

SWL

PROJECT ID: 3819-00-72
WITH: N/A

COUNTY: DODGE

NOVEMBER 2017

ORDER OF SHEETS

Section No. 1	Title
Section No. 2	Typical Sections and Details
Section No. 3	Estimate of Quantities
Section No. 3	Miscellaneous Quantities
Section No. 4	Right of Way Plat
Section No. 5	Plan and Profile (Includes Erosion Control)
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 = 68

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

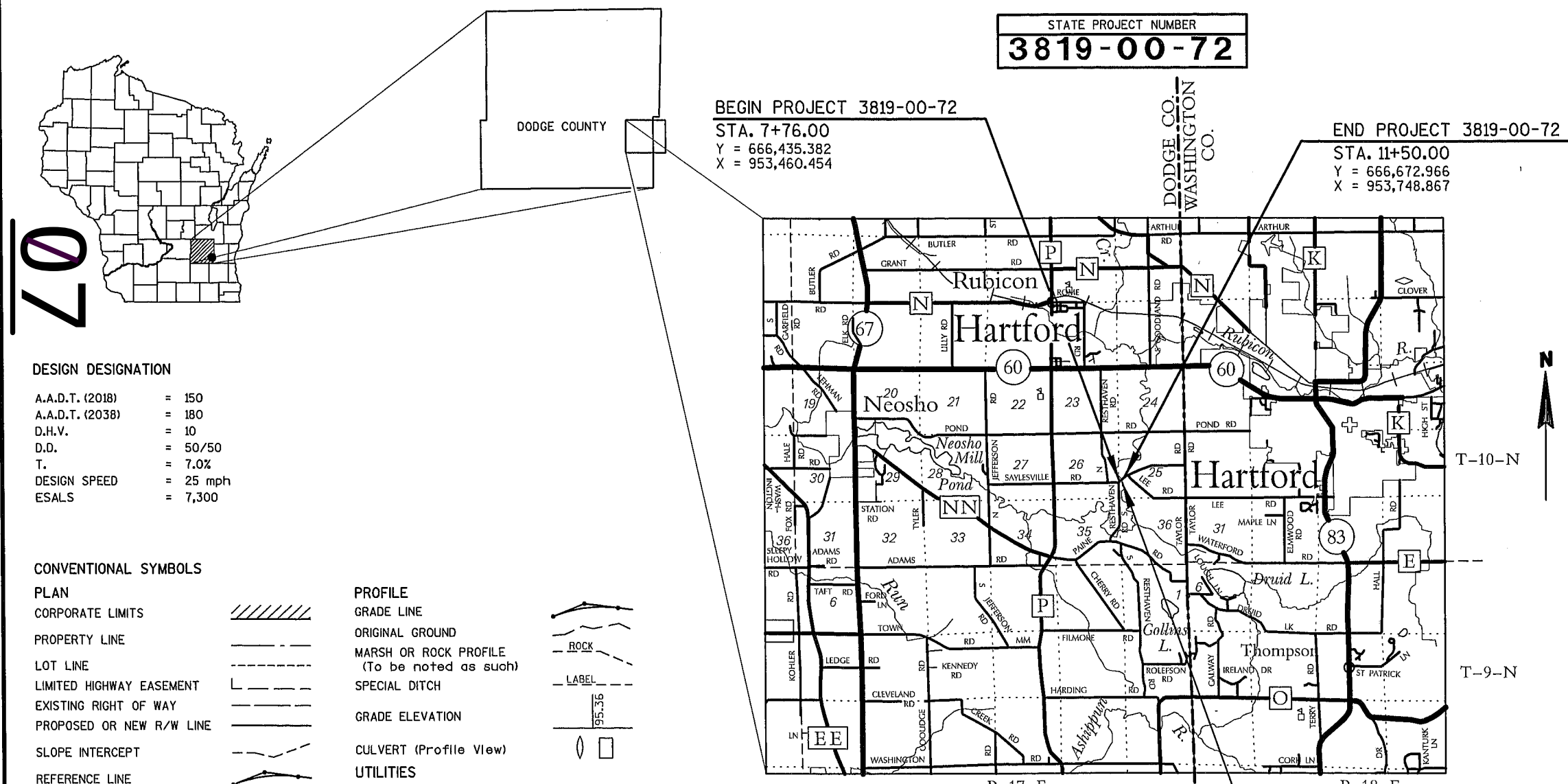
TOWN OF RUBICON, SAYLESVILLE ROAD

(RUBICON RIVER BRIDGE B-14-0212)

TOWN ROAD
DODGE COUNTY

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
3819-00-72	WISC 2017505	1

STATE PROJECT NUMBER
3819-00-72



DESIGN DESIGNATION

A.A.D.T. (2018)	= 150
A.A.D.T. (2038)	= 180
D.H.V.	= 10
D.D.	= 50/50
T.	= 7.0%
DESIGN SPEED	= 25 mph
ESALS	= 7,300

CONVENTIONAL SYMBOLS

PLAN	
CORPORATE LIMITS	////
PROPERTY LINE	---
LOT LINE	- - - -
LIMITED HIGHWAY EASEMENT	L - - - -
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	CAUTION
MARSH AREA	~~~~~
WOODED OR SHRUB AREA	~~~~~

PROFILE	
GRADE LINE	---
ORIGINAL GROUND	---
MARSH OR ROCK PROFILE (To be noted as such)	---
SPECIAL DITCH	---
GRADE ELEVATION	95.36
CULVERT (Profile View)	[]
UTILITIES	
ELECTRIC	E
FIBER OPTIC	FO
GAS	G
SANITARY SEWER	SAN
STORM SEWER	SS
TELEPHONE	T
WATER	W
UTILITY PEDESTAL	⊕
POWER POLE	⊕
TELEPHONE POLE	⊕

LAYOUT
SCALE 0 1 MI.
TOTAL NET LENGTH OF CENTERLINE = 0.071 MI.

COORDINATES ON THIS PLAN ARE REFERENCED TO THE WISCONSIN COUNTY COORDINATE SYSTEM (WCCS), DODGE COUNTY, HORIZONTAL DATUM NAD83 (2011).

ACCEPTED FOR
Town of
Rubicon
4-28-17 Thomas Schaefer
(Date) Town Chairman

ORIGINAL PLANS PREPARED BY
AYRES ASSOCIATES

WISCONSIN
MATTHEW R. BARR
E-26188
MADISON WI
PROFESSIONAL ENGINEER
4/28/17
(Date) (Signature)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY
Surveyor AYRES ASSOCIATES
Designer AYRES ASSOCIATES
Management Consultant KL Engineering, Inc.

APPROVED FOR THE DEPARTMENT
DATE: 4/28/17 MCB for
Jeff Melville
(Management Consultant Signature)

GENERAL NOTES

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

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

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

WETLANDS ARE PRESENT AT THE LOCATIONS SHOWN IN THE PLANS. DO NOT OPERATE MACHINERY OUTSIDE OF THE SLOPE INTERCEPTS IN THESE LOCATIONS.

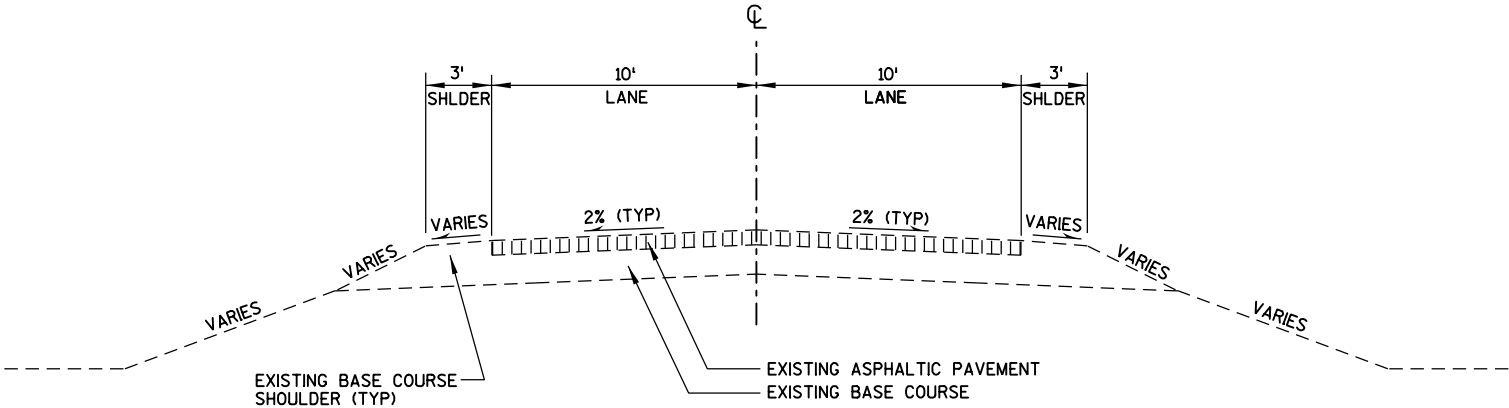
THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATIONS AS SHOWN ON THE PLANS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT AREA THAT ARE NOT SHOWN. THE CONTRACTOR IS RESPONSIBLE FOR FIELD LOCATING ALL UTILITIES.

COORDINATES ON THIS PLAN ARE REFERENCED TO THE WISCONSIN COUNTY COORDINATE SYSTEM (WCCS), DODGE COUNTY, HORIZONTAL DATUM NAD83 (2011).

ASPHALTIC SURFACE LAYERS:
- UPPER: 1 3/4"
- LOWER: 2 1/4"

STANDARD ABBREVIATIONS

A.	ANNUAL	P.C.	POINT OF CURVATURE
A.A.D.T.	ANNUAL AVERAGE DAILY TRAFFIC	P.I.	POINT OF INTERSECTION
AC.	ACRES	P.K.	PARKER-KALON
B.M.	BENCH MARK	P.L.	PROPERTY LINE
CL	CENTERLINE	P.P.	POWER POLE
CONC.	CONCRETE	P.T.	POINT OF TANGENCY
COR.	CORNER	R	RADIUS
CULV.	CULVERT	RL	REFERENCE LINE
D.H.V.	DESIGN HOURLY VOLUME	RT.	RIGHT
EL.	ELEVATION	SEC.	SECTION
H.	HOUSE	STA.	STATION
I.P.	IRON PIPE	TYP.	TYPICAL
LT.	LEFT	X	EAST COORDINATE
MON.	MONUMENT	Y	NORTH COORDINATE



TYPICAL EXISTING SECTION

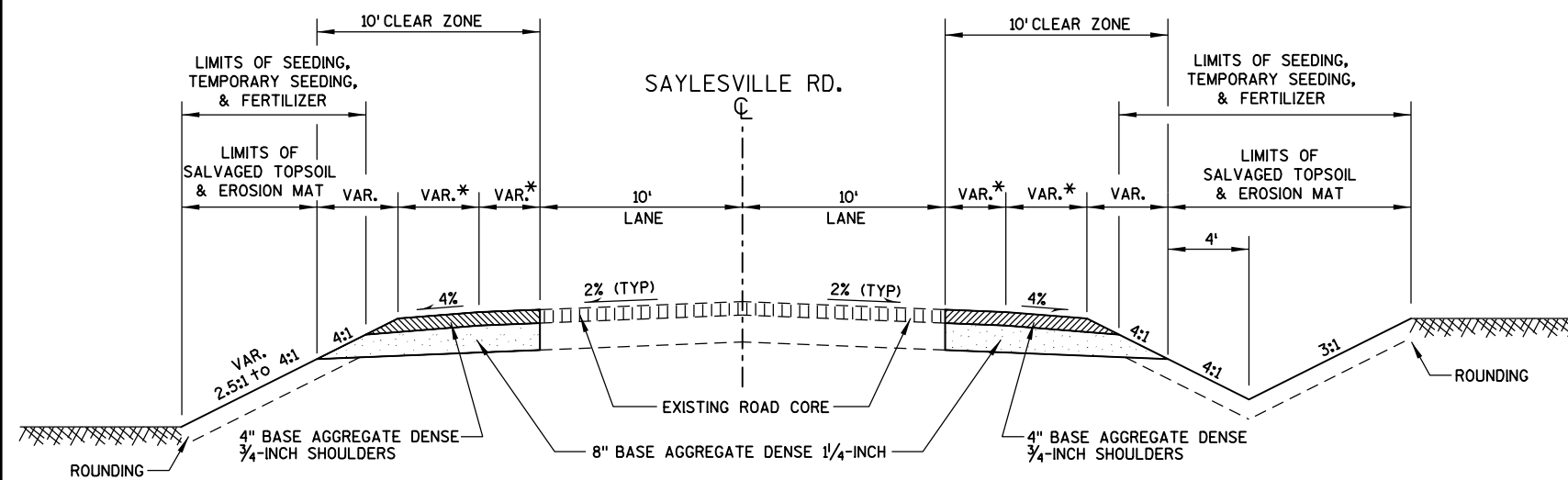
CONTACTS

DODGE COUNTY PUBLIC WORKS	WISCONSIN DEPARTMENT OF NATURAL RESOURCES	UTILITIES
PETE THOMPSON ASST. COMMISSIONER HIGHWAY DEPT. 211E. CENTER STREET JUNEAU, WI 53039-1309 P: (920) 386-3650 F: (920) 386-3525 E: PTHOMPSON@CO.DODGE.WI.US	ERIC HEGGELUND DNR SOUTH CENTRAL REGION HQ 3911 FISH HATCHERY ROAD FITCHBURG, WI 53711 P: (608) 275-3301 E: ERIC.HEGGELUND@WISCONSIN.GOV	WE ENERGIES - ELECTRIC ALAN SCHMITT 245 SAND DRIVE WEST BEND, WI 53095 P: (262) 338-7662 C: (414) 322-1824 E: ALAN.SCHMITT@WE-ENERGIES.COM
TOWN OF RUBICON		AT&T - TELEPHONE CHUCK BARTELT 70 E DIVISION STREET FOND DU LAC, WI 54935 P: (920) 929-1013 C: (920) 410-5104 E: CB1461@ATT.COM
DESIGNER		
MATT BARR AYRES ASSOCIATES 5201 EAST TERRACE DRIVE, SUIT 200 MADISON, WI 53718 P: (608) 443-1261 E: BARRM@AYRESASSOCIATES.COM		



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

** DENOTES UTILITIES THAT ARE NOT DIGGERS HOTLINE MEMBERS

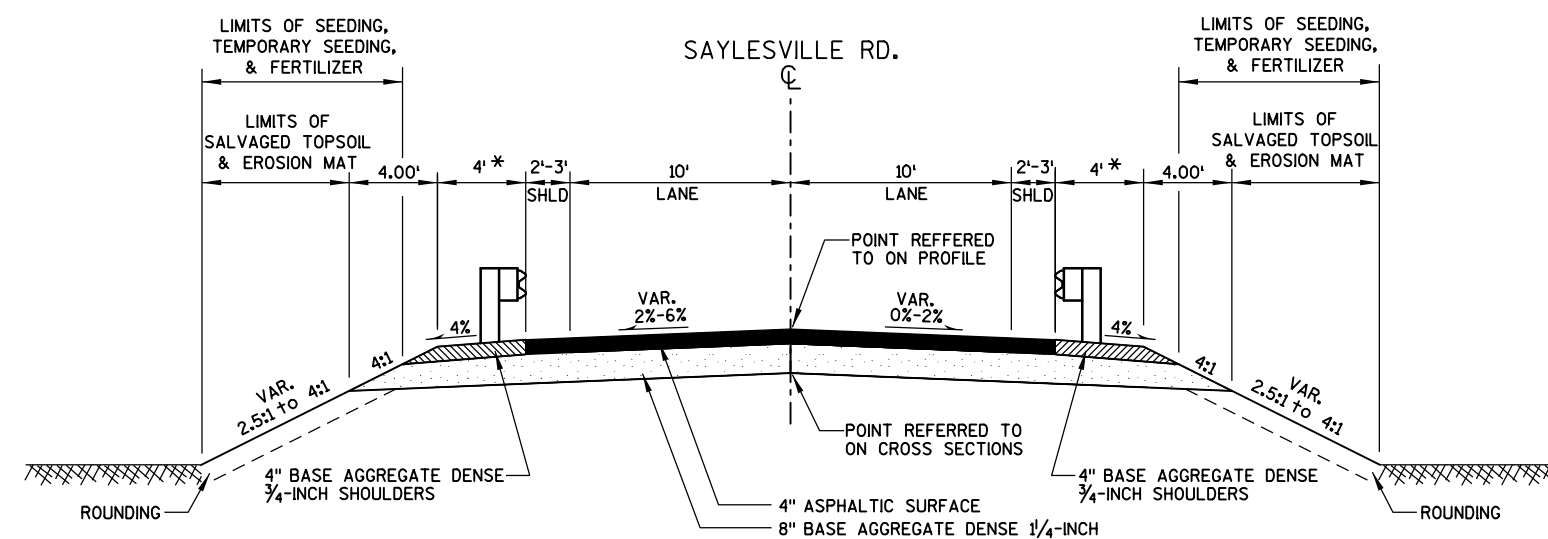


HALF SECTION IN FILL

TYPICAL FINISHED SECTION SHOULDER WIDENING

STA 7+34 - STA 7+76
STA 11+50 - STA 13+00

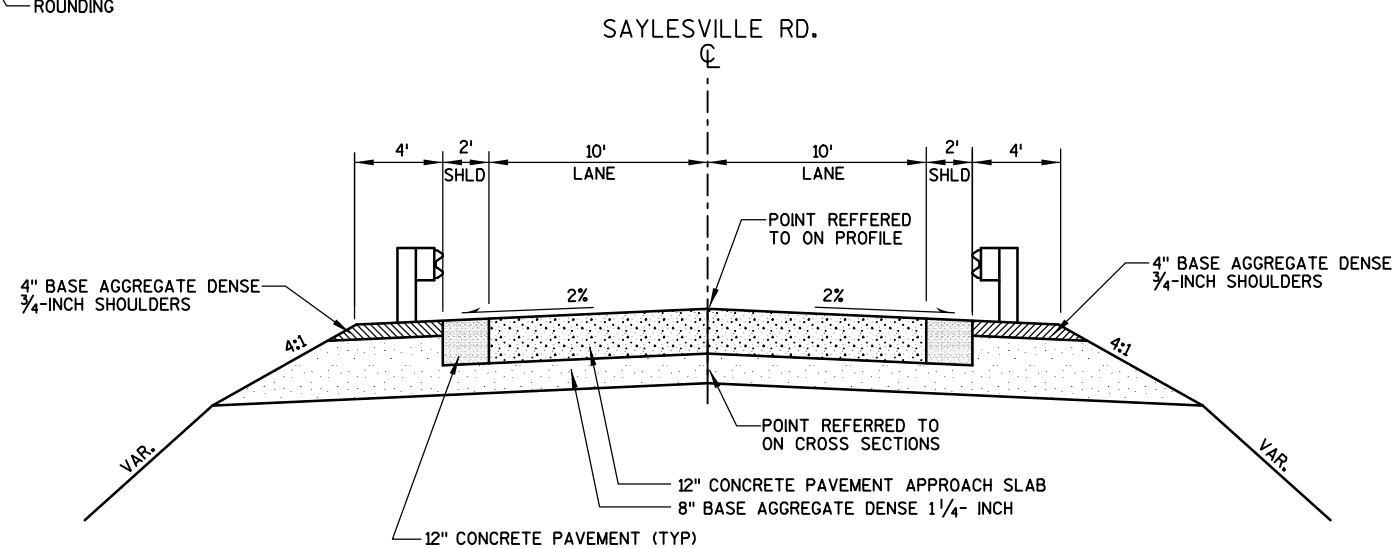
HALF SECTION IN CUT



*SHOULDER TO TAPER TO MATCH EXISTING BEYOND GUARDRAIL LIMITS

TYPICAL FINISHED SECTION

STA 7+76 - STA 9+50
STA 10+67 - STA 11+50



TYPICAL FINISHED SECTION

(AT STRUCTURE APPROACH SLABS)

STA 9+50 - STA 9+71
STA 10+45 - STA 10+67

Estimate Of Quantities

3819-00-72					
Line	Item	Item Description	Unit	Total	Qty
0002	201.0105	Clearing	STA	6.000	6.000
0004	201.0205	Grubbing	STA	6.000	6.000
0006	203.0500.S	Removing Old Structure Over Waterway (station) 01. 10+08	LS	1.000	1.000
0008	204.0165	Removing Guardrail	LF	550.000	550.000
0010	205.0100	Excavation Common **P**	CY	276.000	276.000
0012	206.1000	Excavation for Structures Bridges (structure) 01. B-14-0212	LS	1.000	1.000
0014	208.0100	Borrow	CY	3,253.000	3,253.000
0016	210.1500	Backfill Structure Type A	TON	950.000	950.000
0018	213.0100	Finishing Roadway (project) 01. ID 3819-00-72	EACH	1.000	1.000
0020	305.0110	Base Aggregate Dense 3/4-Inch	TON	119.000	119.000
0022	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	769.000	769.000
0024	415.0120	Concrete Pavement 12-Inch	SY	19.000	19.000
0026	415.0410	Concrete Pavement Approach Slab	SY	89.000	89.000
0028	455.0605	Tack Coat	GAL	63.000	63.000
0030	465.0105	Asphaltic Surface	TON	202.000	202.000
0032	502.0100	Concrete Masonry Bridges	CY	248.000	248.000
0034	502.3200	Protective Surface Treatment	SY	205.000	205.000
0036	502.3210	Pigmented Surface Sealer	SY	64.000	64.000
0038	503.0137	Prestressed Girder Type I 36W-Inch	LF	300.000	300.000
0040	505.0400	Bar Steel Reinforcement HS Structures	LB	5,300.000	5,300.000
0042	505.0600	Bar Steel Reinforcement HS Coated Structures	LB	21,100.000	21,100.000
0044	506.2605	Bearing Pads Elastomeric Non-Laminated	EACH	8.000	8.000
0046	506.4000	Steel Diaphragms (structure) 01. B-14-0212	EACH	3.000	3.000
0048	516.0500	Rubberized Membrane Waterproofing	SY	24.000	24.000
0050	550.0500	Pile Points	EACH	12.000	12.000
0052	550.1100	Piling Steel HP 10-Inch X 42 Lb	LF	420.000	420.000
0054	606.0300	Riprap Heavy	CY	360.000	360.000
0056	612.0406	Pipe Underdrain Wrapped 6-Inch	LF	174.000	174.000
0058	614.0150	Anchor Assemblies for Steel Plate Beam Guard	EACH	4.000	4.000
0060	614.0920	Salvaged Rail	LF	50.000	50.000
0062	614.2300	MGS Guardrail 3	LF	337.500	337.500
0064	614.2500	MGS Thrie Beam Transition	LF	157.600	157.600
0066	614.2610	MGS Guardrail Terminal EAT	EACH	4.000	4.000
0068	619.1000	Mobilization	EACH	1.000	1.000
0070	624.0100	Water	MGAL	13.300	13.300
0072	625.0500	Salvaged Topsoil **P**	SY	2,545.000	2,545.000
0074	627.0200	Mulching **P**	SY	1,500.000	1,500.000
0076	628.1504	Silt Fence	LF	1,050.000	1,050.000

Estimate Of Quantities

3819-00-72

Line	Item	Item Description	Unit	Total	Qty
0078	628.1520	Silt Fence Maintenance	LF	1,050.000	1,050.000
0080	628.1905	Mobilizations Erosion Control	EACH	2.000	2.000
0082	628.1910	Mobilizations Emergency Erosion Control	EACH	2.000	2.000
0084	628.2008	Erosion Mat Urban Class I Type B	SY	2,905.000	2,905.000
0086	628.6005	Turbidity Barriers	SY	410.000	410.000
0088	628.7504	Temporary Ditch Checks	LF	50.000	50.000
0090	629.0210	Fertilizer Type B **P**	CWT	3.600	3.600
0092	630.0120	Seeding Mixture No. 20 **P**	LB	30.000	30.000
0094	630.0200	Seeding Temporary **P**	LB	30.000	30.000
0096	630.0300	Seeding Borrow Pit	LB	25.000	25.000
0098	634.0612	Posts Wood 4x6-Inch X 12-FT	EACH	4.000	4.000
0100	637.2230	Signs Type II Reflective F	SF	12.000	12.000
0102	638.2602	Removing Signs Type II	EACH	4.000	4.000
0104	638.3000	Removing Small Sign Supports	EACH	4.000	4.000
0106	642.5001	Field Office Type B	EACH	1.000	1.000
0108	643.0100	Traffic Control (project) 01. ID 3819-00-72	EACH	1.000	1.000
0110	645.0111	Geotextile Type DF Schedule A	SY	100.000	100.000
0112	645.0120	Geotextile Type HR	SY	660.000	660.000
0114	650.4500	Construction Staking Subgrade	LF	495.000	495.000
0116	650.5000	Construction Staking Base	LF	495.000	495.000
0118	650.6500	Construction Staking Structure Layout (structure) 01. B-14-0212	LS	1.000	1.000
0120	650.9910	Construction Staking Supplemental Control (project) 01. ID 3819-00-72	LS	1.000	1.000
0122	650.9920	Construction Staking Slope Stakes	LF	495.000	495.000
0124	690.0150	Sawing Asphalt	LF	92.000	92.000
0126	715.0415	Incentive Strength Concrete Pavement	DOL	500.000	500.000
0128	715.0502	Incentive Strength Concrete Structures	DOL	1,488.000	1,488.000

SAYLESVILLE ROAD EARTHWORK SUMMARY

From/To Station	Location	Common Excavation* (1) (item # 205.0100)	Unexpanded Fill	Expanded Fill (2)	Mass Ordinate +/- (3)	Waste	Borrow (item #208.0100)	Comment:
		Cut		Factor 1.30				
7+34 - 13+00	SAYLESVILLE ROAD	276	2715	3530	-3253		3253	

- 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 project. Plus quantity indicates an excess of material on the project.
- 4) All quantities shown in CY.
- *PAY PLAN QUANTITY

FINISHING ROADWAY
(ID 3819-00-72)

213.0100.01	
LOCATION	EACH
MAINLINE	1
TOTAL	1

PAVING AND BASE QUANTITIES

		305.0110	305.0120	415.0120	455.0605	465.0105	624.0100
		BASE AGGREGATE	BASE AGGREGATE	CONCRETE	TACK	ASPHALTIC	WATER
		DENSE 3/4-INCH	DENSE 1 1/4-INCH	PAVEMENT 12-INCH	COAT	SURFACE	
STA	TO STA	TON	TON	SY	GAL	TON	MGAL
7+34	9+71	51	391	9	36	116	6.6
10+45	13+00	62	341	9	24	76	6.0
UNDISTRIBUTED		6	37	1	3	10	0.6
TOTALS		119	769	19	63	202	13.3

GUARDRAIL

		204.0165	614.0920	614.2300	614.2500	614.2610
		REMOVING	SALVAGED	MGS	MGS THRIE	MGS GUARDRAIL
		GUARDRAIL	RAIL	GUARDRAIL 3	BEAM TRANSITION	TERMINAL EAT
STA	TO STA LOCATION	LF	LF	LF	LF	EACH
7+34	9+71 LT	--	50	12.5	39.4	1
7+34	9+71 RT	200	--	125.0	39.4	1
10+45	13+00 LT	175	--	100.0	39.4	1
10+45	13+00 RT	175	--	100.0	39.4	1
TOTALS		550	50	337.5	157.6	4

CLEARING AND GRUBBING

				201.0105	201.0205
				CLEARING	GRUBBING
STATION	TO STATION	LOCATION	STA	STA	STA
7+00	-- 10+00	LT & RT	3	3	3
10+00	-- 13+00	LT & RT	3	3	3
TOTALS			6	6	

CONCRETE PAVEMENT APPROACH SLAB

		415.0410
STA	TO STA	SY
9+50	9+71	44
10+45	10+67	45
TOTAL		89

REMOVING SIGNS & SUPPORTS

		638.2602	638.3000	NOTES
		REMOVING	REMOVING	
		SIGNS	SMALL SIGN	
		TYPE II	SUPPORTS	
LOCATION	EACH	EACH	EACH	
9+50	2	2		EXISTING TIGER STRIPE MARKERS
10+50	2	2		EXISTING TIGER STRIPE MARKERS
TOTALS		4	4	

ALL QUANTITIES CATEGORY 0010 UNLESS OTHERWISE NOTED

EROSION CONTROL ITEMS

		625.0500	627.0200	628.1504	628.1520	628.2008	629.0210	630.0120	630.0200	630.0300		
		SALVAGED**	MULCHING**	SILT FENCE	SILT FENCE	EROSION	FERTILIZER**	SEEDING**	SEEDING**	SEEDING		
		TOPSOIL			MAINTENANCE	MAT URBAN	TYPE B	MIXTURE	TEMPORARY	BORROW		
STA	TO	STA	LOCATION	SY	SY	LF	LF	SY	CWT	LB	LB	PIT
7+34		9+71	RT	660	--	220	220	740	0.9	19	19	6
7+34		9+71	LT	470	--	215	215	530	0.7	14	14	5
10+45		13+00	RT	680	--	270	270	775	0.9	20	20	7
10+45		13+00	LT	505	--	250	250	595	0.7	11	11	5
UNDISTRIBUTED				230	1,500	95	95	265	0.3	7	7	2
TOTALS				2,545	1,500	1,050	1,050	2,905	3.6	30	30	25
** PAY PLAN QUANTITY												

EROSION CONTROL MOBILIZATION ITEMS

		628.1905	628.1910
		MOBILIZATIONS	MOBILIZATIONS
		EROSION	EMERGENCY
		CONTROL	EROSION
			CONTROL
LOCATION		EACH	EACH
ID 3819-00-72		2	2
TOTALS		2	2

TEMPORARY DITCH CHECKS

OBJECT MARKERS

TRAFFIC CONTROL (ID 3819-00-72)

TURBIDITY BARRIERS	
LOCATION	628.6005
	SY
WEST ABUT	185
EAST ABUT	190
UNDISTRIBUTED	35
TOTAL	
	410

		628.7504
LOCATION	OFFSET	LF
WEST ABUT	LT	12.5
WEST ABUT	RT	12.5
EAST ABUT	LT	12.5
EAST ABUT	RT	12.5
TOTAL		50

		634.0612	637.2230		
		POSTS WOOD	SIGNS TYPE II		
		4X6-INCH X 12-FT	REFLECTIVE F		
STATION	LOCATION	EACH	SF	SIGNAGE TYPE	
9+50	LT	1	3	W5-52L	
9+50	RT	1	3	W5-52R	
10+50	LT	1	3	W5-52R	
10+50	RT	1	3	W5-52L	
TOTALS		4	12		

		643.0100.01
		EACH
PROJECT 3819-00-72		1
TOTAL		1

STAKING ITEMS

SAWING ASPHALT

		650.4500	650.5000	650.6500.01	650.9910	650.9920
		CONSTRUCTION	CONSTRUCTION	CONSTRUCTION	CONSTRUCTION STAKING	CONSTRUCTION
		STAKING	STAKING	STAKING	SUPPLEMENTAL CONTROL	STAKING
		SUBGRADE	BASE	STRUCTURE LAYOUT	(3819-00-72)	SLOPE
				(B-14-0212)		STAKES
CATEGORY	LOCATION	LF	LF	LS	LS	LF
0010	7+30 - 13+00	495	495	--	1	495
0020	B-14-0212	--	--	1	--	--
TOTALS		495	495	1	1	495

STATION	LOCATION	LF
7+35 - 7+80	LT & RT	72
11+50	LT & RT	20
TOTAL		92

ALL QUANTITIES CATEGORY 0010 UNLESS OTHERWISE NOTED

CONVENTIONAL SYMBOLS

SECTION LINE	----	SECTION CORNER SYMBOL		R/W MONUMENT (TO BE SET)	●
QUARTER LINE	----	SECTION CORNER MONUMENT		NON-MONUMENTED R/W POINT	○
SIXTEENTH LINE	----	GEODETIC SURVEY MONUMENT		FOUND IRON PIN (1-INCH UNLESS NOTED) *	IP
NEW REFERENCE LINE	----	SIXTEENTH CORNER MONUMENT		OFF-PREMISE SIGN	
NEW R/W LINE	----	SIGN		COMPENSABLE	
EXISTING R/W OR HE LINE	----	PARCEL NUMBER	25	NON-COMPENSABLE	
PROPERTY LINE	----	UTILITY NUMBER	40		
LOT, TIE & OTHER MINOR LINES	----				
SLOPE INTERCEPT	----				
CORPORATE LIMITS	----				
UNDERGROUND FACILITY (COMMUNICATIONS, ELECTRIC, ETC)	----				
NEW R/W (FEE OR HE) (HATCHING VARIES BY OWNER)	----				
TEMPORARY LIMITED EASEMENT AREA	----				
EASEMENT AREA (PERMANENT LIMITED OR RESTRICTED DEVELOPMENT)	----				
TRANSMISSION STRUCTURES	----				
BUILDING TO BE REMOVED	----				
BRIDGE	----				

CONVENTIONAL ABBREVIATIONS

ACCESS RIGHTS	AR	POINT OF INTERSECTION	PI
ACRES	AC	PROPERTY LINE	PL
AHEAD	AH	RECORDED AS (100')	PL
ALUMINUM	ALUM	REEL / IMAGE	R/I
AND OTHERS	ET AL	REFERENCE LINE	R/L
BACK	BK	REMAINING	REM
BLOCK	BLK	RESTRICTIVE DEVELOPMENT	RDE
CENTERLINE	C/L	EASEMENT	
CERTIFIED SURVEY MAP	CSM	RIGHT	RT
CONCRETE	CONC	RIGHT OF WAY	R/W
COUNTY	CO	SECTION	SEC
COUNTY TRUNK HIGHWAY	CTH	SEPTIC VENT	SEP
DISTANCE	DIST	SQUARE FEET	SF
CORNER	COR	STATE TRUNK HIGHWAY	STH
DOCUMENT NUMBER	DOC	STATION	STA
EASEMENT	EASE	TELEPHONE PEDESTAL	TP
EXISTING	EX	TEMPORARY LIMITED EASEMENT	TLE
GAS VALVE	GV	TRANSPORTATION PROJECT	TPP
GRID NORTH	GN	PLAT	
HIGHWAY EASEMENT	HE	UNITED STATES HIGHWAY	USH
IDENTIFICATION	ID	VOLUME	V
LAND CONTRACT	LC		
LEFT	LT		
MONUMENT	MON		
NATIONAL GEODETIC SURVEY	NGS		
NUMBER	NO		
OUTLOT	OL		
PAGE	P		
POINT OF TANGENCY	PT		
PERMANENT LIMITED EASEMENT	PLE		
POINT OF BEGINNING	POB		
POINT OF CURVATURE	PC		
POINT OF COMPOUND CURVE	PCC		

CURVE DATA

LONG CHORD	LCH
LONG CHORD BEARING	LCB
RADIUS	R
DEGREE OF CURVE	D
CENTRAL ANGLE	Δ/DELTA
LENGTH OF CURVE	L
TANGENT	T
DIRECTION AHEAD	DA
DIRECTION BACK	DB

CONVENTIONAL UTILITY SYMBOLS

WATER	—W—
GAS	—G—
TELEPHONE	—T—
OVERHEAD	—OH—
TRANSMISSION LINES	—
ELECTRIC	—E—
CABLE TELEVISION	—TV—
FIBER OPTIC	—FO—
SANITARY SEWER	—SAN—
STORM SEWER	—SS—

NOTES:

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

RIGHT-OF-WAY MONUMENTS ARE TYPE 2 (3/4"x24" IRON REBAR WEIGHING 150 LBS./ LIN. FT.) AND ARE PLACED PRIOR TO OR AT THE TIME OF LAND TRANSFER.

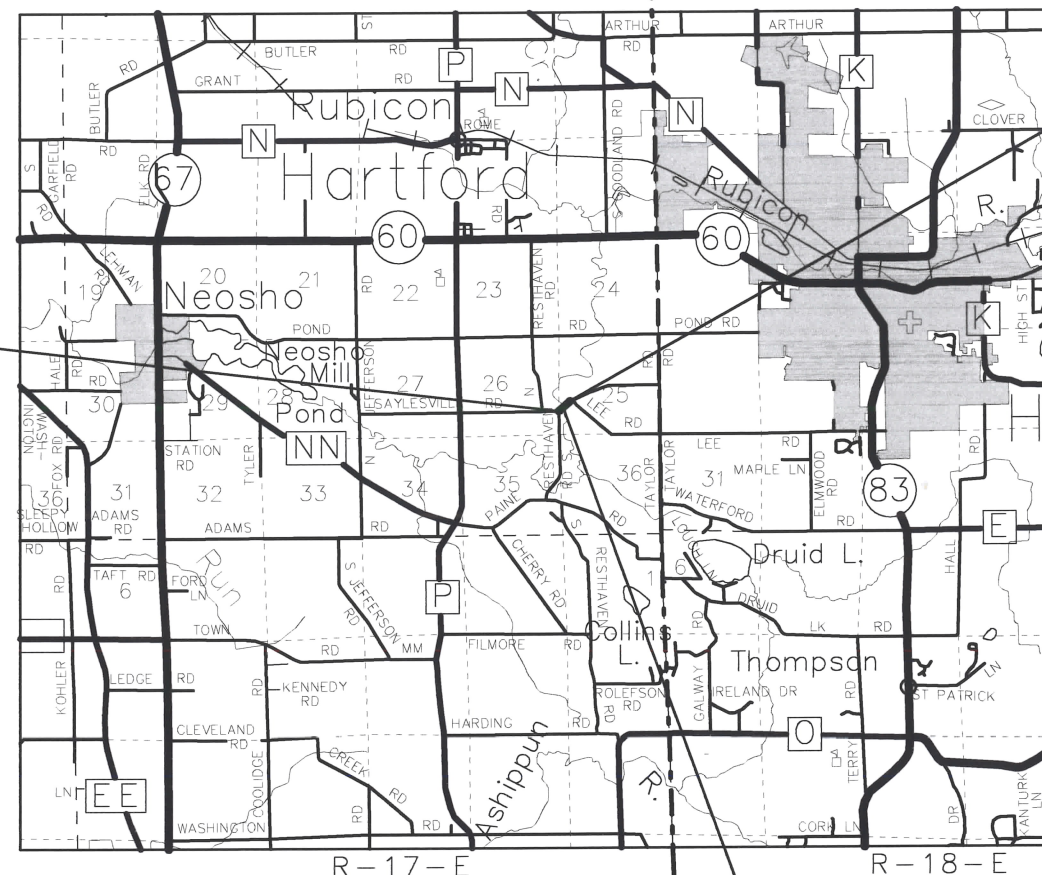
RIGHT OF WAY BOUNDARIES ARE DEFINED WITH COURSES OF THE PERIMETER OF THE HIGHWAY LANDS REFERENCED TO THE U.S. PUBLIC LAND SURVEY OR OTHER SURVEYS OF PUBLIC RECORD.

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

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 RIGHT-OF-WAY FOR SAYLESVILLE ROAD SHOWN HEREON IS DETERMINED FROM DEEDS OF RECORD, CSM 2227, CSM 2350, AND THE EXISTING CENTERLINE.

EXISTING RIGHT-OF-WAY FOR RESTHAVEN ROAD SHOWN HEREON IS DETERMINED FROM THE EXISTING CENTERLINE AND CSM 4841 WHICH ESTABLISHED THE ROAD RIGHT OF WAY AT 49.5 FEET.



PROJECT LOCATION

LAYOUT

SCALE 0 2MI

TOTAL NET LENGTH OF CENTERLINE = 0.089 MI.

R/W PROJECT NUMBER 3819-00-02	SHEET NUMBER	TOTAL SHEETS
R/W PROJECT NUMBER 3819-00-02	4.01	2
PLAT OF RIGHT OF WAY REQUIRED FOR TOWN OF RUBICON, SAYLESVILLE ROAD (RUBICON RIVER BRIDGE B-14-0212)		
TOWN ROAD	DODGE COUNTY	
CONSTRUCTION PROJECT NUMBER 3819-00-72		

END RELOCATION ORDER

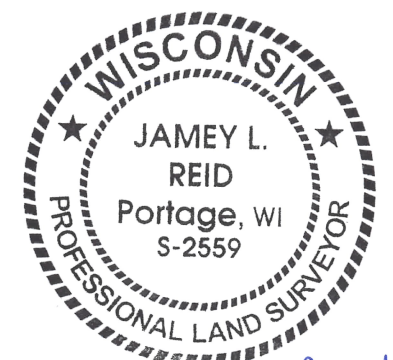
STA. 12+15.00
Y=666715.394
X=953798.110
LOCATED 985.23 FEET SOUTH AND
371.44 FEET EAST OF THE
WEST ¼ CORNER OF SECTION 25,
TOWNSHIP 10 NORTH, RANGE 17 EAST.

APPROVED
FOR
TOWN OF RUBICON

DATE CHAIRMAN

PLAT PREPARED BY
AYRES
ASSOCIATES

THE SURVEY IS PREPARED AT THE REQUEST
OF THE TOWN OF RUBICON.
THE FIELD SURVEY WAS PERFORMED IN JANUARY
2015.
THIS SURVEY IS ACCURATE TO THE BEST OF MY
KNOWLEDGE AND BELIEF.

REVISION DATE
12/22/2016 NC

Jamey L. Reid Revised
JAMEY L. REID, P.L.S. 12-22-16
S-2559 DATE

SCHEDULE OF LANDS & INTERESTS REQUIRED

PARCEL NUMBER	OWNER(S)	INTEREST REQUIRED	R/W NEW ACRES	R/W EXISTING ACRES	R/W TOTAL ACRES	TLE ACRES
1	BENEDICT R. BEINE & MAUREEN E. BEINE	FEE	0.02	0.30	0.32	-----
2	ROBERT J. MANTZ & DENISE M. MANTZ	FEE & TLE	-----	0.21	0.21	0.01
3	WAYNE E. HOCHULI & KAREN L. KILLIPS	FEE	0.07	0.58	0.65	-----

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

UTILITY EASEMENT INFORMATION

UTILITY	RECORDING INFORMATION	PARCEL(S)
WE ENERGIES	NO EASEMENTS OF RECORD	3

SCHEDULE OF UTILITIES & INTERESTS REQUIRED

PARCEL NO.	OWNER(S)	INTEREST REQUIRED
100	WE ENERGIES	RELEASE OF RIGHTS

BEGIN RELOCATION ORDER

STA. 7+43.62

Y=666420.409
X=953431.759
LOCATED 1280.51 FEET SOUTH AND
5.09 FEET EAST OF THE
WEST ¼ CORNER OF SECTION 25,
TOWNSHIP 10 NORTH, RANGE 17 EAST.

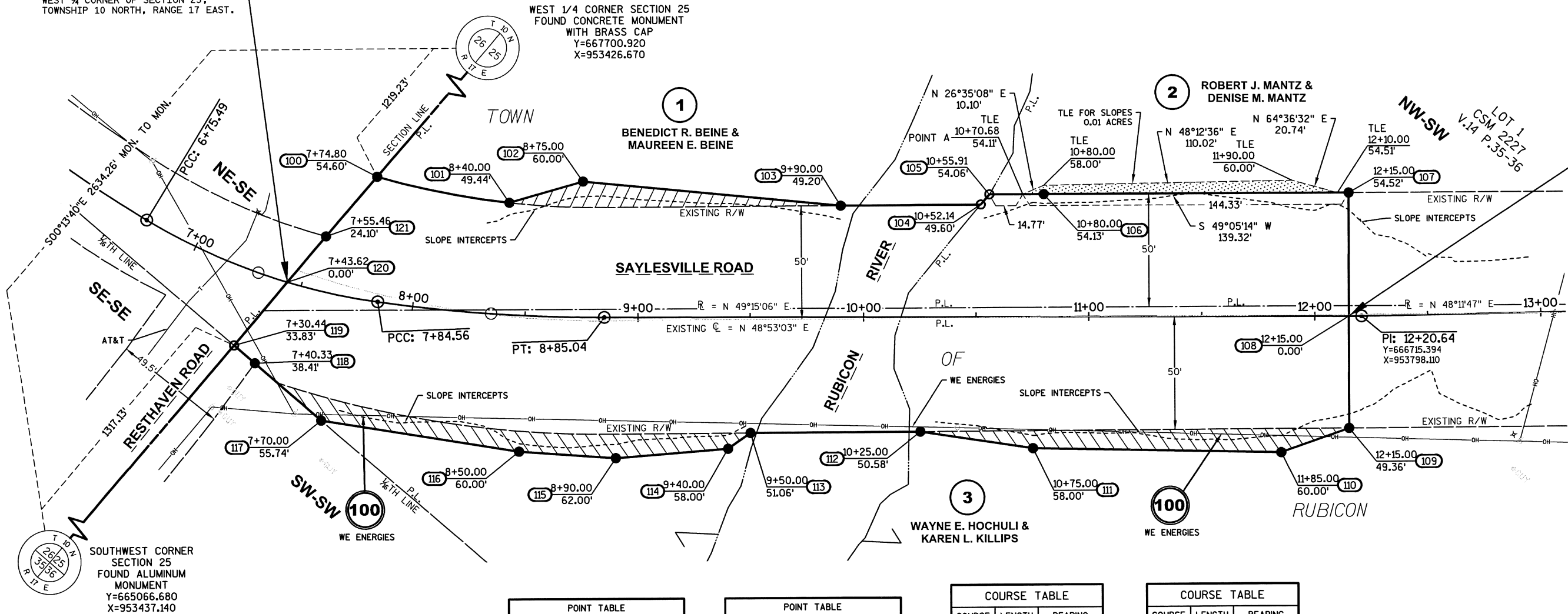
WEST ¼ CORNER SECTION 25
FOUND CONCRETE MONUMENT
WITH BRASS CAP
Y=667700.920
X=953426.670

END RELOCATION ORDER

STA. 12+15.00

Y=666715.394
X=953798.110
LOCATED 985.23 FEET SOUTH AND
371.44 FEET EAST OF THE
WEST ¼ CORNER OF SECTION 25,
TOWNSHIP 10 NORTH, RANGE 17 EAST.

