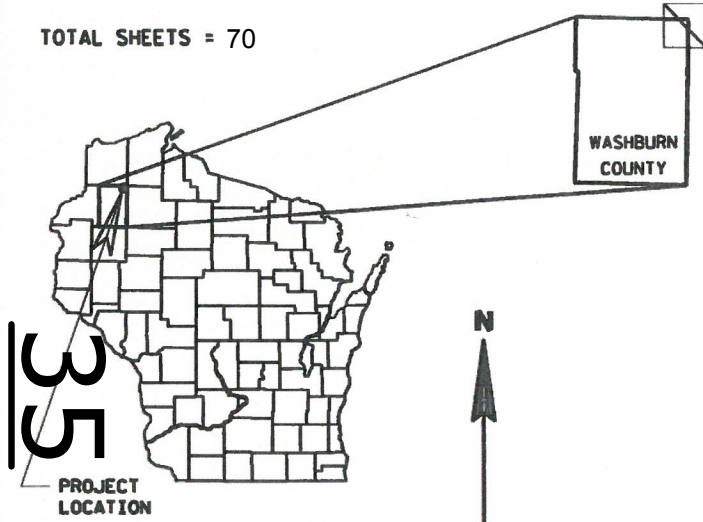


ORDER OF SHEETS

Section No. 1	Title
Section No. 2	Typical Sections and Details (Includes Erosion Control Plans)
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 = 70



DESIGN DESIGNATION

A.D.T. (2017)	=	<100
A.D.T. (2037)	=	<100
D.H.V.	=	10
D.	=	50/50
T.	=	5%
DESIGN SPEED	=	30 MPH
ESALS	=	N/A

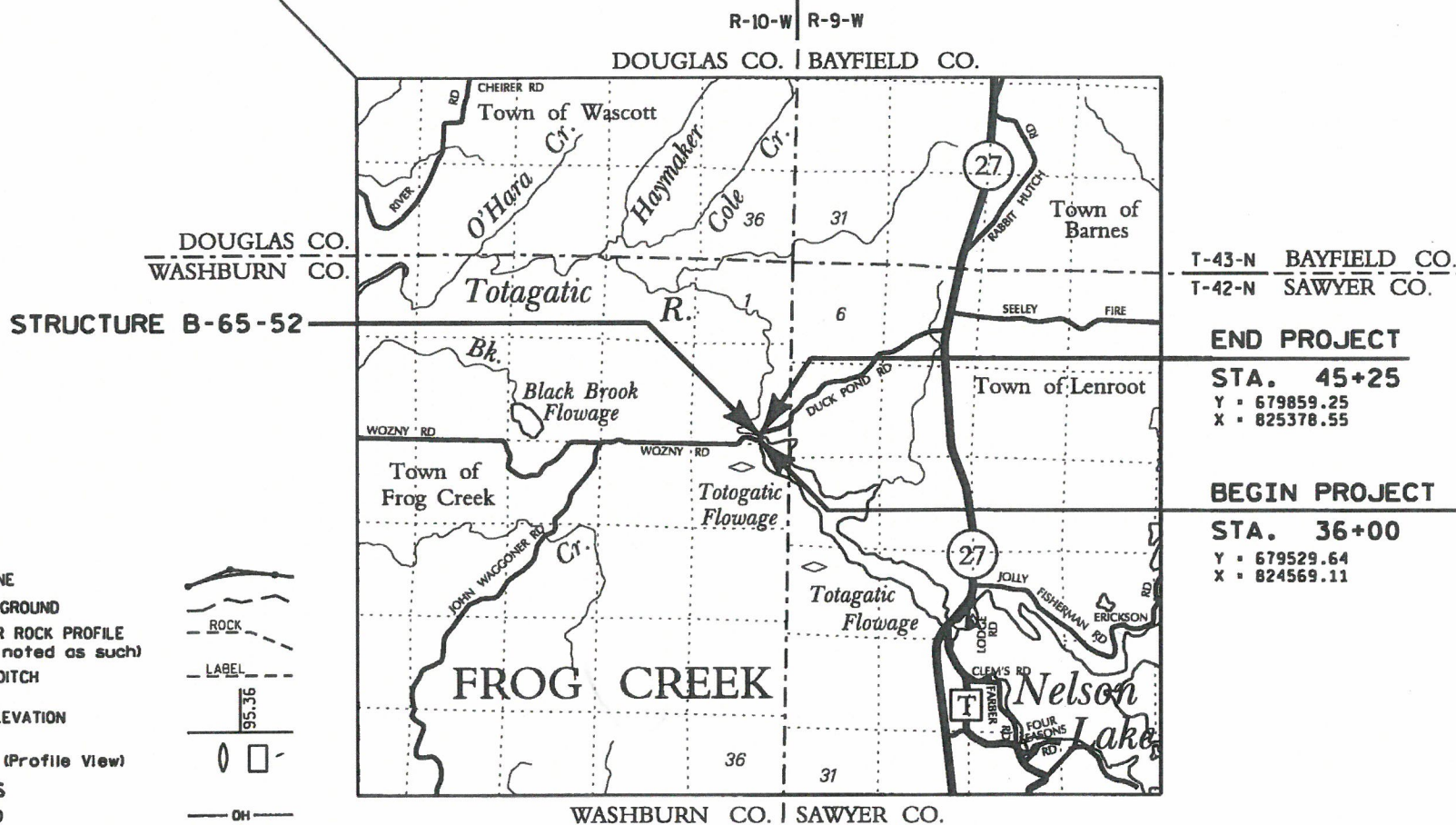
CONVENTIONAL SYMBOLS
PLAN

CORPORATE LIMITS	
PROPERTY LINE	
LOT LINE	
LIMITED HIGHWAY EASEMENT	
EXISTING RIGHT OF WAY	
PROPOSED OR NEW R/W LINE	
SLOPE INTERCEPT	
REFERENCE LINE	
EXISTING CULVERT	
PROPOSED CULVERT (Box or Pipe)	
COMBUSTIBLE FLUIDS	
HIGH VOLTAGE	
MARSH AREA	
WOODED OR SHRUB AREA	

PROFILE	
GRADE LINE	
ORIGINAL GROUND	
MARSH OR ROCK PROFILE (To be noted as such)	
SPECIAL DITCH	
GRADE ELEVATION	
CULVERT (Profile View)	
UTILITIES	
OVERHEAD	
ELECTRIC	
FIBER OPTIC	
GAS	
SANITARY SEWER	
STORM SEWER	
TELEPHONE	
WATER	
UTILITY PEDESTAL	
POWER POLE	
TELEPHONE POLE	

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
PLAN OF PROPOSED IMPROVEMENT
T FROG CREEK, WOZNY ROAD
TOTAGATIC RIVER BRIDGE B650052
LOC STR
WASHBURN COUNTY

STATE PROJECT NUMBER
8472-00-70



LAYOUT
SCALE 0 1 MI.

TOTAL NET LENGTH OF CENTERLINE = 0.175 MI.

COORDINATES ON THIS PLAN ARE REFERENCED TO
THE WISCONSIN COUNTY COORDINATE SYSTEM (WCCS),
WASHBURN COUNTY

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
8472-00-70		

ACCEPTED FOR
Town of Frog Creek
11-28-2016
Date
Town Chairman

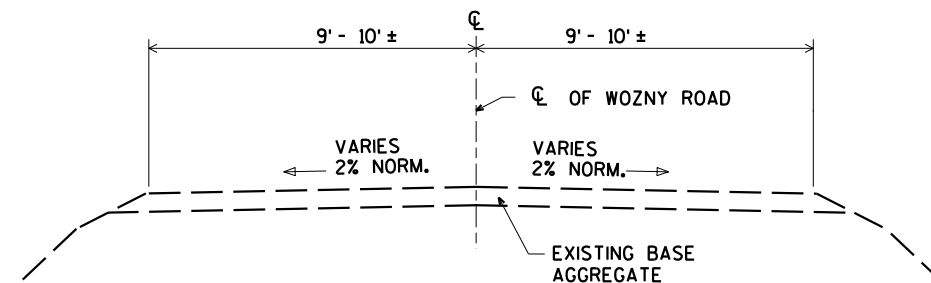
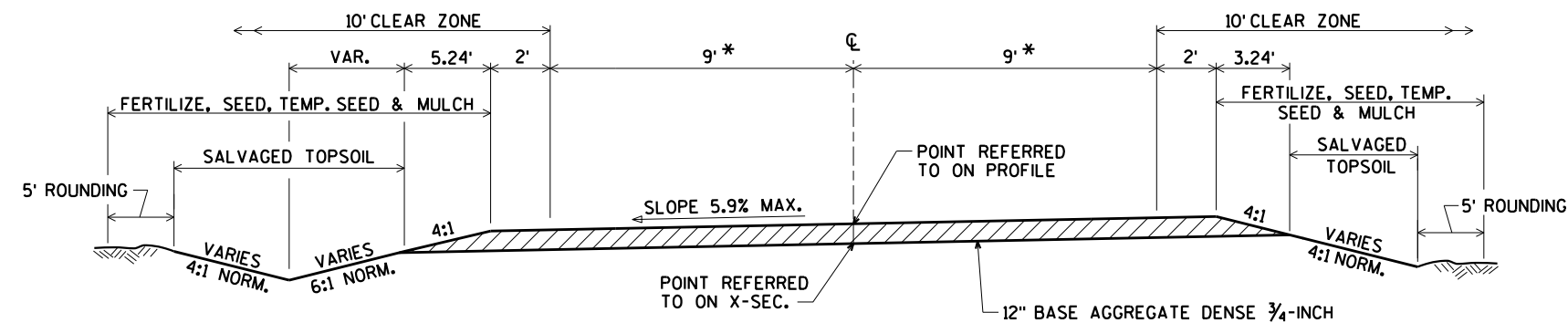
ACCEPTED FOR
County of Washburn
11/28/16
Date
County Highway Commissioner

ORIGINAL PLANS PREPARED BY
AYRES ASSOCIATES
3433 Oakwood Hills Parkway
Eau Claire, WI 54701
www.AyresAssociates.com

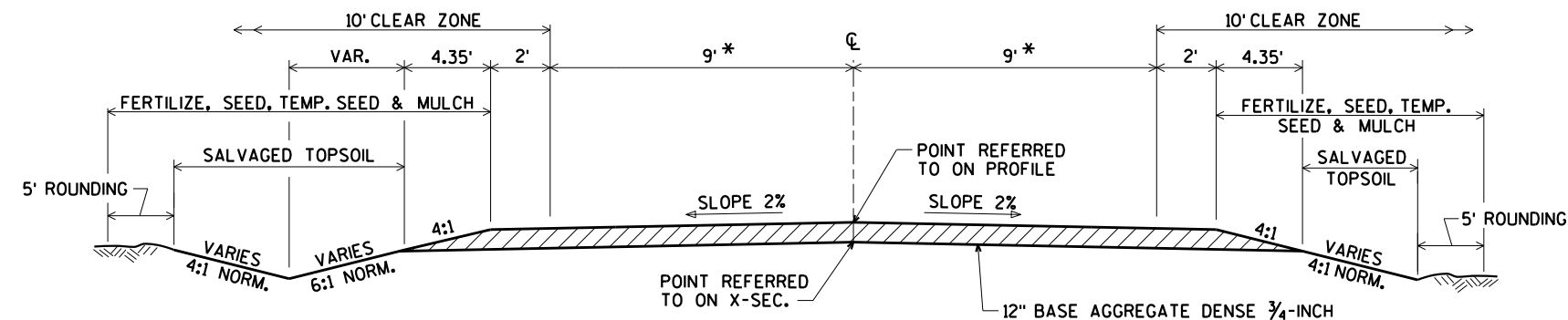
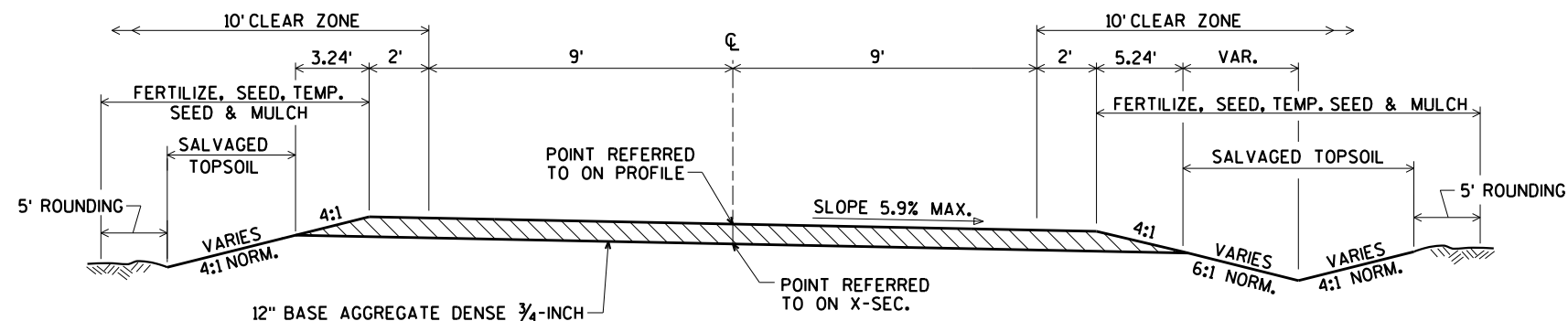
WISCONSIN
DANIEL N. SYDOW
E-38363
WI
PROFESSIONAL ENGINEER
DATE 11/22/2016

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
PREPARED BY
Surveyor AYRES ASSOCIATES INC
Designer AYRES ASSOCIATES INC
Management Consultant KNIGHT E/A INC.
C.O. Examiner

APPROVED FOR THE DEPARTMENT
DATE 11/30/16
Management Consultant Signature

**TYPICAL EXISTING SECTION****TYPICAL FINISHED SECTION**

STA. 36+00 TO STA. 39+45

**TYPICAL FINISHED SECTION**STA. 39+45 TO STA. 39+53.73
STA. 40+46.27 TO STA. 41.73* TAPER FROM 13.25 FEET WIDE AT THE ENDS
OF THE BRIDGE TO 9 FEET WIDE AT 50 FEET
THE ENDS OF THE BRIDGE.**TYPICAL FINISHED SECTION**

STA. 41+73 TO STA. 45+25

GENERAL NOTES

EROSION CONTROL ITEMS TO BE PLACED AS SHOWN ON THE PLAN OR AS DIRECTED BY THE ENGINEER.

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

THE LOCATIONS 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.

THE CONTRACTOR IS RESPONSIBLE FOR CONTRACTING AND FIELD LOCATING ALL UTILITIES.

DISTURBED AREAS WITHIN THE RIGHT-OF-WAY, EXCLUSIVE OF THE ROADBED, SHALL BE FERTILIZED, SEEDED, AND MULCHED AS DIRECTED BY THE ENGINEER.

SEED MIXTURE NO. 20 AND SEEDING TEMPORARY SHALL BE USED IN THE PROJECT AND SHALL BE PLACED AS SHOWN IN THE PLANS AND/OR AS DIRECTED BY THE ENGINEER.

ELEVATIONS SHOWN ON THIS PLAN ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM (NAVD88).

WETLANDS EXIST IN THE PROJECT AREA. NO DISTURBANCE ALLOWED OUTSIDE THE SLOPE INTERCEPTS.

UTILITIES

NO KNOWN UTILITIES IN THE PROJECT AREA

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

DESIGNER

AYRES ASSOCIATES
3433 OAKWOOD HILLS PARKWAY
EAU CLAIRE, WI 54701
ATTN: DANIEL N. SYDOW
715-834-3161
sydowd@AyresAssociates.com

TOWN OF FROG CREEK

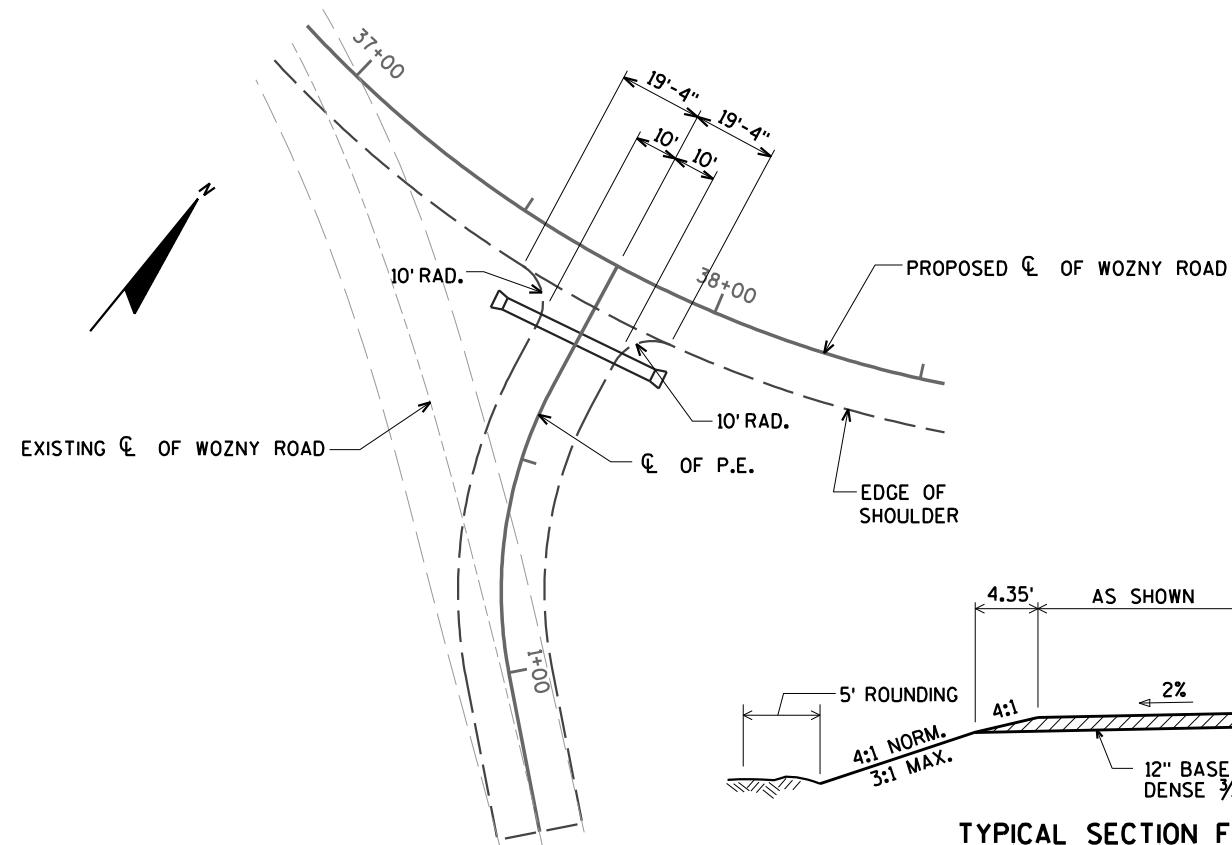
DOUG DENNINGER, CHAIRMAN
W4540 MCGREGOR ROAD
MINONG, WI 54859
715-466-2166

**WISCONSIN DEPARTMENT OF
NATURAL RESOURCES CONTACT:**

SHAWN HASELEU
810 WEST MAPLE STREET
SPOONER, WI. 54801
715-635-4229
shawn.haseleu@wisconsin.gov

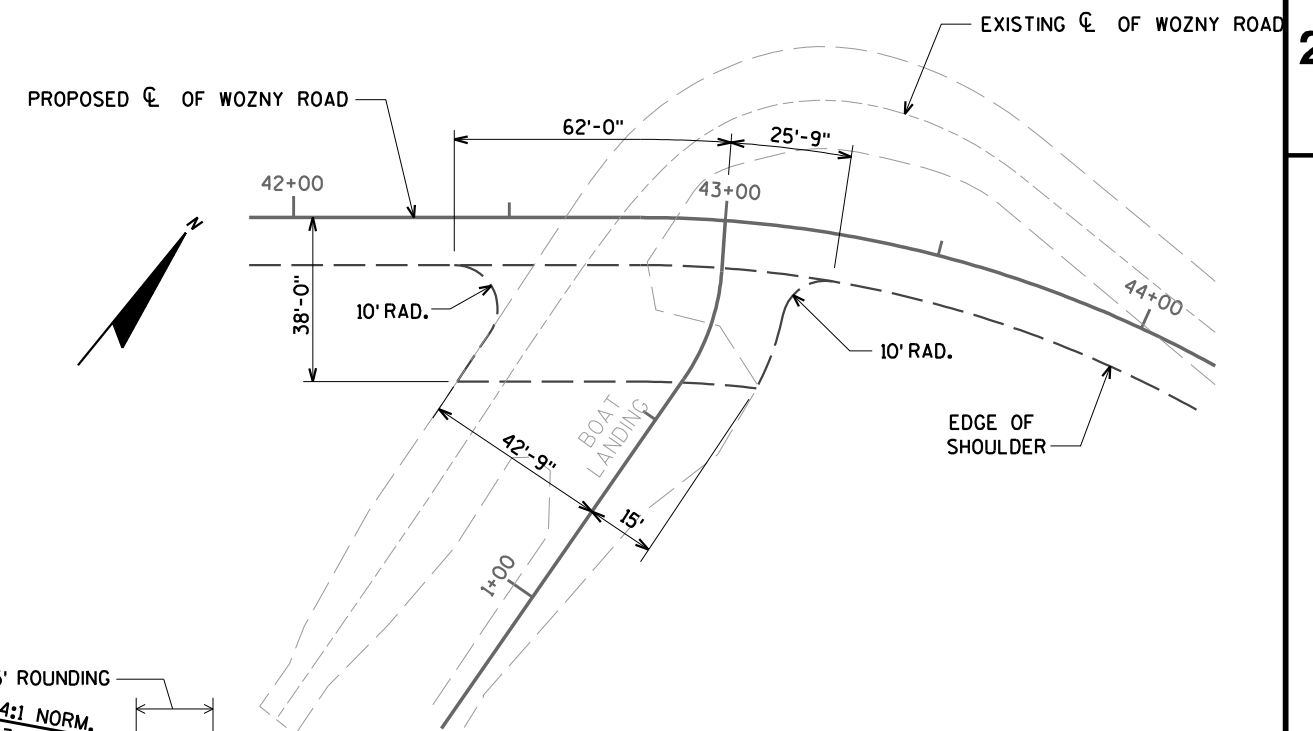
WASHBURN COUNTY

FRANK SCALZO, HIGHWAY COMMISSIONER
1600 COUNTY HIGHWAY H
SPOONER, WI. 54801
715-635-4480
fscalzo@co.washburn.wi.us

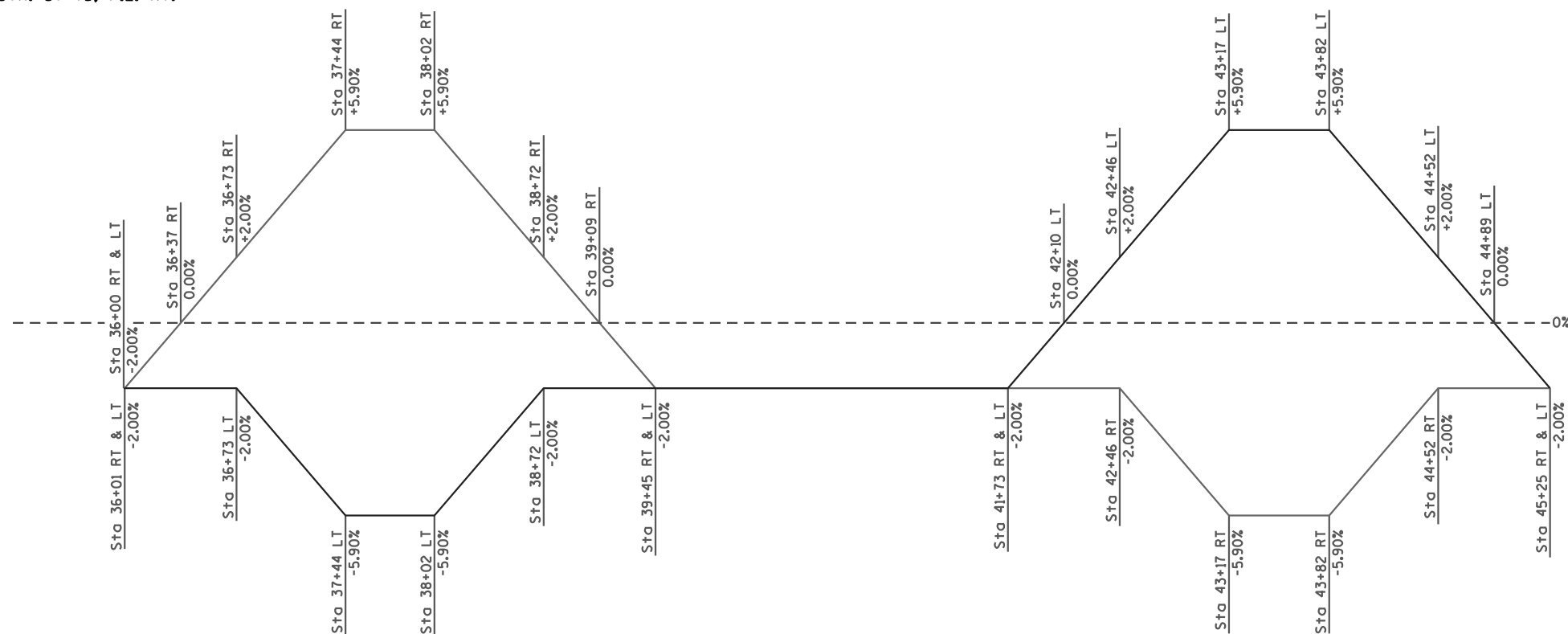


PRIVATE ENTRANCE PLAN
STA. 37+75, P.E. RT.

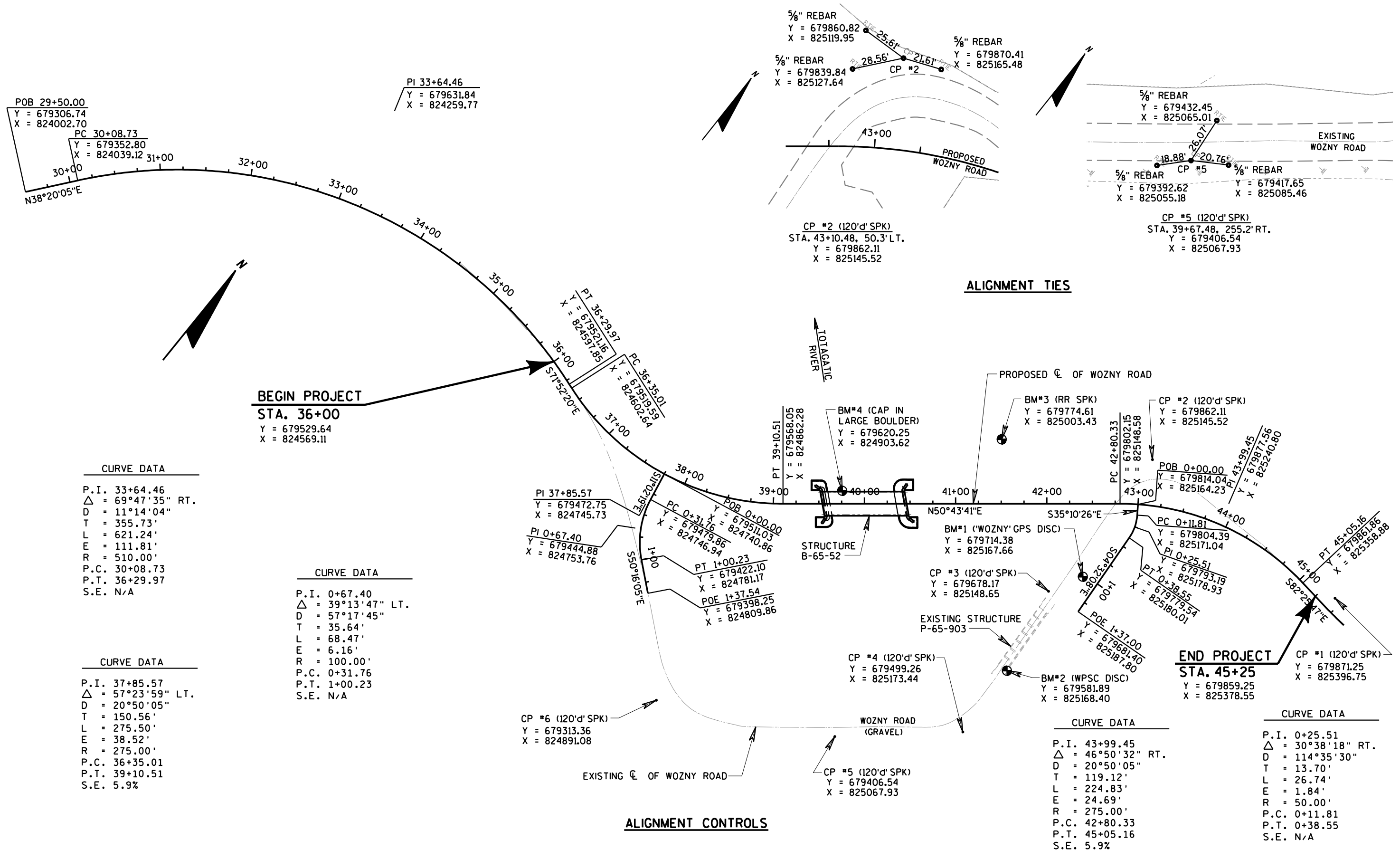
TYPICAL SECTION FOR PRIVATE ENTRANCE
(STA. 37+75, P.E. RT.)
(STA. 43+00, P.E. RT.)



PRIVATE ENTRANCE PLAN
STA. 43+00, P.E. RT.

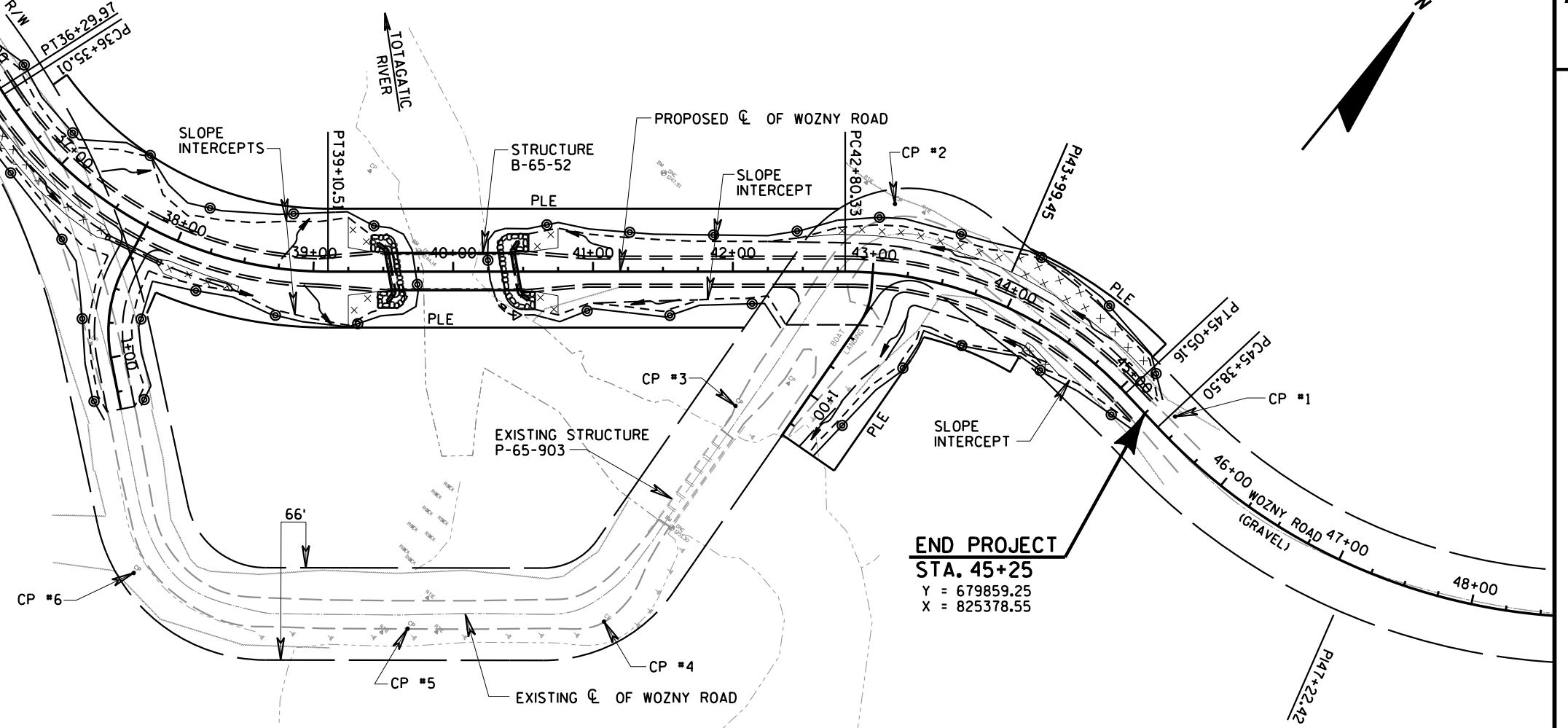


SUPERELEVATION DIAGRAM



BEGIN PROJECT

STA. 36+00

Y = 679529.64
X = 824569.11

END PROJECT

STA. 45+25

Y = 679859.25
X = 825378.55

	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											

HIGH WATER 2 EL. 1241.1

LEGEND

- × × × EROSION MAT CLASS II TYPE C
- □ □ TEMPORARY DITCH CHECKS (UNDISTRIBUTED)
- ⊙ ⊙ ⊙ SILT FENCE
- ⊠ ⊠ ⊠ RIPRAP HEAVY
- → → → → TURBIDITY BARRIER

TOTAL PROJECT AREA = 2.20 ACRES

TOTAL AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES = 1.35 ACRES

PROJECT NO: 8472-00-70

HWY: WOZNY ROAD

COUNTY: WASHBURN

EROSION CONTROL

SCALE, FEET 0 50 100

SHEET

E

Estimate Of Quantities

8472-00-70					
Line	Item	Item Description	Unit	Total	Qty
0010	201.0105	Clearing	STA	8.000	8.000
0020	201.0205	Grubbing	STA	8.000	8.000
0030	205.0100	Excavation Common **P**	CY	1,367.000	1,367.000
0040	206.1000	Excavation for Structures Bridges (structure) 01. B-65-52	LS	1.000	1.000
0050	208.0100	Borrow	CY	480.000	480.000
0060	210.1500	Backfill Structure Type A	TON	360.000	360.000
0070	213.0100	Finishing Roadway (project) 01. 8472-00-70	EACH	1.000	1.000
0080	305.0110	Base Aggregate Dense 3/4-Inch	TON	2,155.000	2,155.000
0090	502.0100	Concrete Masonry Bridges	CY	146.000	146.000
0100	502.3200	Protective Surface Treatment	SY	315.000	315.000
0110	503.0137	Prestressed Girder Type I 36W-Inch	LF	364.000	364.000
0120	505.0400	Bar Steel Reinforcement HS Structures	LB	4,200.000	4,200.000
0130	505.0600	Bar Steel Reinforcement HS Coated Structures	LB	17,180.000	17,180.000
0140	506.0105	Structural Steel Carbon	LB	530.000	530.000
0150	506.2605	Bearing Pads Elastomeric Non-Laminated	EACH	8.000	8.000
0160	506.4000	Steel Diaphragms (structure) 01. B-65-52	EACH	6.000	6.000
0170	513.4061	Railing Tubular Type M (structure) 01. B-65-52	LF	189.000	189.000
0180	516.0500	Rubberized Membrane Waterproofing	SY	20.000	20.000
0190	520.1018	Apron Endwalls for Culvert Pipe 18-Inch	EACH	2.000	2.000
0200	520.3318	Culvert Pipe Class III-A 18-Inch	LF	38.000	38.000
0210	550.0020	Pre-Boring Rock or Consolidated Materials	LF	140.000	140.000
0220	550.0500	Pile Points	EACH	14.000	14.000
0230	550.1100	Piling Steel HP 10-Inch X 42 Lb	LF	525.000	525.000
0240	606.0300	Riprap Heavy	CY	110.000	110.000
0250	612.0406	Pipe Underdrain Wrapped 6-Inch	LF	160.000	160.000
0260	619.1000	Mobilization	EACH	1.000	1.000
0270	624.0100	Water	MGAL	33.000	33.000
0280	625.0500	Salvaged Topsoil **P**	SY	3,545.000	3,545.000
0290	627.0200	Mulching **P**	SY	4,625.000	4,625.000
0300	628.1504	Silt Fence	LF	2,585.000	2,585.000
0310	628.1520	Silt Fence Maintenance	LF	5,165.000	5,165.000
0320	628.1905	Mobilizations Erosion Control	EACH	4.000	4.000
0330	628.1910	Mobilizations Emergency Erosion Control	EACH	2.000	2.000
0340	628.2027	Erosion Mat Class II Type C	SY	935.000	935.000
0350	628.6005	Turbidity Barriers	SY	30.000	30.000
0360	628.7504	Temporary Ditch Checks	LF	50.000	50.000
0370	629.0210	Fertilizer Type B **P**	CWT	3.500	3.500
0380	630.0120	Seeding Mixture No. 20 **P**	LB	150.000	150.000
0390	630.0200	Seeding Temporary **P**	LB	125.000	125.000

Estimate Of Quantities

8472-00-70

Line	Item	Item Description	Unit	Total	Qty
0400	633.5200	Markers Culvert End	EACH	2.000	2.000
0410	634.0612	Posts Wood 4x6-Inch X 12-FT	EACH	8.000	8.000
0420	637.2230	Signs Type II Reflective F	SF	48.750	48.750
0430	638.2602	Removing Signs Type II	EACH	3.000	3.000
0440	638.3000	Removing Small Sign Supports	EACH	3.000	3.000
0450	642.5001	Field Office Type B	EACH	1.000	1.000
0460	643.0100	Traffic Control (project) 01. 8472-00-70	EACH	1.000	1.000
0470	645.0120	Geotextile Type HR	SY	290.000	290.000
0480	650.4500	Construction Staking Subgrade	LF	833.000	833.000
0490	650.6000	Construction Staking Pipe Culverts	EACH	1.000	1.000
0500	650.6500	Construction Staking Structure Layout (structure) 01. B-65-52	LS	1.000	1.000
0510	650.9910	Construction Staking Supplemental Control (project) 01. 8472-00-70	LS	1.000	1.000
0520	650.9920	Construction Staking Slope Stakes	LF	833.000	833.000
0530	715.0502	Incentive Strength Concrete Structures	DOL	876.000	876.000

CLEARING AND GRUBBING

STATION	TO	STATION	LOCATION	201.0105	201.0205
				CLEARING STA	GRUBBING STA
37+00	-	40+00	LT & RT	3	3
40+25	-	45+25	LT & RT	5	5
TOTALS				8	8

FINISHING ROADWAY

LOCATION	213.0100.01
EACH	
ID 8472-00-70	1
TOTAL	1

WOZNY ROAD EARTHWORK SUMMARY

From/To Station	Location	Common Excavation**	Unexpanded Fill	Expanded Fill	Mass Ordinate +/- (3)	Waste	Borrow	Comment:
		(1) (item # 205.0100) Cut		(2) Factor 1.30				
36+00 - 45+25	Wozny Road	1367	1,421	1,847	-480		480	

- 1) Common Excavation is the Cut. Item number 205.0100.
- 2) Expanded Fill. Factor = 1.30; Expanded Fill = Unexpanded Fill * Fill Factor
- 3) The Mass Ordinate + or - Qty calculated for the Division. Plus quantity indicates an excess of material on the project.
- 4) All quantities shown in CY.
- **PAY PLAN QUANTITY

BASE QUANTITIES

STA	TO	STA	305.0110
			BASE AGGREGATE DENSE 3/4-INCH TON
36+00	-	39+53.73	995
40+46.27	-	45+25	1,160
TOTALS			2,155

CULVERT PIPE

STATION	LOCATION	520.1018	520.3318	633.5200	THICKNESS STEEL INCHES	THICKNESS ALUMINUM INCHES
		APRON ENDWALLS FOR CULVERT PIPE 18-INCH EACH	CULVERT PIPE CLASS-A 18-INCH LF	MARKERS CULVERT END EACH		
37+75	RT	2	38	2	0.064	0.060
TOTALS		2	38	2		

MOBILIZATION

619.1000	
CATEGORY	EACH
0010	0.3
0020	0.7
TOTAL	
1	

WATER

624.0100				
WATER				
MGAL				
STA	TO	STA	PURPOSE	
7+25	-	12+75	COMPACTION	31
7+25	-	12+75	DUST CONTROL	2
TOTAL				33

EROSION CONTROL ITEMS

				625.0500	627.0200	628.1504	628.1520	628.2027	629.0210	630.0120	630.0200
				SALVAGED**	MULCHING**	SILT FENCE	SILT FENCE	EROSION	FERTILIZER**	SEEDING**	SEEDING**
				TOPSOIL			MAINTENANCE	MAT	TYPE B	MIXTURE	TEMPORARY
								CLASS II TYPE C		NO. 20	
STA	TO	STA	LOCATION	SY	SY	LF	LF	SY	CWT	LB	LB
36+00		39+53.75	RT	650	835	600	1,200	280			
36+00		39+53.75	LT	495	740	385	770	35			
40+46.27		45+25	RT	770	1,195	490	980	55	2.8	120	100
40+46.27		45+25	LT	920	930	590	1,180	375			
UNDISTRIBUTED				710	925	520	1,035	190	0.7	30	25
TOTALS				3,545	4,625	2,585	5,165	935	3.5	150	125
** PAY PLAN QUANTITY											

EROSION CONTROL MOBILIZATION ITEMS

		628.1905	628.1910
		MOBILIZATIONS	MOBILIZATIONS
		EROSION	EMERGENCY
		CONTROL	EROSION
			CONTROL
LOCATION	EACH	EACH	
ID 8472-00-70	4	2	
TOTALS		4	2

TURBIDITY BARRIERS

628.6005	
LOCATION	SY
EAST ABUTMENT	25
UNDISTRIBUTED	5
TOTAL	
30	

TEMPORARY DITCH CHECKS

628.7504	
LOCATION	LF
UNDISTRIBUTED	50

SIGNS				
		634.0612	637.2230	
		POSTS WOOD	SIGNS TYPE II	
		4X6-INCH X 12-FT	REFLECTIVE F	
STATION	LOCATION	EACH	SF	SIGNAGE TYPE
36+00	RT	1	8.5	W1-1L, W13-1 (25 MPH)
36+00	LT	1	8.5	W1-1L, W13-1 (25 MPH)
39+50	LT	1	3	W5-52L
39+55	RT	1	3	W5-52R
40+45	LT	1	3	W5-52R
40+50	RT	1	3	W5-52L
42+25	RT	1	8.5	W1-5L, W13-1 (25 MPH)
45+00	LT	1	11.25	W1-3L, W13-1 (25 MPH)
TOTALS		8	48.75	

FIELD OFFICE TYPE B	
642.5001	
CATEGORY	EACH
0010	0.3
0020	0.7
TOTAL	1

REMOVING SIGNS & SUPPORTS				
		638.2602	638.3000	
		REMOVING	REMOVING	
		SIGNS	SMALL SIGN	
		TYPE II	SUPPORTS	
STATION	LOCATION	EACH	EACH	NOTES
43+75	LT	1	1	ONE LANE BRIDGE AHEAD (W5-3)
43+75	RT	1	1	ROAD SHARP CURVES (W1-5R)
44+00	LT	1	1	ROAD CURVES AHEAD (W1-3L)
TOTALS		3	3	

TRAFFIC CONTROL	
643.0100.01	
LOCATION	EACH
ID 8472-00-70	1
TOTAL	1

STAKING ITEMS						
		650.4500	650.6000	650.6500.01	650.9910	650.9920
		CONSTRUCTION	CONSTRUCTION	CONSTRUCTION	CONSTRUCTION STAKING	CONSTRUCTION
		STAKING	STAKING	STAKING	SUPPLEMENTAL CONTROL	STAKING
		SUBGRADE	PIPE CULVERTS	STRUCTURE LAYOUT	(8472-00-70)	SLOPE
				(B-65-52)		STAKES
CATEGORY	LOCATION	LF	EACH	LS	LS	LF
0010	36+00 - 45+25	833	1	--	1	833
0020	B-65-52	--	--	1	--	--
TOTALS		833	1	1	1	833

SCHEDULE OF LANDS AND INTERESTS REQUIRED

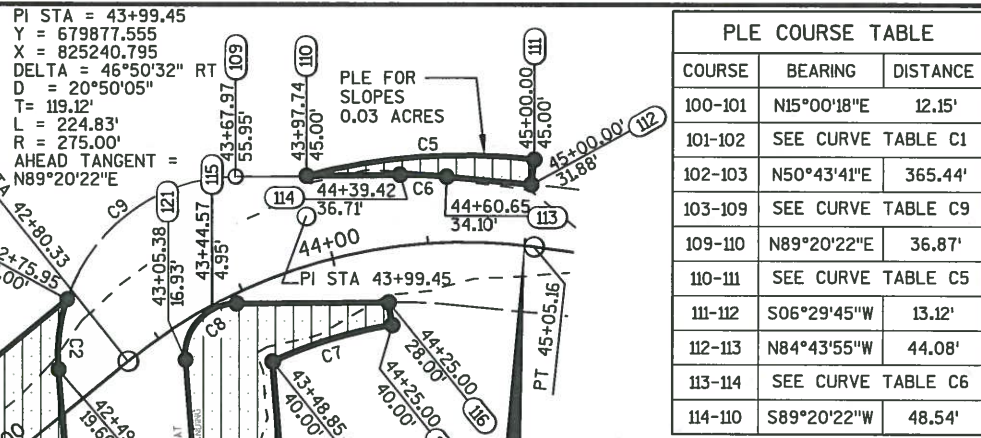
PARCEL NO.	OWNERSHIP	INTEREST REQUIRED	PLE ACRES
1	WISCONSIN DEPARTMENT OF NATURAL RESOURCES	PLE	1.23

OWNER'S NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY AND ARE SUBJECT TO CHANGE PRIOR TO THE TRANSFER OF LAND INTERESTS TO THE TOWN OF FROG CREEK.

