

ORDER OF SHEETS

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

TOTAL SHEETS = 44



23

DESIGN DESIGNATION

A.A.D.T.	2024	=	170
A.A.D.T.	2044	=	250
D.H.V.		=	64
D.D.		=	60/40 (ASSUMED)
T.		=	10 %
DESIGN SPEED		=	40 MPH
ESALS		=	218,090

CONVENTIONAL SYMBOLS

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

STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

STH 54 - NORTH COUNTY LINE

HAY CREEK BRIDGE B-27-0176

CTH Z
JACKSON COUNTY

STATE PROJECT NUMBER
7244-00-70

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
7244-00-70	WISC 2024129	1

ACCEPTED FOR
COUNTY of JACKSON
7-18-2023 *Jay Borek*
(Date) (Highway Commissioner)

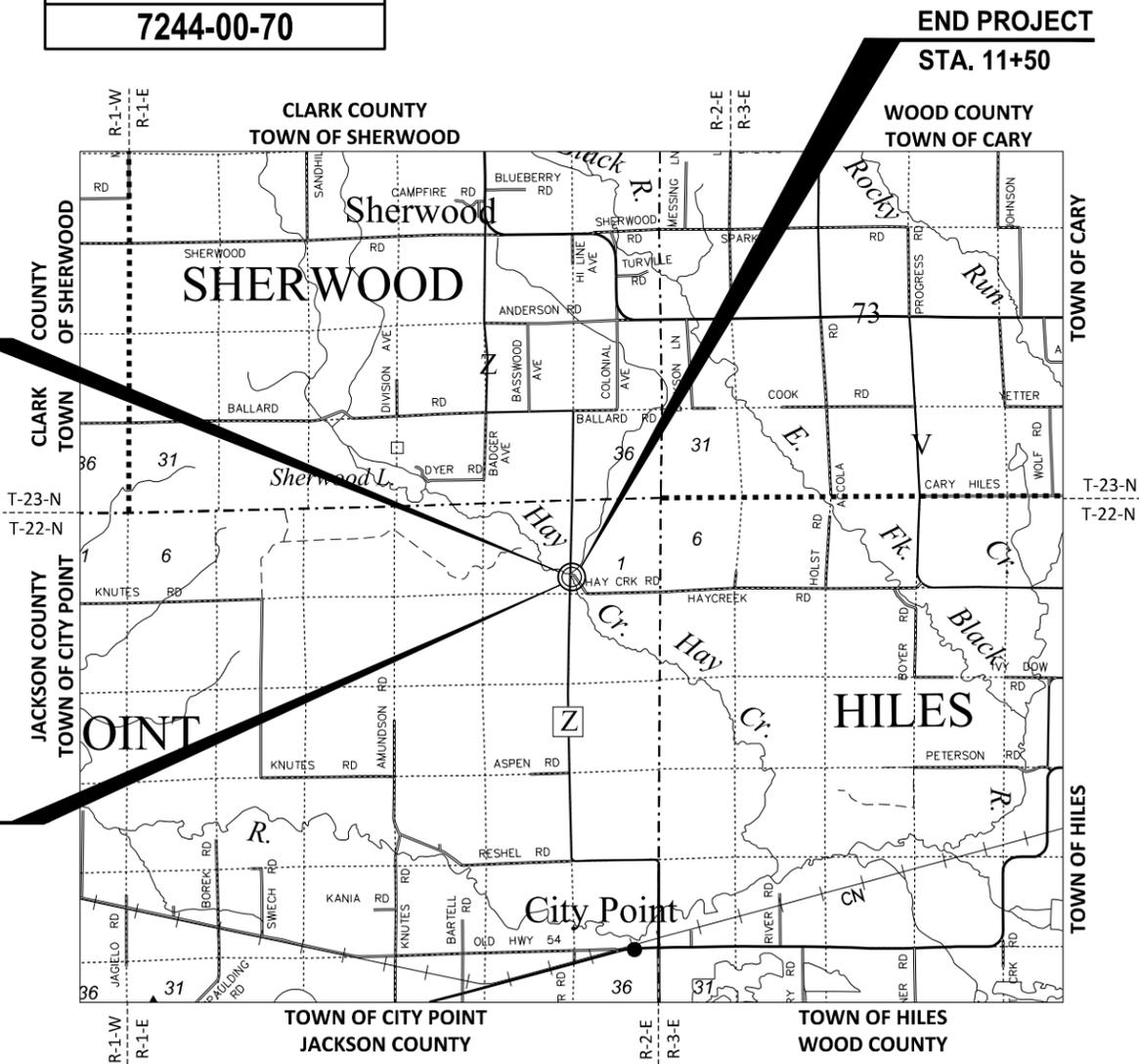
ORIGINAL PLANS PREPARED BY
JEWELL
associates engineers, inc
Engineers - Architects - Surveyors

WISCONSIN
ROBERT B. HANOLD
E-45655
PRAIRIE DU SAC WI
PROFESSIONAL ENGINEER
07/18/2023
Robert Hanold

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY
Surveyor: JEWELL ASSOCIATES ENGINEERS, INC.
Designer: JEWELL ASSOCIATES ENGINEERS, INC.
Project Manager: TYLER RONGSTAD, P.E.
Regional Examiner: TOU YANG, P.E.
Regional Supervisor: TYLER RONGSTAD, P.E.