NOTE: THE GAP CREATED BY
THE MONUMENTED RIGHT OF WAY
LINE FOR CSM 2227 AND THE
CENTERLINE OF SAYLESVILLE
ROAD IS PRESUMED TO HAVE
BEEN LEFT WITH THE PRIOR
LAND OWNER



CURVE 1 DATA:

PI = 7+30.78
X = 953,421.249
Y = 666,409.947
DELTA = 23°08'44" LT
D = 21°13'14"
T = 55.29'
L = 109.07'
R = 270.00'
PCC STA = 6+75.49
PCC STA = 7+84.56

CURVE 2 DATA:

PI = 8+34.88
X = 953,510.014
Y = 666,467.169
DELTA = 07°56'27" LT
D = 07°54'10"
T = 50.32'
L = 100.48'
R = 725.00'
PCC STA = 7+84.56
PT STA = 8+85.04

POINT TABLE		
POINT NO.	Y	X
100	666481.698	953431.516
101	666511.083	953483.240
102	666539.509	953501.955
103	666605.800	953595.539
104	666646.661	953642.354
105	666652.505	953642.292
106	666668.282	953660.497
107	666756.698	953762.521
108	666715.394	953798.110
109	666677.999	953830.329
110	666650.357	953814.546

POINT TABLE		
POINT NO.	Y	X
111	666580.071	953729.907
112	666553.056	953687.183
113	666503.736	953630.678
114	666491.951	953627.633
115	666456.284	953592.365
116	666430.501	953557.972
117	666383.943	953482.908
118	666383.834	953444.015
119	666383.800	953431.905
120	666420.409	953431.760
121	666447.030	953431.654

COURSE TABLE		
COURSE	LENGTH	BEARING
100-101	SEE CURVE TABLE	
101-102	34.03'	N33°21'37"E
102-103	114.68'	N54°41'16"E
103-104	62.14'	N48°53'03"E
104-105	5.84'	N00°36'25"W
105-106	24.09'	N49°05'14"E
106-107	135.01'	N49°05'14"E
107-108	54.52'	S40°44'54"E
108-109	49.36'	S40°44'54"E
109-110	31.83'	S29°43'29"W
110-111	110.02'	S50°17'36"W

COURSE TABLE		
COURSE	LENGTH	BEARING
111-112	50.55'	S57°41'39"W
112-113	75.00'	S48°53'03"W
113-114	12.17'	S14°29'22"W
114-115	50.16'	S44°40'40"W
115-116	42.98'	S53°08'32"W
116-117	88.33'	S58°11'29"W
117-118	38.89'	S89°50'21"W
118-119	12.11'	S89°50'21"W
119-120	36.61'	N00°13'40"W
120-121	26.62'	N00°13'40"W
121-100	34.67'	N00°13'40"W

CURVE TABLE

COURSE	LENGTH	RADIUS	CHORD LENGTH	CHORD BEARING	DELTA
100-101	59.56'	359.30'	59.49'	N60°23'54"E	09°29'50" LT

REVISION DATE
12/22/2016 - Revised Existing R/W Acres for Parcel 3

DATE 08/05/2016

SCALE, FEET

0 25 50

HWY: SAYLESVILLE ROAD

COUNTY: DODGE

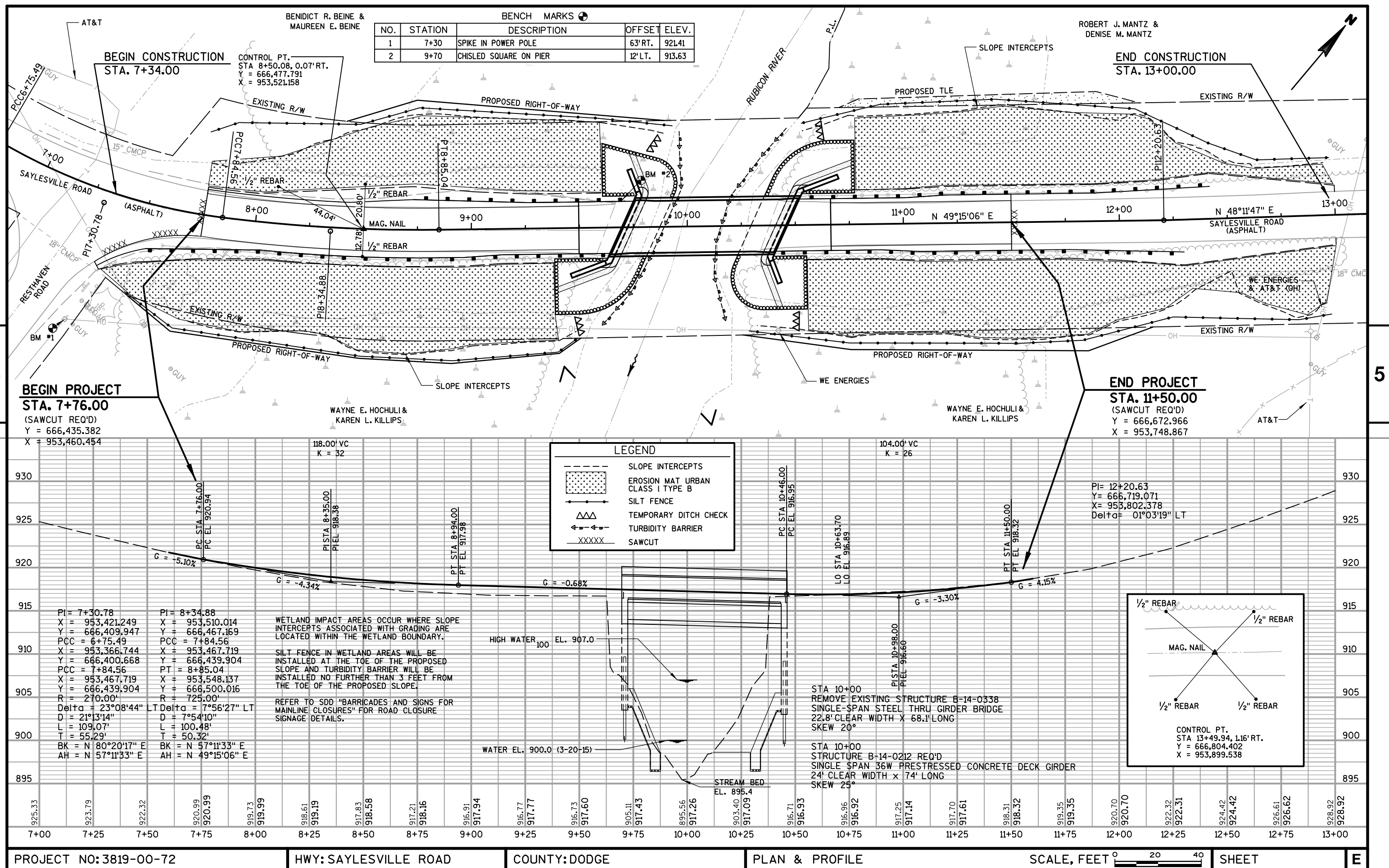
STATE R/W PROJECT NUMBER 3819-00-02

CONSTRUCTION PROJECT NUMBER 3819-00-72

PLAT SHEET 4.02

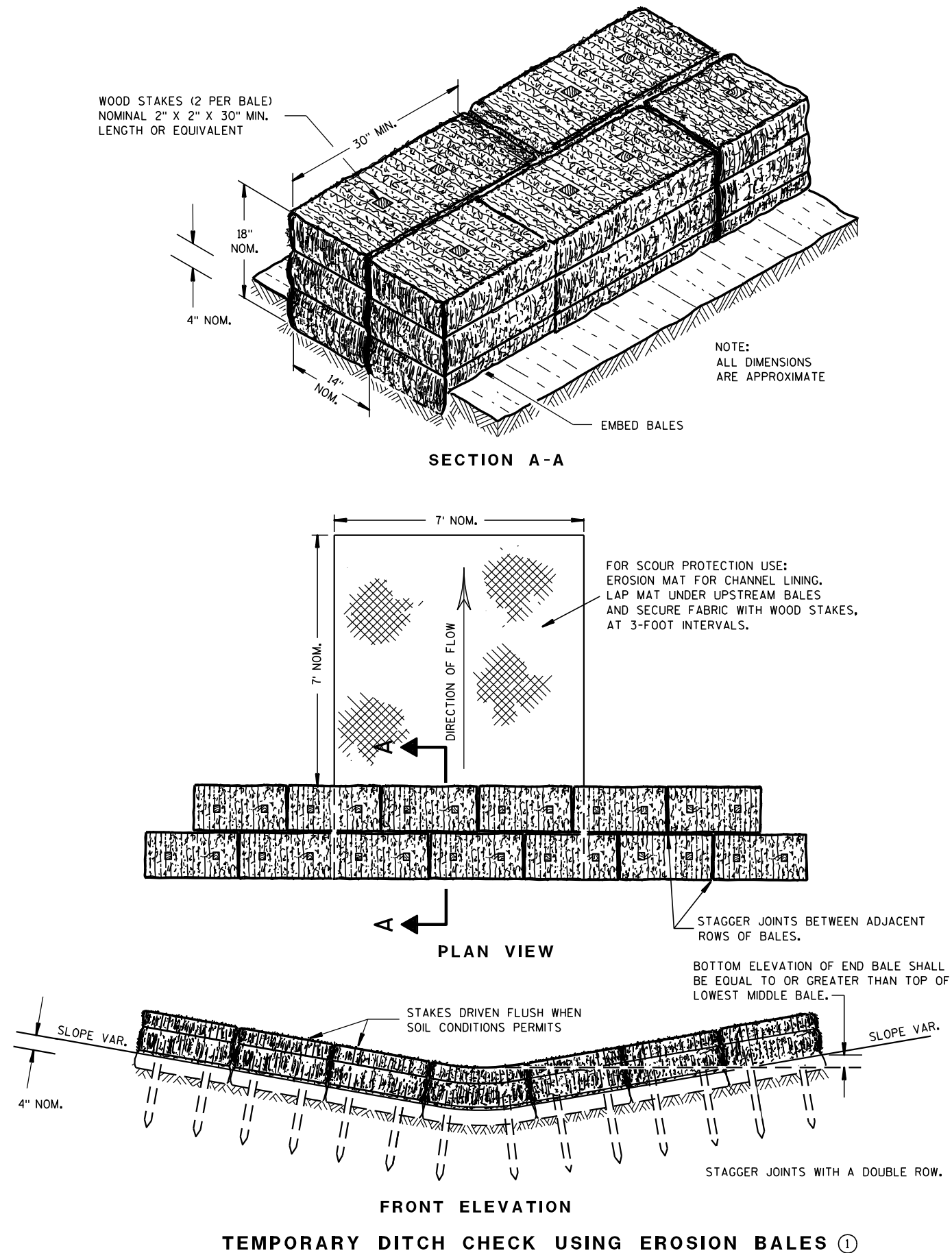
PS&E SHEET XXX

E



Standard Detail Drawing List

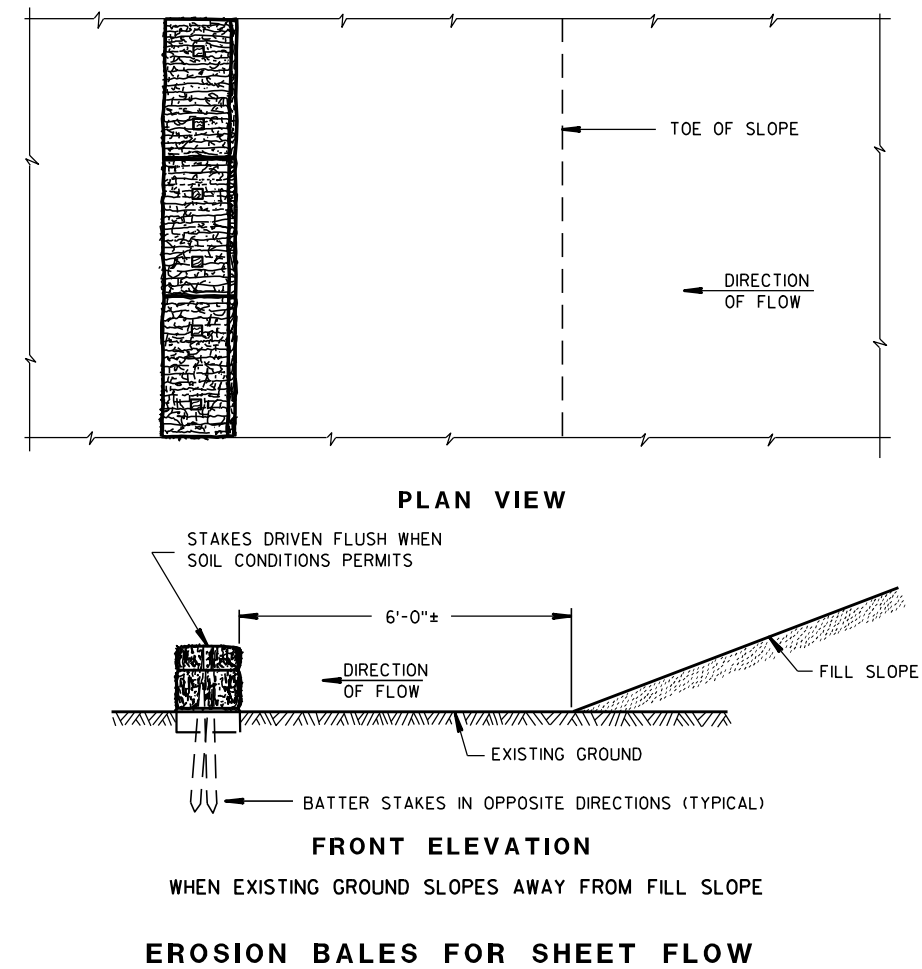
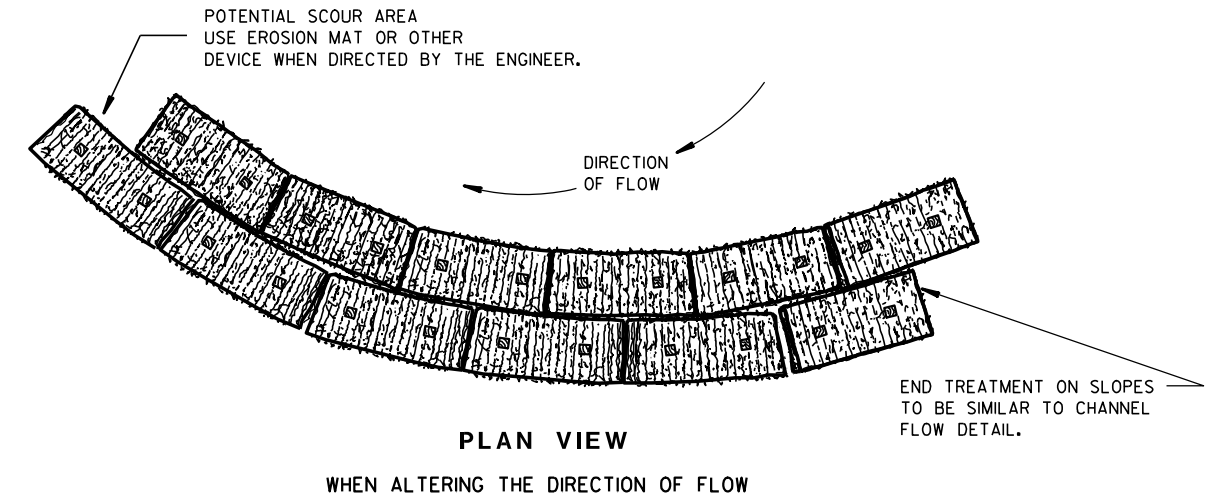
08E08-03	TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS
08E09-06	SILT FENCE
08E11-02	TURBIDITY BARRIER
12A03-10	NAME PLATE (STRUCTURES)
13B02-08A	CONCRETE PAVEMENT APPROACH SLAB
14B42-04A	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-04B	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-04C	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B44-02A	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B44-02B	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B44-02C	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B45-04A	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-04B	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-04C	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-04J	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
15C02-06A	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-06B	BARRICADES AND SIGNS FOR MAINLINE CLOSURES



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.

TYPICAL INSTALLATIONS OF
EROSION BALES / TEMPORARY
DITCH CHECKS

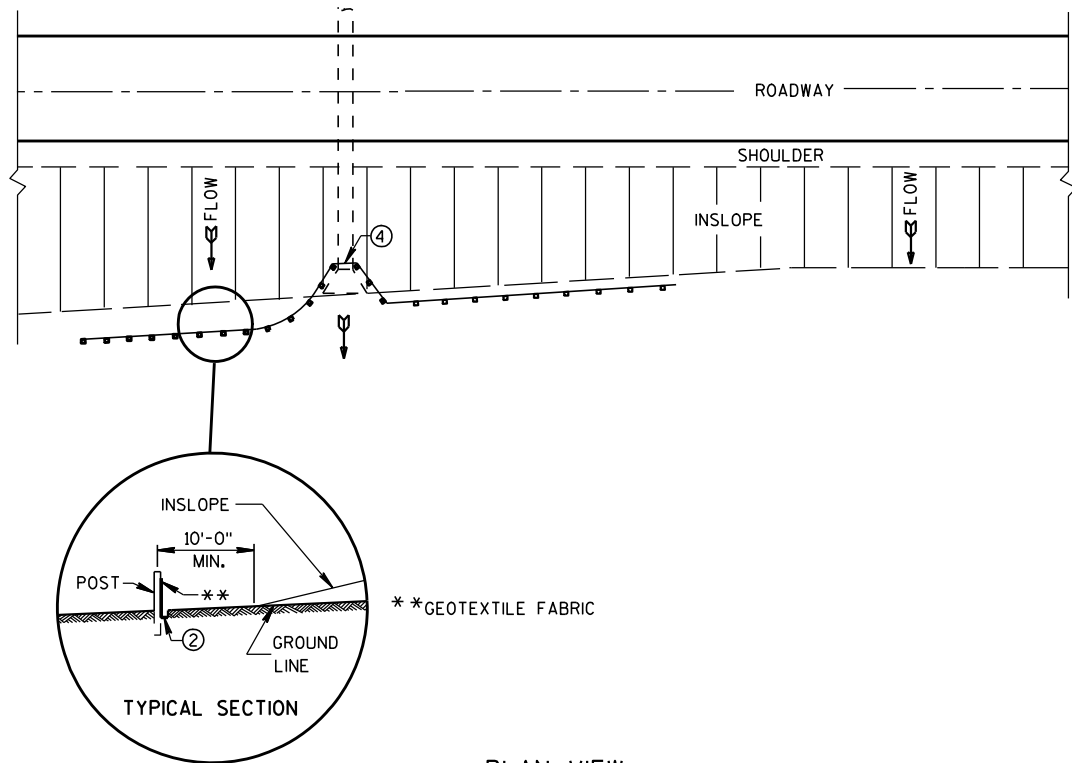
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

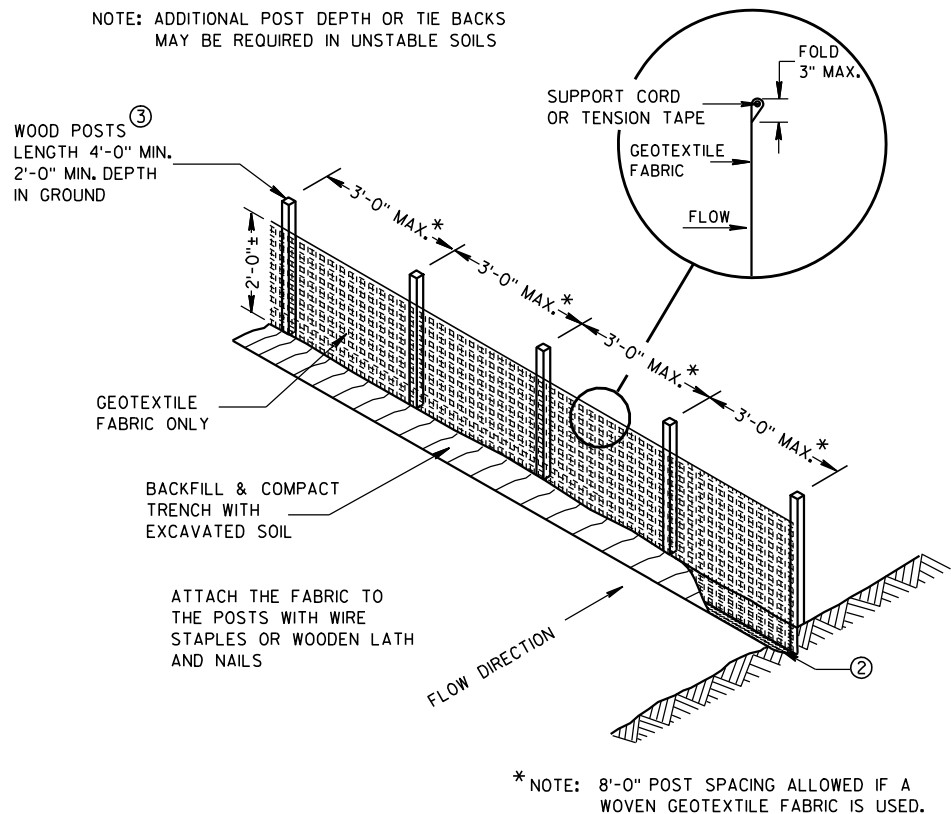
6/04/02
DATE

FHWA

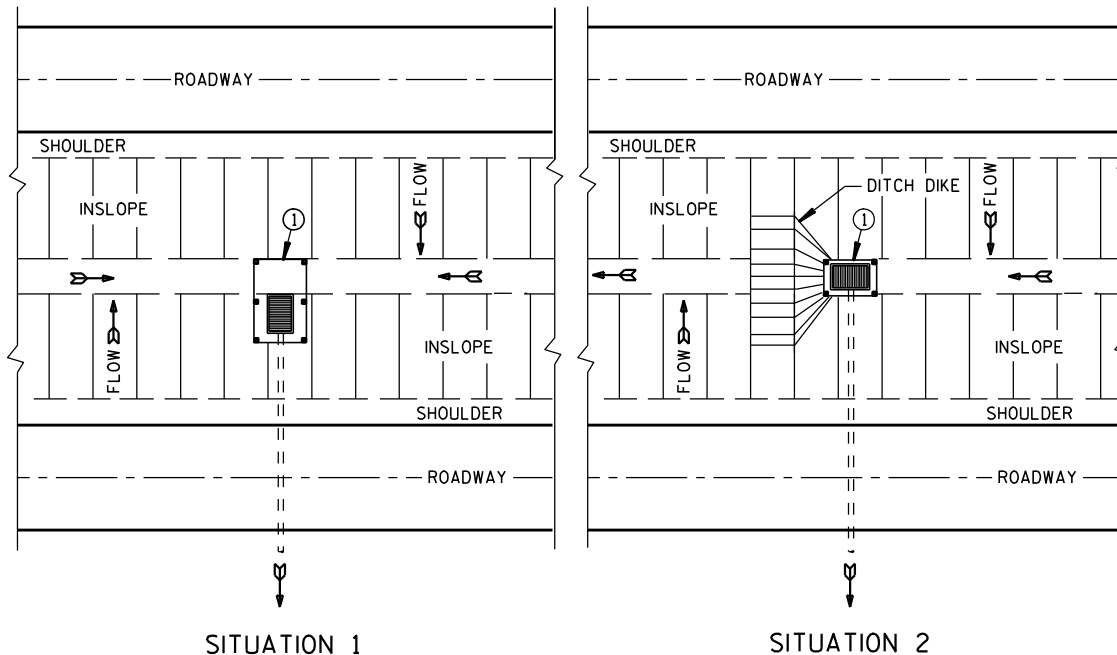
/S/ Beth Canestra
CHIEF ROADWAY DEVELOPMENT ENGINEER



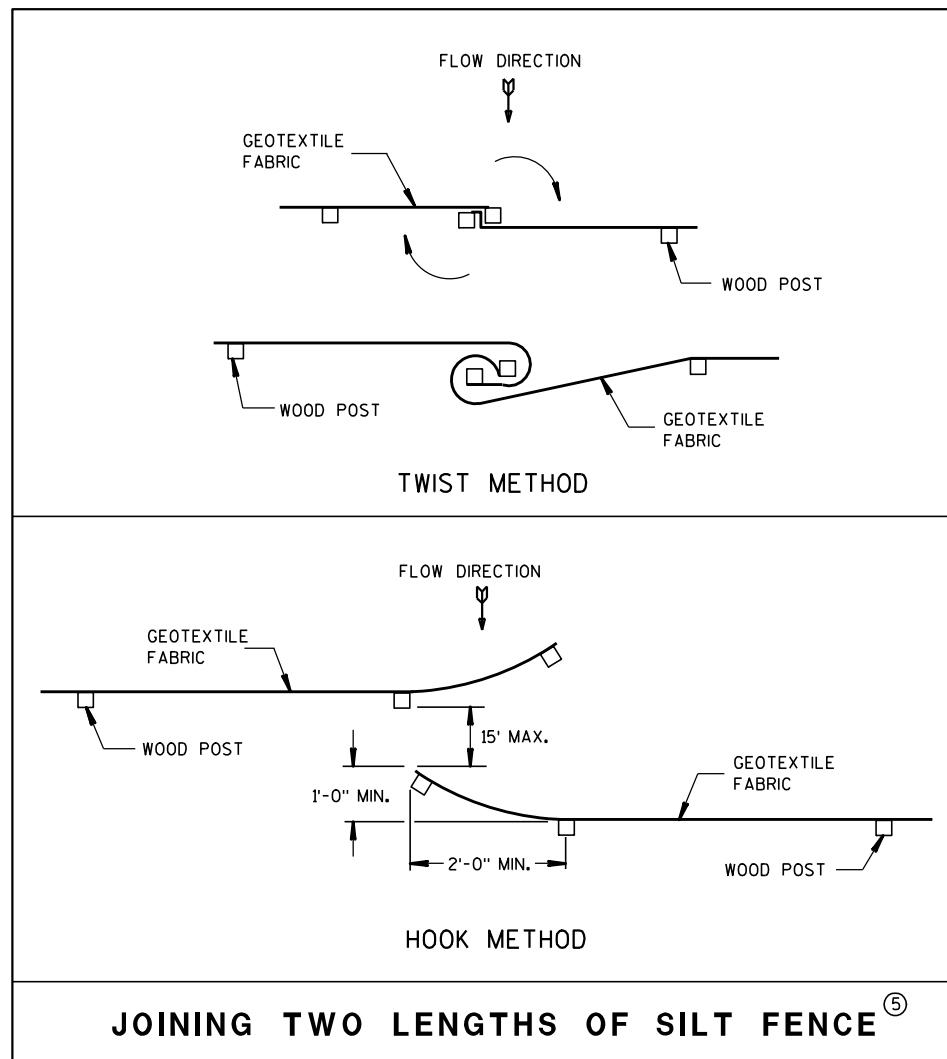
PLAN VIEW
TYPICAL APPLICATION OF SILT FENCE



SILT FENCE



PLAN VIEW
SILT FENCE AT MEDIAN SURFACE DRAINS

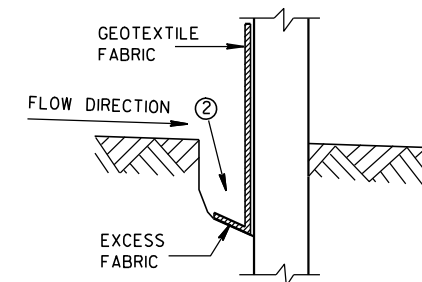


JOINING TWO LENGTHS OF SILT FENCE^⑤

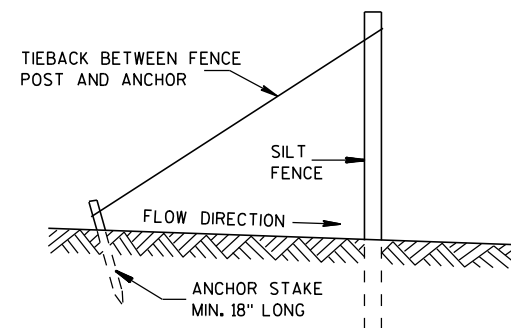
GENERAL NOTES

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

- ① HORIZONTAL BRACE REQUIRED WITH 2" X 4" WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS.
- ② FOR MANUAL INSTALLATIONS THE TRENCH SHALL BE A MINIMUM OF 4" WIDE & 6" DEEP TO BURY AND ANCHOR THE GEOTEXTILE FABRIC. FOLD MATERIAL TO FIT TRENCH AND BACKFILL & COMPACT TRENCH WITH EXCAVATED SOIL.
- ③ WOOD POSTS SHALL BE A MINIMUM SIZE OF 1 1/8" X 1 1/8" OF OAK OR HICKORY.
- ④ SILT FENCE TO EXTEND ACROSS THE TOP OF THE PIPE.
- ⑤ CONSTRUCT SILT FENCE FROM A CONTINUOUS ROLL IF POSSIBLE BY CUTTING LENGTHS TO AVOID JOINTS. IF A JOINT IS NECESSARY USE ONE OF THE FOLLOWING TWO METHODS; A) OVERLAP THE END POSTS AND TWIST, OR ROTATE, AT LEAST 180 DEGREES, B) HOOK THE END OF EACH SILT FENCE LENGTH.

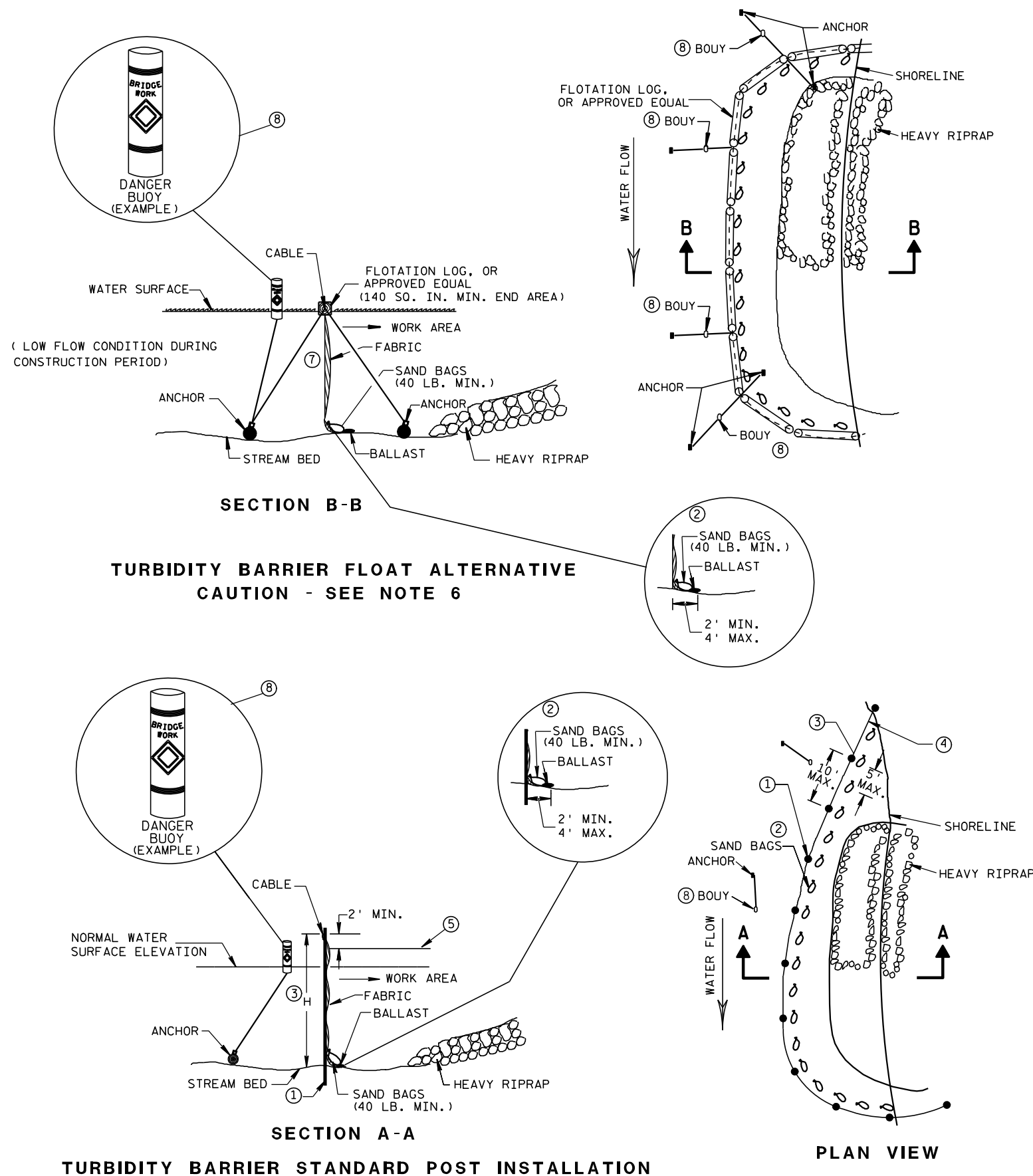


TRENCH DETAIL



SILT FENCE TIE BACK
(WHEN REQUIRED BY THE ENGINEER)

SILT FENCE	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 4-29-05 DATE	/S/ Beth Canestra CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA	

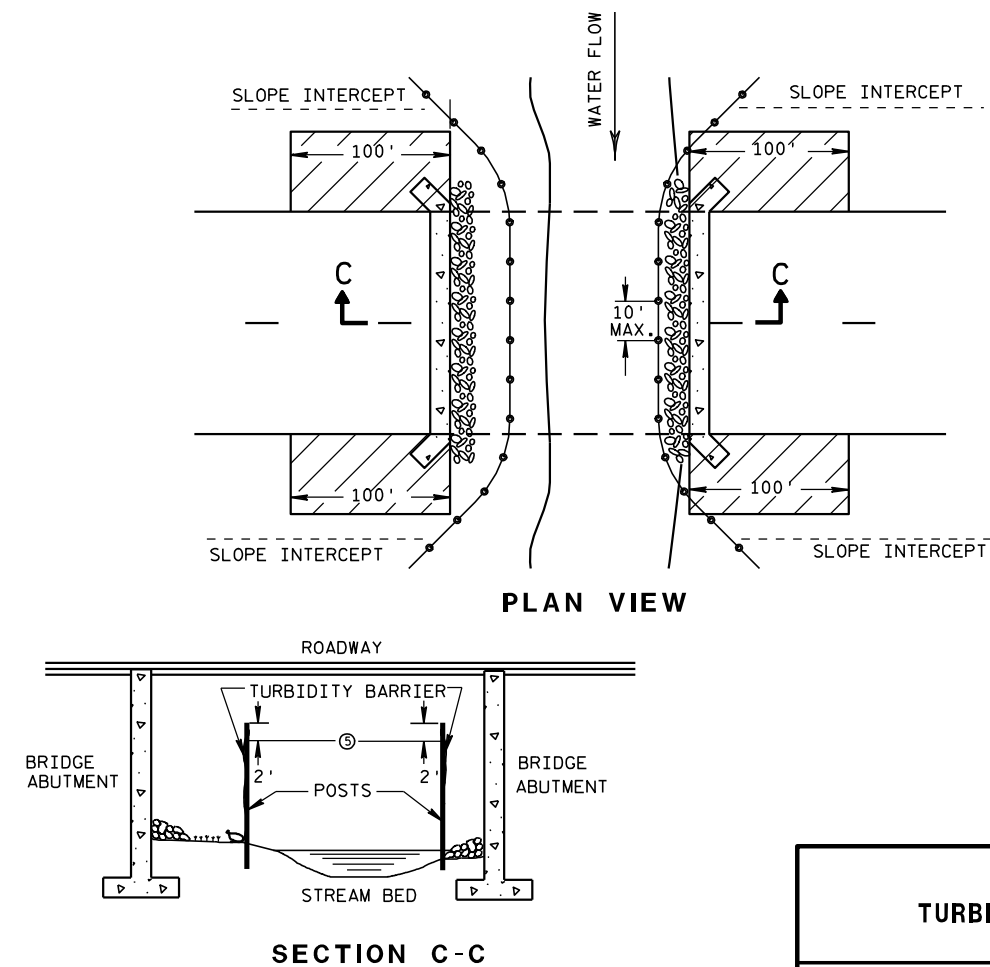


GENERAL NOTES

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

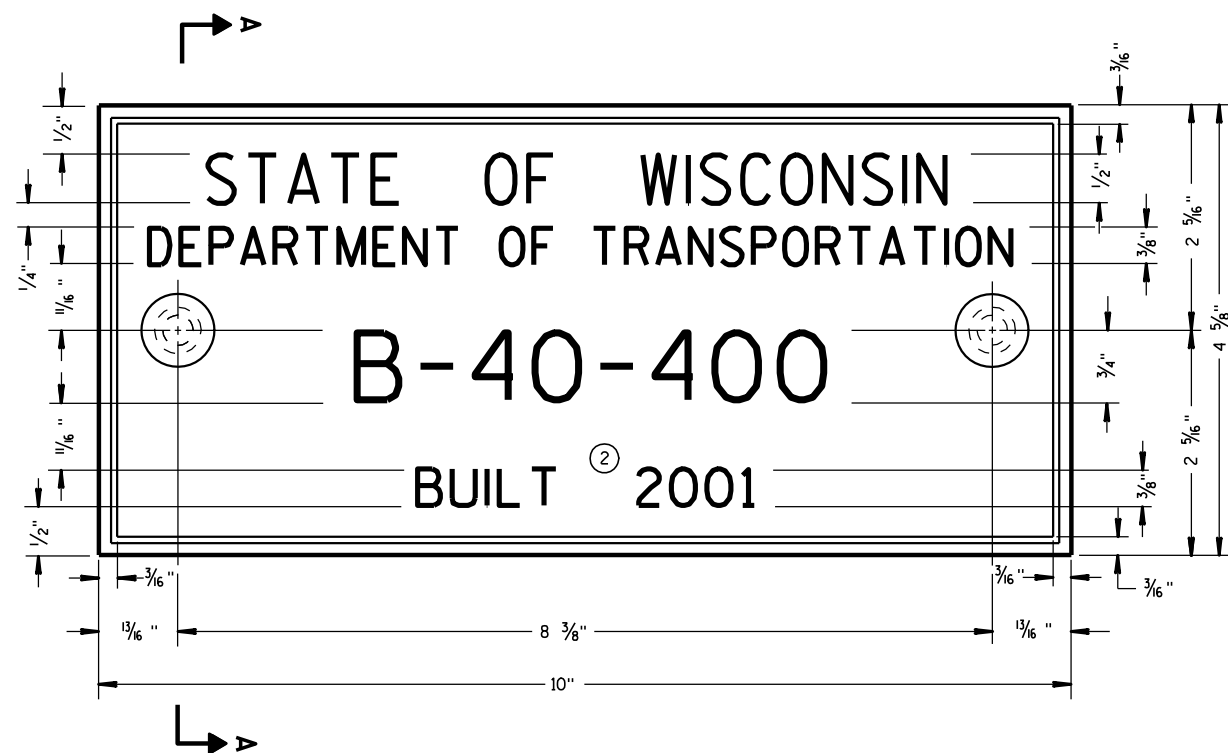
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

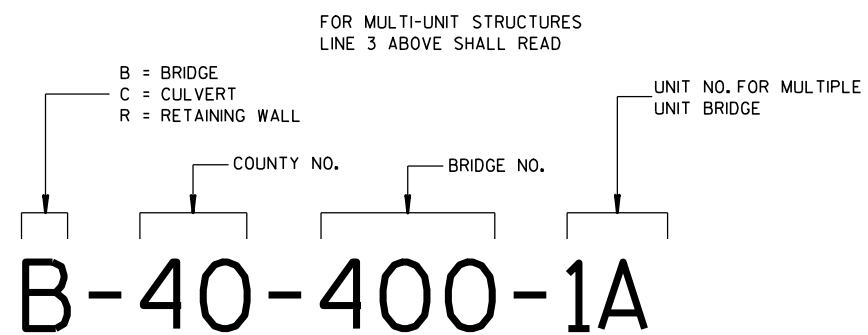
6/04/02
DATE

FHWA

/S/ Beth Canestra
CHIEF ROADWAY DEVELOPMENT ENGINEER



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



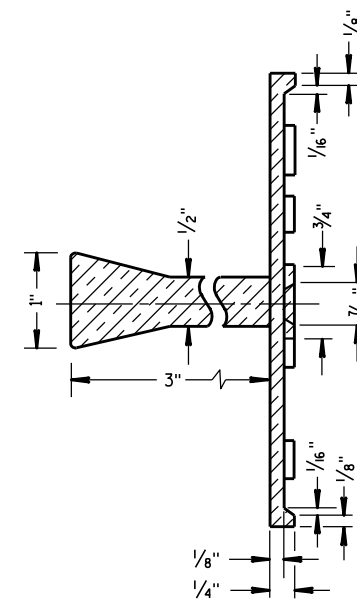
**NUMBERING DESIGNATION
MULTI-UNIT STRUCTURES**

GENERAL NOTES

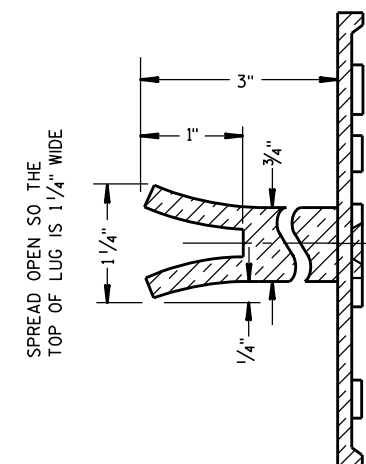
NAME PLATES TO BE INSTALLED ON BRIDGES, CULVERTS, AND RETAINING WALLS SHALL CONFORM TO THE REQUIREMENTS OF SECTION 502.3.11 OF THE STANDARD SPECIFICATIONS.

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.

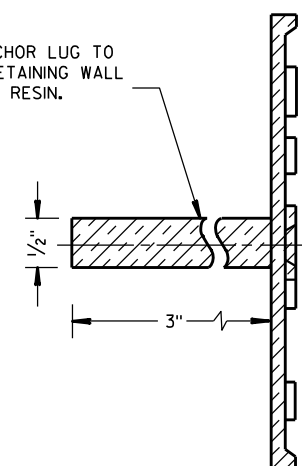


SECTION A-A



ALTERNATE LUG

- ① ADHERE ANCHOR LUG TO PRECAST RETAINING WALL WITH EPOXY RESIN.



ALTERNATE LUG
(FOR ATTACHMENT TO PRECAST STRUCTURES)

**NAME PLATE
(STRUCTURES)**

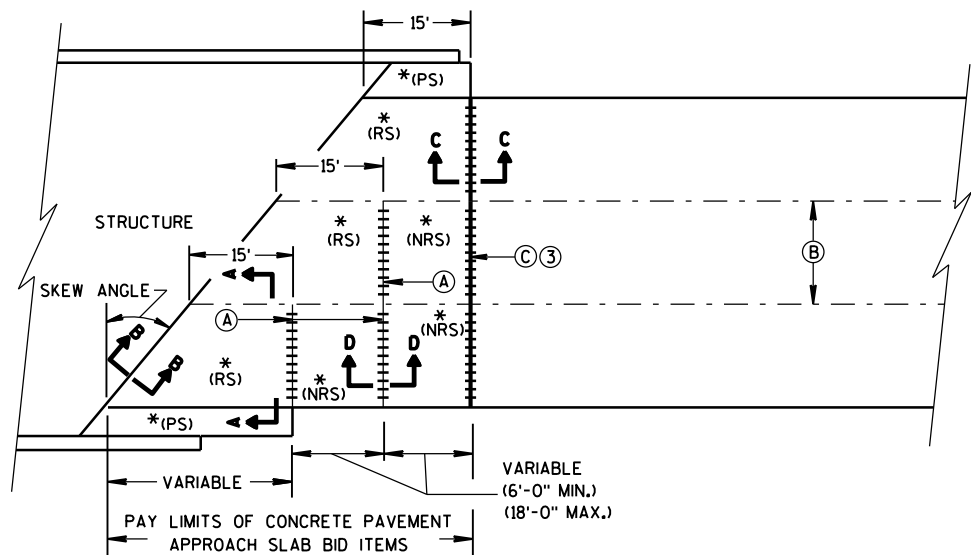
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

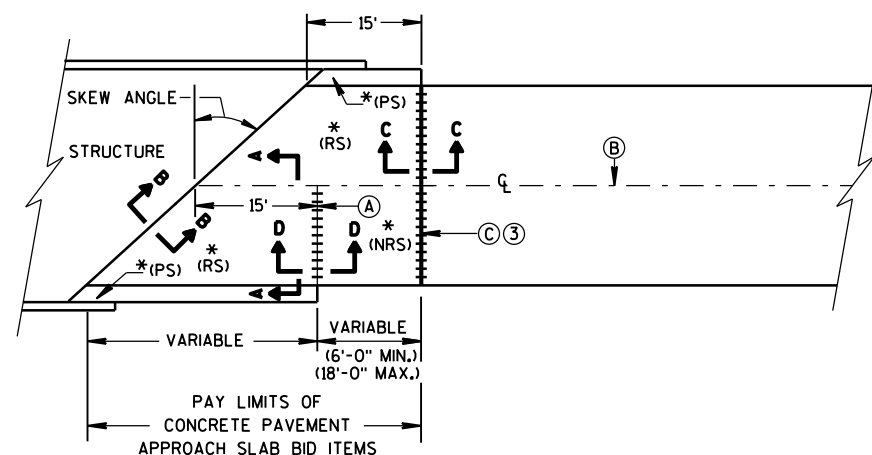
3/26/10
DATE

FHWA

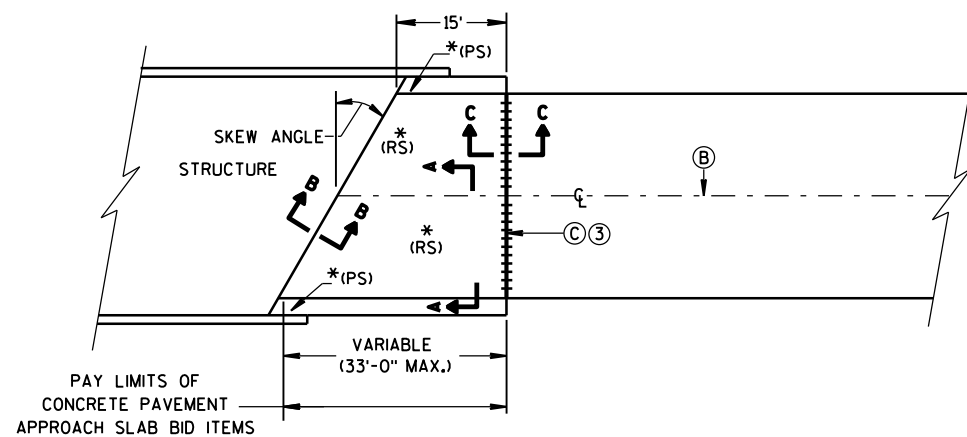
/S/ Scot Becker
CHIEF STRUCTURAL DEVELOPMENT ENGINEER



**SKewed APPROACH
(PAVEMENT MORE THAN 2 LANES)**



**SKews > 20°
(PAVEMENT WIDTH ≤ 30')**

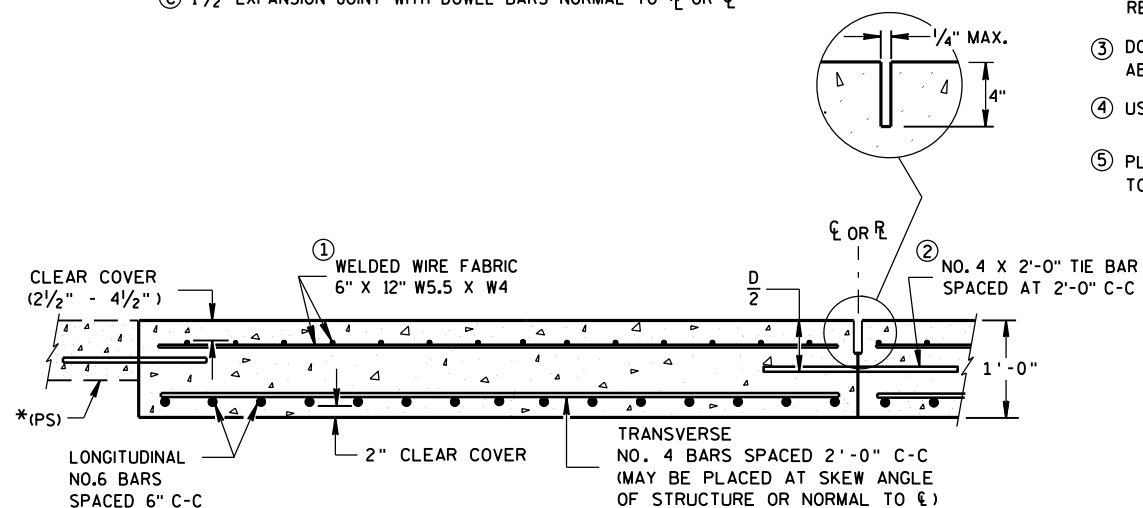


**SKews ≤ 20°
(PAVEMENT WIDTH ≤ 30')
APPROACH SLAB AND ADJACENT PAVEMENT**

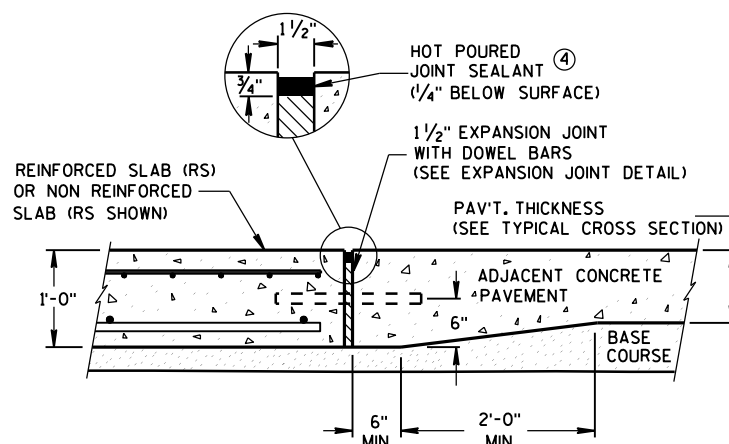
* (RS) = REINFORCED CONCRETE SLAB
* (PS) = PAVED CONCRETE SHOULDER OR CONCRETE DRAINAGE SLAB
(SEE DETAILS ELSEWHERE IN THE PLAN)
* (NRS) = NON-REINFORCED CONCRETE SLAB

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

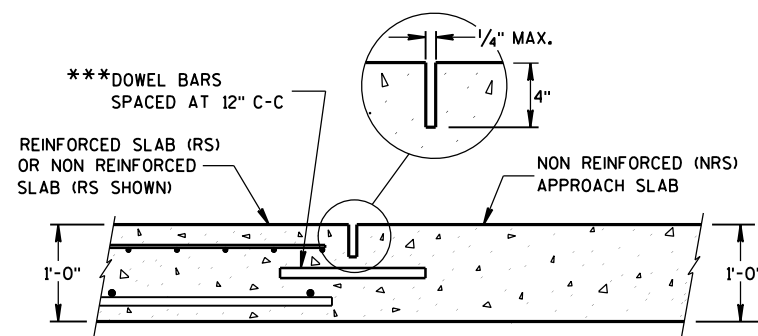
- (A) STANDARD CONTRACTION JOINT NORMAL TO ℓ OR ℓ_c
(B) STANDARD LONGITUDINAL JOINT WITH TIE BARS.
(C) 1½" EXPANSION JOINT WITH DOWEL BARS NORMAL TO ℓ OR ℓ_c



**SECTION A-A
REINFORCEMENT POSITIONING DETAIL**



**SECTION C-C
TRANSITION DETAIL
APPROACH SLAB TO ADJACENT PAVEMENT**



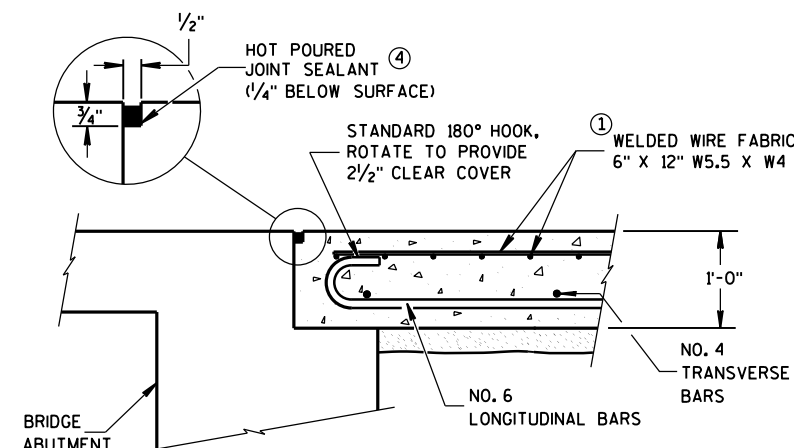
**SECTION D-D
CONTRACTION JOINT**

GENERAL NOTES

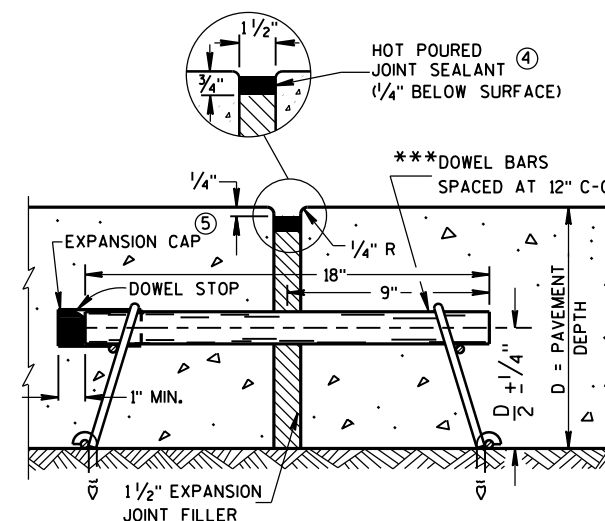
THE CONTRACTOR MAY SPLICE NO. 6 BARS IN THE APPROACH SLAB FOR SKEWED STRUCTURES ONLY. STAGGER SPLICES WITH A MAXIMUM OF ONE SPLICE PER BAR. THE LENGTH OF LAP IS 20 INCHES.