PLE COURSE TABLE		
COURSE	BEARING	DISTANCE
100-101	N15°00'18"E	12.15'
101-102	SEE CURVE TABLE C1	
102-103	N50°43'41"E	365.44'
103-115	S88°41'37"E	88.07'
115-116	N89°20'22"E	78.71'
116-117	S09°07'49"E	12.00'
117-118	SEE CURVE TABLE C7	
118-119	S04°32'08"E	115.66'
119-120	S85°27'52"W	45.00'
120-121	N04°32'08"W	120.06'
121-115	SEE CURVE TABLE C8	

PLE COURSE TABLE		
COURSE	BEARING	DISTANCE
100-101	N15°00'18"E	12.15'
101-102	SEE CURVE TABLE C1	
102-103	N50°43'41"E	365.44'
103-104	SEE CURVE TABLE C2	
104-106	S04°32'08"E	78.61'
106-107	S50°43'41"W	294.26'
107-108	SEE CURVE TABLE C3	
108-100	SEE CURVE TABLE C4	

POINT TABLE					
POINT	Y	X	POINT	Y	X
100	679803.073	825178.147	112	679907.203	825358.853
101	679683.392	825187.641	113	679898.627	825240.855
102	679686.950	825232.500	114	679471.405	824769.358
103	679802.248	825223.353	115	679533.216	824890.765
104	679821.280	825285.361	116	679719.486	825118.570
106	679833.114	825283.460	117	679797.854	825112.353
107	679832.206	825204.751	118	679834.214	825116.701
108	679899.186	825289.393	119	679602.889	824833.795
109	679898.202	825203.990	120	679558.786	824628.656
110	679898.218	825313.472	121	679547.052	824625.511
111	679894.170	825357.369			



PLE COURSE TABLE		
COURSE	BEARING	DISTANCE
100-101	N15°00'18"E	12.15'
101-102	SEE CURVE TABLE C1	
102-103	N50°43'41"E	365.44'
103-109	SEE CURVE TABLE C9	
109-110	N89°20'22"E	36.87'
110-111	SEE CURVE TABLE C5	
111-112	S06°29'45"W	13.12'
112-113	N84°43'55"W	44.08'
113-114	SEE CURVE TABLE C6	
114-110	S89°20'22"W	48.54'

END RELOCATION ORDER
PROJECT 8472-00-00
STA 45+00.00
Y = 679,862.492
X = 825,353.762
LOCATED 734.25' NORTH AND 1237.16' EAST
OF THE SOUTH QUARTER CORNER OF SECTION 12
T 42 N, R 10 W.

SAWYER COUNTY
RECORD VALUE
Y=479,645.245
X=600,783.866

CURVE TABLE					
CURVE	COURSE	LENGTH	RADIUS	LONG CHORD	LONG CHORD BEARING
C1	101-102	217.88'	230.00'	209.83'	N77°52'00"E
C2	103-104	36.86'	93.00'	36.62'	S06°49'08"W
C3	107-108	137.29'	320.00'	136.24'	S63°01'07"W
C4	108-100	163.06'	583.00'	162.52'	N62°15'39"W
C5	110-111	118.99'	320.00'	118.31'	N85°50'34"E
C6	113-114	24.11'	233.00'	24.10'	N87°41'46"W
C7	117-118	65.07'	235.00'	64.86'	S72°56'14"W
C8	121-115	44.24'	27.00'	39.45'	N42°24'07"E
C9	103-109	115.51'	93.00'	108.23'	N53°45'23"E

BEGIN RELOCATION
ORDER PROJECT 8472-00-00
STA. 36+50.00
Y = 679,515.320
X = 824,617.006
LOCATED 388.28' NORTH AND 500.40'
EAST OF THE SOUTH QUARTER CORNER
OF SECTION 12, T 42 N, R 10 W.

PI STA = 37+85.57
Y = 679472.749
X = 824745.726
DELTA = 57°23'59" LT
D = 20°50'05"
L = 150.56'
T = 275.50'
R = 275.00'



AXLE SHAFT
Y=679,127.038
X=824,116.607

- CONVENTIONAL SYMBOLS**
- FOUND IRON PIPE/PIN (1" UNLESS NOTED)
 - R/W MONUMENT
 - R/W STANDARD SIGN
 - SECTION CORNER MONUMENT
 - SECTION CORNER SYMBOL
 - FEE (HATCH VARIES)
 - SECTION LINE
 - QUARTER LINE
 - SIXTEENTH LINE
 - NEW REFERENCE LINE
 - NEW R/W LINE
 - EXISTING R/W LINE
 - PROPERTY LINE
 - LOT & TIE
 - CORPORATE LIMITS
 - TEMPORARY LIMITED EASEMENT
 - FENCE
 - SLOPE INTERCEPTS
 - PERMANENT LIMITED EASEMENT
 - NO ACCESS (BY STATUTORY AUTHORITY)
 - NO ACCESS (BY PREVIOUS ACQUISITION/CONTROL)
 - NO ACCESS (BY ACQUISITION)
- TEMPORARY LIMITED EASEMENT**
- PERMANENT LIMITED EASEMENT
 - R/W BOUNDARY POINT
 - PARCEL NUMBER
 - UTILITY PARCEL NUMBER
 - SIGN NUMBER (OFF PREMISE)
 - BUILDING
- CONVENTIONAL UTILITY SYMBOLS**
- WATER
 - GAS
 - TELEPHONE
 - OVERHEAD
 - TRANSMISSION LINES
 - ELECTRIC
 - CABLE TELEVISION
 - FIBER OPTIC
 - SANITARY SEWER
 - STORM SEWER
 - POWER POLE
 - TELEPHONE POLE
 - TELEPHONE PEDESTAL
 - ELECTRIC TOWER
- CONVENTIONAL ABBREVIATIONS**
- AP DRIVEWAY CONNECTION
 - ACCESS RIGHTS
 - ACRES
 - AND OTHERS
 - CENTERLINE
 - CERTIFIED SURVEY MAP
 - CORNER
 - DOCUMENT
 - EASEMENT
 - FIELD ENTRANCE
 - LAND CONTRACT
 - MONUMENT
 - PAGE
 - PERMANENT LIMITED EASEMENT
 - PROPERTY LINE
 - RECORDED AS
 - BUILDING
 - REFERENCE LINE
 - RELEASE OF RIGHTS
 - REMAINING
 - RIGHT-OF-WAY
 - SECTION
 - STATION
 - TEMPORARY LIMITED EASEMENT
 - VOLUME
 - CURVE DATA
 - LONG CHORD
 - LONG CHORD BEARING
 - RADIUS
 - DEGREE OF CURVE
 - CENTRAL ANGLE OR DELTA
 - LENGTH OF CURVE
 - TANGENT
 - BLDG
 - R/L
 - ROR
 - REM.
 - R/W
 - SEC.
 - STA.
 - TLE
 - V.
 - LCH
 - LCB
 - R
 - D
 - DELTA
 - L
 - TAN

NOTES:

POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COUNTY COORDINATES, WASHBURN COUNTY, NAD83 (2011), IN U.S. SURVEY FEET. VALUES ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

ALL NEW RIGHT-OF-WAY MONUMENTS WILL BE TYPE 2 (TYPICALLY 3/4" X 24" REBARS), UNLESS OTHERWISE NOTED, AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT.

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

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

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

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

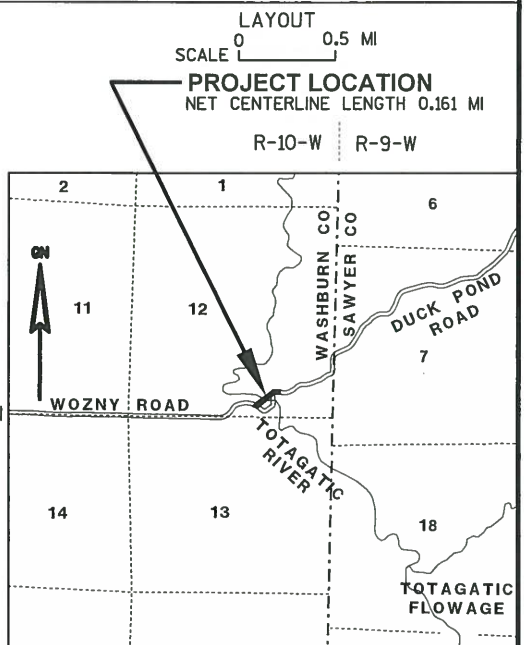
PROPERTY LINES SHOWN ON THIS PLAT ARE DRAWN FROM DATA DERIVED FROM MAPS AND DOCUMENTS OF PUBLIC RECORD AND/OR EXISTING OCCUPATIONAL LINES. THIS PLAT MAY NOT BE A TRUE REPRESENTATION OF EXISTING PROPERTY LINES, EXCLUDING RIGHT-OF-WAY, AND SHOULD NOT BE USED AS A SUBSTITUTE FOR AN ACCURATE FIELD SURVEY.

EXISTING HIGHWAY RIGHT-OF-WAY SHOWN HEREIN IS BASED ON THE FOLLOWING POINT OF REFERENCE:

EXISTING HIGHWAY RIGHT-OF-WAY FOR WOZNY ROAD SHOWN HEREIN IS BASED ON A PRESUMED 66' WIDTH CENTERED ON THE CENTERLINE OF THE TRAVELED WAY PER STATE STATUTE 82.31 (2)

R/W PROJECT NUMBER	8472-00-00	SHEET NUMBER	4.01	TOTAL SHEETS	1
FEDERAL PROJECT NUMBER					

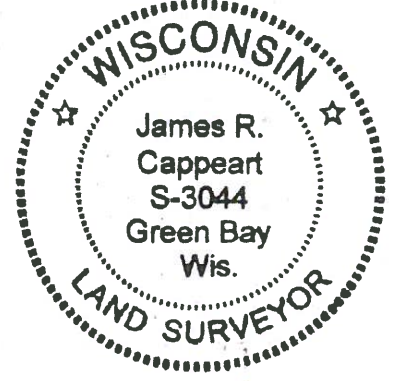
PLAT OF RIGHT-OF-WAY REQUIRED FOR
T FROG CREEK, WOZNY ROAD
TOTAGATIC RIVER BRIDGE B-65-0052
LOC STR WASHBURN COUNTY
CONSTRUCTION PROJECT NUMBER
8472-00-70



APPROVED FOR
TOWN OF FROG CREEK
11-28-2016
DATE
(Signature)

PLAT PREPARED BY
AYRES ASSOCIATES

THE SURVEY IS PREPARED AT THE REQUEST OF TOWN OF FROG CREEK. THE TOPOGRAPHY AND UTILITY SURVEY WAS PERFORMED IN MAY 2013. THIS SURVEY IS ACCURATE TO THE BEST OF MY KNOWLEDGE AND BELIEF.



James R. Cappeart
S-3044
Green Bay
Wis.
11/21/2016
DATE

NOTES:
FOR ALIGNMENT CONTROLS, TIES, AND CURVE DATA, SEE ALIGNMENT CONTROLS & TIES SHEET.
FOR SUPERELEVATION DIAGRAM, SEE SUPERELEVATION DIAGRAM AND DETAILS SHEET.

BENCH MARKS			
NO.	STA.	DESCRIPTION	ELEV.
1	42+40	'WOZNY' GPS DISC SET IN CONCRETE, 80' RT.	1251.64
2	41+56	WI PUBLIC SERVICE COMMISSION DISC ON TOP OF WINGWALL @ SE COR OF BRIDGE, 183' RT.	1251.28
3	41+50	RR SPIKE IN 16" TREE, 71' LT.	1247.91
4	39+76	CAP IN LARGE BOULDER, 14' LT.	1244.14

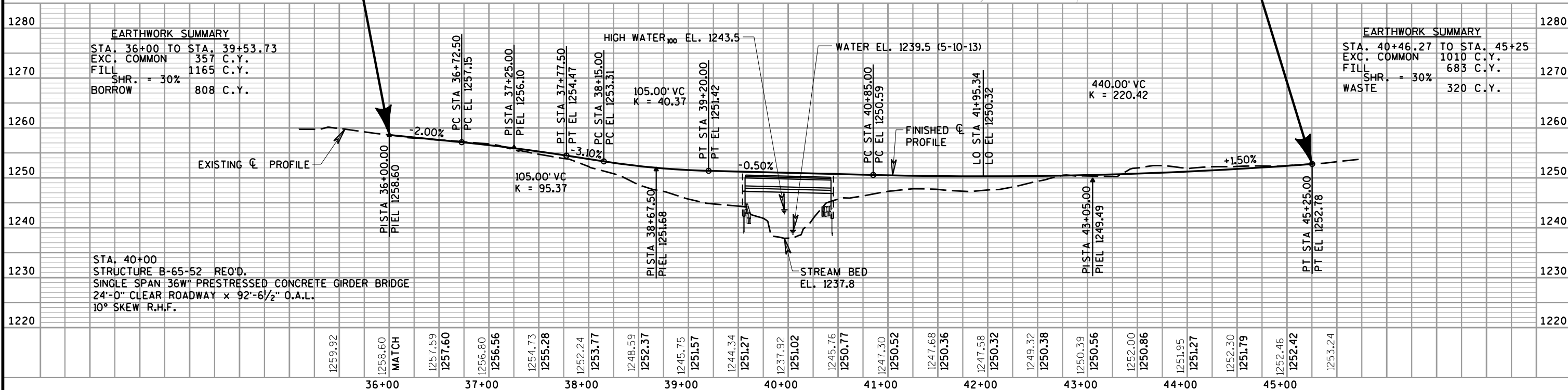
BEGIN PROJECT
STA. 36+00

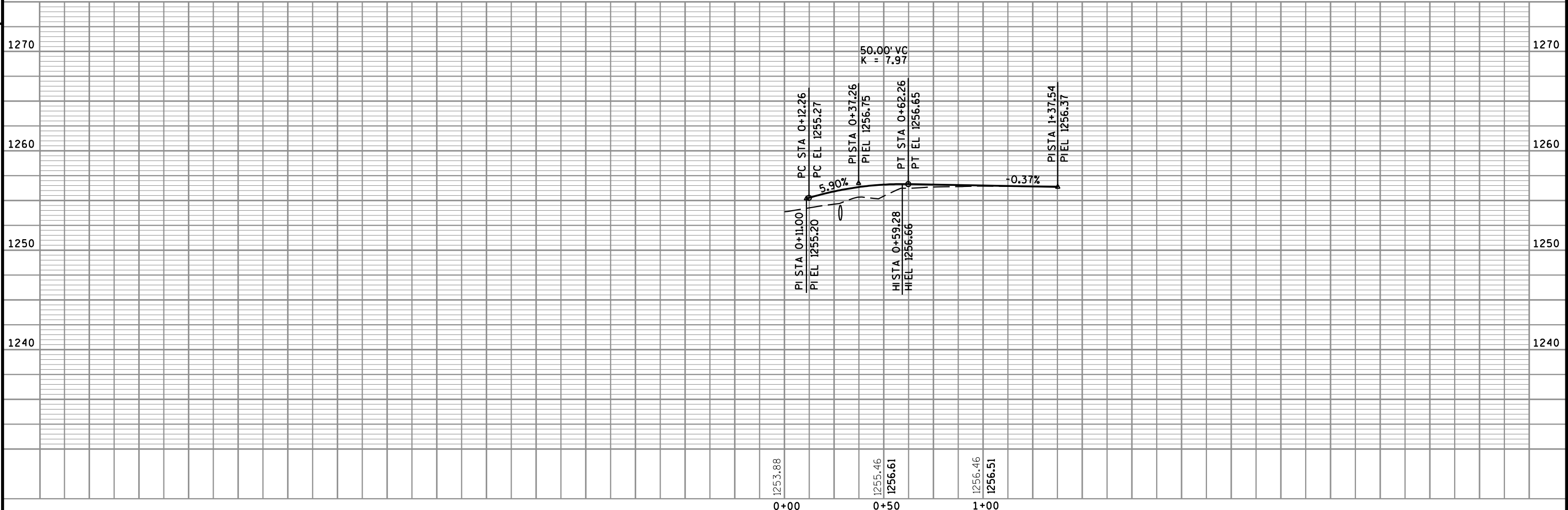
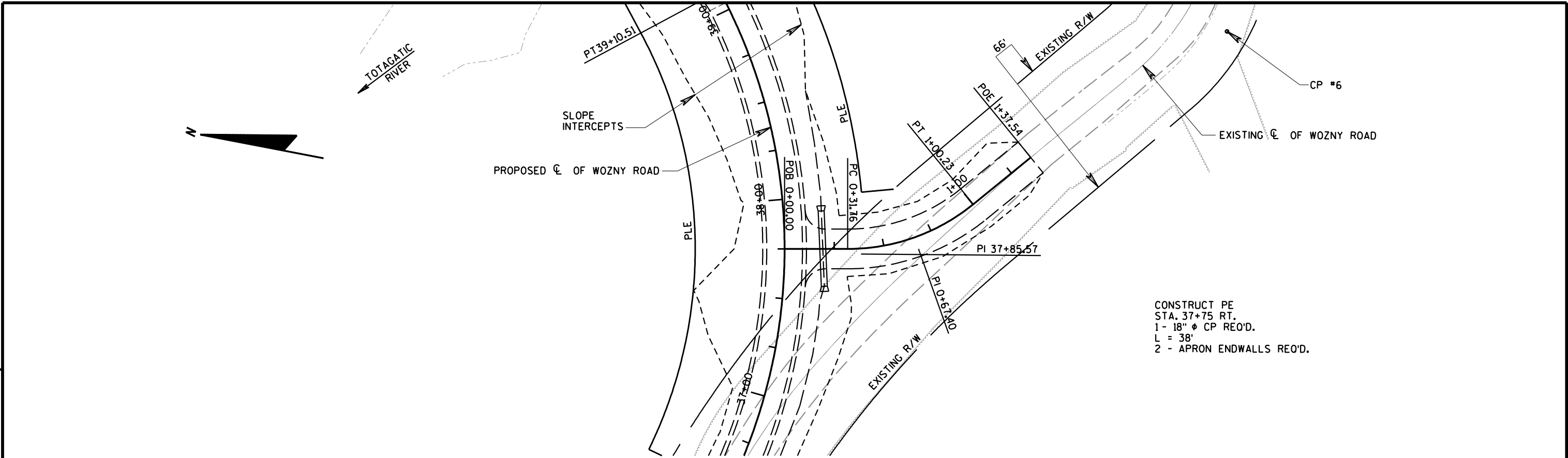
Y = 679529.64
X = 824569.11

CONSTRUCT PE
STA. 37+75 RT.
1 - 18" ϕ CP REQ'D.
L = 38'
2 - APRON ENDWALLS REQ'D.

END PROJECT
STA. 45+25

Y = 679859.25
X = 825378.55

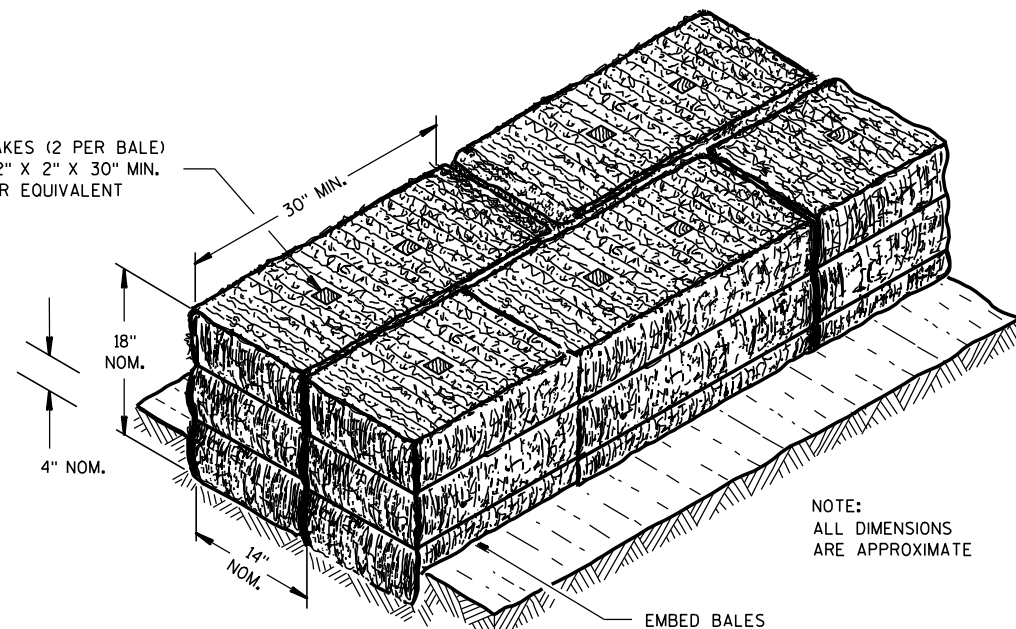




Standard Detail Drawing List

08E08-03	TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS
08E09-06	SILT FENCE
08E11-02	TURBIDITY BARRIER
08F01-11	APRON ENDWALLS FOR CULVERT PIPE
12A03-10	NAME PLATE (STRUCTURES)
15C05-03	TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40 M.P.H. OR LESS
15C06-08	SIGNING & MARKING FOR TWO LANE BRIDGES

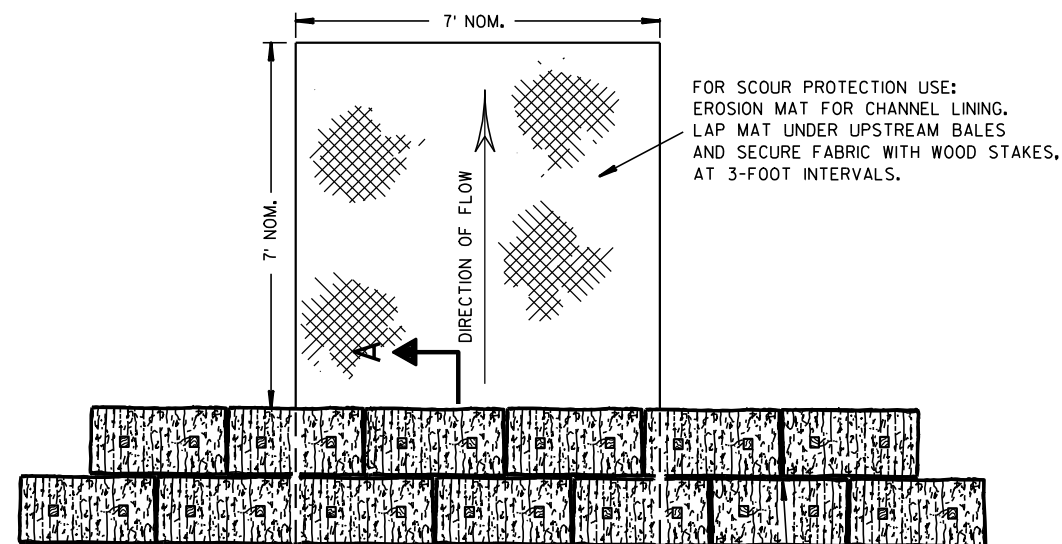
WOOD STAKES (2 PER BALE)
NOMINAL 2" X 2" X 30" MIN.
LENGTH OR EQUIVALENT



NOTE:
ALL DIMENSIONS
ARE APPROXIMATE

EMBED BALES

SECTION A-A

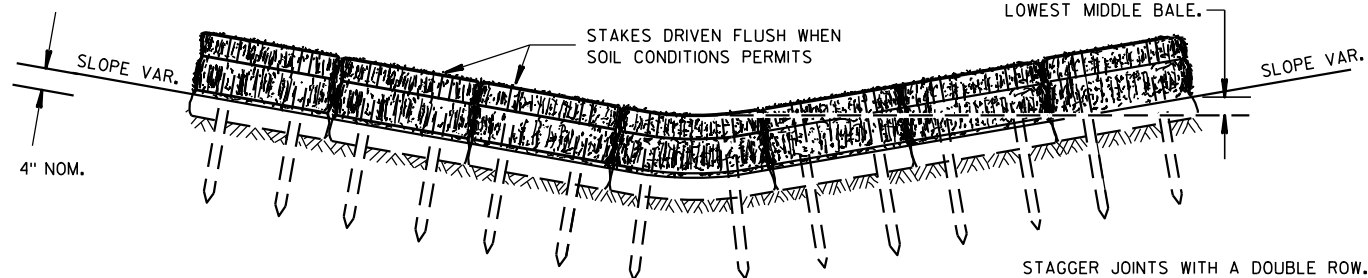


FOR SCOUR PROTECTION USE:
EROSION MAT FOR CHANNEL LINING.
LAP MAT UNDER UPSTREAM BALES
AND SECURE FABRIC WITH WOOD STAKES,
AT 3-FOOT INTERVALS.

PLAN VIEW

STAGGER JOINTS BETWEEN ADJACENT
ROWS OF BALES.

BOTTOM ELEVATION OF END BALE SHALL
BE EQUAL TO OR GREATER THAN TOP OF
LOWEST MIDDLE BALE.



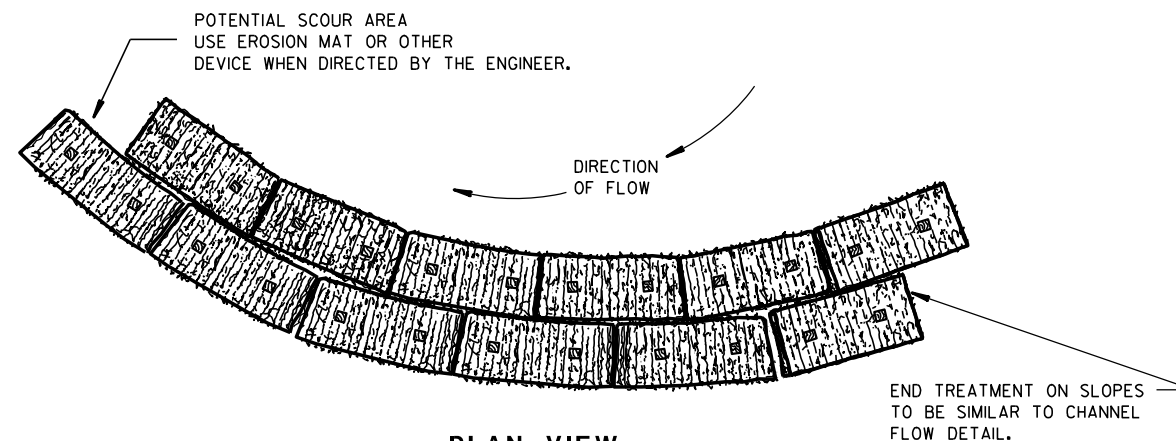
FRONT ELEVATION

TEMPORARY DITCH CHECK USING EROSION BALES ①

GENERAL NOTES

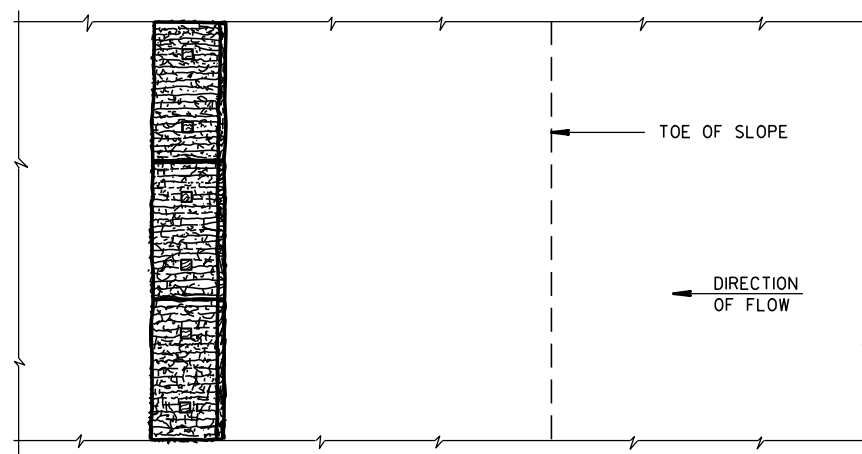
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

- 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.

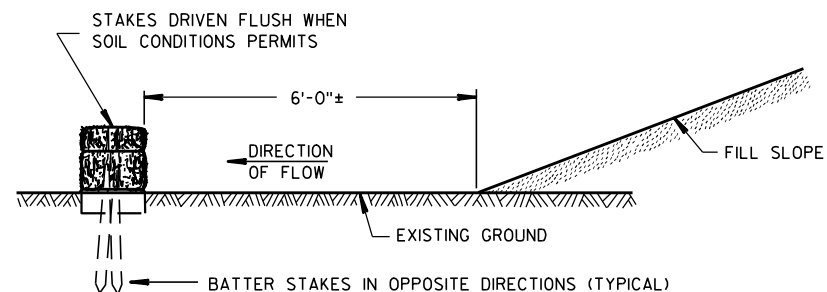


PLAN VIEW

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

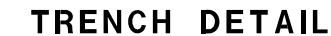
6/04/02
DATE

/S/ Beth Canestra
CHIEF ROADWAY DEVELOPMENT ENGINEER

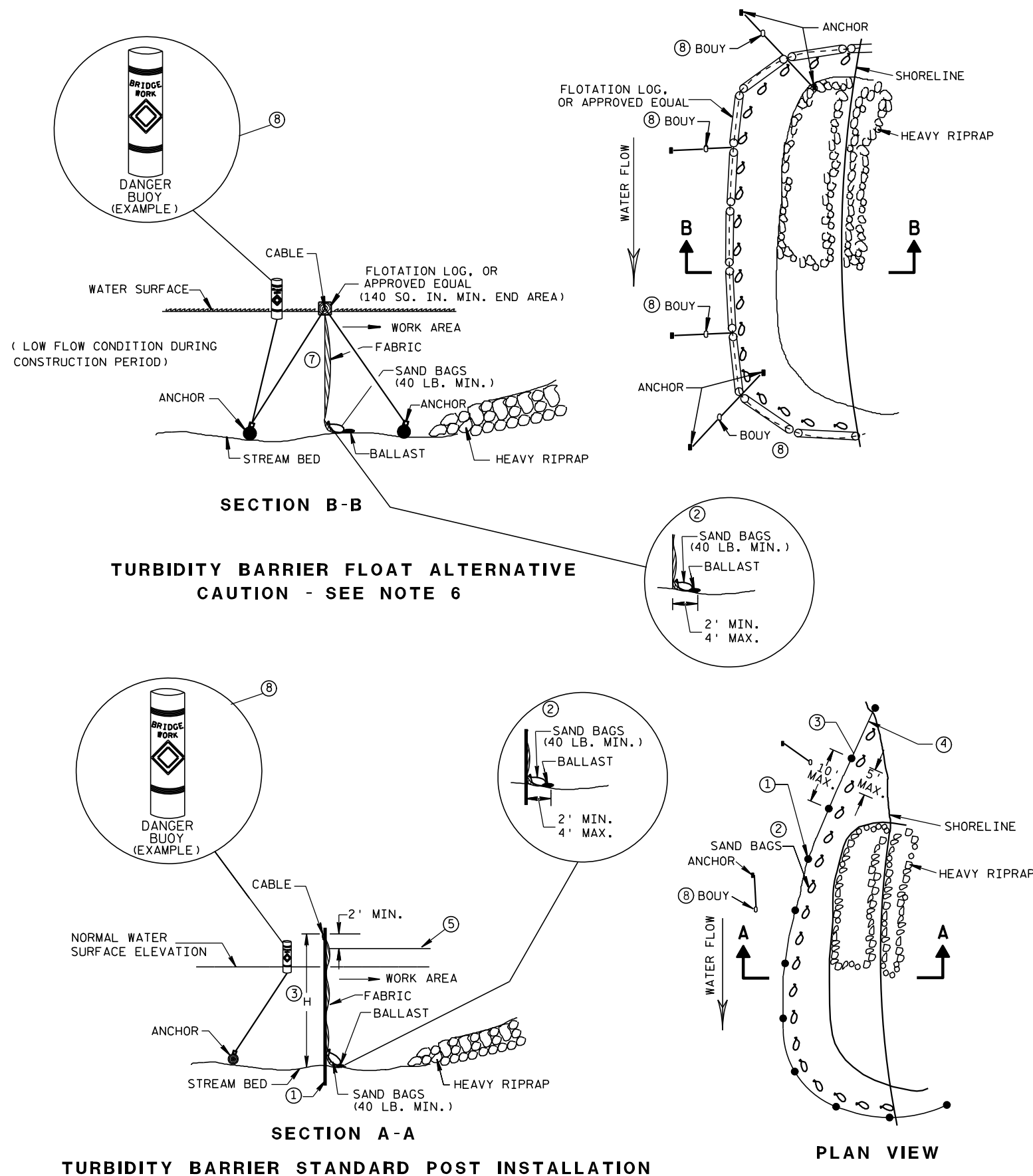
FHWA



- 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 1½" X 1½" 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.



SILT FENCE	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED <u>4-29-05</u> DATE	<u>/S/ Beth Cannestra</u> CHIEF ROADWAY DEVELOPMENT ENGINEER

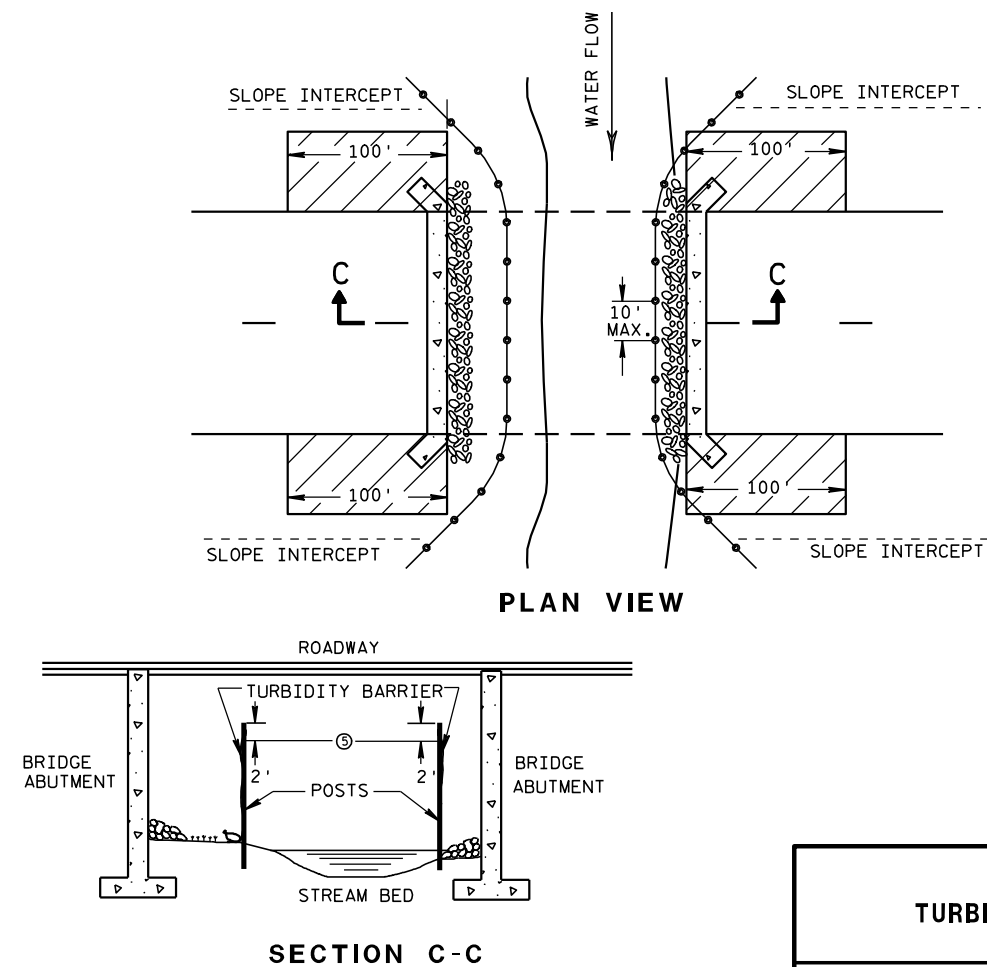


GENERAL NOTES

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.

TURBIDITY BARRIER MAY BE REMOVED AT THE ENGINEERS DISCRETION, WHEN PERMANENT EROSION CONTROL MEASURES HAVE BEEN ESTABLISHED.

- ① DRIVEN STEEL POSTS, PIPES, OR CHANNELS. LENGTH SHALL BE SUFFICIENT TO SECURELY SUPPORT BARRIER AT HIGH WATER ELEVATIONS.
- ② SANDBAGS TO BE USED AS ADDITIONAL BALLAST WHEN ORDERED BY THE ENGINEER TO MEET ADVERSE FIELD CONDITIONS. SPACE AS APPROPRIATE FOR SITE CONDITIONS.
- ③ WHEN BARRIER HEIGHT, H, EXCEEDS 8 FT., POST SPACING MAY NEED TO BE DECREASED.
- ④ IN WATERWAYS SUBJECT TO FLUCTUATING WATER ELEVATIONS, PROVISIONS SHOULD BE MADE TO ALLOW THE WATER TO EQUALIZE ON EACH SIDE OF THE BARRIER. THIS MAY BE ACCOMPLISHED BY LEAVING A PORTION OF THE BARRIER OPEN ON THE UPSTREAM END.
- ⑤ ESTIMATED HIGH WATER ELEVATION DURING CONSTRUCTION PERIOD. MINIMUM BARRIER HEIGHT SHALL BE 2' GREATER THAN EITHER THE 02 ELEVATION OR THE ESTIMATED HIGH WATER ELEVATION DURING CONSTRUCTION, WHICHEVER IS GREATER.
- ⑥ FLOAT ALTERNATIVE WILL ONLY BE ALLOWED WITH WRITTEN APPROVAL OF THE ENGINEER, AND IS MEANT FOR LOCATIONS WHERE BED ROCK PREVENTS THE INSTALLATION OF POSTS.
- ⑦ ALLOW SUFFICIENT SLACK VERTICALLY AND HORIZONTALLY SO THAT SEDIMENT BUILD UP WILL NOT SEPARATE OR LOWER THE TURBIDITY BARRIER.
- ⑧ USE AS DIRECTED BY COAST GUARD OR DNR PERMIT WHEN WORKING IN NAVIGABLE WATERWAYS.



TURBIDITY BARRIER DETAIL SHOWING TYPICAL PLACEMENT AT STRUCTURES

TURBIDITY BARRIER

STATE OF WISCONSIN
 DEPARTMENT OF TRANSPORTATION

APPROVED

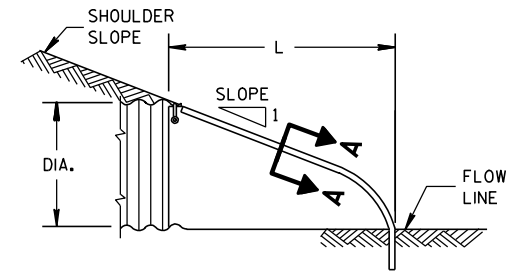
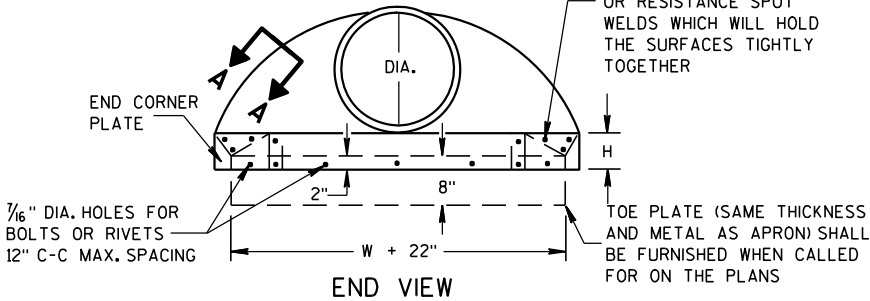
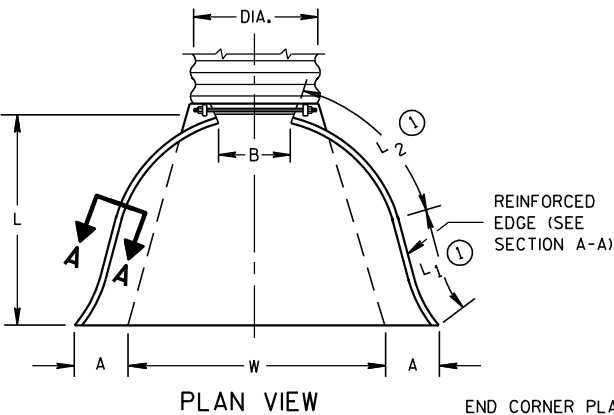
6/04/02
 DATE

FHWA

/S/ Beth Canestra
 CHIEF ROADWAY DEVELOPMENT ENGINEER

METAL APRON ENDWALLS											
PIPE DIA. (IN.)	MIN. THICK. (Inches)		DIMENSIONS (Inches)							APPROX. SLOPE	BODY
	STEEL	ALUM.	A (±1")	B (MAX.)	H (±1")	L (±1 1/2")	L1 ①	L2 ①	W (±2")		
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	.109x	.105x	18	33	12	87	—	—	114	2 to 1	3 Pc.
66	.109x	.105x	18	36	12	87	—	—	120	2 to 1	3 Pc.
72	.109x	.105x	18	39	12	87	—	—	126	2 to 1	3 Pc.
78	.109x	.105x	18	42	12	87	—	—	132	1 1/2 to 1	3 Pc.
84	.109x	.105x	18	45	12	87	—	—	138	1 1/2 to 1	3 Pc.
90	.109x	.105x	18	37	12	87	—	—	144	1 1/2 to 1	3 Pc.
96	.109x	.105x	18	35	12	87	—	—	150	1 1/2 to 1	3 Pc.

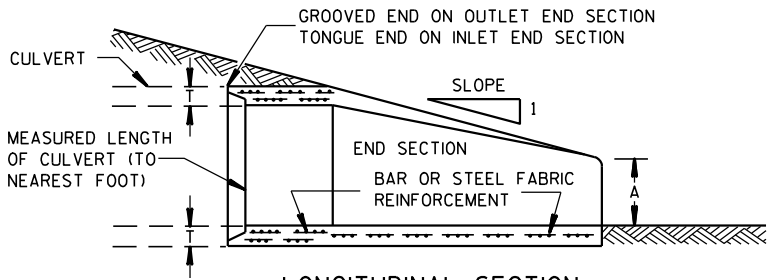
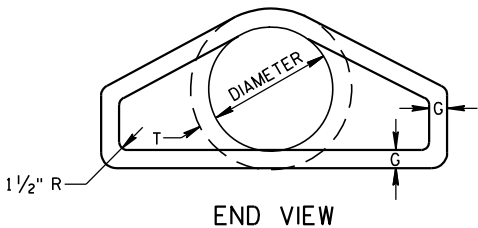
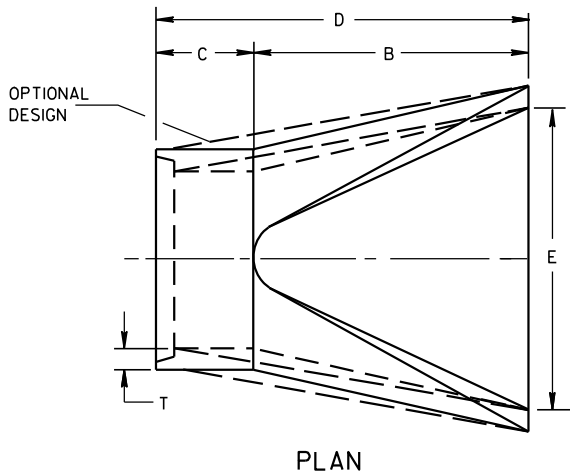
* EXCEPT CENTER PANEL
SEE GENERAL NOTES



METAL ENDWALLS

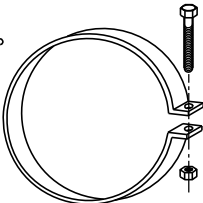
REINFORCED CONCRETE APRON ENDWALLS											
PIPE DIA. (IN.)	DIMENSIONS (Inches)							APPROX. SLOPE			
	T	A	B	C	D	E	G				
12	2	4	24	48 1/8	72 1/8	24	2	3 to 1			
15	2 1/4	6	27	46	73	30	2 1/4	3 to 1			
18	2 1/2	9	27	46	73	36	2 1/2	3 to 1			
21	2 3/4	9	36	37 1/2	73 1/2	42	2 3/4	3 to 1			
24	3	9 1/2	43 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

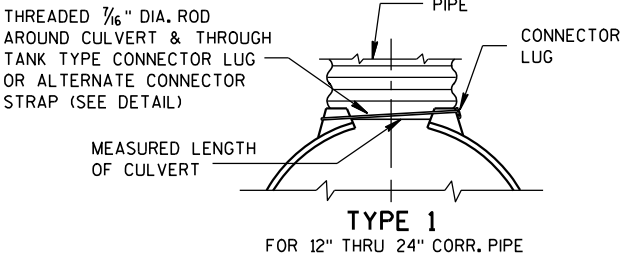


CONCRETE ENDWALLS

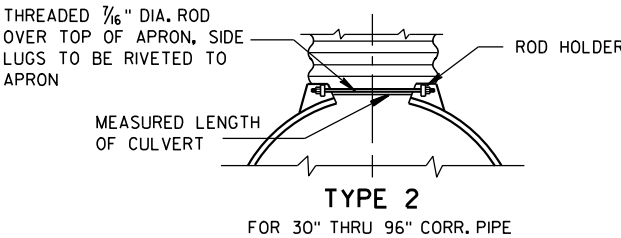
1" WIDE, 12 GA. (0.109" THICK) GALVANIZED STRAP WITH STANDARD 6" X 1/2" BAND BOLT AND NUT



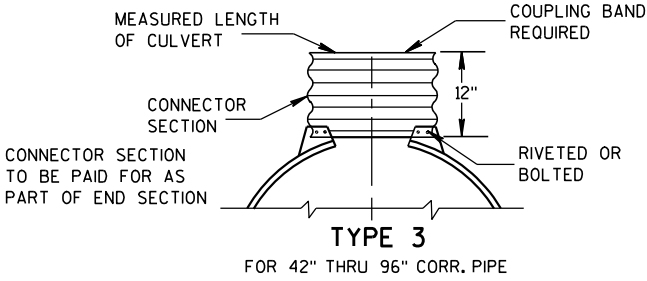
ALTERNATE FOR TYPE 1 CONNECTION
END SECTION CONNECTOR STRAP



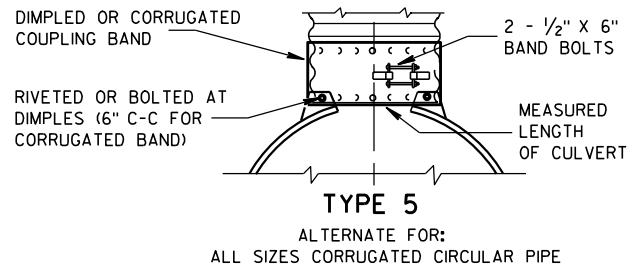
TYPE 1
FOR 12" THRU 24" CORR. PIPE



TYPE 2
FOR 30" THRU 96" CORR. PIPE



TYPE 3
FOR 42" THRU 96" CORR. PIPE



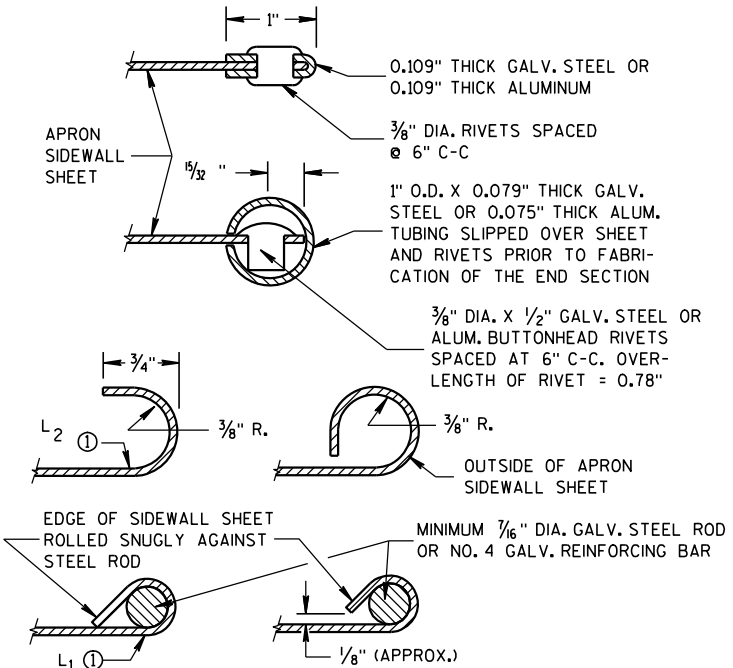
NOTE: DIMPLED BAND FITS OVER OUTSIDE OF ENDWALL, AND CORRUGATED BAND FITS INSIDE ENDWALL. DIMPLED BAND MAY BE USED WITH HELICALLY CORRUGATED PIPE.