APPROVED FOR THE DEPARTMENT
DATE: Tyler Rongstad
(Signature)



STRUCTURE B-27-0176

END PROJECT
STA. 11+50

BEGIN PROJECT
STA. 10+00
Y=225,311.53
X=518,111.36

LAYOUT
SCALE 0 2 MI

TOTAL NET LENGTH OF CENTERLINE = 0.028 MI

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

ELEVATION SHOWN ON THIS PLAN ARE REFERENCE TO THE NORTH AMERICAN VERTICAL DATUM OF 1988, NAVD (2012). GEOID 12A WAS UTILIZED FOR THIS PLAN.

GENERAL NOTES

NO TREES OR SHRUBS ARE TO BE REMOVED UNLESS SUCH TREES OR SHRUBS HAVE FIRST BEEN INDICATED FOR REMOVAL BY THE ENGINEER IN THE FIELD.

EXCAVATION BELOW SUBGRADE (EBS) IS NOT USED TO BALANCE YARDAGE, AND IS NOT SHOWN ON THE CROSS SECTIONS BUT IS MEASURED AND PAID FOR AS COMMON EXCAVATION. EXACT LOCATIONS OF EBS WILL BE DETERMINED BY THE ENGINEER IN THE FIELD.

UNLESS SHOWN OTHERWISE, DISTURBED AREAS SHOWN WITHIN THE RIGHT-OF-WAY, EXCEPT THE AREAS WITHIN THE FINISHED SHOULDER POINTS ARE TO BE FERTILIZED (TYPE B), SEEDED (USE SEED MIX NO. 20), AND MULCHED AS DIRECTED BY THE ENGINEER. ALL POST CONSTRUCTION WET AREAS SHALL BE SEEDED WITH SEEDING MIXTURE NO. 60. DO NOT FERTILIZE WETLAND AREAS.

WHEN THE QUANTITY OF THE ITEM OF BASE AGGREGATE DENSE OR ASPHALTIC SURFACE IS MEASURED FOR PAYMENT BY THE TON, THE DEPTH OR THICKNESS OF THE COURSE SHOWN ON THE PLANS IS APPROXIMATE, AND THE ACTUAL THICKNESS WILL DEPEND ON THE DISTRIBUTION OF MATERIAL AS DIRECTED BY THE ENGINEER IN THE FIELD.

SILT FENCE SHALL BE PLACED AS SHOWN ON THE PLAN OR AS DIRECTED BY THE ENGINEER IN THE FIELD. SILT FENCE SHALL BE PLACED PRIOR TO CONSTRUCTION AND SHALL BE IN PLACE PRIOR TO STRUCTURE REMOVAL.

FILL EXPANSION IS VARIABLE AND IS ESTIMATED AT 25%.

MULCH ALL MAINLINE SLOPES AS DIRECTED BY THE ENGINEER IN THE FIELD.

REMOVAL OF ASPHALTIC SURFACES WHERE AN ABUTTING ASPHALTIC SURFACE IS TO REMAIN IN PLACE SHALL REQUIRE A SAWCUT MEETING THE APPROVAL OF THE ENGINEER IN THE FIELD.

THE LOCATION OF ALL PERMANENT SIGNING SHALL BE VERIFIED BY THE ENGINEER IN THE FIELD PRIOR TO PLACEMENT.

APPLY TACK COAT AT A RATE OF 0.05 GAL/SY BETWEEN LAYER OF ASPHALTIC SURFACE.

4-INCHES OF ASPHALTIC SURFACE SHALL BE CONSTRUCTED WITH A 2¼-INCH LOWER LAYER AND A 1¾-INCH UPPER LAYER.

ADJUST DITCH GRADING AS NECESSARY TO FIT FIELD CONDITIONS AND AS DIRECTED BY THE ENGINEER IN THE FIELD.

ASPHALTIC SURFACE QUANTITIES WERE CALCULATED USING 115 LB/SY/IN.

WETLANDS ARE PRESENT IN THE PROJECT LIMITS. THE CONTRACTOR SHALL NOT OPERATE EQUIPMENT OR STOCKPILE MATERIALS BEYOND THE EXISTING TOE OF SLOPE, OR FINISHED SLOPE INTERCEPT AT STA. 10+00 - 10+90, LT., STA. 10+90 - 11+43, LT., STA. 10+00 - 10+60, RT., AND STA. 10+74 - 10+88, RT. DO NOT FERTILIZE IN THE WETLAND AREAS.

CURVE DATA IS BASED ON THE ARC DEFINITION

THERE ARE NO KNOWN UTILITY FACILITIES WITHIN THE PROJECT AREA. HOWEVER, IT IS THE CONTRACTOR'S RESPONSIBILITY TO CONFIRM THIS.

CONTACTS

JACKSON COUNTY HIGHWAY DEPARTMENT:

HIGHWAY DEPARTMENT COMMISSIONER
119 HARRISON STREET
BLACK RIVER FALLS, WI 54615
ATTN: JAY BOREK, P.E.
PHONE: (715) 284-0233
EMAIL: jay.borek@co.jackson.wi.us

DESIGN CONSULTANT:

JEWELL ASSOCIATES ENGINEERS, INC.
560 SUNRISE DRIVE
SPRING GREEN, WI 53588
ATTN: ROBERT HANOLD, P.E.
PHONE: (608) 588-7484
CELL: (608) 606-3568
EMAIL: robert.hanold@jewellassoc.com

WISCONSIN DEPT. OF TRANSPORTATION

WISDOT PROJECT MANAGER
718 W. CLAIREMONT AVENUE
EAU CLAIRE, WI 54701
ATTN: TYLER RONGSTAD, P.E.
PHONE: (715) 461-0372
EMAIL: tyler.rongstad@dot.wi.gov

