 SB	ENHANCED REFERENCE MARKER (1-SHIELD)
6 - 2	NB	I3-1	114 X 21	16.63	-	-	-	-	2	-	-	-	WISCONSIN RIVER
7 - 2	STH 33	D1-1	114 X 21	16.63	-	-	-	2	-	-	-	-	ONE DESTINATION - WIS DELLS LEFT ARROW
7 - 3	STH 33	J3-2	48 X 57	19.00	-	-	-	-	1	-	-	-	DIRECTIONAL ASSEMBLY - 2 HEADED ROUTE PANEL
	STH 33	M3-4	24 X 12	-	-	-	-	-	-	-	-	-	WEST CARDINAL ROUTE MARKER
	STH 33	M1-1	24 X 24	-	-	-	-	-	-	-	-	-	INTERSTATE SHIELD - 90
	STH 33	M6-1	21 X 21	-	-	-	-	-	-	-	-	-	ARROW LEFT
	STH 33	M3-4	24 X 12	-	-	-	-	-	-	-	-	-	WEST CARDINAL ROUTE MARKER
	STH 33	M1-1	24 X 24	-	-	-	-	-	-	-	-	-	INTERSTATE SHIELD - 94
	STH 33	M6-1	21 X 21	-	-	-	-	-	-	-	-	-	ARROW LEFT
7 - 4	STH 33	J4-3	72 X 36	18.00	-	-	-	-	2	-	-	-	DIRECTIONAL ASSEMBLY - 3 HEADED ROUTE PANEL
	STH 33	M3-2	24 X 12	-	-	-	-	-	-	-	-	-	EAST CARDINAL ROUTE MARKER
	STH 33	M1-6	24 X 24	-	-	-	-	-	-	-	-	-	STATE ROUTE MARKER - 33
	STH 33	M4-1	24 X 12	-	-	-	-	-	-	-	-	-	ALTERNATE
	STH 33	M1-1	24 X 24	-	-	-	-	-	-	-	-	-	INTERSTATE SHIELD - 39
	STH 33	M4-1	24 X 12	-	-	-	-	-	-	-	-	-	ALTERNATE
	STH 33	M1-1	24 X 24	-	-	-	-	-	-	-	-	-	INTERSTATE SHIELD - 94
7 - 5	STH 33	R2-1	24 X 30	5.00	-	-	-	1	-	-	-	-	SPEED LIMIT 45 MPH
7 - 7	STH 33	I55-56	30 X 36	7.50	-	-	-	1	-	-	-	-	ADOPT A HIGHWAY - CALEDONA COMMUNITY
7 - 8	STH 33	D1-3	72 X 36	18.00	-	-	-	2	-	-	-	-	THREE DESTINATION - BARABOO , MADISON, WIS DELLS
7 - 9	STH 33	W13-3	36 X 48	-	-	12.00	-	-	1	-	-	-	RAMP SPEED 25 MPH
7 - 12	STH 33	J3-2	48 X 57	19.00	-	-	-	-	1	-	-	-	DIRECTIONAL ASSEMBLY - 2 HEADED ROUTE PANEL
	STH 33	M3-4	24 X 12	-	-	-	-	-	-	-	-	-	WEST CARDINAL ROUTE MARKER
	STH 33	M1-1	24 X 24	-	-	-	-	-	-	-	-	-	INTERSTATE SHIELD - 90
	STH 33	M6-1	21 X 21	-	-	-	-	-	-	-	-	-	ARROW RIGHT
	STH 33	M3-4	24 X 12	-	-	-	-	-	-	-	-	-	WEST CARDINAL ROUTE MARKER
	STH 33	M1-1	24 X 24	-	-	-	-	-	-	-	-	-	INTERSTATE SHIELD - 94
	STH 33	M6-1	21 X 21	-	-	-	-	-	-	-	-	-	ARROW RIGHT

* ADDITIONAL QUANTITY SHOWN ELSEWHERE

ALL ITEMS CATEGORY 0010 UNLESS OTHERWISE NOTED

PERMANENT SIGNING TYPE II

				637.2210	637.2220	637.2230	634.0612	634.0616	634.0618	634.0620	634.0622		
							POSTS WOOD 4X6-INCH						
SIGN NO.	ROADWAY	SIGN CODE	SIGN SIZE (IN)	SIGNS TYPE II REFLECTIVE H (SF)	SIGNS TYPE II REFLECTIVE SH (SF)	SIGNS TYPE II REFLECTIVE F (SF)	12-FT (EACH)	16-FT (EACH)	18-FT (EACH)	20-FT (EACH)	22-FT (EACH)	SIGN MOUNTED ON	REMARKS
7 - 13	STH 33	R3-1	24 X 24	4.00	-	-	-	1	-	-	-	-	NO TURN RIGHT SYMBOL
7 - 14	STH 33	D5-61	48 X 24	8.00	-	-	-	1	-	-	-	-	WAYSIDE 1/2 MILE
7 - 15	STH 33	J2-3	72 X 57	28.50	-	-	-	-	-	2	-	-	ROUTE TURN ASSEMBLY - 3 HEADED ROUTE PANEL
	STH 33	M3-2	24 X 12	-	-	-	-	-	-	-	-	-	EAST CARDINAL ROUTE MARKER
	STH 33	M1-1	24 X 24	-	-	-	-	-	-	-	-	-	INTERSTATE SHIELD - 90
	STH 33	M3-2	24 X 12	-	-	-	-	-	-	-	-	-	EAST CARDINAL ROUTE MARKER
	STH 33	M1-1	24 X 24	-	-	-	-	-	-	-	-	-	INTERSTATE SHIELD - 94
	STH 33	M4-1	24 X 12	-	-	-	-	-	-	-	-	-	ALTERNATE
	STH 33	M1-1	24 X 24	-	-	-	-	-	-	-	-	-	INTERSTATE SHIELD - 39
7 - 16	STH 33	W5-52R	12 X 36	-	-	3.00	1	-	-	-	-	-	CLEARANCE STRIPER DOWN RIGHT
7 - 17	STH 33	W5-52L	12 X 36	-	-	3.00	1	-	-	-	-	-	CLEARANCE STRIPER DOWN LEFT
7 - 18	STH 33	W5-52R	12 X 36	-	-	3.00	1	-	-	-	-	-	CLEARANCE STRIPER DOWN RIGHT
7 - 19	STH 33	W5-52L	12 X 36	-	-	3.00	1	-	-	-	-	-	CLEARANCE STRIPER DOWN LEFT
8 - 1	SB RAMPS	E5-1B	90 X 60	37.50	-	-	-	-	-	-	2	-	EXIT 106 RIGHT ARROW
8 - 1	SB RAMPS	JV-F	24 X 57	9.50	-	-	-	-	-	-	-	-	FOLDING TRAILBLAZER DIRECTIONAL
	SB RAMPS	M4-1	24 X 12	-	-	-	-	-	-	-	-	-	ALTERNATE
	SB RAMPS	M1-1	24 X 24	-	-	-	-	-	-	-	-	-	INTERSTATE SHIELD - 39
	SB RAMPS	M6-2	21 X 21	-	-	-	-	-	-	-	-	-	ARROW TILT RIGHT
8 - 1	SB RAMPS	JV-F	24 X 57	-	9.50	-	-	-	-	-	-	-	FOLDING TRAILBLAZER DIRECTIONAL
	SB RAMPS	M4-1	24 X 12	-	-	-	-	-	-	-	-	-	ALTERNATE MARKER
	SB RAMPS	M1-1	24 X 24	-	-	-	-	-	-	-	-	-	INTERSTATE SHIELD - 39
	SB RAMPS	M6-2	21 X 21	-	-	-	-	-	-	-	-	-	ARROW TILT RIGHT
8 - 2	SB RAMPS	D7-82	36 X 36	9.00	-	-	-	-	1	-	-	-	SKI AREA LEFT ARROW
8 - 2	SB RAMPS	D7-82A	36 X 15	3.75	-	-	-	-	-	-	-	-	SKI AREA (CASCADE MOUNTAIN) ONE LINE SUPPLEMENTAL
8 - 3	SB RAMPS	W1-8	18 X 24	-	-	3.00	1	-	-	-	-	-	CHEVRON RIGHT
8 - 3	SB RAMPS	W1-8	18 X 24	-	-	3.00	1	-	-	-	-	-	CHEVRON RIGHT
8 - 3	SB RAMPS	W1-8	18 X 24	-	-	3.00	1	-	-	-	-	-	CHEVRON RIGHT
8 - 3	SB RAMPS	W1-8	18 X 24	-	-	3.00	1	-	-	-	-	-	CHEVRON RIGHT
8 - 4	SB RAMPS	W3-1	36 X 36	-	-	9.00	-	1	-	-	-	-	STOP AHEAD
8 - 5	SB RAMPS	R5-1	30 X 30	6.25	-	-	-	-	-	-	-	8-4	DO NOT ENTER
8 - 7	SB RAMPS	R5-1A	36 X 24	6.00	-	-	-	1	-	-	-	-	WRONG WAY
8 - 8	SB RAMPS	R5-1A	36 X 24	6.00	-	-	-	-	-	-	-	8-2	WRONG WAY
8 - 9	SB RAMPS	R5-1A	36 X 24	6.00	-	-	-	-	-	-	-	-	WRONG WAY
8 - 9	SB RAMPS	D1-2	66 X 30	13.75	-	-	-	2	-	-	-	-	TWO DESTINATIONS ARROWS PORTAGE / BARABOO
8 - 10	SB RAMPS	J3-4	96 X 57	38.00	-	-	-	-	-	2	-	-	DIRECTIONAL ASSEMBLY - 4 HEADED ROUTE PANEL
	SB RAMPS	M3-4	24 X 12	-	-	-	-	-	-	-	-	-	WEST CARDINAL ROUTE MARKER
	SB RAMPS	M1-6	24 X 24	-	-	-	-	-	-	-	-	-	STATE ROUTE MARKER - 33
	SB RAMPS	M6-1	21 X 21	-	-	-	-	-	-	-	-	-	ARROW LEFT
	SB RAMPS	M3-2	24 X 12	-	-	-	-	-	-	-	-	-	EAST CARDINAL ROUTE MARKER
	SB RAMPS	M1-6	24 X 24	-	-	-	-	-	-	-	-	-	STATE ROUTE MARKER - 33
	SB RAMPS	M6-1	21 X 21	-	-	-	-	-	-	-	-	-	ARROW RIGHT
	SB RAMPS	M4-1	24 X 12	-	-	-	-	-	-	-	-	-	ALTERNATE
	SB RAMPS	M1-1	24 X 24	-	-	-	-	-	-	-	-	-	INTERSTATE SHIELD - 90
	SB RAMPS	M6-1	21 X 21	-	-	-	-	-	-	-	-	-	ARROW RIGHT
	SB RAMPS	D9-2	24 X 24	-	-	-	-	-	-	-	-	-	HOSPITAL
	SB RAMPS	M6-1	21 X 21	-	-	-	-	-	-	-	-	-	ARROW RIGHT
8 - 11	SB RAMPS	R5-1	30 X 30	6.25	-	-	-	1	-	-	-	-	DO NOT ENTER
8 - 12	SB RAMPS	W1-8	18 X 24	-	-	3.00	1	-	-	-	-	-	CHEVRON RIGHT
8 - 12	SB RAMPS	W1-8	18 X 24	-	-	3.00	1	-	-	-	-	-	CHEVRON RIGHT
8 - 12	SB RAMPS	W1-8	18 X 24	-	-	3.00	1	-	-	-	-	-	CHEVRON RIGHT
8 - 12	SB RAMPS	W1-8	18 X 24	-	-	3.00	1	-	-	-	-	-	CHEVRON RIGHT
8 - 13	SB RAMPS	W1-8	18 X 24	-	-	3.00	1	-	-	-	-	-	CHEVRON RIGHT
8 - 13	SB RAMPS	W1-8	18 X 24	-	-	3.00	1	-	-	-	-	-	CHEVRON RIGHT
8 - 13	SB RAMPS	W1-8	18 X 24	-	-	3.00	1	-	-	-	-	-	CHEVRON RIGHT
8 - 14	SB RAMPS	W4-1R	48 X 48	-	-	16.00	-	-	2	-	-	-	LANE MERGE SYMBOL RIGHT
8 - 15	NB RAMPS	E5-1B	108 X 60	45.00	-	-	-	-	-	-	2	-	EXIT 106 RIGHT ARROW
8 - 15	NB RAMPS	J23-1	24 X 57	9.50	-	-	-	-	-	-	-	-	TRAILBLAZER DIRECTIONAL
	NB RAMPS	M4-1	24 X 12	-	-	-	-	-	-	-	-	-	ALTERNATE MARKER
	NB RAMPS	M1-1	24 X 24	-	-	-	-	-	-	-	-	-	INTERSTATE SHIELD - 39
	NB RAMPS	M6-2	21 X 21	-	-	-	-	-	-	-	-	-	ARROW TILT RIGHT

* ADDITIONAL QUANTITY SHOWN ELSEWHERE

ALL ITEMS CATEGORY 0010 UNLESS OTHERWISE NOTED

PERMANENT SIGNING TYPE II

				637.2210	637.2220	637.2230	634.0612	634.0616	634.0618	634.0620	634.0622		
							POSTS WOOD 4X6-INCH						
SIGN NO.	ROADWAY	SIGN CODE	SIGN SIZE (IN)	SIGNS TYPE II REFLECTIVE H (SF)	SIGNS TYPE II REFLECTIVE SH (SF)	SIGNS TYPE II REFLECTIVE F (SF)	12-FT (EACH)	16-FT (EACH)	18-FT (EACH)	20-FT (EACH)	22-FT (EACH)	SIGN MOUNTED ON	REMARKS
8 - 15	NB RAMPS	JV-F	24 X 57	-	9.50	-	-	-	-	-	-	-	TRAILBLAZER DIRECTIONAL
	NB RAMPS	M4-1	24 X 12	-	-	-	-	-	-	-	-	-	ALTERNATE MARKER
	NB RAMPS	M1-1	24 X 24	-	-	-	-	-	-	-	-	-	INTERSTATE SHIELD - 39
	NB RAMPS	M6-2	21 X 21	-	-	-	-	-	-	-	-	-	ARROW TILT RIGHT
8 - 16	NB RAMPS	W1-8	18 X 24	-	-	3.00	1	-	-	-	-	-	CHEVRON RIGHT
8 - 16	NB RAMPS	W1-8	18 X 24	-	-	3.00	1	-	-	-	-	-	CHEVRON RIGHT
8 - 16	NB RAMPS	W1-8	18 X 24	-	-	3.00	1	-	-	-	-	-	CHEVRON RIGHT
8 - 16	NB RAMPS	W1-8	18 X 24	-	-	3.00	1	-	-	-	-	-	CHEVRON RIGHT
8 - 16	NB RAMPS	W1-8	18 X 24	-	-	3.00	1	-	-	-	-	-	CHEVRON RIGHT
8 - 17	NB RAMPS	W3-1	36 X 36	-	-	9.00	-	1	-	-	-	-	STOP AHEAD
8 - 18	NB RAMPS	R5-1A	36 X 24	6.00	-	-	-	1	-	-	-	-	WRONG WAY
8 - 19	NB RAMPS	R5-1A	36 X 24	6.00	-	-	-	-	-	-	-	8-17	WRONG WAY
8 - 20	NB RAMPS	D1-2	66 X 30	13.75	-	-	-	2	-	-	-	-	TWO DESTINATIONS ARROWS PORTAGE / BARABOO
8 - 20	NB RAMPS	R5-1A	36 X 24	6.00	-	-	-	-	-	-	-	-	WRONG WAY
8 - 21	NB RAMPS	J3-3	72 X 57	28.50	-	-	-	-	-	2	-	-	DIRECTIONAL ASSEMBLY - 3 HEADED ROUTE PANEL
	NB RAMPS	M4-1	24 X 12	-	-	-	-	-	-	-	-	-	ALTERNATE MARKER
	NB RAMPS	M1-1	24 X 24	-	-	-	-	-	-	-	-	-	INTERSTATE SHIELD - 39
	NB RAMPS	M6-1	21 X 21	-	-	-	-	-	-	-	-	-	ARROW LEFT
	NB RAMPS	M4-1	24 X 12	-	-	-	-	-	-	-	-	-	ALTERNATE MARKER
	NB RAMPS	M1-1	24 X 24	-	-	-	-	-	-	-	-	-	INTERSTATE SHIELD - 90
	NB RAMPS	M6-1	21 X 21	-	-	-	-	-	-	-	-	-	ARROW RIGHT
	NB RAMPS	M4-1	24 X 12	-	-	-	-	-	-	-	-	-	ALTERNATE MARKER
	NB RAMPS	M1-1	24 X 24	-	-	-	-	-	-	-	-	-	INTERSTATE SHIELD - 94
	NB RAMPS	M6-1	21 X 21	-	-	-	-	-	-	-	-	-	ARROW RIGHT
8 - 22	NB RAMPS	D1-2	78 X 48	26.00	-	-	-	-	2	-	-	-	DESTINATION DEVILS LAKE STATE PARK / CIRCUS WORLD MUSEUM
8 - 23	NB RAMPS	R1-2	48 X 42	7.00	-	-	-	1	-	-	-	-	YIELD
8 - 24	NB RAMPS	R5-1	30 X 30	6.25	-	-	-	1	-	-	-	-	DO NOT ENTER
8 - 25	NB RAMPS	W12-1D	24 X 24	-	-	4.00	-	1	-	-	-	-	DOUBLE DOWN ARROWS
8 - 26	NB RAMPS	J3-2	48 X 57	19.00	-	-	-	-	1	-	-	-	DIRECTIONAL ASSEMBLY - 2 HEADED ROUTE PANEL
	NB RAMPS	M3-2	24 X 12	-	-	-	-	-	-	-	-	-	EAST CARDINAL ROUTE MARKER
	NB RAMPS	M1-6	24 X 24	-	-	-	-	-	-	-	-	-	STATE ROUTE MARKER - 33
	NB RAMPS	M6-1	21 X 21	-	-	-	-	-	-	-	-	-	ARROW LEFT
	NB RAMPS	M3-2	24 X 12	-	-	-	-	-	-	-	-	-	WEST CARDINAL ROUTE MARKER
	NB RAMPS	M1-6	24 X 24	-	-	-	-	-	-	-	-	-	STATE ROUTE MARKER - 33
	NB RAMPS	M6-1	21 X 21	-	-	-	-	-	-	-	-	-	ARROW RIGHT
8 - 27	NB RAMPS	R1-1	36 X 36	7.46	-	-	-	1	-	-	-	-	STOP
8 - 28	NB RAMPS	R4-7	24 X 30	5.00	-	-	-	1	-	-	-	-	KEEP RIGHT
8 - 29	NB RAMPS	W1-8	18 X 24	-	-	3.00	1	-	-	-	-	-	CHEVRON LEFT
8 - 29	NB RAMPS	W1-8	18 X 24	-	-	3.00	1	-	-	-	-	-	CHEVRON LEFT
8 - 29	NB RAMPS	W1-8	18 X 24	-	-	3.00	1	-	-	-	-	-	CHEVRON LEFT
8 - 30	NB RAMPS	R4-7	24 X 30	5.00	-	-	-	1	-	-	-	-	KEEP RIGHT
8 - 31	NB RAMPS	R5-1	30 X 30	6.25	-	-	-	-	-	-	-	-	DO NOT ENTER
8 - 32	NB RAMPS	W1-6	48 X 24	-	-	8.00	-	1	-	-	-	-	NIGHT ARROW - SINGLE
8 - 33	NB RAMPS	W4-1R	48 X 48	-	-	16.00	-	-	2	-	-	-	MERGING TRAFFIC SYMBOL - RIGHT
				1627.34	46.50	417.00	74	33	44	27	20		

* ADDITIONAL QUANTITY SHOWN ELSEWHERE

ALL ITEMS CATEGORY 0010 UNLESS OTHERWISE NOTED

TRAFFIC CONTROL FLEXIBLE TUBULAR MARKERS

STATION	STATION	LOCATION	643.0500 TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER POSTS (EACH)	643.0600 TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER BASES (EACH)	204.9060.S.05 REMOVING FLEXIBLE TUBULAR MARKERS (EACH)
1076+00SB	- 1081+20SB	LT	75	75	70
TOTAL			75	75	70

TRAFFIC CONTROL SURVEILLANCE AND MAINTENANCE

STATION	643.0200.01 TRAFFIC CONTROL SURVEILLANCE AND MAINTENANCE 1010-02-84 (DAYS)
PROJECT LIMITS	233
TOTAL	233

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)	643.1050 TRAFFIC CONTROL SIGNS PCMS (DAY)	643.2000 TRAFFIC CONTROL DETOUR 1010-02-84 (EACH)	643.3000 TRAFFIC CONTROL DETOUR SIGNS (DAY)
STH 33 OVERSIZED LOAD	-	-	-	-	-	-	-	-	-	0.5	560
STAGE 1	14,000	960	1,920	960	160	1,960	-	320	160	-	-
STAGE 2	7,000	480	960	480	80	1,000	-	160	80	-	-
STAGE 3	7,000	480	960	480	80	1,000	-	160	80	-	-
STAGE 4	-	-	-	-	-	-	-	88	-	-	-
STH 33 (4A)	2,400	80	120	400	-	880	-	-	40	0.5	1,320
CASCADE MT RD (4B)	-	640	1,280	-	560	-	-	-	14	-	-
CTH U (4C)	-	640	1,280	-	560	-	-	-	14	-	-
CTH V (4D)	-	640	1,280	-	560	-	-	-	14	-	-
KENT RD (4E)	-	640	1,280	-	560	-	-	-	14	-	-
STAGE 5	3,850	264	528	264	44	690	-	120	44	-	-
STAGE 6	5,250	360	720	360	60	540	12		65	-	-
UNDISTRIBUTED	2,500	250	500	240	25	750	5	100	75	-	-
TOTAL	42,000	5,434	10,828	3,184	2,689	6,820	17	948	600	1	1,880

PAVEMENT MARKINGS

STATION - STATION	LOCATION	646.0103 PAVEMENT MARKING PAINT 4-INCH (WHITE) (LF)	646.0103 PAVEMENT MARKING PAINT 4-INCH (YELLOW) (LF)	646.0106 PAVEMENT MARKING EPOXY 4-INCH (WHITE) (LF)	646.0106 PAVEMENT MARKING EPOXY 4-INCH (YELLOW) (LF)	646.0841.S PAVEMENT MARKING GROOVED WET CONTRAST TAPE 4-INCH (LF)	646.0843.S PAVEMENT MARKING GROOVED WET CONTRAST TAPE 8-INCH (LF)	646.0881.S PAVEMENT MARKING GROOVED WET TAPE 4-INCH (LF)	646.0883.S PAVEMENT MARKING GROOVED WET TAPE 8-INCH (LF)	647.0746 PAVEMENT MARKING DIAGONAL EPOXY 24-INCH (LF)	647.0196 PAVEMENT MARKING ARROWS EPOXY TYPE 5 (EACH)
830+00 SB - 1131+48 SB	RT	-	-	39,946	30,231	-	-	-	-	-	-
830+00 SB - 864+50 SB	RT	-	-	-	-	-	-	3,445	-	-	-
864+50 SB - 975+00 SB	RT	-	-	-	-	2,050	-	9,183	-	-	-
975+00 SB - 1131+48 SB	RT	-	-	-	-	-	-	28,428	3,417	691	-
830+00 NB 1131+48 NB	LT	-	-	36,922	30,574	-	-	-	-	-	-
830+00 NB - 864+50 NB	LT	-	-	-	-	-	-	3,456	-	-	-
864+50 NB - 975+00NB	LT	-	-	-	-	2,050	-	14,570	-	-	-
975+00 NB - 1131+48 NB	LT	-	-	-	-	-	-	33,110	1,896	250	-
861+66 A - 874+35 A	RAMP A	-	-	1,300	1,152	-	-	-	471	237	-
59+24 B - 70+38 B	RAMP B	-	-	1,115	1,356	-	-	356	358	63	-
30+00 C - 42+51 C	RAMP C	-	-	1,505	1,063	-	-	-	310	189	-
10+00 D - 24+28 D	RAMP D	-	-	1,429	1,694	-	-	-	705	-	-
14+40U - 21+30U	LT	690	-	-	-	-	-	-	-	-	-
14+67U - 19+17U	RT	450	-	-	-	-	-	-	-	-	-
15+50U - 19+00U	MAINLINE	-	700	-	-	-	-	-	-	-	-
45+21V - 58+11V	LT	1,290	-	-	-	-	-	-	-	-	-
44+83V - 56+97V	RT	1,214	-	-	-	-	-	-	-	-	-
47+75V - 51+50V	MAINLINE	-	750	-	-	-	-	-	-	-	-
937+25NB - 940+00NB	LT	-	-	-	-	-	-	-	-	-	2
943+50NB - 946+70NB	LT	-	-	-	-	-	-	-	-	-	2
868+30SB - 870+64SB	RT						390				
STH 33 STAGE 4A		-	-		950	-	-	-	-	-	-
UNDISTRIBUTED		-	-		5,000	-	-	-	-	-	-
	TOTAL	5,094		154,237		4,100	390	92,548	7,157	1,430	4

* ADDITIONAL QUANTITY SHOWN ELSEWHERE

ALL ITEMS CATEGORY 0010 UNLESS OTHERWISE NOTED

TEMPORARY PAVEMENT MARKINGS

STATION	-	STATION	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)	649.1400 TEMPORARY PAVEMENT MARKING STOP LINE REMOVABLE TAPE 24-INCH (LF)
830+00 SB	-	864+50 SB	LT & RT	-	3,450	3,532	-	-
975+00 SB	-	1131+48 SB	LT & RT	-	23,472	15,649	-	-
830+00 NB	-	864+50 NB	LT & RT	-	3,450	3,875	-	-
975+00 NB	-	1131+48 NB	LT & RT	-	22,498	15,649	-	-
STH 33 STAGE 1A				-	-	-	775	-
STH 33 STAGE 4A				950	-	-	725	48
UNDISTRIBUTED				-	5,000		-	-
			TOTAL	950	96,575		1,500	48

CONSTRUCTION STAKING ELECTRICAL INSTALLATIONS

CATEGORY	STATION	-	STATION	650.8500.01 CONSTRUCTION STAKING ELECTRICAL INSTALLATIONS 1010-02-84 (LS)	650.8500.02 CONSTRUCTION STAKING ELECTRICAL INSTALLATIONS 1010-02-84 ITS (LS)
0010	830+00 SB	-	1344+70 SB	1	
0070	830+00 SB	-	1344+70 SB		1
			TOTAL	1	1

CONSTRUCTION STAKING SUPPLEMENTAL CONTROL

STATION	-	STATION	650.9910 CONSTRUCTION STAKING SUPPLEMENTAL CONTROL 1010-02-84 (LS)
830+00 SB	-	1344+70 SB	1
		TOTAL	1

CONSTRUCTION STAKING SUMMARY

STATION	-	STATION	LOCATION	650.4500 CONSTRUCTION STAKING SUBGRADE (LF)	650.4500 CONSTRUCTION STAKING BASE (LF)	650.5500 CONSTRUCTION STAKING CURB GUTTER AND CURB & GUTTER (LF)	650.6000 CONSTRUCTION STAKING PIPE CULVERTS (EACH)	650.8000 CONSTRUCTION STAKING RESURFACING REFERENCE (LF)	650.9920 CONSTRUCTION STAKING SLOPE STAKES (LF)
830+00 SB	-	864+00 SB		-	-	-	-	3,400	3,400
885+00 SB	-	906+00 SB		-	-	-	-	-	2,100
885+00 SB	-	1131+48 SB		-	-	-	-	24,648	-
925+00 SB	-	938+00 SB		-	-	-	-	-	1,300
951+00 SB	-	1001+00 SB		-	-	-	-	-	5,000
1015+00 SB	-	1020+00 SB		-	-	-	-	-	500
1030+00 SB	-	1043+00 SB		-	-	-	-	-	1,300
1058+00 SB	-	1062+00 SB		-	-	-	-	-	400
1081+00 SB	-	1083+00 SB		-	-	-	-	-	200
1099+00 SB	-	1112+00 SB		-	-	-	-	-	1,300
830+50 NB	-	864+00 NB		-	-	-	-	-	3,350
832+00 NB	-	864+00 NB		-	-	-	-	-	3,200
885+00 NB	-	1131+80 NB		-	-	-	-	24,580	-
888+00 NB	-	896+00 NB		-	-	-	-	-	800
906+00 NB	-	913+00 NB		-	-	-	-	-	700
916+00 NB	-	941+00 NB		-	-	-	-	-	2,500
958+00 NB	-	970+00 NB		-	-	-	-	-	1,200
999+00 NB	-	1001+00 NB		-	-	-	-	-	200
1006+00 NB	-	1008+00 NB		-	-	-	-	-	200
1014+00 NB	-	1017+00 NB		-	-	-	-	-	300
1020+00 NB	-	1025+00 NB		-	-	-	-	-	500
1026+00 NB	-	1030+00 NB		-	-	-	-	-	400
1037+00 NB	-	1045+00 NB		-	-	-	-	-	800
1058+00 NB	-	1066+00 NB		-	-	-	-	-	800
1082+00 NB	-	1124+00 NB		-	-	-	-	-	4,200
861+50 A	-	865+25 A		-	-	-	-	375	-
62+80 B	-	70+38 B		-	-	700	-	758	-
33+50 C	-	41+00 C		-	-	750	-	750	-
25+73 C	-			-	-	-	1	-	-
27+20 C	-			-	-	-	1	-	-
10+00 D	-	24+00 D		-	-	-	-	1,400	-
336+28 S	-	345+18 S		890	890	-	-	-	890
42+64P	-	48+32P		568	568	-	-	-	568
50+86P	-	53+67P		281	281	-	-	-	281
47+50P	-	51+50P		-	-	-	-	400	-
48+06P	-	48+32P		-	-	26	-	-	-
50+86P	-	51+10P		-	-	24	-	-	-
13+75U	-	16+11U		236	236	-	-	-	236
18+40U	-	22+20U		380	380	-	-	-	380
15+50U	-	19+00U		-	-	-	-	350	-
15+95U	-	16+10U		-	-	15	-	-	-
18+40U	-	18+50U		-	-	10	-	-	-
44+70V	-	48+48V		378	378	-	-	-	378
50+78V	-	58+84V		806	806	-	-	-	806
47+75V	-	51+50V		-	-	-	-	375	-
48+32V	-	48+48V		-	-	16	-	-	-
50+78V	-	50+94V		-	-	16	-	-	-
43+70K	-	48+58K		488	488	-	-	-	488
50+77K	-	54+45K		368	368	-	-	-	368
47+75K	-	51+50K		-	-	-	-	375	-
48+37K	-	48+53K		-	-	16	-	-	-
50+77K	-	50+93K		-	-	16	-	-	-
			TOTAL	4,395	4,395	1,589	2	57,411	39,045

* ADDITIONAL QUANTITY SHOWN ELSEWHERE

ALL ITEMS CATEGORY 0010 UNLESS OTHERWISE NOTED

3

LIGHTING CONDUIT AND WIRE

			652.0225*	652.0605*	655.0615
	FROM	TO	CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH (LF)	CONDUIT SPECIAL 2-INCH (LF)	ELECTRICAL WIRE LIGHTING 10 AWG (LF)
0010	L11-0490	PB-1	20	0	70
	PB-1	PB-2	50	0	160
	PB-2	PB-3	0	50	160
	PB-3	PB-4	165	0	505
	PB-4	PB-5	0	85	270
	PB-5	L-11-0490-0001	10	0	165
	PB-5	L-11-0490-0002	80	0	390
	0002	PB-6	10	0	40
	PB-6	PB-7	0	40	130
	PB-7	L-11-0490-0003	65	0	345
		TOTAL	400	175	2,235

LIGHTING CONTROL

				654.0230	659.2130	656.0200.01
CATEGORY	NUMBER	STATION	OFFSET	CONCRETE CONTROL CABINET BASES TYPE L30 (EACH)	LIGHTING CONTROL CABINET 120/240 30-INCH (EACH)	ELECTRICAL SERVICE METER BREAKER PEDESTAL STH 78 (LS)
0010	CABINET	982+47.71	93' LT	1	1	1
			TOTAL	1	1	1

STREET LIGHTS

				654.0106	657.0255	657.0327	657.0615	659.1125
CATEGORY	BASE NUMBER	STATION	OFFSET	CONCRETE BASES TYPE 6 (EACH)	TRANSFORMER BASES BREAKAWAY 11-1/2-BOLT CIRCLE (EACH)	POLES TYPE 6 - ALUMINUM (EACH)	LUMINAIRE ARMS SINGLE MEMBER 4 1/2-INCH CLAMP 8-FT (EACH)	LUMINAIRES UTILITY LED C (EACH)
0010	L-11-0490-0001	42+34.30 M	50.31' LT	1	1	1	1	1
	L-11-0490-0002	41+44.74 M	33' LT	1	1	1	1	1
	L-11-0490-0003	41+14.59 M	74' RT	1	1	1	1	1
			TOTAL	3	3	3	3	3

* ADDITIONAL QUANTITY SHOWN ELSEWHERE

ALL ITEMS CATEGORY 0010 UNLESS OTHERWISE NOTED

3

ITS PULL BOX & COMMUNICATION VAULT ITEMS

EQUIPMENT CODE	STATION	OFFSET	652.0700.S INSTALL CONDUIT INTO EXISTING ITEM EACH	SPV.0060.08 PULL BOXES NON-CONDUCTIVE 24x42-INCH EACH	SPV.0060.10 PULL BOXES NON-CONDUCTIVE 24x36-INCH EACH
CATEGORY 0070					
PB-1	IH 90/94 'NB'	RT	---	1	---
PB-2	IH 90/94 'SB'	RT	---	1	---
PB-3	STH 33 'WB'	RT	---	---	1
PB-4	STH 33 'WB'	RT	---	1	---
PB-5	STH 33 'WB'	RT	---	1	---
PB-6	STH 33 'EB'	RT	---	1	---
PB-7	STH 33 'EB'	RT	---	1	---
PB-8	STH 33 'EB'	RT	---	---	1
PB-9	STH 33 'EB'	RT	---	1	---
PB-10	STH 33 'EB'	RT	---	---	1
PB-11	STH 33 'EB'	RT	---	1	---
PB-12	STH 33 'EB'	RT	---	1	---
PB-13	IH 39 'NB'	RT	---	---	1
PB-14	IH 39 'NB'	RT	---	---	1
PB-15	IH 39 'NB'	RT	---	1	---
PB-16	IH 39 'SB'	RT	---	1	---
PB-17	IH 39 'SB'	RT	---	---	1
PB-18	1168+70 'NB'	LT	---	---	1
PB-19	1171+10 'NB'	LT	---	---	1
PB-20	1173+50 'NB'	LT	---	---	1
PB-21	1175+85 'NB'	LT	---	---	1
PB-22	1178+25 'NB'	LT	---	---	1
PB-23	1179+25 'NB'	LT	---	1	---
PB-24	1179+25 'NB'	RT	---	1	---
EXPB-1	IH 90/94 'NB'	RT	1	EXISTING	
EXPB-2	STH 33 'EB'	RT	1	EXISTING	
EXPB-3	STH 33 'EB'	RT	---	EXISTING	
EXPB-4	STH 33 'EB'	RT	1	EXISTING	
EXPB-5	IH 39 'SB'	RT	---	EXISTING	
EXPB-6	IH 39 'NB'	LT	---	EXISTING	
EXPB-7	IH 39 'NB'	RT	1	EXISTING	
TOTALS			4	13	11

ITS CONDUIT ITEMS

FROM	TO	LINEAR DISTANCE LF	652.0225 CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH LF	652.0235 CONDUIT RIGID NONMETALLIC SCHEDULE 40 3-INCH LF	652.0605 CONDUIT SPECIAL 2-INCH LF	652.0615 CONDUIT SPECIAL 3-INCH LF
CATEGORY 0070						
EXMB-1	EXPB-1	15	EXISTING CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH			
EXPB-1	PB-1	290	290	---	---	---
PB-1	PB-2	230	---	---	460	---
PB-2	DMS-1	40	40	---	---	---
DP-1	PB-3	10	10	---	---	---
PB-3	PB-4	180	---	---	180	---
RCG-1	PB-4	10	10	---	---	---
RCG-2	PB-5	10	10	---	---	---
PB-5	PB-4	95	---	---	95	---
PB-4	EXPB-2	85	---	---	170	---
EXPB-2	EXPB-3	260	2-EXISTING CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH			
EXPB-3	EXPB-4	395	2-EXISTING CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH			
EXMB-2	EXPB-4	175	EXISTING CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH			
EXCP-2	EXPB-4	15	3-EXISTING CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH			
EXPB-4	PB-6	90	180	---	---	---
PB-6	PB-7	160	---	---	480	---
PB-7	PB-8	250	500	---	---	---
PB-8	PB-9	220	440	---	---	---
DP-2	PB-10	10	10	---	---	---
PB-10	PB-9	155	155	---	---	---
PB-9	PB-11	120	---	---	120	---
RCG-3	PB-11	10	10	---	---	---
PB-11	PB-12	85	---	---	85	---
PB-12	RCG-4	10	10	---	---	---
EXDP-2	EXPB-5	15	2-EXISTING CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH			
EXPB-5	EXPB-6	120	2-EXISTING CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH			
EXCP-3	EXPB-6	80	3-EXISTING CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH			
EXPB-6	EXPB-7	360	2-EXISTING CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH			
EXPB-7	PB-14	300	300	---	---	---
DP-3	PB-13	10	10	---	---	---
PB-13	PB-14	115	115	---	---	---
PB-14	PB-15	300	300	---	---	---
PB-15	PB-16	145	---	---	290	---
PB-16	PB-17	255	255	---	---	---
PB-17	DP-4	10	10	---	---	---
MB-1	PB-18	20	20	---	---	---
PB-18	PB-19	245	245	---	---	---
PB-19	PB-20	240	240	---	---	---
PB-20	PB-21	240	240	---	---	---
PB-21	PB-22	245	245	---	---	---
PB-22	CB-1	10	10	10	---	---
PB-22	PB-23	100	100	100	---	---
PB-23	PB-24	120	---	---	240	120
PB-24	DMS-2	25	25	25	---	---
TOTALS			3780	135	2120	120

3

ITS CABLE ITEMS

FROM	TO	LINEAR DISTANCE LF	NUMBER OF ELECTRICAL WIRES LIGHTING 10 AWG	NUMBER OF ELECTRICAL WIRES LIGHTING 2 AWG	NUMBER OF CABLE MICROWAVE DETECTOR	CABLE SLACK ELECTRICAL AND/OR MICROWAVE DETECTOR LF	655.0615 ELECTRICAL WIRE LIGHTING 10 AWG LF	655.0635 ELECTRICAL WIRE LIGHTING 2 AWG LF	674.0200 CABLE MICROWAVE DETECTOR LF
CATEGORY 0070									
EXMB-1	EXPB-1	15	---	3	---	16	---	93	---
EXPB-1	PB-1	290	---	3	---	16	---	918	---
PB-1	PB-2	230	---	3	---	16	---	738	---
PB-2	DMS-1	40	---	3	---	16	---	168	---
DP-1	PB-3	10	---	---	1	30	---	---	40
PB-3	PB-4	180	---	---	1	16	---	---	196
RCG-1	PB-4	10	6	---	---	16	156	---	---
RCG-2	PB-5	10	3	---	---	16	78	---	---
PB-5	PB-4	95	3	---	---	16	333	---	---
PB-4	EXPB-2	85	3	---	1	16	303	---	101
EXPB-2	EXPB-3	260	3	---	1	16	828	---	276
EXPB-3	EXPB-4	395	3	---	1	16	1233	---	411
EXMB-2	EXPB-4	175	---	---	---	---	---	---	---
EXCP-2	EXPB-4	15	6	---	2	30	270	---	90
EXPB-4	PB-6	90	3	---	1	16	318	---	106
PB-6	PB-7	160	3	---	1	16	528	---	176
PB-7	PB-8	250	3	---	1	16	798	---	266
PB-8	PB-9	220	3	---	1	16	708	---	236
DP-2	PB-10	10	---	---	1	30	---	---	40
PB-10	PB-9	155	---	---	1	16	---	---	171
PB-9	PB-11	120	3	---	---	16	408	---	---
RCG-3	PB-11	10	6	---	---	16	156	---	---
PB-11	PB-12	85	3	---	---	16	303	---	---
PB-12	RCG-4	10	3	---	---	16	78	---	---
EXDP-2	EXPB-5	15	---	---	1	30	---	---	45
EXPB-5	EXPB-6	120	---	---	1	16	---	---	136
EXCP-3	EXPB-6	80	---	---	4	30	---	---	440
EXPB-6	EXPB-7	360	---	---	3	16	---	---	1128
EXPB-7	PB-14	300	---	---	3	16	---	---	948
DP-3	PB-13	10	---	---	2	30	---	---	80
PB-13	PB-14	115	---	---	2	16	---	---	262
PB-14	PB-15	300	---	---	1	16	---	---	316
PB-15	PB-16	145	---	---	1	16	---	---	161
PB-16	PB-17	255	---	---	1	16	---	---	271
PB-17	DP-4	10	---	---	1	30	---	---	40
MB-1	PB-18	20	---	4	---	16	---	144	---
PB-18	PB-19	245	---	4	---	16	---	1044	---
PB-19	PB-20	240	---	4	---	16	---	1024	---
PB-20	PB-21	240	---	4	---	16	---	1024	---
PB-21	PB-22	245	---	4	---	16	---	1044	---
PB-22	CB-1	10	---	12	---	16	---	312	---
PB-22	PB-23	100	---	8	---	16	---	928	---
PB-23	PB-24	120	---	8	---	16	---	1088	---
PB-24	DMS-2	25	---	8	---	30	---	440	---
TOTALS							6498	8965	5936

3

ITS POWER CONNECTION ITEMS

STATION	LOCATION	ITEM ID	656.0200.02 ELECTRICAL SERVICE METER BREAKER PEDESTAL (DMS-11-0057(NB)/DMS-11-0058(SB)) LS	656.0500.01 ELECTRICAL SERVICE BREAKER DISCONNECT BOX (DMS-11-0056) LS	656.0500.02 ELECTRICAL SERVICE BREAKER DISCONNECT BOX (DMS-11-0057(NB)/DMS-11-0058(SB)) LS
CATEGORY 0070					
IH 90/94 'NB'	RT	EXMB-1	EXISTING ELECTRICAL SERVICE METER BREAKER PEDESTAL		
IH 90/94 'SB'	RT	DMS-1	---	1	---
STH 33 'EB'	RT	EXMB-2	EXISTING ELECTRICAL SERVICE METER BREAKER PEDESTAL		
STH 33 'EB'	RT	EXCP-2	EXISTING ELECTRICAL SERVICE BREAKER DISCONNECT BOX		
IH 39 'NB'	LT	EXCP-3	EXISTING ELECTRICAL SERVICE BREAKER DISCONNECT BOX		
1168+55 'NB'	LT	MB-1	1	---	---
1178+25 'NB'	LT	CB-1	---	---	1
TOTALS			1	1	1

3

ITS MICROWAVE RADAR ITEMS

ITEM ID	EQUIPMENT CODE	STATION	OFFSET	654.0105* CONCRETE BASES TYPE 5 EACH	657.0255* TRANSFORMER BASES BREAKAWAY 11 1/2-INCH BOLT CIRCLE EACH	657.0322* POLES TYPE 5 ALUMINUM EACH	675.0300 INSTALL MOUNTED CONTROLLER MICROWAVE DETECTOR ASSEMBLY EACH
CATEGORY 0070							
SDS-11-0076(B)	DP-1	STH 33 'WB'	RT	1	1	1	1
SDS-11-0076(C)	DP-2	STH 33 'EB'	RT	1	1	1	1
SDS-11-0075(B)	EXDP-2	IH 39 'SB'	RT	---	---	---	1
SDS-11-0075(C/D)	DP-3	IH 39 'NB'	RT	1	1	1	2
SDS-11-0075(E)	DP-4	IH 39 'SB'	RT	1	1	1	1
TOTALS				4	4	4	6

* ADDITIONAL QUANTITY OF SAME ITEM SHOWN ELSEWHERE

3

ITS RAMP CLOSURE GATE ITEMS

ITEM ID	EQUIPMENT CODE	STATION	OFFSET	654.0105* CONCRETE BASES TYPE 5 EACH	657.0255* TRANSFORMER BASES BREAKAWAY 11 1/2-INCH BOLT CIRCLE EACH	662.1030.S RAMP CLOSURE GATES HARDWIRED 30-FT EACH	662.1037.S RAMP CLOSURE GATES HARDWIRED 37-FT EACH
CATEGORY 0070							
G-11-08	RCG-1	STH 33 'WB'	RT	1	1	---	1
G-11-07	RCG-2	STH 33 'WB'	RT	1	1	1	---
G-11-06	RCG-3	STH 33 'EB'	RT	1	1	---	1
G-11-05	RCG-4	STH 33 'EB'	RT	1	1	1	---
TOTALS				4	4	2	2

* ADDITIONAL QUANTITY OF SAME ITEM SHOWN ELSEWHERE

3

ITS DYNAMIC MESSAGE SIGN ITEMS

ITEM ID	EQUIPMENT CODE	STATION	OFFSET	635.0200* SIGN SUPPORTS STRUCTURAL STEEL HS LB	636.0100* SIGN SUPPORTS CONCRETE MASONRY CY	636.0500* SIGN SUPPORTS STEEL REINFORCEMENT LB	654.0105* CONCRETE BASES TYPE 5 EACH	657.0255* TRANSFORMER BASES BREAKAWAY 11 1/2-INCH BOLT CIRCLE EACH	657.0322* POLES TYPE 5 ALUMINUM EACH	673.0225.S INSTALL POLE MOUNTED CABINET EACH	675.0400.S INSTALL ETHERNET SWITCH EACH	678.0100.S INSTALL OVERHEAD FREEWAY DMS FULL MATRIX EACH	SPV.0060.14* INSTALL IP RADIO EACH	SPV.0060.15 INSTALL ROADSIDE DYNAMIC MESSAGE SIGN EACH
CATEGORY 0070														
DMS-11-0056	DMS-1	IH 90/94 'SB'	RT	2361	3	186	---	---	---	1		---	1	1
DMS-11-0057(NB)/DMS-11-0058(SB)	CB-1	1178+25 'NB'	LT	---	---	---	1	1	1	1	1	---	1	---
DMS-11-0057(NB)/DMS-11-0058(SB)	DMS-2	1179+50 'NB'	RT	---	---	---	---	---	---	---	---	2	---	---
TOTALS				2361	3	186	1	1	1	2	1	2	2	1

* ADDITIONAL QUANTITY OF SAME ITEM SHOWN ELSEWHERE

MISCELLANEOUS ITS ITEMS

ITEM ID	EQUIPMENT CODE	STATION	OFFSET	650.8500.02 CONSTRUCTION STAKING ELECTRICAL INSTALLATION (1010-02-84) LS	670.0100 FIELD SYSTEM INTEGRATOR LS	670.0200 ITS DOCUMENTATION LS	677.0200 INSTALL CAMERA ASSEMBLY EACH	SPV.0060.14* INSTALL IP RADIO EACH
CATEGORY 0070								
EXISTING CCTV-11-0038	EXCP-1	IH 90/94 'NB'	RT	---	---	---	---	1
EXISTING CCTV-13-0024	EXCP-4	1150+05 'NB'	LT	---	---	---	1	1
UNDISTRIBUTED	---	---	---	1	1	1	---	---
TOTALS				1	1	1	1	2

* ADDITIONAL QUANTITY OF SAME ITEM SHOWN ELSEWHERE

SALVAGE - EACH ITEMS

ITEM ID	EQUIPMENT CODE	STATION	OFFSET	SPV.0060.16 SALVAGE CAMERA ASSEMBLY EACH
CATEGORY 0070				
EXISTING CCTV-13-0024	EXCP-4	1150+05 'NB'	LT	1
TOTALS				1

3

LIGHTING PULLBOX

CATEGORY	STRUCTURE	STATION	OFFSET	SPV.0060.08* PULL BOX NON-CONDUCTIVE 24X42-INCH (EACH)
0010	PB-1	41+51.91 M	389.50' LT	1
	PB-2	41+62.26 M	343.57' LT	1
	PB-3	41+73.40 M	293.70 LT	1
	PB-4	42+08.04 M	128.91 LT	1
	PB-5	42+24.79 M	43.92 LT	1
	PB-6	41+43.05 M	26.82 LT	1
	PB-7	41+14.59 M	73.55 RT	1
			TOTAL	7

CONCRETE CURB & GUTTER 30-INCH TYPE A SPECIAL

STATION	-	STATION	LOCATION	SPV.0090.07 CONCRETE CURB & GUTTER 30-INCH TYPE A SPECIAL (LF)
62+80B	-	70+35B	RT	700
33+50C	-	41+00C	RT	750
			TOTAL	1,450

CONCRETE BARRIER WALL SURFACE REPAIR

STATION	-	STATION	LOCATION	SPV.0060.09 CONCRETE BARRIER WALL SURFACE REPAIR (EACH)
981+00NB	-	1009+25NB	LT	100
			TOTAL	100

CLEAN AND FILL CRACK TREATMENT

STATION	-	STATION	LANE	SPV.0090.08 CLEAN AND FILL CRACK TREATMENT (LF)
848+80 SB		849+05 SB	R	25
849+50 SB		850+25 SB	R	75
851+60 SB		852+10 SB	R	50
854+80 SB		855+20 SB	R	40
856+60 SB		857+10 SB	R	50
1047+29 SB		1047+83 SB	C, R	108
1114+05 SB		1114+55 SB	R	50
1182+30 SB		1182+80 SB	R	50
1187+80 SB		1188+40 SB	R	60
1224+74 SB	-	1225+04 SB	R	30
1225+68 SB	-	1226+12 SB	R	44
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
1238+57 SB	-	1240+46 SB	R	189
1250+00 SB		1251+40 SB	C, R	212
1264+80 SB	-	1265+35 SB	R	55
1301+70 SB	-	1303+66 SB	R	198
891+00 NB		891+75 NB	R	75
896+40 NB		896+90 NB	R	50
899+00 NB		899+70 NB	R	70
951+50 NB		952+80 NB	C, R	170
958+30 NB		959+50 NB	R	120
960+35 NB		961+65 NB	R	130
979+37 NB	-	985+77 NB	C, R	540
1001+20 NB		1002+80 NB	R	160
1004+09 NB	-	1005+68 NB	R	159
1062+22 NB	-	1062+70 NB	R	48
1088+12 NB	-	1088+68 NB	R	56
1111+60 NB	-	114+10 NB	R	252
1119+68 NB		1119+84 NB	R	18
1181+80 NB		1182+30 NB	C, R	75
1345+26 NB	-	1347+13 NB	C, R	180
UNDISTRIBUTED				450
			TOTAL	4152

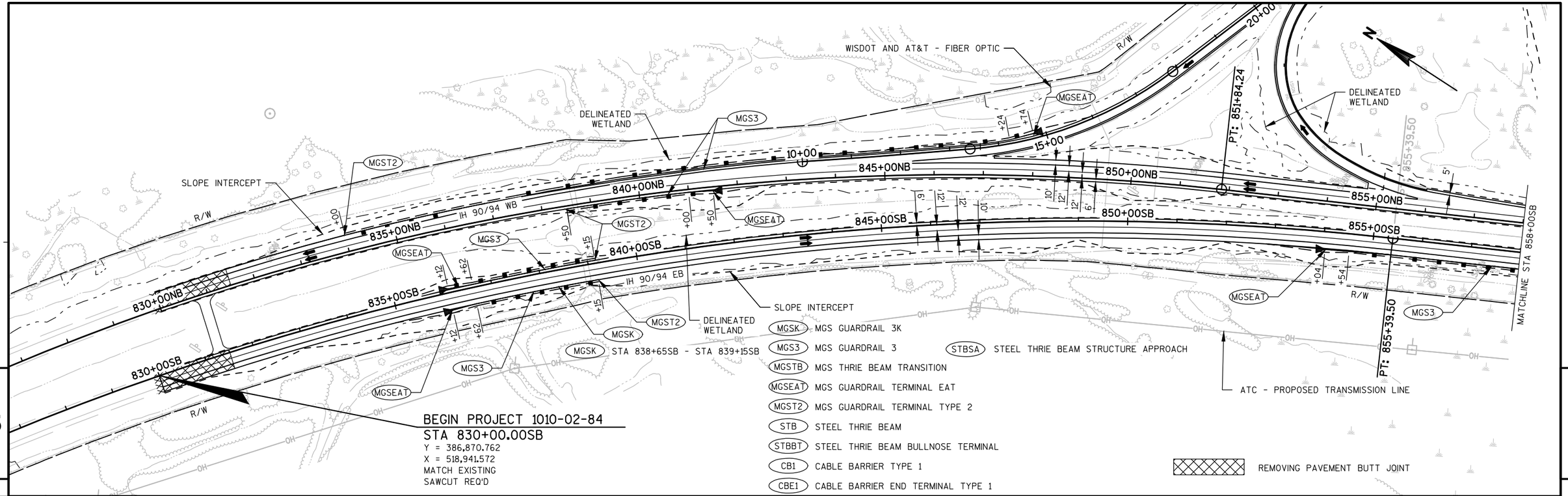
CONCRETE APPROACH CURB AND GUTTER

STATION	-	STATION	LOCATION	SPV.0090.04 CONCRETE APPROACH CURB AND GUTTER (LF)
48+06P	-	48+16P	RT	10
48+22P	-	48+32P	LT	10
50+86P	-	50+96P	RT	10
51+00P	-	51+10P	LT	10
16+00U	-	16+10U	RT	10
15+95U	-	16+05U	LT	10
18+40U	-	18+50U	RT	10
18+40U	-	18+50U	LT	10
48+32V	-	48+42V	RT	10
48+38V	-	48+48V	LT	10
50+78V	-	50+88V	RT	10
50+84V	-	50+94V	LT	10
48+37K	-	48+47K	LT	10
48+43K	-	48+53K	RT	10
50+77K	-	50+87K	LT	10
50+83K	-	50+93K	RT	10
			TOTAL	160

3

* ADDITIONAL QUANTITY SHOWN ELSEWHERE

ALL ITEMS CATEGORY 0010 UNLESS OTHERWISE NOTED



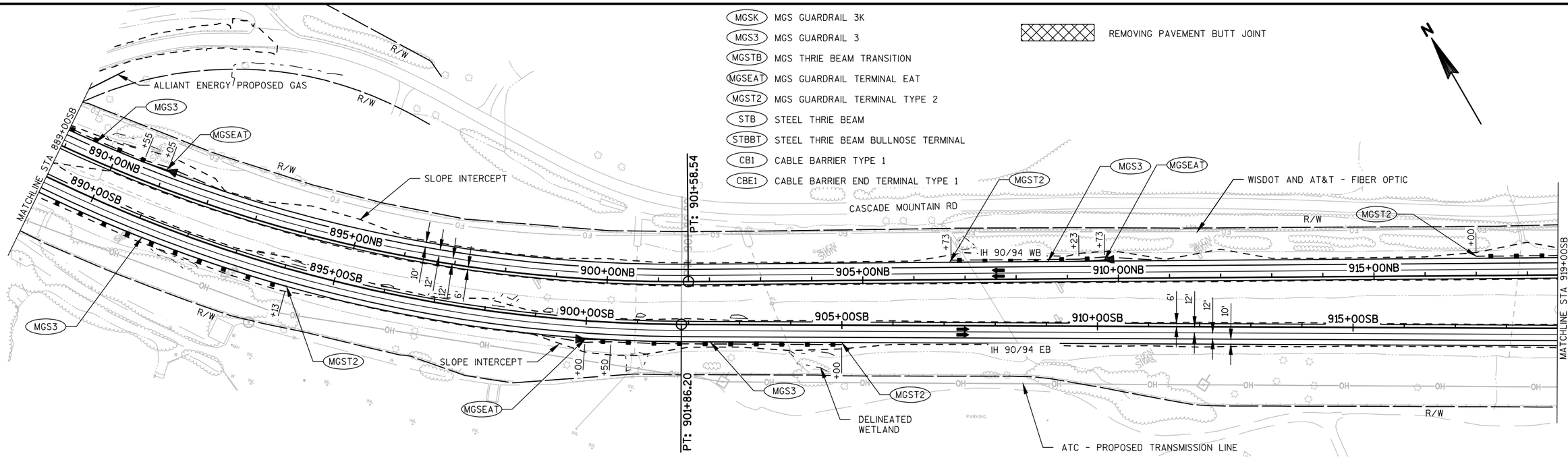
PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	PLAN	SHEET 179	E

FILE NAME : X:\3230900\131208.01\TECH\CAD\10100202\SHEETSPLAN\CONSTRUCTION PROJECT 1, 1010-02-84\050202_PN-PROJECT 1.DWG PLOT DATE : 3/14/2016 2:51 PM PLOT BY : JASON KLEIST PLOT NAME : PLOT SCALE : 1"=200'_XREF

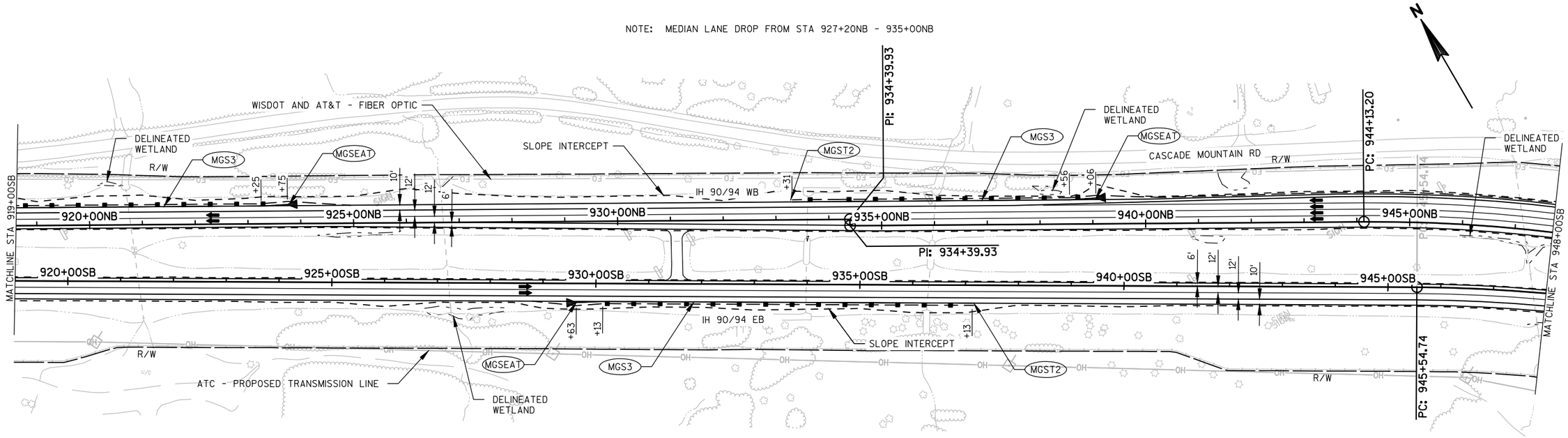
WISDOT/CADDS SHEET 44

MGSK MGS GUARDRAIL 3K
MGS3 MGS GUARDRAIL 3
MGSTB MGS THRIE BEAM TRANSITION
MGSEAT MGS GUARDRAIL TERMINAL EAT
MGST2 MGS GUARDRAIL TERMINAL TYPE 2
STB STEEL THRIE BEAM
STBBT STEEL THRIE BEAM BULLNOSE TERMINAL
CB1 CABLE BARRIER TYPE 1
CBE1 CABLE BARRIER END TERMINAL TYPE 1

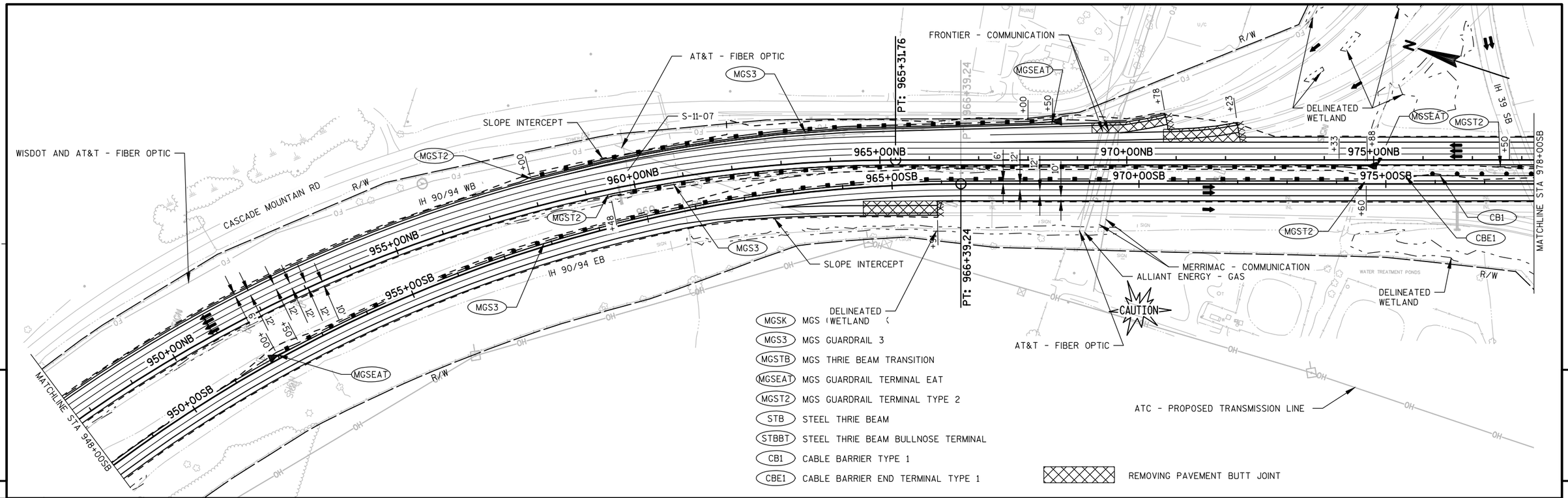
REMOVING PAVEMENT BUTT JOINT

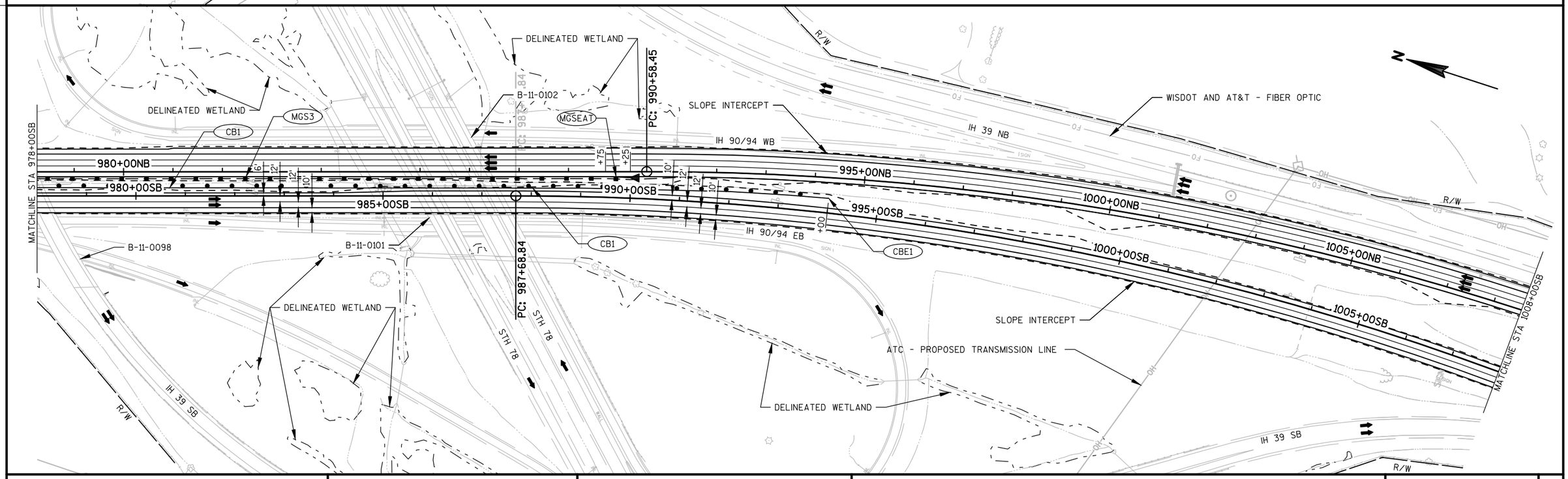


NOTE: MEDIAN LANE DROP FROM STA 927+20NB - 935+00NB

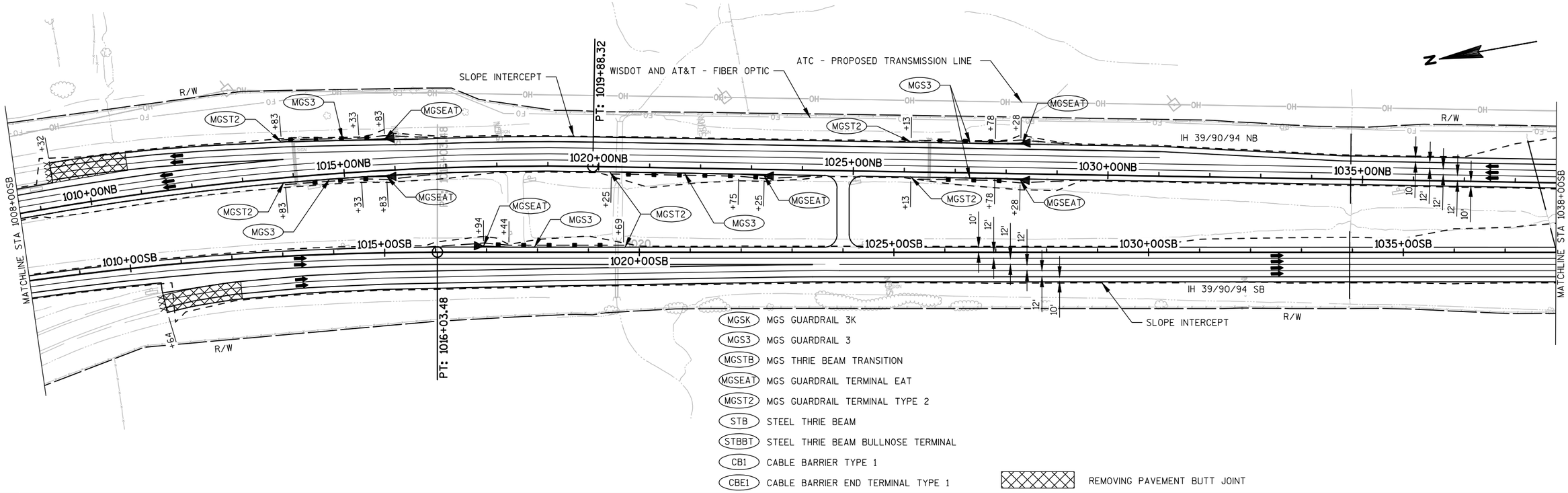


PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	PLAN	SHEET 180	E



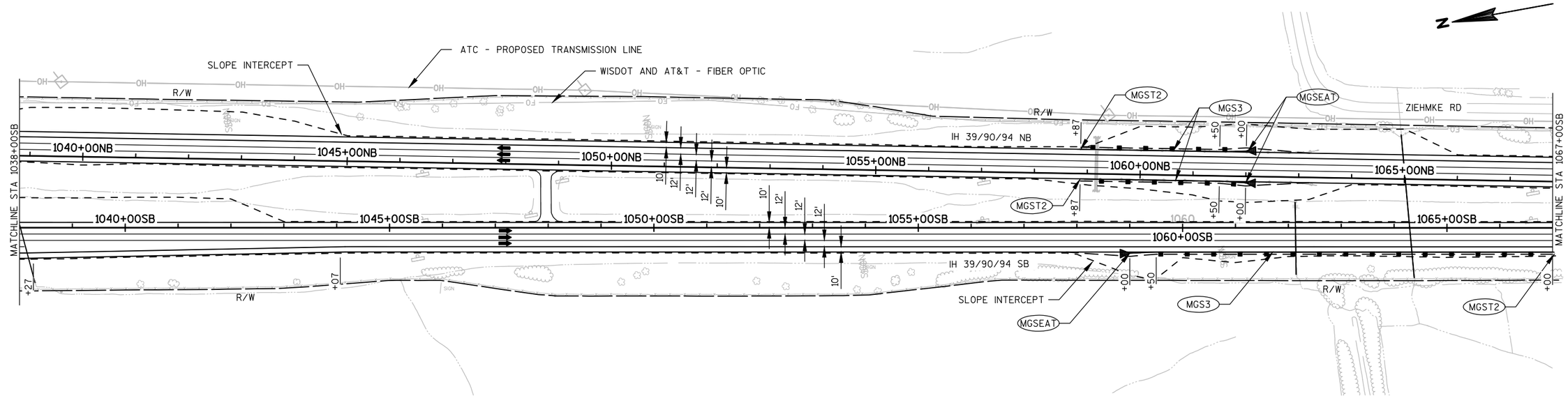


PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	PLAN	SHEET 181	E

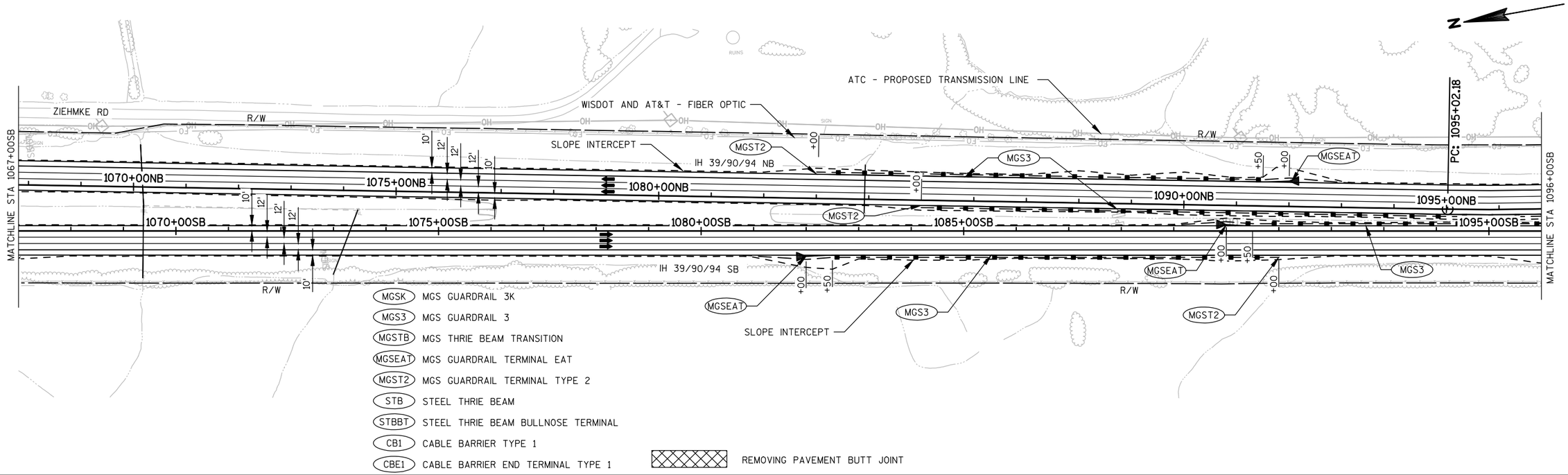


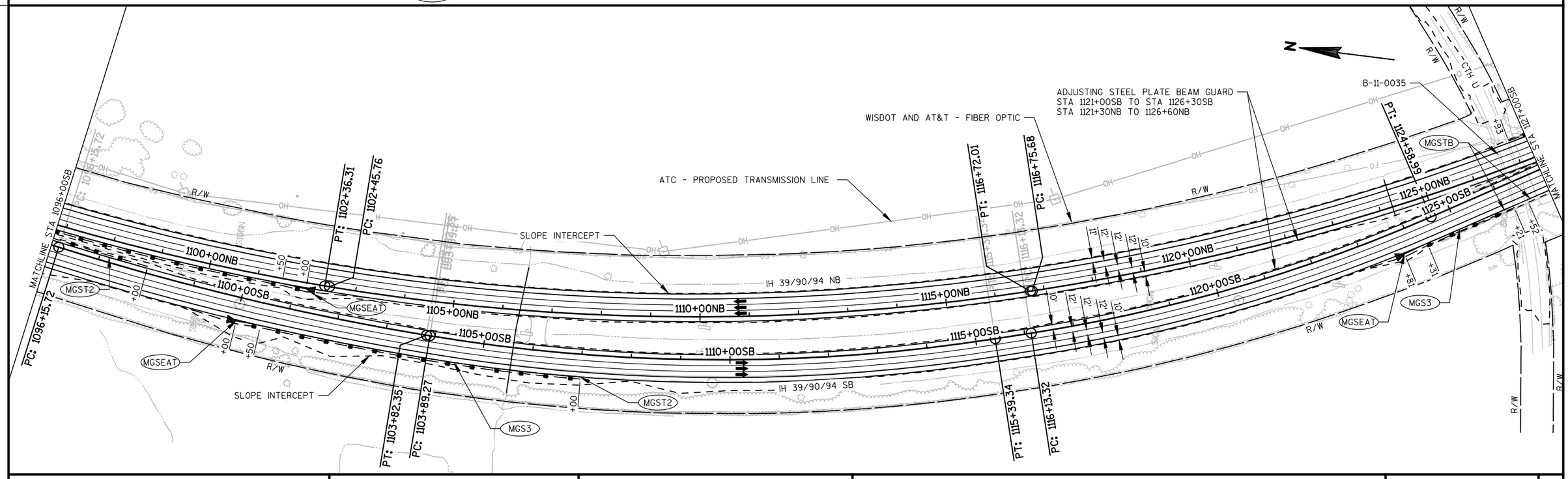
MGSK	MGS GUARDRAIL 3K
MGS3	MGS GUARDRAIL 3
MGSTB	MGS THRIE BEAM TRANSITION
MGSEAT	MGS GUARDRAIL TERMINAL EAT
MGST2	MGS GUARDRAIL TERMINAL TYPE 2
STB	STEEL THRIE BEAM
STBBT	STEEL THRIE BEAM BULLNOSE TERMINAL
CB1	CABLE BARRIER TYPE 1
CBE1	CABLE BARRIER END TERMINAL TYPE 1

REMOVING PAVEMENT BUTT JOINT

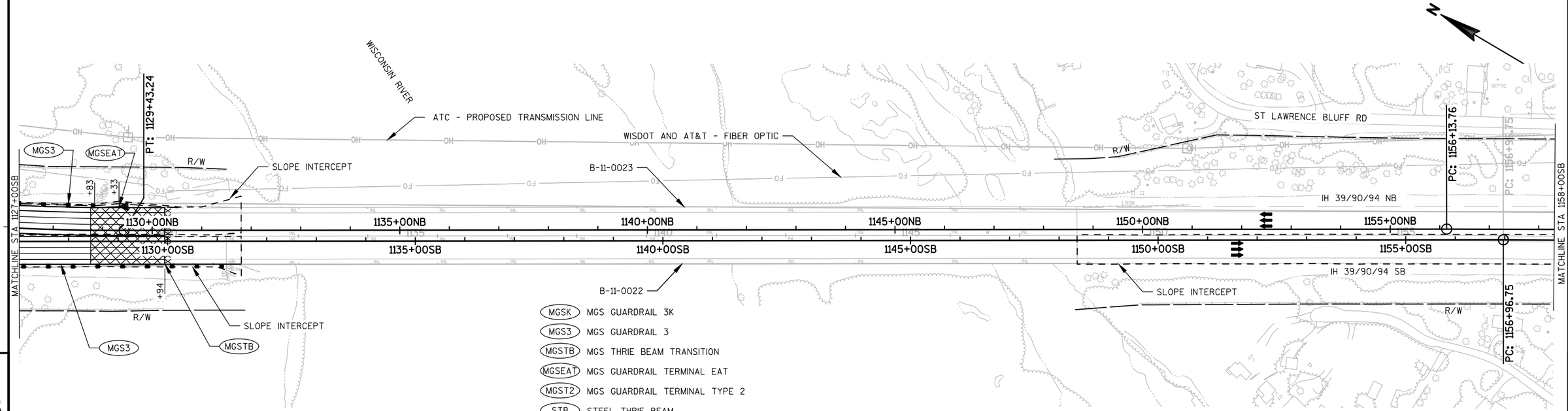


PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	PLAN	SHEET 182	E





PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	PLAN	SHEET 183	E



MGSK	MGS GUARDRAIL 3K
MGS3	MGS GUARDRAIL 3
MGSTB	MGS THRIE BEAM TRANSITION
MGSEAT	MGS GUARDRAIL TERMINAL EAT
MGST2	MGS GUARDRAIL TERMINAL TYPE 2
STB	STEEL THRIE BEAM
STBBT	STEEL THRIE BEAM BULLNOSE TERMINAL
CB1	CABLE BARRIER TYPE 1
CBE1	CABLE BARRIER END TERMINAL TYPE 1

REMOVING PAVEMENT BUTT JOINT

PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	PLAN	SHEET 184	E

WISDOT AND AT&T - FIBER OPTIC

855+00NB

PT: 855+39.50

860+00NB

865+00NB

IH 90/94 NB

855+00SB

860+00SB

865+00SB

IH 90/94 SB

60+00B

+78

65+00B

CONCRETE CURB AND GUTTER
30-INCH TYPE A SPECIAL

ATC - PROPOSED TRANSMISSION LINE

CHARTER - COMMUNICATION

STH 33

FRONTIER - COMMUNICATION

865+00A

+15

RAMP B

RAMP A

860+00A

OVERLAY 2-4" HMA PAVEMENT 4HT 58-28 S RAMP B
OVERLAY 2" HMA PAVEMENT 4HT 58-28 S RAMP A

REMOVING PAVEMENT BUTT JOINT

PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	PLAN RAMP A, B	SHEET 185 E

OVERLAY 2-4" HMA PAVEMENT 4HT 58-28 S RAMP C
OVERLAY 2" HMA PAVEMENT 4HT 58-28 S RAMP D

REMOVING PAVEMENT BUTT JOINT

WISDOT AND AT&T - FIBER OPTIC

CONCRETE CURB AND GUTTER
30-INCH TYPE A SPECIAL

REMOVING SMALL PIPE CULVERTS
CULVERT PIPE CORRUGATED STEEL
POLYMER COATED 12-INCH, 25 LF
MATCH OUTFALL TO EXISTING DITCH

RAMP D
RAMP C
STH 33
IH 90/94 WB
IH 90/94 EB
PT: 855+39.50

PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	PLAN RAMP C & D	SHEET 186	E

FILE NAME : X:\3230900\131208.01\TECH\CAD\10100202\SHEETSPLAN\CONSTRUCTION PROJECT 1, 1010-02-84\050202_PN-RAMP C, D.DWG PLOT DATE : 3/14/2016 3:00 PM PLOT BY : JASON KLEIST PLOT NAME : PLOT SCALE : 1" = 100'_XREF

Standard Detail Drawing List

08D04-05	CONCRETE SURFACE DRAINS & ASPHALTIC FLUMES
08E08-03	TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS
08E09-06	SILT FENCE
08E10-02	INLET PROTECTION TYPE A, B, C AND D
08E14-01	TRACKING PAD
08F01-11	APRON ENDWALLS FOR CULVERT PIPE
08F04-07	JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL
09B02-09	CONDUIT
09B04-11	PULL BOX
09C02-07	CONCRETE BASES, TYPES 1, 2, 5, & 6
09C03-04	TRANSFORMER/PEDESTAL BASES
09C14-02	CONCRETE CONTROL CABINET BASE, TYPE L
09D01-05	CABINET SERVICE INSTALLATION (METER BREAKER PEDESTAL)
09D04-02	LIGHTING CONTROL CABINET 120/240 VOLT
09E01-14E	POLE MOUNTINGS FOR LIGHTING UNITS, TYPE 6 (35 FEET)
09E01-14G	HARDWARE DETAILS FOR POLE MOUNTINGS
09E03-05	NON-FREEWAY LIGHTING UNIT POLE WIRING
09G02-03A	BRIDGE TEMPORARY TRAFFIC SIGNAL INSTALLATION
09G02-03B	BRIDGE TEMPORARY TRAFFIC SIGNAL INSTALLATION
09G02-03C	BRIDGE TEMPORARY TRAFFIC SIGNAL INSTALLATION
11A01-05	MAINTENANCE CROSSOVER FOR FREEWAYS
12A03-10	NAME PLATE (STRUCTURES)
12A04-03	STRUCTURE IDENTIFICATION PLAQUES, RAMP GATES, SIGN BRIDGES & OVERHEAD SIGN SUPPORTS & TRAFFIC SIGNALS
13A05-05A	SHOULDER RUMBLE STRIP, MILLING
13A05-05B	SHOULDER RUMBLE STRIP, MILLING
13A07-02	CONTINUOUSLY REINFORCED CONCRETE PAVEMENT REPAIR AND REPLACEMENT
14B07-14A	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-14B	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-14C	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-14D	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-14E	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-14F	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-14G	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-14H	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B08-02A	CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS
14B08-02B	CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS
14B08-02C	CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS
14B08-02D	CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS
14B08-02E	CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS
14B15-08A	STEEL PLATE BEAM GUARD, CLASS "A" INSTALLATION & ELEMENTS
14B15-08B	STEEL PLATE BEAM GUARD, CLASS "A" INSTALLATION & ELEMENTS
14B15-08C	STEEL PLATE BEAM GUARD, CLASS "A", INSTALLATION & ELEMENTS
14B20-11A	STEEL THRIE BEAM STRUCTURE APPROACH
14B20-11B	STEEL THRIE BEAM STRUCTURE APPROACH, CONNECTION TO SQUARE END PARAPETS
14B20-11C	STEEL THRIE BEAM STRUCTURE APPROACH, CONNECTION TO VERTICAL FACED PARAPETS
14B20-11G	STEEL THRIE BEAM STRUCTURE APPROACH, CONNECTOR PLATE DETAIL
14B20-11H	STEEL THRIE BEAM STRUCTURE APPROACH, SINGLE SLOPE ATTACHMENT
14B22-06A	CONCRETE BARRIER, SINGLE-FACED (WITH ANCHORAGE)
14B22-06B	CONCRETE BARRIER, SINGLE-FACED (WITH ANCHORAGE)
14B26-03A	STEEL THRIE BEAM BULLNOSE TERMINAL
14B26-03B	STEEL THRIE BEAM BULLNOSE TERMINAL
14B26-03C	STEEL THRIE BEAM BULLNOSE TERMINAL
14B26-03D	STEEL THRIE BEAM BULLNOSE TERMINAL
14B26-03E	STEEL THRIE BEAM BULLNOSE TERMINAL
14B42-03A	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-03B	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-03C	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B44-02A	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B44-02B	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B44-02C	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B45-04A	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-04B	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-04C	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-04D	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-04E	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-04F	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-04G	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)

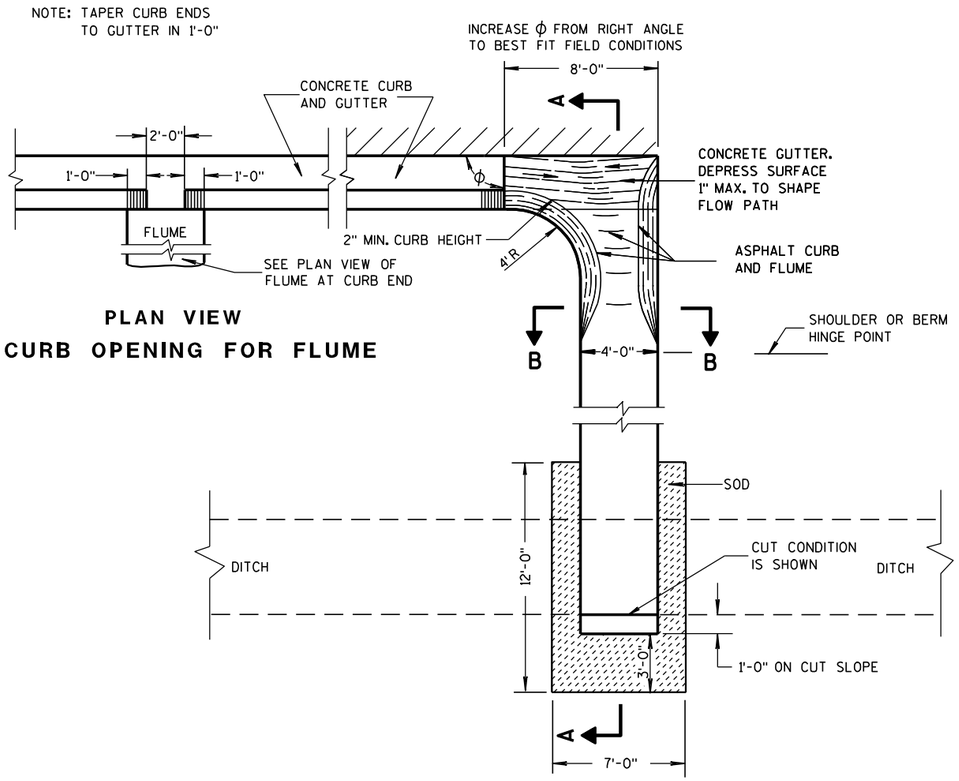
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Standard Detail Drawing List

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
14B52-01A	CABLE BARRIER TYPE 1 LAYOUT
14B52-01B	CABLE BARRIER TYPE 1 LAYOUT
15A02-08	DELINEATOR POST, DELINEATOR, AND DELINEATOR BRACKET WITH REFLECTIVE SHEETING
15A03-02A	FLEXIBLE MARKER POST FOR CULVERT END
15A03-02B	FLEXIBLE MARKER POST FOR CULVERT END
15A06-02	DELINEATOR LAYOUT
15B01-08A	FENCE WOVEN WIRE
15B01-08B	FENCE WOVEN WIRE
15C02-06A	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-06B	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
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
15C05-03	TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40 M.P.H. OR LESS
15C06-07	SIGNING & MARKING FOR TWO LANE BRIDGES
15C07-12C	PAVEMENT MARKING ARROWS
15C08-16A	PAVEMENT MARKING (MAINLINE)
15C08-16B	PAVEMENT MARKING (INTERSECTIONS)
15C11-06	FLEXIBLE TUBULAR MARKER POST
15C18-03	MEDIAN ISLAND MARKING
15C31-01A	PAVEMENT MARKING (RAMPS AND GORES)
15C31-01B	LANE DROP PAVEMENT MARKING
15C31-01C	PAVEMENT MARKING MAJOR SPLIT FREEWAY TO FREEWAY
15C31-01D	PAVEMENT MARKING FOR PARALLEL ON-RAMP AND PARALLEL OFF-RAMP
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
15D27-02	TRAFFIC CONTROL, SHOULDER CLOSURE ON DIVIDED ROADWAY, SPEEDS GREATER THAN 40 MPH
15D33-04	TRAFFIC CONTROL, ONE LANE ROAD WITH TEMPORARY SIGNALS
15D35-02A	RAMP GATE HARD WIRED
15D35-02B	RAMP GATE HARD WIRED
15D35-02C	RAMP GATE HARD WIRED
15D35-02D	RAMP GATE HARD WIRED

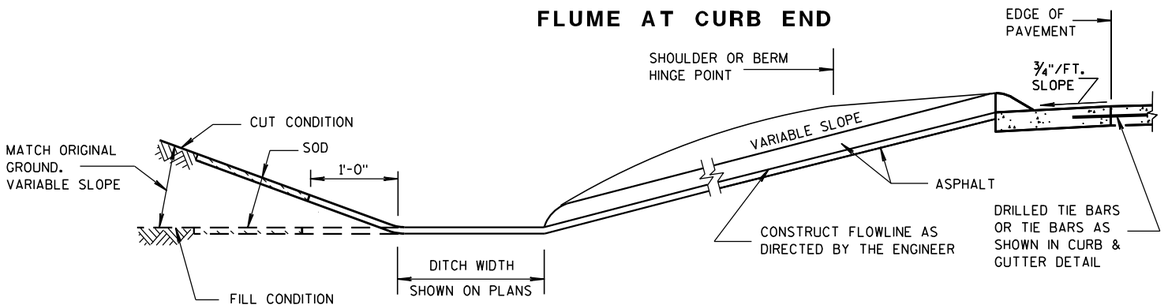
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ASPHALTIC FLUME

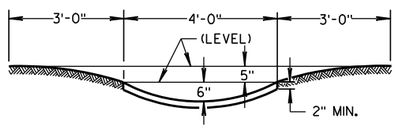


PLAN VIEW
CURB OPENING FOR FLUME

PLAN VIEW
FLUME AT CURB END



SECTION A-A



SECTION B-B

GENERAL NOTES

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

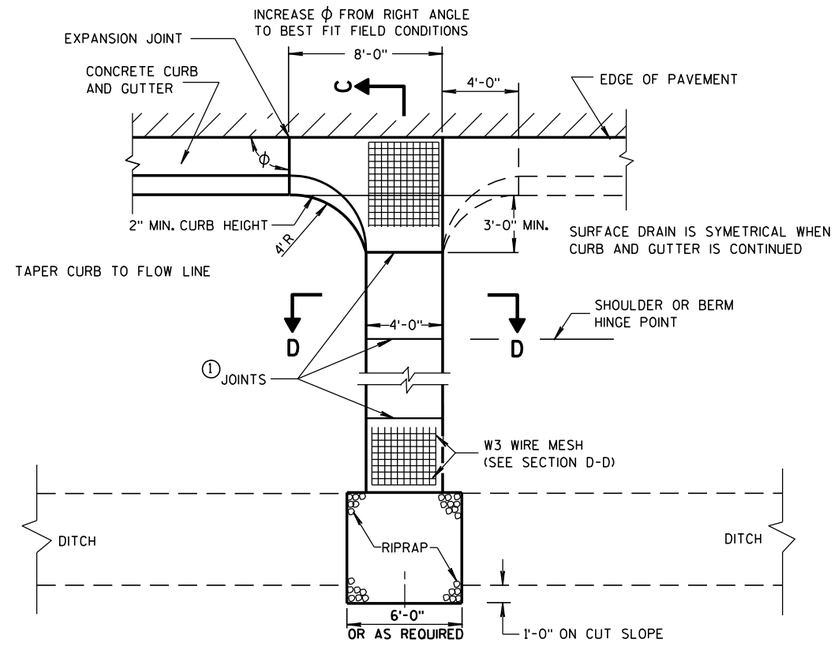
WELDED STEEL WIRE FABRIC SHALL BE IN ACCORDANCE WITH AASHTO SPECIFICATION M55.

① JOINTS SHALL BE ⅛ TO ¼ INCH WIDE BY 1½ INCHES DEEP AND SPACED AT UNIFORM INTERVALS OF APPROXIMATELY 4 FEET.

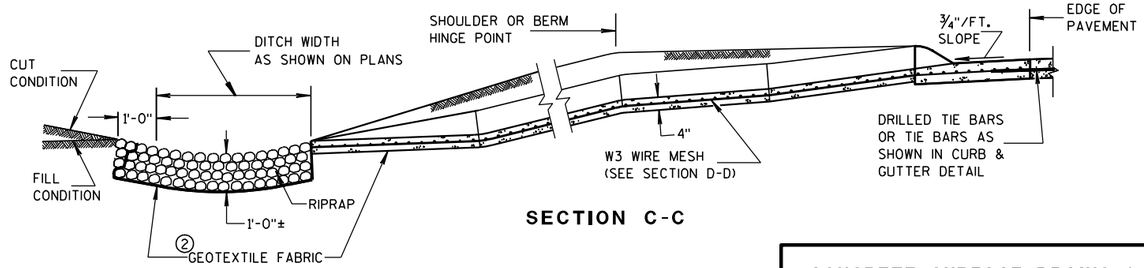
② GEOTEXTILE FABRIC TYPE "R" SHALL UNDERLAY THE FULL LENGTH AND WIDTH OF THE CONCRETE SURFACE DRAIN AND RIPRAP.

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

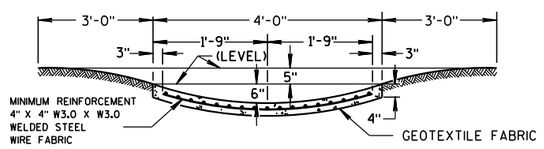
③ CONCRETE SURFACE DRAIN



PLAN VIEW



SECTION C-C



SECTION D-D

CONCRETE SURFACE DRAINS & ASPHALTIC FLUMES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

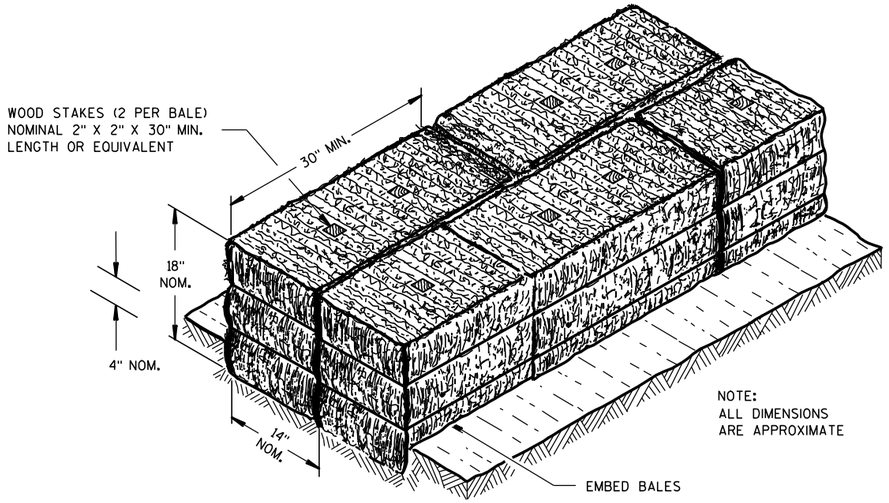
APPROVED
9-4-08 DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS ENGINEER
MENT
FHWA

6

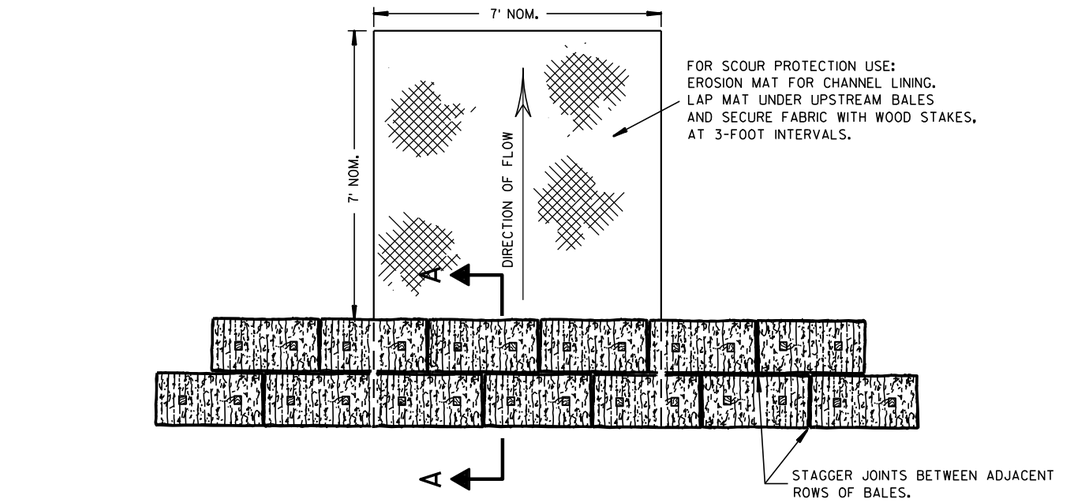
S.D.D. 8 D 4-5

6

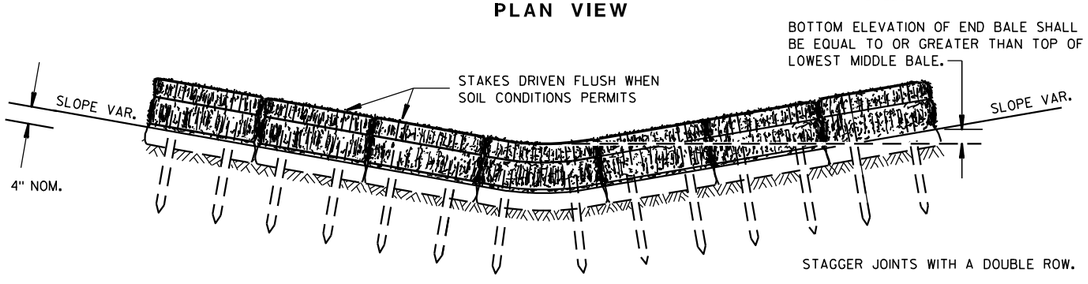
S.D.D. 8 D 4-5



SECTION A-A



PLAN VIEW



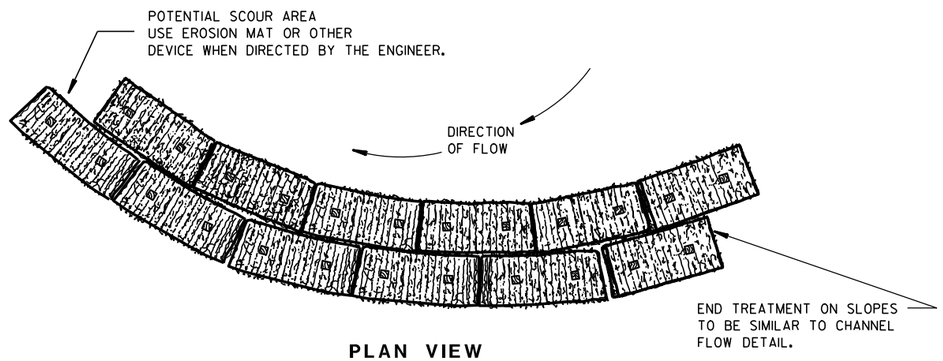
FRONT ELEVATION

TEMPORARY DITCH CHECK USING EROSION BALES ①

GENERAL NOTES

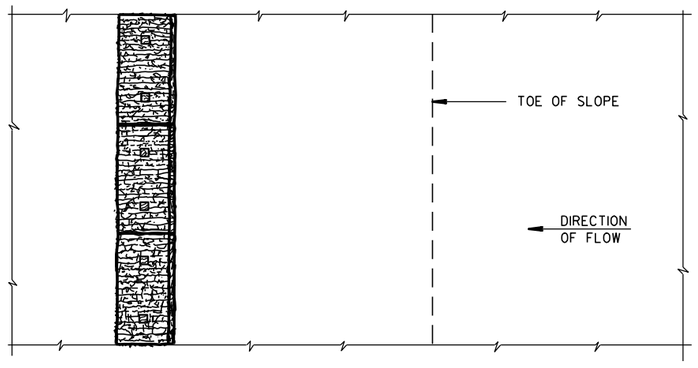
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

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

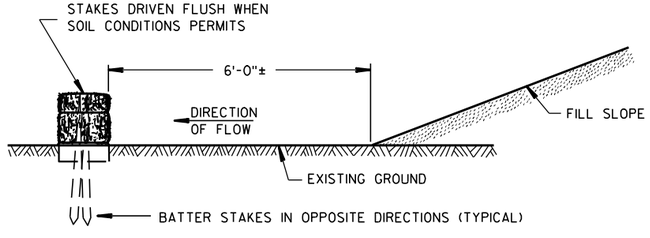


PLAN VIEW

WHEN ALTERING THE DIRECTION OF FLOW



PLAN VIEW



FRONT ELEVATION

WHEN EXISTING GROUND SLOPES AWAY FROM FILL SLOPE

EROSION BALES FOR SHEET FLOW

TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

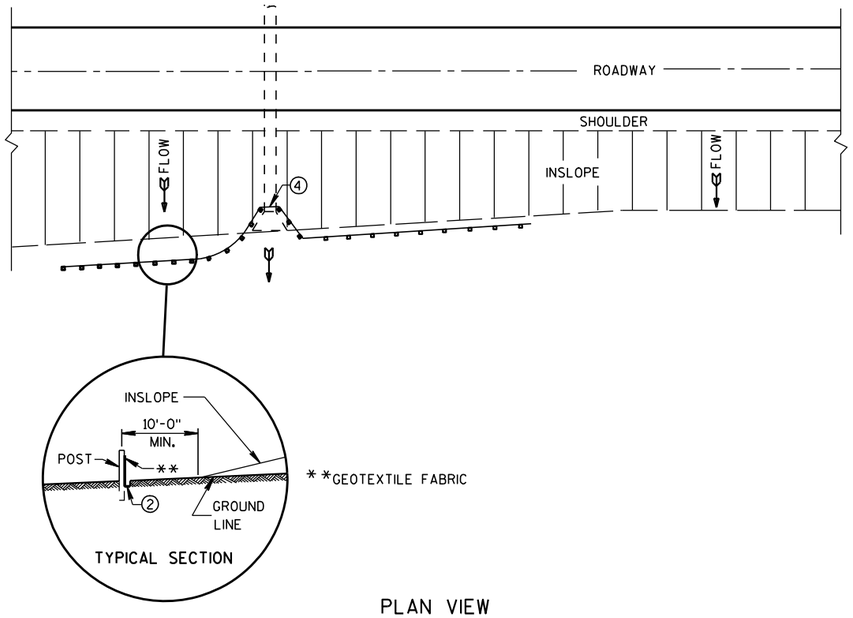
APPROVED
6/04/02 DATE
/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

6

S.D.D. 8 E 8-3

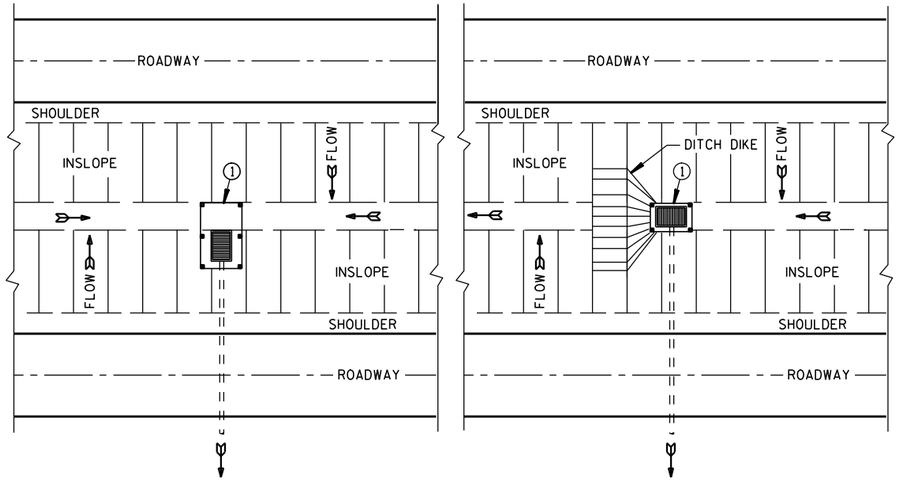
6

S.D.D. 8 E 8-3



PLAN VIEW

TYPICAL APPLICATION OF SILT FENCE



PLAN VIEW

SILT FENCE AT MEDIAN SURFACE DRAINS

GENERAL NOTES

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

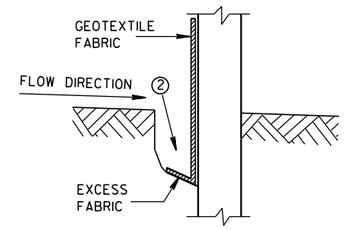
① HORIZONTAL BRACE REQUIRED WITH 2" X 4" WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS.

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

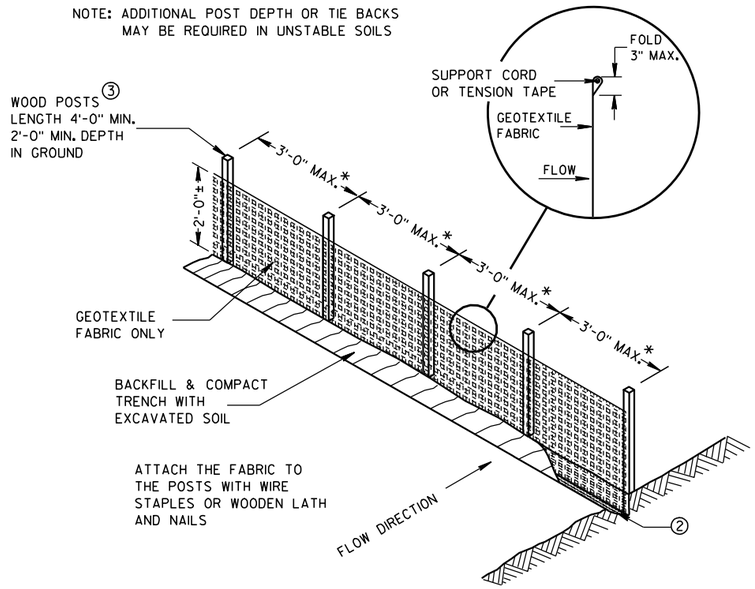
③ WOOD POSTS SHALL BE A MINIMUM SIZE OF 1⅛" X 1⅛" OF OAK OR HICKORY.

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

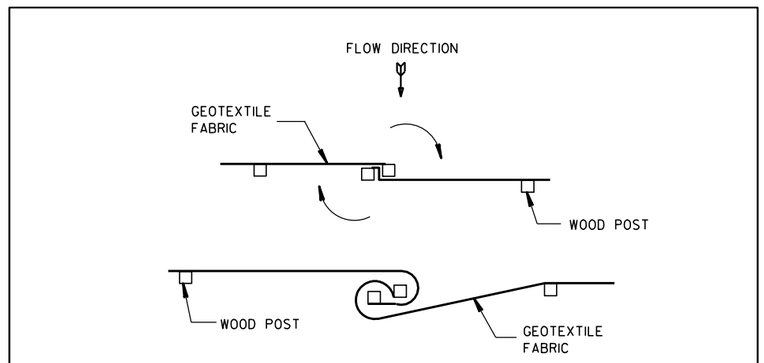
⑤ CONSTRUCT SILT FENCE FROM A CONTINUOUS ROLL IF POSSIBLE BY CUTTING LENGTHS TO AVOID JOINTS. IF A JOINT IS NECESSARY USE ONE OF THE FOLLOWING TWO METHODS; A) OVERLAP THE END POSTS AND TWIST, OR ROTATE, AT LEAST 180 DEGREES, B) HOOK THE END OF EACH SILT FENCE LENGTH.



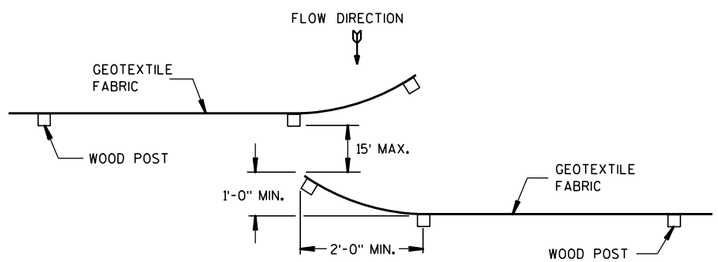
TRENCH DETAIL



SILT FENCE

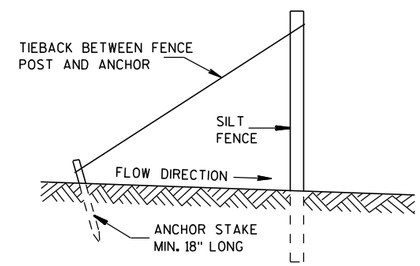


TWIST METHOD



HOOK METHOD

JOINING TWO LENGTHS OF SILT FENCE ⑤



SILT FENCE TIE BACK

(WHEN REQUIRED BY THE ENGINEER)

SILT FENCE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

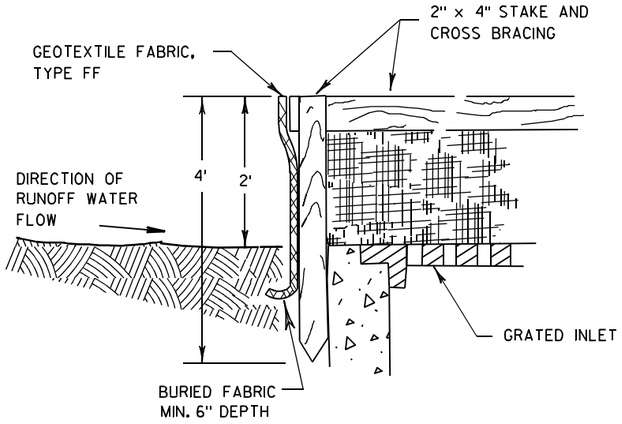
APPROVED
4-29-05 DATE
/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

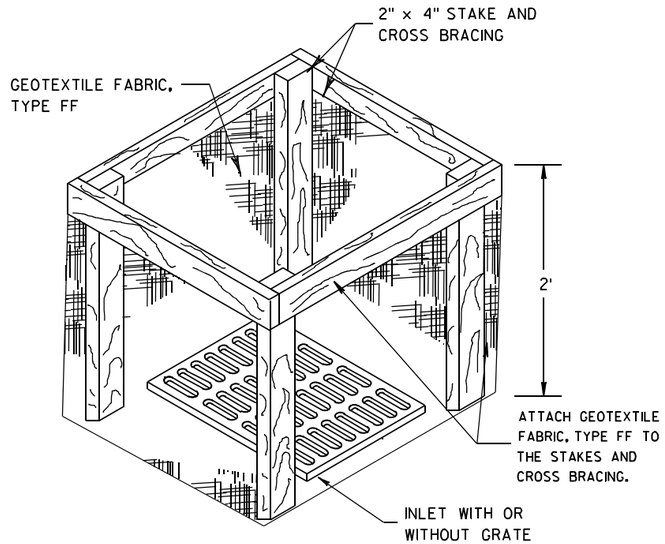
6

S.D.D. 8 E 9-6

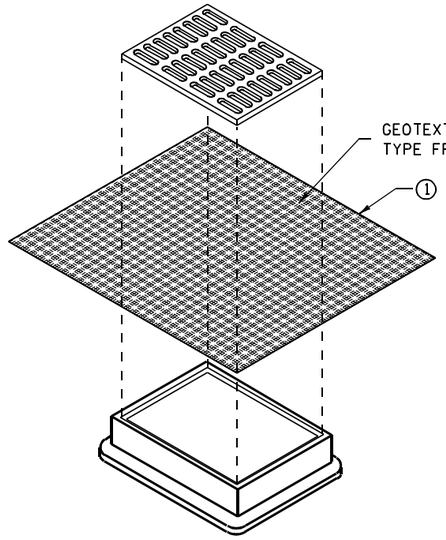
6

S.D.D. 8 E 9-6



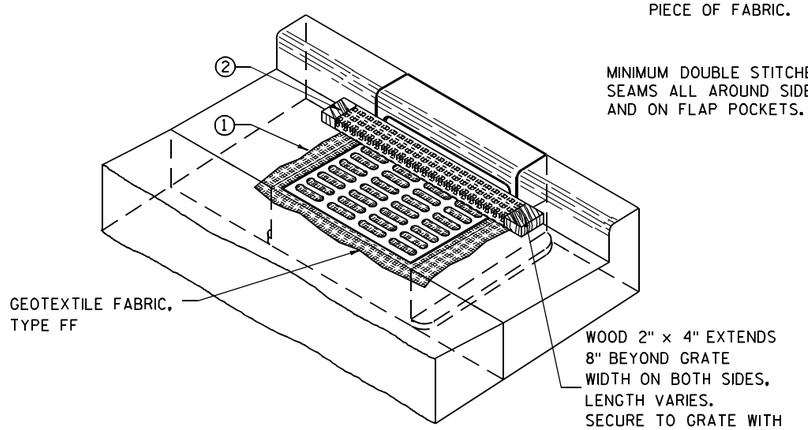


INLET PROTECTION, TYPE A

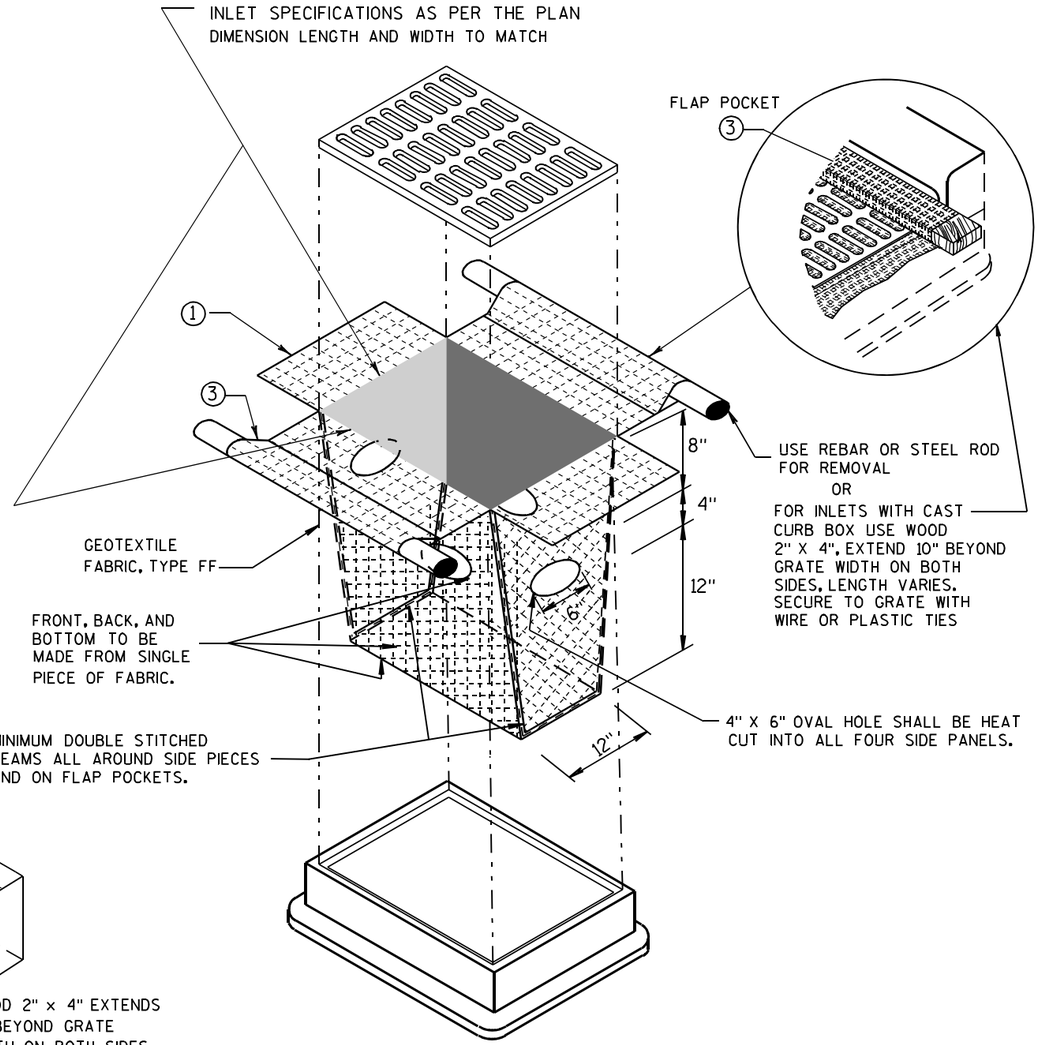


INLET PROTECTION, TYPE B
(WITHOUT CURB BOX)

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



INLET PROTECTION, TYPE C (WITH CURB BOX)



INLET PROTECTION, TYPE D

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

GENERAL NOTES

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

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

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

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

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

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

INSTALLATION NOTES

TYPE B & C

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

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

TYPE D

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

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

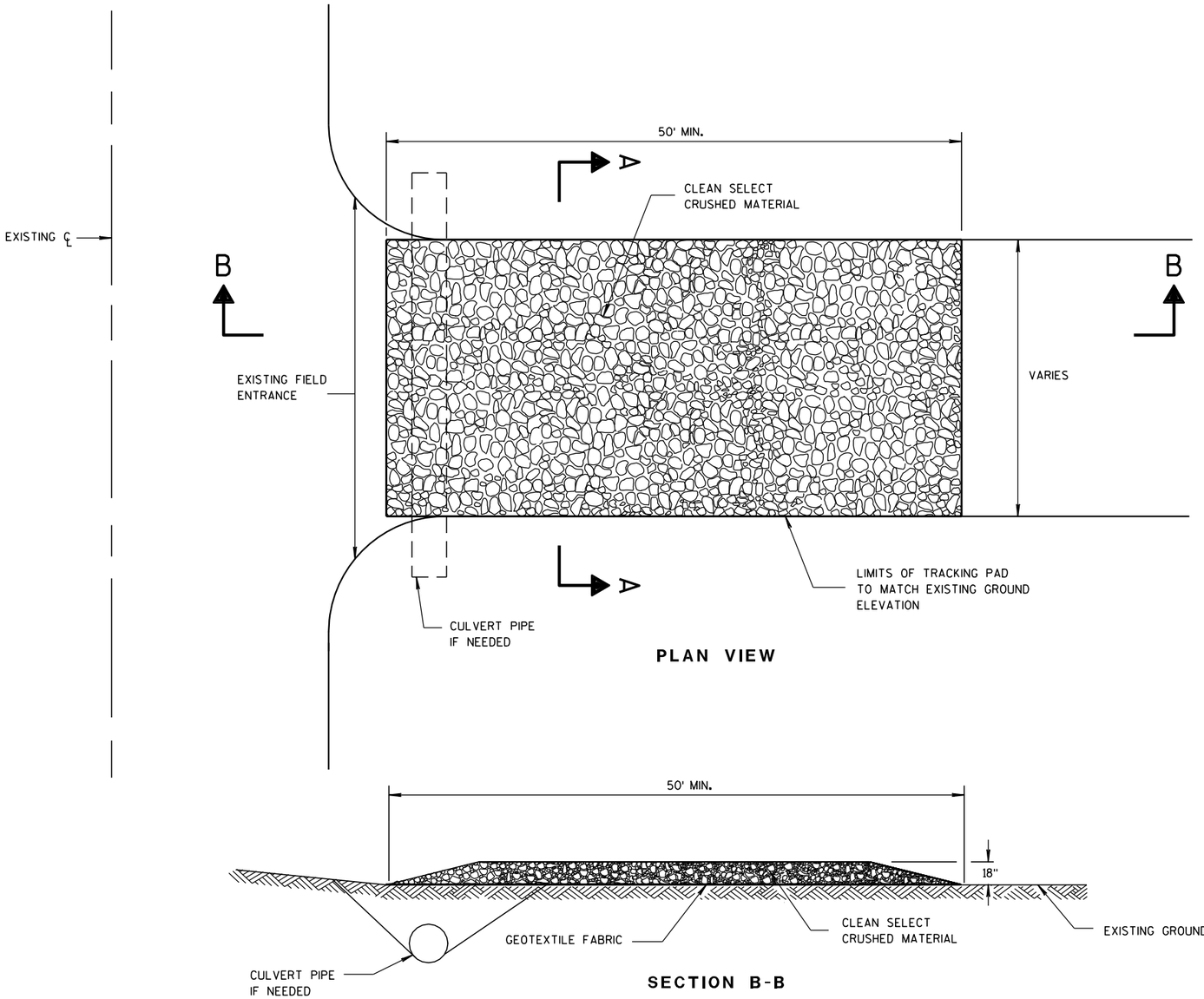
THE INSTALLED BAG SHALL HAVE A MINIMUM SIDE CLEARANCE, BETWEEN THE INLET WALLS AND THE BAG, MEASURED AT THE BOTTOM OF THE OVERFLOW HOLES, OF 3". WHERE NECESSARY THE CONTRACTOR SHALL CINCH THE BAG, USING PLASTIC ZIP TIES, TO ACHIEVE THE 3" CLEARANCE. THE TIES SHALL BE PLACED AT A MAXIMUM OF 4" FROM THE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

INLET PROTECTION
TYPE A, B, C, AND D

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
10/16/02
DATE
/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

6
S.D.D. 8 E 10-2



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.

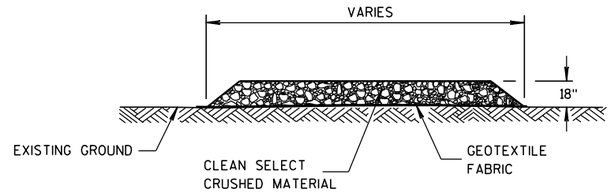
TRACKING PAD TO BE REMOVED AFTER CONSTRUCTION IS COMPLETED.

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

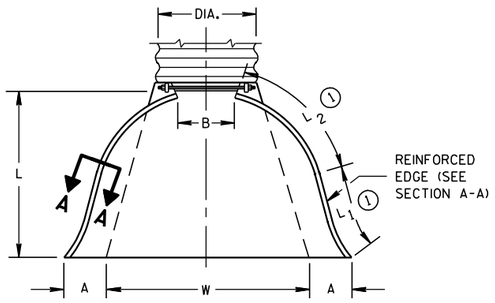
PIPE DIA. (IN.)	MIN. THICK. (Inches) STEEL	MIN. THICK. (Inches) ALUM.	DIMENSIONS (Inches) A (±1")	B (MAX.)	H (±1")	L (±1 1/2")	L1 ①	L2 ①	W (±2")	APPROX. SLOPE	BODY
12	.064	.060	6	6	6	21	12	17 1/2	24	2 1/2 to 1	1 Pc.
15	.064	.060	7	8	6	26	14	21 3/4	30	2 1/2 to 1	1 Pc.
18	.064	.060	8	10	6	31	15	28 1/4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

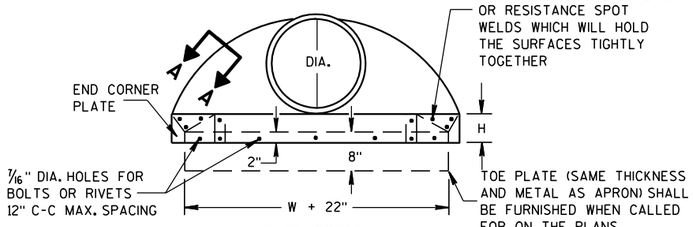
REINFORCED CONCRETE APRON ENDWALLS

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

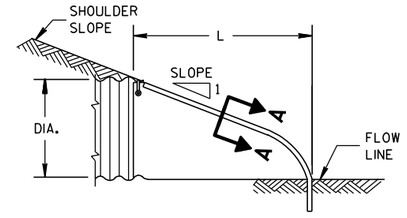
*MINIMUM
**MAXIMUM



PLAN VIEW

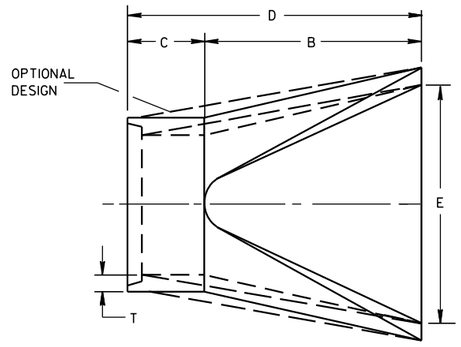


END VIEW

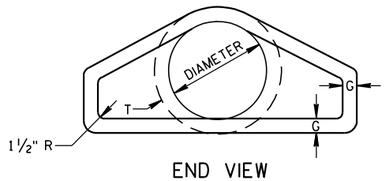


SIDE ELEVATION

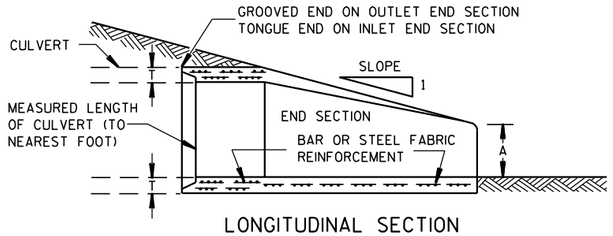
METAL ENDWALLS



PLAN

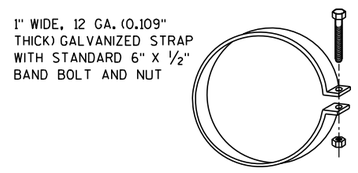


END VIEW



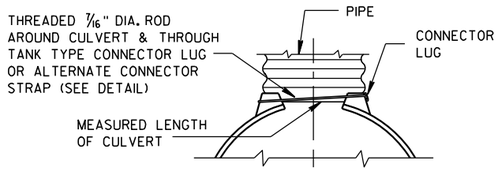
LONGITUDINAL SECTION

CONCRETE ENDWALLS

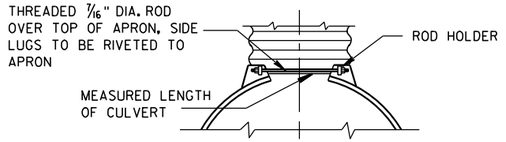


ALTERNATE FOR TYPE 1 CONNECTION

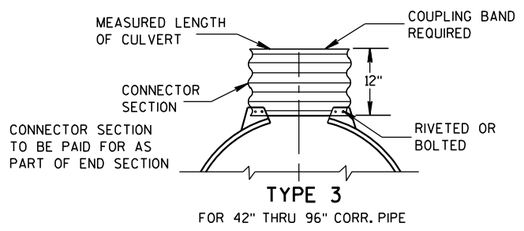
END SECTION CONNECTOR STRAP



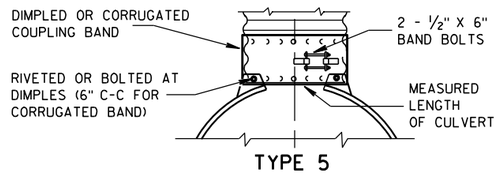
TYPE 1
FOR 12" THRU 24" CORR. PIPE



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

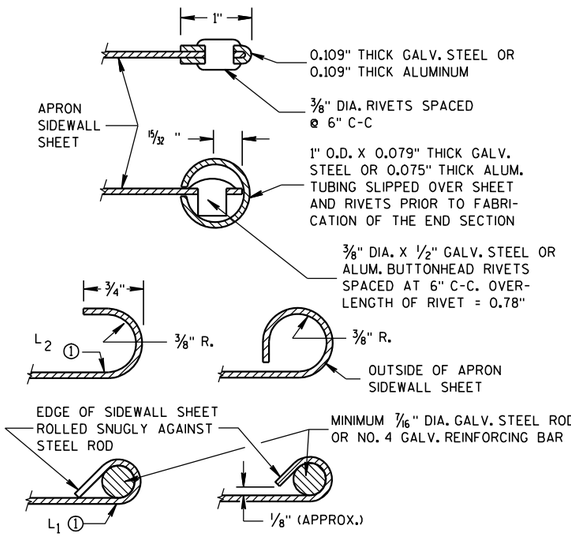
NOTE: DIMPLED BAND FITS OVER OUTSIDE OF ENDWALL. AND CORRUGATED BAND FITS INSIDE ENDWALL. DIMPLED BAND MAY BE USED WITH HELICALLY CORRUGATED PIPE.

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.

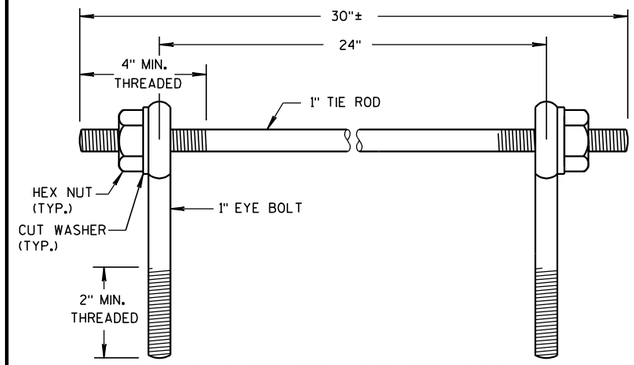
① FOR PIPE SIZES UP TO 60" DIAMETER, A 180° ROLLED EDGE MAY BE USED INSTEAD OF STEEL ROD REINFORCEMENT. SEE SECTION A-A.

APRON ENDWALLS FOR CULVERT PIPE

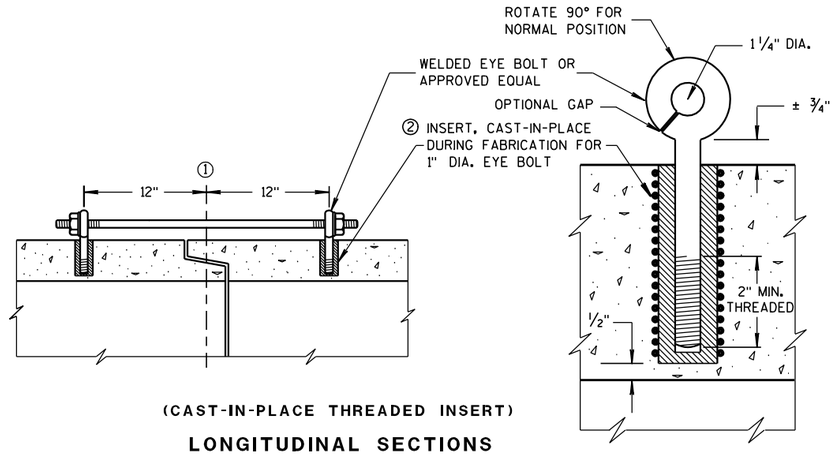
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
11/30/94 DATE
/S/ Rory L. Rhinesmith
CHIEF ROADWAY DEVELOP NEER
FHWA

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



EYE BOLTS AND TIE ROD



(CAST-IN-PLACE THREADED INSERT)

LONGITUDINAL SECTIONS

EYE BOLT AND TIE ROD ASSEMBLY (ALTERNATE NO. 1)

GENERAL NOTES

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

CONCRETE CULVERT AND STORM SEWER PIPE SHALL BE TIED TOGETHER IN THE MANNER ILLUSTRATED BY THIS DETAIL AT LOCATIONS DESIGNATED IN THE STANDARD SPECIFICATIONS AND THE PLAN. THE CONTRACTOR MAY USE EITHER ALTERNATE 1, 2 OR 3 FOR DRAINAGE STRUCTURES. ONLY ALTERNATE 1 AND 3 MAY BE USED FOR CATTLE PASSES, UNLESS OTHERWISE STATED IN THE CONTRACT. THE MATERIALS, FABRICATION AND WORK NECESSARY TO TIE THE PIPE BY THIS DETAIL WILL BE CONSIDERED INCIDENTAL TO THE PIPE AND APRON ENDWALLS IF REQUIRED.

DETAILED DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR JOINT TIES SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL.

JOINT TIES TO BE HOT-DIP GALVANIZED PER ASTM A 153.

① ℄ OF TONGUE AND GROOVE OR BELL AND SPIGOT JOINTS.

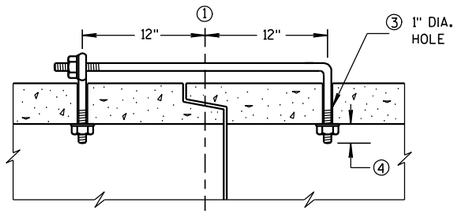
② THE INSIDE OF THE THREADED INSERTS SHALL BE CLEAN TO ALLOW THE INSERTION OF THREADED EYE BOLTS.

③ HOLES SHALL BE CAST-IN-PLACE OR DRILLED 12 INCHES FROM ℄ OF TONGUE AND GROOVE.

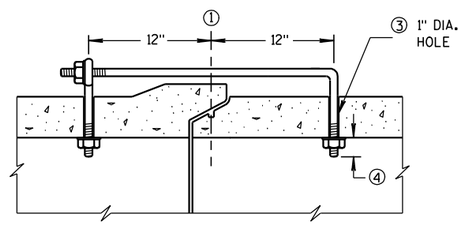
④ BOLT PROJECTION INSIDE OF PIPE SHALL NOT EXCEED 2 INCHES.

⑤ OPENING TO BE ROD DIAMETER PLUS 1 INCH.

⑥ LENGTH ADEQUATE TO EXTEND TO WITHIN 1/2 INCH OF THE INNER SURFACE OF THE PIPE.



(TONGUE & GROOVE PIPE)

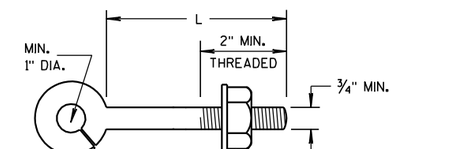


(MODIFIED BELL PIPE)

LONGITUDINAL SECTION

EYE BOLT DIMENSION TABLE

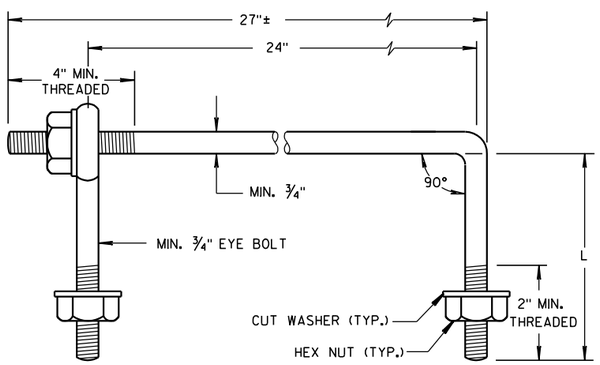
PIPE SIZE	L = LENGTH	
	TONGUE & GROOVE PIPE	MODIFIED BELL PIPE
18" TO 24"	4 1/2"	6 1/4"
30"	5"	7"
36"	5 1/2"	7"
42"	6"	
48"	6 1/2"	
60"	7 1/2"	
66"	8"	



NOTE:

EYE BOLT

NOTE: TWO EYE BOLTS MAY BE USED WITH A 30" LONG THREADED ROD IN LIEU OF THE 90° BENT TIE ROD.



EYE BOLT AND TIE ROD

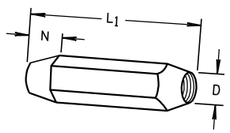
(JOINT TIES FOR 18" TO 66" DIA. CONCRETE PIPE)

EYE BOLT AND TIE ROD ASSEMBLY (ALTERNATE NO. 2)

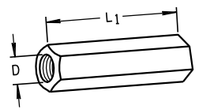
ADJUSTABLE TIE ROD TABLE

PIPE DIAMETER	TIE ROD DIAMETER	D	L_1	N
12-60	5/8	5/8	5	1/2
66-84	3/4	3/4	5	1/2
90-108	1	1	7	1 1/16

DIMENSIONS SHOWN ARE IN INCHES



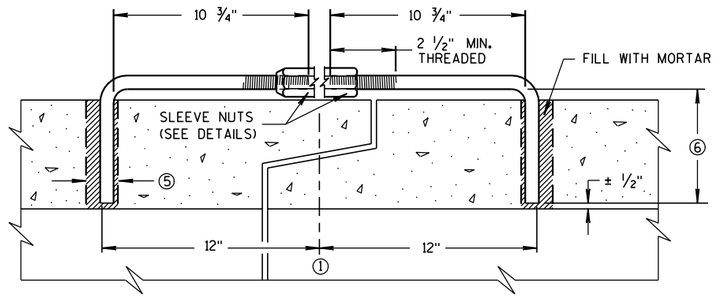
TAPERED



PLAIN

RIGHT AND LEFT THREADS

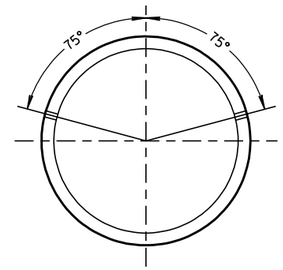
SLEEVE NUTS



LONGITUDINAL SECTION

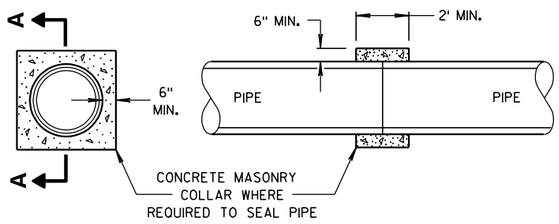
(JOINT TIES FOR 12" TO 108" DIA. CONCRETE PIPE)

ADJUSTABLE TIE ROD (ALTERNATE NO. 3)



PLACEMENT OF (2) CAST-IN-PLACE INSERTS OR HOLES DURING FABRICATION FOR PIPE SECTIONS REQUIRING TIE RODS

TRANSVERSE SECTION



SECTION A-A

CONCRETE COLLAR DETAIL

JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

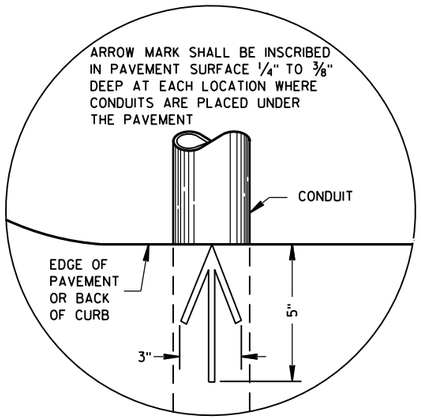
APPROVED
6/5/2012 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS ENGINEER
FHWA

6

S.D.D. 8 F 4-7

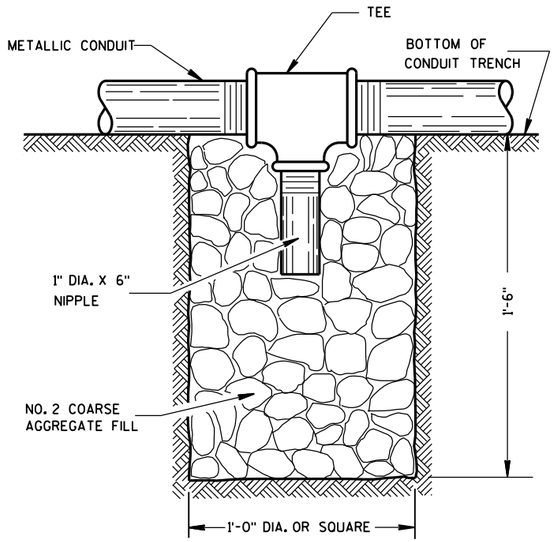
6

S.D.D. 8 F 4-7



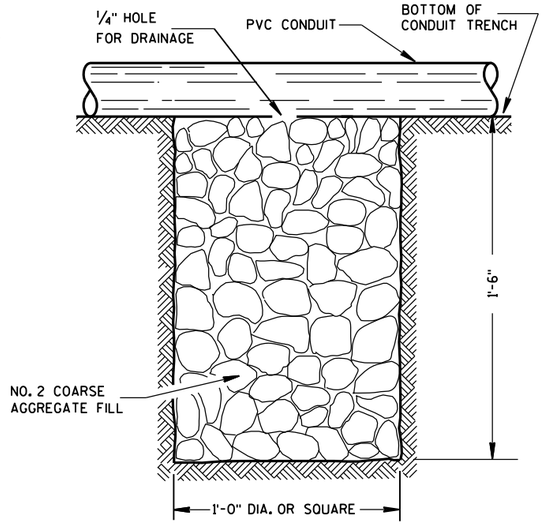
PLAN VIEW

ARROW MARK



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

DRAIN SUMP FOR METALLIC CONDUIT



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

DRAIN SUMP FOR PVC CONDUIT

GENERAL NOTES

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

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

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

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

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

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

ALL METALLIC CONDUIT RACEWAY ENDS SHALL BE REAMED AND THREADED.

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

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

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

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

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

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

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

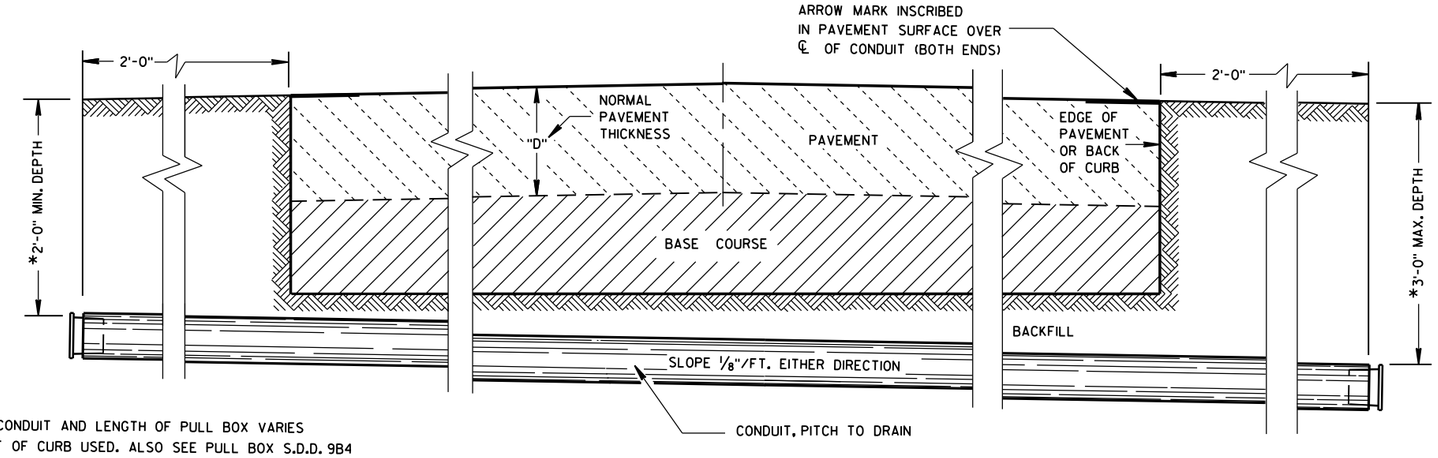
PRIOR TO CONDUIT ACCEPTANCE, CONDUIT CAPS OR PLUGS SHALL BE REMOVED, AND THE CAPS, PLUGS AND CONDUIT ENDS SHALL BE THOROUGHLY CLEANED AND THEN THE CAPS OR PLUGS REINSTALLED TO ENSURE THAT THE CAPS OR PLUGS CAN BE EASILY REMOVED IN THE FUTURE.

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

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

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

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



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

SIDE ELEVATION

DETAIL FOR CONDUIT UNDER PAVED HIGHWAYS

CONDUIT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

6

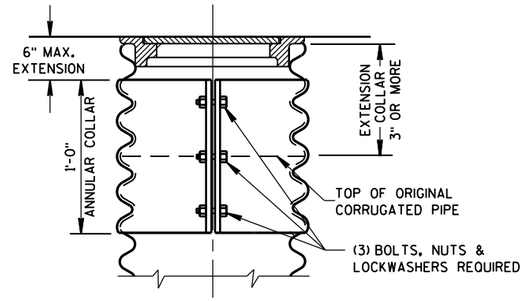
S.D.D. 9 B 2-9

TABLE OF NOMINAL DIMENSIONS AND WEIGHTS

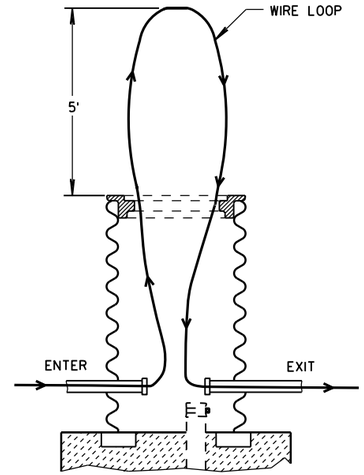
DIMENSION IN INCHES		CORRUGATED STEEL PIPE								
PIPE DIAMETER (INSIDE)	A	12	12	12	18	18	18	24	24	24
PIPE LENGTH **	B	24	30	36	24	30	36	36	42	48
WALL THICKNESS	C	0.064	0.064	0.064	0.064	0.064	0.064	0.064	0.064	0.064
COVER	D	10 1/4	10 1/4	10 1/4	16 1/4	16 1/4	16 1/4	22 1/4	22 1/4	22 1/4
FRAME	E	14 1/2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

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

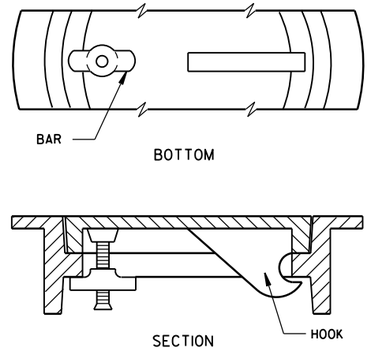
** NORMALLY USED LENGTHS. THE PROJECT ENGINEER SHALL DETERMINE IF PIPE LENGTHS, OTHER THAN THOSE SPECIFIED, SHALL BE USED, TO A MAXIMUM OF 48" (CONTINUOUS LENGTH, NON-SPLICED). THE ADDITIONAL LENGTH SHALL BE INCIDENTAL TO THE PULL BOX BID PRICE.



CORRUGATED PIPE EXTENDER

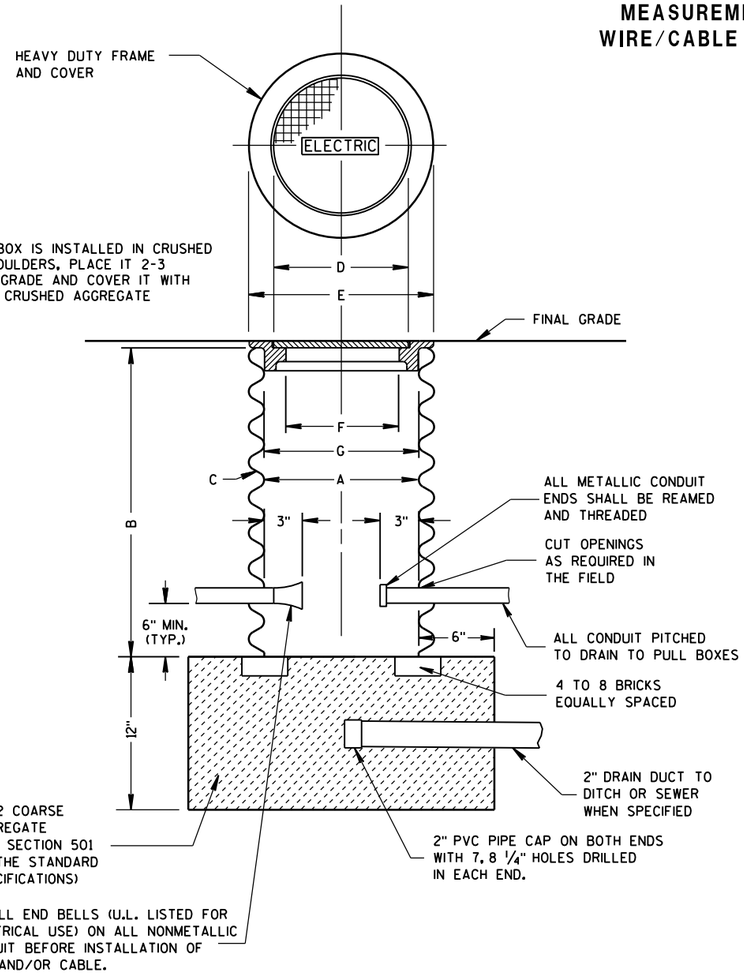


MEASUREMENT DETAIL FOR WIRE/CABLE IN THE PULL BOX



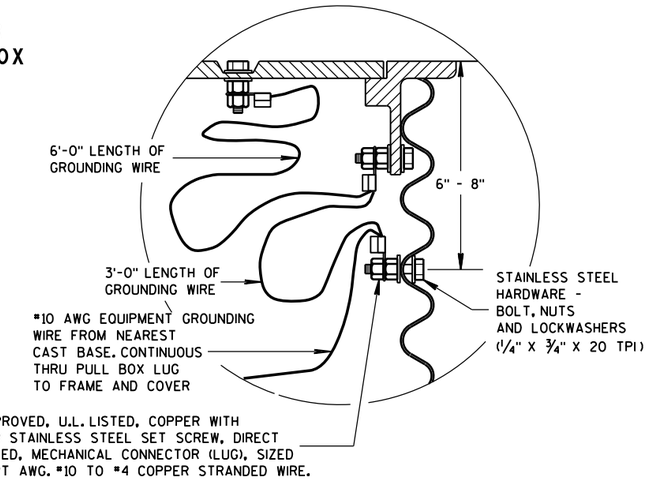
ALTERNATE COVER (LOCKING)

TIGHTENING BAR TYPE

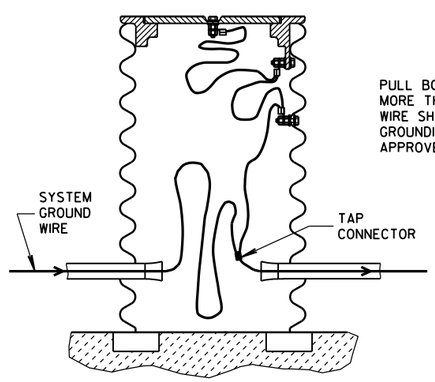


WHEN A PULL BOX IS INSTALLED IN CRUSHED AGGREGATE SHOULDERS, PLACE IT 2-3 INCHES BELOW GRADE AND COVER IT WITH 2-3 INCHES OF CRUSHED AGGREGATE

PULL BOX



EQUIPMENT GROUNDING LUG AND LOCATION IN STEEL PULL BOXES



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

EQUIPMENT GROUNDING LUG AND LOCATION IN STEEL PULL BOXES

GENERAL NOTES

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

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

PULL BOXES LOCATED IN THE ROADWAYS SHALL HAVE LOCKING COVERS.

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

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

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

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

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

PULL BOX

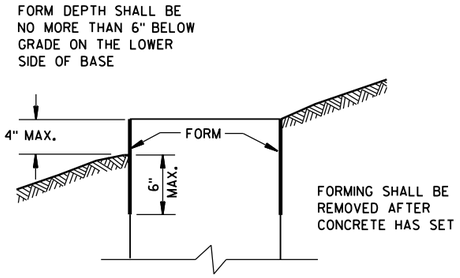
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

FHWA

6

S.D.D. 9 B 4-11



FORMING DETAIL

QUANTITY REQUIREMENTS	CONCRETE BASE TYPE		
	1	2	5 & 6
APPROX. CUBIC YARDS OF CONCRETE	0.40	0.57	0.40
LBS. OF HOOP BAR STEEL	NONE	23	16
LBS. OF VERTICAL BAR STEEL	NONE	60	18

GENERAL NOTES

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

BASES SHALL BE EXCAVATED BY USE OF A CIRCULAR AUGER.

TOP SURFACES OF CONCRETE BASES SHALL BE TROWEL FINISHED SMOOTH AND LEVEL.

CONDUIT SIZES AND LOCATIONS SHALL BE AS SHOWN ON THE PLANS.

THE FINAL OR TERMINATING CONCRETE BASE IN A CONDUIT RUN SHALL HAVE A 6" EXIT STUB INSTALLED FOR FUTURE CABLING USE. THE EXIT STUB SHALL BE SIZED AS USED THROUGHOUT THE CONDUIT RUN AS SHOWN AT THE ENTRANCE OF THE BASE.

MINIMUM BENDING RADIUS OF CONDUIT IS EQUAL TO 6 X THE DIAMETER.

CONDUIT HEIGHT ABOVE CONCRETE BASES SHALL BE 1 INCH. ALL METALLIC CONDUIT ENDS SHALL BE REAMED AND THREADED.

ALL CONDUIT ENDS AT THE TOP OF CONCRETE BASES SHALL BE CAPPED IF METALLIC OR PLUGGED IF NONMETALLIC IMMEDIATELY AFTER PLACEMENT AND BEFORE CONCRETE IS POURED. CONDUITS IN WHICH WIRE OR CABLE IS NOT INSTALLED SHALL REMAIN CAPPED OR PLUGGED.

GENERAL NOTES (CONTINUED)

BELL ENDS SHALL BE INSTALLED ON ALL PVC CONDUIT EXPOSED AT THE TOP OF CONCRETE BASES BEFORE INSTALLATION OF CABLE OR WIRE.

ENDS OF CONDUIT INSTALLED BELOW GRADE FOR FUTURE USE SHALL BE CAPPED IF METALLIC OR PLUGGED IF NONMETALLIC.

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

IF A BASE REQUIRES A DEEP FORM BECAUSE OF LOOSE DIRT OR FILL, THE FORM SHALL BE REMOVED BEFORE BACKFILLING AROUND THE BASE. BACKFILL SHALL BE TAMPED TIGHT AGAINST THE BARE CONCRETE BASE IN LAYERS OF 1 FOOT OR LESS.

A NO. 4 AWG, STRANDED COPPER EQUIPMENT GROUNDING CONDUCTOR SHALL BE EXOTHERMICALLY WELDED TO THE EQUIPMENT GROUNDING ELECTRODE (GROUND ROD) FOR TYPE 1, TYPE 2, TYPE 5, AND TYPE 6 BASES.

THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE FURNISHED AND INSTALLED TO ENTER THE BASE OF THE TYPE 2 AND TYPE 5 BASES THROUGH A 1 INCH CONDUIT INSTALLED FOR GROUNDING PURPOSES, LEAVING A 4 FOOT COIL OF WIRE ABOVE THE CONCRETE BASE. THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE NEATLY COILED AND THE COILS TIED TOGETHER.

ANCHOR RODS SHALL BE THREADED 12" IN LENGTH ON EACH END OF THE ROD. ANCHOR RODS SHALL BE MANUFACTURED IN ACCORDANCE WITH SECTION 654.2.1 OF THE STANDARD SPECIFICATIONS.

WASHERS AND LOCK WASHERS ARE REQUIRED ON ALL ANCHOR RODS.

WHEN ANCHOR RODS USING THE ALTERNATE "L" BEND ARE FURNISHED, THE 4" "L" BEND SHALL BE IN ADDITION TO THE SPECIFIED ANCHOR ROD BAR LENGTH. THE "L" BEND END SHALL NOT BE THREADED.

ANCHOR RODS SHALL BE INSTALLED WITH MISALIGNMENTS OF LESS THAN 1:40 FROM VERTICAL.

WELDING OF THE ANCHOR RODS TO THE CAGE IS UNACCEPTABLE. TIE WIRES SHALL BE USED.

BAR STEEL REINFORCEMENT SHALL BE COATED WITH POWDERED EPOXY RESIN IN ACCORDANCE WITH SECTION 505 OF THE STANDARD SPECIFICATIONS (LATEST EDITION).

(1) THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE AND INSTALLED BELOW THE TRAVELED WAY SHALL BE 24 INCHES. THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE THAT IS NOT INSTALLED BELOW THE TRAVELED WAY SHALL BE 18 INCHES. THE MAXIMUM DEPTH OF ALL CONDUIT SHALL BE 36 INCHES EXCEPT WITH WRITTEN APPROVAL BY THE ENGINEER.

(2) (4) 1" DIA. X 3'-6" ANCHOR RODS.

(3) (4) 1" DIA. X 5'-0" ANCHOR RODS.

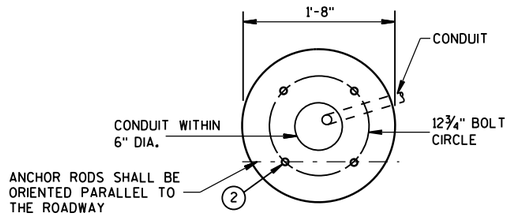
(4) (6) NO. 6 X 6'-8" BAR STEEL REINFORCEMENT.

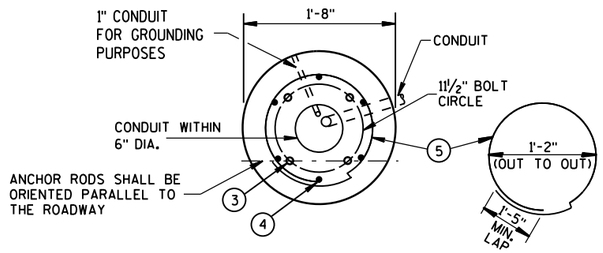
(5) (7) NO. 4 X 5'-1" BAR STEEL REINFORCEMENT @ 1'-0" C-C.

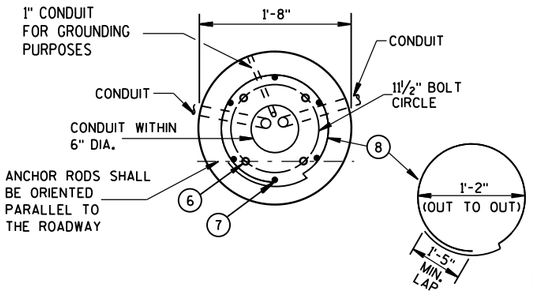
(6) (4) 1" DIA. X 3'-6" ANCHOR RODS.

(7) (6) NO.4 X 4'-8" BAR STEEL REINFORCEMENT.

(8) (5) NO. 4 X 5'-1" BAR STEEL REINFORCEMENT @ 1'-0" C-C.

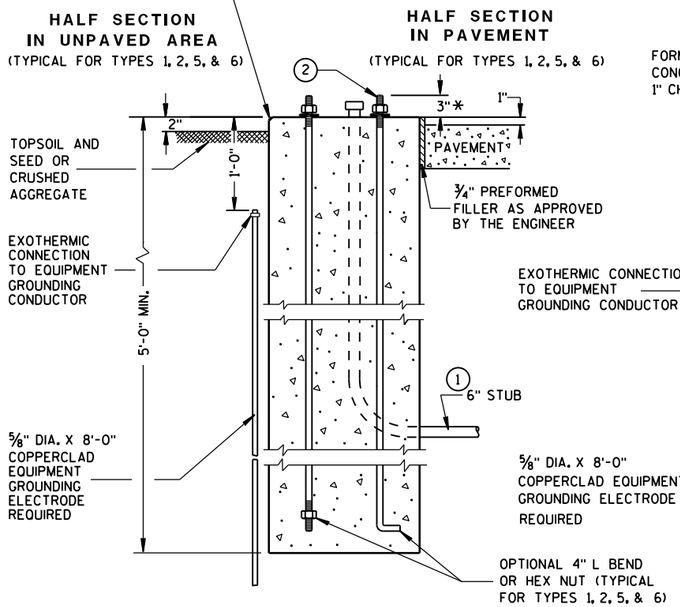






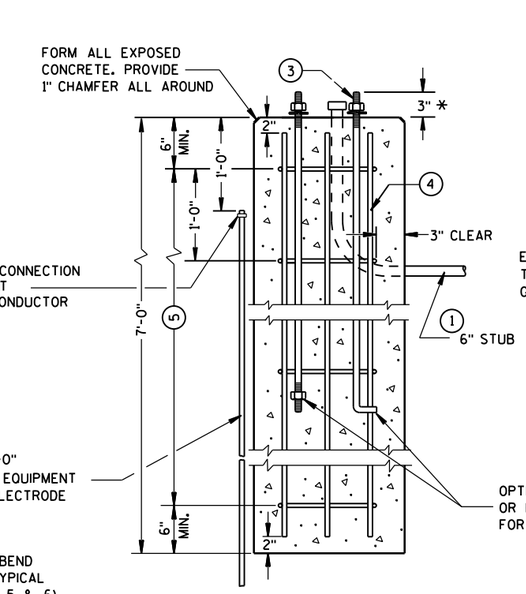
HALF SECTION IN UNPAVED AREA

(TYPICAL FOR TYPES 1, 2, 5, & 6)

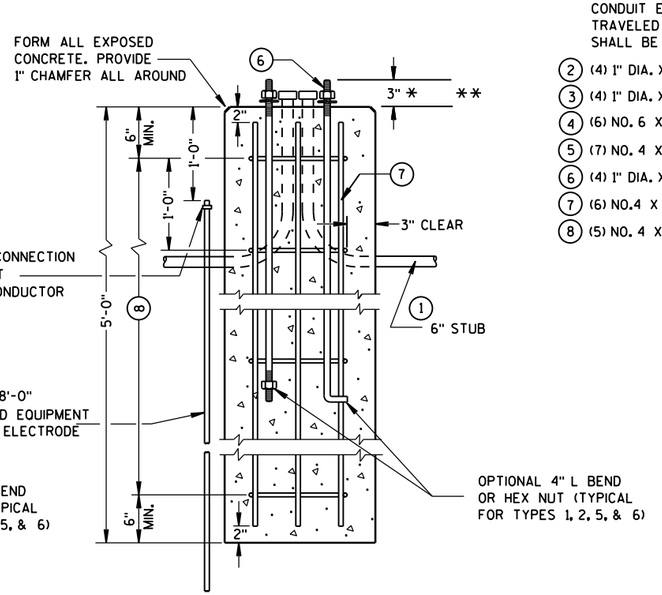


HALF SECTION IN PAVEMENT

(TYPICAL FOR TYPES 1, 2, 5, & 6)



TYPE 2



TYPE 5 & 6

CONCRETE BASES

* ANY ANCHOR ROD PROJECTION SHORTER THAN 2¾" OR LONGER THAN 3¼" SHALL REQUIRE THE BASE TO BE REMOVED AND REPLACED AT THE CONTRACTORS EXPENSE.

** FOR NONBREAKAWAY INSTALLATIONS, 4½" ± ANCHOR ROD PROJECTION WITH THE USE OF LEVELING NUTS. RODENT SCREEN REQUIRED.

CONCRETE BASES, TYPES 1, 2, 5, & 6

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

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S.D.D. 9 C 2-7

GENERAL NOTES

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

FOUR (4) BOLTS SHALL BE FURNISHED WITH EACH TRANSFORMER BASE. BOLTS SHALL BE 1" DIAMETER, 4" IN LENGTH, WITH WASHERS, LOCK WASHERS AND NUTS. BOLTS, NUTS AND WASHERS SHALL BE MANUFACTURED IN ACCORDANCE WITH SECTION 641.2.2 OF THE STANDARD SPECIFICATIONS.

LEVELING SHIMS, IF NEEDED, SHALL BE DESIGNED FOR THE PURPOSE AND USED UNDER CAST BASES WHEN PLUMBING POLES OR STANDARDS DURING INSTALLATION. THE USE OF WASHERS IN LIEU OF PROPER LEVELING SHIMS IS NOT ACCEPTABLE.

SHIM LENGTH SHALL BE LONG ENOUGH TO COMPLETELY COVER THE AREA UNDER THE LENGTH AND WIDTH OF THE BASE MOUNTING FLANGE.

DOUBLE NUTTING IS NOT ACCEPTABLE FOR LEVELING OR MOUNTING PURPOSES.

A NEMA APPROVED, U.L. LISTED, COPPER WITH BRASS OR STAINLESS STEEL SET SCREW, DIRECT BURY RATED, MECHANICAL CONNECTOR (LUG), SIZED TO ACCEPT AWG. #10 TO #4 COPPER STRANDED WIRE SHALL BE FURNISHED AND INSTALLED IN THE PEDESTAL AND TRANSFORMER BASES.

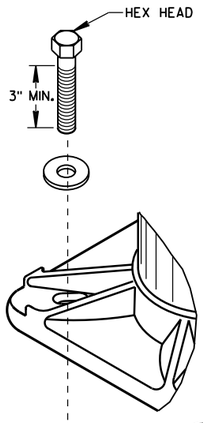
THE MECHANICAL CONNECTOR SHALL BE INSTALLED USING A 1/4" - 20 (TPI) STAINLESS STEEL HEX HEAD BOLT OF SUFFICIENT LENGTH TO FIRMLY ATTACH THE LUG TO THE BASE.

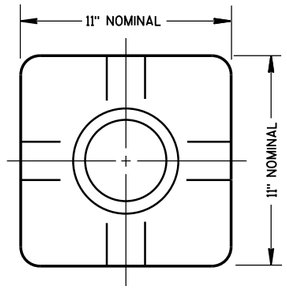
SHOULD THE MANNER OF ATTACHMENT OF THE LUG REQUIRE WASHERS, HEX NUTS, LOCK WASHER - THEY SHALL BE STAINLESS STEEL AS IS THE BOLT. THE MANNER OF ATTACHMENT SHALL NOT BLOCK ACCESSIBILITY TO WIRE PLACEMENT IN THE CONNECTOR.

PEDESTAL BASE COLLAR THREADING SHALL BE TAPERED AND IN ACCORDANCE WITH NATIONAL PIPE THREADING DIMENSIONS.

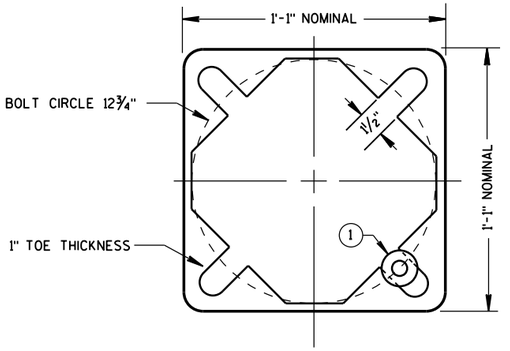
BASE COLLAR THREADING SHALL EXTEND INTO THE BASE COLLAR WITH SUFFICIENT DEPTH TO ACCEPT THE INSTALLATION OF TRAFFIC SIGNAL STANDARDS TO A DEPTH OF 1 1/2", THEN TIGHTENING TO A POINT OF BEING IMMOVABLE.

THE ACCESS DOOR SHALL BE OF THE SAME MATERIAL AS THE BASE.

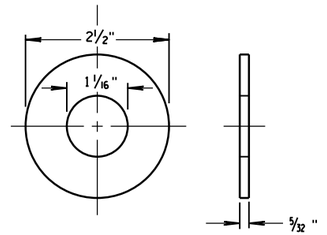




TOP VIEW
(PEDESTAL BASE)

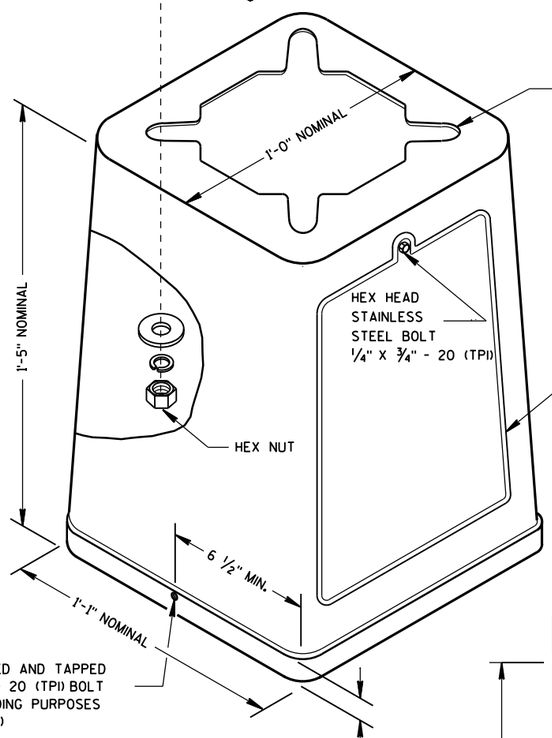


BOTTOM VIEW
(PEDESTAL BASE)

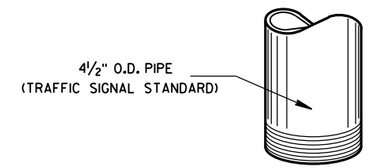


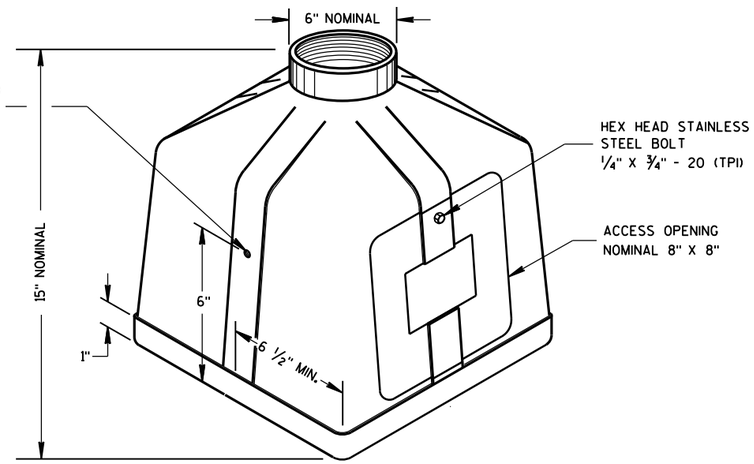
ZINC COATED STEEL WASHER
TO BE PROVIDED BY THE CONTRACTOR

PEDESTAL BASE WASHER (1)



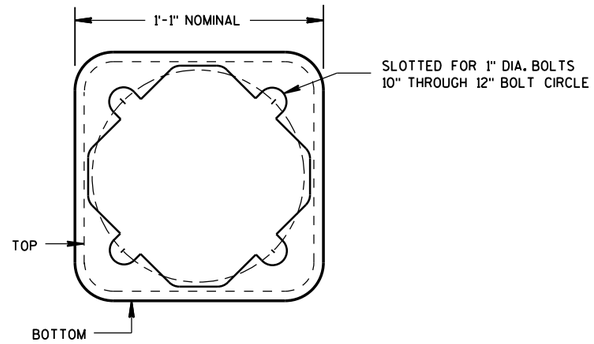
ISOMETRIC VIEW



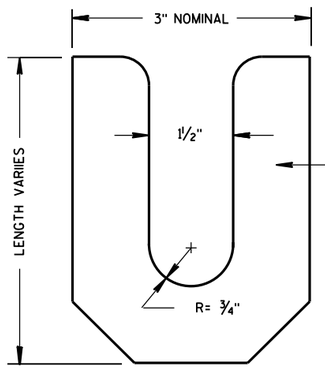


ISOMETRIC VIEW

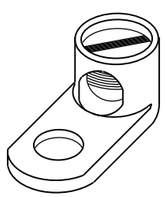
PEDESTAL BASE



BOTTOM VIEW
(TRANSFORMER BASE)



LEVELING SHIM



TYPICAL MECHANICAL CONNECTOR LUG

TO BE FURNISHED WITH EACH BASE

TRANSFORMER BASE

INTENDED FOR USE WITH TYPE 2, 3, 4, 5 & 6 POLES

TRANSFORMER/PEDESTAL BASES

STATE OF WISCONSIN
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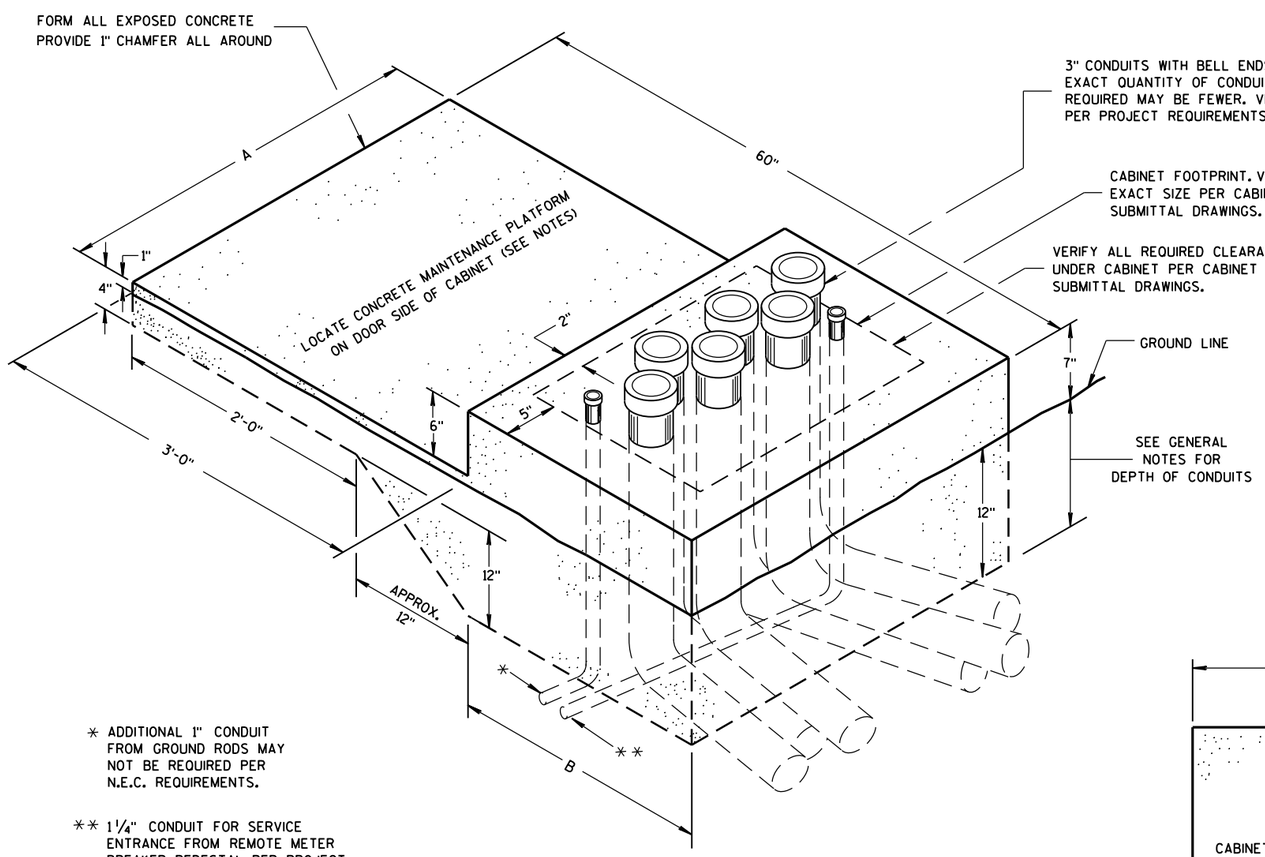
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* ADDITIONAL 1" CONDUIT FROM GROUND RODS MAY NOT BE REQUIRED PER N.E.C. REQUIREMENTS.

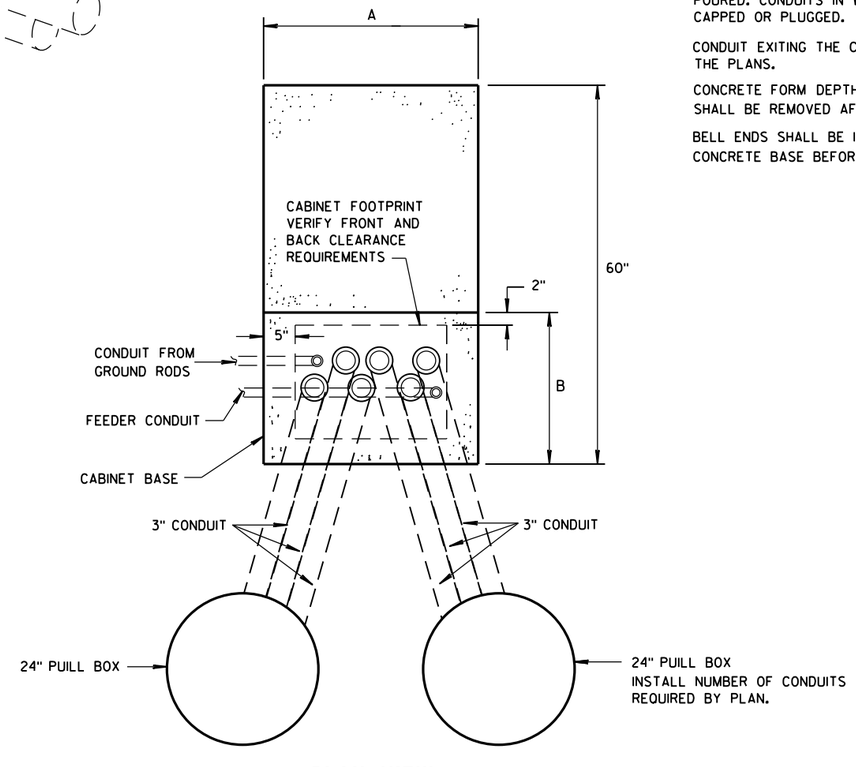
** 1¼" CONDUIT FOR SERVICE ENTRANCE FROM REMOTE METER BREAKER PEDESTAL PER PROJECT REQUIREMENTS. VERIFY LOCATION OF CONDUIT DEPENDENT UPON LOCATION OF INCOMING FEEDER AND FOR EASE OF CONNECTION TO LOAD CENTER.

ISOMETRIC VIEW

CONCRETE CONTROL CABINET BASE, TYPE L

(C.Y. CONCRETE = APPROX. 0.4)

CONCRETE BASE TYPE	CABINET WIDTH	DIMENSIONS		MAXIMUM 3" CONDUITS
		A	B	
L24	24"	34"	24"	4
L30	30"	40"	24"	6



PLAN VIEW

CONCRETE CONTROL CABINET BASE, TYPE L

GENERAL NOTES

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

INSTALL FOUR STAINLESS STEEL APPROVED CONCRETE MASONRY ANCHORS TO ANCHOR THE CABINET BASES. THE ANCHORS SHALL BE LOCATED AS DIRECTED BY THE ENGINEER TO PROPERLY ANCHOR THE CONTROL CABINET TO THE BASE.

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

CONDUIT HEIGHT ABOVE THE CONCRETE BASE SHALL BE 1 INCH.

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

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

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

CONTROL CABINET BASE TOP SURFACE SHALL BE TROWEL FINISHED SMOOTH AND LEVEL.

MAINTENANCE PLATFORM SHALL BE FLOAT OR BROOM FINISHED AND BE LEVEL.

MAINTENANCE PLATFORMS ARE NOT REQUIRED WHEN THE SURROUNDING AREA IS PAVED.

MINIMUM BENDING RADIUS OF CONDUIT = 6 X THE DIAMETER.

ALL METALLIC CONDUIT ENDS SHALL BE REAMED AND THREADED.

CAP ALL BELOW GRADE METALLIC CONDUIT ENDS IN WHICH WIRE OR CABLE IS NOT BEING INSTALLED.

PLUG ALL BELOW GRADE NONMETALLIC CONDUIT ENDS IN WHICH WIRE OR CABLE IS NOT BEING INSTALLED.

ALL CONDUIT ENDS AT THE TOP OF CONCRETE BASES SHALL BE CAPPED IF METALLIC OR PLUGGED IF NONMETALLIC IMMEDIATELY AFTER PLACEMENT AND BEFORE CONCRETE IS POURED. CONDUITS IN WHICH WIRE OR CABLE IS NOT BEING INSTALLED SHALL REMAIN CAPPED OR PLUGGED.

CONDUIT EXITING THE CONCRETE BASE SHALL TERMINATE IN PULL BOXES AS SHOWN ON THE PLANS.

CONCRETE FORM DEPTH BELOW FINISHED GRADE SHALL BE 6" MAXIMUM. CONCRETE FORMS SHALL BE REMOVED AFTER CONCRETE HAS SET.

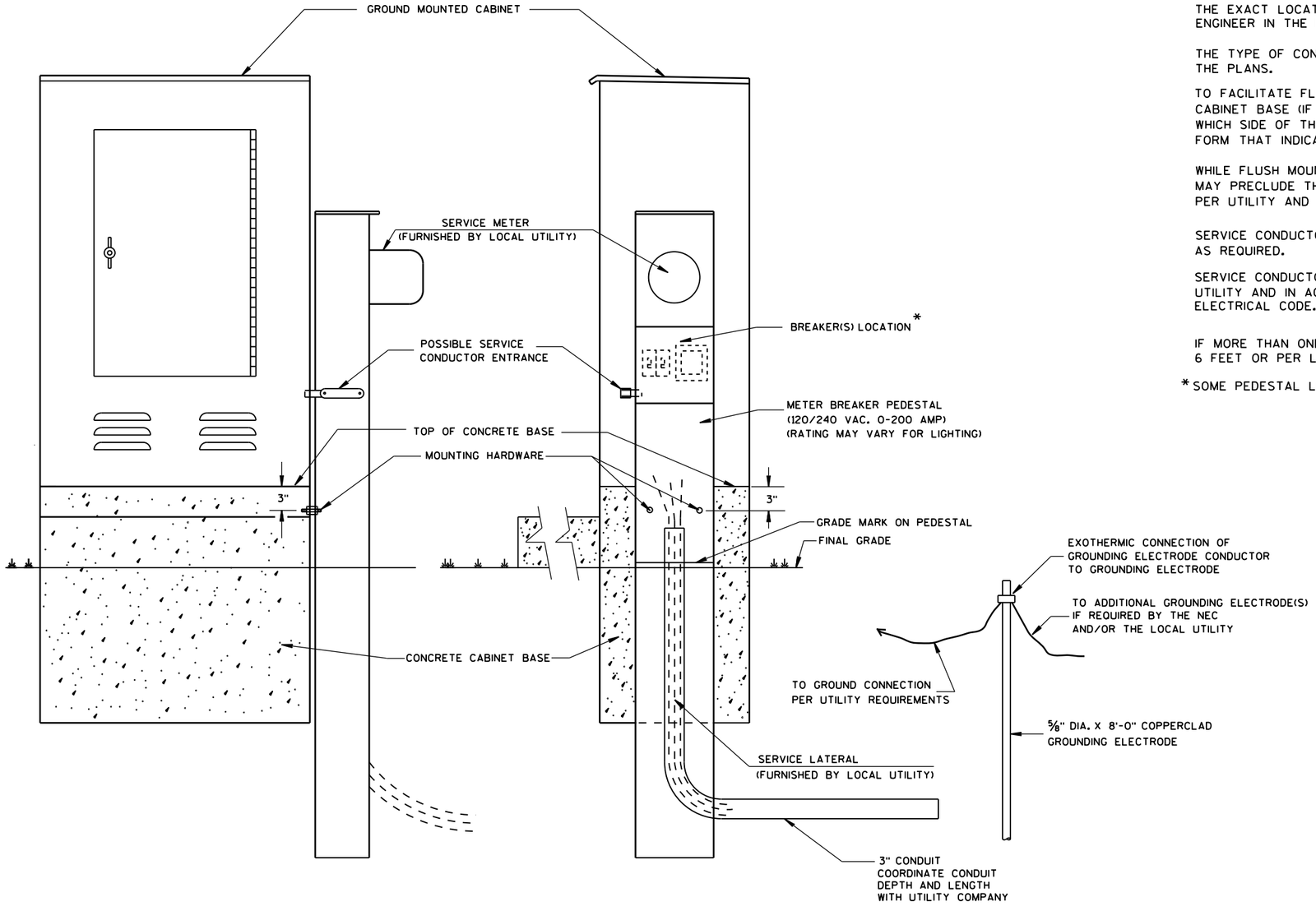
BELL ENDS SHALL BE INSTALLED ON ALL PVC CONDUIT EXPOSED AT THE TOP OF THE CONCRETE BASE BEFORE INSTALLATION OF CABLE OR WIRE.

CONCRETE CONTROL CABINET BASE, TYPE L

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DEPARTMENT OF TRANSPORTATION

APPROVED
Nov. 2014 — DATE
/S/ Thomas Gonring — STATE LIGHTING ENGINE
200
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TYPICAL CABINET SERVICE INSTALLATION

GENERAL NOTES

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

THE EXACT LOCATION OF THE METER BREAKER PEDESTAL SHALL BE DETERMINED BY THE ENGINEER IN THE FIELD.

THE TYPE OF CONCRETE CABINET BASE TO BE INSTALLED SHALL BE AS CALLED FOR IN THE PLANS.

TO FACILITATE FLUSH MOUNTING OF THE METER BREAKER PEDESTAL AGAINST THE SIDE OF THE CABINET BASE (IF FLUSH MOUNTING POSSIBLE. CONFER WITH THE LOCAL UTILITY TO DETERMINE WHICH SIDE OF THE CONCRETE BASE THE ELECTRICAL SERVICE LATERAL WILL APPROACH. THEN FORM THAT INDICATED SIDE FOR FULL SIDE DEPTH.

WHILE FLUSH MOUNTING IS THE MOST DESIRABLE MOUNTING CONFIGURATION UTILITY REQUIREMENTS MAY PRECLUDE THIS OPTION. CONTRACTOR MUST PROVIDE UTILITY APPROVED PEDESTAL AND INSTALL PER UTILITY AND MANUFACTURERS REQUIREMENTS.

SERVICE CONDUCTOR ENTRANCES SHALL BE RIGID METALLIC CONDUIT, NIPPLES AND/OR CONDULETS AS REQUIRED.

SERVICE CONDUCTOR ENTRANCES SHALL BE SIZED AND LOCATED AS REQUIRED BY THE LOCAL UTILITY AND IN ACCORDANCE WITH APPROPRIATE ARTICLES OF THE LATEST ACCEPTED NATIONAL ELECTRICAL CODE.

IF MORE THAN ONE GROUNDING ELECTRODE IS REQUIRED, THE DISTANCE APART SHALL BE 6 FEET OR PER LOCAL UTILITY REGULATIONS.

* SOME PEDESTAL LIGHTING PLANS SHOW MAIN LUGS ONLY.

CABINET SERVICE INSTALLATION (METER BREAKER PEDESTAL)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Sept. 2014 — DATE
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6
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GENERAL NOTES

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

ALL INTERNAL ELECTRICAL COMPONENTS WILL BE PRE-WIRED BY THE CABINET FABRICATOR.

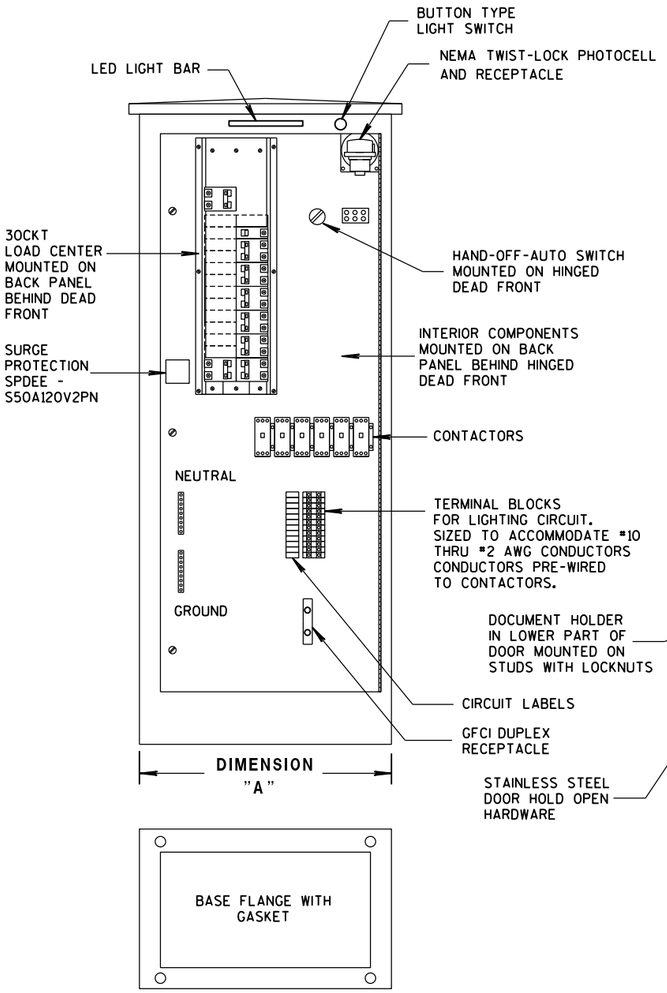
ALL CONDUIT ENTRIES SHALL BE SEALED WITH AN APPROPRIATE DUCT SEALING COMPOUND.

ORIENT PHOTOCELL AWAY FROM AMBIENT LIGHT SOURCES AND ONCOMING TRAFFIC HEADLIGHTS.

THE CONTRACTOR SHALL TOUCH UP ANY DAMAGE TO THE ANODIZED FINISH CAUSED BY THE INSTALLATION PROCESS. COLOR MATCH PAINT SHALL BE USED.

A COMPLETE LIGHTING OR ELECTRICAL PLAN SHALL BE SECURELY PLACED IN THE DOCUMENT HOLDER ATTACHED TO THE DOOR.

FRONT INTERIOR ELEVATION



SIDE VIEW

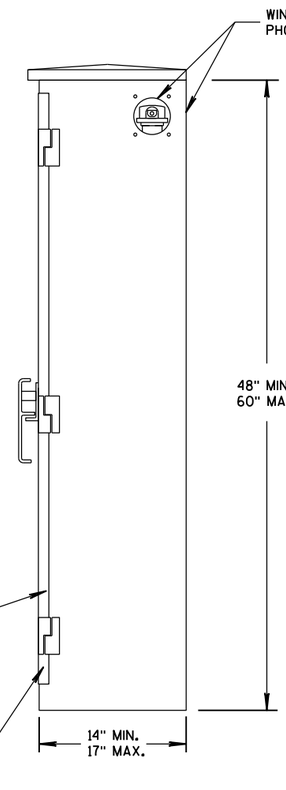
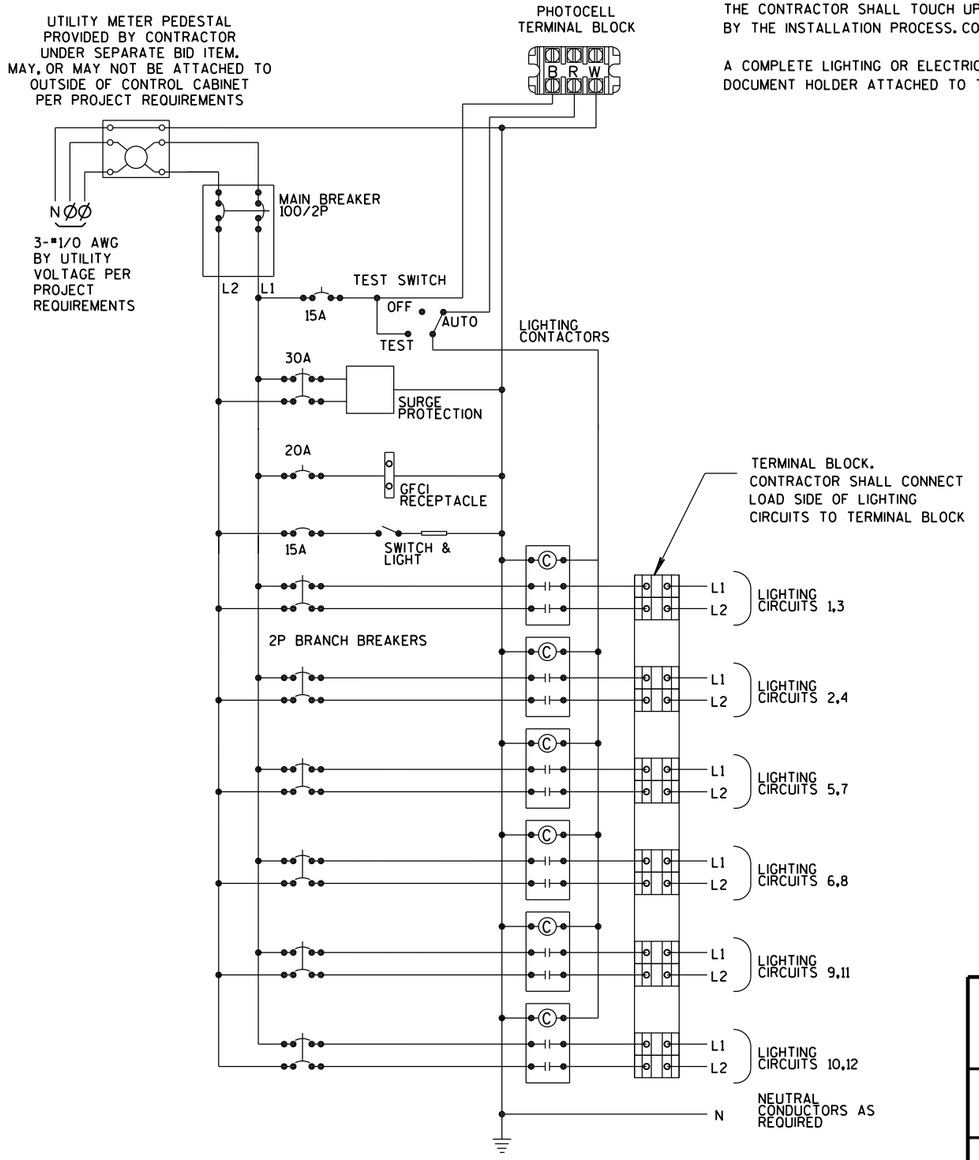


TABLE OF DIMENSIONS (INCHES)

CONCRETE BASE TYPE	CABINET WIDTH	DIMENSION "A"
L24	24"	24"
L30	30"	30"

LIGHTING CONTROL CABINET



CONTROL CABINET SCHEMATIC

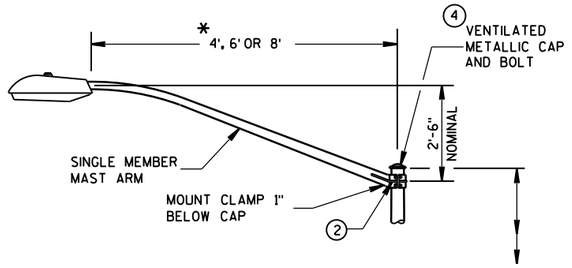
LIGHTING CONTROL CABINET 120/240 VOLT

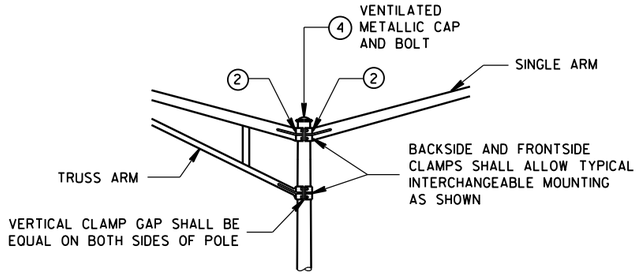
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Sept. 2014 — DATE
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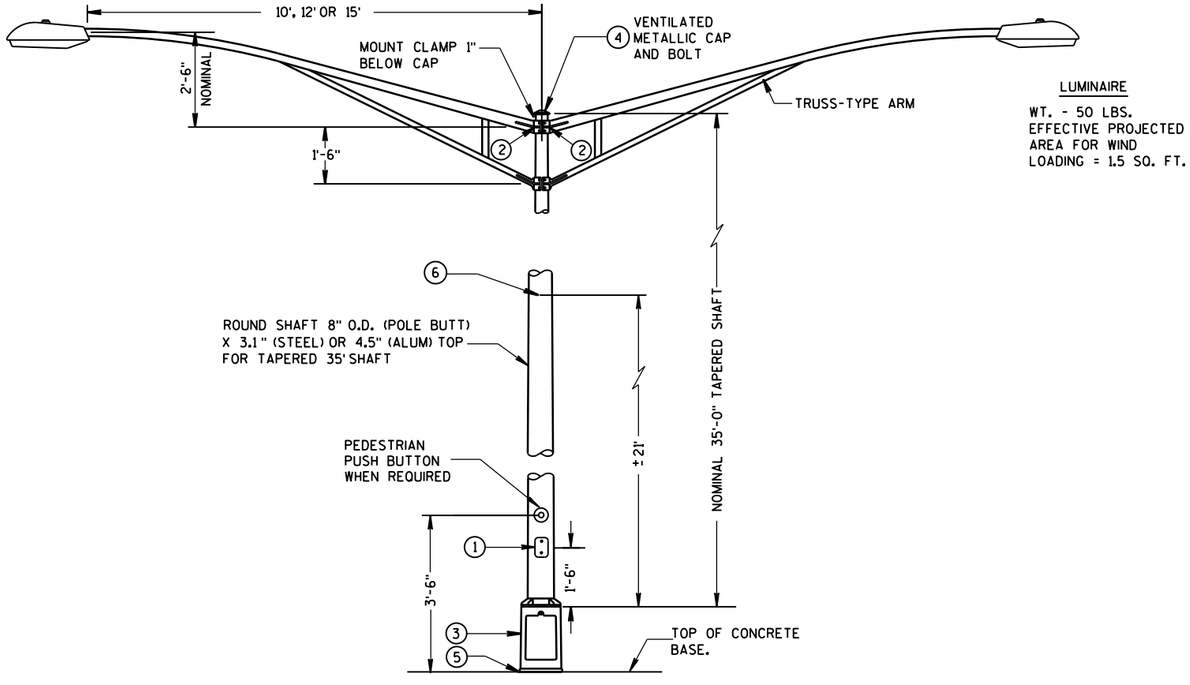
6
S.D.D. 9 D 4-2

* RISE FOR 4' ARM SHALL BE 2'-0".





INTERCHANGEABLE MOUNTING DETAIL



TYPE 6 POLE MOUNTING CONFIGURATION

(MAXIMUM LOAD)

LIGHTING ONLY

GENERAL NOTES

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

ALL TYPE 6 POLE MOUNTINGS SHALL BE DESIGNED TO INCLUDE TWIN 15' ARMS WITH LUMINAIRES.

POLES SHALL BE EITHER GALVANIZED STEEL OR ALUMINUM, AS CALLED FOR IN THE CONTRACT.

TYPE 6 ALUMINUM POLES, SHALL BE CONSTRUCTED OF 6063-T6 ALUMINUM ALLOY. SLEEVING INSIDE THE POLE IS NOT ACCEPTABLE.

THE TYPE 6 ALUMINUM POLES SHALL HAVE MINIMUM WALL THICKNESS OF 0.219".

TYPE 6 STEEL POLES SHALL HAVE A MINIMUM WALL THICKNESS OF U.S. STANDARD 11 GAGE (.1196").

THE SLIPFITTER END OF THE LUMINAIRE MAST ARM SHALL BE A NOMINAL 2⅜ INCHES IN OUTSIDE DIAMETER. THE STRAIGHT PORTION OF THE SLIPFITTER END OF THE LUMINAIRE ARM SHALL BE A NOMINAL 12 INCHES IN LENGTH.

WHEN TRANSFORMER BASES ARE USED, WIRE CONNECTIONS SHALL BE MADE IN THE TRANSFORMER BASE.

(1) 4" x 6" REINFORCED HANDHOLE & COVER ASSEMBLY WITH 2 (TWO) ¼" X ¾" - 20 TPI HEX HEAD STAINLESS STEEL BOLTS.

(2) GROMMETS, 1" CHASE NIPPLES OR 1" CLOSE CONDUIT NIPPLES WITH BUSHINGS SHALL BE PROVIDED FOR 1⅜" HOLE IN POLE SHAFT FOR WIRING.

(3) CAST ALUMINUM TRANSFORMER BASE, WHEN REQUIRED.

(4) FURNISH AND INSTALL VENTILATED, CAST, METALLIC (ALUMINUM ALLOY) CAPS. FASTEN CAPS WITH ONE (1) ¼" X ¾" - 20 TPI STAINLESS STEEL, HEX HEAD BOLT.

(5) SHIMMING, IF NEEDED, SHALL BE LOCATED BETWEEN THE CONCRETE FOUNDATION AND THE TRANSFORMER BASE.

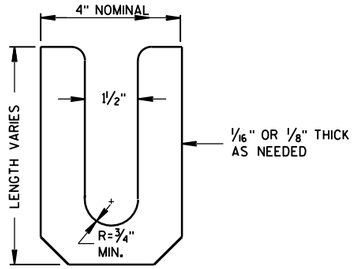
(6) INTERNAL DUMBBELL-TYPE VIBRATION DAMPER.

POLE MOUNTINGS FOR LIGHTING UNITS, TYPE 6 (35 FEET)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

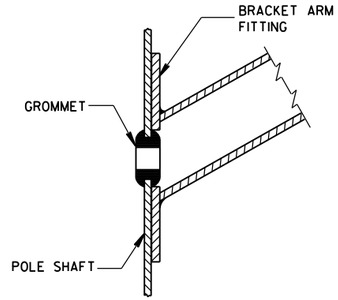
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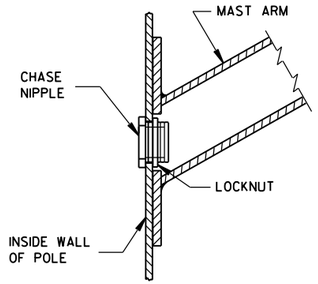


LEVELING SHIM (13)

SHALL BE ALUMINUM



TYPICAL APPLICATION OF GROMMET IN POLE SHAFT



TYPICAL APPLICATION OF CHASE NIPPLE IN POLE SHAFT

GENERAL NOTES

CLAMP BOLT-NUT TIGHTENING TORQUE SHALL BE INDICATED BY INDENT STAMPING (1/2 INCH NUMERALS AND LETTERS) OR WEATHERPROOF PRINTING ON THE INSIDE OF THE CLAMP THAT IS WELDED TO THE ARM MEMBER.

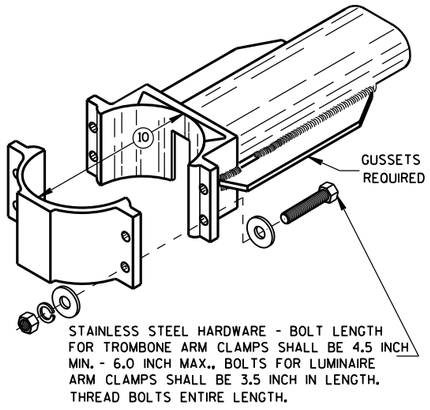
(10) 4.5" I.D. FOR LUMINAIRE MAST ARM CLAMP.
6.625" I.D. FOR TROMBONE MAST ARM CLAMP.

(11) INDIVIDUAL BASE PLATE ANCHOR ROD COVERS. (4 REQUIRED)

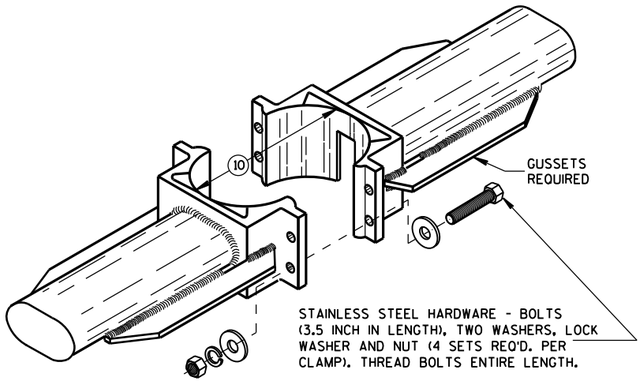
(12) BASE PLATE SLOTTED TO ACCEPT 11" THROUGH 12" BOLT CIRCLE USING 1" DIAMETER ANCHOR RODS.

(13) LEVELING SHIMS, DESIGNED FOR THE PURPOSE, SHALL BE USED WHEN PLUMBING POLES. THE USE OF WASHERS IN LIEU OF PROPER LEVELING SHIMS IS NOT ACCEPTABLE. LEVELING SHIMS SHALL BE USED ONLY BETWEEN THE TOP OF THE CONCRETE BASE AND A METALLIC BASE PLATE.

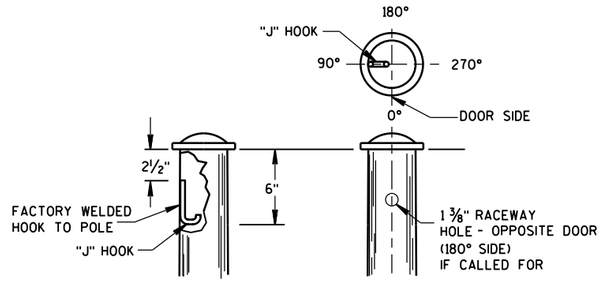
SHIMS SHALL BE LONG ENOUGH AND WIDE ENOUGH TO COMPLETELY COVER THE AREA UNDER THE LENGTH AND WIDTH OF THE BASE MOUNTING FLANGE.



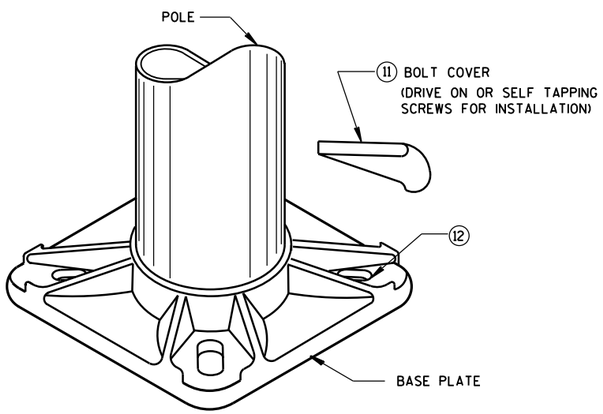
TYPICAL TROMBONE MAST ARM AND SINGLE LUMINAIRE MAST ARM MOUNTING CLAMP



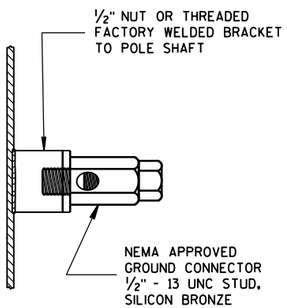
TYPICAL LUMINAIRE MAST ARM (DOUBLE) MOUNTING BRACKETS

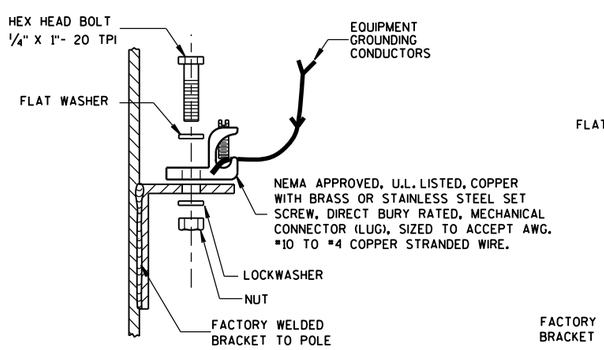


TYPICAL "J" HOOK LOCATION



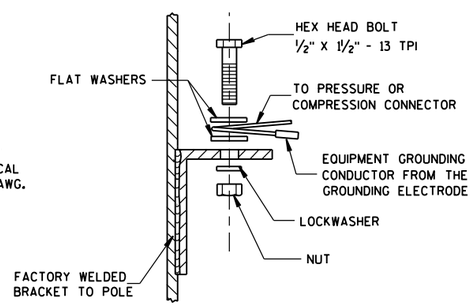
BASE PLATE





TYPICAL GROUNDING CONNECTIONS

NUT, BOLT AND WASHERS SHALL BE STAINLESS STEEL



HARDWARE DETAILS FOR POLE MOUNTINGS

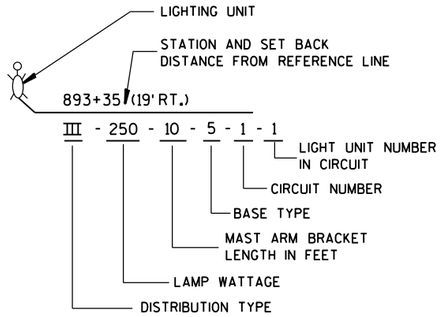
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Feb. 2015
DATE
/S/ Ahmet Demirbilek
STATE ELECTRICAL

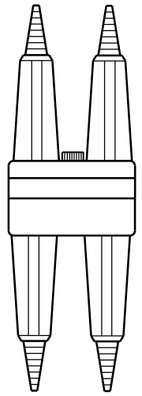
FHWA

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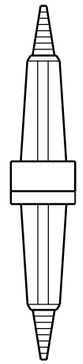
S.D.D. 9 E 1-14g



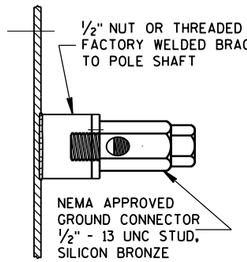
LIGHTING UNIT CODE
(TYPICAL)

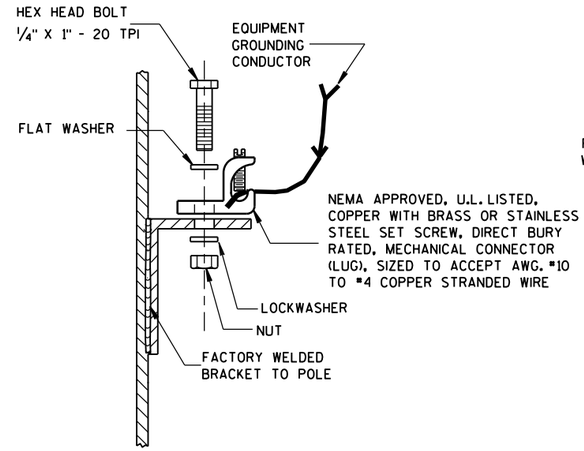


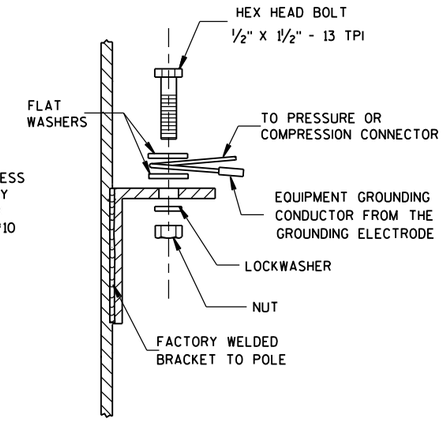
DETAIL "A"
BREAKAWY DOUBLE POLE WITH WATERPROOF INSULATING BOOT



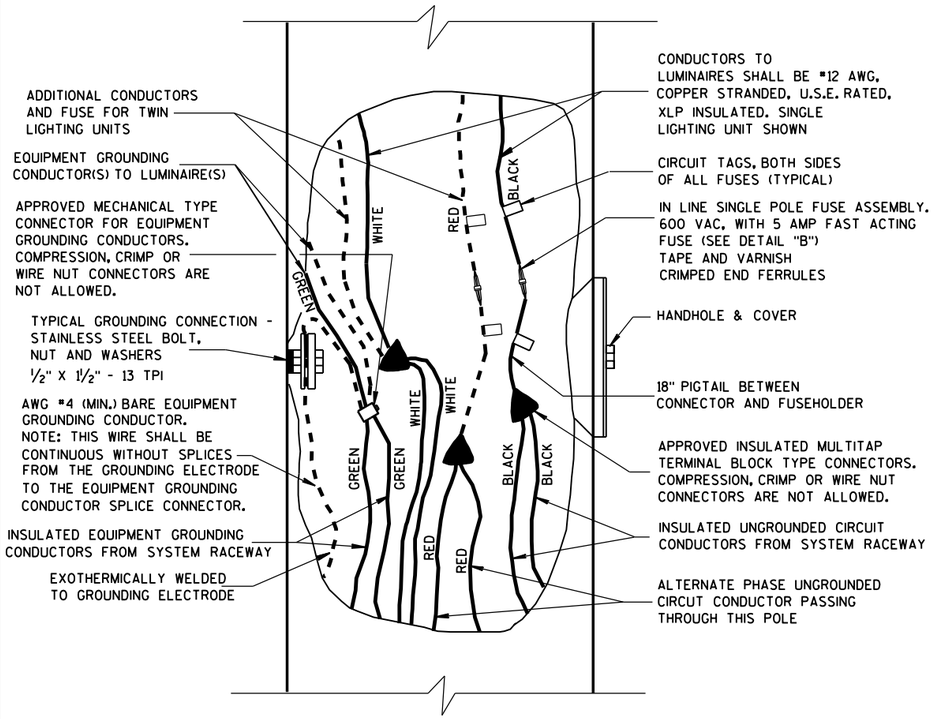
DETAIL "B"
BREAKAWY SINGLE POLE WITH WATERPROOF INSULATING BOOT



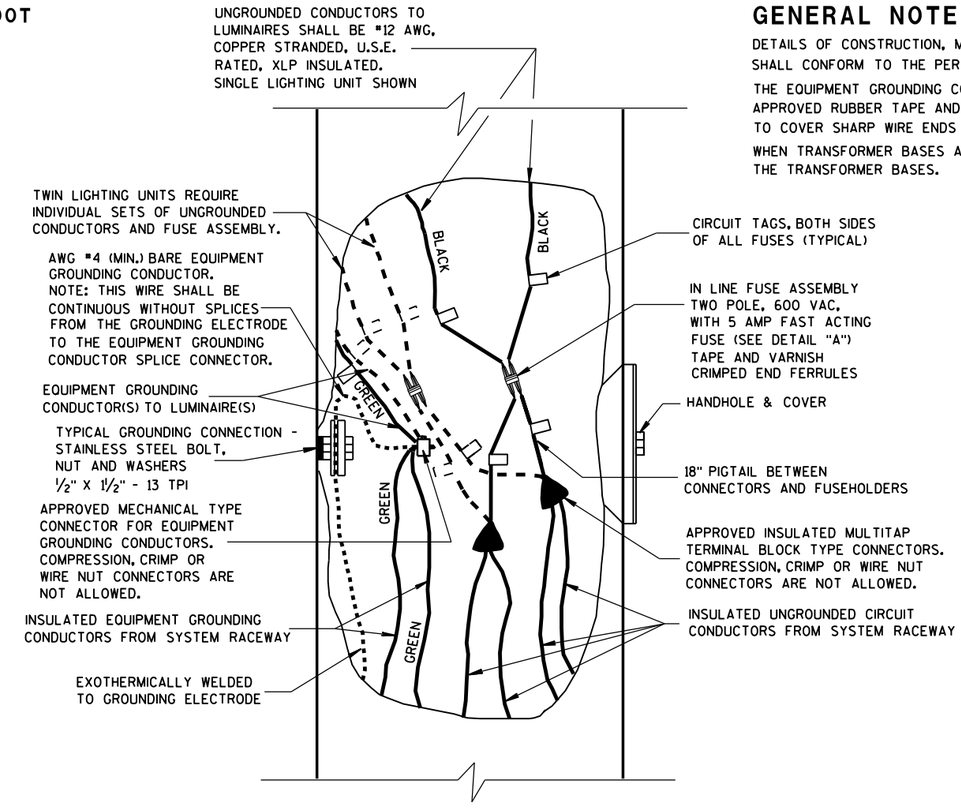




TYPICAL GROUNDING CONNECTIONS
NUT, BOLT, WASHERS AND LOCKWASHERS SHALL BE STAINLESS STEEL



3 WIRE - 120, 240 OR 480 VAC (UNGROUNDED CONDUCTOR) WITH GROUNDED CONDUCTOR AND WITH EQUIPMENT GROUNDING CONDUCTOR



2 WIRE - 240 OR 480 VAC (UNGROUNDED CONDUCTORS) WITH EQUIPMENT GROUNDING CONDUCTOR

GENERAL NOTES

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

THE EQUIPMENT GROUNDING CONNECTOR SHALL BE TAPED WITH 3 WRAPS (MINIMUM) OF APPROVED RUBBER TAPE AND THEN 3 WRAPS (MINIMUM) OF APPROVED VINYL TAPE TO COVER SHARP WIRE ENDS AFTER THE CONNECTION IS COMPLETED.

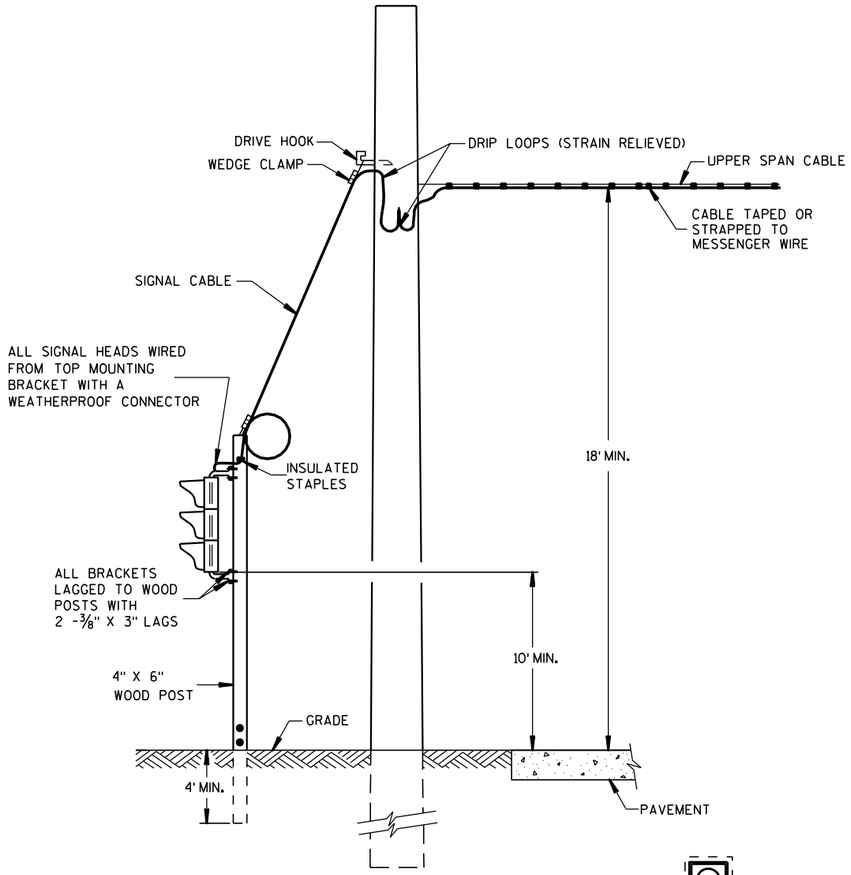
WHEN TRANSFORMER BASES ARE USED, ALL WIRING CONNECTIONS SHALL OCCUR WITHIN THE TRANSFORMER BASES.

NON-FREEWAY LIGHTING UNIT POLE WIRING

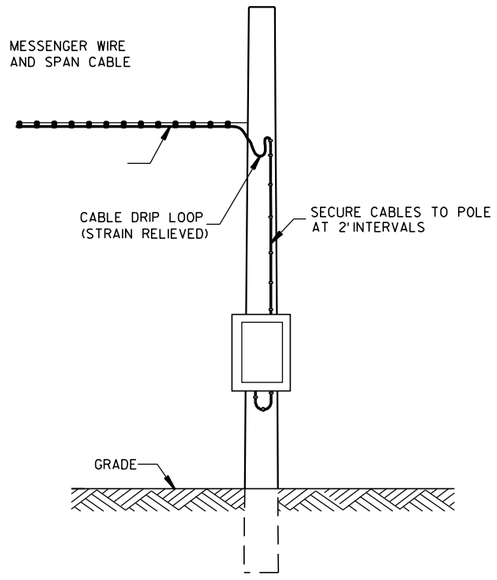
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

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S.D.D. 9 E 3-5



TYPICAL DROP TO TRAFFIC SIGNAL FACE



POLE MOUNT CABINET INSTALLATION

GENERAL NOTES

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

POLE MOUNTED TRAFFIC SIGNAL CONTROL CABINET MAYBE MOUNTED ON THE SERVICE POLE IF THE ELECTRICAL UTILITY ALLOWS THE INSTALLATION.

WHEN UTILITY PLOLES ARE USED TO SPAN THE TEMPORARY OVERHEAD CABLE, WRITTEN PERMISSION MUST BE OBTAINED FROM THE OWNER OF THE POLES AND GIVEN TO THE PROJECT MANAGER. ALL PERTINENT UTILITY AND CODE CLEARANCES SHALL BE MAINTAINED.

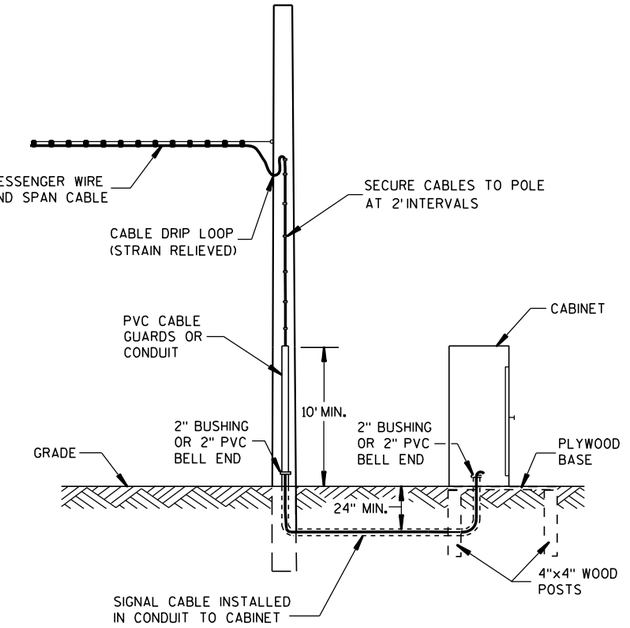
WOOD POLES (NONBREAKAWAY) SHALL BE NO CLOSER TO EDGE OF PAVEMENT THAN OFFSET DISTANCE CHART ALLOWS OR 4 FEET BEHIND PROTECTIVE BARRIER (BEAMGUARD, ETC.).

WOOD POSTS (BREAKAWAY) SHALL BE NO CLOSER THAN 2 FEET OUTSIDE OF SHOULDER.

VERTICAL CLEARANCE ETC. PER NEC.

TRAFFIC SIGNAL FACES SHALL BE TYPICALLY PLACED 12 FEET FROM EDGE OF PAVEMENT.

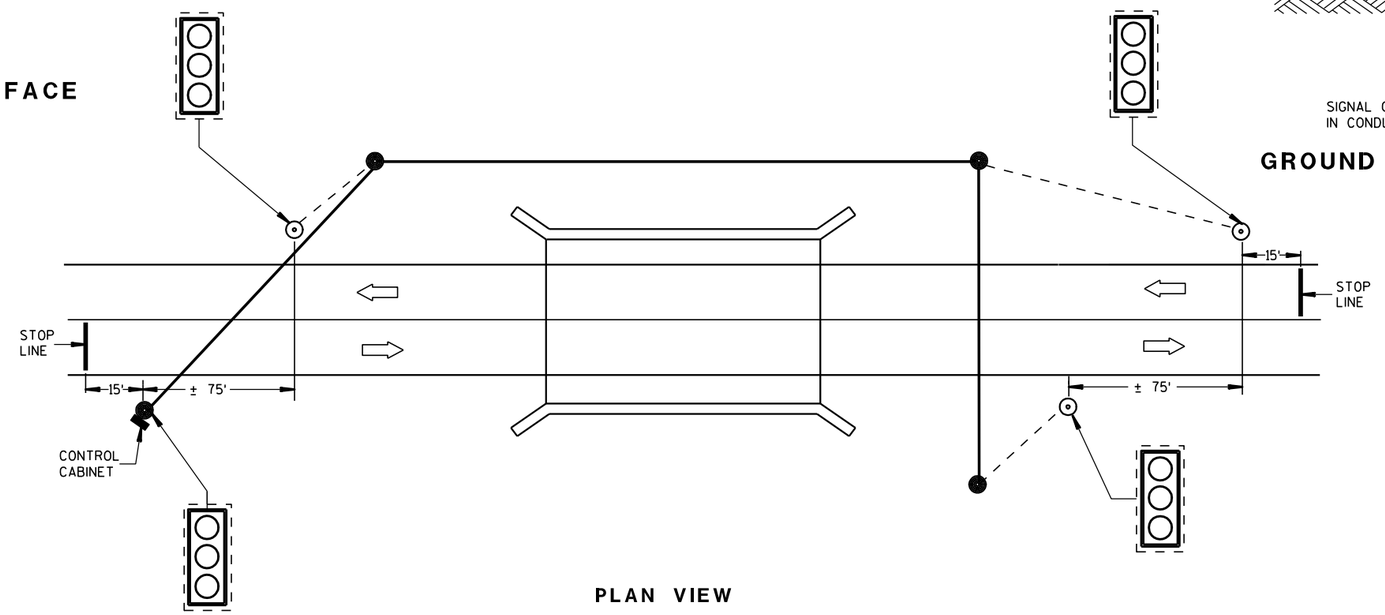
EACH TRAFFIC SIGNAL FACE SHALL HAVE A BACKPLATE.



GROUND MOUNT CABINET INSTALLATION

OFFSET DISTANCES FOR TEMPORARY NON-BREAKAWAY POLES	
SPEED LIMIT	OFFSET DISTANCE**
GREATER THAN 45 MPH	18 FT
45 MPH OR LESS	12 FT
45 MPH OR LESS W/ CURBS	2 FT

**NOTE: OFFSET MEASURED FROM OUTER EDGE OF OUTSIDE THRU LANE.



PLAN VIEW

TYPICAL BRIDGE TEMPORARY TRAFFIC SIGNAL LOCATION

LEGEND

- WOOD POLE (NONBREAKAWAY)
- WOOD POST (BREAKAWAY)
- SIGNAL CABLE
- SIGNAL CABLE W/MESSENGER
- LED TRAFFIC SIGNAL FACE WITH BACKPLATE (3-12")
- DIRECTION OF TRAFFIC

MINIMUM POLE LENGHTS	CLASS	MINIMUM BURIAL DEPTHS
25 FEET	V	5 FEET
30 FEET	V	6 FEET
35 FEET	IV	7 FEET
40 FEET	IV	8 FEET
45 FEET	IV	9 FEET

BRIDGE TEMPORARY TRAFFIC SIGNAL INSTALLATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

3/2/2011 DATE

/S/ Thomas J. Gosling STATE ELECTRICAL ENGI

206

HWYS

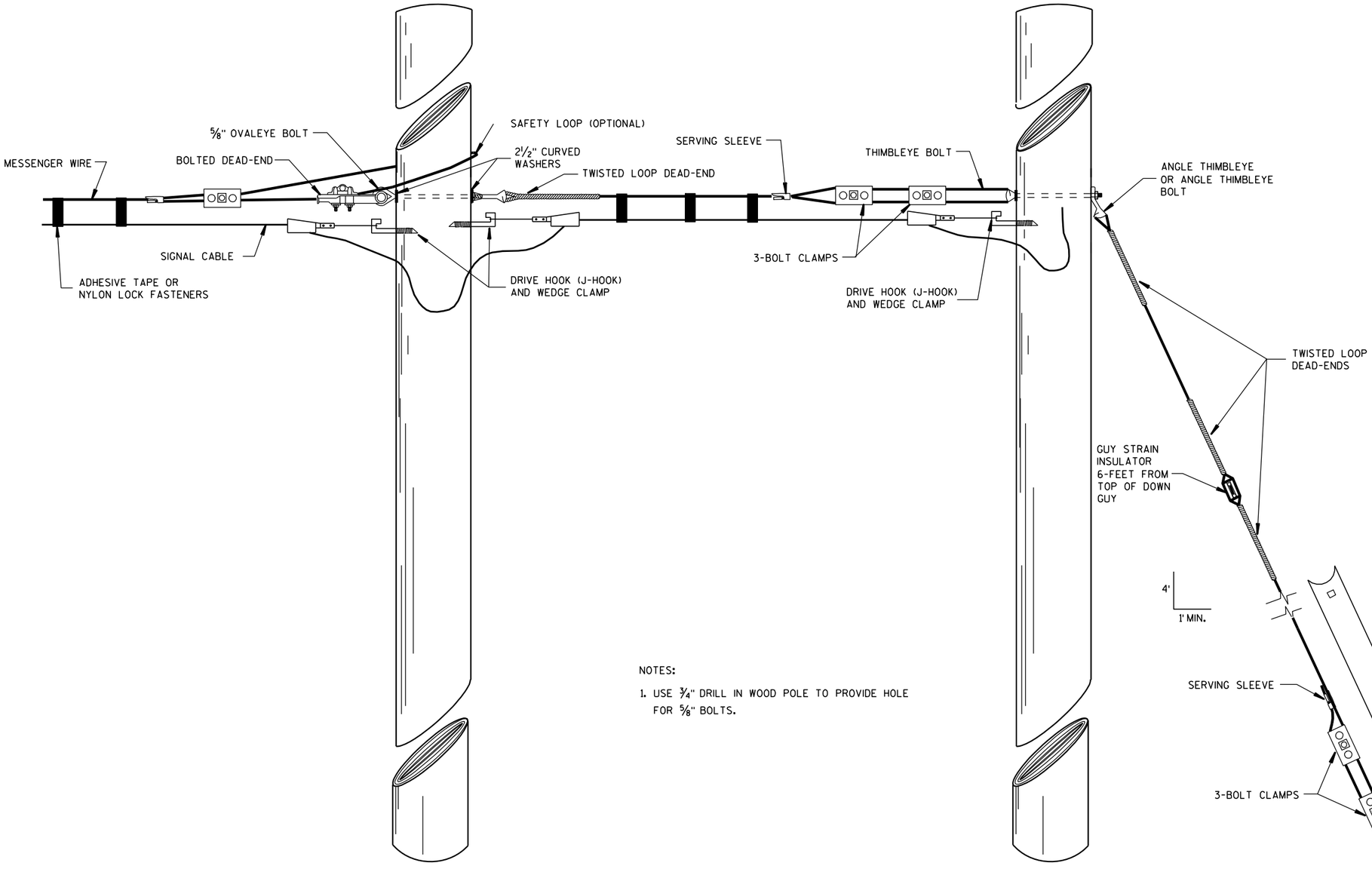
FHWA

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S.D.D. 9 G 2-3a

6

S.D.D. 9 G 2-3a



SPAN WIRE POLE

GUY POLE

NOTES:

1. USE 3/4" DRILL IN WOOD POLE TO PROVIDE HOLE FOR 5/8" BOLTS.

TYPICAL DEAD-ENDINGS OR GUYING

BRIDGE TEMPORARY TRAFFIC SIGNAL INSTALLATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

3/2/2011 DATE

/S/ Thomas J. G... STATE ELECTRICAL ENGI

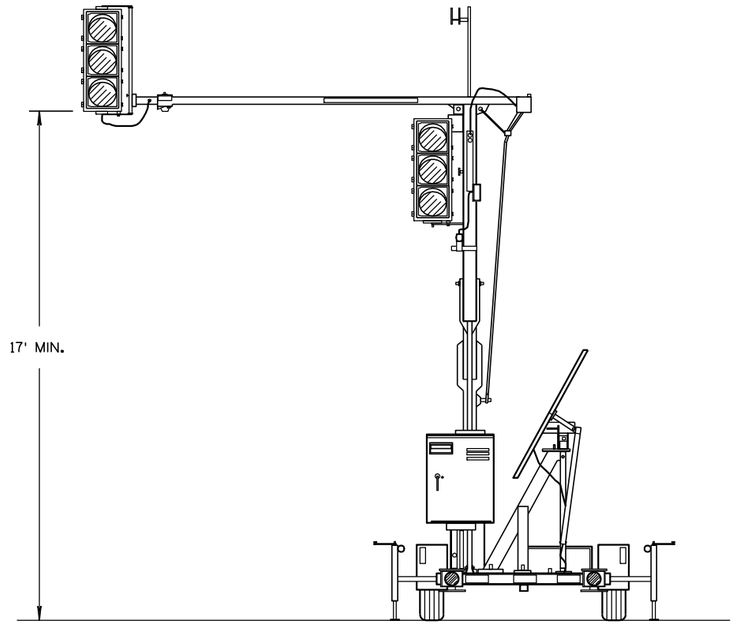
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HWYS

FHWA

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S.D.D. 9 G 2-3b

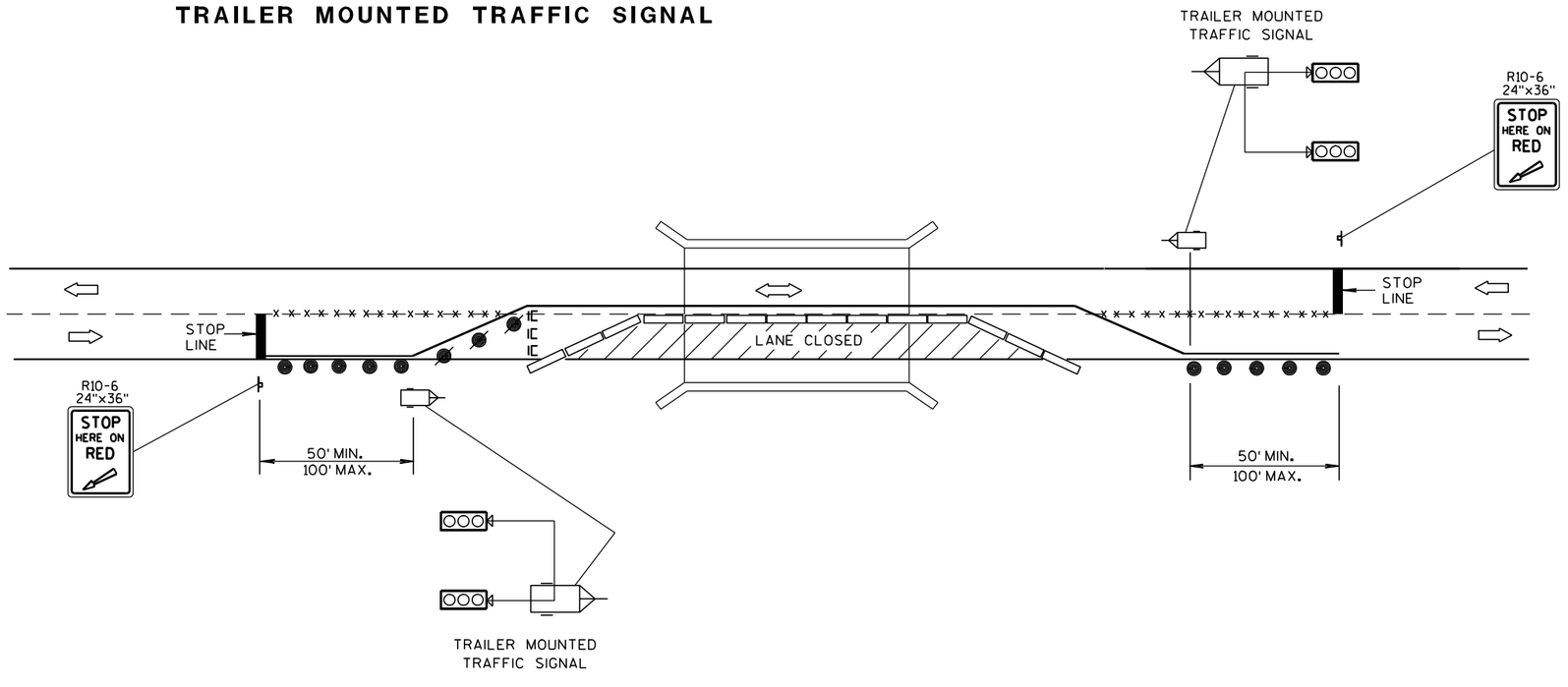


TRAILER MOUNTED TRAFFIC SIGNAL

GENERAL NOTES

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

SIGNING, PAVEMENT MARKING AND LANE CONTROL REQUIREMENTS SHALL CONFORM TO STANDARD DETAIL DRAWING 15 D 33.



TYPICAL TRAILER MOUNTED TRAFFIC SIGNAL LOCATION

LEGEND

- POST MOUNTED SIGN
- REMOVING PAVEMENT MARKING
- TYPE III BARRICADE WITH SIGN
- DRUM WITH/WITHOUT WARNING LIGHT, TYPE C (STEADY-BURN)
- TEMPORARY PRECAST CONCRETE BARRIER
- TRAILER MOUNTED TRAFFIC SIGNAL
- DIRECTION OF TRAFFIC FLOW

BRIDGE TEMPORARY TRAFFIC SIGNAL INSTALLATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

3/2/2011
DATE

/S/ Thomas J. Gosling
STATE ELECTRICAL ENGI 208 HWYS

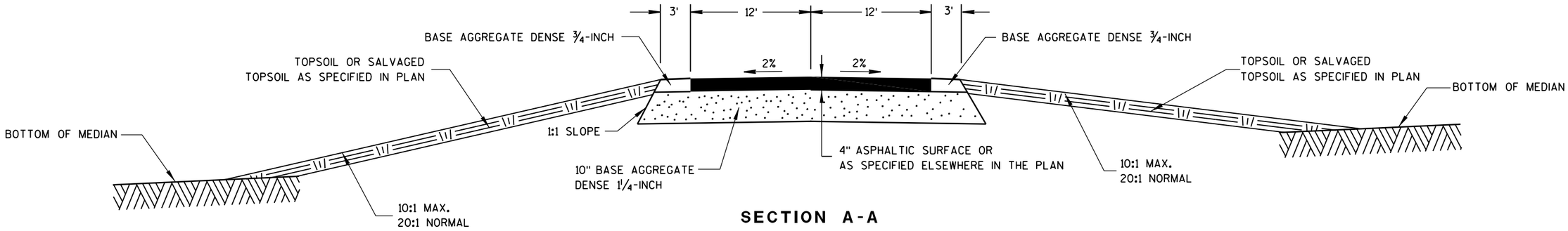
FHWA

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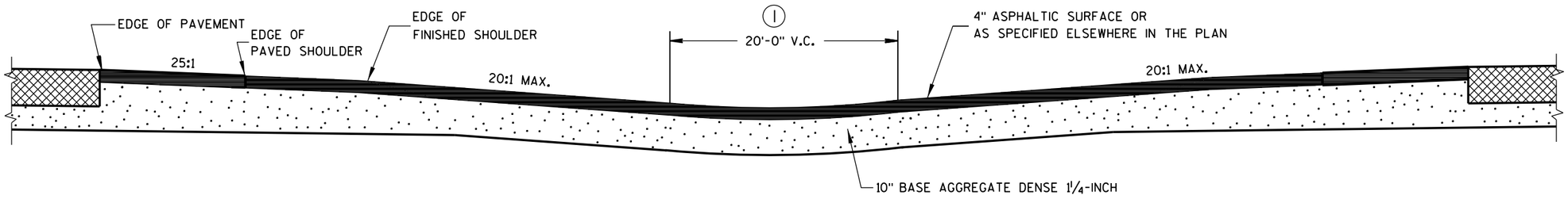
S.D.D. 9 G 2-3c

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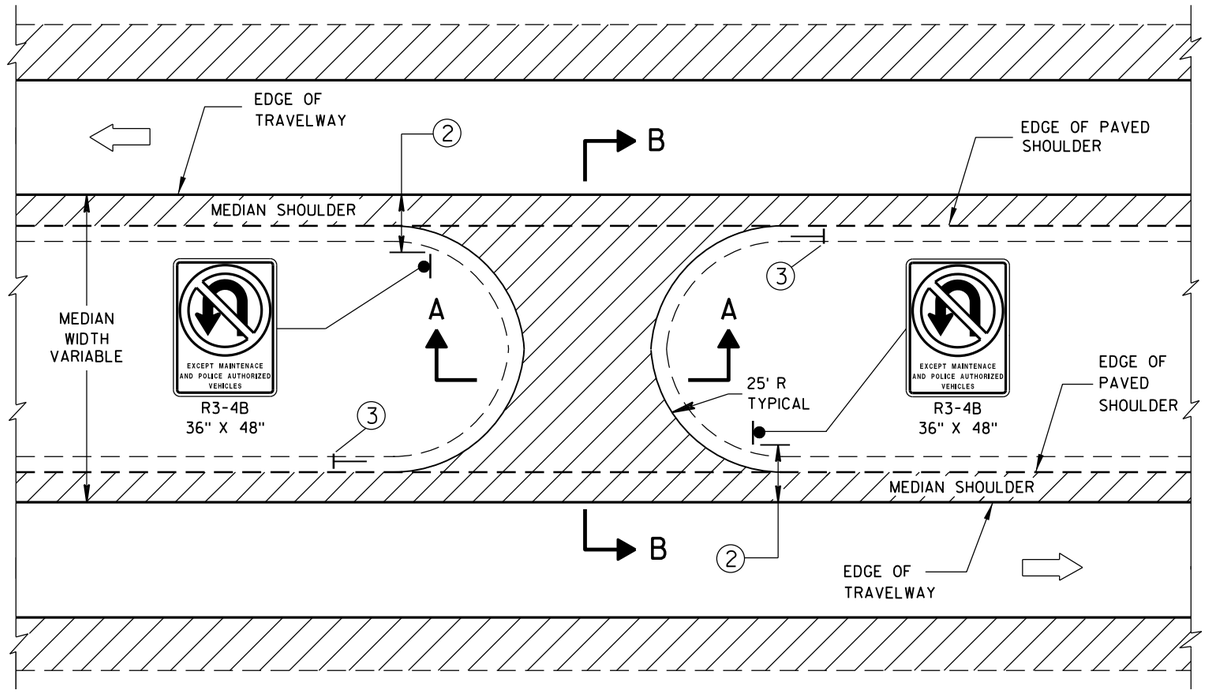
S.D.D. 9 G 2-3c



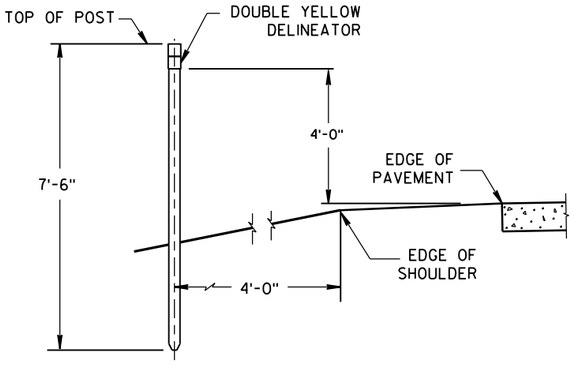
SECTION A-A



SECTION B-B



PLAN VIEW



DOUBLE YELLOW DELINEATOR INSTALLATION

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) ADJUST VERTICAL CURVE LOCATION LATERALLY TO MAINTAIN 20:1 MAX.

(2) SIGNING DETAILS AND SPECIFICATIONS ARE PROVIDED ELSEWHERE IN THE CONTRACT.

(3) INSTALL DOUBLE YELLOW DELINEATOR. SEE STANDARD DETAIL DRAWING 15A2.

MAINTENANCE CROSSOVER FOR FREEWAYS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

8/2013 — DATE

/S/ Jerry H. Zogg — ROADWAY STANDARDS DEVELOPMENT ENGINEER

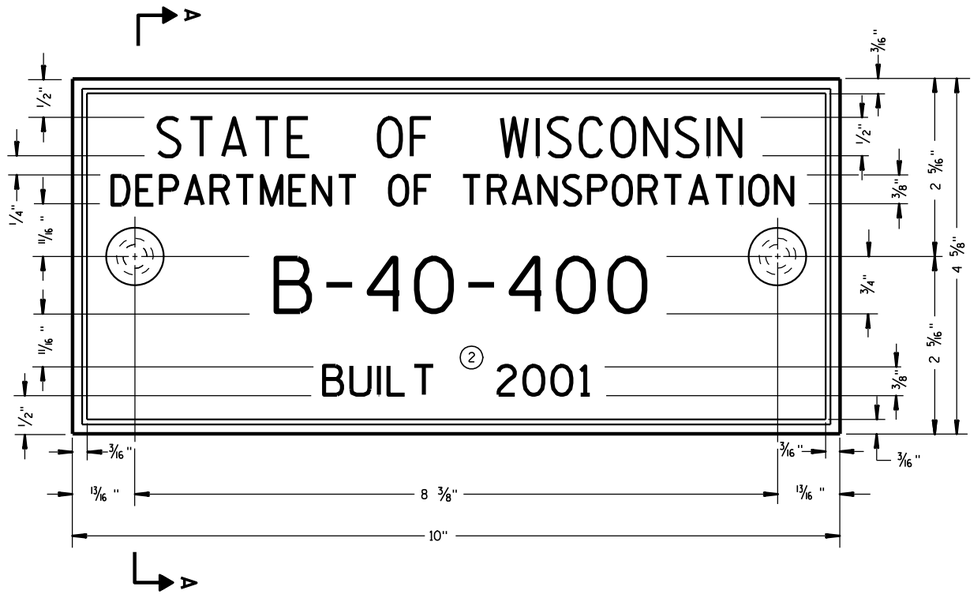
FHWA

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S.D.D. 11 A 1-5

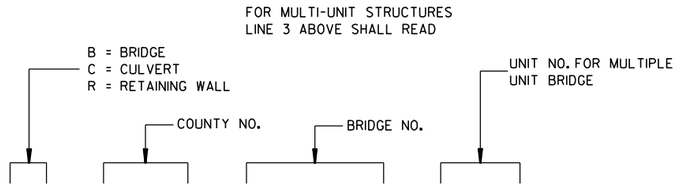
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S.D.D. 11 A 1-5



TYPICAL NAME PLATE

(BRIDGES, CULVERTS, AND RETAINING WALLS)



NUMBERING DESIGNATION
MULTI-UNIT STRUCTURES

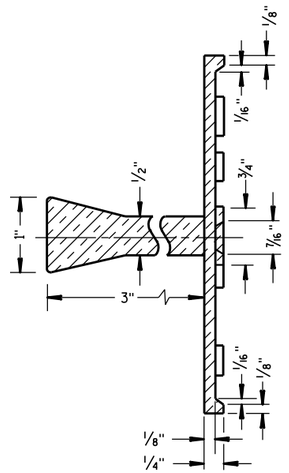
GENERAL NOTES

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.

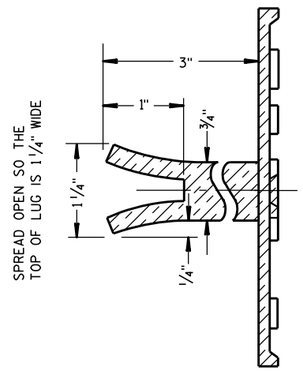
THE BRIDGE NUMBER AND YEAR BUILT SHOWN ON THIS DRAWING ARE EXAMPLES ONLY. SEE CONSTRUCTION PLANS FOR INDIVIDUAL NUMBERING AND YEAR BUILT.

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

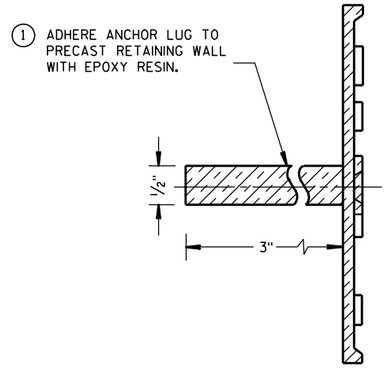
(2) REHABILITATION OF AN EXISTING STRUCTURE SHOULD USE THE DATE OF ORIGINAL STRUCTURE CONSTRUCTION.



SECTION A-A



ALTERNATE LUG



ALTERNATE LUG

(FOR ATTACHMENT TO PRECAST STRUCTURES)

NAME PLATE (STRUCTURES)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

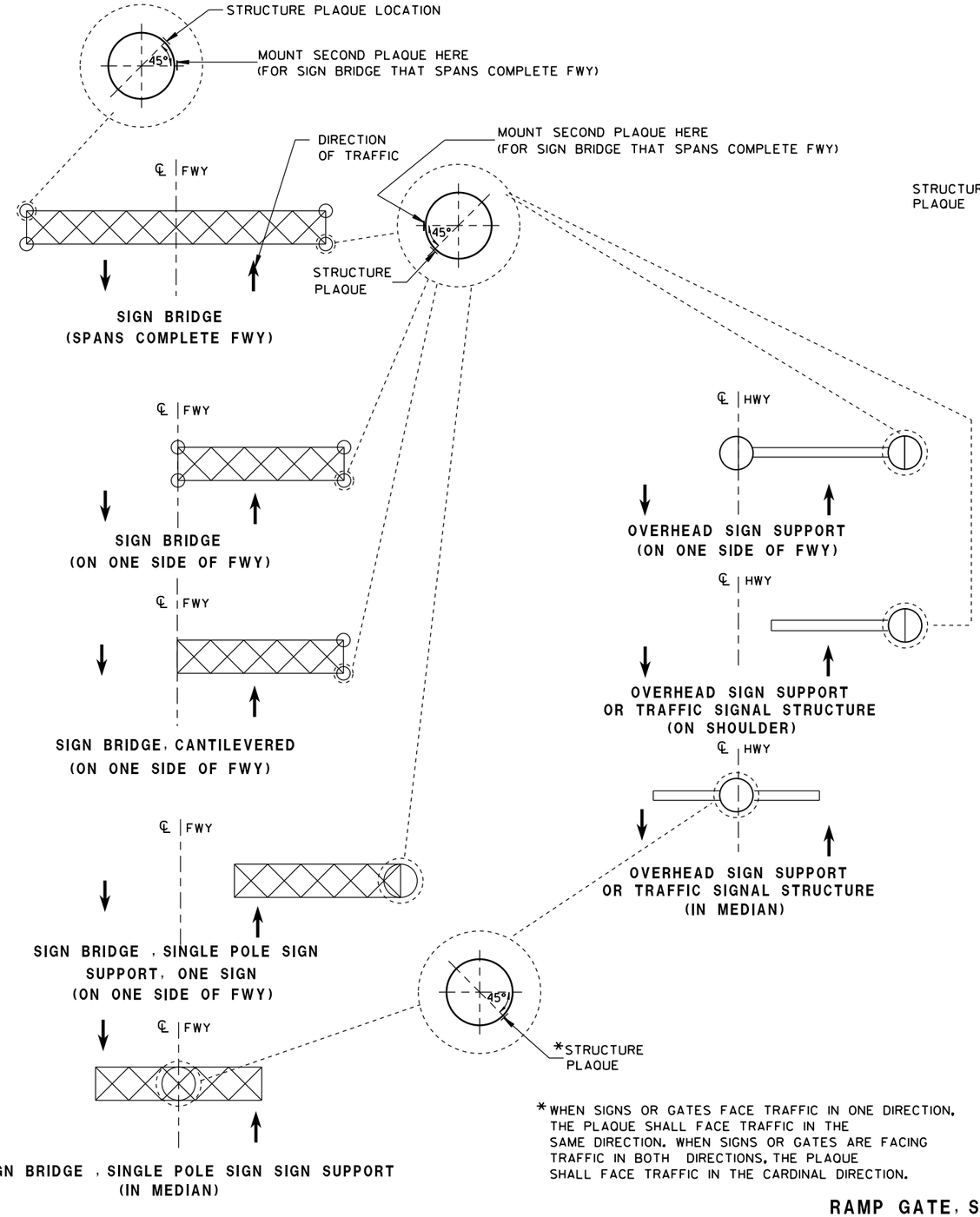
APPROVED

3/26/10 DATE — /S/ Scot Beck — CHIEF STRUCTURAL DEVELOPMENT ENGINEER

FHWA

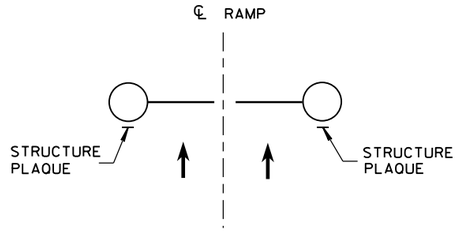
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S.D.D. 12 A 3-10

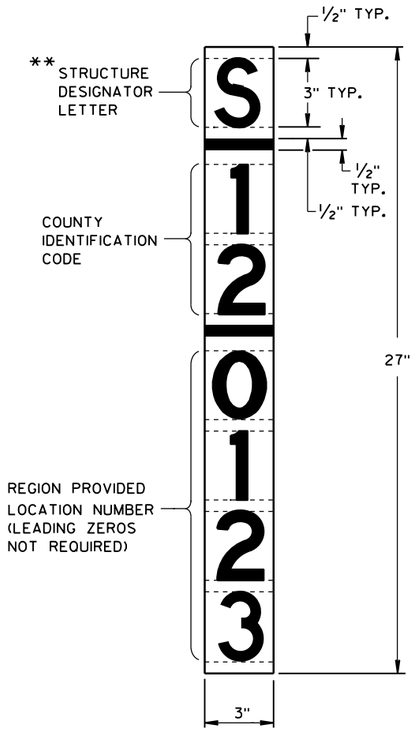


*WHEN SIGNS OR GATES FACE TRAFFIC IN ONE DIRECTION, THE PLAQUE SHALL FACE TRAFFIC IN THE SAME DIRECTION. WHEN SIGNS OR GATES ARE FACING TRAFFIC IN BOTH DIRECTIONS, THE PLAQUE SHALL FACE TRAFFIC IN THE CARDINAL DIRECTION.

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



RAMP GATE
(ACROSS FWY ON-RAMP)



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

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

GENERAL NOTES

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

PLAQUES SHALL BE INCIDENTAL TO ALL NEW INSTALLATIONS.

IF THE PROPOSED SIGN BRIDGE OR OVERHEAD SIGN SUPPORT IS REPLACING AN EXISTING SIGN BRIDGE OR OVERHEAD SIGN SUPPORT, A NEW IDENTIFICATION PLAQUE WILL BE REQUIRED.

FASTEN TOP, CENTER AND BOTTOM OF PLAQUE TO POLE OR OTHER LOCATION AS FOLLOWS:

GALVANIZED STEEL SHAFT - 3 STAINLESS STEEL POP RIVETS

A588 STEEL SHAFT - SHIM FOR DRAINAGE WITH STAINLESS WASHERS; FASTEN WITH STAINLESS SELF-TAPPING SCREWS

ALUMINUM SHAFTS - 3 ALUMINUM POP RIVETS

MOUNTING HEIGHT SHALL BE APPROXIMATELY 5.0' ABOVE CURB OR SHOULDER. ADJUST IF IT IS KNOWN THAT REQUIRED TRAFFIC SIGNS WILL OBSTRUCT.

PLAQUE MATERIALS:

BASE - SHEET ALUMINUM, 0.060" THICK.

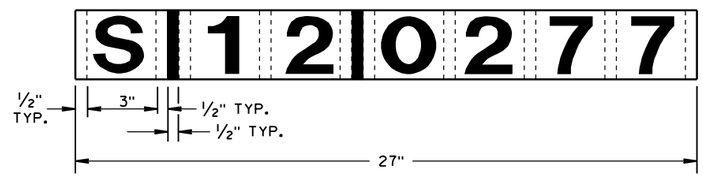
FACE - WHITE, SELF-ADHESIVE VINYL SHEETING, NON-RETROREFLECTIVE

LINES - BLACK, ½" WIDE, SELF-ADHESIVE

CHARACTERS:- BLACK, SELF ADHESIVE, SERIES "D", SIZE AS SHOWN.

FOR SIGN BRIDGES, STRUCTURE MOUNTED, THE STRUCTURE PLAQUE SHALL BE MOUNTED HORIZONTALLY AS SHOWN ON THE DRAWING. THE STRUCTURE PLAQUE SHALL BE MOUNTED HORIZONTALLY TO THE BACK OF THE SIGN, BETWEEN THE ALUMINUM EXTRUSIONS, NEAR THE TOP LEFT HAND CORNER OF THE SIGN. THE BASE MATERIAL SHALL BE OMITTED AND THE FACE ADHERED DIRECTLY TO THE ALUMINUM SURFACE. PRIOR TO ADHERING THE MATERIAL, THE ALUMINUM SURFACE SHALL BE SMOOTH, CLEAN AND DRY.

WHERE SIGN BRIDGE ILLUMINATION IS PROVIDED, THE STRUCTURE MUST ALSO HAVE A SIGN BRIDGE CIRCUIT PLAQUE AS SHOWN IN THE ELECTRICAL DETAILS.



IDENTIFICATION PLAQUE FOR SIGN BRIDGE, STRUCTURE MOUNTED

STRUCTURE IDENTIFICATION PLAQUES, RAMP GATES, SIGN BRIDGES, OVERHEAD SIGN SUPPORTS, & TRAFFIC SIGNALS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

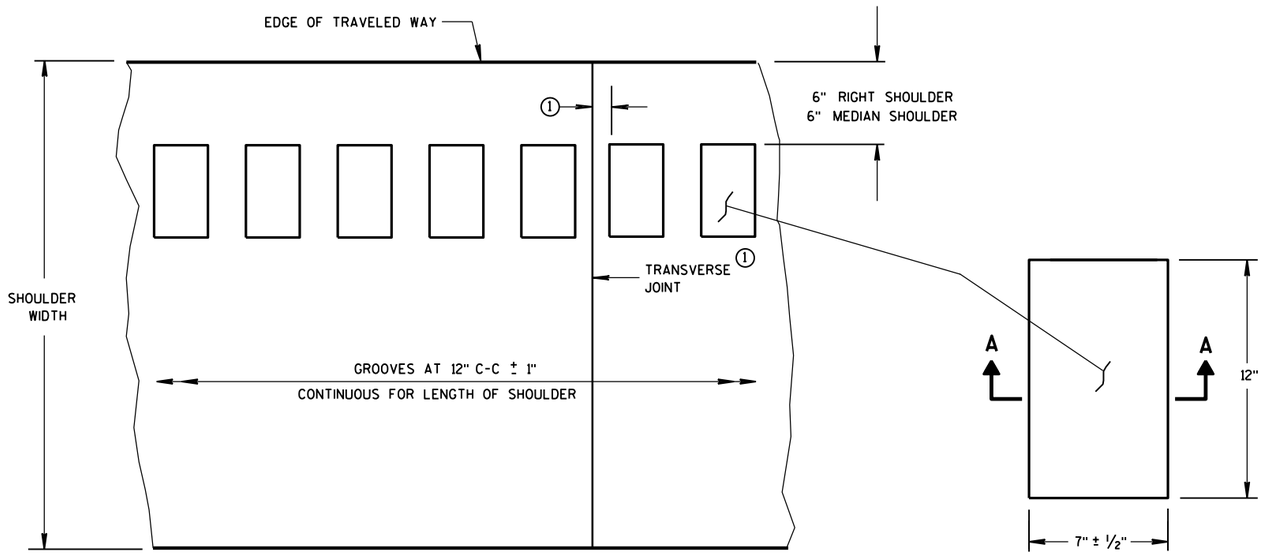
APPROVED
12/4/2012 — DATE
/S/ Travis Feltes — STATE TRAFFIC ENGINEER
FHWA

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S.D.D. 12 A 4-3

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S.D.D. 12 A 4-3



PLAN VIEW
SHOULDER WITH GROOVES

PLAN VIEW
(SINGLE GROOVE)

PLACEMENT DETAIL FOR MILLED RUMBLE STRIP

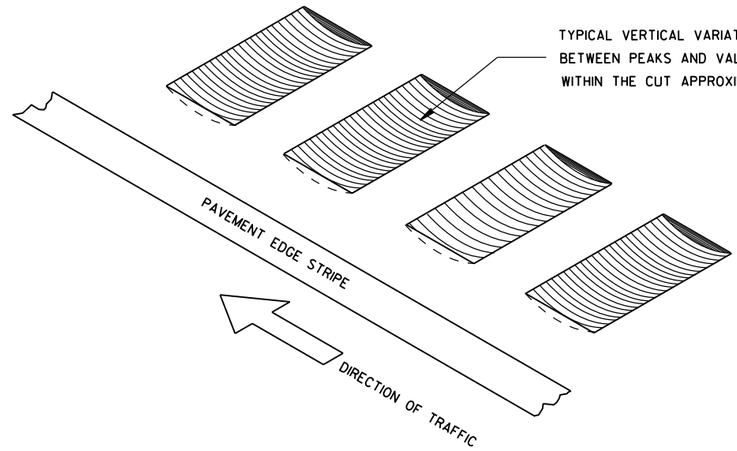
GENERAL NOTES

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

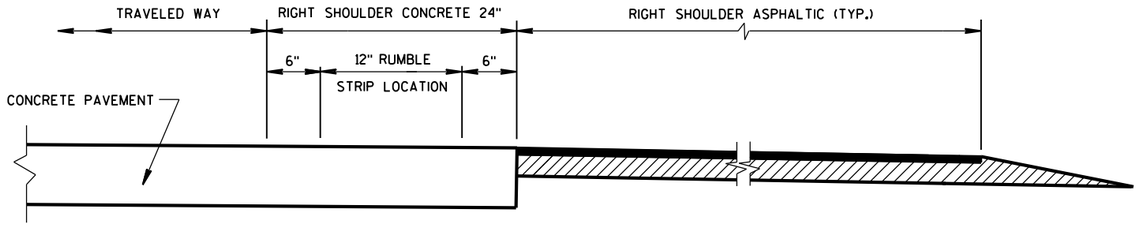
RUMBLE STRIPS ON EXPRESSWAYS

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.

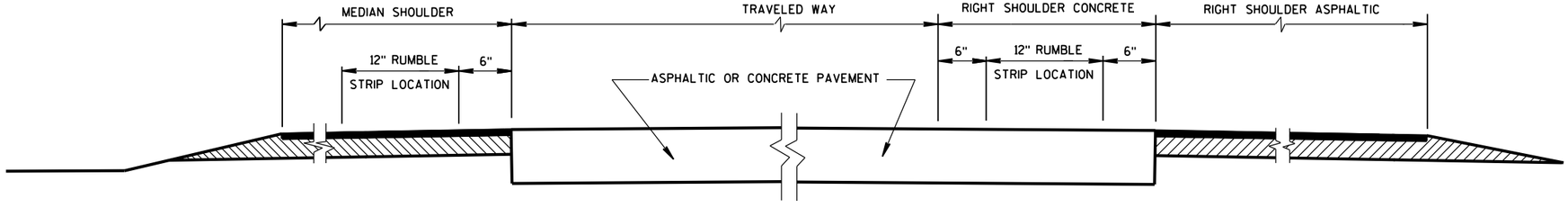
(1) CONCRETE PAVEMENT - RUMBLE STRIPS SHALL BE A MINIMUM OF 6" AWAY FROM TRANSVERSE JOINTS.



ISOMETRIC



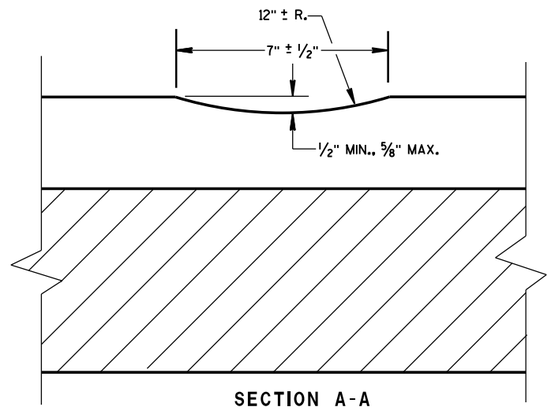
SECTION VIEW
CONCRETE PAVEMENT EXTENDS INTO RIGHT SHOULDER)



SECTION VIEW

TYPICAL LOCATIONS OF SHOULDER RUMBLE STRIPS IN RURAL DIVIDED HIGHWAYS

(ONE ROADWAY IS SHOWN)



SECTION A-A

SHOULDER RUMBLE STRIP, MILLING

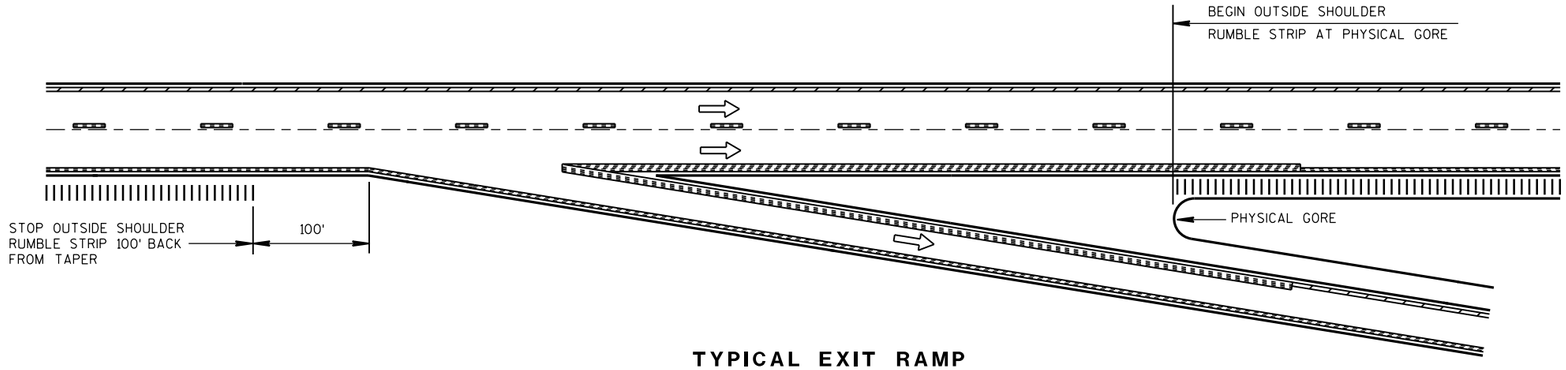
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6

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

6

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



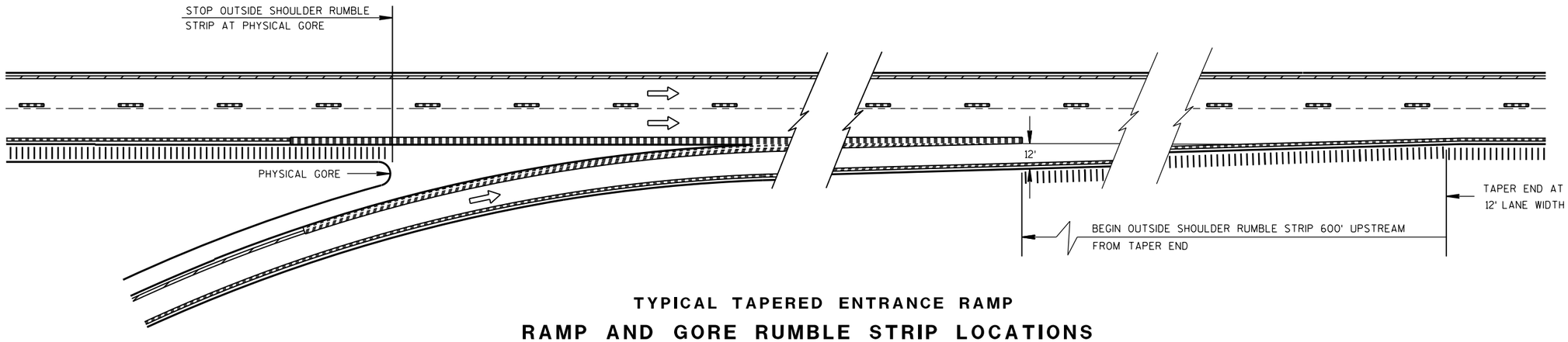
TYPICAL EXIT RAMP

NOTES:

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

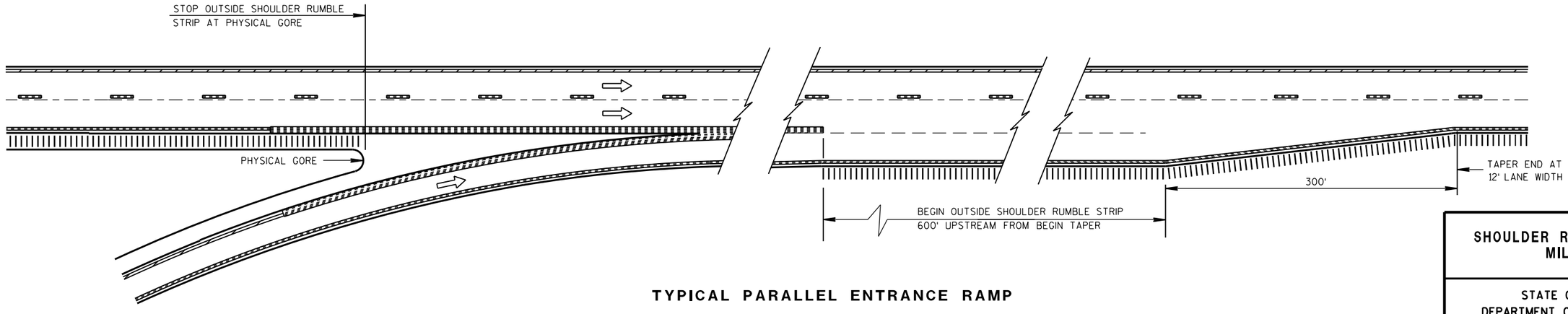
PAVEMENT MARKING DETAILS AND SPECIFICATIONS ARE PROVIDED ELSEWHERE IN THE CONTRACT.

NOTE:
ARROW SYMBOL (⇨)
SHOWS DIRECTION OF TRAVEL



TYPICAL TAPERED ENTRANCE RAMP

RAMP AND GORE RUMBLE STRIP LOCATIONS



TYPICAL PARALLEL ENTRANCE RAMP

RAMP AND GORE RUMBLE STRIP LOCATIONS

SHOULDER RUMBLE STRIP, MILLING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

12/17/2012
DATE

/S/ Jerry H. Zoga
ROADWAY STANDARDS ENGINEER

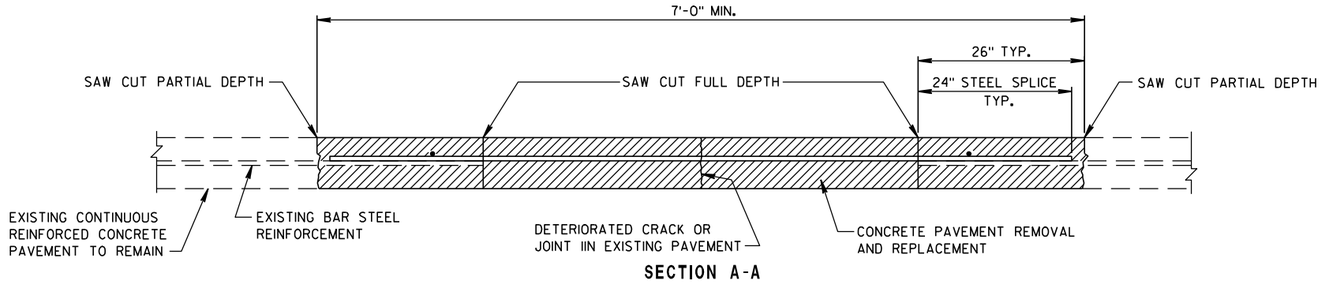
FHWA

6

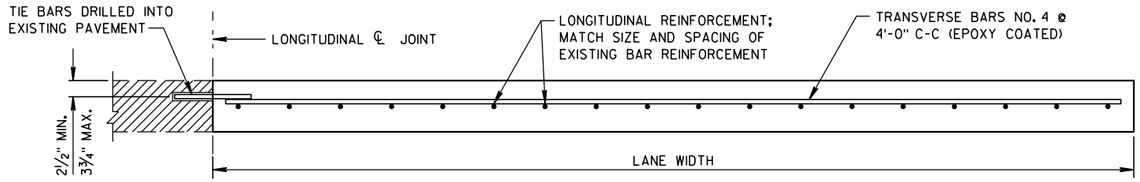
S.D.D. 13 A 5-5b

6

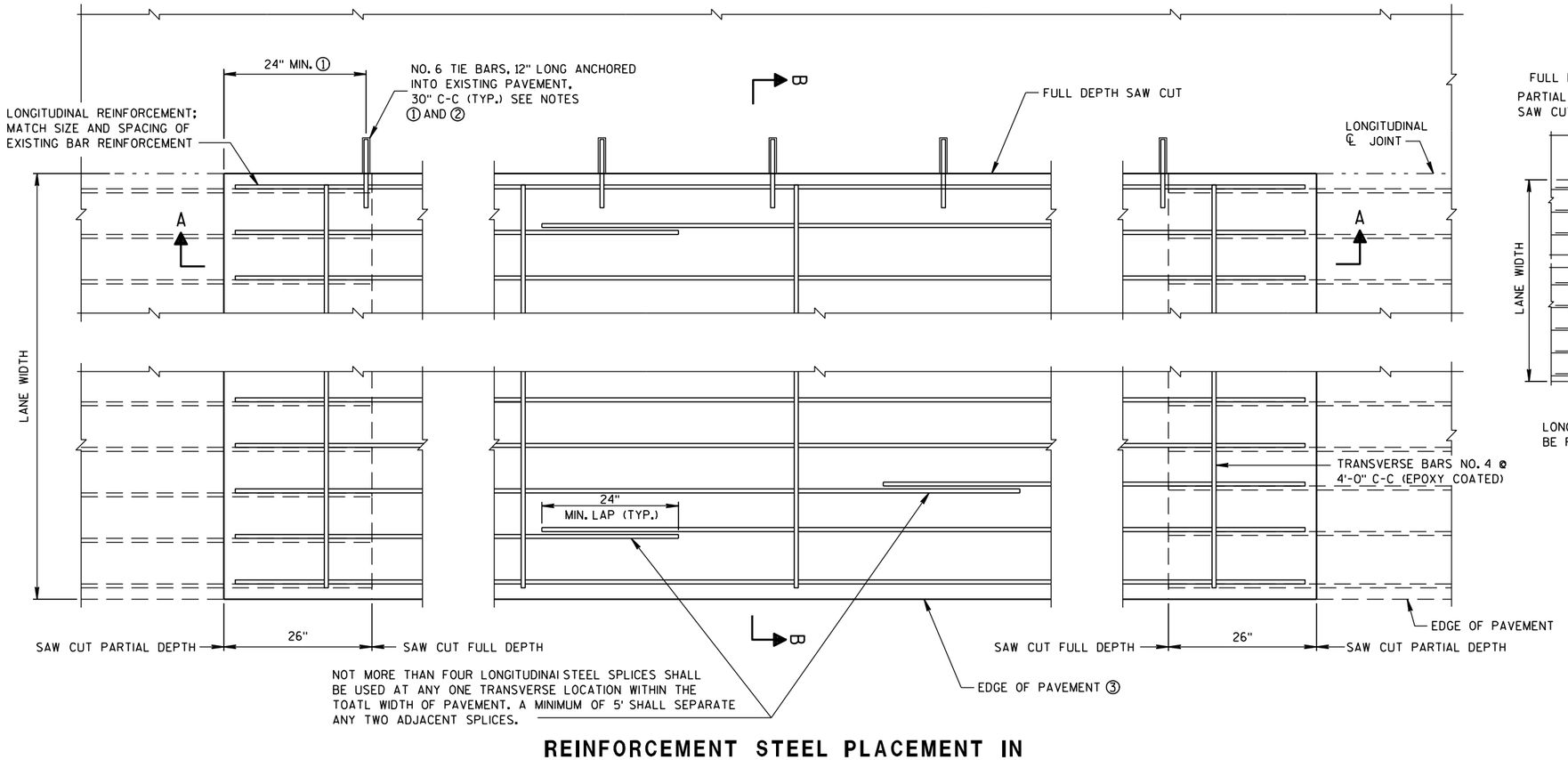
S.D.D. 13 A 5-5b



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.

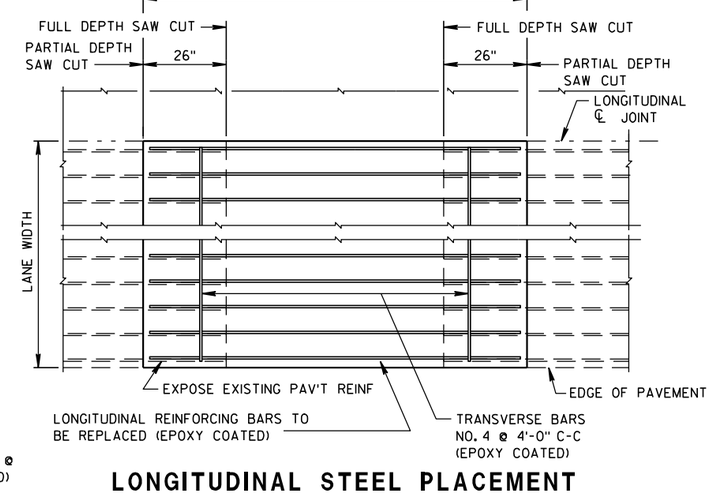
ADD TRANSVERSE STEEL BARS TO REPAIRS GREATER THAN 6'IN LENGTH, USE NO. 4 BARS PLACED TRANSVERSELY AND SPACED 4'C-C. PAYMENT SHALL BE INCIDENTAL TO "CONCRETE PAVEMENT CONTINUOUS REINFORCEMENT".

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

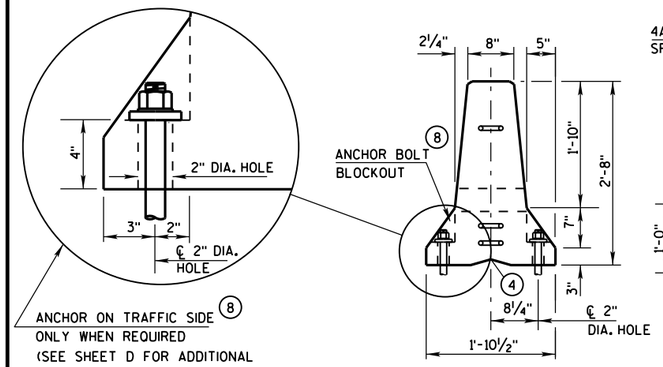
FHWA

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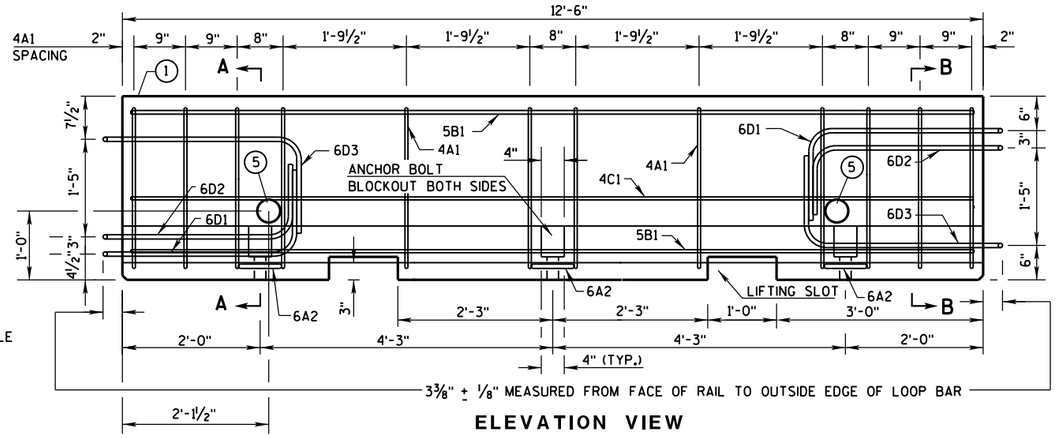
S.D.D. 13 A 7-2

6

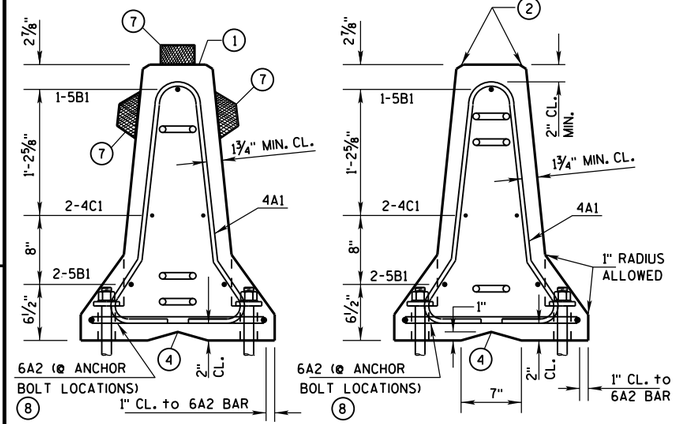
S.D.D. 13 A 7-2



END VIEW

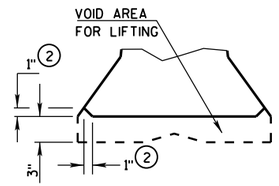


ELEVATION VIEW

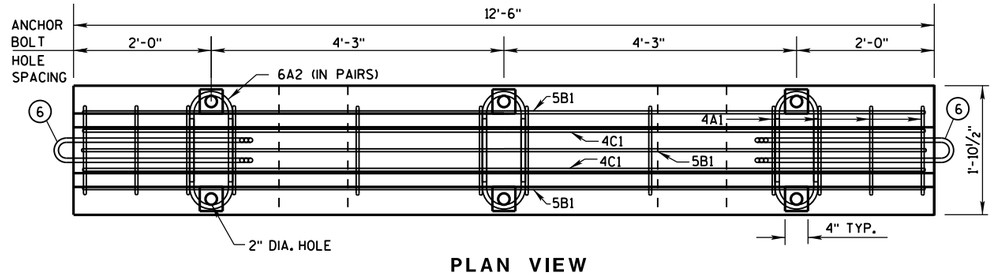


SECTION A-A
(STIRRUP PLACEMENT)

SECTION B-B
(STIRRUP PLACEMENT)

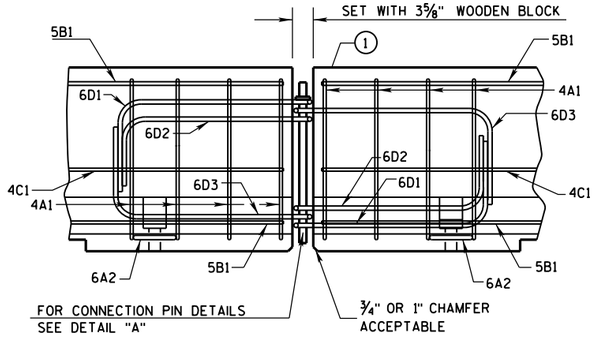


DETAIL "B"
LIFTING SLOT DETAIL

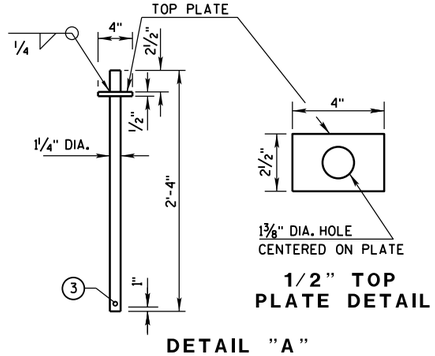


PLAN VIEW

DETAILS OF BARRIER SECTION

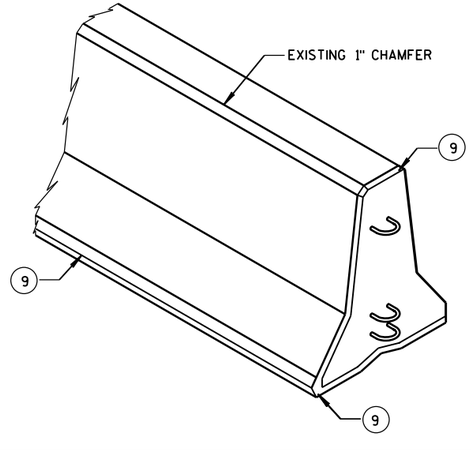


DETAILS OF BARRIER CONNECTION



1/2" TOP PLATE DETAIL

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



GENERAL NOTES

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

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

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

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

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

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

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

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

(2) 1" CHAMFER TO PREVENT SPALLING.

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

(4) "V" NOTCH IS OPTIONAL.

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

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

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

(8) SEE SHEET D FOR ANCHORING CRITERIA.

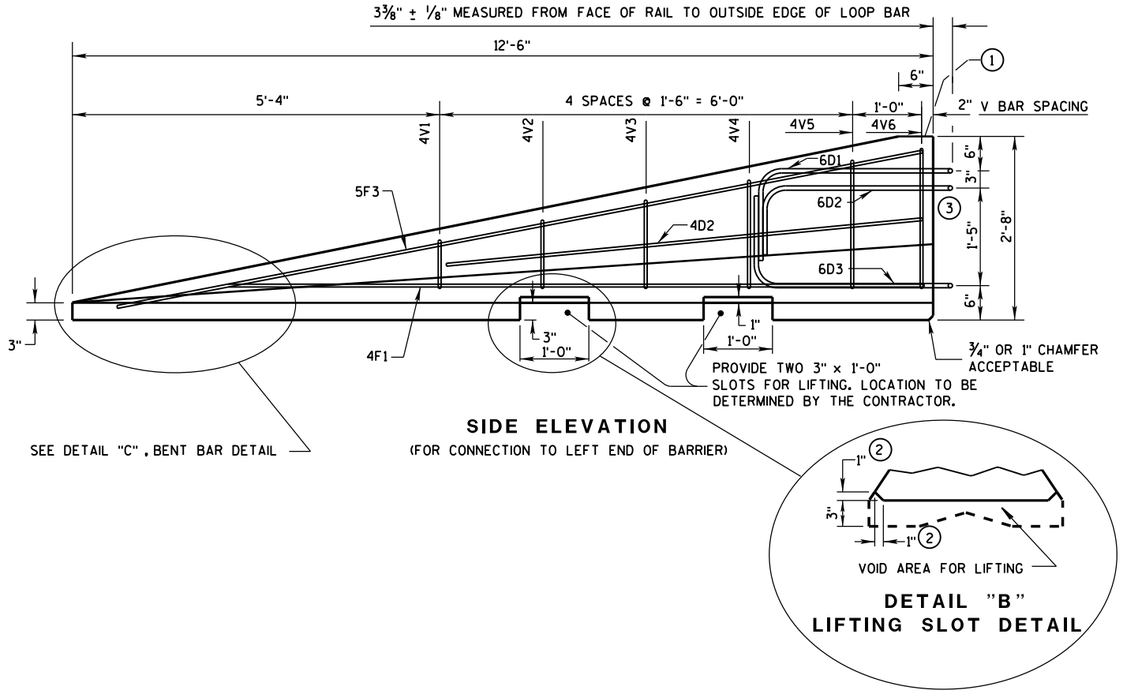
(9) 1" CHAMFER OPTIONAL.

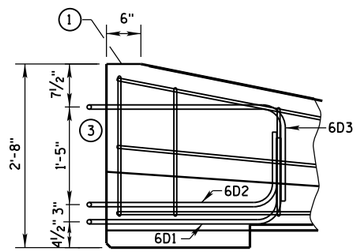
CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

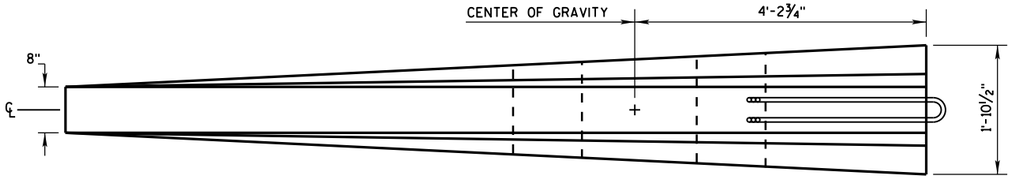
S.D.D. 14 B 7-14a

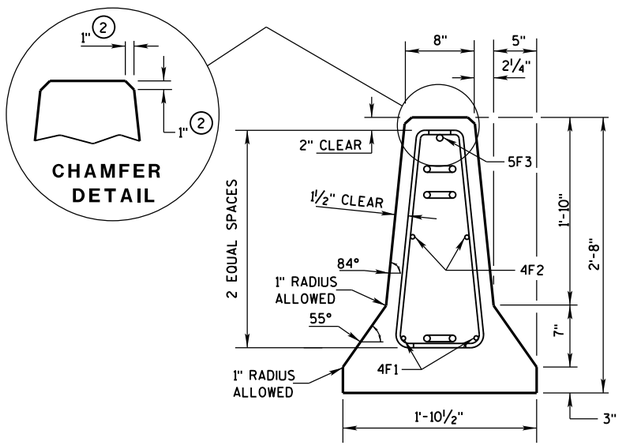


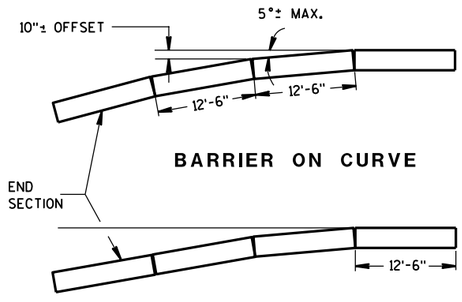


GENERAL NOTES

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







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

DETAILS OF BARRIER TAPER SECTION

CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

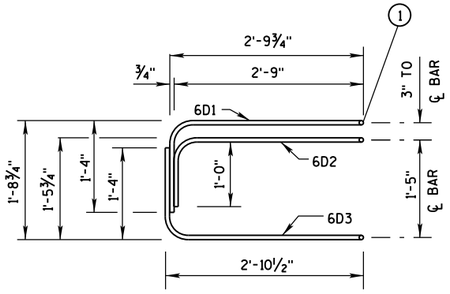
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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

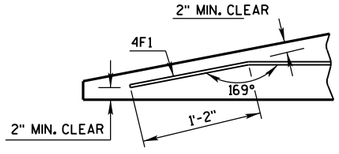
BARRIER TAPER SECTION BILL OF MATERIALS

(PER 12'-6" BARRIER TAPER SECTION)

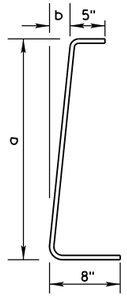
BAR	BAR SIZE	NO. OF BARS	LENGTH FT.
4V1	4	2	1'-11"
4V2	4	2	2'-2"
4V3	4	2	2'-6"
4V4	4	2	2'-9"
4V5	4	2	3'-2"
4V6	4	2	3'-4"
4F1	4	2	12'-0"
4F2	4	2	7'-6"
5F3	5	1	11'-9"
LOOP ASSEMBLY			
6D1	6	1	8'-5"
6D2	6	1	7'-7"
6D3	6	1	8'-6"



ELEVATION
LOOP BAR ASSEMBLY



DETAIL "C"
BENT BAR DETAIL



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

4V BARS
2 AT EACH SIZE REQUIRED
FOR STIRRUP ASSEMBLY

TAPER BARRIER SECTION

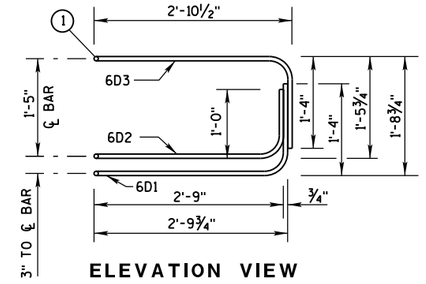
GENERAL NOTES

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

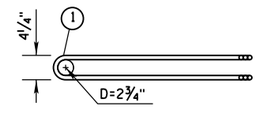
BARRIER SECTION BILL OF MATERIALS

(PER 12'-6" BARRIER SECTION)

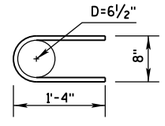
BAR	BAR SIZE	NO. OF BARS	LENGTH FT.
4A1	4	12	6'-0"
6A2	6	6	2'-11"
5B1	5	3	12'-2"
4C1	4	2	12'-2"
LOOP ASSEMBLY			
6D1	6	2	8'-5"
6D2	6	2	7'-7"
6D3	6	2	8'-6"



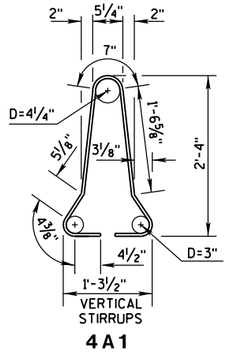
ELEVATION VIEW



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



6A2



4A1

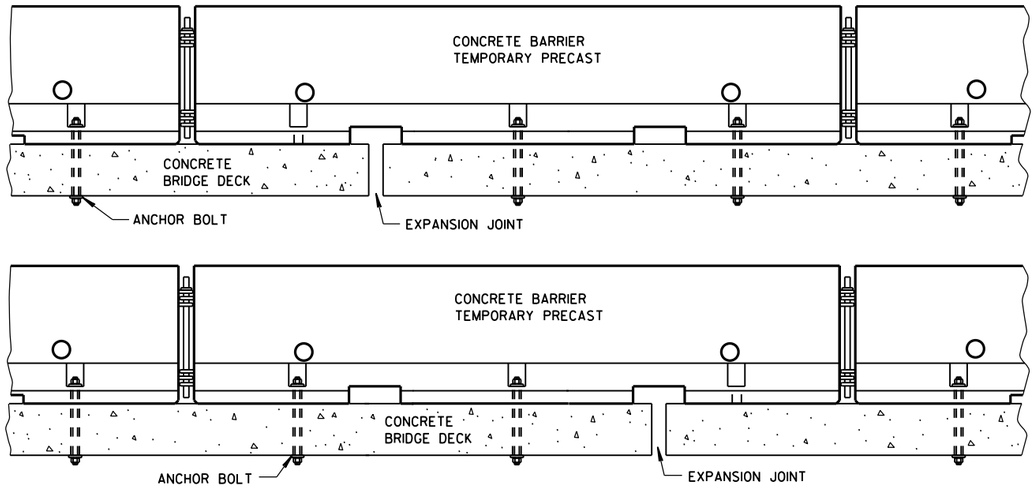
BARRIER SECTION

CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

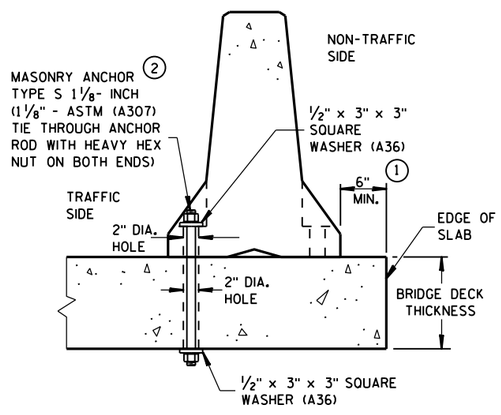
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S.D.D. 14 B 7-14c



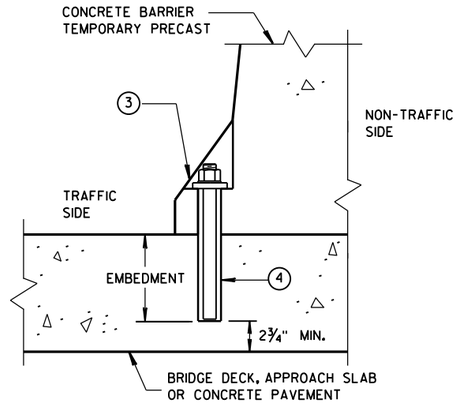
TREATMENT AT BRIDGE DECK EXPANSION JOINTS

(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.

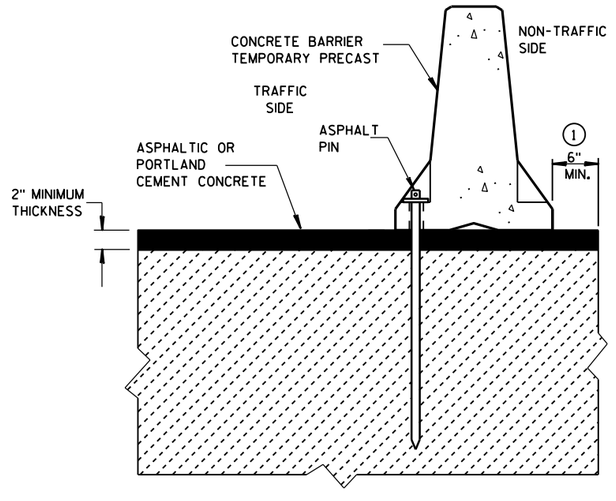
② ANCHORING IS INCIDENTAL TO CONCRETE BARRIER TEMPORARY PRECAST.

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.

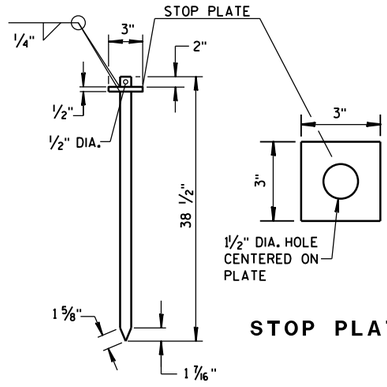
③ 1⅛" DIAMENTER A307 THREADED ROD, ½" X 3" X 3" SQUARE PLATE WASHER WITH ASTM A36 STEEL, ASTM A563A HEAVY HEX NUT.

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)

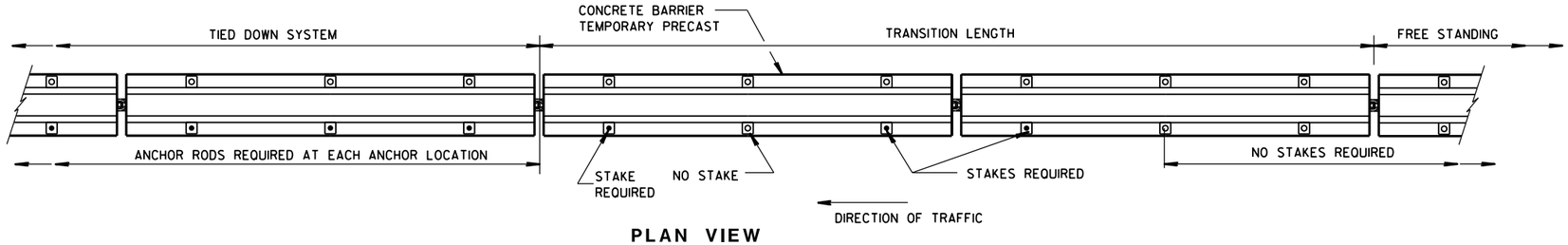


STOP PLATE



ASPHALT PIN

(ASTM A36 STEEL)



PLAN VIEW

FREE STANDING TRANSITION TO TIED-DOWN SYSTEM

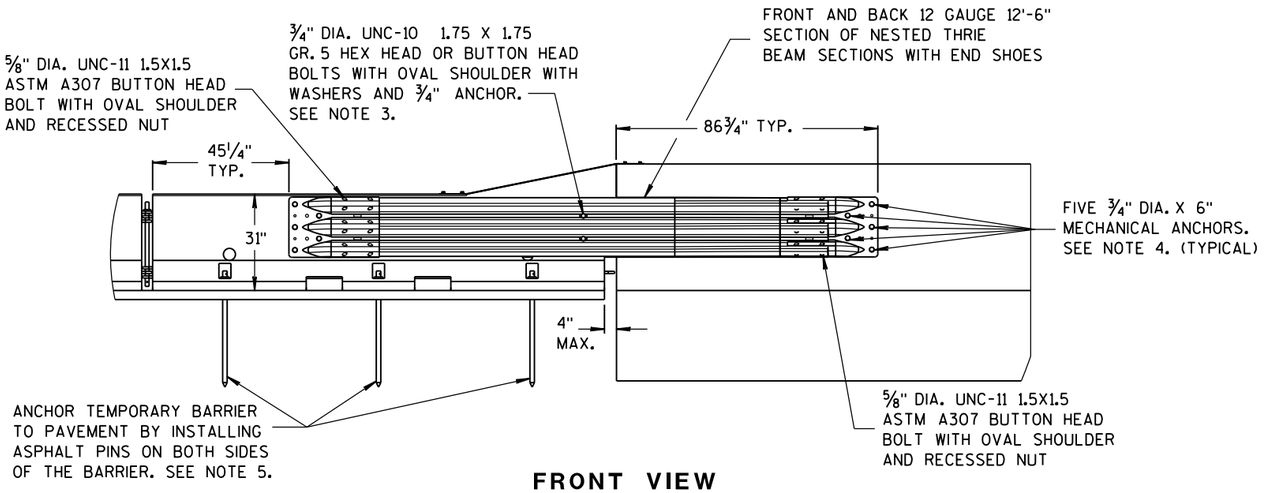
(PLACE TRANSITION IN A TANGENT SECTION OF BARRIER PARALLEL TO THE ROADWAY. IF TRANSITION OCCURS ON STRUCTURAL SLAB, ANCHOR AS SHOWN.)

CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

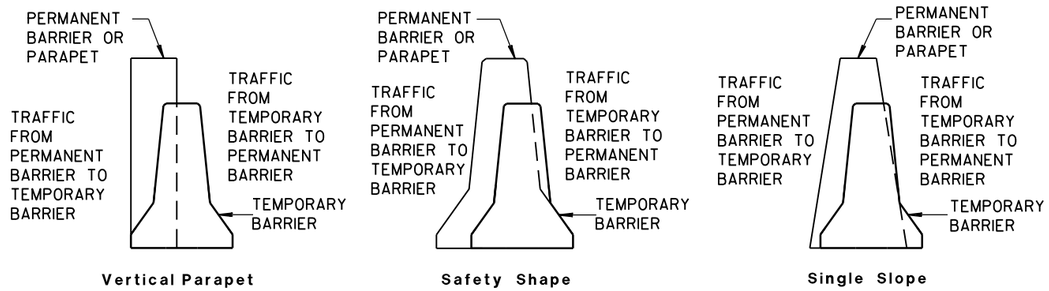
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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



FRONT VIEW

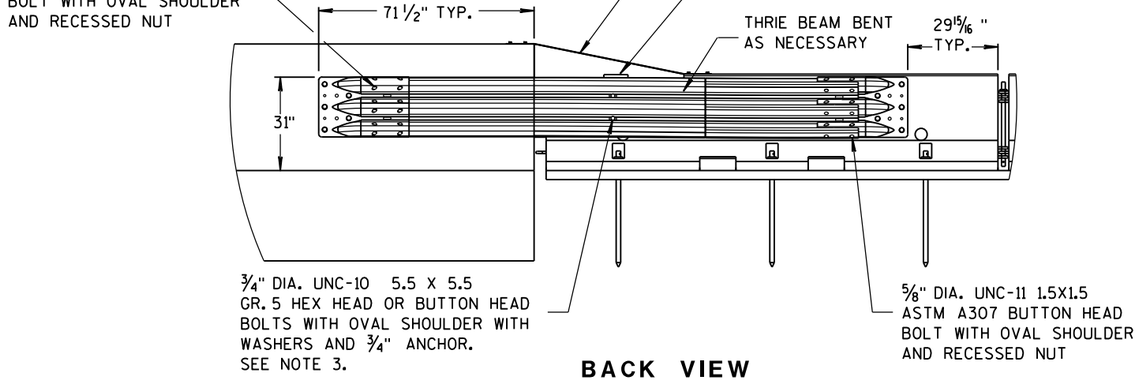


TEMPORARY BARRIER PLACEMENT FOR BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM

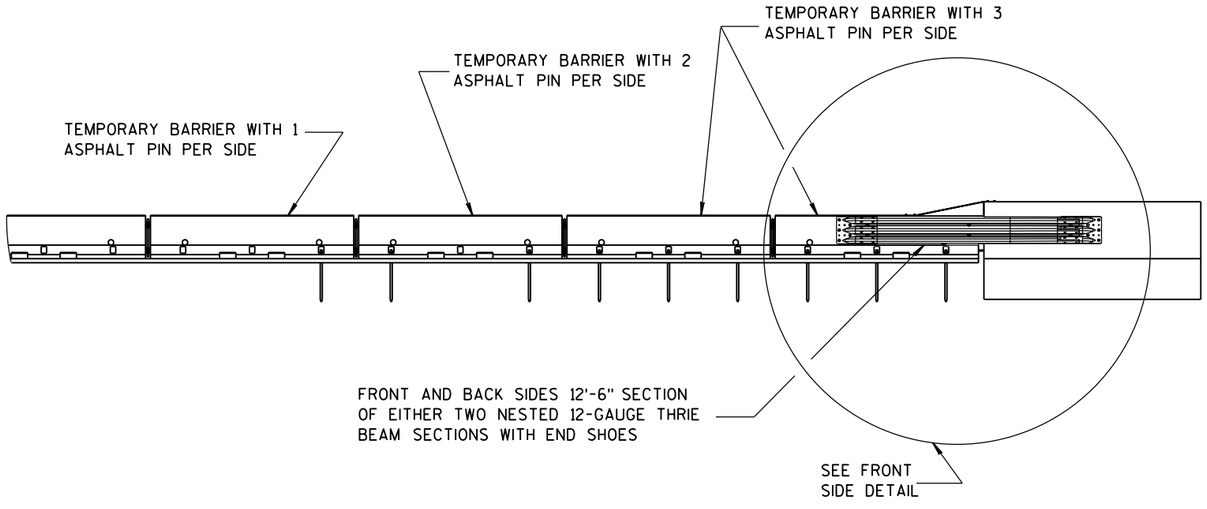
NOTES

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

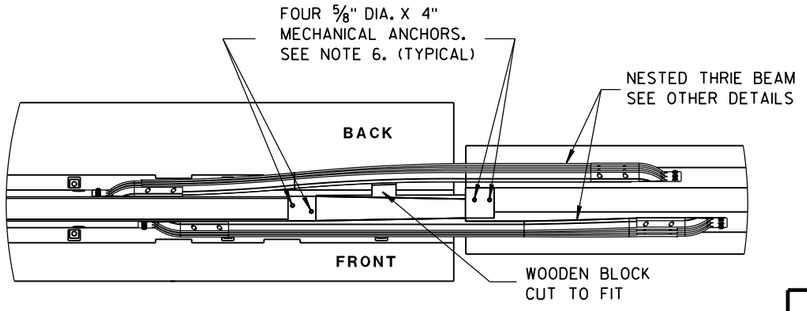
1. CAP END PLATE PLACED FLUSH WITH UPSTREAM END OF PERMANENT BARRIER OR PARAPET.
2. THRIE BEAM PIECES ARE OFFSET 15 1/4" TO PREVENT INTERFERENCE FROM THE ANCHORS ON OPPOSING SIDES.
3. MINIMUM MECHANICAL OR ADHESIVE ANCHOR STRENGTH REQUIREMENTS: ULTIMATE TENSILE LOAD 9.48 KIPS AND ULTIMATE SHEAR LOAD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



BACK VIEW



FRONT VIEW



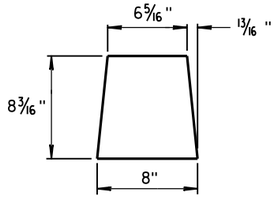
PLAN VIEW

BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM

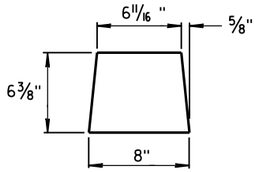
CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPO

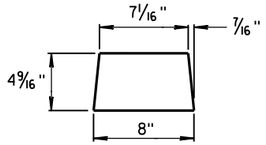
6
S.D.D. 14 B 7-14e



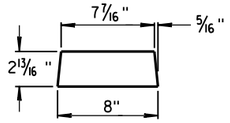
GUSSET 1



GUSSET 2

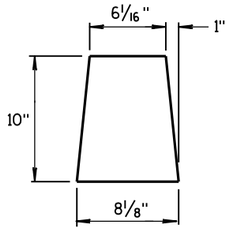


GUSSET 3

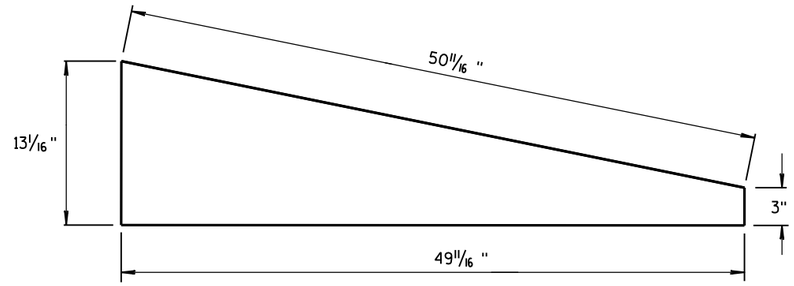


GUSSET 4

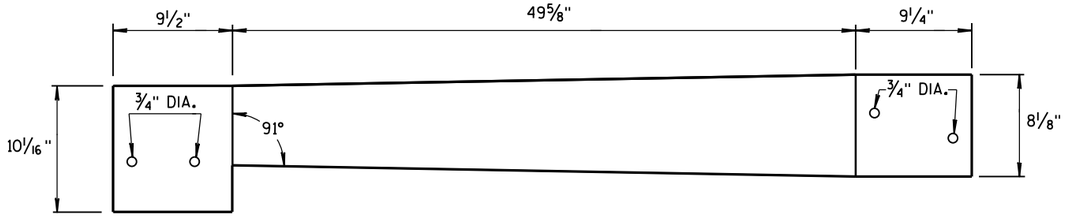
GUSSETS

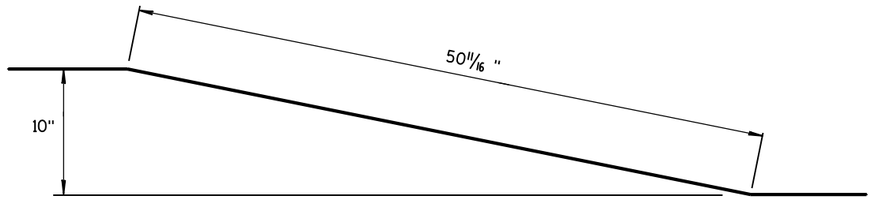


END PLATE



SIDE PLATE

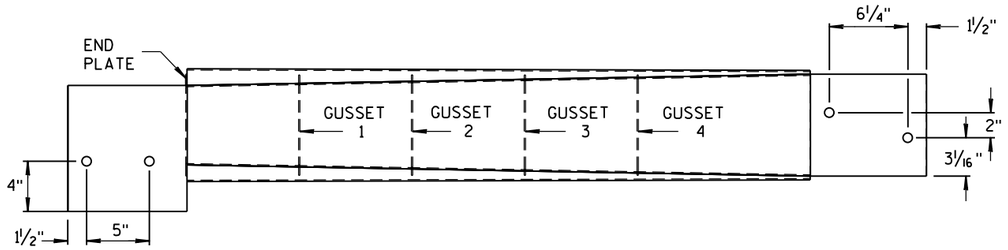


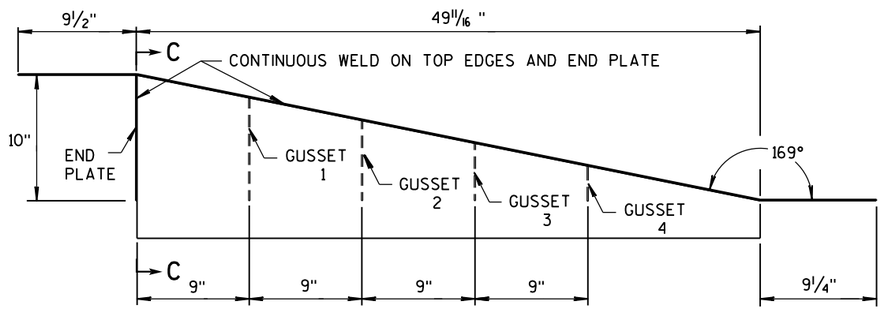


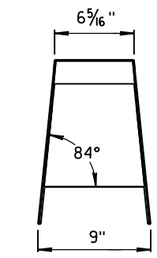
TOP PLATE

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

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







SECTION C-C

NOTES

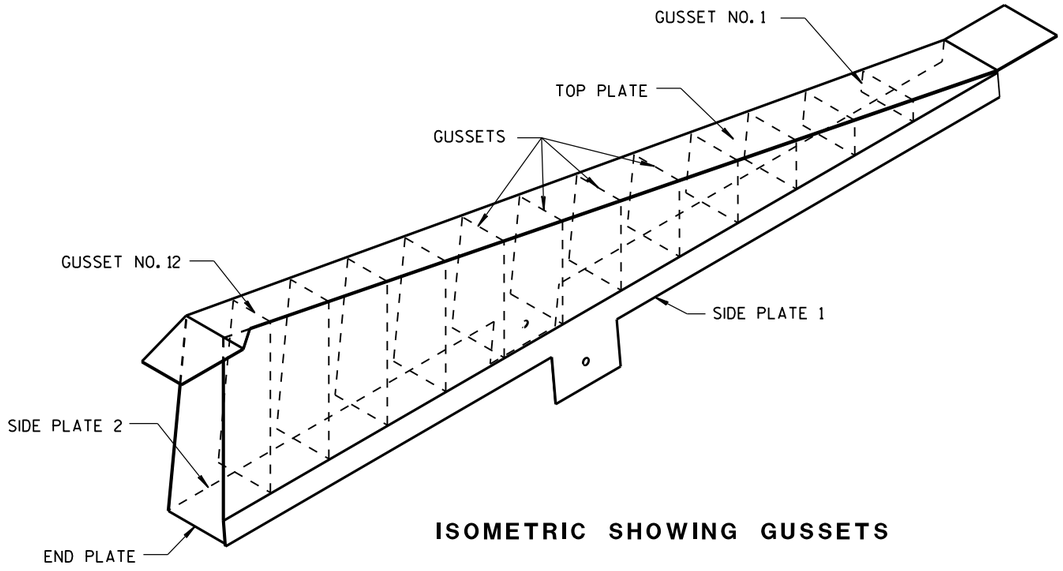
1. FOUR GUSSETS AND END PLATE ARE STITCH WELDED ON THREE SIDES.
2. TWO TRIANGULAR SIDE PLATES ARE STITCH WELDED TO TOP PLATE, END PLATE, AND GUSSETS.

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

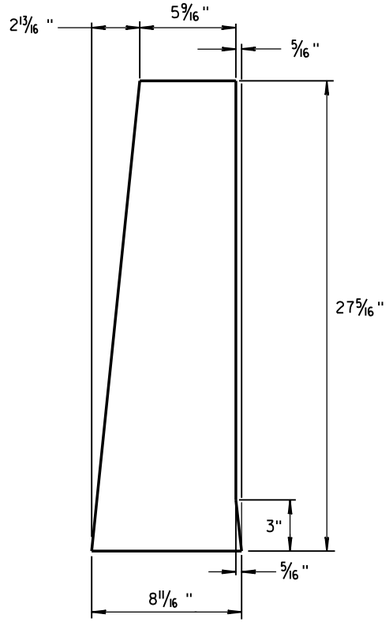
CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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

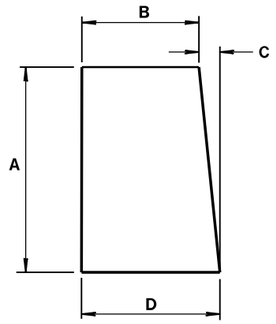


ISOMETRIC SHOWING GUSSETS



END PLATE

1/8" STEEL PLATE



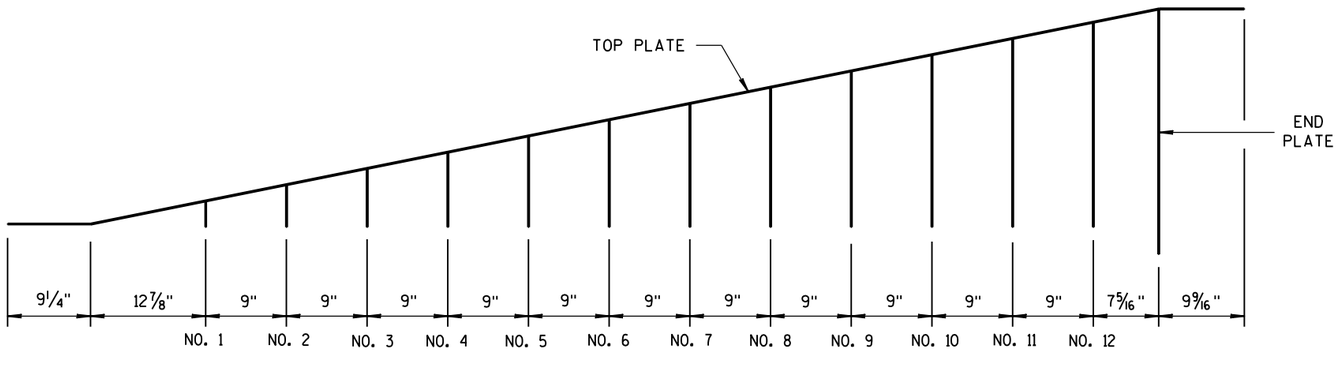
GUSSETS 1 - 12

ALL GUSSETS 1/8" STEEL PLATE

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

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

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



GUSSET LOCATION

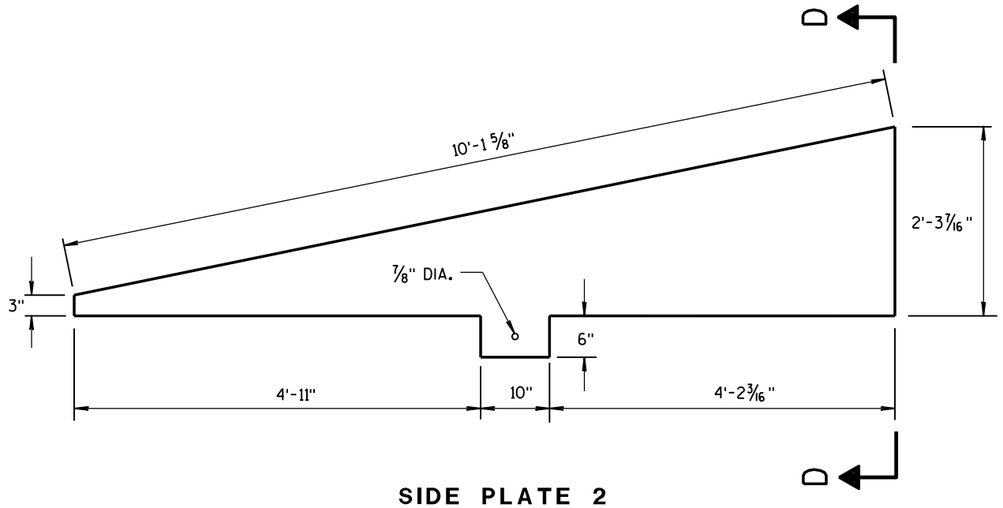
CAP DETAILS FOR TEMPORARY CONCRETE BARRIER TO 56" PERMANENT CONCRETE BARRIER

CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

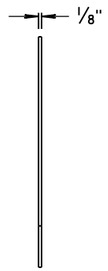
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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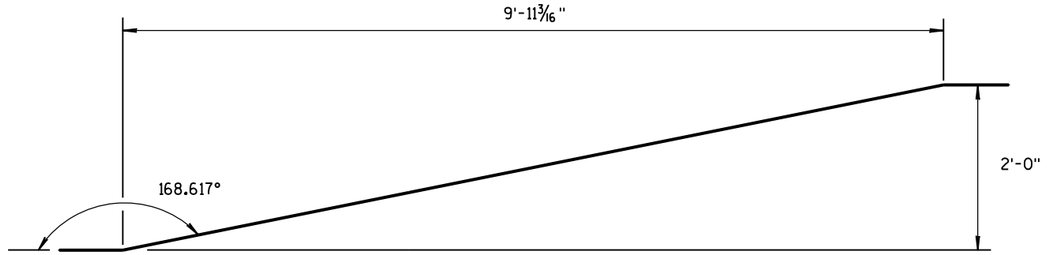
S.D.D. 14 B 7-14g



SIDE PLATE 2

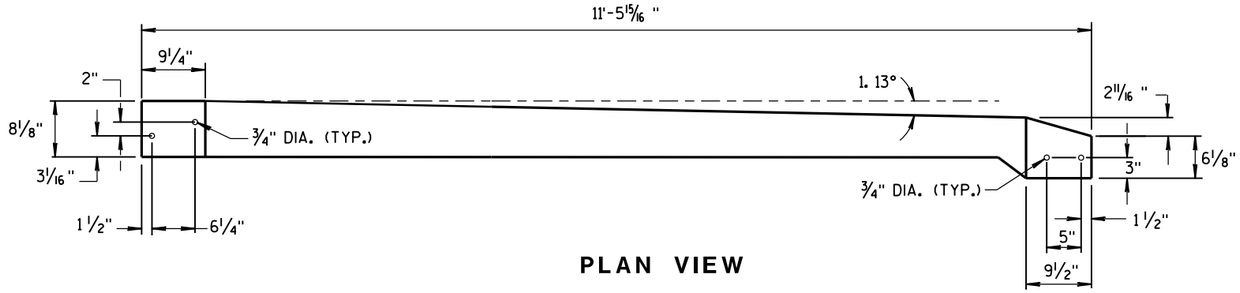


END VIEW



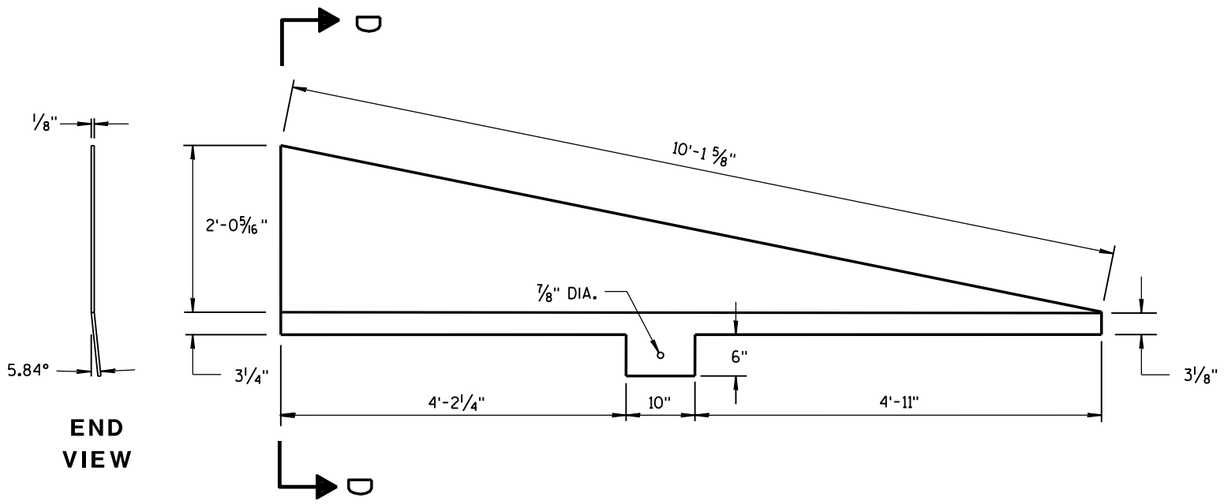
SIDE VIEW

TOP PLATE



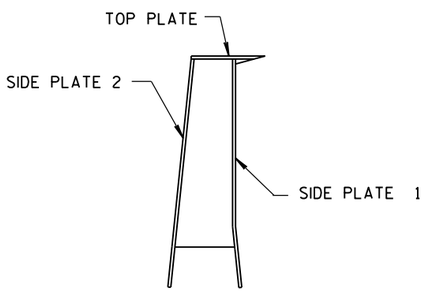
PLAN VIEW

TOP PLATE



END VIEW

SIDE PLATE 1



SECTION D-D

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

CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

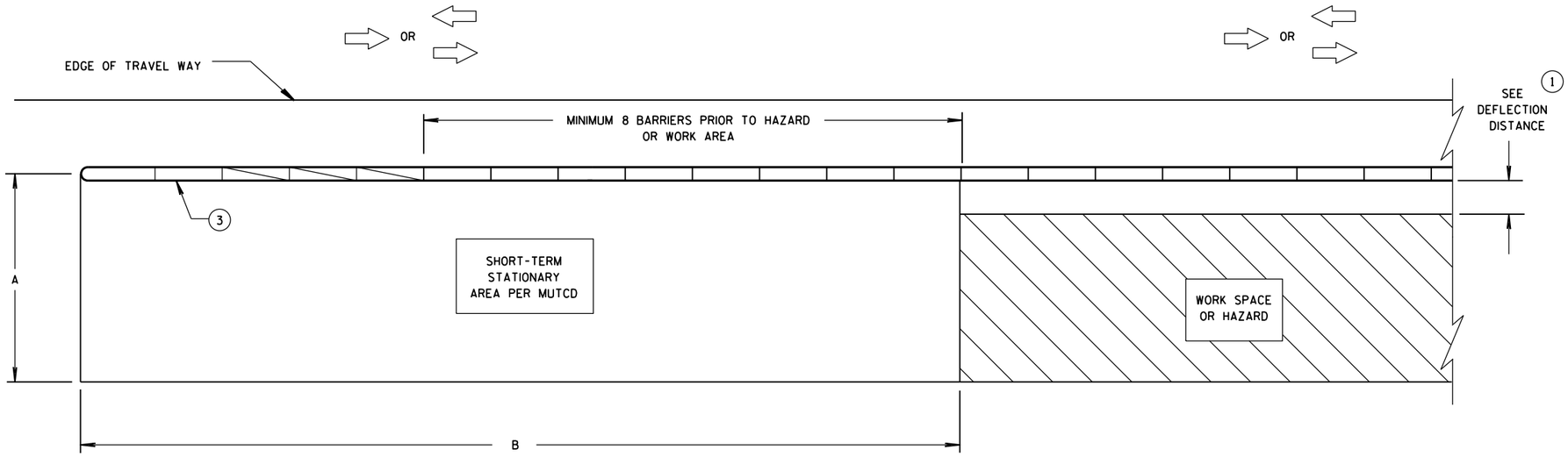
APPROVED
June 2014 — DATE
/S/ Jerry H. Zoaa — ROADWAY STANDARD DEVELOPMENT ENGINEER
FHWA

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

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



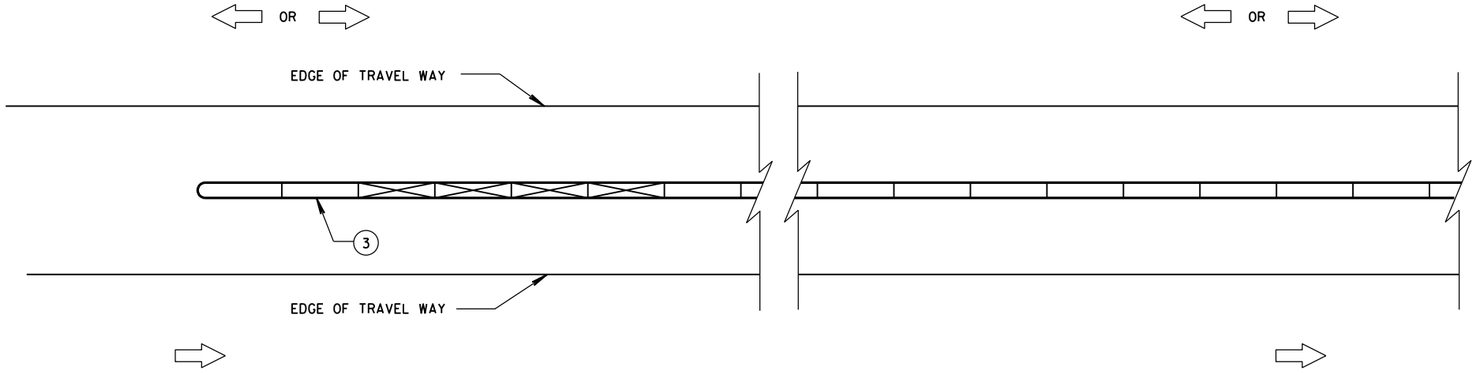
CRASH CUSHION/SAND BARREL ARRAY AND TEMPORARY BARRIER INSTALLATION FOR TRAFFIC ON ONE SIDE OF BARRIER

DIMENSION A TABLE (2)

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

DIMENSION B TABLE (2)

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



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

LEGEND

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

GENERAL NOTES

SEE STANDARD DETAIL DRAWING 14B7 FOR MORE INFORMATION.