TACK WELD DOWEL BARS TO THE BASKETS ON ALTERNATE ENDS.

- THE CONTRACTOR MAY USE NO. 4 BARS SPACED AT 2'-0" C-C IN BOTH THE LONGITUDINAL AND TRANSVERSE DIRECTIONS FOR TOP REINFORCEMENT AS AN ALTERNATIVE TO THE WELDED WIRE FABRIC.
- THE CONTRACTOR MAY OMIT TIE BARS BETWEEN REINFORCED SLABS WHERE SLAB REINFORCEMENT BARS EXTEND ACROSS THE CENTERLINE OR REFERENCE LINE.
- DO NOT CONSTRUCT AN EXPANSION JOINT OR INSTALL DOWEL BARS WHEN ABUTTING AN HMA PAVEMENT.
- USE A JOINT SEALANT MEETING THE REQUIREMENTS OF ASTM D6690.
- PLACE EXPANSION CAP ON THE END OF THE DOWEL THAT IS NOT TACK WELDED TO THE BASKET. DO NOT FORCE DOWEL BAR PAST THE DOWEL STOP.



**SECTION B-B
BEND DETAIL
BOTTOM REINFORCEMENT**



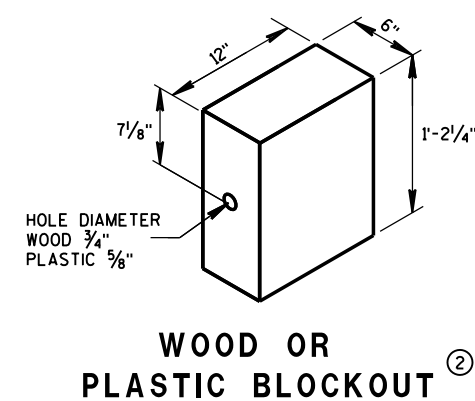
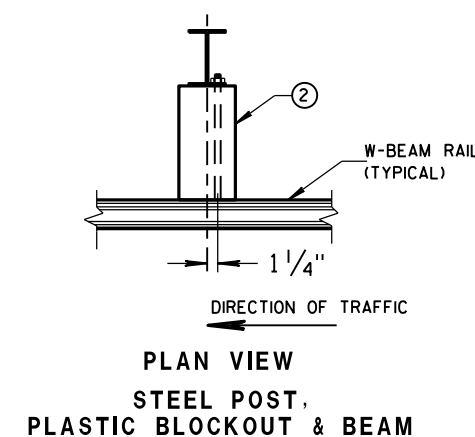
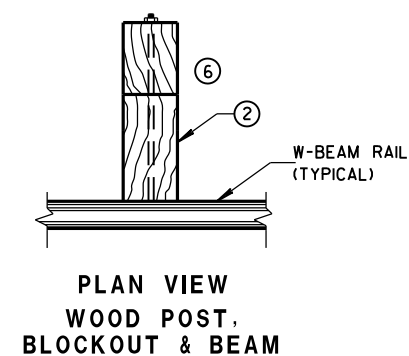
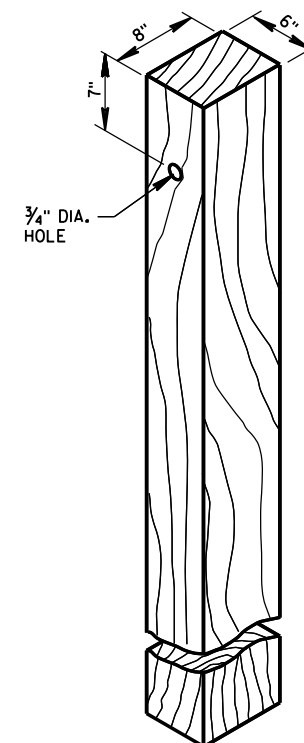
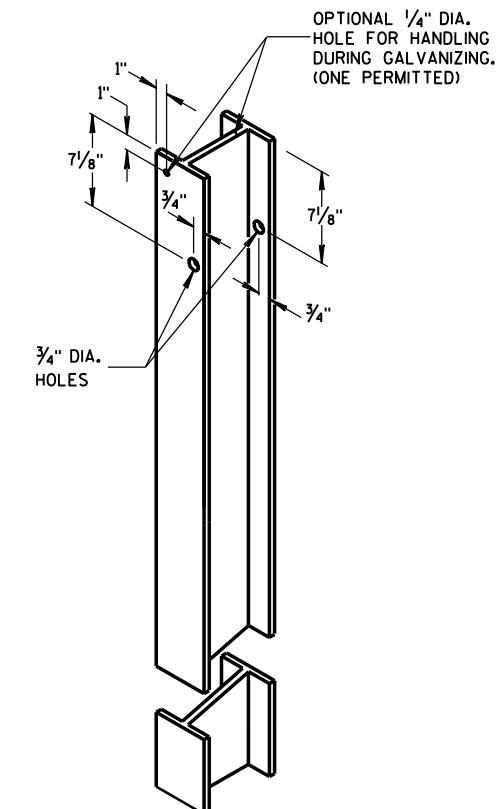
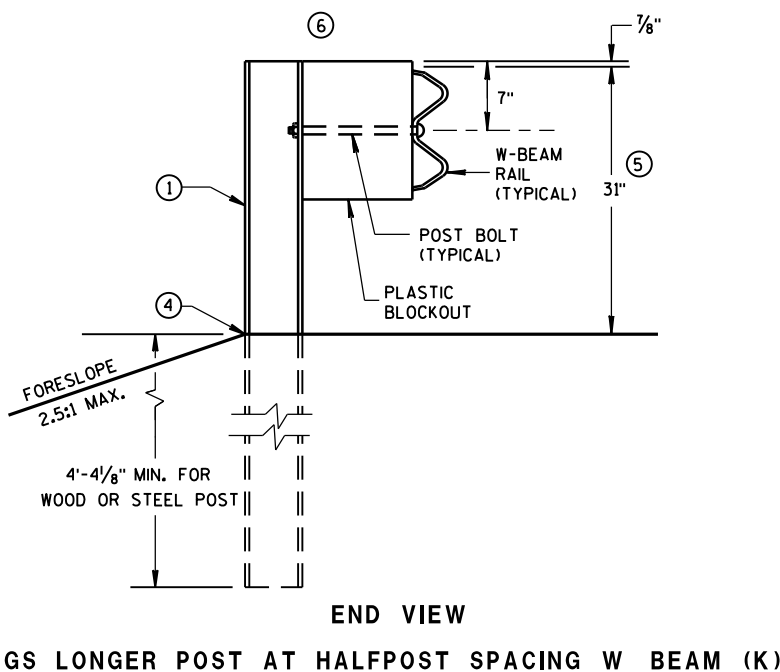
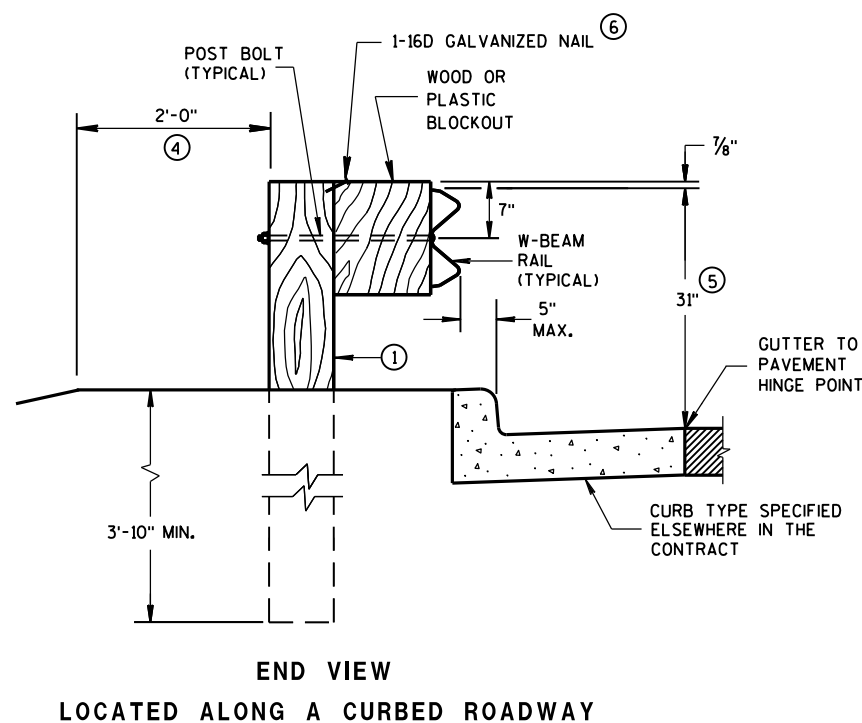
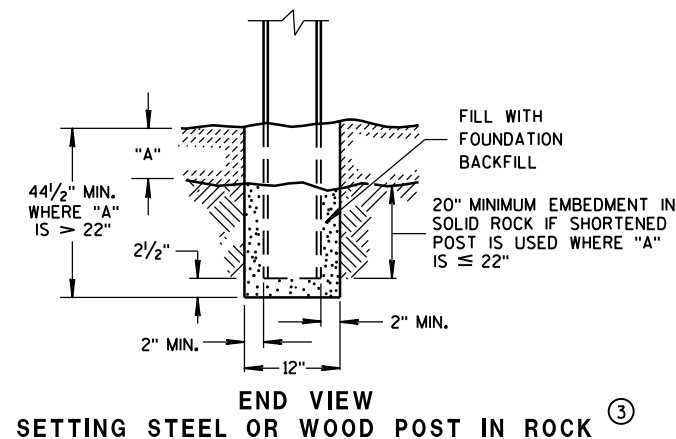
EXPANSION JOINT DETAIL

**CONCRETE PAVEMENT
APPROACH SLAB**

**STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION**

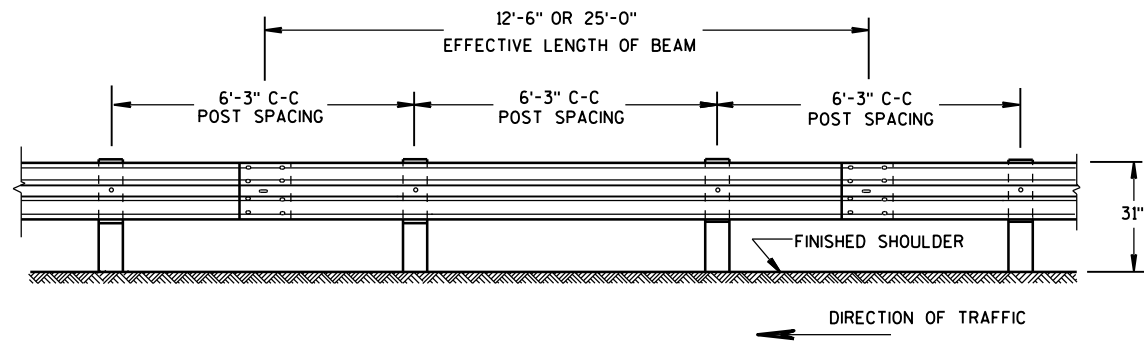
APPROVED
June, 2015 /S/ Peter Kemp, P.E.
DATE PAVEMENT SUPERVISOR
FHWA

- ① WOOD OR STEEL POSTS (w6X9 OR w6X8.5) MAY BE USED. DO NOT INTERMIX WOOD AND STEEL POSTS. INSTALL STEEL POSTS WITH HOLES ON APPROACHING TRAFFIC SIDE.
- ② USE WOOD OR APPROVED PLASTIC BLOCKOUTS. WOOD BLOCKOUTS MAY BE CONSTRUCTED OUT OF TWO OR MORE WOOD BLOCKOUTS. SEE ALTERNATE WOOD BLOCKOUT DETAIL. DIMENSIONS OF APPROVED PLASTIC BLOCKOUTS MAY VARY.
- ③ IF ROCK IS ENCOUNTERED DURING EXCAVATION, PROVIDE A HOLE 12 INCHES IN DIAMETER EXTENDING 20 INCHES DEEP INTO THE ROCK. PLACE APPROXIMATELY 2 1/2 INCHES OF GRANULAR MATERIAL IN THE BOTTOM OF THE HOLE. CUT THE POSTS THE TO LENGTH AND INSTALL. BACKFILL WITH EXCAVATED MATERIAL AND COMPACT. BACKFILL IS TO BE FREE OF LARGE ROCKS.
- ④ WHEN THE DISTANCE FROM BACK OF POST TO SHOULDER HINGE POINT IS LESS THAN 2 FEET INSTALL LONGER POST AT HALF POST SPACING (K).
- ⑤ FOR NEW MGS INSTALLATION TOP OF W-BEAM RAIL TOLERANCE IS $\pm 1"$. FOR EXISTING MGS INSTALLATION TOP OF W-BEAM IS BETWEEN 27 3/4" TO 32".
- ⑥ WHEN USING STEEL POST AND WOOD BLOCKOUTS INSTALL FOUR 16D GALVANIZED NAILS. INSTALL NAILS AT THE BACK CORNERS OF THE BLOCK AND BEND THE NAILS OVER THE FLANGE OF THE STEEL POST.



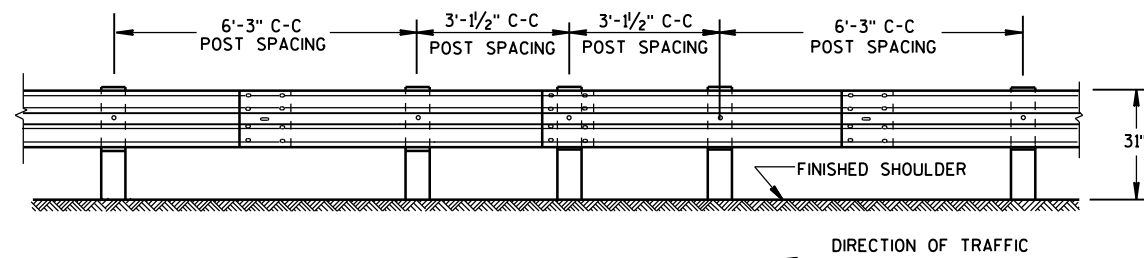
**MIDWEST GUARDRAIL SYSTEM
(MGS) GUARDRAIL**

**STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION**



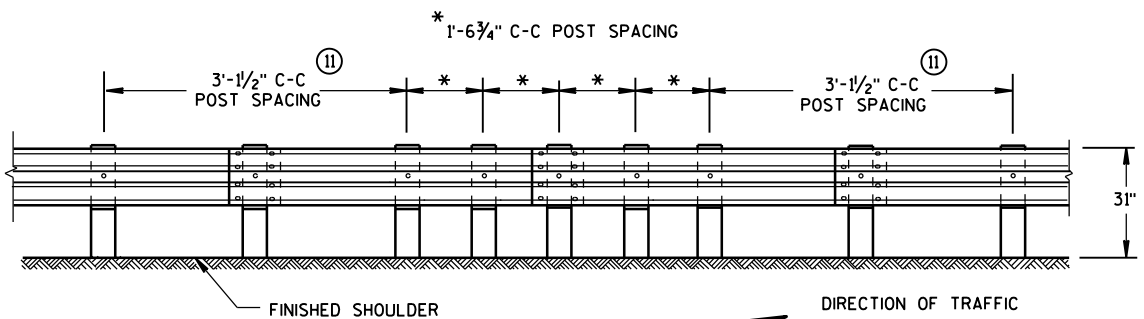
FRONT VIEW

POST SPACING STANDARD INSTALLATION



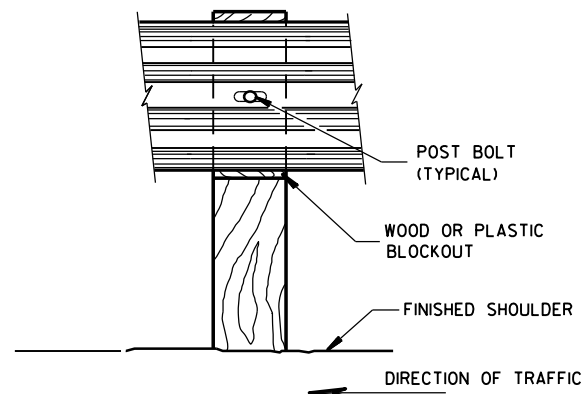
FRONT VIEW

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

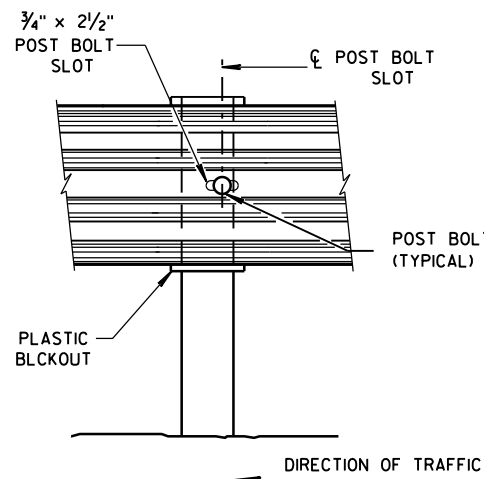


FRONT VIEW

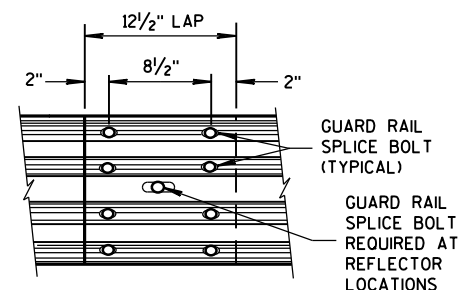
QUARTER POST SPACING (QS)



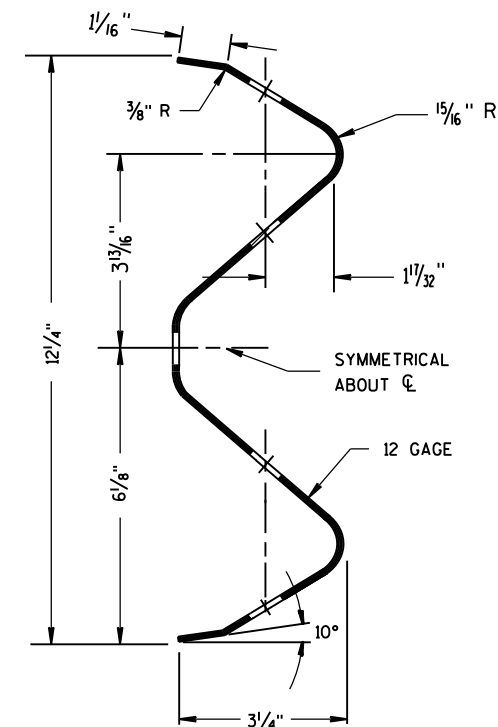
FRONT VIEW AT WOOD POST



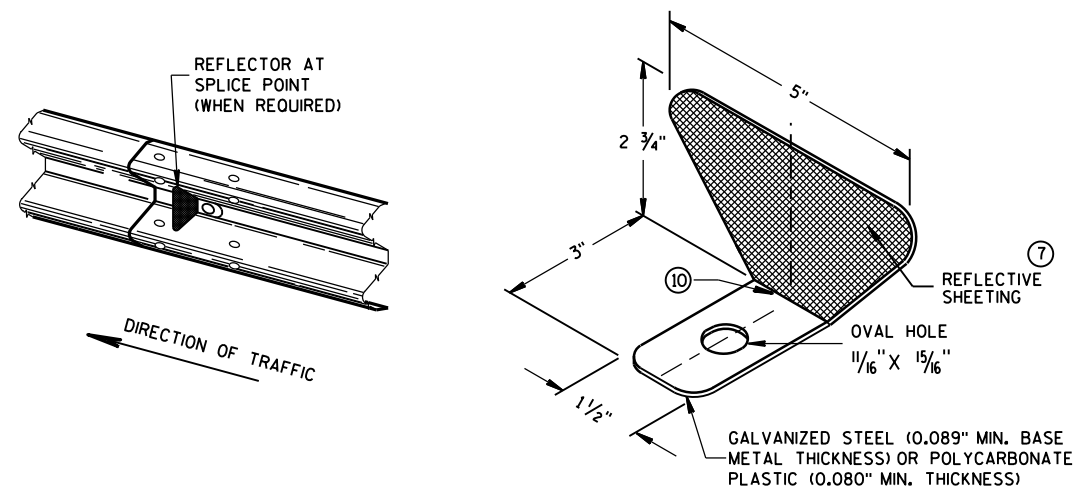
FRONT VIEW AT STEEL POST



FRONT VIEW
MID-SPAN BEAM SPLICE



SECTION THRU W-BEAM RAIL



ONE SIDED REFLECTOR DETAIL AND TYPICAL INSTALLATION

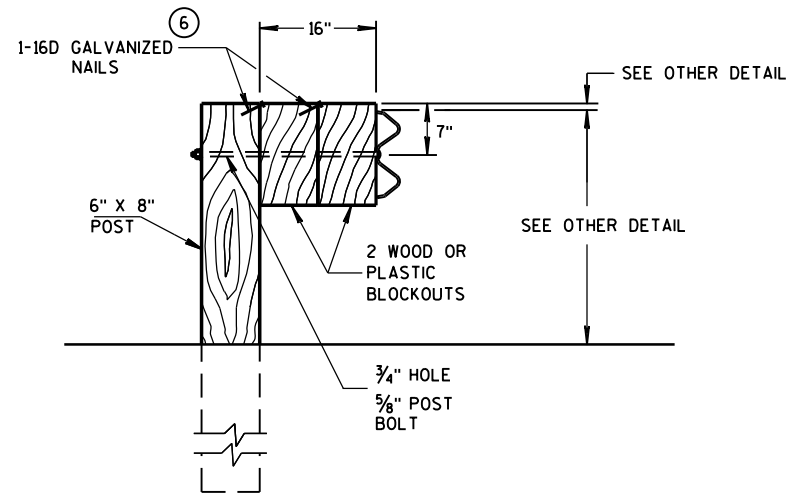
- ⑦ PROVIDE SILVER REFLECTIVE SHEETING ON ALL REFLECTORS EXCEPT THOSE LOCATED ALONG THE LEFT EDGE OF ONE-WAY ROADWAYS, WHICH SHALL BE PROVIDED WITH YELLOW REFLECTIVE SHEETING. SHEETING IS TYPE H. SEE STANDARD SPECIFICATION 637.
 - ⑧ DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL. RAIL SPLICE LOCATIONS ARE THE ONLY ACCEPTABLE LOCATIONS FOR REFLECTORS.
 - ⑨ REVERSE EVERY OTHER REFLECTOR FOR 2-WAY VISIBILITY. THE CONTRACTOR MAY FURNISH TWO-SIDED REFLECTORS IN LIEU OF ONE-SIDED REFLECTORS.
 - ⑩ PROVIDE AN ANGLE OF BEND OF $90^\circ \pm 1^\circ$ FOR TWO-SIDED REFLECTORS.
 - ⑪ 25 FEET OF HALF POST SPACING IS REQUIRED ON APPROACH AND DEPARTURE ENDS OF QUARTER POST SPACING.
- POST BOLTS ARE A $\frac{5}{8}$ " DIAMETER ASTM A307 GUARDRAIL BOLT. A POST BOLT REQUIRES $\frac{5}{8}$ " DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX NUT AND $\frac{5}{8}$ " DIAMETER F844 FLAT WASHER. POST BOLTS MAY BE LONGER IF MULTIPLE BLOCKOUTS ARE BEING USED.
- GUARD RAIL SPLICE BOLTS ARE A $\frac{5}{8}$ " DIAMETER ASTM A307 GUARDRAIL HEAD BOLT. A GUARDRAIL SPLICE BOLT REQUIRES $\frac{5}{8}$ " DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX NUT.

REFLECTOR SPACING

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

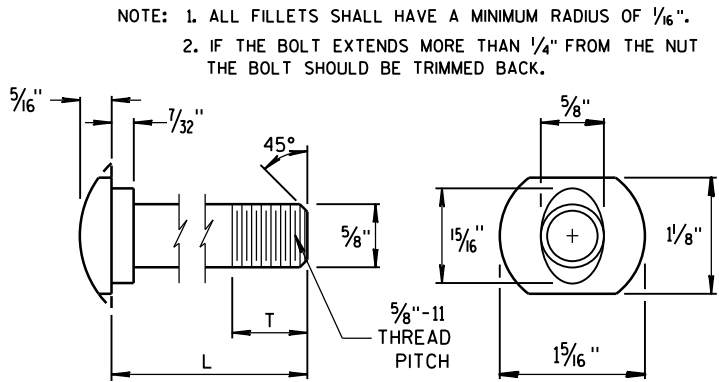
MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

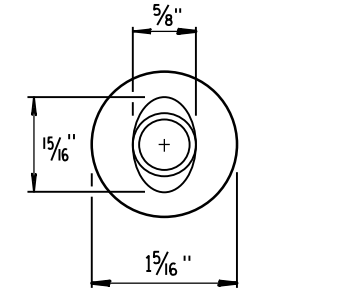


DETAIL FOR 16" BLOCKOUT DEPTH

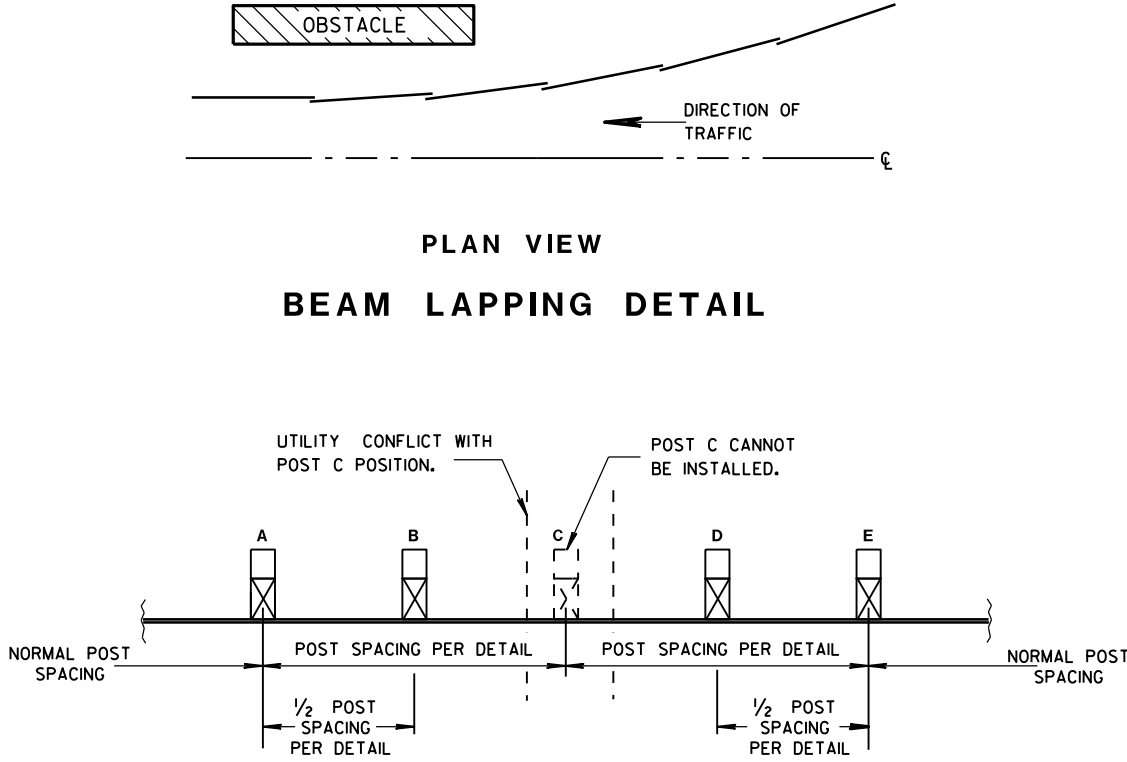
IT IS ACCEPTABLE TO USE BLOCKOUTS UP TO 16" DEEP TO INCREASE THE POST OFFSET TO AVOID UNDERGROUND OBSTACLES. THERE IS NO LIMIT TO THE NUMBER OF POSTS THAT CAN HAVE ADDITIONAL BLOCKOUTS UP TO 16" DEEP.



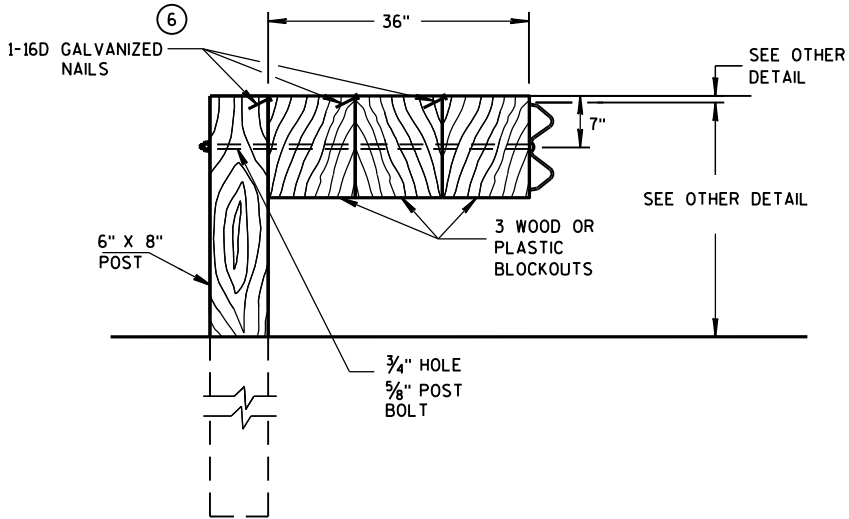
POST BOLT TABLE



ALTERNATE BOLT HEAD



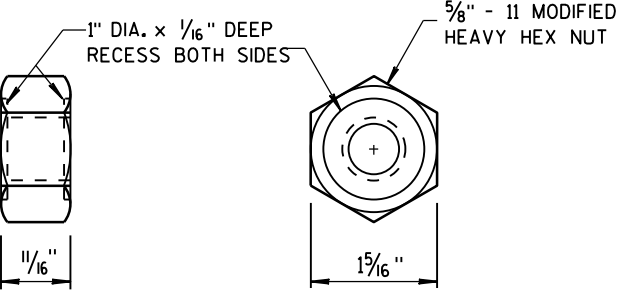
POST DRIVING FOR CONTINUOUS UNDERGROUND OBSTRUCTION



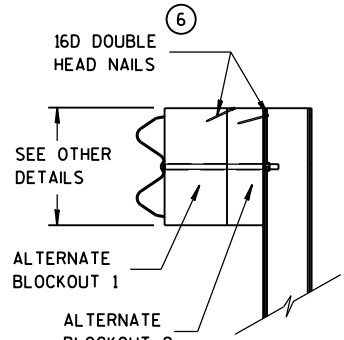
DETAIL FOR 36" BLOCKOUT DEPTH

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

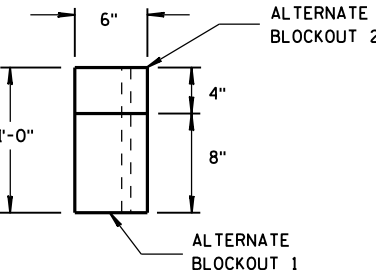
DO NOT USE 16" OR 36" BLOCKOUTS IF IT CAUSES THE POST TO BE DRIVEN BEYOND SHOULDER HINGE POINT OR CAUSES A FIXED OBJECT TO BE WITHIN THE DEFLECTION DISTANCE OF THE BARRIER.



POST BOLT, SPLICE BOLT AND RECESS NUT



SIDE VIEW



TOP VIEW

ALTERNATE WOOD BLOCKOUT DETAIL

MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED June 2016 DATE	/S/ Jerry H. Zogg ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA	

GENERAL NOTES

- (A) THE SLOPE IN THE AREA BOUNDED BY THE GRADELINE, THE HINGE POINT LINE (HPL), AND THE CLEAR ZONE LIMITS (CZL) SHALL BE 4:1 OR FLATTER.
- (B) AFTER FINAL ASSEMBLY, RECHECK CABLE TO BE SURE IT IS TAUT AND HAS NOT RELAXED.
- (C) DIFFERENT MANUFACTURES REQUIRE DIFFERENT PERFORATED W-BEAM RAIL END PANELS. SEE MANUFACTURES INFORMATION.
- (D) THE TOP OF THE STEEL TUBE ON POST 1 AND POST 2 SHALL NOT BE MORE THAN 3" ABOVE THE FINISH GROUND ELEVATION.
- (E) ATTACH ALUMINUM SHEET TO E.A.T. HEAD USING 4 STAINLESS STEEL SELF-TAPPING SCREWS, ONE SCREW PER CORNER.
- (G) 1/2" DIAMETER X 3" LONG LAG BOLT AND WASHER.
- (H) HARDWARE VARIES BETWEEN DIFFERENT MANUFACTURES. SEE MANUFACTURE'S DRAWING FOR INFORMATION.
- (I) DIMENSIONS MAY VARY. SEE MANUFACTURE'S INFORMATION.

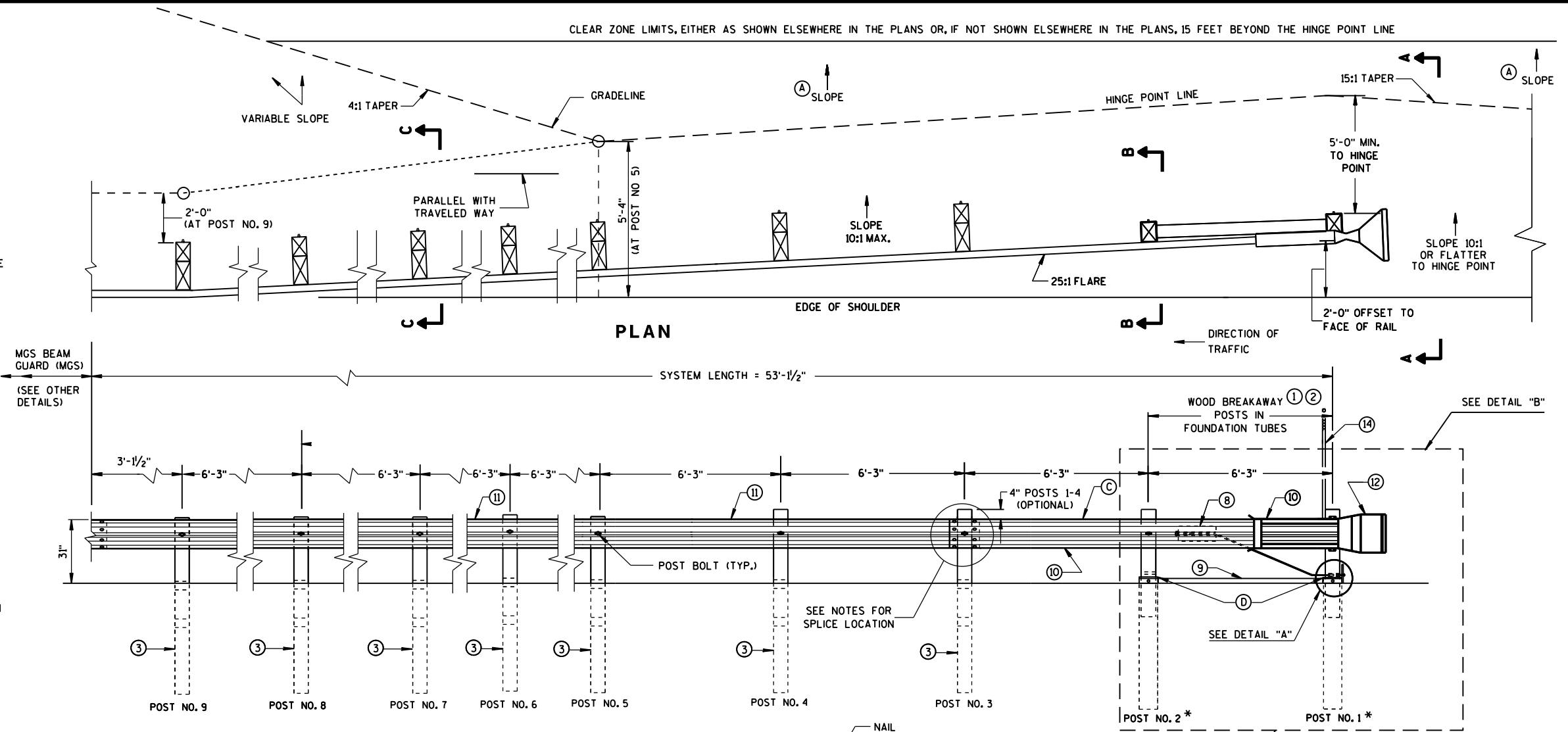
SEE SDD 14B42 FOR MORE INFORMATION.

* DO NOT ATTACH BLOCKOUTS TO POSTS 1 AND 2.

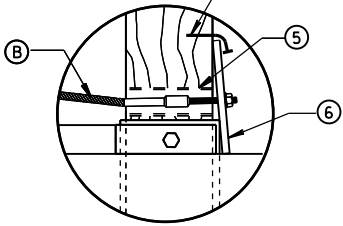
DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL.

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

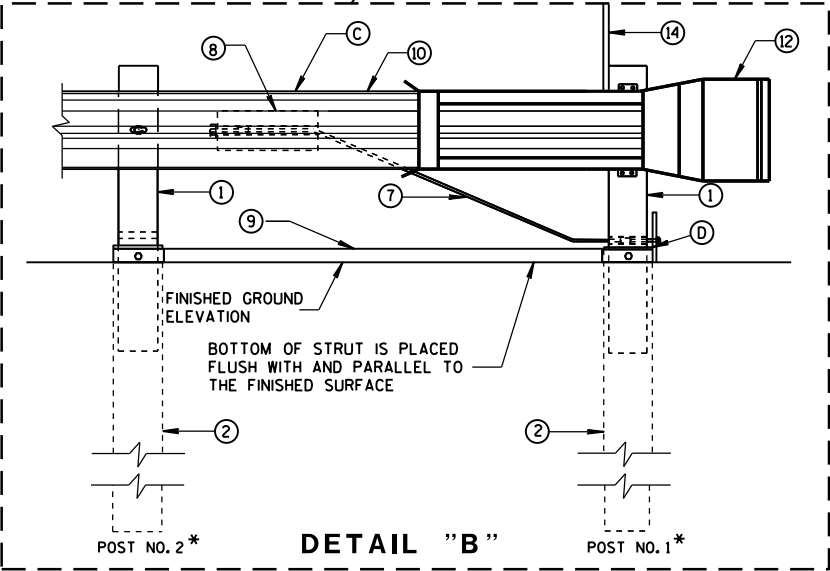
THE CENTER OF THE UPPER 3/2" DIAMETER HOLE ON POST NUMBER 3 THROUGH POST 9 IS TO BE FLUSH WITH THE GROUND LINE UP TO A MAXIMUM OF 2" ABOVE GROUND LINE.



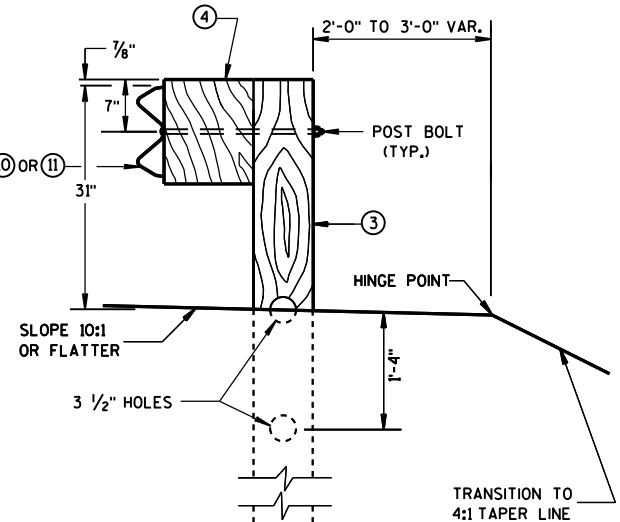
ELEVATION



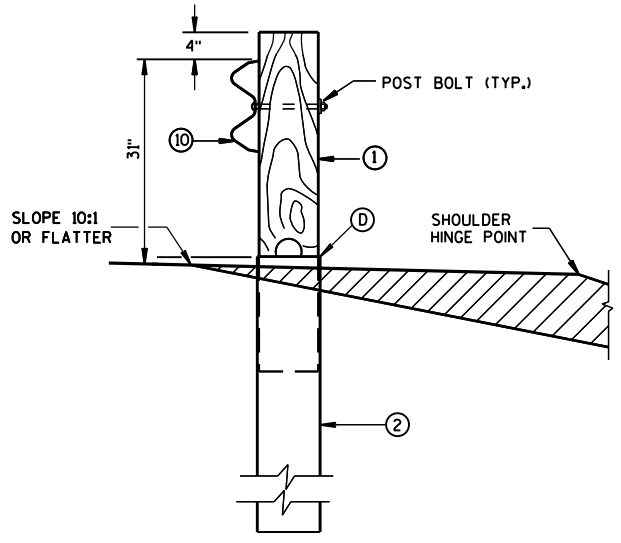
DETAIL "A"



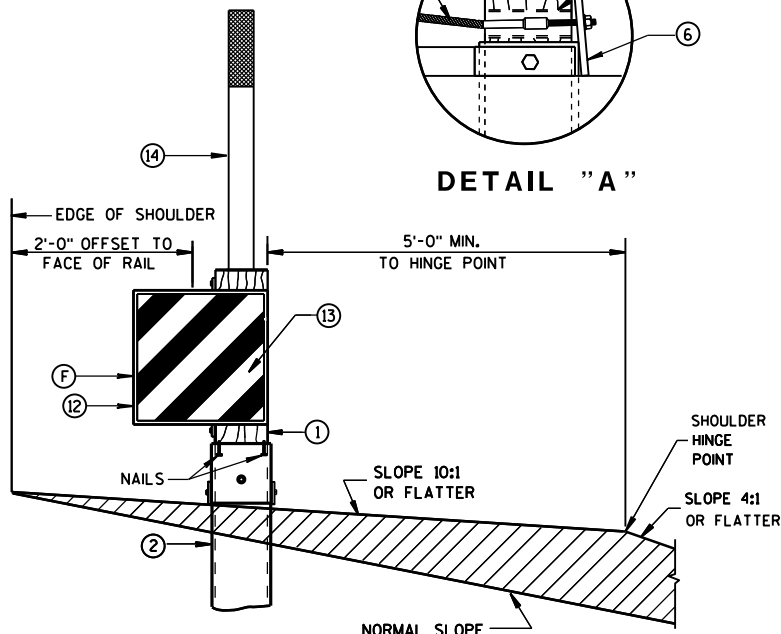
DETAIL "B"



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



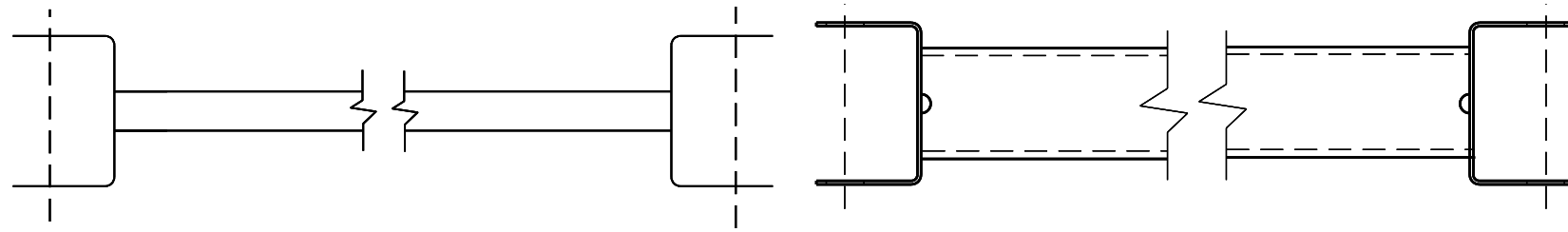
SECTION B-B
TYPICAL AT POST NO. 2*



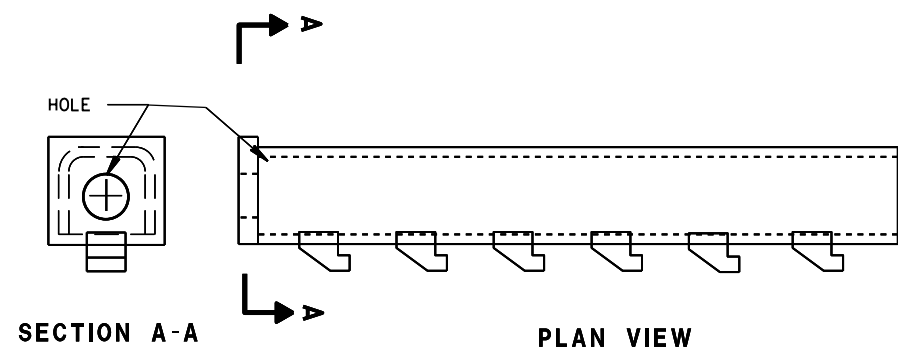
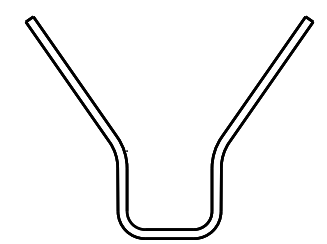
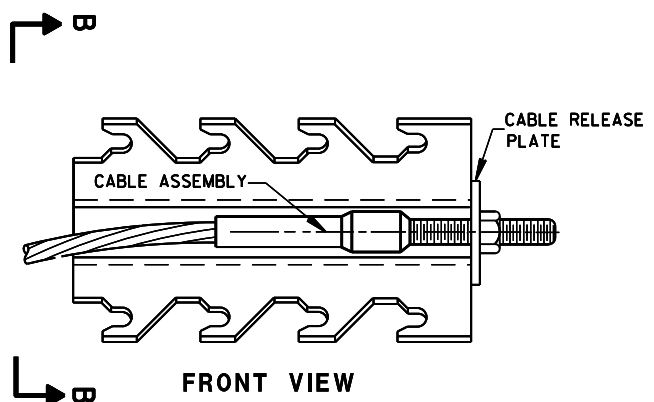
SECTION A-A
TYPICAL AT POST NO. 1*

MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL
(MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



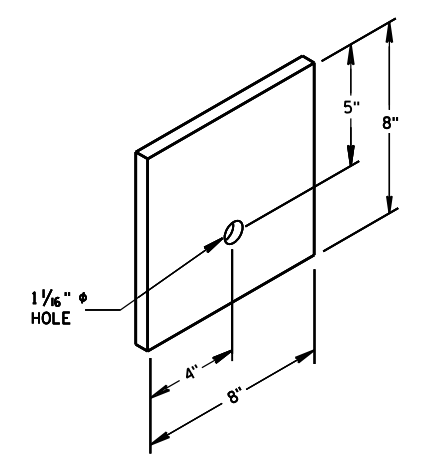
9 H
GENERIC GROUND STRUT



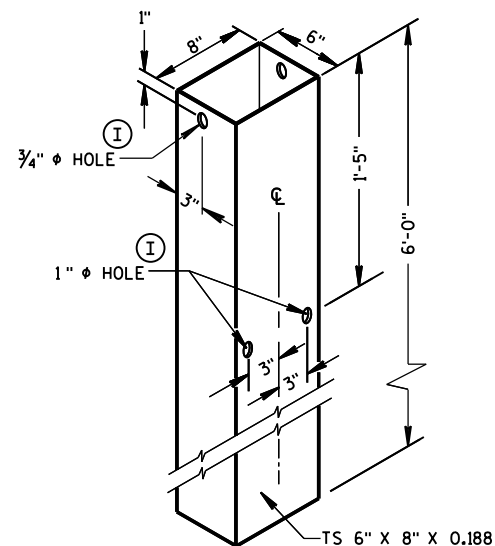
8 H
GENERIC ANCHOR CABLE BOX

BILL OF MATERIALS

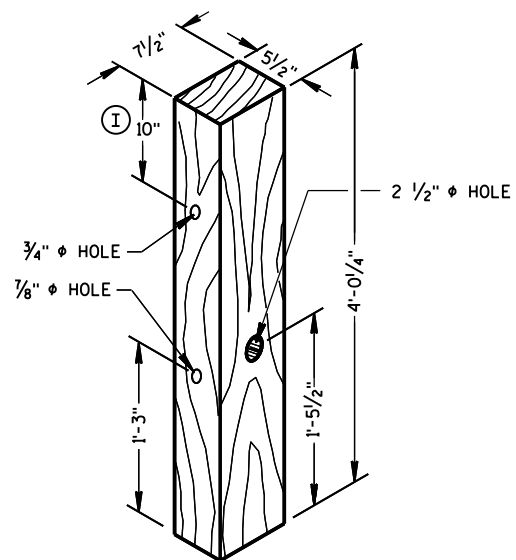
PART NO.	DESCRIPTION
MATERIALS PROVIDED BY MGS EAT MANUFACTURER. SEE MANUFACTURER'S DETAILS FOR MORE INFORMATION.	
①	WOOD BREAKAWAY POST
②	6" X 8" X 0.188", 6'-0" LONG FOUNDATION TUBE AT POSTS 1 AND 2
③	WOOD CRT
④	WOOD BLOCKOUT
⑤	PIPE SLEEVE
⑥	BEARING PLATE
⑦	BCT CABLE ASSEMBLY
⑧	ANCHOR CABLE BOX
⑨	GROUND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



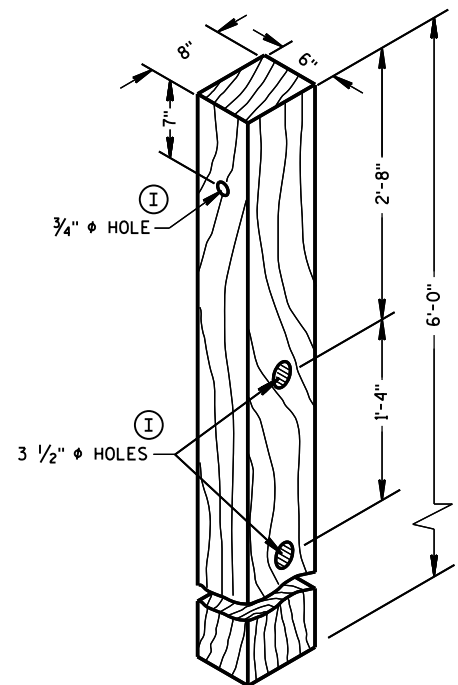
⑥
BEARING PLATE



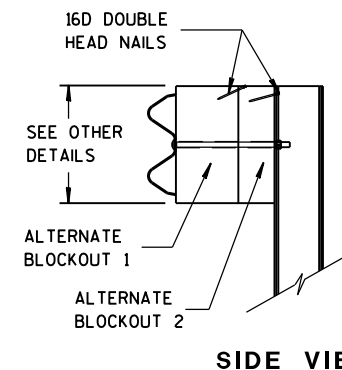
FOUNDATION TUBE ②



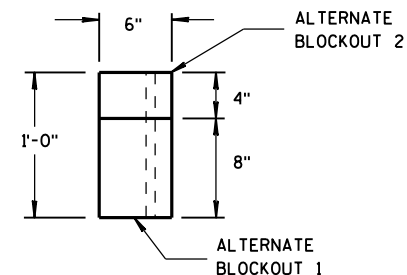
POSTS NUMBER 1 AND 2
WOOD BREAKAWAY POST ①



POSTS NUMBER 3-9
WOOD CRT POST ③

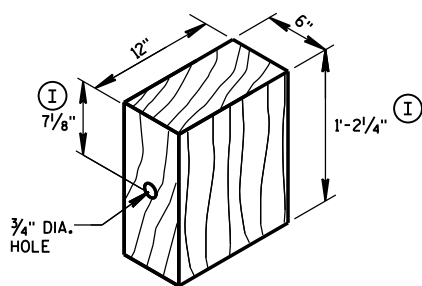


SIDE VIEW



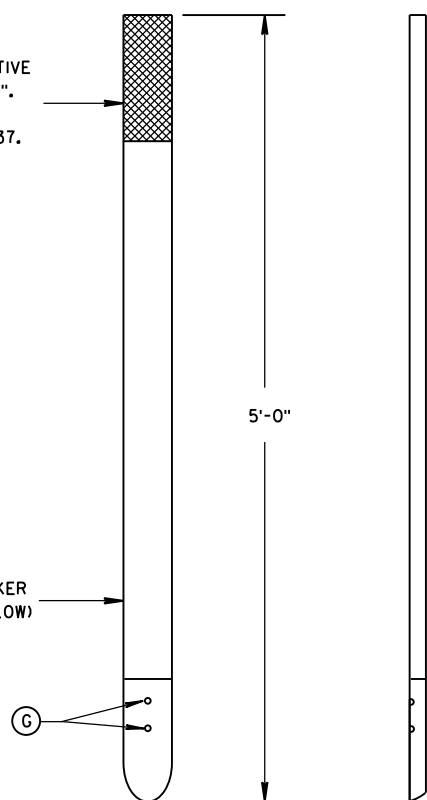
TOP VIEW

ALTERNATE WOOD
BLOCKOUT DETAIL



WOOD BLOCKOUT ④
REQ'D. AT ALL POSTS EXCEPT POST NO'S 1 & 2

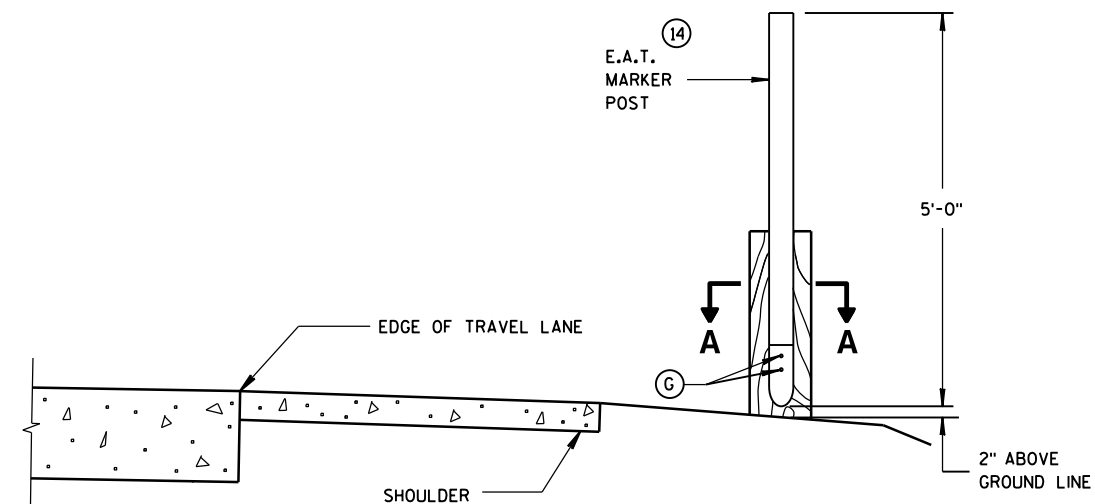
TYPE H
YELLOW REFLECTIVE
SHEETING 3" X 9".
SEE STANDARD
SPECIFICATION 637.