DNR LIAISON:

STATE OF WISCONSIN
DNR SERVICE CENTER AT BLACK RIVER FALLS
910 STH 54
BLACK RIVER FALLS, WI 54615
ATTN: BRAD BETTHAUSER
PHONE: (715) 213-9064
EMAIL: bradley.betthouser@wisconsin.gov

UTILITIES



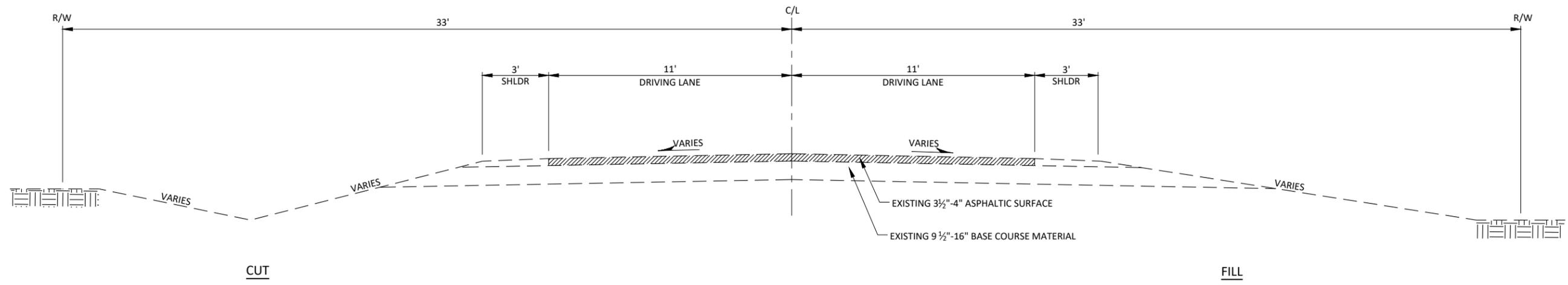
NOTE: NO UTILITIES LOCATED ON PROJECT LIMITS

LIST OF STANDARD ABBREVIATIONS

Table with 6 columns of abbreviations and their corresponding full names, including terms like ABUT, AC, AGG, AH, <, ASPH, AVG, ADT, BAD, BK, BF, BM, BR, C. or C/L, C.C., C.E., CTH, CR, CR, CR, CY or CU YD, CP, C & G, D, DHV, DIA, E, X, ELEC, EL or ELEV, ESALS, EBS, FF, F.E., F, FG, FL or F/L, FT, FTG, GN, HT, CWT, HYD, INL, ID, INV, IP, IRS, JT, JCT, LHF, L, LIN FT, or LF, LC, MH, MB, ML or M/L, N, Y, OD, PLE, PT, PC, PI, PRC, POC, POT, PVC, PCC, LB, PSI, P.E., R, RR, R, RL or R/L, RP, RCCP, REQD, RES, RW, RT, RHF, R/W, RD, R, Invert, Iron Pipe or Pin, Iron Rod Set, Joint, Junction, Left-Hand Forward, Length of Curve, Linear Foot, Long Chord of Curve, Manhole, Mailbox, Match Line, North, North Grid Coordinate, Outside Diameter, Permanent Limited Easement, Point, Point of Curvature, Point of Intersection, Point of Reverse Curvature, Point of Tangency, Point On Curve, Point on Tangent, Polyvinyl Chloride, Portland Cement Concrete, Pound, Pounds Per Square Inch, Private Entrance, Radius, Railroad, Range, Reference Line, Reference Point, Reinforced Concrete Culvert Pipe, Required, Residence or Residential, Retaining Wall, Right, Right-Hand Forward, Right-of-Way, Road, River, RDWY, SALV, SAN S, SEC, SHLDR, SHR, SW, S, SQ, SF or SQ FT, SY or SQ YD, STD, SDD, STH, STA, SS, SG, SE, SL or S/L, SV, T, TEL, TEMP, TI, TLE, t, T or TN, TRANS, TL or T/L, T, TYP, UNCL, UG, UH, VAR, V, VERT, VC, VOL, WM, WV, W, WB, YD, Roadway Salvaged, Sanitary Sewer, Section, Shoulder, Shrinkage, Sidewalk, South, Square, Square Feet, Square Yard, Standard, Standard Detail Drawings, State Trunk Highways, Station, Storm Sewer, Subgrade, Superelevation, Survey Line, Septic Vent, Tangent, Telephone, Temporary, Temporary Interest, Temporary Limited Easement, Ton, Town, Transition, Transit Line, Trucks (percent of), Typical, Unclassified, Underground Cable, United States Highway, Variable, Velocity or Design Speed, Vertical, Vertical Curve, Volume, Water Main, Water Valve, West, Westbound, Yard.