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

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

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

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

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

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

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

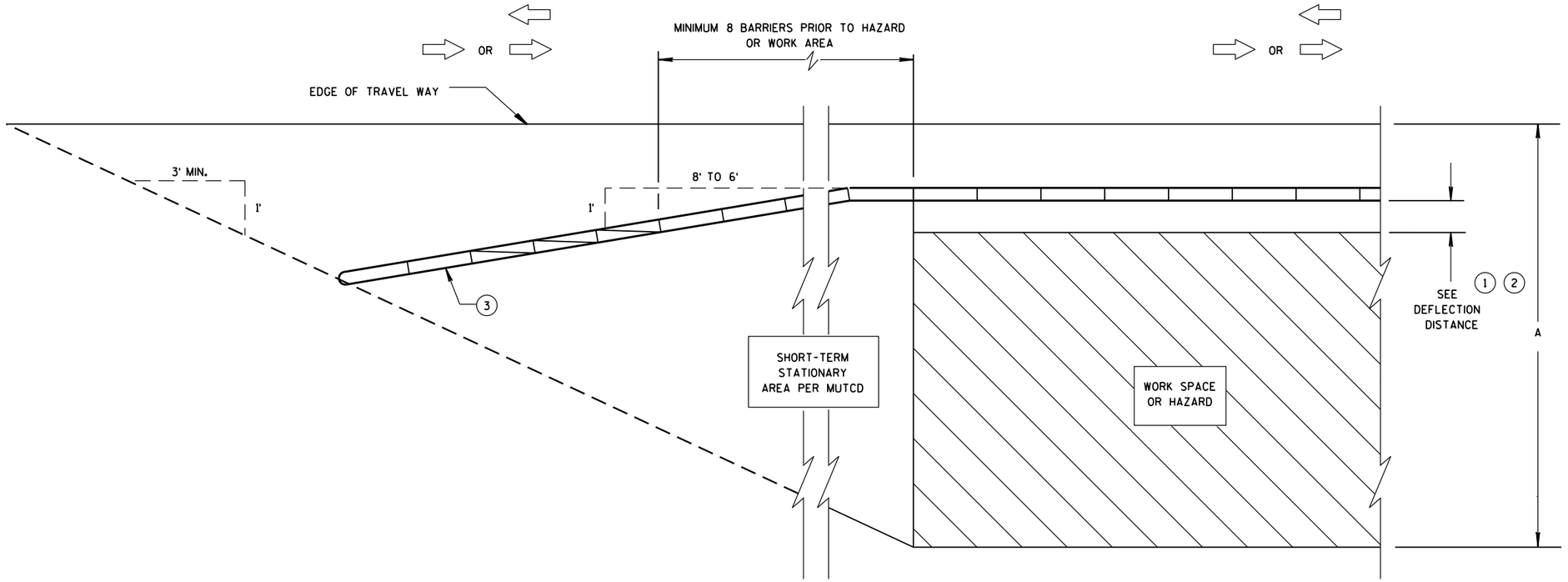
(3) ANCHOR TEMPORARY BARRIER ACCORDING TO CRASH CUSHION OR SAND BARREL MANUFACTURER'S RECOMMENDATIONS. IF MANUFACTURER'S RECOMMENDATIONS ARE NOT PROVIDED, ANCHOR 3 PINS ON TRAFFIC SIDE.

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

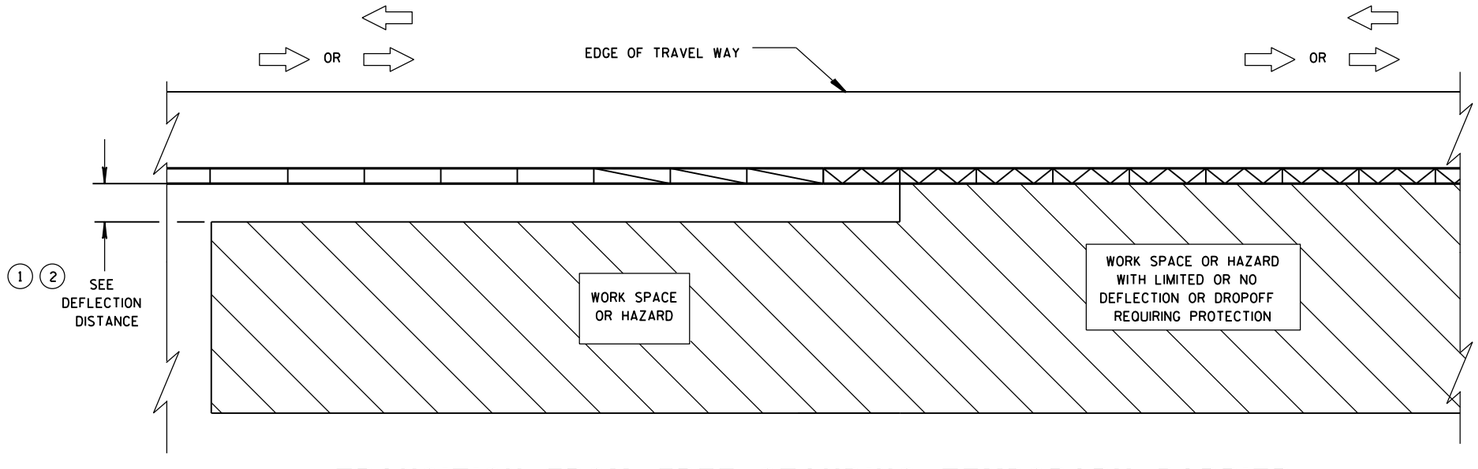
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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



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



TRANSITION FROM FREE STANDING TEMPORARY BARRIER TO ANCHORED BARRIER

LEGEND

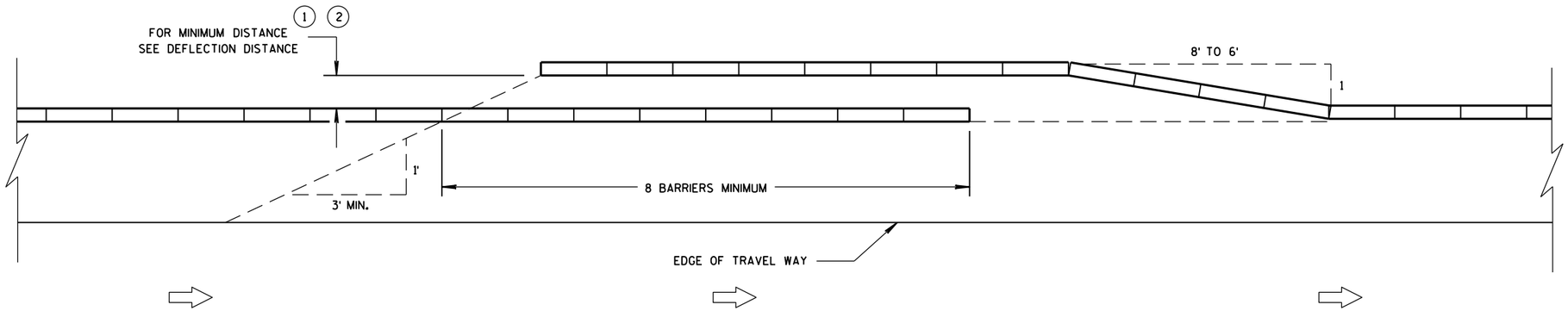
- DIRECTION OF TRAVEL
- CRASH CUSHION OR SAND BARREL ARRAY
- SEE FREE STANDING TRANSITION TO TIED-DOWN SYSTEM DETAILS
- SEE BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM DETAILS
- 3 PINS PLACED ON TRAFFIC SIDE OF BARRIER
- PERMANENT CONCRETE BARRIER OR CONCRETE PARAPET
- FREE STANDING TEMPORARY BARRIER

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

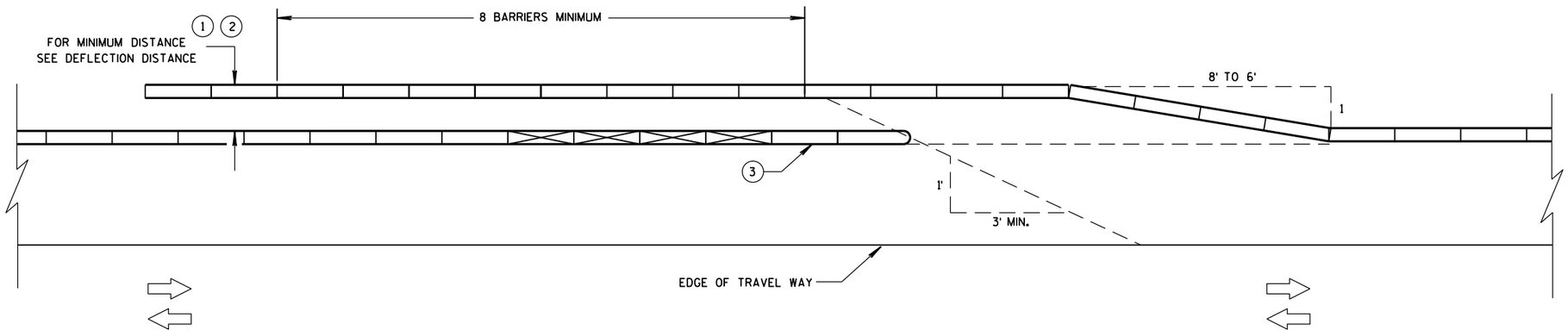
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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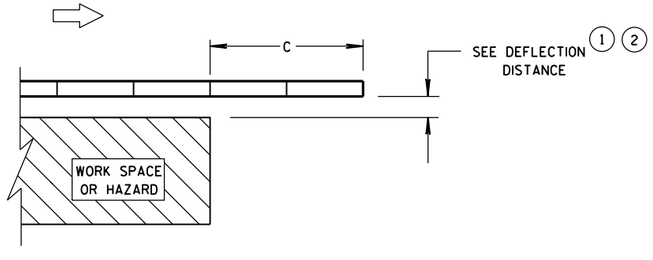
S.D.D. 14 B 8-2b



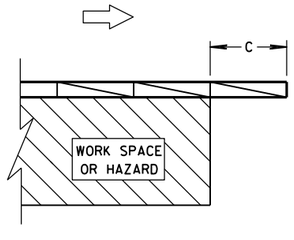
TEMPORARY BARRIER OVERLAP - ONE-WAY TRAFFIC



TEMPORARY BARRIER OVERLAP - TWO-WAY TRAFFIC



ENDING TEMPORARY BARRIER DOWNSTREAM - UNANCHORED



ENDING TEMPORARY BARRIER DOWNSTREAM - ANCHORED

LEGEND

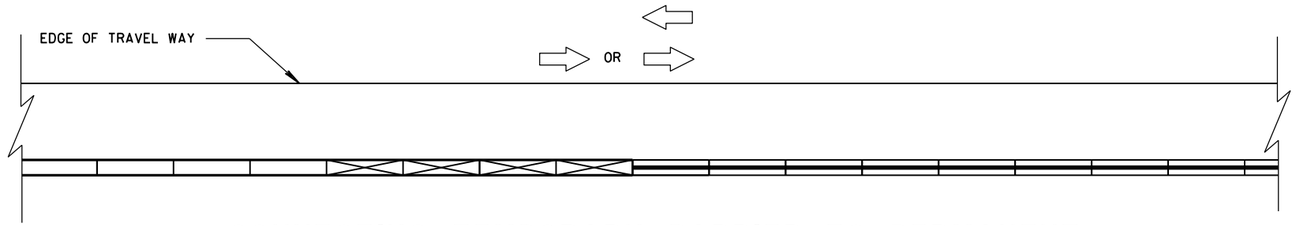
- DIRECTION OF TRAVEL
- CRASH CUSHION OR SAND BARREL ARRAY
- SEE FREE STANDING TRANSITION TO TIED-DOWN SYSTEM DETAILS
- SEE BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM DETAILS
- 3 PINS PLACED ON TRAFFIC SIDE OF BARRIER
- PERMANENT CONCRETE BARRIER OR CONCRETE PARAPET
- FREE STANDING TEMPORARY BARRIER

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

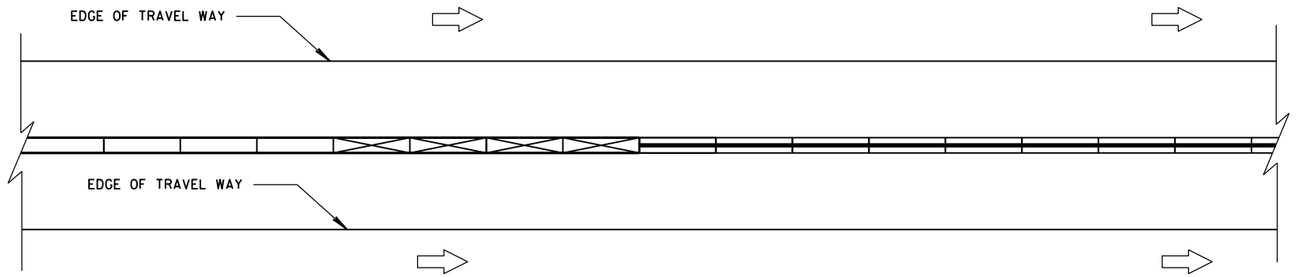
STATE OF WISCONSIN
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S.D.D. 14 B 8-2c



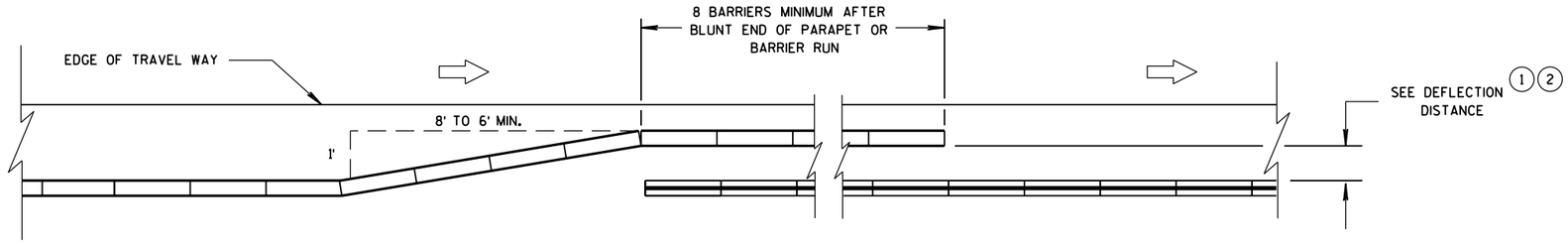
CONNECTING TEMPORARY BARRIER TO PERMANENT
CONCRETE BARRIER-TRAFFIC ON ONE SIDE



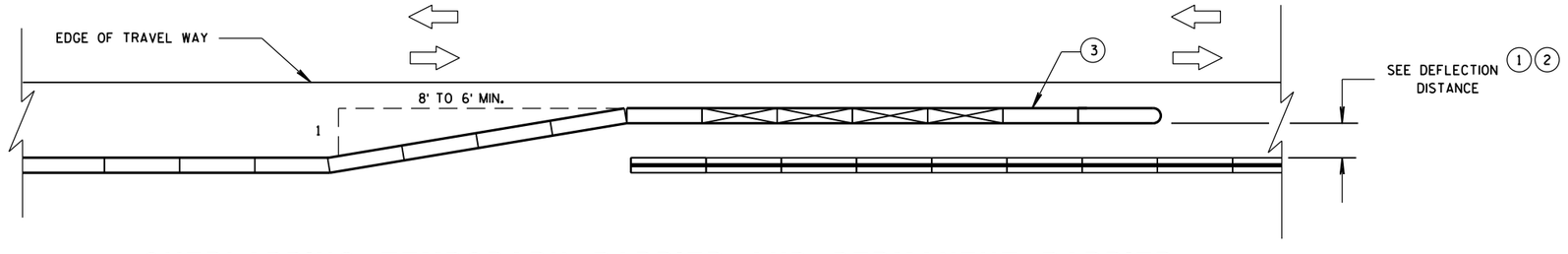
CONNECTING TEMPORARY BARRIER TO PERMANENT
CONCRETE BARRIER-TRAFFIC ON BOTH SIDES

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

6

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

LEGEND

DIRECTION OF TRAVEL

CRASH CUSHION OR SAND BARREL ARRAY

SEE FREE STANDING TRANSITION TO TIED-DOWN SYSTEM DETAILS

SEE BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM DETAILS

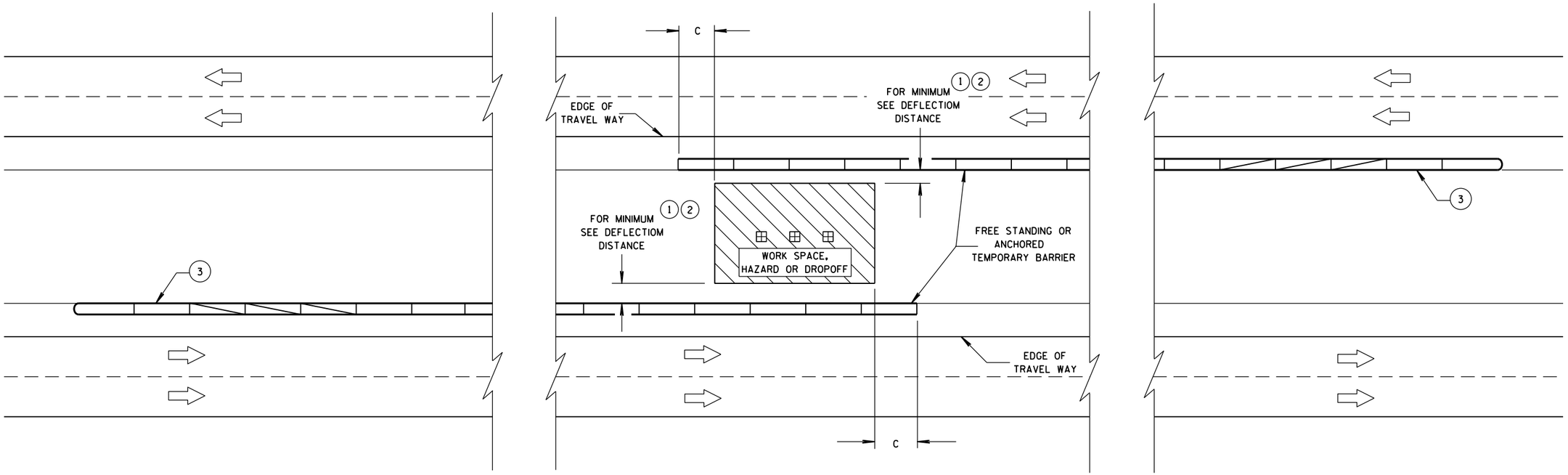
3 PINS PLACED ON TRAFFIC SIDE OF BARRIER

PERMANENT CONCRETE BARRIER OR CONCRETE PARAPET

FREE STANDING TEMPORARY BARRIER

DIMENSION C TABLE (2)

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



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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

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

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) W6 X 9 OR W6 X 8.5 STEEL POSTS AND NOTCHED PLASTIC BLOCKOUTS ARE ACCEPTABLE ALTERNATIVES FOR 6" X 8" WOOD POSTS WITH WOOD OR PLASTIC BLOCKOUTS. USE APPROVED NOTCHED PLASTIC BLOCKOUTS WITH STEEL POSTS. APPROVED PLASTIC BLOCKOUT DESIGNS MAY VARY FROM THIS TYPICAL DETAIL WHEN USED IN CONJUNCTION WITH STEEL POSTS.

DO NOT MIX STEEL POSTS AND WOOD POSTS IN A SINGLE INSTALLATION.

(2) USE STRUCTURAL STEEL POSTS CONFORMING TO ASTM A 36. GALVANIZED POSTS ACCORDING TO AASHTO M 111. EITHER SET THE POSTS IN DRILLED HOLES OR DRIVE TO GRADE. REMOVE MUSHROOMING CAUSED BY DRIVING AND REPAIR DAMAGED SPELTER COATING ON GALVANIZED POSTS.

(3) INSTALL STEEL POSTS WITH HOLES ON APPROACHING TRAFFIC SIDE.

(4) USE EITHER WOOD OR APPROVED PLASTIC BLOCKOUTS ON WOOD POSTS.

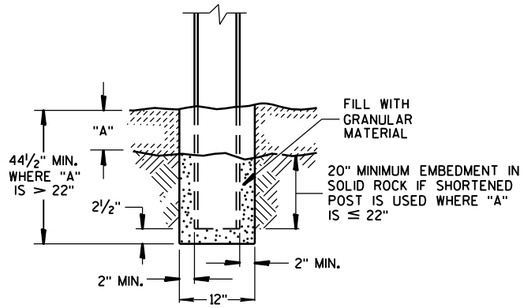
(5) IF THE DISTANCE FROM BACK OF POST TO SHOULDER HINGE POINT IS LESS THAN 2 FEET INSTALL LONGER POST AT HALF POST SPACING, W BEAM (LHW).

(6) IF ROCK IS ENCOUNTERED DURING EXCAVATION, THE ENGINEER MAY APPROVE USING A 12 INCH DIAMETER POST HOLE EXTENDING 20 INCHES DEEP INTO THE ROCK. PLACE GRANULAR MATERIAL IN THE BOTTOM OF THE HOLE APPROXIMATELY 2½ INCHES DEEP. CUT THE POSTS TO LENGTH AND PLACE IN YHE HOLE. BACKFILL WITH MATERIAL EXCAVATED FROM THE HOLE AND COMPACT ADEQUATEY.

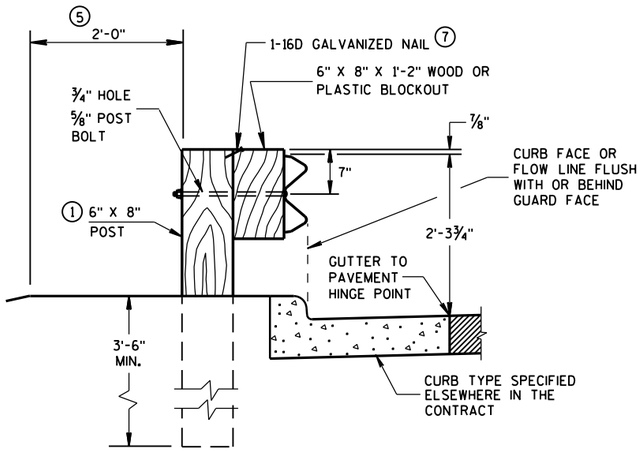
(7) WHEN USING STEEL POSTS AND WOOD BLOCKOUTS INSTALL FOUR 16D GALVANIZED NAILS. INSTALL NAILS AT THE BACK CORNERS OF THE BLOCK AND BEND THE NAILS OVER THE FLANGE OF THE STEEL POST.

INSTALL BEAM GUARD SECTIONS AND ALL NECESSARY HARDWARE ACCORDING TO THE APPLICABLE PLAN AND CURRENT STANDARD AND SUPPLEMENTAL SPECIFICATIONS.

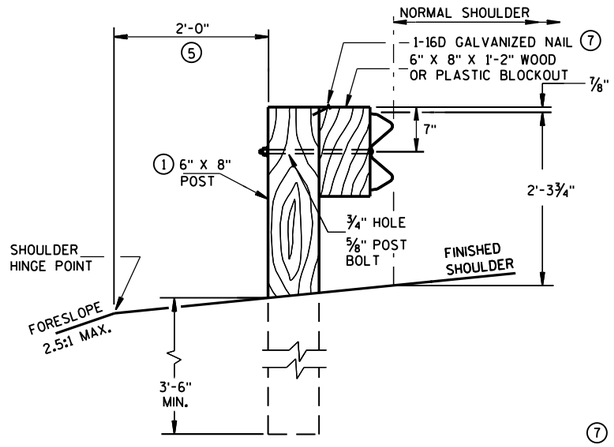
ALL DIMENSIONS ARE SUBJECT TO MANUFACTURER'S TOLERANCES EXCEPT WHERE ALLOWABLE TOLERANCES ARE SHOWN.



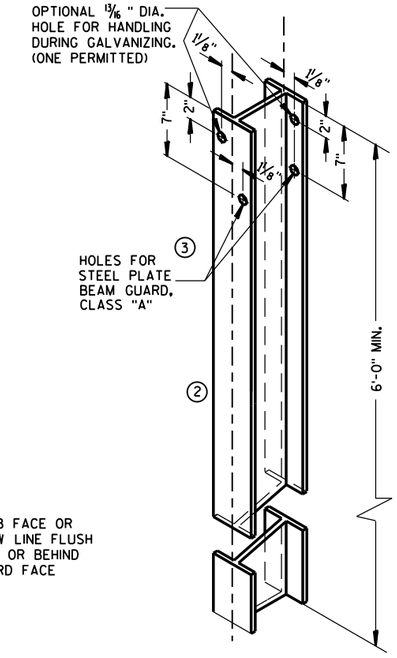
END VIEW
SETTING STEEL OR WOOD POST IN ROCK (6)



END VIEW
LOCATED ALONG A CURBED ROADWAY

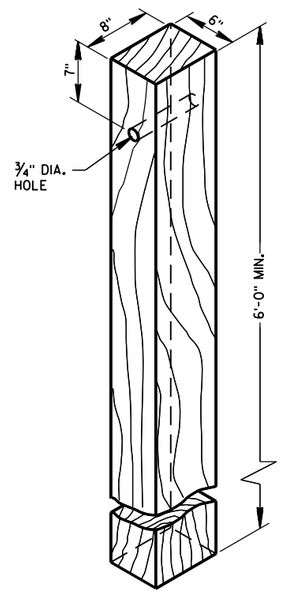


END VIEW
LOCATED ALONG A ROADWAY SHOULDER
STANDARD INSTALLATION

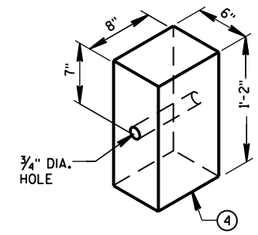


STEEL POST &
HOLE PUNCHING DETAIL
(W6 X 9) (1)

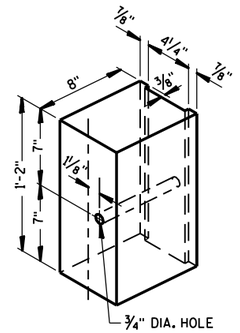
ALL HOLES 13/16" DIAMETER EXCEPT AS NOTED



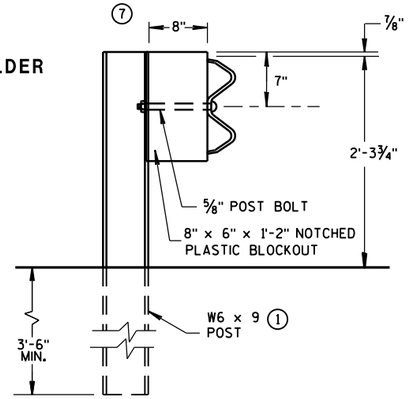
WOOD POST
(6"X8") NOMINAL



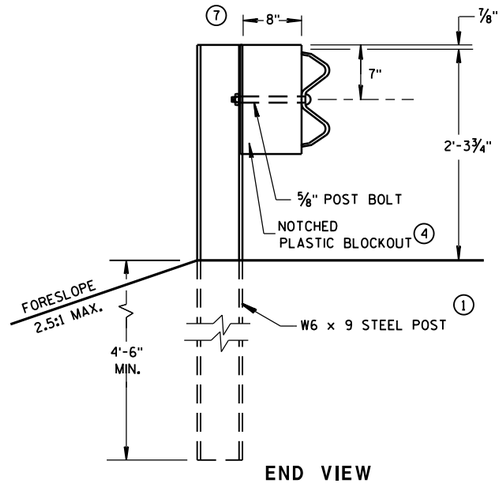
WOOD OR PLASTIC
BLOCKOUT FOR
WOOD POSTS



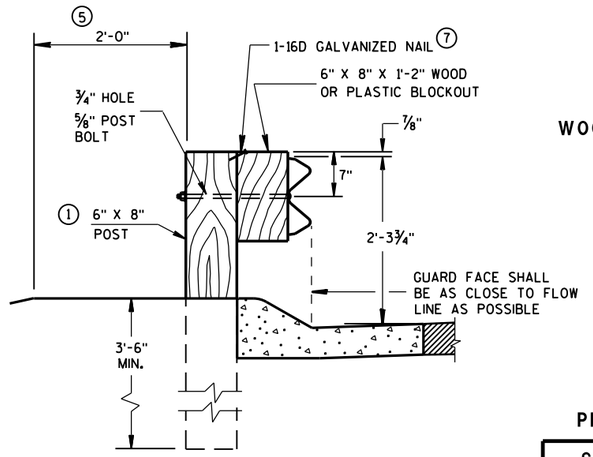
TYPICAL NOTCHED (1)
PLASTIC BLOCKOUT
FOR STEEL POSTS



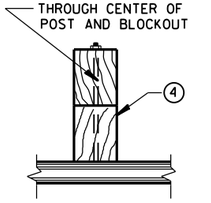
END VIEW
STEEL POST & NOTCHED
PLASTIC BLOCKOUT ALTERNATIVE
STANDARD INSTALLATION



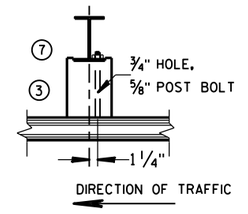
END VIEW
LONGER POST AT HALF
POST SPACING W BEAM
(LHW)



END VIEW
LOCATED ALONG A
MOUNTABLE CURBED ROADWAY



PLAN VIEW
WOOD POST, BLOCKOUT & BEAM



PLAN VIEW
STEEL POST, NOTCHED
PLASTIC BLOCKOUT & BEAM

TYPICAL INSTALLATION OF STEEL PLATE BEAM GUARD

STEEL PLATE BEAM GUARD,
CLASS "A"
INSTALLATION & ELEMENTS

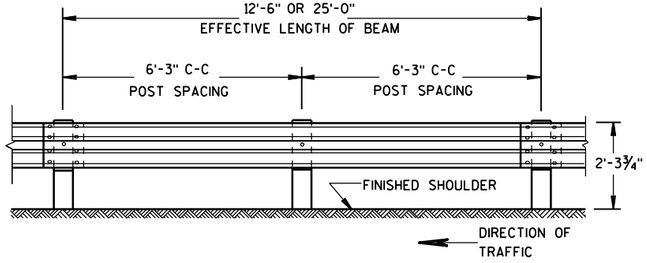
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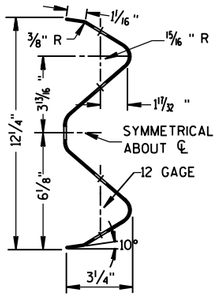
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S.D.D. 14 B 15-8a

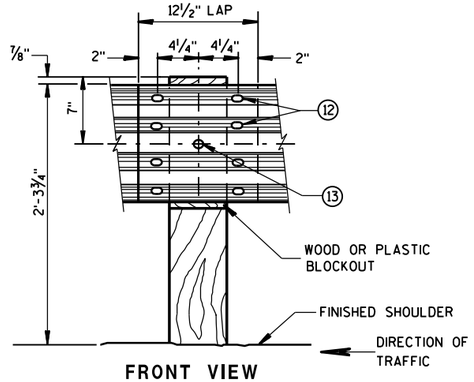


FRONT VIEW

POST SPACING STANDARD INSTALLATION



SECTION THRU W BEAM



FRONT VIEW

BEAM SPLICE AT WOOD POST AND POST MOUNTING DETAIL

GENERAL NOTES

(8) 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.

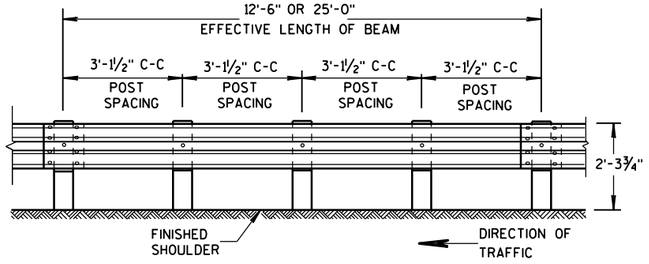
(9) DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL.

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

(11) PROVIDE AN ANGLE OF BEND OF 90° ± 1° FOR TWO-SIDED REFLECTORS.

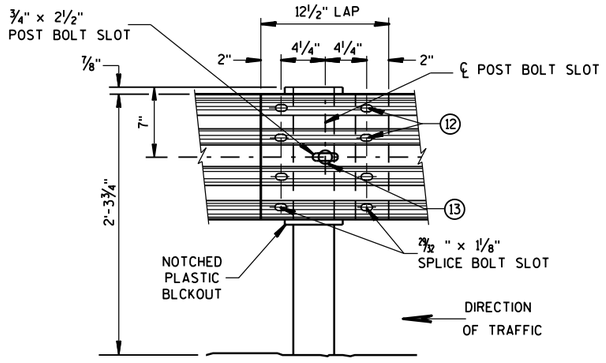
(12) 8 -⅝" ϕ X 2" BUTTON HEAD BOLTS WITH OVAL SHOULDERS & RECESS NUTS.

(13) ⅝" DIA. BUTTON HEAD BOLT AND RECESS NUT WITH ⅝" DIA. F844 FLAT WASHER UNDER NUT.



FRONT VIEW

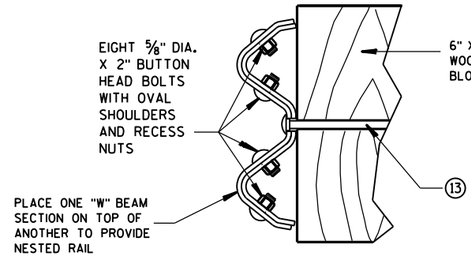
POST SPACING FOR LONGER POST AT HALF POST SPACING W BEAM (LHW)



FRONT VIEW

BEAM SPLICE AT STEEL POST

TYPICAL SPLICING DETAILS OF STEEL PLATE BEAM GUARD

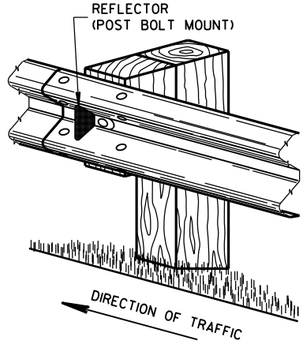


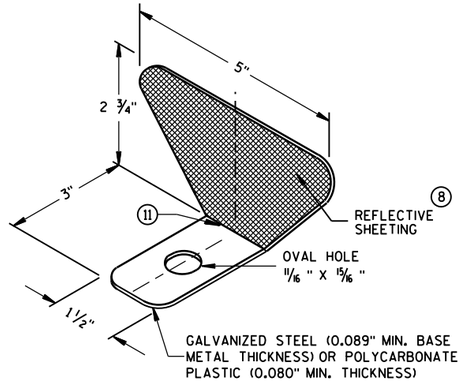
NESTED W BEAM (NW)

USE ALL OTHER STANDARD BEAM GUARD DETAILS FOR CONSTRUCTING NESTED W BEAM (NW)

REFLECTOR SPACING (9)

	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 (10)	6
	> 200'	50' C-C	1	
TWO WAY TRAFFIC	< 200'	50' C-C	2 (11)	3
	> 200'	100' C-C	2	



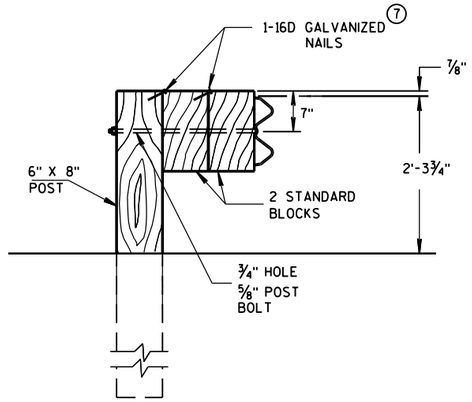


ONE SIDED REFLECTOR DETAIL AND TYPICAL INSTALLATION (8)

STEEL PLATE BEAM GUARD,
CLASS "A",
INSTALLATION & ELEMENTS

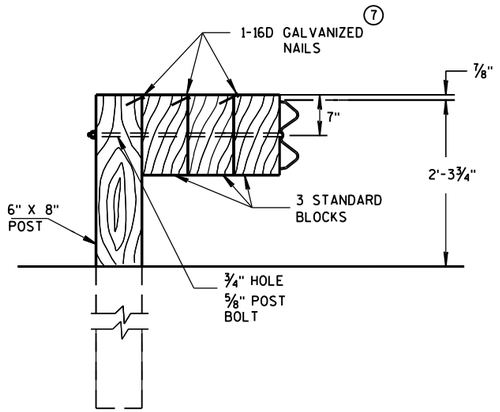
STATE OF WISCONSIN
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S.D.D. 14 B 15-8b



DETAIL FOR DOUBLE BLOCKS

THE NUMBER OF DOUBLE BLOCK POSTS WITHIN A BARRIER RUN IS UNLIMITED

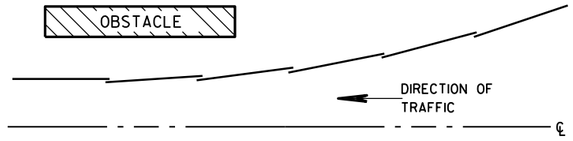


DETAIL FOR TRIPLE BLOCKS

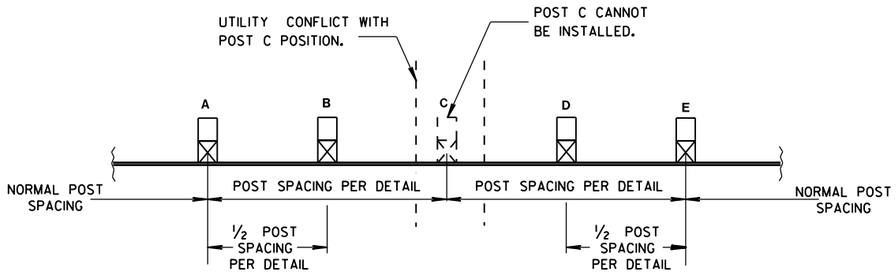
TRIPLE BLOCK DETAIL IS LIMITED TO ONE LOCATION WITHIN A BEAM GUARD RUN.

NOTES: USE DOUBLE OR TRIPLE BLOCKS WHEN UNDERGROUND OBSTACLES PREVENT THE POST FROM BEING INSTALLED.

DO NOT USE EXTRA 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.



PLAN VIEW
BEAM LAPPING DETAIL



POST DRIVING FOR CONTINUOUS UNDERGROUND OBSTRUCTION

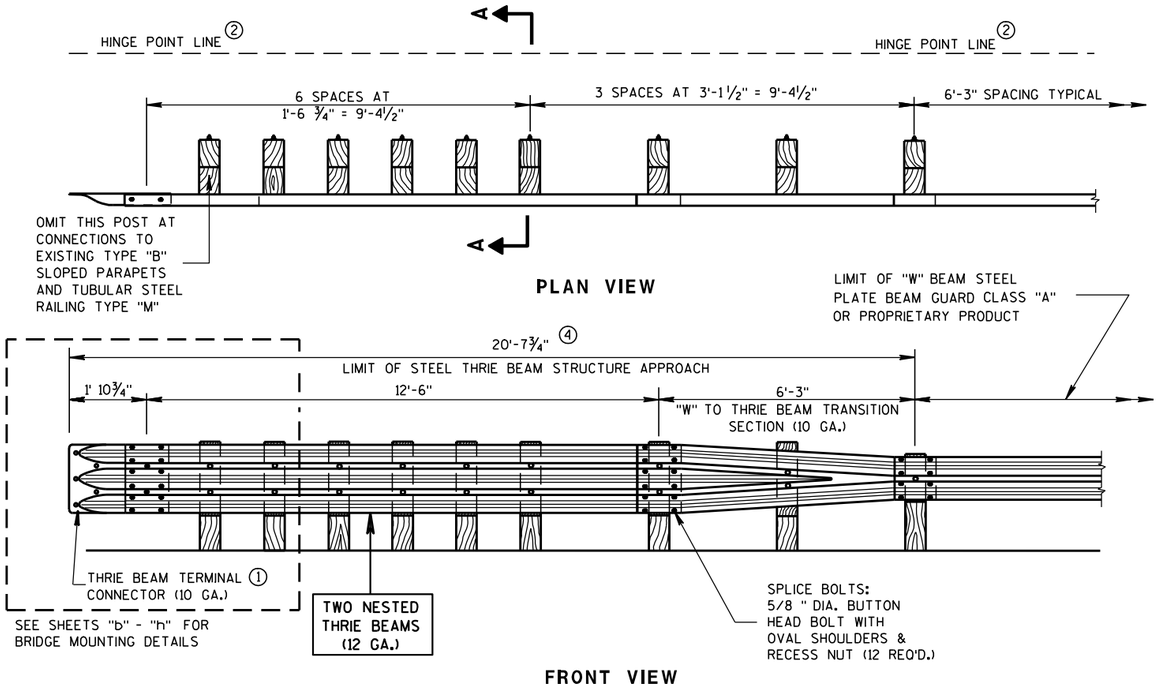
STEEL PLATE BEAM GUARD, CLASS "A", INSTALLATION & ELEMENTS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

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S.D.D. 14 B 15-8c



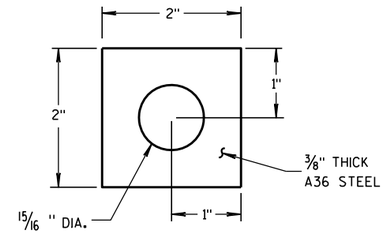


PLATE WASHER DETAIL

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.

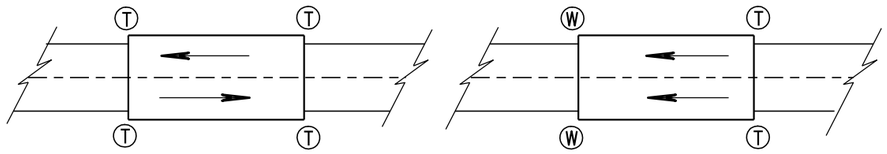
IF ROCK IS ENCOUNTERED, REMOVE ROCK TO FULL DEPTH OF POST PLUS 2 1/2" , AND 12" DIAMETER AROUND POST. SEE 14B15 FOR MORE DETAILS.

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.



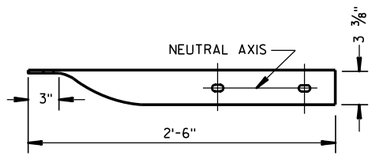
TWO WAY TRAFFIC

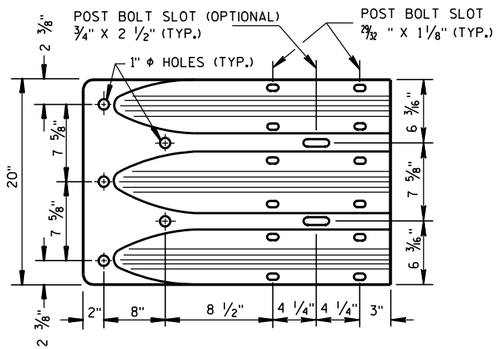
ONE WAY TRAFFIC

T THRIE BEAM CONNECTION

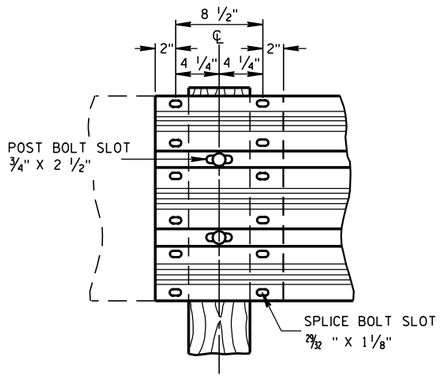
W W-BEAM CONNECTION WHEN REQUIRED

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

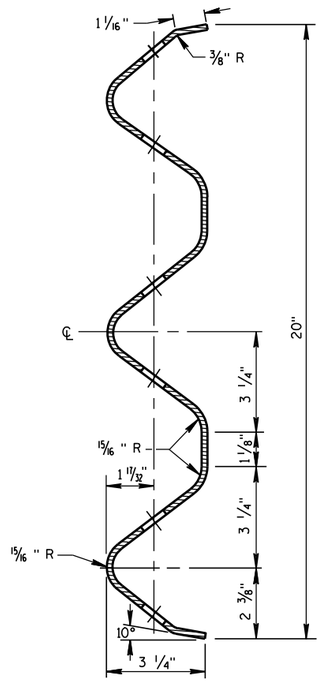




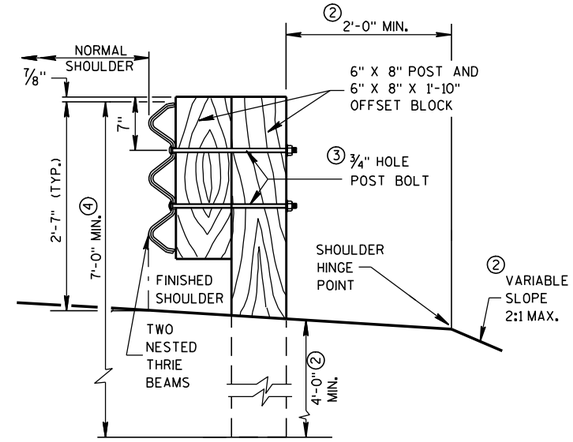
THRIE BEAM TERMINAL CONNECTOR



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

231

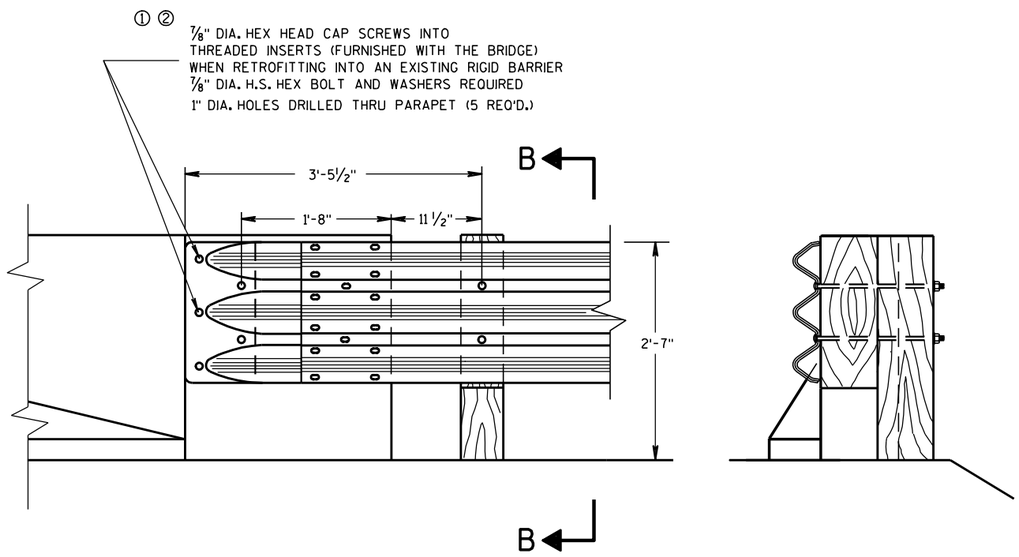
FHWA

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

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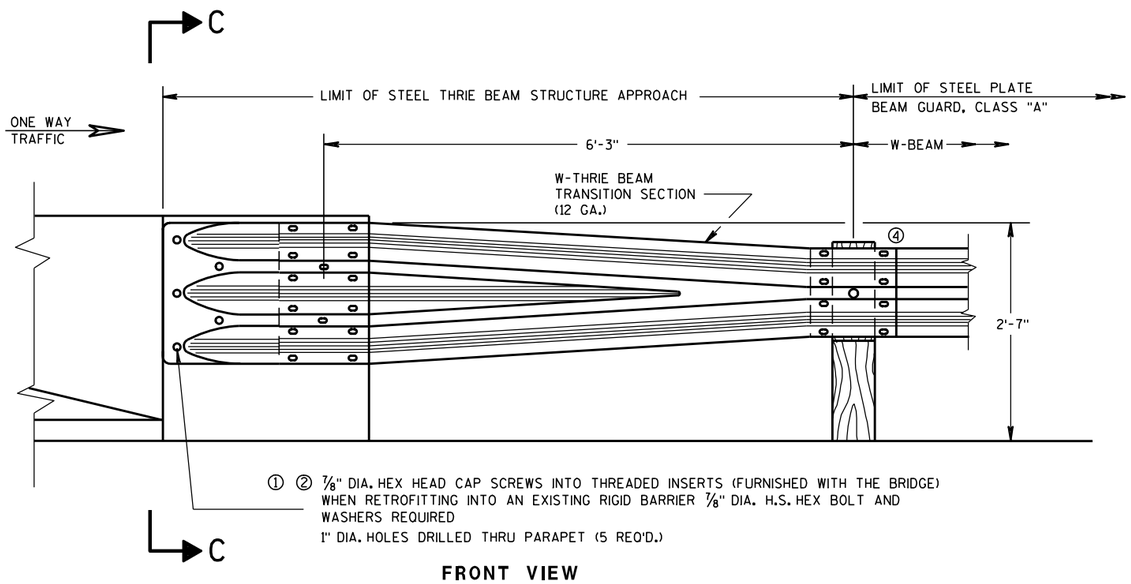
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FRONT VIEW

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.

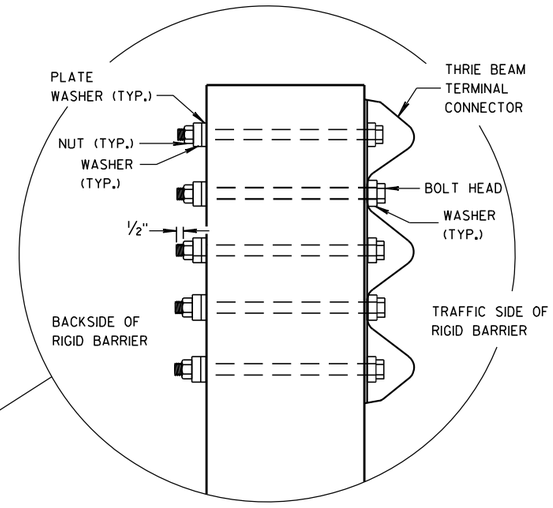
① DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

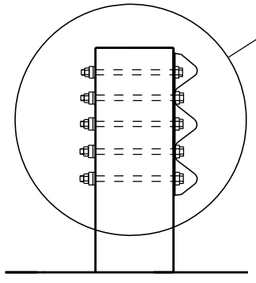
② BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM TERMINAL CONNECTOR.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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
8/31/2012
DATE
/S/ Jerry H. [illegible]
ROADWAY STANDARDS [illegible]
ENGINEER
FHWA

6
S.D.D. 14 B 20-11b

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.

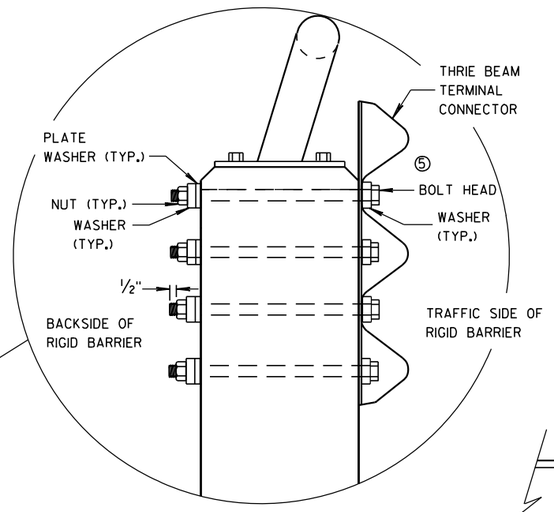
② BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM TERMINAL CONNECTOR.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

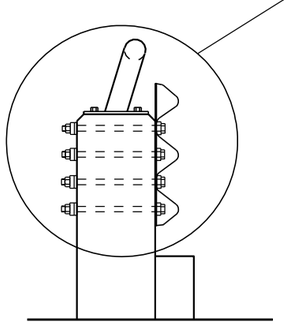
③ THE RECESS FOR A W-BEAM CONNECTION, WHICH EXISTS ON SOME PARAPETS OF THIS TYPE, SHALL BE FILLED WITH A TREATED TIMBER BLOCKOUT. BLOCKOUT SIZE IS 1'-6" X 2'-0" X 3 ½".

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.

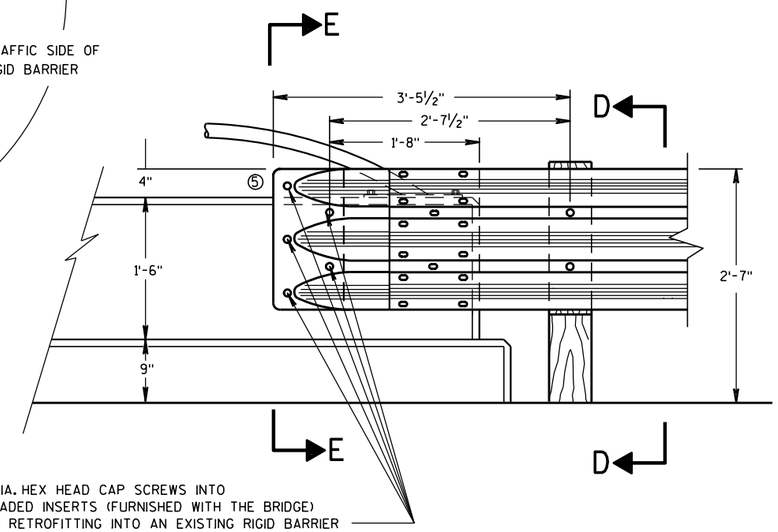
⑤ BOLT, NUT AND WASHERS NOT REQUIRED FOR THIS LOCATION WHEN RETROFITTING AN EXISTING PAPAPET AND THE HOLE IS EITHER ABOVE PARAPET OR WITHIN 4 INCHES OF THE EDGE OF PARAPET.

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.





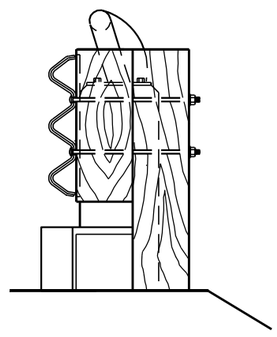
SECTION E-E



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 (4 REQ'D.)

FRONT VIEW

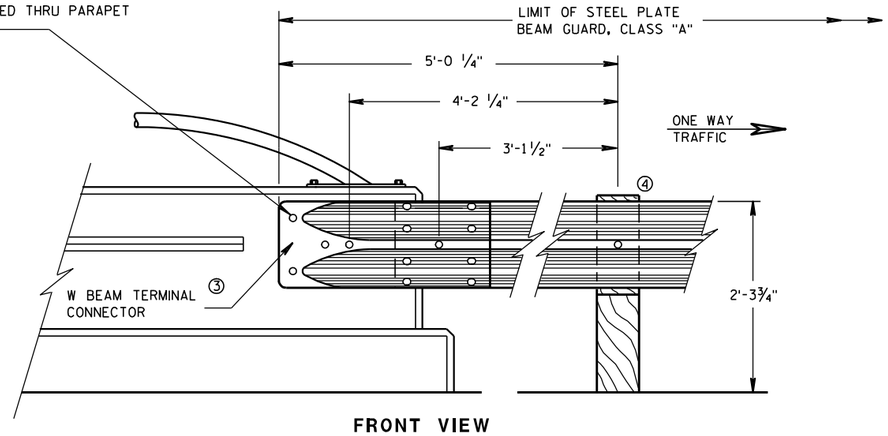


SECTION D-D

THRIE BEAM CONNECTION TO VERTICAL FACED PARAPETS

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 (4 REQ'D.)



FRONT VIEW

W BEAM CONNECTION TO VERTICAL FACE PARAPET

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

STEEL THRIE BEAM STRUCTURE APPROACH, CONNECTION TO VERTICAL FACED PARAPETS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

6

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

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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.

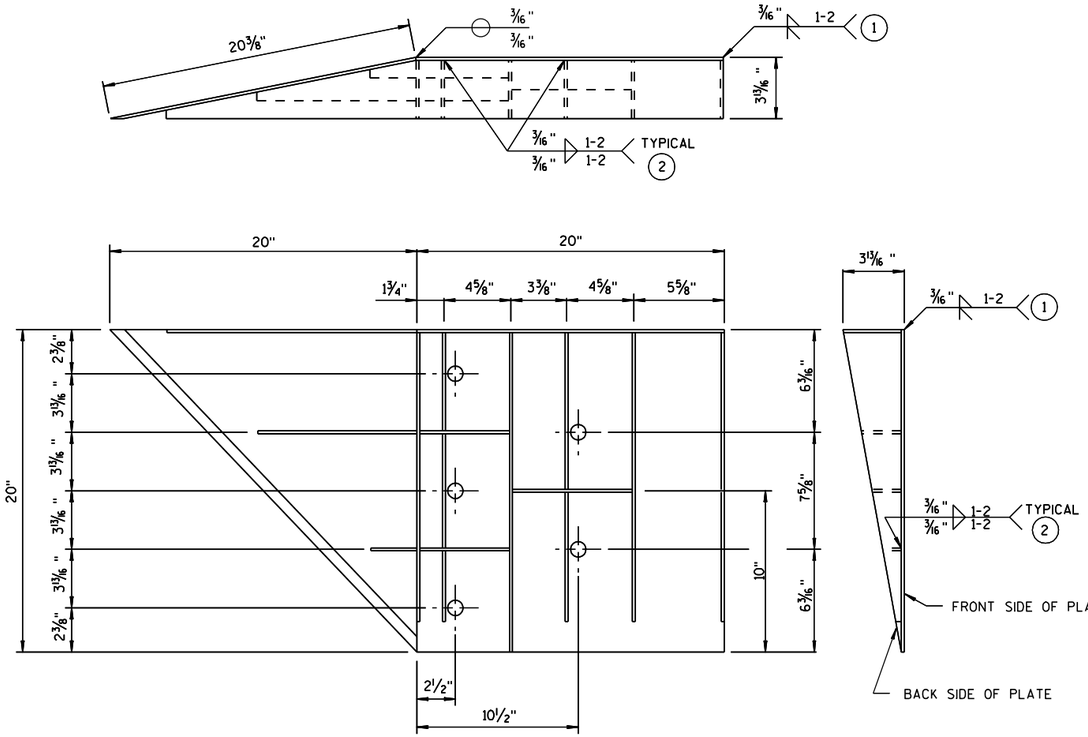
FOR GALVANIZED REQUIREMENTS, SEE SECTION 614 OF THE STANDARD SPECIFICATIONS.

ALL HOLE DIAMETERS SHALL BE 1".

FOR OPPOSITE SIDE INSTALLATION MIRROR DRAWINGS.

(1) 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.

(2) STIFFENERS LOCATED ON THE INSIDE OF THE COVER PLATE SHALL BE WELDED AS FOLLOWS:
3/16" FILLET WELD BY 1" LONG SPACED AT 2".



WELDING INSTRUCTION

(VIEWED FROM BACK SIDE OF PLATE)

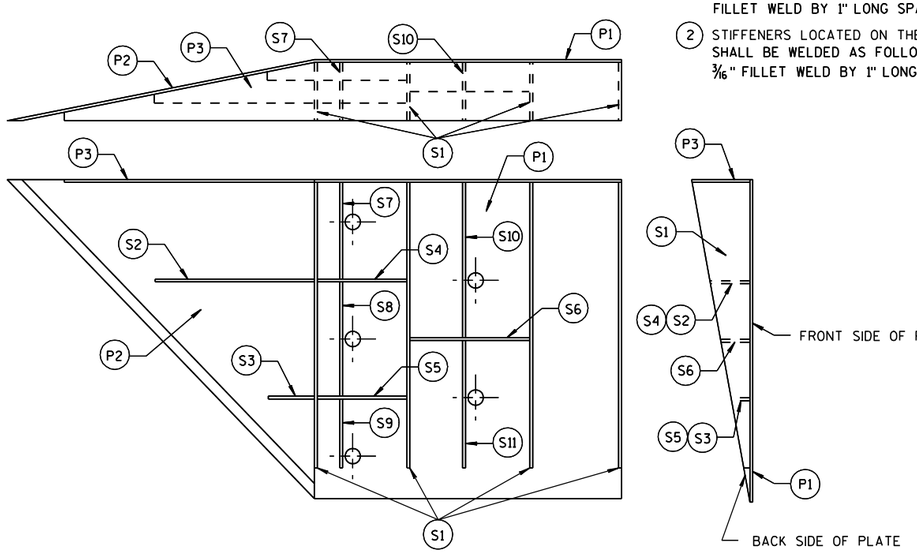


PLATE AND STIFFENER IDENTIFICATION

(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 5/8" 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 3/32"	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"

STEEL THRIE BEAM STRUCTURE APPROACH

STEEL THRIE BEAM STRUCTURE APPROACH, CONNECTOR PLATE DETAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

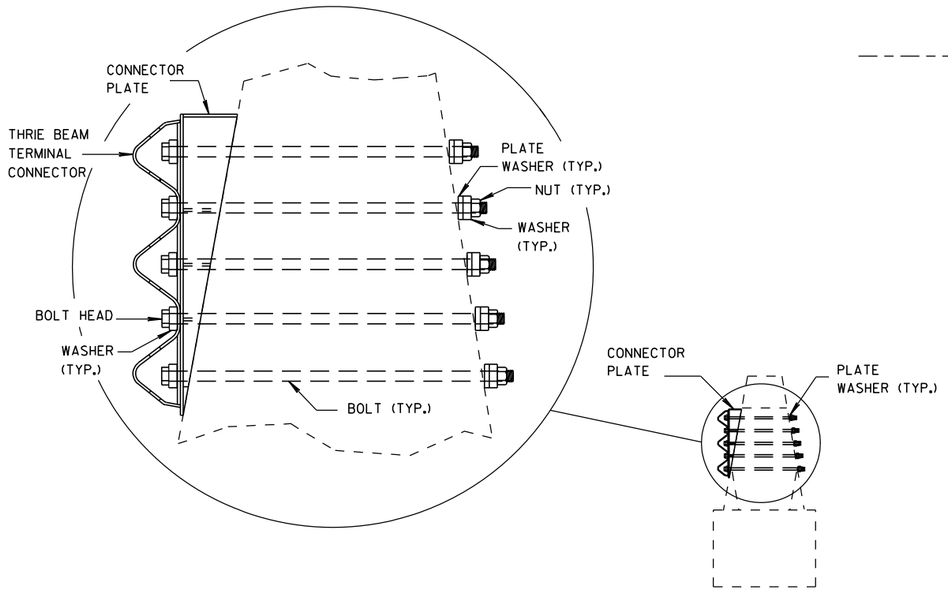
APPROVED
8/31/2012 DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS ENGINEER
234
FHWA

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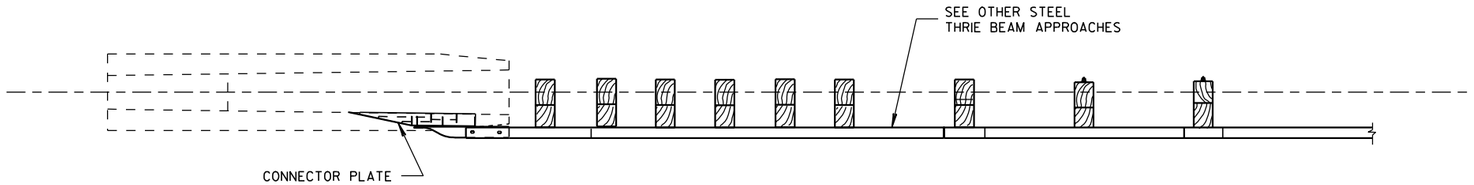
S.D.D. 14 B 20-11g

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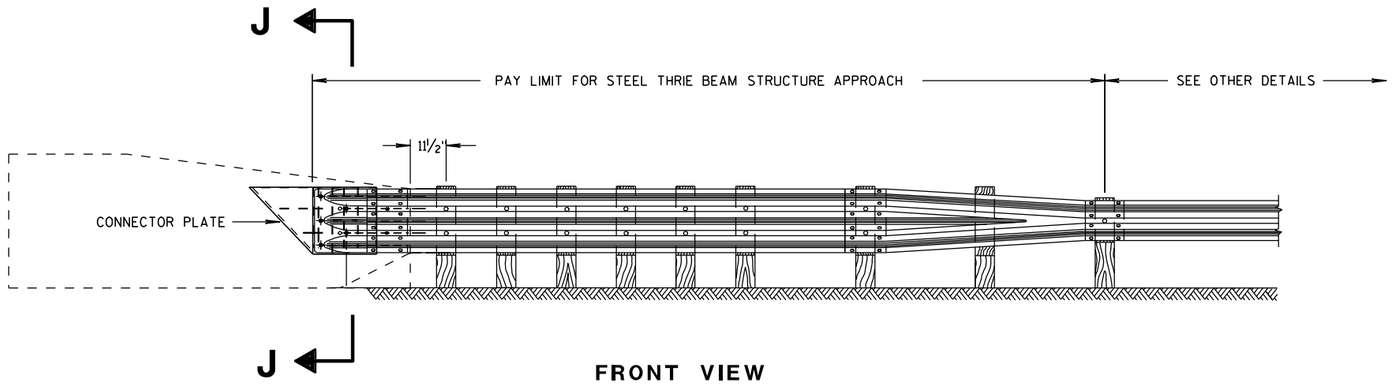
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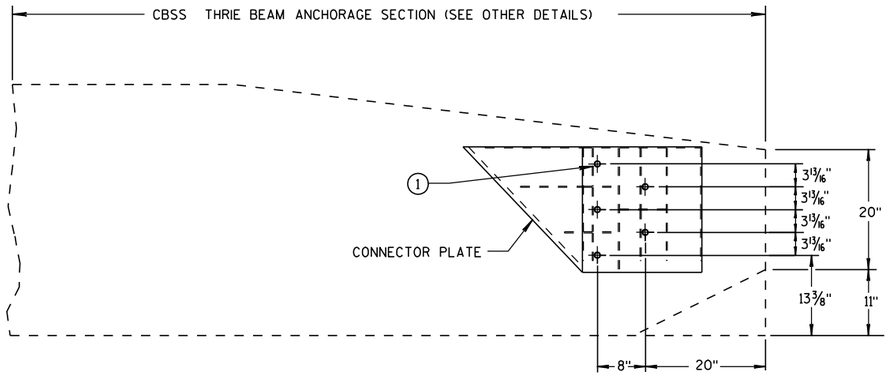
SECTION J-J



PLAN VIEW



FRONT VIEW



CONNECTOR PLATE LOCATION

GENERAL NOTES

CONSTRUCT PER STANDARD SPECIFICATION 614.

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

(1) 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.

STEEL THRIE BEAM STRUCTURE APPROACH

STEEL THRIE BEAM STRUCTURE APPROACH, SINGLE SLOPE ATTACHMENT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

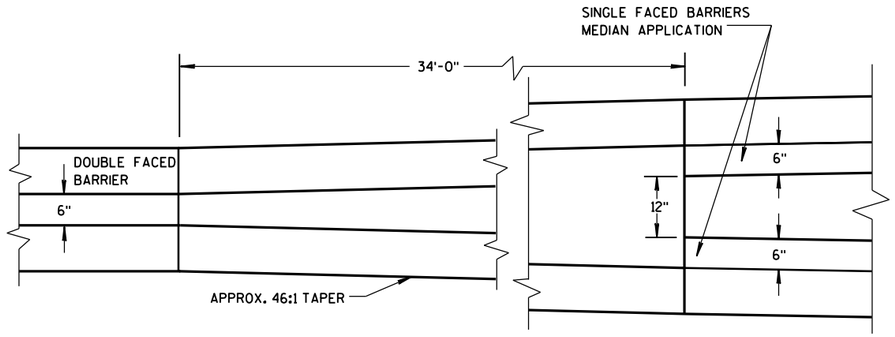
8/31/2012
DATE

/S/ Jerry H. Zogg
ROADWAY STANDARDS ENGINEER

FHWA

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



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.

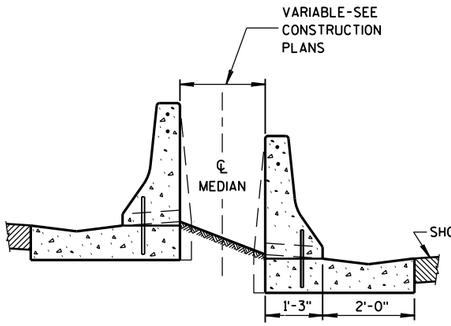
(3) 3/4-INCH BEVEL OR 1-INCH RADIUS (TYPICAL).

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

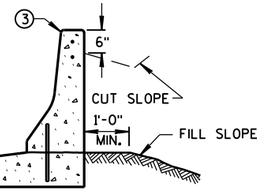
(5) EXPANSION JOINTS SHALL BE PLACED AT EXISTING EXPANSION JOINTS IN THE PAVEMENT AND AT STRUCTURES. SEE REINFORCEMENT AT BARRIER END DETAIL.

(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

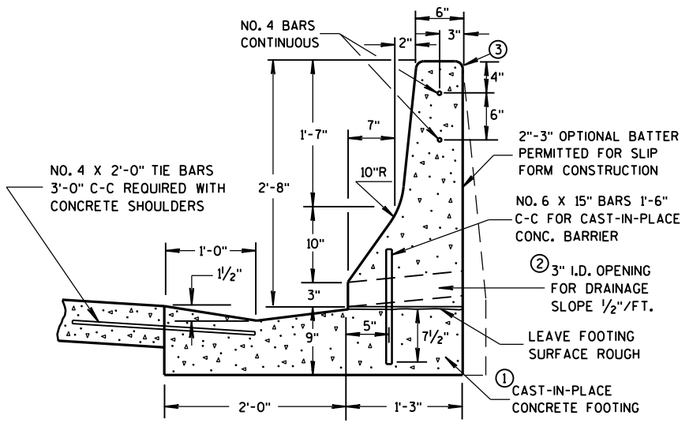


MEDIAN

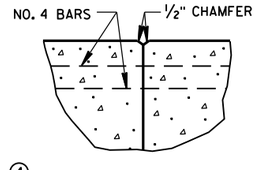


SHOULDER

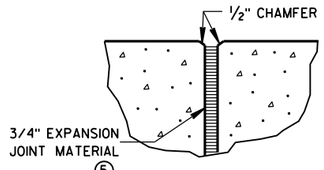
TYPICAL APPLICATIONS



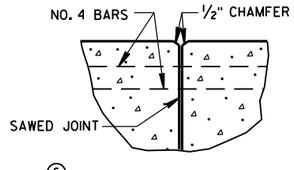
SECTION VIEW



4 CONSTRUCTION JOINT



5 EXPANSION JOINT



6 CONTRACTION JOINT

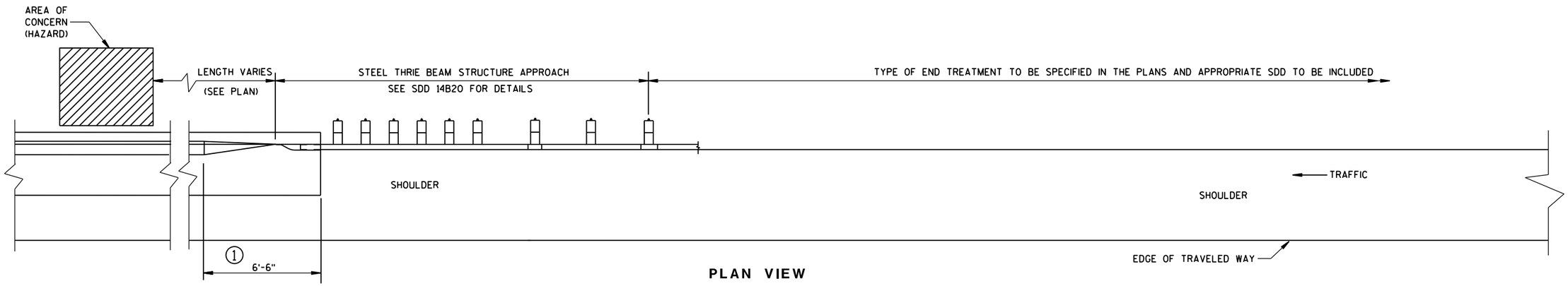
JOINT DETAILS

CONCRETE BARRIER,
SINGLE-FACED
(WITH ANCHORAGE)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

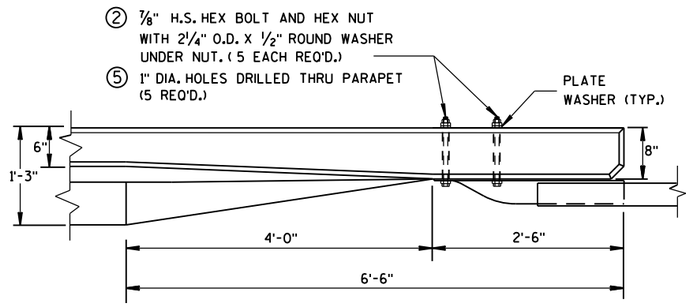
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PLAN VIEW

TRANSITION TO STEEL PLATE BEAM GUARD AND END TERMINAL



PLAN VIEW

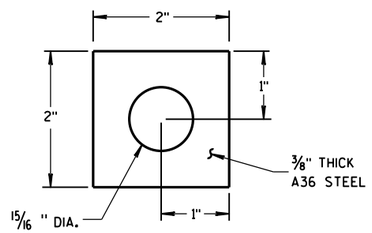
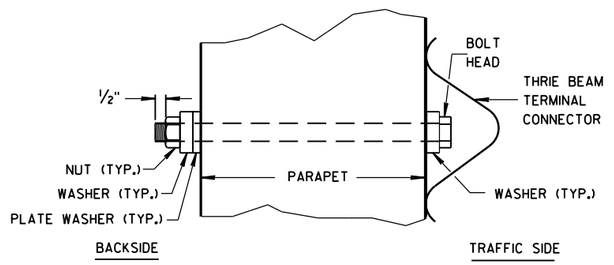


PLATE WASHER DETAIL



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.

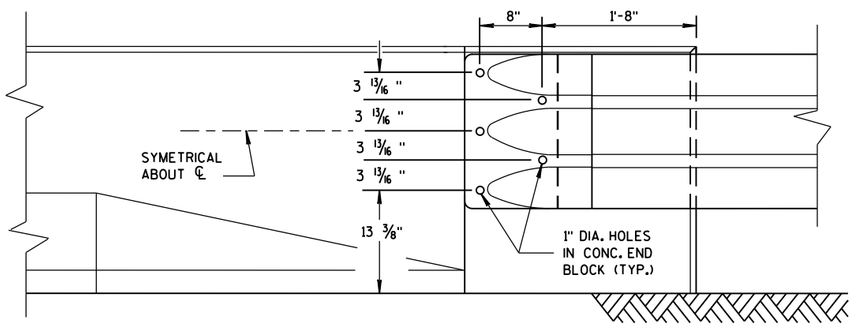
② BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM TERMINAL CONNECTOR.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

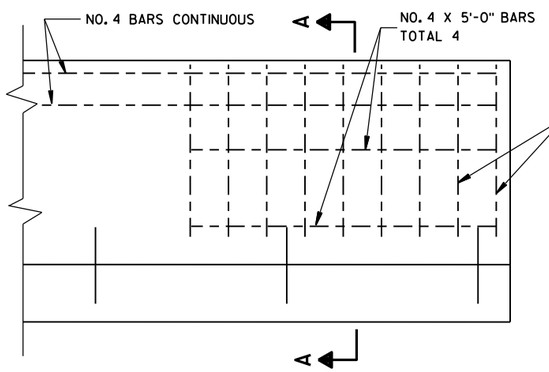
⑤ INCLUDE THE PAYMENT FOR DRILLING BOLT HOLES THROUGH THE PARAPET, AND ALL BOLTS, NUTS AND WASHERS IN THE ITEM "STEEL THRIE BEAM STRUCTURAL APPROACH".

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.

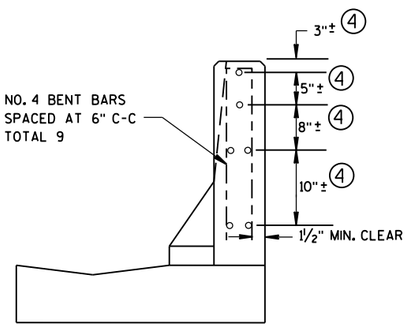


FRONT VIEW

CONCRETE BARRIER TRANSITION TO THRIE BEAM

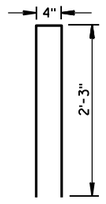


FRONT VIEW



SECTION A-A

③ REINFORCEMENT AT BARRIER END



BENT BAR DETAIL

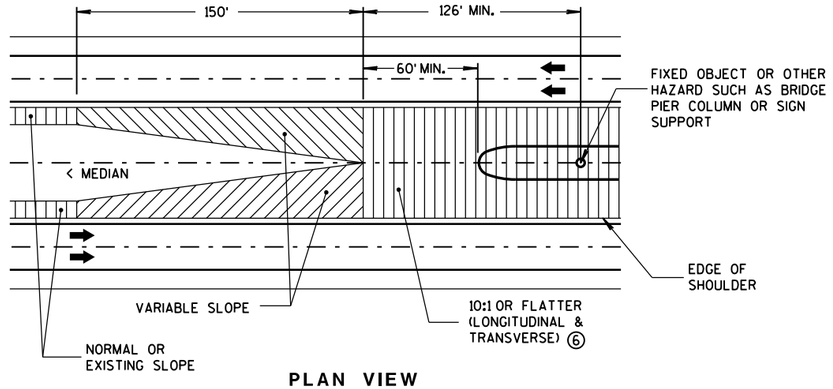
CONCRETE BARRIER, SINGLE-FACED (WITH ANCHORAGE)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

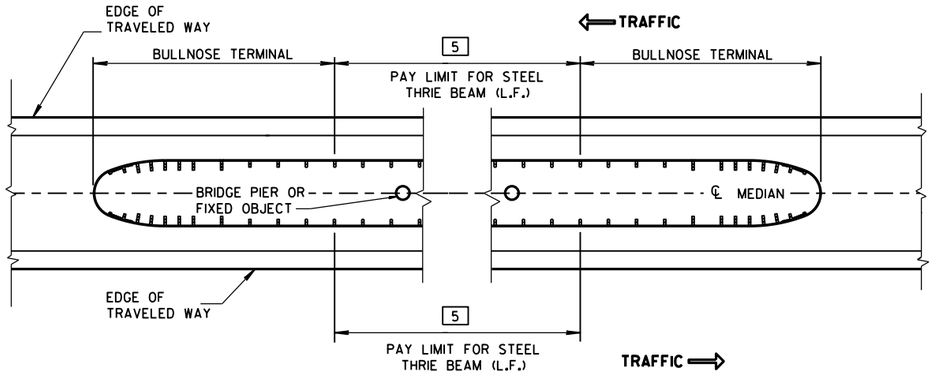
S.D.D. 14 B 22-6b

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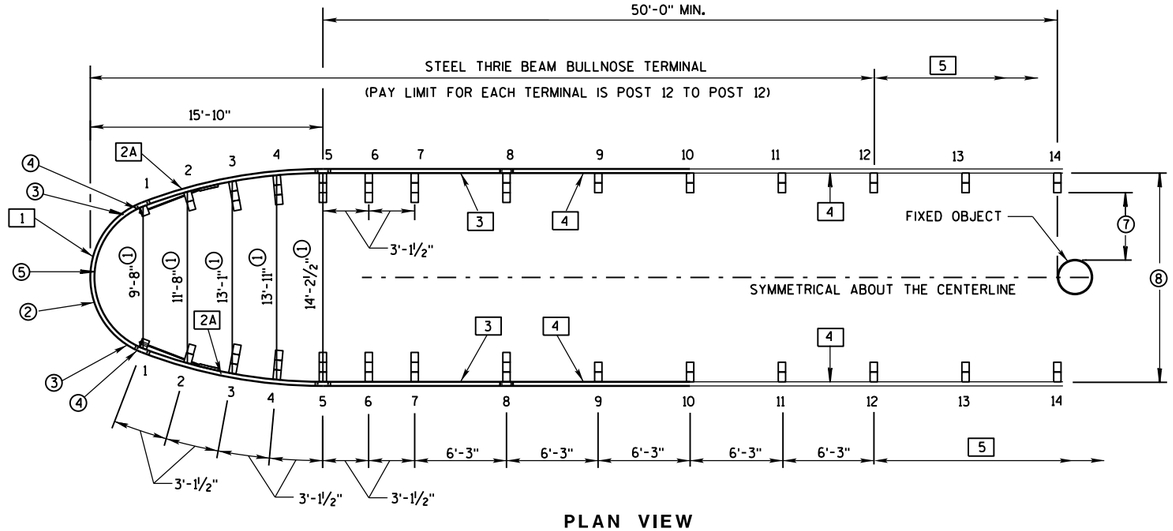


PLAN VIEW

GRADING AT BULLNOSE
(ALL INSTALLATIONS)

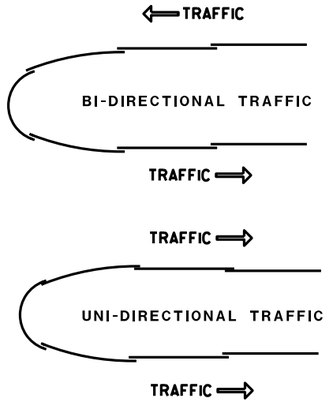


MEDIAN HAZARD PROTECTION PAY LIMITS



PLAN VIEW

TYPICAL BULLNOSE LAYOUT



LAPPING DETAIL
(ALL INSTALLATIONS)

GENERAL NOTES

SEE STANDARD DETAIL DRAWINGS 14 B 26a-e.

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

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

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

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

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

ALL THRIE BEAM SHALL BE 12-GAUGE.

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

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

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

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

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

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

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

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

③ NOSE CABLE W/SWAGGED END BUTTONS.

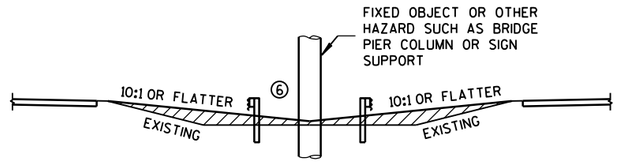
④ NOSE CABLE ANCHOR PLATE (BACKSIDE OF SPLICE).

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

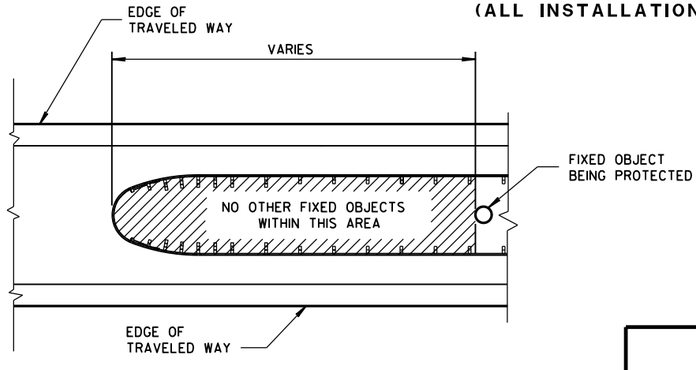
⑥ PROVIDE SUITABLE DRAINAGE WHEN MEDIAN GRADING IMPEDES NORMAL FLOW.

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

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



MEDIAN GRADING SECTION
(ALL INSTALLATIONS)

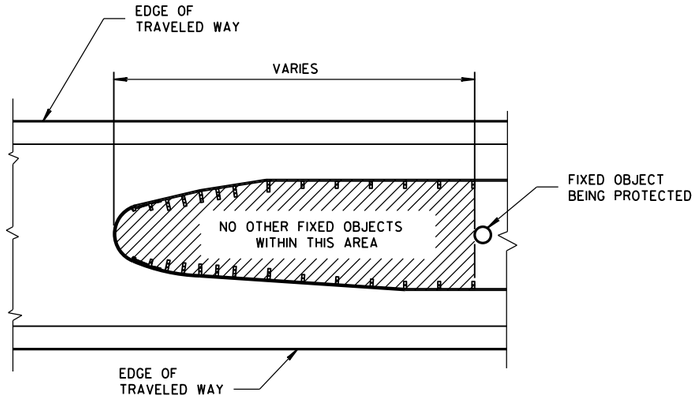


HAZARD FREE AREA INSIDE BULLNOSE

STEEL THRIE BEAM BULLNOSE TERMINAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPO

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



HAZARD FREE
AREA INSIDE BULLNOSE

GENERAL NOTES

SEE STANDARD DETAIL DRAWINGS 14 B 26a-e.

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

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

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

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

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

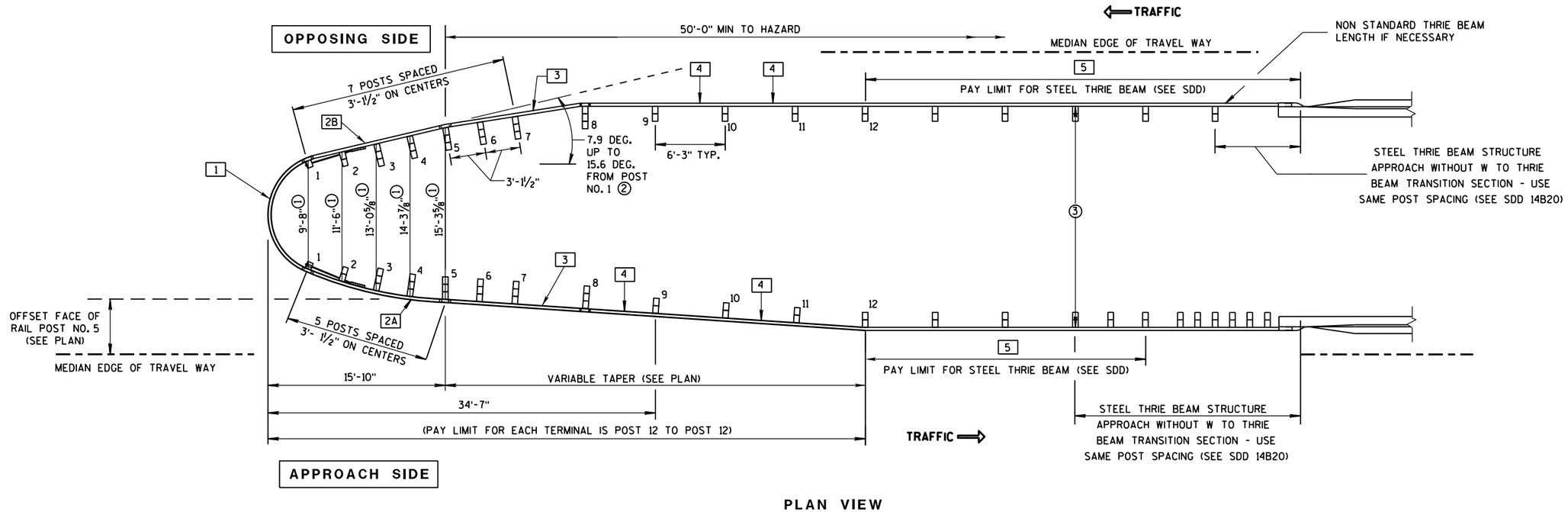
[4] UNBENT STANDARD THRIE-BEAM RAIL NO. 4, (POST 8 TO POST 10 & POST 10 TO POST 12)

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

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

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

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



PLAN VIEW

WIDENED BULLNOSE DESIGN

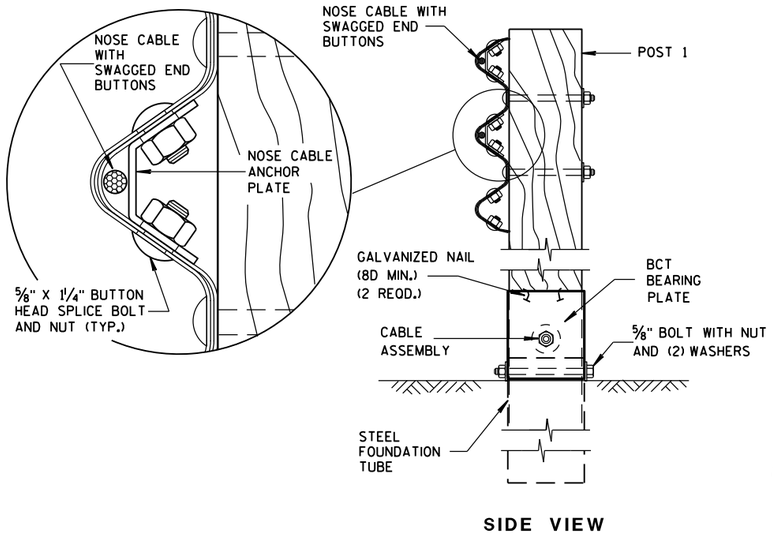
(INSTALLATION AT TWIN BRIDGES WITH BI-DIRECTIONAL TRAFFIC SHOWN)

STEEL THRIE BEAM
BULLNOSE TERMINAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

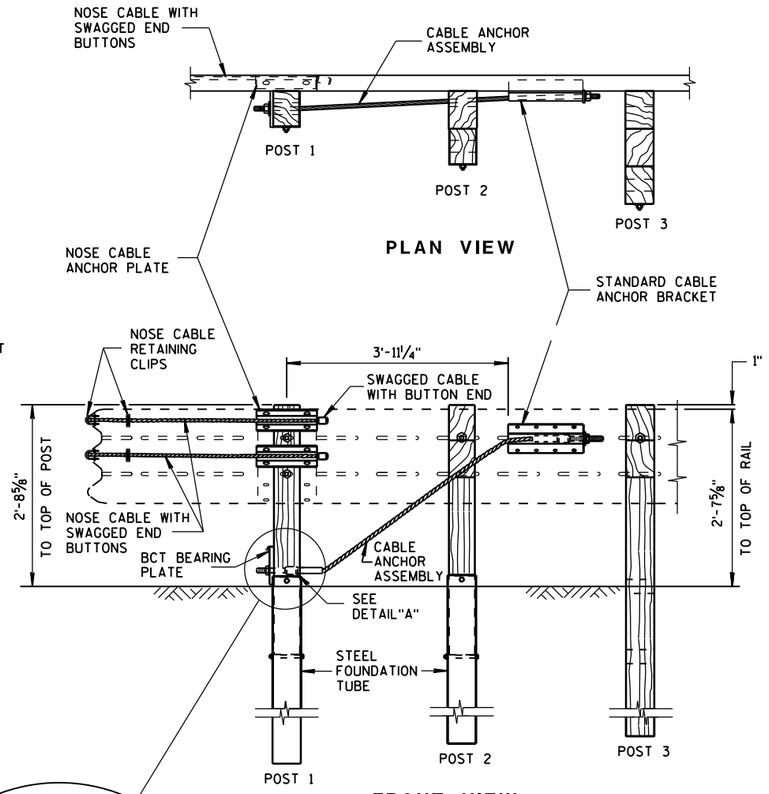
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S.D.D. 14 B 26-3b



SIDE VIEW

NOSE CABLE ASSEMBLY AT POST NO. 1



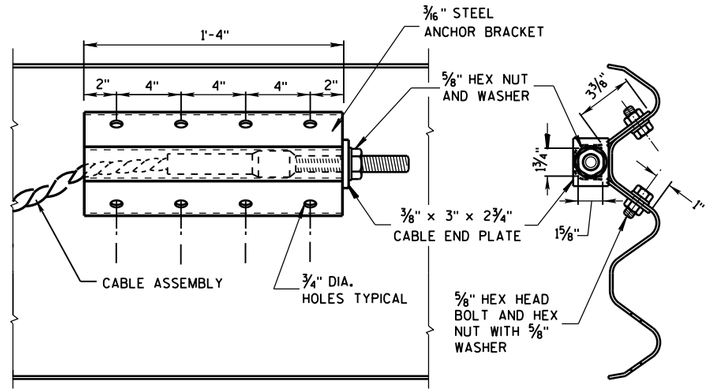
PLAN VIEW

FRONT VIEW

NOSE CABLE ANCHOR AND STANDARD BRACKET ASSEMBLY

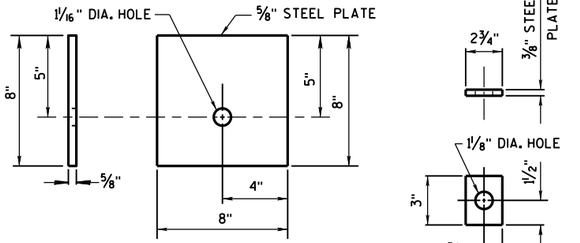
GENERAL NOTES

SEE STANDARD DETAIL DRAWINGS 14 B 26a-e.



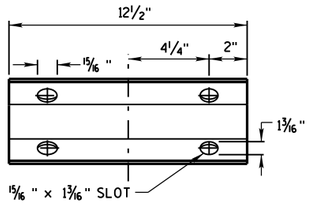
FRONT VIEW END VIEW

DETAILS OF CABLE ANCHOR BRACKET

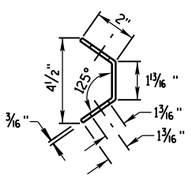


BCT BEARING PLATE

CABLE END PLATE



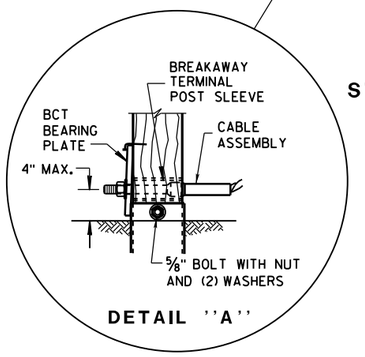
ELEVATION VIEW



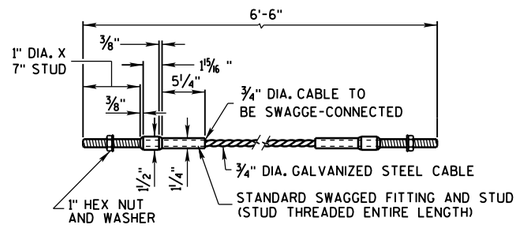
END VIEW

NOSE CABLE ANCHOR PLATE

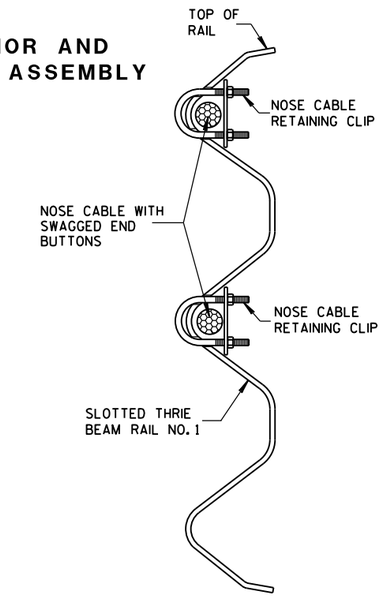
NOTE: 12 1/2" x 5 13/16" x 3/16" STEEL PLATE (A306)



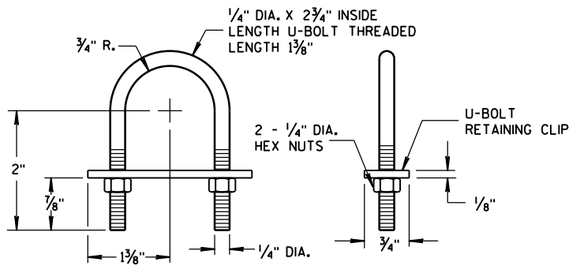
DETAIL ''A''



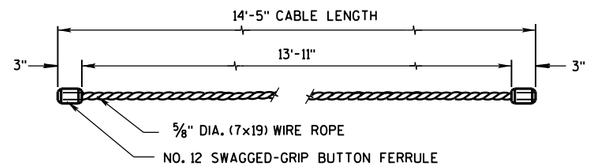
DETAILS OF CABLE ANCHOR ASSEMBLY



PLACEMENT OF NOSE CABLE RETAINING CLIP



NOSE CABLE RETAINING CLIP



NOSE CABLE WITH SWAGGED END BUTTONS

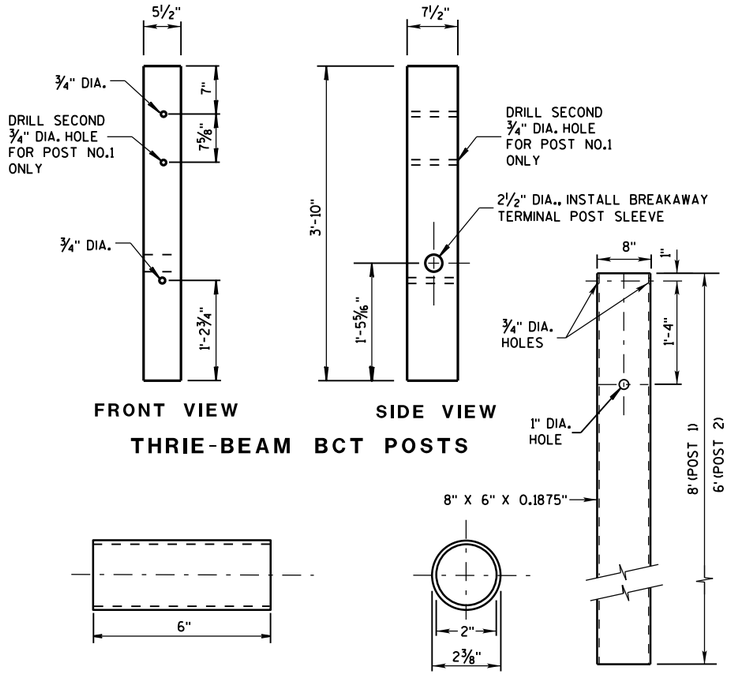
TO PULL OFF SWAGGED GRIP BUTTON FERRULE FROM WIRE ROPE REQUIRES A FORCE EQUAL TO 98% OF THE WIRE ROPE'S BREAKING STRENGHT.

STEEL THRIE BEAM BULLNOSE TERMINAL

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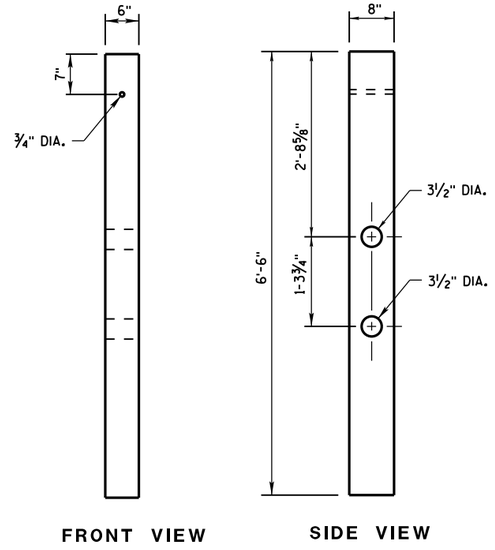
S.D.D. 14 B 26-3c



THRIE-BEAM BCT POSTS

BREAKAWAY TERMINAL POST SLEEVE

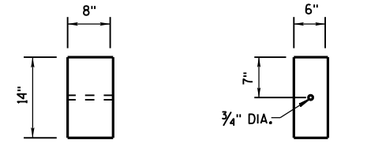
STEEL FOUNDATION TUBE



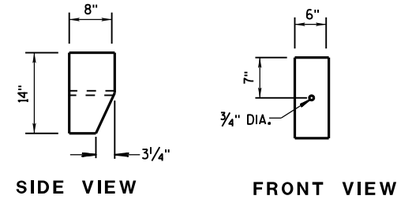
THRIE-BEAM CRT WOOD POSTS

GENERAL NOTES

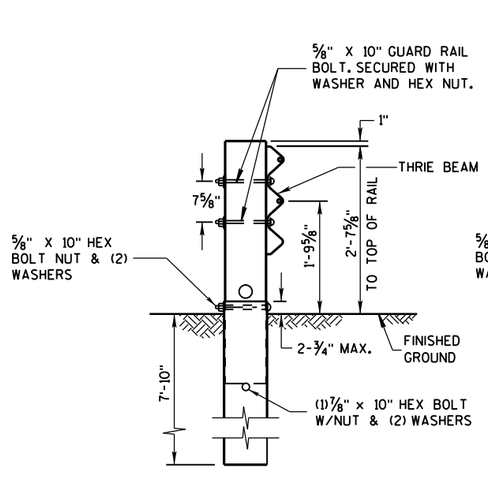
SEE STANDARD DETAIL DRAWINGS 14 B 26a-e.



STANDARD WOOD BLOCK

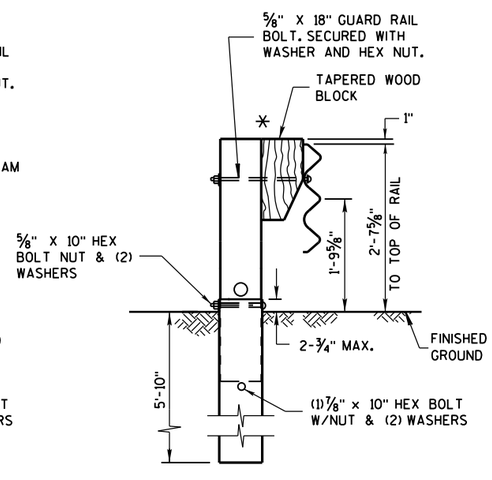


TAPERED WOOD BLOCK



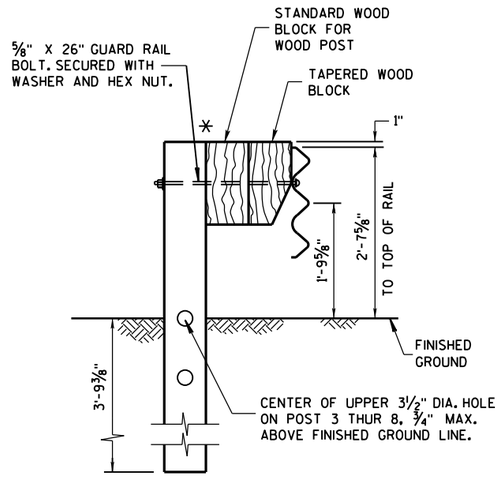
THRIE-BEAM BCT POST
(WITH 8'-0" FOUNDATION TUBE)

POST NO. 1



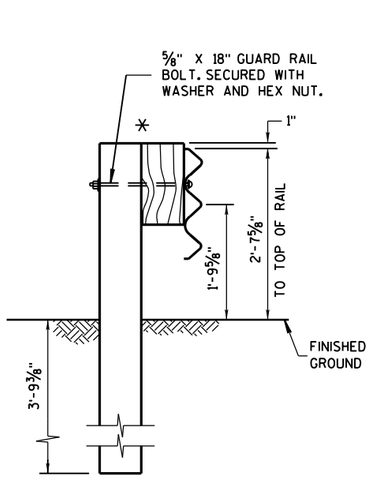
THRIE-BEAM BCT POST
(WITH 6'-0" FOUNDATION TUBE AND 1'-2" TAPERED BLOCK)

POST NO. 2



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

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



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

POST NO. 9,10,11,& 12

(ALSO USE FOR STEEL THRIE BEAM BEYOND POST 12)

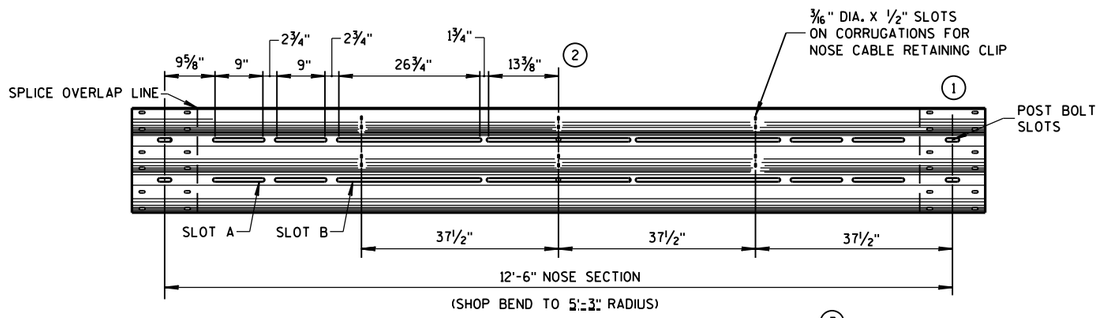
* IF NEEDED DUE TO AN UNDERGROUND OBSTACLE ADD 1 ADDITIONAL STANDARD BLOCKOUT TO POST.

STEEL THRIE BEAM BULLNOSE TERMINAL

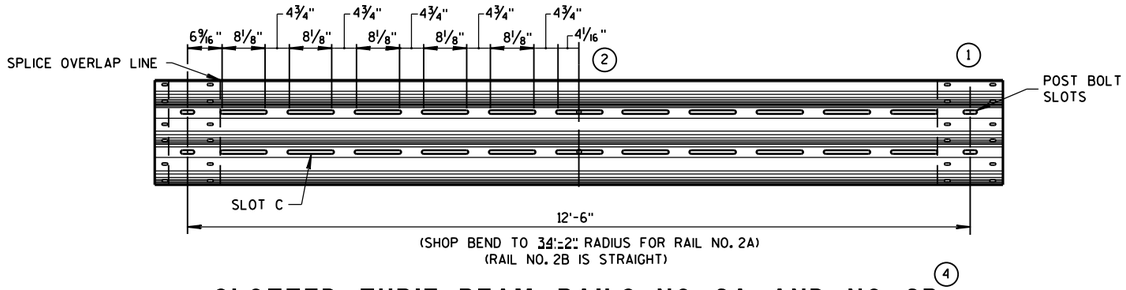
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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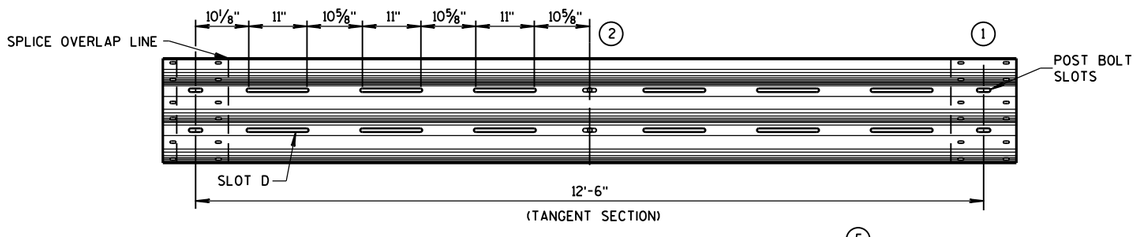
S.D.D. 14 B 26-3d



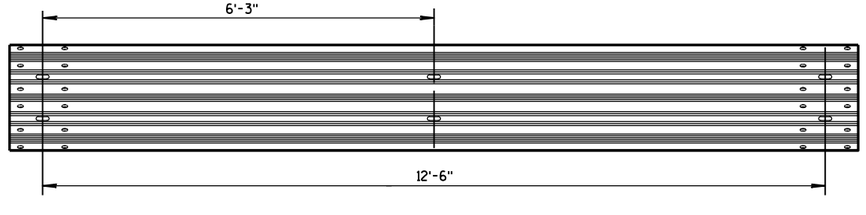
SLOTTED THRIE BEAM RAIL NO. 1 (3)



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



SLOTTED THRIE BEAM RAIL NO. 3 (5)



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

GENERAL NOTES

SEE STANADRD DETAIL DRAWINGS 14 B 26a-e.

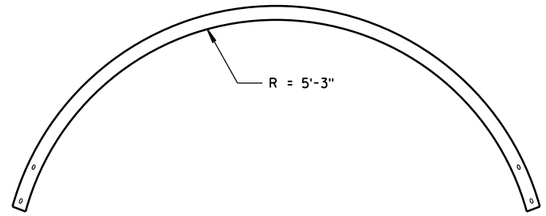
(1) SLOTTED THRIE BEAM RAIL DIMENSIONS SHOWN ARE BEFORE BENDING TO THE RADIUS SHOWN.

(2) SLOT SIZE AND SPACING SYMMETRIC.

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

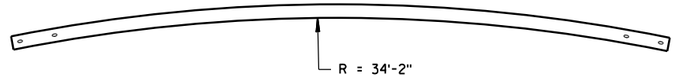
(4) SLOTTED THRIE BEAM RAIL NO. 2A, 12'-6", SHOP BEND TO R=34'-2".
SLOTTED THRIE BEAM RAIL NO. 2B, 12'-6", RAIL IS STRAIGHT.

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



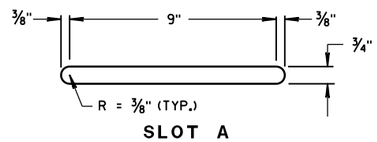
PLAN VIEW

SLOTTED THRIE BEAM RAIL NO. 1

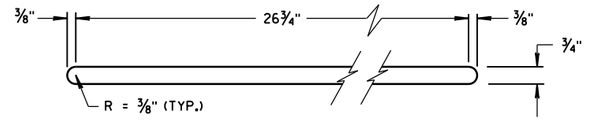


PLAN VIEW

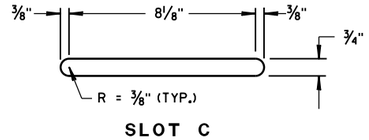
SLOTTED THRIE BEAM RAIL NO. 2A



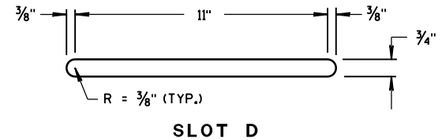
SLOT A



SLOT B



SLOT C



SLOT D

SLOT DETAILS

STEEL THRIE BEAM
BULLNOSE TERMINAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

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

6

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

GENERAL NOTES

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

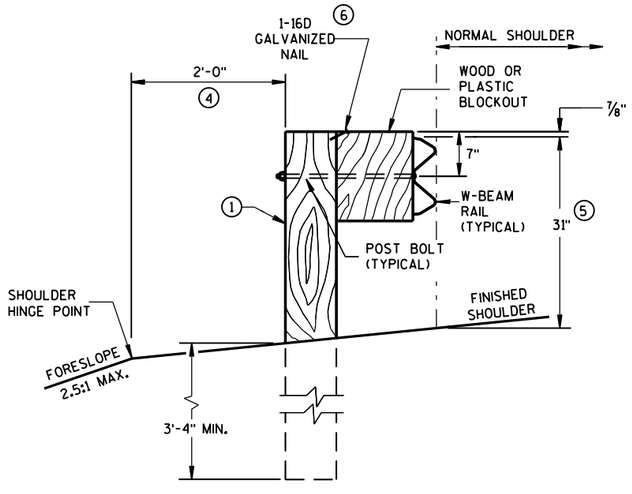
2. USE WOOD OR APPROVED PLASTIC BLOCKOUTS. WOOD BLOCKOUTS MAY BE CONSTRUCTED OUT OF TWO OR MORE WOOD BLOCKOUTS. SEE ALTERNATE WOOD BLOCKOUT DETAIL. DIMENSIONS OF APPROVED PLASTIC BLOCKOUTS MAY VARY.

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

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

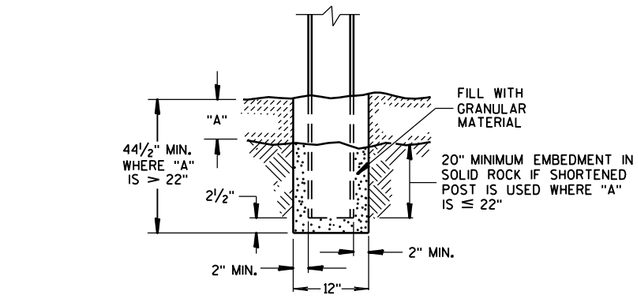
5. FOR NEW MGS INSTALLATION TOP OF W-BEAM RAIL TOLERANCE IS ± 1". FOR EXISTING MGS INSTALLATION TOP OF W-BEAM IS BETWEEN 27¾" TO 32".

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



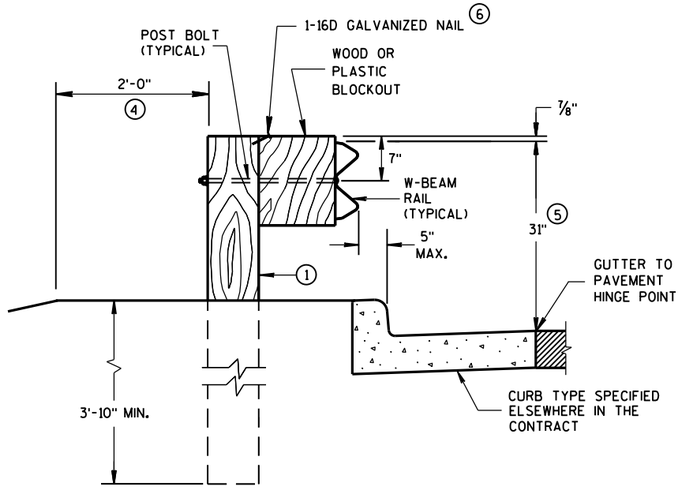
END VIEW

LOCATED ALONG A ROADWAY SHOULDER
STANDARD INSTALLATION



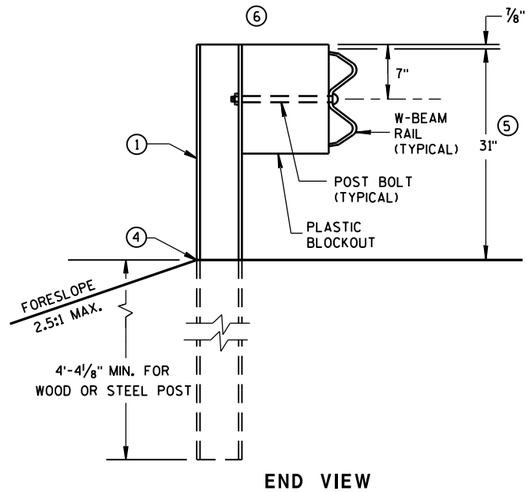
END VIEW

SETTING STEEL OR WOOD POST IN ROCK ③



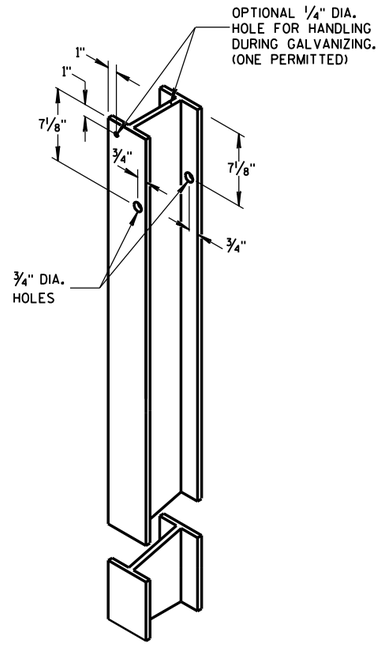
END VIEW

LOCATED ALONG A CURBED ROADWAY

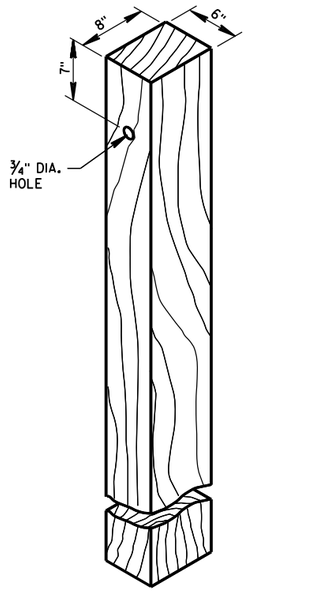


END VIEW

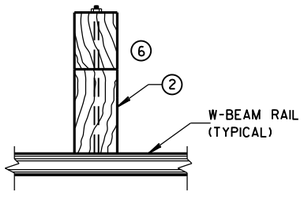
MGS LONGER POST AT HALFPOST SPACING W BEAM (K)



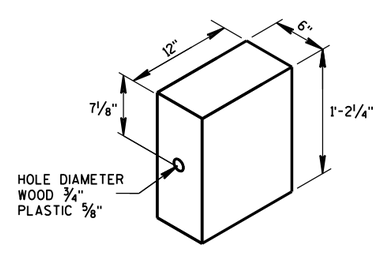
STEEL POST &
HOLE PUNCHING DETAIL
(w6X9) ①



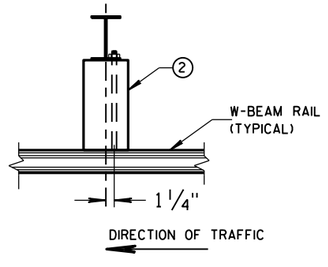
WOOD POST
(6" X 8") NOMINAL ①



PLAN VIEW
WOOD POST,
BLOCKOUT & BEAM



WOOD OR
PLASTIC BLOCKOUT ②

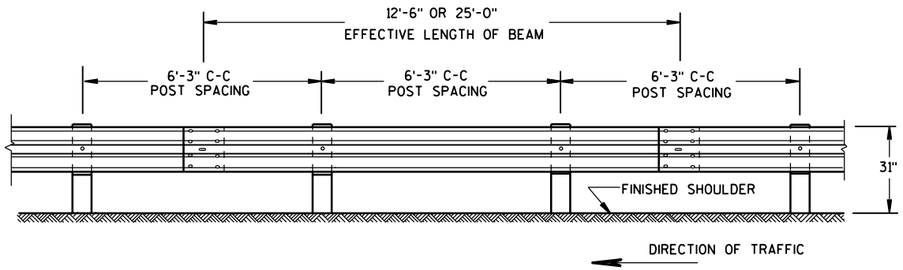


PLAN VIEW
STEEL POST,
PLASTIC BLOCKOUT & BEAM

MIDWEST GUARDRAIL SYSTEM
(MGS) GUARDRAIL

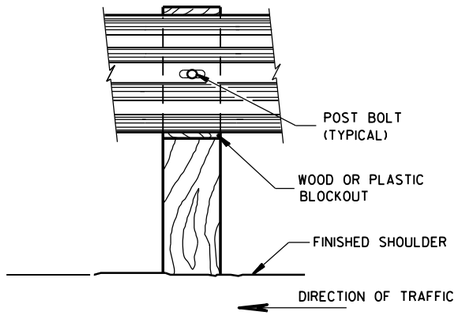
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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



FRONT VIEW

POST SPACING STANDARD INSTALLATION



FRONT VIEW AT WOOD POST

GENERAL NOTES

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

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

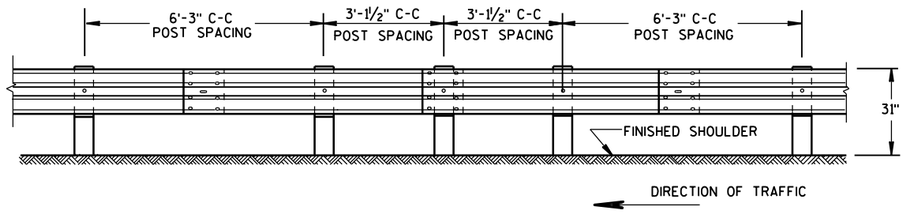
(9) REVERSE EVERY OTHER REFLECTOR FOR 2-WAY VISIBILITY. THE CONTRACTOR MAY FURNISH TWO-SIDED REFLECTORS IN LIEU OF ONE-SIDED REFLECTORS.

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

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

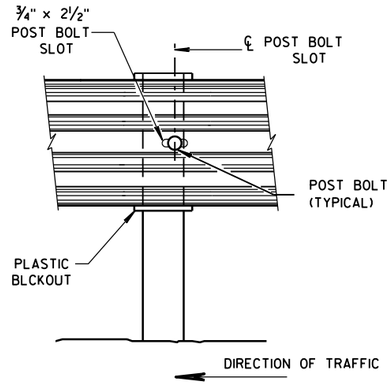
POST BOLTS ARE A 5/8" DIAMETER ASTM A307 GUARDRAIL BOLT. A POST BOLT REQUIRES 5/8" DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX NUT AND 5/8" DIAMETER F844 FLAT WASHER. POST BOLTS MAY BE LONGER IF MULTIPLE BLOCKOUTS ARE BEING USED.

GUARD RAIL SPLICE BOLTS ARE A 5/8" DIAMETER ASTM A307 GUARDRAIL HEAD BOLT. A GUARDRAIL SPLICE BOLT REQUIRES 5/8" DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX NUT.

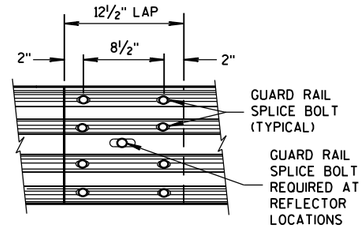


FRONT VIEW

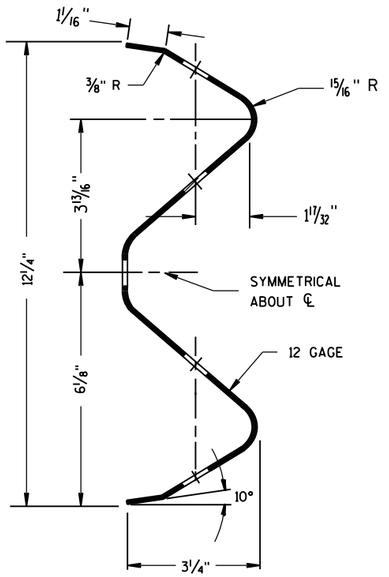
HALF POST SPACING (HS) AND HALF POST SPACING WITH LONGER POSTS (K)



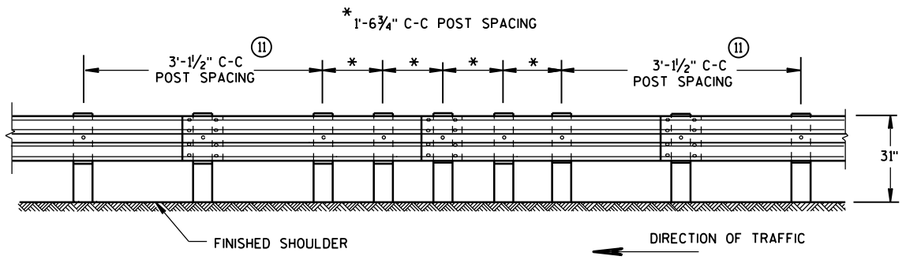
FRONT VIEW AT STEEL POST



FRONT VIEW
MID-SPAN BEAM SPLICE

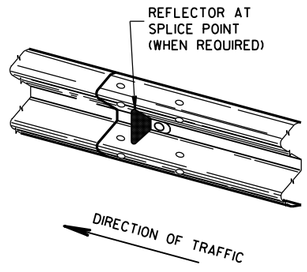


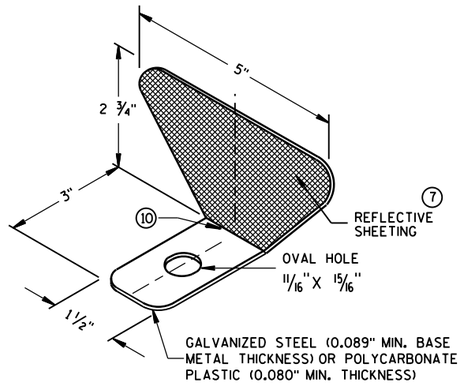
SECTION THRU W-BEAM RAIL



FRONT VIEW

QUARTER POST SPACING (QS)





ONE SIDED REFLECTOR DETAIL AND TYPICAL INSTALLATION (7)

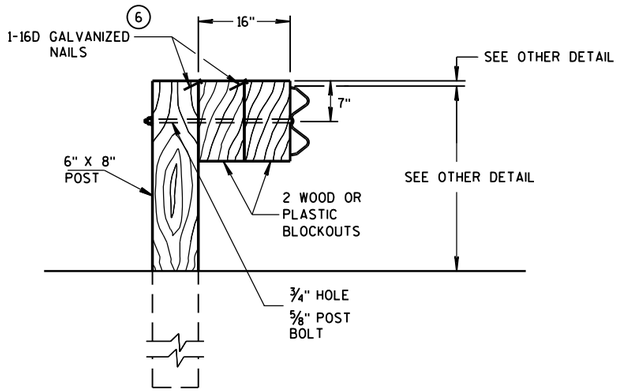
REFLECTOR SPACING (8)

	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

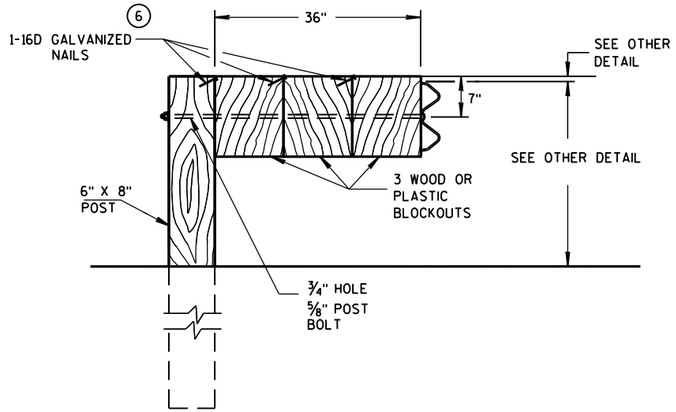
STATE OF WISCONSIN
DEPARTMENT OF TRANSPO

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



DETAIL FOR 16" BLOCKOUT DEPTH

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

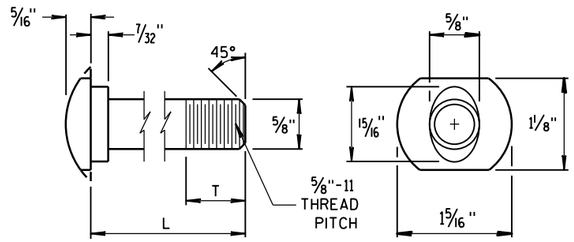


DETAIL FOR 36" BLOCKOUT DEPTH

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

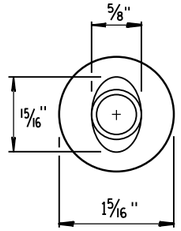
DO NOT USE 16" OR 36" BLOCKOUTS IF IT CAUSES THE POST TO BE DRIVEN BEYOND SHOULDER HINGE POINT OR CAUSES A FIXED OBJECT TO BE WITHIN THE DEFLECTION DISTANCE OF THE BARRIER.

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

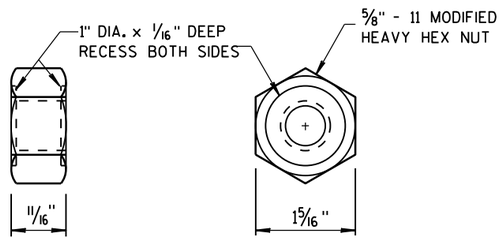


POST BOLT TABLE

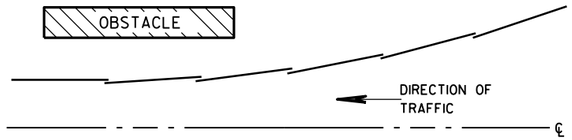
L	T (MIN.)
1¼"	1⅛"
2"	1¾"
10"	4"
14"	4 1/16"
18"	4"
21"	4 1/16"
25"	4"



ALTERNATE BOLT HEAD

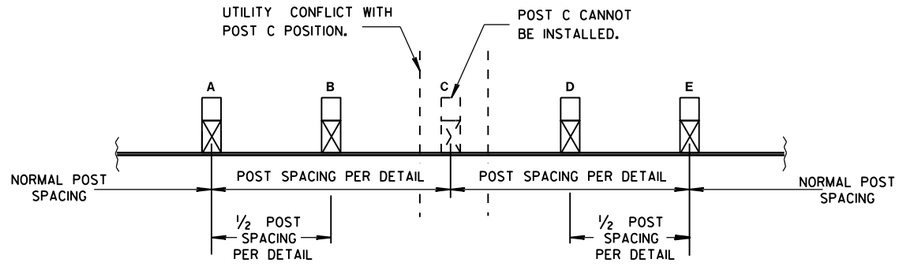


POST BOLT AND RECESS NUT

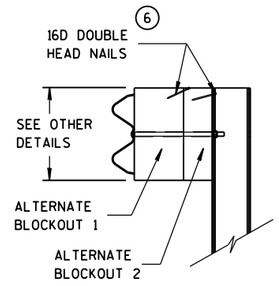


PLAN VIEW

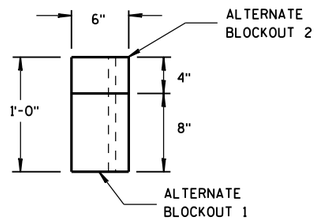
BEAM LAPPING DETAIL



POST DRIVING FOR CONTINUOUS UNDERGROUND OBSTRUCTION



SIDE VIEW



TOP VIEW

ALTERNATE WOOD BLOCKOUT DETAIL

MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2014
DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS ENGINEER
245
FHWA

6

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

6

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

GENERAL NOTES

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

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

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

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

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

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

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

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

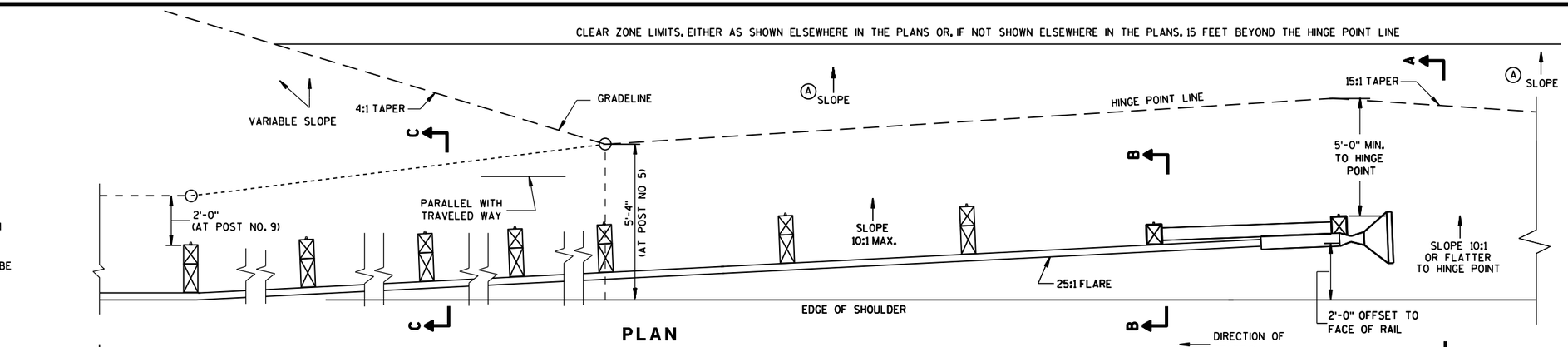
SEE SDD 14B42 FOR MORE INFORMATION.

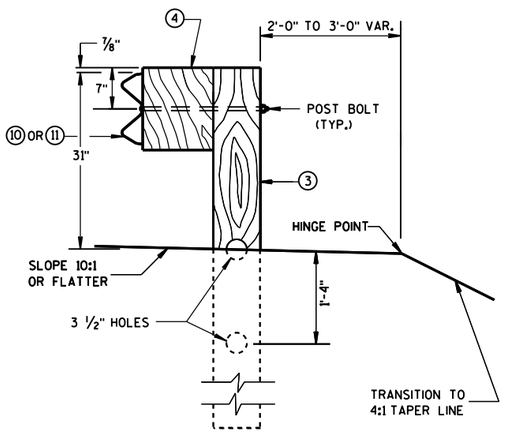
* DO NOT ATTACH BLOCKOUTS TO POSTS 1 AND 2.

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

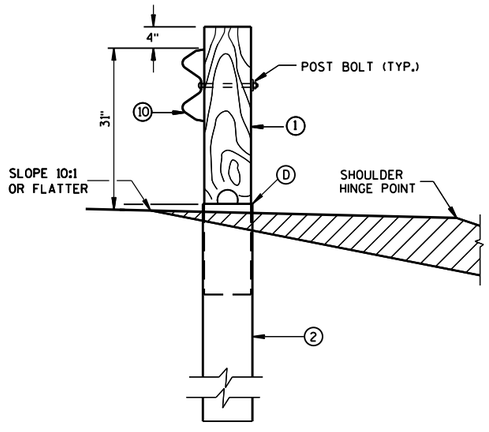
W-BEAM RAIL SPLICES ARE LOCATED AT POST NUMBER 3, AND BETWEEN POST 5 AND 6, BETWEEN POSTS 7 AND 8, AND MIDDLE OF THE SPAN AFTER POST 9.

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

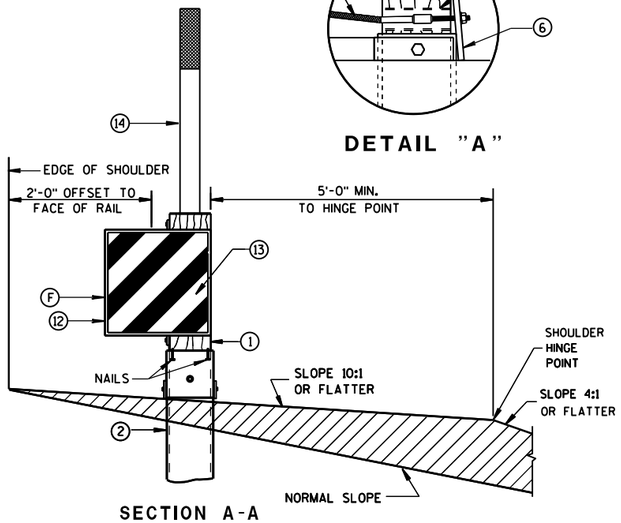




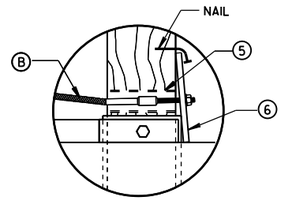
SECTION C-C
TYPICAL AT POST NOS. 3-9



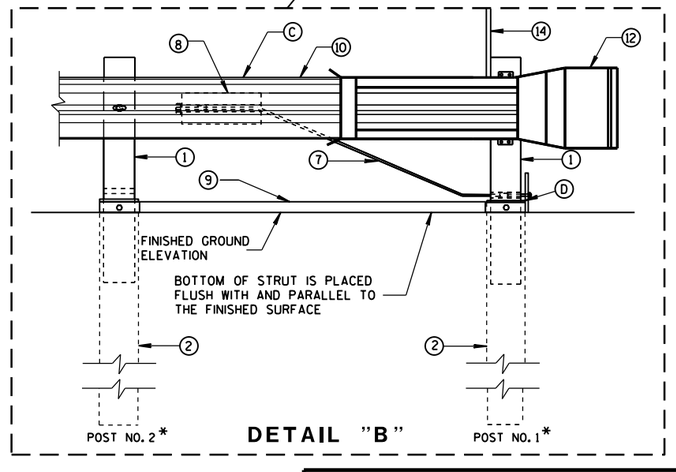
SECTION B-B
TYPICAL AT POST NO. 2*



SECTION A-A
TYPICAL AT POST NO. 1*



DETAIL "A"



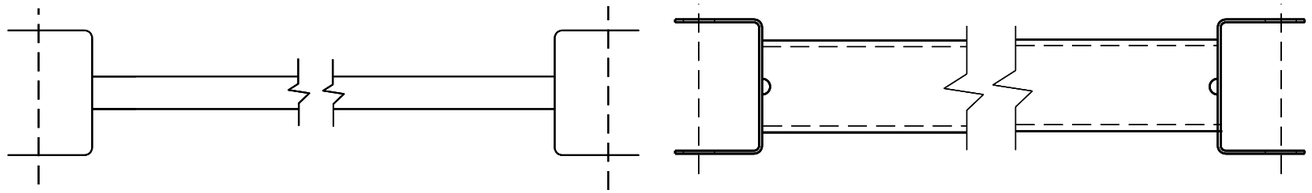
DETAIL "B"

MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL
(MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPO

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

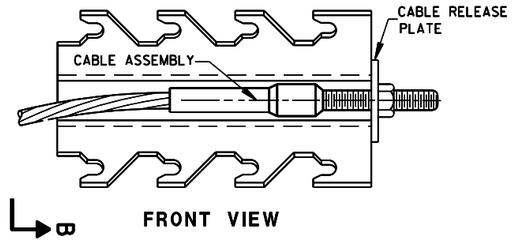
S.D.D. 14 B 44-2a



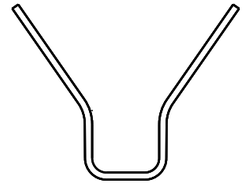
GENERIC GROUND STRUT (9) (H)

BILL OF MATERIALS

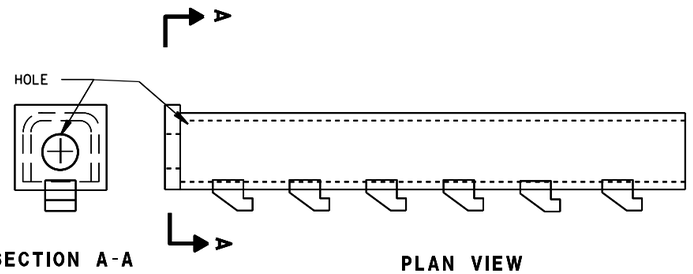
PART NO.	DESCRIPTION MATERIALS PROVIDED BY MGS EAT MANUFACTURER. SEE MANUFACTURER'S DETAILS FOR MORE INFORMATION.
(1)	WOOD BREAKAWAY POST
(2)	6" X 8" X 0.188", 6'-0" LONG FOUNDATION TUBE AT POSTS 1 AND 2
(3)	WOOD CRT
(4)	WOOD BLOCKOUT
(5)	PIPE SLEEVE
(6)	BEARING PLATE
(7)	BCT CABLE ASSEMBLY
(8)	ANCHOR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



FRONT VIEW



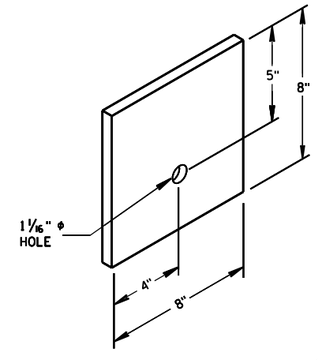
SECTION B-B



SECTION A-A

PLAN VIEW

GENERIC ANCHOR CABLE BOX (8) (H)



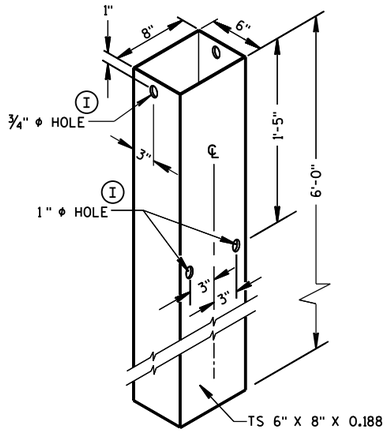
BEARING PLATE (6)

MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL
(MGS)

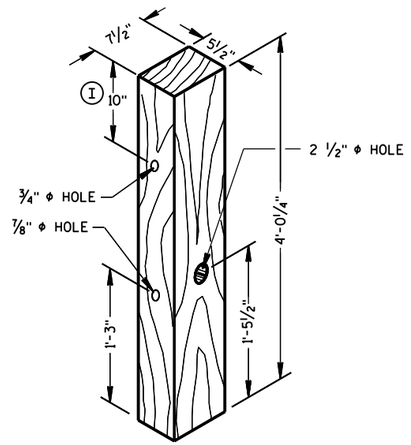
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6

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

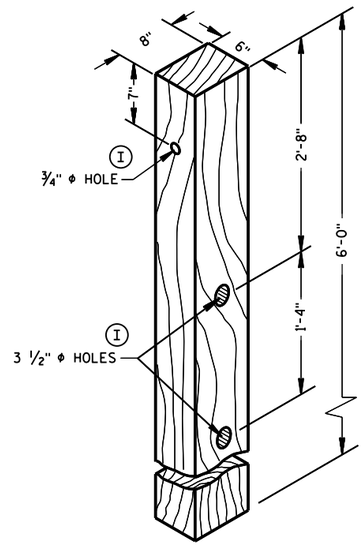


FOUNDATION TUBE (2)



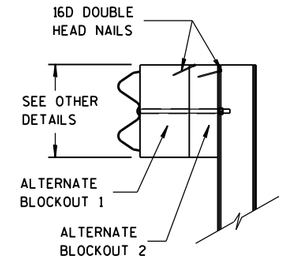
POSTS NUMBER 1 AND 2

WOOD BREAKAWAY POST (1)

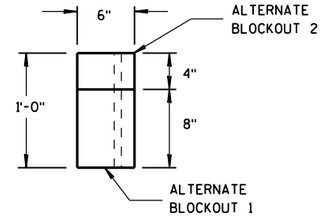


POSTS NUMBER 3-9

WOOD CRT POST (3)

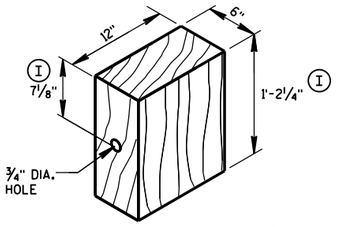


SIDE VIEW



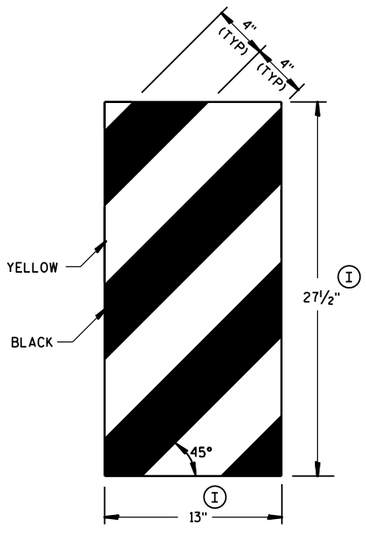
TOP VIEW

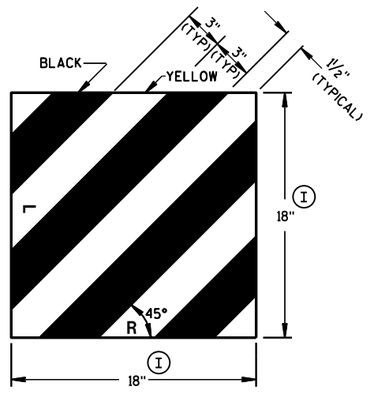
ALTERNATE WOOD BLOCKOUT DETAIL



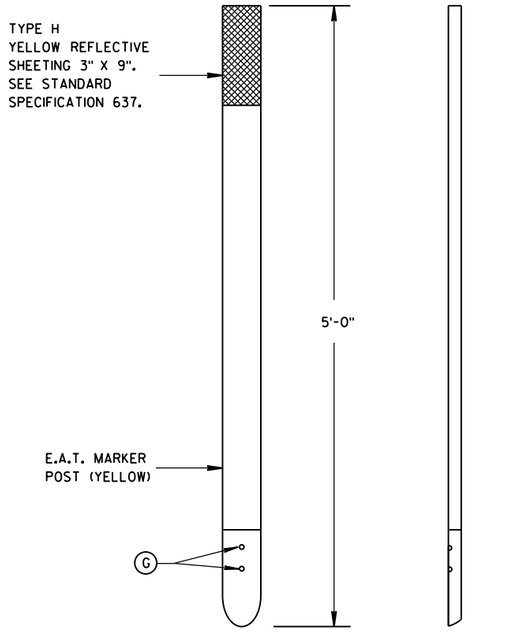
WOOD BLOCKOUT (4)

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





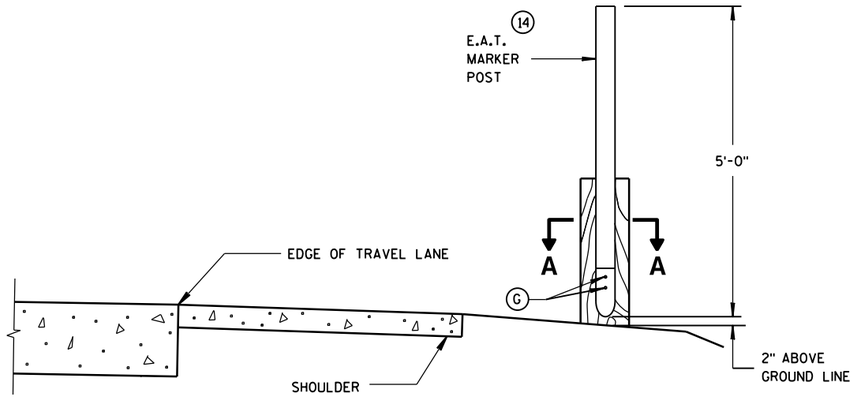
GENERIC REFLECTIVE SHEETING (13) (H)



FRONT VIEW

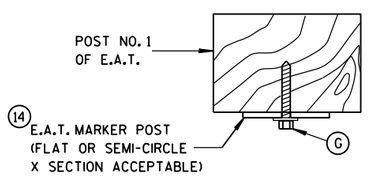
SIDE VIEW

E.A.T. MARKER POST (14)



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

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



SECTION A-A

MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)

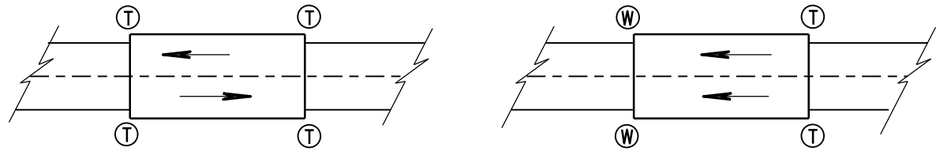
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

FHWA

6

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



TWO WAY TRAFFIC

ONE WAY TRAFFIC

Ⓣ THRIE BEAM CONNECTION

Ⓦ W-BEAM CONNECTION WHEN REQUIRED

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

GENERAL NOTES

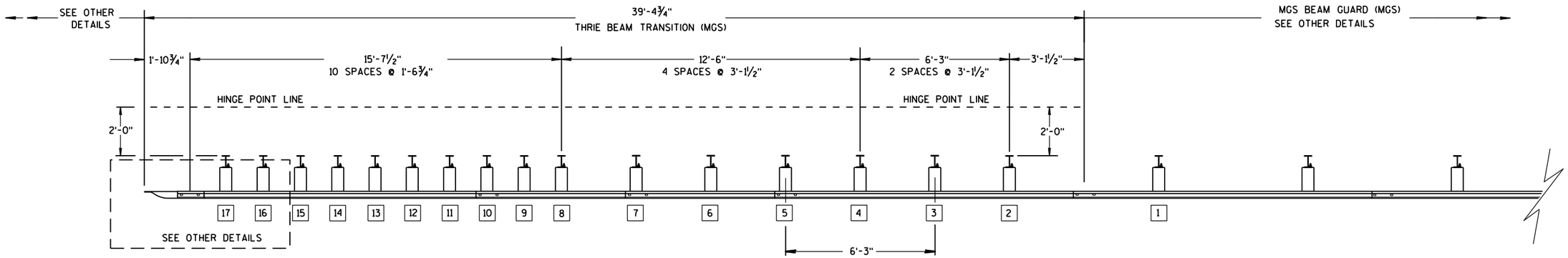
IF ROCK IS ENCOUNTERED, REMOVE ROCK TO FULL DEPTH OF POST PLUS 2½", AND 12" DIAMETER AROUND POST. SEE 14B42 FOR MORE DETAILS.

TRANSITION USES STEEL POSTS ONLY.

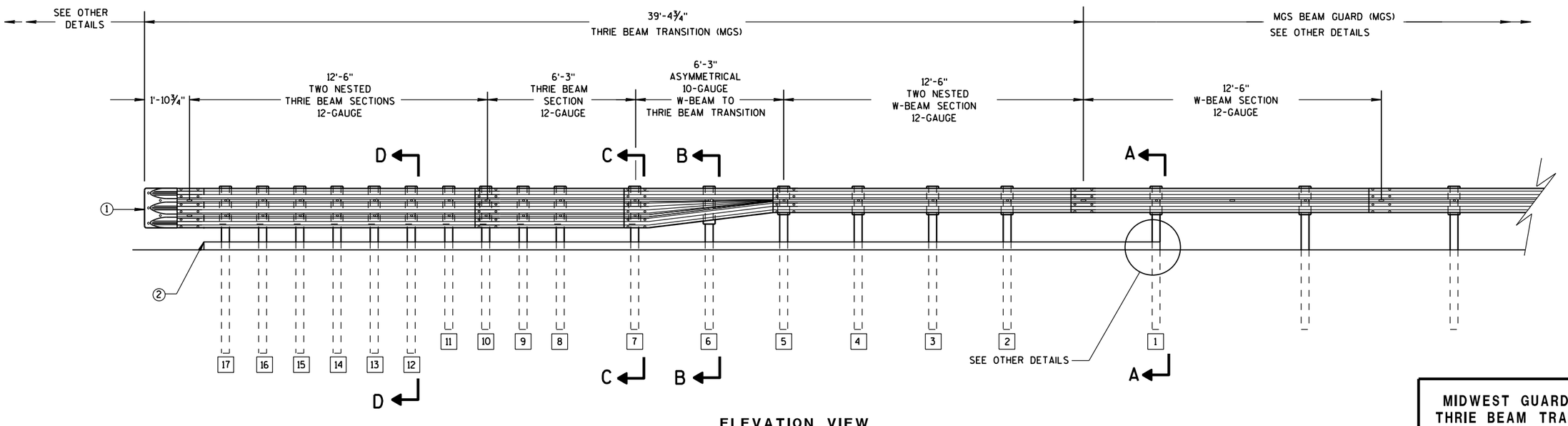
SEE STANDARD DETAIL DRAWING 14 B 42 FOR MORE INFORMATION.

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

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



PLAN VIEW



ELEVATION VIEW

MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6

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

6

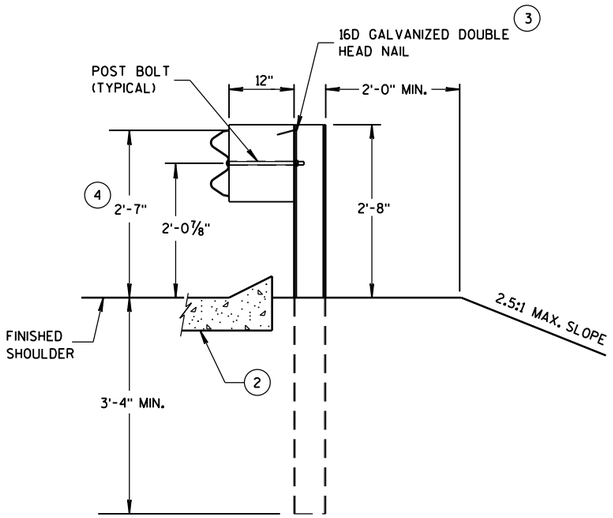
S.D.D. 14 B 45-4a

GENERAL NOTES

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

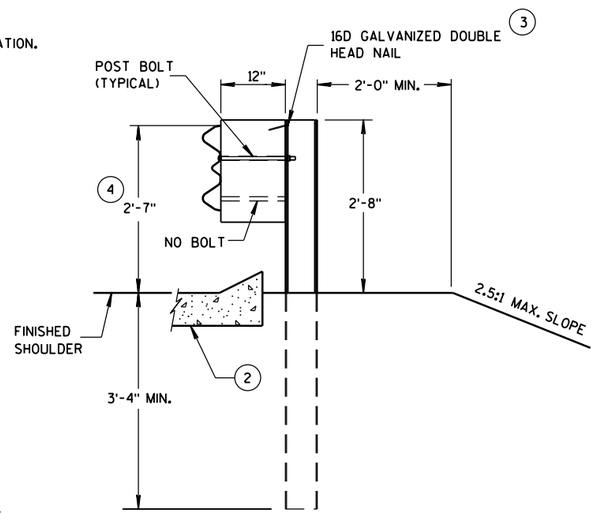
(3) WHEN USING STEEL POSTS AND WOOD BLOCKOUTS INSTALL FOUR 10D GALVANIZED NAILS. INSTALL NAILS AT THE BACK CORNERS OF THE BLOCK AND BEND THE NAILS OVER THE FLANGE OF THE STEEL POST.

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



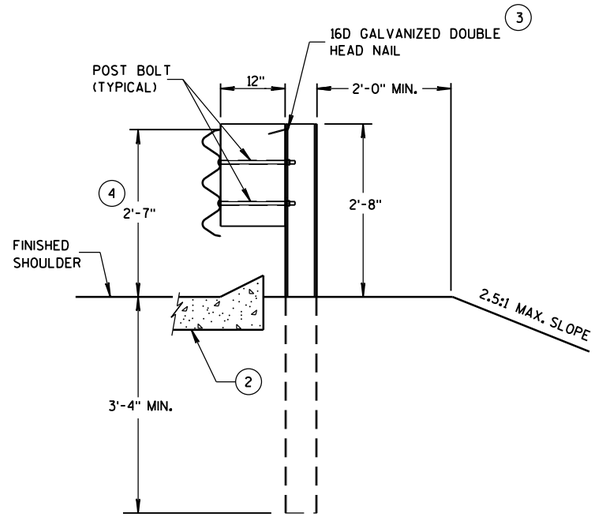
SECTION A-A

POSTS 1-5



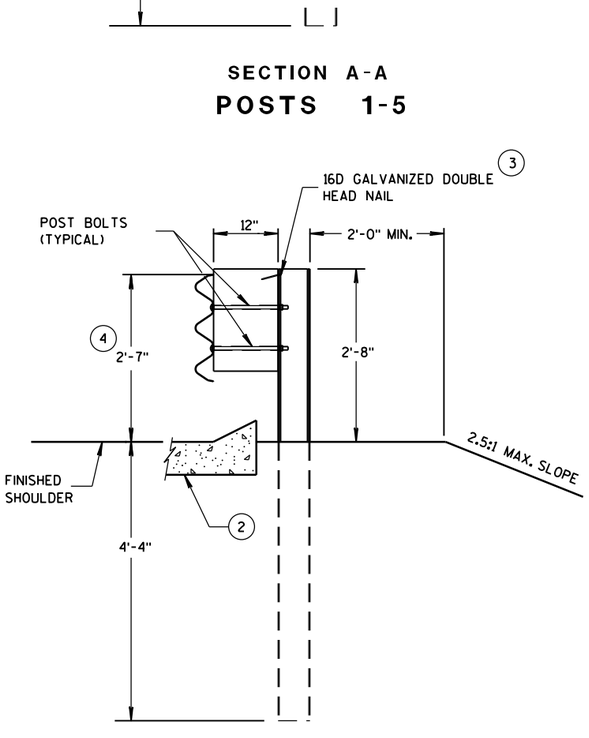
SECTION B-B

POST 6



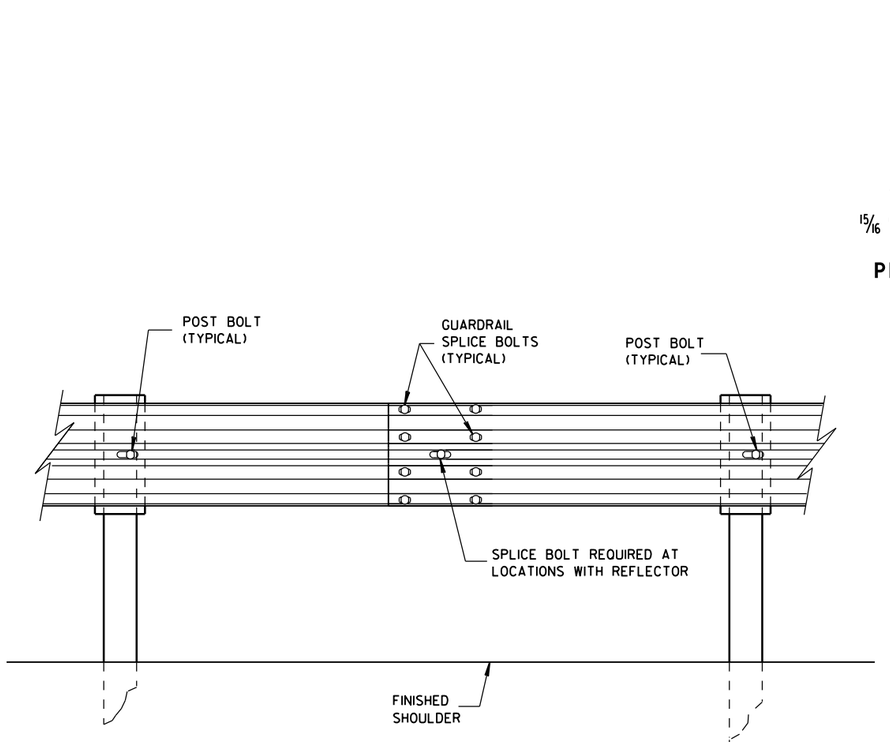
SECTION C-C

POSTS 7-11



SECTION D-D

POSTS 12-17



SPLICE DETAIL

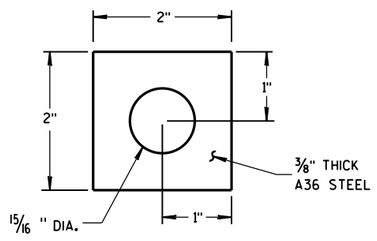
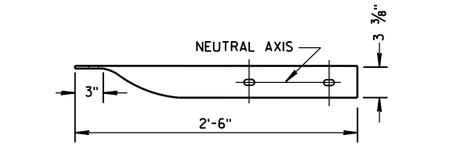
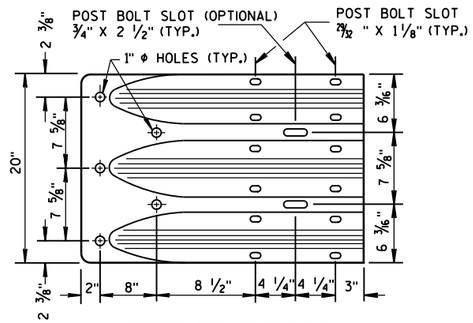
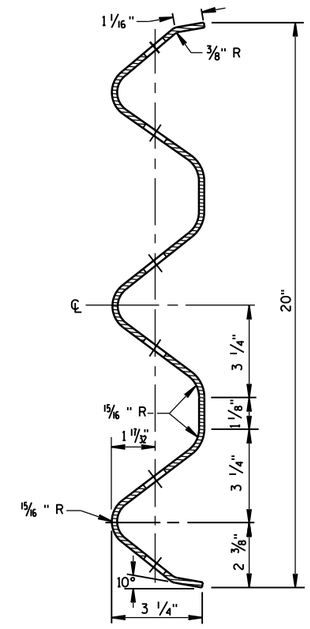


PLATE WASHER DETAIL





THRIE BEAM TERMINAL CONNECTOR



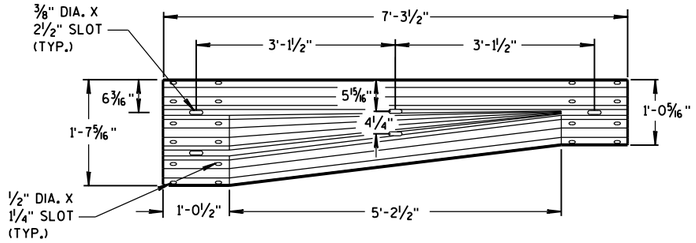
SECTION THRU THRIE BEAM RAIL ELEMENT

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

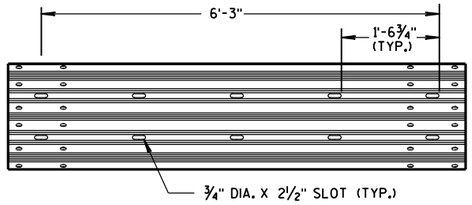
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

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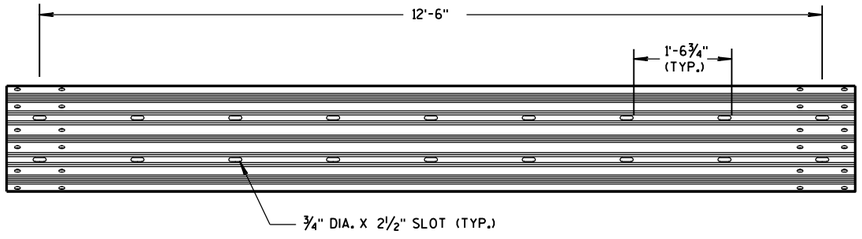
S.D.D. 14 B 45-4b



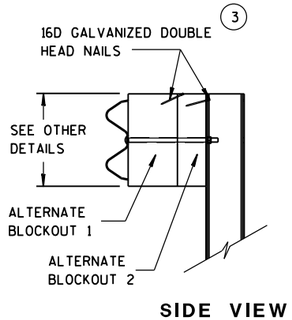
W-BEAM TO THRIE BEAM TRANSITION SECTION



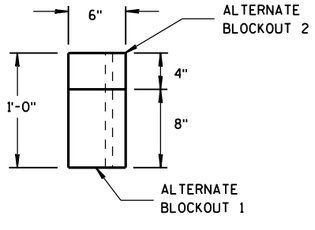
6'-3" THRIE BEAM SECTION



12'-6" THRIE BEAM SECTION

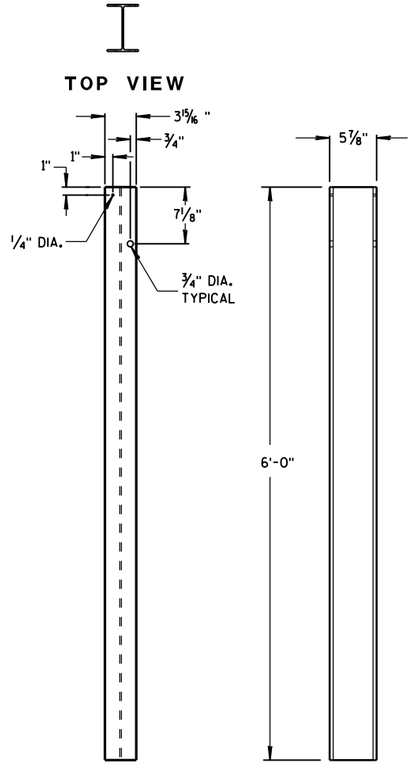


SIDE VIEW

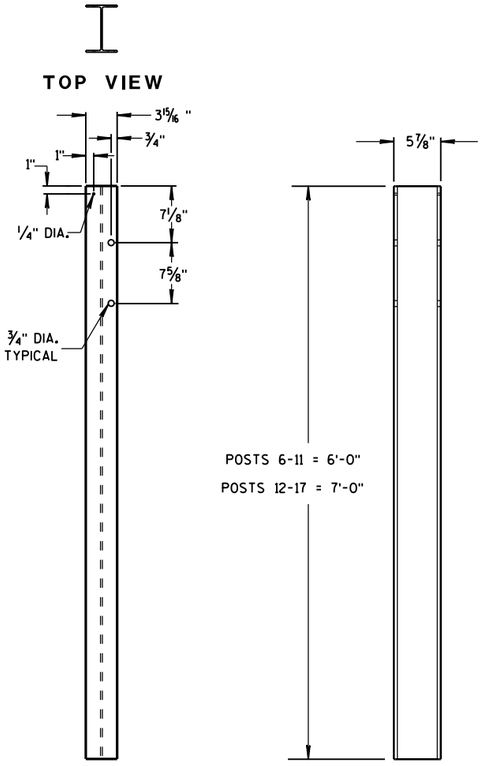


TOP VIEW

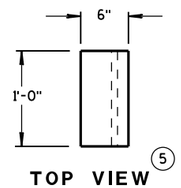
ALTERNATE WOOD BLOCKOUT DETAIL



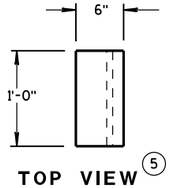
STEEL POSTS 1-5



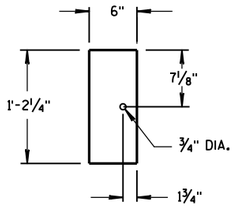
STEEL POSTS 6-17



TOP VIEW (5)

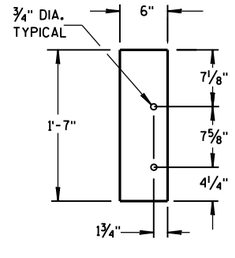


TOP VIEW (5)



FRONT VIEW

BLOCKOUT POSTS 1-5



FRONT VIEW

BLOCKOUT POSTS 6-17

GENERAL NOTES

STEEL POSTS ARE W6X9 OR W6X8.5.

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

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

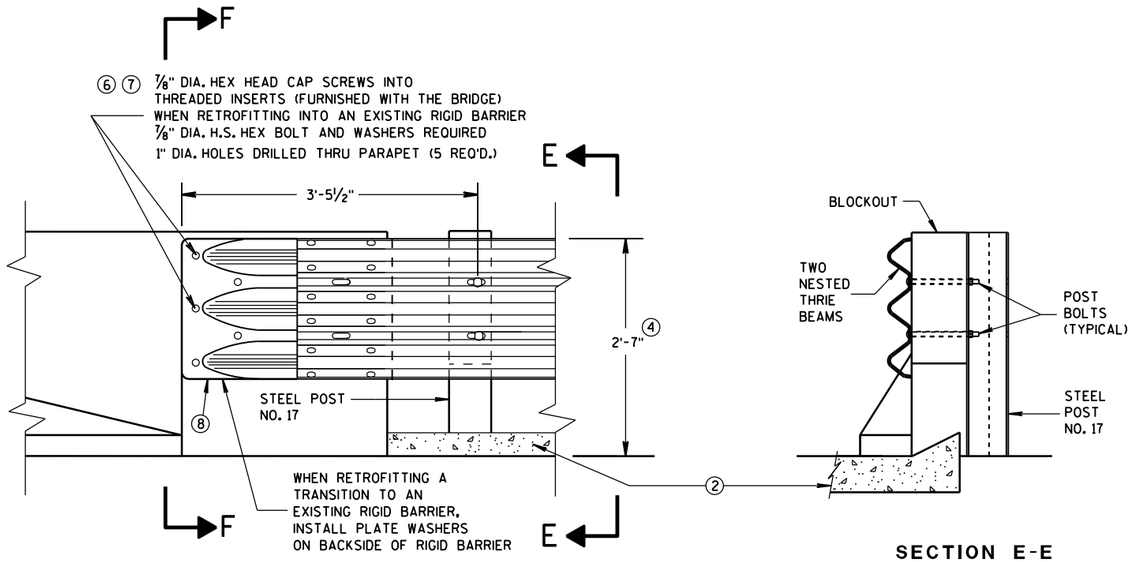
(5) WOOD BLOCKS MAY BE CONSTRUCTED OUT OF 2 WOOD BLOCKS. SEE ALTERNATE WOOD BLOCK DETAIL.

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

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

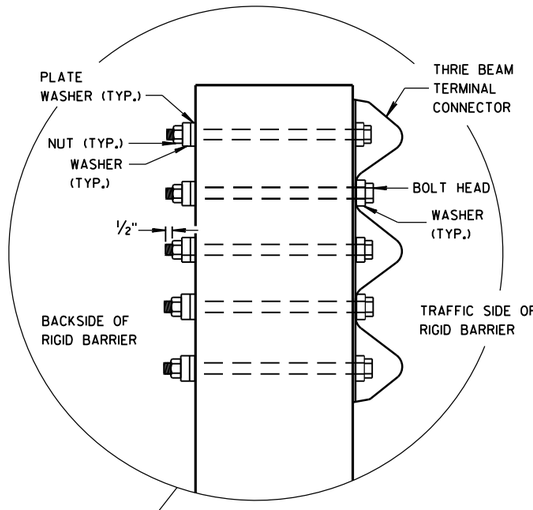
② OPTIONAL CURB AND GUTTER OR DRAINAGE FEATURE SEE PLAN FOR INFORMATION.

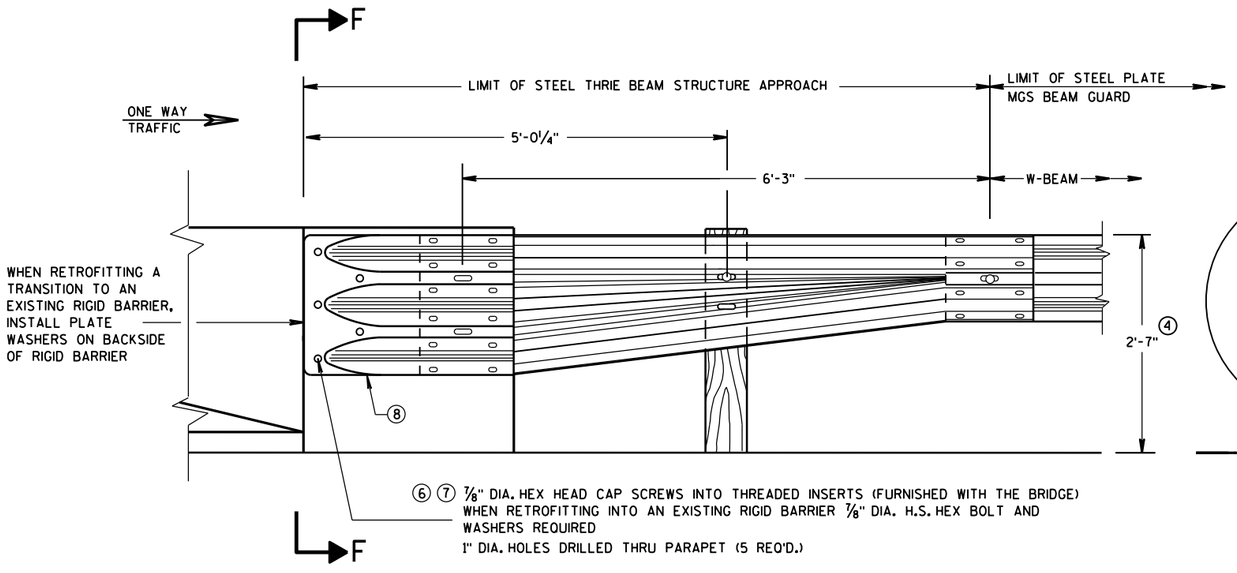
④ TOLERANCE FOR TOP OF BEAM IS ± 1".

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

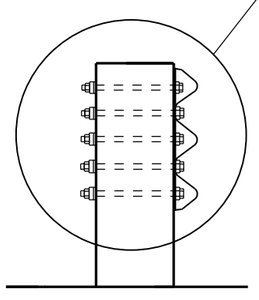
⑦ BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE.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

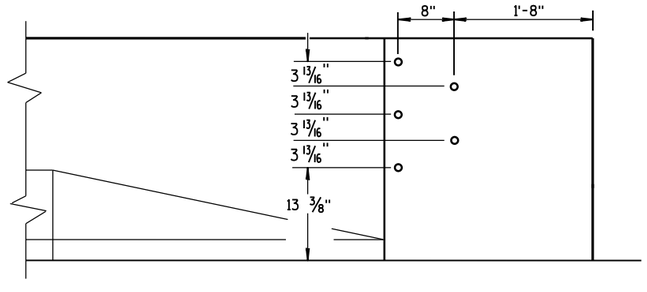




FRONT VIEW



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
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GENERAL NOTES

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

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

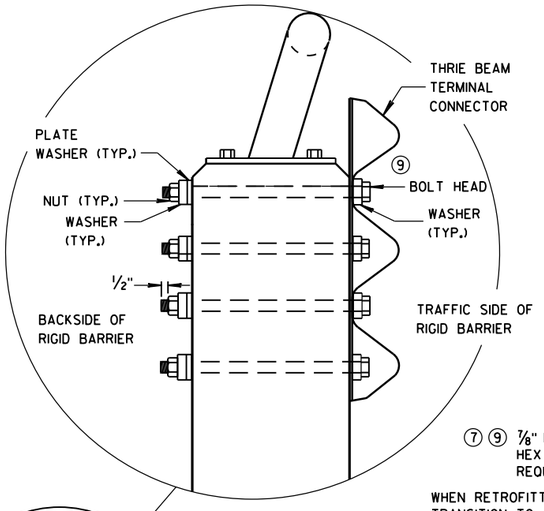
(4) TOLERANCE FOR TOP OF BEAM IS ± 1".

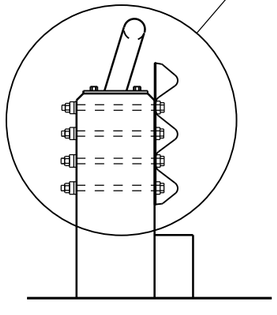
(6) DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

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

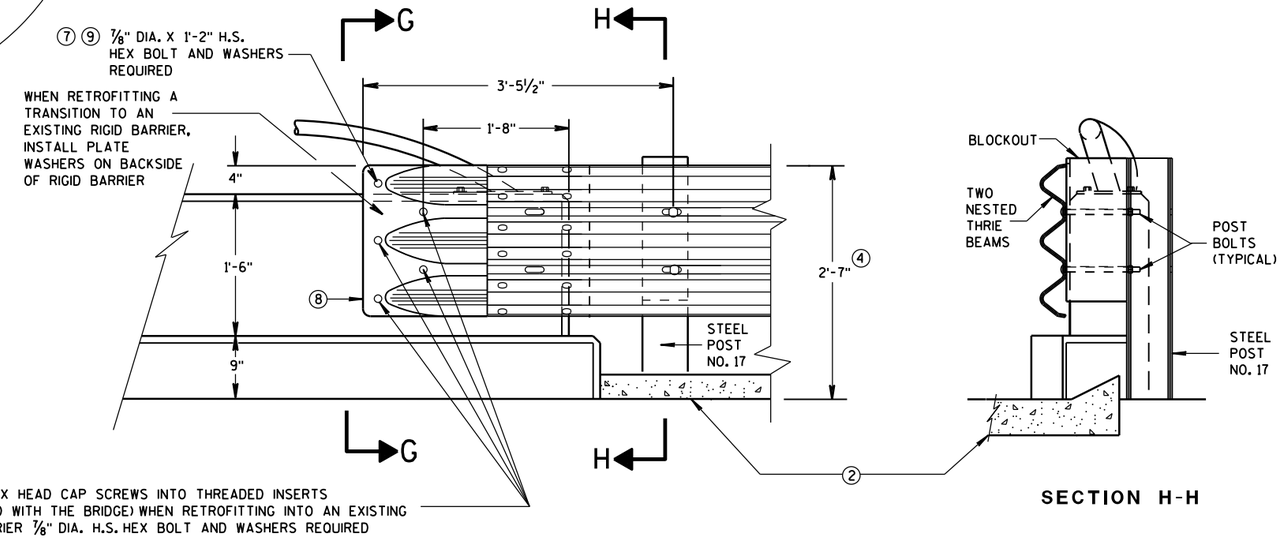
(8) THE RECESS FOR A W-BEAM CONNECTION, WHICH EXISTS ON SOME PARAPETS OF THIS TYPE, SHALL BE FILLED WITH A TREATED TIMBER BLOCKOUT. BLOCKOUT SIZE IS 1'-6" X 2'-0" X 3 1/2".

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





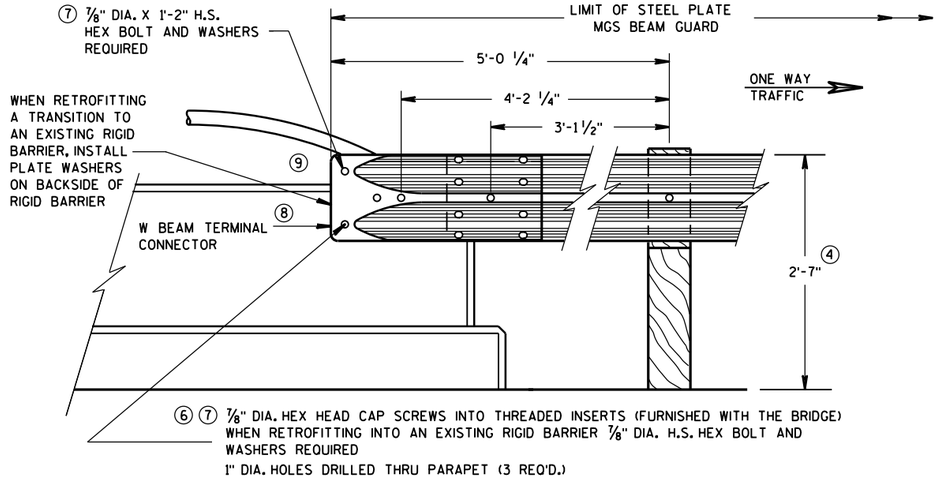
SECTION G-G



FRONT VIEW

SECTION H-H

THRIE BEAM CONNECTION TO VERTICAL FACED PARAPETS



FRONT VIEW

W BEAM CONNECTION TO VERTICAL FACE PARAPET

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

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

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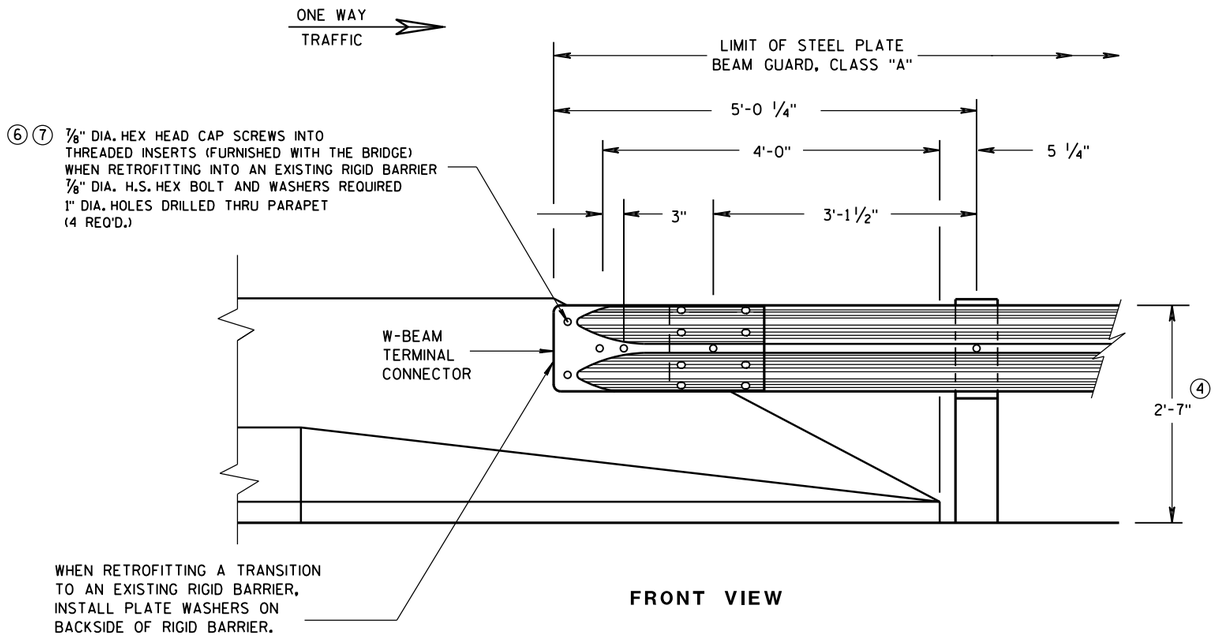
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S.D.D. 14 B 45-4e



FRONT VIEW

W BEAM CONNECTION TO PARAPETS WITH SLOPED ENDS

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

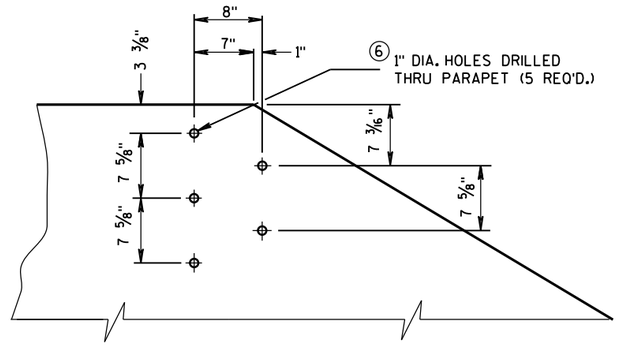
GENERAL NOTES

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

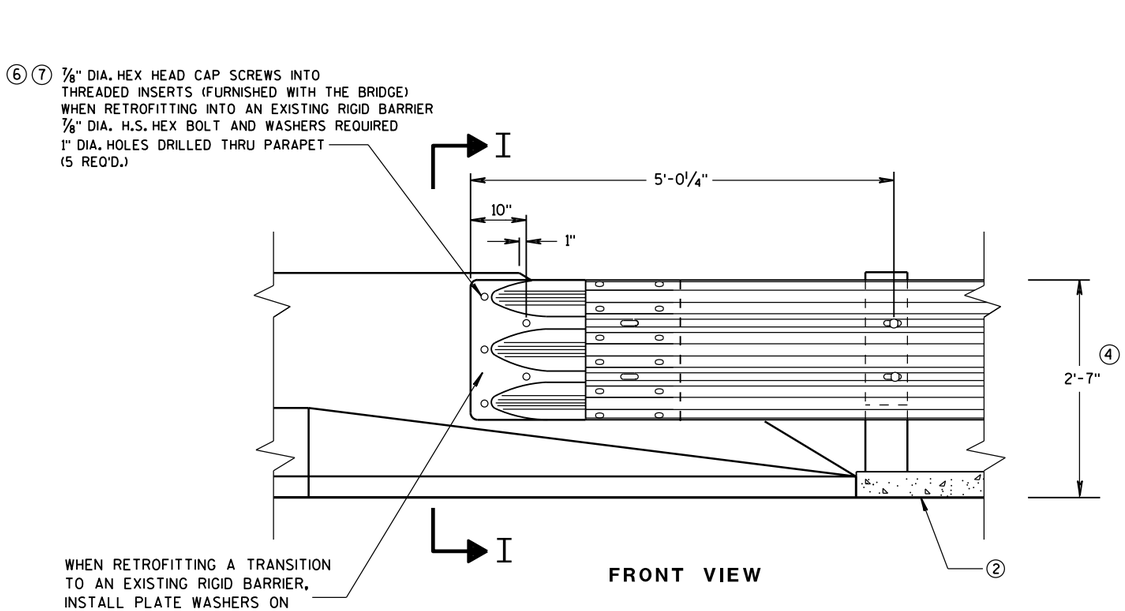
④ TOLERANCE FOR TOP OF BEAM IS ± 1".

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

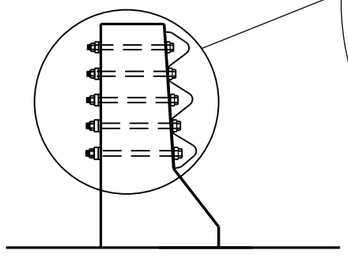
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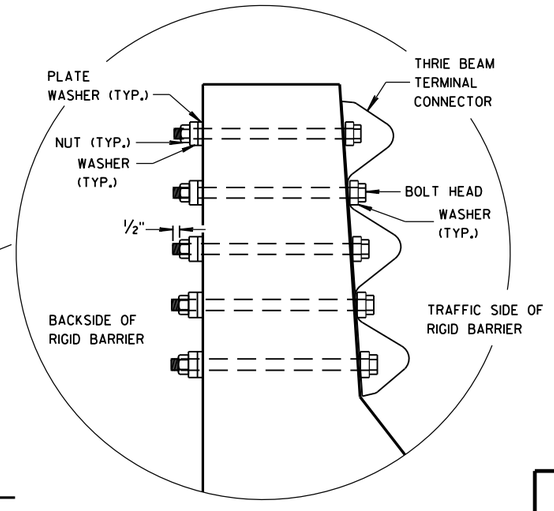
DRILL HOLE LOCATION AND PATTERN
FOR THRIE BEAM CONNECTION



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

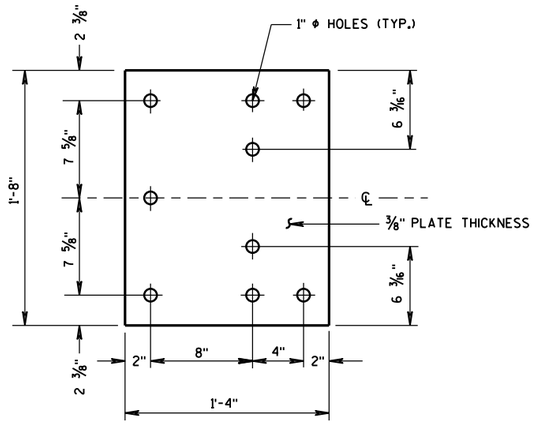
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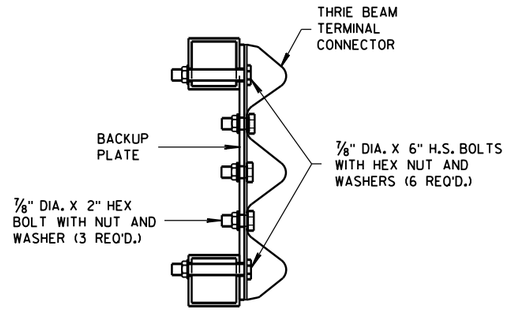
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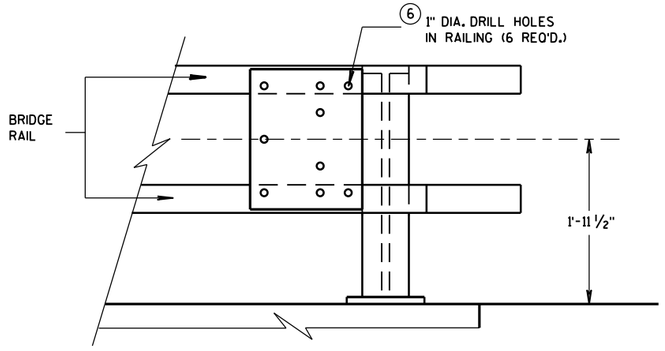
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BACK-UP PLATE DETAIL



SECTION J-J

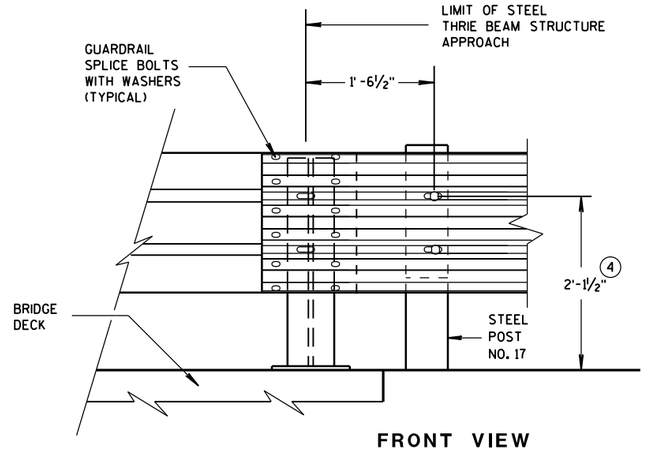


BACK-UP PLATE MOUNTING ONTO BRIDGE RAILING

GENERAL NOTES

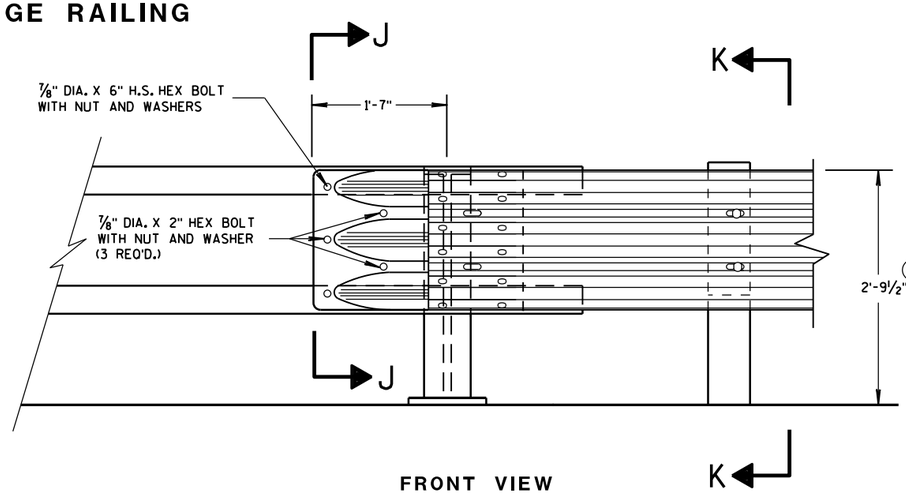
④ TOLERANCE FOR TOP OF BEAM IS ± 1".

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

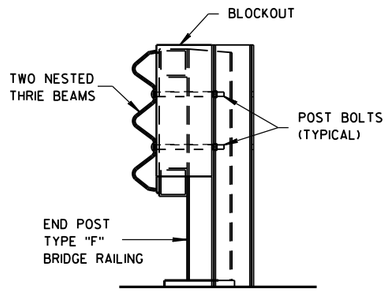


FRONT VIEW

THRIE BEAM CONNECTION TO STEEL RAILING TYPE "W"



FRONT VIEW



SECTION K-K

THRIE BEAM CONNECTION TO TUBULAR RAILING TYPE "F"

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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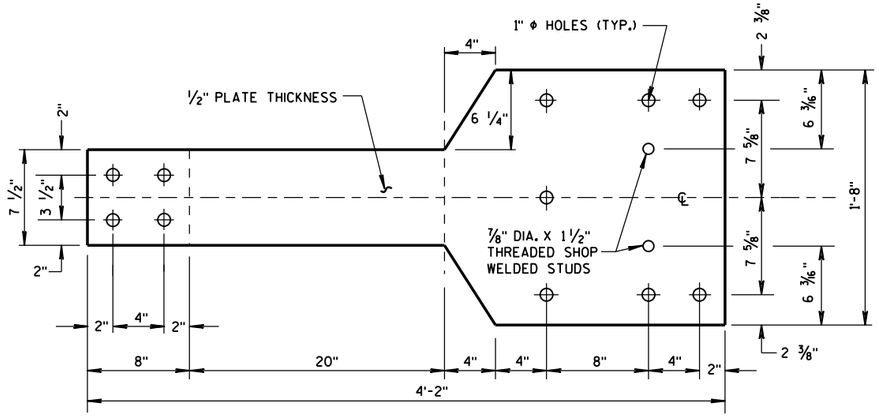
S.D.D. 14 B 45-4g

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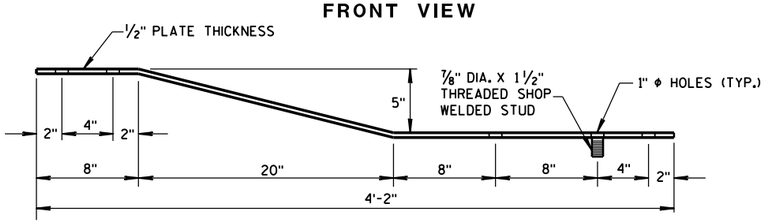
S.D.D. 14 B 45-4g

GENERAL NOTES

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

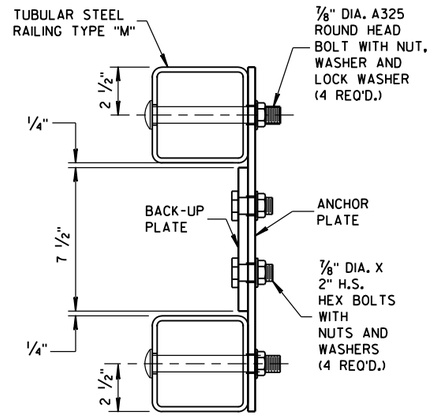


FRONT VIEW

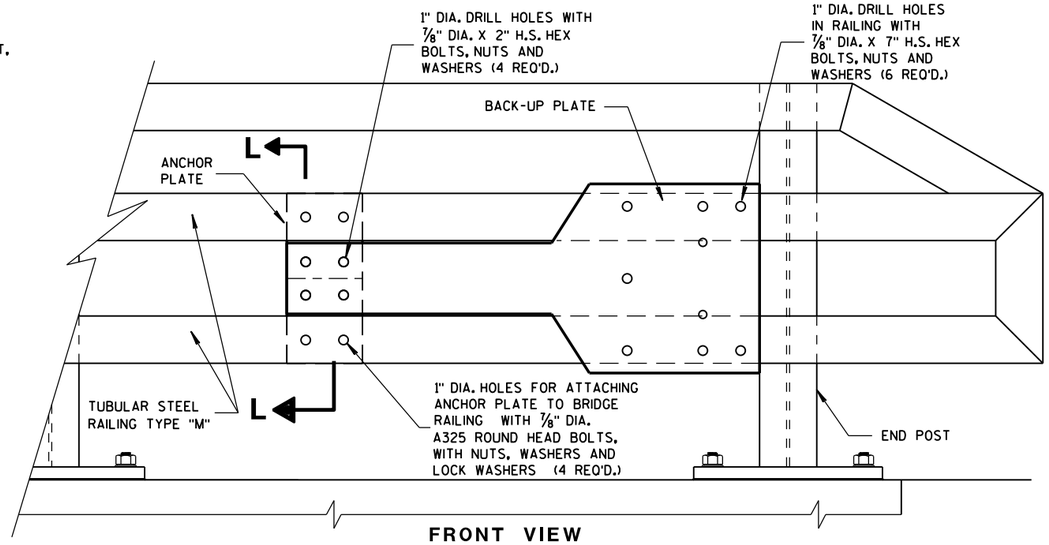


PLAN VIEW

BACK-UP PLATE DETAIL, TYPE "M"

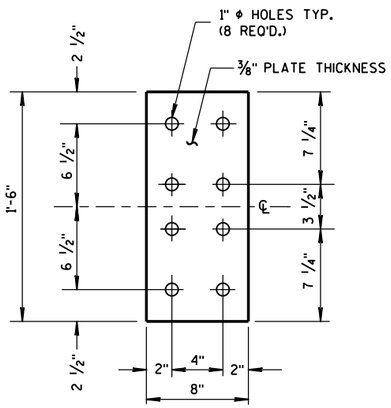


SECTION L-L



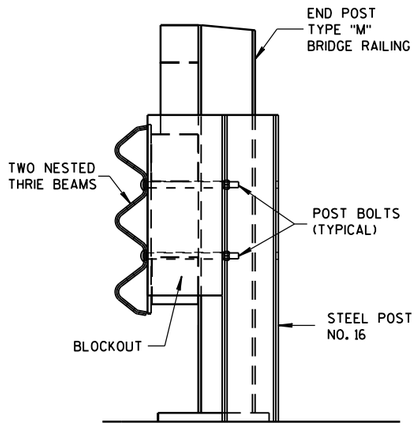
FRONT VIEW

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

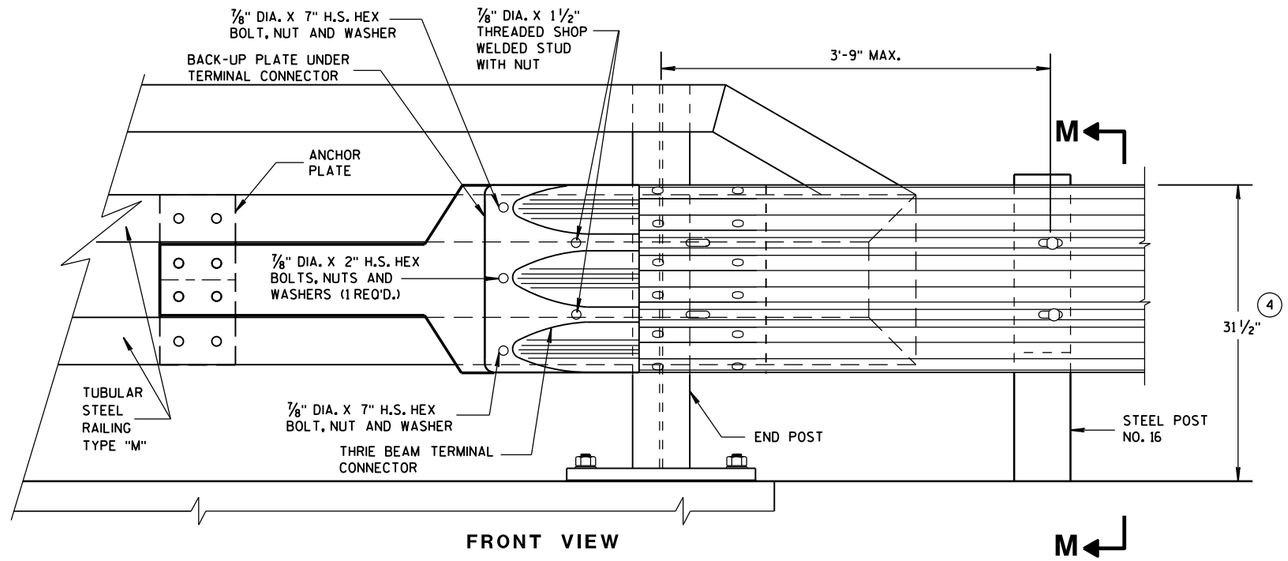


FRONT VIEW

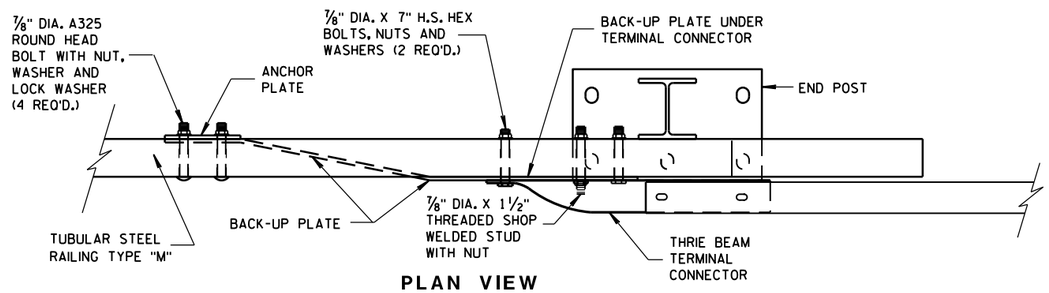
ANCHOR PLATE DETAIL, TYPE "M"



SECTION M-M



FRONT VIEW



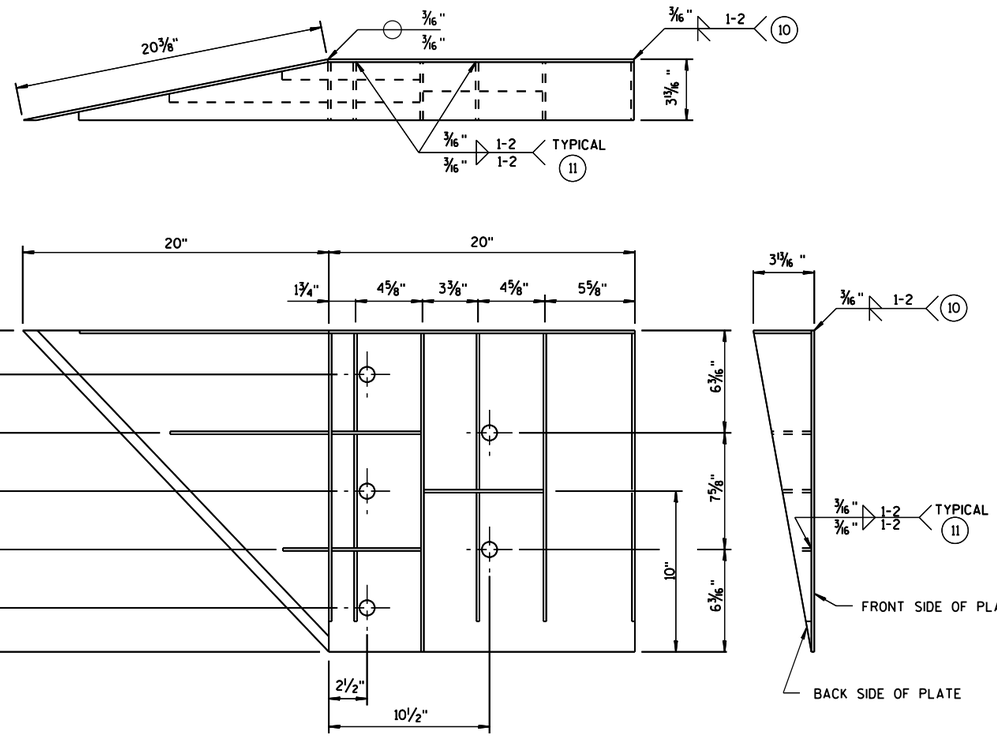
PLAN VIEW

THRIE BEAM CONNECTION TO TUBULAR RAILING, TYPE "M"

MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED	
June, 2015	/S/ Jerry H. Zogg
DATE	ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA	

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WELDING INSTRUCTION

(VIEWED FROM BACK SIDE OF PLATE)

GENERAL NOTES

COVER PLATE PANELS ARE 3/16" THICK.

ALL STIFFENERS ARE 1/4" THICK.

CONNECTOR PLATE SHALL BE FABRICATED FROM ASTM GRADE A36 STEEL AND GALVANIZED.

FOR GALVANIZED REQUIREMENTS, SEE SECTION 614 OF THE STANDARD SPECIFICATIONS.

ALL HOLE DIAMETERS SHALL BE 1".

FOR OPPOSITE SIDE INSTALLATION MIRROR DRAWINGS.

(10) STIFFENERS LOCATED AT THE OUTSIDE EDGES OF THE COVER PLATES SHALL BE WELDED AS FOLLOWS:
SINGLE BEVEL GROOVE WELD ON EXTERNAL SIDES AND 3/16" FILLET WELD BY 1" LONG SPACED AT 2" ON INTERNAL SIDES.

(11) STIFFENERS LOCATED ON THE INSIDE OF THE COVER PLATE SHALL BE WELDED AS FOLLOWS:
3/16" FILLET WELD BY 1" LONG SPACED AT 2".

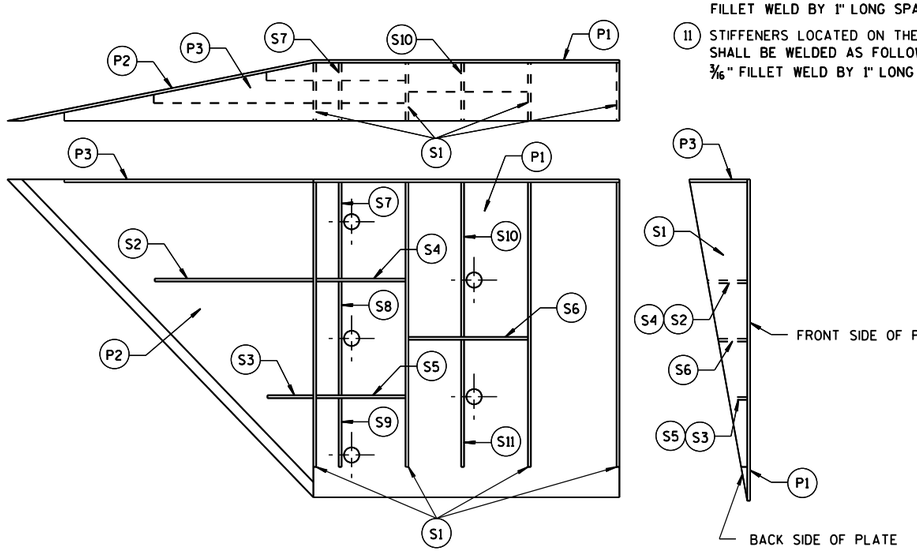


PLATE AND STIFFENER IDENTIFICATION

(VIEWED FROM BACK SIDE OF PLATE)

CONNECTOR PLATE DIMENSION (PER ASSEMBLY)

PLATE	QUANTITY	SHAPE	SIZE (A x B x C x D)	THICKNESS
P1	1		20" x 20"	3/16"
P2	1		20" x 20" x 28 9/16"	3/16"
P3	1		39" x 3 5/8" x 20" x 19 5/16"	3/16"
S1	4		18 7/16" x 3 3/8" x 18 3/4"	1/4"
S2	1		10 1/4" x 2 7/16" x 10 3/8" x 1/2"	1/4"
S3	1		3" x 1 1/16" x 3 1/8" x 1/2"	1/4"
S4	1		6 1/8" x 2 7/16"	1/4"
S5	1		6 1/8" x 1 1/16"	1/4"
S6	1		7 3/4" x 1 3/4"	1/4"
S7	1		2 9/16" x 6" x 3 5/8" x 5 7/8"	1/4"
S8	1		1 5/32" x 7 1/2" x 2 1/2" x 7 3/8"	1/4"
S9	1		6 1/16" x 6 3/16" x 1 1/32"	1/4"
S10	1		1 7/8" x 9 7/8" x 3 5/8" x 9 11/16"	1/4"
S11	1		8 1/2" x 8 3/4" x 1 13/16"	1/4"

SINGLE SLOPE CONNECTION PLATE

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

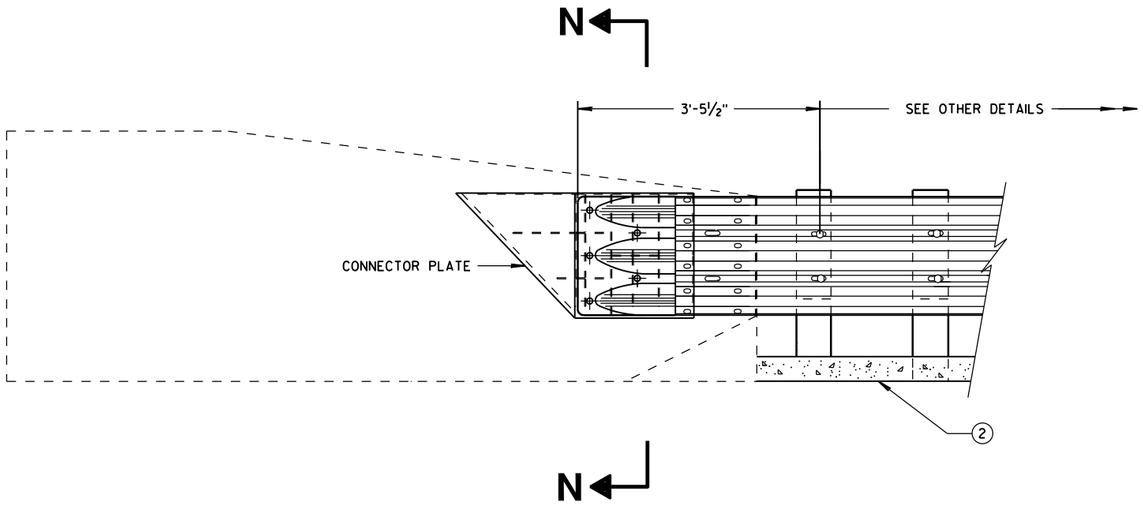
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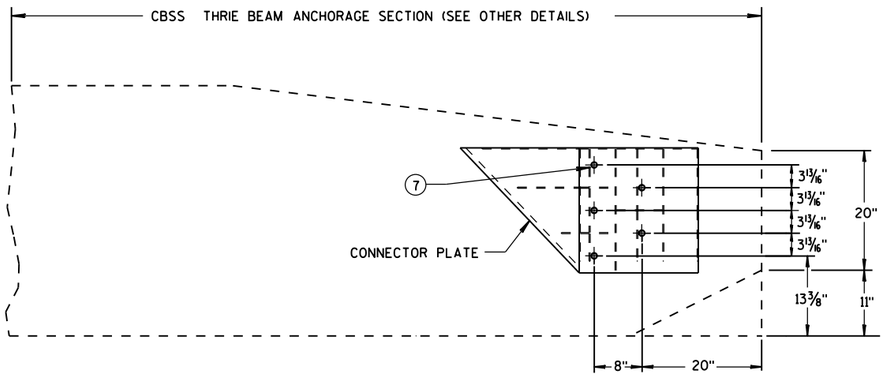
S.D.D. 14 B 45-4i

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



THRIE BEAM CONNECTION TO SINGLE SLOPE BARRIER



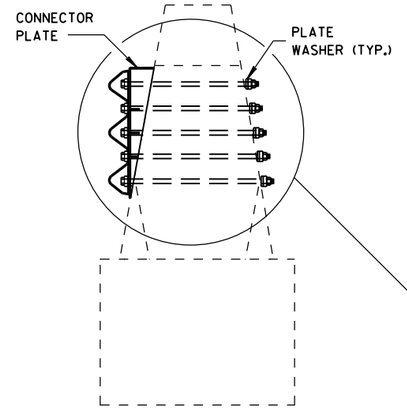
SINGLE SLOPE CONNECTION PLATE PLACEMENT

GENERAL NOTES

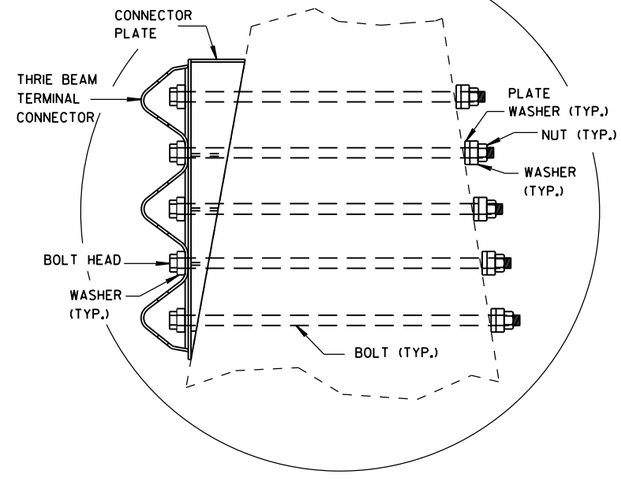
CONNECTOR PLATE, DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

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SECTION N-N



MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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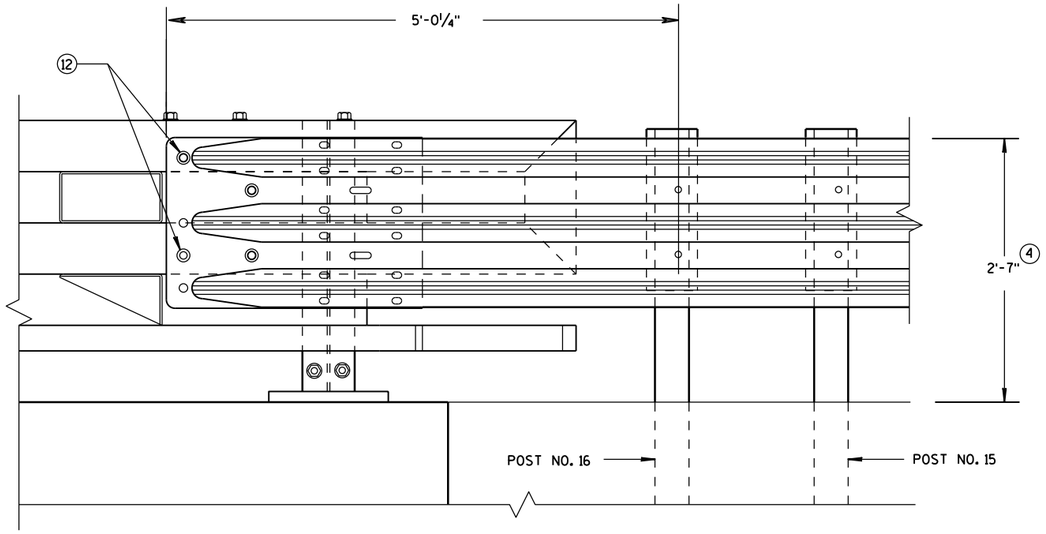
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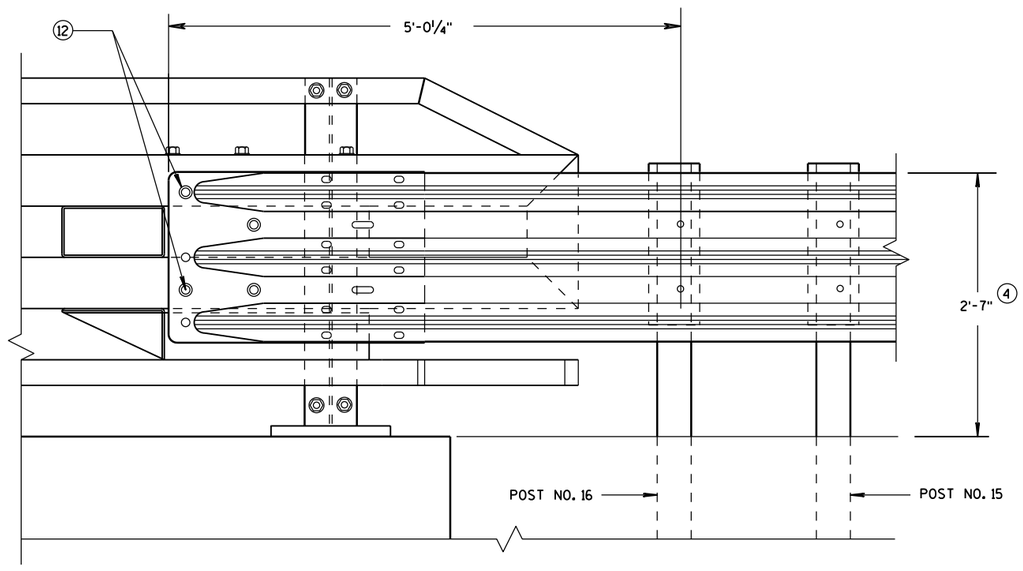
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S.D.D. 14 B 45-4j



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 259 NT
ENGINEER

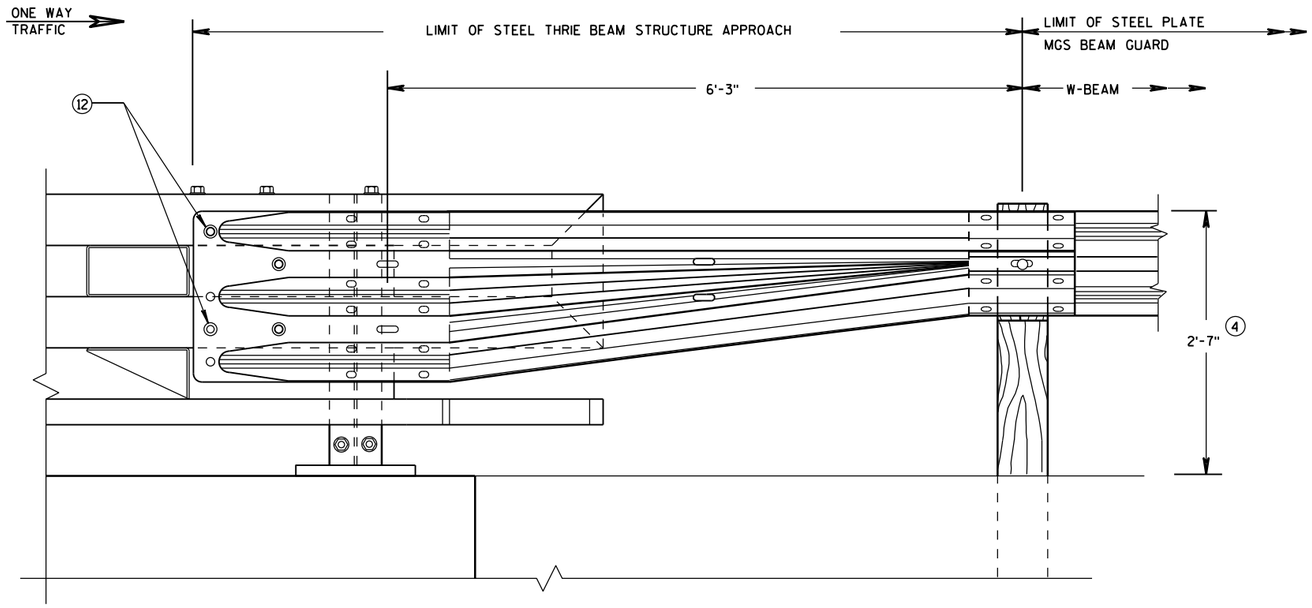
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S.D.D. 14 B 45-4k

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



FRONT VIEW

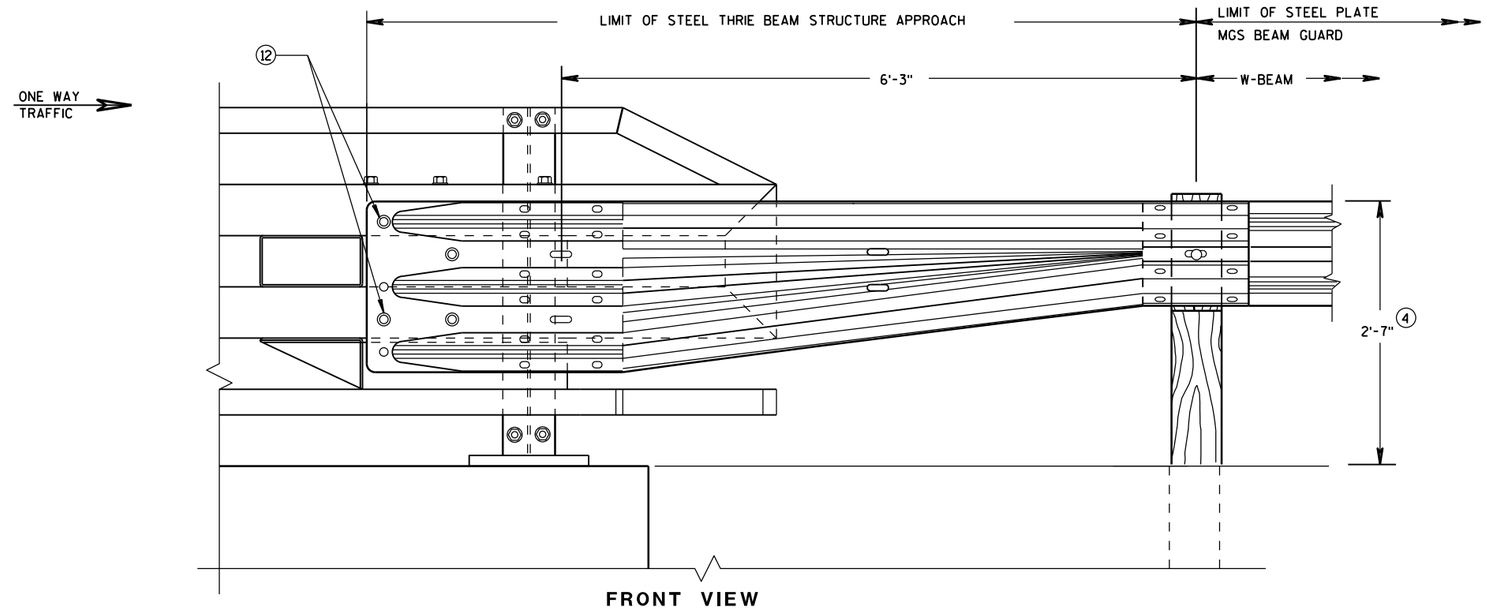
W BEAM TRANSITION AND CONNECTION TO BRIDGE RAILING TYPE "NY3"

(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

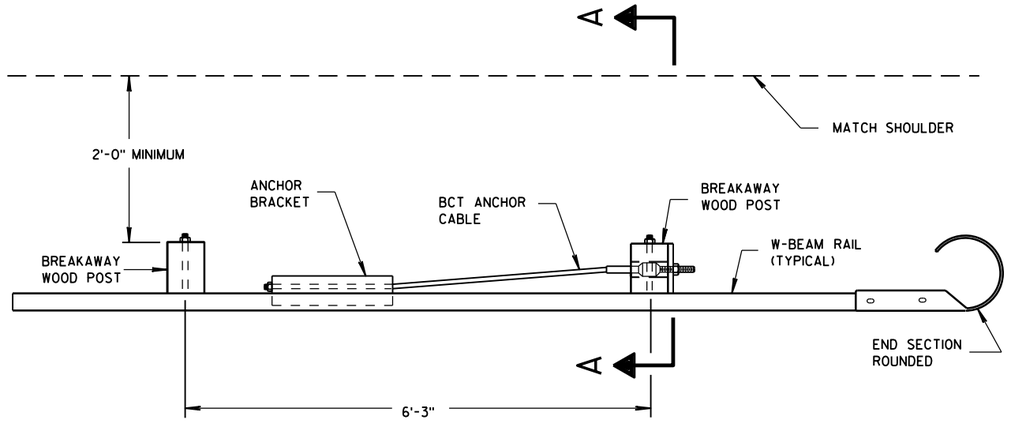
APPROVED
June, 2015 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS ENGINEER
FHWA
D 260 NT

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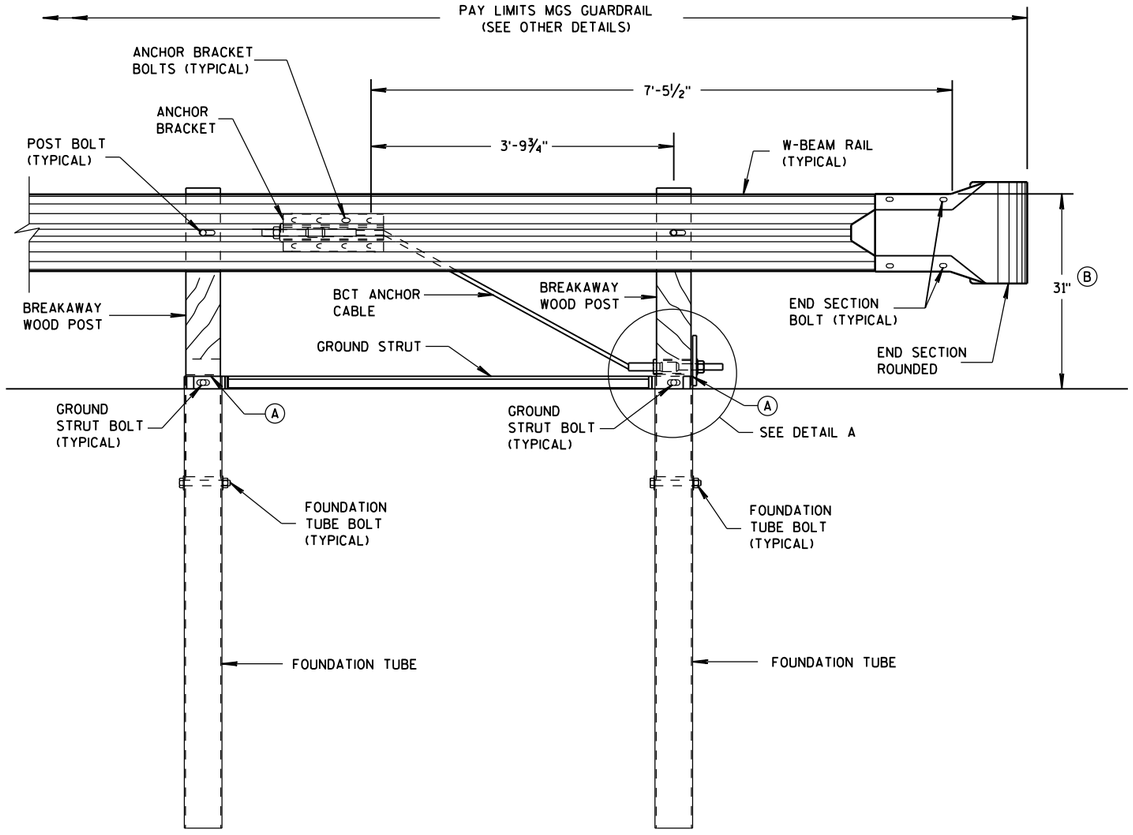
S.D.D. 14 B 45-4L

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

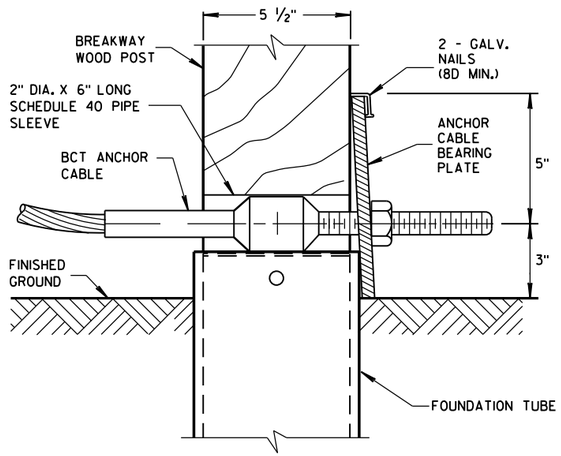


PLAN VIEW



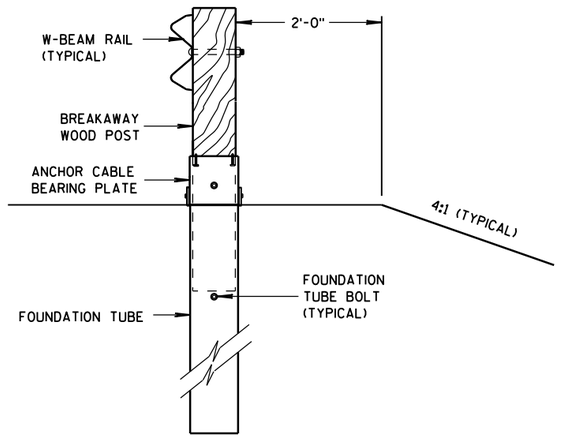
FRONT VIEW

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.

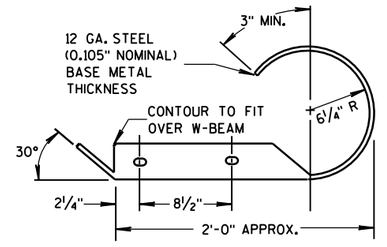
FOUNDATION TUBE BOLTS ARE ⅞" DIAMETER ASTM A307 HEX HEAD BOLT. FOUNDATION TUBE BOLTS REQUIRE ASTM A563 A NUT AND TWO ASTM F844 ⅞" DIAMETER FLAT WASHERS. INSTALL ONE WASHER UNDER BOLT HEAD AND ONE WASHER UNDER NUT.

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.

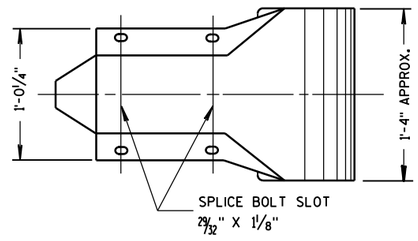
W-BEAM END SECTION ROUNDED HAS THE SAME MATERIAL PROPERTIES AS STANDARD STEEL RAIL.

(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



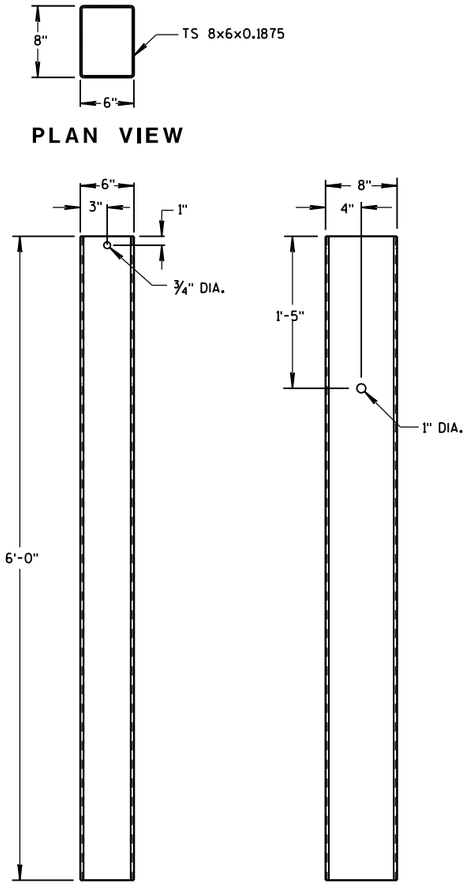
FRONT VIEW

W BEAM END SECTION ROUNDED

MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPO

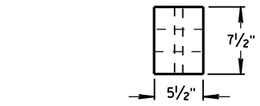
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S.D.D. 14 B 47-2a



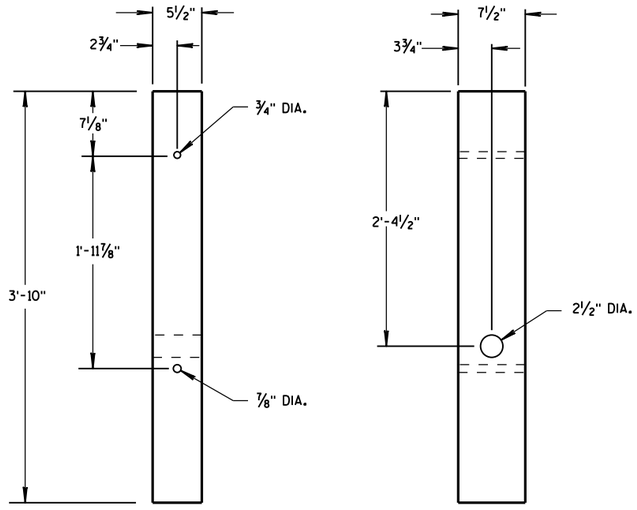
PLAN VIEW

FRONT VIEW SIDE VIEW

FOUNDATION TUBE



PLAN VIEW

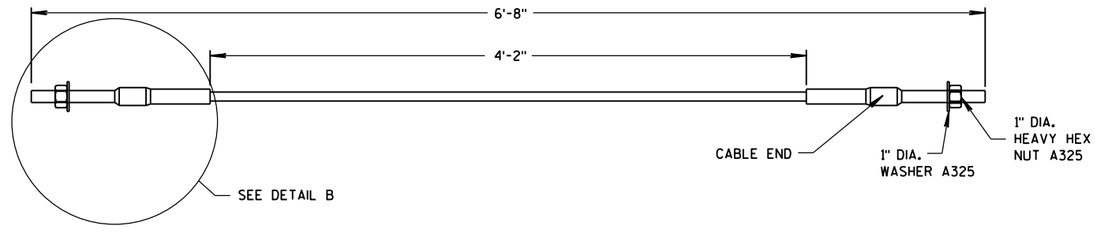


FRONT VIEW SIDE VIEW

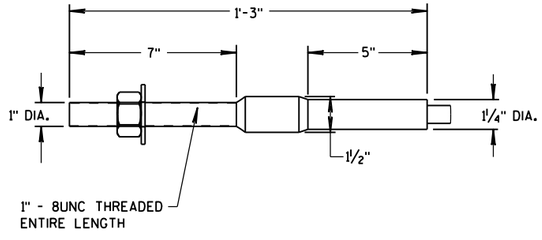
BREAKAWAY WOOD POST

GENERAL NOTES

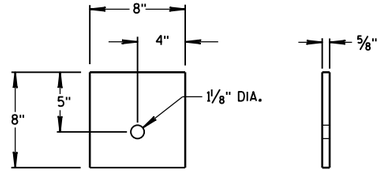
BCT ANCHOR CABLE IS A ¾" DIAMETER 6X19 IWRC IPS GALVANIZED WIRE ROPE. THE SWAGED FITTINGS AND STUD ARE REQUIRED. END FITTING SHALL BE MACHINED FROM HOT-ROLLED CARBON STEEL CONFORMING TO ASTM A576 GRADE 1035 AND GALVANIZED ACCORDING TO ASTM A123. TREADED STUD SHALL CONFORM TO ASTM A325 OR SAE GRADE 5. 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

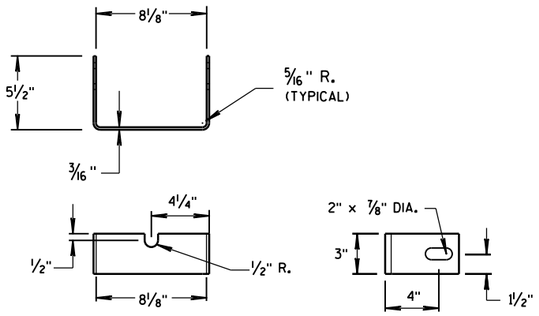
ANCHOR CABLE
BEARING PLATE

MIDWEST GUARDRAIL
SYSTEM (MGS) TYPE 2 TERMINAL

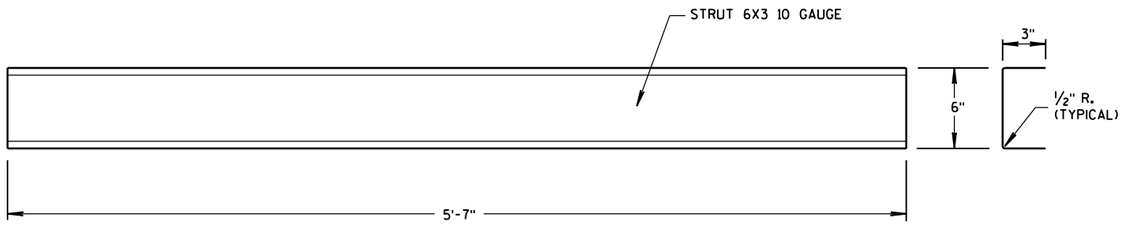
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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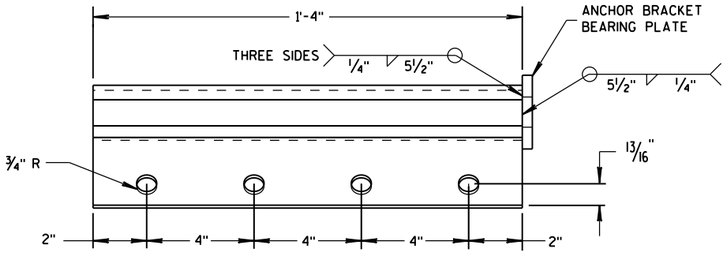
S.D.D. 14 B 47-2b

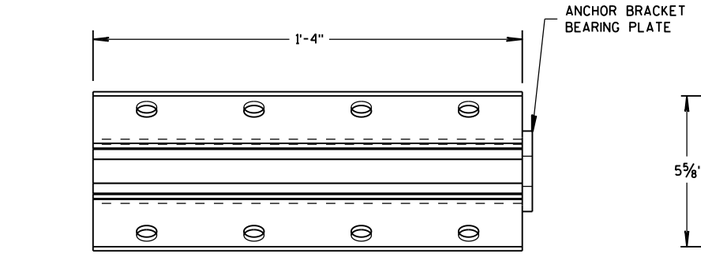


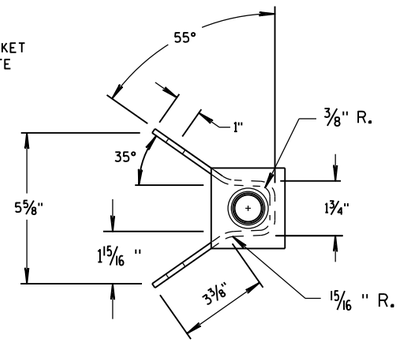
YOKE DETAIL



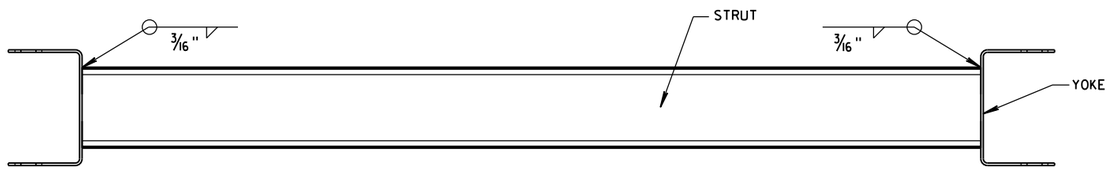
STRUT DETAIL



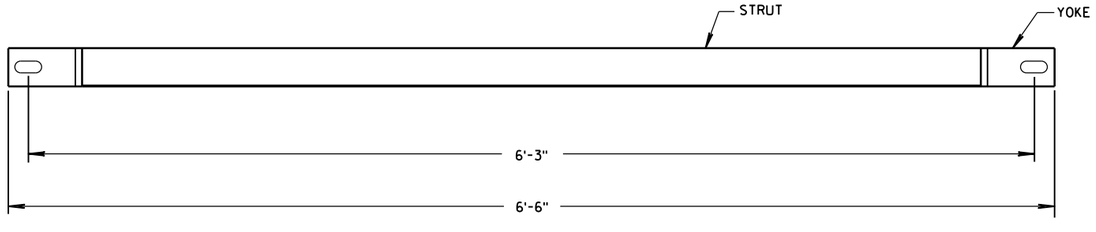




ANCHOR BRACKET

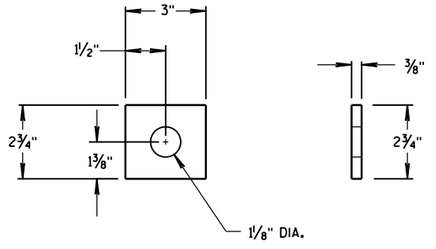


PLAN VIEW



FRONT VIEW

GROUND STRUT DETAIL



ANCHOR BRACKET BEARING PLATE

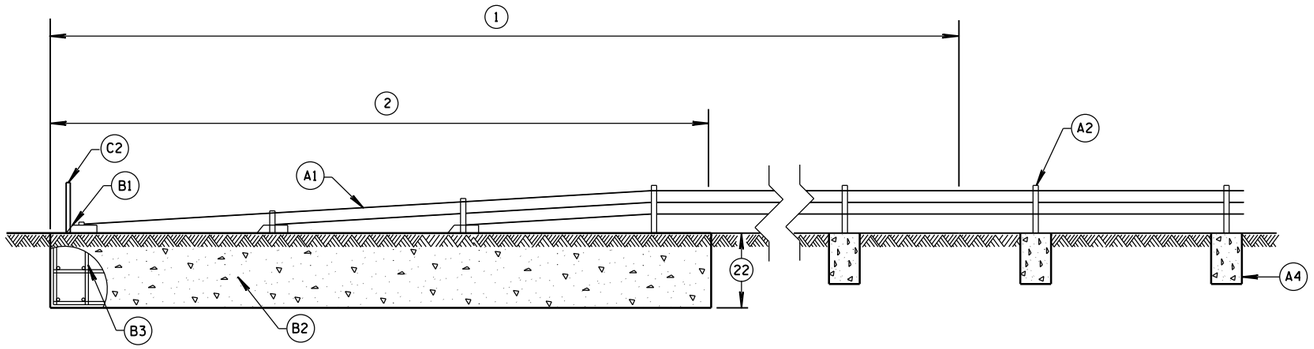
MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

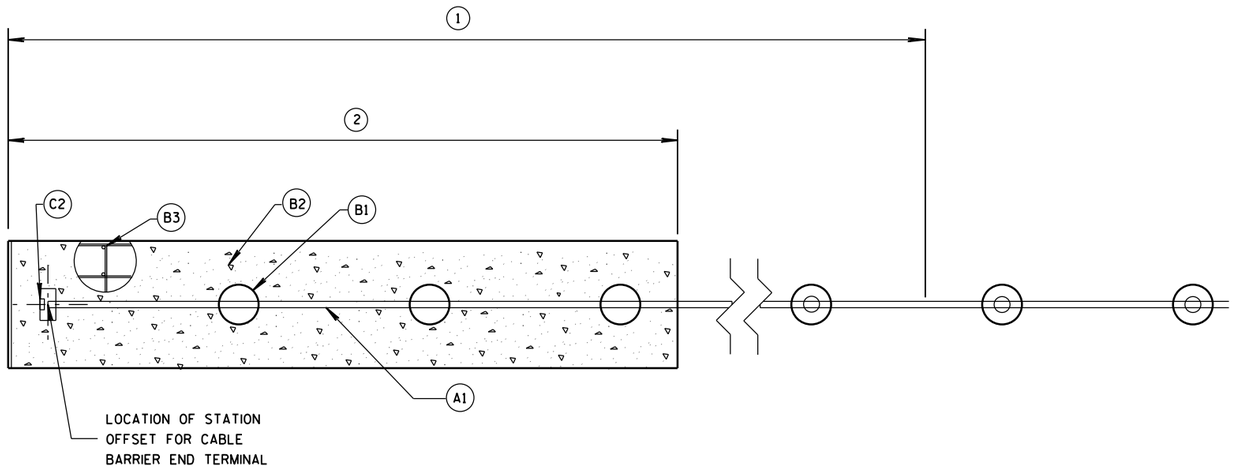
APPROVED
June 2014
DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS ENGINEER
FHWA

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

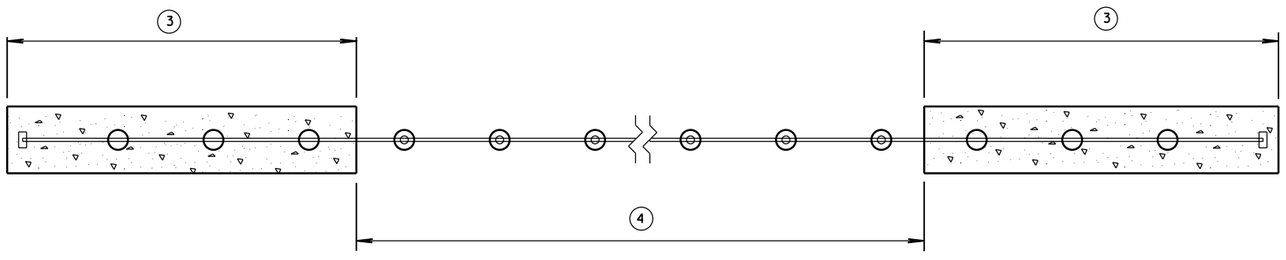


PROFILE VIEW



PLAN VIEW

TRANSITION FROM CABLE BARRIER TERMINAL TO CABLE BARRIER LINE POSTS



TYPICAL PLAN VIEW

GENERAL NOTES

DRAWINGS ARE GENERAL IN NATURE. SEE MANUFACTURER'S INFORMATION FOR MORE DETAIL.

PROVIDE 2 INCH CLEAR COVER FROM OUTER EDGE OF CONCRETE FOOTINGS TO REINFORCEMENT.

INSTALL LINE POST PLUMB. LINE POSTS ARE TO BE EASILY REMOVED BY HAND AND HOLD CABLES AT THE PROPER ELEVATION.

PROVIDE CABLE BARRIER SYSTEM FROM APPROVED PRODUCT LIST.

PROVIDE A SYSTEM TO HAVE THE WORKING WIDTH INDICTED IN PLAN.

PROVIDE DOCUMENTATION HOW POST SPACING, RADIUS OF CURVE AND ANCHOR SPACING INFLUENCES WORKING WIDTH TO CONSTRUCTION STAFF.

PROVIDE A WISCONSIN PROFESSIONAL ENGINEERS STAMPED ANALYSIS THAT THE LINE POST AND CABLE BARRIER END TERMINAL FOOTINGS ARE DESIGNED FOR THE SOIL CONDITIONS PRESENT. THE WISCONSIN P.E. STAMP ANALYSIS IS TO INCLUDE, BUT IS NOT LIMITED TO: DESIGN IMPACT LOADS, FOUNDATION DEISGN METHODOLOGY USED, FACTORS OF SAFETY, SOIL TYPE, SOIL CONDITIONS, AND TEMPERATURE RANGES.

DESIGN LINE POST FOOTINGS SO THAT LINE POST FOOTING MOVE LESS THAN 1 INCH WHEN LINE POST IS IMPACTED BY A TL-3 SMALL CAR.

BILL OF MATERIALS

PART NUMBER	QTY.	DESCRIPTION	MATERIALS SPECIFICATIONS
(A1)	3 OR 4	3/4" 3x7 PRESTRECHED GALVANIZED STEEL WIRE ROPE	ASTM A741 MIN. BREAKING STRENGTH 39,000 LBS.
			AASHTO M30 TYPE 1 CLASS A (GALVANIATION).
			MINIMUM WIRE ROPE MODULUS OF ELASTICITY OF 19,000 PSI ACCORDING TO ISO 12067-202 WIRE ROPE MODULUS OF ELASTICITY "INITIAL" (AS MANUFACTURED), WITH NO BEDDING OR PRESTRECHING OF THE ROPE PERMITTED DURING TESTING.
(A2)	1 PER LINE POST	GALVANIZED REMOVABLE STEEL LINE POST	SEE MANUFACTURER'S INFORMATION ON DIMENSIONS AND MATERIAL REQUIREMENTS.
			ASTM A123 (GALVANIZATION).
(A3)	1 PER LINE POST	GALVANIZED METAL SLEEVE	SEE MANUFACTURER'S INFORMATION ON DIMENSIONS AND MATERIAL REQUIREMENTS.
			ASTM A123 (GALVANIZATION).
(A4)	VARIES	CONCRETE FOR LINE POST FOOTING	A, A-FA.A-T, OR A-IP OF STANDARD SPECIFICATION 501.2 OR AS MANUFACTURER SPECIFIES.
			STANDARD SPECIFICATION 716 OMP FOR CLASS II ANCILLARY CONCRETE.
			SEE MANUFACTURER'S INFORMATION ON DIMENSIONS.
(A5)	VARIES	EPOXY COATED STEEL REINFORCEMENT	STANDARD SPECIFICATION 505.
(A6)	VARIES	TURNBUCKLES AND OTHER CABLE CONNECTING HARDWARE	SEE MANUFACTURER'S INFORMATION ON DIMENSIONS.
			MINIMUM BREAKING STRENGTH OF TURNBUCKLES AND CONNECTION HARDWARE IS EQUAL TO CABLE.
			TURNBUCKLES AND OTHER CABLE CONNECTION HARDWARE IS FIELD SWAGED PER MANUFACTURER'S RECOMMENDATIONS AND DETAILS.
(B1)	VARIES	CABLE CONNECTION TO CABLE BARRIER END TERMINAL	SEE MANUFACTURER'S INFORMATION ON DIMENSIONS AND MATERIAL REQUIREMENTS.
(B2)	VARIES	CONCRETE FOR CABLE BARRIER END TERMINAL	A, A-FA.A-T, OR A-IP OF STANDARD SPECIFICATION 501.2.
			STANDARD SPECIFICATION 716 OMP FOR CLASS II ANCILLARY CONCRETE.
(B3)	VARIES	EPOXY COATED STEEL REINFORCEMENT	STANDARD SPECIFICATION 505.
(C1)	VARIES	LINE POST DELINEATOR	REFLECTIVE SHEETING TYPE SH. SEE APPROVE PRODUCT LIST YELLOW.
(C2)	VARIES	CABLE BARRIER END TERMINAL DELINEATOR	REFLECTIVE SHEETING TYPE SH. SEE APPROVE PRODUCT LIST OBJECT MARKER TYPE 3 PATTERN.

(1) LOCATION OF LENGTH OF NEED POINT FOR CABLE BARRIER END TERMINAL VARIES. (SEE MANUFACTURER'S INFORMATION)

(2) PAY LIMIT FOR CABLE BARRIER END TERMINAL. LENGTH OF CABLE BARRIER END TERMINAL VARIES. (SEE MANUFACTURER'S INFORMATION)

(3) CABLE BARRIER END TERMINAL

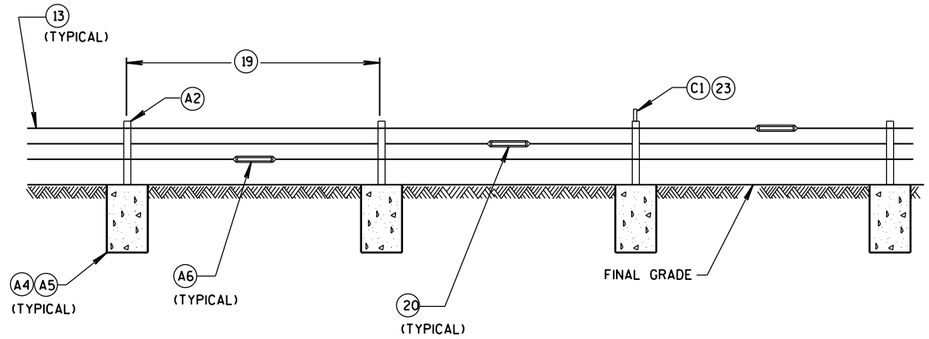
(4) CABLE BARRIER AND LINE POSTS

CABLE BARRIER TYPE 1 LAYOUT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPO

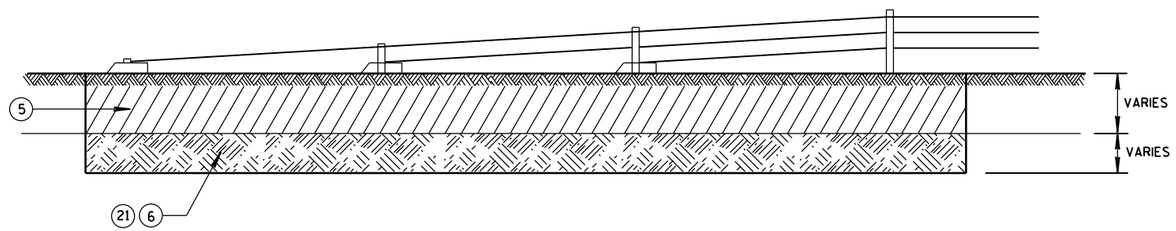
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S.D.D. 14 B 52-1a



PROFILE VIEW

LINE POST INSTALLATION



CABLE BARRIER END TERMINAL ROCK EXCAVATION DETAIL

(5) SOIL TO BE EXCAVATED FOR CABLE BARRIER END TERMINAL (VARIES).

(6) ROCK TO BE EXCAVATED FOR CABLE BARRIER END TERMINAL (VARIES).

(7) SOIL TO BE EXCAVATED FOR LINE POST (VARIES).

(8) ROCK TO BE EXCAVATED FOR LINE POST (VARIES).

(9) EXCAVATE AND GRADE LINE FOR LINE POST FOOTINGS. INSTALL LINE POST FOOTING TO MINIMIZE 4 INCH TALL OBJECT ON 5 FOOT CHORD.

(10) 2 INCHES OF CLEAR COVER FROM EDGE OF CONCRETE TO REINFORCEMENT.

(11) DIAMETER OF LINE POST FOOTING VARIES. SEE MANUFACTURER'S INFORMATION.

(12) MINIMUM DEPTH OF LINE POST FOOTING IS 48 INCHES IN SOIL. DEEPER FOOTINGS PER MANUFACTURER'S RECOMMENDATION ARE ACCEPTABLE.

(13) NUMBER AND LOCATION OF CABLES VARY. SEE MANUFACTURER'S INFORMATION.

(14) LINE POST DIMENSIONS AND CONNECTION HARDWARE VARY. SEE MANUFACTURER'S INFORMATION.

(15) LANE OF ROADWAY (VARIES). SEE PLAN FOR MORE INFORMATION.

(16) PAVED SHOULDER (VARIES). SEE PLAN FOR MORE INFORMATION.

(17) GRAVEL SHOULDER (VARIES). SEE PLAN FOR MORE INFORMATION.

(18) CABLE BARRIER OFFSET FROM CENTERLINE OF MEDIAN DITCH (8 FOOT MINIMUM). SEE PLAN FOR MORE INFORMATION.

(19) MAXIMUM POST SPACING IS 15 FEET.

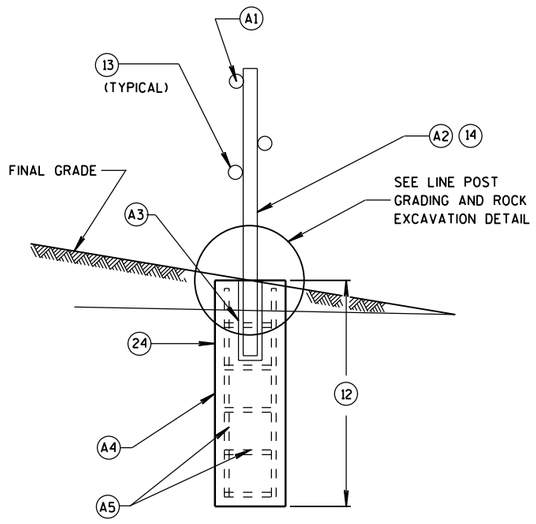
(20) STAGGER TURNBUCKLES (TYPICAL).

(21) SEE MANUFACTURER'S DESIGN WHEN ROCK IS ENCOUNTERED.

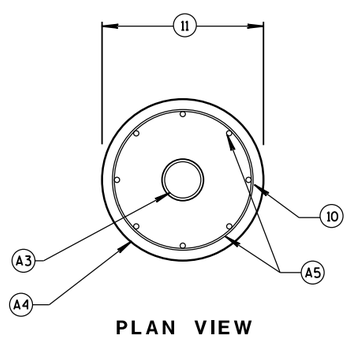
(22) IN SOIL MINIMUM DEPTH OF CABLE BARRIER END TERMINAL FOOTING IS 60 INCHES. DEEPER FOOTINGS PER MANUFACTURER'S RECOMMENATION ARE ACCEPTABLE.

(23) LINE POST DELINEATOR SPACING IS 100 FEET.

(24) LINE POST FOOTINGS ARE REQUIRED TO HAVE LESS THAN 1 INCH OF MOVEMENT WHEN LINE POST IS IMPACTED BY A NCHRP 350 SMALL CAR UNDER TL-3 TEST CONDITIONS.

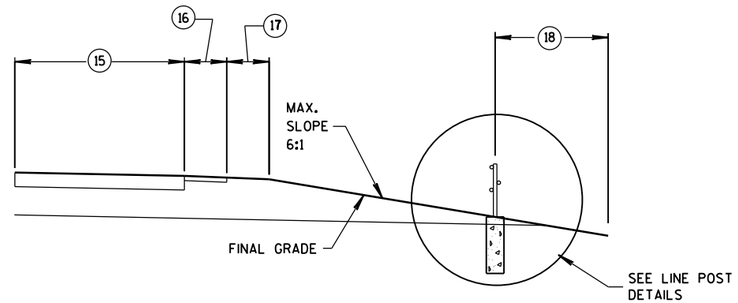


CROSS SECTION

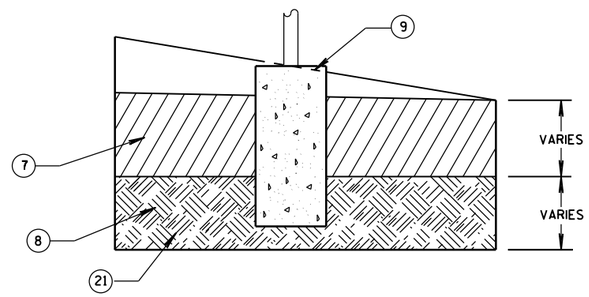


PLAN VIEW
(LINE POST AND CABLES NOT SHOWN)

LINE POST DETAILS



CABLE BARRIER OFFSET FROM DITCH LINE



LINE POST GRADING AND ROCK EXCAVATION DETAIL

CABLE BARRIER TYPE 1
LAYOUT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

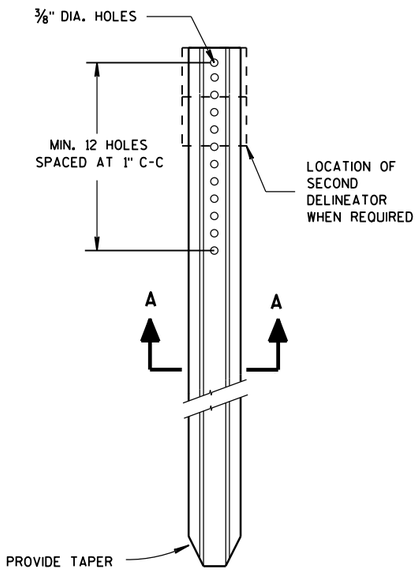
APPROVED
June. 2015 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS ENGINEER
FHWA

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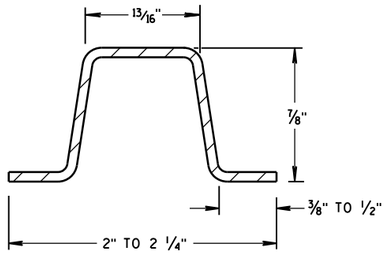
S.D.D. 14 B 52-1b

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S.D.D. 14 B 52-1b

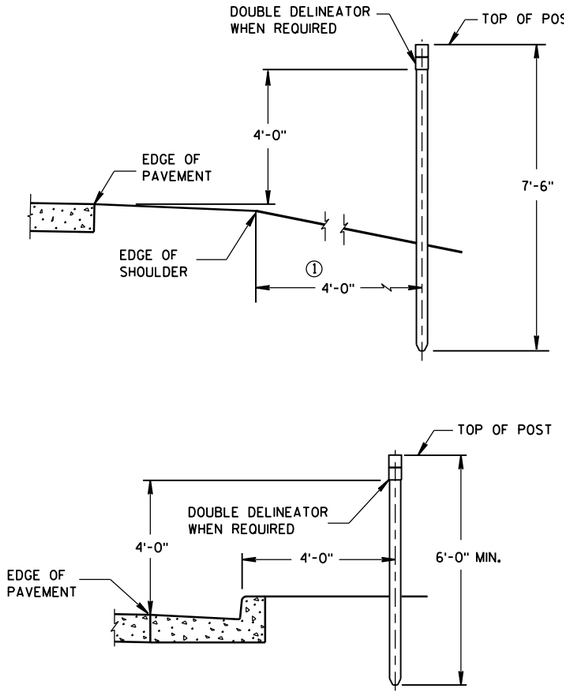


DELINEATOR POST



SECTION A-A

WEIGHT 1.12 LBS PER FT. ± 0.1 LB.

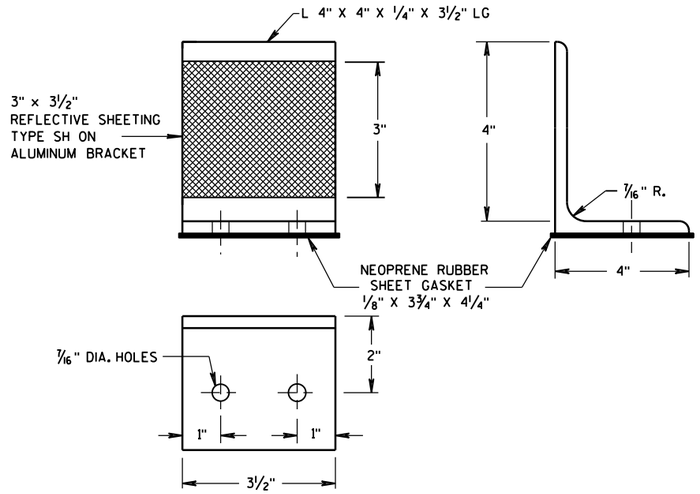


TYPICAL INSTALLATIONS OF DELINEATOR POSTS

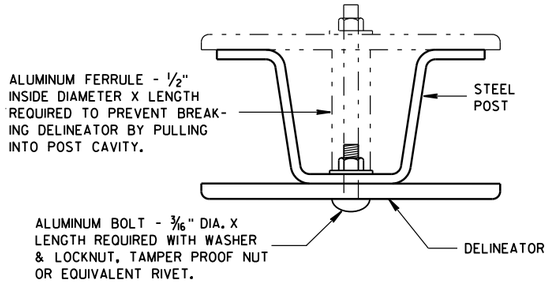
GENERAL NOTES

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

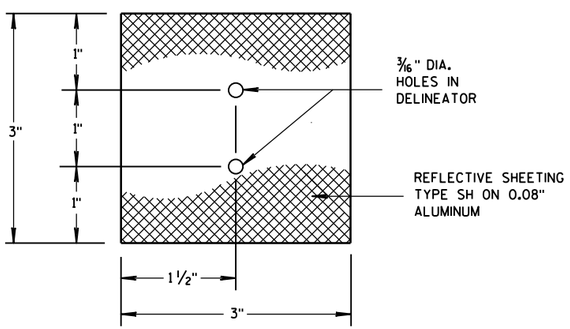
(1) DELINEATORS SHALL BE PLACED AT A CONSTANT DISTANCE FROM THE EDGE OF THE SHOULDER FOR THE LENGTH OF THE INSTALLATION.



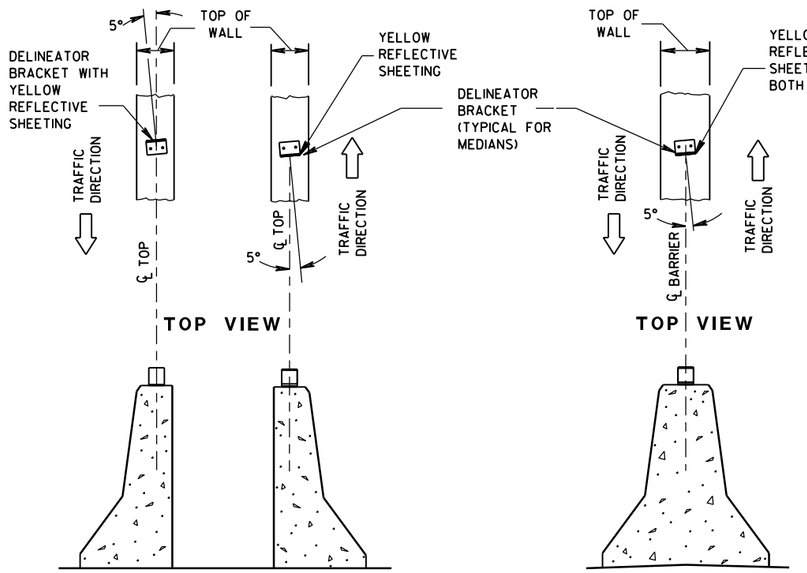
DELINEATOR BRACKET



MOUNTING DETAIL FOR DELINEATOR

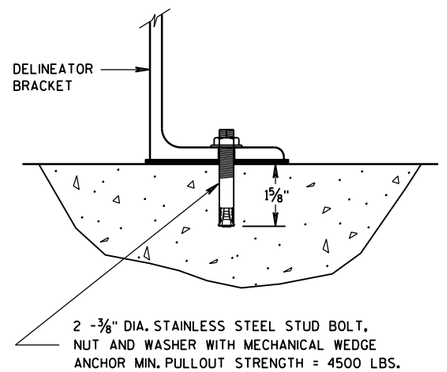


3"x 3" DELINEATOR



DOUBLE BARRIERS IN MEDIAN | **MEDIAN BARRIER** | **BARRIER LOCATED TO RT. OF TRAFFIC FLOW**

LOCATION AND AIMING DETAILS FOR DELINEATOR BRACKETS MOUNTED ON CONCRETE BARRIERS



DELINEATOR BRACKET MOUNTING DETAIL

DELINEATOR POST, DELINEATOR, AND DELINEATOR BRACKET WITH REFLECTIVE SHEETING

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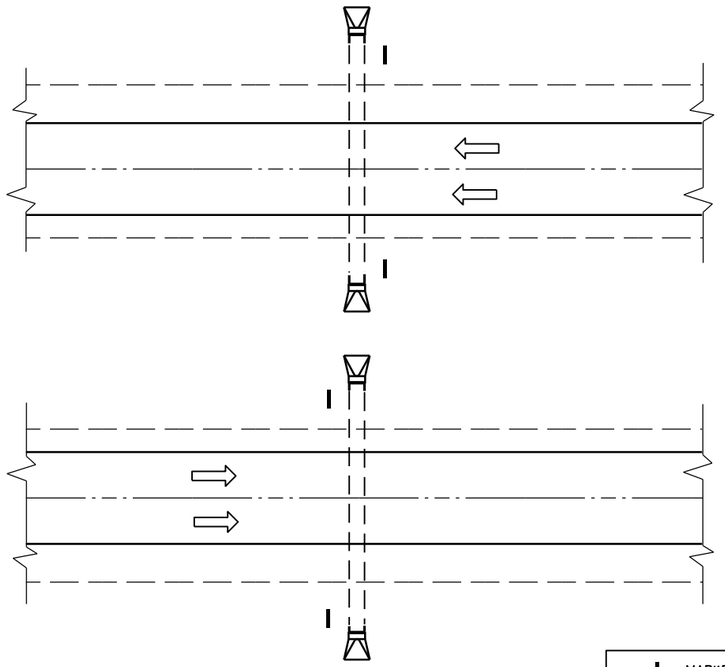
S.D.D. 15 A 2-8

6

S.D.D. 15 A 2-8

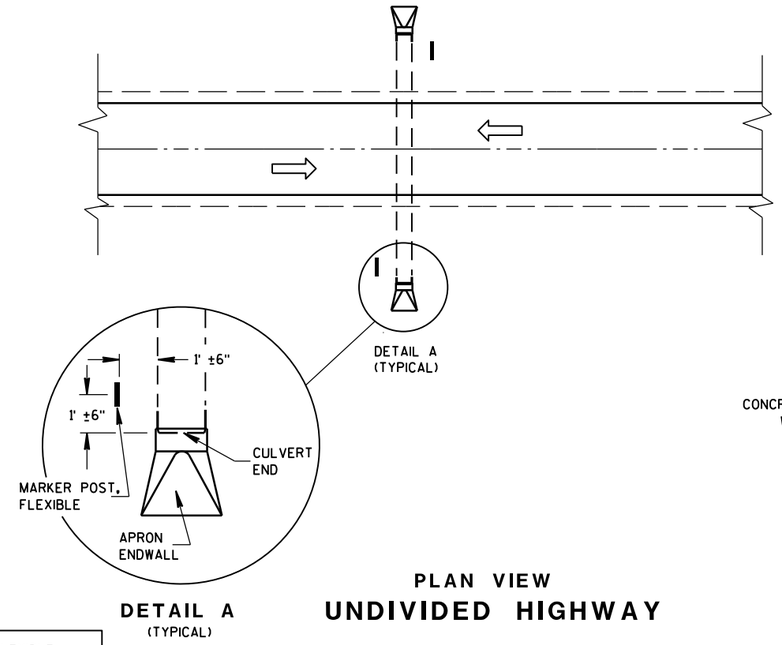
GENERAL NOTES

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



PLAN VIEW

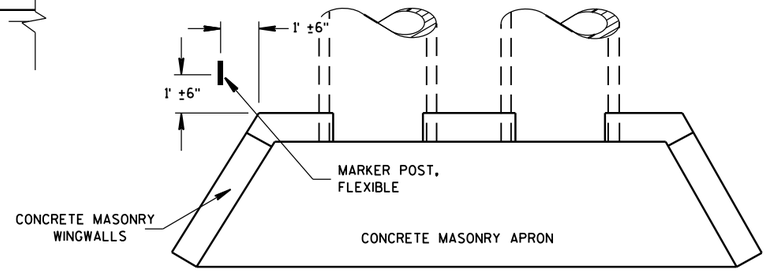
DIVIDED HIGHWAY



DETAIL A
(TYPICAL)

PLAN VIEW

UNDIVIDED HIGHWAY



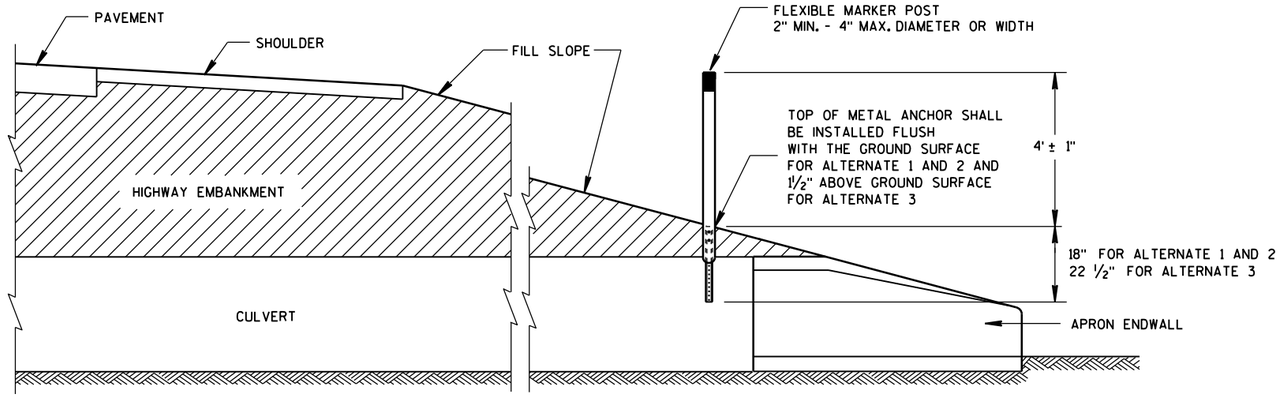
PLAN VIEW

CONCRETE MASONRY ENDWALLS FOR CULVERT PIPE AND PIPE ARCH

MARKER POST, FLEXIBLE

DIRECTION OF TRAFFIC FLOW

FLEXIBLE MARKER POST LOCATION



CROSS SECTION

FLEXIBLE MARKER POST

FLEXIBLE MARKER POST FOR CULVERT END

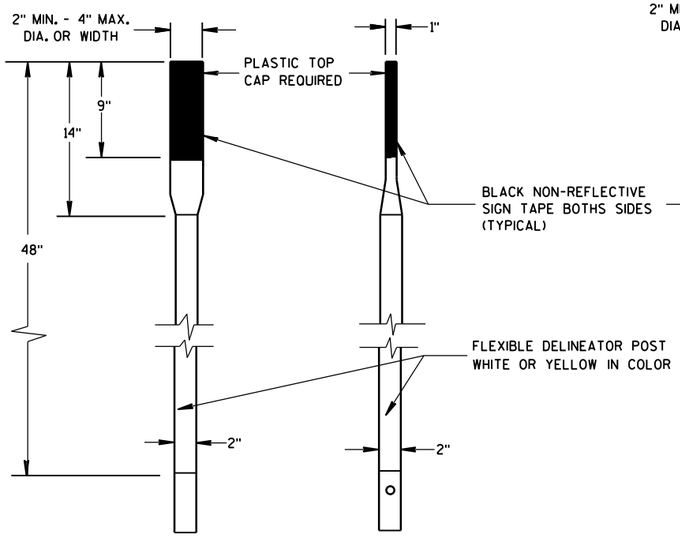
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

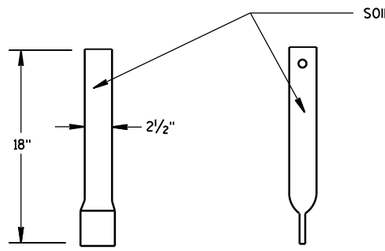
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S.D.D. 15 A 3-2a

6

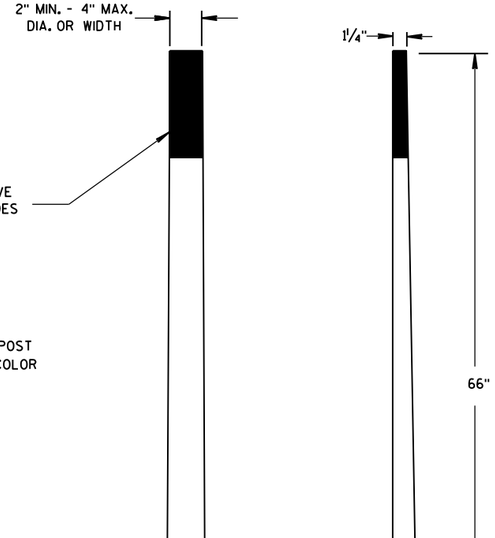
S.D.D. 15 A 3-2a





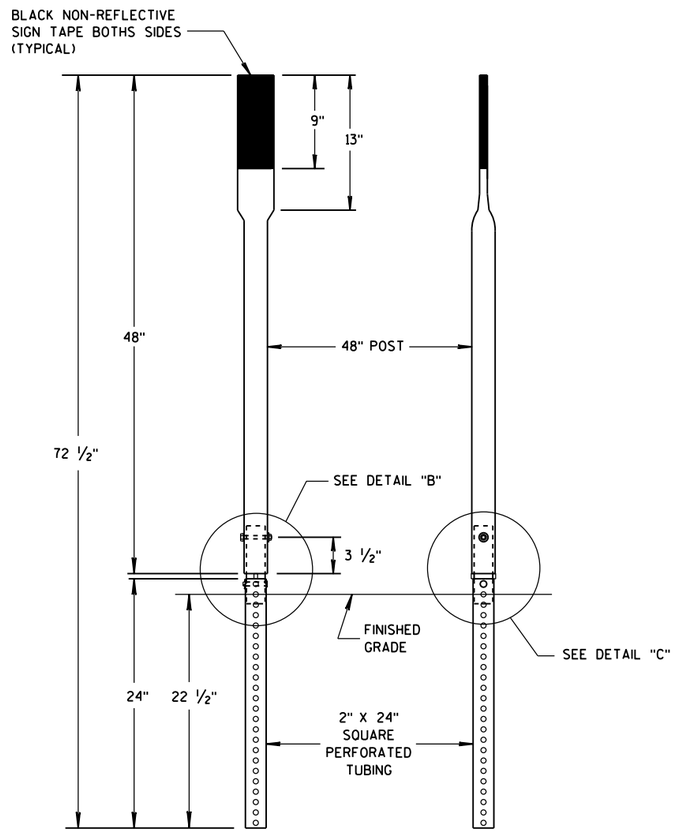
FRONT VIEW SIDE VIEW

ALTERNATE 1



FRONT VIEW SIDE VIEW

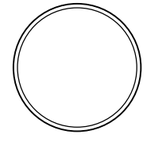
ALTERNATE 2



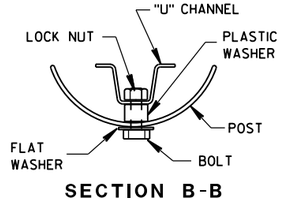
FRONT VIEW SIDE VIEW

ALTERNATE 3

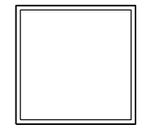
FLEXIBLE MARKER POSTS



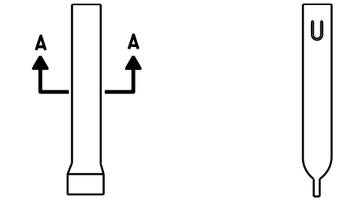
SECTION A-A



SECTION B-B

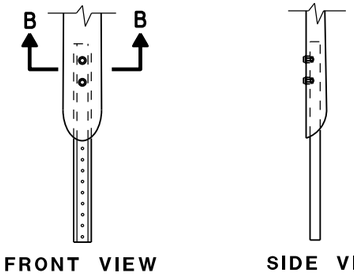


SECTION C-C



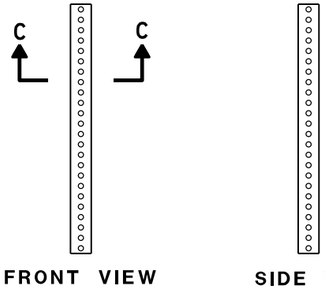
FRONT VIEW SIDE VIEW

ALTERNATE 1



FRONT VIEW SIDE VIEW

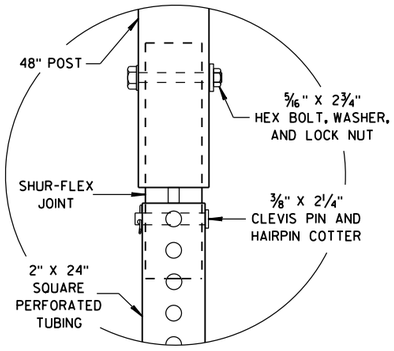
ALTERNATE 2



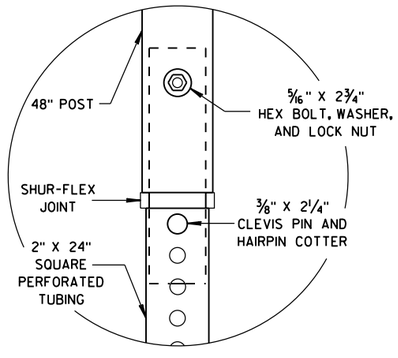
FRONT VIEW SIDE VIEW

ALTERNATE 3

FLEXIBLE MARKER POST ANCHORS



DETAIL B



DETAIL C

FLEXIBLE MARKER POST
FOR CULVERT END

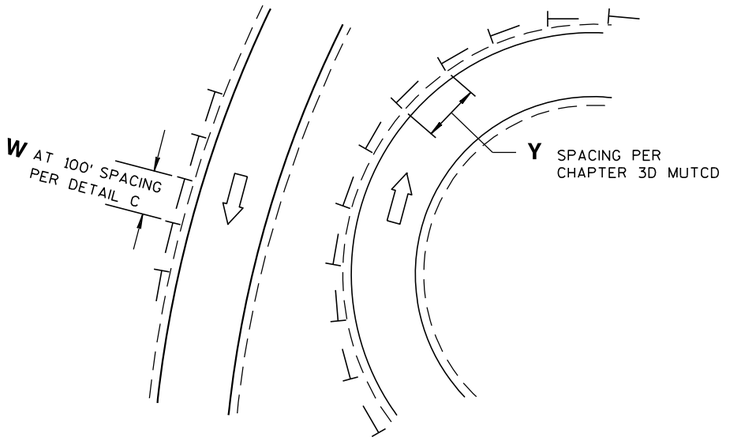
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DEPARTMENT OF TRANSPORTATION

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10/1/2012 — DATE
/S/ Travis Feltes — STATE TRAFFIC ENGINEER
FHWA

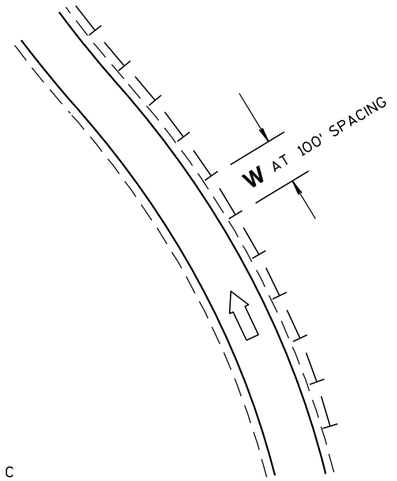
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S.D.D. 15 A 3-2b

GENERAL NOTES

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



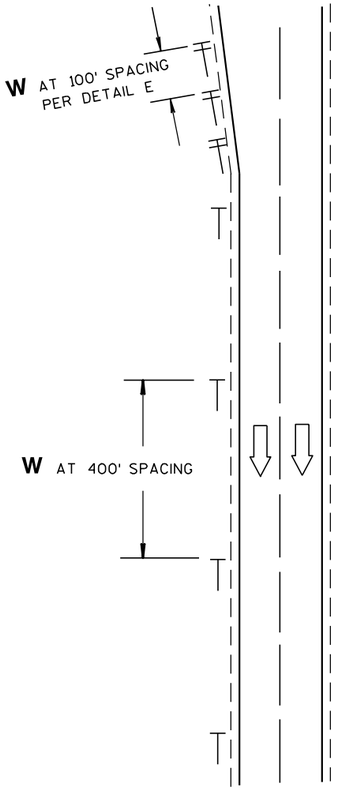
DETAIL A
DELINEATOR LAYOUT AT CURVED RAMP



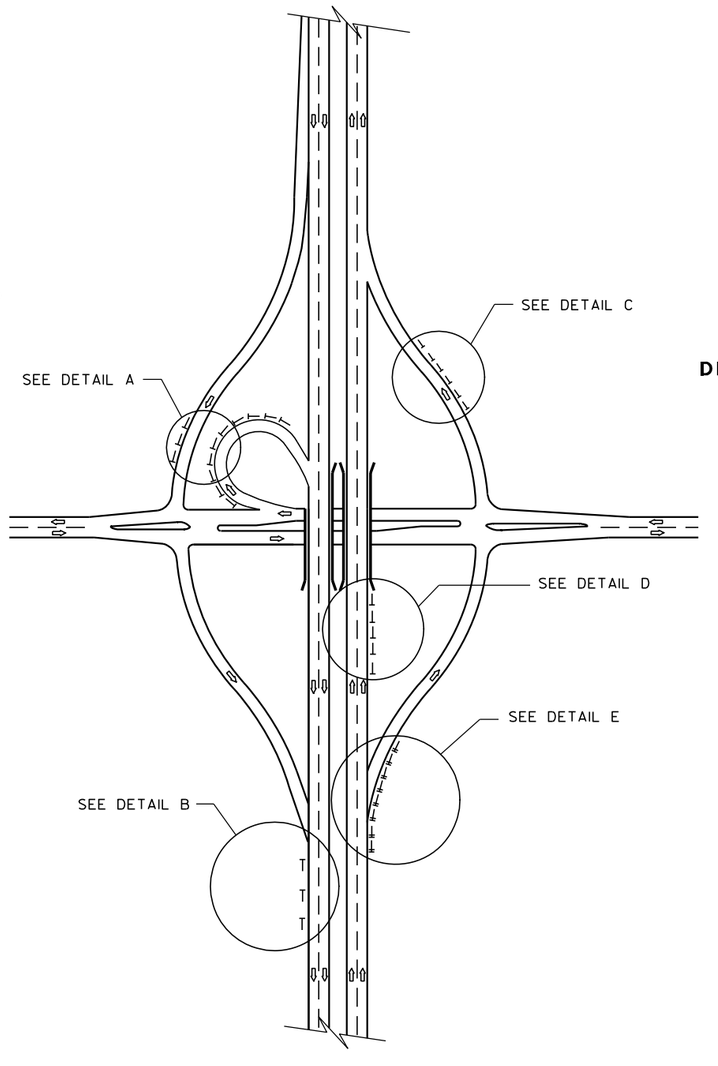
DETAIL C
DELINEATOR LAYOUT ALONG RAMP

LEGEND

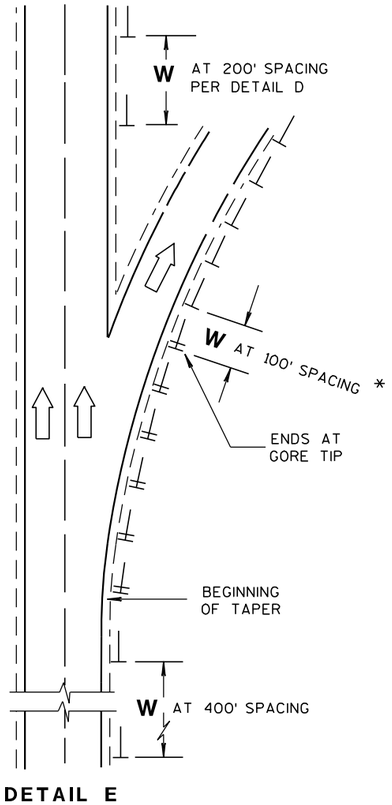
- DIRECTION OF TRAFFIC FLOW
- SINGLE DELINEATOR
- DOUBLE DELINEATOR
- W — WHITE
- Y — YELLOW



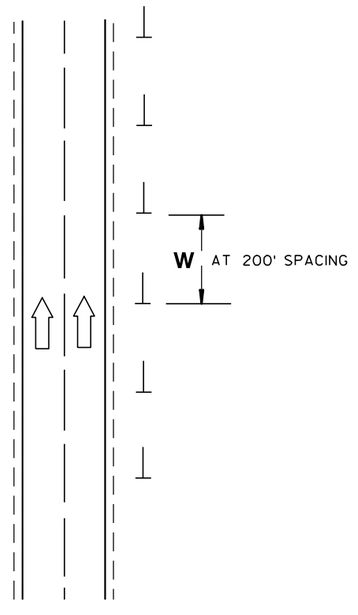
DETAIL B
DELINEATOR LAYOUT ALONG MAINLINE



DELINEATOR LAYOUT



DETAIL E
DELINEATOR LAYOUT FOR ACCELERATION - DECELERATION LANES AND TAPERS AT RAMPS



DETAIL D
DELINEATOR LAYOUT BETWEEN INTERCHANGE RAMPS

DELINEATOR LAYOUT

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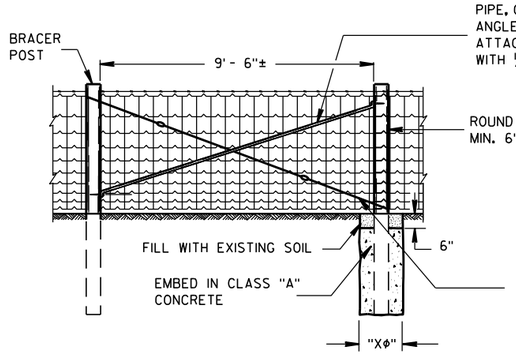
S.D.D. 15 A 6-2

6

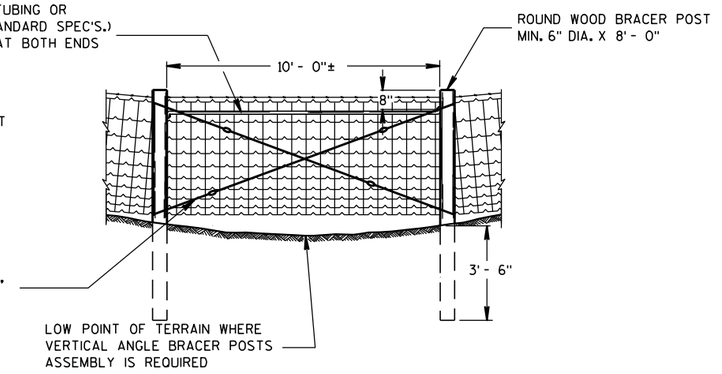
S.D.D. 15 A 6-2

NOTE: PULL OR STRETCHER POST ASSEMBLIES SHALL BE PLACED MIDWAY BETWEEN END POSTS AND CORNER POSTS WHERE A RUN OF FENCE EXCEEDS 660' BUT IS LESS THAN 1,320'. FOR RUNS OF FENCE IN EXCESS OF 1,320' MAXIMUM SPACING OF PULL OR STRETCHER POST ASSEMBLIES SHALL BE 660'± C-C.

ILLUSTRATION SHOWS POSITION OF STANDARD STEEL BRACE, DOUBLE STRAND GALVANIZED WIRE, AND THE POST TO BE EMBEDDED IN CONCRETE WHEN WIRE FENCE IS INSTALLED FROM LEFT TO RIGHT. THE BRACES SHALL BE POSITIONED ON THE OPPOSITE DIAGONALS AND THE OPPOSITE POST SHALL BE EMBEDDED IN CONCRETE WHEN WIRE FENCE IS INSTALLED FROM RIGHT TO LEFT.



PULL OR STRETCHER POSTS ASSEMBLY



VERTICAL ANGLE BRACER POSTS ASSEMBLY

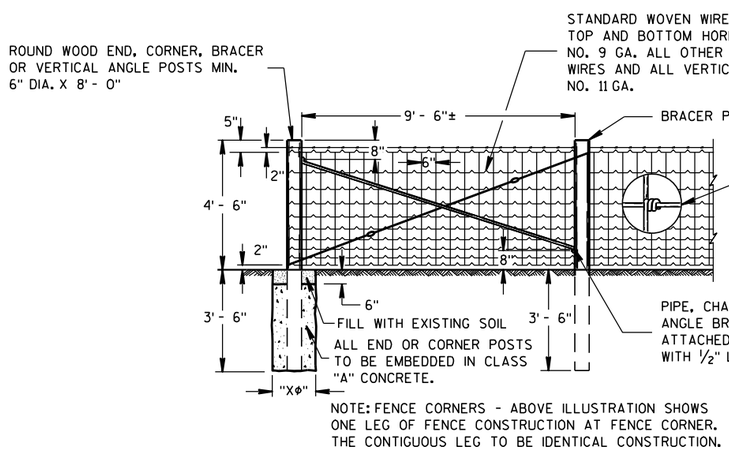
GENERAL NOTES

"XΦ" = DIAMETER OF THE POST PLUS 12".

FENCE STAPLES SHOULD NEVER BE DRIVEN VERTICALLY INTO WOOD POSTS (WITH BOTH LEGS PARALLEL WITH THE WOOD GRAIN). DOING SO CAN SEPARATE THE GRAIN AND SIGNIFICANTLY REDUCE THE HOLDING POWER. ROTATING THE STAPLES SLIGHTLY OFF VERTICAL STRADDLES THE GRAIN AND PROVIDES MORE RESISTANCE TO PULL-OUT.

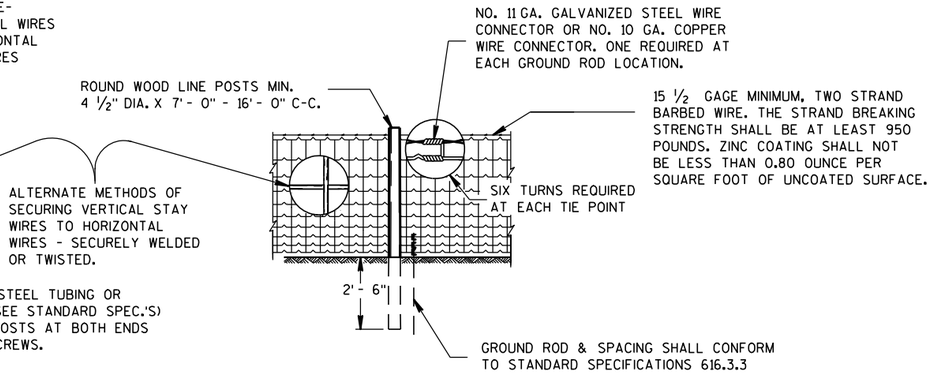
DO NOT STAPLE WIRE TIGHT TO THE LINE POSTS. ALLOW MOVEMENT OF WIRE FOR EXPANSION AND CONTRACTION. STAPLE ARRANGEMENT SHALL BE THE SAME FOR ALL OTHER POSTS EXCEPT THAT THEY SHALL BE DRIVEN TIGHT TO POSTS. ALL STAPLES SHALL BE 2" X 9 GAGE AND SHALL BE MANUFACTURED FROM GALVANIZED WIRE OR HOT DIP GALVANIZED AFTER FORMING. STAPLES SHALL HAVE SLASH-CUT POINTS.

FENCE SHALL BE LOCATED 3'-0" INSIDE THE RIGHT OF WAY LINE UNLESS OTHERWISE INDICATED ON THE PLANS.



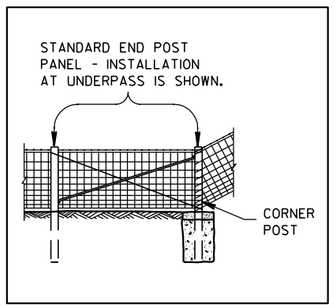
NOTE: FENCE CORNERS - ABOVE ILLUSTRATION SHOWS ONE LEG OF FENCE CONSTRUCTION AT FENCE CORNER. THE CONTIGUOUS LEG TO BE IDENTICAL CONSTRUCTION.

END OR CORNER POSTS ASSEMBLY

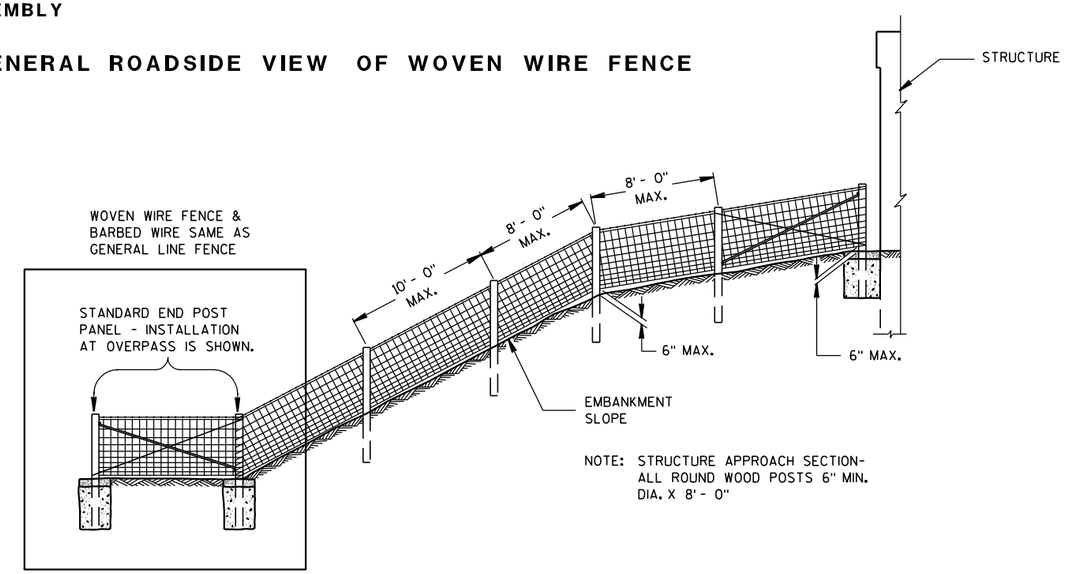


LINE FENCE CONSTRUCTION

GENERAL ROADSIDE VIEW OF WOVEN WIRE FENCE



ALTERNATE FENCE DESIGN AT STRUCTURE



NOTE: STRUCTURE APPROACH SECTION- ALL ROUND WOOD POSTS 6" MIN. DIA. X 8' - 0"

FENCE DESIGN AT STRUCTURE APPROACH

FENCE WOVEN WIRE

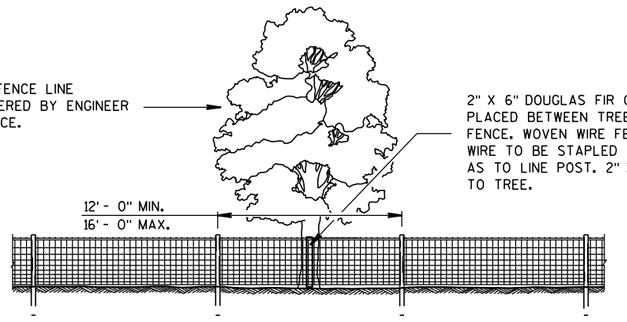
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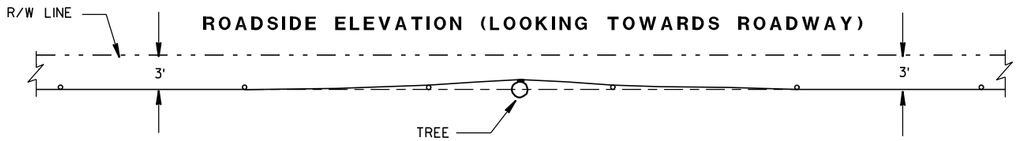
S.D.D. 15 B 1-8a

NOTE: TREE IN NORMAL FENCE LINE SPECIFICALLY ORDERED BY ENGINEER TO REMAIN IN PLACE.

2" X 6" DOUGLAS FIR OR SO. YELLOW PINE PLACED BETWEEN TREE AND WOVEN WIRE FENCE. WOVEN WIRE FENCE AND BARBED WIRE TO BE STAPLED TO 2" X 6" LIKE AS TO LINE POST. 2" X 6" NOT FASTENED TO TREE.

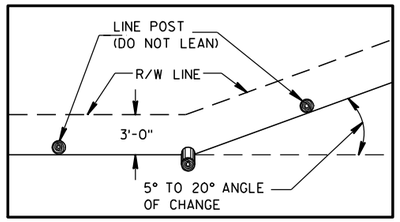


ROADSIDE ELEVATION (LOOKING TOWARDS ROADWAY)

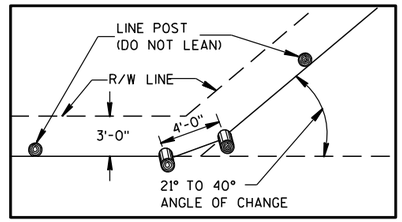


PLAN VIEW

FENCE DESIGN AT TREES REMAINING IN NORMAL FENCE LINE



PLAN VIEW
SINGLE POST CORNER

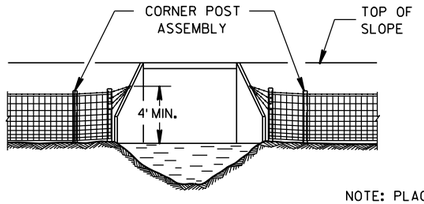


PLAN VIEW
DOUBLE POST CORNER

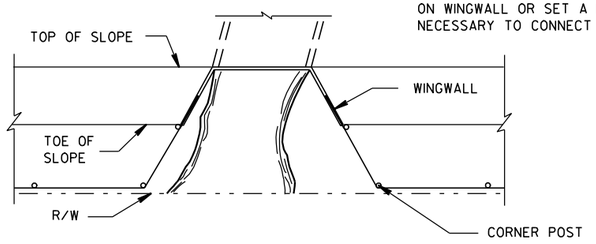
RIGHT OF WAY LINE CHANGE 40° AND LESS

NOTE: SINGLE AND DOUBLE POSTS SHALL BE A MIN. 6" DIA. X 8'-0" WITH A LEAN OF 4" TOWARD THE OUTSIDE OF THE CURVE.

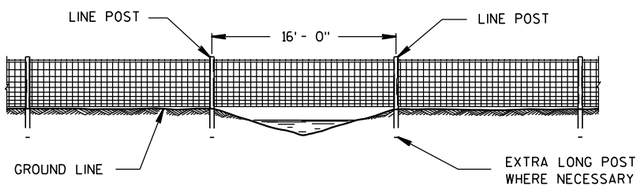
WHEN THE RIGHT OF WAY LINE CHANGE IS MORE THAN 40° USE THE CORNER OR STRETCHER POSTS ASSEMBLY.



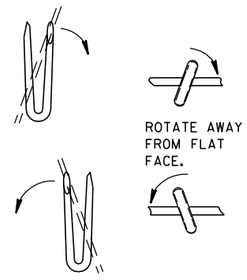
NOTE: PLACE A MINIMUM OF 4 STRANDS OF BARBED WIRE, 6" MAXIMUM CENTERS IN FAN SHAPE CONNECTED TO AN EYE BOLT ON WINGWALL OR SET A LONE POST WHEN NECESSARY TO CONNECT BARBED WIRE.



FENCE INSTALLATION TO WINGWALLS

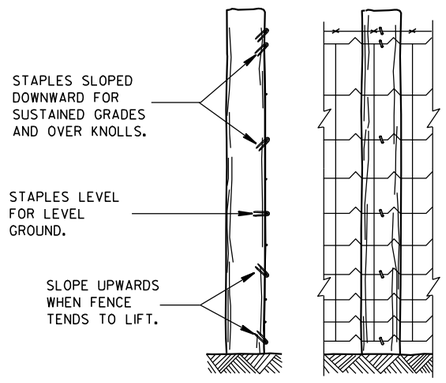


FENCE CONSTRUCTION OVER STREAM COURSES OF 15 FT. OR LESS IN WIDTH



LINE POST

NOTE: WHEN POSTS ARE DRIVEN THE SMALL END SHALL BE DOWN.

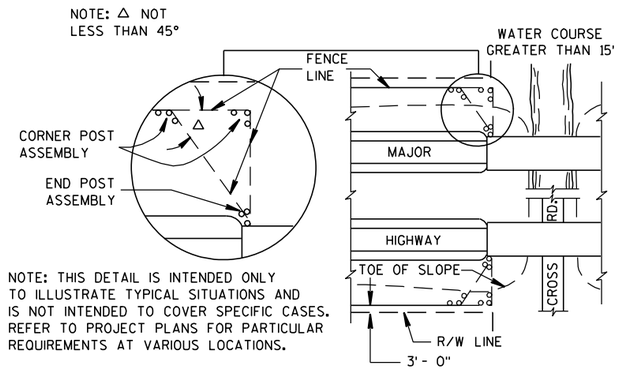


END ELEVATION

FARM SIDE ELEVATION

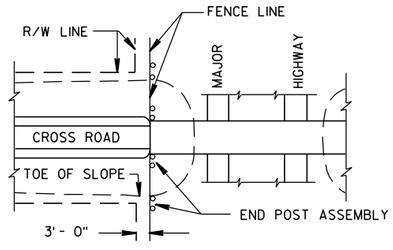
FENCE MOUNTING DETAIL

NOTE: △ NOT LESS THAN 45°



NOTE: THIS DETAIL IS INTENDED ONLY TO ILLUSTRATE TYPICAL SITUATIONS AND IS NOT INTENDED TO COVER SPECIFIC CASES. REFER TO PROJECT PLANS FOR PARTICULAR REQUIREMENTS AT VARIOUS LOCATIONS.

PLAN VIEW
MAJOR HIGHWAY OVERPASS OR STREAM COURSE CROSSING OF GREATER THAN 15 FT. IN WIDTH



PLAN VIEW
MAJOR HIGHWAY UNDERPASS

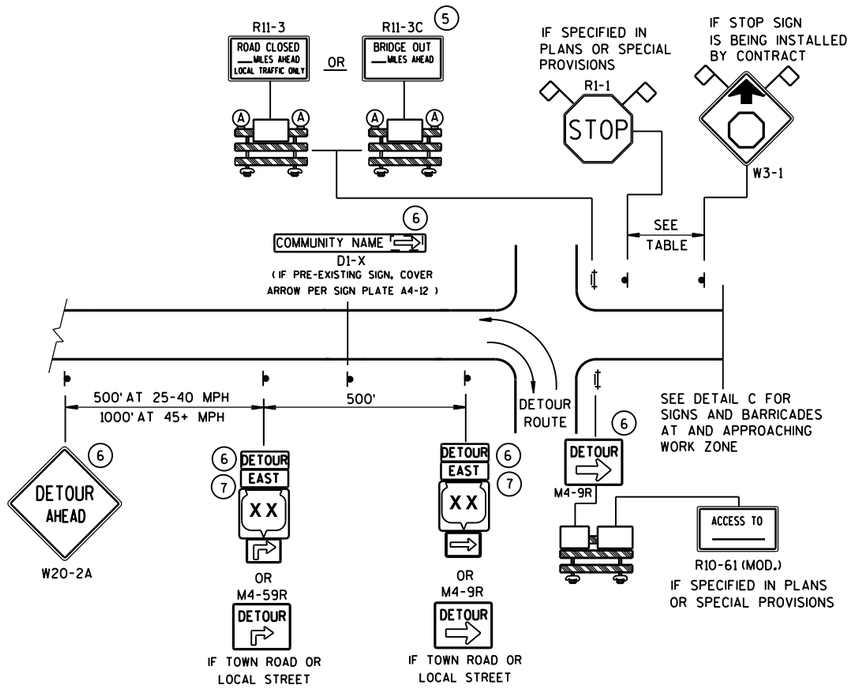
FENCE LOCATION AT STRUCTURES

FENCE WOVEN WIRE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

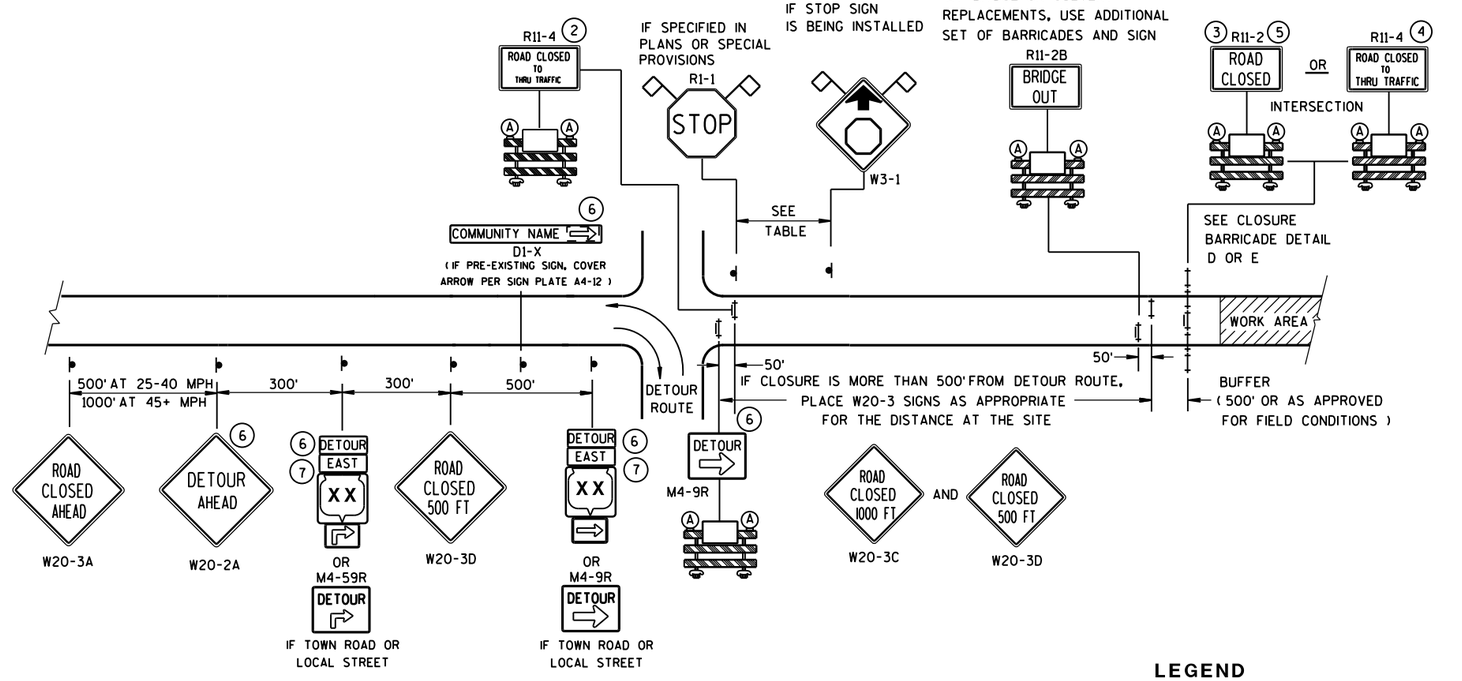
APPROVED
4/4/2008
DATE
/S/ Jerry H. Z---
ROADWAY STANDARDS [271
ENGINEER
FHWA

6
S.D.D. 15 B 1-8b



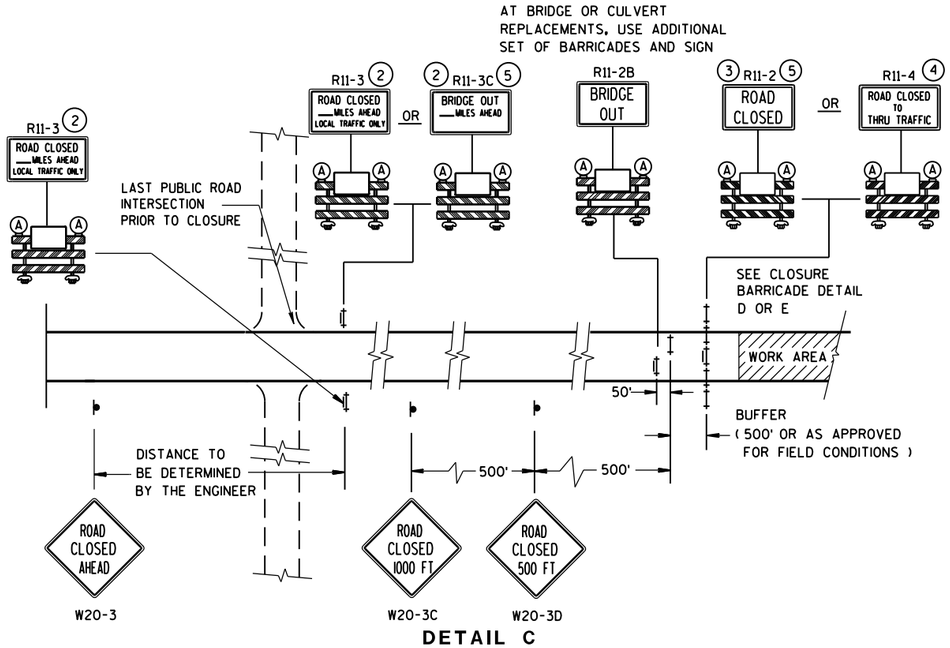
DETAIL A
MAINLINE CLOSURE WITH POSTED DETOUR

WORK ZONE GREATER THAN ½ MILE FROM DETOUR ROUTE (1000 FEET IF URBAN)



DETAIL B
MAINLINE CLOSURE WITH POSTED DETOUR

WORK ZONE LESS THAN ½ MILE FROM DETOUR ROUTE (1000 FEET IF URBAN)



DETAIL C
MAINLINE CLOSURE, NO POSTED DETOUR

SPEED LIMIT (MPH)	"STOP AHEAD" ADVANCE WARNING DISTANCE (FT)
25	200
30	200
35	350
40	350
45	500
50	550
55	750

SEE SDD 15C2-SHEET "**b**"
FOR GENERAL NOTES
AND FOOTNOTES (1) THROUGH (7)

LEGEND

- SIGN ON PERMANENT SUPPORT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- (A) TYPE "A" WARNING LIGHT (FLASHING)
- WORK AREA
- DETOUR / EAST — M4-8 / M3-X
- XX — M1-4; COUNTY XX — M1-5A; XX — M1-6
- M05-1 OR M06-1
- FLAGS, 16" X 16" MIN., (ORANGE)

BARRICADES AND SIGNS FOR MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

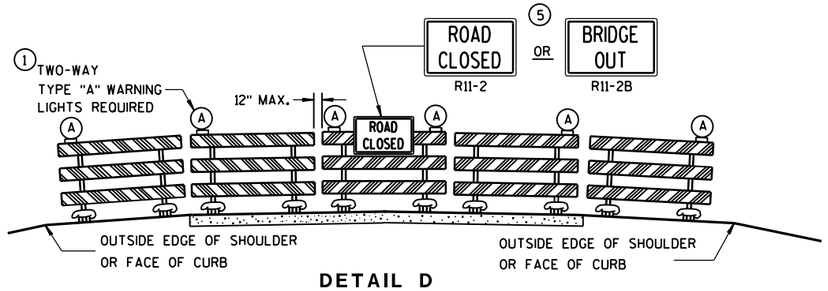
Sept. 2015 — DATE
/S/ Peter Amakobe Atepe
STATEWIDE WORK ZONE TRAFFIC SAFETY ENGINEER
FHWA

6

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

6

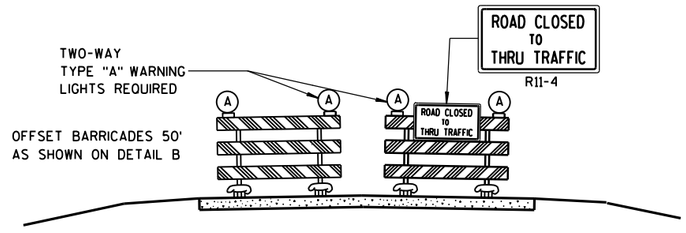
S.D.D. 15 C 2-6a



DETAIL D

ROAD CLOSURE BARRICADE DETAIL

APPROACH VIEW



DETAIL E

LANE CLOSURE BARRICADE DETAIL

APPROACH VIEW

SEE SDD 15C2-SHEET "**a**" FOR LEGEND

GENERAL NOTES

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

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A DESIRABLE MINIMUM OF 200 FEET CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

BARRICADES THAT MUST BE MOVED FOR A WORK OPERATION SHALL BE IMMEDIATELY RE-ESTABLISHED UPON COMPLETION OF THE OPERATION OR, FOR CONTINUING OPERATIONS, AT THE END OF EACH WORKING DAY.

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

ALL TYPE III BARRICADES SHALL HAVE RAILS REFLECTORIZED ON BOTH FACES. STRIPES SHALL BE PROPERLY SLOPED DOWN TOWARD THE TRAFFIC SIDE OR AS SHOWN IN THE ROAD CLOSURE BARRICADE DETAIL D FOR FULL ROAD CLOSURES.

TYPE "A" LOW-INTENSITY FLASHING WARNING LIGHTS SHALL BE VISIBLE ON BOTH SIDES OF THE BARRICADE.

THE R11-2, R11-3, M4-9, R11-4 AND R10-61 SIGNS PLACED ON BARRICADES SHALL COVER NO MORE THAN THE TOP RAIL. THE SIGNS SHALL NOT COVER ANY PORTION OF THE MIDDLE OR BOTTOM RAILS.

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

ALL SIGNS SHALL BE 48" X 48" UNLESS OTHERWISE NOTED BELOW:
- R11-2 SHALL BE 48" X 30".
- R11-3, R11-4 AND R10-61 SHALL BE 60" X 30".
- M4-9 SHALL BE 30" X 24".
- M3-X SHALL BE 24" X 12". (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS.)
- M4-8 SHALL BE 24" X 12". (30" X 15" IF NEEDED TO MATCH EXISTING SIGNS.)
- M1-4, M1-5A, AND M1-6 SHALL BE 24" X 24". (36" X 36" IF NEEDED TO MATCH EXISTING SIGNS.)
- M05-1 AND M06-1 SHALL BE 21" X 21". (30" X 30" IF NEEDED TO MATCH EXISTING SIGNS.)
- D1-X SHALL BE AS SHOWN ON SPECIFIC PROJECT SIGNING DETAIL SHEETS.
- R1-1 SHALL BE 36" X 36".

(1) TWO WARNING LIGHTS SHALL BE PROVIDED ON THE CENTER BARRICADE AND A MINIMUM OF ONE WARNING LIGHT SHALL BE PROVIDED ON EACH OF THE OTHER BARRICADES WITHIN THE ROADWAY LIMITS. SPACING OF THE WARNING LIGHTS SHALL BE UNIFORM TO THE EDGE OF ROADWAY AS SHOWN (APPROX. 8-FOOT LIGHT SPACING).

(2) THESE SIGNS AND BARRICADES ARE NOT REQUIRED IF ROAD CLOSURE BEGINS AT INTERSECTION.

(3) FOR ROAD CLOSURE WITHOUT LOCAL ACCESS TO PROJECT, SEE ROAD CLOSURE BARRICADE DETAIL D.

(4) FOR ROAD CLOSURE WITH LOCAL ACCESS TO PROJECT, SEE LANE CLOSURE BARRICADE DETAIL E.

(5) FOR BRIDGE OR CULVERT REPLACEMENTS, SUBSTITUTE "BRIDGE OUT" INSTEAD OF "ROAD CLOSED" ON R11-2 AND R11-3 SIGNS.

(6) INSTALL DETOUR AND COMMUNITY GUIDE SIGNS AND ARROWS ONLY IF SPECIFIED IN THE CONTRACT. IF THERE ARE EXISTING ROUTE MARKER ASSEMBLIES THAT WILL REMAIN IN PLACE, ADJUST THE LOCATION OF THE DETOUR ROUTE SIGNS TO CORRESPOND WITH THE EXISTING ASSEMBLIES. MODIFY EXISTING SIGNS WHERE POSSIBLE. SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS. IF DETOUR SIGNS ARE BEING INSTALLED BY OTHERS, PLACE THE CONTRACTED TRAFFIC CONTROL SIGNS TO ALLOW FOR PLACEMENT OF ALL WARNING, DETOUR AND GUIDE SIGNS AS SHOWN.

(7) "EAST" CARDINAL DIRECTION MARKERS AND RIGHT TURN ARROWS ARE SHOWN. USE OTHER CARDINAL DIRECTIONS AND ARROWS AS APPROPRIATE.

BARRICADES AND SIGNS FOR MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

Sept. 2015 — DATE
/S/ Peter Amakobe Atepe — STATEWIDE WORK ZO SAFETY ENGI
FHWA

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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.

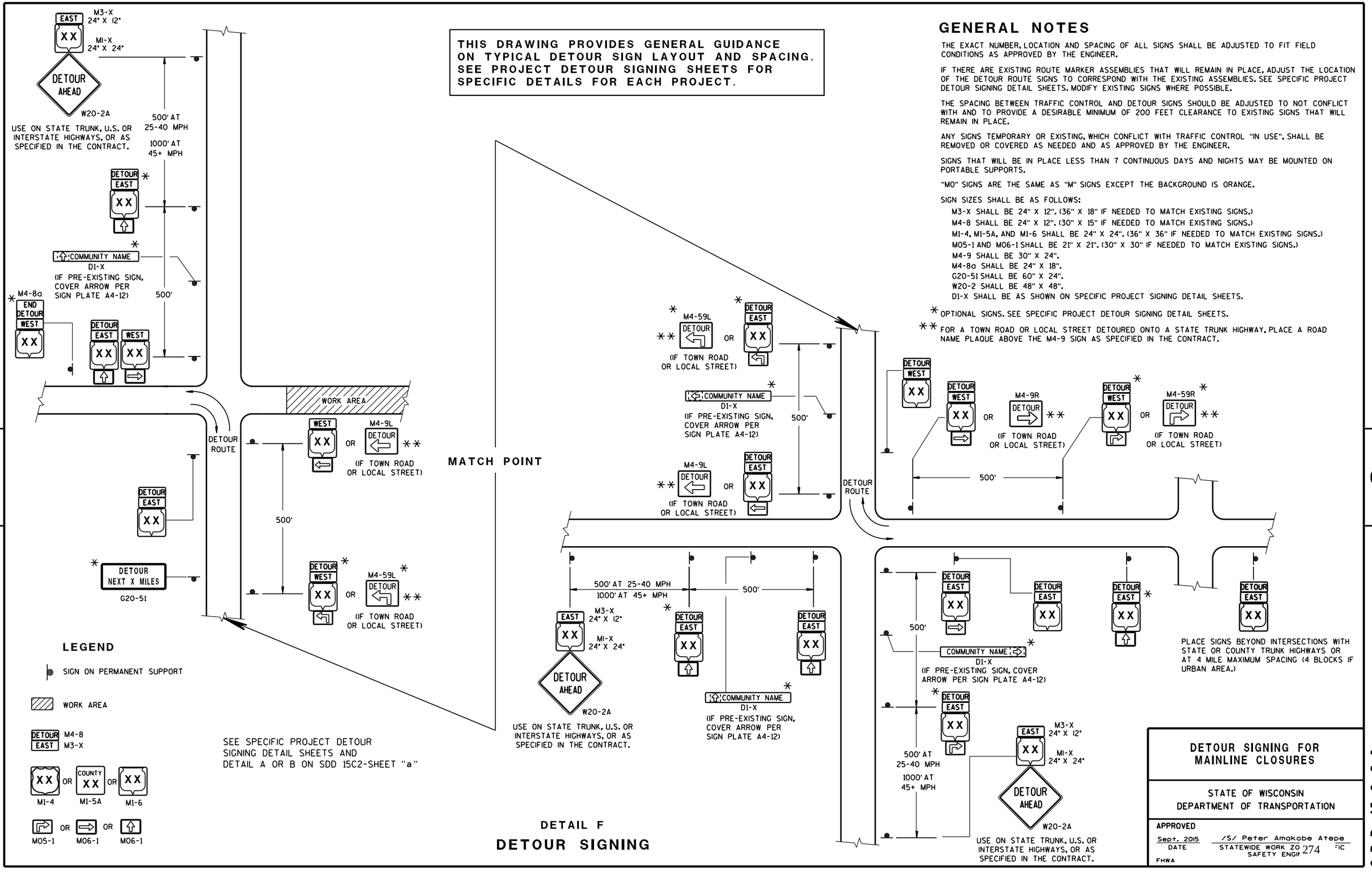
"MO" SIGNS ARE THE SAME AS "M" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

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.)
- MO5-1 AND MO6-1 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.



DETAIL F

DETOUR SIGNING

DETOUR SIGNING FOR MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

Sept. 2015 — DATE

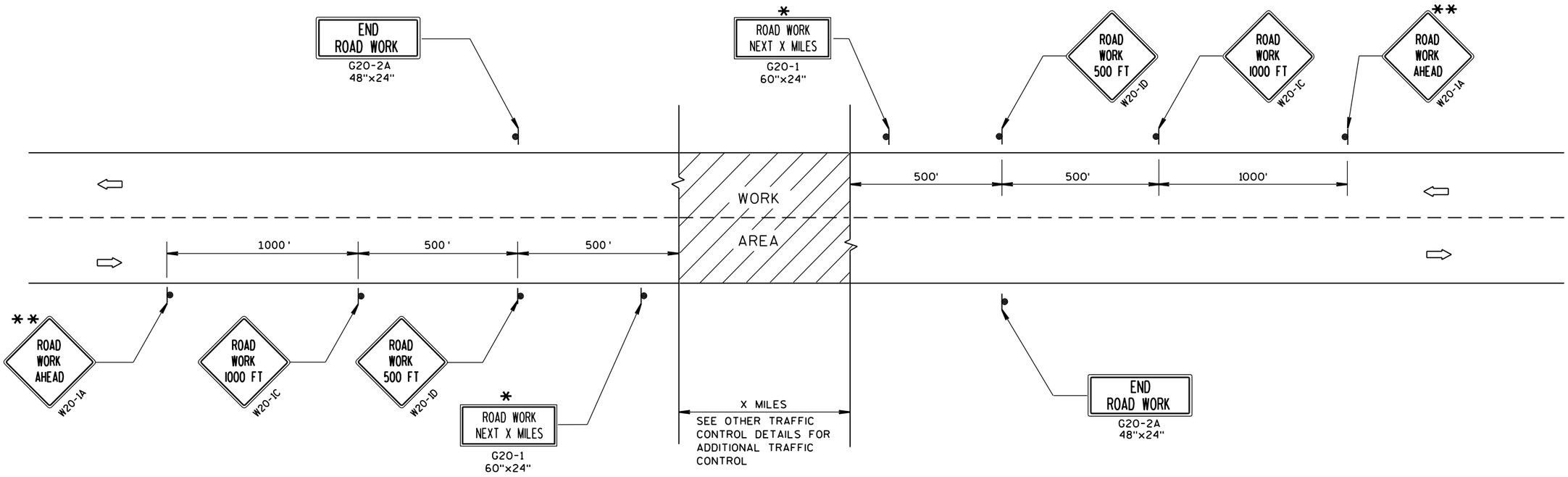
/S/ Peter Amakobe Atepe — STATEWIDE WORK ZONE SAFETY ENGINEER

FHWA

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

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.