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

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

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

CONNECTION DETAILS



SECTION A-A

GENERAL NOTES

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

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

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

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

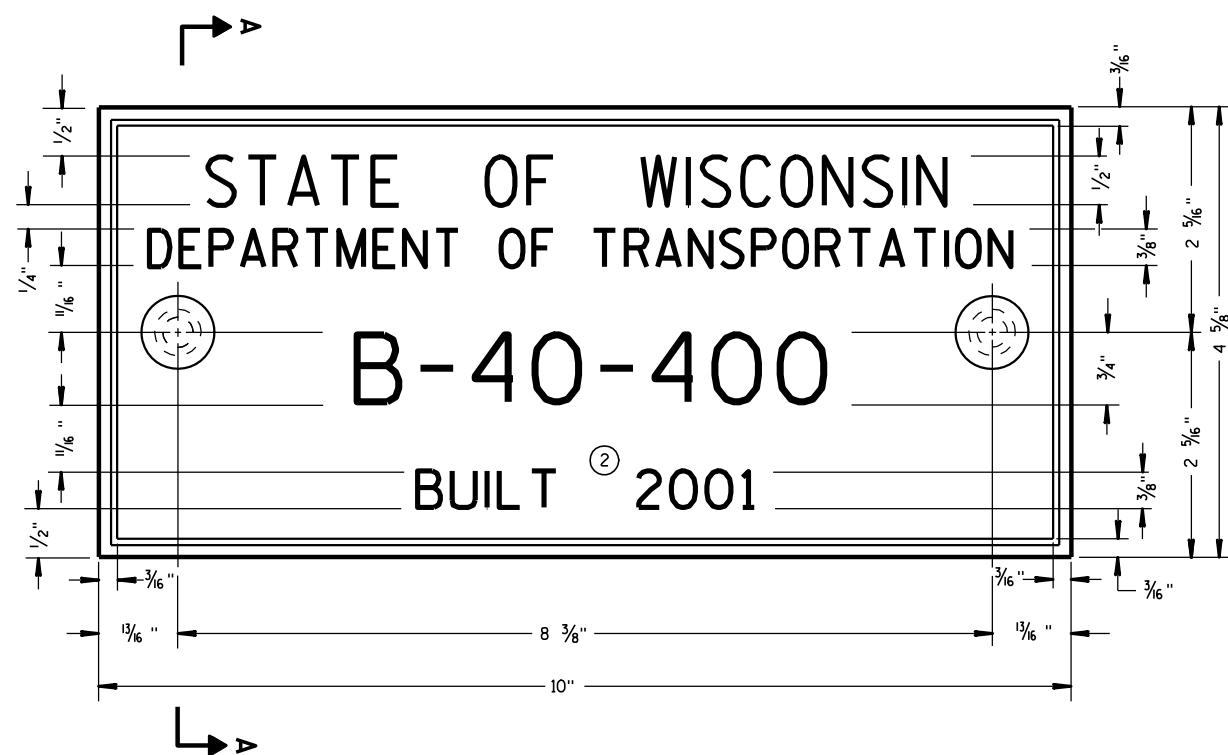
WHERE TWO OR MORE PIPES WITH APRON ENDWALLS ARE LAID ADJACENT TO EACH OTHER, THEY SHALL BE SEPARATED BY A DISTANCE SUFFICIENT TO PROVIDE A MINIMUM CLEARANCE OF 6 INCHES BETWEEN APRON ENDWALLS.

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

APRON ENDWALLS FOR
CULVERT PIPE

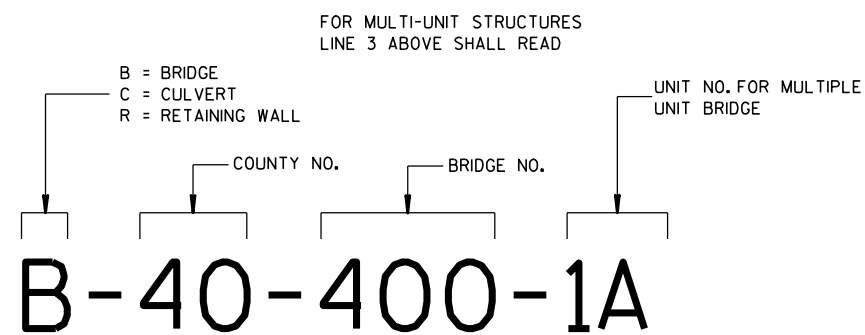
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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



TYPICAL NAME PLATE

(BRIDGES, CULVERTS, AND RETAINING WALLS)



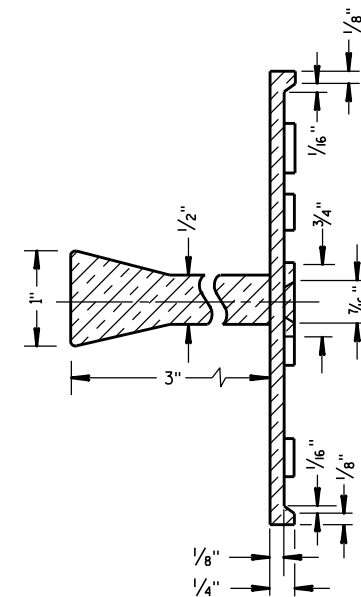
NUMBERING DESIGNATION
MULTI-UNIT STRUCTURES

GENERAL NOTES

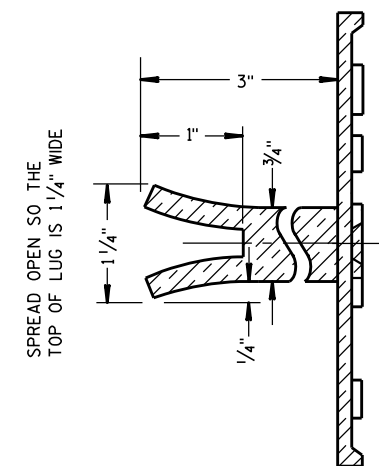
NAME PLATES TO BE INSTALLED ON BRIDGES, CULVERTS, AND RETAINING WALLS SHALL CONFORM TO THE REQUIREMENTS OF SECTION 502.3.11 OF THE STANDARD SPECIFICATIONS.

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

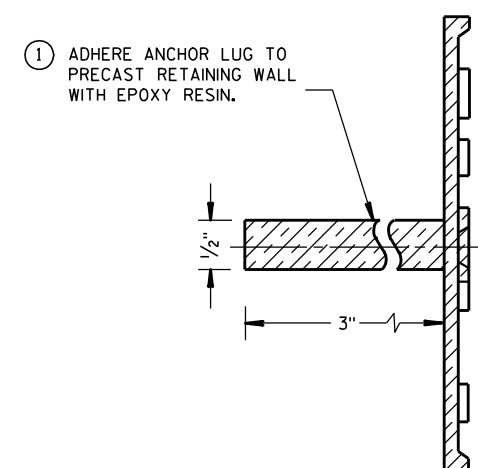
- ① EPOXY RESIN SHALL BE FROM AN APPROVED MANUFACTURER AND USED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
- ② REHABILITATION OF AN EXISTING STRUCTURE SHOULD USE THE DATE OF ORIGINAL STRUCTURE CONSTRUCTION.



SECTION A-A



ALTERNATE LUG



ALTERNATE LUG

(FOR ATTACHMENT TO PRECAST STRUCTURES)

NAME PLATE
(STRUCTURES)

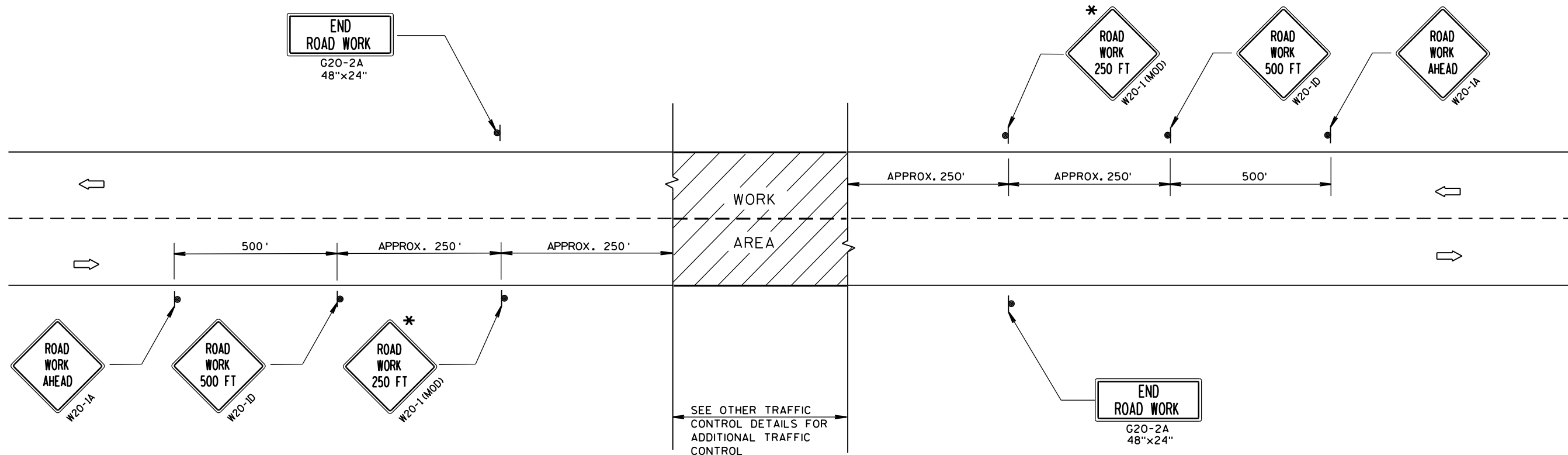
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

3/26/10
DATE

FHWA

/S/ Scot Becker
CHIEF STRUCTURAL DEVELOPMENT ENGINEER



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.

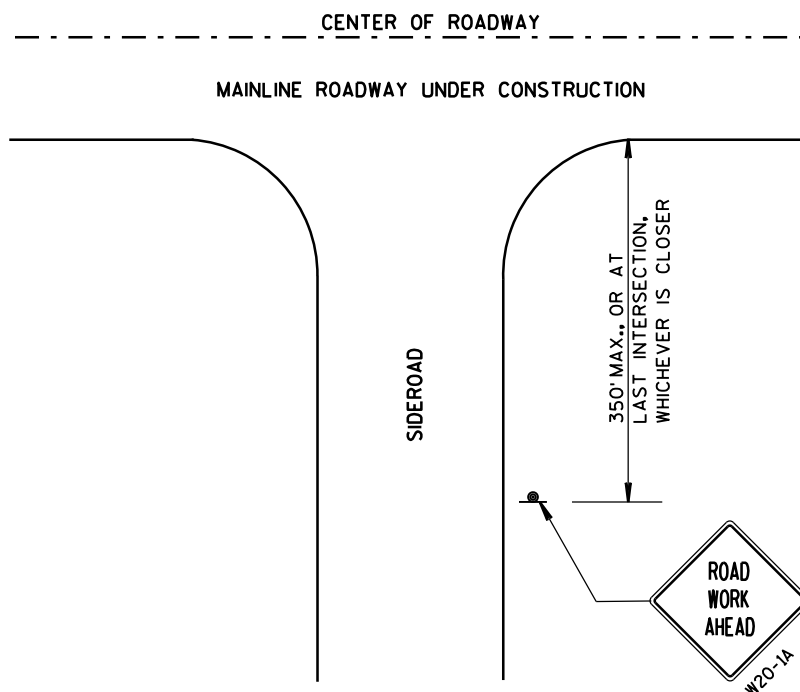
THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A DESIRABLE MINIMUM OF 200 FEET CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

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.



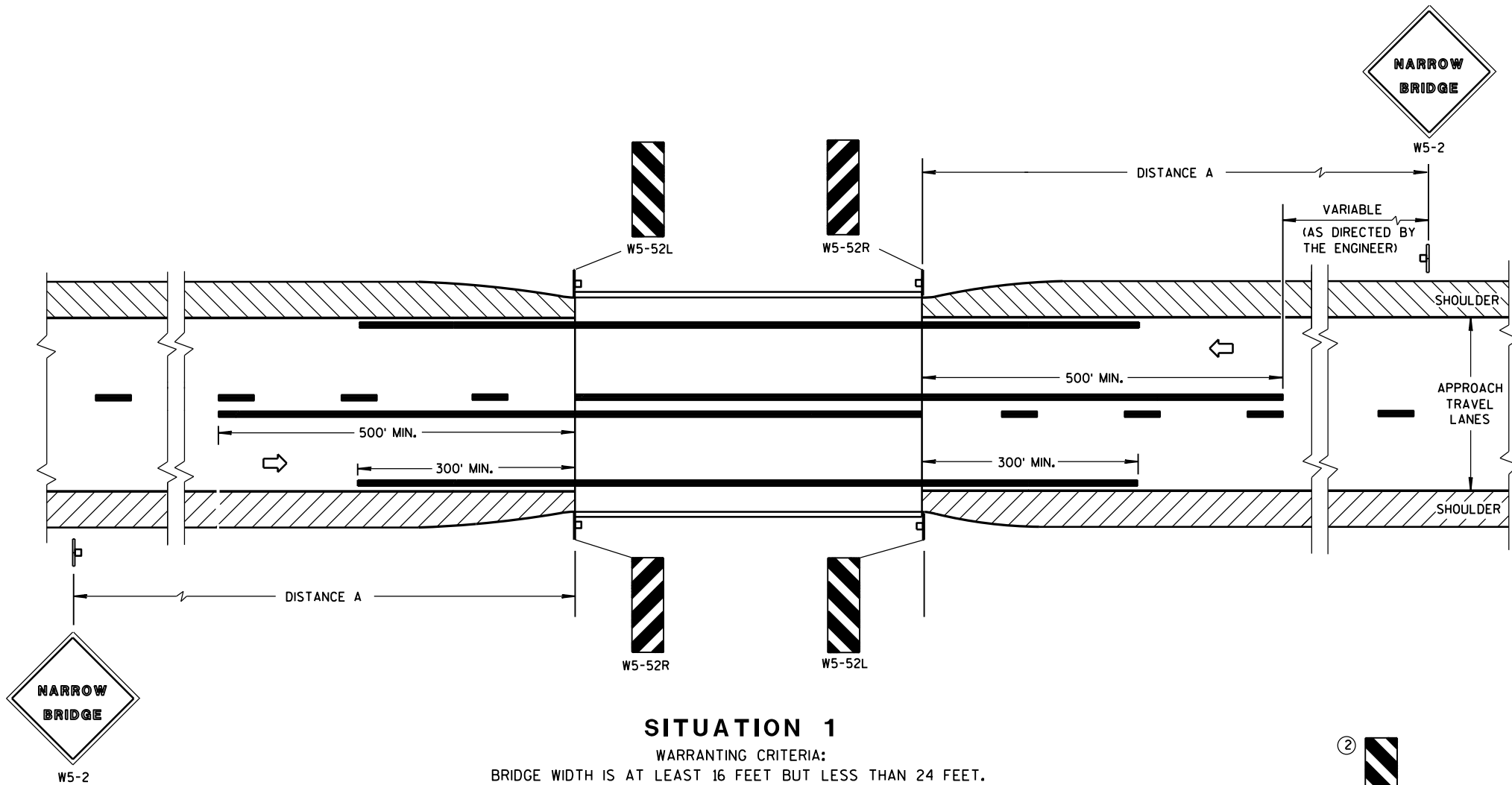
LEGEND

- 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 /S/ Peter Amakobe Atepe
DATE STATEWIDE WORK ZONE TRAFFIC
FHWA SAFETY ENGINEER



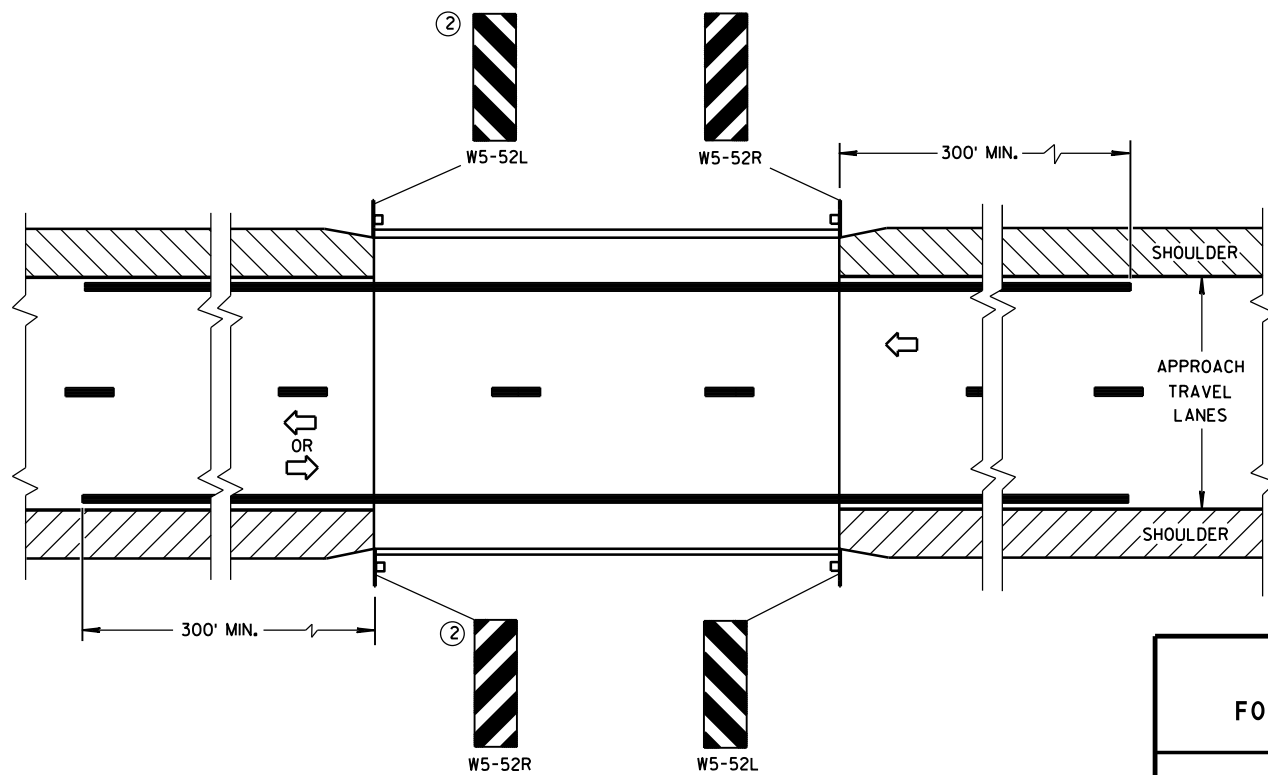
DISTANCE TABLE

POSTED OR 85th PERCENTILE SPEED	DISTANCE "A"
25	150'
30	200'
35	250'
40	300'
45	400'
50	550'
55	750'

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.

- ① LOCATE W5-52 SIGN POST(S) BEHIND GUARDRAIL WHEN PRESENT.
- ② OMIT ON ONE-WAY TRAVELLED WAYS.
- ③ EDGE OF W5-52 SIGN SHALL BE PLACED IN LINE WITH FACE OF CURB OR PARAPET.



SIGNING & MARKING FOR TWO LANE BRIDGES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

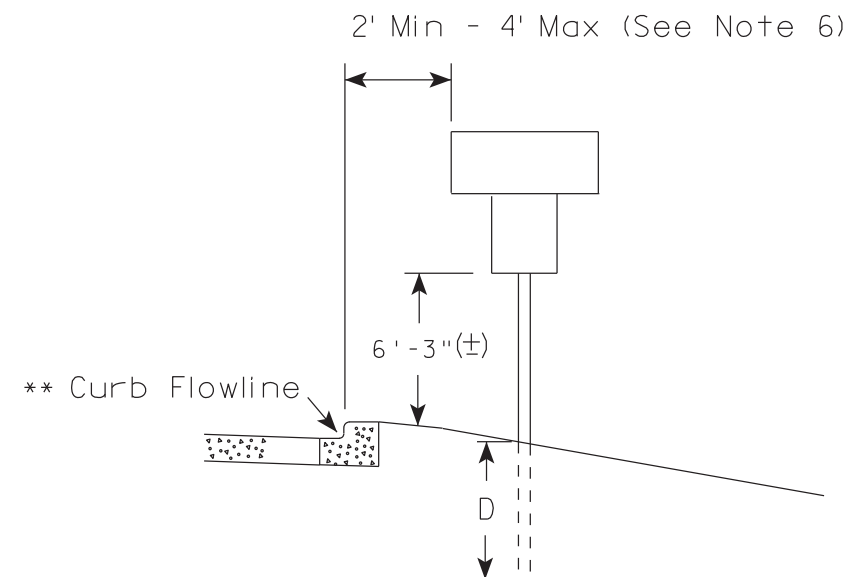
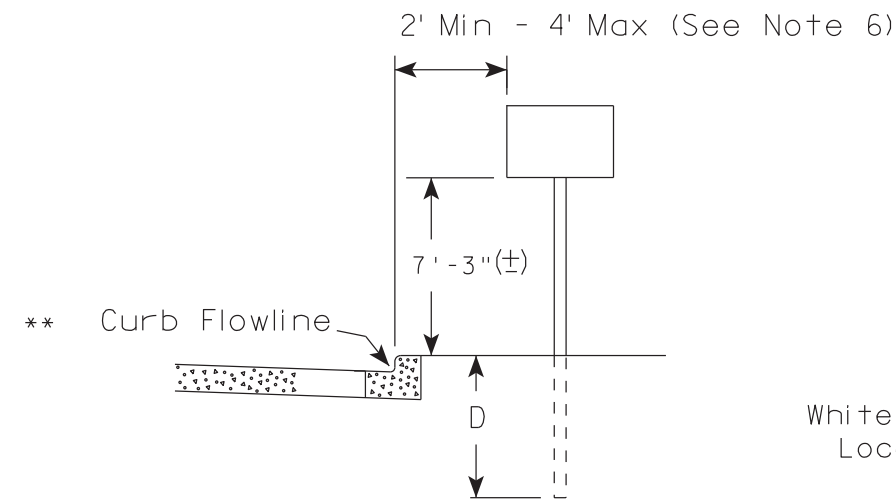
4-18-16

DATE

FHWA

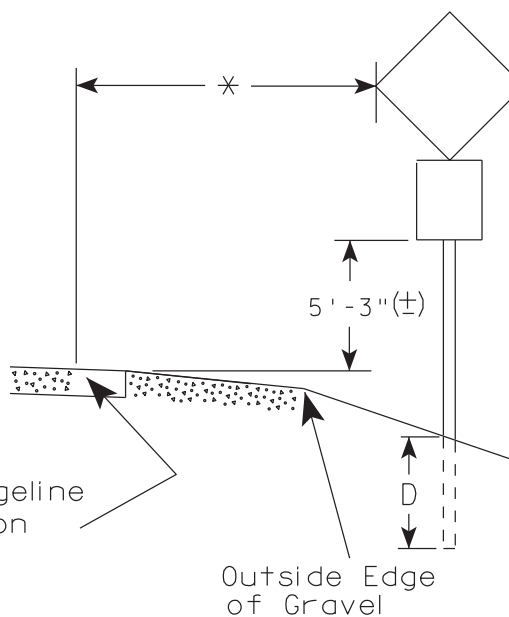
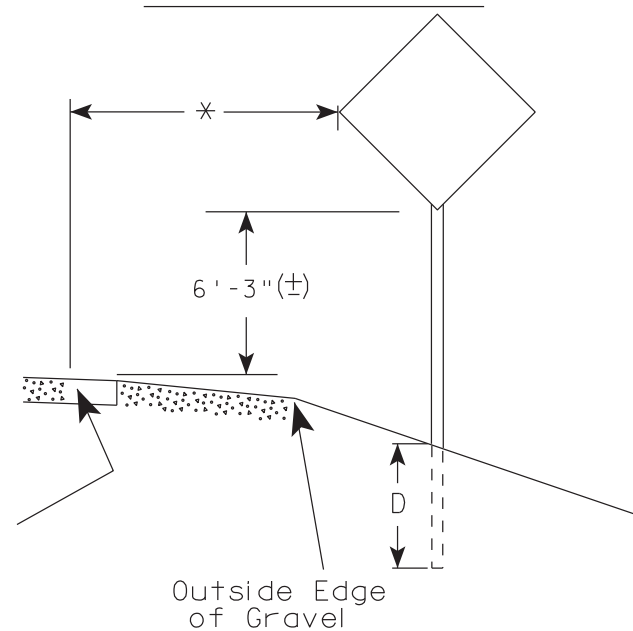
/S/ Matthew R. Rauch
STATE SIGNING AND MARKING ENGINEER

URBAN AREA



White Edgeline Location

RURAL AREA (See Note 2)



White Edgeline Location

Outside Edge of Gravel

POST EMBEDMENT DEPTH

Area of Sign Installation (Sq. Ft.)	D (Min)
20 or Less	4'
Greater than 20	5'

GENERAL NOTES

1. Signs wider than 4 feet or 20 sq.ft or larger, shall be mounted on multiple posts. Refer to plate A4-4.
2. If signs are mounted on barrier wall, see A4-10 sign plate.
3. For expressways and freeways, mounting height is 7'- 3" (±) or 6'-3" (±) depending upon existence of a sub-sign.
4. Minimum mounting height for J assemblies (A2-1S) is 7'-3" (±) or 6'-3" (±) per urban or rural detail respectively.
5. Minimum mounting height for signs mounted on traffic signal poles is 5'- 3" (±).
6. Offset distance shall be consistent with existing signs or consistent throughout length of project.
7. The (±) tolerance for mounting height is 3 inches.
8. Folding signs shall be mounted at a height of 5'-3" (±) or as directed 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" (±).

✱✱ 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.

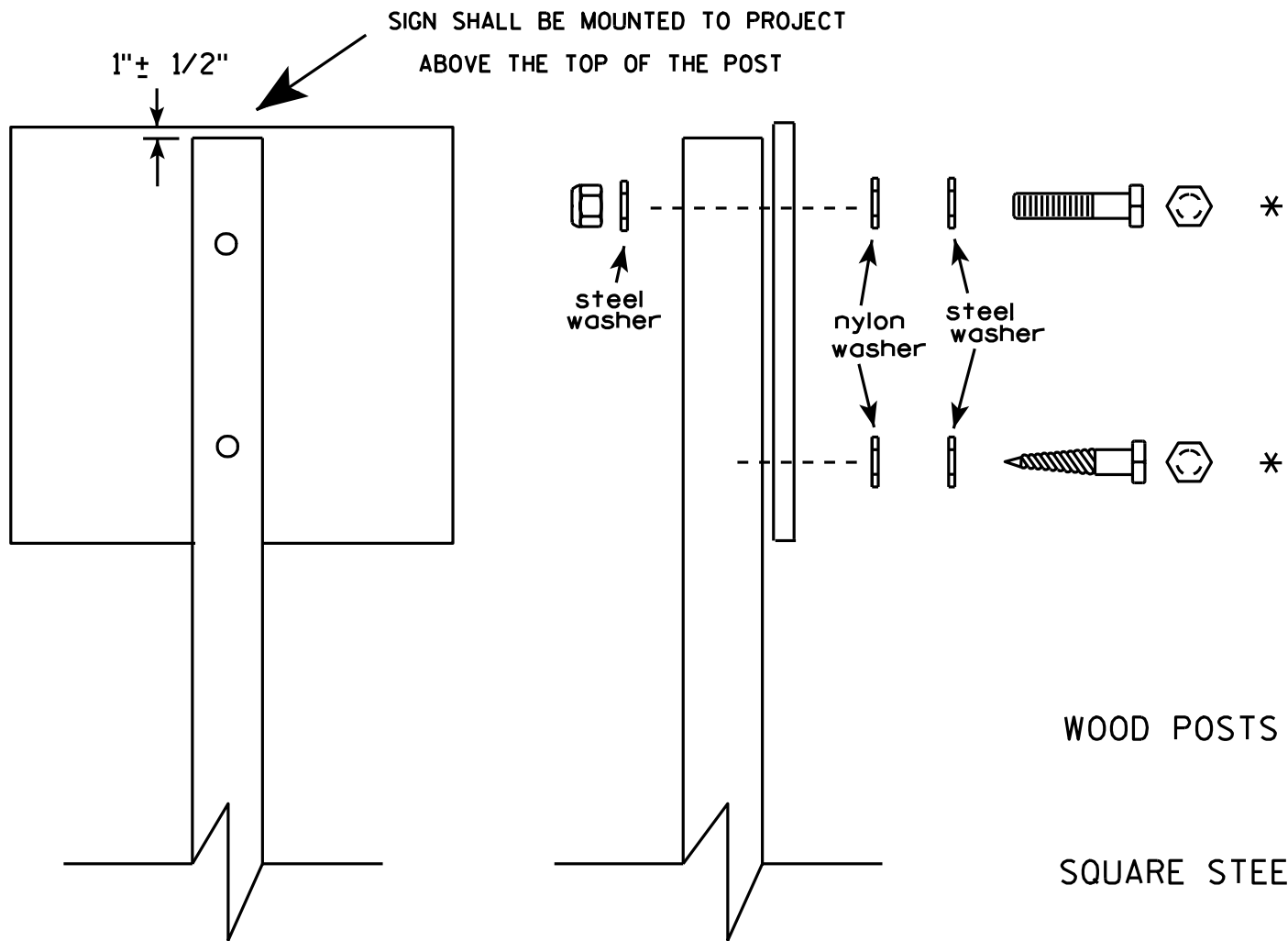
✱ 6 feet from edge of a paved shoulder or 12 feet from the edge of pavement (edge line location) or 2 feet from outside edge of gravel, whichever is greater unless directed by project engineer.

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

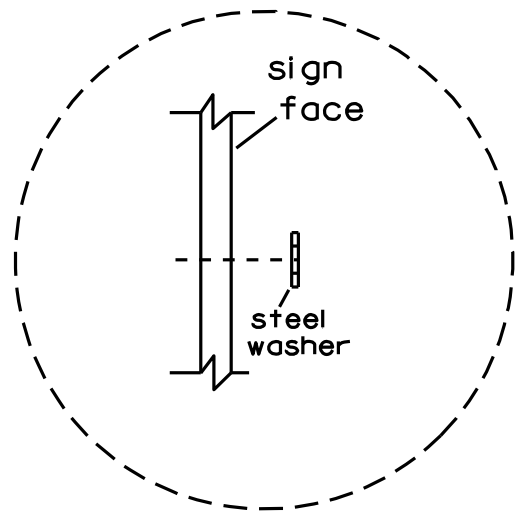


Nuts, bolts and lags used for mounting signs shall have hexagonal heads and shall be either :

- a. Hot dip galvanized in accordance with ASTM Designation: A 153, Class D, or SC 3
- b. Electro-galvanized in accordance with ASTM Designation : B 633, TYPE III, SC 3.

Threads on bolts and nuts shall be manufactured with sufficient allowance for the cadmium plate or galvanized coating to permit the nuts to run freely on the bolts.

- WOOD POSTS (4" x 4" or 4" x 6")
- LAG SCREWS - 3/8" X 3"
- MACHINE BOLTS - 5/16" X 6-1/2" or 7" Length w/ nuts
- SQUARE STEEL POSTS (2" x 2")
- MACHINE BOLTS - 3/8" X 3-1/4" Length w/ nuts
- RIVETS - 9/32" (6605-9-6) BULB-TITE, TRI-FOLD, ALUMINUM BODY/MANDREL
- O.D. FLANGE .720-.765 INCH, GRIP RANGE .042-.375 INCH
- WASHERS (ALL POSTS) -
- 1-1/4" O.D. X 3/8" I.D. X 1/16" STEEL
- 1-1/4" O.D. X 3/8" I.D. X .080 NYLON for all Type H signs.

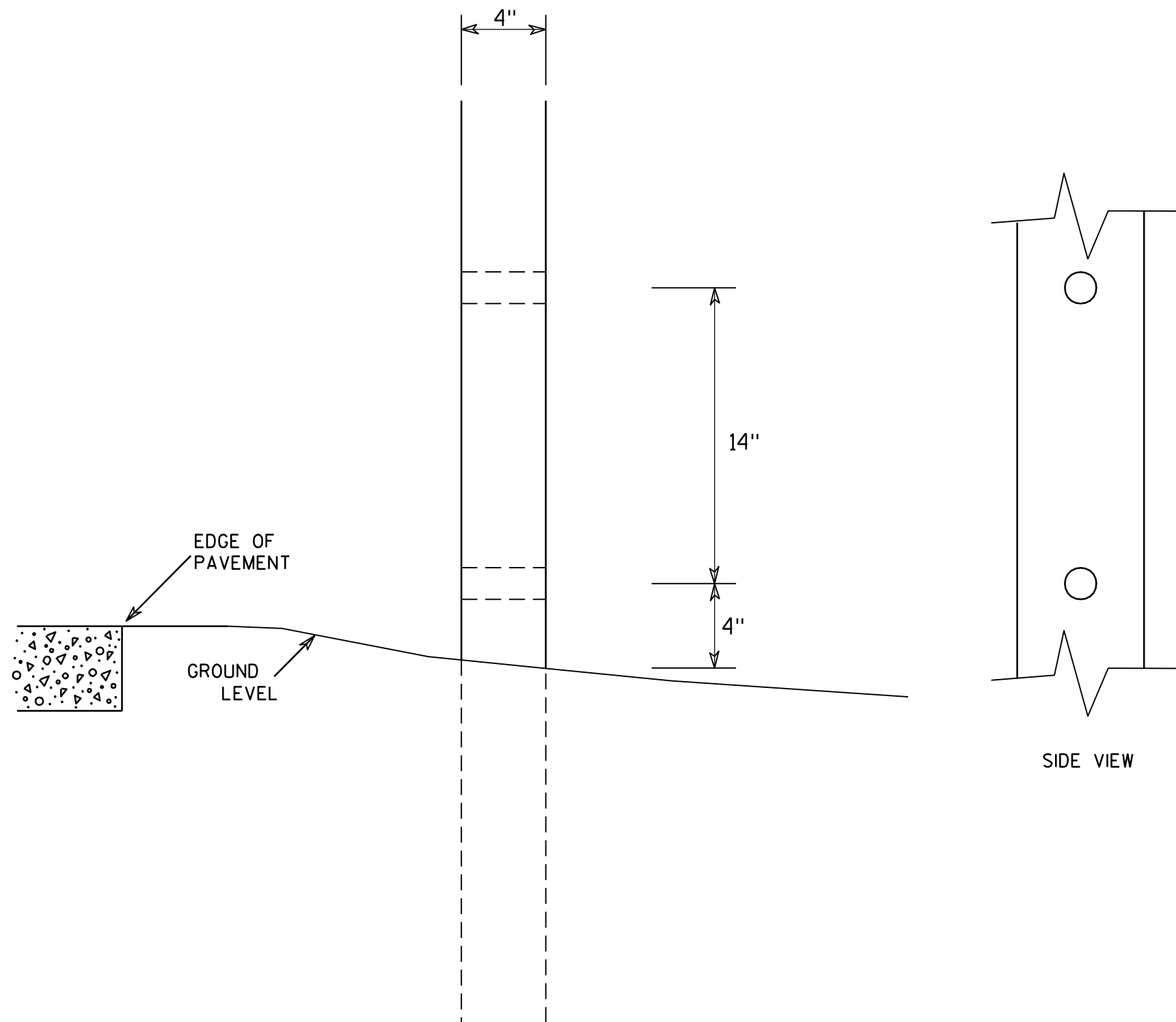


Washer Placement when Sign Has Other Than Type H or Type F Face

* Two different fastening systems are shown for illustration purposes. On any individual sign, either one or the other system shall be used. Actual number of fasteners per sign varies with the sign area, but normally there are two. For a single post installation, all signs greater than 9 sq. ft. require the use of 3 fasteners.

ATTACHMENT OF SIGNS TO POSTS	
WISCONSIN DEPT OF TRANSPORTATION	
APPROVED	<i>Matthew R. Rauch</i> For State Traffic Engineer
DATE 3/23/10	PLATE NO. A4-8.7

7



GENERAL NOTES

1. All 4 x 6 Wood Posts shall be modified by having two 1 1/2" diameter holes drilled perpendicular to the roadway centerline.

7

4 X 6 WOOD POST MODIFICATIONS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED

Chester J. Spang
for State Traffic Engineer

DATE 3/27/97

PLATE NO. A4-11.2

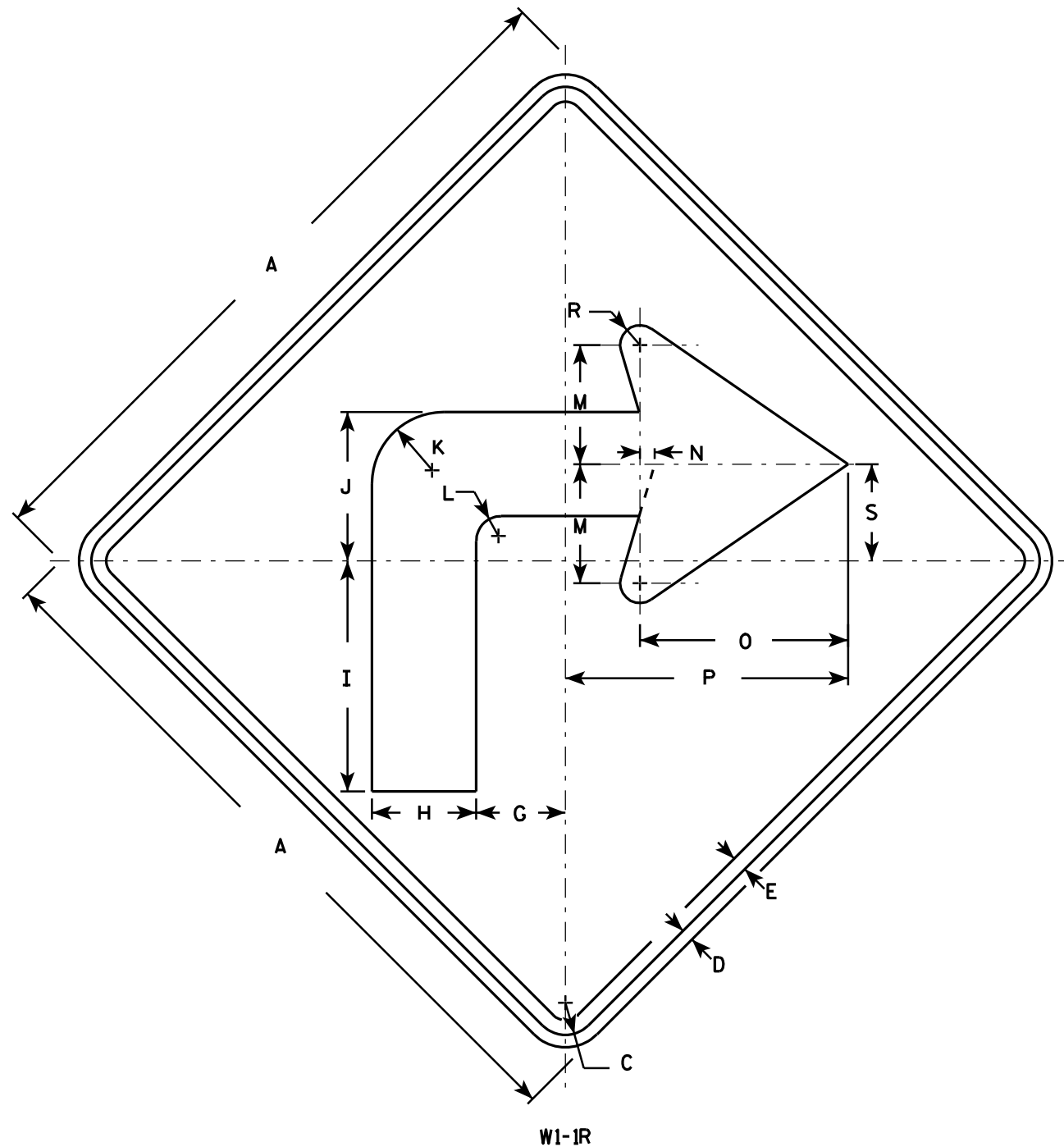
PROJECT NO: 8472-00-70

HWY: WOZNY ROAD

COUNTY: WASHBURN

SHEET NO:

E



NOTES

- Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
- Color:
Background - Yellow
Message - Black
- Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
- W1-1L is the same as W1-1R except the arrow is reversed along the vertical centerline.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24		1 1/8	3/8	1/2		3	3 1/2	7 3/4	5	2 1/2	7/8	4	1/2	7	9 1/2		5/8	3 1/4								4.0
2S	36		1 5/8	5/8	3/4		4 1/2	5 1/4	11 5/8	7 1/2	3 5/8	1 1/4	6	3/4	10 1/2	14 1/4		1	4 7/8								9.0
2M	36		1 5/8	5/8	3/4		4 1/2	5 1/4	11 5/8	7 1/2	3 5/8	1 1/4	6	3/4	10 1/2	14 1/4		1	4 7/8								9.0
3	36		1 5/8	5/8	3/4		4 1/2	5 1/4	11 5/8	7 1/2	3 5/8	1 1/4	6	3/4	10 1/2	14 1/4		1	4 7/8								9.0
4	48		2 1/4	3/4	1		6	7	15 1/2	10	4 7/8	1 5/8	8	1	14	19		1 1/4	6 1/2								16.0
5	48		2 1/4	3/4	1		6	7	15 1/2	10	4 7/8	1 5/8	8	1	14	19		1 1/4	6 1/2								16.0

STANDARD SIGN

W1-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer
DATE 5/15/12 PLATE NO. W1-1.11

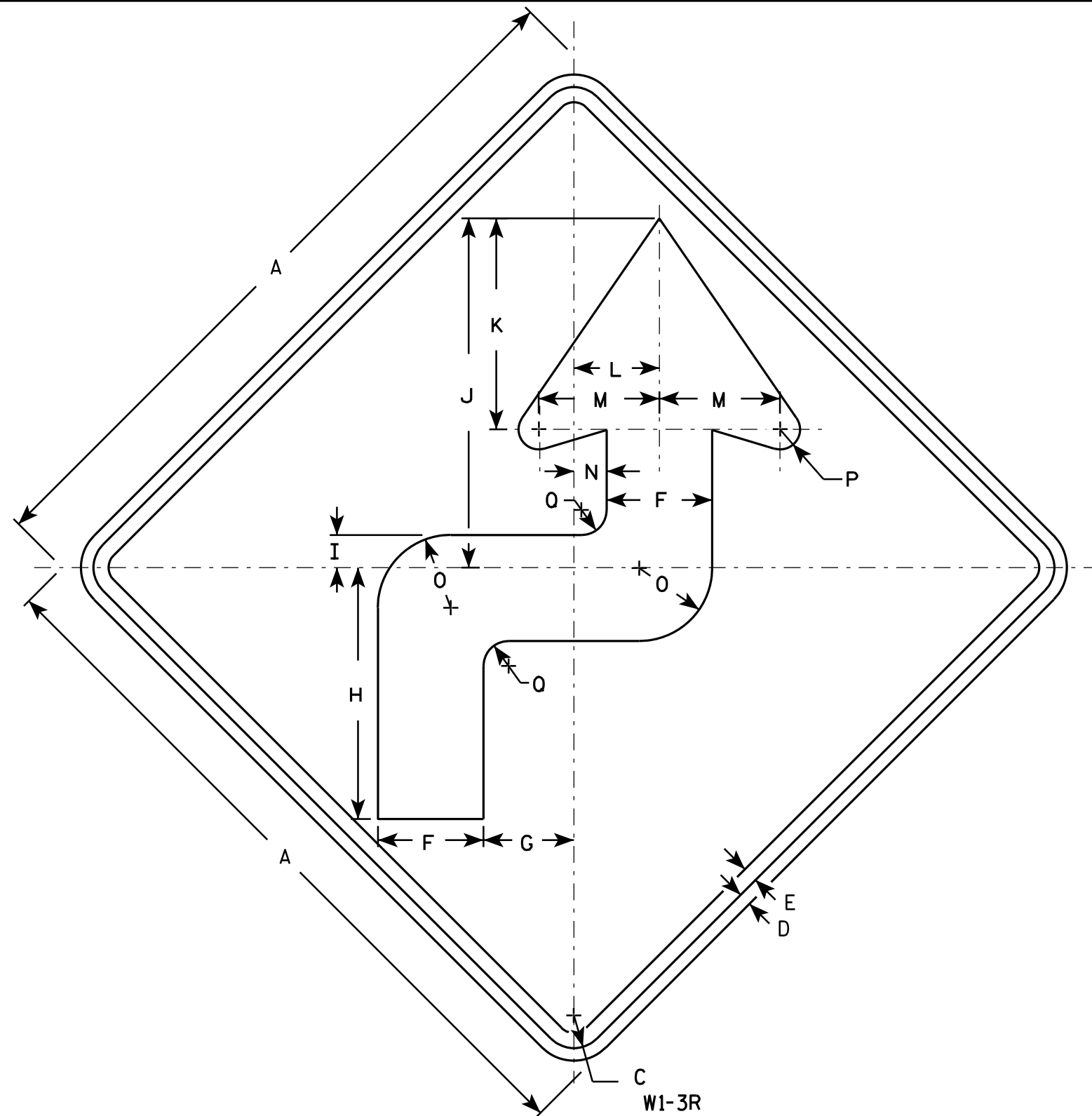
PROJECT NO: 8472-00-70

HWY: WOZNY ROAD

COUNTY: WASHBURN

SHEET NO:

E



NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - Yellow
Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. W1-3L is the same as W1-3R except the arrow is reversed along the vertical centerline.