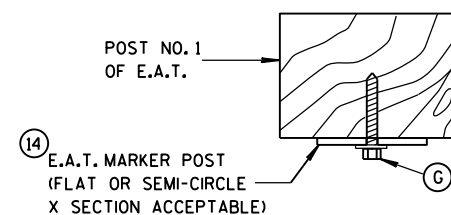
FRONT VIEW

SIDE VIEW

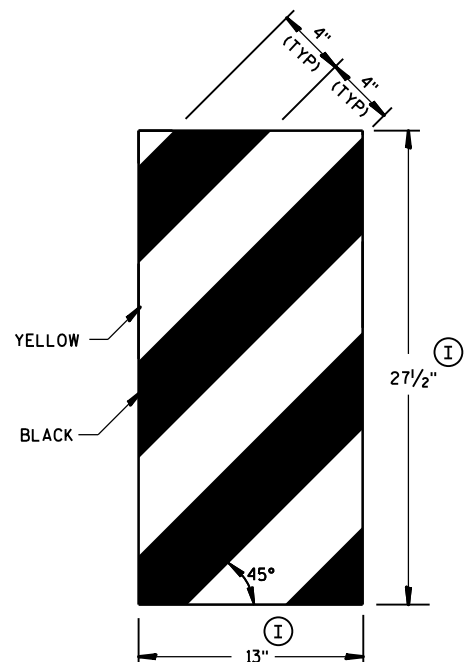
E.A.T. MARKER POST ⑭



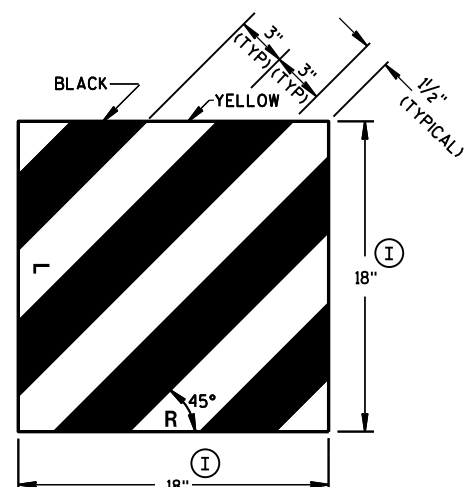
TYPICAL INSTALLATION OF E.A.T.
MARKER POST BACKSIDE OF POST NO. 1
(E.A.T. AND RAIL REMOVED FOR CLARITY)



SECTION A-A



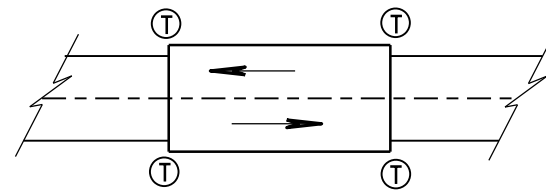
GENERIC REFLECTIVE SHEETING ⑬ ①



MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL
(MGS)

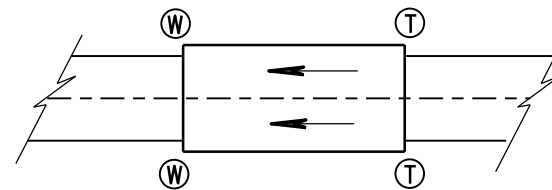
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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



TWO WAY TRAFFIC

Ⓣ THRIE BEAM CONNECTION



ONE WAY TRAFFIC

Ⓦ W-BEAM CONNECTION WHEN REQUIRED

GENERAL NOTES

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

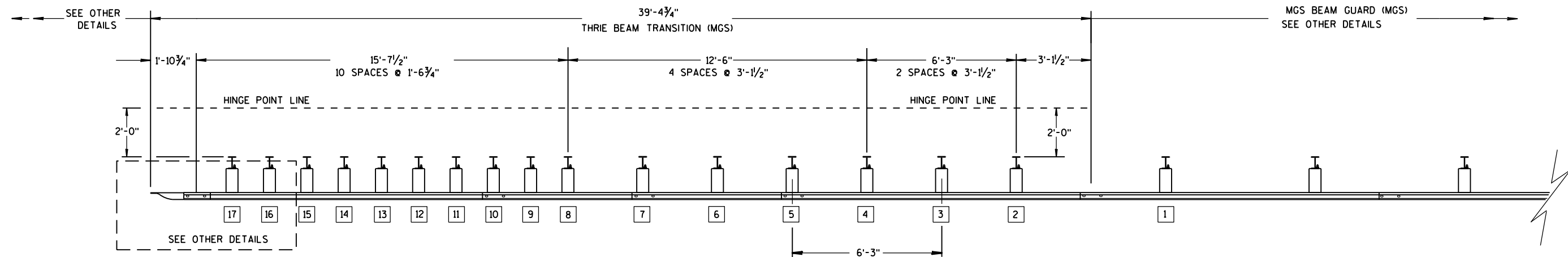
TRANSITION USES STEEL POSTS ONLY.

SEE STANDARD DETAIL DRAWING 14 B 42 FOR MORE INFORMATION.

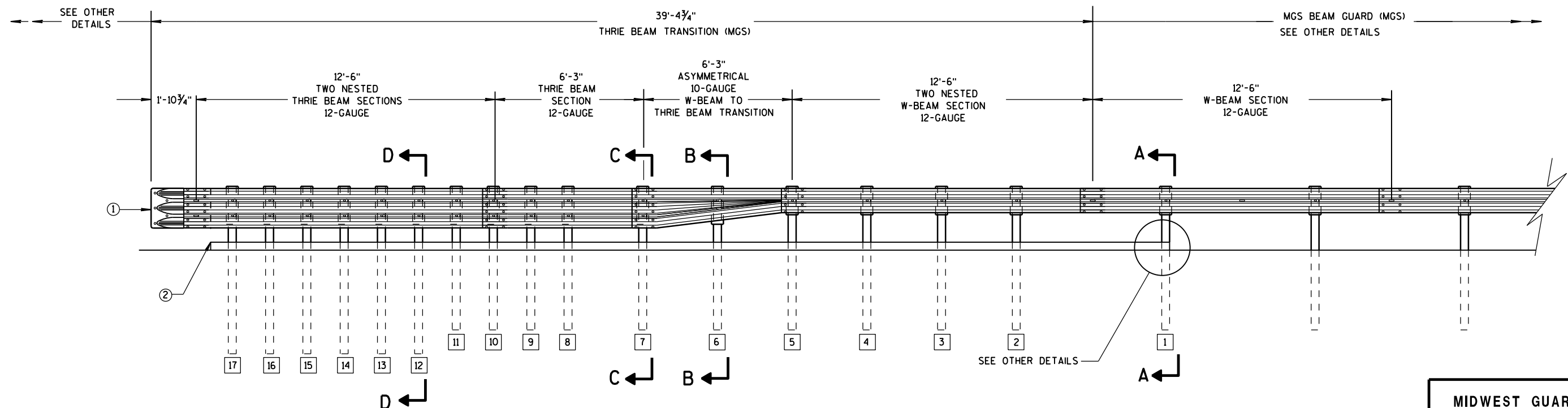
① BRIDGE RAILING TYPE "W" DOES NOT REQUIRE A TERMINAL CONNECTOR.

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

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



PLAN VIEW



ELEVATION VIEW

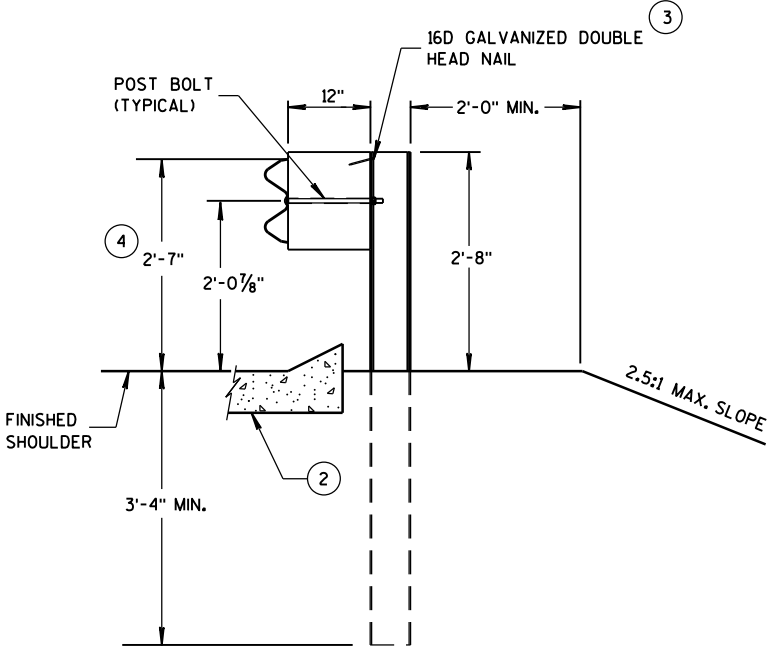
MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

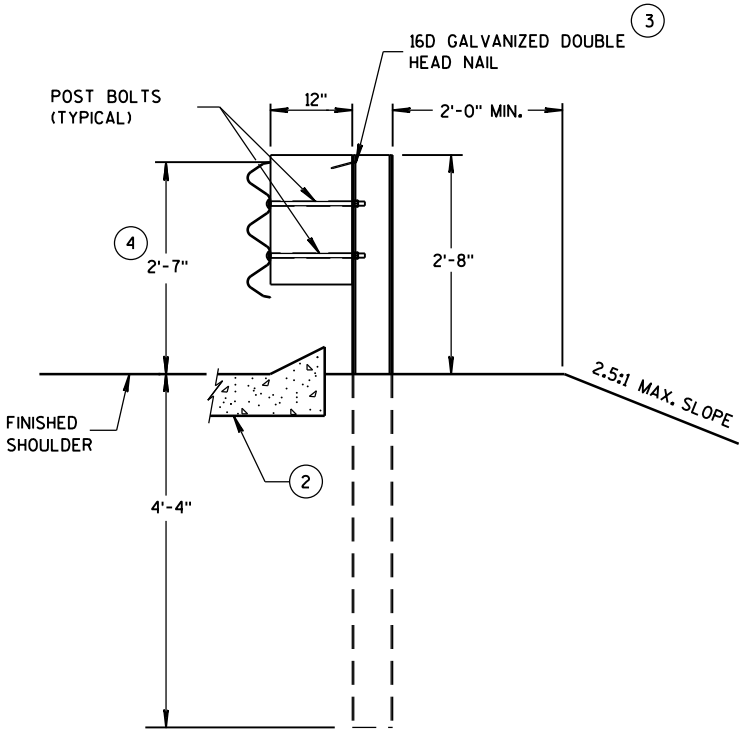
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

GENERAL NOTES

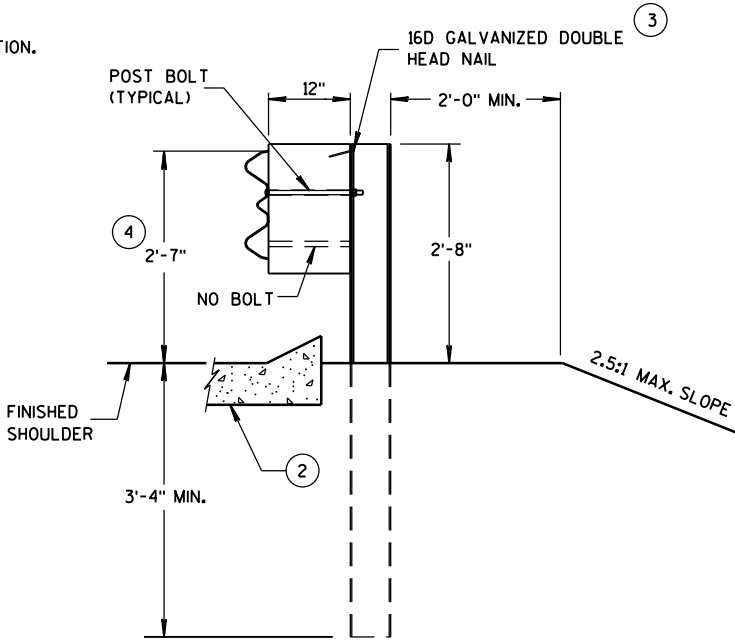
- 2 OPTIONAL CURB AND GUTTER OR DRAINAGE FEATURE SEE PLAN FOR INFORMATION.
- 3 WHEN USING STEEL POSTS AND WOOD BLOCKOUTS INSTALL FOUR 10D GALVANIZED NAILS. INSTALL NAILS AT THE BACK CORNERS OF THE BLOCK AND BEND THE NAILS OVER THE FLANGE OF THE STEEL POST.
- 4 TOLERANCE FOR TOP OF W-BEAM RAIL IS ± 1".



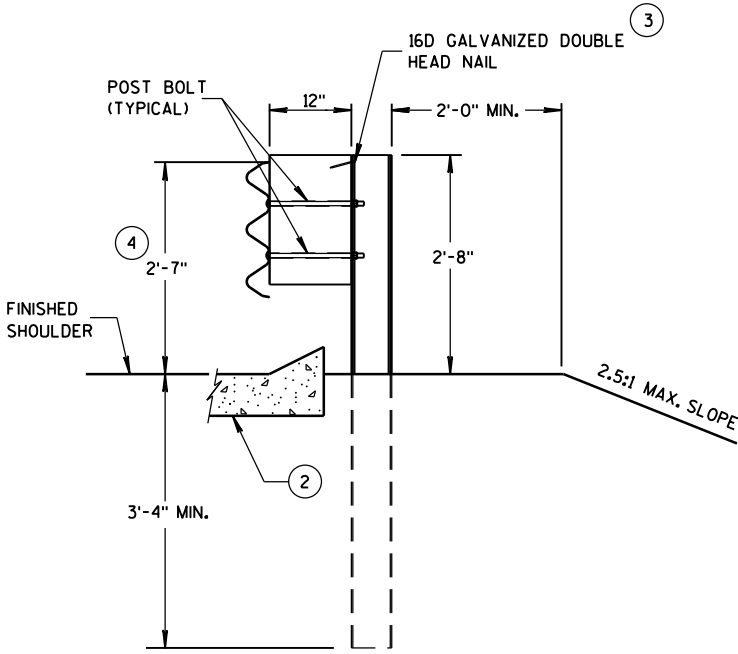
SECTION A-A
POSTS 1-5



SECTION D-D
POSTS 12-17



SECTION B-B
POST 6



SECTION C-C
POSTS 7-11

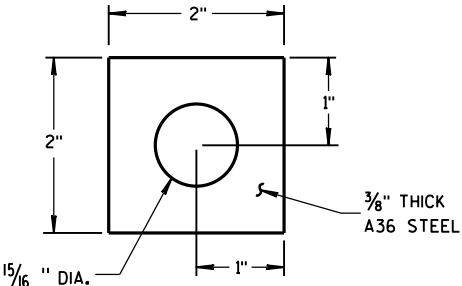
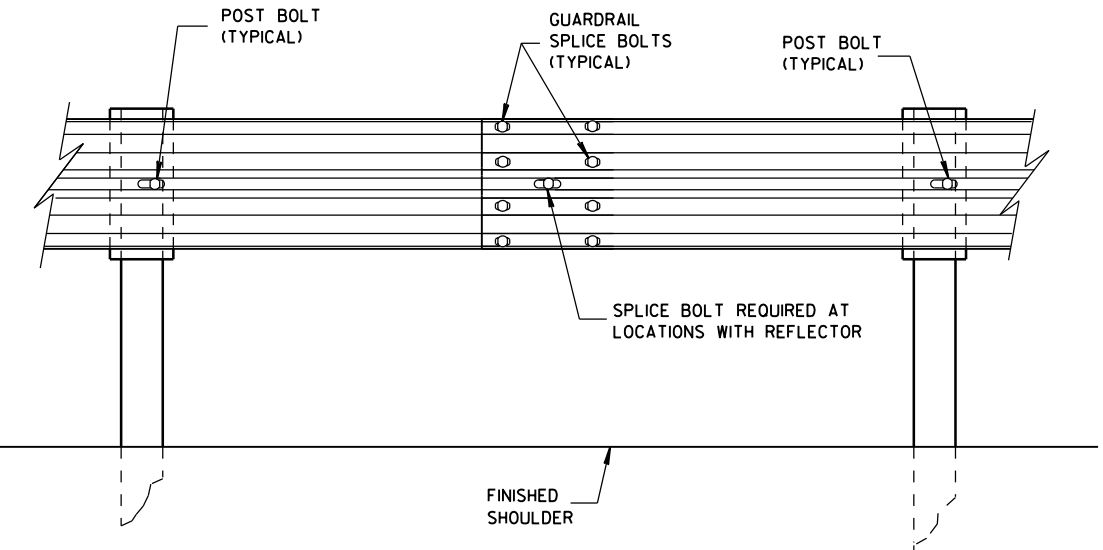
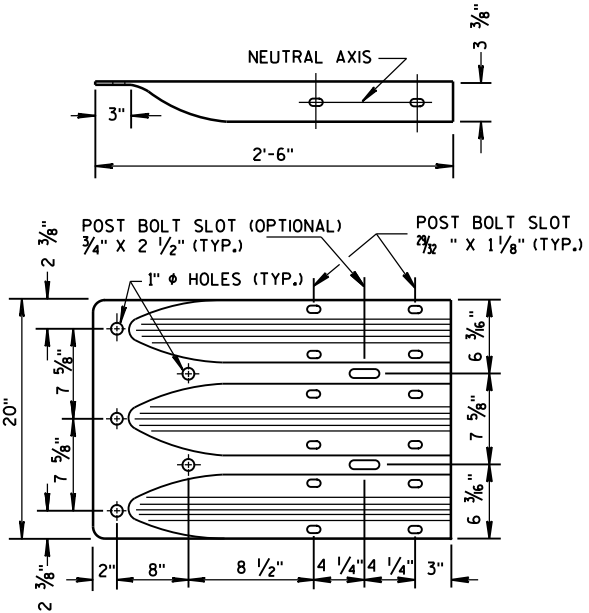


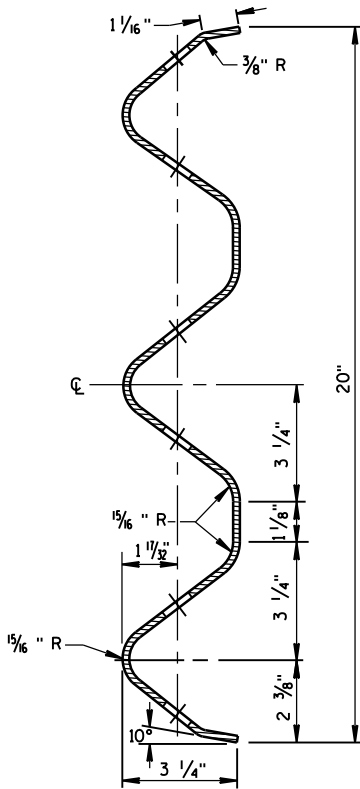
PLATE WASHER DETAIL



SPlice DETAIL



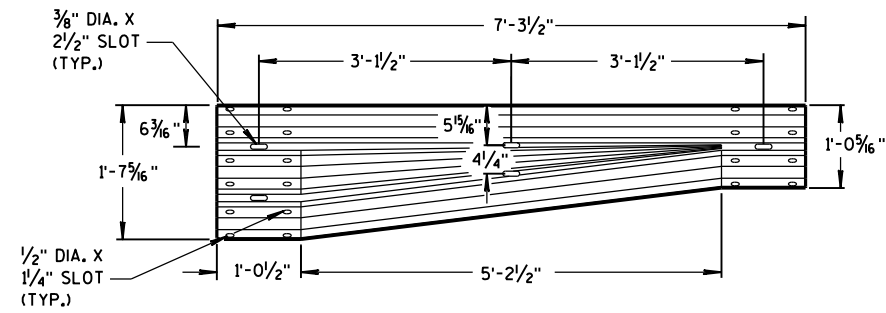
THRIE BEAM
TERMINAL CONNECTOR



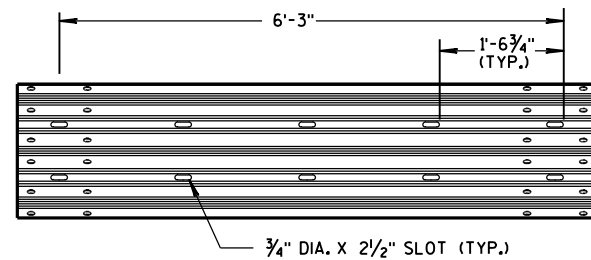
SECTION THRU THRIE
BEAM RAIL ELEMENT

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

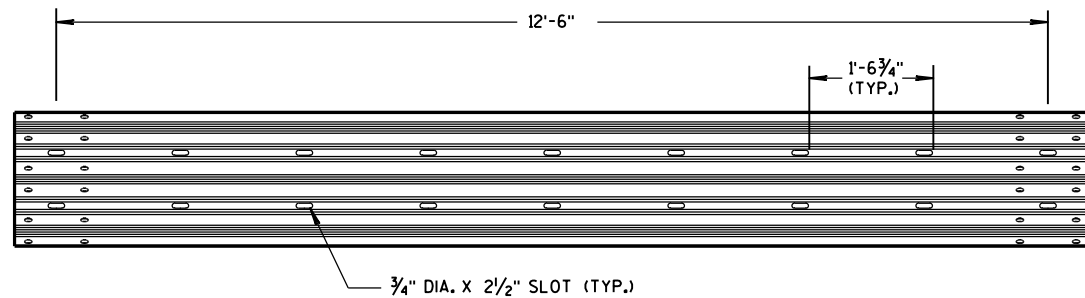
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



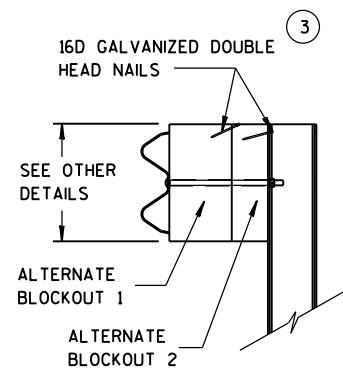
W-BEAM TO THRIE BEAM TRANSITION SECTION



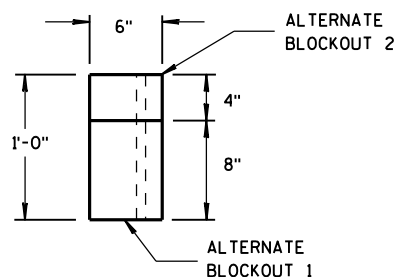
6'-3" THRIE BEAM SECTION



12'-6" THRIE BEAM SECTION

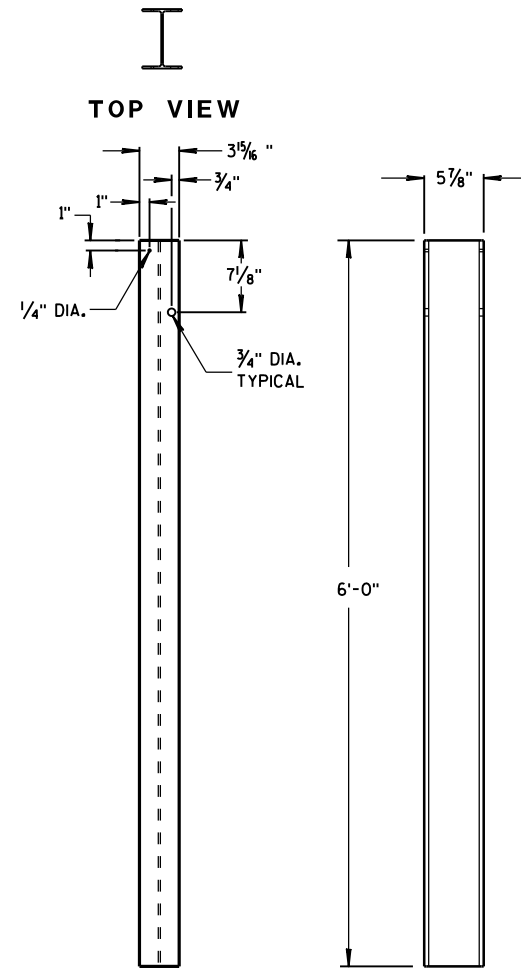


SIDE VIEW



TOP VIEW

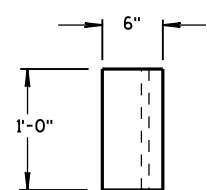
ALTERNATE WOOD BLOCKOUT DETAIL



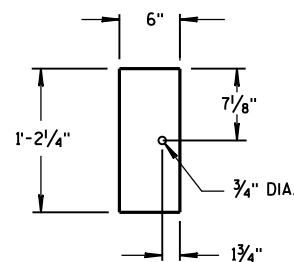
FRONT VIEW

SIDE VIEW

STEEL POSTS 1-5

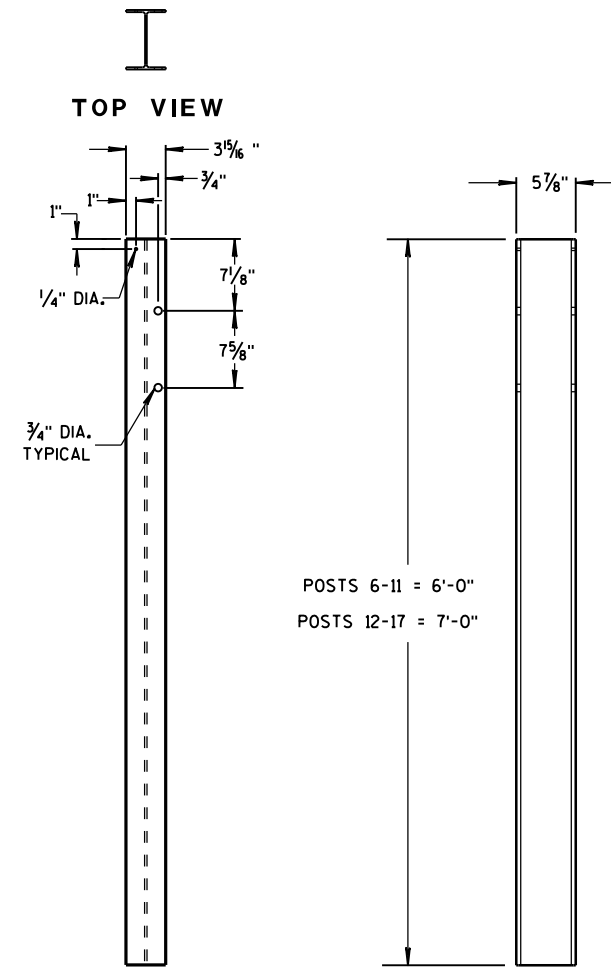


TOP VIEW



FRONT VIEW

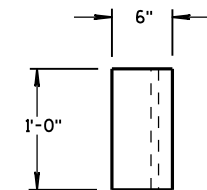
BLOCKOUT
POSTS 1-5



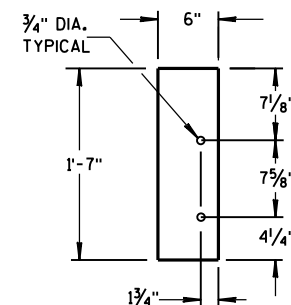
FRONT VIEW

SIDE VIEW

STEEL POSTS 6-17



TOP VIEW



FRONT VIEW

BLOCKOUT
POSTS 6-17

GENERAL NOTES

STEEL POSTS ARE W6X9 OR W6X8.5.

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

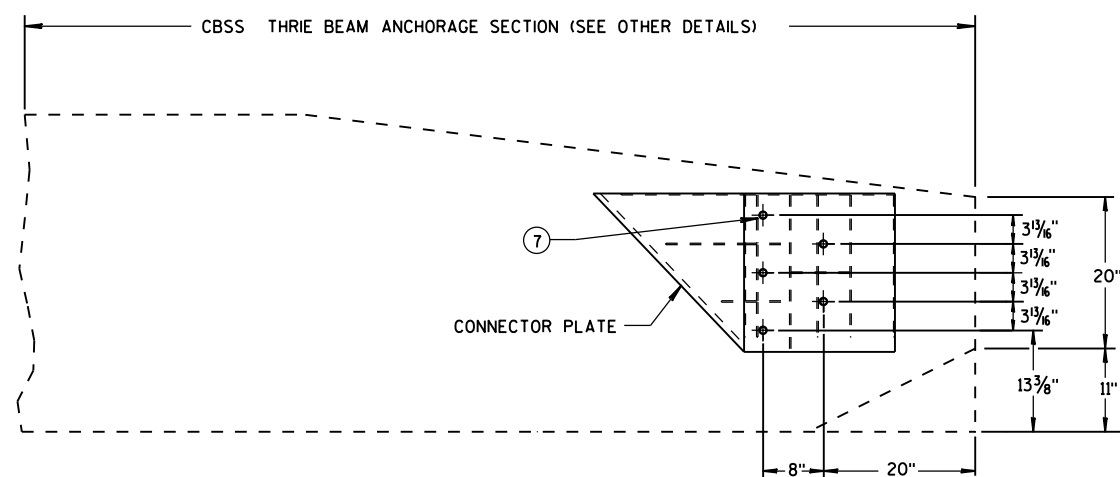
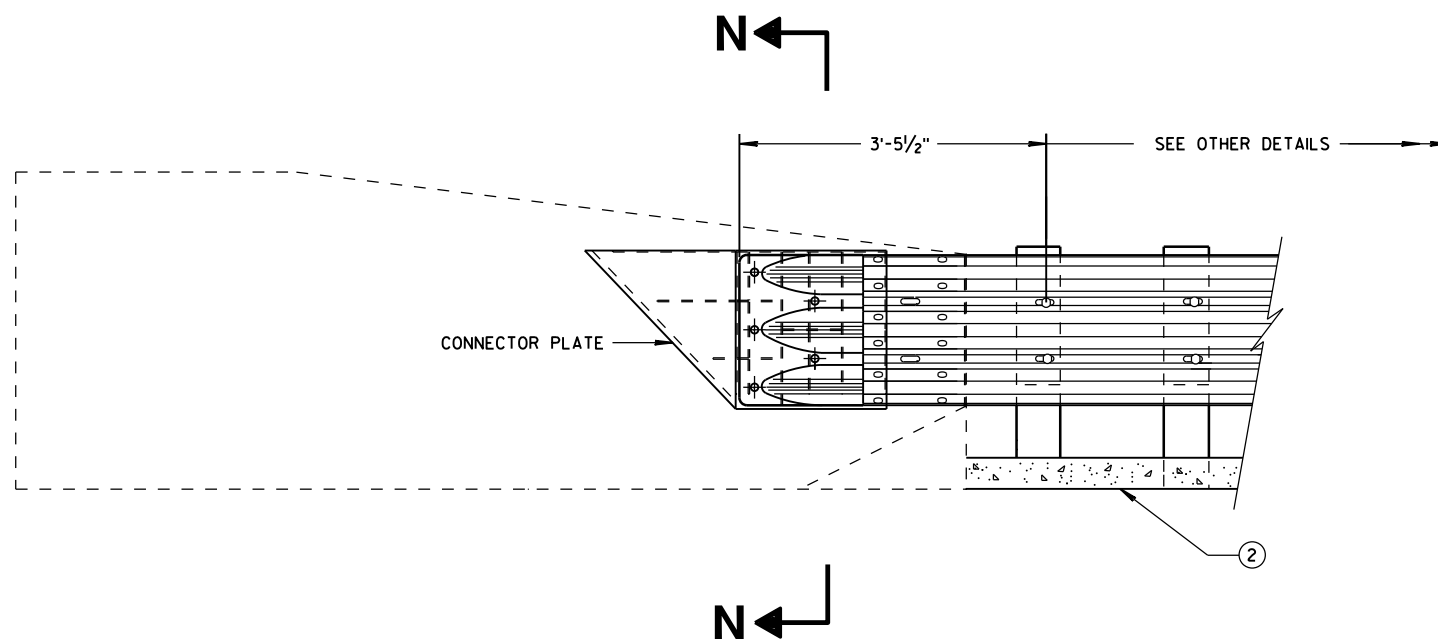
③ WHEN USING STEEL POSTS AND WOOD BLOCKOUTS INSTALL FOUR 16D GALVANIZED NAILS. INSTALL NAILS AT THE BACK CORNERS OF THE BLOCK AND BEND THE NAILS OVER THE FLANGE OF THE STEEL POST.

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

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

THRIE BEAM CONNECTION TO SINGLE SLOPE BARRIER



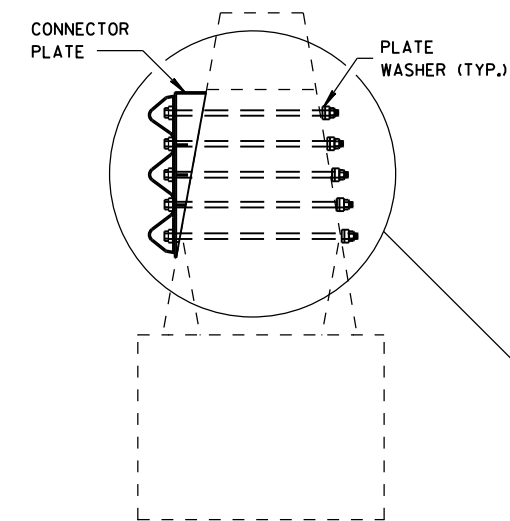
SINGLE SLOPE CONNECTION PLATE PLACEMENT

GENERAL NOTES

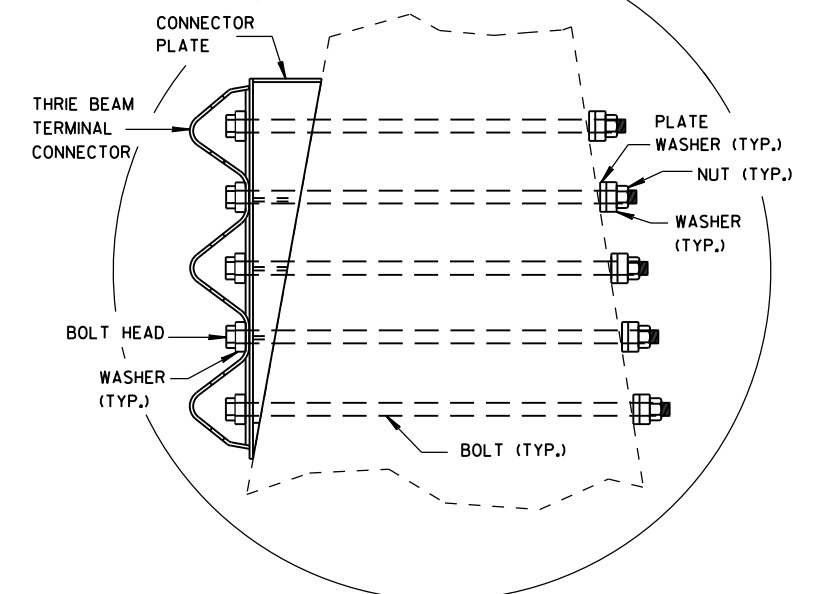
CONNECTOR PLATE, DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

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

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



SECTION N-N



MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

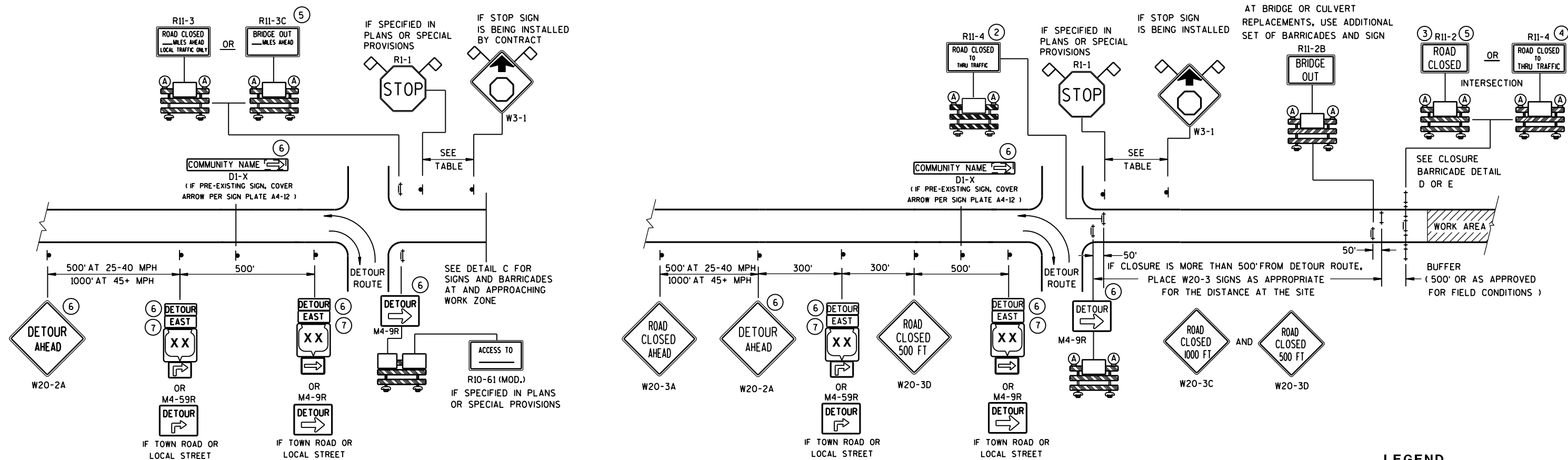
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

June, 2015
DATE

FHWA

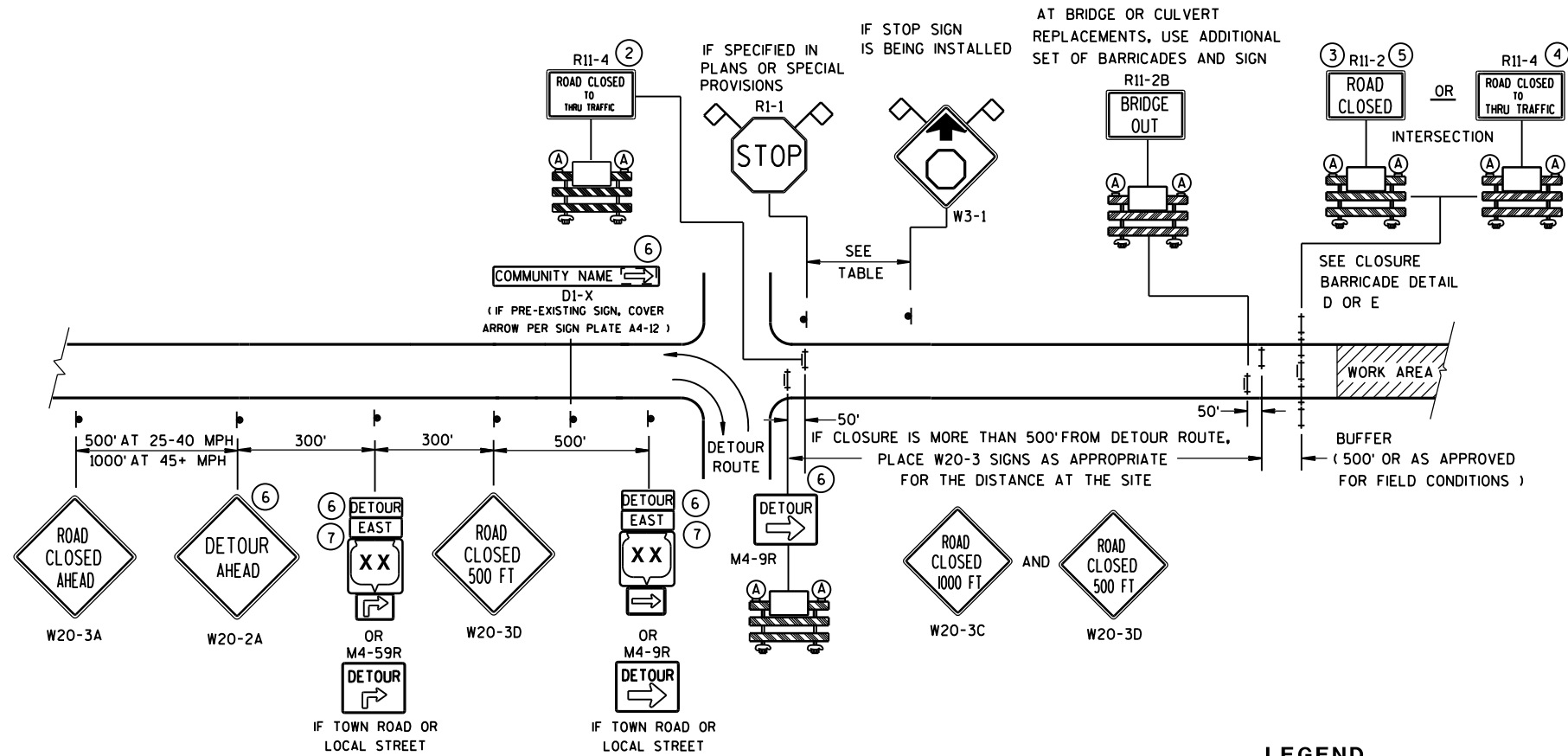
/s/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT
ENGINEER



DETAIL A

MAINLINE CLOSURE WITH POSTED DETOUR

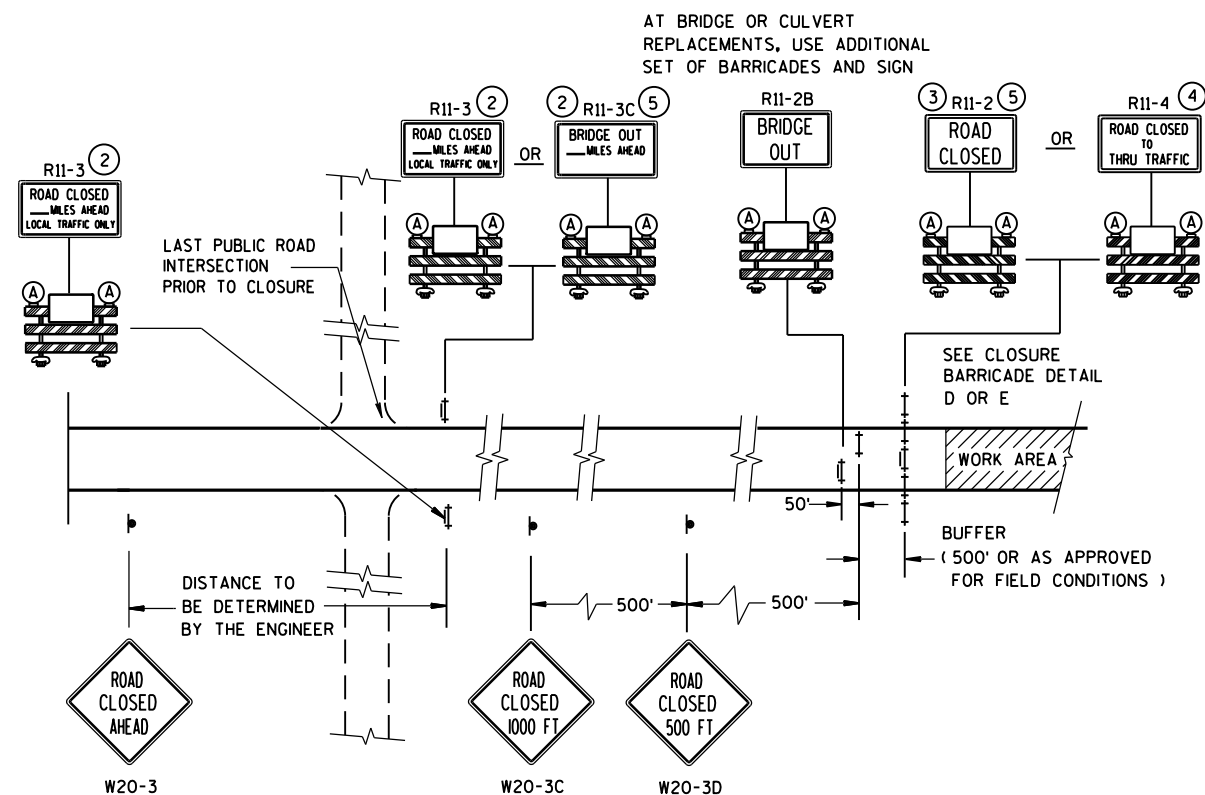
WORK ZONE GREATER THAN 1/2 MILE FROM DETOUR ROUTE (1000 FEET IF URBAN)



DETAIL B

MAINLINE CLOSURE WITH POSTED DETOUR

WORK ZONE LESS THAN 1/2 MILE FROM DETOUR ROUTE (1000 FEET IF URBAN)



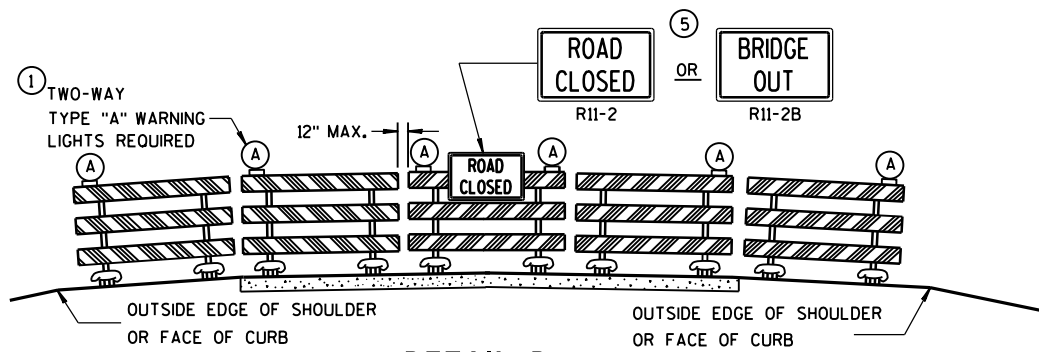
DETAIL C
MAINLINE CLOSURE, NO POSTED DETOUR

SPEED LIMIT (MPH)	"STOP AHEAD" ADVANCE WARNING DISTANCE (FT)
25	200
30	200
35	350
40	350
45	500
50	550
55	750

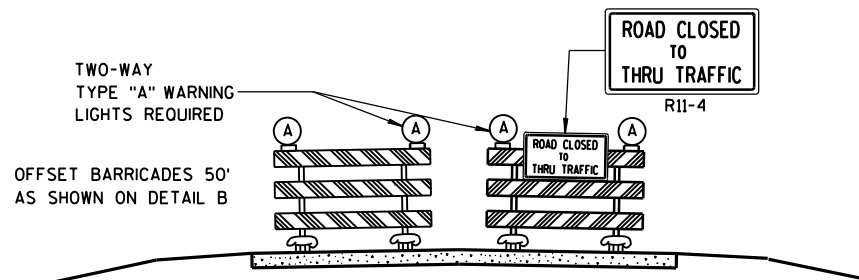
- # LEGEND
-  SIGN ON PERMANENT SUPPORT
-  TYPE III BARRICADE
-  TYPE III BARRICADE WITH ATTACHED SIGN
-  TYPE "A" WARNING LIGHT (FLASHING)
-  WORK AREA
-  M4-8
 M3-X
-  M1-4 OR  M1-5A OR  M1-6
-  M05-1 OR  M06-1
-  FLAGS, 16" X 16" MIN., (ORANGE)

SEE SDD 15C2-SHEET "b"
FOR GENERAL NOTES
AND FOOTNOTES ① THROUGH ⑦

BARRICADES AND SIGNS FOR MAINLINE CLOSURES	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
Sept. 2015	/S/ Peter Amokobe Atepe
DATE	STATEWIDE WORK ZONE TRAFFIC SAFETY ENGINEER
FHWA	



DETAIL D
ROAD CLOSURE BARRICADE DETAIL
APPROACH VIEW



DETAIL E
LANE CLOSURE BARRICADE DETAIL
APPROACH VIEW

SEE SDD 15C2-SHEET "a" FOR LEGEND

GENERAL NOTES

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

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

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

BARRICADES THAT MUST BE MOVED FOR A WORK OPERATION SHALL BE IMMEDIATELY RE-ESTABLISHED UPON COMPLETION OF THE OPERATION OR, FOR CONTINUING OPERATIONS, AT THE END OF EACH WORKING DAY.