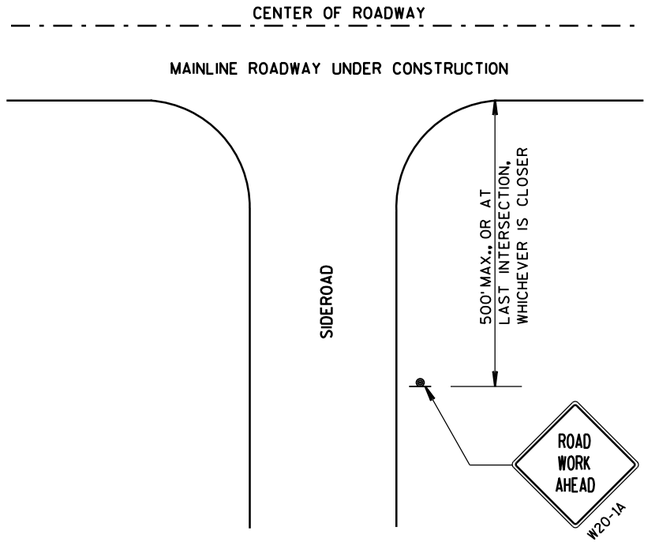
ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED.

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

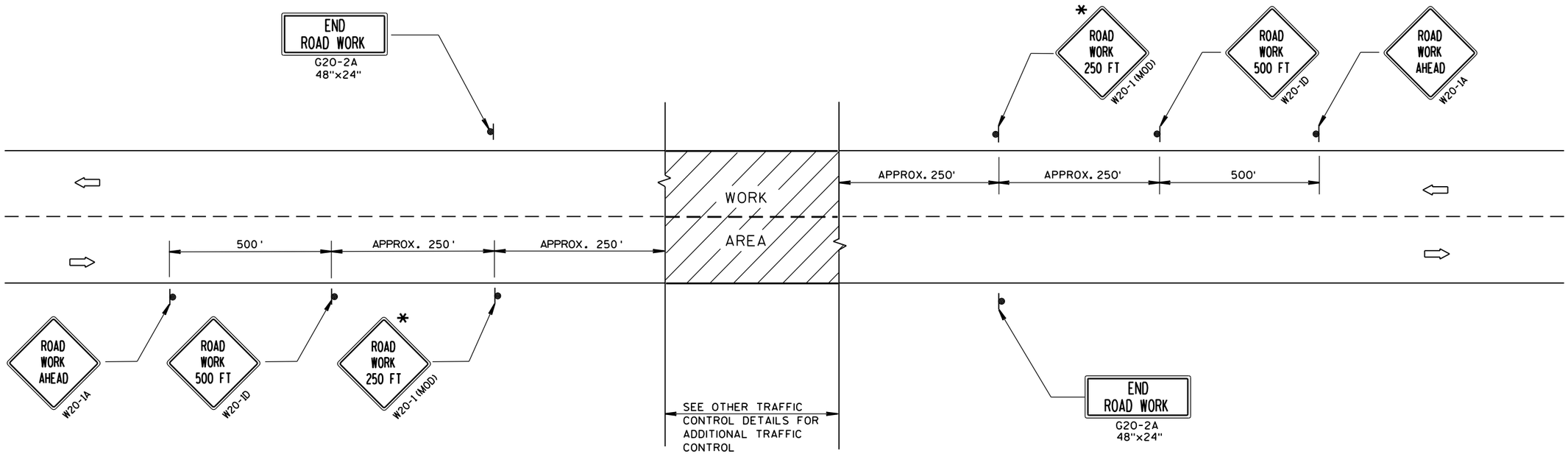
APPROVED

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

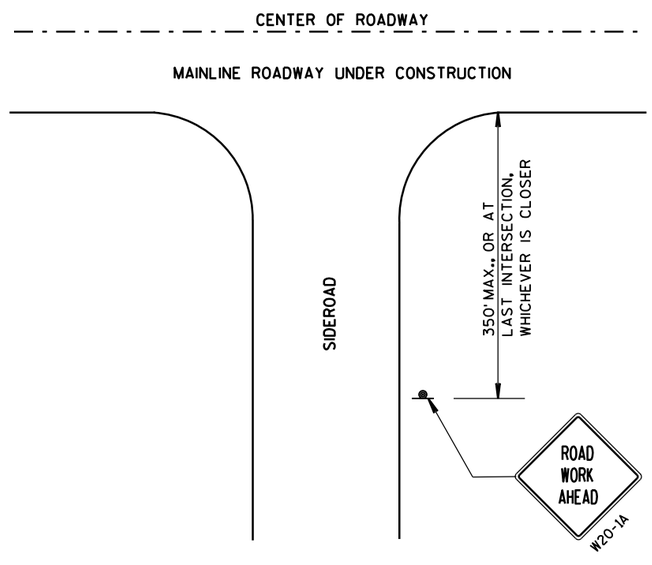
FHWA

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S.D.D. 15 C 4-3



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 DESIRABLE MINIMUM OF 200 FEET CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS, 36"x36" SIGNS MAY BE USED INSTEAD OF 48"x48" SIGNS.

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.

* THE THIRD W20-1 SIGN IS REQUIRED ONLY IF THERE IS AN INTERSECTION BETWEEN THE "ROAD WORK 500 FT" SIGN AND THE WORK ZONE. ADJUST THE PLACEMENT OF THIS SIGN BASED ON INTERSECTION LOCATION AND OTHER FIELD CONDITIONS.

LEGEND

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

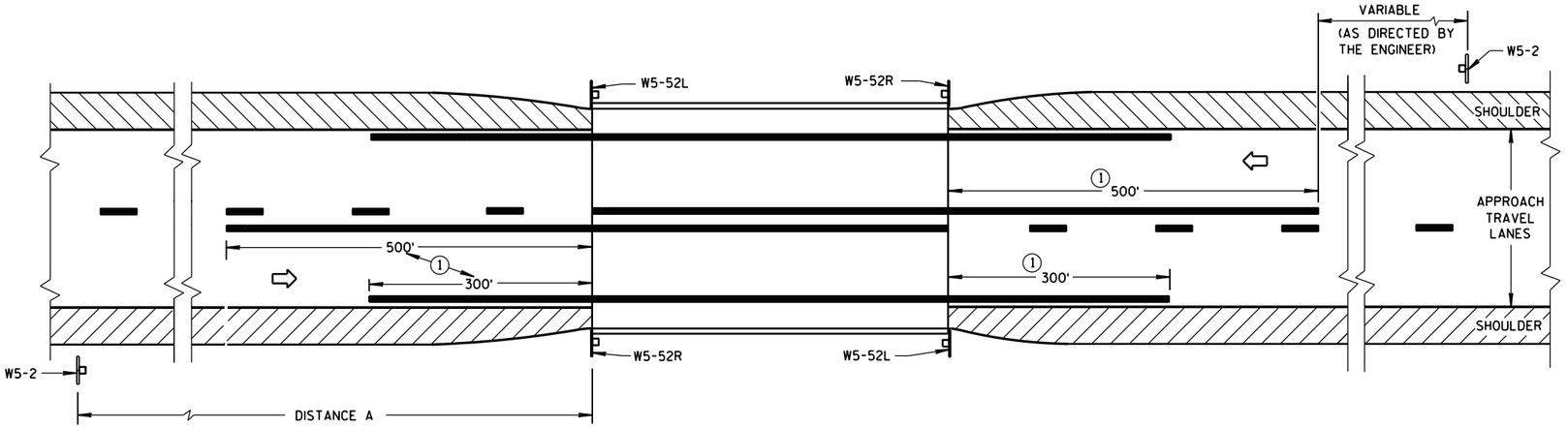
TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40 M.P.H. OR LESS TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC

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 5-3



GENERAL NOTES

DETAILS OF TRAFFIC CONTROL DEVICES AND INSTALLATION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS, THE SPECIAL PROVISIONS, AND THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

PAVEMENT MARKING SHOWN ON THIS DRAWING IS NOT REQUIRED UNLESS OTHERWISE SPECIFIED IN THE CONTRACT. WHEN SPECIFIED, PAVEMENT MARKING SHALL CONFORM TO THIS DRAWING AND OTHER CONTRACT REQUIREMENTS.

(1) MINIMUM DISTANCE UNLESS OTHERWISE SHOWN ON THE PLAN.

(2) FACE OF OBJECT MARKERS W5-52R, AND W5-52L SHALL BE COVERED WITH TYPE F REFLECTIVE SHEETING.

(3) LOCATE OBJECT MARKER POST(S) BEHIND GUARDRAIL WHEN PRESENT.

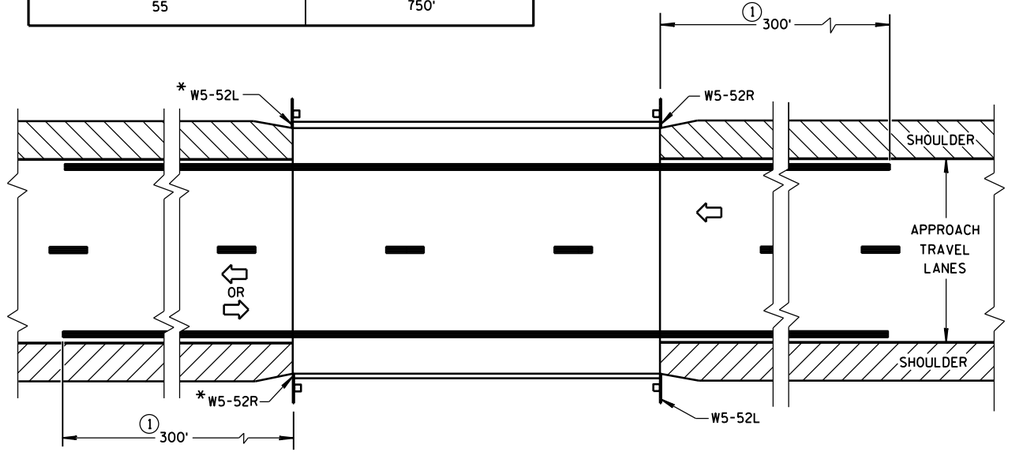
DISTANCE TABLE

POSTED OR 85th PERCENTILE SPEED	DISTANCE "A"
25	150'
30	200'
35	250'
40	300'
45	400'
50	550'
55	750'

SITUATION 1

WARRANTING CRITERIA:

BRIDGE WIDTH IS AT LEAST 16 FEET BUT LESS THAN 24 FEET

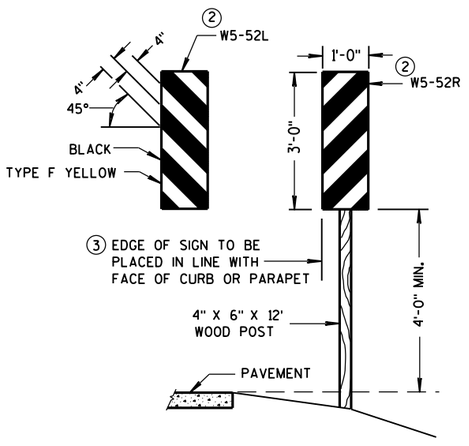


*OMIT ON ONE-WAY TRAVELLED WAYS

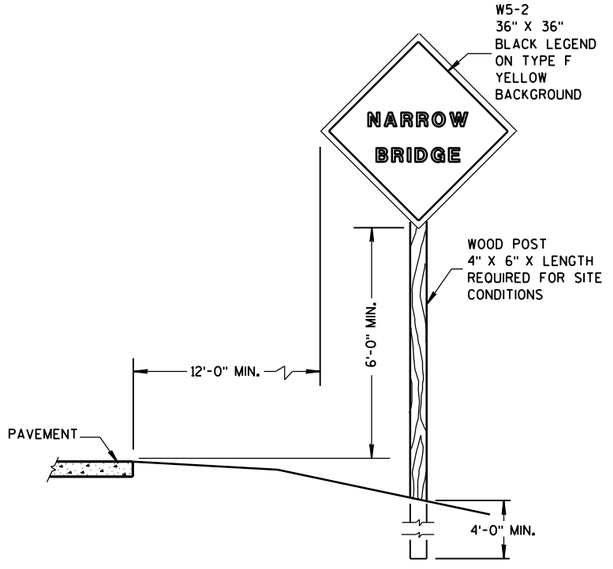
SITUATION 2

WARRANTING CRITERIA:

1. BRIDGE WIDTH IS AT LEAST 24 FEET AND
2. BRIDGE IS LESS THAN 6 FEET WIDER (ON EACH SIDE) THAN APPROACH TRAVEL LANES.



OBJECT MARKER PLACEMENT



SIGN PLACEMENT

SIGNING & MARKING
FOR TWO LANE BRIDGES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

3-2014 DATE

/S/ Travis Feltes
STATE TRAFFIC ENGINEER

FHWA

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S.D.D. 15 C 6-7

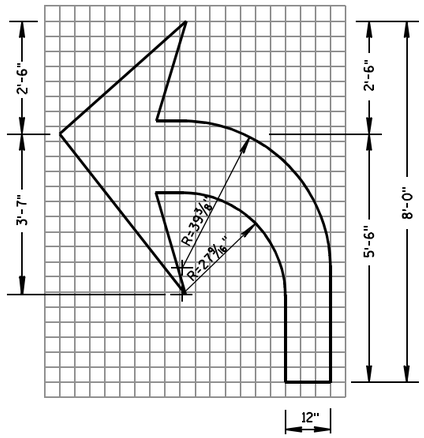
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S.D.D. 15 C 6-7

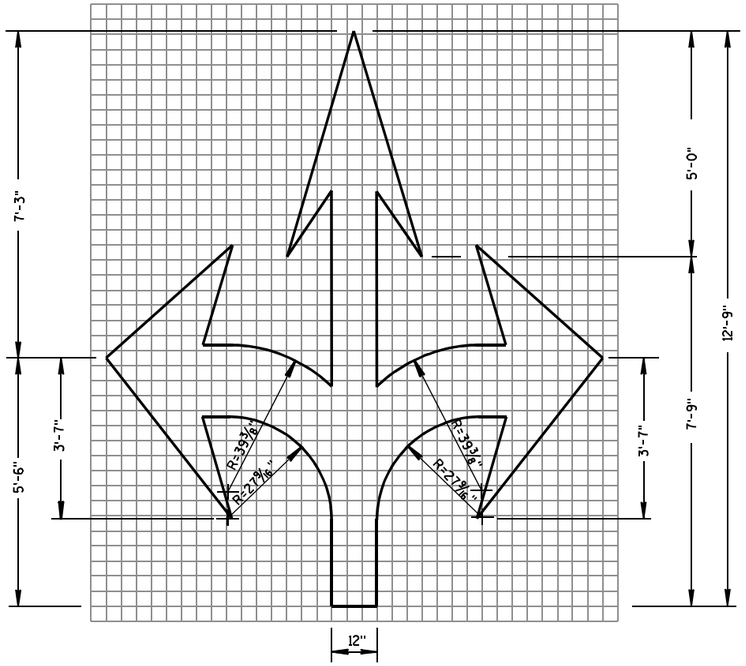
GENERAL NOTES

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

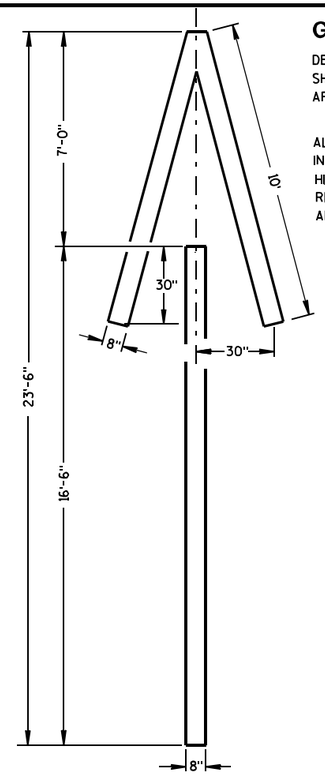
ALL LETTERS, ARROWS AND SYMBOLS SHALL BE IN CONFORMANCE WITH REQUIREMENTS INCLUDED IN "STANDARD ALPHABETS FOR HIGHWAY SIGNS AND PAVEMENT MARKING" BOOK BY THE FEDERAL HIGHWAY ADMINISTRATION. ALL LETTERS, ARROWS AND SYMBOLS SHALL BE WHITE AND REFLECTORIZED. SMALL DIFFERENCES IN DIMENSIONS WITHIN THE TOLERANCES OF THAT BOOK ARE ACCEPTABLE.



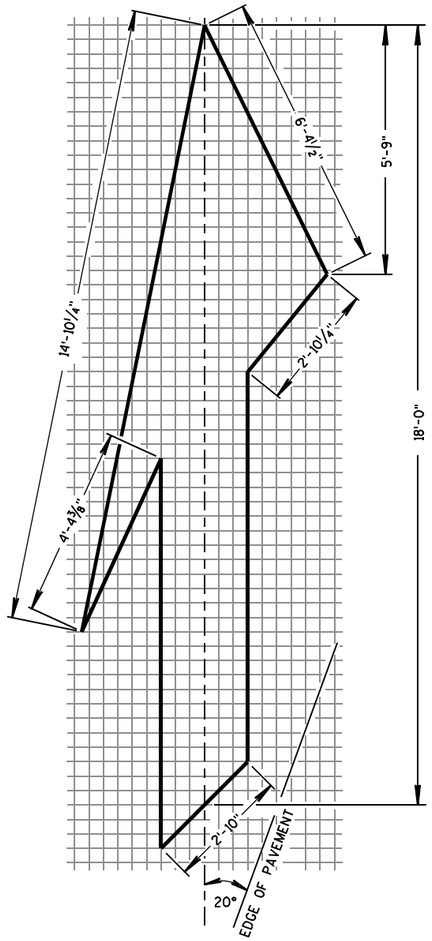
TYPE 2



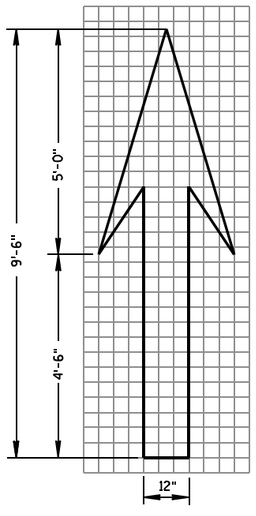
TYPE 6



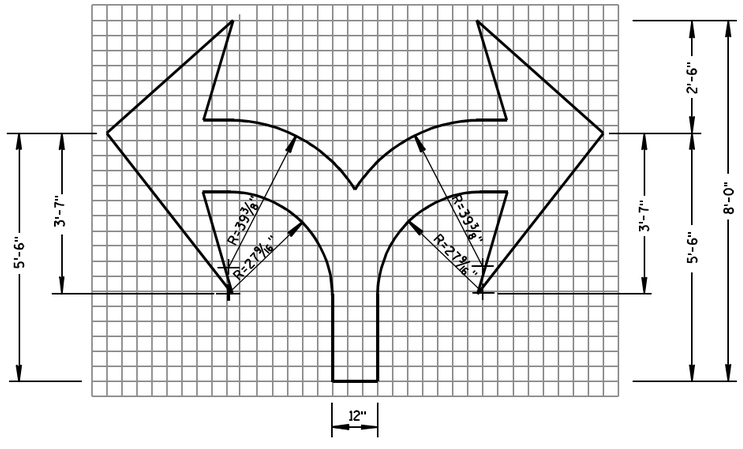
TYPE 4



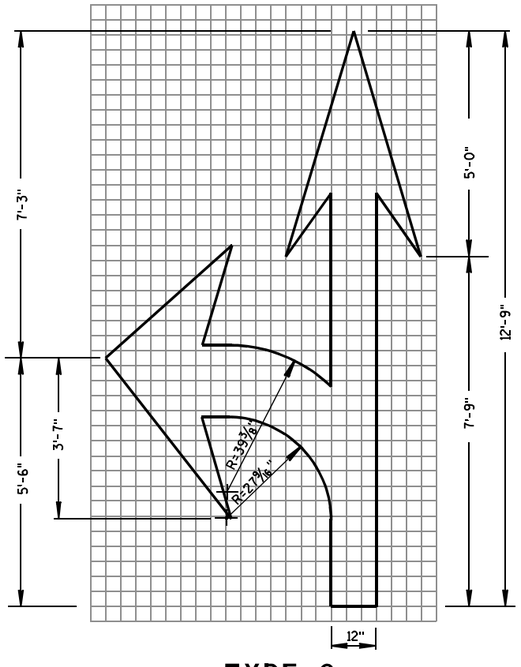
TYPE 5 LANE DROP ARROW



TYPE 1



TYPE 7



TYPE 3

PAVEMENT MARKING ARROWS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

7/1/11 — DATE

/S/ Thomas N. Nothdurft — STATE TRAFFIC ENGINEER

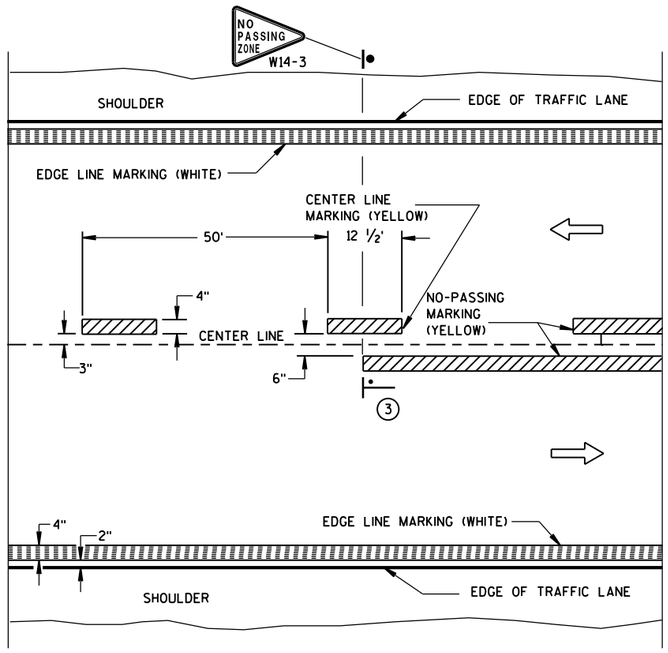
FHWA

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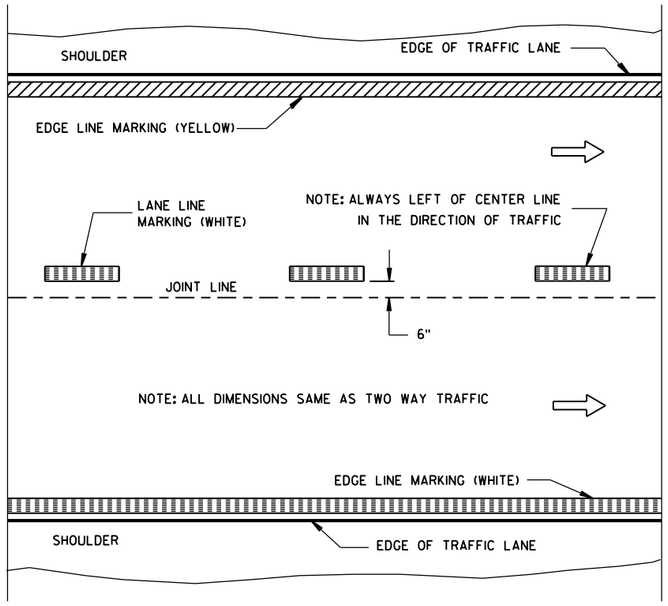
S.D.D. 15 C 7-12c

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S.D.D. 15 C 7-12c

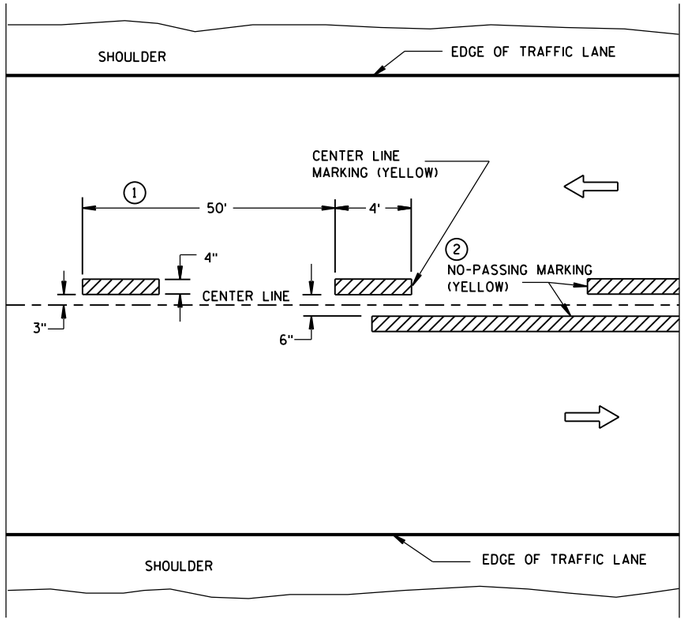


TWO WAY TRAFFIC

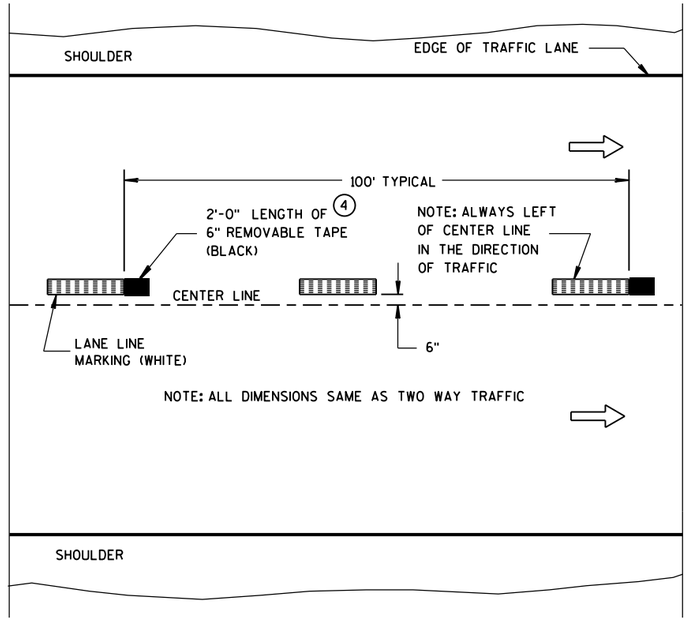


ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING



TWO WAY TRAFFIC



ONE WAY TRAFFIC

TEMPORARY (INTERMEDIATE) PAVEMENT MARKING

(SHOWS CYCLE FOR TEMPORARY CENTER LINE OR TEMPORARY LANE LINE MARKING)

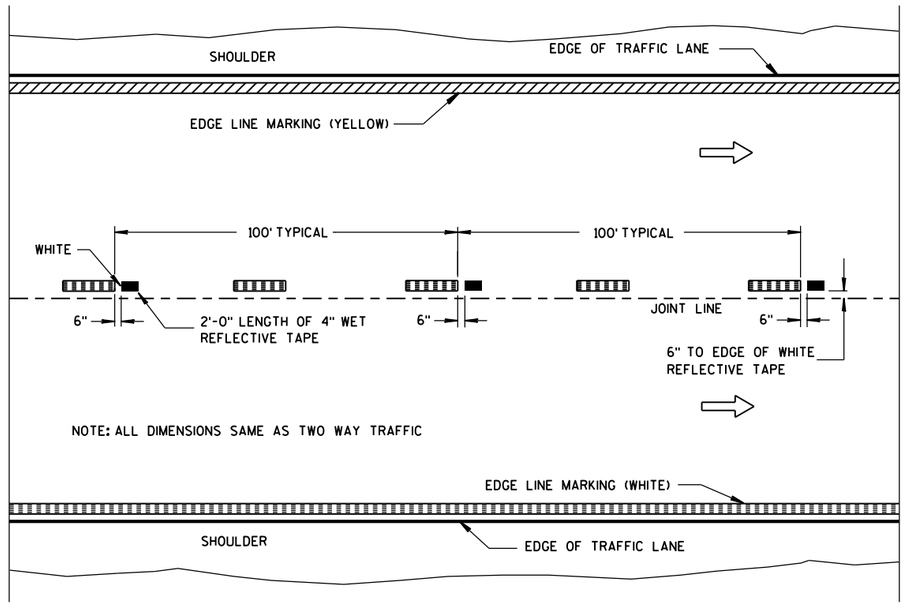
GENERAL NOTES

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

1. HALF CYCLE LENGTHS (25'±) WITH 2' MINIMUM STRIPE LENGTHS SHALL BE PROVIDED ON ROADWAYS (INCLUDING TEMPORARY TRAVELED WAYS) WITH REVERSE CURVATURE, CURVATURE OF OVER 5 DEGREES OR WHEN DIRECTED BY THE ENGINEER TO MARK UNUSUAL ALIGNMENT OF THE TRAVELED WAY.
2. NO PASSING ZONE TEMPORARY PAVEMENT MARKING IS REQUIRED TO BE PLACED, WHERE APPROPRIATE, ALONG WITH CENTERLINE TEMPORARY PAVEMENT MARKING WHEN A SAME DAY PERMANENT PAVEMENT MARKING ITEM IS INCLUDED IN THE CONTRACT.
3. NO PASSING ZONE MARKINGS ARE PLACED ACCORDING TO "T" MARKINGS. IF EXISTING NO PASSING ZONE W14-3 SIGNS ARE BEYOND 50 FEET IN EITHER DIRECTION, THE SIGNS SHALL BE MOVED TO THE "T" MARKINGS.
4. CONCRETE ONLY.

NOTE

ARROW SYMBOL (⇨) SHOWS DIRECTION OF TRAVEL



WET REFLECTIVE TAPE SUPPLEMENT TO
SPRAYED OR NON WET REFLECTIVE TAPE LANE LINE

LEGEND

"T" MARKING

POST MOUNTED SIGN

PAVEMENT MARKING (MAINLINE)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

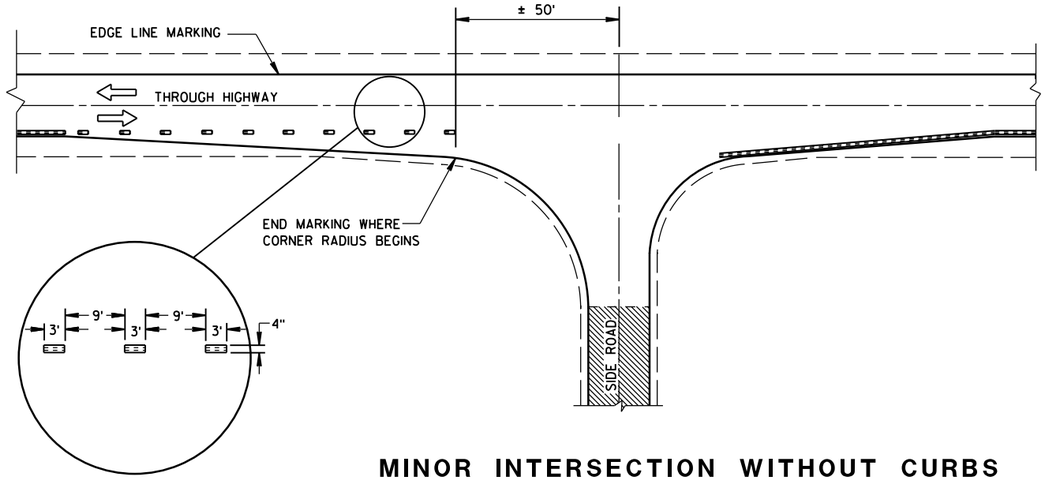
APPROVED
5-13-2013 DATE
/S/ Travis Feltes STATE TRAFFIC E
FHWA

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S.D.D. 15 C 8-16a

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S.D.D. 15 C 8-16a



MINOR INTERSECTION WITHOUT CURBS

GENERAL NOTES

EDGE LINES SHALL BE OMITTED THROUGH INTERSECTIONS. EDGE LINES SHALL BE CONTINUED THROUGH DRIVEWAYS.

(1) WHEN DISTANCE "A" IS LESS THAN 250 FEET, OMIT LANE LINE.

(2) WHEN DISTANCE "B" IS LESS THAN 100 FEET, OMIT CHANNELIZING LANE LINE.

(3) ALTERNATIVE MARKING SHALL BE PROVIDED WHEN SPECIFIED IN THE CONTRACT. TYPICAL SITUATIONS WHERE THIS MARKING MAY BE REQUIRED ARE WHERE THE INTERSECTION IS ON A SHARP HORIZONTAL CURVE OR CREST VERTICAL CURVE IN AN UNLIGHTED AREA SUCH THAT THE EDGE LINE MAY BE MISLEADING TO THE MOTORIST OR DISAPPEAR FROM SIGHT.

(4) THE EDGE LINE IN THE TAPER AREAS OF THE BYPASS LANE AND THE BYPASS LANE SHALL BE LOCATED 1-FOOT FROM EDGE OF PAVEMENT TO THE OUTSIDE EDGE OF EDGE LINE.

(5) BARRIER LINE ENDS AT SIDE ROAD PAVEMENT/SURFACE EDGE EXTENSION.

(6) BARRIER LINE STARTS 500 FEET PRIOR TO THE BYPASS TAPER.

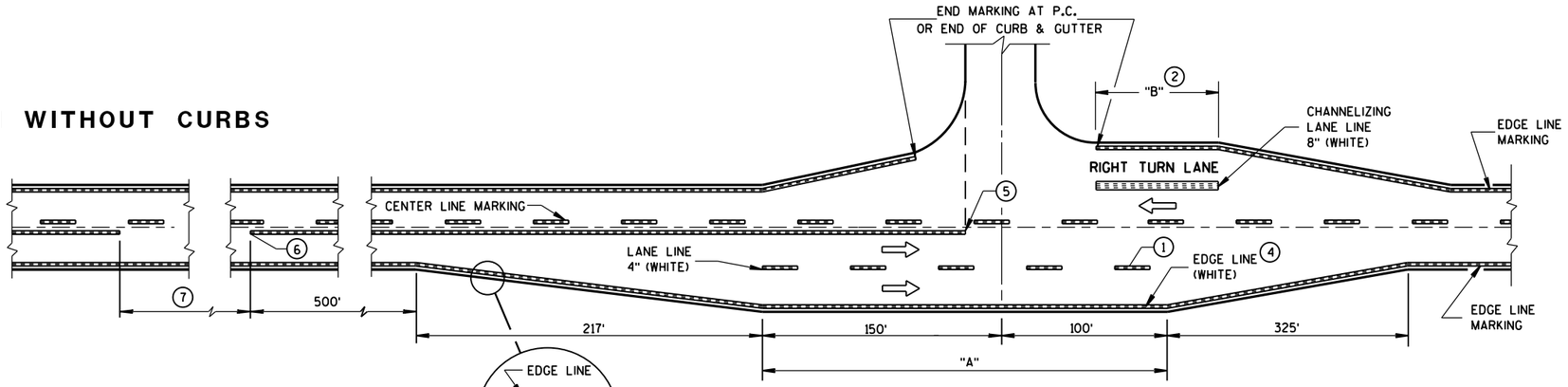
(7) IF THE DISTANCE BETWEEN 2 SUCCESSIVE NO-PASSING ZONES IS LESS THAN THE MINIMUM DISTANCE BETWEEN ZONES, CONNECT THE 2 ZONES.

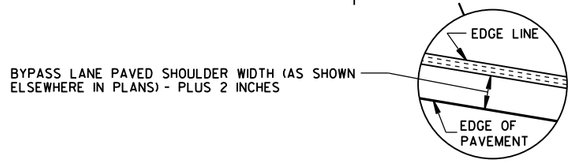
(8) 3' LINE 9' GAP, EXCEPT RETRACE THE EXISTING LINE - GAP PATTERN WHERE EXISTING MARKINGS ARE IN PLACE.

ARROW SYMBOL (⇨) SHOWS DIRECTION OF TRAVEL

(7)

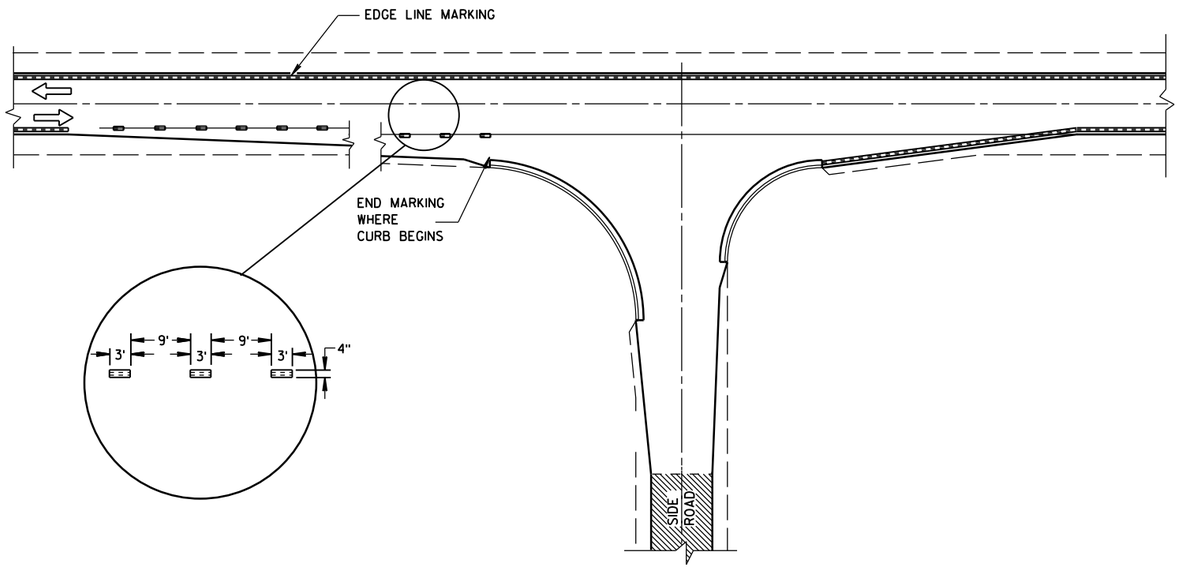
POSTED SPEED (MPH)	MINIMUM DISTANCE BETWEEN ZONES (FEET)
25 - 30	528
35 - 40	528
45 - 50	686
55	792





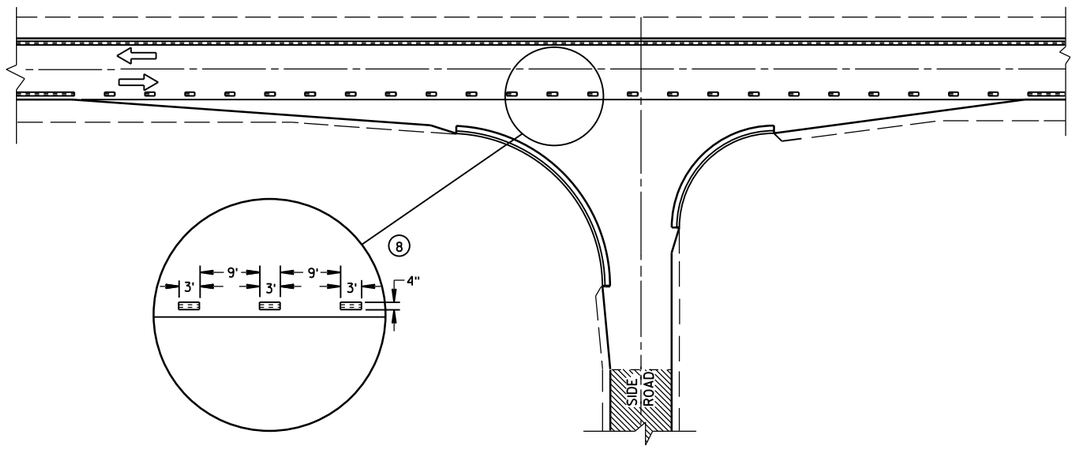
MAJOR INTERSECTIONS

(INTERSECTION WITH FULL RIGHT TURN LANE OR BYPASS LANES)



MINOR INTERSECTION WITH CURBS

(TYPICAL MARKING)



MINOR INTERSECTION WITH CURBS

(3) (FOR SPECIAL CONDITIONS AS SPECIFIED)

PAVEMENT MARKING
(INTERSECTIONS)

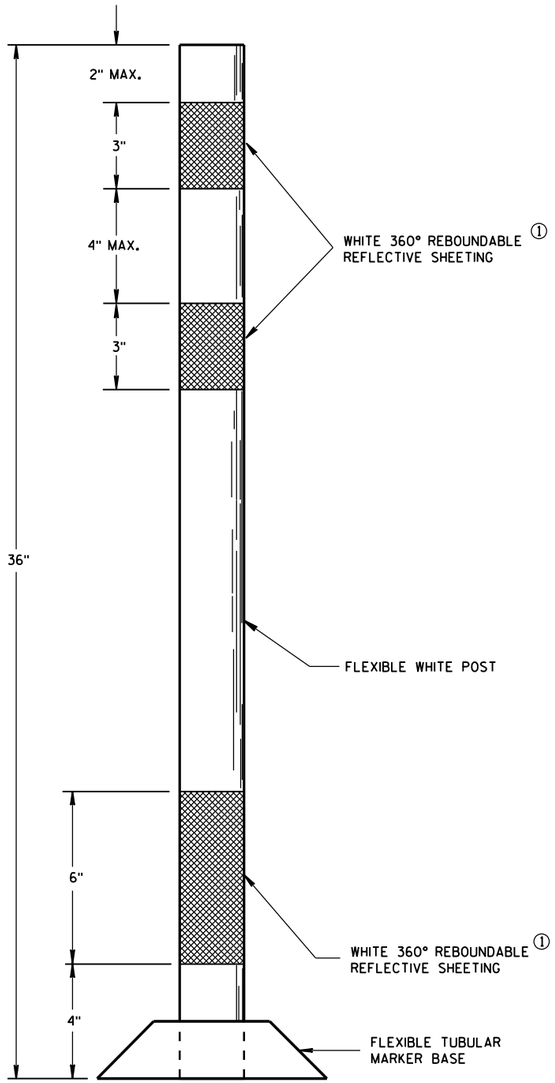
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR 280

6

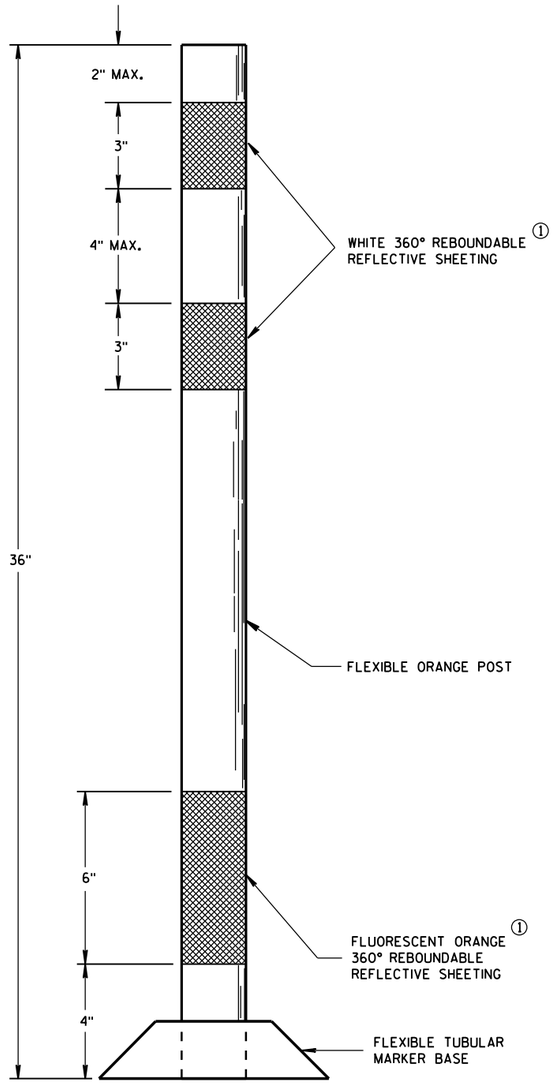
S.D.D. 15 C 8-16b

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S.D.D. 15 C 8-16b



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.

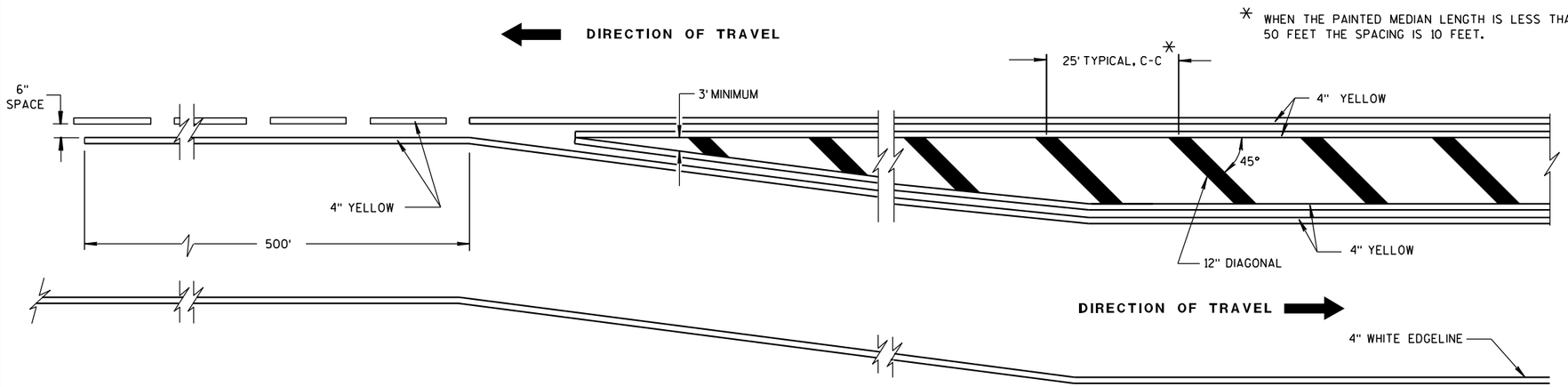
SURFACE MOUNTED BASES SHALL BE FURNISHED IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS TO BE COMPATIBLE WITH FLEXIBLE TUBULAR MARKER POSTS TO A SIZE AND SHAPE THAT WILL PROVIDE A STABLE POST FOUNDATION WHEN SECURED TO THE PAVEMENT.

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 ZONE SAFETY ENGINEER FHWA

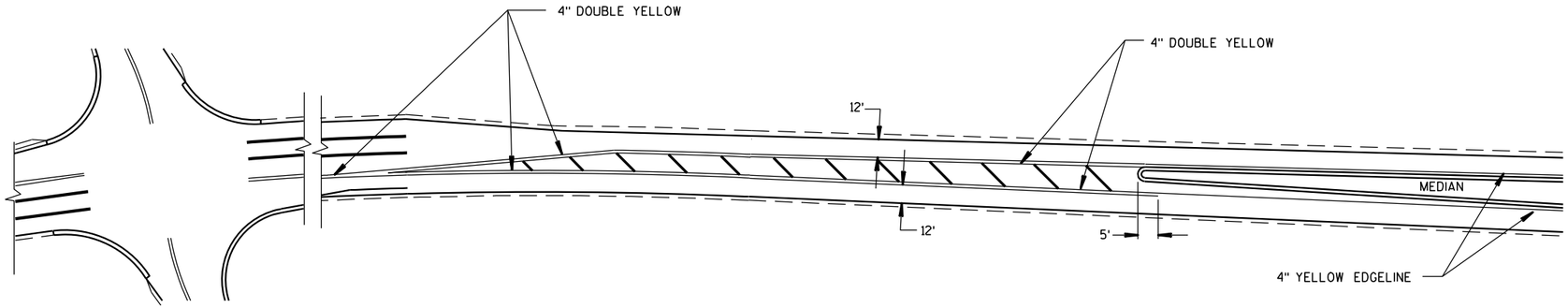
6
S.D.D. 15 C 11-6



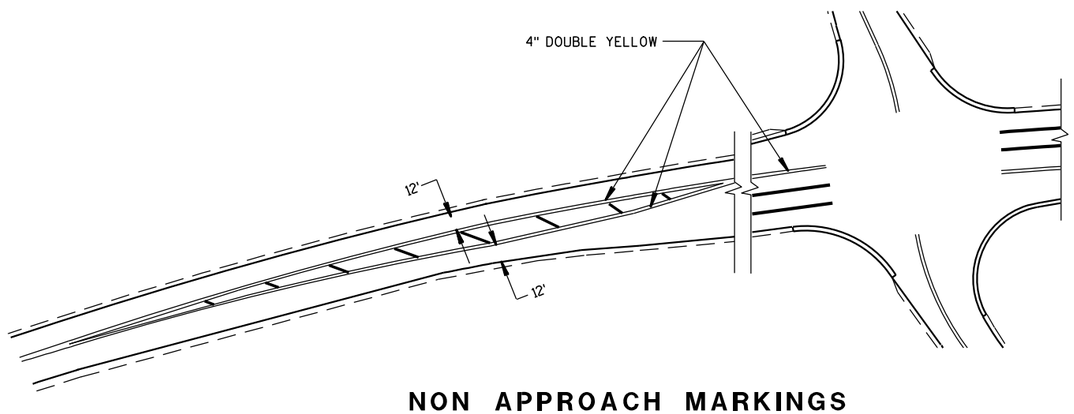
MEDIAN ISLAND DETAIL

GENERAL NOTE

DIAGONALS ARE OPTIONAL WHEN PAINTED ISLAND IS LESS THAN 6 FEET AT WIDEST POINT.



APPROACH MARKINGS FOR OTHER MEDIAN TYPES



NON APPROACH MARKINGS

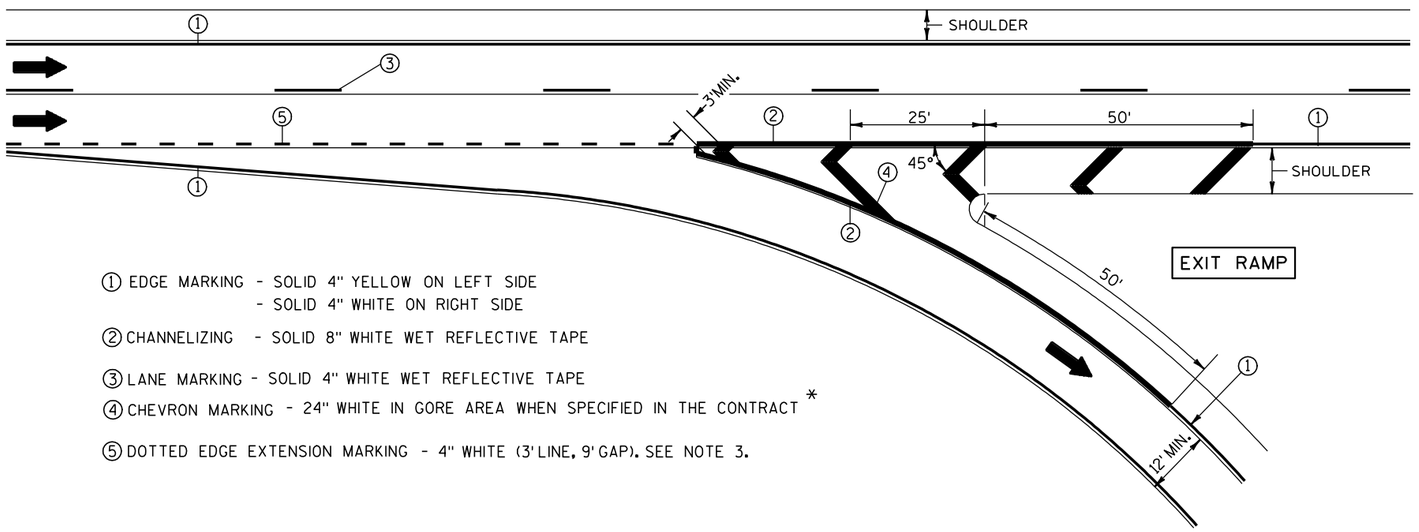
MEDIAN ISLAND MARKING	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 2-5-09 DATE	/S/ Thomas N. Nothohm STATE TRAFFIC ENGINEER
FHWA	282 IGN

6

S.D.D. 15 C 18-3

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S.D.D. 15 C 18-3



① EDGE MARKING - SOLID 4" YELLOW ON LEFT SIDE
- SOLID 4" WHITE ON RIGHT SIDE

② CHANNELIZING - SOLID 8" WHITE WET REFLECTIVE TAPE

③ LANE MARKING - SOLID 4" WHITE WET REFLECTIVE TAPE

④ CHEVRON MARKING - 24" WHITE IN GORE AREA WHEN SPECIFIED IN THE CONTRACT *

⑤ DOTTED EDGE EXTENSION MARKING - 4" WHITE (3' LINE, 9' GAP). SEE NOTE 3.

NOTES:

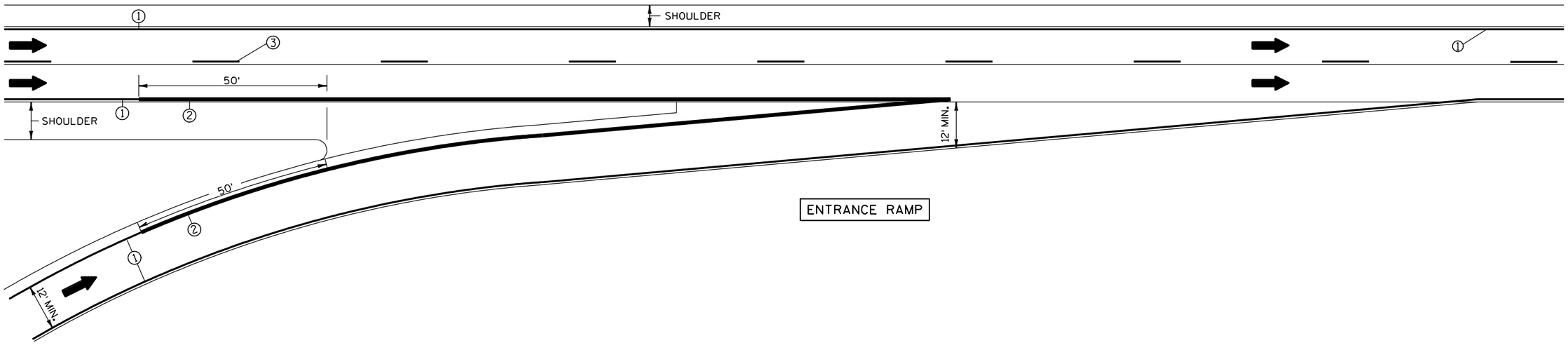
1. ARROWS SHOWN ON THIS MARKING PLAN DESIGNATE TRAFFIC FLOW, AND SHALL NOT BE TAKEN AS PROPOSED PAVEMENT MARKINGS.

2. PLACE WHITE EDGE OF TAPE 6" LEFT FROM JOINT.

3. 3' LINE 9' GAP, EXCEPT RETRACE THE EXISTING LINE-GAP PATTERN WHERE EXISTING MARKINGS ARE IN PLACE.

4. RETRACE EXISTING DIAGONAL MARKINGS.

* REFER TO DESIGN NOTES.



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S.D.D. 15 C 31-1a

S.D.D. 15 C 31-1a

PAVEMENT MARKING
(RAMPS AND GORES)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

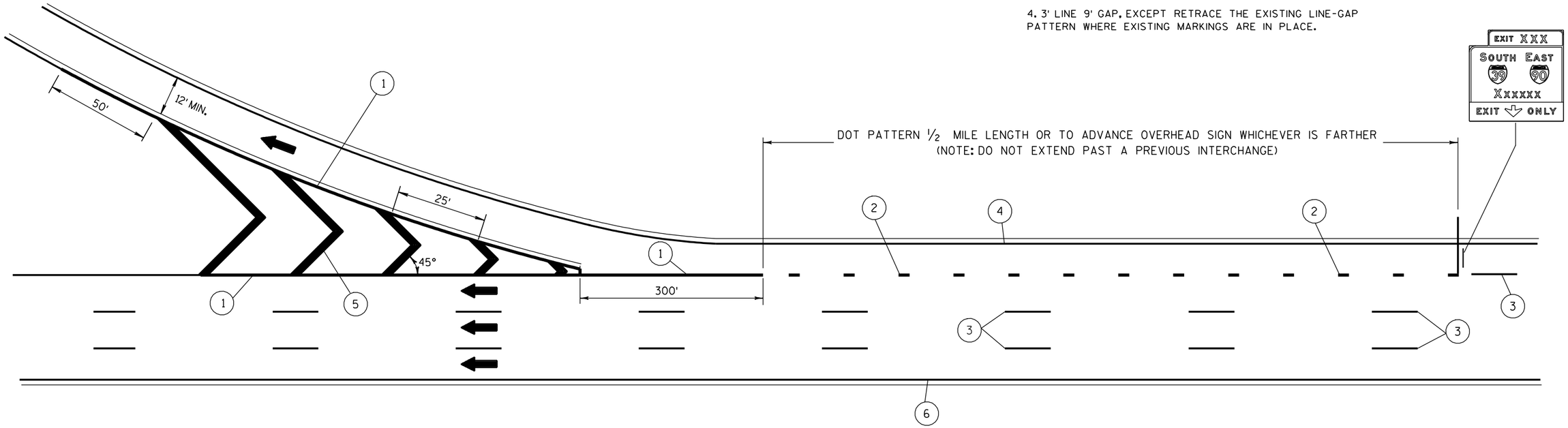
NOTES:

1. SEE STANDARD DETAIL DRAWING 15 C 10 FOR SPRAYED OR NON WET REFLECTIVE LINE SEGMENTS.

2. ARROWS SHOWN ON THIS MARKING PLAN DESIGNATE TRAFFIC FLOW, AND SHALL NOT BE TAKEN AS PROPOSED PAVEMENT MARKINGS.

3. PLACE WHITE EDGE OF TAPE 6" LEFT FROM JOINT.

4. 3' LINE 9' GAP, EXCEPT RETRACE THE EXISTING LINE-GAP PATTERN WHERE EXISTING MARKINGS ARE IN PLACE.



1. CHANNELIZING - SOLID 8" WHITE WET RELECTIVE TAPE
2. 3' LINE, 9' GAP SOLID 8" WHITE WET REFLECTIVE TAPE. SEE NOTE 4.
3. SOLID 4" WHITE WET REFLECTIVE TAPE
4. 4" WHITE EDGELINE
5. CHEVRON MARKING - 24" WHITE WHEN SPECIFIED IN THE CONTRACT
6. 4" YELLOW EDGELINE

LANE DROP
PAVEMENT MARKING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

S.D.D. 15 C 31-1b
S.D.D. 15 C 31-1b

NOTES:

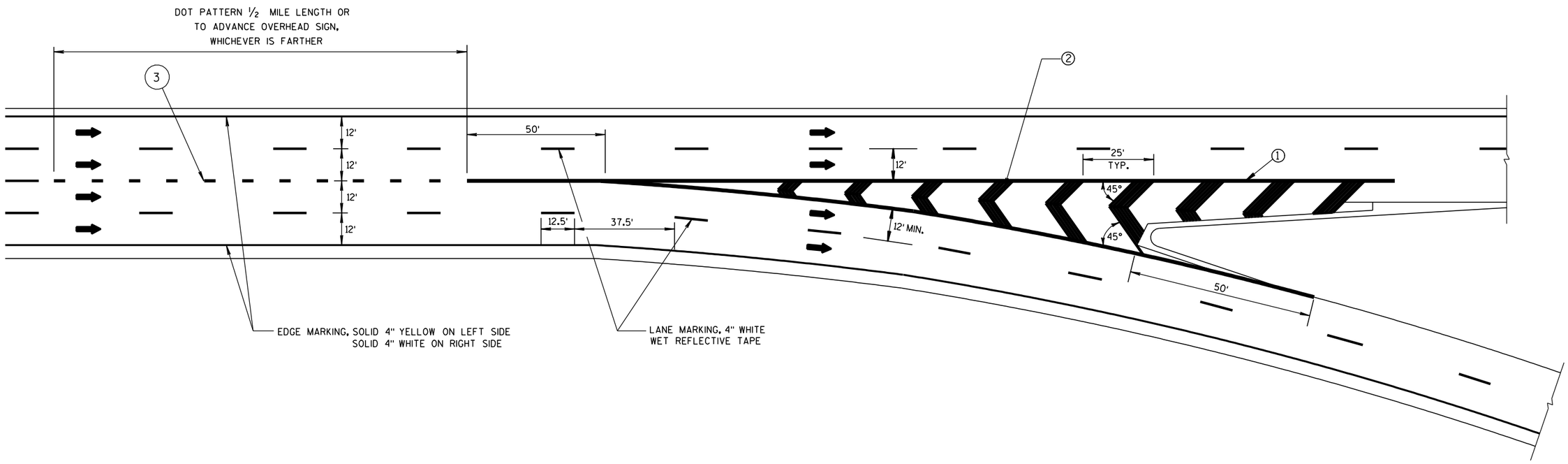
1. ARROWS SHOWN ON THIS MARKING PLAN DESIGNATE TRAFFIC FLOW, AND SHALL NOT BE TAKEN AS PROPOSED PAVEMENT MARKINGS.

2. PLACE WHITE EDGE OF TAPE 6" LEFT FROM JOINT.

① CHANNELIZING - SOLID 8" WHITE WET REFLECTIVE TAPE.

② CHEVRON MARKING - 24" WHITE WHEN SPECIFIED IN THE CONTRACT.

③ 3' LINE, 9' GAP SOLID 8" WHITE WET REFLECTIVE TAPE.



6

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S.D.D. 15 C 31-1c

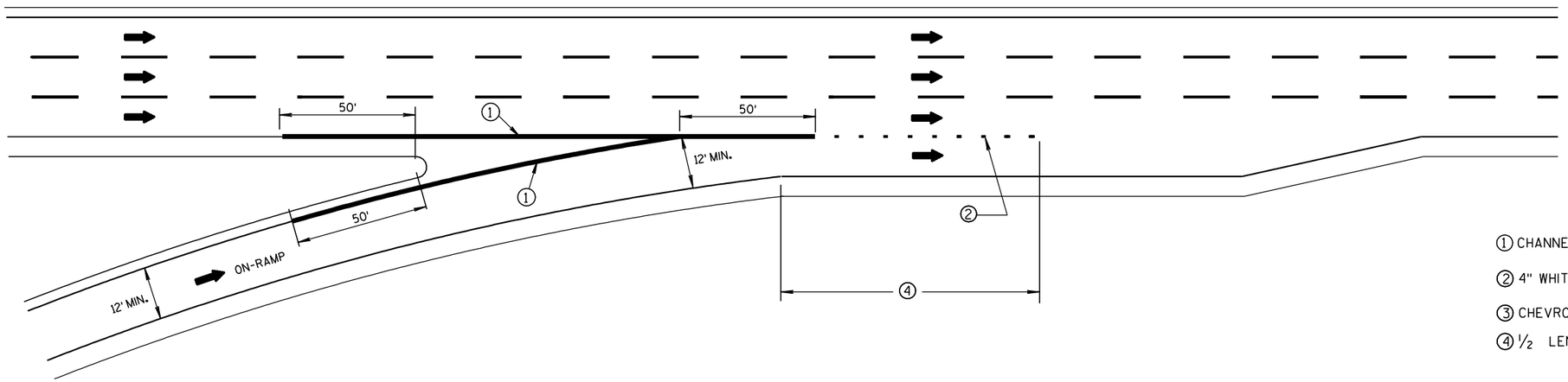
S.D.D. 15 C 31-1c

PAVEMENT MARKING
MAJOR SPLIT
FREEWAY TO FREEWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

NOTES:

1. AHEAD ARROWS SHOWN ON THIS MARKING PLAN DESIGNATE TRAFFIC FLOW, AND SHALL NOT BE TAKEN AS PROPOSED PAVEMENT MARKINGS.
2. PLACE WHITE EDGE OF TAPE 6" LEFT FROM JOINT.
3. RETRACE EXISTING DIAGONAL MARKINGS.



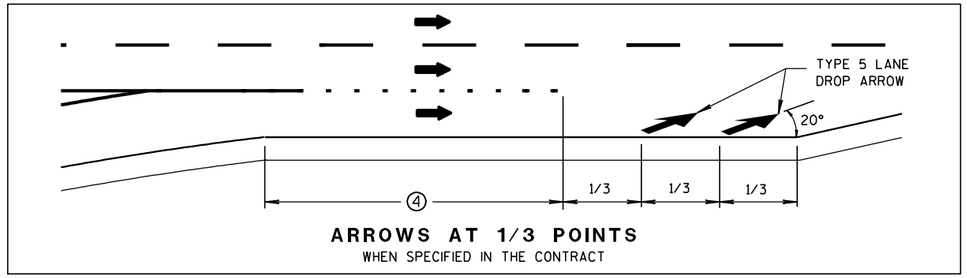
① CHANNELIZING - SOLID 8" WHITE WET REFLECTIVE TAPE IN GORE AREA.

② 4" WHITE (3' LINE, 9' GAP).

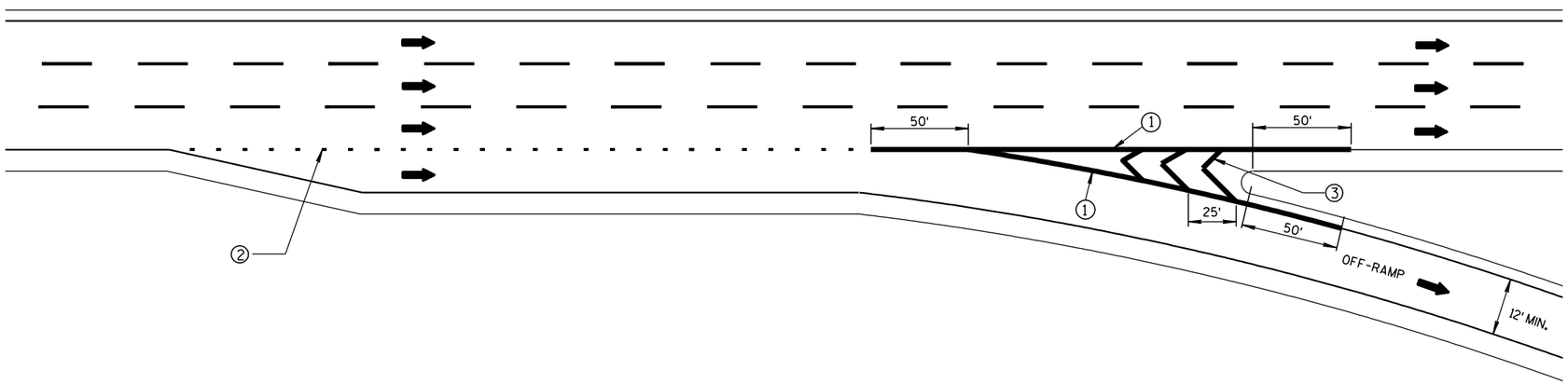
③ CHEVRON MARKING - 24" WHITE WHEN SPECIFIED IN THE CONTRACT.

④ ½ LENGTH OF FULL WIDTH ACCELERATION LANE.

SERVICE INTERCHANGE PAVEMENT MARKING FOR PARALLEL ENTRANCE-RAMP



ARROWS AT 1/3 POINTS
WHEN SPECIFIED IN THE CONTRACT



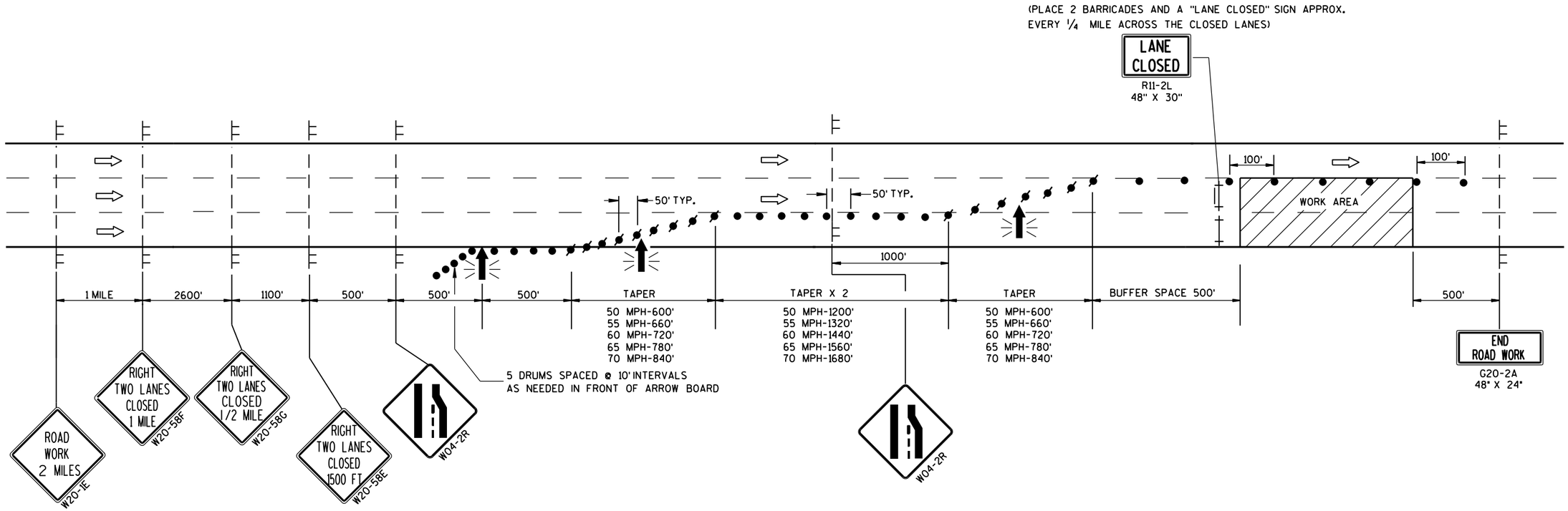
SERVICE INTERCHANGE PAVEMENT MARKING FOR PARALLEL EXIT-RAMP

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
6/23/2011 DATE
/S/ Thomas N. Nothem
STATE TRAFFIC ENGINE 286 SIGN
FHWA

6
S.D.D. 15 C 31-1d



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.

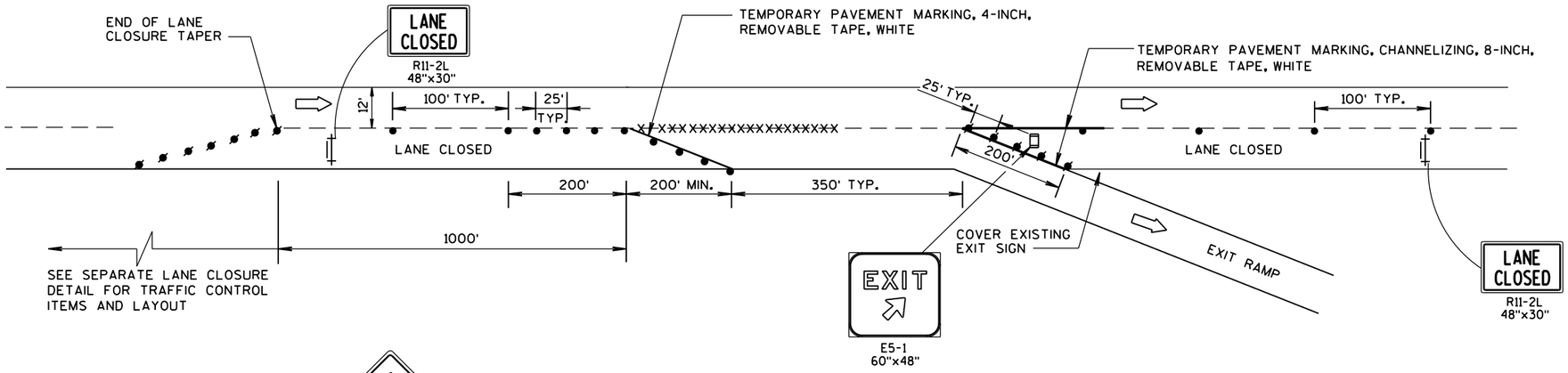
WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

TRAFFIC CONTROL, TWO LANE CLOSURE ON FREEWAY OR EXPRESSWAY, SHORT TERM (LESS THAN 24 HOURS)

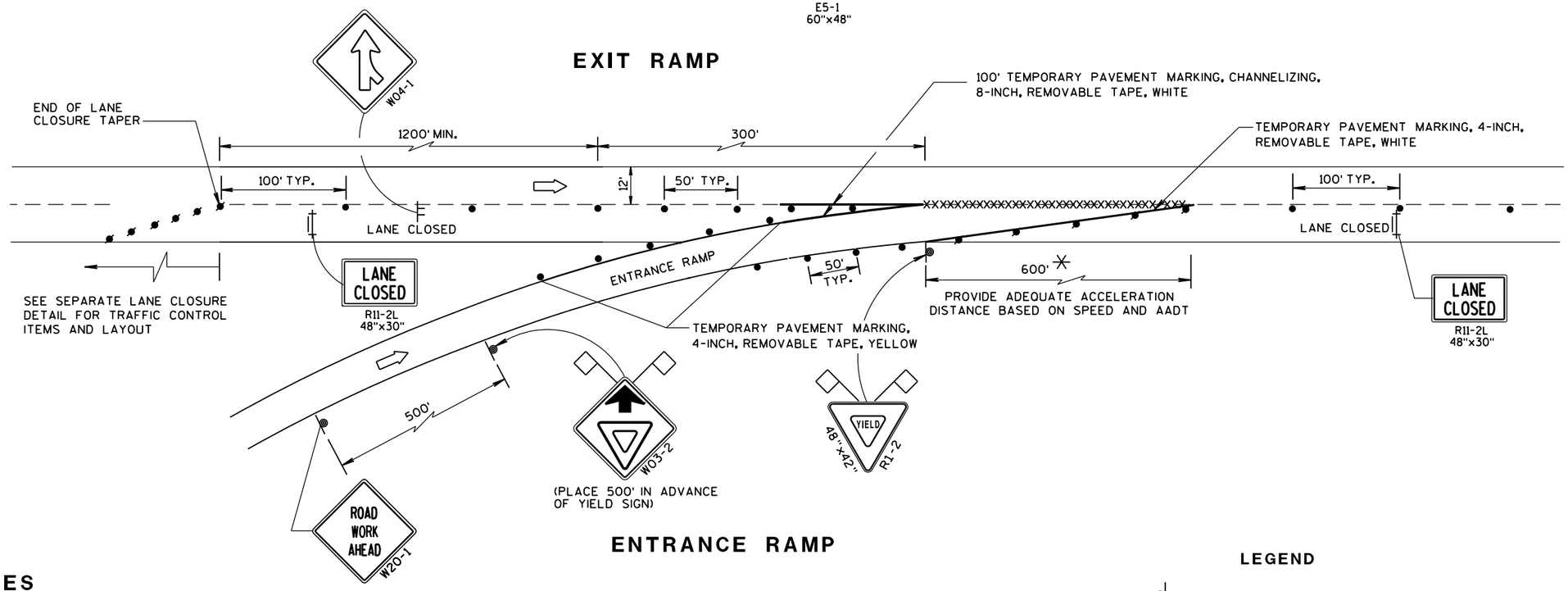
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
July 14, 2015 — DATE
/S/ Peter Amakobe Atepe — STATEWIDE WORK ZONE TRAFFIC SAFETY ENGINEER
FHWA

6
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

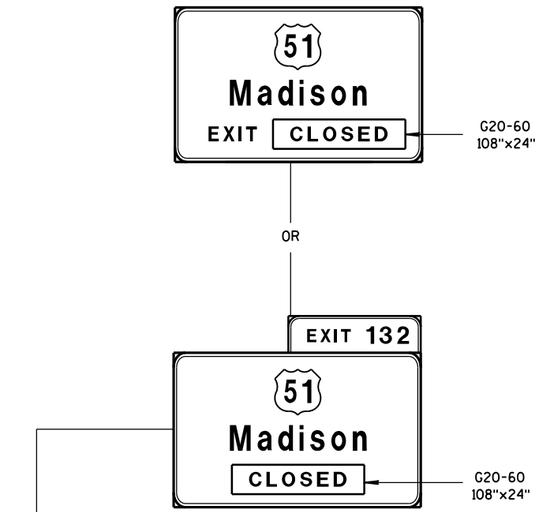
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- REMOVING PAVEMENT MARKING (SEE GENERAL NOTES)
- TYPE III BARRICADE WITH ATTACHED SIGN
- FLAGS, 16" x 16" MIN., (ORANGE)
- DIRECTION OF TRAFFIC

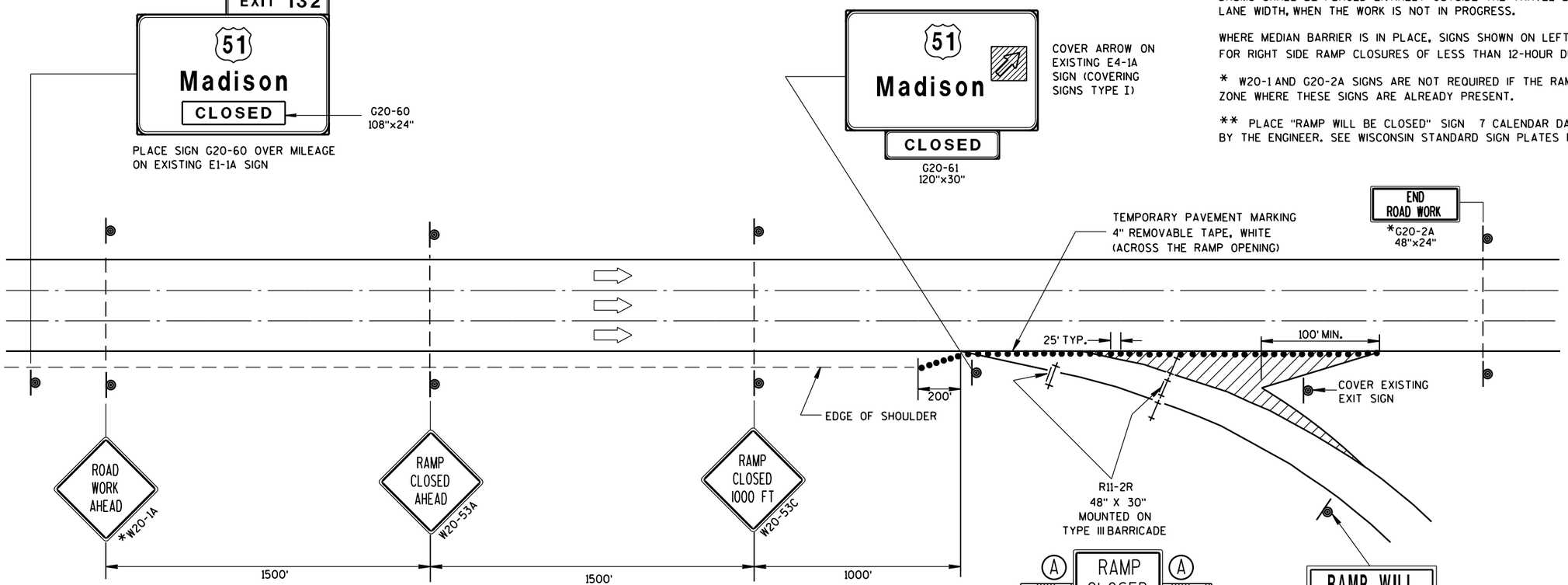
TRAFFIC CONTROL, EXIT AND ENTRANCE RAMP WITHIN LANE CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

6
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

6 S.D.D. 15 D 16-3

6 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.

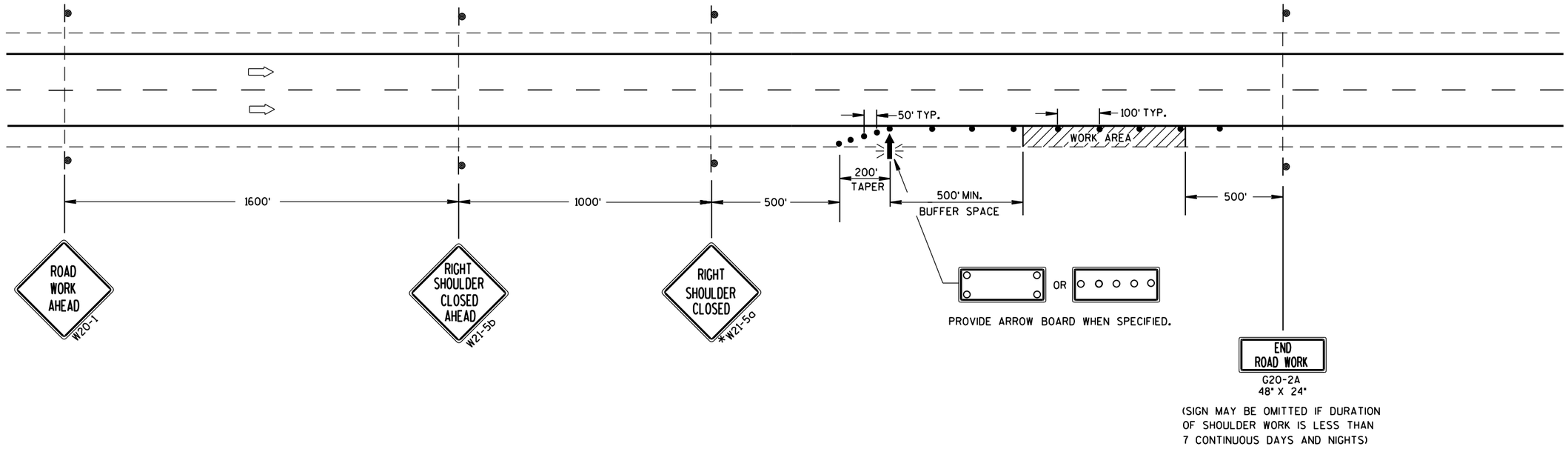
SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

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

8/2013 DATE

/S/ Travis Feltes
STATE TRAFFIC ENGINEER

FHWA

6

S.D.D. 15 D 27-2

LEGEND

- SIGN ON PERMANENT SUPPORT
- REMOVING PAVEMENT MARKING
- TYPE III BARRICADE WITH ATTACHED SIGN
- CONCRETE BARRIER TEMPORARY PRECAST
- FLAGS, 16" x 16" MIN., (ORANGE)
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- ASPHALTIC PAVEMENT WIDENING
- DIRECTION OF TRAFFIC
- 4" X 6" WOOD POST
- TEMPORARY SIGNAL WITH BACKPLATE AND 12-INCH LENSES ON BREAKAWAY POLE



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.)

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.

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

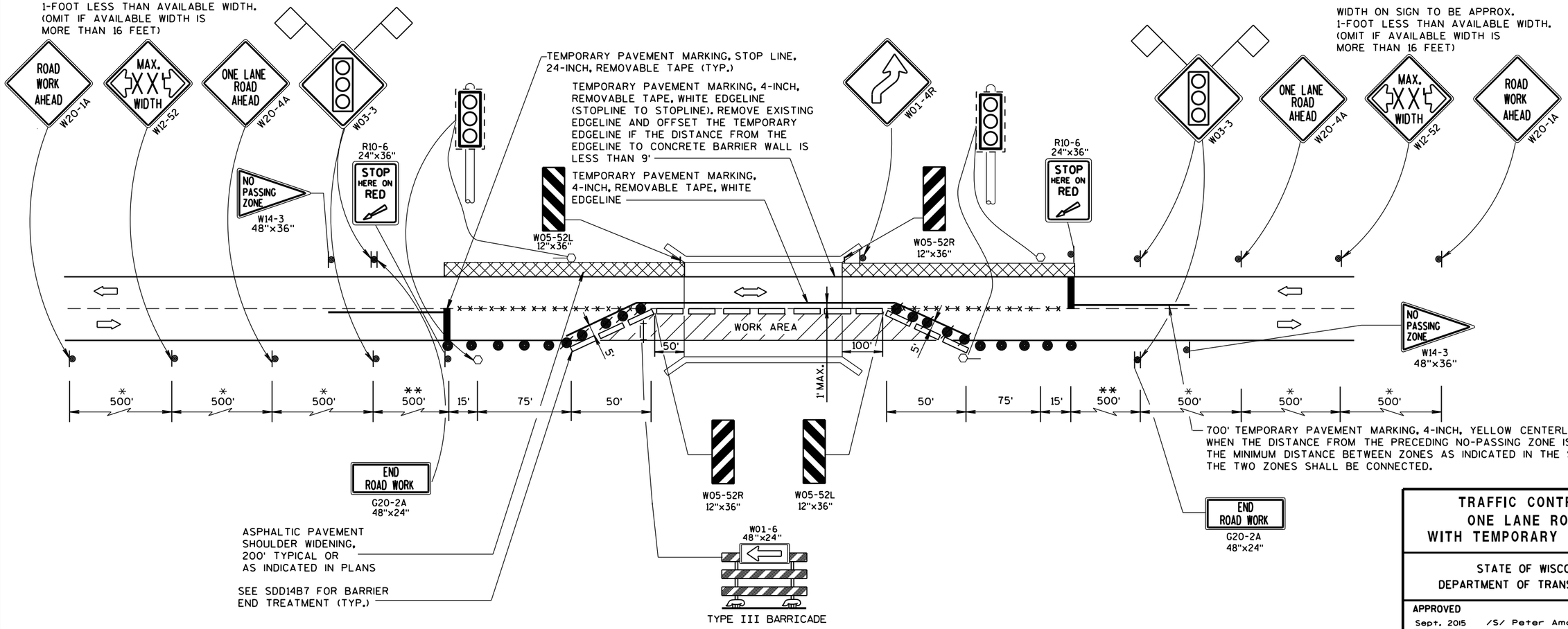
SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE FHWA'S MANUAL OF STANDARD HIGHWAY SIGNS OR THE WISCONSIN STANDARD SIGN PLATES.

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 EDGELINE AND CENTERLINE, AND REMOVE EXISTING PAVEMENT MARKINGS IF LANE CLOSURE IS TO BE IN PLACE FOR 4 OR MORE CONTINUOUS DAYS AND NIGHTS OR AS NOTED ON DETAIL.

* 500-FOOT SPACING SHOWN IS FOR ROADWAYS WITH A PRE-CONSTRUCTION REGULATORY SPEED LIMIT OF 45 MPH OR MORE. FOR 35-40 MPH, USE 350-FOOT TYPICAL SPACING. FOR 25-30 MPH, USE 200-FOOT TYPICAL SPACING.

** USE 300' SPACING IF PRE-CONSTRUCTION REGULATORY SPEED LIMIT IS 35 MPH OR LESS.



TRAFFIC CONTROL, ONE LANE ROAD WITH TEMPORARY SIGNALS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

6

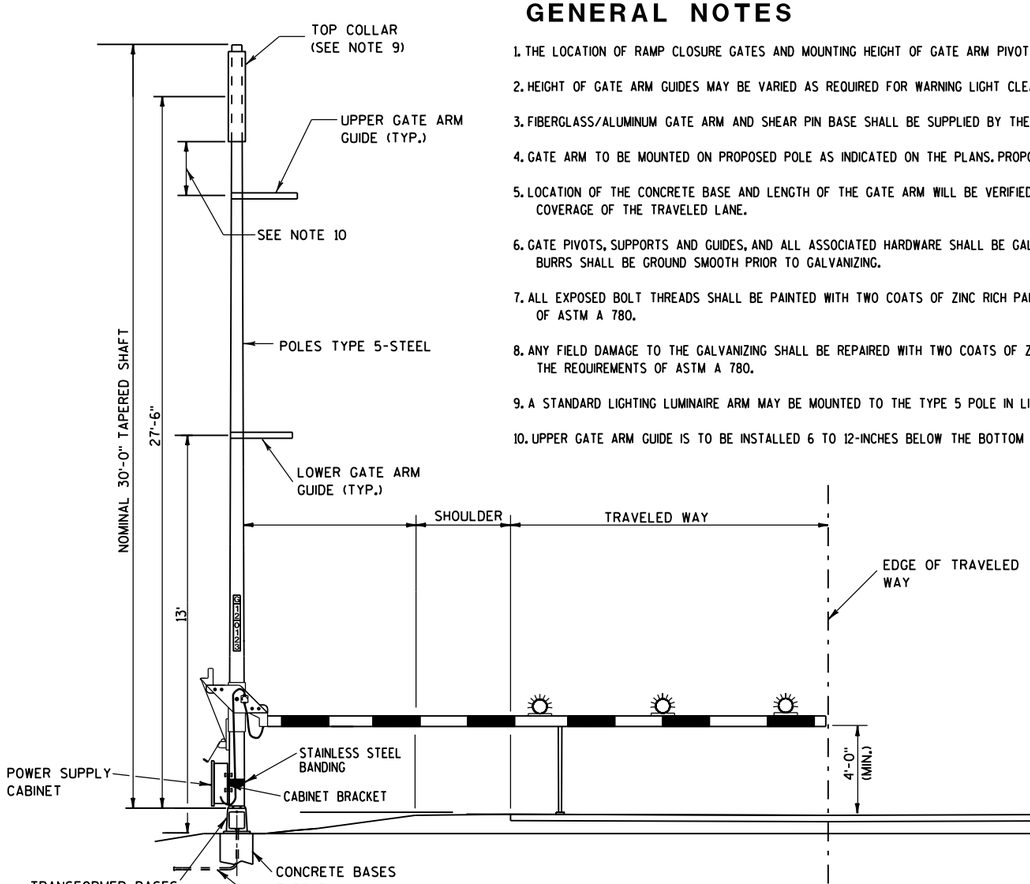
S.D.D. 15 D 33-4

6

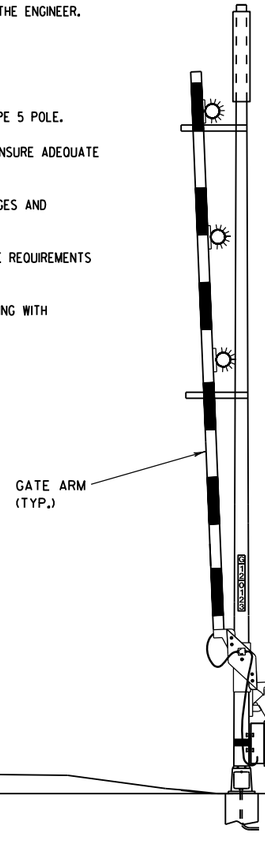
S.D.D. 15 D 33-4

GENERAL NOTES

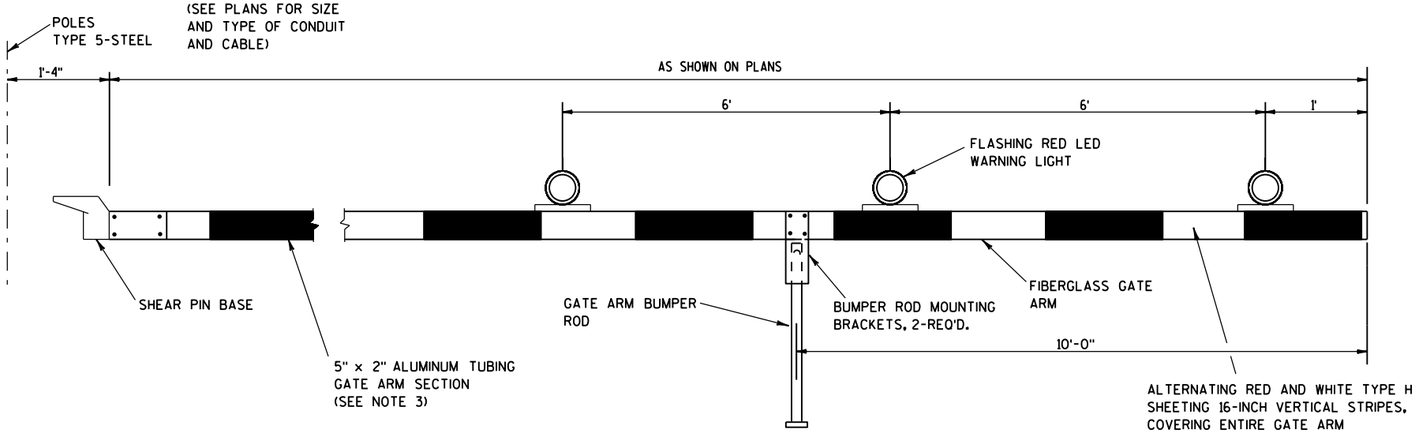
1. THE LOCATION OF RAMP CLOSURE GATES AND MOUNTING HEIGHT OF GATE ARM PIVOT SHALL BE VERIFIED BY THE ENGINEER.
2. HEIGHT OF GATE ARM GUIDES MAY BE VARIED AS REQUIRED FOR WARNING LIGHT CLEARANCE.
3. FIBERGLASS/ALUMINUM GATE ARM AND SHEAR PIN BASE SHALL BE SUPPLIED BY THE SAME VENDOR.
4. GATE ARM TO BE MOUNTED ON PROPOSED POLE AS INDICATED ON THE PLANS. PROPOSED POLE SHALL BE TYPE 5 POLE.
5. LOCATION OF THE CONCRETE BASE AND LENGTH OF THE GATE ARM WILL BE VERIFIED BY THE ENGINEER TO ENSURE ADEQUATE COVERAGE OF THE TRAVELED LANE.
6. GATE PIVOTS, SUPPORTS AND GUIDES, AND ALL ASSOCIATED HARDWARE SHALL BE GALVANIZED. ALL ROUGH EDGES AND BURRS SHALL BE GROUND SMOOTH PRIOR TO GALVANIZING.
7. ALL EXPOSED BOLT THREADS SHALL BE PAINTED WITH TWO COATS OF ZINC RICH PAINT CONFORMING WITH THE REQUIREMENTS OF ASTM A 780.
8. ANY FIELD DAMAGE TO THE GALVANIZING SHALL BE REPAIRED WITH TWO COATS OF ZINC RICH PAINT CONFORMING WITH THE REQUIREMENTS OF ASTM A 780.
9. A STANDARD LIGHTING LUMINAIRE ARM MAY BE MOUNTED TO THE TYPE 5 POLE IN LIEU OF THE TOP COLLAR.
10. UPPER GATE ARM GUIDE IS TO BE INSTALLED 6 TO 12-INCHES BELOW THE BOTTOM OF THE TOP COLLAR.



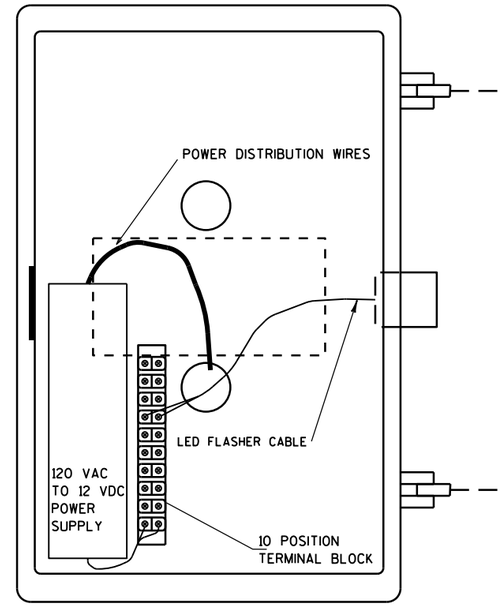
TYPICAL LOWERED POSITION



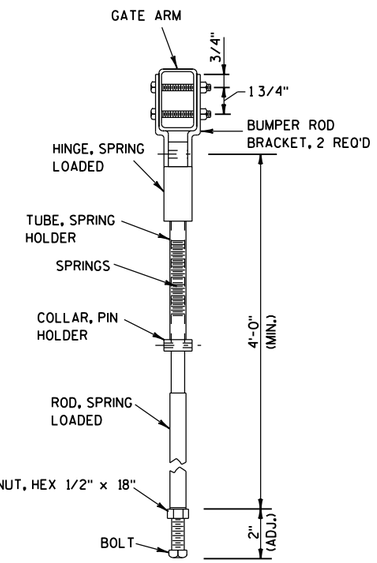
TYPICAL RAISED POSITION



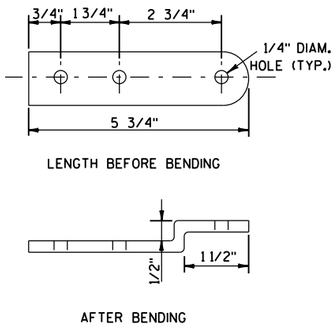
GATE DETAIL
(HARDWIRE POWER OPTION)



POWER SUPPLY CABINET



GATE ARM BUMPER ROD DETAIL

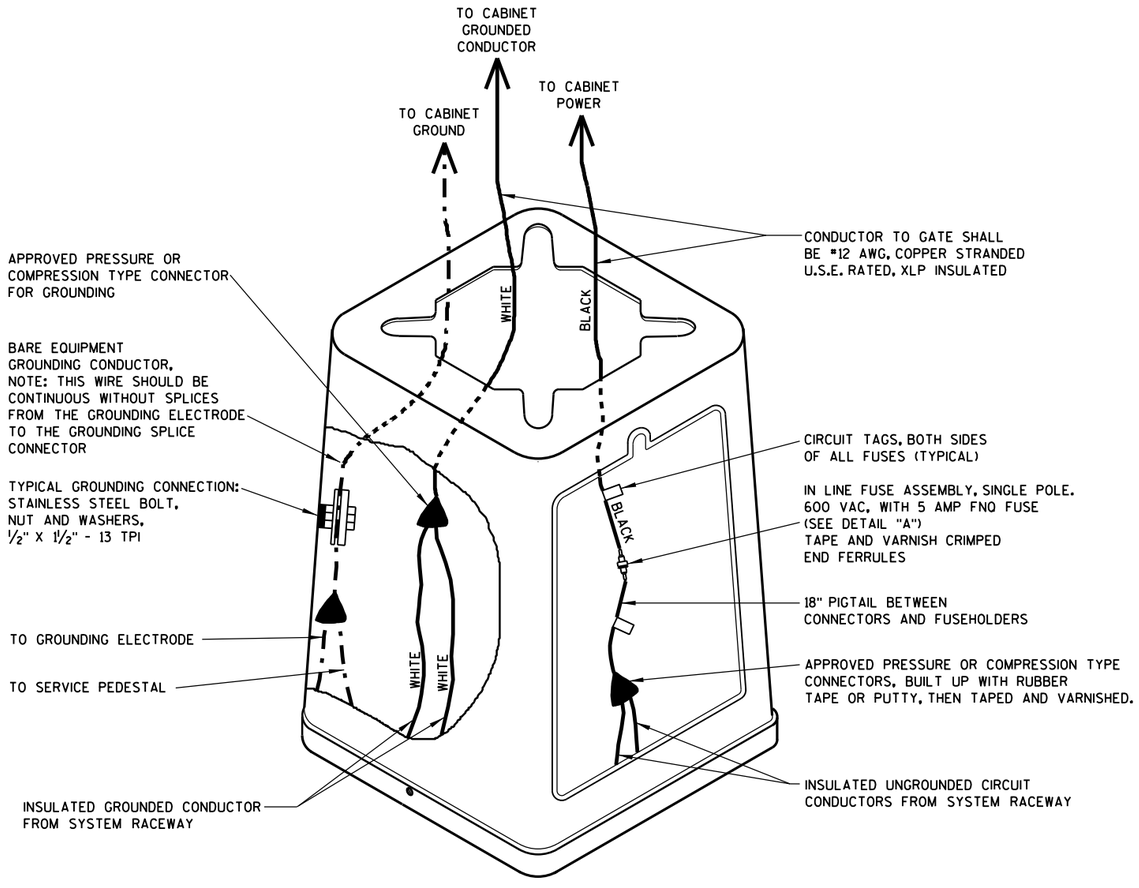


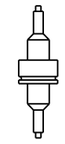
BUMPER ROD MOUNTING
BRACKET DETAIL

RAMP GATE
HARD WIRED

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6
S.D.D. 15 D 35-2a





DETAIL "A"
SINGLE POLE

6

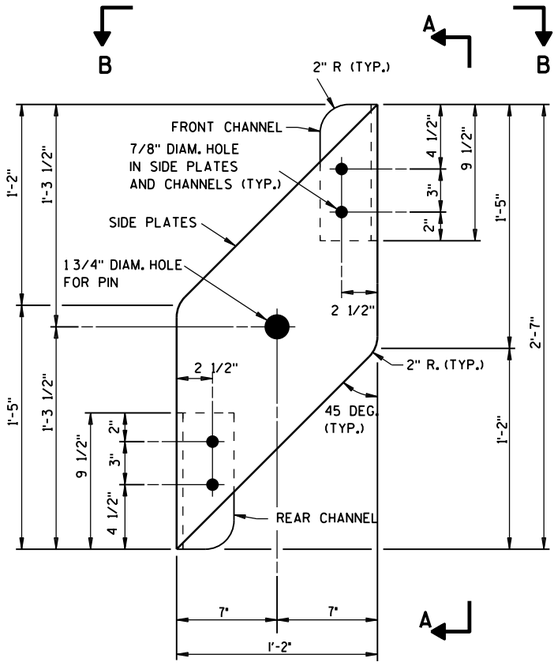
S.D.D. 15 D 35-2b

RAMP GATE
HARD WIRED

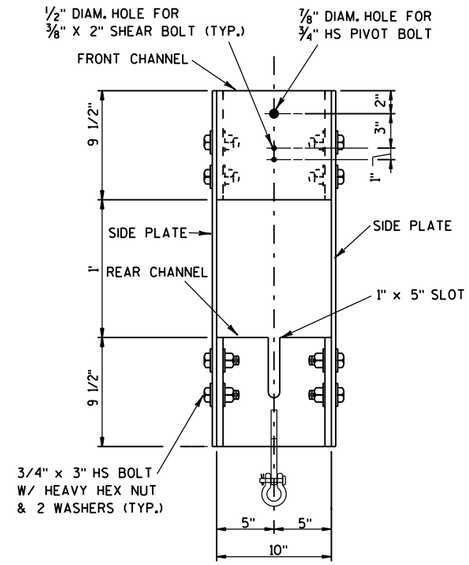
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

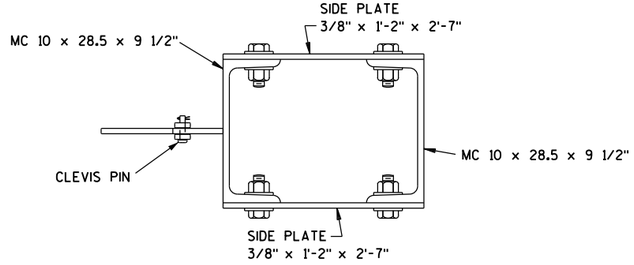
S.D.D. 15 D 35-2b



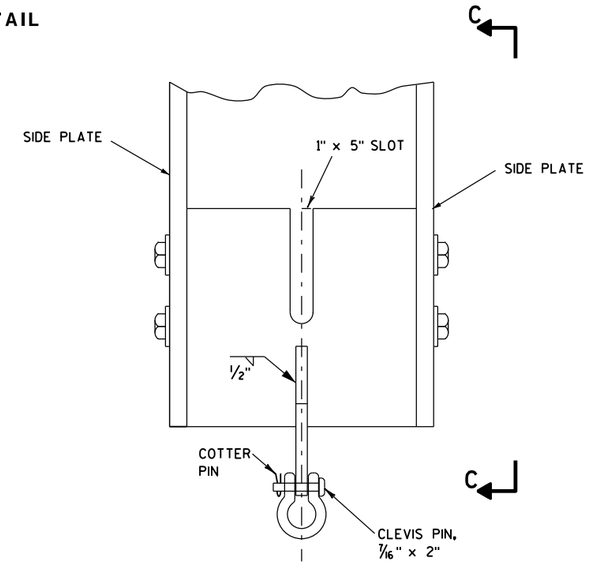
SIDE PLATE DETAIL



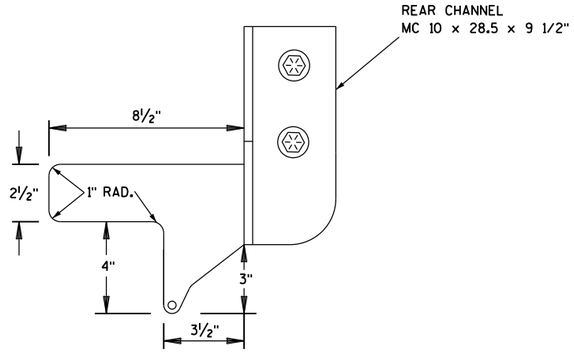
SECTION A-A



SECTION B-B



YOKE ASSEMBLY DETAIL



SECTION C-C

RAMP GATE
HARD WIRED

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6

S.D.D. 15 D 35-2c

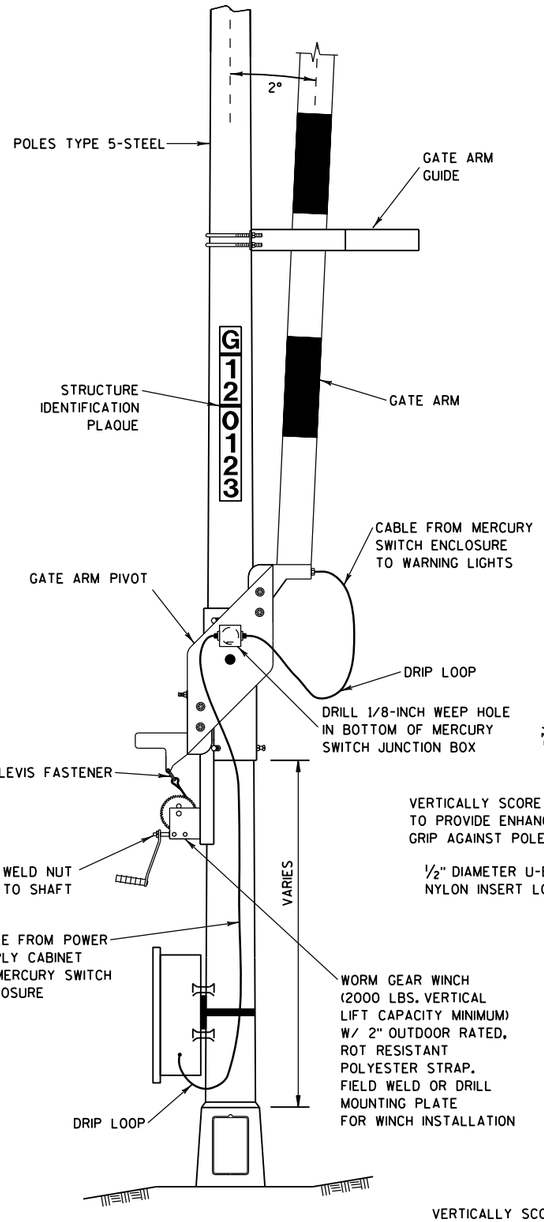
GENERAL NOTES

1. WHEN THE GATE IS FULLY RAISED, THE NUT AND WASHER SHALL BE PLACED SNUGLY AGAINST THE OUTSIDE OF THE REAR CHANNEL.

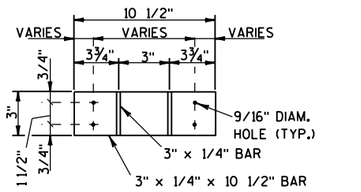
2. WHEN THE GATE IS FULLY LOWERED, THE NUT AND WASHER SHALL BE PLACED SNUGLY AGAINST THE INSIDE OF THE REAR CHANNEL.

3. ANTI-SEIZE LUBRICATING MATERIAL SHALL BE USED ON ALL BOLT THREADS BEFORE INSTALLATION.

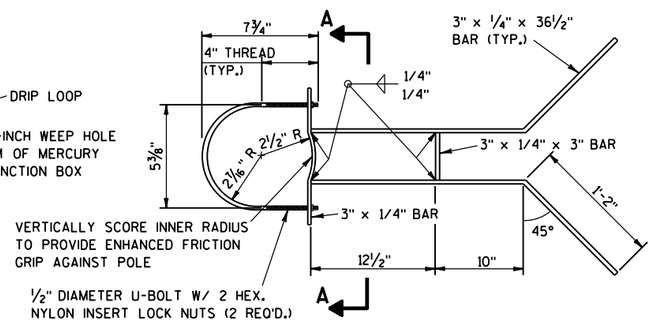
4. ALL BOLTS SHALL BE GALVANIZED AND CONFORM TO ASTM A307, GRADE A, UNLESS DESIGNATED AS HS (HIGH STRENGTH), WHICH SHALL CONFORM TO ASTM A325. BOLTS OF ½" NOMINAL DIAMTER OR LESS MAY BE STAINLESS STEEL.



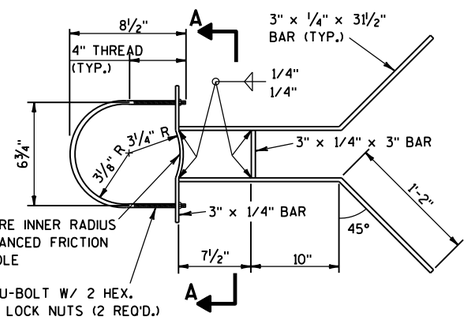
GATE PIVOT ASSEMBLY



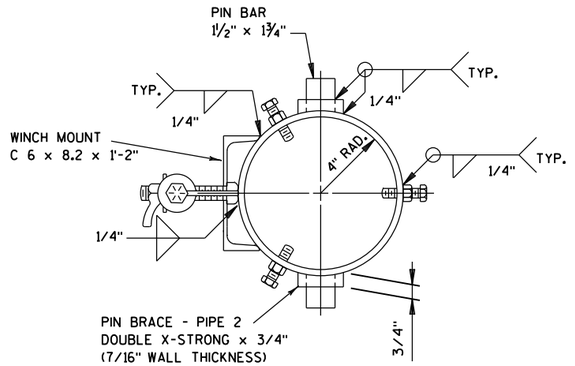
SECTION A-A
U-BOLTS NOT SHOWN



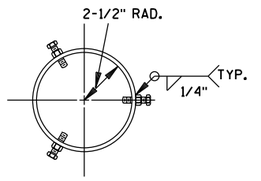
UPPER GATE ARM GUIDE DETAIL



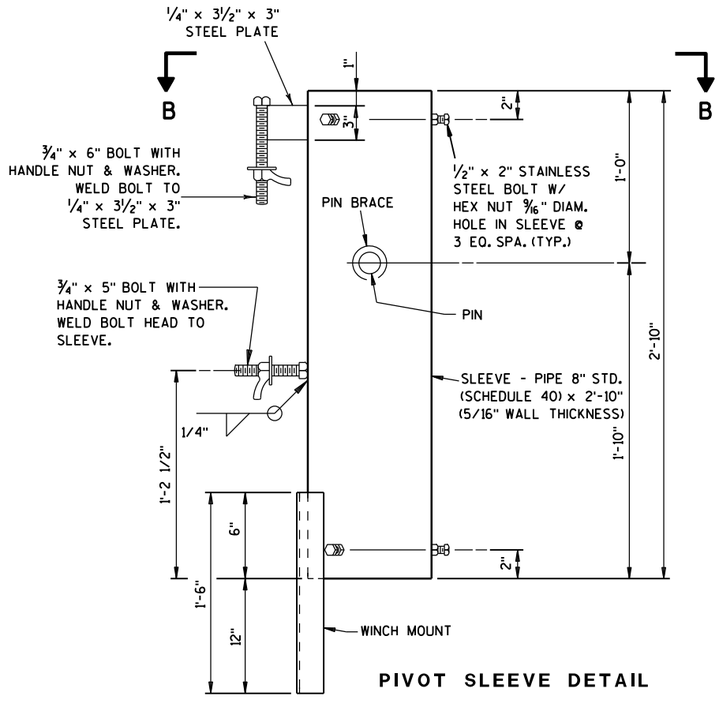
LOWER GATE ARM GUIDE DETAIL



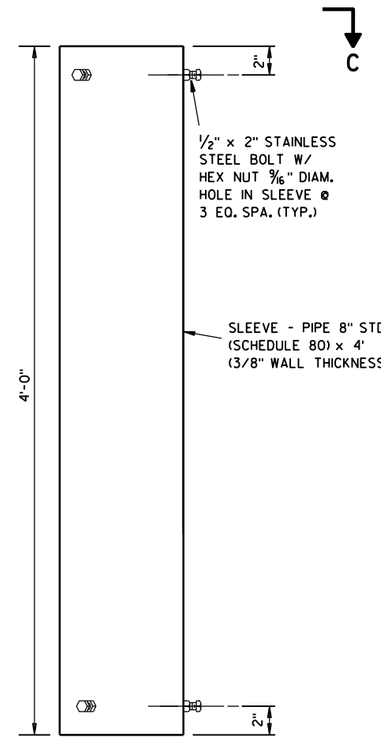
SECTION B-B



SECTION C-C



PIVOT SLEEVE DETAIL



TOP COLLAR

RAMP GATE
HARD WIRED

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
11/2015 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL
R

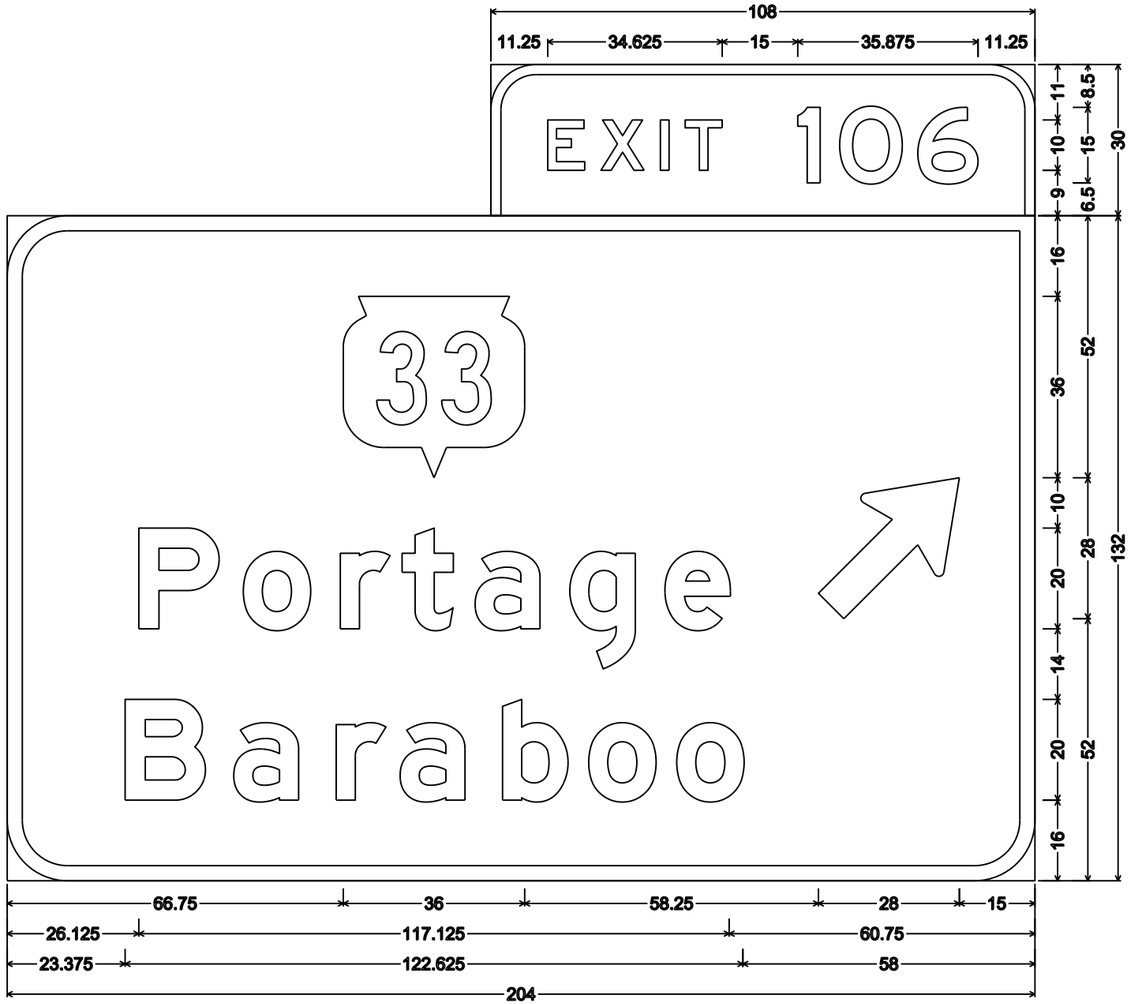
FHWA

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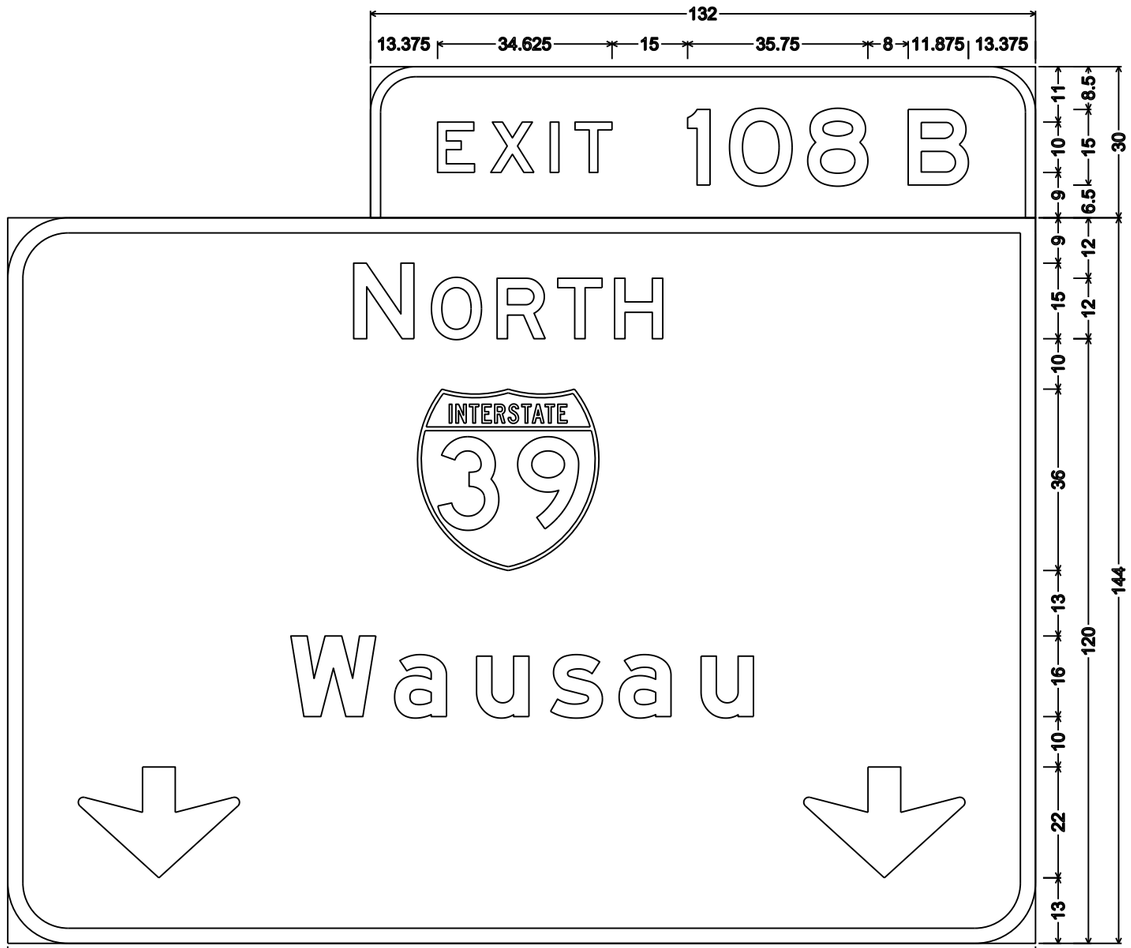
S.D.D. 15 D 35-2d
S.D.D. 15 D 35-2d

NOTES

1. All Signs are Type I - Type SH Reflective
2. Color:
   Background - Green
   Message - White
3. Message Series - E Modified except as noted
4. ONLY plaque background is Type F Sheeting



9.000" Radius, 2.000" Border, White on Green;
"EXIT" E specified length; "106" E;
12.000" Radius, 3.000" Border, White on Green;
State Highway 33 M1-56; "Portage" E Mod; "Baraboo" E Mod; Standard Arrow Custom 36.000" X 22.500" 45°;



9.000" Radius, 2.000" Border, White on Green;
"EXIT" E specified length; "108" E; "B" E;
12.000" Radius, 3.000" Border, White on Green;
"NORTH" E; "Wausau" E Mod; Down Arrow Custom - 22.000" 270°; Down Arrow Custom - 22.000" 270°;

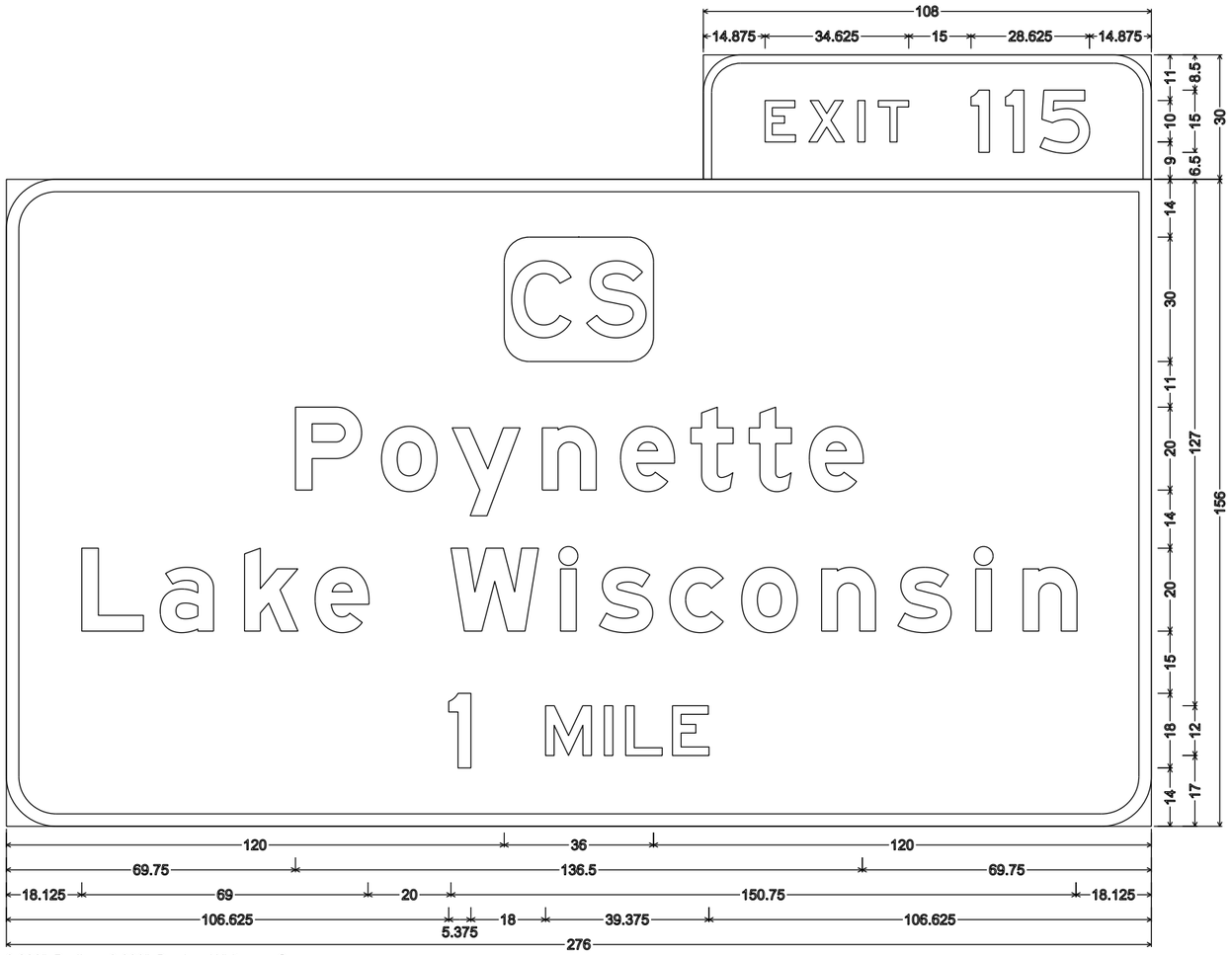
PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	PERMANENT SIGNING	SHEET NO:	E

FILE NAME : C:\CAEfiles\Projects\tr_d1\1112AP15.DGN PLOT DATE : 09-MAR-2016 11:10 PLOT BY : $$ plotuser $$ PLOT NAME : PLOT SCALE : 30.068066:1.000000

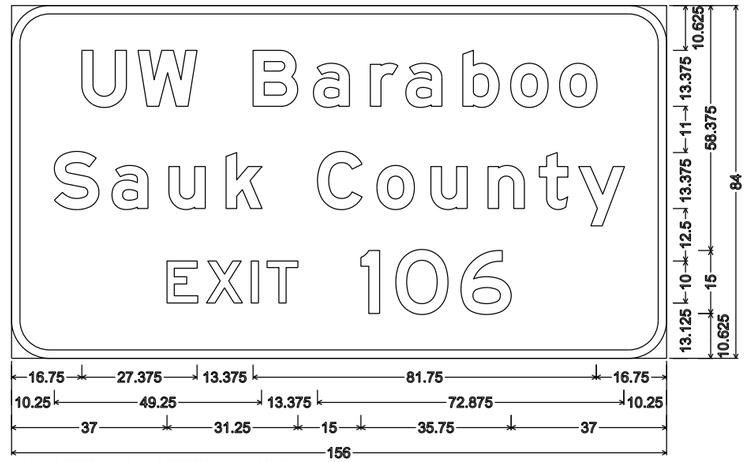
7

NOTES

1. All Signs are Type I - Type SH Reflective
2. Color:
   Background - Green
   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; "1" E; "MILE" E;

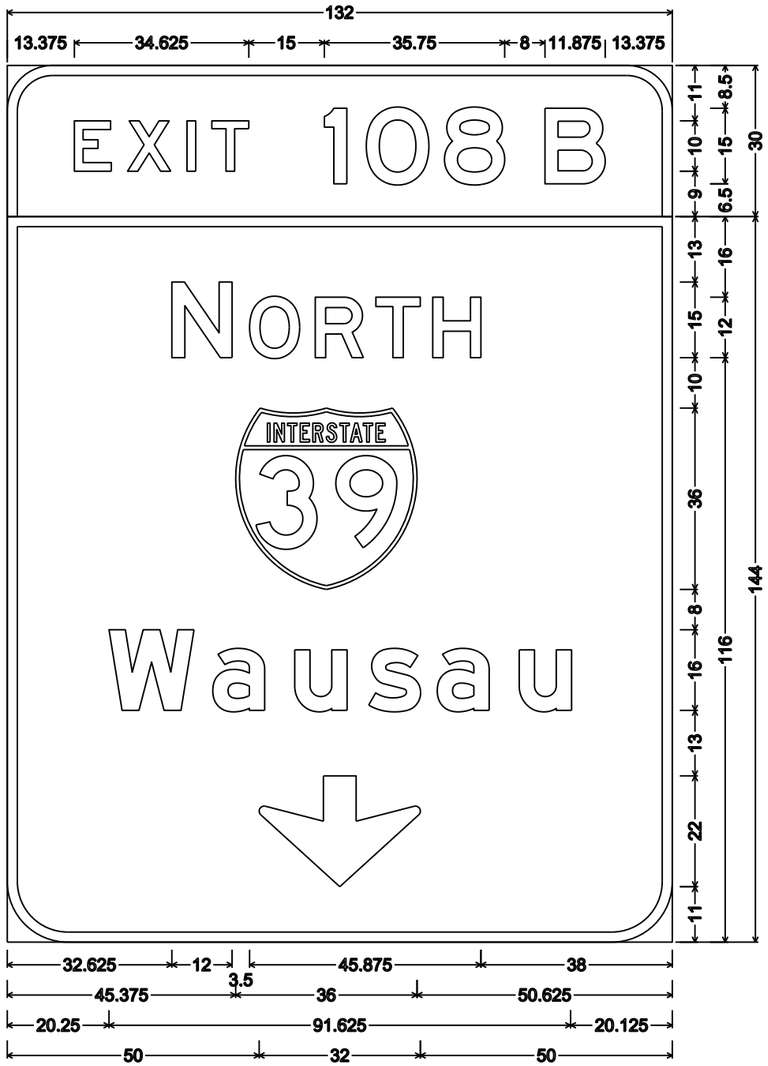


E3-1; 9.000" Radius, 2.000" Border, White on Green;
"UW" E Mod; "Baraboo" E Mod; "Sauk" E Mod; "County" E Mod; "EXIT" E; "106" E;

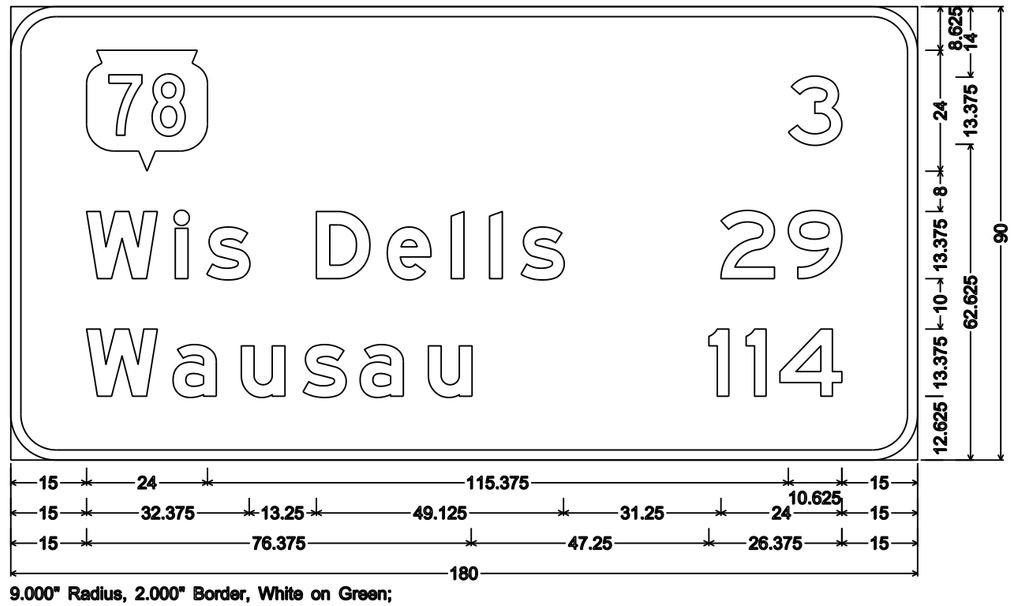
PROJECT NO: 1010-02-85	HWY: IH 39	COUNTY: COLUMBIA	PERMANENT SIGNING	SHEET NO:	E

NOTES

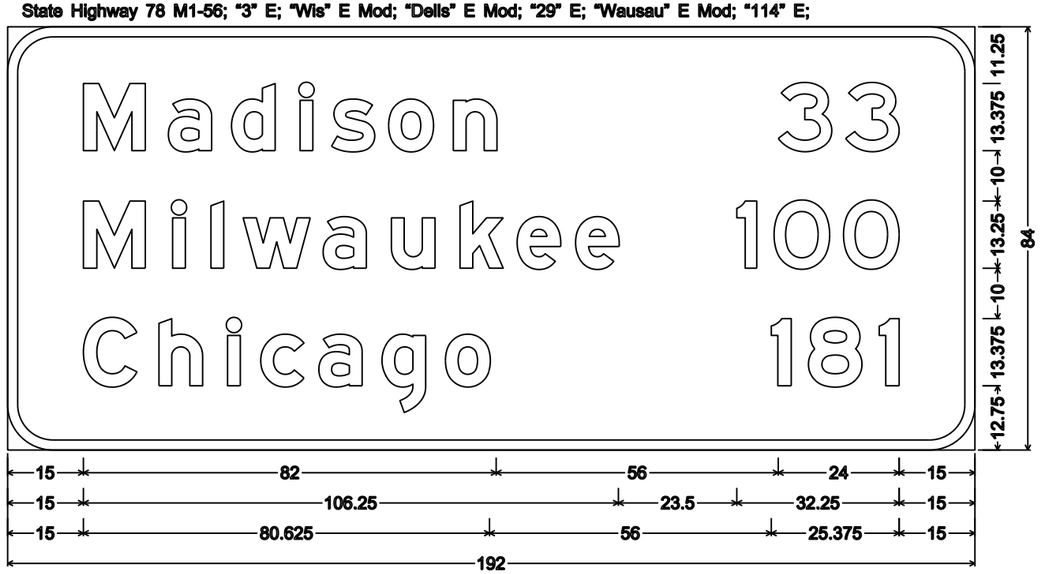
1. All Signs are Type I - Type SH Reflective
2. Color:
   Background - Green
   Message - White
3. Message Series - E Modified except as noted
4. ONLY plaque background is Type F Sheeting



9.000" Radius, 2.000" Border, White on Green;
"EXIT" E specified length; "108" E; "B" E;
12.000" Radius, 2.000" Border, White on Green;
"NORTH" E; "Wausau" E Mod; Down Arrow Custom - 22.000" 270°;



9.000" Radius, 2.000" Border, White on Green;
State Highway 78 M1-56; "3" E; "Wis" E Mod; "Dells" E Mod; "29" E; "Wausau" E Mod; "114" E;



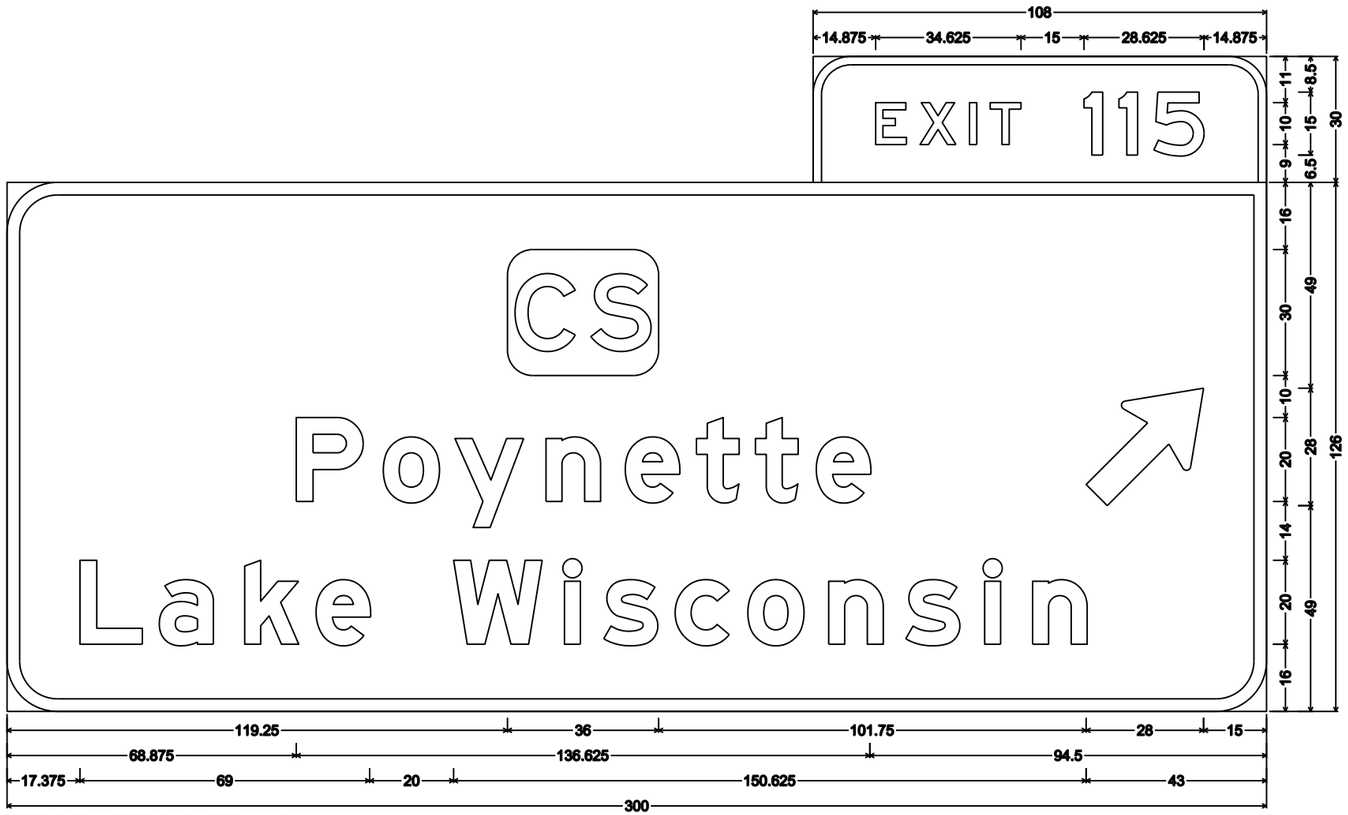
D2-3; 9.000" Radius, 2.000" Border, White on Green;
"Madison" E Mod; "33" E; "Milwaukee" E Mod; "100" E; "Chicago" E Mod; "181" E

PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	PERMANENT SIGNING	SHEET NO:	E

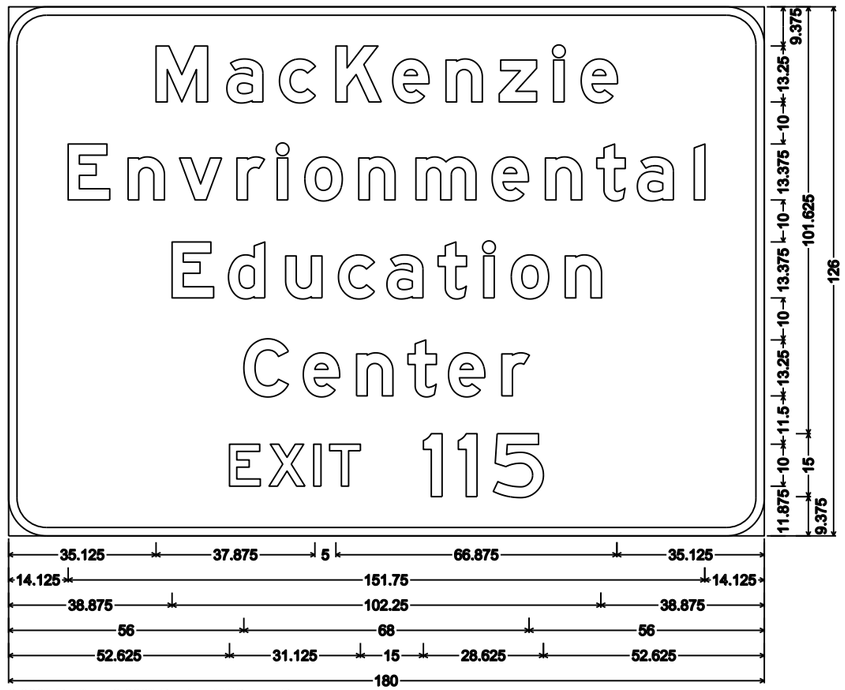
FILE NAME : C:\CAEfiles\Projects\tr_d1\1112AD15.DGN PLOT DATE : 09-MAR-2016 11:11 PLOT BY : ** plotuser ** PLOT NAME : PLOT SCALE : 30.068066:1.000000

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°;



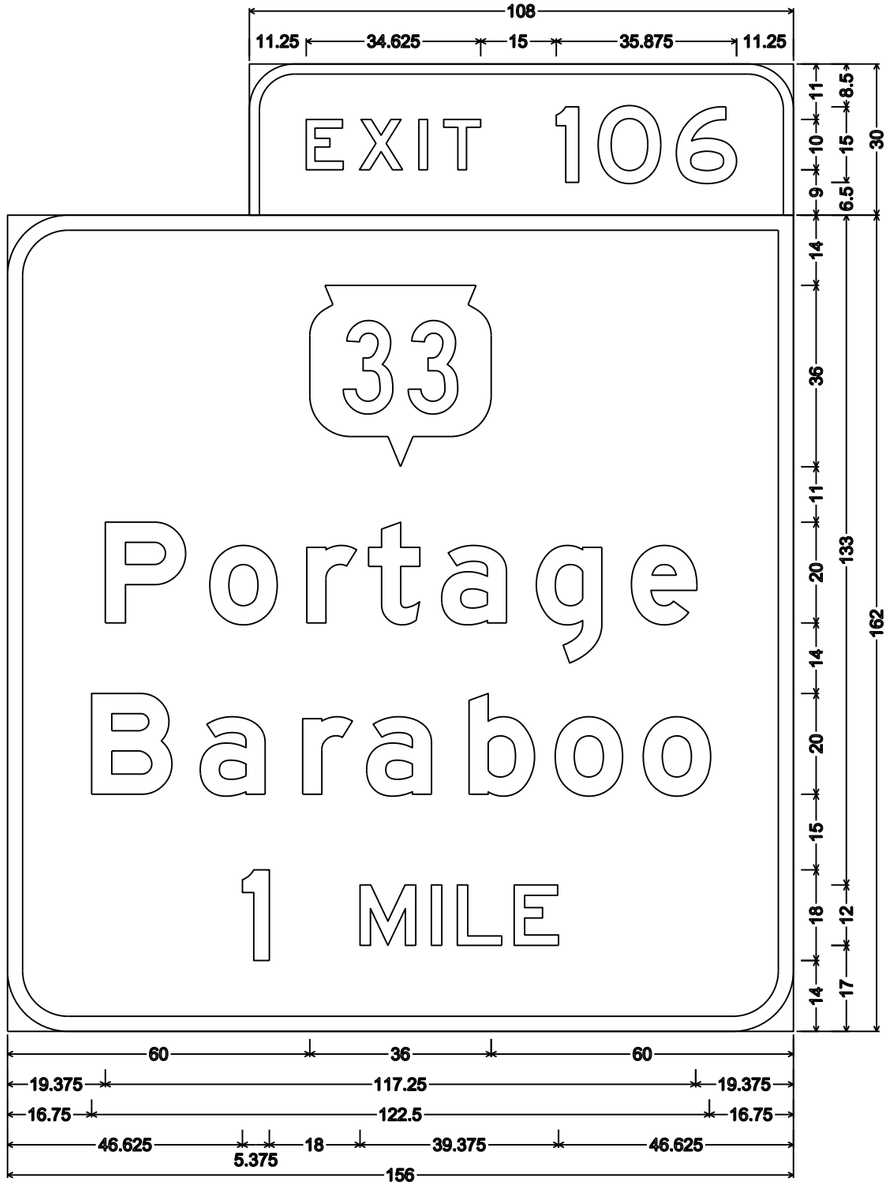
9.000" Radius, 2.000" Border, White on Brown;
"Mac" E Mod; "Kenzie" E Mod; "Envrionmental" E Mod; "Education" E Mod; "Center" E Mod; "EXIT" E;
"115" E;

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

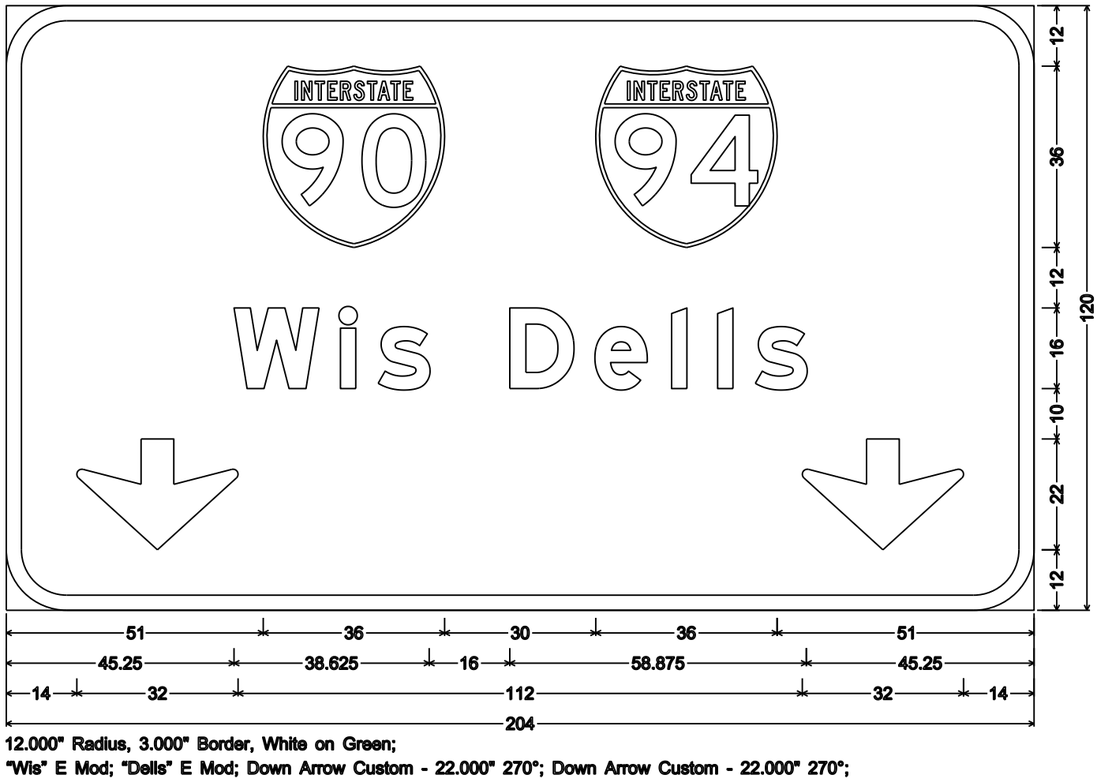
FILE NAME : C:\CAEfiles\Projects\tr_d1\11124D15.DGN PLOT DATE : 09-MAR-2016 11:12 PLOT BY : $$ plotuser $$ PLOT NAME : PLOT SCALE : 36.081679:1.000000

NOTES

1. All Signs are Type I - Type SH Reflective
2. Color:
   Background - Green
   Message - White
3. Message Series - E Modified except as noted
4. ONLY plaque background is Type F Sheeting



9.000" Radius, 2.000" Border, White on Green;
"EXIT" E specified length; "106" E;
12.000" Radius, 3.000" Border, White on Green;
State Highway 33 M1-56; "Portage" E Mod; "Baraboo" E Mod; "1" E; "MILE" E;



12.000" Radius, 3.000" Border, White on Green;
"Wis" E Mod; "Dells" E Mod; Down Arrow Custom - 22.000" 270°; Down Arrow Custom - 22.000" 270°;

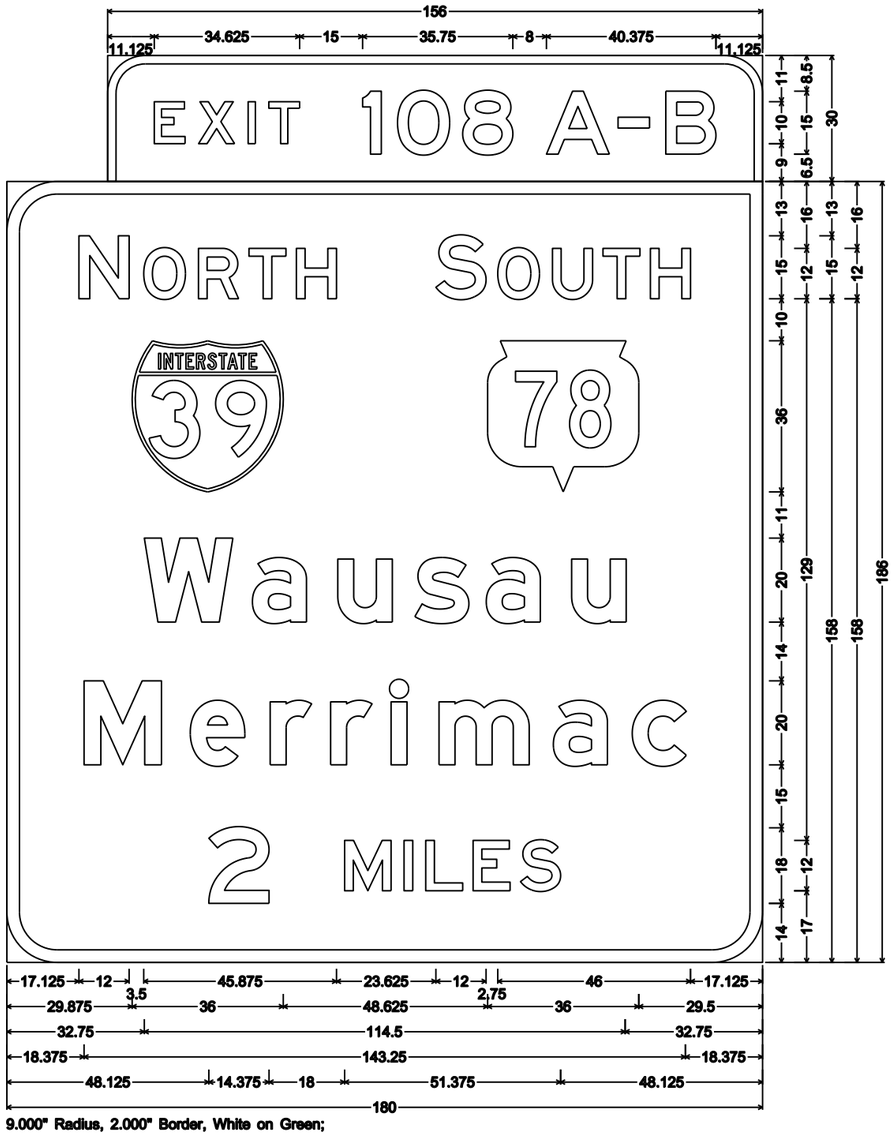
7

PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	PERMANENT SIGNING	SHEET NO:	E

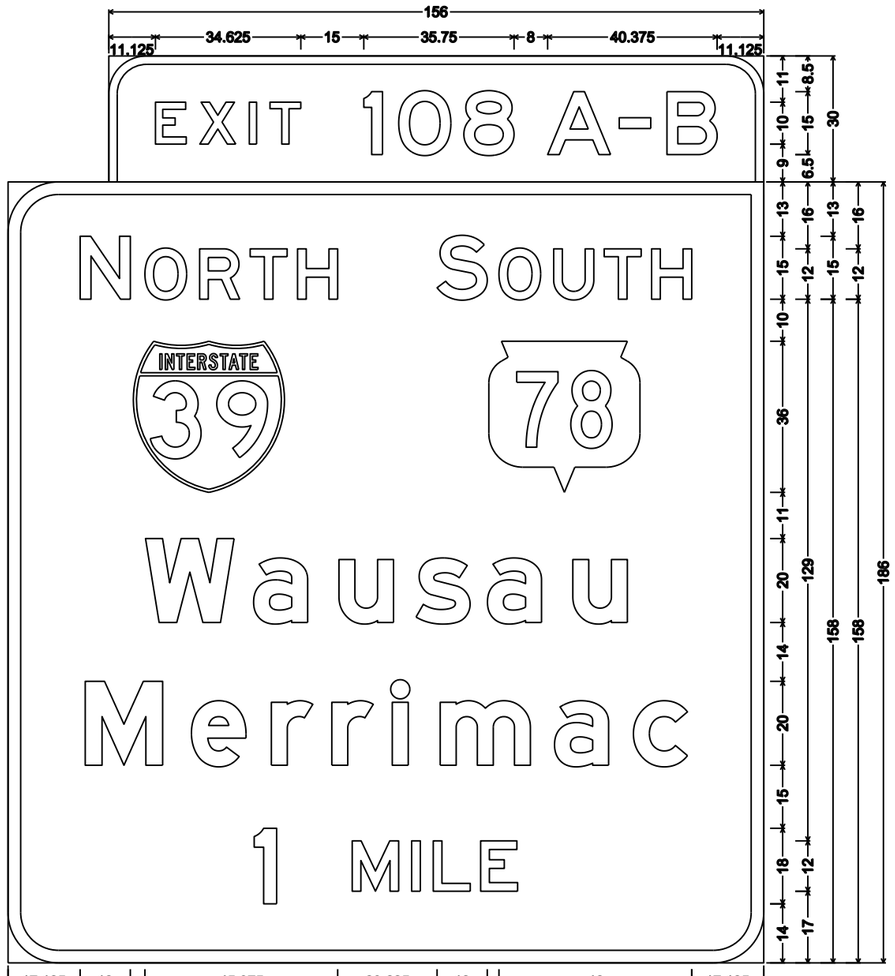
FILE NAME : C:\CAEfiles\Projects\tr_d1\1112AD15.DGN PLOT DATE : 09-MAR-2016 11:14 PLOT BY : $$ plotuser $$ PLOT NAME : PLOT SCALE : 30.068066:1.000000

NOTES

1. All Signs are Type I - Type SH Reflective
2. Color:
   Background - Green
   Message - White
3. Message Series - E Modified except as noted
4. ONLY plaque background is Type F Sheeting



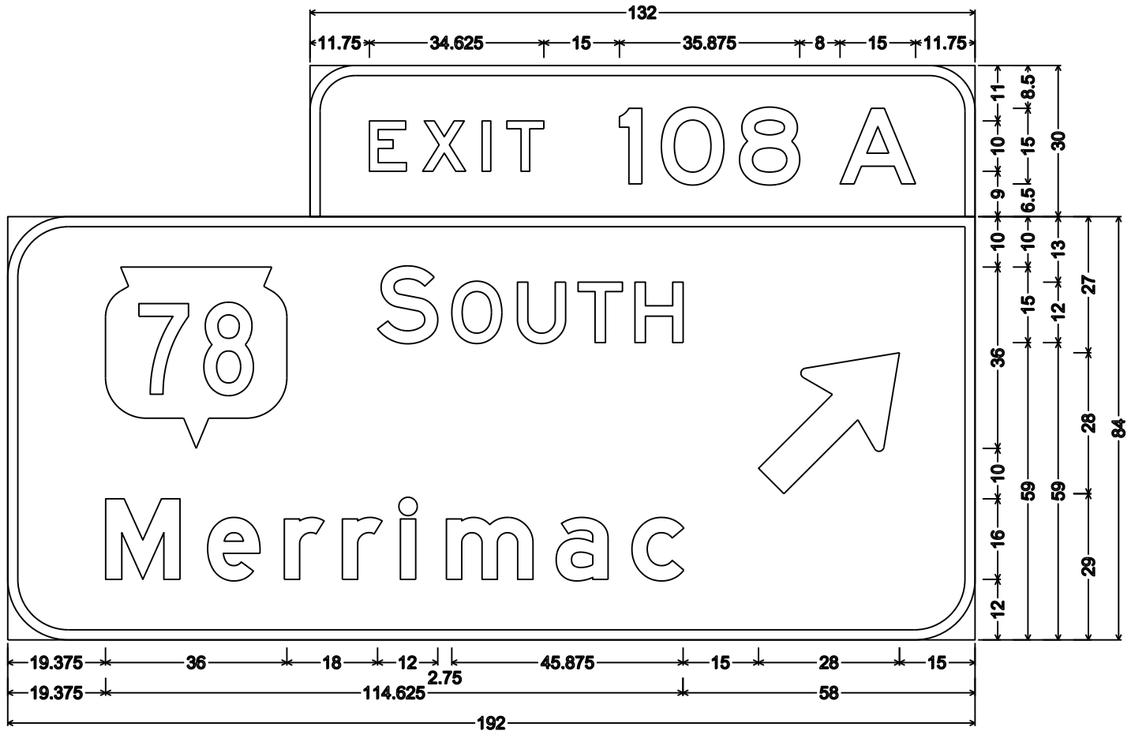
9.000" Radius, 2.000" Border, White on Green;
"EXIT" E specified length; "108" E; "A-B" E;
12.000" Radius, 3.000" Border, White on Green;
"NORTH" E; "SOUTH" E; State Highway 78 M1-56; "Wausau" E Mod; "Merrimac" E Mod; "2" E; "MILES" E;



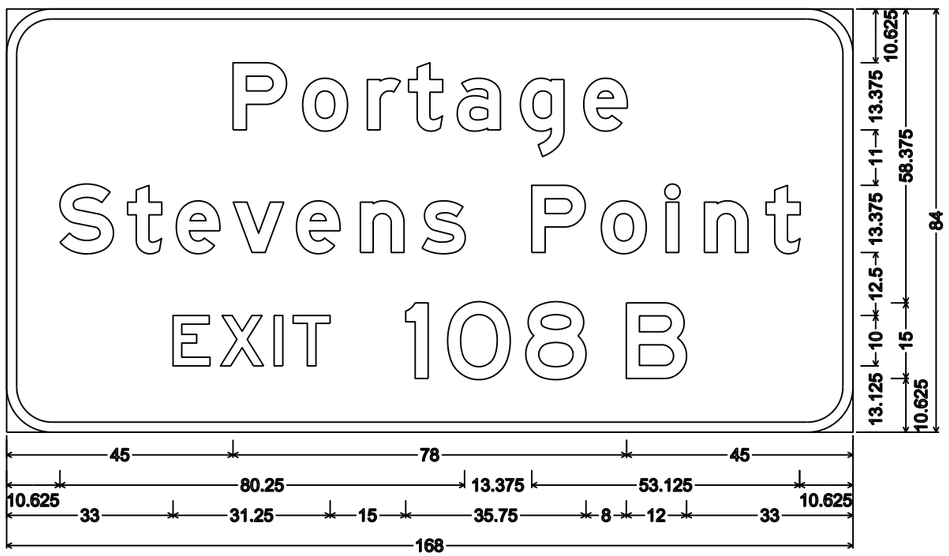
9.000" Radius, 2.000" Border, White on Green;
"EXIT" E specified length; "108" E; "A-B" E;
12.000" Radius, 3.000" Border, White on Green;
"NORTH" E; "SOUTH" E; State Highway 78 M1-56; "Wausau" E Mod; "Merrimac" E Mod; "1" E; "MILE" E;

PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	PERMANENT SIGNING	SHEET NO:	E

FILE NAME : C:\CAEfiles\Projects\tr_d1\11124D15.DGN PLOT DATE : 09-MAR-2016 11:15 PLOT BY : $$ plotuser $$ PLOT NAME : PLOT SCALE : 36.081679:1.000000



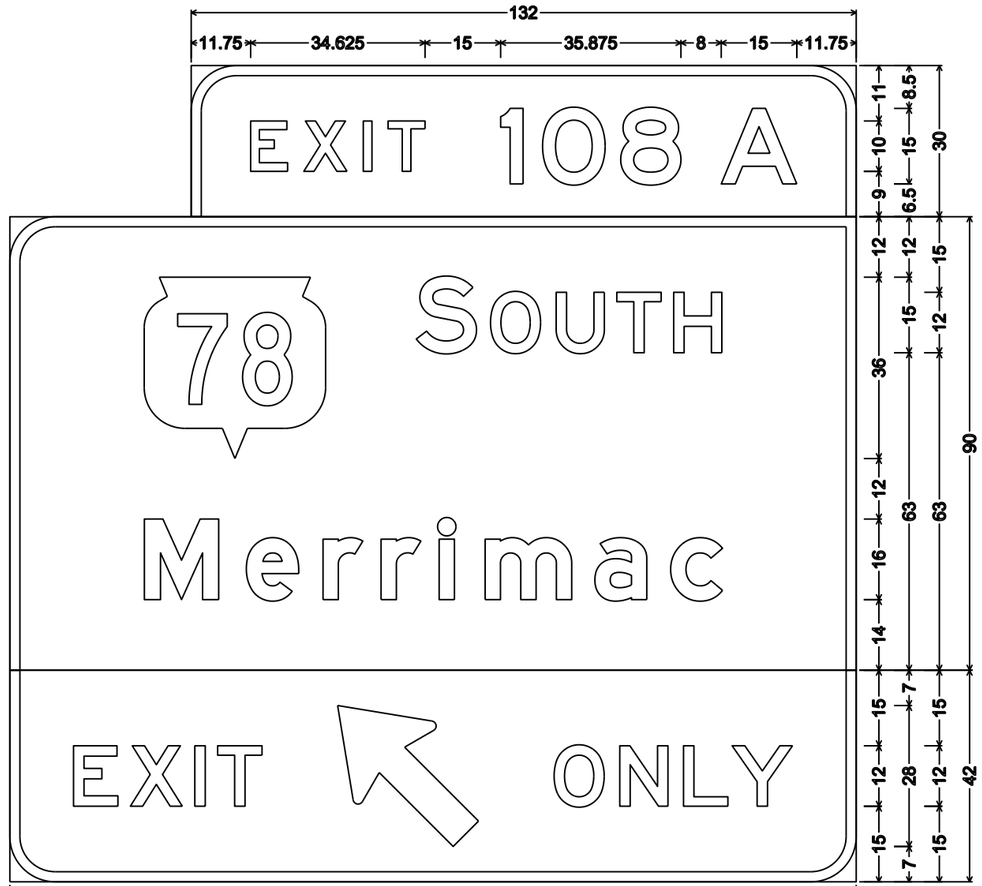
9.000" Radius, 2.000" Border, White on Green;
"EXIT" E specified length; "108" E; "A" E;
12.000" Radius, 2.000" Border, White on Green;
State Highway 78 M1-56; "SOUTH" E; "Merrimac" E Mod; Standard Arrow Custom 36.000" X 22.500" 45°;



E3-1; 9.000" Radius, 2.000" Border, White on Green;
"Portage" E Mod; "Stevens" E Mod; "Point" E Mod; "EXIT" E; "108" E; "B" 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
4. ONLY plaque background is Type F Sheeting



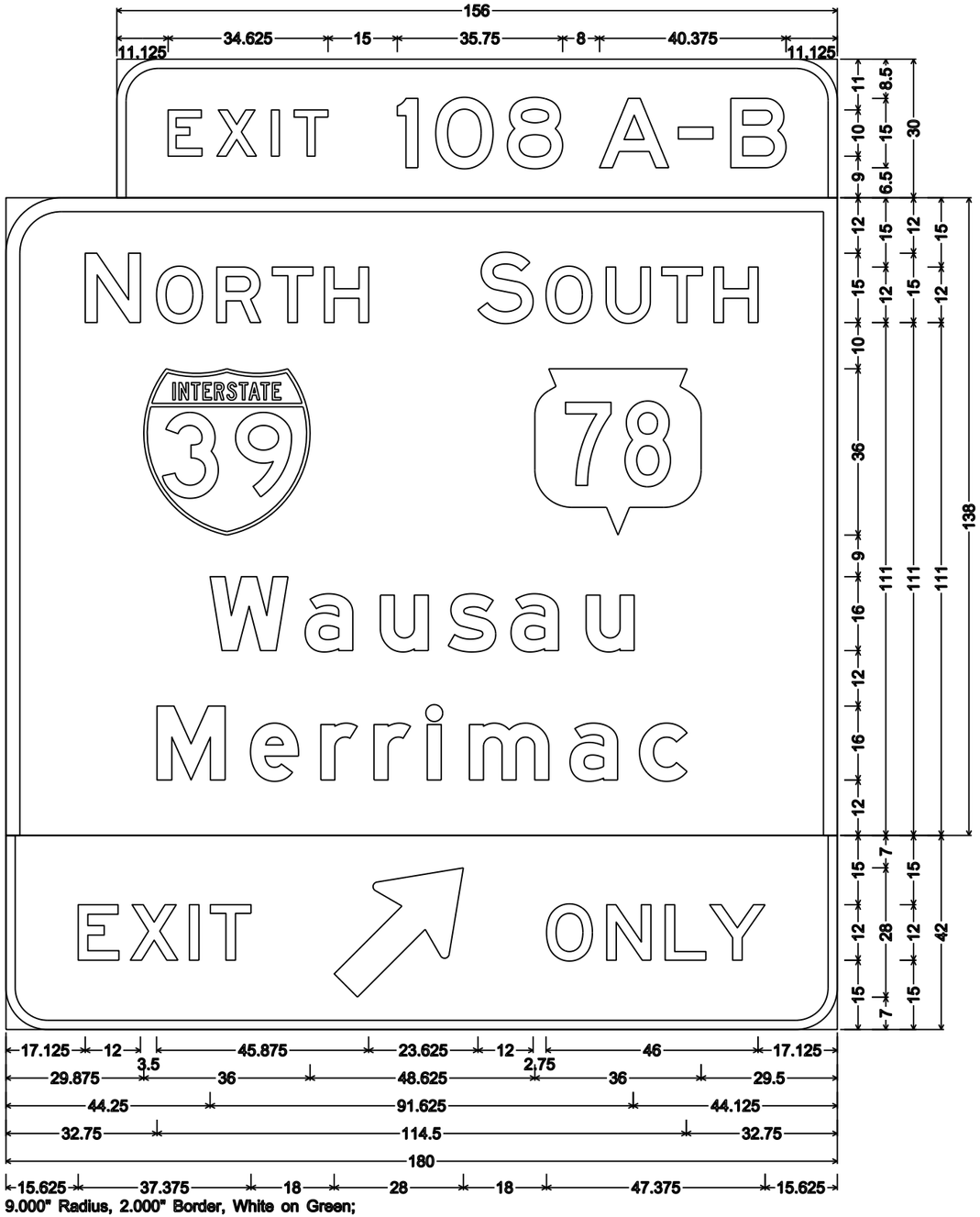
9.000" Radius, 2.000" Border, White on Green;
"EXIT" E specified length; "108" E; "A" E;
9.000" Radius, 2.000" Border, White on Green;
State Highway 78 M1-56; "SOUTH" E; "Merrimac" E Mod;
9.000" Radius, 2.000" Border, Black on Fluorescent yellow;
"EXIT" E; Standard Arrow Custom 36.000" X 22.500" 135°; "ONLY" E;

PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	PERMANENT SIGNING	SHEET NO:	E

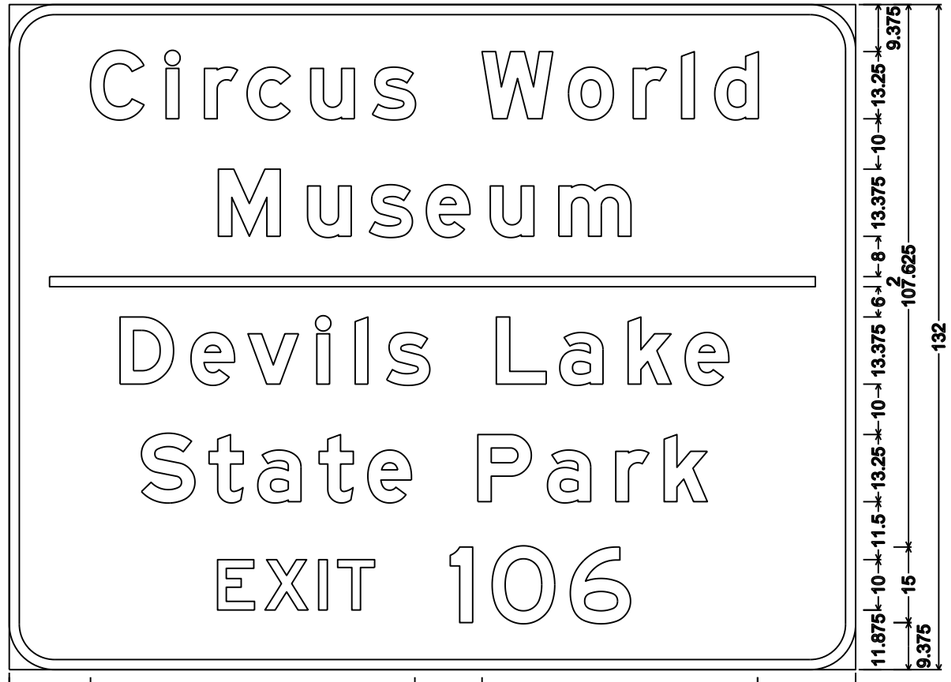
FILE NAME : C:\CAEfiles\Projects\tr_d1\1112AP15.DGN PLOT DATE : 09-MAR-2016 11:15 PLOT BY : $$ plotuser $$ PLOT NAME : PLOT SCALE : 30.068066:1.000000

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
4. ONLY plaque background is Type F Sheeting



9.000" Radius, 2.000" Border, White on Green;
"EXIT" E specified length; "108" E; "A-B" E;
12.000" Radius, 3.000" Border, White on Green;
"NORTH" E; "SOUTH" E; State Highway 78 M1-56; "Wausau" E Mod; "Merrimac" E Mod;
9.000" Radius, 2.000" Border, Black on Fluorescent yellow;
"EXIT" E; Standard Arrow Custom 36.000" X 22.500" 45°; "ONLY" E;



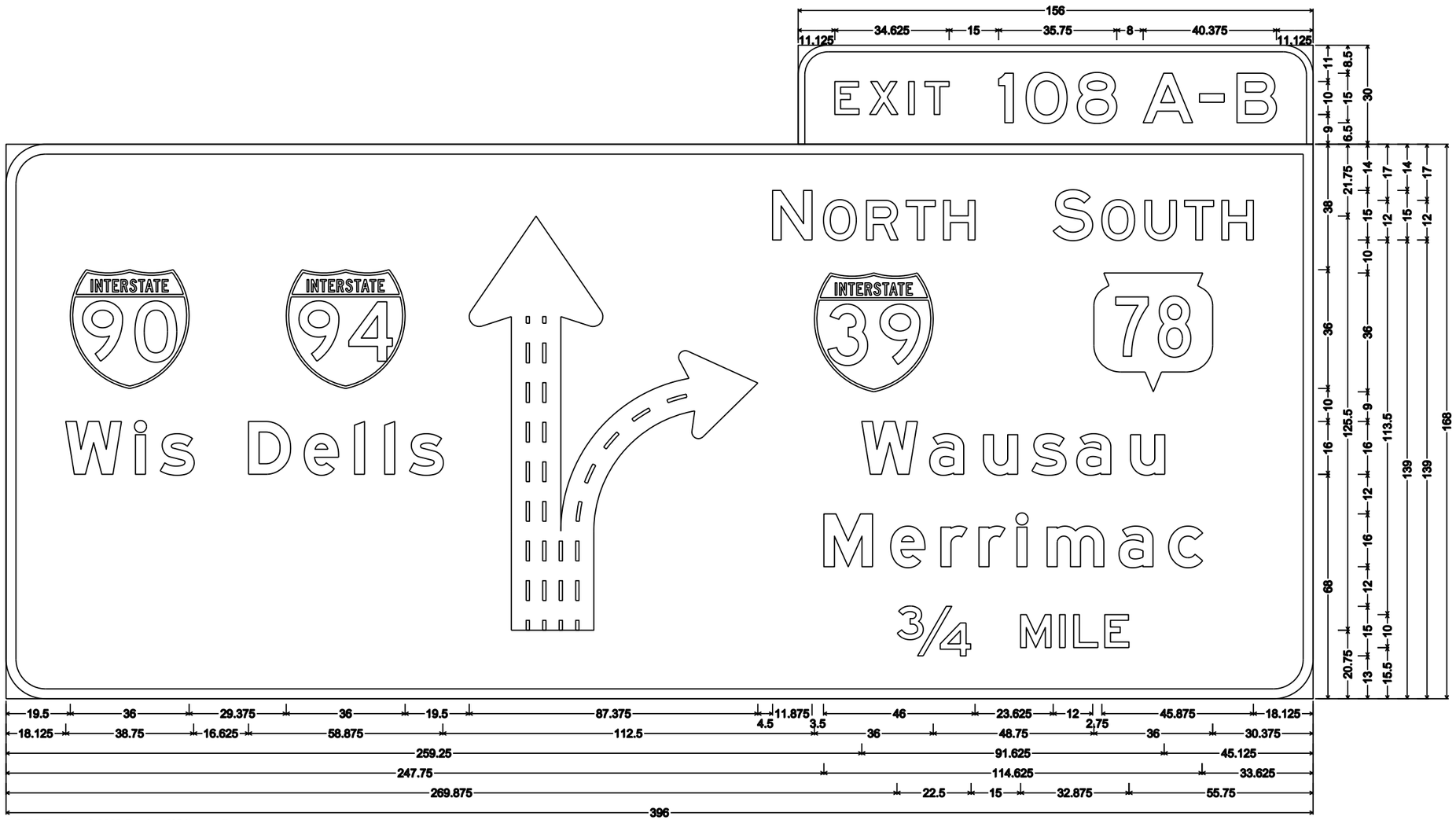
9.000" Radius, 2.000" Border, White on Brown;
"Circus" E Mod; "World" E Mod; "Museum" E Mod; "Devils" E Mod; "Lake" E Mod; "State" E Mod;
"Park" E Mod; "EXIT" E; "106" E;

PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	PERMANENT SIGNING	SHEET NO:	E

FILE NAME : C:\CAEfiles\Projects\tr_d1\11124P15.DGN PLOT DATE : 09-MAR-2016 11:19 PLOT BY : $$ plotuser $$ PLOT NAME : PLOT SCALE : 30.068066:1.000000

NOTES

1. All Signs are Type I - Type SH Reflective
2. Color:
   Background - Green
   Message - White
3. Message Series - E Modified except as noted
4. ONLY plaque background is Type F Sheeting



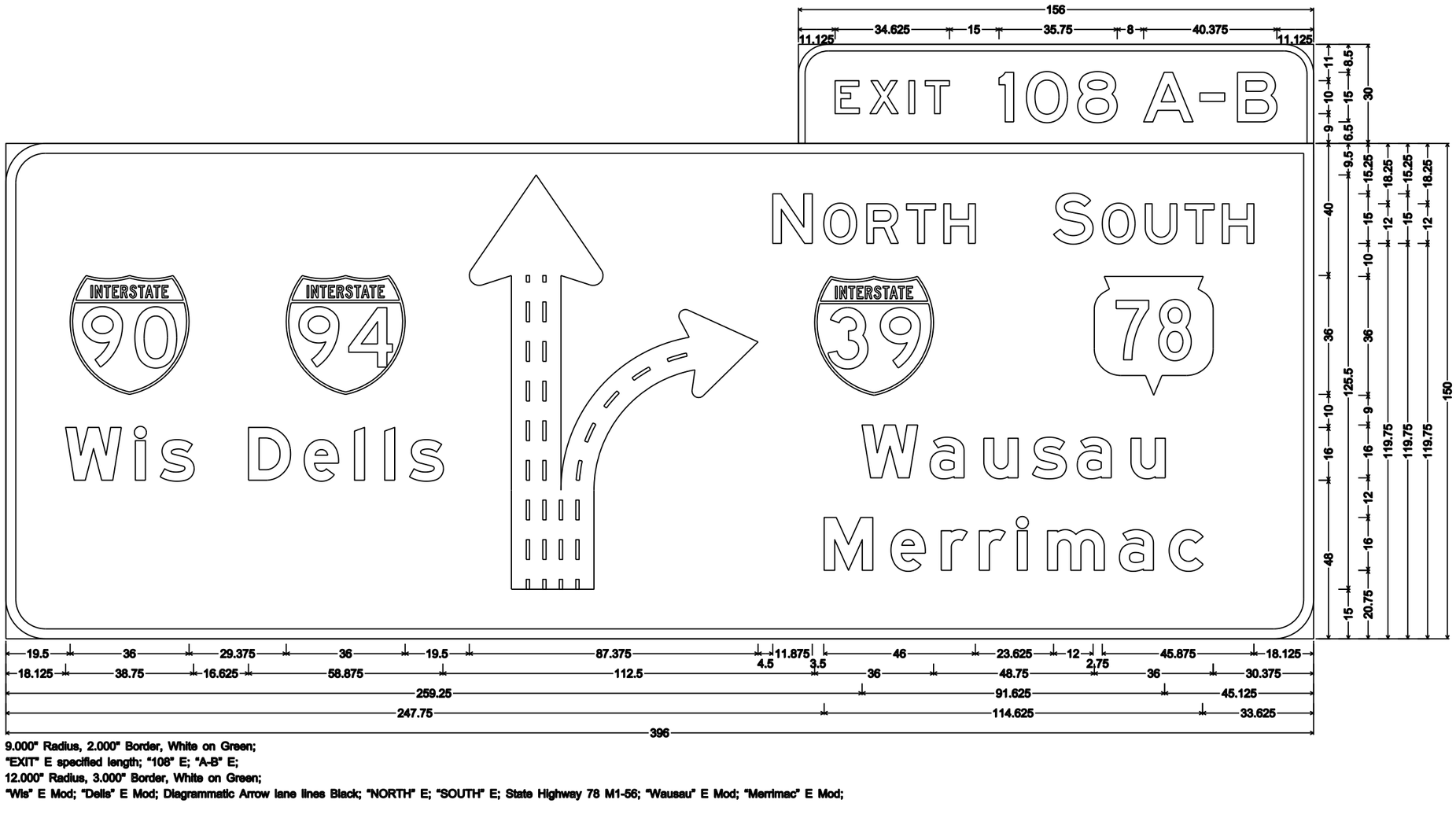
9.000" Radius, 2.000" Border, White on Green;
"EXIT" E specified length; "108" E; "A-B" E;
12.000" Radius, 3.000" Border, White on Green;
"Wis" E Mod; "Dells" E Mod; Diagrammatic Arrow lane lines Black; "NORTH" E; "SOUTH" E; State Highway 78 M1-56; "Wausau" E Mod; "Merrimac" E Mod; "¾" E; "MILE" E;

PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	PERMANENT SIGNING	SHEET NO:	E

FILE NAME : C:\CAEfiles\Projects\tr_d1\11124P15.DGN PLOT DATE : 09-MAR-2016 11:16 PLOT BY : $$ plotuser $$ PLOT NAME : PLOT SCALE : 36.081679:1.000000

NOTES

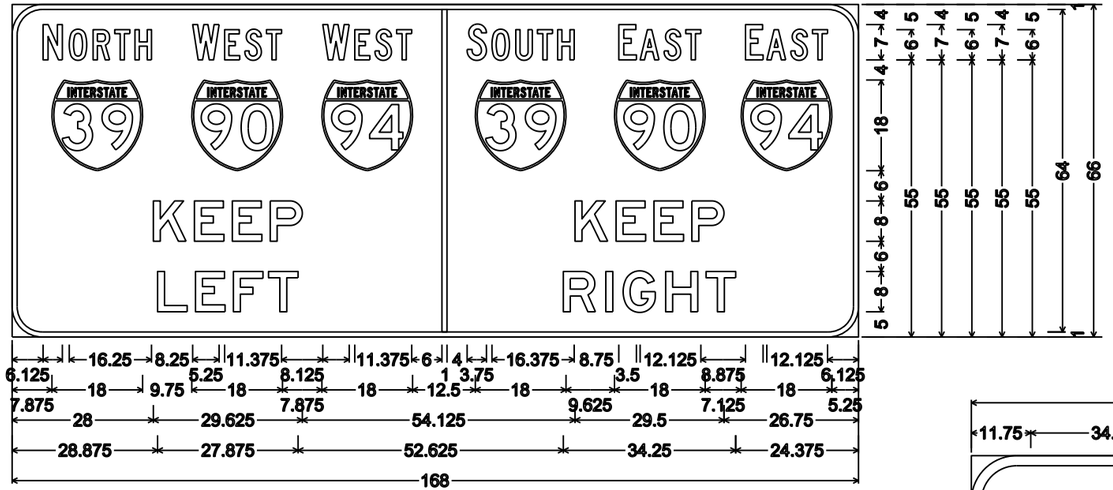
1. All Signs are Type I - Type SH Reflective
2. Color:
   Background - Green
   Message - White
3. Message Series - E Modified except as noted
4. ONLY plaque background is Type F Sheeting



9.000" Radius, 2.000" Border, White on Green;
"EXIT" E specified length; "108" E; "A-B" E;
12.000" Radius, 3.000" Border, White on Green;
"Wis" E Mod; "Dells" E Mod; Diagrammatic Arrow lane lines Black; "NORTH" E; "SOUTH" E; State Highway 78 M1-56; "Wausau" E Mod; "Merrimac" E Mod;

PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	PERMANENT SIGNING	SHEET NO:	E

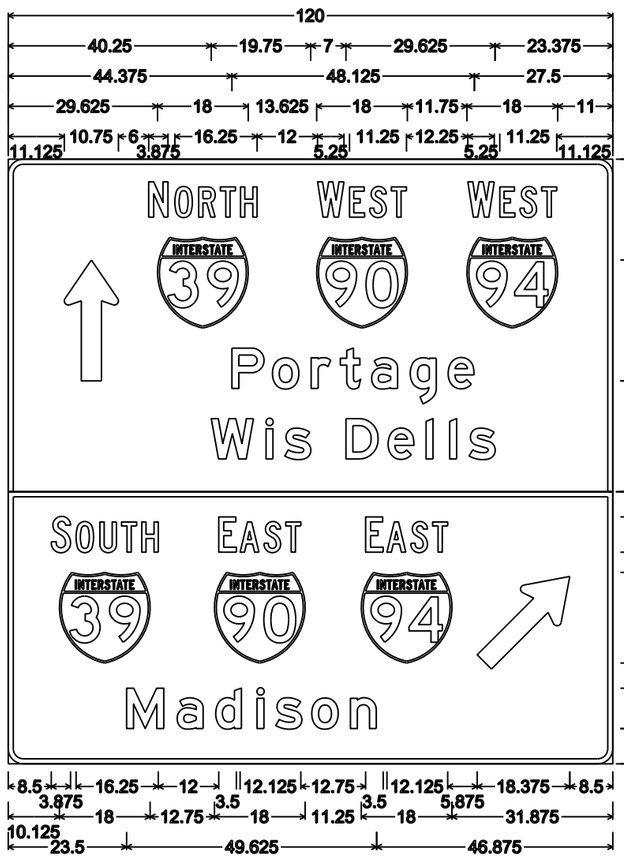
FILE NAME : C:\CAEfiles\Projects\tr_d1\1112AD15.DGN PLOT DATE : 09-MAR-2016 11:17 PLOT BY : $$ plotuser $$ PLOT NAME : PLOT SCALE : 36.081679:1.000000



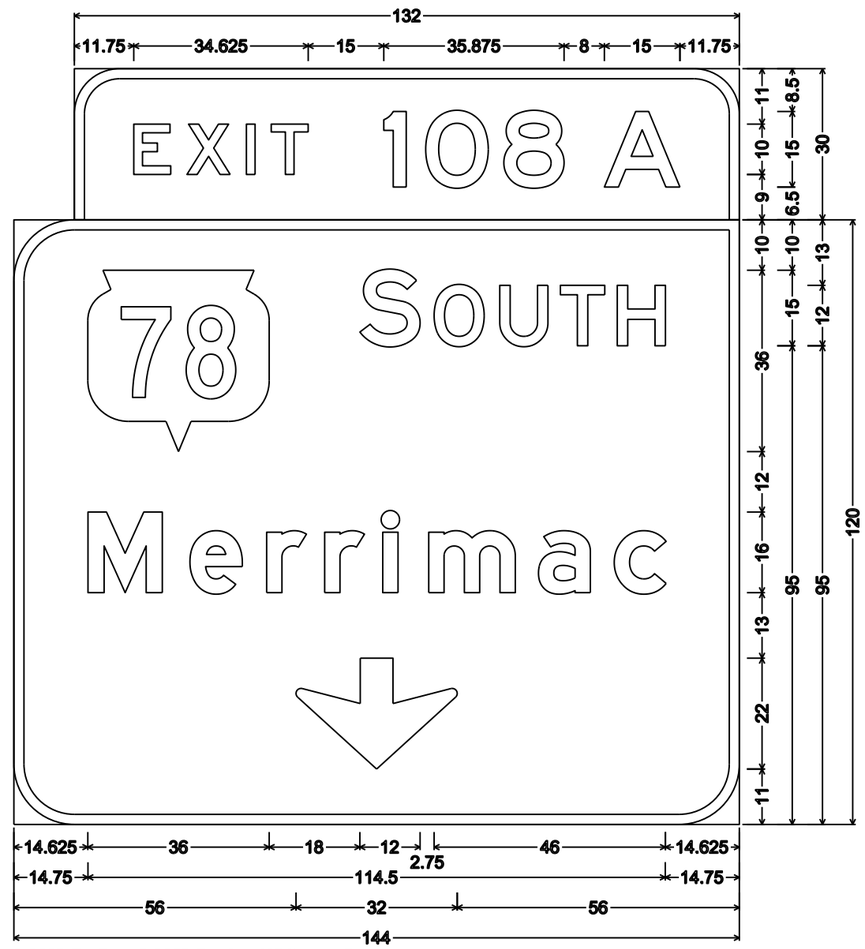
6.000" Radius, 1.000" Border, White on Green;
"NORTH" C; "WEST" C; "WEST" C; "KEEP" E; "LEFT" E; "SOUTH" C; "EAST" C; "EAST" C;
"KEEP" E; "RIGHT" E;

NOTES

1. All Signs are Type I - Type SH Reflective
2. Color:
   Background - Green
   Message - White
3. Message Series - E Modified except as noted
4. ONLY plaque background is Type F Sheeting



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°;



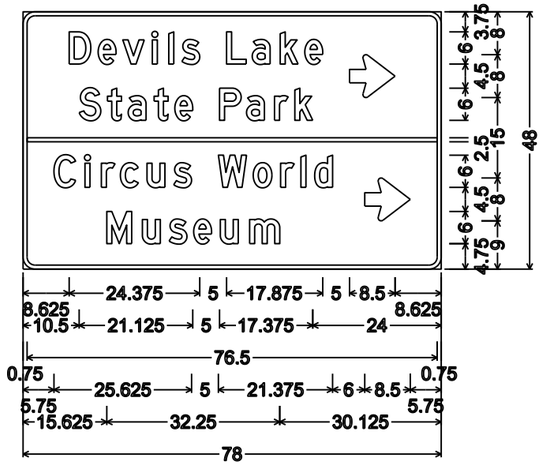
9.000" Radius, 2.000" Border, White on Green;
"EXIT" E specified length; "108" E; "A" E;
12.000" Radius, 2.000" Border, White on Green;
State Highway 78 M1-56; "SOUTH" E; "Merrimac" E Mod;
Down Arrow Custom - 22.000" 270°;

PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	PERMANENT SIGNING	SHEET NO:	E

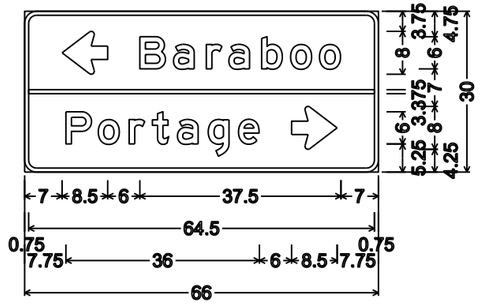
FILE NAME : C:\CAEfiles\Projects\tr_d1\1112AD15.DGN PLOT DATE : 09-MAR-2016 11:17 PLOT BY : ** plotuser ** PLOT NAME : PLOT SCALE : 30.068066:1.000000

NOTES

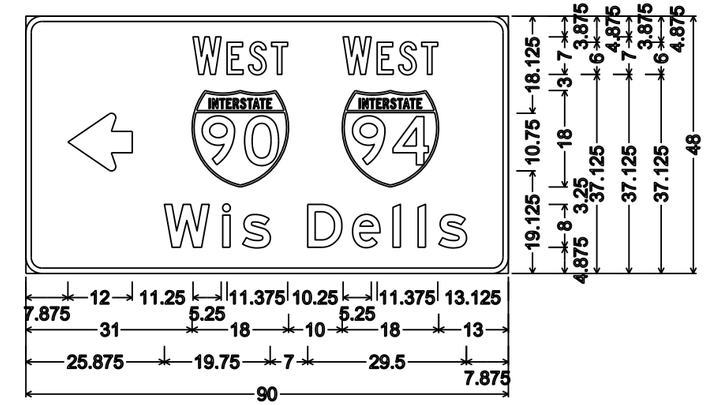
1. All Signs are Type II - Type H Reflective
2. Color:
   Background - Green except as noted
   Message - White
3. Message Series - E except as noted



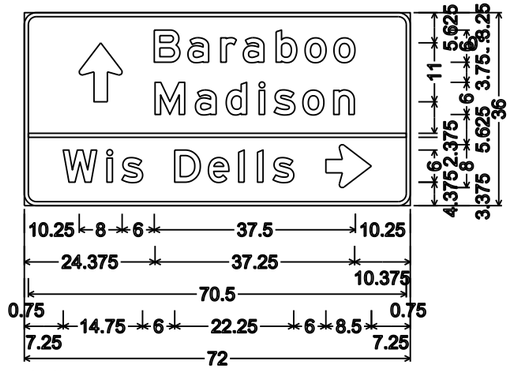
D1-4;
2.250" Radius, 0.750" Border, White on Brown;
"Devils" D; "Lake" D; "State" D; "Park" D;
"Circus" D; "World" D; "Museum" D;



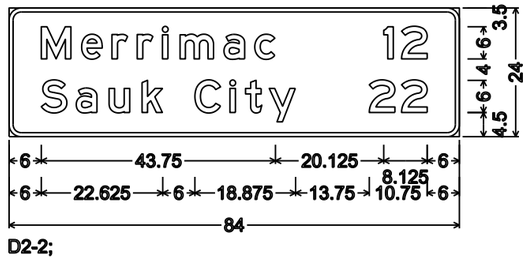
D1-2;
2.250" Radius, 0.750" Border



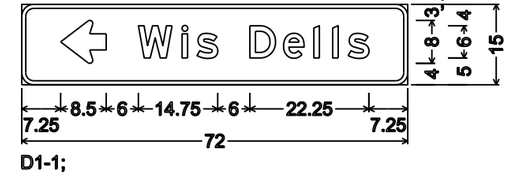
3.000" Radius, 1.000" Border
"WEST" C; "WEST" C;



D1-3;
2.250" Radius, 0.750" Border



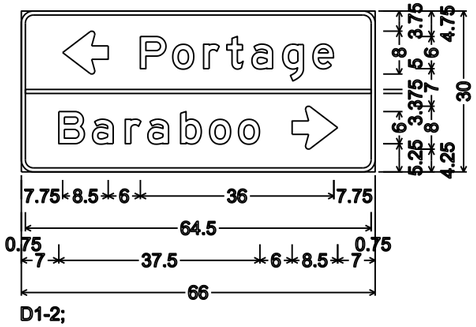
D2-2;
2.250" Radius, 0.750" Border



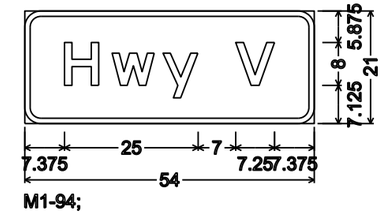
D1-1;
2.250" Radius, 0.750" Border



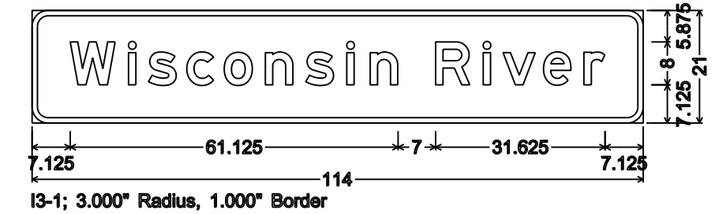
I3-1; 3.000" Radius, 1.000" Border



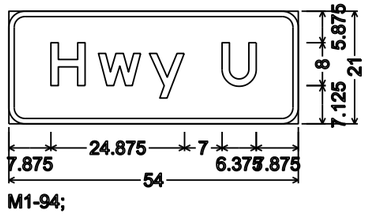
D1-2;
2.250" Radius, 0.750" Border



M1-94;
3.000" Radius, 1.000" Border



I3-1; 3.000" Radius, 1.000" Border



M1-94;
3.000" Radius, 1.000" Border,

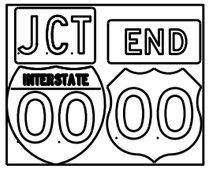
PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	PERMANENT SIGNING	SHEET NO:	E

FILE NAME : C:\CAEfiles\Projects\tr_d1\1112AP15.DGN PLOT DATE : 09-MAR-2016 11:18 PLOT BY : $$ plotuser $$ PLOT NAME : PLOT SCALE : 28.257455:1.000000

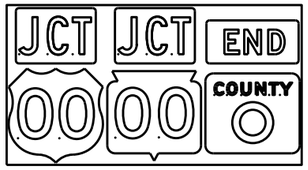
TYPICAL ASSEMBLIES



J1-1



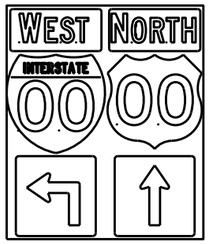
J1-2



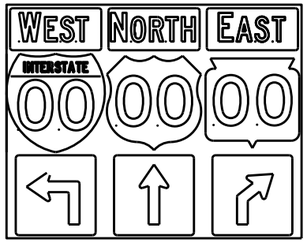
J1-3



J2-1



J2-2

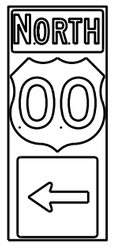


J2-3

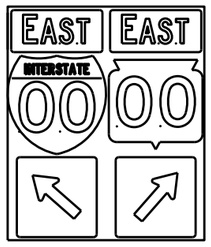


JV

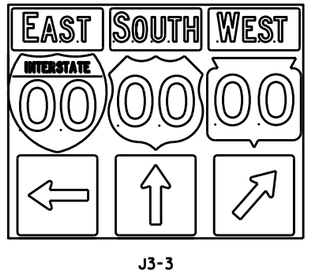
(Typical Vertical J-Assembly
See Note 10 and 11)



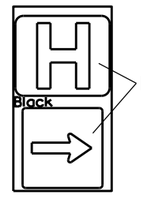
J3-1



J3-2



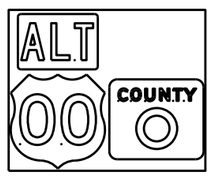
J3-3



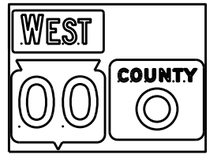
JH-1



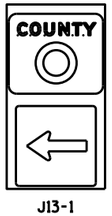
J4-1



J4-2



J4-2



J13-1



J12-1



J32-1



J33-1

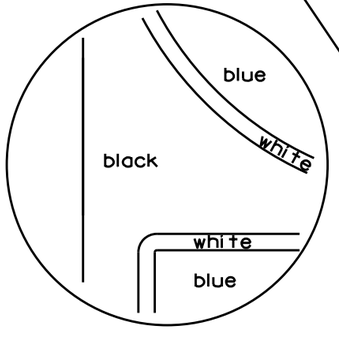


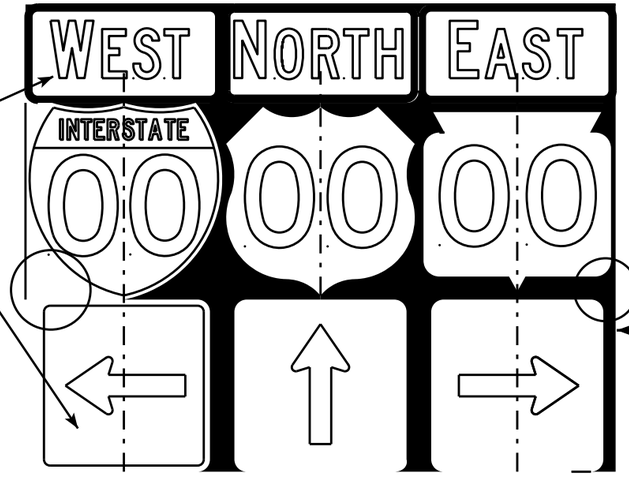
J23-1

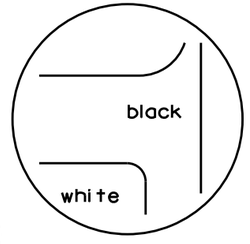


J22-1

[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

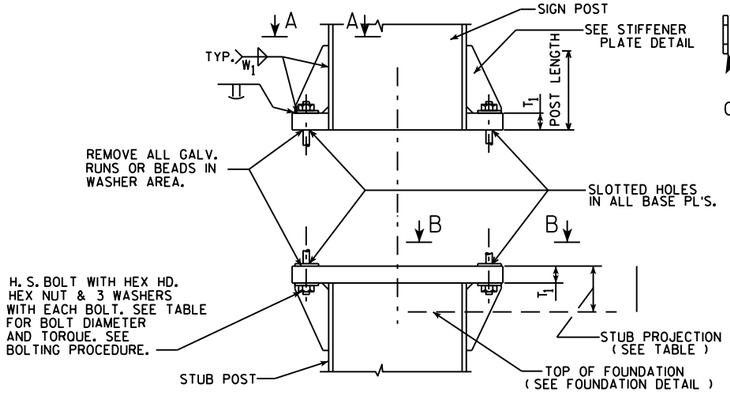
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

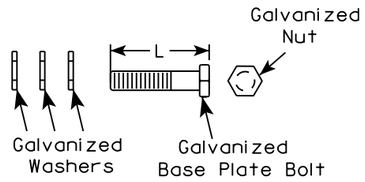
DATE 2/06/14 PL... A2-1S.8

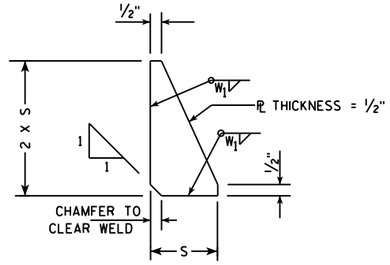
PROJECT NO: | SHEET NO: E

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



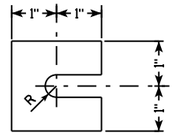
SIGN POST AND STUB POST ELEVATION





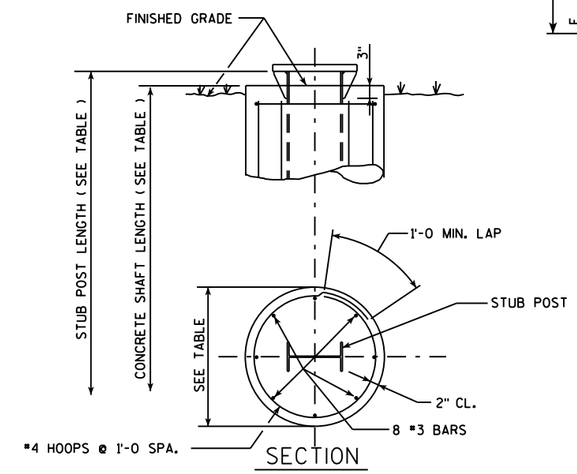
STIFFENER PLATE DETAIL

(SEE TABLE FOR DIMENSIONS)

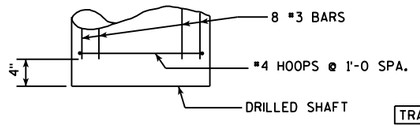


FURNISH 2 @ .012" ± THICK AND 2 @ .032" ± THICK SHIMS PER POST. SHIMS SHALL BE FABRICATED FROM BRASS SHIM STOCK OR STRIP CONFORMING TO A.S.T.M.- B36.

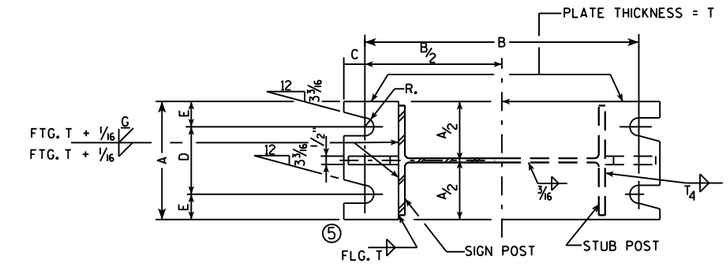
SHIM DETAIL



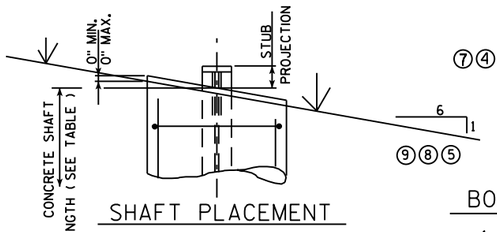
SECTION



FOUNDATION DETAIL



SECTION A-A SECTION B-B



SHAFT PLACEMENT

DESIGN DATA

WIND PRESSURE = 75 M.P.H.
WIND COMPONENTS - NORMAL = 1.0 TRANSVERSE = 0.0
ICE LOAD = 3 P.S.F.

GROUP LOADS	PERCENT OF ALLOWABLE STRESS
1. DEAD	100
2. DEAD & WIND	140
3. DEAD, ICE & ½ WIND[4]	140 [4]25 P.S.F. MIN.

ALLOWABLE SOIL PRESSURE = 1½T / SQ. FT.
WIND LOAD WAS APPLIED TO THE AREA OF THE SIGN AND TO THE SUPPORTING MEMBERS.
ICE LOAD WAS APPLIED TO ONE FACE OF THE SIGN AND AROUND THE SURFACE OF THE SUPPORTING MEMBERS.

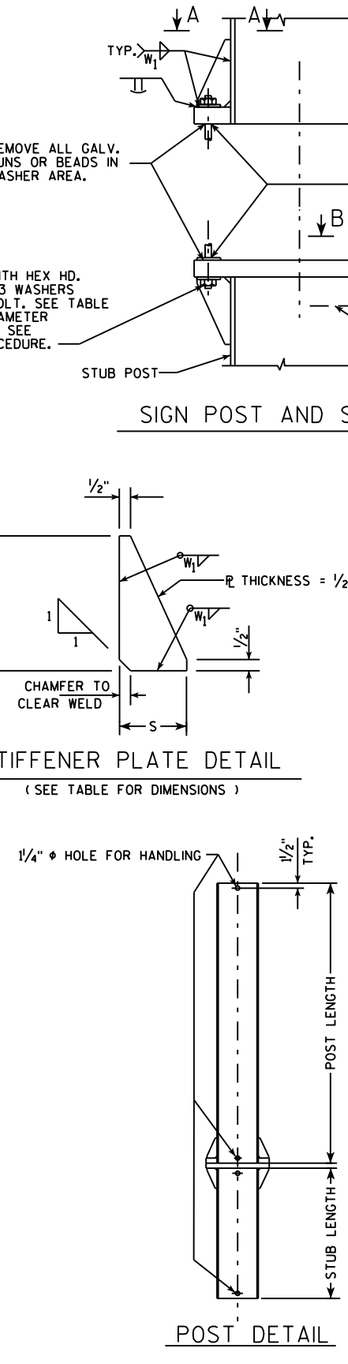
GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.
DESIGN CONFORMS WITH A.A.S.H.T.O. SPECIFICATIONS 1985.
ALL POSTS, POST STUBS & ATTACHMENTS SHALL BE A.S.T.M. A709 GRADE 50, GALVANIZED IN ACCORDANCE WITH ASTM A123. (9)
THE POST, BASE PLATES, UPPER SIX INCHES OF STUB POST FLANGE SPLICE PLATE AND FUSE PLATE SHALL BE GALVANIZED AFTER FABRICATION.
FURNISH STEEL BOLTS, NUTS, AND WASHERS IN ACCORDANCE WITH SECTION 635 OF THE STANDARD SPECIFICATIONS.

BOLTING PROCEDURE - BASE CONNECTION

1. ASSEMBLE SIGN POST TO STUB POST WITH BOLTS AND ONE OF THE FLAT WASHERS ON EACH BOLT BETW. PLATES.
2. SHIM AS REQ'D. TO PLUMB POST.
3. PRIOR TO BOLT TIGHTENING LUBRICATE BASE CONNECTION BOLTS WITH BEESWAX OR OTHER HIGH-WAX LUBRICANT.
4. TIGHTEN ALL BOLTS THE MAXIMUM POSSIBLE WITH 12" OR 15" WRENCH TO BED WASHERS & SHIMS AND TO CLEAN BOLT THREADS, THEN LOOSEN EACH BOLT IN TURN AND RETIGHTEN IN A SYSTEMATIC ORDER TO THE PRESCRIBED TORQUE. (SEE TABLE)
5. BURR THREADS AT JUNCTION WITH NUT USING A CENTER PUNCH TO PREVENT NUT LOOSENING.

NOTE:
TIGHTEN THE HIGH STRENGTH BOLTS TO THE TORQUE SHOWN. DO NOT OVERTIGHTEN.



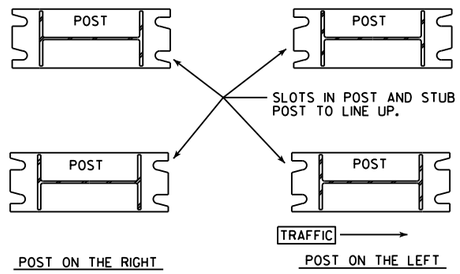
POST DETAIL

QUANTITIES FOR 1 FOOTING		
	CONC. MASONRY C.Y.	REINF. STEEL LBS.
A	0.6	34
B	0.8	49
C	0.9	50
D	0.9	56
E	1.0	62

(7)

REINF.	TYPE	#3	#4
	A	8 @ 4'-5	5 @ 6'-3
	B	8 @ 6'-5	7 @ 6'-3
	C	8 @ 6'-11	7 @ 6'-3
	D	8 @ 7'-5	8 @ 6'-3
	E	8 @ 7'-11	9 @ 6'-3

(7)



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"	15/32"	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"	15/32"	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"	15/32"	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.

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

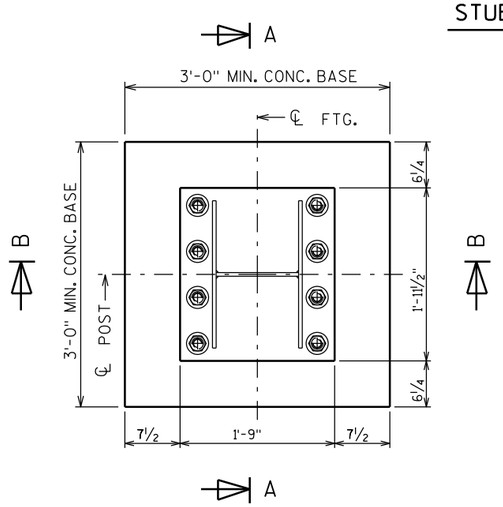
SHEET 309

PROJECT NO: | HWY: | COUNTY: | SHEET NO: E

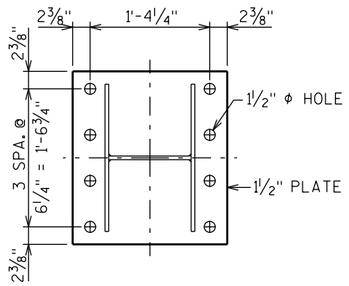
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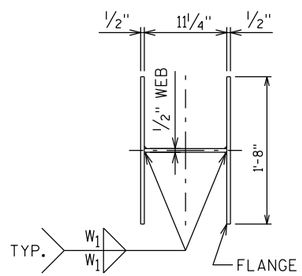
STUB AND MASONRY ANCHOR DETAILS



STUB SECTION



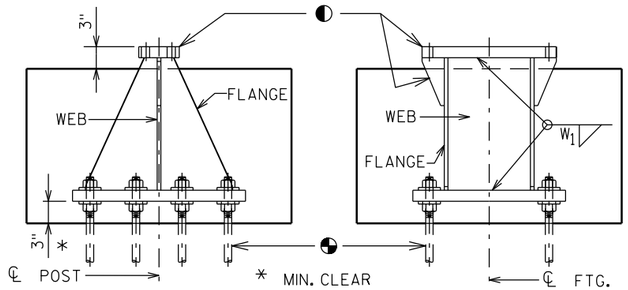
BASE PLATE



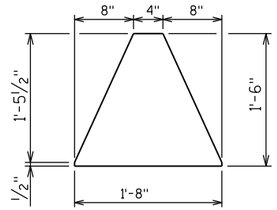
STUB

◐ 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



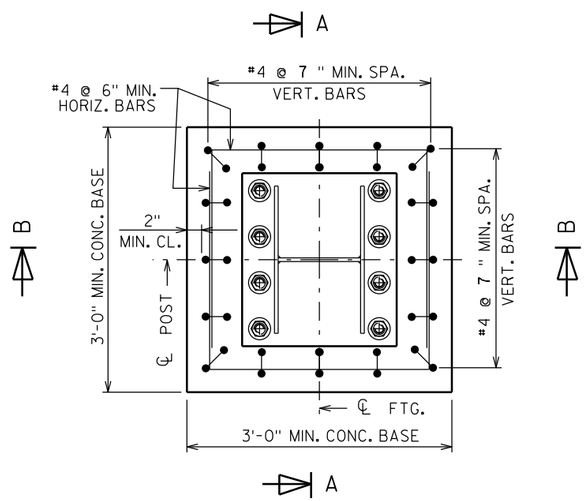
FLANGE

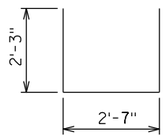
GENERAL NOTES

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

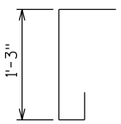
CONCRETE BASE SECTION





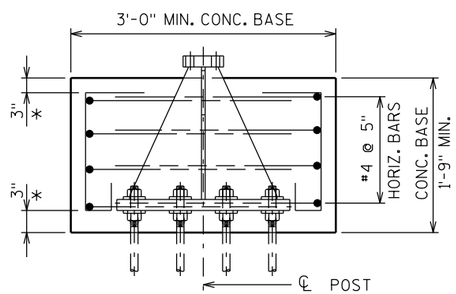
HORIZONTAL BAR

8 BARS @ 6'-11" LENGTH



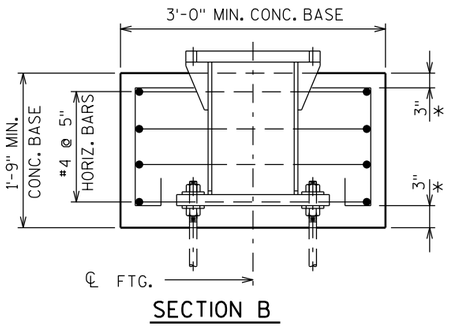
VERTICAL BARS

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

VERITCAL DIMENSION ⇨

HORIZONTAL DIMENSION ⇩

⇩ \ ⇨	2.5 ft.	3 ft.	3.5 ft.	4 ft.	4.5 ft.	5 ft.	5.5 ft.	6 ft.	6.5 ft.	7 ft.	7.5 ft.	8 ft.	8.5 ft.	9 ft.	9.5 ft.	10 ft.	10.5 ft.	11 ft.	11.5 ft.	12 ft.	12.5 ft.	13 ft.	13.5 ft.	14 ft.	14.5 ft.	15 ft.	15.5 ft.	16 ft.
10 ft.	25 Sq. Ft	30 Sq. Ft	35 Sq. Ft	40 Sq. Ft	45 Sq. Ft	50 Sq. Ft	55 Sq. Ft	60 Sq. Ft	65 Sq. Ft	70 Sq. Ft	75 Sq. Ft	80 Sq. Ft	85 Sq. Ft	90 Sq. Ft	95 Sq. Ft	100 Sq. Ft	105 Sq. Ft	110 Sq. Ft	115 Sq. Ft	120 Sq. Ft	125 Sq. Ft	130 Sq. Ft	135 Sq. Ft	140 Sq. Ft	145 Sq. Ft	150 Sq. Ft	155 Sq. Ft	160 Sq. Ft
11 ft.	27.5 Sq. Ft	33 Sq. Ft	38.5 Sq. Ft	44 Sq. Ft	49.5 Sq. Ft	55 Sq. Ft	60.5 Sq. Ft	66 Sq. Ft	71.5 Sq. Ft	77 Sq. Ft	82.5 Sq. Ft	88 Sq. Ft	93.5 Sq. Ft	99 Sq. Ft	104.5 Sq. Ft	110 Sq. Ft	115.5 Sq. Ft	121 Sq. Ft	126.5 Sq. Ft	132 Sq. Ft	137.5 Sq. Ft	143 Sq. Ft	148.5 Sq. Ft	154 Sq. Ft	159.5 Sq. Ft	165 Sq. Ft	170.5 Sq. Ft	176 Sq. Ft
12 ft.	30 Sq. Ft	36 Sq. Ft	42 Sq. Ft	48 Sq. Ft	54 Sq. Ft	60 Sq. Ft	66 Sq. Ft	72 Sq. Ft	78 Sq. Ft	84 Sq. Ft	90 Sq. Ft	96 Sq. Ft	102 Sq. Ft	108 Sq. Ft	114 Sq. Ft	120 Sq. Ft	126 Sq. Ft	132 Sq. Ft	138 Sq. Ft	144 Sq. Ft	150 Sq. Ft	156 Sq. Ft	162 Sq. Ft	168 Sq. Ft	174 Sq. Ft	180 Sq. Ft	186 Sq. Ft	192 Sq. Ft
13 ft.	32.5 Sq. Ft	39 Sq. Ft	45.5 Sq. Ft	52 Sq. Ft	58.5 Sq. Ft	65 Sq. Ft	71.5 Sq. Ft	78 Sq. Ft	84.5 Sq. Ft	91 Sq. Ft	97.5 Sq. Ft	104 Sq. Ft	110.5 Sq. Ft	117 Sq. Ft	123.5 Sq. Ft	130 Sq. Ft	136.5 Sq. Ft	143 Sq. Ft	149.5 Sq. Ft	156 Sq. Ft	162.5 Sq. Ft	169 Sq. Ft	175.5 Sq. Ft	182 Sq. Ft	188.5 Sq. Ft	195 Sq. Ft	201.5 Sq. Ft	208 Sq. Ft
14 ft.	35 Sq. Ft	42 Sq. Ft	49 Sq. Ft	56 Sq. Ft	63 Sq. Ft	70 Sq. Ft	77 Sq. Ft	84 Sq. Ft	91 Sq. Ft	98 Sq. Ft	105 Sq. Ft	112 Sq. Ft	119 Sq. Ft	126 Sq. Ft	133 Sq. Ft	140 Sq. Ft	147 Sq. Ft	154 Sq. Ft	161 Sq. Ft	168 Sq. Ft	175 Sq. Ft	182 Sq. Ft	189 Sq. Ft	196 Sq. Ft	203 Sq. Ft	210 Sq. Ft	217 Sq. Ft	224 Sq. Ft
15 ft.	37.5 Sq. Ft	45 Sq. Ft	52.5 Sq. Ft	60 Sq. Ft	67.5 Sq. Ft	75 Sq. Ft	82.5 Sq. Ft	90 Sq. Ft	97.5 Sq. Ft	105 Sq. Ft	112.5 Sq. Ft	120 Sq. Ft	127.5 Sq. Ft	135 Sq. Ft	142.5 Sq. Ft	150 Sq. Ft	157.5 Sq. Ft	165 Sq. Ft	172.5 Sq. Ft	180 Sq. Ft	187.5 Sq. Ft	195 Sq. Ft	202.5 Sq. Ft	210 Sq. Ft	217.5 Sq. Ft	225 Sq. Ft	232.5 Sq. Ft	240 Sq. Ft
16 ft.	40 Sq. Ft	48 Sq. Ft	56 Sq. Ft	64 Sq. Ft	72 Sq. Ft	80 Sq. Ft	88 Sq. Ft	96 Sq. Ft	104 Sq. Ft	112 Sq. Ft	120 Sq. Ft	128 Sq. Ft	136 Sq. Ft	144 Sq. Ft	152 Sq. Ft	160 Sq. Ft	168 Sq. Ft	176 Sq. Ft	184 Sq. Ft	192 Sq. Ft	200 Sq. Ft	208 Sq. Ft	216 Sq. Ft	224 Sq. Ft	232 Sq. Ft	240 Sq. Ft	248 Sq. Ft	256 Sq. Ft
17 ft.	42.5 Sq. Ft	51 Sq. Ft	59.5 Sq. Ft	68 Sq. Ft	76.5 Sq. Ft	85 Sq. Ft	93.5 Sq. Ft	102 Sq. Ft	110.5 Sq. Ft	119 Sq. Ft	127.5 Sq. Ft	136 Sq. Ft	144.5 Sq. Ft	153 Sq. Ft	161.5 Sq. Ft	170 Sq. Ft	178.5 Sq. Ft	187 Sq. Ft	195.5 Sq. Ft	204 Sq. Ft	212.5 Sq. Ft	221 Sq. Ft	229.5 Sq. Ft	238 Sq. Ft	246.5 Sq. Ft	255 Sq. Ft	263.5 Sq. Ft	272 Sq. Ft
18 ft.	45 Sq. Ft	54 Sq. Ft	63 Sq. Ft	72 Sq. Ft	81 Sq. Ft	90 Sq. Ft	99 Sq. Ft	108 Sq. Ft	117 Sq. Ft	126 Sq. Ft	135 Sq. Ft	144 Sq. Ft	153 Sq. Ft	162 Sq. Ft	171 Sq. Ft	180 Sq. Ft	189 Sq. Ft	198 Sq. Ft	207 Sq. Ft	216 Sq. Ft	225 Sq. Ft	234 Sq. Ft	243 Sq. Ft	252 Sq. Ft	261 Sq. Ft	270 Sq. Ft	279 Sq. Ft	288 Sq. Ft
19 ft.	47.5 Sq. Ft	57 Sq. Ft	66.5 Sq. Ft	76 Sq. Ft	85.5 Sq. Ft	95 Sq. Ft	104.5 Sq. Ft	114 Sq. Ft	123.5 Sq. Ft	133 Sq. Ft	142.5 Sq. Ft	152 Sq. Ft	161.5 Sq. Ft	171 Sq. Ft	180.5 Sq. Ft	190 Sq. Ft	199.5 Sq. Ft	209 Sq. Ft	218.5 Sq. Ft	228 Sq. Ft	237.5 Sq. Ft	247 Sq. Ft	256.5 Sq. Ft	266 Sq. Ft	275.5 Sq. Ft	285 Sq. Ft	294.5 Sq. Ft	304 Sq. Ft
20 ft.	50 Sq. Ft	60 Sq. Ft	70 Sq. Ft	80 Sq. Ft	90 Sq. Ft	100 Sq. Ft	110 Sq. Ft	120 Sq. Ft	130 Sq. Ft	140 Sq. Ft	150 Sq. Ft	160 Sq. Ft	170 Sq. Ft	180 Sq. Ft	190 Sq. Ft	200 Sq. Ft	210 Sq. Ft	220 Sq. Ft	230 Sq. Ft	240 Sq. Ft	250 Sq. Ft	260 Sq. Ft	270 Sq. Ft	280 Sq. Ft	290 Sq. Ft	300 Sq. Ft	310 Sq. Ft	320 Sq. Ft
21 ft.	52.5 Sq. Ft	63 Sq. Ft	73.5 Sq. Ft	84 Sq. Ft	94.5 Sq. Ft	105 Sq. Ft	115.5 Sq. Ft	126 Sq. Ft	136.5 Sq. Ft	147 Sq. Ft	157.5 Sq. Ft	168 Sq. Ft	178.5 Sq. Ft	189 Sq. Ft	199.5 Sq. Ft	210 Sq. Ft	220.5 Sq. Ft	231 Sq. Ft	241.5 Sq. Ft	252 Sq. Ft	262.5 Sq. Ft	273 Sq. Ft	283.5 Sq. Ft	294 Sq. Ft	304.5 Sq. Ft	315 Sq. Ft	325.5 Sq. Ft	336 Sq. Ft

Type "A" (2 Posts)
1.2 CY Conc.
68 LBs Bar Steel

Type "B" (2 Posts)
1.6 CY Conc.
98 LBs Bar Steel

Type "C" (2 Posts)
1.8 CY Conc.
100 LBs Bar Steel

Type "D" (2 Posts)
1.8 CY Conc.
112 LBs Bar Steel

Type "C" (3 Posts)
2.7 CY Conc.
150 LBs Bar Steel

STEEL POST SIZE

"A" - W10" x 12"
"B" - W12" x 16"
"C" - W12" x 19"
"D" - W12 x 22"

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DETERMINATION OF HIGH STRENGTH STRUCTURAL STEEL SIGN SUPPORT TYPE

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/03/10 PLATE NO. A3-2.2

PROJECT NO: | SHEET NO: E

FILE NAME : C:\users\PROJECTS\tr_stdplate\A32.DGN PLOT DATE : 05-MAR-2010 10:10 PLOT BY : ditjph

VERTICAL DIMENSION ⇨

HORIZONTAL DIMENSION ⇩

Type "A" (2 Posts) 1.2 CY Conc. 68 LBs Bar Steel

⇩ \ ⇨	2.5 ft.	3 ft.	3.5 ft.	4 ft.	4.5 ft.	5 ft.	5.5 ft.	6 ft.	6.5 ft.	7 ft.	7.5 ft.	8 ft.	8.5 ft.	9 ft.	9.5 ft.	10 ft.	10.5 ft.	11 ft.	11.5 ft.	12 ft.	12.5 ft.	13 ft.	13.5 ft.	14 ft.	14.5 ft.	15 ft.	15.5 ft.	16 ft.
22 ft.	55 Sq. Ft	66 Sq. Ft	77 Sq. Ft	88 Sq. Ft	99 Sq. Ft	110 Sq. Ft	121 Sq. Ft	132 Sq. Ft	143 Sq. Ft	154 Sq. Ft	165 Sq. Ft	176 Sq. Ft	187 Sq. Ft	198 Sq. Ft	209 Sq. Ft	220 Sq. Ft	231 Sq. Ft	242 Sq. Ft	253 Sq. Ft	264 Sq. Ft	275 Sq. Ft	286 Sq. Ft	297 Sq. Ft	308 Sq. Ft	319 Sq. Ft	330 Sq. Ft	341 Sq. Ft	352 Sq. Ft
23 ft.	57.5 Sq. Ft	69 Sq. Ft	80.5 Sq. Ft	92 Sq. Ft	103.5 Sq. Ft	115 Sq. Ft	126.5 Sq. Ft	138 Sq. Ft	149.5 Sq. Ft	161 Sq. Ft	172.5 Sq. Ft	184 Sq. Ft	195.5 Sq. Ft	207 Sq. Ft	218.5 Sq. Ft	230 Sq. Ft	241.5 Sq. Ft	253 Sq. Ft	264.5 Sq. Ft	276 Sq. Ft	287.5 Sq. Ft	299 Sq. Ft	310.5 Sq. Ft	322 Sq. Ft	333.5 Sq. Ft	345 Sq. Ft	356.5 Sq. Ft	368 Sq. Ft
24 ft.	60 Sq. Ft	72 Sq. Ft	84 Sq. Ft	96 Sq. Ft	108 Sq. Ft	120 Sq. Ft	132 Sq. Ft	144 Sq. Ft	156 Sq. Ft	168 Sq. Ft	180 Sq. Ft	192 Sq. Ft	204 Sq. Ft	216 Sq. Ft	228 Sq. Ft	240 Sq. Ft	252 Sq. Ft	264 Sq. Ft	276 Sq. Ft	288 Sq. Ft	300 Sq. Ft	312 Sq. Ft	324 Sq. Ft	336 Sq. Ft	348 Sq. Ft	360 Sq. Ft	372 Sq. Ft	384 Sq. Ft
25 ft.	62.5 Sq. Ft	75 Sq. Ft	87.5 Sq. Ft	100 Sq. Ft	112.5 Sq. Ft	125 Sq. Ft	137.5 Sq. Ft	150 Sq. Ft	162.5 Sq. Ft	175 Sq. Ft	187.5 Sq. Ft	200 Sq. Ft	212.5 Sq. Ft	225 Sq. Ft	237.5 Sq. Ft	250 Sq. Ft	262.5 Sq. Ft	275 Sq. Ft	287.5 Sq. Ft	300 Sq. Ft	312.5 Sq. Ft	325 Sq. Ft	337.5 Sq. Ft	350 Sq. Ft	362.5 Sq. Ft	375 Sq. Ft	387.5 Sq. Ft	400 Sq. Ft
26 ft.	65 Sq. Ft	78 Sq. Ft	91 Sq. Ft	104 Sq. Ft	117 Sq. Ft	130 Sq. Ft	143 Sq. Ft	156 Sq. Ft	169 Sq. Ft	182 Sq. Ft	195 Sq. Ft	208 Sq. Ft	221 Sq. Ft	234 Sq. Ft	247 Sq. Ft	260 Sq. Ft	273 Sq. Ft	286 Sq. Ft	299 Sq. Ft	312 Sq. Ft	325 Sq. Ft	338 Sq. Ft	351 Sq. Ft	364 Sq. Ft	377 Sq. Ft	390 Sq. Ft	403 Sq. Ft	416 Sq. Ft
27 ft.	67.5 Sq. Ft	81 Sq. Ft	94.5 Sq. Ft	108 Sq. Ft	121.5 Sq. Ft	135 Sq. Ft	148.5 Sq. Ft	162 Sq. Ft	175.5 Sq. Ft	189 Sq. Ft	202.5 Sq. Ft	216 Sq. Ft	229.5 Sq. Ft	243 Sq. Ft	256.5 Sq. Ft	270 Sq. Ft	283.5 Sq. Ft	297 Sq. Ft	310.5 Sq. Ft	324 Sq. Ft	337.5 Sq. Ft	351 Sq. Ft	364.5 Sq. Ft	378 Sq. Ft	391.5 Sq. Ft	405 Sq. Ft	418.5 Sq. Ft	432 Sq. Ft
28 ft.	70 Sq. Ft	84 Sq. Ft	98 Sq. Ft	112 Sq. Ft	126 Sq. Ft	140 Sq. Ft	154 Sq. Ft	168 Sq. Ft	182 Sq. Ft	196 Sq. Ft	210 Sq. Ft	224 Sq. Ft	238 Sq. Ft	252 Sq. Ft	266 Sq. Ft	280 Sq. Ft	294 Sq. Ft	308 Sq. Ft	322 Sq. Ft	336 Sq. Ft	350 Sq. Ft	364 Sq. Ft	378 Sq. Ft	392 Sq. Ft	406 Sq. Ft	420 Sq. Ft	434 Sq. Ft	448 Sq. Ft
29 ft.	72.5 Sq. Ft	87 Sq. Ft	101.5 Sq. Ft	116 Sq. Ft	130.5 Sq. Ft	145 Sq. Ft	159.5 Sq. Ft	174 Sq. Ft	188.5 Sq. Ft	203 Sq. Ft	217.5 Sq. Ft	232 Sq. Ft	246.5 Sq. Ft	261 Sq. Ft	275.5 Sq. Ft	290 Sq. Ft	304.5 Sq. Ft	319 Sq. Ft	333.5 Sq. Ft	348 Sq. Ft	362.5 Sq. Ft	377 Sq. Ft	391.5 Sq. Ft	406 Sq. Ft	420.5 Sq. Ft	435 Sq. Ft	449.5 Sq. Ft	464 Sq. Ft
30 ft.	75 Sq. Ft	90 Sq. Ft	105 Sq. Ft	120 Sq. Ft	135 Sq. Ft	150 Sq. Ft	165 Sq. Ft	180 Sq. Ft	195 Sq. Ft	210 Sq. Ft	225 Sq. Ft	240 Sq. Ft	255 Sq. Ft	270 Sq. Ft	285 Sq. Ft	300 Sq. Ft	315 Sq. Ft	330 Sq. Ft	345 Sq. Ft	360 Sq. Ft	375 Sq. Ft	390 Sq. Ft	405 Sq. Ft	420 Sq. Ft	435 Sq. Ft	450 Sq. Ft	465 Sq. Ft	480 Sq. Ft
31 ft.	77.5 Sq. Ft	93 Sq. Ft	108.5 Sq. Ft	124 Sq. Ft	139.5 Sq. Ft	155 Sq. Ft	170.5 Sq. Ft	186 Sq. Ft	201.5 Sq. Ft	217 Sq. Ft	232.5 Sq. Ft	248 Sq. Ft	263.5 Sq. Ft	279 Sq. Ft	294.5 Sq. Ft	310 Sq. Ft	325.5 Sq. Ft	341 Sq. Ft	356.5 Sq. Ft	372 Sq. Ft	387.5 Sq. Ft	403 Sq. Ft	418.5 Sq. Ft	434 Sq. Ft	449.5 Sq. Ft	465 Sq. Ft	480.5 Sq. Ft	496 Sq. Ft
32 ft.	80 Sq. Ft	96 Sq. Ft	112 Sq. Ft	128 Sq. Ft	144 Sq. Ft	160 Sq. Ft	176 Sq. Ft	192 Sq. Ft	208 Sq. Ft	224 Sq. Ft	240 Sq. Ft	256 Sq. Ft	272 Sq. Ft	288 Sq. Ft	304 Sq. Ft	320 Sq. Ft	336 Sq. Ft	352 Sq. Ft	368 Sq. Ft	384 Sq. Ft	400 Sq. Ft	416 Sq. Ft	432 Sq. Ft	448 Sq. Ft	464 Sq. Ft	480 Sq. Ft	496 Sq. Ft	512 Sq. Ft
33 ft.	82.5 Sq. Ft	99 Sq. Ft	115.5 Sq. Ft	132 Sq. Ft	148.5 Sq. Ft	165 Sq. Ft	181.5 Sq. Ft	198 Sq. Ft	214.5 Sq. Ft	231 Sq. Ft	247.5 Sq. Ft	264 Sq. Ft	280.5 Sq. Ft	297 Sq. Ft	313.5 Sq. Ft	330 Sq. Ft	346.5 Sq. Ft	363 Sq. Ft	379.5 Sq. Ft	396 Sq. Ft	412.5 Sq. Ft	429 Sq. Ft	445.5 Sq. Ft	462 Sq. Ft	478.5 Sq. Ft	495 Sq. Ft	511.5 Sq. Ft	528 Sq. Ft
34 ft.	85 Sq. Ft	102 Sq. Ft	119 Sq. Ft	136 Sq. Ft	153 Sq. Ft	170 Sq. Ft	187 Sq. Ft	204 Sq. Ft	221 Sq. Ft	238 Sq. Ft	255 Sq. Ft	272 Sq. Ft	289 Sq. Ft	306 Sq. Ft	323 Sq. Ft	340 Sq. Ft	357 Sq. Ft	374 Sq. Ft	391 Sq. Ft	408 Sq. Ft	425 Sq. Ft	442 Sq. Ft	459 Sq. Ft	476 Sq. Ft	493 Sq. Ft	510 Sq. Ft	527 Sq. Ft	544 Sq. Ft
35 ft.	87.5 Sq. Ft	105 Sq. Ft	122.5 Sq. Ft	140 Sq. Ft	157.5 Sq. Ft	175 Sq. Ft	192.5 Sq. Ft	210 Sq. Ft	227.5 Sq. Ft	245 Sq. Ft	262.5 Sq. Ft	280 Sq. Ft	297.5 Sq. Ft	315 Sq. Ft	332.5 Sq. Ft	350 Sq. Ft	367.5 Sq. Ft	385 Sq. Ft	402.5 Sq. Ft	420 Sq. Ft	437.5 Sq. Ft	455 Sq. Ft	472.5 Sq. Ft	490 Sq. Ft	507.5 Sq. Ft	525 Sq. Ft	542.5 Sq. Ft	560 Sq. Ft
36 ft.	90 Sq. Ft	108 Sq. Ft	126 Sq. Ft	144 Sq. Ft	162 Sq. Ft	180 Sq. Ft	198 Sq. Ft	216 Sq. Ft	234 Sq. Ft	252 Sq. Ft	270 Sq. Ft	288 Sq. Ft	306 Sq. Ft	324 Sq. Ft	342 Sq. Ft	360 Sq. Ft	378 Sq. Ft	396 Sq. Ft	414 Sq. Ft	432 Sq. Ft	450 Sq. Ft	468 Sq. Ft	486 Sq. Ft	504 Sq. Ft	522 Sq. Ft	540 Sq. Ft	558 Sq. Ft	576 Sq. Ft

Type "B" (2 Posts)
1.6 CY Conc.
98 LBs Bar Steel

Type "C" (2 Posts)
1.8 CY Conc.
100 LBs Bar Steel

Type "D" (2 Posts)
1.8 CY Conc.
112 LBs Bar Steel

Type "C" (3 Posts)
2.7 CY Conc.
150 LBs Bar Steel

Type "D" (3 Posts)
2.7 CY Conc.
168 LBs Bar Steel

STEEL POST SIZE

"A" - W10" x 12"
"B" - W12" x 16"
"C" - W12" x 19"
"D" - W12 x 22"

DETERMINATION OF HIGH STRENGTH STRUCTURAL STEEL SIGN SUPPORT TYPE

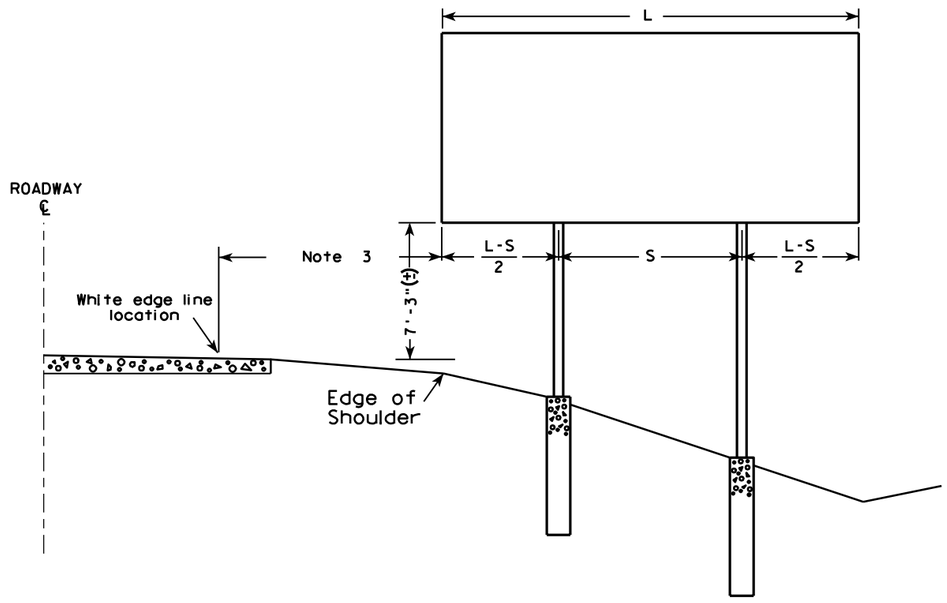
WISCONSIN DEPT OF TRANSPORTATION

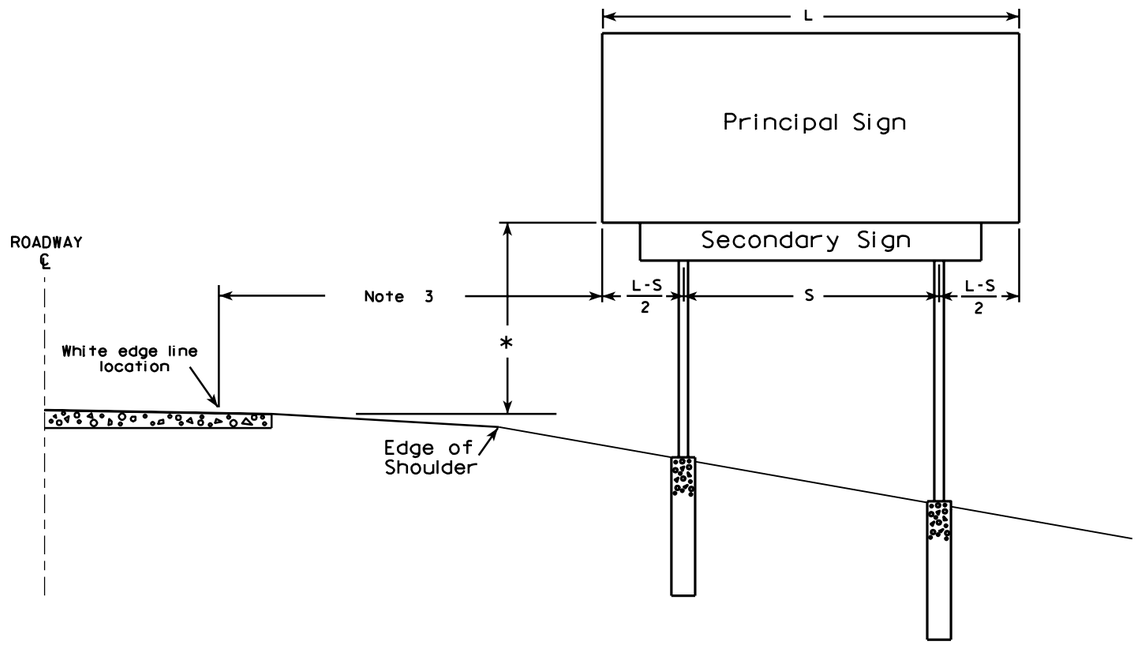
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/5/10 PLATE NO. A3-3.2

PROJECT NO: | SHEET NO: E

FILE NAME : C:\users\PROJECTS\tr_stdplate\A33.DGN PLOT DATE : 05-MAR-2010 10:07 PLOT BY : ditjph





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"(±).

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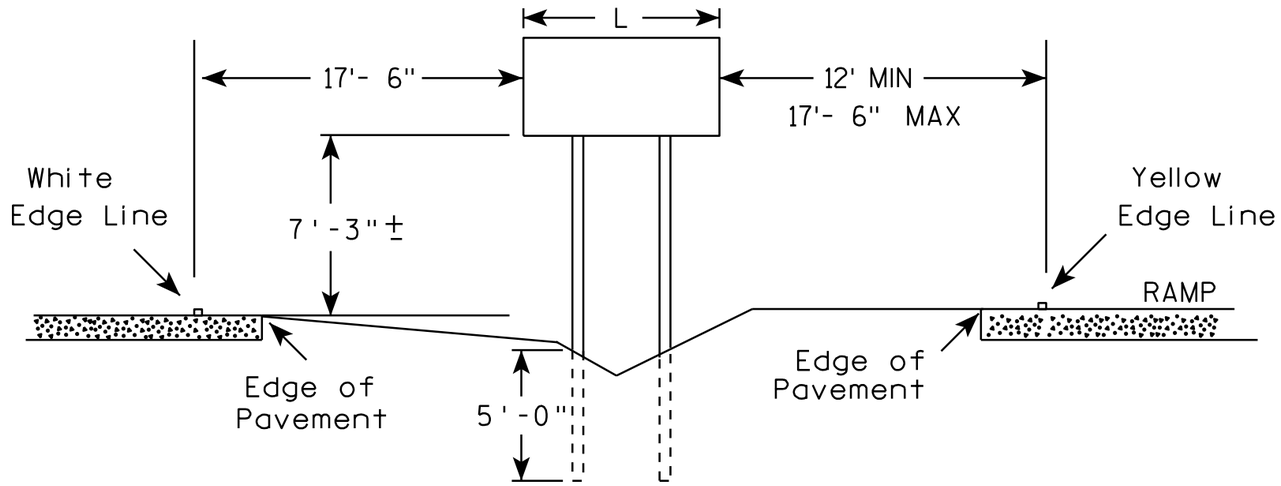
TYPICAL INSTALLATION OF TYPE I SIGNS

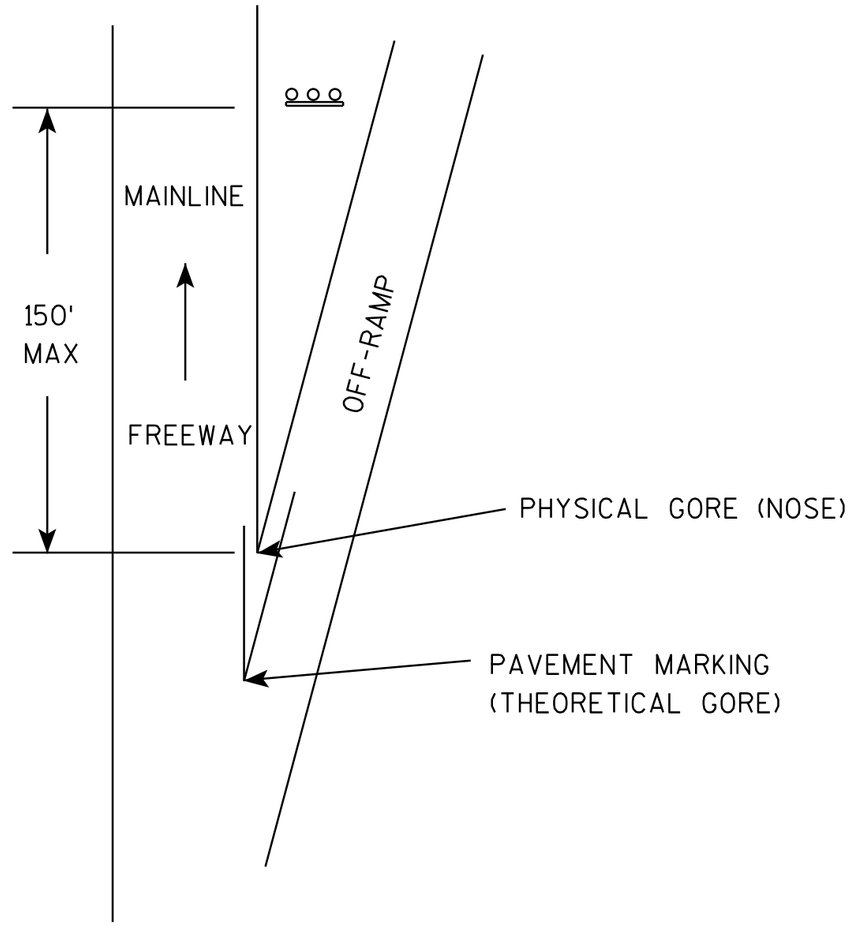
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 4/02/08 PLATE NO. A4-1.9

PROJECT NO:				SHEET NO: 313	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.

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TYPICAL INSTALLATION
OF TYPE II SIGNS ON
WOOD POSTS IN GORE

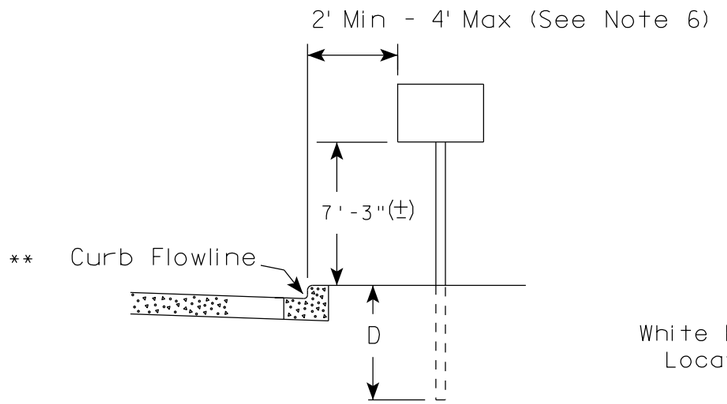
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

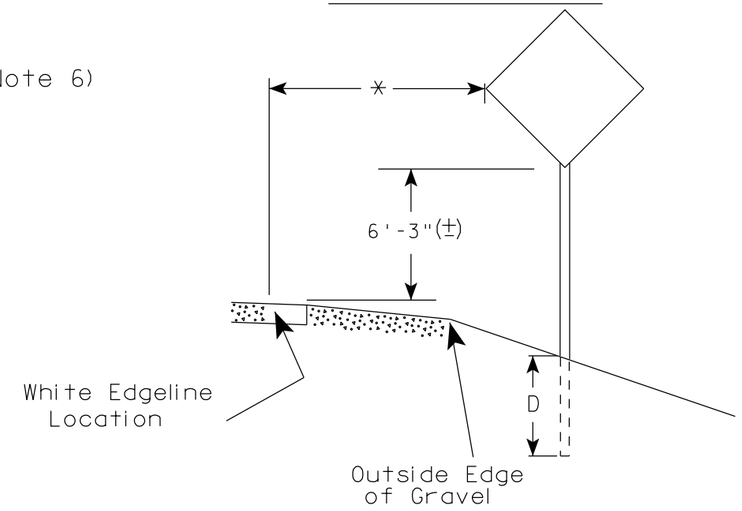
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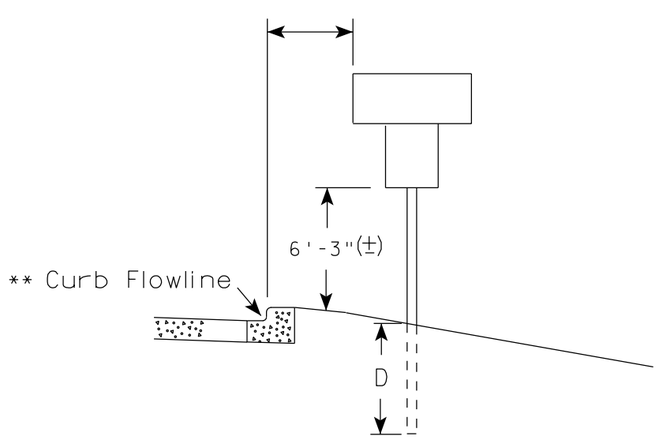
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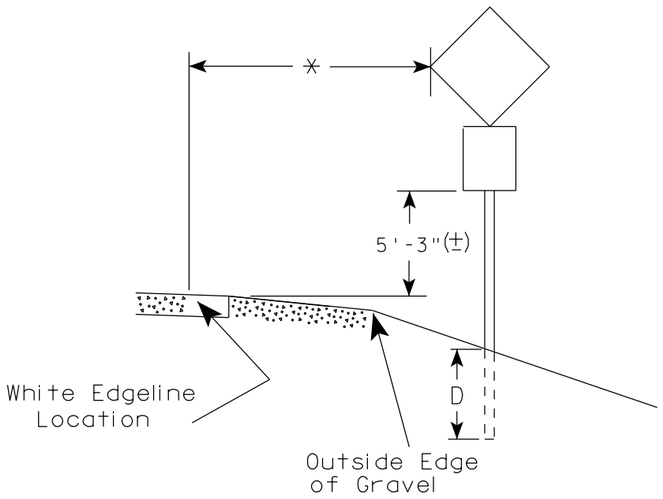
URBAN AREA



RURAL AREA (See Note 2)







GENERAL NOTES

1. Signs wider than 4 feet or 20 sq.ft or larger, shall be mounted on multiple posts. Refer to plate A4-4.
2. If signs are mounted on barrier wall, see A4-10 sign plate.
3. For expressways and freeways, mounting height is 7'- 3" (±) or 6'-3" (±) depending upon existence of a sub-sign.
4. Minimum mounting height for J assemblies (A2-1S) is 7'-3" (±) or 6'-3" (±) per urban or rural detail respectively.
5. Minimum mounting height for signs mounted on traffic signal poles is 5'- 3" (±).
6. Offset distance shall be consistent with existing signs or consistent throughout length of project.
7. The (±) tolerance for mounting height is 3 inches.
8. Folding signs shall be mounted at a height of 5'-3" (±) or as directd by the Engineer.
9. The Double Arrow sign (W12-1) shall be mounted at a height of 2'-3" (±). The Chevron sign (W1-8), Roundabout Chevron panel (R6-4B), Enhanced Reference Markers, Clearance Markers (W5-52), Mile Markers (D10 series), In Road Object Markers (W5-54) & End of Road Markers (W5-56) shall be mounted at a height of 4'-3" (±).

POST EMBEDMENT DEPTH

Area of Sign Installation (Sq. Ft.)	D (Min)
20 or Less	4'
Greater than 20	5'

** The existence of curb and gutter does not in itself mandate the vertical clearance illustrated. That height is typically measured where there is sidewalk adjacent to the roadway or parking is permitted. In the absence of sidewalk vertical clearance is measured from the top of the curb. Offset of signs is measured from the flow line.

* 6 feet from edge of a paved shoulder or 12 feet from the edge of pavement (edge line location) or 2 feet from outside edge of gravel, whichever is greater unless directed by project engineer.

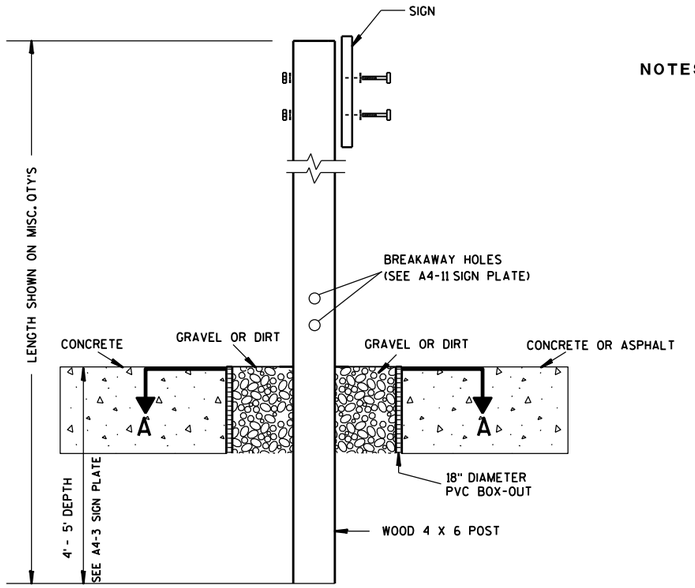
TYPICAL INSTALLATION OF PERMANENT TYPE II SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 7/23/15 PLATE NO. A4-3.20

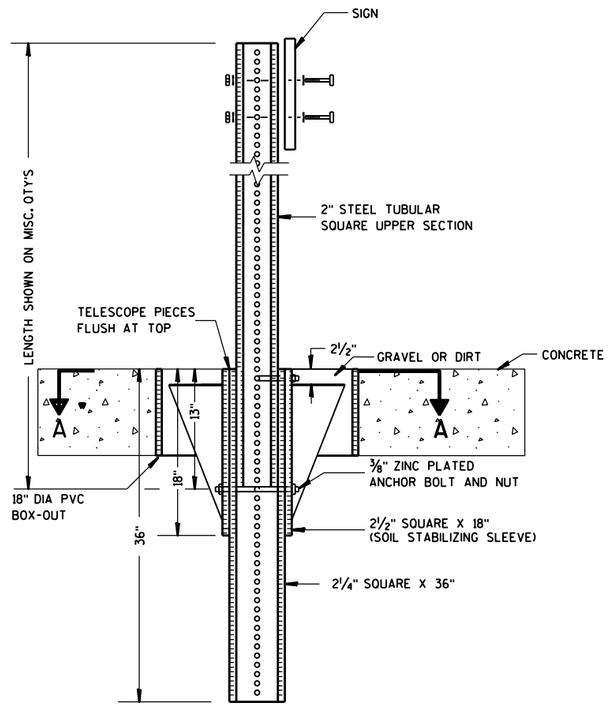
PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E



ELEVATION VIEW

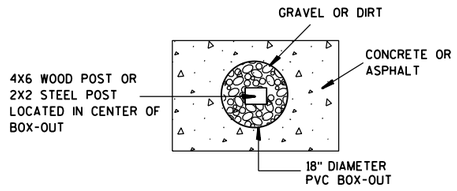
DETAIL OF WOOD 4 X 6 SIGN POST IN BOX-OUT

NOTES:
1. ALL MATERIAL TO BE APPROVED BY ENGINEER PRIOR TO INSTALLATION
2. SEE SIGN PLATE A4-8 FOR SIGN HARDWARE REQUIREMENTS
3. 18 INCH X 18 INCH SQUARE BOX-OUTS MAY BE USED FOR INSTALLATIONS IN EXISTING CONCRETE OR ASPHALT LOCATIONS.



ELEVATION VIEW

DETAIL OF STEEL 2 X 2 SIGN POST IN BOX-OUT



PLAN VIEW

FOR NEW CONCRETE/ASPHALT INSTALLATIONS

SIGN POST BOX-OUTS A4-3B

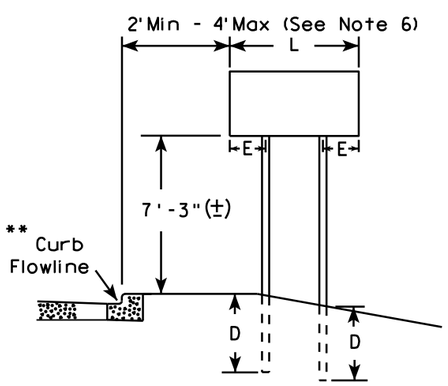
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

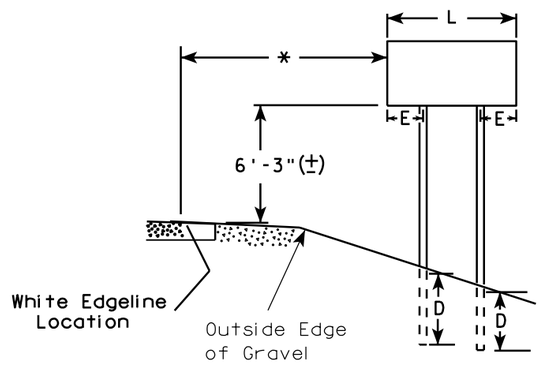
DATE 1/27/14 PLATE NO. A4-3B.1

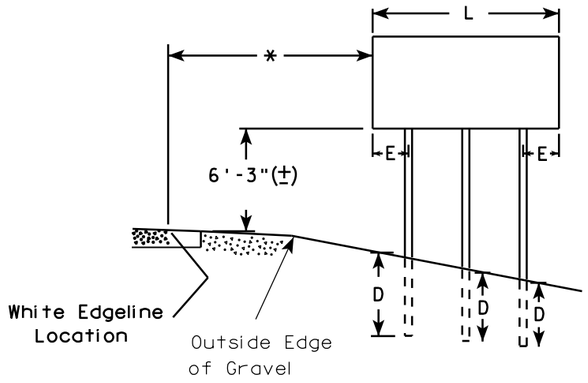
PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

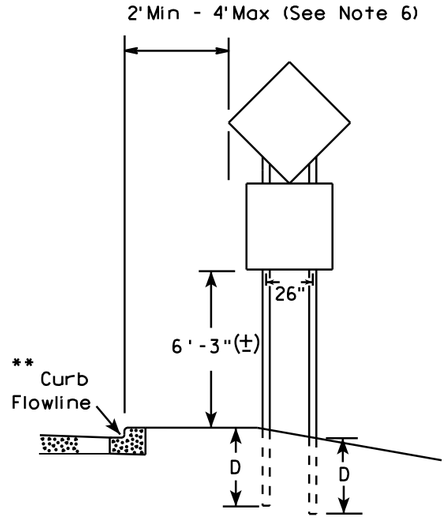
URBAN AREA



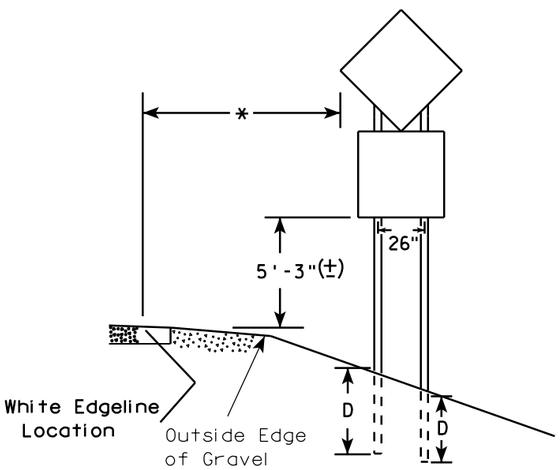
RURAL AREA (See Note 3)







48" DIAMOND WARNING SIGN



48" DIAMOND WARNING SIGN

GENERAL NOTES

1. For 3 or 4 post installations, individual post spacing shall be greater than 3'-6".
2. See tables below for required number of posts.
3. For expressways and freeways, mounting height is 7'-3" (±) or 6'-3" (±) depending upon existence of sub-sign.
4. The (±) tolerance for mounting height is 3 inches.
5. Minimum mounting height for J assemblies (A2-1S) is 7'-3" (±) or 6'-3" (±) per urban or rural detail respectively.
6. Offset distance shall be consistent with existing signs or consistent throughout length of project.
7. Folding signs shall be mounted at a height of 5'-3" (±) or as directed by the engineer.
8. The Double Arrow sign (W12-1) shall be mounted at a height of 2'-3" (±). The Chevron sign (W1-8), Roundabout Chevron panel (R6-4B), Clearance Markers (W5-52), Mile Markers (D10 series), In Road Object Markers (W5-54) & End of Road Markers (W5-56) shall be mounted at a height of 4"-3" (±).

* 6 feet from edge of a paved shoulder or 12 feet from the edge of pavement (edge line location) or 2 feet from outside edge of gravel, whichever is greater unless directed by project engineer.

** The existence of curb and gutter does not in itself mandate the vertical clearance illustrated. That height is typically measured where there is sidewalk adjacent to the roadway or parking is permitted. In the absence of sidewalk vertical clearance is measured from the top of the curb. Offset of signs is measured from the flow line.

*** See A4-3 sign plate for signs 4' or less in width and less than 20 S.F. in area.

SIGN SHAPE OTHER THAN DIAMOND (TWO POSTS REQUIRED)	
L	E
Greater than 48" Less than 60"	12"
60" to 120"	L/5

***

SIGN SHAPE OTHER THAN DIAMOND (THREE POSTS REQUIRED)	
L	E
Greater than 120" less than 168"	12"

SIGN SHAPE OTHER THAN DIAMOND (FOUR POSTS REQUIRED)	
L	E
168" and greater	12"

POST EMBEDMENT DEPTH

Area of Sign Installation (Sq. Ft.)	D (Min)
20 or Less	4'
Greater than 20	5'

TYPICAL INSTALLATION OF TYPE II SIGNS ON MULTIPLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

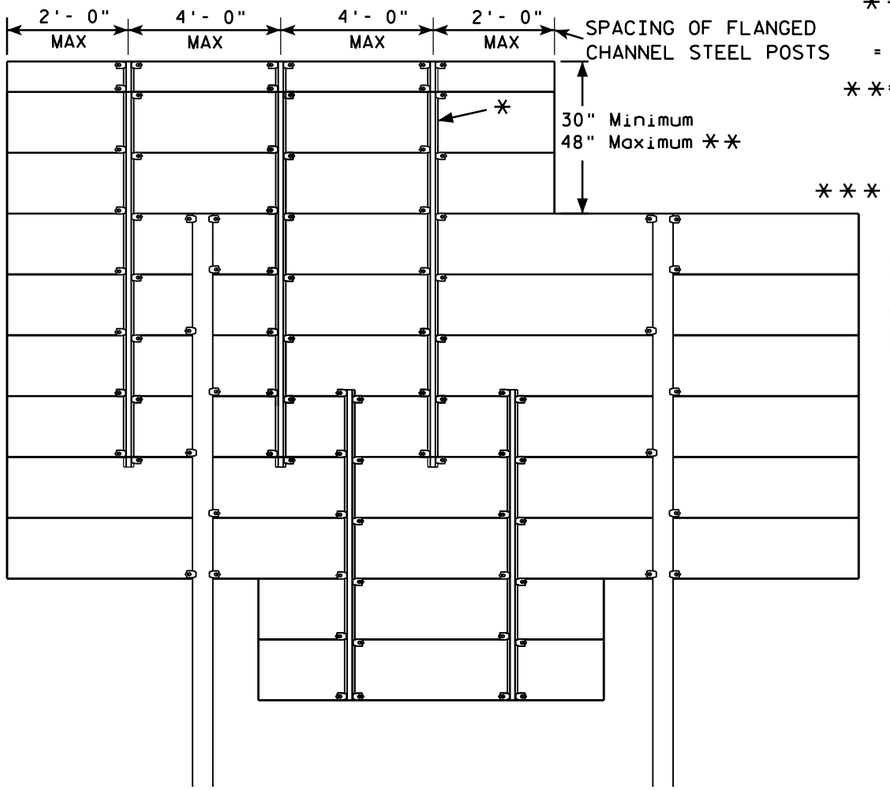
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 7/23/15 PLATE NO. A4-4 14

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\A44.DGN PLOT DATE : 23-JUL-2015 15:23 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 107.021305:1.000000 WISDOT/CADDS SHEET 42

GROUND MOUNTED SIGN

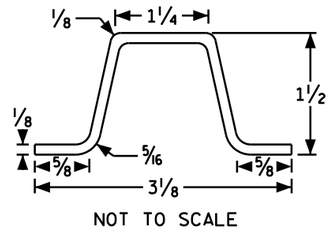


* =2.00 lb/ft FLANGED CHANNEL, MIN. YIELD STRENGTH = 60,000 PSI (GRADE 60) GALVANIZED

** =FOR 48" HEIGHT PANELS ON OVERHEAD STRUCTURES, ENTIRE SIGN SHALL BE CENTERED VERTICALLY ABOUT THE DEPTH OF THE TRUSS.

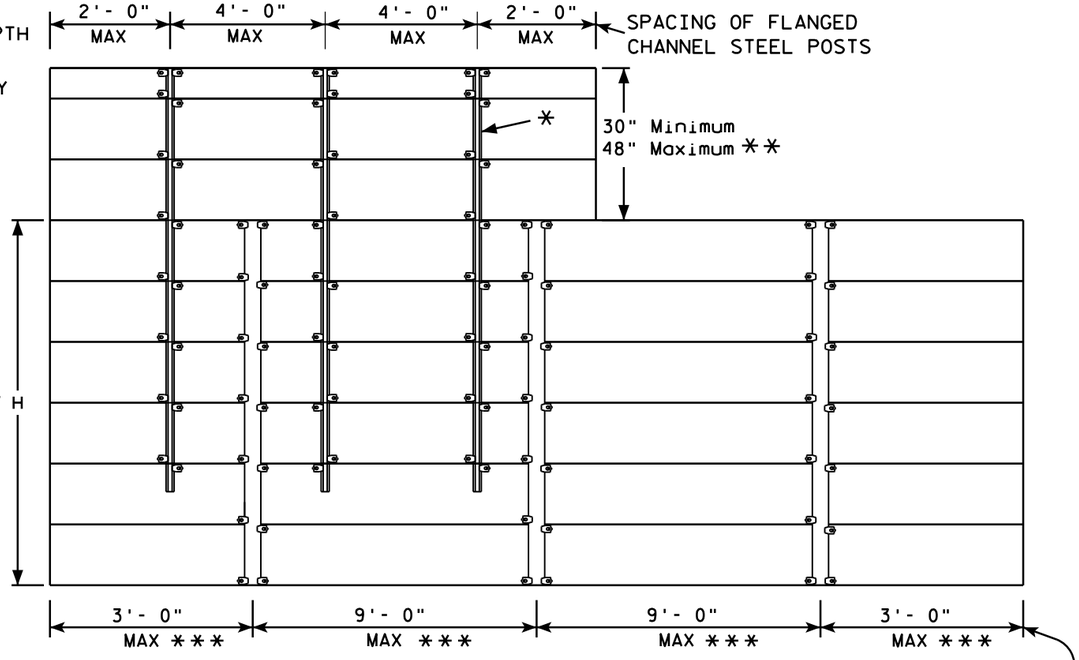
*** THESE SPACING DISTANCES SHALL ONLY BE USED WHEN THE MAIN SIGN HAS A MAXIMUM HEIGHT (DIMENSION H) OF 16 FT OR LESS. FOR SIGNS WITH A HEIGHT OF GREATER THAN 16 FT, STRUCTURAL CALCULATIONS SHALL BE PERFORMED.

FLANGE CHANNEL DETAIL



NOT TO SCALE

SIGN BRIDGE MOUNTED SIGN



GENERAL NOTES

1. Flanged channel steel posts shall conform to size and material above, and shall be considered as incidental to other items in the contract.
2. Number of Flanged channel steel supports varies with length of panel and shall be spaced as shown:

   PANEL LENGTH 8'-0" OR LESS = 2 CHANNELS
   PANEL LENGTH 9'- 0" - 12'- 0" = 3 CHANNELS
   PANEL LENGTH 13'- 0" OR MORE = 4 CHANNELS

   If the flanged channel steel posts can not be horizontally spaced as shown, they can be moved so as to securely hold the sign.
3. The EXIT NUMBER PANEL shall normally be positioned above the guide sign aligned with the right edge of the guide sign. If the guide sign indicates a left exit, the EXIT NUMBER PANEL shall be aligned with the left edge of the guide sign.
4. If the bolt holes in the top panel (EXIT NUMBER), or sub panel (NEXT EXIT) line up with holes in main sign panel, stitch bolts shall be used in addition to the channels.
5. Provide post clips for each sign as shown. (Please note the differences between a ground mounted versus Sign bridge mounted sign as far as number of clips required on the main supports or beams)
6. Structural steel sign supports shall extend to the top of the main signs, as shown on the above details.

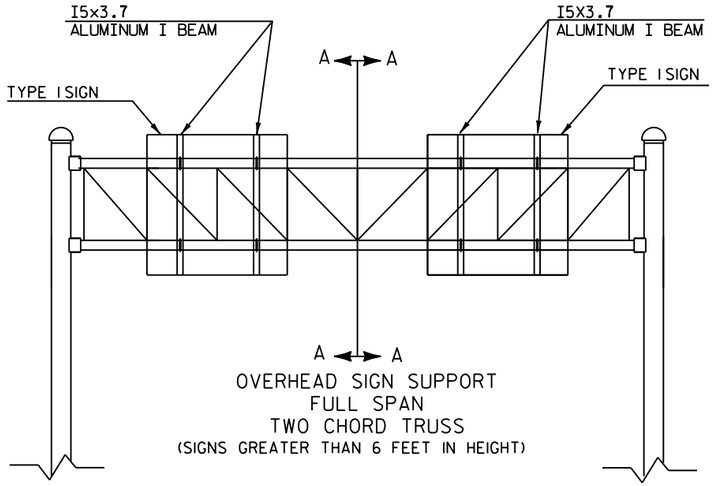
ATTACHMENT OF GUIDE SIGNS TO SUPPORTS

WISCONSIN DEPT OF TRANSPORTATION

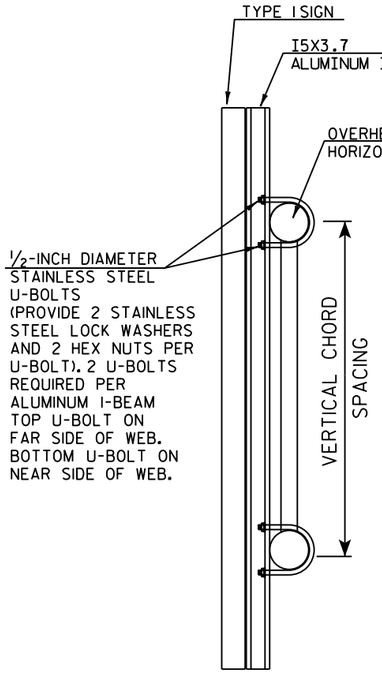
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/05/13 PLAT 318 A4-6.12

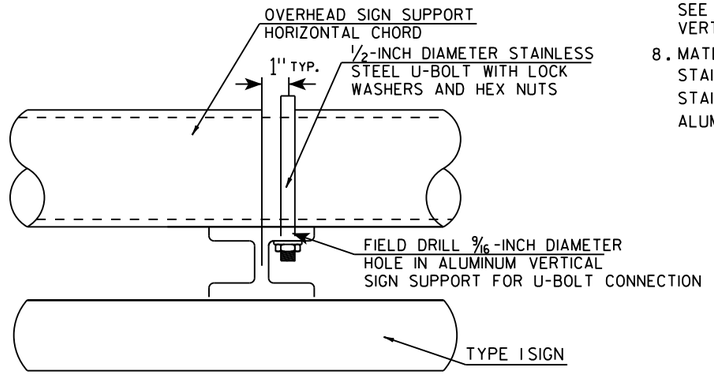
PROJECT NO:				SHEET NO:	E



OVERHEAD SIGN SUPPORT
FULL SPAN
TWO CHORD TRUSS
(SIGNS GREATER THAN 6 FEET IN HEIGHT)



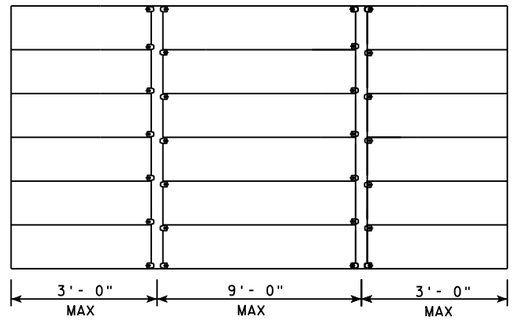
CUT SECTION A-A



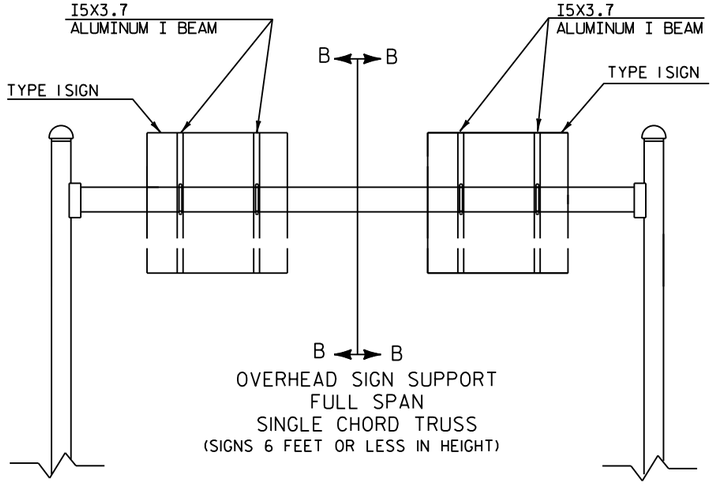
TYPICAL SIGN CONNECTION FOR
TWO CHORD TRUSS
PLAN VIEW

GENERAL NOTES

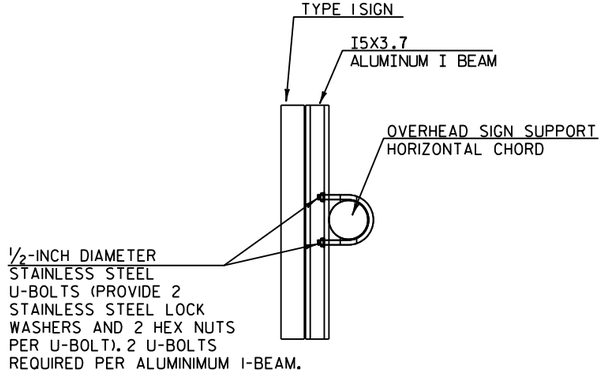
1. USE STAINLESS STEEL U-BOLTS, WASHERS, AND NUTS.
2. USE CLIPS ON EVERY EXTRUDED PANEL JOINT PER SIGN PLATE A4-6.
3. USE ALUMINUM VERTICAL SIGN SUPPORT BEAMS HAVING A 5 INCH BEAM DEPTH AND WEIGHT OF 3.7 LBS PER FOOT.
4. U-BOLTS SHALL BE STAINLESS STEEL AND MANUFACTURED TO THE PROPER SIZE TO FIT THE CHORDS OF THE OVERHEAD SIGN STRUCTURE.
5. DIAMETER OF U-BOLTS SHALL BE AS SHOWN.
6. THE LENGTH OF THE ALUMINUM VERTICAL SIGN SUPPORT BEAMS SHALL BE THE SAME AS THE HEIGHT OF THE SIGN THEY ARE SUPPORTING. BEAM LENGTHS MAY BE LONGER FOR PROPER ATTACHMENT TO CHORDS.
7. MINIMUM NUMBER OF BRACKETS PER SIGN IS TWO. SEE DETAIL BELOW FOR SPACING OF ALUMINUM VERTICAL SIGN SUPPORTS
8. MATERIAL NOTES:
   STAINLESS STEEL U-BOLTS AND LOCKWASHERS ASTM 304.
   STAINLESS STEEL HEX NUTS ASTM A276.
   ALUMINUM I-BEAMS ARE 6061-T6.



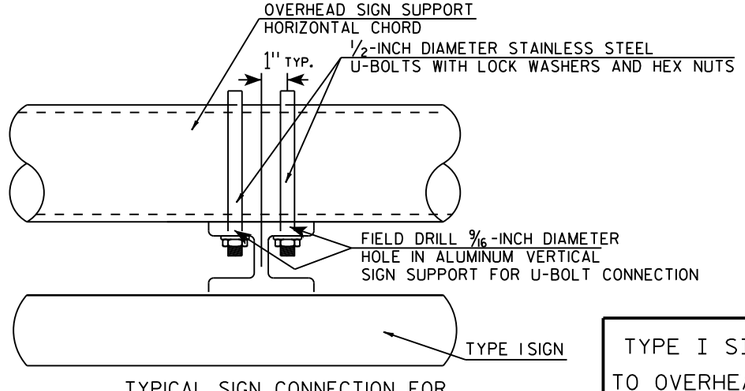
SPACING OF I5X3.7 ALUMINUM
VERTICAL SIGN SUPPORT



OVERHEAD SIGN SUPPORT
FULL SPAN
SINGLE CHORD TRUSS
(SIGNS 6 FEET OR LESS IN HEIGHT)



CUT SECTION B-B



TYPICAL SIGN CONNECTION FOR
SINGLE CHORD TRUSS
PLAN VIEW

TYPE I SIGN CONNECTION
TO OVERHEAD SIGN SUPPORT

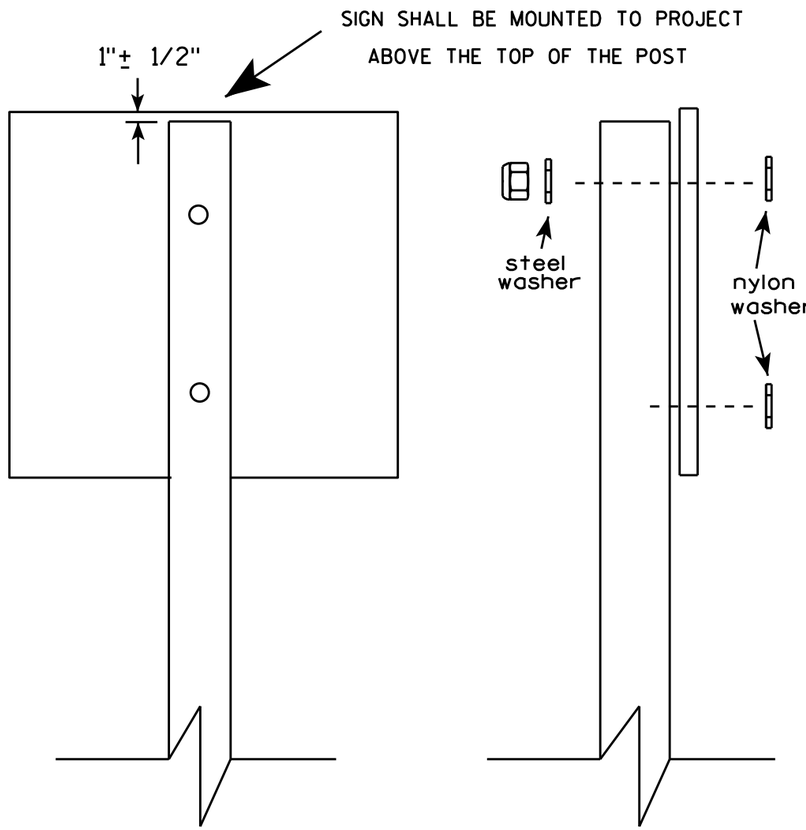
WISCONSIN DEPT OF TRANSPORTATION

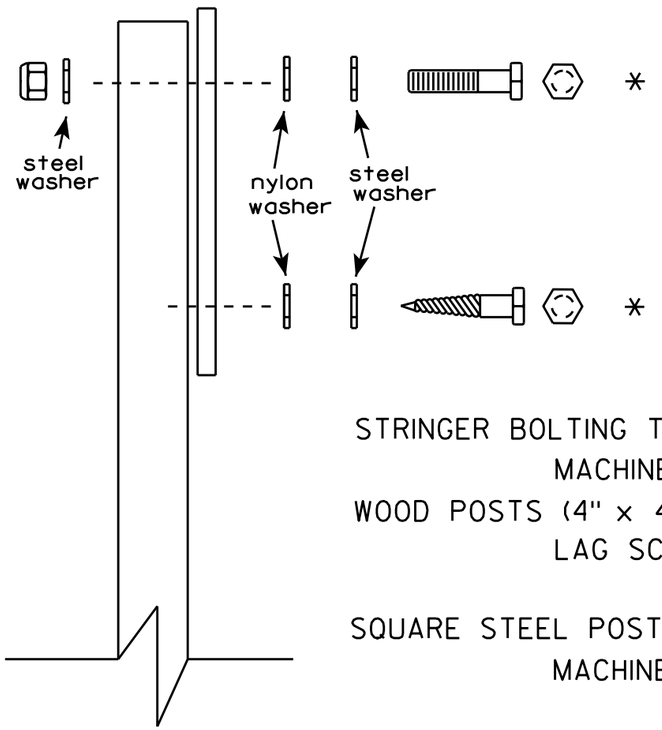
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/10/15 PLATE NO. A4-7,4

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\A47.DGN PLOT DATE : 01-DEC-2015 17:42 PLOT BY : $$ plotuser $$ PLOT NAME : PLOT SCALE : 38.916838:1.000000





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/ 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

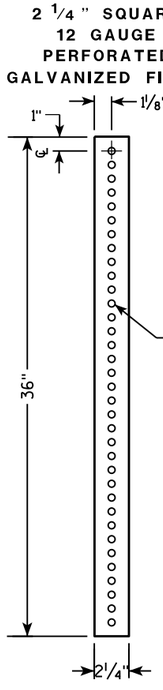
DATE 4/27/16 PLATE NO. A4-8.8

PROJECT NO: | SHEET NO: E

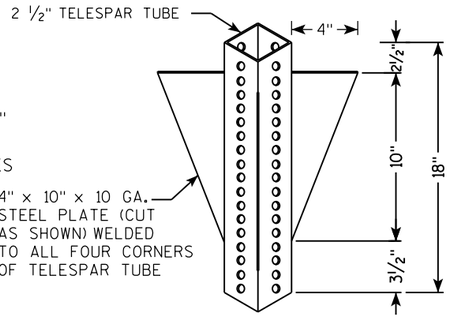
FILE NAME : C:\CAEfiles\Projects\tr_stdplate\A48.DGN PLOT DATE : 27-APR-2016 09:07 PLOT BY : mscj9h
WISDOT/CADDS SHEET 42

TELESCOPIC TUBING ANCHORS
TWO PIECE SYSTEM

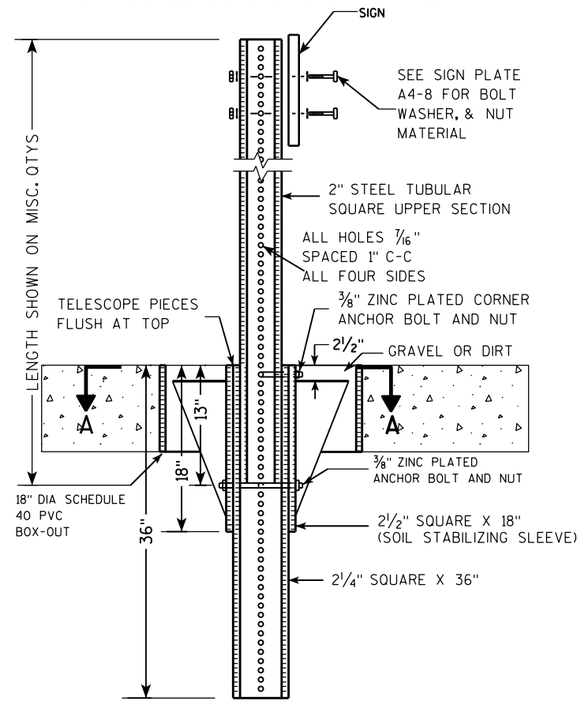
2 1/4 " SQUARE
12 GAUGE
PERFORATED
GALVANIZED FINISH



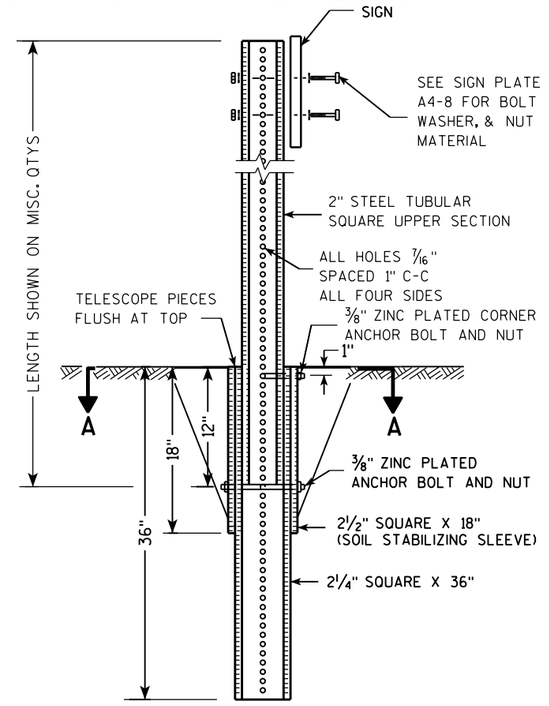
2 1/2 " SQUARE
12 GAUGE
OMNI-DIRECTIONAL
PERFORATED
SOIL STABILIZING SLEEVE
GALVANIZED FINISH

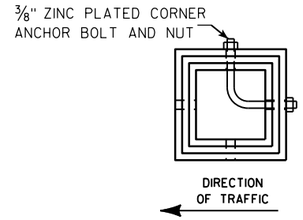


DETAIL OF TUBULAR STEEL SIGN POST
(IN POURED CONCRETE OR ASPHALT)



DETAIL OF TUBULAR STEEL SIGN POST
(IN LOCATIONS OTHER THAN POURED CONCRETE OR ASPHALT)





SECTION A-A

Area of Sign Installation (Sq. Ft.)	Number of Required Posts
9 or less	1
Greater than 9 less than or equal to 18	2
Greater than 18 less than or equal to 27	3

Signs wider than 3 feet or larger than 9 sq. ft shall be mounted on multiple posts (see above table).

TUBULAR STEEL
SIGN POST
A4-9

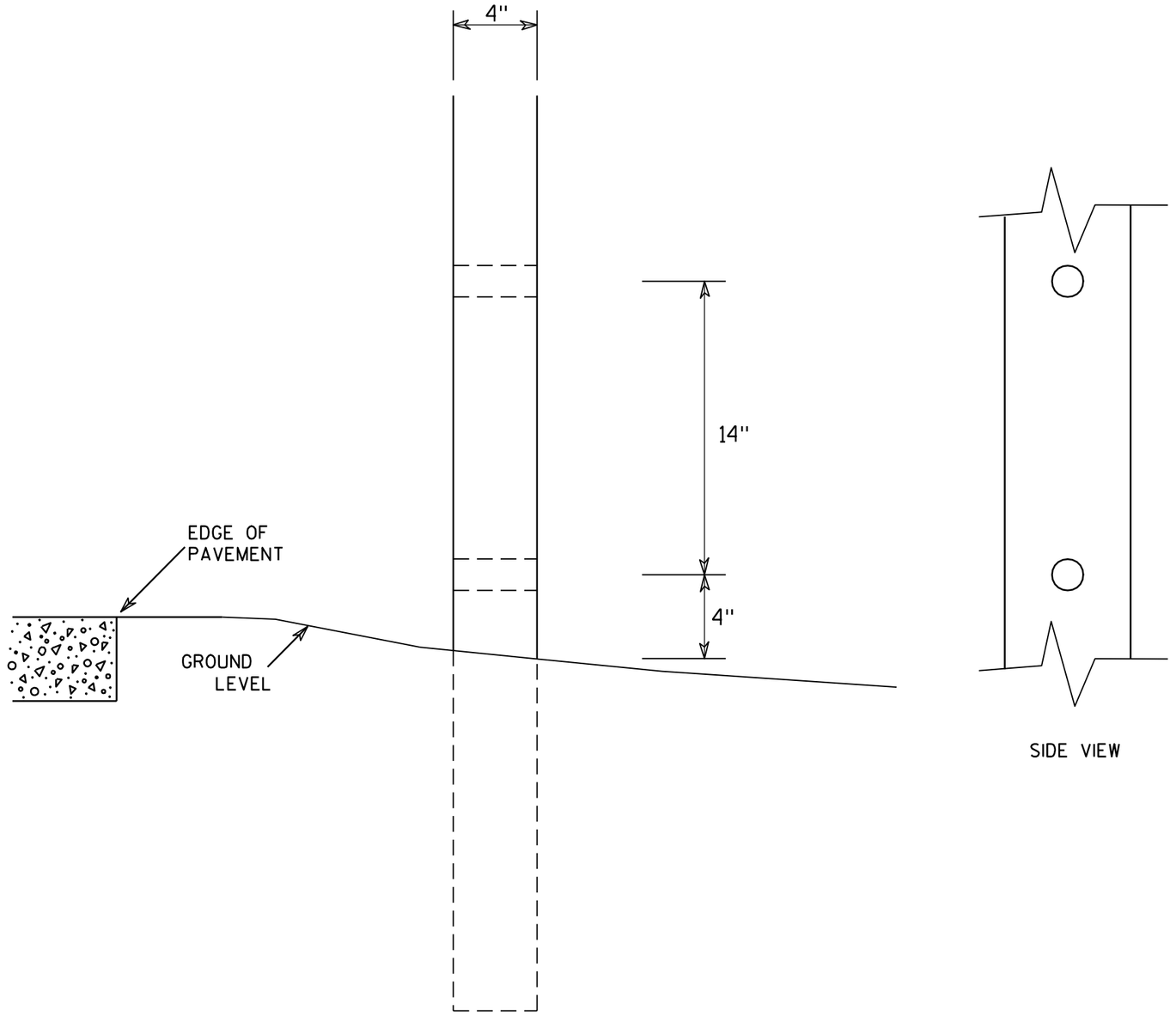
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/05/15 PLATE A4-9.9

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\A49.DGN PLOT DATE : 05-FEB-2015 17:09 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 13.659812:1.000000 WISDOT/CADDS SHEET 42



SIDE VIEW

GENERAL NOTES

1. All 4 x 6 Wood Posts shall be modified by having two 1½" diameter holes drilled perpendicular to the roadway centerline.

4 X 6 WOOD POST MODIFICATIONS

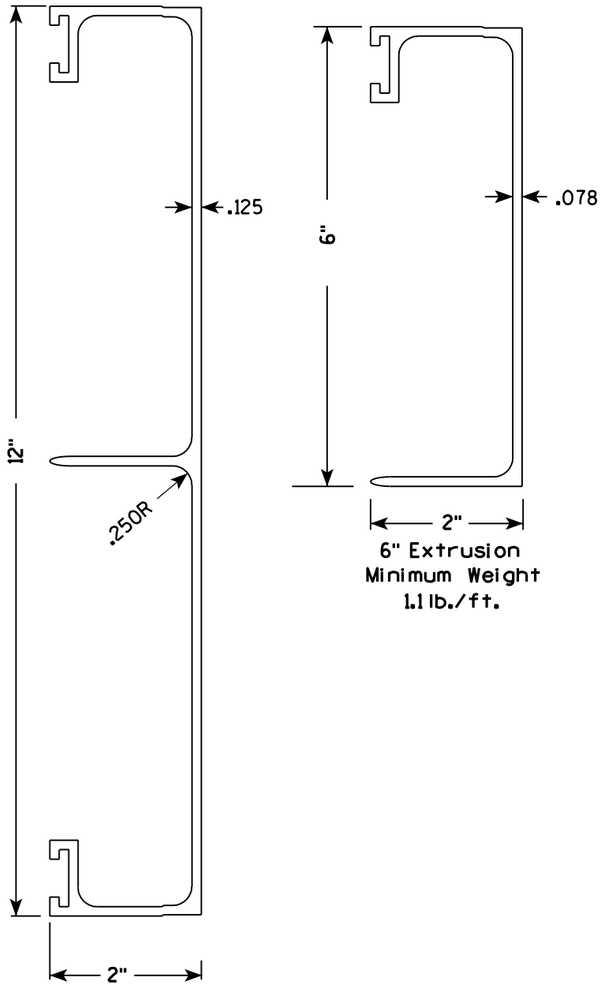
WISCONSIN DEPT OF TRANSPORTATION

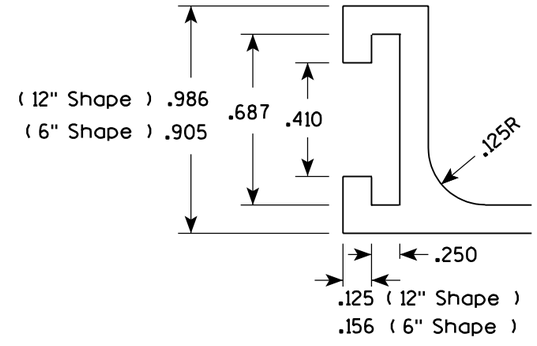
APPROVED Chester J Spang for State Traffic Engineer

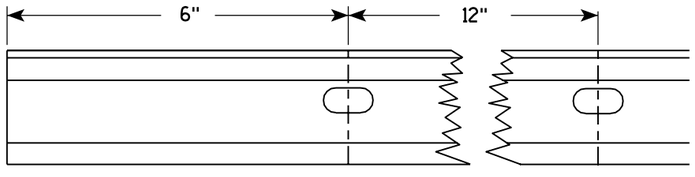
DATE 3/27/97 PLATE NO. A4-11.2

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 322	E

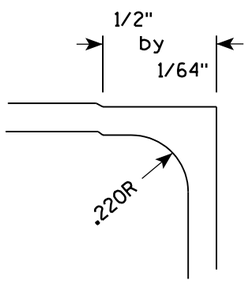
Extruded Shape







Punch 7/16" x 7/8" oval holes beginning 6" in from end of extrusion 12" CC on both edges of 6" and 12" panels.

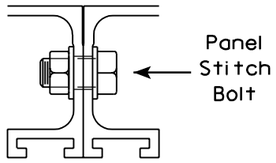


Hardware

STITCH BOLT, WASHER & NUT

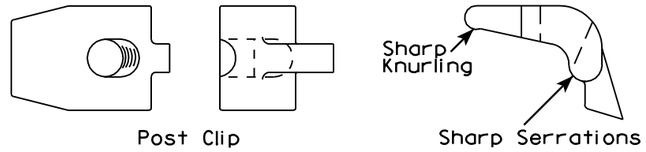
The hardware includes:

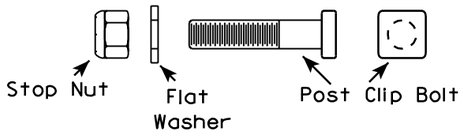
3/8 " - 16 X 3/4 " Economy Bolt 2024-T4 alloy
3/8 " - Stainless steel stop nut
3/8" X .064 Flat Washers, Alclad 2024-T4 alloy



POST CLIP, POST CLIP BOLT, WASHER & NUT

Post Clip shall be Alum. Alloy 356-T6
Post Clip Bolt shall be Stainless Steel.
Flat washer shall be 3/8" X .091, Stainless Steel.
Stop nut shall be stainless steel.





NOTES

1. The contractor may select any brand of extrusion that conforms to the illustrations or meets with the approval of the engineer, but all extrusions used on this contract shall be of the same brand.
2. Panel Stitch Bolts shall be used to assemble adjacent panels. Maximum stitch bolt spacing shall be 24" C-C, and a minimum of 4 bolts shall be used to connect any two extrusions.
3. Post Clips shall be used to attach the sign panel to the sign support.

ALUMINUM EXTRUSIONS FOR TYPE I SIGNS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Chester J Spagg
for State Traffic Engineer

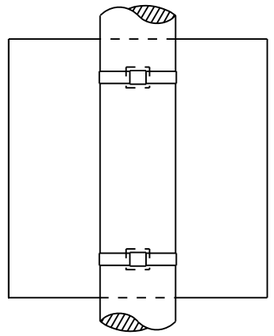
DATE 11/18/99 PLATE NO. A5-2.9

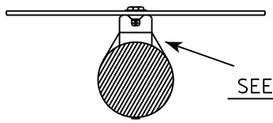
PROJECT NO:

SHEET NO: 323 E

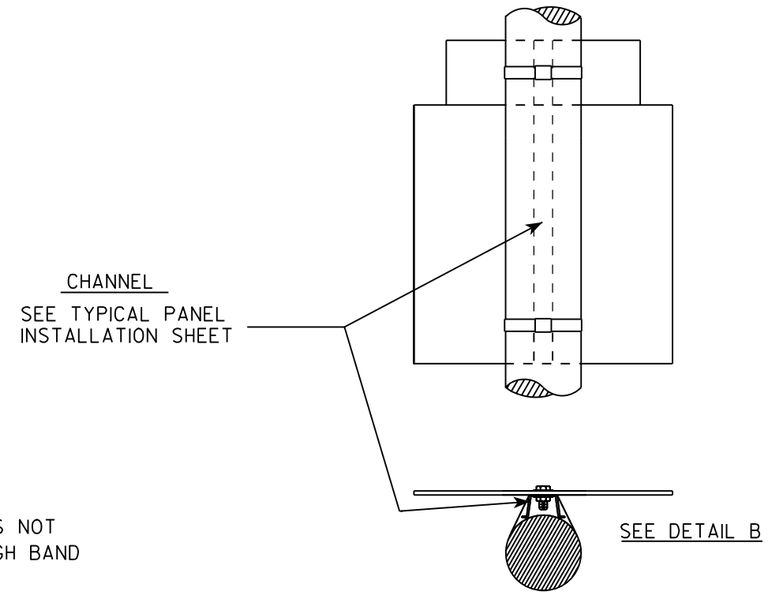
BANDING

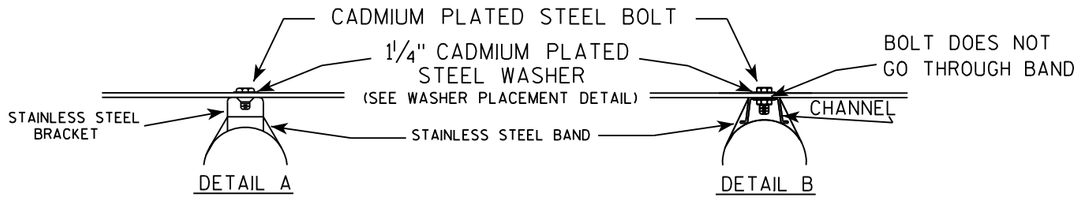
SINGLE SIGN



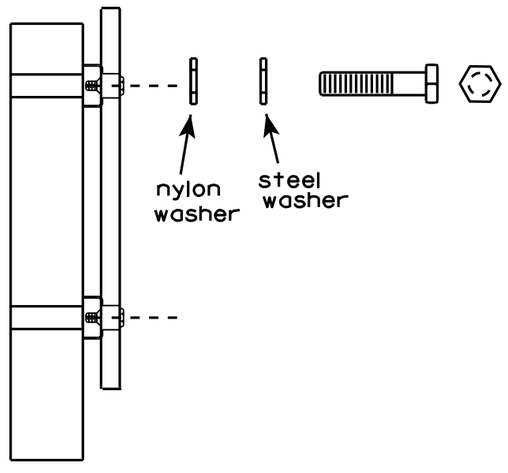


"J" ASSEMBLY





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.

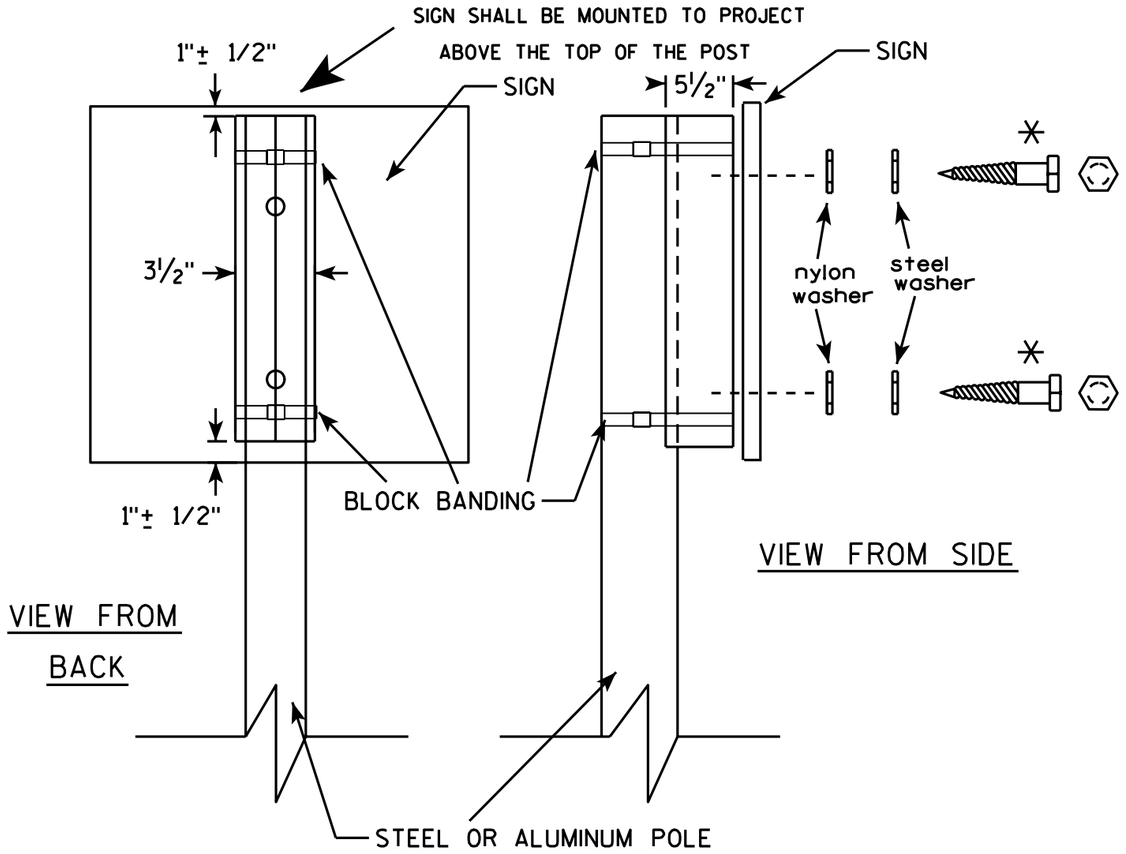
STANDARD SIGN
SIGN BANDING DETAILS

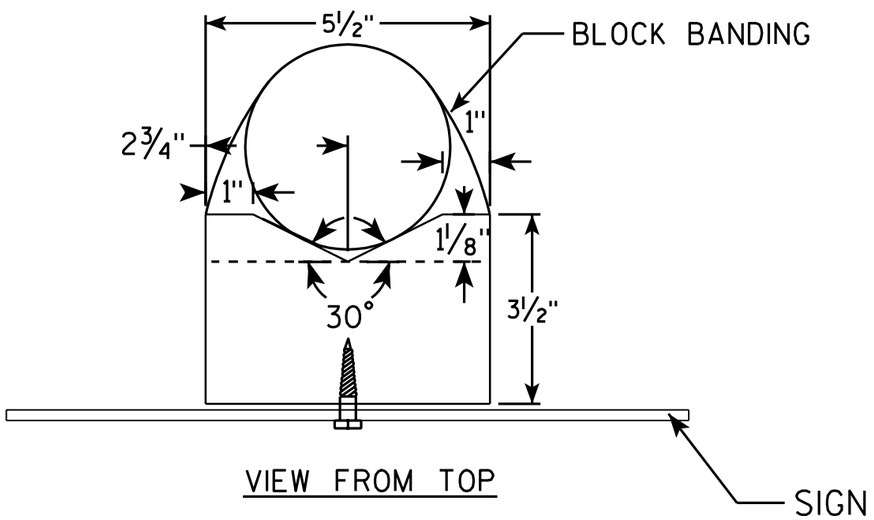
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 8/16/13 PLATE NO. A5-9.3

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 324	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)

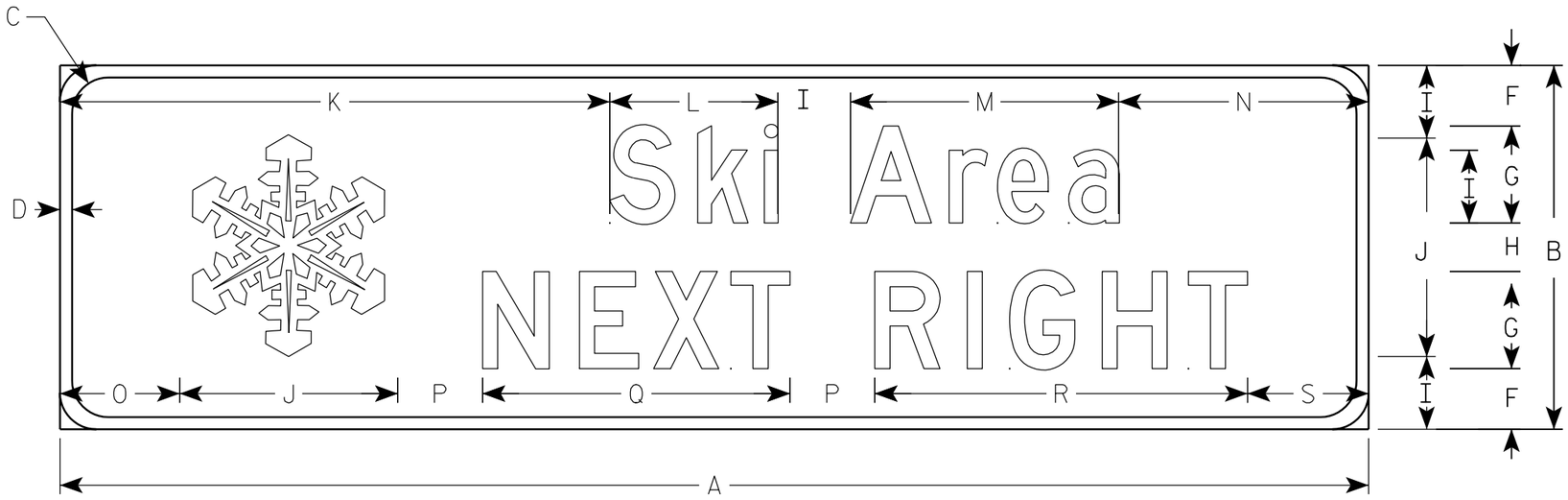
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 7/12/07 PLATE NO. A5-10.1

PROJECT NO:

SHEET NO: 325 E



D7-81

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - BROWN
   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.

Metric equivalent for this sign is:

SIZE	
1	
2	2700 mm X 750 mm
3	
4	
5	

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.	Area m2
1																												
2	108	30	3	1		5	8	4	6	18	45 3/8	13 7/8	22 1/8	20 5/8	9 7/8	7	25 3/8	30 3/4	10								22.5	2.0
3																												
4																												
5																												

STANDARD SIGN
D7-81

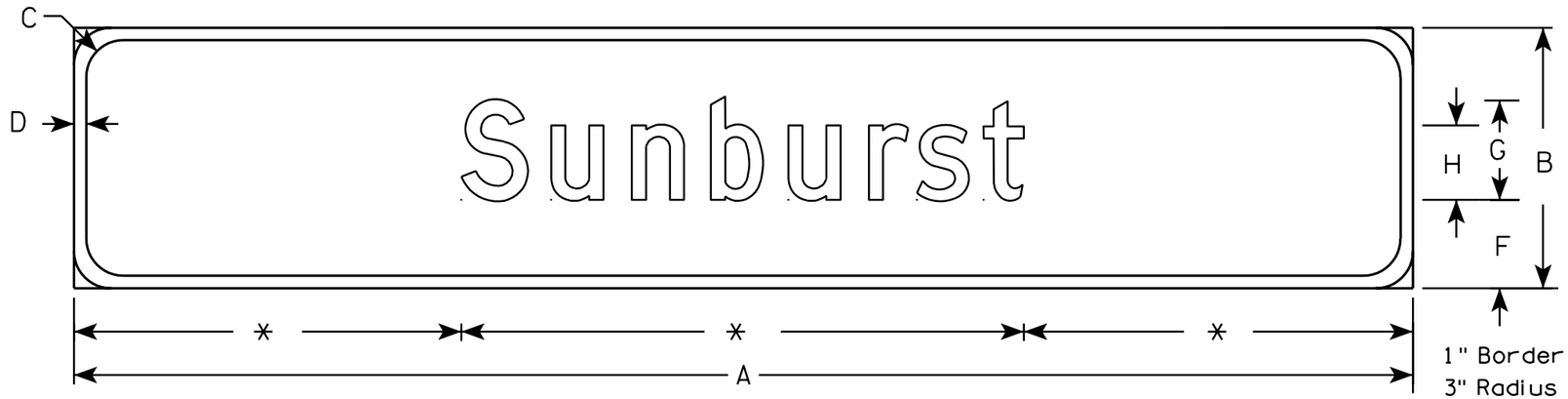
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 10/03/05 PLATE NO. D7-81.1

PROJECT NO:

SHEET NO: 326 E



NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - BROWN
   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.

D7-81A

* VARIES

7

7

Metric equivalent for this sign is:

SIZE	
1	
2	2700 mm X 525 mm
3	
4	
5	

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.	Area m2
1																												
2	108	21	3	1		7 1/8	8	6																			15.7	1.41
3																												
4																												
5																												

STANDARD SIGN
D7-81A

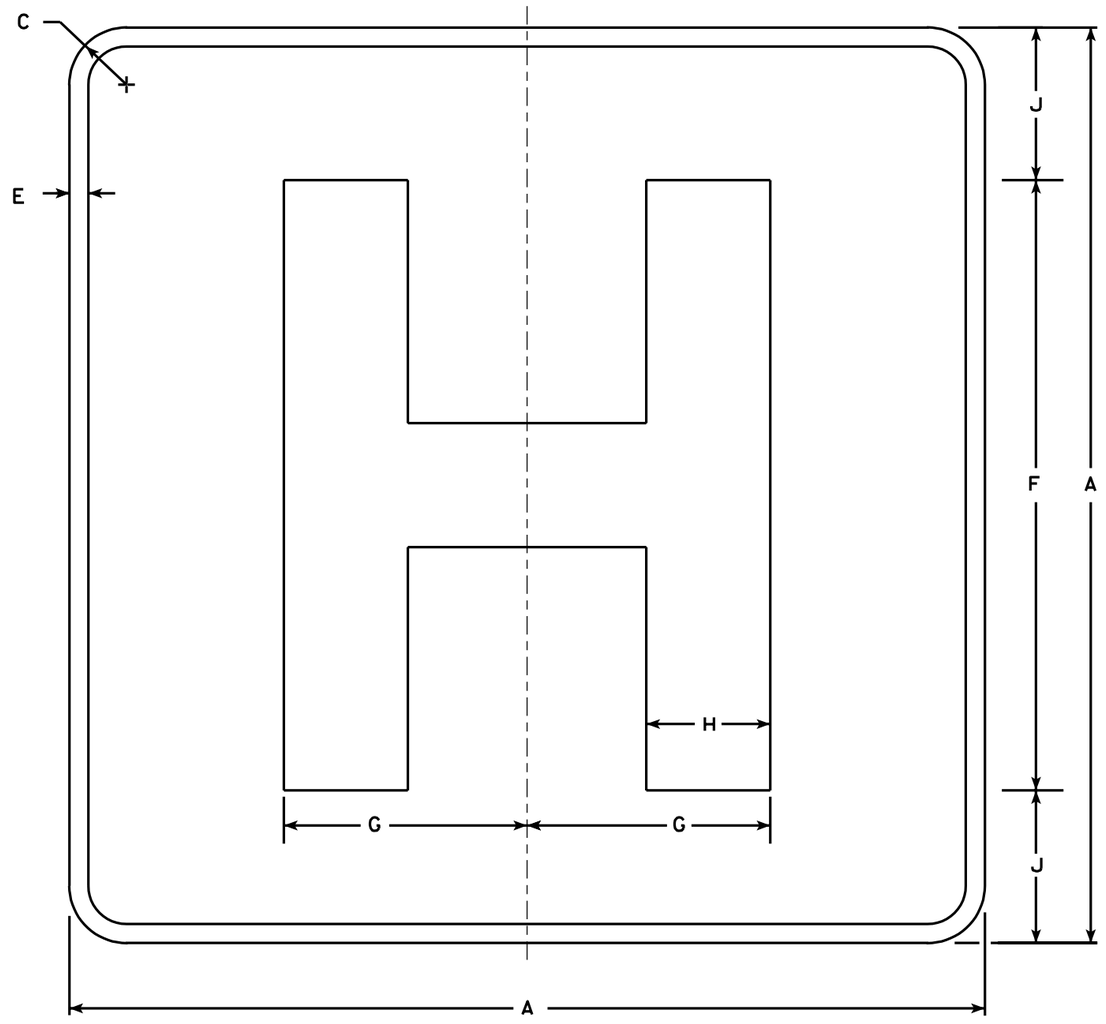
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 10/03/05 PLATE NO. D7-81A.1

PROJECT NO:

SHEET NO: 327 E



D9-2

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Blue
   Message - White - Type H Reflective
3. Message Series - E Modified
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

Metric equivalent for this sign is:

SIZE	
1	450 mmX 450 mm
2	600 mmX 600 mm
3	900 mmX 900 mm
4	X
5	X

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		1/2	12	4 3/4	2 3/8		3																	4.0
2	24		1 1/2		1/2	16	6 3/8	3 1/4		4																	4.0
3	36		2 1/4		3/4	24	9 1/2	4 7/8		6																	9.0
4																											
5																											

STANDARD SIGN
D9-2

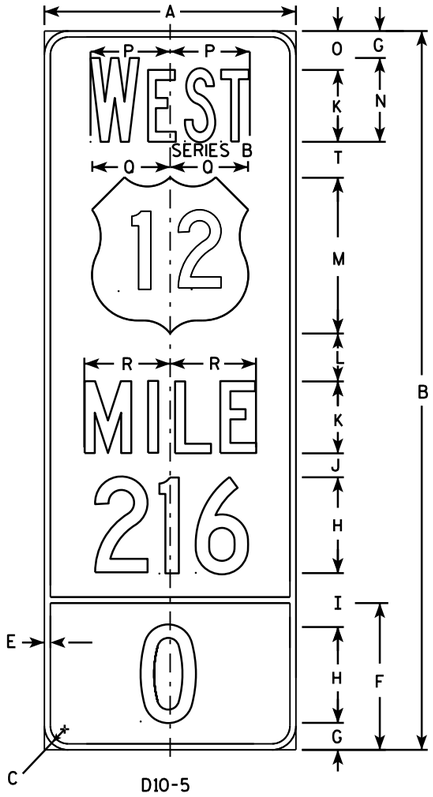
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Chester J Spong
for State Traffic Engineer

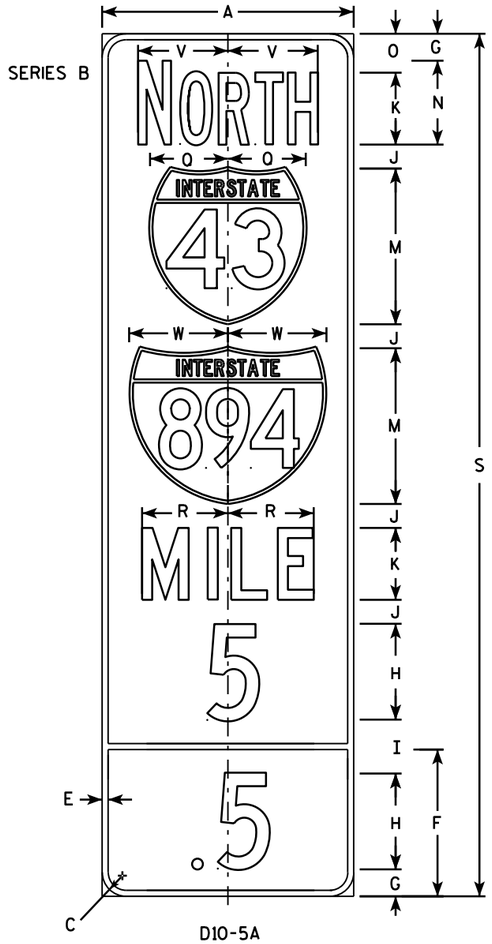
DATE 1/15/02 PLATE NO. D9-2.4

PROJECT NO:

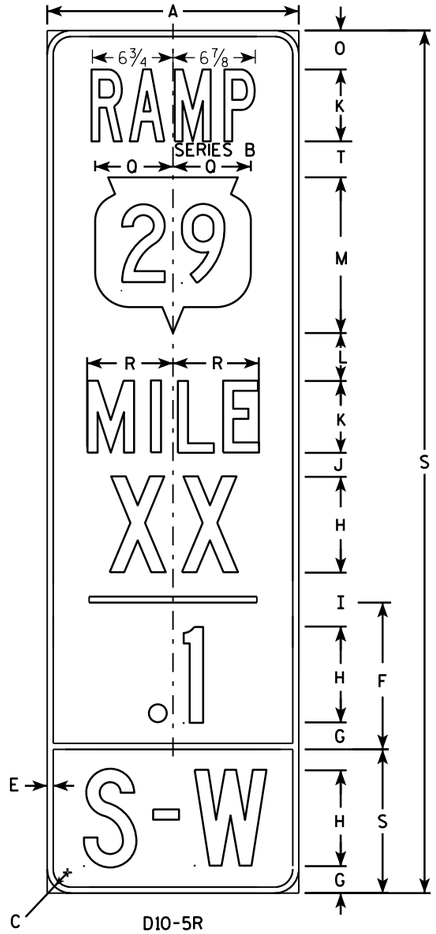
SHEET NO: 328 E



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

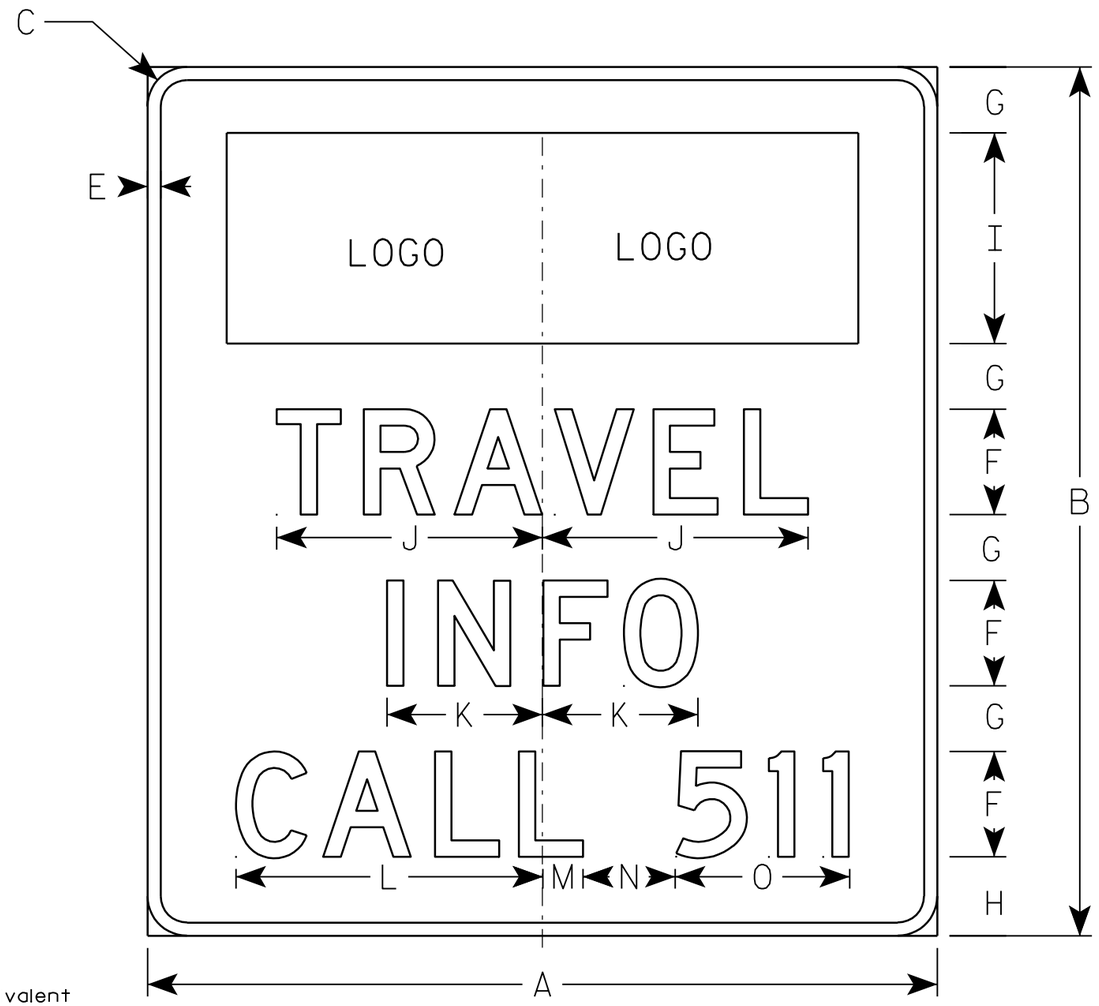
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 6/26/14 PL 329 D10-5.2

PROJECT NO:

SHEET NO: E



D12-5

NOTES

1. Sign is Type II - Type SH Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Blue
   Message - White - Type H Reflective
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

Metric equivalent for this sign is:

SIZE	
1	
2	1500 mm X 1650 mm
3	
4	
5	

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.	Area m2
1																												
2	60	66	2 1/4		1	8	5	6	16	20 1/4	11 7/8	23 3/8	3 1/8	7	13 1/4												27.5	2.48
3																												
4																												
5																												

STANDARD SIGN
D12-5

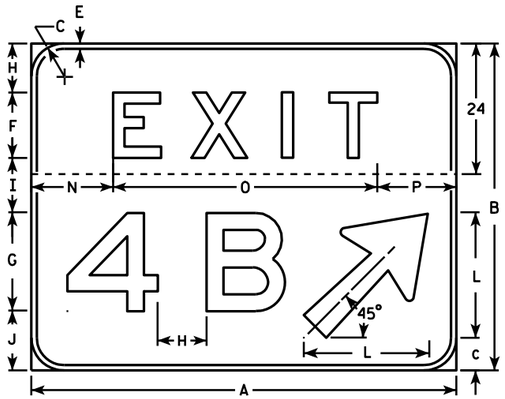
WISCONSIN DEPT OF TRANSPORTATION

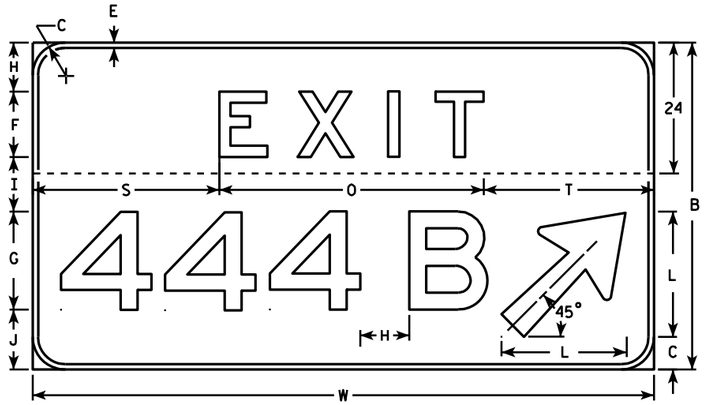
APPROVED Matthew R Rauch
for State Traffic Engineer

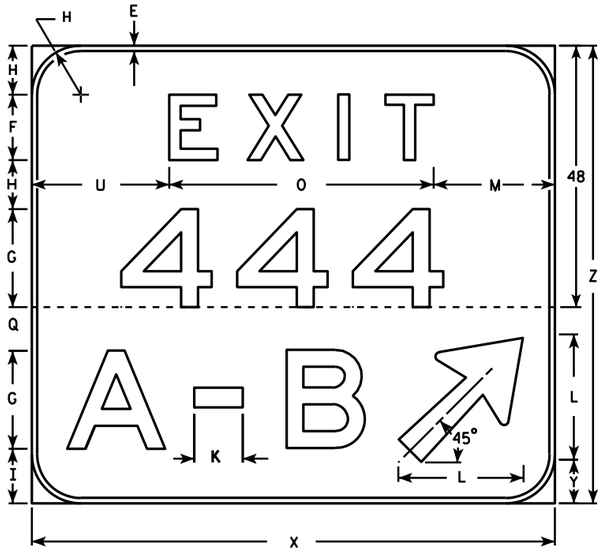
DATE 12/5/08 PLATE NO. D12-5.2

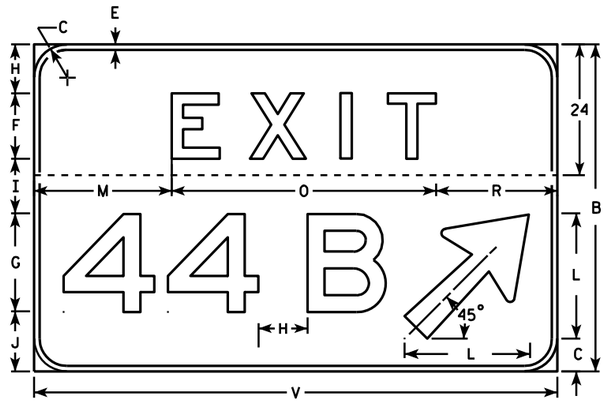
PROJECT NO:

SHEET NO: 330 E

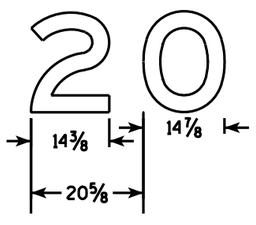








EXAMPLE FOR USING SPACING CHART



NOTES

1. Sign is Type II - Type H reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Green
   Message - White (Type H reflective)
3. Message Series - E
4. Corners may be square or rounded but the border shall be rounded as shown.
5. Base material for this sign shall be plywood and shall be split into two seperate pieces as shown on each detail by the dashed line (- - - - - - - - - - -).
6. Arrow is Type "A" from sign plate A1-1.
7. Substitute appropriate message, space per the table and adjust placement on sign to achieve proper balance.
8. When two letters are hyphenated, the distance between them should be equal to two letter heights and the hyphen is spaced optically between them.
9. As per the Standard Spec's, these signs shall not have a vertical joint.