W1-3R

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	3 1/2	3	8 3/8	1 1/8	11 5/8	7	2 3/4	4	1 1/8	2 1/2	5/8	7/8										4.0
2S	36		1 5/8	5/8	3/4	5 1/4	4 1/2	12 1/2	1 5/8	17 3/8	10 1/2	4 1/4	6	1 5/8	3 5/8	1	1 1/4										9.0
2M	36		1 5/8	5/8	3/4	5 1/4	4 1/2	12 1/2	1 5/8	17 3/8	10 1/2	4 1/4	6	1 5/8	3 5/8	1	1 1/4										9.0
3	36		1 5/8	5/8	3/4	5 1/4	4 1/2	12 1/2	1 5/8	17 3/8	10 1/2	4 1/4	6	1 5/8	3 5/8	1	1 1/4										9.0
4	36		1 5/8	5/8	3/4	5 1/4	6	12 1/2	1 5/8	17 3/8	10 1/2	4 1/4	6	1 5/8	3 5/8	1	1 1/4										9.0
5	48		2 1/4	3/4	1	7	6	16 5/8	2 1/4	23 1/4	14	5 5/8	8	2 1/8	4 7/8	1 1/4	1 5/8										16.0

STANDARD SIGN W1-3

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer
DATE 5/17/12 PLATE NO. W1-3.8

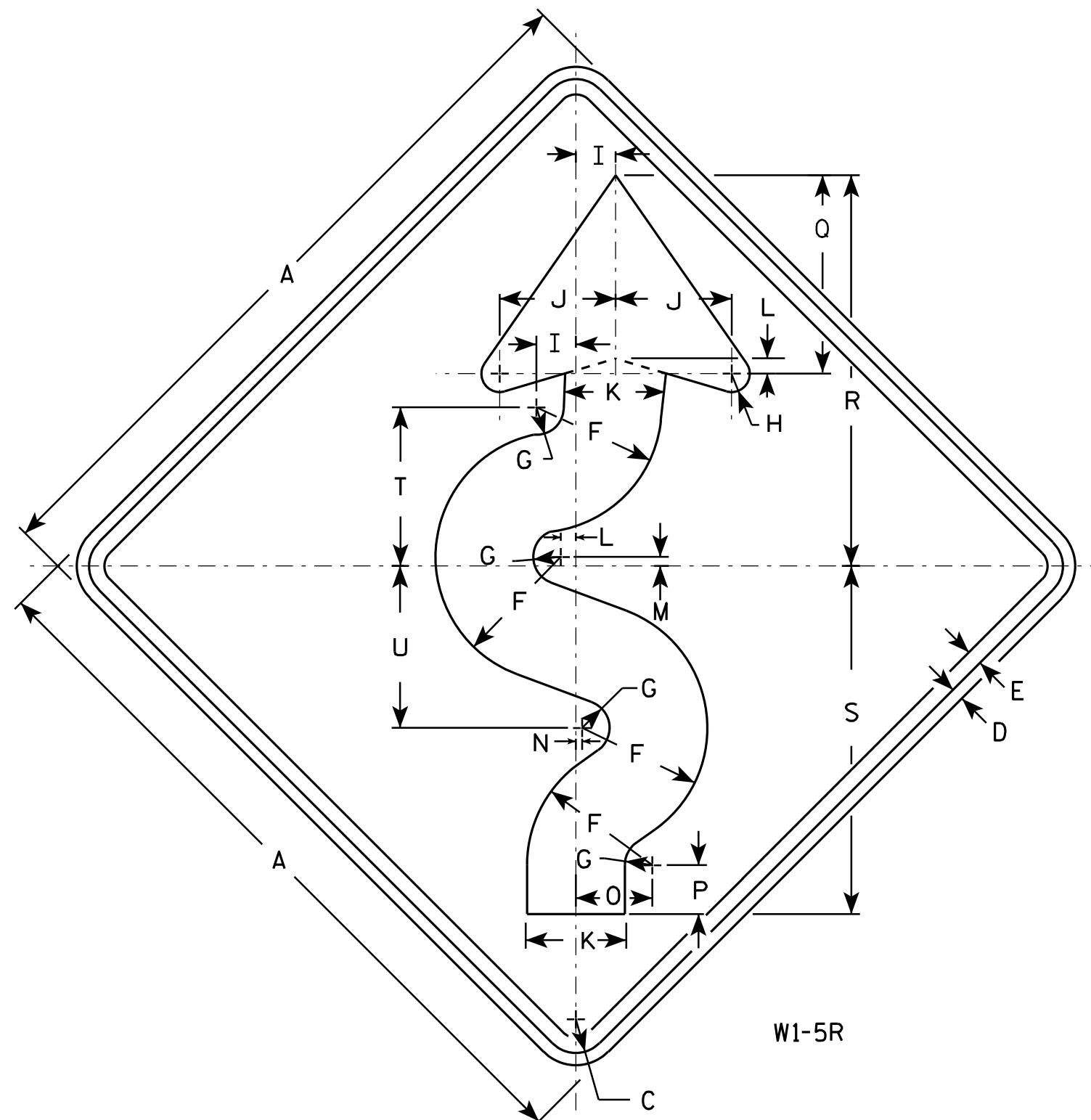
PROJECT NO: 8472-00-70

HWY: WOZNY ROAD

COUNTY: WASHBURN

SHEET NO:

E



W1-5R

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - Yellow
Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. W1-5L is the same as W1-5R except the arrow is reversed along the vertical centerline.

7

7

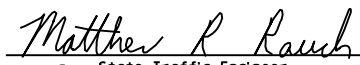
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	O	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24		1 1/8	3/8	1/2	4 1/8	7/8	5/8	1 1/4	3 3/4	3 1/4	1/2	1/4	1/8	2 1/2	1 5/8	6 1/2	12 3/4	11 3/8	5 1/4	5 1/4						4.0
2S	30		1 3/8	1/2	5/8	5 1/8	1 1/8	3/4	1 5/8	4 3/4	4 1/8	5/8	3/8	1/4	3 1/8	2	8 1/8	16	14 1/4	6 1/2	6 5/8						6.25
2M	36		1 5/8	5/8	3/4	6 1/4	1 3/8	1	1 7/8	5 5/8	4 7/8	3/4	3/8	1/4	3 3/4	2 7/8	9 3/4	19 1/8	17 1/8	7 3/4	7 7/8						9.0
3	36		1 5/8	5/8	3/4	6 1/4	1 3/8	1	1 7/8	5 5/8	4 7/8	3/4	3/8	1/4	3 3/4	2 7/8	9 3/4	19 1/8	17 1/8	7 3/4	7 7/8						9.0
4	36		1 5/8	5/8	3/4	6 1/4	1 3/8	1	1 7/8	5 5/8	4 7/8	3/4	3/8	1/4	3 3/4	2 7/8	9 3/4	19 1/8	17 1/8	7 3/4	7 7/8						9.0
5	48		2 1/4	3/4	1	8 1/4	1 3/4	1 1/4	2 1/2	7 1/2	6 1/2	1	1/2	3/8	5	3 1/4	13	25 1/2	22 3/4	10 3/8	10 1/2						16.0

STANDARD SIGN

W1-5

WISCONSIN DEPT OF TRANSPORTATION

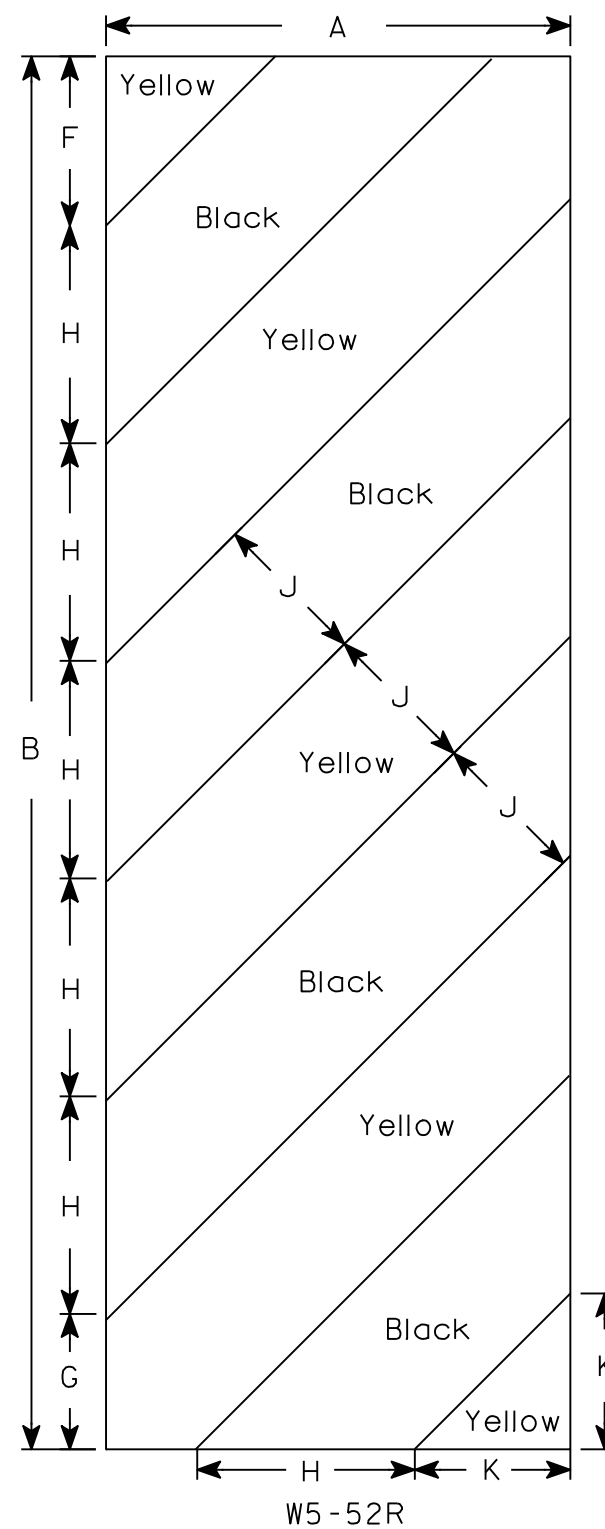
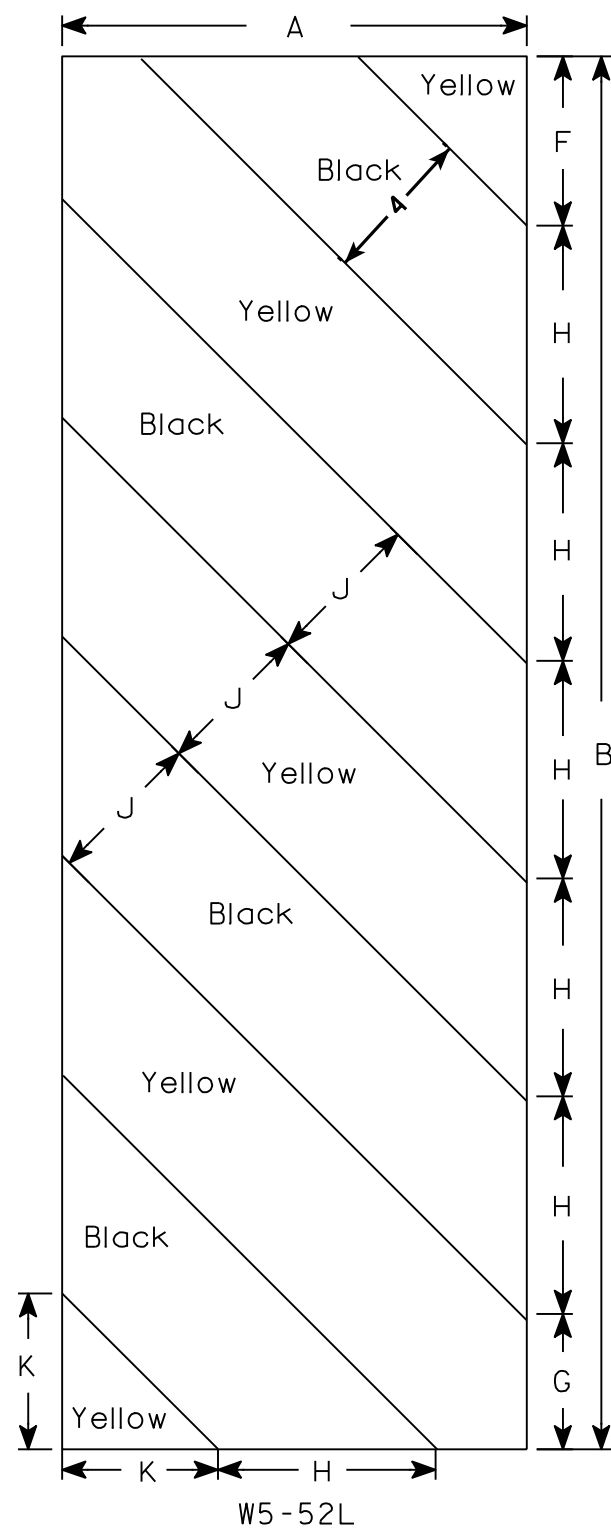
APPROVED



for State Traffic Engineer

DATE 5/18/12

PLATE NO. W1-5.8



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.
4. Alternate colors of stripes as shown.

[illegible]

STANDARD SIGN
W5-52L & W5-52R

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer
DATE 5/29/12 PLATE NO. W5-52.9

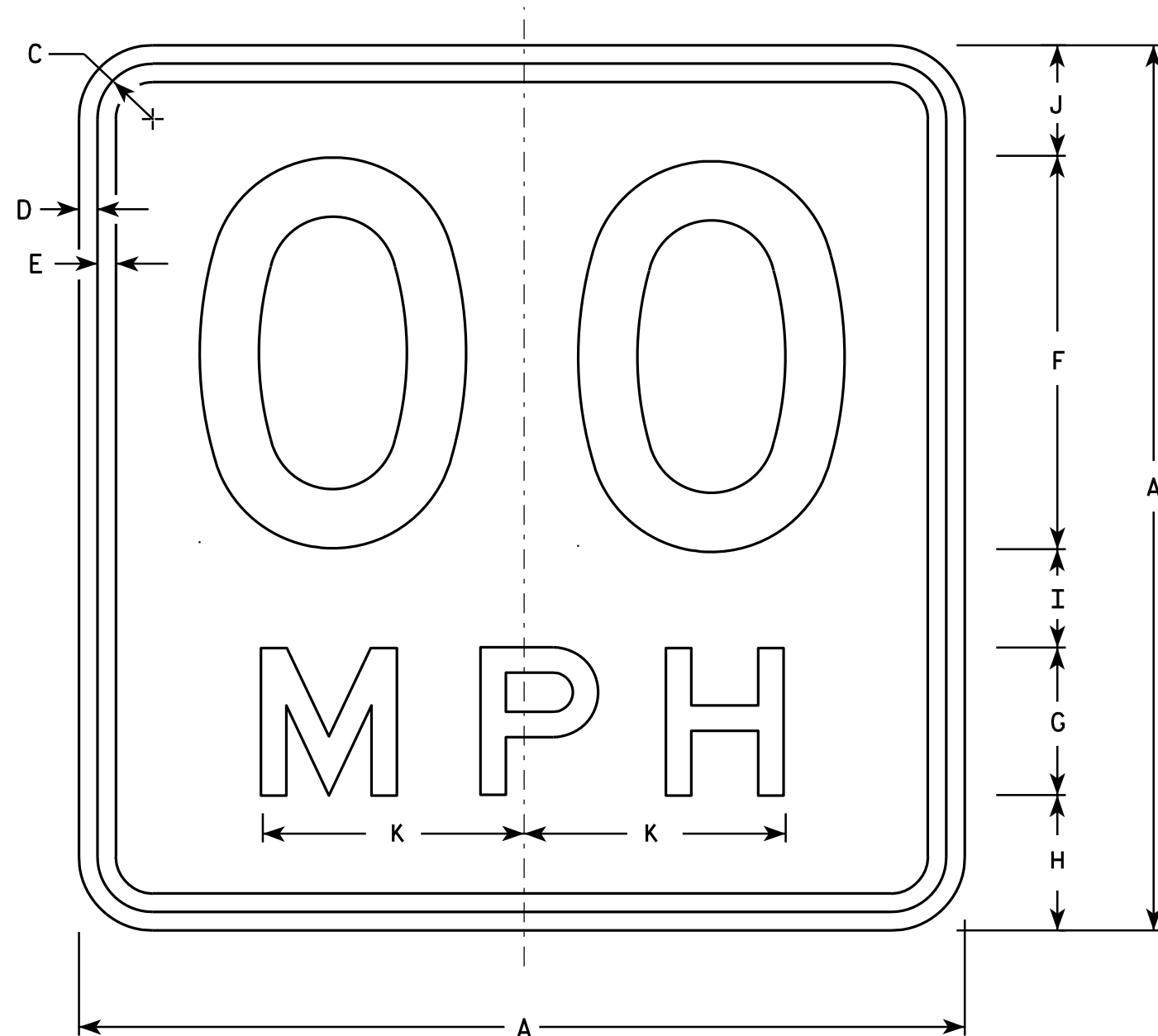
PROJECT NO: 8472-00-70

HWY: WOZNY ROAD

COUNTY: WASHBURN

SHEET NO:

E



NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - Yellow
Message - Black
3. Message Series - See Note 6
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Substitute appropriate numerals and optically space about centerline to achieve proper balance.
6. Line 1 is Series D
Line 2 is Series E

W13-1

- * For 30" x 30" Warning Signs, use 18" x 18" W13-1 signs.
For 36" x 36" Warning Signs, use 24" x 24" W13-1 signs.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area Sq. Ft.
1	18		1 1/8	3/8	3/8	8	3	2 3/4	2	2 1/4	5 3/8																2.25
* 2S	18		1 1/8	3/8	3/8	8	3	2 3/4	2	2 1/4	5 3/8																2.25
* 2M	18		1 1/8	3/8	3/8	8	3	2 3/4	2	2 1/4	5 3/8																2.25
3	24		1 1/8	3/8	1/2	10	4	4	2 3/4	3 1/4	6 5/8																4.00
4	36		1 5/8	5/8	3/4	16	6	5 1/2	4	4 1/2	10 5/8																9.00
5	36		1 5/8	5/8	3/4	16	6	5 1/2	4	4 1/2	10 5/8																9.00

STANDARD SIGN

W13-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
For State Traffic Engineer

DATE 5/31/12 PLATE NO. W13-1.16

PROJECT NO: 8472-00-70

HWY: WOZNY ROAD

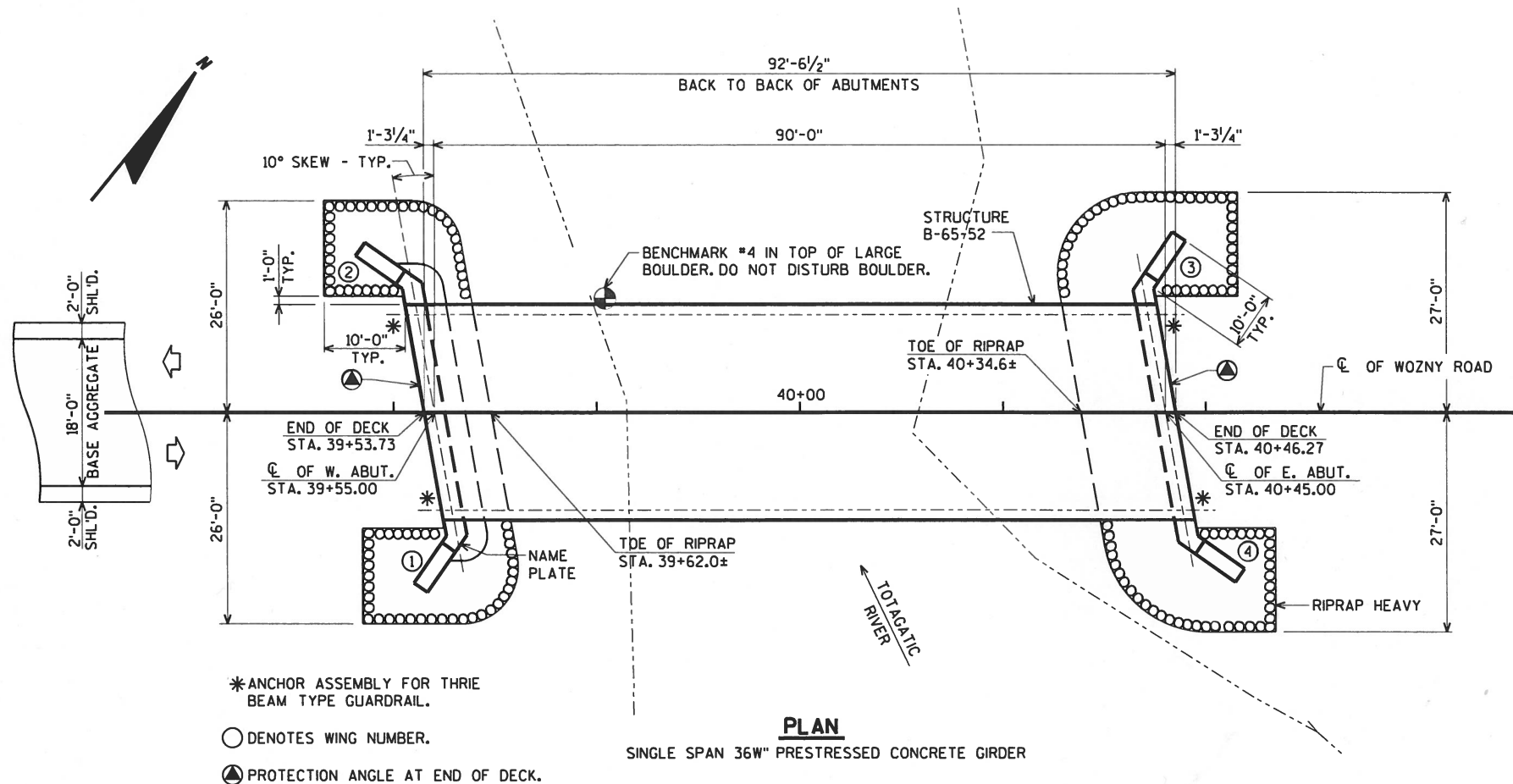
COUNTY: WASHBURN

SHEET NO:

E

DATE: _____
DATE: _____
CHECKED BY: _____
BACK CHECKED BY: _____
CORRECTED BY: _____

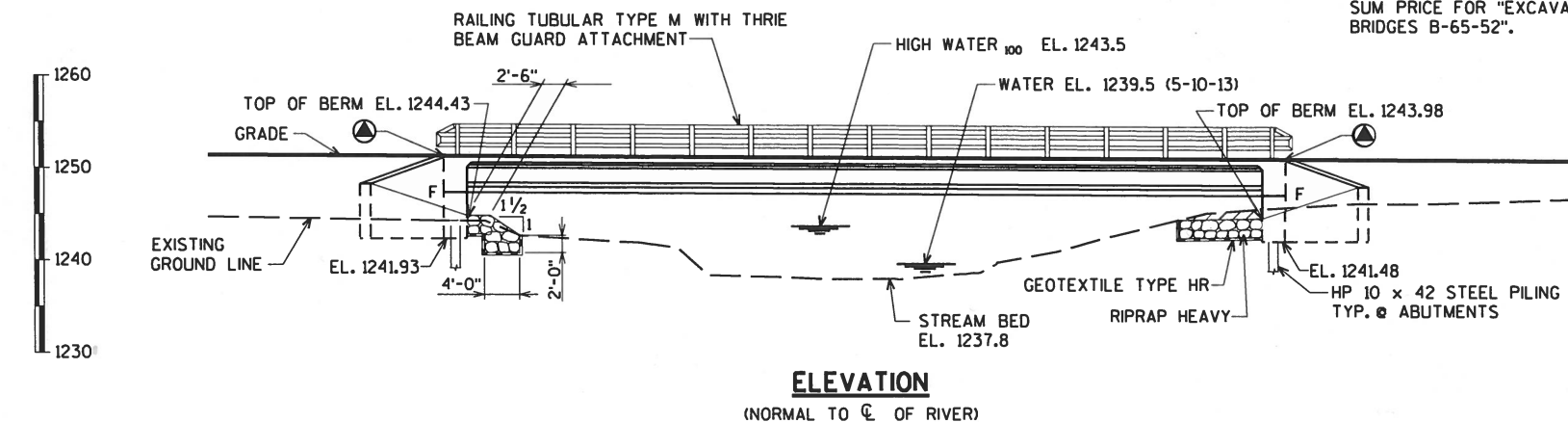
8



PLAN

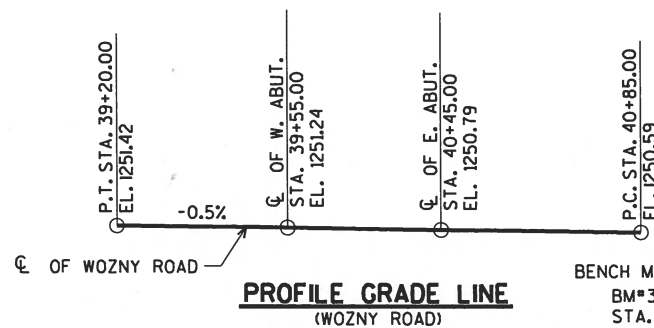
SINGLE SPAN 36W" PRESTRESSED CONCRETE GIRDER

- *ANCHOR ASSEMBLY FOR THRIE BEAM TYPE GUARDRAIL.
- DENOTES WING NUMBER.
- ▲ PROTECTION ANGLE AT END OF DECK.



ELEVATION

(NORMAL TO C OF RIVER)



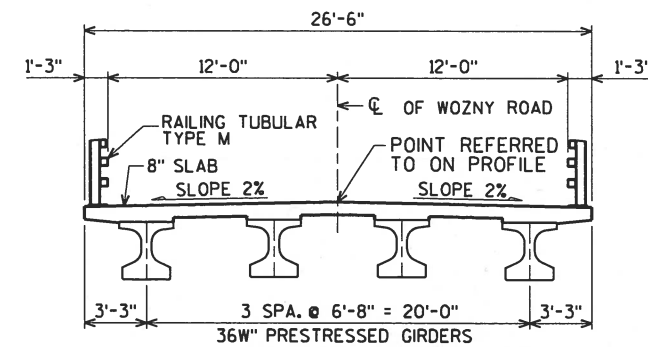
BENCH MARK:
BM#3 RR SPIKE IN 16" TREE
STA. 41+50, 71' LT.
EL. 1247.91

BM#4 CAP IN LARGE BOULDER
STA. 39+76, 14' LT.
EL. 1244.14

COST OF EXCAVATION IN THE HATCHED AREAS SHALL BE INCLUDED IN THE CONTRACT LUMP SUM PRICE FOR "EXCAVATION FOR STRUCTURES BRIDGES B-65-52".

LIST OF DRAWINGS

1. GENERAL PLAN
2. QUANTITIES AND NOTES
3. SUBSURFACE EXPLORATION
4. WEST ABUTMENT
5. WEST ABUTMENT WING 1 DETAILS
6. WEST ABUTMENT WING 2 DETAILS
7. WEST ABUTMENT DETAILS AND BILL OF BARS
8. EAST ABUTMENT
9. EAST ABUTMENT WING 3 DETAILS
10. EAST ABUTMENT WING 4 DETAILS
11. EAST ABUTMENT DETAILS AND BILL OF BARS
12. STEEL INTER. DIAPHRAGM DETAILS
13. 36W" PRESTRESSED GIRDER DETAILS
14. 36W" PRESTRESSED GIRDER DETAILS
15. SUPERSTRUCTURE
16. SUPERSTRUCTURE PLAN
17. RAILING TUBULAR TYPE M



TYPICAL SECTION THRU BRIDGE

DESIGN DATA

LIVE LOAD:

DESIGN LOADING: HL-93
INVENTORY RATING FACTOR: 1.29
OPERATING RATING FACTOR: 1.81
WISCONSIN STANDARD PERMIT VEHICLE (WIS-SPV) = 250 KIPS

STRUCTURE IS DESIGNED FOR A FUTURE WEARING SURFACE OF 20 "/S.F.

MATERIAL PROPERTIES:

CONCRETE MASONRY { SUPERSTRUCTURE f'_c = 4,000 p.s.i.
ALL OTHER f'_c = 3,500 p.s.i.
HIGH STRENGTH BAR STEEL REINFORCEMENT (GRADE 60) f_y = 60,000 p.s.i.

36W" PRESTRESSED GIRDER

CONCRETE MASONRY f'_c = 8,000 p.s.i.
STRANDS - 0.6" DIA. WITH ULTIMATE TENSILE STRENGTH OF = 270,000 p.s.i.

HYDRAULIC DATA:

100 YEAR FLOOD

DRAINAGE AREA = 62.8 sq. mi.
WATERWAY AREA = 192 sq. ft.
 V = 8.9 f.p.s.
 Q_{100} = 1,700 c.f.s.
HIGH WATER₁₀₀ EL. 1243.5
HIGH WATER₂ EL. 1241.6
RDWY. OVERFLOW = N/A
SCOUR CRITICAL CODE = 8
NAVD 88 DATUM

FOUNDATION DATA:

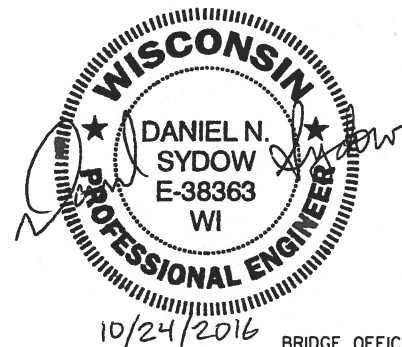
WEST ABUTMENT TO BE SUPPORTED ON HP 10 x 42 STEEL PILING (WITH PILE POINTS) DRIVEN TO A REQUIRED DRIVING RESISTANCE OF 180 TONS * PER PILE AS DETERMINED BY THE MODIFIED GATES DYNAMIC FORMULA. ESTIMATED LENGTH 30'-0". PRE-BORE PILING 10'-0".

EAST ABUTMENT TO BE SUPPORTED ON HP 10 x 42 STEEL PILING (WITH PILE POINTS) DRIVEN TO A REQUIRED DRIVING RESISTANCE OF 180 TONS * PER PILE AS DETERMINED BY THE MODIFIED GATES DYNAMIC FORMULA. ESTIMATED LENGTH 45'-0". PRE-BORE PILING 10'-0".

*THE FACTORED AXIAL RESISTANCE OF PILES IN COMPRESSION USED FOR DESIGN IS THE REQUIRED DRIVING RESISTANCE MULTIPLIED BY A RESISTANCE FACTOR OF 0.5 USING MODIFIED GATES TO DETERMINE DRIVEN PILE CAPACITY.

TRAFFIC DATA:

A.D.T. = <100 (2017)
A.D.T. = <100 (2037)
R.D.S. = 30 M.P.H.



BRIDGE OFFICE CONTACT:
WILLIAM DREHER
(608)-266-8489

CONSULTANT CONTACT:
DAN SYDOW
(715)-834-3161

STATE PROJECT NUMBER

8472-00-70

NO.	DATE	REVISION	BY
ORIGINAL PLANS PREPARED BY			
AYRES ASSOCIATES 3433 Oakwood Hills Parkway Eau Claire, WI 54701 www.AyresAssociates.com			
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
ACCEPTED	William C. Dreher SDR 11/18/16		DATE
CHIEF STRUCTURES DESIGN ENGINEER			
STRUCTURE B-65-52			
WOZNY ROAD OVER TOTAGATIC RIVER			
COUNTY	WASHBURN	TOWN/CITY/VILLAGE	FROG CREEK
DESIGN SPEC. AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS			
DESIGNED BY	CJM	DESIGN CK'D.	CKJ
DRWN CLS	CJM	PLANS CK'D.	BNS
GENERAL PLAN			SHEET 1 OF 17

BID ITEM NUMBER	BID ITEMS	UNIT	W. ABUT.	E. ABUT.	SUPER.	TOTAL
206.1000	EXCAVATION FOR STRUCTURES BRIDGES B-65-52	LS	-----	-----	-----	1
210.1500	BACKFILL STRUCTURE TYPE A	TON	180	180	-----	360
502.0100	CONCRETE MASONRY BRIDGES	CY	28	28	90	146
502.3200	PROTECTIVE SURFACE TREATMENT	SY	-----	-----	315	315
503.0137	PRESTRESSED GIRDER TYPE I 36W-INCH	LF	-----	-----	364	364
505.0400	BAR STEEL REINFORCEMENT HS STRUCTURES	LB	2,100	2,100	-----	4,200
505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB	1,050	1,050	15,080	17,180
506.0105	STRUCTURAL STEEL CARBON	LB	-----	-----	530	530
506.2605	BEARING PADS ELASTOMERIC NON-LAMINATED	EACH	4	4	-----	8
506.4000	STEEL DIAPHRAGMS B-65-52	EACH	-----	-----	6	6
513.4061	RAILING TUBULAR TYPE M B-65-52	LF	-----	-----	189	189
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	10	10	-----	20
550.0020	PRE-BORING ROCK OR CONSOLIDATED MATERIAL	LF	70	70	-----	140
550.0500	PILE POINTS	EACH	7	7	-----	14
550.1100	PILING STEEL HP 10-INCH x 42 LB	LF	210	315	-----	525
606.0300	RIPRAP HEAVY	CY	50	60	-----	110
612.0406	PIPE UNDERDRAIN WRAPPED 6-INCH	LF	80	80	-----	160
645.0120	GEOTEXTILE TYPE HR	SY	130	160	-----	290
	NON-BID ITEMS					
	FILLER	SIZE	-----	-----	-----	½" & ¾"

DRAWINGS SHALL NOT BE SCALED.

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

THE FIRST DIGIT OF A THREE DIGIT BAR NO. AND THE FIRST TWO DIGITS OF A FOUR DIGIT BAR NO. SIGNIFIES THE BAR SIZE. JOINT FILLER SHALL CONFORM TO THE REQUIREMENTS OF A.A.S.H.T.O. DESIGNATION M 153, TYPE I, II OR III OR A.A.S.H.T.O. DESIGNATION M 213.

THE SLOPE OF THE FILL IN FRONT OF THE ABUTMENTS SHALL BE COVERED WITH RIPRAP HEAVY AND GEOTEXTILE TYPE HR TO THE EXTENT SHOWN ON THE GENERAL PLAN SHEET AND IN THE ABUTMENT DETAILS.

ELASTOMERIC BEARING PADS NEED NOT BE INDIVIDUALLY MOLDED PROVIDED THE CUT EDGES ARE SMOOTH AND TRUE.

THE EXISTING STRUCTURE, P-65-903, TO REMAIN, IS A SEVEN CELL CONCRETE BOX CULVERT/DAM WHICH FUNCTIONS AS A SINGLE LANE BRIDGE, 78.0 FT. LONG WITH A 9.7 FT. CLEAR ROADWAY WIDTH.

AT THE BACKFACE OF ABUTMENTS ALL VOLUME WHICH CANNOT BE PLACED BEFORE ABUTMENT CONSTRUCTION AND IS NOT OCCUPIED BY THE NEW STRUCTURE SHALL BE BACKFILLED WITH BACKFILL STRUCTURE.

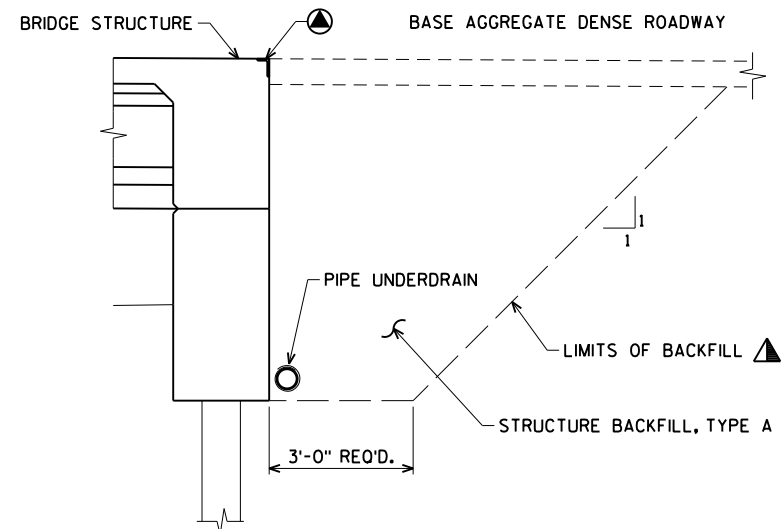
PROTECTIVE SURFACE TREATMENT IS TO BE APPLIED AS SHOWN IN DETAIL ON THIS SHEET.

THE HAUNCH CONCRETE QUANTITY IS BASED ON AN AVERAGE HAUNCH DEPTH SHOWN ON THE PRESTRESSED GIRDER DETAILS SHEETS.

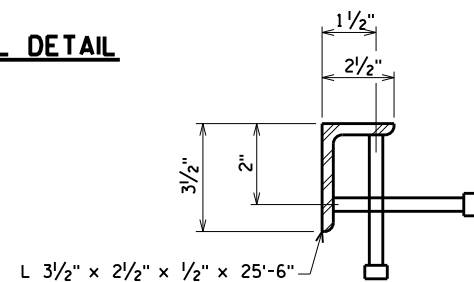
PLACE PILES IN PRE-BORED HOLES AND THEN DRIVE TO REQUIRED DRIVING RESISTANCE.

THE UPPER LIMITS OF "EXCAVATION FOR STRUCTURES BRIDGES B-65-52" SHALL BE THE EXISTING GROUNDLINE.

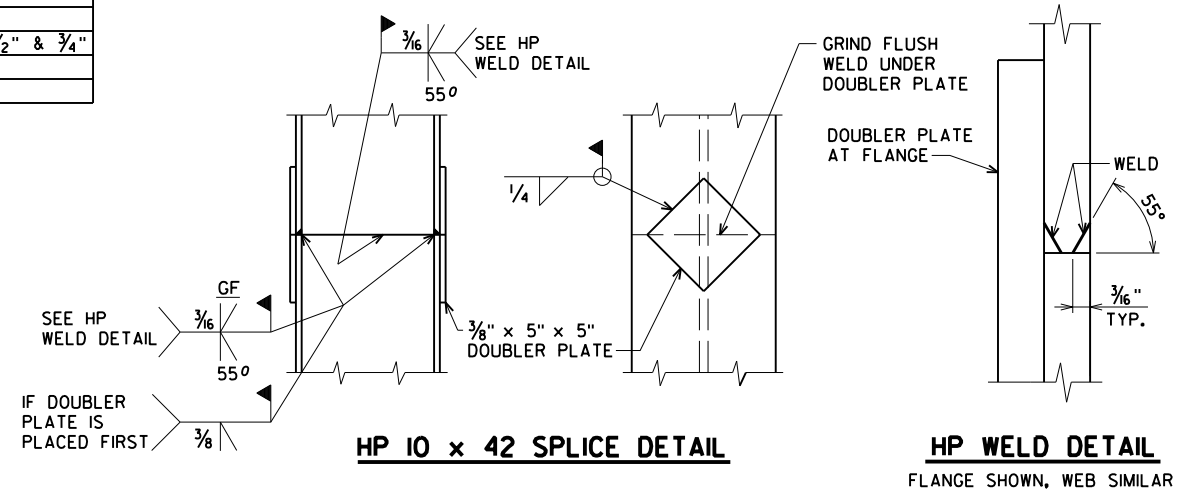
BACKFILL PAY LIMITS. BACKFILL BEYOND BACKFILL PAY LIMITS SHALL BE INCIDENTAL TO EXCAVATION FOR STRUCTURES. LIMITS OF EXCAVATION SHALL BE DETERMINED BY THE CONTRACTOR.



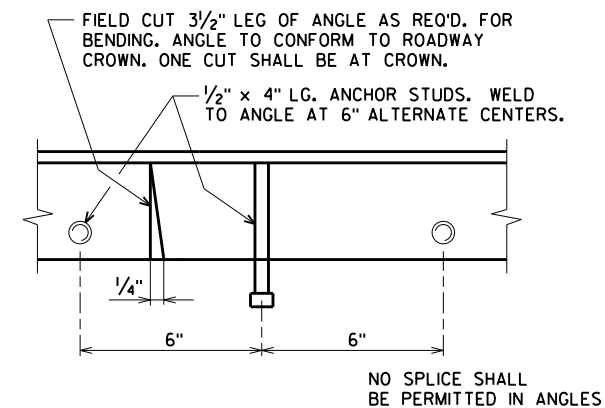
STRUCTURE BACKFILL DETAIL



(ANGLE AND STUDS TO BE PAID FOR AT THE UNIT PRICE BID FOR "STRUCTURAL STEEL CARBON". (NO PAINT REQ'D).
SANDBLAST PROTECTION ANGLE AFTER FABRICATION
IN ACCORDANCE WITH SSPC SP. #6 "COMMERCIAL
BLAST CLEANING". AFTER BLAST CLEANING, THE
PROTECTION ANGLE SHALL BE HOT DIPPED GALVANIZED.



PROTECTION ANGLE DETAIL

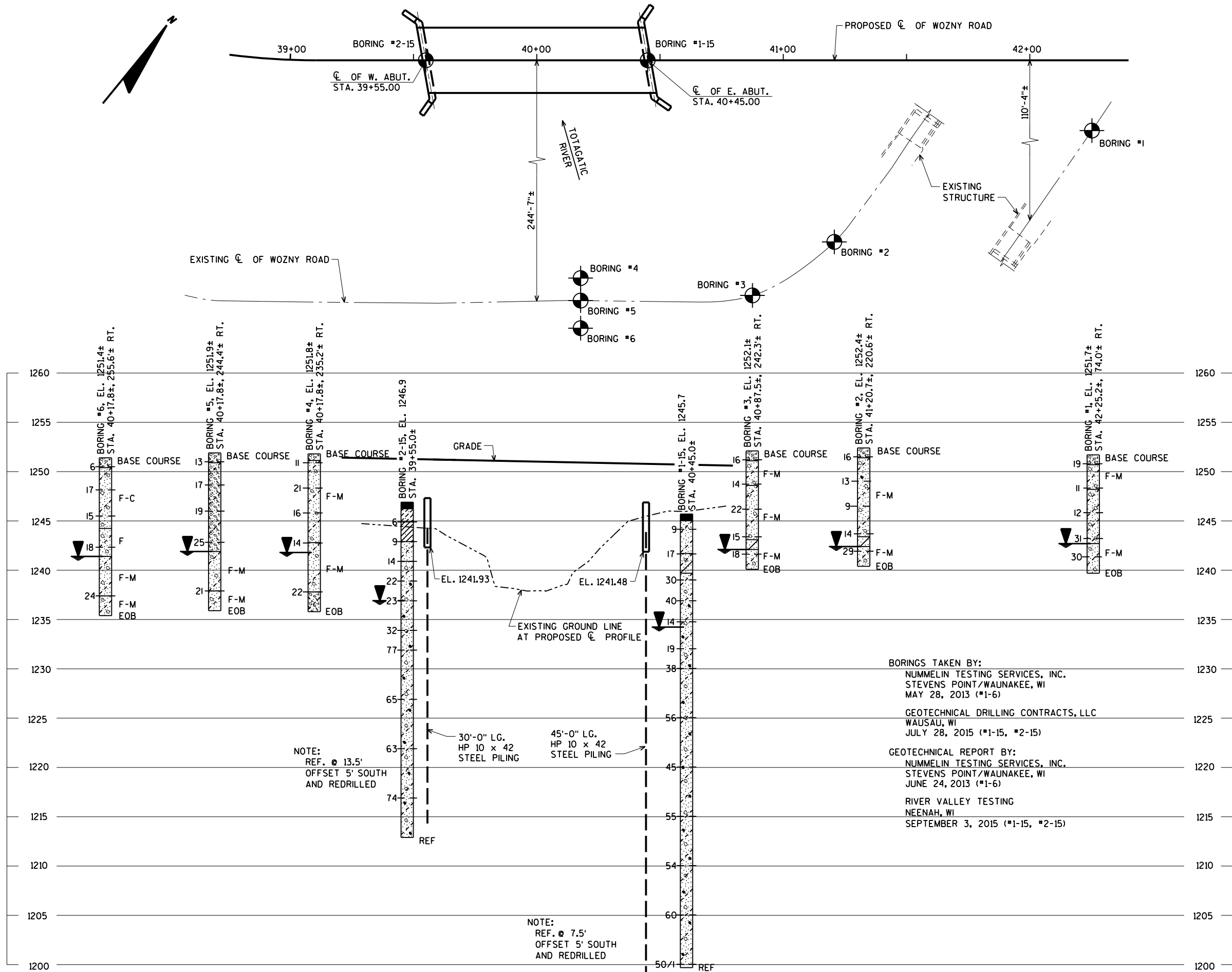


NO SPLICE SHALL
BE PERMITTED IN ANGLES

NO.	DATE	REVISION						BY	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION									
STRUCTURE B-65-52									
				DRAWN BY	CJM	PLANS CK'D.		DNS	
QUANTITIES AND NOTES						SHEET 2 OF 17			

\$PRNAME\$
U:\42-0893.00 - Washburn, Frog Creek, Wozny Road\BRIDGE\420893 soils.dgn

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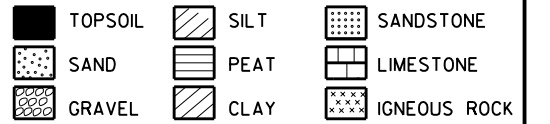
STATE PROJECT NUMBER

8472-00-70

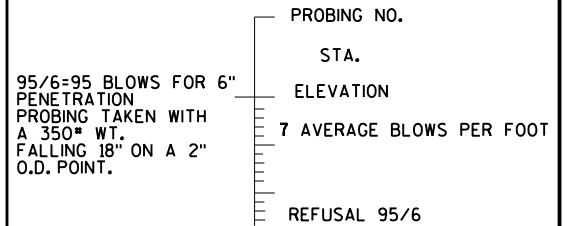
ABBREVIATIONS

F — FINE M — MEDIUM C — COARSE
WS — WEATHERED SO — SOUND

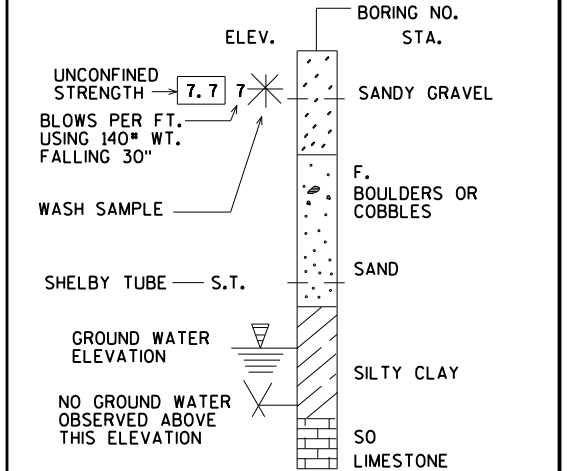
MATERIAL SYMBOLS



LEGEND OF PROBING



LEGEND OF BORING



UNLESS OTHERWISE SPECIFIED, THE BLOWS PER FOOT AT THE LOCATIONS INDICATED ARE BASED ON DRIVING A 2" O.D. X 1.4" I.D. SPLIT SPOON SAMPLER WITH A 140# HAMMER HAVING A FREE FALL OF 30". THE BLOW COUNT IS TAKEN IN UNDISTURBED SOIL IMMEDIATELY BELOW A CASED OR OPEN HOLE ELIMINATING SIDE FRICTION ON THE DRIVE PIPE.

SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

TO OBTAIN RELATIVE DATA CONCERNING THE CHARACTER OF MATERIAL IN AND UPON WHICH THE FOUNDATION MIGHT BE BUILT, BORINGS AND/OR SOUNDINGS WERE MADE AT POINTS APPROXIMATELY AS INDICATED ON THIS DRAWING. THE DATA PRESENTED HEREIN REPRESENTS THE FINDINGS OF THE SUBSURFACE EXPLORATIONS MADE. HOWEVER, BECAUSE THE DEPTHS INVESTIGATED ARE LIMITED AND THE AREA OF THE BORINGS AND/OR SOUNDINGS IS VERY SMALL IN RELATION TO THE ENTIRE AREA, THE WISCONSIN DEPARTMENT OF TRANSPORTATION DOES NOT WARRANT CONDITIONS BELOW THE DEPTHS INVESTIGATED OR THAT THE CLASSIFICATION OF MATERIAL ENCOUNTERED IN THESE INVESTIGATIONS IS NECESSARILY TYPICAL OF THE ENTIRE SITE.

NO.	DATE	REVISION	BY
-----	------	----------	----

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-65-52

DRAWN BY CLS PLANS CK'D. DNS

SUBSURFACE
EXPLORATION

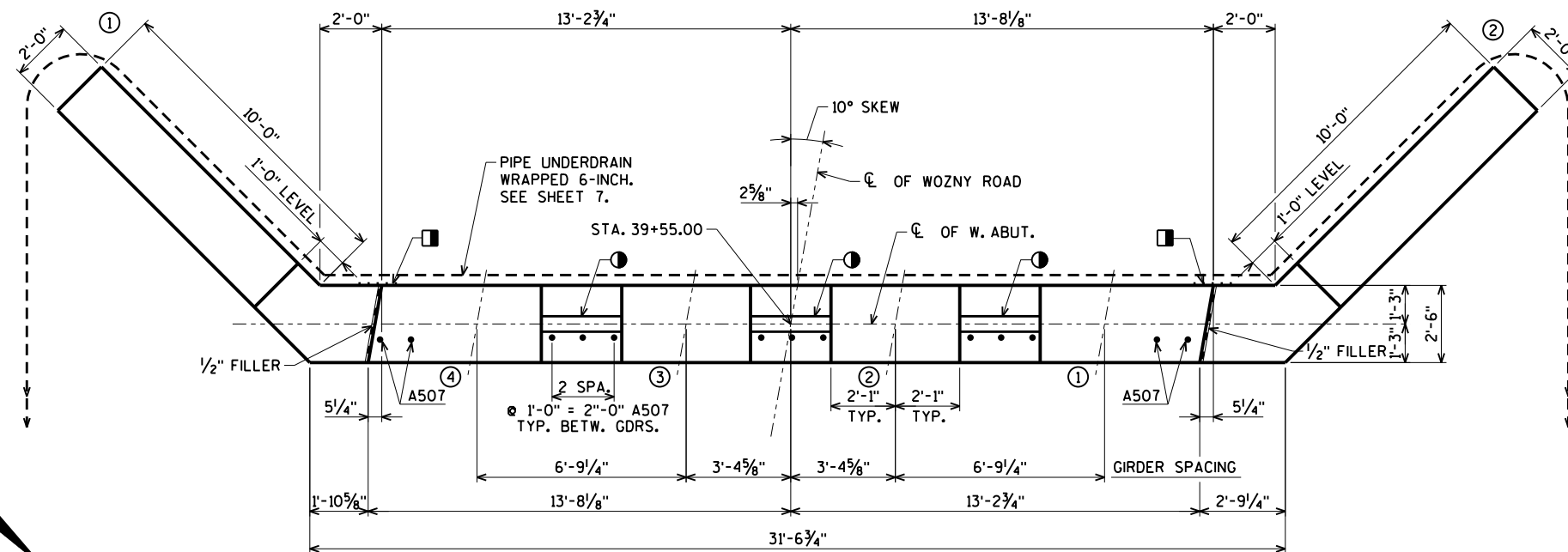
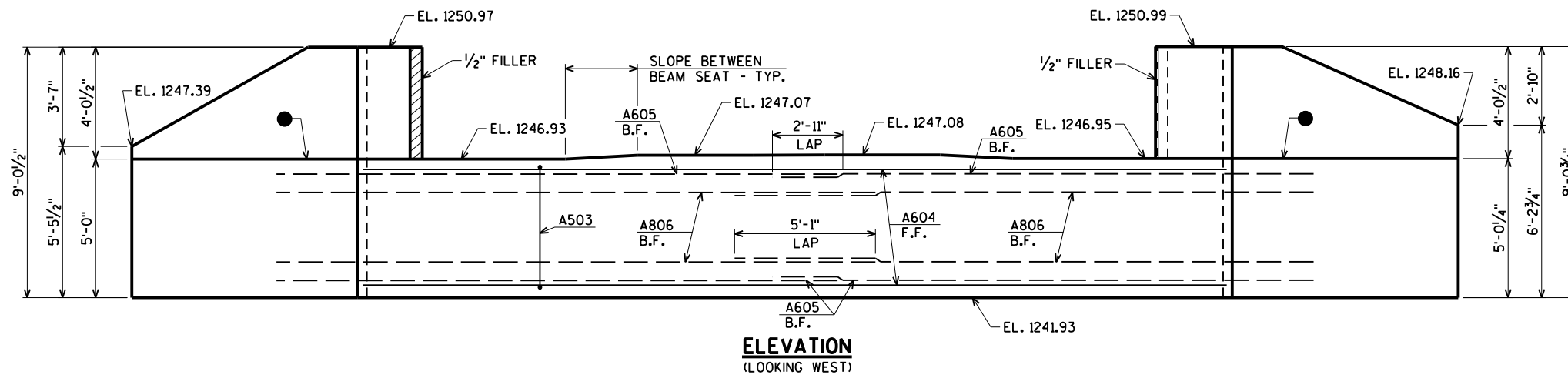
SHEET 3 OF 17

\$PRNAME\$
U:\42-0893.00 - Washburn, Frog Creek, Wozny Road\BRIDGE\420893 wadgn

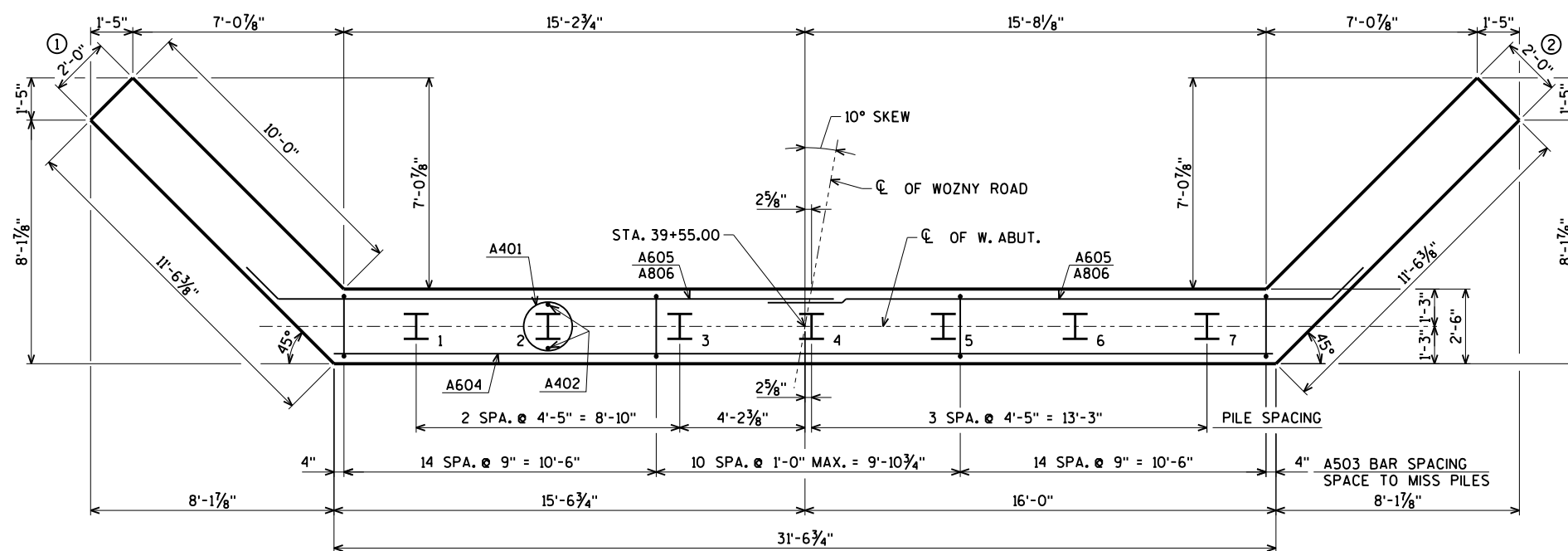
STATE PROJECT NUMBER

8472-00-70

NOTE: SEAL ALL EXPOSED HORIZONTAL AND VERTICAL SURFACES OF 1/2" FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD 1/8" BELOW SURFACE OF CONCRETE.)



PLAN



PILE LAYOUT

- OPT. KEYED CONST. JOINT - FORMED BY A BEVELED 2" x 6" WITH RUBBERIZED MEMBRANE WATERPROOFING ON B.F.
 - KEYED CONST. JOINT - FORMED BY A BEVELED 2" x 6".
 - VERTICAL 18" RUBBERIZED MEMBRANE WATERPROOFING TO EXTEND FROM BRIDGE SEAT TO TOP OF WING WALL.
- FOR PILE SPICE DETAIL SEE SHEET 2.
- B.F. DENOTES BACK FACE
F.F. DENOTES FRONT FACE

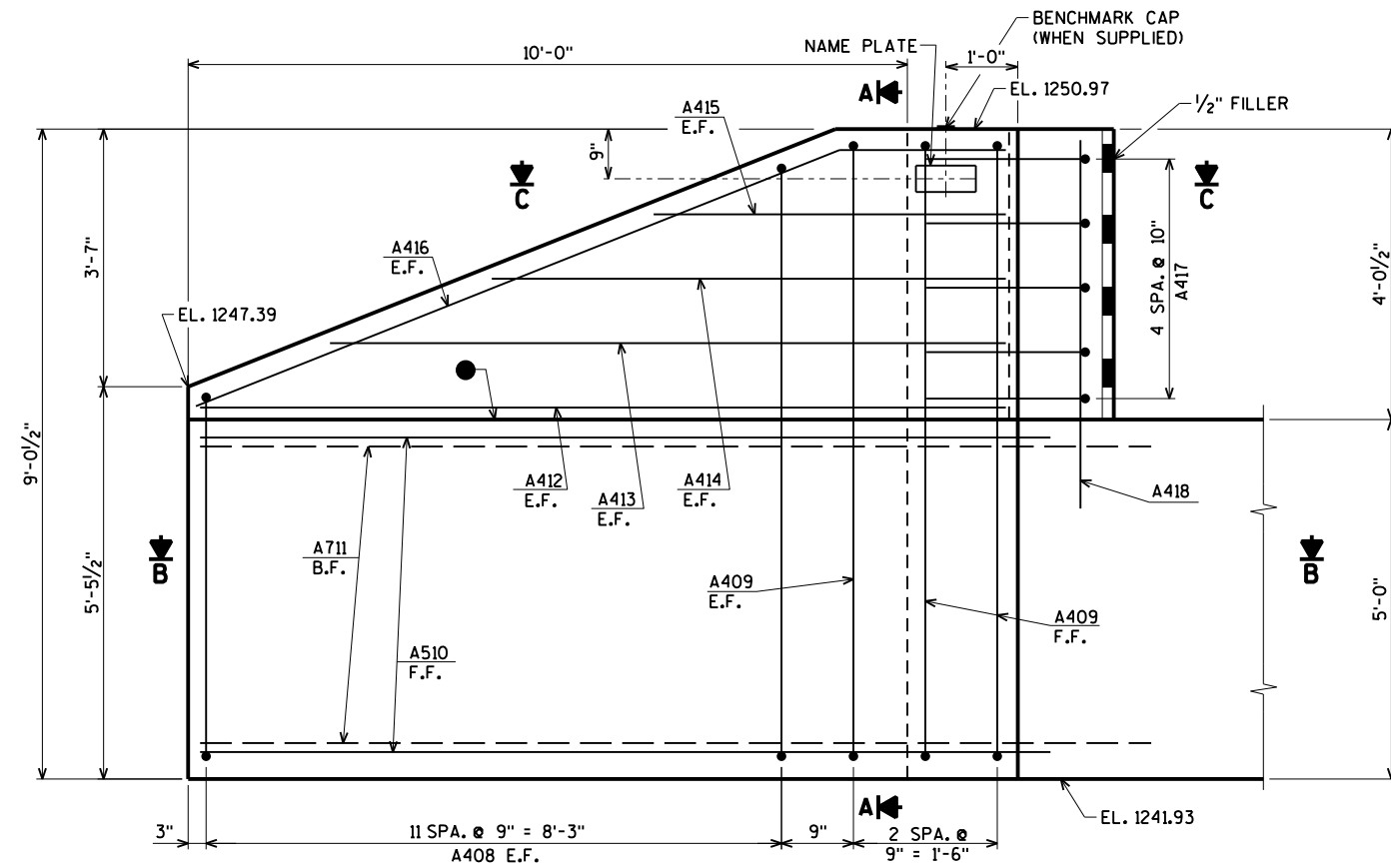
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-65-52			
DRAWN BY		JWZ	PLANS CK'D. DNS
WEST ABUTMENT		SHEET 4 OF 17	

ORIGINAL PLANS PREPARED BY
AYRES ASSOCIATES
3433 Oakwood Hills Parkway
Eau Claire, WI 54701
www.AyresAssociates.com

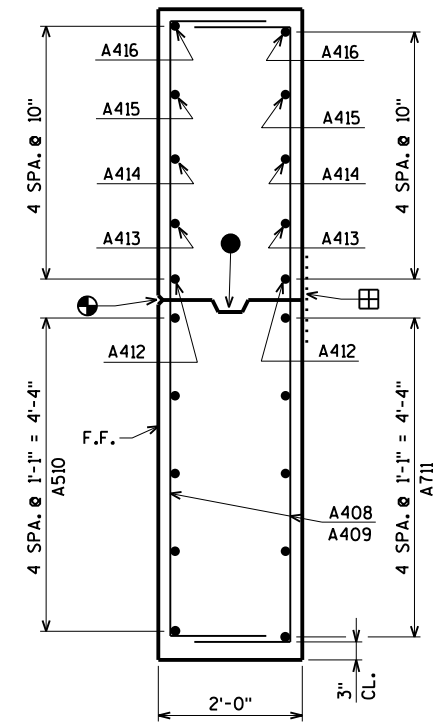
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STATE PROJECT NUMBER

8472-00-70



ELEVATION - WING 1



SECTION A

18" RUBBERIZED MEMBRANE WATERPROOFING ON BACK FACE. NOT REQUIRED IF CONST. JT. IS NOT USED.

OPT. KEYED CONST. JOINT - FORMED BY A BEVELED 2" x 6" WITH RUBBERIZED MEMBRANE WATERPROOFING ON B.F.

3/4" 'V' GROOVE ON F.F. OF WING WALL NOT REQUIRED IF CONST. JT. IS NOT USED.

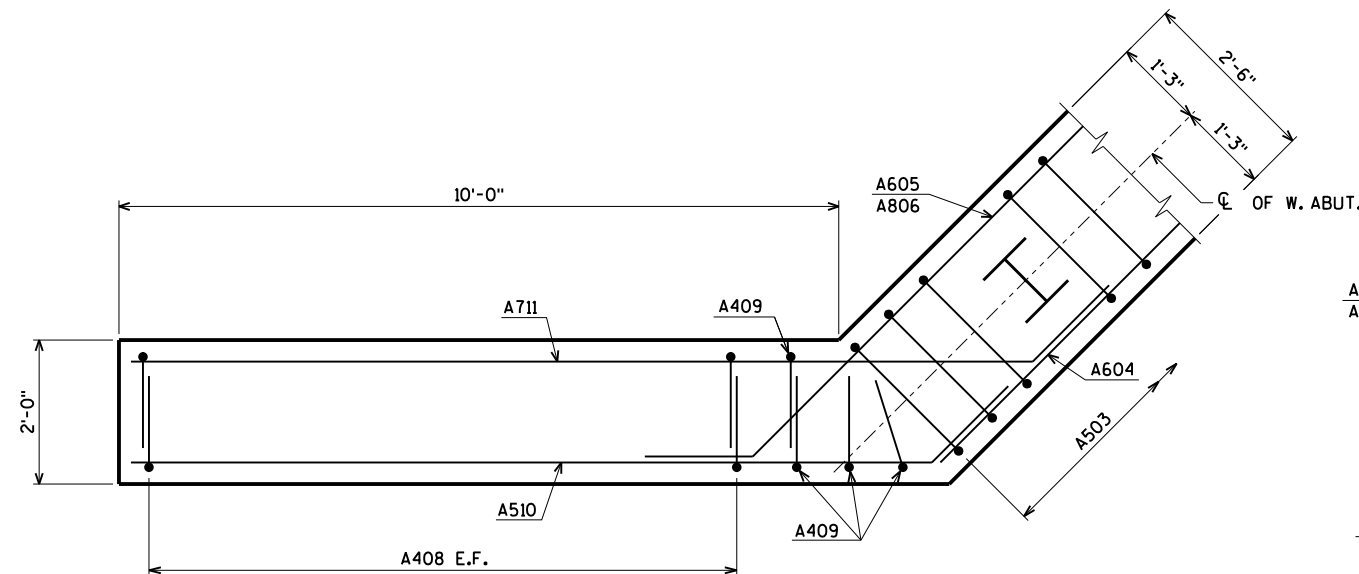
VERTICAL 18" RUBBERIZED MEMBRANE WATERPROOFING TO EXTEND FROM BRIDGE SEAT TO TOP OF WING WALL.

FOR PILE SPLICE DETAIL SEE SHEET 2.

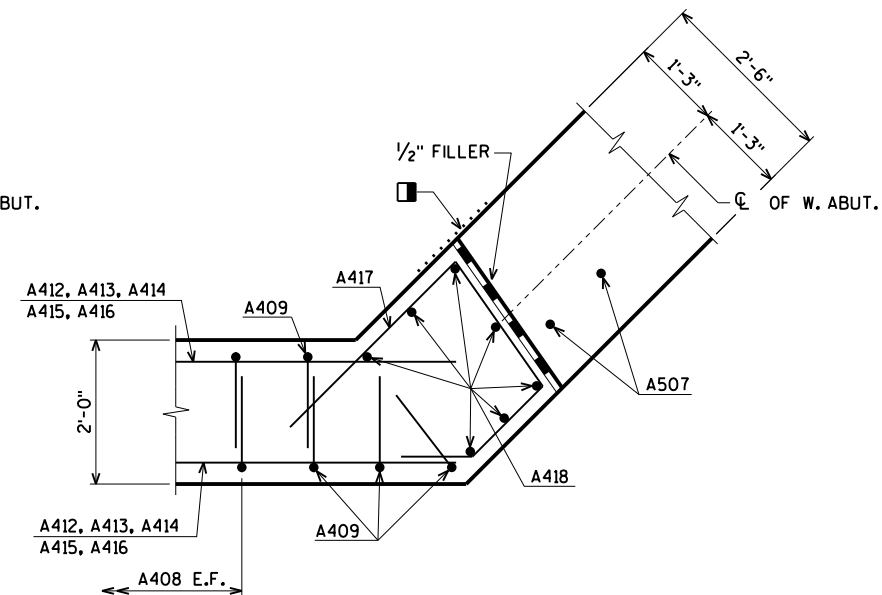
B.F. DENOTES BACK FACE

E.F. DENOTES EACH FACE

F.F. DENOTES FRONT FACE



SECTION B



SECTION C

8

8

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-65-52			
DRAWN BY		JWZ	PLANS CK'D. DNS
WEST ABUTMENT WING 1 DETAILS			SHEET 5 OF 17



- F.F. DENOTES FRONT FACE

STRUCTURE B-65-52

WEST
ABUTMENT
WING 2 DETAILS

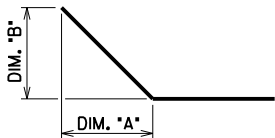
SHEET 6 OF 17

BILL OF BARS

BAR NO.	COATED BAR	NO. REQ'D.	LENGTH	BENT BAR	BUNDLE SERIES	2,100# UNCOATED 1,050# COATED
						LOCATION
A401		7	28-0	X		BODY @ PILES
A402		14	2-3			BODY @ PILES
A503		39	13-9	X		BODY VERT.
A604		9	31-2			BODY HORIZ. F.F.
A605		4	21-2	X		BODY HORIZ. B.F.
A806		14	22-6	X		BODY HORIZ. B.F.
A507	X	13	2-0			BODY DOWELS
A408	X	24	9-2	X		WING 1 VERT. E.F.
A409	X	4	11-1	X		WING 1 VERT. E.F.
A510	X	5	12-9	X		WING 1 HORIZ. F.F.
A711	X	5	14-4	X		WING 1 HORIZ. B.F.
A412	X	2	11-3			WING 1 HORIZ. E.F.
A413	X	2	9-6			WING 1 HORIZ. E.F.
A414	X	2	7-3			WING 1 HORIZ. E.F.
A415	X	2	5-0			WING 1 HORIZ. E.F.
A416	X	2	11-5	X		WING 1 DIAG. E.F.
A417	X	5	7-9	X		WING 1 HORIZ. E.F.
A418	X	7	6-0			WING 1 VERT.
A419	X	24	9-8	X		WING 2 VERT. E.F.
A420	X	4	11-1	X		WING 2 VERT. E.F.
A521	X	5	12-9	X		WING 2 HORIZ. F.F.
A722	X	5	14-4	X		WING 2 HORIZ. B.F.
A423	X	2	11-3			WING 2 HORIZ. E.F.
A424	X	2	11-3			WING 2 HORIZ. E.F.
A425	X	2	8-6			WING 2 HORIZ. E.F.
A426	X	2	5-7			WING 2 HORIZ. E.F.
A427	X	2	11-5	X		WING 2 DIAG. E.F.
A428	X	5	8-6	X		WING 2 HORIZ. E.F.
A429	X	7	6-0			WING 2 VERT.

BENDING DIMENSIONS ARE OUT TO OUT OF BARS.

⊗ 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 NO.	DIM. 'A'	DIM. 'B'
A605	1'-0 3/4"	1'-0 3/4"
A806	1'-0 3/4"	1'-0 3/4"
A510	1'-0 3/4"	1'-0 3/4"
A711	1'-0 3/4"	1'-0 3/4"
A416	8'-9"	3'-6"
A521	1'-0 3/4"	1'-0 3/4"
A722	1'-0 3/4"	1'-0 3/4"
A427	8'-9"	2'-9"

BAR SERIES TABLE

BAR MARK	NO REQ'D.	LENGTH
A408	2 SERIES OF 12	7'-6" TO 10'-9"
A419	2 SERIES OF 12	8'-4" TO 10'-11"

BUNDLE AND TAG EACH SERIES SEPARATELY.

⊖ PIPE UNDERDRAIN WRAPPED 6-INCH. SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. ATTACH RODENT SHIELD AT ENDS OF PIPE UNDERDRAIN AS DETAILED ON THIS SHEET. RODENT SHIELD TO BE INCLUDED IN BID PRICE OF "PIPE UNDERDRAIN WRAPPED 6-INCH".

⦿ KEYED CONST. JOINT - FORMED BY A BEVELED 2" x 6".

FOR PILE SPLICE DETAIL SEE SHEET 2.

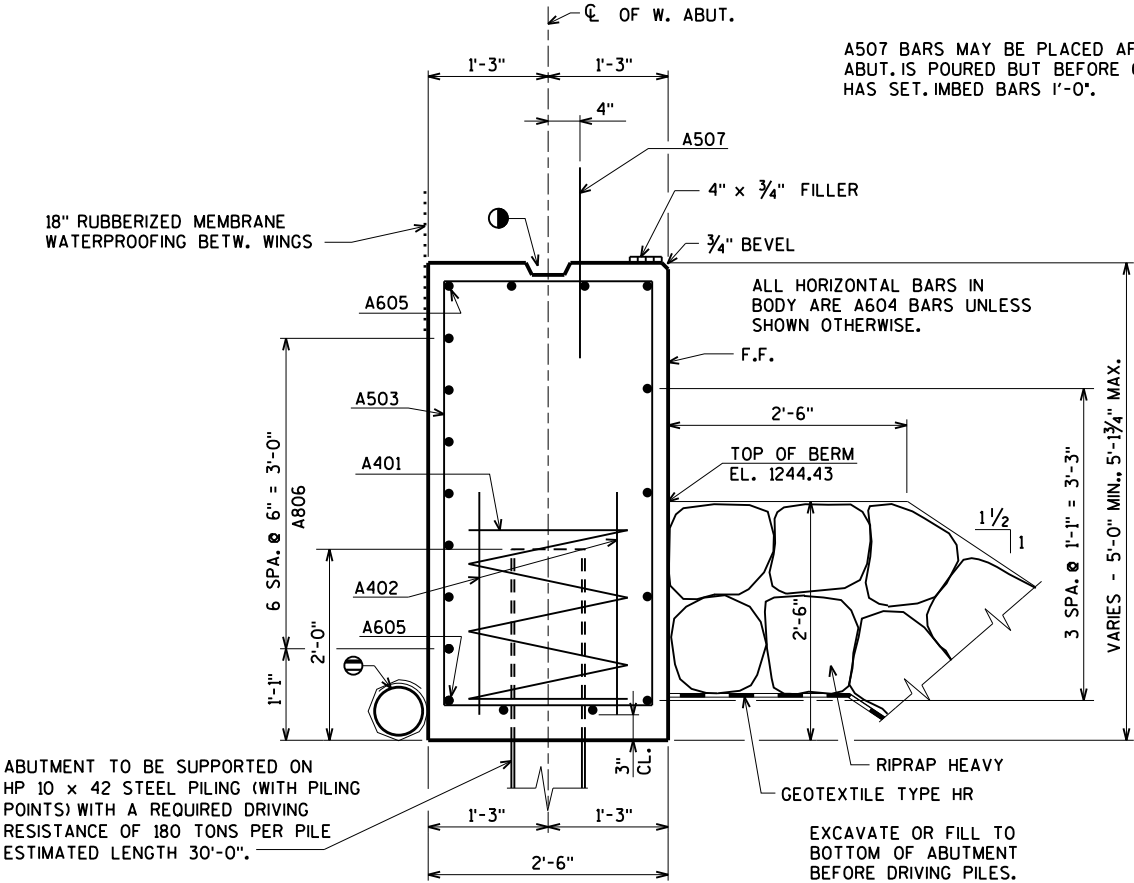
B.F. DENOTES BACK FACE

E.F. DENOTES EACH FACE

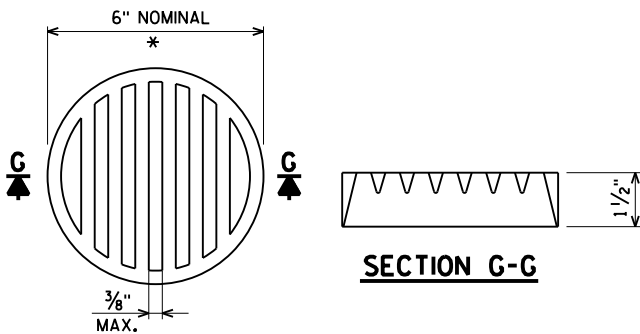
F.F. DENOTES FRONT FACE

ORIGINAL PLANS PREPARED BY
AYRES ASSOCIATES
3433 Oakwood Hills Parkway
Eau Claire, WI 54701
www.AyresAssociates.com

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-65-52			
DRAWN BY JWZ		PLANS CK'D. DNS	
WEST ABUTMENT DETAILS AND BILL OF BARS			SHEET 7 OF 17



TYPICAL SECTION THRU BODY



* DIMENSIONS ARE APPROXIMATE. THE GRATE IS SIZED TO FIT INTO A PIPE COUPLING. ORIENT SO SLOTS ARE VERTICAL.

THE RODENT SHIELD, PIPE COUPLING AND SCREWS SHALL BE CONSIDERED INCIDENTAL TO THE BID ITEM "PIPE UNDERDRAIN WRAPPED 6-INCH".

THE RODENT SHIELD SHALL BE PVC GRATE SIMILAR TO THIS DETAIL. THE GRATE IS COMMERCIALY AVAILABLE AS A FLOOR STRAINER. A PIPE COUPLING IS REQUIRED FOR THE ATTACHMENT OF THIS SCREEN TO THE EXPOSED END OF THE PIPE UNDERDRAIN. THE SHIELD SHALL BE FASTENED TO THE PIPE COUPLING WITH TWO OR MORE NO. 10 x 1-INCH SHEET METAL SCREWS.

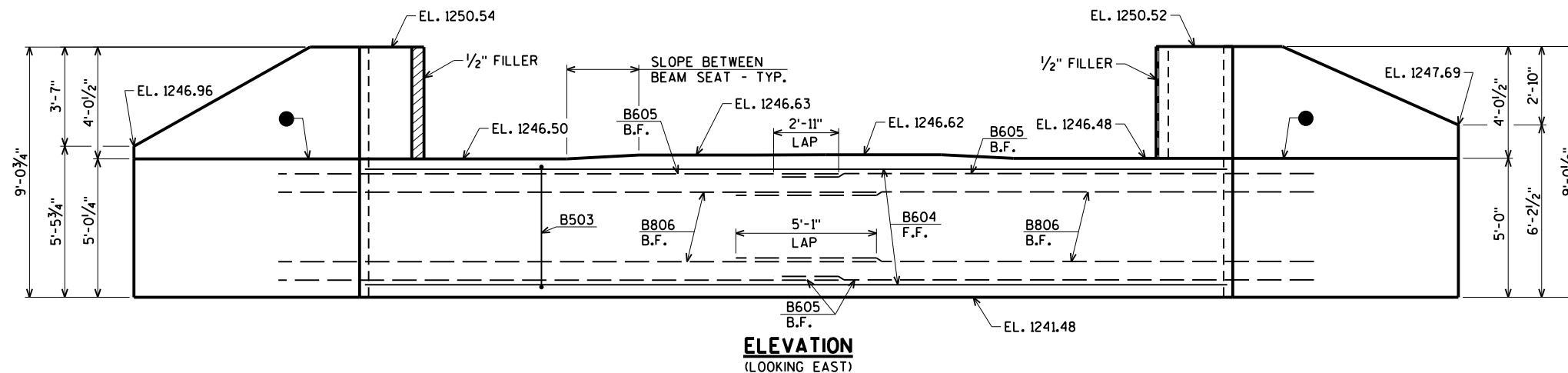
RODENT SHIELD DETAIL

\$PRNAME\$
U:\42-0893.00 - Washburn, Frog Creek, Wozny Road\BRIDGE\420893_ea.dgn

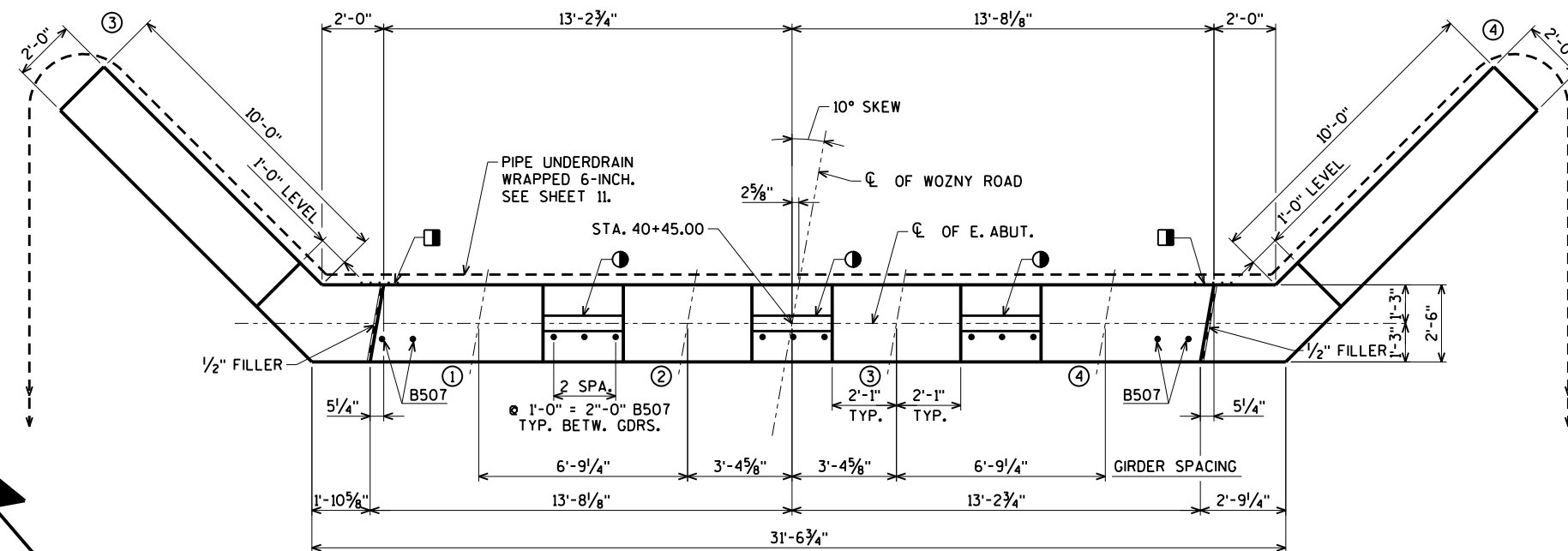
STATE PROJECT NUMBER

8472-00-70

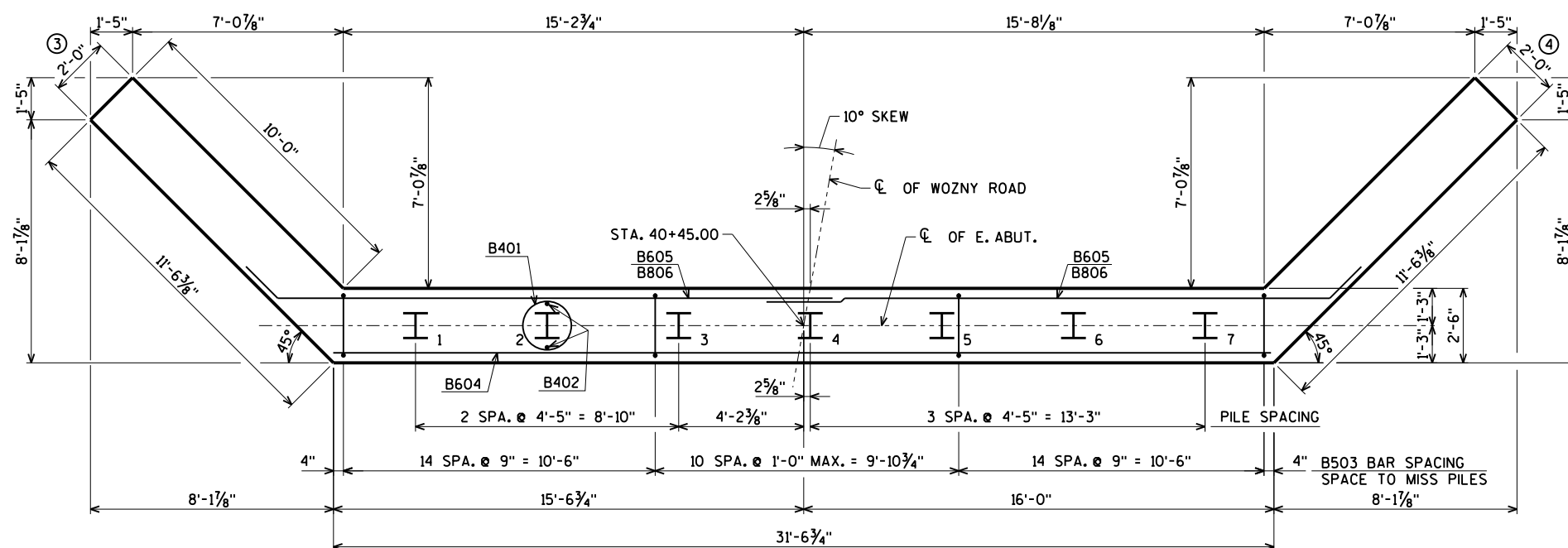
NOTE: SEAL ALL EXPOSED HORIZONTAL AND VERTICAL SURFACES OF 1/2" FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD 1/8" BELOW SURFACE OF CONCRETE.)



ELEVATION
(LOOKING EAST)



PLAN



PILE LAYOUT

- OPT. KEYED CONST. JOINT - FORMED BY A BEVELED 2" x 6" WITH RUBBERIZED MEMBRANE WATERPROOFING ON B.F.
 - KEYED CONST. JOINT - FORMED BY A BEVELED 2" x 6".
 - VERTICAL 18" RUBBERIZED MEMBRANE WATERPROOFING TO EXTEND FROM BRIDGE SEAT TO TOP OF WING WALL.
- FOR PILE SPICE DETAIL SEE SHEET 2.
- B.F. DENOTES BACK FACE
F.F. DENOTES FRONT FACE

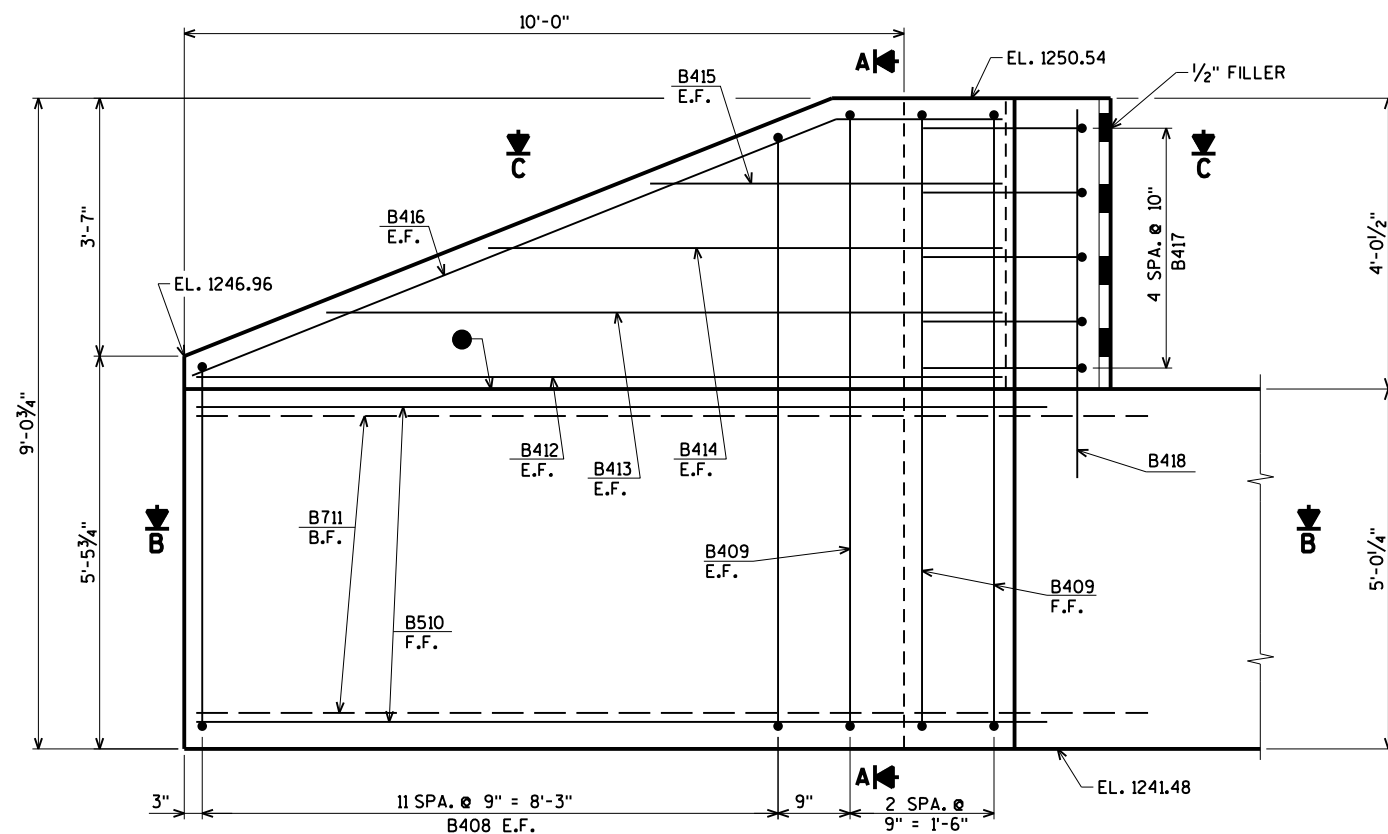
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-65-52			
DRAWN BY		JWZ	PLANS CK'D. DNS
EAST ABUTMENT		SHEET 8 OF 17	

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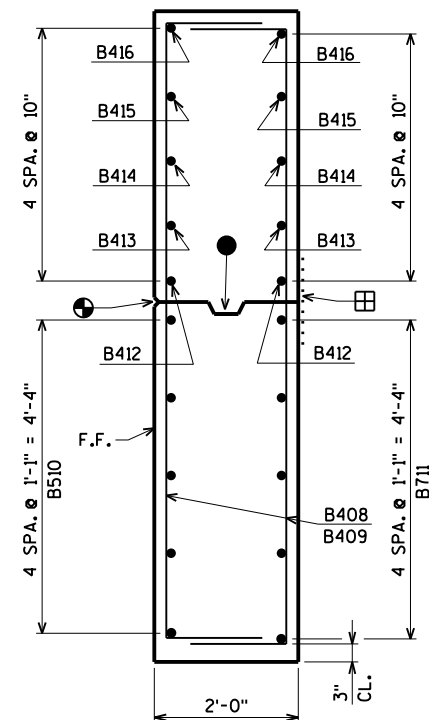
\$PRNAME\$
U:\42-0893.00 - Washburn, Frog Creek, Wozny Road\BRIDGE\420893_ea.dgn

STATE PROJECT NUMBER

8472-00-70



ELEVATION - WING 3



SECTION A

18" RUBBERIZED MEMBRANE WATERPROOFING ON BACK FACE. NOT REQUIRED IF CONST. JT. IS NOT USED.

OPT. KEYED CONST. JOINT - FORMED BY A BEVELED 2" x 6" WITH RUBBERIZED MEMBRANE WATERPROOFING ON B.F.

3/4" V-GROOVE ON F.F. OF WING WALL NOT REQUIRED IF CONST. JT. IS NOT USED.

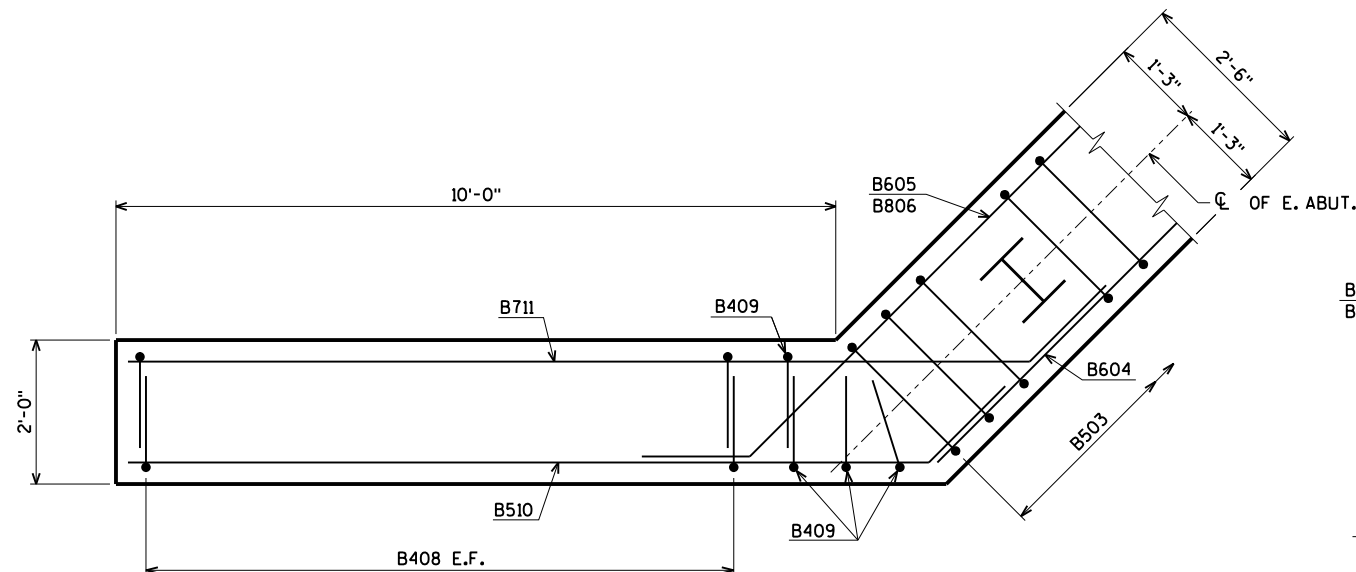
VERTICAL 18" RUBBERIZED MEMBRANE WATERPROOFING TO EXTEND FROM BRIDGE SEAT TO TOP OF WING WALL.