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

ALL TYPE III BARRICADES SHALL HAVE RAILS REFLECTORIZED ON BOTH FACES. STRIPES SHALL BE PROPERLY SLOPED DOWN TOWARD THE TRAFFIC SIDE OR AS SHOWN IN THE ROAD CLOSURE BARRICADE DETAIL D FOR FULL ROAD CLOSURES.

TYPE "A" LOW-INTENSITY FLASHING WARNING LIGHTS SHALL BE VISIBLE ON BOTH SIDES OF THE BARRICADE.

THE R11-2, R11-3, M4-9, R11-4 AND R10-61 SIGNS PLACED ON BARRICADES SHALL COVER NO MORE THAN THE TOP RAIL. THE SIGNS SHALL NOT COVER ANY PORTION OF THE MIDDLE OR BOTTOM RAILS.

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

ALL SIGNS SHALL BE 48" X 48" UNLESS OTHERWISE NOTED BELOW:

R11-2 SHALL BE 48" X 30".

R11-3, R11-4 AND R10-61 SHALL BE 60" X 30".

M4-9 SHALL BE 30" X 24".

M3-X SHALL BE 24" X 12". (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS.)

M4-8 SHALL BE 24" X 12". (30" X 15" IF NEEDED TO MATCH EXISTING SIGNS.)

M1-4, M1-5A, AND M1-6 SHALL BE 24" X 24". (36" X 36" IF NEEDED TO MATCH EXISTING SIGNS.)

M05-1 AND M06-1 SHALL BE 21" X 21". (30" X 30" IF NEEDED TO MATCH EXISTING SIGNS.)

D1-X SHALL BE AS SHOWN ON SPECIFIC PROJECT SIGNING DETAIL SHEETS.

R1-1 SHALL BE 36" X 36".

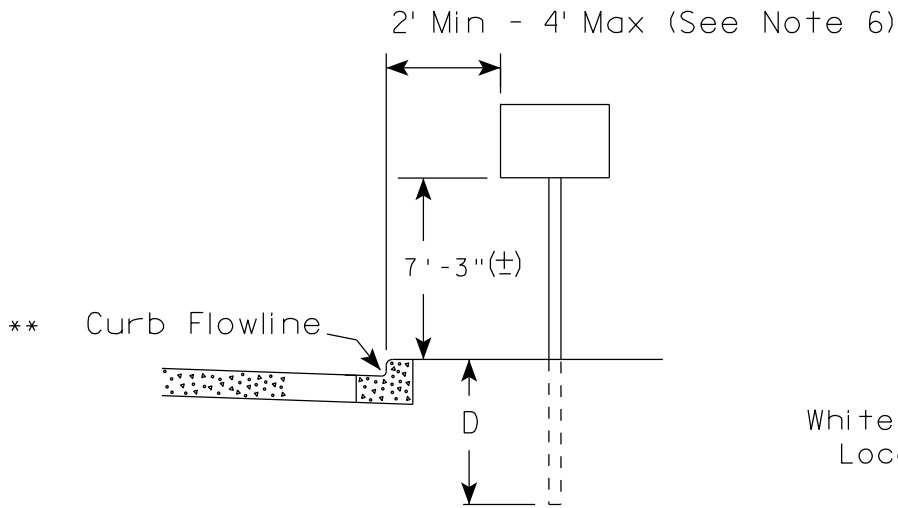
- 1 TWO WARNING LIGHTS SHALL BE PROVIDED ON THE CENTER BARRICADE AND A MINIMUM OF ONE WARNING LIGHT SHALL BE PROVIDED ON EACH OF THE OTHER BARRICADES WITHIN THE ROADWAY LIMITS. SPACING OF THE WARNING LIGHTS SHALL BE UNIFORM TO THE EDGE OF ROADWAY AS SHOWN (APPROX. 8-FOOT LIGHT SPACING).
- 2 THESE SIGNS AND BARRICADES ARE NOT REQUIRED IF ROAD CLOSURE BEGINS AT INTERSECTION.
- 3 FOR ROAD CLOSURE WITHOUT LOCAL ACCESS TO PROJECT, SEE ROAD CLOSURE BARRICADE DETAIL D.
- 4 FOR ROAD CLOSURE WITH LOCAL ACCESS TO PROJECT, SEE LANE CLOSURE BARRICADE DETAIL E.
- 5 FOR BRIDGE OR CULVERT REPLACEMENTS, SUBSTITUTE "BRIDGE OUT" INSTEAD OF "ROAD CLOSED" ON R11-2 AND R11-3 SIGNS.
- 6 INSTALL DETOUR AND COMMUNITY GUIDE SIGNS AND ARROWS ONLY IF SPECIFIED IN THE CONTRACT. IF THERE ARE EXISTING ROUTE MARKER ASSEMBLIES THAT WILL REMAIN IN PLACE, ADJUST THE LOCATION OF THE DETOUR ROUTE SIGNS TO CORRESPOND WITH THE EXISTING ASSEMBLIES. MODIFY EXISTING SIGNS WHERE POSSIBLE. SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS. IF DETOUR SIGNS ARE BEING INSTALLED BY OTHERS, PLACE THE CONTRACTED TRAFFIC CONTROL SIGNS TO ALLOW FOR PLACEMENT OF ALL WARNING, DETOUR AND GUIDE SIGNS AS SHOWN.
- 7 "EAST" CARDINAL DIRECTION MARKERS AND RIGHT TURN ARROWS ARE SHOWN. USE OTHER CARDINAL DIRECTIONS AND ARROWS AS APPROPRIATE.

BARRICADES AND SIGNS FOR MAINLINE CLOSURES

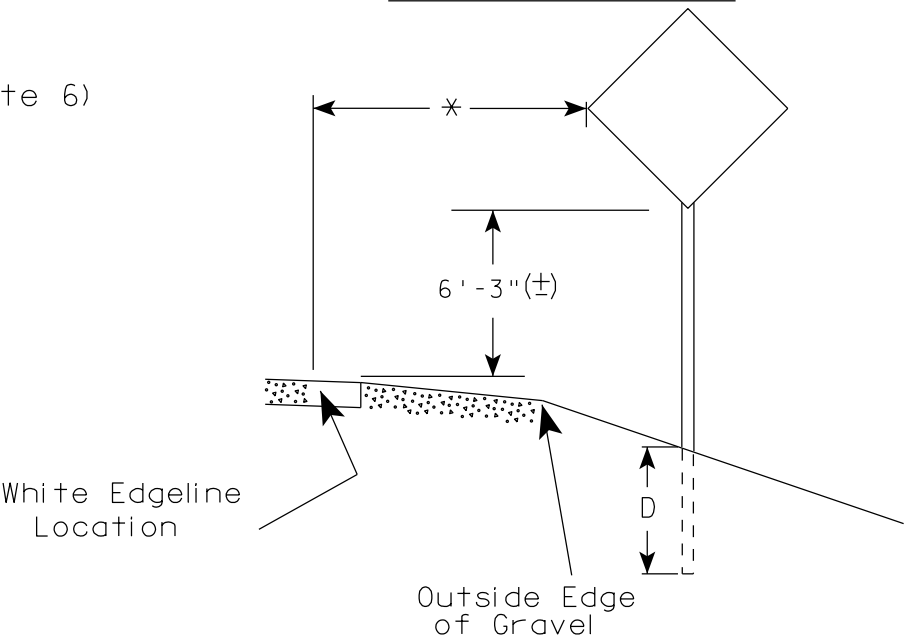
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

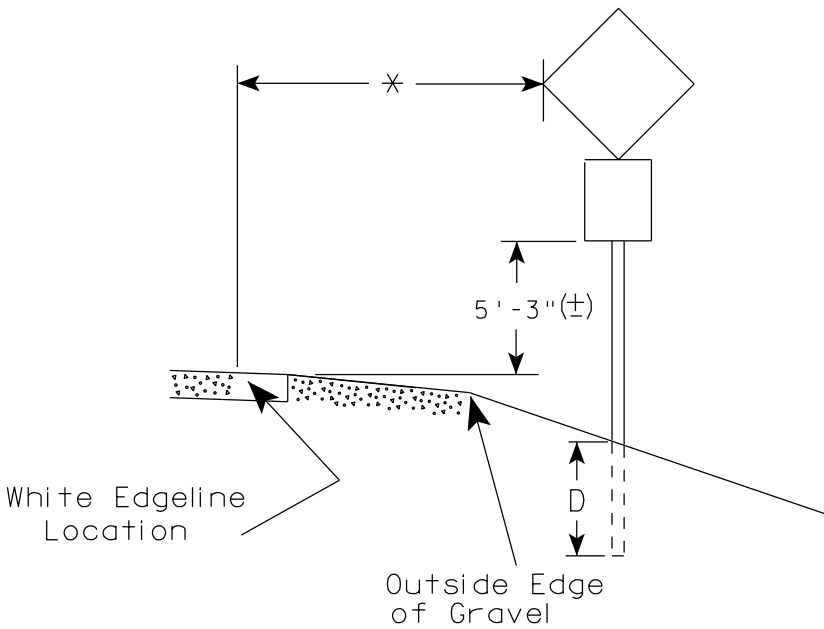
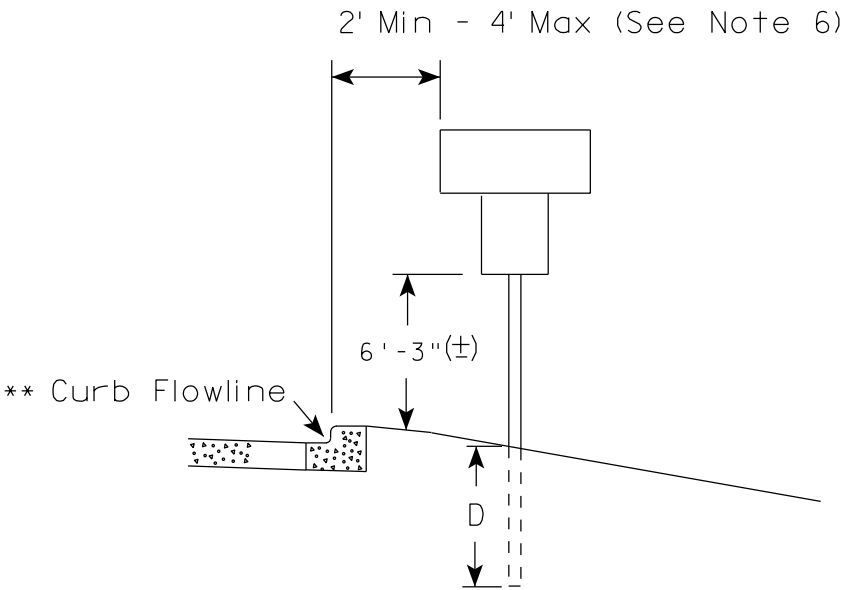
URBAN AREA



RURAL AREA (See Note 2)



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



POST EMBEDMENT DEPTH

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

* * The existence of curb and gutter does not in itself mandate the vertical clearance illustrated. That height is typically measured where there is sidewalk adjacent to the roadway or parking is permitted. In the absence of sidewalk vertical clearance is measured from the top of the curb. Offset of signs is measured from the flow line.

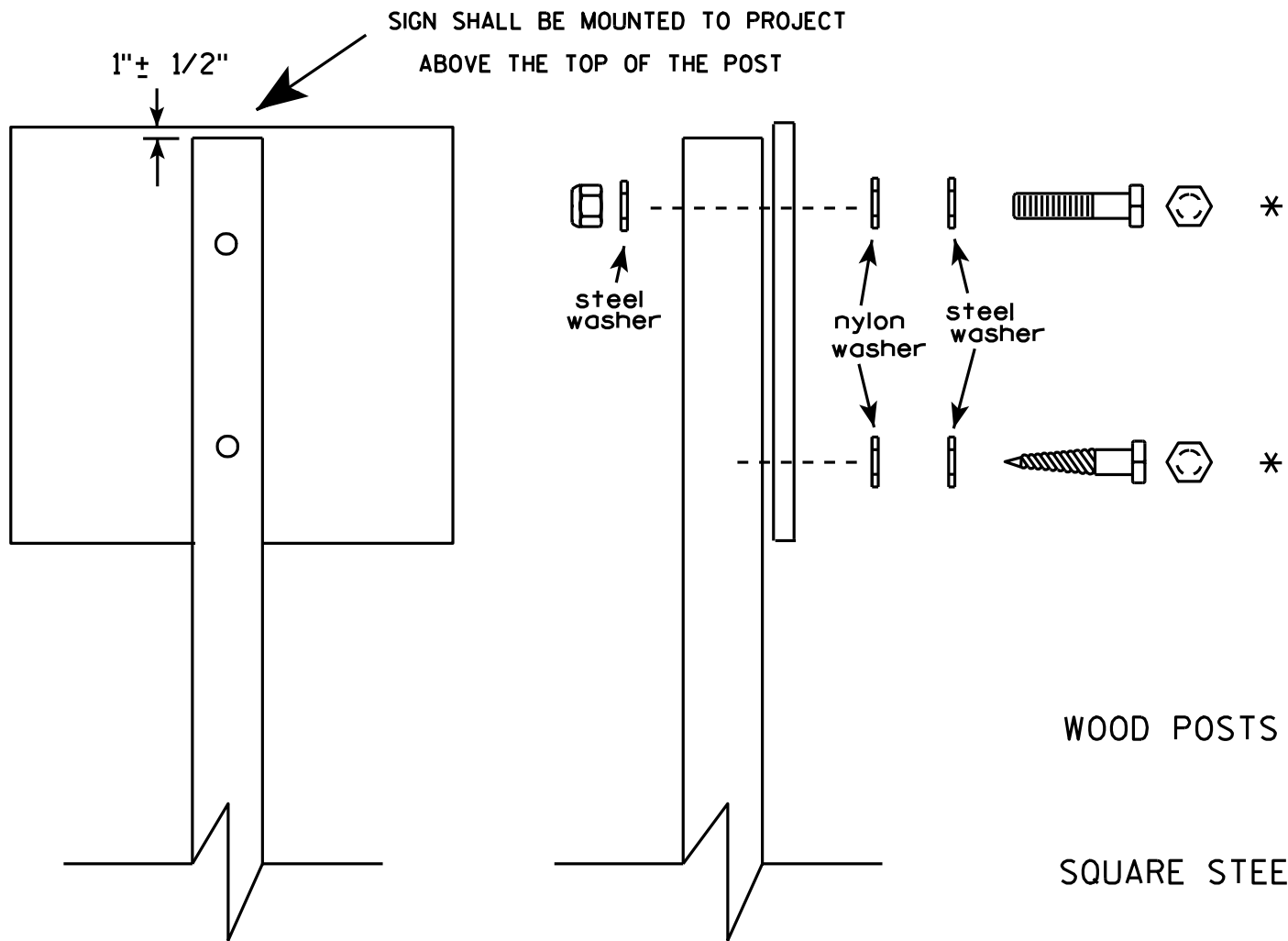
* 6 feet from edge of a paved shoulder or 12 feet from the edge of pavement (edge line location) or 2 feet from outside edge of gravel, whichever is greater unless directed by project engineer.

TYPICAL INSTALLATION
OF PERMANENT TYPE II
SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED
Matthew R. Rauch
for State Traffic Engineer

DATE 7/23/15 PLATE NO. A4-3.20

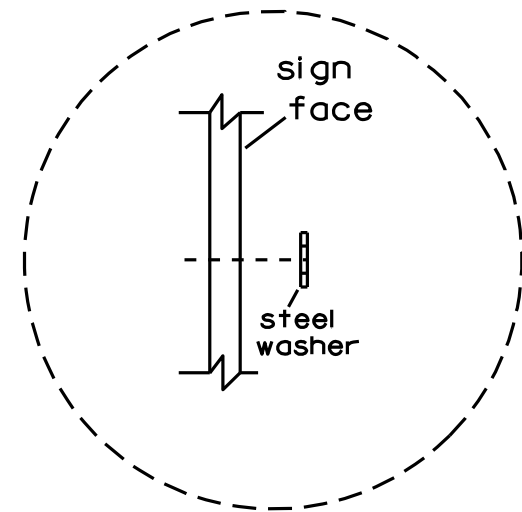


Nuts, bolts and lags used for mounting signs shall have hexagonal heads and shall be either :

- 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 - $\frac{3}{8}$ " X 3"
- MACHINE BOLTS - $\frac{5}{16}$ " X 6-1/2" or 7" Length w/ nuts
- SQUARE STEEL POSTS (2" x 2")
- MACHINE BOLTS - $\frac{3}{8}$ " X 3-1/4" Length w/ nuts
- RIVETS - $\frac{9}{32}$ " (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 $\frac{3}{8}$ " I.D. X $\frac{1}{16}$ " STEEL
- 1-1/4" O.D. X $\frac{3}{8}$ " I.D. X .080 NYLON for all Type H signs.

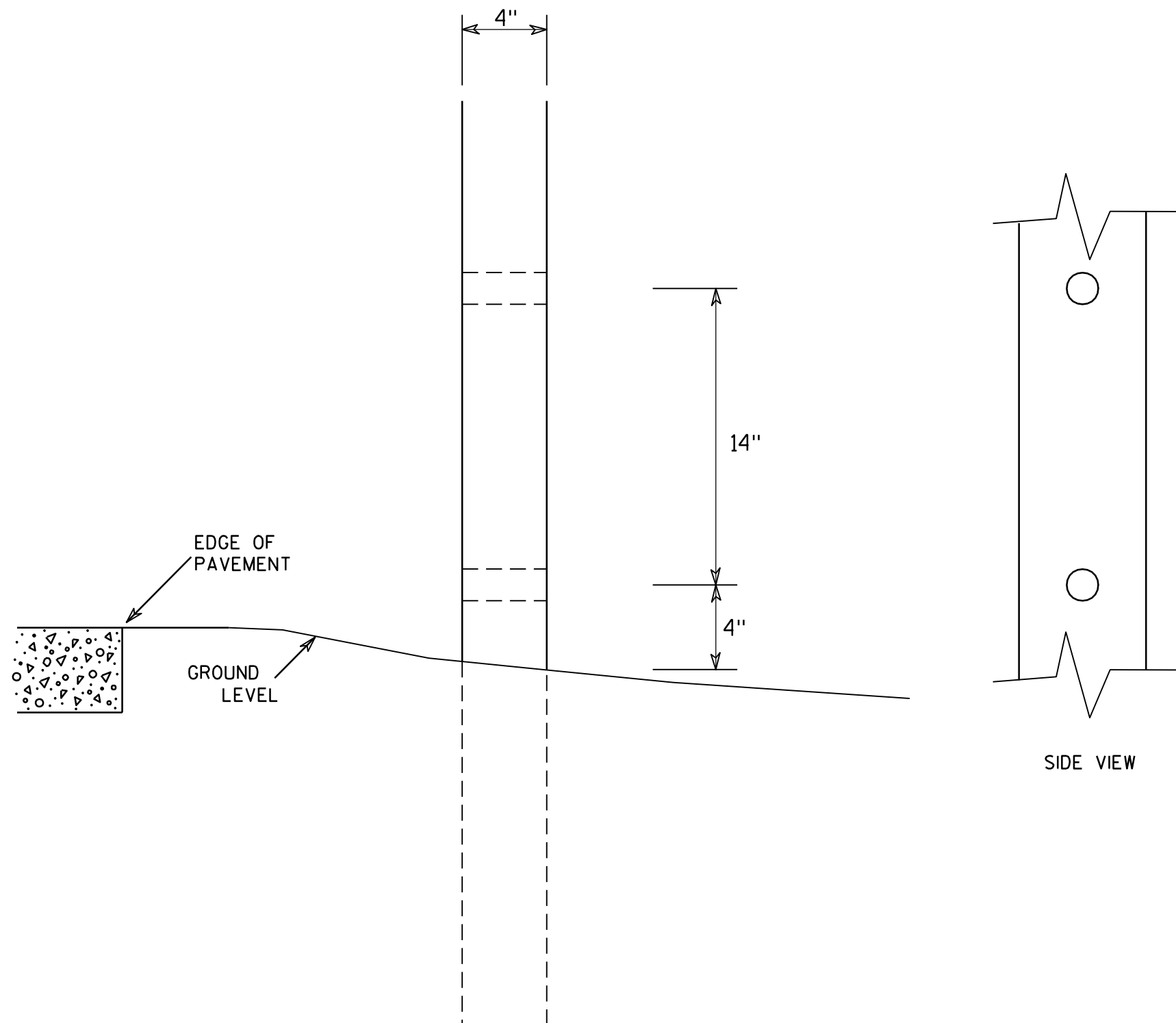


Washer Placement when Sign Has Other Than Type H or Type F Face

* 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 1½" 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

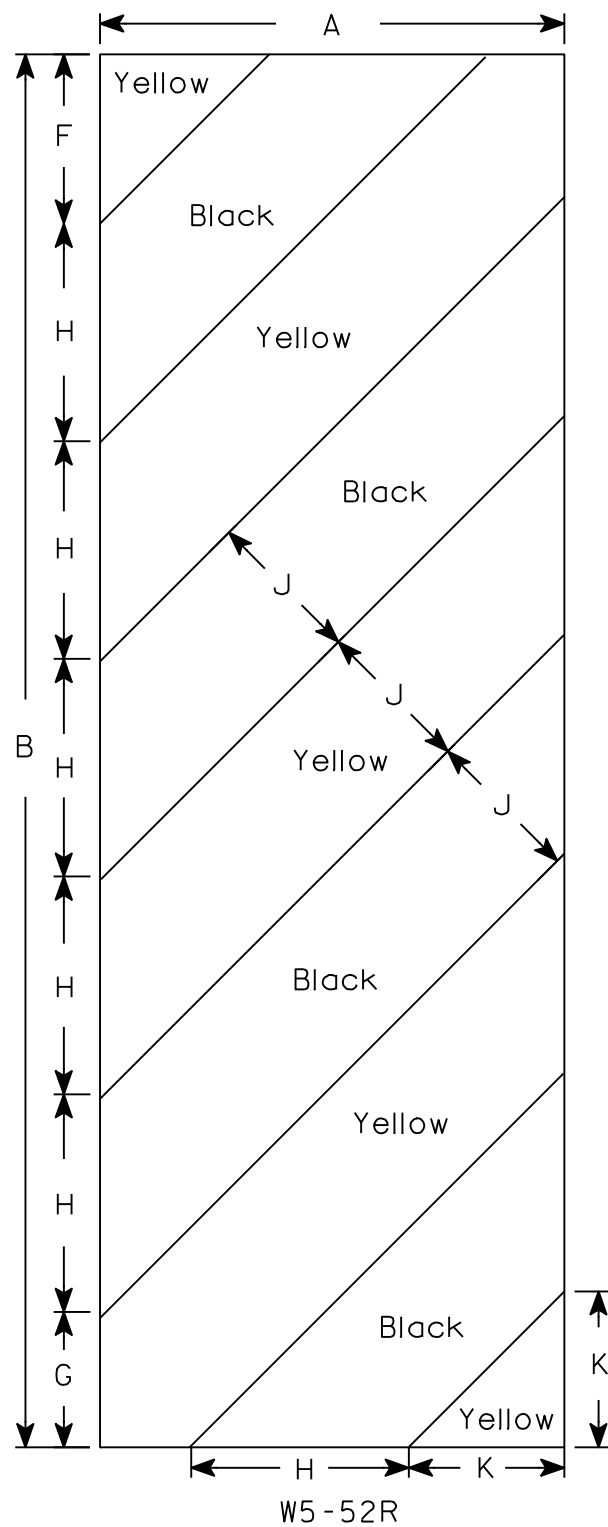
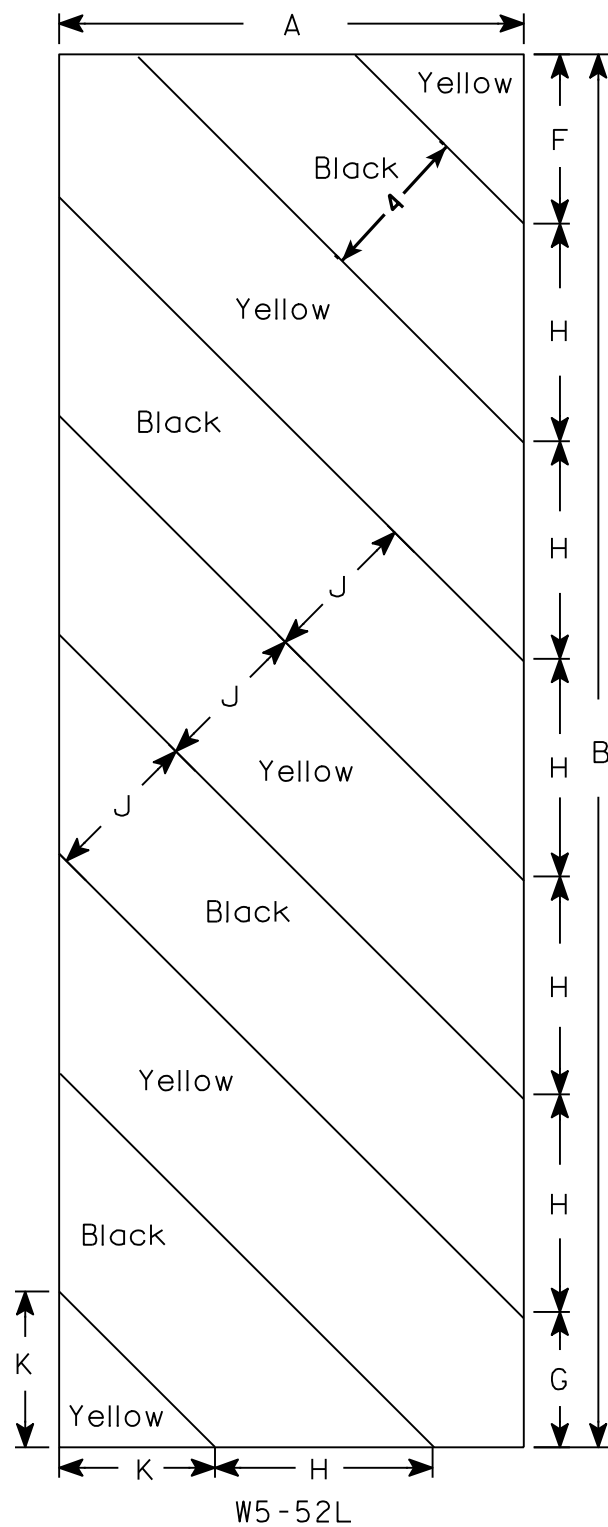
PROJECT NO:

HWY:

COUNTY:

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. Alternate colors of stripes as shown.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	12	36				4 3⁄8	3 1⁄2	5 5⁄8	45°	4	4																3.0
2M	12	36				4 3⁄8	3 1⁄2	5 5⁄8	45°	4	4																3.0
3	18	54				6	5 1⁄2	8 1⁄2	45°	6	6 5⁄6																6.75
4																											
5																											

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:

HWY:

COUNTY:

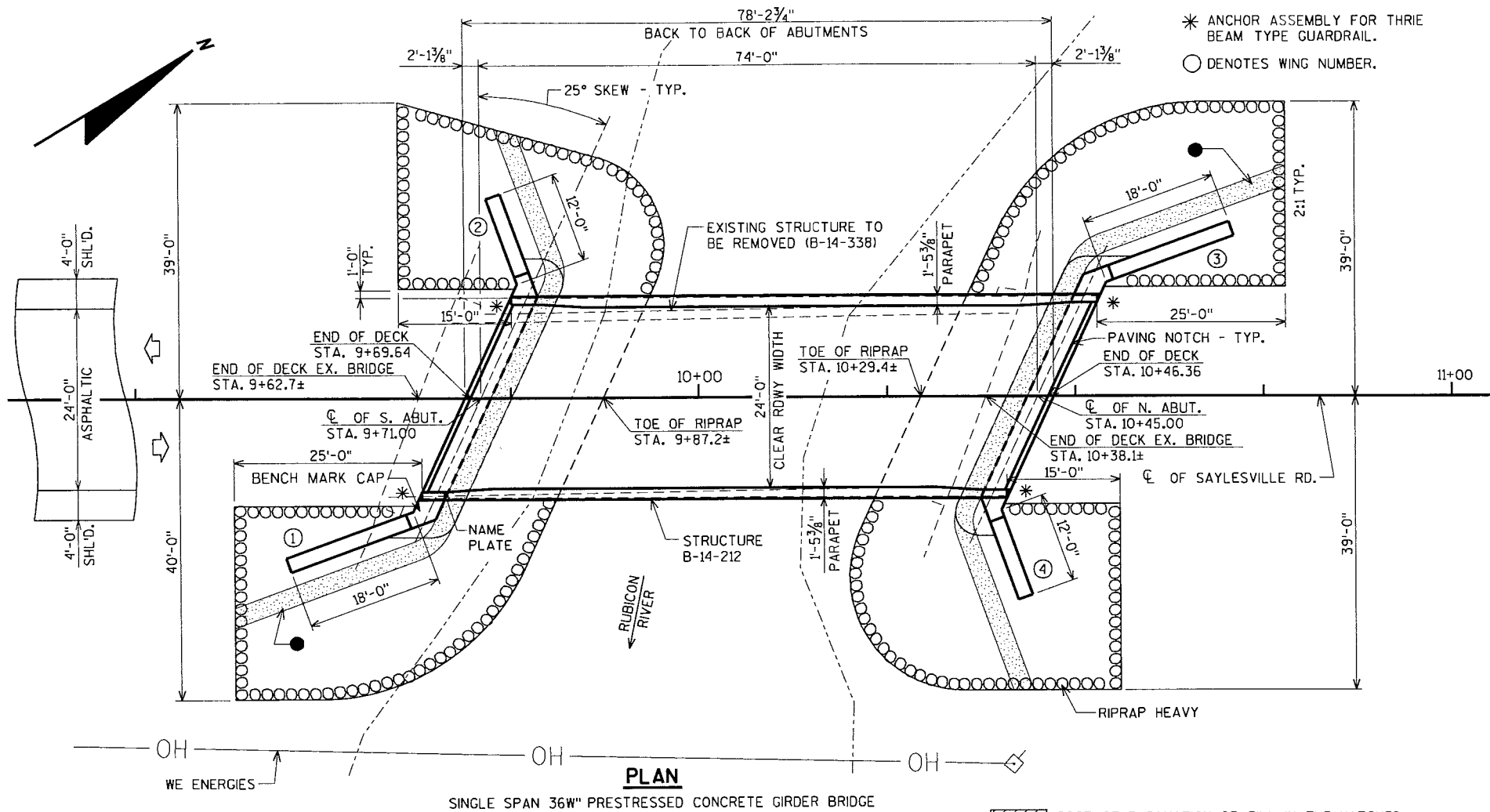
SHEET NO:

E

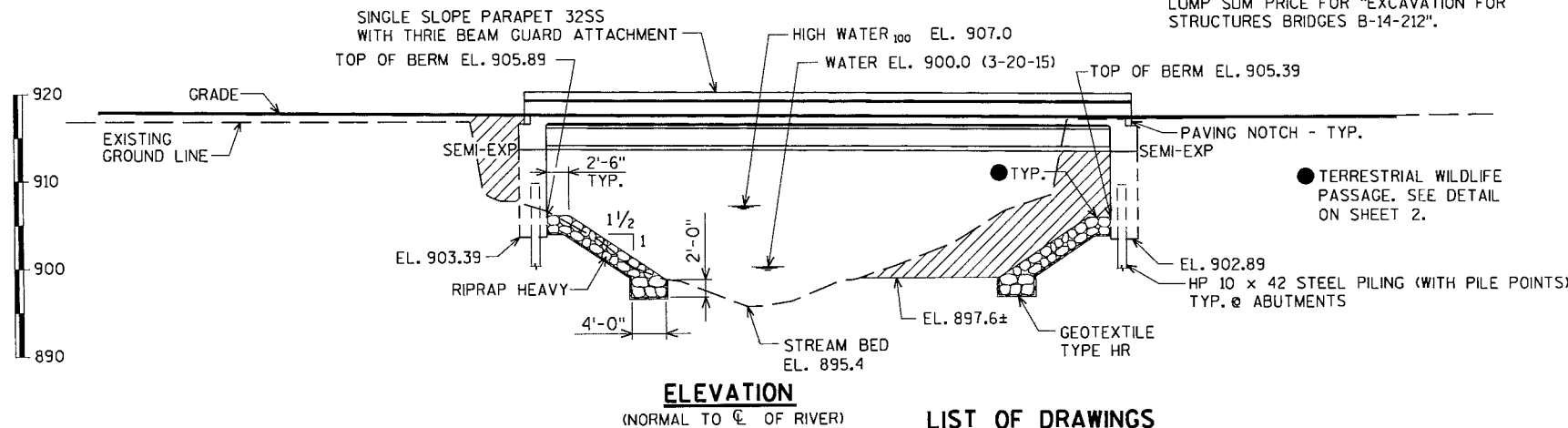
SPRNAME\$ U:\41-0698.00 - Dodge Co, Saylesville Road over Rubicon River±BRIDGE±410698 gp find.dgn

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

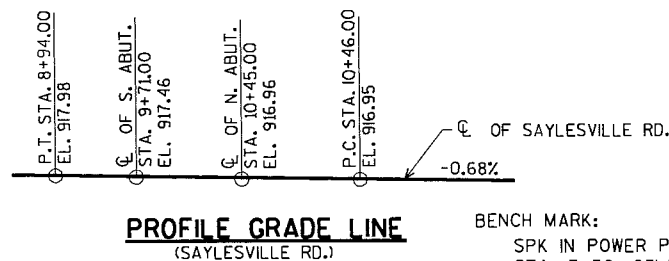
8



SINGLE SPAN 36W" PRESTRESSED CONCRETE GIRDER BRIDGE



ELEVATION
(NORMAL TO C OF RIVER)



BENCH MARK:
SPK IN POWER POLE
STA. 7+30, 63' RT.
EL. 921.41

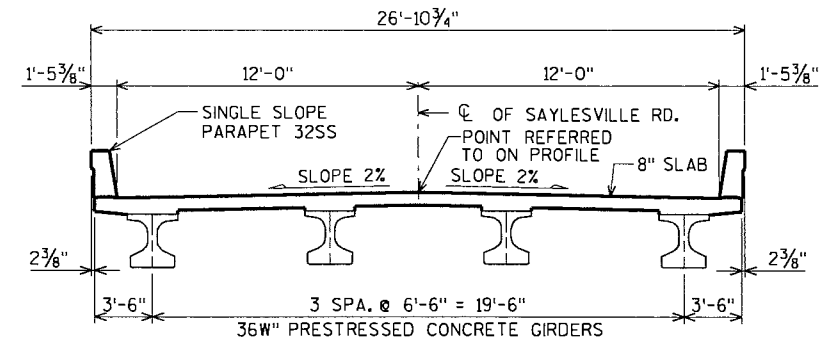
LIST OF DRAWINGS

1. GENERAL PLAN
2. QUANTITIES AND NOTES
3. SUBSURFACE EXPLORATION
4. SOUTH ABUTMENT
5. SOUTH ABUTMENT DETAILS
6. SOUTH ABUTMENT WING 1 DETAILS
7. SOUTH ABUTMENT WING 2 DETAILS
8. NORTH ABUTMENT
9. NORTH ABUTMENT DETAILS
10. NORTH ABUTMENT WING 3 DETAILS
11. NORTH ABUTMENT WING 4 DETAILS
12. ABUTMENT BILL OF BARS
13. STEEL INTER. DIAPHRAGM DETAILS
14. 36W" PRESTRESSED GIRDER DETAILS
15. 36W" PRESTRESSED GIRDER DETAILS
16. SUPERSTRUCTURE
17. SUPERSTRUCTURE PLAN
18. SUPERSTRUCTURE TRANSVERSE SLAB STEEL LAYOUT
19. SINGLE SLOPE PARAPET 32SS

* ANCHOR ASSEMBLY FOR THRIE BEAM TYPE GUARDRAIL.
○ DENOTES WING NUMBER.

STATE PROJECT NUMBER

3819-00-72



CROSS SECTION THRU BRIDGE

DESIGN DATA

LIVE LOAD:

DESIGN LOADING: HL-93
INVENTORY RATING FACTOR: 1.26
OPERATING RATING FACTOR: 1.83
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 f_{pu} = 270,000 p.s.i.

HYDRAULIC DATA:

100 YEAR FREQUENCY

Q_{100} = 2,830 c.f.s.
VEL. = 7.5 f.p.s.
HW₁₀₀ = EL. 907.0
WATERWAY AREA = 380 sq. ft.
DRAINAGE AREA = 55.3 sq. mi.
ROADWAY OVERTOPPING = N/A
SCOUR CRITICAL CODE = 8
DATUM = NAVD88 (2012)

2 YEAR FREQUENCY

Q_2 = 520 c.f.s.
VEL. = 3.4 f.p.s.
HW₂ = EL. 902.18

FOUNDATION DATA:

ABUTMENTS TO BE SUPPORTED ON HP 10 x 42 STEEL PILING (WITH PILE POINTS) DRIVEN TO A REQUIRED DRIVING RESISTANCE OF 160 TONS ± PER PILE AS DETERMINED BY THE MODIFIED GATES DYNAMIC FORMULA. ESTIMATED LENGTH 35'-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. = 150 (2018)
A.D.T. = 180 (2038)
R.D.S. = 35 M.P.H.

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* ^{SR} **05/22/17**
CHIEF STRUCTURES DESIGN ENGINEER DATE

STRUCTURE B-14-212

SAYLESVILLE ROAD OVER RUBICON RIVER

COUNTY DODGE TOWN/CITY/VILLAGE RUBICON

DESIGN SPEC. AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS

DESIGNED BY CKJ DESIGN CK'D. AEB DRAWN BY CLS/CKJ PLANS CK'D. CBM

GENERAL PLAN

SHEET 1 OF 19

\$PRNAME\$
U:\41-0698.00 - Dodge Co, Saylesville Road over Rubicon River\BRIDGE\410698 gp final.dgn

STATE PROJECT NUMBER

3819-00-72

TOTAL ESTIMATED QUANTITIES

BID ITEM NUMBER	BID ITEMS	UNIT	S. ABUT.	N. ABUT.	SUPER.	TOTAL
203.0500.S	REMOVING OLD STRUCTURE OVER WATERWAY STATION 10+08	LS	-----	-----	-----	1
206.1000	EXCAVATION FOR STRUCTURES BRIDGES B-14-212	LS	-----	-----	-----	1
210.1500	BACKFILL STRUCTURE TYPE A	TON	475	475	-----	950
502.0100	CONCRETE MASONRY BRIDGES	CY	74	74	100	248
502.3200	PROTECTIVE SURFACE TREATMENT	SY	-----	-----	205	205
502.3210	PIGMENTED SURFACE SEALER	SY	-----	-----	64	64
503.0137	PRESTRESSED GIRDER TYPE I 36W-INCH	LF	-----	-----	300	300
505.0400	BAR STEEL REINFORCEMENT HS STRUCTURES	LB	2,650	2,650	-----	5,300
505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB	2,730	2,730	15,640	21,100
506.2605	BEARING PADS ELASTOMERIC NON-LAMINATED	EACH	-----	-----	8	8
506.4000	STEEL DIAPHRAGMS B-14-212	EACH	-----	-----	3	3
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	12	12	-----	24
550.0500	PILE POINTS	EACH	6	6	-----	12
550.1100	PILING STEEL HP 10-INCH x 42 LB	LF	210	210	-----	420
606.0300	RIPRAP HEAVY	CY	180	180	-----	360
612.0406	PIPE UNDERDRAIN WRAPPED 6-INCH	LF	87	87	-----	174
614.0150	ANCHOR ASSEMBLIES FOR STEEL PLATE BEAM GUARD	EACH	-----	-----	4	4
645.0111	GEOTEXTILE TYPE DF SCHEDULE A	SY	50	50	-----	100
645.0120	GEOTEXTILE TYPE HR	SY	330	330	-----	660
	NON-BID ITEMS					
	FILLER	SIZE	-----	-----	-----	1/2" & 3/4"

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.
BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2" CLEAR UNLESS SHOWN OR NOTED OTHERWISE.

THE 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 GROUNDLINE SHALL BE THE UPPER LIMIT FOR "EXCAVATION FOR STRUCTURES, BRIDGES B-14-212"

THE EXISTING STRUCTURE, B-14-338, TO BE REMOVED, IS A SINGLE SPAN STEEL THRU GIRDER BRIDGE, 75.4 FT. LONG WITH A 22.8 FT. CLEAR ROADWAY WIDTH.

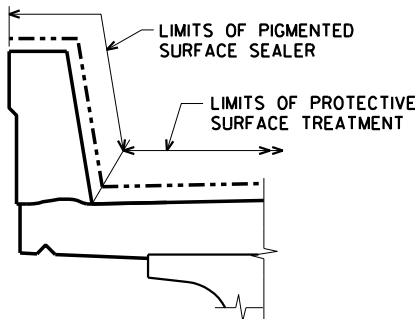
AT BACKFACE OF ABUTMENTS ALL VOLUME WHICH CANNOT BE PLACED BEFORE ABUTMENT CONSTRUCTION AND IS NOT OCCUPIED BY THE NEW STRUCTURE SHALL BE BACKFILLED WITH BACKFILL STRUCTURE TYPE A.

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

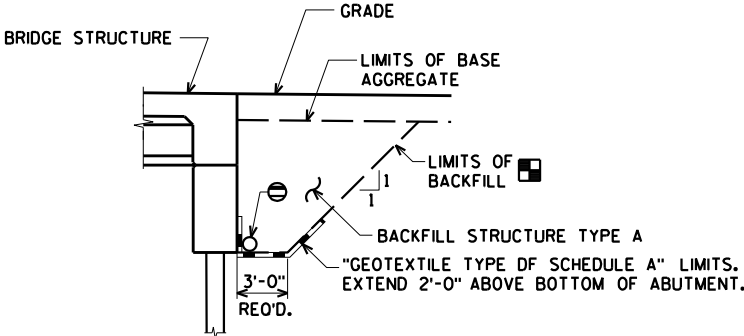
EXCAVATION BELOW THE ABUTMENT AND ABUTMENT BEDDING MATERIALS REQUIRES ENGINEER APPROVAL. GEOTEXTILE SHALL BE SET AT THE BOTTOM OF EXCAVATION AND EXTEND 2'-0" ABOVE BOTTOM OF ABUTMENT.

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

BEVEL EXPOSED EDGES 3/4" UNLESS NOTED OTHERWISE.



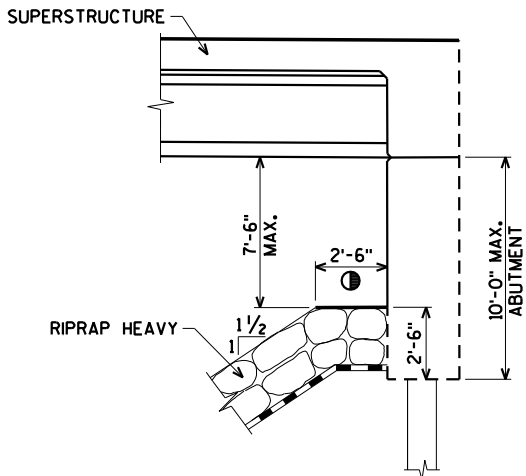
PROTECTIVE SURFACE TREATMENT AND PIGMENTED SURFACE SEALER DETAIL



BACKFILL STRUCTURE LIMITS

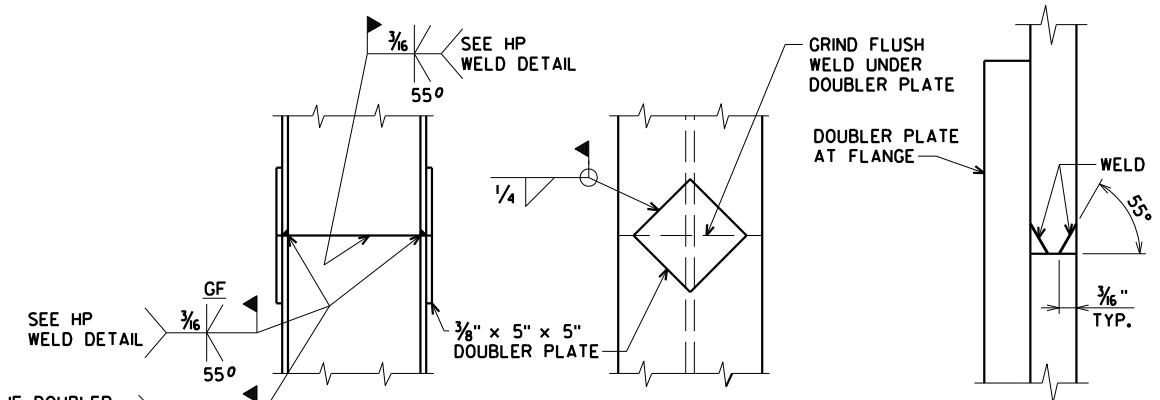
BACKFILL PAY LIMITS. BACKFILL BEYOND BACKFILL PAY LIMITS SHALL BE INCIDENTAL TO EXCAVATION FOR STRUCTURES. LIMITS OF EXCAVATION SHALL BE DETERMINED BY THE CONTRACTOR.

PIPE UNDERDRAIN WRAPPED 6-INCH. SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. ATTACH RODENT SHIELD AT ENDS OF PIPE UNDERDRAIN AS DETAILED ON SHEETS 5 & 9.