SPACING CHART FOR 18" NUMERALS

NUMBERS	WIDTH	0	1	2	3	4	5	6	7	8	9	A	B	C
0	14 7/8	21 5/8	21 5/8	21 1/4	20 3/8	21 1/4	21 1/4	21 5/8	19 7/8	22 1/8	21 5/8	19 7/8	22 1/8	22 1/8
1	5 7/8	14	14	14	13 1/8	12 1/8	14	14	12 1/4	14	14	9 7/8	14	14
2	14 3/8	20 5/8	21 1/8	20 5/8	19 3/4	20 1/4	20 5/8	20 5/8	18 7/8	21 1/8	20 5/8	20 1/4	21 1/8	21 1/8
3	14 3/8	20 3/4	21 1/8	20 3/4	20 1/4	19 3/4	20 3/4	20 3/4	19 3/8	21 1/8	20 3/4	20 1/4	21 1/8	21 1/8
4	16 5/8	22 7/8	22	22 1/2	21 5/8	21 5/8	22 7/8	22 7/8	20 5/8	23 3/8	22 7/8	22 1/2	25 1/2	23 3/8
5	14 1/4	20 5/8	20 5/8	20 1/8	18 3/4	18 3/4	20 5/8	20 5/8	18 3/8	20 5/8	20 5/8	19 1/4	20 5/8	20 5/8
6	14 1/2	21 1/4	20 3/4	20 3/4	19 7/8	19 1/2	20 3/8	20 3/4	19	20 3/4	20 3/8	18	20 3/4	20 3/4
7	14 3/8	19 3/4	19 3/4	20 1/4	19 3/4	17	19 3/4	20 5/8	18 7/8	20 5/8	19 3/4	20 1/4	20 5/8	20 5/8
8	14 1/4	21 1/2	21 1/2	20 5/8	19 1/4	19 3/4	20 5/8	21 1/2	19 5/8	21 1/2	20 5/8	19 1/4	21 1/2	21 1/2
9	14 1/2	21 1/4	21 1/4	20 7/8	20	20 7/8	20 7/8	21 1/4	19 1/2	21 3/4	21 1/4	18	21 3/4	21 3/4
A	18	19 3/4	19 3/4	20 1/4	19 3/4	17	19 3/4	20 5/8	18 7/8	20 5/8	19 3/4	21 5/8	23 7/8	23
B	14 1/4	21 1/2	21 1/2	20 5/8	19 1/4	19 3/4	20 5/8	21 1/2	19 5/8	21 1/2	20 5/8	19 1/2	22 3/8	21 1/2
C	14 1/4	21 1/4	21 1/4	20 7/8	20	20 7/8	20 7/8	21 1/4	19 1/2	21 3/4	21 1/4	18 3/8	21	19 3/4

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
2																										
3																										
4																										
5	78	60	6		1	12	18	9	10	11	8 7/8	23	25 1/4	15	48 1/2	14 1/2	8	22 1/4	34 1/4	31 1/4	25 1/4	96	114	96	7 1/2	84

2 Digit Bid Area	3 Digit Bid Area	4 Digit Bid Area	5 Digit Bid Area
Sq. Ft.			
32.5	40.0	47.5	56.0

STANDARD SIGN
E5-1B

WISCONSIN DEPT OF TRANSPORTATION

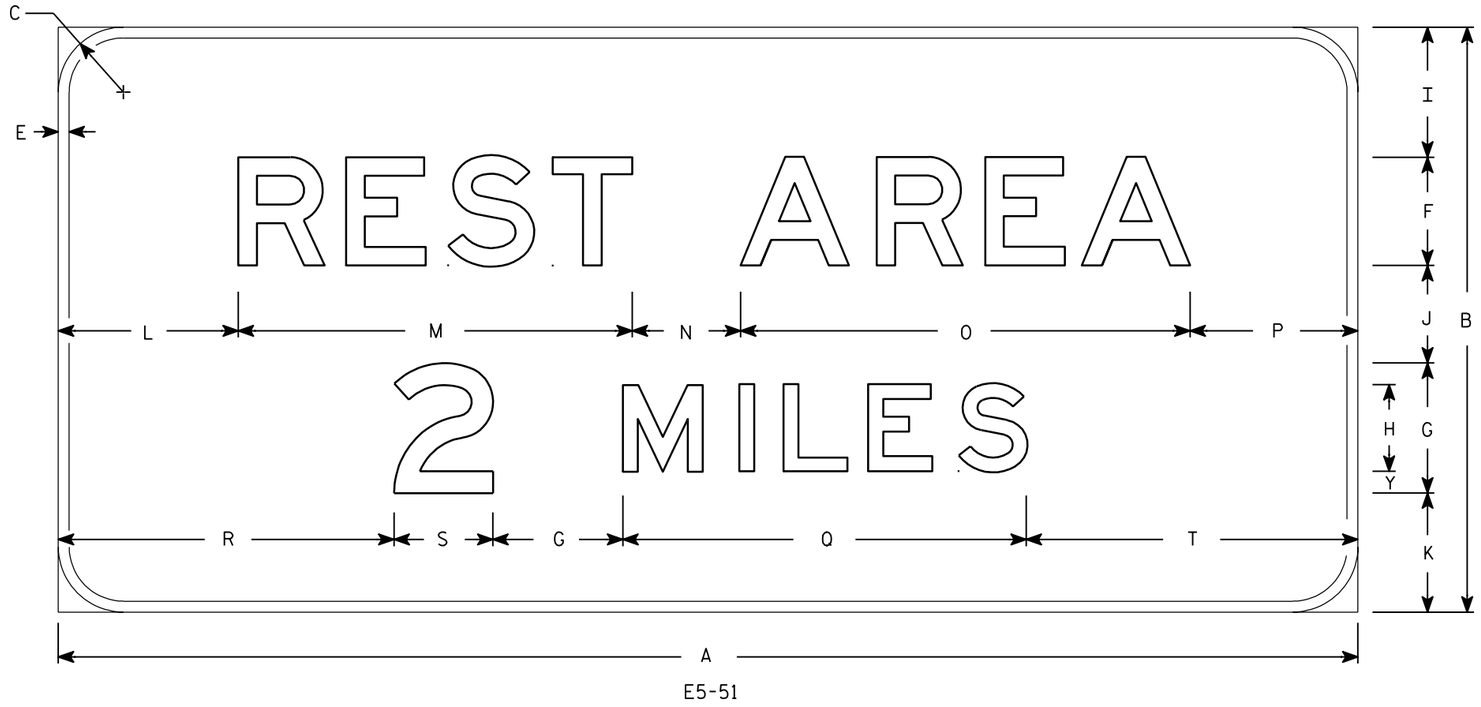
APPROVED Matthew R Rauch
For State Traffic Engineer

DATE 6/8/10 PLATE NO. E5-1B.12

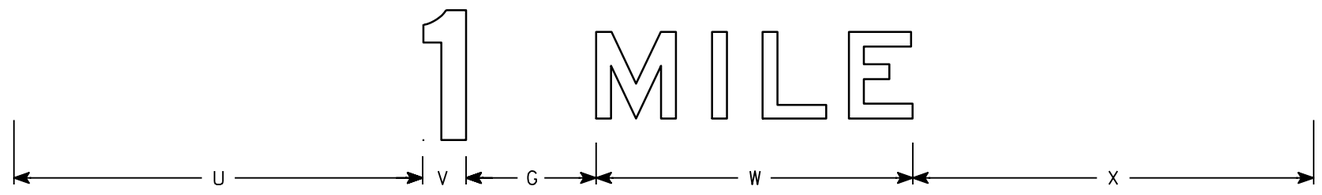
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 331 | E

7

FILE NAME : C:\Users\PROJECTS\tr_stdplate\E51B.DGN PLOT DATE : 08-JUN-2010 12:42 PLOT BY : ditjph PLOT NAME : PLOT SCALE : 27.808870:1.000000
WISDOT/CADDS SHEET 42



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: 332	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

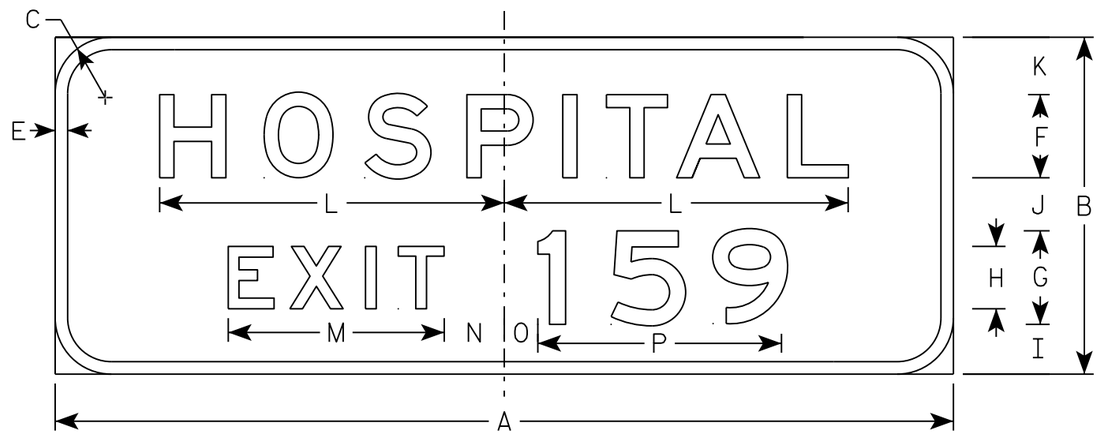
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/8/08 PLATE NO. E5-62.5

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 333	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

WISDOT/CADDS SHEET 42



E10-61

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. Apply proper Exit Numbers and letters, 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																											
2																											
3																											
4	144	54	9		2	13 3/8	15	10	8	8 1/2	9 1/4	55 1/4	34 5/8	9 5/8	5 3/8	39											54
5	144	54	9		2	13 3/8	15	10	8	8 1/2	9 1/4	55 1/4	34 5/8	9 5/8	5 3/8	39											54

TYPICAL SIGNS
E10-61

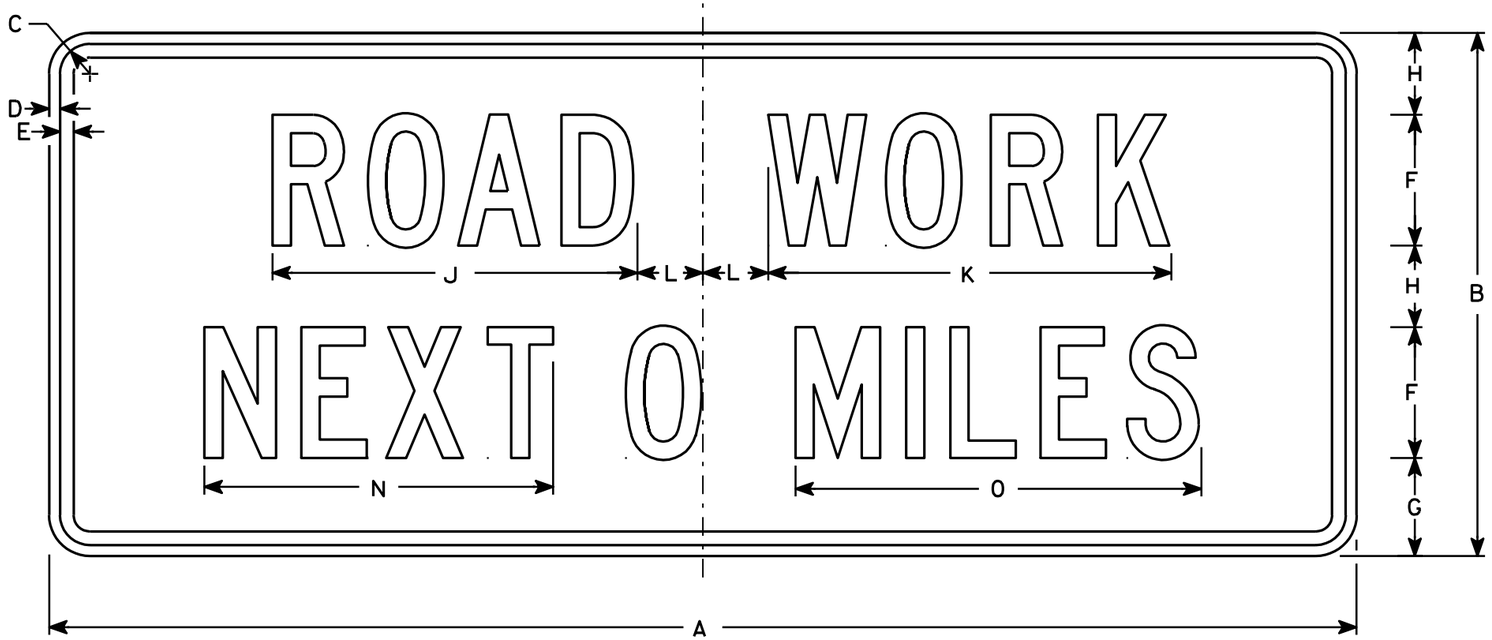
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 9/24/15 PLATE NO E10-61.3

PROJECT NO: | HWY: | COUNTY: | SHEET NO: E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\E1061.DGN PLOT DATE : 01-DEC-2015 17:49 PLOT BY : $$ plotuser $$ PLOT NAME : PLOT SCALE : 24.284107:1.000000



G20-1

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Substitute appropriate numerals and optically adjust spacing to achieve proper balance

Metric equivalent for this sign is:

SIZE	
1	
2	1500 mm X 600 mm
3	
4	1500 mm X 600 mm
5	

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.	Area m2
1																												
2	60	24	1 3/8	1/2	5/8	6	4 1/2	3 3/4		16 3/4	18 1/2	3		16	18 5/8												10	.90
3																												
4	60	24	1 3/8	1/2	5/8	6	4 1/2	3 3/4		16 3/4	18 1/2	3		16	18 5/8												10	.90
5																												

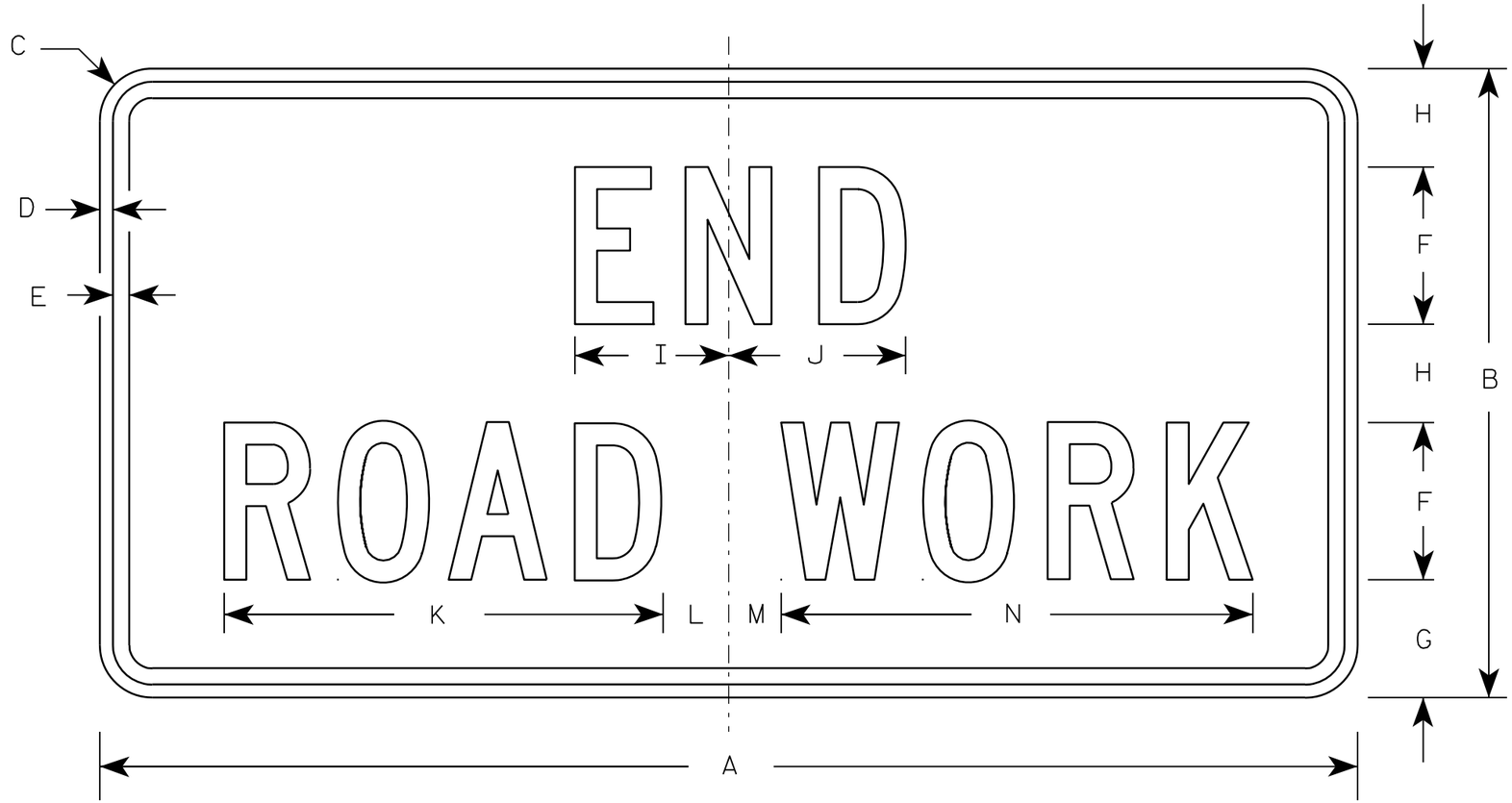
STANDARD SIGN
G20-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Chester J Spray for State Traffic Engineer

DATE 4/8/97 PLATE NO. G20-1.7

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 335	E



G20-2A

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

Metric equivalent for this sign is:

SIZE	
1	900 mm X 450 mm
2	1200 mm X 600 mm
3	1200 mm X 600 mm
4	1200 mm X 600 mm
5	1200 mm X 600 mm

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.	Area m2
1	36	18	1 1/8	3/8	1/2	4	3 3/4	2 1/2	4 1/8	4 1/8	11 1/8	2	1	12 1/8													4.5	0.41
2	48	24	1 1/2	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0	0.72
3	48	24	1 1/2	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0	0.72
4	48	24	1 1/2	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0	0.72
5	48	24	1 1/2	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0	0.72

STANDARD SIGN
G20-2A

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 9/30/09 PLATE NO. G20-2A.8

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 336	E

NOTES

1. Sign is Type II - Type F Reflective
2. Color:
   Background - Orange
   Message - Black
3. Message Series - E



G20-61

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	120	30	6		2	12	9	21	78 1/4	20 3/4																	25.0
5																											

STANDARD SIGN
G20-61

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/07/15 PLATE NO G20-61.1

PROJECT NO: | HWY: | COUNTY: | SHEET NO: E

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\G2061.DGN PLOT DATE : 07-MAY-2015 13:47 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 20.431338:1.000000

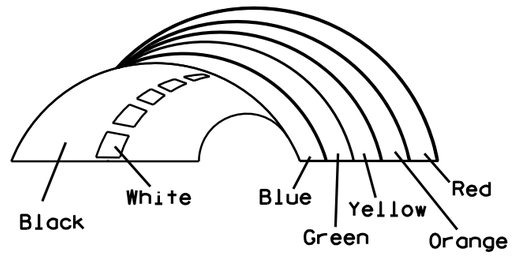


* VARIES

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 - (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. Border - Blue
   Line 1 - Red
   Line 2 - Black
   Line 3-5 - Blue
6. Line 1 - Dutch 8011L
   Line 2 - Series E
   Line 3-5 - Series C
7. Contractor shall provide and install a new post bracket in accordance with the I55-56B sign detail.

Background Colors of Symbol*



*1/4" Black Border between each color of rainbow and border of rainbow

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	30	36	1 1/2	1/2	5/8	3	2	3 1/2	2 7/8	1	8	2 1/8	11 1/4	11 1/8	9 3/8	1 1/4		3/4	12 5/8	7 1/2							7.5
3																											
4																											
5																											

STANDARD SIGN
I55-56

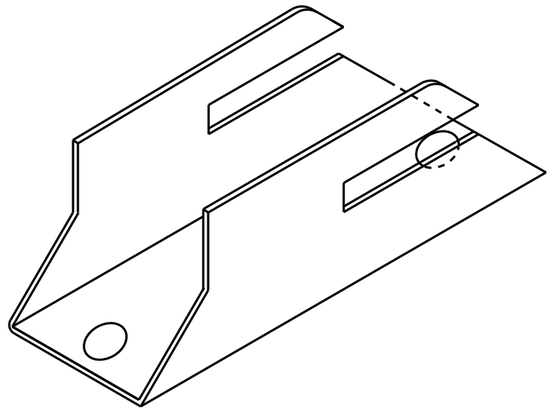
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

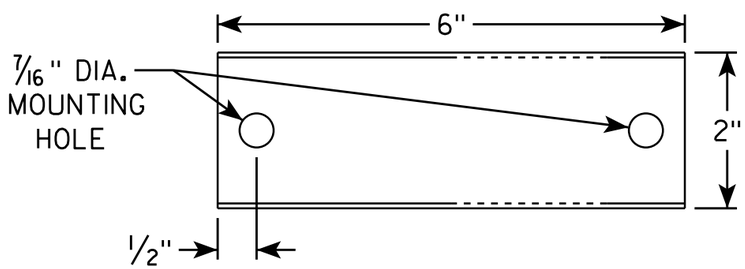
DATE 4/27/11 PLATE NO. 155-56.3

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 338

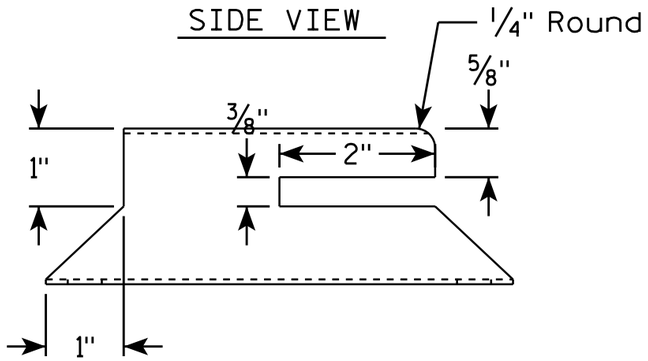
ISOMETRIC VIEW



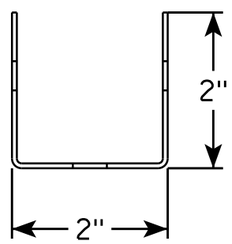
TOP VIEW



SIDE VIEW



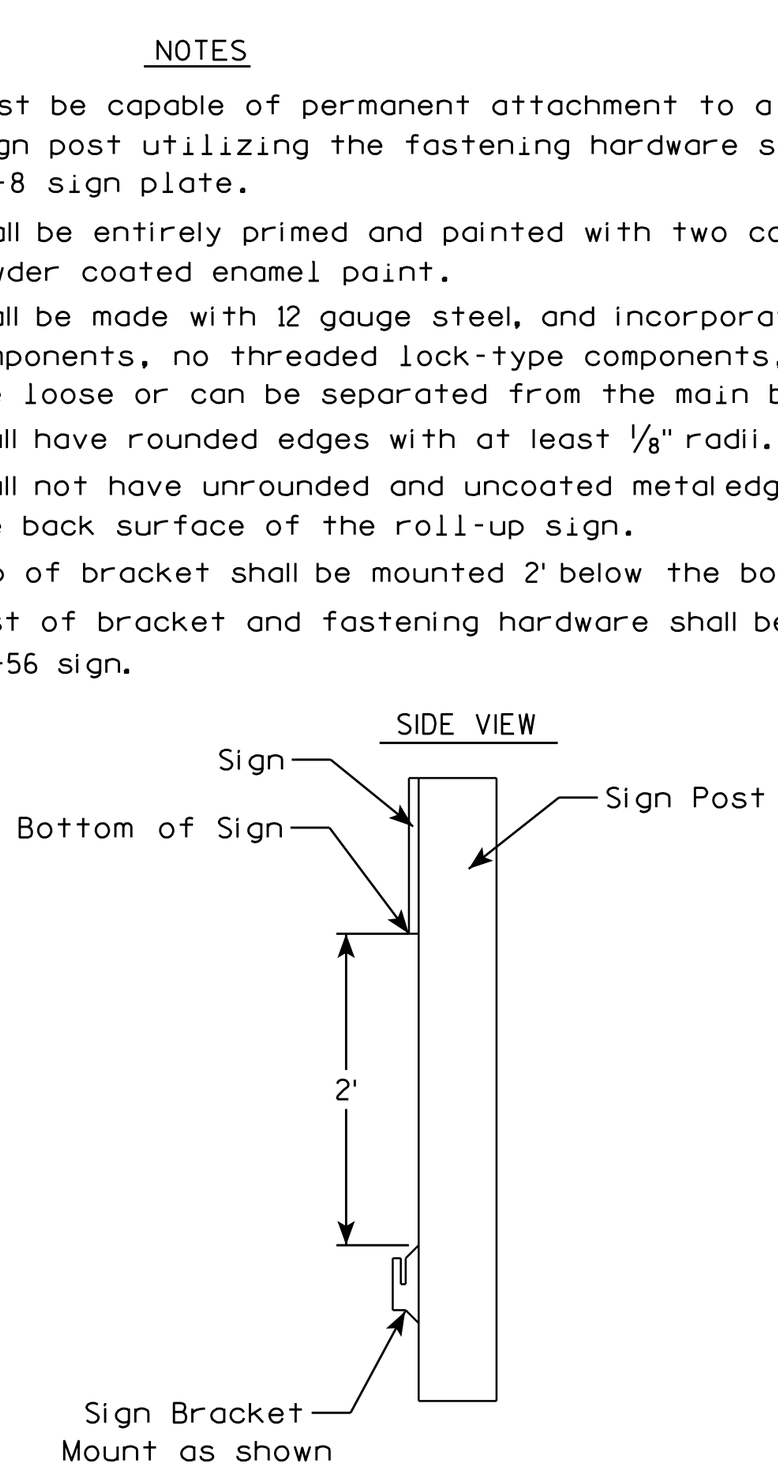
END VIEW



NOTES

1. Must be capable of permanent attachment to a wood or steel channel sign post utilizing the fastening hardware specified on the A4-8 sign plate.
2. Shall be entirely primed and painted with two coats of a black powder coated enamel paint.
3. Shall be made with 12 gauge steel, and incorporate no welds, no hinged components, no threaded lock-type components, and no parts which are loose or can be separated from the main body.
4. Shall have rounded edges with at least 1/8" radii.
5. Shall not have unrounded and uncoated metal edges which can contact the back surface of the roll-up sign.
6. Top of bracket shall be mounted 2' below the bottom of the I55-56 sign.
7. Cost of bracket and fastening hardware shall be incidental to the I55-56 sign.

SIDE VIEW



ROLLUP SIGN BRACKET
I55-56B

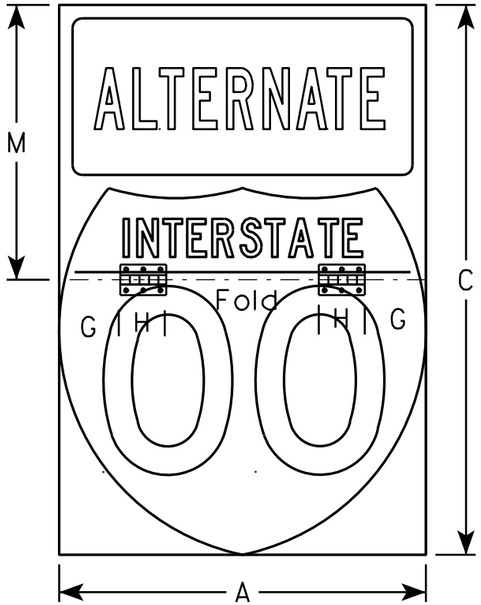
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

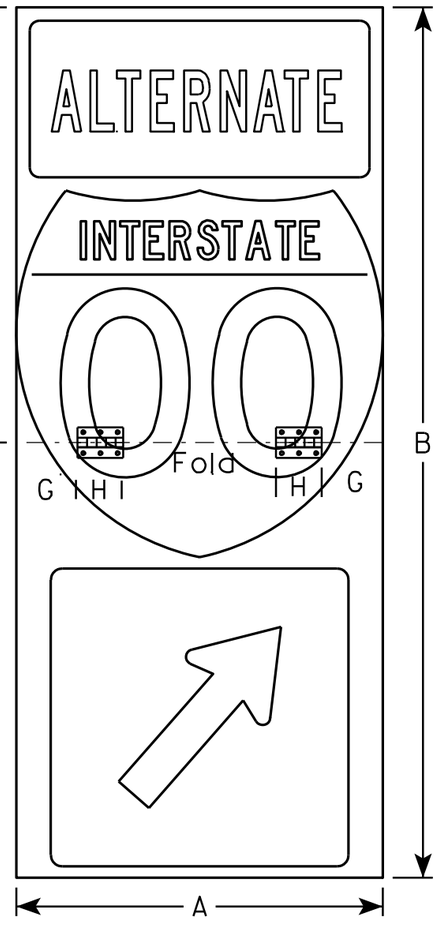
DATE 4/26/16 PLATE I55-56B.2

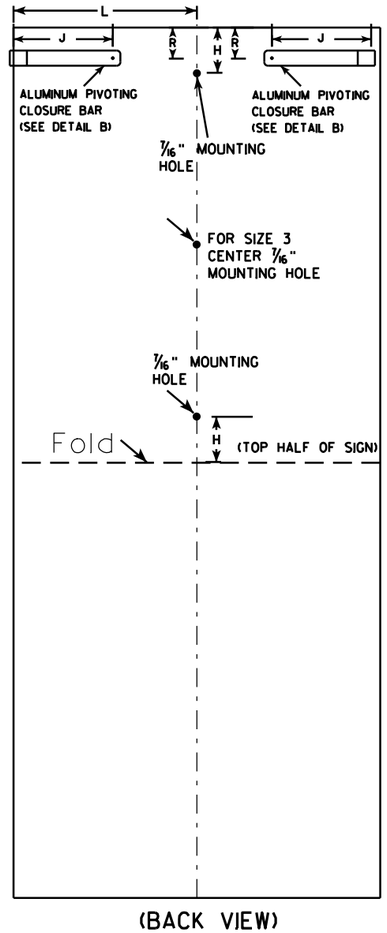
PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\I5556B.DGN PLOT DATE : 26-APR-2016 17:29 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 1.945842:1.000000
WISDOT/CADDS SHEET 42



SIZE	Area sq. ft.
1	
2	6.0
3	13.5



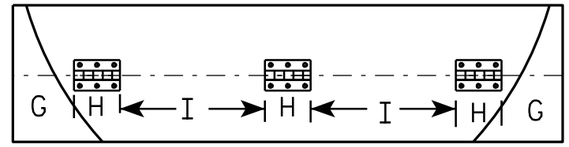


(BACK VIEW)

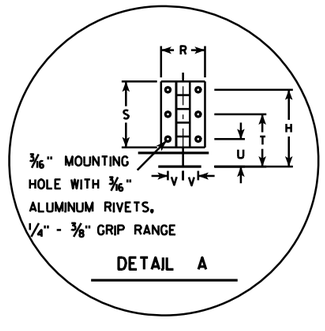
NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - *
   Message - *
3. Message Series - C
4. Sign Base Material shall be aluminum and borders shall be rounded.
5. All hardware used on the folding sign installation shall conform to 637.2.4 of the WIS DOT Standard Specification.
6. Size 3 shall have 3 hinges see detail below

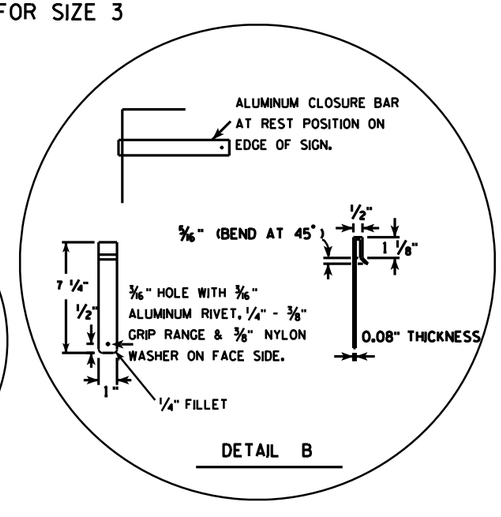
* See Appropriate Route Shield, Cardinals, Arrow, and A2-1S Sign Plates.



HINGE PLACEMENT FOR SIZE 3



DETAIL A



DETAIL B

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	57	36				4	3		6 1/2	28 1/2	12	18					2	3	2 5/8	1 1/4	11/16					9.5
3	36	81	54				4	3	9 1/2	6 1/2	40 1/2	18	27					2	3	2 5/8	1 1/4	11/16					20.25
4																											
5																											

STANDARD SIGN
JV-F

WISCONSIN DEPT OF TRANSPORTATION

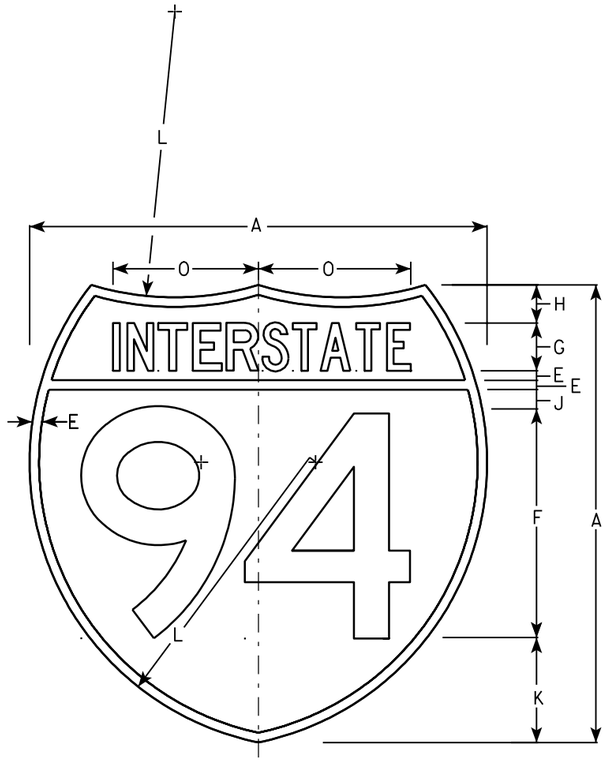
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 8/17/12 PLATE NO. JV-F.2

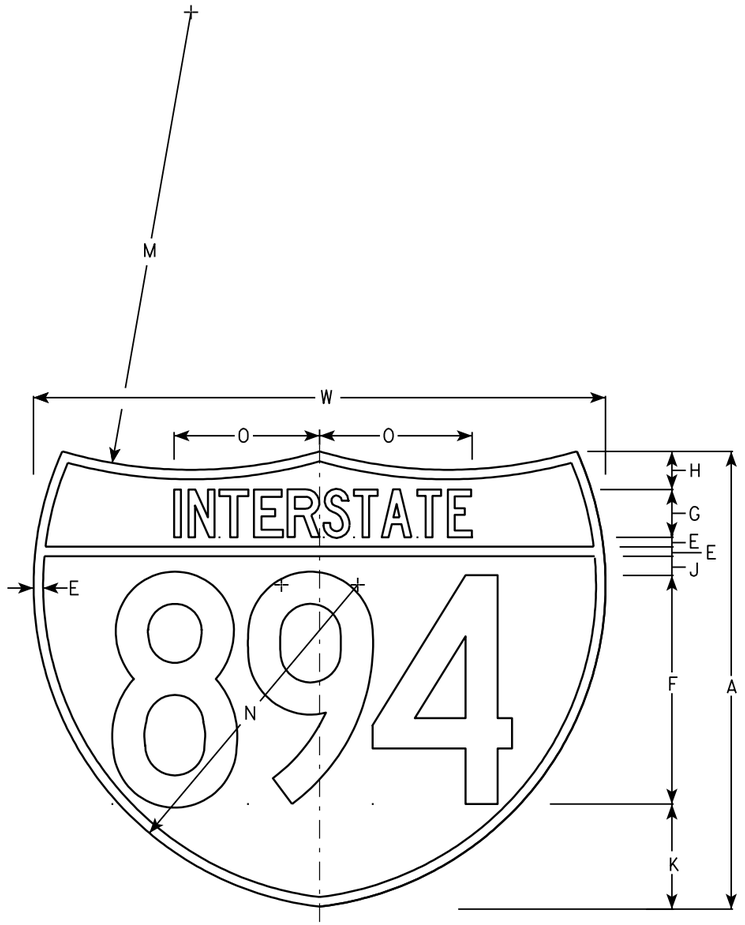
PROJECT NO: | HWY: | COUNTY: | | SHEET NO: 340 | E

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\JVF.DGN PLOT DATE : 17-AUG-2012 14:41 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 9.923794:1.000000

WISDOT/CADDS SHEET 42



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

7

7

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

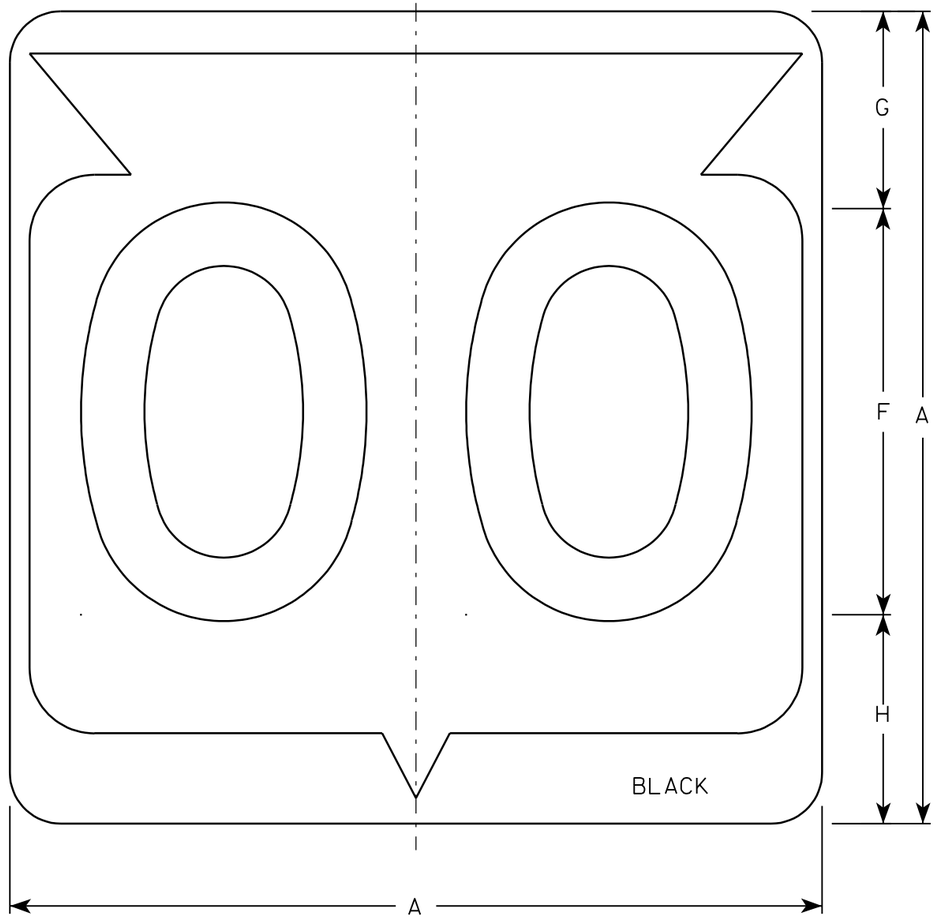
INTERSTATE ROUTE MARKER
M1-1 FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 08/23/05 PLATE NO. M1-1.8

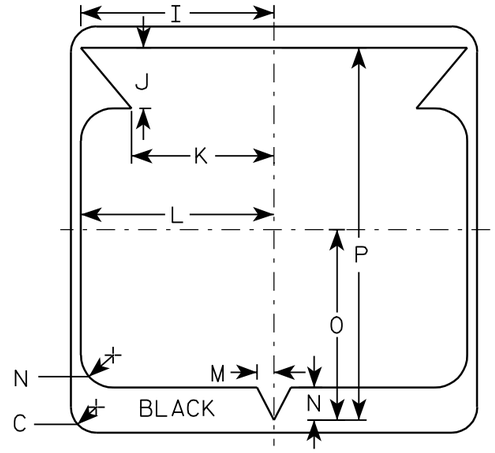
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 341	E



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

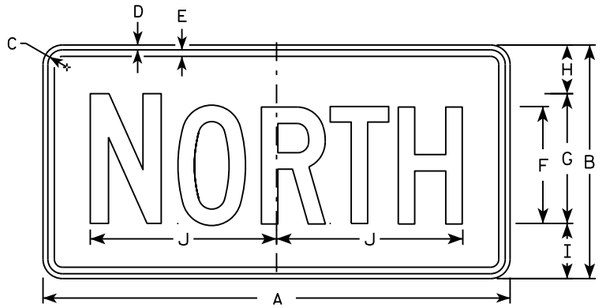
STATE ROUTE MARKER M1-6 FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

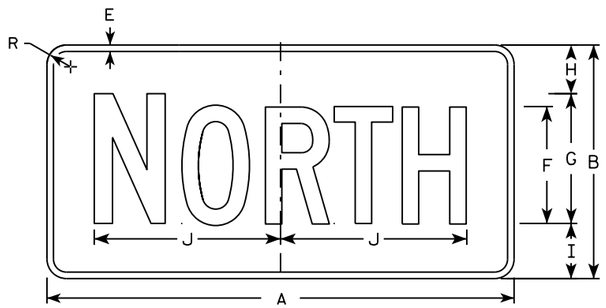
APPROVED Chester J Spang for State Traffic Engineer

DATE 3/20/02 PLATE NO. M1-6.9

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 342	E



M3-1
MM3-1
MP3-1



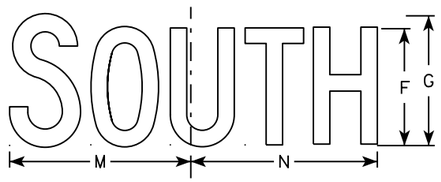
MB3-1
MK3-1
MN3-1



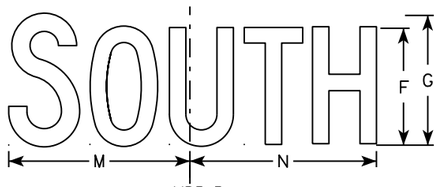
M3-2
MM3-2
MP3-2



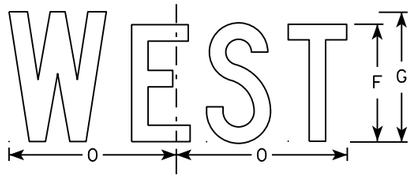
MB3-2
MK3-2
MN3-2



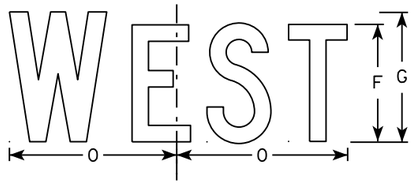
M3-3
MM3-3
MP3-3



MB3-3
MK3-3
MN3-3



M3-4
MM3-4
MP3-4



MB3-4
MK3-4
MN3-4

NOTES

1. All Signs Type II - Type H
2. Color:
   Background - See note 5
   Message - See note 5
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. M3-1 thru M3-4 Background - White
   Message - Black
   MB3-1 thru MB3-4 Background - Blue
   Message - White
   MK3-1 thru MK3-4 Background - Green
   Message - White
   MM3-1 thru MM3-4 Background - White
   Message - Green
   MN3-1 thru MN3-4 Background - Brown
   Message - White
   MP3-1 thru MP3-4 Background - White
   Message - Blue
6. Note the first letter of each direction is larger than the remainder of the message.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	24	12	1 1/8	3/8	3/8	6	7	2 1/4	2 3/4	10 1/4	7 7/8	8 3/8	10 1/4	9 3/4	8 3/4			1 1/2									2.00
3	36	18	1 1/8	3/8	1/2	9	10	3 3/4	4 1/4	14 3/8	12	12 1/8	14	14 1/8	13			1 1/2									4.5
4	36	18	1 1/8	3/8	1/2	9	10	3 3/4	4 1/4	14 3/8	12	12 1/8	14	14 1/8	13			1 1/2									4.5
5	36	18	1 1/8	3/8	1/2	9	10	3 3/4	4 1/4	14 3/8	12	12 1/8	14	14 1/8	13			1 1/2									4.5

STANDARD SIGNS
M3-1 thur M3-4
SERIES

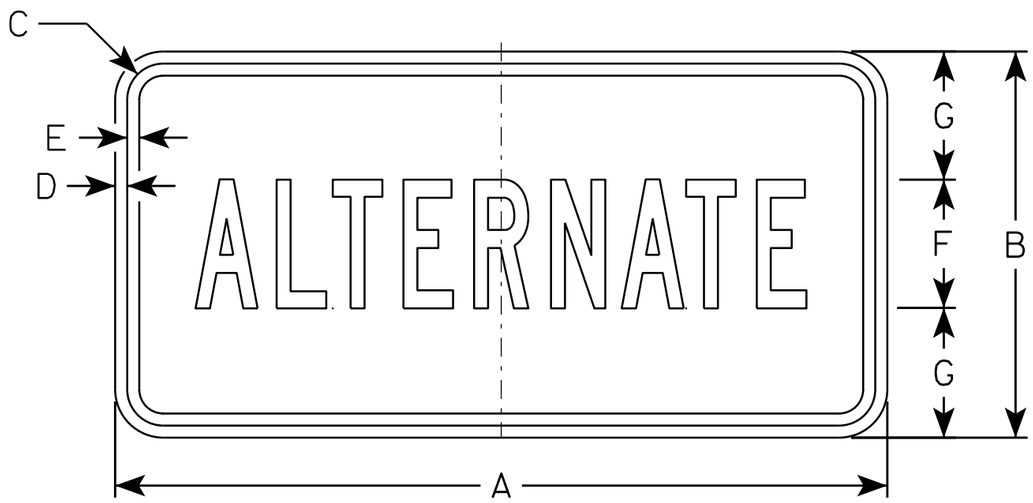
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew P Rauch for State Traffic Engineer

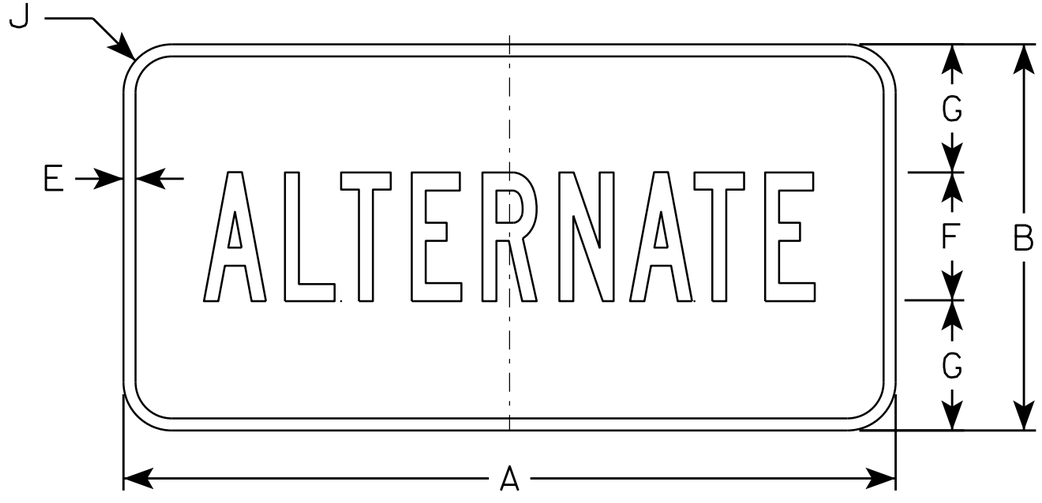
DATE 10/15/15 PLATE NO M3-1.14

PROJECT NO: | HWY: | COUNTY: | SHEET NO: E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\M31.DGN PLOT DATE : 01-DEC-2015 17:54 PLOT BY : $$ plotuser $$ PLOT NAME : PLOT SCALE : 11.675051:1.000000



M4-1
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

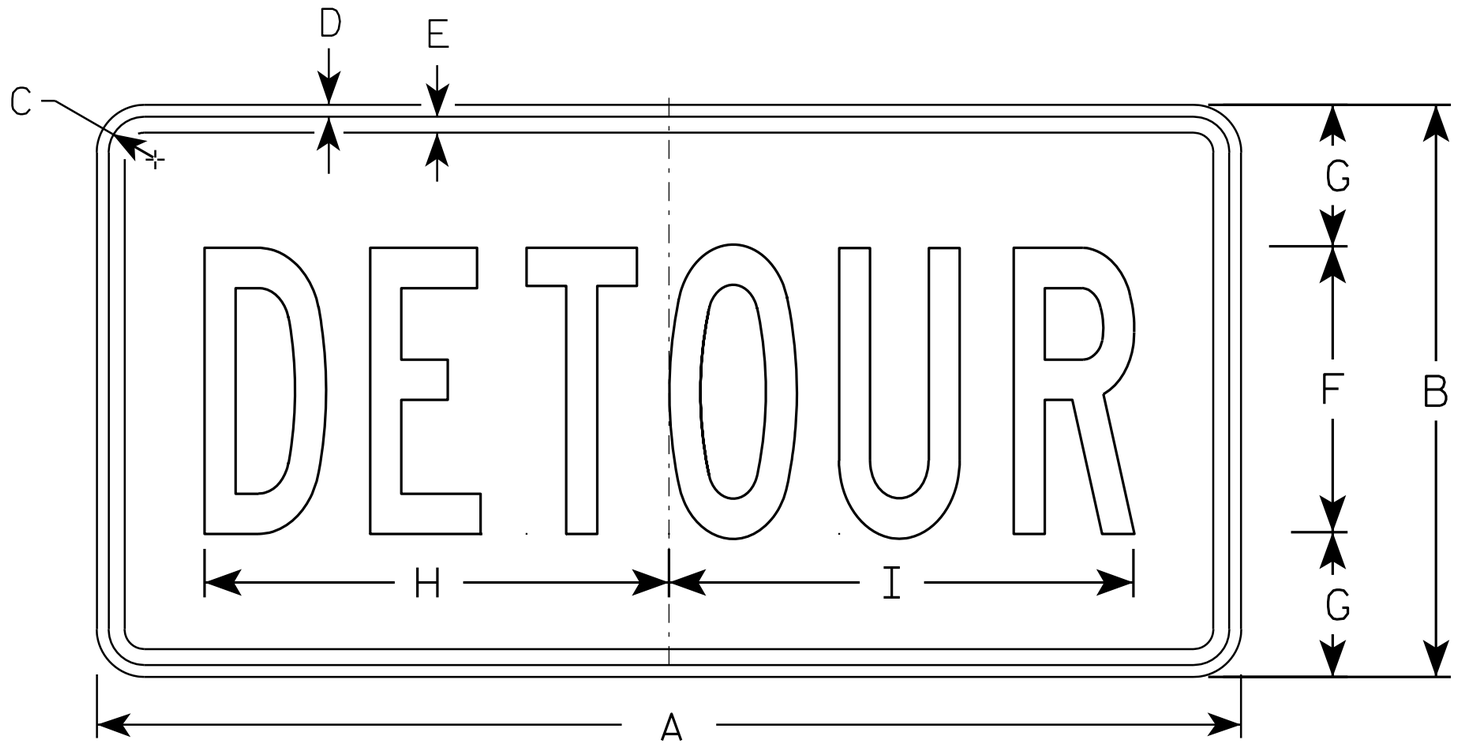
WISCONSIN DEPT OF TRANSPORTATION

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



M4-8

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																											

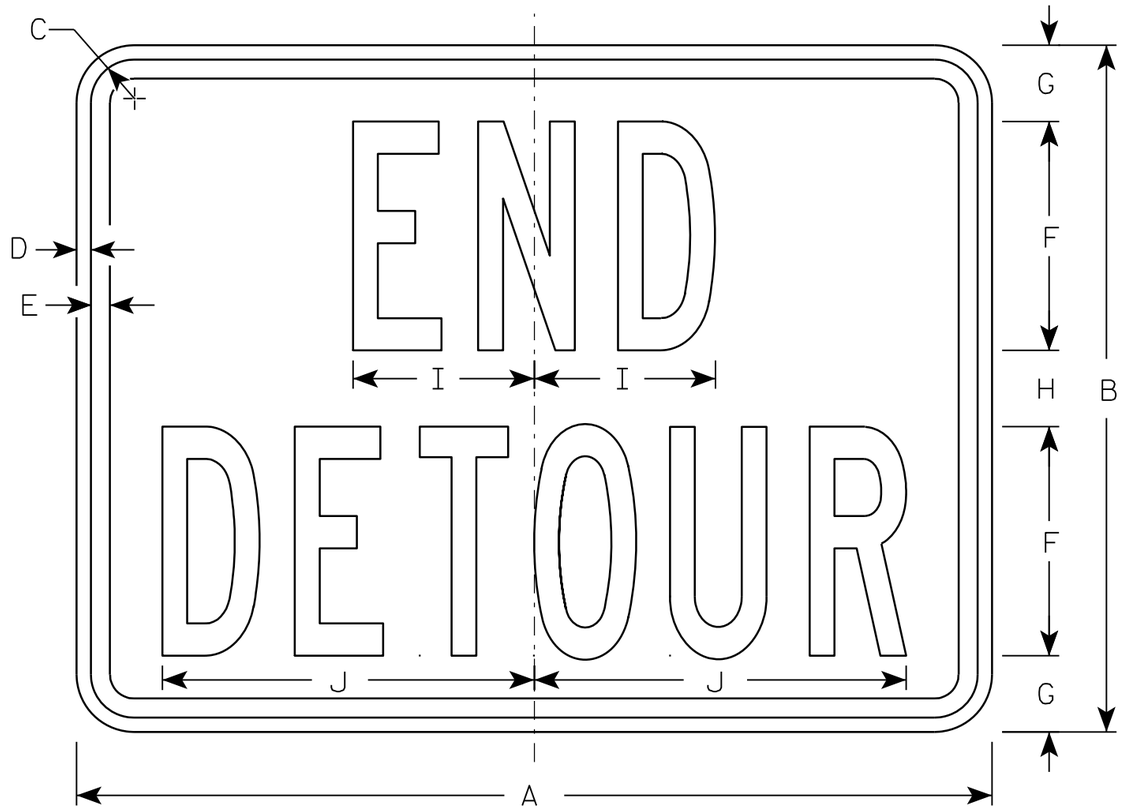
STANDARD SIGN
M4-8

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: 345	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																											

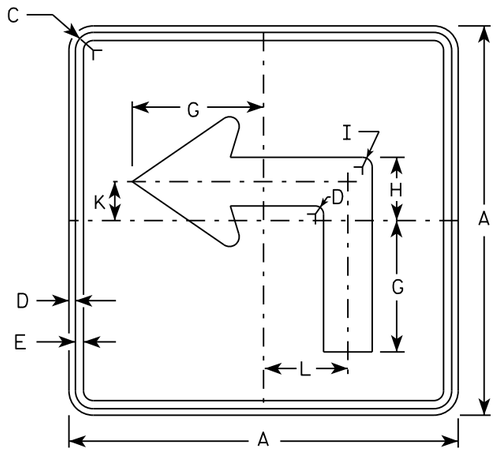
STANDARD SIGN
M4-8A

WISCONSIN DEPT OF TRANSPORTATION

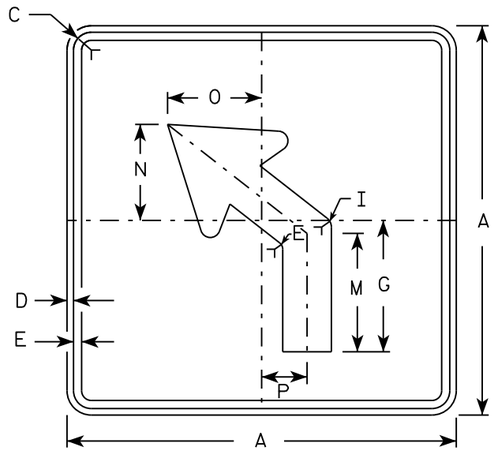
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/9/11 PLATE NO. M4-8A.2

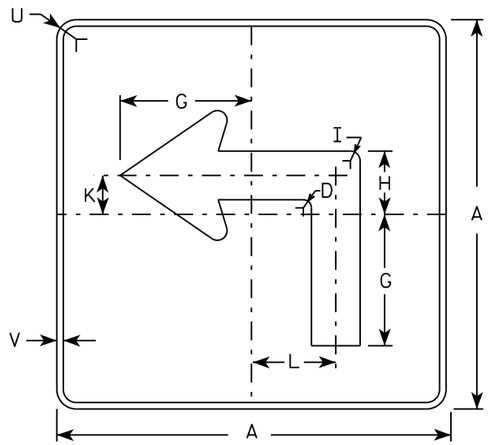
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 346	E



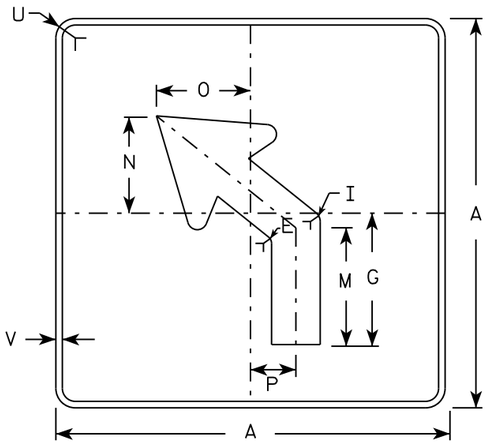
M5-1L
MM5-1L
MO5-1L
MP5-1L



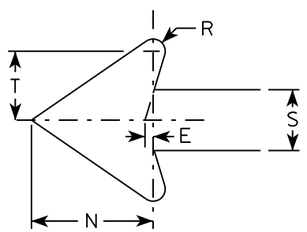
M5-2L
MM5-2L
MO5-2L
MP5-2L



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

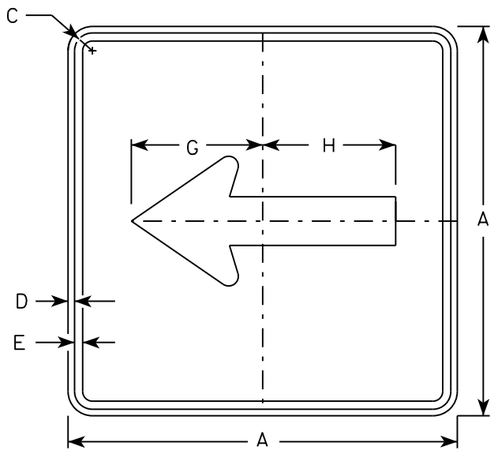
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

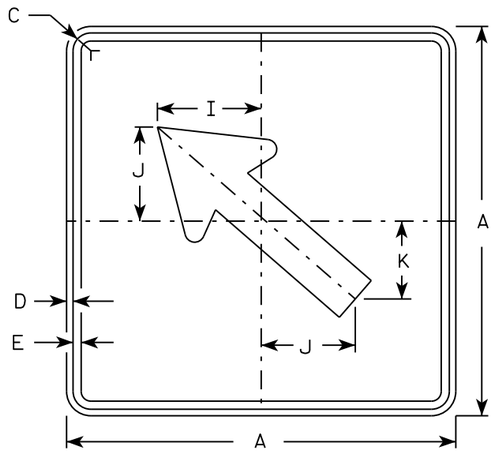
DATE 10/15/15 PLATE NO. M5-1.13

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



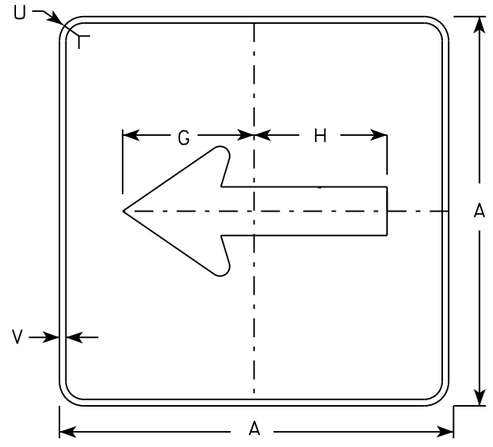
M6-1
MM6-1
MO6-1
MP6-1



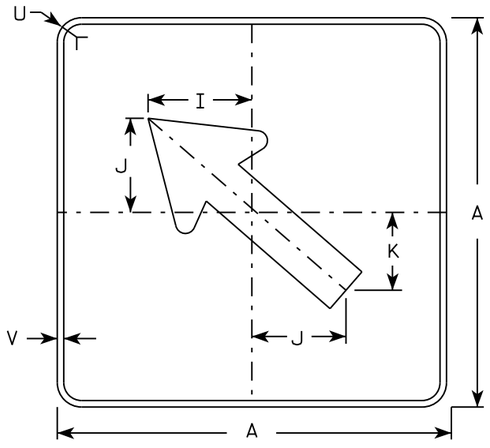
M6-2
MM6-2
MO6-2
MP6-2

NOTES

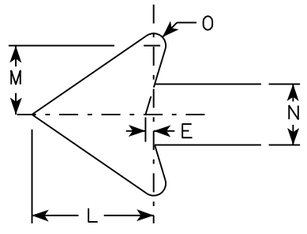
1. Signs are Type II - Type H except as Shown
2. Color:
   Background - See note 4
   Message - See note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. M6-1 and M6-2 Background - 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

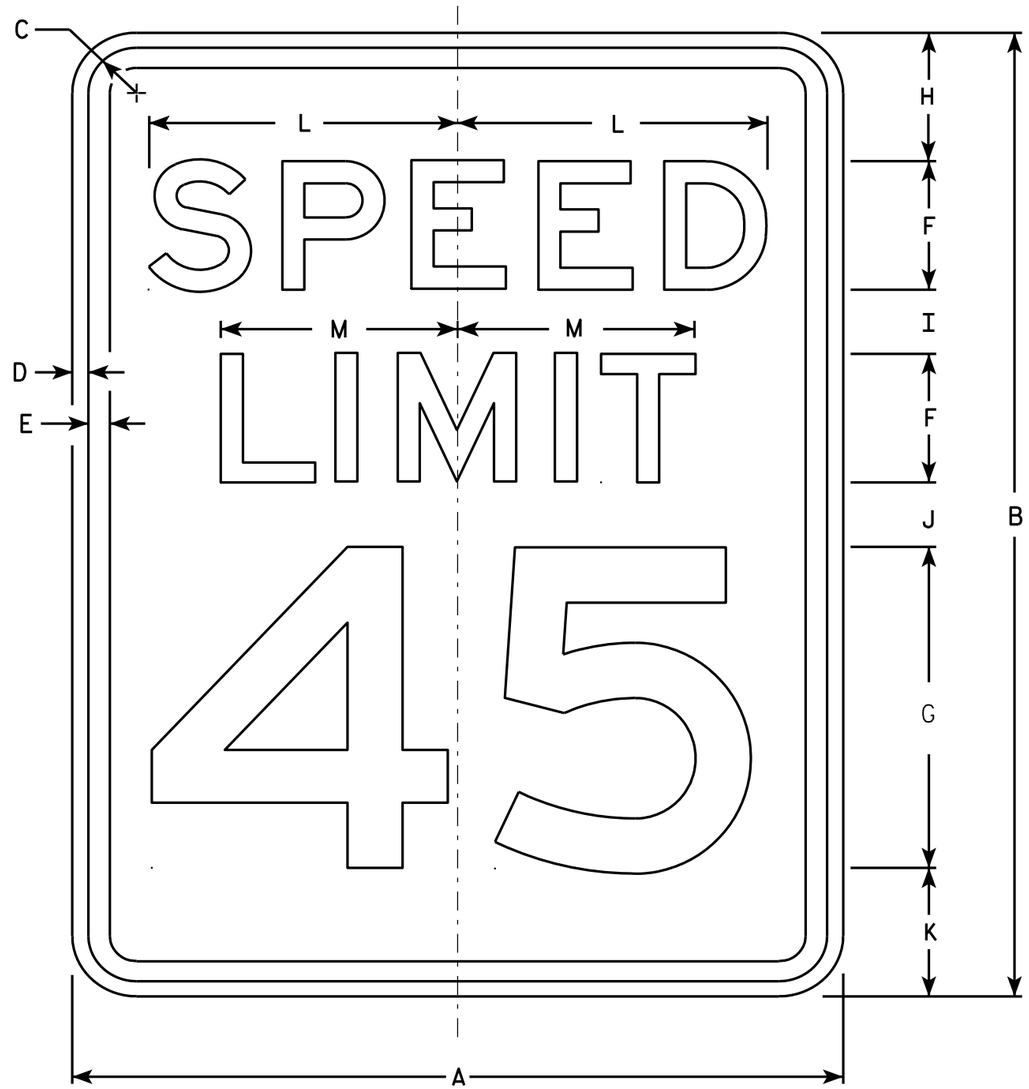
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 10/15/15 PLATE 348 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



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

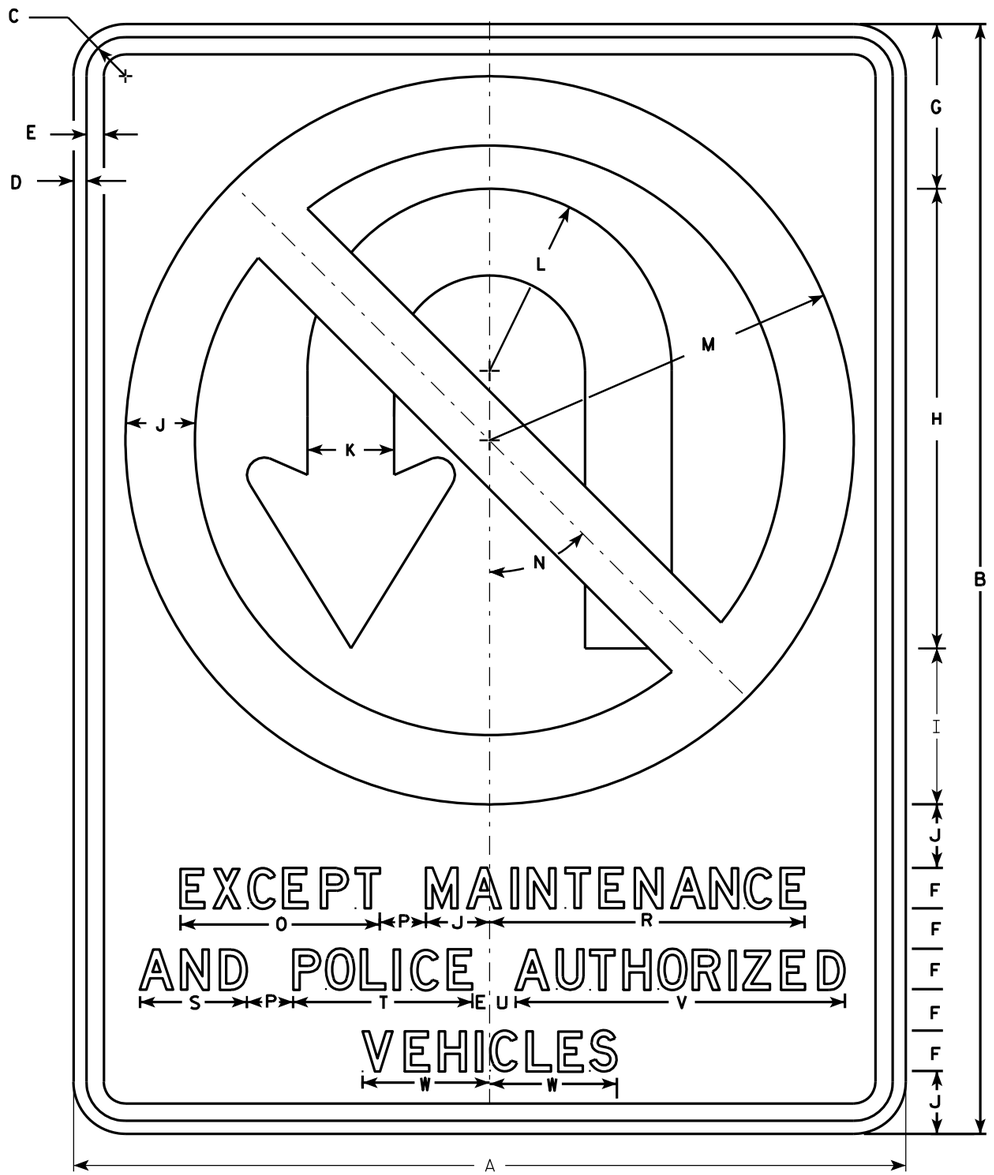
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/26/10 PLATE NO. R2-1.13

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 349 | E

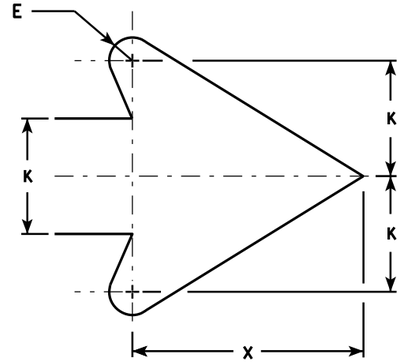
FILE NAME : C:\Users\PROJECTS\tr_stdplate\R21.DGN PLOT DATE : 28-MAY-2010 08:32 PLOT BY : ditjph PLOT NAME : PLOT SCALE : 4.717577:1.000000
WISDOT/CADDS SHEET 42



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

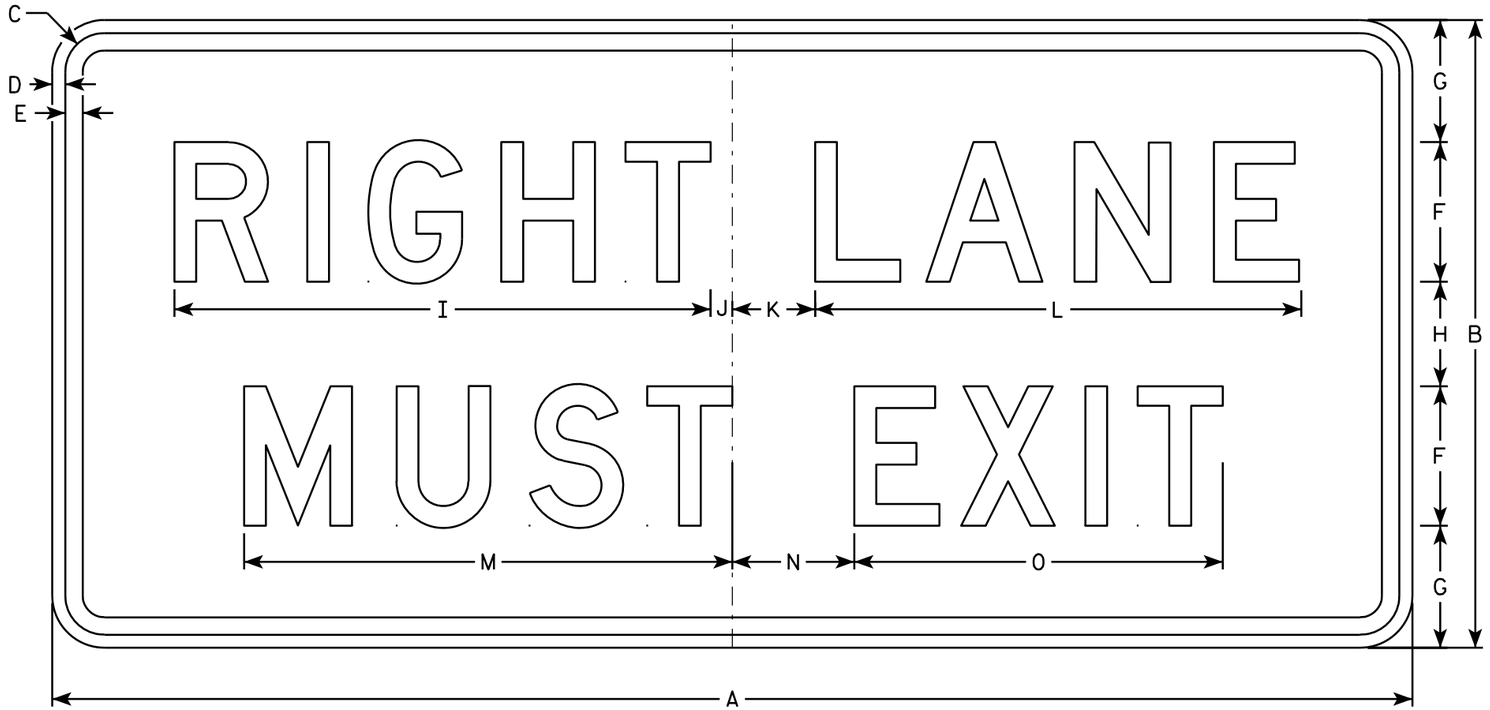
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/17/2011 PLATE NO. R3-4B.2

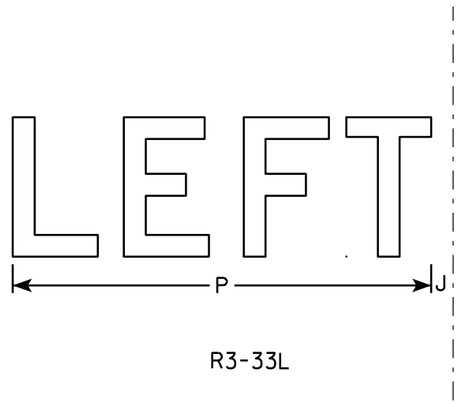
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 350	E

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - 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.



R3-33R



R3-33L

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	78	36	2 1/4	3/4	1	8	7	6	30 3/4	1 1/4	4 3/4	27 7/8	28	7	21 1/8	24											19.5
5	78	36	2 1/4	3/4	1	8	7	6	30 3/4	1 1/4	4 3/4	27 7/8	28	7	21 1/8	24											19.5

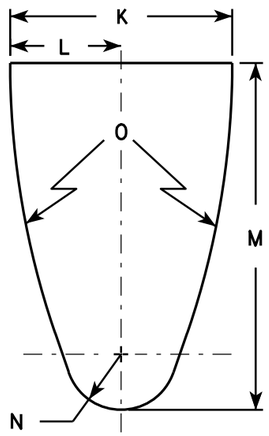
STANDARD SIGN
R3-33

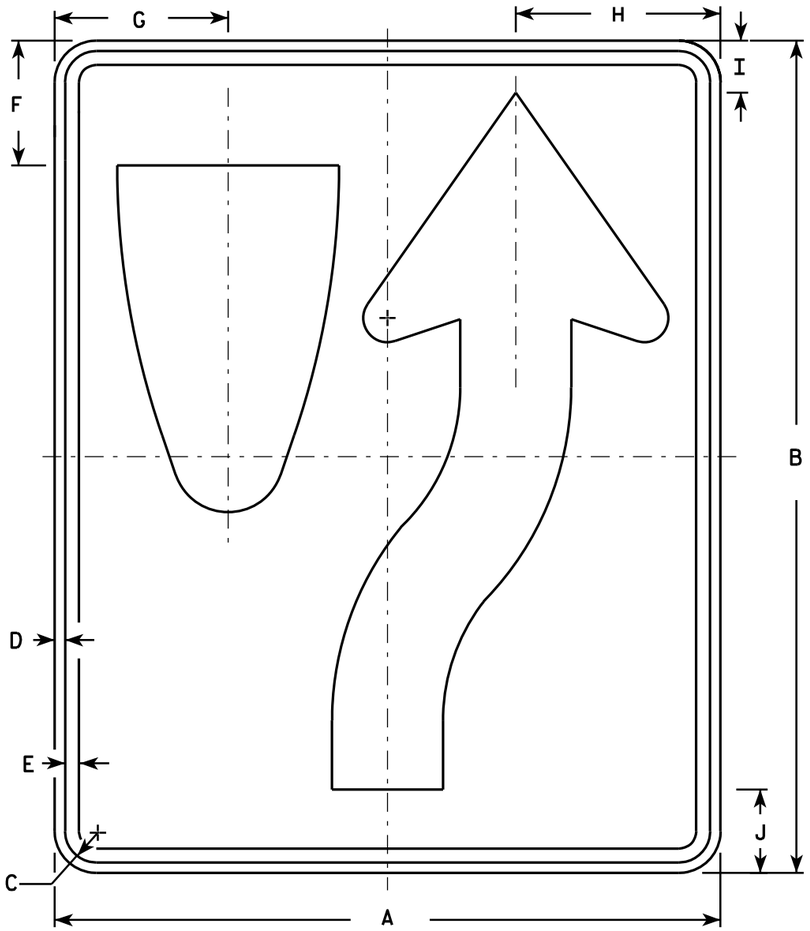
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 10/7/10 PLATE NO. R3-33.1

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 351 | E

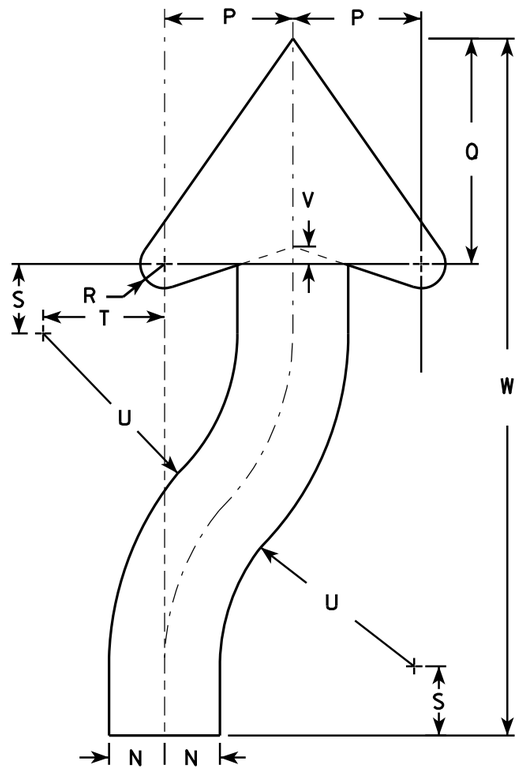




R4-7

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition. material is plywood but borders shall be rounded
2. Color:
   Background - White
   Message - Black
3. Corners may be square or rounded when base as shown. When base material is metal, the corners and borders shall be rounded.
4. R4-8 is the same as R4-7 except Legend is reversed.



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	18	24	1 1/8	3/8	1/2	3 3/8	4 3/4	5 1/2	1 3/8	2 1/4	6	3	9 3/8	1 1/2	22 1/2	3 1/2	6 1/8	5/8	1 7/8	3 1/4	6 3/4	1/2	20 3/8				3.0
2S	24	30	1 1/8	3/8	1/2	4 1/2	6 1/4	7 3/8	1 7/8	3	8	4	12 1/2	2	30	4 5/8	8 1/8	7/8	2 1/2	4 3/8	9	5/8	25 1/8				5.0
2M	24	30	1 1/8	3/8	1/2	4 1/2	6 1/4	7 3/8	1 7/8	3	8	4	12 1/2	2	30	4 5/8	8 1/8	7/8	2 1/2	4 3/8	9	5/8	25 1/8				5.0
3	36	48	1 3/4	1/2	5/8	6 3/4	9 3/8	11 1/8	2 7/8	4 1/2	12	6	18 3/4	3	45	6 7/8	12 1/4	1 1/4	3 3/4	6 5/8	13 1/2	1	40 3/4				12.0
4	36	48	1 3/4	1/2	5/8	6 3/4	9 3/8	11 1/8	2 7/8	4 1/2	12	6	18 3/4	3	45	6 7/8	12 1/4	1 1/4	3 3/4	6 5/8	13 1/2	1	40 3/4				12.0
5	48	60	2 1/4	3/4	1	9	12 1/2	14 3/4	3 3/4	6	16	8	25	4	60	9 1/4	16 1/4	1 5/8	5	8 3/4	18	1 1/4	50 1/4				20.0

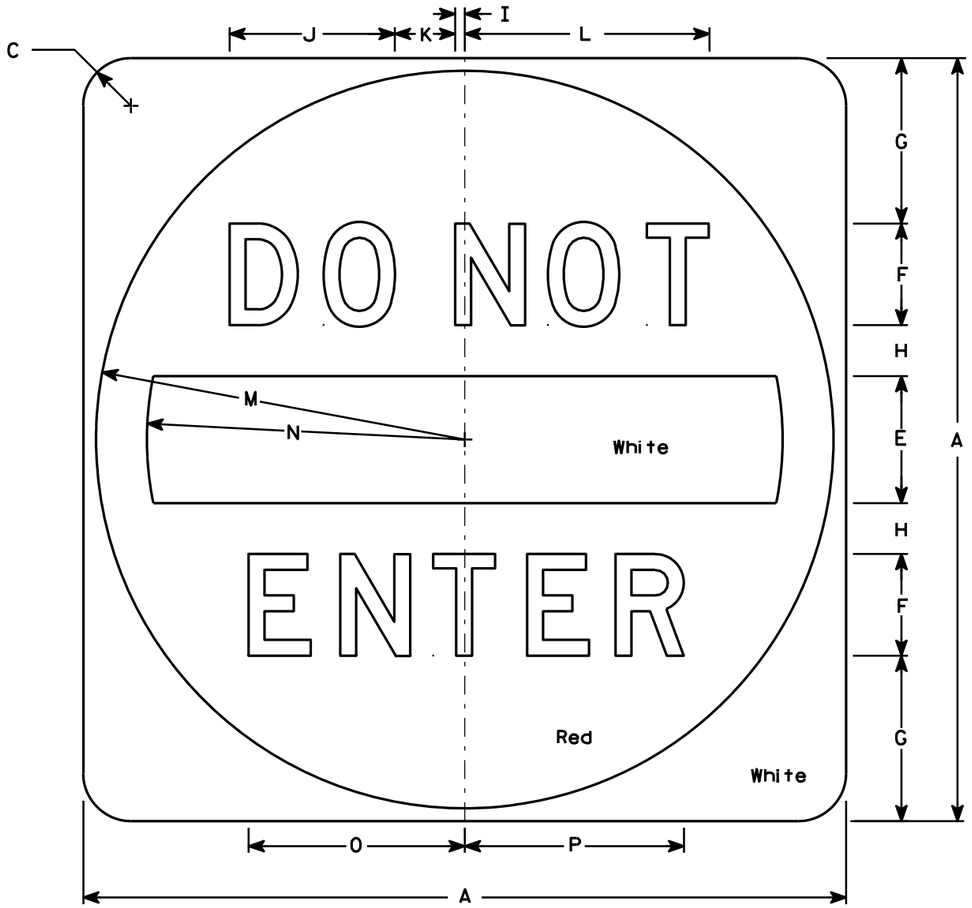
STANDARD SIGN
R4-7 & R4-8

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch for State Traffic Engineer

DATE 3/25/2011 PLATE NO. R4-7.8

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 352	E



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

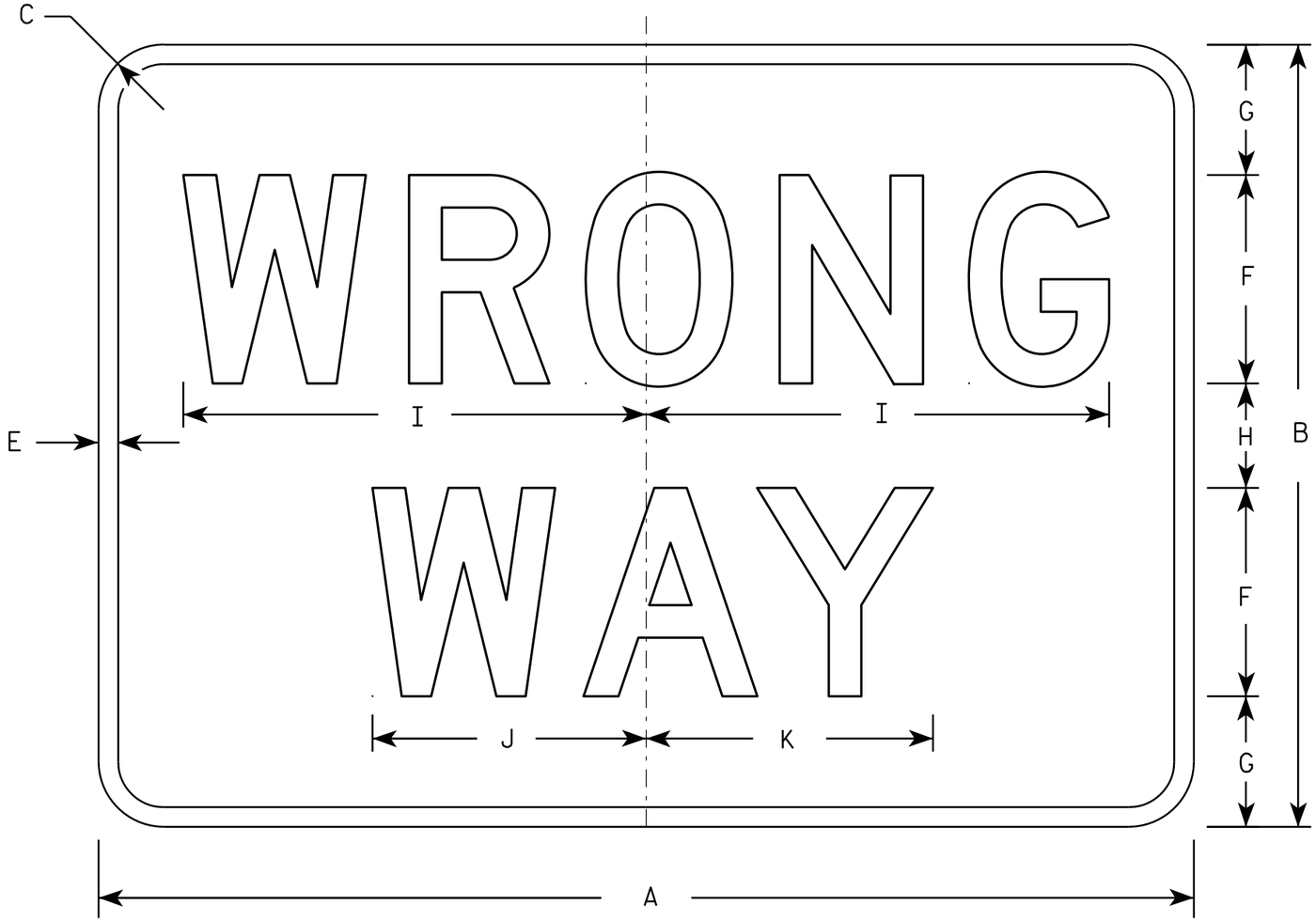
STANDARD SIGN
R5-1

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: 353 | 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

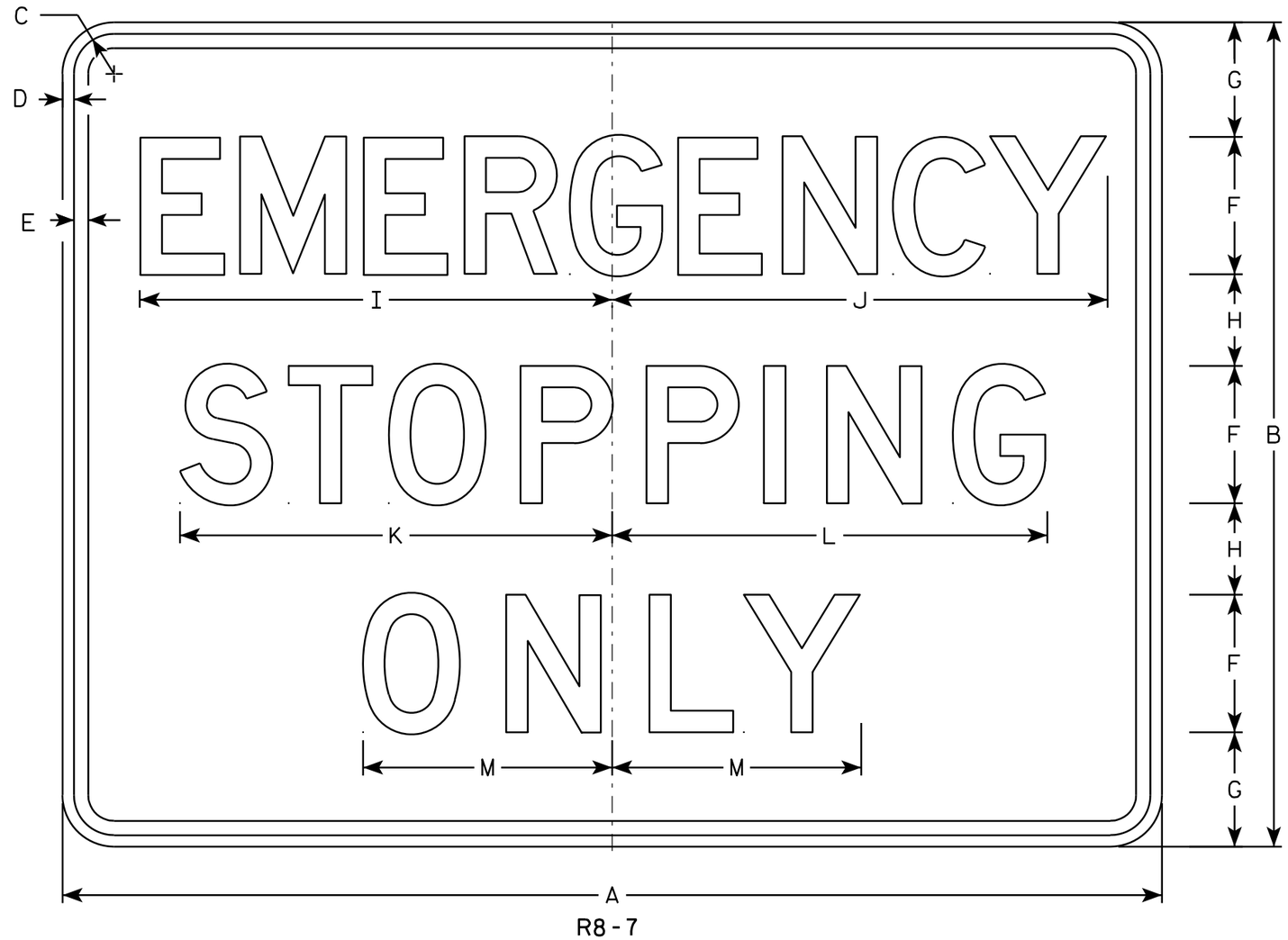
STANDARD SIGN
R5-1A

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: 354 | 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

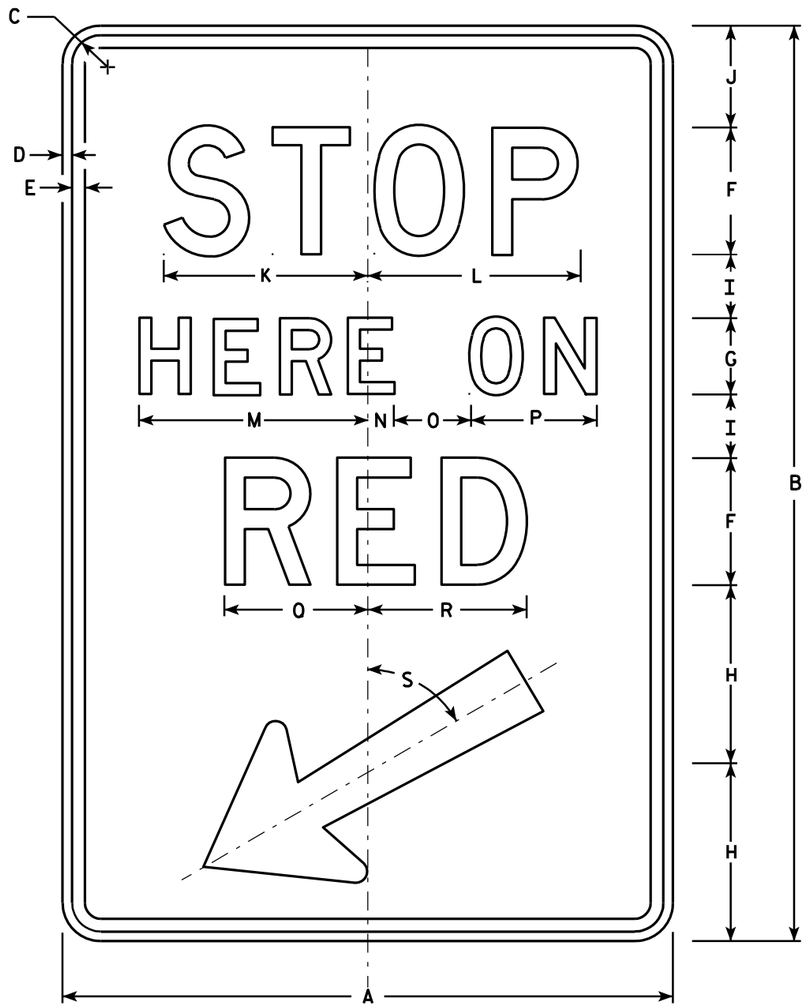
STANDARD SIGN
R8-7

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/31/2011 PLATE NO. R8-7.6

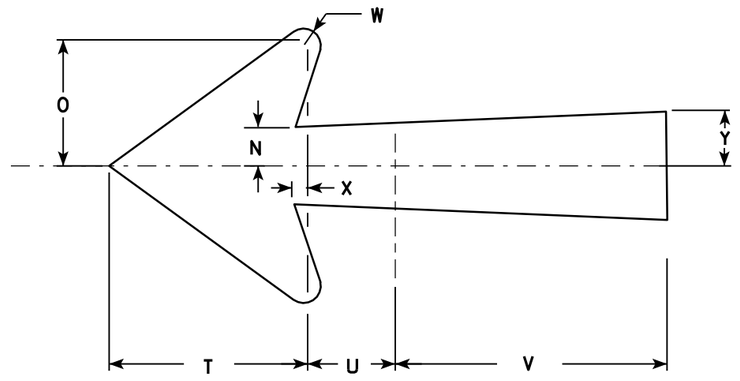
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 355 | E



R10-6

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.



Arrow Detail

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	O	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	24	36	1 1/8	3/8	1/2	5	3	7	2 1/2	4	8	8 3/8	9	1	3	5	5 5/8	6 1/4	60°	5 1/4	2 1/4	7 1/8	1/2	3/8	1 3/8		6.0
2M	24	36	1 1/8	3/8	1/2	5	3	7	2 1/2	4	8	8 3/8	9	1	3	5	5 5/8	6 1/4	60°	5 1/4	2 1/4	7 1/8	1/2	3/8	1 3/8		6.0
3																											
4																											
5																											

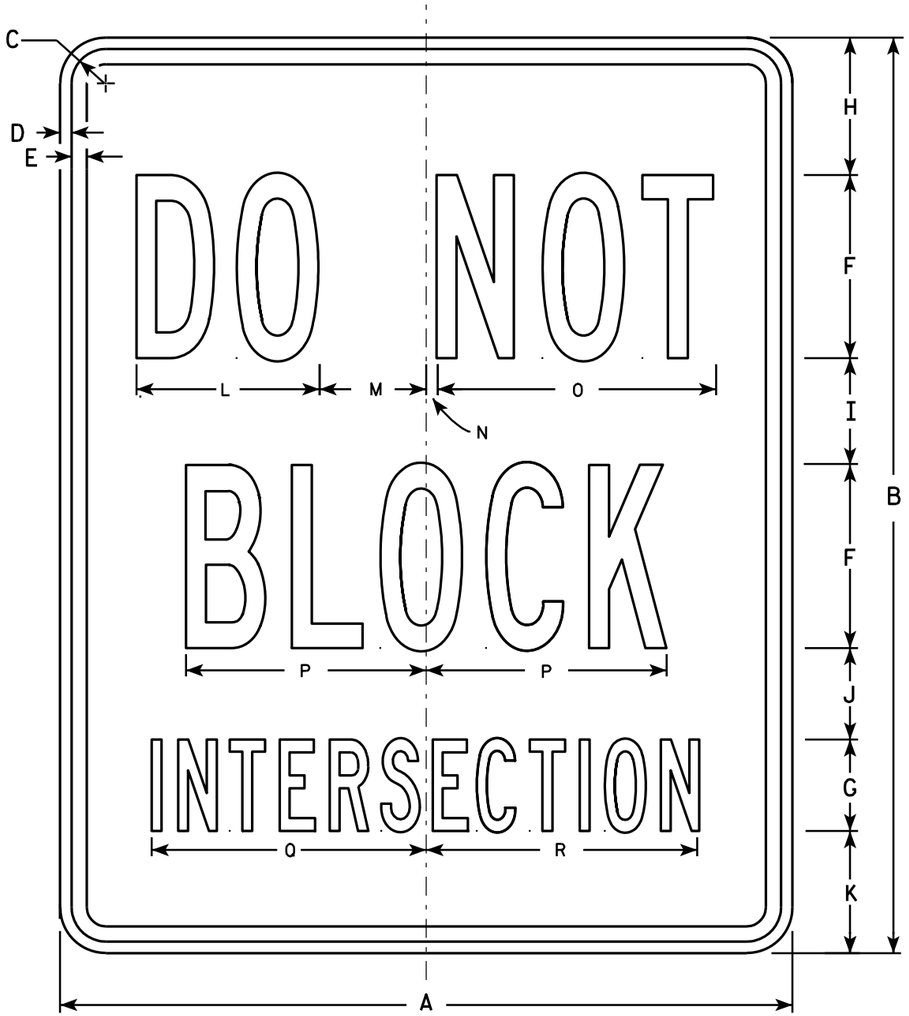
STANDARD SIGN
R10-6

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 4/5/11 PLATE NO. R10-6.6

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 356	E



R10-7

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 - 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	24	30	1 1/8	3/8	1/2	6	3	4 1/2	3 1/2	3	4	6	3 1/2	3/8	9 1/8	7 7/8	9	8 7/8									5.0
2M	24	30	1 1/8	3/8	1/2	6	3	4 1/2	3 1/2	3	4	6	3 1/2	3/8	9 1/8	7 7/8	9	8 7/8									5.0
3	36	48	1 3/8	1/2	5/8	10	5	7	5 1/4	4 1/2	6 1/4	10	5 5/8	1/2	15 1/8	13 1/8	15	14 7/8									12.0
4																											
5																											

STANDARD SIGN
R10-7

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 4/5/11 PLATE NO. R10-7.5

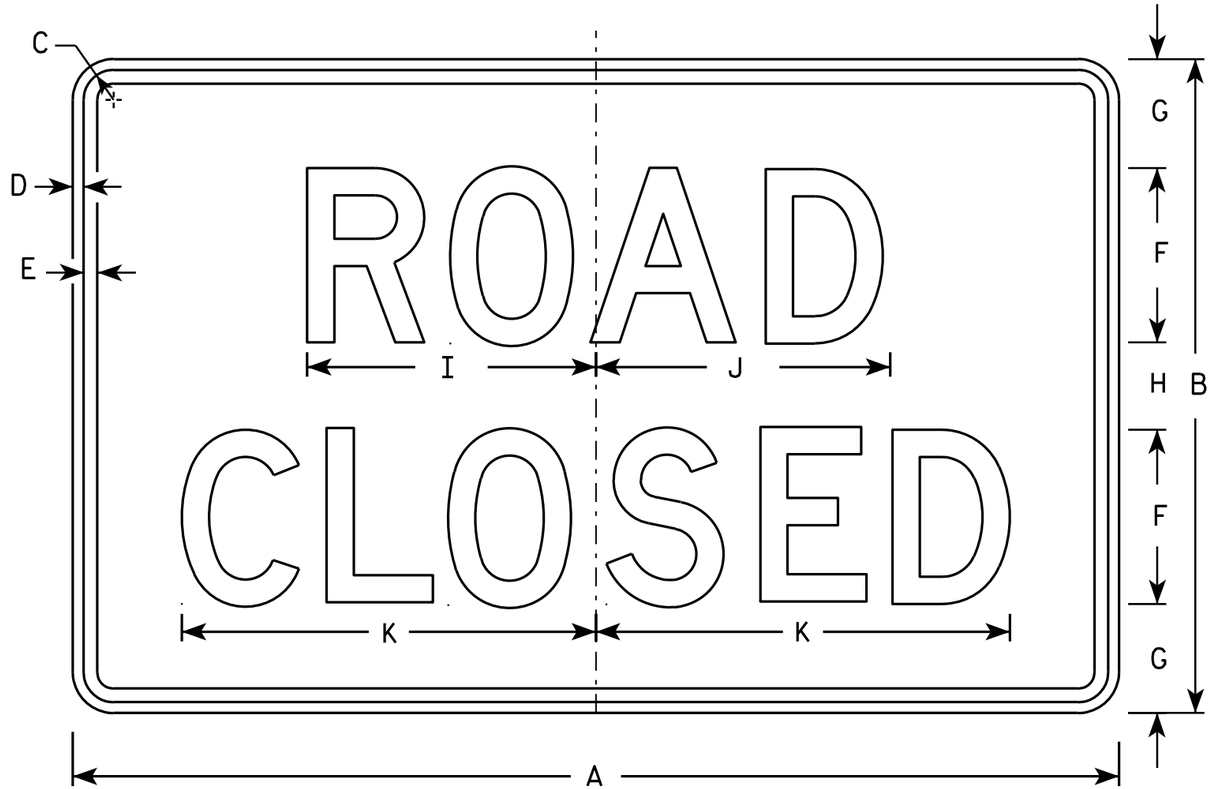
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 357 | E

FILE NAME : C:\Users\PROJECTS\tr_stdplate\R107.DGN PLOT DATE : 05-APR-2011 09:44 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 4.965868:1.000000

WISDOT/CADDS SHEET 42

7

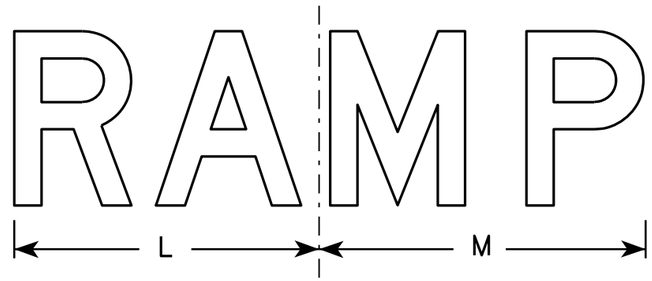
7



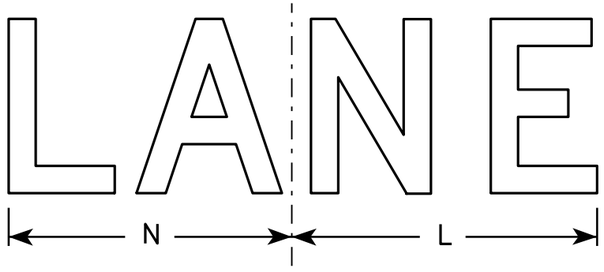
R11-2

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

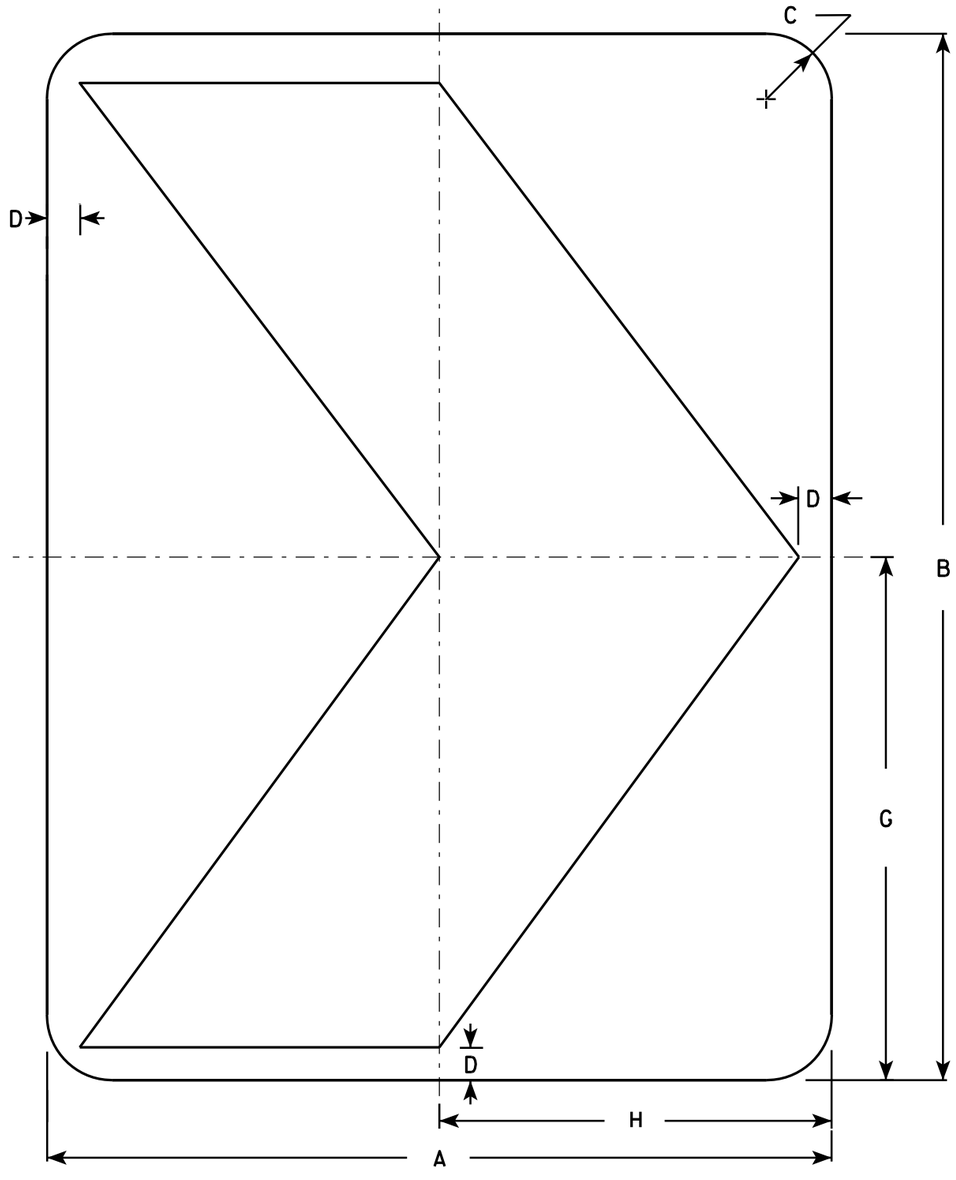
STANDARD SIGN
R11-2

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: 358 | E



W1-8

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - 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	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

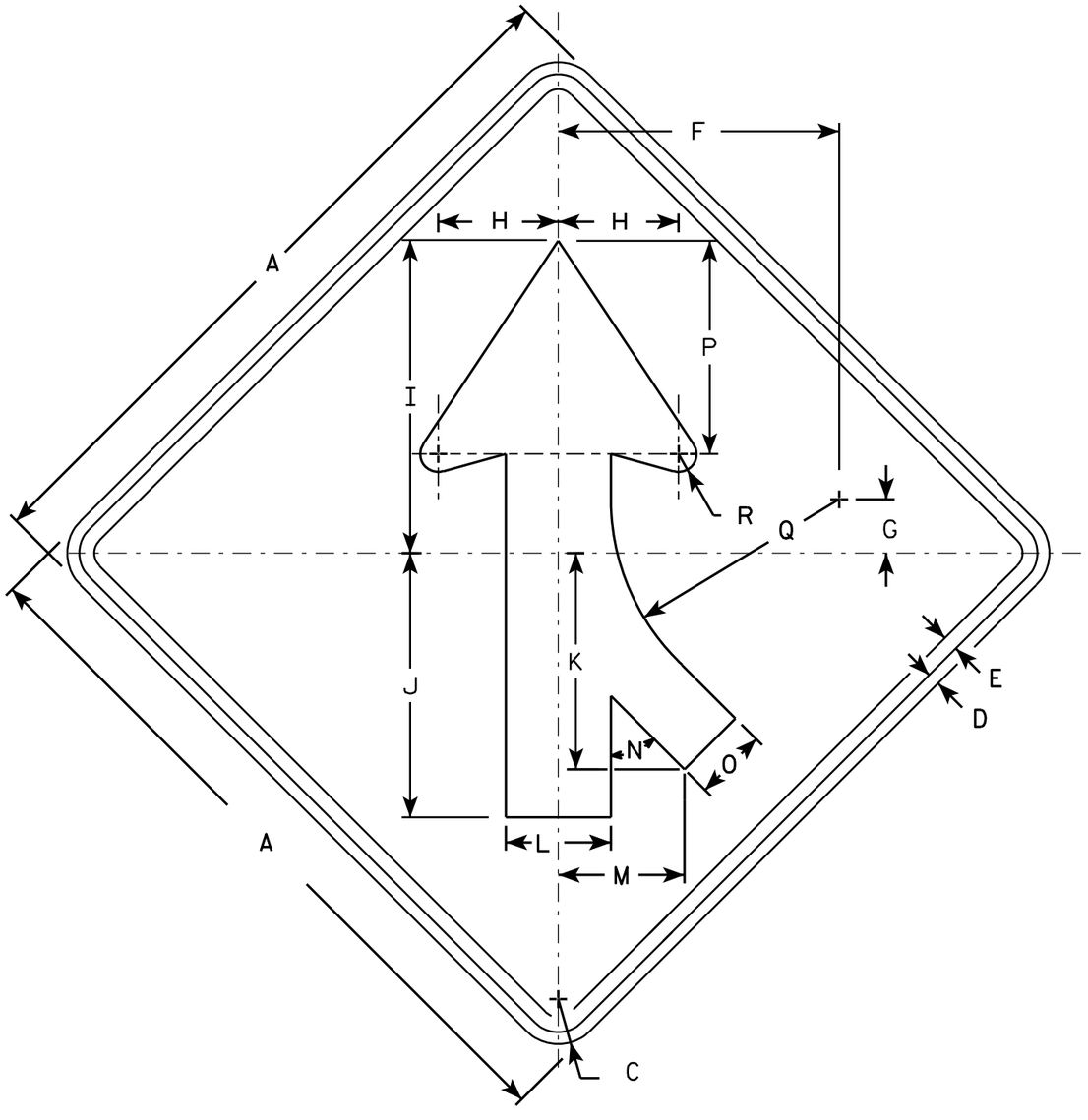
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 6/7/10 PLATE NO. W1-8.6

PROJECT NO:

SHEET NO: 359 E



W4-1 R

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	O	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	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

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.

STANDARD SIGN
W4-1

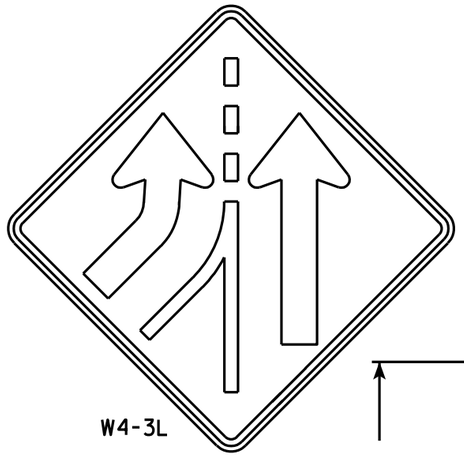
WISCONSIN DEPT OF TRANSPORTATION

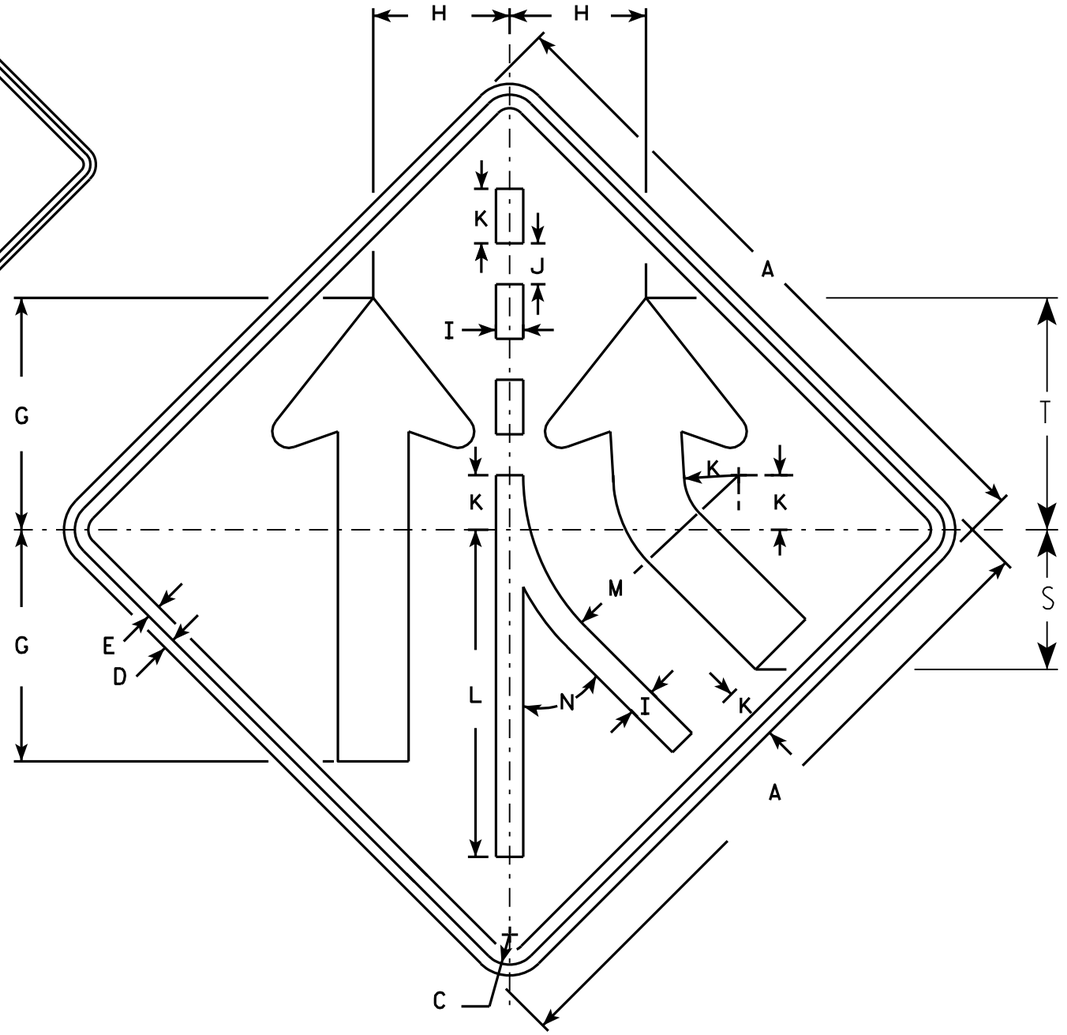
APPROVED Matthew R Rausch for State Traffic Engineer

DATE 03/12/13 PLATE NO. W4-1.14

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 360 | E

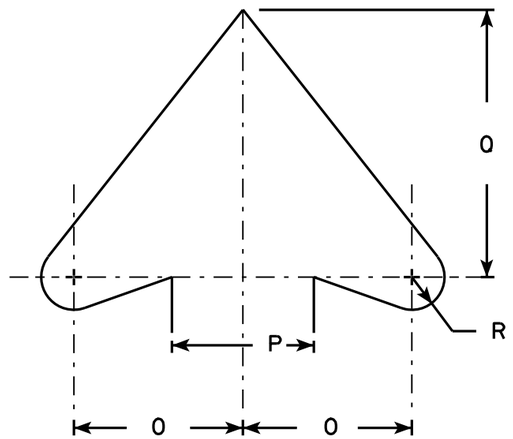
FILE NAME : C:\CAEFiles\Projects\tr_stdplate\W41.DGN PLOT DATE : 12-MAR-2013 11:06 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 6.202372:1.000000
WISDOT/CADDS SHEET 42





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.
4. W4-3 L is the same as W4-3 R except the arrow is reversed along the vertical centerline.



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	O	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	30		1 3/8	1/2	5/8		10 5/8	6 1/4	1 1/4	1 7/8	2 1/2	15	9 7/8	45°	3 7/8	3 1/4	6 1/8	3/4	6 3/8	10 5/8							6.25
2S	36		1 5/8	5/8	3/4		12 3/4	7 1/2	1 1/2	2 1/4	3	18	11 7/8	45°	4 5/8	4	7 3/8	7/8	7 3/4	12 3/4							9.0
2M	36		1 5/8	5/8	3/4		12 3/4	7 1/2	1 1/2	2 1/4	3	18	11 7/8	45°	4 5/8	4	7 3/8	7/8	7 3/4	12 3/4							9.0
3																											
4	48		2 1/4	3/4	1		17	10	2	3	4	24	15 3/4	45°	6 1/4	5 1/2	9 7/8	1 1/4	10 1/4	17							16.0
5	48		2 1/4	3/4	1		17	10	2	3	4	24	15 3/4	45°	6 1/4	5 1/2	9 7/8	1 1/4	10 1/4	17							16.0

STANDARD SIGN
W4-3

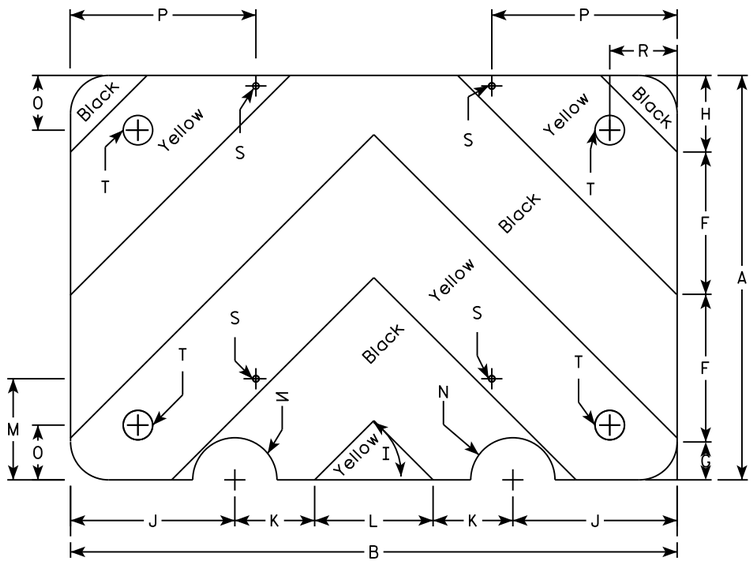
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

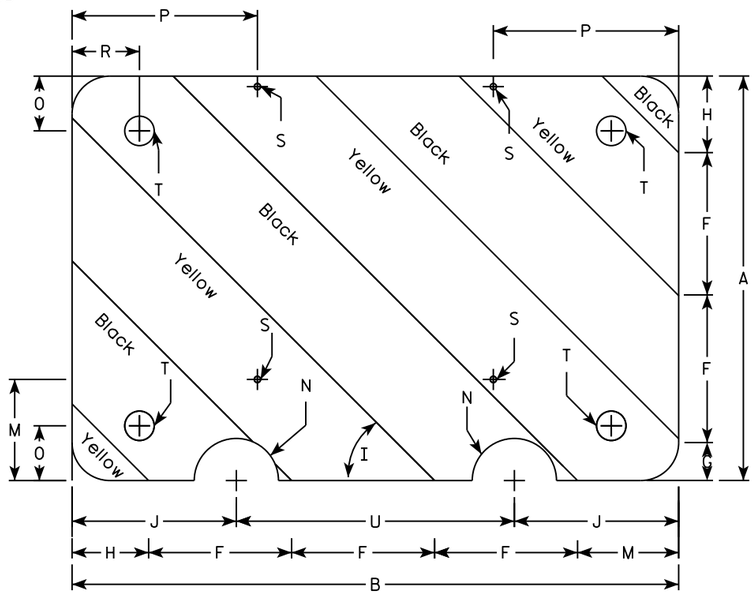
DATE 03/12/13 PLATE NO. W4-3.8

PROJECT NO:

SHEET NO: 361 E



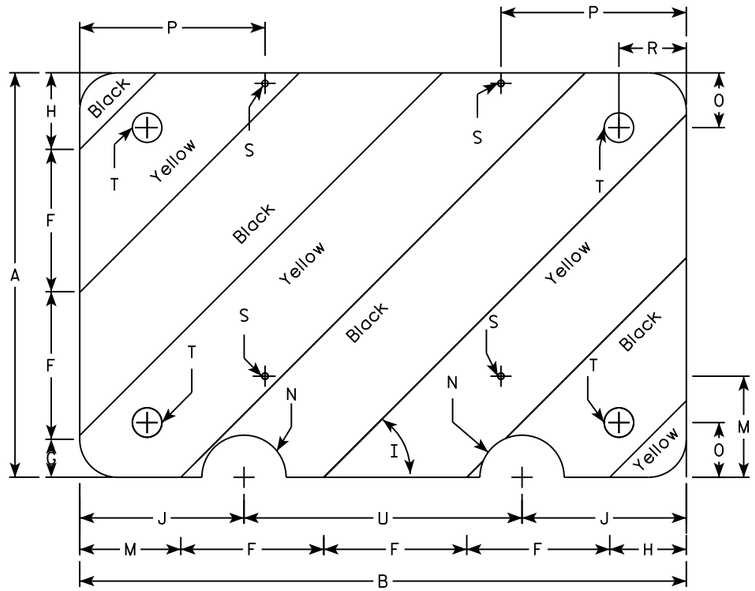
W5-65D



W5-65L

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. Base material is to be .040" sheet aluminum.



W5-65R

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	36				8 ½	2 ¼	4 ½	45°	9 ¾	4 ¾	7	6	5	3 ¼	11		4	⅜	1 ¾	16 ½						6.0
2M	24	36				8 ½	2 ¼	4 ½	45	9 ¾	4 ¾	7	6	5	3 ¼	11		4	⅜	1 ¾	16 ½						6.0
3																											
4																											
5																											

STANDARD SIGN

W5-65D & W5-65

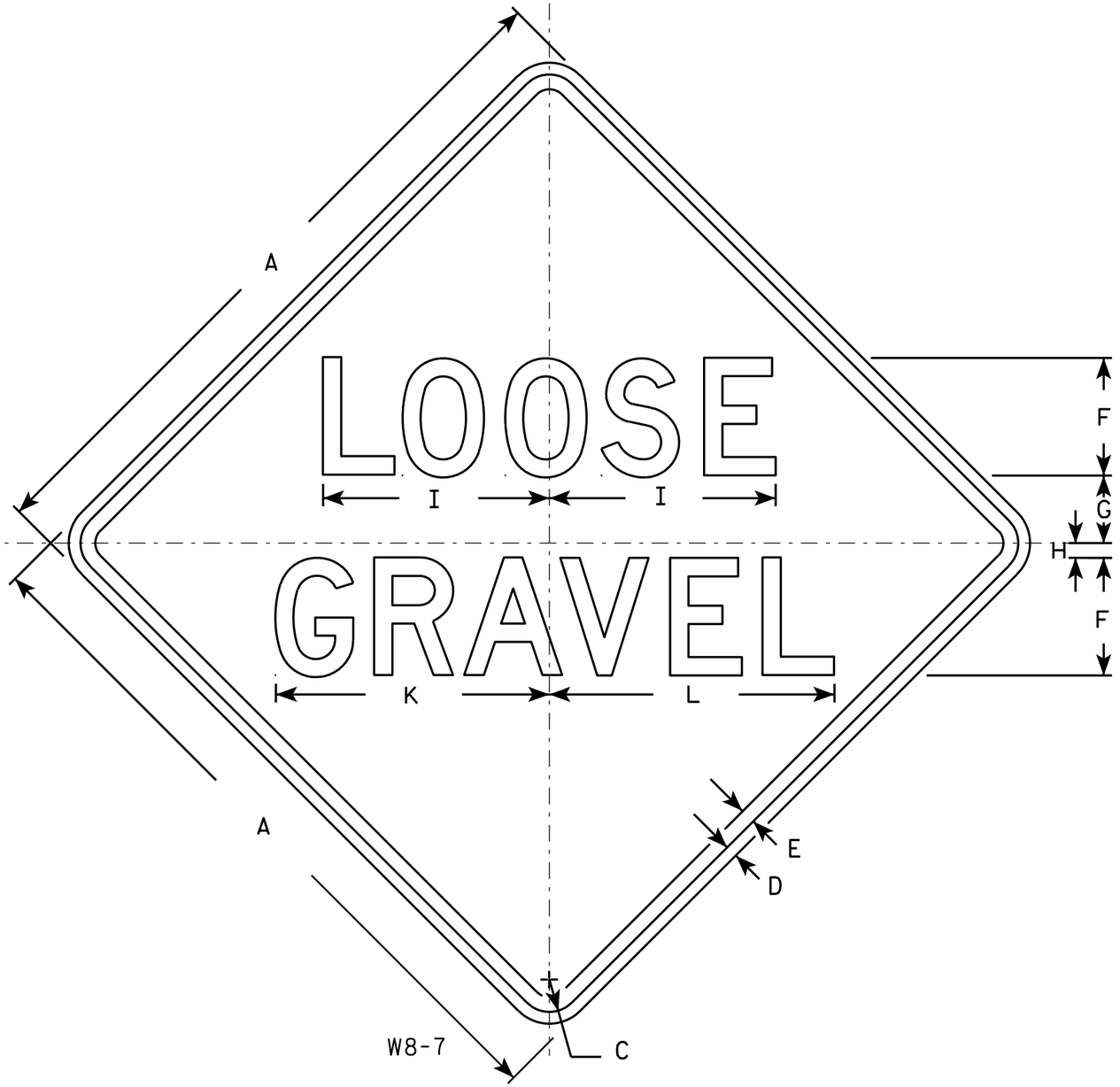
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/10/16 PLATE 362 W5-65.1

PROJECT NO: | HWY: | COUNTY: | SHEET NO: E

FILE NAME : C:\CADfiles\Projects\tr_stdplate\W565.DGN PLOT DATE : 10-FEB-2016 07:36 PLOT BY : $$ plotuser $$ PLOT NAME : PLOT SCALE : 8.989790:1.000000



NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

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 3/4	1/2	7 3/4		9 1/4	9 3/4															4.0
2S	36		1 5/8	5/8	3/4	6	4 1/8	3/4	11 5/8		14	14 1/2															9.0
2M	36		1 5/8	5/8	3/4	6	4 1/8	3/4	11 5/8		14	14 1/2															9.0
3	36		1 5/8	5/8	3/4	6	4 1/8	3/4	11 5/8		14	14 1/2															9.0
4	36		1 5/8	5/8	3/4	6	4 1/8	3/4	11 5/8		14	14 1/2															9.0
5	48		2 1/4	3/4	1	8	5 1/2	1	15 1/2		18 5/8	19 3/8															16.0

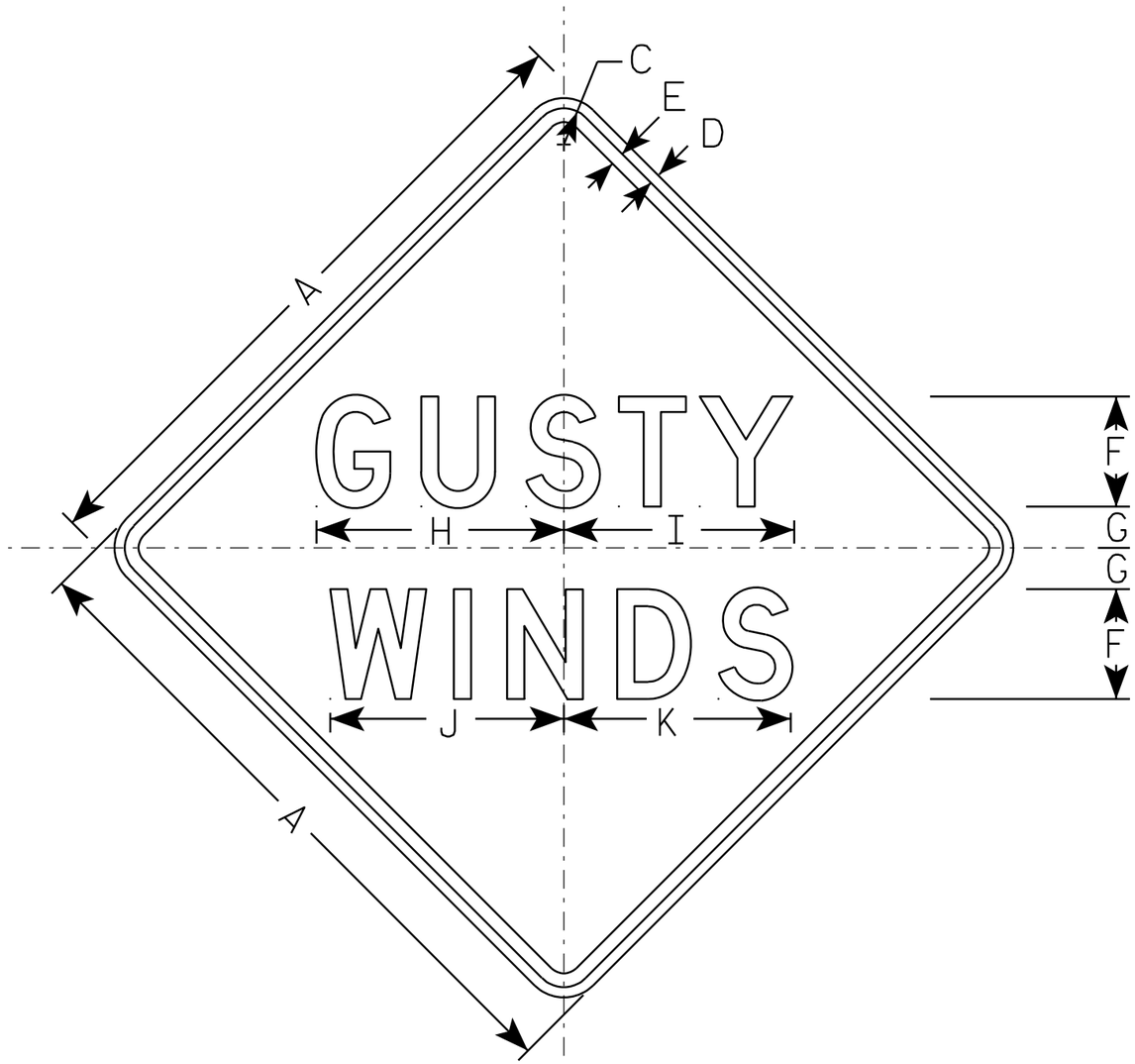
STANDARD SIGN
W8-7

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/30/12 PLATE NO. W8-7.7

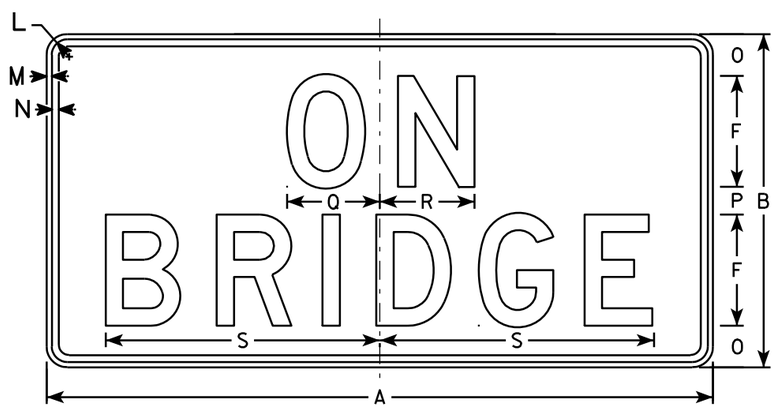
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 363	E



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																										

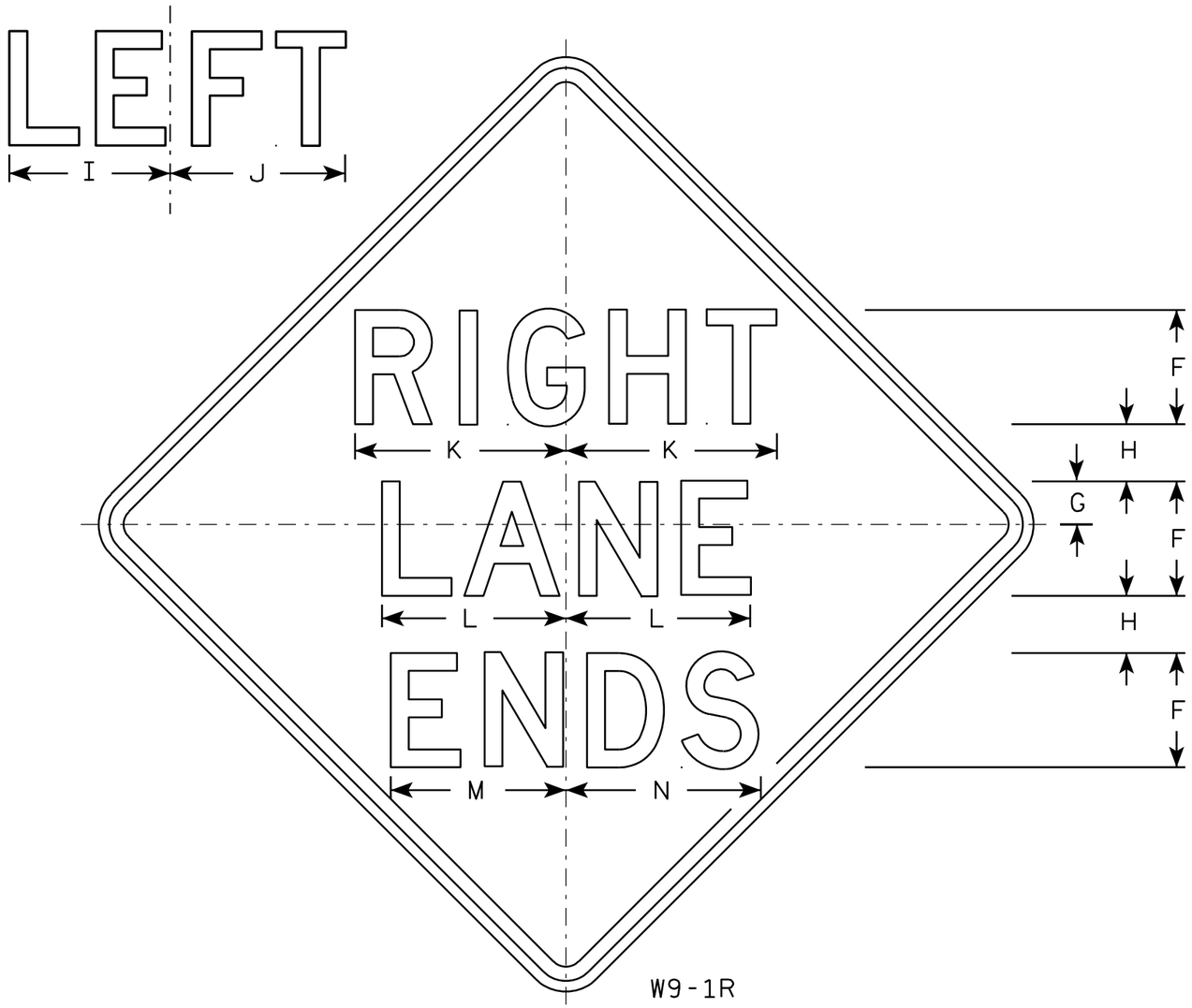
STANDARD SIGN
W8-72

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: 364	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

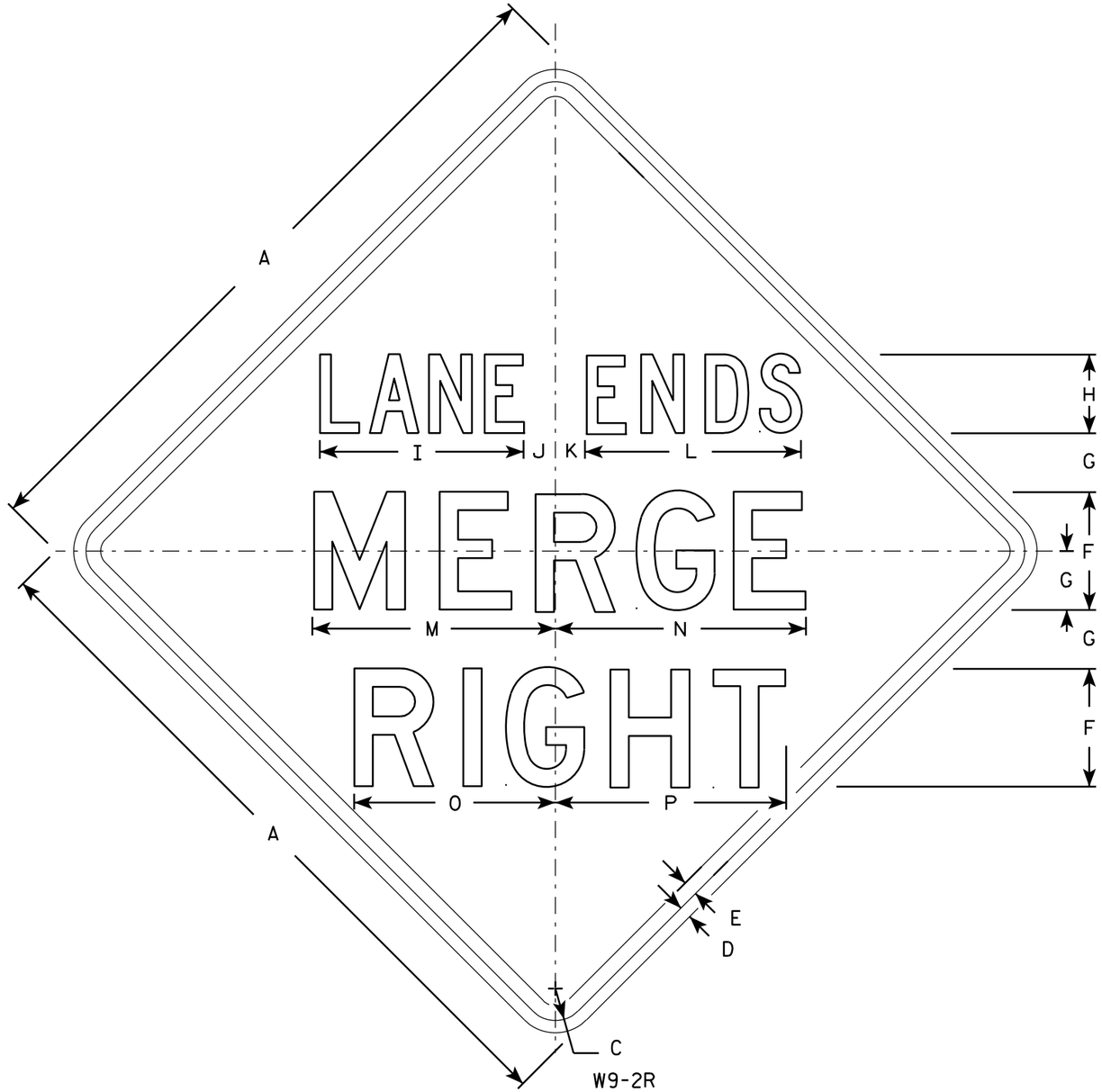
DATE 03/18/13 PLATE NO. W9-1.8

PROJECT NO:

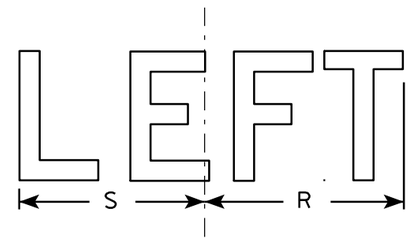
SHEET NO: 365 E

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\W91.DGN PLOT DATE : 18-MAR-2013 11:42 PLOT BY : mscsja

WISDOT/CADDS SHEET 42



W9-2R



W9-2L

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow
   Message - Black
3. Message Series - See note 5
4. Corners 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 C, lines 2 & 3 are Series D.
6. W9-1L is the same as W9-2R 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	2 1/2	3	8	1	1 1/8	8 1/4	10 3/8	10 5/8	8 5/8	9 7/8		7 5/8	7 1/8								6.25
2S	36		1 5/8	5/8	3/4	6	3	4	10 3/8	1 5/8	1 1/2	11	12 3/8	12 3/4	10 1/4	11 3/4		9 1/8	8 1/2								9.0
2M	36		1 5/8	5/8	3/4	6	3	4	10 3/8	1 5/8	1 1/2	11	12 3/8	12 3/4	10 1/4	11 3/4		9 1/8	8 1/2								9.0
3																											
4	48		2 1/4	3/4	1	8	4	6	14 1/2	2	3 1/4	13 3/4	16 3/8	17 1/8	13 3/4	15 3/4		12 1/4	11 1/4								16.0
5	48		2 1/4	3/4	1	8	4	6	14 1/2	2	3 1/4	13 3/4	16 3/8	17 1/8	13 3/4	15 3/4		12 1/4	11 1/4								16.0

STANDARD SIGN
W9-2

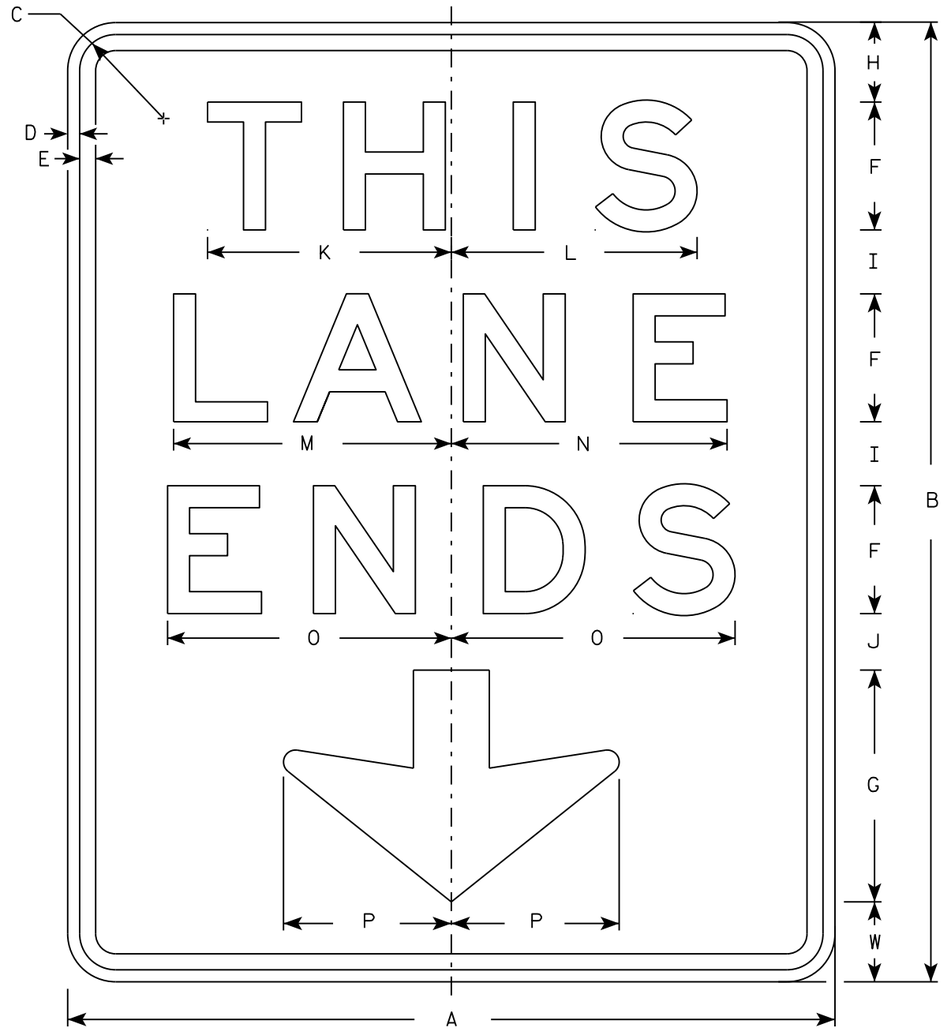
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 03/18/13 PLATE NO. W9-2.10

PROJECT NO:

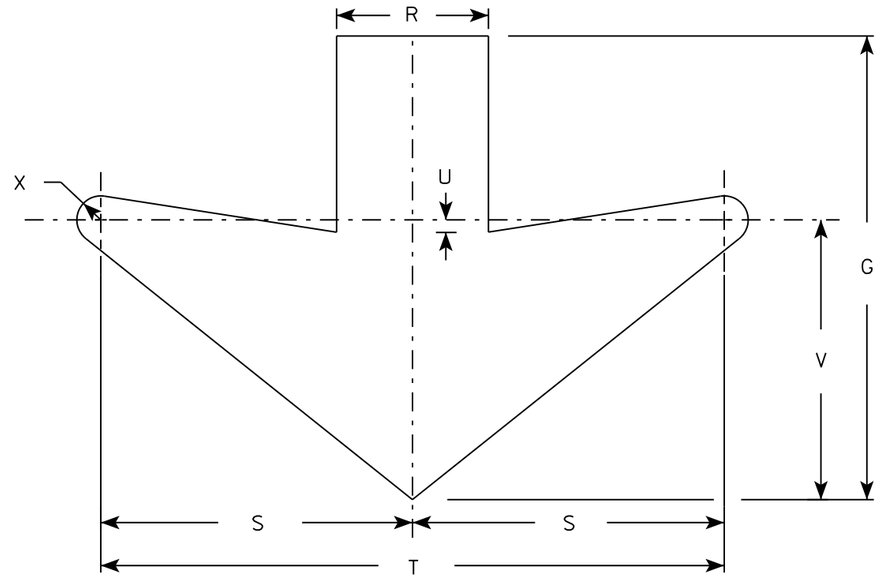
SHEET NO: 366 E



W9-62

NOTES

1. Sign is Type II - Type F Reflective except see Note 5
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.
5. Size 4 and 5 shall be Type I sign.



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	48	60	2 1/4	3/4	1	8	14 1/2	5	4	3 1/2	15 1/4	15 3/8	17 3/8	17 1/4	17 3/4	10 1/2		4 3/4	9 3/4	19 1/2	3/4	8 3/4	5	3/4			20.0
2S	48	60	2 1/4	3/4	1	8	14 1/2	5	4	3 1/2	15 1/4	15 3/8	17 3/8	17 1/4	17 3/4	10 1/2		4 3/4	9 3/4	19 1/2	3/4	8 3/4	5	3/4			20.0
2M	48	60	2 1/4	3/4	1	8	14 1/2	5	4	3 1/2	15 1/4	15 3/8	17 3/8	17 1/4	17 3/4	10 1/2		4 3/4	9 3/4	19 1/2	3/4	8 3/4	5	3/4			20.0
3																											
4	72	90	6	1	1 1/2	12	22	8	6	5	23	23	26 1/8	26 1/8	26 5/8	16		6 1/2	15	30	2	15	7	1			45.0
5	72	90	6	1	1 1/2	12	22	8	6	5	23	23	26 1/8	26 1/8	26 5/8	16		6 1/2	15	30	2	15	7	1			45.0

STANDARD SIGN
W9-62

WISCONSIN DEPT OF TRANSPORTATION

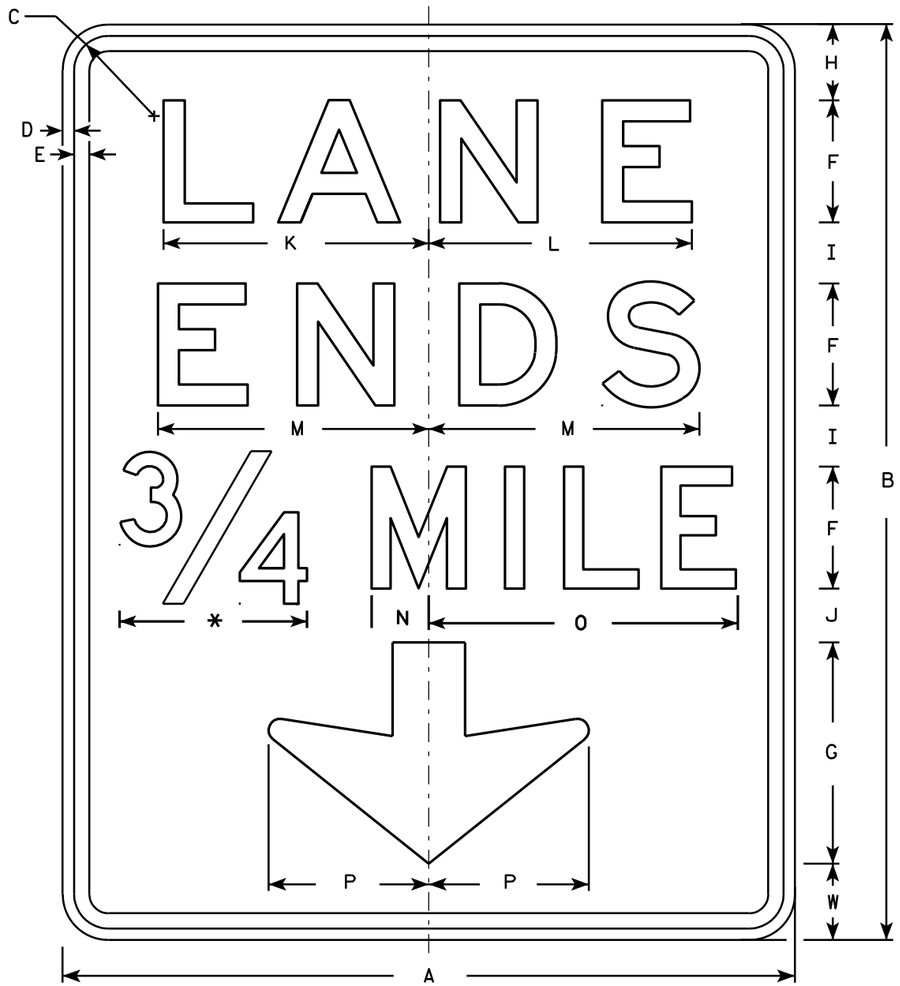
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 10/15/15 PLATE W9-62.10

PROJECT NO:

SHEET NO: E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\W962.DGN PLOT DATE : 01-DEC-2015 18:11 PLOT BY : $$ plotuser $$

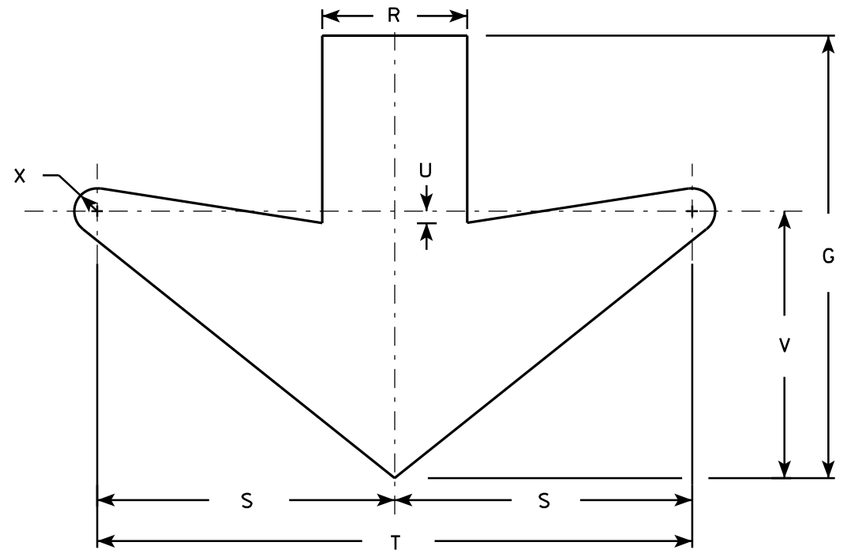


W9-63

* See Note 6

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background -Yellow
   Message - Black non-reflective
3. Message Series - See note 5
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Lines 1 and 2 are Series E, Line 3 is Series D.
6. Substitute appropriate numerals and optically adjust spacing to give proper balance.



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	48	60	2 1/4	3/4	1	8	14 1/2	5	4	3 1/2	17 3/8	17 1/4	17 3/4	3 3/4	20 1/4	10 1/2		4 3/4	9 3/4	19 1/2	3/4	8 3/4	5	3/4			20.0
2S	48	60	2 1/4	3/4	1	8	14 1/2	5	4	3 1/2	17 3/8	17 1/4	17 3/4	3 3/4	20 1/4	10 1/2		4 3/4	9 3/4	19 1/2	3/4	8 3/4	5	3/4			20.0
2M	48	60	2 1/4	3/4	1	8	14 1/2	5	4	3 1/2	17 3/8	17 1/4	17 3/4	3 3/4	20 1/4	10 1/2		4 3/4	9 3/4	19 1/2	3/4	8 3/4	5	3/4			20.0
3																											
4	72	90	6	1	1 1/2	12	22	8	6	5	26 1/8	26 1/8	26 5/8	5 5/8	30 3/8	16		6 1/2	15	30	2	15	7	1			45.0
5	72	90	6	1	1 1/2	12	22	8	6	5	26 1/8	26 1/8	26 5/8	5 5/8	30 3/8	16		6 1/2	15	30	2	15	7	1			45.0

STANDARD SIGN
W9-63

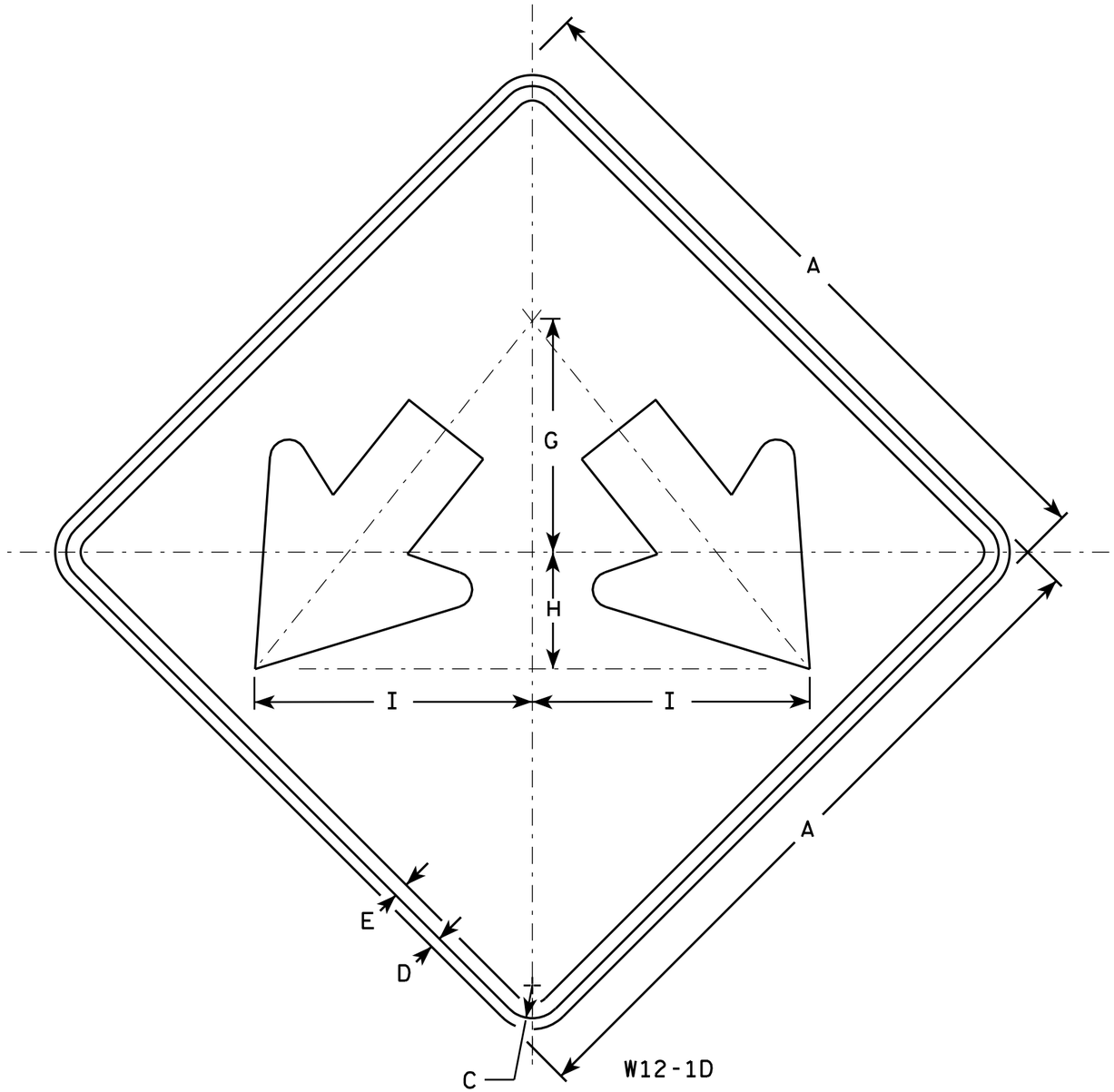
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 6/7/10 PLATE NO. W9-63.4

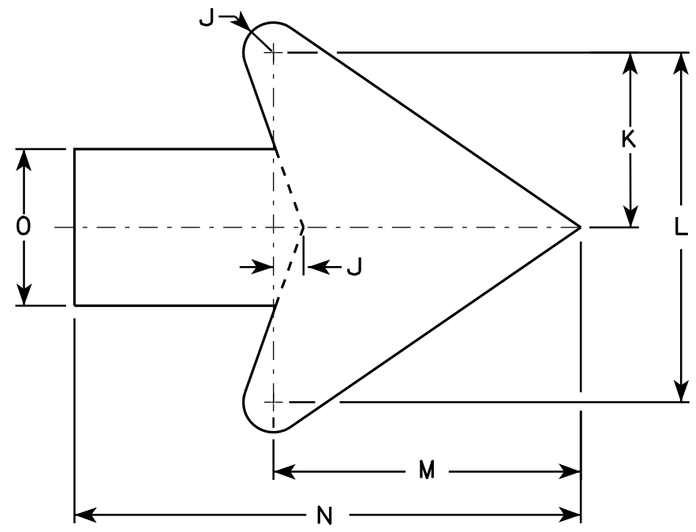
PROJECT NO:

SHEET NO: 368 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.



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	24		1 1/8	1/2	3/8		8	4	9 1/2	3/8	3 3/8	7 1/4	6 3/8	10 3/8	3 1/4												4.0
2M	24		1 1/8	1/2	3/8		8	4	9 1/2	3/8	3 3/8	7 1/4	6 3/8	10 3/8	3 1/4												4.0
3	30		1 3/8	1/2	5/8		10	5	11 7/8	3/4	4 1/2	9	7 7/8	13	4												6.25
4	36		1 3/8	1/2	5/8		12	6	14 1/4	1	5 1/2	10 7/8	9 5/8	15 3/4	4 3/4												9.0
5	48		2 1/4	3/4	1		16	8	19	1 1/4	7 1/4	14 1/2	12 3/4	21	6 1/4												16.0

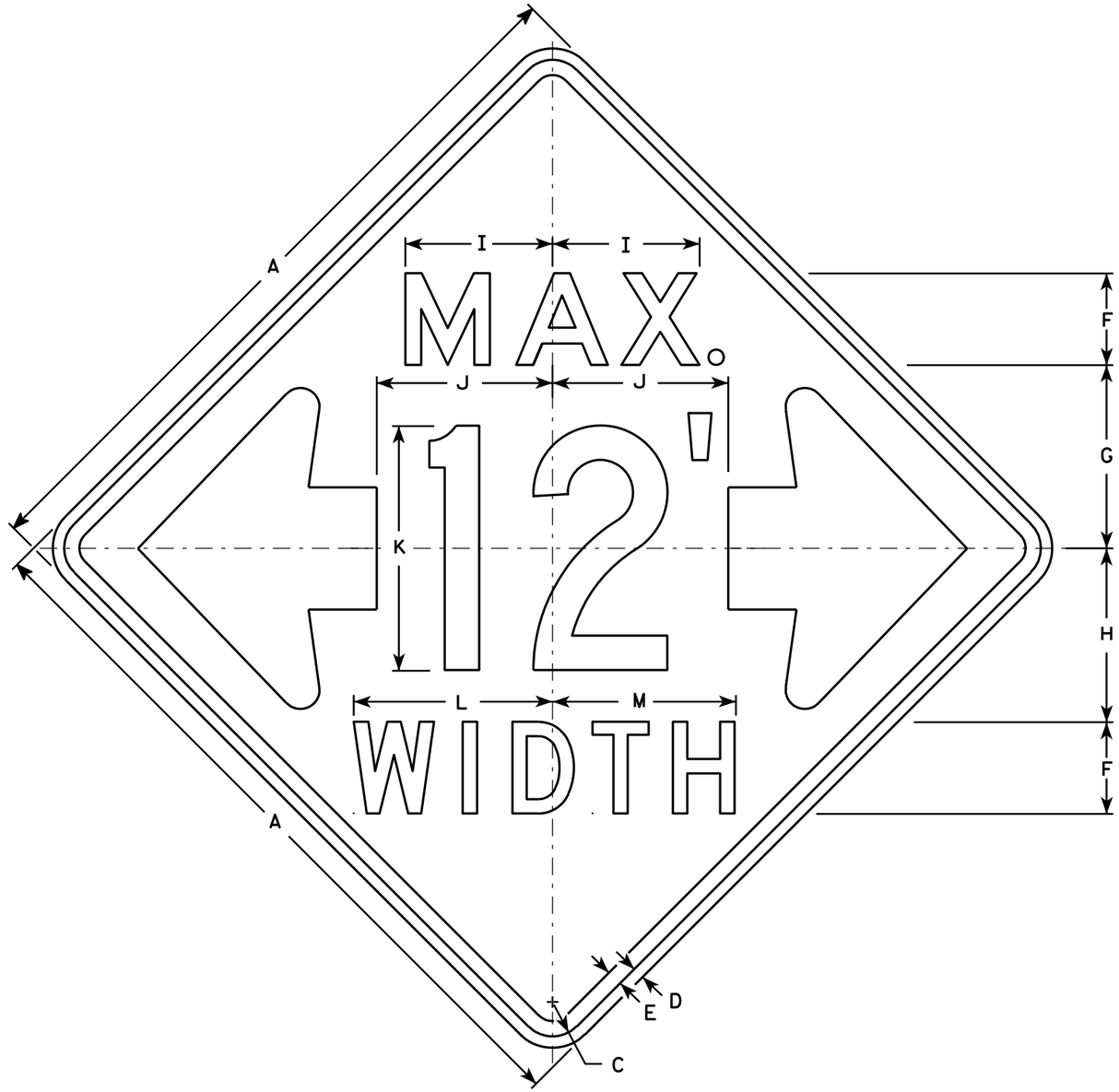
STANDARD SIGN
W12-1D

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/13/13 PLATE NO. W12-1D.15

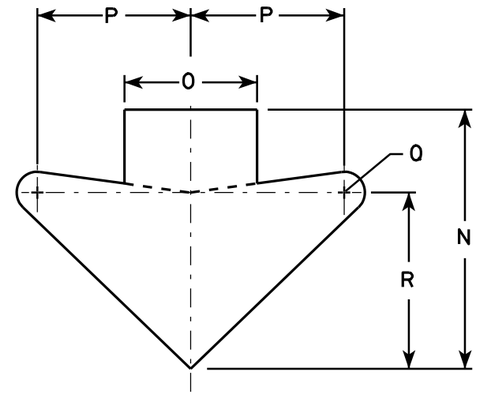
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 369	E



W12-52

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. The top line is series E, the numerals are series C, and the bottom line is series D.
6. Substitute appropriate numerals and adjust spacing as required.



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	48		2 1/4	3/4	1	6	12	11 3/8	9 5/8	11 1/2	16	13	12	15 5/8	8	9 1/4	1 1/4	10 5/8									16.0
2M	48		2 1/4	3/4	1	6	12	11 3/8	9 5/8	11 1/2	16	13	12	15 5/8	8	9 1/4	1 1/4	10 5/8									16.0
3																											
4																											
5																											

STANDARD SIGN
W12-52

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/16/11 PLATE NO. W12-52.7

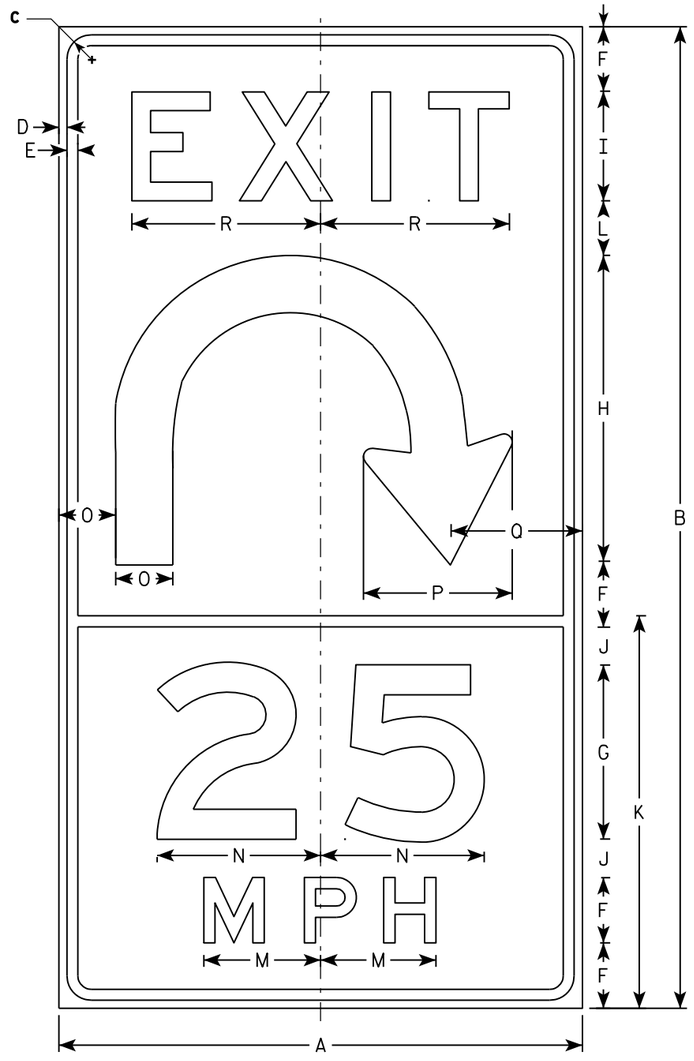
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 370 | E

FILE NAME : C:\Users\PROJECTS\tr_stdplate\W1252.DGN PLOT DATE : 16-MAR-2011 14:45 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 9.137199:1.000000

WISDOT/CADDS SHEET 42

7

7



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	O	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

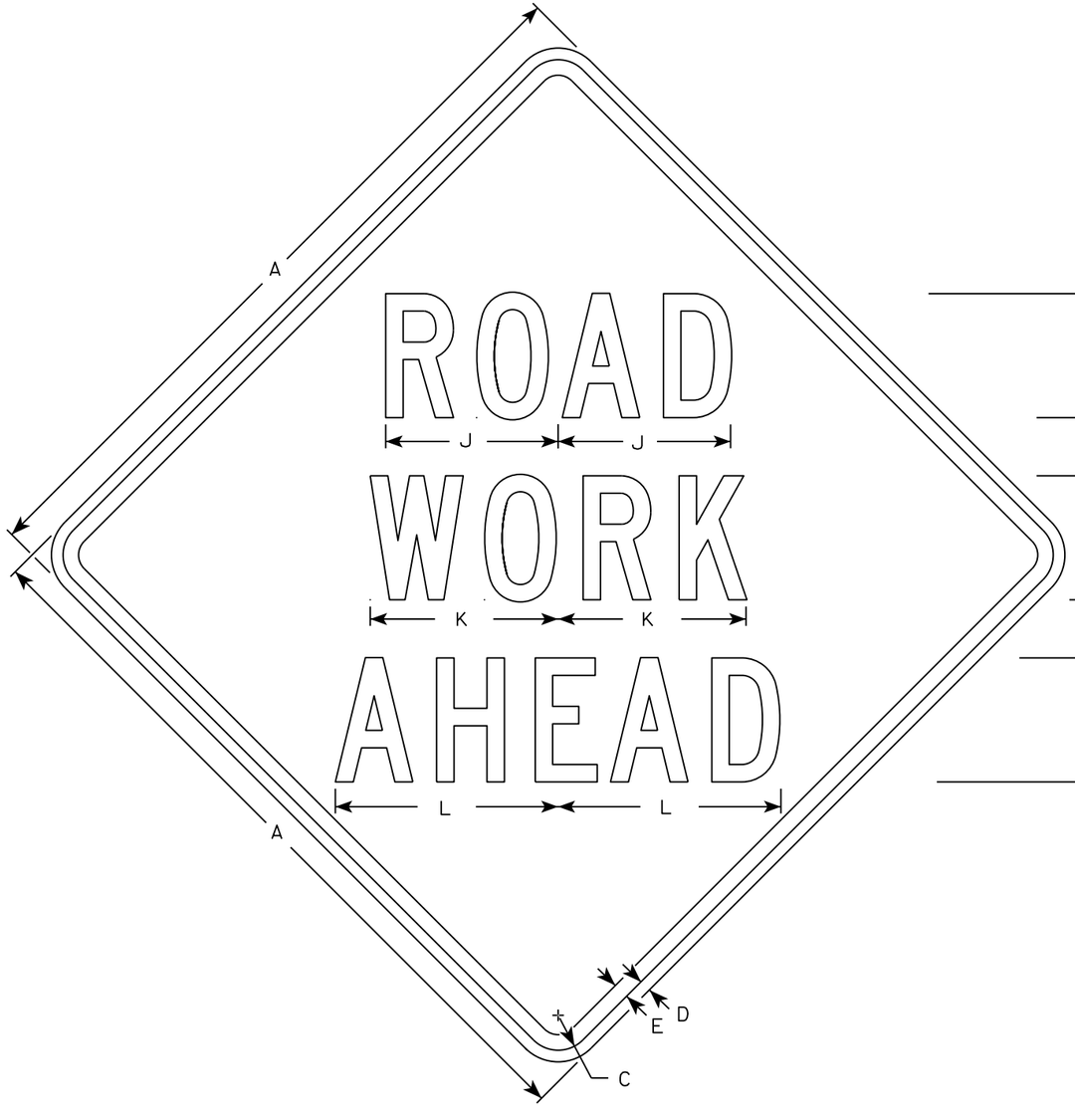
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

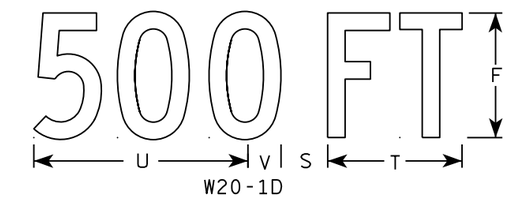
DATE 5/31/12 PLATE NO. W13-2A.3

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 371 | E

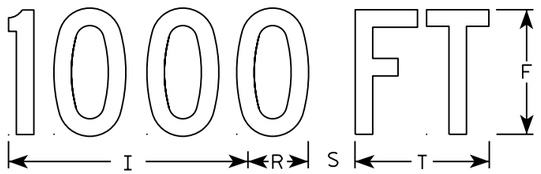
FILE NAME : C:\CAEFiles\Projects\tr_stdplate\W132A.DGN PLOT DATE : 31-MAY-2012 11:45 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 13.893311:1.000000



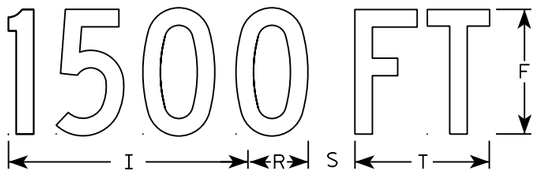
W20-1A



W20-1D



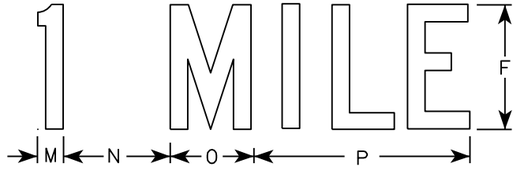
W20-1C



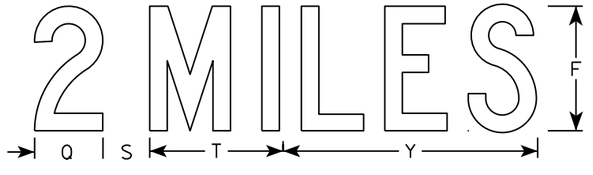
W20-1B



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

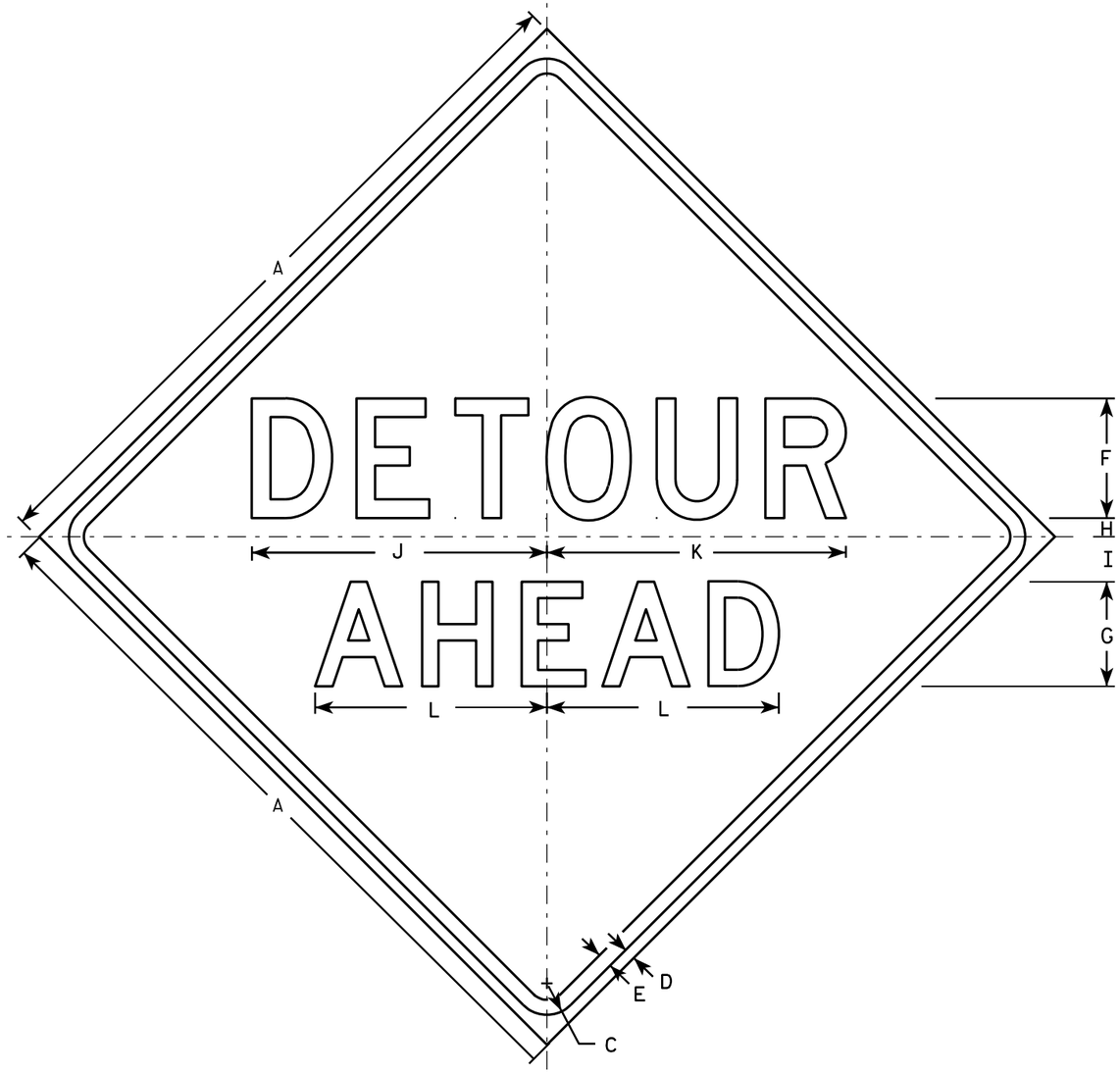
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/07/15 PLATE NO. W20-1.10

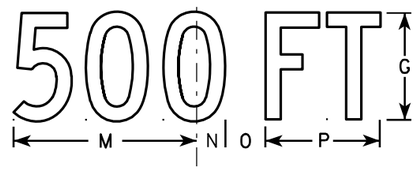
PROJECT NO:

SHEET NO: E

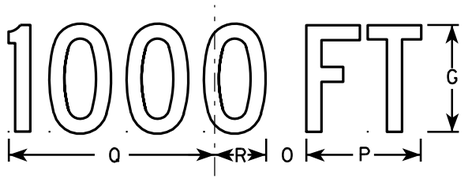
FILE NAME : C:\CAEfiles\Projects\tr_stdplate\W201.DGN PLOT DATE : 01-DEC-2015 18:24 PLOT BY : $$ plotuser $$



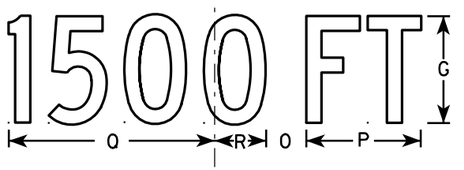
W20-2A



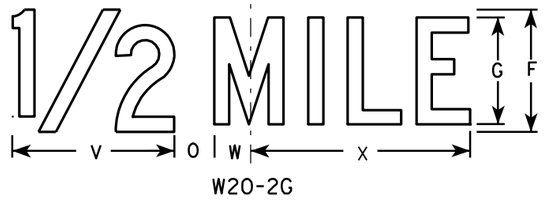
W20-2D



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

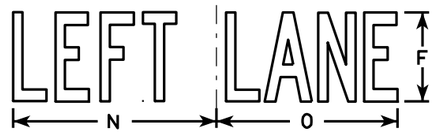
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/18/11 PLATE NO. W20-2.6

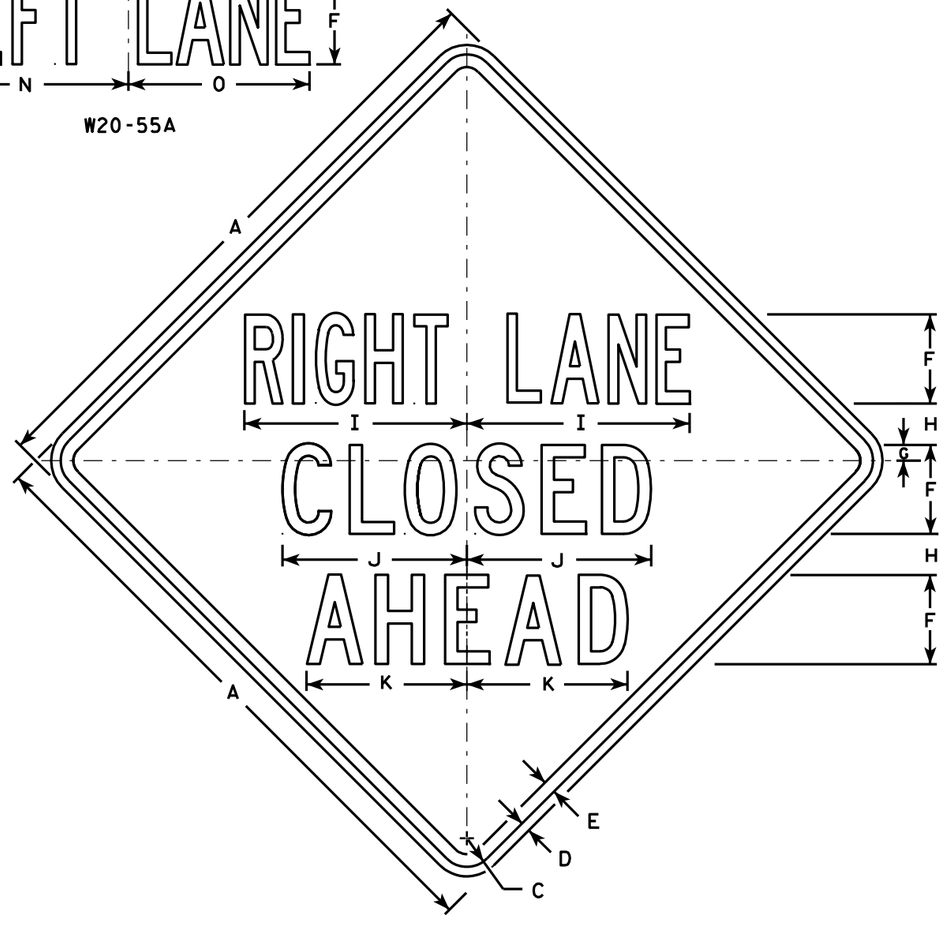
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 373 | E



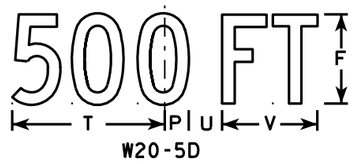
W20-56A



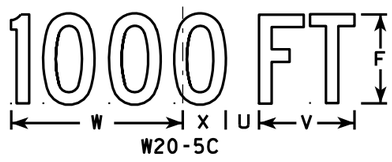
W20-55A



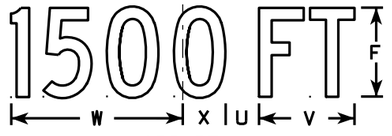
W20-5A



W20-5D



W20-5C



W20-5B



W20-5G



W20-5F

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Message Series - See Note 5
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. " _____ LANE" is Series B.
   All other copy is Series C.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36	6	1 5/8	5/8	3/4	5	1/8	2 1/2	13 1/8	10 3/4	9 1/2	14 1/4	13 5/8	12	12	1 3/8	1 1/8	4 1/2	3 1/2	9	1 1/8	5 5/8	10 1/8	2 1/2	1 3/4	8	9.0
2S	48	8	2 1/4	3/4	1	7	1 1/4	3 1/4	17 1/2	14 3/8	12 5/8	19	18 3/8	16	14 1/4	1 7/8	1 1/2	6	4 5/8	12	2 5/8	7 1/2	13 1/2	3 3/8	2 3/8	10 5/8	16.0
2M	48	8	2 1/4	3/4	1	7	1 1/4	3 1/4	17 1/2	14 3/8	12 5/8	19	18 3/8	16	14 1/4	1 7/8	1 1/2	6	4 5/8	12	2 5/8	7 1/2	13 1/2	3 3/8	2 3/8	10 5/8	16.0
3	48	8	2 1/4	3/4	1	7	1 1/4	3 1/4	17 1/2	14 3/8	12 5/8	19	18 3/8	16	14 1/4	1 7/8	1 1/2	6	4 5/8	12	2 5/8	7 1/2	13 1/2	3 3/8	2 3/8	10 5/8	16.0
4	48	8	2 1/4	3/4	1	7	1 1/4	3 1/4	17 1/2	14 3/8	12 5/8	19	18 3/8	16	14 1/4	1 7/8	1 1/2	6	4 5/8	12	2 5/8	7 1/2	13 1/2	3 3/8	2 3/8	10 5/8	16.0
5	48	8	2 1/4	3/4	1	7	1 1/4	3 1/4	17 1/2	14 3/8	12 5/8	19	18 3/8	16	14 1/4	1 7/8	1 1/2	6	4 5/8	12	2 5/8	7 1/2	13 1/2	3 3/8	2 3/8	10 5/8	16.0

STANDARD SIGN
W20-5A, B, C, D, F & G

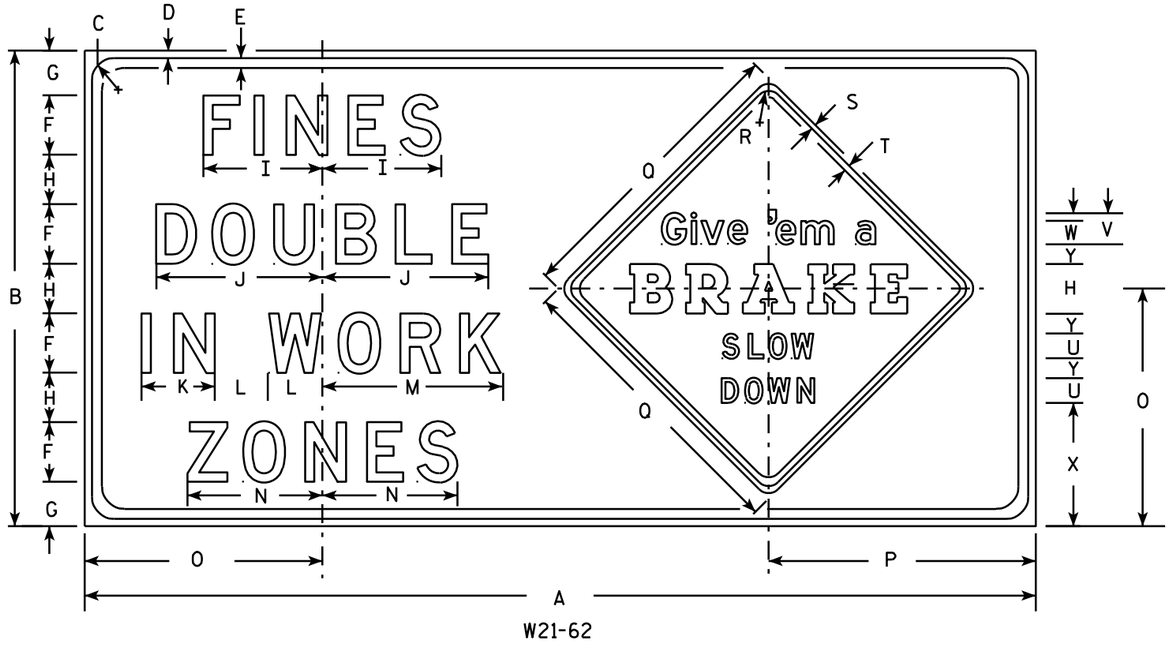
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

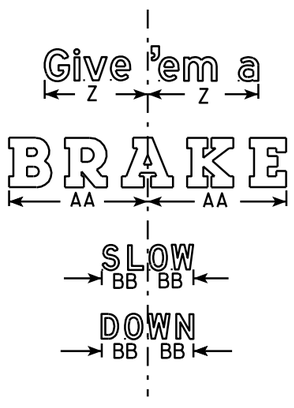
DATE 3/18/11 PLATE NO. W20-5.11

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 374 | E

FILE NAME : C:\Users\PROJECTS\tr_stdplate\W205.DGN PLOT DATE : 18-MAR-2011 12:15 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 11.918087:1.000000
WISDOT/CADDS SHEET 42



W21-62





W21-62P

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White - (See Note 5)
   Message - Black
3. Message Series -
   Fines Double Message - All lines are Series D
   Give 'em a Brake -
   Line one is Series E, line two is a Special Graphic Series and lines three and four are Series D.
4. The base material shall be plywood. Corners may be square or rounded, but borders shall be rounded as shown. The base material for Give 'em a Brake sign can be a seperate sheet of aluminum with the corners and borders rounded as shown. This seperate panel shall then be attached to the plywood with aluminum or stainless steel sheet metal screws.
5. Background for the Give 'em a Brake sign shall be Type F reflective orange.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA	BB	CC	DD	Area sq. ft.
1																															
2S																															
2M																															
3	96	48	2 1/4	3/4	1	6	4 1/2	5	12	16 3/4	7 3/8	5 1/2	18 1/4	13 5/8	24	27	30	1 3/8	1/2	5/8	2 1/2	3 1/8	2 3/8	12 1/2	2	10 3/4	14	4 5/8	34 1/2	4	32.0
4																															
5																															

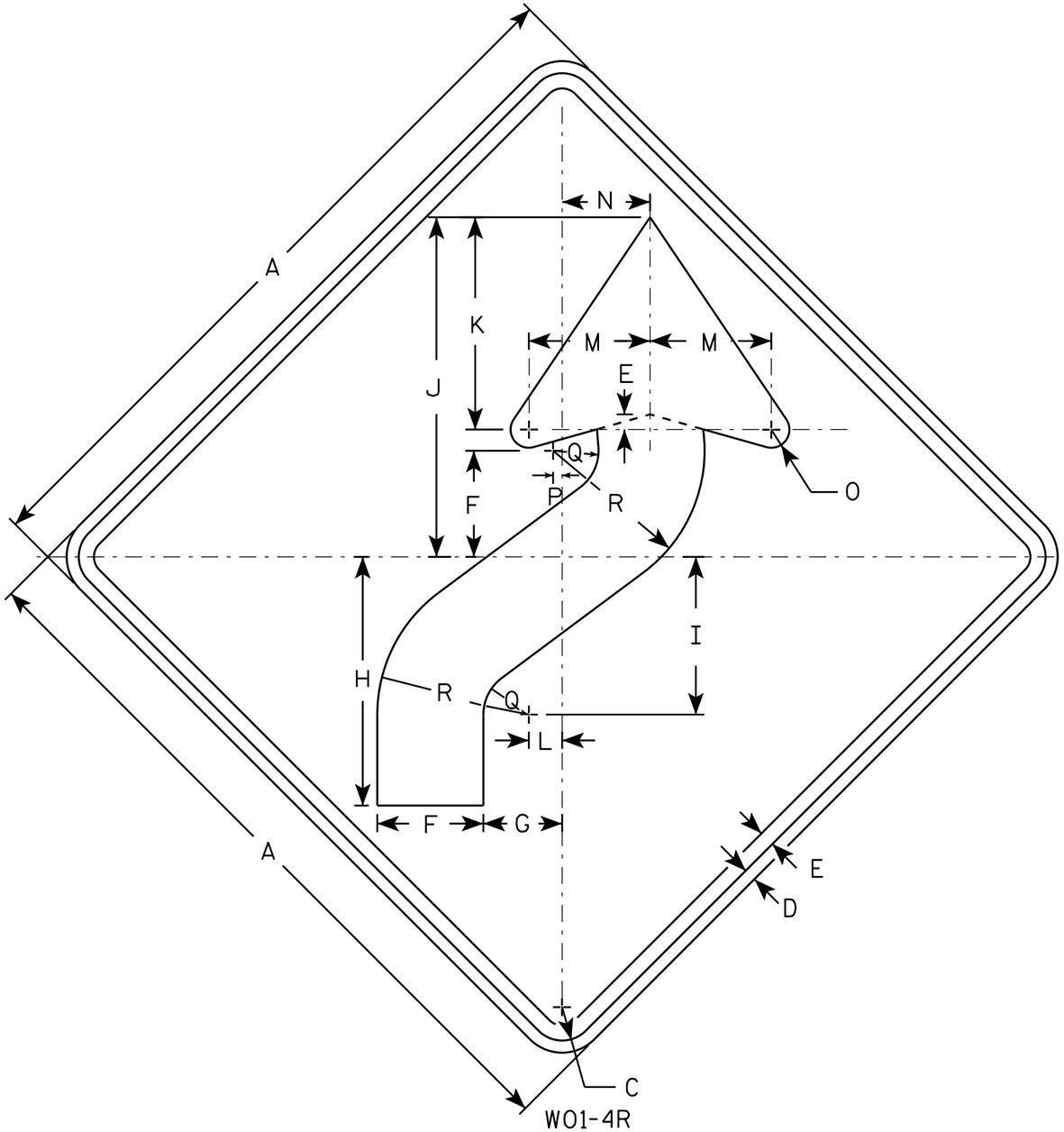
STANDARD SIGN
W21-62

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/21/11 PLATE NO. W21-62.5

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 375	E



W01-4R

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. W01-4L is the same as W01-4R except the arrow is reversed along the vertical centerline.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 5/8	5/8	3/4	5 1/4	4	12 3/8	7 7/8	16 7/8	10 1/2	1 5/8	6	4 1/2	1	1/2	2 1/4	7 1/2									9.0
2S	48		2 1/4	3/4	1	7	5 1/4	16 1/2	10 1/2	22 1/2	14	2 1/4	8	6	1 1/4	5/8	3	10									16.0
2M	48		2 1/4	3/4	1	7	5 1/4	16 1/2	10 1/2	22 1/2	14	2 1/4	8	6	1 1/4	5/8	3	10									16.0
3	48		2 1/4	3/4	1	7	5 1/4	16 1/2	10 1/2	22 1/2	14	2 1/4	8	6	1 1/4	5/8	3	10									16.0
4	48		2 1/4	3/4	1	7	5 1/4	16 1/2	10 1/2	22 1/2	14	2 1/4	8	6	1 1/4	5/8	3	10									16.0
5	48		2 1/4	3/4	1	7	5 1/4	16 1/2	10 1/2	22 1/2	14	2 1/4	8	6	1 1/4	5/8	3	10									16.0

STANDARD SIGN
W01-4

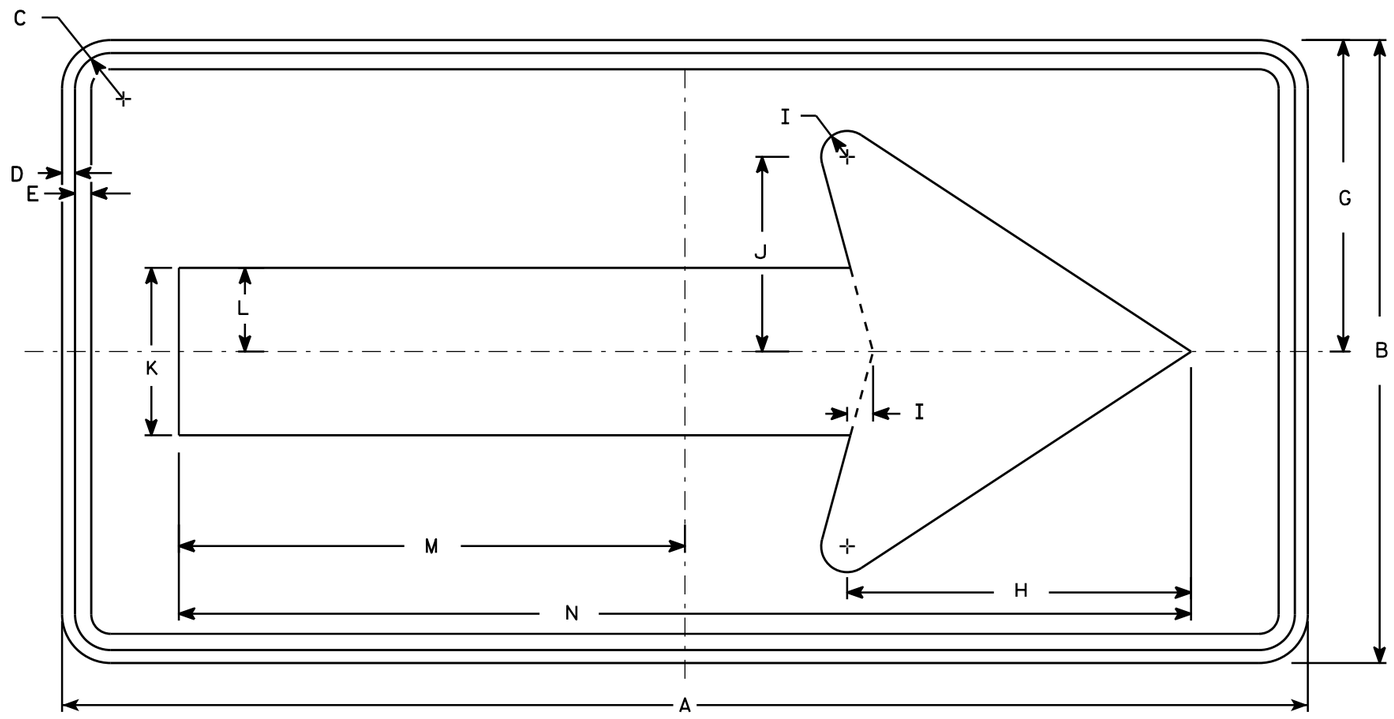
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/18/13 PLATE NO W01-4.1

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\W014.DGN PLOT DATE : 28-FEB-2014 11:35 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 6.755110:1.000000 WISDOT/CADDS SHEET 42



W01-6

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	48	24	1 3/8	1/2	5/8		12	13 1/4	1	7 1/2	6 1/2	3 1/4	19 1/2	39													8.0
2M	48	24	1 3/8	1/2	5/8		12	13 1/4	1	7 1/2	6 1/2	3 1/4	19 1/2	39													8.0
3	60	30	1 3/8	1/2	5/8		15	16 1/4	1 1/4	9 1/4	8	4	24 3/8	48 3/4													12.5
4	60	30	1 3/8	1/2	5/8		15	16 1/4	1 1/4	9 1/4	8	4	24 3/8	48 3/4													12.5
5	60	30	1 3/8	1/2	5/8		15	16 1/4	1 1/4	9 1/4	8	4	24 3/8	48 3/4													12.5

STANDARD SIGN
W01-6

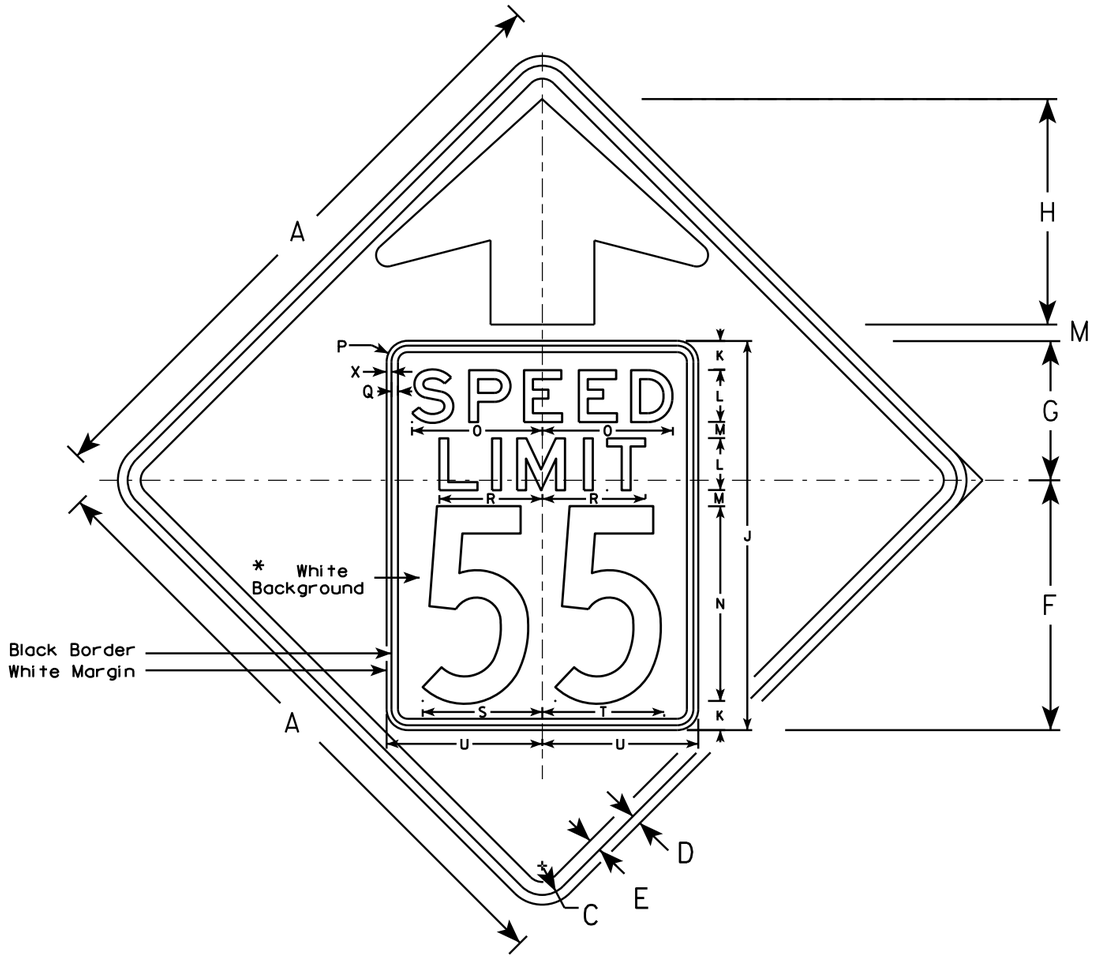
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/18/13 PLATE NO. W01-6.1

PROJECT NO: | HWY: | COUNTY: | SHEET NO: E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\W016.DGN PLOT DATE : 28-FEB-2014 11:37 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 5.837526:1.000000 WISDOT/CADDS SHEET 42

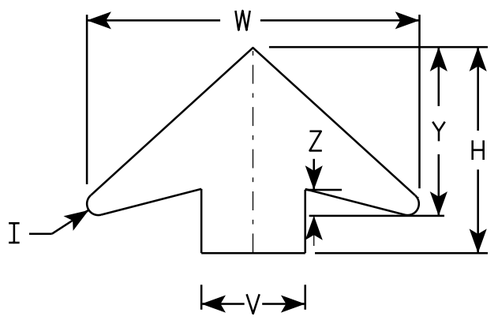


W03-5

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

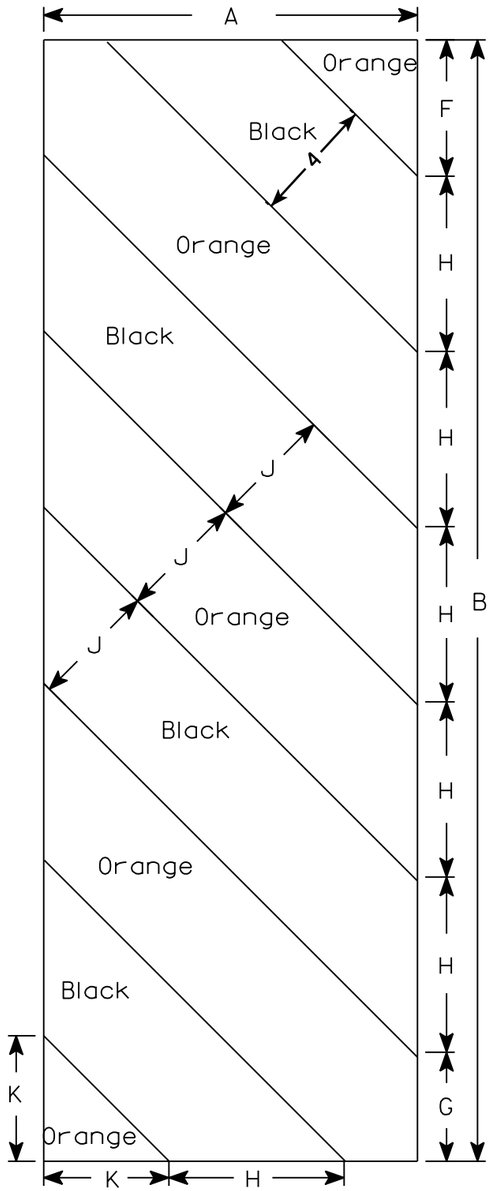
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/20/13 PLATE W03-5.1

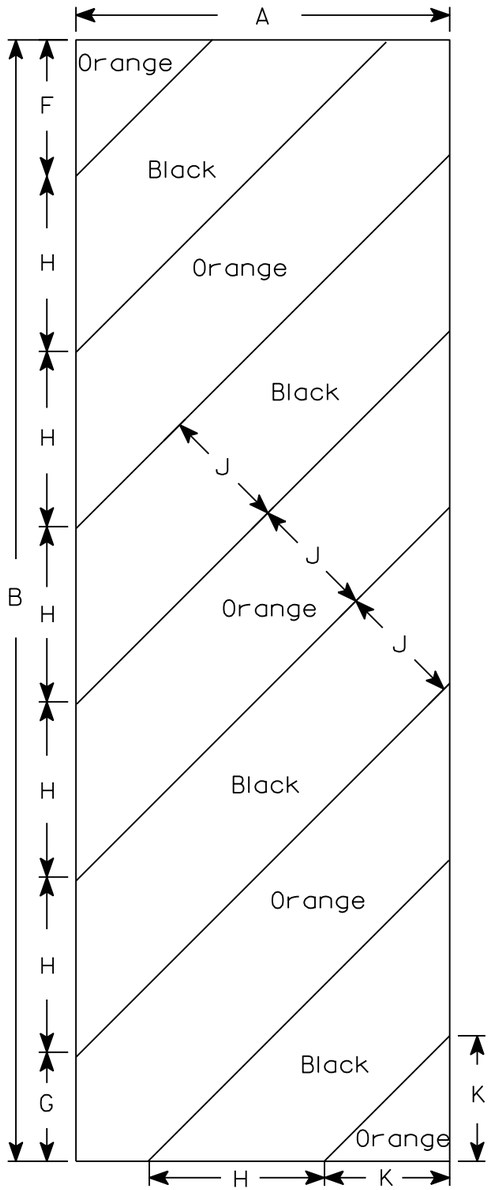
PROJECT NO: SHEET NO: E

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\W035.DGN PLOT DATE : 20-NOV-2013 11:32 PLOT BY : mscsja

WISDOT/CADDS SHEET 42



W05-52L



W05-52R

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. Alternate colors of stripes as shown.

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	12	36				4 3/8	3 1/2	5 5/8	45°	4	4																3.0
2M	12	36				4 3/8	3 1/2	5 5/8	45°	4	4																3.0
3	18	54				6	5 1/2	8 1/2	45°	6	6 9/16																6.75
4																											
5																											

STANDARD SIGN

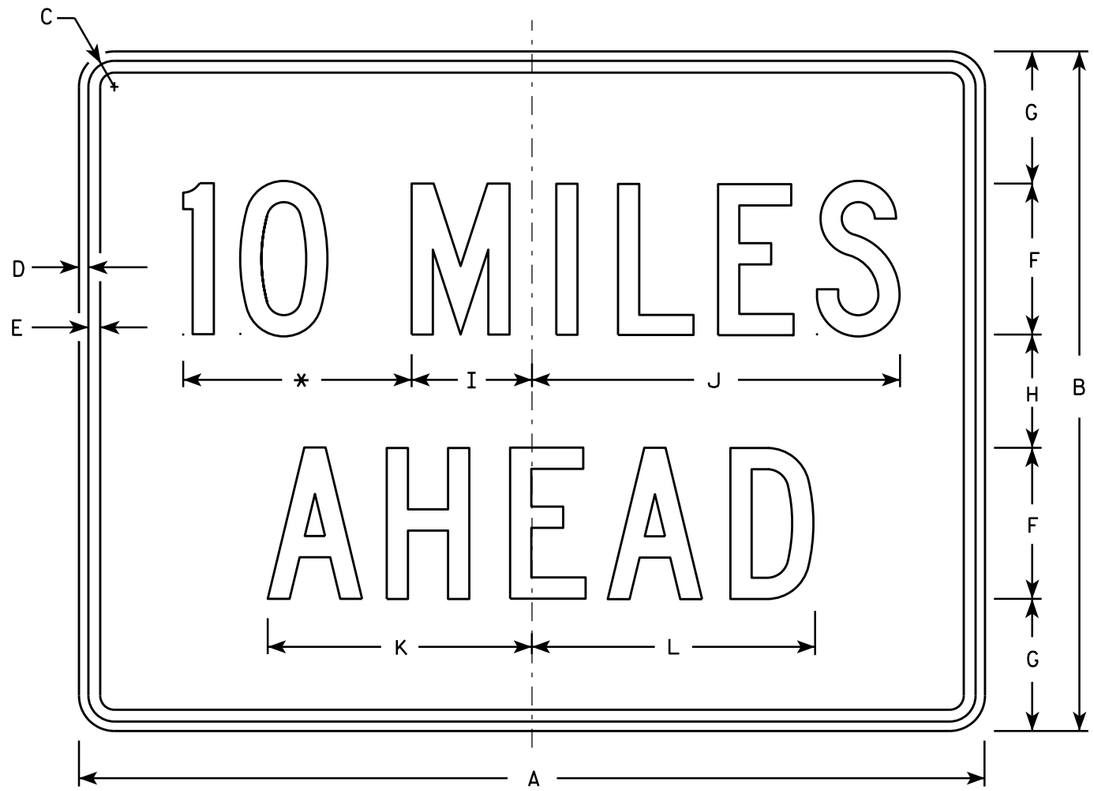
W05-52L & W05-52R

WISCONSIN DEPT OF TRANSPORTATION

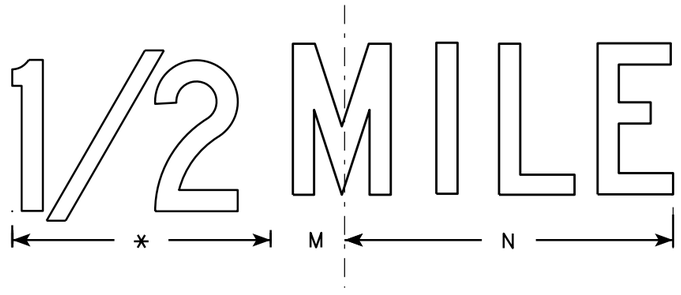
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/20/13 PLATE W05-52.1

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E



W057-52



NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Substitute appropriate numerals and optically adjust spacing to achieve proper balance.

* See note 5

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36	24	1 1/8	3/8	1/2	6	4 1/2	3	4 3/4	14 5/8	10 5/8	11 3/8	2	13													6.0
2S	48	36	1 3/8	1/2	5/8	8	7	6	6 3/8	19 1/2	14	15	2 3/4	17 3/8													12.0
2M	48	36	1 3/8	1/2	5/8	8	7	6	6 3/8	19 1/2	14	15	2 3/4	17 3/8													12.0
3	48	36	1 3/8	1/2	5/8	8	7	6	6 3/8	19 1/2	14	15	2 3/4	17 3/8													12.0
4	48	36	1 3/8	1/2	5/8	8	7	6	6 3/8	19 1/2	14	15	2 3/4	17 3/8													12.0
5	48	36	1 3/8	1/2	5/8	8	7	6	6 3/8	19 1/2	14	15	2 3/4	17 3/8													12.0

STANDARD SIGN
W057-52

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

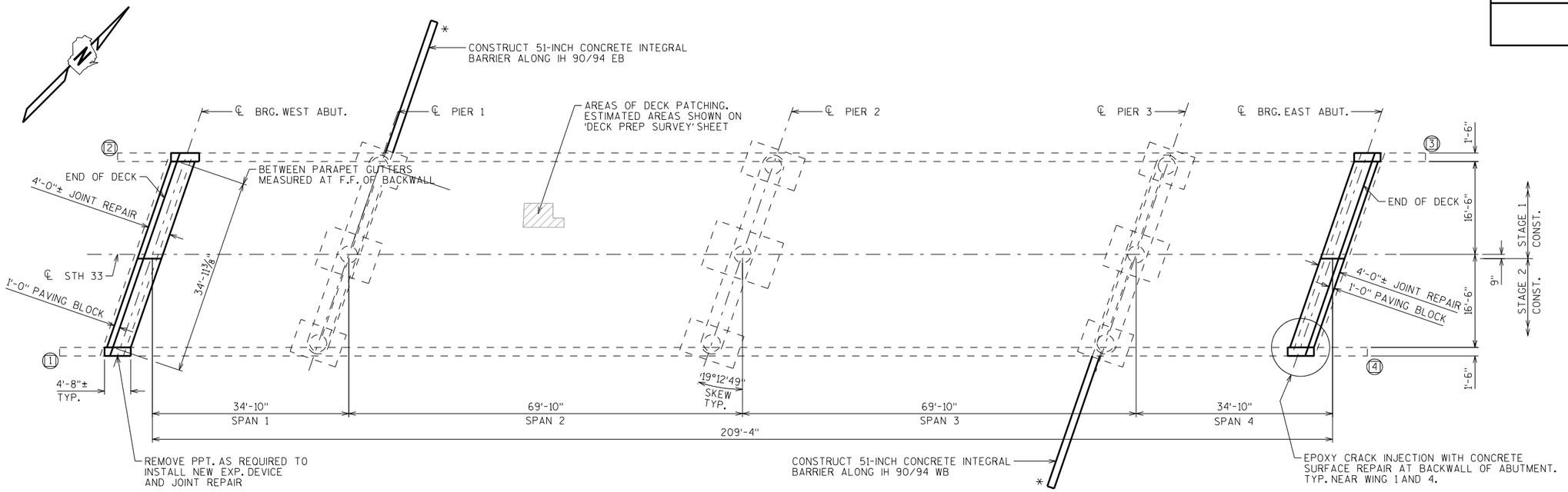
DATE 11/20/13 PLATE W057-52.1

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\W05752.DGN PLOT DATE : 28-FEB-2014 11:42 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 8.026599:1.000000 WISDOT/CADDS SHEET 42

STATE PROJECT NUMBER

1010-02-84



DESIGN DATA

LIVE LOAD:
DESIGN LOAD RATING: HS20 (TAKEN FROM HSI, 12/15/2014)
INVENTORY LOAD RATING: HS25 (TAKEN FROM HSI, 12/15/2014)
OPERATIONAL LOAD RATING: HS42 (TAKEN FROM HSI, 12/15/2014)
WISCONSIN STANDARD PERMIT VEHICLE: 250 KIPS. (TAKEN FROM HSI, 12/15/2014)

MATERIAL PROPERIES:
CONCRETE MASONRY ---------- $f'c$ = 4,000 P.S.I.
BAR STEEL REINFORCEMENT, GRADE 60 ----- f_y = 60,000 P.S.I.

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

DIMENSIONS SHOWN ARE BASED ON THE ORIGINAL STRUCTURE PLANS, INSPECTION REPORTS, AND FIELD SURVEY.

DECK PREPARATION/PATCHING AREAS SHALL BE DETERMINED BY THE FIELD ENGINEER. DECK PREP SURVEY IS INCLUDED FOR INFORMATION ONLY.

ALL CONCRETE REMOVAL TO BE DEFINED BY A ½" SAW CUT.

EXACT LOCATION AND LIMITS OF CONCRETE REMOVAL, CONCRETE SURFACE REPAIR, AND CLEANING CONCRETE GIRDER ENDS TO BE DETERMINED BY THE ENGINEER.

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

APPLY BRIDGE SEAT PROTECTION, AS PER SECTION 502.3.12 OF THE STANDARD SPECIFICATIONS, TO THE TOP SURFACES OF BOTH ABUTMENTS BELOW EXPANSION DEVICES. POWER WASH AND ADEQUATELY DRY THE SURFACE. WORK TO BE INCIDENTAL TO JOINT REPAIR.

THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE.

PROTECTIVE SURFACE TREATMENT TO BE APPLIED TO THE TOP OF THE DECK IN THE JOINT REPAIR AREAS.

PIGMENTED SURFACE SEALER TO BE APPLIED TO THE FRONT FACE AND TOP OF PARAPET SURFACES IN THE JOINT REPAIR AREAS.

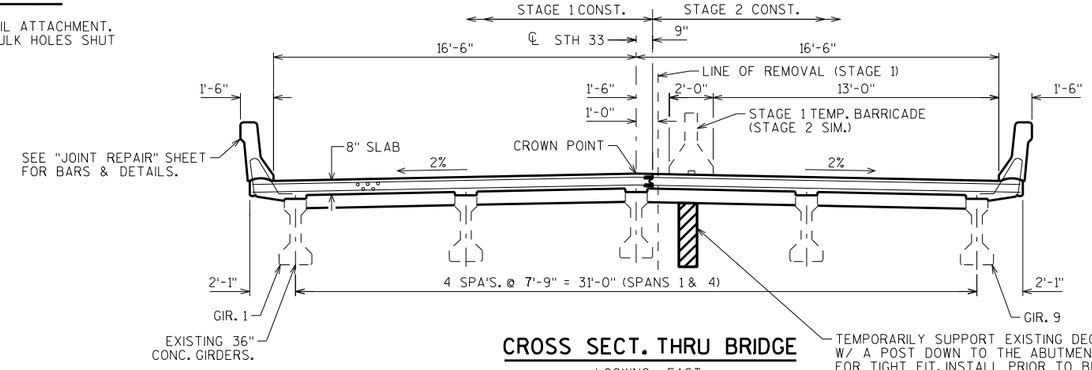
UTILIZE EXISTING BAR STEEL REINFORCEMENT WHERE SHOWN AND EXTEND 24 BAR DIAMETERS INTO NEW WORK, UNLESS SPECIFIED OTHERWISE.

IF EXISTING BAR STEEL REINFORCEMENT IS SEVERELY CORRODED OR DAMAGED DURING CONCRETE REMOVAL, REPLACE WITH EPOXY ANCHORED BARS OF THE SAME SIZE AT THE DIRECTION OF THE ENGINEER. EMBED 1'-6" INTO EXISTING CONCRETE.

GENERAL REPAIR PLAN

* PROVIDE FOR THRIE BEAM GUARD RAIL ATTACHMENT. AT UNUSED ANCHOR ASSEMBLIES CAULK HOLES SHUT WITH "100% SILICONE CAULK."

⓪ INDICATES WING NUMBER



CROSS SECT. THRU BRIDGE

LOOKING EAST

TOTAL ESTIMATED QUANTITIES

BID ITEM NUMBER	BID ITEMS	UNIT	TOTALS
502.0100	CONCRETE MASONRY BRIDGES	CY	65
502.3100	EXPANSION DEVICE B-11-30	LS	1
502.3200	PROTECTIVE SURFACE TREATMENT	SY	31
502.3210	PIGMENTED SURFACE SEALER	SY	8
502.5005	MASONRY ANCHORS TYPE L NO. 5 BARS	EA	72
502.6110	MASONRY ANCHORS TYPE S 3/4-INCH	EA	60
505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB	9,120
505.0905	BAR COUPLERS NO.5	EACH	12
509.1000	JOINT REPAIR	SY	31
◐ 509.1500	CONCRETE SURFACE REPAIR	SF	375
509.9020.S	EPOXY CRACK SEALING	LF	8
604.9015.S	RESEAL CRUSHED AGGREGATE SLOPE PAVING	SY	290
614.0150	ANCHOR ASSEMBLIES FOR STEEL PLATE BEAM GUARD	EA	2
SPV.0090	CLEANING CONCRETE GIRDER ENDS	LF	40
SPV.0180	DECK PATCHING B-11-30	SY	9

◐ REQ'D AT PIERS AND ABUTS. AT DIRECTION OF ENGINEER

LIST OF DRAWINGS

1. GENERAL REPAIR PLAN
2. EXPANSION DEVICE
3. COVER PLATE DETAILS
4. JOINT REPAIR
5. DECK PREP SURVEY
6. 51-INCH CONCRETE INTEGRAL BARRIER
7. 51-INCH CONCRETE BARRIER DETAILS

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 (LS) 5/10/16
CHIEF STRUCTURES DESIGN ENGINEER — DATE

STRUCTURE B-11-30

STH 33 OVER IH 90/94

COUNTY: COLUMBIA — TOWN/~~CITY/VILLAGE~~: CALEDONIA
DESIGN SPEC.: REHABILITATION — N/A
DESIGNED BY: PMM — DESIGN CK'D.: CAD — DRAWN BY: PMM — PLANS CK'D.: CAD

GENERAL REPAIR PLAN

SHEET 1 OF 7

381

I.D. 1010-02-02H

DATE: APR 2016

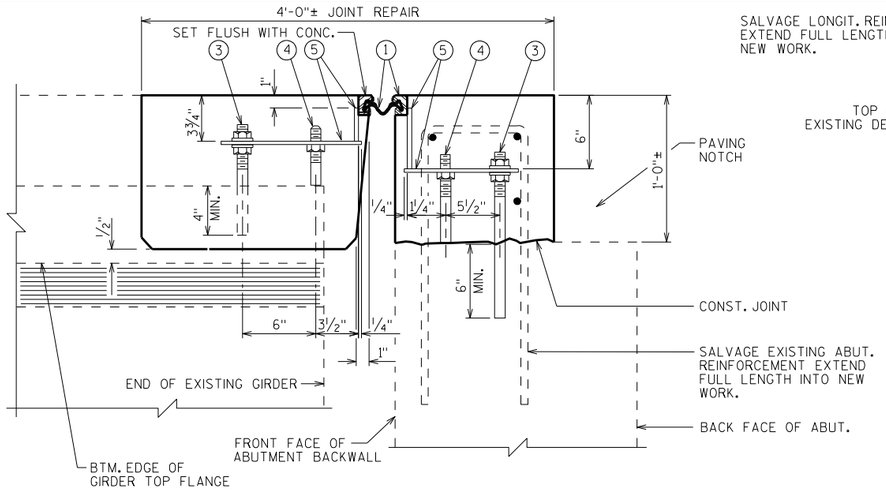
SCALE = 10

8

8

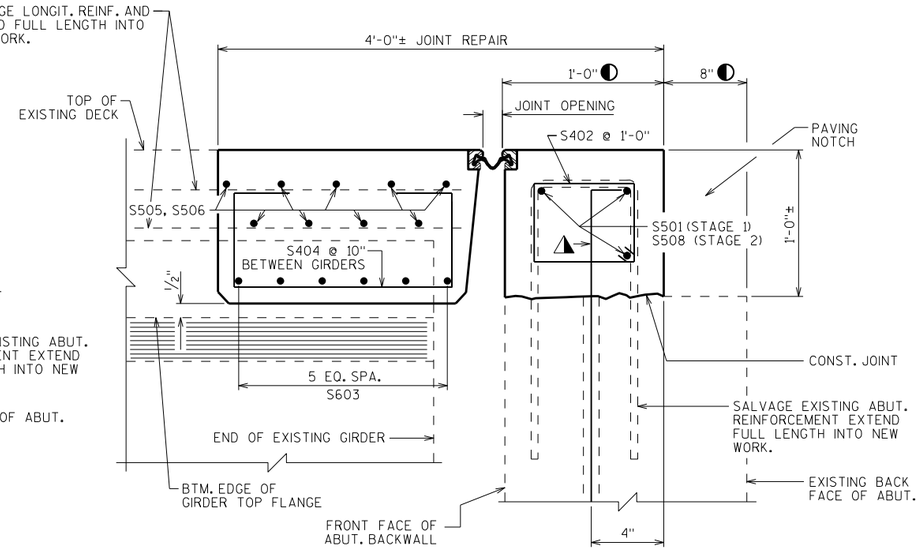
STATE PROJECT NUMBER

1010-02-84



SECTION THRU JOINT AT ABUTMENTS

NORMAL TO ℄ SUBSTRUCTURE

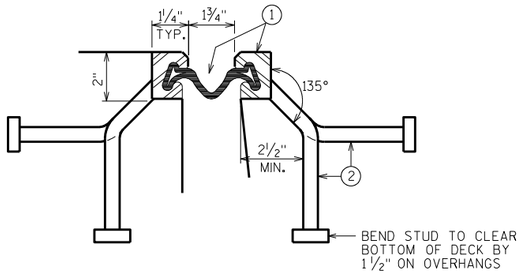


SECTION THRU JOINT AT ABUTMENTS

NORMAL TO ℄ SUBSTRUCTURE
(SHOWING NEW BAR STEEL REINFORCEMENT)

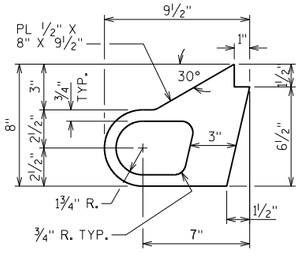
LEGEND

1. NEOPRENE STRIP SEAL (4 - INCH) AND STEEL EXTRUSIONS.
2. STUDS ⅝"Φ X 6⅜" LONG AT 6" ALTERNATE CENTERS. WELD TO EXTRUSIONS AND BEND AS SHOWN AFTER WELDING.
2A. ½" THICK ANCHOR PLATE WITH ⅝"Φ ROD (OR ALTERNATE STRIP SEAL ANCHOR). WELD ROD TO ANCHOR PLATE, WELD ANCHOR PLATE TO NO. 1 AT 1'-6" CENTERS BETWEEN GIRDERS.
3. ¾" Φ THREADED ROD WITH 2 NUTS AND PLATE WASHERS. GROUT THREADED ROD INTO FIELD DRILLED HOLES ON ℄ OF GIRDER. ON ABUTMENT SIDE, GROUT THREADED ROD INTO FIELD DRILLED HOLES IN ABUTMENT BACKWALL AS SHOWN.
4. ¾"Φ THREADED ROD WITH NUT. TACK WELD NUT TO NO. 5.
5. FABRICATE SUPPORT FROM 3" X ½" BAR AS SHOWN OR EQUIVALENT, ONE PER GIRDER PER SIDE. SHOP OR FIELD WELD TO NO. 1. IF FIELD WELDED, COVER WELDED AREAS WITH EPOXY-COATING MATERIAL. PROVIDE 1½" Φ HOLE FOR NO. 3 AND 1" Φ HOLE FOR NO. 4.
6. GALVANIZED PLATE ⅜" X 1'-2" X 2'-0" LONG WITH HOLES FOR NO. 7.
7. ¾"Φ X 1½" STAINLESS STEEL SOCKET FLAT HEAD SCREWS WITH ANTI-SEIZE LUBRICANT. PLACE IN COUNTERSUNK HOLE. RECESS 1/16" BELOW PLATE SURFACE.
8. ¾"Φ X 4" GALVANIZED HEX HEAD BOLT. BEND 45°.
9. ¾"Φ X 2¼" GALVANIZED THREADED COUPLING.
10. 1" X 5" SLOTTED COUNTERSUNK HOLE FOR NO. 7. PLACE SLOT PARALLEL TO DIRECTION OF MOVEMENT.

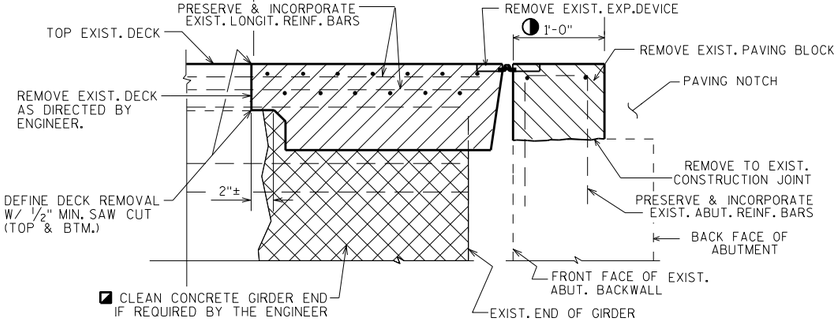


SECTION THRU JOINT

EXTERIOR GIRDER TO EDGE OF DECK AT PARAPETS



ALTERNATE STRIP SEAL ANCHOR

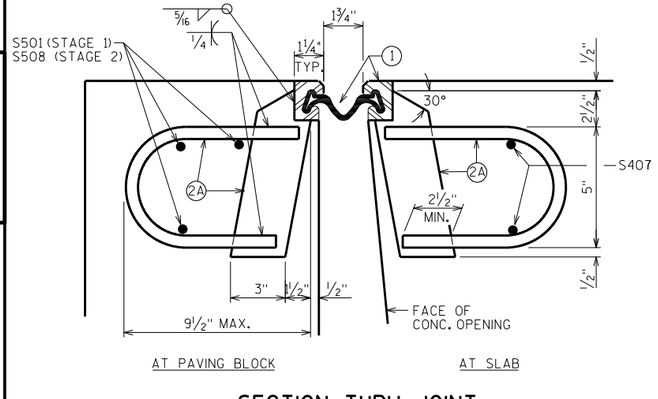


JOINT REMOVAL

TYP. BOTH ABUTMENTS

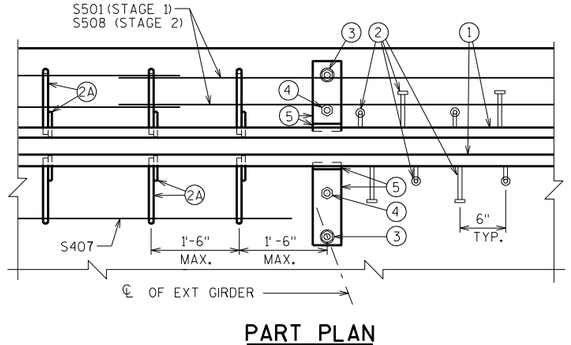
◐ DIMENSION IS TAKEN NORMAL TO ℄ ABUTMENT

◪ PAID FOR UNDER BID ITEM 'CLEANING CONCRETE GIRDER ENDS'



SECTION THRU JOINT

ROADWAY TRAFFIC AREA BETWEEN EXTERIOR GIRDERS.



PART PLAN

NOTES

ONE FIELD SPLICE PERMITTED IN STEEL EXTRUSIONS. ANCHORAGE SHALL BE LOCATED NOT MORE THAN 3 INCHES FROM SPLICE LOCATION. FIELD WELD SHALL BE COATED WITH COLD GALV. DETAILS SHALL BE SUBMITTED FOR APPROVAL. NO SPLICING PERMITTED IN NEOPRENE STRIP SEAL.

AFTER FABRICATION, BUT BEFORE SHIPMENT, STRAIGHTEN STEEL EXTRUSIONS SUCH THAT THEY SHALL BE FREE FROM WARP, TWIST & SWEEP.

FABRICATOR SHALL PROVIDE MEANS OF KEEPING GALVANIZED EXTRUSIONS CLEAN & SMOOTH DURING SHIPMENT AND PRIOR TO APPLYING LUBRICANT ADHESIVE FOR NEOPRENE GLAND INSTALLATION.

SANDBLAST PLATES & EXTRUSIONS AFTER FABRICATION IN ACCORDANCE WITH SSPC SP. #6 "COMMERCIAL BLAST CLEANING". AFTER BLAST CLEANING THE PLATES & EXTRUSIONS SHALL BE HOT DIPPED GALVANIZED.

ANCHOR SYSTEM #8 & #9 SHALL CONFORM TO ASTM A307 & SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A153 CLASS C & D.

STRIP SEAL EXPANSION JOINT ASSEMBLY, INCLUDING ANCHOR STUDS & HARDWARE WILL BE PAID FOR AT THE LUMP SUM PRICE BID FOR "EXPANSION DEVICE B-11-30".

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-11-30

DRAWN BY PMM | PLANS CK'D. CAD

EXPANSION DEVICE

SHEET 2

382

JT400SS 3-08

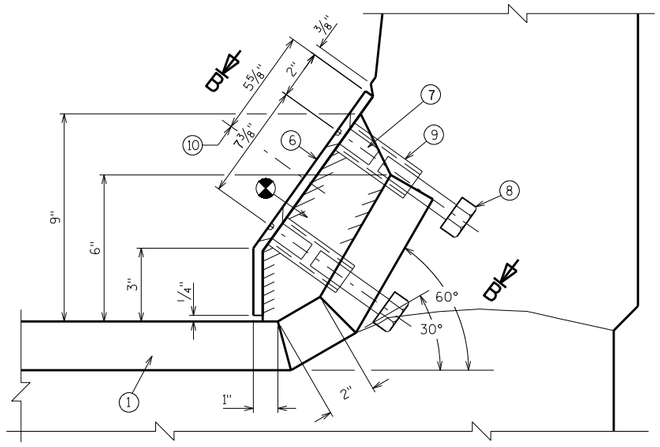
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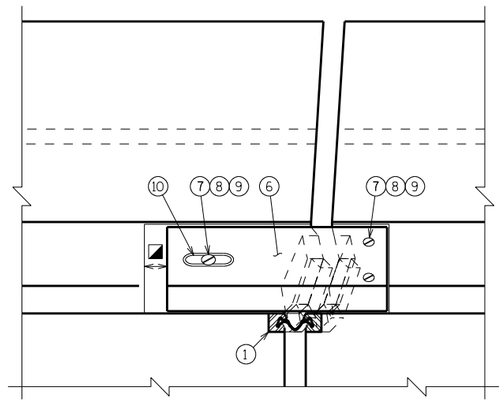
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STATE PROJECT NUMBER

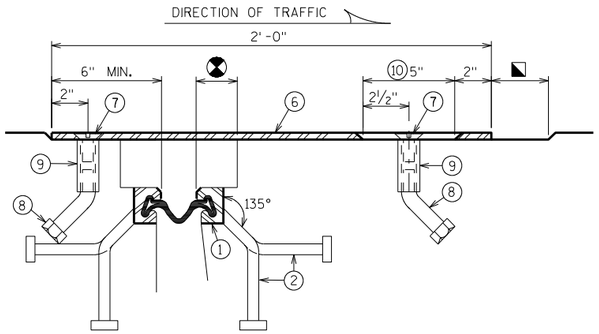
1010-02-84



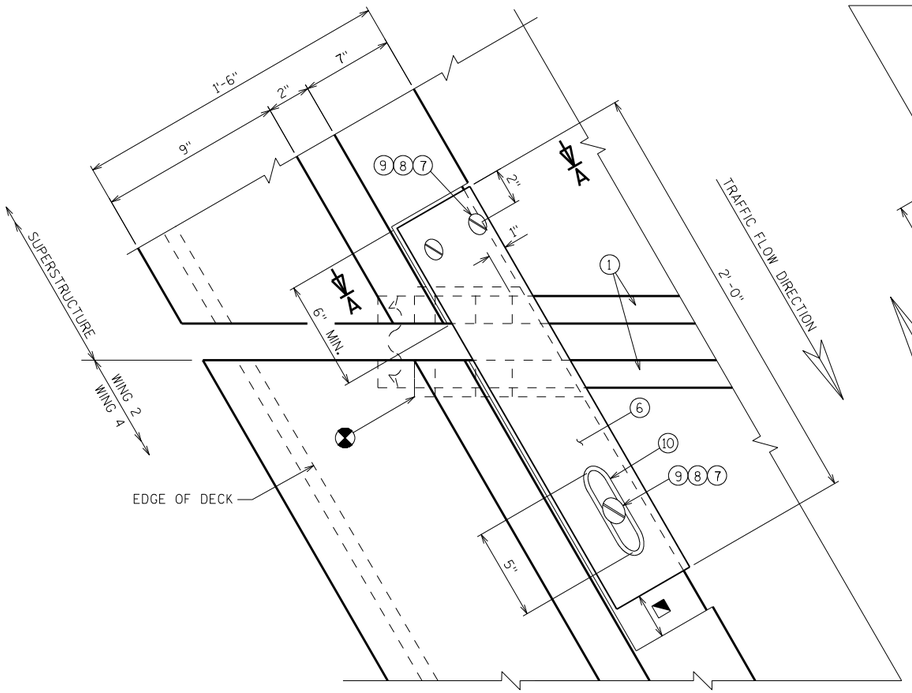
SECTION A-A



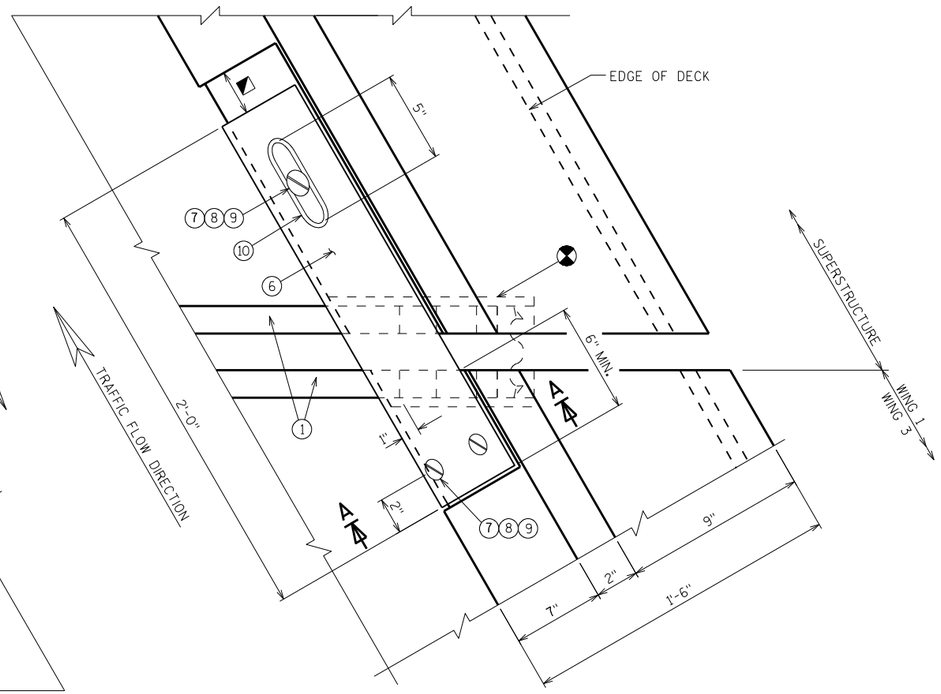
VIEW OF PARAPET PLATE FROM ROADWAY



SECTION B-B



PLAN - WINGS 2 & 4



PLAN - WINGS 1 & 3

BLOCK OUT CONCRETE 2" EACH SIDE OF JOINT OPENING.

JOINT OPENING DIM. ALONG SKEW PLUS 1/2".

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-11-30

DRAWN BY PMM | PLANS CK'D. CAD

COVER PLATE DETAILS

SHEET 3

383

10-08

SCALE =

8

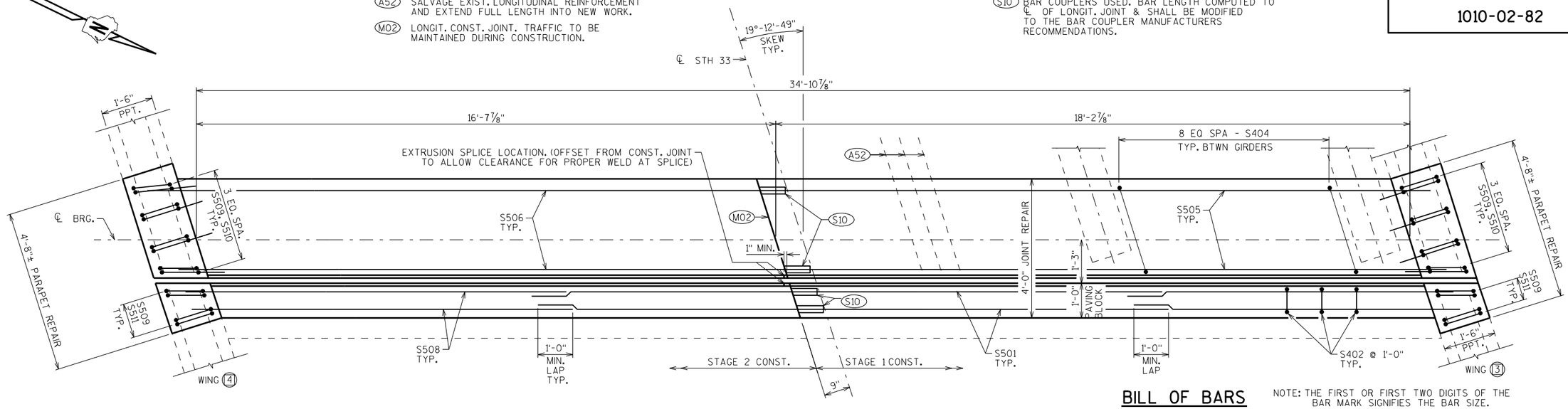
8

STATE PROJECT NUMBER
1010-02-82

(A52) SALVAGE EXIST. LONGITUDINAL REINFORCEMENT AND EXTEND FULL LENGTH INTO NEW WORK.

(M02) LONGIT. CONST. JOINT. TRAFFIC TO BE MAINTAINED DURING CONSTRUCTION.

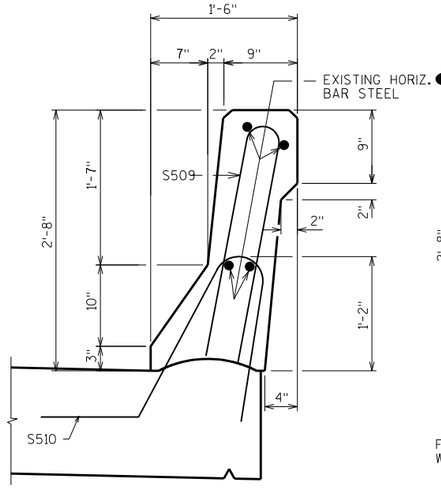
(S10) BAR COUPLERS USED. BAR LENGTH COMPUTED TO ℄ OF LONGIT. JOINT & SHALL BE MODIFIED TO THE BAR COUPLER MANUFACTURERS RECOMMENDATIONS.



PLAN - E. ABUTMENT

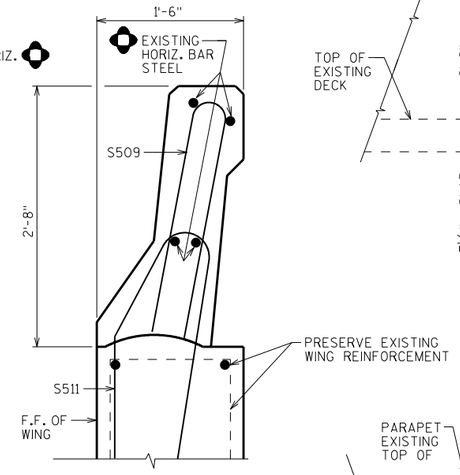
W. ABUTMENT SIMILAR

PRESERVE AND EXTEND FULL LENGTH INTO NEW WORK



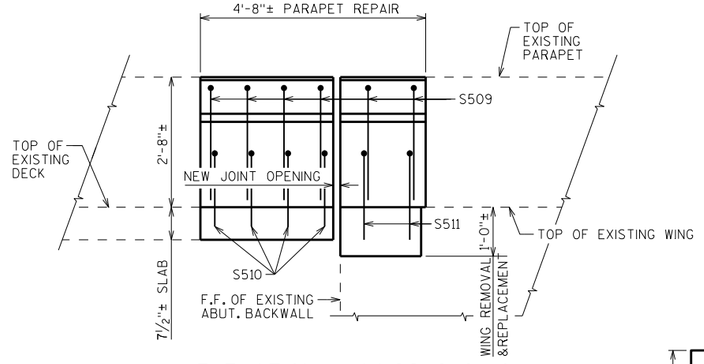
SECTION THRU PARAPET REPLACEMENT AT JOINT REPAIR ON BRIDGE

DIMENSIONS ARE FOR REFERENCE ONLY
MATCH EXISTING PARAPET EDGES



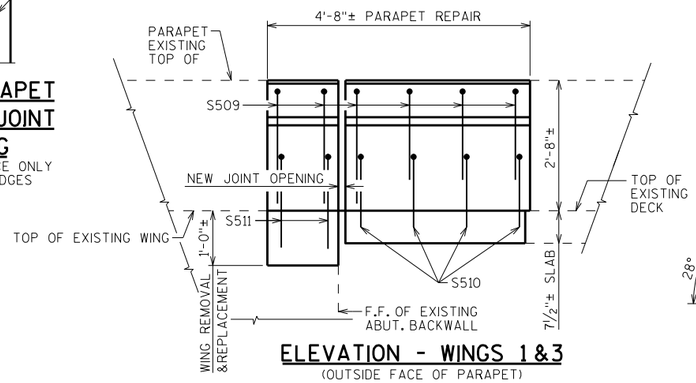
SECTION THRU PARAPET REPLACEMENT AT JOINT REPAIR ON WING

DIMENSIONS ARE FOR REFERENCE ONLY
MATCH EXISTING PARAPET EDGES



ELEVATION - WINGS 2 & 4

(OUTSIDE FACE OF PARAPET)



ELEVATION - WINGS 1&3

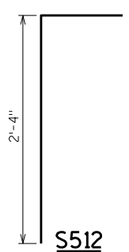
(OUTSIDE FACE OF PARAPET)

BILL OF BARS

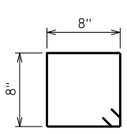
NOTE: THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE.

	BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
(S10)	S501	X	12	10'-4"			PAVING BLOCK - HORIZ. (STAGE 1)
	S402	X	72	3'-2"	X		PAVING BLOCK - STIRRUPS
	S603	X	48	6'-9"			ABUT. DIAPH. - BTM. - HORIZ. - BETWEEN GIRDERS
	S404	X	72	5'-2"	X		ABUT. DIAPH. - VERT. - BETWEEN GIRDERS
(S10)	S505	X	18	19'-3"			SLAB - TRANSVERSE - HORIZ. (STAGE 1)
(S10)	S506	X	18	17'-7"			SLAB - TRANSVERSE - HORIZ. (STAGE 2)
	S407	X	16	6'-10"			EXPANSION DEVICE BETWEEN GIRDERS - HORIZ.
(S10)	S508	X	12	9'-7"			PAVING BLOCK - HORIZ. (STAGE 2)
	S509	X	24	4'-10"	X		PARAPET - VERT.
	S510	X	16	4'-3"	X		PARAPET - VERT. - SLAB TO PARAPET
	S511	X	8	4'-7"	X		PARAPET - VERT. - WING TO PARAPET
⚠	S512	X	72	3'-0"	X		BKWALL - VERT. - MASONRY ANCHORS TYPE L NO. 5 BARS

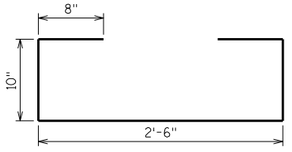
⚠ CONCRETE MASONRY ANCHORS TYPE L NO. 5 BARS - EMBEDDED 1'-6" MIN.



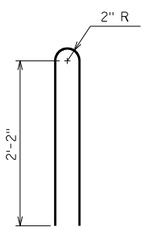
S512



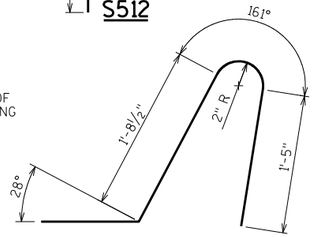
S402



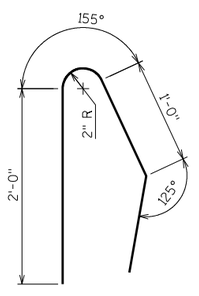
S404



S509



S510



S511

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-11-30

DRAWN BY PMM | PLANS CK'D. CAD

JOINT REPAIR

SHEET 4

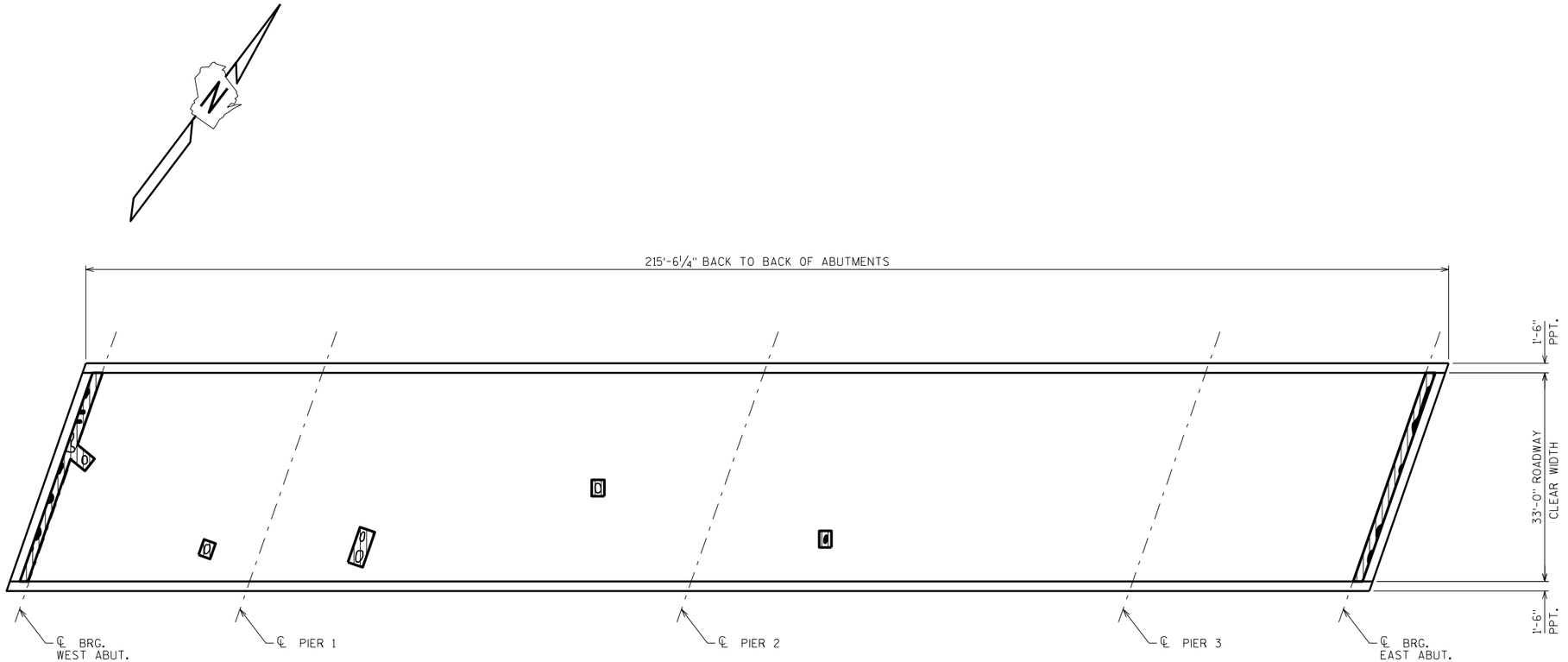
384

SCALE = 1.5

8

8

STATE PROJECT NUMBER
1010-02-84



PLAN

SHOWING APPROXIMATE REHAB AREAS

FIELD OBSERVATIONS SUMMARY		STRUCTURE NO. B-11-30	
ITEM	UNIT	QUANT.	%
TOTAL AREA	SY	784.7	
SHADE/DEBRIS	SY	0	
PREPARATION DECKS TYPE 1	SY	14.7	1.9
PREPARATION DECKS TYPE 2	SY	7.4	0.9
FULL DEPTH DECK REPAIR	SY	1.0	0.1

LEGEND

DECK PREPARATION AREA

SHADE/DEBRIS

DELAMINATION
SPALL
DEBOND
ASPHALT PATCH
CONCRETE PATCH

INFRARED INSPECTION PERFORMED BY AECOM ON 10/22/14 UNDER PROJECT ID 6033-37-48. PROVIDED FOR INFORMATION ONLY.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-11-30

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DECK PREP SURVEY

SHEET 5

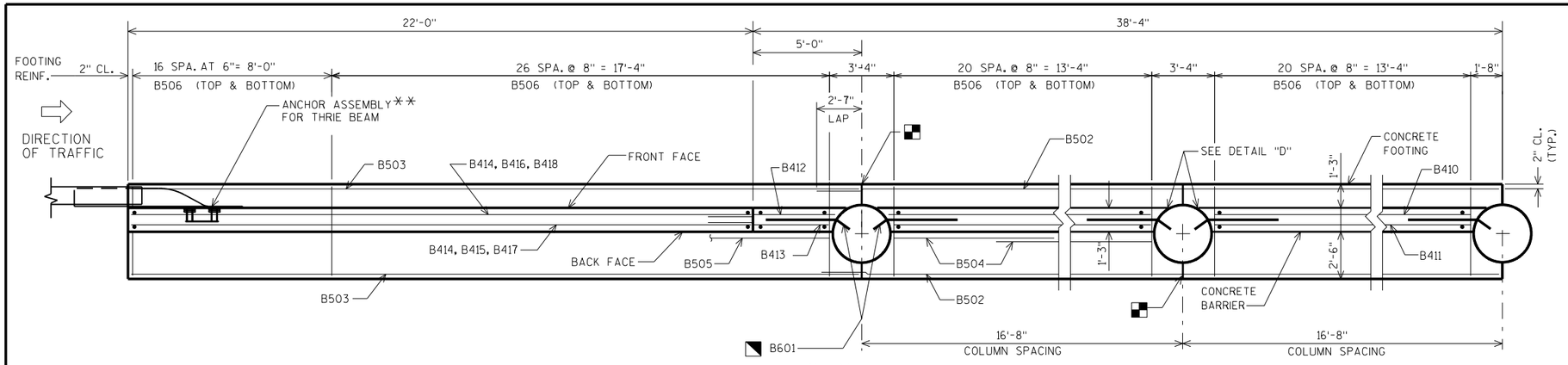
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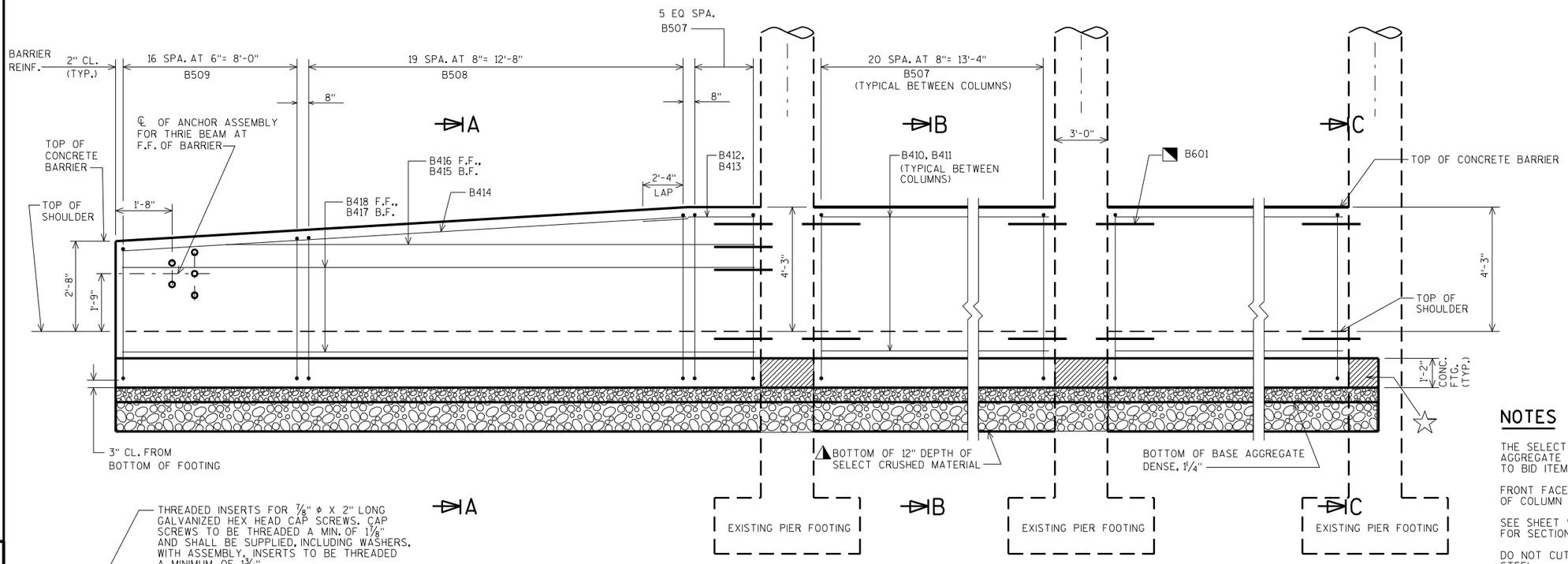
STATE PROJECT NUMBER
1010-02-84



PLAN

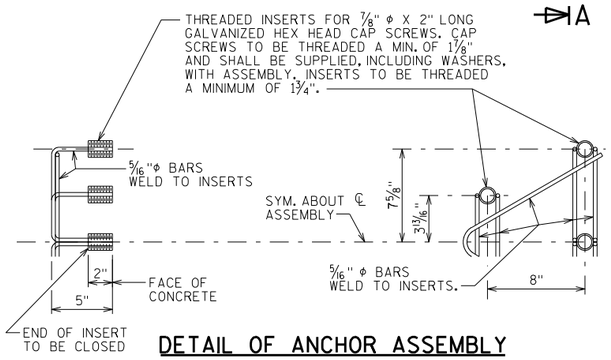
LEGEND

- MASONRY ANCHORS TYPE S 3/4-INCH. EMBED 8" IN CONCRETE.
- OPTIONAL CONSTRUCTION JOINTS IN FOOTINGS PLACED ALONG ℄ OF COLUMN. IF USED, LAP LONGITUDINAL REINFORCEMENT 2'-7" IN ADJACENT POUR.
- PLACE 1/2" 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

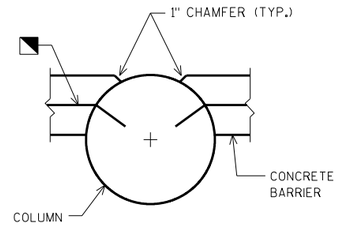
LOOKING AT B.F. OF BARRIER



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

NOTES

THE SELECT CRUSHED MATERIAL AND THE BASE AGGREGATE DENSE SHALL BE CONSIDERED INCIDENTAL TO BID ITEM "CONCRETE MASONRY BRIDGES".

FRONT FACE OF BARRIER IS FLUSH WITH FACE OF COLUMN

SEE SHEET '51-INCH CONCRETE BARRIER DETAILS' FOR SECTIONS A-A, B-B, AND C-C.

DO NOT CUT OR DRILL INTO EXISTING COL. BAR STEEL.

PROVIDE 3/4" BEVEL OR 1" RADIUS ON BARRIER EDGES, TOP, AND ENDS.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-11-30

DRAWN BY PMM | PLANS CK'D. CAD

51-INCH CONCRETE INTEGRAL BARRIER

SHEET 6

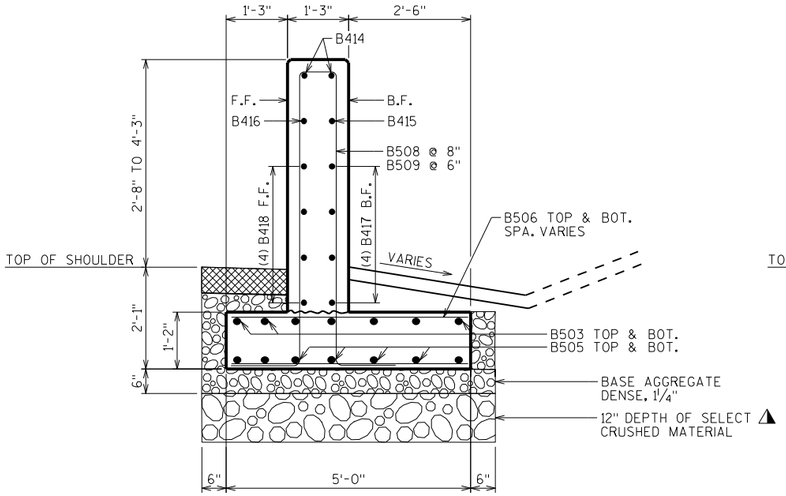
386

51BARRIER

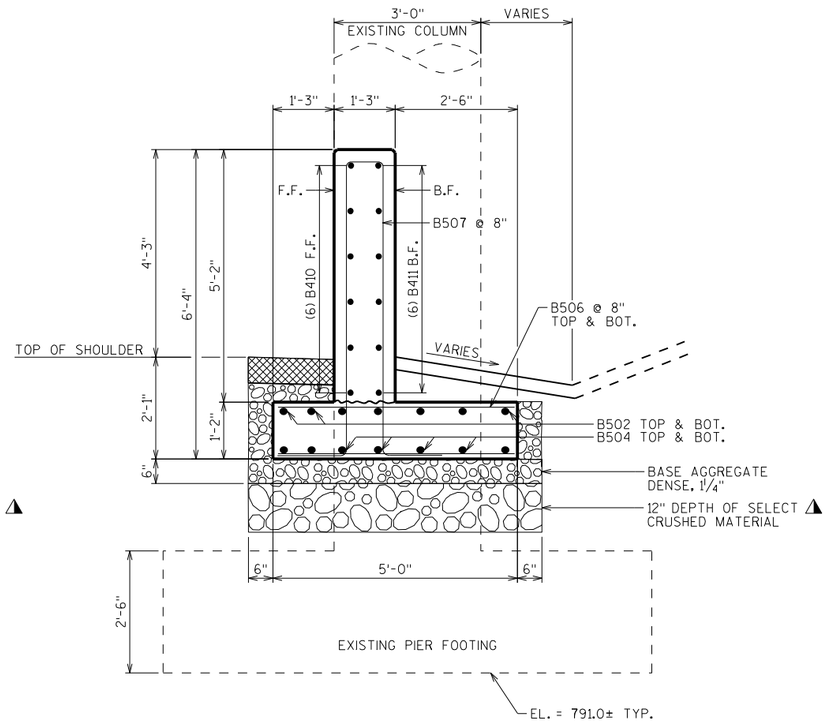
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STATE PROJECT NUMBER

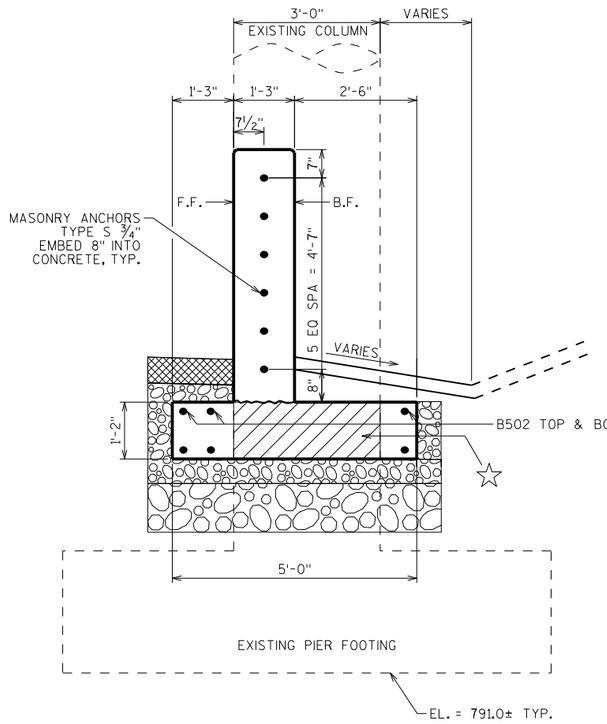
1010-02-84



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.

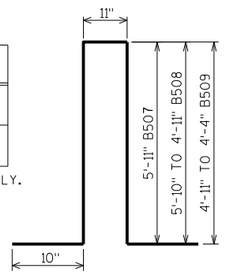
BAR MARK	COAT	NO. REQ'D. PIER 1	NO. REQ'D. PIER 3	LENGTH	BENT	BAR SERIES	LOCATION
B601	X	30	30	3'-2"	X		CONCRETE ANCHORS TYPE S
B502	X	6	6	35'-11"			FOOTING LONGIT. - TOP & BOT.
B503	X	6	6	26'-10"			FOOTING LONGIT. - TOP & BOT.
B504	X	32	32	8'-7"			FTG LONGIT. BTWN. COL. - TOP & BOT.
B505	X	8	8	25'-2"			FTG LONGIT. IN TRANSITION - TOP & BOT.
B506	X	170	170	4'-8"			FOOTING TRANSV.
B507	X	48	48	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	14'-5"			WALL HORIZ.-BTWN. COL.-F.F.
B411	X	12	12	13'-5"			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.

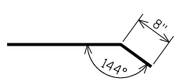
BAR SERIES TABLE

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

THE SELECT CRUSHED MATERIAL AND THE BASE AGGREGATE DENSE SHALL BE CONSIDERED INCIDENTAL TO BID ITEM "CONCRETE MASONRY BRIDGES".

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-11-30

DRAWN BY PMM | PLANS CK'D. CAD

51-INCH CONCRETE BARRIER DETAILS

SHEET 7

387

SCALE = 1.5

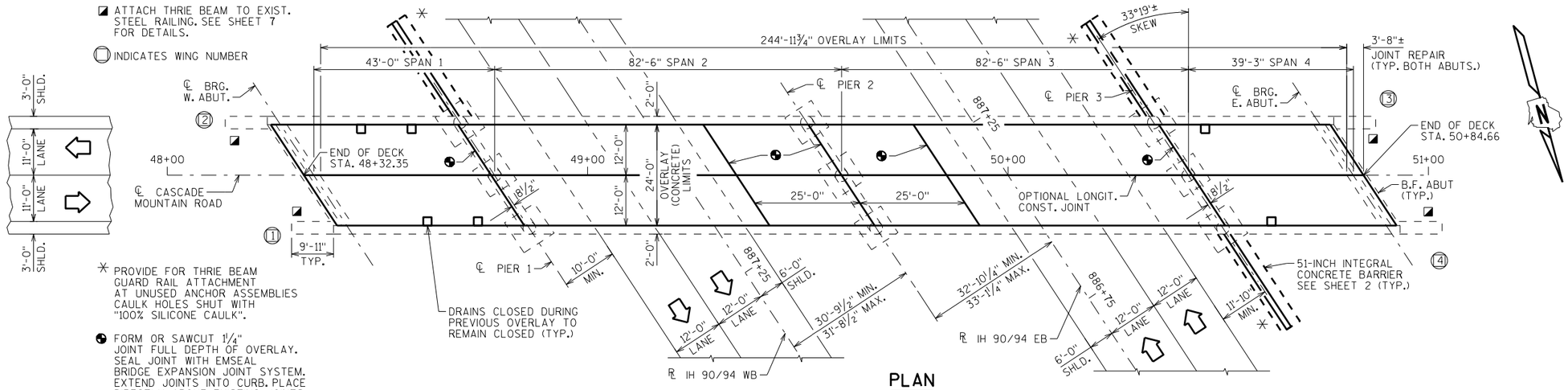
51BARRIER

8

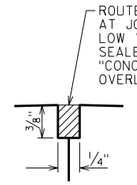
8

STATE PROJECT NUMBER

1010-02-84



PLAN



DETAIL A

DESIGN DATA

LIVE LOAD:

INVENTORY RATING: HS-12

OPERATING RATING: HS-20

WISCONSIN STANDARD PERMIT VEHICLE (WIS.-SPV): 100 (KIPS)

MATERIAL PROPERTIES:

CONCRETE MASONRY — OVERLAY DECKS — f'c = 4,000 P.S.I.

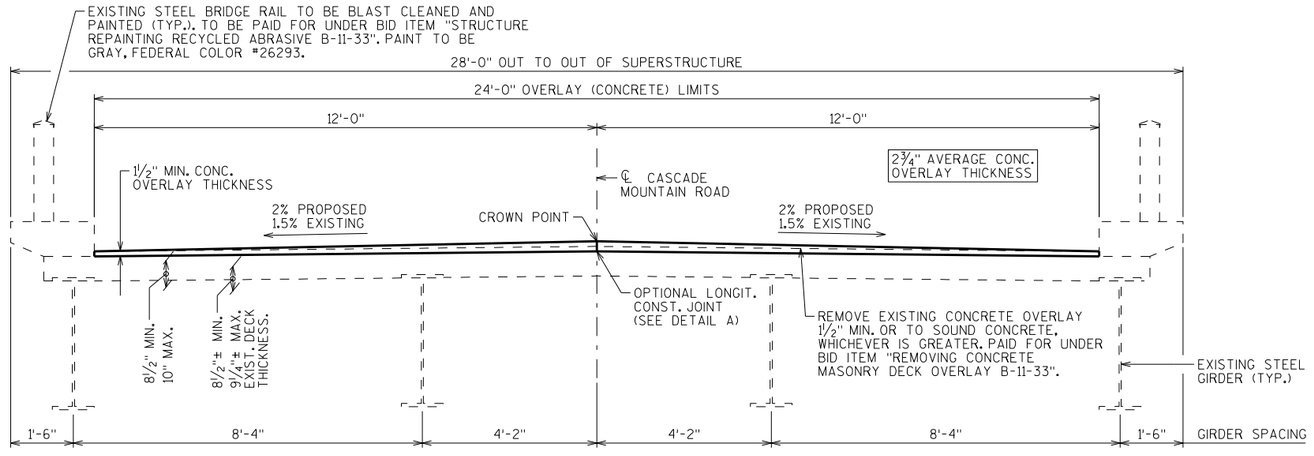
CONCRETE MASONRY — ALL OTHER — f'c = 4,000 P.S.I.

BAR STEEL REINFORCEMENT, GRADE 60 — fy = 60,000 P.S.I.

HIGH STRENGTH STRUCTURAL STEEL (ASTM A709 GRADE 50) — fy = 50,000 P.S.I.

LIST OF DRAWINGS

1. CONCRETE OVERLAY
2. 51-INCH CONCRETE INTEGRAL BARRIER
3. 51-INCH BARRIER DETAILS
4. JOINT REPAIR
5. EXPANSION JOINT DETAILS
6. COVER PLATE DETAILS
7. GUARDRAIL ATTACHMENT
8. REHABILITATION AREAS



CROSS SECTION THRU ROADWAY

TOTAL ESTIMATED QUANTITIES

BID ITEM NUMBER	BID ITEMS	UNIT	TOTALS
502.0100	CONCRETE MASONRY BRIDGES	CY	52
502.3100	EXPANSION DEVICE B-11-33	LS	1
502.3200	PROTECTIVE SURFACE TREATMENT	SY	677
502.6110	MASONRY ANCHORS TYPE S 3/4-INCH	EACH	66
505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB	9900
506.0605	STRUCTURAL STEEL HS	LB	115
509.0301	PREPARATION DECKS TYPE 1	SY	273
509.0302	PREPARATION DECKS TYPE 2	SY	205
509.1000	JOINT REPAIR	SY	23
509.1500	CONCRETE SURFACE REPAIR	SF	115
509.2000	FULL-DEPTH DECK REPAIR	SY	1
509.2500	CONCRETE MASONRY OVERLAY DECKS	CY	107
509.9005.S	REMOVING CONCRETE MASONRY DECK OVERLAY B-11-33	SY	654
517.1800.S	STRUCTURE REPAINTING RECYCLED ABRASIVE B-11-33	LS	1
517.4500.S	NEGATIVE PRESSURE CONTAINMENT AND COLLECTION OF WASTE MATERIALS B-11-33	LS	1
517.6001.S	PORTABLE DECONTAMINATION FACILITY	EACH	1
614.0150	ANCHOR ASSEMBLIES FOR STEEL PLATE BEAM GUARD	EACH	3
SPV.0060	CLEANING AND PAINTING BEARINGS	EACH	32
SPV.0090	EMSEAL - BRIDGE EXPANSION JOINT SYSTEM	LF	144
	NON-BID ITEMS		
	FILLER	SIZE	½"

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

DIMENSIONS SHOWN ARE BASED ON THE EXISTING STRUCTURE PLANS.

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

THE PLAN QUANTITY FOR THE BID ITEM "CONCRETE MASONRY BRIDGES" INCLUDES CONCRETE FOR 51-INCH CONCRETE INTEGRAL BARRIER. SEE SHEET 2 FOR DETAILS.

PROTECTIVE SURFACE TREATMENT TO BE APPLIED TO THE ENTIRE TOP OF THE NEW CONCRETE OVERLAY SURFACE.

ANY EXCAVATION NECESSARY TO COMPLETE THE OVERLAY OR JOINT REPAIR AT THE ABUTMENTS IS TO BE CONSIDERED INCIDENTAL TO THE BID ITEM "CONCRETE MASONRY OVERLAY DECKS".

THE PLAN QUANTITY FOR THE BID ITEM "CONCRETE MASONRY OVERLAY DECKS" IS BASED ON THE AVERAGE OVERLAY THICKNESS OF 2¾". THE "CONCRETE MASONRY OVERLAY DECKS" BID ITEM ALSO INCLUDES CONCRETE FOR PREPARATION DECKS TYPE 1, PREPARATION DECKS TYPE 2, CONCRETE SURFACE REPAIR, AND FULL DEPTH DECK REPAIR.

CONTACT THE BUREAU OF STRUCTURES BEFORE PLACEMENT OF OVERLAY IF THE AVERAGE THICKNESS OF THE NEW OVERLAY WILL EXCEED THE AVERAGE OVERLAY SHOWN ON THE PLANS BY MORE THAN ½".

PREPARATION DECKS TYPE 1, PREPARATION DECKS TYPE 2, FULL-DEPTH DECK REPAIR, AND CONCRETE SURFACE REPAIR AREAS TO BE DETERMINED BY THE FIELD ENGINEER. SEE THERMOGRAPHIC SURVEY REPORT FOR APPROXIMATE REHABILITATION AREAS.

ALL CONCRETE REMOVAL NOT COVERED BY THE CONCRETE OVERLAY SHALL BE DEFINED BY A 1" DEEP SAW CUT.

CLEAN AND PAINT ALL BEARINGS AT ALL PIERS AND ABUTMENTS. PAINT COLOR TO BE GRAY, FEDERAL COLOR #26293.

SPOT PAINTING OF GIRDERS TO BE COMPLETED AS REQUIRED BY THE ENGINEER, INCIDENTAL TO BID ITEM "STRUCTURE REPAINTING RECYCLED ABRASIVE B-11-33". PAINT COLOR TO MATCH EXISTING GIRDERS. TOTAL AMOUNT OF SPOT PAINTING IS EXPECTED TO BE APPROXIMATELY 450 SQUARE FEET.

STRUCTURE DESIGN CONTACTS:

MICAH BROOKS (608) 266-5080

LAURA SHADEWALD (608) 267-9592

NO.	DATE	REVISION	BY

Plans Prepared By WISDOT

BUREAU OF STRUCTURES

ACCEPTED William C. Ducker LLS — CHIEF STRUCTURES DESIGN ENGINEER — DATE 5/10/16

STRUCTURE B-11-33

CASCADE MOUNTAIN ROAD OVER IH 90/94

COUNTY	TOWN/~~CITY/VILLAGE~~
COLUMBIA	CALEDONIA
DESIGN SPEC.	REHABILITATION N/A

DESIGNED BY	MWB	DESIGN CK'D.	DFD	DRAWN BY	MWB	PLANS CK'D.	DFD

CONCRETE OVERLAY

SHEET 1 OF 8

388

8

8

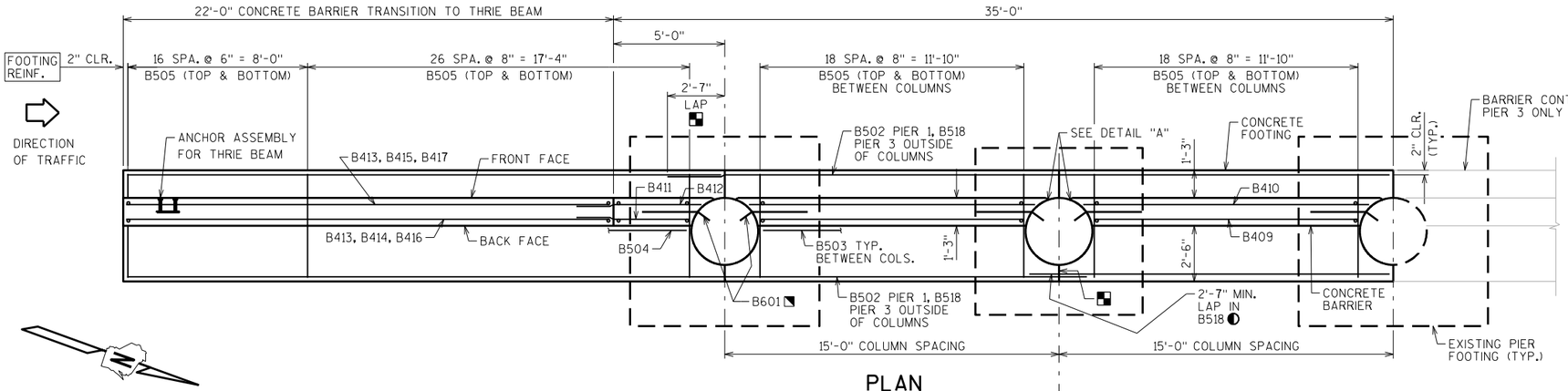
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I.D. 1010-02-02A

DATE: APR. 2016

STATE PROJECT NUMBER

1010-02-84



PLAN

SHOWING PIER 1, PIER 3 SIMILAR

BARRIER AT PIER 3 SYMMETRICAL ABOUT ℄ OF CENTRAL COLUMN. BARRIER AT PIER 1 TERMINATES AT THIRD COLUMN AS SHOWN.

NOTES

THE SELECT CRUSHED MATERIAL AND THE BASE AGGREGATE DENSE SHALL BE CONSIDERED INCIDENTAL TO BID ITEM "CONCRETE MASONRY BRIDGES".

FRONT FACE OF BARRIER IS FLUSH WITH FACE OF COLUMN.

DO NOT CUT OR DRILL INTO EXISTING COLUMN BAR STEEL.

PLACE REINFORCEMENT SUCH THAT IT WILL NOT CONFLICT WITH THE ANCHOR ASSEMBLY.

NO JOINTS ALLOWED IN CONCRETE BARRIER.

◥ MASONRY ANCHORS TYPE S ¾-INCH EPOXY ANCHORED. EMBED 8" IN CONCRETE.

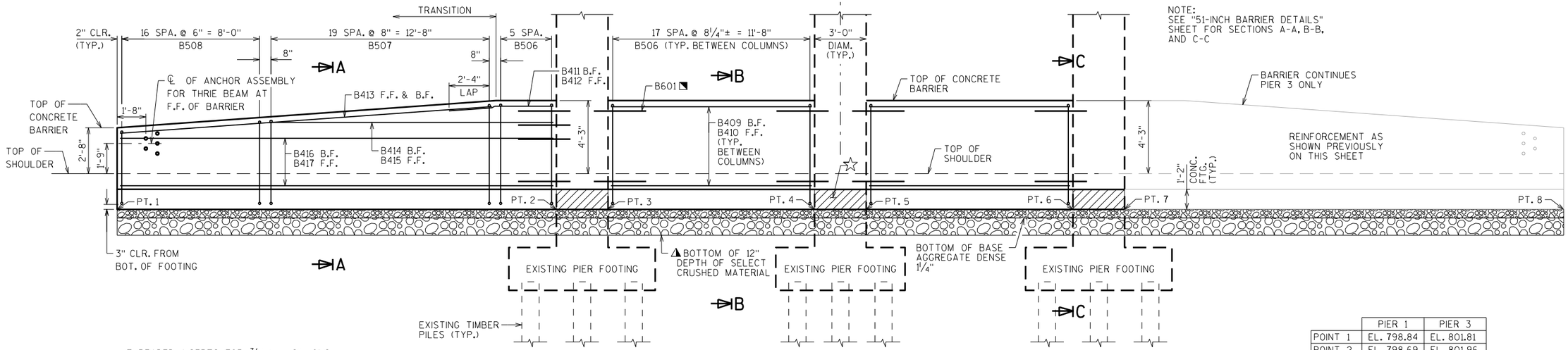
◪ OPTIONAL CONSTRUCTION JOINTS IN FOOTINGS PLACED ALONG ℄ OF COLUMN. IF USED, LAP LONGITUDINAL REINFORCEMENT 2'-7" IN ADJACENT POUR.

☆ 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.

◐ LOCATION AND LENGTH OF LAPS IN B518 BASED ON NO OPTIONAL CONSTRUCTION JOINT IN FOOTING. IF CONSTRUCTION JOINTS ARE USED, MODIFY BAR LENGTHS AS NEEDED.

NOTE: SEE "51-INCH BARRIER DETAILS" SHEET FOR SECTIONS A-A, B-B, AND C-C

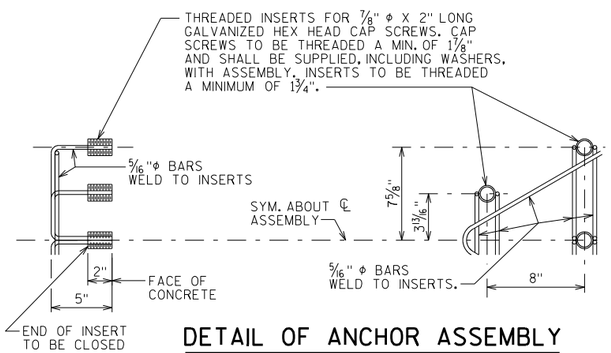


ELEVATION

LOOKING AT B.F. OF BARRIER

	PIER 1	PIER 3
POINT 1	EL. 798.84	EL. 801.81
POINT 2	EL. 798.69	EL. 801.96
POINT 3	EL. 798.67	EL. 801.98
POINT 4	EL. 798.61	EL. 802.05
POINT 5	EL. 798.60	EL. 802.07
POINT 6	EL. 798.54	EL. 802.14
POINT 7	X	EL. 802.15
POINT 8	X	EL. 802.24

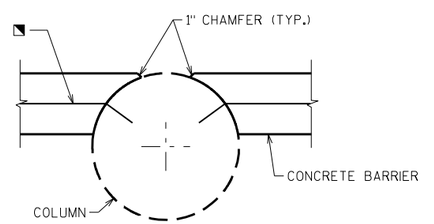
BOTTOM OF FOOTING ELEVATIONS TABLE



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 A

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-11-33

DRAWN BY MWB | PLANS CK'D. DFD

51-INCH CONCRETE INTEGRAL BARRIER

SHEET 2

389

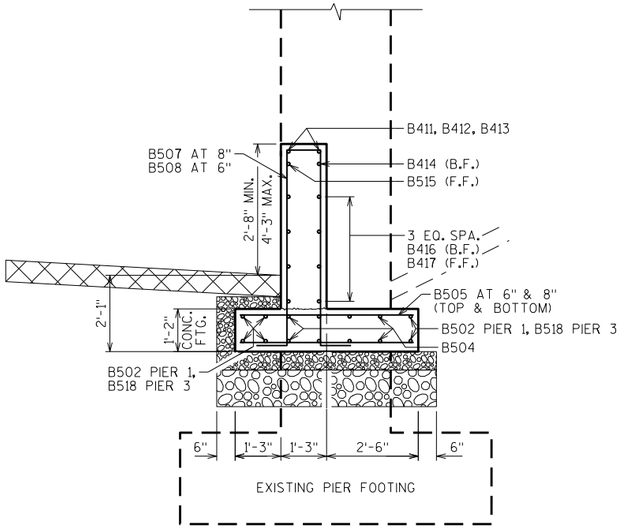
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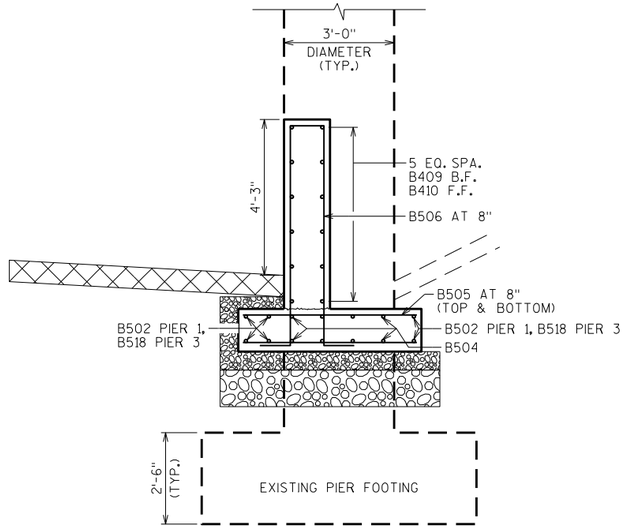
STATE PROJECT NUMBER

1010-02-84



SECTION A-A

TRANSITION REGION



SECTION B-B

BETWEEN COLUMNS

NOTE:
SEE "51-INCH CONCRETE INTEGRAL BARRIER" SHEET FOR SECTION A-A, B-B, C-C LOCATIONS.

BILL OF BARS

NOTE: THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE.

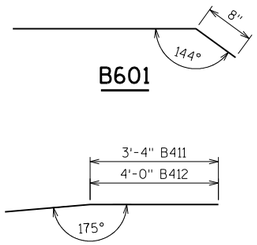
BAR MARK	COAT	NO. REQ'D. PIER 1	NO. REQ'D. PIER 3	LENGTH	BENT	BAR SERIES	LOCATION
◪ B601	X	30	36	3'-2"	X		COLUMN ANCHORS
B502	X	6	0	56'-8"			FOOTING LONGIT. - PIER 1
B503	X	16	16	11'-8"			FOOTING LONGIT. BTWN. COL.
B504	X	8	16	25'-2"			FOOTING LONGIT. IN TRANSITION
B505	X	162	248	4'-8"			FOOTING TRANSVERSE
B506	X	42	48	14'-11"	X		WALL VERT. - FULL HEIGHT
B507	X	20	40	12'-10"	X	◆	WALL VERT. - TRANSITION
B508	X	17	34	11'-4"	X	◆	WALL VERT. - TRANSITION
B409	X	12	12	11'-8"			WALL HORIZ. - BTWN. COL. - B.F.
B410	X	12	12	13'-0"			WALL HORIZ. - BTWN. COL. - F.F.
B411	X	1	2	5'-8"	X		WALL HORIZ. - TOP - B.F.
B412	X	1	2	6'-4"	X		WALL HORIZ. - TOP - F.F.
B413	X	2	4	21'-10"			WALL HORIZ. - TRANSITION - TOP
B414	X	1	2	16'-9"			WALL HORIZ. - MIDTRANSITION - B.F.
B415	X	1	2	17'-4"			WALL HORIZ. - MIDTRANSITION - F.F.
B416	X	4	8	25'-2"			WALL HORIZ. - TRANSITION - B.F.
B417	X	4	8	25'-10"			WALL HORIZ. - TRANSITION - F.F.
B518	X	0	12	43'-2"			FOOTING LONGIT. - PIER 3

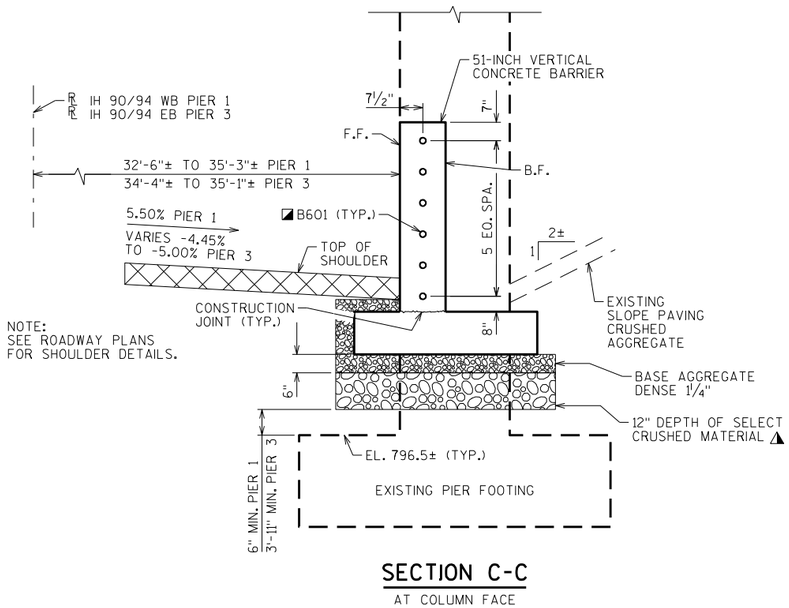
◆ LENGTH SHOWN FOR BAR IS AN AVERAGE LENGTH AND SHOULD ONLY BE USED FOR BAR WEIGHT CALCULATIONS. SEE BAR SERIES TABLE FOR ACTUAL LENGTHS.

BAR SERIES TABLE

MARK	NO. REQD.	LENGTH
B507	3 SERIES OF 20	11'-11" TO 13'-9"
B508	3 SERIES OF 17	10'-9" TO 11'-11"

BUNDLE AND TAG EACH SERIES SEPARATELY.





NOTE:
SEE ROADWAY PLANS FOR SHOULDER DETAILS.

SECTION C-C

AT COLUMN FACE

NOTES

THE SELECT CRUSHED MATERIAL AND THE BASE AGGREGATE DENSE SHALL BE CONSIDERED INCIDENTAL TO BID ITEM "CONCRETE MASONRY BRIDGES".

FRONT FACE OF BARRIER IS FLUSH WITH FACE OF COLUMN.

DO NOT CUT OR DRILL INTO EXISTING COLUMN BAR STEEL.

◪ MASONRY ANCHORS TYPE S ¾-INCH EPOXY ANCHORED. EMBED 8" IN CONCRETE.

⚠ 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-11-33

DRAWN BY MWB | PLANS CK'D. DFD

51-INCH BARRIER DETAILS

SHEET 3

390

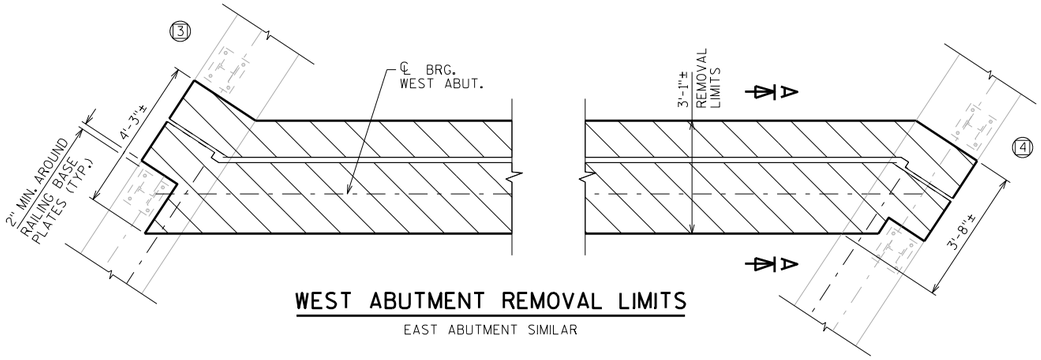
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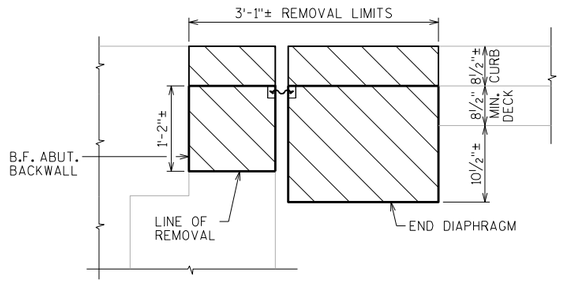
STATE PROJECT NUMBER

1010-02-84



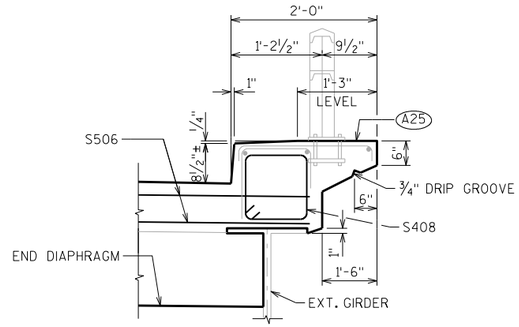
WEST ABUTMENT REMOVAL LIMITS

EAST ABUTMENT SIMILAR

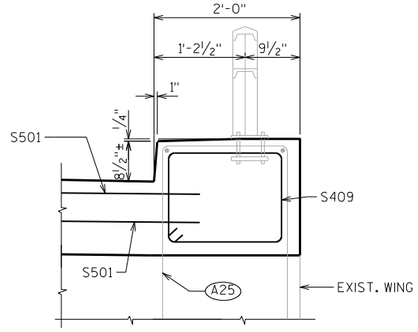


SECTION A-A

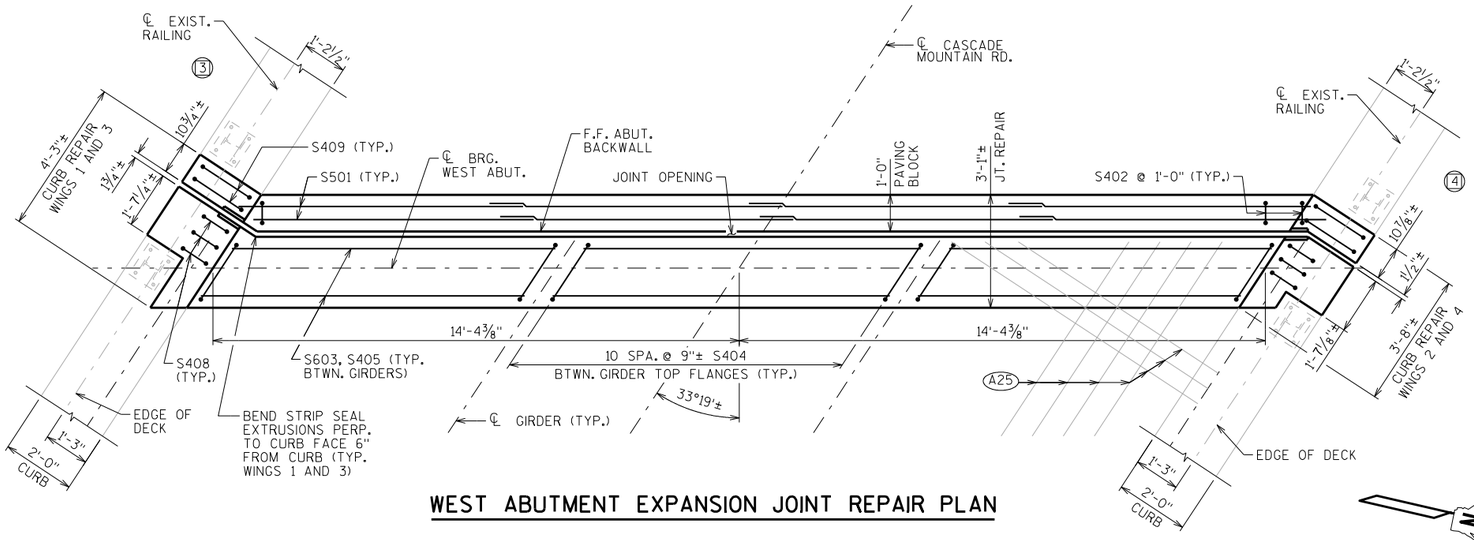
SHOWING REMOVAL LIMITS (GIRDER NOT SHOWN)



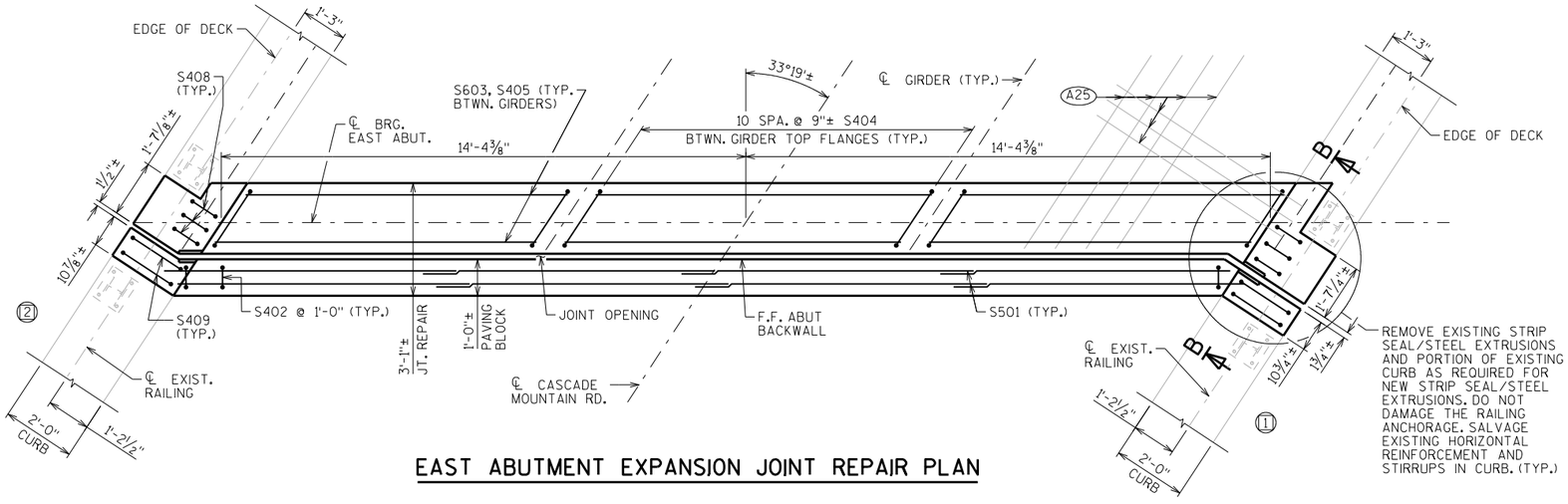
SECTION THRU CURB AT DECK



SECTION THRU WING

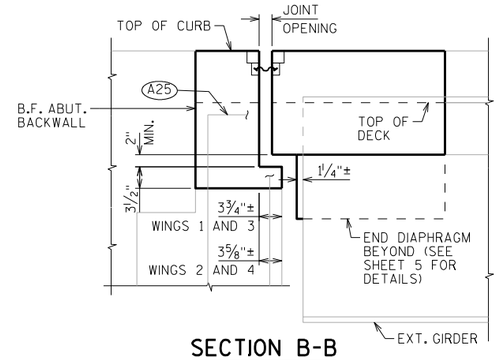


WEST ABUTMENT EXPANSION JOINT REPAIR PLAN



EAST ABUTMENT EXPANSION JOINT REPAIR PLAN

INDICATES WING NUMBER



SECTION B-B

SHOWING JOINT TRANSITION

GENERAL NOTES

CURB REPAIR SHALL BE INCLUDED UNDER THE BID ITEM "JOINT REPAIR".

SEE SHEET 5 FOR THE NEW EXPANSION DEVICE & JOINT DETAILS.

(A25) SALVAGE EXIST. REINF. & EXTEND FULL LENGTH INTO NEW WORK. TRIM REBAR AS NECESSARY TO ACCOMODATE NEW JOINT OPENING.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-11-33

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JOINT REPAIR

SHEET 4

391

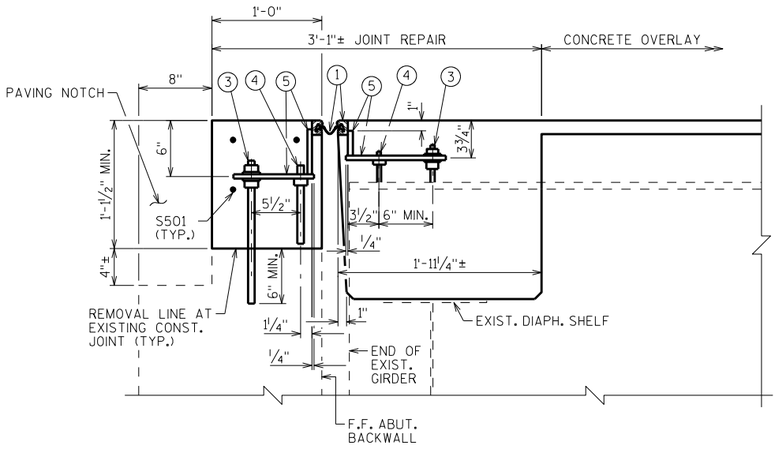
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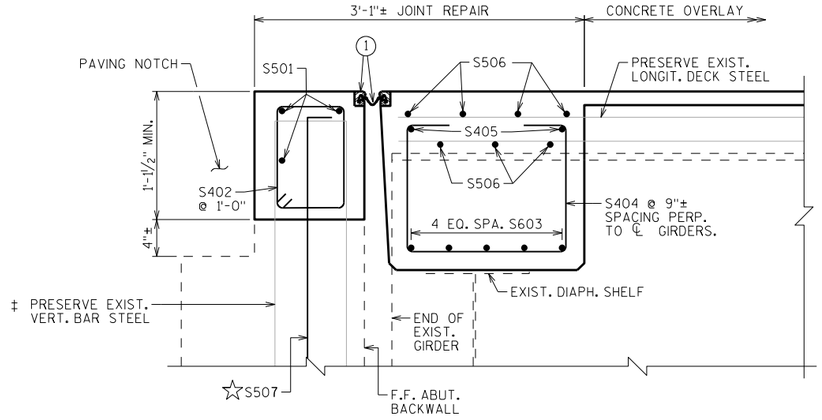
STATE PROJECT NUMBER

1010-02-84



SECTION THRU JOINT

NORMAL TO ℄ SUBSTRUCTURE
SHOWING ANCHORS FOR EXPANSION DEVICE
TYP. AT BOTH ABUTMENTS



SECTION THRU JOINT

NORMAL TO ℄ SUBSTRUCTURE
SHOWING NEW REINFORCEMENT
TYP. AT BOTH ABUTMENTS

LEGEND

(1) NEOPRENE STRIP SEAL (4 - INCH) AND STEEL EXTRUSIONS.

(2) STUDS ⅝"ϕ X 6⅜" LONG AT 6" ALTERNATE CENTERS. WELD TO EXTRUSIONS AND BEND AS SHOWN AFTER WELDING.

(2A) ½" THICK ANCHOR PLATE WITH ⅝"ϕ ROD (OR ALTERNATE STRIP SEAL ANCHOR). WELD ROD TO ANCHOR PLATE, WELD ANCHOR PLATE TO NO. 1 AT 1'-6" CENTERS BETWEEN GIRDERS.

(3) ¾" ϕ THREADED ROD WITH 2 NUTS AND PLATE WASHERS. WELD THREADED ROD TO TOP FLANGE OR ATTACH BY BOLTING THRU FLANGE. ON ABUTMENT SIDE GROUT THREADED ROD INTO FIELD DRILLED HOLES IN ABUTMENT BACKWALL AS SHOWN.

(4) ¾"ϕ THREADED ROD WITH NUT. TACK WELD NUT TO NO. 5.

(5) FABRICATE SUPPORT FROM 3" X ½" BAR AS SHOWN OR EQUIVALENT, ONE PER GIRDER PER SIDE. SHOP OR FIELD WELD TO NO. 1. IF FIELD WELDED, COVER WELDED AREAS WITH EPOXY-COATING MATERIAL. PROVIDE 1½" ϕ HOLE FOR NO. 3 AND 1" ϕ HOLE FOR NO. 4.

‡ EXISTING BARS ARE LIKELY TO BE SEVERELY CORRODED AND/OR DAMAGED DURING CONCRETE REMOVAL. PRESERVE AND INCORPORATE AS MUCH REBAR AS PRACTICAL.

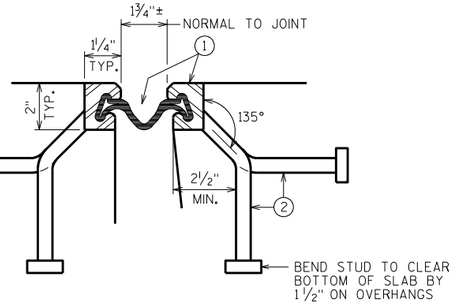
☆ MASONRY ANCHORS TYPE L NO. 5 BARS. EMBED 1'-6" INTO CONCRETE. SPACE AT 1'-0". TURN 10" LEG AS NECESSARY TO FIT.

BILL OF BARS

NOTE: THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE.

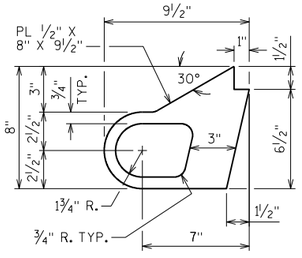
	BAR MARK	COAT	NO. REQ'D. EAST ABUT.	NO. REQ'D. WEST ABUT.	LENGTH	BENT	BAR SERIES	LOCATION
	S501	X	12	12	8'-0"			PAVING BLOCK - HORIZ.
	S402	X	30	30	3'-6"	X		PAVING BLOCK - VERT.
	S603	X	15	15	9'-6"			ABUT. DIAPHRAGM - BOT. HORIZ.
	S404	X	33	33	5'-5"	X		ABUT. DIAPHRAGM - VERT.
	S405	X	6	6	9'-6"			SLAB - HORIZ. TRANS. - BTWN. GIRDERS
	S506	X	7	7	30'-2"			SLAB - HORIZ. TRANS.
☆	S507	X	30	30	3'-2"	X		PAVING BLOCK - VERT. MASONRY ANCHORS
	S408	X	8	8	4'-4"	X		CURB - VERT. - OVERHANG
	S409	X	4	4	7'-0"	X		CURB - VERT. - ON WINGS
	S410	X	6	6	9'-6"			EXPANSION DEVICE

NOTE: SOME BARS IN TABLE MAY NOT BE REQUIRED IF EXISTING REINFORCEMENT IS SALVAGEABLE.

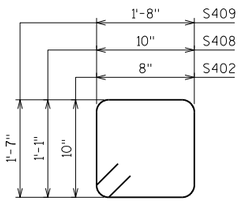


SECTION THRU JOINT

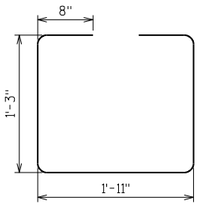
EXTERIOR GIRDER TO EDGE OF DECK AND AT
PARAPETS, MEDIANS AND SIDEWALKS



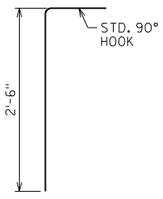
ALTERNATE STRIP SEAL ANCHOR



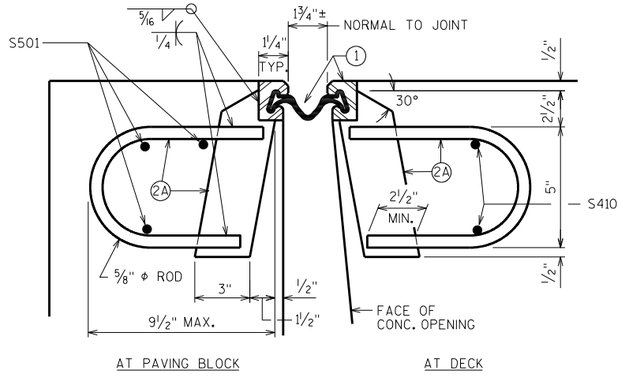
S402, S408, S409



S404

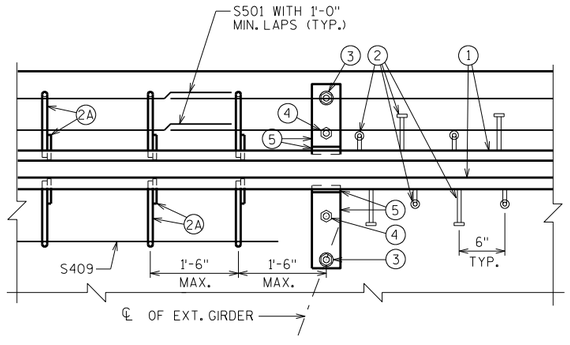


S507



SECTION THRU JOINT

ROADWAY TRAFFIC AREA BETWEEN EXTERIOR GIRDERS.



PART PLAN

NOTES

ONE FIELD SPLICE PERMITTED IN STEEL EXTRUSIONS, UNLESS MORE ARE REQUIRED FOR STAGED CONSTRUCTION, HANDLING OR GALVANIZING REQUIREMENTS. IF USED, DETAILS SHALL BE SUBMITTED FOR APPROVAL. ONE SPLICE PERMITTED IN NEOPRENE STRIP SEAL AT BEND IN EXTRUSIONS. ENSURE THAT THE STRIP SEAL SPLICE IS WATERTIGHT. SEE SHEET 6 FOR BEND LOCATIONS.

AFTER FABRICATION, BUT BEFORE SHIPMENT, STRAIGHTEN STEEL EXTRUSIONS SUCH THAT THEY SHALL BE FREE FROM WARP, TWIST AND SWEEP.

FABRICATOR SHALL PROVIDE MEANS OF KEEPING GALVANIZED EXTRUSIONS CLEAN AND SMOOTH DURING SHIPMENT AND PRIOR TO APPLYING LUBRICANT ADHESIVE FOR NEOPRENE GLAND INSTALLATION.

SANDBLAST PLATES, SUPPORTS AND EXTRUSIONS AFTER FABRICATION IN ACCORDANCE WITH SSPC SP. #6 "COMMERCIAL BLAST CLEANING". AFTER BLAST CLEANING, THE PLATES, SUPPORTS AND EXTRUSIONS SHALL BE HOT DIPPED GALVANIZED.

ANCHOR SYSTEM NO. 8 AND NO. 9 SHALL CONFORM TO ASTM A307 AND SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A153 CLASS C AND D.

STRIP SEAL EXPANSION JOINT ASSEMBLY, INCLUDING ANCHOR STUDS AND HARDWARE WILL BE PAID FOR AT THE LUMP SUM PRICE BID FOR "EXPANSION DEVICE B-11-33.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-11-33

DRAWN BY MWB | PLANS CK'D. DFD

EXPANSION JOINT DETAILS

SHEET 5

392

SCALE = 1

8

8

STATE PROJECT NUMBER

1010-02-84

LEGEND

(1) NEOPRENE STRIP SEAL (4 - INCH) AND STEEL EXTRUSIONS.

(2) ANCHOR STUDS 5/8"Φ X 6 3/8" LONG AT 6" ALTERNATE CENTERS. WELD TO EXTRUSIONS AND BEND AS SHOWN AFTER WELDING.

(6) GALVANIZED PLATE 3/8" X LIMITS SHOWN. - PROVIDE COUNTERSUNK HOLES FOR NO.7. BEND AS SHOWN.

(7) 3/4" DIA. X 1 1/2" STAINLESS STEEL SOCKET FLAT HEAD SCREWS WITH ANTI-SEIZE LUBRICANT. PLACE IN COUNTERSUNK HOLE. RECESS 1/16" BELOW PLATE SURFACE.

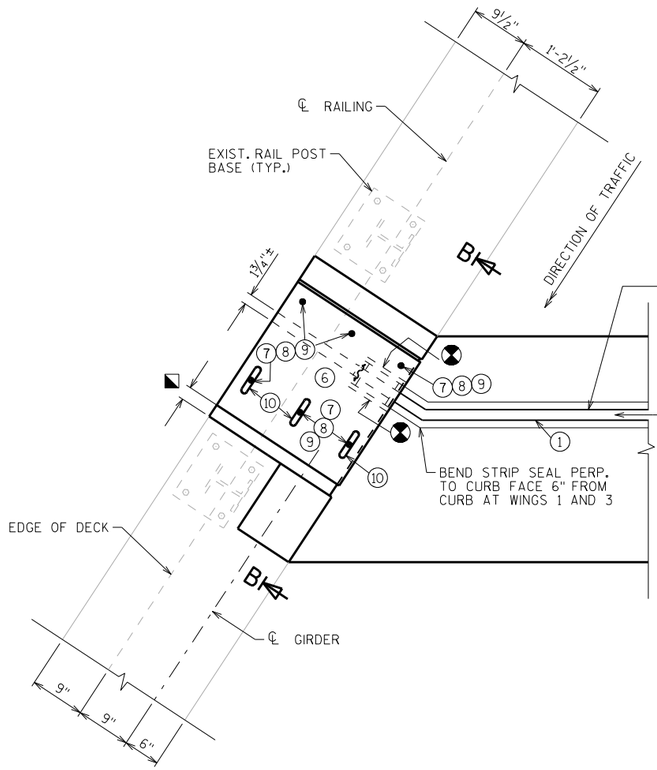
(8) 3/4"Φ X 4" GALVANIZED HEX HEAD BOLT, BEND 45°.

(9) 3/4"Φ X 2 1/4" GALVANIZED THREADED COUPLING.

(10) 1" X 5" SLOTTED COUNTERSUNK HOLE FOR NO. 7. PLACE SLOT PARALLEL TO DIRECTION OF MOVEMENT.

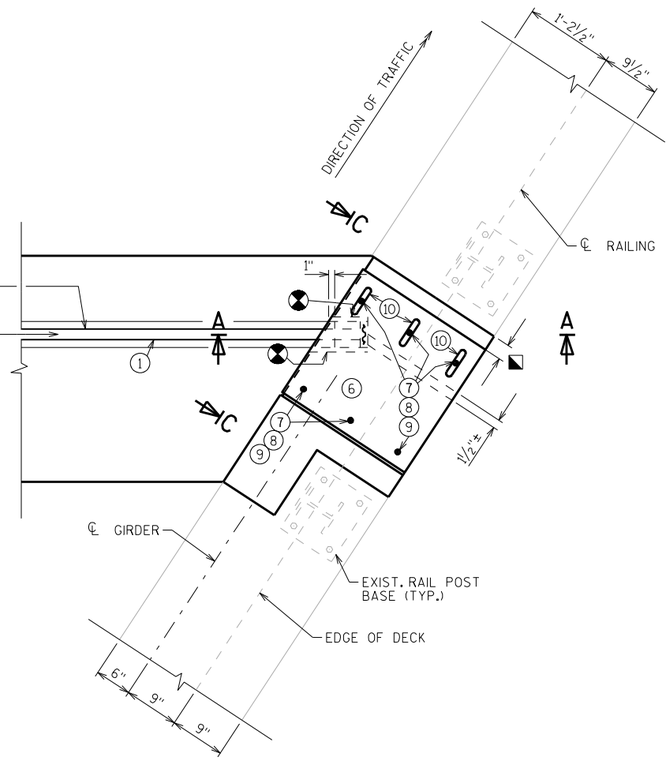
⊗ BLOCK OUT CONCRETE 2" EACH SIDE OF JOINT OPENING.

◥ JOINT OPENING DIM. ALONG SKEW PLUS 1/2" WINGS 2 & 4. JOINT OPENING DIM. PERPENDICULAR TO JOINT PLUS 1/2" WINGS 1 & 3.



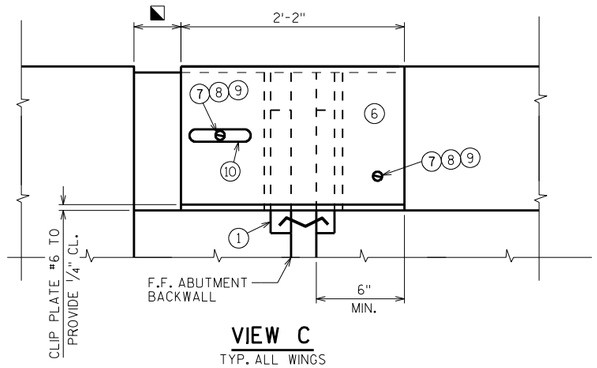
PLAN DETAIL AT WING 3 CORNER

WING 1 SIMILAR



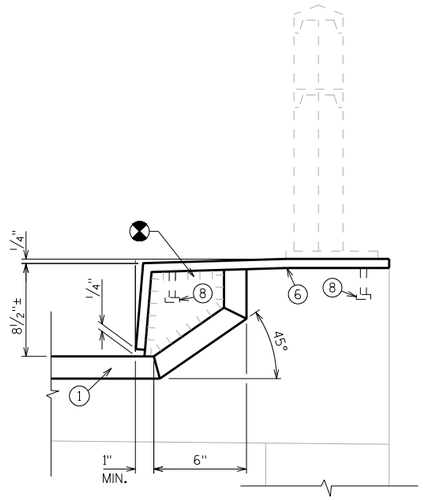
PLAN DETAIL AT WING 4 CORNER

WING 2 SIMILAR



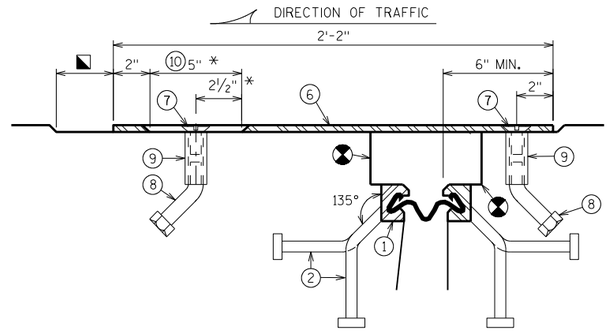
VIEW C

TYP. ALL WINGS



SECTION A-A

TYP. ALL WINGS



SECTION B-B

* DIMENSION ALONG DIRECTION OF MOVEMENT

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-11-33

DRAWN BY MWB | PLANS CK'D. DFD

COVER PLATE DETAILS

SHEET 6

393

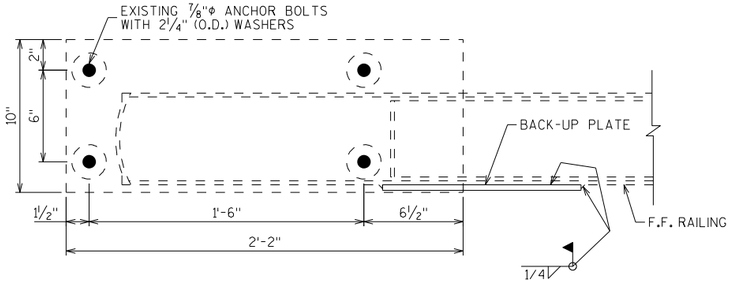
SCALE = 1.0

8

8

STATE PROJECT NUMBER

1010-02-84



PLAN VIEW A-A

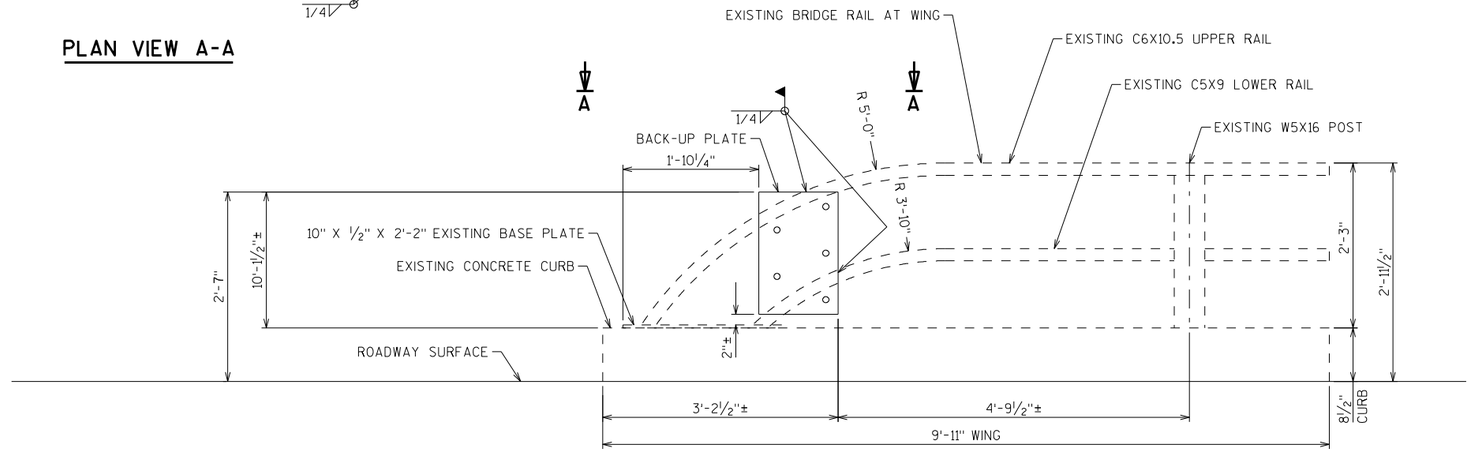
GENERAL NOTES

BOLTS, NUTS, AND WASHERS SHALL CONFORM TO THE REQUIREMENTS OF ASTM SPECIFICATION A325 AND BE GALVANIZED IN ACCORDANCE WITH ASTM A153.

BACK-UP PLATE IS TO BE FIELD WELDED AFTER BLAST CLEANING OF EXISTING METAL RAIL AND BEFORE PAINTING.

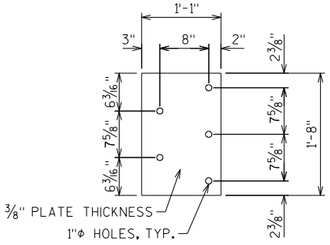
FIELD WELD ACCORDING TO AWS D1.1 USING 7018 ELECTRODES WHICH ARE SEALED AND PROPERLY STORED PRIOR TO USE.

THRIE BEAM GUARD RAIL IS NOT INCLUDED AS A BID ITEM UNDER STRUCTURE B-11-33. THRIE BEAM GUARD RAIL IS SHOWN FOR REFERENCE ONLY. SEE ROADWAY PLANS FOR DETAILS.