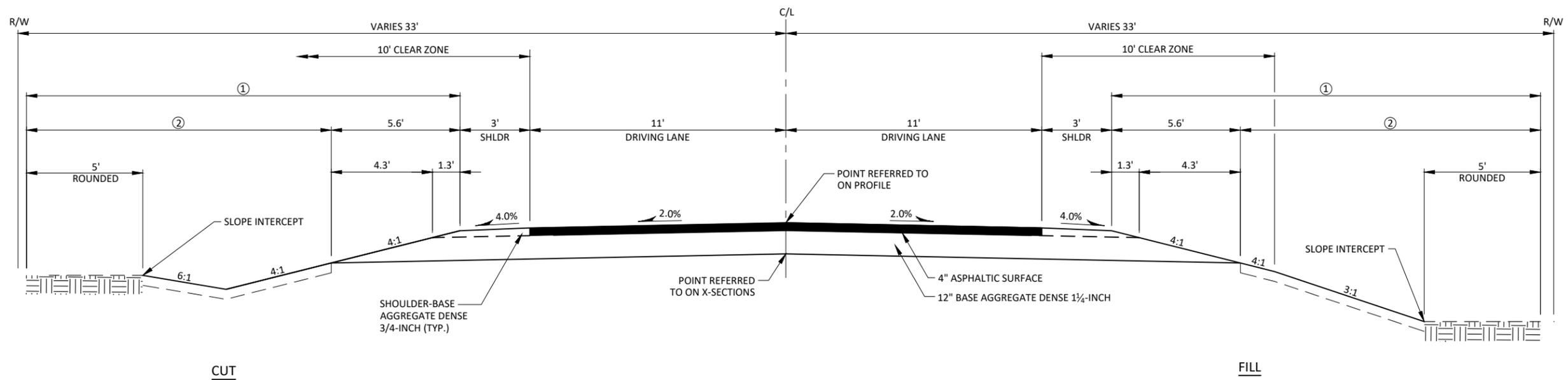
Table titled 'HYDROLOGIC SOIL GROUP' with columns for A, B, C, D and rows for LAND USE, ROW CROPS, MEDIAN STRIP TURF, SIDE SLOPE TURF, ASPHALT, CONCRETE, BRICK, DRIVES, WALKS, ROOFS, GRAVEL ROADS, SHOULDERS.

TOTAL PROJECT AREA= 0.34 ACRES
TOTAL AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES = 0.21 ACRES



TYPICAL EXISTING SECTION

CTH Z

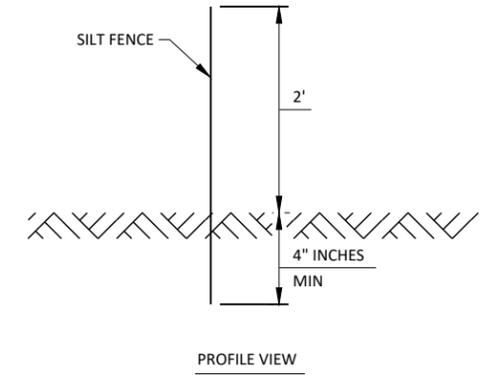
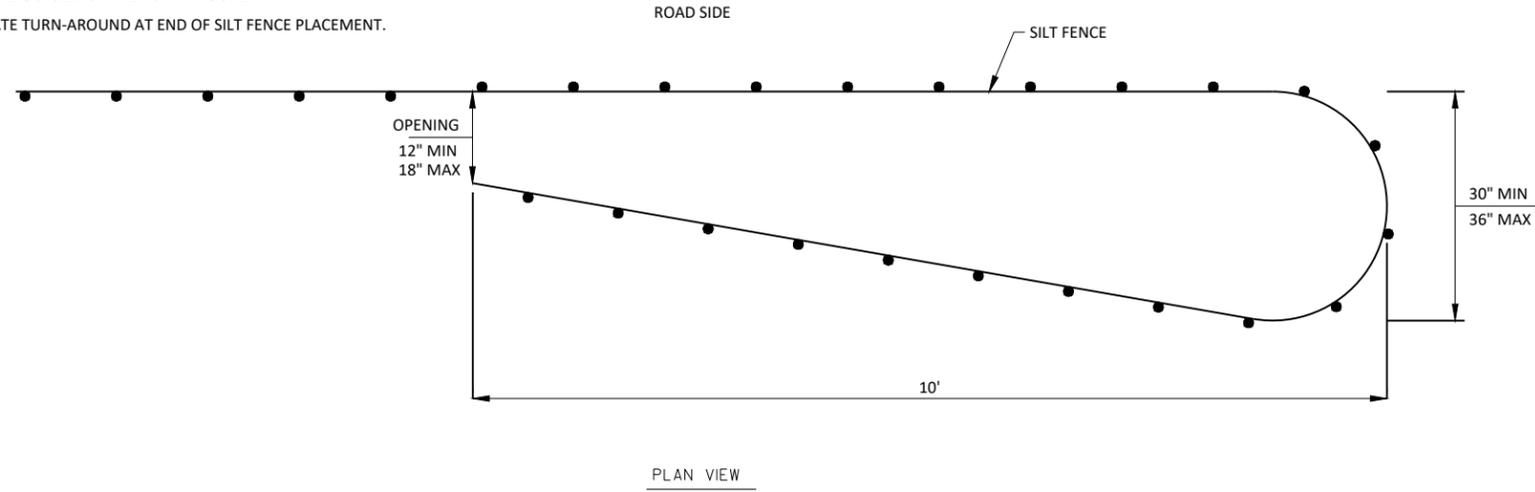