TERRESTRIAL WILDLIFE PASSAGE DETAIL

FILL VOIDS IN RIPRAP HEAVY WITH TRAFFIC BOND LIMESTONE SCREENINGS 3/8-INCH TO FULLY FILL ALL VOIDS AND LEAVE, ON AVERAGE, TWO INCHES ABOVE THE LOWEST ROCK POINTS WHERE THEY ABUT EACH OTHER. PROVIDE LEVEL SURFACE OF THE TERRESTRIAL WILDLIFE PASSAGE. TRAFFIC BOND LIMESTONE TO BE INCIDENTAL TO THE BID ITEM "RIPRAP HEAVY".



HP 10 x 42 SPLICE DETAIL

HP WELD DETAIL

FLANGE SHOWN, WEB SIMILAR

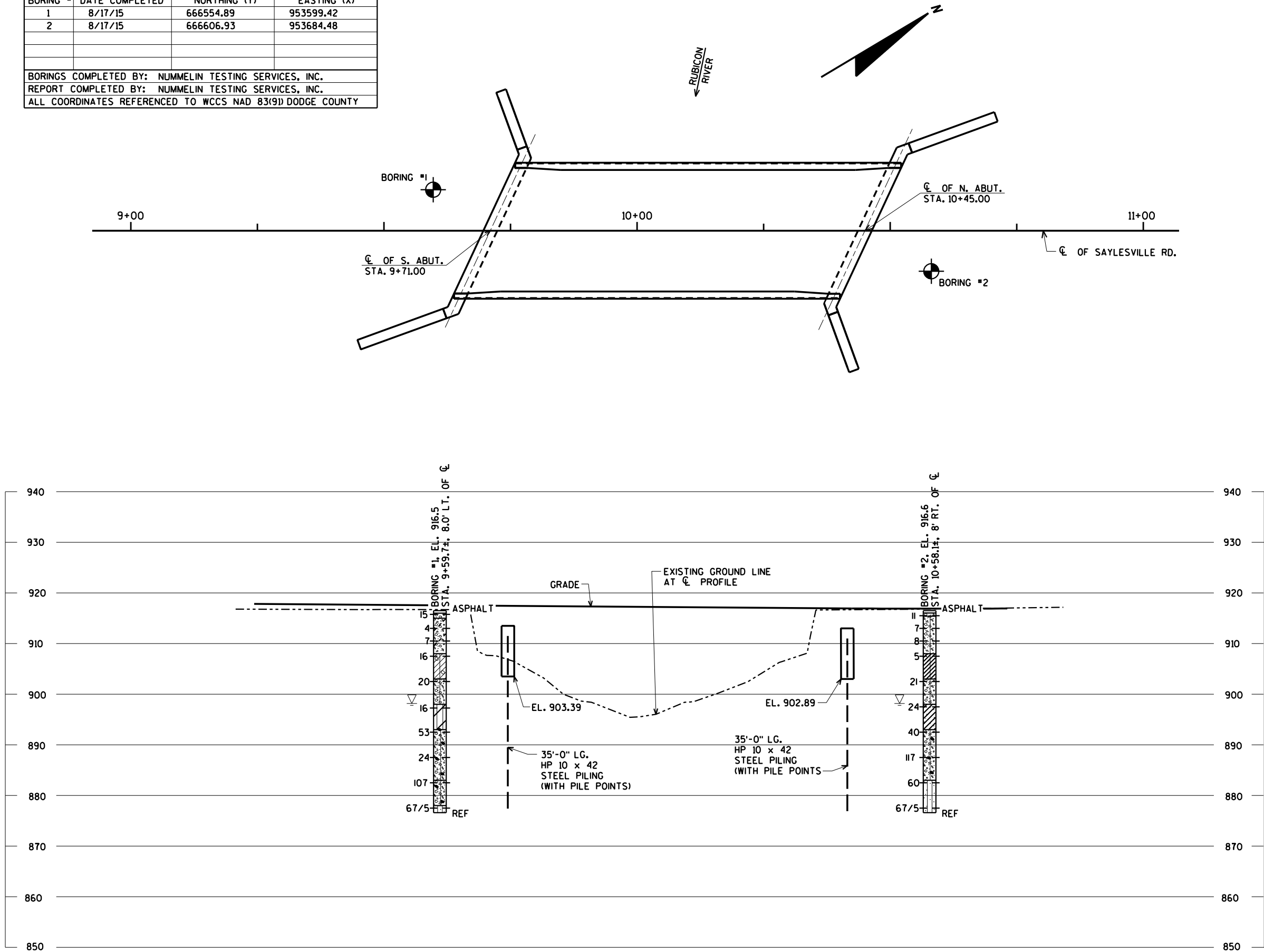
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www.AyresAssociates.com

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-14-212			
DRAWN BY CLS/CKJ		PLANS CK'D. CJM	
QUANTITIES AND NOTES		SHEET 2 OF 19	

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8

BORING #	DATE COMPLETED	NORTHING (Y)	EASTING (X)
1	8/17/15	666554.89	953599.42
2	8/17/15	666606.93	953684.48
BORINGS COMPLETED BY: NUMMELIN TESTING SERVICES, INC.			
REPORT COMPLETED BY: NUMMELIN TESTING SERVICES, INC.			
ALL COORDINATES REFERENCED TO WCCS NAD 83(91) DODGE COUNTY			



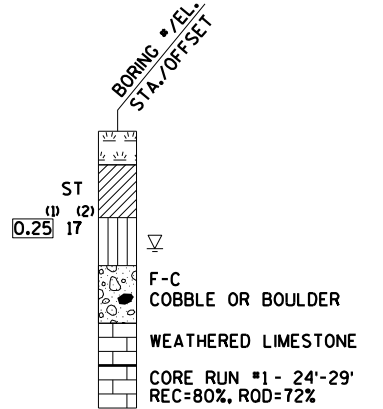
STATE PROJECT NUMBER

3819-00-72

MATERIAL SYMBOLS

ASPHALT	TOPSOIL	PEAT
CONCRETE	FILL	GRAVEL
SAND	CLAY	SILT
BOULDERS OR COBBLES	LIMESTONE	BEDROCK (UNKNOWN)
SHALE	SANDSTONE	IGNEOUS/META

LEGEND OF BORING



(1) UNCONFINED STRENGTH, AS DETERMINED BY A POCKET PENETROMETER (TSF)

(2) UNLESS OTHERWISE, SPECIFIED THE SPT 'N' VALUE IS BASED ON AASHTO T-206, STANDARD PENETRATION TEST. THE SPT 'N' VALUE PRESENTED HAS NOT BEEN CORRECTED FOR OVERBURDEN PRESSURE OR HAMMER EFFICIENCY.

GROUND WATER ELEVATION

- ▽ AT TIME OF DRILLING
- ▽ END OF DRILLING
- ▽ AFTER DRILLING

ABBREVIATIONS

F-FINE M-MEDIUM C-COARSE ST-SHELBY TUBE

SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

BORINGS WERE COMPLETED AT POINTS APPROXIMATELY AS INDICATED ON THIS DRAWING TO OBTAIN INFORMATION CONCERNING THE CHARACTER OF SUBSURFACE MATERIALS FOUND AT THE SITE. BECAUSE THE INVESTIGATED DEPTHS ARE LIMITED AND THE AREA OF THE BORINGS IS VERY SMALL IN RELATION TO THE ENTIRE SITE, THE WISCONSIN DEPARTMENT OF TRANSPORTATION DOES NOT WARRANT SIMILAR SUBSURFACE CONDITIONS BELOW, BETWEEN, OR BEYOND THESE BORINGS. VARIATIONS IN SOIL CONDITIONS SHOULD BE EXPECTED AND FLUCTUATIONS IN GROUNDWATER LEVELS MAY OCCUR.

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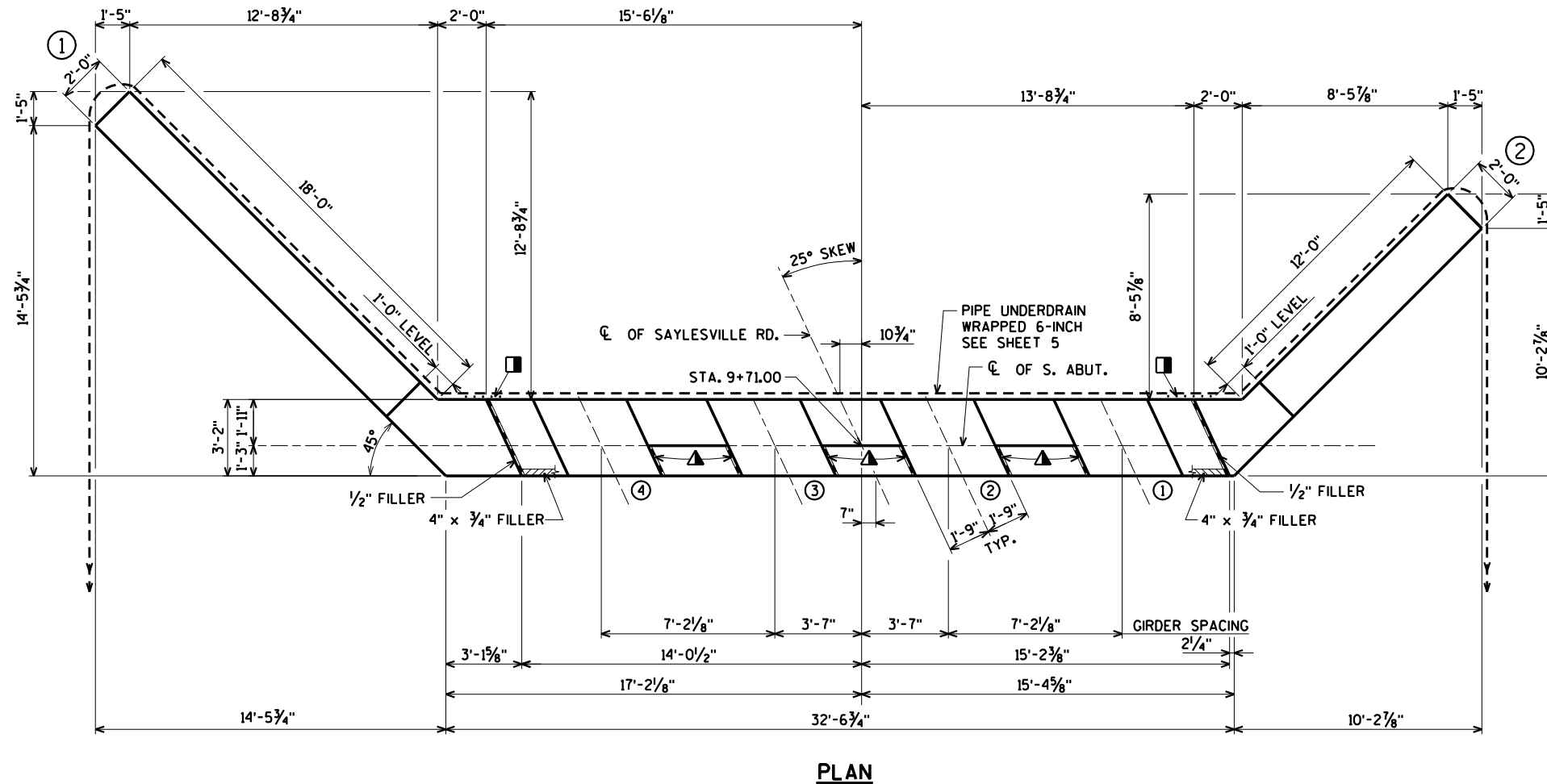
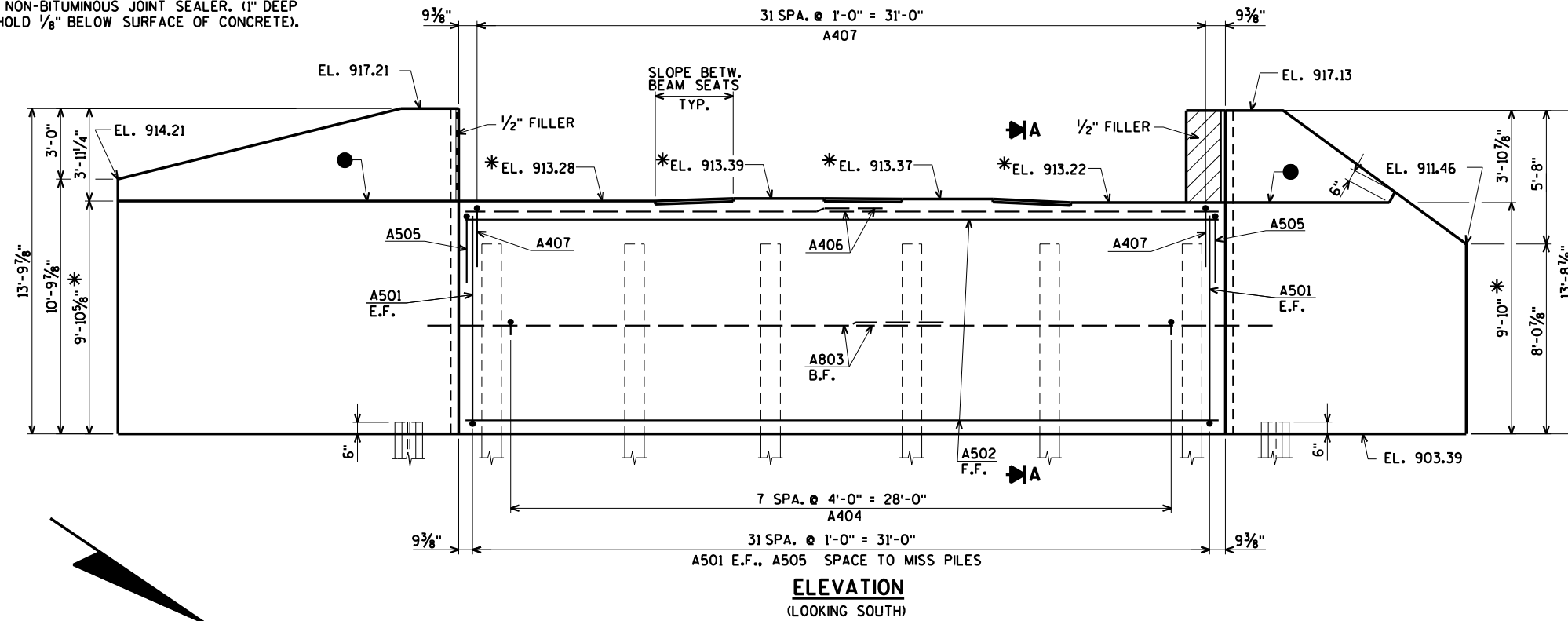
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-14-212			
DRAWN BY CLS/CKJ		PLANS CK'D. CJM	
SUBSURFACE EXPLORATION		SHEET 3 OF 19	

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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).

STATE PROJECT NUMBER

3819-00-72



* ELEVATIONS AND DIMENSIONS TAKEN AT C. OF ABUT.

● OPT. KEYED CONST. JOINT - FORMED BY A BEVELED 2' x 6'.

FOR SECTION A SEE SHEET 5.

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

▲ 3/4" CORK FILLER ON VERTICAL FACE ONLY.

FOR PILE SPlice DETAIL SEE SHEET 2.

F.F. DENOTES FRONT FACE

B.F. DENOTES BACK FACE

E.F. DENOTES EACH FACE

8

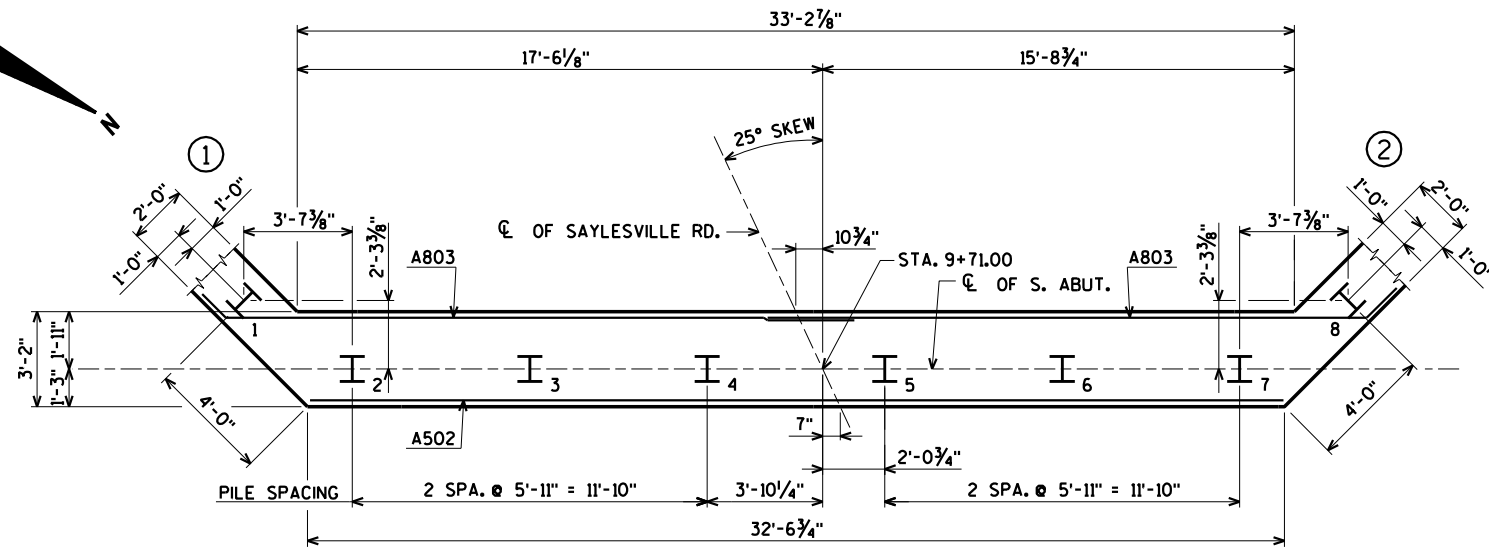
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NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-14-212			
DRAWN BY CKJ		PLANS CK'D. CJM	
SOUTH ABUTMENT		SHEET 4 OF 19	

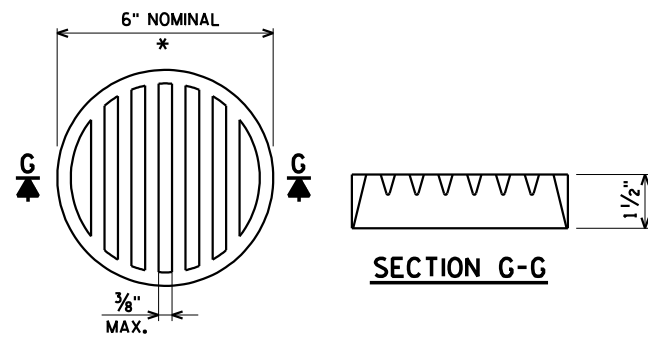
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PILE LAYOUT



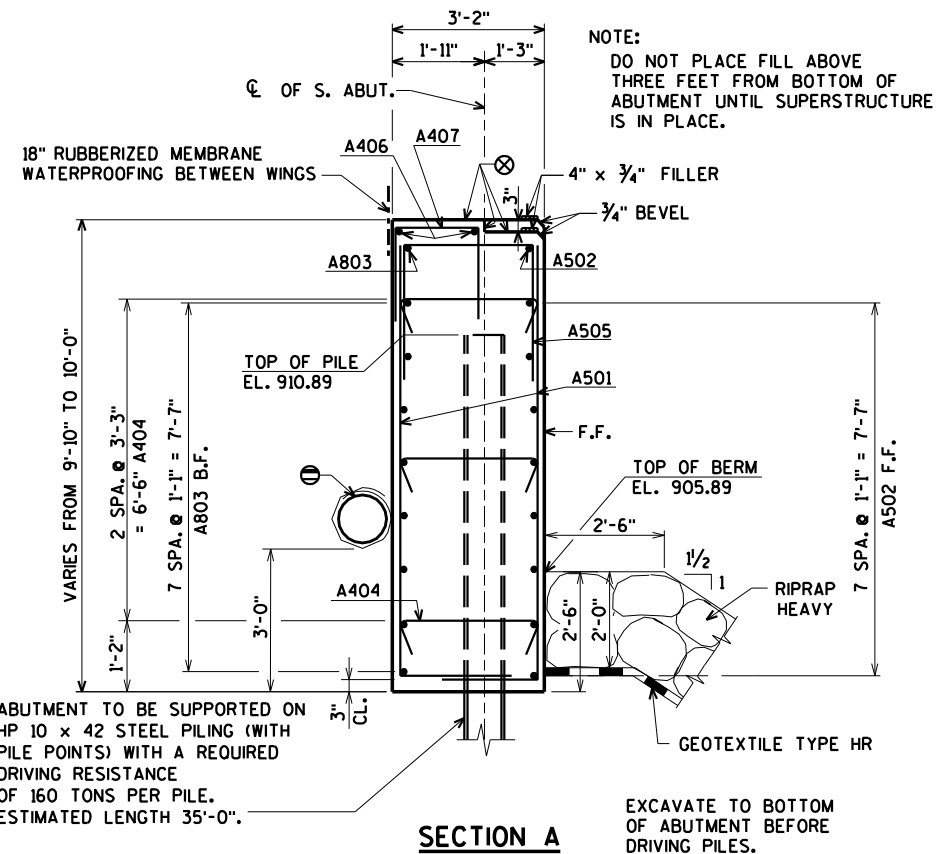
SECTION G-G

* 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



SECTION A

NOTE:
DO NOT PLACE FILL ABOVE THREE FEET FROM BOTTOM OF ABUTMENT UNTIL SUPERSTRUCTURE IS IN PLACE.

⊖ PIPE UNDERDRAIN WRAPPED 6-INCH. SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. ATTACH RODENT SHIELD AT ENDS OF PIPE UNDERDRAIN. SEE DETAIL ON THIS SHEET.

⊗ STEEL TROWEL TOP SURFACE OF ABUTMENT. PLACE MULTIPLE LAYERS OF POLYETHYLENE SHEETS OVER ENTIRE ABUTMENT TOP BEFORE PLACING BEARING PADS AND SUPERSTRUCTURE. TOTAL THICKNESS OF SHEETS SHALL BE AT LEAST 0.03".

FOR PILE SPLICE DETAIL SEE SHEET 2.

FOR LOCATION OF SECTION A SEE SHEET 4.

F.F. DENOTES FRONT FACE.

B.F. DENOTES BACK FACE.

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-14-212			
DRAWN BY CKJ		PLANS CK'D. CJM	
SOUTH ABUTMENT DETAILS		SHEET 5 OF 19	

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Eau Claire, WI 54701
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- E.F. DENOTES EACH FACE



ORIGINAL PLANS PREPARED BY

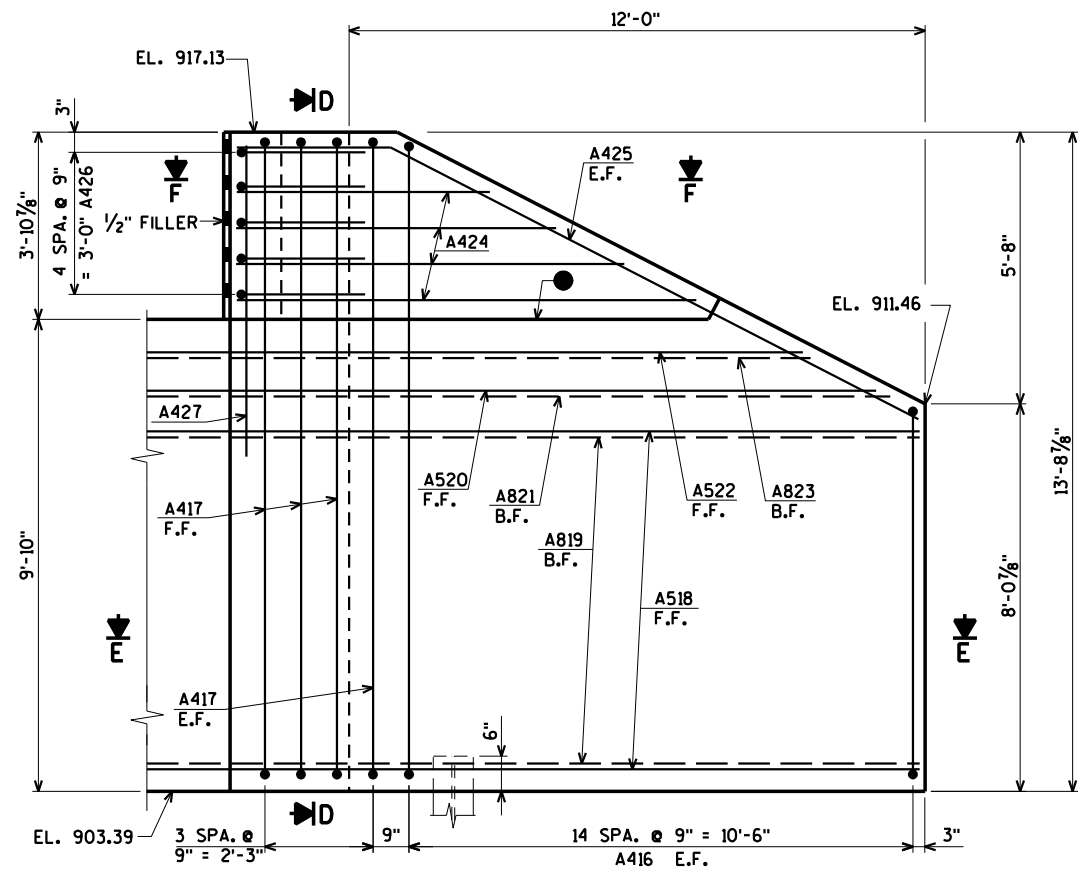
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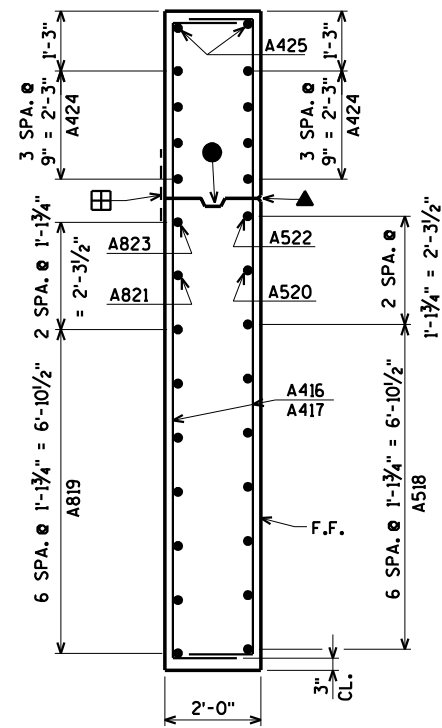
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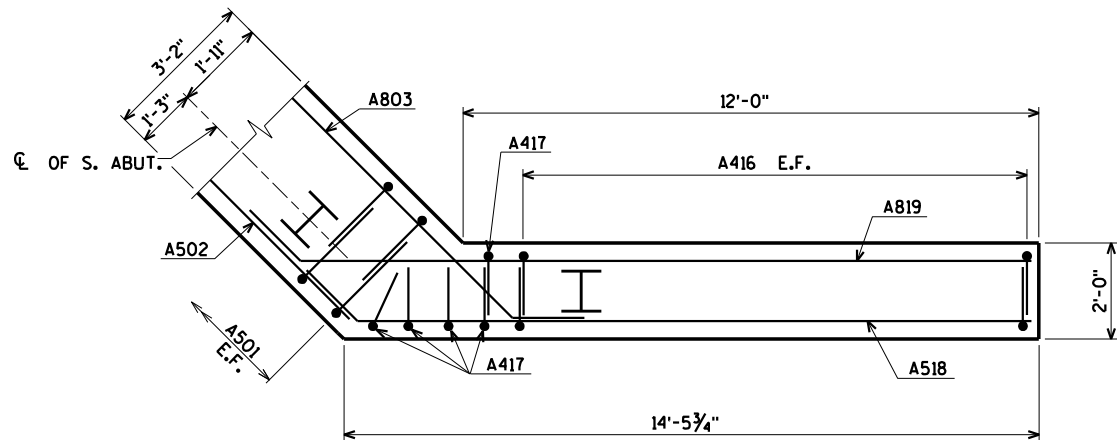
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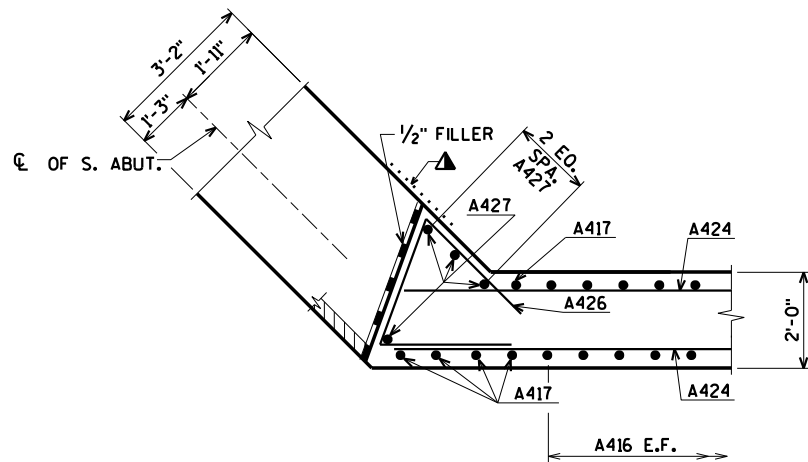
ELEVATION - WING 2



SECTION D



SECTION E



SECTION F

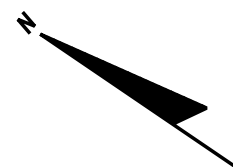
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 - OPT. KEYED CONST. JOINT - FORMED BY A BEVELED 2" x 6".
 - ▲ 18" RUBBERIZED MEMBRANE WATERPROOFING TO EXTEND FROM BEAM SEAT TO TOP OF WINGWALL.
 - ▣ 18" RUBBERIZED MEMBRANE WATERPROOFING ON BACK FACE. NOT REQUIRED IF CONST. JT. IS NOT USED.
- FOR PILE SPLICE DETAIL SEE SHEET 2.
- F.F. DENOTES FRONT FACE.
B.F. DENOTES BACK FACE.
E.F. DENOTES EACH FACE

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-14-212			
DRAWN BY CKJ		PLANS CK'D. CJM	
SOUTH ABUTMENT WING 2 DETAILS		SHEET 7 OF 19	

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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).



E.F. DENOTES EACH FACE

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-14-212			
		DRAWN BY CKJ	PLANS CK'D. CJM
NORTH ABUTMENT		SHEET 8 OF 1	

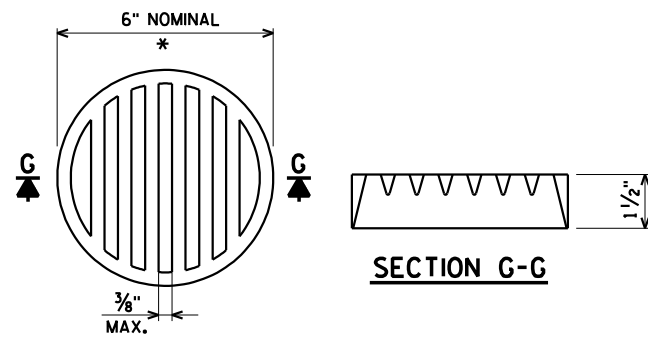
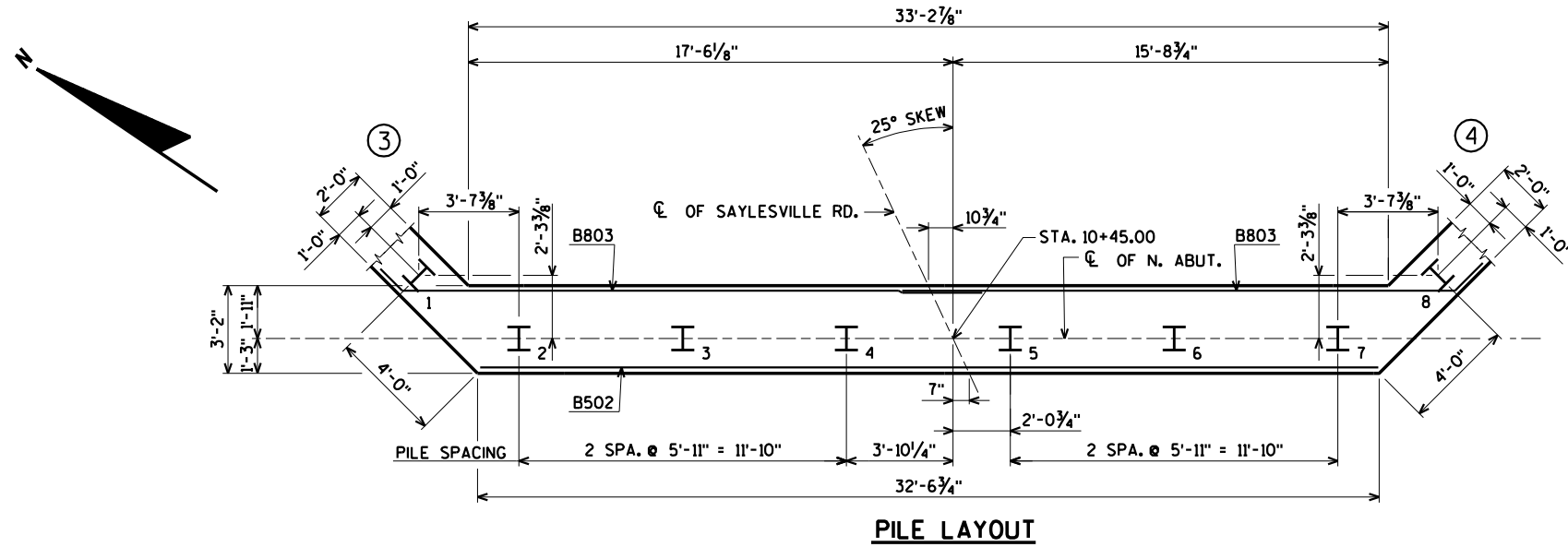
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18

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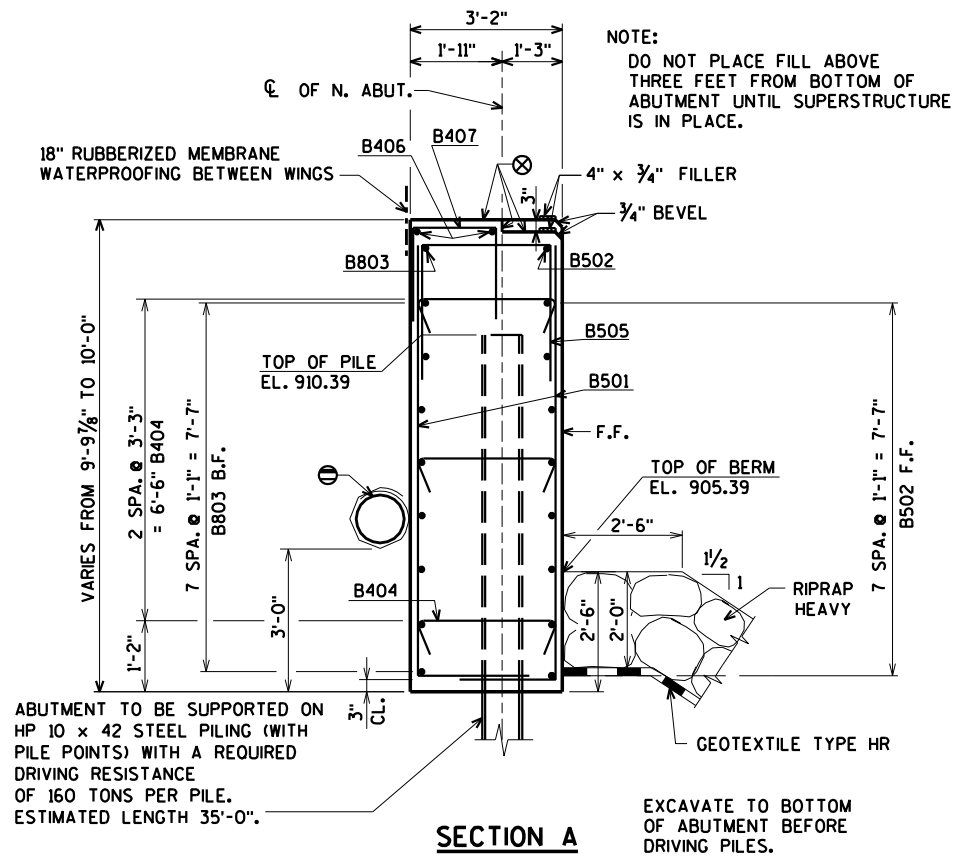


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THE RODENT SHIELD, PIPE COUPLING AND SCREWS SHALL BE CONSIDERED INCIDENTAL TO THE BID ITEM "PIPE UNDERDRAIN WRAPPED 6-INCH".

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RODENT SHIELD DETAIL



NOTE:
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⊖ PIPE UNDERDRAIN WRAPPED 6-INCH. SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. ATTACH RODENT SHIELD AT ENDS OF PIPE UNDERDRAIN. SEE DETAIL ON THIS SHEET.

⊗ STEEL TROWEL TOP SURFACE OF ABUTMENT. PLACE MULTIPLE LAYERS OF POLYETHYLENE SHEETS OVER ENTIRE ABUTMENT TOP BEFORE PLACING BEARING PADS AND SUPERSTRUCTURE. TOTAL THICKNESS OF SHEETS SHALL BE AT LEAST 0.03".

FOR PILE SPLICE DETAIL SEE SHEET 2.

FOR LOCATION OF SECTION A SEE SHEET 8.

F.F. DENOTES FRONT FACE.

B.F. DENOTES BACK FACE.

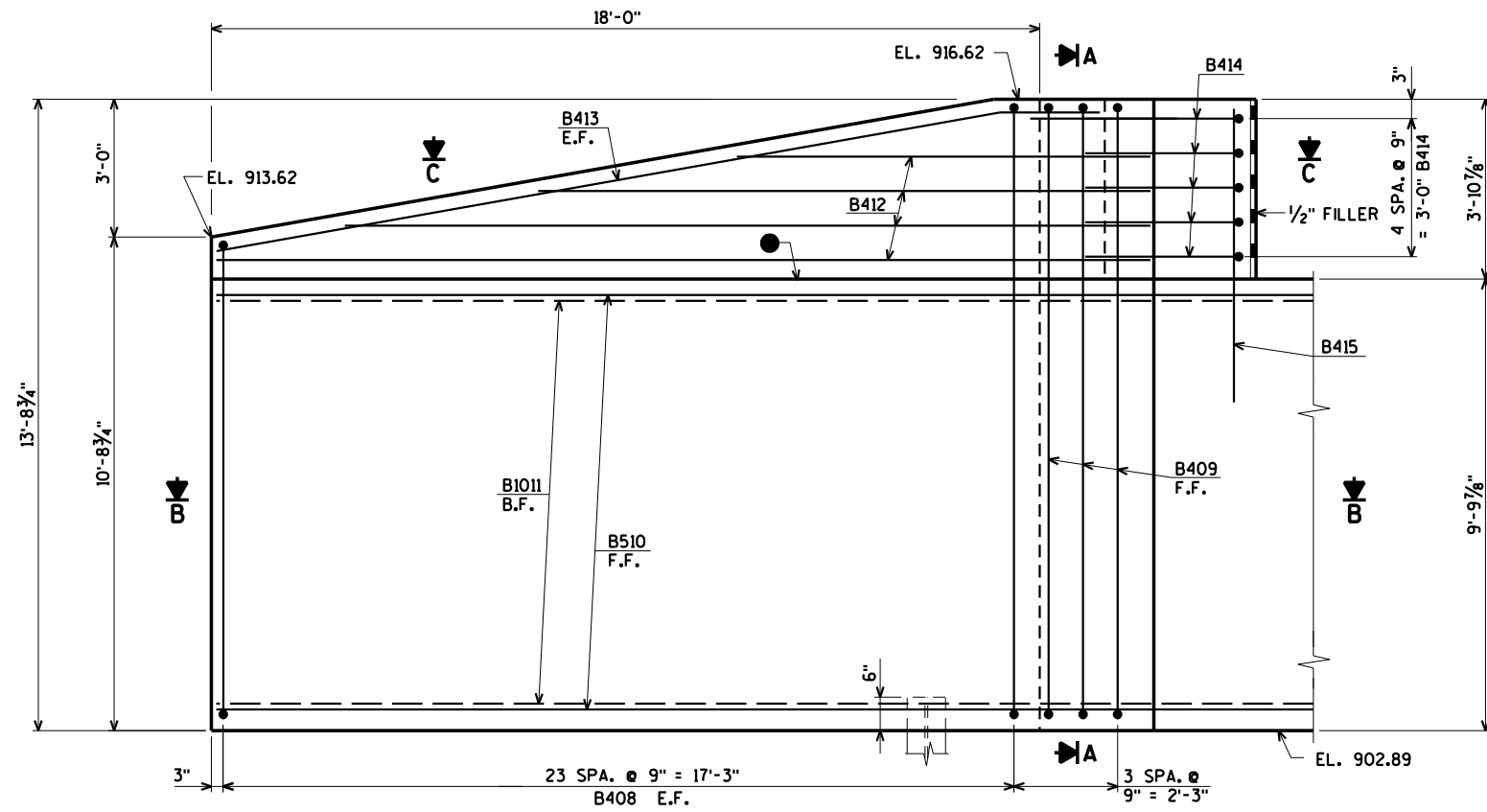
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-14-212			
DRAWN BY CKJ		PLANS CK'D. CJM	
NORTH ABUTMENT DETAILS		SHEET 9 OF 19	

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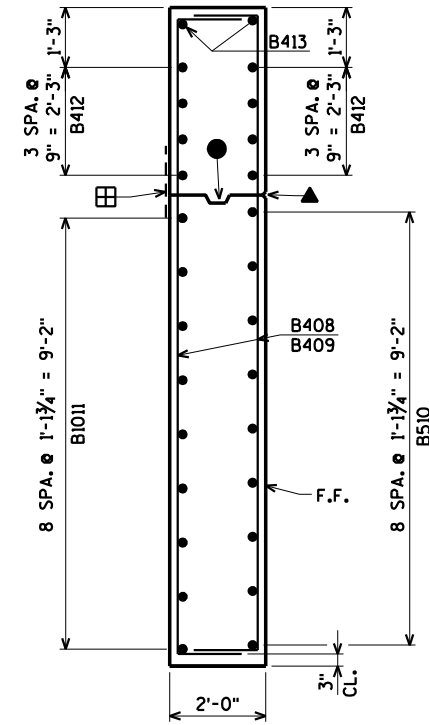
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ELEVATION - WING 3



SECTION A

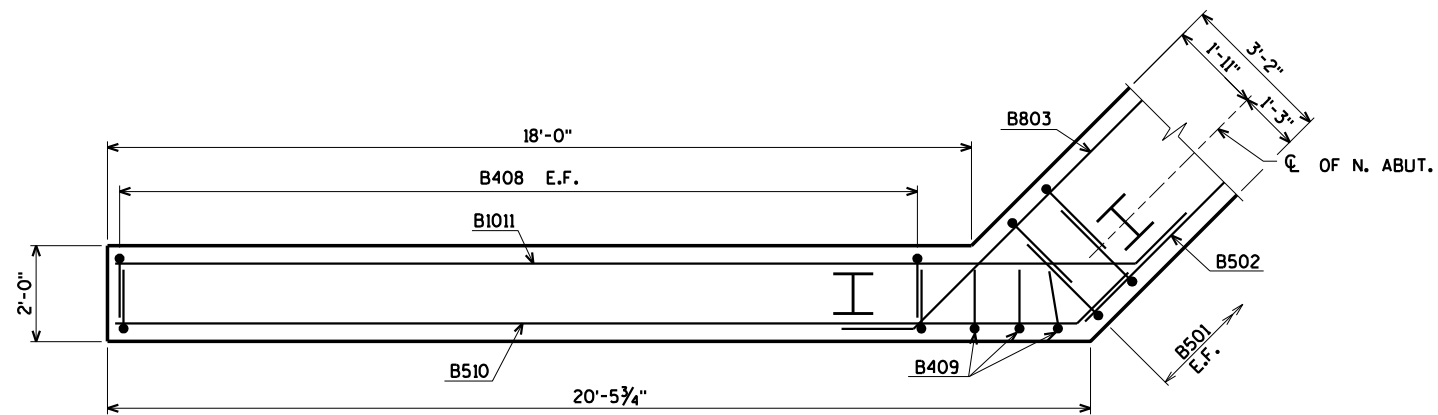
- ▲ 3/4" 'V' GROOVE ON F.F. OF WING WALL - NOT REQUIRED IF CONST. JT. IS NOT USED.
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FOR PILE SPLICE DETAIL SEE SHEET 2.

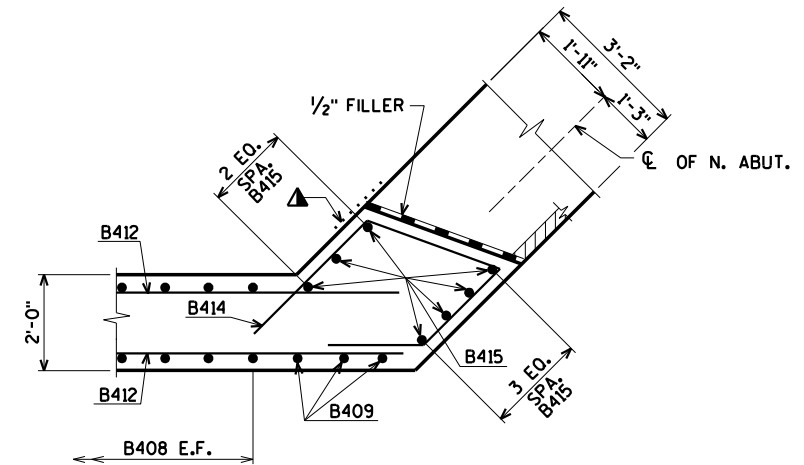
F.F. DENOTES FRONT FACE.

B.F. DENOTES BACK FACE.