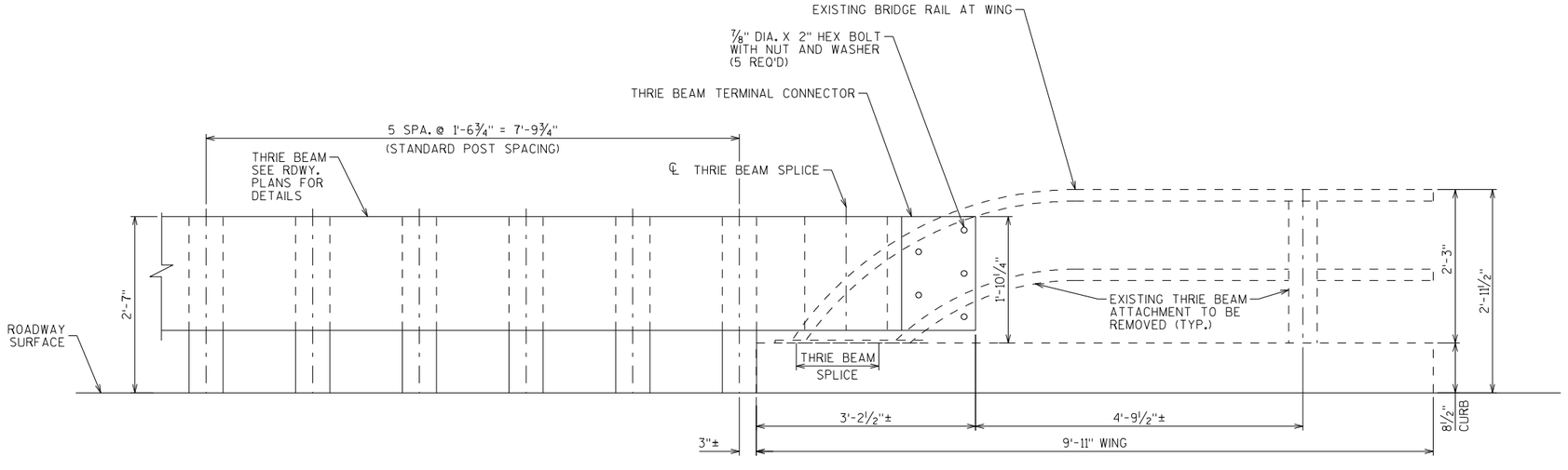


BACK-UP PLATE ELEVATION VIEW

SHOWING INSIDE (FRONT) FACE OF RAILING, TYPICAL ALL WINGS



BACK-UP PLATE DETAIL



THRIE BEAM CONNECTION ELEVATION VIEW

8

8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-11-33

DRAWN BY MWB | PLANS CK'D. DFD

GUARDRAIL ATTACHMENT

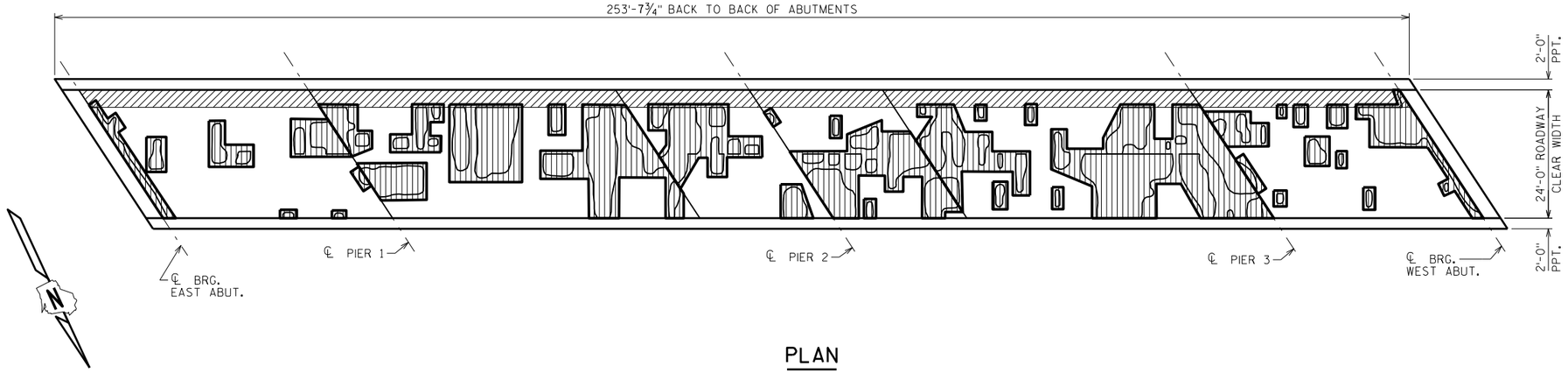
SHEET 7

394

SCALE = 1

STATE PROJECT NUMBER

1010-02-84



PLAN

SHOWING APPROXIMATE REHAB AREAS

FIELD OBSERVATIONS SUMMARY		STRUCTURE NO. B-11-33	
ITEM	UNIT	QUANT.	%
TOTAL AREA	SY	672.0	
SHADE/DEBRIS	SY	90.7	
PREPARATION DECKS TYPE 1	SY	272.4	46.9
PREPARATION DECKS TYPE 2	SY	204.3	35.1
FULL DEPTH DECK REPAIR	SY	1.0	0.2

LEGEND

DECK PREPARATION AREA

SHADE/DEBRIS

DELAMINATION

SPALL

DEBOND

ASPHALT PATCH

CONCRETE PATCH

INFRARED INSPECTION PERFORMED BY AECOM ON 10/22/14 UNDER PROJECT ID 6033-37-48. PROVIDED FOR INFORMATION ONLY.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-11-33

DRAWN BY MWB | PLANS CK'D. DFD

REHABILITATION AREAS

SHEET 8

395

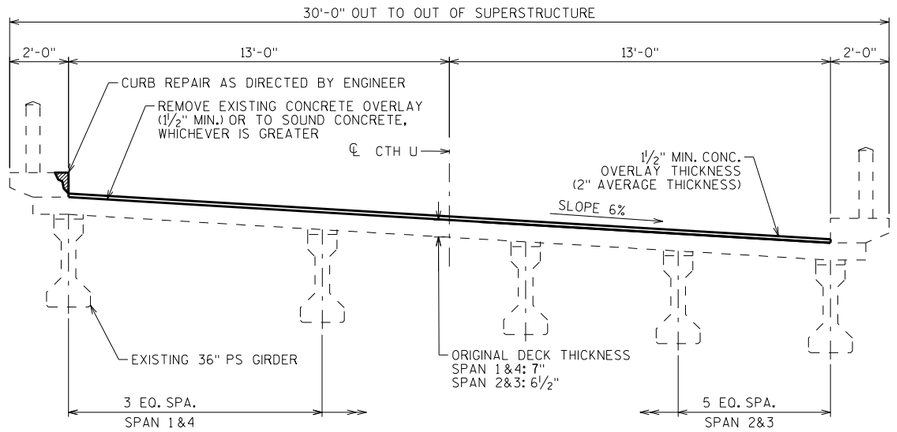
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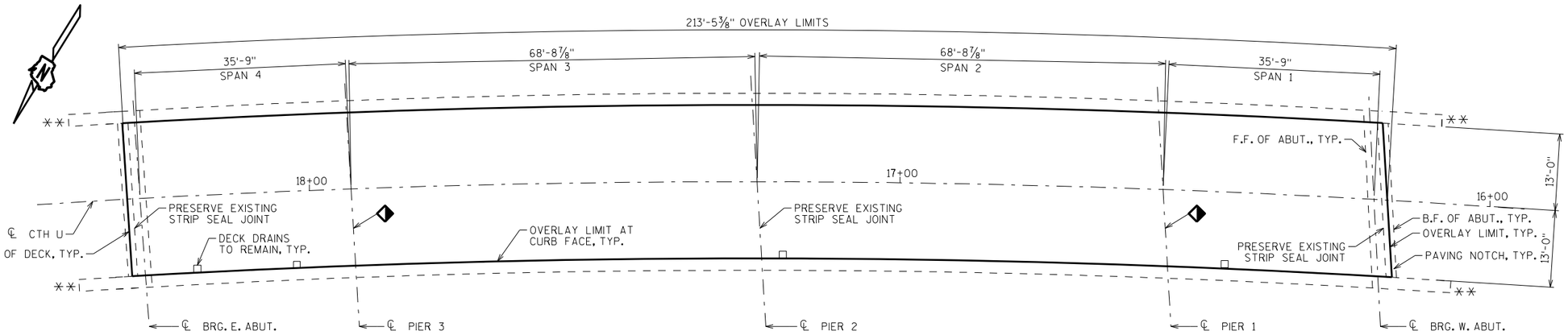
8

STATE PROJECT NUMBER

1010-02-84



CROSS SECTION THRU ROADWAY LOOKING WEST



DESIGN DATA

LIVE LOAD:
DESIGN LOAD RATING: HS-20
INVENTORY LOAD RATING: HS-14
OPERATIONAL LOAD RATING: HS-32
WISCONSIN STANDARD PERMIT VEHICLE: 250 KIPS.

MATERIAL PROPERTIES:
CONCRETE MASONRY OVERLAY DECKS-------- f'c = 4,000 P.S.I.
HIGH STRENGTH STRUCTURAL STEEL (A.S.T.M. A709 GRADE 50)
TO AND INCLUDING 4" THICK ------ fy = 50,000 P.S.I.

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

DIMENSIONS SHOWN ARE BASED ON THE ORIGINAL STRUCTURE PLANS, INSPECTION REPORTS, AND FIELD SURVEY.

PROTECTIVE SURFACE TREATMENT SHALL BE APPLIED TO THE ENTIRE TOP SURFACE OF THE NEW CONCRETE OVERLAY AND CURBS.

DECK PREPARATION AREAS SHALL BE DETERMINED BY THE FIELD ENGINEER. DECK PREP SURVEY IS INCLUDED FOR INFORMATION ONLY.

ANY EXCAVATION REQUIRED TO COMPLETE THE OVERLAY AT THE ABUTMENTS TO BE CONSIDERED INCIDENTAL TO THE BID ITEM "CONCRETE MASONRY OVERLAY DECKS".

PROFILE GRADE LINE SHALL BE DETERMINED IN THE FIELD BASED ON A MINIMUM OVERLAY THICKNESS OF 1½" PLACED ABOVE THE DECK SURFACE AFTER SURFACE PREPARATION. EXPECTED AVERAGE OVERLAY THICKNESS IS 2". IF EXPECTED AVERAGE OVERLAY THICKNESS IS EXCEEDED BY MORE THAN ½", CONTACT THE STRUCTURES DESIGN SECTION.

THE EXISTING OVERLAY SHALL BE REMOVED FROM THE BRIDGE DECK UNDER BID ITEM "REMOVING CONCRETE MASONRY DECK OVERLAY B-11-35".

DEFINE ALL CONCRETE REMOVAL WITH A ½" DEEP SAW CUT.

CONCRETE SURFACE REPAIR IS LOCATED ON THE PIER AND ABUTMENTS. EXACT LOCATION AND LIMITS OF CONCRETE SURFACE REPAIR TO BE DETERMINED BY THE ENGINEER.

THE PLAN QUANTITY FOR BID ITEM "CONCRETE MASONRY OVERLAY DECKS" IS BASED ON THE AVERAGE OVERLAY THICKNESS AND ESTIMATED REPAIR AREAS.

REPAIR GIRDER ENDS AS REQUIRED PER SPECIAL PROVISION "CLEANING CONCRETE GIRDER ENDS."

LIST OF DRAWINGS

1. CONCRETE OVERLAY
2. RAILINGS
3. DECK PREP SURVEY

TOTAL ESTIMATED QUANTITIES

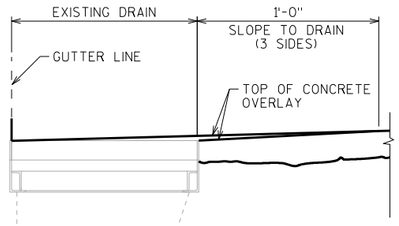
	BID ITEM NUMBERS	BID ITEMS	UNIT	TOTALS
	502.3200	PROTECTIVE SURFACE TREATMENT	SY	759
	506.0605	STRUCTURAL STEEL HS	LB	120
	509.0301	PREPARATION DECKS TYPE 1	SY	185
	509.0302	PREPARATION DECKS TYPE 2	SY	139
	509.1200	CURB REPAIR	LF	40
	509.1500	CONCRETE SURFACE REPAIR	SF	100
	509.2000	FULL-DEPTH DECK REPAIR	SY	2
#	509.2500	CONCRETE MASONRY OVERLAY DECKS	CY	61
	509.9005.S	REMOVING CONCRETE MASONRY DECK OVERLAY B-11-35	SY	617
	517.1800.S	STRUCTURE REPAINTING RECYCLED ABRASIVE B-11-35	LS	1
	517.4500.S	NEGATIVE PRESSURE CONTAINMENT AND COLLECTION OF WASTE MATERIALS B-11-35	LS	1
	517.6001.S	PORTABLE DECONTAMINATION FACILITY	EACH	1
	SPV.0060	BEARING REPAIR	EACH	2
	SPV.0060	CLEANING AND PAINTING BEARINGS	EACH	40
	SPV.0090	CLEANING CONCRETE GIRDER ENDS	LF	40
◆	SPV.0090	EMSEAL - BRIDGE EXPANSION JOINT SYSTEM	LF	62

BID ITEM ALSO INCLUDES CONCRETE FOR PREPARATION DECKS TYPE 1, PREPARATION DECKS TYPE 2, AND FULL-DEPTH DECK REPAIR AREAS.

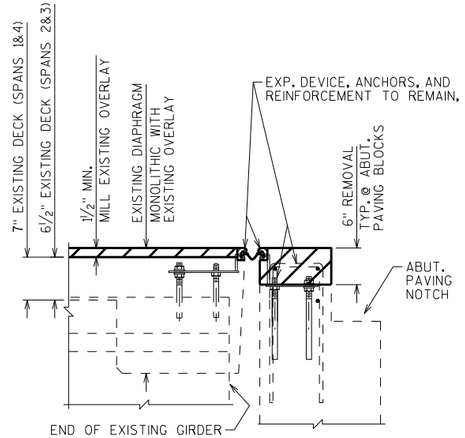
PLAN

** PROVIDE STEEL PLATE FOR THRIE BEAM GUARD RAIL ATTACHMENT. SEE "RAILINGS" SHEET FOR DETAILS. PAID FOR UNDER BID ITEM "STRUCTURAL STEEL HS"

◆ FORM OR SAW CUT 1¼"X DEPTH OF OVERLAY JOINT. SEAL JOINT WITH EMSEAL - BRIDGE EXPANSION JOINT SYSTEM. EXTEND JOINT INTO CURB. PLACE JOINT DIRECTLY ABOVE EXIST. FILLER JOINT.



DETAIL AT EXISTING DECK DRAIN
(4 LOCATIONS)



DETAIL AT EXISTING EXP. JOINT
(SHOWN AT ABUT., SIMILAR AT PIER 2)

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 5/10/16
CHIEF STRUCTURES DESIGN ENGINEER — DATE

STRUCTURE B-11-35

CTH U OVER IH 90/94

COUNTY	TOWN/~~CITY/VILLAGE~~
COLUMBIA	CALEDONIA
DESIGN SPEC.	REHABILITATION N/A

DESIGNED BY	PMM	DESIGN CK'D.	CAD	DRAWN BY	PMM	PLANS CK'D.	CAD

CONCRETE OVERLAY

SHEET 1 OF 3

396

I.D. 1010-02-02F

DATE: APR 2016

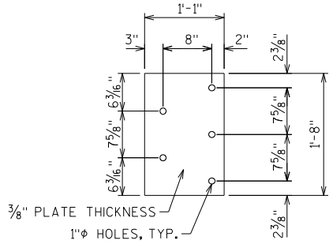
SCALE = 10

8

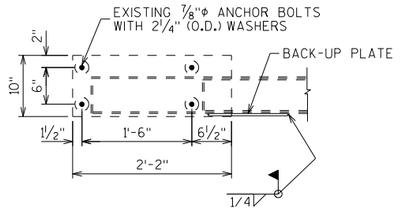
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STATE PROJECT NUMBER

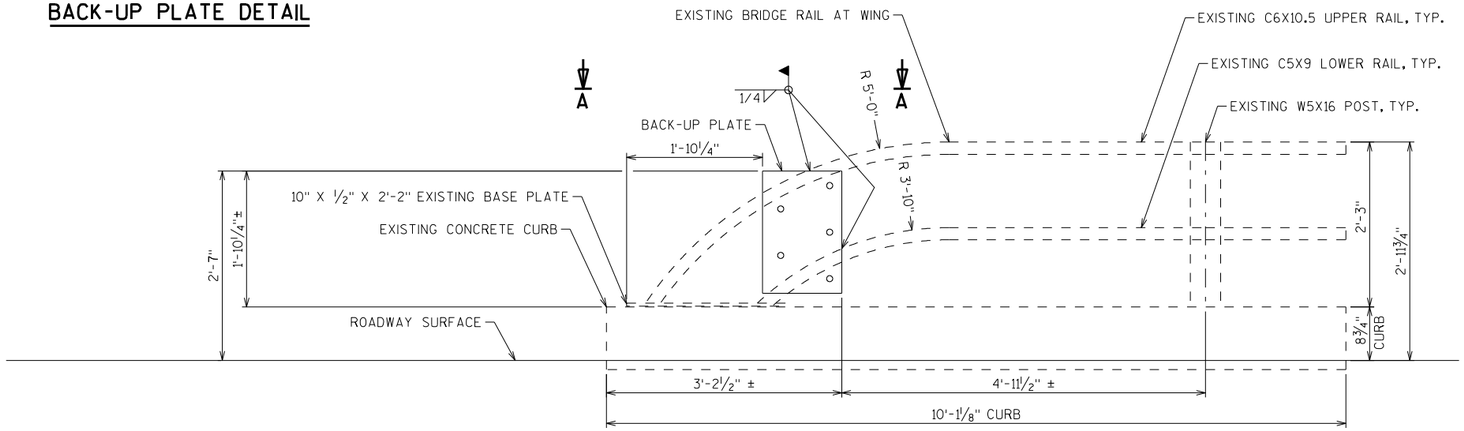
1010-02-84



BACK-UP PLATE DETAIL



PLAN VIEW A-A



BACK-UP PLATE ELEVATION VIEW

(SHOWING INSIDE FACE OF RAILING, TYP. AT ALL WINGS)

NOTES

ALL RAILING WORK IS TO BE PERFORMED IN PLACE.

ALL PLATE STEEL SHOWN SHALL BE ASTM A709 GRADE 50.

BOLTS, NUTS, AND WASHERS SHALL CONFORM TO THE REQUIREMENTS OF ASTM SPECIFICATION A325 AND BE GALVANIZED IN ACCORDANCE WITH ASTM A153, CLASS C. GALVANIZED NUTS SHALL BE TAPPED OVERSIZED IN ACCORDANCE WITH THE REQUIREMENTS OF ASTM A563 AND SHALL MEET THE REQUIREMENTS OF SUPPLEMENTARY REQUIREMENT S1 OF ASTM A563, LUBRICANT AND TEST FOR COATED NUTS.

BACK-UP PLATE IS TO BE FIELD WELDED AFTER BLAST CLEANING OF EXISTING METAL RAIL AND BEFORE PAINTING.

FIELD WELD ACCORDING TO AWS D1.1 USING 7018 ELECTRODES WHICH ARE SEALED AND PROPERLY STORED PRIOR TO USE.

THRIE BEAM GUARD RAIL IS NOT INCLUDED AS A BID ITEM UNDER STRUCTURE B-11-35. THRIE BEAM GUARD RAIL IS SHOWN FOR REFERENCE ONLY. SEE ROADWAY PLANS.

ENTIRE METAL BRIDGE RAIL TO BE BLAST CLEANED AND PAINTED. TO BE PAID FOR UNDER BID ITEM "STRUCTURE REPAINTING RECYCLED ABRASIVE B-11-35".

COMPLETELY CLEAN AND REMOVE SPENT ABRASIVE AND OTHER WASTE MATERIALS RESULTING FROM THE CONTRACTOR'S OPERATION FROM BRIDGE DECK SURFACES, GUTTER LINES, DRAINS, CURBS, SLOPE PAVING, ROADWAY BELOW, AND ALL STRUCTURAL MEMBERS AND ASSEMBLIES.

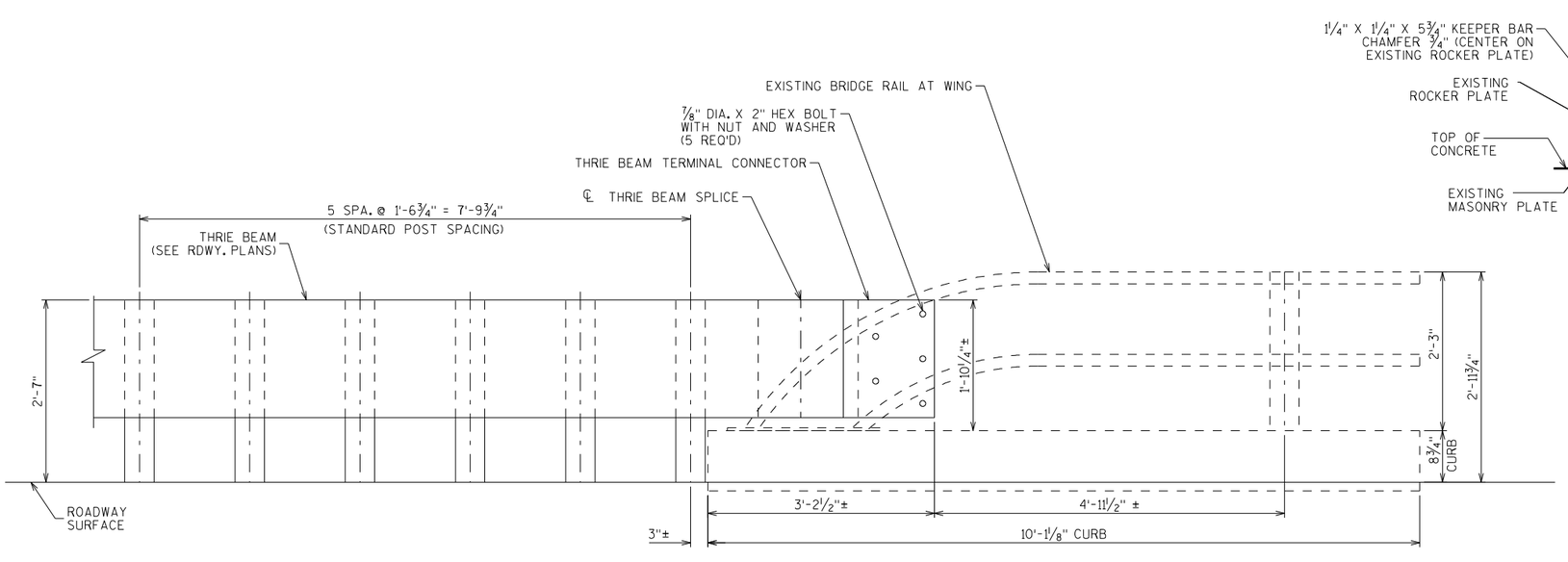
THE COLOR OF THE FINISH TOP COAT SHALL BE GRAY, FED. COLOR #26293.

BEARING REPAIR NOTES

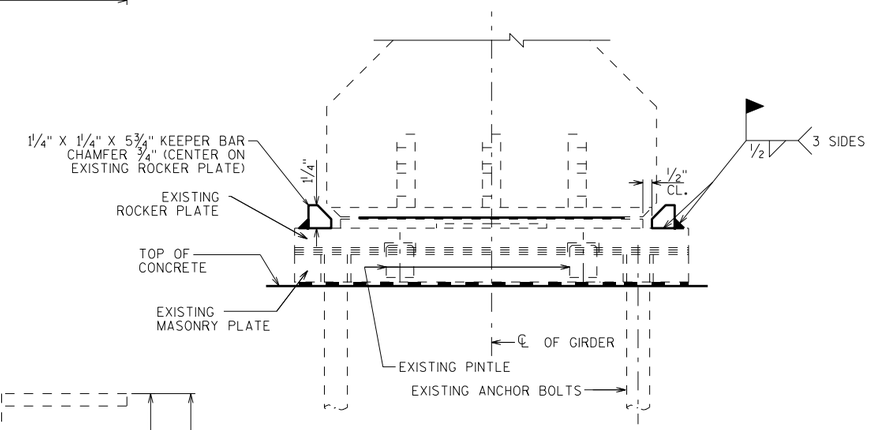
REMOVE DAMAGED KEEPER BARS FROM BEARINGS AT THE DIRECTION OF THE ENGINEER. GRIND SMOOTH ALL AREAS TO RECEIVE NEW 1¼"X 1¼"X 5¾" KEEPER BARS.

ALL PLATE CUTS SHALL BE MACHINE OR MACHINE FLAME CUTS.

BEARING REPAIR ANTICIPATED AT GIRDER LINES 1 AND 2 AT WEST ABUTMENT. OTHER BEARINGS TO BE REPAIRED AT THE DIRECTION OF THE ENGINEER.



THRIE BEAM CONNECTION ELEVATION VIEW



BEARING REPAIR

(2 BEARING LOCATIONS)

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-11-35

DRAWN BY PMM | PLANS CK'D. CAD

RAILINGS

SHEET 2

397

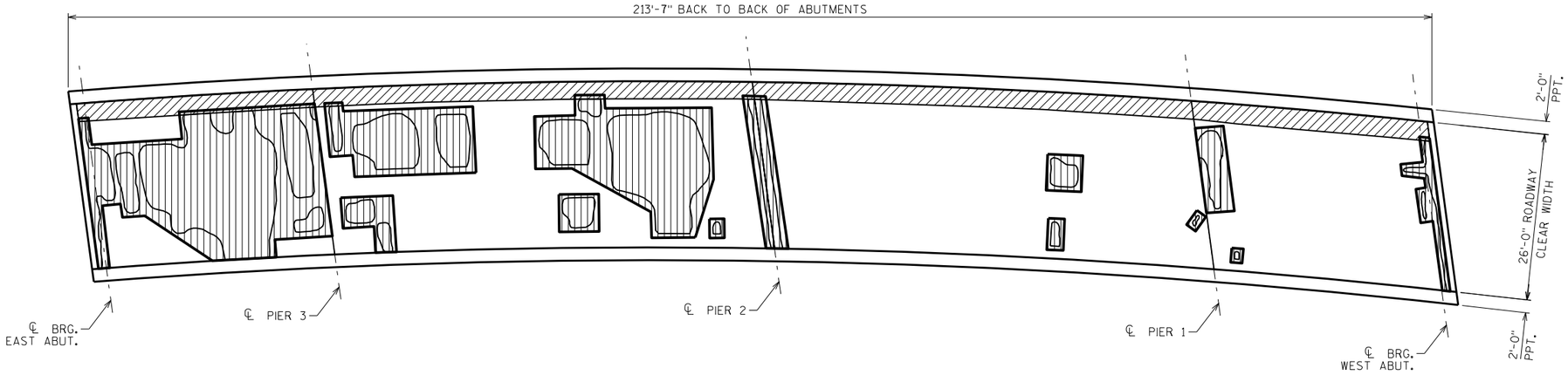
SCALE = 1.0

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8

STATE PROJECT NUMBER

1010-02-84



PLAN

SHOWING APPROXIMATE REHAB AREAS

FIELD OBSERVATIONS SUMMARY		STRUCTURE NO. B-11-35	
ITEM	UNIT	QUANT.	%
TOTAL AREA	SY	617.1	
SHADE/DEBRIS	SY	67.3	
PREPARATION DECKS TYPE 1	SY	184.9	33.6
PREPARATION DECKS TYPE 2	SY	138.7	25.2
FULL DEPTH DECK REPAIR	SY	2.0	0.4

LEGEND

DECK PREPARATION AREA

SHADE/DEBRIS

DELAMINATION

SPALL

DEBOND

ASPHALT PATCH

CONCRETE PATCH

INFRARED INSPECTION PERFORMED BY AECOM ON 10/22/14 UNDER PROJECT ID 6033-37-48. PROVIDED FOR INFORMATION ONLY.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-11-35

DRAWN BY PMM | PLANS CK'D. CAD

DECK PREP SURVEY

SHEET 3

398

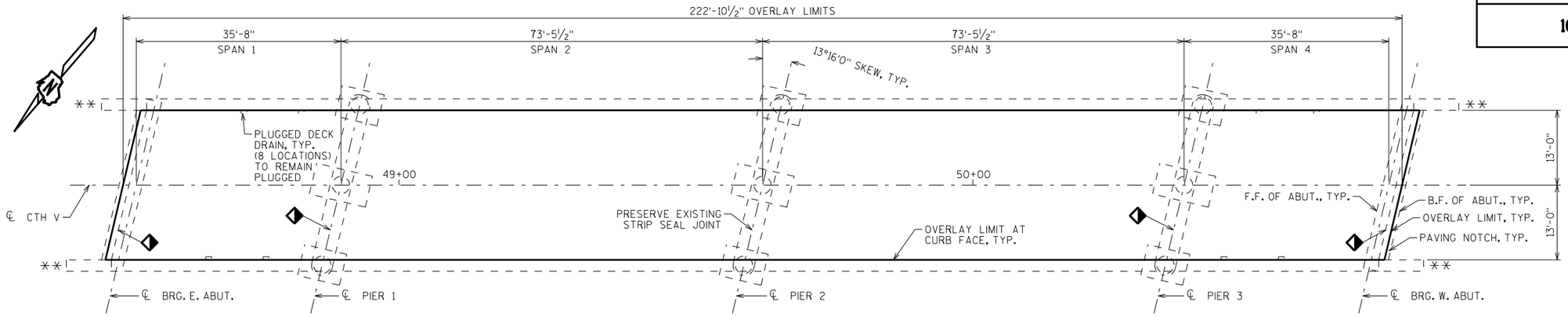
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8

STATE PROJECT NUMBER

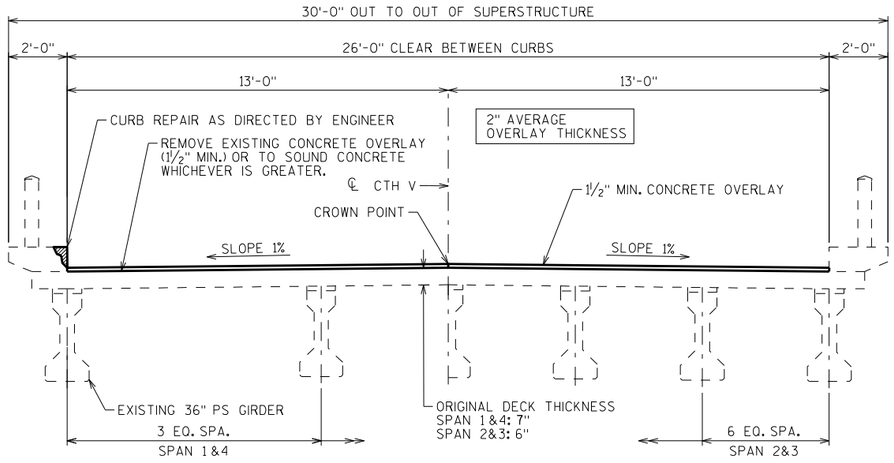
1010-02-84



PLAN

** PROVIDE STEEL PLATE FOR THRIE BEAM GUARD RAIL ATTACHMENT. SEE "RAILINGS" SHEET FOR DETAILS. PAID FOR UNDER BID ITEM "STRUCTURAL STEEL HS"

◆ FORM OR SAW CUT 1¼"X DEPTH OF OVERLAY JOINT. SEAL JOINT WITH EMSEAL - BRIDGE EXPANSION JOINT SYSTEM. EXTEND JOINT INTO CURB. PLACE JOINT DIRECTLY ABOVE EXIST. FILLER JOINT.



CROSS SECTION THRU ROADWAY LOOKING WEST

DESIGN DATA

LIVE LOAD:
DESIGN LOAD RATING: HS-20
INVENTORY LOAD RATING: HS-10
OPERATIONAL LOAD RATING: HS-33
WISCONSIN STANDARD PERMIT VEHICLE: 250 KIPS.

MATERIAL PROPERTIES:
CONCRETE MASONRY OVERLAY DECKS-------- f'c = 4,000 P.S.I.
HIGH STRENGTH STRUCTURAL STEEL -------- fy = 50,000 P.S.I.
(A.S.T.M. A709 GRADE 50)

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

DIMENSIONS SHOWN ARE BASED ON THE ORIGINAL STRUCTURE PLANS, INSPECTION REPORTS, AND FIELD SURVEY.

PROTECTIVE SURFACE TREATMENT SHALL BE APPLIED TO THE ENTIRE TOP SURFACE OF THE NEW CONCRETE OVERLAY AND CURBS.

DECK PREPARATION AREAS SHALL BE DETERMINED BY THE FIELD ENGINEER. DECK PREP SURVEY IS INCLUDED FOR INFORMATION ONLY.

ANY EXCAVATION REQUIRED TO COMPLETE THE OVERLAY AT THE ABUTMENTS TO BE CONSIDERED INCICENTAL TO THE BID ITEM "CONCRETE MASONRY OVERLAY DECKS".

PROFILE GRADE LINE SHALL BE DETERMINED IN THE FIELD BASED ON A MINIMUM OVERLAY THICKNESS OF 1½" PLACED ABOVE THE DECK SURFACE AFTER SURFACE PREPARATION. EXPECTED AVERAGE OVERLAY THICKNESS IS 2". IF EXPECTED AVERAGE OVERLAY THICKNESS IS EXCEEDED BY MORE THAN ½", CONTACT THE STRUCTURES DESIGN SECTION.

THE EXISTING OVERLAY SHALL BE REMOVED FROM THE BRIDGE DECK UNDER BID ITEM "REMOVING CONCRETE MASONRY DECK OVERLAY B-11-37".

DEFINE ALL CONCRETE REMOVAL WITH A ½" DEEP SAW CUT.

CONCRETE SURFACE REPAIR IS LOCATED ON THE PIER AND ABUTMENTS. EXACT LOCATION AND LIMITS OF CONCRETE SURFACE REPAIR TO BE DETERMINED BY THE ENGINEER.

THE PLAN QUANTITY FOR BID ITEM "CONCRETE MASONRY OVERLAY DECKS" IS BASED ON THE AVERAGE OVERLAY THICKNESS AND ESTIMATED REPAIR AREAS.

REPAIR GIRDER ENDS AS REQUIRED PER SPECIAL PROVISION "CLEANING CONCRETE GIRDER ENDS."

TOTAL ESTIMATED QUANTITIES

	BID ITEM NUMBERS	BID ITEMS	UNIT	TOTALS
	502.3200	PROTECTIVE SURFACE TREATMENT	SY	792
	506.0605	STRUCTURAL STEEL HS	LB	120
	509.0301	PREPARATION DECKS TYPE 1	SY	340
	509.0302	PREPARATION DECKS TYPE 2	SY	255
	509.1200	CURB REPAIR	LF	210
	509.1500	CONCRETE SURFACE REPAIR	SF	200
	509.2000	FULL-DEPTH DECK REPAIR	SY	2
#	509.2500	CONCRETE MASONRY OVERLAY DECKS	CY	75
	509.9005.S	REMOVING CONCRETE MASONRY DECK OVERLAY B-11-37	SY	644
	517.1800.S	STRUCTURE REPAINTING RECYCLED ABRASIVE B-11-37	LS	1
	517.4500.S	NEGATIVE PRESSURE CONTAINMENT AND COLLECTION OF WASTE MATERIALS B-11-37	LS	1
	517.6001.S	PORTABLE DECONTAMINATION FACILITY	EACH	1
	SPV.0060	CLEANING AND PAINTING BEARINGS	EACH	36
	SPV.0090	CLEANING CONCRETE GIRDER ENDS	LF	88
◆	SPV.0090	EMSEAL - BRIDGE EXPANSION JOINT SYSTEM	LF	124

BID ITEM ALSO INCLUDES CONCRETE FOR PREPARATION DECKS TYPE 1, PREPARATION DECKS TYPE 2, AND FULL-DEPTH DECK REPAIR AREAS.

LIST OF DRAWINGS

1. CONCRETE OVERLAY
2. RAILINGS
3. DECK PREP SURVEY

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 5/10/16
CHIEF STRUCTURES DESIGN ENGINEER DATE

STRUCTURE B-11-37

CTH V 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

CONCRETE OVERLAY

SHEET 1 OF 3

399

I.D. 1010-02-02G

DATE: APR 2016

SCALE = 10.0

8

8

STATE PROJECT NUMBER

1010-02-84

NOTES

ALL RAILING WORK IS TO BE PERFORMED IN PLACE.

ALL PLATE STEEL SHOWN SHALL BE ASTM A709 GRADE 50.

BOLTS, NUTS, AND WASHERS SHALL CONFORM TO THE REQUIREMENTS OF ASTM SPECIFICATION A325 AND BE GALVANIZED IN ACCORDANCE WITH ASTM A153, CLASS C. GALVANIZED NUTS SHALL BE TAPPED OVERSIZED IN ACCORDANCE WITH THE REQUIREMENTS OF ASTM A563 AND SHALL MEET THE REQUIREMENTS OF SUPPLEMENTARY REQUIREMENT S1 OF ASTM A563. LUBRICANT AND TEST FOR COATED NUTS.

BACK-UP PLATE IS TO BE FIELD WELDED AFTER BLAST CLEANING OF EXISTING METAL RAIL AND BEFORE PAINTING.

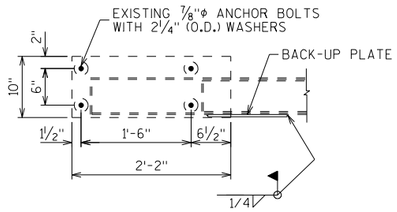
FIELD WELD ACCORDING TO AWS D1.1 USING 7018 ELECTRODES WHICH ARE SEALED AND PROPERLY STORED PRIOR TO USE.

THRIE BEAM GUARD RAIL IS NOT INCLUDED AS A BID ITEM UNDER STRUCTURE B-11-37. THRIE BEAM GUARD RAIL IS SHOWN FOR REFERENCE ONLY. SEE ROADWAY PLANS.

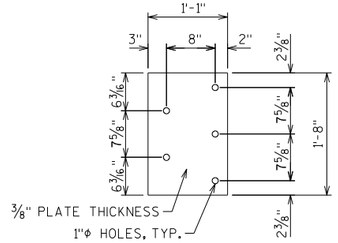
ENTIRE METAL BRIDGE RAIL TO BE BLAST CLEANED AND PAINTED. TO BE PAID FOR UNDER BID ITEM "STRUCTURE REPAINTING RECYCLED ABRASIVE B-11-37".

COMPLETELY CLEAN AND REMOVE SPENT ABRASIVE AND OTHER WASTE MATERIALS RESULTING FROM THE CONTRACTOR'S OPERATION FROM BRIDGE DECK SURFACES, GUTTER LINES, DRAINS, CURBS, SLOPE PAVING, ROADWAY BELOW, AND ALL STRUCTURAL MEMBERS AND ASSEMBLIES.

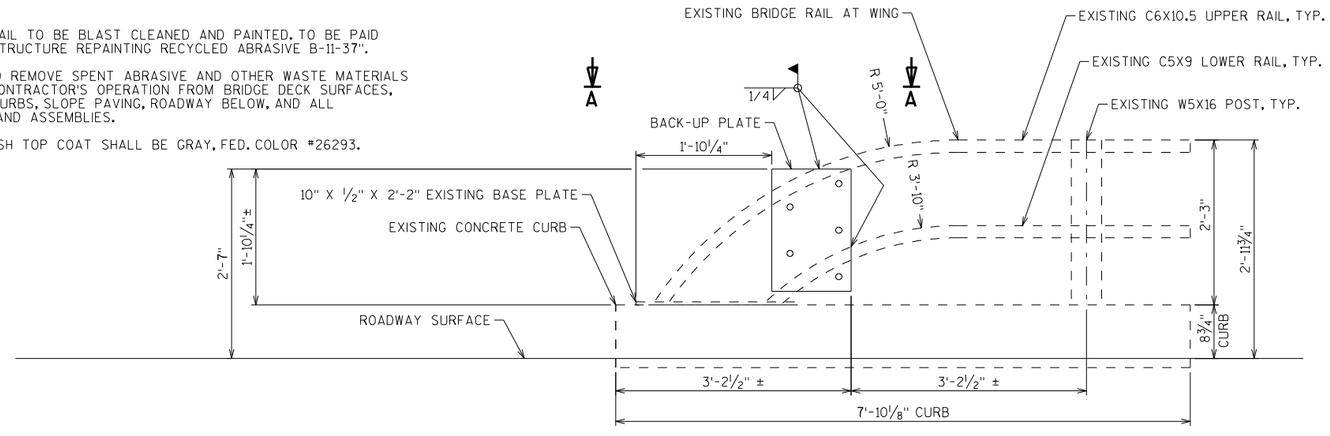
THE COLOR OF THE FINISH TOP COAT SHALL BE GRAY, FED. COLOR #26293.



PLAN VIEW A-A

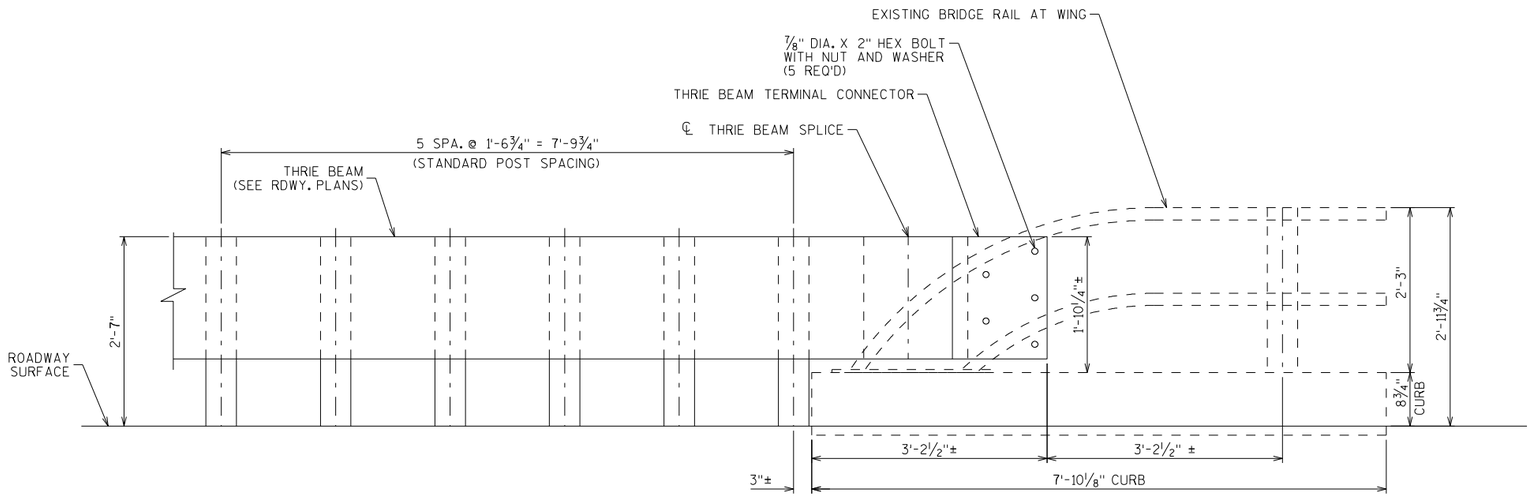


BACK-UP PLATE DETAIL

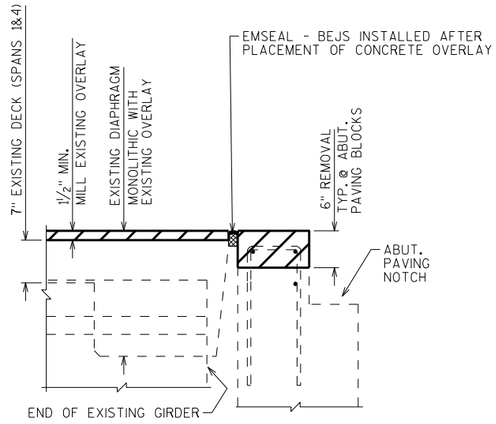


BACK-UP PLATE ELEVATION VIEW

(SHOWING INSIDE FACE OF RAILING, TYP. AT ALL WINGS)

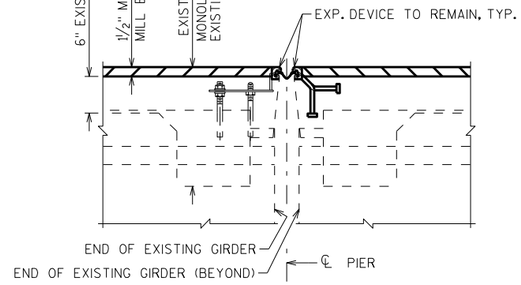


THRIE BEAM CONNECTION ELEVATION VIEW



DETAIL AT EMSEAL JOINT

(SHOWN AT ABUT., SIMILAR AT PIERS 1&3)



DETAIL AT EXISTING EXP. JOINT

(PIER 2)

8

8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-11-37

DRAWN BY PMM | PLANS CK'D. CAD

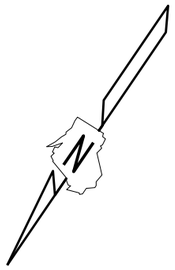
RAILINGS

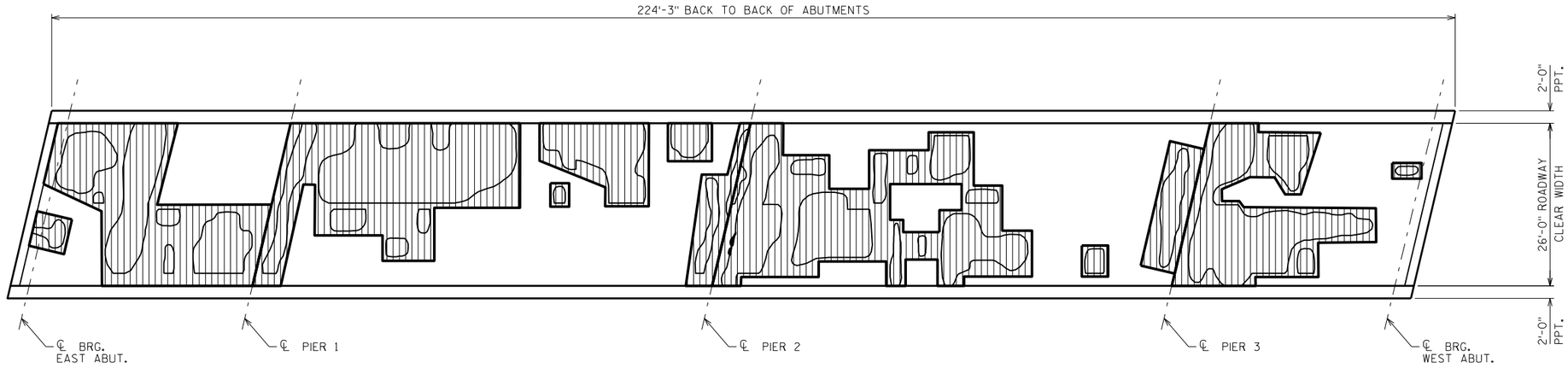
SHEET 2

400

SCALE = 1.0

STATE PROJECT NUMBER
1010-02-84





PLAN

SHOWING APPROXIMATE REHAB AREAS

FIELD OBSERVATIONS SUMMARY		STRUCTURE NO. B-11-37	
ITEM	UNIT	QUANT.	%
TOTAL AREA	SY	643.9	
SHADE/DEBRIS	SY	0	
PREPARATION DECKS TYPE 1	SY	339.2	52.7
PREPARATION DECKS TYPE 2	SY	254.4	39.5
FULL DEPTH DECK REPAIR	SY	2.0	0.3

LEGEND

DECK PREPARATION AREA

SHADE/DEBRIS

DELAMINATION

SPALL

DEBOND

ASPHALT PATCH

CONCRETE PATCH

INFRARED INSPECTION PERFORMED BY AECOM ON 10/22/14 UNDER PROJECT ID 6033-37-48. PROVIDED FOR INFORMATION ONLY.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-11-37

DRAWN BY PMM | PLANS CK'D. CAD

DECK PREP SURVEY

SHEET 3

401

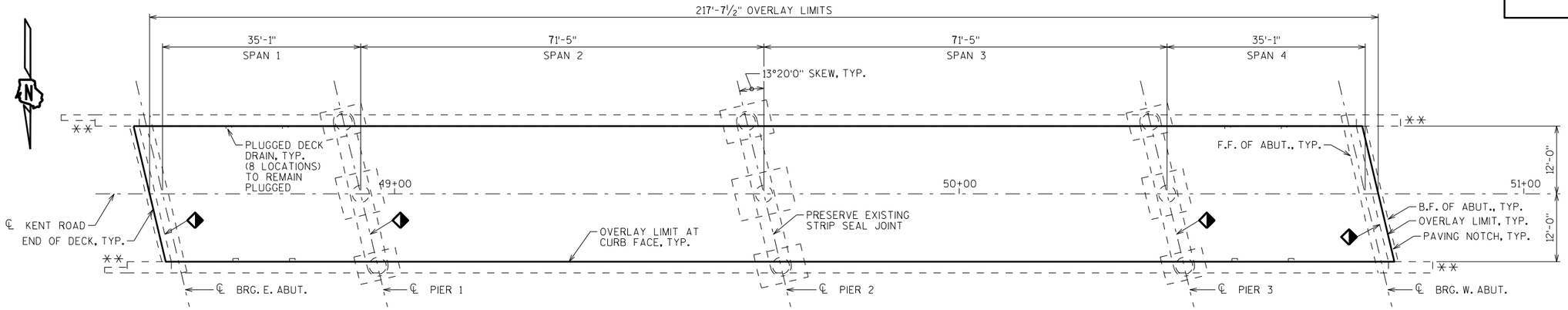
SCALE = 10.0

8

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STATE PROJECT NUMBER

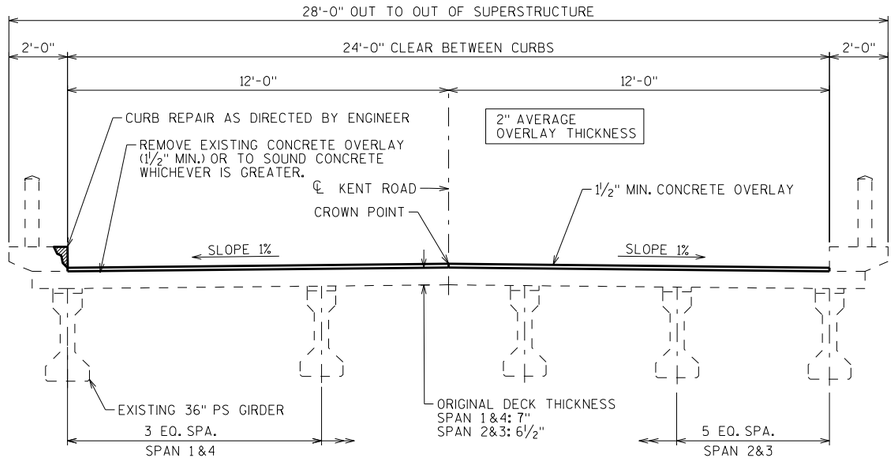
1010-02-84



PLAN

** PROVIDE STEEL PLATE FOR THRIE BEAM GUARD RAIL ATTACHMENT. SEE "RAILINGS" SHEET FOR DETAILS. PAID FOR UNDER BID ITEM "STRUCTURAL STEEL HS"

◆ FORM OR SAW CUT 1¼"X DEPTH OF OVERLAY JOINT. SEAL JOINT WITH EMSEAL - BRIDGE EXPANSION JOINT SYSTEM. EXTEND JOINT INTO CURB. PLACE JOINT DIRECTLY ABOVE EXIST. FILLER JOINT.



CROSS SECTION THRU ROADWAY LOOKING WEST

TOTAL ESTIMATED QUANTITIES

	BID ITEM NUMBERS	BID ITEMS	UNIT	TOTALS
	502.3200	PROTECTIVE SURFACE TREATMENT	SY	725
	506.0605	STRUCTURAL STEEL HS	LB	120
	509.0301	PREPARATION DECKS TYPE 1	SY	21
	509.0302	PREPARATION DECKS TYPE 2	SY	16
	509.1200	CURB REPAIR	LF	175
	509.1500	CONCRETE SURFACE REPAIR	SF	50
	509.2000	FULL-DEPTH DECK REPAIR	SY	1
#	509.2500	CONCRETE MASONRY OVERLAY DECKS	CY	33
	509.9005.S	REMOVING CONCRETE MASONRY DECK OVERLAY B-11-39	SY	581
	517.1800.S	STRUCTURE REPAINTING RECYCLED ABRASIVE B-11-39	LS	1
	517.4500.S	NEGATIVE PRESSURE CONTAINMENT AND COLLECTION OF WASTE MATERIALS B-11-39	LS	1
	517.6001.S	PORTABLE DECONTAMINATION FACILITY	EACH	1
	SPV.0060	CLEANING AND PAINTING BEARINGS	EACH	32
	SPV.0090	CLEANING CONCRETE GIRDER ENDS	LF	28
◆	SPV.0090	EMSEAL - BRIDGE EXPANSION JOINT SYSTEM	LF	116

BID ITEM ALSO INCLUDES CONCRETE FOR PREPARATION DECKS TYPE 1, PREPARATION DECKS TYPE 2, AND FULL-DEPTH DECK REPAIR AREAS.

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

DIMENSIONS SHOWN ARE BASED ON THE ORIGINAL STRUCTURE PLANS, INSPECTION REPORTS, AND FIELD SURVEY.

PROTECTIVE SURFACE TREATMENT SHALL BE APPLIED TO THE ENTIRE TOP SURFACE OF THE NEW CONCRETE OVERLAY AND CURBS.

DECK PREPARATION AREAS SHALL BE DETERMINED BY THE FIELD ENGINEER. DECK PREP SURVEY IS INCLUDED FOR INFORMATION ONLY.

ANY EXCAVATION REQUIRED TO COMPLETE THE OVERLAY AT THE ABUTMENTS TO BE CONSIDERED INCICENTAL TO THE BID ITEM "CONCRETE MASONRY OVERLAY DECKS".

PROFILE GRADE LINE SHALL BE DETERMINED IN THE FIELD BASED ON A MINIMUM OVERLAY THICKNESS OF 1½" PLACED ABOVE THE DECK SURFACE AFTER SURFACE PREPARATION. EXPECTED AVERAGE OVERLAY THICKNESS IS 2". IF EXPECTED AVERAGE OVERLAY THICKNESS IS EXCEEDED BY MORE THAN ½", CONTACT THE STRUCTURES DESIGN SECTION.

THE EXISTING OVERLAY SHALL BE REMOVED FROM THE BRIDGE DECK UNDER BID ITEM "REMOVING CONCRETE MASONRY DECK OVERLAY B-11-39".

DEFINE ALL CONCRETE REMOVAL WITH A ½" DEEP SAW CUT.

CONCRETE SURFACE REPAIR IS LOCATED ON THE PIER AND ABUTMENTS. EXACT LOCATION AND LIMITS OF CONCRETE SURFACE REPAIR TO BE DETERMINED BY THE ENGINEER.

THE PLAN QUANTITY FOR BID ITEM "CONCRETE MASONRY OVERLAY DECKS" IS BASED ON THE AVERAGE OVERLAY THICKNESS AND ESTIMATED REPAIR AREAS.

REPAIR GIRDER ENDS AS REQUIRED PER SPECIAL PROVISION "CLEANING CONCRETE GIRDER ENDS."

DESIGN DATA

LIVE LOAD:
DESIGN LOAD RATING: HS-20
INVENTORY LOAD RATING: HS-10
OPERATIONAL LOAD RATING: HS-31
WISCONSIN STANDARD PERMIT VEHICLE: 240 KIPS.

MATERIAL PROPERTIES:
CONCRETE MASONRY OVERLAY DECKS-------- fc = 4,000 P.S.I.
HIGH STRENGTH STRUCTURAL STEEL -------- fy = 50,000 P.S.I.
(A.S.T.M. A709 GRADE 50)

LIST OF DRAWINGS

1. CONCRETE OVERLAY
2. RAILINGS
3. DECK PREP SURVEY

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 5/10/16
CHIEF STRUCTURES DESIGN ENGINEER 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

CONCRETE OVERLAY

SHEET 1 OF 3

402

I.D. 1010-02-02B

DATE: APR 2016

SCALE = 10.0

8

8

STATE PROJECT NUMBER

1010-02-84

NOTES

ALL RAILING WORK IS TO BE PERFORMED IN PLACE.

ALL PLATE STEEL SHOWN SHALL BE ASTM A709 GRADE 50.

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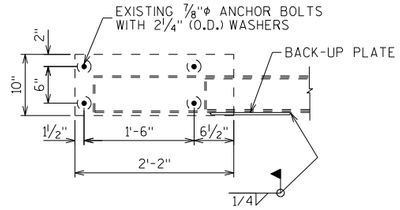
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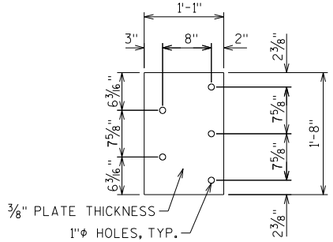
ENTIRE METAL BRIDGE RAIL TO BE BLAST CLEANED AND PAINTED. TO BE PAID FOR UNDER BID ITEM "STRUCTURE REPAINTING RECYCLED ABRASIVE B-11-39".

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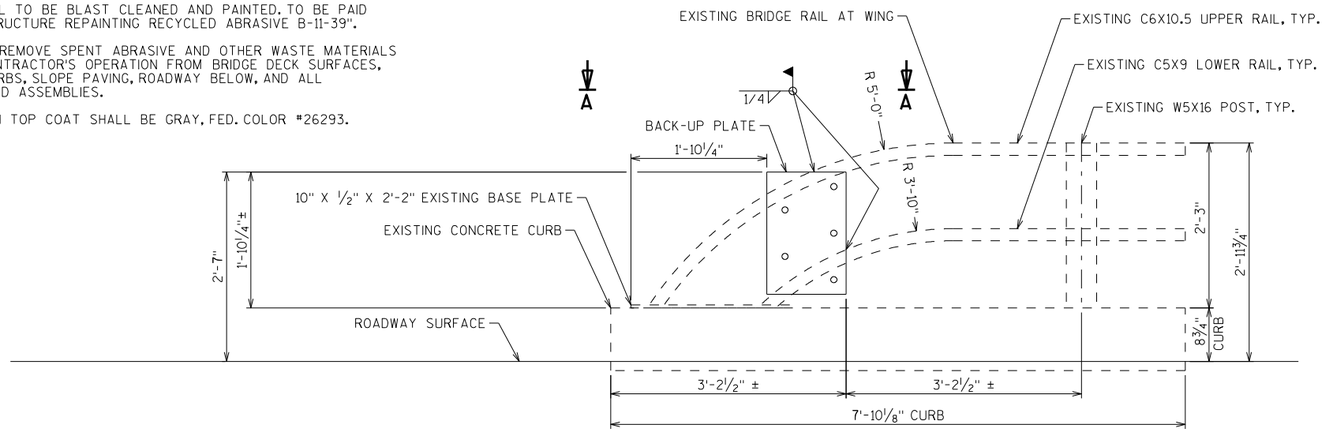
THE COLOR OF THE FINISH TOP COAT SHALL BE GRAY, FED. COLOR #26293.



PLAN VIEW A-A

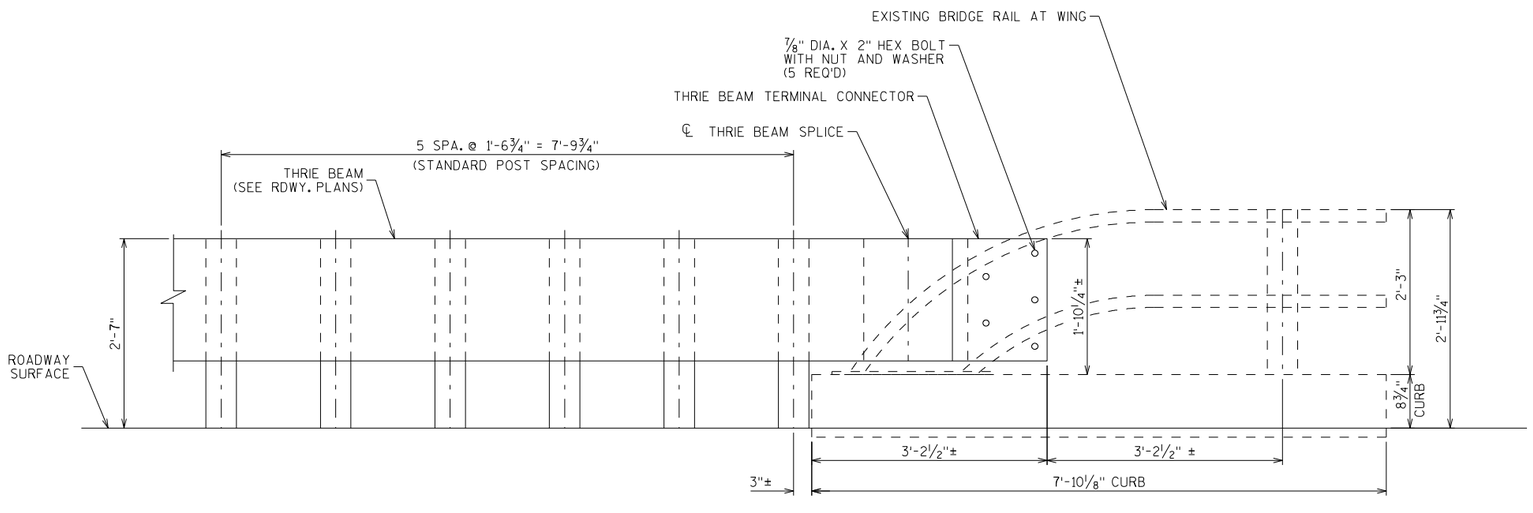


BACK-UP PLATE DETAIL

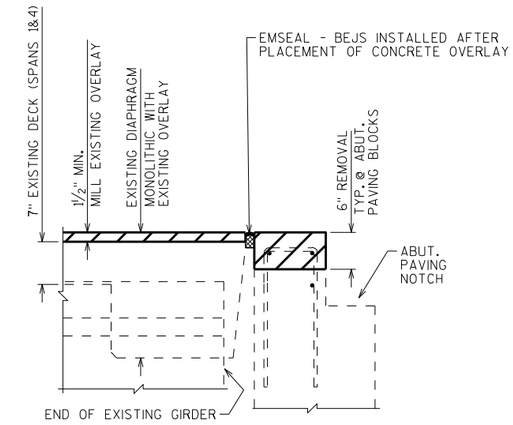


BACK-UP PLATE ELEVATION VIEW

(SHOWING INSIDE FACE OF RAILING, TYP. AT ALL WINGS)

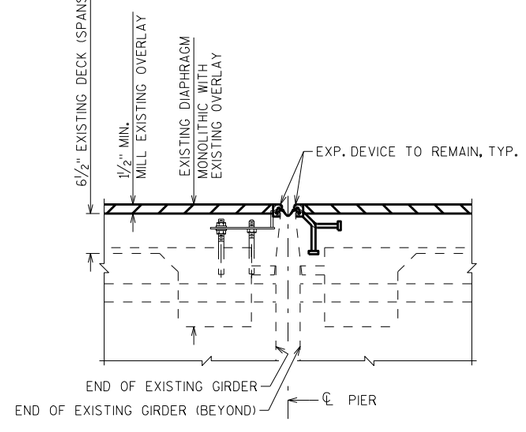


THRIE BEAM CONNECTION ELEVATION VIEW



DETAIL AT EMSEAL JOINT

(SHOWN AT ABUT., SIMILAR AT PIERS 1&3)



DETAIL AT EXISTING EXP. JOINT

(PIER 2)

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-11-39

DRAWN BY PMM | PLANS CK'D. CAD

RAILINGS

SHEET 2

403

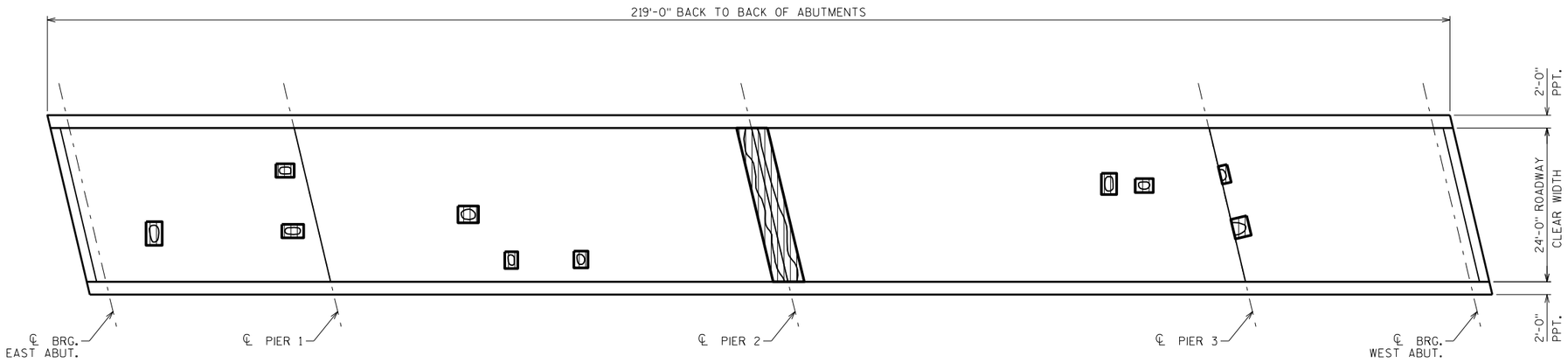
SCALE = 1.0

8

8

STATE PROJECT NUMBER
1010-02-84





PLAN

SHOWING APPROXIMATE REHAB AREAS

FIELD OBSERVATIONS SUMMARY		STRUCTURE NO. B-11-39	
ITEM	UNIT	QUANT.	%
TOTAL AREA	SY	580.2	
SHADE/DEBRIS	SY	0	
PREPARATION DECKS TYPE 1	SY	20.4	3.5
PREPARATION DECKS TYPE 2	SY	10.2	1.8
FULL DEPTH DECK REPAIR	SY	1.0	0.2

LEGEND

DECK PREPARATION AREA

SHADE/DEBRIS

DELAMINATION

SPALL

DEBOND

ASPHALT PATCH

CONCRETE PATCH

INFRARED INSPECTION PERFORMED BY AECOM ON 10/22/14 UNDER PROJECT ID 6033-37-48. PROVIDED FOR INFORMATION ONLY.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-11-39

DRAWN BY PMM | PLANS CK'D. CAD

DECK PREP SURVEY

SHEET 3

404

8

8

SCALE = 10.0

STATE PROJECT NUMBER

1010-02-84

TABLE OF ESTIMATED QUANTITES

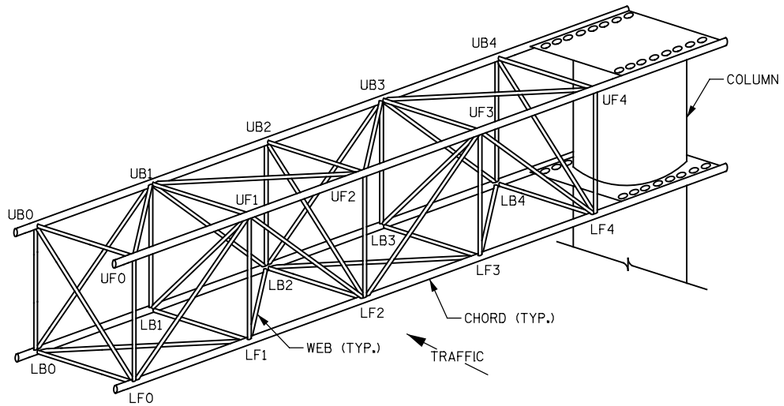
STRUCTURE NUMBER	ELEVATION VIEW SHEET NUMBER	HIGHWAY	DIRECTION OF TRAVEL	LOCATION	REPLACE CONDUIT PLUG	TENSION POST TO TRUSS CONNECTION BOLT	TENSION ANCHOR RODS	REPLACE SIGN PANEL CONNECTOR	INSTALL / REPLACE U-BOLT	REPLACE SIGN BRIDGE ID PLAQUE	INSTALL VIBRATION CONTROL DAMPER	REMOVE CATWALK
					SPV.0060.01	SPV.0060.02	SPV.0060.03	SPV.0060.04	SPV.0060.05	SPV.0060.06	SPV.0060.12	SPV.0105.01
					EACH	EACH	EACH	EACH	EACH	EACH	EACH	LS
S-11-007	2 OF 5	IH-90/94	NB	IH-90/94 W, 1/2 MILE NORTH OF IH-39 INTERCHANGE	3	7	1				1	1
S-11-016	3 OF 5	IH-90/94	NB	IH-90/94 W, SOUTH OF IH-39 SPLIT INTERCHANGE				13	1	1		
S-11-017	4 OF 5	IH-90/94	NB	IH-90/94 W, SOUTH OF IH-39 SPLIT INTERCHANGE						1		
S-11-018	5 OF 5	IH-90/94	SB	IH-90/94 E AT THE EXIT TO STH-78						1		
				TOTAL	3	7	1	13	1	3	1	1

GENERAL NOTES:

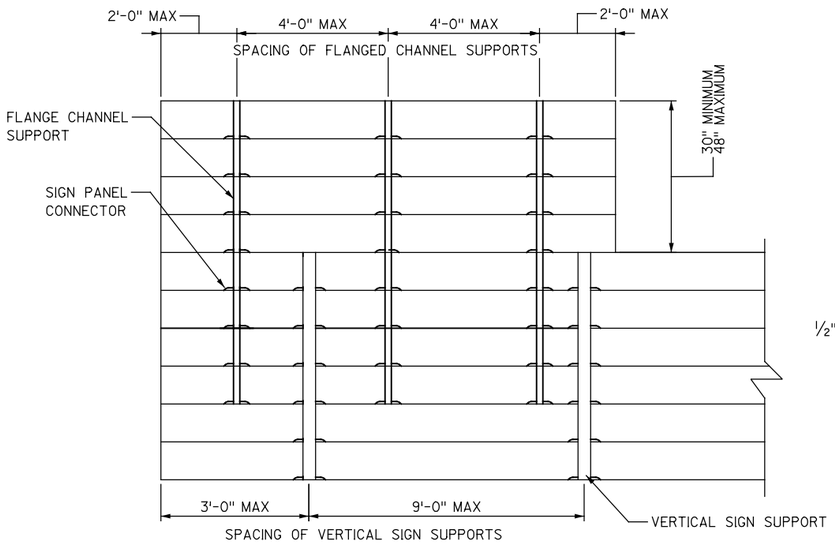
1. THE CONTRACTOR SHALL VERIFY EXACT LOCATION OF ALL REPAIRS.
2. THE CONTRACTOR SHALL FIELD VERIFY THE SIZE OF THE ITEM REQUIRED.
3. ALL STAINLESS STEEL BOLTS, LOCK WASHERS, AND NUTS SHALL CONFORM TO:
   -ANCHOR BOLTS/HEX BOLTS ASTM F593 ANY ALLOY GROUP 1, 2, OR 3
   -HEX NUTS ASTM 594
   -WASHERS ASTM A240
   ANY OF THE 300 SERIES WHICH HAVE A MINIMUM YIELD OF 40,000 PSI AND ELONGATION OF 15% FOR OVER ¾" ϕ AND 12% FOR ¾" ϕ AND SMALLER.

LIST OF DRAWINGS

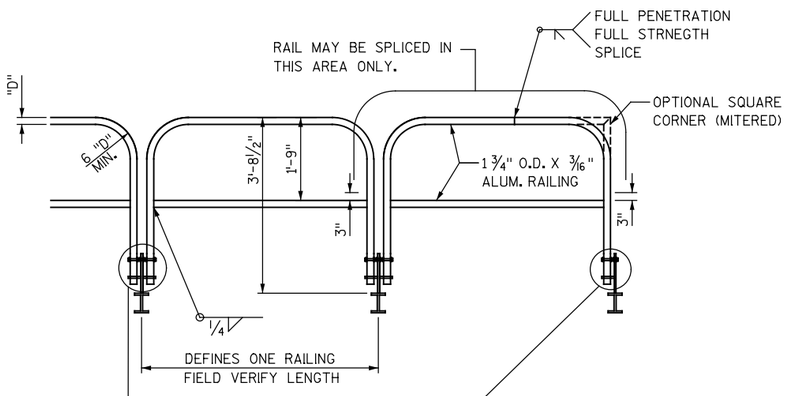
1. GENERAL NOTES & QUANTITIES
2. STRUCTURE S-11-007
3. STRUCTURE S-11-016
4. STRUCTURE S-11-017
5. STRUCTURE S-11-018



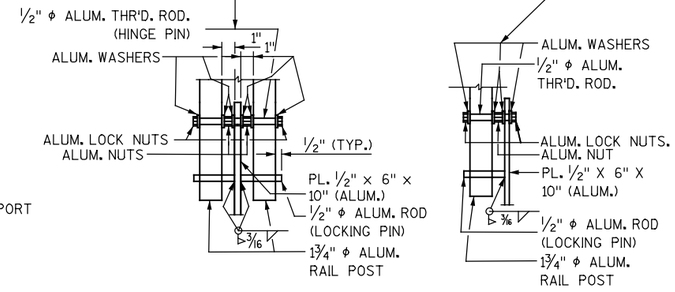
CANTILEVER SIGN BRIDGE

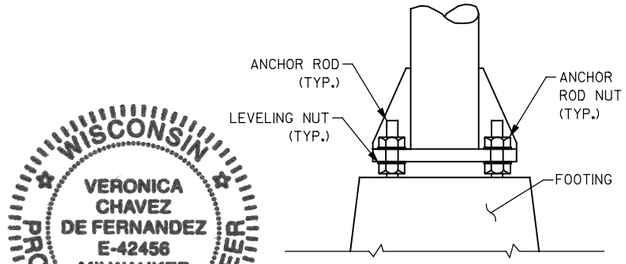


FLANGE CHANNEL SUPPORT/VERTICAL SIGN SUPPORT DETAILS



TYPICAL RAILING DETAILS

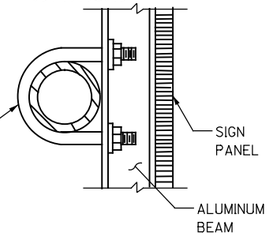




TYPICAL TENSION ANCHOR ROD

WISCONSIN
VERONICA CHAVEZ DE FERNANDEZ
E-42456
MILWAUKEE
WI
PROFESSIONAL ENGINEER

08/17/2016



TYPICAL REPLACE U-BOLT & TIGHTEN LOOSE U-BOLT DETAIL

BUREAU OF STRUCTURES CONTACT:
BILL DREHER: (608) 266-8489

CONSULTANT CONTACT:
DREW GARCEAU (414) 282-6905

NO.	DATE	REVISION	BY

COLLINS ENGINEERS INC

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

ACCEPTED William C. Dreher SDR 08/19/16
CHIEF STRUCTURES DESIGN ENGINEER — DATE

SIGN STRUCTURE REPAIRS

COLUMBIA COUNTY

COUNTY	TOWN/CITY/VILLAGE
SOUTWEST REGION	CALEDONIA

DESIGN SPEC. AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS

DESIGNED BY	VC	DESIGN CK'D.	DG	DRAWN BY	VC	PLANS CK'D.	DG

GENERAL NOTES & QUANTITES

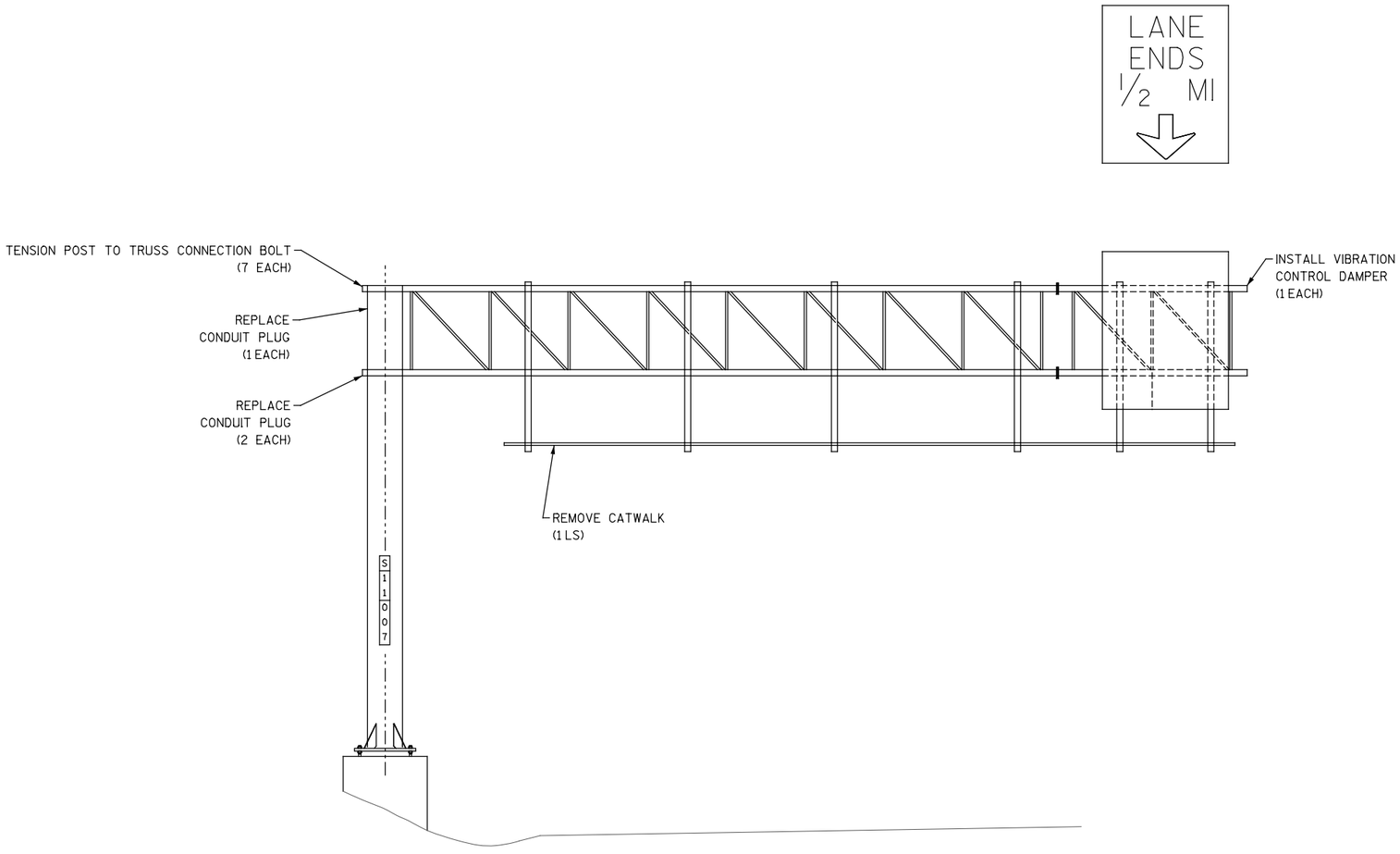
SHEET 1 OF 5
405

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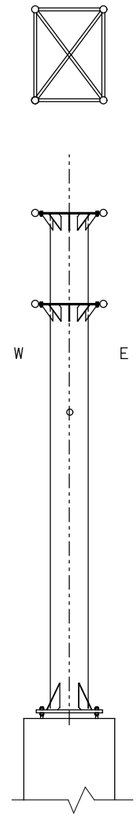
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PLOT DATE :SEP 2014
PLOT BY : Veronica Chavezvtl
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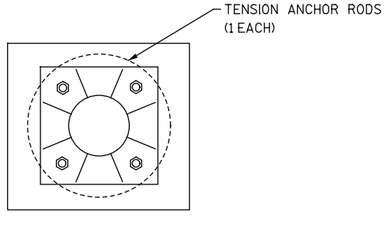
STATE PROJECT NUMBER
1010-02-84



ELEVATION
LOOKING WEST



LOOKING NORTH



FOUNDATION DETAIL

ITEM NO.	LIST OF REPAIRS	QUANTITY
SPV.0060.01	REPLACE CONDUIT PLUG	3 EACH
SPV.0060.02	TENSION POST TO TRUSS CONNECTION BOLT	7 EACH
SPV.0060.03	TENSION ANCHOR RODS	1 EACH
SPV.0060.07	INSTALL VIBRATION CONTROL DAMPER	1 EACH
SPV.0105.01	REMOVE CATWALK	1 LS

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

S-11-007

DRAWN BY VC | PLANS CK'D. DG

ELEVATION VIEW

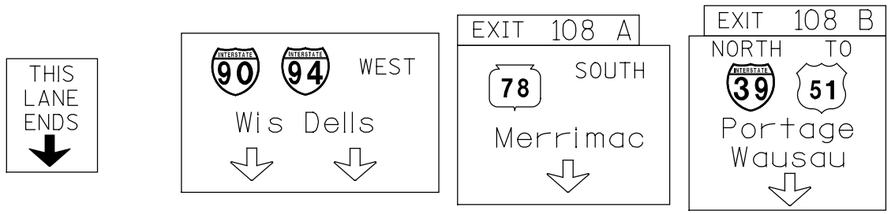
SHEET 2 OF 5
406

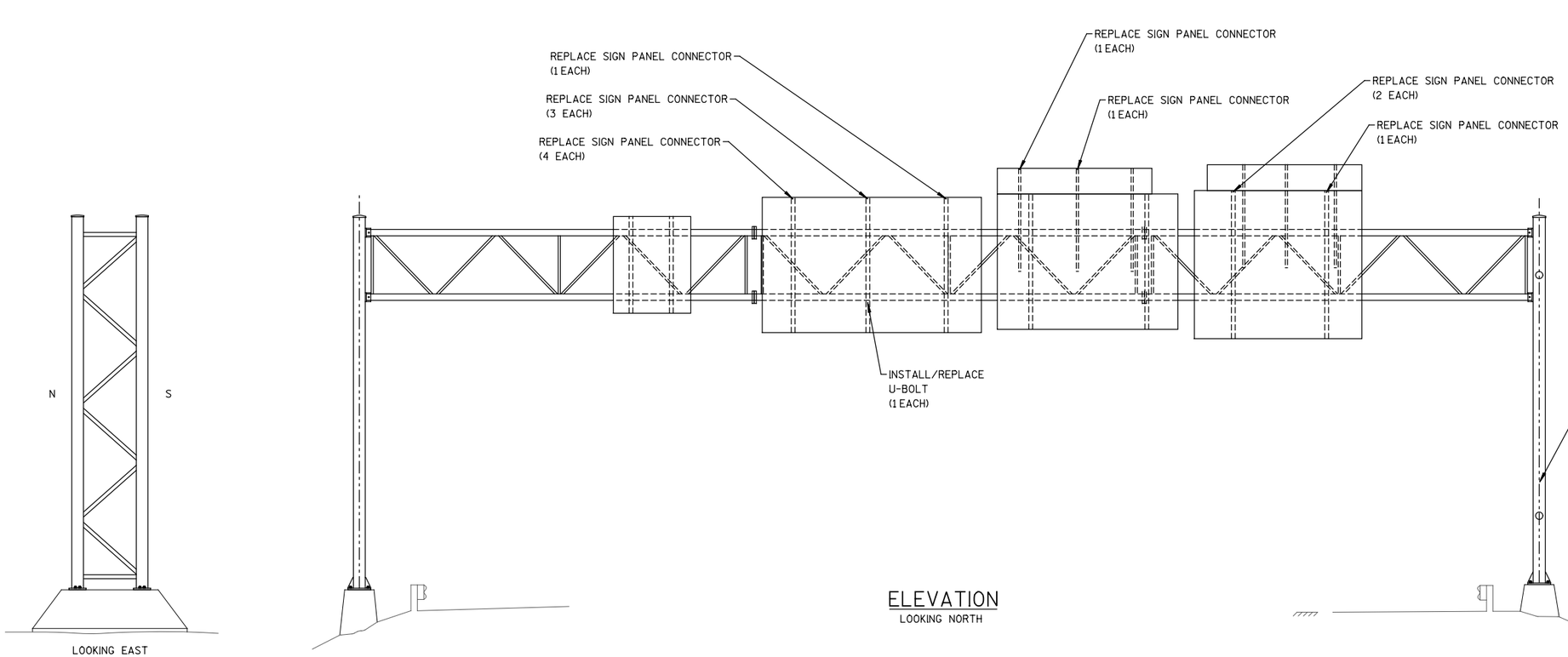
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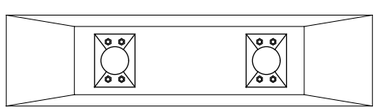
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STATE PROJECT NUMBER
1010-02-84

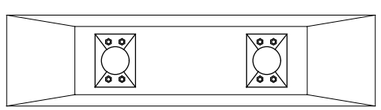




ELEVATION
LOOKING NORTH



WEST FOUNDATION DETAIL



EAST FOUNDATION DETAIL

ITEM NO.	LIST OF REPAIRS	QUANTITY
SPV.0060.04	REPLACE SIGN PANEL CONNECTOR	13 EACH
SPV.0060.05	INSTALL / REPLACE U-BOLT	1 EACH
SPV.0060.06	REPLACE SIGN BRIDGE ID PLAQUE	1 EACH

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

S-11-016

DRAWN BY VC | PLANS CK'D. DG

ELEVATION VIEW

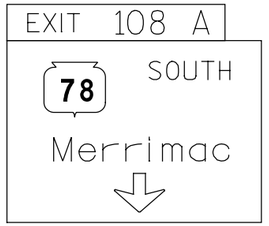
SHEET 3 OF 5
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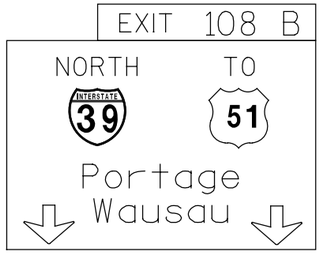
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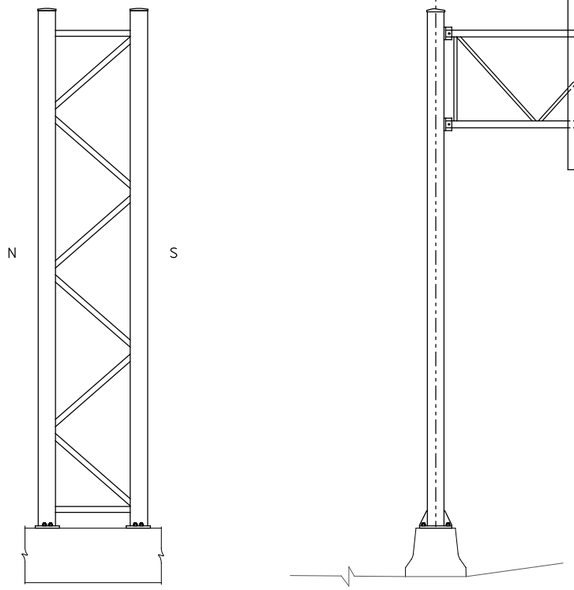
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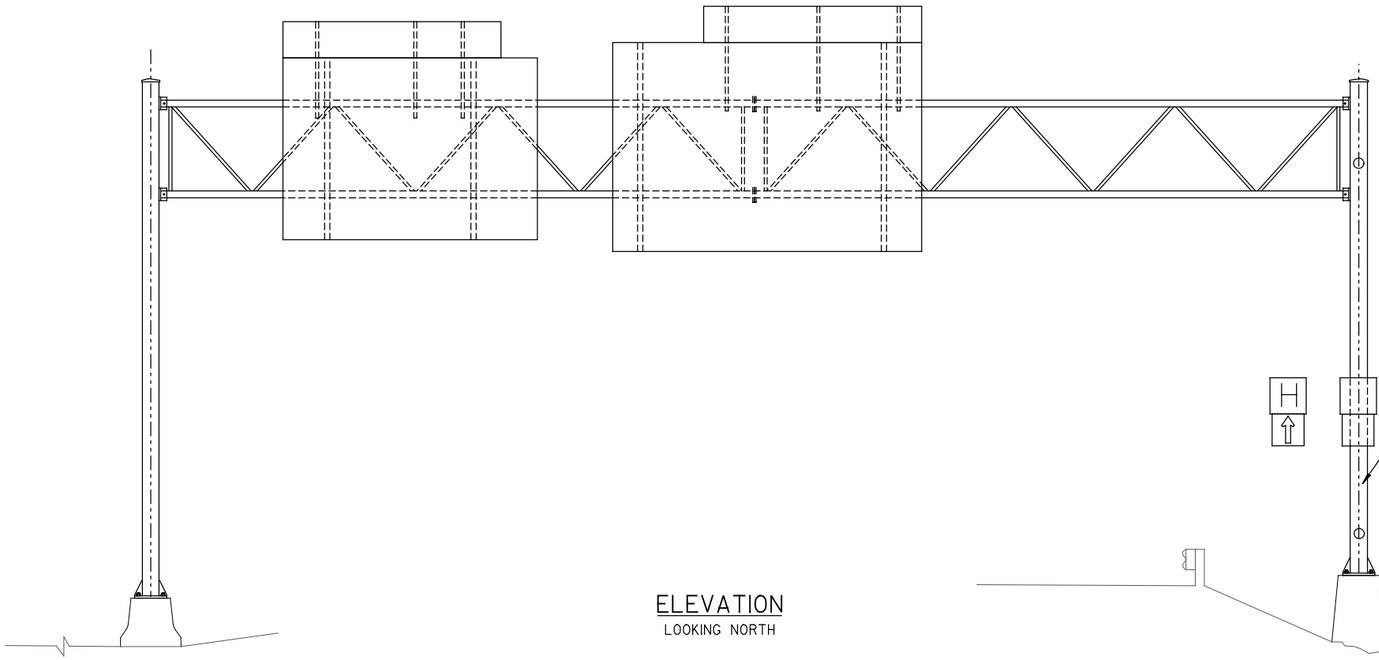
STATE PROJECT NUMBER
1010-02-84



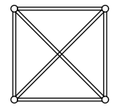


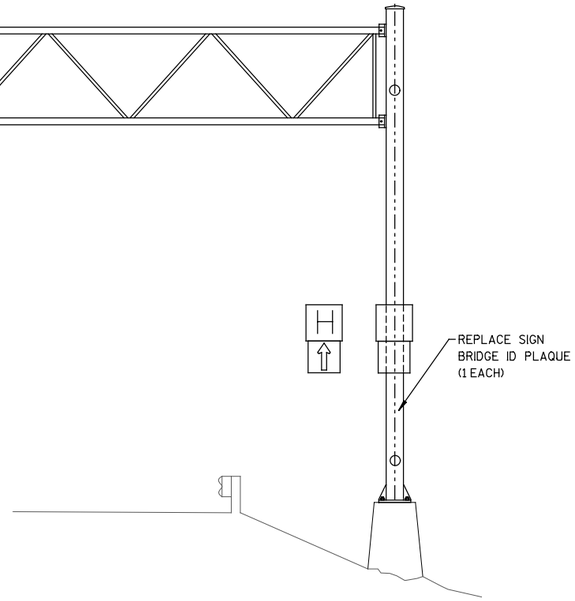


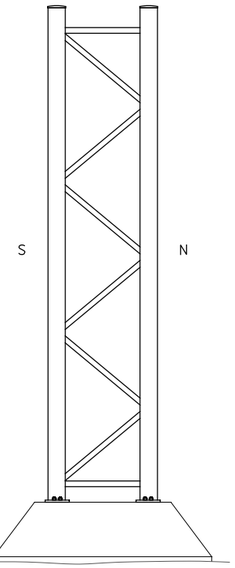
LOOKING EAST



ELEVATION
LOOKING NORTH



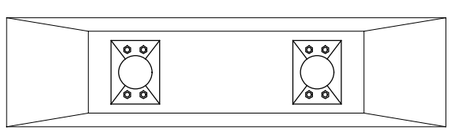




LOOKING WEST



WEST FOUNDATION DETAIL



EAST FOUNDATION DETAIL

ITEM NO.	LIST OF REPAIRS	QUANTITY
SPV.0060.06	REPLACE SIGN BRIDGE ID PLAQUE	1 EACH

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

S-11-017

DRAWN BY VC | PLANS CK'D. DG

ELEVATION VIEW

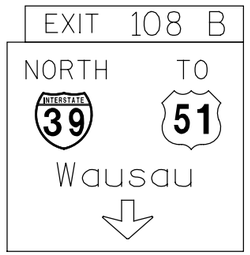
SHEET 4 OF 5
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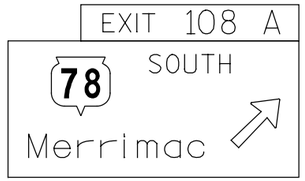
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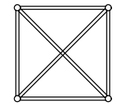
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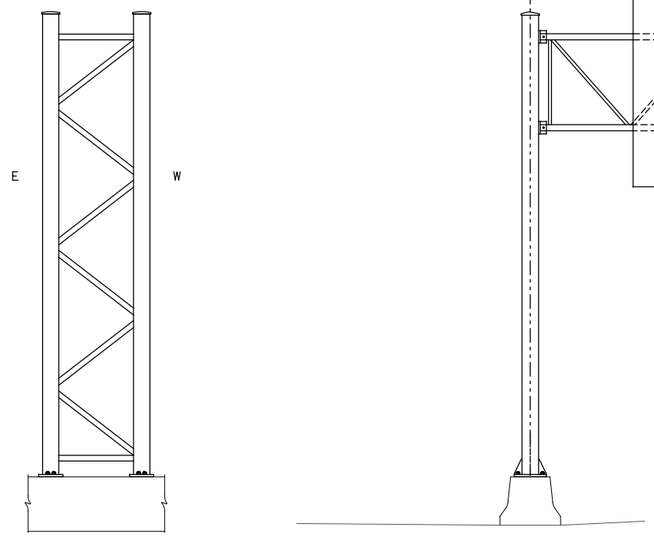
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PLOT DATE :8/16/2016
PLOT BY : Veronica Chavez-Vil
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STATE PROJECT NUMBER
1010-02-84

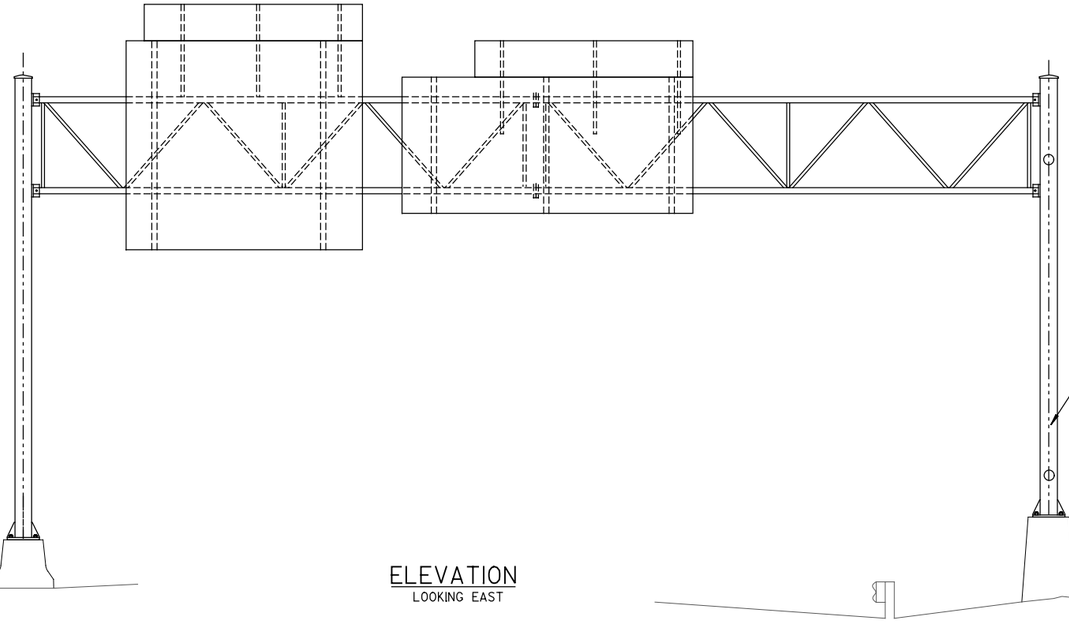




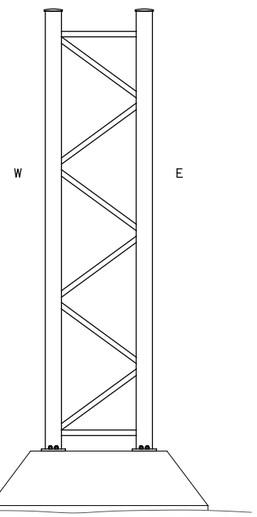




LOOKING SOUTH



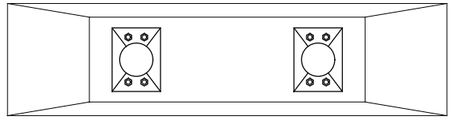
ELEVATION
LOOKING EAST



LOOKING NORTH



NORTH FOUNDATION DETAIL



SOUTH FOUNDATION DETAIL

ITEM NO.	LIST OF REPAIRS	QUANTITY
SPV.0060.06	REPLACE SIGN BRIDGE ID PLAQUE	1 EACH

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

S-11-018

DRAWN BY VC | PLANS CK'D. DG

ELEVATION VIEW

SHEET 5 OF 5
409

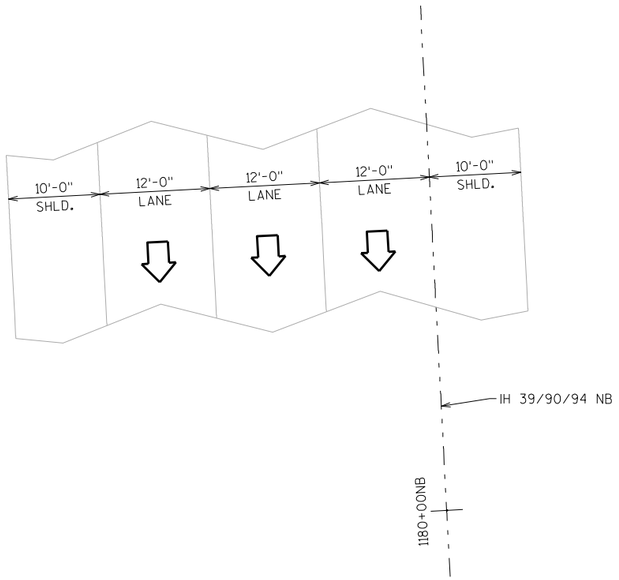
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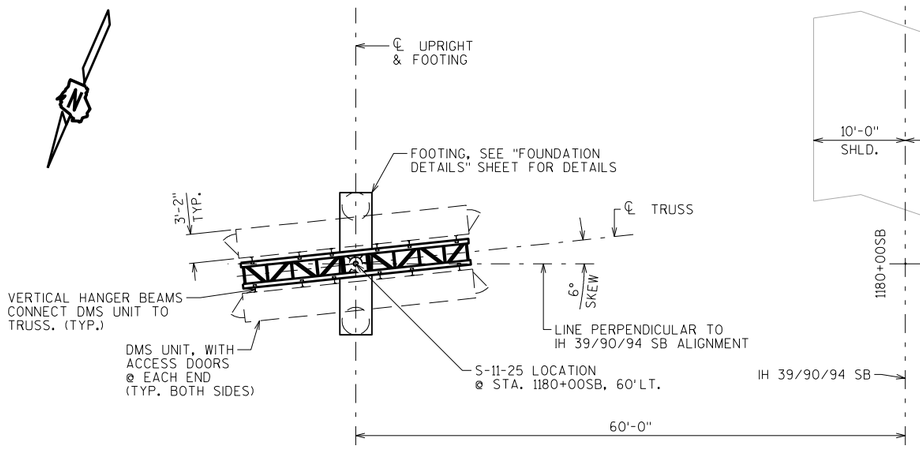
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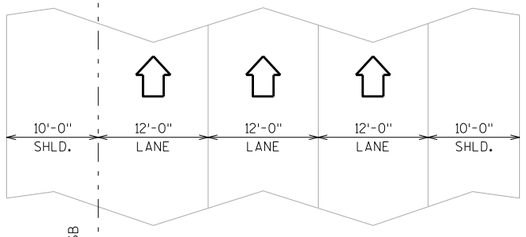
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STATE PROJECT NUMBER

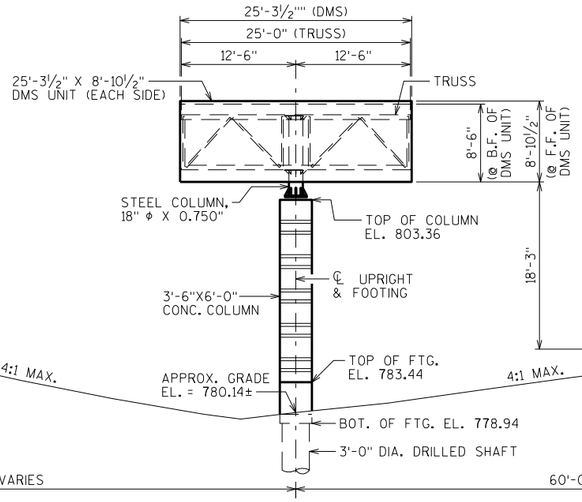
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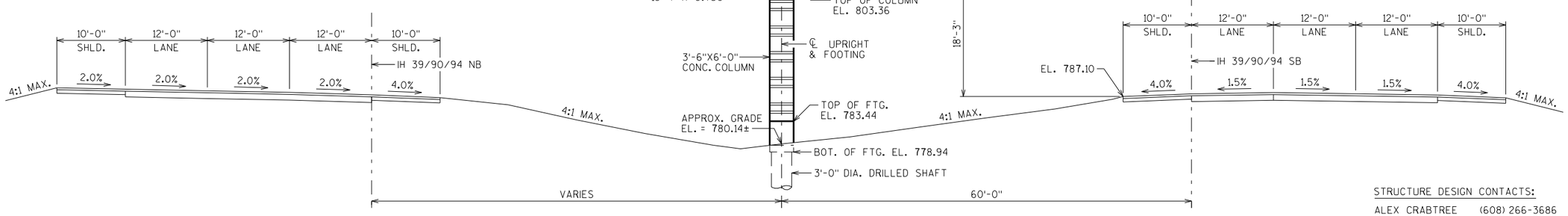






PLAN





ELEVATION

(LOOKING SOUTH)

DESIGN DATA

DESIGNED ACCORDING TO A.A.S.H.T.O "STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES, AND TRAFFIC SIGNALS" 6TH EDITION, 2013, AND INTERIM REVISIONS.

DEAD LOAD - WEIGHT OF 2 DMS SIGNS, MOUNTING BEAMS & SUPPORTING STRUCTURE.
ICE LOAD - 3 PSF APPLIED TO ALL MEMBER SURFACE AREAS.
WIND PRESSURE - 90 MPH (3 SECOND GUST SPEED) TO SIGN AREA & EXPOSED MEMBERS.
FATIGUE - CATEGORY 1 (WITHOUT TRUCK-INDUCED GUSTS).

MATERIAL PROPERTIES

CONCRETE MASONRY	f'c = 3,500 psi
HIGH STRENGTH BAR STEEL REINFORCEMENT, GRADE 60	fy = 60,000 psi
STEEL COLUMN, A.P.I. 5L X 42	fy = 42,000 psi
PLATES, BARS & STRUCTURAL ANGLES, ASTM A709 GRADE 36	fy = 36,000 psi
ANCHOR BOLTS, ASTM F1554 GRADE 55	fy = 55,000 psi
HIGH STRENGTH BOLTS - A325	fy = 92,000 psi

DMS UNIT DATA

DMS UNIT DIMENSIONS = 8'-10½" TALL X 25'-3½" WIDE X 3'-2" DEEP
DMS UNIT WEIGHT (PER SIGN) = 4,000 LBS. MAX

TOTAL ESTIMATED QUANTITIES

BID ITEM NUMBER	BID ITEM	UNIT	QUANTITY
517.1010.S	CONCRETE STAINING S-11-25	SF	545
636.0100	SIGN SUPPORT CONCRETE MASONRY	CY	33
636.1500	SIGN SUPPORTS STEEL COATED REINFORCEMENT HS	LB	6,340
◑ 641.0600	SIGN BRIDGE SINGLE POLE SIGN SUPPORT TWO SIGNS S-11-25	LS	1

DYNAMIC MESSAGE SIGNS AND HOUSINGS WILL BE STATE-FURNISHED. SEE ROADWAY PLANS AND SPECIAL PROVISIONS FOR INSTALLATION.

◑ THIS LUMP SUM PAY ITEM INCLUDES VERTICAL HANGER BEAMS AND CONNECTION HARDWARE, HORIZONTAL TRUSS, VERTICAL STEEL COLUMN AND ANCHOR BOLT ASSEMBLIES.

FOUNDATION DATA

SOIL PROPERTIES USED FOR THIS DESIGN ARE LOCATED ON THE SUBSURFACE EXPLORATION PLAN SHEET. IF VARIATIONS IN THE DESIGN PARAMETERS ARE FOUND DURING CONSTRUCTION NOTIFY THE PROJECT ENGINEER FOR REQUIRED MODIFICATION TO THE FOUNDATION SYSTEM.

TRAFFIC VOLUME

IH 39/90/94
A.D.T. = 72,500 (2035)
R.D.S. = 70 M.P.H.

LIST OF DRAWINGS

1. GENERAL PLAN & ELEVATION
2. SIGN BRIDGE DETAILS
3. FOUNDATION DETAILS
4. CONCRETE COLUMN DETAILS
5. SIGN TRUSS DETAILS
6. DMS SIGN PANEL MOUNTING DETAILS
7. TRUSS/POST CONNECTION & BASE PLATES
8. HANDHOLE DETAILS
9. SUBSURFACE EXPLORATION

STRUCTURE DESIGN CONTACTS:
ALEX CRABTREE (608) 266-3686
LAURA SHADEWALD (608) 267-9592

NO.	DATE	REVISION	BY

Plans Prepared By **WISDOT**
BUREAU OF STRUCTURES

ACCEPTED William C. Dreher 8/5/16
CHIEF STRUCTURES DESIGN ENGINEER — DATE

STRUCTURE S-11-25

DMS SIGN ON IH 39/90/94 NB & SB

COUNTY: COLUMBIA — TOWN ~~CITY/VILLAGE~~: DEKORRA

DESIGN SPEC.: AASHTO STD. SPEC. FOR HIGHWAY BRIDGES, 17th EDITION

DESIGNED BY	DESIGN CK'D.	DRAWN BY	PLANS CK'D.
ARC	VT/SAD	ARC	VT

GENERAL PLAN & ELEVATION

SHEET 1 OF 9

410

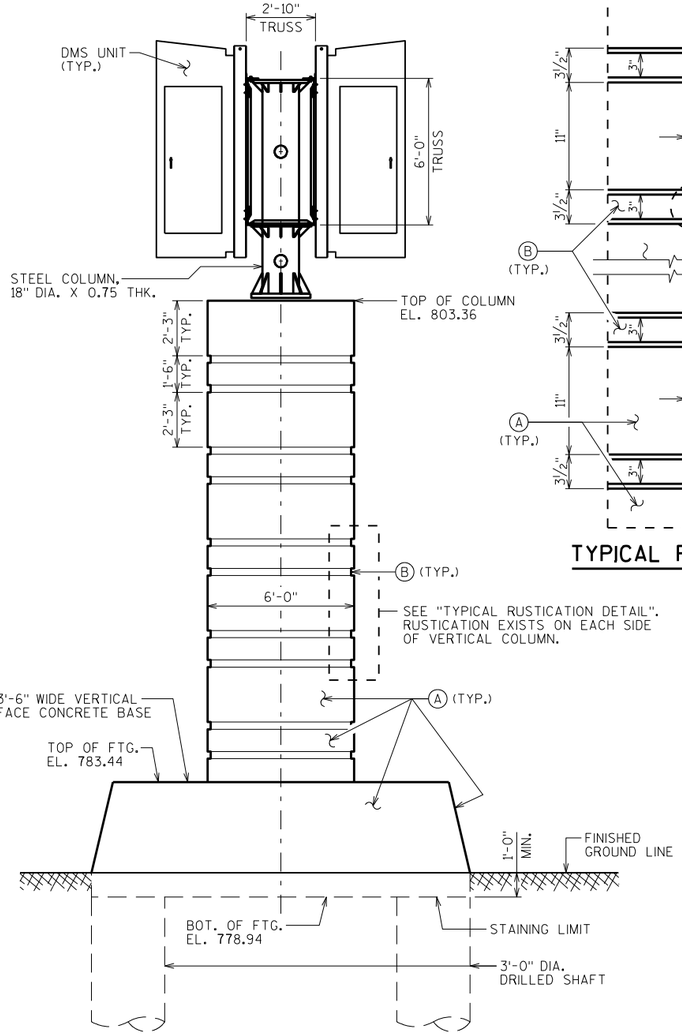
I.D. 1010-02-021

DATE: **APR. 2016**

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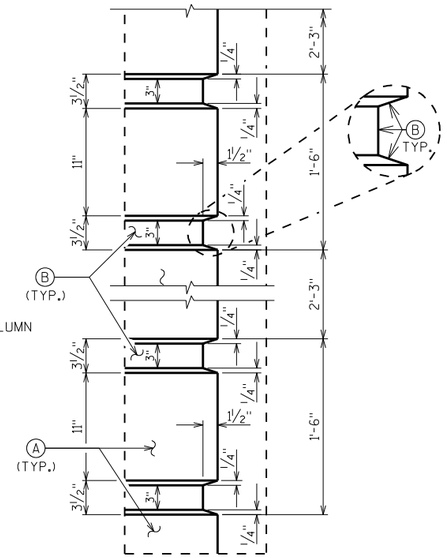
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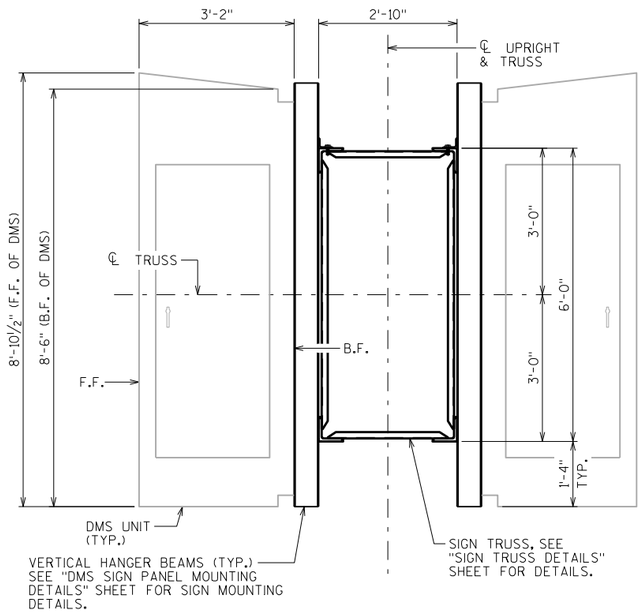


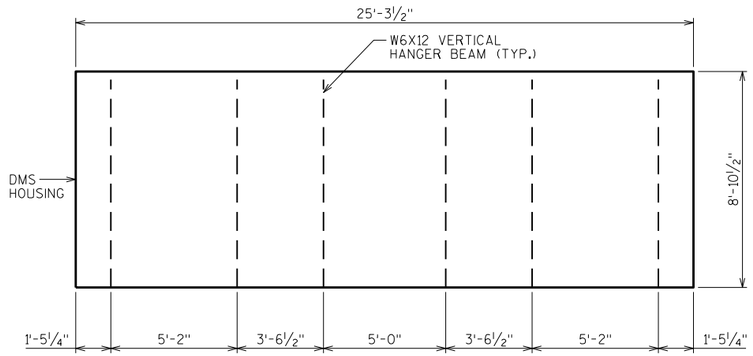
SIDE ELEVATION - AESTHETICS

(TYPICAL SIDE ELEVATION)



TYPICAL RUSTICATION DETAIL





DMS VERTICAL HANGER BEAM SPACING DETAIL

NOTES:
VERTICAL HANGER BEAM SPACING MAY BE ADJUSTED IF CONFLICT WITH TRUSS DETAILS IS ENCOUNTERED. ANY ADJUSTMENTS TO MOUNTING BEAMS MUST BE COORDINATED WITH DMS MANUFACTURER.

NOTES

ALL STAINING TO EXTEND A MINIMUM OF 1'-0" BELOW FINISHED GROUND.

TYPICAL RUSTICATION GROOVE DETAIL SHALL BE USED FOR ALL RUSTICATION GROOVES.

PROVIDE A ¾" CHAMFER ON ALL EXPOSED CONCRETE EDGES.

4 - 1½" NONMETALLIC CONDUIT SCHEDULE 80 SHALL BE INCLUDED WITH THE BID ITEM "SIGN SUPPORT CONCRETE MANSONRY."

(A) CONCRETE STAIN BASE COLOR, FEDERAL COLOR 30372.

(B) CONCRETE STAIN BASE COLOR, FEDERAL COLOR 30140.

SIGN BRIDGE NOTES

DRAWINGS SHALL NOT BE SCALED.

ALL STRUCTURAL STEEL SHALL BE GALVANIZED PER ASTM A123. ANCHOR BOLTS, HEAVY HEX NUTS AND WASHERS SHALL BE GALVANIZED IN ACCORDANCE WITH THE AASHTO SPECIFICATIONS AS STATED IN SECTION 641 OF THE WISDOT STANDARD SPECIFICATIONS.

WELDING SHALL CONFORM TO AWS D1.1.

THE FIRST DIGIT OF A THREE-DIGIT BAR MARK OR THE FIRST TWO DIGITS OF A FOUR-DIGIT BAR MARK SIGNIFIES THE BAR SIZE.

BAR STEEL SHALL BE EMBEDDED 2" CLEAR FROM NEAREST EDGE OF CONCRETE UNLESS NOTED OTHERWISE.

STRUCTURE IDENTIFICATION PLAQUES SHALL BE CONSIDERED INCIDENTAL TO THE BID ITEM "SIGN BRIDGE SINGLE POLE SIGN SUPPORT TWO SIGNS S-11-25". FABRICATION IN ACCORDANCE WITH S.D.D. 12A4-3.

ELEVATIONS ARE IN FEET UNLESS OTHERWISE SHOWN OR NOTED.

CENTER BACKFACE OF SIGNS VERTICALLY AND HORIZONTALLY ON TRUSS.

ALTERNATE DESIGNS ARE NOT ALLOWED.

NUTS FOR ANCHOR BOLTS SHALL BE ASTM A563 GRADE 'A' HEAVY HEX AND SHALL HAVE JAM NUTS.

DO NOT GROUT THE SPACE BETWEEN TOP OF FOOTING AND BOTTOM OF BASE PLATE.

HAND HOLES AND GROUND RODS ARE REQUIRED.

ASSEMBLE STRUCTURE PRIOR TO GALVANIZING AND PRIOR TO SHIPMENT TO THE SITE TO ASSURE FIT UP. THE STRUCTURE IS INTENDED TO BE FABRICATED, GALVANIZED AND SHIPPED AS A SINGLE UNIT.

SHOP DRAWINGS FOR THE STRUCTURE ARE REQUIRED AND FABRICATION SHALL NOT BEGIN UNTIL THESE SHOP DRAWINGS ARE ACCEPTED.

PROVIDE A ¾" CHAMFER ON ALL EXPOSED CONCRETE EDGES.

EXCAVATION AND BACKFILL REQUIRED TO CONSTRUCT THE CONC. COLUMN FOUNDATION ABOVE THE DRILLED SHAFTS SHALL BE INCLUDED WITH THE BID ITEM "SIGN SUPPORT CONCRETE MASONRY."

EXCEPT FOR ANCHOR BOLTS, ALL BOLT HOLE DIAMETERS SHALL BE EQUAL TO THE BOLT DIAMETER PLUS 1/16". PRIOR TO GALVANIZING.

ANCHOR RODS SHALL BE PROVIDED WITH TEMPLATES (TOP & BOTTOM) TO MAINTAIN VERTICAL ALIGNMENT AND SPACING DURING CONCRETE PLACEMENT. TEMPLATES SHALL NOT BE WELDED TO THE ANCHOR RODS.

NO CAMBER IS REQUIRED FOR TRUSS.

STRUCTURAL DESIGN AND DETAILING WAS BASED ON DMS UNIT ALPHA XPRESS 2000, BY ADAPTIVE DISPLAY SOLUTIONS.

STATE PROJECT NUMBER

1010-02-84

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE S-11-25

DRAWN BY ARC | PLANS CK'D. VT

SIGN BRIDGE DETAILS

SHEET 2

411

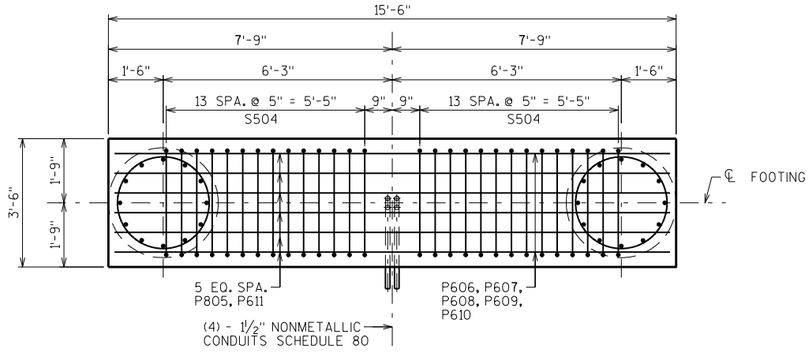
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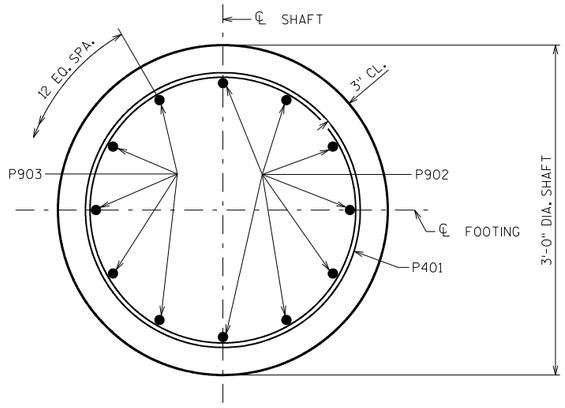
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STATE PROJECT NUMBER

1010-02-84



PLAN



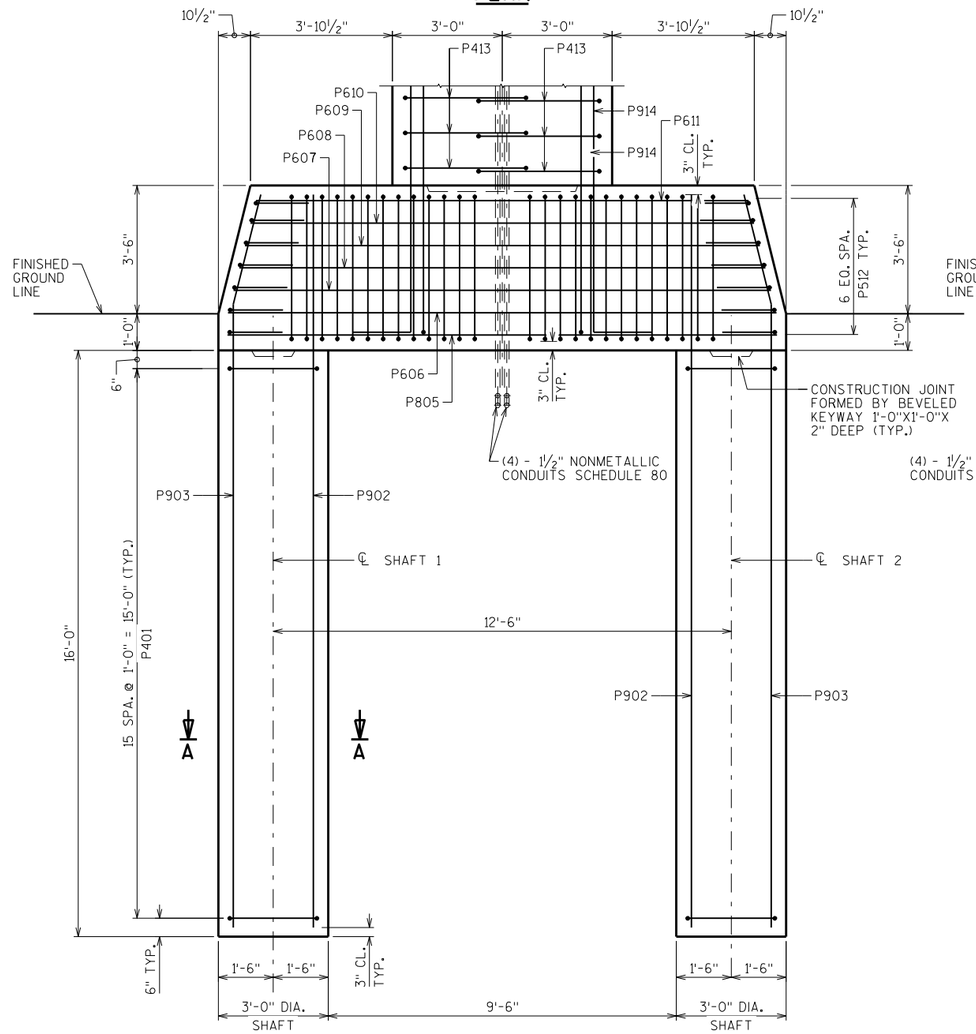
SECTION A-A

SHAFT 1 SHOWN, SHAFT 2 MIRRORED

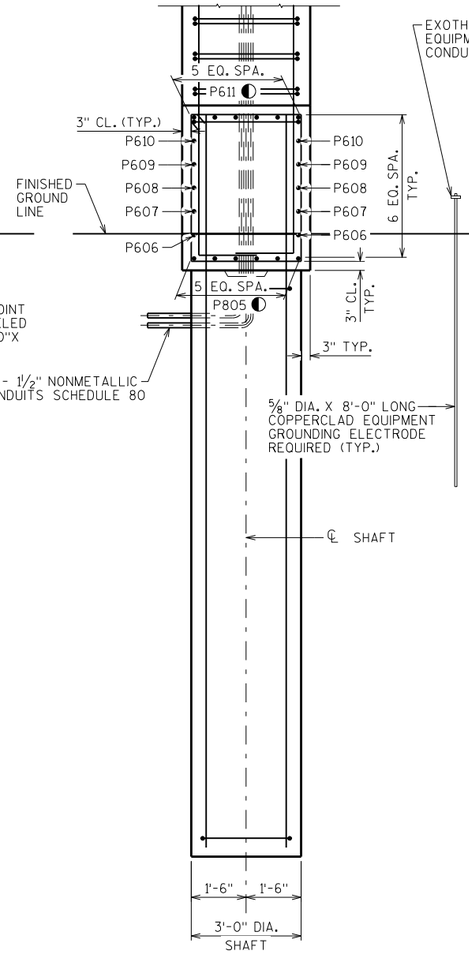
BILL OF BARS

NOTE: THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE

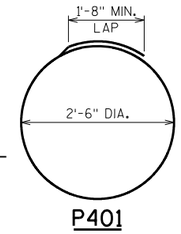
BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
P401	X	32	9'-7"	X		SHAFT - STIRRUP
P902	X	14	19'-10"			SHAFT - VERT.
P903	X	10	19'-10"	X		SHAFT - VERT. - EXTERIOR
P504	X	28	14'-8"	X		CAP - STIRRUP
P805	X	6	15'-0"			CAP - HORIZ. - BOTTOM
P606	X	2	14'-11"			CAP - HORIZ. - SIDES
P607	X	2	14'-8"			CAP - HORIZ. - SIDES
P608	X	2	14'-4"			CAP - HORIZ. - SIDES
P609	X	2	14'-0"			CAP - HORIZ. - SIDES
P610	X	2	13'-8"			CAP - HORIZ. - SIDES
P611	X	6	13'-4"			CAP - HORIZ. - TOP
P512	X	14	6'-1"	X		CAP - HORIZ. - ENDS
P413	X	42	13'-2"	X		COLUMN - STIRRUP
P914	X	28	12'-4"	X		CAP/COLUMN - VERT
P915	X	28	19'-7"			COLUMN - VERT.
P416	X	2	4'-0"	X		COLUMN - HORIZ. - TOP
P417	X	2	6'-6"	X		COLUMN - HORIZ. - TOP



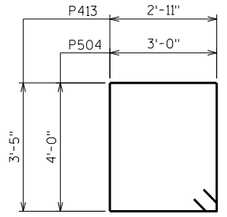
ELEVATION



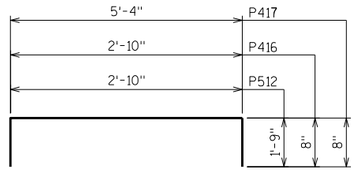
END VIEW



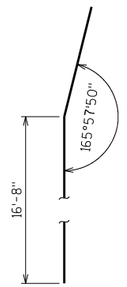
P401



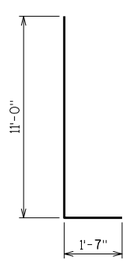
P504, P413



P512, P416, P417



P903



P914

NOTES:

PROVIDE A ¾" CAMBER ON ALL EXPOSED CONCRETE EDGES.

(4) - 1½" NONMETALLIC CONDUITS SCHEDULE 80 SHALL BE INCLUDED WITH THE BID ITEM "SIGN SUPPORT CONCRETE MASONRY"

A NO. 4 STRANDED COPPER EQUIPMENT GROUNDING CONDUCTOR SHALL BE EXOTHERMICALLY WELDED TO THE EQUIPMENT GROUND.

THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE FURNISHED AND INSTALLED TO ENTER THE FOOTING THROUGH A 1-INCH CONDUIT INSTALLED FOR GROUNDING PURPOSES.

GROUNDING ELECTRODE, GROUNDING CONDUCTOR AND THE 1-INCH CONDUIT SHALL BE INCLUDED WITH THE BID ITEM "SIGN SUPPORT CONCRETE MASONRY".

◐ SPACE TO MISS VERTICAL SHAFT REINFORCEMENT AND CONDUIT.

NO.	DATE	REVISION	BY

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STRUCTURES DESIGN SECTION

STRUCTURE S-11-25

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FOUNDATION DETAILS

SHEET 3

412

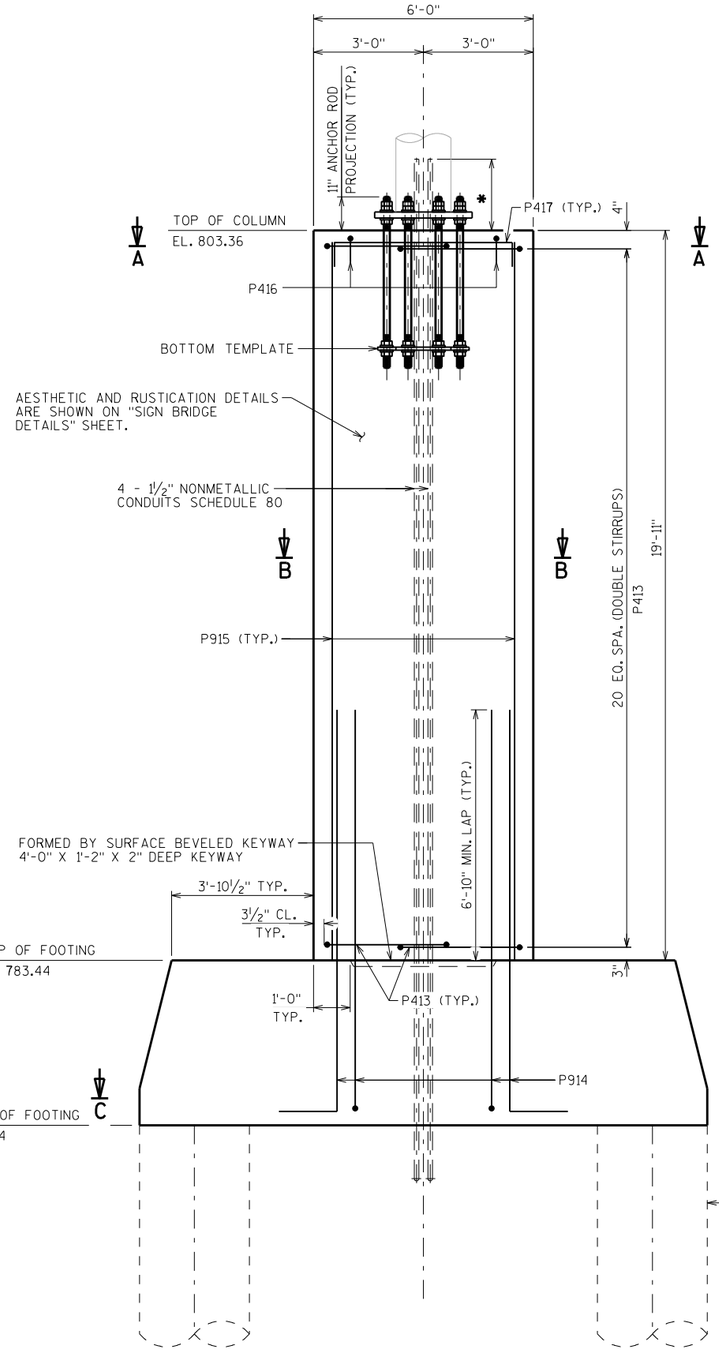
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8

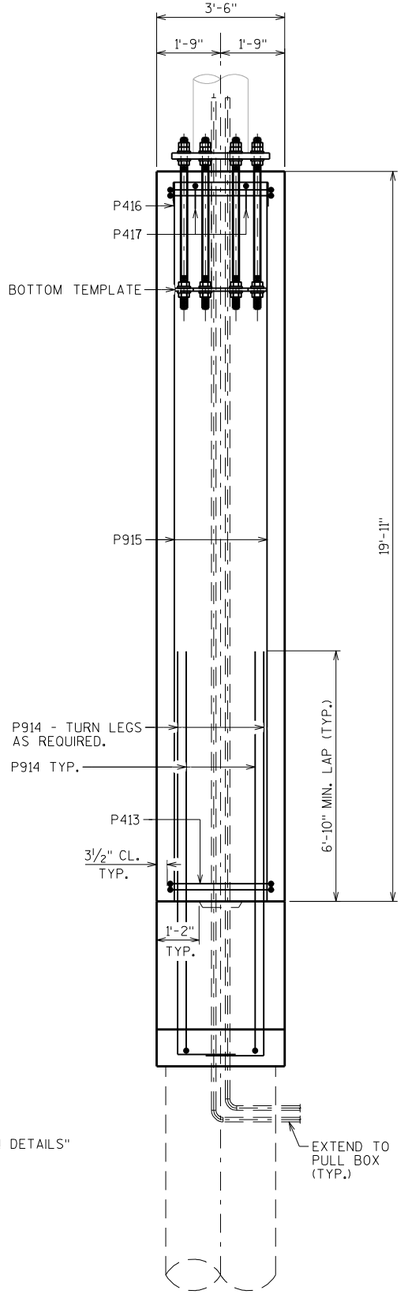
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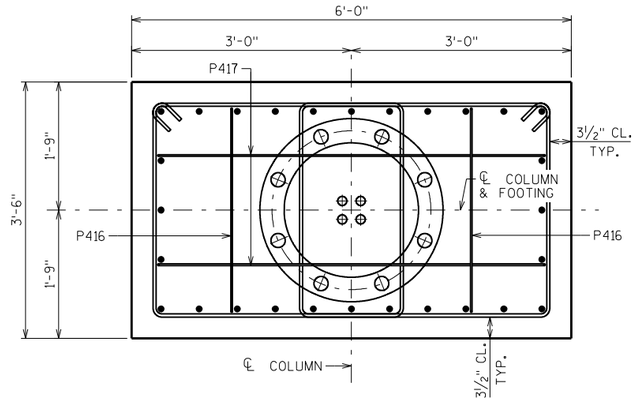


SIDE ELEVATION

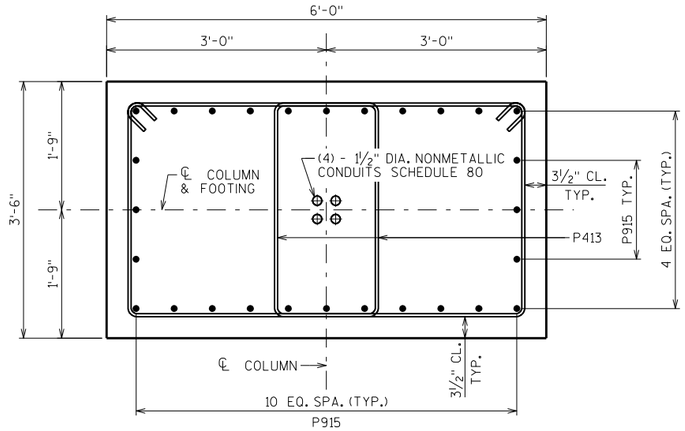


FRONT ELEVATION

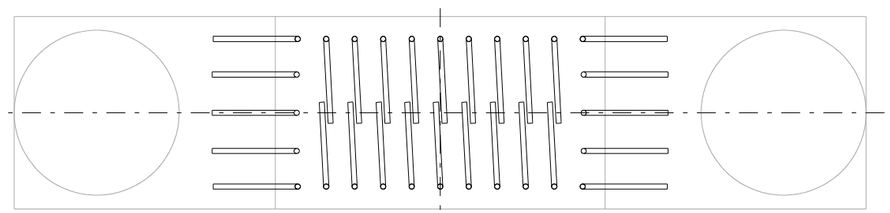
BACK SIDE SIMILAR



SECTION A-A



SECTION B-B



SECTION C-C

P914 LAYOUT

NOTES:

4 - 1½" NONMETALLIC CONDUIT SCHEDULE 80 SHALL BE INCLUDED WITH THE BID ITEM "SIGN SUPPORT CONCRETE MASONRY".

✱ EXTEND 1½" NONMETALLIC CONDUIT SCHEDULE 80 TO THE BOTTOM OF HANDHOLE. 1'-6"±

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CONCRETE COLUMN DETAILS

SHEET 4

413

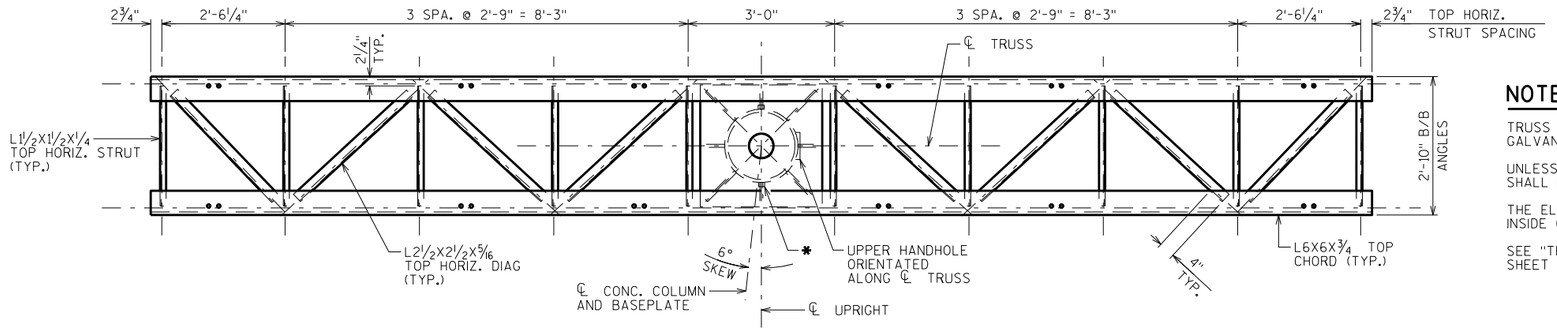
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TOP VIEW M-M

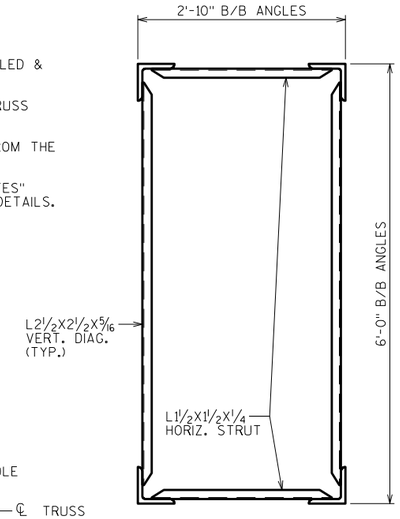
NOTES

TRUSS AND COLUMN SHALL BE SHOP ASSEMBLED & GALVANIZED AS A SINGLE UNIT.

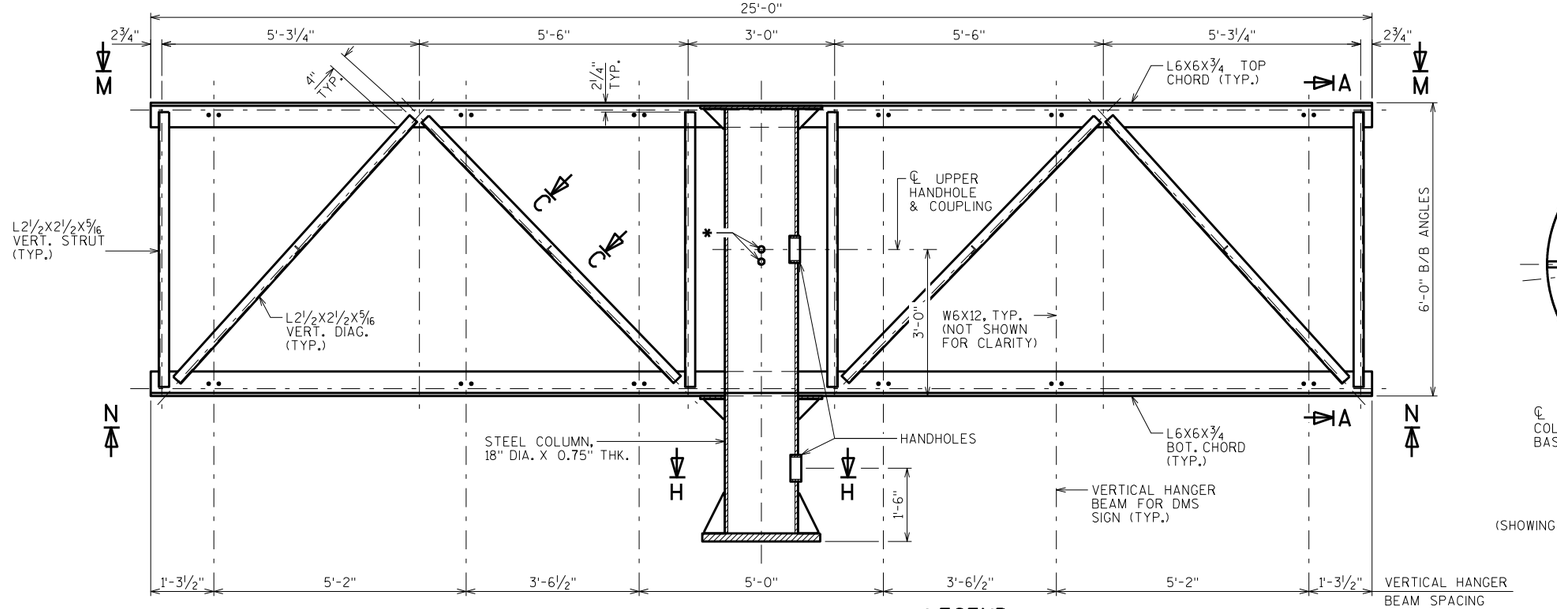
UNLESS OTHERWISE SHOWN, ALL WELDS ON TRUSS SHALL BE ¼" FILLET WELDS ALL AROUND.

THE ELEVATION VIEW OF TRUSS IS DRAWN FROM THE INSIDE OF THE TRUSS LOOKING OUT.

SEE "TRUSS/POST CONNECTION & BASE PLATES" SHEET FOR TRUSS TO COLUMN CONNECTION DETAILS.



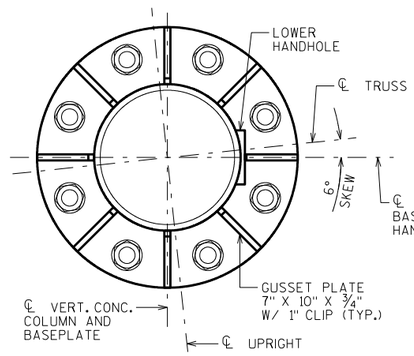
SECTION A-A



ELEVATION

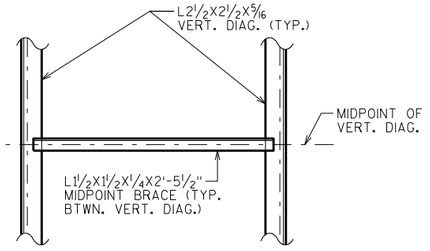
LEGEND

* (2) 1½" CONDUIT COUPLINGS IN STEEL COLUMN, TYP. EACH SIDE OF UPPER HANDHOLE. CONDUIT COUPLINGS ARE INCLUDED WITH BID ITEM 641.0600, "SIGN BRIDGE SINGLE POLE SIGN SUPPORT TWO SIGNS S-11-25."

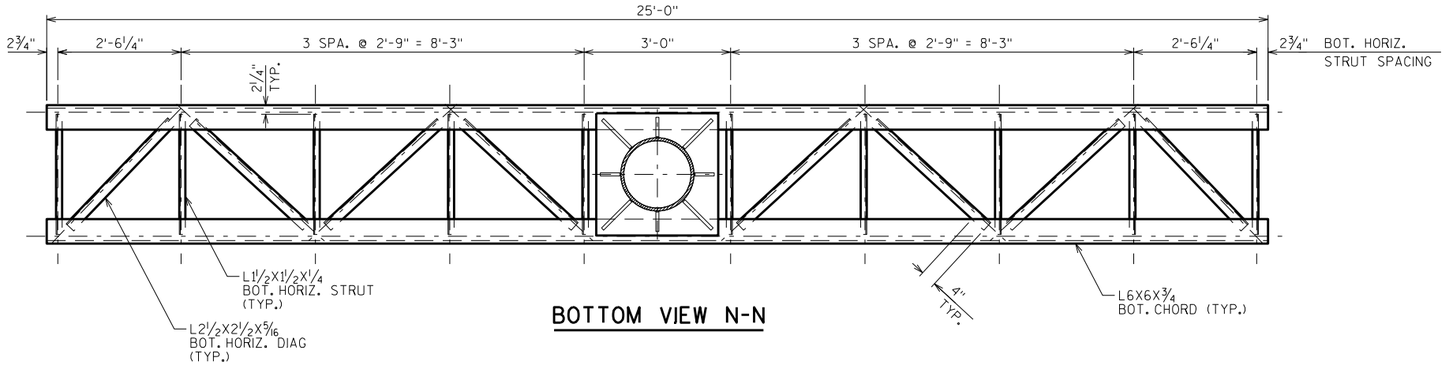


VIEW H-H

(SHOWING LOWER HANDHOLE & BASEPLATE LAYOUT)



SECTION C-C



BOTTOM VIEW N-N

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE S-11-25

DRAWN BY ARC | PLANS CK'D. VT

SIGN TRUSS DETAILS

SHEET 5

414

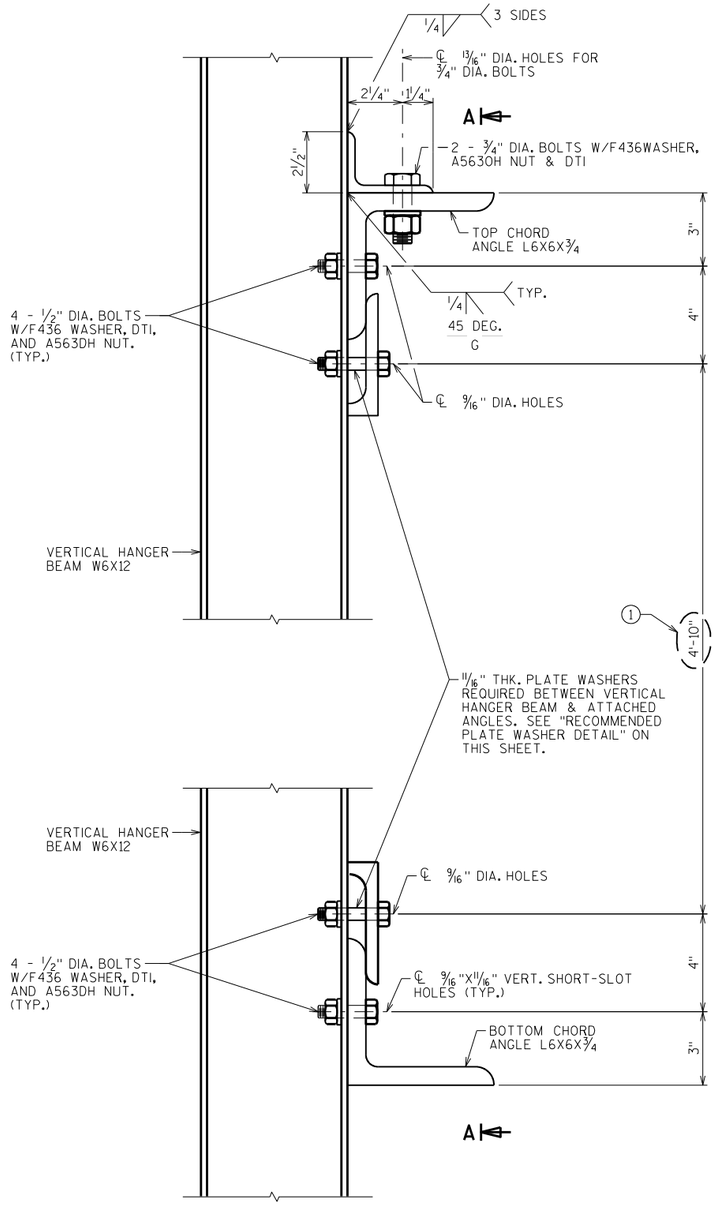
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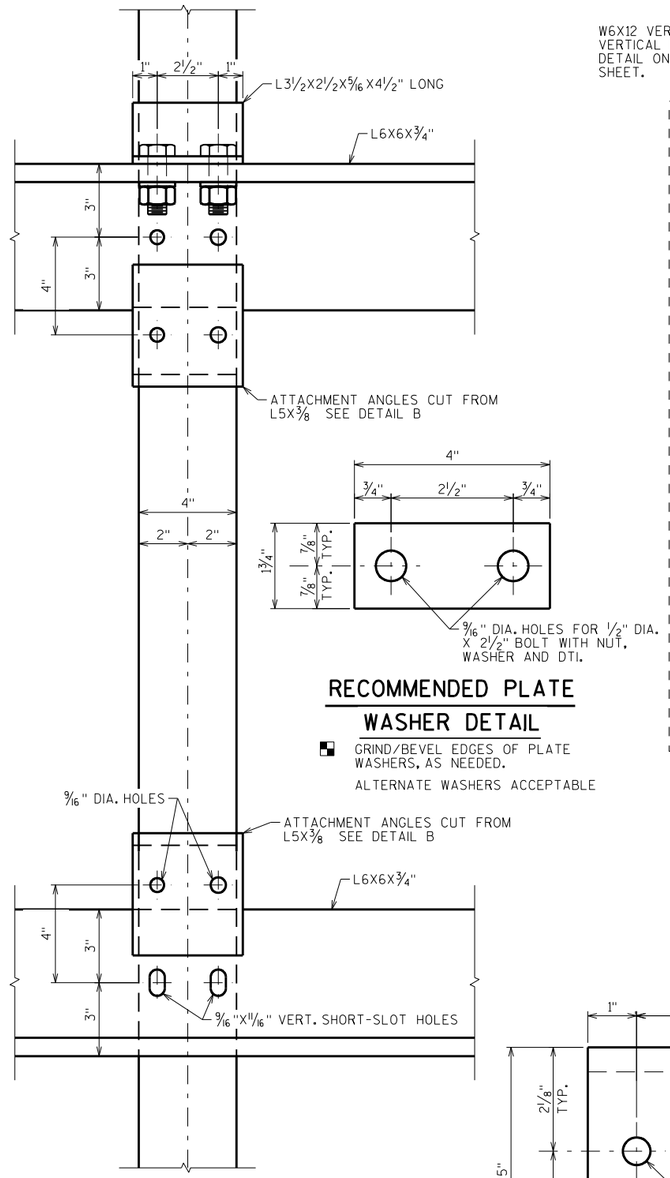
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DETAIL A

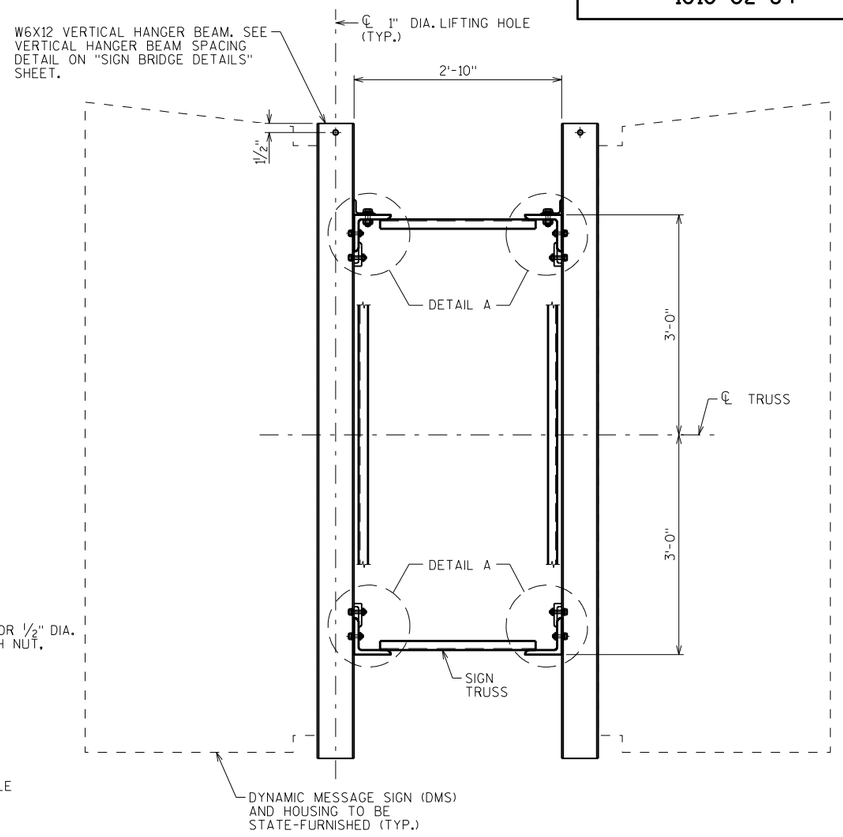


SECTION A-A

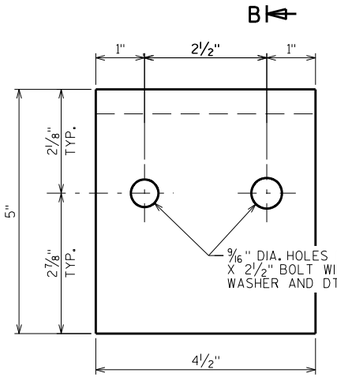
RECOMMENDED PLATE WASHER DETAIL

■ GRIND/BEVEL EDGES OF PLATE WASHERS, AS NEEDED.

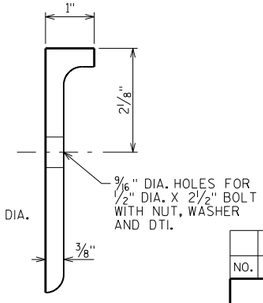
ALTERNATE WASHERS ACCEPTABLE



SECTION THRU TRUSS AT DYNAMIC MESSAGE SIGN (DMS)



DETAIL B



SECTION B-B

NOTES:

(1) (TRUSS DEPTH - (TOP AND BOTTOM CHORD < LEGS) - 2")

W6X12 VERTICAL HANGER BEAM, 3 1/2X2 1/2 ANGLES WELDED TO HANGER BEAM AND ATTACHMENT ANGLES ARE INCLUDED WITH THE BID ITEM 641.0600 SIGN BRIDGE SINGLE POLE SIGN SUPPORT TWO SIDES S-11-25.

■ COLD GALVANIZED PRODUCT TO BE APPLIED TO ANY FIELD DRILLED HOLES AND/OR ANY MODIFICATION TO A GALVANIZED MEMBER.

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STRUCTURES DESIGN SECTION

STRUCTURE S-11-25

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DMS SIGN PANEL MOUNTING DETAILS

SHEET 6

415

SCALE = .25

8

8

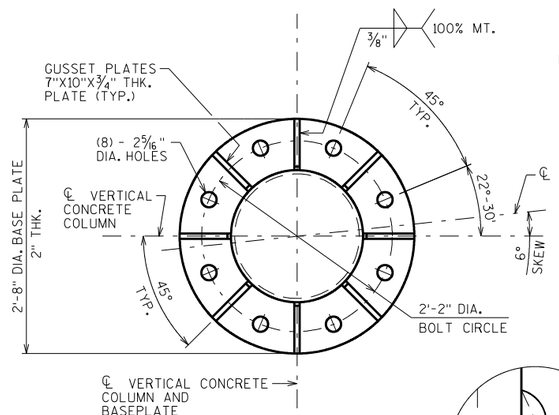
STATE PROJECT NUMBER

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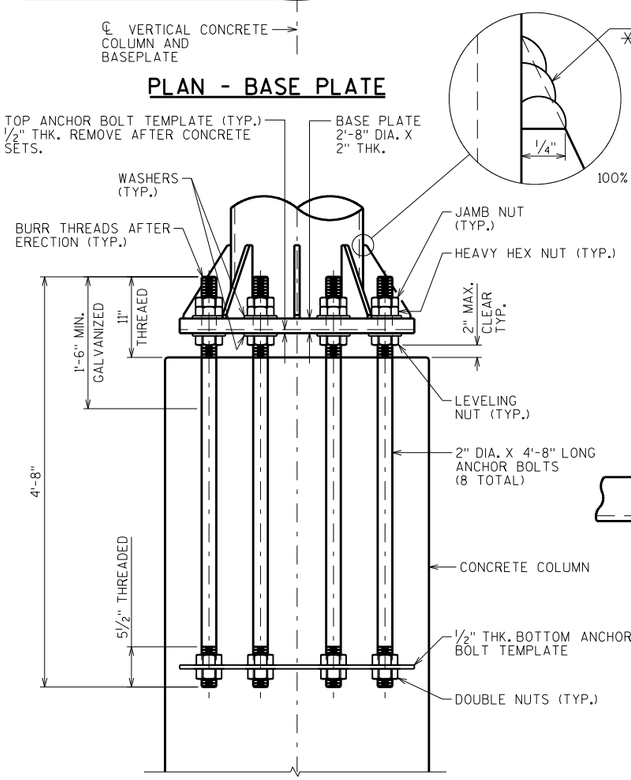
NOTES:

ANCHOR BOLTS SHALL BE PROVIDED WITH TEMPLATES TOP AND BOTTOM TO MAINTAIN VERTICAL ALIGNMENT AND SPACING DURING CONCRETE PLACEMENT. TEMPLATES SHALL NOT BE WELDED TO ANCHOR BOLTS.

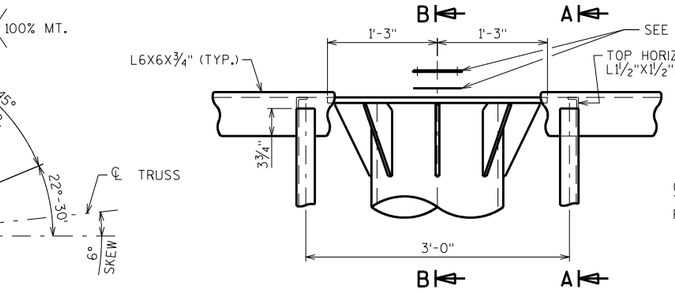
USE DT2321 FORM WHEN INSTALLING ALL ANCHOR BOLTS.

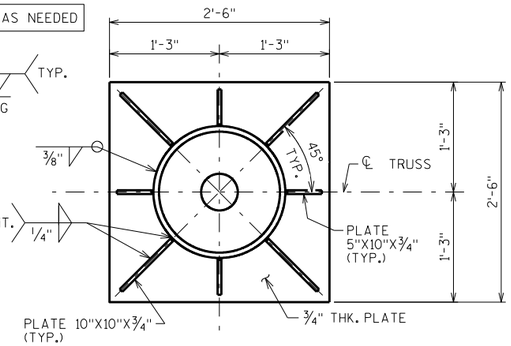


PLAN - BASE PLATE

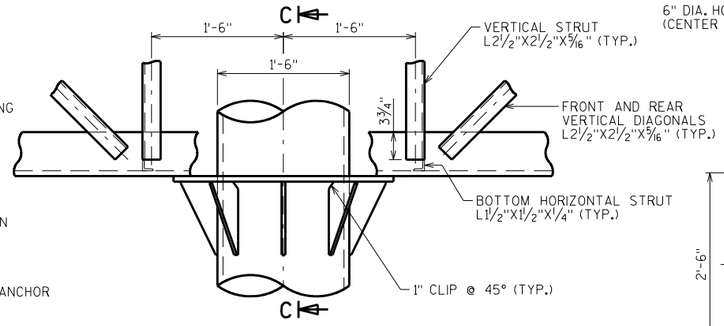


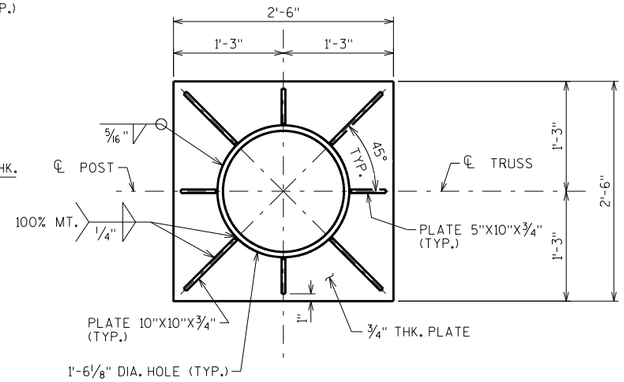
ELEVATION



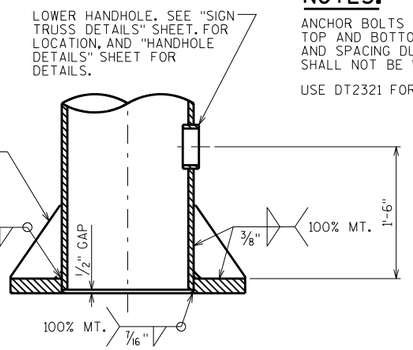


UPPER JUNCTION

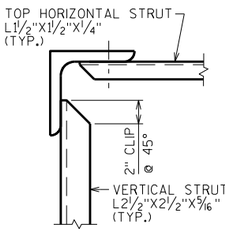




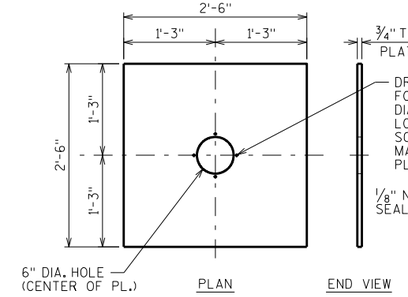
LOWER JUNCTION BUTTERFLY TRUSS



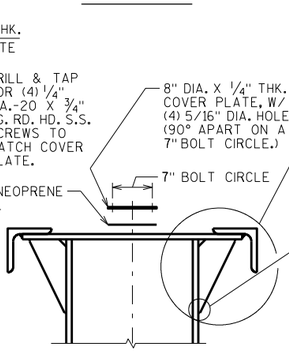
BASE PLATE DETAIL

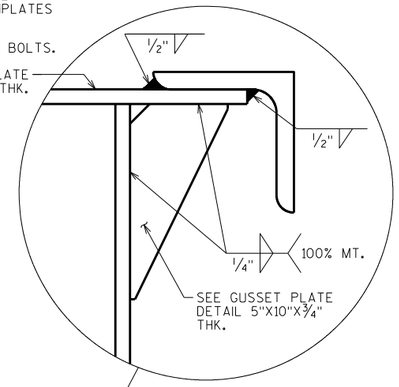


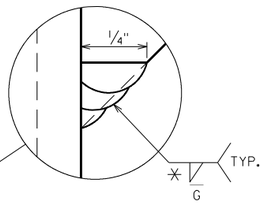
VIEW A-A

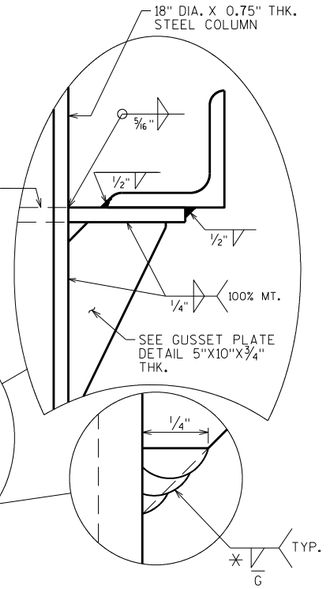


TOP PLATE DETAIL

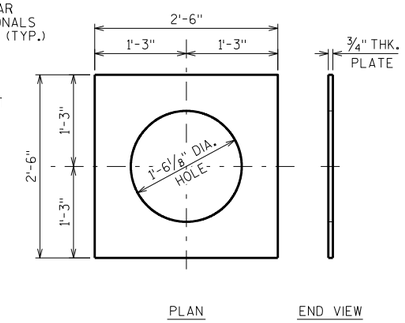




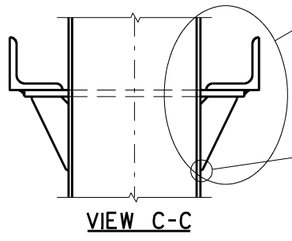




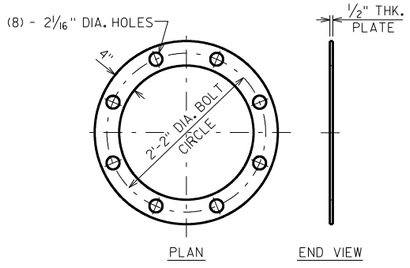
VIEW B-B



BOTTOM PLATE DETAIL

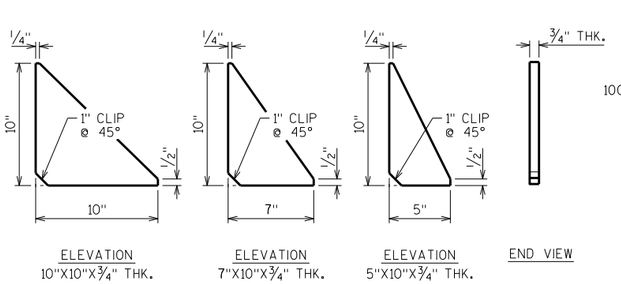


VIEW C-C



ANCHOR BOLT TEMPLATE DETAIL

(TOP & BOTTOM PLATES)



ELEVATION 10"X10"X¾" THK. | ELEVATION 7"X10"X¾" THK. | ELEVATION 5"X10"X¾" THK.

GUSSET PLATE DETAILS

(8 EACH REQ'D.)

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE S-11-25

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TRUSS/POST CONNECTION & BASE PLATES

SHEET 7

416

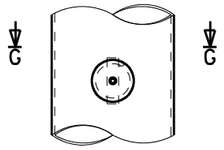
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8

8

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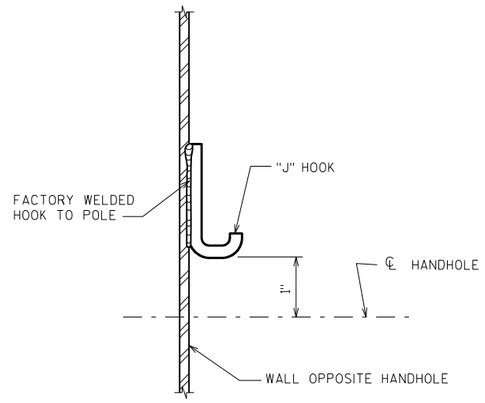


HANDHOLE DETAILS

HANDHOLE NOTES

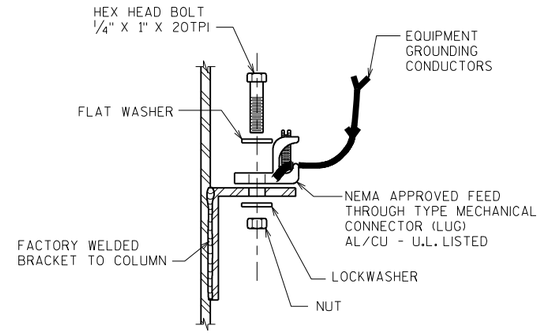
HANDHOLES SHALL BE LOCATED IN ONE COLUMN OF THE SIGN BRIDGE STRUCTURE IF ELECTRICALLY OPERATED DEVICES ARE INSTALLED ON/IN THE STRUCTURE. COLUMNS WITH HANDHOLES SHALL BE NEAR THE ELECTRICAL SERVICE. THE CONTRACTOR SHALL VERIFY THE LOCATION OF THE ELECTRICAL SERVICE ENTRANCE WITH THE REGION TRAFFIC ENGINEER PRIOR TO FABRICATION OF THE SIGN BRIDGE COLUMNS AND MEMBERS. CONDUIT (AS REQ'D.) SHALL BE LOCATED, PLACED AND SIZED AS SHOWN ON THE ELECTRICAL DETAIL PLAN SHEETS.

UNLESS NOTED OTHERWISE, ALL HANDHOLE ELEMENTS TO BE GALVANIZED PER SECTION 641 OF THE WISDOT STANDARAD SPECIFICTIONS.



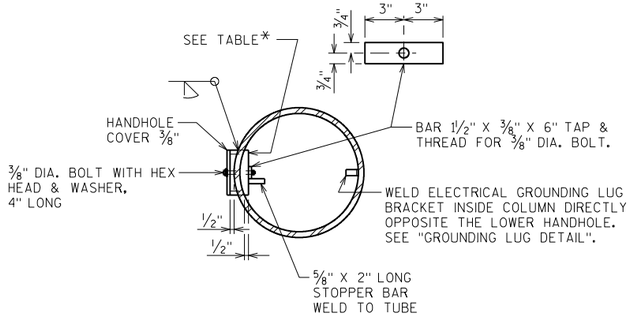
TYPICAL "J" HOOK LOCATION

THE "J" HOOK SHALL BE FACTORY WELDED TO THE INSIDE OF ALL COLUMNS CONTAINING ELECTRICAL WIRING. THE "J" HOOK SHALL BE ATTACHED ABOVE THE CENTERLINE OF THE UPPER HANDHOLE AND MOUNTED DIRECTLY OPPOSITE THE HANDHOLE AS SHOWN IN THE DRAWING.



GROUNDING LUG DETAIL

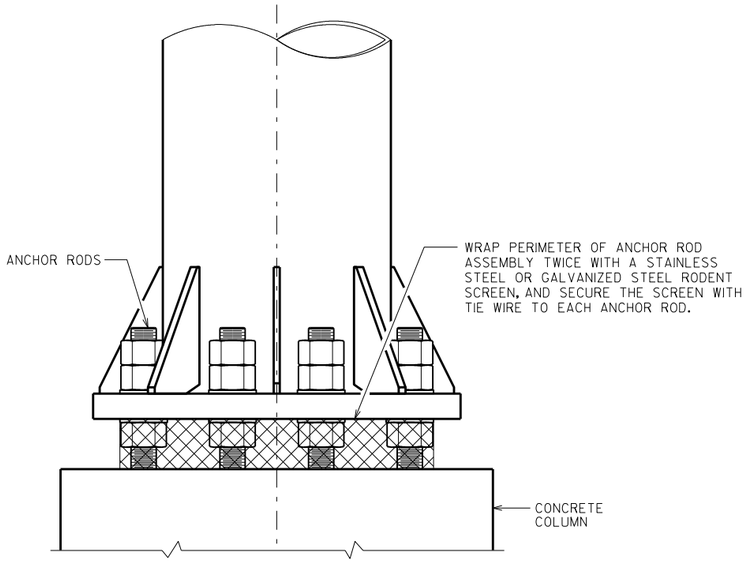
STAINLESS STEEL BOLTS, NUT AND WASHERS



SECTION G-G

*

COLUMN O.D. SIZE	HANDHOLE PIPE O.D. X MIN. THK.
UP TO AND INCLD. 16" X 0.375"	5.562" X 0.500"
GREATER THAN 16" X 0.375" TO AND INCLD. 24" X 0.562"	6.625" X 0.562"



RODENT SCREEN

(REQ'D. ONLY WHEN ELECTRICAL DEVICES ARE INSTALLED)

8

8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE S-11-25

DRAWN BY ARC | PLANS CK'D. VT

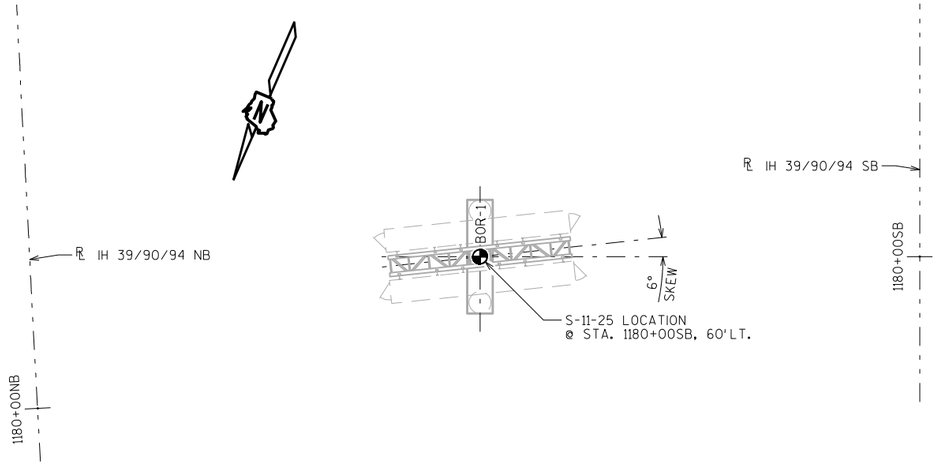
HANDHOLE DETAILS

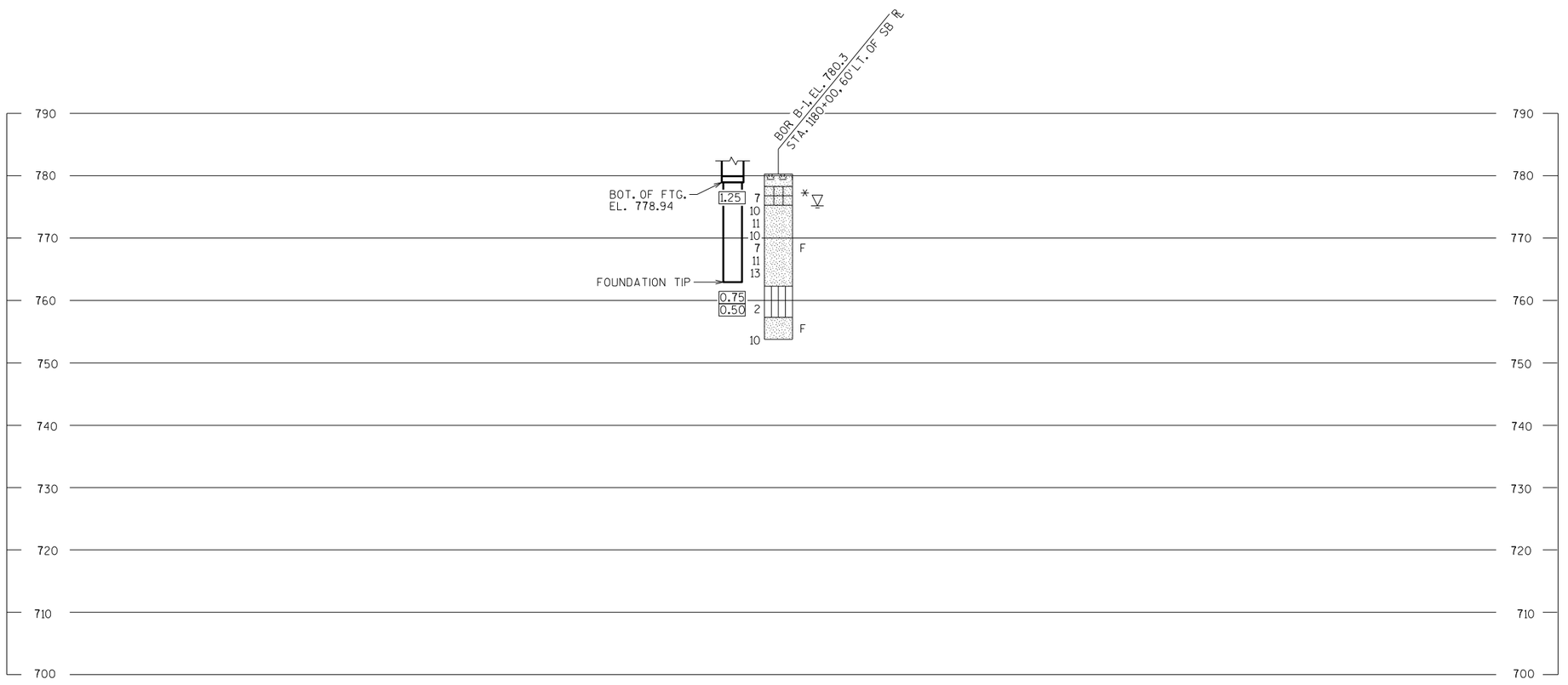
SHEET 8

417

SCALE = 1.0

MADISON - PORTAGE





* THE GROUND WATER ELEVATION WAS DETERMINED FROM WHERE THE SOIL SAMPLE WAS DESCRIBED AS WET.

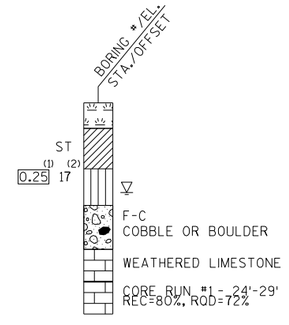
STATE PROJECT NUMBER

1010-02-84

MATERIAL SYMBOLS

ASPHALT	TOPSOIL	PEAT
CONCRETE	FILL	GRAVEL
SAND	CLAY	SILT
BOULDERS OR COBBLES	LIMESTONE	BEDROCK (UNKNOWN)
SHALE	SANDSTONE	IGNEOUS/ META

LEGEND OF BORING



(1) UNCONFINED STRENGTH, AS DETERMINED BY A POCKET PENETROMETER (TSF)

(2) UNLESS OTHERWISE, SPECIFIED THE SPT 'N' VALUE IS BASED ON AASHTO T-206, STANDARD PENETRATION TEST. THE SPT 'N' VALUE PRESENTED HAS NOT BEEN CORRECTED FOR OVERBURDEN PRESSURE OR HAMMER EFFICIENCY.

GROUND WATER ELEVATION

- ▽ AT TIME OF DRILLING
- ▼ END OF DRILLING
- ▽ AFTER DRILLING

ABBREVIATIONS

F-FINE M-MEDIUM C-COARSE ST-SHELBY TUBE

SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

BORINGS WERE COMPLETED AT POINTS APPROXIMATELY AS INDICATED ON THIS DRAWING TO OBTAIN INFORMATION CONCERNING THE CHARACTER OF SUBSURFACE MATERIALS FOUND AT THE SITE. BECAUSE THE INVESTIGATED DEPTHS ARE LIMITED AND THE AREA OF THE BORINGS IS VERY SMALL IN RELATION TO THE ENTIRE SITE, THE WISCONSIN DEPARTMENT OF TRANSPORTATION DOES NOT WARRANT SIMILAR SUBSURFACE CONDITIONS BELOW, BETWEEN, OR BEYOND THESE BORINGS. VARIATIONS IN SOIL CONDITIONS SHOULD BE EXPECTED AND FLUCTUATIONS IN GROUNDWATER LEVELS MAY OCCUR.

8

8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE S-11-25

DRAWN BY PR/ARC | PLANS CK'D. VT

SUBSURFACE EXPLORATION

SHEET 9

418

SCALE = 10

EARTHWORK TABULATION - 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)
830+00.000	1	0	0	1	0	0	0	0	0
831+00.000	3	7	7	0	2	7	7	2	5
832+00.000	0	5	5	7	13	12	12	15	-3
833+00.000	1	1	1	0	13	13	13	28	-15
834+00.000	1	2	2	10	18	16	16	46	-30
835+00.000	2	5	5	18	51	20	20	97	-76
836+00.000	0	4	4	89	198	24	24	295	-271
837+00.000	0	0	0	29	219	24	24	514	-490
838+00.000	0	0	0	42	131	24	24	645	-621
839+00.000	0	1	1	7	90	24	24	735	-710
840+00.000	0	1	1	15	40	26	26	774	-749
841+00.000	1	3	3	6	39	29	29	814	-785
842+00.000	1	4	4	10	29	33	33	843	-810
843+00.000	2	6	6	11	39	39	39	882	-843
844+00.000	4	11	11	10	40	49	49	922	-873
845+00.000	3	12	12	11	40	62	62	962	-900
846+00.000	4	12	12	6	31	74	74	993	-919
847+00.000	4	15	15	9	26	89	89	1,020	-930
848+00.000	5	16	16	11	36	106	106	1,056	-950
849+00.000	6	19	19	0	20	125	125	1,076	-951
850+00.000	2	15	15	22	40	139	139	1,116	-977
851+00.000	3	10	10	12	63	149	149	1,179	-1,029
852+00.000	3	12	12	0	23	161	161	1,201	-1,040
853+00.000	3	11	11	2	5	172	172	1,206	-1,034
854+00.000	4	13	13	35	70	185	185	1,276	-1,091
855+00.000	7	20	20	6	77	205	205	1,353	-1,148
856+00.000	1	14	14	11	32	220	220	1,385	-1,166
857+00.000	1	4	4	13	44	224	224	1,429	-1,205
858+00.000	0	3	3	19	58	227	227	1,487	-1,261
859+00.000	0	1	1	13	59	227	227	1,546	-1,319
860+00.000	1	2	2	4	31	230	230	1,577	-1,348
861+00.000	1	5	5	1	10	234	234	1,587	-1,353
862+00.000	6	13	13	1	3	247	247	1,591	-1,343
863+00.000	15	39	39	0	2	287	287	1,593	-1,306
864+00.000	1	30	30	4	7	317	317	1,599	-1,283
865+00.000	0	2	2	0	7	318	318	1,606	-1,288
866+00.000	0	0	0	0	0	318	318	1,606	-1,288
867+00.000	0	0	0	0	0	318	318	1,606	-1,288
868+00.000	0	0	0	0	0	318	318	1,606	-1,288
869+00.000	0	0	0	0	0	318	318	1,606	-1,288
870+00.000	0	0	0	0	0	318	318	1,606	-1,288
871+00.000	0	0	0	0	0	318	318	1,606	-1,288
872+00.000	0	0	0	0	0	318	318	1,606	-1,288
873+00.000	0	0	0	0	0	318	318	1,606	-1,288
874+00.000	0	0	0	0	0	318	318	1,606	-1,288
875+00.000	0	0	0	0	0	318	318	1,606	-1,288
876+00.000	0	0	0	0	0	318	318	1,606	-1,288
877+00.000	0	0	0	0	0	318	318	1,606	-1,288
878+00.000	0	0	0	0	0	318	318	1,606	-1,288
879+00.000	0	0	0	0	0	318	318	1,606	-1,288
880+00.000	0	0	0	0	0	318	318	1,606	-1,288
881+00.000	0	0	0	0	0	318	318	1,606	-1,288
882+00.000	0	0	0	0	0	318	318	1,606	-1,288

EARTHWORK TABULATION - 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)
883+00.000	0	0	0	0	0	318	318	1,606	-1,288
884+00.000	0	0	0	0	0	318	318	1,606	-1,288
885+00.000	13	24	24	0	1	342	342	1,607	-1,264
886+00.000	2	27	27	76	140	370	370	1,747	-1,377
887+00.000	1	5	5	73	273	374	374	2,020	-1,645
888+00.000	1	3	3	81	283	377	377	2,303	-1,926
889+00.000	3	7	7	10	167	384	384	2,470	-2,086
890+00.000	4	12	12	12	41	397	397	2,512	-2,115
891+00.000	1	8	8	4	31	405	405	2,543	-2,138
892+00.000	4	9	9	3	13	414	414	2,556	-2,142
893+00.000	3	14	14	5	14	428	428	2,571	-2,142
894+00.000	2	10	10	10	27	438	438	2,598	-2,160
895+00.000	2	6	6	2	22	444	444	2,619	-2,175
896+00.000	1	5	5	1	5	450	450	2,625	-2,175
897+00.000	1	3	3	1	4	453	453	2,628	-2,176
898+00.000	0	1	1	6	14	454	454	2,642	-2,189
899+00.000	0	1	1	1	14	455	455	2,656	-2,202
900+00.000	1	2	2	44	85	457	457	2,741	-2,284
901+00.000	3	8	8	24	128	465	465	2,869	-2,404
902+00.000	2	9	9	5	55	474	474	2,924	-2,449
903+00.000	8	17	17	3	15	491	491	2,938	-2,447
904+00.000	0	15	15	13	29	506	506	2,968	-2,462
905+00.000	0	0	0	12	46	507	507	3,014	-2,507
906+00.000	0	0	0	7	35	507	507	3,049	-2,543
907+00.000	0	0	0	5	23	507	507	3,072	-2,565
908+00.000	2	5	5	2	12	511	511	3,084	-2,573
909+00.000	0	5	5	8	19	516	516	3,103	-2,587
910+00.000	0	0	0	12	38	516	516	3,140	-2,625
911+00.000	0	1	1	7	35	516	516	3,175	-2,659
912+00.000	0	1	1	10	30	517	517	3,205	-2,688
913+00.000	0	1	1	8	32	518	518	3,238	-2,720
914+00.000	0	1	1	10	34	518	518	3,272	-2,753
915+00.000	1	1	1	4	27	519	519	3,299	-2,779
916+00.000	1	2	2	4	16	522	522	3,314	-2,793
917+00.000	0	2	2	9	24	523	523	3,339	-2,815
918+00.000	0	1	1	6	27	524	524	3,366	-2,842
919+00.000	0	1	1	4	18	525	525	3,384	-2,859
920+00.000	1	3	3	4	14	528	528	3,398	-2,869
921+00.000	1	4	4	4	14	532	532	3,411	-2,879
922+00.000	0	2	2	8	22	534	534	3,433	-2,899
923+00.000	0	1	1	6	25	535	535	3,458	-2,923
924+00.000	0	1	1	10	28	536	536	3,487	-2,951
925+00.000	0	0	0	10	37	536	536	3,524	-2,988
926+00.000	0	0	0	12	41	536	536	3,564	-3,029
927+00.000	1	2	2	2	25	538	538	3,590	-3,052
928+00.000	1	4	4	4	11	542	542	3,601	-3,059
929+00.000	2	7	7	5	17	548	548	3,618	-3,070
930+00.000	1	6	6	10	28	554	554	3,646	-3,091
931+00.000	1	4	4	9	34	559	559	3,680	-3,122
932+00.000	1	3	3	10	35	562	562	3,715	-3,153
933+00.000	0	2	2	13	43	564	564	3,758	-3,194
934+00.000	0	1	1	14	51	565	565	3,810	-3,244
935+00.000	0	1	1	9	44	566	566	3,853	-3,287

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PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	EARTHWORK	SHEET 419	E

EARTHWORK TABULATION - 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)
936+00.000	0	1	1	17	48	567	567	3,901	-3,335
937+00.000	2	3	3	10	50	570	570	3,951	-3,381
938+00.000	1	4	4	4	27	574	574	3,978	-3,404
939+00.000	0	2	2	5	17	576	576	3,996	-3,420
940+00.000	0	0	0	7	23	576	576	4,019	-3,443
941+00.000	2	4	4	2	16	580	580	4,035	-3,456
942+00.000	0	4	4	5	13	583	583	4,048	-3,465
943+00.000	1	1	1	4	18	585	585	4,066	-3,481
944+00.000	0	2	2	2	11	586	586	4,076	-3,490
945+00.000	3	5	5	0	3	592	592	4,080	-3,488
946+00.000	3	10	10	0	0	602	602	4,080	-3,478
947+00.000	4	12	12	0	1	614	614	4,081	-3,467
948+00.000	1	7	7	1	2	621	621	4,083	-3,461
949+00.000	2	4	4	1	3	626	626	4,086	-3,460
950+00.000	6	13	13	0	1	639	639	4,087	-3,448
951+00.000	2	14	14	0	0	653	653	4,087	-3,434
952+00.000	1	6	6	19	35	659	659	4,122	-3,464
953+00.000	1	3	3	2	39	662	662	4,162	-3,500
954+00.000	9	17	17	1	6	679	679	4,168	-3,489
955+00.000	3	22	22	1	3	701	701	4,170	-3,469
956+00.000	3	12	12	1	3	713	713	4,174	-3,460
957+00.000	7	20	20	1	5	733	733	4,178	-3,445
958+00.000	7	27	27	1	4	760	760	4,182	-3,422
959+00.000	11	33	33	0	2	793	793	4,185	-3,392
960+00.000	4	27	27	1	3	820	820	4,188	-3,368
961+00.000	3	12	12	5	12	832	832	4,199	-3,367
962+00.000	1	6	6	14	35	838	838	4,234	-3,396
963+00.000	11	21	21	10	44	859	859	4,277	-3,418
964+00.000	7	33	33	15	46	892	892	4,324	-3,432
965+00.000	10	32	32	14	54	923	923	4,378	-3,454
966+00.000	3	23	23	37	94	946	946	4,471	-3,525
967+00.000	0	5	5	14	93	951	951	4,564	-3,613
968+00.000	0	0	0	14	50	951	951	4,615	-3,664
969+00.000	0	1	1	8	39	952	952	4,654	-3,702
970+00.000	0	1	1	9	30	953	953	4,684	-3,731
971+00.000	0	1	1	12	39	953	953	4,723	-3,770
972+00.000	1	1	1	6	33	955	955	4,756	-3,801
973+00.000	0	2	2	6	21	956	956	4,777	-3,821
974+00.000	0	0	0	12	33	956	956	4,810	-3,853
975+00.000	0	0	0	11	42	956	956	4,852	-3,896
976+00.000	0	1	1	10	38	957	957	4,890	-3,933
977+00.000	0	1	1	5	27	958	958	4,917	-3,959
978+00.000	2	4	4	1	10	962	962	4,928	-3,965
979+00.000	0	4	4	3	7	967	967	4,935	-3,968
980+00.000	0	1	1	7	19	968	968	4,954	-3,986
981+00.000	2	4	4	2	17	972	972	4,971	-3,999
982+00.000	0	4	4	7	17	976	976	4,988	-4,012
983+00.000	1	3	3	6	26	978	978	5,014	-4,035
984+00.000	1	3	3	8	28	981	981	5,041	-4,060
985+00.000	4	8	8	5	24	989	989	5,065	-4,076
986+00.000	3	13	13	1	10	1,002	1,002	5,075	-4,073
987+00.000	0	7	7	2	6	1,009	1,009	5,081	-4,072
988+00.000	1	4	4	5	14	1,013	1,013	5,095	-4,083

EARTHWORK TABULATION - 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)
989+00.000	0	3	3	6	20	1,016	1,016	5,116	-4,100
990+00.000	7	13	13	5	20	1,028	1,028	5,135	-4,107
991+00.000	5	21	21	6	19	1,050	1,050	5,154	-4,105
992+00.000	1	11	11	15	39	1,061	1,061	5,193	-4,132
993+00.000	8	18	18	13	53	1,078	1,078	5,246	-4,167
994+00.000	11	36	36	13	49	1,114	1,114	5,295	-4,181
995+00.000	0	21	21	4	33	1,136	1,136	5,328	-4,192
996+00.000	1	1	1	2	12	1,137	1,137	5,340	-4,203
997+00.000	2	5	5	1	6	1,142	1,142	5,346	-4,204
998+00.000	4	11	11	0	2	1,154	1,154	5,349	-4,195
999+00.000	3	13	13	2	3	1,166	1,166	5,352	-4,186
1000+00.000	2	9	9	1	4	1,176	1,176	5,356	-4,180
1001+00.000	1	7	7	1	3	1,182	1,182	5,359	-4,177
1002+00.000	0	3	3	1	5	1,185	1,185	5,364	-4,179
1003+00.000	4	7	7	0	3	1,192	1,192	5,366	-4,174
1004+00.000	3	13	13	1	1	1,205	1,205	5,368	-4,162
1005+00.000	5	15	15	0	1	1,220	1,220	5,369	-4,149
1006+00.000	7	22	22	0	0	1,242	1,242	5,369	-4,127
1007+00.000	2	18	18	1	1	1,260	1,260	5,370	-4,110
1008+00.000	0	5	5	0	2	1,265	1,265	5,372	-4,107
1009+00.000	2	4	4	1	1	1,269	1,269	5,373	-4,105
1010+00.000	2	7	7	2	4	1,275	1,275	5,377	-4,102
1011+00.000	15	31	31	5	13	1,306	1,306	5,390	-4,084
1012+00.000	10	46	46	3	14	1,352	1,352	5,404	-4,052
1013+00.000	8	33	33	1	6	1,385	1,385	5,410	-4,025
1014+00.000	1	16	16	2	6	1,401	1,401	5,416	-4,015
1015+00.000	0	3	3	4	12	1,404	1,404	5,428	-4,024
1016+00.000	1	2	2	6	20	1,406	1,406	5,448	-4,041
1017+00.000	11	21	21	20	49	1,428	1,428	5,496	-4,069
1018+00.000	9	36	36	8	51	1,464	1,464	5,548	-4,084
1019+00.000	10	34	34	13	39	1,498	1,498	5,587	-4,089
1020+00.000	9	34	34	0	26	1,532	1,532	5,613	-4,081
1021+00.000	6	28	28	1	3	1,560	1,560	5,616	-4,056
1022+00.000	6	23	23	2	5	1,583	1,583	5,622	-4,038
1023+00.000	7	24	24	1	5	1,607	1,607	5,627	-4,020
1024+00.000	8	28	28	2	6	1,635	1,635	5,633	-3,998
1025+00.000	10	34	34	1	6	1,669	1,669	5,639	-3,969
1026+00.000	10	38	38	0	3	1,707	1,707	5,641	-3,934
1027+00.000	6	31	31	5	11	1,738	1,738	5,652	-3,914
1028+00.000	9	28	28	3	15	1,767	1,767	5,667	-3,900
1029+00.000	8	32	32	3	10	1,798	1,798	5,677	-3,879
1030+00.000	9	32	32	2	8	1,830	1,830	5,685	-3,855
1031+00.000	15	43	43	2	7	1,873	1,873	5,692	-3,819
1032+00.000	18	59	59	2	9	1,933	1,933	5,701	-3,768
1033+00.000	13	56	56	1	6	1,989	1,989	5,707	-3,718
1034+00.000	14	51	51	0	2	2,039	2,039	5,710	-3,670
1035+00.000	16	56	56	0	1	2,096	2,096	5,710	-3,615
1036+00.000	4	36	36	24	45	2,132	2,132	5,755	-3,624
1037+00.000	5	15	15	30	100	2,147	2,147	5,856	-3,709
1038+00.000	9	25	25	27	106	2,172	2,172	5,961	-3,789
1039+00.000	3	23	23	43	130	2,195	2,195	6,091	-3,896
1040+00.000	1	8	8	68	205	2,203	2,203	6,297	-4,094
1041+00.000	5	11	11	73	261	2,214	2,214	6,558	-4,344

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PROJECT NO:1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	EARTHWORK	SHEET 420	E

EARTHWORK TABULATION - 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)
1042+00.000	5	18	18	49	227	2,232	2,232	6,786	-4,553
1043+00.000	5	19	19	0	92	2,251	2,251	6,877	-4,626
1044+00.000	7	22	22	0	0	2,274	2,274	6,877	-4,604
1045+00.000	8	28	28	0	0	2,302	2,302	6,878	-4,576
1046+00.000	6	26	26	0	0	2,328	2,328	6,878	-4,549
1047+00.000	7	24	24	1	2	2,352	2,352	6,880	-4,527
1048+00.000	4	21	21	1	4	2,373	2,373	6,883	-4,510
1049+00.000	5	17	17	1	4	2,390	2,390	6,887	-4,497
1050+00.000	9	27	27	0	3	2,418	2,418	6,890	-4,472
1051+00.000	6	29	29	0	0	2,447	2,447	6,890	-4,444
1052+00.000	3	18	18	1	3	2,464	2,464	6,893	-4,428
1053+00.000	9	23	23	0	2	2,487	2,487	6,895	-4,408
1054+00.000	6	28	28	0	1	2,516	2,516	6,896	-4,380
1055+00.000	8	27	27	0	1	2,542	2,542	6,897	-4,354
1056+00.000	12	38	38	0	0	2,580	2,580	6,897	-4,316
1057+00.000	6	34	34	0	0	2,614	2,614	6,897	-4,283
1058+00.000	12	34	34	0	1	2,649	2,649	6,898	-4,249
1059+00.000	8	39	39	41	76	2,687	2,687	6,974	-4,287
1060+00.000	4	23	23	3	81	2,711	2,711	7,055	-4,344
1061+00.000	9	24	24	4	13	2,735	2,735	7,068	-4,333
1062+00.000	3	22	22	3	12	2,757	2,757	7,080	-4,322
1063+00.000	4	14	14	3	11	2,771	2,771	7,090	-4,319
1064+00.000	4	15	15	2	9	2,786	2,786	7,100	-4,313
1065+00.000	6	19	19	3	10	2,805	2,805	7,109	-4,304
1066+00.000	5	20	20	2	11	2,826	2,826	7,120	-4,294
1067+00.000	10	27	27	1	5	2,853	2,853	7,125	-4,273
1068+00.000	4	27	27	0	1	2,880	2,880	7,127	-4,247
1069+00.000	5	18	18	2	3	2,898	2,898	7,130	-4,232
1070+00.000	10	28	28	0	3	2,926	2,926	7,133	-4,207
1071+00.000	3	23	23	0	1	2,949	2,949	7,134	-4,185
1072+00.000	5	15	15	1	3	2,963	2,963	7,137	-4,173
1073+00.000	5	19	19	0	2	2,982	2,982	7,139	-4,157
1074+00.000	7	23	23	0	1	3,005	3,005	7,140	-4,135
1075+00.000	2	17	17	1	3	3,022	3,022	7,143	-4,121
1076+00.000	8	19	19	0	2	3,041	3,041	7,145	-4,104
1077+00.000	5	24	24	1	1	3,065	3,065	7,146	-4,081
1078+00.000	9	25	25	0	1	3,090	3,090	7,147	-4,058
1079+00.000	13	39	39	0	0	3,129	3,129	7,147	-4,018
1080+00.000	10	41	41	0	0	3,170	3,170	7,147	-3,977
1081+00.000	11	38	38	0	0	3,208	3,208	7,147	-3,939
1082+00.000	9	37	37	10	18	3,246	3,246	7,165	-3,919
1083+00.000	9	33	33	1	19	3,279	3,279	7,183	-3,905
1084+00.000	6	27	27	4	8	3,305	3,305	7,191	-3,886
1085+00.000	9	27	27	2	10	3,333	3,333	7,201	-3,868
1086+00.000	7	29	29	0	3	3,362	3,362	7,204	-3,842
1087+00.000	9	29	29	0	1	3,391	3,391	7,204	-3,813
1088+00.000	8	31	31	0	1	3,422	3,422	7,205	-3,783
1089+00.000	7	26	26	1	2	3,448	3,448	7,207	-3,759
1090+00.000	2	15	15	10	20	3,463	3,463	7,227	-3,763
1091+00.000	5	13	13	4	26	3,477	3,477	7,253	-3,776
1092+00.000	8	26	26	0	7	3,503	3,503	7,260	-3,757
1093+00.000	6	27	27	1	2	3,530	3,530	7,262	-3,732
1094+00.000	7	24	24	0	2	3,554	3,554	7,264	-3,710

EARTHWORK TABULATION - 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)
1095+00.000	1	14	14	2	4	3,568	3,568	7,268	-3,700
1096+00.000	3	7	7	5	12	3,575	3,575	7,280	-3,705
1097+00.000	5	15	15	1	10	3,591	3,591	7,290	-3,700
1098+00.000	1	11	11	4	9	3,601	3,601	7,299	-3,698
1099+00.000	4	8	8	2	11	3,610	3,610	7,310	-3,700
1100+00.000	6	17	17	44	86	3,627	3,627	7,396	-3,769
1101+00.000	6	21	21	4	90	3,648	3,648	7,487	-3,839
1102+00.000	7	24	24	12	30	3,671	3,671	7,516	-3,845
1103+00.000	11	33	33	3	26	3,704	3,704	7,543	-3,839
1104+00.000	18	52	52	1	7	3,757	3,757	7,550	-3,793
1105+00.000	8	47	47	7	15	3,804	3,804	7,565	-3,761
1106+00.000	9	31	31	10	31	3,834	3,834	7,597	-3,762
1107+00.000	7	29	29	8	34	3,863	3,863	7,630	-3,767
1108+00.000	12	36	36	0	16	3,900	3,900	7,646	-3,746
1109+00.000	3	29	29	7	12	3,928	3,928	7,658	-3,730
1110+00.000	12	28	28	5	21	3,957	3,957	7,679	-3,722
1111+00.000	1	24	24	8	23	3,981	3,981	7,702	-3,722
1112+00.000	8	16	16	1	16	3,997	3,997	7,719	-3,722
1113+00.000	8	28	28	1	3	4,025	4,025	7,722	-3,697
1114+00.000	17	45	45	1	4	4,070	4,070	7,726	-3,656
1115+00.000	2	35	35	1	5	4,105	4,105	7,730	-3,625
1116+00.000	2	8	8	1	5	4,113	4,113	7,735	-3,622
1117+00.000	2	8	8	1	4	4,122	4,122	7,740	-3,618
1118+00.000	6	15	15	1	4	4,137	4,137	7,743	-3,606
1119+00.000	9	27	27	0	2	4,164	4,164	7,745	-3,581
1120+00.000	5	27	27	1	2	4,191	4,191	7,747	-3,556
1121+00.000	5	20	20	0	2	4,211	4,211	7,749	-3,539
1122+00.000	3	16	16	0	1	4,227	4,227	7,751	-3,524
1123+00.000	6	17	17	0	1	4,244	4,244	7,752	-3,508
1124+00.000	3	16	16	4	8	4,260	4,260	7,760	-3,500
1125+00.000	0	6	6	1	9	4,266	4,266	7,769	-3,503
1126+00.000	5	10	10	0	2	4,276	4,276	7,771	-3,495
1127+00.000	6	19	19	0	0	4,295	4,295	7,771	-3,476
1128+00.000	1	13	13	4	8	4,308	4,308	7,779	-3,472
1129+00.000	4	11	11	4	15	4,319	4,319	7,794	-3,475
1130+00.000	5	18	18	2	10	4,336	4,336	7,804	-3,467
1131+00.000	6	20	20	0	4	4,357	4,357	7,808	-3,451
1131+48.772	0	5	5	223	202	4,362	4,362	8,010	-3,648
TOTAL		4,362			8,010				

EARTHWORK TABULATION - 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)
831+00.000	0	0	0	1	0	0	0	0	0
832+00.000	3	7	7	0	1	7	7	1	5
833+00.000	5	15	15	0	1	22	22	2	20
834+00.000	0	10	10	9	17	32	32	19	13
835+00.000	4	8	8	11	37	40	40	57	-17
836+00.000	2	11	11	15	49	51	51	106	-54
837+00.000	5	12	12	8	43	63	63	149	-85
838+00.000	2	12	12	15	42	75	75	191	-116
839+00.000	2	7	7	24	72	82	82	263	-181
840+00.000	2	7	7	33	108	89	89	371	-281
841+00.000	2	6	6	56	165	95	95	536	-441
842+00.000	0	3	3	63	219	99	99	755	-657
843+00.000	0	0	0	35	182	99	99	937	-838
844+00.000	1	3	3	14	93	102	102	1,029	-928
845+00.000	6	13	13	9	43	115	115	1,073	-958
846+00.000	9	27	27	6	28	142	142	1,100	-958
847+00.000	16	47	47	1	14	189	189	1,114	-926
848+00.000	0	30	30	1	5	219	219	1,119	-900
849+00.000	0	0	0	9	20	219	219	1,139	-920
850+00.000	1	2	2	57	124	221	221	1,262	-1,041
851+00.000	1	3	3	35	172	225	225	1,435	-1,210
852+00.000	0	1	1	3	70	226	226	1,505	-1,279
853+00.000	0	0	0	4	11	226	226	1,516	-1,290
854+00.000	0	1	1	2	10	227	227	1,527	-1,300
855+00.000	0	1	1	6	14	228	228	1,540	-1,313
856+00.000	6	11	11	4	17	239	239	1,558	-1,319
857+00.000	3	16	16	0	7	255	255	1,565	-1,310
858+00.000	0	6	6	3	6	261	261	1,571	-1,311
859+00.000	0	0	0	6	17	261	261	1,588	-1,328
860+00.000	10	18	18	2	15	279	279	1,603	-1,325
861+00.000	0	18	18	19	39	297	297	1,643	-1,346
862+00.000	0	0	0	30	92	297	297	1,735	-1,437
863+00.000	0	0	0	22	97	297	297	1,831	-1,534
864+00.000	0	0	0	12	62	297	297	1,893	-1,596
865+00.000	0	0	0	0	22	297	297	1,915	-1,618
866+00.000	0	0	0	0	0	297	297	1,915	-1,618
867+00.000	0	0	0	0	0	297	297	1,915	-1,618
868+00.000	0	0	0	0	0	297	297	1,915	-1,618
869+00.000	0	0	0	0	0	297	297	1,915	-1,618
870+00.000	0	0	0	0	0	297	297	1,915	-1,618
871+00.000	0	0	0	0	0	297	297	1,915	-1,618
872+00.000	0	0	0	0	0	297	297	1,915	-1,618
873+00.000	0	0	0	0	0	297	297	1,915	-1,618
874+00.000	0	0	0	0	0	297	297	1,915	-1,618
875+00.000	0	0	0	0	0	297	297	1,915	-1,618
876+00.000	0	0	0	0	0	297	297	1,915	-1,618
877+00.000	0	0	0	0	0	297	297	1,915	-1,618
878+00.000	0	0	0	0	0	297	297	1,915	-1,618
879+00.000	0	0	0	0	0	297	297	1,915	-1,618
880+00.000	0	0	0	0	0	297	297	1,915	-1,618
881+00.000	0	0	0	0	0	297	297	1,915	-1,618
882+00.000	0	0	0	0	0	297	297	1,915	-1,618

EARTHWORK TABULATION - 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)
883+00.000	0	0	0	0	0	297	297	1,915	-1,618
884+00.000	0	0	0	0	0	297	297	1,915	-1,618
885+00.000	0	0	0	7	13	297	297	1,928	-1,631
886+00.000	0	1	1	3	18	298	298	1,947	-1,649
887+00.000	1	2	2	1	8	300	300	1,954	-1,654
888+00.000	2	5	5	0	4	305	305	1,958	-1,653
889+00.000	1	5	5	2	5	310	310	1,963	-1,653
890+00.000	0	2	2	7	16	312	312	1,979	-1,668
891+00.000	0	0	0	26	59	312	312	2,038	-1,726
892+00.000	0	1	1	7	60	313	313	2,098	-1,785
893+00.000	0	1	1	2	17	313	313	2,115	-1,802
894+00.000	0	0	0	16	33	314	314	2,148	-1,834
895+00.000	0	0	0	7	41	314	314	2,189	-1,875
896+00.000	0	0	0	2	16	314	314	2,205	-1,890
897+00.000	2	4	4	1	4	318	318	2,209	-1,891
898+00.000	0	4	4	0	1	322	322	2,210	-1,888
899+00.000	1	2	2	2	3	324	324	2,213	-1,889
900+00.000	0	2	2	5	11	326	326	2,225	-1,899
901+00.000	0	1	1	5	17	327	327	2,242	-1,915
902+00.000	0	0	0	3	14	327	327	2,255	-1,928
903+00.000	0	0	0	4	12	327	327	2,267	-1,940
904+00.000	2	4	4	1	9	331	331	2,276	-1,945
905+00.000	0	5	5	4	9	335	335	2,285	-1,949
906+00.000	1	2	2	3	13	337	337	2,297	-1,960
907+00.000	3	7	7	10	25	345	345	2,322	-1,977
908+00.000	4	13	13	3	26	357	357	2,348	-1,990
909+00.000	2	11	11	4	15	368	368	2,362	-1,994
910+00.000	1	7	7	18	41	374	374	2,403	-2,028
911+00.000	2	6	6	3	38	381	381	2,441	-2,060
912+00.000	2	8	8	29	58	389	389	2,499	-2,110
913+00.000	0	5	5	2	57	394	394	2,556	-2,162
914+00.000	2	4	4	3	10	398	398	2,566	-2,169
915+00.000	1	5	5	3	11	402	402	2,578	-2,175
916+00.000	1	4	4	2	9	406	406	2,587	-2,181
917+00.000	1	4	4	6	16	410	410	2,603	-2,193
918+00.000	0	2	2	28	64	411	411	2,668	-2,256
919+00.000	1	2	2	5	63	414	414	2,730	-2,317
920+00.000	1	3	3	12	32	416	416	2,762	-2,345
921+00.000	1	2	2	16	50	419	419	2,812	-2,393
922+00.000	0	1	1	11	50	420	420	2,862	-2,442
923+00.000	0	0	0	14	46	420	420	2,908	-2,488
924+00.000	1	2	2	19	61	422	422	2,969	-2,547
925+00.000	0	1	1	15	64	423	423	3,033	-2,610
926+00.000	1	3	3	24	73	426	426	3,106	-2,680
927+00.000	0	3	3	13	70	429	429	3,176	-2,747
928+00.000	0	1	1	11	46	430	430	3,222	-2,792
929+00.000	1	2	2	9	37	433	433	3,259	-2,826
930+00.000	2	6	6	8	31	439	439	3,290	-2,851
931+00.000	5	13	13	6	26	452	452	3,316	-2,864
932+00.000	5	18	18	5	20	470	470	3,336	-2,866
933+00.000	6	20	20	10	29	490	490	3,365	-2,875
934+00.000	4	19	19	18	52	508	508	3,417	-2,908

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PROJECT NO: 1010-02-84 | HWY: IH 39 | COUNTY: COLUMBIA | EARTHWORK | SHEET 422 | E

EARTHWORK TABULATION - 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)
935+00.000	8	25	25	13	63	533	533	3,480	-2,947
936+00.000	13	39	39	4	31	572	572	3,511	-2,939
937+00.000	12	47	47	0	8	619	619	3,519	-2,901
938+00.000	6	33	33	0	2	651	651	3,521	-2,869
939+00.000	5	19	19	5	10	670	670	3,530	-2,860
940+00.000	12	31	31	1	10	701	701	3,540	-2,839
941+00.000	18	55	55	0	1	756	756	3,541	-2,785
942+00.000	20	70	70	0	1	826	826	3,542	-2,716
943+00.000	29	92	92	1	2	918	918	3,543	-2,625
944+00.000	12	76	76	0	1	994	994	3,544	-2,550
945+00.000	2	26	26	7	12	1,020	1,020	3,557	-2,537
946+00.000	2	9	9	4	20	1,029	1,029	3,577	-2,548
947+00.000	6	16	16	1	9	1,045	1,045	3,586	-2,542
948+00.000	1	13	13	6	12	1,057	1,057	3,598	-2,541
949+00.000	6	12	12	0	11	1,070	1,070	3,610	-2,540
950+00.000	8	25	25	1	3	1,095	1,095	3,613	-2,518
951+00.000	1	16	16	4	9	1,111	1,111	3,622	-2,511
952+00.000	1	2	2	6	18	1,113	1,113	3,640	-2,527
953+00.000	1	3	3	5	20	1,116	1,116	3,661	-2,545
954+00.000	1	3	3	4	17	1,119	1,119	3,678	-2,559
955+00.000	4	8	8	4	14	1,127	1,127	3,692	-2,565
956+00.000	4	14	14	4	15	1,141	1,141	3,706	-2,565
957+00.000	6	18	18	1	10	1,159	1,159	3,716	-2,557
958+00.000	2	14	14	7	15	1,173	1,173	3,731	-2,558
959+00.000	2	7	7	7	27	1,180	1,180	3,758	-2,579
960+00.000	3	8	8	4	20	1,187	1,187	3,779	-2,591
961+00.000	1	6	6	8	22	1,193	1,193	3,800	-2,607
962+00.000	1	3	3	31	74	1,196	1,196	3,874	-2,678
963+00.000	6	13	13	8	74	1,209	1,209	3,949	-2,740
964+00.000	0	11	11	15	43	1,221	1,221	3,992	-2,772
965+00.000	6	12	12	8	43	1,232	1,232	4,035	-2,803
966+00.000	5	22	22	5	24	1,254	1,254	4,059	-2,805
967+00.000	14	36	36	8	24	1,290	1,290	4,084	-2,793
968+00.000	16	55	55	3	20	1,345	1,345	4,104	-2,758
969+00.000	32	88	88	2	10	1,433	1,433	4,113	-2,680
970+00.000	41	135	135	8	18	1,568	1,568	4,132	-2,564
971+00.000	21	116	116	9	30	1,684	1,684	4,162	-2,478
972+00.000	34	102	102	12	39	1,786	1,786	4,201	-2,415
973+00.000	14	88	88	2	25	1,874	1,874	4,226	-2,352
974+00.000	9	42	42	1	4	1,916	1,916	4,229	-2,313
975+00.000	10	35	35	2	5	1,951	1,951	4,235	-2,284
976+00.000	9	36	36	0	5	1,987	1,987	4,240	-2,253
977+00.000	10	36	36	0	1	2,022	2,022	4,241	-2,218
978+00.000	2	22	22	3	6	2,044	2,044	4,247	-2,203
979+00.000	14	30	30	0	7	2,074	2,074	4,254	-2,180
980+00.000	13	50	50	1	3	2,124	2,124	4,257	-2,133
981+00.000	10	43	43	1	5	2,167	2,167	4,262	-2,095
982+00.000	9	35	35	2	5	2,202	2,202	4,267	-2,065
983+00.000	7	30	30	1	5	2,232	2,232	4,273	-2,041
984+00.000	4	20	20	2	6	2,252	2,252	4,279	-2,026
985+00.000	2	10	10	1	6	2,262	2,262	4,285	-2,023
986+00.000	1	5	5	3	8	2,267	2,267	4,292	-2,025
987+00.000	2	7	7	2	9	2,274	2,274	4,302	-2,028

EARTHWORK TABULATION - 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)
988+00.000	4	12	12	5	13	2,286	2,286	4,315	-2,028
989+00.000	7	21	21	4	16	2,307	2,307	4,331	-2,024
990+00.000	1	15	15	10	26	2,322	2,322	4,356	-2,034
991+00.000	1	5	5	11	39	2,327	2,327	4,396	-2,069
992+00.000	3	7	7	1	22	2,334	2,334	4,418	-2,085
993+00.000	0	5	5	8	17	2,339	2,339	4,435	-2,097
994+00.000	6	12	12	1	16	2,350	2,350	4,452	-2,101
995+00.000	0	13	13	1	4	2,363	2,363	4,456	-2,093
996+00.000	3	6	6	0	4	2,369	2,369	4,459	-2,090
997+00.000	4	13	13	2	5	2,381	2,381	4,464	-2,083
998+00.000	1	10	10	7	17	2,391	2,391	4,481	-2,090
999+00.000	5	11	11	1	15	2,401	2,401	4,495	-2,094
1000+00.000	1	11	11	15	29	2,412	2,412	4,524	-2,112
1001+00.000	2	6	6	2	31	2,419	2,419	4,555	-2,136
1002+00.000	1	6	6	3	9	2,425	2,425	4,564	-2,139
1003+00.000	0	3	3	4	12	2,427	2,427	4,576	-2,148
1004+00.000	6	12	12	1	8	2,440	2,440	4,584	-2,144
1005+00.000	0	12	12	6	11	2,451	2,451	4,595	-2,144
1006+00.000	1	2	2	7	24	2,454	2,454	4,619	-2,165
1007+00.000	1	3	3	12	35	2,457	2,457	4,654	-2,197
1008+00.000	3	7	7	1	23	2,464	2,464	4,677	-2,214
1009+00.000	2	10	10	1	2	2,474	2,474	4,680	-2,206
1010+00.000	1	5	5	16	31	2,479	2,479	4,711	-2,232
1011+00.000	2	5	5	10	50	2,484	2,484	4,760	-2,276
1012+00.000	5	13	13	5	29	2,497	2,497	4,789	-2,292
1013+00.000	6	19	19	5	19	2,516	2,516	4,808	-2,292
1014+00.000	3	17	17	10	29	2,533	2,533	4,837	-2,304
1015+00.000	3	11	11	7	32	2,545	2,545	4,869	-2,324
1016+00.000	7	18	18	13	36	2,562	2,562	4,906	-2,343
1017+00.000	3	18	18	4	31	2,581	2,581	4,937	-2,356
1018+00.000	4	12	12	1	10	2,593	2,593	4,947	-2,354
1019+00.000	2	10	10	1	4	2,603	2,603	4,951	-2,348
1020+00.000	6	15	15	0	3	2,618	2,618	4,954	-2,335
1021+00.000	12	33	33	26	49	2,651	2,651	5,002	-2,351
1022+00.000	8	37	37	11	69	2,688	2,688	5,071	-2,383
1023+00.000	15	43	43	5	30	2,731	2,731	5,101	-2,370
1024+00.000	10	46	46	1	12	2,777	2,777	5,113	-2,336
1025+00.000	26	66	66	0	2	2,843	2,843	5,115	-2,272
1026+00.000	17	79	79	0	0	2,922	2,922	5,115	-2,193
1027+00.000	17	64	64	4	8	2,986	2,986	5,124	-2,138
1028+00.000	17	65	65	11	28	3,051	3,051	5,152	-2,101
1029+00.000	14	58	58	12	42	3,109	3,109	5,194	-2,085
1030+00.000	24	69	69	0	22	3,178	3,178	5,216	-2,038
1031+00.000	19	78	78	0	0	3,256	3,256	5,216	-1,960
1032+00.000	15	62	62	0	0	3,318	3,318	5,216	-1,898
1033+00.000	18	60	60	0	1	3,378	3,378	5,217	-1,839
1034+00.000	9	50	50	1	2	3,427	3,427	5,219	-1,792
1035+00.000	0	17	17	0	1	3,445	3,445	5,220	-1,776
1036+00.000	9	17	17	0	0	3,461	3,461	5,220	-1,759
1037+00.000	10	34	34	0	0	3,496	3,496	5,221	-1,725
1038+00.000	21	57	57	4	7	3,552	3,552	5,228	-1,675
1039+00.000	11	60	60	48	95	3,612	3,612	5,323	-1,711
1040+00.000	12	43	43	57	194	3,655	3,655	5,517	-1,861

EARTHWORK TABULATION - 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)
1041+00.000	12	44	44	64	223	3,699	3,699	5,740	-2,041
1042+00.000	16	52	52	36	185	3,750	3,750	5,925	-2,174
1043+00.000	9	46	46	21	106	3,797	3,797	6,031	-2,234
1044+00.000	15	44	44	2	43	3,840	3,840	6,074	-2,233
1045+00.000	6	39	39	0	4	3,880	3,880	6,077	-2,198
1046+00.000	18	45	45	0	0	3,924	3,924	6,078	-2,154
1047+00.000	16	61	61	0	0	3,985	3,985	6,078	-2,092
1048+00.000	14	54	54	0	0	4,039	4,039	6,078	-2,039
1049+00.000	20	62	62	0	0	4,101	4,101	6,078	-1,977
1050+00.000	12	58	58	0	0	4,160	4,160	6,078	-1,918
1051+00.000	14	47	47	0	0	4,206	4,206	6,078	-1,872
1052+00.000	11	45	45	0	0	4,251	4,251	6,078	-1,827
1053+00.000	11	41	41	0	0	4,292	4,292	6,078	-1,786
1054+00.000	11	41	41	0	0	4,333	4,333	6,078	-1,745
1055+00.000	17	52	52	0	0	4,385	4,385	6,078	-1,693
1056+00.000	10	50	50	0	1	4,436	4,436	6,079	-1,643
1057+00.000	9	35	35	1	2	4,471	4,471	6,081	-1,610
1058+00.000	6	28	28	0	2	4,499	4,499	6,082	-1,584
1059+00.000	12	34	34	2	3	4,532	4,532	6,085	-1,553
1060+00.000	8	36	36	23	45	4,569	4,569	6,130	-1,562
1061+00.000	6	25	25	38	112	4,593	4,593	6,242	-1,649
1062+00.000	4	18	18	197	435	4,611	4,611	6,677	-2,066
1063+00.000	12	28	28	50	458	4,639	4,639	7,136	-2,496
1064+00.000	14	48	48	22	133	4,688	4,688	7,269	-2,581
1065+00.000	16	56	56	16	70	4,743	4,743	7,339	-2,596
1066+00.000	5	39	39	1	32	4,783	4,783	7,371	-2,588
1067+00.000	4	17	17	0	2	4,800	4,800	7,373	-2,573
1068+00.000	7	21	21	1	2	4,821	4,821	7,375	-2,555
1069+00.000	9	31	31	0	2	4,851	4,851	7,377	-2,525
1070+00.000	8	32	32	0	0	4,883	4,883	7,377	-2,494
1071+00.000	11	34	34	0	0	4,918	4,918	7,377	-2,459
1072+00.000	9	36	36	1	1	4,954	4,954	7,378	-2,424
1073+00.000	8	30	30	1	2	4,984	4,984	7,380	-2,396
1074+00.000	4	21	21	1	3	5,005	5,005	7,383	-2,378
1075+00.000	6	18	18	0	2	5,023	5,023	7,385	-2,362
1076+00.000	6	22	22	1	2	5,045	5,045	7,387	-2,343
1077+00.000	8	25	25	1	3	5,069	5,069	7,390	-2,321
1078+00.000	6	26	26	0	1	5,095	5,095	7,391	-2,296
1079+00.000	3	16	16	1	2	5,111	5,111	7,393	-2,282
1080+00.000	13	28	28	0	2	5,140	5,140	7,395	-2,256
1081+00.000	6	34	34	0	1	5,174	5,174	7,396	-2,222
1082+00.000	10	29	29	0	1	5,203	5,203	7,396	-2,194
1083+00.000	15	46	46	1	2	5,248	5,248	7,399	-2,150
1084+00.000	8	42	42	2	5	5,290	5,290	7,404	-2,114
1085+00.000	7	27	27	2	6	5,317	5,317	7,410	-2,093
1086+00.000	9	29	29	1	5	5,346	5,346	7,415	-2,069
1087+00.000	11	36	36	1	4	5,382	5,382	7,419	-2,037
1088+00.000	9	37	37	1	4	5,419	5,419	7,423	-2,004
1089+00.000	9	34	34	0	3	5,453	5,453	7,426	-1,973
1090+00.000	8	32	32	3	6	5,485	5,485	7,431	-1,946
1091+00.000	13	39	39	1	7	5,524	5,524	7,438	-1,914
1092+00.000	12	46	46	21	40	5,570	5,570	7,478	-1,908
1093+00.000	4	29	29	2	42	5,600	5,600	7,520	-1,920

EARTHWORK TABULATION - 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)
1094+00.000	1	10	10	3	10	5,610	5,610	7,530	-1,920
1095+00.000	0	2	2	8	21	5,612	5,612	7,551	-1,939
1096+00.000	1	2	2	7	28	5,613	5,613	7,578	-1,965
1097+00.000	4	9	9	3	19	5,622	5,622	7,597	-1,975
1098+00.000	0	8	8	8	21	5,630	5,630	7,618	-1,989
1099+00.000	5	9	9	5	24	5,639	5,639	7,642	-2,004
1100+00.000	8	23	23	9	25	5,661	5,661	7,668	-2,006
1101+00.000	1	16	16	5	26	5,677	5,677	7,693	-2,017
1102+00.000	2	6	6	27	60	5,683	5,683	7,753	-2,071
1103+00.000	1	7	7	2	55	5,689	5,689	7,808	-2,119
1104+00.000	0	3	3	3	10	5,692	5,692	7,818	-2,127
1105+00.000	4	7	7	1	8	5,699	5,699	7,827	-2,128
1106+00.000	1	8	8	3	7	5,707	5,707	7,834	-2,127
1107+00.000	4	8	8	0	6	5,715	5,715	7,840	-2,125
1108+00.000	4	14	14	2	4	5,729	5,729	7,844	-2,115
1109+00.000	2	11	11	2	6	5,741	5,741	7,851	-2,110
1110+00.000	1	6	6	2	6	5,747	5,747	7,857	-2,110
1111+00.000	2	6	6	2	7	5,752	5,752	7,863	-2,111
1112+00.000	1	6	6	2	7	5,758	5,758	7,870	-2,112
1113+00.000	3	8	8	1	5	5,766	5,766	7,875	-2,109
1114+00.000	3	10	10	1	4	5,776	5,776	7,878	-2,102
1115+00.000	2	9	9	2	6	5,786	5,786	7,884	-2,098
1116+00.000	11	25	25	0	4	5,810	5,810	7,888	-2,078
1117+00.000	5	30	30	1	2	5,841	5,841	7,889	-2,049
1118+00.000	1	11	11	2	6	5,851	5,851	7,895	-2,044
1119+00.000	2	4	4	2	7	5,855	5,855	7,902	-2,047
1120+00.000	4	11	11	1	4	5,866	5,866	7,906	-2,039
1121+00.000	8	23	23	0	1	5,889	5,889	7,907	-2,018
1122+00.000	6	26	26	0	0	5,915	5,915	7,907	-1,992
1123+00.000	0	12	12	3	5	5,927	5,927	7,912	-1,985
1124+00.000	1	2	2	2	8	5,929	5,929	7,920	-1,991
1125+00.000	9	19	19	2	8	5,948	5,948	7,928	-1,980
1126+00.000	6	27	27	2	7	5,975	5,975	7,935	-1,961
1127+00.000	0	11	11	1	5	5,986	5,986	7,941	-1,954
1128+00.000	11	21	21	2	7	6,008	6,008	7,948	-1,940
1129+00.000	0	21	21	9	21	6,028	6,028	7,968	-1,940
1130+00.000	1	3	3	8	32	6,031	6,031	8,001	-1,970
1131+00.000	3	8	8	2	19	6,039	6,039	8,020	-1,981
TOTAL		6,039			8,020				

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PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	EARTHWORK	SHEET 424	E

EARTHWORK TABULATION - STH 33 **EXPANSION FACTOR = 1.25**

STATION	Real Station	Distance	AREA (SF) Cut	AREA (SF) Salvaged/Unusable Pavement Material	AREA (SF) Fill	Incremental Vol (CY) (Unadjusted) Cut Note 1	Incremental Vol (CY) (Unadjusted) Fill Note 3	Cumulative Vol (CY) Cut 1.00 Note 1	Cumulative Vol (CY) Expanded Fill 1.25	Mass Ordinate Note 8
336+30S	33630.00	0.00	0.00	0.00	0.00	0	0	0	0	0.00
336+31.11S	33631.11	1.11	0.88	0.00	0.69	0	0	0	0	0.00
336+50S	33650.00	18.89	24.84	0.00	2.71	9	1	9	2	7.51
337+00S	33700.00	50.00	24.93	0.00	11.06	46	13	55	17	37.66
337+50S	33750.00	50.00	23.19	0.00	86.68	45	90	100	131	-30.90
338+00S	33800.00	50.00	18.92	0.00	124.47	39	196	139	375	-236.30
338+50S	33850.00	50.00	17.53	0.00	128.14	34	234	172	667	-494.93
339+00S	33900.00	50.00	18.02	0.00	116.36	33	226	205	950	-745.00
339+50S	33950.00	50.00	15.20	0.00	110.83	31	210	236	1,213	-977.19
340+00S	34000.00	50.00	10.11	0.00	118.22	23	212	260	1,478	-1,218.86
340+50S	34050.00	50.00	10.84	0.00	83.45	19	187	279	1,712	-1,432.87
340+79.97S	34079.97	29.97	11.68	0.00	146.54	13	128	291	1,871	-1,579.92
341+00S	34100.00	20.03	12.15	0.00	150.35	9	110	300	2,009	-1,708.74
341+06.98S	34106.98	6.98	12.78	0.00	142.31	3	38	303	2,056	-1,752.81
341+29.84S	34129.84	22.86	11.55	0.00	56.55	10	84	314	2,162	-1,847.73
341+50S	34150.00	20.16	15.72	0.00	24.89	10	30	324	2,200	-1,875.56
341+61S	34161.00	11.00	15.85	0.00	20.69	6	9	330	2,211	-1,880.73
342+00S	34200.00	39.00	5.47	0.00	13.98	15	25	346	2,242	-1,896.64
342+50S	34250.00	50.00	6.67	0.00	5.92	11	18	357	2,265	-1,908.43
342+54.71S	34254.71	4.71	6.44	0.00	3.89	1	1	358	2,267	-1,908.36
342+79.71S	34279.71	25.00	12.78	0.00	2.19	9	3	367	2,270	-1,902.98
343+00S	34300.00	20.29	10.17	0.00	5.00	9	3	376	2,273	-1,897.73
343+07.71S	34307.71	7.71	9.91	0.00	5.62	3	2	379	2,275	-1,896.76
343+50S	34350.00	42.29	8.59	0.00	15.78	14	17	393	2,296	-1,903.23
344+00S	34400.00	50.00	9.20	0.00	5.43	16	20	410	2,321	-1,911.31
344+50S	34450.00	50.00	10.81	0.00	2.04	19	7	428	2,329	-1,901.43
345+00S	34500.00	50.00	10.34	0.00	0.19	20	2	448	2,332	-1,884.44
345+18S	34518.00	18.00	15.03	0.00	0.00	8	0	456	2,332	-1,876.07
345+50S	34550.00	32.00	0.00	0.00	0.00	9	0	465	2,332	-1,867.16
					TOTAL	465	1,866			

9 9

PROJECT NO: 1010-02-84 | HWY: IH 39 | COUNTY: COLUMBIA | EARTHWORK | SHEET 425 | E

EARTHWORK TABULATION - CASCADE MOUNTAIN ROAD **EXPANSION FACTOR=1.25**

STATION	Real Station	Distance	AREA (SF)			Incremental Vol (CY) (Unadjusted)			Cumulative Vol (CY)		
			Cut	Salvaged/Unusable Pavement Material	Fill	Cut	Salvaged/Unusable Pavement Material	Fill	Cut 1.00	Expanded Fill 1.25	Mass Ordinate
						Note 1	Note 2	Note 3	Note 1		Note 8
42+50	42+50.00P	0.00	0.00	0.00	0.00	0	0	0	0	0	0.00
42+63.37	42+63.37P	13.37	0.00	0.00	0.00	0	0	0	0	0	0.00
42+64.37	42+64.37P	1.00	5.67	0.00	0.00	0	0	0	0	0	0.10
43+00	43+00.00P	35.63	5.50	0.00	0.00	7	0	0	7	0	7.48
43+45.74	43+45.74P	45.74	4.66	0.00	1.89	9	0	2	16	2	14.08
43+50	43+50.00P	4.26	4.62	0.00	2.04	1	0	0	17	2	14.43
43+70.74	43+70.74P	20.74	4.64	0.00	1.27	4	0	1	20	4	16.40
43+85.95	43+85.95P	15.21	4.48	0.00	0.81	3	0	1	23	5	18.24
43+86.95	43+86.95P	1.00	6.62	0.00	1.61	0	0	0	23	5	18.39
43+93.28	43+93.28P	6.33	7.95	0.00	6.67	2	0	1	25	6	18.88
43+95.74	43+95.74P	2.46	9.33	0.00	9.13	1	0	1	26	7	18.77
43+98.91	43+98.91P	3.17	9.77	0.00	10.30	1	0	1	27	8	18.46
44+00	44+00.00P	1.09	9.86	0.00	10.37	0	0	0	27	9	18.34
44+23.91	44+23.91P	23.91	9.93	0.00	11.71	9	0	10	36	21	14.88
44+48.91	44+48.91P	25.00	14.88	0.00	1.92	11	0	6	47	29	18.47
44+50	44+50.00P	1.09	15.33	0.00	1.89	1	0	0	48	29	18.99
45+00	45+00.00P	50.00	15.03	0.00	3.60	28	0	5	76	35	40.74
45+50	45+50.00P	50.00	15.03	0.00	4.13	28	0	7	104	44	59.62
46+00	46+00.00P	50.00	12.78	0.00	3.87	26	0	7	130	54	76.12
46+50	46+50.00P	50.00	11.87	0.00	34.79	23	0	36	153	98	54.21
47+00	47+00.00P	50.00	10.91	0.00	37.71	21	0	67	174	182	-8.61
47+50	47+50.00P	50.00	12.46	0.00	13.27	22	0	47	195	241	-45.99
48+00	48+00.00P	50.00	12.74	0.00	11.06	23	0	23	219	269	-50.83
50+87.28	50+87.28P	287.28	3.88	0.00	12.46	88	0	125	307	426	-118.88
51+00	51+00.00P	12.72	5.69	0.00	12.24	2	0	6	309	433	-123.90
51+50	51+50.00P	50.00	15.74	0.00	0.02	20	0	11	329	447	-118.25
52+00	52+00.00P	50.00	11.71	0.00	1.40	25	0	1	354	449	-94.48
52+12.54	52+12.54P	12.54	12.23	0.00	1.47	6	0	1	360	450	-89.75
52+23.42	52+23.42P	10.88	13.10	0.00	0.95	5	0	0	365	450	-85.26
52+42.11	52+42.11P	18.69	11.01	0.00	14.42	8	0	5	373	457	-83.56
52+48.42	52+48.42P	6.31	12.06	0.00	15.49	3	0	3	376	461	-85.23
52+50	52+50.00P	1.58	12.00	0.00	15.96	1	0	1	377	463	-85.68
52+67.11	52+67.11P	17.11	10.72	0.00	10.62	7	0	8	384	473	-89.01
52+73.42	52+73.42P	6.31	10.39	0.00	19.87	2	0	4	387	478	-90.99
52+92.11	52+92.11P	18.69	10.74	0.00	0.65	7	0	7	394	486	-92.56
52+94.31	52+94.31P	2.20	10.86	0.00	0.32	1	0	0	395	486	-91.73
52+95.05	52+95.05P	0.74	10.91	0.00	0.26	0	0	0	395	486	-91.44
53+00	53+00.00P	4.95	11.11	0.00	0.02	2	0	0	397	487	-89.45
53+50	53+50.00P	50.00	16.20	0.00	0.00	25	0	0	422	487	-64.19
53+60.54	53+60.54P	10.54	15.94	0.00	0.00	6	0	0	429	487	-57.91
53+63.18	53+63.18P	2.63	3.03	0.00	1.79	1	0	0	430	487	-57.10
53+64.18	53+64.18P	1.01	0.00	0.00	0.00	0	0	0	430	487	-57.08
54+00	54+00.00P	35.82	0.00	0.00	0.00	0	0	0	430	487	-57.08
					TOTAL	430	0	389			

EARTHWORK TABULATION - CTH U **EXPANSION FACTOR = 1.25**

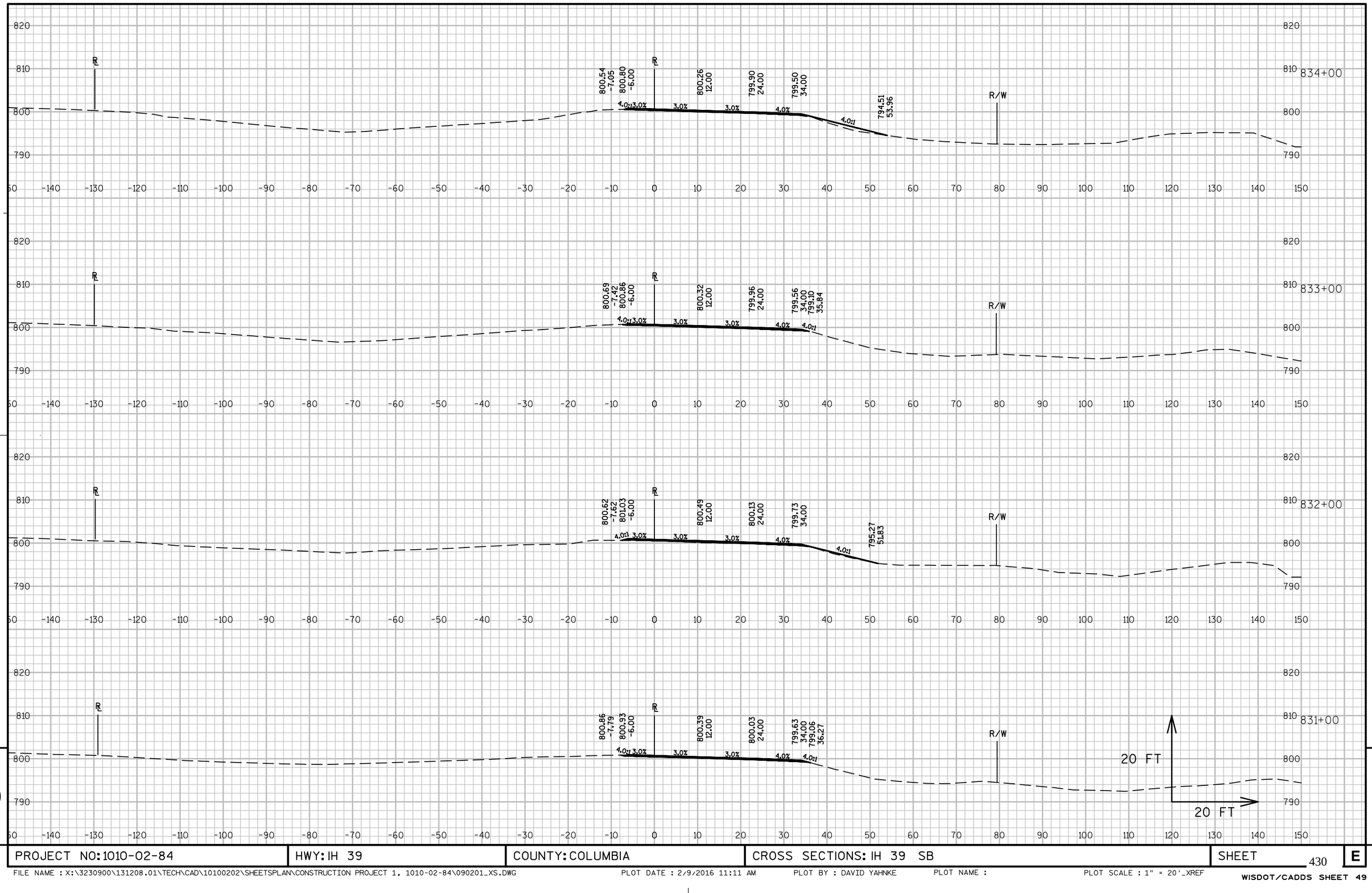
STATION	Real Station	Distance	AREA (SF)			Incremental Vol (CY) (Unadjusted)			Cumulative Vol (CY)		
			Cut	Salvaged/Unusable Pavement Material	Fill	Cut	Salvaged/Unusable Pavement Material	Fill	Cut 1.00	Expanded Fill 1.25	Mass Ordinate
						Note 1	Note 2	Note 3	Note 1		Note 8
13+50	13+50.00U	0.00	0.00	0.00	0.00	0	0	0	0	0	0.00
13+75.1	13+75.10U	25.10	0.00	0.00	0.00	0	0	0	0	0	0.00
13+75.85	13+75.85U	0.75	6.07	0.00	0.00	0	0	0	0	0	0.08
14+00	14+00.00U	24.15	4.50	0.00	0.00	5	0	0	5	0	4.81
14+14.6	14+14.60U	14.60	3.72	0.00	0.02	2	0	0	7	0	7.03
14+15.6	14+15.60U	1.00	9.74	0.00	0.03	0	0	0	7	0	7.27
14+40.97	14+40.97U	25.37	11.61	0.00	1.70	10	0	1	17	1	16.28
14+49.95	14+49.95U	8.99	10.67	0.00	2.68	4	0	1	21	2	19.08
14+52.33	14+52.33U	2.38	10.23	0.00	3.51	1	0	0	22	2	19.65
14+68	14+68.00U	15.67	8.43	0.00	4.03	5	0	2	27	5	22.34
14+74.01	14+74.01U	6.01	8.29	0.00	4.72	2	0	1	29	6	22.98
14+77.03	14+77.03U	3.02	8.21	0.00	4.86	1	0	1	30	7	23.23
14+99.01	14+99.01U	21.98	7.53	0.00	6.74	6	0	5	37	13	23.73
15+00	15+00.00U	0.99	7.50	0.00	7.00	0	0	0	37	13	23.69
15+02	15+02.00U	2.00	7.45	0.00	7.49	1	0	1	37	14	23.58
15+24.01	15+24.01U	22.01	7.01	0.00	10.14	6	0	7	43	23	20.49
15+50	15+50.00U	25.99	7.60	0.00	13.89	7	0	12	50	37	13.07
15+75	15+75.00U	25.00	7.47	0.00	13.76	7	0	13	57	53	4.05
16+00	16+00.00U	25.00	7.53	0.00	21.61	7	0	16	64	74	-9.47
16+02	16+02.00U	2.00	6.53	0.00	43.59	1	0	2	65	77	-11.97
16+15	16+15.00U	13.00	0.03	0.00	7.57	2	0	12	66	92	-25.78
18+41	18+41.00U	226.00	3.38	0.00	57.21	14	0	271	81	431	-350.39
18+50	18+50.00U	9.00	4.66	0.00	32.96	1	0	15	82	450	-367.84
18+75	18+75.00U	25.00	9.71	0.00	8.52	7	0	19	89	474	-385.19
19+00	19+00.00U	25.00	10.84	0.00	0.85	10	0	4	98	479	-381.10
19+12.98	19+12.98U	12.98	11.32	0.00	0.00	5	0	0	103	479	-376.03
19+17.11	19+17.11U	4.13	12.93	0.00	0.00	2	0	0	105	479	-374.17
19+18.11	19+18.11U	1.00	7.49	0.00	0.00	0	0	0	106	479	-373.79
19+50	19+50.00U	31.89	12.81	0.00	0.00	12	0	0	118	479	-361.81
20+00	20+00.00U	50.00	3.08	0.00	0.40	15	0	0	132	480	-347.56
20+50	20+50.00U	50.00	3.55	0.00	0.53	6	0	1	139	481	-342.51
20+68.82	20+68.82U	18.82	3.98	0.00	0.04	3	0	0	141	481	-340.13
20+93.82	20+93.82U	25.00	3.69	0.00	5.27	4	0	2	145	484	-339.65
21+00	21+00.00U	6.18	3.45	0.00	5.59	1	0	1	146	486	-340.39
21+18.82	21+18.82U	18.82	3.43	0.00	8.22	2	0	5	148	492	-344.01
21+29.86	21+29.86U	11.04	3.65	0.00	5.83	1	0	3	149	496	-346.15
21+50	21+50.00U	20.14	3.39	0.00	7.06	3	0	5	152	502	-349.53
22+00	22+00.00U	50.00	3.42	0.00	0.54	6	0	7	158	510	-352.02
22+15.81	22+15.81U	15.81	3.73	0.00	0.00	2	0	0	160	510	-350.13
22+16.81	22+16.81U	1.00	0.00	0.00	0.00	0	0	0	160	510	-350.06
22+50	22+50.00U	33.19	0.00	0.00	0.00	0	0	0	160	510	-350.06
					TOTAL	160	0	408			

EARTHWORK TABULATION - CTH V **EXPANSION FACTOR = 1.25**

STATION	Real Station	Distance	AREA (SF) Cut	AREA (SF) Salvaged/Unusable Pavement Material	AREA (SF) Fill	Incremental Vol (CY) (Unadjusted) Cut Note 1	Incremental Vol (CY) (Unadjusted) Salvaged/Unusable Pavement Material Note 2	Incremental Vol (CY) (Unadjusted) Fill Note 3	Cumulative Vol (CY) Cut 1.00 Note 1	Cumulative Vol (CY) Expanded Fill 1.25	Mass Ordinate Note 8
44+50	44+50.00V	0.00	0.00	0.00	0.00	0	0	0	0	0	0.00
44+59.69	44+59.69V	9.69	0.00	0.00	0.00	0	0	0	0	0	0.00
44+60.69	44+60.69V	1.00	4.06	0.00	0.00	0	0	0	0	0	0.07
44+71	44+71.00V	10.31	7.84	0.00	0.66	2	0	0	2	0	2.19
44+91.49	44+91.49V	20.49	10.93	0.00	47.89	7	0	18	9	23	-13.71
45+00	45+00.00V	8.51	10.63	0.00	71.20	3	0	19	13	47	-33.77
45+16.49	45+16.49V	16.49	9.58	0.00	85.67	6	0	48	19	107	-87.48
45+21.15	45+21.15V	4.66	10.17	0.00	86.46	2	0	15	21	125	-104.35
45+41.49	45+41.49V	20.34	5.90	0.00	64.91	6	0	57	27	196	-169.56
45+46.15	45+46.15V	4.66	9.59	0.00	60.66	1	0	11	28	210	-181.77
45+50	45+50.00V	3.85	9.69	0.00	60.72	1	0	9	30	221	-191.22
45+71.15	45+71.15V	21.15	8.84	0.00	29.24	7	0	35	37	265	-228.00
46+00	46+00.00V	28.85	8.95	0.00	24.93	10	0	29	46	301	-254.67
46+50	46+50.00V	50.00	7.12	0.00	72.83	15	0	91	61	414	-352.95
47+00	47+00.00V	50.00	7.25	0.00	62.10	13	0	125	74	570	-495.82
47+50	47+50.00V	50.00	7.62	0.00	126.63	14	0	175	88	789	-700.50
47+75	47+75.00V	25.00	10.37	0.00	164.06	8	0	135	97	957	-860.40
48+00	48+00.00V	25.00	10.13	0.00	210.24	9	0	173	106	1,174	-1,067.52
48+32.16	48+32.16V	32.16	11.28	0.00	248.03	13	0	273	119	1,515	-1,395.90
50+94.02	50+94.02V	261.86	5.78	0.00	117.22	83	0	1,771	202	3,729	-3,527.18
51+00	51+00.00V	5.98	9.58	0.00	97.87	2	0	24	203	3,758	-3,555.27
51+50	51+50.00V	50.00	6.89	0.00	36.87	15	0	125	218	3,914	-3,695.98
52+00	52+00.00V	50.00	7.71	0.00	7.12	14	0	41	232	3,965	-3,733.37
52+50	52+50.00V	50.00	10.08	0.00	2.36	16	0	9	248	3,976	-3,727.87
53+00	53+00.00V	50.00	10.48	0.00	2.71	19	0	5	268	3,982	-3,714.69
53+50	53+50.00V	50.00	7.97	0.00	7.87	17	0	10	285	3,994	-3,709.85
54+00	54+00.00V	50.00	9.27	0.00	14.69	16	0	21	301	4,021	-3,720.00
54+50	54+50.00V	50.00	9.00	0.00	13.77	17	0	26	317	4,053	-3,736.03
55+00	55+00.00V	50.00	15.32	0.00	6.75	23	0	19	340	4,077	-3,737.25
55+50	55+50.00V	50.00	11.84	0.00	9.98	25	0	15	365	4,097	-3,731.46
56+00	56+00.00V	50.00	23.88	0.00	4.21	33	0	13	398	4,113	-3,714.80
56+43.12	56+43.12V	43.12	16.15	0.00	1.04	32	0	4	430	4,118	-3,688.08
56+50	56+50.00V	6.88	59.05	0.00	3.02	10	0	1	440	4,119	-3,679.15
56+68.12	56+68.12V	18.12	62.37	0.00	2.52	41	0	2	480	4,121	-3,640.73
56+93.1	56+93.10V	24.98	48.75	0.00	2.27	51	0	2	532	4,124	-3,592.10
57+00	57+00.00V	6.90	48.49	0.00	2.32	12	0	1	544	4,125	-3,580.41
57+47.3	57+47.30V	47.30	60.38	0.00	1.22	95	0	3	640	4,129	-3,488.91
57+50	57+50.00V	2.70	2.55	0.00	0.82	3	0	0	643	4,129	-3,485.90
57+60.8	57+60.80V	10.80	3.28	0.00	0.17	1	0	0	644	4,129	-3,484.98
57+85.8	57+85.80V	25.00	3.96	0.00	2.29	3	0	1	647	4,130	-3,483.04
58+00	58+00.00V	14.20	3.53	0.00	8.43	2	0	3	649	4,134	-3,484.60
58+10.52	58+10.52V	10.52	4.10	0.00	5.76	1	0	3	651	4,137	-3,486.56
58+84.54	58+84.54V	74.02	5.44	0.00	0.00	13	0	8	664	4,147	-3,483.36
58+85.54	58+85.54V	1.00	0.00	0.00	0.00	0	0	0	664	4,147	-3,483.26
59+00	59+00.00V	14.46	0.00	0.00	0.00	0	0	0	664	4,147	-3,483.26
					TOTAL	664	0	3,318			

EARTHWORK TABULATION - KENT ROAD **EXPANSION FACTOR = 1.25**

STATION	Real Station	Distance	AREA (SF) Cut	AREA (SF) Salvaged/Unusable Pavement Material	AREA (SF) Fill	Incremental Vol (CY) (Unadjusted) Cut Note 1	Incremental Vol (CY) (Unadjusted) Salvaged/Unusable Pavement Material Note 2	Incremental Vol (CY) (Unadjusted) Fill Note 3	Cumulative Vol (CY) Cut 1.00 Note 1	Cumulative Vol (CY) Expanded Fill 1.25	Mass Ordinate Note 8
43+40.97	43+40.97K	0.00	0.00	0.00	0.00	0	0	0	0	0	0.00
43+41.97	43+41.97K	1.00	4.95	0.00	0.00	0	0	0	0	0	0.09
43+50	43+50.00K	8.03	5.10	0.00	0.00	1	0	0	2	0	1.59
43+68.5	43+68.50K	18.50	4.81	0.00	0.08	3	0	0	5	0	4.94
43+69.5	43+69.50K	1.00	10.22	0.00	0.10	0	0	0	5	0	5.22
43+97.59	43+97.59K	28.09	13.82	0.00	8.34	13	0	4	18	6	12.24
44+00	44+00.00K	2.41	14.27	0.00	10.26	1	0	1	19	7	12.45
44+07.58	44+07.58K	7.58	15.37	0.00	17.87	4	0	4	23	12	11.68
44+32.58	44+32.58K	25.00	18.36	0.00	10.78	16	0	13	39	28	10.72
44+50	44+50.00K	17.42	12.24	0.00	16.07	10	0	9	49	39	9.76
44+51.18	44+51.18K	1.18	11.77	0.00	16.63	1	0	1	49	40	9.39
44+57.58	44+57.58K	6.40	10.57	0.00	18.09	3	0	4	52	45	6.89
44+76.18	44+76.18K	18.60	8.43	0.00	25.84	7	0	15	58	64	-5.48
45+00	45+00.00K	23.82	8.34	0.00	23.60	7	0	22	66	91	-25.34
45+01.17	45+01.17K	1.17	8.42	0.00	23.42	0	0	1	66	92	-26.25
45+50	45+50.00K	48.83	8.35	0.00	45.16	15	0	62	81	170	-88.61
46+00	46+00.00K	50.00	6.54	0.00	51.27	14	0	89	95	282	-186.43
46+50	46+50.00K	50.00	7.04	0.00	33.88	13	0	79	108	380	-272.41
47+00	47+00.00K	50.00	7.40	0.00	47.30	13	0	75	121	474	-352.98
47+50	47+50.00K	50.00	7.63	0.00	52.48	14	0	92	135	590	-454.55
47+75	47+75.00K	25.00	6.51	0.00	59.16	7	0	52	142	654	-512.62
48+00	48+00.00K	24.99	7.61	0.00	55.42	7	0	53	148	720	-572.37
48+25	48+25.00K	25.00	5.51	0.00	122.14	6	0	82	154	823	-669.07
48+37.01	48+37.01K	12.01	3.76	0.00	172.05	2	0	65	156	905	-748.82
48+43.12	48+43.12K	6.11	3.96	0.00	167.20	1	0	38	157	953	-795.91
50+92.54	50+92.54K	249.41	4.42	0.00	125.94	39	0	1,354	196	2,645	-2,449.61
50+98.58	50+98.58K	6.05	5.66	0.00	100.86	1	0	25	197	2,677	-2,480.23
51+00	51+00.00K	1.42	5.84	0.00	94.25	0	0	5	197	2,684	-2,486.33
51+49.94	51+49.94K	49.94	7.81	0.00	23.97	13	0	109	210	2,820	-2,610.38
52+00	52+00.00K	50.06	7.74	0.00	13.22	14	0	34	224	2,863	-2,639.07
52+50	52+50.00K	50.00	7.01	0.00	15.57	14	0	27	238	2,897	-2,658.74
52+60.64	52+60.64K	10.64	7.13	0.00	17.28	3	0	6	241	2,905	-2,664.05
52+85.64	52+85.64K	25.00	7.88	0.00	28.74	7	0	21	248	2,931	-2,683.74
53+00	53+00.00K	14.36	7.02	0.00	48.74	4	0	21	252	2,957	-2,705.53
53+10.64	53+10.64K	10.64	7.11	0.00	52.39	3	0	20	254	2,982	-2,727.65
53+17	53+17.00K	6.36	7.73	0.00	49.11	2	0	12	256	2,997	-2,740.85
53+20.38	53+20.38K	3.38	7.72	0.00	49.48	1	0	6	257	3,005	-2,747.59
53+42	53+42.00K	21.62	6.97	0.00	58.35	6	0	43	263	3,059	-2,795.68
53+50	53+50.00K	8.00	7.12	0.00	59.30	2	0	17	265	3,080	-2,815.38
53+67	53+67.00K	17.00	7.57	0.00	60.96	5	0	38	270	3,128	-2,858.08
53+75	53+75.00K	8.00	7.39	0.00	57.56	2	0	18	272	3,150	-2,877.81
54+00	54+00.00K	25.00	6.94	0.00	46.07	7	0	48	279	3,210	-2,931.15
54+16	54+16.00K	16.00	6.91	0.00	31.78	4	0	23	283	3,239	-2,955.88
54+17	54+17.00K	1.00	3.63	0.00	27.51	0	0	1	283	3,240	-2,957.06
54+45	54+45.00K	28.00	3.53	0.00	13.68	4	0	21	287	3,267	-2,980.05
54+45.02	54+45.02K	0.02	3.51	0.00	13.68	0	0	0	287	3,267	-2,980.06
54+46	54+46.00K	0.98	0.00	0.00	0.00	0	0	0	287	3,267	-2,980.30
					TOTAL	287	0	2,614			

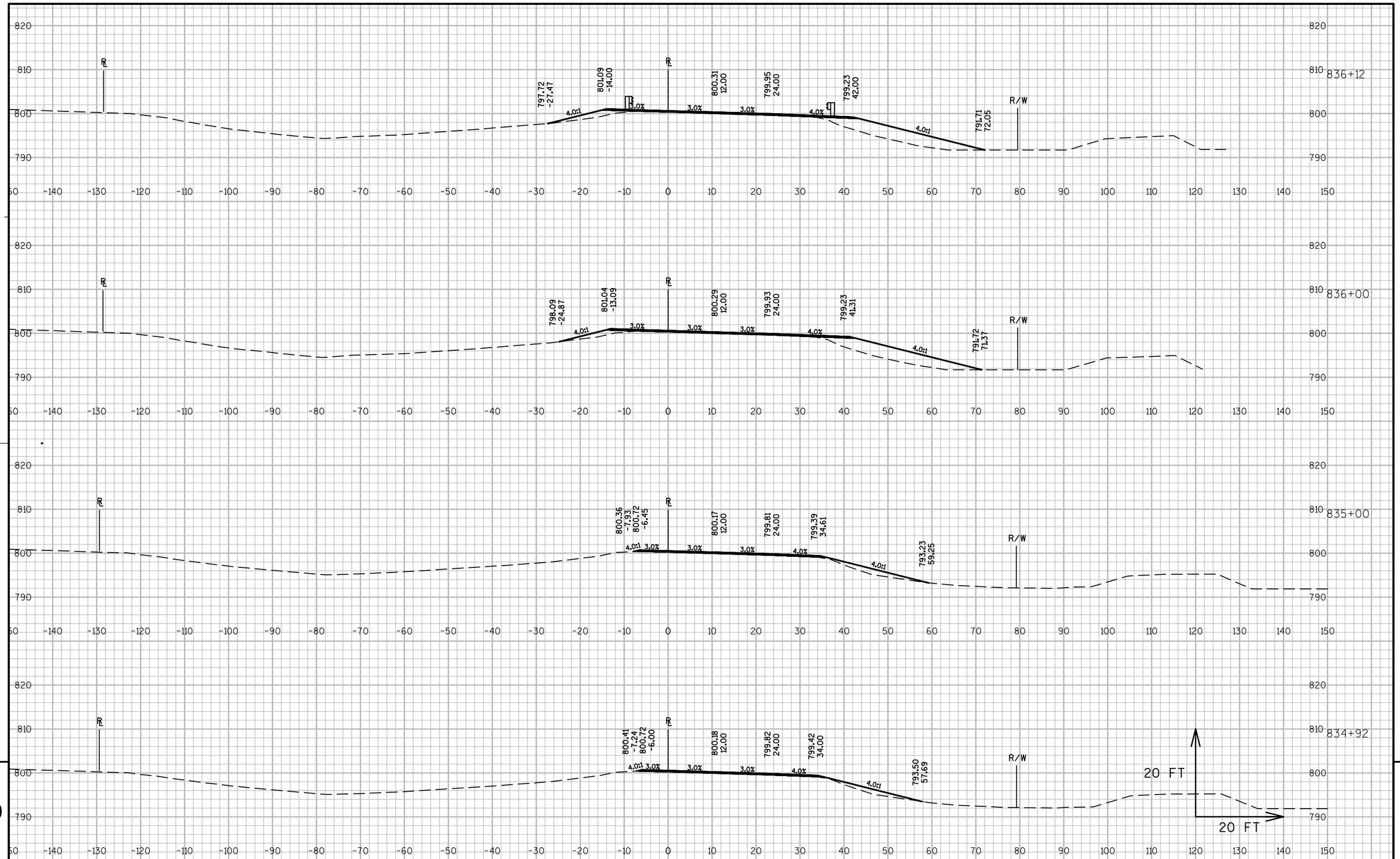


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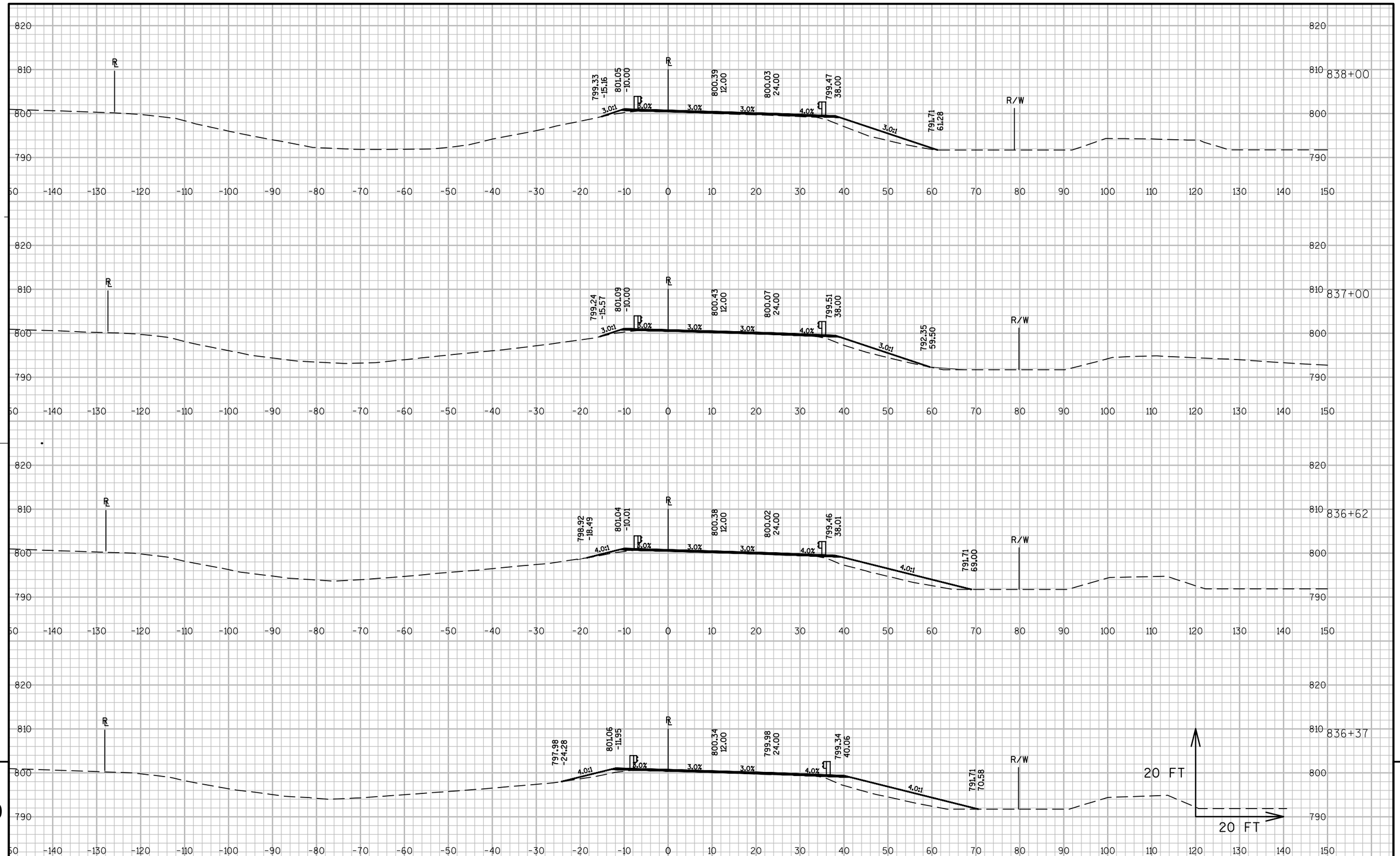
PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: IH 39 SB	SHEET 430	E

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WISDOT/CADDS SHEET 49



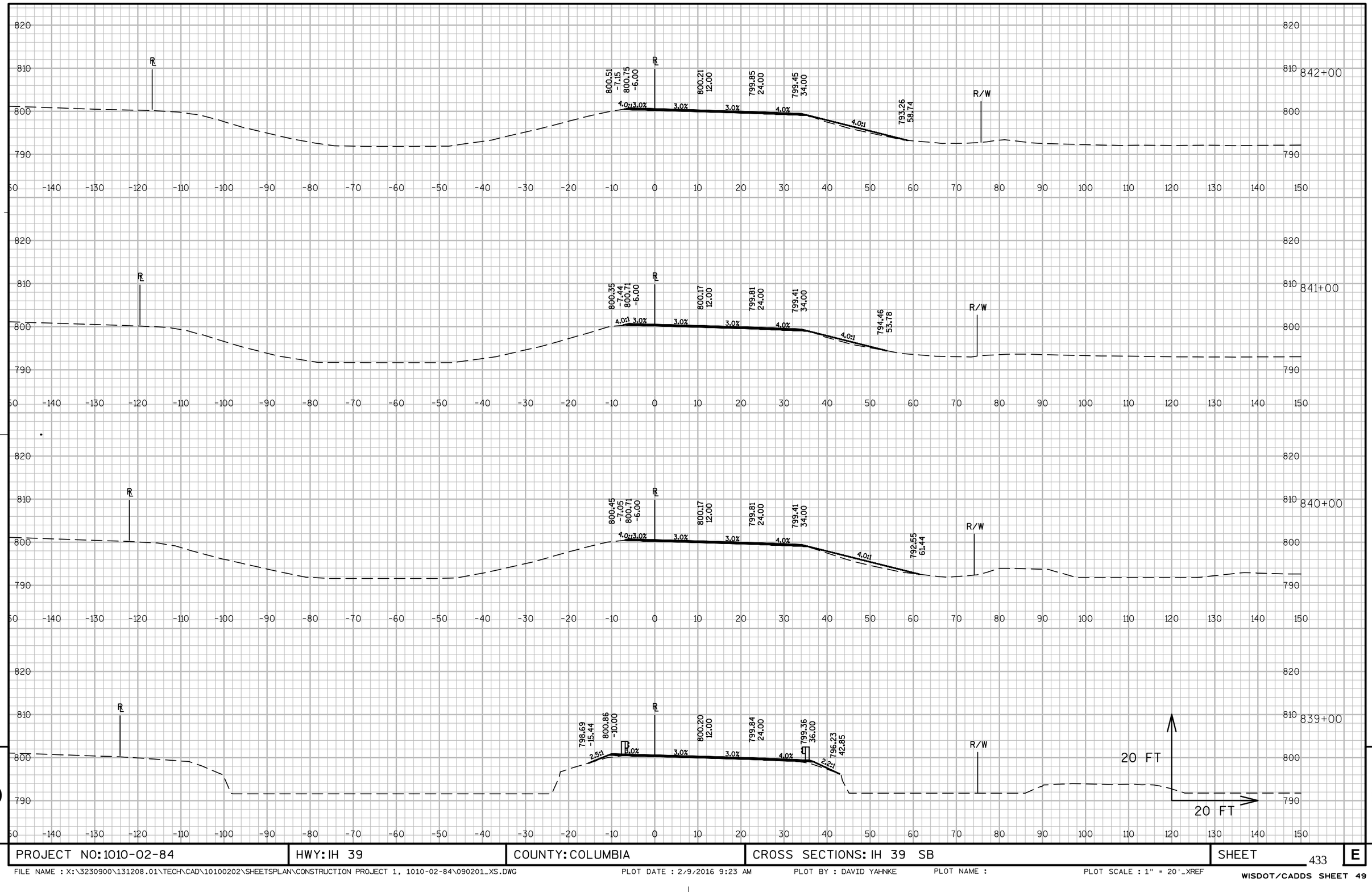
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PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: IH 39 SB	SHEET 432 E

FILE NAME : X:\3230900\131208.01\TECH\CAD\10100202\SHEETSPLAN\CONSTRUCTION PROJECT 1, 1010-02-84\090201_XS.DWG PLOT DATE : 2/9/2016 9:23 AM PLOT BY : DAVID YAHNKE PLOT NAME : PLOT SCALE : 1" = 20'_XREF

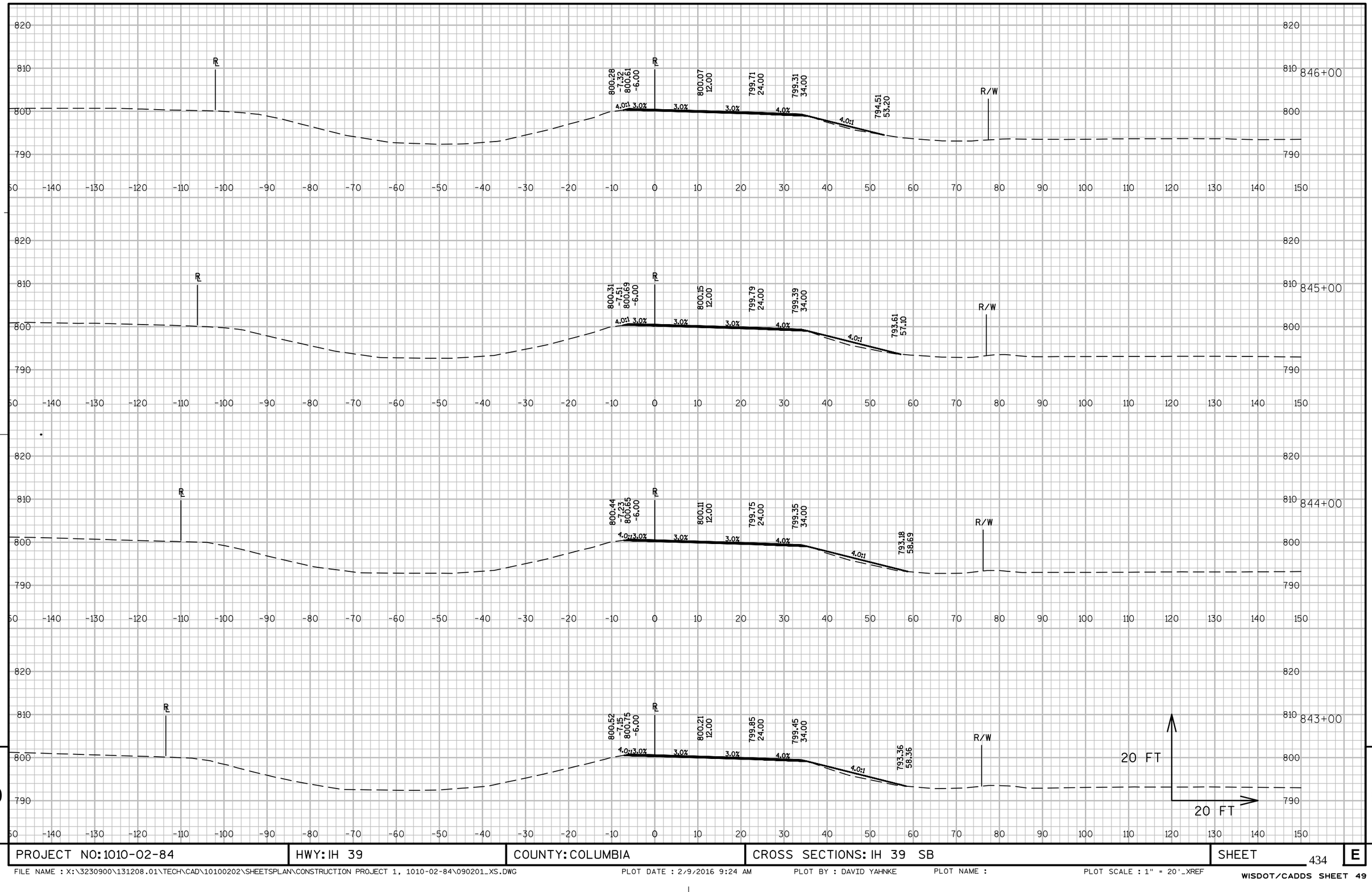
WISDOT/CADDS SHEET 49



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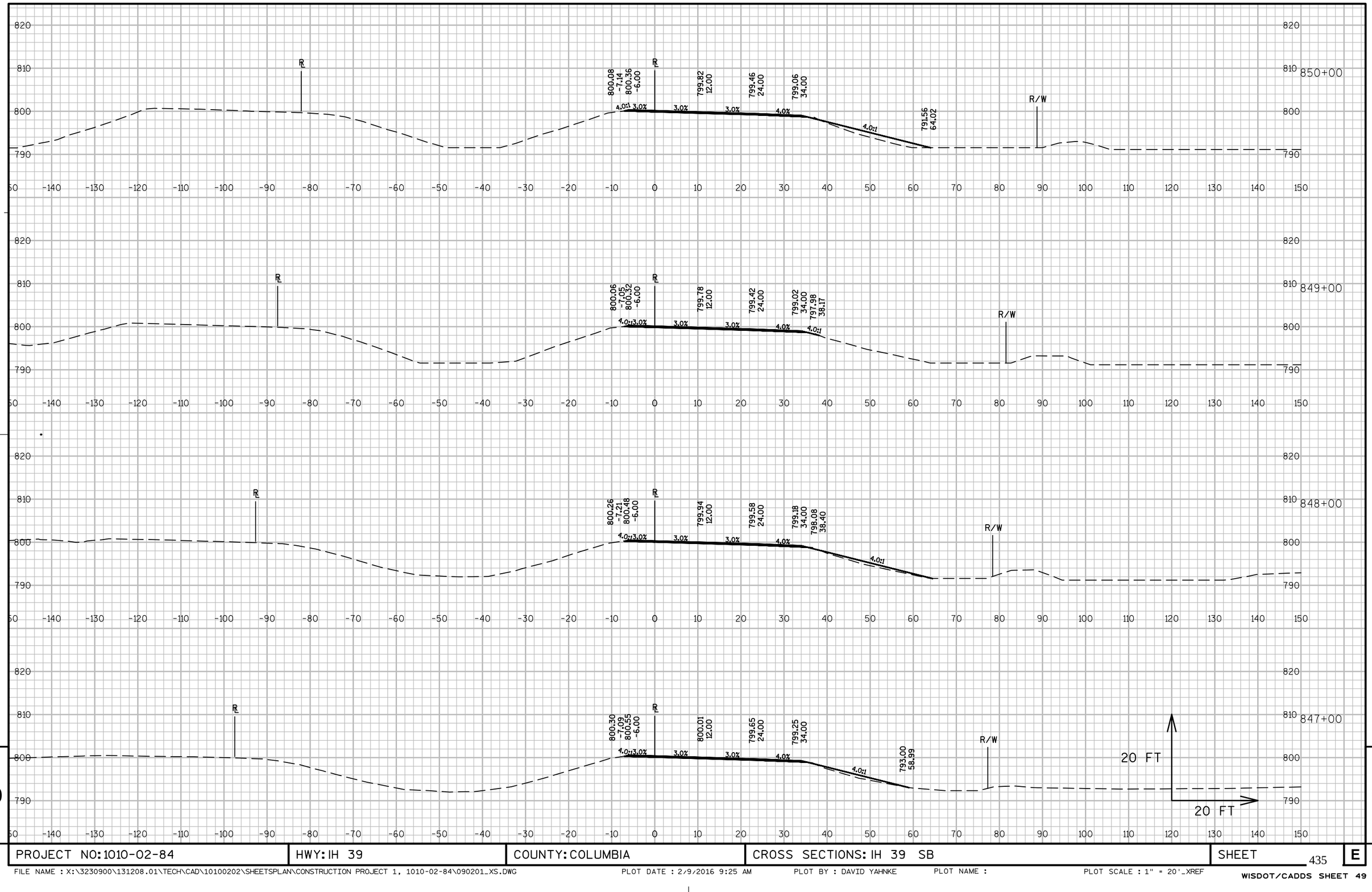
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WISDOT/CADDS SHEET 49



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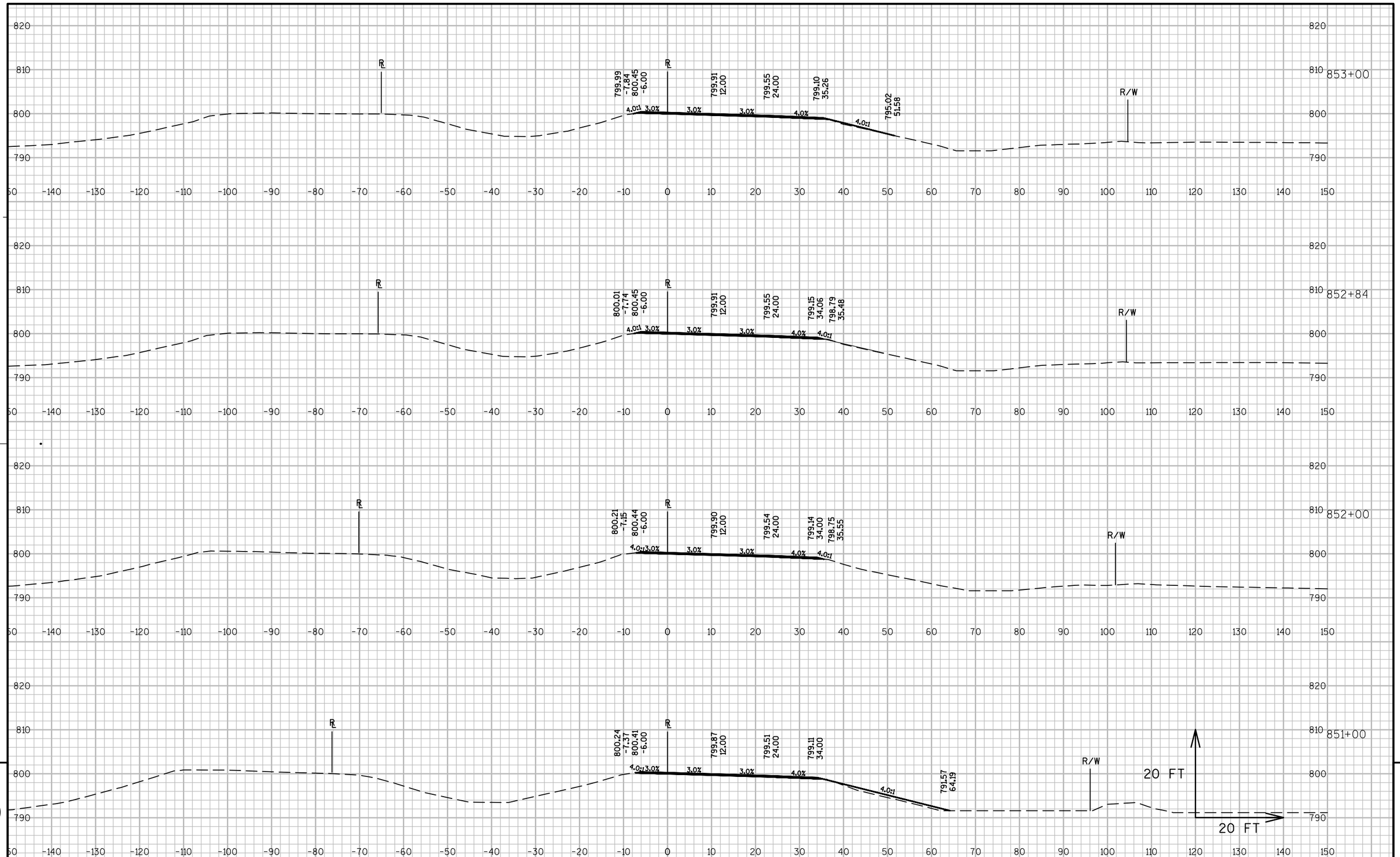
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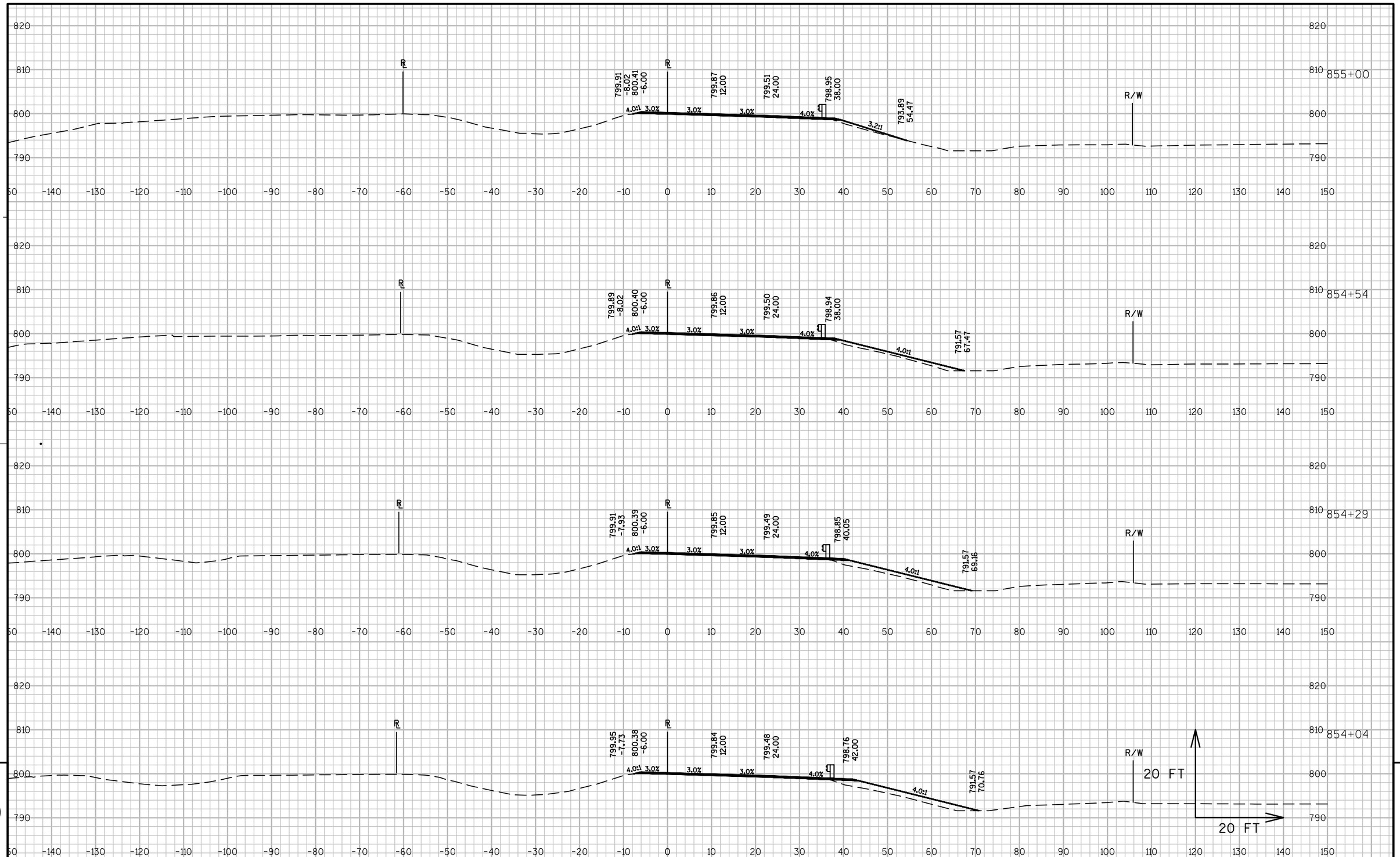
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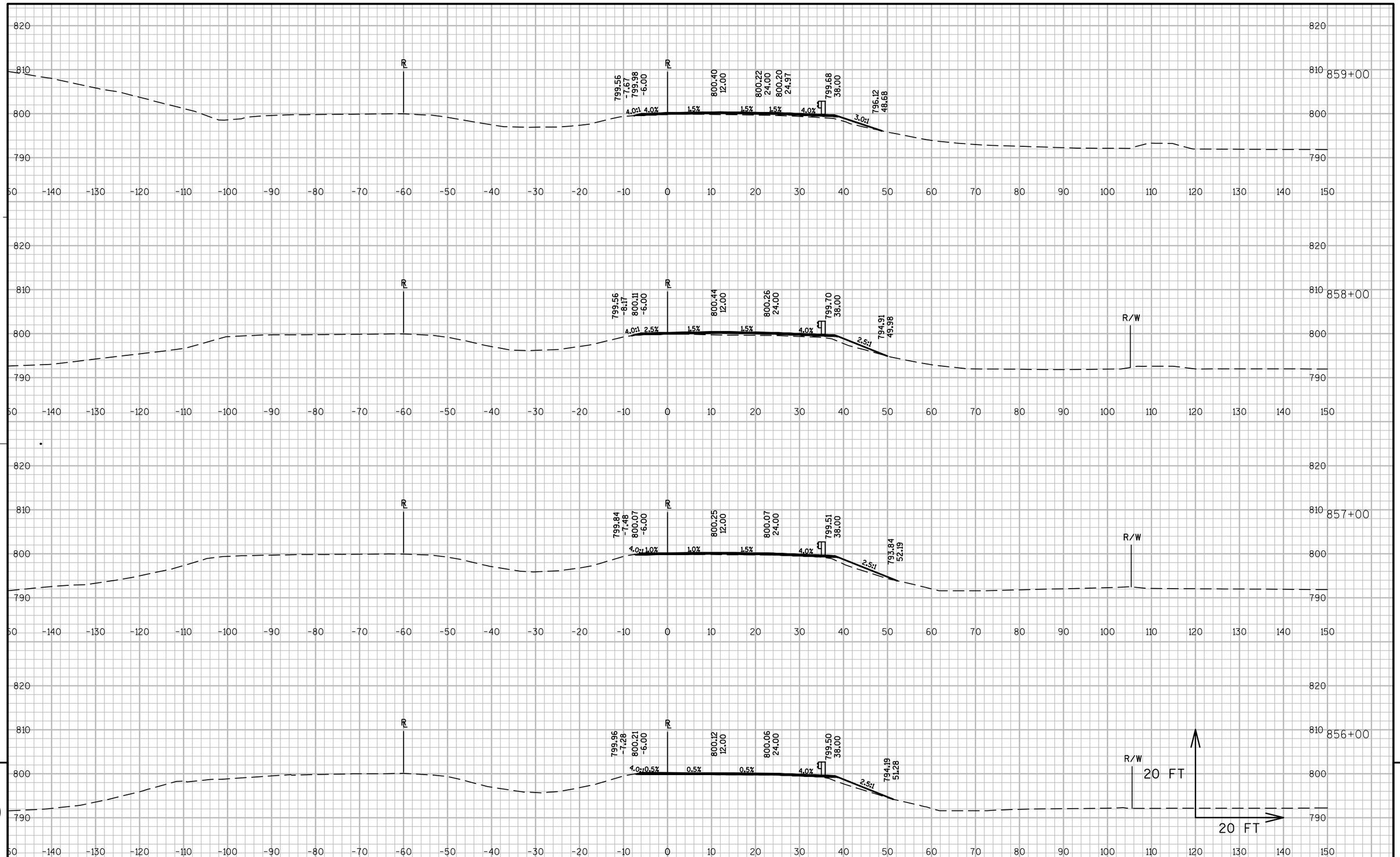


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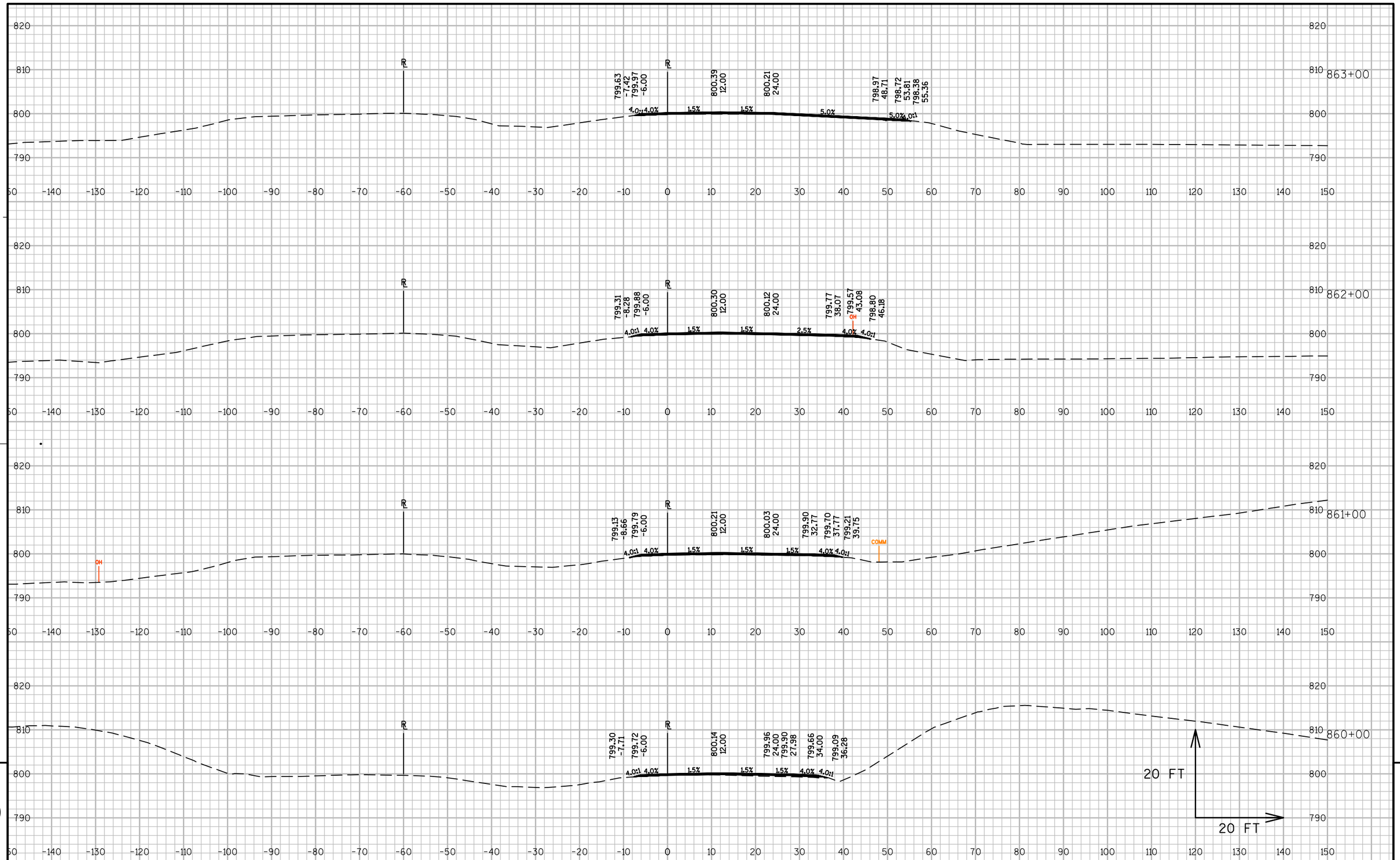
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WISDOT/CADDS SHEET 49



PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: IH 39 SB	SHEET 438	E

FILE NAME : X:\3230900\131208.01\TECH\CAD\10100202\SHEETSPLAN\CONSTRUCTION PROJECT 1, 1010-02-84\090201_XS.DWG PLOT DATE : 2/9/2016 9:27 AM PLOT BY : DAVID YAHNKE PLOT NAME : PLOT SCALE : 1" = 20'_XREF



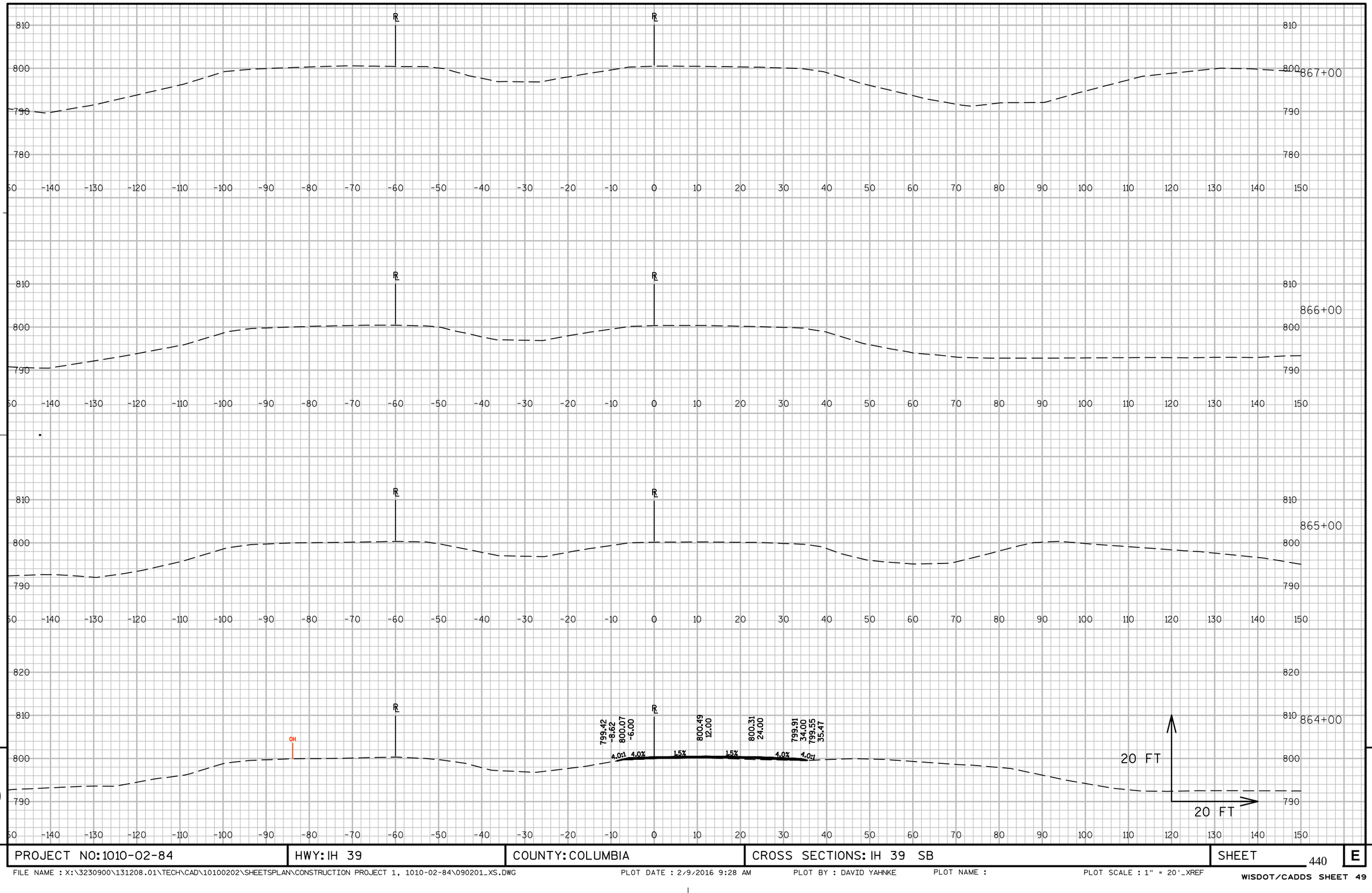
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PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: IH 39 SB	SHEET 439	E

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WISDOT/CADDS SHEET 49

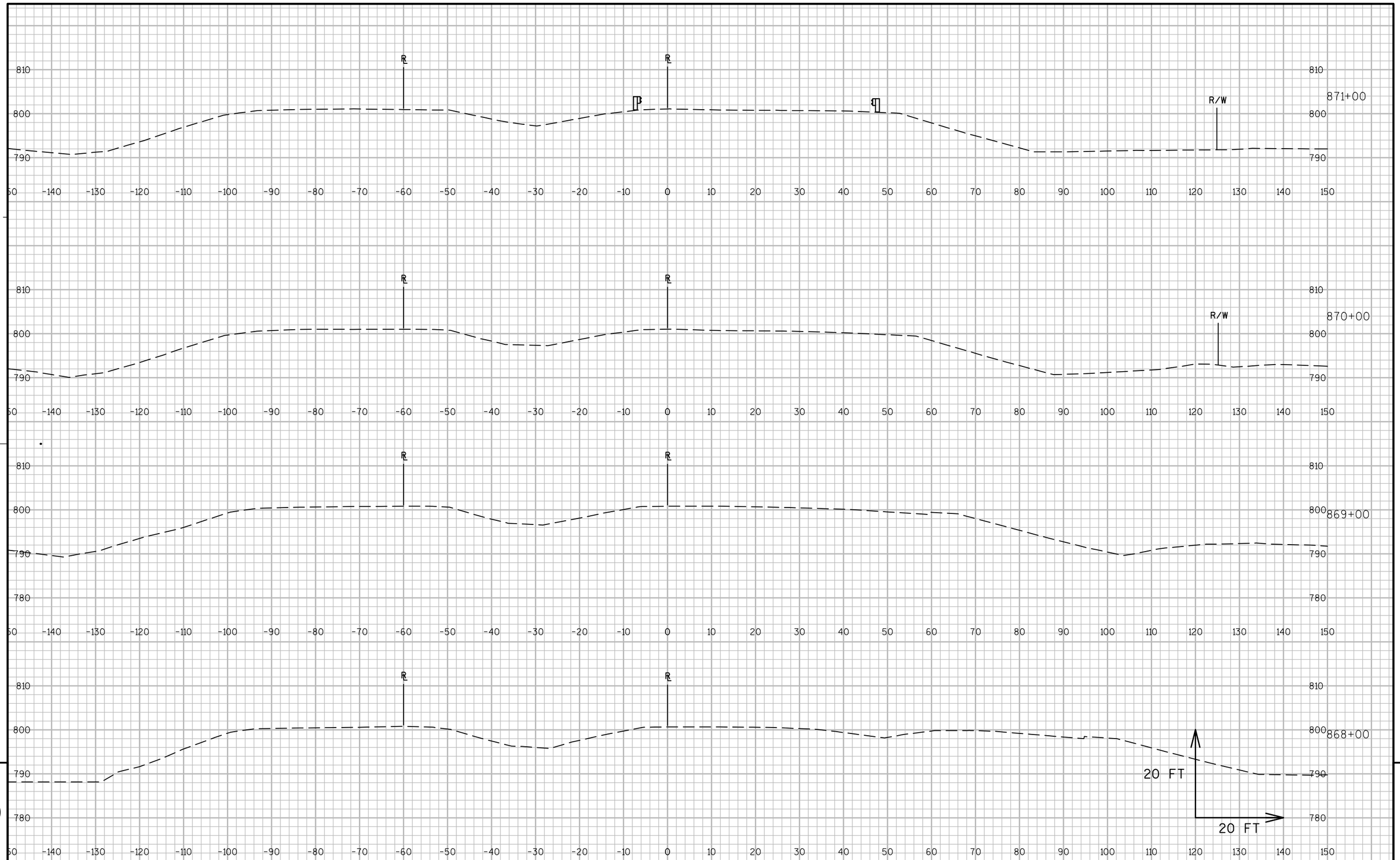


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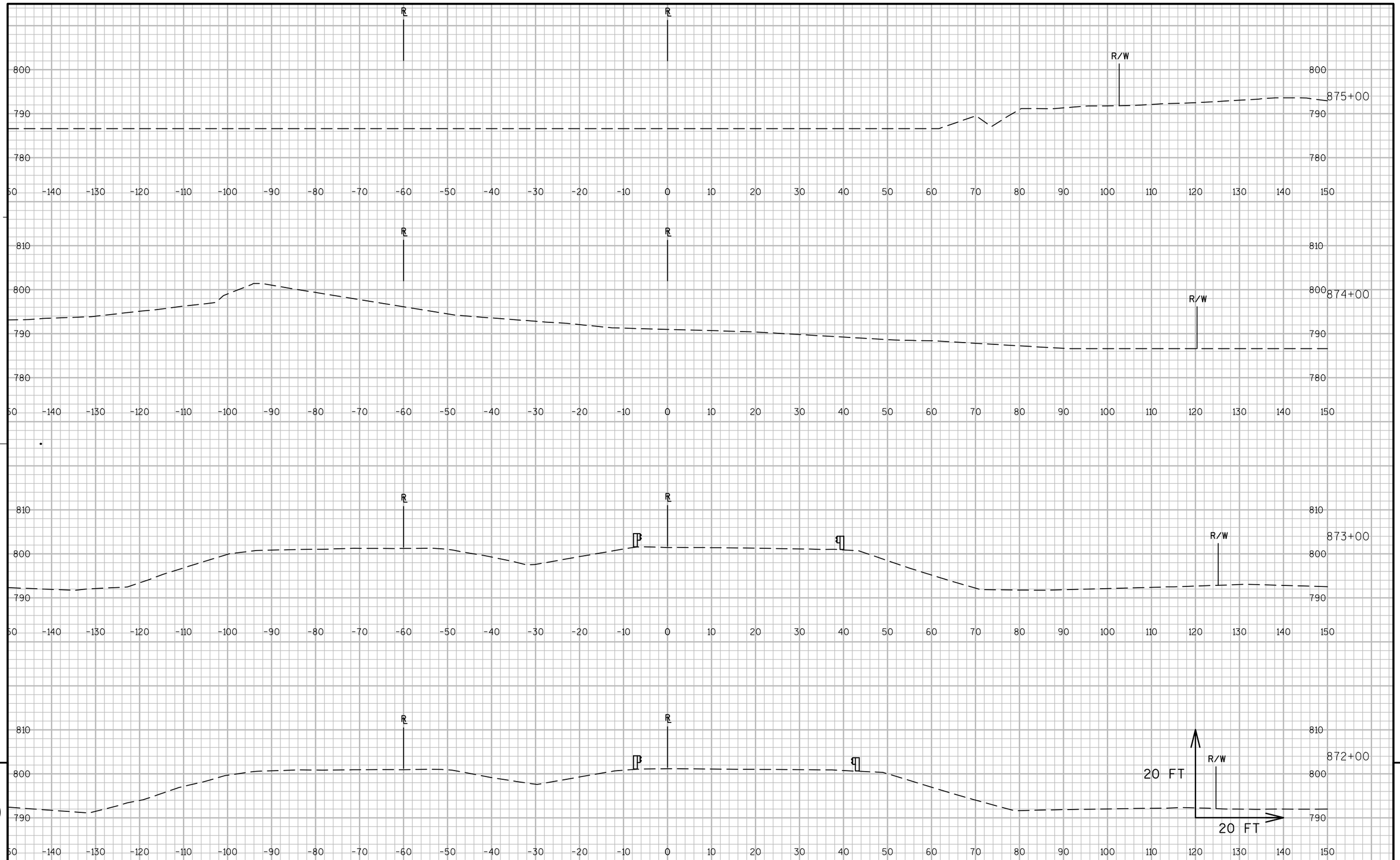
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WISDOT/CADDS SHEET 49



PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: IH 39 SB	SHEET 441	E

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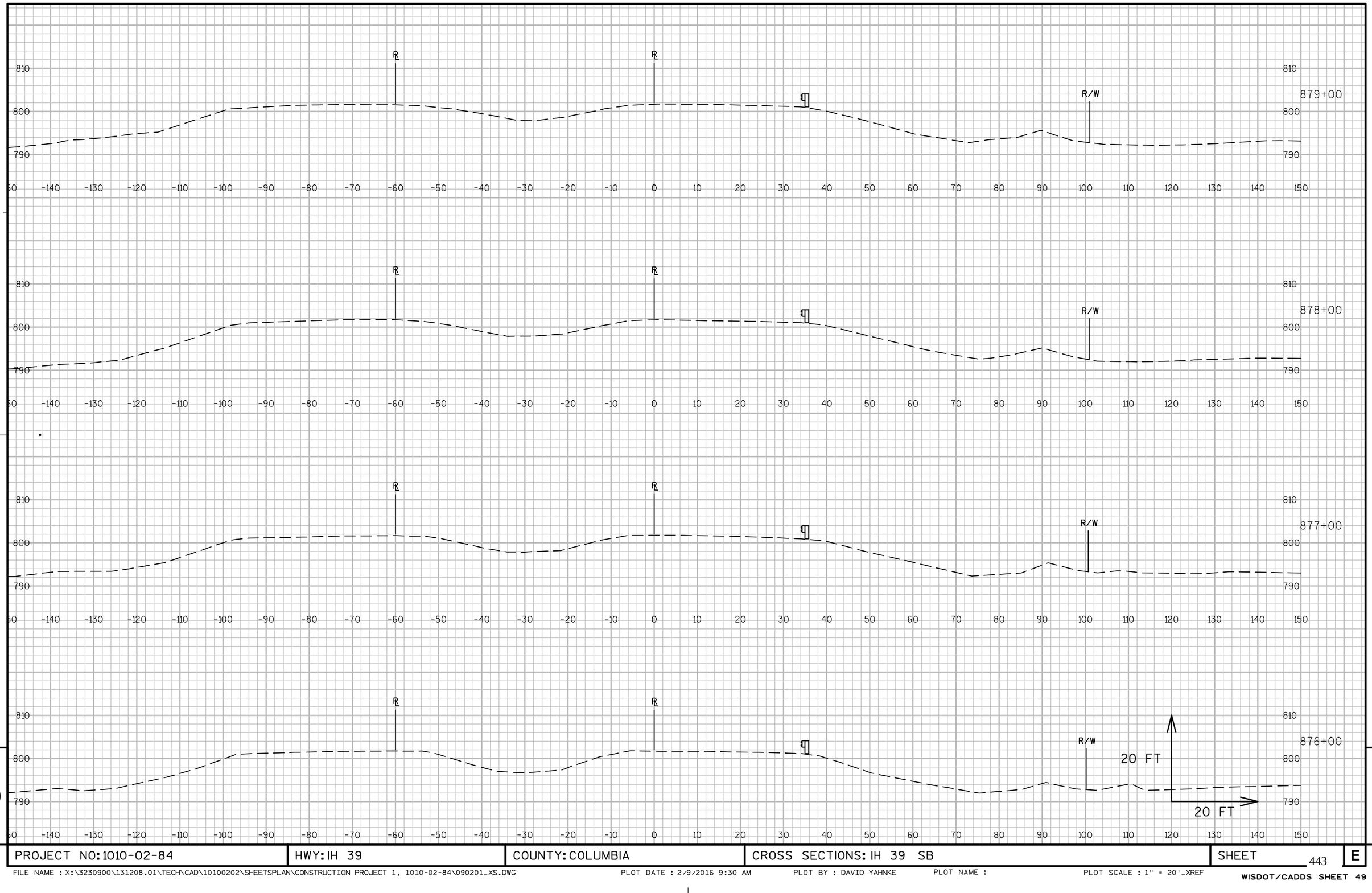
WISDOT/CADDS SHEET 49



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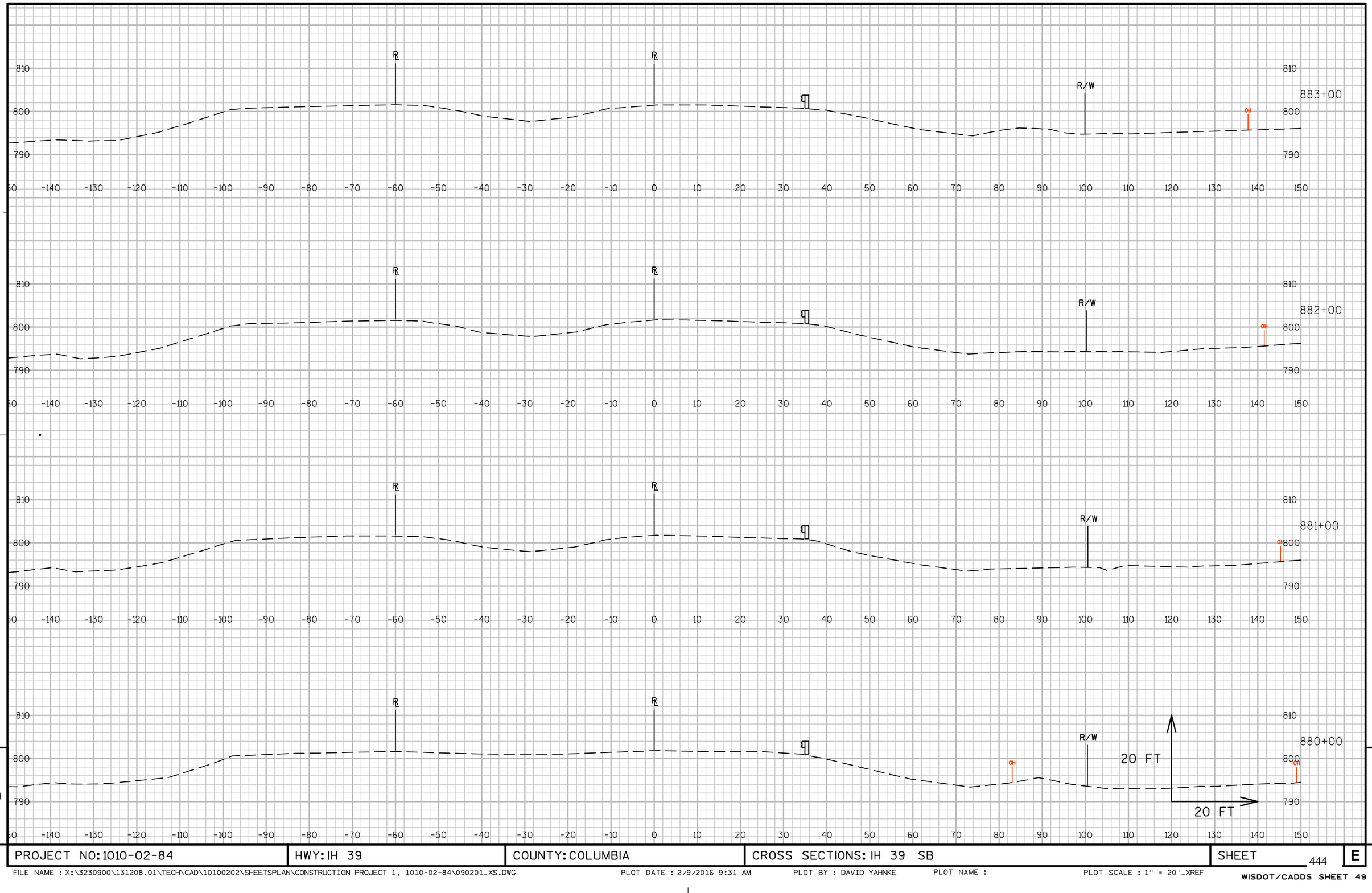
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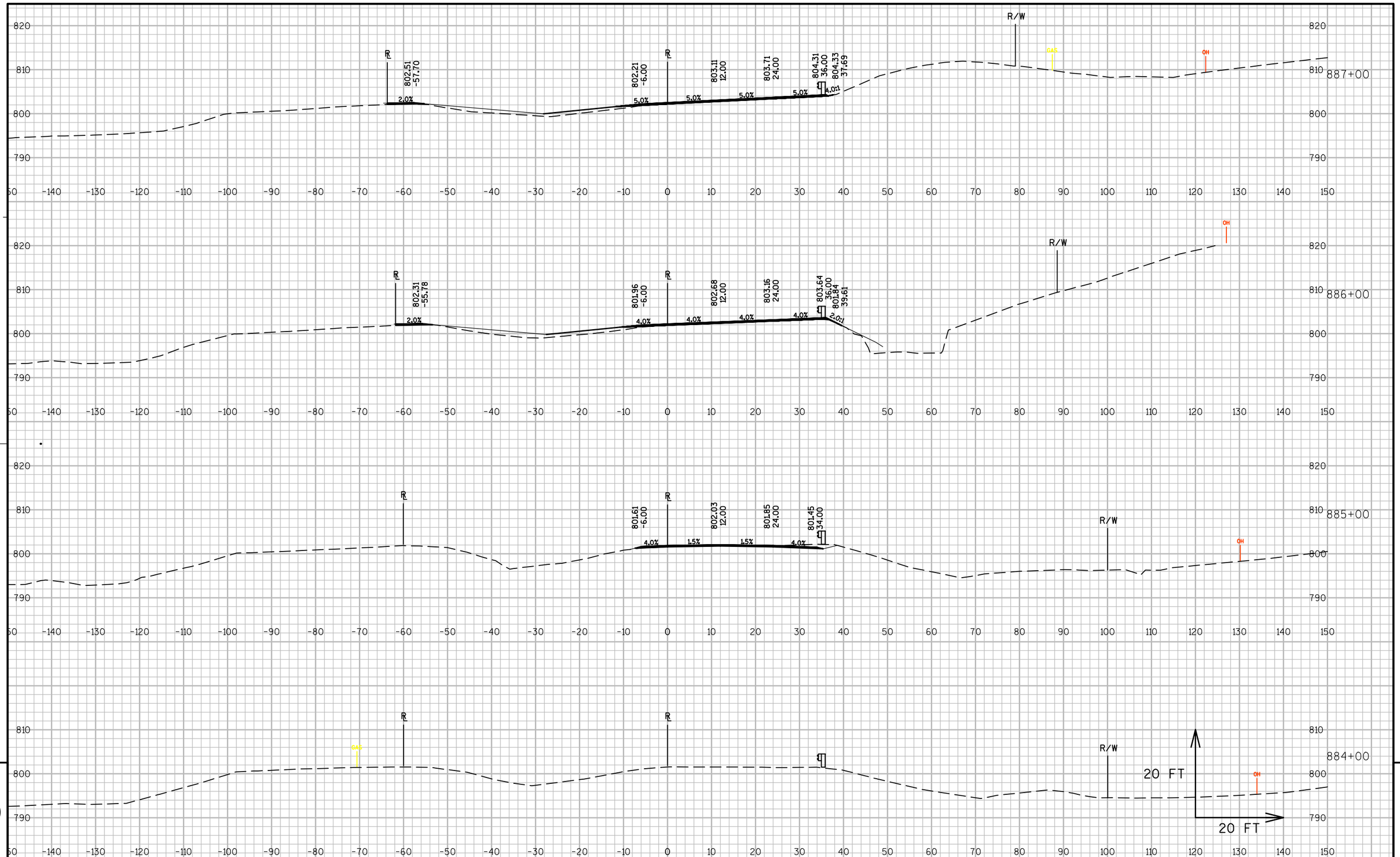
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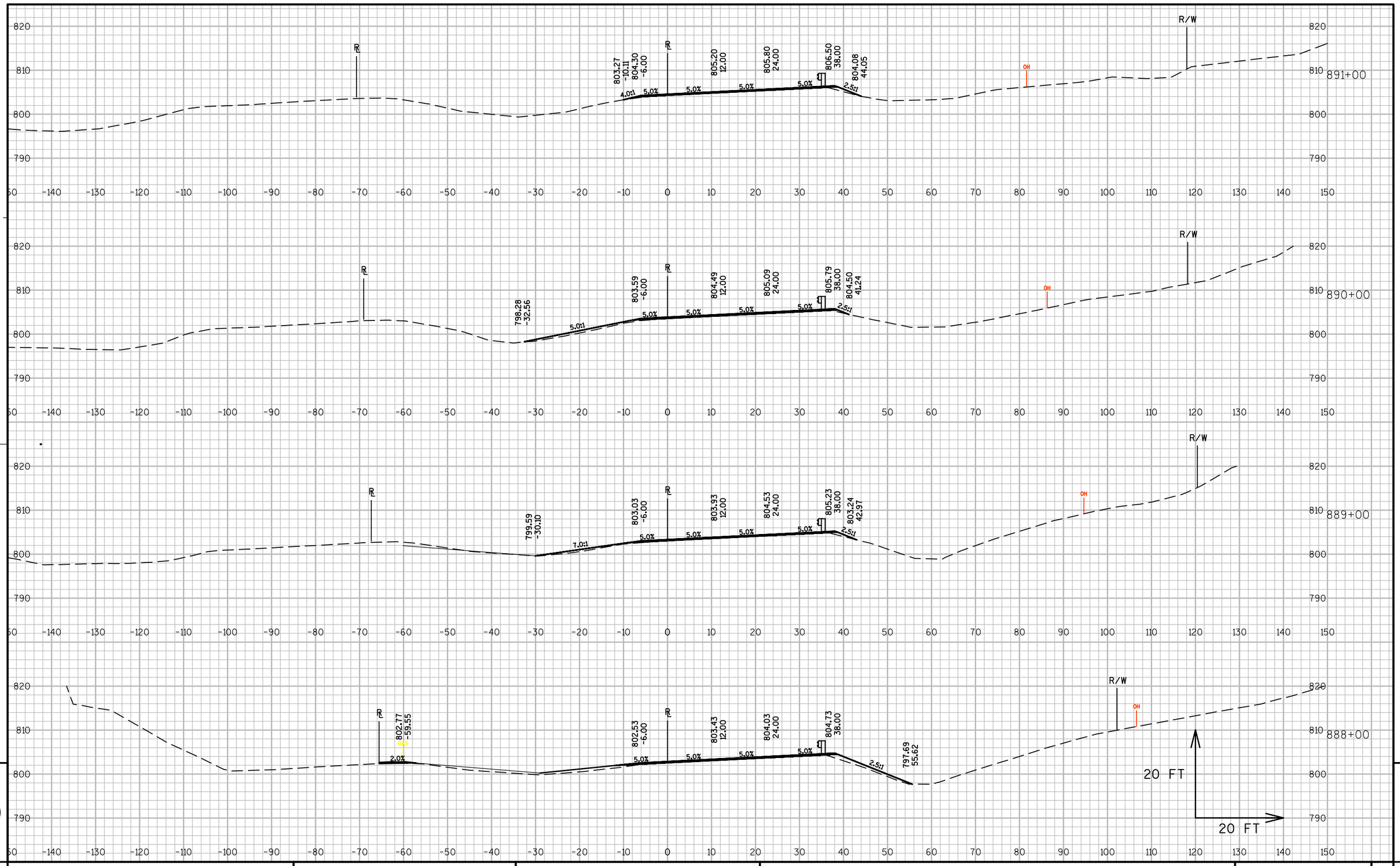
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PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: IH 39 SB	SHEET 445	E

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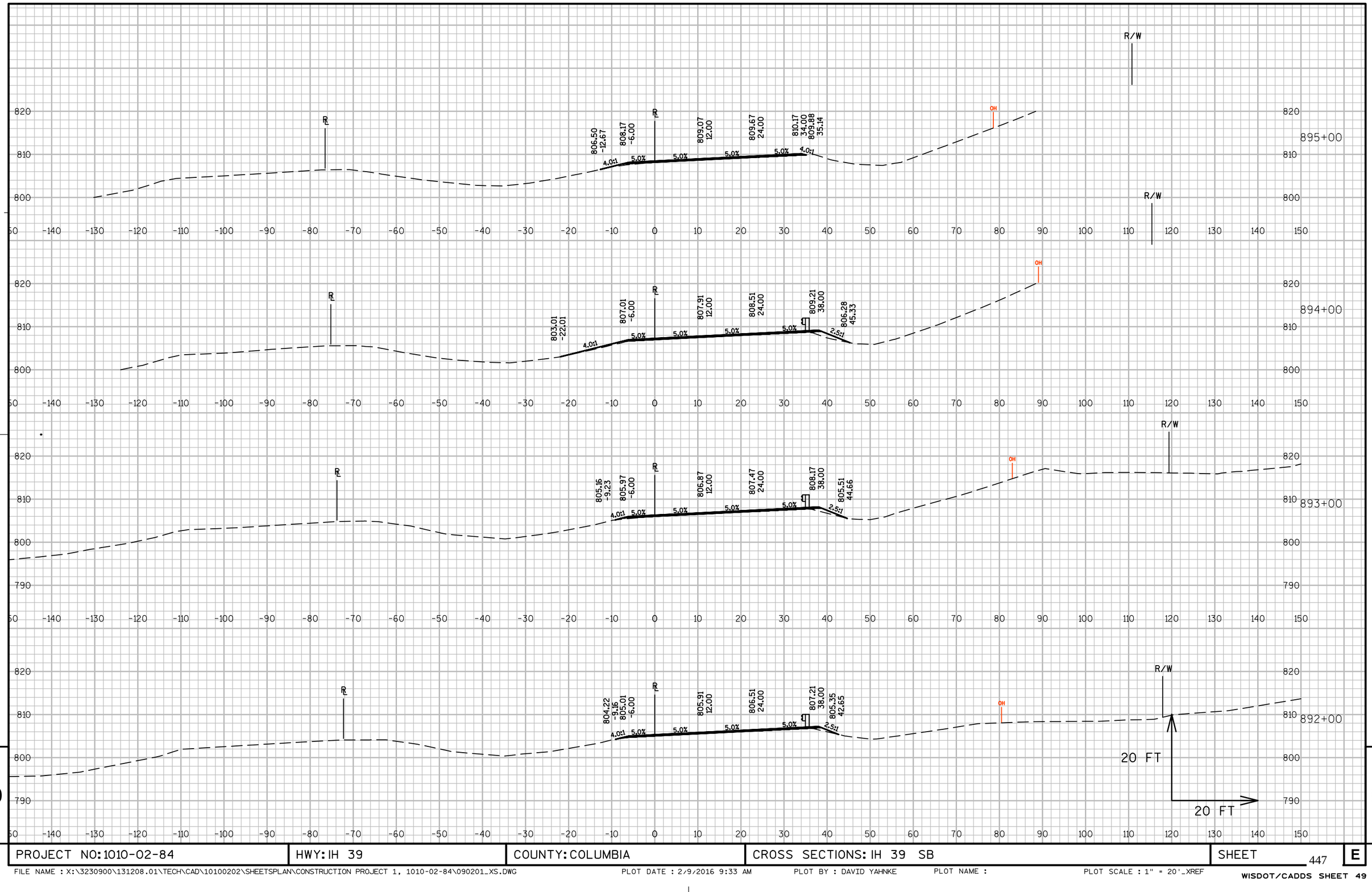
WISDOT/CADDS SHEET 49



PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: IH 39 SB	SHEET 446	E

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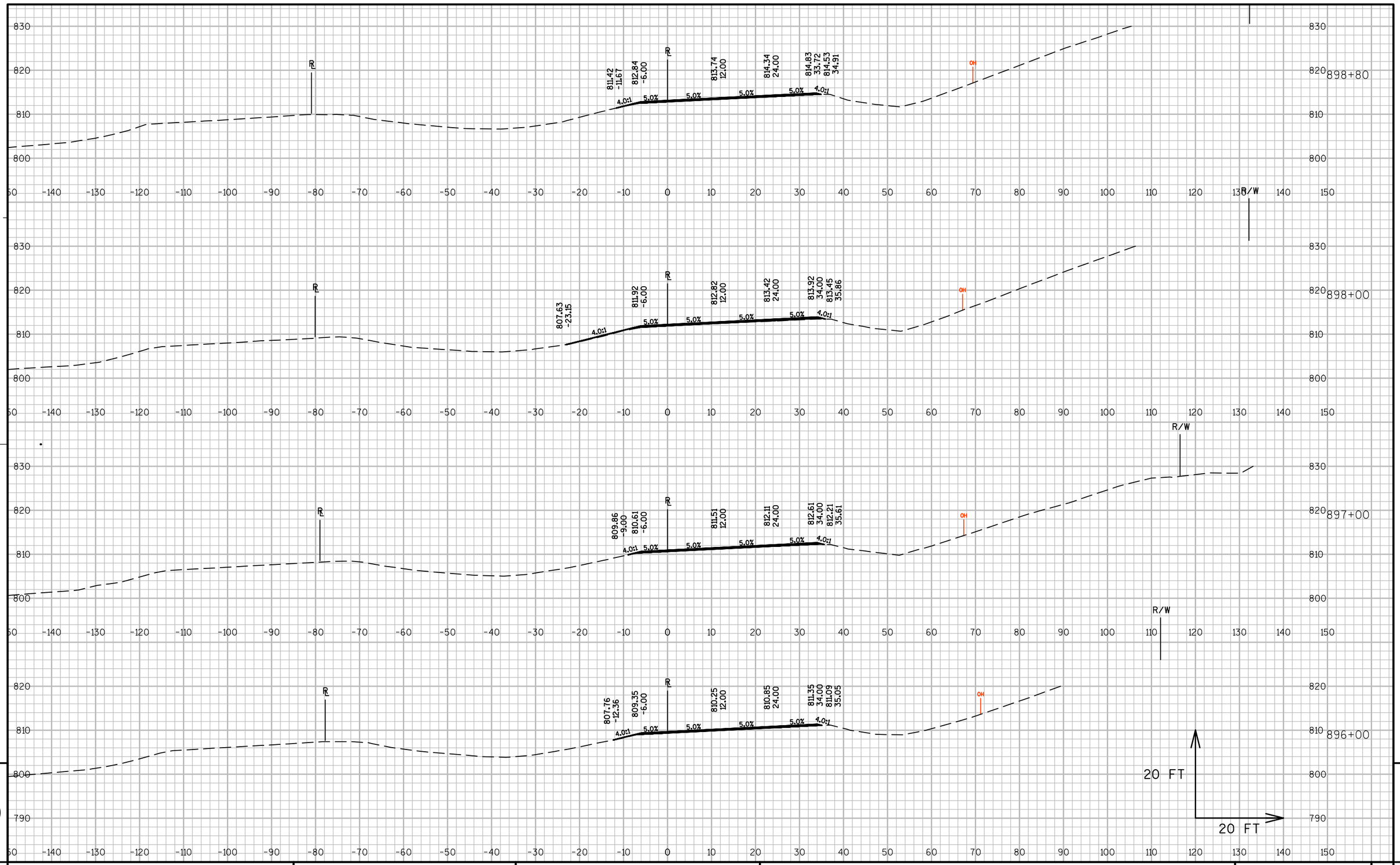
WISDOT/CADDS SHEET 49



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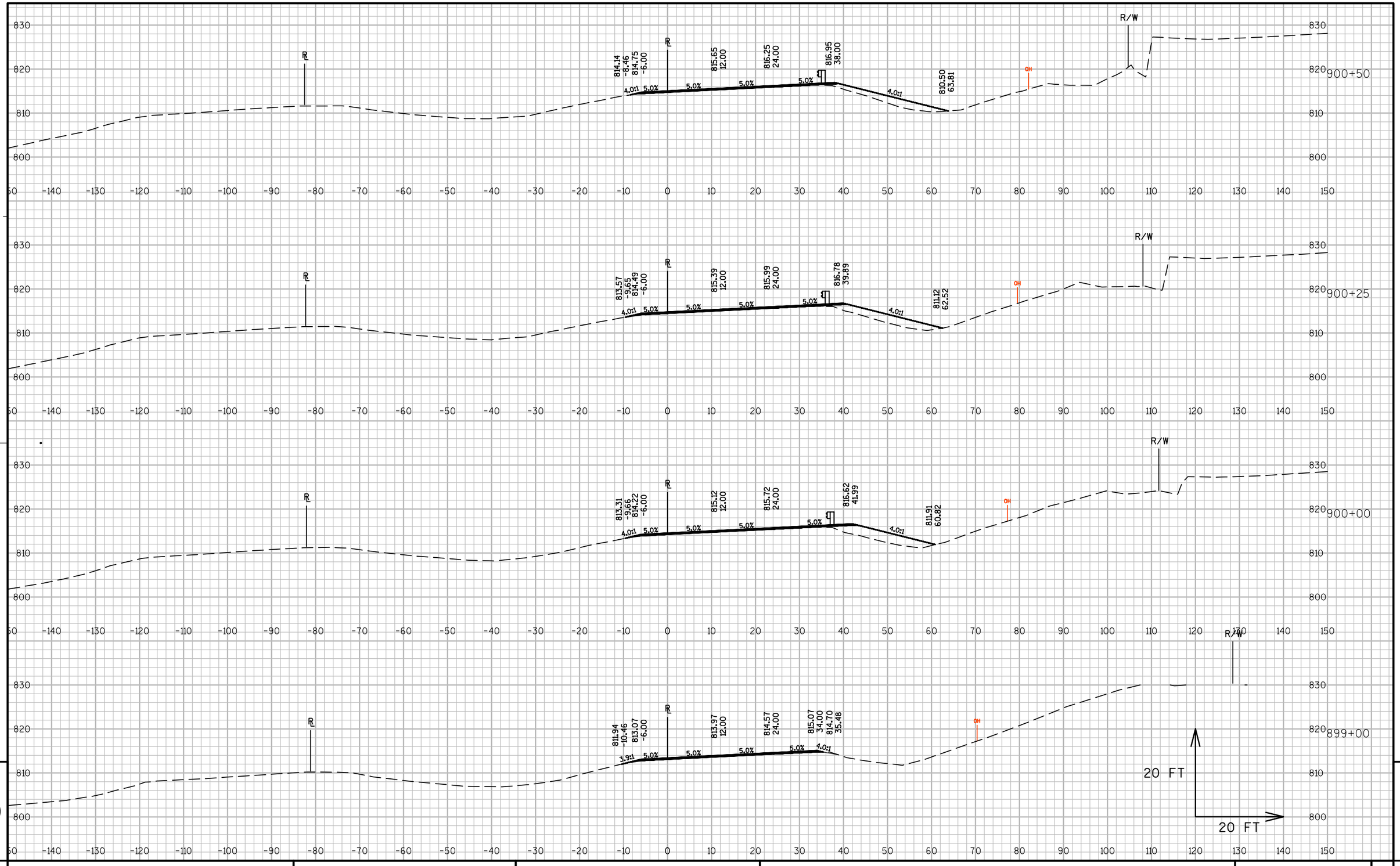


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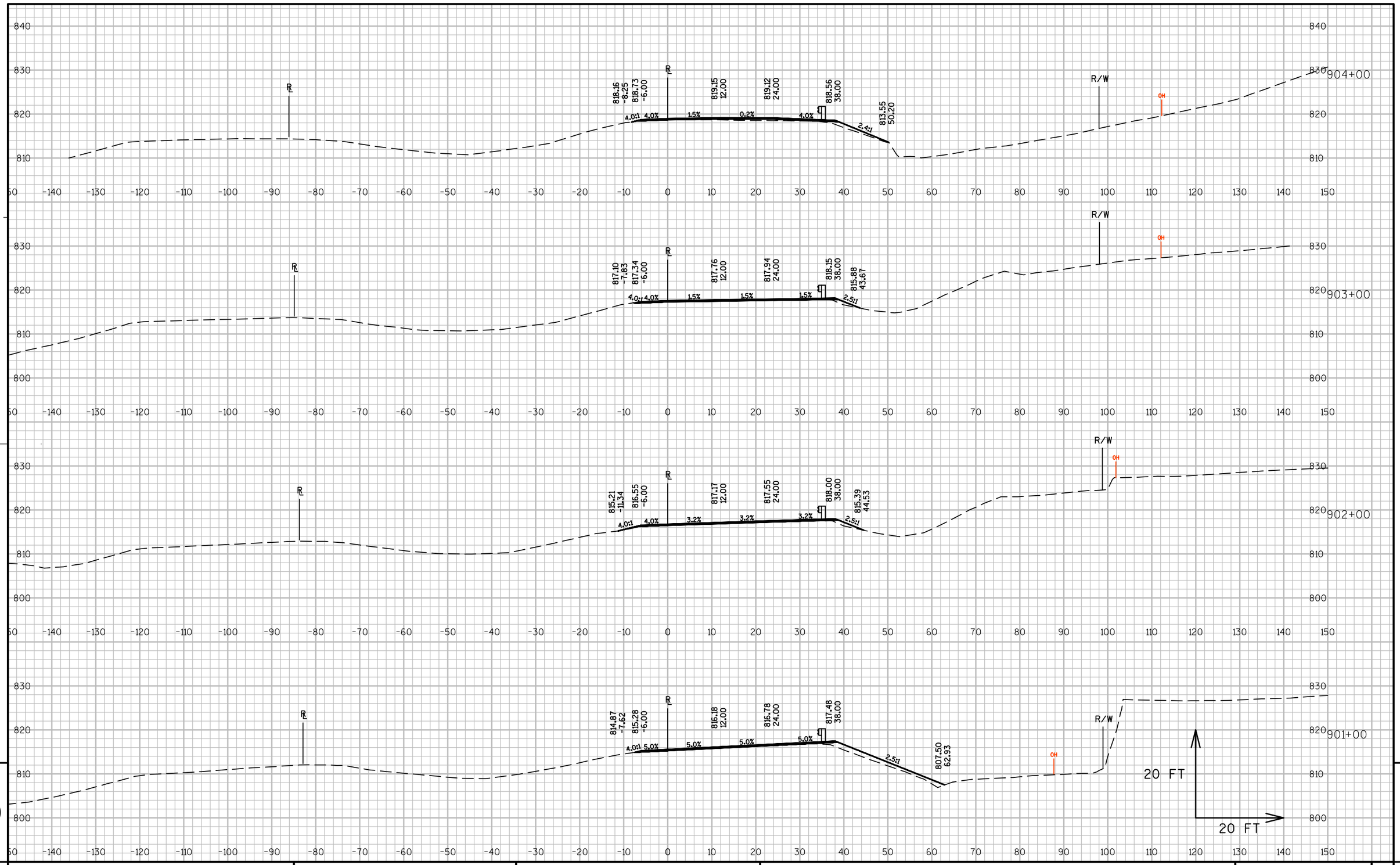
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PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: IH 39 SB	SHEET 449	E