FOR PILE SPLICE DETAIL SEE SHEET 2.

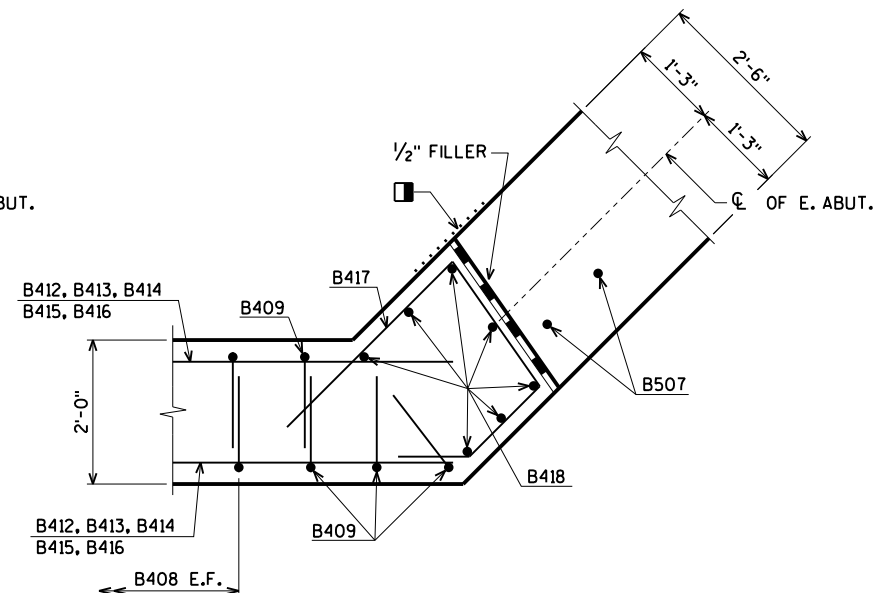
B.F. DENOTES BACK FACE

E.F. DENOTES EACH FACE

F.F. DENOTES FRONT FACE



SECTION B



SECTION C

8

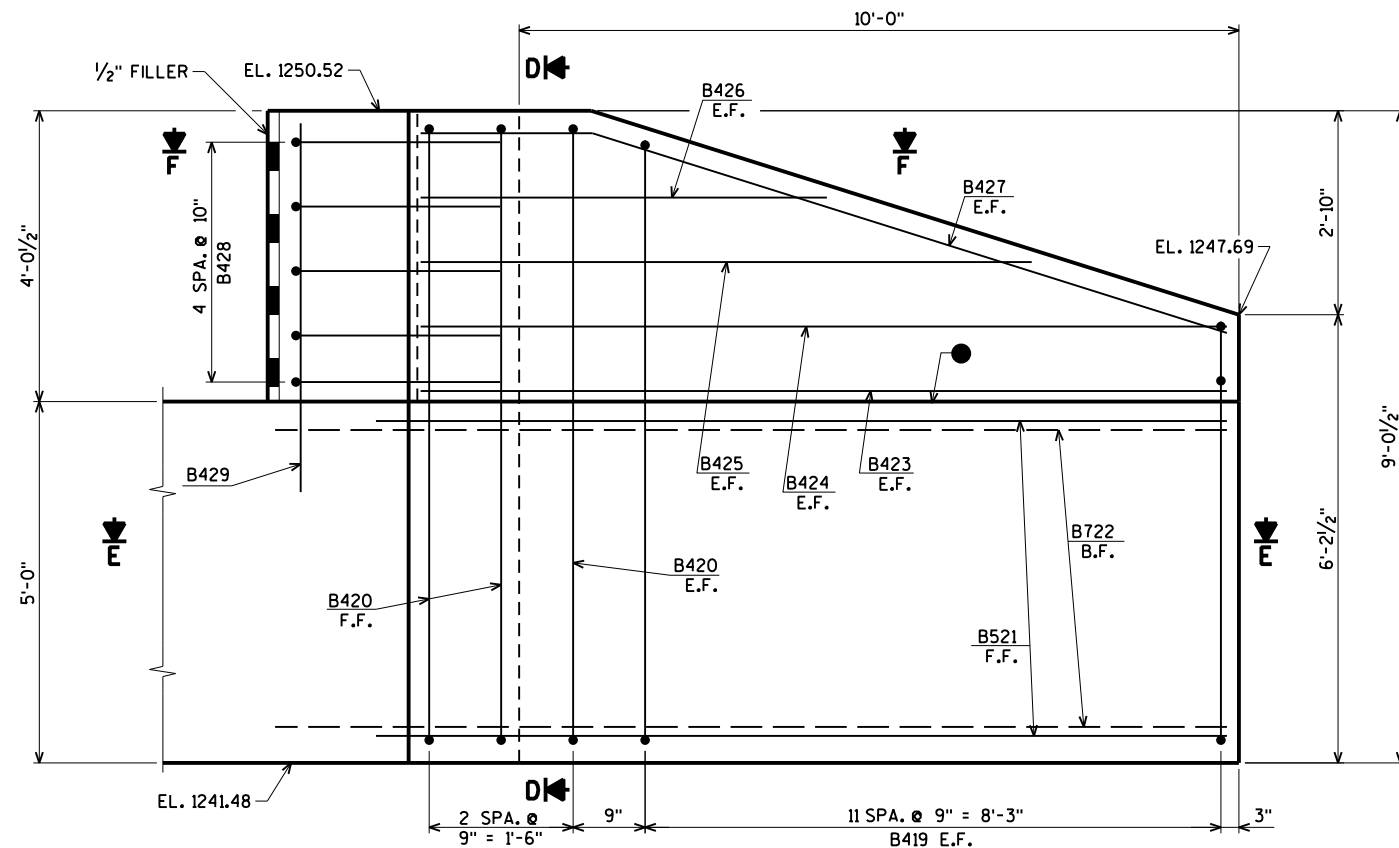
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NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-65-52			
DRAWN BY JWZ		PLANS CK'D. DNS	
EAST ABUTMENT WING 3 DETAILS			SHEET 9 OF 17

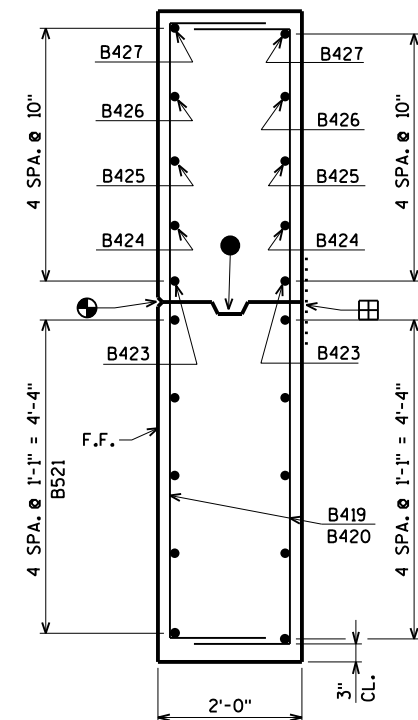
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U:\42-0893.00 - Washburn, Frog Creek, Wozny Road\BRIDGE\420893_ea.dgn

STATE PROJECT NUMBER

8472-00-70



ELEVATION - WING 4



SECTION D

18" RUBBERIZED MEMBRANE WATERPROOFING ON BACK FACE. NOT REQUIRED IF CONST. JT. IS NOT USED.

OPT. KEYED CONST. JOINT - FORMED BY A BEVELED 2" x 6" WITH RUBBERIZED MEMBRANE WATERPROOFING ON B.F.

3/4" 'V' GROOVE ON F.F. OF WING WALL NOT REQUIRED IF CONST. JT. IS NOT USED.

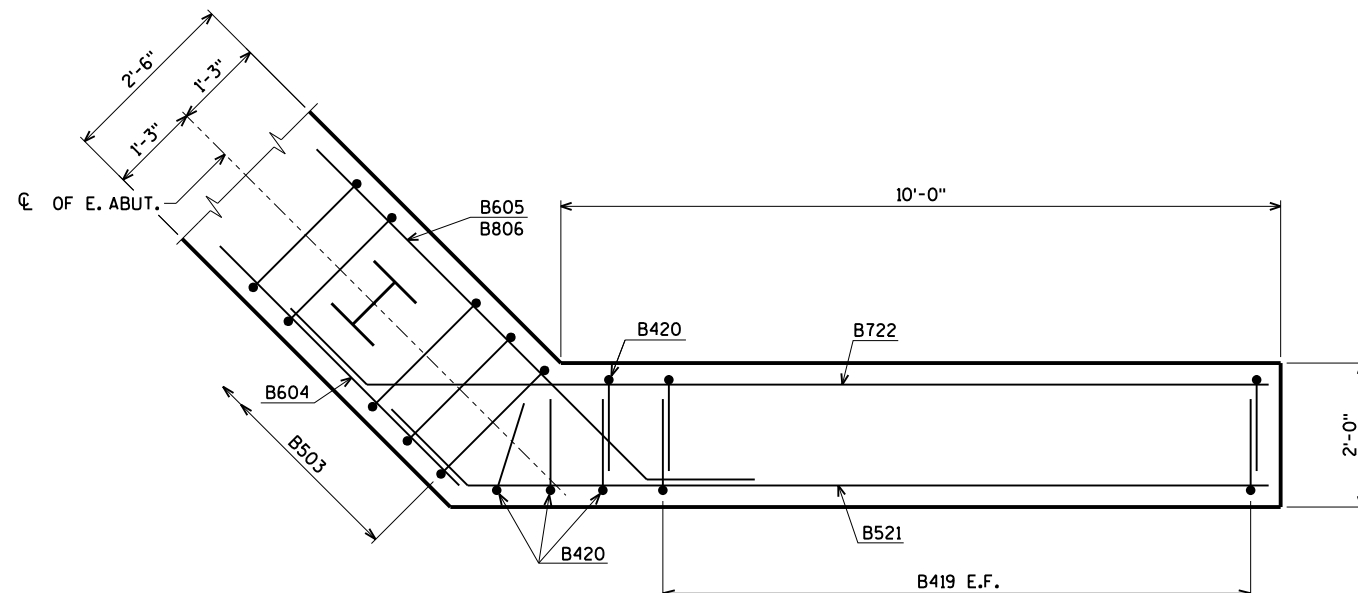
VERTICAL 18" RUBBERIZED MEMBRANE WATERPROOFING TO EXTEND FROM BRIDGE SEAT TO TOP OF WING WALL.

FOR PILE SPLICE DETAIL SEE SHEET 2.

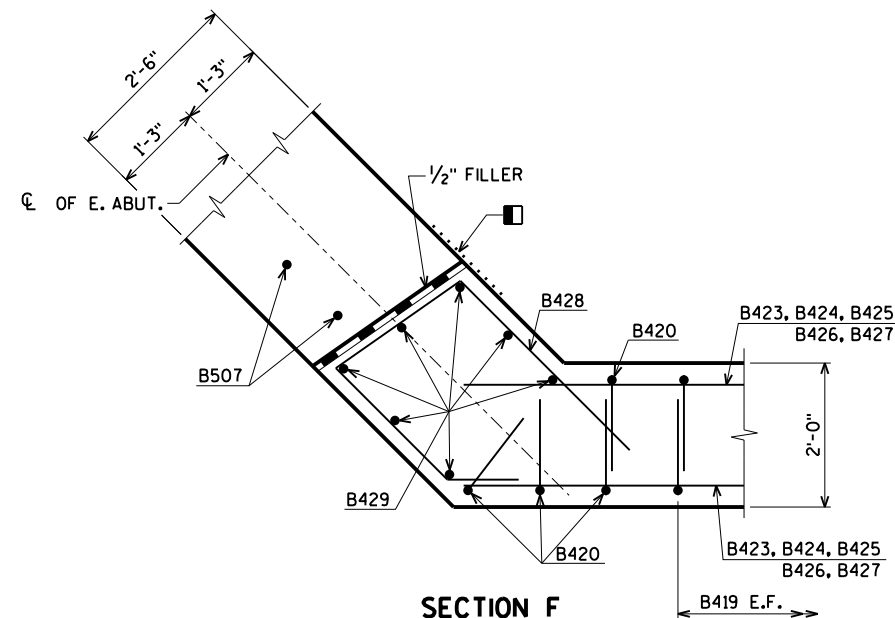
B.F. DENOTES BACK FACE

E.F. DENOTES EACH FACE

F.F. DENOTES FRONT FACE



SECTION E



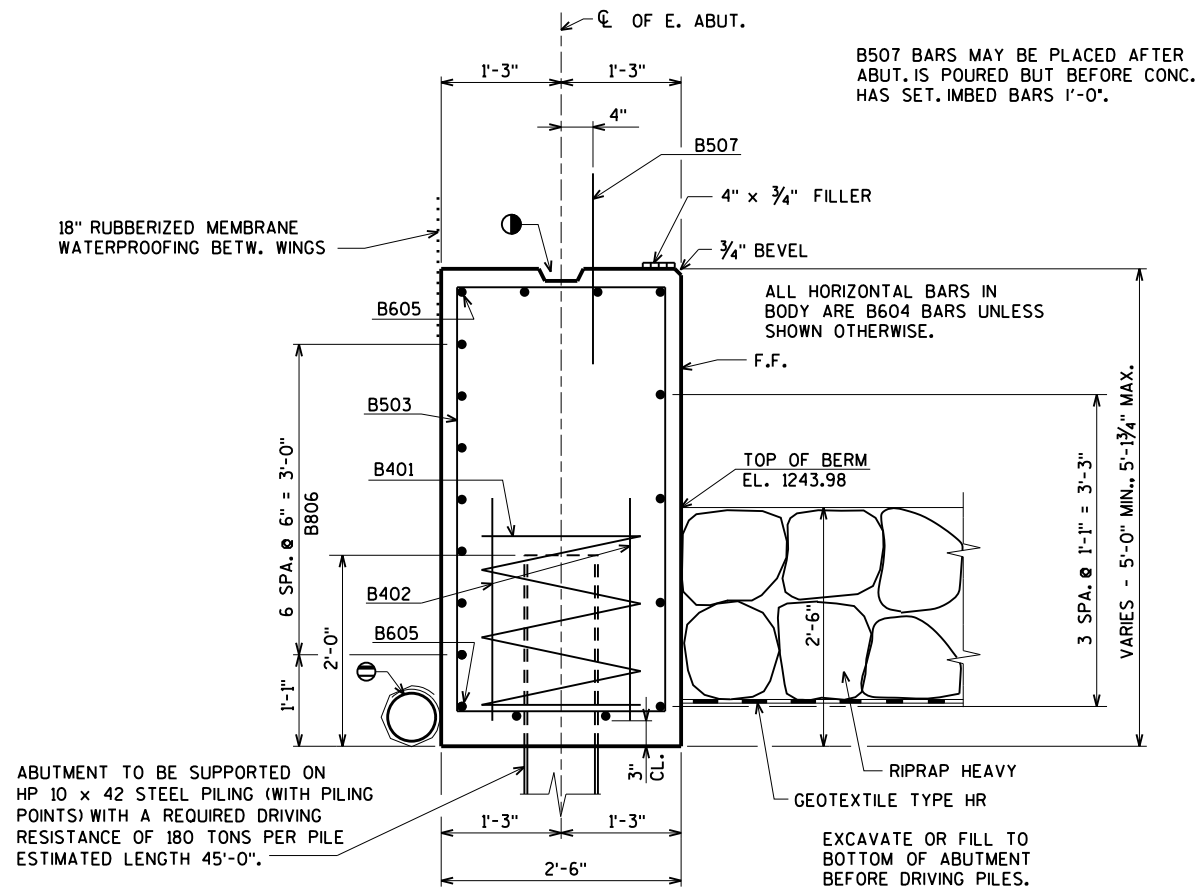
SECTION F

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-65-52			
DRAWN BY		JWZ	PLANS CK'D. DNS
EAST ABUTMENT WING 4 DETAILS			SHEET 10 OF 17

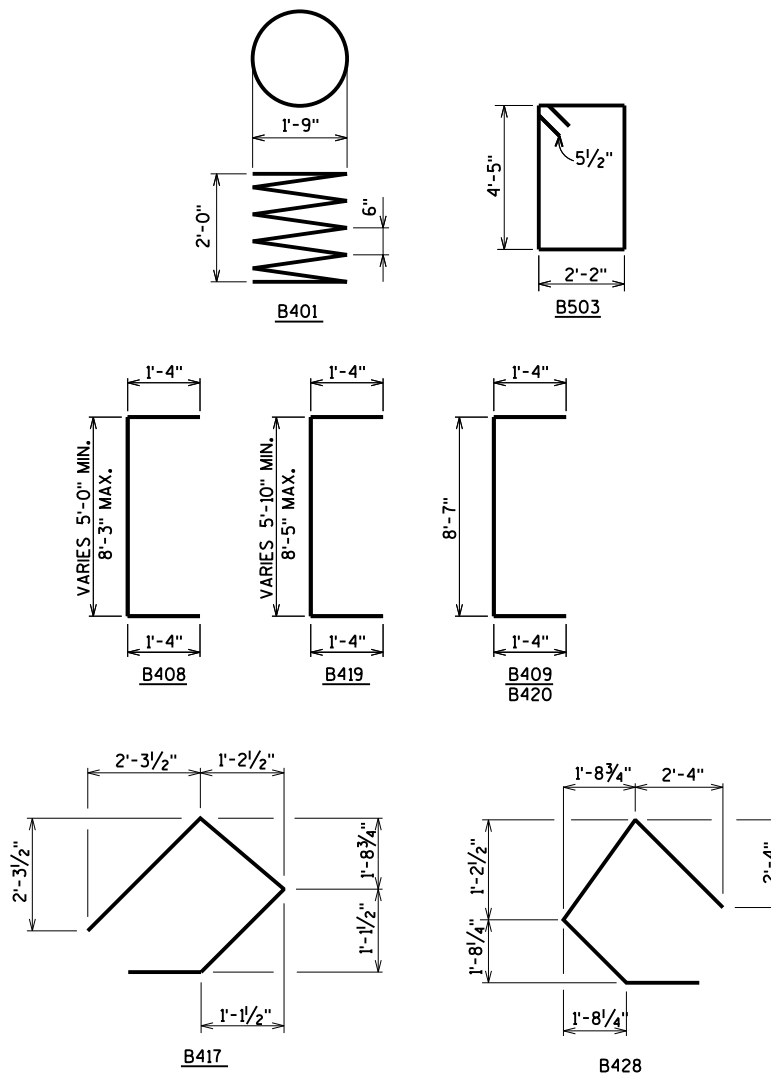
ORIGINAL PLANS PREPARED BY
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8



TYPICAL SECTION THRU BODY



BAR SERIES TABLE

BAR MARK	NO REQ'D.	LENGTH
B408	2 SERIES OF 12	7'-6" TO 10'-9"
B419	2 SERIES OF 12	8'-4" TO 10'-11"

BUNDLE AND TAG EACH SERIES SEPARATELY.

- ⊖ PIPE UNDERDRAIN WRAPPED 6-INCH. SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. ATTACH RODENT SHIELD AT ENDS OF PIPE UNDERDRAIN AS DETAILED ON SHEET 7. RODENT SHIELD TO BE INCLUDED IN BID PRICE OF "PIPE UNDERDRAIN WRAPPED 6-INCH".

- ⦿ KEYED CONST. JOINT - FORMED BY A BEVELED 2" x 6".

FOR PILE SPLICE DETAIL SEE SHEET 2.

B.F. DENOTES BACK FACE

E.F. DENOTES EACH FACE

F.F. DENOTES FRONT FACE

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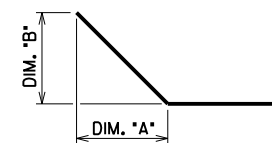
8472-00-70

BILL OF BARS

BAR NO.	COATED BAR	NO. REQ'D.	LENGTH	BENT BAR	BUNDLE SERIES	2,100# UNCOATED 1,050# COATED
						LOCATION
B401		7	28-0	X		BODY @ PILES
B402		14	2-3			BODY @ PILES
B503		39	13-9	X		BODY VERT.
B604		9	31-2			BODY HORIZ. F.F.
B605		4	21-2	X		BODY HORIZ. B.F.
B806		14	22-6	X		BODY HORIZ. B.F.
B507	X	13	2-0			BODY DOWELS
B408	X	24	9-2	X	⊗	WING 1 VERT. E.F.
B409	X	4	11-1	X		WING 1 VERT. E.F.
B510	X	5	12-9	X		WING 1 HORIZ. F.F.
B711	X	5	14-4	X		WING 1 HORIZ. B.F.
B412	X	2	11-3			WING 1 HORIZ. E.F.
B413	X	2	9-6			WING 1 HORIZ. E.F.
B414	X	2	7-3			WING 1 HORIZ. E.F.
B415	X	2	5-0			WING 1 HORIZ. E.F.
B416	X	2	11-5	X		WING 1 DIAG. E.F.
B417	X	5	7-9	X		WING 1 HORIZ. E.F.
B418	X	7	6-0			WING 1 VERT.
B419	X	24	9-8	X	⊗	WING 2 VERT. E.F.
B420	X	4	11-1	X		WING 2 VERT. E.F.
B521	X	5	12-9	X		WING 2 HORIZ. F.F.
B722	X	5	14-4	X		WING 2 HORIZ. B.F.
B423	X	2	11-3			WING 2 HORIZ. E.F.
B424	X	2	11-3			WING 2 HORIZ. E.F.
B425	X	2	8-6			WING 2 HORIZ. E.F.
B426	X	2	5-7			WING 2 HORIZ. E.F.
B427	X	2	11-5	X		WING 2 DIAG. E.F.
B428	X	5	8-6	X		WING 2 HORIZ. E.F.
B429	X	7	6-0			WING 2 VERT.

BENDING DIMENSIONS ARE OUT TO OUT OF BARS.

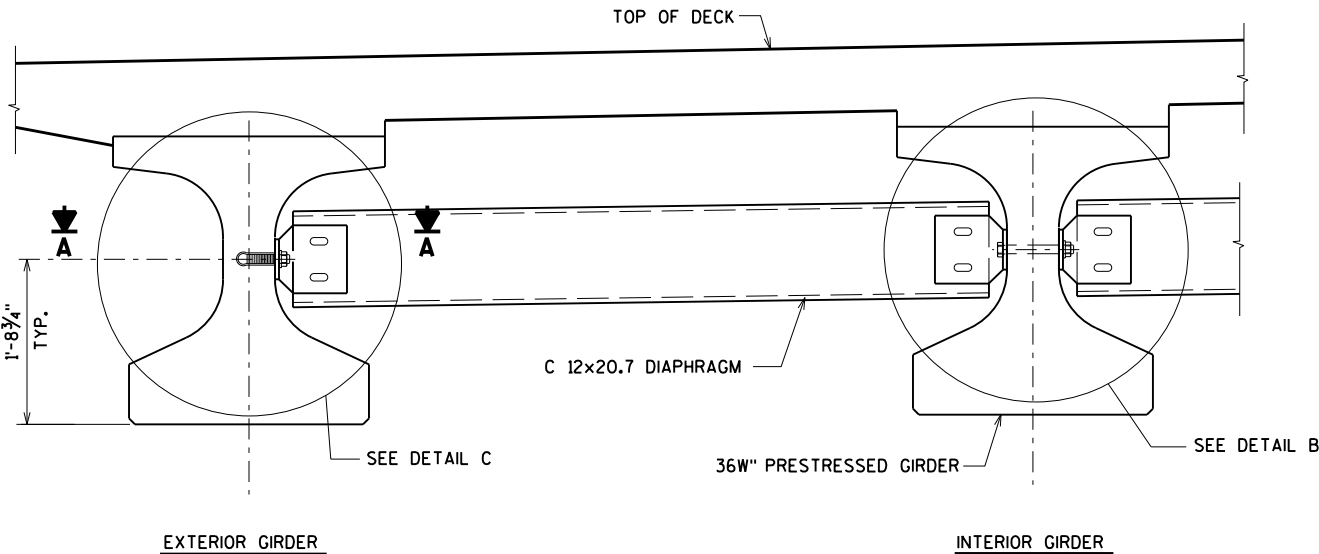
⊗ LENGTH SHOWN FOR BAR IS AN AVERAGE LENGTH AND SHOULD ONLY BE USED FOR BAR WEIGHT CALCULATIONS. SEE BAR SERIES TABLE FOR ACTUAL LENGTHS.



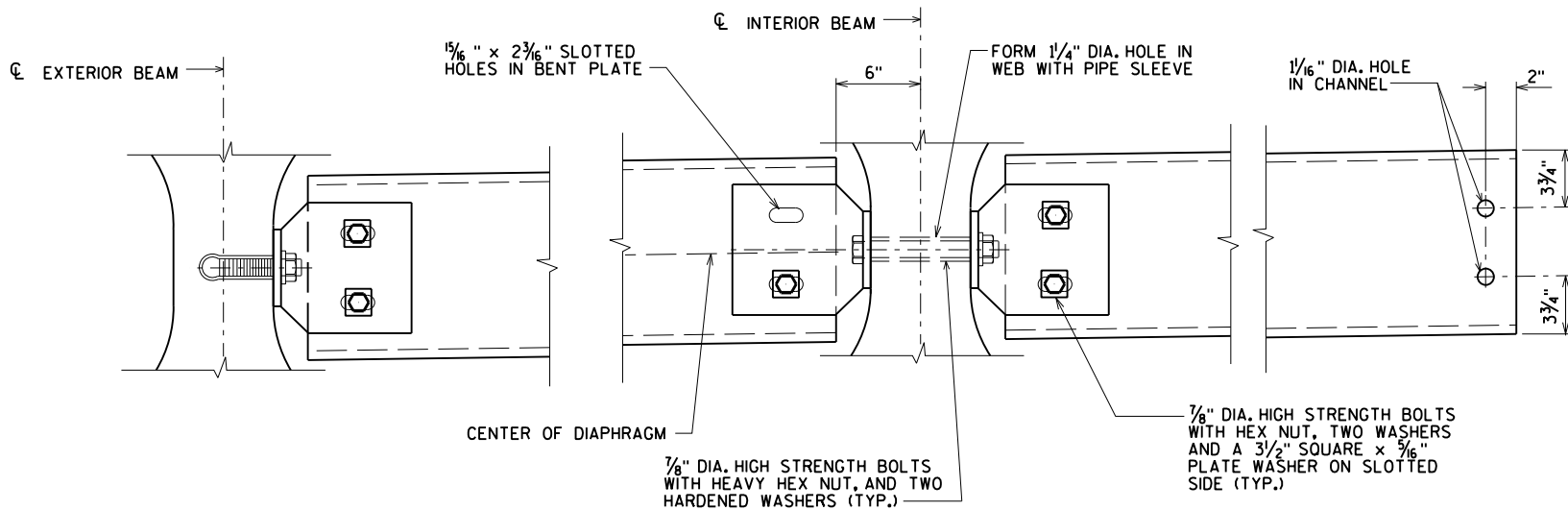
BAR NO.	DIM. "A"	DIM. "B"
B605	1'-0 3/4"	1'-0 3/4"
B806	1'-0 3/4"	1'-0 3/4"
B510	1'-0 3/4"	1'-0 3/4"
B711	1'-0 3/4"	1'-0 3/4"
B416	8'-9"	3'-6"
B521	1'-0 3/4"	1'-0 3/4"
B722	1'-0 3/4"	1'-0 3/4"
B427	8'-9"	2'-9"

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STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-65-52			
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EAST ABUTMENT DETAILS AND BILL OF BARS			SHEET 11 OF 17

8

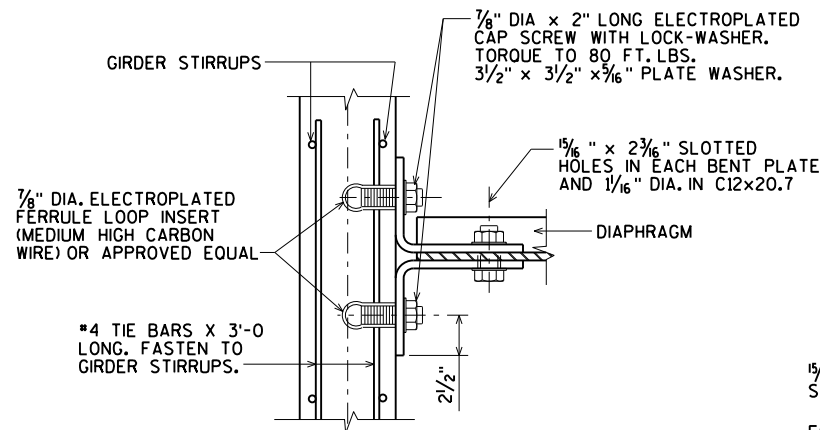


PART TRANSVERSE SECTION AT DIAPHRAGM



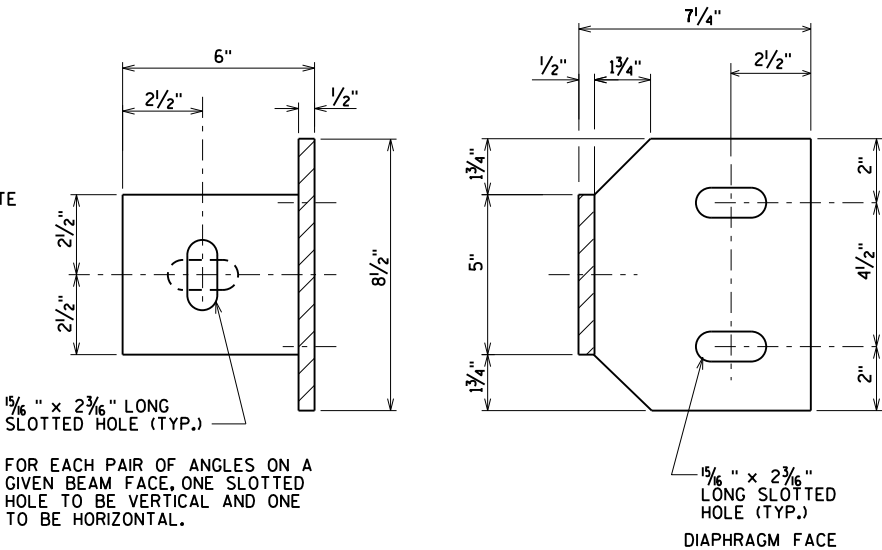
DETAIL C

DETAIL B



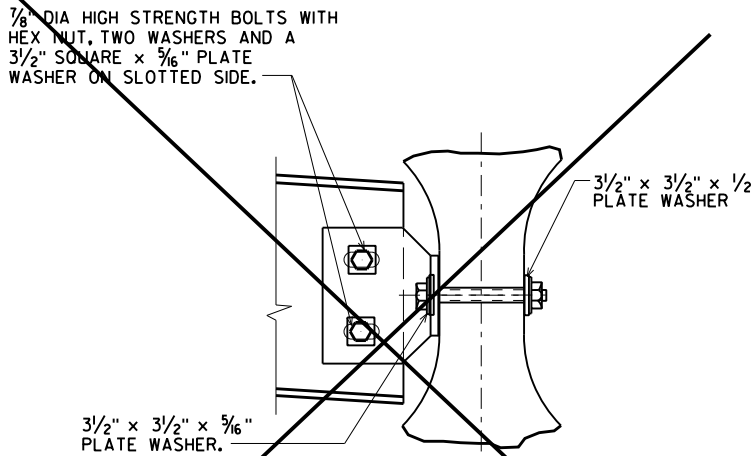
SECTION A-A

(FOR EXTERIOR ATTACHMENT)

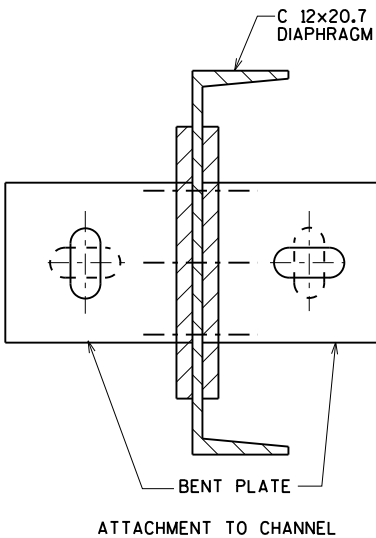


BEAM FACE

DIAPHRAGM FACE



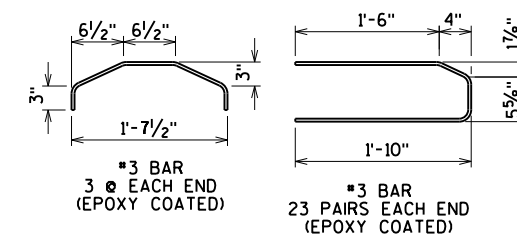
SECTION AT INTERIOR GIRDERS THRU DIAPHRAGM FOR SKEW ANGLES > 10°



ATTACHMENT TO CHANNEL

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-65-52			
DRAWN BY JWZ		PLANS CK'D. DNS	
STEEL INTER. DIAPHRAGM DETAILS			SHEET 12 OF 17

FOR DIAPHRAGM INSERT & CONNECTION DETAILS SEE
"STEEL DIAPHRAGM" SHEET.



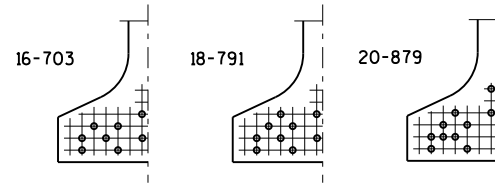
SHEET 13 OF 17

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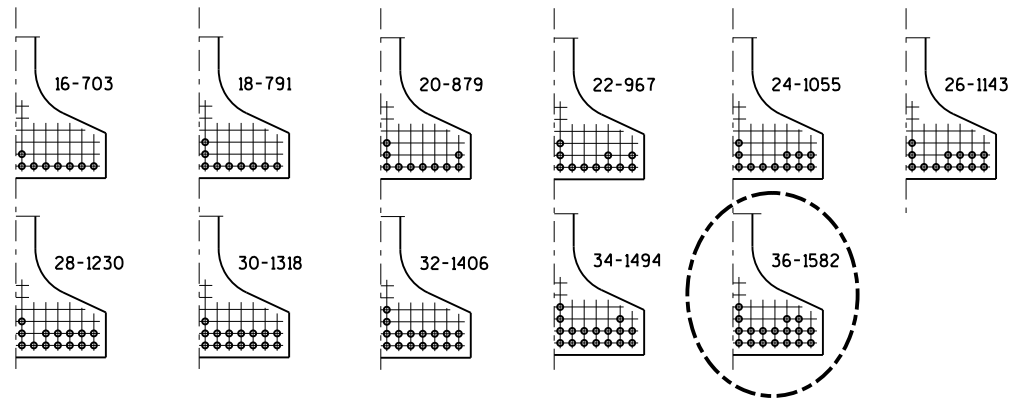
STATE PROJECT NUMBER

8472-00-70



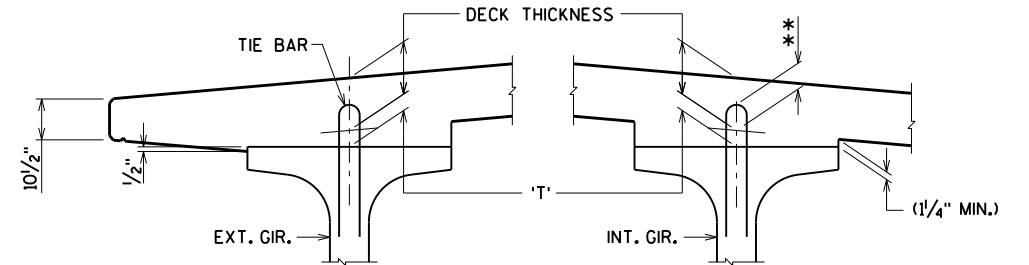
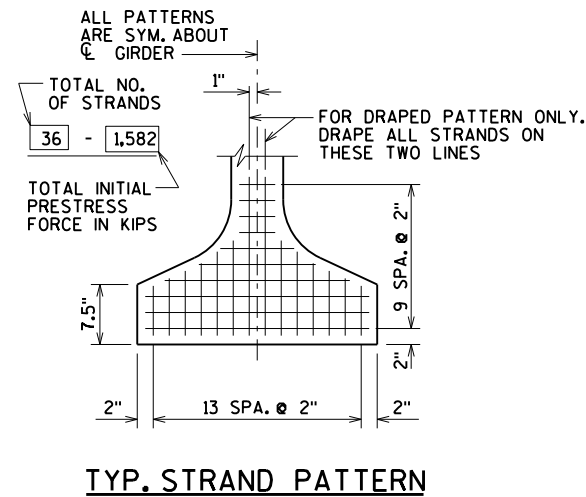
STANDARD ARRANGEMENTS TO RAISE CENTER OF GRAVITY TO AVOID DRAPING OF STRANDS

0.6" ϕ STRANDS



ARRANGEMENT AT ϕ SPAN - FOR GIRDERS WITH DRAPED STRANDS

0.6" ϕ STRANDS



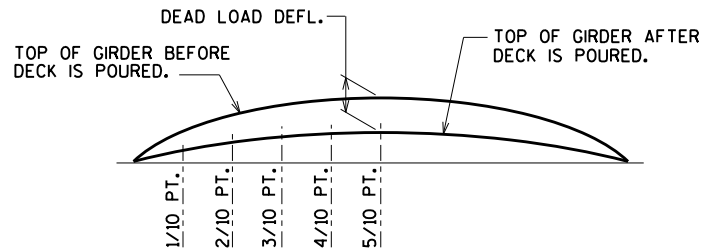
DECK HAUNCH DETAIL

IF 1/4" MINIMUM HAUNCH HEIGHT AT EDGE OF GIRDER CANNOT BE MAINTAINED, THE GRADE LINE MAY BE REVISED BY THE ENGINEER AT THE OPTION OF THE CONTRACTOR, THE PLAN DECK THICKNESS SHALL BE HELD, NOTIFY THE STRUCTURES SECTION IF THE GRADE LINE IS RAISED FROM THE PLAN PROFILE BY MORE THAN 1/2" OR, ** IF 3" MINIMUM DECK EMBEDMENT OF TIE BAR CANNOT BE OBTAINED.

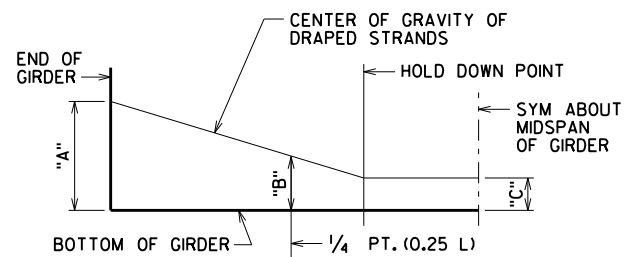
TO DETERMINE 'T', ELEV. OF TOP OF GIR'S. AT ϕ OF SUBSTRUCTURE UNITS & AT 1/10 POINTS OF EACH SPAN SHALL BE TAKEN, THEN FOLLOW THIS PROCESS:

TOP OF DECK ELEV. AT FINAL GRADE
- TOP OF GIRDER ELEVATION
+ DEAD LOAD DEFLECTION
- DECK THICKNESS
= HAUNCH HEIGHT 'T'

NOTE: AN AVERAGE HAUNCH ('T') OF 3 3/4" WAS USED IN THE QUANTITY "CONCRETE MASONRY BRIDGES".



DEAD LOAD DEFLECTION DIAGRAM



DRAPED STRAND PROFILE

*THE THEORETICAL INITIAL CAMBER VALUE AT THE TIME OF STRAND RELEASE AT MIDSPAN MULTIPLIED BY A FACTOR OF 1.4 TO ACCOUNT FOR CAMBER GROWTH FROM THE TIME OF STRAND RELEASE TO JOBSITE PLACEMENT.

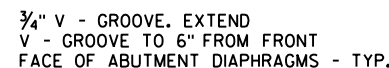
SPAN	CAMBER (IN.) *
1	4.2

THESE VALUES ARE NOT TO BE USED IN DETERMINING 'T', USE ACTUAL GIRDER SHOTS.
THESE VALUES ARE FOR INFORMATIONAL PURPOSES ONLY.

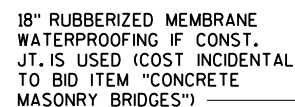
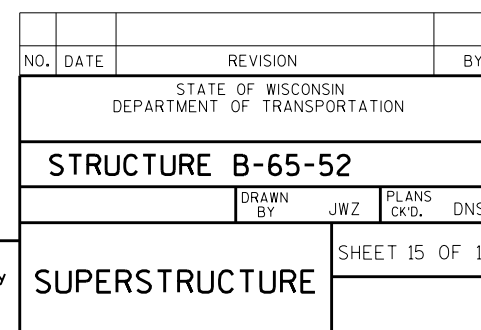
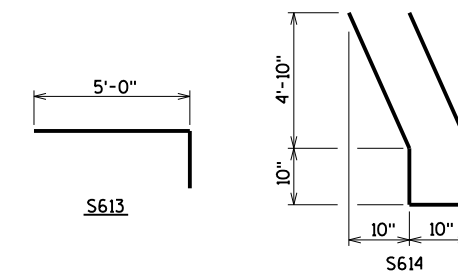
ORIGINAL PLANS PREPARED BY
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STRUCTURE B-65-52			
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36W" PRESTRESSED GIRDER DETAILS			SHEET 14 OF 17

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BENDING DIMENSIONS ARE OUT TO OUT OF BARS.

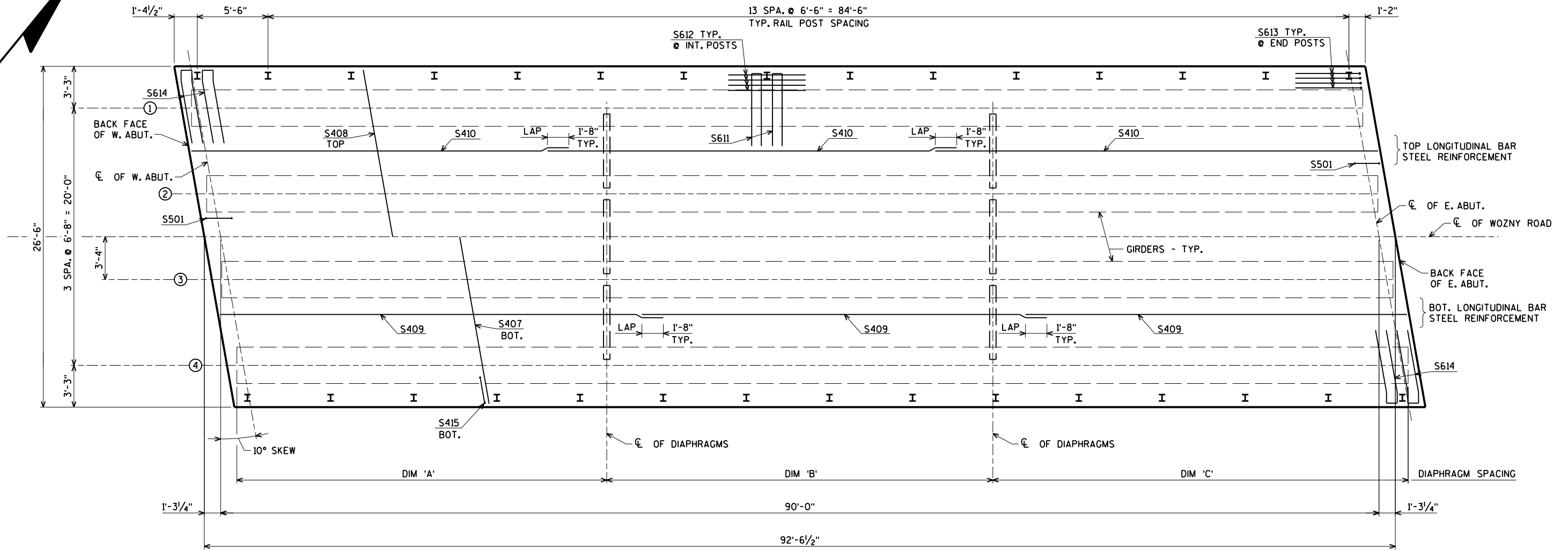


- ① DIMENSIONS MEASURED ALONG $\mathbb{C}$ OF GIRDER.
- ▲ DIMENSIONS MEASURED NORMAL TO $\mathbb{C}$ OF SUBSTRUCTURE UNIT.
- ② OPTIONAL CONSTRUCTION JOINT 1'-2" BELOW TOP OF GIRDER. IF USED, DECK POUR MUST BE WITHIN 2 WEEKS FROM THE TIME OF THE DIAPHRAGM POUR.
- ▲ STEEL PROTECTION ANGLE. SEE SHEET 2 FOR DETAILS.