TYPICAL FINISHED SECTION

CTH Z
STA. 10+00 - STA. 11+50

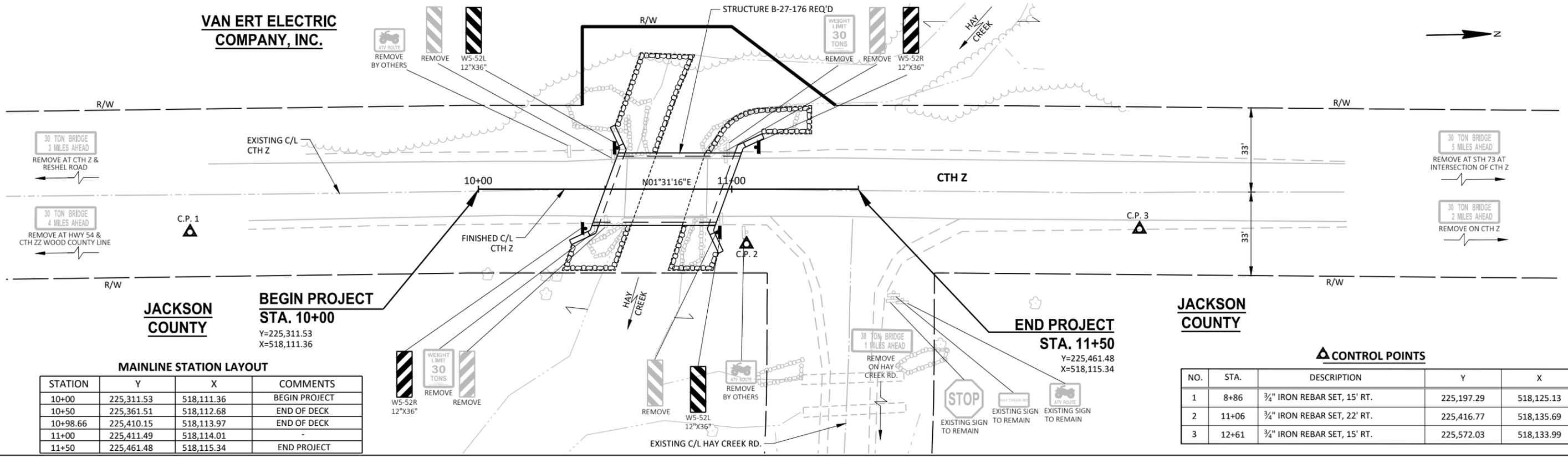
- ① LIMITS OF SEEDING MIXTURE NO. 20 OR SEEDING MIXTURE NO. 60, SEEDING TEMPORARY, & FERTILIZER TYPE B (AS DIRECTED BY THE ENGINEER)
- ② LIMITS OF SALVAGED TOPSOIL & MULCHING (AS DIRECTED BY THE ENGINEER)

NOTE: PLACE SILT FENCE POSTS FOR THE TURN-AROUND
ON THE OUTSIDE OF THE TURN-AROUND.
LOCATE TURN-AROUND AT END OF SILT FENCE PLACEMENT.



SILT FENCE TURN-AROUND DETAIL

VAN ERT ELECTRIC COMPANY, INC.

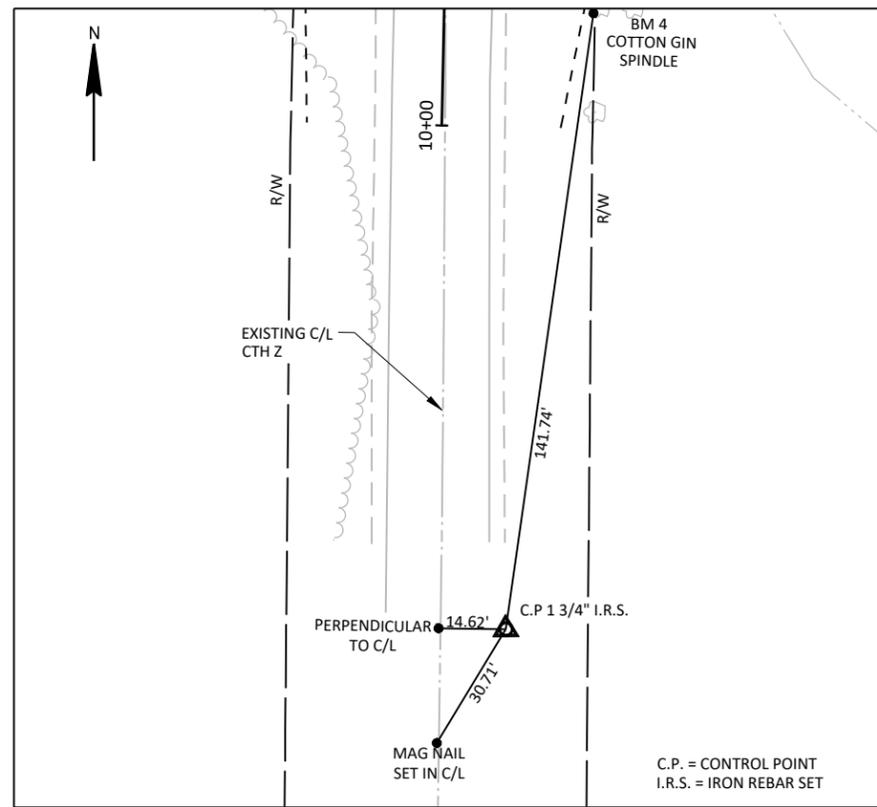


MAINLINE STATION LAYOUT

STATION	Y	X	COMMENTS
10+00	225,311.53	518,111.36	BEGIN PROJECT
10+50	225,361.51	518,112.68	END OF DECK
10+98.66	225,410.15	518,113.97	END OF DECK
11+00	225,411.49	518,114.01	-
11+50	225,461.48	518,115.34	END PROJECT