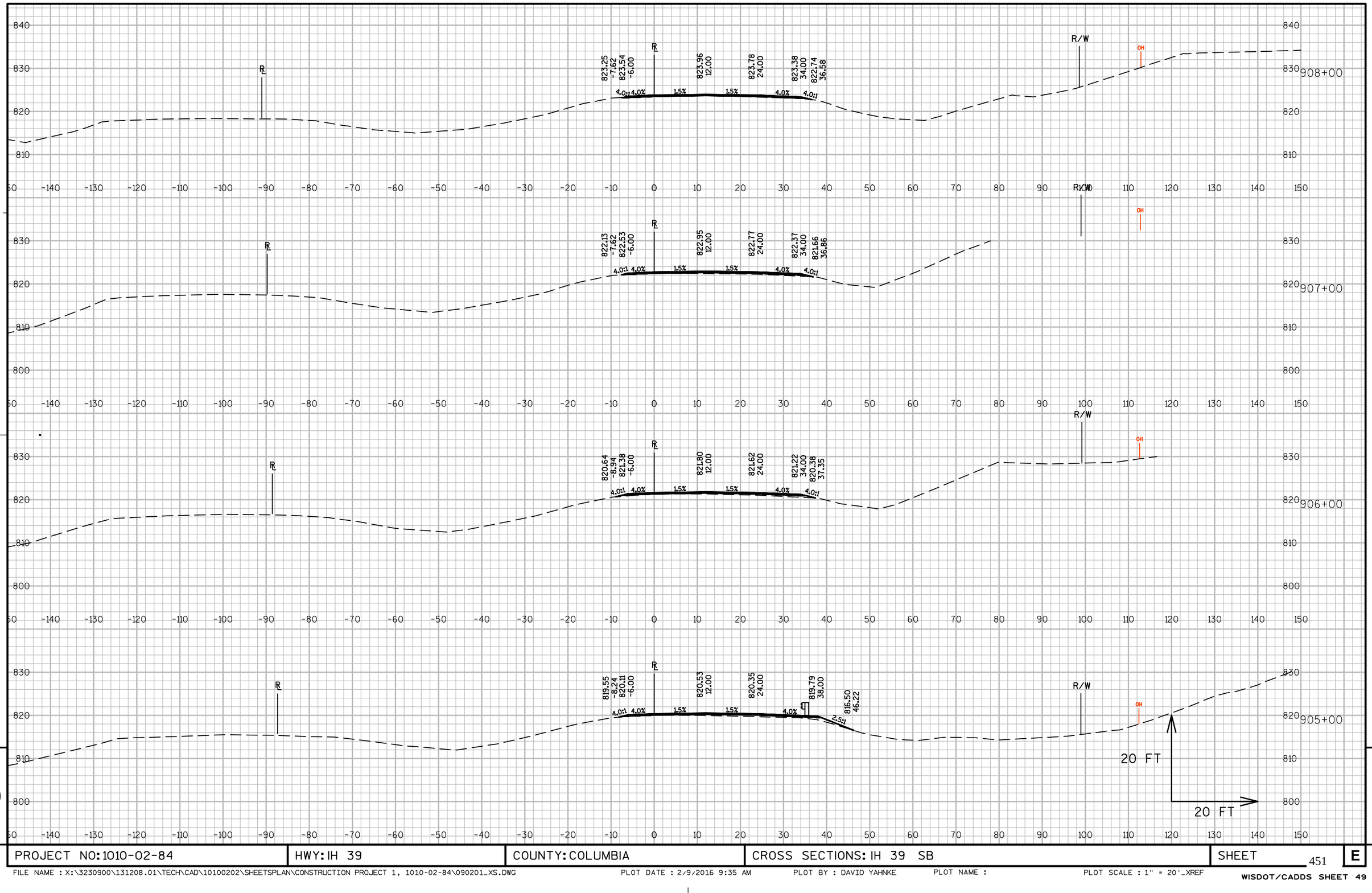


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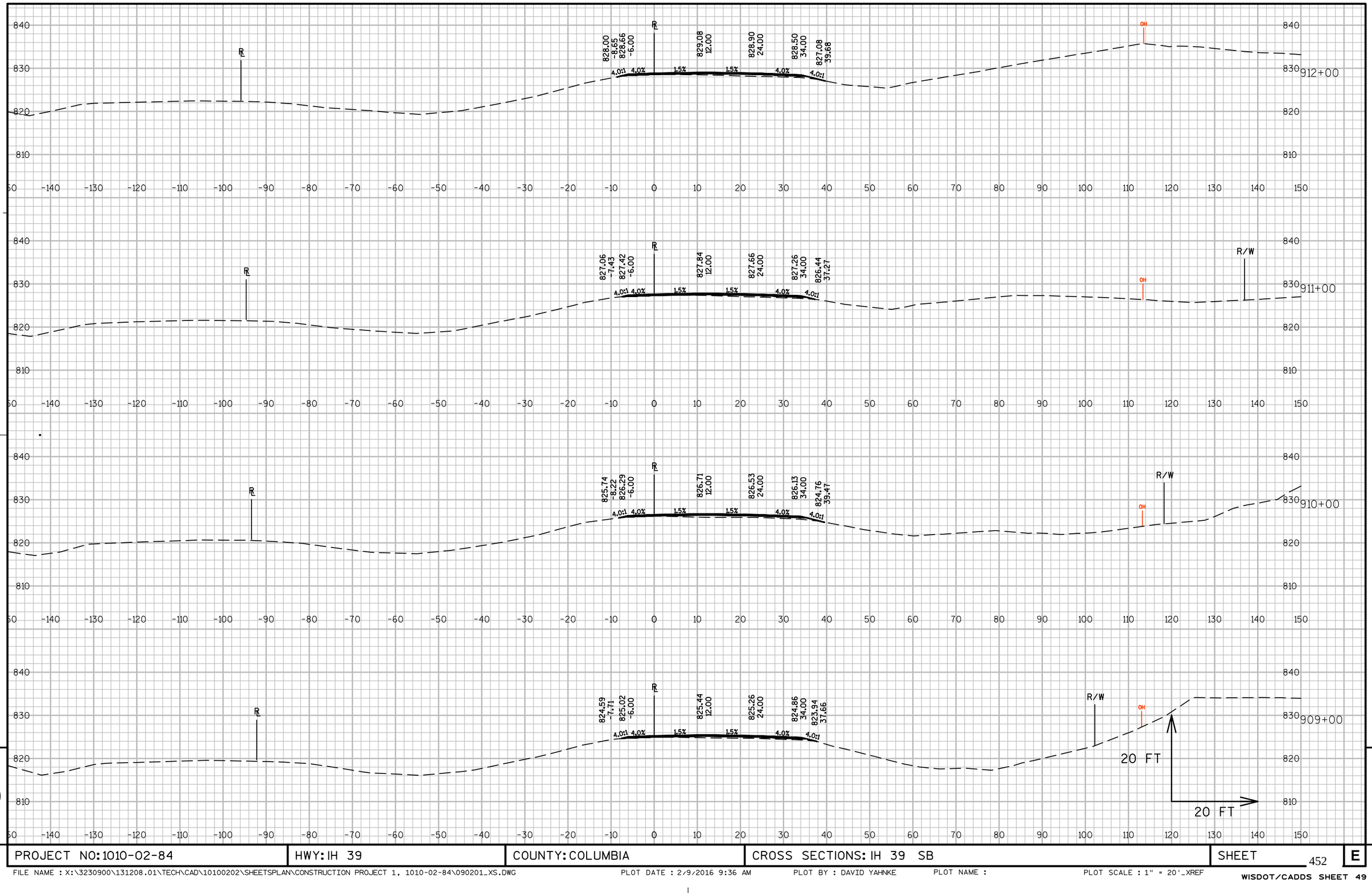
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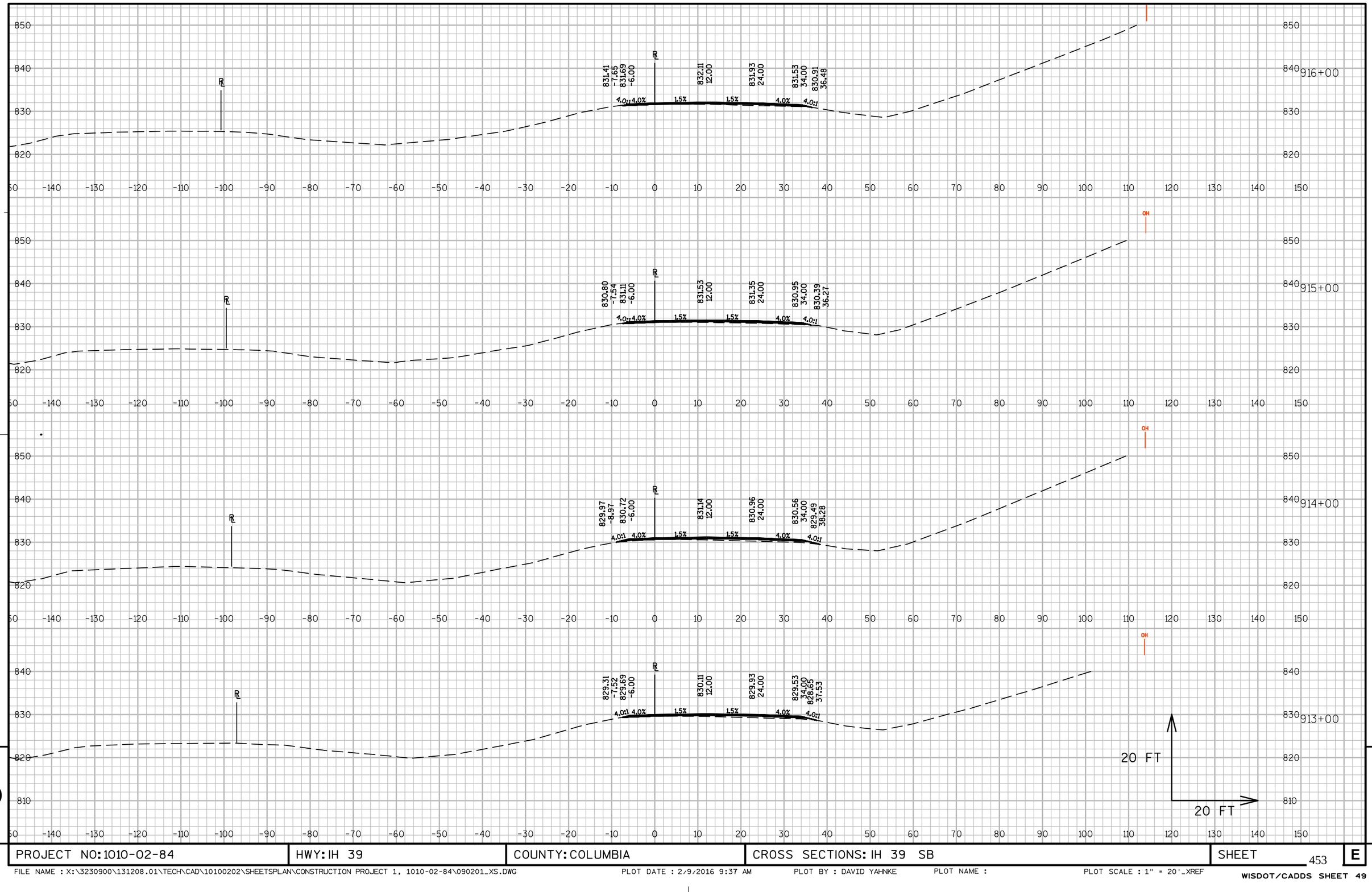
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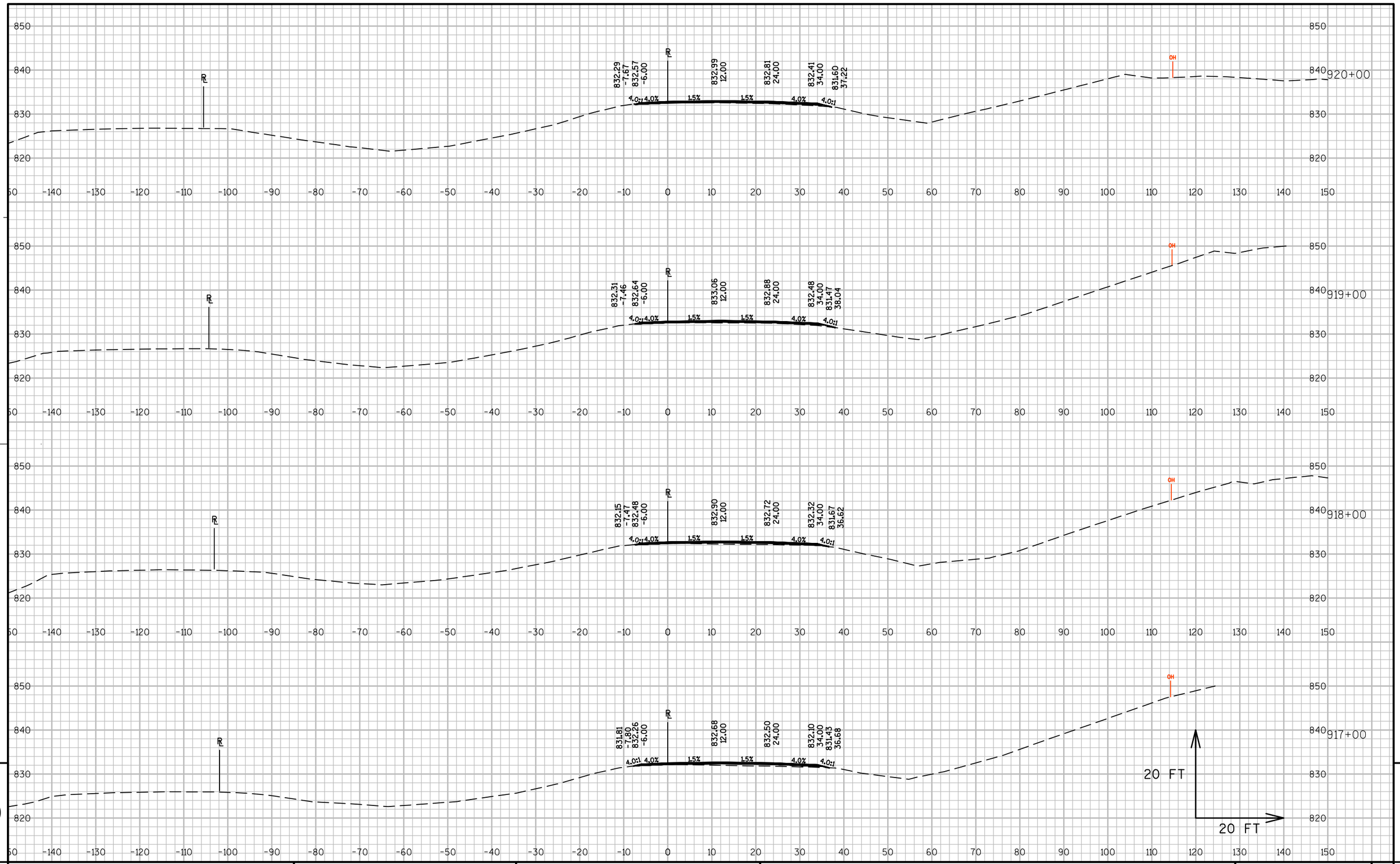


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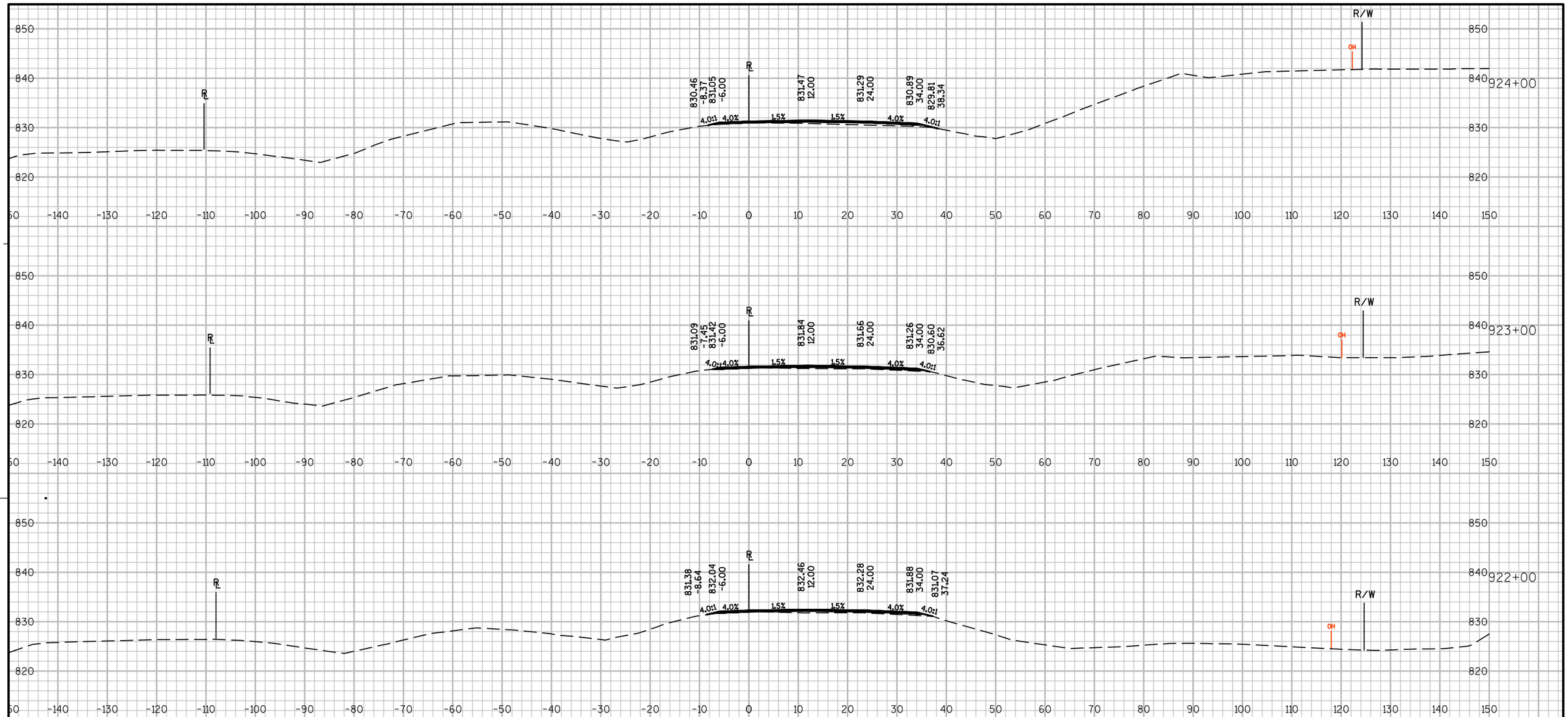
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WISDOT/CADDS SHEET 49



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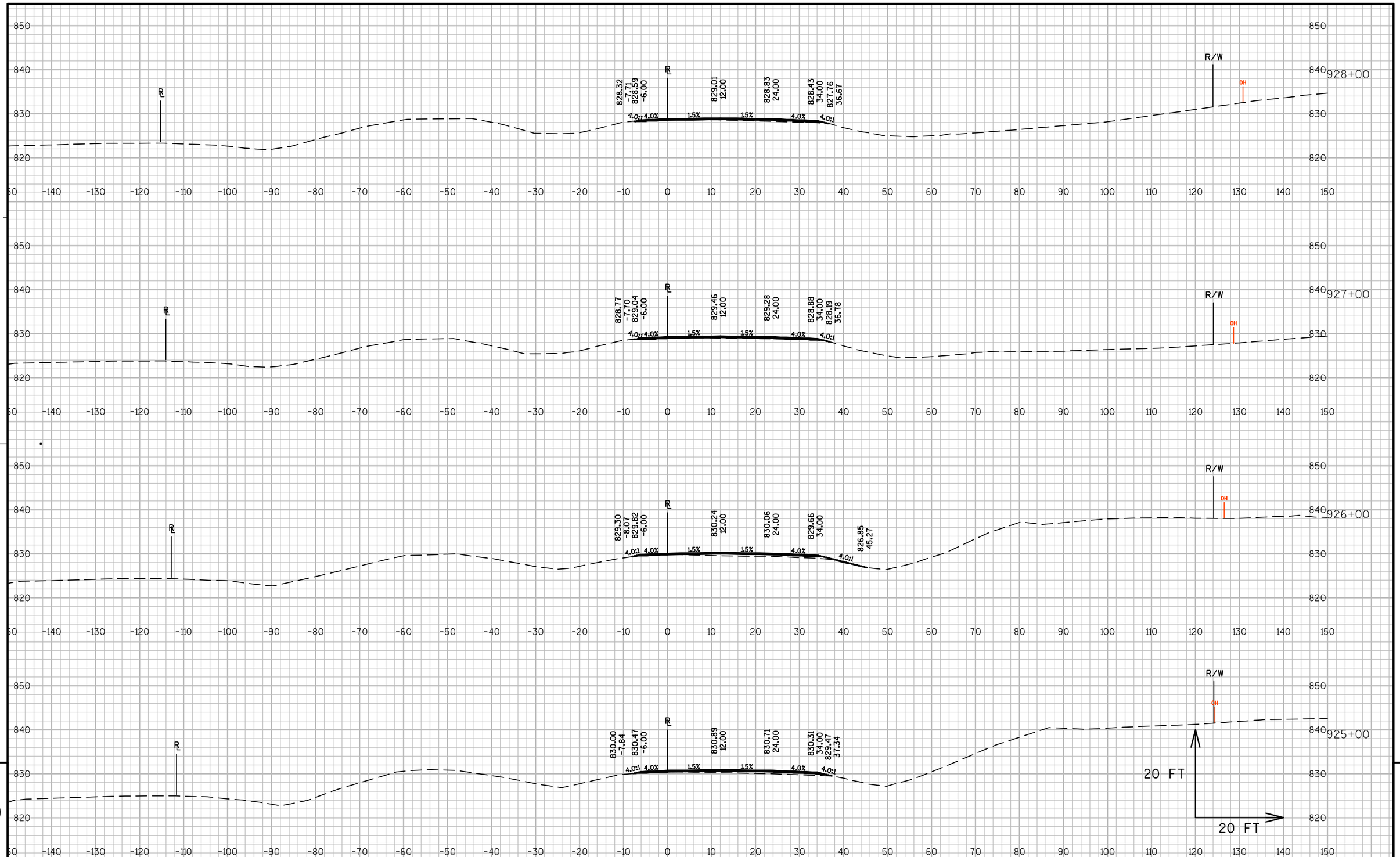
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PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: IH 39 SB	SHEET 455	E

FILE NAME : X:\3230900\131208.01\TECH\CAD\10100202\SHEETSPLAN\CONSTRUCTION PROJECT 1, 1010-02-84\090201_XS.DWG PLOT DATE : 2/9/2016 9:38 AM PLOT BY : DAVID YAHNKE PLOT NAME : PLOT SCALE : 1" = 20'_XREF

WISDOT/CADDS SHEET 49



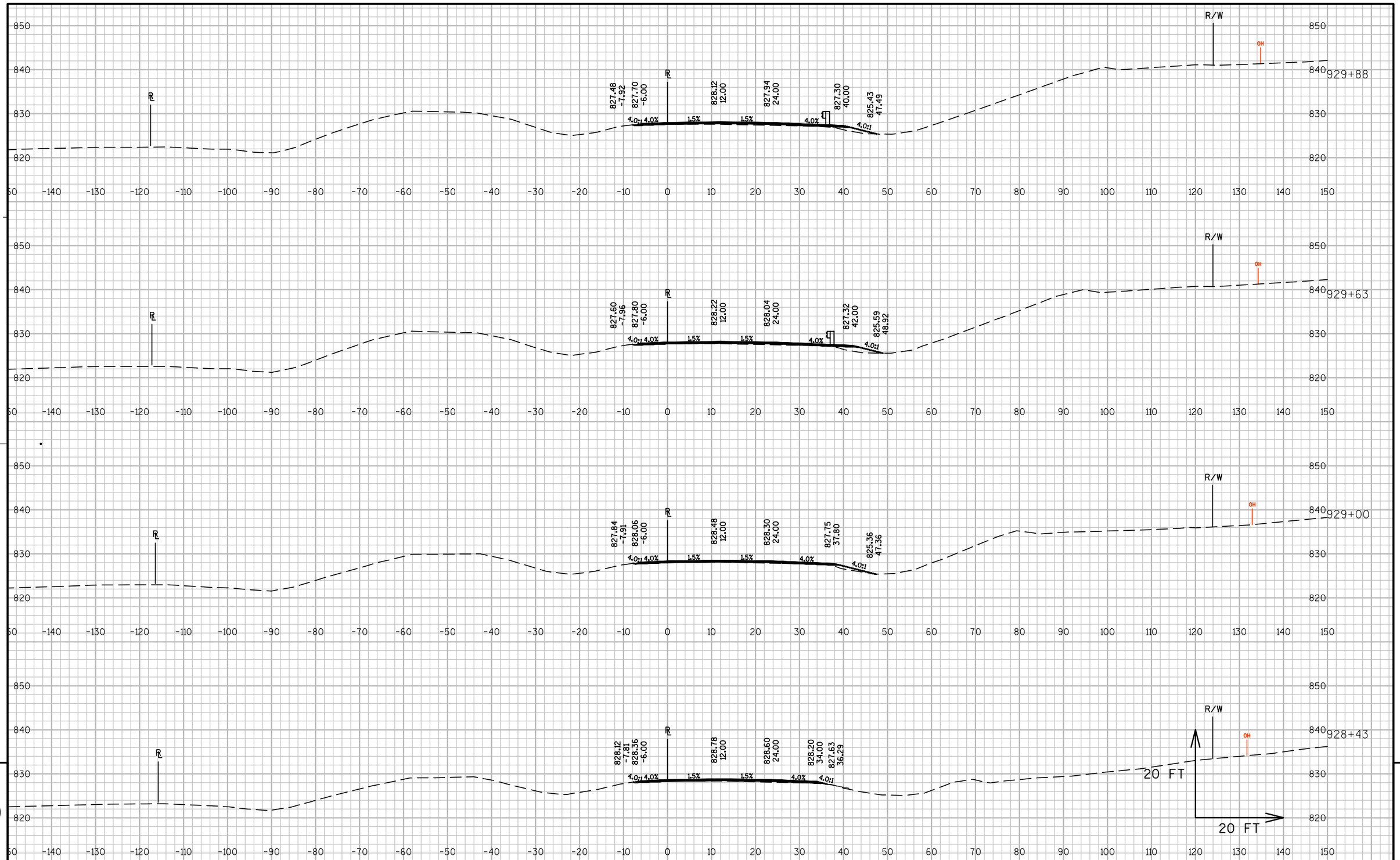
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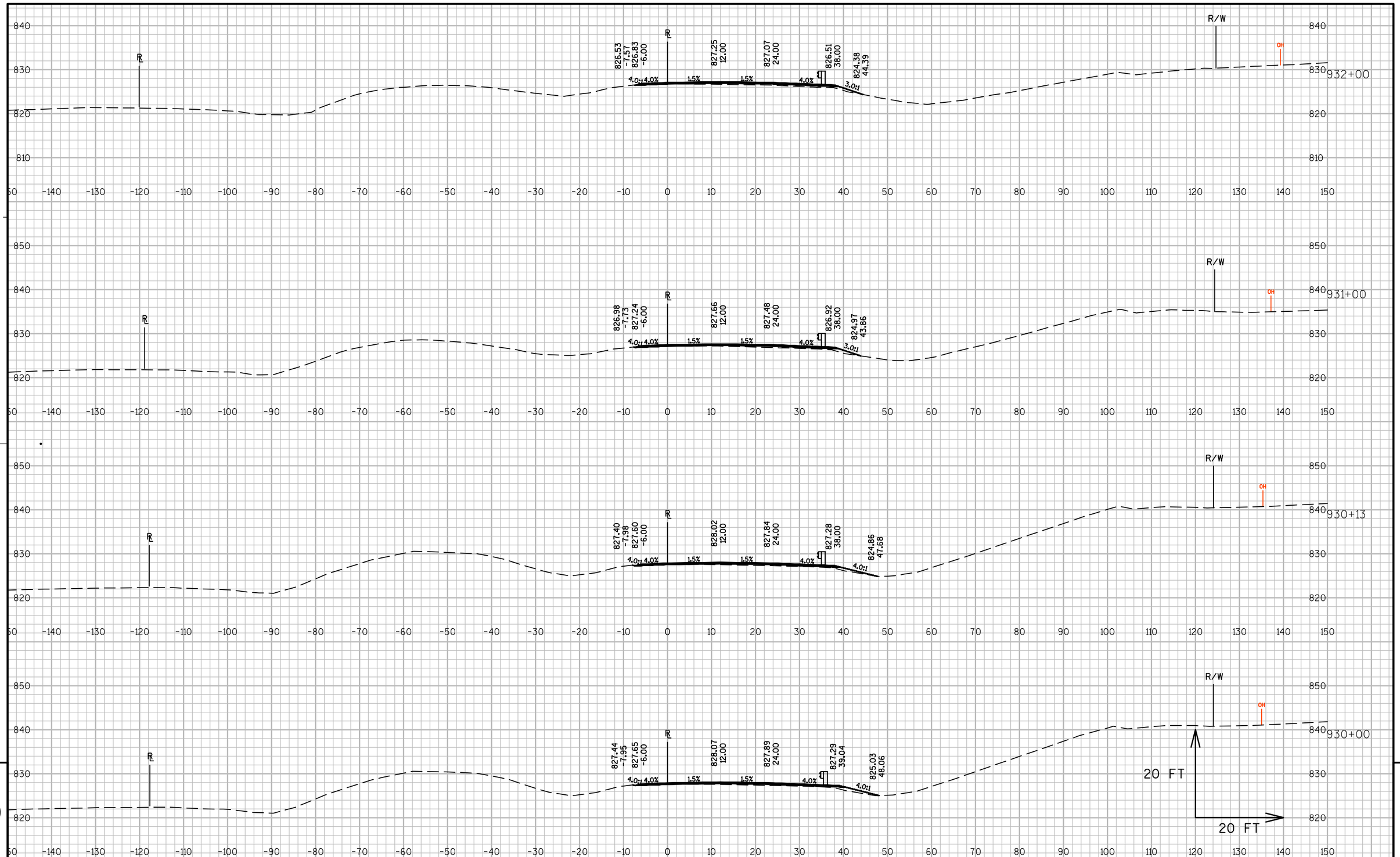
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WISDOT/CADDS SHEET 49



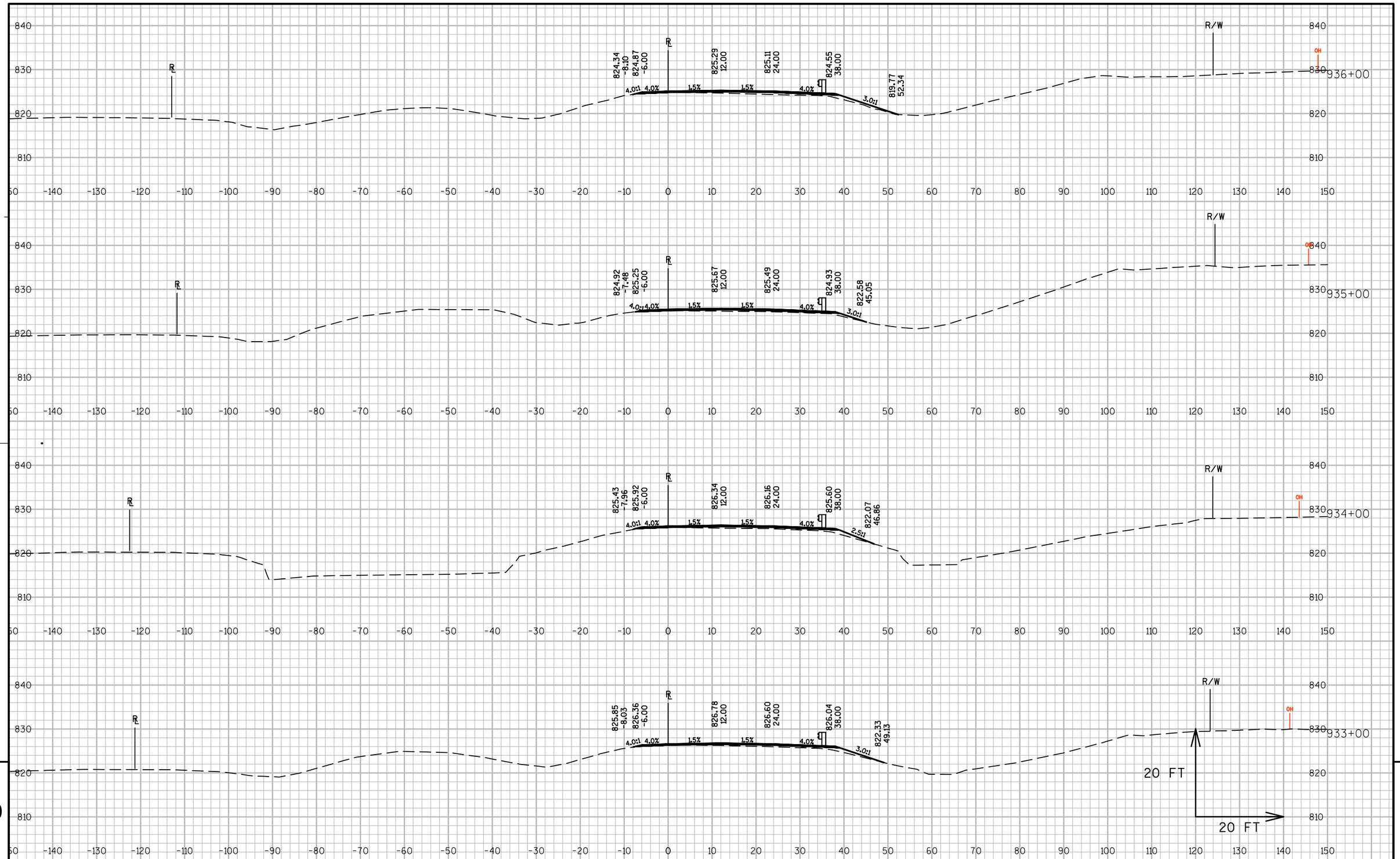
PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: IH 39 SB	SHEET 457	E



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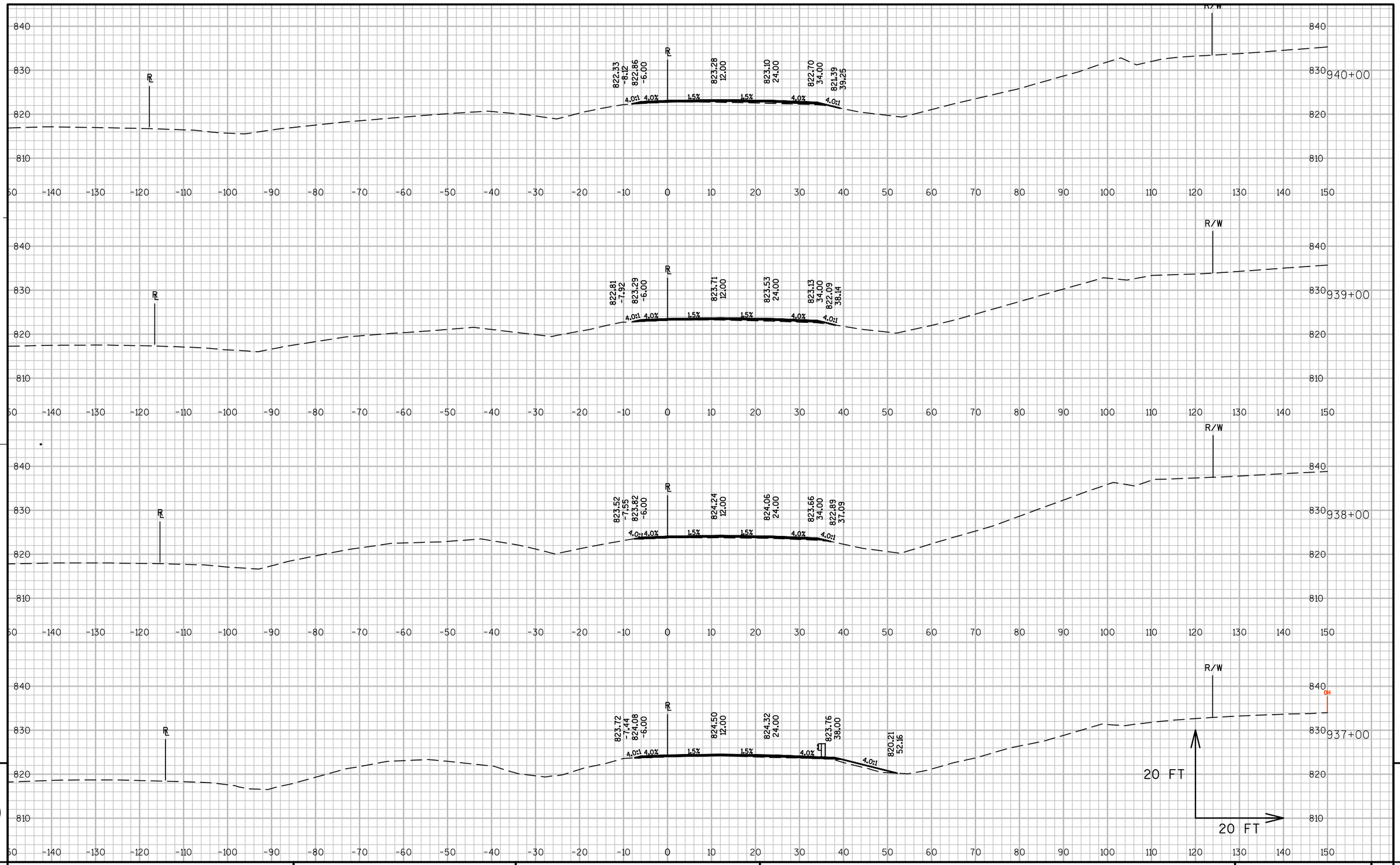


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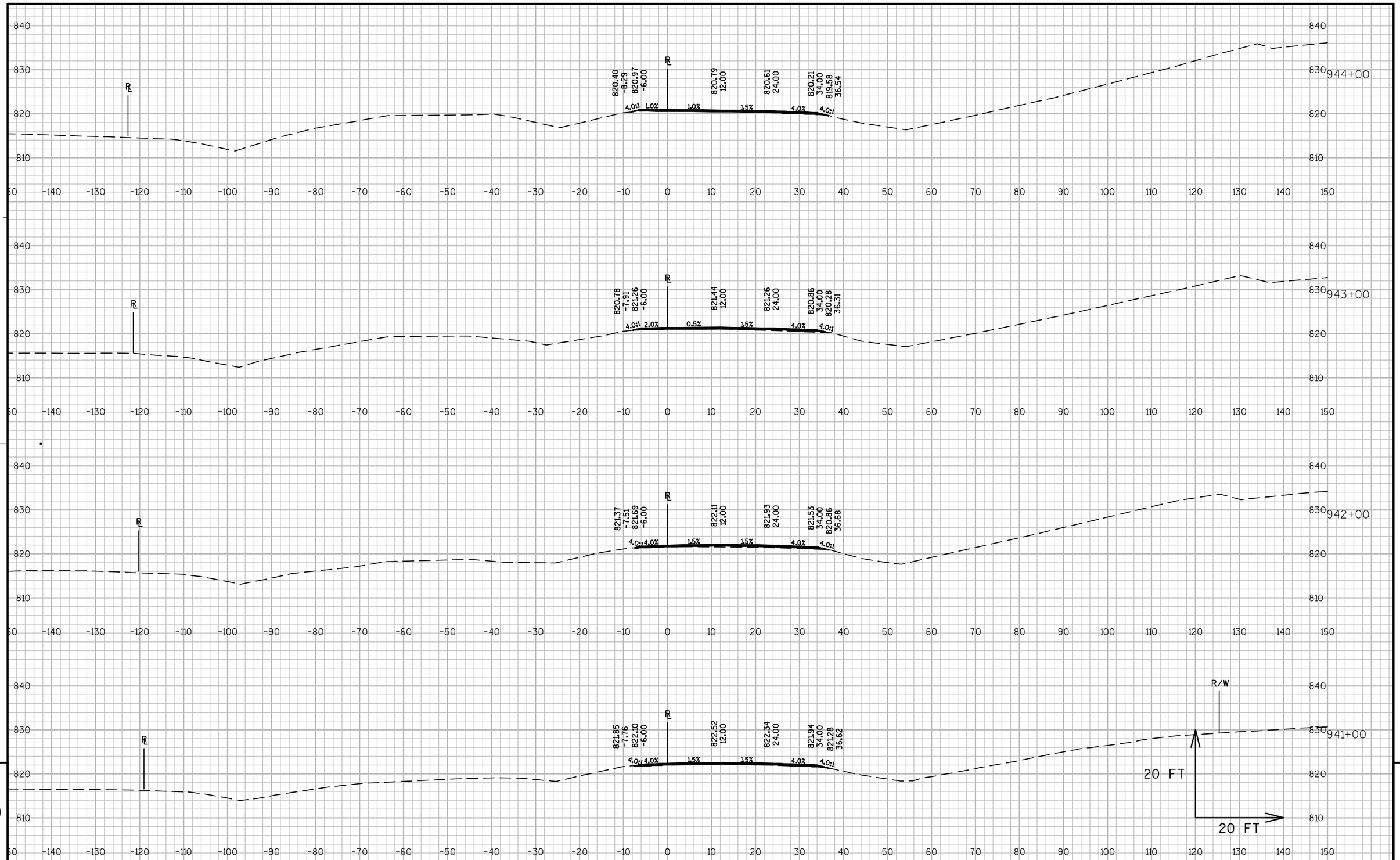
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WISDOT/CADDS SHEET 49



PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: IH 39 SB	SHEET 460	E

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WISDOT/CADDS SHEET 49

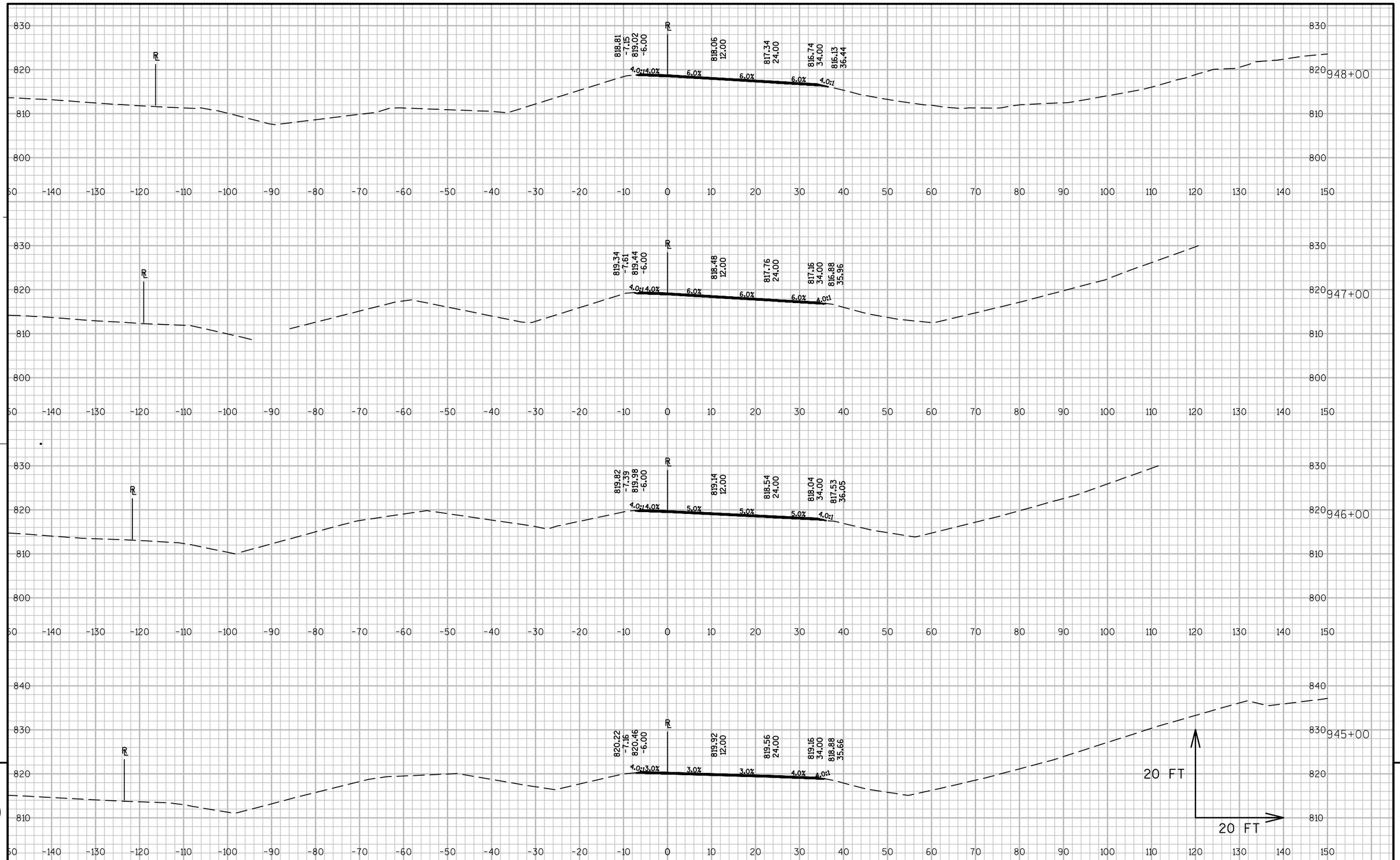


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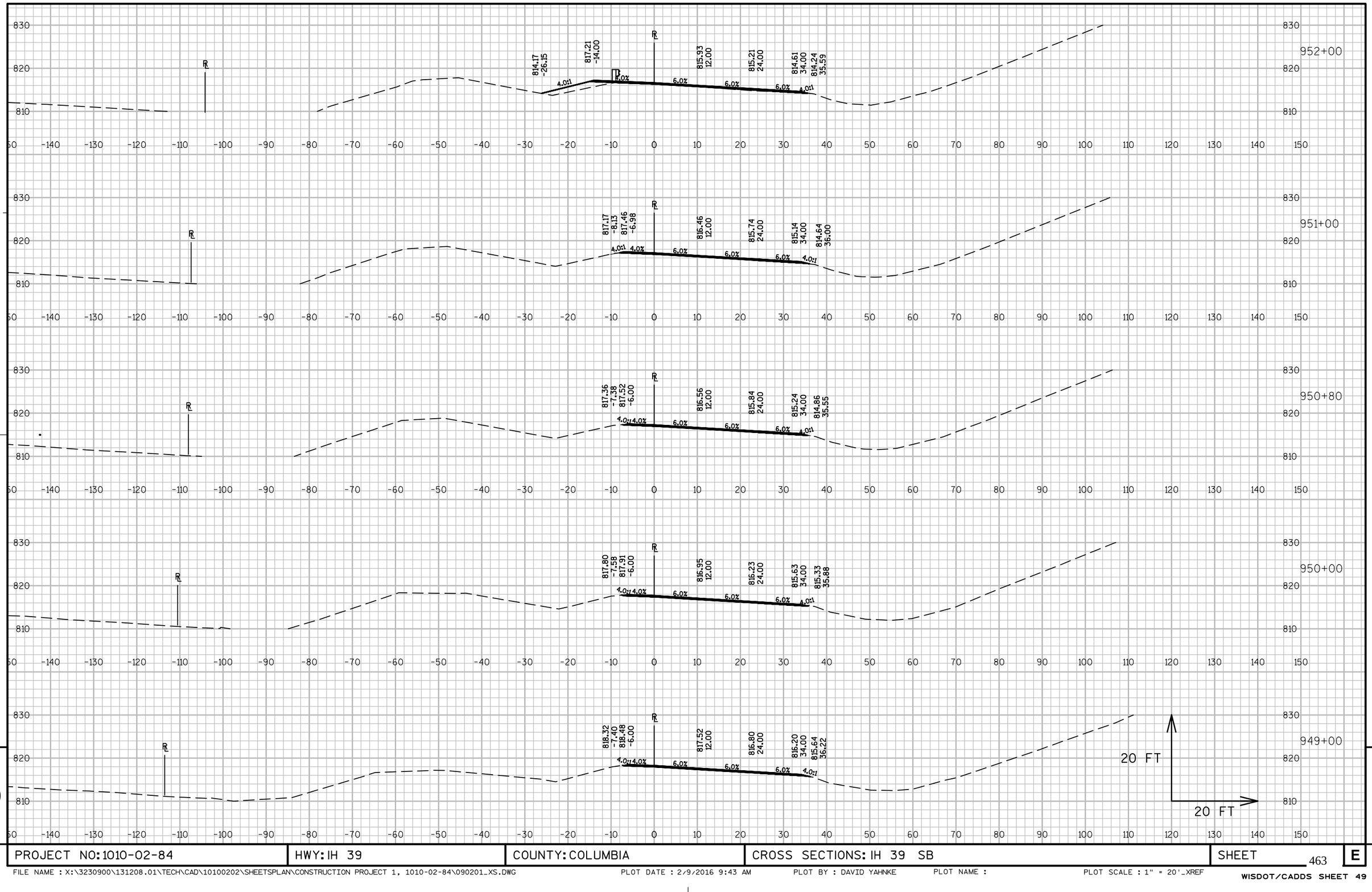
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WISDOT/CADDS SHEET 49



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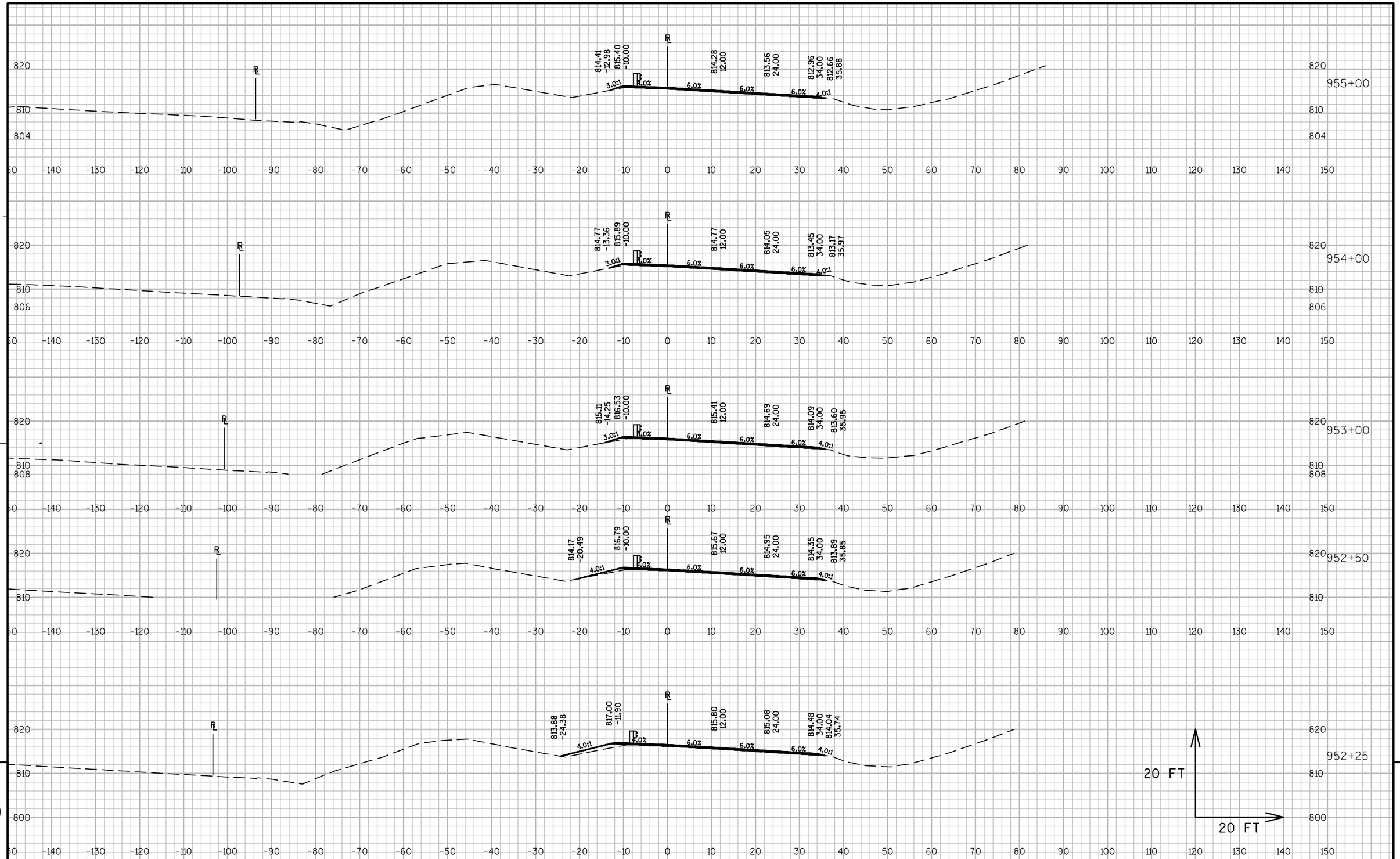
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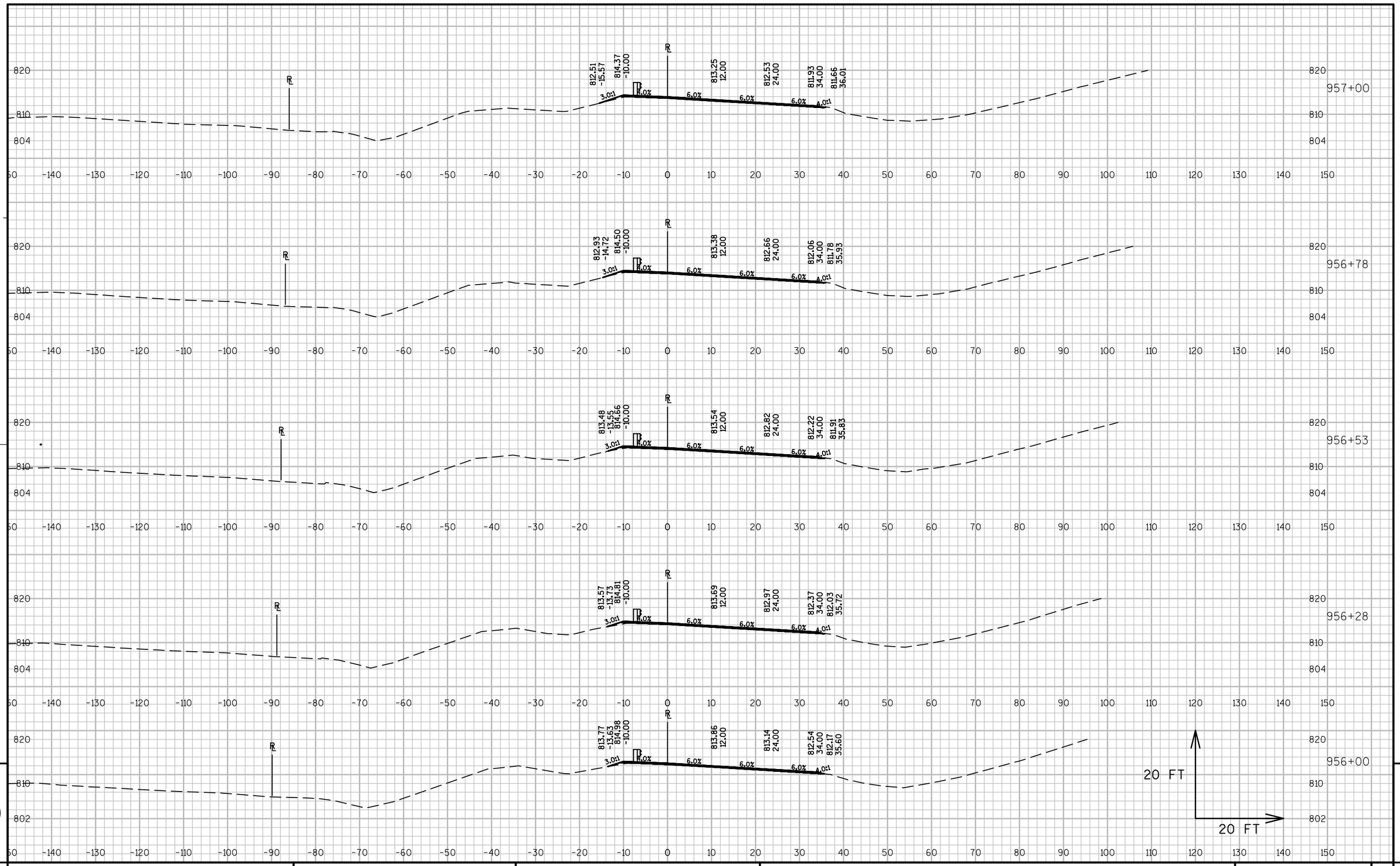
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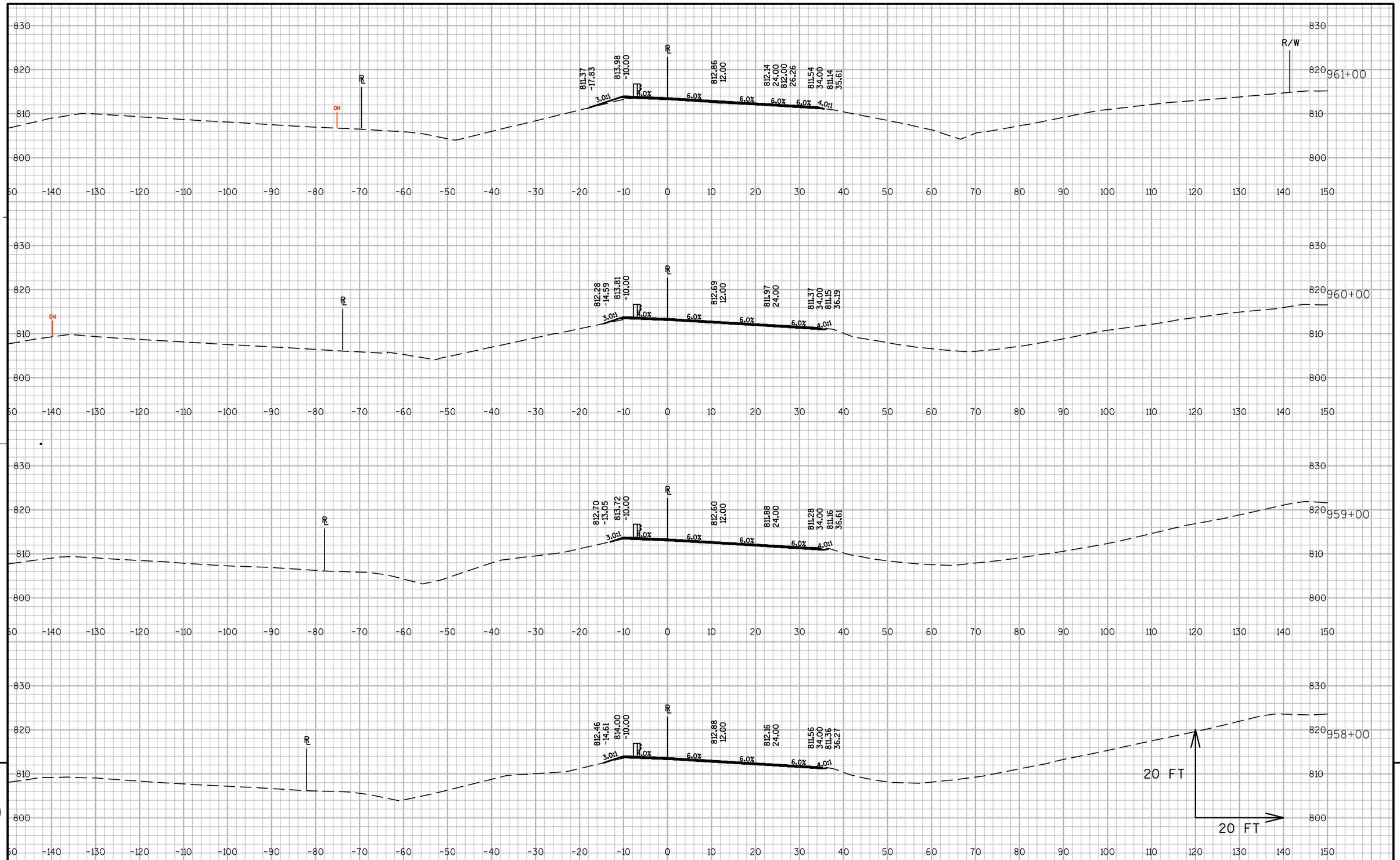
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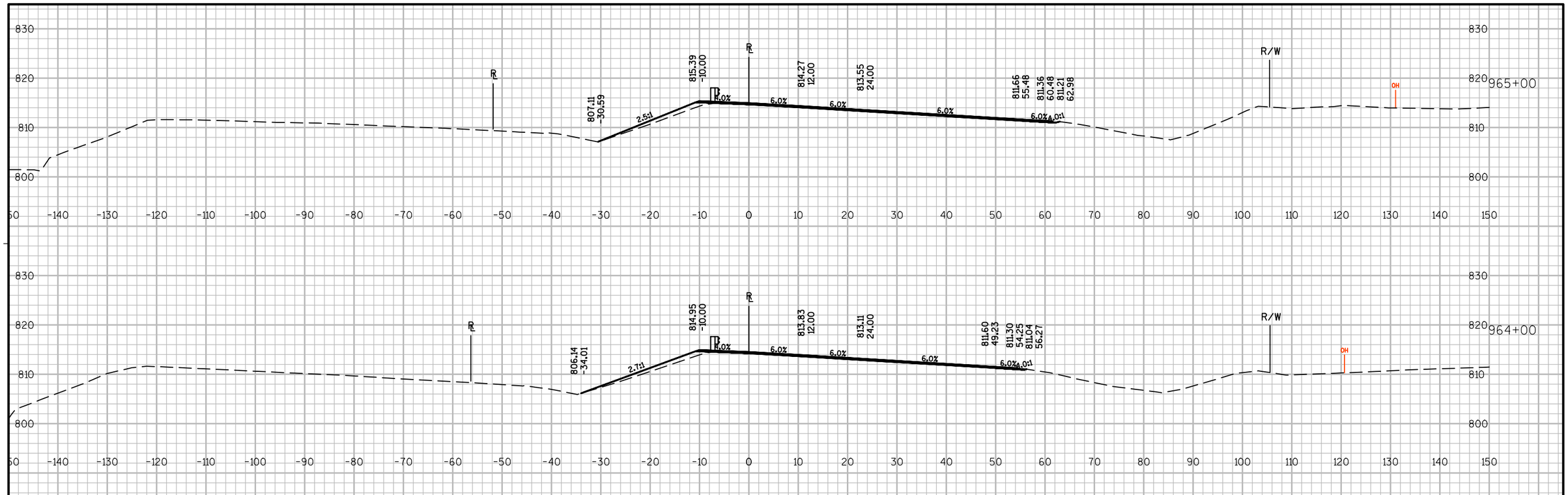


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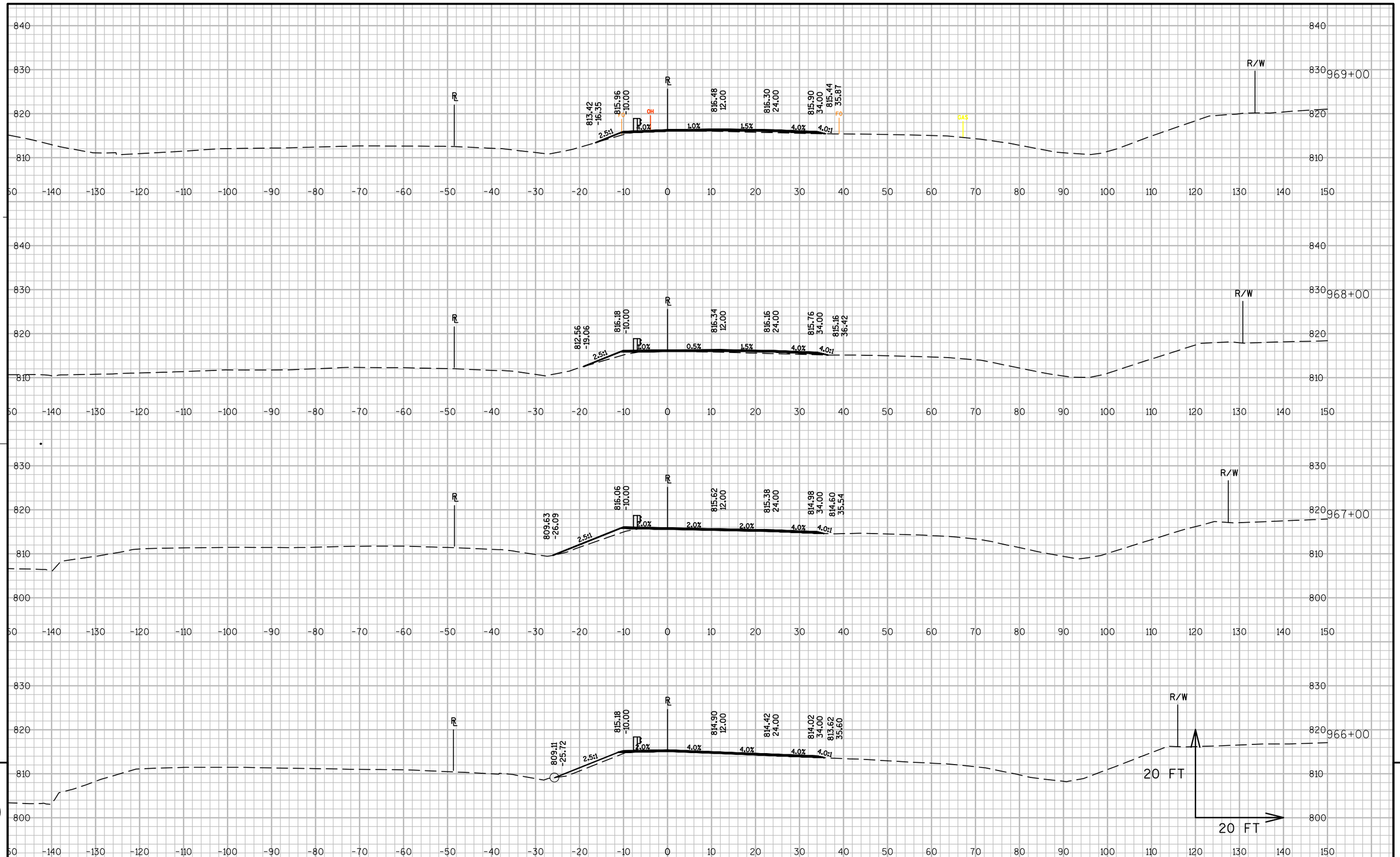
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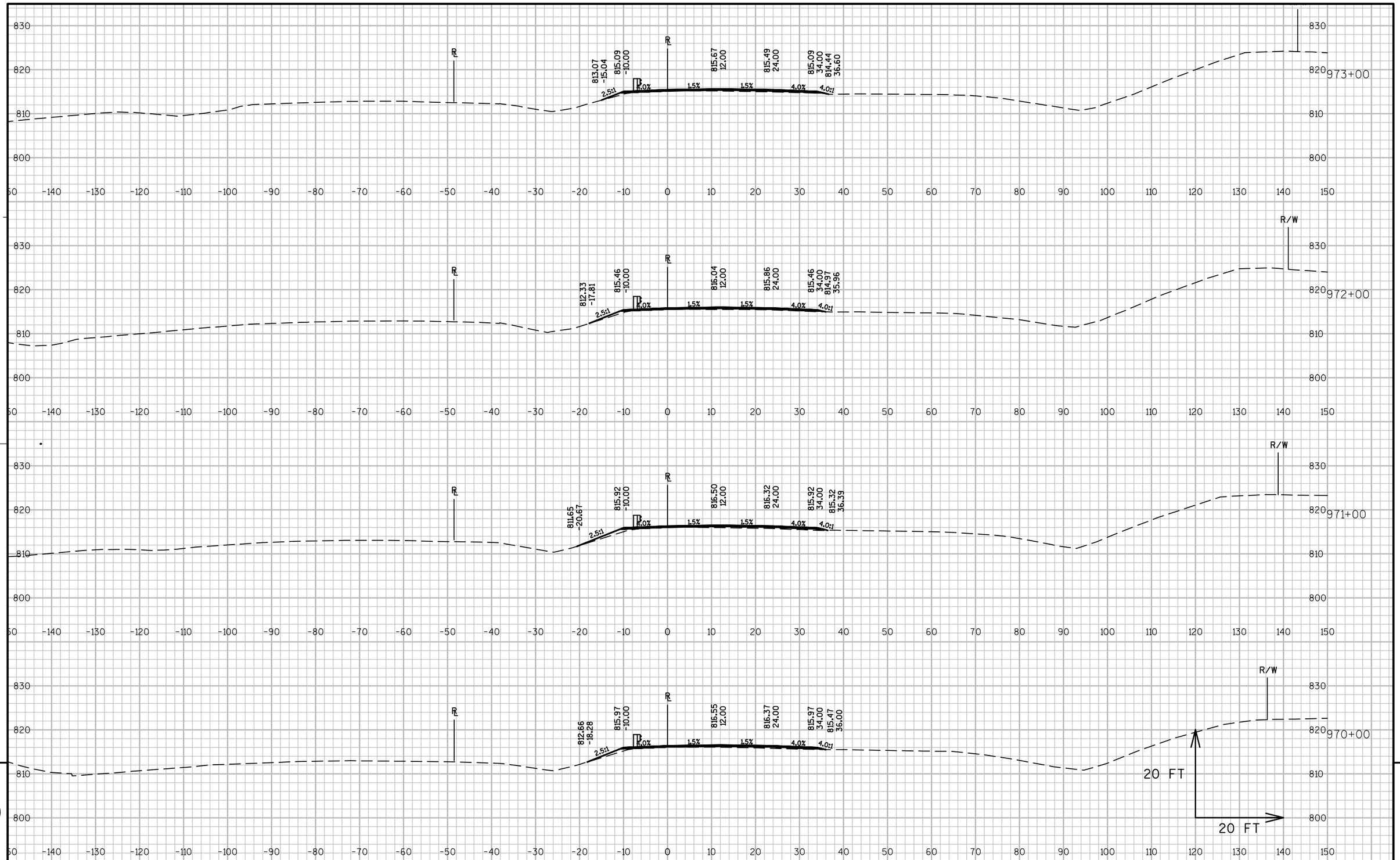
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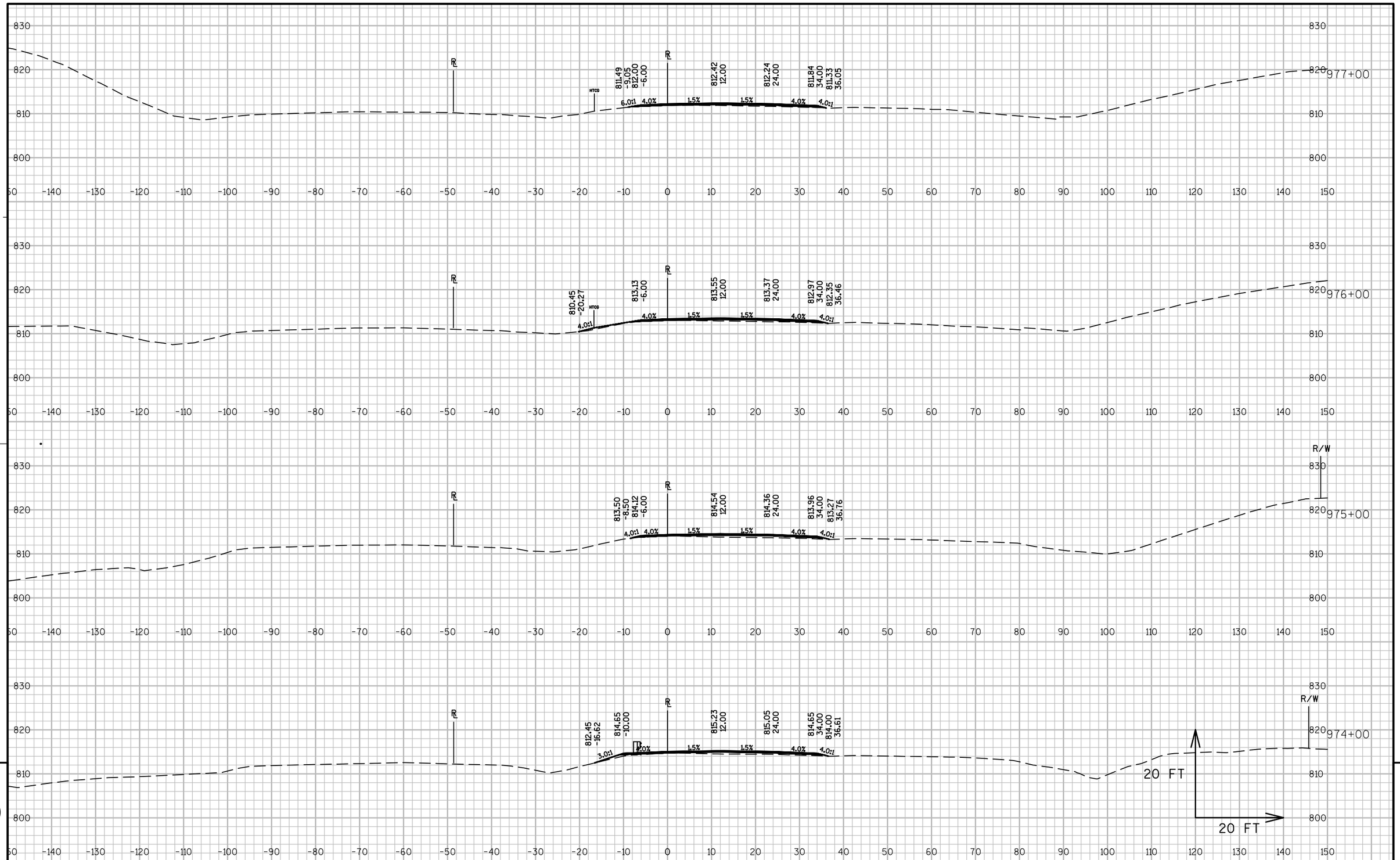
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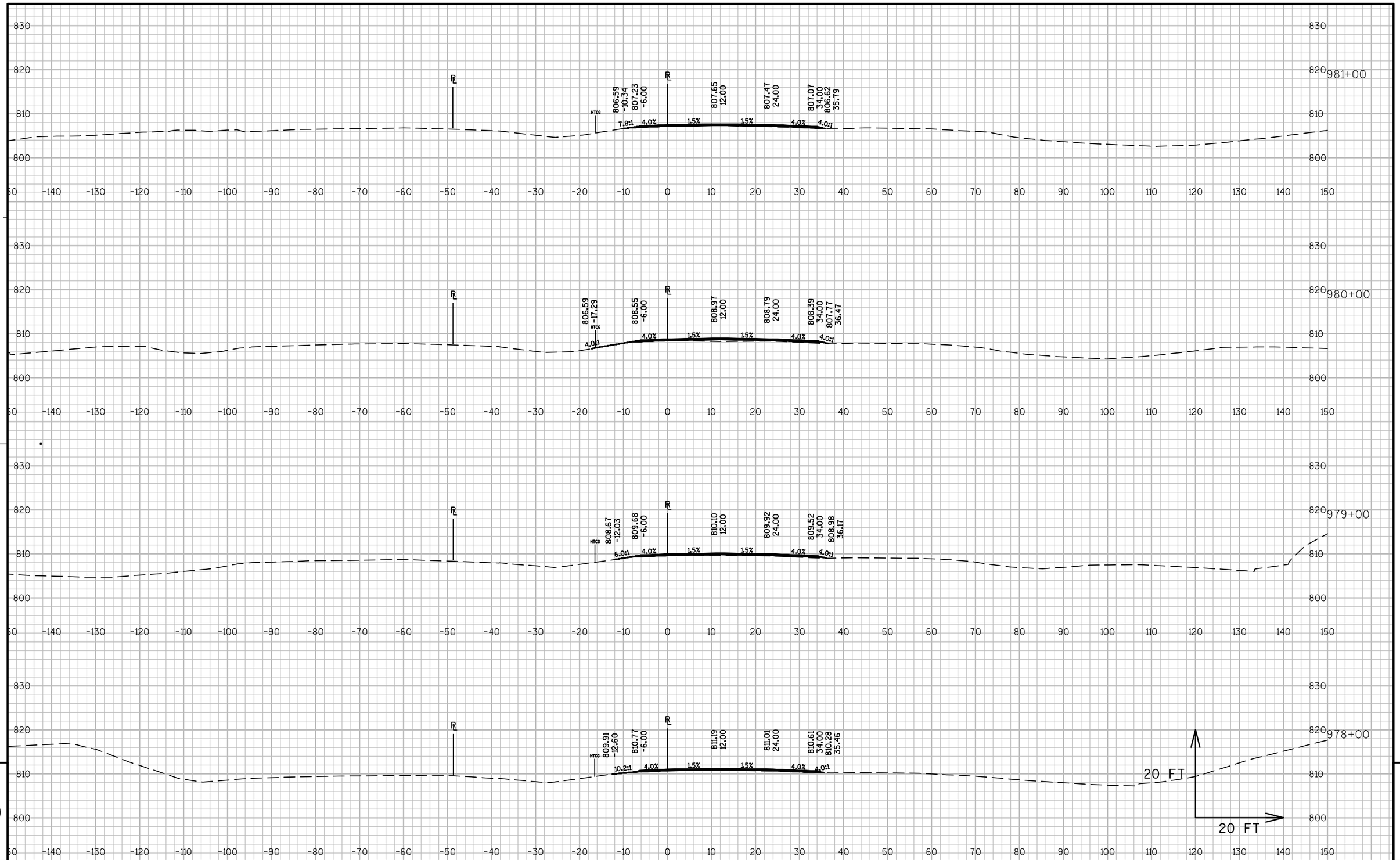
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PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: IH 39 SB	SHEET 470	E

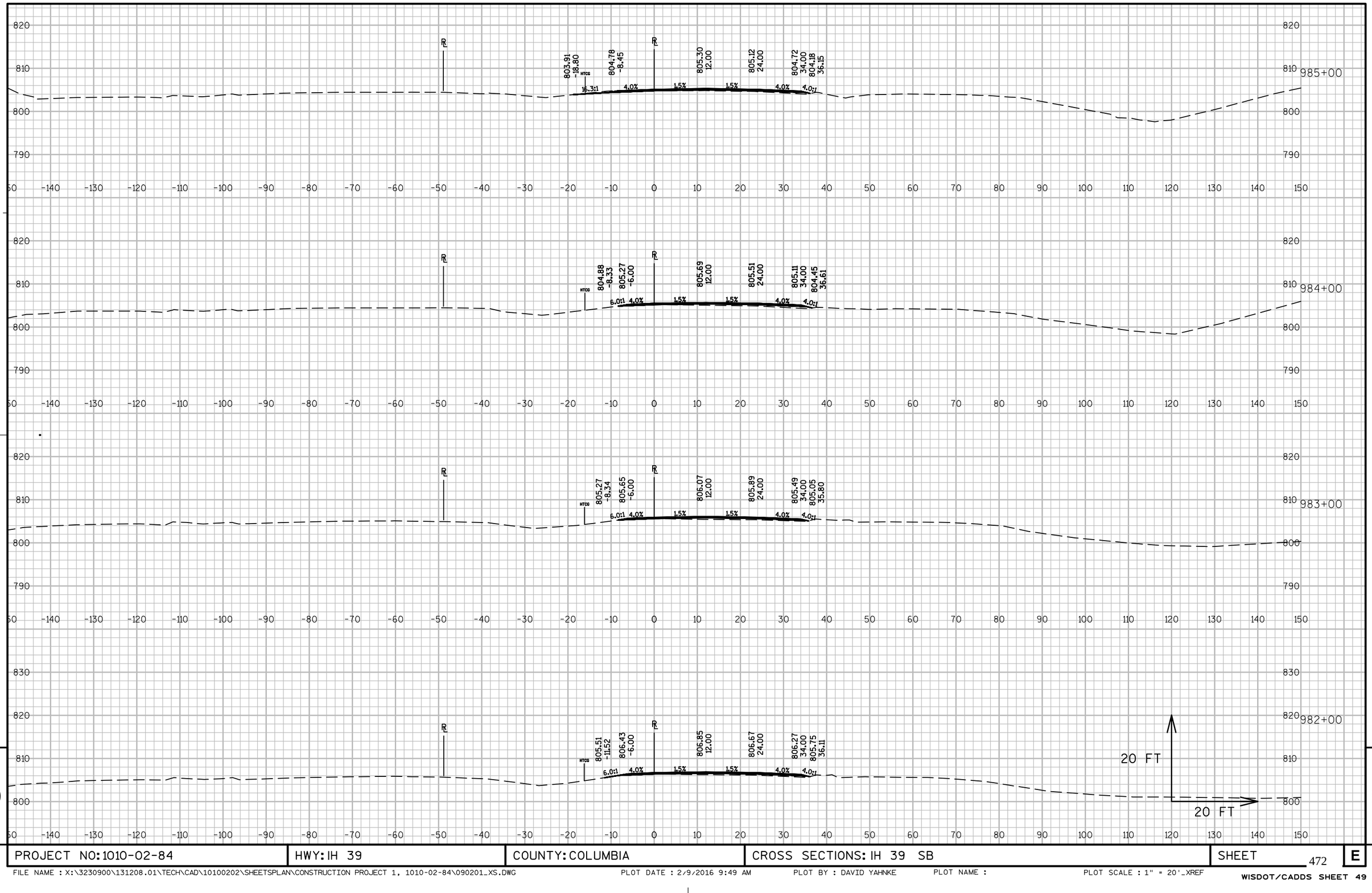
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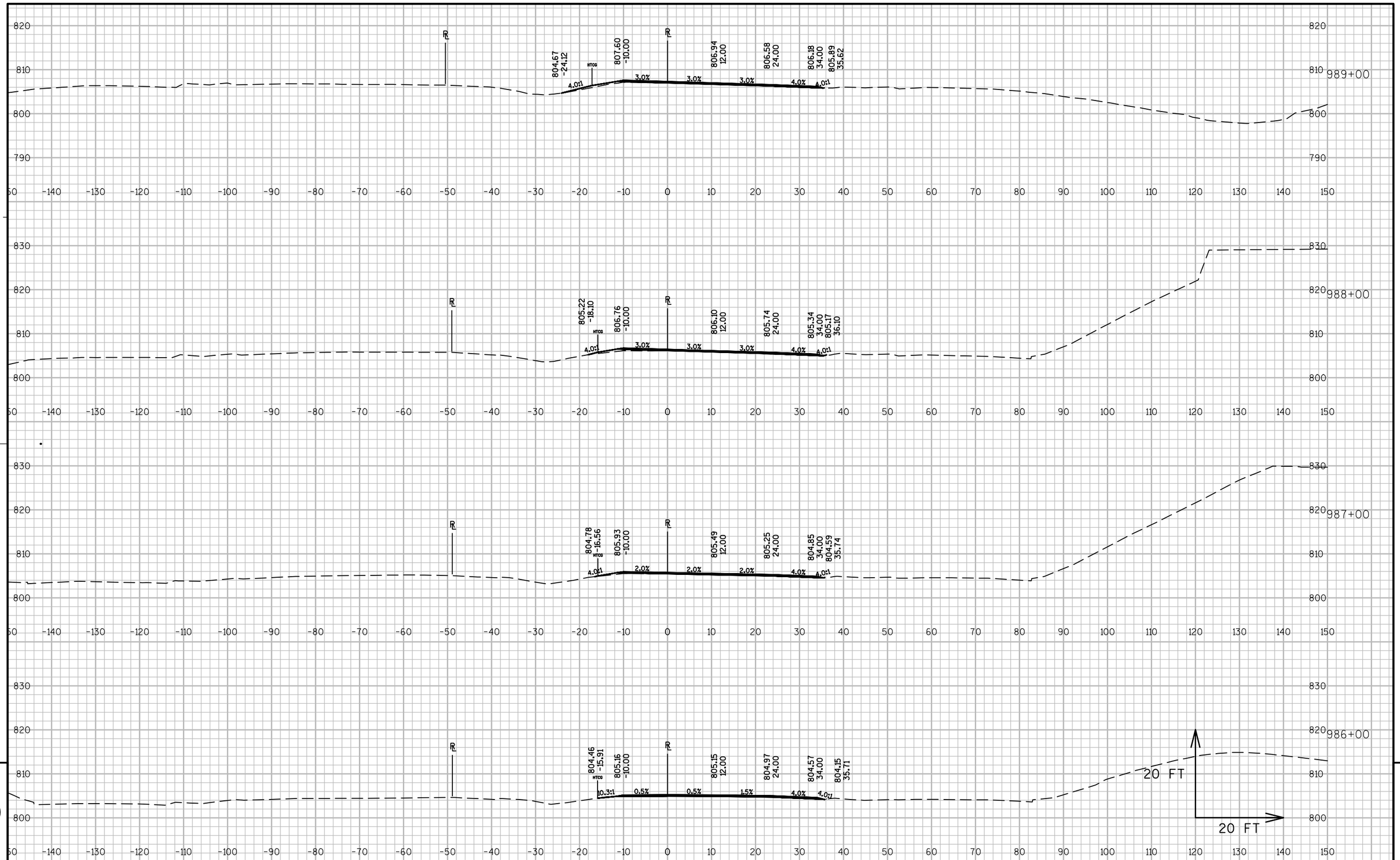
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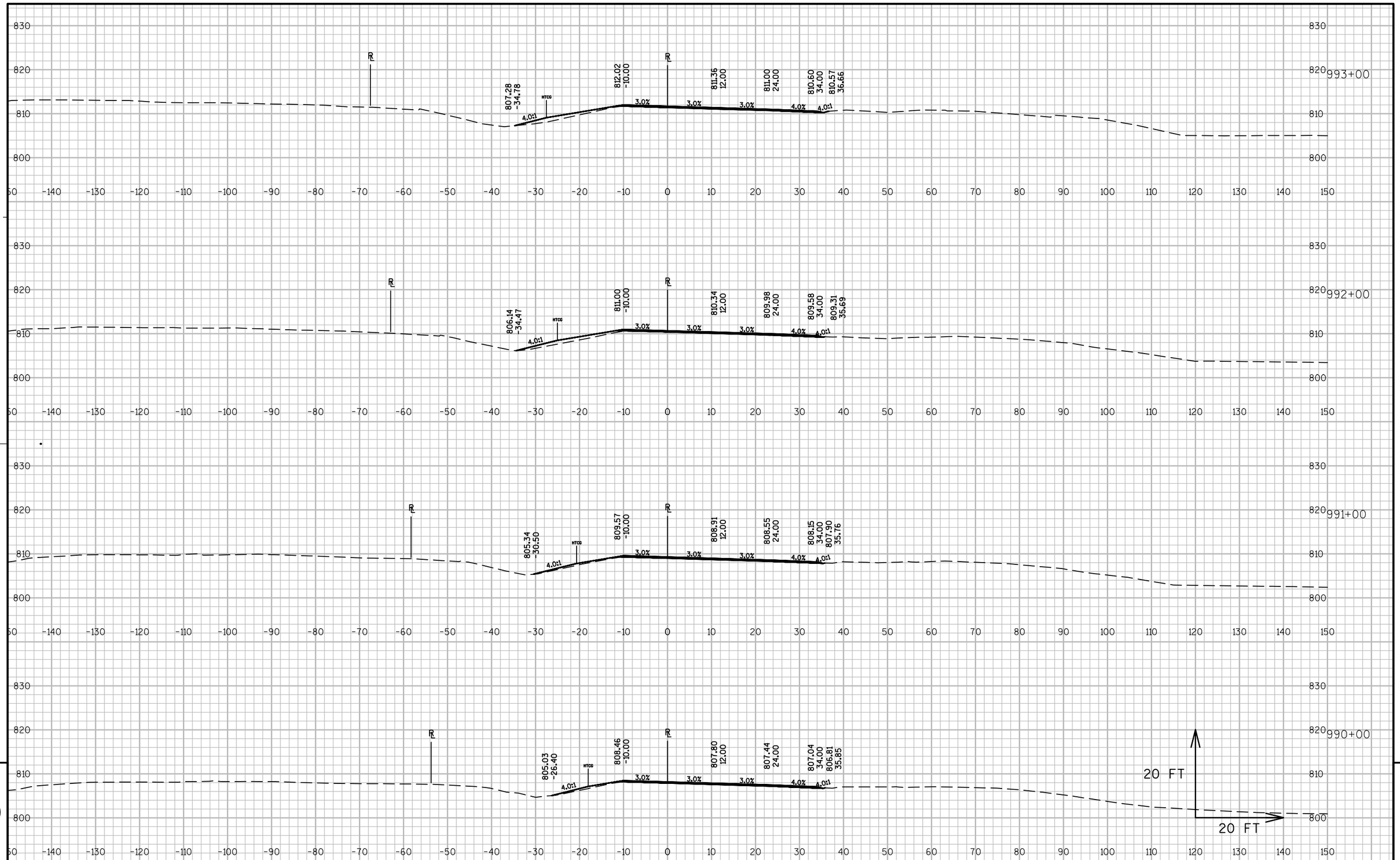
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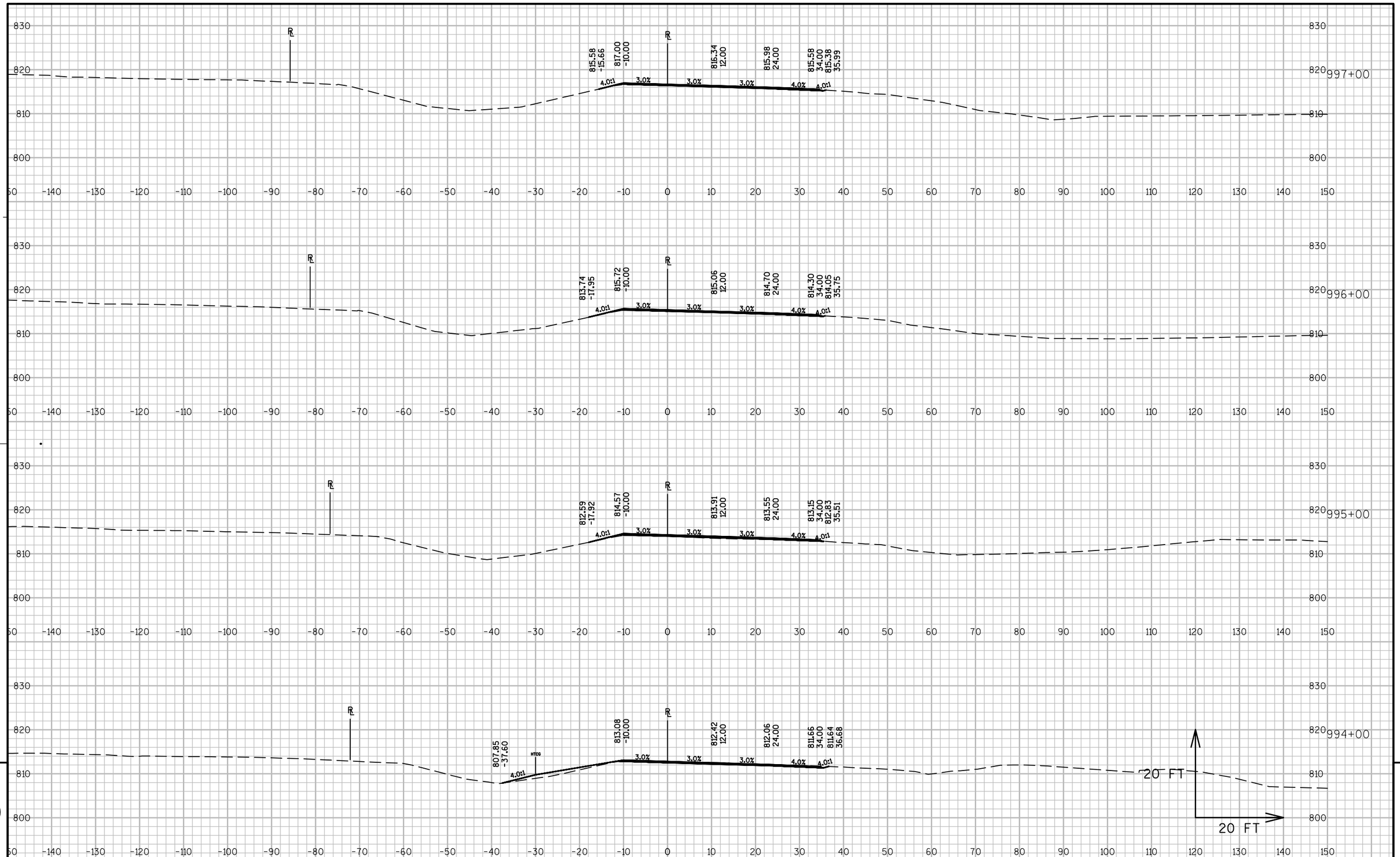
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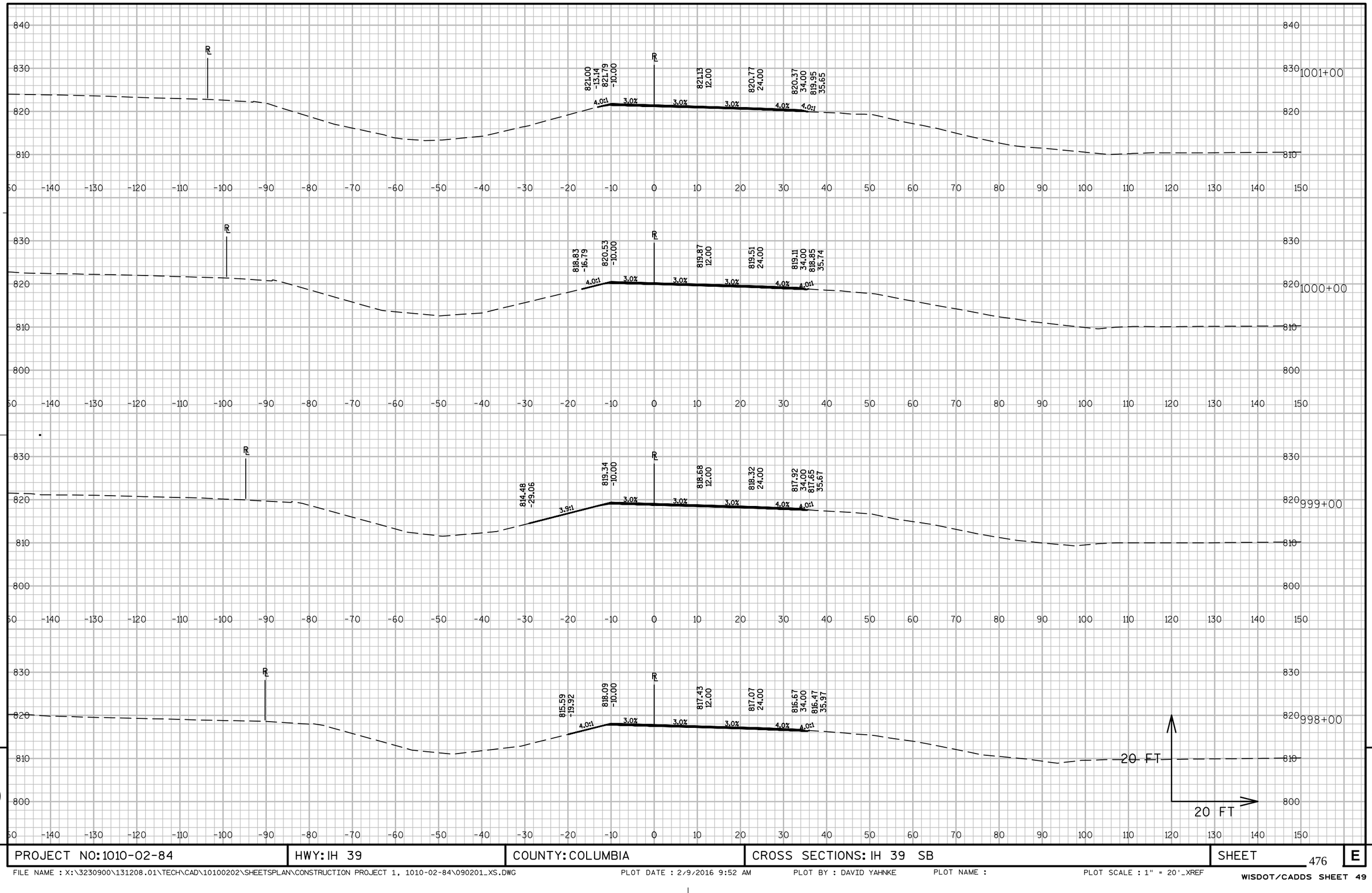
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WISDOT/CADDS SHEET 49



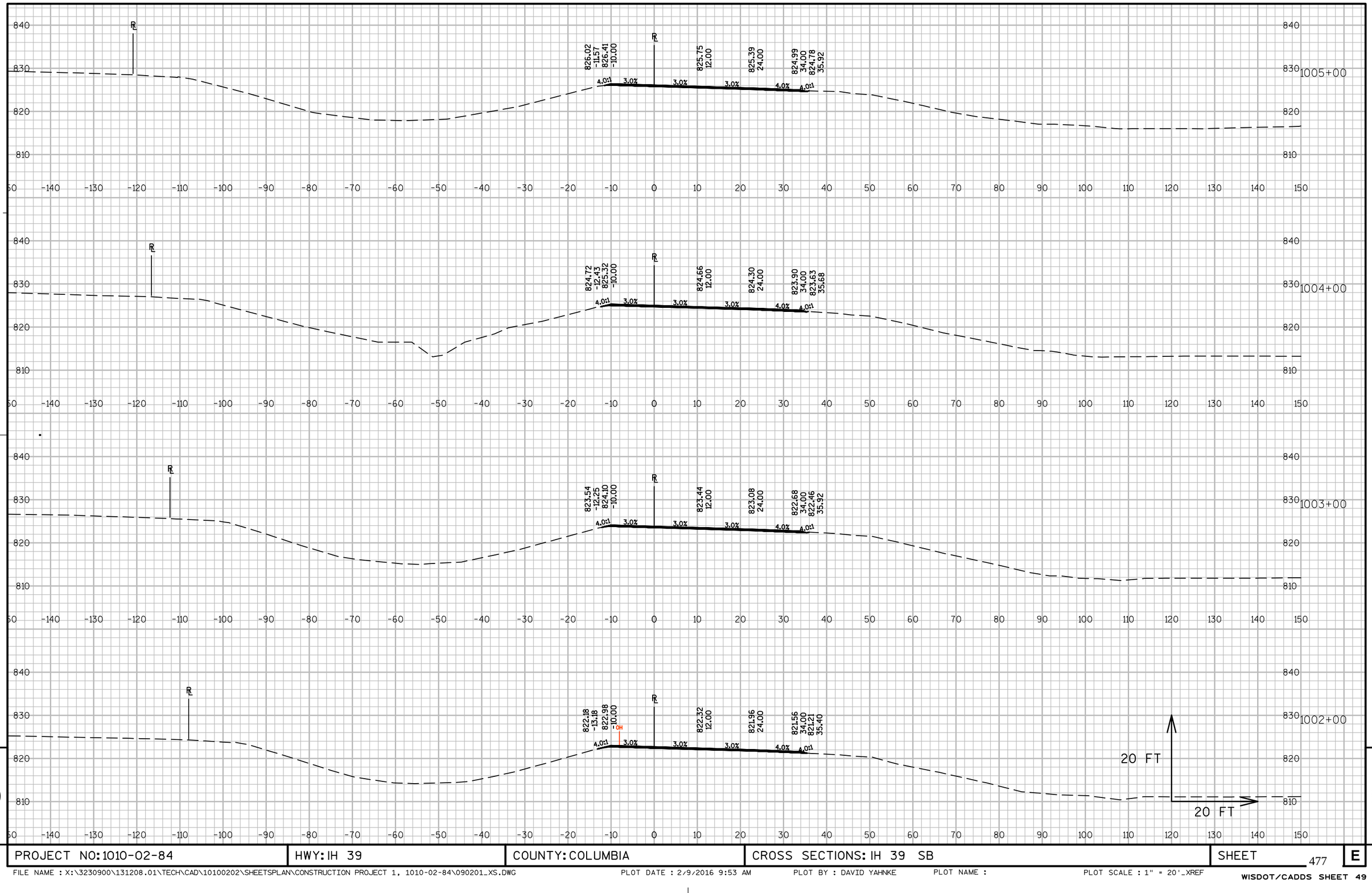
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FILE NAME : X:\3230900\131208.01\TECH\CAD\10100202\SHEETSPLAN\CONSTRUCTION PROJECT 1, 1010-02-84\090201_XS.DWG PLOT DATE : 2/9/2016 9:52 AM PLOT BY : DAVID YAHNKE PLOT NAME : PLOT SCALE : 1" = 20'_XREF

WISDOT/CADDS SHEET 49



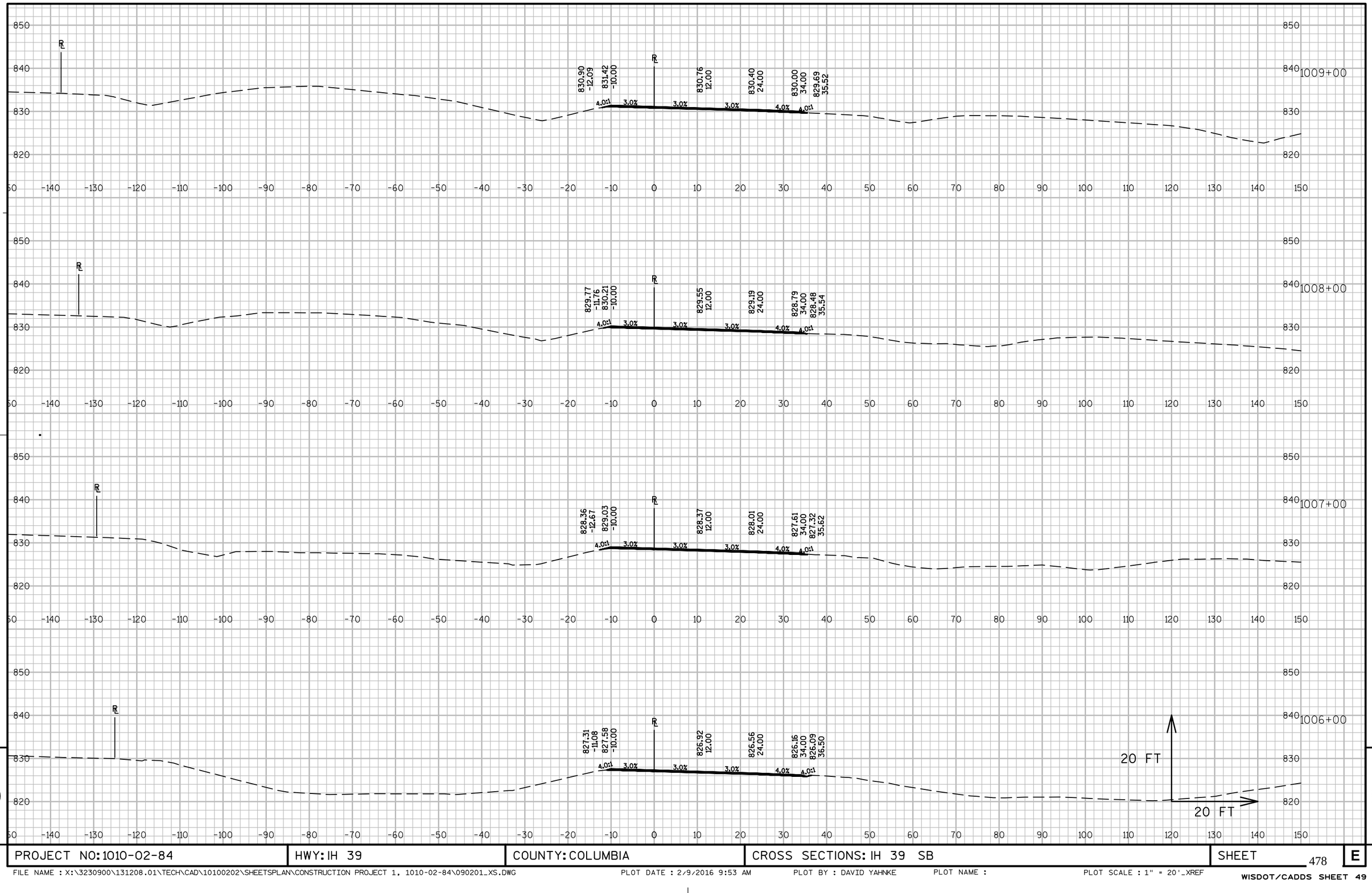
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PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: IH 39 SB	SHEET 477	E

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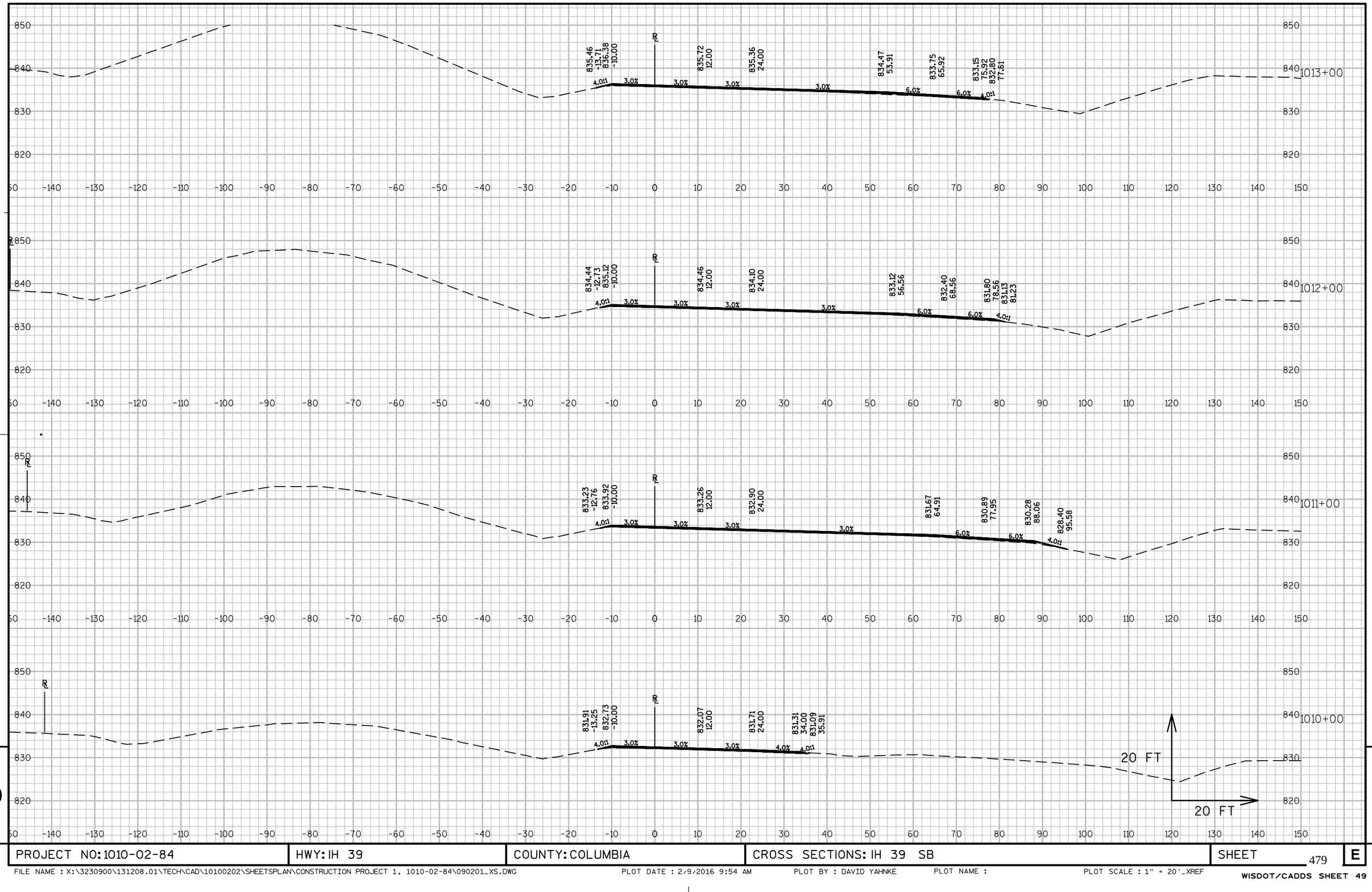
WISDOT/CADDS SHEET 49



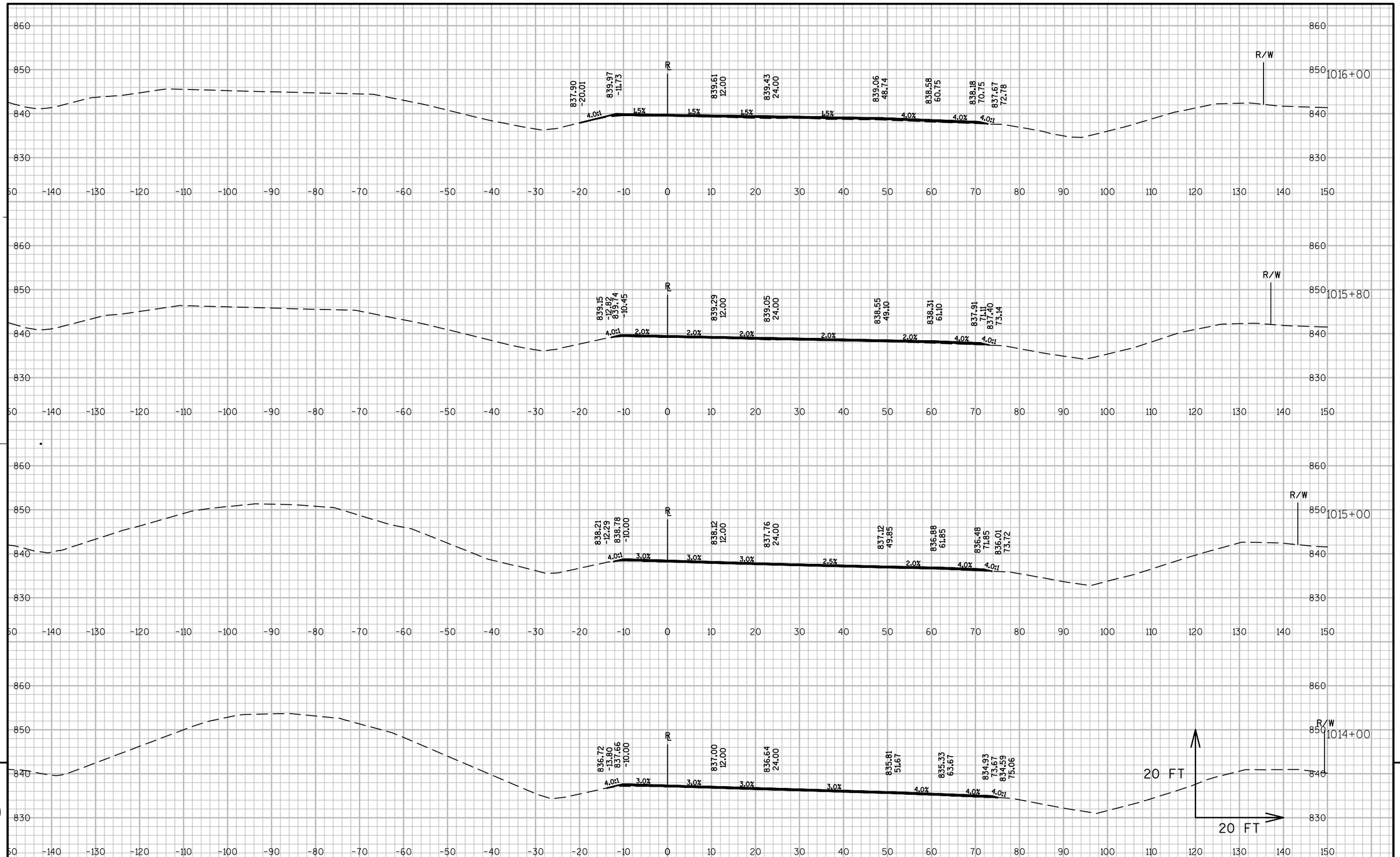
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PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: IH 39 SB	SHEET 478	E



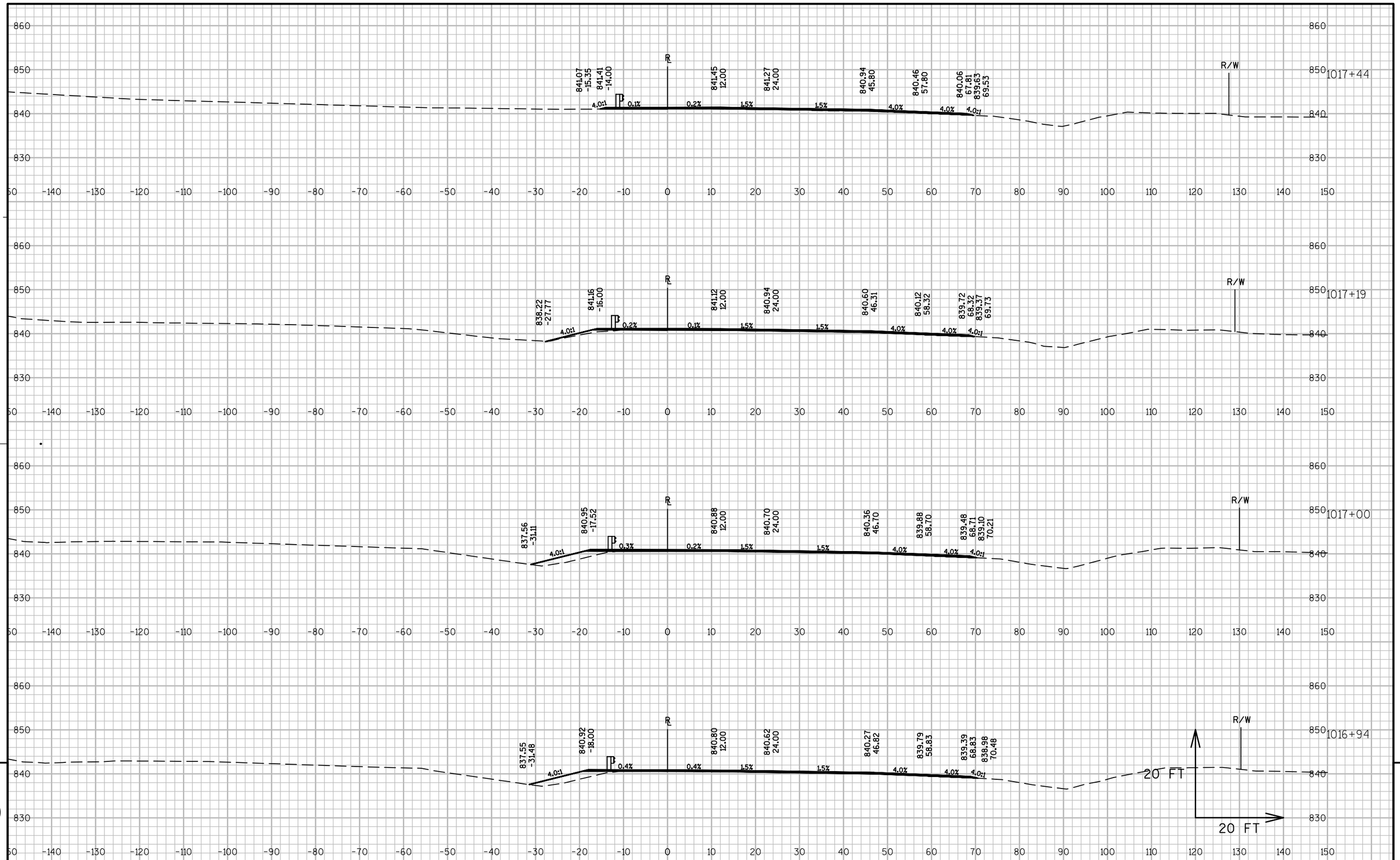
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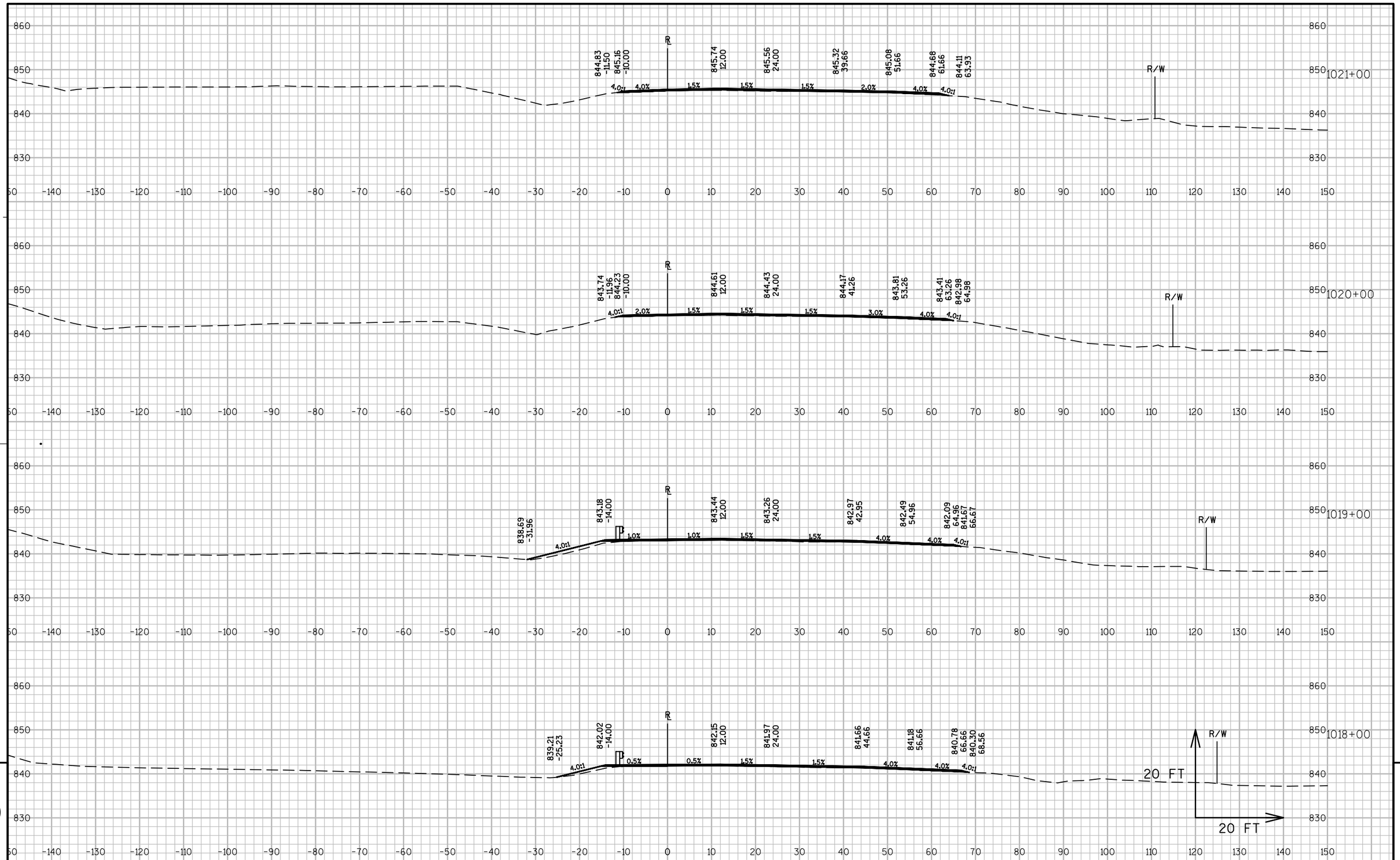
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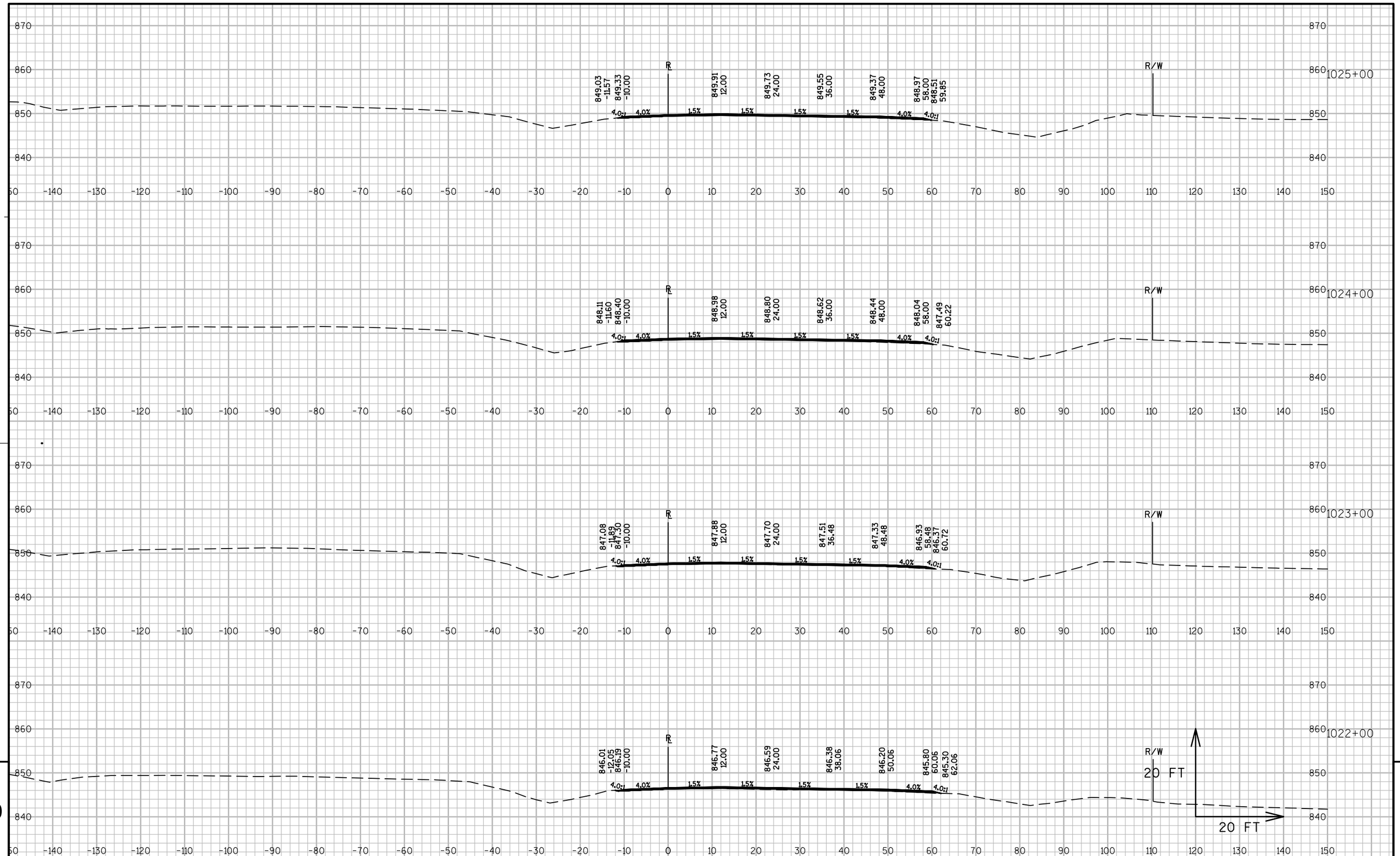
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PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: IH 39 SB	SHEET 482 E

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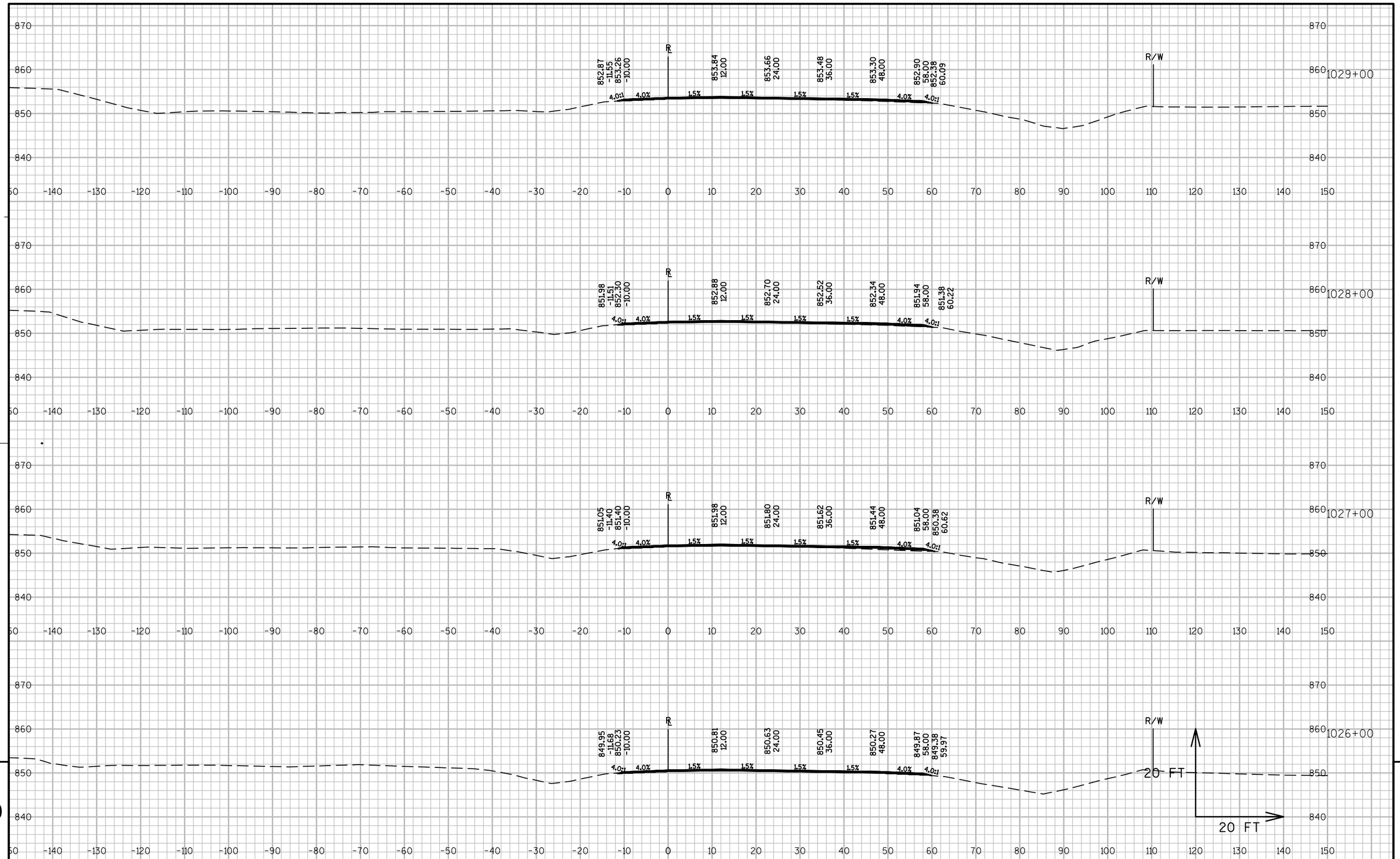
WISDOT/CADDS SHEET 49



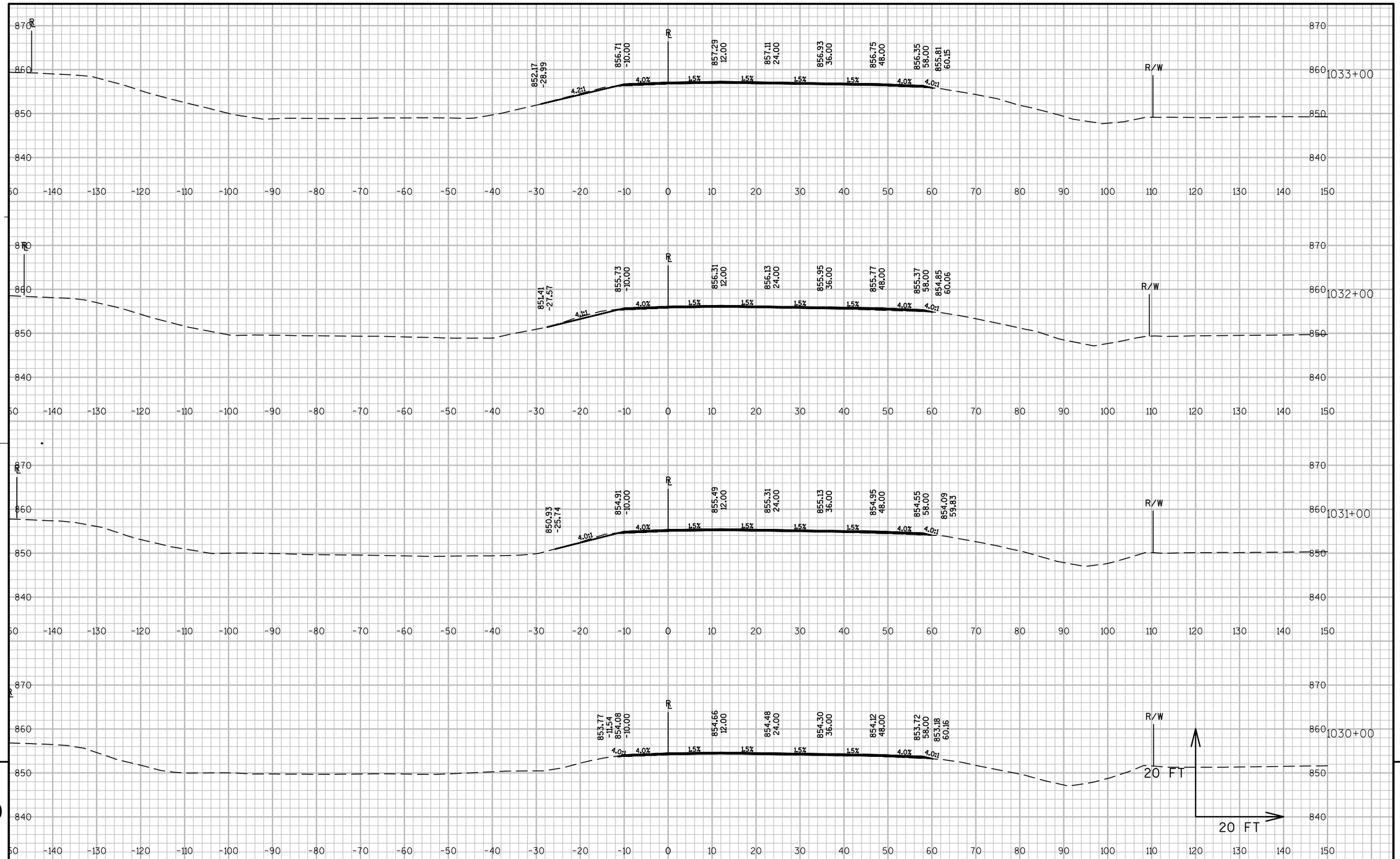
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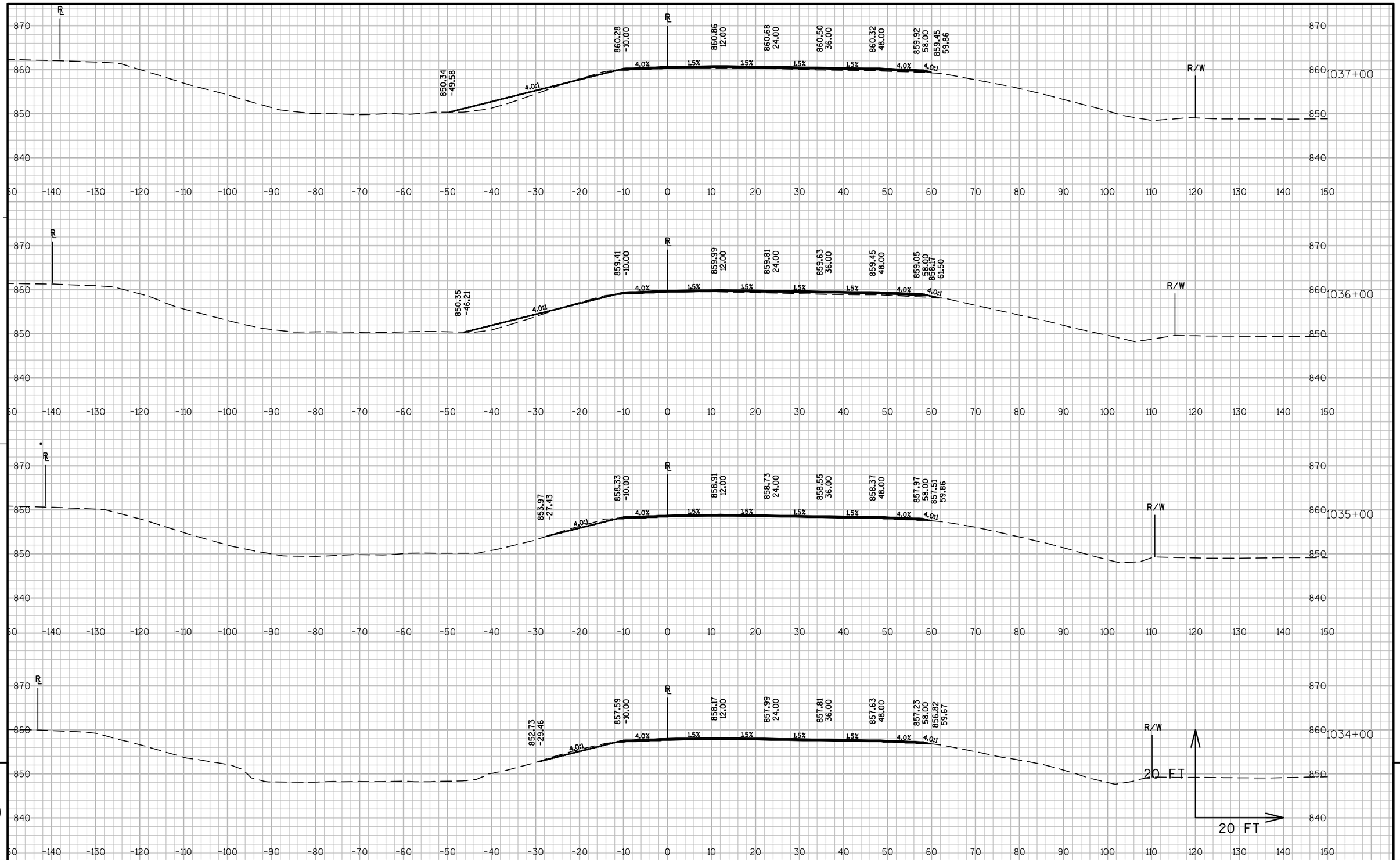
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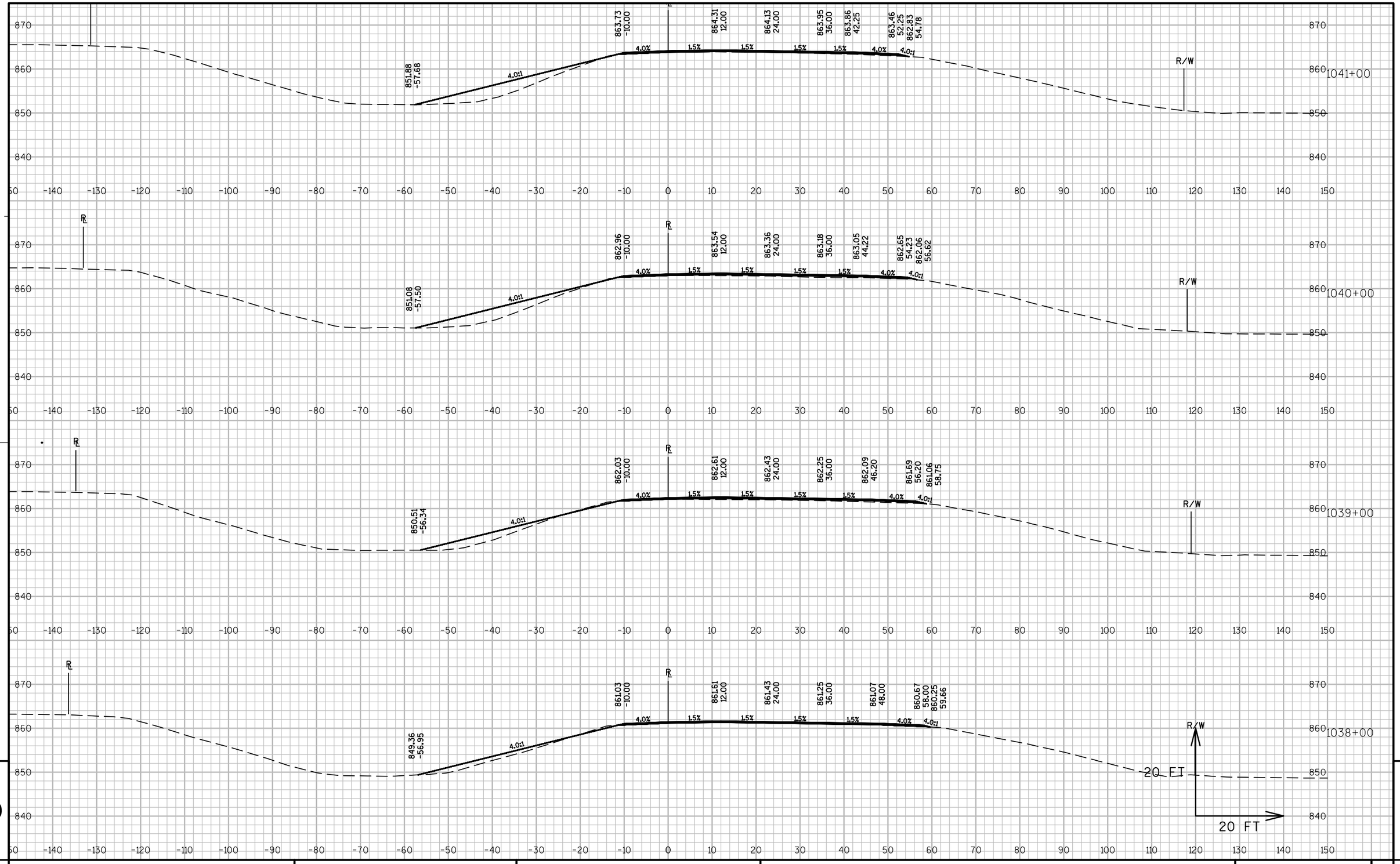
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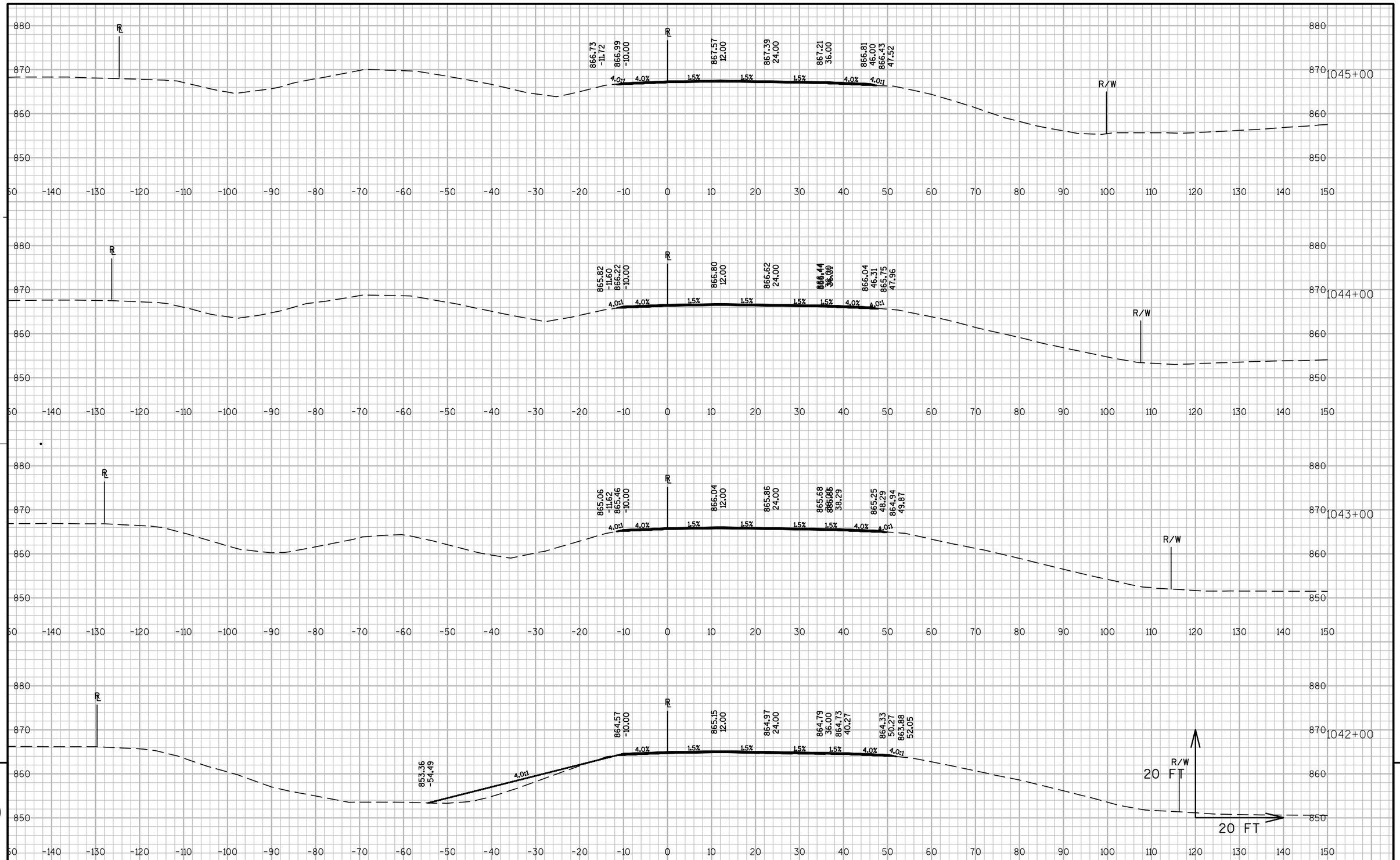
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PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: IH 39 SB	SHEET 487	E

FILE NAME : X:\3230900\131208.01\TECH\CAD\10100202\SHEETSPLAN\CONSTRUCTION PROJECT 1, 1010-02-84\090201_XS.DWG PLOT DATE : 2/9/2016 9:59 AM PLOT BY : DAVID YAHNKE PLOT NAME : PLOT SCALE : 1" = 20'_XREF

WISDOT/CADDS SHEET 49

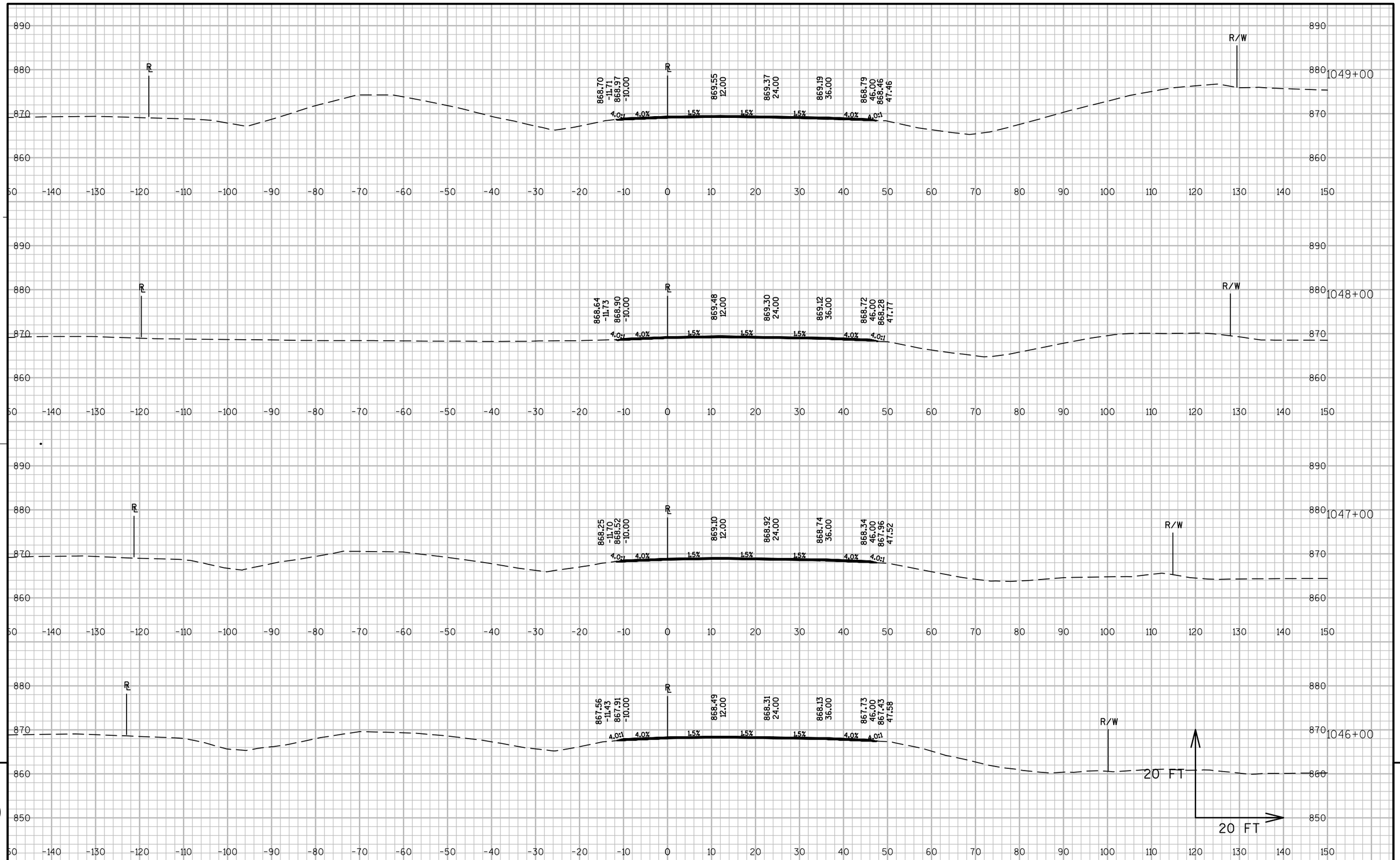


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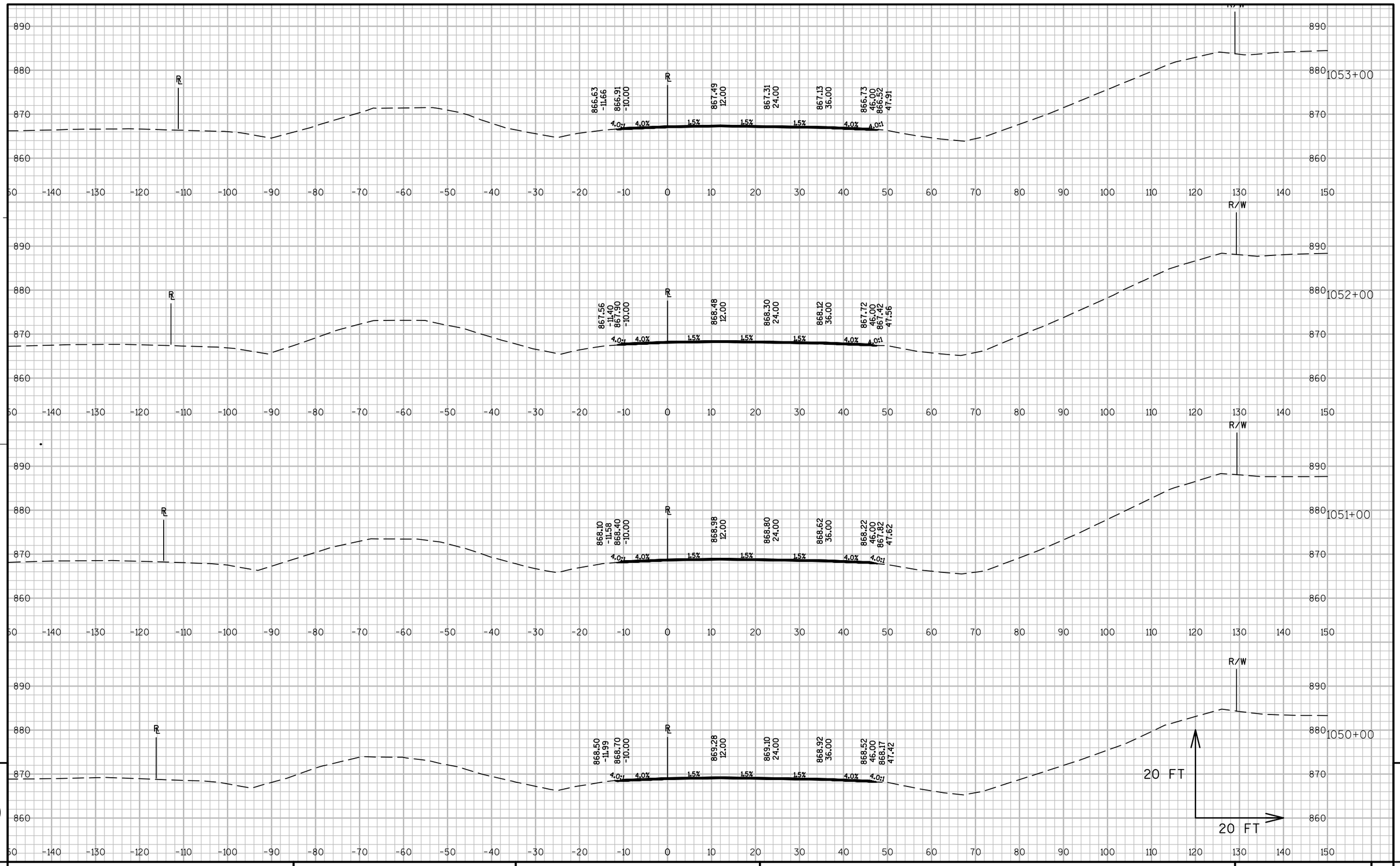
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PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: IH 39 SB	SHEET 489	E

FILE NAME : X:\3230900\131208.01\TECH\CAD\10100202\SHEETSPLAN\CONSTRUCTION PROJECT 1, 1010-02-84\090201_XS.DWG PLOT DATE : 2/9/2016 10:00 AM PLOT BY : DAVID YAHNKE PLOT NAME : PLOT SCALE : 1" = 20'_XREF



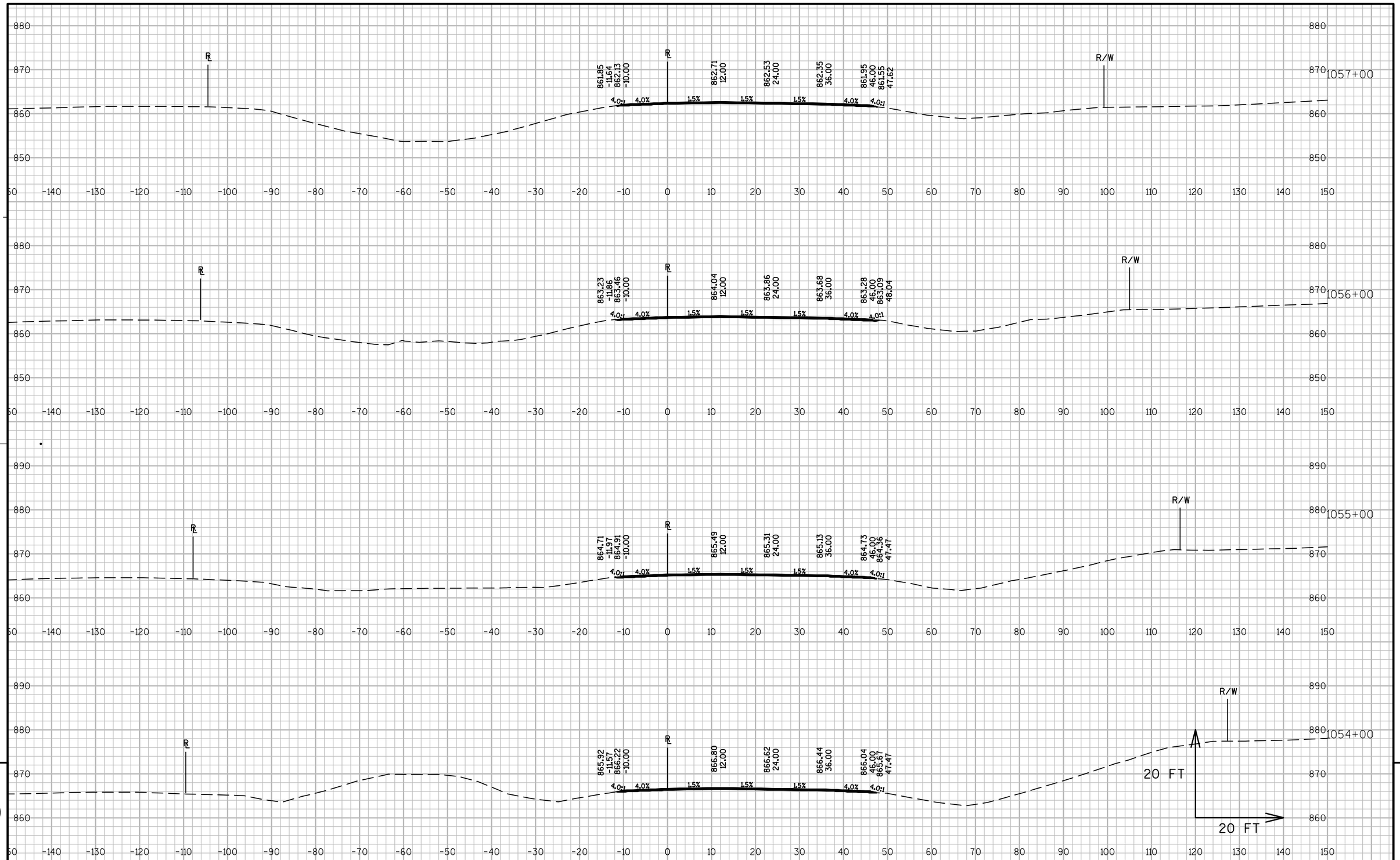
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PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: IH 39 SB	SHEET 490	E

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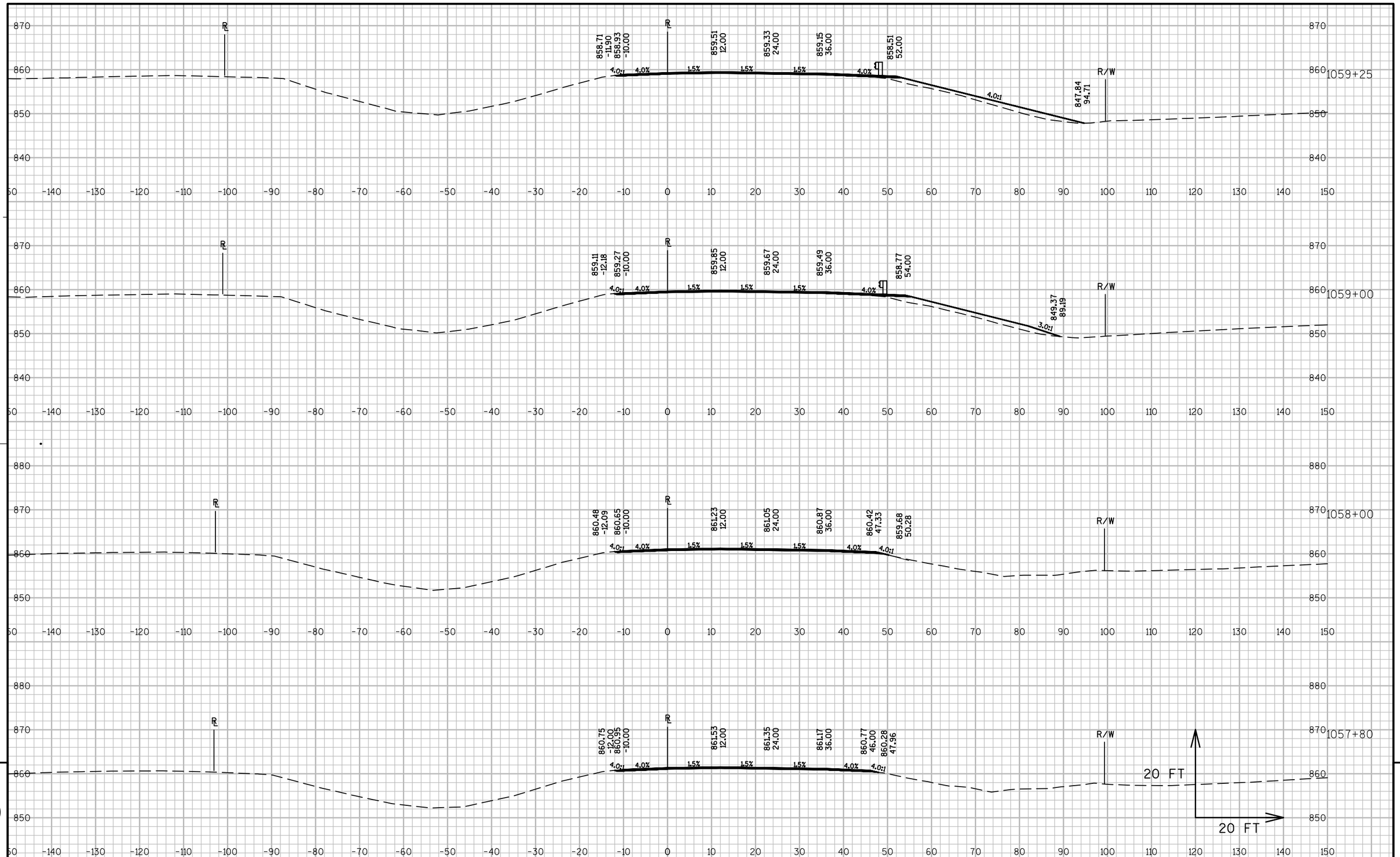
WISDOT/CADDS SHEET 49



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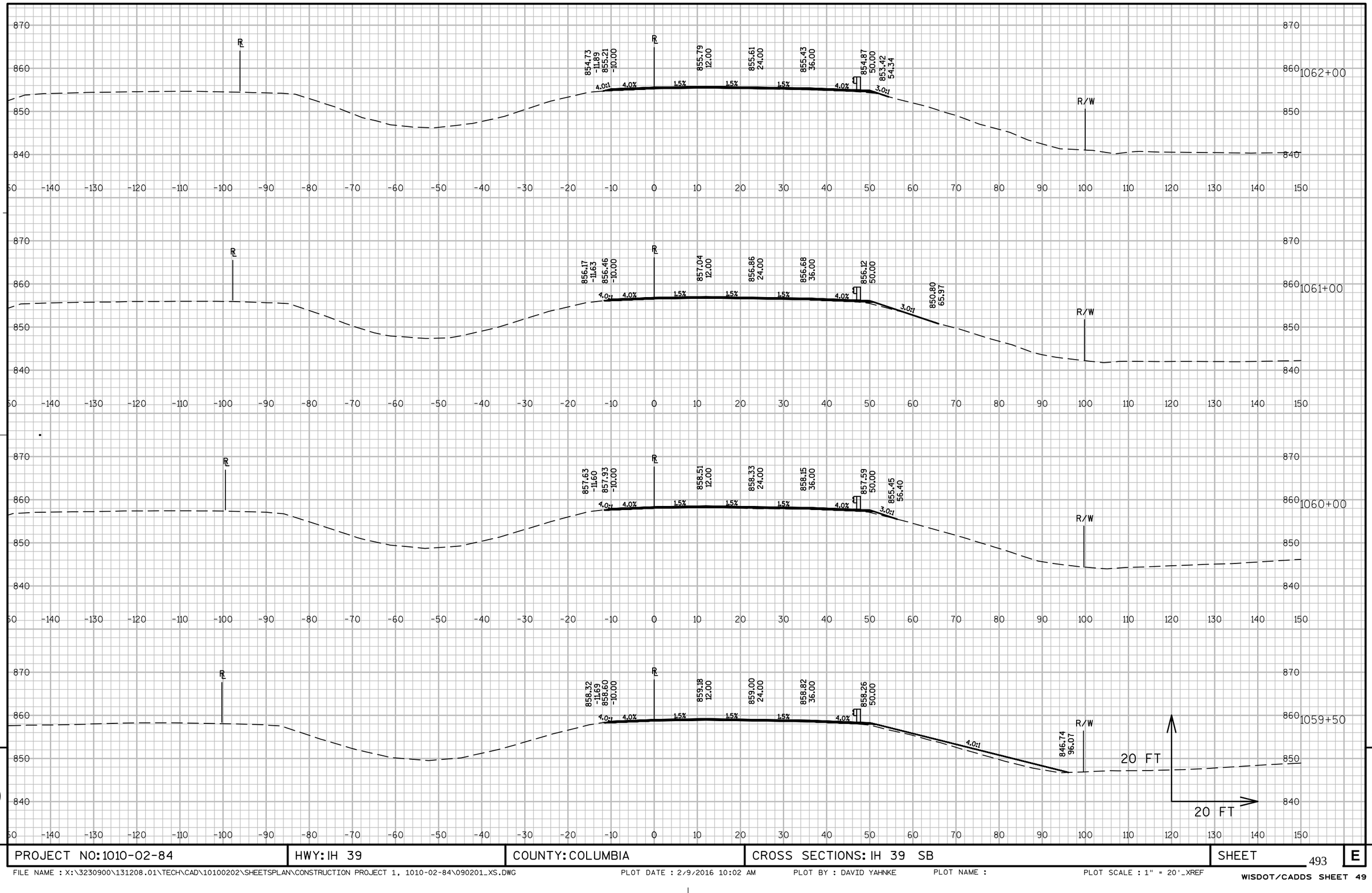
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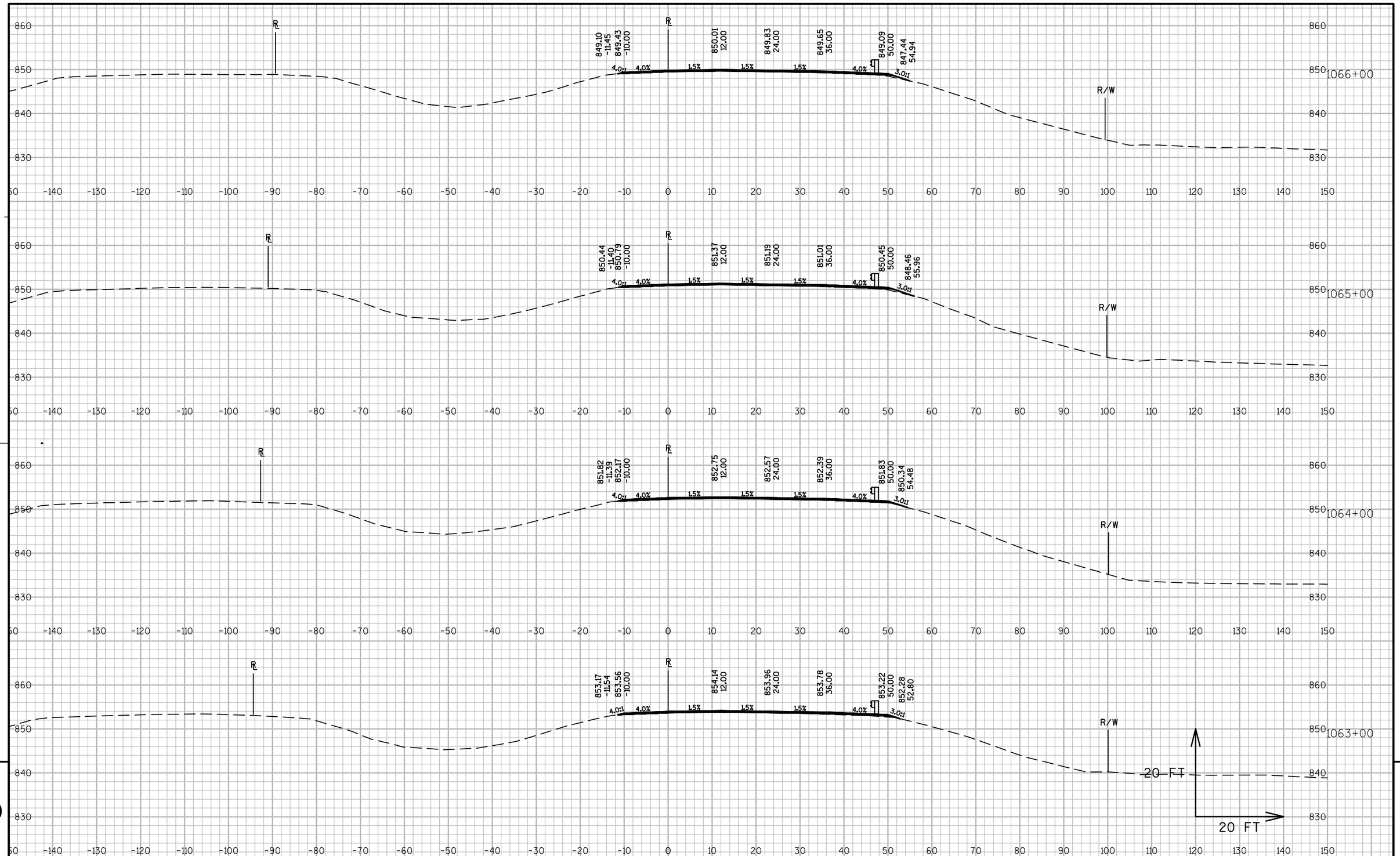
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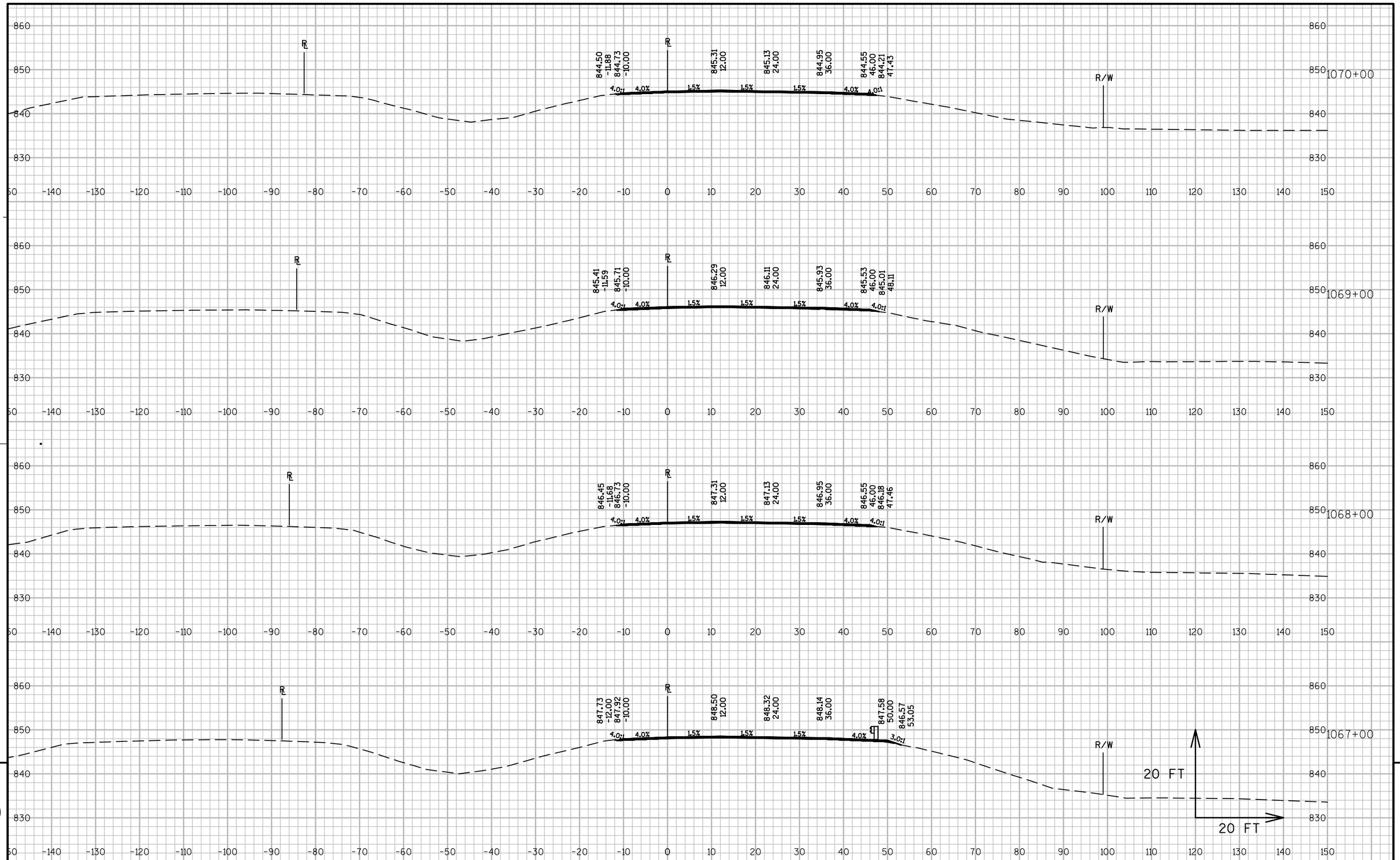
PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: IH 39 SB	SHEET 493	E



PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: IH 39 SB	SHEET 494	E

FILE NAME : X:\3230900\131208.01\TECH\CAD\10100202\SHEETSPLAN\CONSTRUCTION PROJECT 1, 1010-02-84\090201_XS.DWG PLOT DATE : 2/9/2016 10:03 AM PLOT BY : DAVID YAHNKE PLOT NAME : PLOT SCALE : 1" = 20'_XREF

WISDOT/CADDS SHEET 49



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PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: IH 39 SB	SHEET 495	E

FILE NAME : X:\3230900\131208.01\TECH\CAD\10100202\SHEETSPLAN\CONSTRUCTION PROJECT 1, 1010-02-84\090201_XS.DWG PLOT DATE : 2/9/2016 10:03 AM PLOT BY : DAVID YAHNKE PLOT NAME : PLOT SCALE : 1" = 20'_XREF

WISDOT/CADDS SHEET 49



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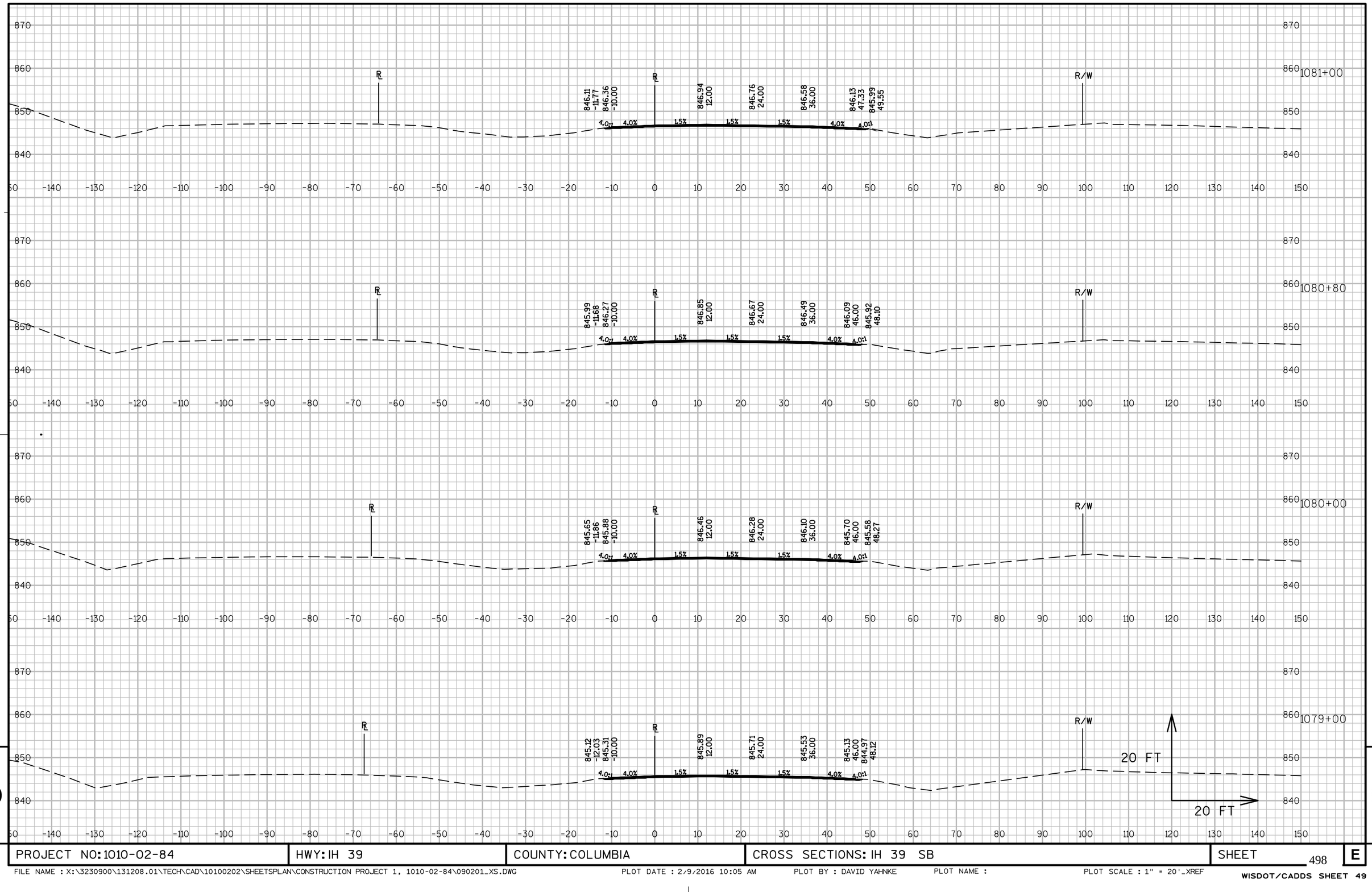
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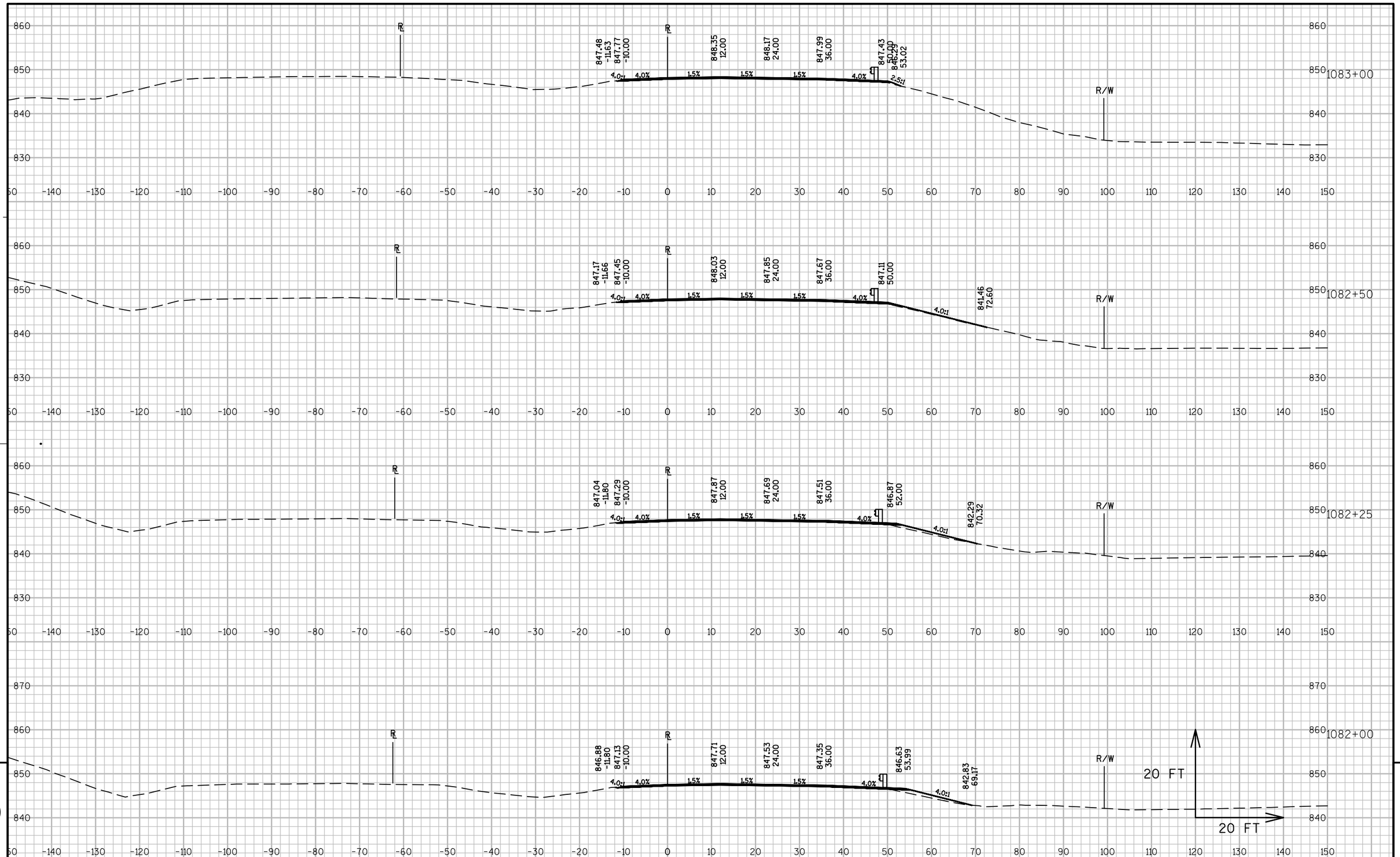
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PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: IH 39 SB	SHEET 497	E



PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: IH 39 SB	SHEET 498	E

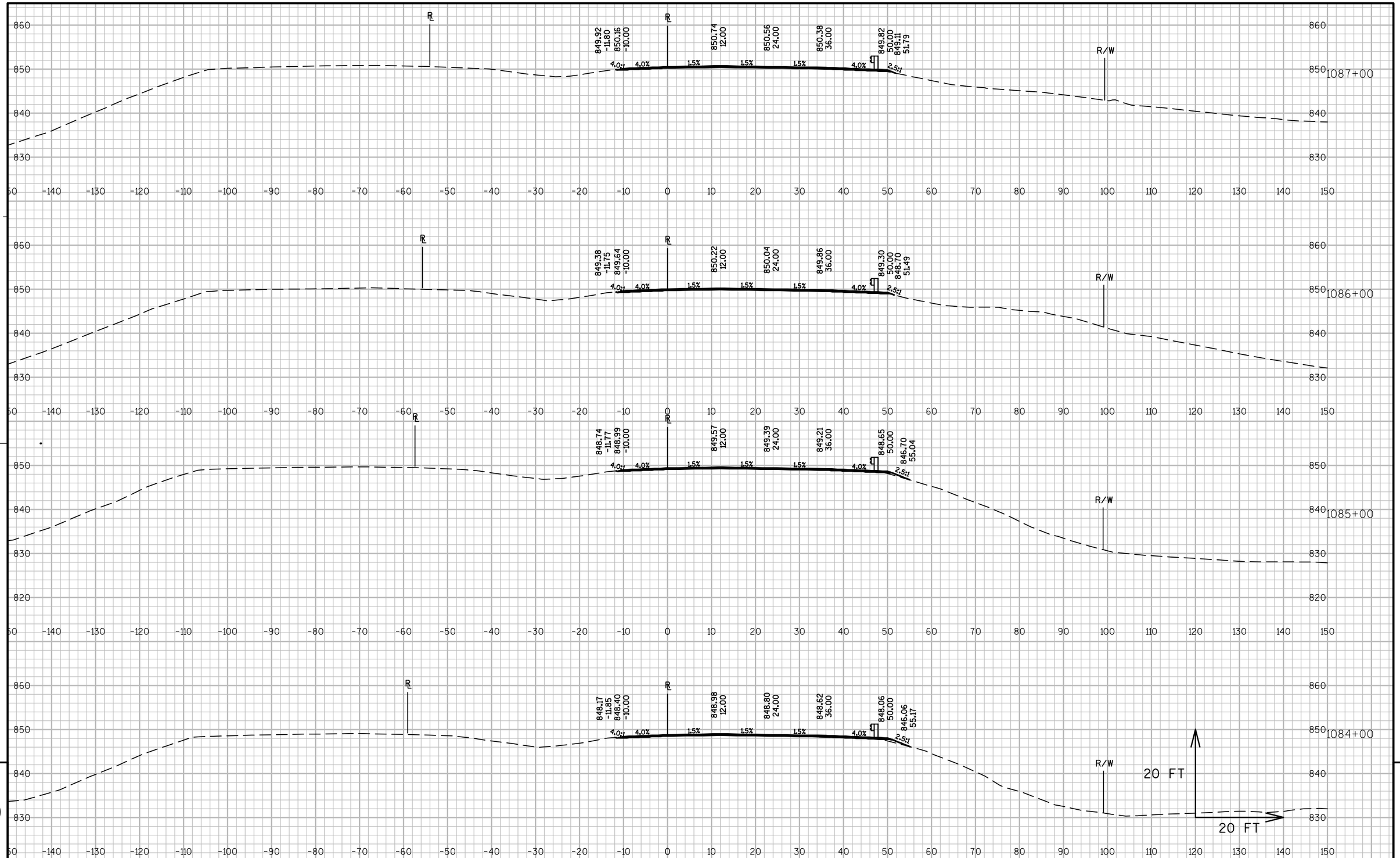
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PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: IH 39 SB	SHEET 499	E

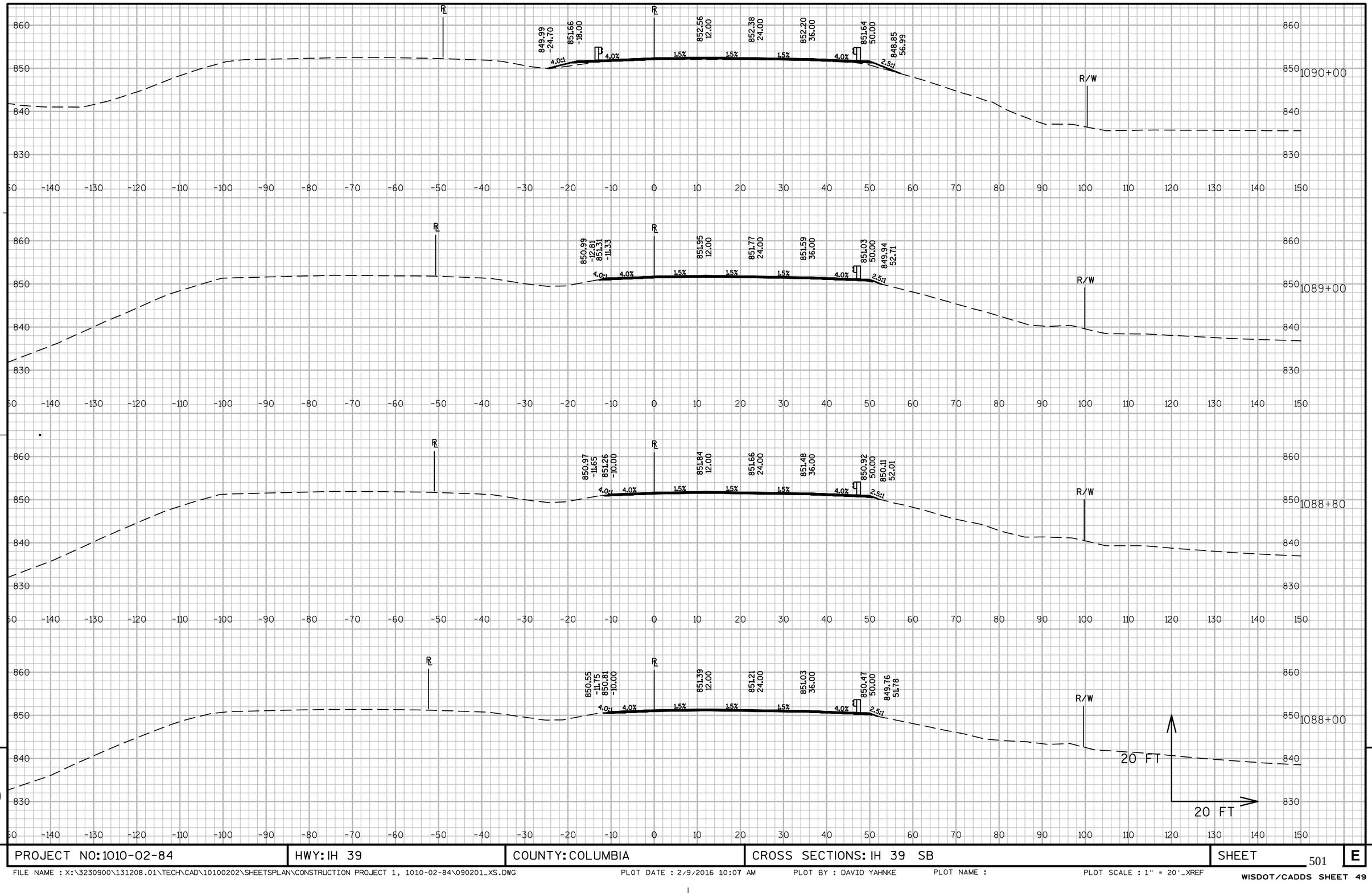
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WISDOT/CADDS SHEET 49



PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: IH 39 SB	SHEET 500	E

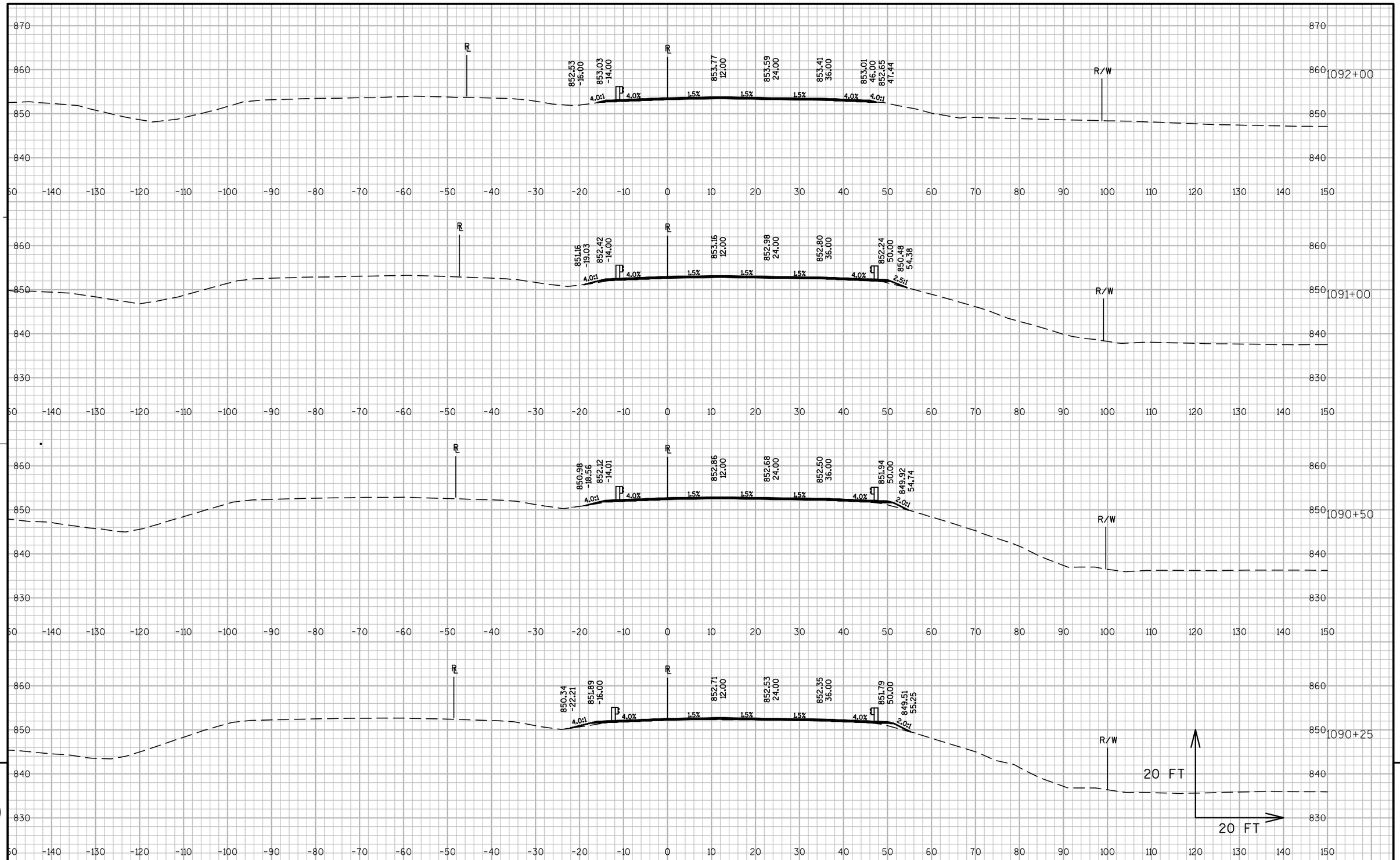
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PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: IH 39 SB	SHEET 501	E

FILE NAME : X:\3230900\131208.01\TECH\CAD\10100202\SHEETSPLAN\CONSTRUCTION PROJECT 1, 1010-02-84\090201_XS.DWG PLOT DATE : 2/9/2016 10:07 AM PLOT BY : DAVID YAHNKE PLOT NAME : PLOT SCALE : 1" = 20'_XREF

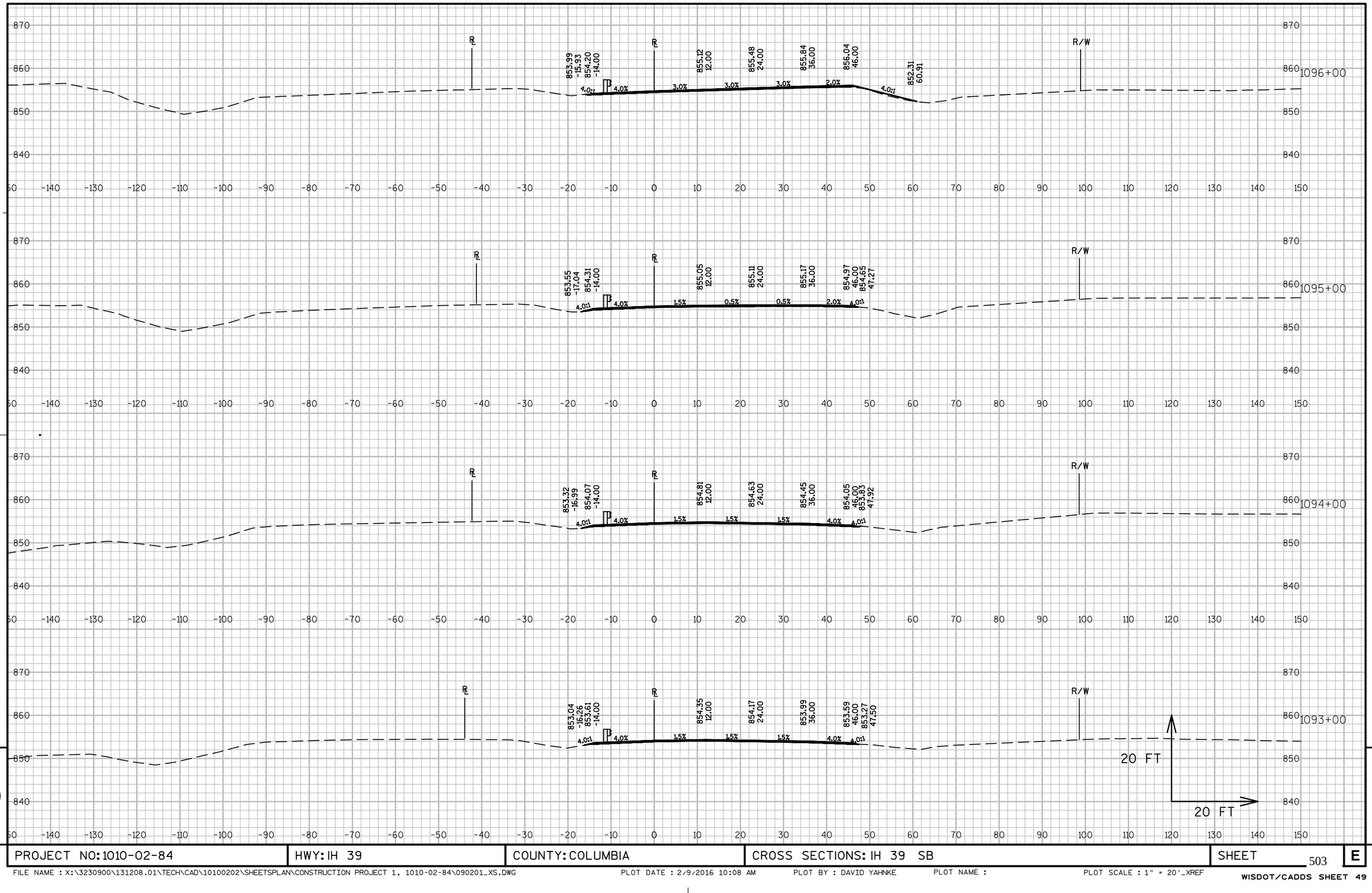
WISDOT/CADDS SHEET 49



PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: IH 39 SB	SHEET 502	E

FILE NAME : X:\3230900\131208.01\TECH\CAD\10100202\SHEETSPLAN\CONSTRUCTION PROJECT 1, 1010-02-84\090201_XS.DWG PLOT DATE : 2/9/2016 10:08 AM PLOT BY : DAVID YAHNKE PLOT NAME : PLOT SCALE : 1" = 20'_XREF

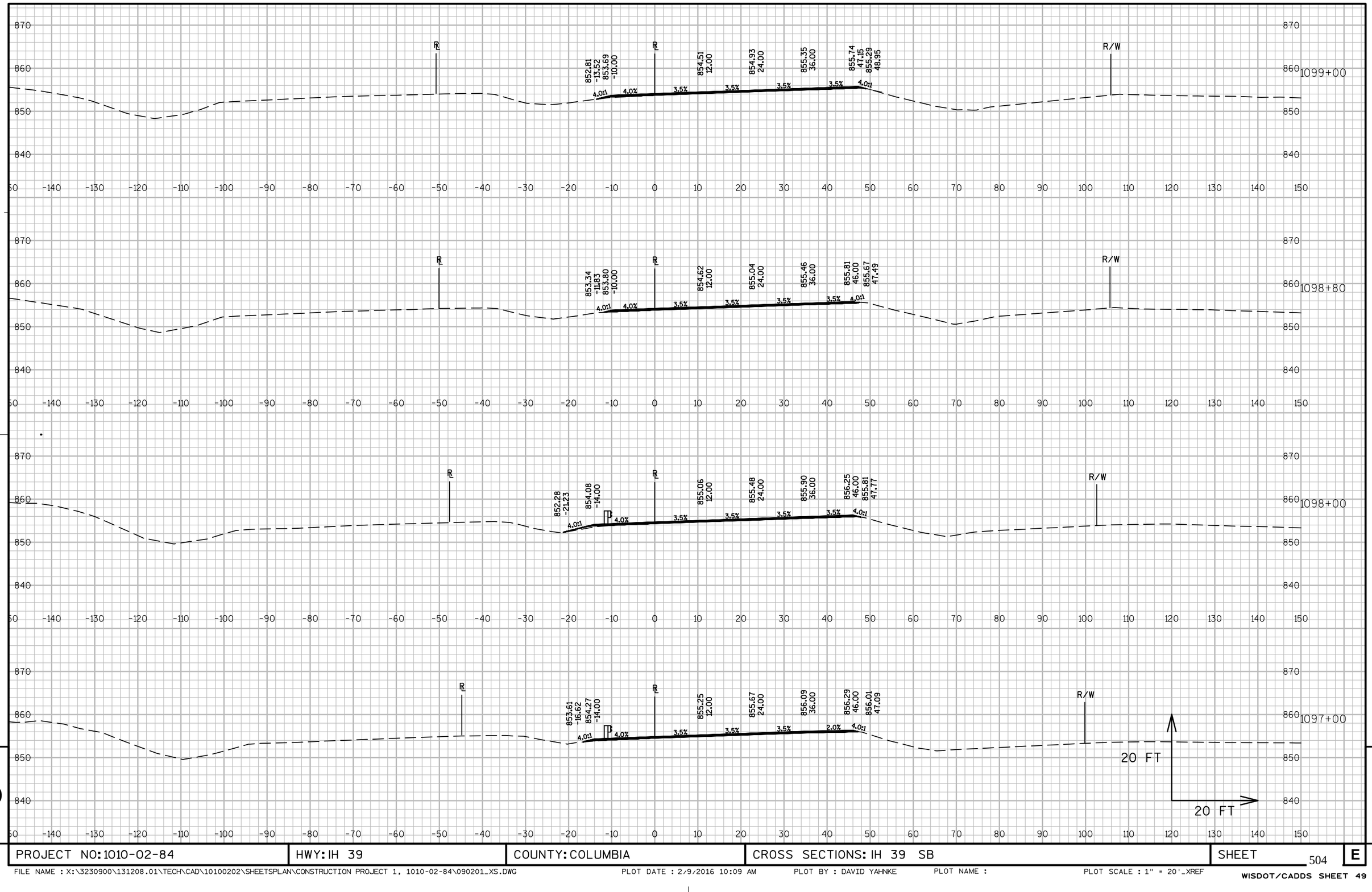
WISDOT/CADDS SHEET 49



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PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: IH 39 SB	SHEET 503	E

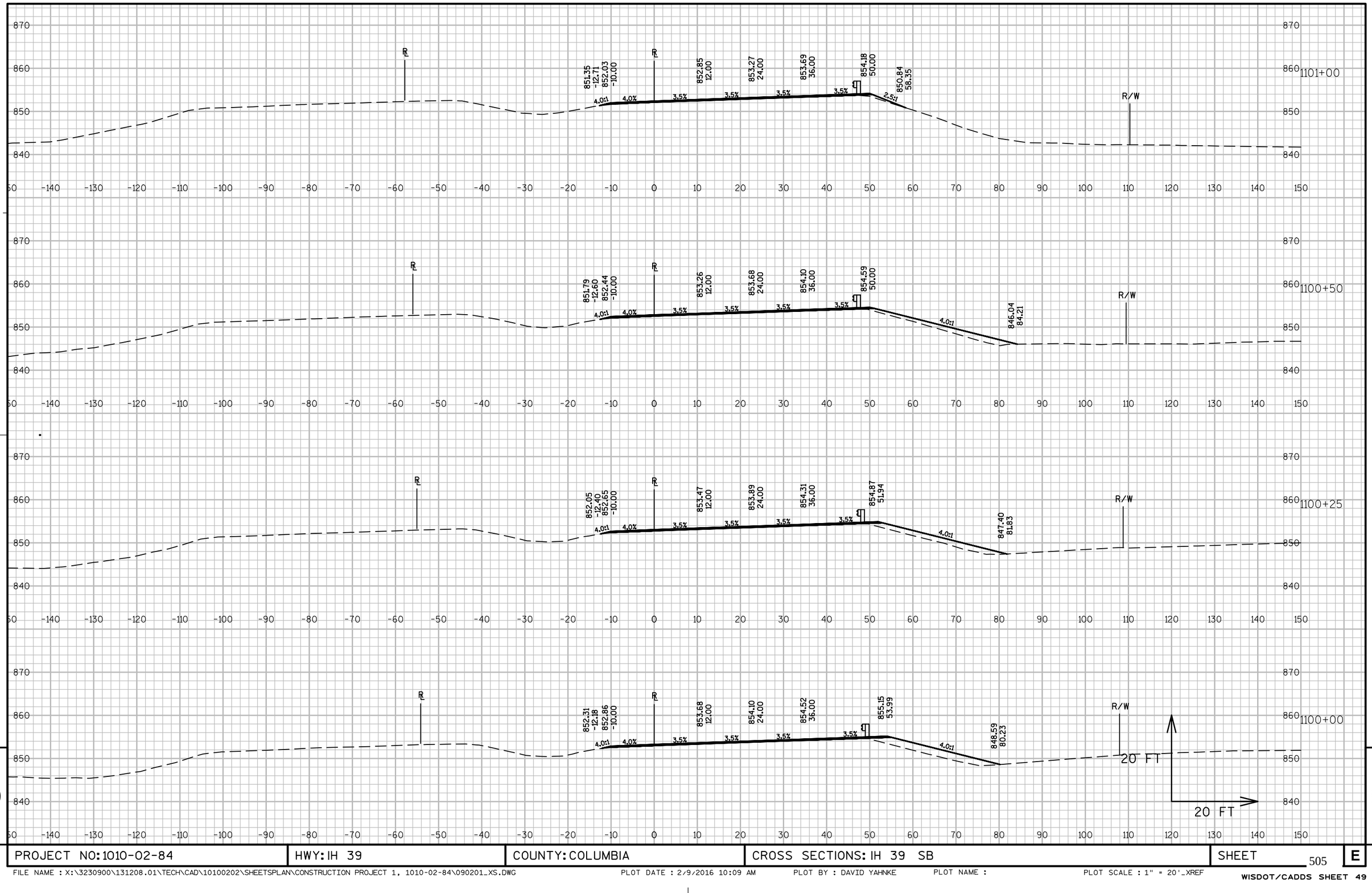


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PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: IH 39 SB	SHEET 504	E

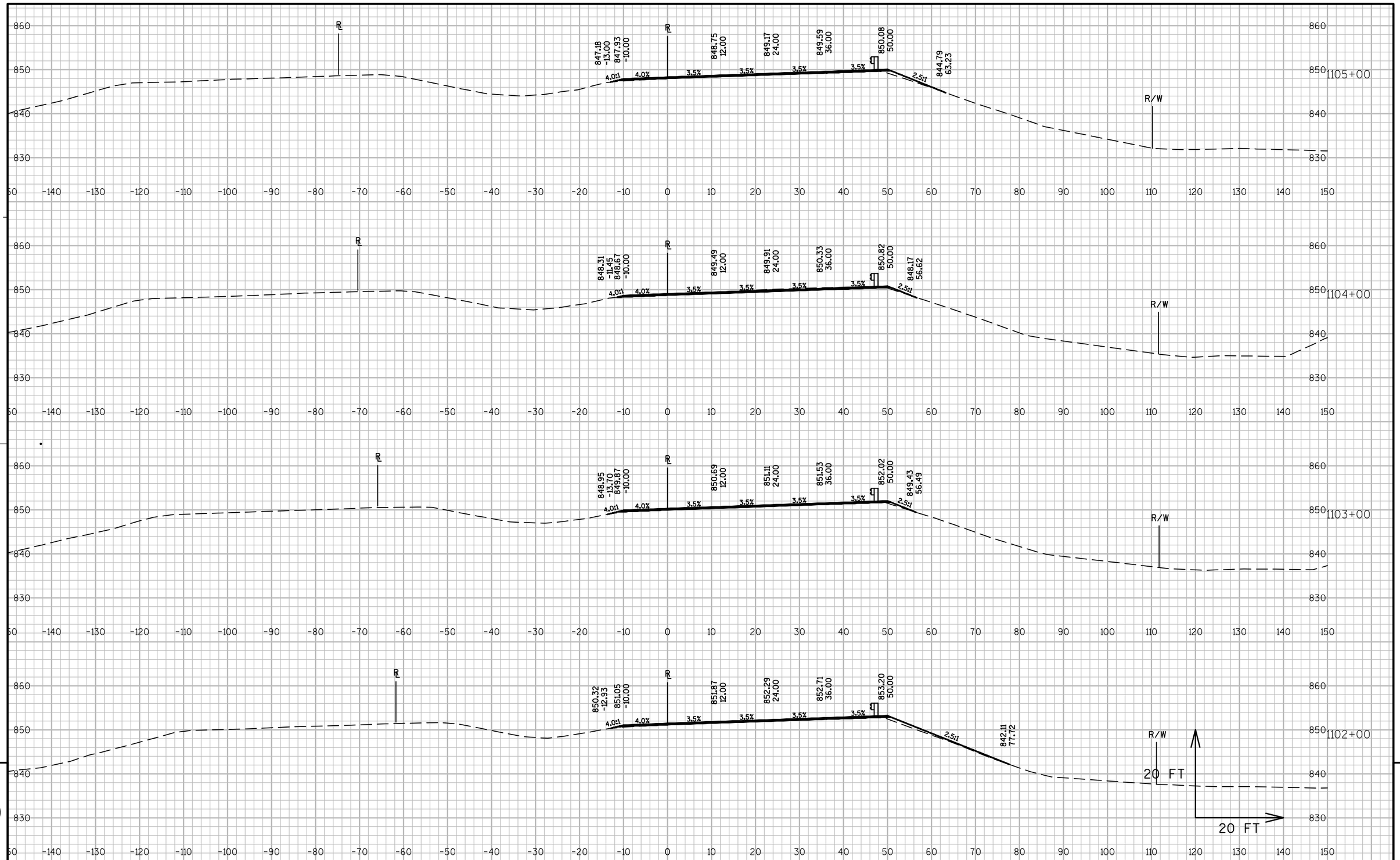
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PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: IH 39 SB	SHEET 505	E

FILE NAME : X:\3230900\131208.01\TECH\CAD\10100202\SHEETSPLAN\CONSTRUCTION PROJECT 1, 1010-02-84\090201_XS.DWG PLOT DATE : 2/9/2016 10:09 AM PLOT BY : DAVID YAHNKE PLOT NAME : PLOT SCALE : 1" = 20'_XREF

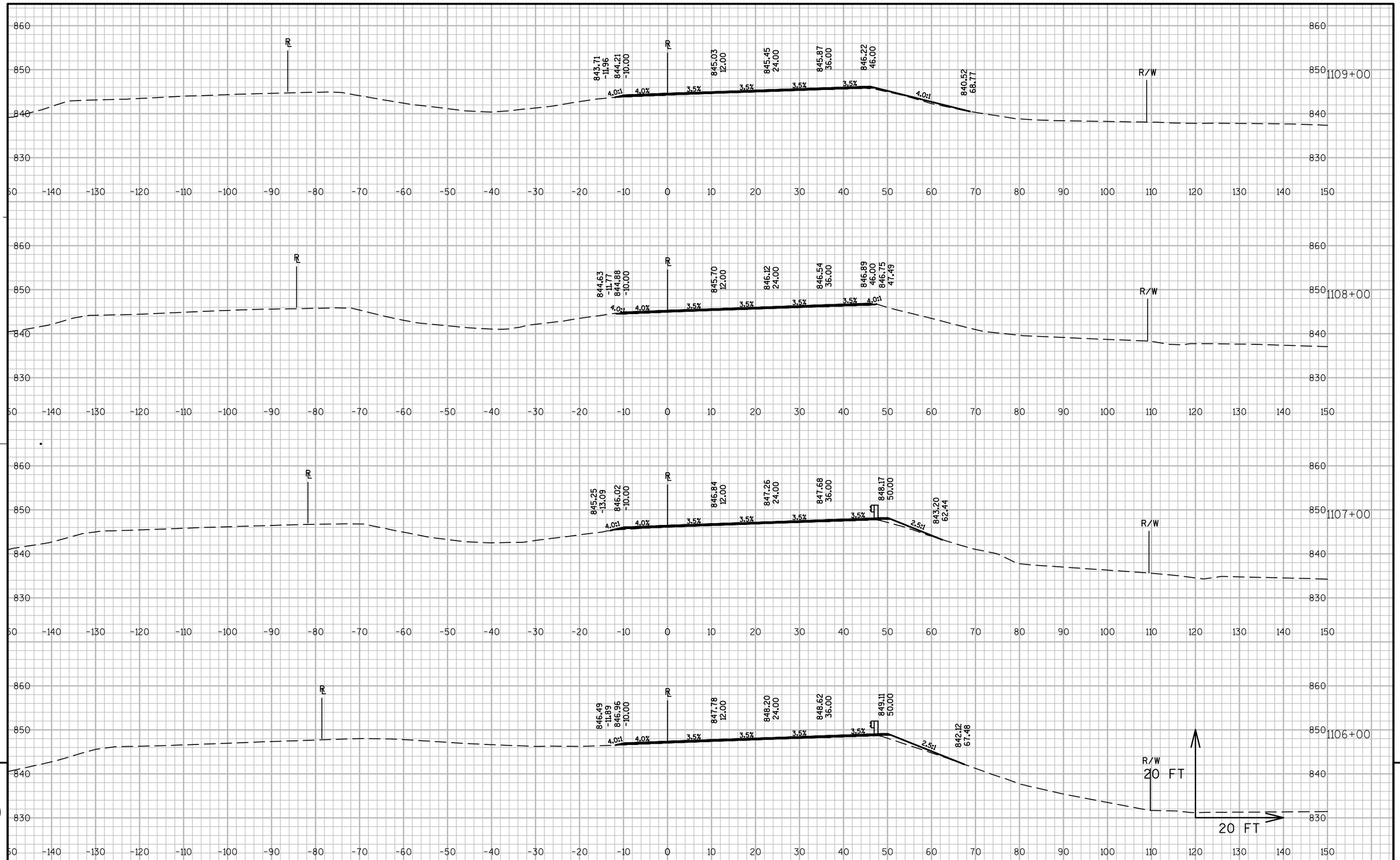
WISDOT/CADDS SHEET 49



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PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: IH 39 SB	SHEET 506	E

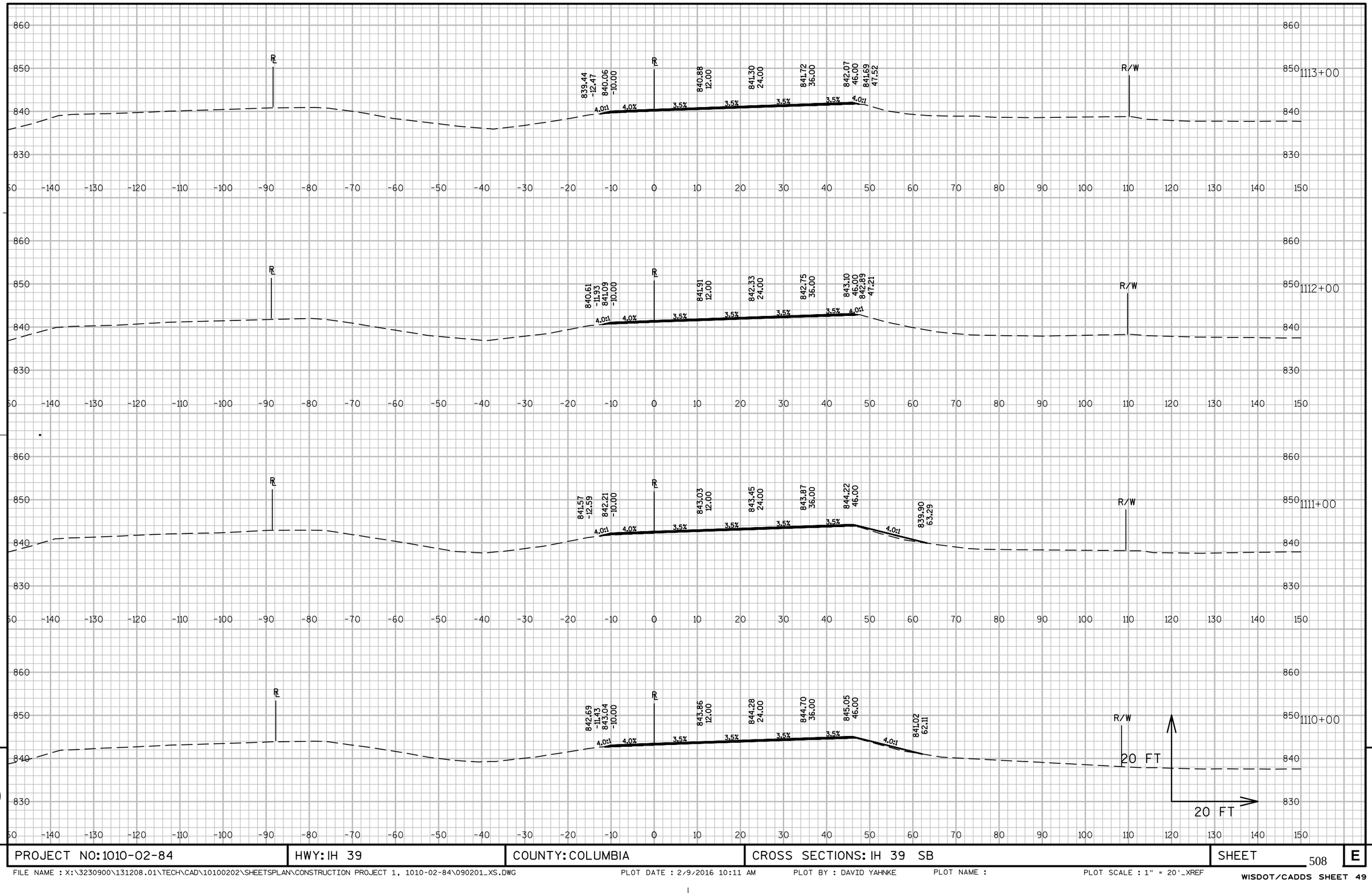


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PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: IH 39 SB	SHEET 507	E

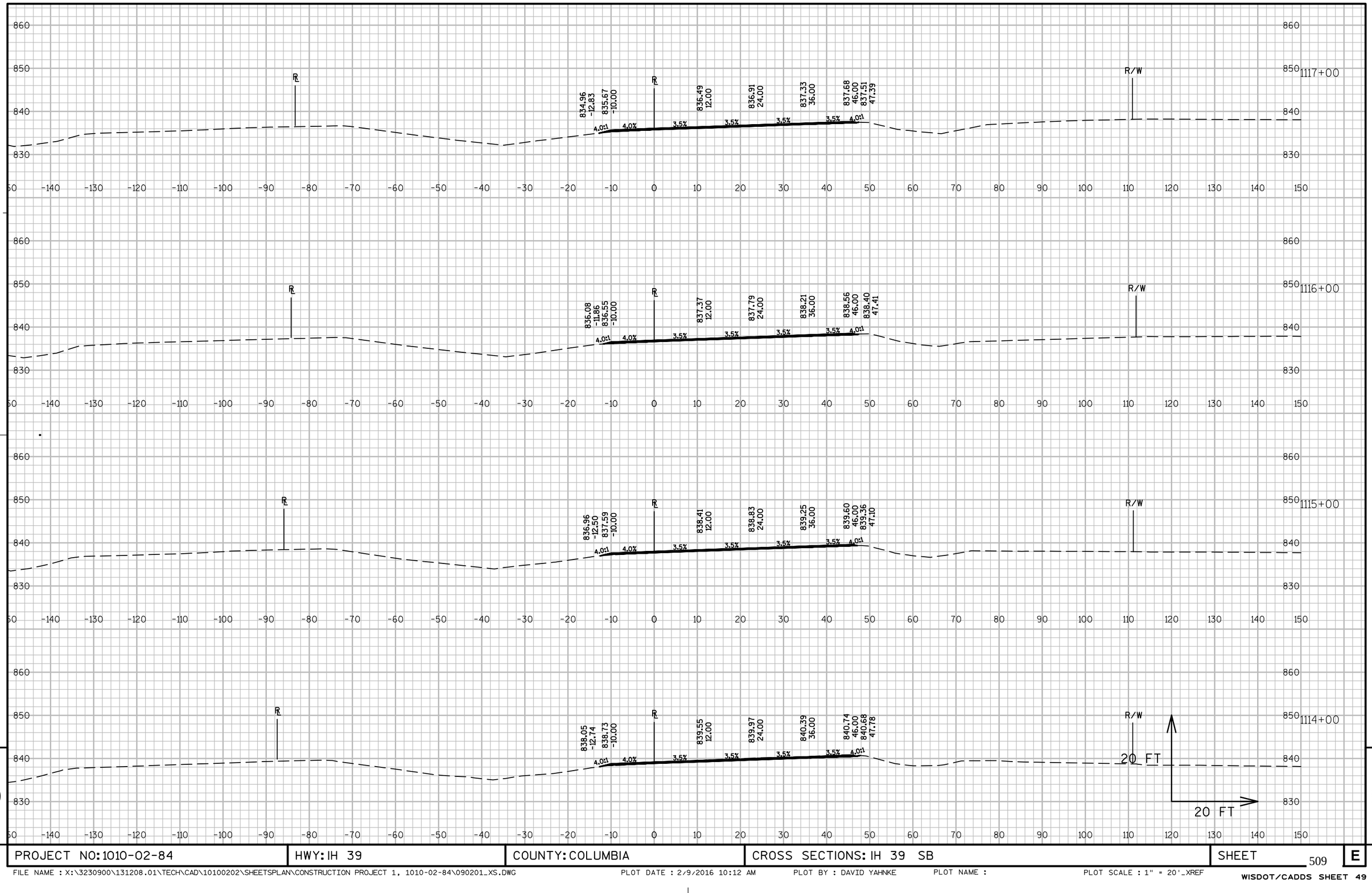
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WISDOT/CADDS SHEET 49



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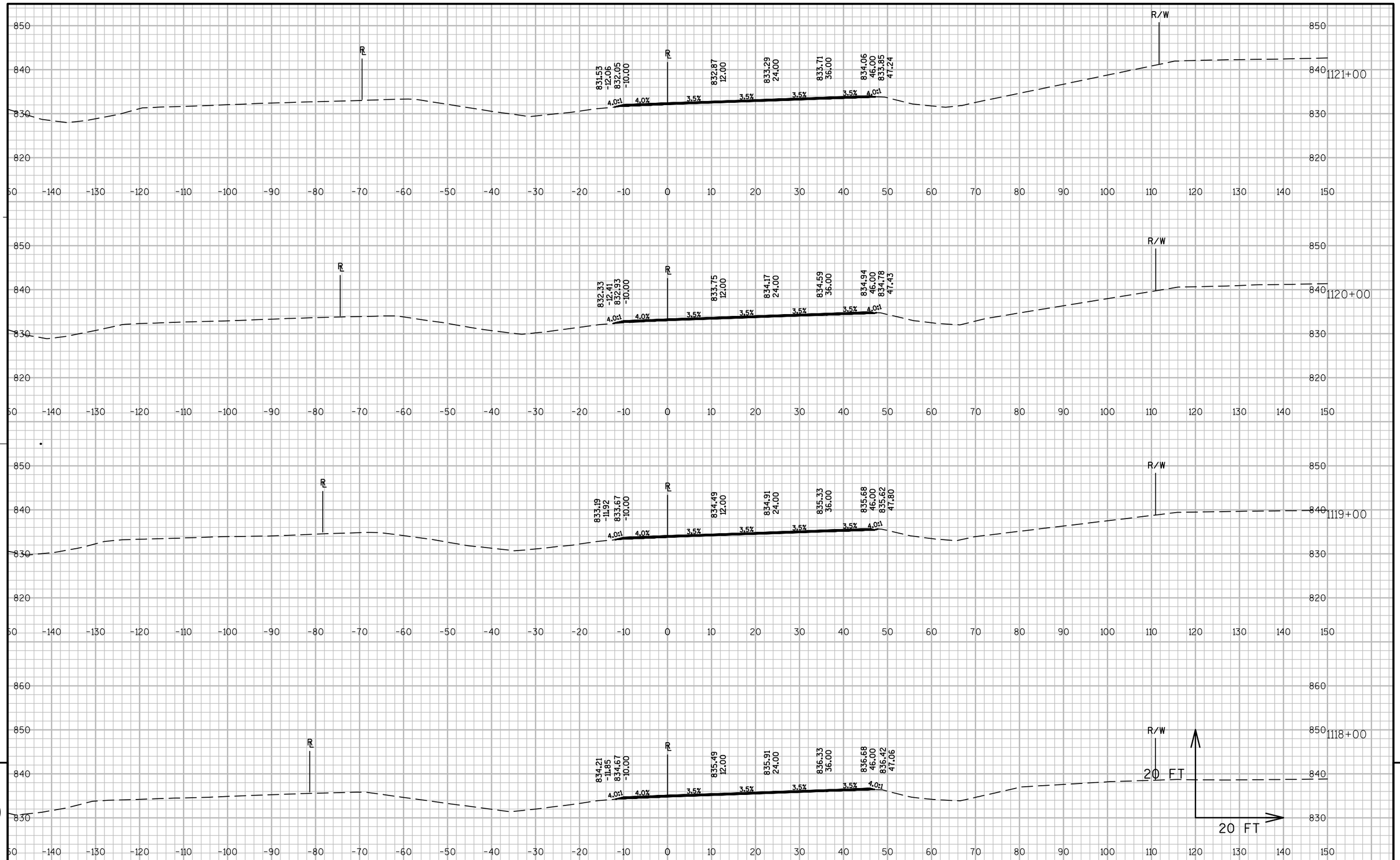
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PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: IH 39 SB	SHEET 508	E



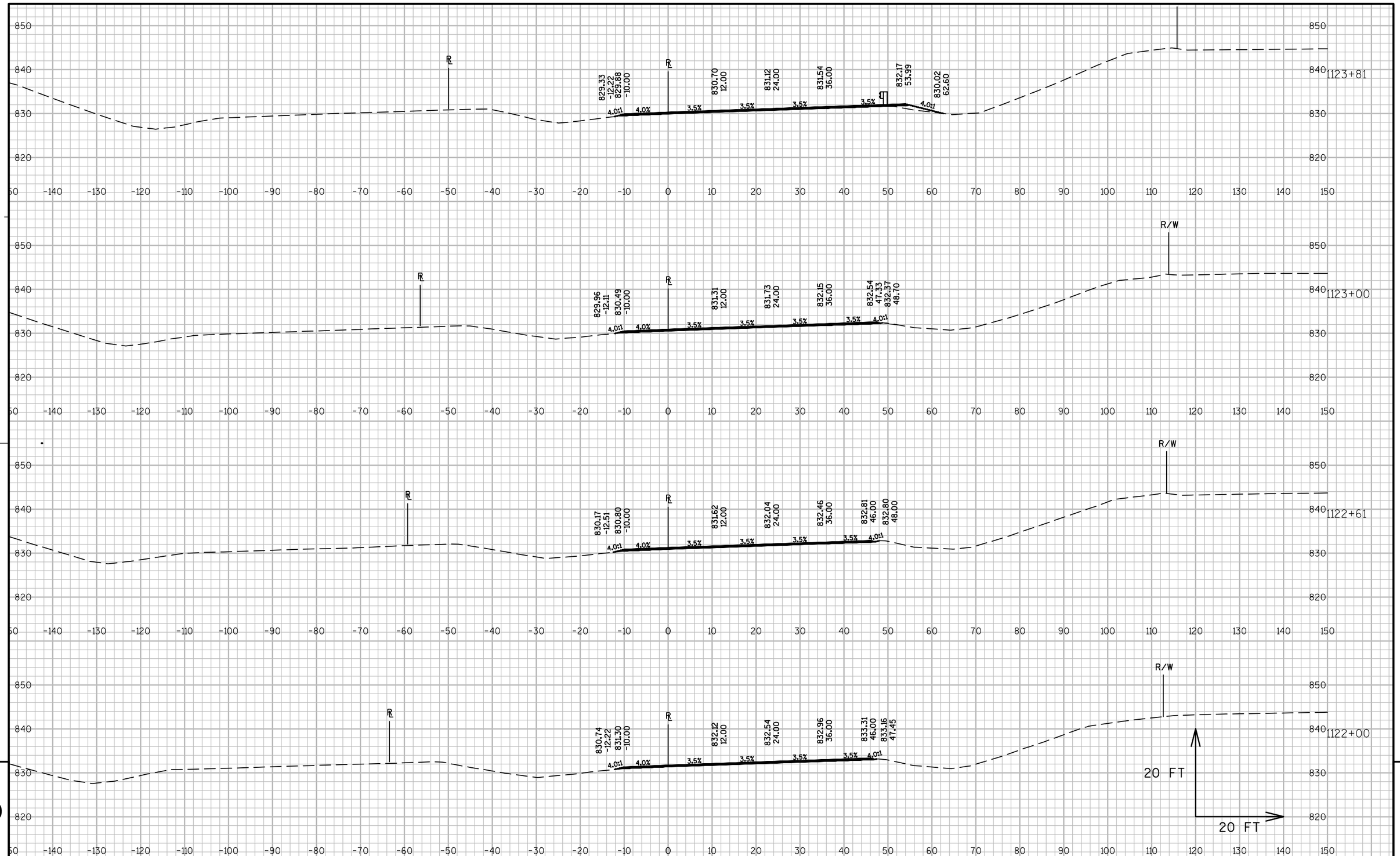
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PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: IH 39 SB	SHEET 510	E

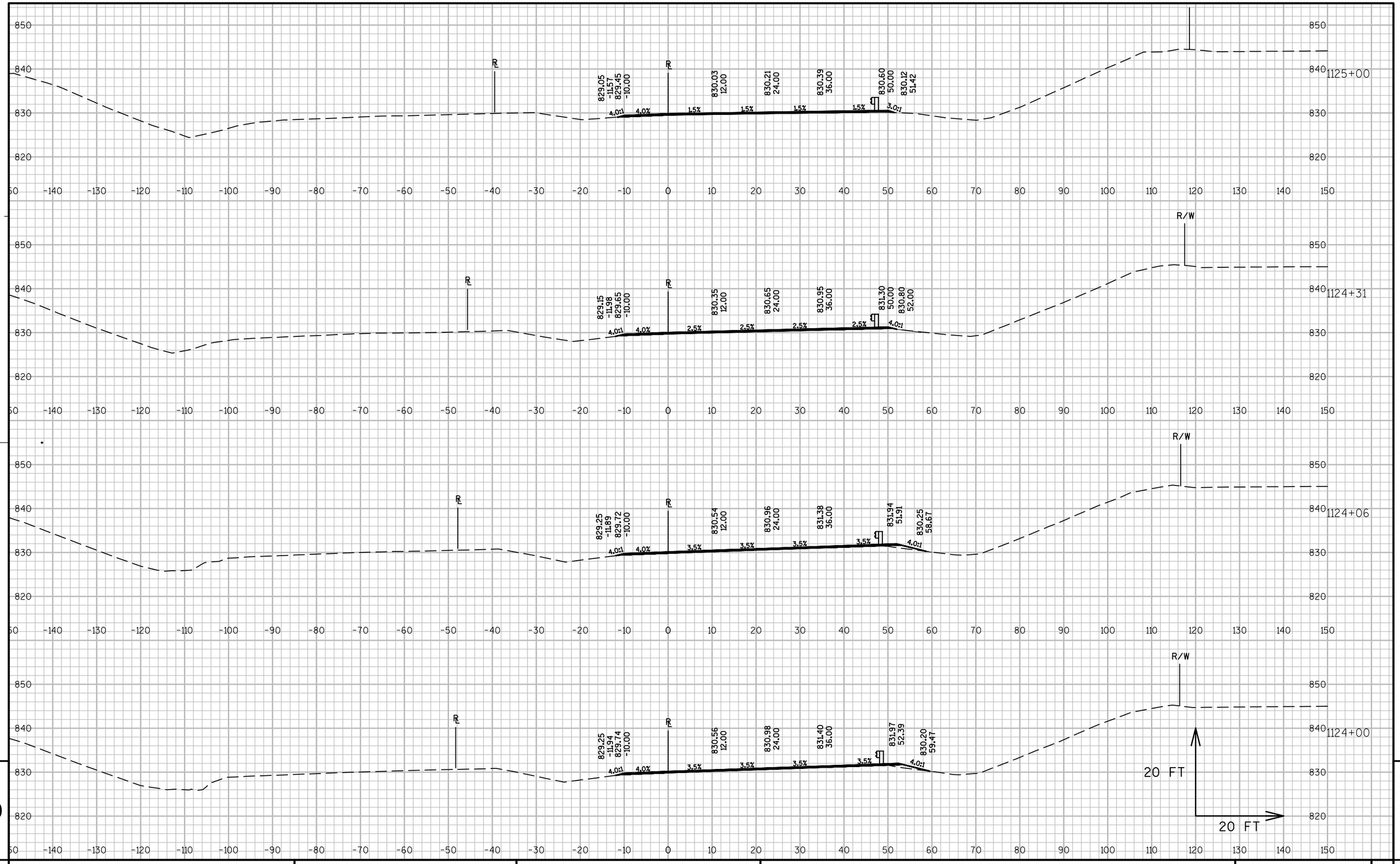
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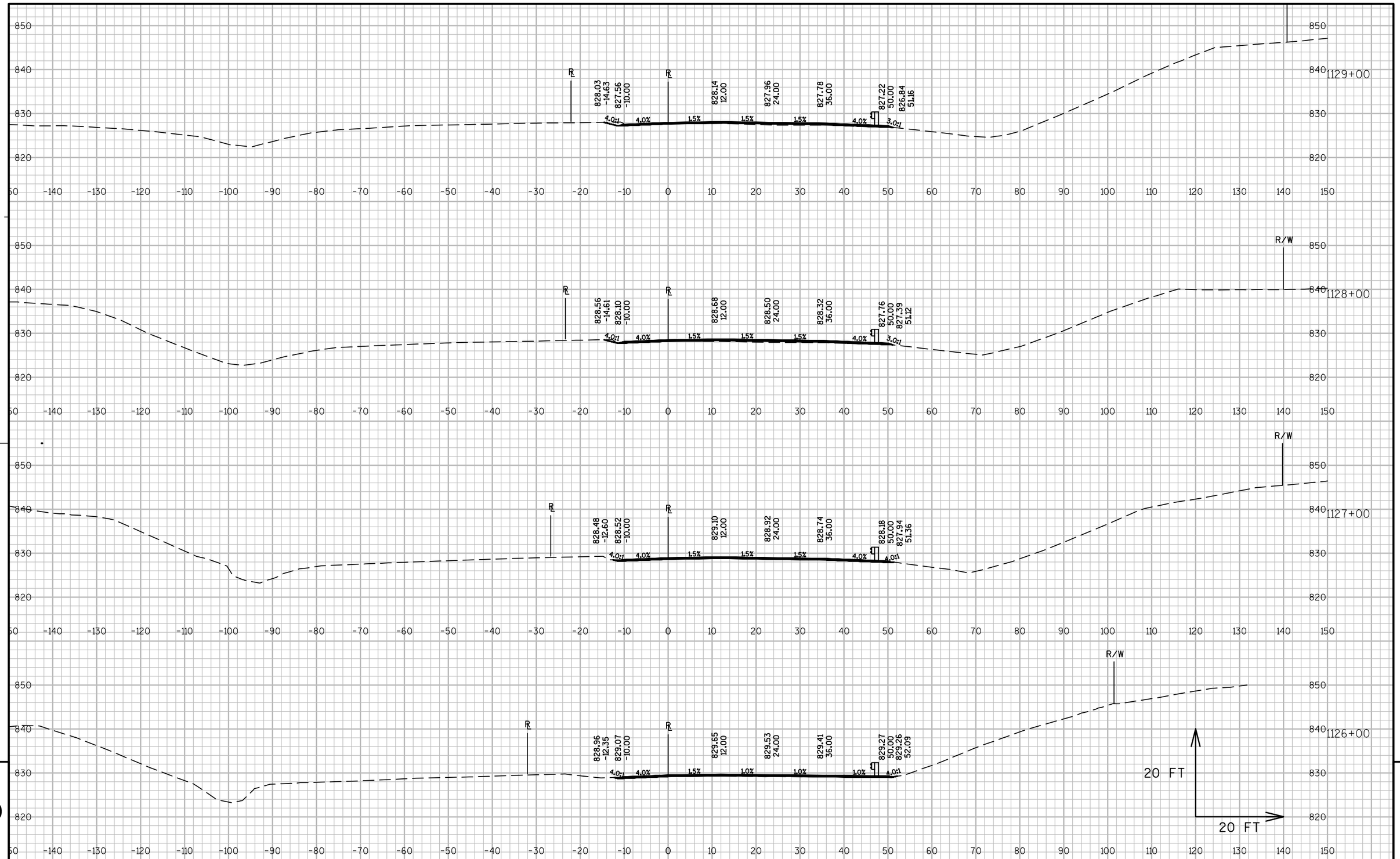
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PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: IH 39 SB	SHEET 512	E

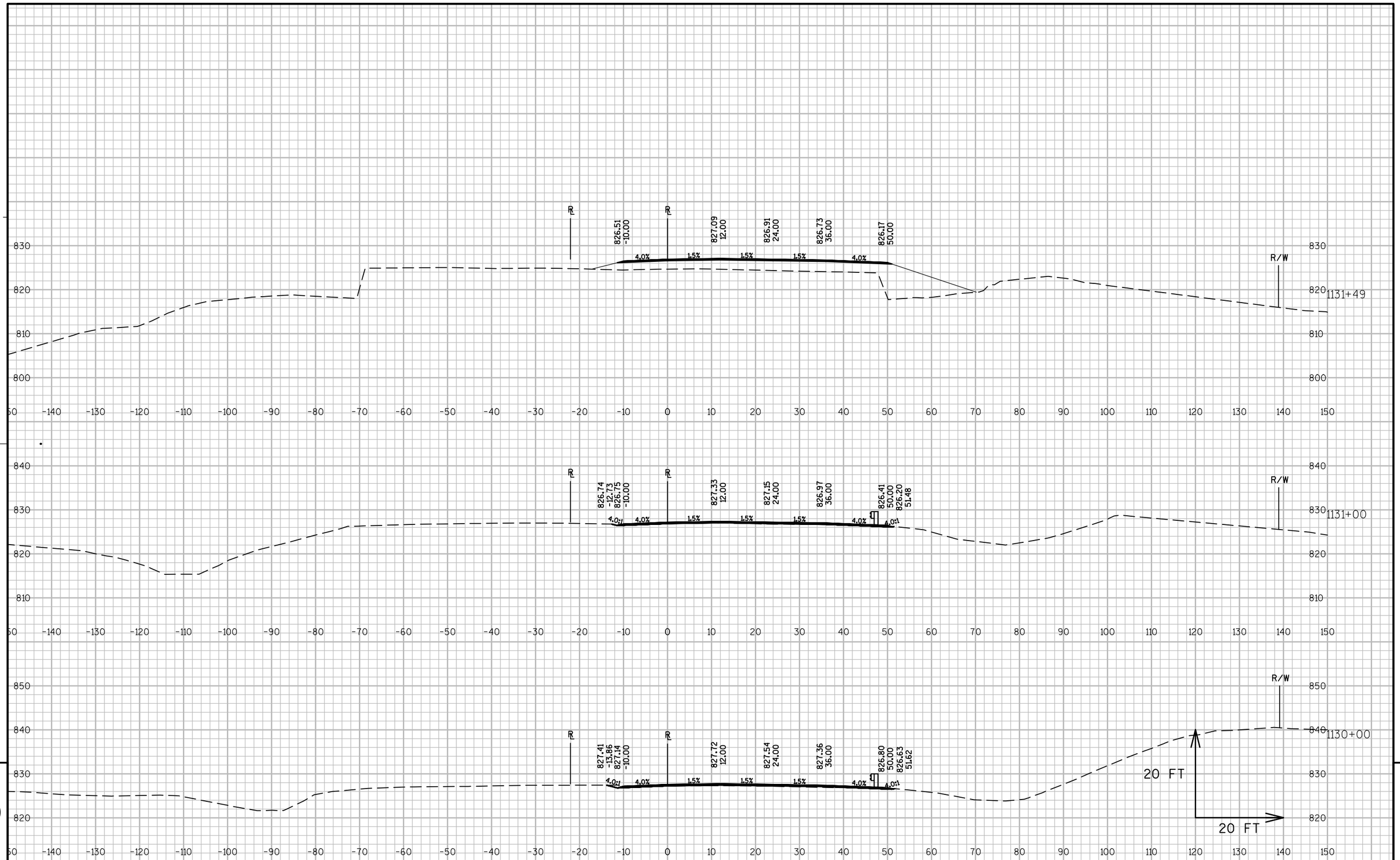
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WISDOT/CADDS SHEET 49



PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: IH 39 SB	SHEET 513	E

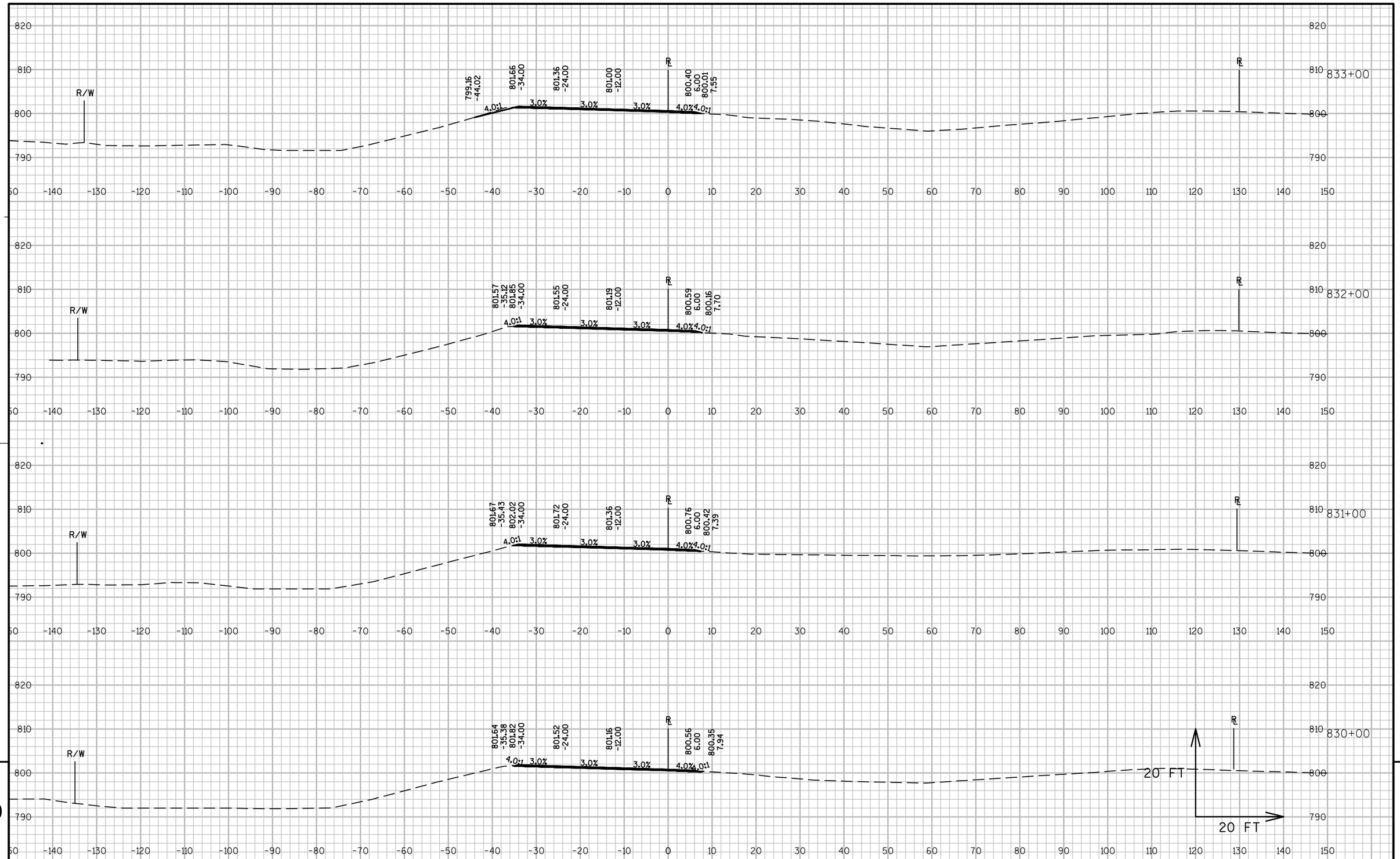
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PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: IH 39 SB	SHEET 514	E

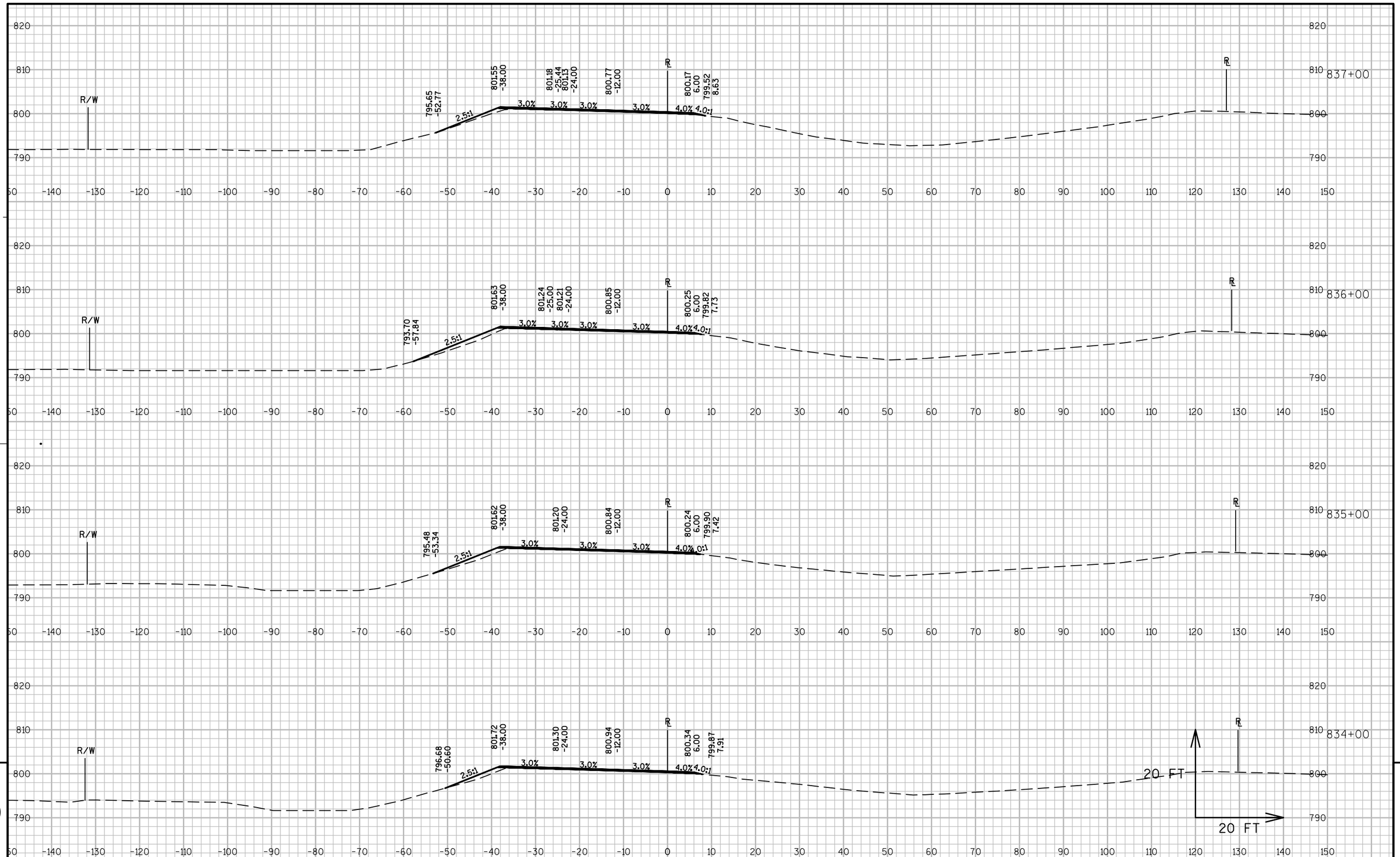
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WISDOT/CADDS SHEET 49



PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: IH 39 NB	SHEET 515	E

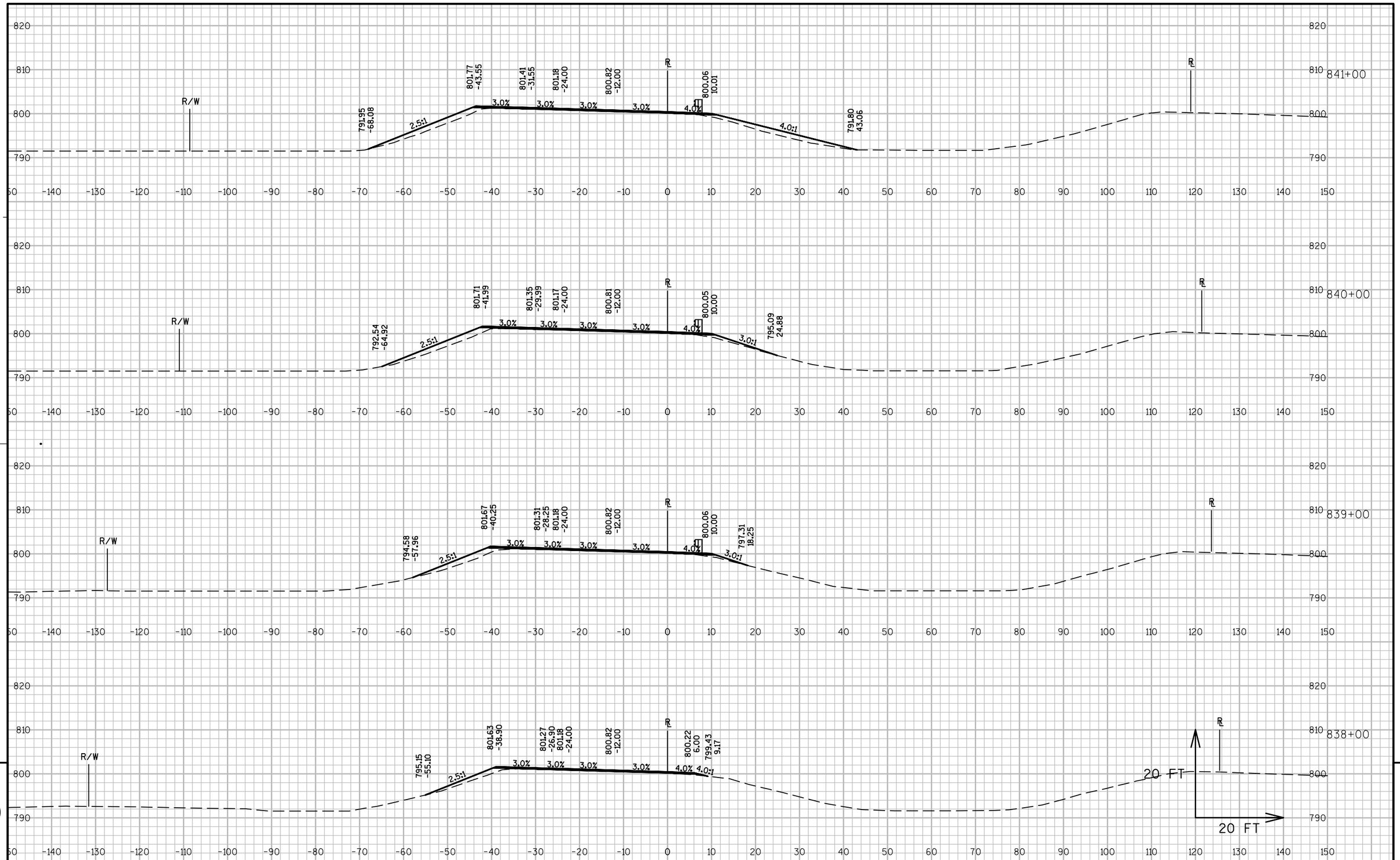
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PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: IH 39 NB	SHEET 516	E

FILE NAME : X:\3230900\131208.01\TECH\CAD\10100202\SHEETSPLAN\CONSTRUCTION PROJECT 1, 1010-02-84\090203_XS.DWG PLOT DATE : 2/10/2016 7:31 AM PLOT BY : DAVID YAHNKE PLOT NAME : PLOT SCALE : 1:20_XREF

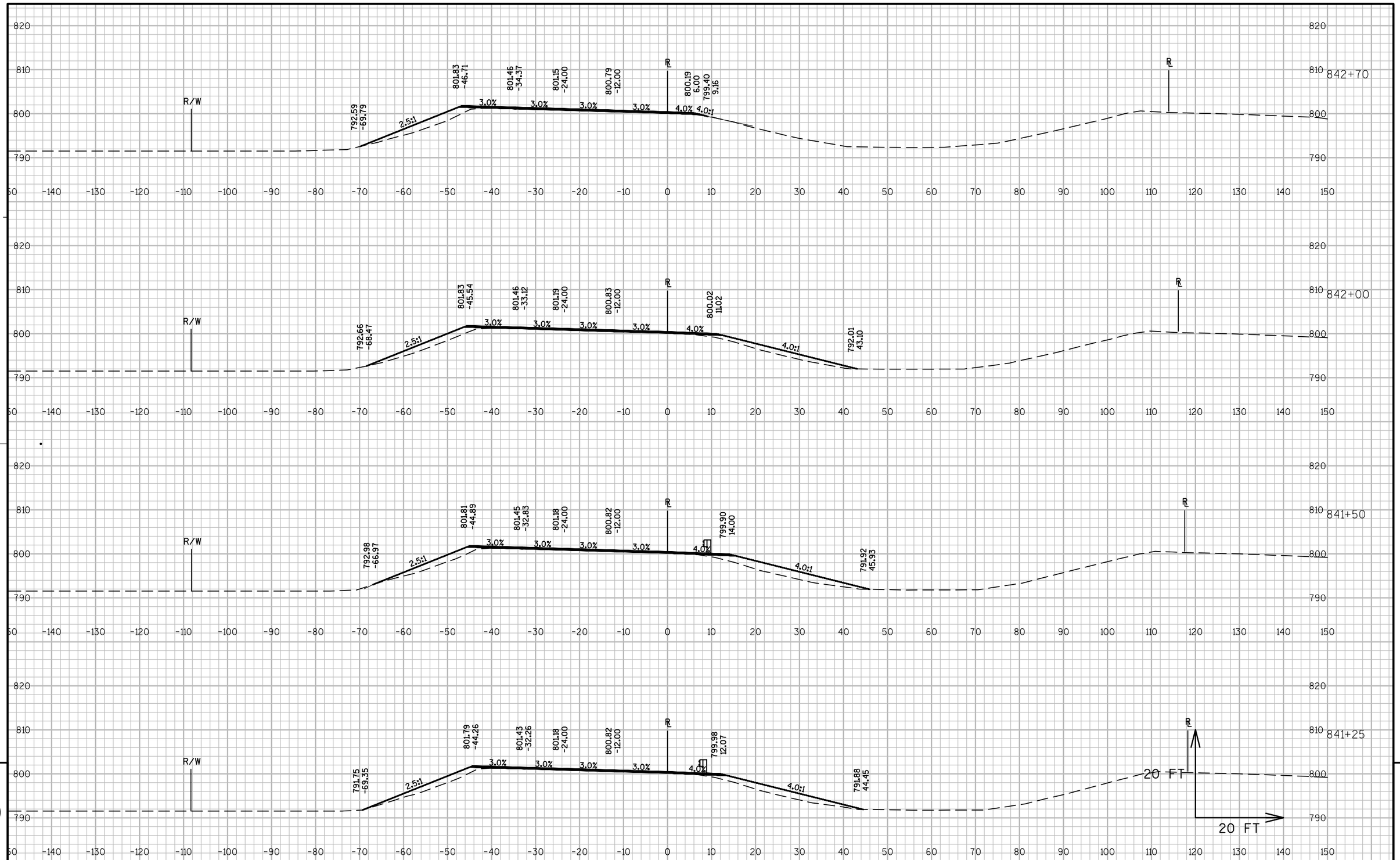
WISDOT/CADDS SHEET 49



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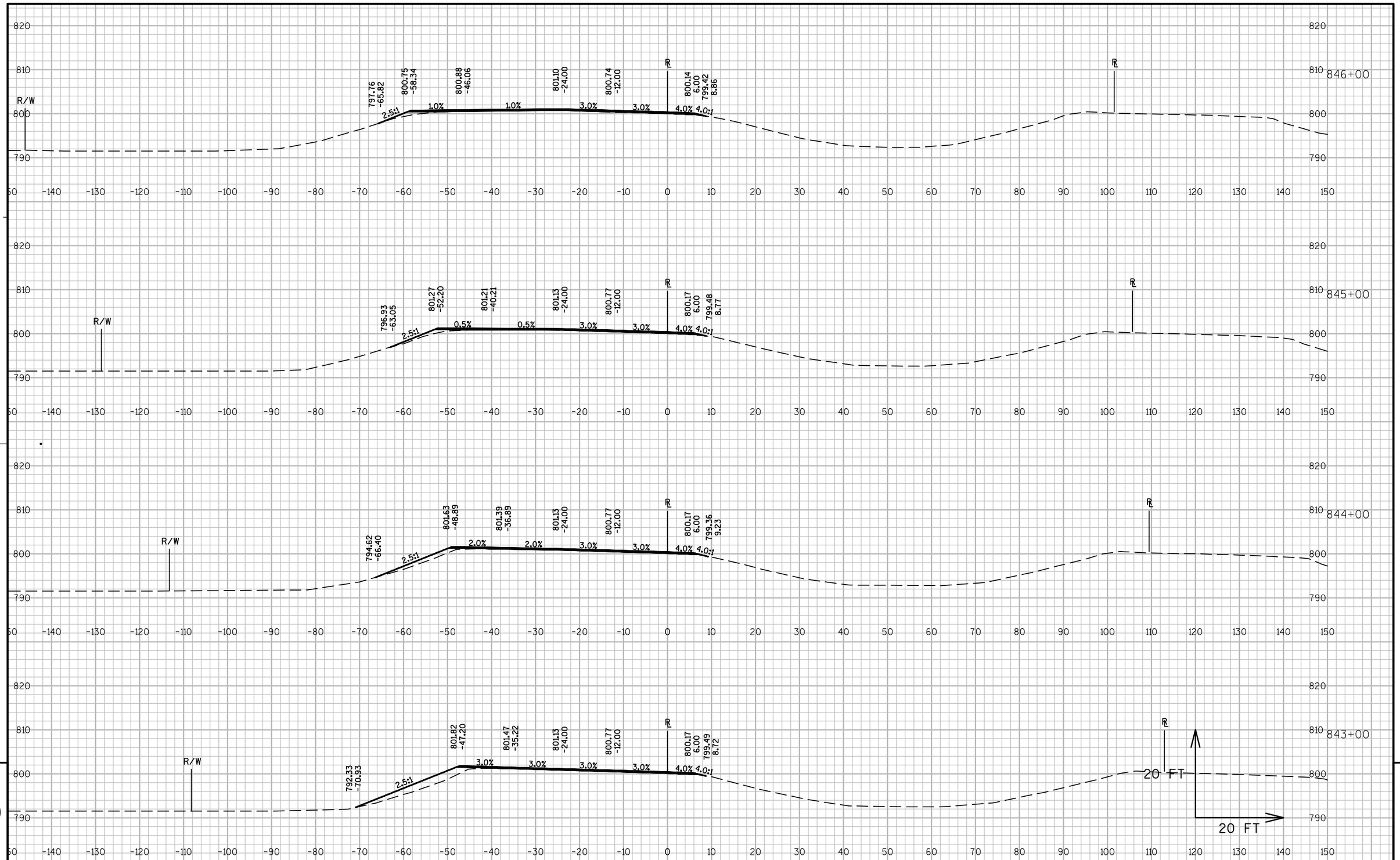
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PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: IH 39 NB	SHEET 518	E

FILE NAME : X:\3230900\131208.01\TECH\CAD\10100202\SHEETSPLAN\CONSTRUCTION PROJECT 1, 1010-02-84\090203_XS.DWG PLOT DATE : 2/10/2016 7:33 AM PLOT BY : DAVID YAHNKE PLOT NAME : PLOT SCALE : 1:20_XREF

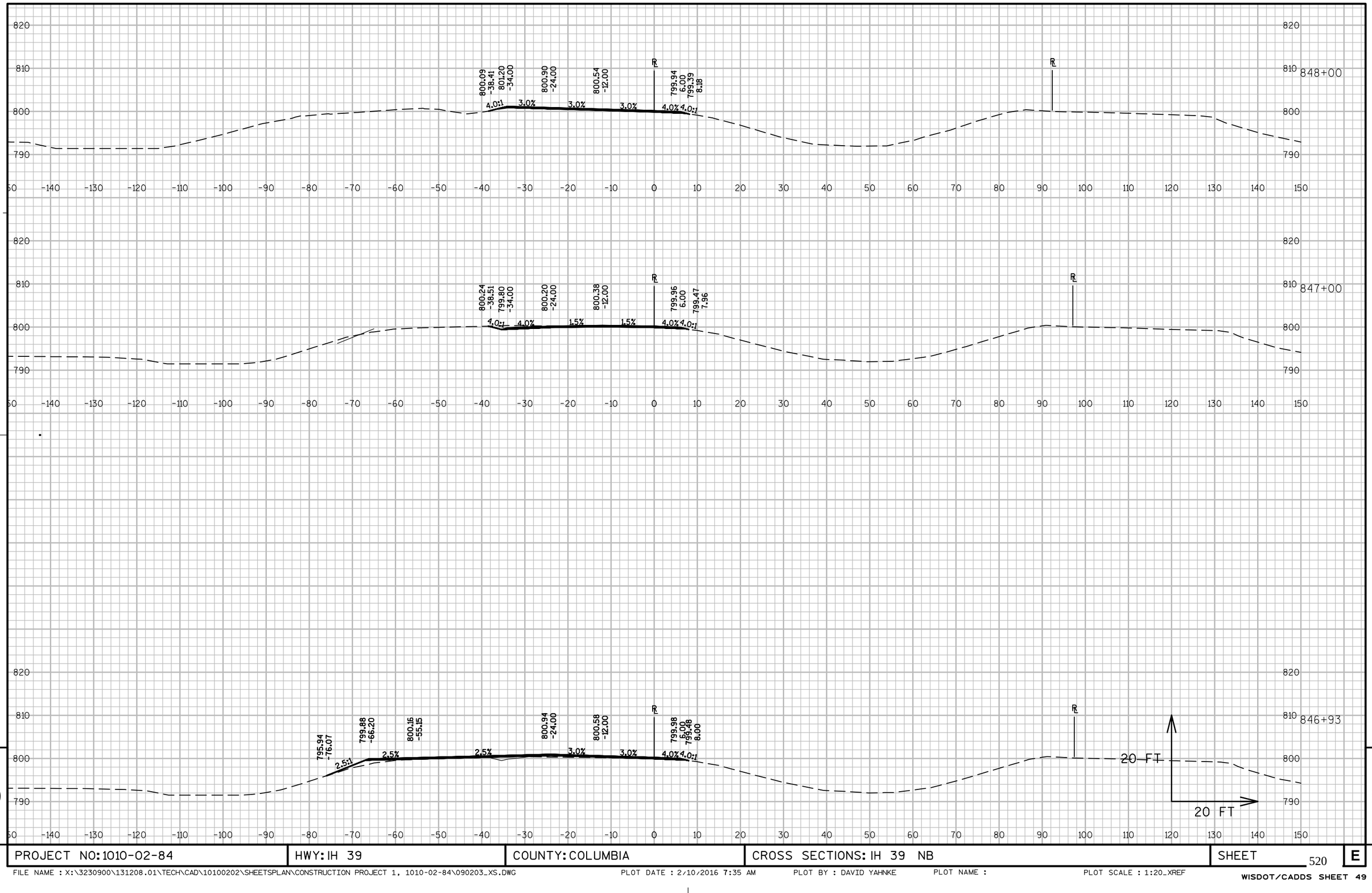
WISDOT/CADDS SHEET 49



PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: IH 39 NB	SHEET 519	E

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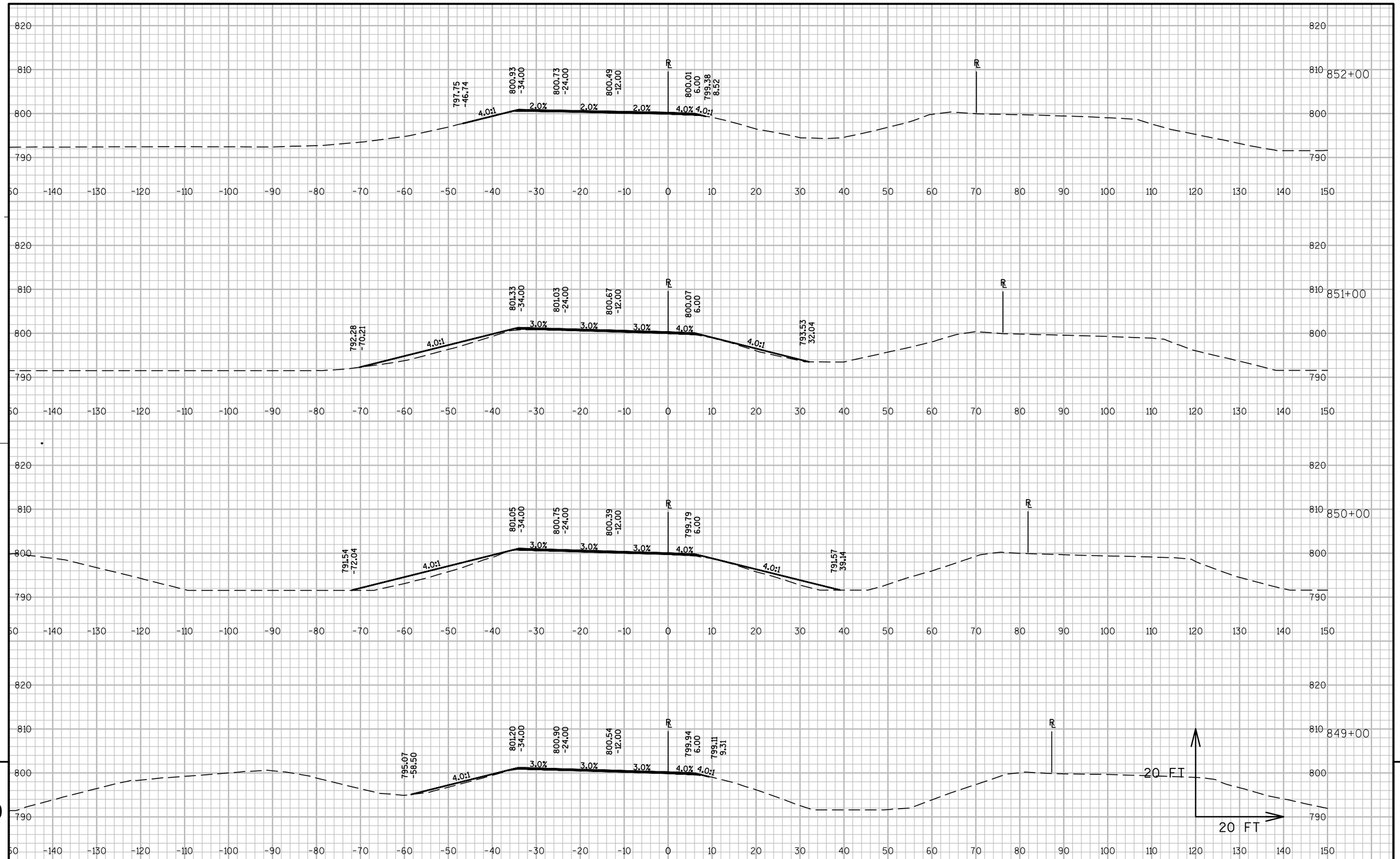
WISDOT/CADDS SHEET 49



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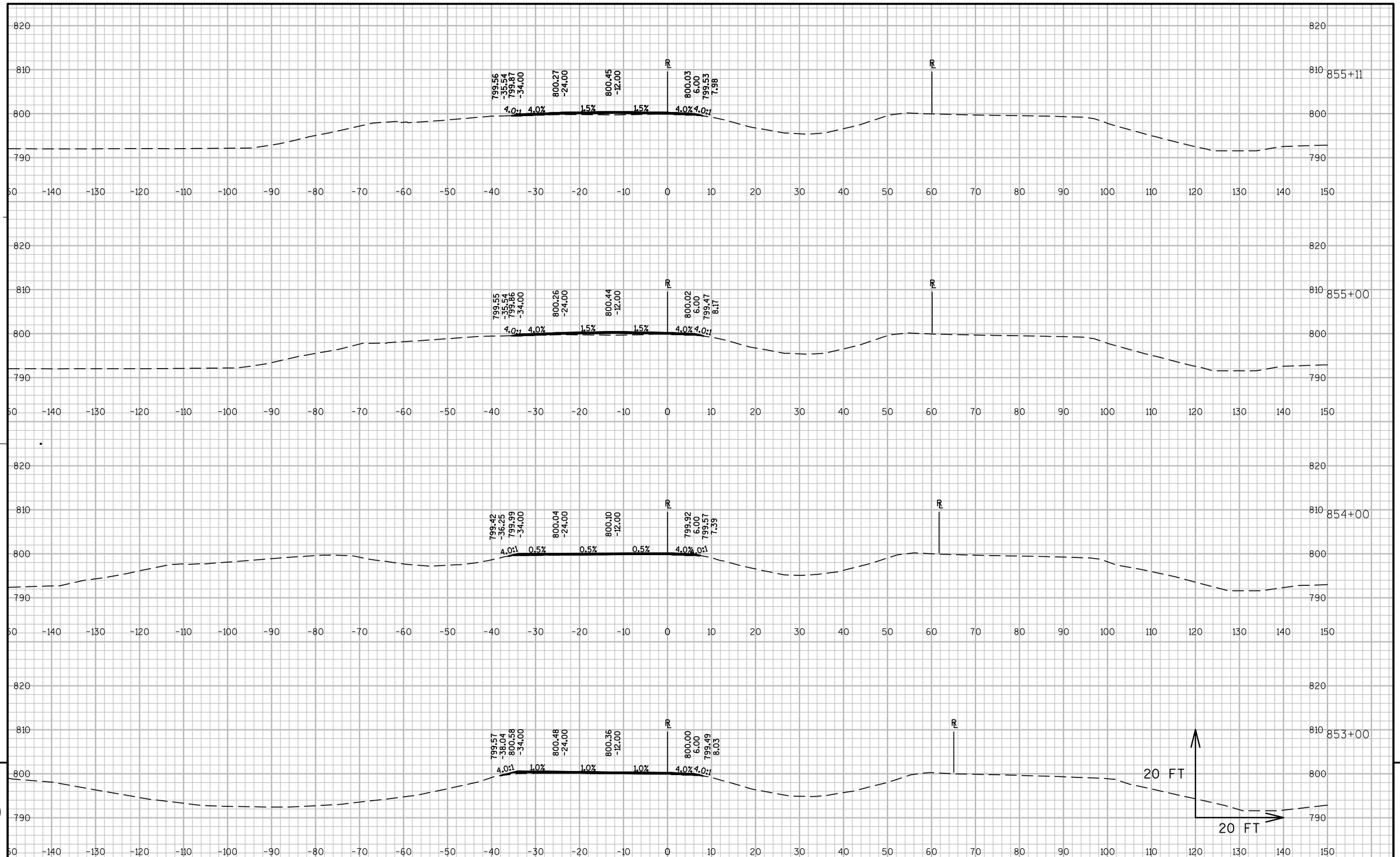
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PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: IH 39 NB	SHEET 521	E

FILE NAME : X:\3230900\131208.01\TECH\CAD\10100202\SHEETSPLAN\CONSTRUCTION PROJECT 1, 1010-02-84\090203_XS.DWG PLOT DATE : 2/10/2016 7:36 AM PLOT BY : DAVID YAHNKE PLOT NAME : PLOT SCALE : 1:20_XREF

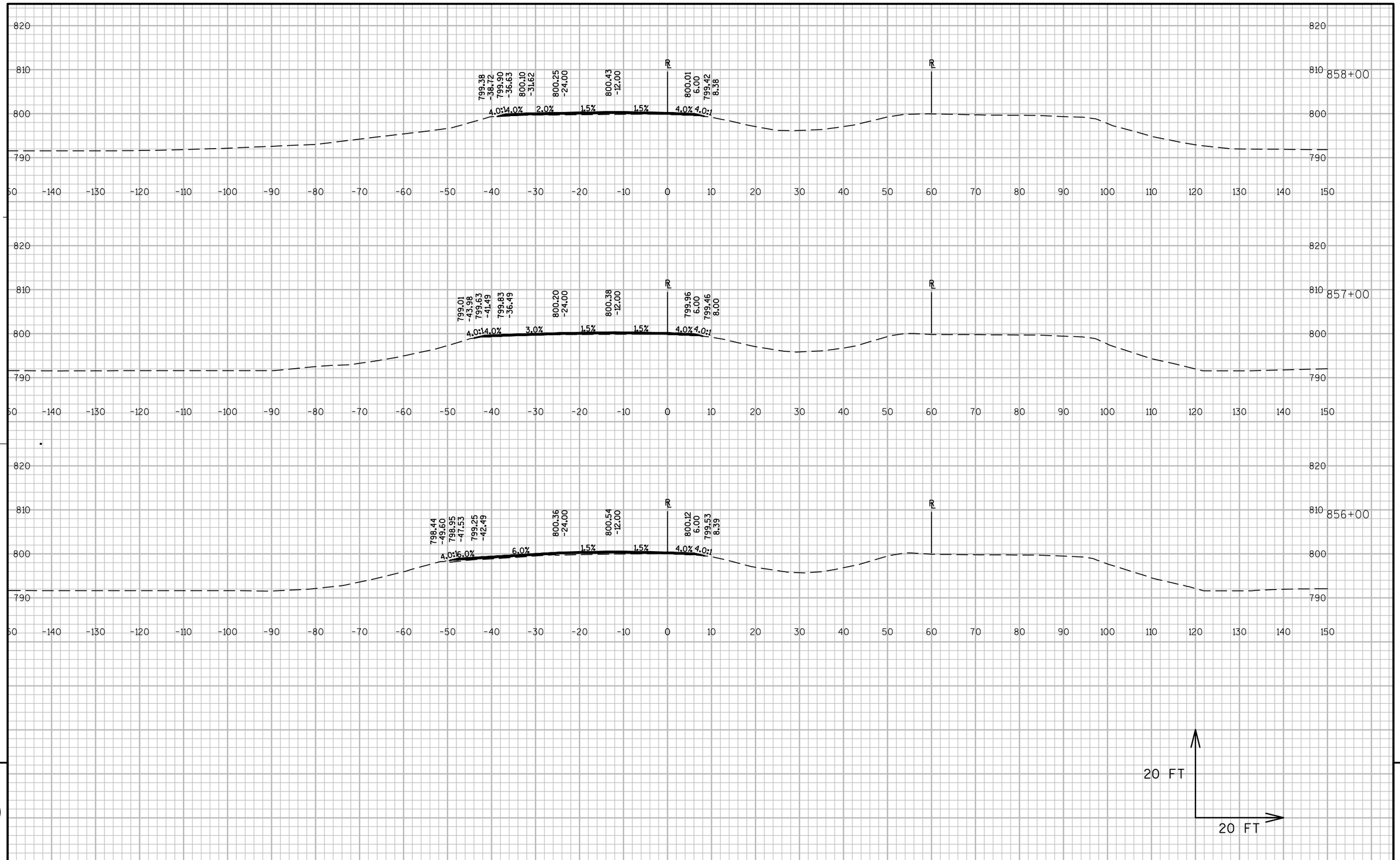
WISDOT/CADDS SHEET 49



PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: IH 39 NB	SHEET 522	E

FILE NAME : X:\3230900\131208.01\TECH\CAD\10100202\SHEETSPLAN\CONSTRUCTION PROJECT 1, 1010-02-84\090203_XS.DWG PLOT DATE : 2/10/2016 7:37 AM PLOT BY : DAVID YAHNKE PLOT NAME : PLOT SCALE : 1:20_XREF

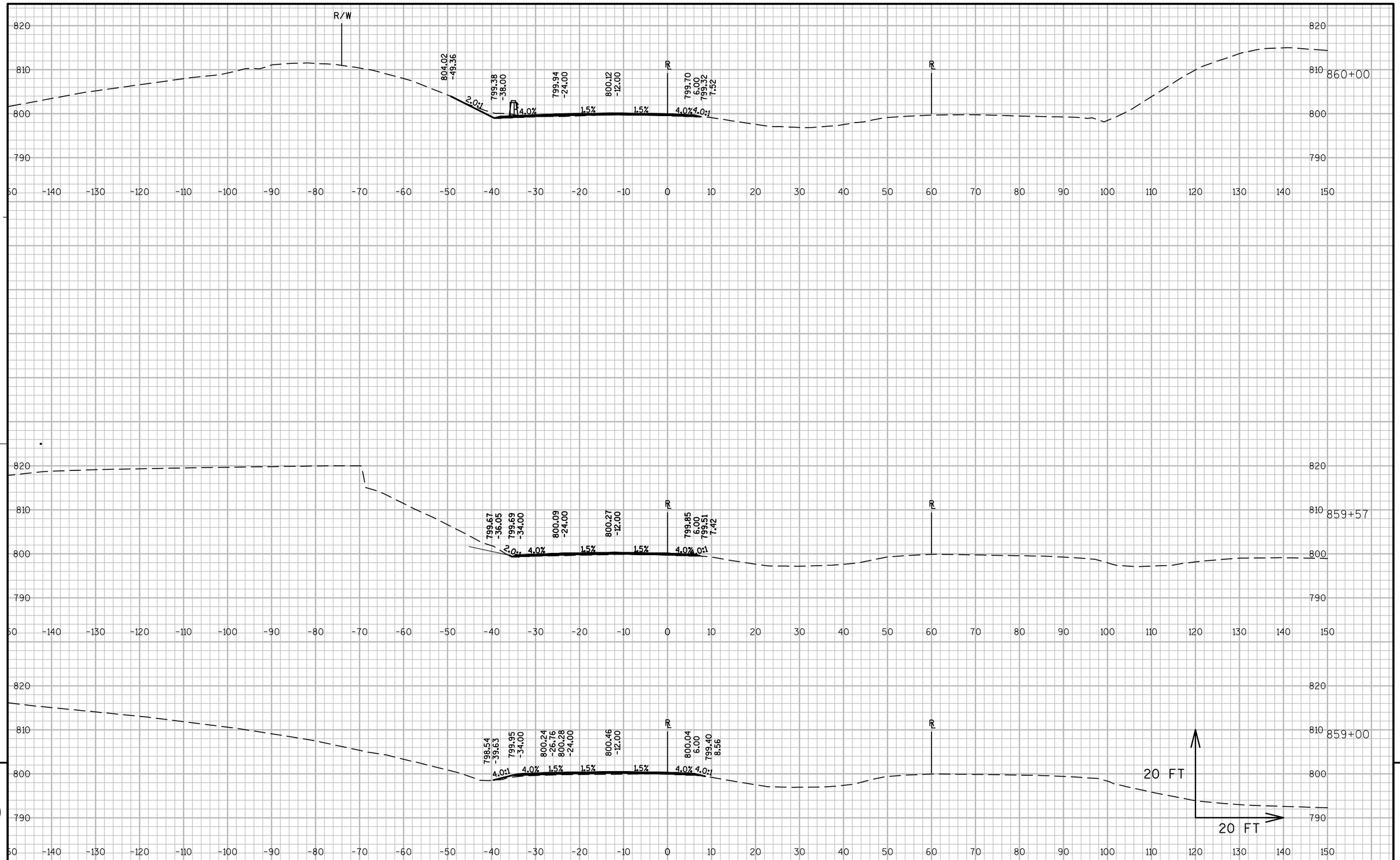
WISDOT/CADDS SHEET 49



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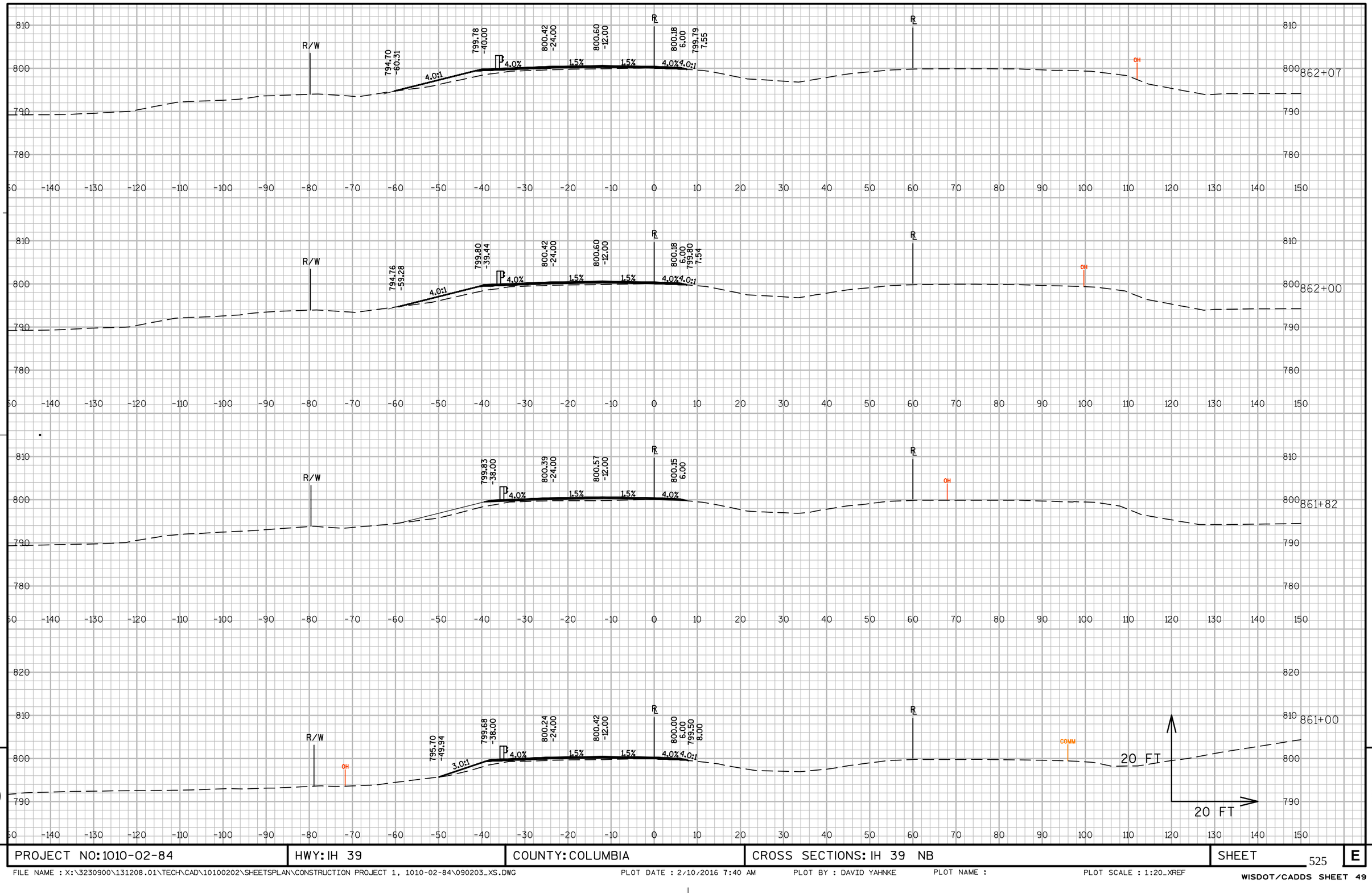
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PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: IH 39 NB	SHEET 523	E



PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: IH 39 NB	SHEET 524	E

FILE NAME : X:\3230900\131208.01\TECH\CAD\10100202\SHEETSPLAN\CONSTRUCTION PROJECT 1, 1010-02-84\090203_XS.DWG PLOT DATE : 2/10/2016 7:39 AM PLOT BY : DAVID YAHNKE PLOT NAME : PLOT SCALE : 1:20_XREF



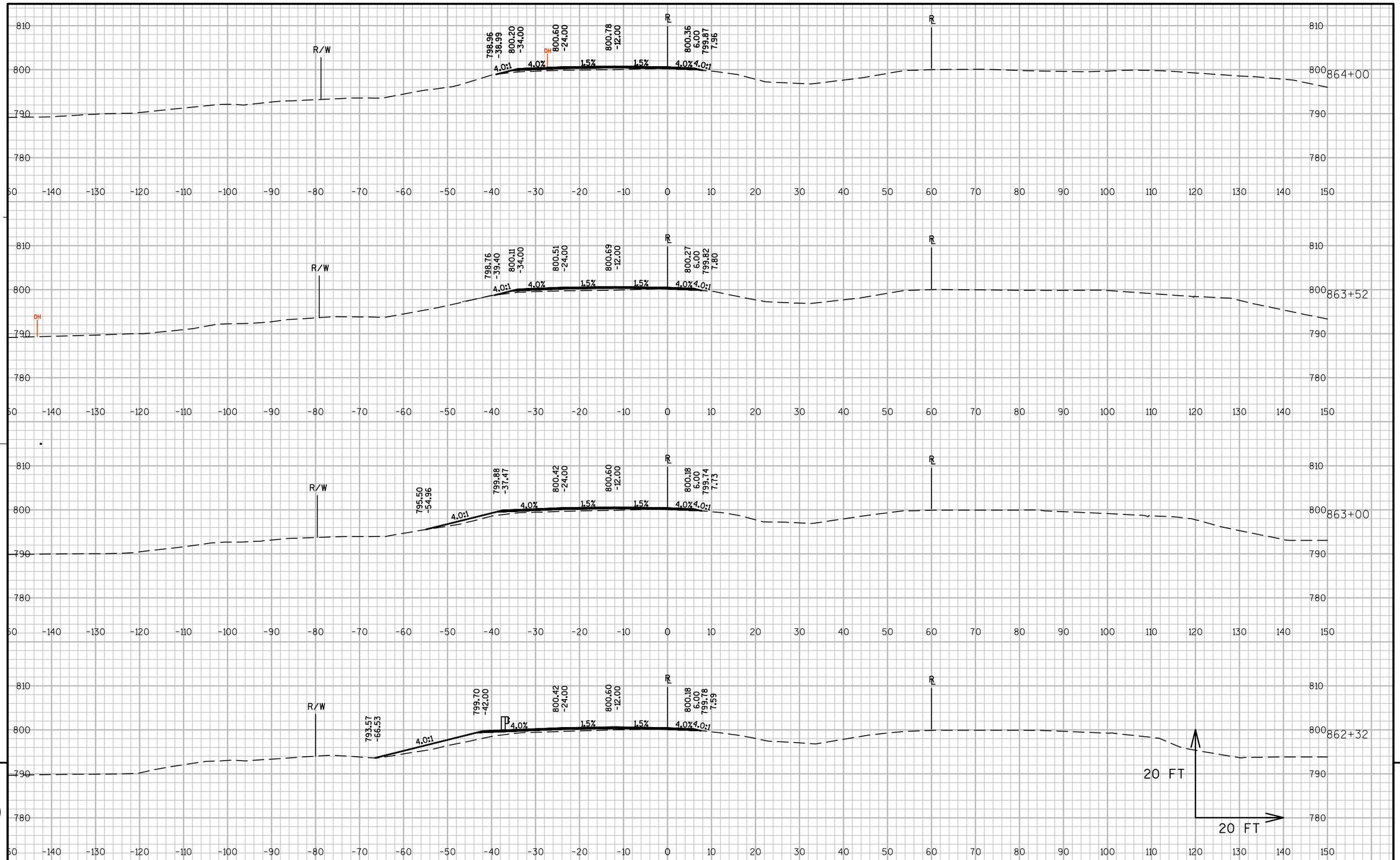
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PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: IH 39 NB	SHEET 525	E

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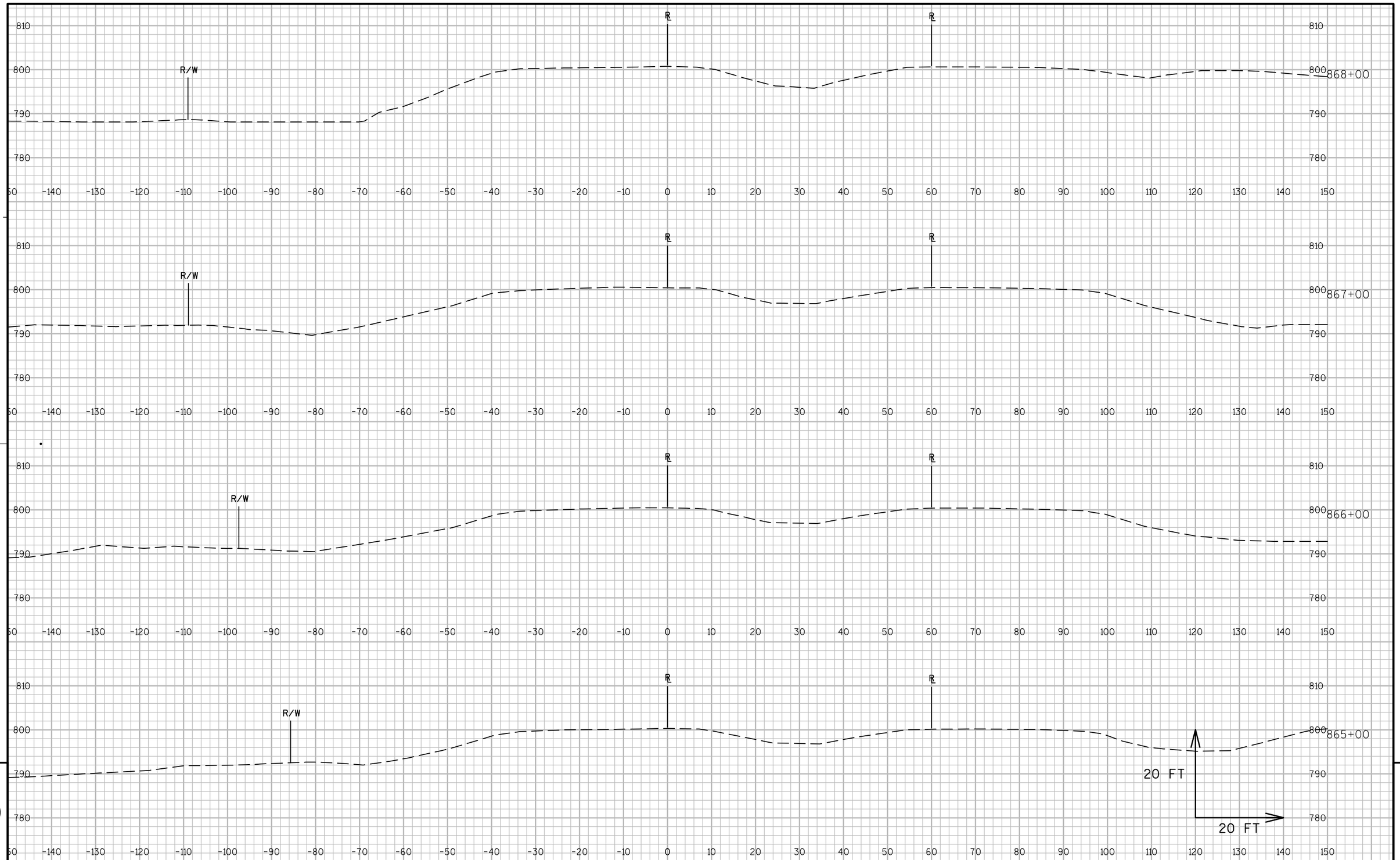
WISDOT/CADDS SHEET 49



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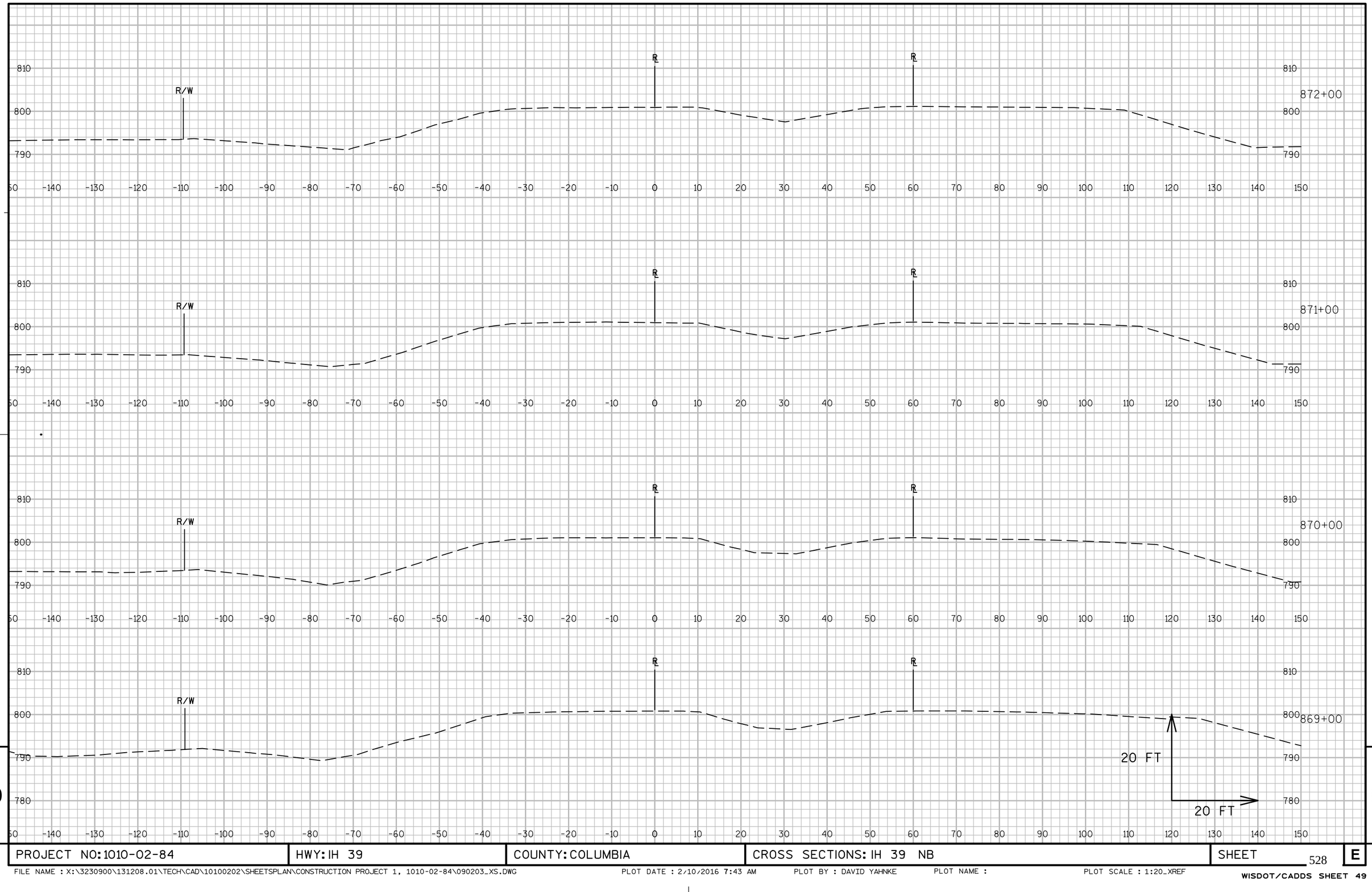
PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: IH 39 NB	SHEET 526	E



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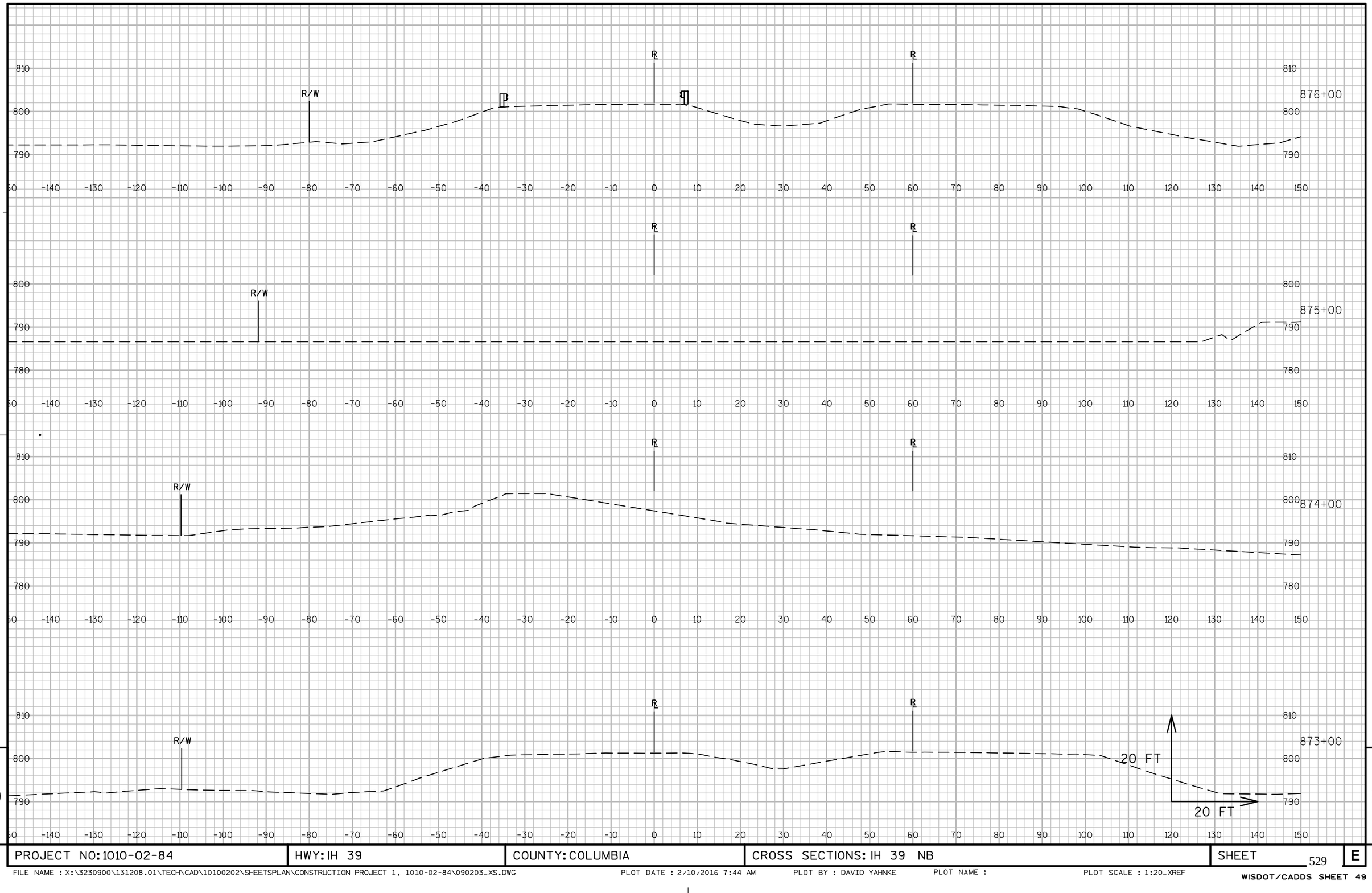
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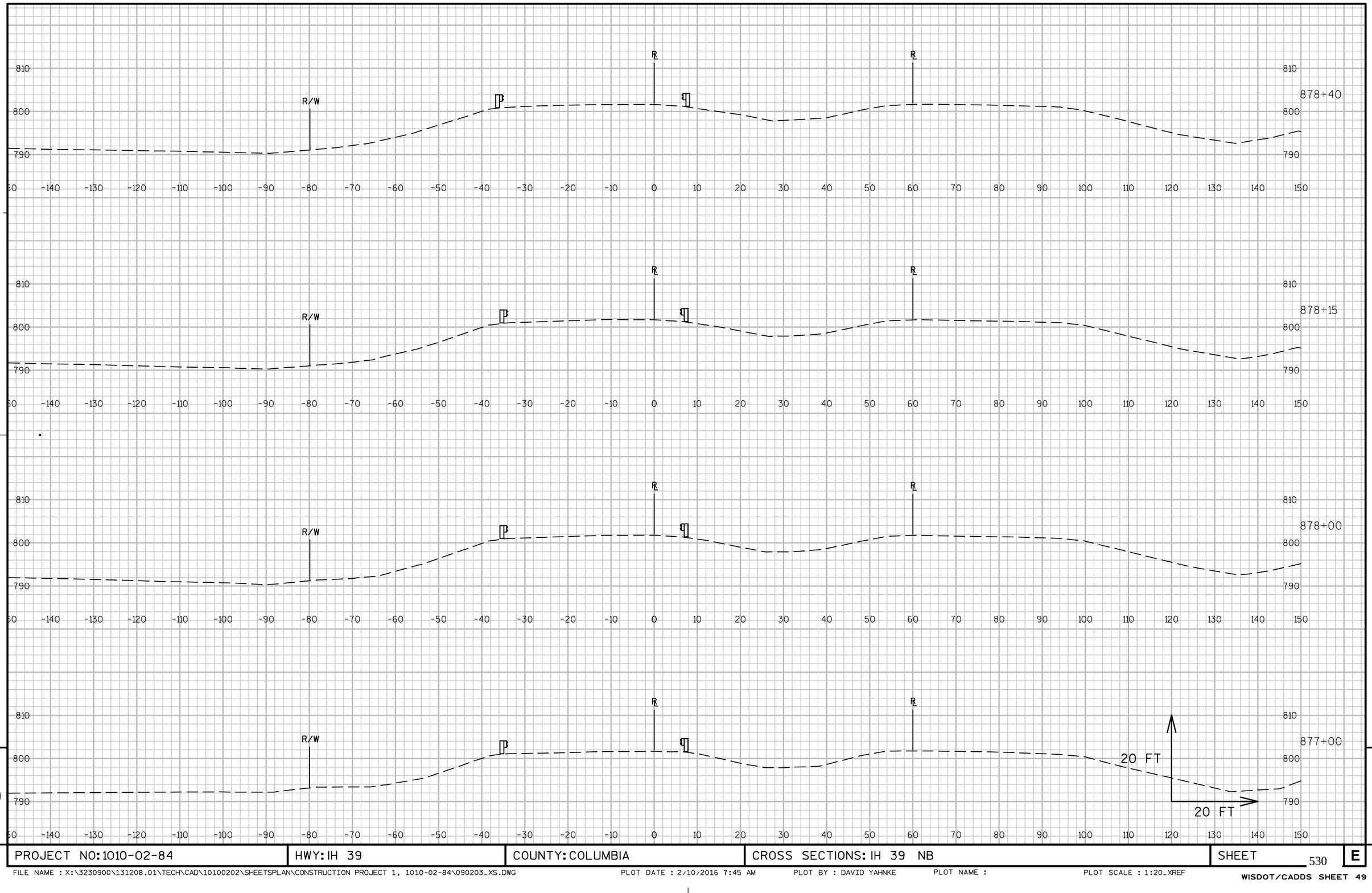
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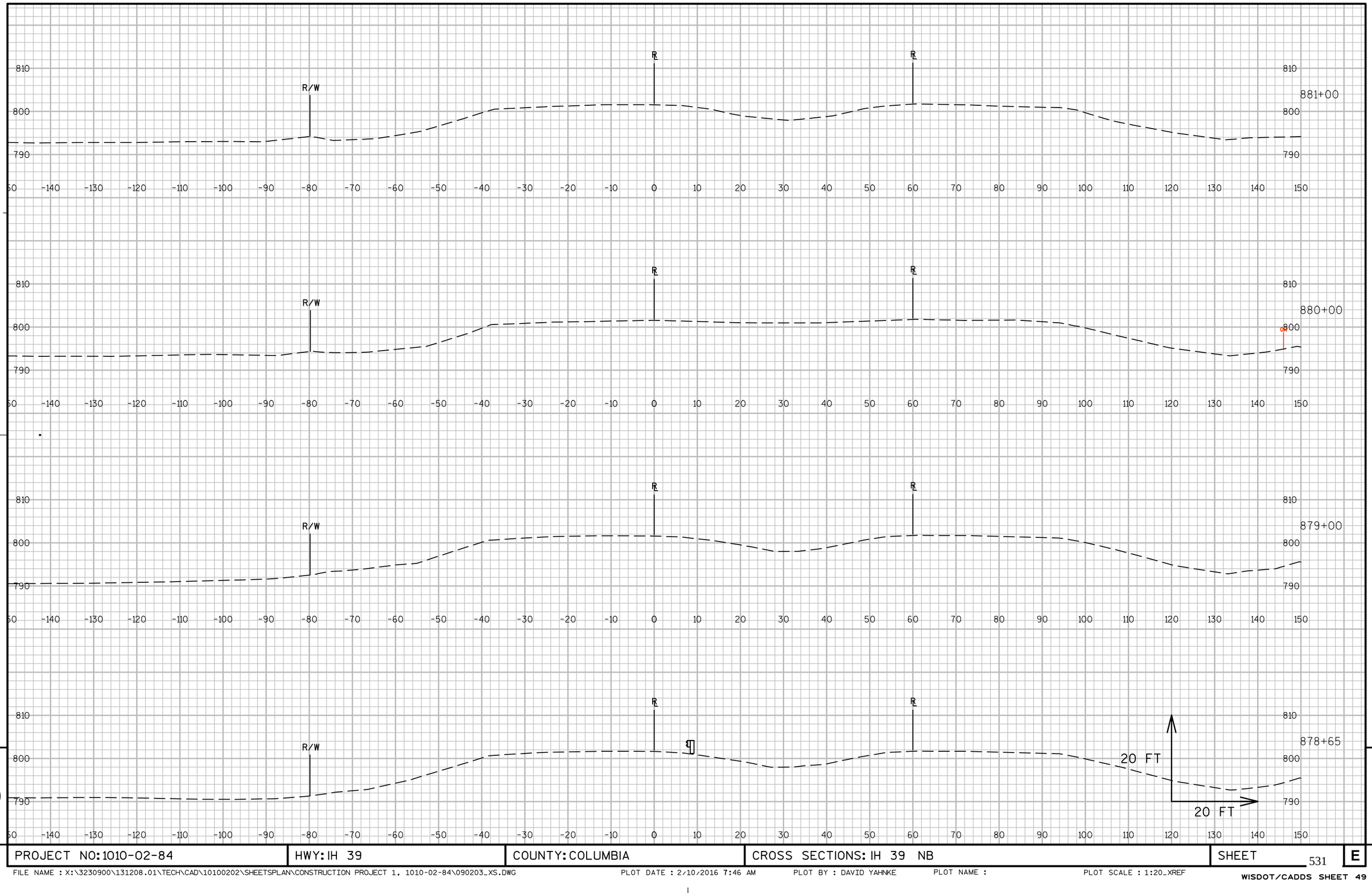
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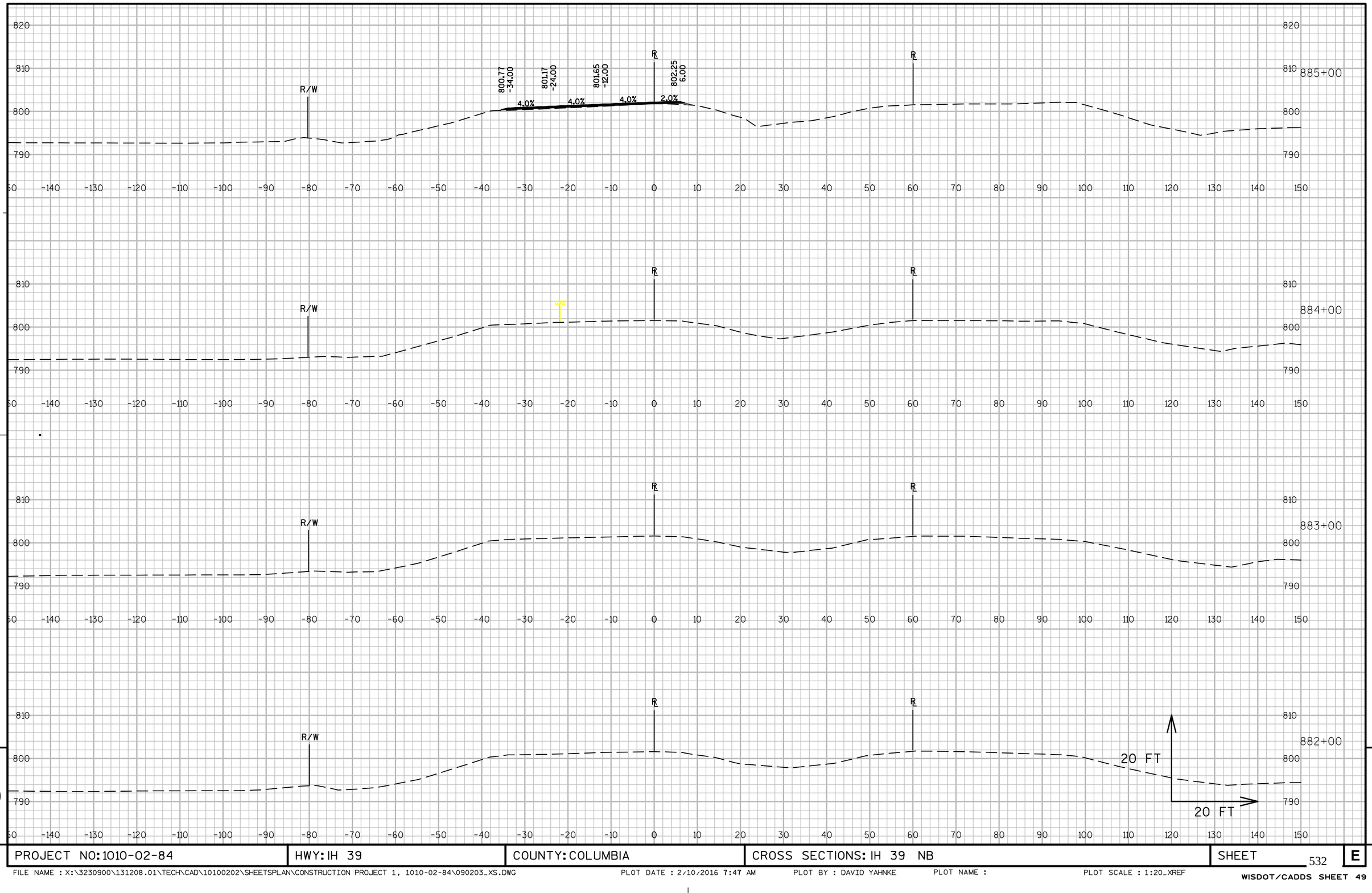
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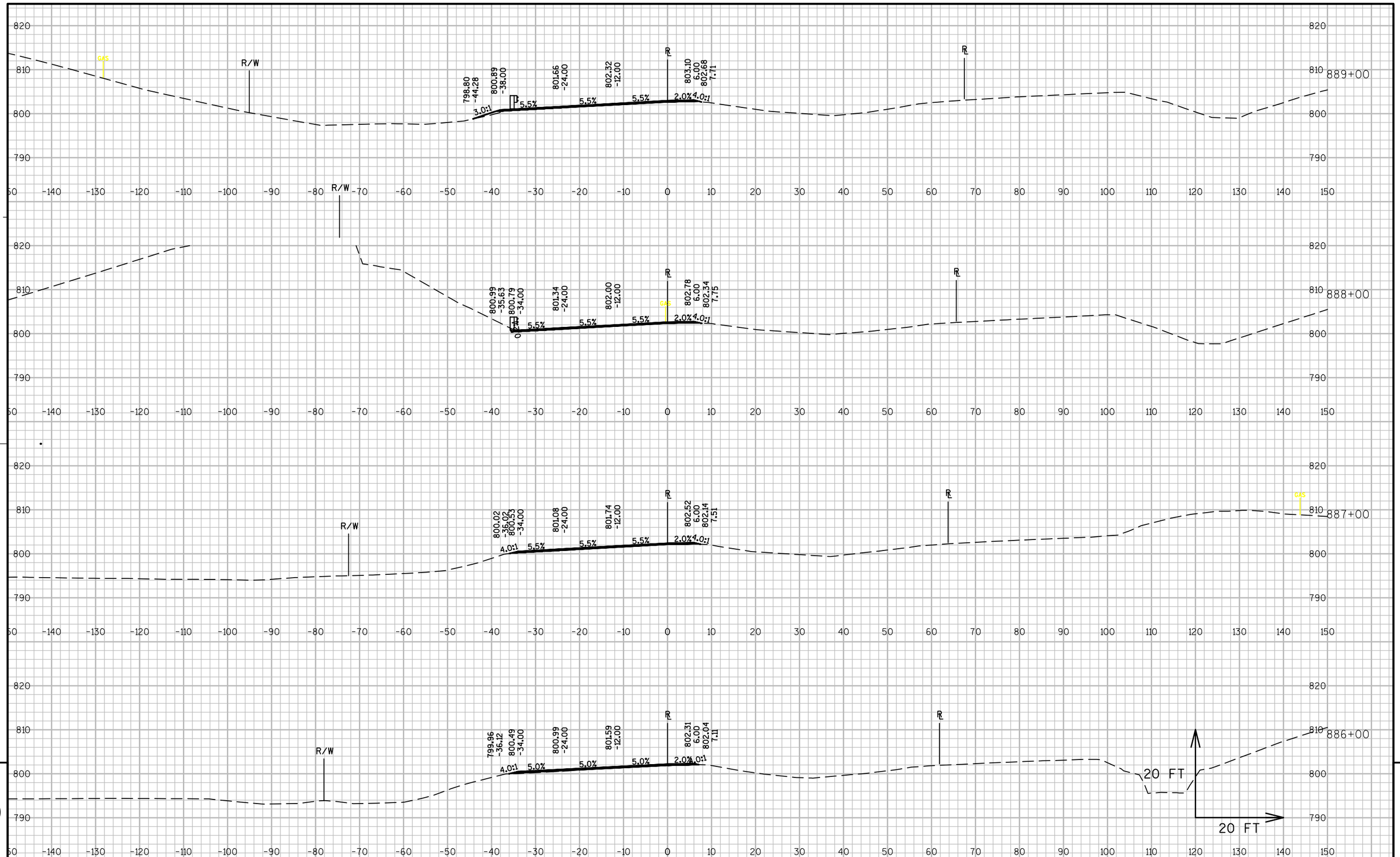
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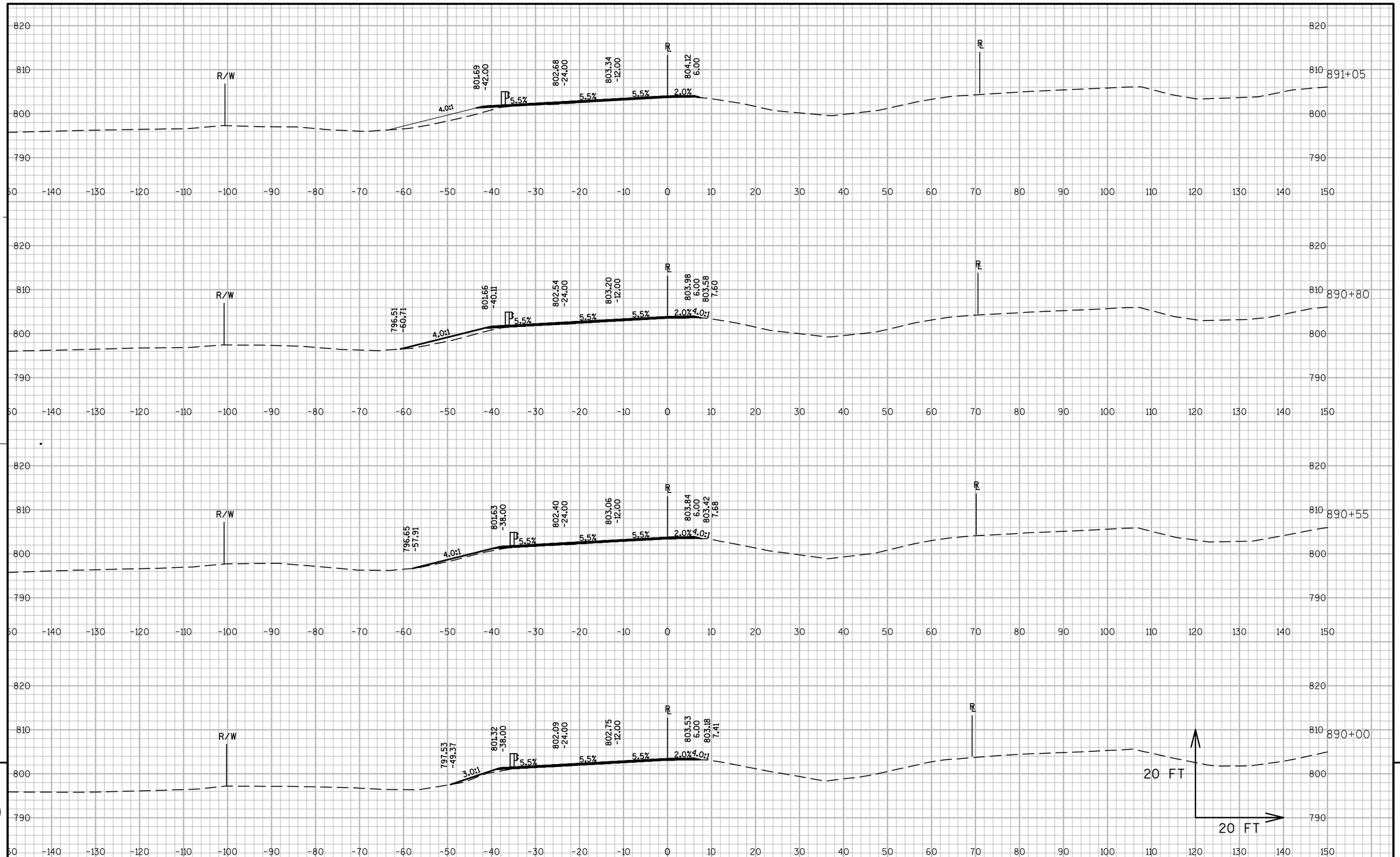
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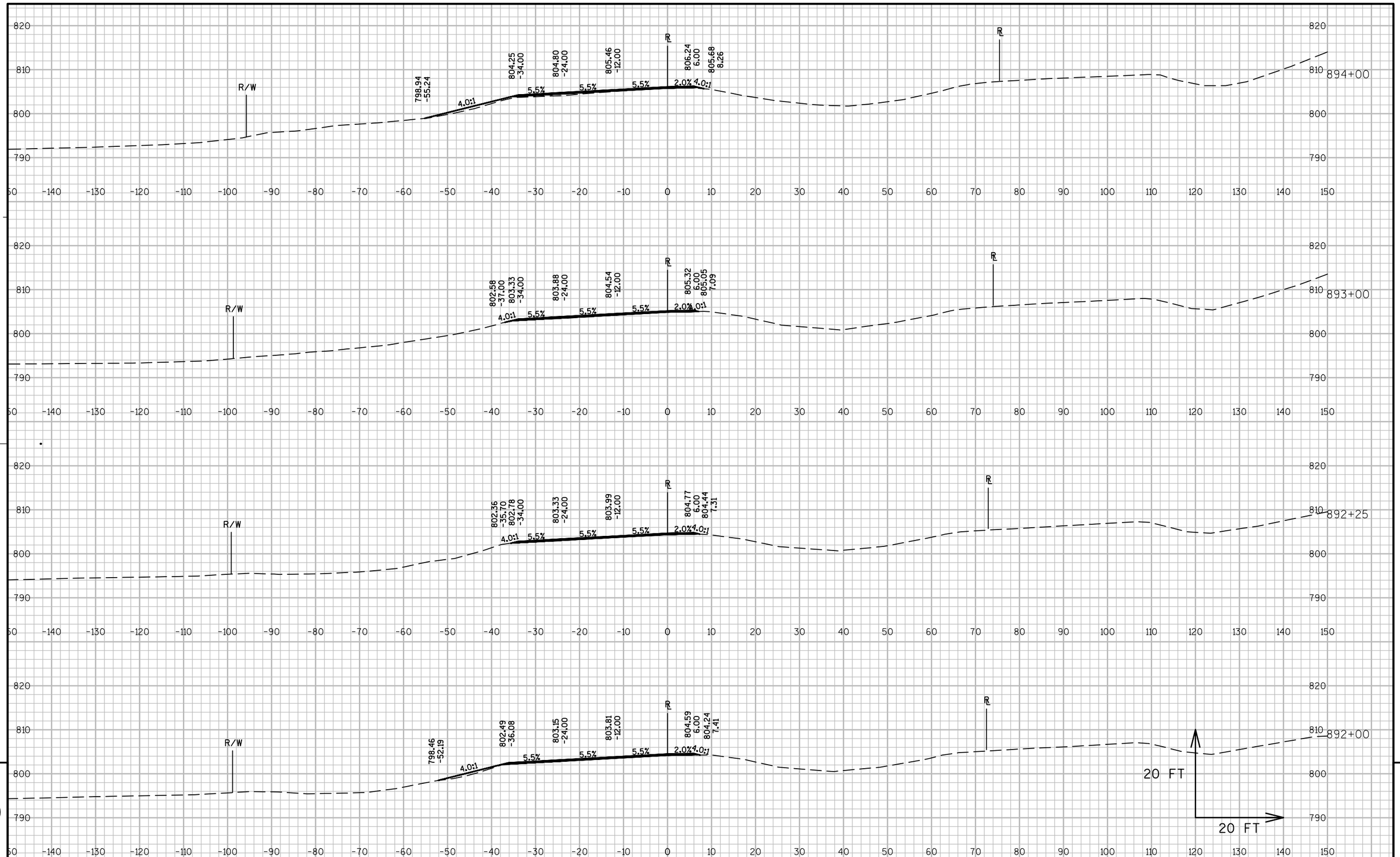
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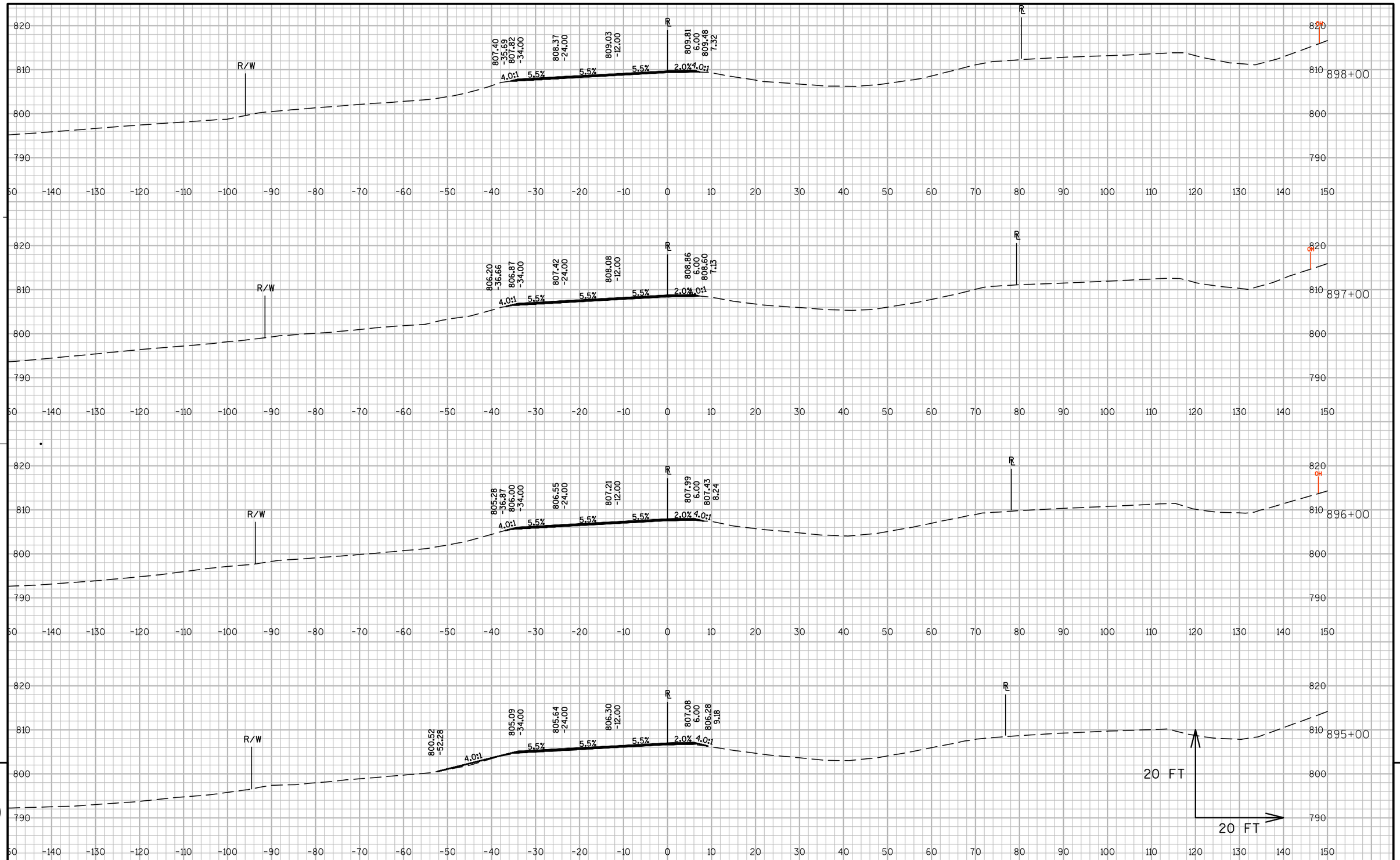
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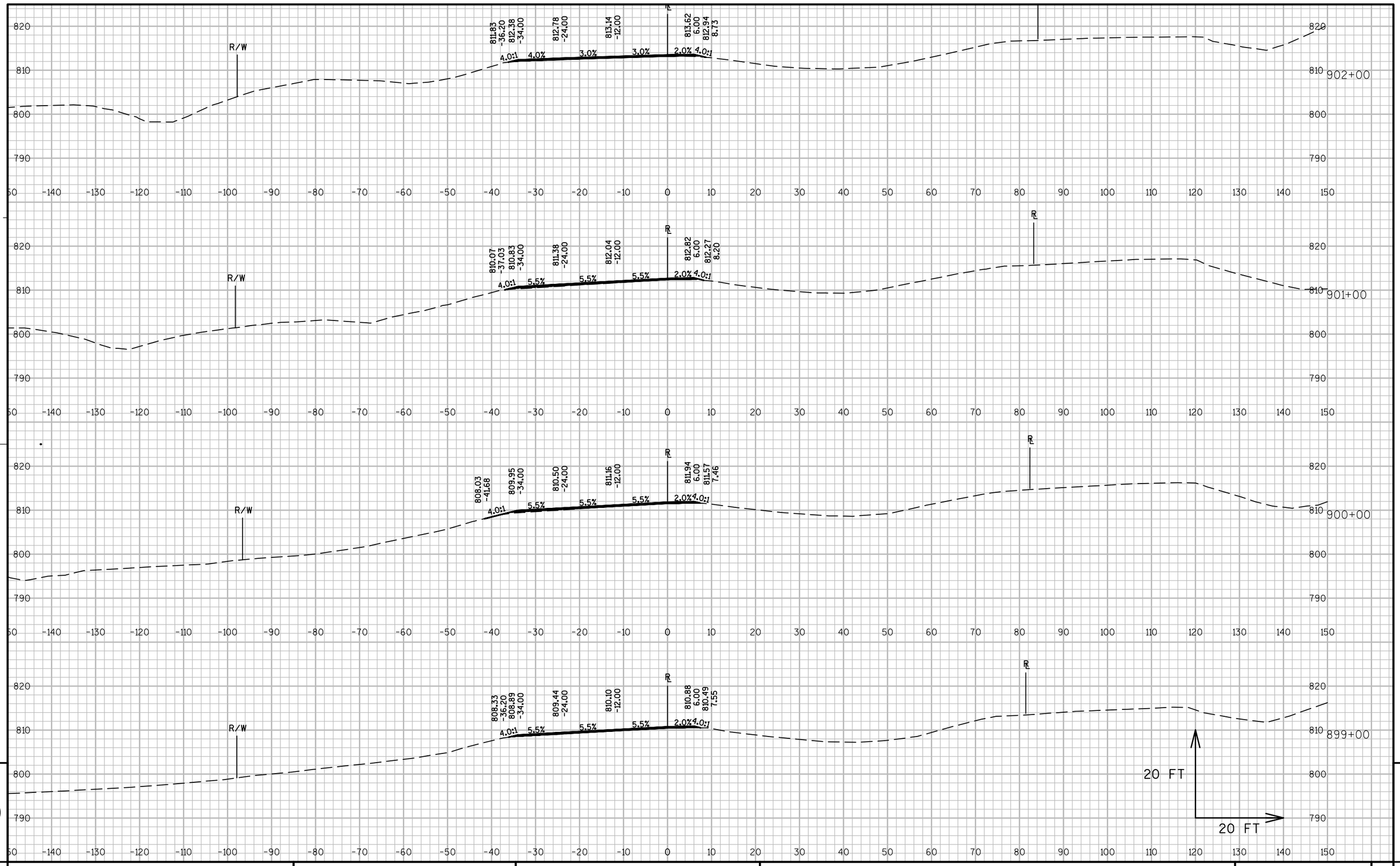
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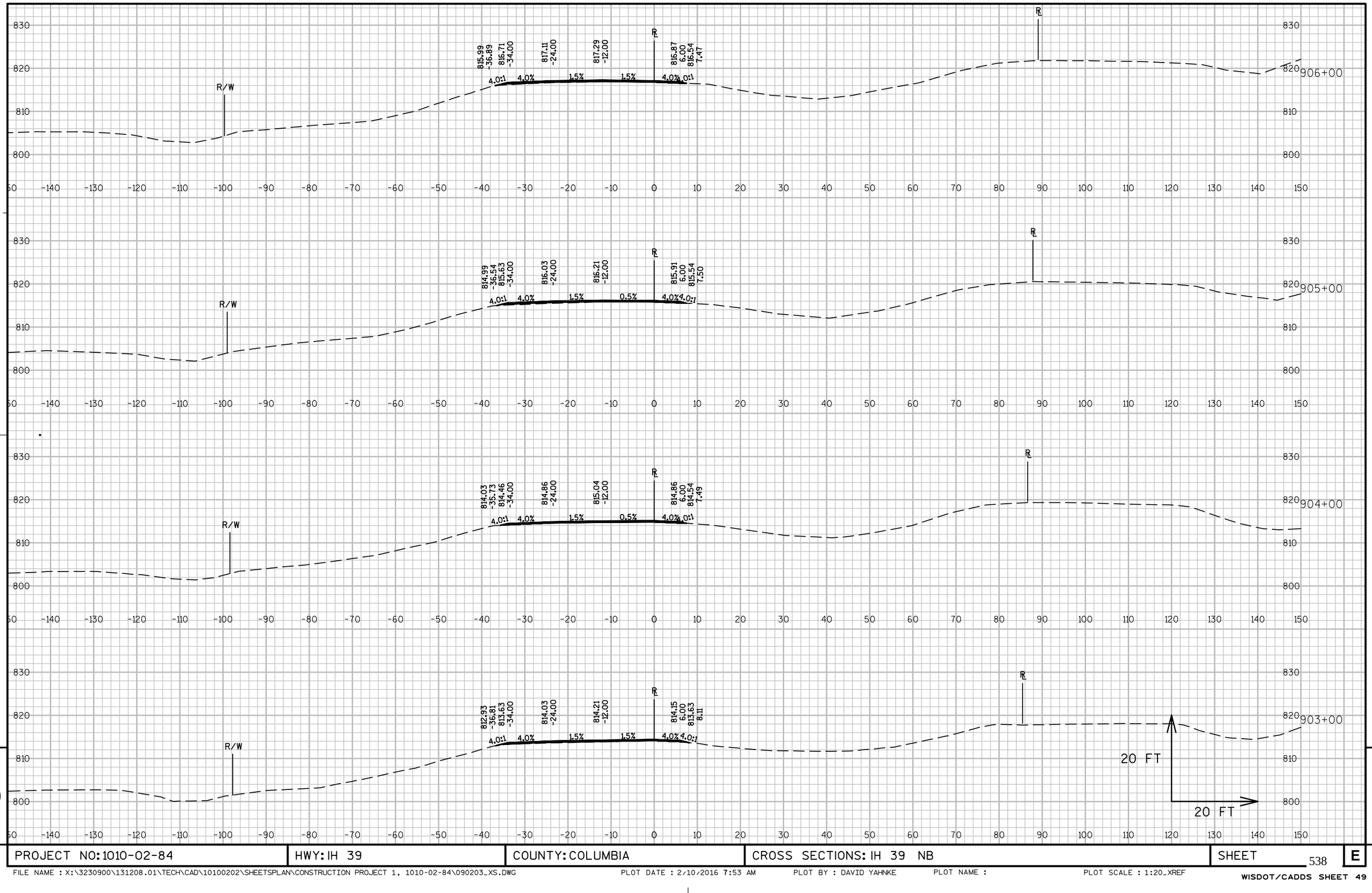
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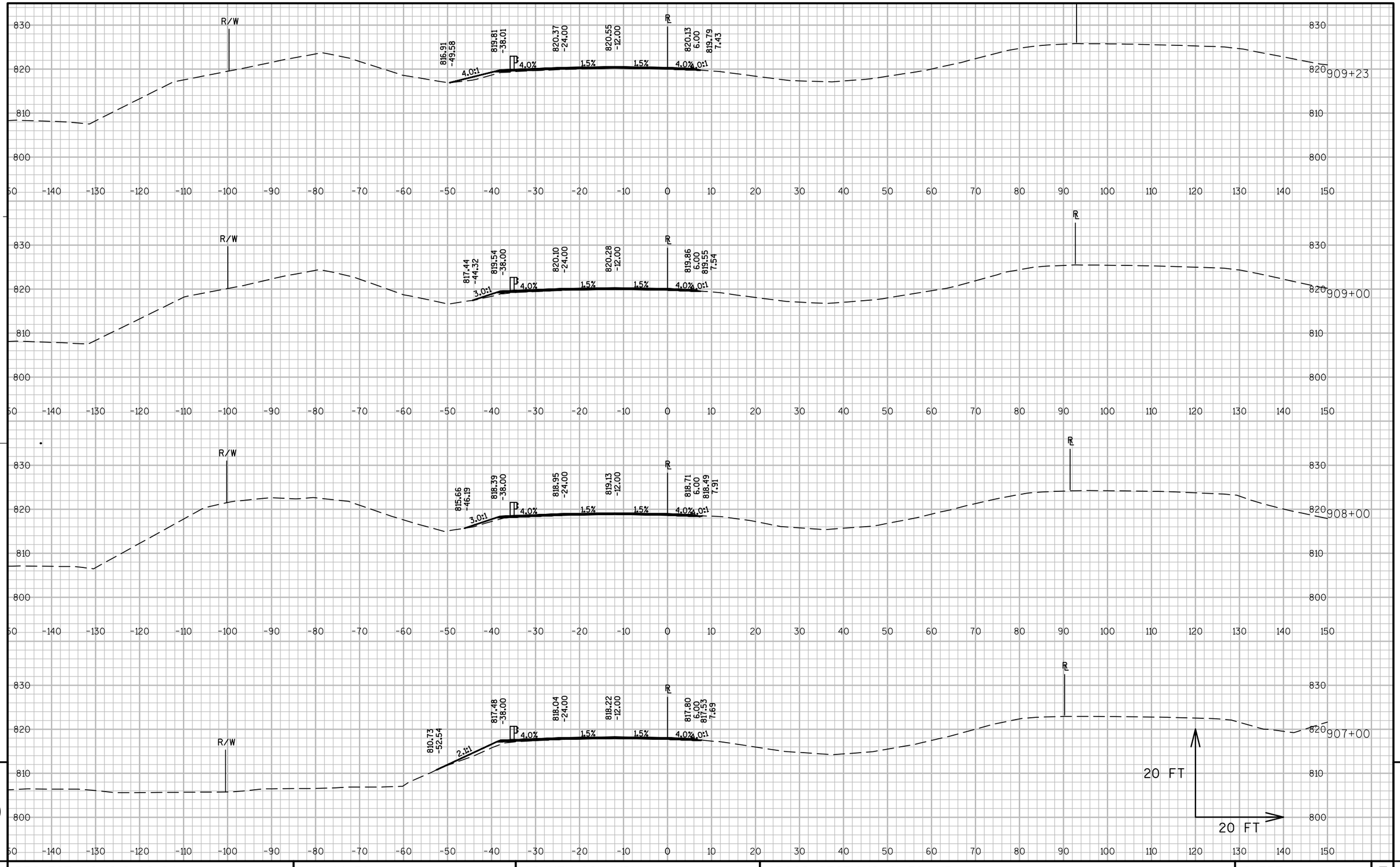


PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: IH 39 NB	SHEET 537	E



PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: IH 39 NB	SHEET 538	E

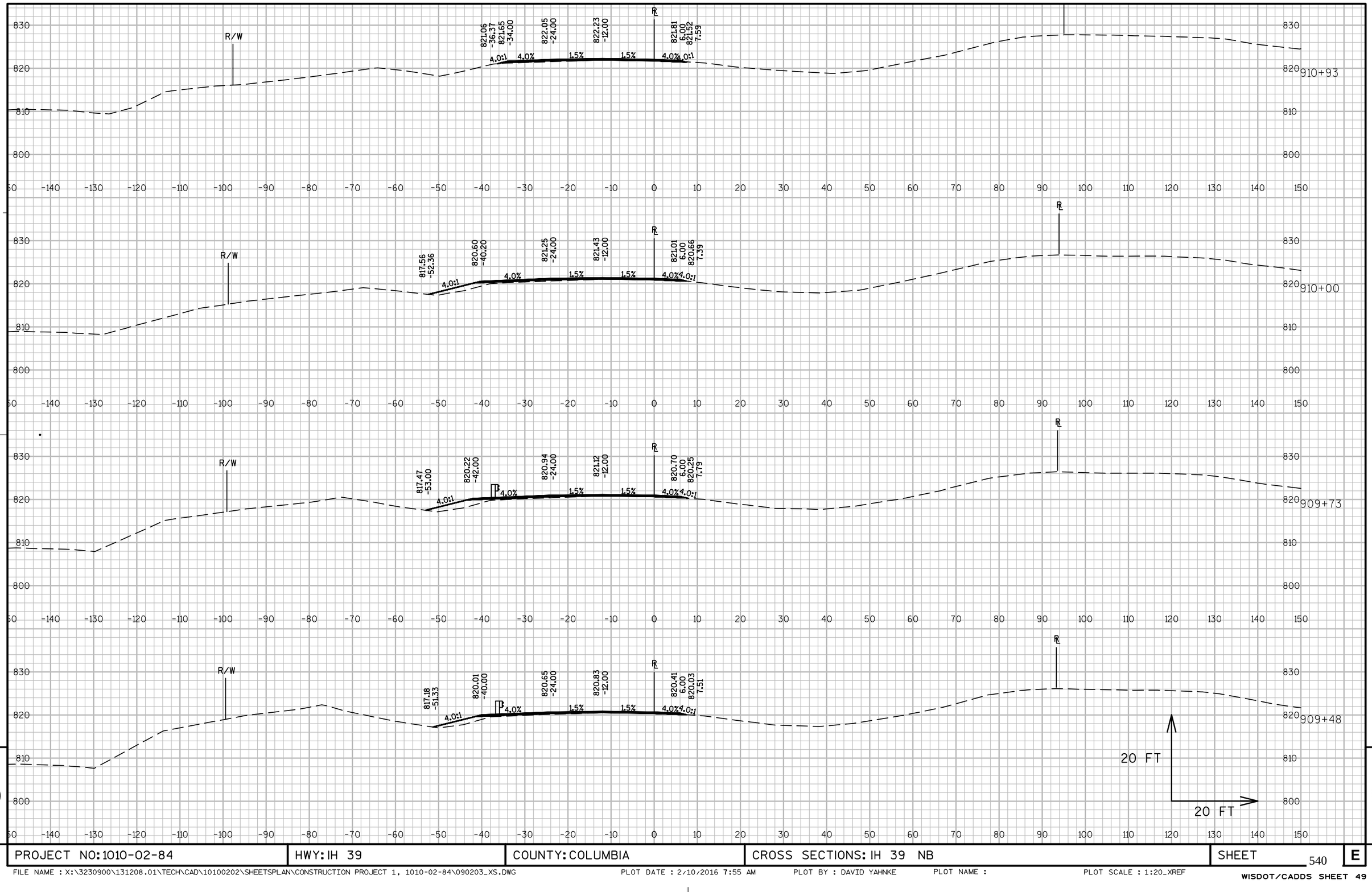
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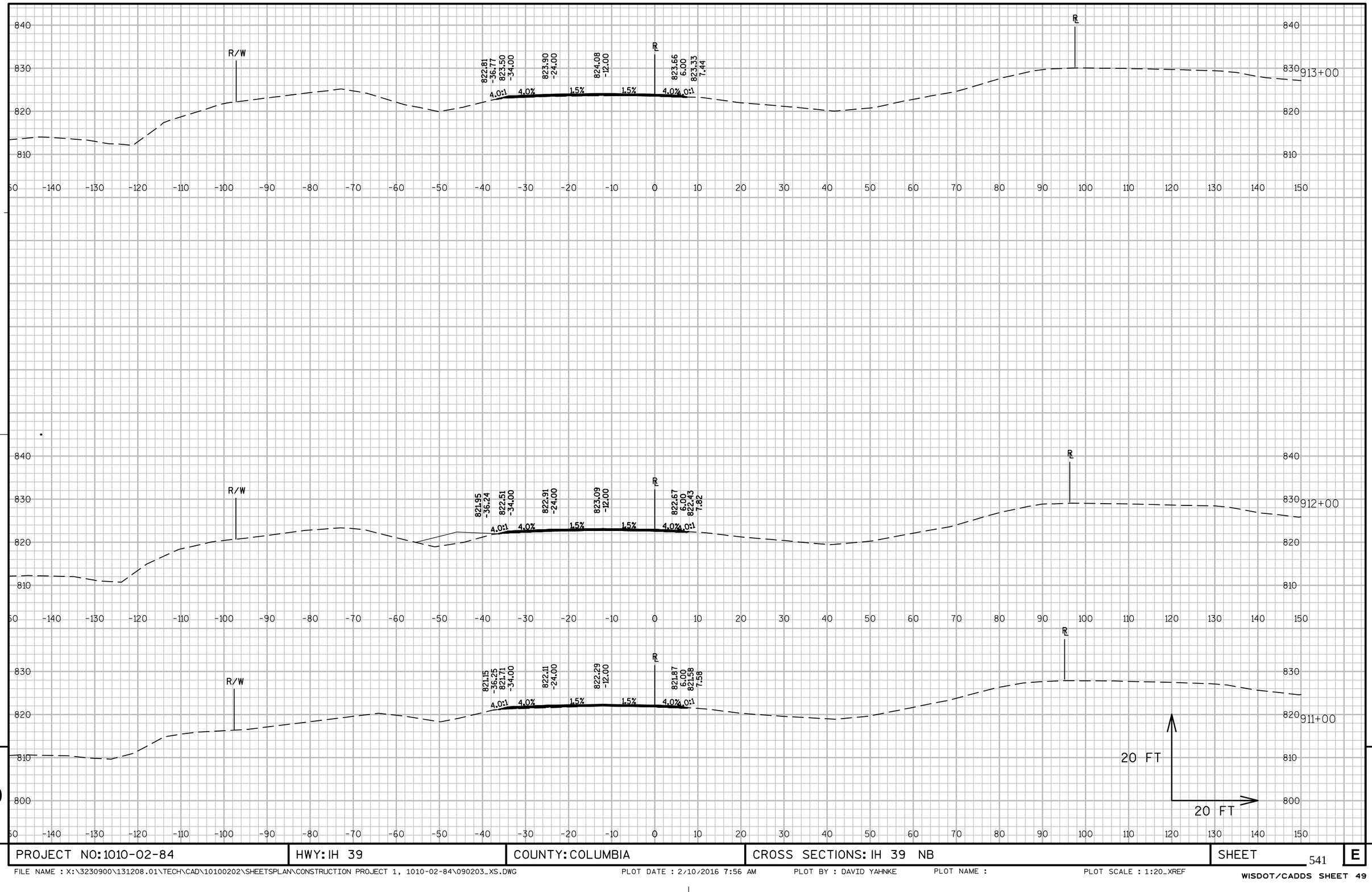
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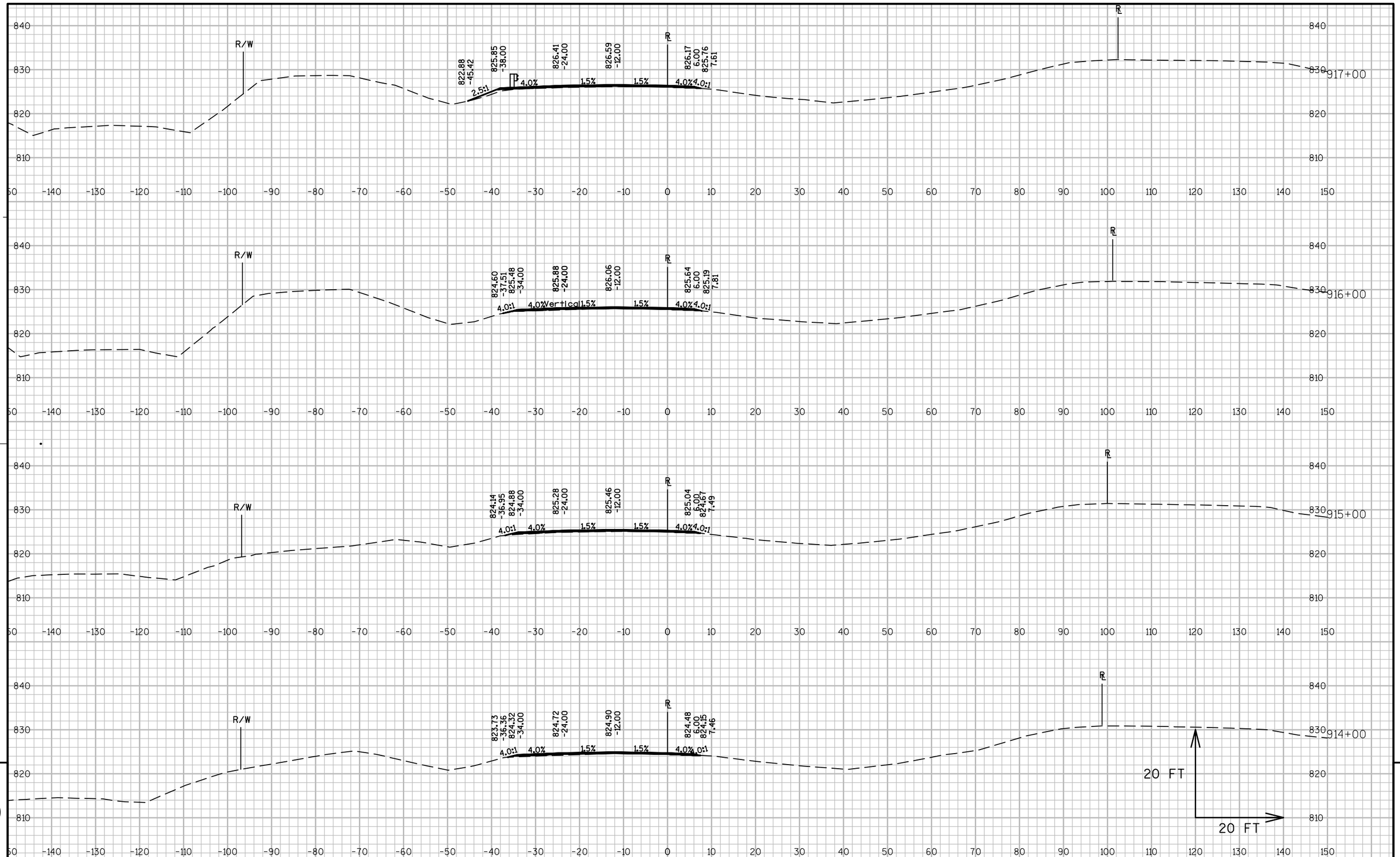
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FILE NAME : X:\3230900\131208.01\TECH\CAD\10100202\SHEETSPLAN\CONSTRUCTION PROJECT 1, 1010-02-84\090203_XS.DWG PLOT DATE : 2/10/2016 7:55 AM PLOT BY : DAVID YAHNKE PLOT NAME : PLOT SCALE : 1:20_XREF

WISDOT/CADDS SHEET 49



PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: IH 39 NB	SHEET 541	E

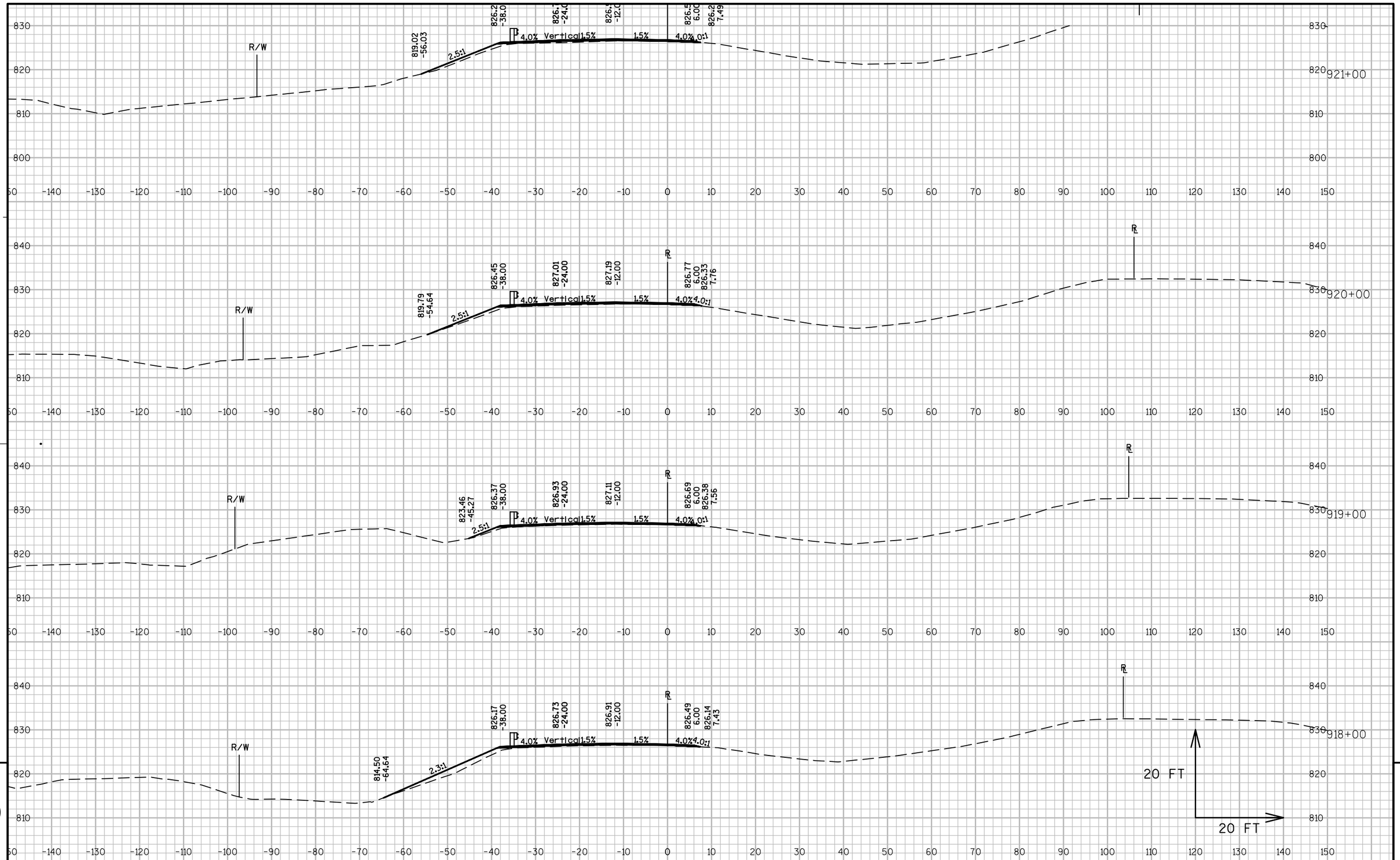


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PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: IH 39 NB	SHEET 542	E

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WISDOT/CADDS SHEET 49

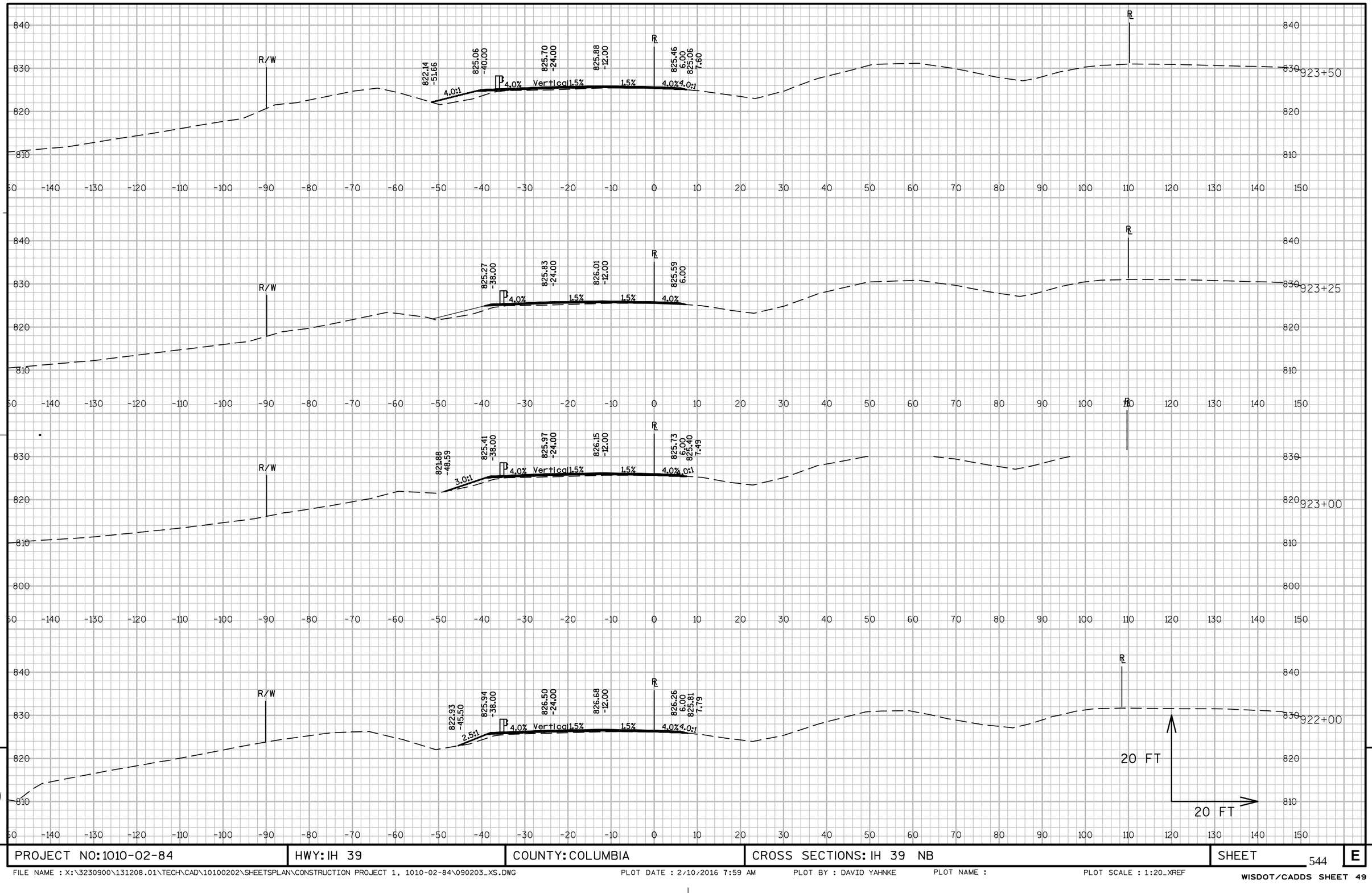


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PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: IH 39 NB	SHEET 543	E

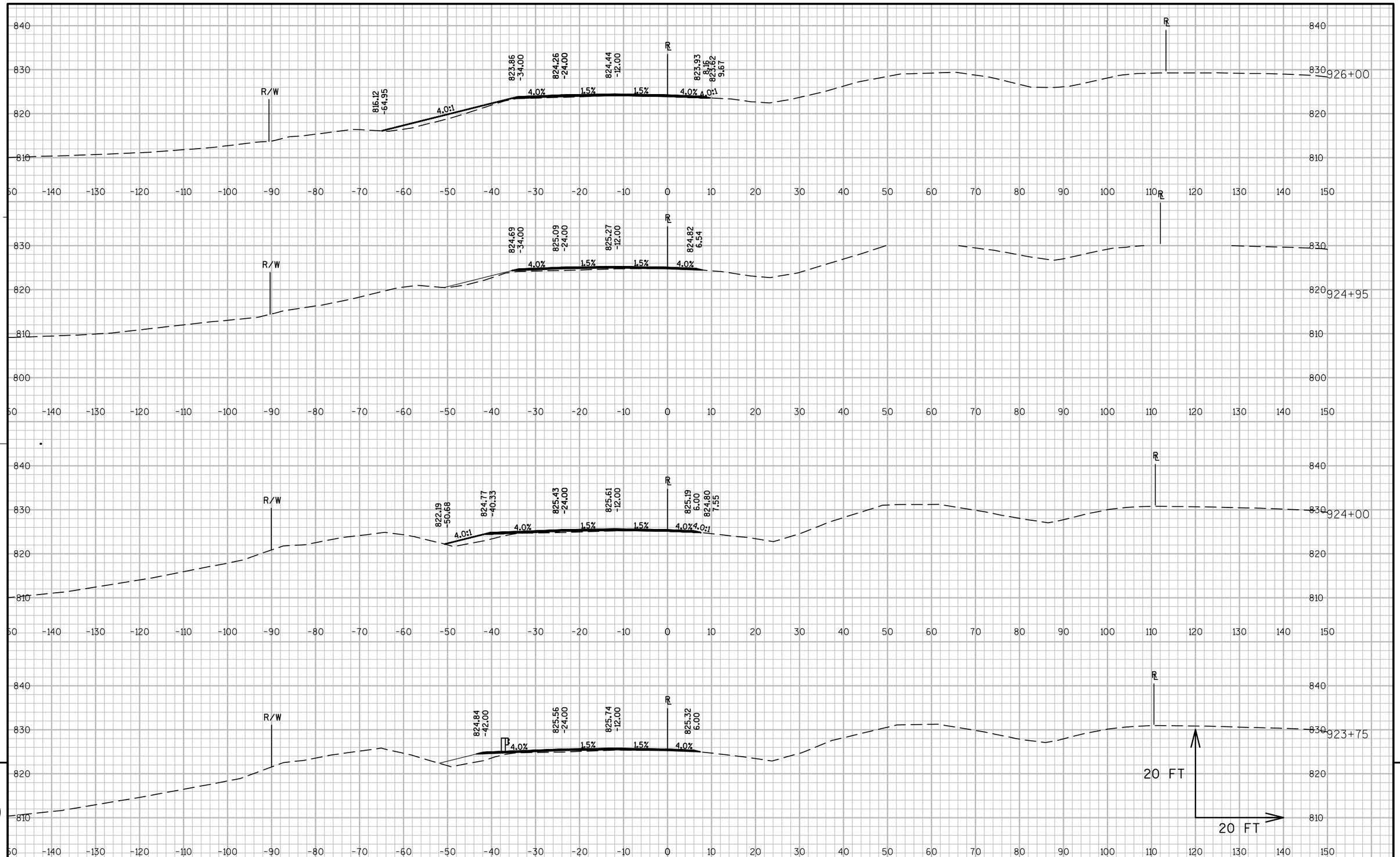
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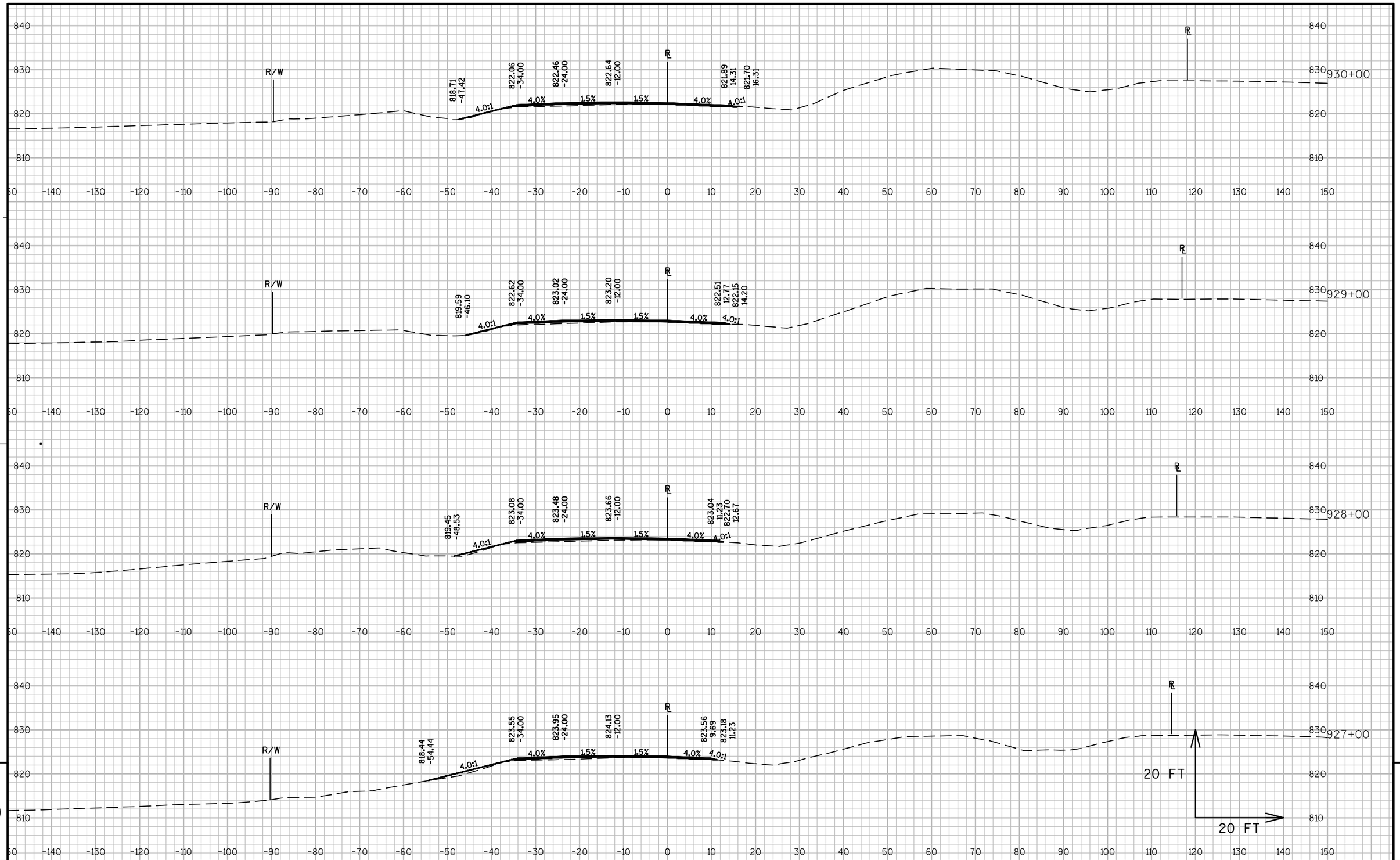
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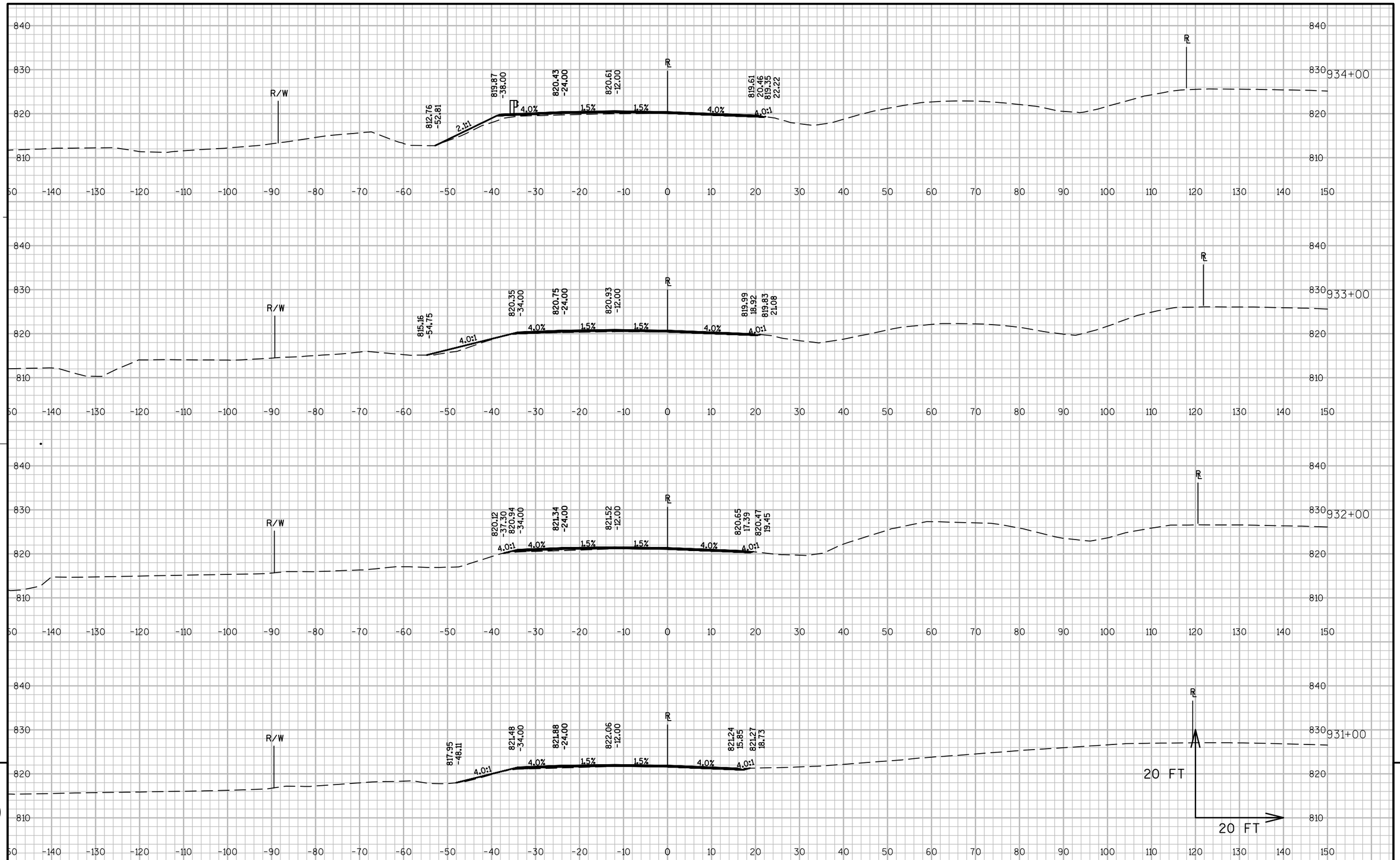
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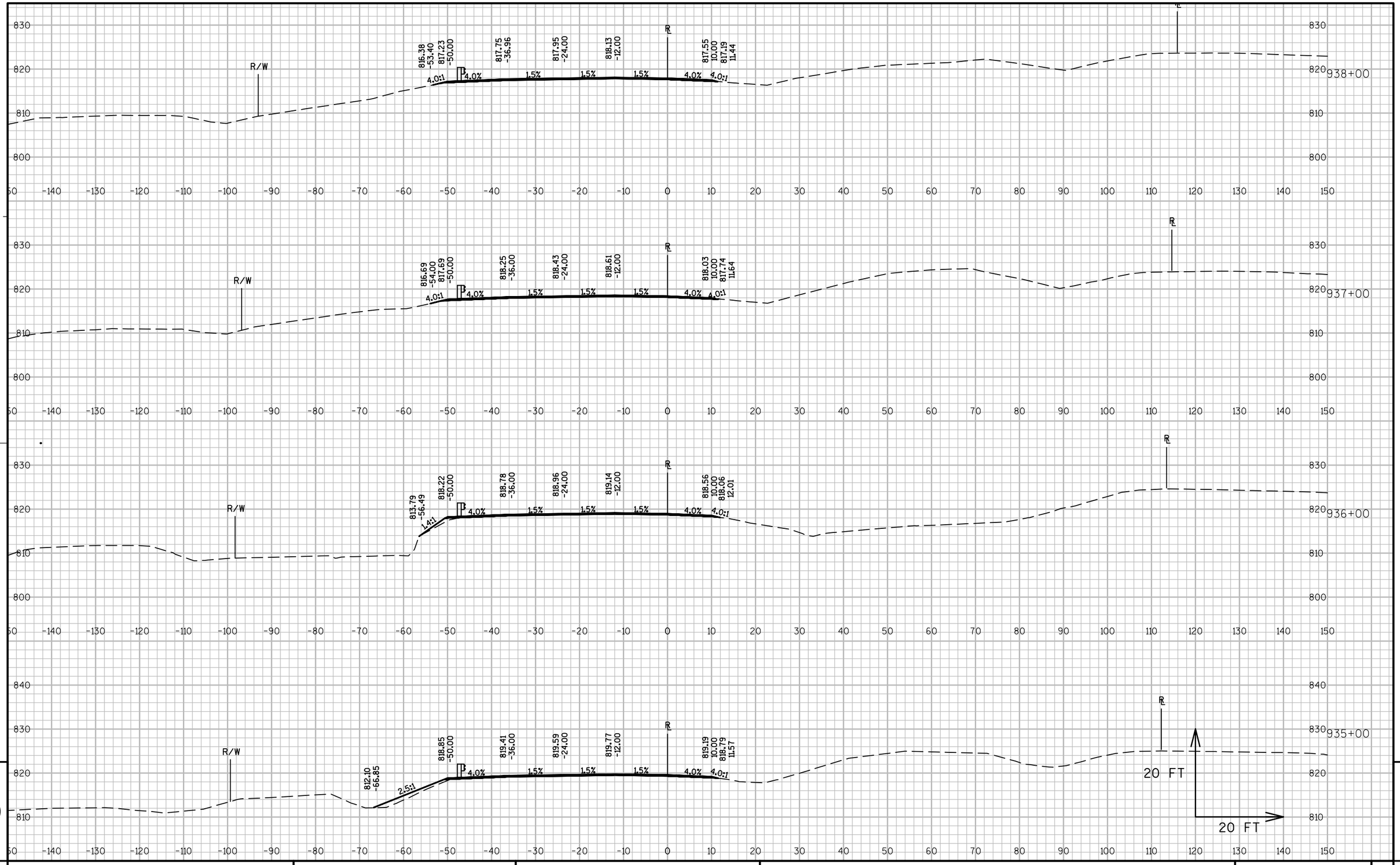
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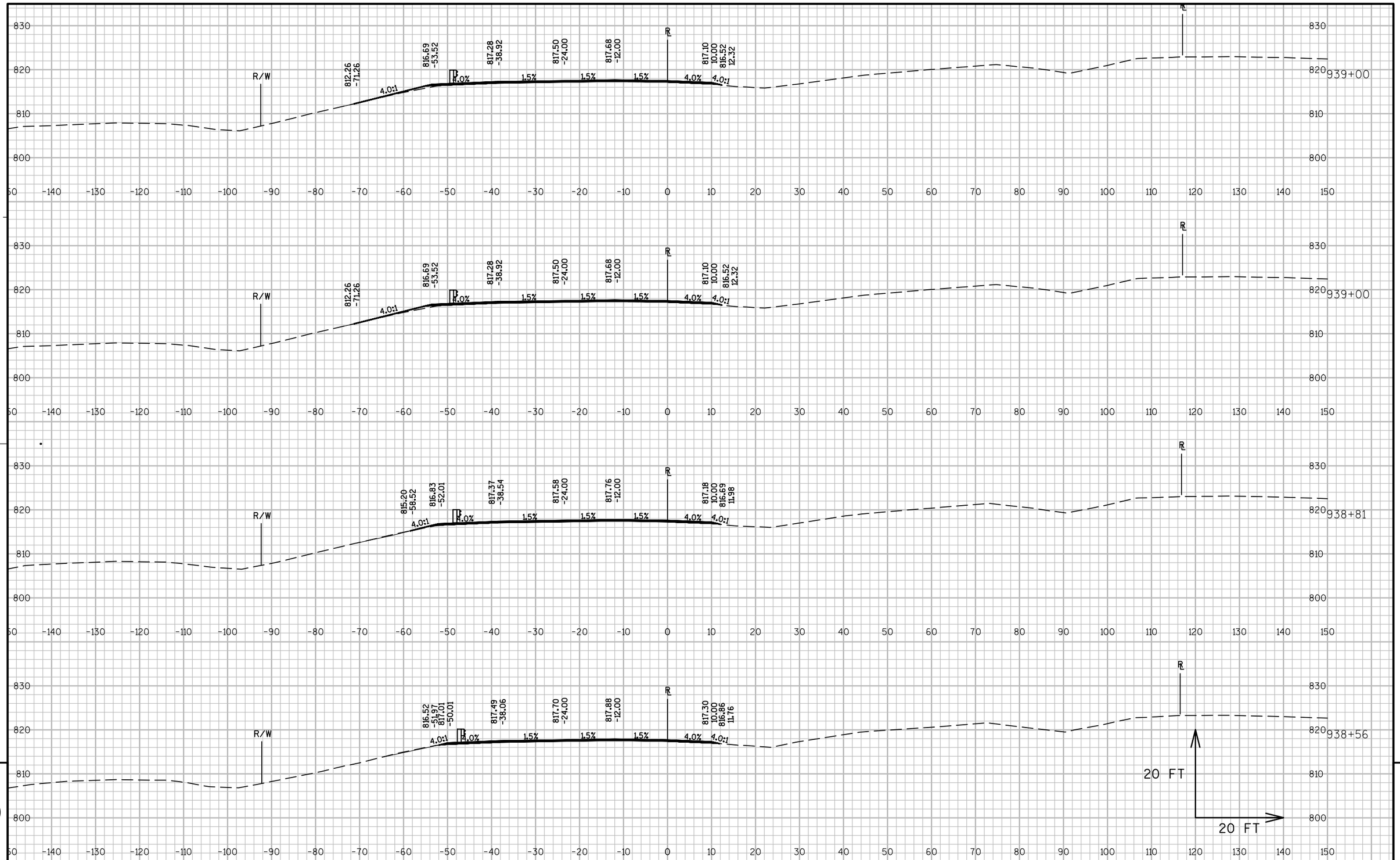
PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: IH 39 NB	SHEET 546	E



PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: IH 39 NB	SHEET 547	E



PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: IH 39 NB	SHEET 548	E

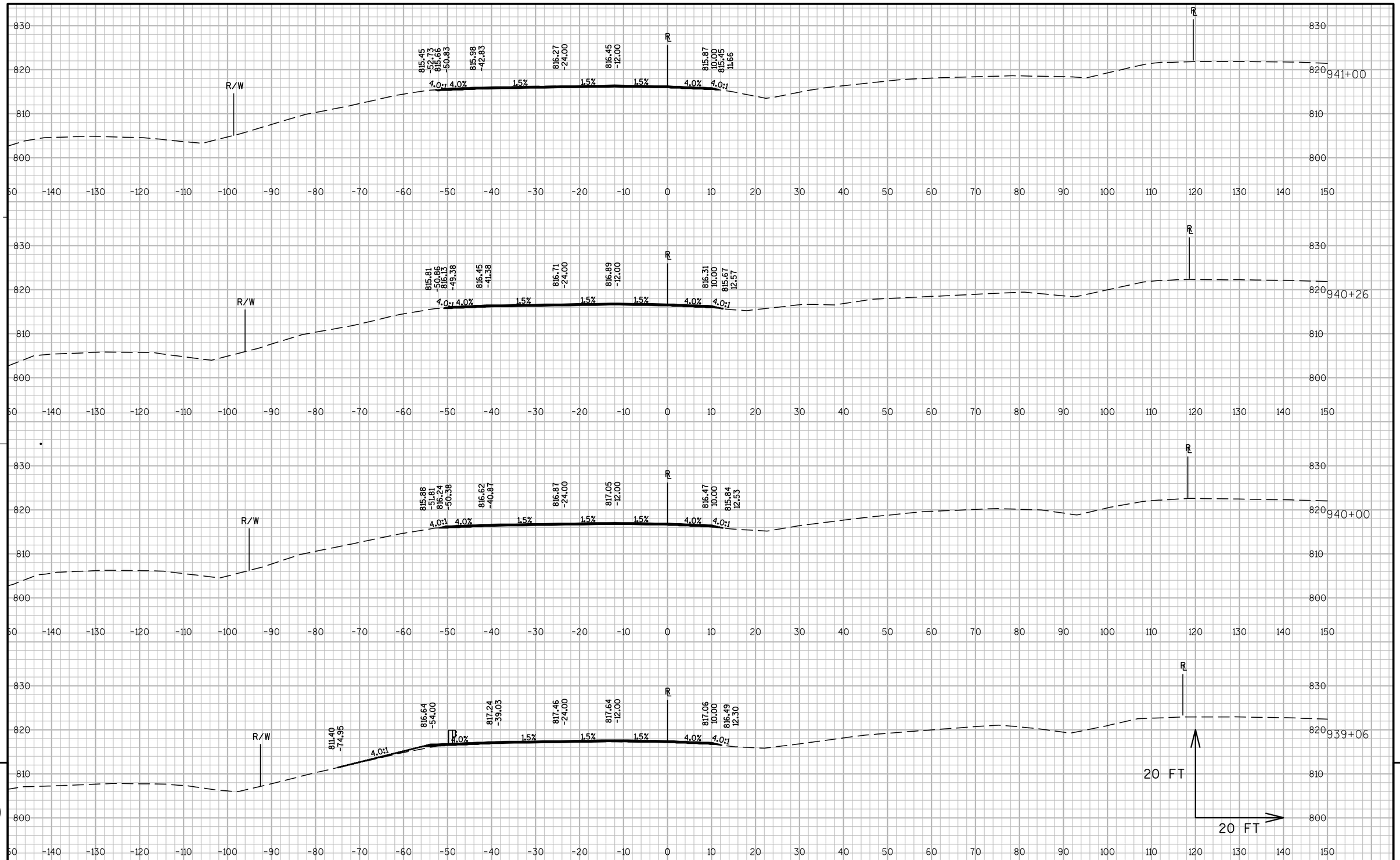


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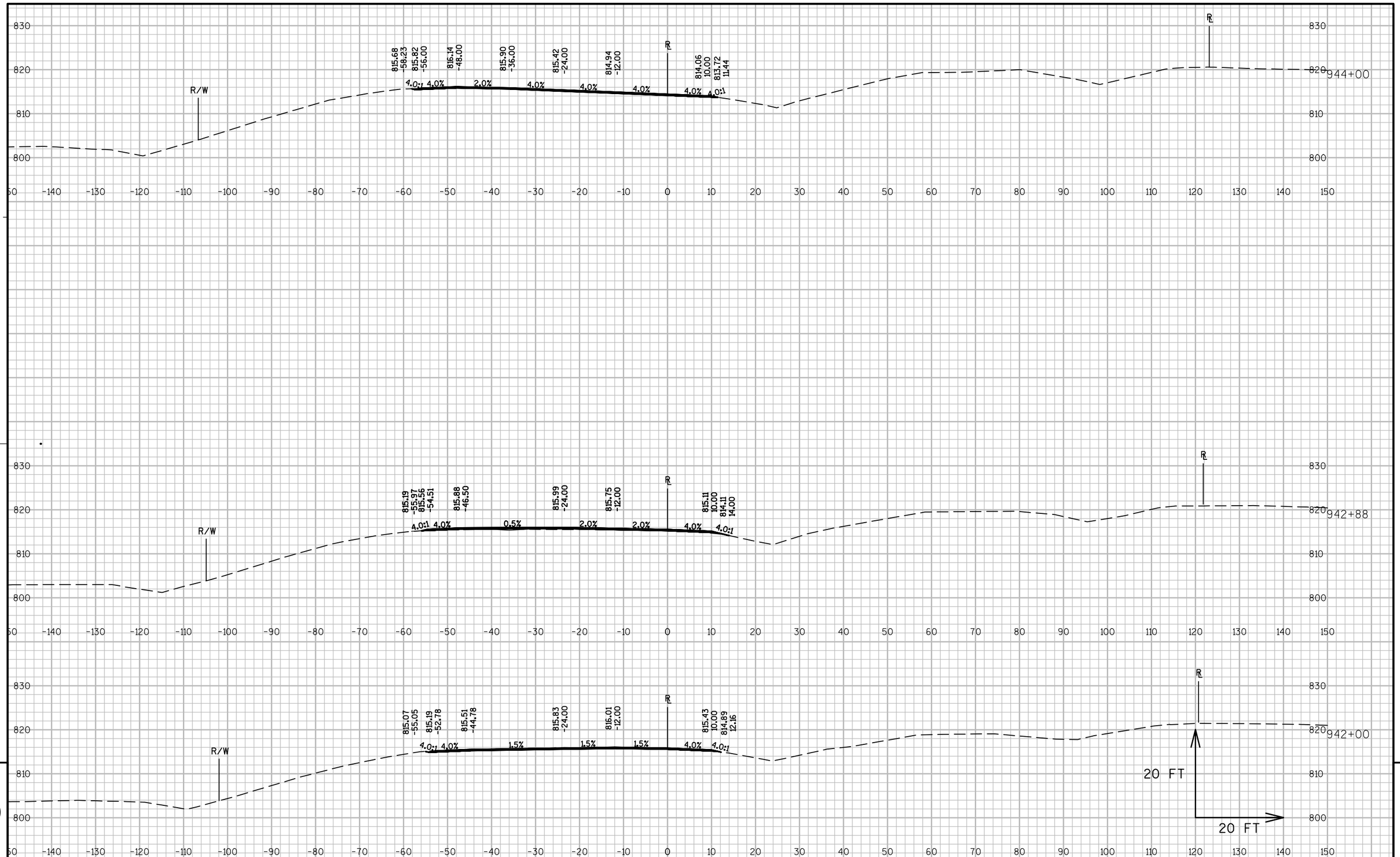
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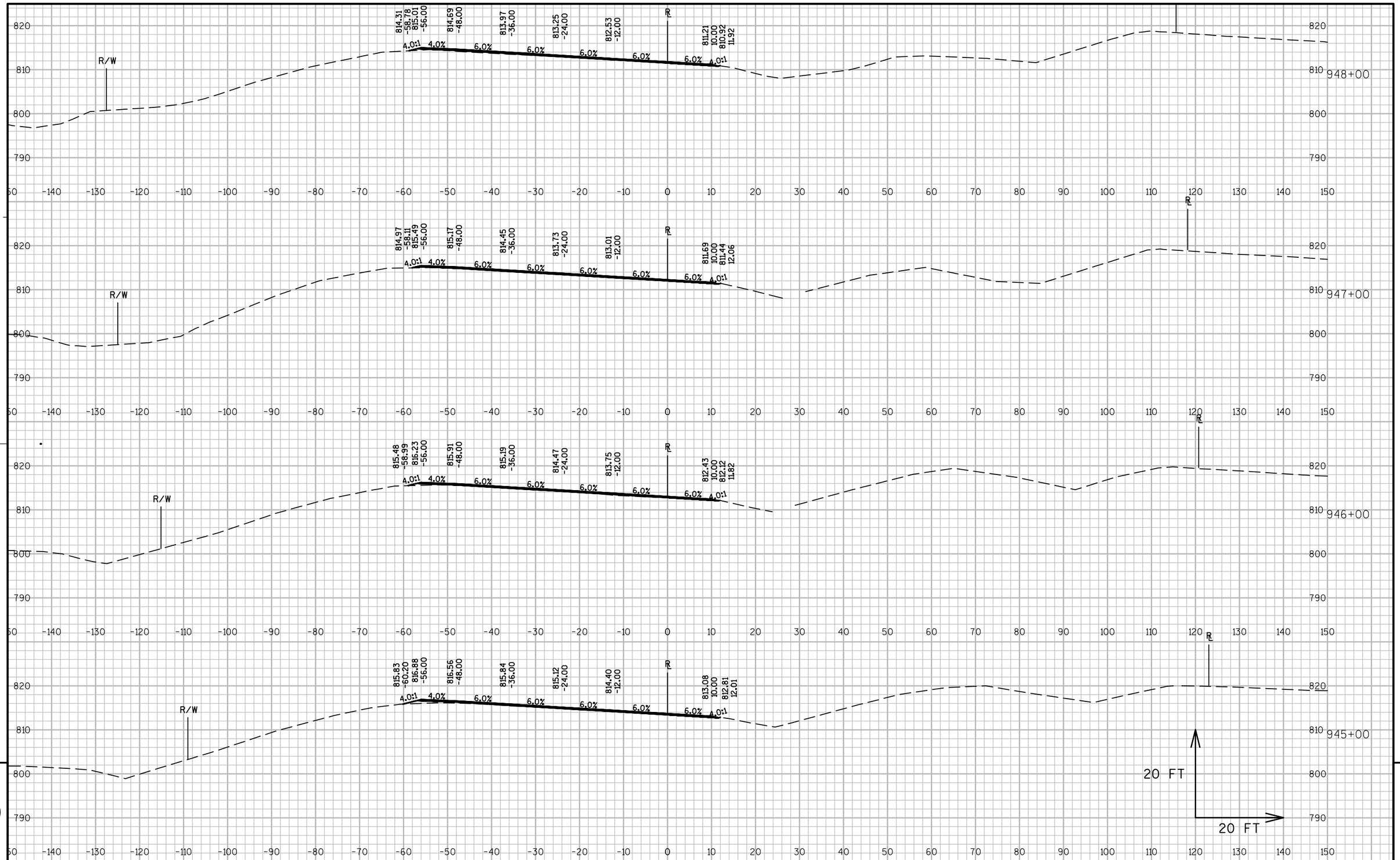
PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: IH 39 NB	SHEET 550	E



PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: IH 39 NB	SHEET 551	E

FILE NAME : X:\3230900\131208.01\TECH\CAD\10100202\SHEETSPLAN\CONSTRUCTION PROJECT 1, 1010-02-84\090203_XS.DWG PLOT DATE : 2/10/2016 8:05 AM PLOT BY : DAVID YAHNKE PLOT NAME : PLOT SCALE : 1:20_XREF

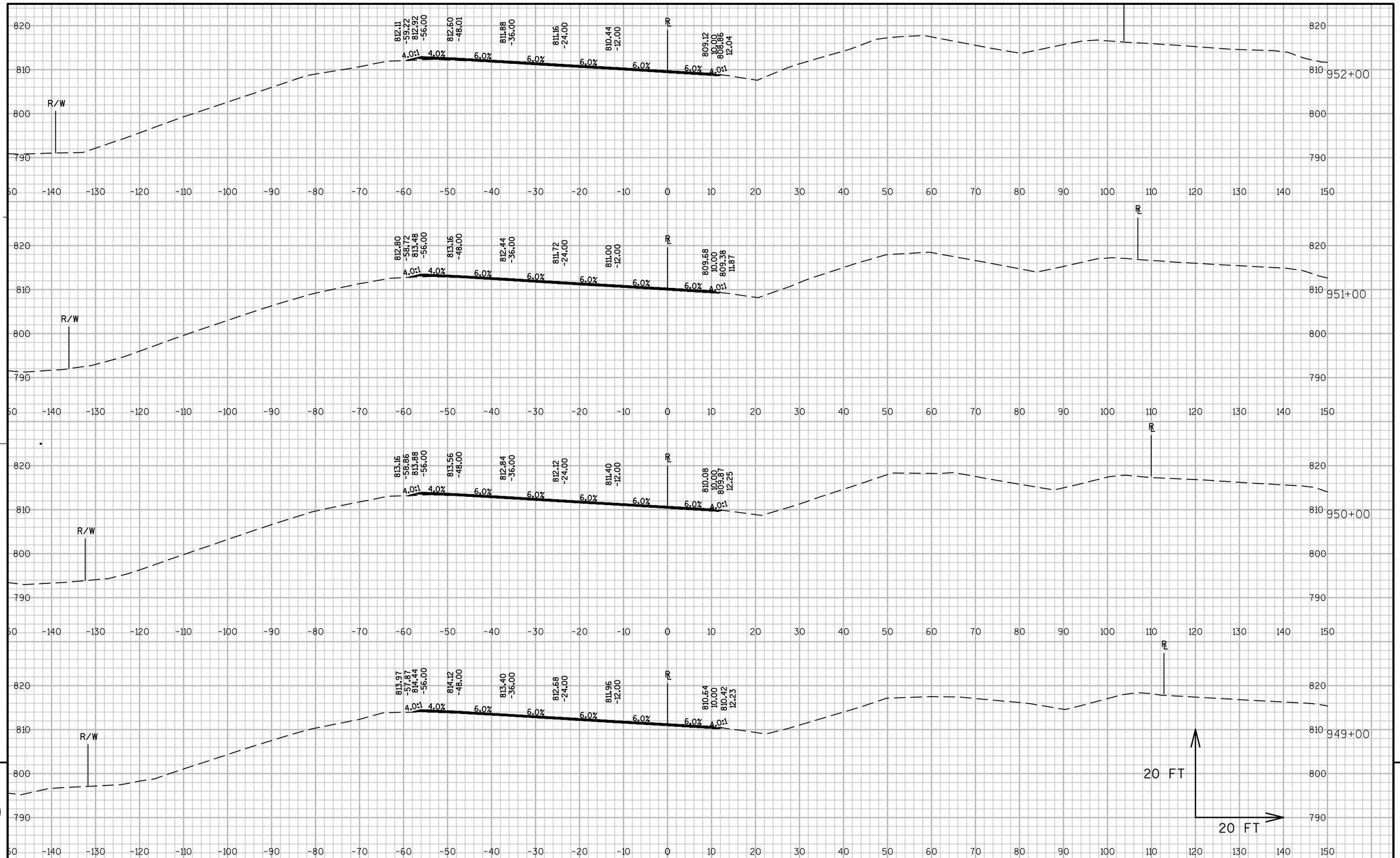
WISDOT/CADDS SHEET 49



PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: IH 39 NB	SHEET 552	E

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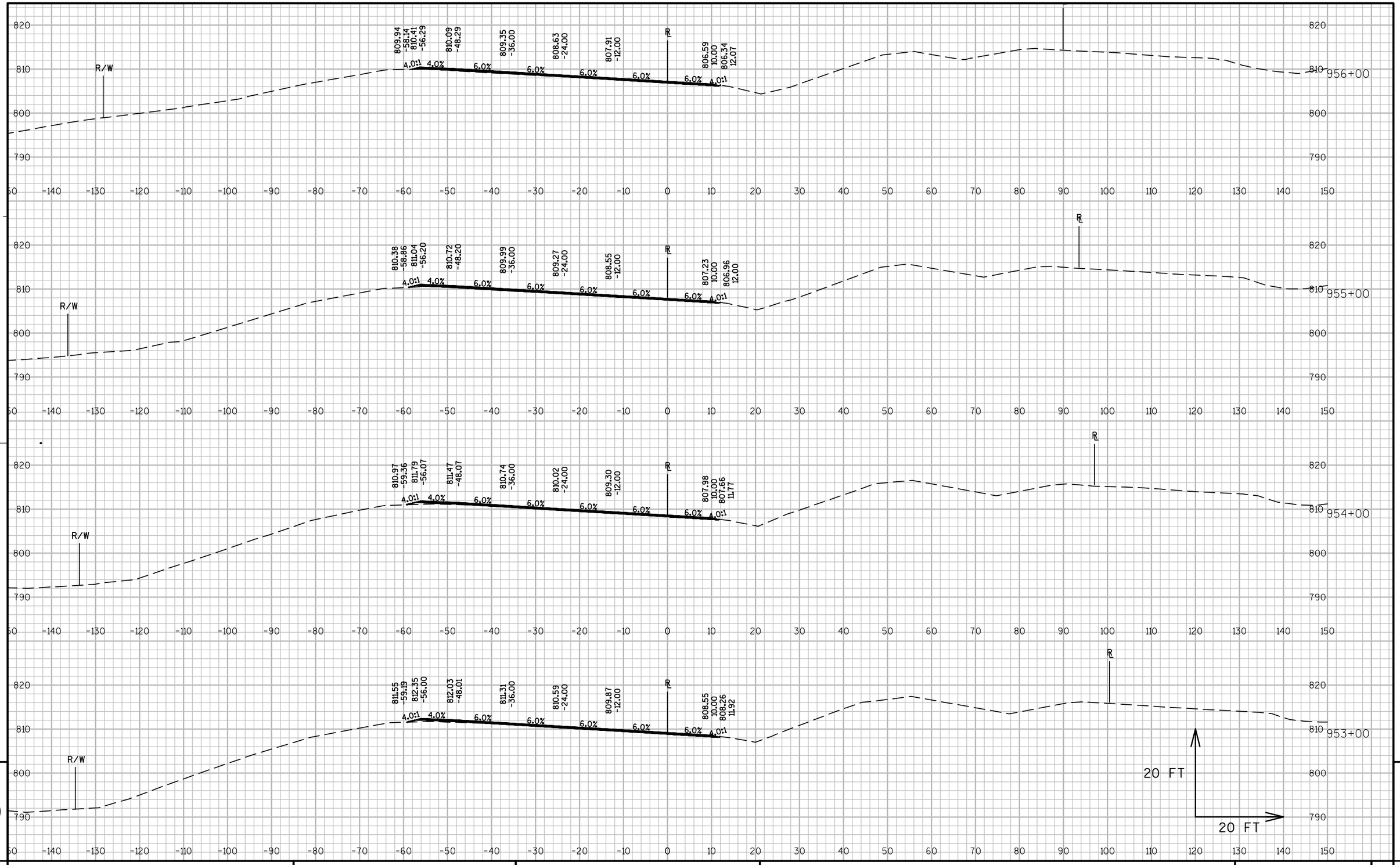
WISDOT/CADDS SHEET 49



PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: IH 39 NB	SHEET 553	E

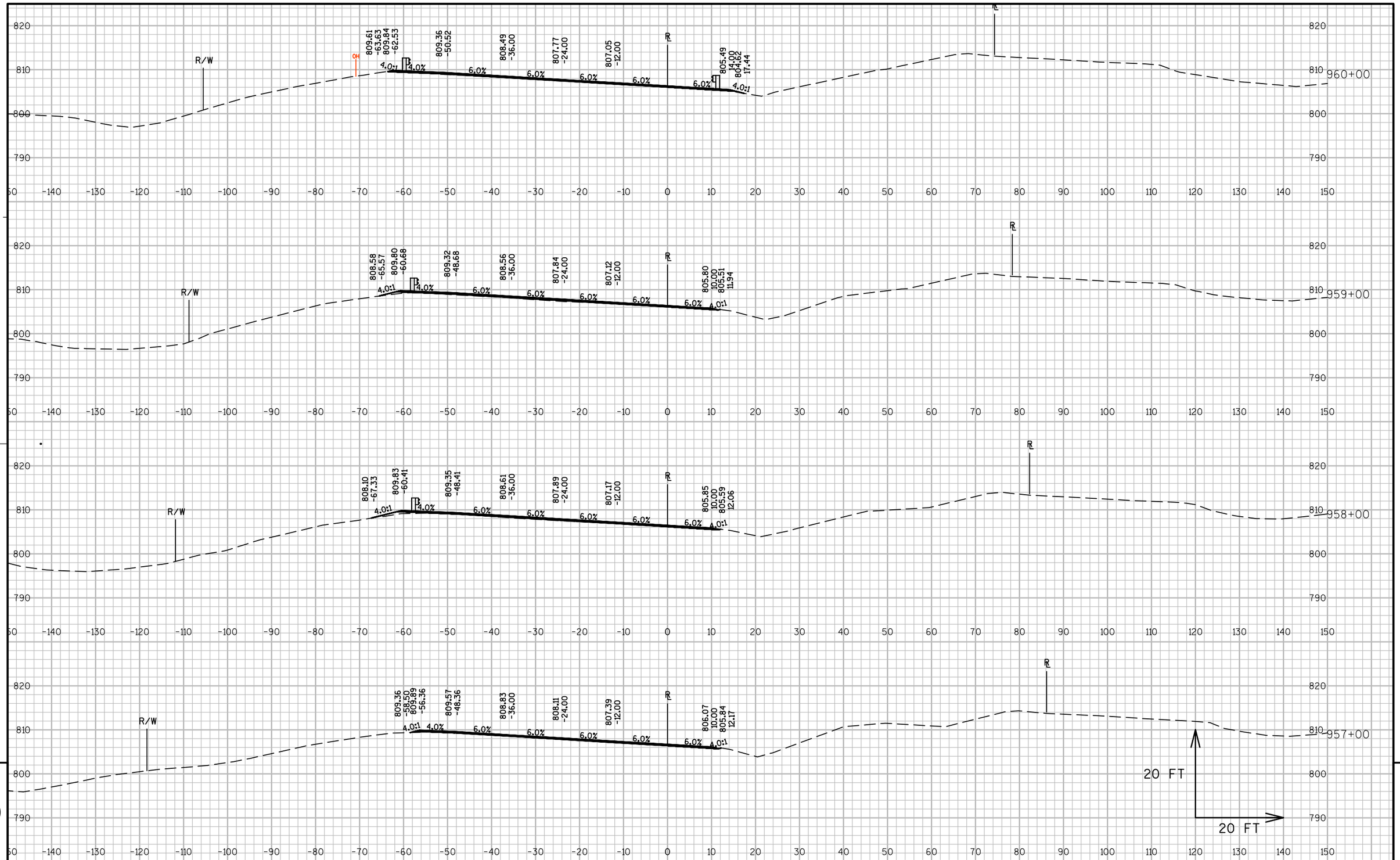
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WISDOT/CADDS SHEET 49



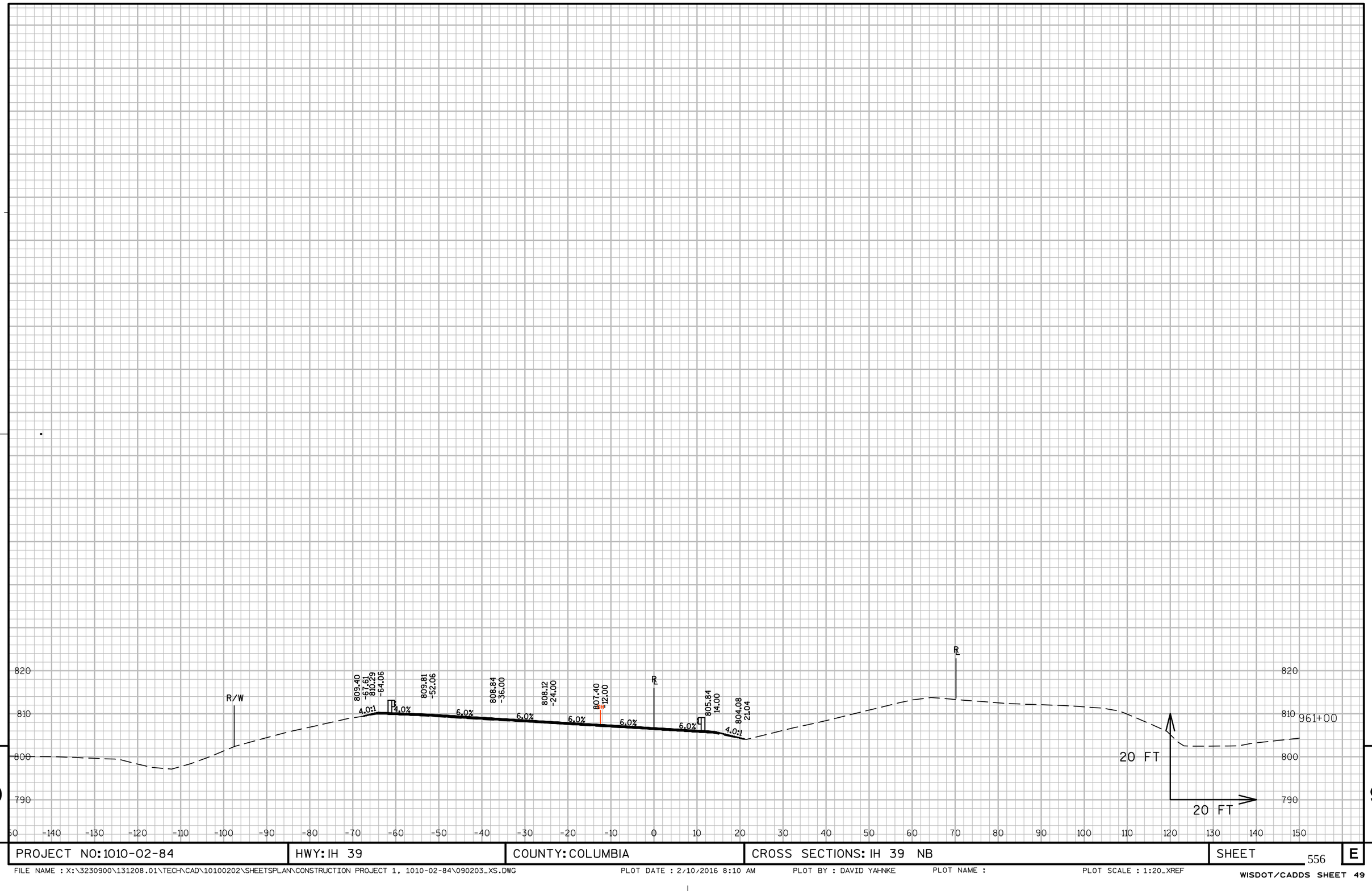
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PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: IH 39 NB	SHEET 555	E

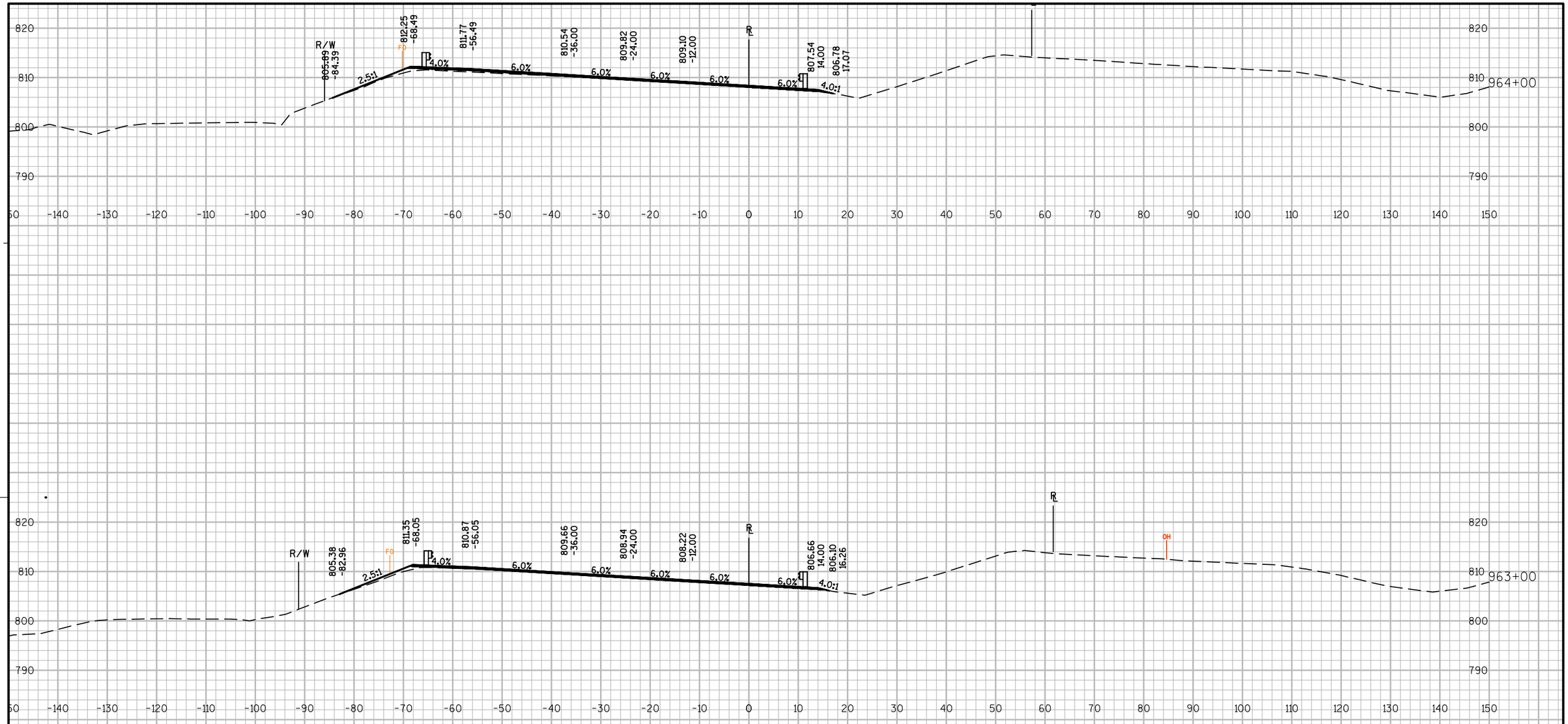
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PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: IH 39 NB	SHEET 556	E



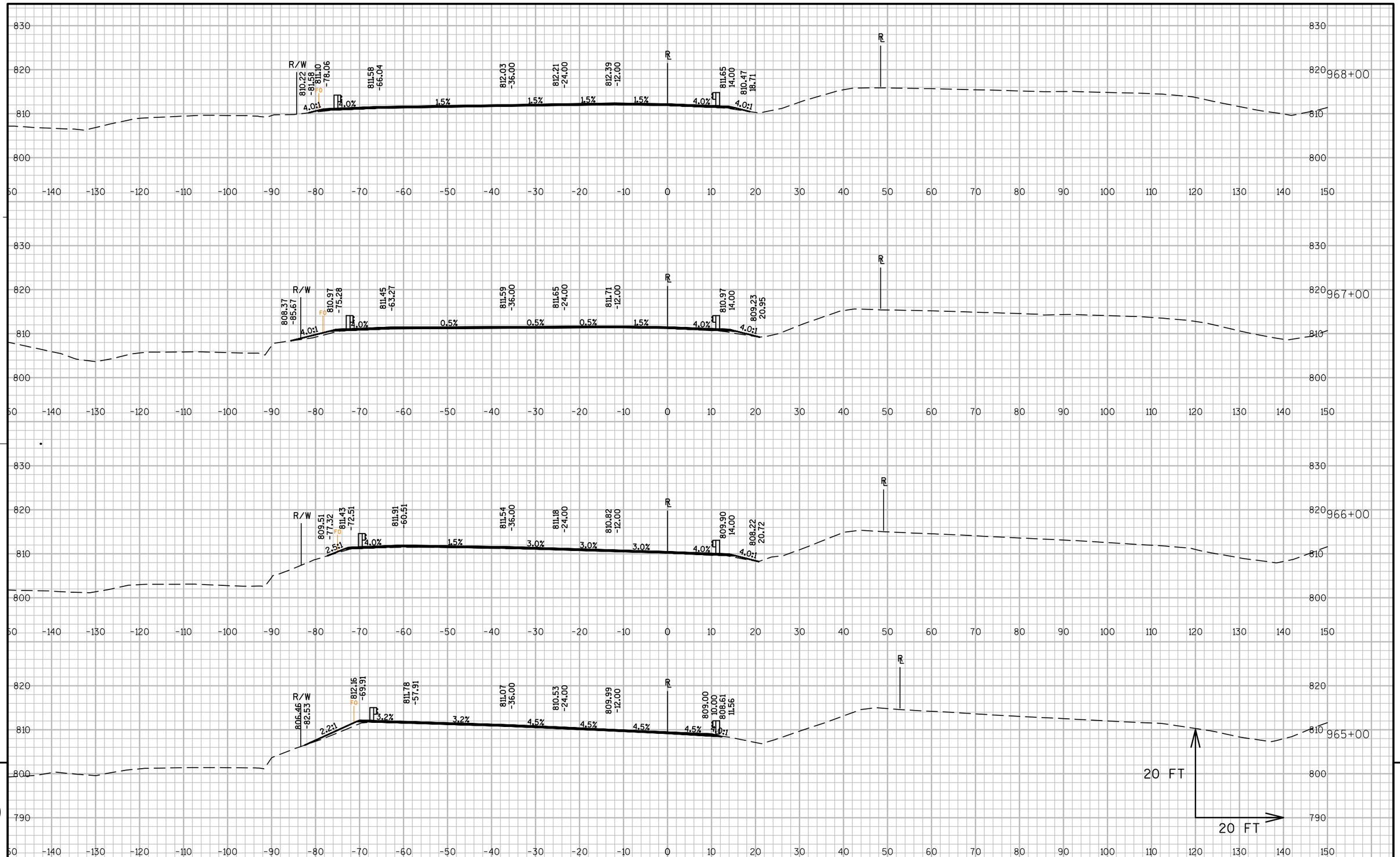
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PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: IH 39 NB	SHEET 557	E

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WISDOT/CADDS SHEET 49

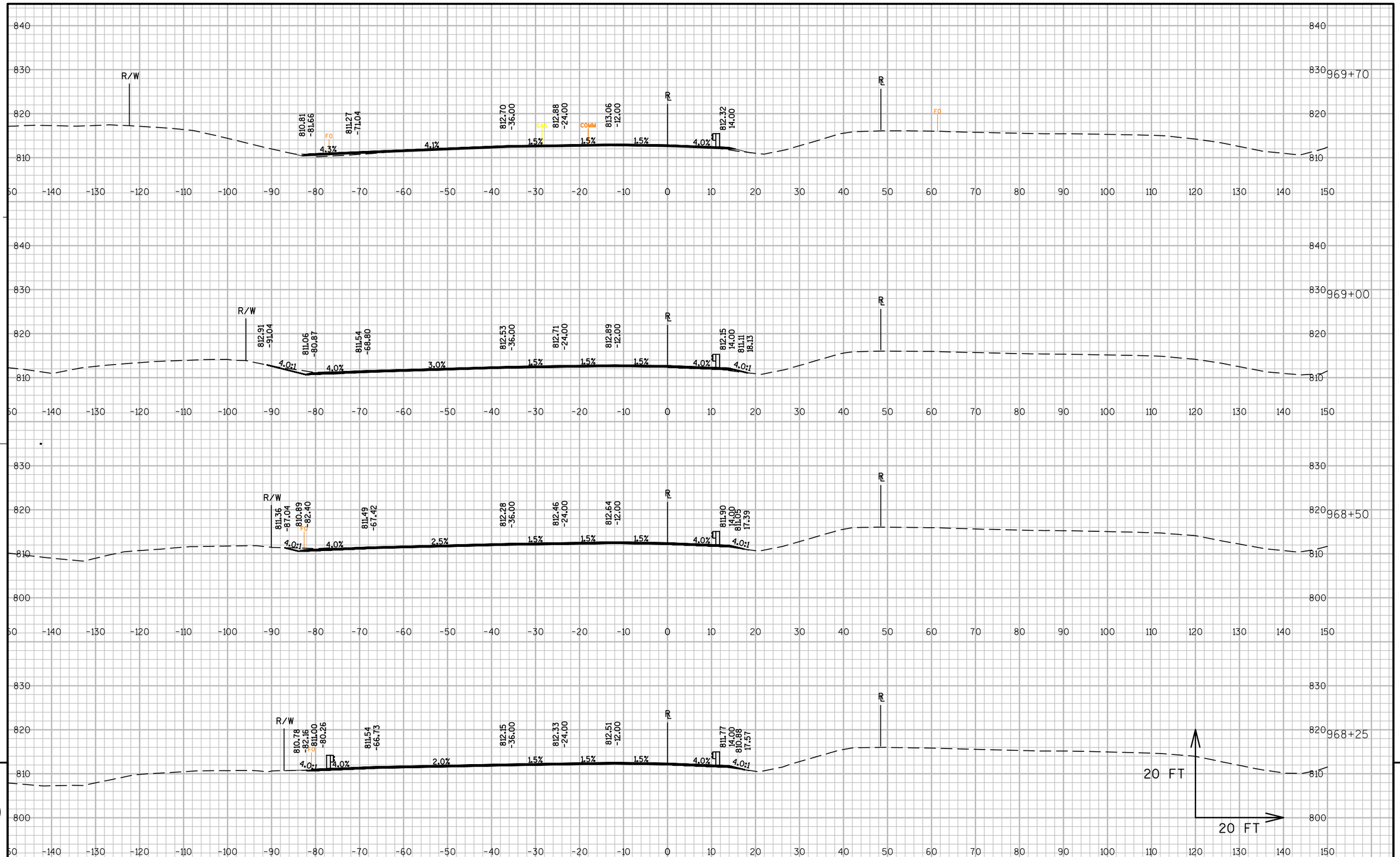


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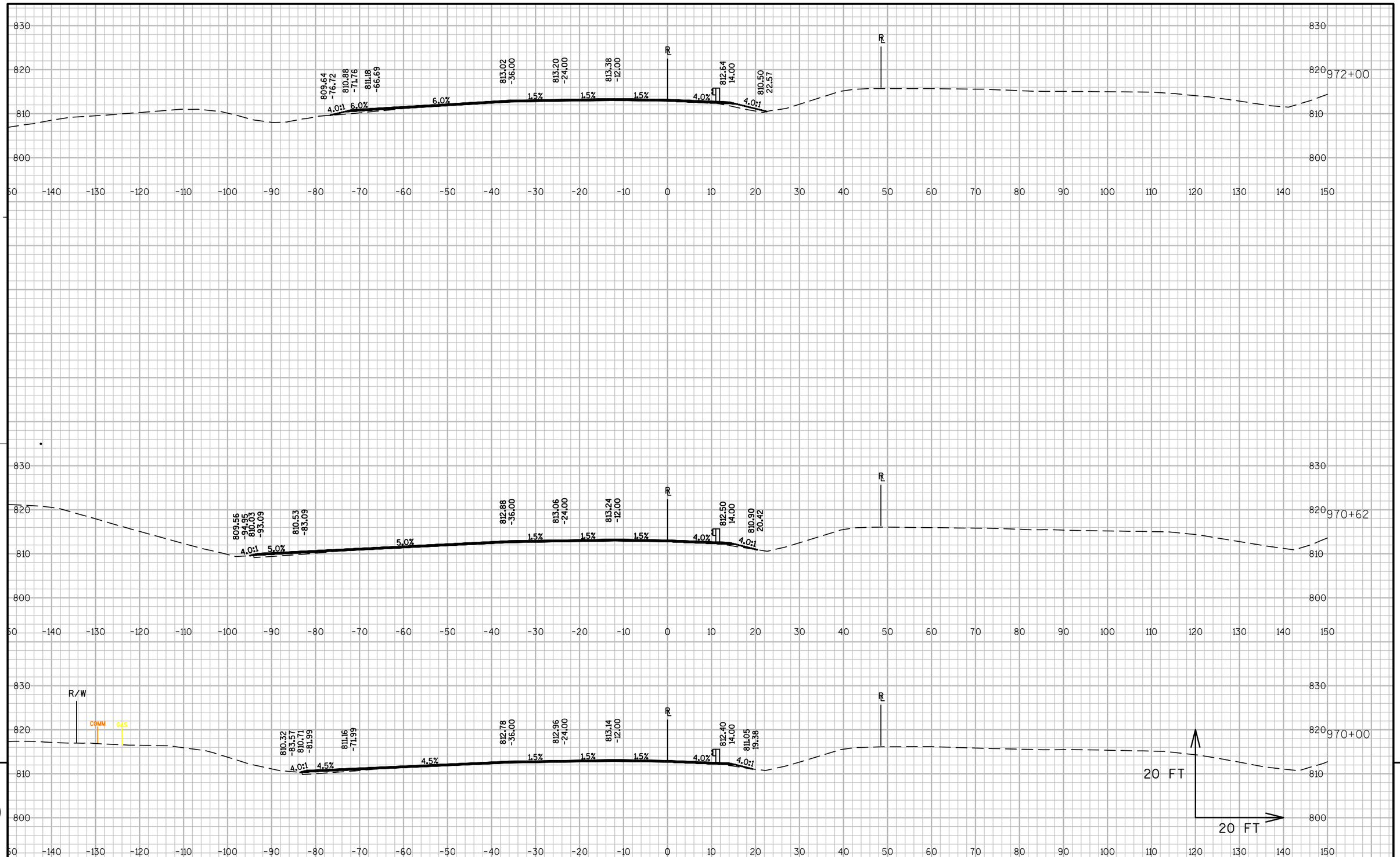
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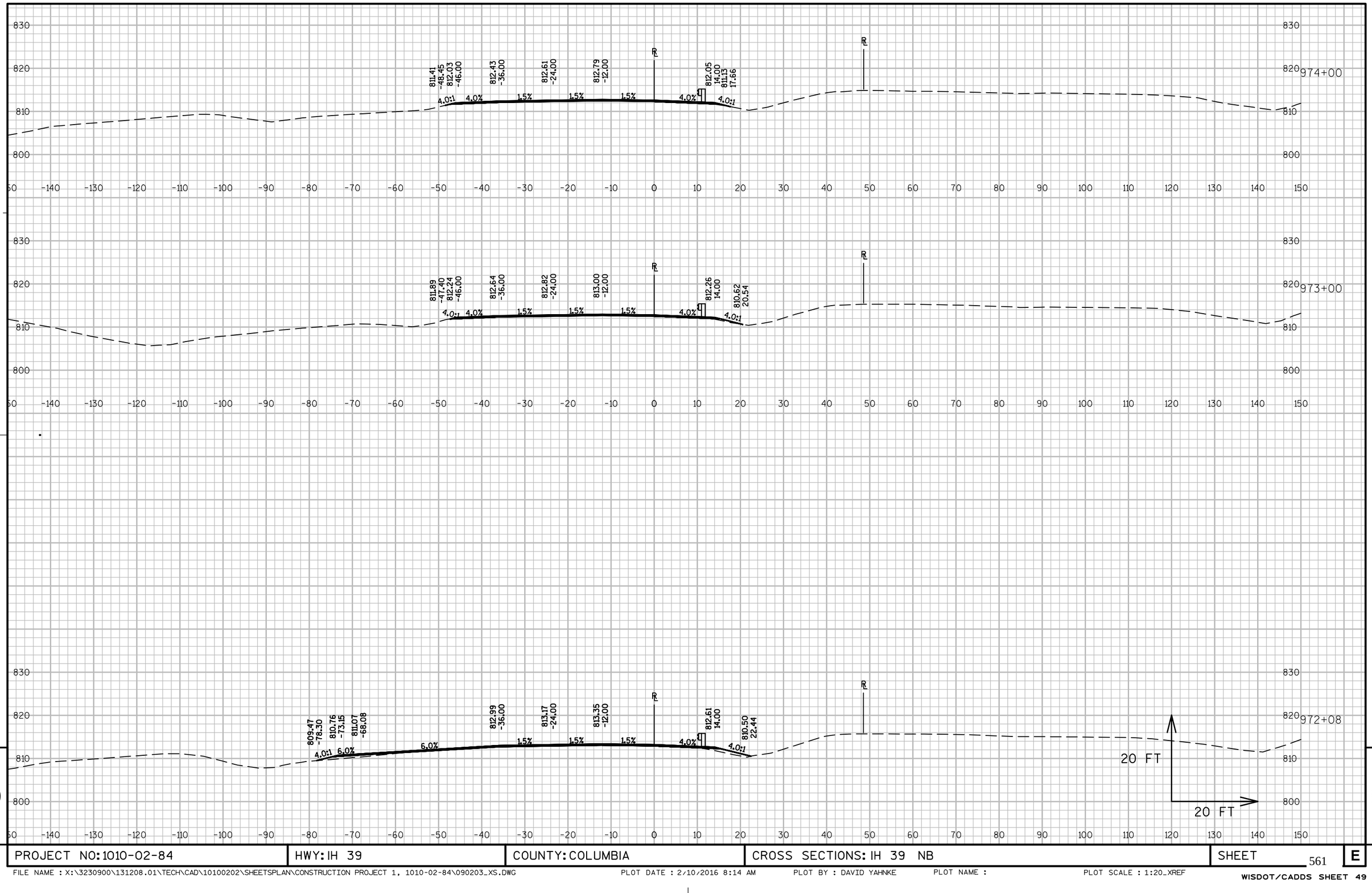
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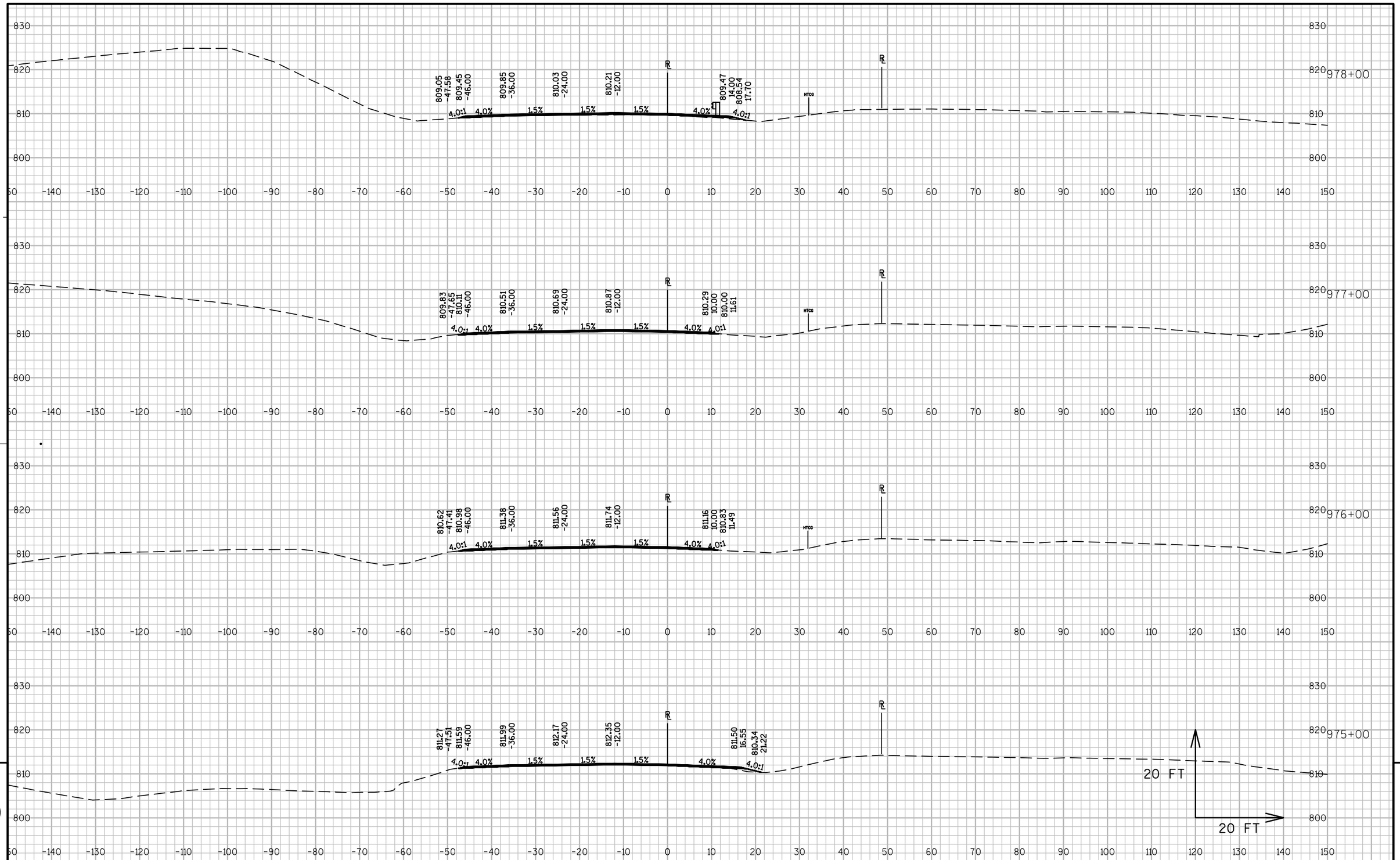
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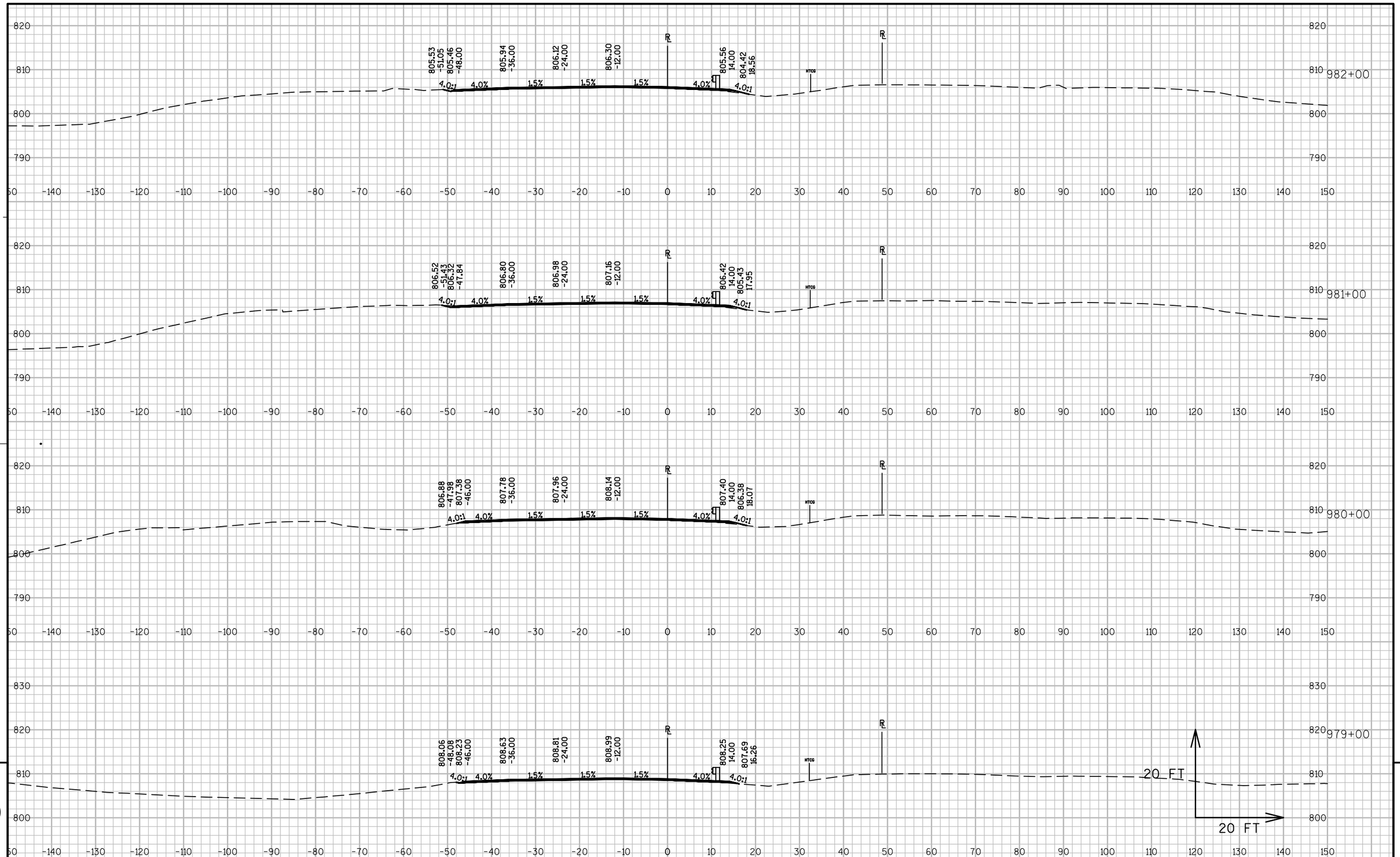
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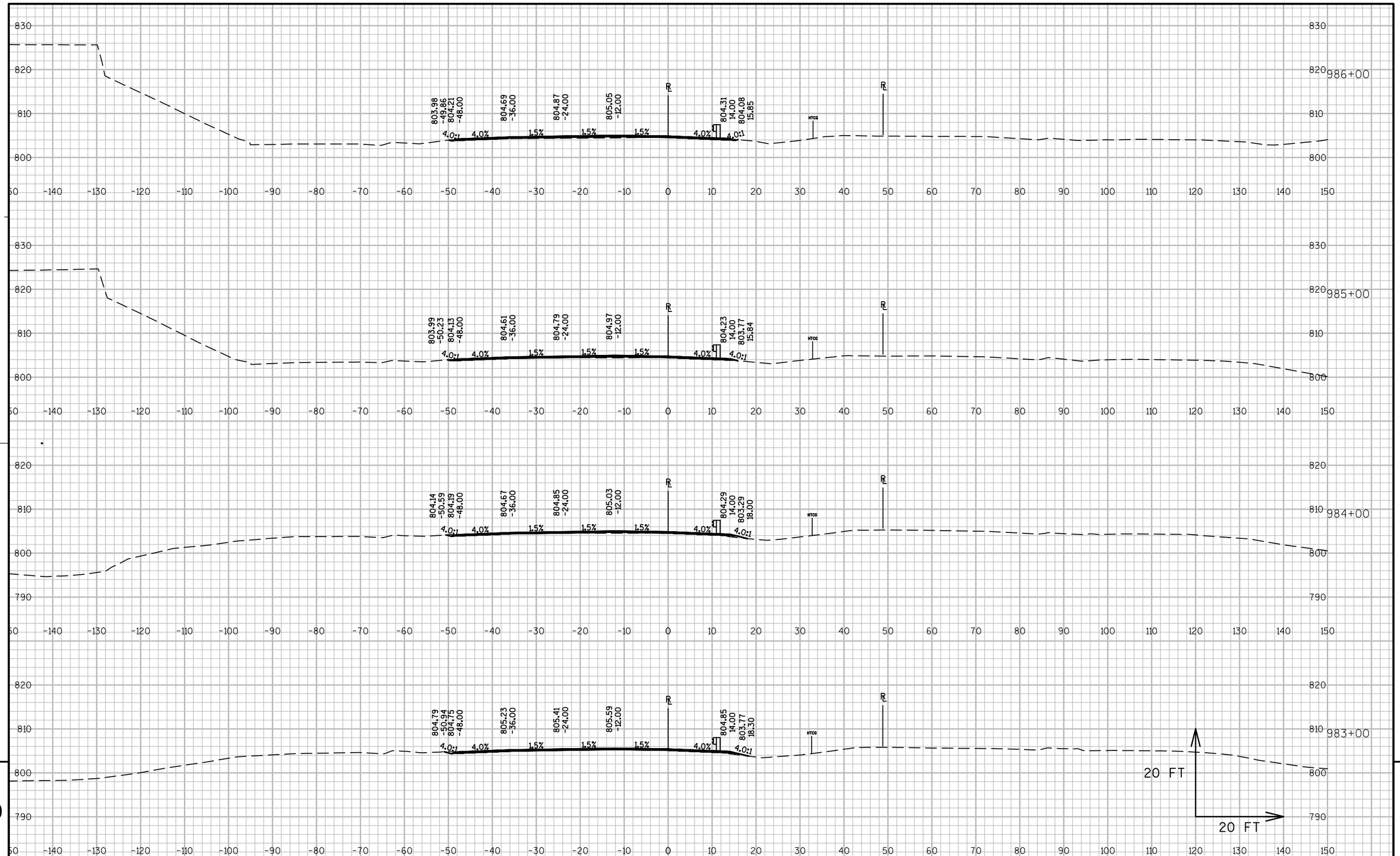
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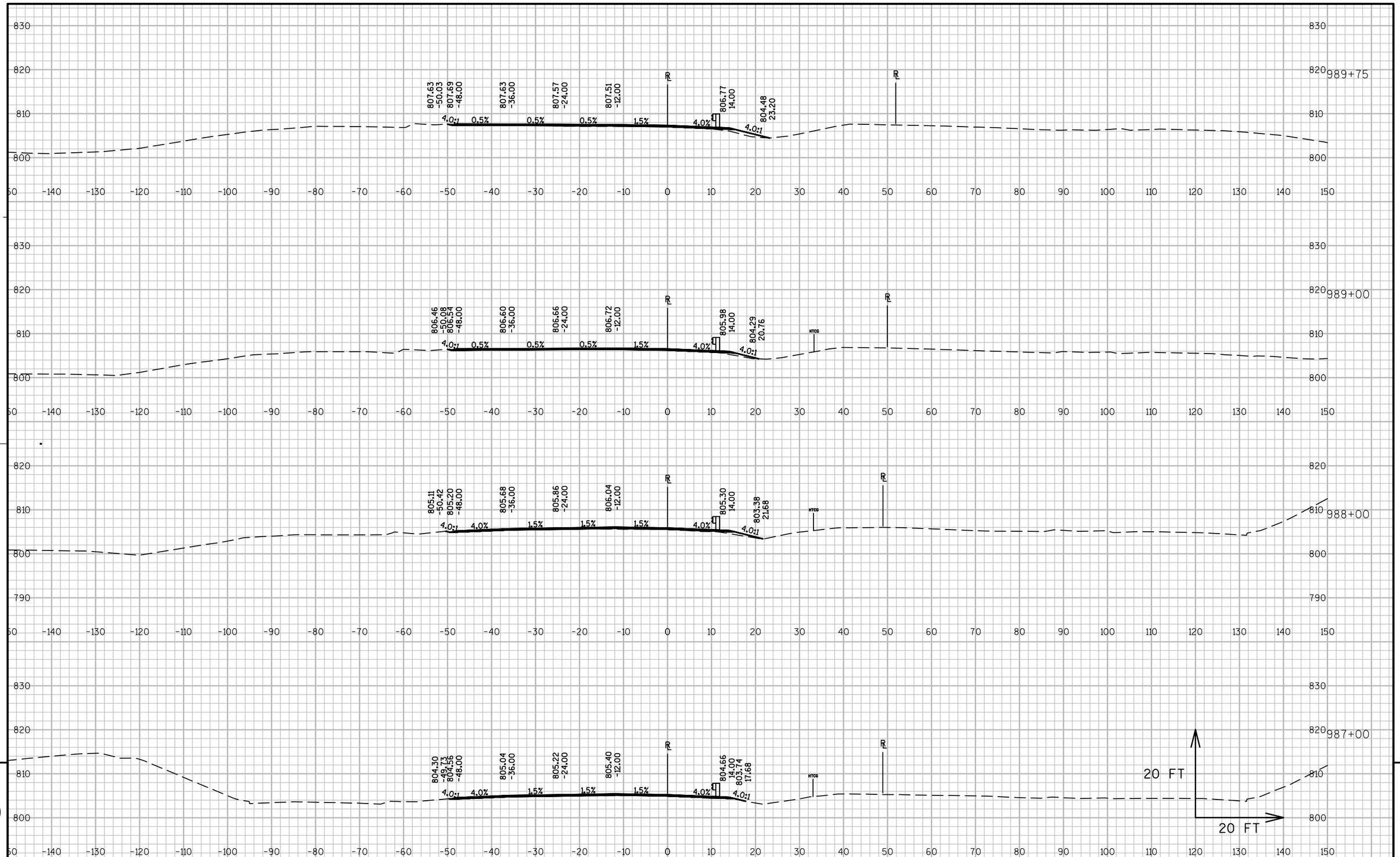
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PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: IH 39 NB	SHEET 563	E



PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: IH 39 NB	SHEET 564	E

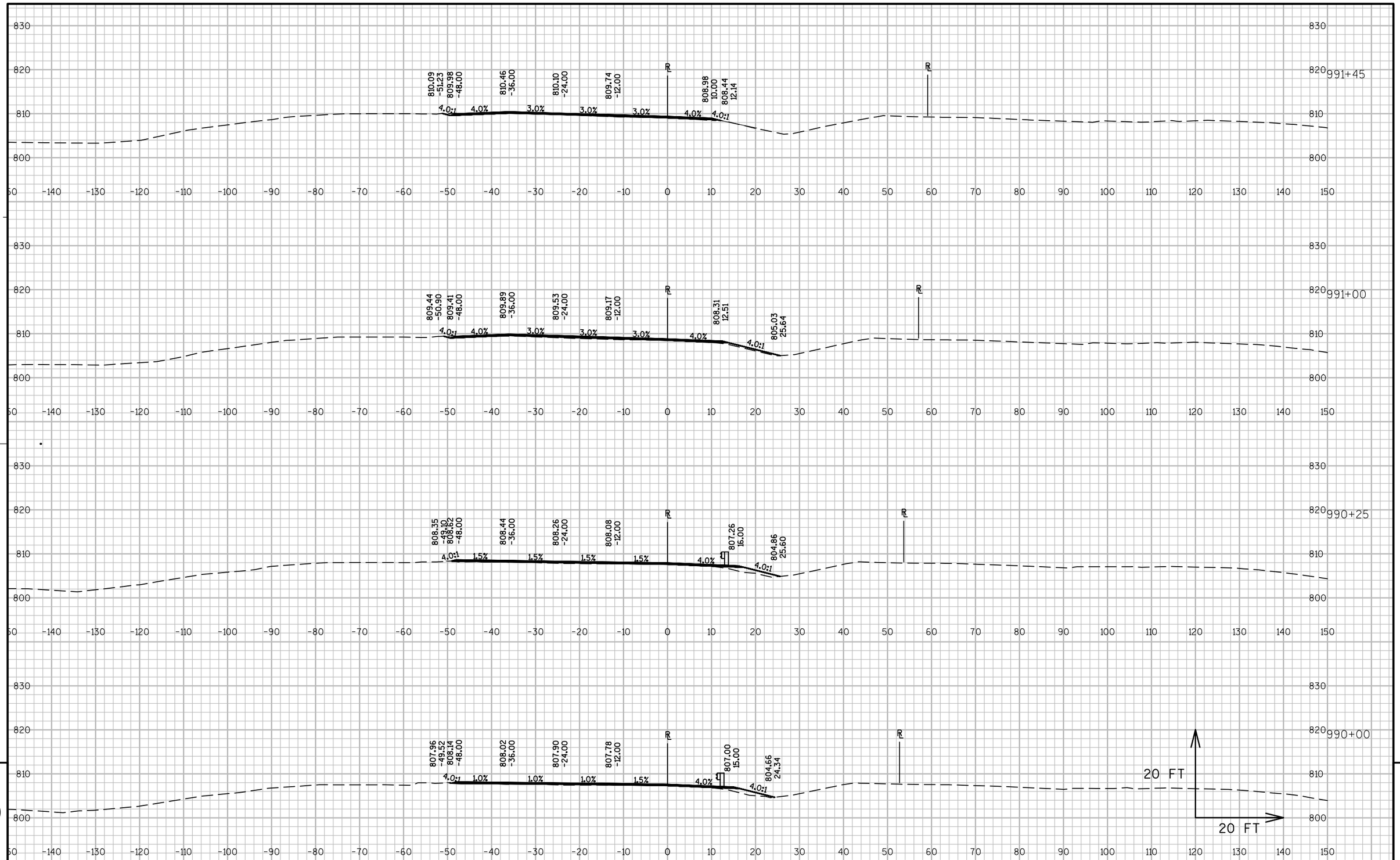


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PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: IH 39 NB	SHEET 565	E

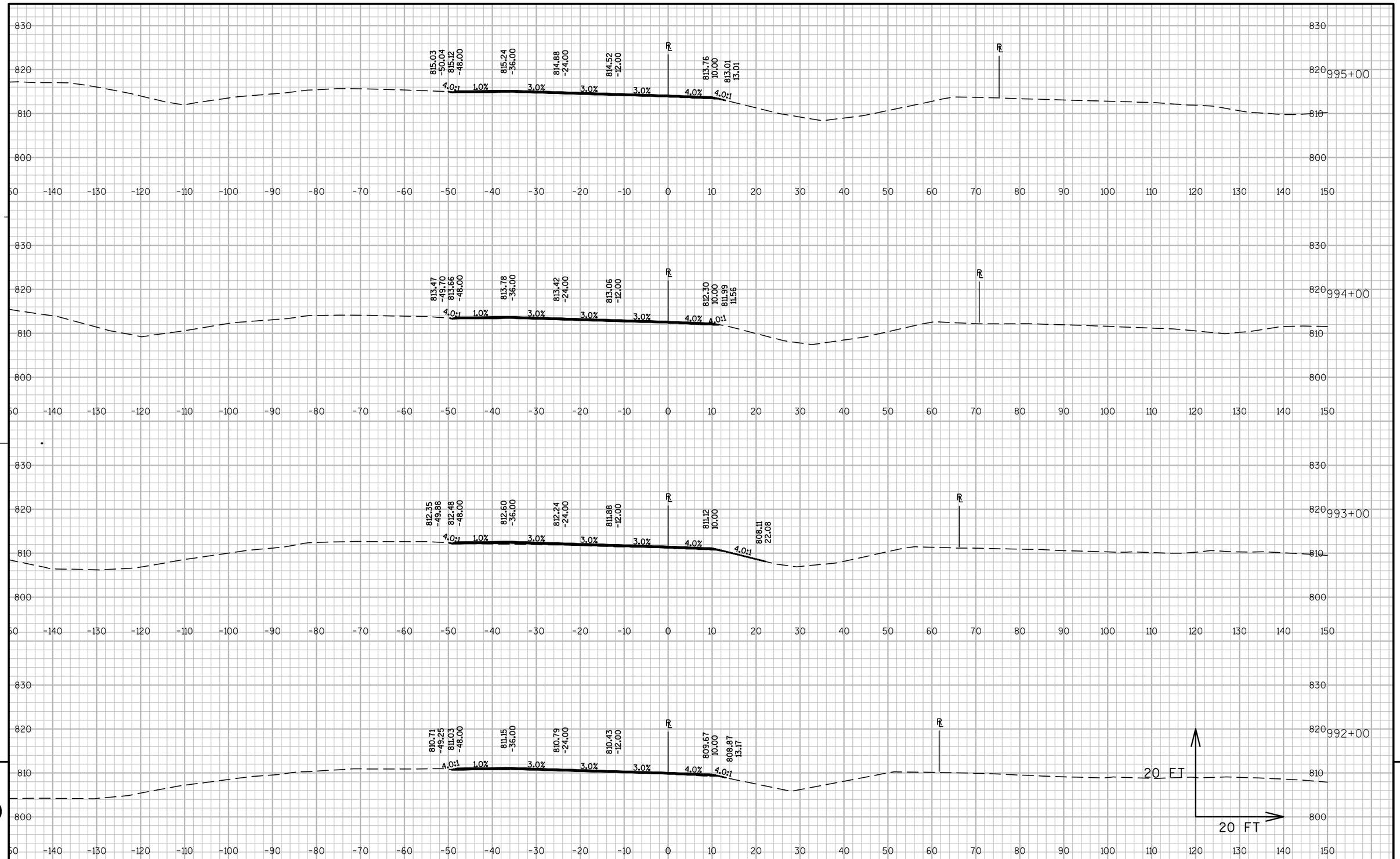
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PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: IH 39 NB	SHEET 566	E

FILE NAME : X:\3230900\131208.01\TECH\CAD\10100202\SHEETSPLAN\CONSTRUCTION PROJECT 1, 1010-02-84\090203_XS.DWG PLOT DATE : 2/10/2016 8:19 AM PLOT BY : DAVID YAHNKE PLOT NAME : PLOT SCALE : 1:20_XREF

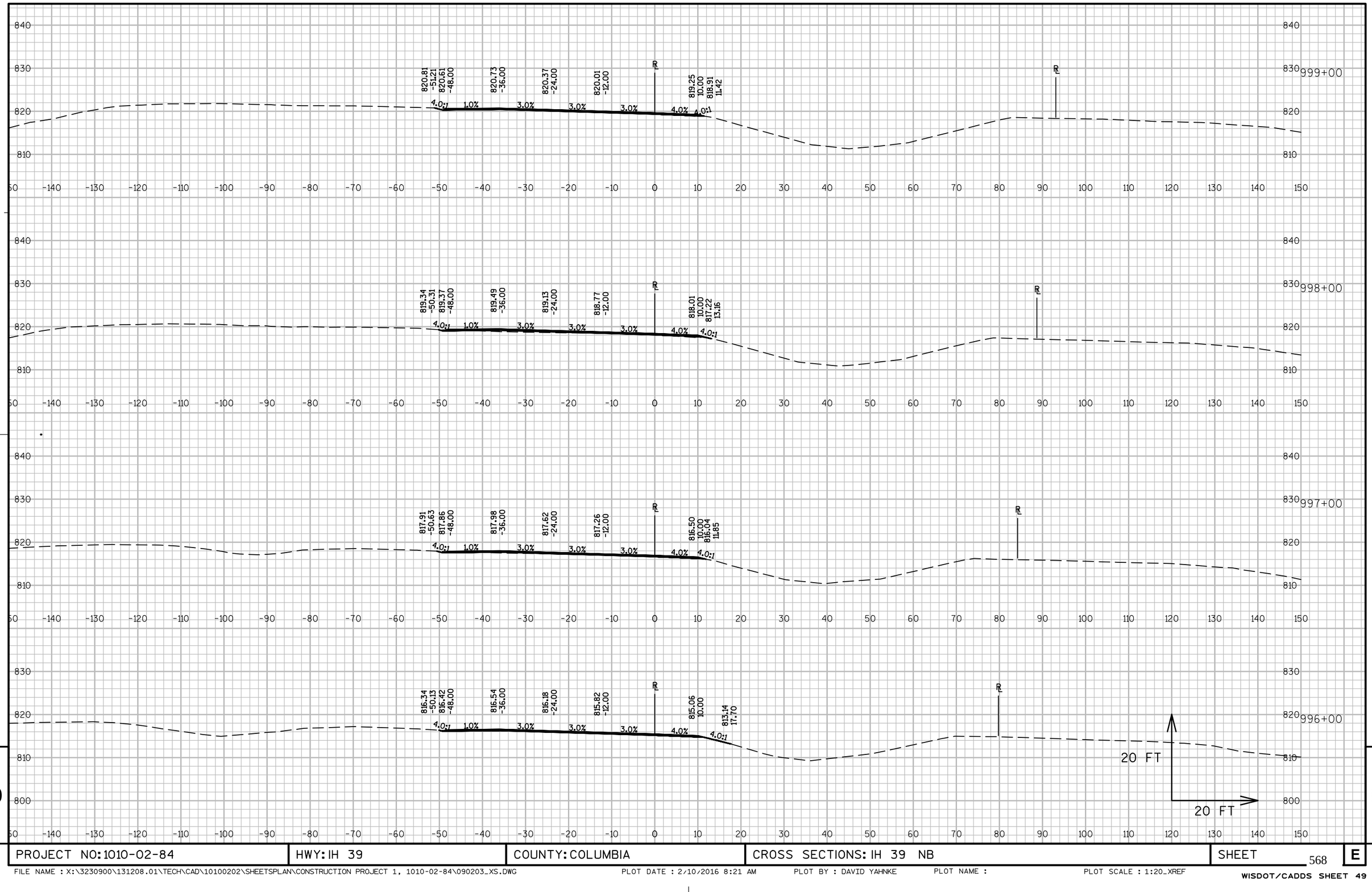
WISDOT/CADDS SHEET 49



PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: IH 39 NB	SHEET 567	E

FILE NAME : X:\3230900\131208.01\TECH\CAD\10100202\SHEETSPLAN\CONSTRUCTION PROJECT 1, 1010-02-84\090203_XS.DWG PLOT DATE : 2/10/2016 8:20 AM PLOT BY : DAVID YAHNKE PLOT NAME : PLOT SCALE : 1:20_XREF

WISDOT/CADDS SHEET 49



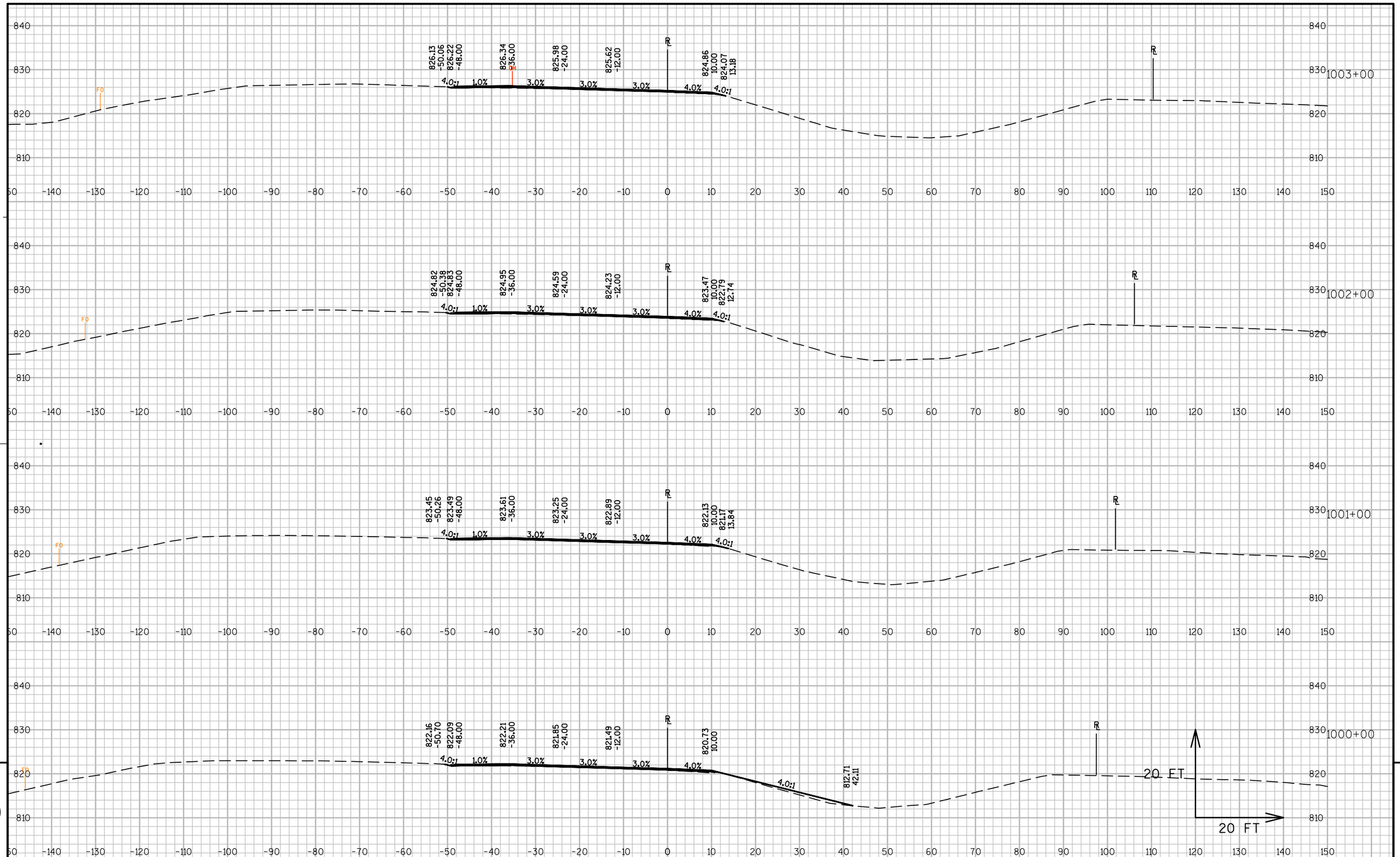
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PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: IH 39 NB	SHEET 568	E

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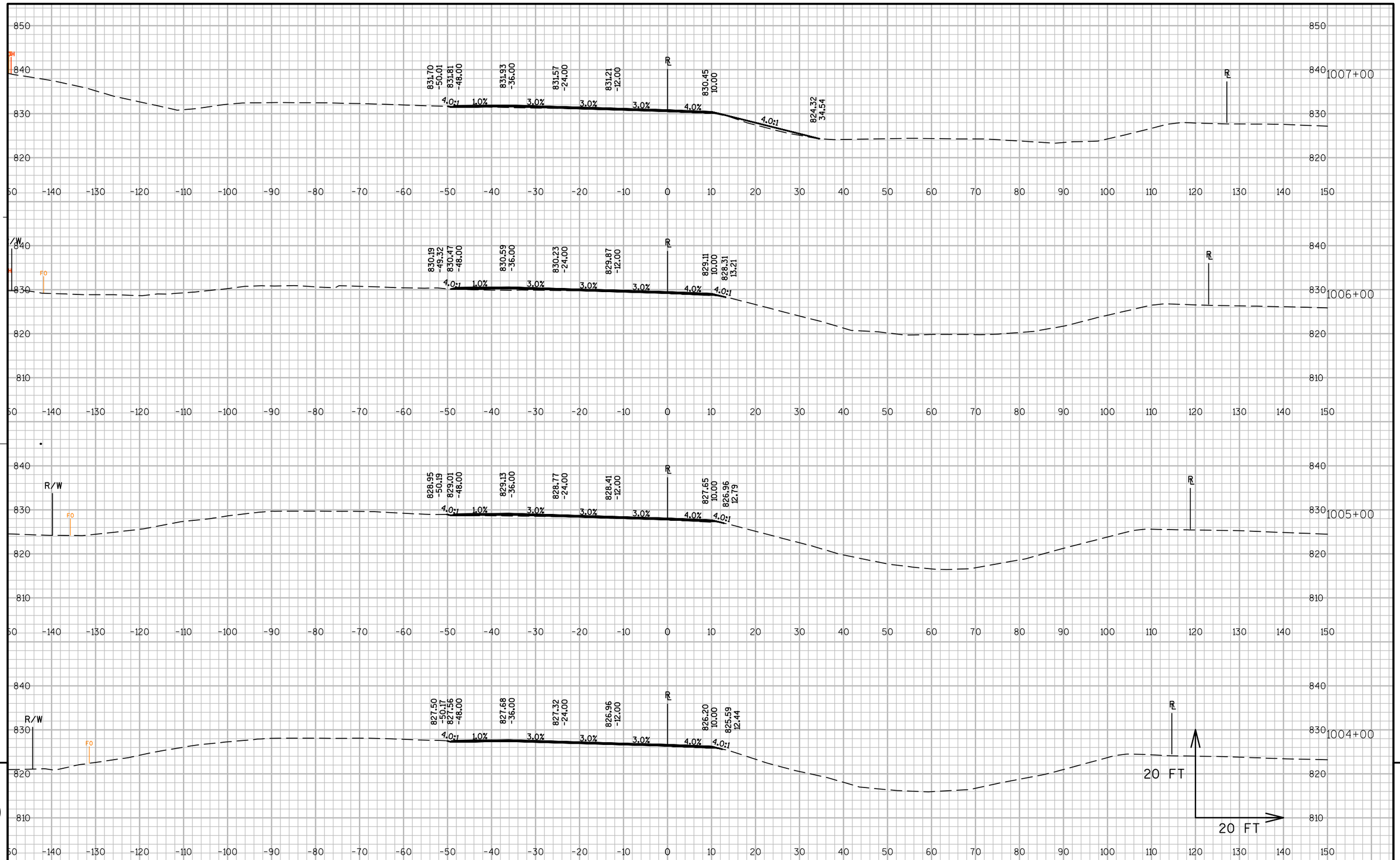
WISDOT/CADDS SHEET 49



PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: IH 39 NB	SHEET 569	E

FILE NAME : X:\3230900\131208.01\TECH\CAD\10100202\SHEETSPLAN\CONSTRUCTION PROJECT 1, 1010-02-84\090203_XS.DWG PLOT DATE : 2/10/2016 8:21 AM PLOT BY : DAVID YAHNKE PLOT NAME : PLOT SCALE : 1:20_XREF

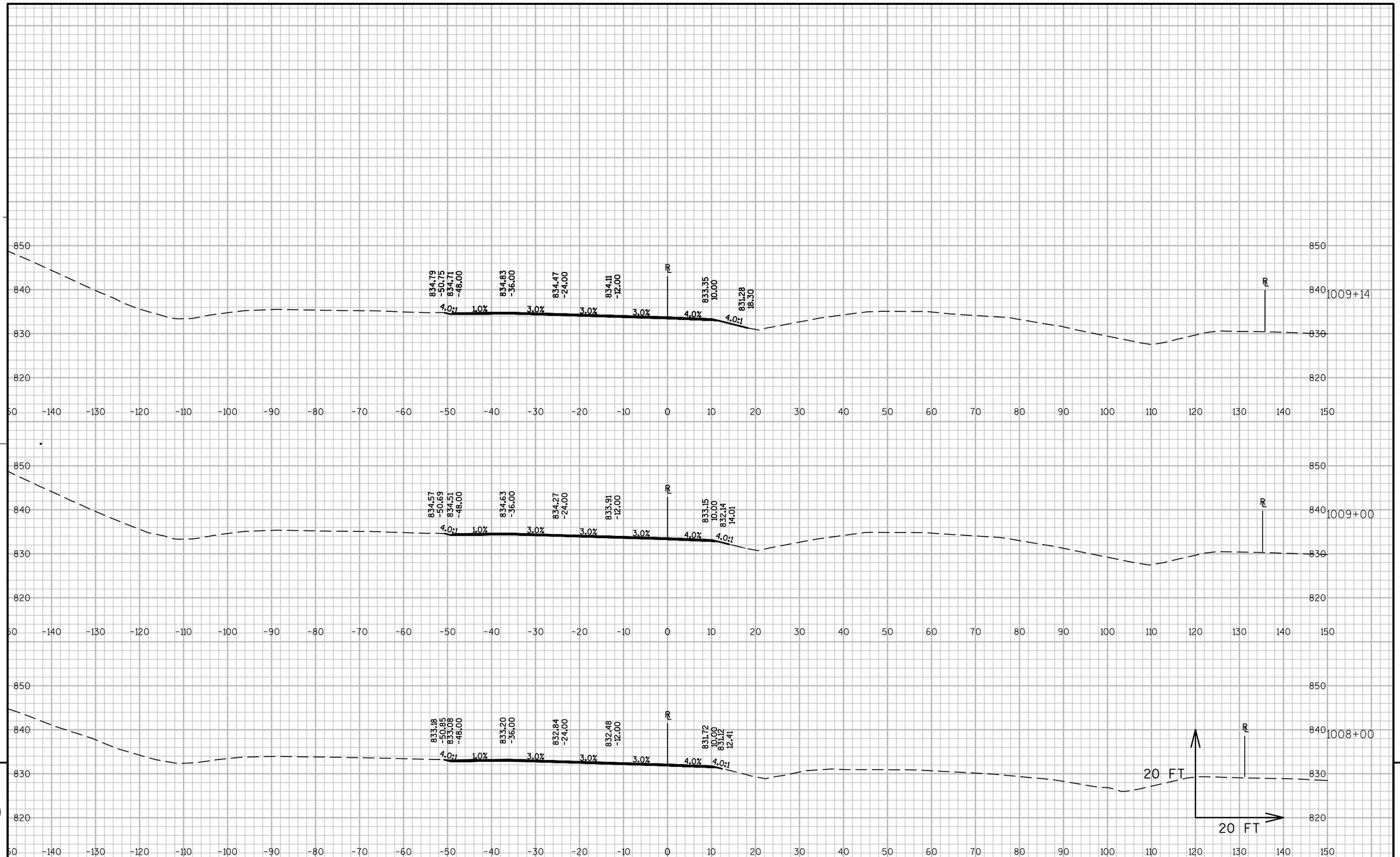
WISDOT/CADDS SHEET 49



PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: IH 39 NB	SHEET 570	E

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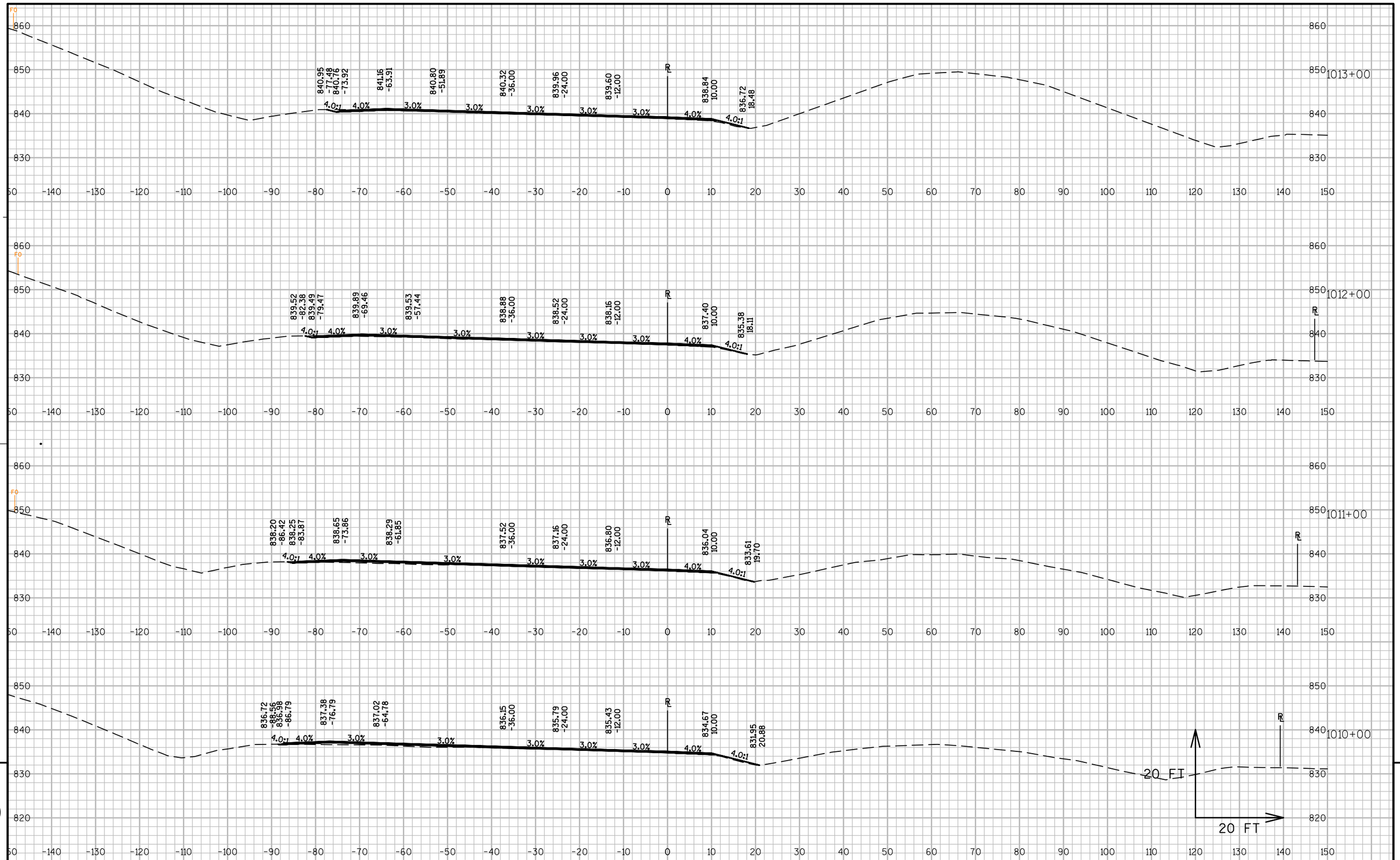
WISDOT/CADDS SHEET 49



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PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: IH 39 NB	SHEET 571	E

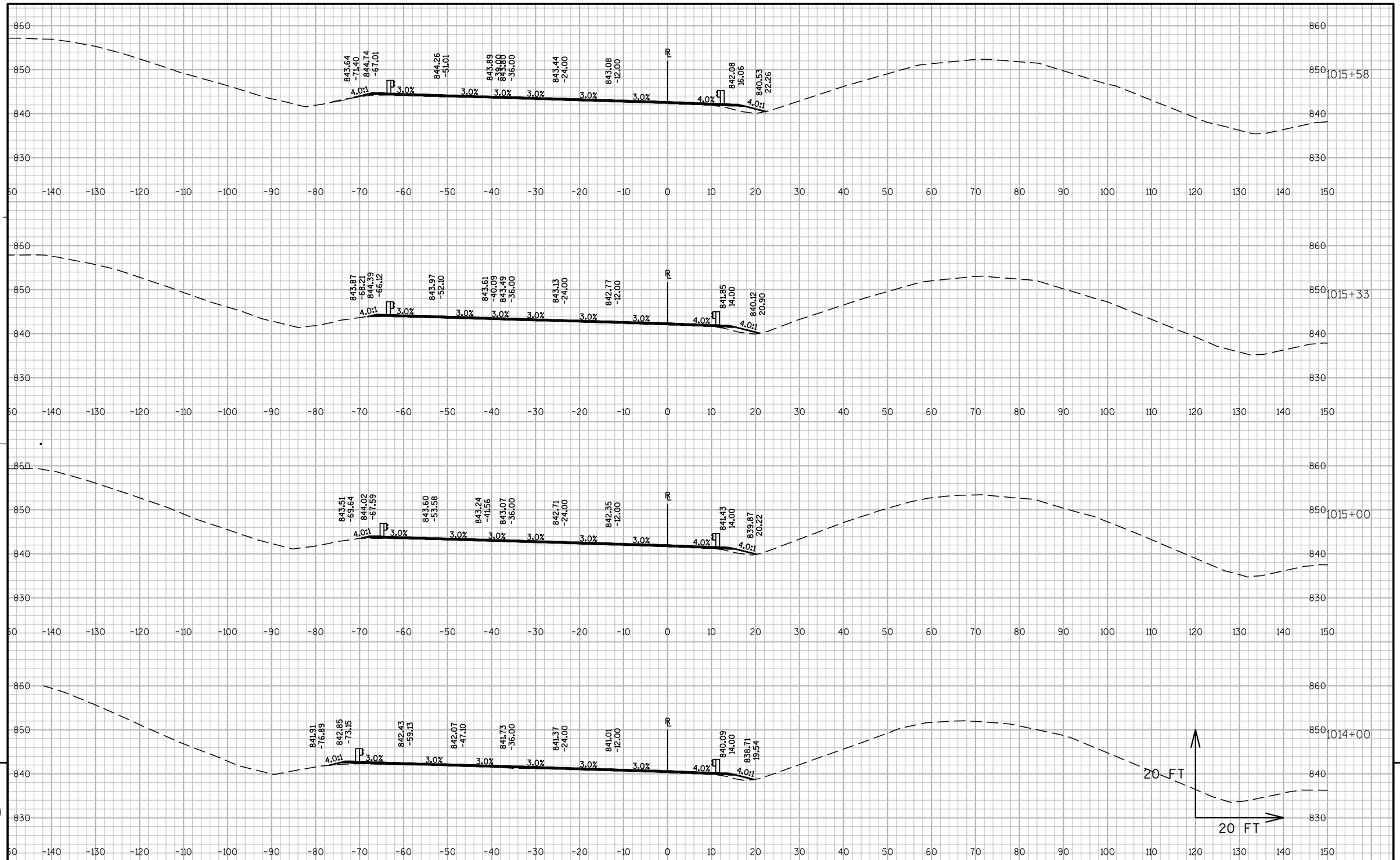


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PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: IH 39 NB	SHEET 572	E

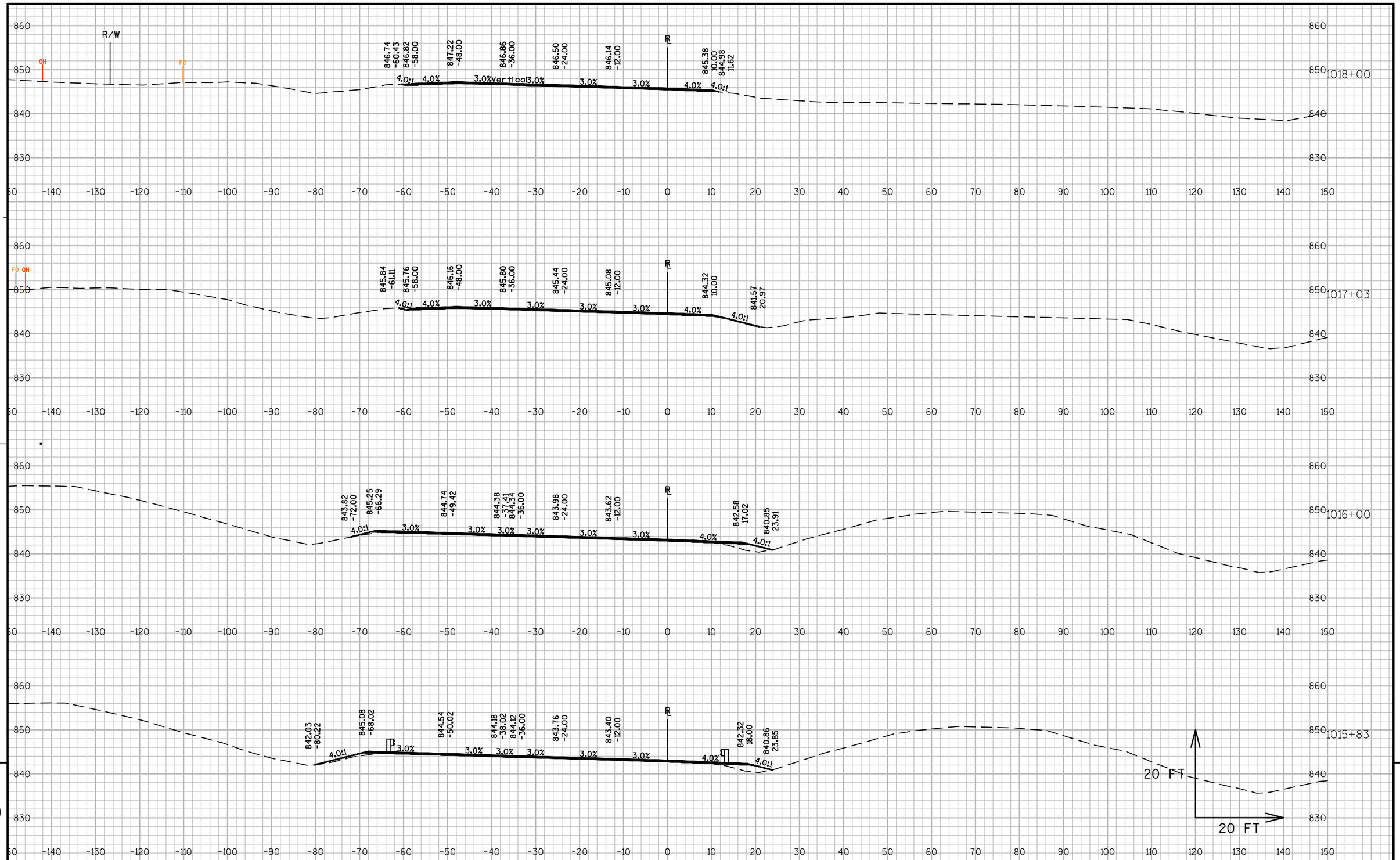
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PLOT BY : DAVID YAHNKE
PLOT NAME :
PLOT SCALE : 1:20_XREF
WISDOT/CADDS SHEET 49



PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: IH 39 NB	SHEET 573	E

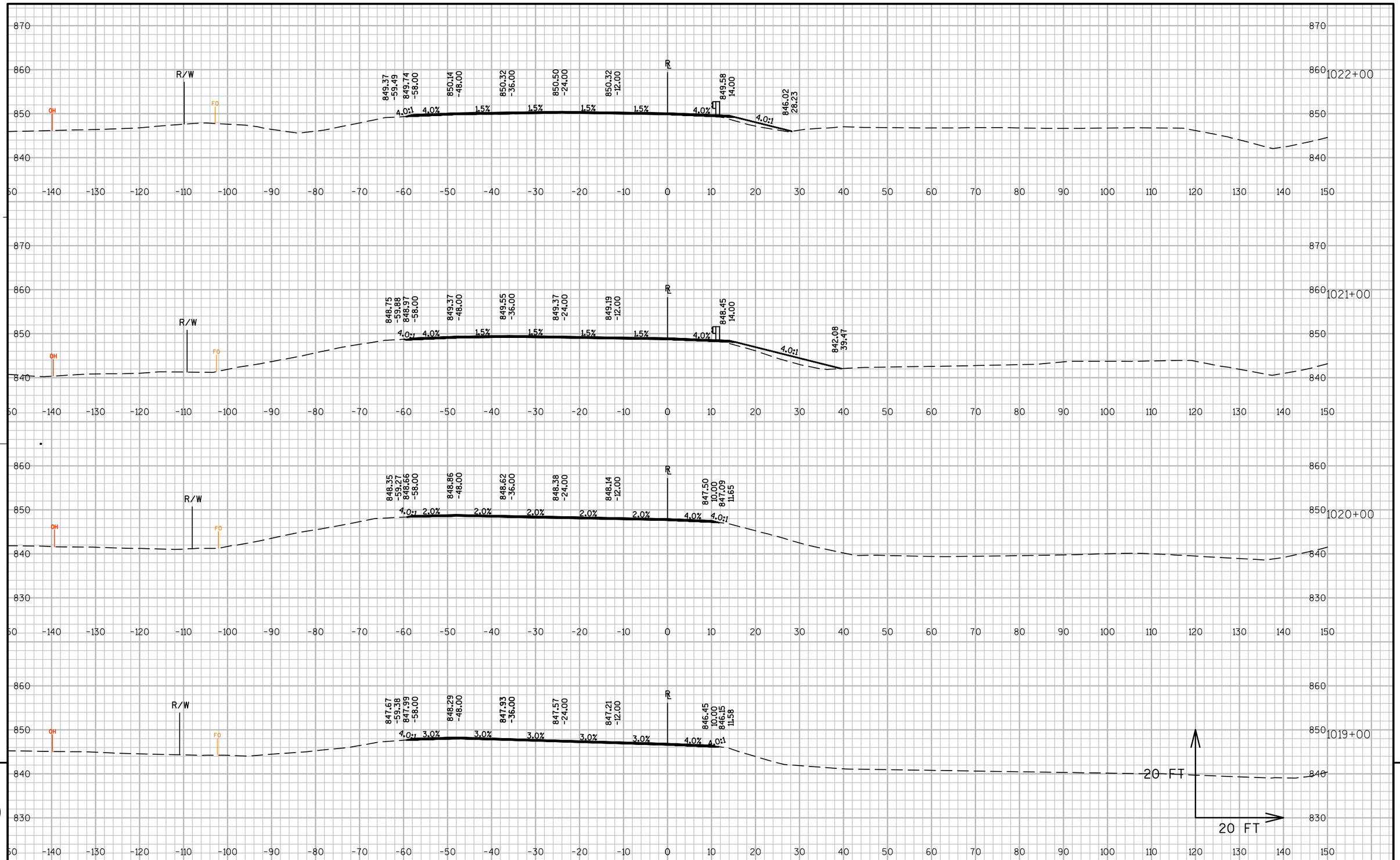
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WISDOT/CADDS SHEET 49



PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: IH 39 NB	SHEET 574	E

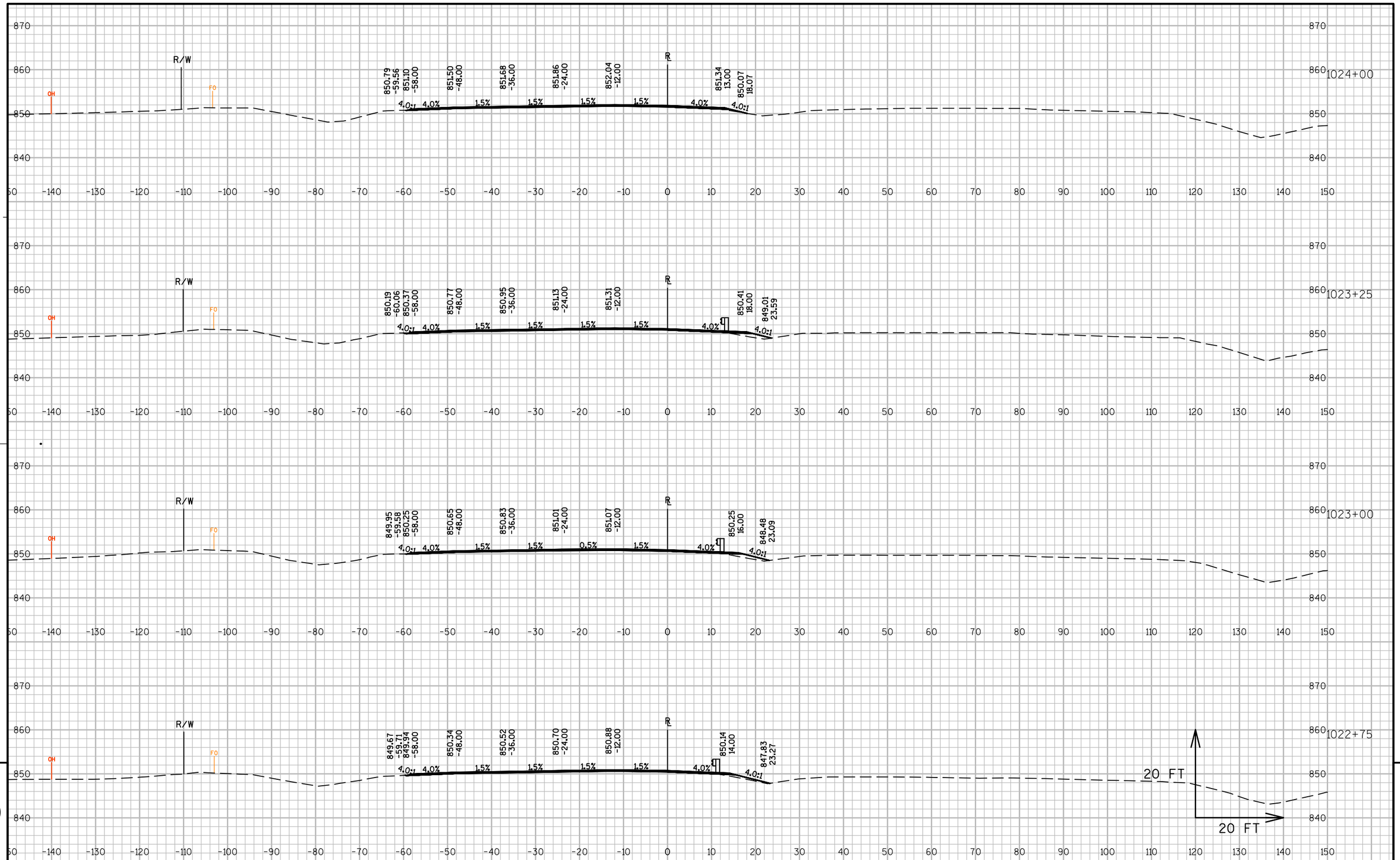
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PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: IH 39 NB	SHEET 575	E

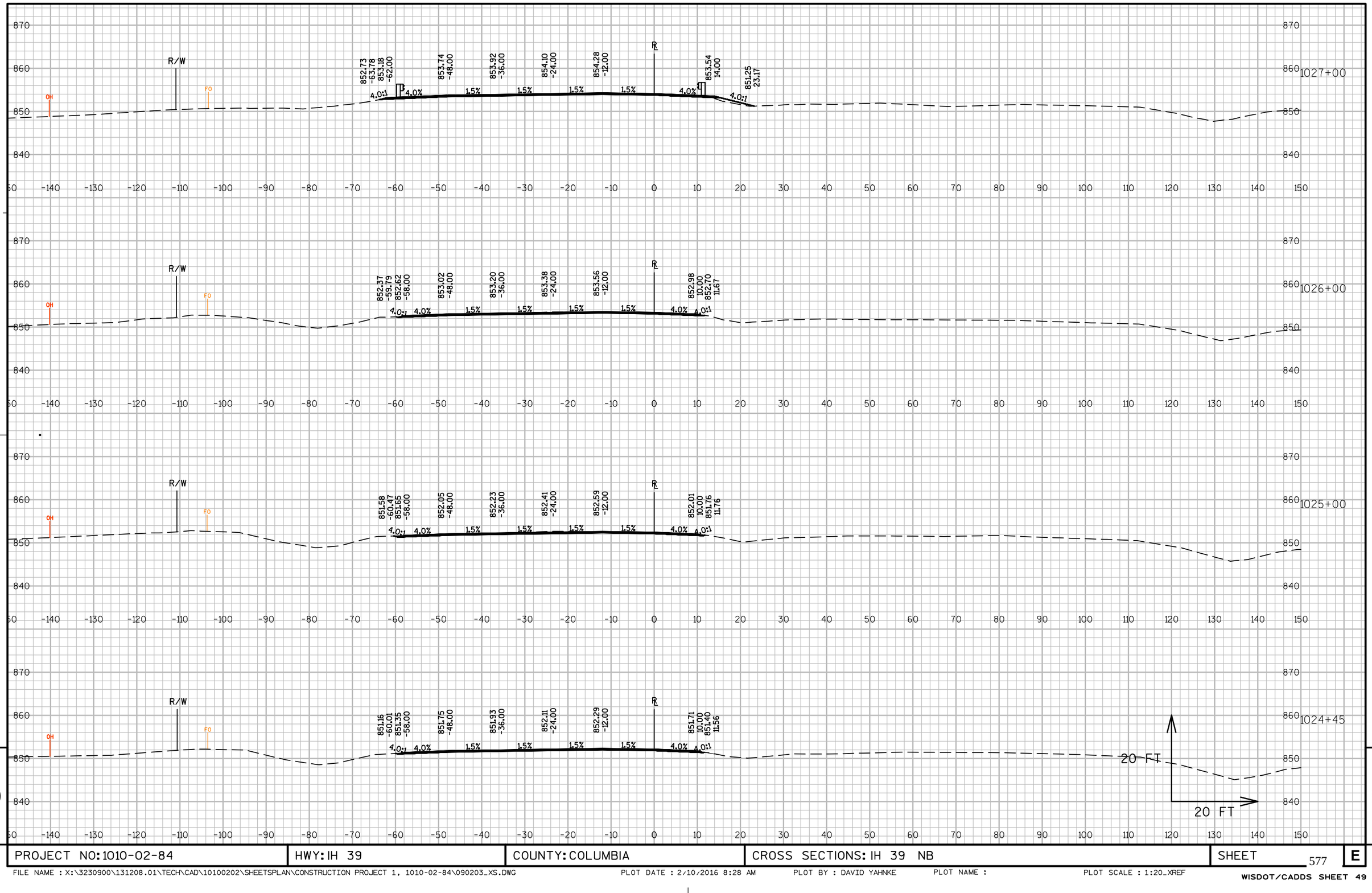
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WISDOT/CADDS SHEET 49



PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: IH 39 NB	SHEET 576	E

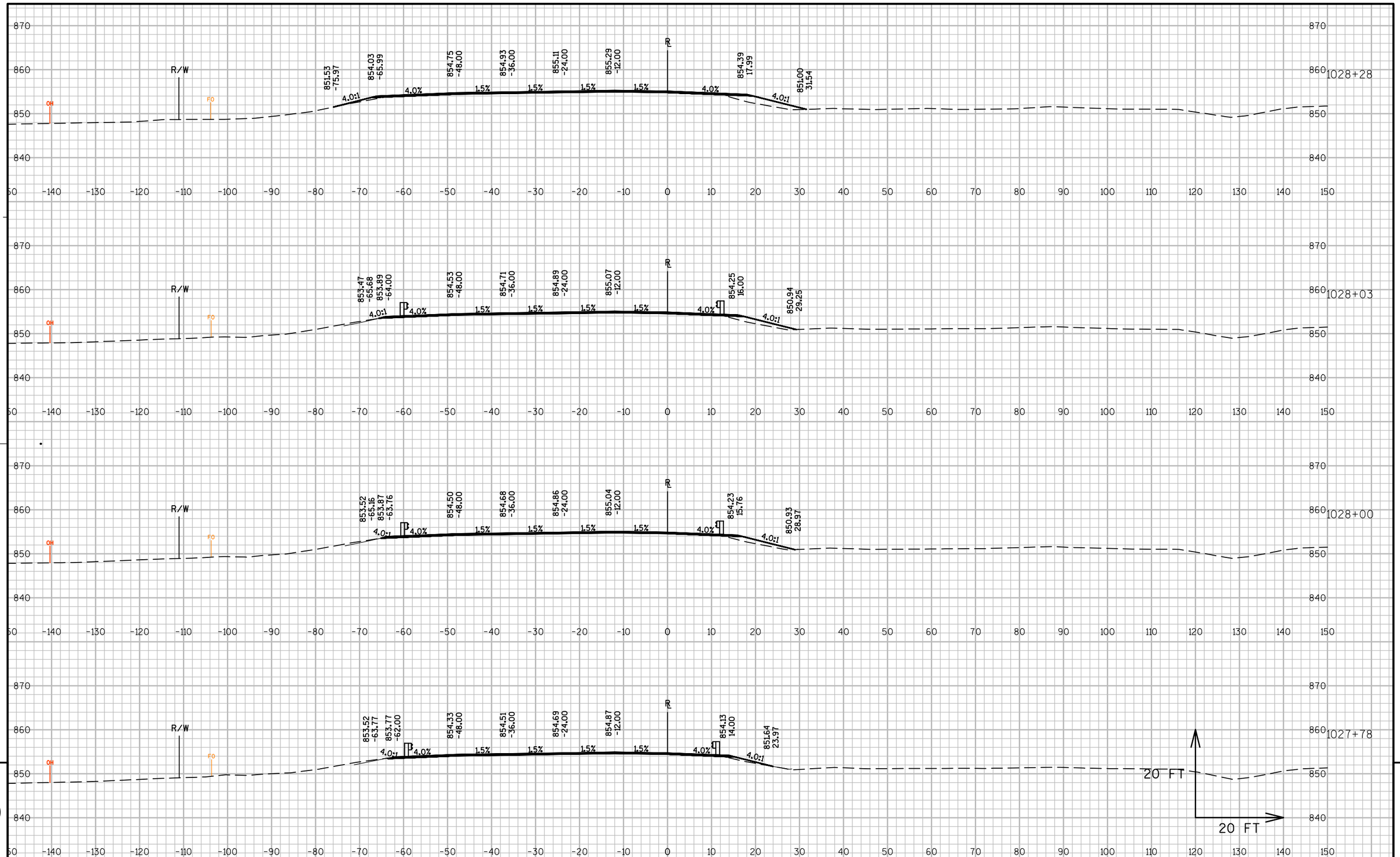
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PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: IH 39 NB	SHEET 577	E

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WISDOT/CADDS SHEET 49

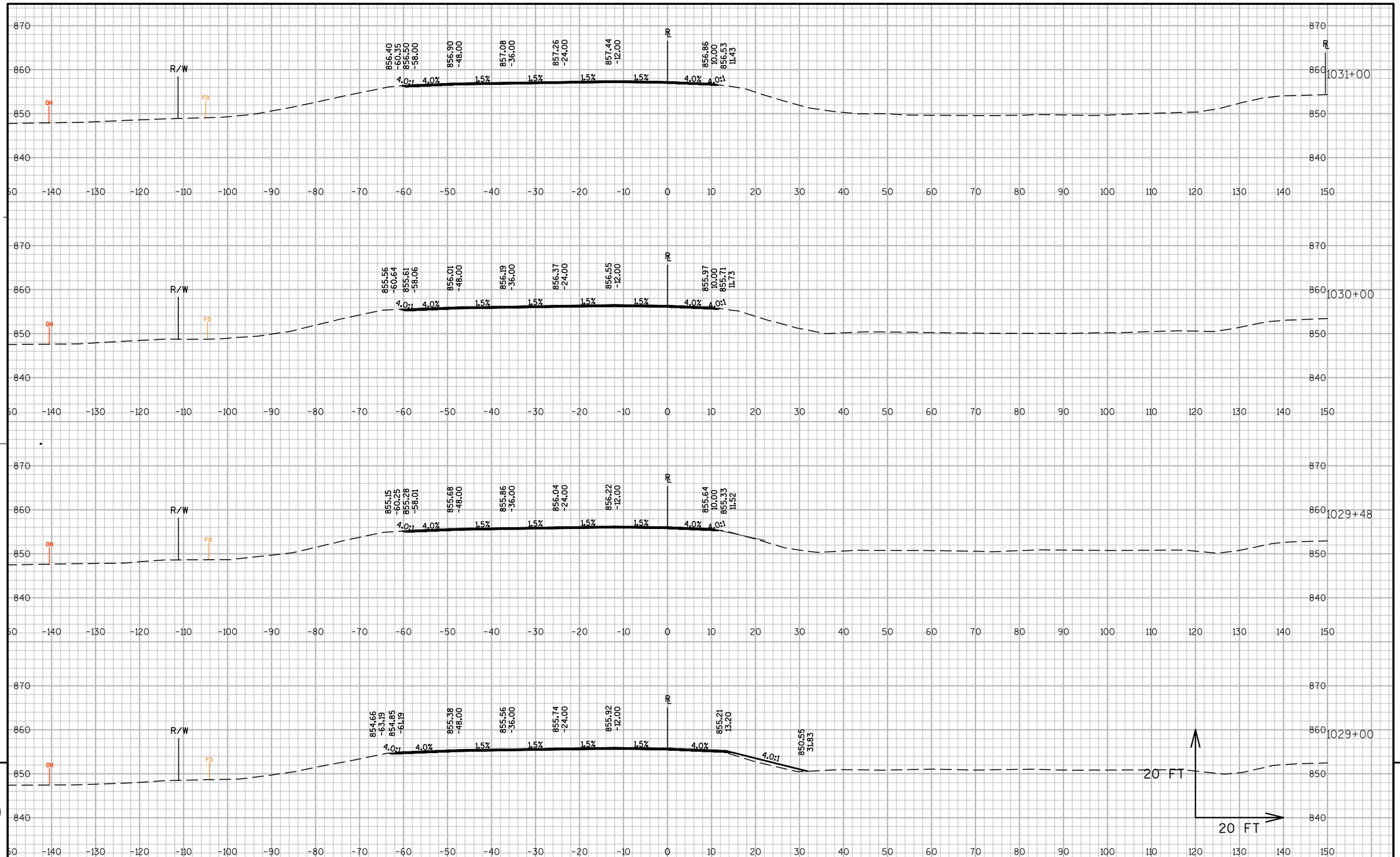


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PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: IH 39 NB	SHEET 578	E

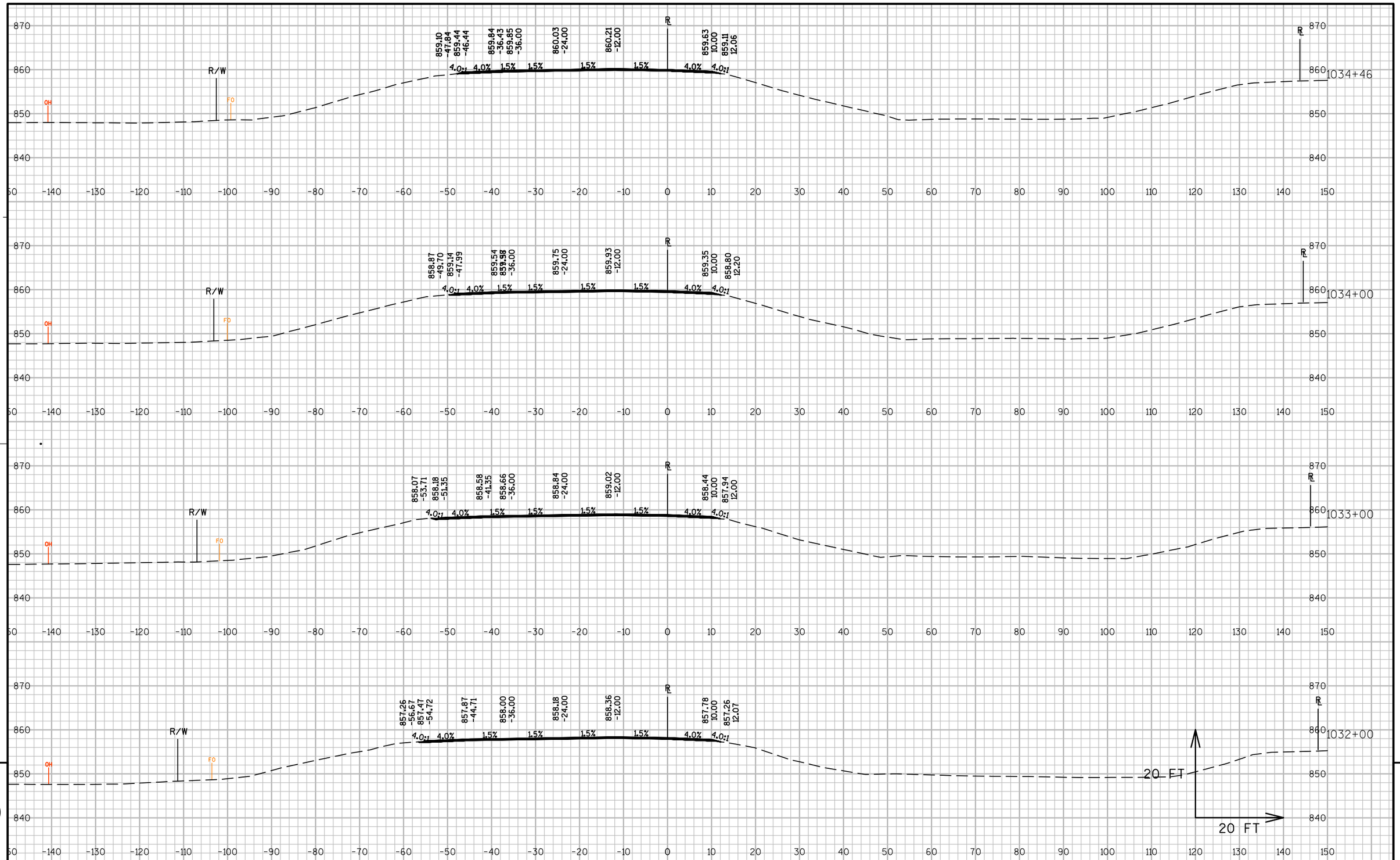
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WISDOT/CADDS SHEET 49



PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: IH 39 NB	SHEET 579	E

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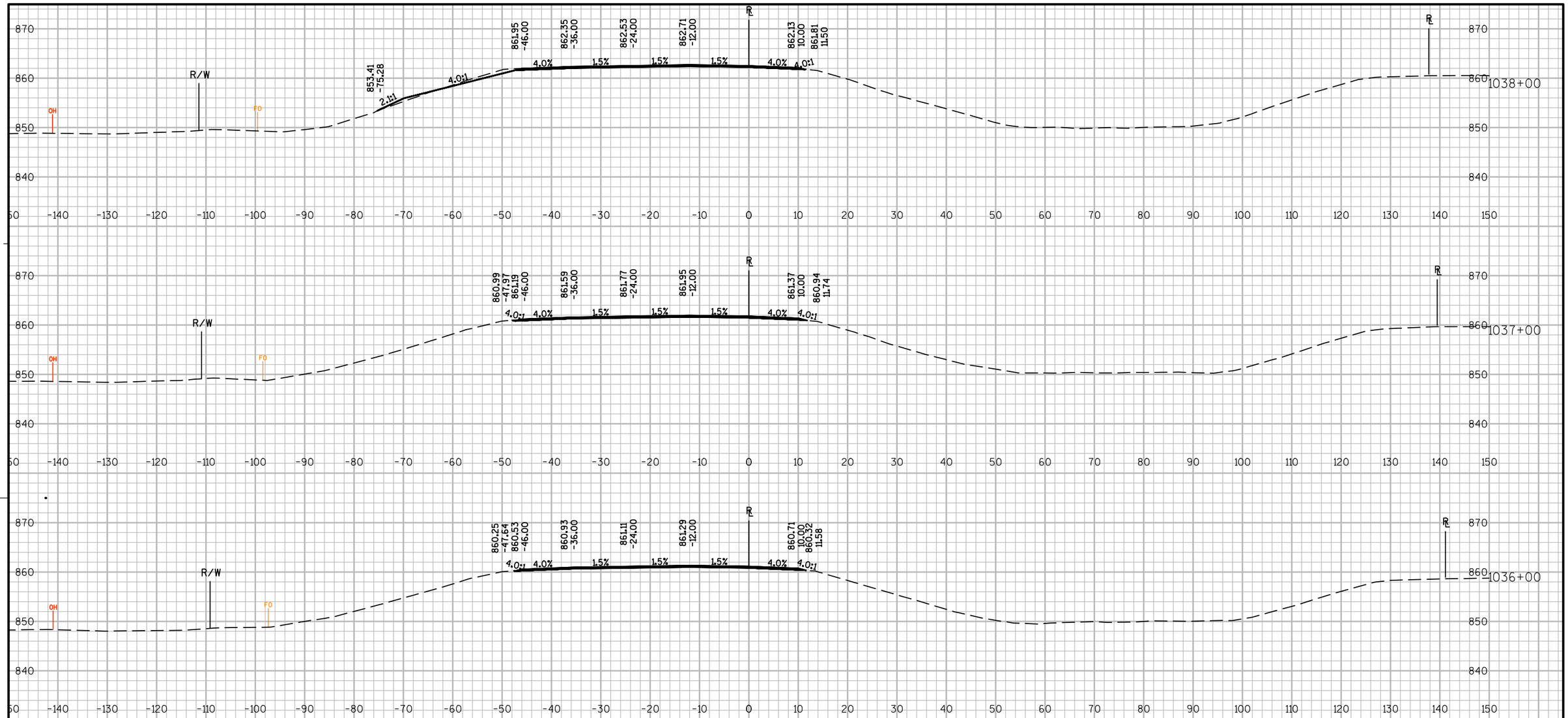
WISDOT/CADDS SHEET 49



PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: IH 39 NB	SHEET 580	E

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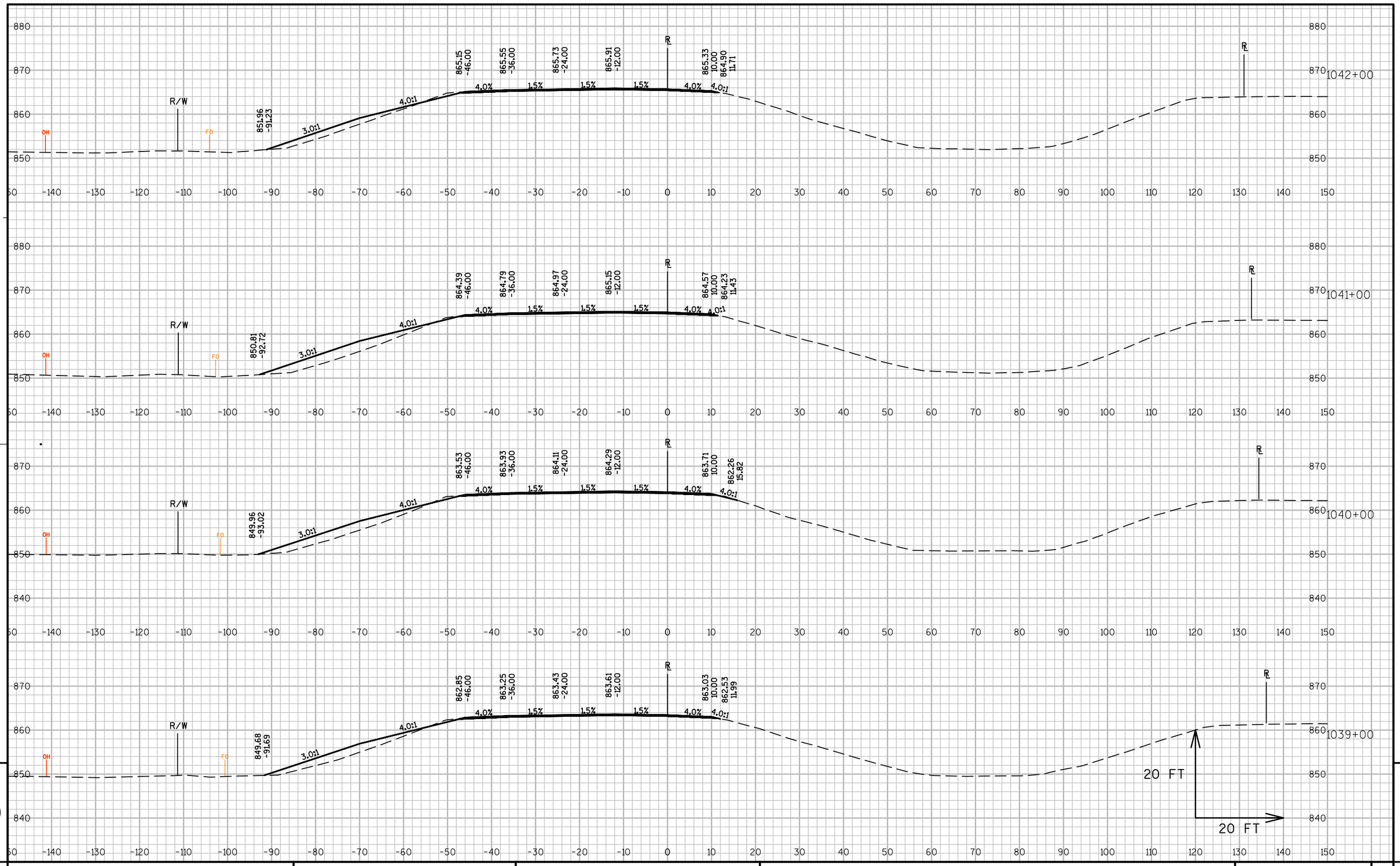
WISDOT/CADDS SHEET 49



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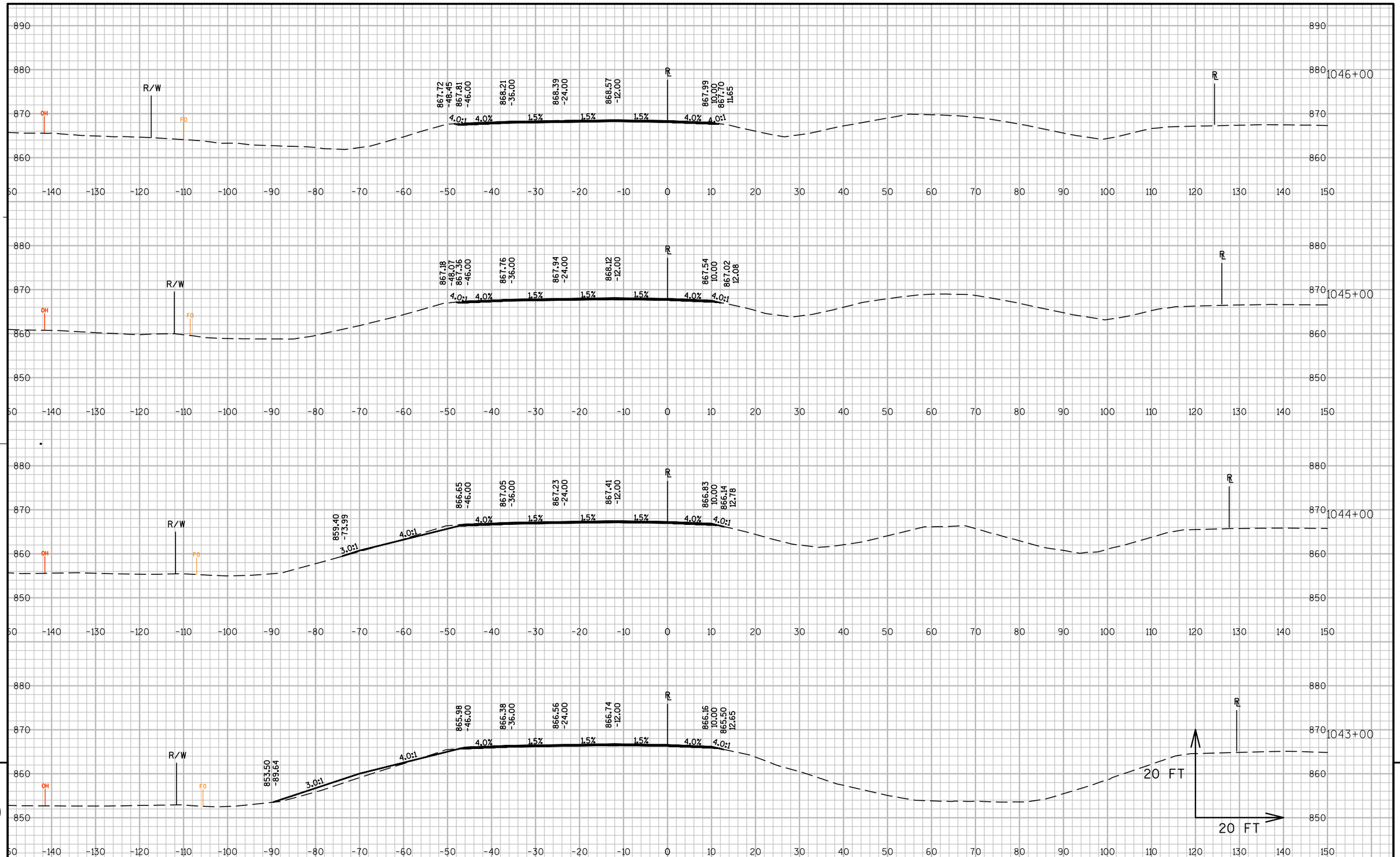
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PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: IH 39 NB	SHEET 582	E

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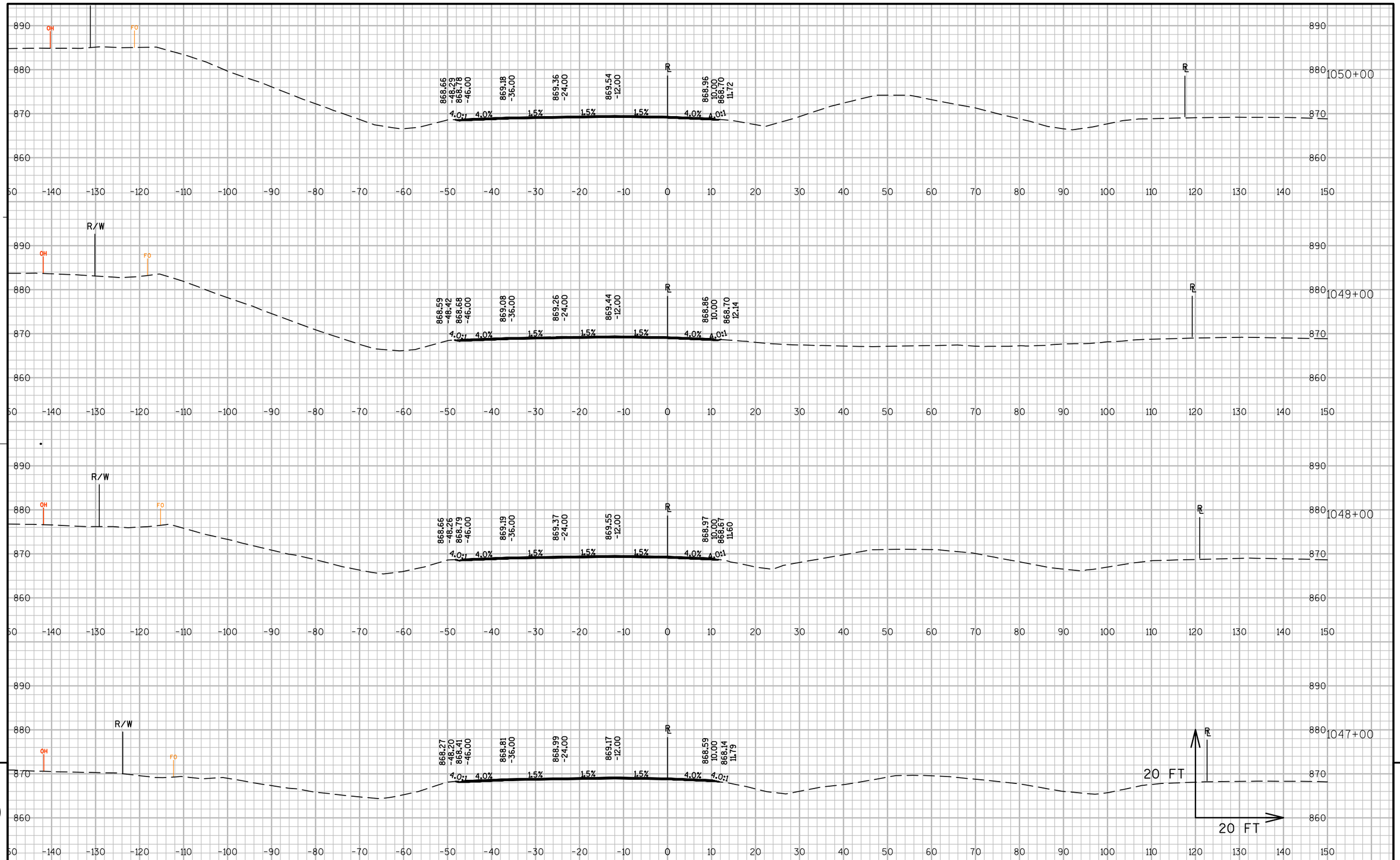
WISDOT/CADDS SHEET 49



PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: IH 39 NB	SHEET 583	E

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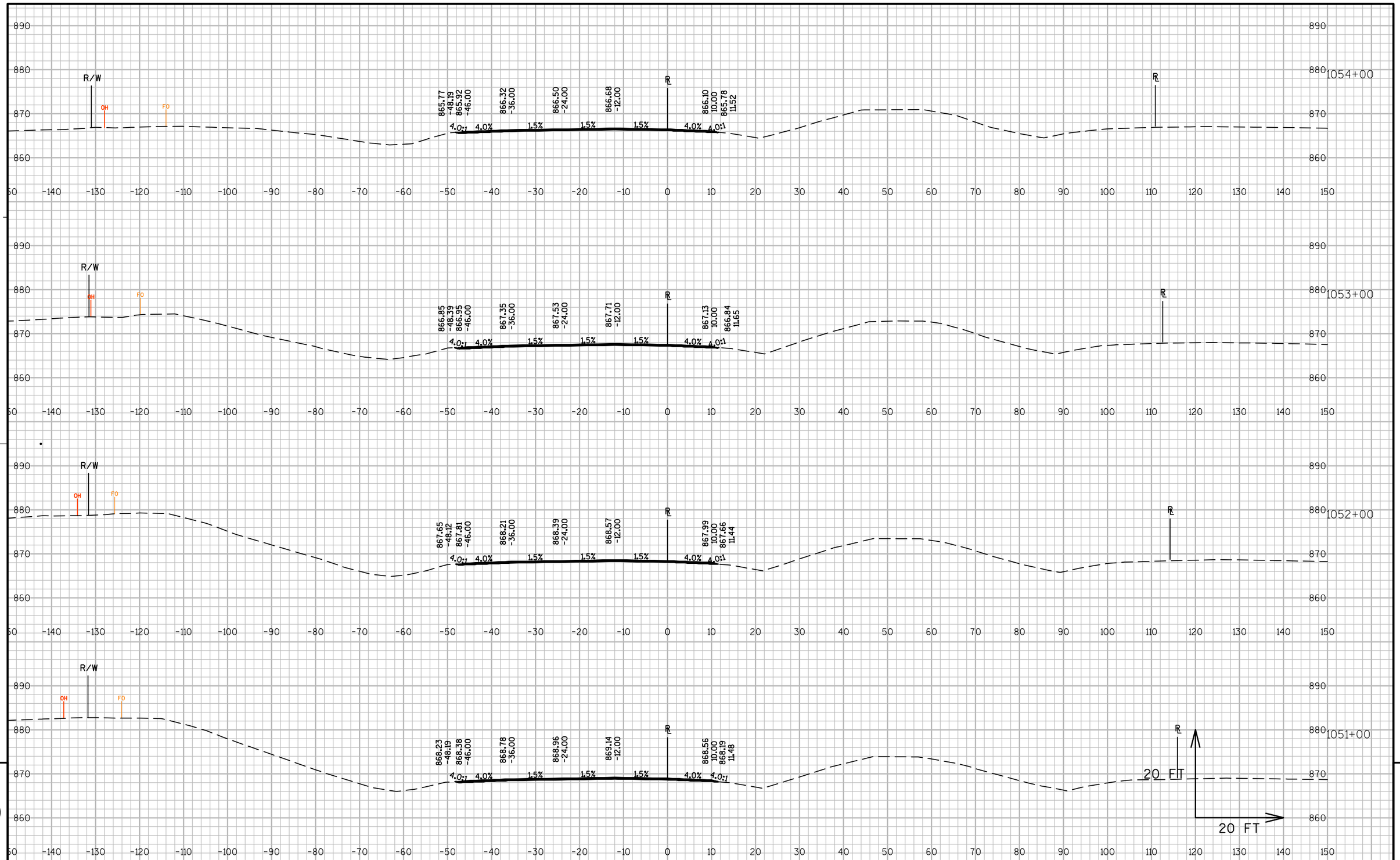
WISDOT/CADDS SHEET 49



PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: IH 39 NB	SHEET 584	E

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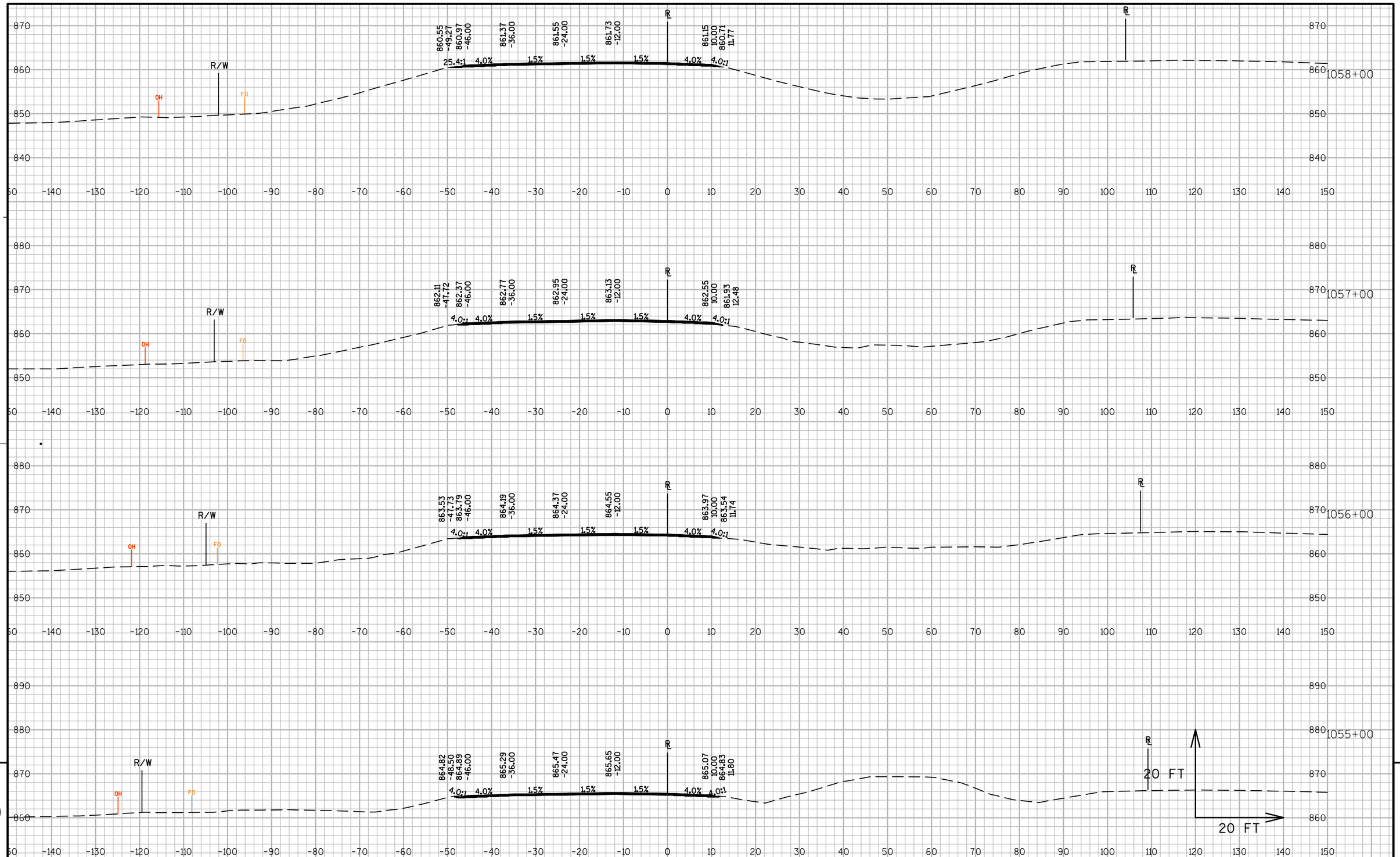
WISDOT/CADDS SHEET 49



PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: IH 39 NB	SHEET 585	E

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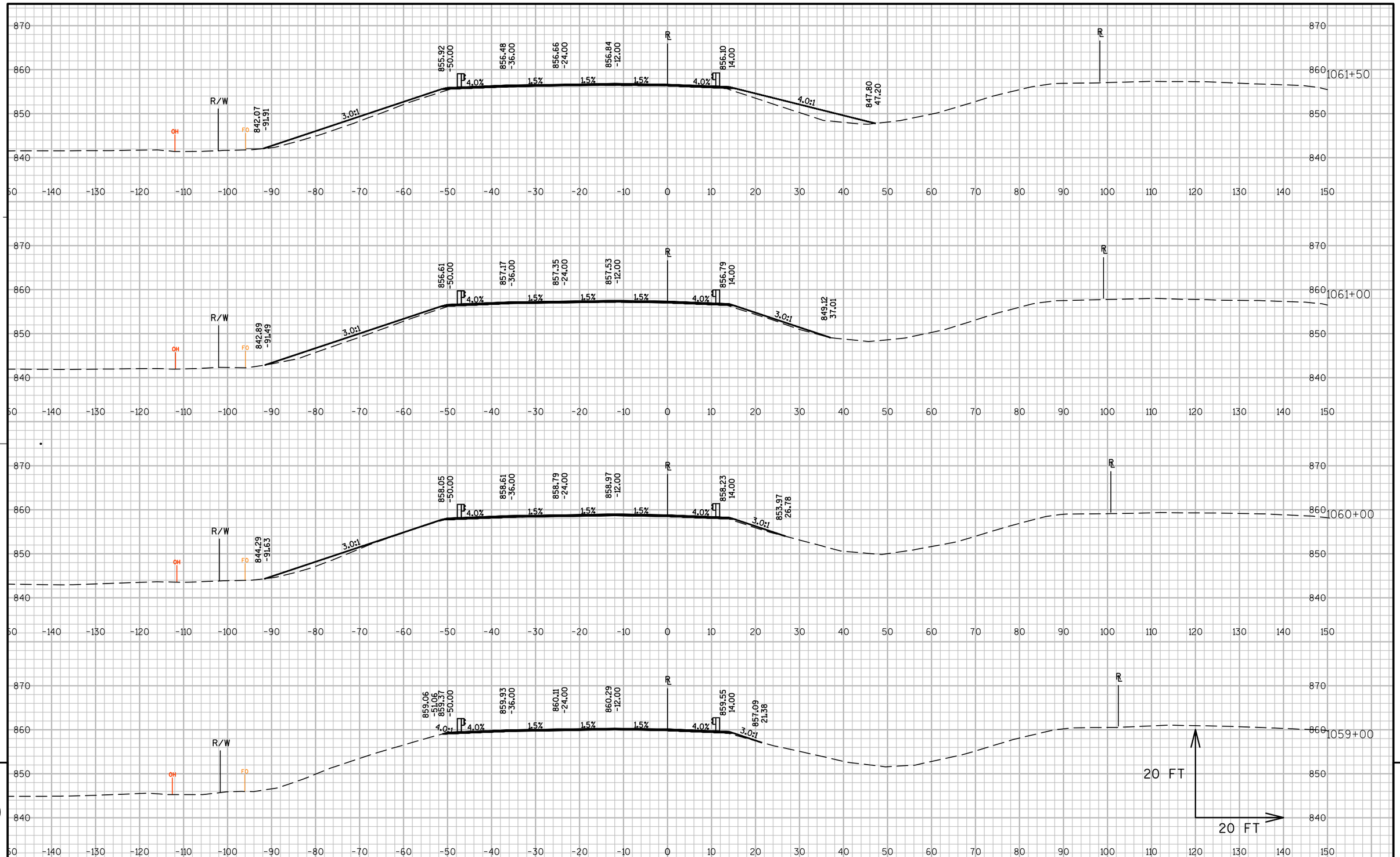
WISDOT/CADDS SHEET 49



PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: IH 39 NB	SHEET 586	E

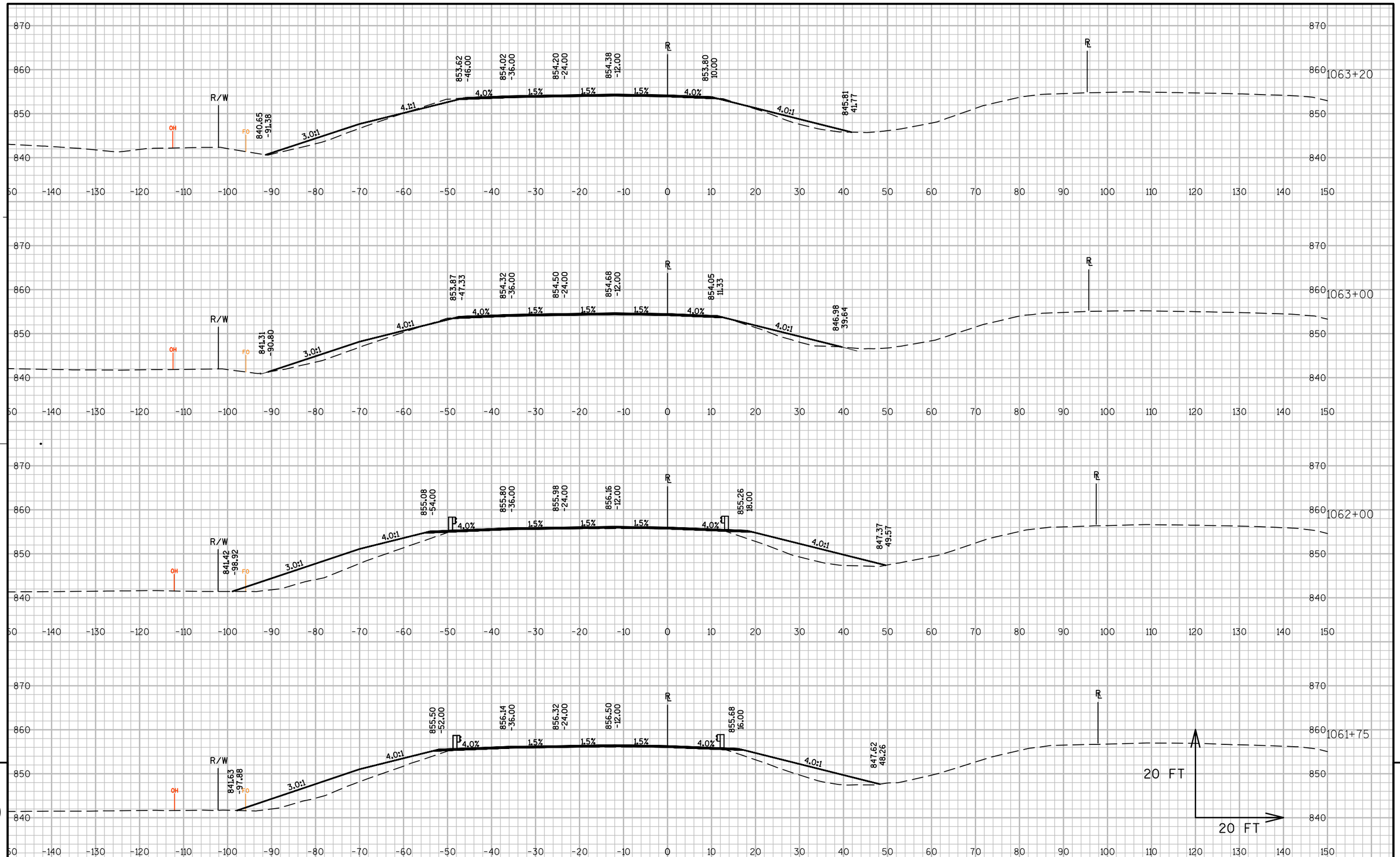
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WISDOT/CADDS SHEET 49



PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: IH 39 NB	SHEET 587	E

FILE NAME : X:\3230900\131208.01\TECH\CAD\10100202\SHEETSPLAN\CONSTRUCTION PROJECT 1, 1010-02-84\090203_XS.DWG PLOT DATE : 2/10/2016 8:37 AM PLOT BY : DAVID YAHNKE PLOT NAME : PLOT SCALE : 1:20_XREF

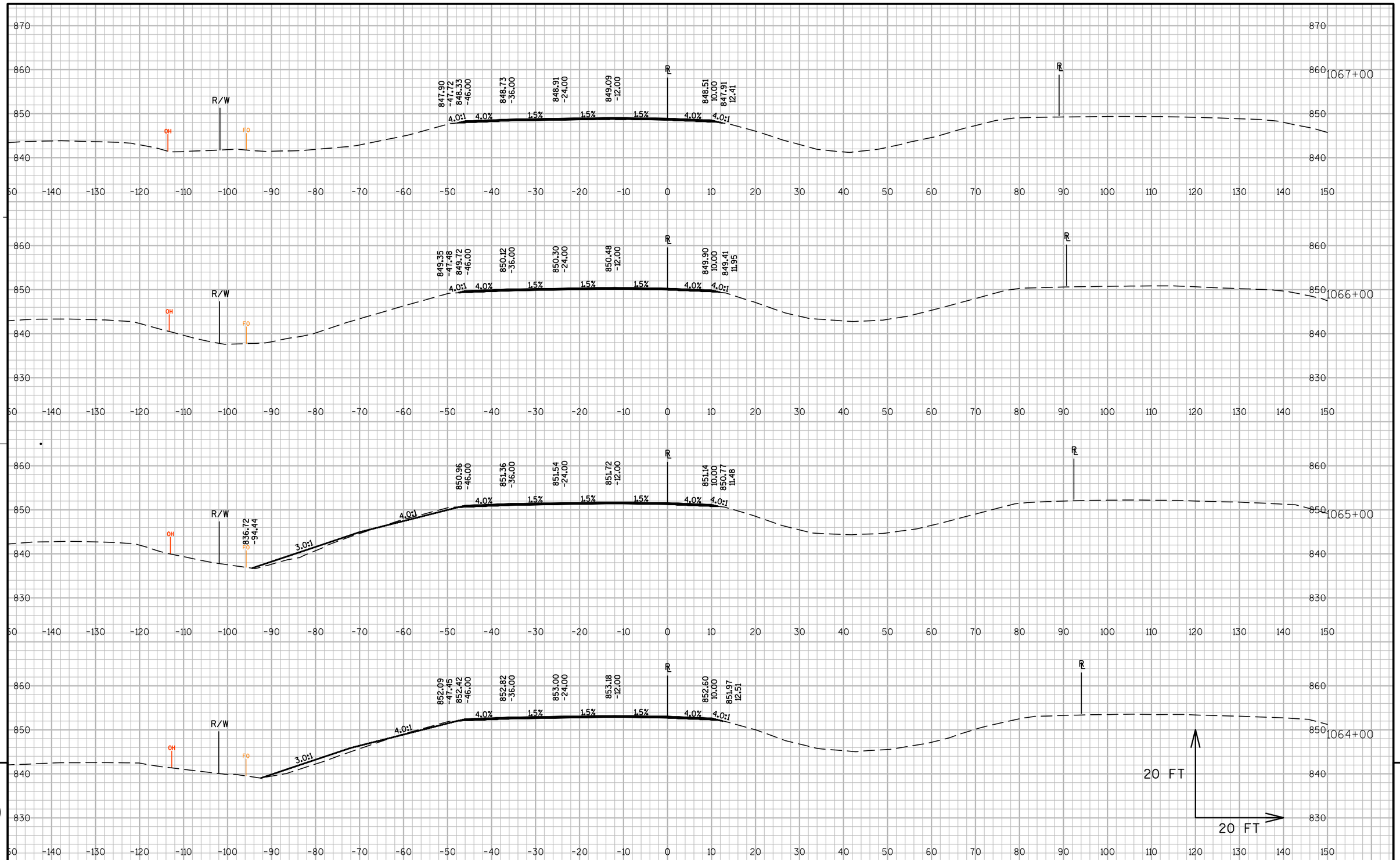


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PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: IH 39 NB	SHEET 588	E

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WISDOT/CADDS SHEET 49

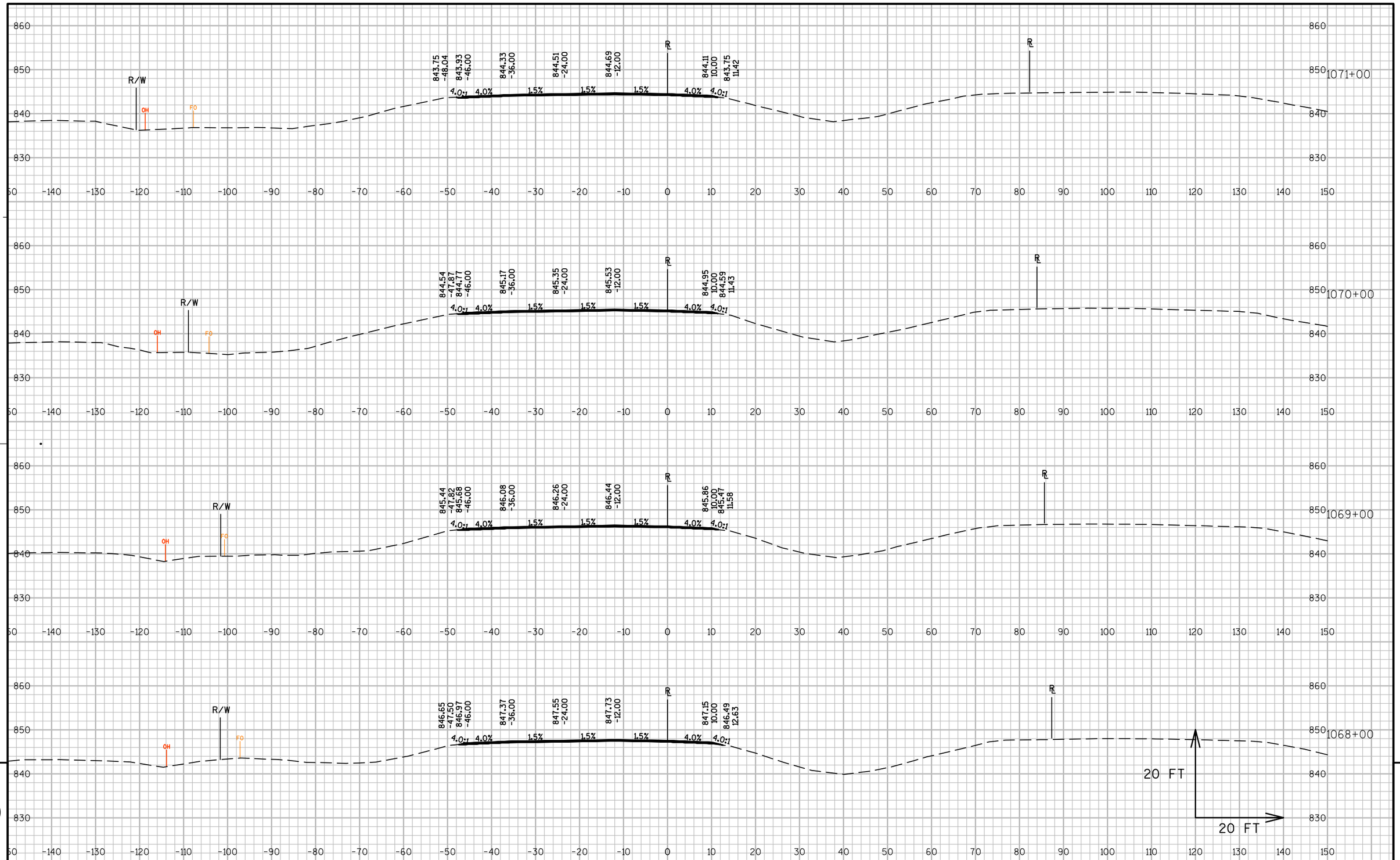


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PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: IH 39 NB	SHEET 589	E

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WISDOT/CADDS SHEET 49

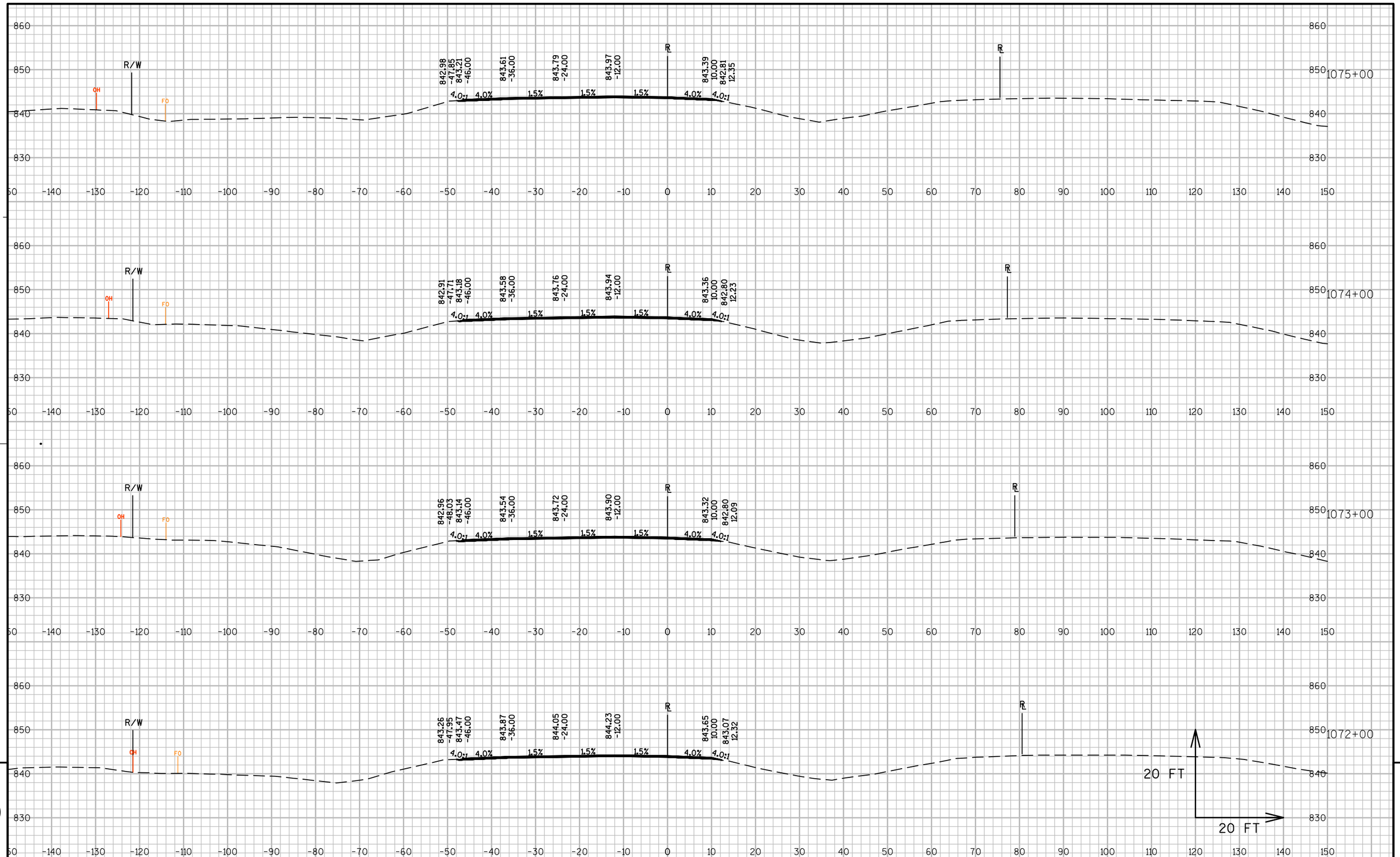


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PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: IH 39 NB	SHEET 590	E

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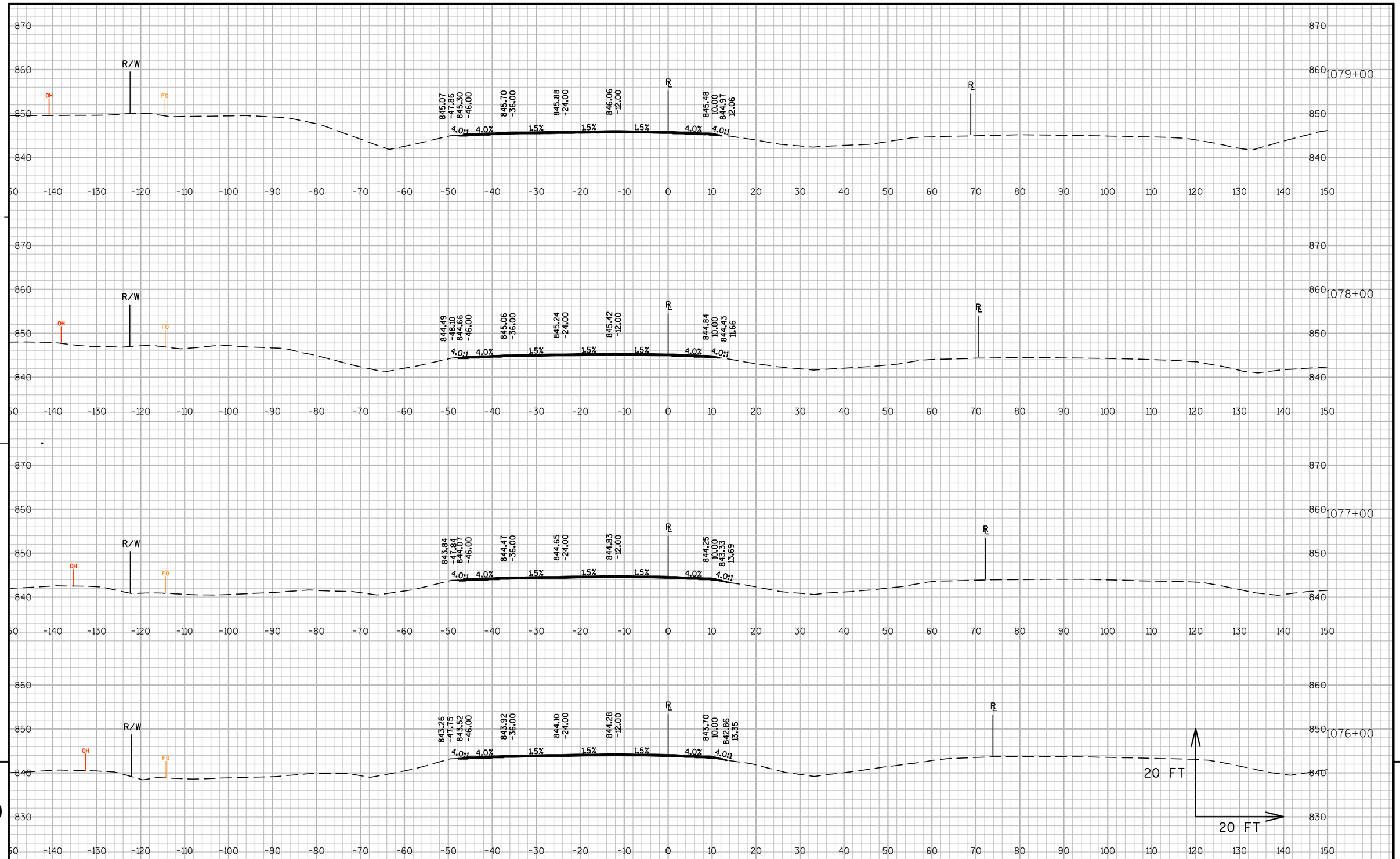
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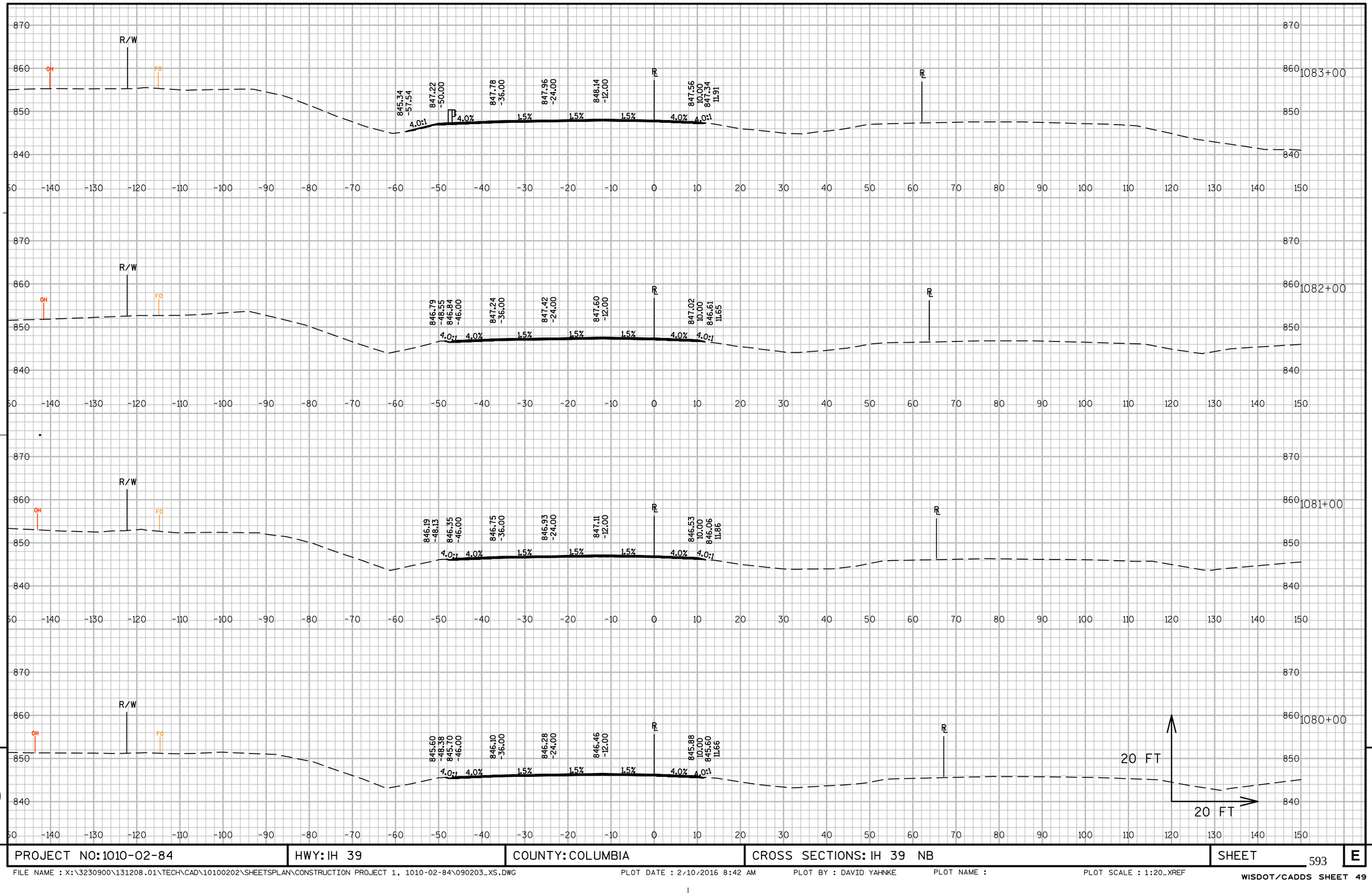
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PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: IH 39 NB	SHEET 592	E

FILE NAME : X:\3230900\131208.01\TECH\CAD\10100202\SHEETSPLAN\CONSTRUCTION PROJECT 1, 1010-02-84\090203_XS.DWG PLOT DATE : 2/10/2016 8:41 AM PLOT BY : DAVID YAHNKE PLOT NAME : PLOT SCALE : 1:20_XREF

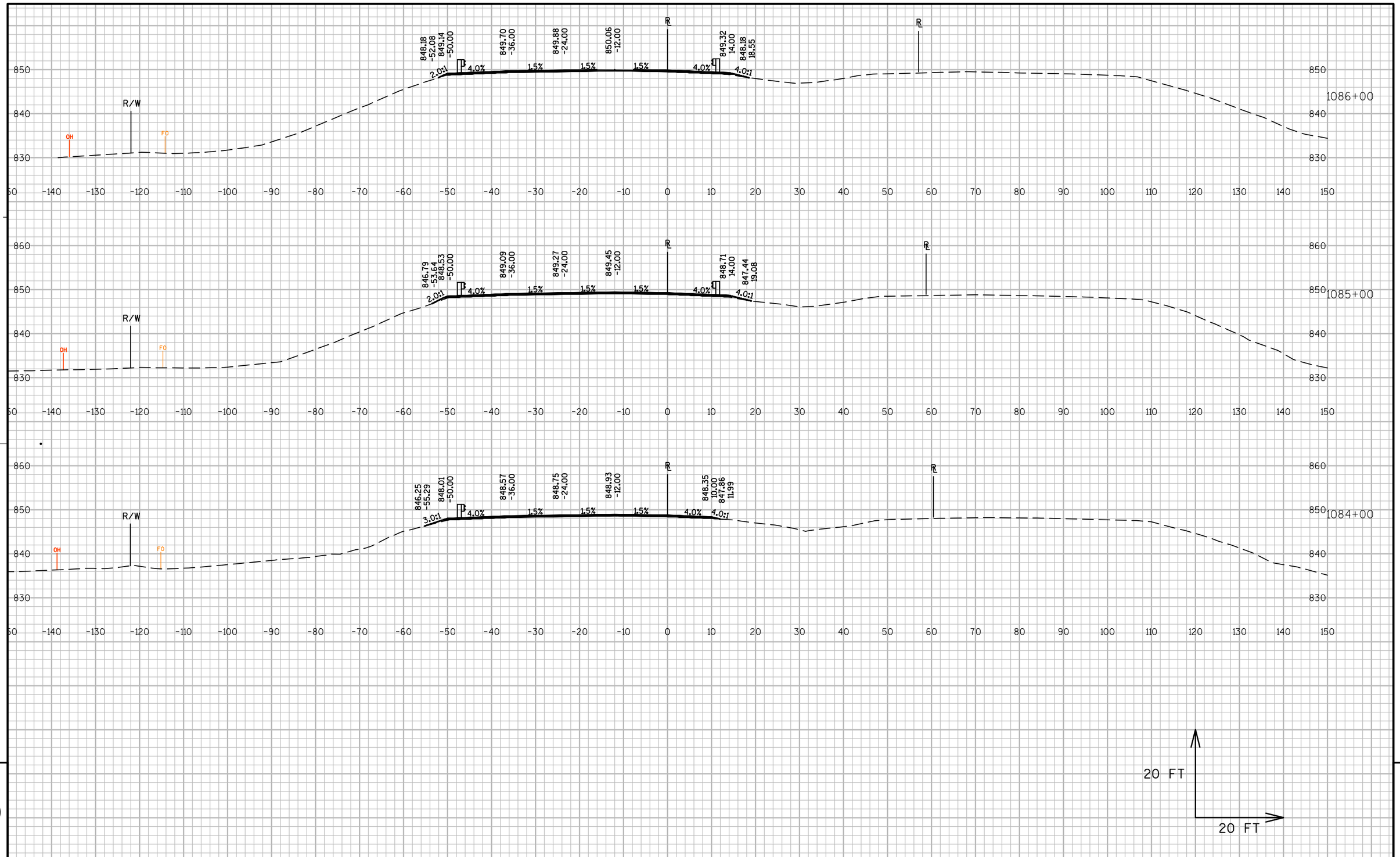
WISDOT/CADDS SHEET 49



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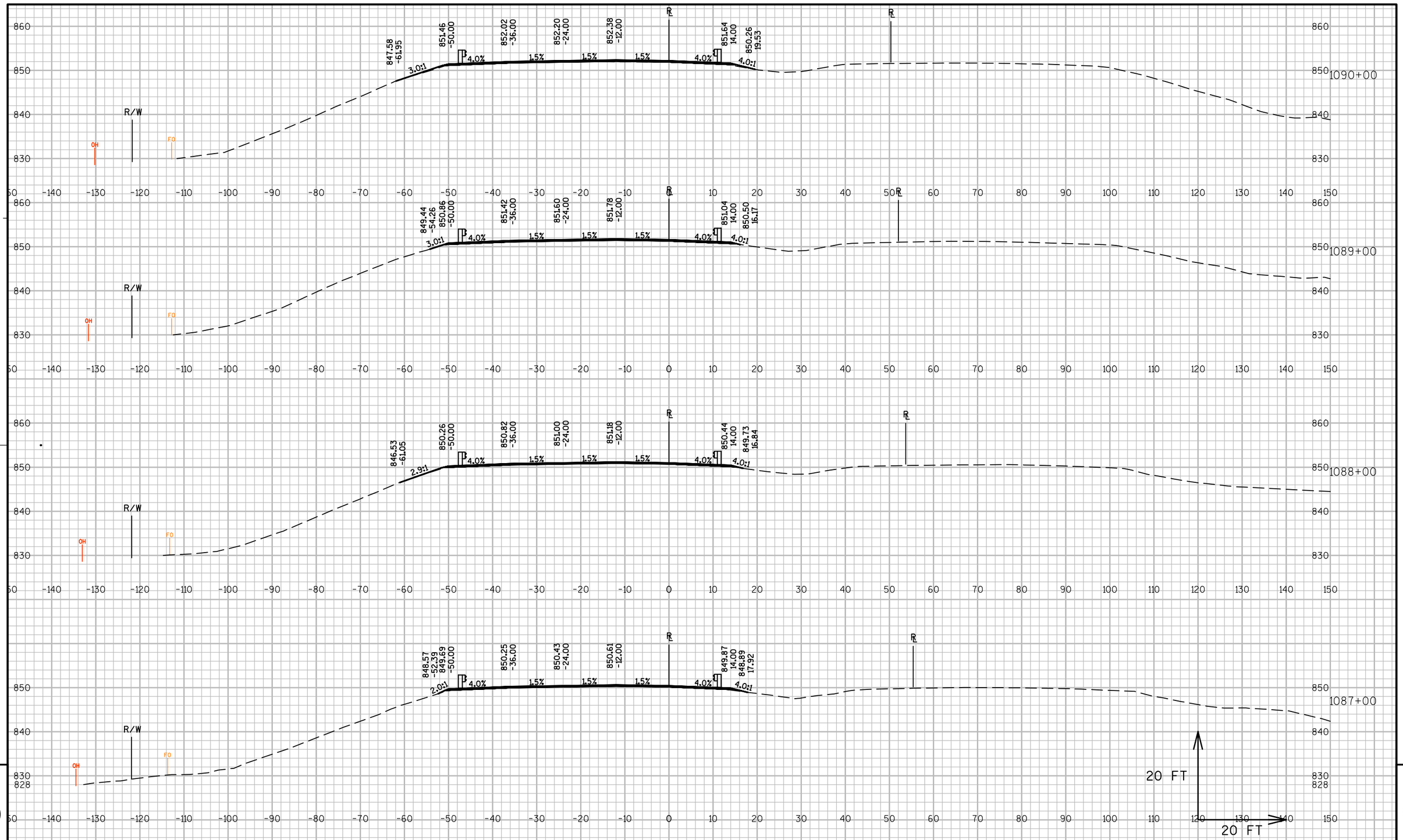
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WISDOT/CADDS SHEET 49



PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: IH 39 NB	SHEET 594	E

FILE NAME : X:\3230900\131208.01\TECH\CAD\10100202\SHEETSPLAN\CONSTRUCTION PROJECT 1, 1010-02-84\090203_XS.DWG PLOT DATE : 2/10/2016 8:42 AM PLOT BY : DAVID YAHNKE PLOT NAME : PLOT SCALE : 1:20_XREF



PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: IH 39 NB	SHEET 595	E

FILE NAME : X:\3230900\131208.01\TECH\CAD\10100202\SHEETSPLAN\CONSTRUCTION PROJECT 1, 1010-02-84\090203_XS.DWG PLOT DATE : 2/10/2016 8:43 AM PLOT BY : DAVID YAHNKE PLOT NAME : PLOT SCALE : 1:20_XREF

WISDOT/CADDS SHEET 49

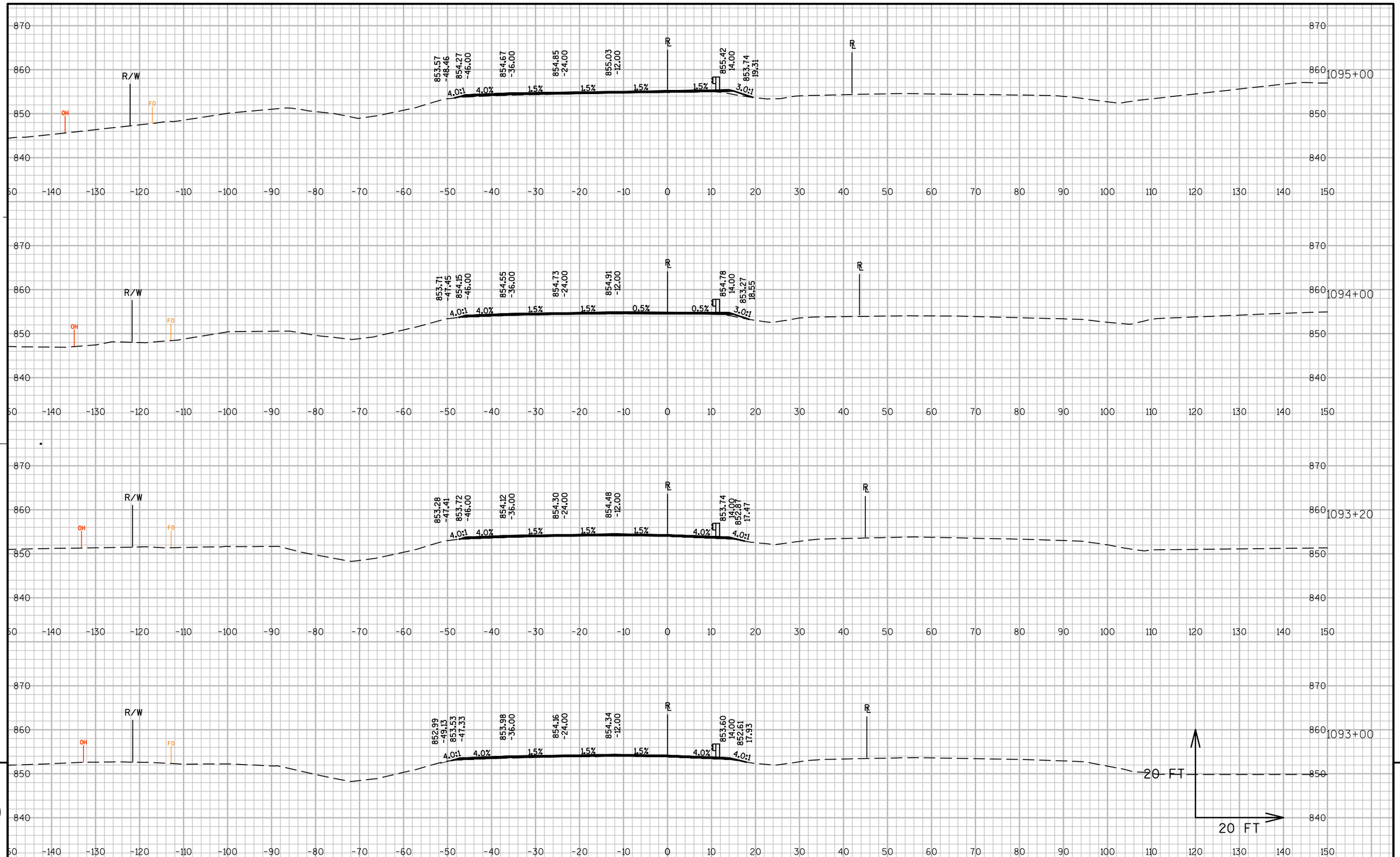


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PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: IH 39 NB	SHEET 596	E

FILE NAME : X:\3230900\131208.01\TECH\CAD\10100202\SHEETSPLAN\CONSTRUCTION PROJECT 1, 1010-02-84\090203_XS.DWG PLOT DATE : 2/10/2016 8:44 AM PLOT BY : DAVID YAHNKE PLOT NAME : PLOT SCALE : 1:20_XREF
WISDOT/CADDS SHEET 49



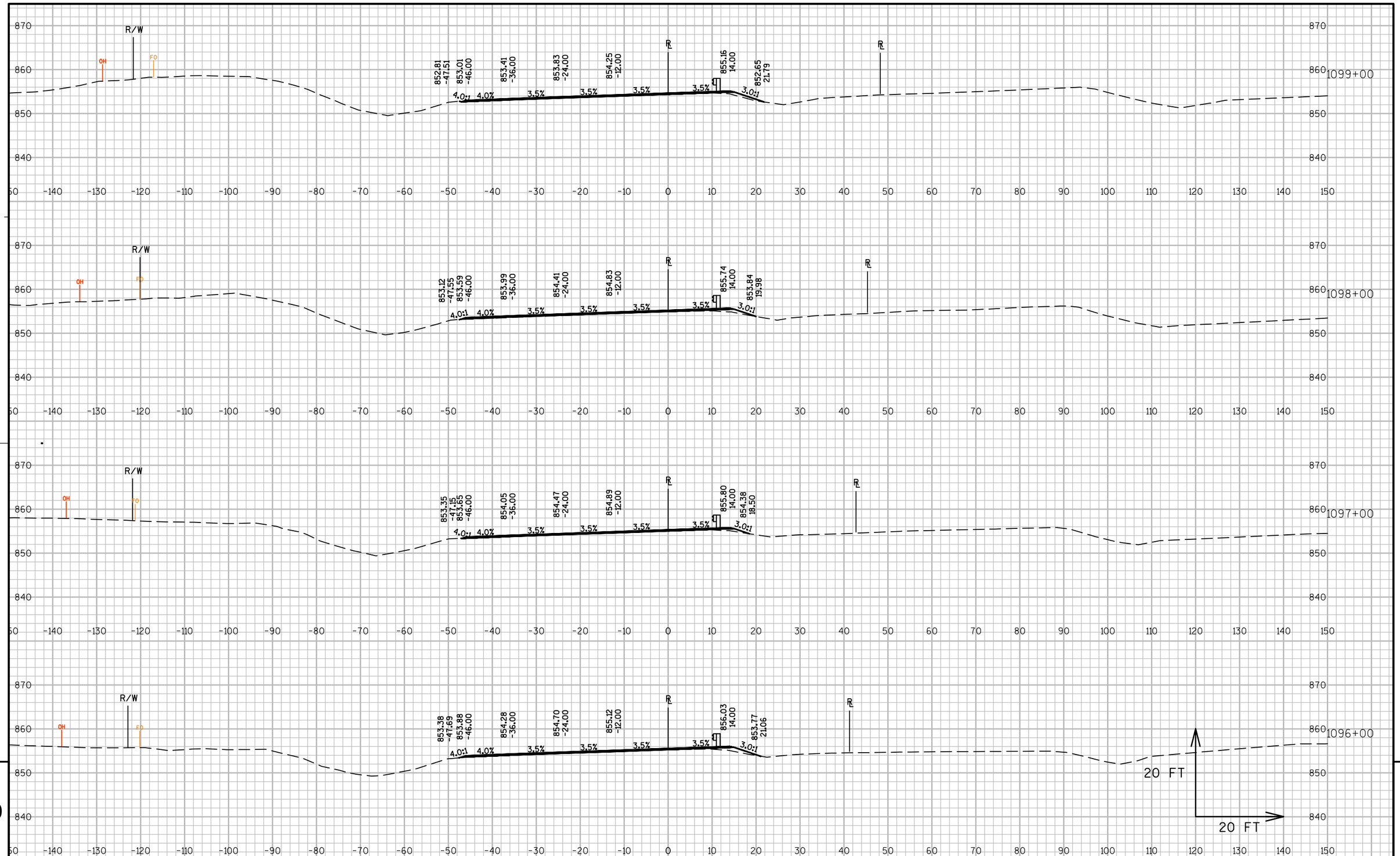
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PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: IH 39 NB	SHEET 597	E

FILE NAME : X:\3230900\131208.01\TECH\CAD\10100202\SHEETSPLAN\CONSTRUCTION PROJECT 1, 1010-02-84\090203_XS.DWG PLOT DATE : 2/10/2016 8:45 AM PLOT BY : DAVID YAHNKE PLOT NAME : PLOT SCALE : 1:20_XREF

WISDOT/CADDS SHEET 49

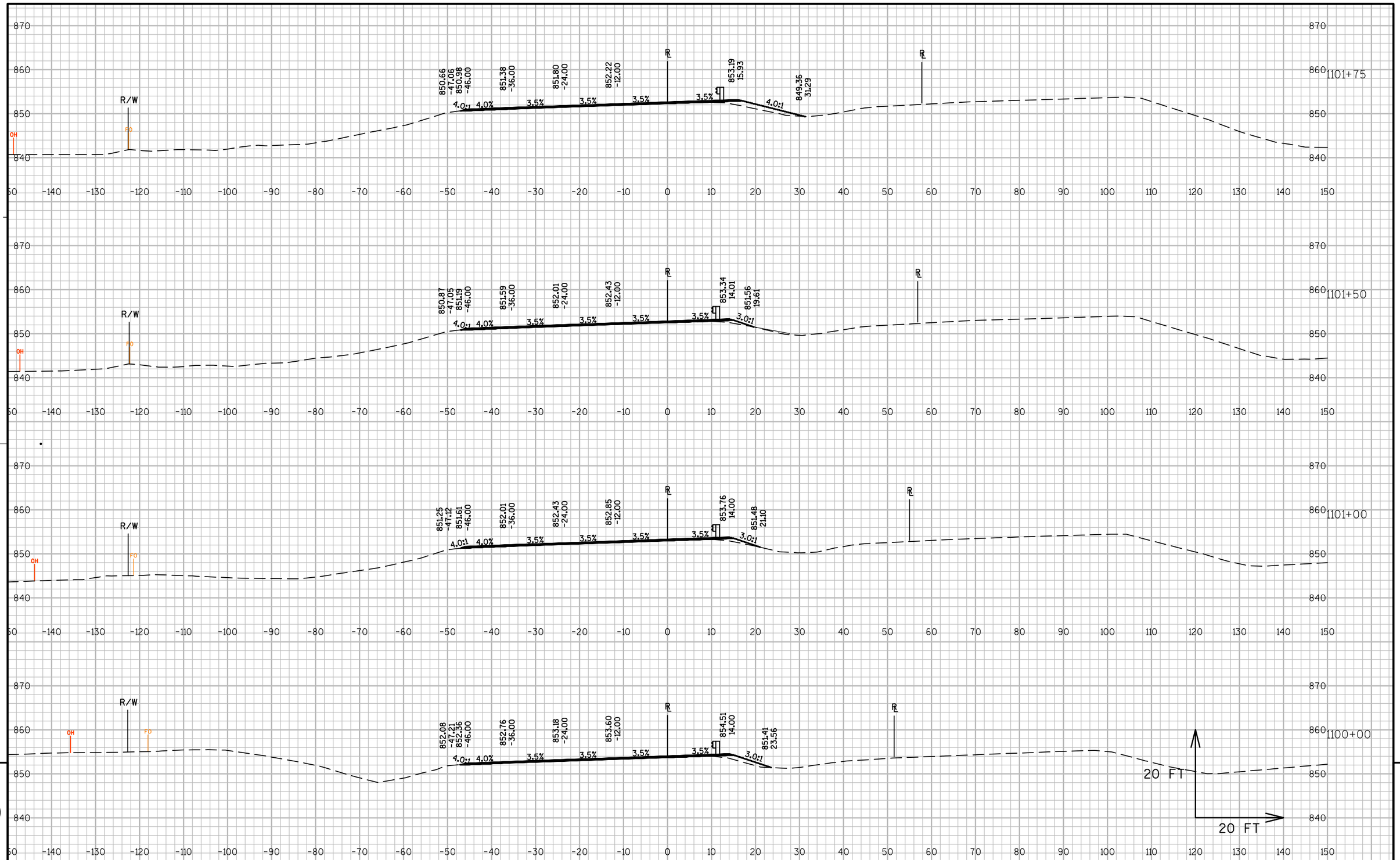


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PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: IH 39 NB	SHEET 598	E

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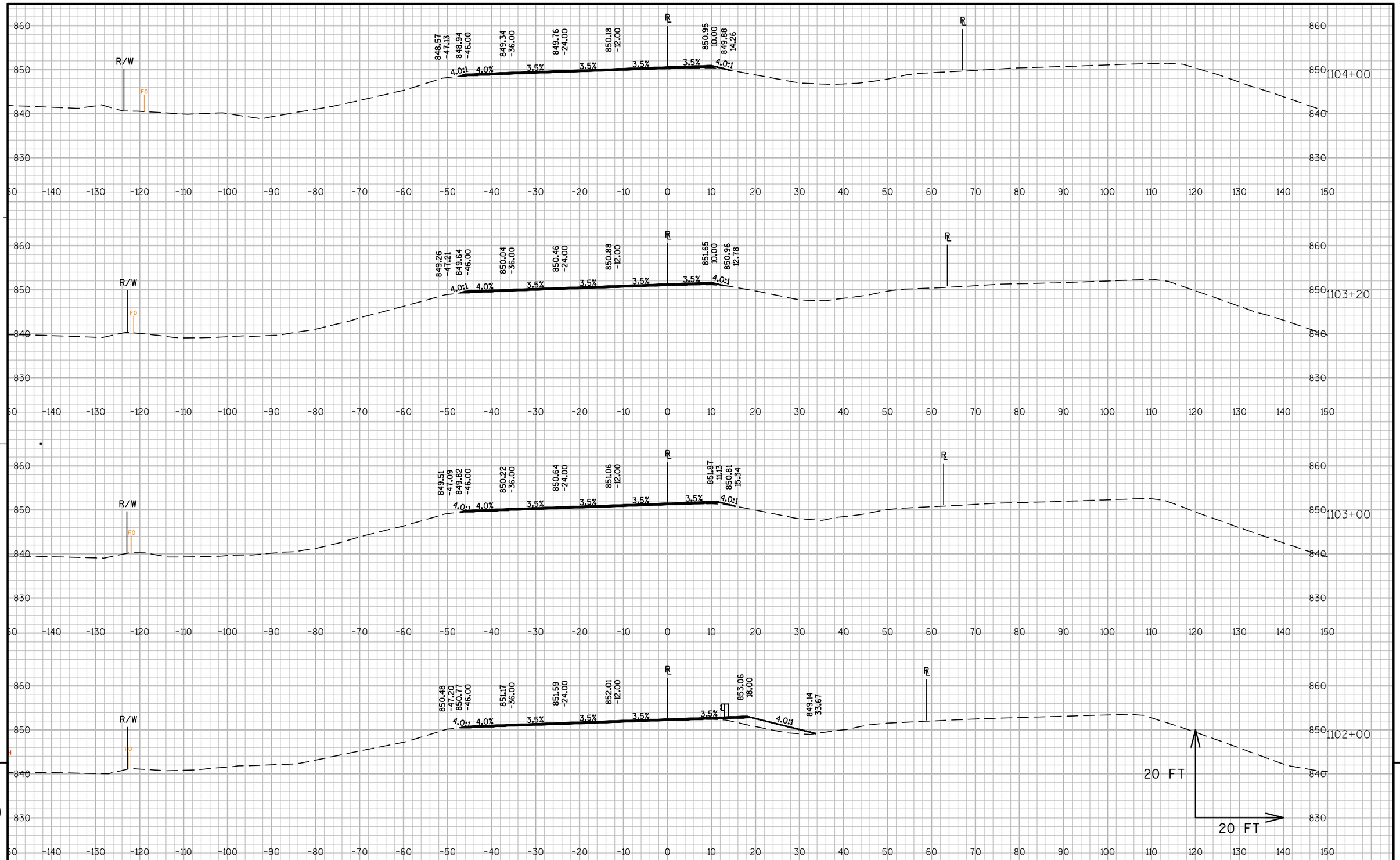
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PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: IH 39 NB	SHEET 599	E

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WISDOT/CADDS SHEET 49

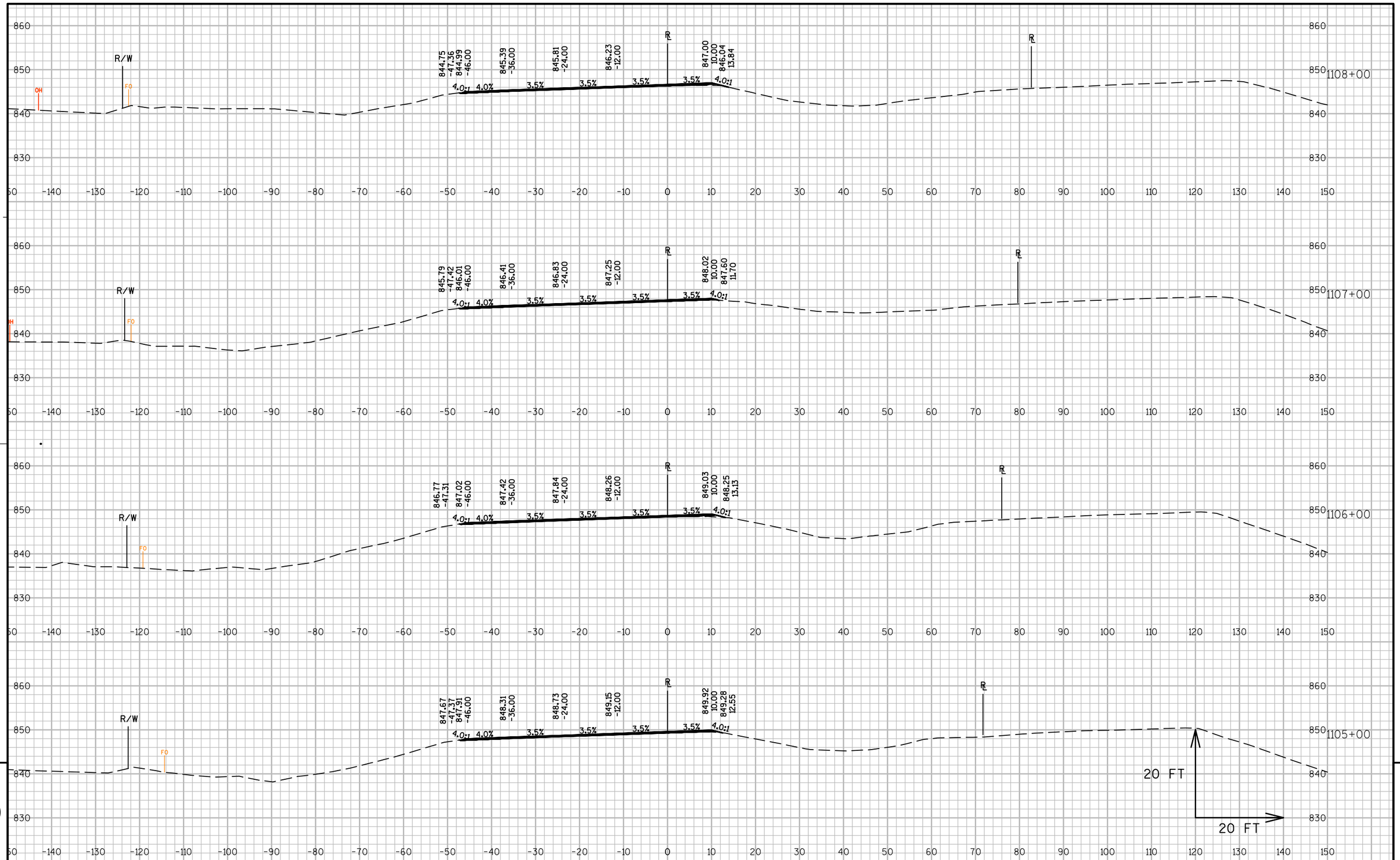


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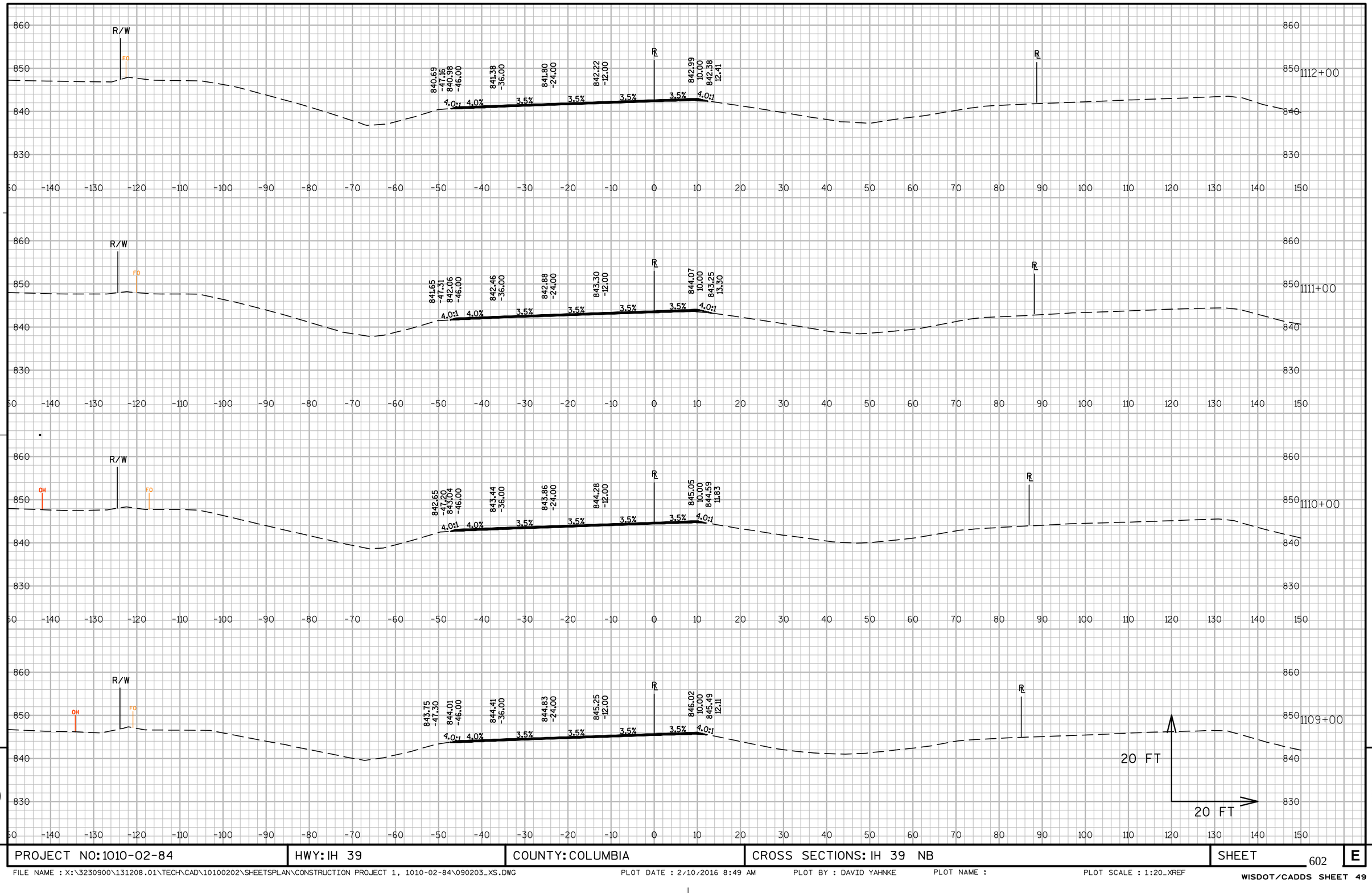
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WISDOT/CADDS SHEET 49



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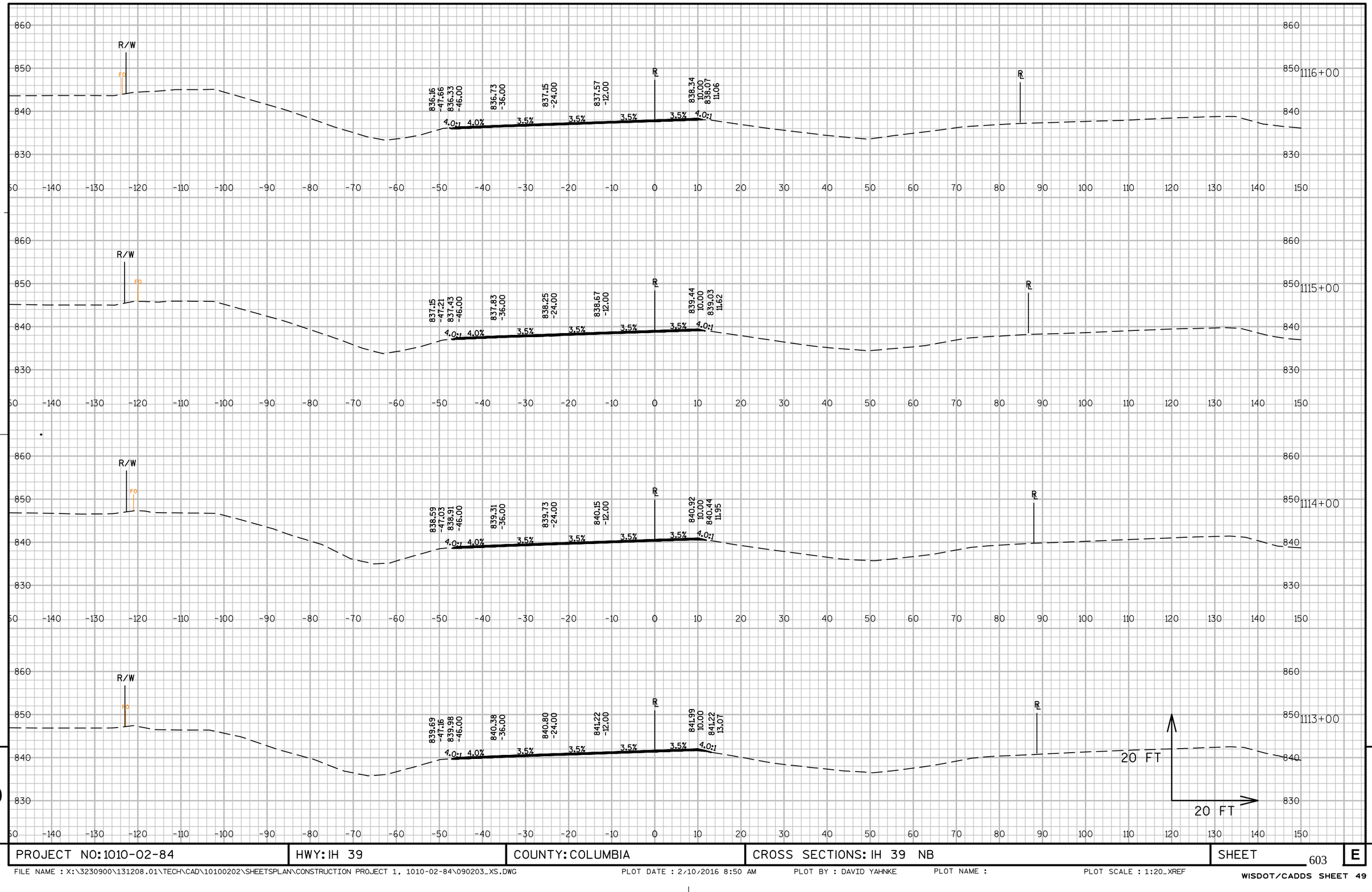
PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: IH 39 NB	SHEET 601	E



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PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: IH 39 NB	SHEET 602	E



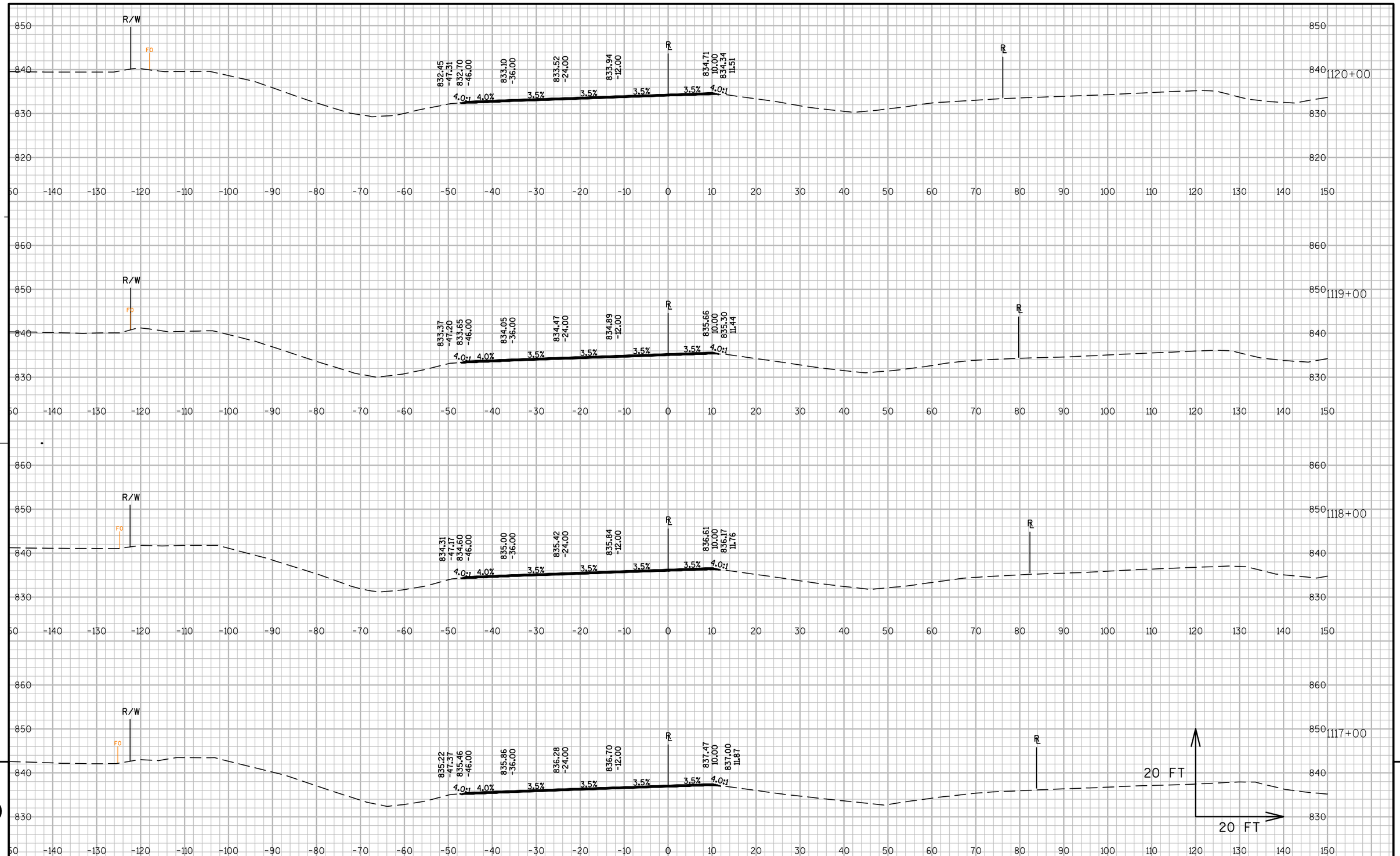
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PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: IH 39 NB	SHEET 603	E

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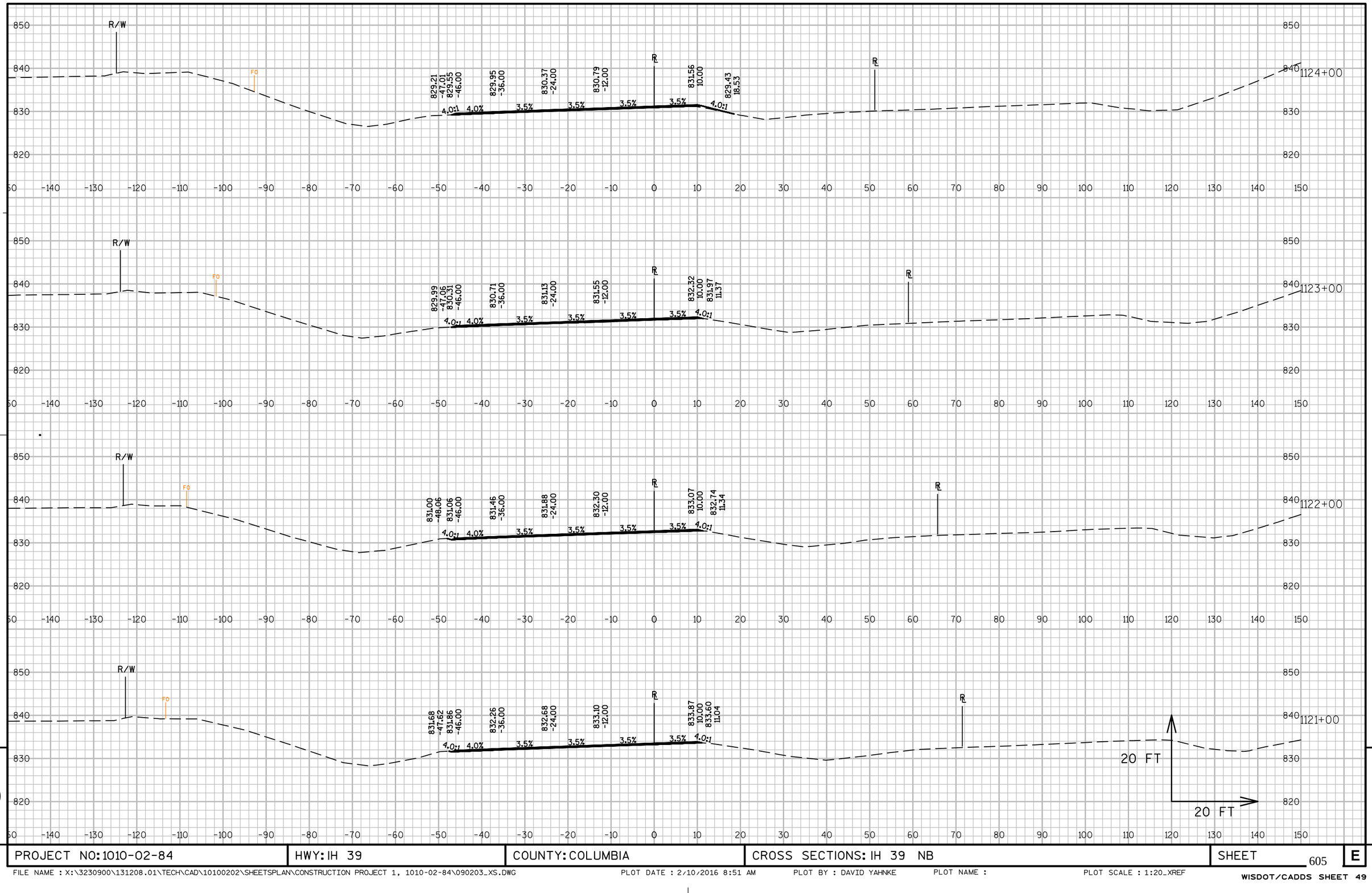
WISDOT/CADDS SHEET 49



PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: IH 39 NB	SHEET 604	E

FILE NAME : X:\3230900\131208.01\TECH\CAD\10100202\SHEETSPLAN\CONSTRUCTION PROJECT 1, 1010-02-84\090203_XS.DWG PLOT DATE : 2/10/2016 8:50 AM PLOT BY : DAVID YAHNKE PLOT NAME : PLOT SCALE : 1:20_XREF

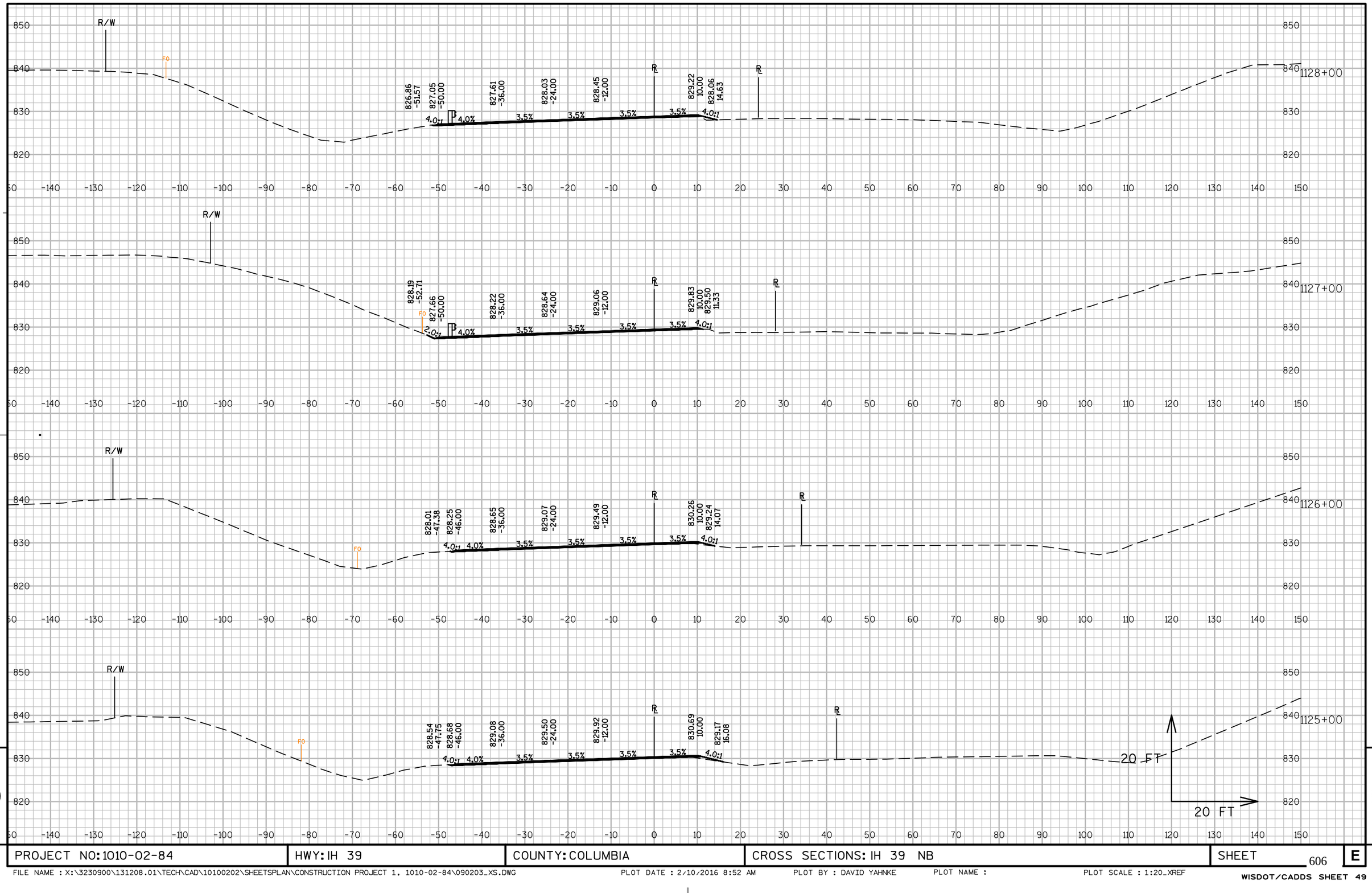
WISDOT/CADDS SHEET 49



PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: IH 39 NB	SHEET 605	E

FILE NAME : X:\3230900\131208.01\TECH\CAD\10100202\SHEETSPLAN\CONSTRUCTION PROJECT 1, 1010-02-84\090203_XS.DWG PLOT DATE : 2/10/2016 8:51 AM PLOT BY : DAVID YAHNKE PLOT NAME : PLOT SCALE : 1:20_XREF

WISDOT/CADDS SHEET 49

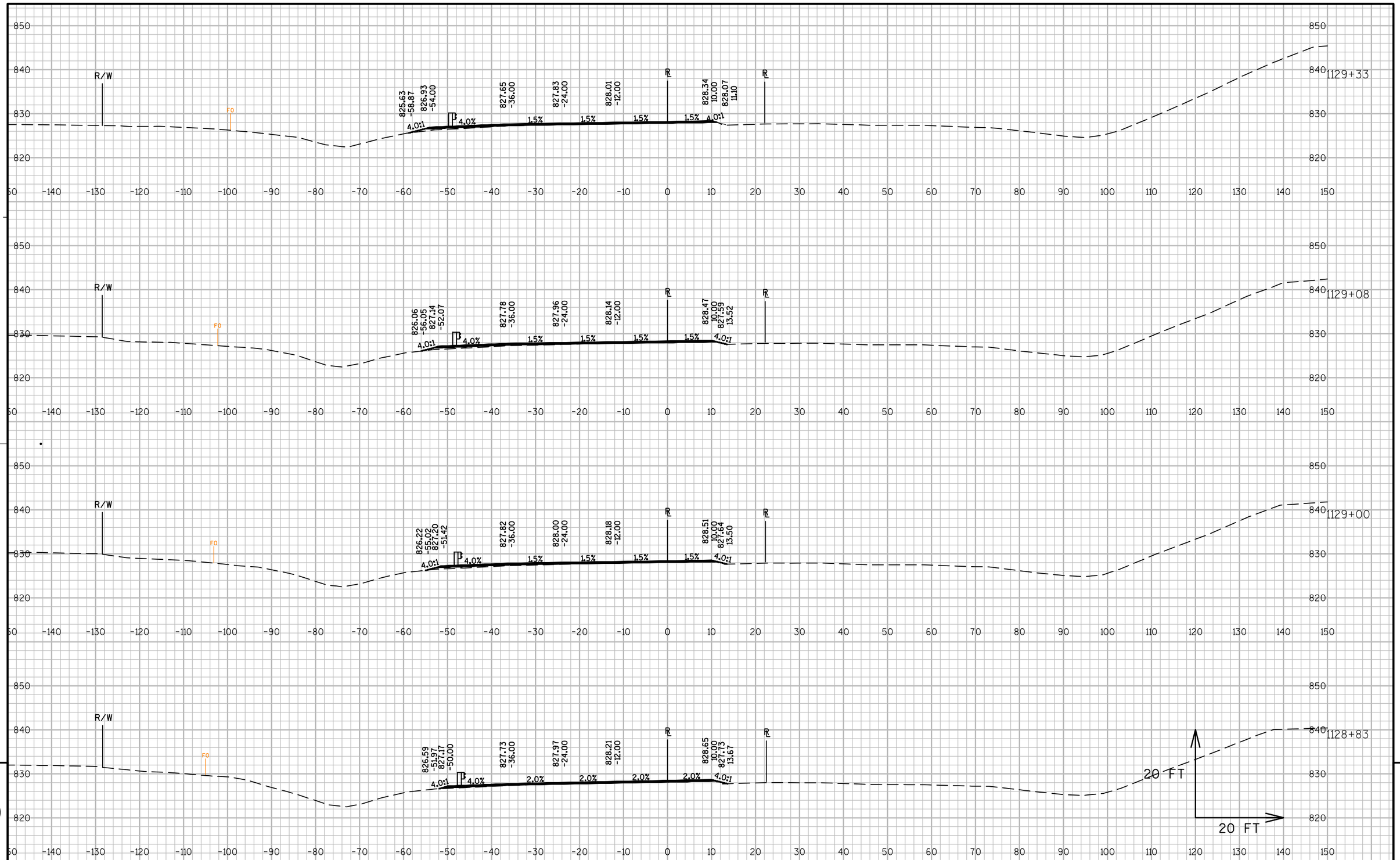


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PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: IH 39 NB	SHEET 606	E

FILE NAME : X:\3230900\131208.01\TECH\CAD\10100202\SHEETSPLAN\CONSTRUCTION PROJECT 1, 1010-02-84\090203_XS.DWG
PLOT DATE : 2/10/2016 8:52 AM
PLOT BY : DAVID YAHNKE
PLOT NAME :
PLOT SCALE : 1:20_XREF
WISDOT/CADDS SHEET 49



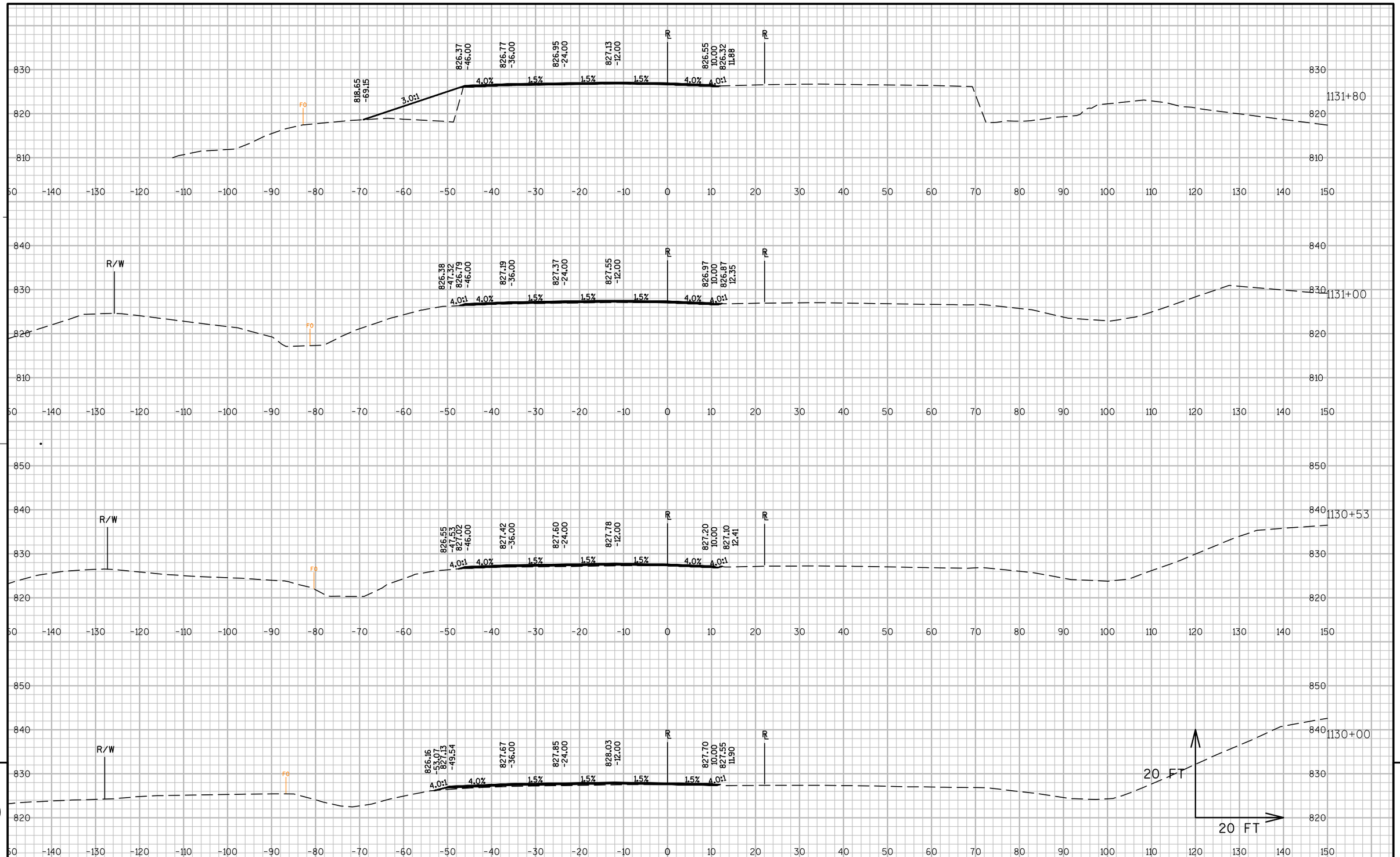
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PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: IH 39 NB	SHEET 607	E

FILE NAME : X:\3230900\131208.01\TECH\CAD\10100202\SHEETSPLAN\CONSTRUCTION PROJECT 1, 1010-02-84\090203_XS.DWG PLOT DATE : 2/10/2016 8:53 AM PLOT BY : DAVID YAHNKE PLOT NAME : PLOT SCALE : 1:20_XREF

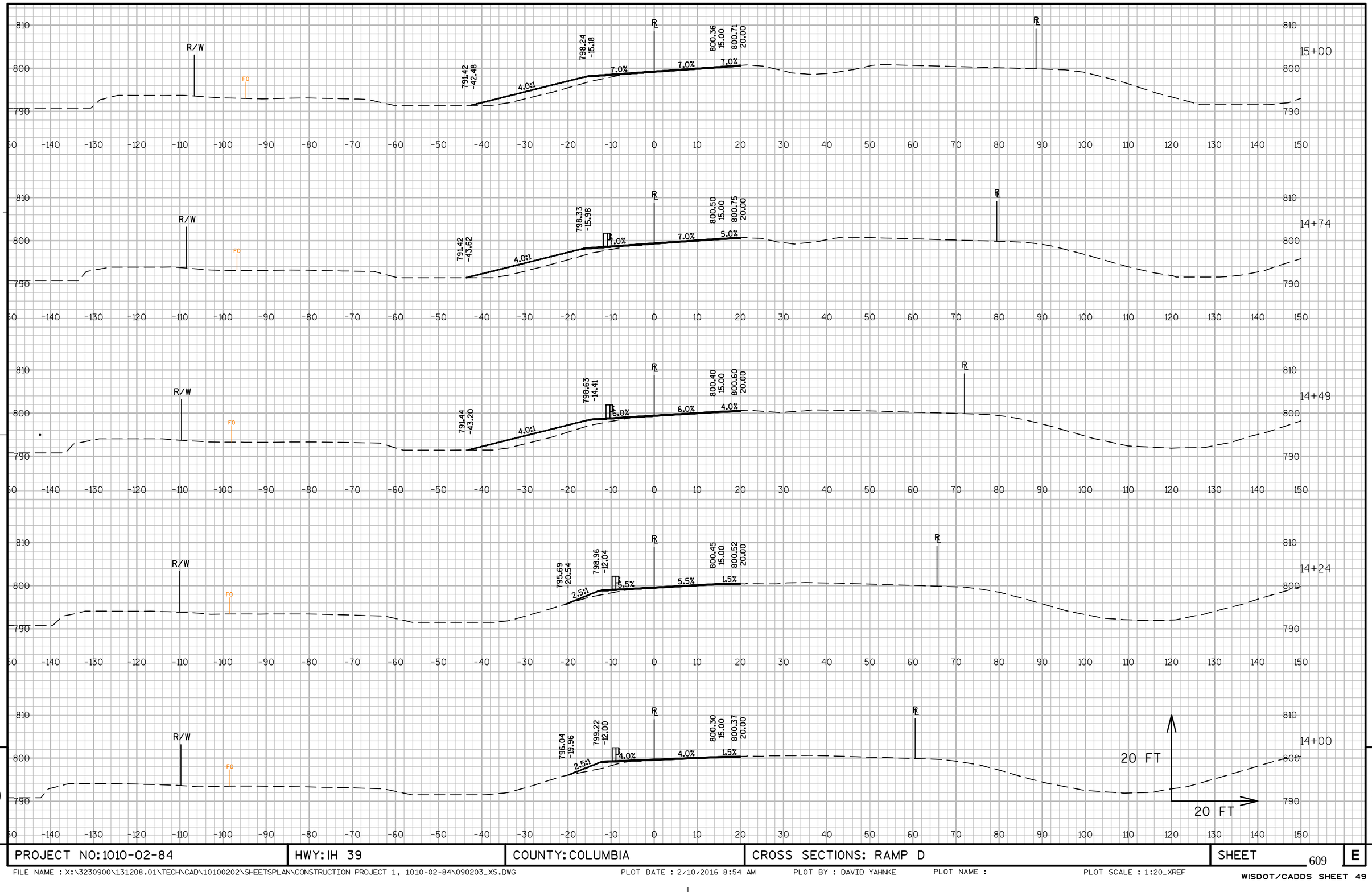
WISDOT/CADDS SHEET 49



PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: IH 39 NB	SHEET 608	E

FILE NAME : X:\3230900\131208.01\TECH\CAD\10100202\SHEETSPLAN\CONSTRUCTION PROJECT 1, 1010-02-84\090203_XS.DWG PLOT DATE : 2/10/2016 8:53 AM PLOT BY : DAVID YAHNKE PLOT NAME : PLOT SCALE : 1:20_XREF

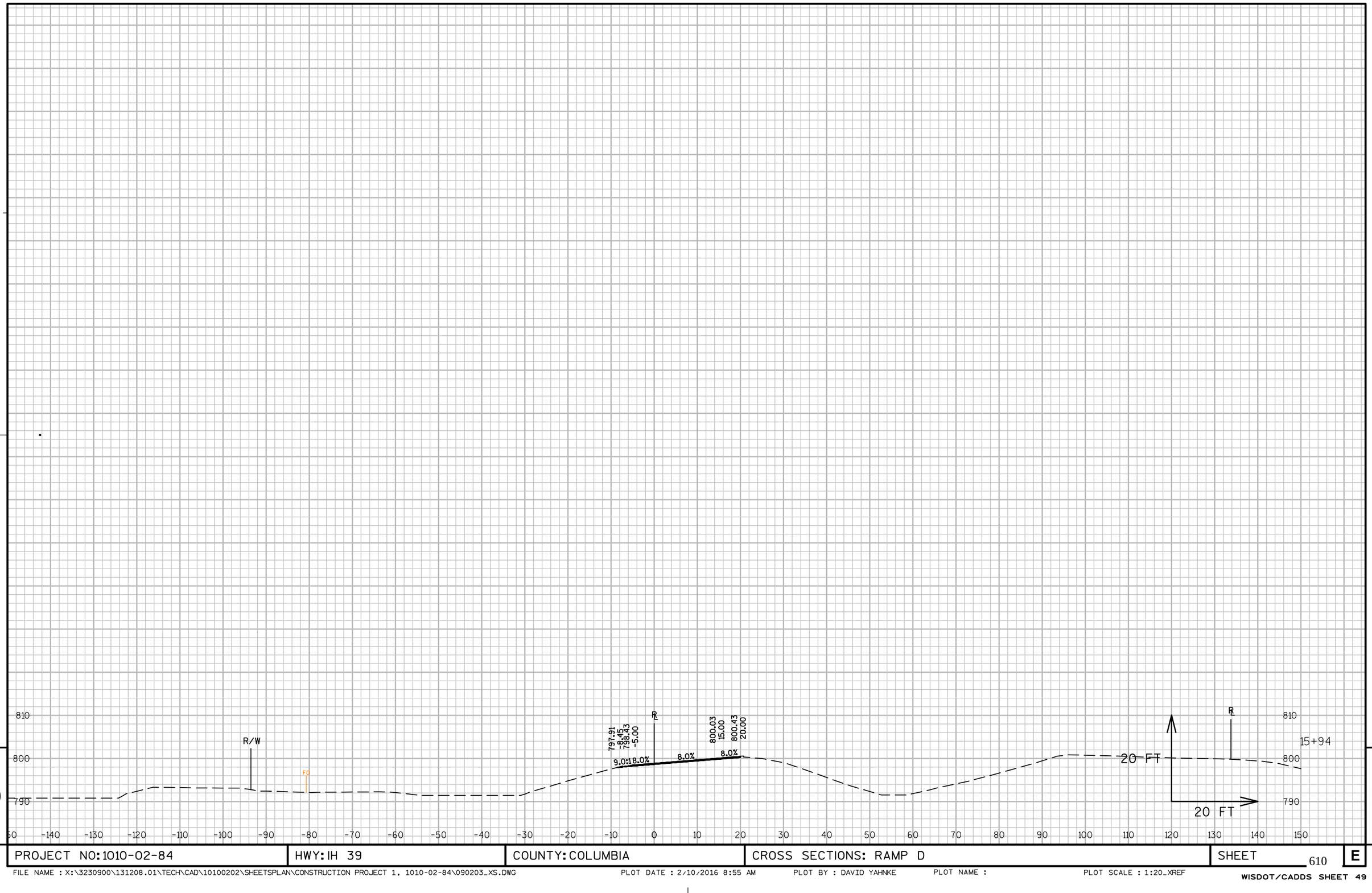
WISDOT/CADDS SHEET 49



PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: RAMP D	SHEET 609	E

FILE NAME : X:\3230900\131208.01\TECH\CAD\10100202\SHEETSPLAN\CONSTRUCTION PROJECT 1, 1010-02-84\090203_XS.DWG PLOT DATE : 2/10/2016 8:54 AM PLOT BY : DAVID YAHNKE PLOT NAME : PLOT SCALE : 1:20_XREF

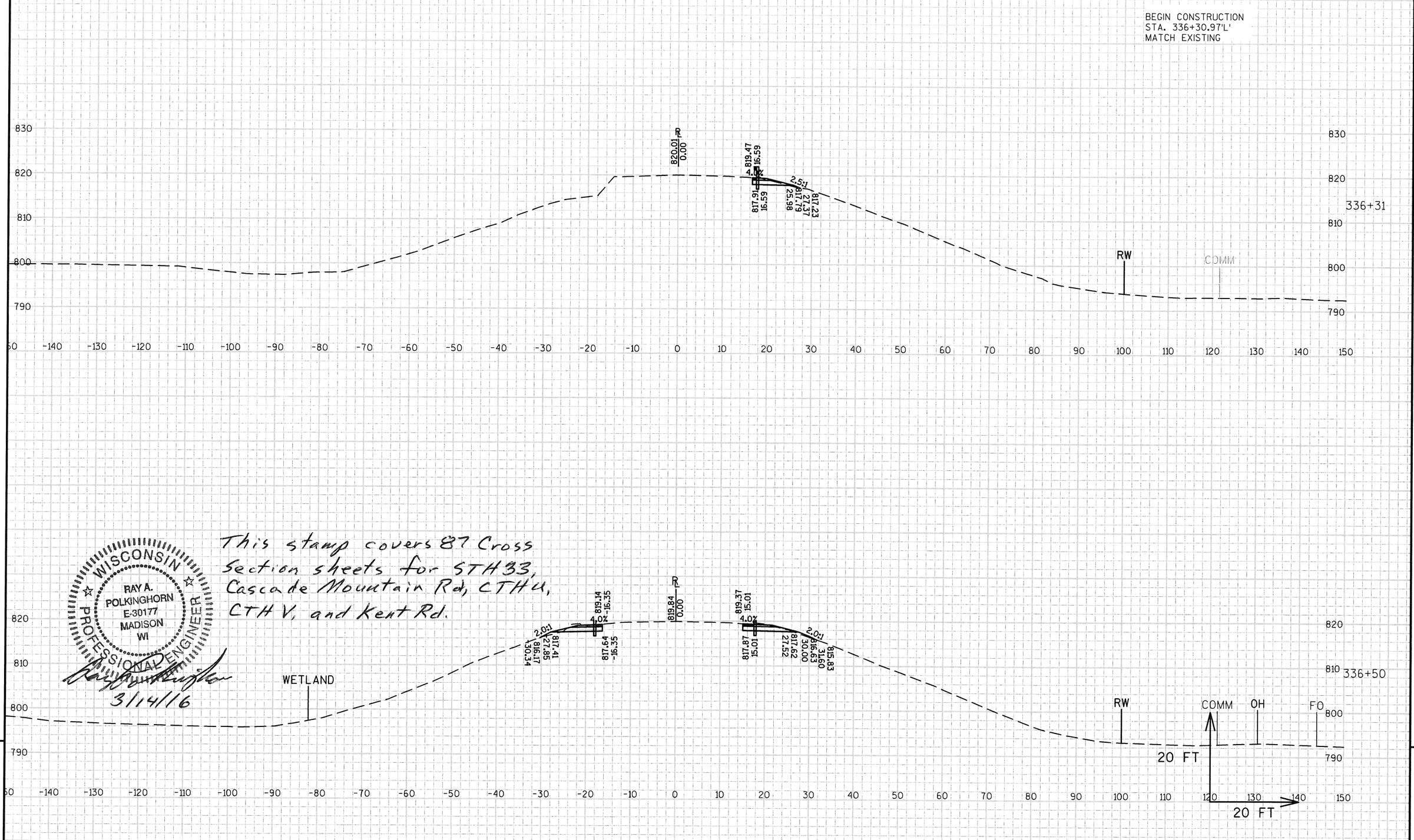
WISDOT/CADDS SHEET 49



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9

PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: RAMP D	SHEET 610	E



This stamp covers 87 Cross Section sheets for STH 33, Cascade Mountain Rd, CTH U, CTH V, and Kent Rd.