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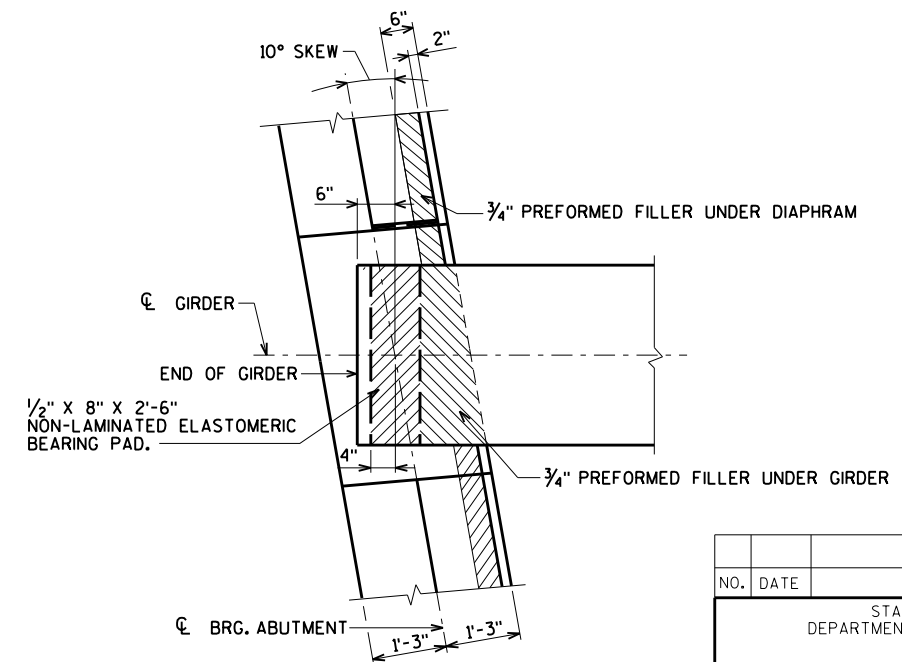
PLAN

TOP OF DECK ELEVATIONS

	℄ OF BRG. W. ABUT.	0.1 PT.	0.2 PT.	0.3 PT.	0.4 PT.	0.5 PT.	0.6 PT.	0.7 PT.	0.8 PT.	0.9 PT.	℄ OF BRG. E. ABUT.
N. EDGE OF DECK	1250.99	1250.95	1250.90	1250.86	1250.81	1250.77	1250.72	1250.68	1250.63	1250.59	1250.54
GIRDER 1	1251.05	1251.01	1250.96	1250.92	1250.87	1250.83	1250.78	1250.74	1250.69	1250.65	1250.60
GIRDER 2	1251.18	1251.14	1251.09	1251.05	1251.00	1250.96	1250.91	1250.87	1250.82	1250.78	1250.73
℄ ROAD	1251.24	1251.20	1251.16	1251.11	1251.07	1251.02	1250.98	1250.93	1250.89	1250.84	1250.79
GIRDER 3	1251.18	1251.13	1251.09	1251.04	1251.00	1250.95	1250.91	1250.86	1250.82	1250.77	1250.73
GIRDER 4	1251.04	1250.99	1250.95	1250.90	1250.86	1250.81	1250.77	1250.72	1250.68	1250.63	1250.59
S. EDGE OF DECK	1250.97	1250.92	1250.88	1250.83	1250.79	1250.74	1250.70	1250.65	1250.61	1250.56	1250.52

TABLE OF DIAPHRAGM DIMENSIONS

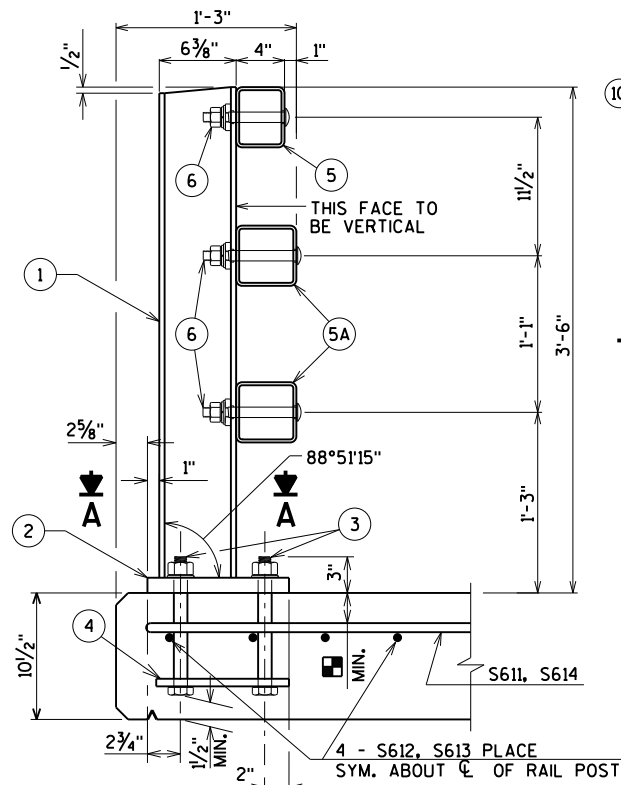
GIRDER	DIM. 'A'	DIM. 'B'	DIM. 'C'
1	32' - 1 1/8"	30' - 4"	28' - 6 7/8"
2	30' - 11"	30' - 4"	29' - 9"
3	29' - 9"	30' - 4"	30' - 11"
4	28' - 6 7/8"	30' - 4"	32' - 1 1/8"



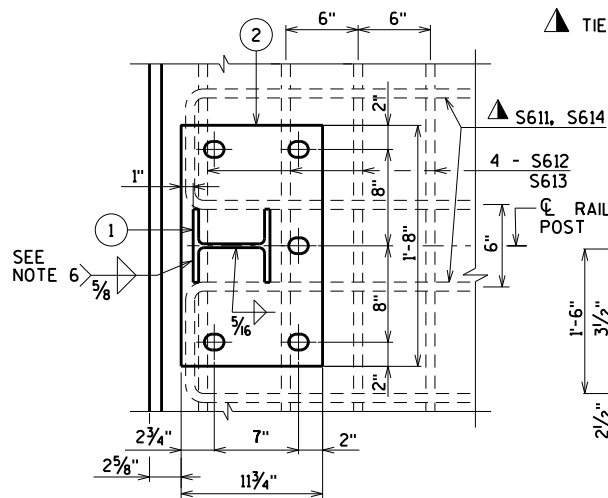
BEARING PLAN

NO.	DATE	REVISION	BY
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STRUCTURE B-65-52			
DRAWN BY		JWZ	PLANS CK'D. DNS
SUPERSTRUCTURE PLAN		SHEET 16 OF 17	

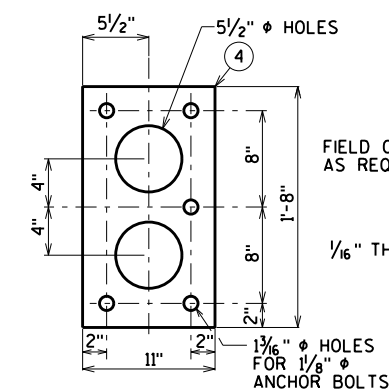
ORIGINAL PLANS PREPARED BY
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SECTION THRU RAILING ON DECK

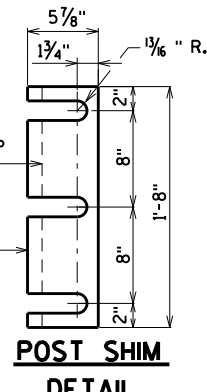


SECTION A

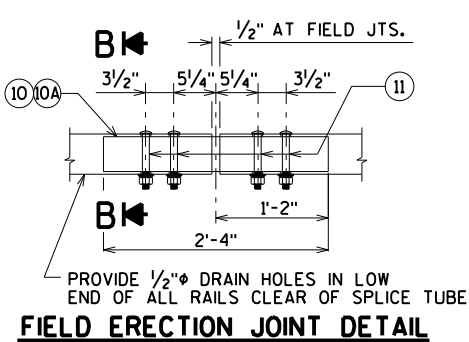


ANCHOR PLATE

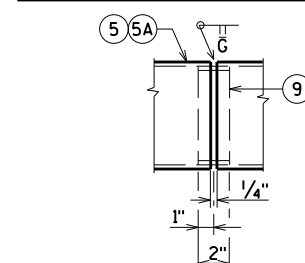
(AT RAIL TO DECK CONNECTION)



POST SHIM
DETAIL



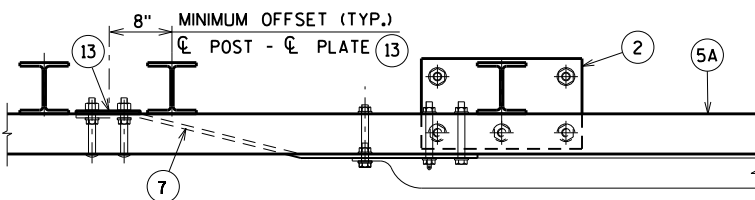
FIELD ERECTION JOINT DETAIL



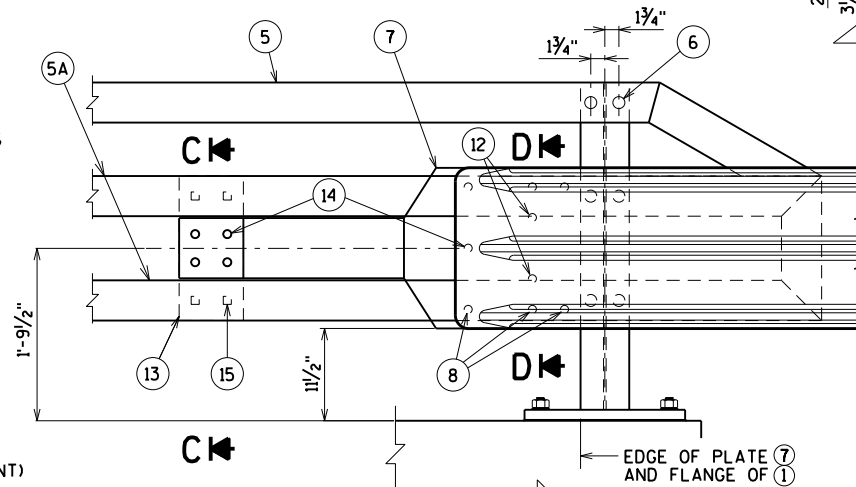
SHOP RAIL SPICE DETAIL

(LOCATION MUST BE SHOWN ON THE SHOP DRAWINGS)

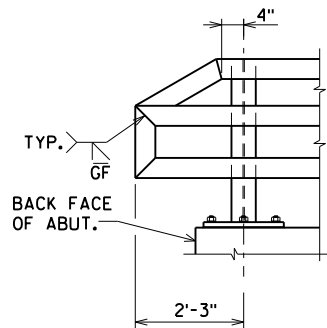
- ▣ PLACE BELOW TOP MAT SLAB REINFORCEMENT.
- ▲ TIE TO TOP MAT OF STEEL.



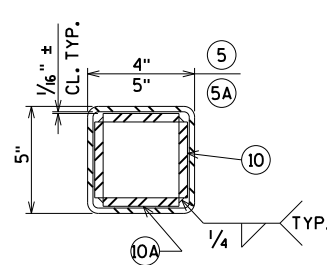
TOP VIEW AT END POST
(THREE BEAM RAIL ATTACHMENT)



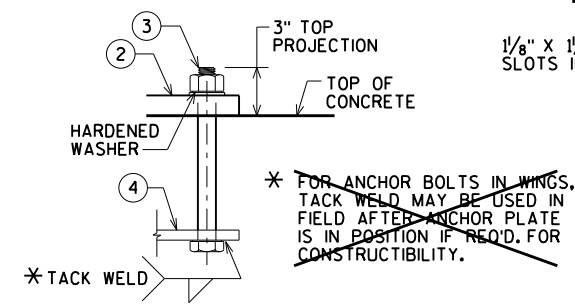
DETAIL AT END POST



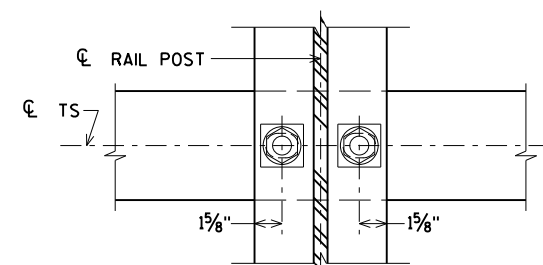
PART ELEVATION OF RAILING



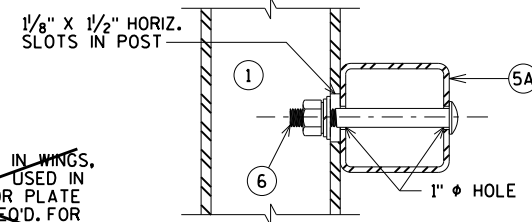
SECTION B



ANCHOR BOLTS



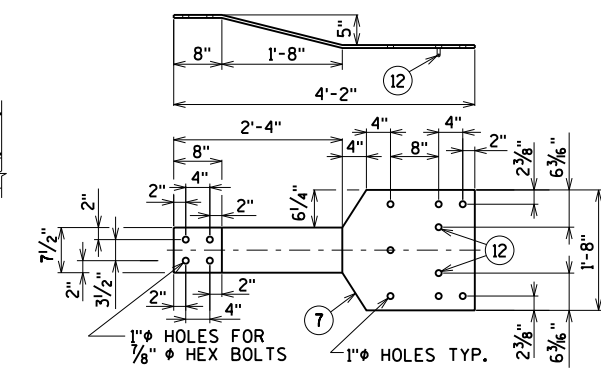
SECTION THRU POST WEB



SECTION THRU RAIL

NOTE: CONNECTIONS AT LOWER RAILS SHOWN. CONNECTIONS AT TOP RAIL SIMILAR.

TYPICAL RAIL TO POST CONNECTIONS



BACK-UP PLATE DETAIL
(AT BEAM GUARD ATTACHMENT)

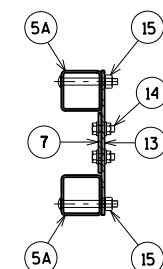
GENERAL NOTES

- BID ITEM SHALL BE "RAILING TUBULAR TYPE M B-65-52" WHICH INCLUDES ALL ITEMS SHOWN.
- RAIL POST AND BASE PLATES SHALL CONFORM TO THE REQUIREMENTS OF ASTM A709 GRADE 50, HOLLOW RAILING STRUCTURAL TUBING SHALL CONFORM TO THE REQUIREMENTS OF ASTM A500 GRADE B OR C WITH A CERTIFIED FY = 50 KSI. ANCHOR PLATES, AND SPICE TUBE PLATES SHALL CONFORM TO THE REQUIREMENTS OF ASTM A709 GRADE 36.
- THE NUT SECURING THE POST BASE PLATE TO THE CONCRETE SHALL BE TIGHTENED TO A SNUG FIT AND GIVEN AN ADDITIONAL 1/8 TURN.
- RAILS SHALL BE CONTINUOUS OVER A MINIMUM OF THREE (3) POSTS WITHOUT SPLICES WHERE POSSIBLE. RAILS SHALL BE SPLICED IN A PANEL OVER EXPANSION JOINTS.
- ENDS OF TUBE SECTIONS SHALL BE SAWED, GRIND SMOOTH EXPOSED EDGES. ALL CUT ENDS SHALL BE TRUE AND SMOOTH.
- WELD IS THE SAME ON BOTH FLANGES. FLANGE WELD DOES NOT REQUIRE MAGNETIC PARTICLE TESTING.
- FILL BOLT SLOT OPENINGS IN POST SHIMS AND PLATE NO. 2 AND CAULK AROUND PERIMETER OF PLATE NO. 2 WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. STEEL POST SHIMS MAY BE USED UNDER POSTS WHERE REQ'D. FOR ALIGNMENT.
- POST BASE PLATES SHALL BE FLAT WITH ALL SURFACES SMOOTH AND FREE FROM WARP AND ALL EDGES SMOOTH, STRAIGHT AND VERTICAL. ALL PLATE CUTS SHALL BE MACHINE OR MACHINE FLAME CUT.
- ALL MATERIAL SHALL BE GALVANIZED AFTER FABRICATION. PRIOR TO GALVANIZING, ALL STEEL RAILING POSTS & STEEL TUBING SHALL BE GIVEN A NO. 6 BLAST CLEANING BY S.S.P.C. SPECIFICATIONS.
- WHEN PAINTING IS REQUIRED, ALL MATERIAL EXCEPT ANCHORAGE DETAIL (NO. 3 & 4) SHALL BE PAINTED OVER GALVANIZING WITH APPROVED TIE COAT AND TOP COAT.
- THIS RAILING MEETS NCHRP REPORT 350 EVALUATION CRITERIA FOR TEST LEVEL 4 (TL-4).
- PLACE FIRST BOTTOM LONGITUDINAL BAR CLEAR OF DRIP GROOVE.

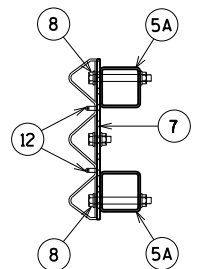
ORIGINAL PLANS PREPARED BY
AYRES ASSOCIATES
3433 Oakwood Hills Parkway
Eau Claire, WI 54701
www.AyresAssociates.com

LEGEND

- W6 x 25 WITH 1 1/8" x 1 1/2" HORIZ. SLOTS ON EACH SIDE OF POST FOR BOLT NO. 6. CUT BOTTOM OF POST TO MATCH CROSS SLOPE OF ROADWAY. PLACE POST VERTICAL. PLACE POSTS NORMAL TO GRADE LINE.
- PLATE 1/4" x 1 3/4" x 1'-8" WITH 1 1/8" x 1 1/2" SLOTTED HOLES FOR ANCHOR BOLTS NO. 3. WELD TO NO. 1 AS SHOWN. SLOTS PARALLEL TO SHORT SIDE OF PLATE.
- ASTM A449 - 1 1/8" DIA. ANCHOR BOLTS WITH NUT AND HARDENED WASHER (ALL GALVANIZED). 5 REQ'D. PER POST. THREAD 3" AND PLACE NORMAL TO PLATE NO. 2. CHAMFER TOP OF BOLTS BEFORE THREADING. ~~USE 1'-9" LONG IN ABUTMENT WINGS. AT POSTS ON CONCRETE SLAB SUPERSTRUCTURES WHERE THE SLAB THICKNESS IS > 16" USE 1'-3" LONG. USE 10 3/4" LONG AT ALL OTHER LOCATIONS. AN EQUIVALENT THREADED ROD WITH NUTS AND HARDENED WASHERS MAY BE SUBSTITUTED FOR ANCHOR BOLTS IN WINGS IF REQ'D. FOR CONSTRUCTIBILITY.~~
- 5/8" x 11" x 1'-8" ANCHOR PLATE (GALVANIZED) WITH 1 1/8" DIA. HOLES FOR ANCHOR BOLTS NO. 3
- TS 5 x 4 x 0.25 STRUCTURAL TUBING. ATTACH TO NO. 1 WITH NO. 6.
- 5A TS 5 x 5 x 0.25 STRUCTURAL TUBING. ATTACH TO NO. 1 WITH NO. 6.
- 7/8" DIA. A325 SLOTTED ROUND HEAD BOLT WITH NUT, 3/8" x 1 5/8" x 1 5/8" WASHER, AND LOCK WASHER (2 REQ'D. AT EACH RAIL TO POST LOCATION.)
- 1/2" THK. BACK-UP PLATE WITH 2 - 7/8" x 1 1/2" THREADED SHOP WELDED STUDS (NO. 12). BOLT TO RAIL AS SHOWN IN DETAIL. REQUIRED AT THREE BEAM GUARD RAIL ATTACHMENTS ONLY. PLACE SYMMETRICALLY ABOUT TUBES NO. 5A.
- 1" DIA. HOLES IN PLATE NO. 7 & TUBES NO. 5A FOR 7/8" DIA. A325 BOLTS WITH HEX NUTS AND WASHERS. 6 HOLES IN TUBES AND PLATE NO. 7.
- SPLICE SLEEVE FABRICATED FROM 1/4" PLATE. PROVIDE "SLIDING FIT".
- 3/8" x 3 5/8" x 2'-4" PLATE. 2 PER RAIL. USED IN NO. 5 & 5A.
- 3/8" x 2 5/8" x 2'-4" PLATE USED IN NO. 5. 3/8" x 3 5/8" x 2'-4" PLATE USED IN NO. 5A. 2 PER RAIL.
- 7/8" DIA. A325 ROUND HEAD BOLT WITH NUT, WASHER, AND LOCK WASHER. USE 1 1/8" x 1 1/4" LONGIT. SLOTTED HOLES AT FIELD JOINTS ~~AND 5/8" x 2 1/4" MIN. LONGIT. SLOTTED HOLES AT EXP. JOINTS IN PLATE NO. 10A.~~
- 7/8" DIA. x 1 1/2" LONG THREADED SHOP WELDED STUDS (2 REQ'D).
- 3/8" x 8" x 1'-6" PLATE. BOLT TO RAIL AS SHOWN IN DETAIL. REQ'D. AT THREE BEAM GUARD RAIL ATTACHMENTS ONLY. PLACE SYM. ABOUT TUBES NO. 5A.
- 7/8" DIA. x 2" LONG A325 HEX BOLT WITH NUT AND WASHER (5 REQ'D.).
- 1" DIA. HOLES IN TUBES NO. 5A FOR 7/8" DIA. A325 ROUND HEAD BOLT WITH NUT, WASHER AND LOCK WASHER (4 REQ'D.). 4 HOLES IN TUBES.



SECTION C

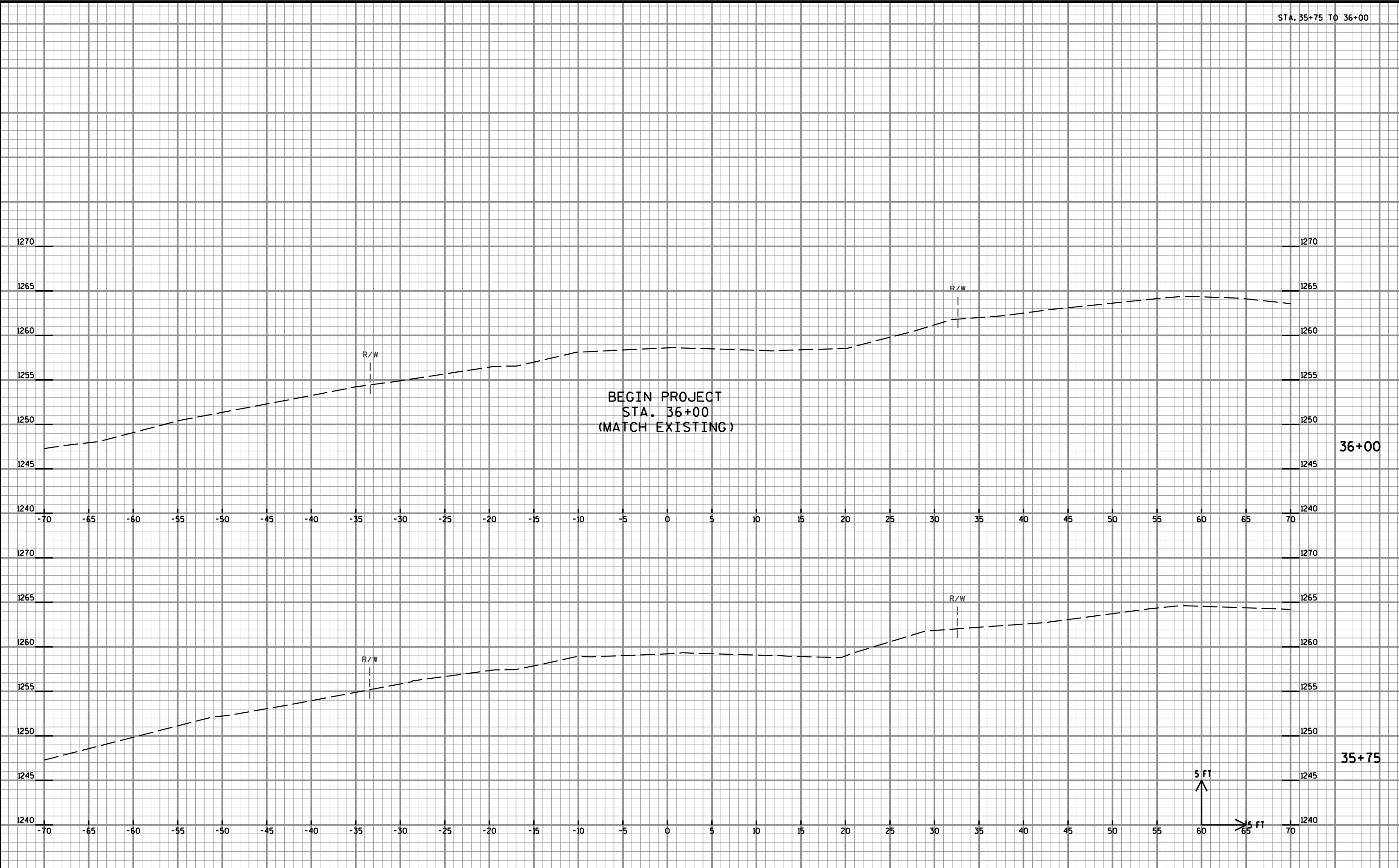


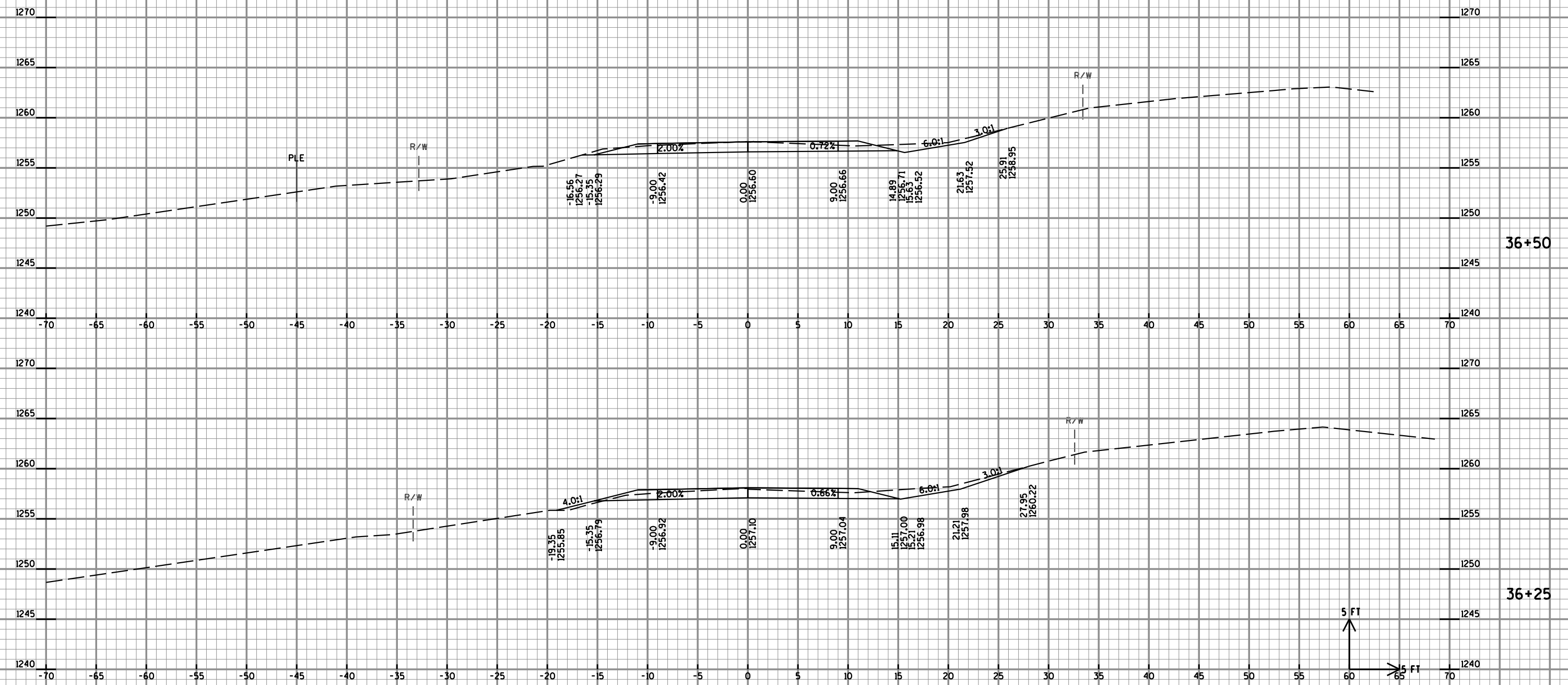
SECTION D

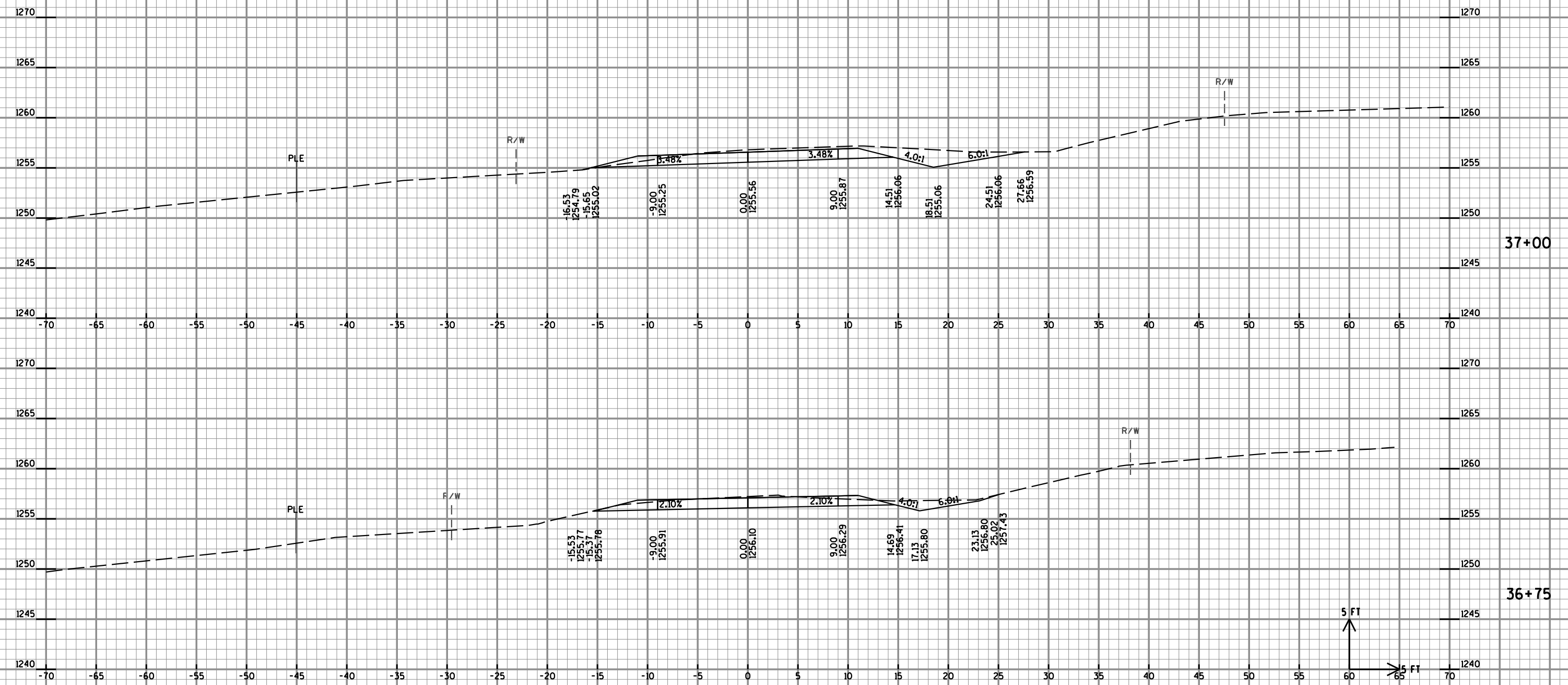
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-65-52			
DRAWN BY JWZ		PLANS CK'D. DNS	
RAILING TUBULAR TYPE M			SHEET 17 OF 17

Station	Distance	Area (SF)		Incremental Vol (CY) (Unadjusted)		Cumulative Vol (CY)		Mass Ordinate
		Cut	Fill	Cut	Fill	Cut 1.00	Expanded	
							Fill 1.30	
				Note 1	Note 2	Note 1		Note 3
36+00	--	22.9	0					
36+25	25	26.0	0.9	23	0	23	0	23
36+50	25	27.4	0.0	25	0	48	0	48
36+75	25	29.8	0.0	26	0	74	0	74
37+00	25	41.3	0.1	33	0	107	0	107
37+25	25	63.7	0.0	49	0	156	0	156
37+50	25	67.9	0.0	61	0	217	0	217
37+75	25	133.0	28.7	119	23	336	30	306
38+00	25	5.1	20.4	17	9	353	42	311
38+25	25	1.7	45.9	3	31	356	82	274
38+50	25	0.0	107.0	1	71	357	174	183
38+75	25	0.0	176.3	0	131	357	345	13
39+00	25	0.0	235.6	0	191	357	593	-236
39+25	25	0.0	302.3	0	249	357	917	-560
39+45	20	0.0	103.9	0	150	357	1112	-755
39+50	5	0.0	105.5	0	19	357	1136	-779
39+53.73	3.7	0.0	209.4	0	22	357	1165	-808
NEW BRIDGE	--	--	--	--	--	--	--	--
40+46.27	--	0.0	160.9	--	--	--	--	--
40+50	3.7	0.0	70.4	0	16	357	1186	-829
40+55	5.0	0.0	90.5	0	15	357	1206	-849
40+75	20.0	0.0	146.3	0	88	357	1320	-963
41+00	25	0.0	86.1	0	108	357	1460	-1103
41+25	25	1.7	57.8	1	67	358	1547	-1189
41+50	25	3.9	56.2	3	53	361	1616	-1255
41+75	25	0.0	64.5	2	56	363	1689	-1326
42+00	25	0.0	57.0	0	56	363	1762	-1399
42+25	25	0.0	39.6	0	45	363	1821	-1458
42+50	25	26.9	2.8	12	20	375	1847	-1472
42+75	25	79.0	0.0	49	1	424	1848	-1424
43+00	25	189.8	0.0	153	0	577	1848	-1271
43+25	25	79.1	0.0	79	0	656	1848	-1192
43+50	25	119.7	0.0	92	0	748	1848	-1100
43+75	25	149.3	0.0	125	0	873	1848	-975
44+00	25	128.6	0.0	129	0	1002	1848	-846
44+25	25	122.2	0.0	116	0	1118	1848	-730
44+50	25	82.5	0.0	95	0	1213	1848	-635
44+75	25	68.7	0.0	70	0	1283	1848	-565
45+00	25	46.6	0.0	53	0	1336	1848	-512
45+25	25	20.0	0.0	31	0	1367	1848	-480
				1367	1421			

Note 1 - Cut	Cut includes existing asphalt pavement. Assumed to be reused as fill outside the 1:1 road core.
Note 2 - Fill	Volume needed to be filled.
Note 3 - Mass Ordinate	(Cut) - (Fill * 1.30)

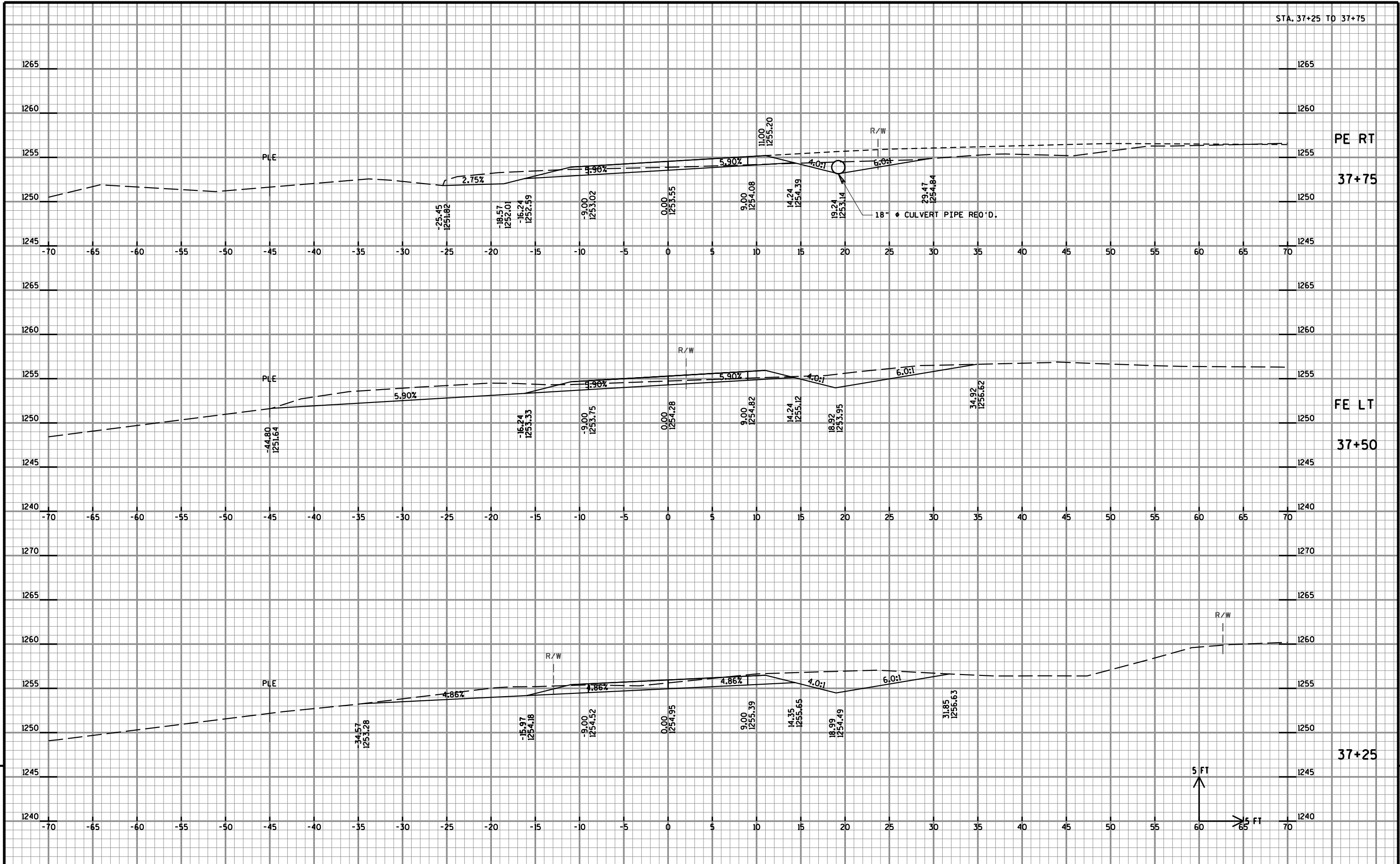




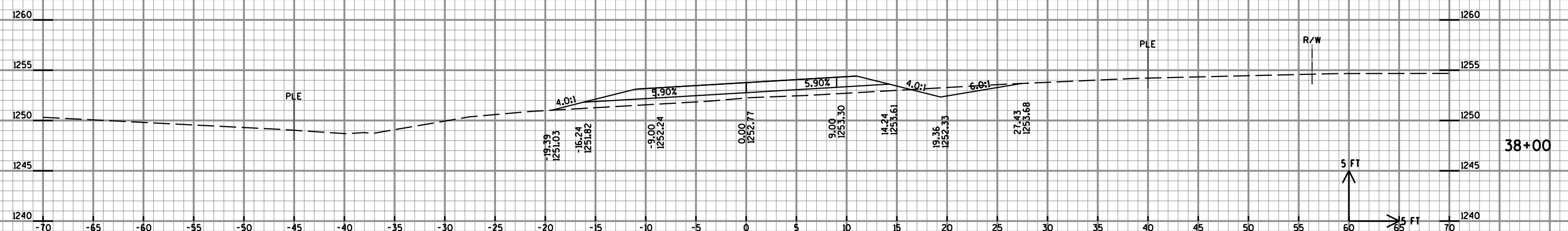
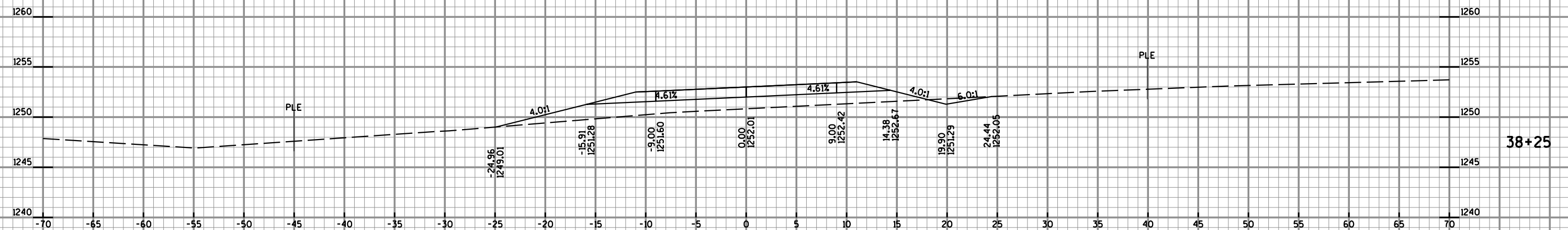
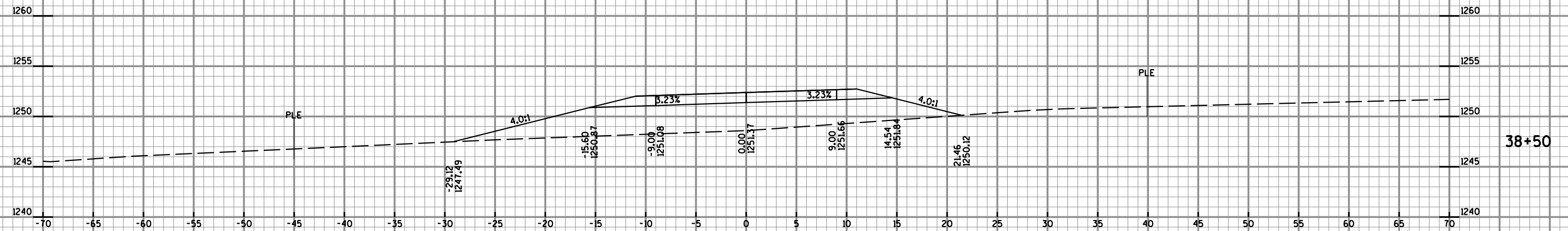


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9



STA. 38+00 TO 38+50



9

9

PROJECT NO: 8472-00-70

HWY: WOZNY ROAD

COUNTY: WASHBURN

CROSS SECTIONS

SHEET

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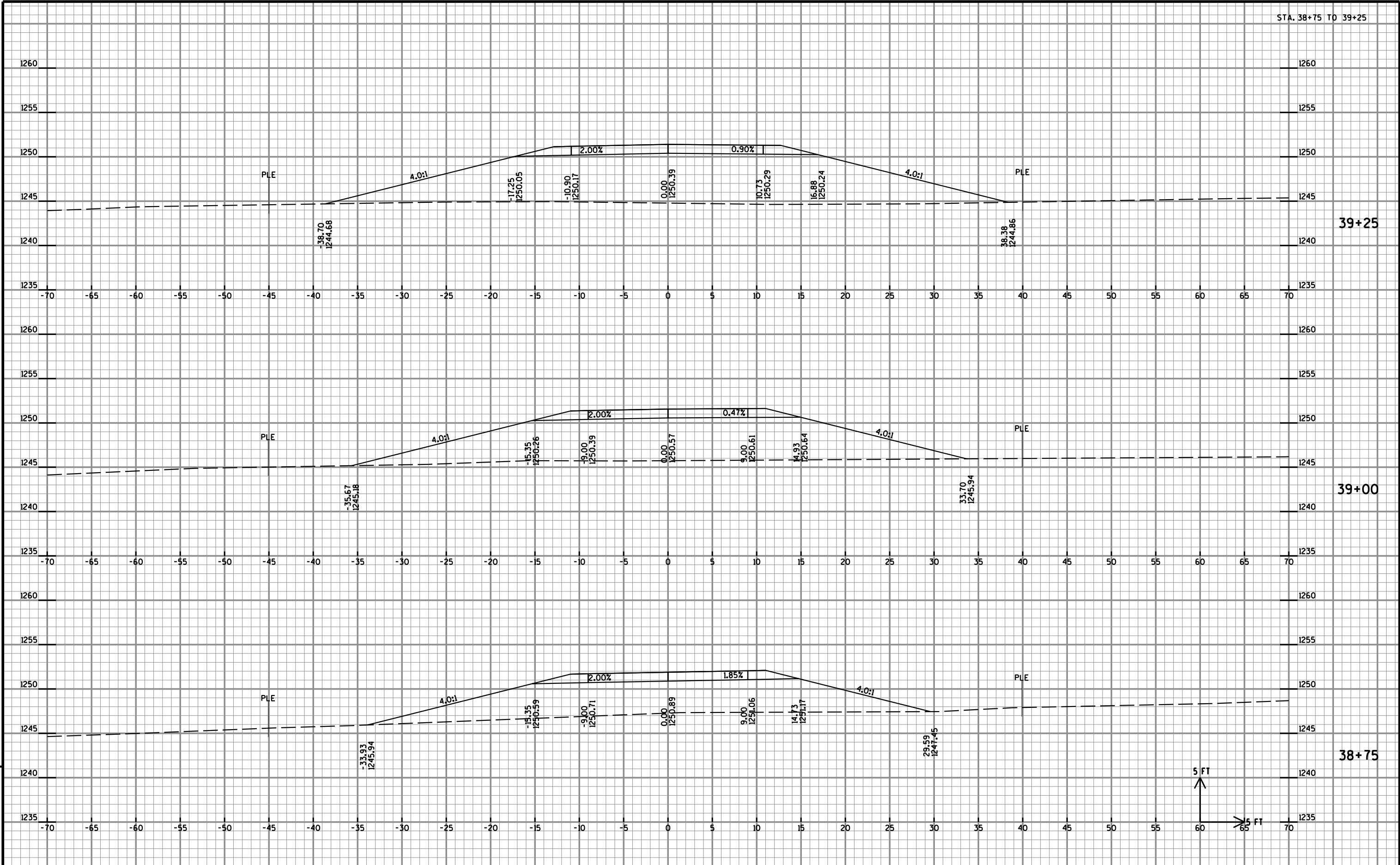
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PLOT BY : AYRES-EC

PLOT NAME :