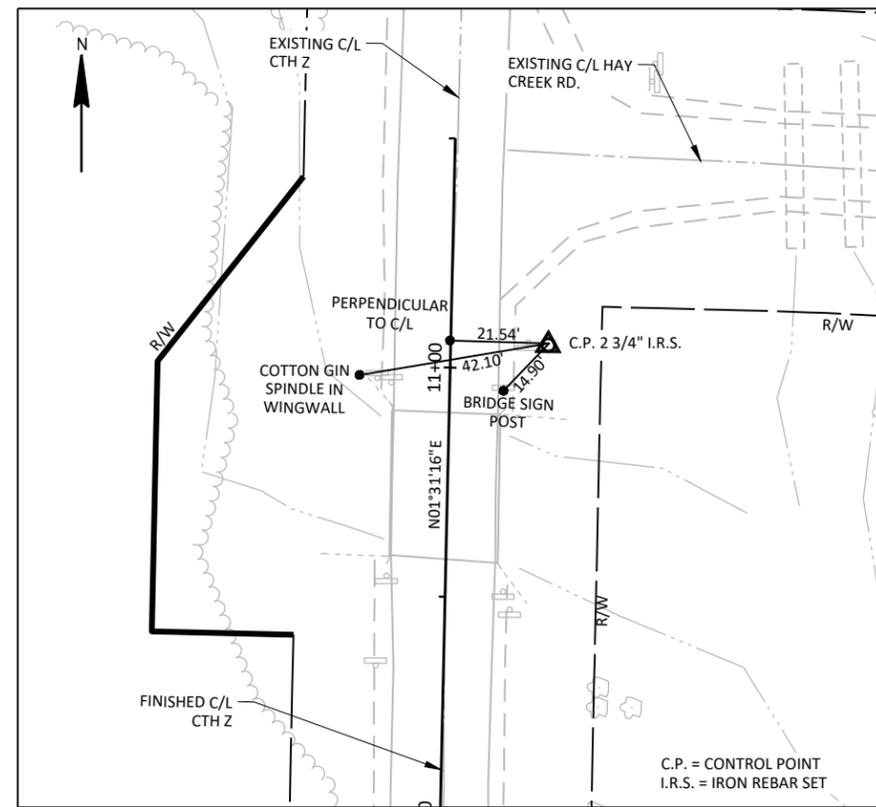
CONTROL POINTS

NO.	STA.	DESCRIPTION	Y	X
1	8+86	¾" IRON REBAR SET, 15' RT.	225,197.29	518,125.13
2	11+06	¾" IRON REBAR SET, 22' RT.	225,416.77	518,135.69
3	12+61	¾" IRON REBAR SET, 15' RT.	225,572.03	518,133.99