WISCONSIN
RAY A. POLKINGHORN
E-30177
MADISON
WI
PROFESSIONAL ENGINEER

3/14/16

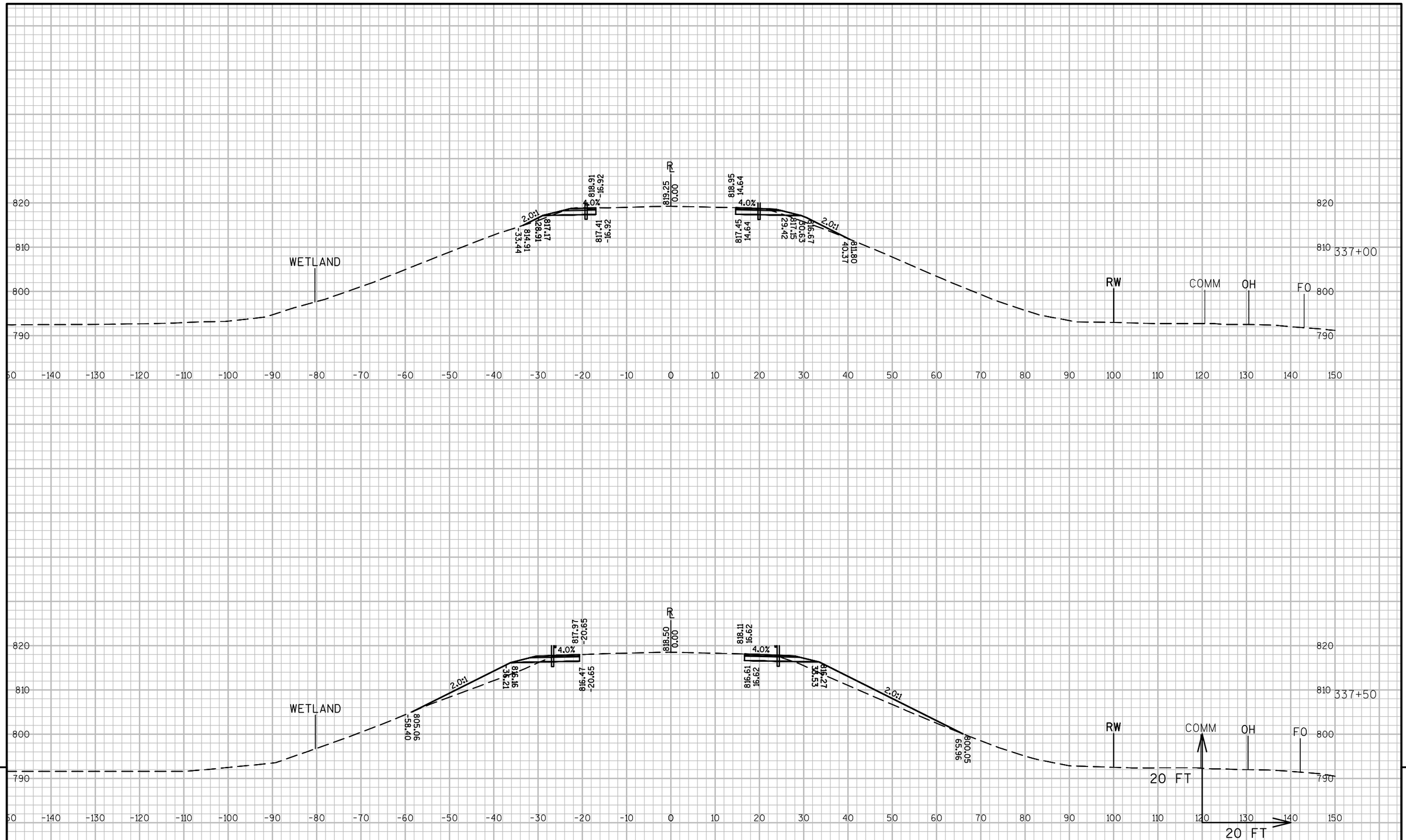
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PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: STH 33	SHEET 611	E

FILE NAME : S:\PROJECTS\SW\COLUMBIA COUNTY\1010-02-02_IH 39\500_CADD\501_C3D\10100202\SHEETSPLAN\090202_STH 33-XS.DWG
LAYOUT NAME - 090101-XS

PLOT DATE : 3/14/2016 9:25 AM PLOT BY : BOBBY JONES PLOT NAME : PLOT SCALE : 1 IN:20 FT

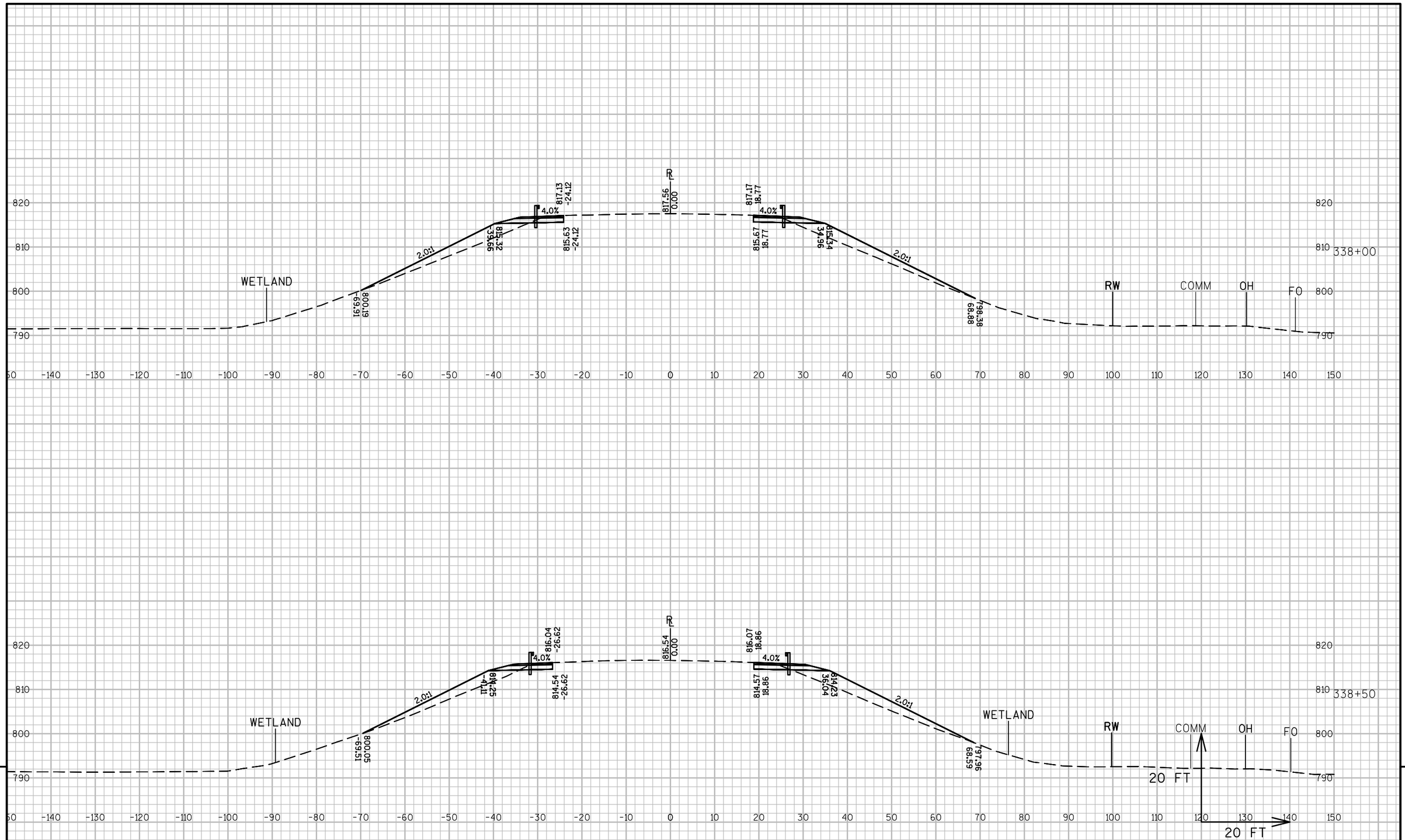


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PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: STH 33	SHEET 612	E

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LAYOUT NAME - 090102-XS

PLOT DATE : 3/14/2016 1:03 PM PLOT BY : RAY POLKINGHORN, PE PLOT NAME : PLOT SCALE : 1 IN:20 FT

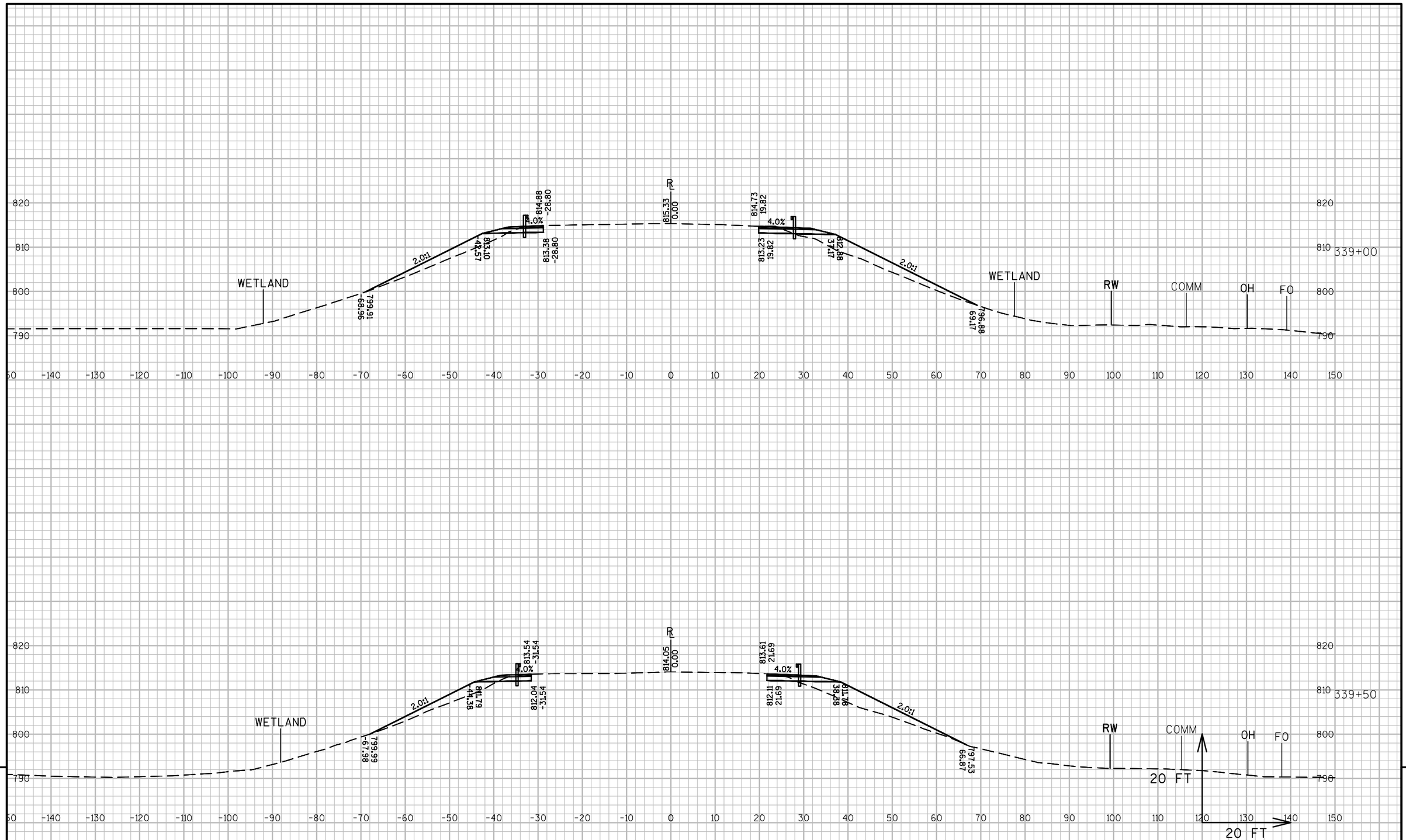


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PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: STH 33	SHEET 613	E

FILE NAME : S:\PROJECTS\SW\COLUMBIA COUNTY\1010-02-02_IH 39\500_CADD\501_C3D\10100202\SHEETSPLAN\090202_STH 33-XS.DWG
LAYOUT NAME - 090103-XS

PLOT DATE : 3/14/2016 1:03 PM PLOT BY : RAY POLKINGHORN, PE PLOT NAME : PLOT SCALE : 1 IN:20 FT



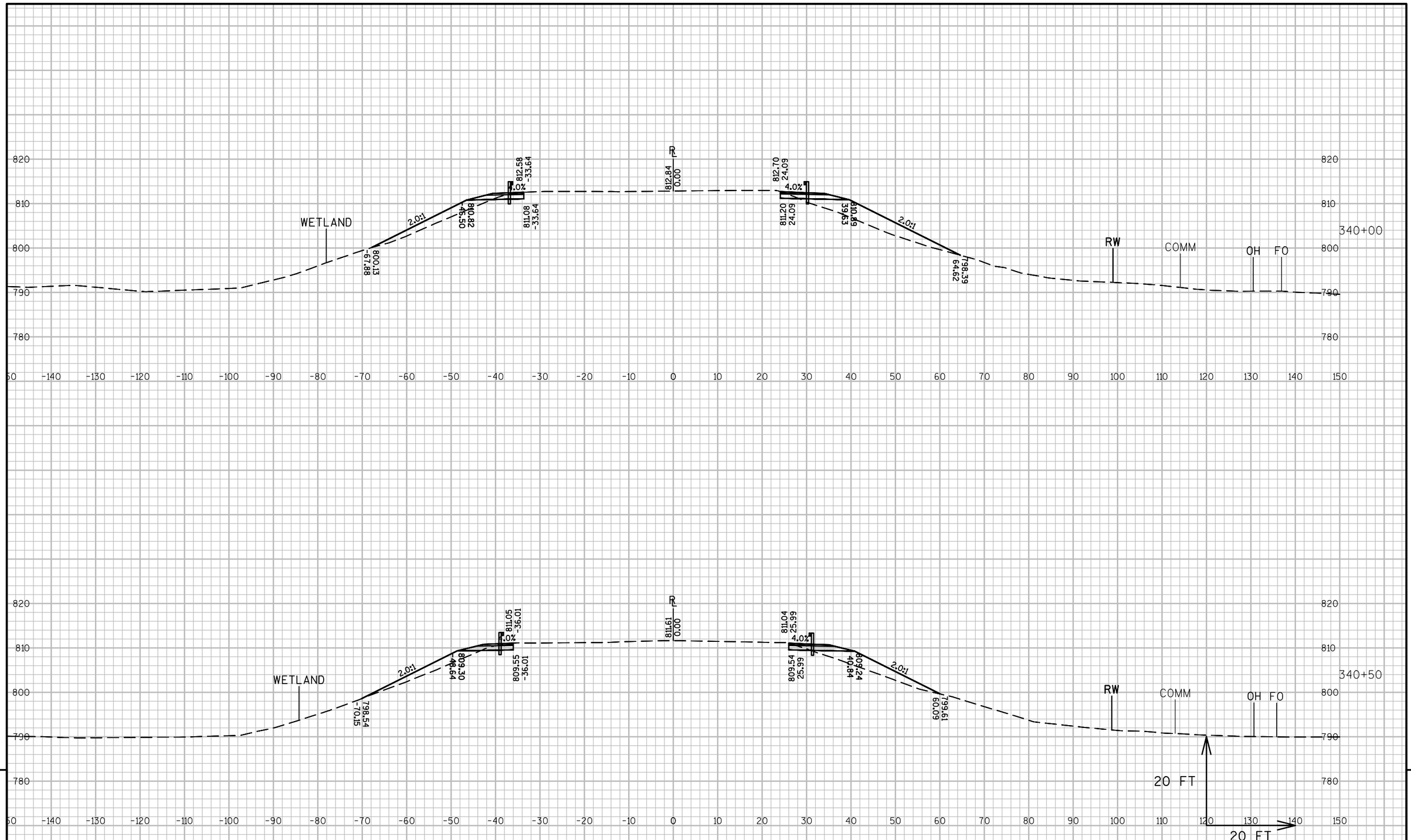
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PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: STH 33	SHEET 614	E

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LAYOUT NAME - 090104-XS

PLOT DATE : 3/14/2016 1:04 PM PLOT BY : RAY POLKINGHORN, PE PLOT NAME : PLOT SCALE : 1 IN:20 FT

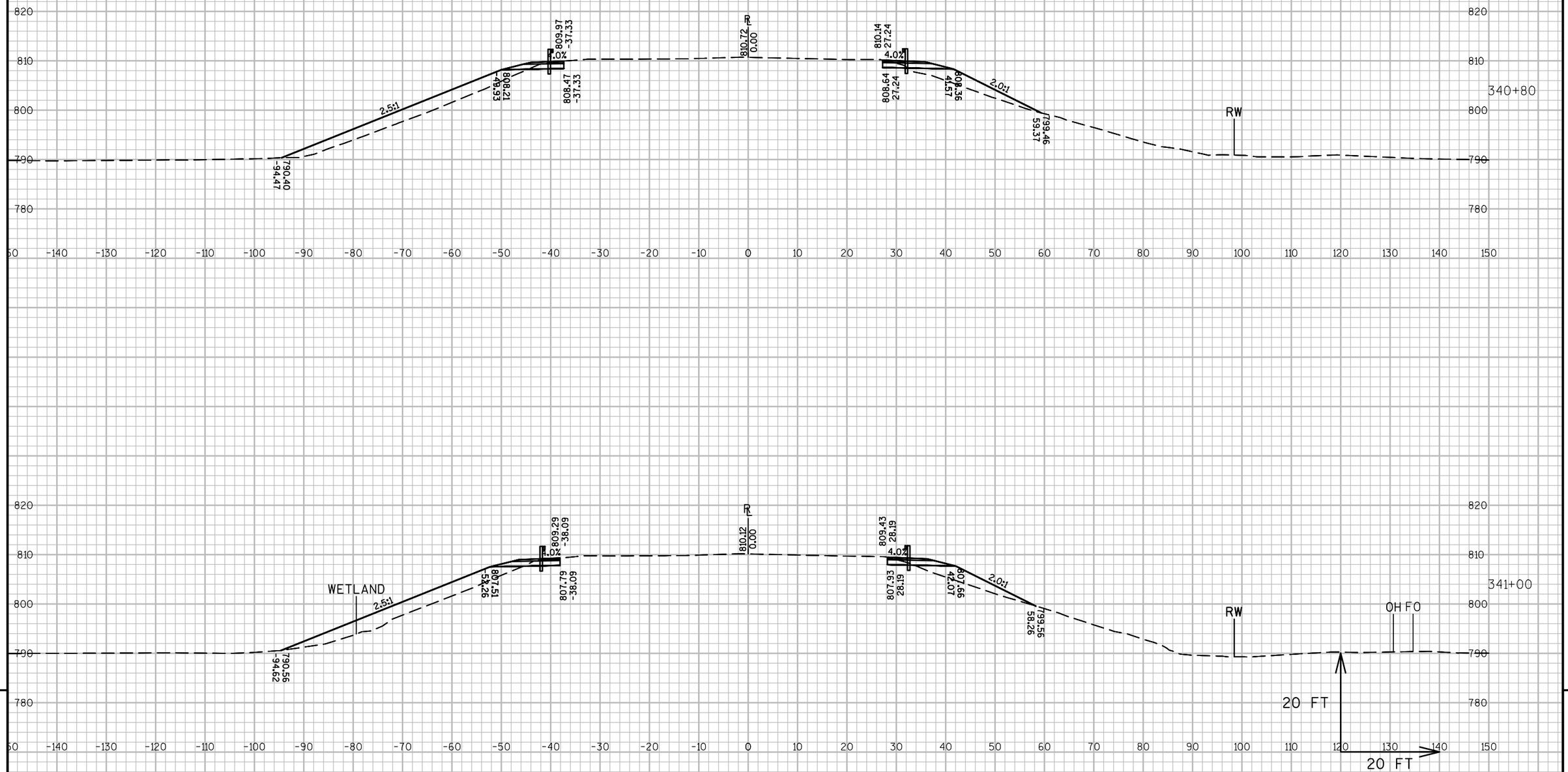


PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: STH 33	SHEET 615	E

FILE NAME : S:\PROJECTS\SW\COLUMBIA COUNTY\1010-02-02_IH 39\500_CADD\501_C3D\10100202\SHEETSPLAN\090202_STH 33-XS.DWG
LAYOUT NAME - 090105-XS

PLOT DATE : 3/14/2016 1:04 PM PLOT BY : RAY POLKINGHORN, PE PLOT NAME : PLOT SCALE : 1 IN:20 FT

STA 340+79.97'S'
MGS BEAMGUARD EAT
POST 9



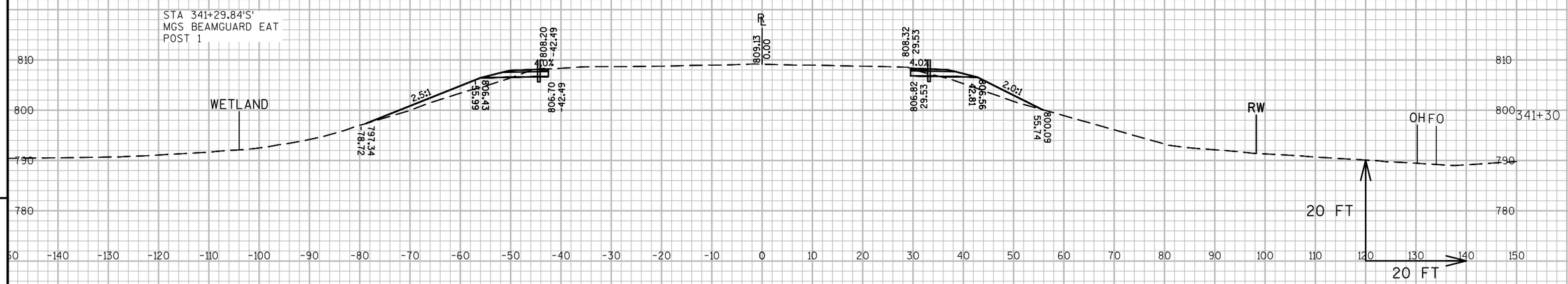
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LAYOUT NAME - 090106-XS
PLOT DATE : 3/14/2016 1:04 PM
PLOT BY : RAY POLKINGHORN, PE PLOT NAME :
PLOT SCALE : 1 IN:20 FT
WISDOT/CADDS SHEET 49

STA 341+06.98'S'
MGS BEAMGUARD EAT
POST 5



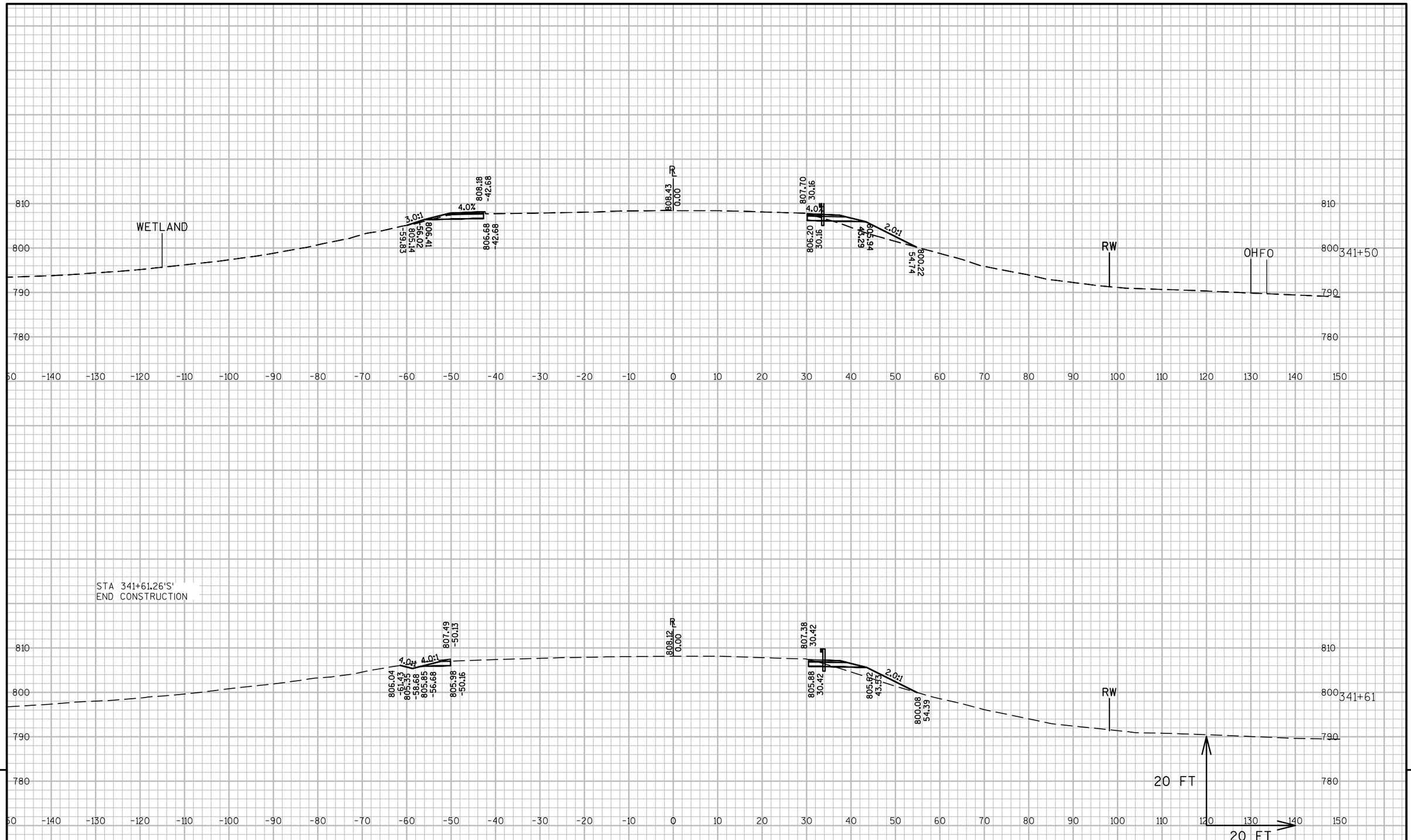
STA 341+29.84'S'
MGS BEAMGUARD EAT
POST 1



9 9

PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: STH 33	SHEET 617	E

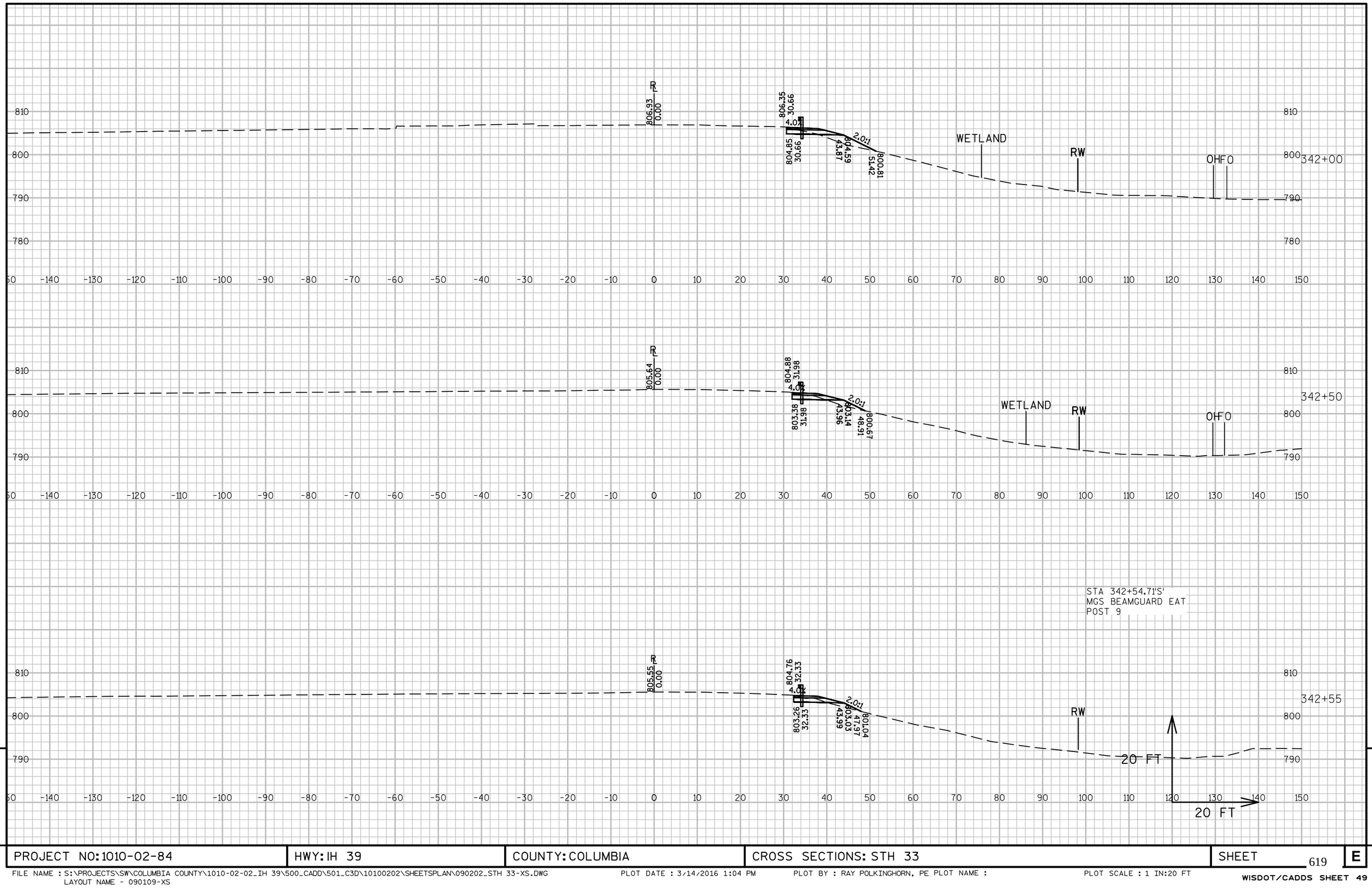
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LAYOUT NAME - 090107-XS
PLOT DATE : 3/14/2016 1:04 PM
PLOT BY : RAY POLKINGHORN, PE PLOT NAME :
PLOT SCALE : 1 IN:20 FT



PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: STH 33	SHEET 618	E

FILE NAME : S:\PROJECTS\SW\COLUMBIA COUNTY\1010-02-02_IH 39\500_CADD\501_C3D\10100202\SHEETSPLAN\090202_STH 33-XS.DWG
LAYOUT NAME - 090108-XS

PLOT DATE : 3/14/2016 1:04 PM PLOT BY : RAY POLKINGHORN, PE PLOT NAME : PLOT SCALE : 1 IN:20 FT



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PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: STH 33	SHEET 619	E

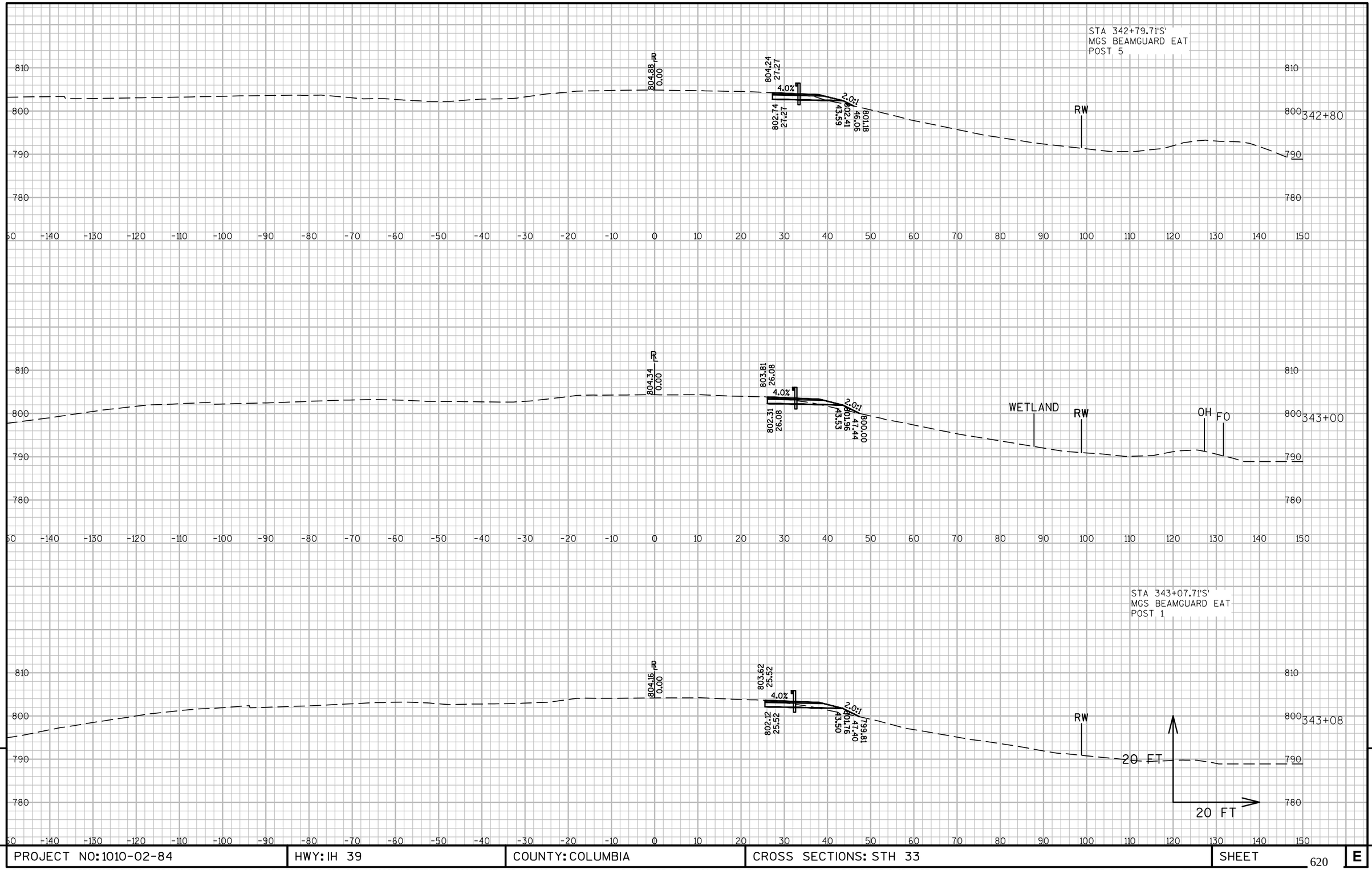
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LAYOUT NAME - 090109-XS

PLOT DATE : 3/14/2016 1:04 PM

PLOT BY : RAY POLKINGHORN, PE PLOT NAME :

PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 49

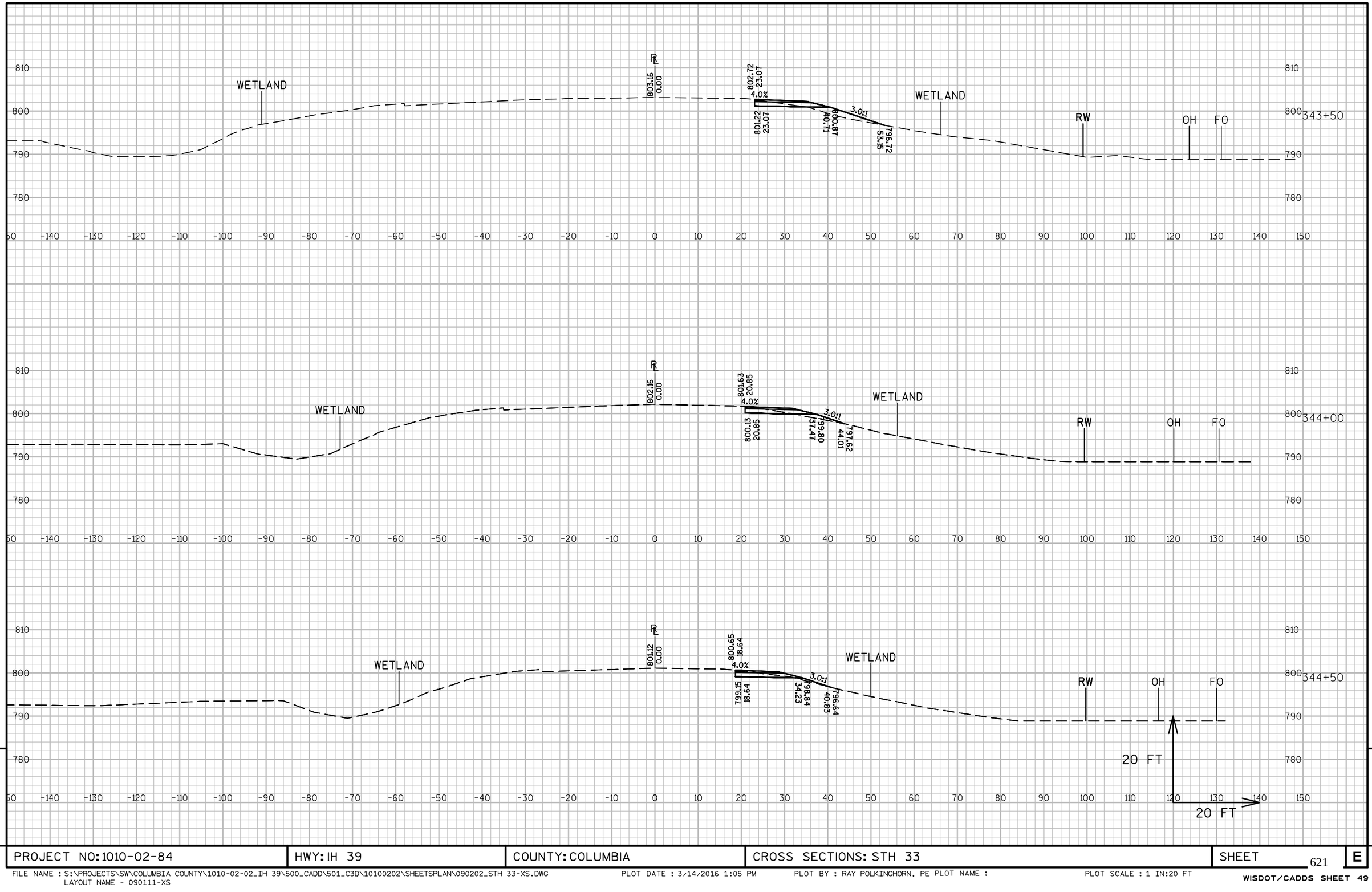


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PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: STH 33	SHEET 620	E

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LAYOUT NAME - 090110-XS
PLOT DATE : 3/14/2016 1:05 PM
PLOT BY : RAY POLKINGHORN, PE PLOT NAME :
PLOT SCALE : 1 IN:20 FT
WISDOT/CADDS SHEET 49



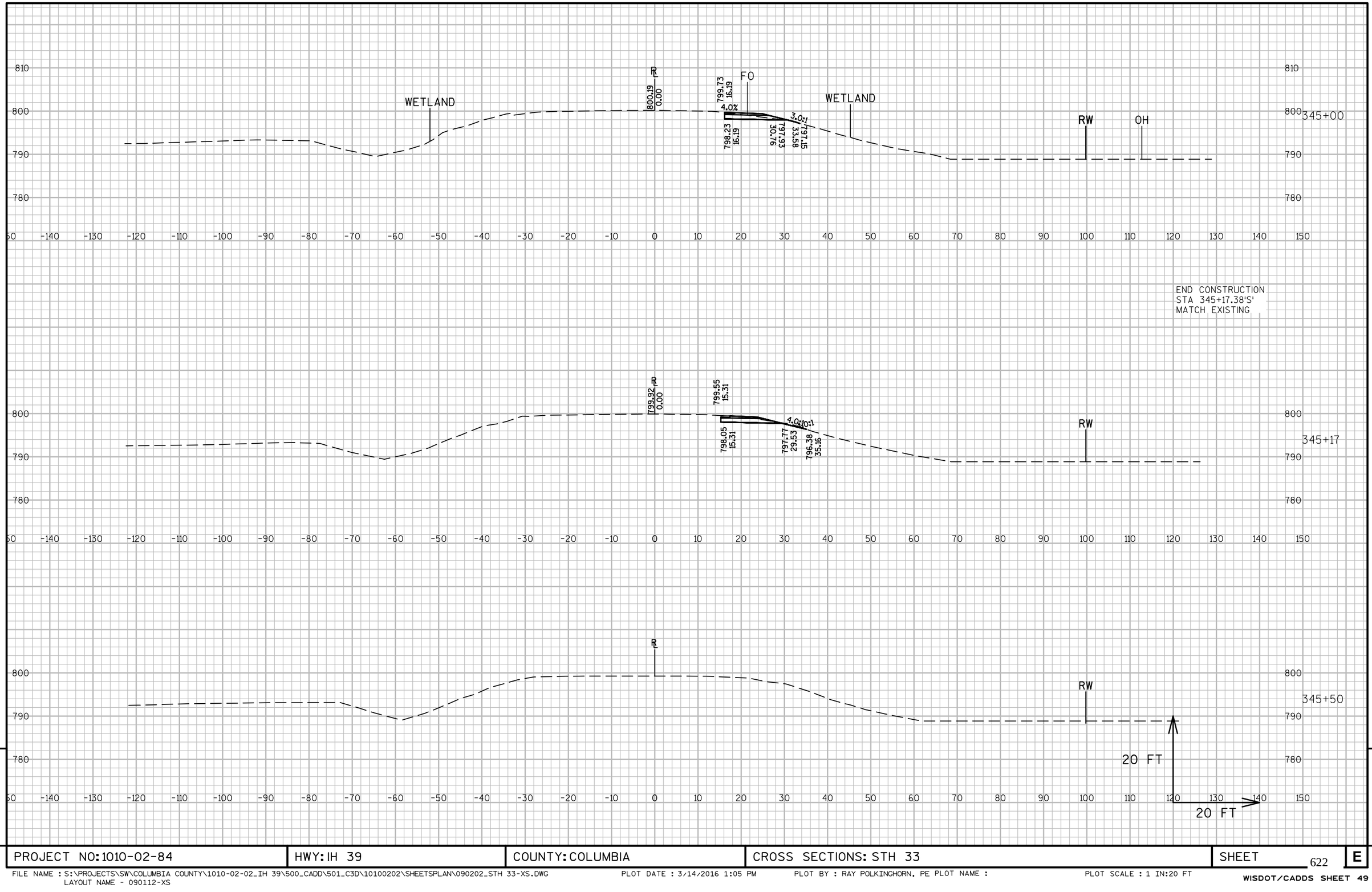
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PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: STH 33	SHEET 621	E

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LAYOUT NAME - 090111-XS

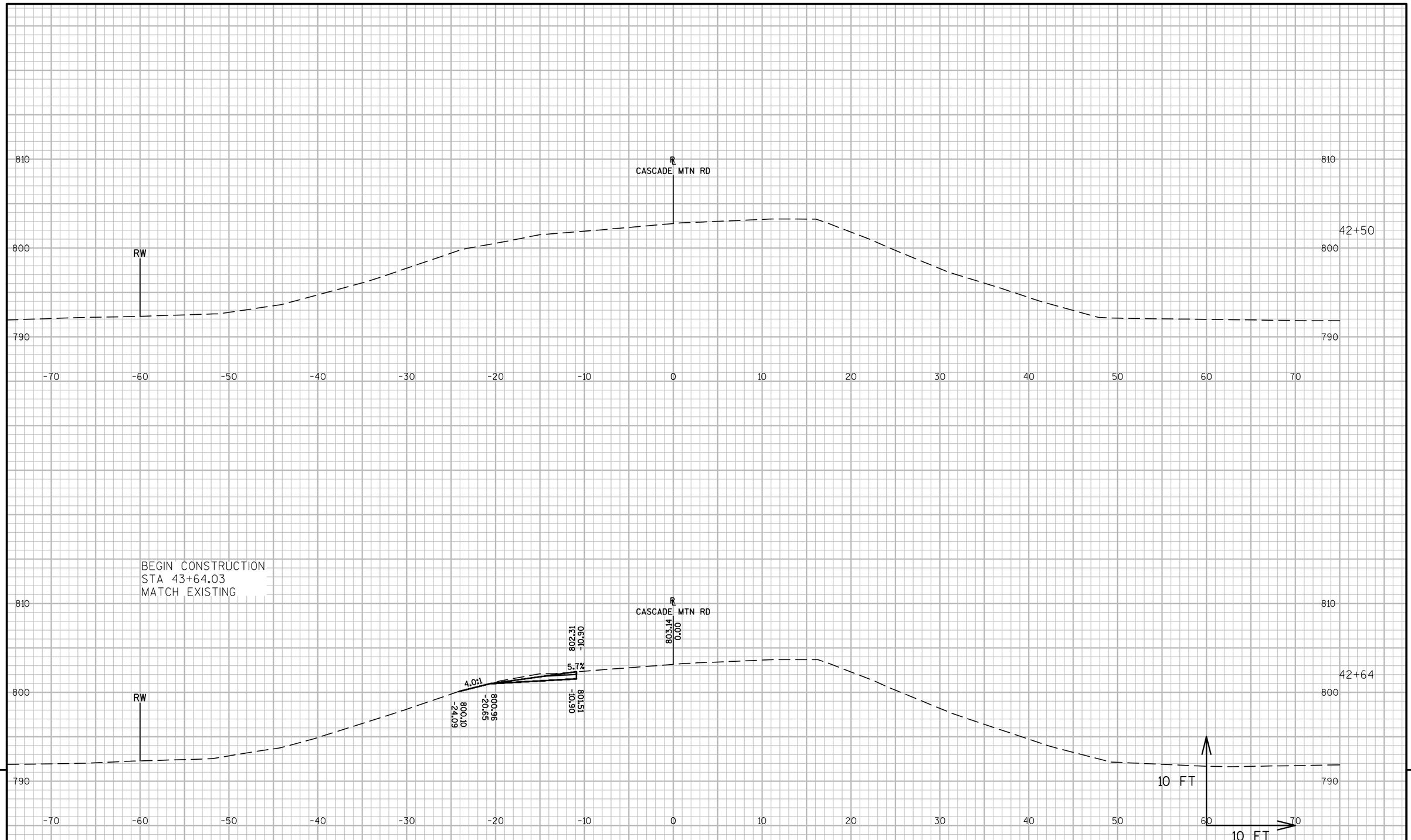
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PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: STH 33	SHEET 622	E

FILE NAME : S:\PROJECTS\SW\COLUMBIA COUNTY\1010-02-02_IH 39\500_CADD\501_C3D\10100202\SHEETSPLAN\090202_STH 33-XS.DWG
LAYOUT NAME - 090112-XS
PLOT DATE : 3/14/2016 1:05 PM PLOT BY : RAY POLKINGHORN, PE PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 49

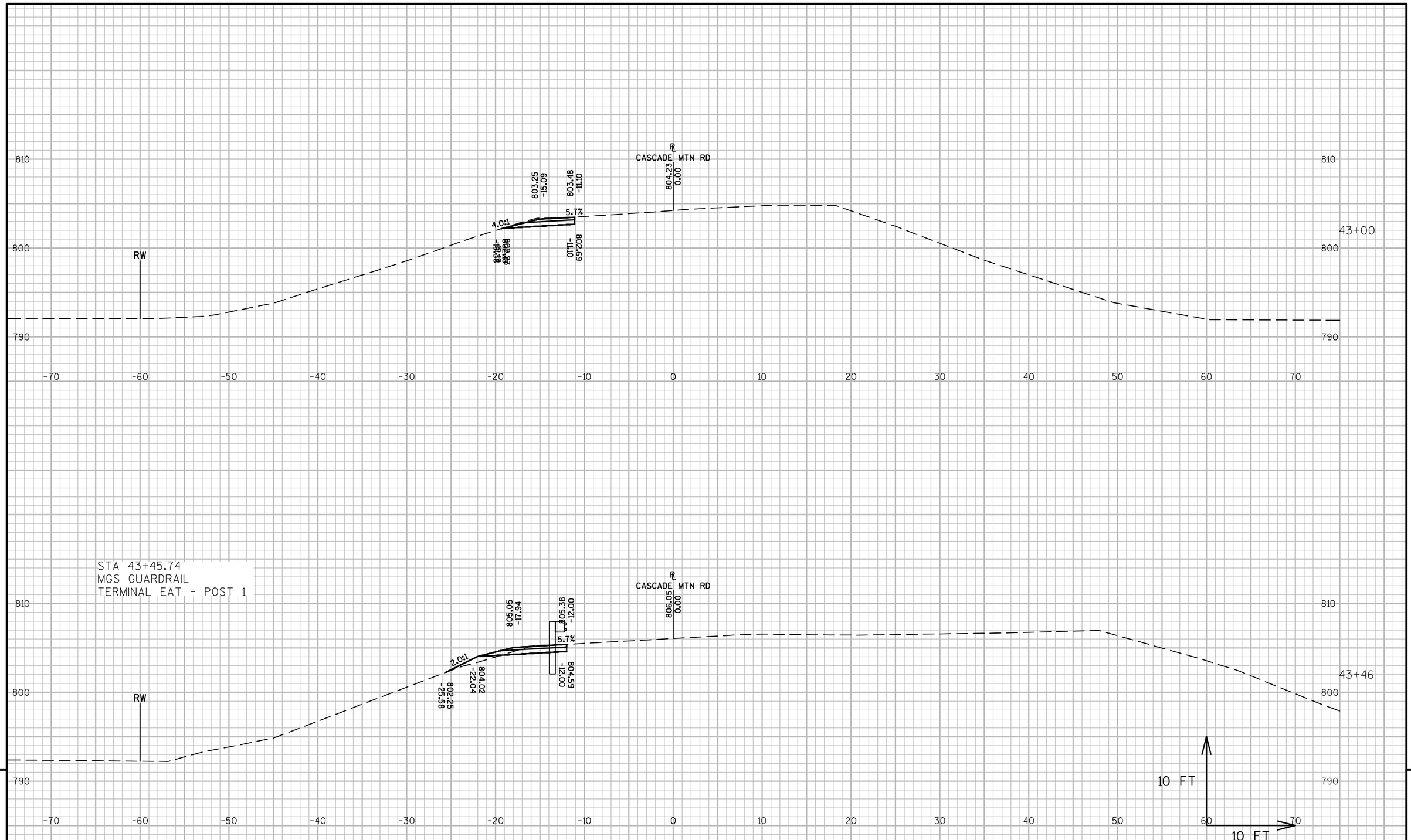


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9

PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: CASCADE MOUNTAIN ROAD	SHEET 623	E

FILE NAME : S:\PROJECTS\SW\COLUMBIA COUNTY\1010-02-02_IH 39\500_CADD\501_C3D\10100202\DESIGN\CORRIDORS\CORRIDOR-I39-CASCADEMTN-RD.DWGPLOT DATE : 3/14/2016 1:06 PM
LAYOUT NAME - 090201-XS
PLOT BY : RAY POLKINGHORN, PE PLOT NAME :
PLOT SCALE : 1 IN:10 FT



9

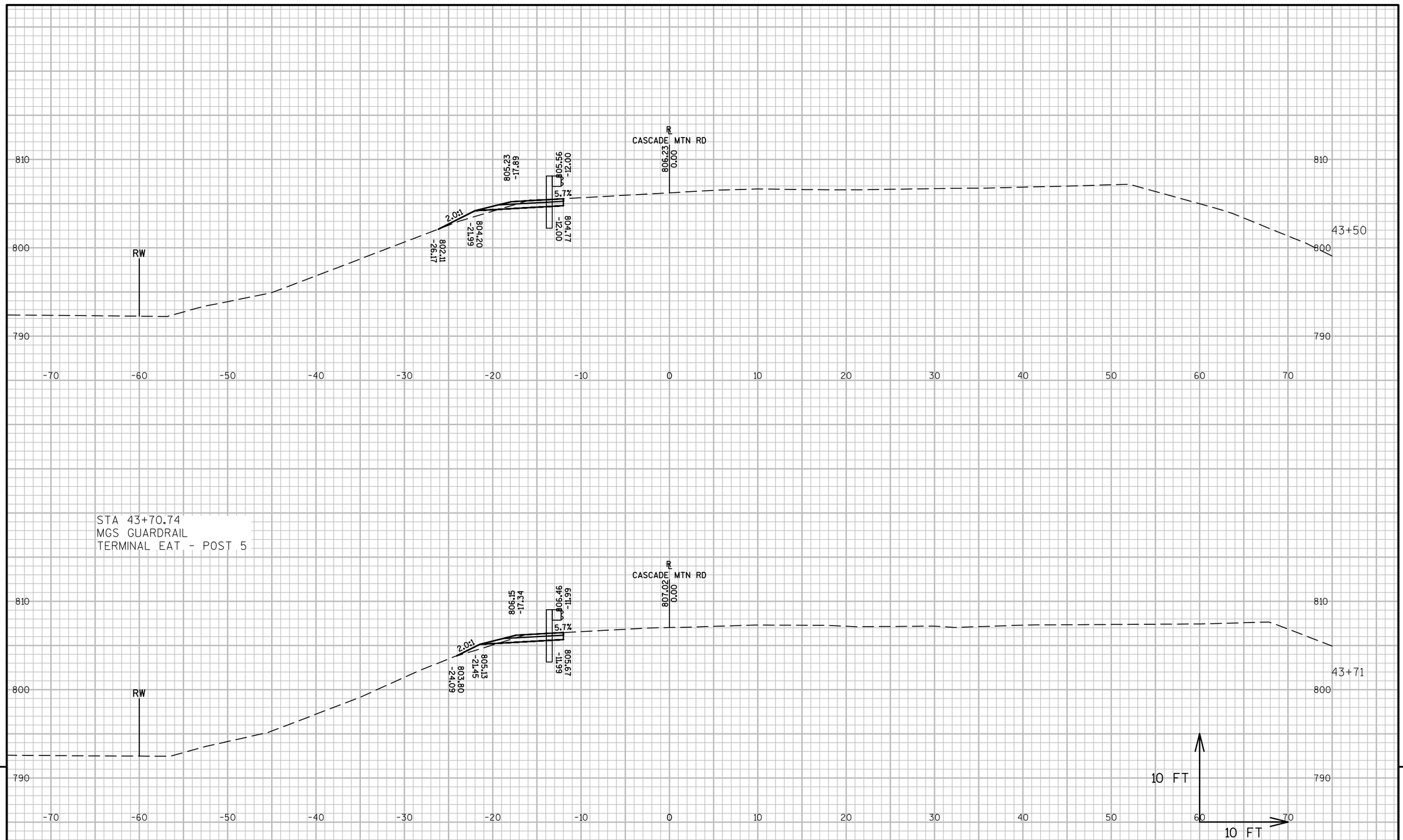
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PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: CASCADE MOUNTAIN ROAD	SHEET 624	E

FILE NAME : S:\PROJECTS\SW\COLUMBIA COUNTY\1010-02-02_IH 39\500_CADD\501_C3D\10100202\DESIGN\CORRIDORS\CORRIDOR-I39-CASCADEMTN-RD.DWGPLOT DATE : 3/14/2016 1:07 PM
LAYOUT NAME - 090202-XS

PLOT BY : RAY POLKINGHORN, PE PLOT NAME :

PLOT SCALE : 1 IN:10 FT



STA 43+70.74
MGS GUARDRAIL
TERMINAL EAT - POST 5

9

9

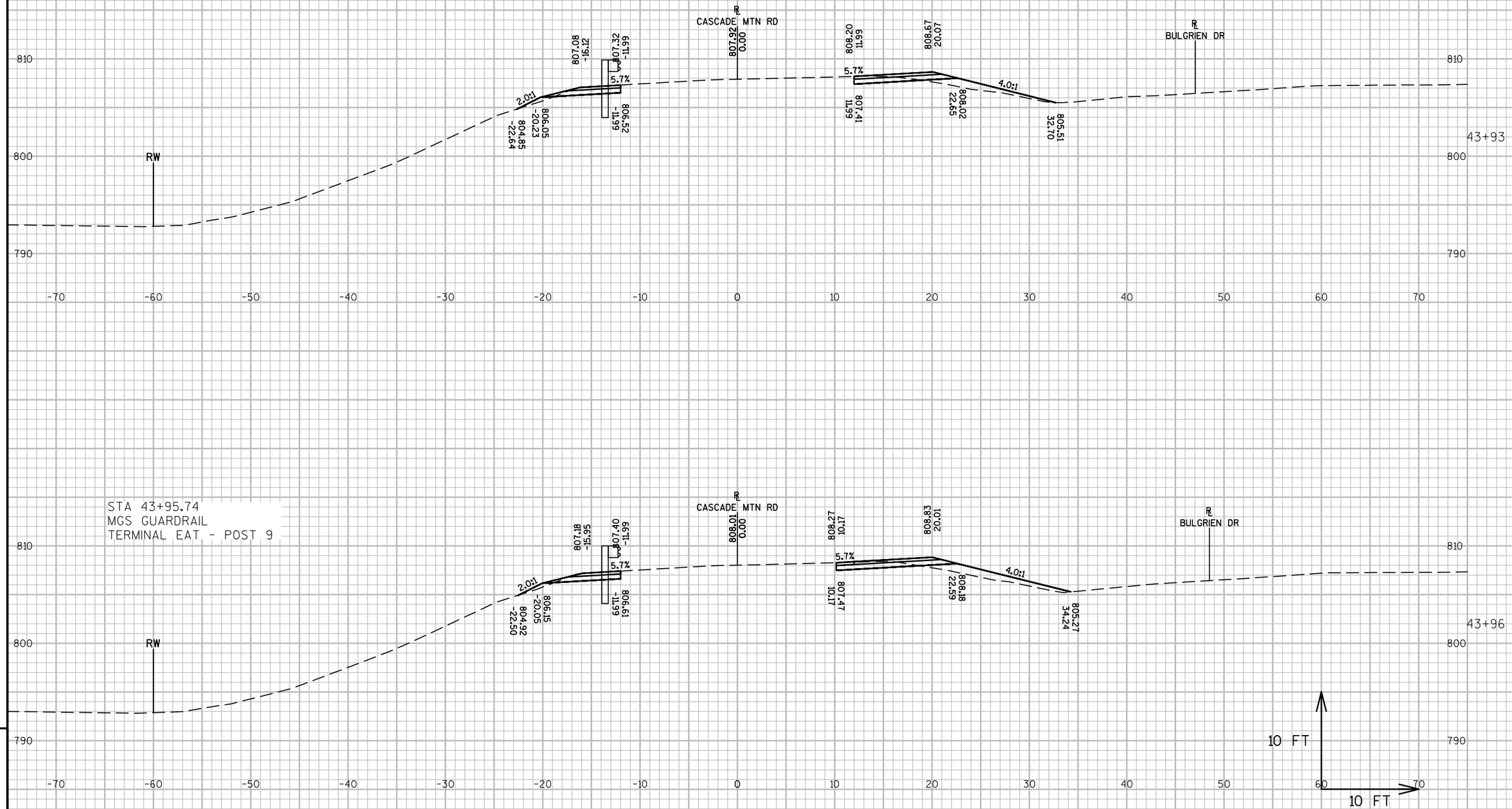
PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: CASCADE MOUNTAIN ROAD	SHEET 625	E

FILE NAME : S:\PROJECTS\SW\COLUMBIA COUNTY\1010-02-02_IH 39\500_CADD\501_C3D\10100202\DESIGN\CORRIDORS\CORRIDOR-I39-CASCADEMTN-RD.DWGPLOT DATE : 3/14/2016 1:07 PM
LAYOUT NAME - 090203-XS

PLOT BY : RAY POLKINGHORN, PE PLOT NAME :

PLOT SCALE : 1 IN:10 FT

BEGIN CONSTRUCTION
STA 43+86.95
MATCH EXISTING



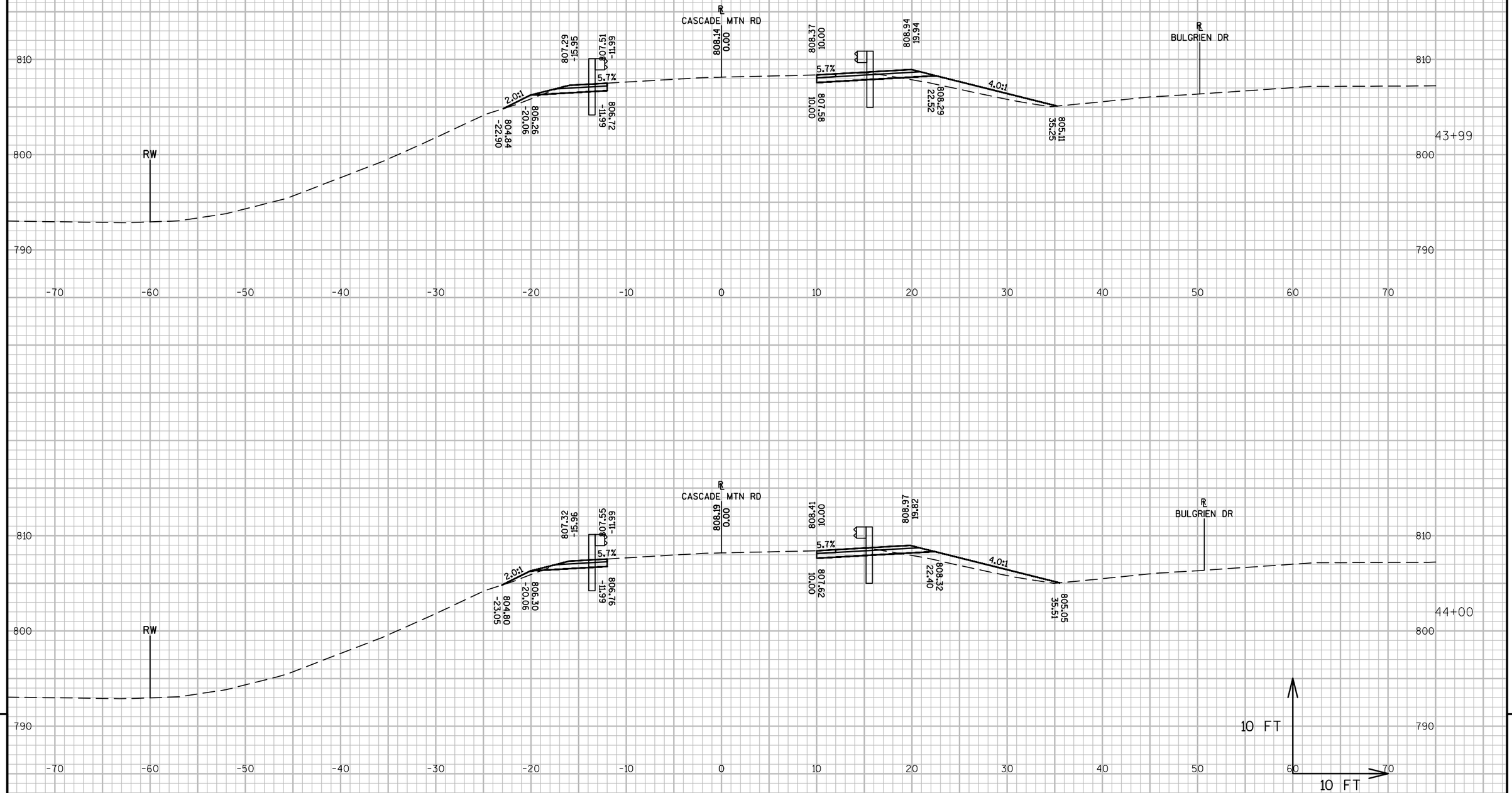
STA 43+95.74
MGS GUARDRAIL
TERMINAL EAT - POST 9

9 9

PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: CASCADE MOUNTAIN ROAD	SHEET 626	E

FILE NAME : S:\PROJECTS\SW\COLUMBIA COUNTY\1010-02-02_IH 39\500_CADD\501_C3D\10100202\DESIGN\CORRIDORS\CORRIDOR-I39-CASCADEMTN-RD.DWGPLOT DATE : 3/14/2016 1:08 PM
LAYOUT NAME - 090204-XS
PLOT BY : RAY POLKINGHORN, PE PLOT NAME :
PLOT SCALE : 1 IN:10 FT
WISDOT/CADDS SHEET 49

STA 43+98.91
MGS GUARDRAIL
TERMINAL EAT - POST 1



9

9

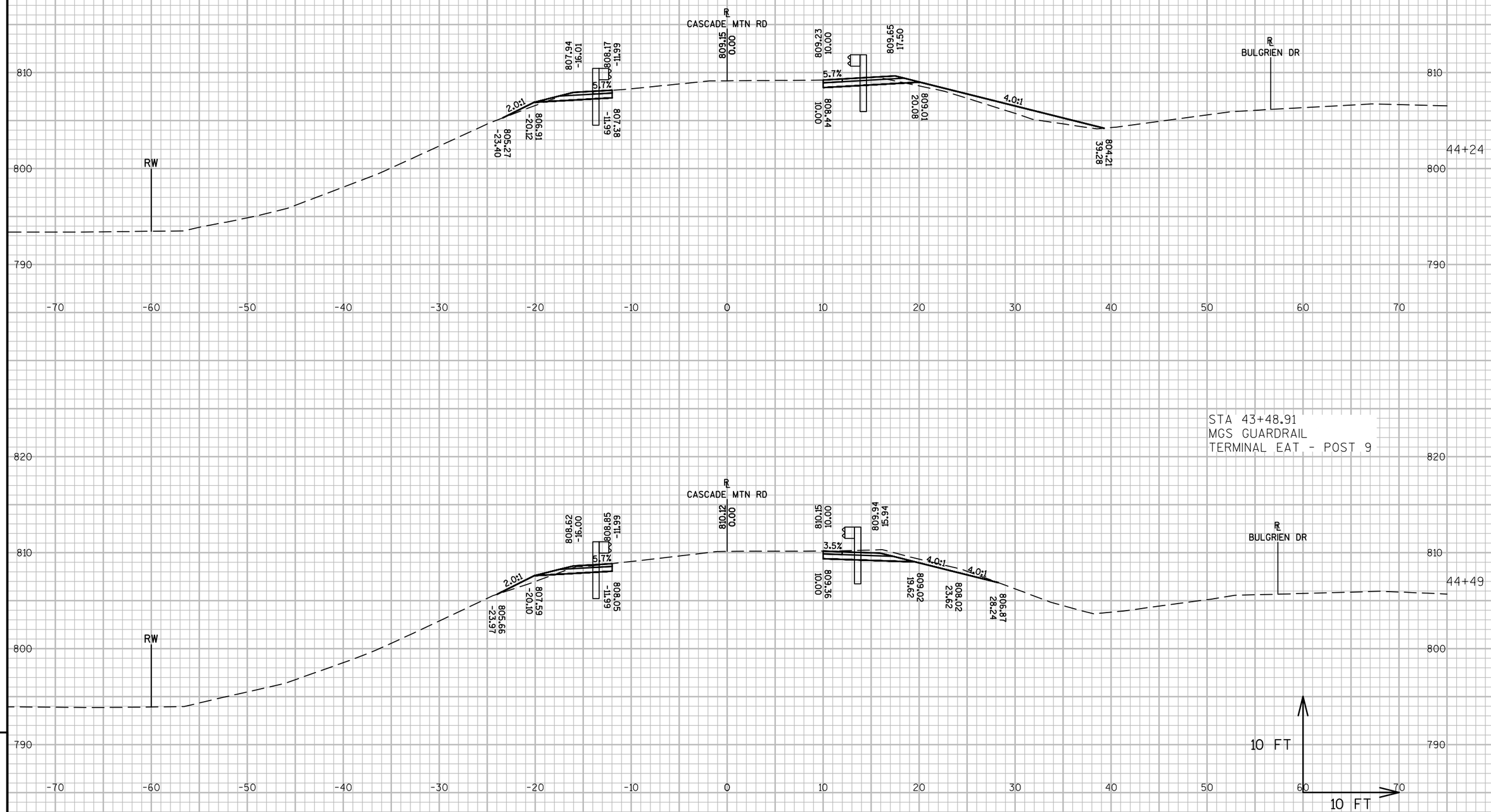
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FILE NAME : S:\PROJECTS\SW\COLUMBIA COUNTY\1010-02-02_IH 39\500_CADD\501_C3D\10100202\DESIGN\CORRIDORS\CORRIDOR-I39-CASCADEMTN-RD.DWGPLOT DATE : 3/14/2016 1:08 PM
LAYOUT NAME - 090205-XS

PLOT BY : RAY POLKINGHORN, PE PLOT NAME :

PLOT SCALE : 1 IN:10 FT

STA 43+23.91
MGS GUARDRAIL
TERMINAL EAT - POST 5

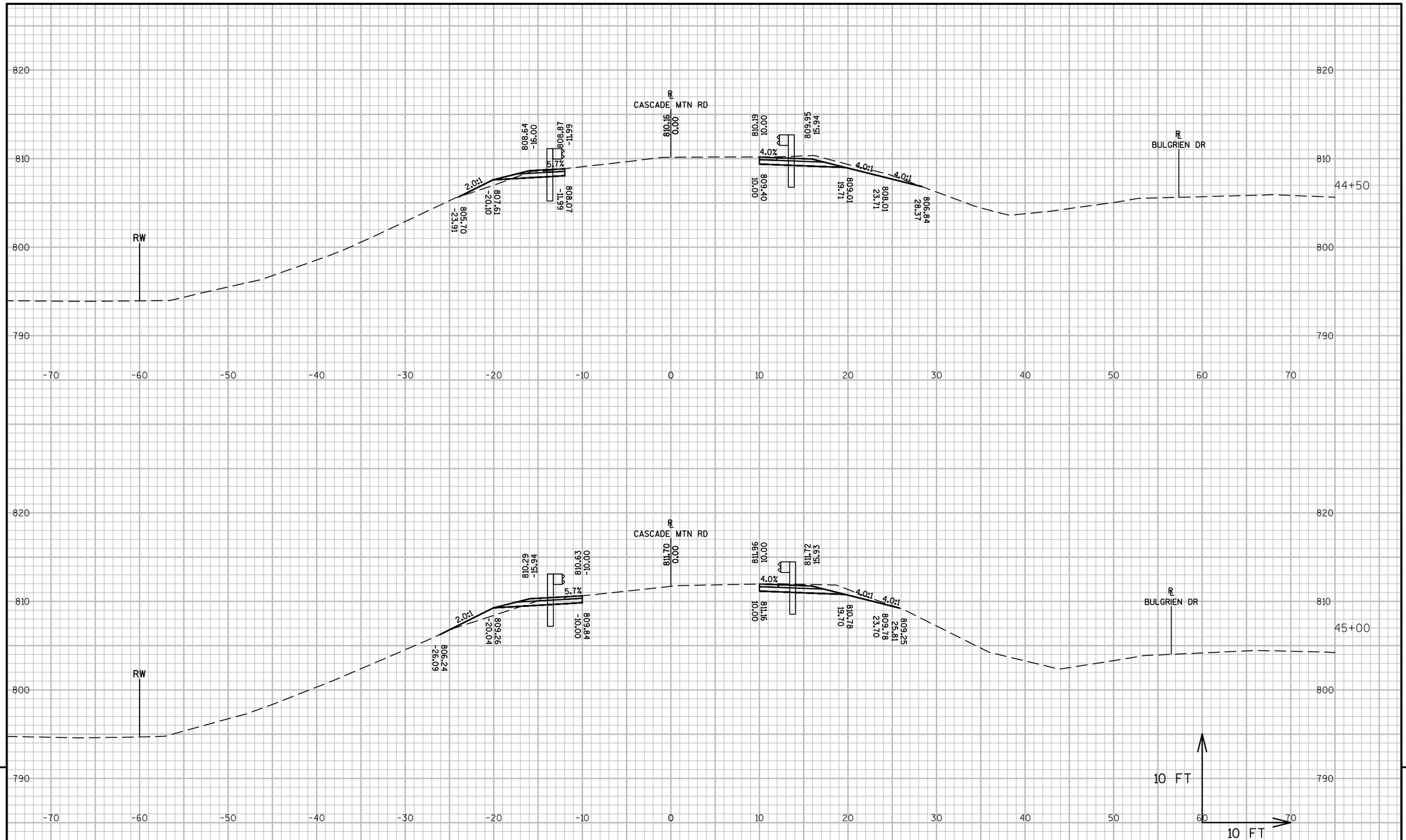


STA 43+48.91
MGS GUARDRAIL
TERMINAL EAT - POST 9

9 9

PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: CASCADE MOUNTAIN ROAD	SHEET 628	E

FILE NAME : S:\PROJECTS\SW\COLUMBIA COUNTY\1010-02-02_IH 39\500_CADD\501_C3D\10100202\DESIGN\CORRIDORS\CORRIDOR-I39-CASCADEMTN-RD.DWGPLOT DATE : 3/14/2016 1:09 PM
LAYOUT NAME - 090206-XS
PLOT BY : RAY POLKINGHORN, PE PLOT NAME :
PLOT SCALE : 1 IN:10 FT

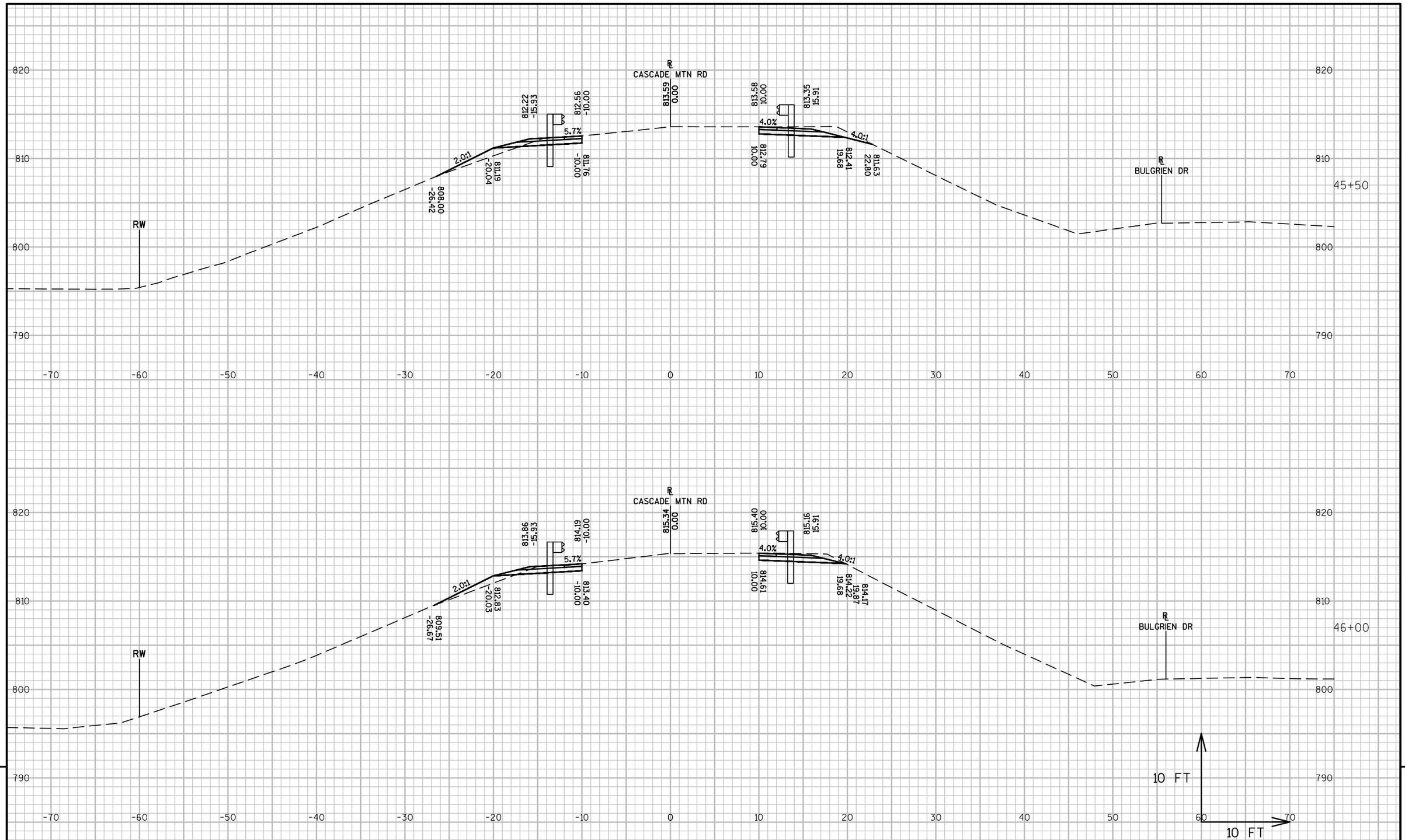


PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: CASCADE MOUNTAIN ROAD	SHEET 629	E

FILE NAME : S:\PROJECTS\SW\COLUMBIA COUNTY\1010-02-02_IH 39\500_CADD\501_C3D\10100202\DESIGN\CORRIDORS\CORRIDOR-I39-CASCADEMTN-RD.DWGPLOT DATE : 3/14/2016 1:09 PM
LAYOUT NAME - 090207-XS

PLOT BY : RAY POLKINGHORN, PE PLOT NAME :

PLOT SCALE : 1 IN:10 FT

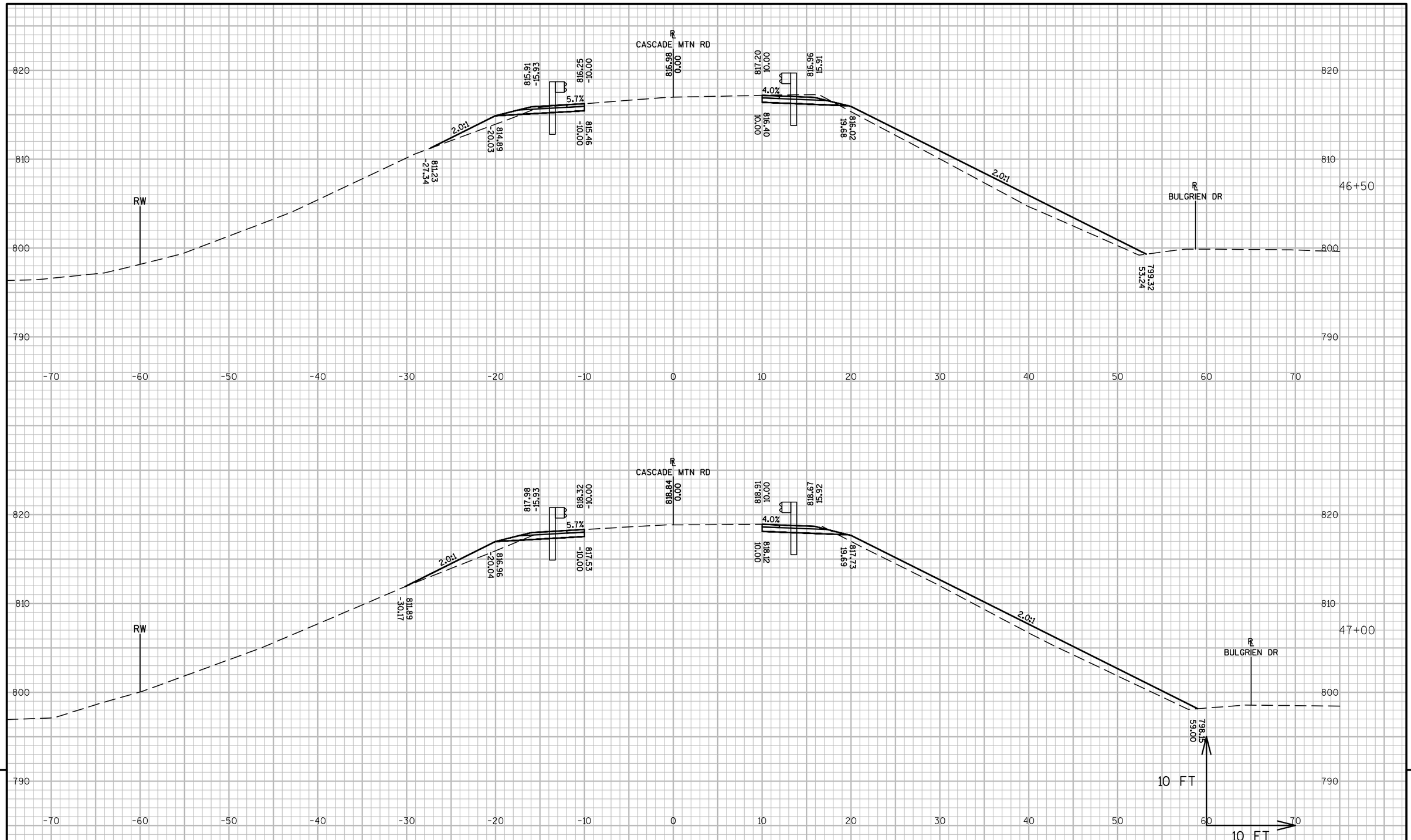


PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: CASCADE MOUNTAIN ROAD	SHEET 630	E

FILE NAME : S:\PROJECTS\SW\COLUMBIA COUNTY\1010-02-02_IH 39\500_CADD\501_C3D\10100202\DESIGN\CORRIDORS\CORRIDOR-I39-CASCADEMTN-RD.DWGPLOT DATE : 3/14/2016 1:10 PM
LAYOUT NAME - 090208-XS

PLOT BY : RAY POLKINGHORN, PE PLOT NAME :

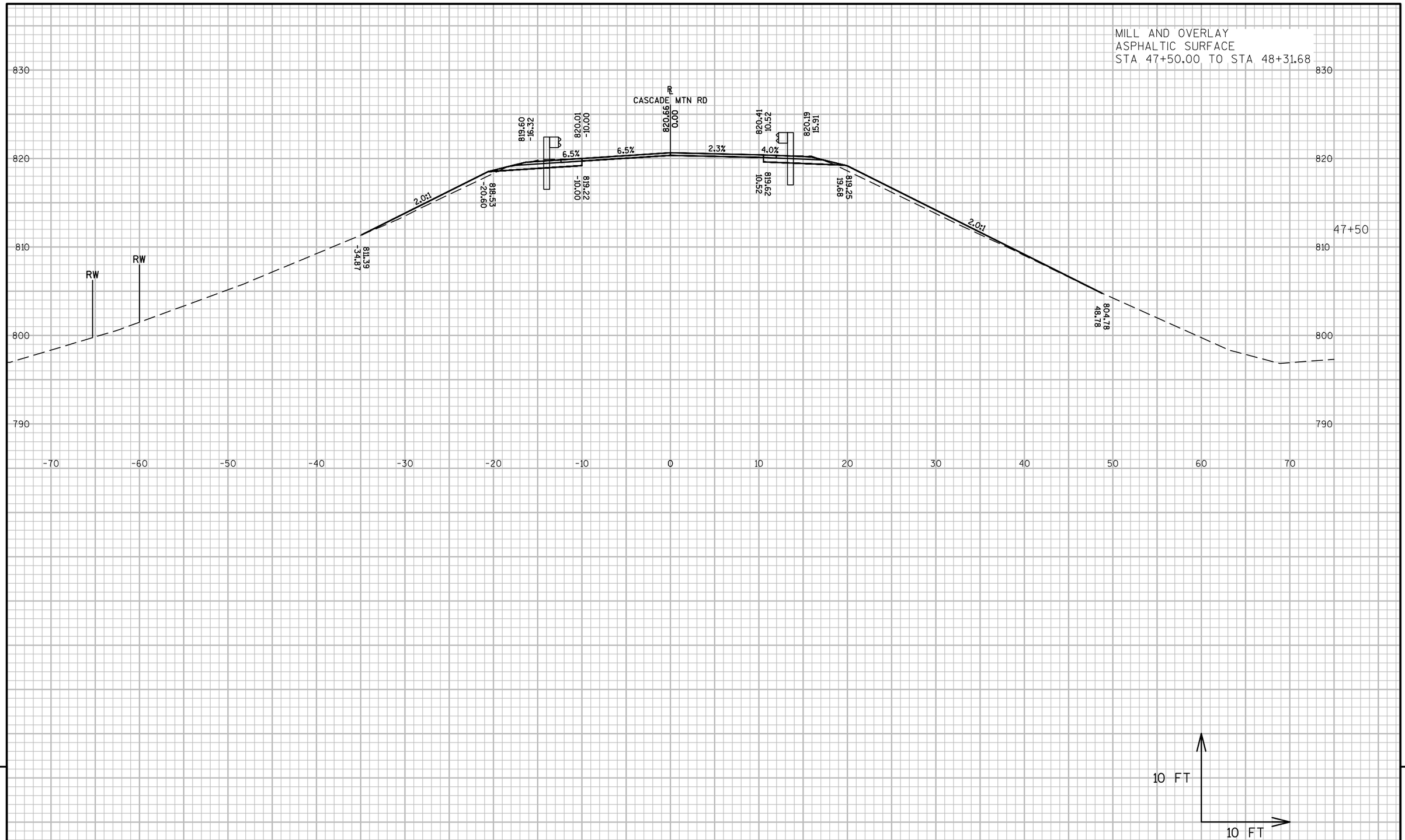
PLOT SCALE : 1 IN:10 FT



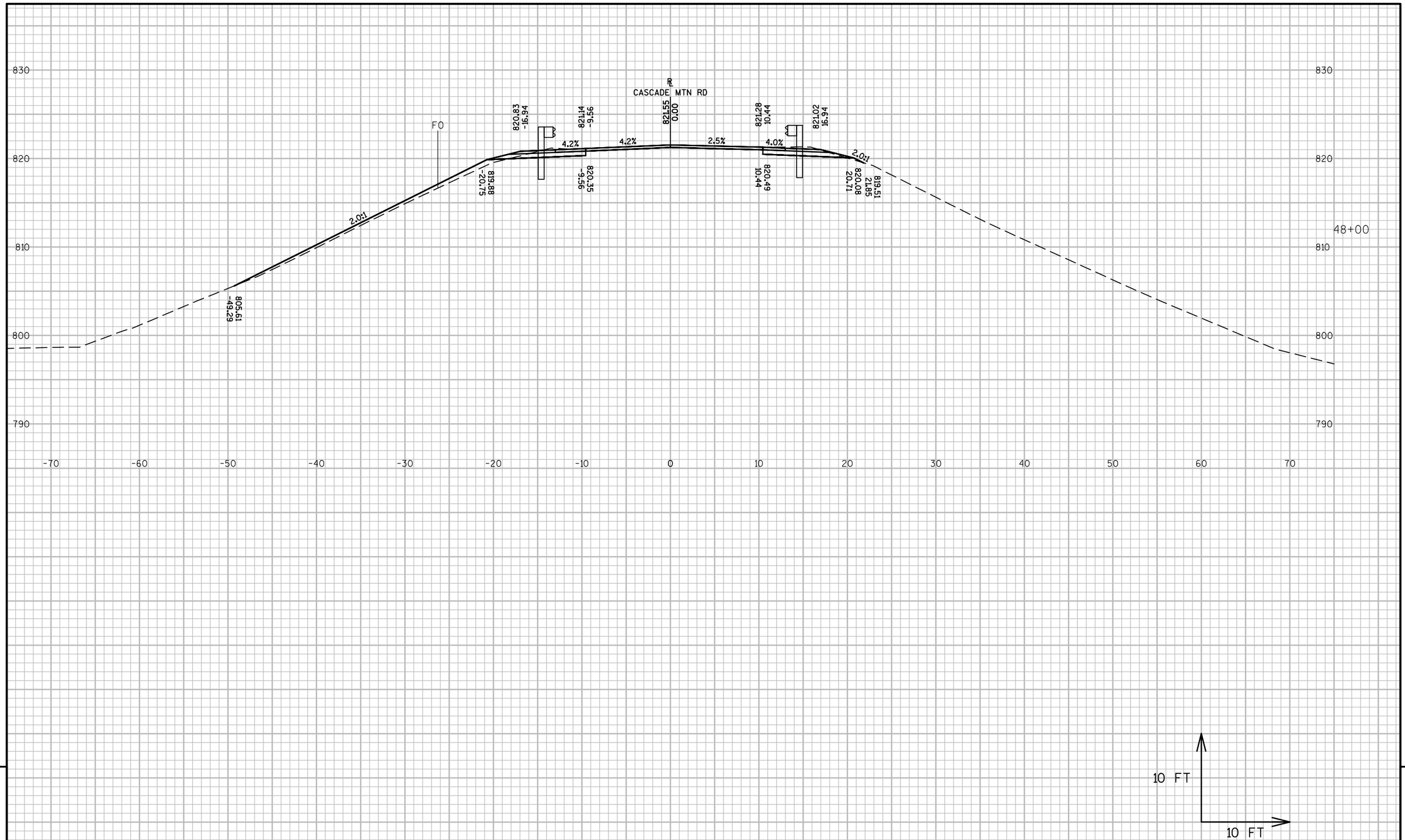
PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: CASCADE MOUNTAIN ROAD	SHEET 631 E

FILE NAME : S:\PROJECTS\SW\COLUMBIA COUNTY\1010-02-02_IH 39\500_CADD\501_C3D\10100202\DESIGN\CORRIDORS\CORRIDOR-I39-CASCADEMTN-RD.DWGPLOT DATE : 3/14/2016 1:10 PM PLOT BY : RAY POLKINGHORN, PE PLOT NAME : PLOT SCALE : 1 IN:10 FT
LAYOUT NAME - 090209-XS

MILL AND OVERLAY
ASPHALTIC SURFACE
STA 47+50.00 TO STA 48+31.68



PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: CASCADE MOUNTAIN ROAD	SHEET 632	E



9

PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: CASCADE MOUNTAIN ROAD	SHEET 633	E

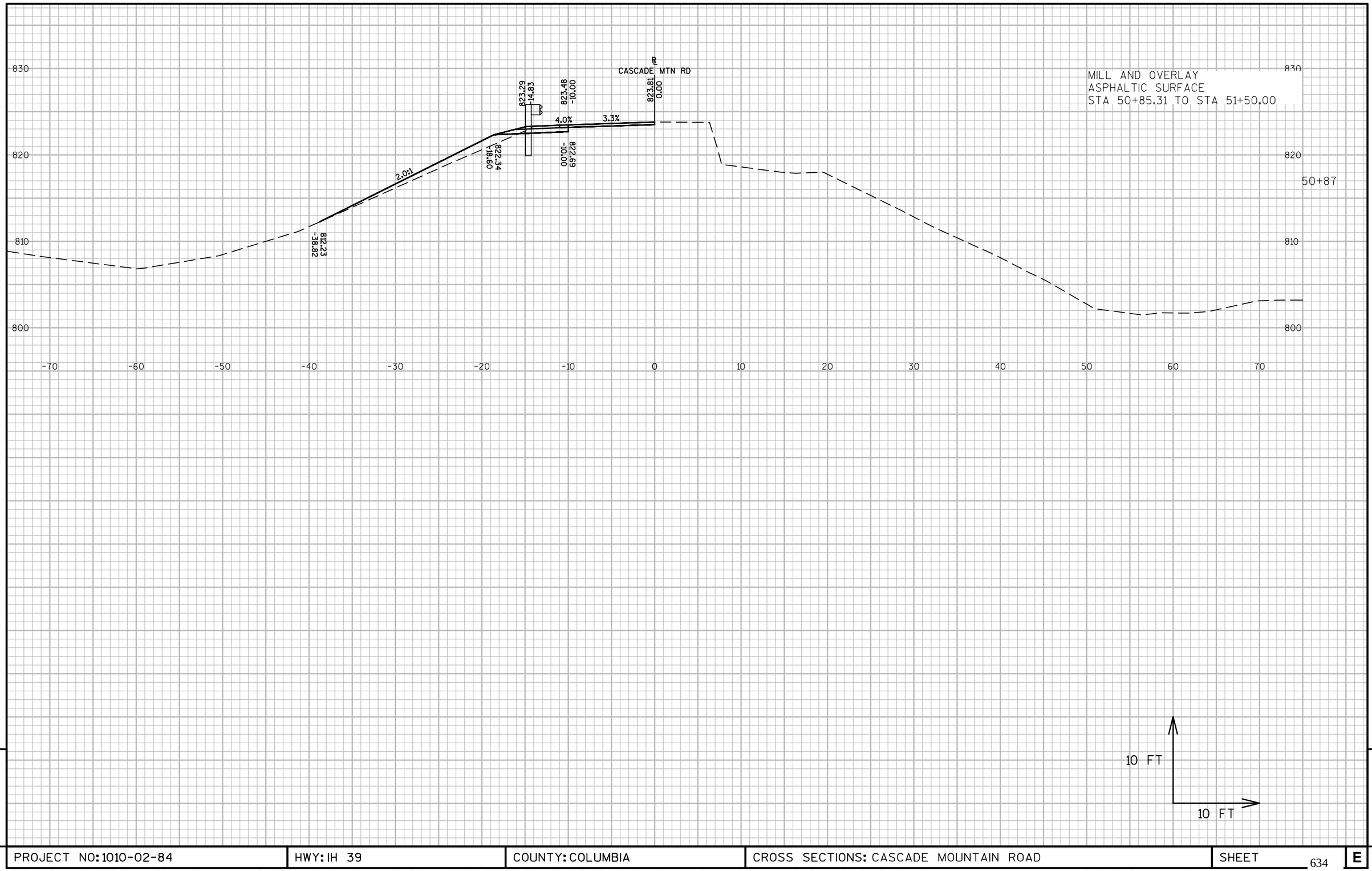
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FILE NAME : S:\PROJECTS\SW\COLUMBIA COUNTY\1010-02-02_IH 39\500_CADD\501_C3D\10100202\DESIGN\CORRIDORS\CORRIDOR-I39-CASCADEMTN-RD.DWGPLOT DATE : 3/14/2016 1:11 PM
LAYOUT NAME - 090211-XS

PLOT BY : RAY POLKINGHORN, PE PLOT NAME :

PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49



9

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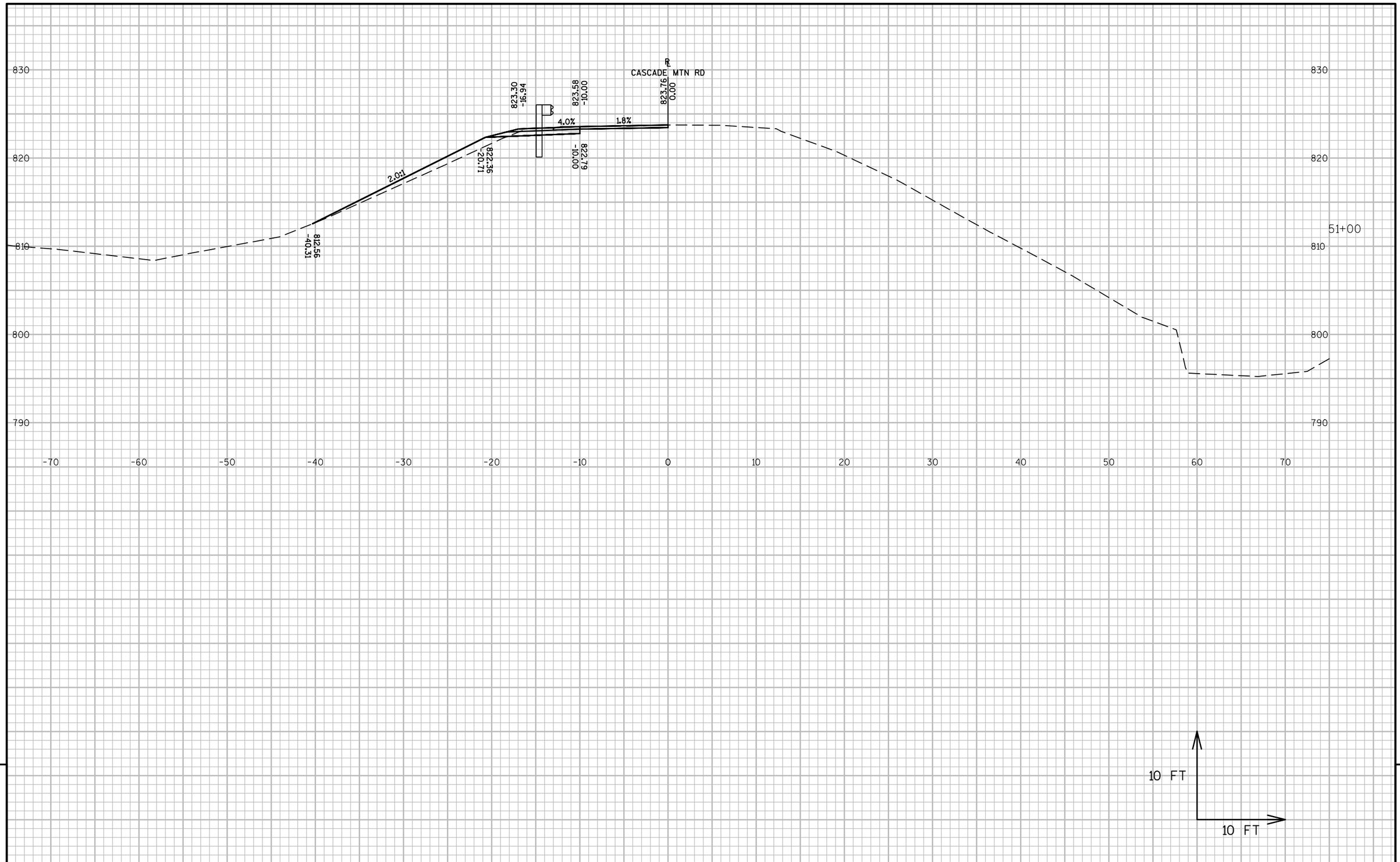
PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: CASCADE MOUNTAIN ROAD	SHEET 634	E

FILE NAME : S:\PROJECTS\SW\COLUMBIA COUNTY\1010-02-02_IH 39\500_CADD\501_C3D\10100202\DESIGN\CORRIDORS\CORRIDOR-I39-CASCADEMTN-RD.DWGPLOT DATE : 3/14/2016 1:12 PM
LAYOUT NAME - 090212-XS

PLOT BY : RAY POLKINGHORN, PE PLOT NAME :

PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49



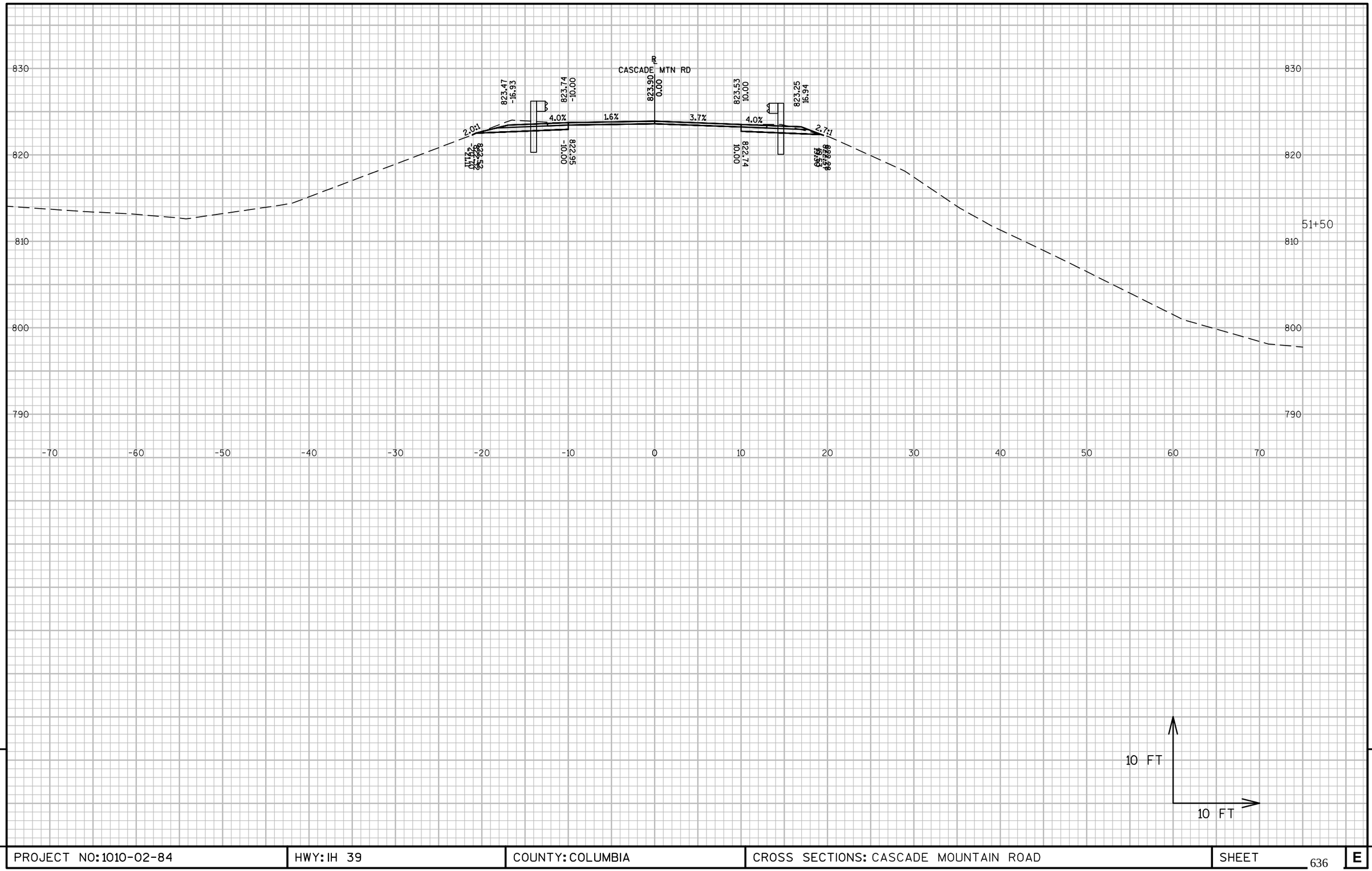
PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: CASCADE MOUNTAIN ROAD	SHEET 635	E

FILE NAME : S:\PROJECTS\SW\COLUMBIA COUNTY\1010-02-02_IH 39\500_CADD\501_C3D\10100202\DESIGN\CORRIDORS\CORRIDOR-I39-CASCADEMTN-RD.DWGPLOT DATE : 3/14/2016 1:12 PM
LAYOUT NAME - 090213-XS

PLOT BY : RAY POLKINGHORN, PE PLOT NAME :

PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49

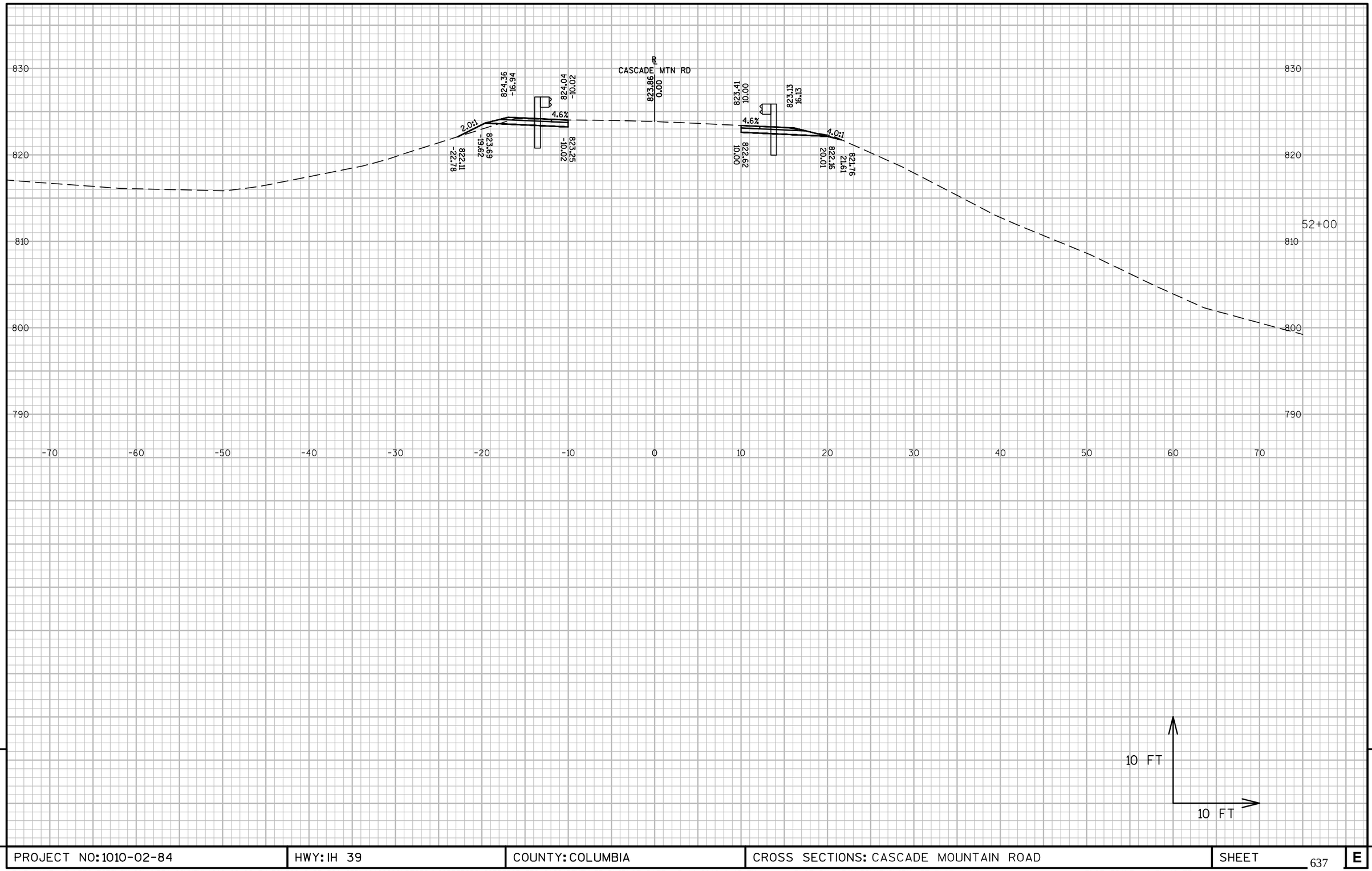


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PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: CASCADE MOUNTAIN ROAD	SHEET 636	E

FILE NAME : S:\PROJECTS\SW\COLUMBIA COUNTY\1010-02-02_IH 39\500_CADD\501_C3D\10100202\DESIGN\CORRIDORS\CORRIDOR-I39-CASCADEMTN-RD.DWGPLOT DATE : 3/14/2016 1:13 PM
LAYOUT NAME - 090214-XS
PLOT BY : RAY POLKINGHORN, PE PLOT NAME :
PLOT SCALE : 1 IN:10 FT
WISDOT/CADDS SHEET 49



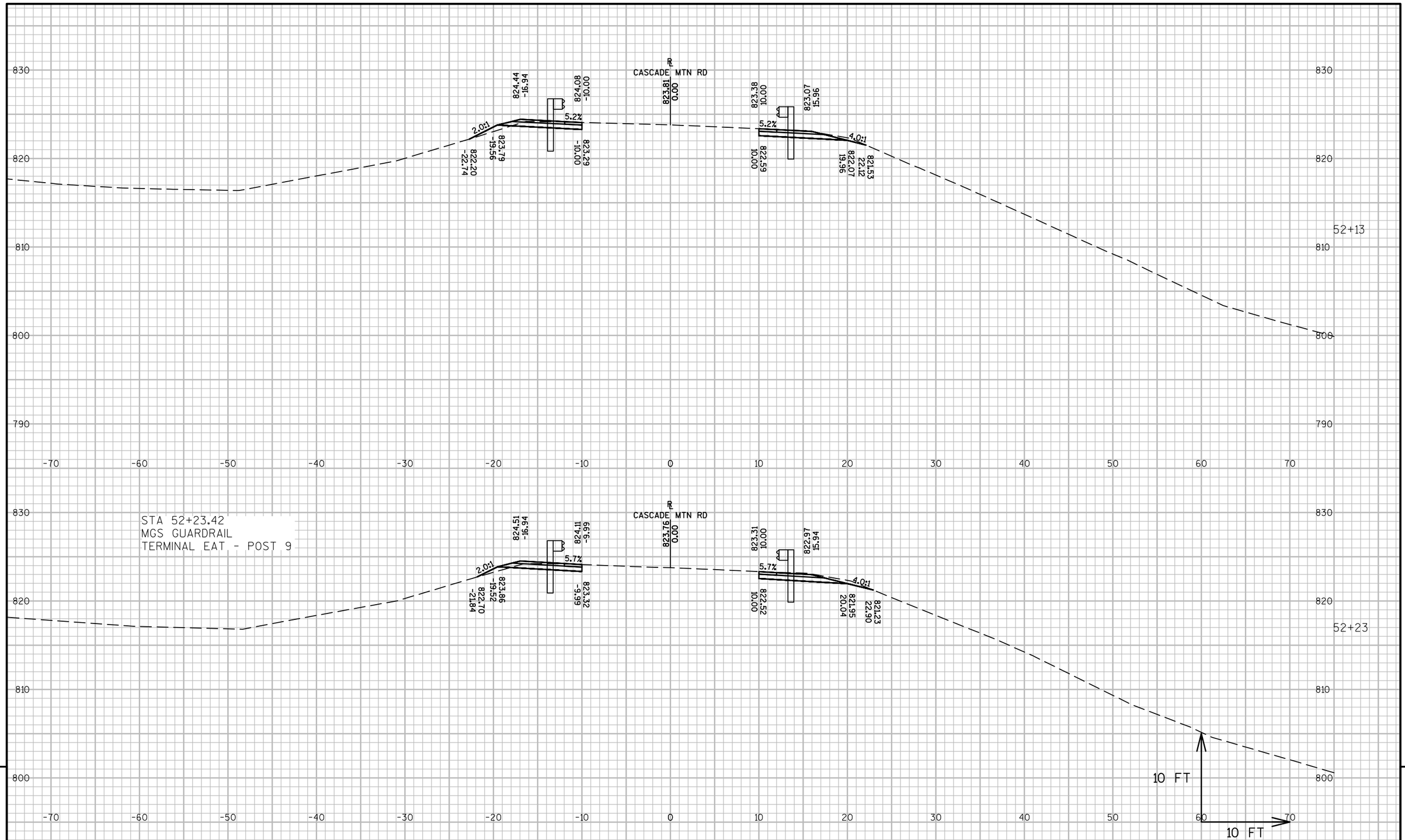
PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: CASCADE MOUNTAIN ROAD	SHEET 637	E

FILE NAME : S:\PROJECTS\SW\COLUMBIA COUNTY\1010-02-02_IH 39\500_CADD\501_C3D\10100202\DESIGN\CORRIDORS\CORRIDOR-I39-CASCADEMTN-RD.DWGPLOT DATE : 3/14/2016 1:13 PM
LAYOUT NAME - 090215-XS

PLOT BY : RAY POLKINGHORN, PE PLOT NAME :

PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49



PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: CASCADE MOUNTAIN ROAD	SHEET 638	E

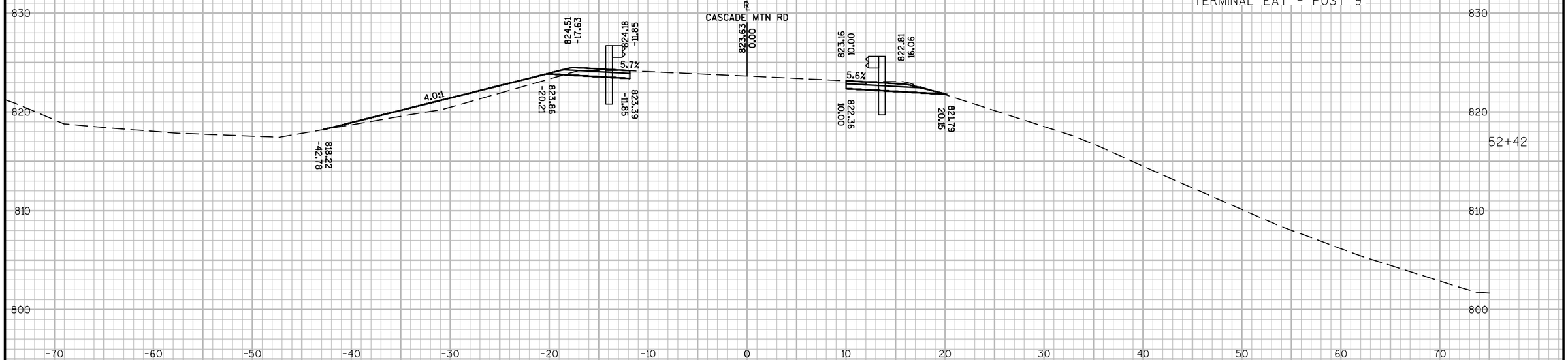
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LAYOUT NAME - 090216-XS

PLOT BY : RAY POLKINGHORN, PE PLOT NAME :

PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49

STA 52+42.11
MGS GUARDRAIL
TERMINAL EAT - POST 9



STA 52+48.42
MGS GUARDRAIL
TERMINAL EAT - POST 5

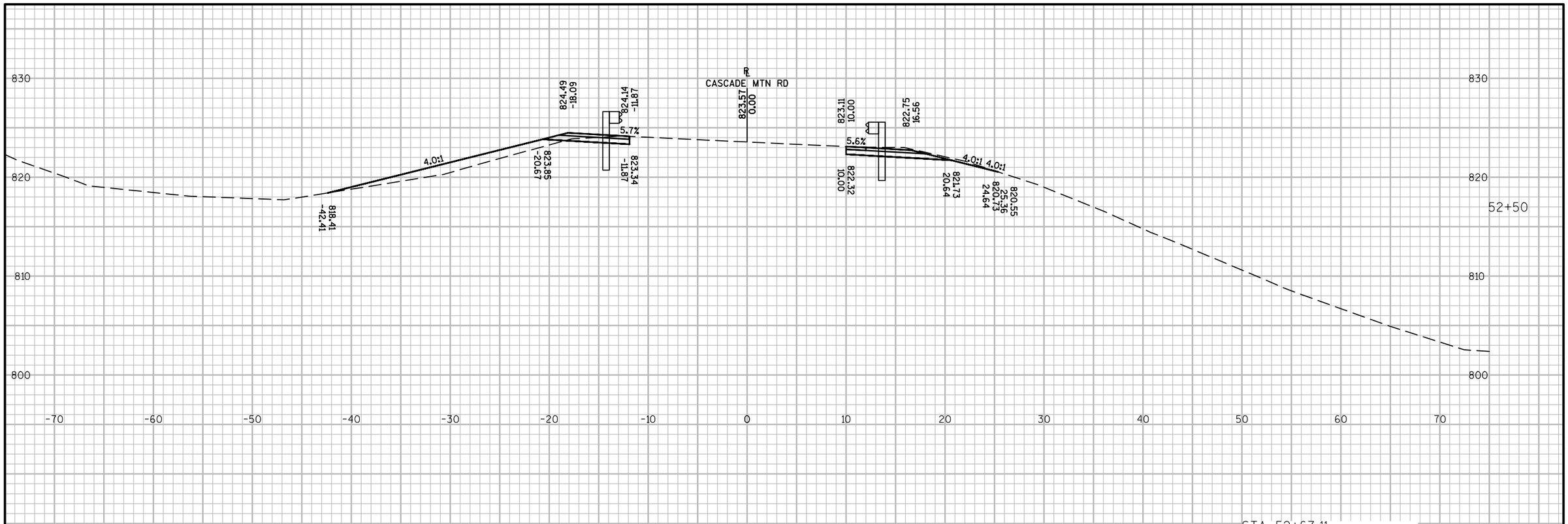


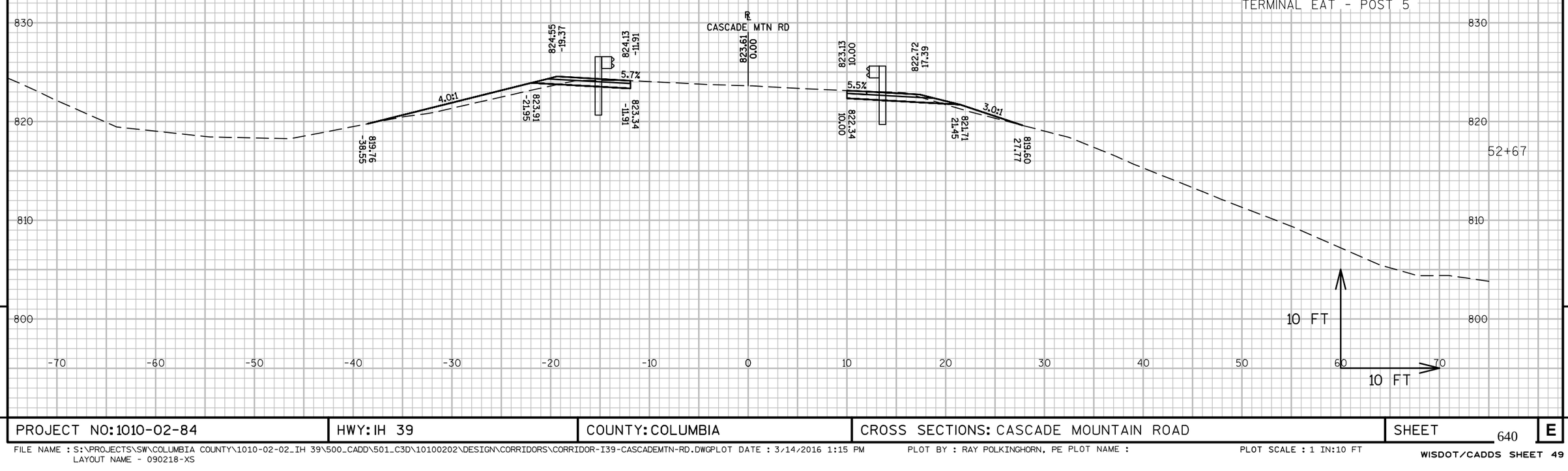
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PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: CASCADE MOUNTAIN ROAD	SHEET 639	E

FILE NAME : S:\PROJECTS\SW\COLUMBIA COUNTY\1010-02-02_IH 39\500_CADD\501_C3D\10100202\DESIGN\CORRIDORS\CORRIDOR-I39-CASCADEMTN-RD.DWGPLOT DATE : 3/14/2016 1:14 PM
LAYOUT NAME - 090217-XS
PLOT BY : RAY POLKINGHORN, PE PLOT NAME :
PLOT SCALE : 1 IN:10 FT



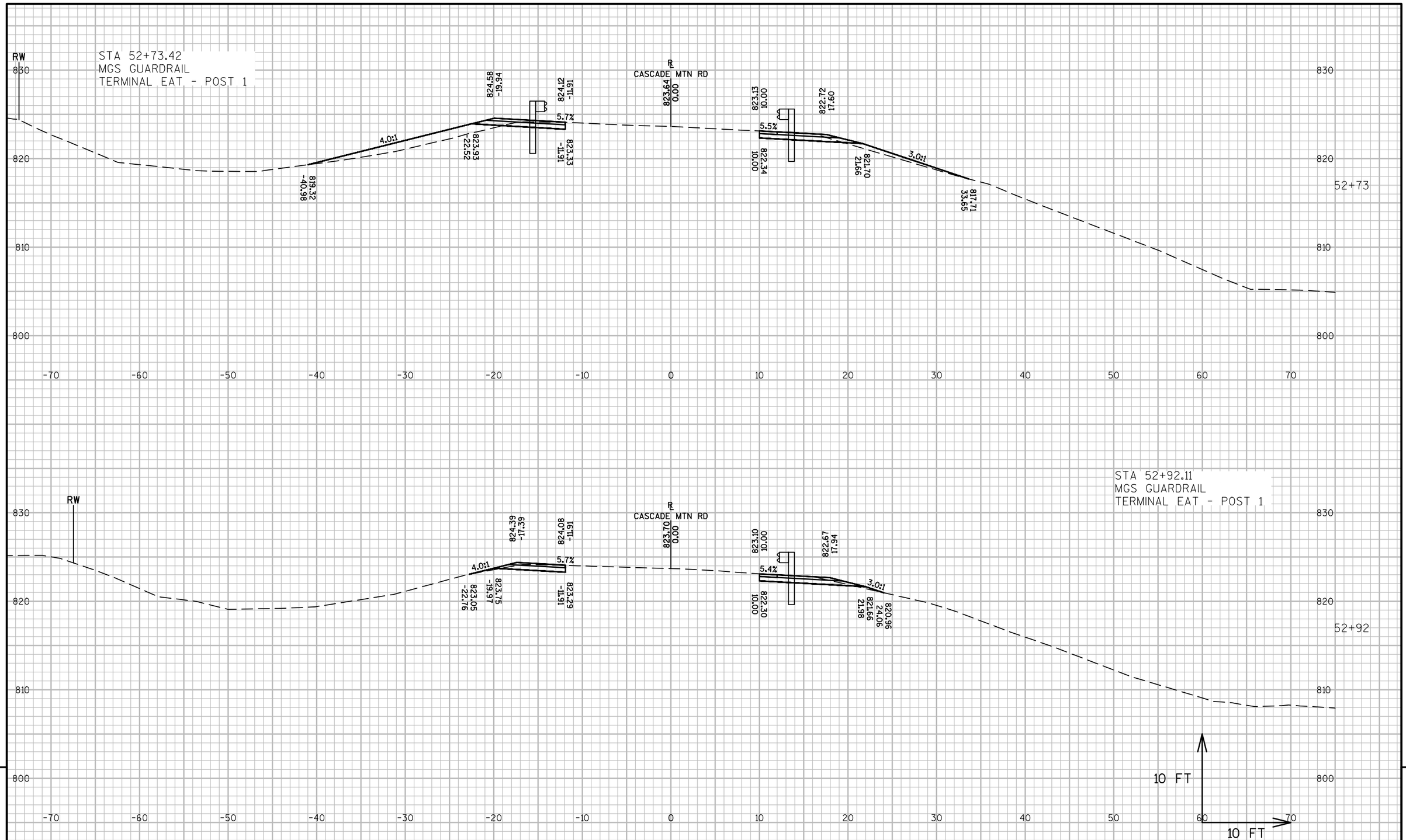


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PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: CASCADE MOUNTAIN ROAD	SHEET 640	E

FILE NAME : S:\PROJECTS\SW\COLUMBIA COUNTY\1010-02-02_IH 39\500_CADD\501_C3D\10100202\DESIGN\CORRIDORS\CORRIDOR-I39-CASCADEMTN-RD.DWGPLOT DATE : 3/14/2016 1:15 PM
LAYOUT NAME - 090218-XS
PLOT BY : RAY POLKINGHORN, PE PLOT NAME :
PLOT SCALE : 1 IN:10 FT
WISDOT/CADDS SHEET 49

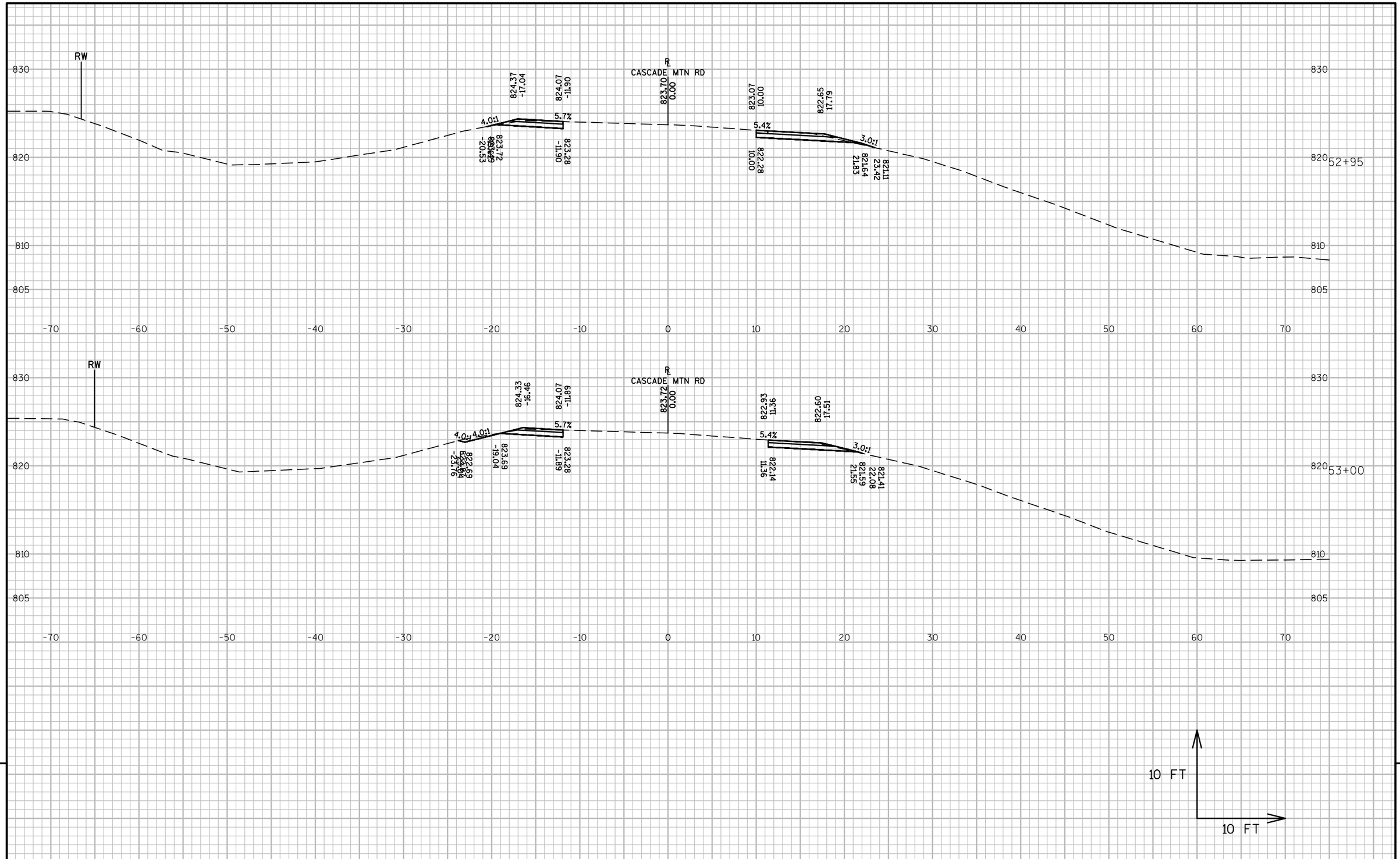


PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: CASCADE MOUNTAIN ROAD	SHEET 641	E

FILE NAME : S:\PROJECTS\SW\COLUMBIA COUNTY\1010-02-02_IH 39\500_CADD\501_C3D\10100202\DESIGN\CORRIDORS\CORRIDOR-I39-CASCADEMTN-RD.DWGPLOT DATE : 3/14/2016 1:15 PM
LAYOUT NAME - 090219-XS

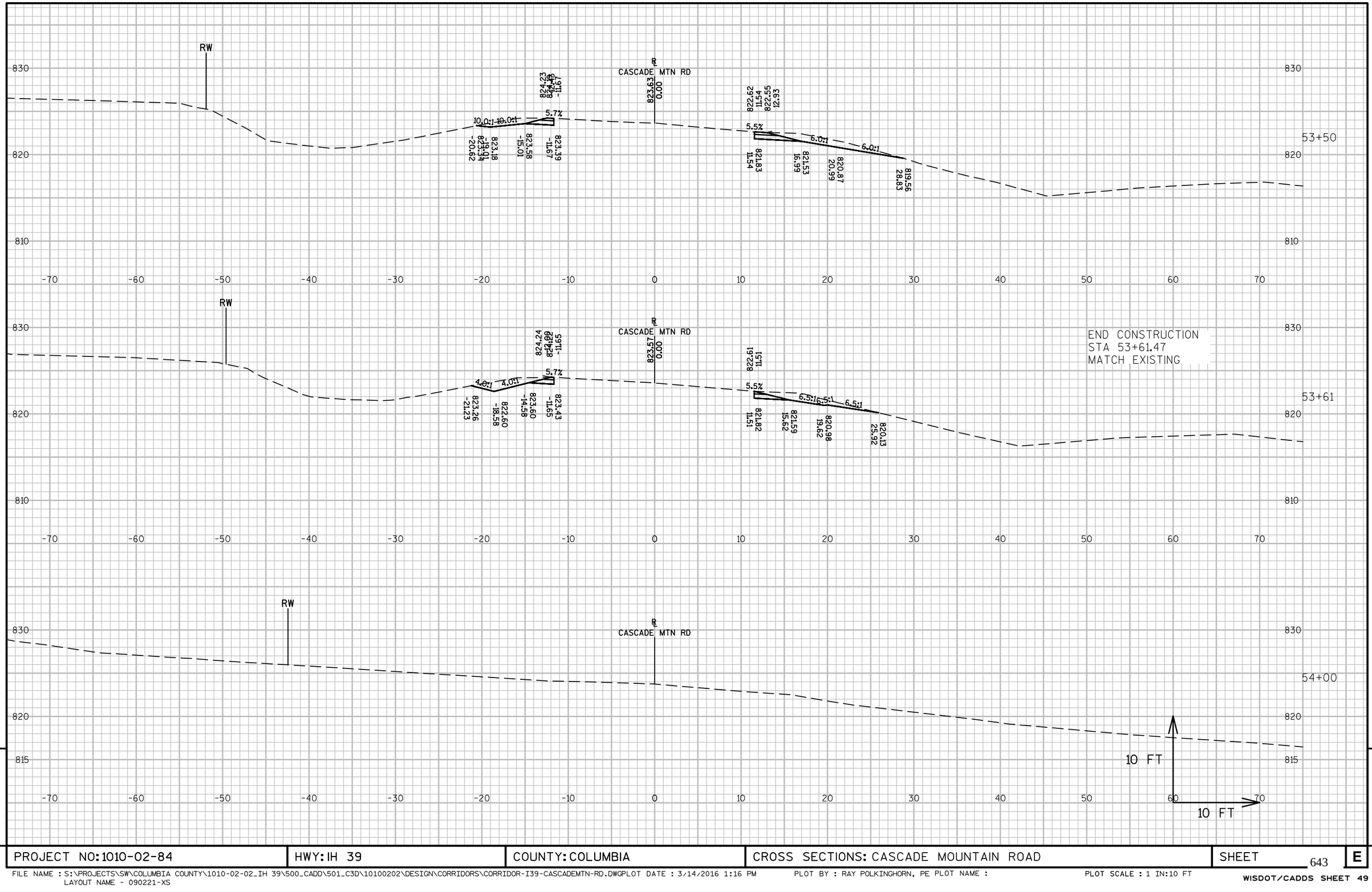
PLOT BY : RAY POLKINGHORN, PE PLOT NAME :

PLOT SCALE : 1 IN:10 FT



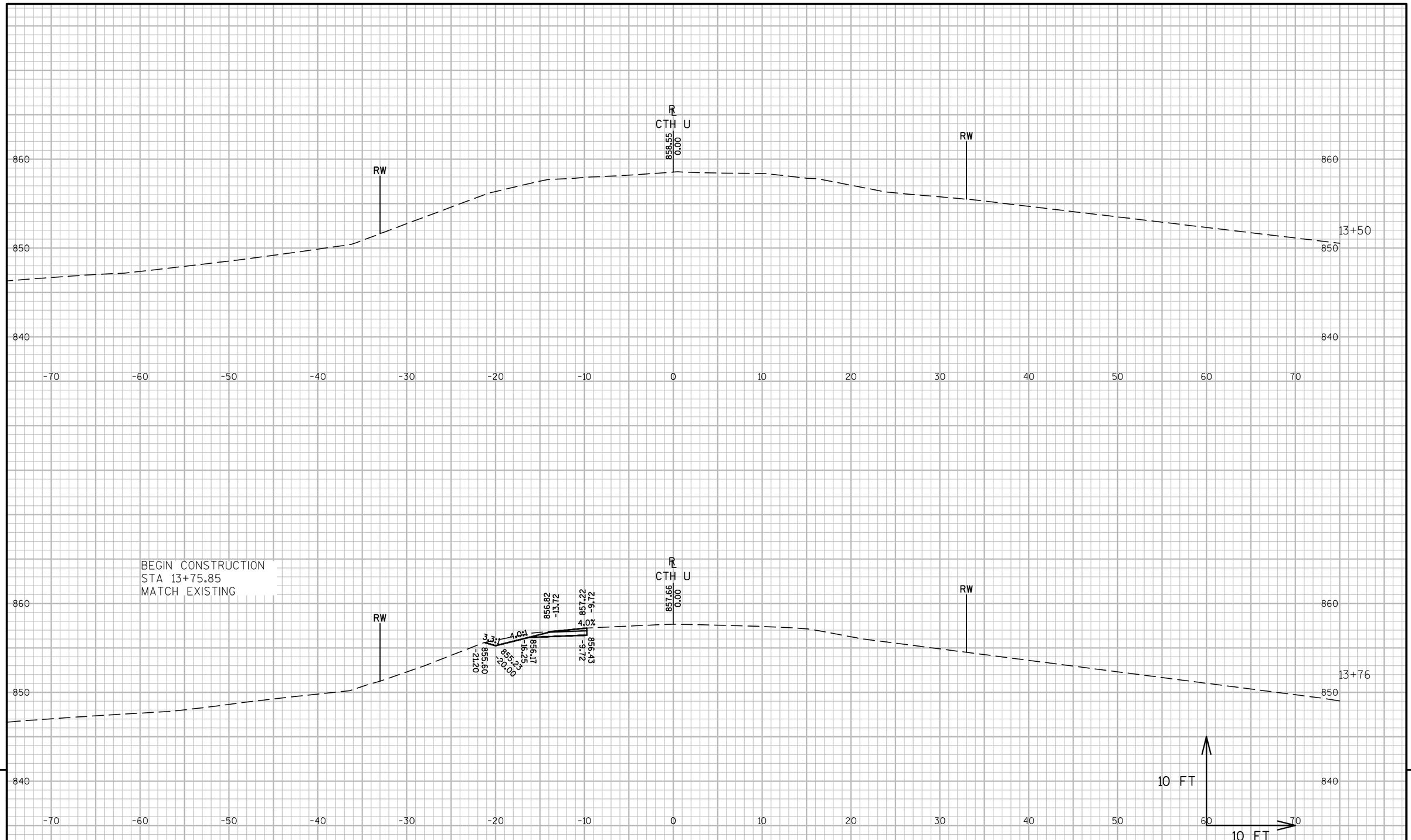
PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: CASCADE MOUNTAIN ROAD	SHEET 642	E

FILE NAME : S:\PROJECTS\SW\COLUMBIA COUNTY\1010-02-02_IH 39\500_CADD\501_C3D\10100202\DESIGN\CORRIDORS\CORRIDOR-I39-CASCADEMTN-RD.DWGPLOT DATE : 3/14/2016 1:16 PM PLOT BY : RAY POLKINGHORN, PE PLOT NAME : PLOT SCALE : 1 IN:10 FT
LAYOUT NAME - 090220-XS



PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: CASCADE MOUNTAIN ROAD	SHEET 643	E

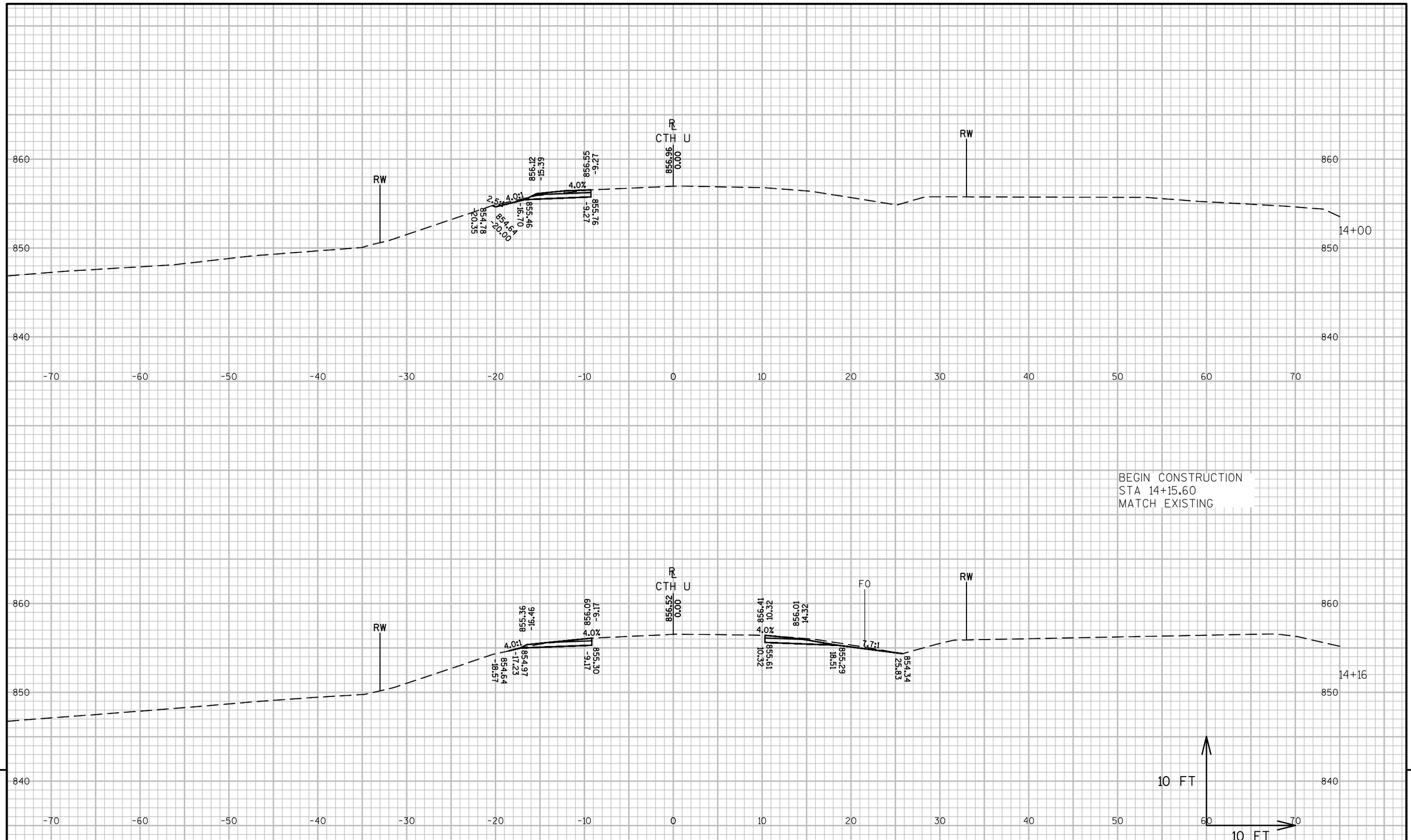
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LAYOUT NAME - 090221-XS
WISDOT/CADDS SHEET 49



PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: CTH U	SHEET 644	E

FILE NAME : S:\PROJECTS\SW\COLUMBIA COUNTY\1010-02-02_IH 39\500_CADD\501_C3D\10100202\SHEETSPLAN\090204-U-XS.DWG
LAYOUT NAME - 090401-XS

PLOT DATE : 3/14/2016 1:17 PM PLOT BY : RAY POLKINGHORN, PE PLOT NAME : PLOT SCALE : 1 IN:10 FT



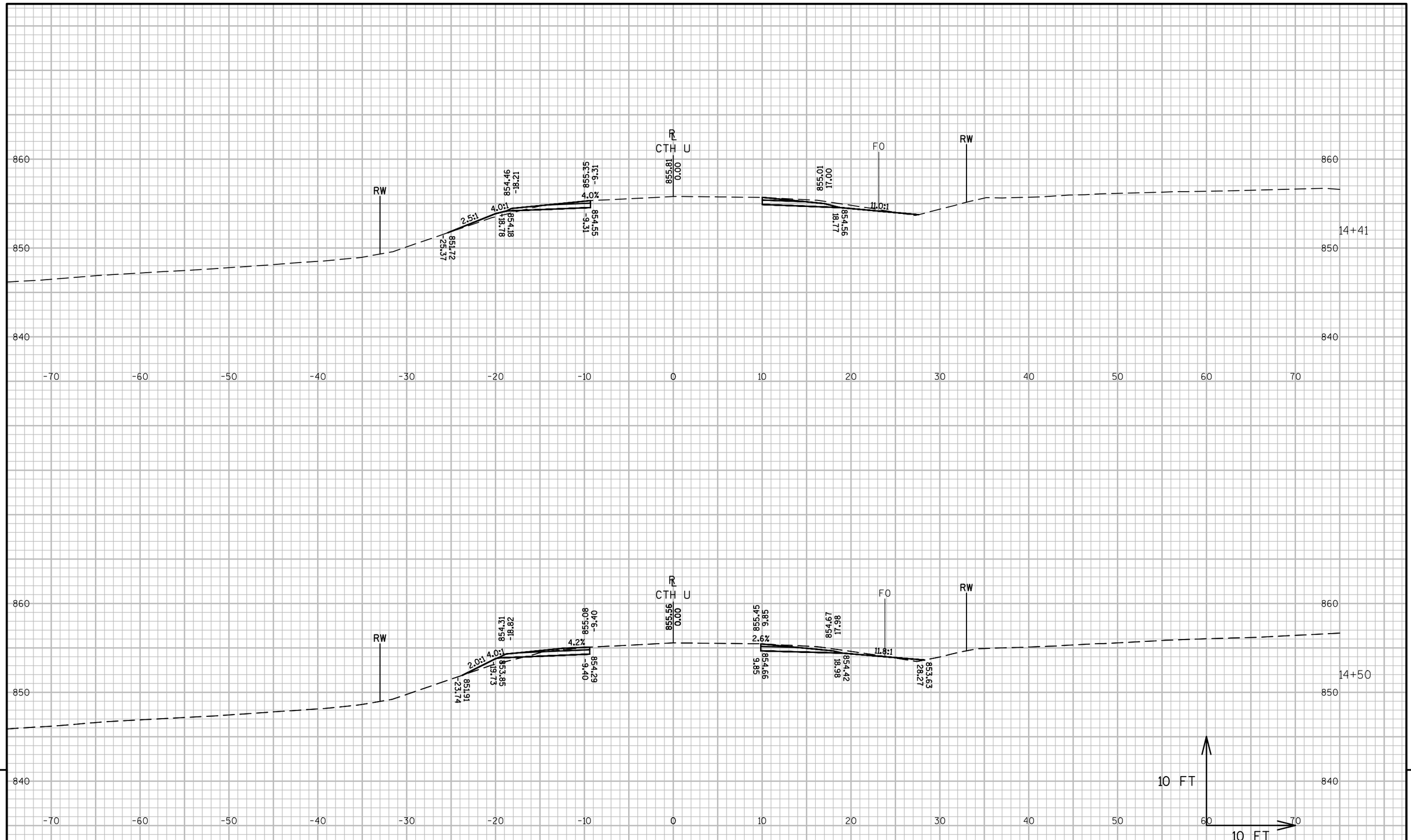
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PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: CTH U	SHEET 645	E

FILE NAME : S:\PROJECTS\SW\COLUMBIA COUNTY\1010-02-02_IH 39\500_CADD\501_C3D\10100202\SHEETSPLAN\090204-U-XS.DWG
LAYOUT NAME - 090402-XS

PLOT DATE : 3/14/2016 1:17 PM PLOT BY : RAY POLKINGHORN, PE PLOT NAME : PLOT SCALE : 1 IN:10 FT

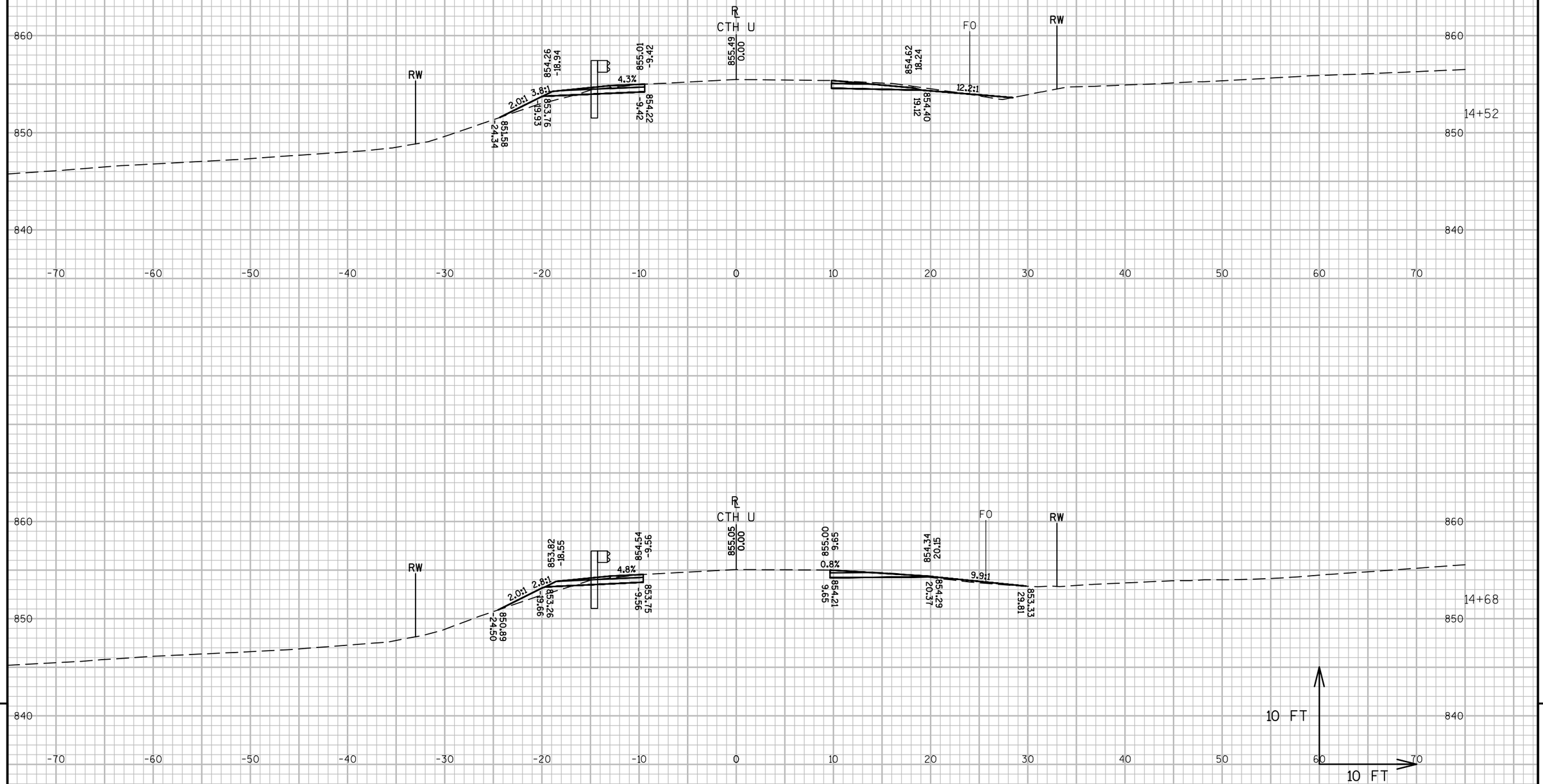


PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: CTH U	SHEET 646	E

FILE NAME : S:\PROJECTS\SW\COLUMBIA COUNTY\1010-02-02_IH 39\500_CADD\501_C3D\10100202\SHEETSPLAN\090204-U-XS.DWG
LAYOUT NAME - 090403-XS

PLOT DATE : 3/14/2016 1:17 PM PLOT BY : RAY POLKINGHORN, PE PLOT NAME : PLOT SCALE : 1 IN:10 FT

STA 14+52.03
MGS GUARDRAIL TERMINAL EAT
POST 1



9

9

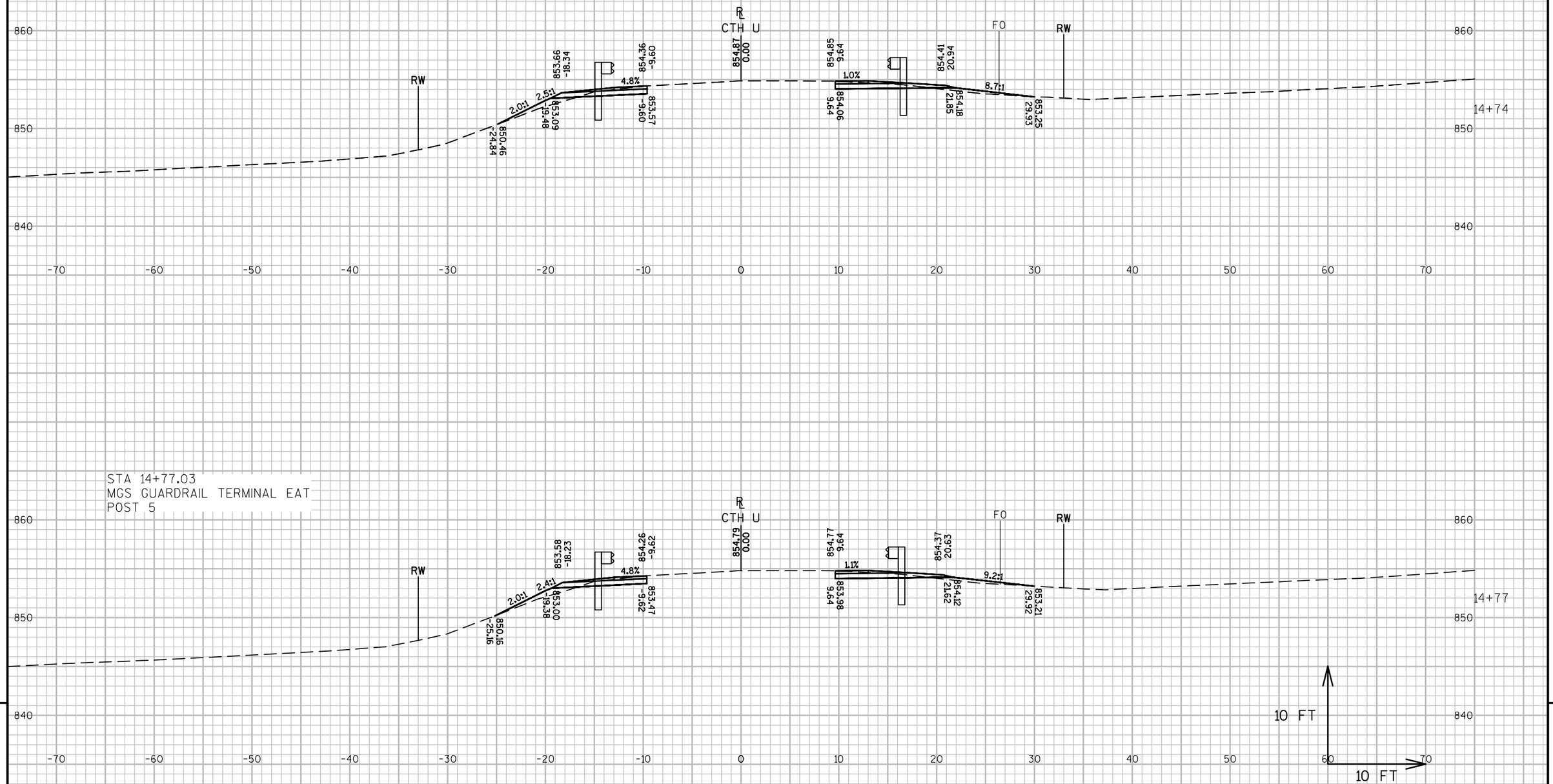
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FILE NAME : S:\PROJECTS\SW\COLUMBIA COUNTY\1010-02-02_IH 39\500_CADD\501_C3D\10100202\SHEETSPLAN\090204-U-XS.DWG
LAYOUT NAME - 090404-XS

PLOT DATE : 3/14/2016 1:18 PM PLOT BY : RAY POLKINGHORN, PE PLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49

STA 14+74.01
MGS GUARDRAIL TERMINAL EAT
POST 1



STA 14+77.03
MGS GUARDRAIL TERMINAL EAT
POST 5

9

9

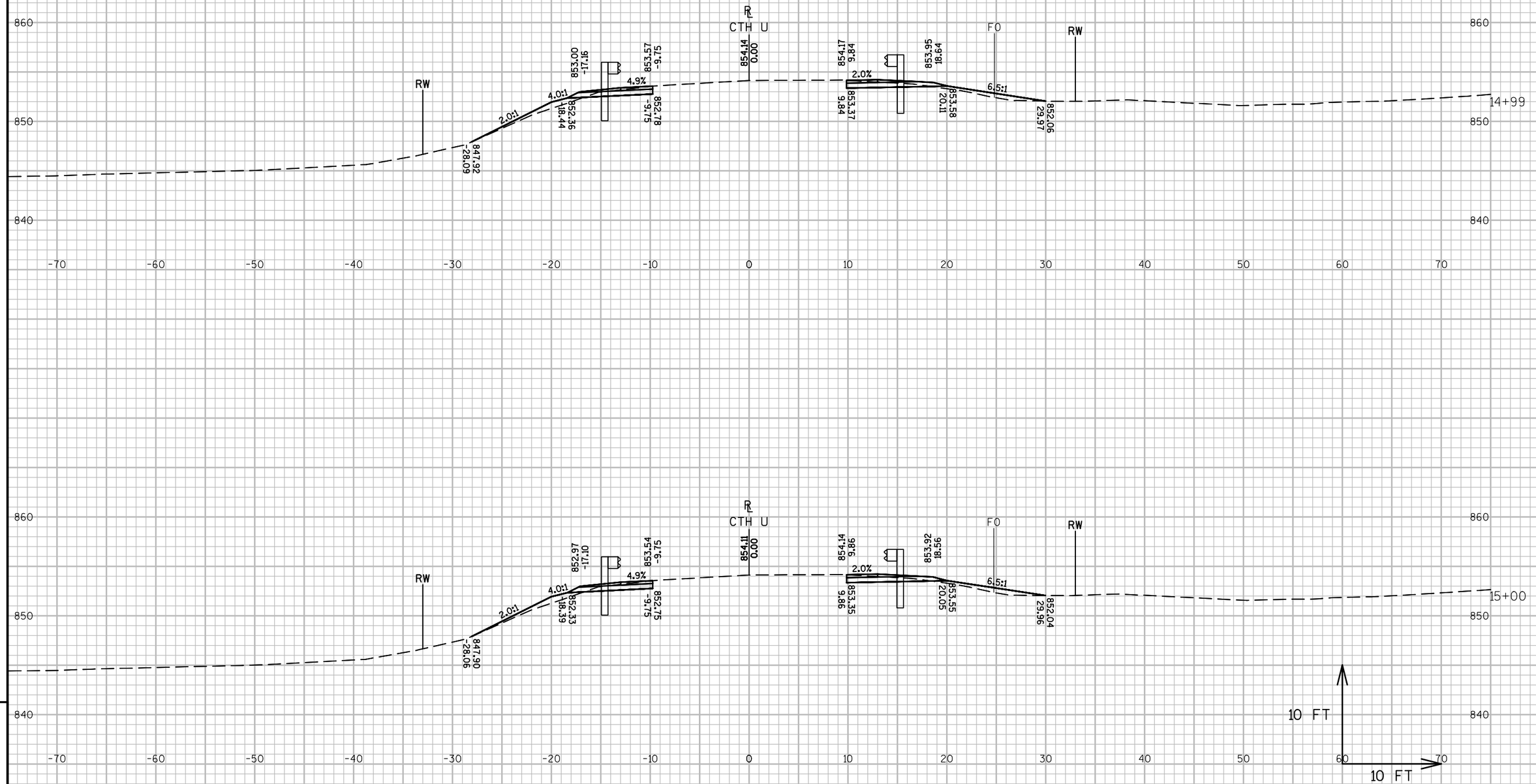
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LAYOUT NAME - 090405-XS

PLOT DATE : 3/14/2016 1:18 PM PLOT BY : RAY POLKINGHORN, PE PLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49

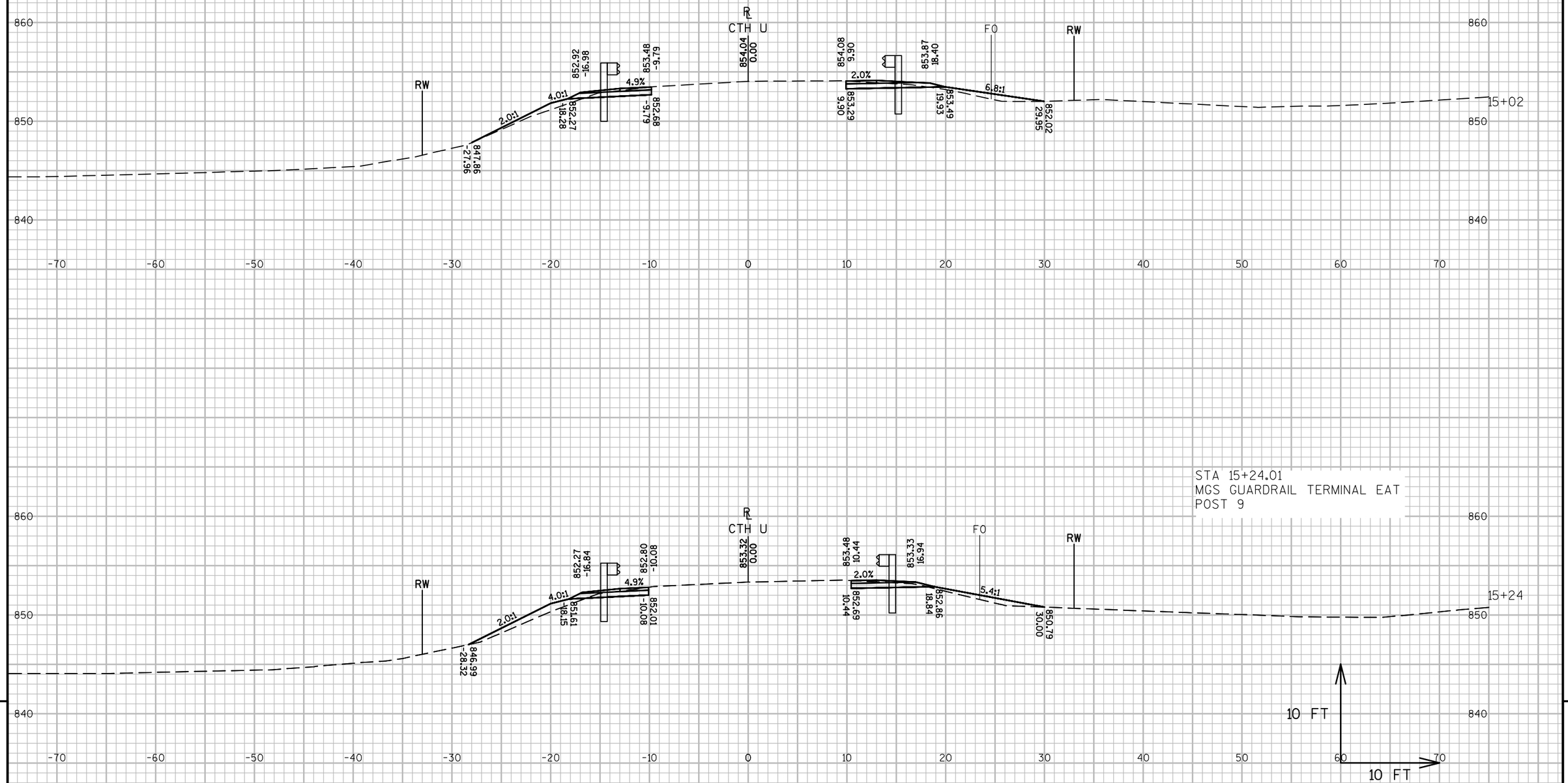
STA 14+99.01
MGS GUARDRAIL TERMINAL EAT
POST 5



PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: CTH U	SHEET 649	E

FILE NAME : S:\PROJECTS\SW\COLUMBIA COUNTY\1010-02-02_IH 39\500_CADD\501_C3D\10100202\SHEETSPLAN\090204-U-XS.DWG
LAYOUT NAME - 090406-XS
PLOT DATE : 3/14/2016 1:18 PM PLOT BY : RAY POLKINGHORN, PE PLOT NAME :
PLOT SCALE : 1 IN:10 FT

STA 15+02.03
MGS GUARDRAIL TERMINAL EAT
POST 9



STA 15+24.01
MGS GUARDRAIL TERMINAL EAT
POST 9

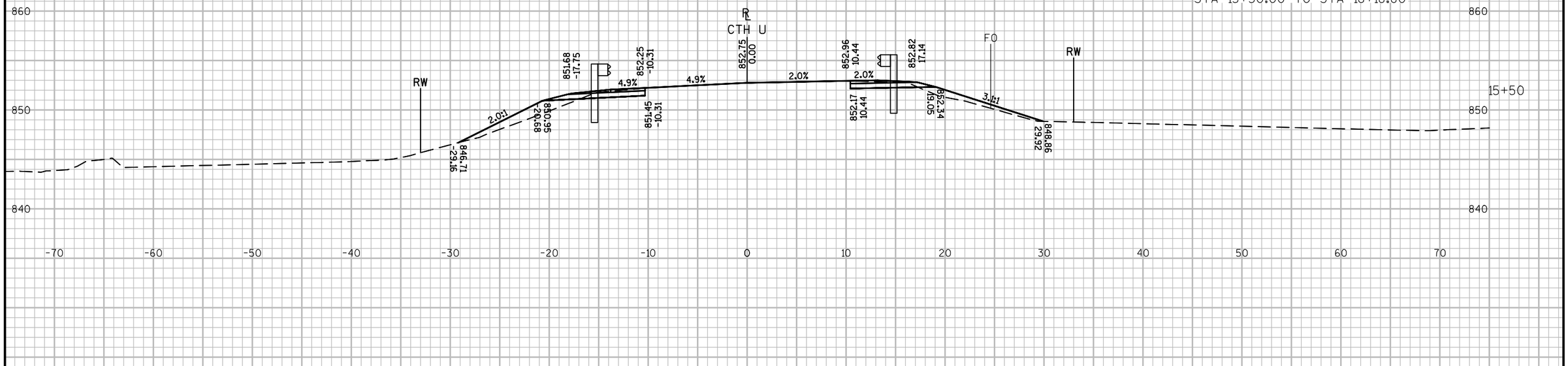
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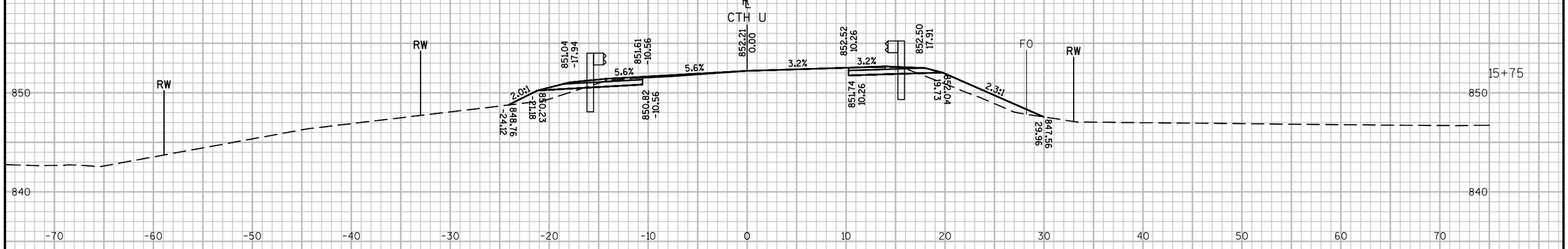
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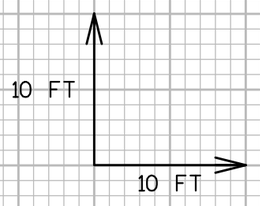
PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: CTH U	SHEET 650	E

FILE NAME : S:\PROJECTS\SW\COLUMBIA COUNTY\1010-02-02_IH 39\500_CADD\501_C3D\10100202\SHEETSPLAN\090204-U-XS.DWG
LAYOUT NAME - 090407-XS
PLOT DATE : 3/14/2016 1:18 PM
PLOT BY : RAY POLKINGHORN, PE PLOT NAME :
PLOT SCALE : 1 IN:10 FT

MILL AND OVERLAY
ASPHALTIC SURFACE
STA 15+50.00 TO STA 16+18.60







9

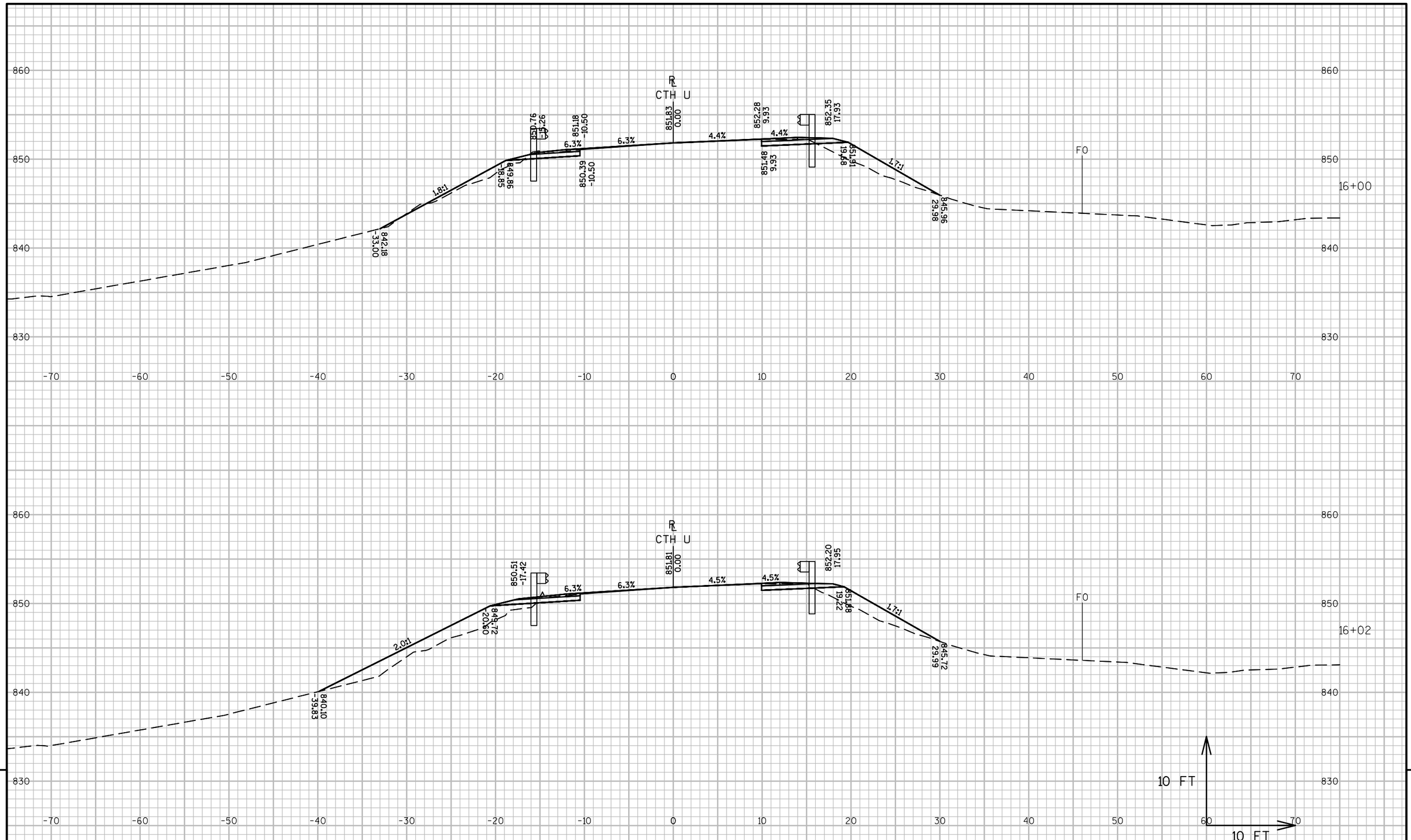
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PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: CTH U	SHEET 651	E

FILE NAME : S:\PROJECTS\SW\COLUMBIA COUNTY\1010-02-02_IH 39\500_CADD\501_C3D\10100202\SHEETSPLAN\090204-U-XS.DWG
LAYOUT NAME - 090408-XS

PLOT DATE : 3/14/2016 1:18 PM PLOT BY : RAY POLKINGHORN, PE PLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49



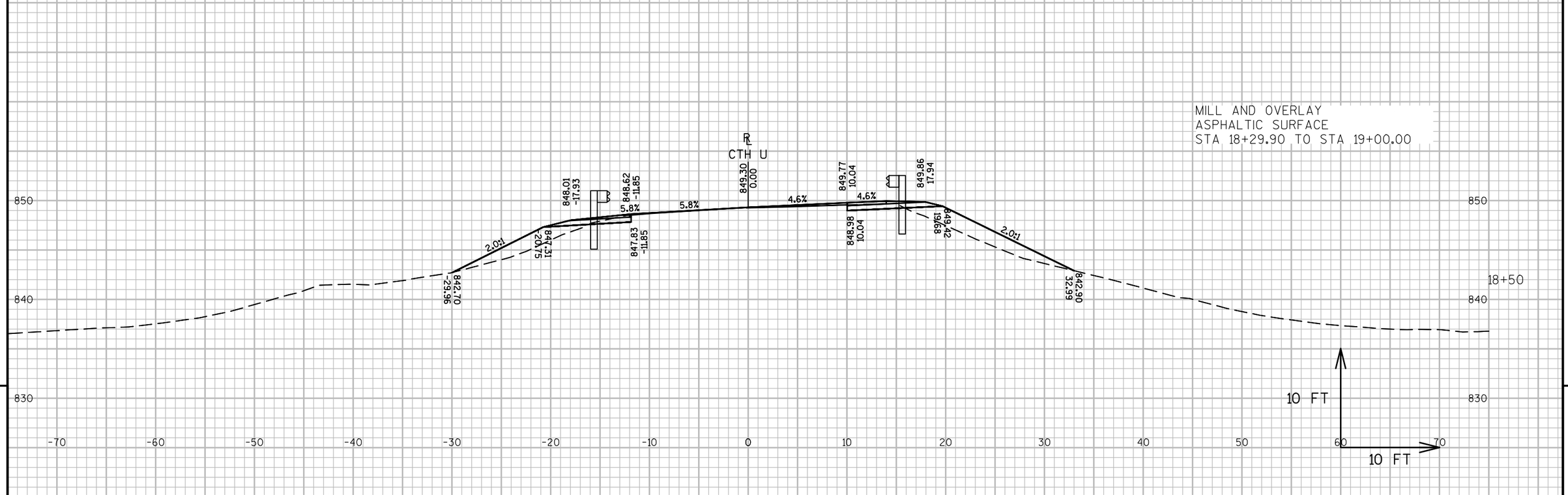
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PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: CTH U	SHEET 652	E

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LAYOUT NAME - 090409-XS

PLOT DATE : 3/14/2016 1:18 PM PLOT BY : RAY POLKINGHORN, PE PLOT NAME : PLOT SCALE : 1 IN:10 FT



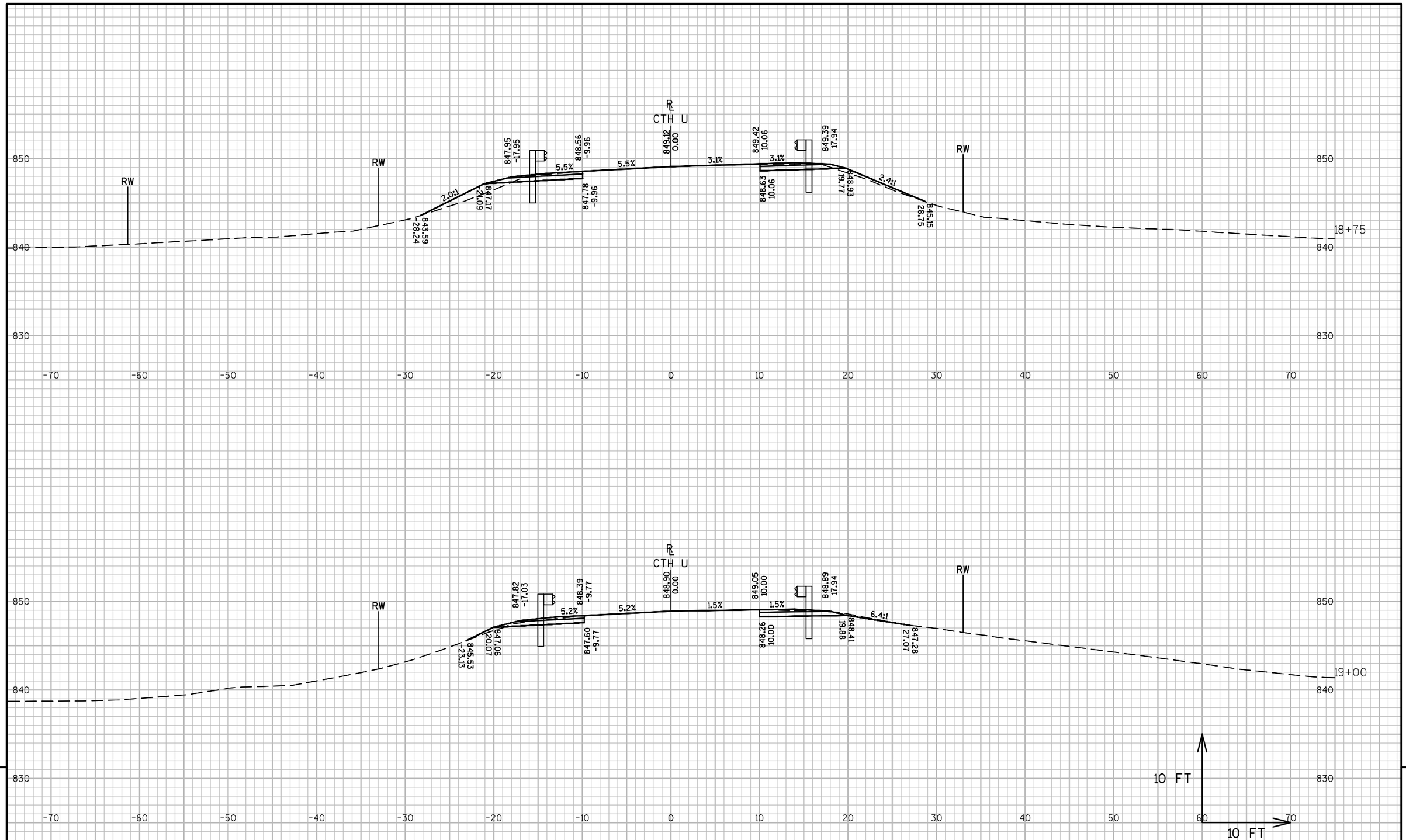
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PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: CTH U	SHEET 653	E

FILE NAME : S:\PROJECTS\SW\COLUMBIA COUNTY\1010-02-02_IH 39\500_CADD\501_C3D\10100202\SHEETSPLAN\090204-U-XS.DWG
LAYOUT NAME - 090411-XS

PLOT DATE : 3/14/2016 1:19 PM PLOT BY : RAY POLKINGHORN, PE PLOT NAME : PLOT SCALE : 1 IN:10 FT



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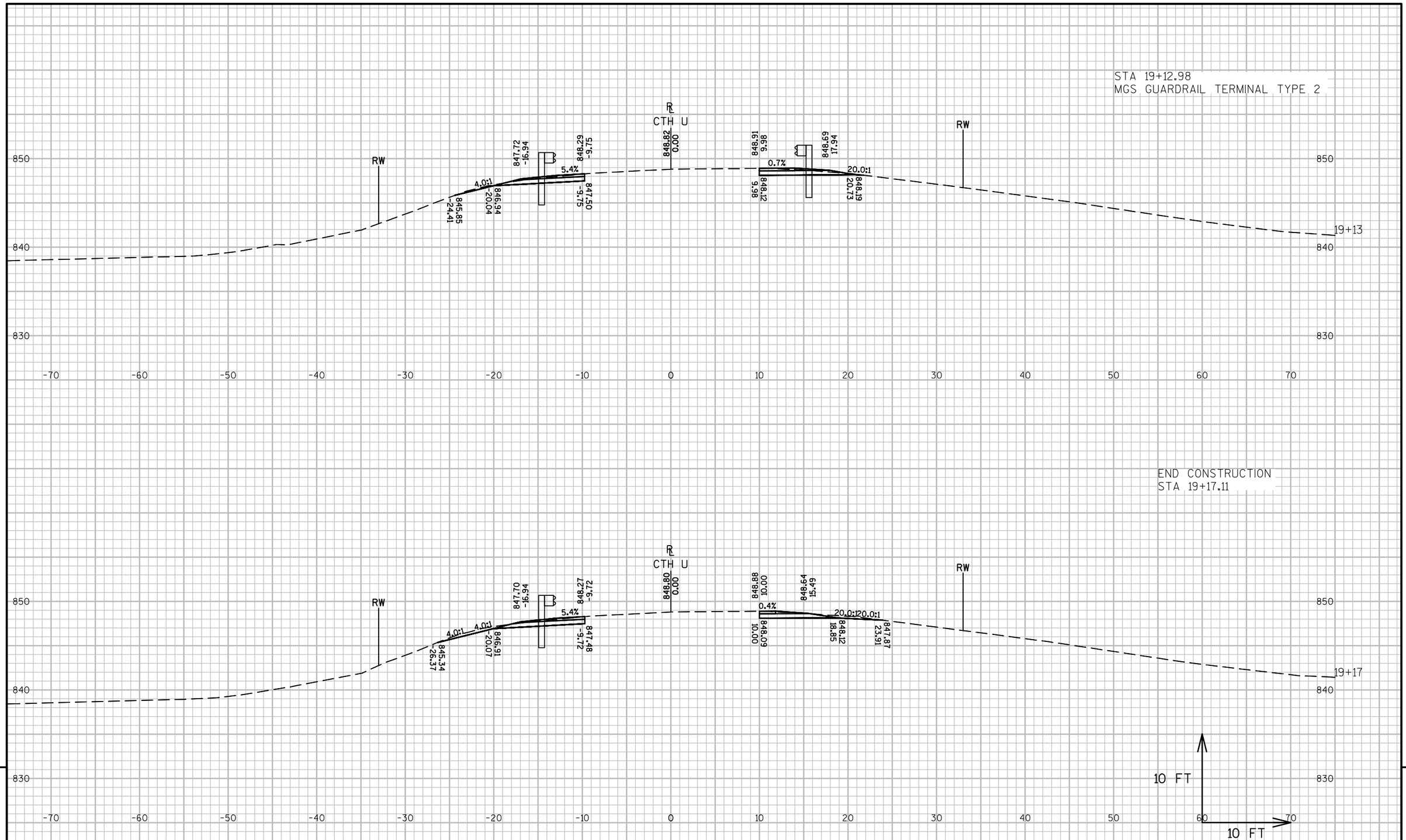
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PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: CTH U	SHEET 654	E

FILE NAME : S:\PROJECTS\SW\COLUMBIA COUNTY\1010-02-02_IH 39\500_CADD\501_C3D\10100202\SHEETSPLAN\090204-U-XS.DWG
LAYOUT NAME - 090412-XS

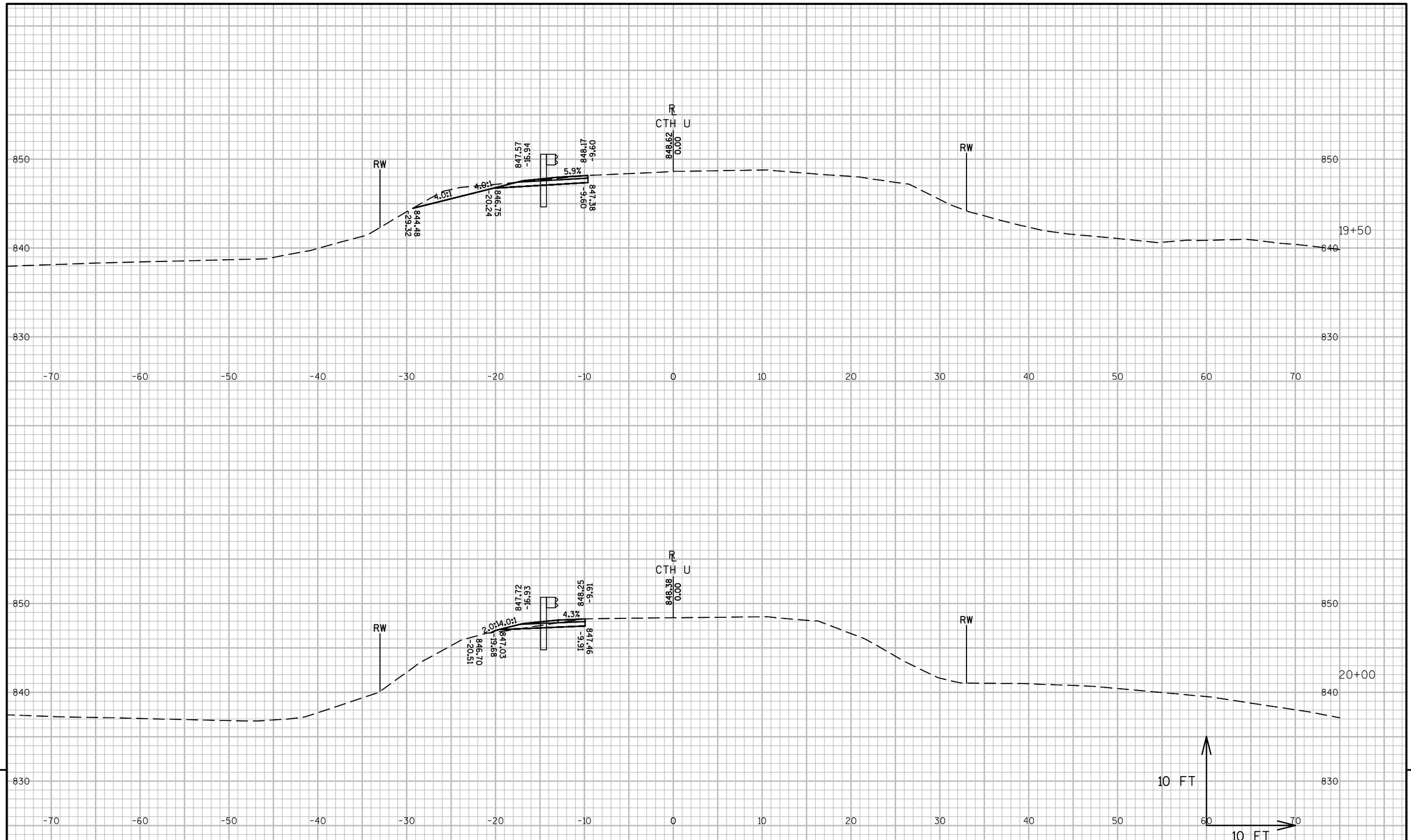
PLOT DATE : 3/14/2016 1:19 PM PLOT BY : RAY POLKINGHORN, PE PLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49



PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: CTH U	SHEET 655	E

FILE NAME : S:\PROJECTS\SW\COLUMBIA COUNTY\1010-02-02_IH 39\500_CADD\501_C3D\10100202\SHEETSPLAN\090204-U-XS.DWG
LAYOUT NAME - 090413-XS
PLOT DATE : 3/14/2016 1:19 PM
PLOT BY : RAY POLKINGHORN, PE PLOT NAME :
PLOT SCALE : 1 IN:10 FT

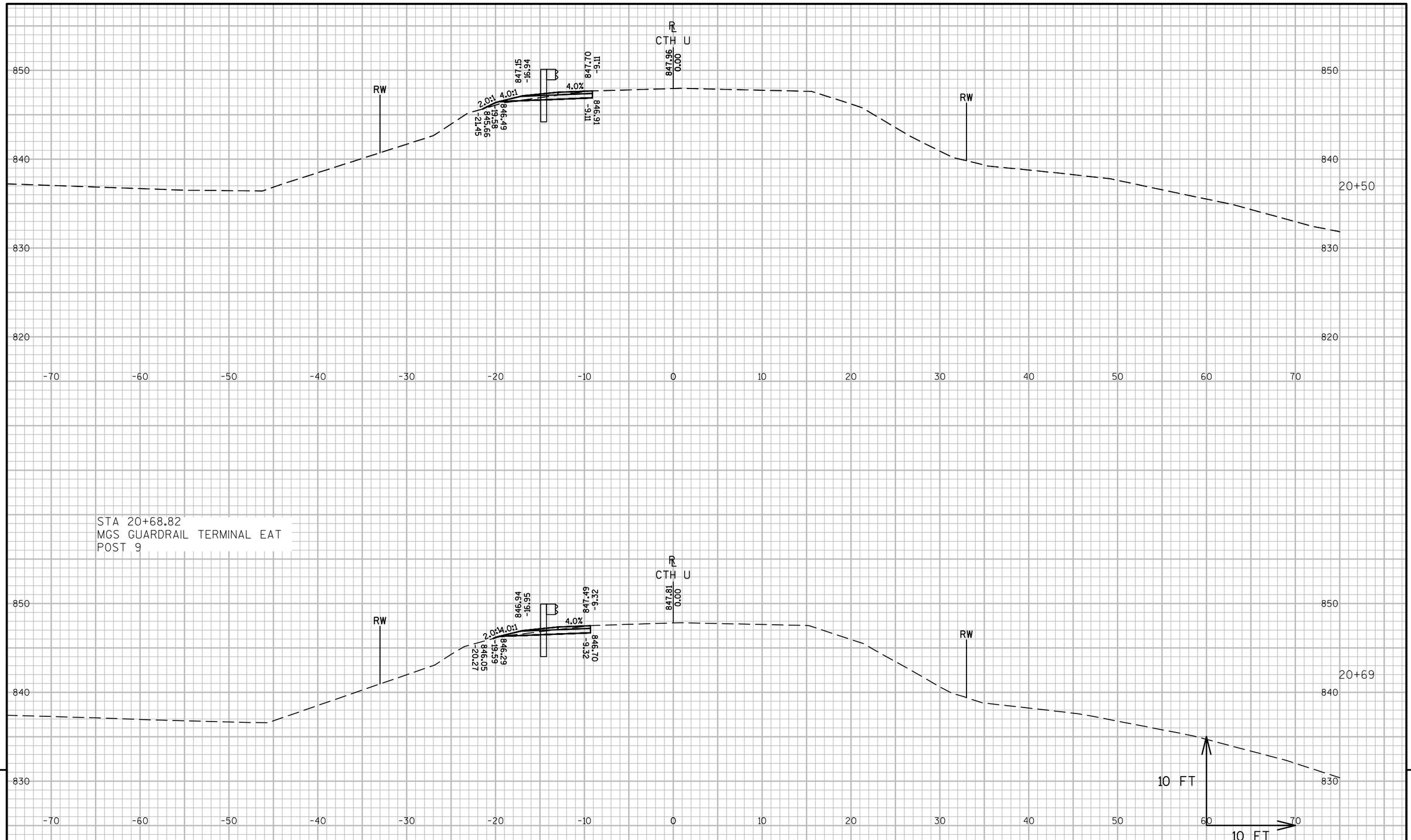


PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: CTH U	SHEET 656	E

FILE NAME : S:\PROJECTS\SW\COLUMBIA COUNTY\1010-02-02_IH 39\500_CADD\501_C3D\10100202\SHEETSPLAN\090204-U-XS.DWG
LAYOUT NAME - 090414-XS

PLOT DATE : 3/14/2016 1:19 PM PLOT BY : RAY POLKINGHORN, PE PLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49



9

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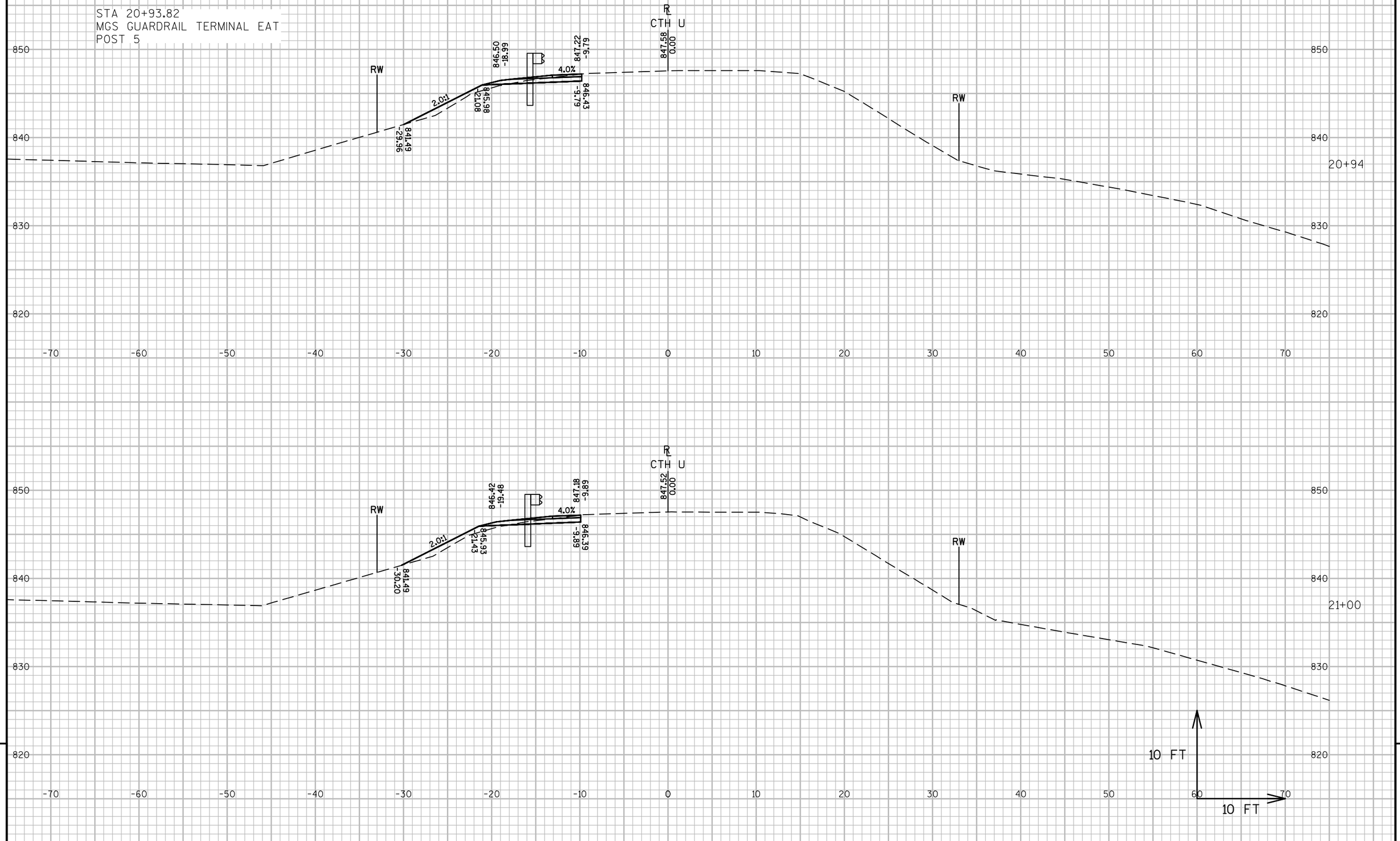
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FILE NAME : S:\PROJECTS\SW\COLUMBIA COUNTY\1010-02-02_IH 39\500_CADD\501_C3D\10100202\SHEETSPLAN\090204-U-XS.DWG
LAYOUT NAME - 090415-XS

PLOT DATE : 3/14/2016 1:19 PM PLOT BY : RAY POLKINGHORN, PE PLOT NAME :

PLOT SCALE : 1 IN:10 FT

STA 20+93.82
MGS GUARDRAIL TERMINAL EAT
POST 5



9

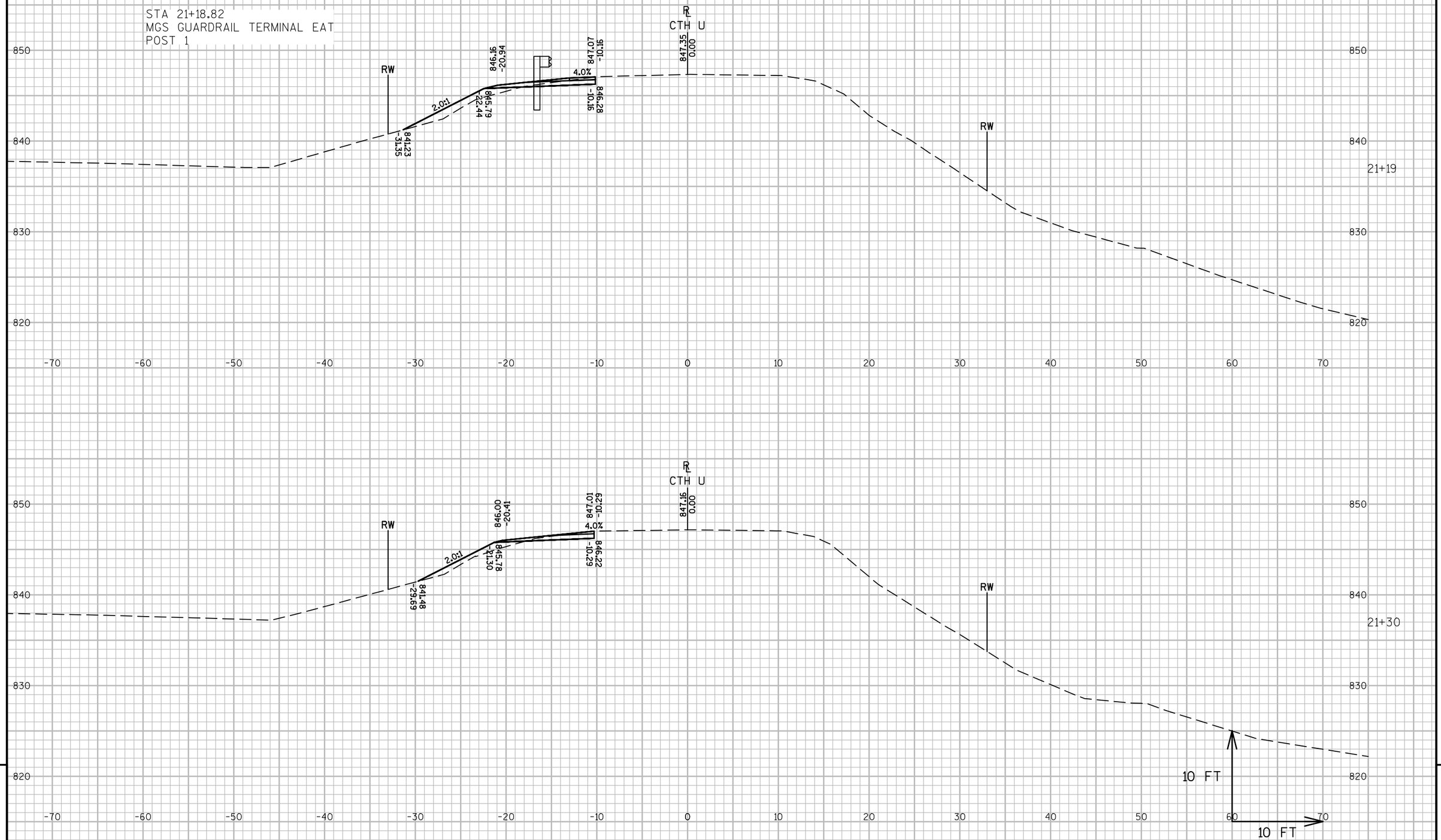
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PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: CTH U	SHEET 658	E

FILE NAME : S:\PROJECTS\SW\COLUMBIA COUNTY\1010-02-02_IH 39\500_CADD\501_C3D\10100202\SHEETSPLAN\090204-U-XS.DWG
LAYOUT NAME - 090416-XS

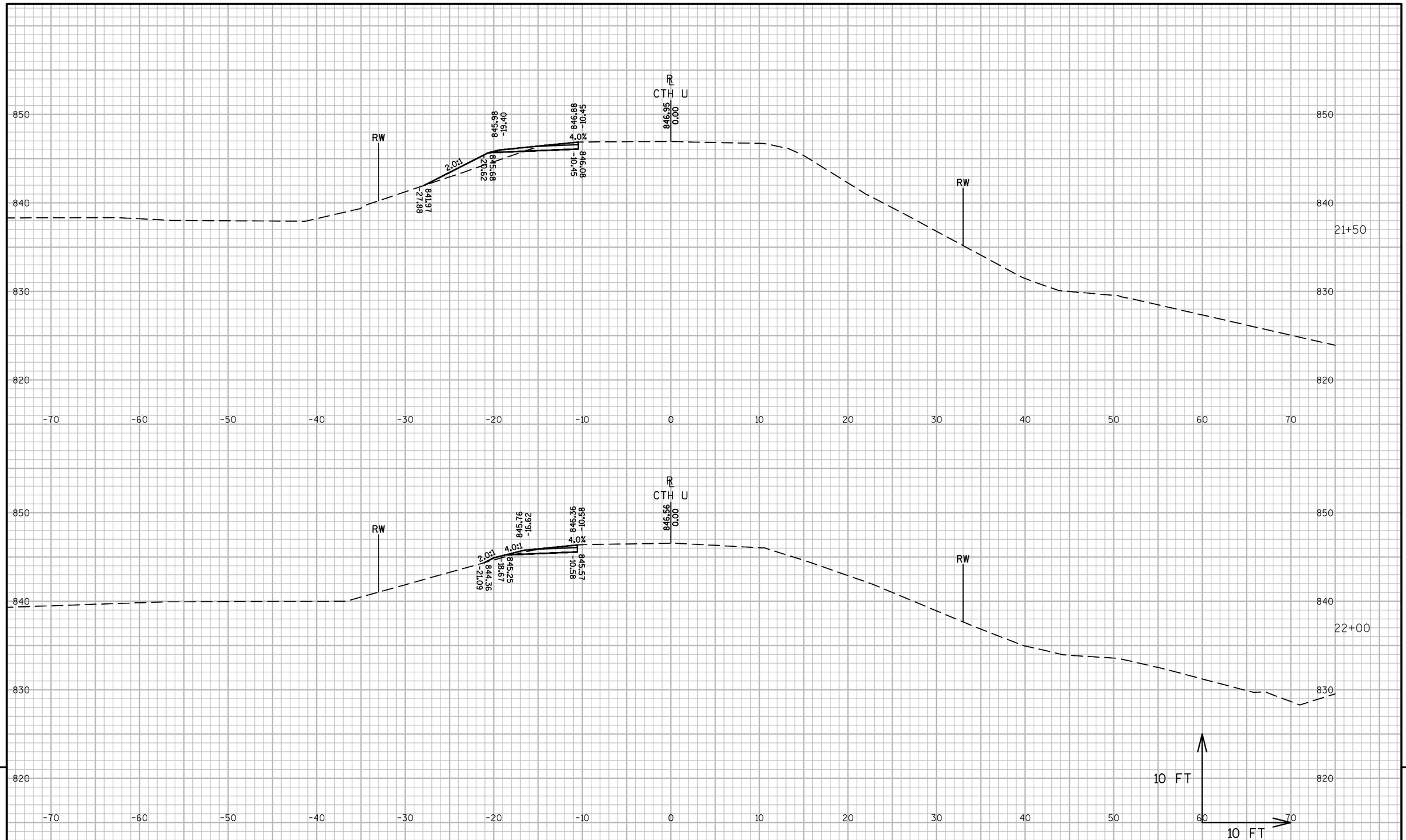
PLOT DATE : 3/14/2016 1:19 PM PLOT BY : RAY POLKINGHORN, PE PLOT NAME : PLOT SCALE : 1 IN:10 FT

STA 21+18.82
MGS GUARDRAIL TERMINAL EAT
POST 1



PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: CTH U	SHEET 659	E

FILE NAME : S:\PROJECTS\SW\COLUMBIA COUNTY\1010-02-02_IH 39\500_CADD\501_C3D\10100202\SHEETSPLAN\090204-U-XS.DWG
LAYOUT NAME - 090417-XS
PLOT DATE : 3/14/2016 1:20 PM PLOT BY : RAY POLKINGHORN, PE PLOT NAME : PLOT SCALE : 1 IN:10 FT



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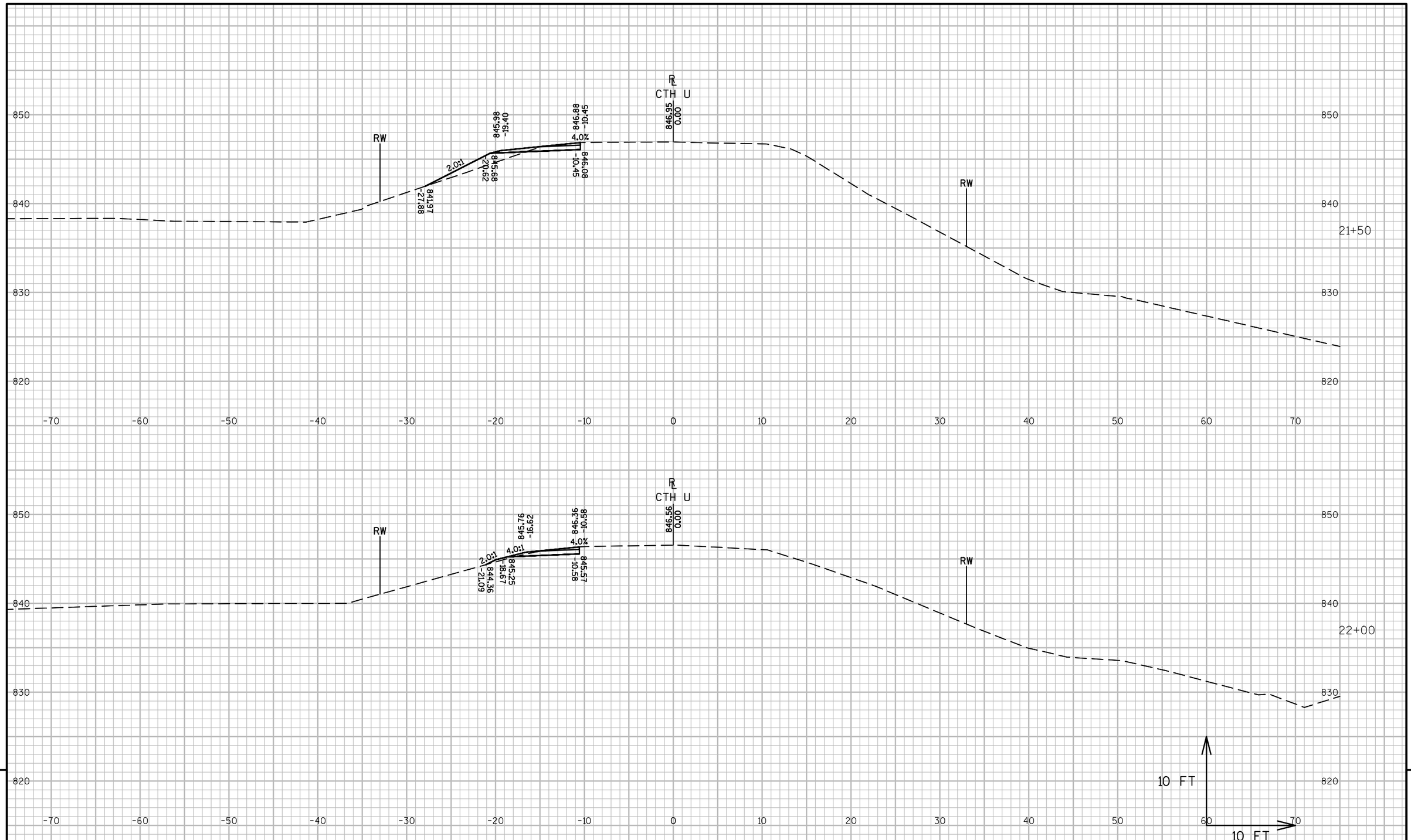
PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: CTH U	SHEET 660	E

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FILE NAME : S:\PROJECTS\SW\COLUMBIA COUNTY\1010-02-02_IH 39\500_CADD\501_C3D\10100202\SHEETSPLAN\090204-U-XS.DWG
LAYOUT NAME - 090418-XS

PLOT DATE : 3/14/2016 1:20 PM PLOT BY : RAY POLKINGHORN, PE PLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49



9

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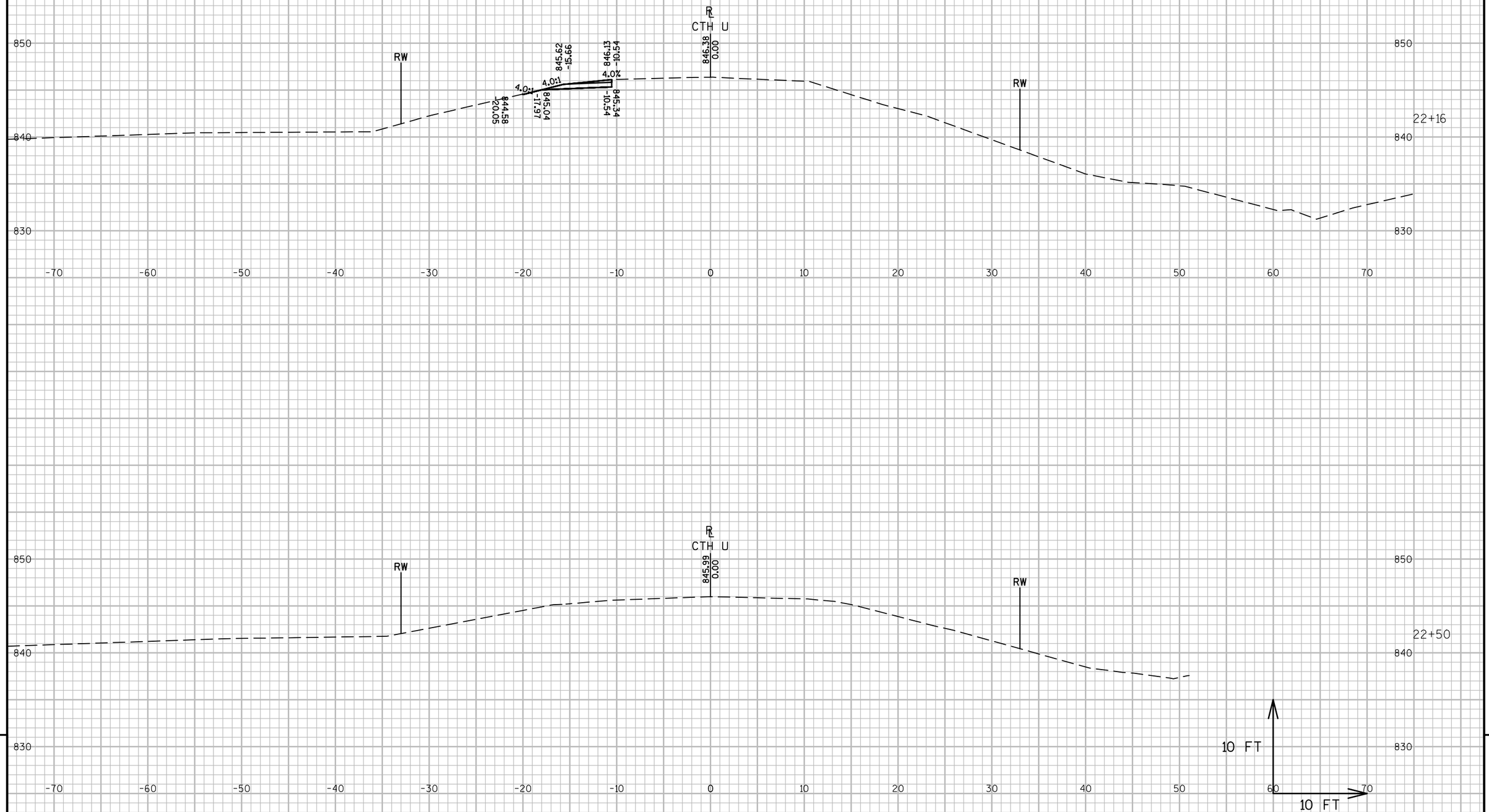
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FILE NAME : S:\PROJECTS\SW\COLUMBIA COUNTY\1010-02-02_IH 39\500_CADD\501_C3D\10100202\SHEETSPLAN\090204-U-XS.DWG
LAYOUT NAME - 090419-XS

PLOT DATE : 3/14/2016 1:20 PM PLOT BY : RAY POLKINGHORN, PE PLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49

STA 22+15.81
END CONSTRUCTION
MATCH EXISTING



9

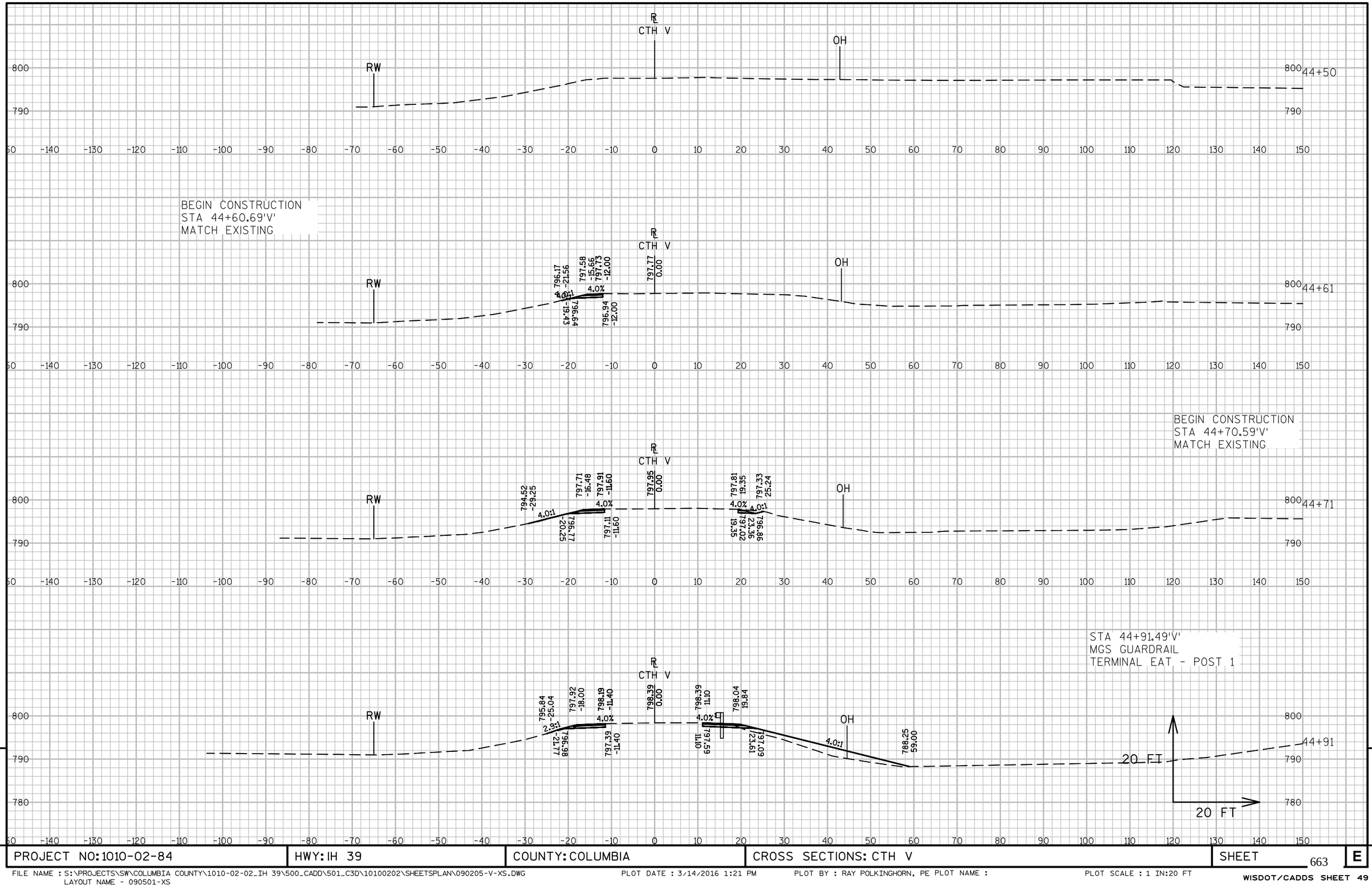
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PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: CTH U	SHEET 662	E

FILE NAME : S:\PROJECTS\SW\COLUMBIA COUNTY\1010-02-02_IH 39\500_CADD\501_C3D\10100202\SHEETSPLAN\090204-U-XS.DWG
LAYOUT NAME - 090420-XS

PLOT DATE : 3/14/2016 1:20 PM PLOT BY : RAY POLKINGHORN, PE PLOT NAME : PLOT SCALE : 1 IN:10 FT

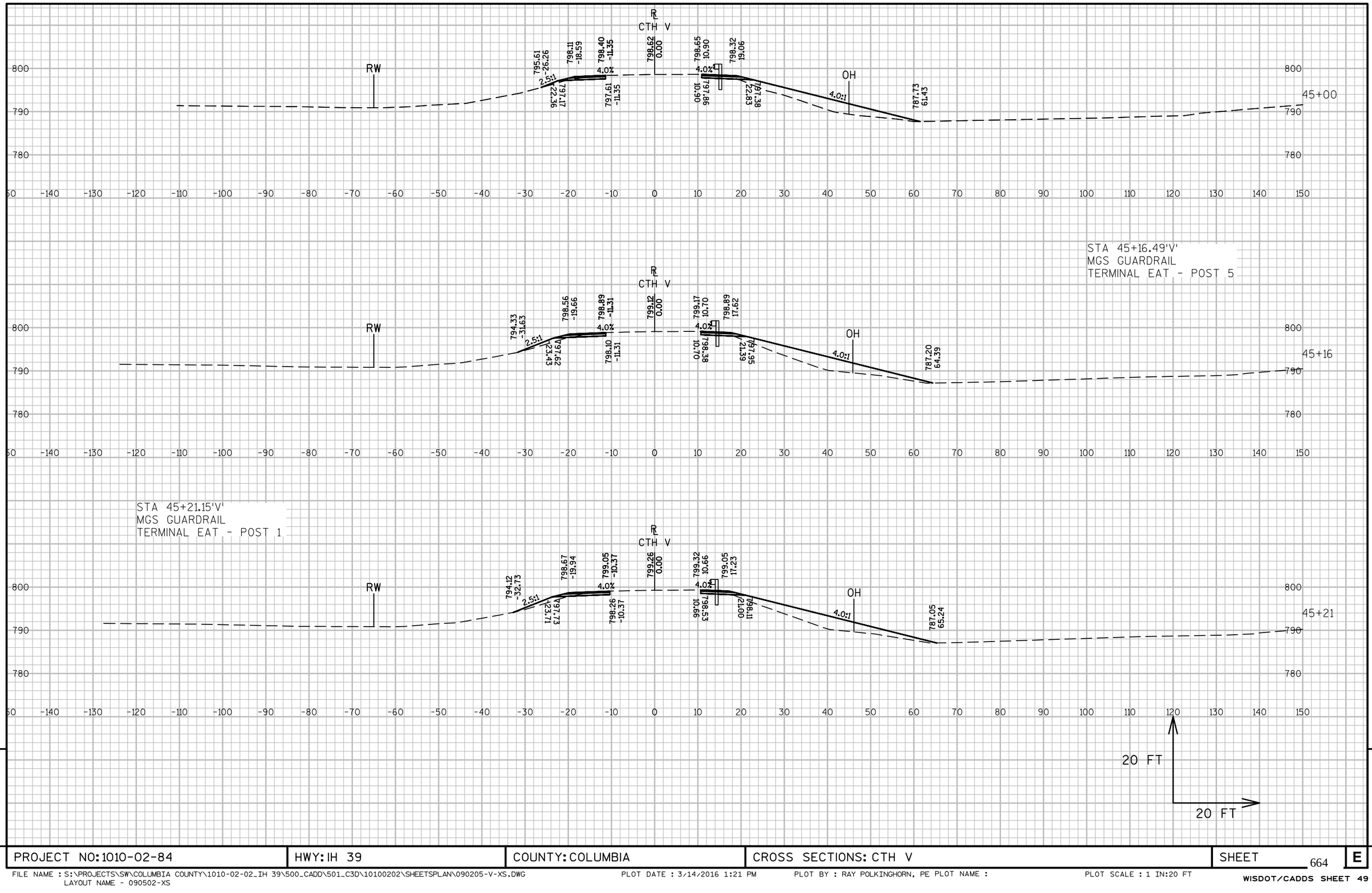
WISDOT/CADDS SHEET 49



PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: CTH V	SHEET 663	E

FILE NAME : S:\PROJECTS\SW\COLUMBIA COUNTY\1010-02-02_IH 39\500_CADD\501_C3D\10100202\SHEETSPLAN\090205-V-XS.DWG
LAYOUT NAME - 090501-XS

PLOT DATE : 3/14/2016 1:21 PM PLOT BY : RAY POLKINGHORN, PE PLOT NAME : PLOT SCALE : 1 IN:20 FT

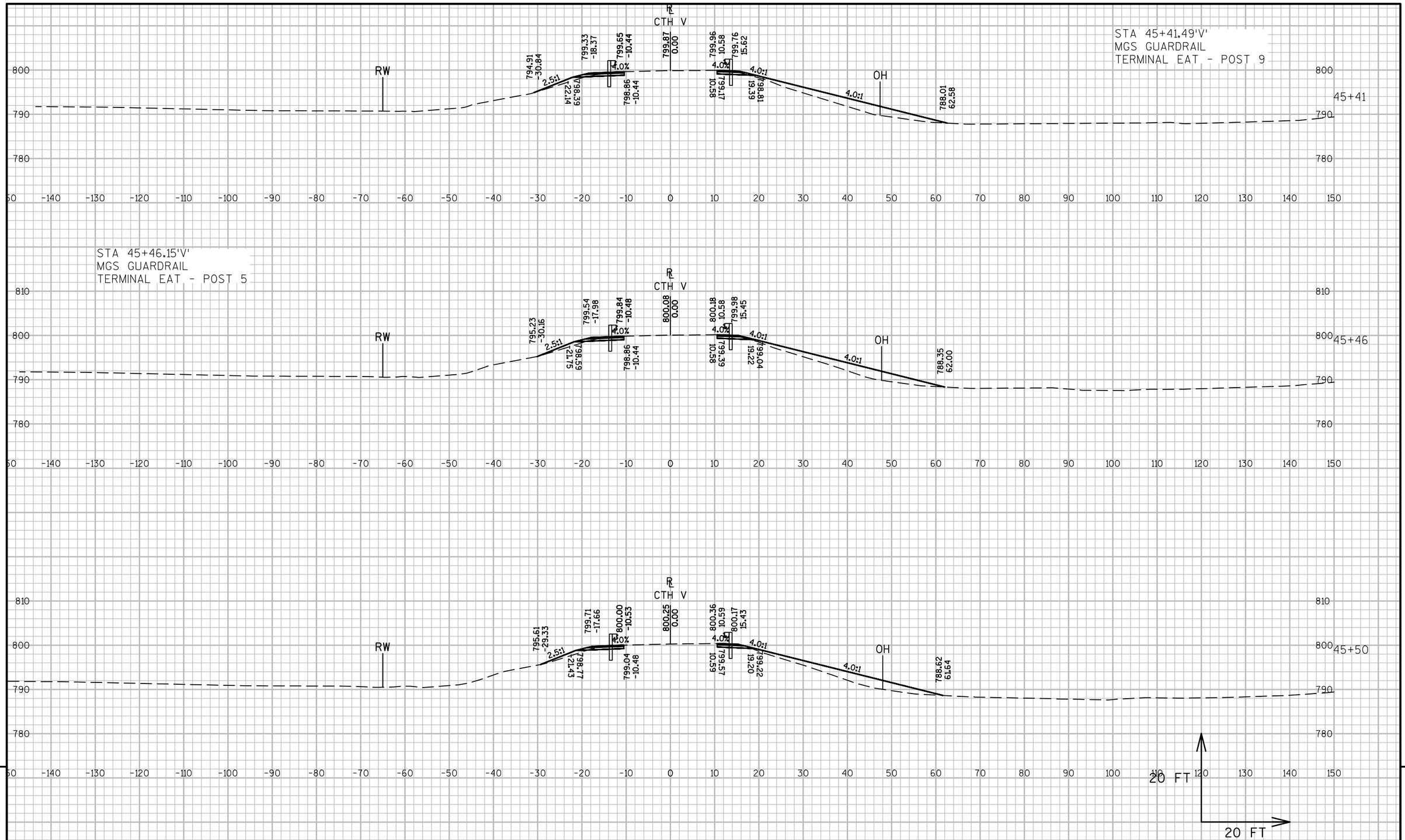


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PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: CTH V	SHEET 664	E

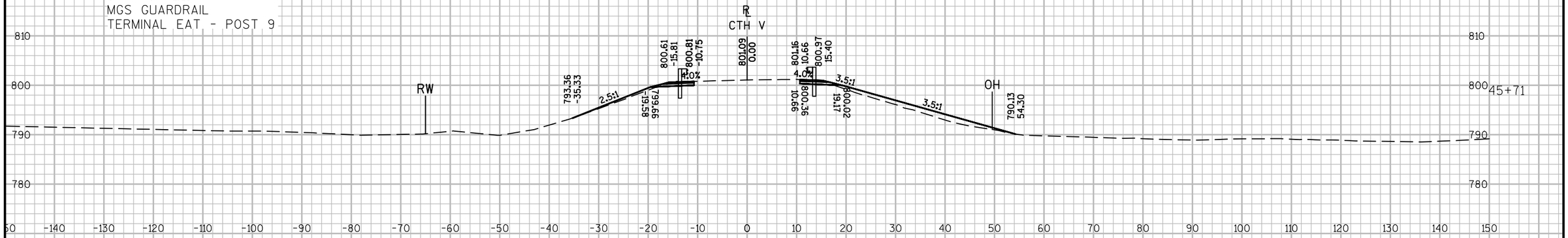
FILE NAME : S:\PROJECTS\SW\COLUMBIA COUNTY\1010-02-02_IH 39\500_CADD\501_C3D\10100202\SHEETSPLAN\090205-V-XS.DWG
LAYOUT NAME - 090502-XS
PLOT DATE : 3/14/2016 1:21 PM
PLOT BY : RAY POLKINGHORN, PE PLOT NAME :
PLOT SCALE : 1 IN:20 FT
WISDOT/CADDS SHEET 49

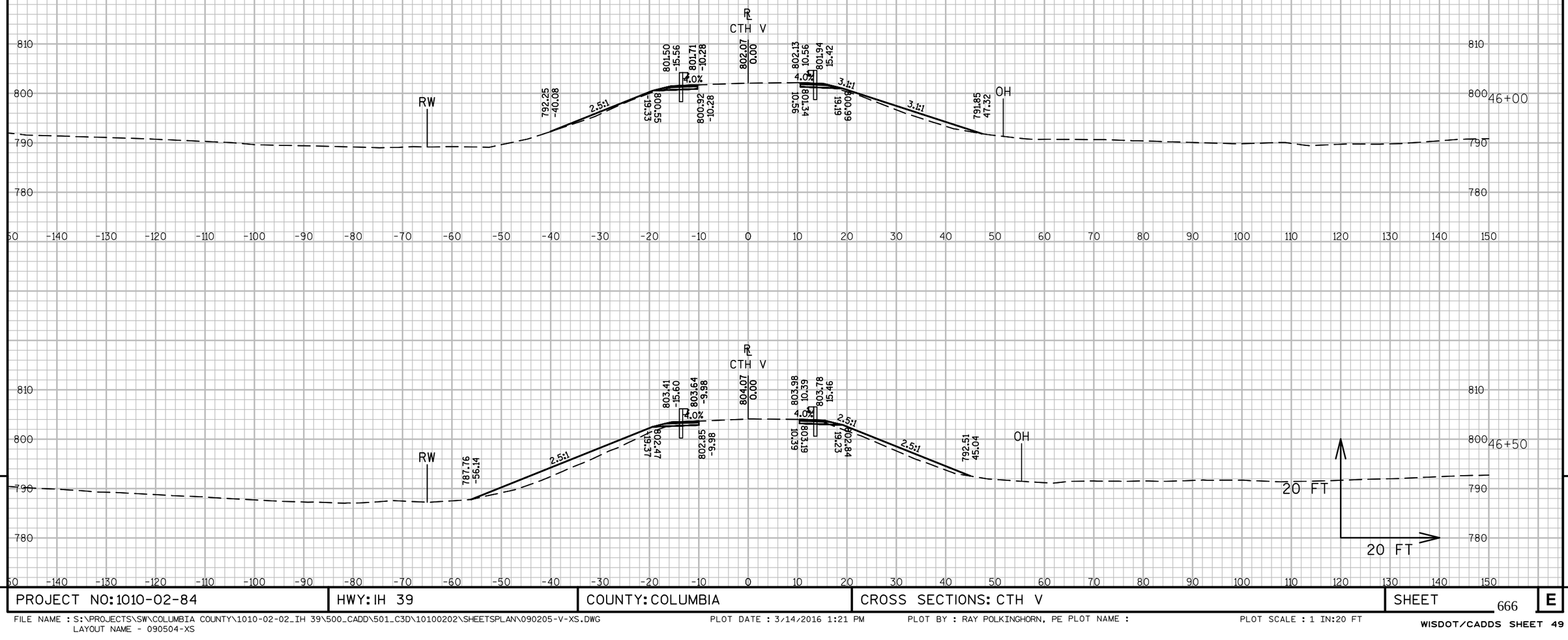


PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: CTH V	SHEET 665	E

FILE NAME : S:\PROJECTS\SW\COLUMBIA COUNTY\1010-02-02_IH 39\500_CADD\501_C3D\10100202\SHEETSPLAN\090205-V-XS.DWG
LAYOUT NAME - 090503-XS
PLOT DATE : 3/14/2016 1:21 PM PLOT BY : RAY POLKINGHORN, PE PLOT NAME :
PLOT SCALE : 1 IN:20 FT
WISDOT/CADDS SHEET 49

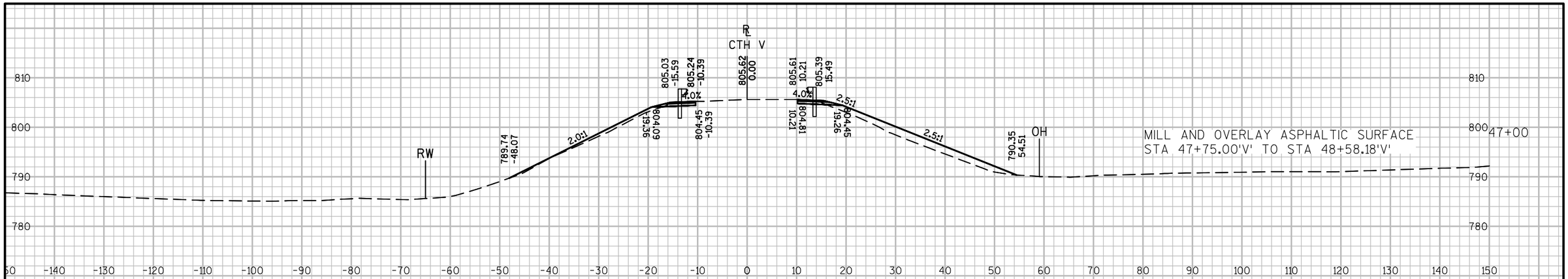
STA 45+71.15'V'
MGS GUARDRAIL
TERMINAL EAT - POST 9

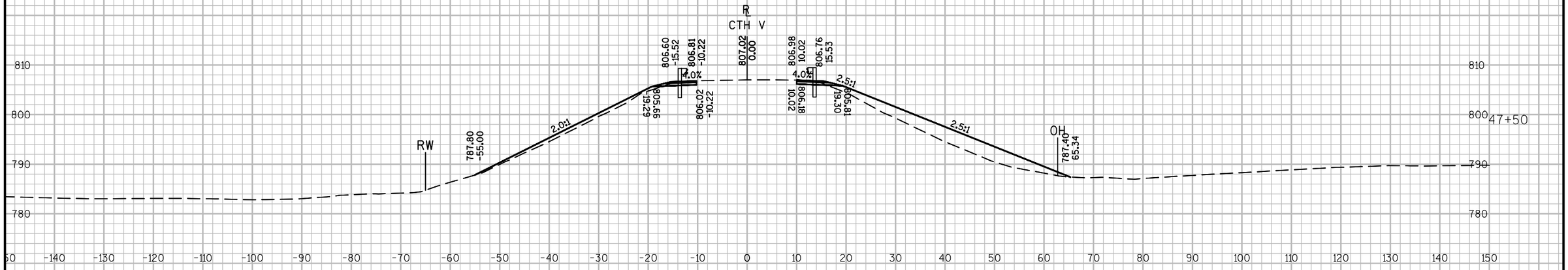


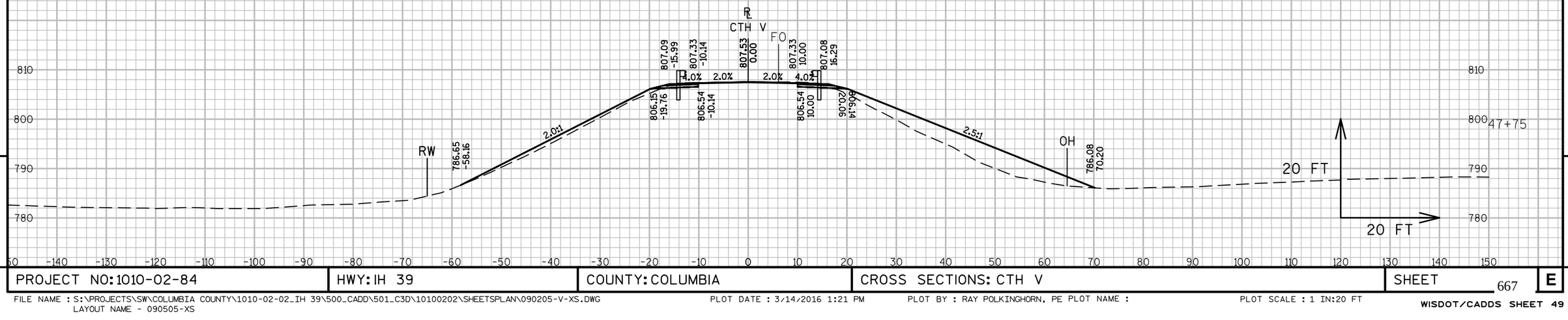


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PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: CTH V	SHEET 666	E







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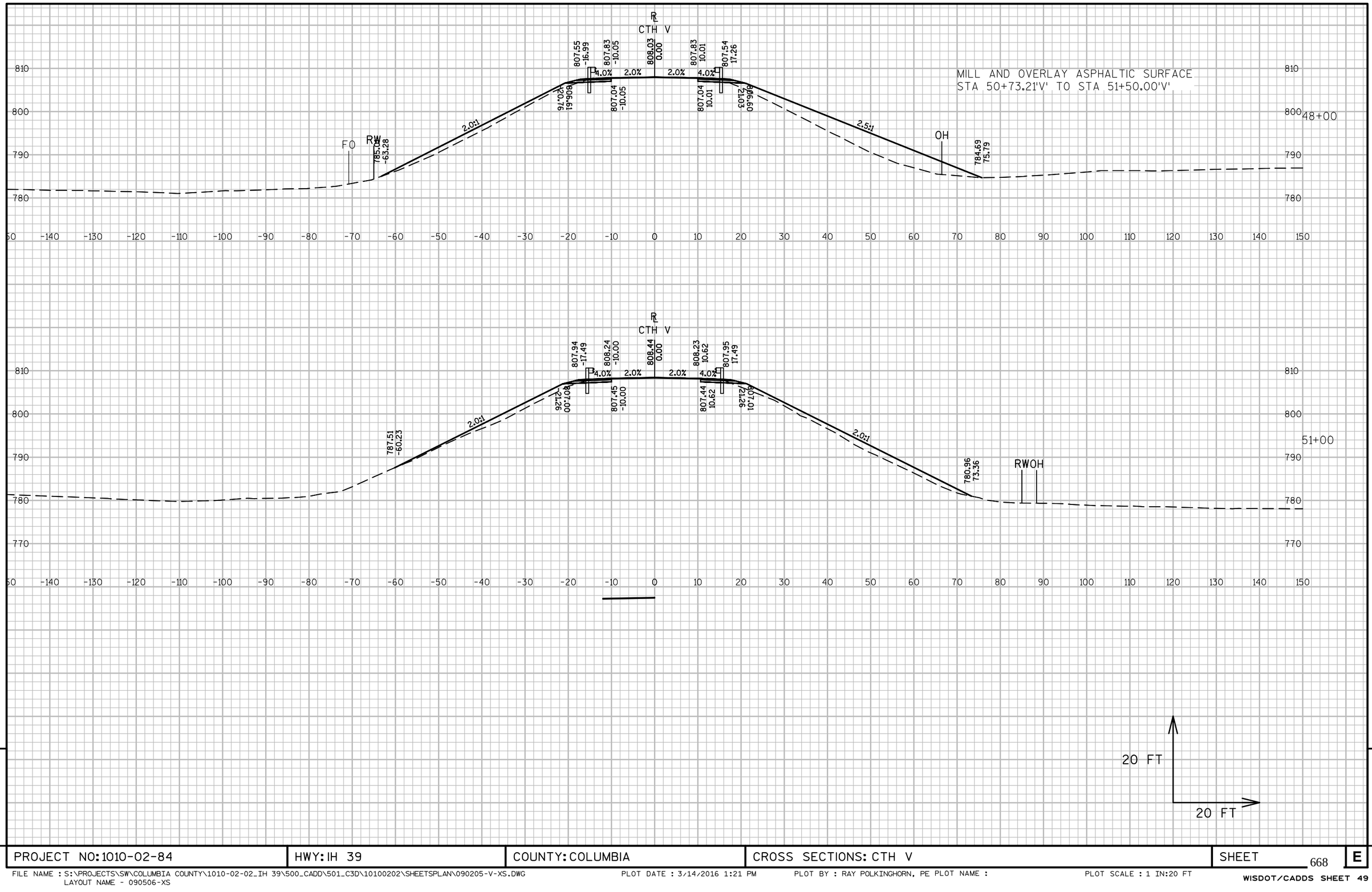
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PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: CTH V	SHEET 667	E

FILE NAME : S:\PROJECTS\SW\COLUMBIA COUNTY\1010-02-02_IH 39\500_CADD\501_C3D\10100202\SHEETSPLAN\090205-V-XS.DWG
LAYOUT NAME - 090505-XS

PLOT DATE : 3/14/2016 1:21 PM PLOT BY : RAY POLKINGHORN, PE PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 49

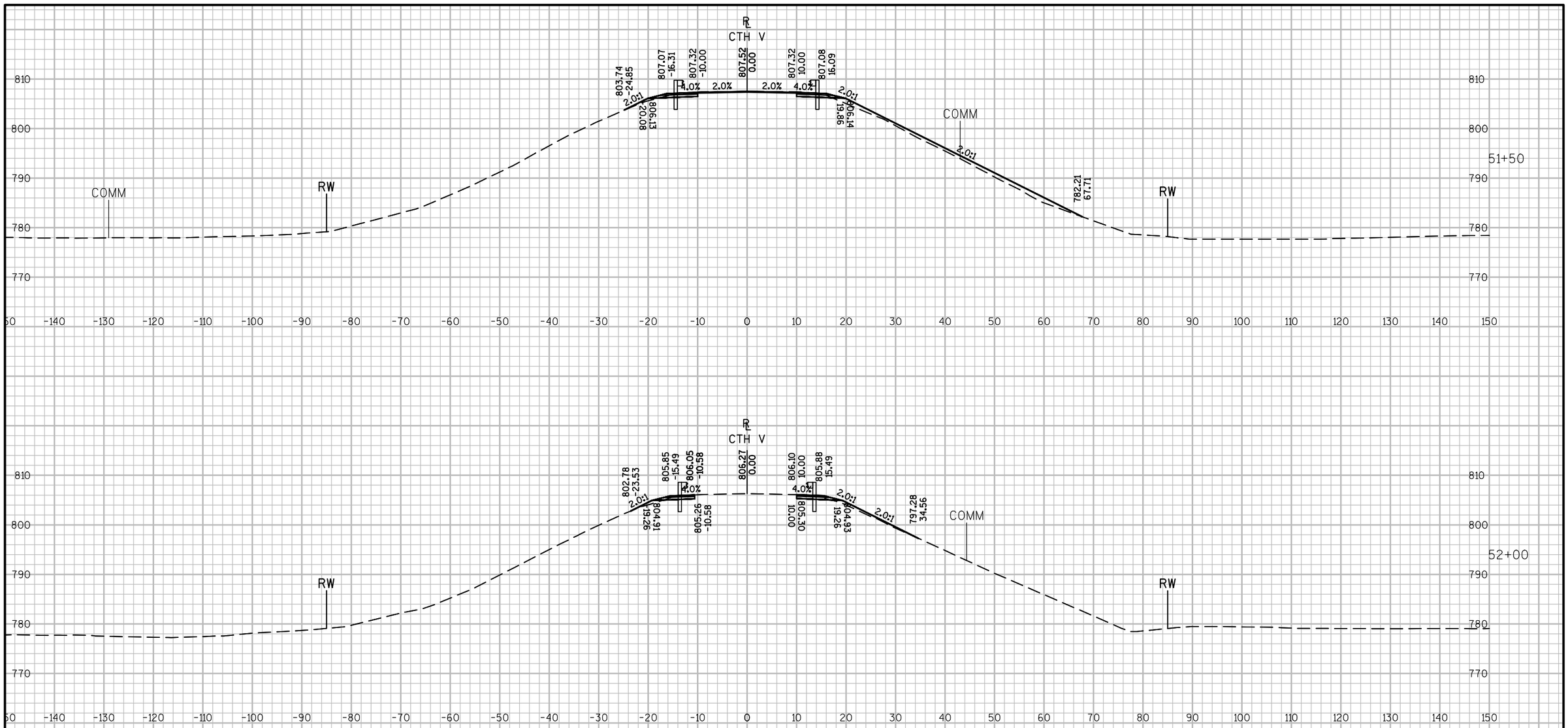


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PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: CTH V	SHEET 668	E

FILE NAME : S:\PROJECTS\SW\COLUMBIA COUNTY\1010-02-02_IH 39\500_CADD\501_C3D\10100202\SHEETSPLAN\090205-V-XS.DWG
LAYOUT NAME - 090506-XS
PLOT DATE : 3/14/2016 1:21 PM
PLOT BY : RAY POLKINGHORN, PE PLOT NAME :
PLOT SCALE : 1 IN:20 FT
WISDOT/CADDS SHEET 49

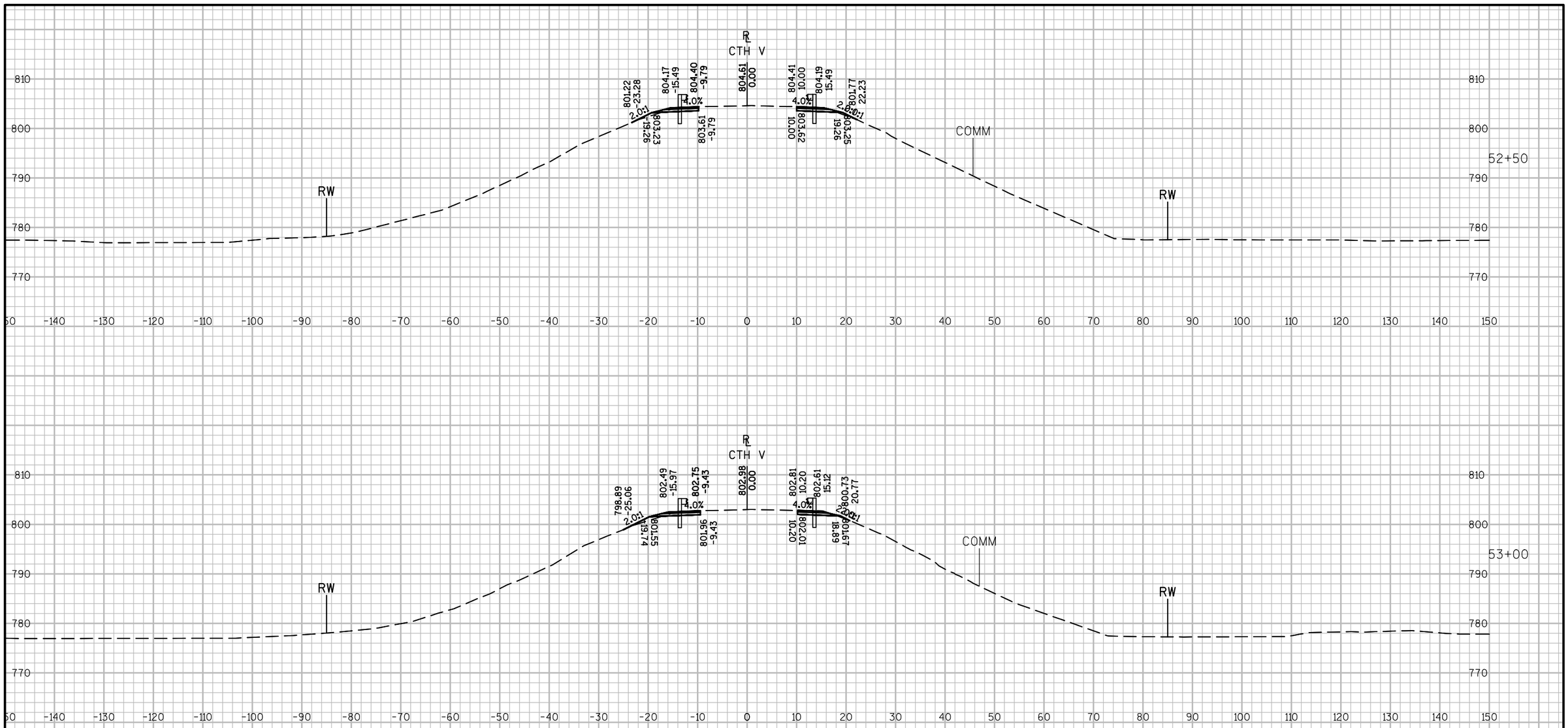


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PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: CTH V	SHEET 669	E

FILE NAME : S:\PROJECTS\SW\COLUMBIA COUNTY\1010-02-02_IH 39\500_CADD\501_C3D\10100202\SHEETSPLAN\090205-V-XS.DWG
LAYOUT NAME - 090507-XS
PLOT DATE : 3/14/2016 1:22 PM
PLOT BY : RAY POLKINGHORN, PE PLOT NAME :
PLOT SCALE : 1 IN:20 FT
WISDOT/CADDS SHEET 49

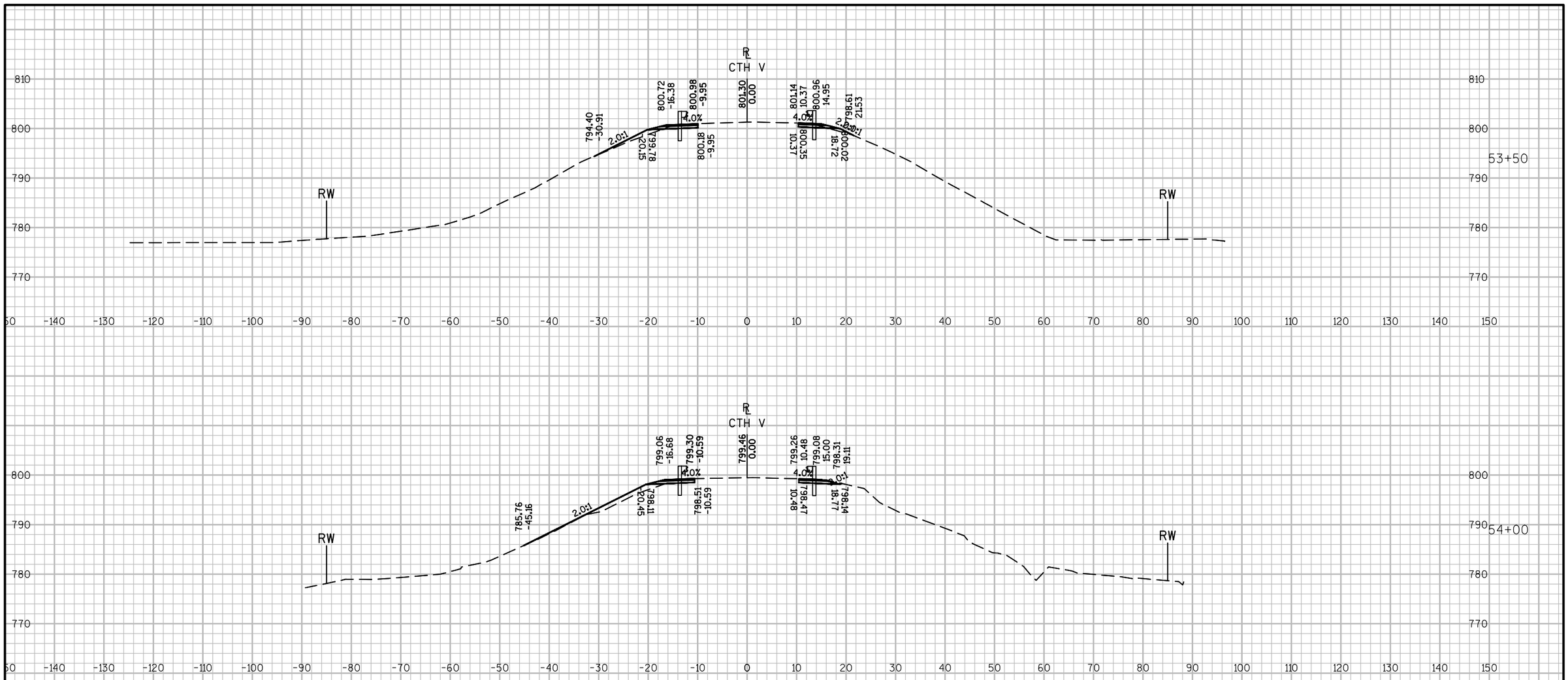


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PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: CTH V	SHEET 670	E

FILE NAME : S:\PROJECTS\SW\COLUMBIA COUNTY\1010-02-02_IH 39\500_CADD\501_C3D\10100202\SHEETSPLAN\090205-V-XS.DWG
LAYOUT NAME - 090508-XS
PLOT DATE : 3/14/2016 1:22 PM PLOT BY : RAY POLKINGHORN, PE PLOT NAME : PLOT SCALE : 1 IN:20 FT
WISDOT/CADDS SHEET 49

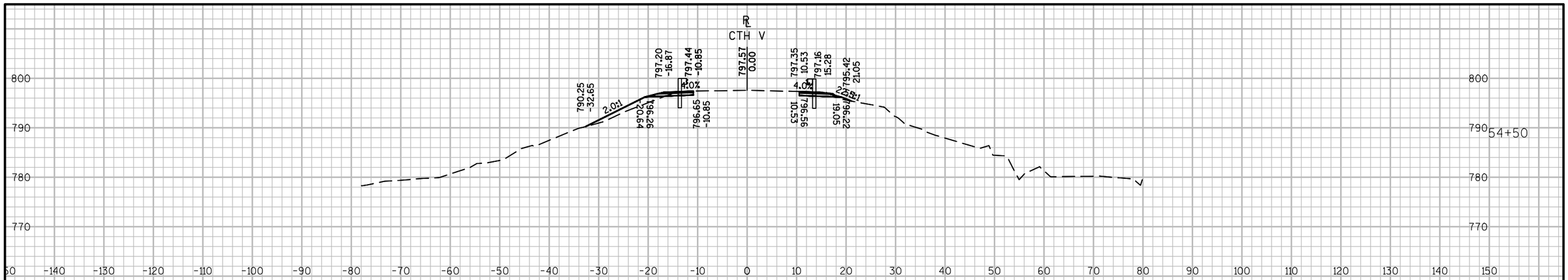


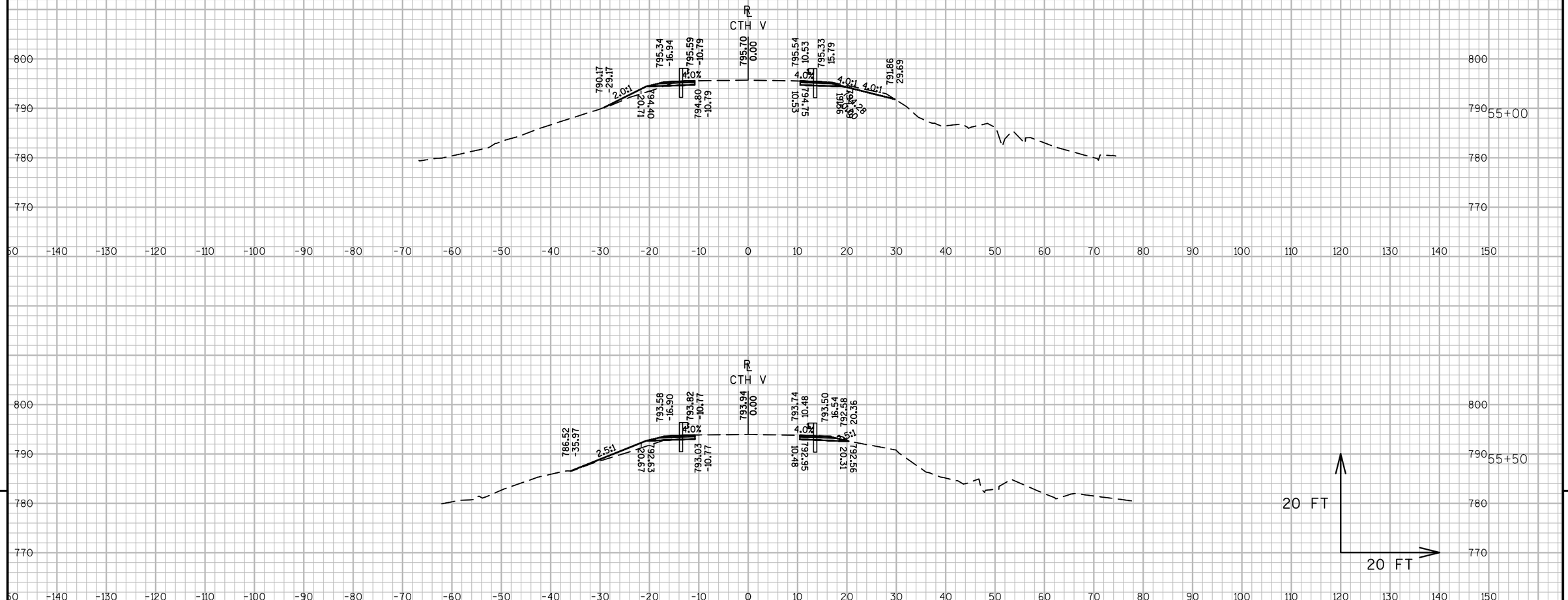
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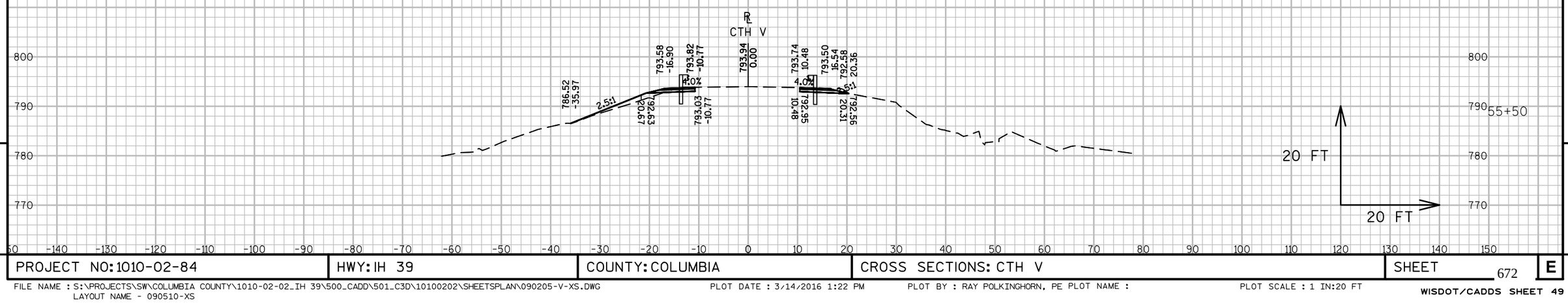
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PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: CTH V	SHEET 671	E

FILE NAME : S:\PROJECTS\SW\COLUMBIA COUNTY\1010-02-02_IH 39\500_CADD\501_C3D\10100202\SHEETSPLAN\090205-V-XS.DWG
LAYOUT NAME - 090509-XS
PLOT DATE : 3/14/2016 1:22 PM PLOT BY : RAY POLKINGHORN, PE PLOT NAME : PLOT SCALE : 1 IN:20 FT
WISDOT/CADDS SHEET 49





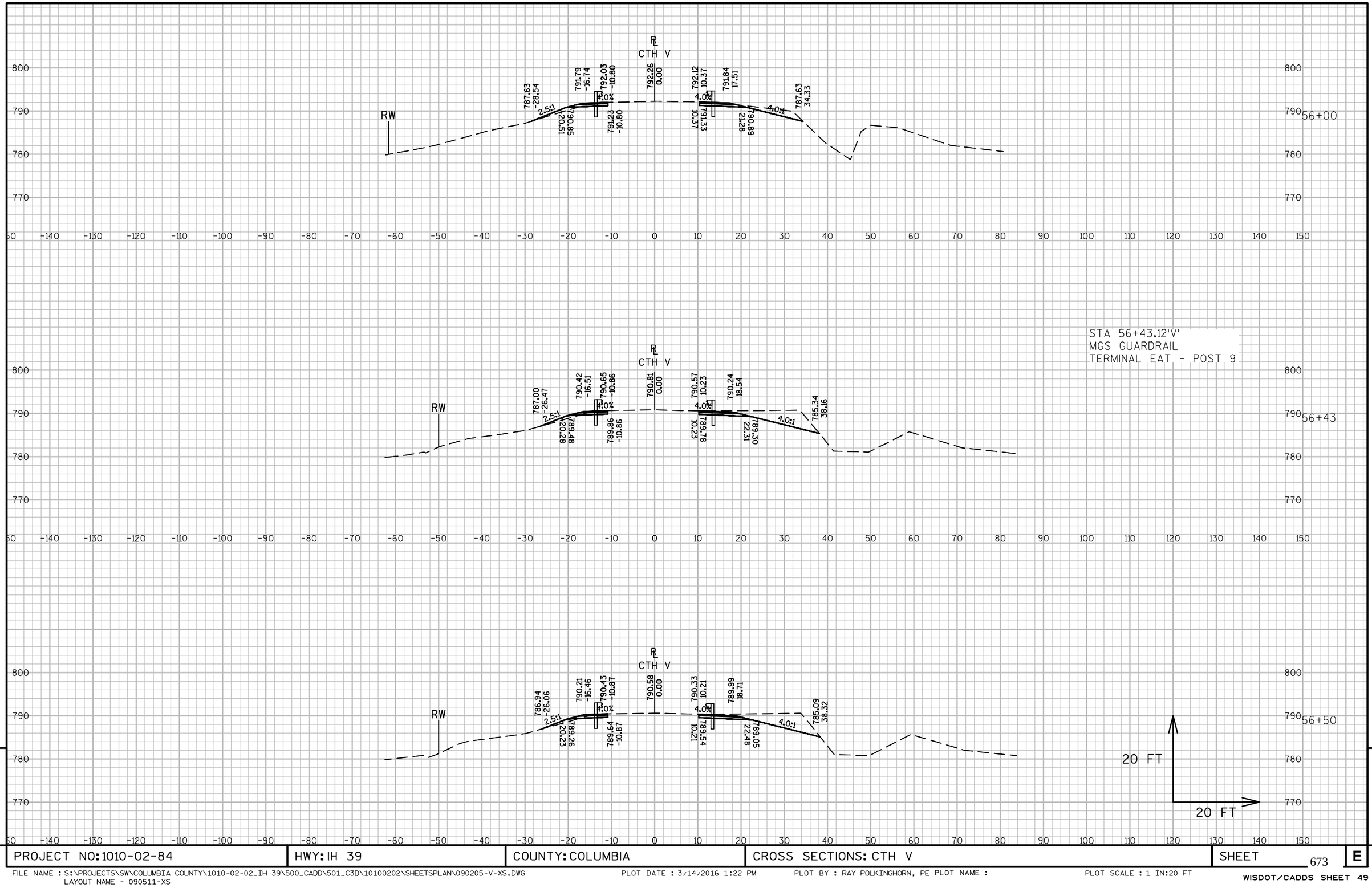


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9

PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: CTH V	SHEET 672	E

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LAYOUT NAME - 090510-XS
PLOT DATE : 3/14/2016 1:22 PM PLOT BY : RAY POLKINGHORN, PE PLOT NAME : PLOT SCALE : 1 IN:20 FT
WISDOT/CADDS SHEET 49

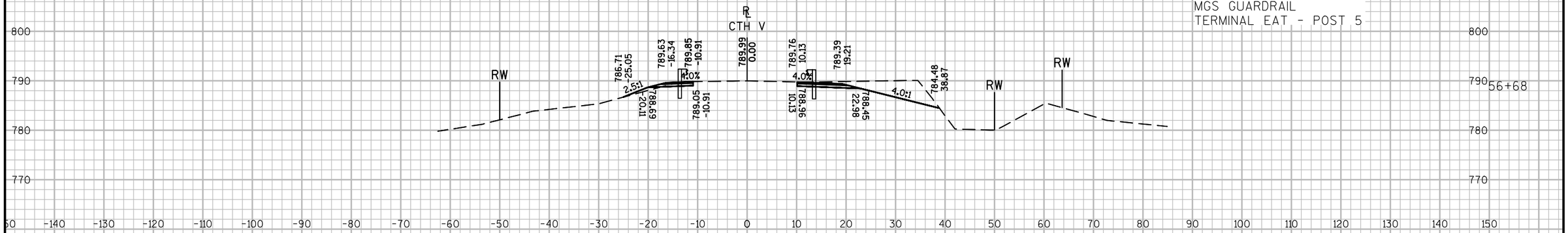


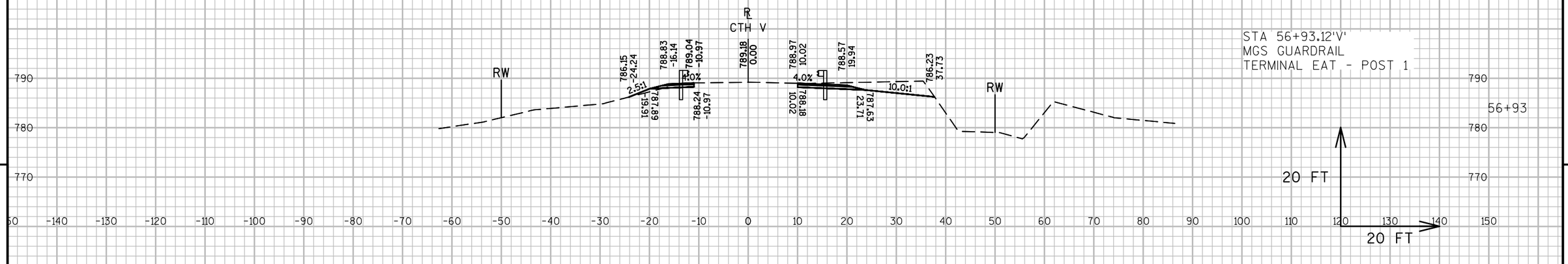
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9

PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: CTH V	SHEET 673	E

STA 56+68.12'V'
MGS GUARDRAIL
TERMINAL EAT - POST 5



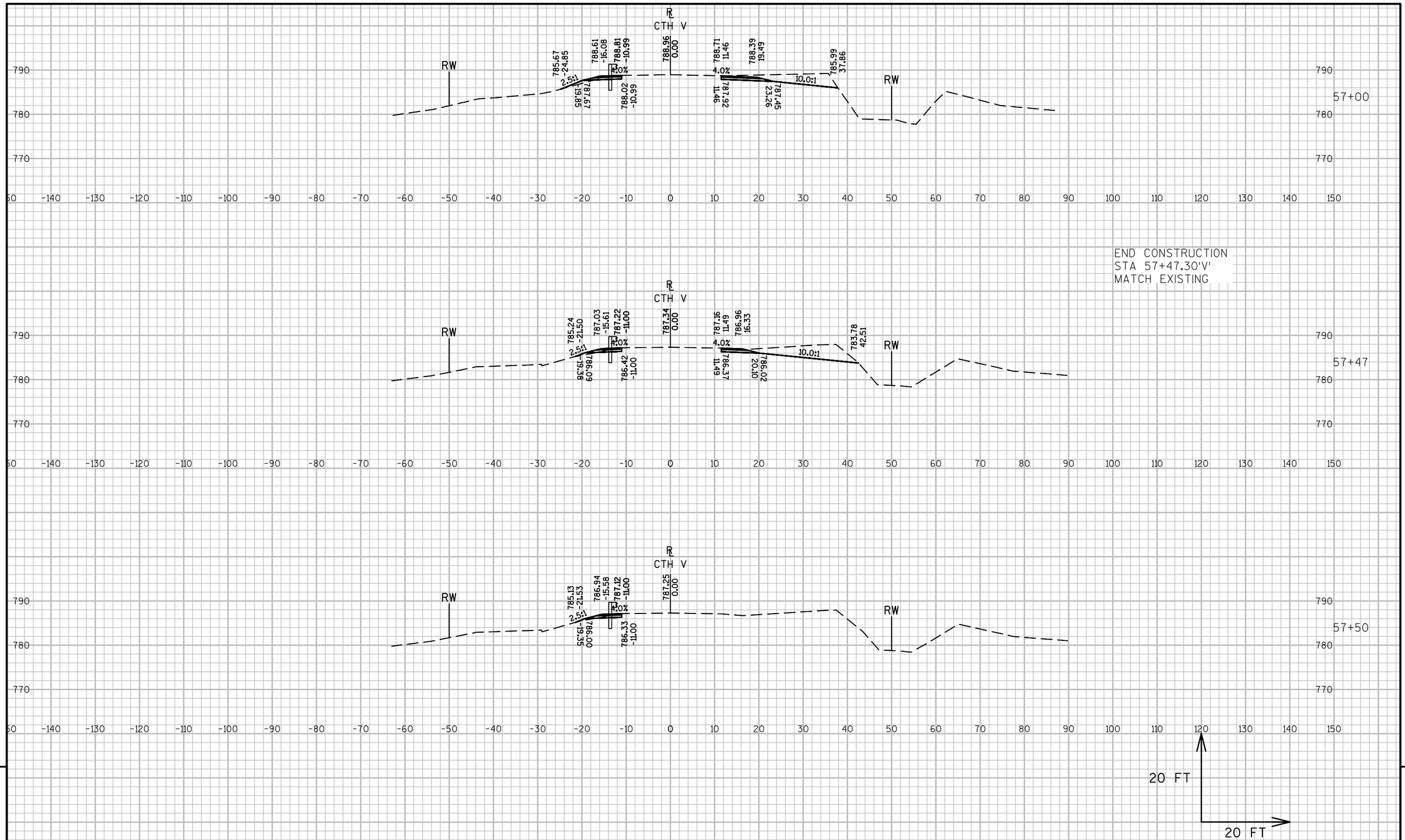


STA 56+93.12'V'
MGS GUARDRAIL
TERMINAL EAT - POST 1

20 FT
20 FT

9 9

PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: CTH V	SHEET 674	E



9

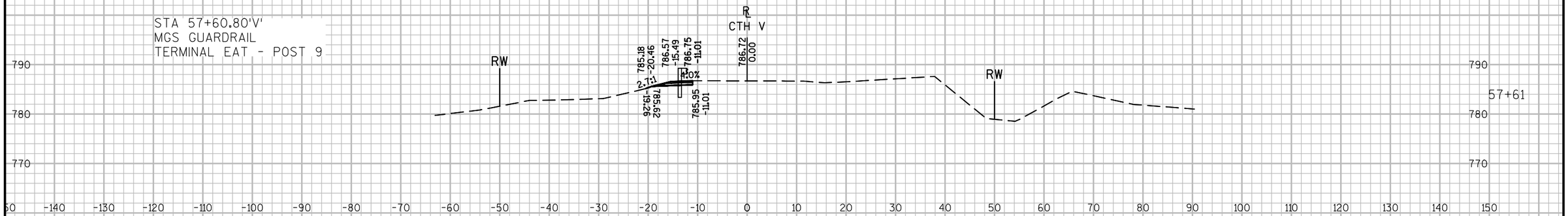
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PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: CTH V	SHEET 675	E

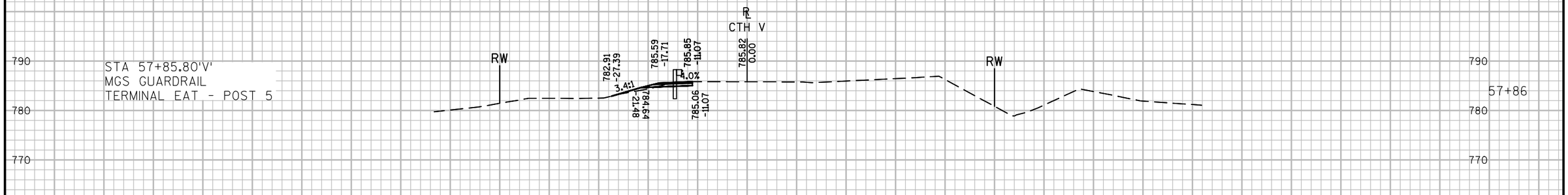
FILE NAME : S:\PROJECTS\SW\COLUMBIA COUNTY\1010-02-02_IH 39\500_CADD\501_C3D\10100202\SHEETSPLAN\090205-V-XS.DWG
LAYOUT NAME - 090513-XS

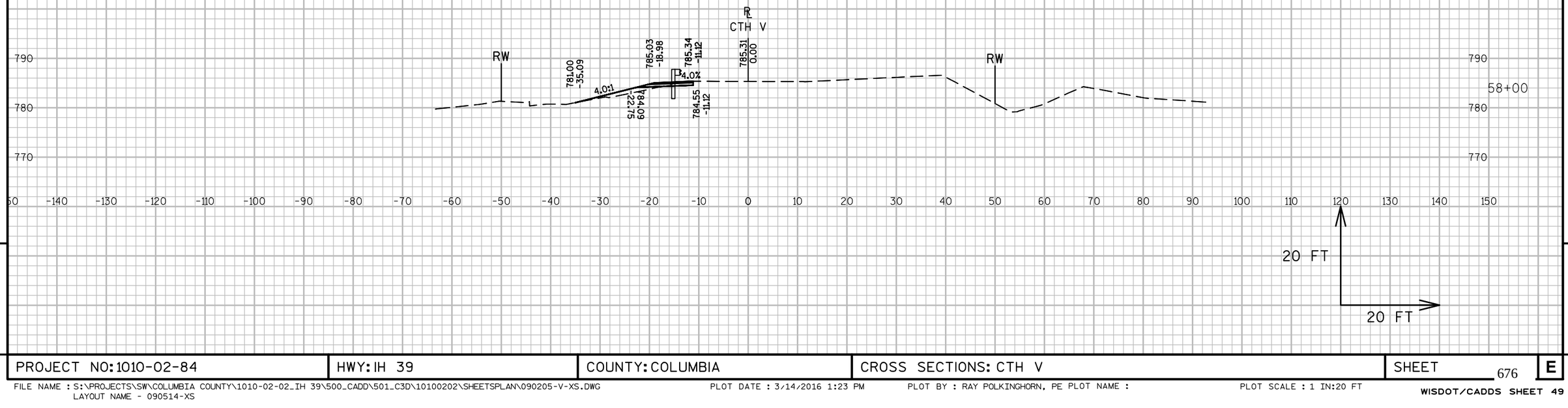
PLOT DATE : 3/14/2016 1:23 PM PLOT BY : RAY POLKINGHORN, PE PLOT NAME : PLOT SCALE : 1 IN:20 FT

STA 57+60.80'V'
MGS GUARDRAIL
TERMINAL EAT - POST 9



STA 57+85.80'V'
MGS GUARDRAIL
TERMINAL EAT - POST 5

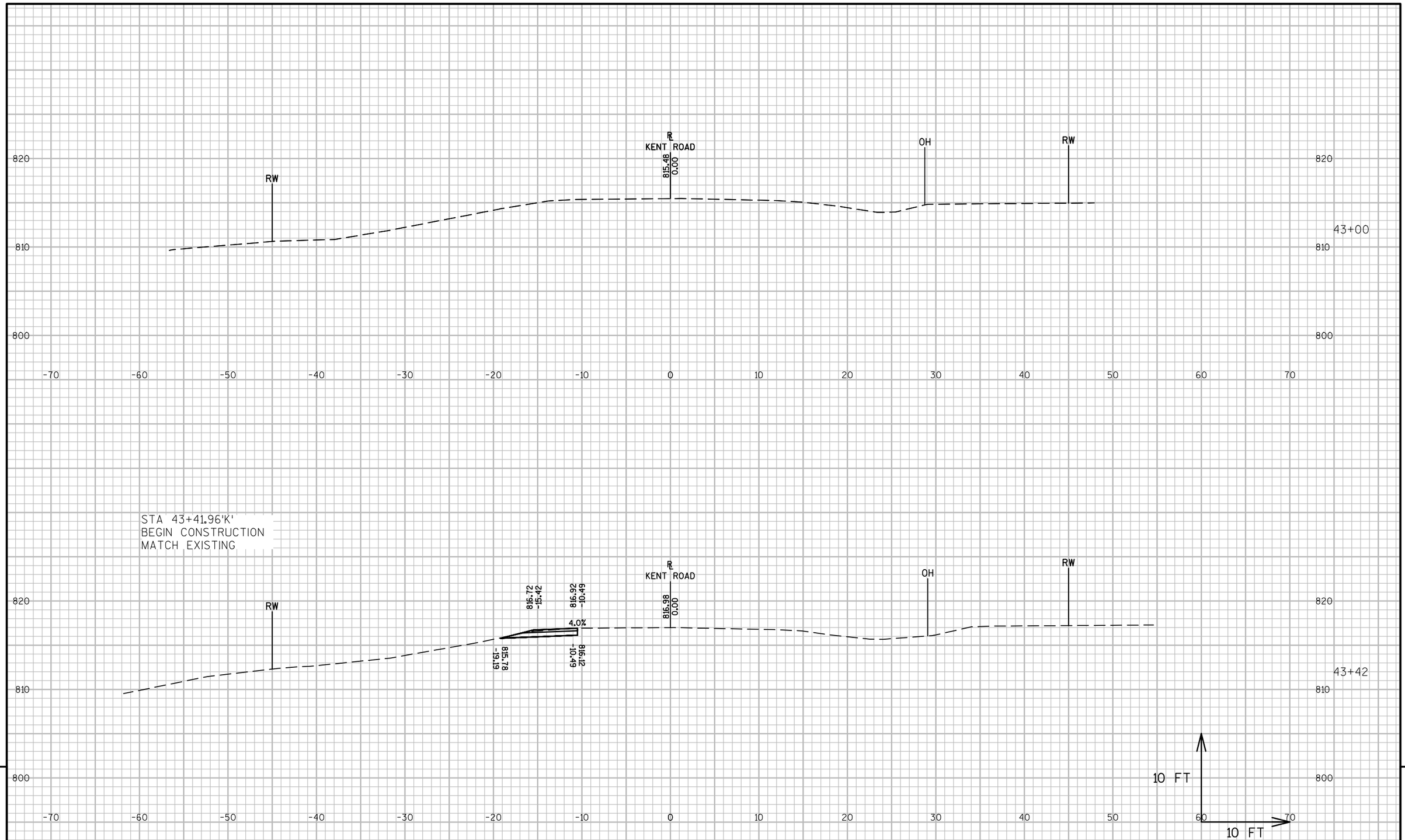




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PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: CTH V	SHEET 676	E



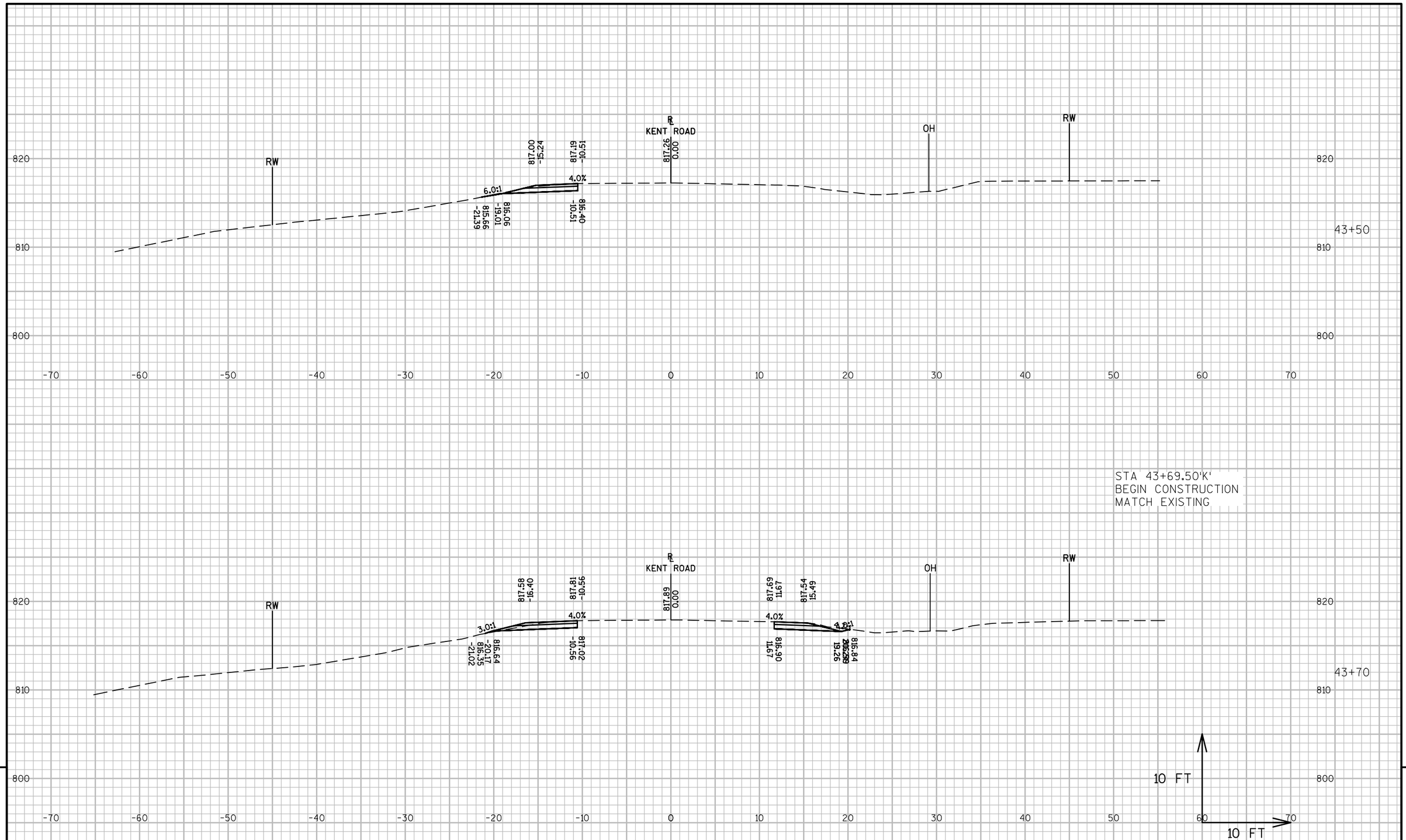
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PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: KENT ROAD	SHEET 677	E

FILE NAME : S:\PROJECTS\SW\COLUMBIA COUNTY\1010-02-02_IH 39\500_CADD\501_C3D\10100202\SHEETSPLAN\090206_KENT-XS.DWG
LAYOUT NAME - 090601-XS

PLOT DATE : 3/14/2016 1:24 PM PLOT BY : RAY POLKINGHORN, PE PLOT NAME : PLOT SCALE : 1 IN:10 FT



9

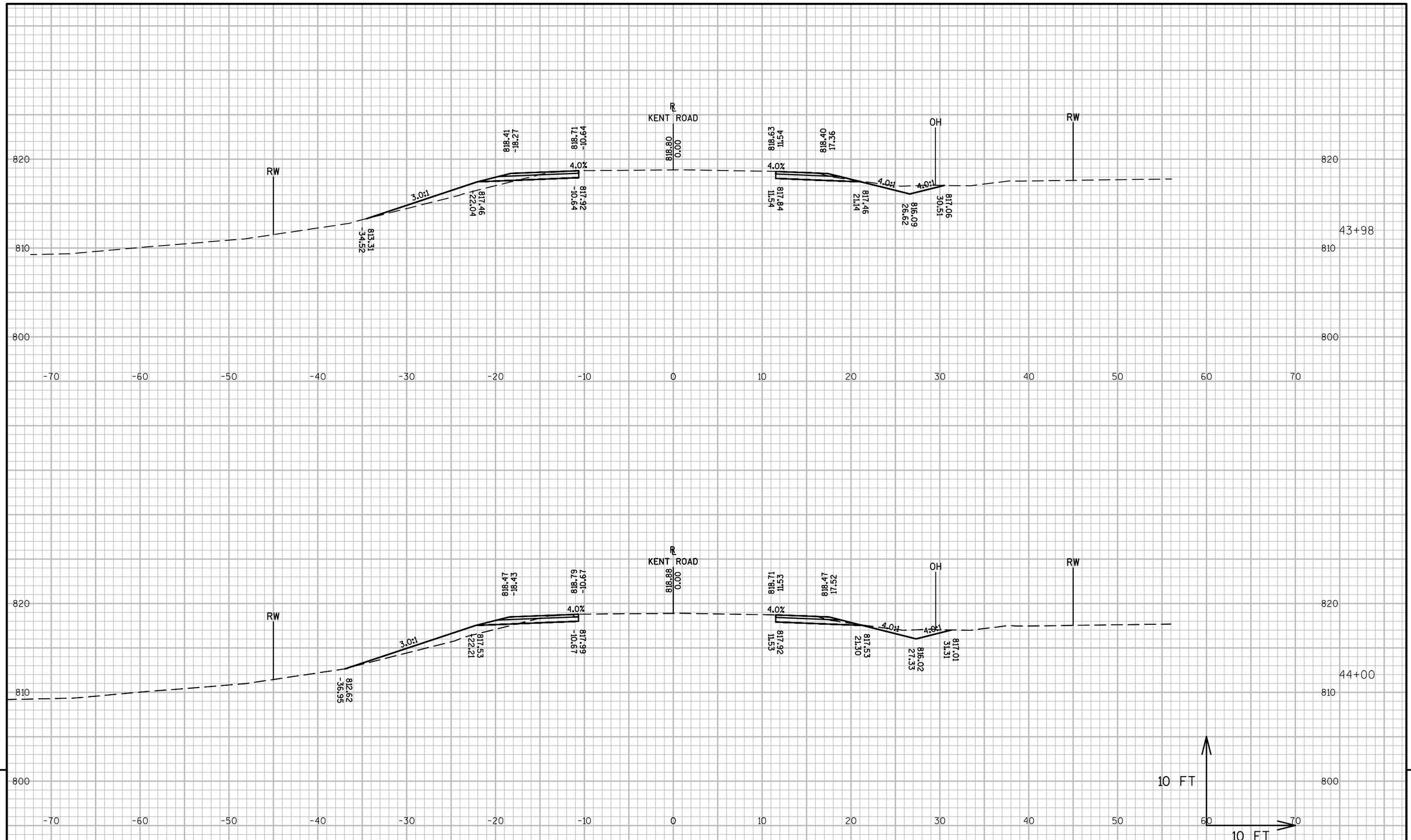
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9

FILE NAME : S:\PROJECTS\SW\COLUMBIA COUNTY\1010-02-02_IH 39\500_CADD\501_C3D\10100202\SHEETSPLAN\090206_KENT-XS.DWG
LAYOUT NAME - 090602-XS

PLOT DATE : 3/14/2016 1:24 PM PLOT BY : RAY POLKINGHORN, PE PLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49



9

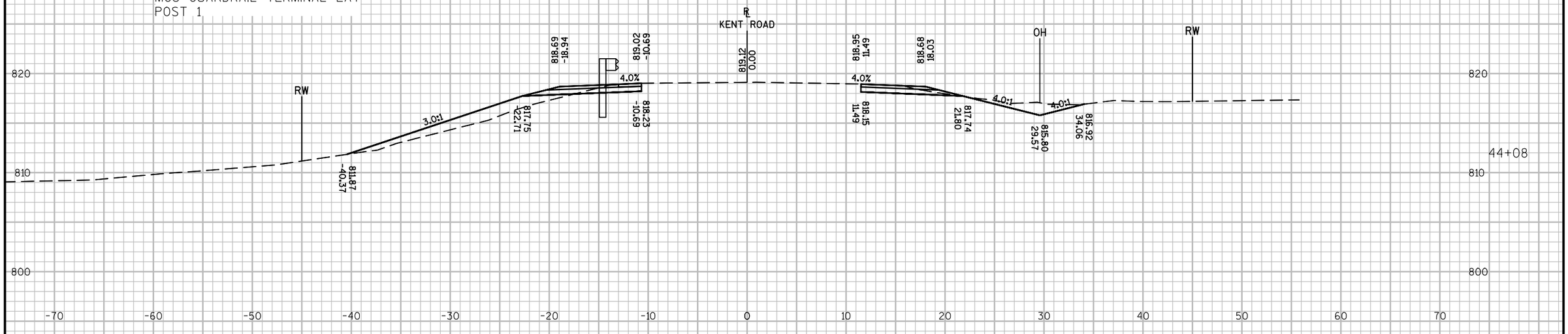
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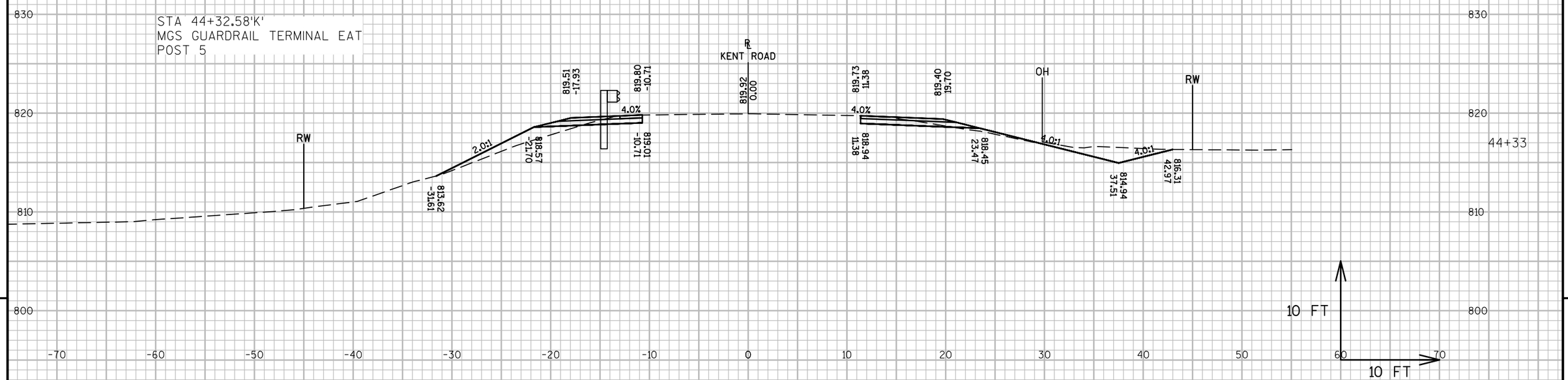
FILE NAME : S:\PROJECTS\SW\COLUMBIA COUNTY\1010-02-02_IH 39\500_CADD\501_C3D\10100202\SHEETSPLAN\090206_KENT-XS.DWG
LAYOUT NAME - 090603-XS

PLOT DATE : 3/14/2016 1:24 PM PLOT BY : RAY POLKINGHORN, PE PLOT NAME : PLOT SCALE : 1 IN:10 FT

STA 44+07.58'K'
MGS GUARDRAIL TERMINAL EAT
POST 1



STA 44+32.58'K'
MGS GUARDRAIL TERMINAL EAT
POST 5



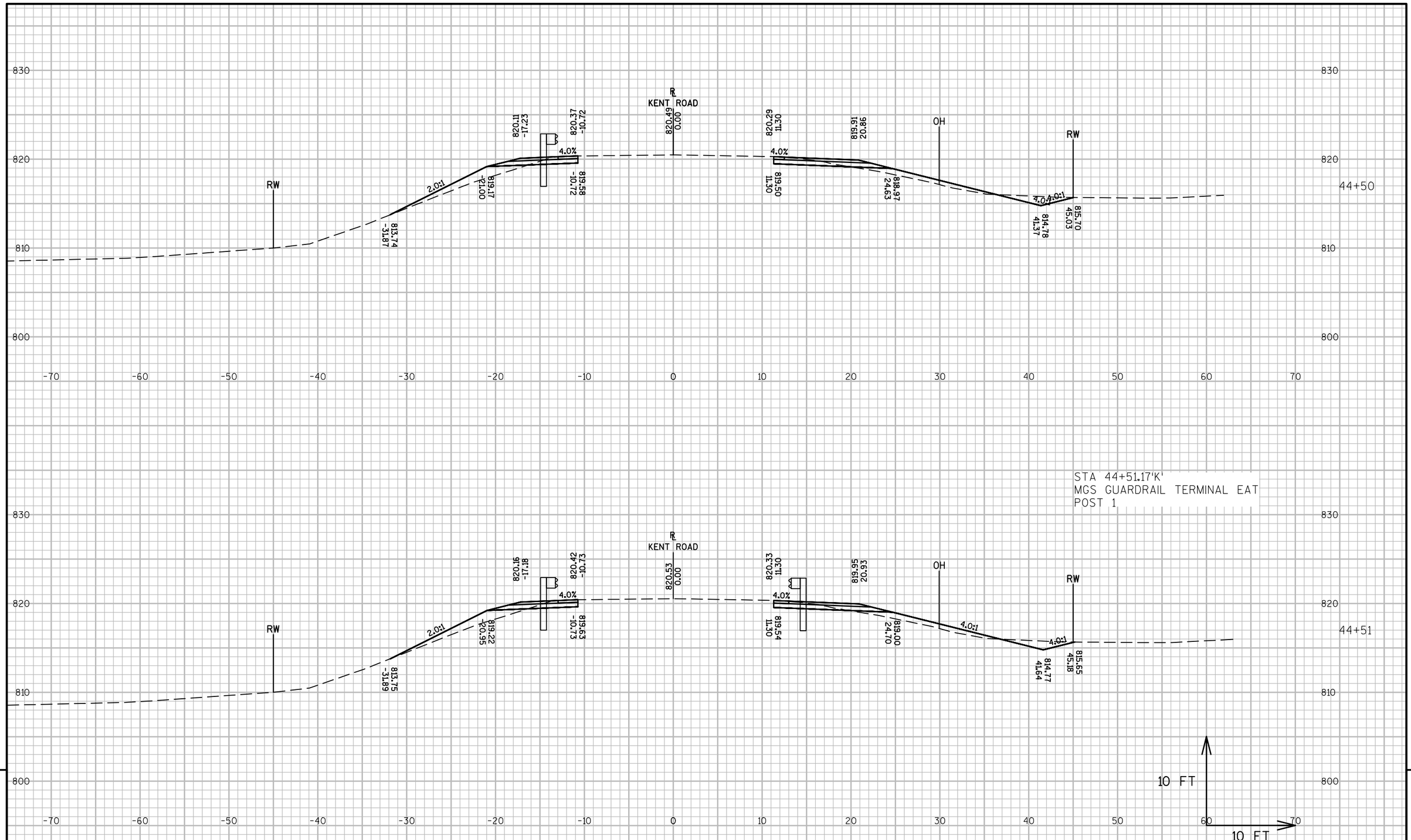
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PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: KENT ROAD	SHEET 680	E

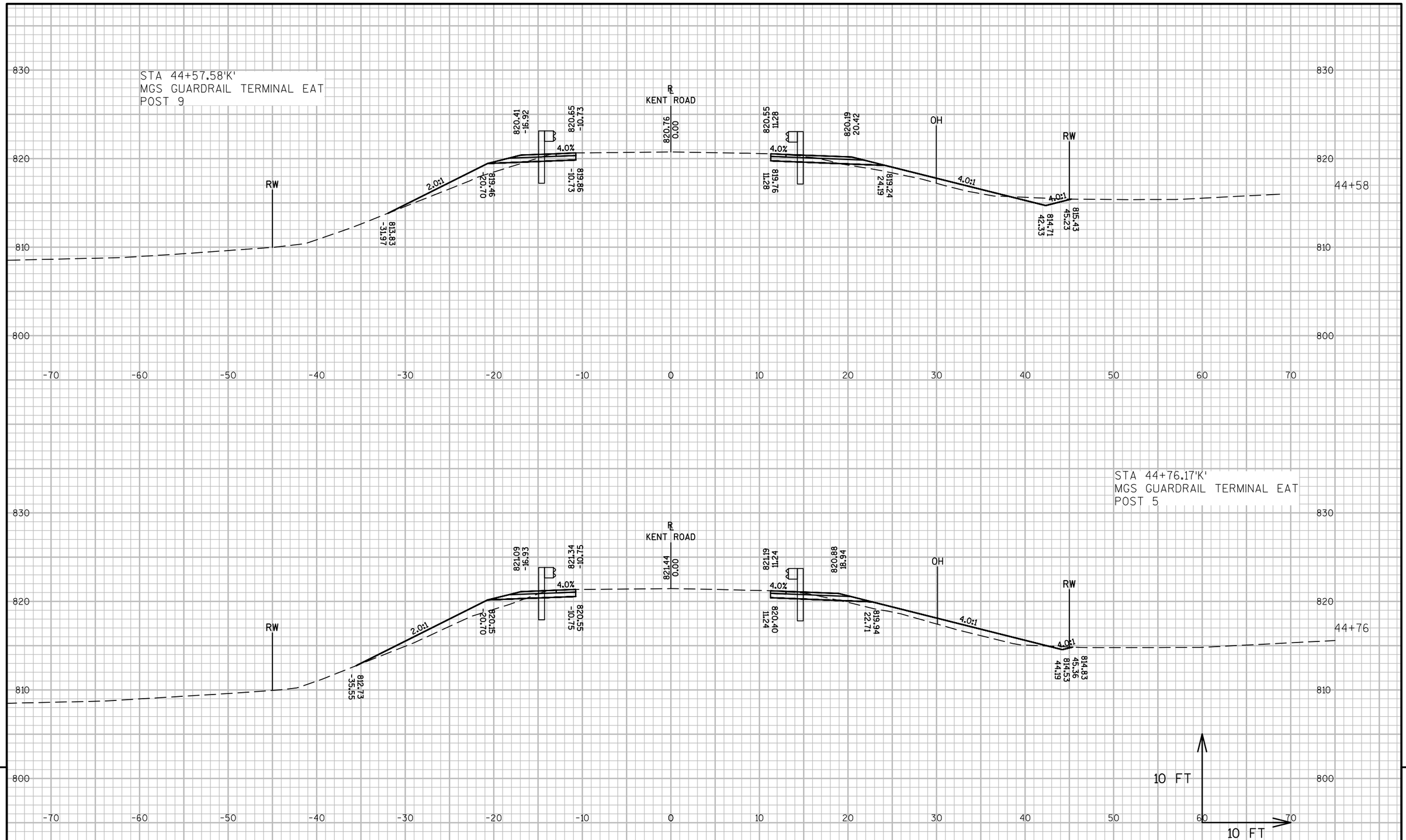
FILE NAME : S:\PROJECTS\SW\COLUMBIA COUNTY\1010-02-02_IH 39\500_CADD\501_C3D\10100202\SHEETSPLAN\090206_KENT-XS.DWG
LAYOUT NAME - 090604-XS

PLOT DATE : 3/14/2016 1:24 PM PLOT BY : RAY POLKINGHORN, PE PLOT NAME : PLOT SCALE : 1 IN:10 FT



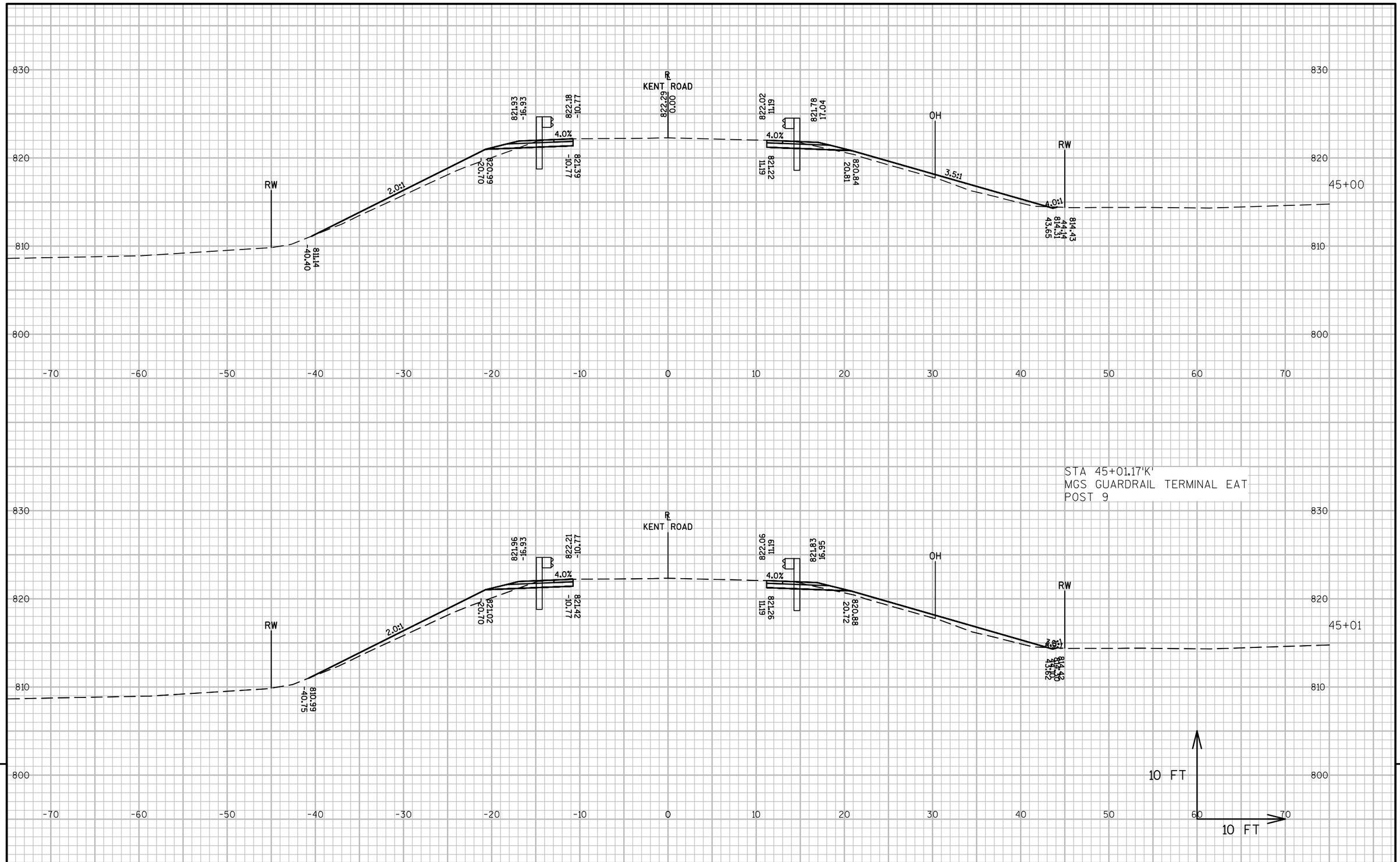
PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: KENT ROAD	SHEET 681	E

FILE NAME : S:\PROJECTS\SW\COLUMBIA COUNTY\1010-02-02_IH 39\500_CADD\501_C3D\10100202\SHEETSPLAN\090206_KENT-XS.DWG
LAYOUT NAME - 090605-XS
PLOT DATE : 3/14/2016 1:24 PM PLOT BY : RAY POLKINGHORN, PE PLOT NAME : PLOT SCALE : 1 IN:10 FT



PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: KENT ROAD	SHEET 682	E

FILE NAME : S:\PROJECTS\SW\COLUMBIA COUNTY\1010-02-02_IH 39\500_CADD\501_C3D\10100202\SHEETSPLAN\090206_KENT-XS.DWG
LAYOUT NAME - 090606-XS
PLOT DATE : 3/14/2016 1:24 PM
PLOT BY : RAY POLKINGHORN, PE PLOT NAME :
PLOT SCALE : 1 IN:10 FT



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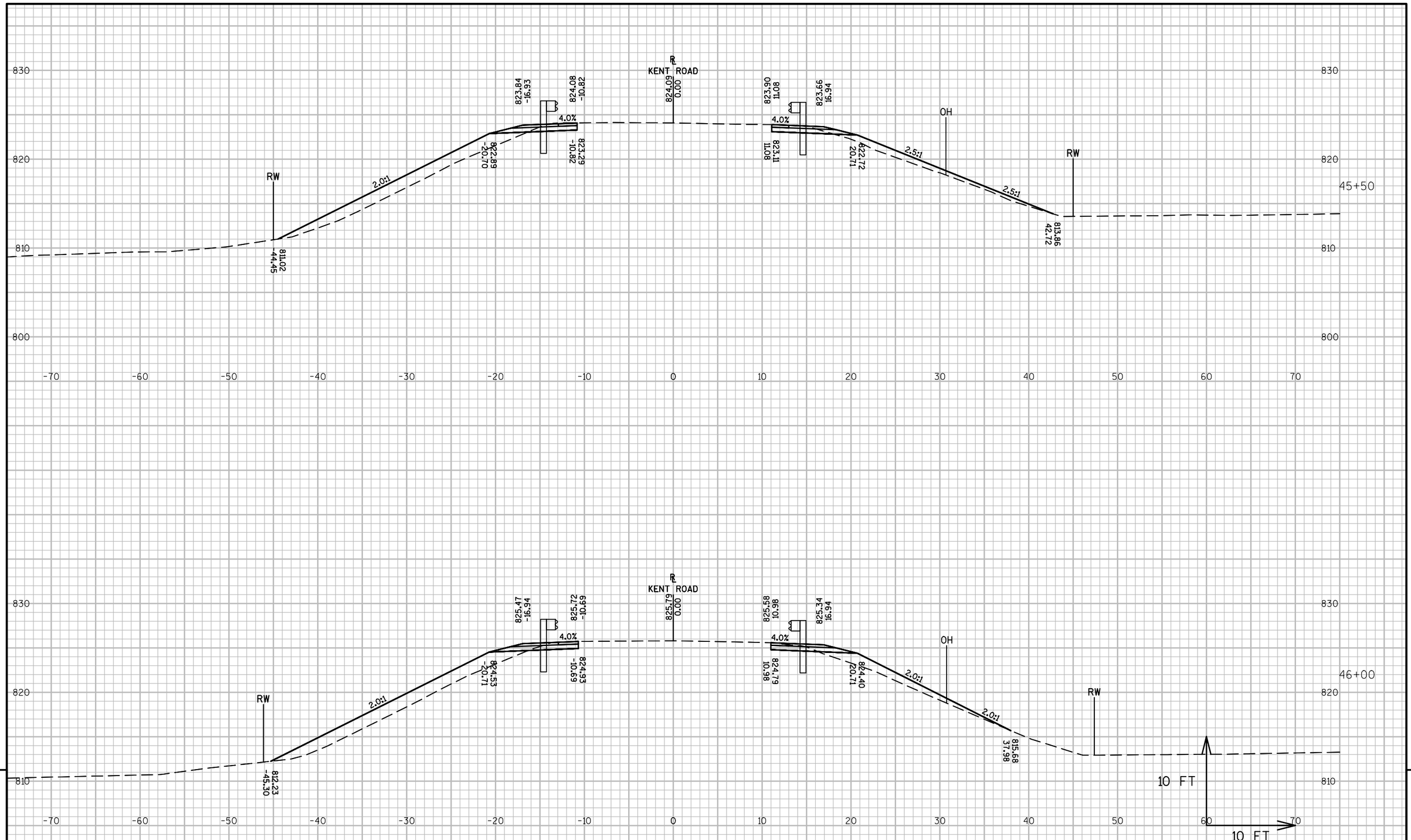
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PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: KENT ROAD	SHEET 683	E

FILE NAME : S:\PROJECTS\SW\COLUMBIA COUNTY\1010-02-02_IH 39\500_CADD\501_C3D\10100202\SHEETSPLAN\090206_KENT-XS.DWG
LAYOUT NAME - 090607-XS

PLOT DATE : 3/14/2016 1:24 PM PLOT BY : RAY POLKINGHORN, PE PLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49



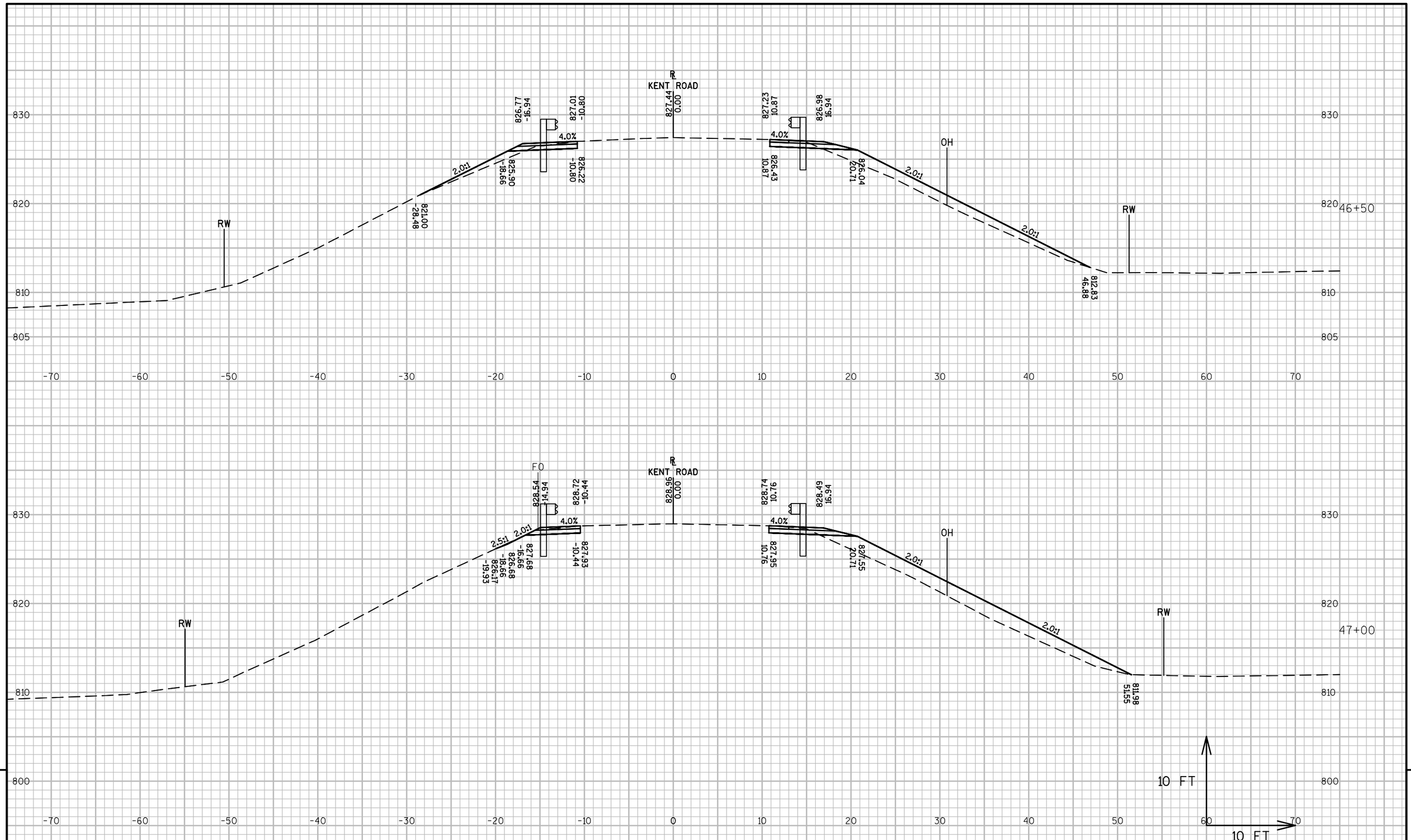
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PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: KENT ROAD	SHEET 684	E

FILE NAME : S:\PROJECTS\SW\COLUMBIA COUNTY\1010-02-02_IH 39\500_CADD\501_C3D\10100202\SHEETSPLAN\090206_KENT-XS.DWG
LAYOUT NAME - 090608-XS

PLOT DATE : 3/14/2016 1:24 PM PLOT BY : RAY POLKINGHORN, PE PLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49

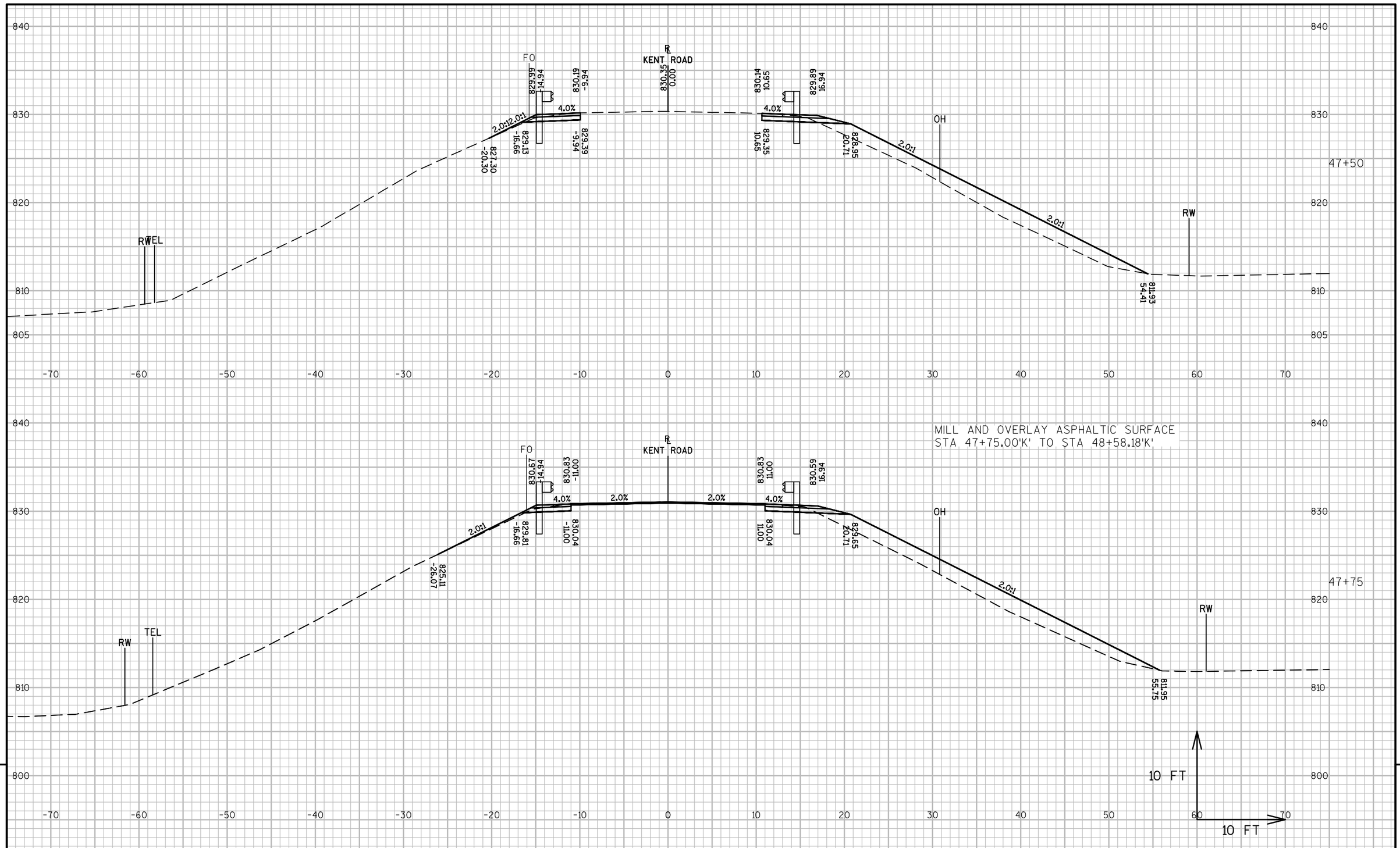


PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: KENT ROAD	SHEET 685	E

FILE NAME : S:\PROJECTS\SW\COLUMBIA COUNTY\1010-02-02_IH 39\500_CADD\501_C3D\10100202\SHEETSPLAN\090206_KENT-XS.DWG
LAYOUT NAME - 090609-XS

PLOT DATE : 3/14/2016 1:24 PM PLOT BY : RAY POLKINGHORN, PE PLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49

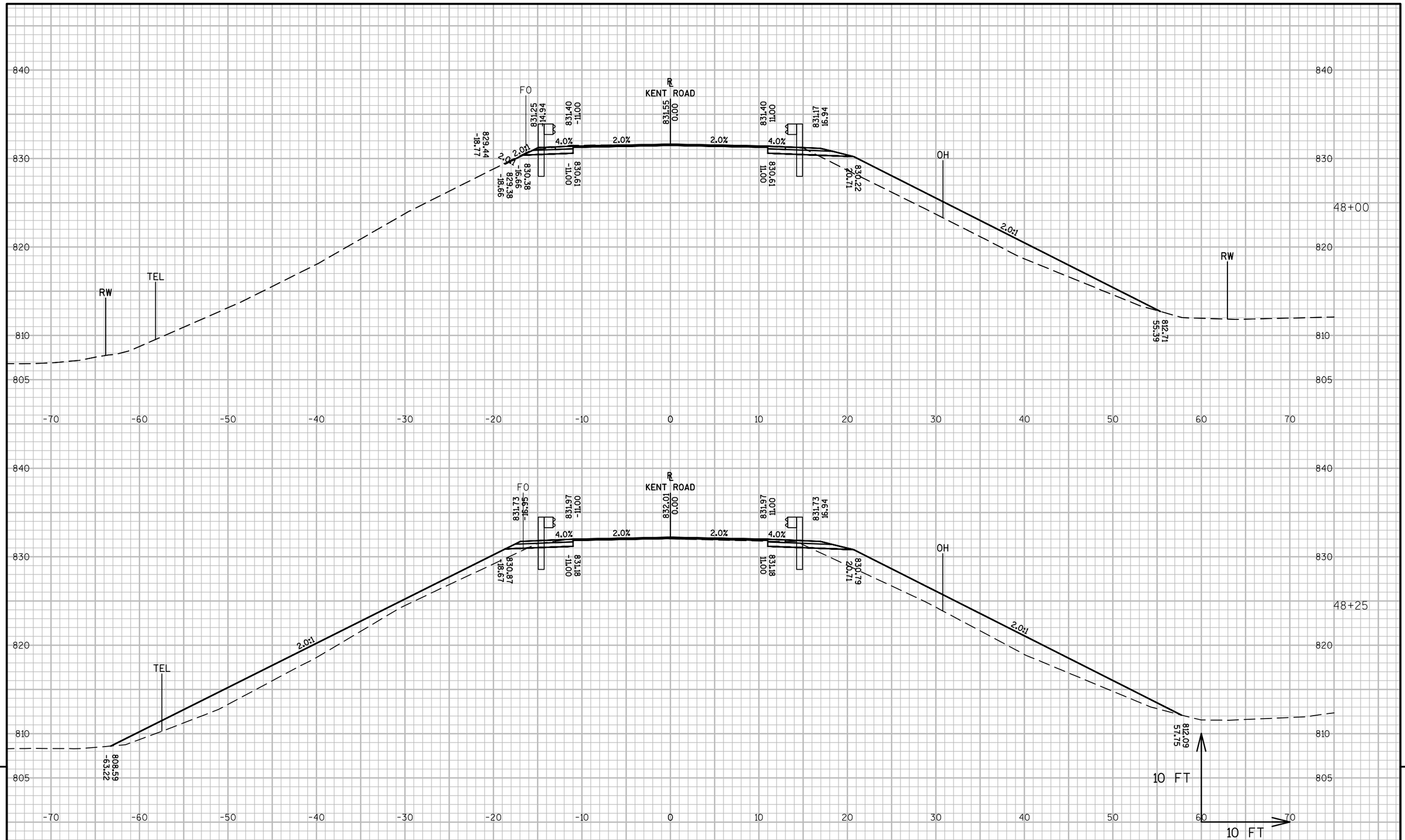


PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: KENT ROAD	SHEET 686	E

FILE NAME : S:\PROJECTS\SW\COLUMBIA COUNTY\1010-02-02_IH 39\500_CADD\501_C3D\10100202\SHEETSPLAN\090206_KENT-XS.DWG
LAYOUT NAME - 090610-XS

PLOT DATE : 3/14/2016 1:24 PM PLOT BY : RAY POLKINGHORN, PE PLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49

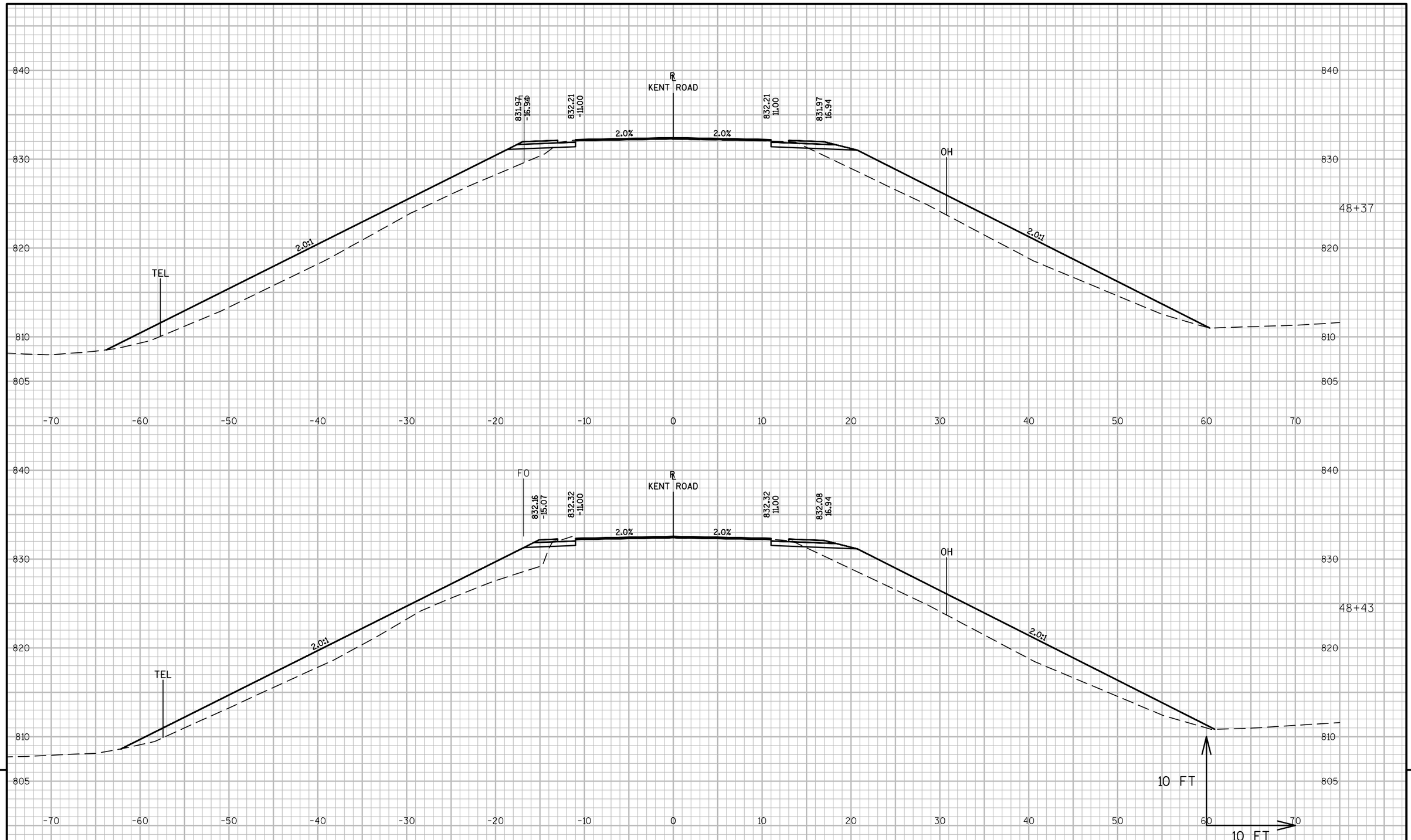


PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: KENT ROAD	SHEET 687	E

FILE NAME : S:\PROJECTS\SW\COLUMBIA COUNTY\1010-02-02_IH 39\500_CADD\501_C3D\10100202\SHEETSPLAN\090206_KENT-XS.DWG
LAYOUT NAME - 090611-XS

PLOT DATE : 3/14/2016 1:24 PM PLOT BY : RAY POLKINGHORN, PE PLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49



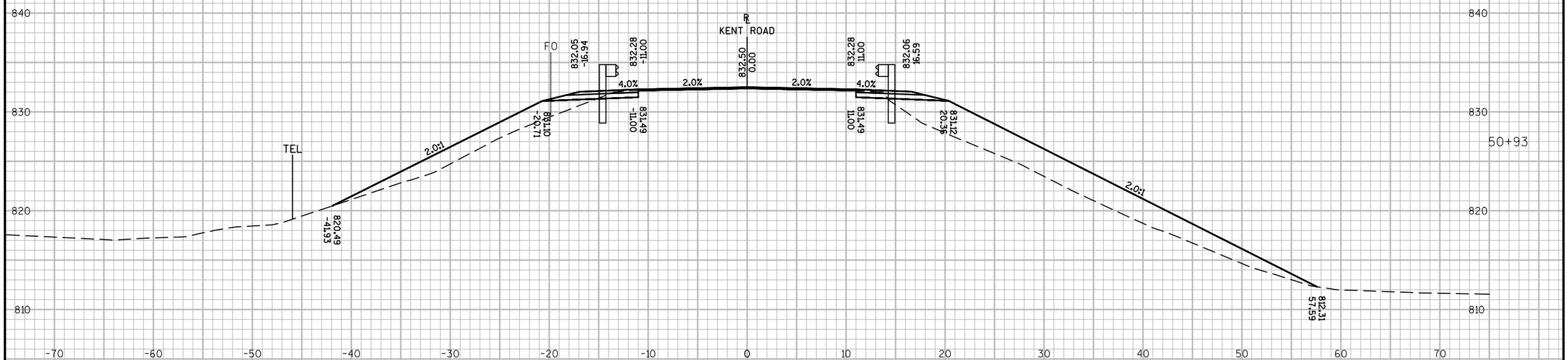
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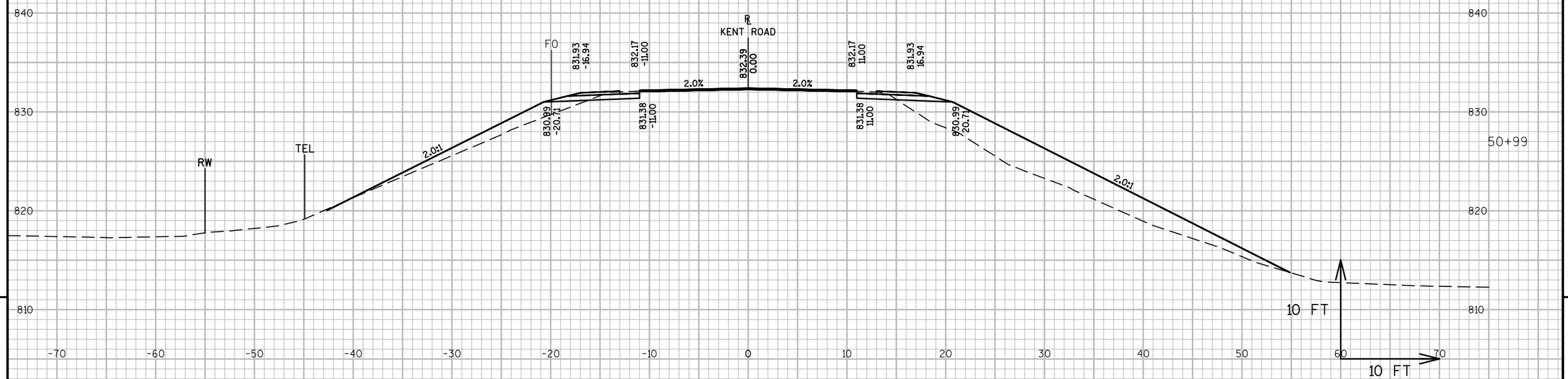
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LAYOUT NAME - 090612-XS

PLOT DATE : 3/14/2016 1:25 PM PLOT BY : RAY POLKINGHORN, PE PLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49

MILL AND OVERLAY ASPHALTIC SURFACE
STA 50+73.21'K' TO STA 51+50.00'K'





9

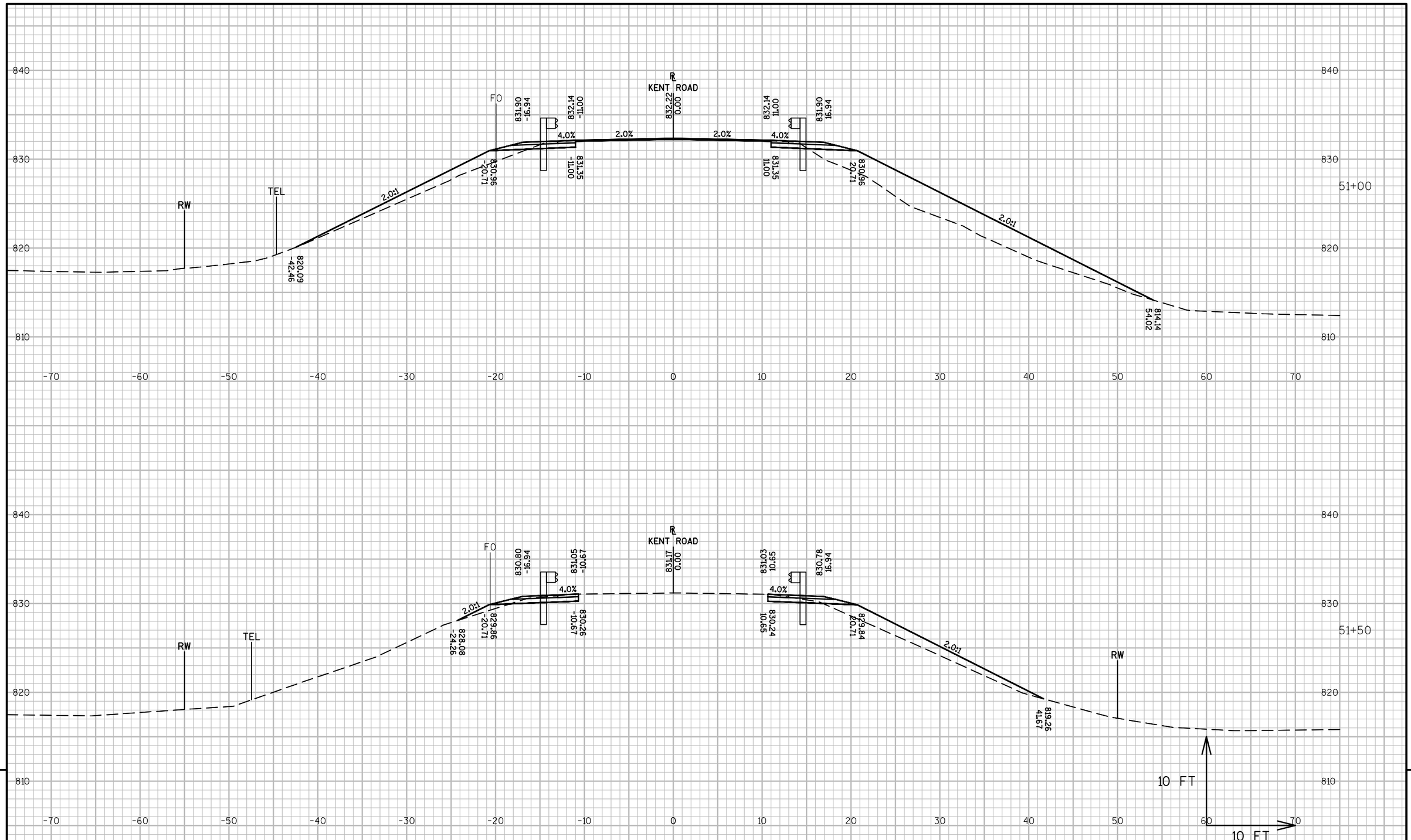
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PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: KENT ROAD	SHEET 689	E

FILE NAME : S:\PROJECTS\SW\COLUMBIA COUNTY\1010-02-02_IH 39\500_CADD\501_C3D\10100202\SHEETSPLAN\090206_KENT-XS.DWG
LAYOUT NAME - 090613-XS

PLOT DATE : 3/14/2016 1:25 PM PLOT BY : RAY POLKINGHORN, PE PLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49



9

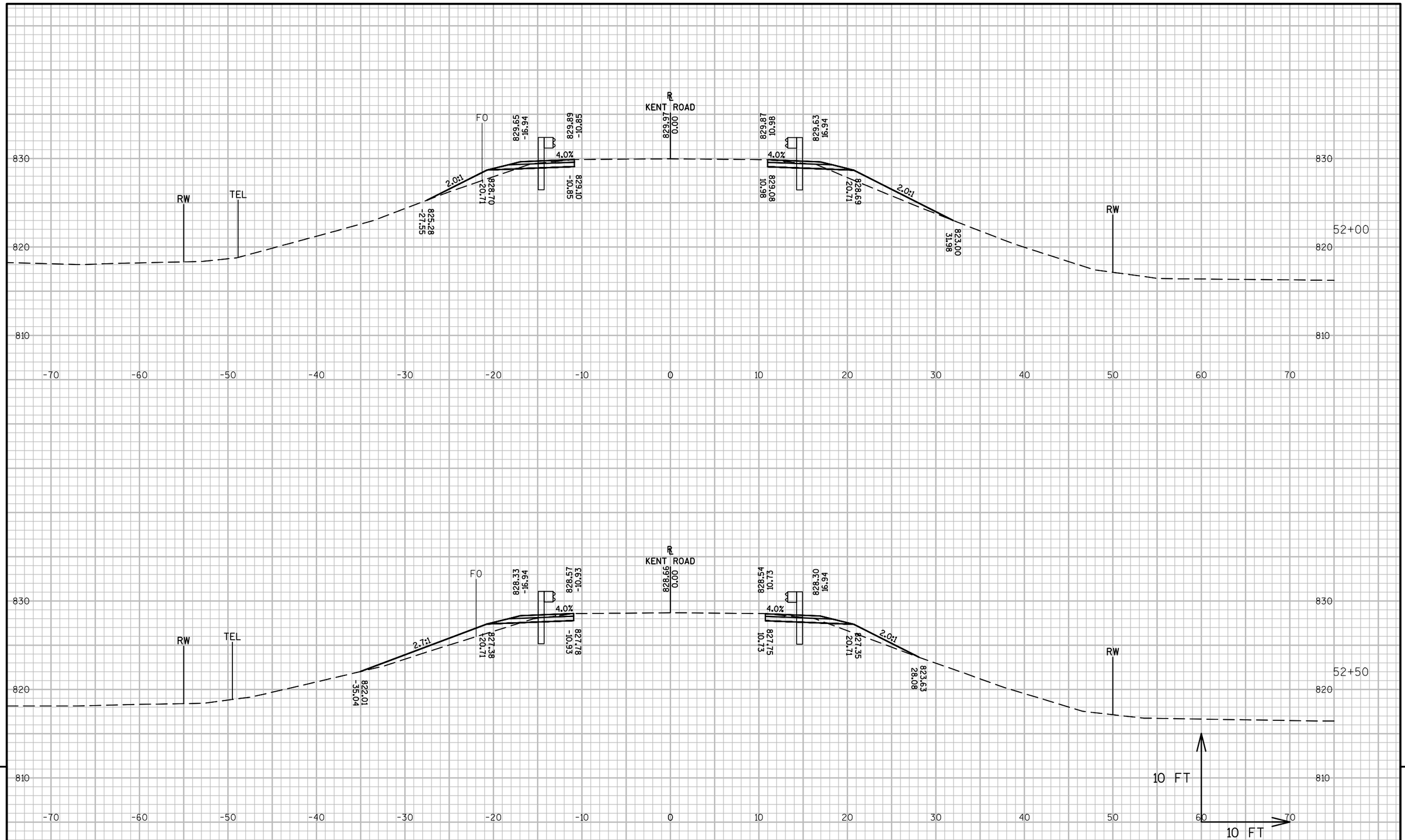
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PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: KENT ROAD	SHEET 690	E

FILE NAME : S:\PROJECTS\SW\COLUMBIA COUNTY\1010-02-02_IH 39\500_CADD\501_C3D\10100202\SHEETSPLAN\090206_KENT-XS.DWG
LAYOUT NAME - 090614-XS

PLOT DATE : 3/14/2016 1:25 PM PLOT BY : RAY POLKINGHORN, PE PLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49



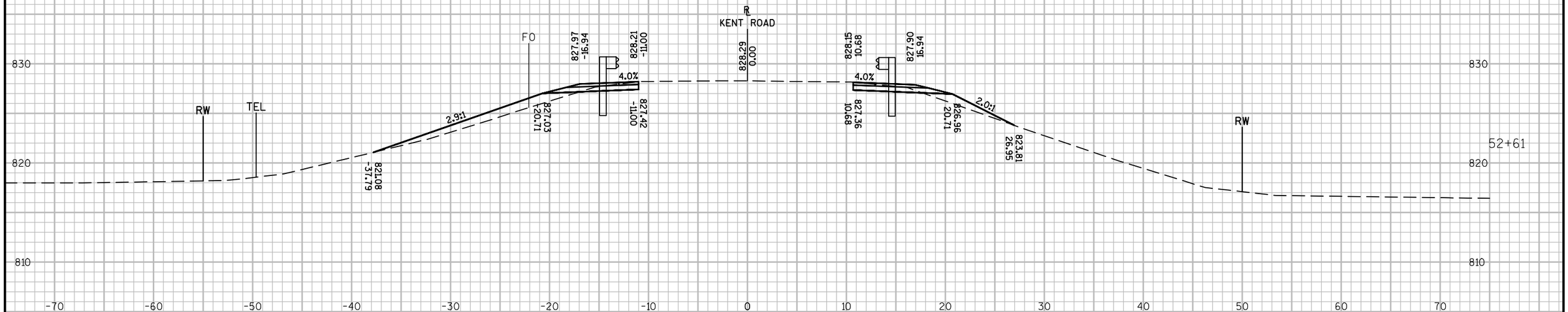
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FILE NAME : S:\PROJECTS\SW\COLUMBIA COUNTY\1010-02-02_IH 39\500_CADD\501_C3D\10100202\SHEETSPLAN\090206_KENT-XS.DWG
LAYOUT NAME - 090615-XS

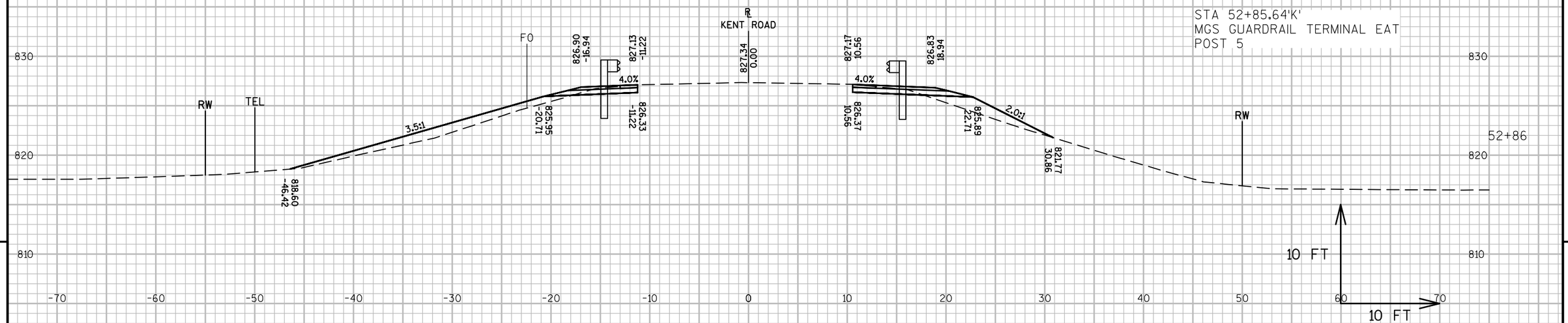
PLOT DATE : 3/14/2016 1:25 PM PLOT BY : RAY POLKINGHORN, PE PLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49

STA 52+60.64'K'
MGS GUARDRAIL TERMINAL EAT
POST 9



STA 52+85.64'K'
MGS GUARDRAIL TERMINAL EAT
POST 5



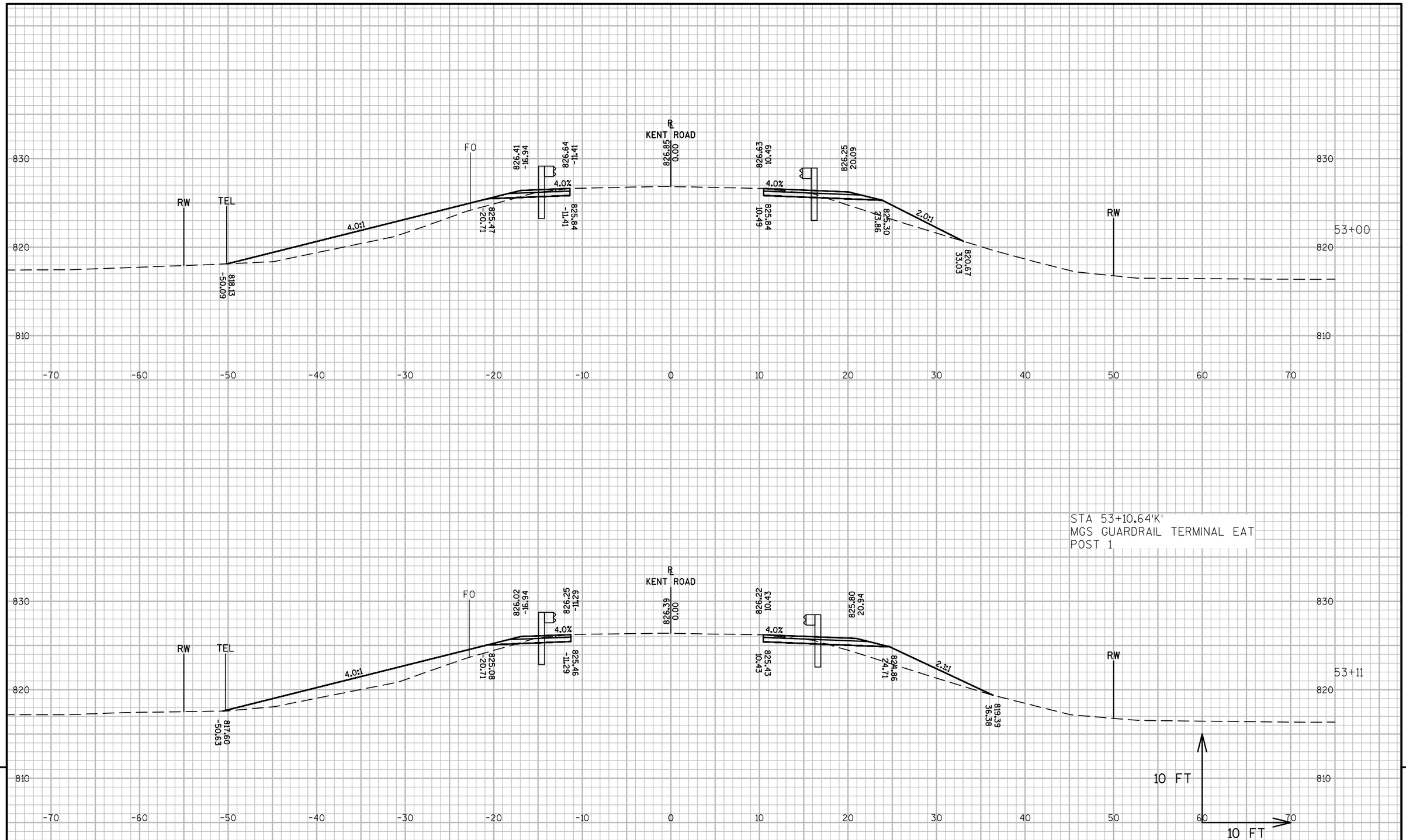
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PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: KENT ROAD	SHEET 692	E

FILE NAME : S:\PROJECTS\SW\COLUMBIA COUNTY\1010-02-02_IH 39\500_CADD\501_C3D\10100202\SHEETSPLAN\090206_KENT-XS.DWG
LAYOUT NAME - 090616-XS

PLOT DATE : 3/14/2016 1:25 PM PLOT BY : RAY POLKINGHORN, PE PLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49



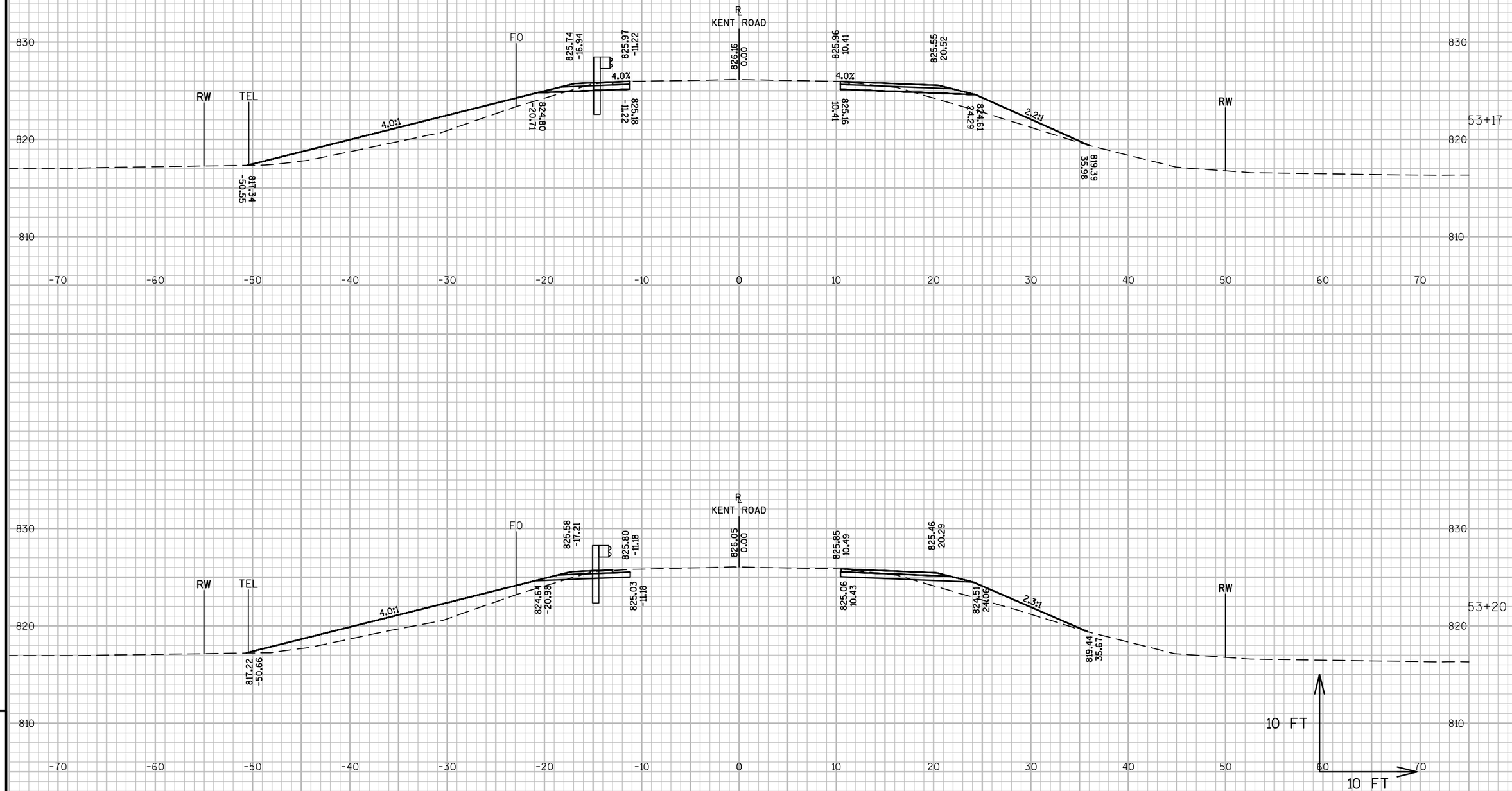
PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: KENT ROAD	SHEET 693	E

FILE NAME : S:\PROJECTS\SW\COLUMBIA COUNTY\1010-02-02_IH 39\500_CADD\501_C3D\10100202\SHEETSPLAN\090206_KENT-XS.DWG
LAYOUT NAME - 090617-XS

PLOT DATE : 3/14/2016 1:25 PM PLOT BY : RAY POLKINGHORN, PE PLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49

STA 53+17.00'K'
MGS GUARDRAIL TERMINAL EAT
POST 9



9

9

PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: KENT ROAD	SHEET 694	E

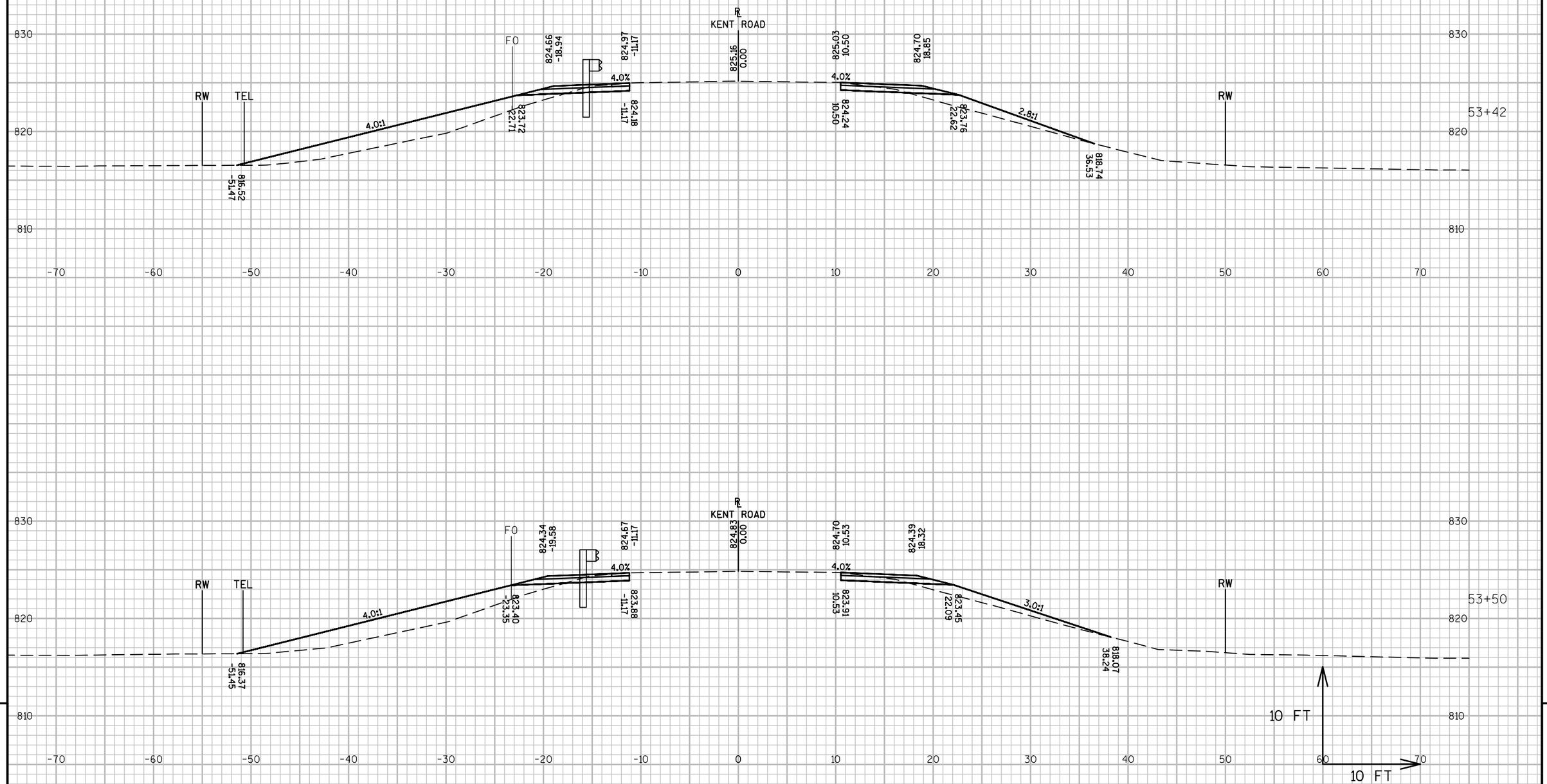
FILE NAME : S:\PROJECTS\SW\COLUMBIA COUNTY\1010-02-02_IH 39\500_CADD\501_C3D\10100202\SHEETSPLAN\090206_KENT-XS.DWG
LAYOUT NAME - 090618-XS

PLOT DATE : 3/14/2016 1:25 PM PLOT BY : RAY POLKINGHORN, PE PLOT NAME :

PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49

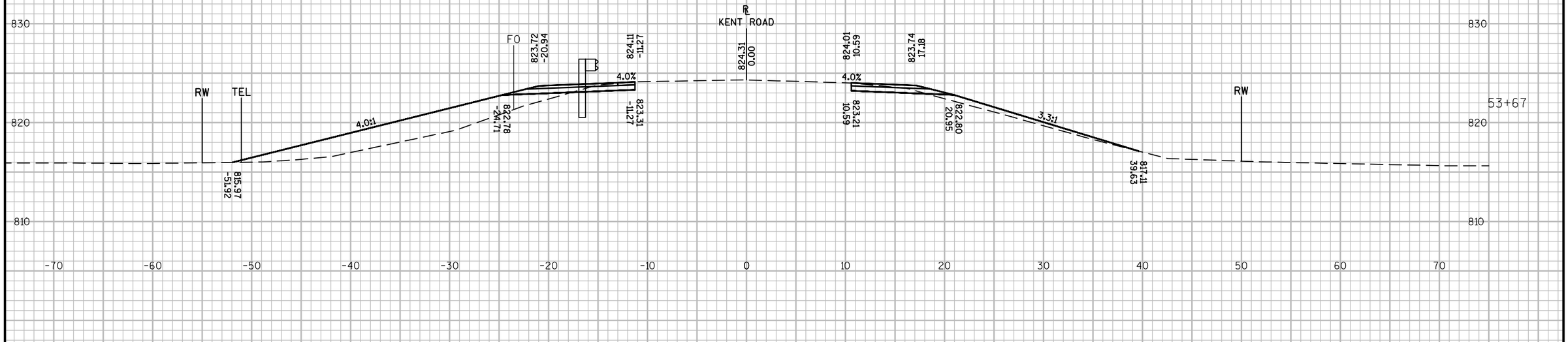
STA 53+42.00'K'
MGS GUARDRAIL TERMINAL EAT
POST 5

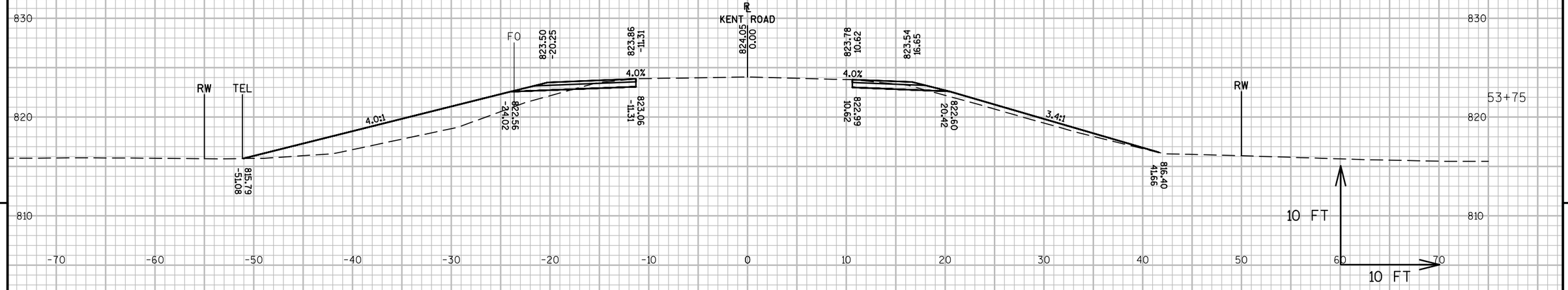


PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: KENT ROAD	SHEET 695	E

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LAYOUT NAME - 090619-XS
PLOT DATE : 3/14/2016 1:25 PM PLOT BY : RAY POLKINGHORN, PE PLOT NAME :
PLOT SCALE : 1 IN:10 FT

STA 53+67.00'K'
MGS GUARDRAIL TERMINAL EAT
POST 1

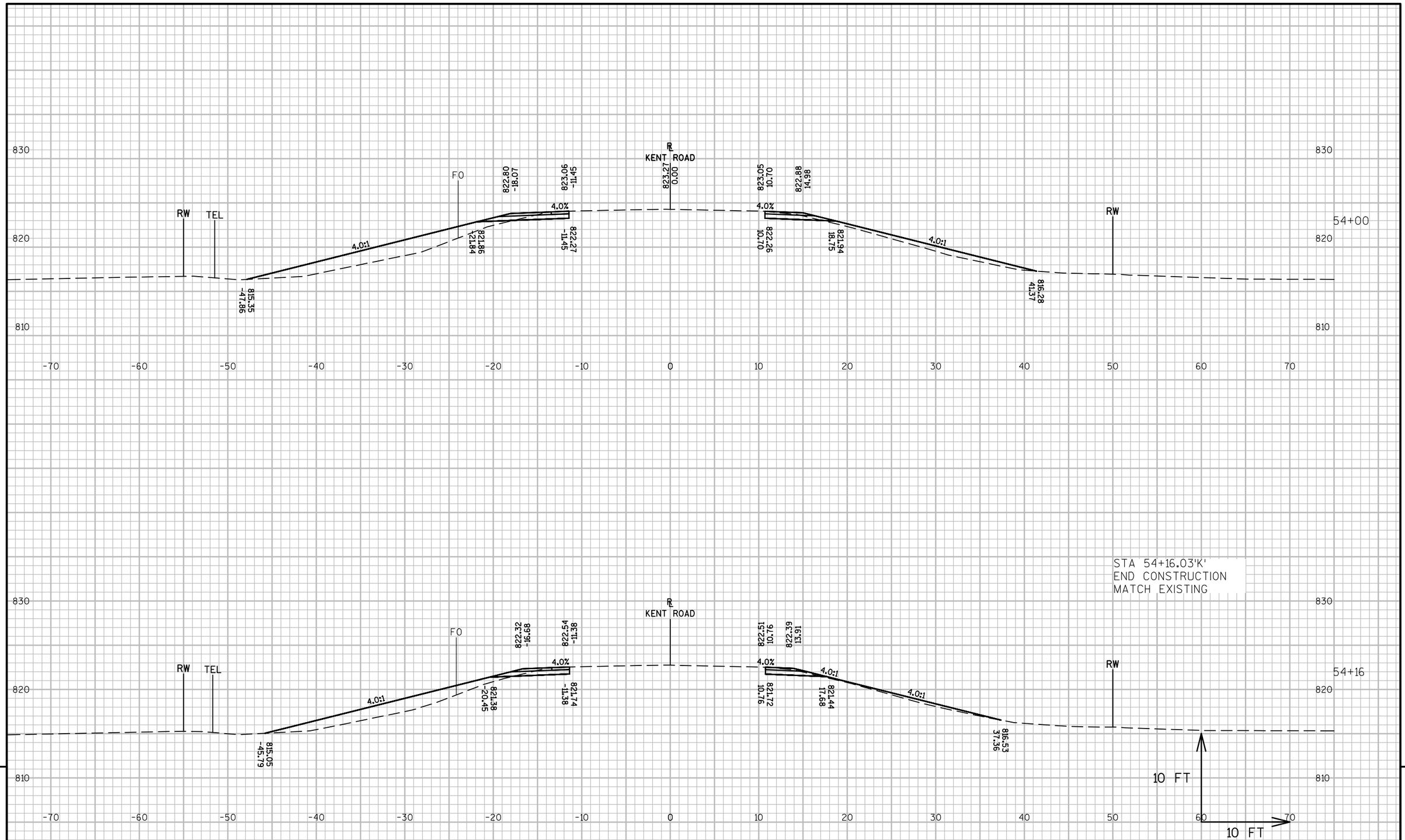




9 9

PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: KENT ROAD	SHEET 696	E

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LAYOUT NAME - 090620-XS
PLOT DATE : 3/14/2016 1:25 PM PLOT BY : RAY POLKINGHORN, PE PLOT NAME :
PLOT SCALE : 1 IN:10 FT



9 9

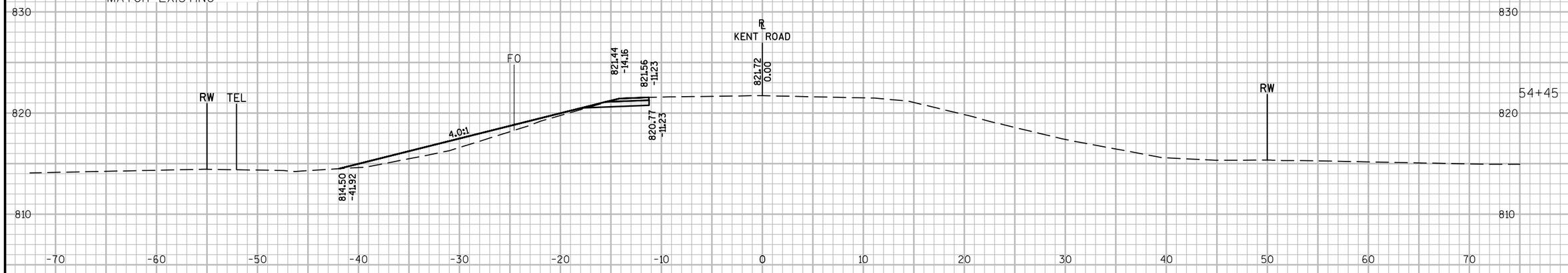
PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: KENT ROAD	SHEET 697	E

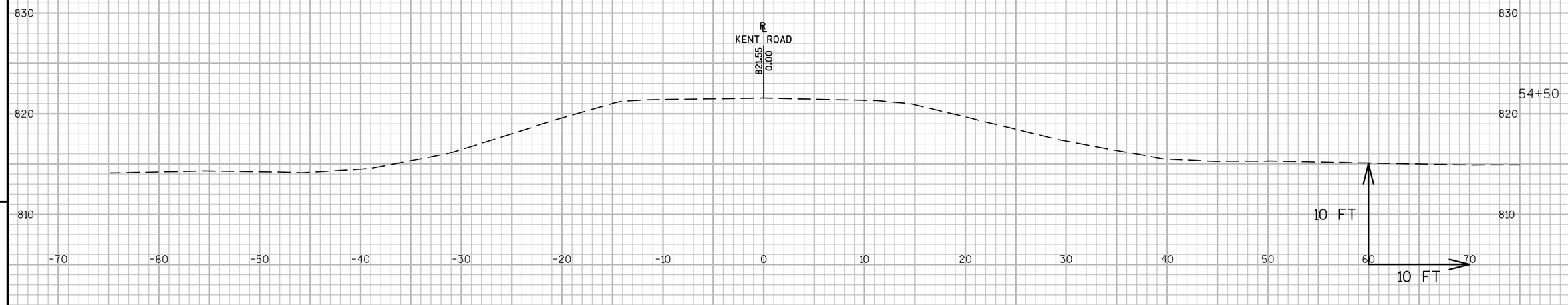
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LAYOUT NAME - 090621-XS

PLOT DATE : 3/14/2016 1:25 PM PLOT BY : RAY POLKINGHORN, PE PLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49

STA 54+45.02'K'
END CONSTRUCTION
MATCH EXISTING





9

9

PROJECT NO: 1010-02-84	HWY: IH 39	COUNTY: COLUMBIA	CROSS SECTIONS: KENT ROAD	SHEET 698	E

FILE NAME : S:\PROJECTS\SW\COLUMBIA COUNTY\1010-02-02_IH 39\500_CADD\501_C3D\10100202\SHEETSPLAN\090206_KENT-XS.DWG
LAYOUT NAME - 090622-XS

PLOT DATE : 3/14/2016 1:25 PM PLOT BY : RAY POLKINGHORN, PE PLOT NAME : PLOT SCALE : 1 IN:10 FT

Notes

Wisconsin Department of Transportation

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