PLOT SCALE : 1:10

WISDOT/CADDS SHEET 21



PROJECT NO: 8472-00-70

HWY: WOZNY ROAD

COUNTY: WASHBURN

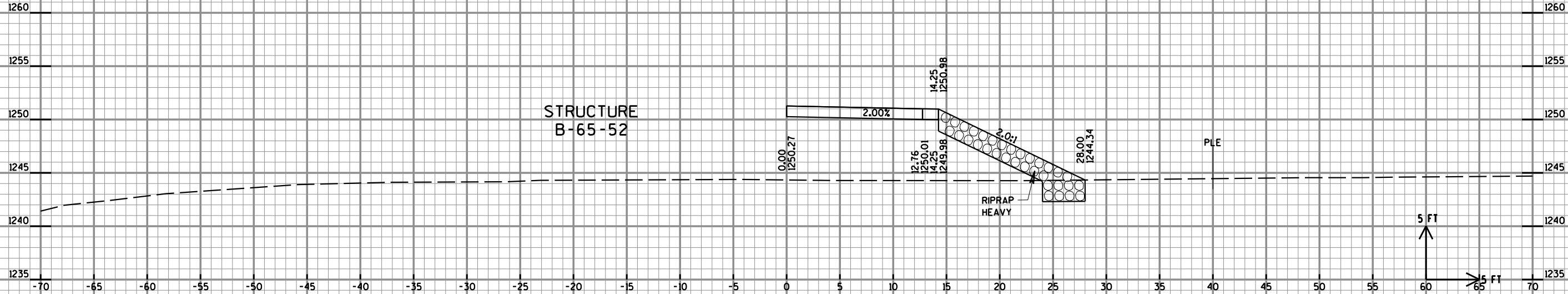
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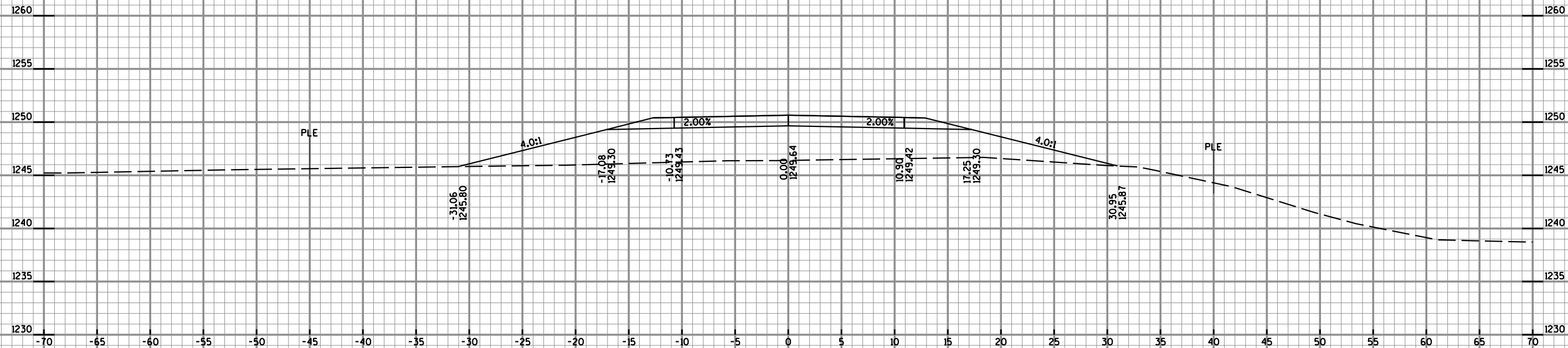
SHEET

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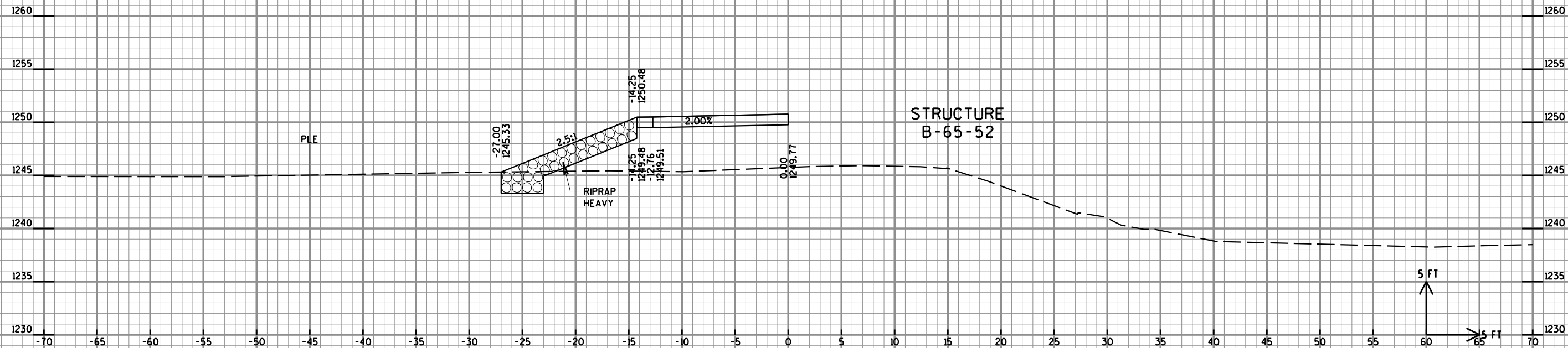
STRUCTURE
B-65-52

STRUCTURE
B-65-52

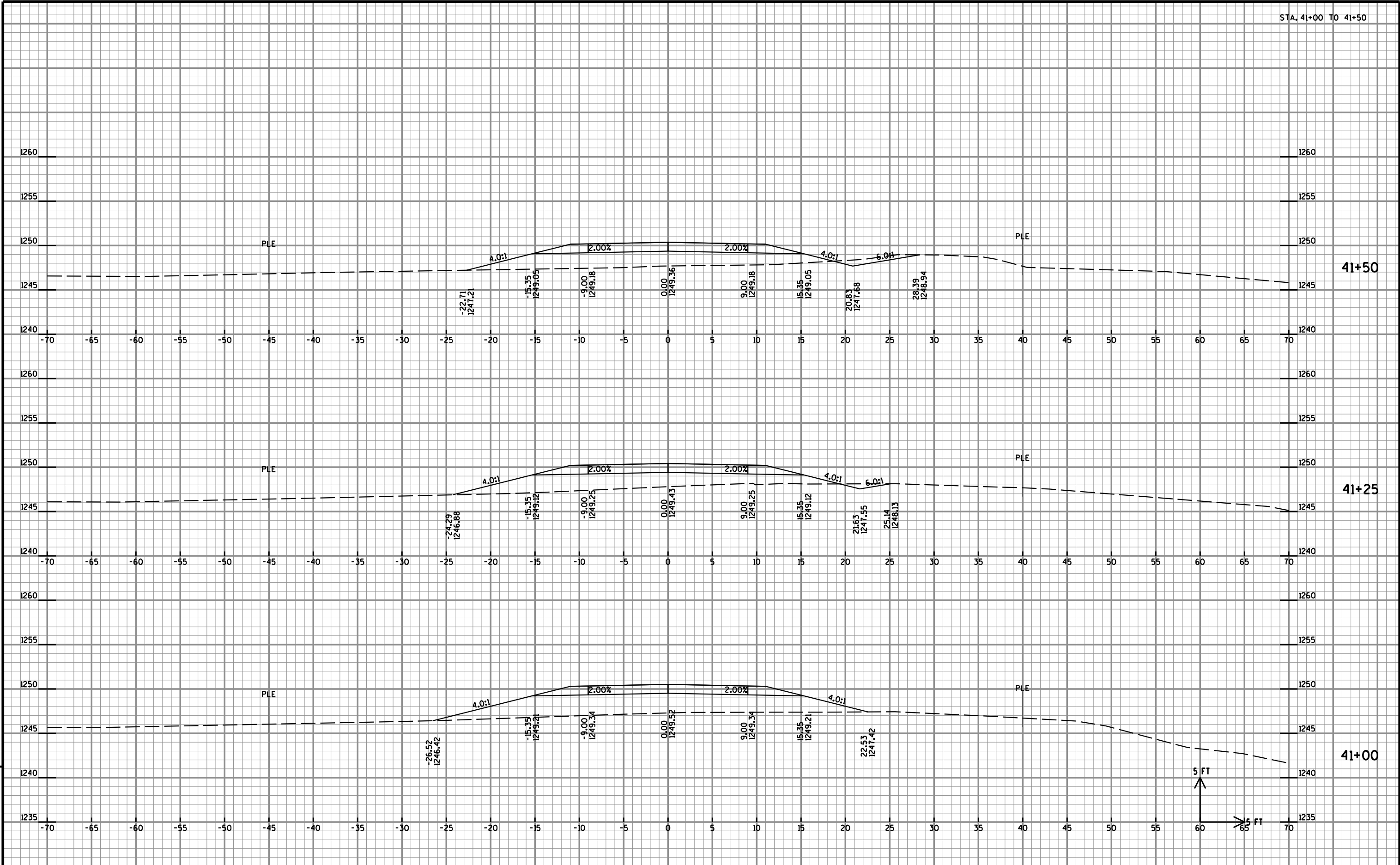


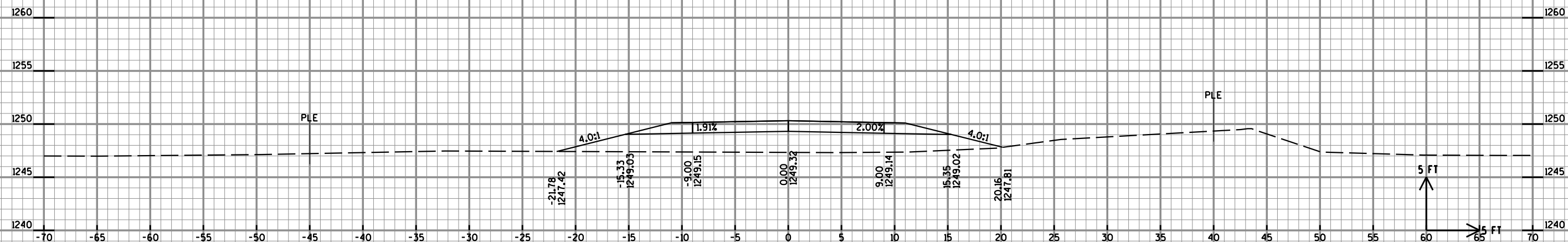
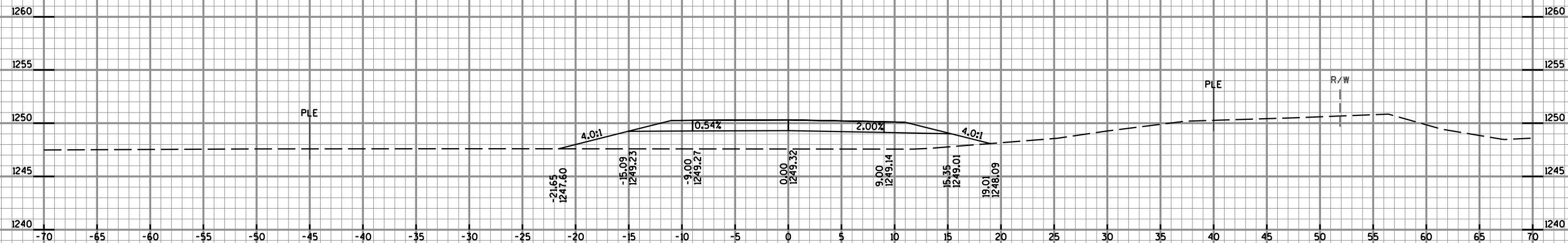
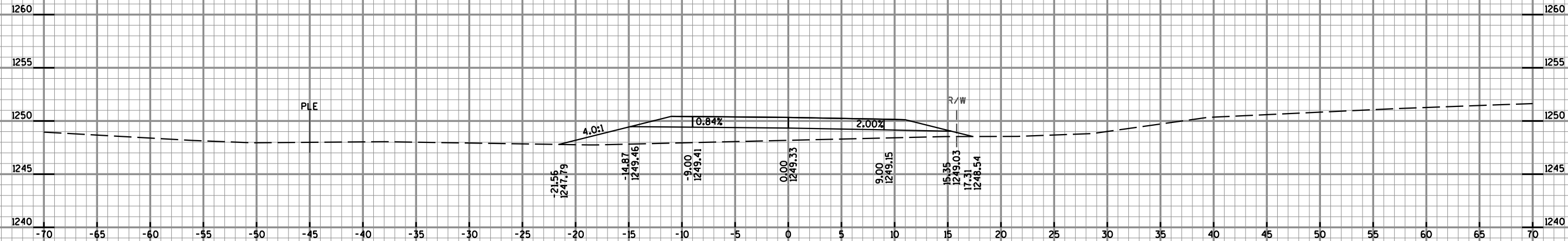


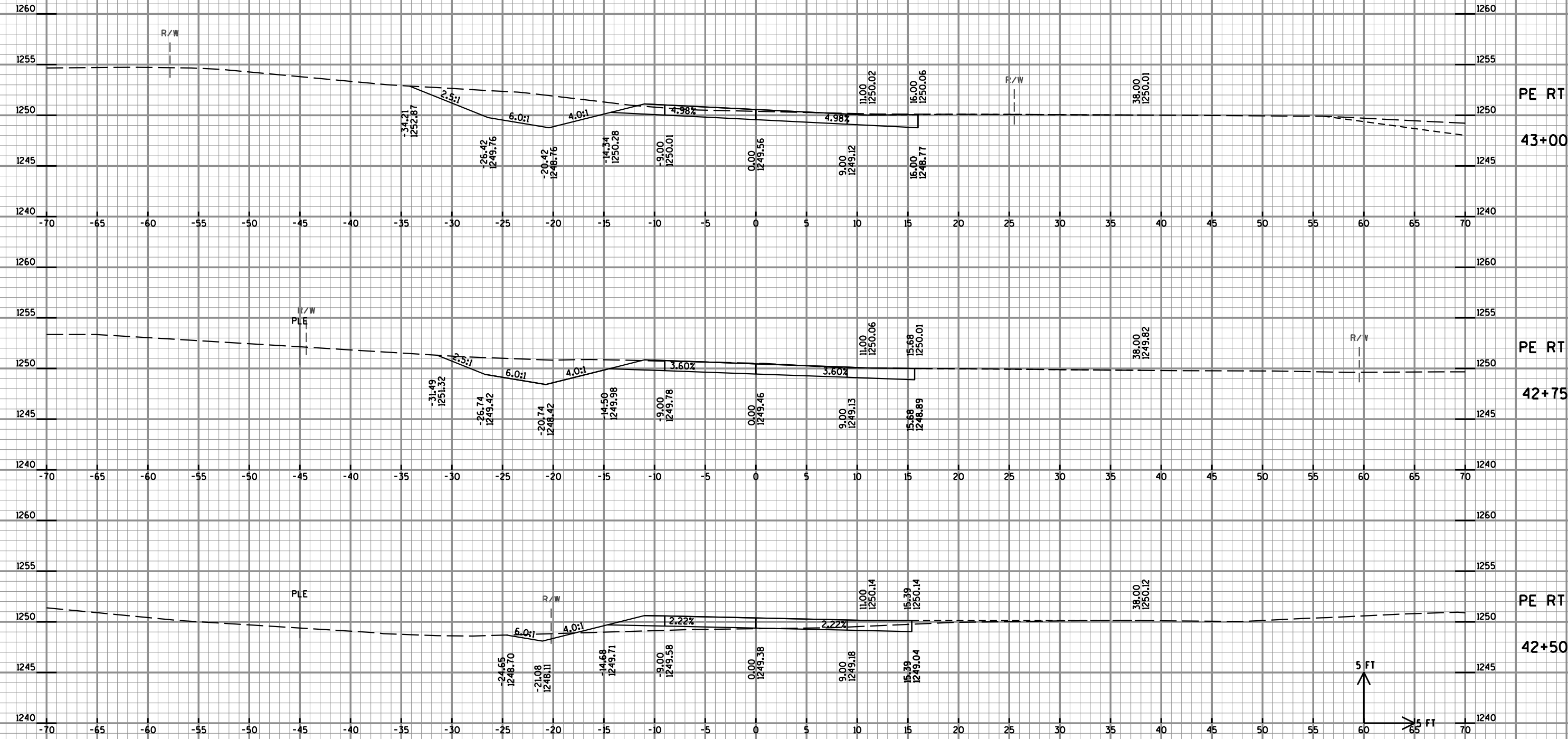
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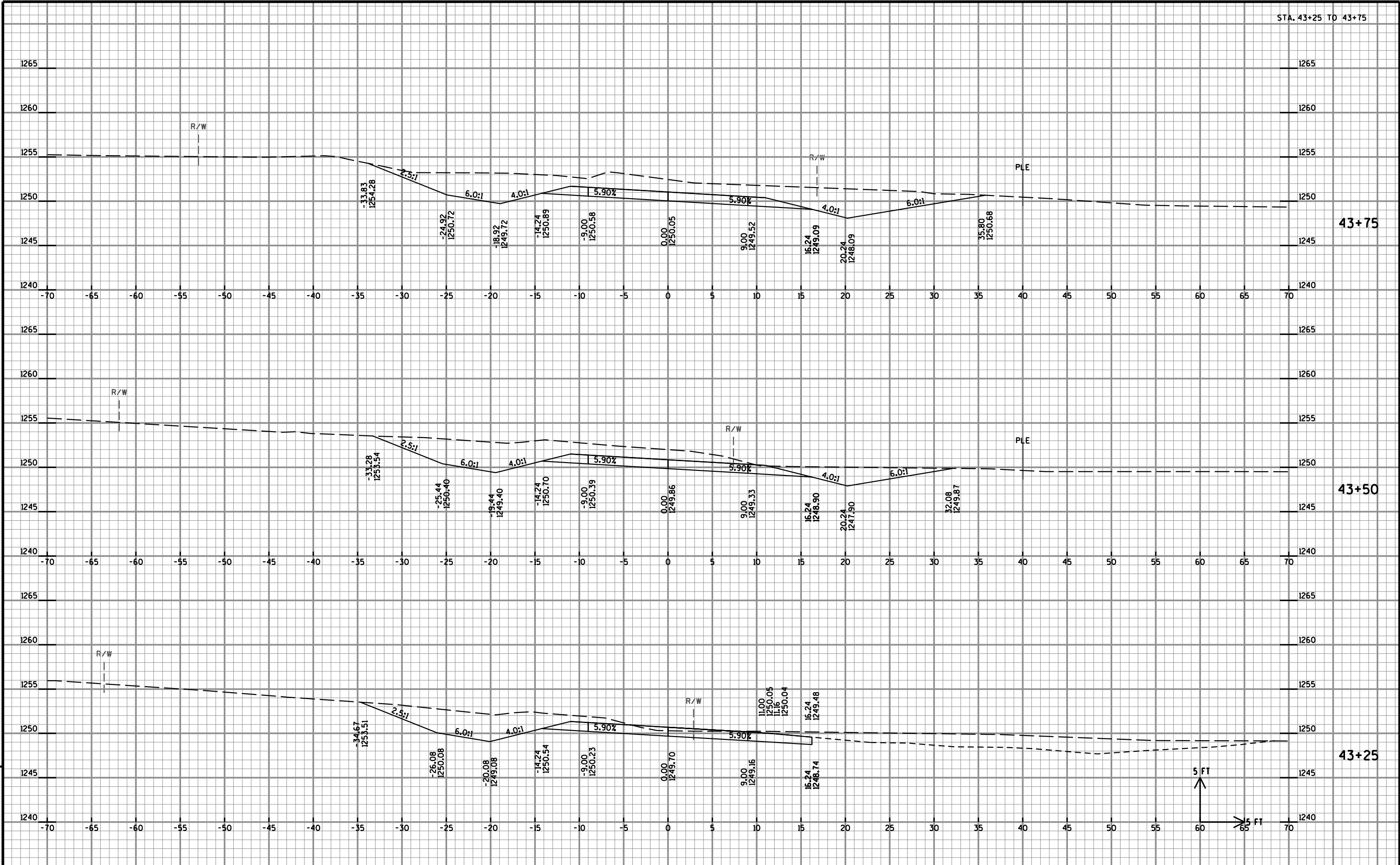


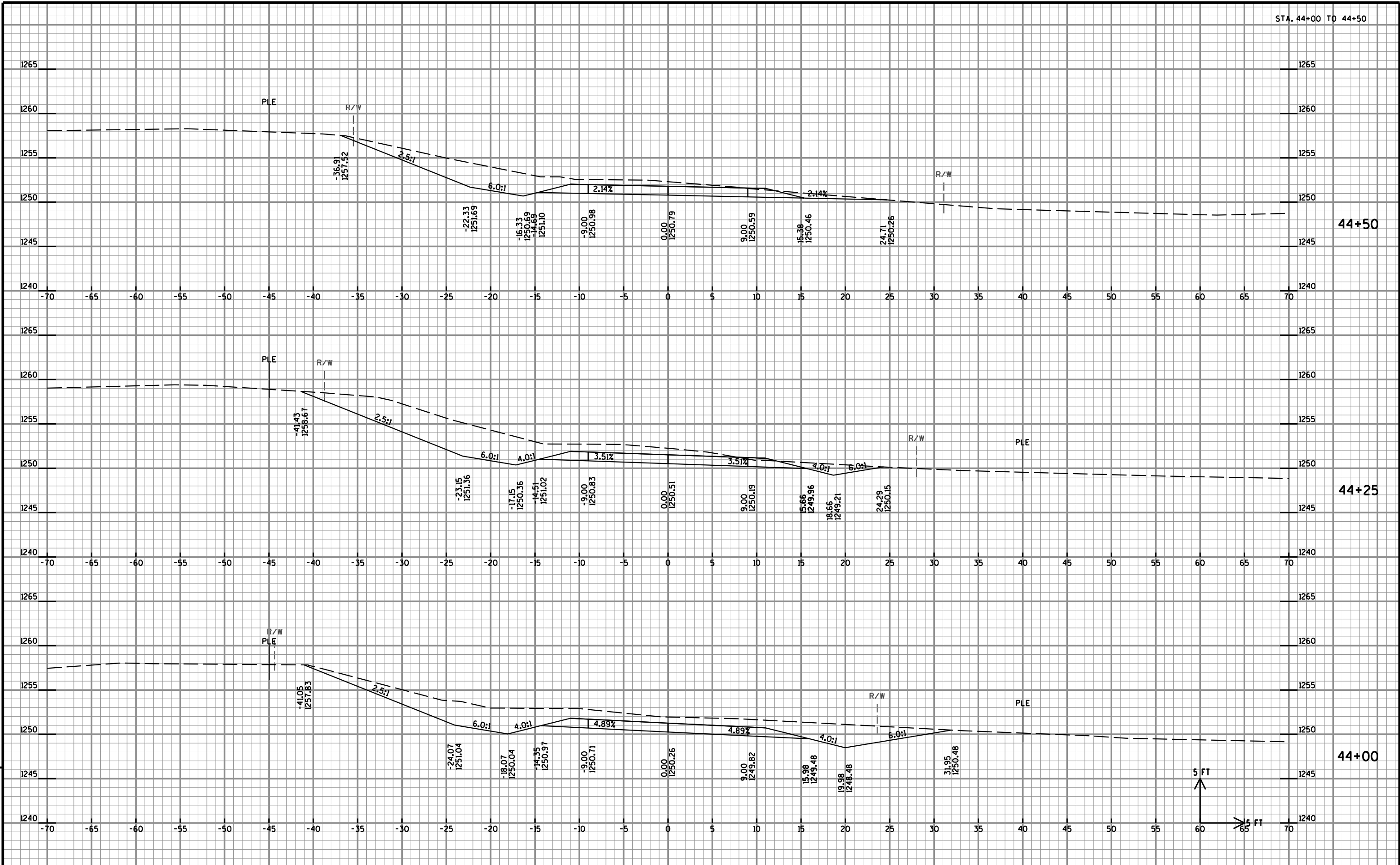
40+50











PROJECT NO: 8472-00-70

HWY: WOZNY ROAD

COUNTY: WASHBURN

CROSS SECTIONS

SHEET

E

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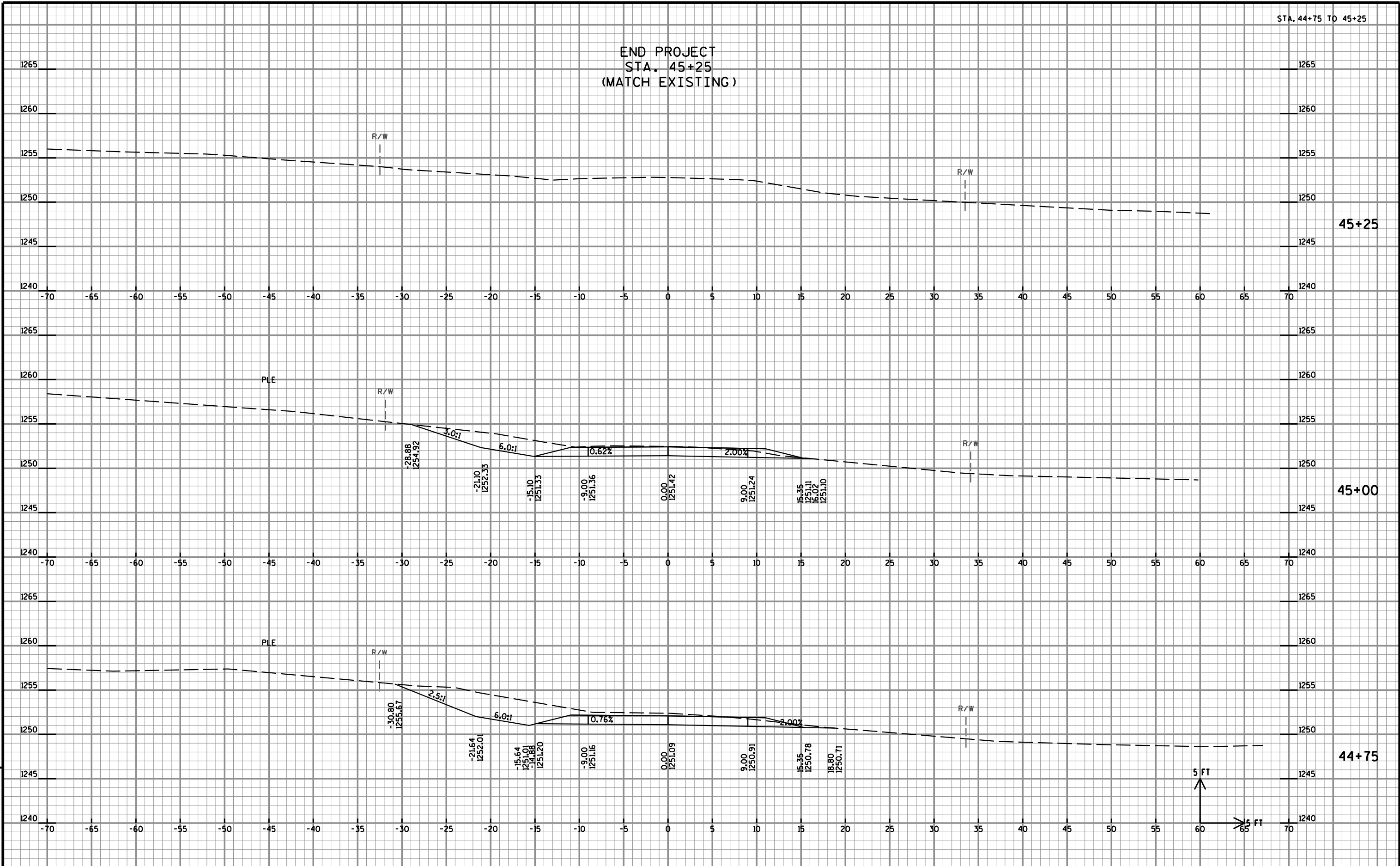
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PLOT NAME :

PLOT SCALE : 1:10

WISDOT/CADDs SHEET 21



PROJECT NO: 8472-00-70

HWY: WOZNY ROAD

COUNTY: WASHBURN

CROSS SECTIONS

SHEET

E

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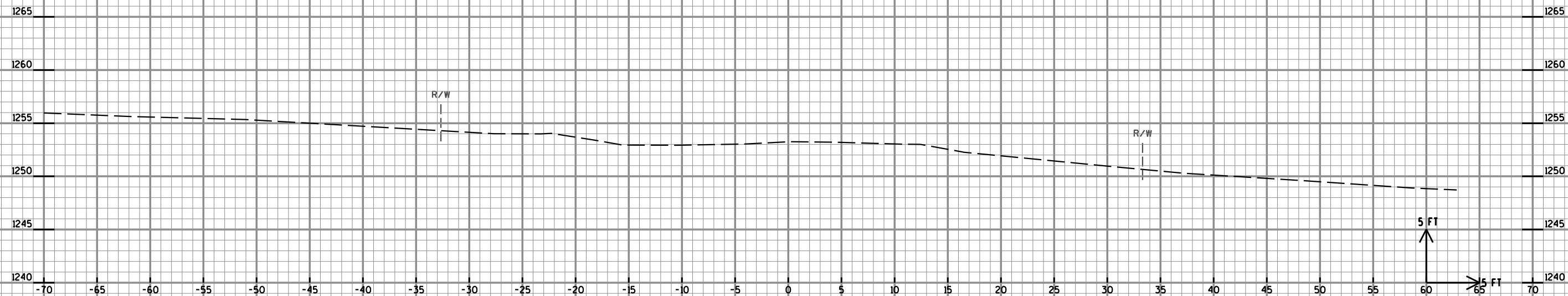
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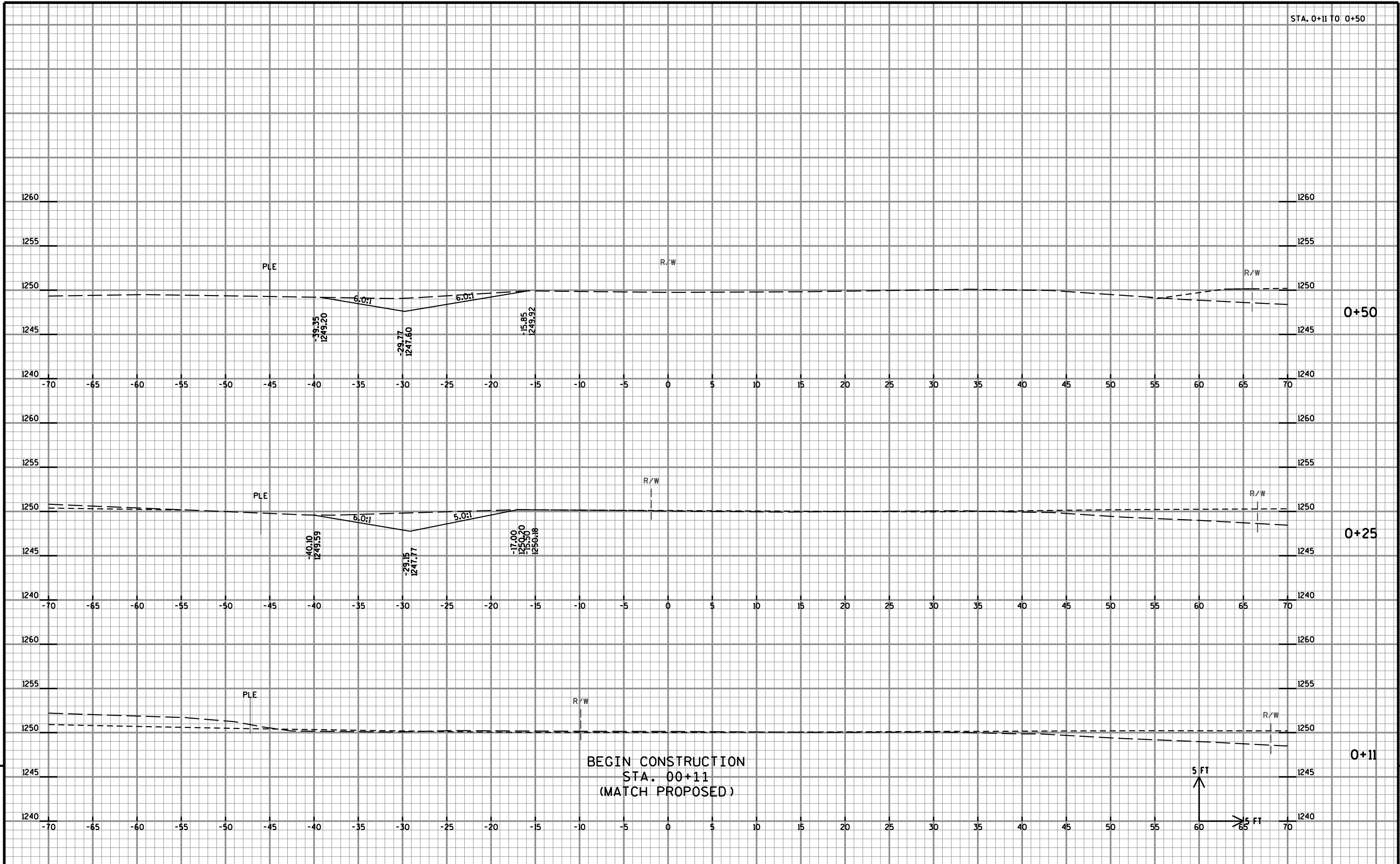
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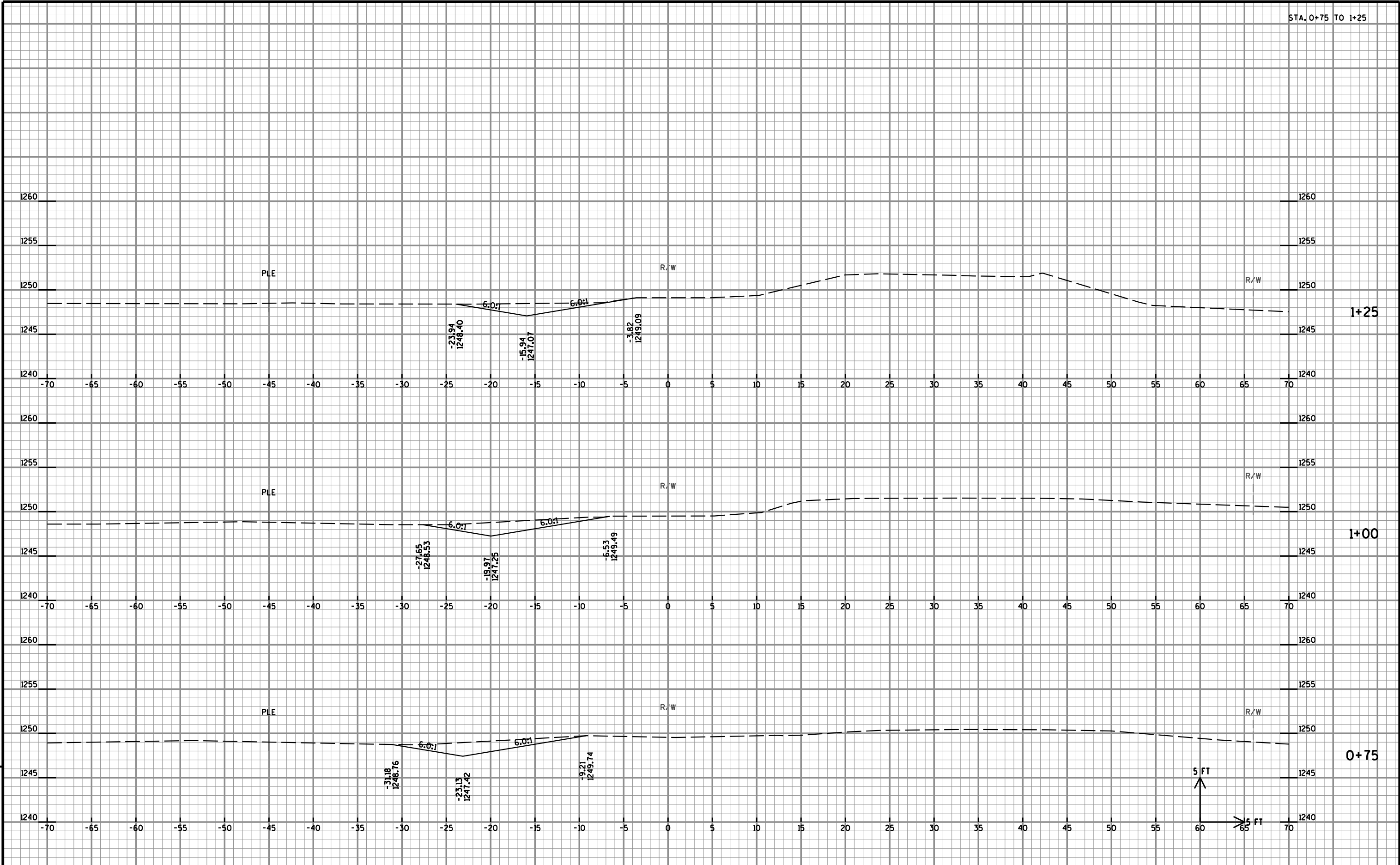
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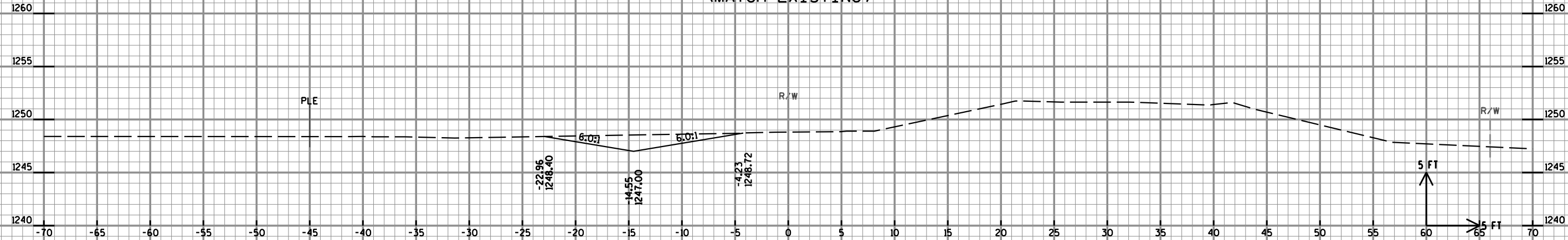
WISDOT/CADDs SHEET 21

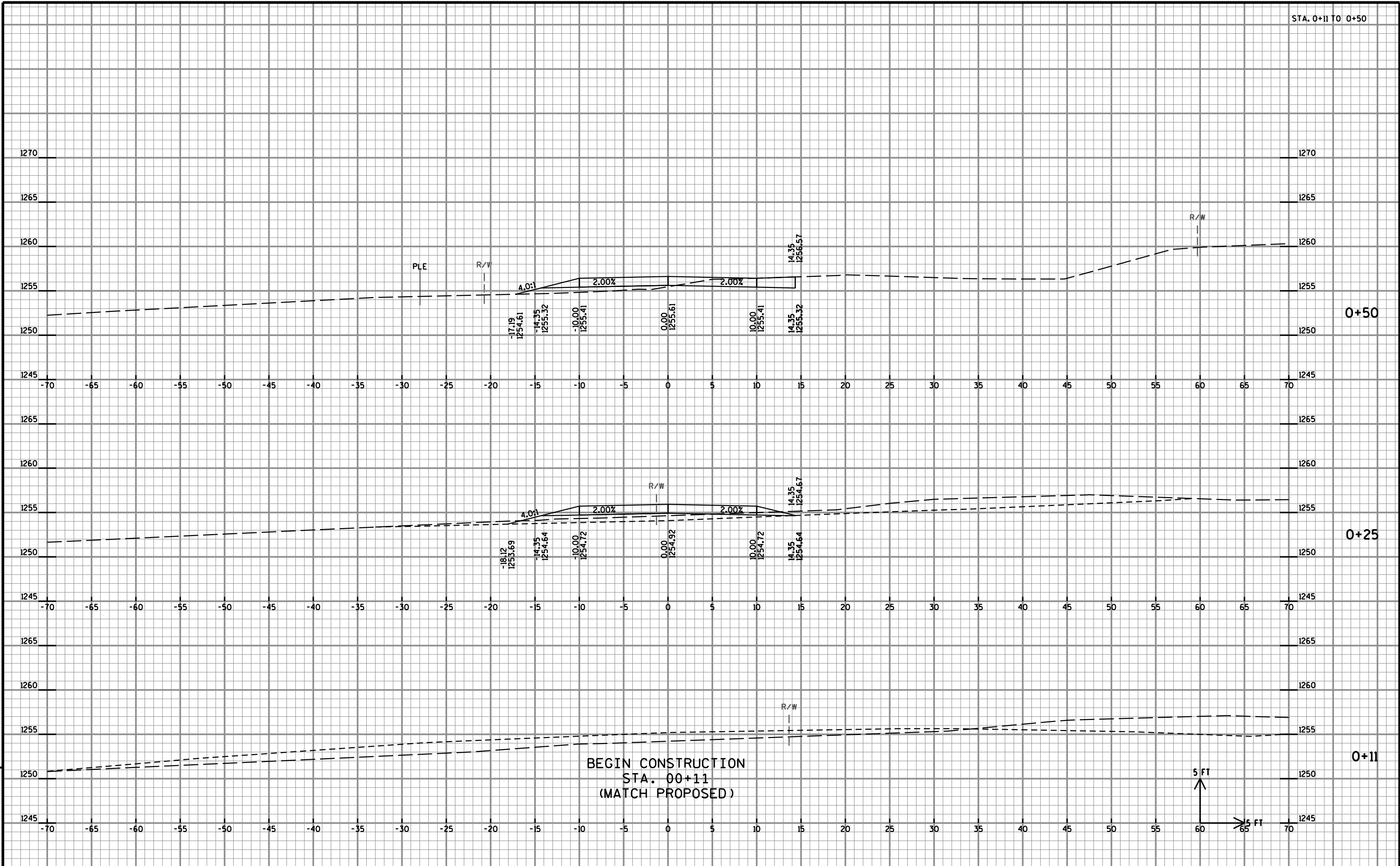






END CONSTRUCTION
STA. 1+35
(MATCH EXISTING)





PROJECT NO: 8472-00-70

HWY: WOZNY ROAD

COUNTY: WASHBURN

CROSS SECTIONS - PE 37+75 RT

SHEET

E

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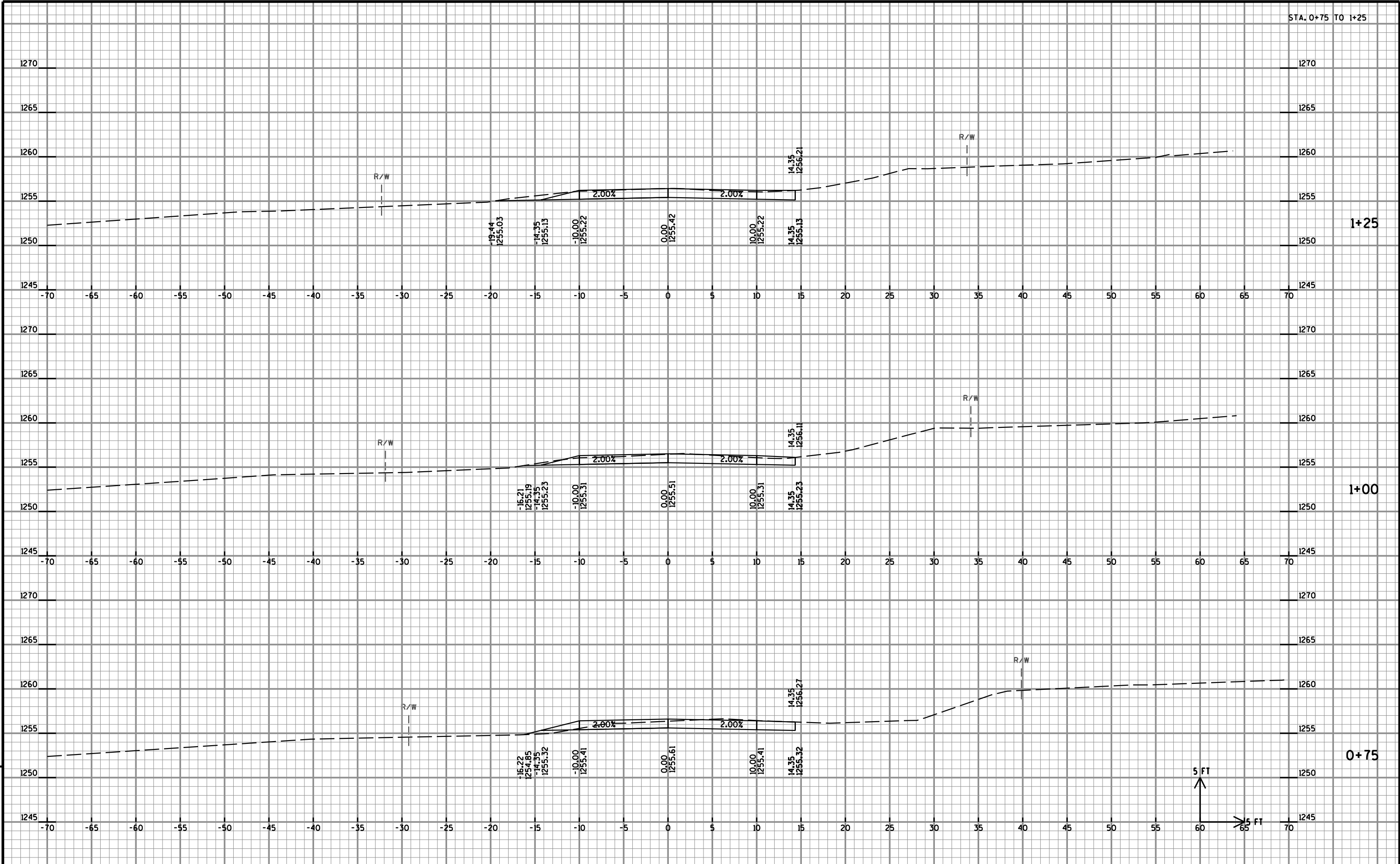
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WISDOT/CADDs SHEET 21



PROJECT NO: 8472-00-70

HWY: WOZNY ROAD

COUNTY: WASHBURN

CROSS SECTIONS - PE 37+75 RT

SHEET

E

FILE NAME : U:\42-0893.00 - Washburn, Frog Creek, Wozny Road\Inroads\42089300_xs 37+75.DGN

PLOT DATE : 11/10/2016

PLOT BY : AYRES-EC

PLOT NAME :

PLOT SCALE : 1:10

WISDOT/CADDs SHEET 21

END CONSTRUCTION
STA. 1+37.54
(MATCH EXISTING)

R/W

R/W

1+38

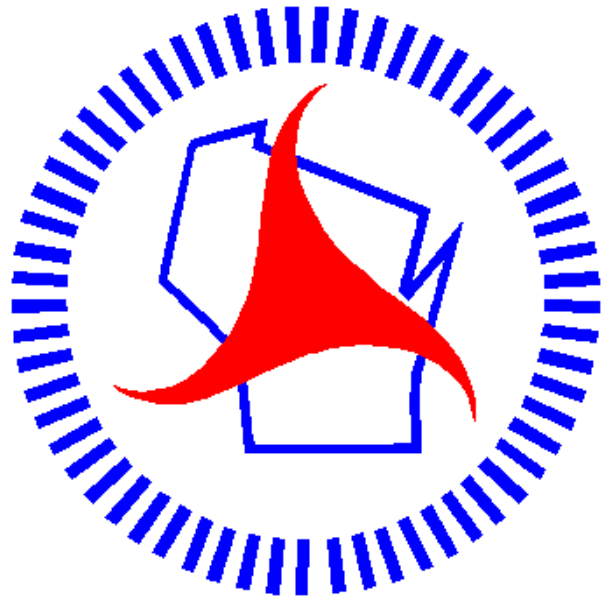
5 FT

5 FT

9

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Notes



Wisconsin Department of Transportation

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through innovation and exceptional service.

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