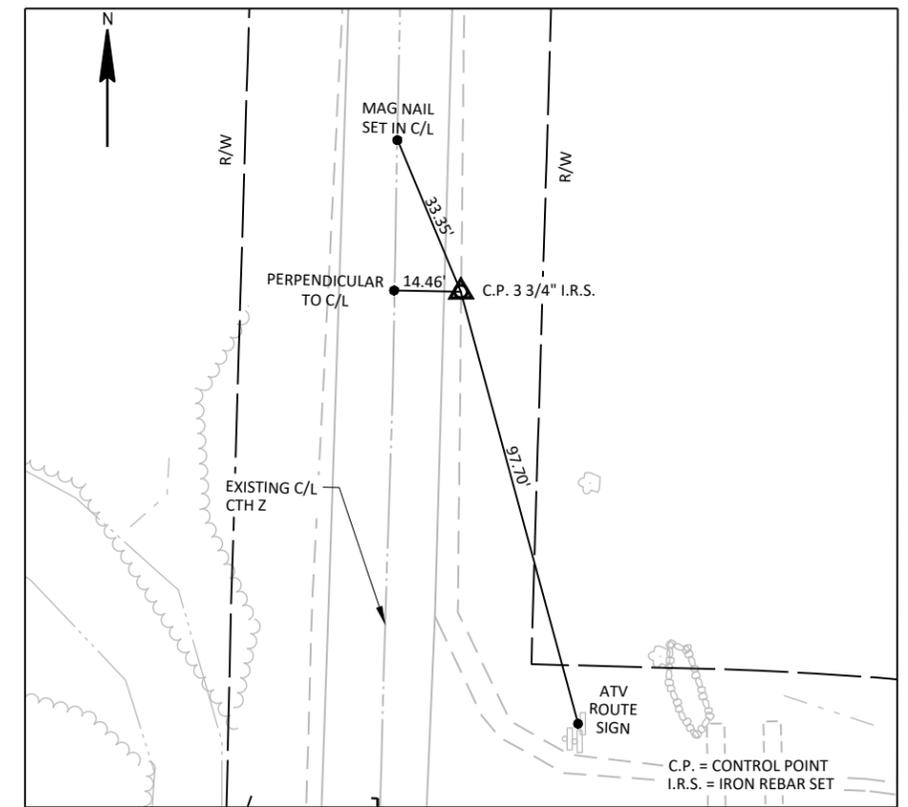
TIES TO C.P.#1

STA. 8+86; 15' RT.
Y = 225,197.29
X = 518,125.13



TIES TO C.P.#2

STA. 11+06; 22' RT.
Y = 225,416.77
X = 518,135.69



TIES TO C.P.#3

STA. 12+61; 15' RT.
Y = 225,572.03
X = 518,133.99

Estimate Of Quantities

7244-00-70

Line	Item	Item Description	Unit	Total	Qty
0002	201.0205	Grubbing	STA	2.000	2.000
0004	203.0260	Removing Structure Over Waterway Minimal Debris (structure) 01. P-27-0065	EACH	1.000	1.000
0006	205.0100	Excavation Common	CY	115.000	115.000
0008	205.0506.S	Excavation, Hauling, and Disposal of Creosote Contaminated Soil	TON	145.000	145.000
0010	206.1001	Excavation for Structures Bridges (structure) 01. B-27-0176	EACH	1.000	1.000
0012	210.1500	Backfill Structure Type A	TON	320.000	320.000
0014	213.0100	Finishing Roadway (project) 01. 7244-00-70	EACH	1.000	1.000
0016	305.0110	Base Aggregate Dense 3/4-Inch	TON	20.000	20.000
0018	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	290.000	290.000
0020	455.0605	Tack Coat	GAL	15.000	15.000
0022	465.0105	Asphaltic Surface	TON	69.000	69.000
0024	502.0100	Concrete Masonry Bridges	CY	163.000	163.000
0026	502.3200	Protective Surface Treatment	SY	220.000	220.000
0028	505.0400	Bar Steel Reinforcement HS Structures	LB	4,380.000	4,380.000
0030	505.0600	Bar Steel Reinforcement HS Coated Structures	LB	22,850.000	22,850.000
0032	513.4061	Railing Tubular Type M	LF	102.000	102.000
0034	516.0500	Rubberized Membrane Waterproofing	SY	12.000	12.000
0036	550.0500	Pile Points	EACH	14.000	14.000
0038	550.1100	Piling Steel HP 10-Inch X 42 Lb	LF	490.000	490.000
0040	606.0300	Riprap Heavy	CY	220.000	220.000
0042	612.0406	Pipe Underdrain Wrapped 6-Inch	LF	150.000	150.000
0044	618.0100	Maintenance and Repair of Haul Roads (project) 01. 7244-00-70	EACH	1.000	1.000
0046	619.1000	Mobilization	EACH	1.000	1.000
0048	624.0100	Water	MGAL	5.000	5.000
0050	625.0500	Salvaged Topsoil	SY	270.000	270.000
0052	627.0200	Mulching	SY	270.000	270.000
0054	628.1504	Silt Fence	LF	325.000	325.000
0056	628.1520	Silt Fence Maintenance	LF	650.000	650.000
0058	628.1905	Mobilizations Erosion Control	EACH	4.000	4.000
0060	628.1910	Mobilizations Emergency Erosion Control	EACH	2.000	2.000
0062	628.6005	Turbidity Barriers	SY	440.000	440.000
0064	629.0210	Fertilizer Type B	CWT	1.000	1.000
0066	630.0120	Seeding Mixture No. 20	LB	8.000	8.000
0068	630.0160	Seeding Mixture No. 60	LB	2.000	2.000
0070	630.0200	Seeding Temporary	LB	8.000	8.000
0072	630.0500	Seed Water	MGAL	9.000	9.000
0074	633.5100	Markers ROW	EACH	9.000	9.000
0076	634.0612	Posts Wood 4x6-Inch X 12-FT	EACH	4.000	4.000
0078	637.2230	Signs Type II Reflective F	SF	12.000	12.000
0080	638.2602	Removing Signs Type II	EACH	11.000	11.000
0082	638.3000	Removing Small Sign Supports	EACH	11.000	11.000
0084	642.5001	Field Office Type B	EACH	1.000	1.000
0086	643.0420	Traffic Control Barricades Type III	DAY	1,190.000	1,190.000
0088	643.0705	Traffic Control Warning Lights Type A	DAY	1,850.000	1,850.000
0090	643.0900	Traffic Control Signs	DAY	925.000	925.000
0092	643.5000	Traffic Control	EACH	1.000	1.000
0094	645.0111	Geotextile Type DF Schedule A	SY	100.000	100.000
0096	645.0120	Geotextile Type HR	SY	355.000	355.000
0098	646.1020	Marking Line Epoxy 4-Inch	LF	530.000	530.000
0100	650.4500	Construction Staking Subgrade	LF	102.000	102.000

Estimate Of Quantities

7244-00-70

Line	Item	Item Description	Unit	Total	Qty
0102	650.5000	Construction Staking Base	LF	102.000	102.000
0104	650.6501	Construction Staking Structure Layout (structure) 01. B-27-0176	EACH	1.000	1.000
0106	650.9911	Construction Staking Supplemental Control (project) 01. 7244-00-70	EACH	1.000	1.000
0108	650.9920	Construction Staking Slope Stakes	LF	102.000	102.000
0110	690.0150	Sawing Asphalt	LF	44.000	44.000
0112	715.0502	Incentive Strength Concrete Structures	DOL	1,000.000	1,000.000
0114	999.2000.S	Installing and Maintaining Bird Deterrent System (station) 01. 10+50	EACH	1.000	1.000
0116	ASP.1T0A	On-the-Job Training Apprentice at \$5.00/HR	HRS	300.000	300.000
0118	ASP.1T0G	On-the-Job Training Graduate at \$5.00/HR	HRS	300.000	300.000
0120	SPV.0090	Special 01. Flashing Stainless Steel	LF	87.000	87.000
0122	SPV.0195	Special 01. Select Crushed Material for Travel Corridor	TON	95.000	95.000

3

GRUBBING

STATION-STATION	LOCATION	201.0205 GRUBBING (STA)
10+00 - 12+00	MAINLINE	2
TOTALS =		2

EARTHWORK SUMMARY

FROM/TO STA	LOCATION	205.0100 COMMON EXCAVATION	AVAILABLE MATERIAL (CY) (1)	UNEXPANDED FILL (CY)	EXPANDED FILL (CY) FACTOR 1.25 (2)	MASS ORDINATE +/- (CY) (3)	WASTE (CY)
		CUT (CY)					
10+00 - 11+50	MAINLINE	115	115	6	8	107	107
TOTALS =		115	115	6	8	107	107

WATER

PROJECT	624.0100 (MGAL)
7244-00-70	5
TOTAL =	5

NOTES:

- 1.) AVAILABLE MATERIAL=CUT
- 2.) EXPANDED FILL FACTOR 1.25: EXPANDED FILL = (UNEXPANDED FILL)*1.25
- 3.) THE MASS ORDINATE + OR - QTY CALCULATED FOR THE DIVISION. PLUS QUANTITY INDICATES AN EXCESS OF MATERIAL WITHIN THE CATEGORY. MINUS INDICATES A SHORTAGE OF MATERIAL WITHIN THE CATEGORY.