E.F. DENOTES EACH FACE



SECTION B



SECTION C

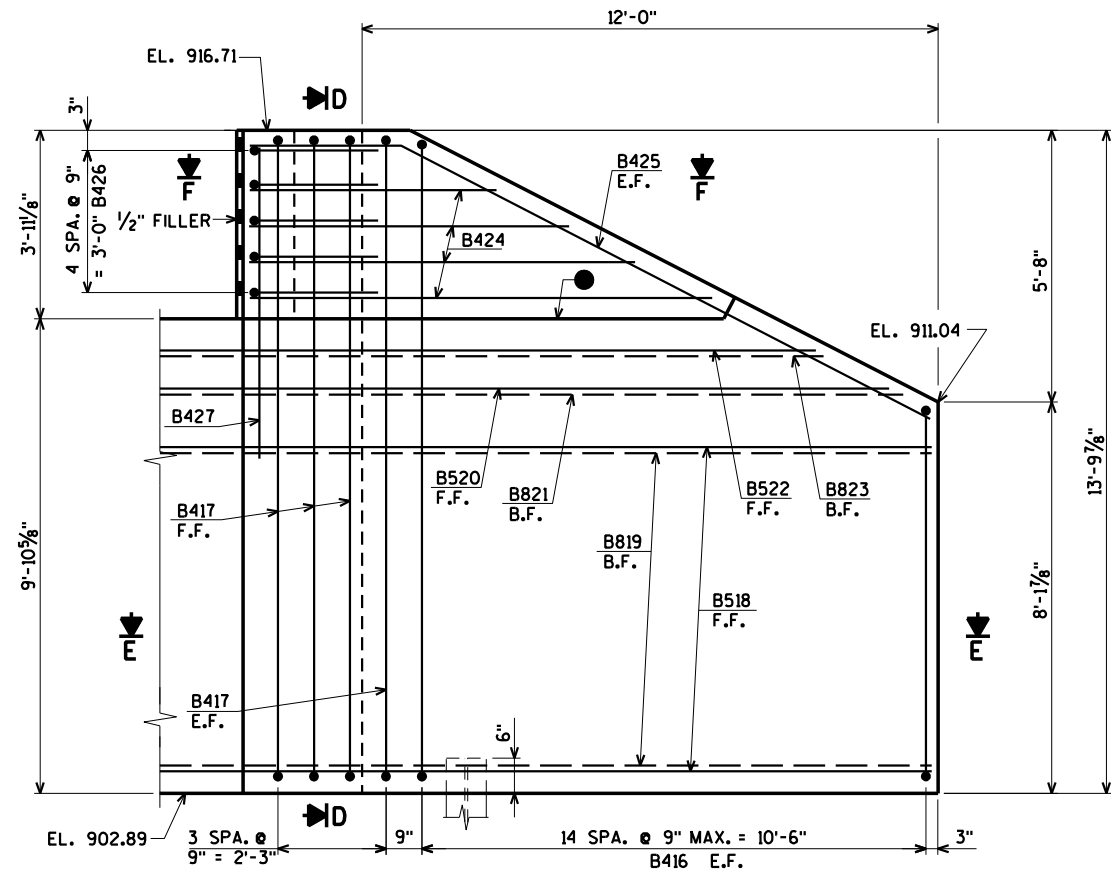
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-14-212			
DRAWN BY CKJ		PLANS CK'D. CJM	
NORTH ABUTMENT WING 3 DETAILS			SHEET 10 OF 19

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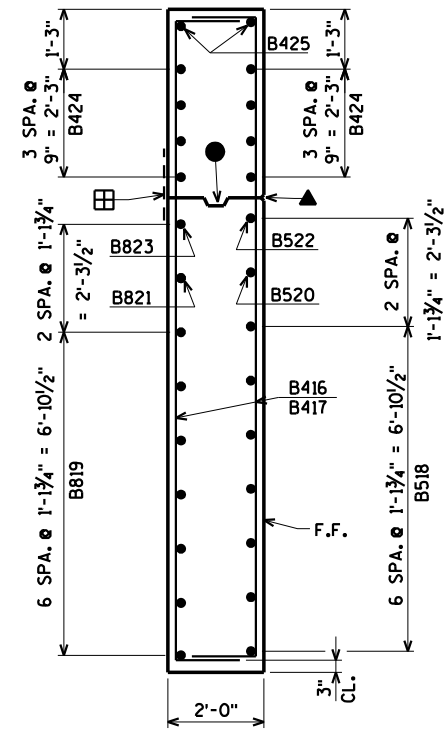
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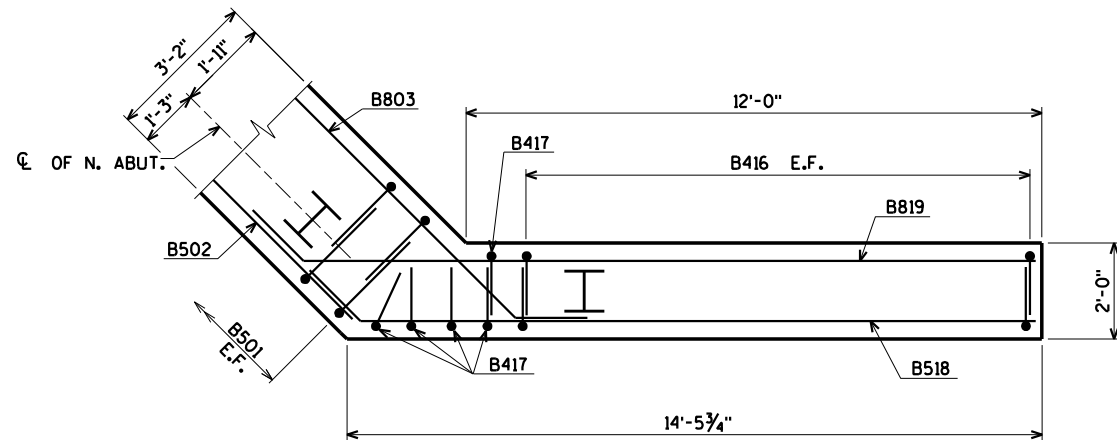
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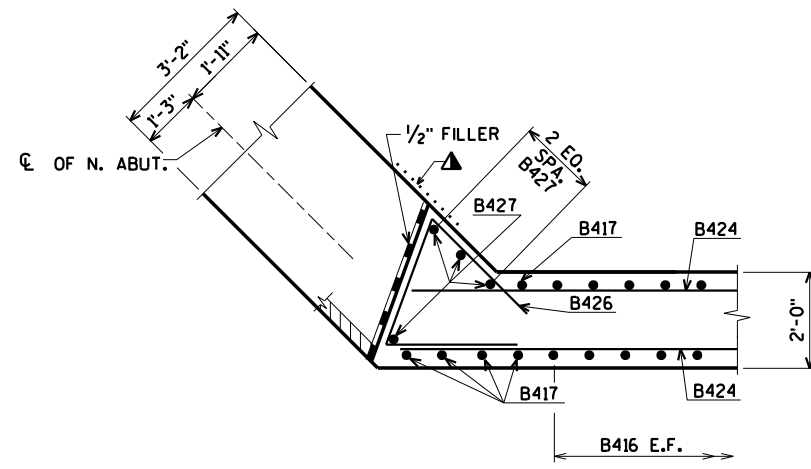
ELEVATION - WING 4



SECTION D



SECTION E



SECTION F

- ▲ 3/4" 'V' GROOVE ON F.F. OF WING WALL - NOT REQUIRED IF CONST. JT. IS NOT USED.
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FOR PILE SPLICE DETAIL SEE SHEET 2.

F.F. DENOTES FRONT FACE.

B.F. DENOTES BACK FACE.

E.F. DENOTES EACH FACE

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-14-212			
DRAWN BY CKJ		PLANS CK'D. CJM	
NORTH ABUTMENT WING 4 DETAILS			SHEET 11 OF 19

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STATE PROJECT NUMBER

3819-00-72

BILL OF BARS - SOUTH ABUTMENT

BAR NO.	COATED BAR	NO. REQ'D.	LENGTH	BENT BAR	BUNDLED	BAR SERIES	2,650* UNCOATED 2,730* COATED
							LOCATION
A501		64	11'-1"	X			BODY VERT. E.F.
A502		9	32'-4"				BODY HORIZ. F.F.
A803		18	23'-2"	X			BODY HORIZ. B.F.
A404		24	3'-5"	X			BODY TIES
A505		32	8'-9"	X			BODY VERT. TOP
A406		4	17'-1"				BODY HORIZ. TOP
A407		32	4'-7"	X			BODY VERT. TOP
A408	X	48	14'-4"	X		⊗	WING 1 VERT. E.F.
A409	X	3	15'-10"	X			WING 1 VERT. F.F.
A510	X	9	21'-9"	X			WING 1 HORIZ. F.F.
A1011	X	9	23'-3"	X			WING 1 HORIZ. B.F.
A412	X	8	14'-11"			⊗	WING 1 HORIZ. E.F.
A413	X	2	19'-6"	X			WING 1 DIAG. E.F.
A414	X	5	10'-6"	X			WING 1 HORIZ.
A415	X	7	5'-9"				WING 1 VERT.
A416	X	30	12'-10"	X		⊗	WING 2 VERT. E.F.
A417	X	5	15'-9"	X			WING 2 VERT. E.F.
A518	X	7	15'-8"	X			WING 2 HORIZ. F.F.
A819	X	7	17'-5"	X			WING 2 HORIZ. B.F.
A520	X	1	15'-1"	X			WING 2 HORIZ. F.F.
A821	X	1	16'-8"	X			WING 2 HORIZ. B.F.
A522	X	1	12'-11"	X			WING 2 HORIZ. F.F.
A823	X	1	14'-6"	X			WING 2 HORIZ. B.F.
A424	X	8	7'-7"			⊗	WING 2 HORIZ. E.F.
A425	X	2	14'-6"	X			WING 2 DIAG. E.F.
A426	X	5	8'-4"	X			WING 2 HORIZ.
A427	X	4	5'-9"				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.

B.F. DENOTES BACK FACE.

F.F. DENOTES FRONT FACE.

E.F. DENOTES EACH FACE.

BAR SERIES TABLE

BAR MARK	NO REQ'D.	LENGTH
A408	2 SERIES OF 24	12' - 10" TO 15' - 10"
A412	2 SERIES OF 4	9' - 7" TO 20' - 3"
A416	2 SERIES OF 15	10' - 1" TO 15' - 7"
A424	2 SERIES OF 4	5' - 5" TO 9' - 9"
B408	2 SERIES OF 24	12' - 10" TO 15' - 10"
B412	2 SERIES OF 4	9' - 7" TO 20' - 3"
B416	2 SERIES OF 15	10' - 2" TO 15' - 8"
B424	2 SERIES OF 4	5' - 5" TO 9' - 9"

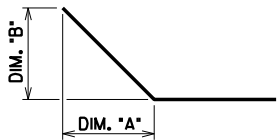
BILL OF BARS - NORTH ABUTMENT

BAR NO.	COATED BAR	NO. REQ'D.	LENGTH	BENT BAR	BUNDLED	BAR SERIES	2,650* UNCOATED 2,730* COATED
							LOCATION
B501		64	11'-1"	X			BODY VERT. E.F.
B502		9	32'-4"				BODY HORIZ. F.F.
B803		18	23'-2"	X			BODY HORIZ. B.F.
B404		24	3'-5"	X			BODY TIES
B505		32	8'-9"	X			BODY VERT. TOP
B406		4	17'-1"				BODY HORIZ. TOP
B407		32	4'-7"	X			BODY VERT. TOP
B408	X	48	14'-4"	X		⊗	WING 3 VERT. E.F.
B409	X	3	15'-10"	X			WING 3 VERT. F.F.
B510	X	9	21'-9"	X			WING 3 HORIZ. F.F.
B1011	X	9	23'-3"	X			WING 3 HORIZ. B.F.
B412	X	8	14'-11"			⊗	WING 3 HORIZ. E.F.
B413	X	2	19'-6"	X			WING 3 DIAG. E.F.
B414	X	5	10'-6"	X			WING 3 HORIZ.
B415	X	7	5'-9"				WING 3 VERT.
B416	X	30	12'-11"	X		⊗	WING 4 VERT. E.F.
B417	X	5	15'-10"	X			WING 4 VERT. E.F.
B518	X	7	15'-8"	X			WING 4 HORIZ. F.F.
B819	X	7	17'-3"	X			WING 4 HORIZ. B.F.
B520	X	1	15'-1"	X			WING 4 HORIZ. F.F.
B821	X	1	16'-11"	X			WING 4 HORIZ. B.F.
B522	X	1	12'-11"	X			WING 4 HORIZ. F.F.
B823	X	1	14'-9"	X			WING 4 HORIZ. B.F.
B424	X	8	7'-7"			⊗	WING 4 HORIZ. E.F.
B425	X	2	14'-6"	X			WING 4 DIAG. E.F.
B426	X	5	8'-4"	X			WING 4 HORIZ.
B427	X	4	5'-9"				WING 4 VERT.

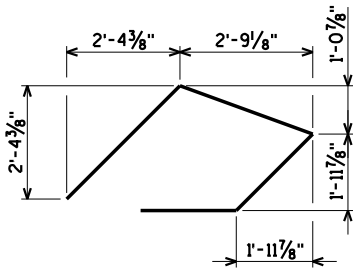
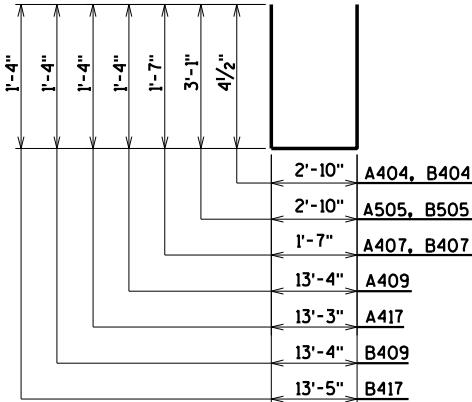
VERT. LEG

2'-2"

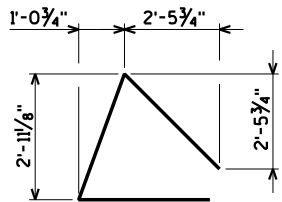
A501, B501



BAR NO.	DIM. "A"	DIM. "B"
A803	1'-0 3/4"	1'-0 3/4"
A510	1'-0 3/4"	1'-0 3/4"
A1011	1'-0 3/4"	1'-0 3/4"
A413	16'-10"	2'-11"
A518	1'-0 3/4"	1'-0 3/4"
A819	1'-0 3/4"	1'-0 3/4"
A520	1'-0 3/4"	1'-0 3/4"
A821	1'-0 3/4"	1'-0 3/4"
A522	1'-0 3/4"	1'-0 3/4"
A823	1'-0 3/4"	1'-0 3/4"
A425	10'-10"	5'-7"
B803	1'-0 3/4"	1'-0 3/4"
B510	1'-0 3/4"	1'-0 3/4"
B1011	1'-0 3/4"	1'-0 3/4"
B413	16'-10"	2'-11"
B518	1'-0 3/4"	1'-0 3/4"
B819	1'-0 3/4"	1'-0 3/4"
B520	1'-0 3/4"	1'-0 3/4"
B821	1'-0 3/4"	1'-0 3/4"
B522	1'-0 3/4"	1'-0 3/4"
B823	1'-0 3/4"	1'-0 3/4"
B425	10'-10"	5'-7"



A414
B414



A426
B426

8

8

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-14-212			
DRAWN BY CKJ		PLANS CK'D. CJM	
ABUTMENT BILL OF BARS			SHEET 12 OF 19

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

NOTES

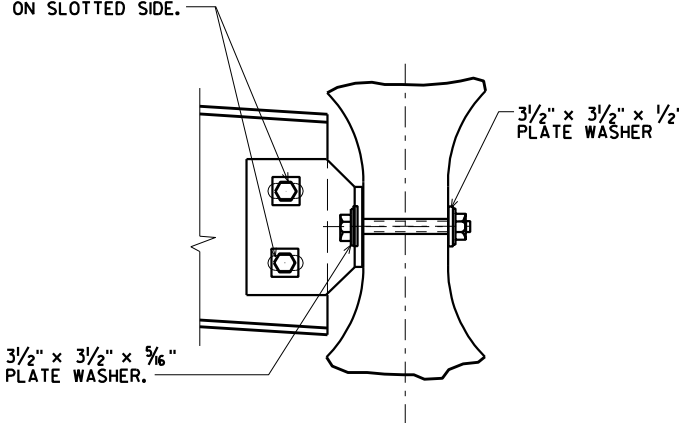
ALL DIAPHRAGM MATERIAL NOT EMBEDDED IN THE CONCRETE GIRDER SHALL BE PAID FOR AT THE UNIT PRICE BID FOR "STEEL DIAPHRAGMS B-14-212", EACH.

EACH DIAPHRAGM BETWEEN GIRDERS SHALL CONSTITUTE ONE UNIT.

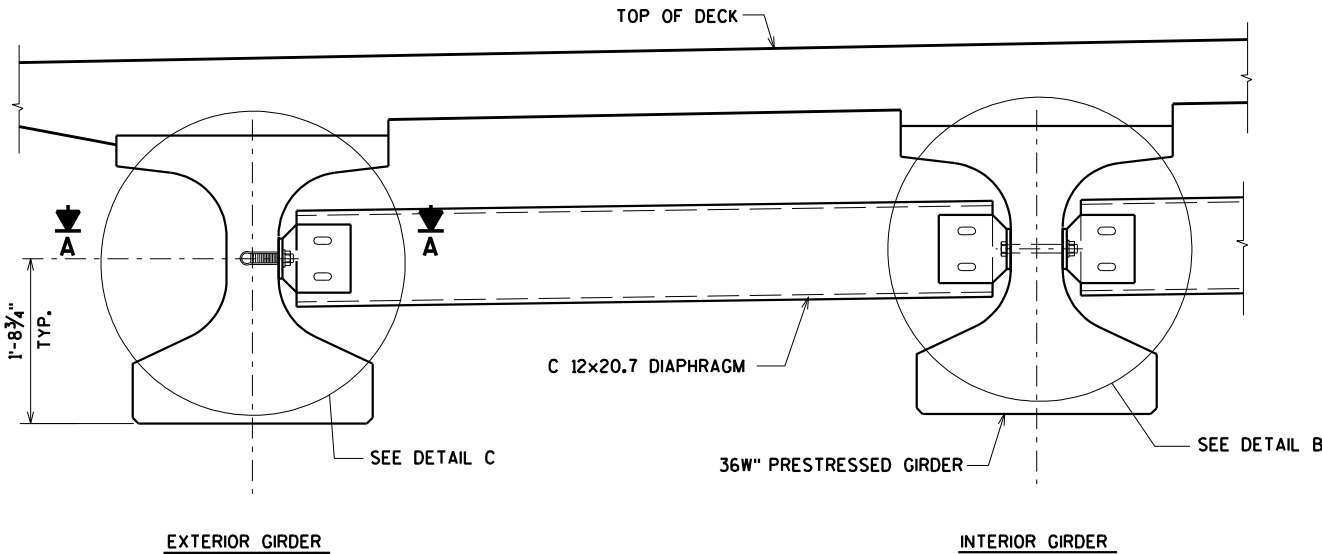
ALL DIAPHRAGM STRUCTURAL STEEL SHALL BE ASTM A709 GRADE 36. ALL BOLTS, NUTS AND WASHERS SHALL BE ASTM A325 TYPE 1.

ALL DIAPHRAGM STRUCTURAL STEEL SHOWN SHALL BE HOT-DIPPED GALVANIZED. ALL BOLTS, NUTS AND WASHERS SHALL BE HOT-DIPPED GALVANIZED IN ACCORDANCE WITH ASTM A153 CLASS C. GALVANIZED NUTS SHALL BE TAPPED OVERSIZE IN ACCORDANCE WITH THE REQUIREMENTS OF ASTM A563 AND SHALL MEET THE REQUIREMENTS OF SUPPLEMENTARY REQUIREMENT S1 OF ASTM A563, LUBRICANT AND TEST FOR COATED NUTS.

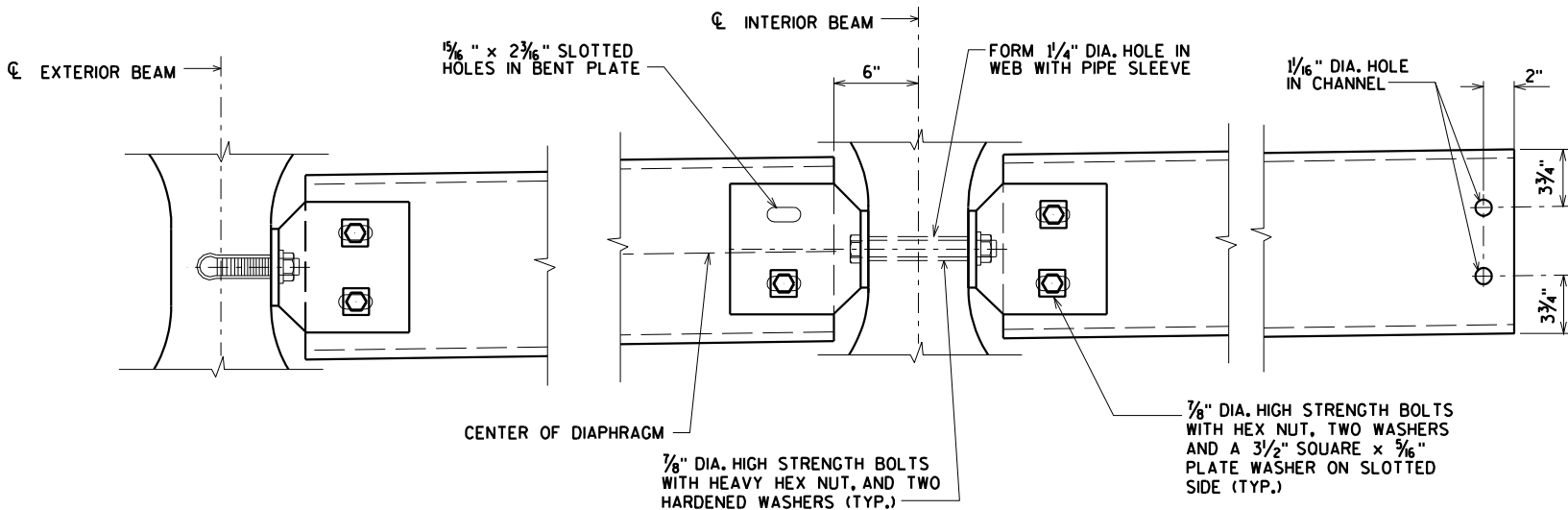
7/8" DIA HIGH STRENGTH BOLTS WITH HEX NUT, TWO WASHERS AND A 3/2" SQUARE x 5/16" PLATE WASHER ON SLOTTED SIDE.



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

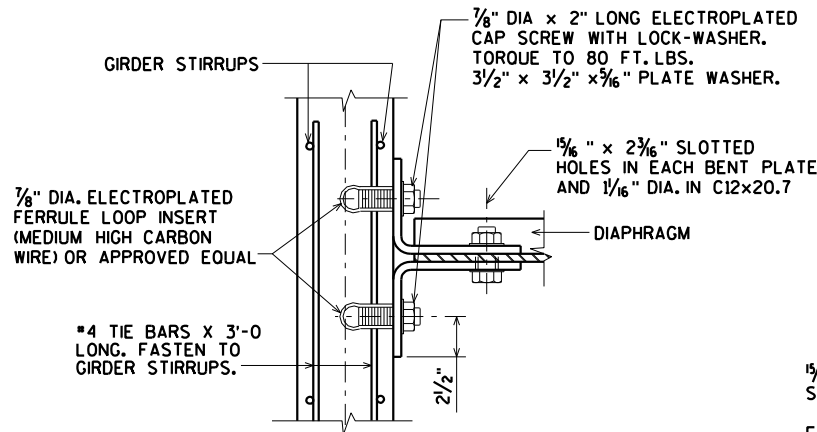


PART TRANSVERSE SECTION AT DIAPHRAGM



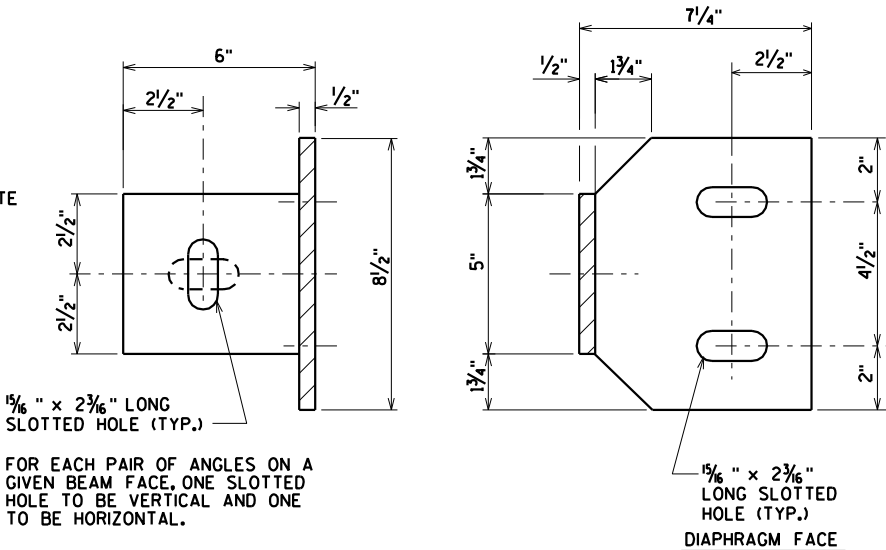
DETAIL C

DETAIL B



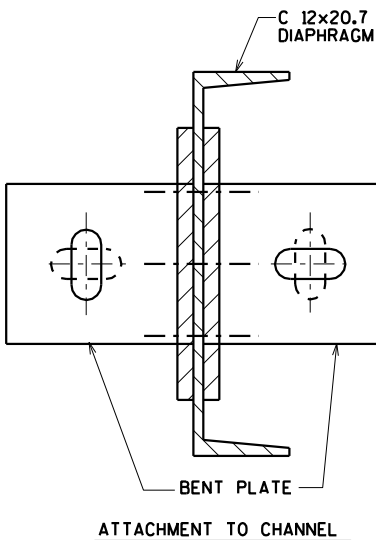
SECTION A-A

(FOR EXTERIOR ATTACHMENT)



BEAM FACE

DIAPHRAGM FACE



ATTACHMENT TO CHANNEL

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-14-212			
DRAWN BY CKJ		PLANS CK'D. CJM	
STEEL INTER. DIAPHRAGM DETAILS			SHEET 13 OF 19

TOP OF GIRDER TO BE ROUGH FLOATED AND BROOMED TRANSVERSELY, EXCEPT THE THE OUTSIDE 8" OF GIRDER, WHICH SHALL RECEIVE A SMOOTH FINISH. AN APPROVED CONCRETE SEALER SHALL BE APPLIED TO ALL SMOOTH SURFACES INCLUDING THE OUTSIDE 8" OF THE TOP FLANGE.

THE GIRDERS SHALL BE PROVIDED WITH A SUITABLE LIFTING DEVICE FOR HANDLING AND ERECTING THE GIRDERS. SEE SECTION 503.3.3 OF STANDARD SPECIFICATIONS FOR GUIDANCE.

STRANDS SHALL BE FLUSH WITH END OF GIRDER. FOR GIRDER ENDS EMBEDDED COMPLETELY IN CONCRETE, END OF STRANDS SHALL BE COATED WITH AN BITUMINOUS JOINT SEALER. FOR GIRDER ENDS THAT ARE FINALLY EXPOSED, COAT THE GIRDER ENDS, EXPOSED STRAND ENDS AND ALL NON-BONDING SURFACES WITHIN 2 FEET OF THE GIRDER ENDS WITH A NON-PIGMENTED EPOXY CONFORMING TO AASHTO M-235 TYPE III, GRADE 2, CLASS B OR C. THE EPOXY SHALL BE APPLIED AT LEAST 3 DAYS AFTER MOIST CURING HAS CEASED AND PRIOR TO THE APPLICATION OF THE SEALER.

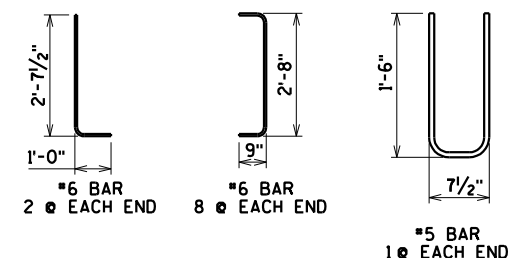
ALL GIRDERS SHALL BE CAST FULL LENGTH AS SHOWN.

SPACING SHOWN FOR #4 STIRRUPS IS FOR GRADE 60 REINFORCEMENT.

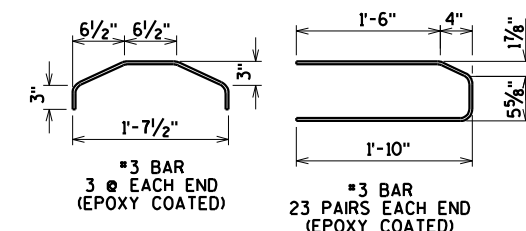
AN ALTERNATE EQUIVALENT OF WELDED WIRE FABRIC (WWF) ASTM A497 MAY BE SUBSTITUTED FOR THE STIRRUP REINFORCEMENT SHOWN, UPON APPROVAL OF THE STRUCTURES DEVELOPMENT SECTION.

PRESTRESSING STRANDS SHALL BE (0.6" DIA.)-7 WIRE
LOW-RELAXATION STRANDS WITH AN ULTIMATE STRENGTH OF
270,000 PSI.

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



(B) 6 #4 BARS. FULL LENGTH. MIN. LAP = 2'-4"



GIRDER DATA

[illegible]

AYRES
ASSOCIATES

3433 Oakwood Hills Parkway
Eau Claire, WI 54701
www.AyresAssociates.com

NO.	DATE	REVISION	BY
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STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-14-212

DRAWN BY	CKJ	PLANS CK'D	CJM
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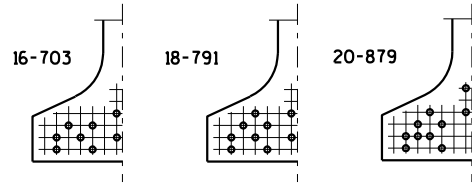
36W" PRESTRESSED GIRDER DETAILS

SHEET 14 OF 19

\$PRNAME\$
U:\41-0698.00 - Dodge Co, Saylesville Road over Rubicon River\BRIDGE\410698 36W.dgn

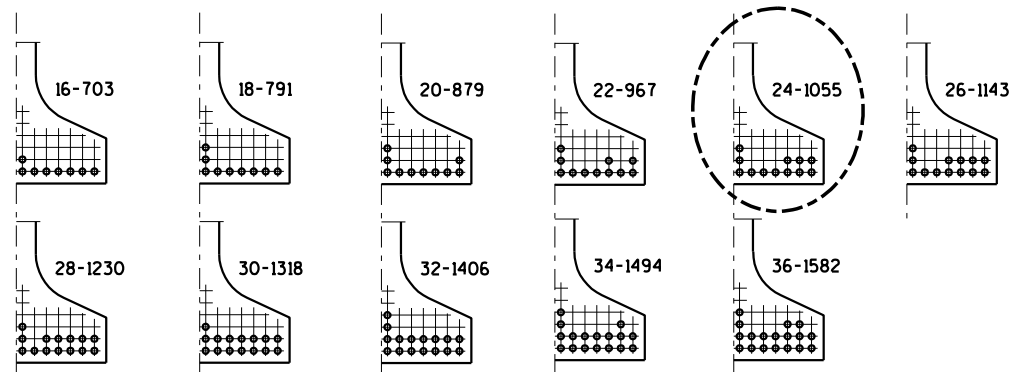
STATE PROJECT NUMBER

3819-00-72



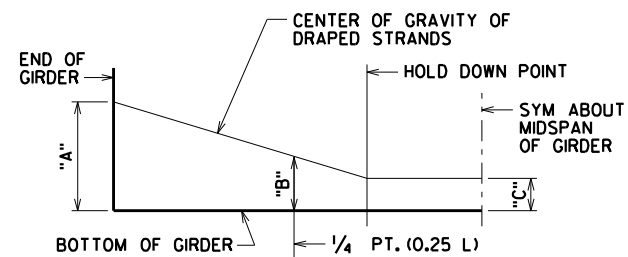
STANDARD ARRANGEMENTS TO RAISE CENTER OF GRAVITY TO AVOID DRAPING OF STRANDS

0.6" ϕ STRANDS



ARRANGEMENT AT ϕ SPAN - FOR GIRDERS WITH DRAPED STRANDS

0.6" ϕ STRANDS

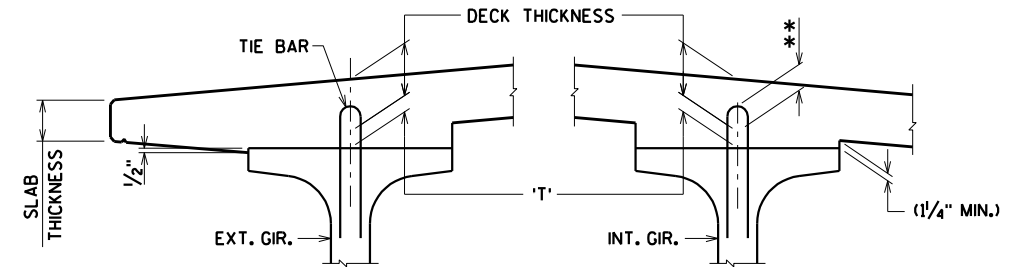


DRAPED STRAND PROFILE

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

SPAN	CAMBER (IN.) *
1	2.2

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



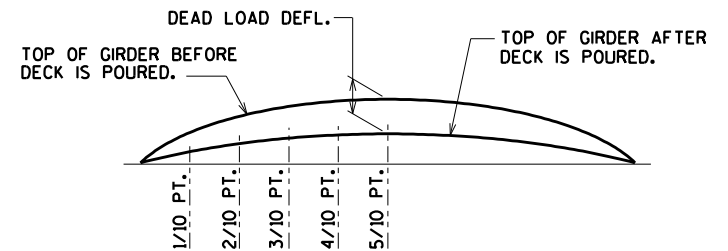
DECK HAUNCH DETAIL

IF 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" WAS USED IN THE QUANTITY "CONCRETE MASONRY BRIDGES".



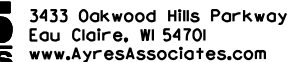
DEAD LOAD DEFLECTION DIAGRAM

8

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NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-14-212			
DRAWN BY CKJ		PLANS CK'D. CJM	
36W" PRESTRESSED GIRDER DETAILS			SHEET 15 OF 19

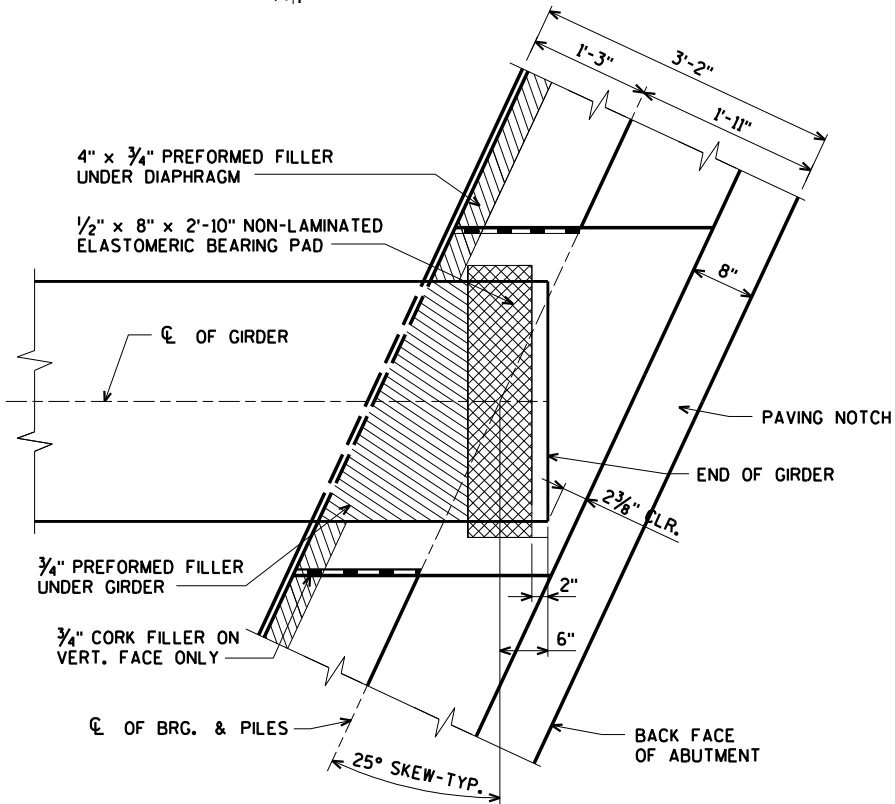
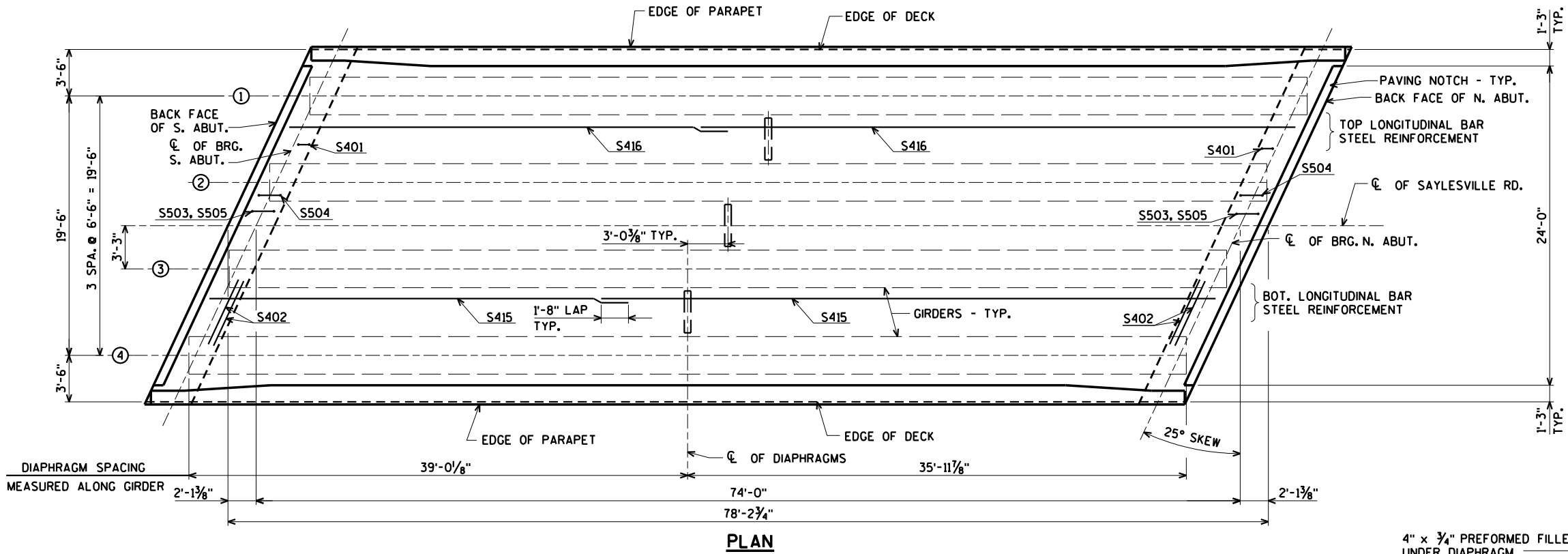
ORIGINAL PLANS PREPARED BY
AYRES ASSOCIATES
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TOP OF DECK ELEVATIONS

	CL OF BRG. S. 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.	CL OF BRG. N. ABUT.
W. EDGE OF DECK	917.13	917.08	917.03	916.98	916.93	916.88	916.83	916.78	916.73	916.68	916.62
GIRDER 1	917.23	917.18	917.13	917.08	917.03	916.98	916.93	916.88	916.83	916.78	916.73
GIRDER 2	917.38	917.33	917.28	917.23	917.18	917.13	917.08	917.03	916.98	916.93	916.88
CL SAYLESVILLE RD.	917.46	917.41	917.36	917.31	917.26	917.21	917.16	917.11	917.06	917.01	916.96
GIRDER 3	917.40	917.35	917.30	917.25	917.20	917.15	917.10	917.05	917.00	916.95	916.90
GIRDER 4	917.29	917.24	917.19	917.14	917.09	917.04	916.99	916.94	916.89	916.84	916.79
E. EDGE OF DECK	917.21	917.16	917.11	917.06	917.01	916.96	916.91	916.86	916.81	916.76	916.71

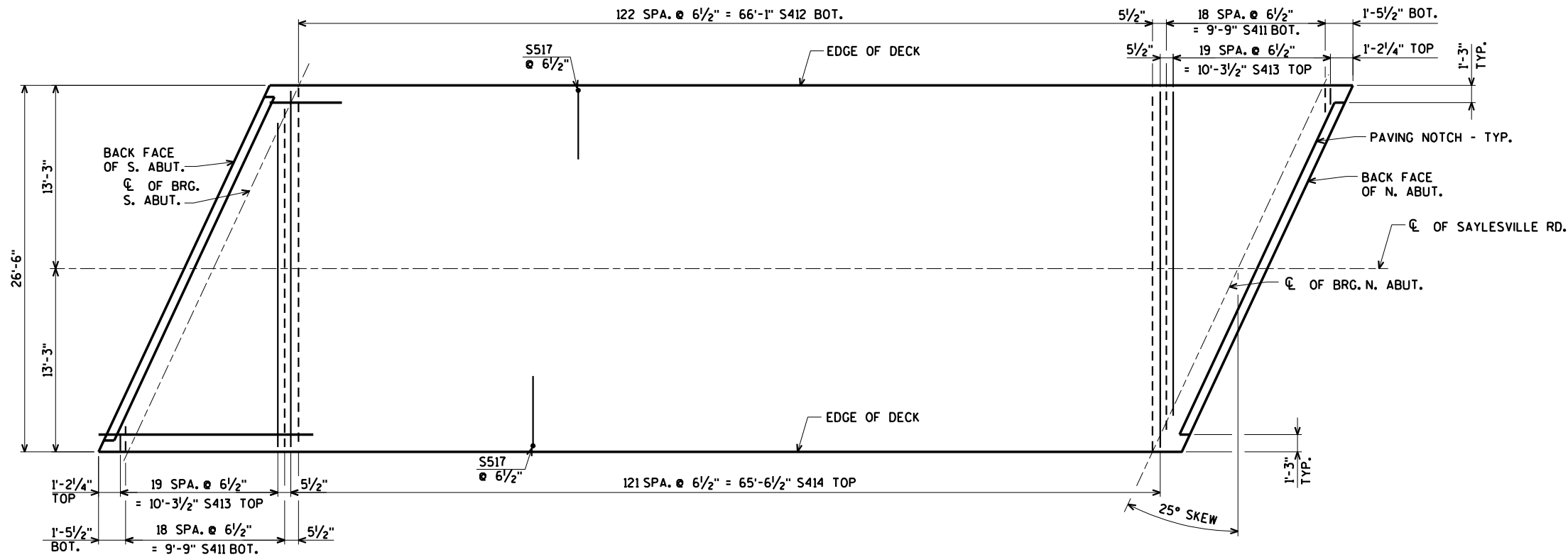
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-14-212			
DRAWN BY CKJ		PLANS CK'D. CJM	
SUPERSTRUCTURE PLAN			SHEET 17 OF 19

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TRANSVERSE BAR STEEL LAYOUT

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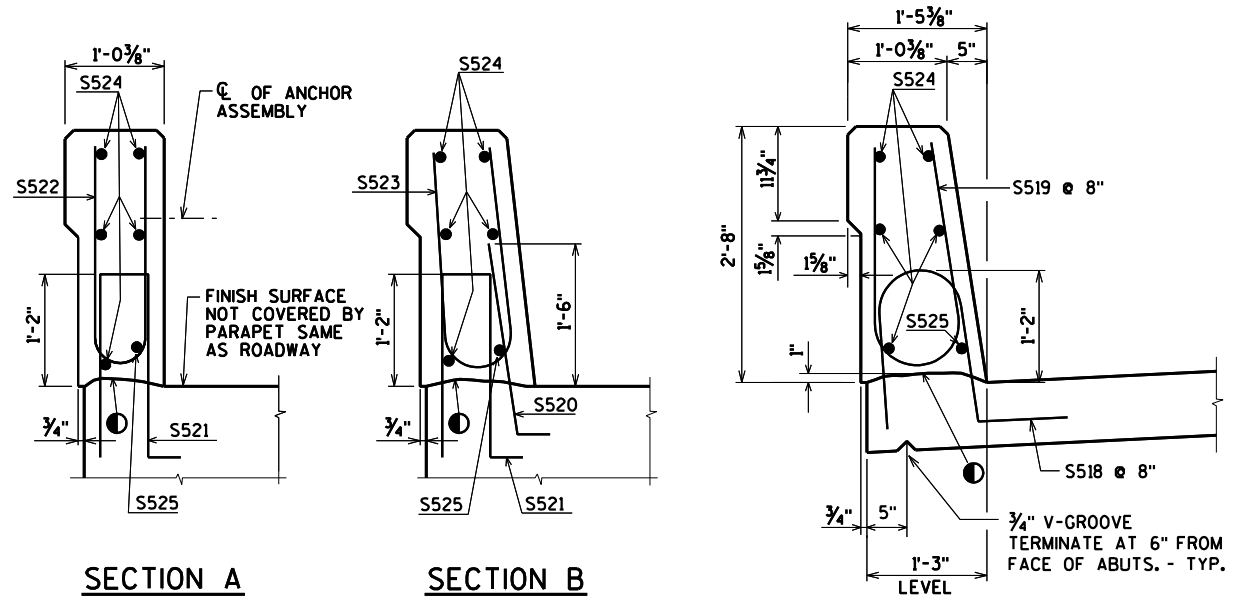
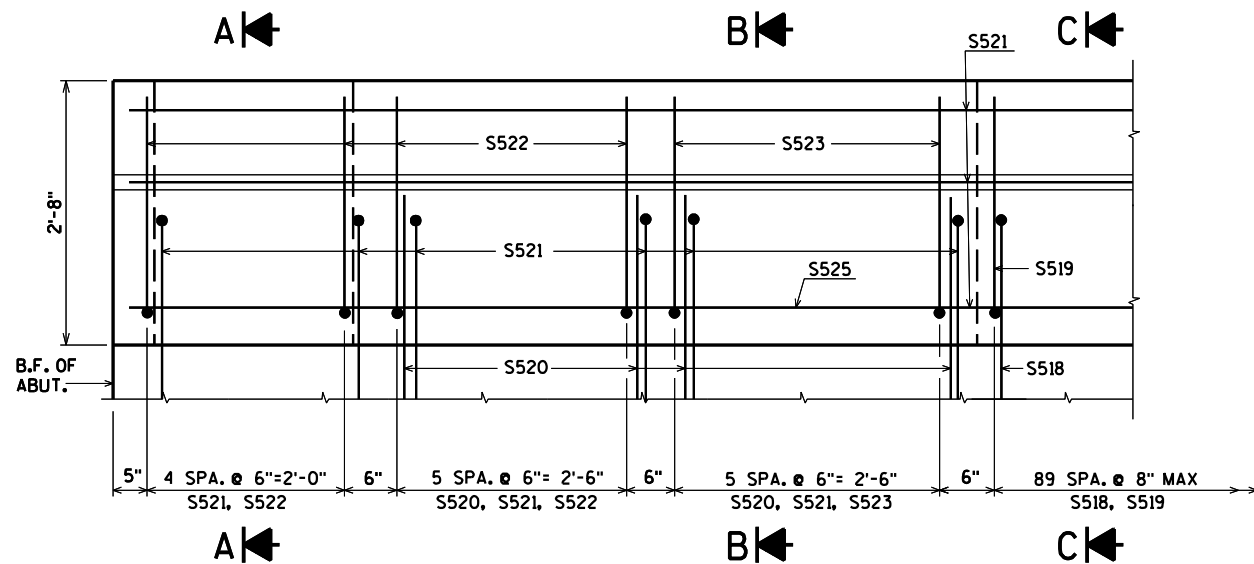
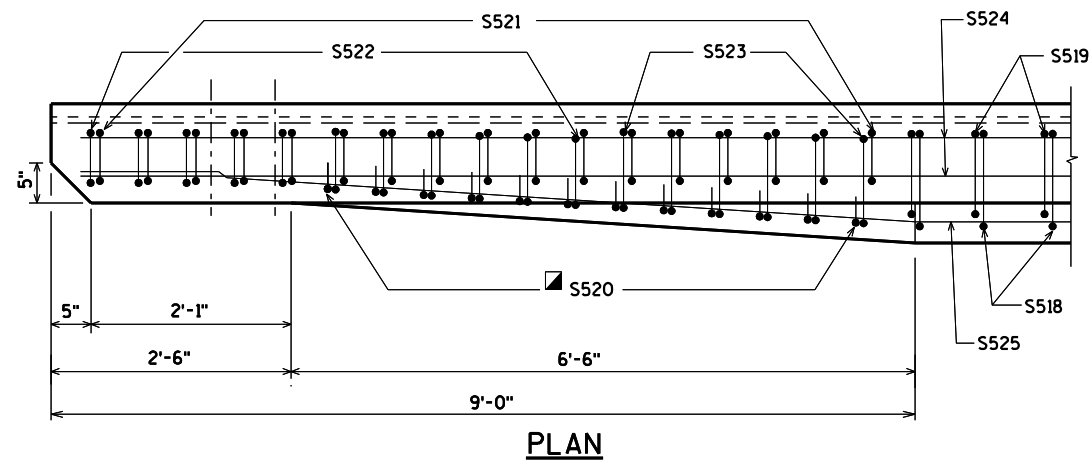
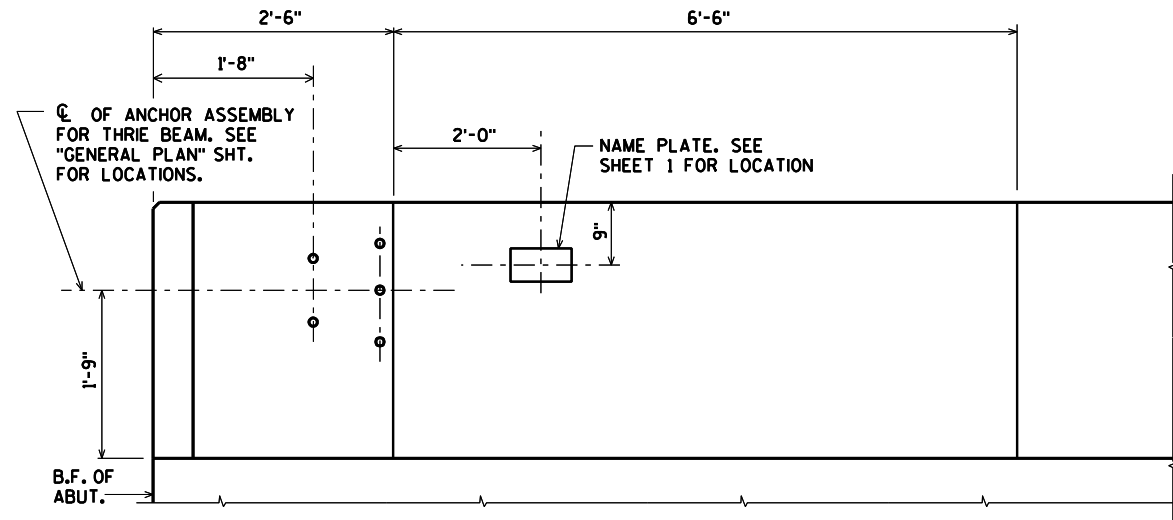
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-14-212			
DRAWN BY	CKJ	PLANS CK'D.	CJM
SUPERSTRUCTURE TRANSVERSE SLAB STEEL LAYOUT			SHEET 18 OF 19

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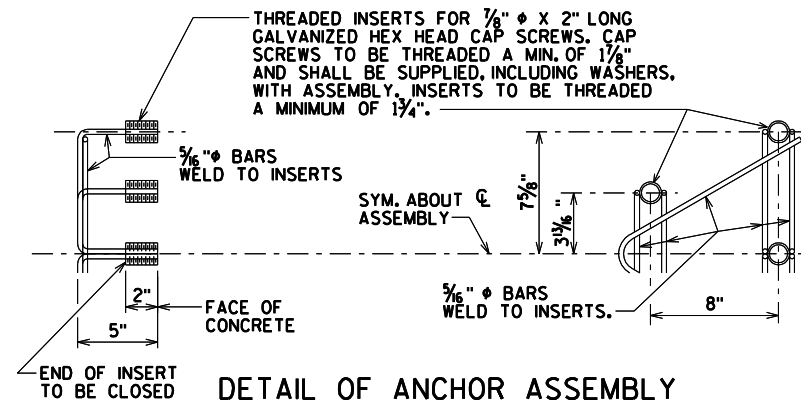
STATE PROJECT NUMBER

3819-00-72



● CONST. JOINT - STRIKE OFF AS SHOWN.

■ S517 BARS MAY BE PLACED AFTER CONCRETE IS POURED BUT BEFORE INITIAL SET HAS TAKEN PLACE. USE CARE TO PLACE S520 BARS CORRECTLY ALONG TRANSITION OF PARAPET.



DETAIL OF ANCHOR ASSEMBLY

NOTE: HEX HEAD CAP SCREWS & WASHERS TO BE GALVANIZED IN ACCORDANCE WITH AASHTO M232 CLASS C.

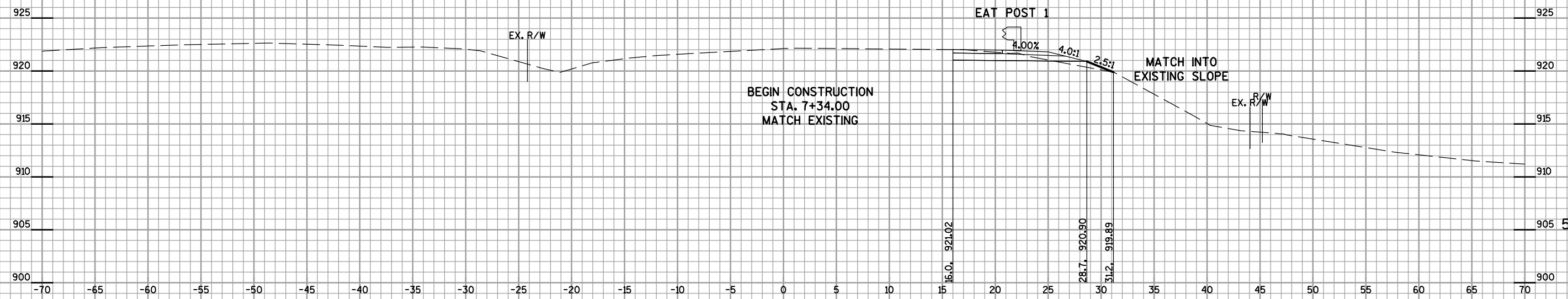
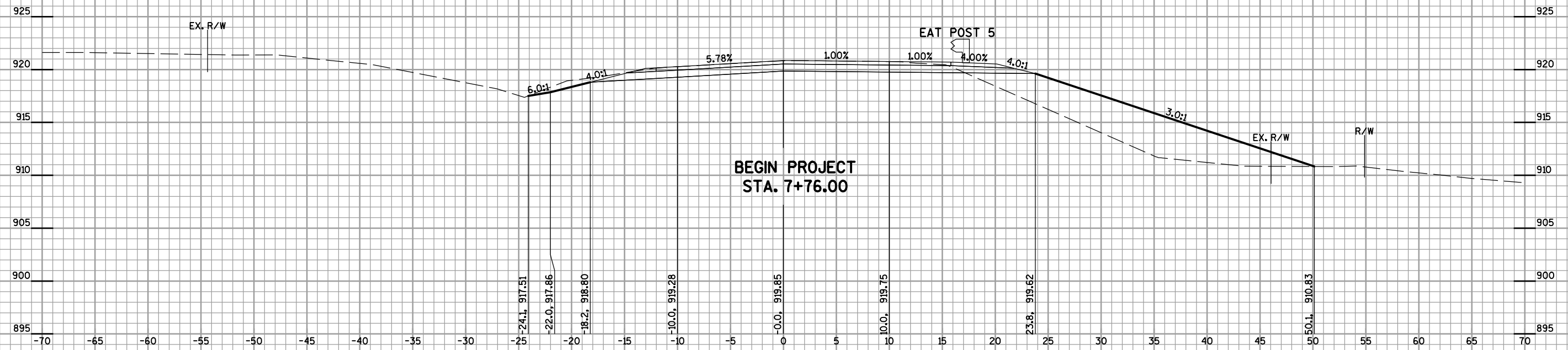
ASSEMBLY SHALL BE BID ITEM "ANCHOR ASSEMBLIES FOR STEEL PLATE BEAM GUARD", EACH.

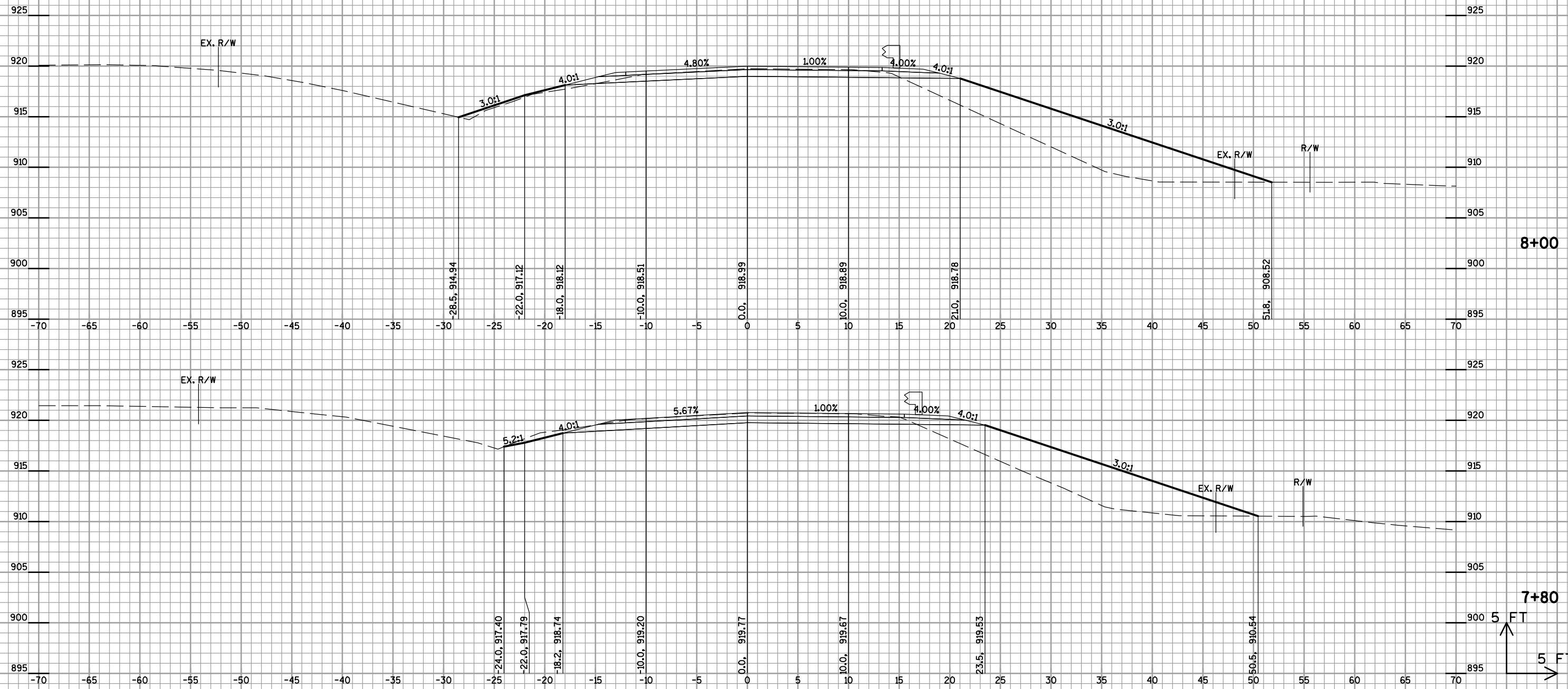
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-14-212			
DRAWN BY CKJ		PLANS CK'D. CJM	
SINGLE SLOPE PARAPET 32SS			SHEET 19 OF 19

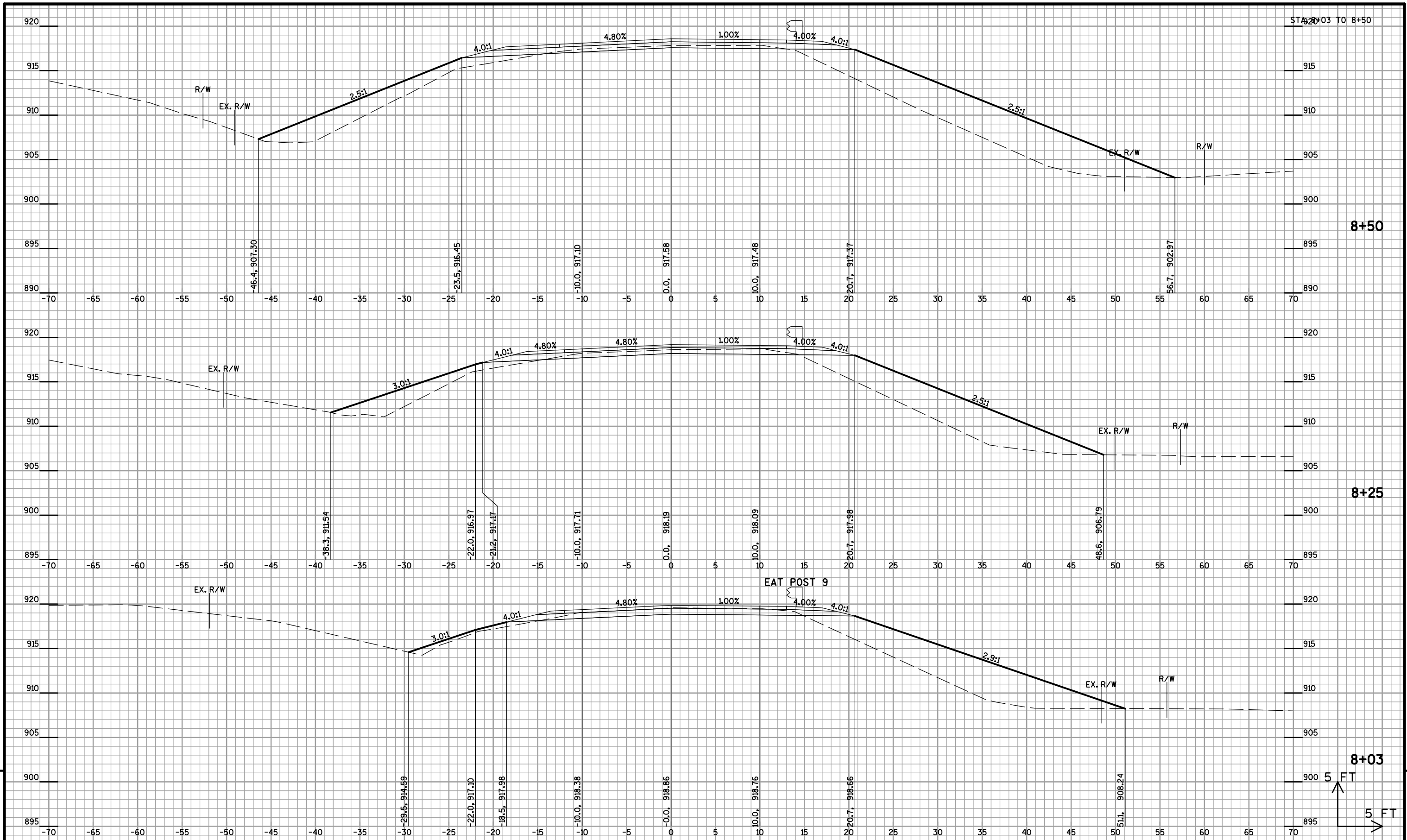
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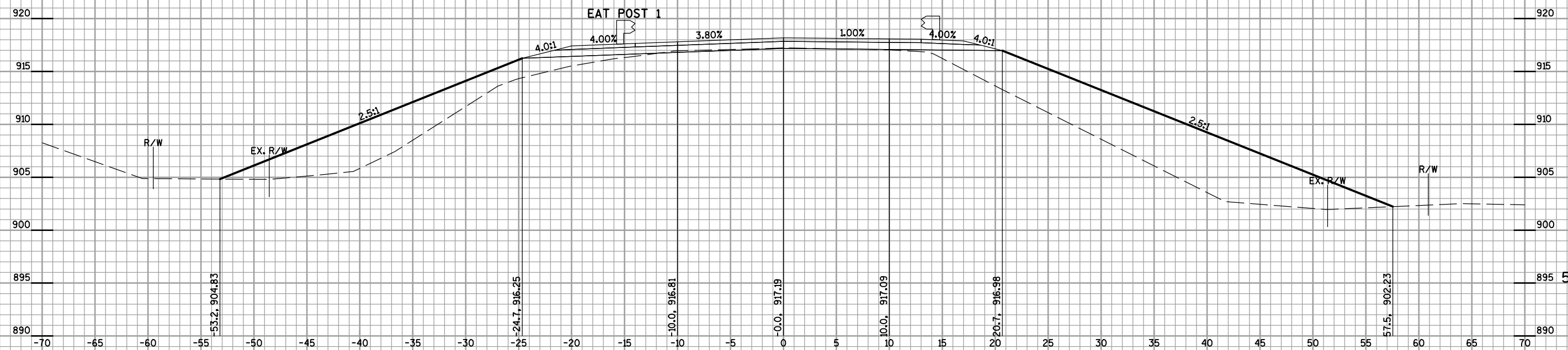
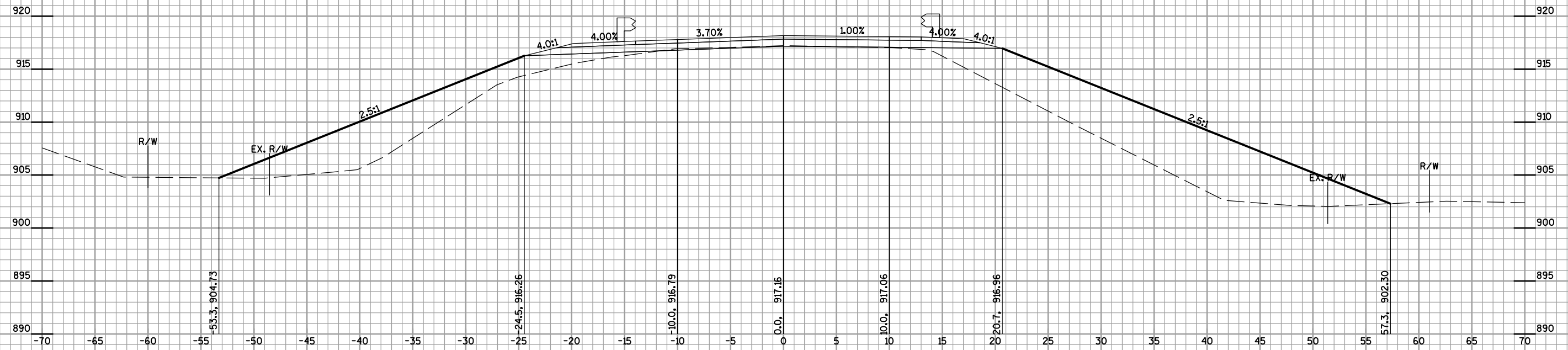
SAYLESVILLE ROAD COMPUTER EARTHWORK								
Station	Distance	Area (SF)		Incremental Vol (CY) (Unadjusted)		Cumulative Vol (CY)		Mass Ordinate
		Cut	Fill	Cut	Fill	Cut 1.00	Expanded 1.30	
7+34	--	0	0					
7+76	42	34.1	82.3	27	64	27	83	-57
8+00	24	19.2	197.4	24	124	50	245	-195
8+25	25	13.6	113.9	15	144	65	432	-367
8+50	50	8.3	176.0	20	268	86	781	-695
8+75	25	1.6	249.1	5	197	90	1037	-947
9+00	25	0.2	191.7	1	204	91	1302	-1211
9+25	25	0.8	156.5	0	161	91	1512	-1420
9+50	25	1.4	154.4	1	144	92	1699	-1606
9+70	20	1.4	154.4	1	114	93	1848	-1754
NEW BRIDGE	--	--	--	--	--	--	--	--
10+45	--	35.7	186.1	--	--	--	--	--
10+50	5	35.7	186.1	7	34	100	1892	-1792
10+75	25	35.7	186.1	33	172	133	2116	-1983
11+00	25	26.3	195.0	29	176	162	2346	-2184
11+25	25	24.5	235.9	24	200	185	2605	-2420
11+50	25	5.1	285.6	14	241	199	2919	-2720
11+75	25	7.2	219.1	6	234	205	3223	-3018
12+00	25	7.8	103.0	7	149	212	3417	-3205
12+25	25	11.2	41.3	9	67	220	3503	-3283
12+50	25	15.0	0.9	12	20	233	3529	-3296
12+75	25	39.8	0.2	25	1	258	3530	-3272
13+00	25	0	0	18	0	276	3530	-3253
				276	2715			

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)

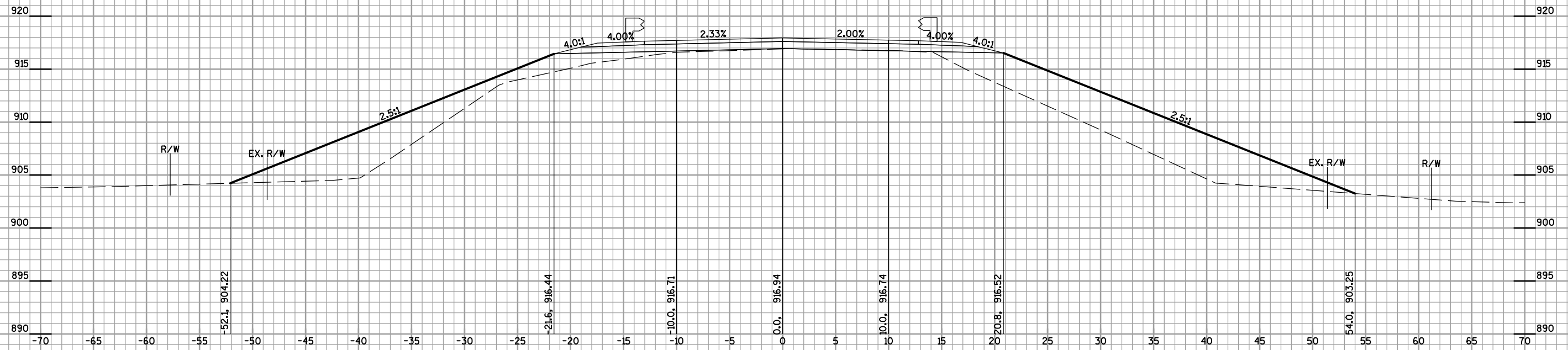




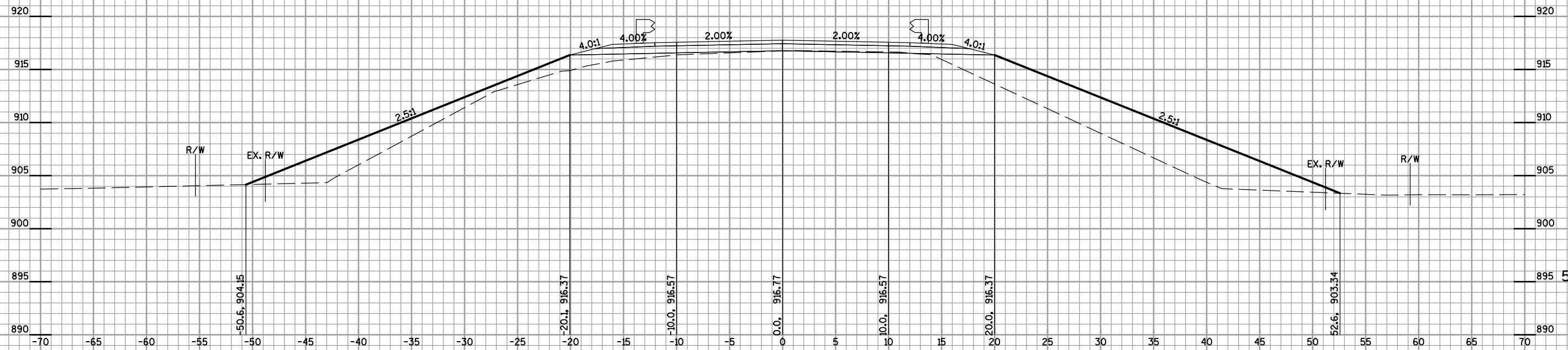
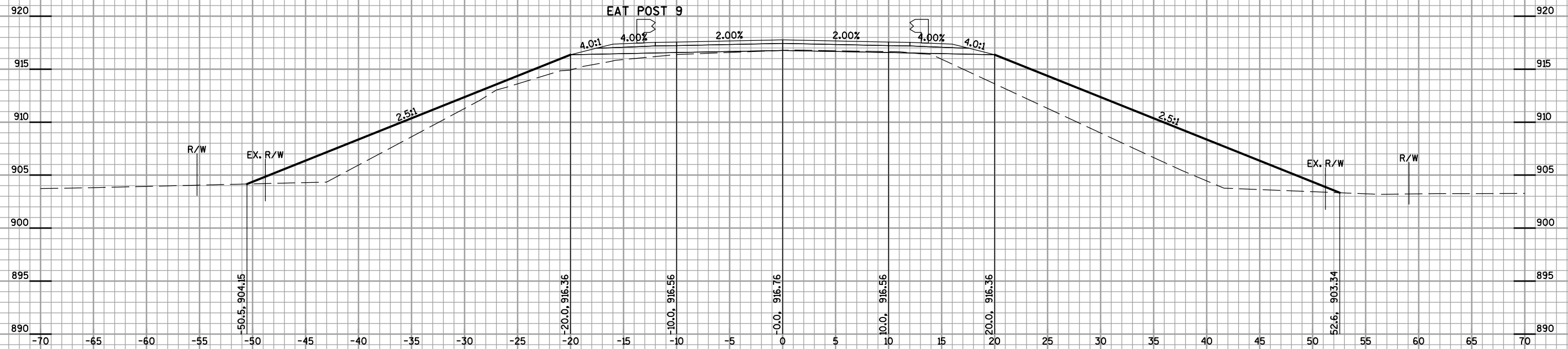




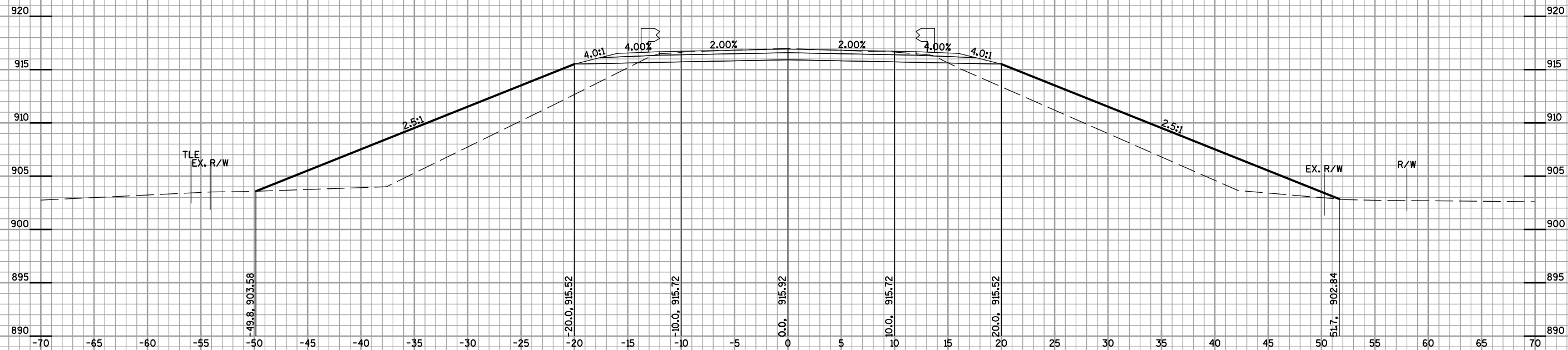
5 FT
5 FT



5 FT
5 FT

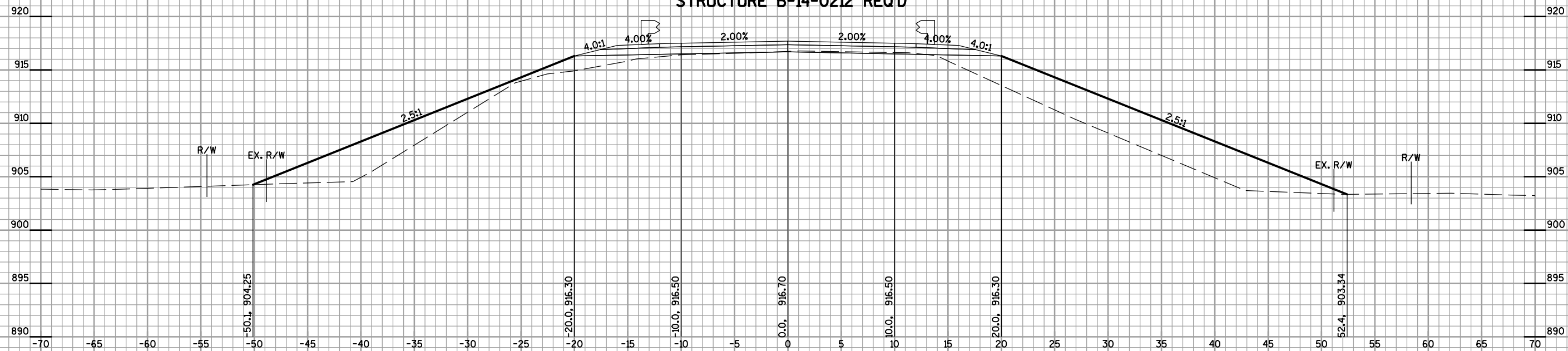


5 FT
5 FT



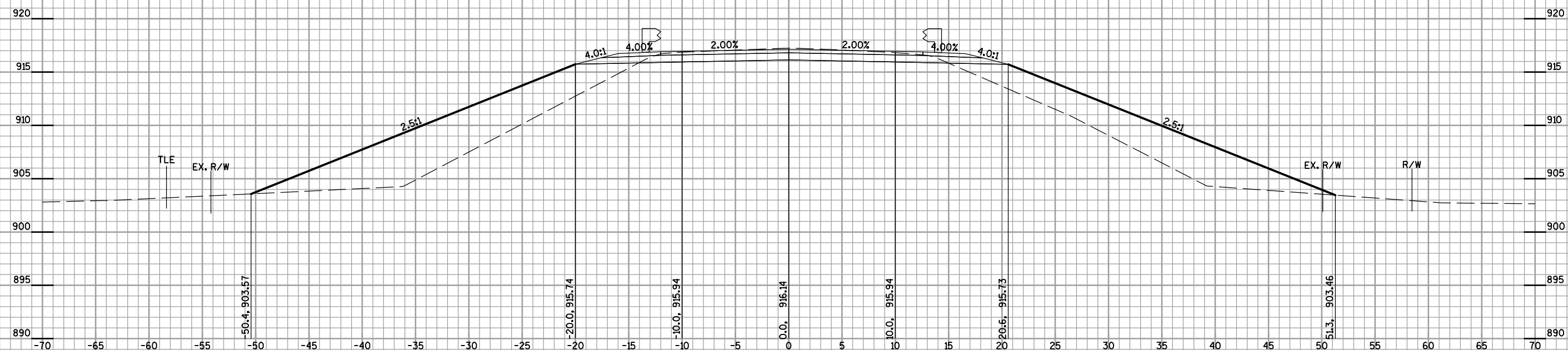
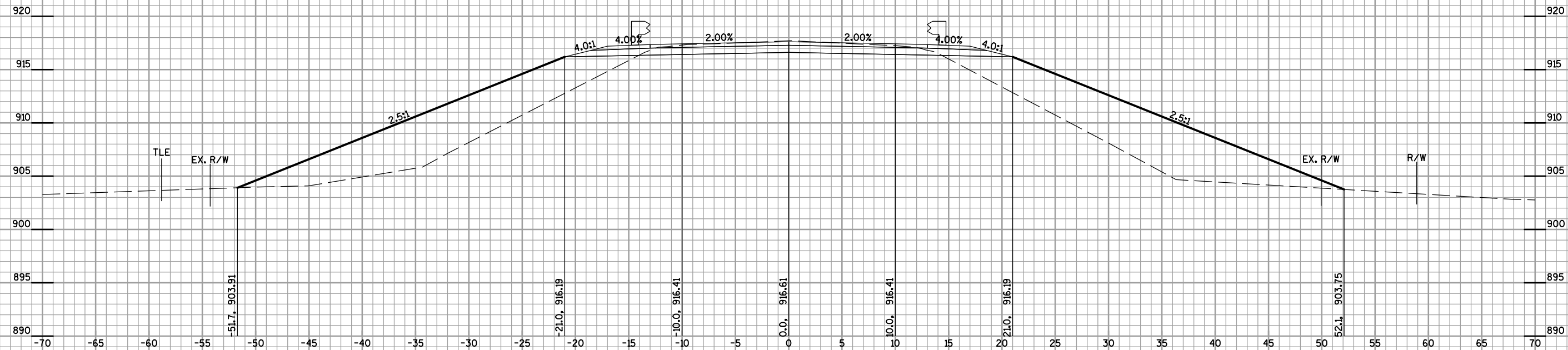
10+75

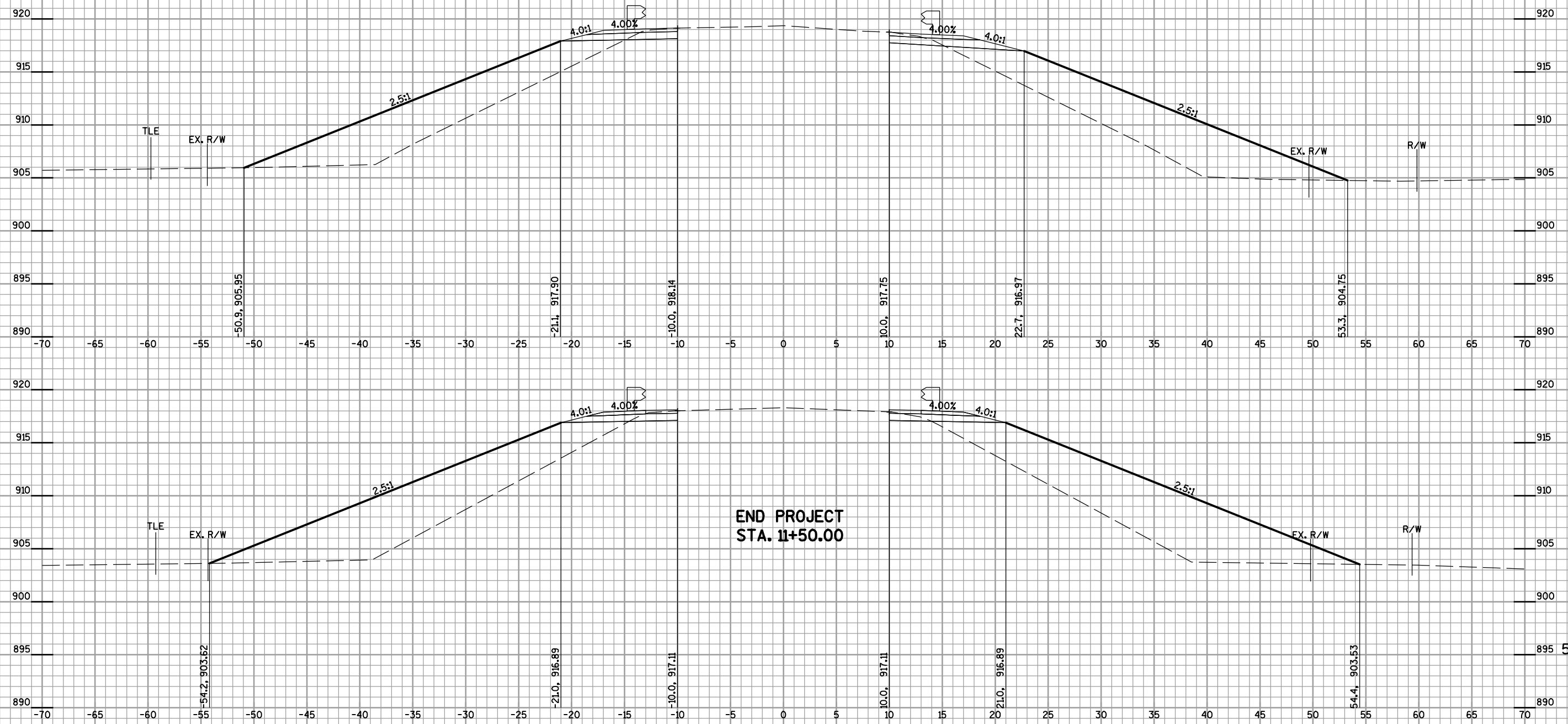
STRUCTURE B-14-0212 REQ'D



9+35

5 FT
5 FT



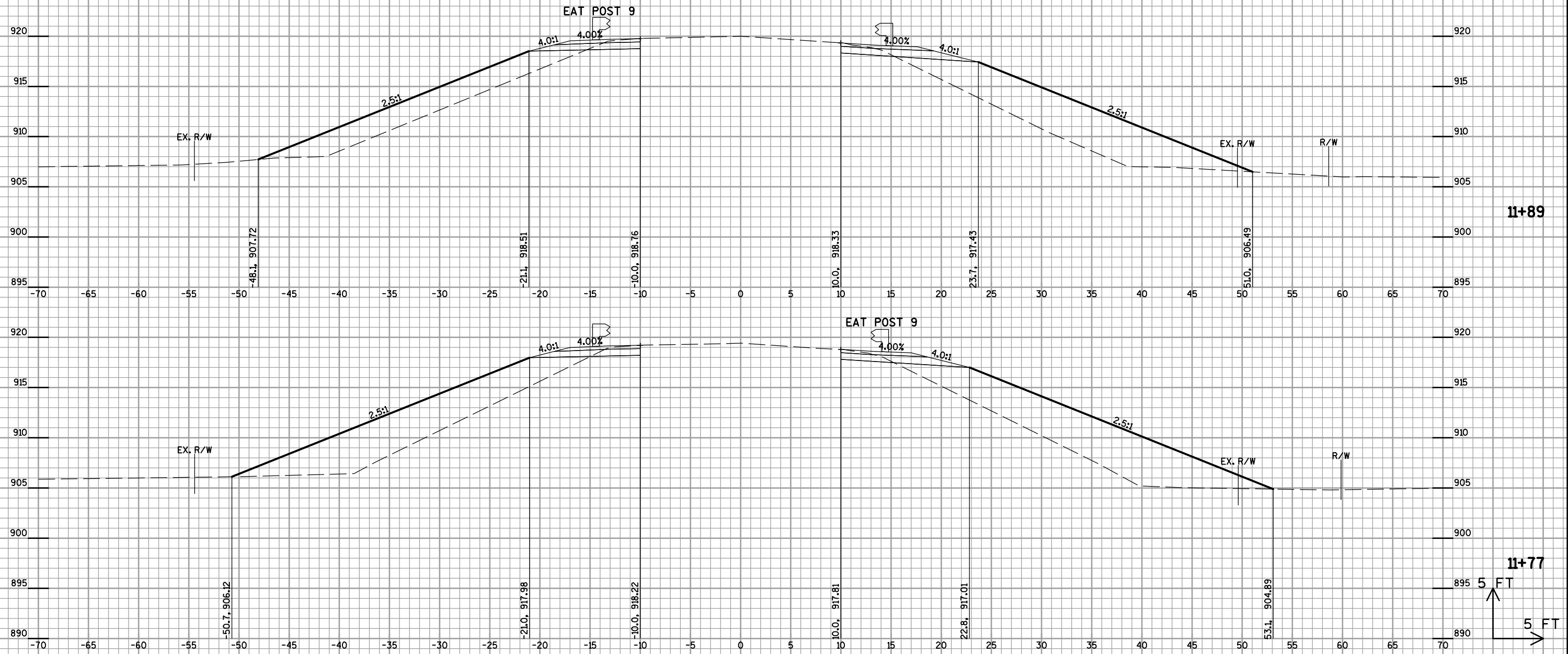


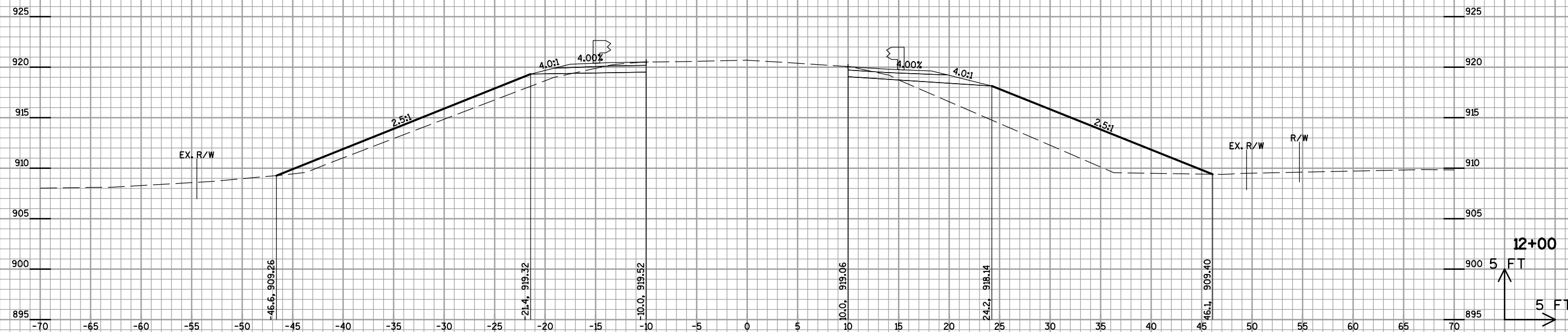
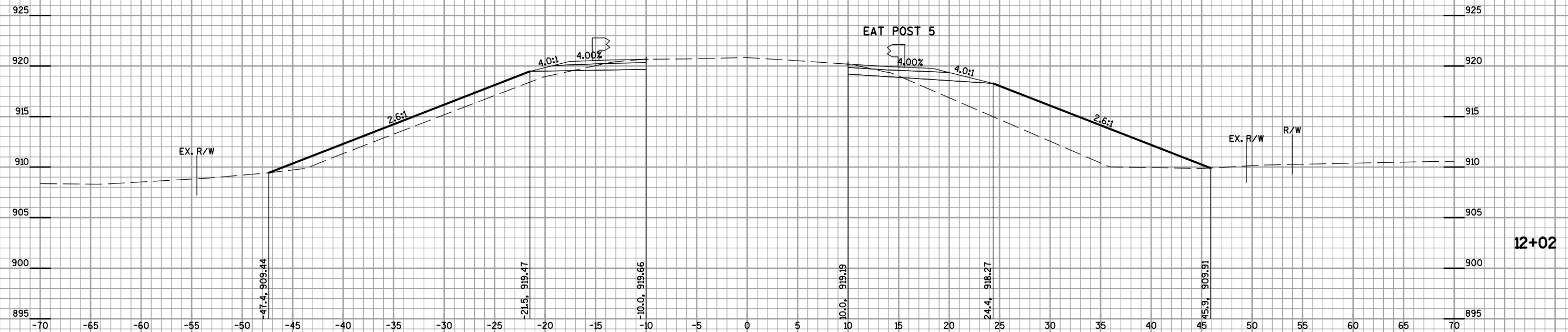
END PROJECT
STA. 11+50.00

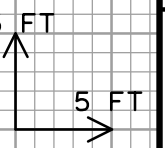
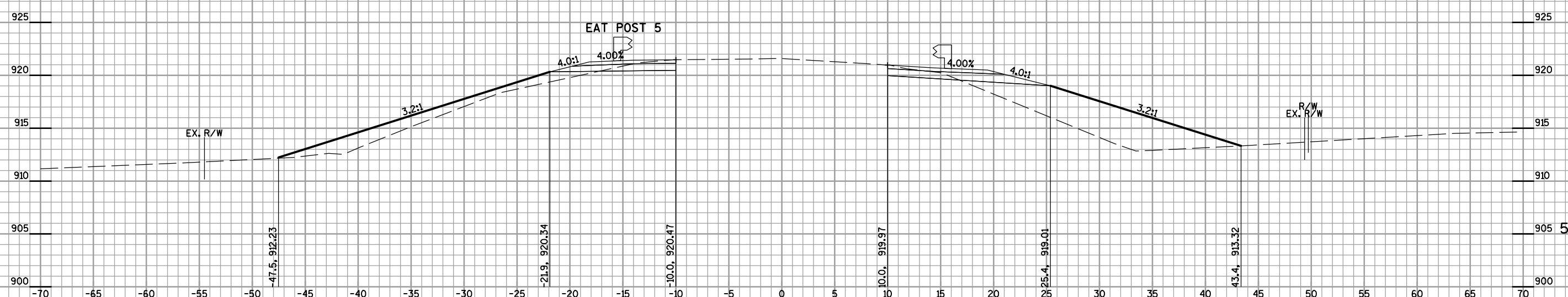
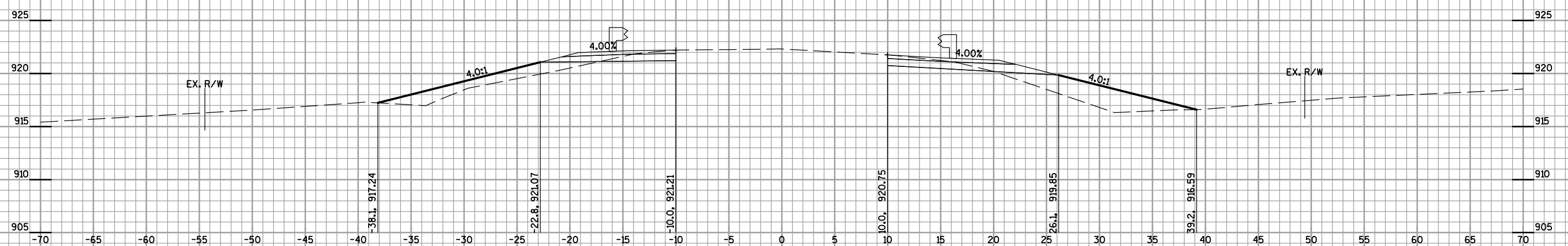
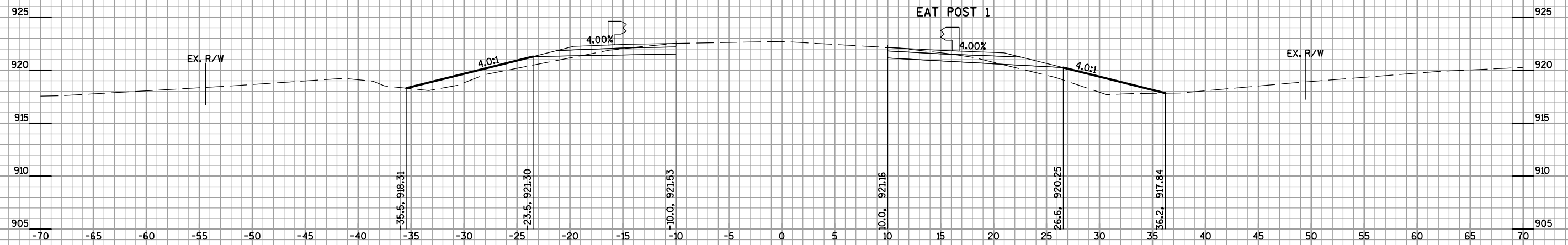
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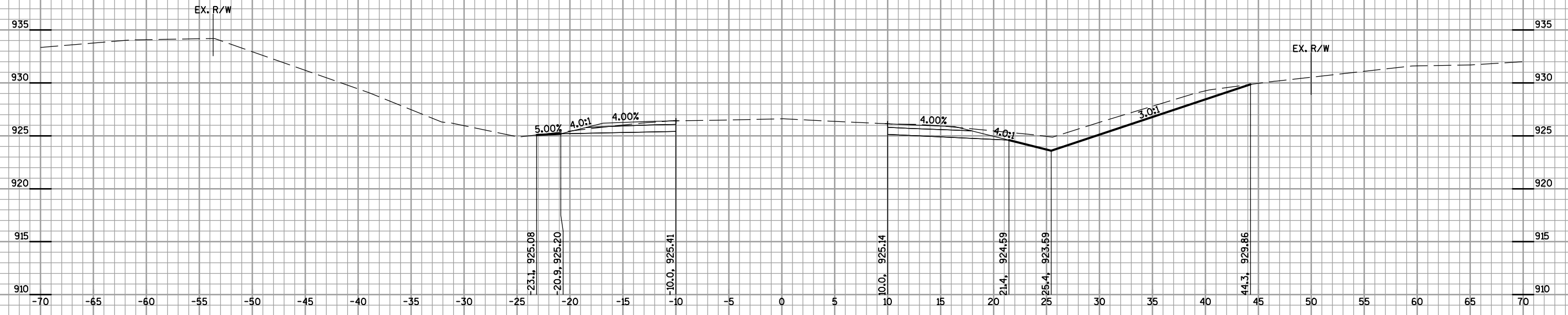
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5 FT
5 FT

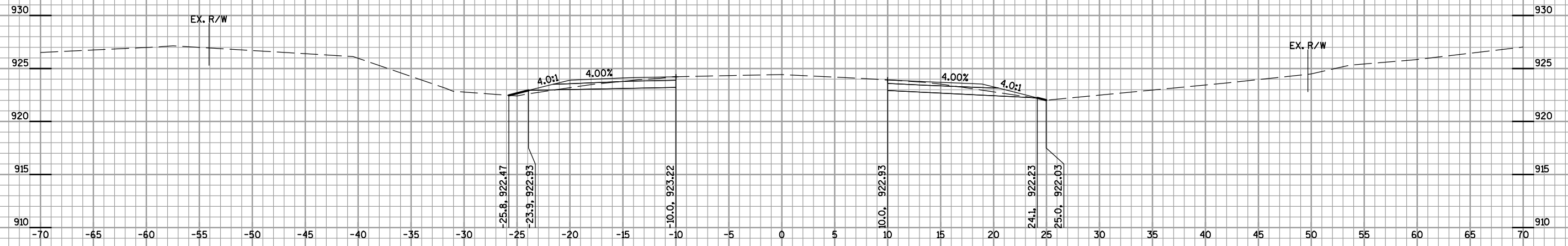




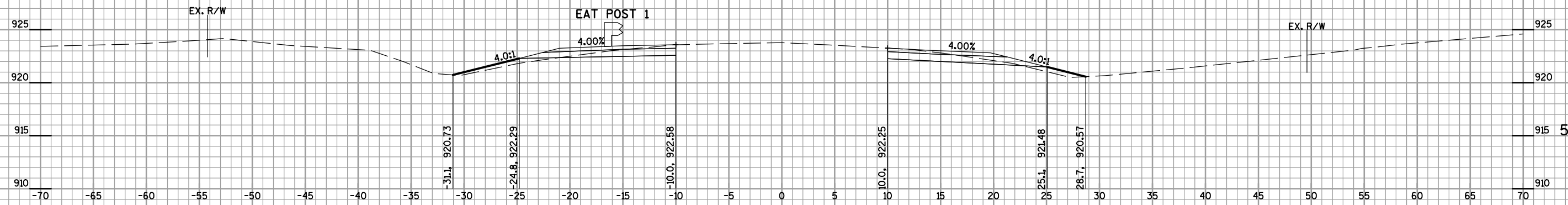




12+75

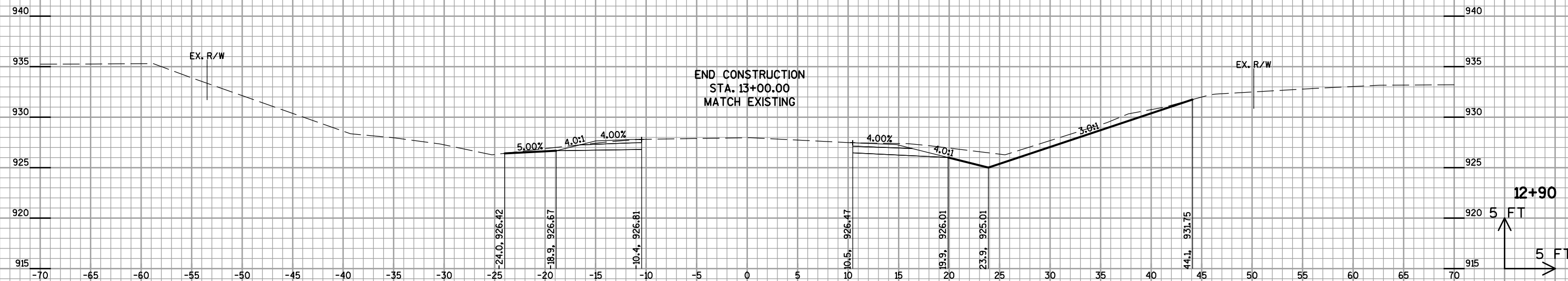


12+50

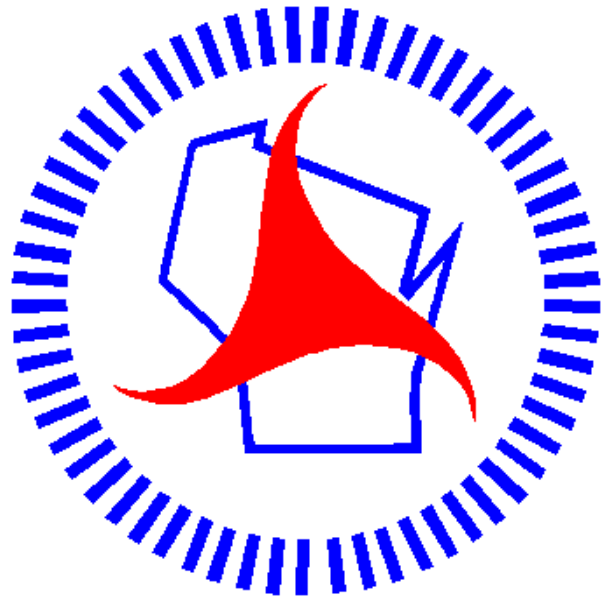


12+42

5 FT
5 FT



Notes



Wisconsin Department of Transportation

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