3

FINISHING ITEMS

STATION - STATION	LOCATION	625.0500 SALVAGED TOPSOIL (SY)	627.0200 MULCHING (SY)	629.0210 FERTILIZER TYPE B (CWT)	630.0120 SEEDING MIXTURE NO. 20 (LB)	*630.0160 SEEDING MIXTURE NO. 60 (LB)	630.0200 SEEDING TEMPORARY (LB)	630.0500 SEED WATER (MGAL)
10+00 - 11+50	MAINLINE	218	218	0.8	6	1.5	-	7
-	UNDISTRIBUTED	52	52	0.2	2	0.5	8	2
TOTALS =		270	270	1.0	8	2	8	9

*ADJACENT TO WETLAND AREAS (STA. 10+00 - 10+90, LT., STA. 10+00 - 10+60, RT., STA. 10+90 - 11+43, LT., STA. 10+74 - 10+88, RT)

ASPHALTIC SURFACE

STATION - STATION	LOCATION	455.0605 TACK COAT (GAL)	465.0105 ASPHALTIC SURFACE (TON)
10+00 - 11+50	MAINLINE	15	69
TOTALS =		15	69

BASE AGGREGATE DENSE

STATION - STATION	LOCATION	305.0110 BASE AGGREGATE DENSE 3/4-INCH (TON)	305.0120 BASE AGGREGATE DENSE 1 1/4-INCH (TON)
10+00 - 11+50	MAINLINE	20	290
TOTALS =		20	290

MOBILIZATION EROSION CONTROL

PROJECT	628.1905 MOBILIZATION EROSION CONTROL (EACH)	628.1910 MOBILIZATION EMERGENCY EROSION CONTROL (EACH)
7244-00-70	4	2
TOTALS =	4	2

TURBIDITY BARRIER

LOCATION	628.6005 (SY)
SOUTH RIVER BANK	175
NORTH RIVER BANK	175
UNDISTRIBUTED	90
TOTALS =	440

SILT FENCE

STATION - STATION	LOCATION	628.1504 SILT FENCE (LF)	628.1520 SILT FENCE MAINTENANCE (LF)
10+00 - 10+86	MAINLINE, LT.	115	230
10+00 - 10+41	MAINLINE, RT.	58	116
11+36 - 11+50	MAINLINE, LT.	29	58
10+83 - 11+19	MAINLINE, RT.	58	116
-	UNDISTRIBUTED	65	130
TOTALS =		325	650

MARKERS ROW

PT #	STATION	LOCATION	633.5100 OFFSET FROM MARKERS FINISHED C/L ROW FT	(EACH)
1	10+00.00	LEFT	33.00	1
2	10+41.00	LEFT	33.00	1
3	10+41.00	LEFT	64.00	1
4	11+00.00	LEFT	64.00	1
5	11+41.00	LEFT	33.00	1
6	11+80.00	LEFT	33.00	1
7	11+80.00	RIGHT	33.00	1
8	11+15.00	RIGHT	33.00	1
9	10+00.00	RIGHT	33.00	1
TOTAL=				9

TRAFFIC CONTROL

LOCATION	643.0420 BARRICADES TYPE III (DAY)	643.0705 WARNING LIGHTS TYPE A (DAY)	643.0900 SIGNS (DAY)	643.5000 TRAFFIC CONTROL (EACH)
PROJECT	1,190	1,850	925	1
TOTALS =	1,190	1,850	925	1

CONSTRUCTION STAKING

STATION-STATION	LOCATION	650.4500 SUBGRADE (L.F.)	650.5000 BASE (L.F.)	*650.6501 STRUCTURE LAYOUT (B-27-0176) (EACH)	650.9911 SUPPLEMENTAL CONTROL (7244-00-70) (EACH)	650.9920 SLOPES STAKES (L.F.)
10+00 - 10+50	MAINLINE	50	50	-	-	50
10+98 - 11+50	MAINLINE	52	52	-	-	52
7244-00-70	PROJECT	-	-	1	1	-
TOTAL =		102	102	1	1	102

*CATEGORY 020

MARKING LINE EPOXY 4-INCH

STATION - STATION	LOCATION	DESCRIPTION	646.1020 (LF)
10+00 - 11+50	MAINLINE	WHITE EDGELINE	300
10+00 - 10+50	MAINLINE	CL DASHED AND SOLID YELLOW	65
10+50 - 10+98	MAINLINE	CL SOLID DOUBLE YELLOW	100
10+98 - 11+50	MAINLINE	CL DASHED AND SOLID YELLOW	65
TOTAL =			530

SAWING ASPHALT

STATION	LOCATION	690.0150 (LF)
10+00	MAINLINE	22
11+50	MAINLINE	22
TOTAL =		44

EXCAVATION, HAULING, AND DISPOSAL OF
CREOSOTE CONTAMINATED SOIL

LOCATION	205.0506.S (TON)
NORTH ABUT	72
SOUTH ABUT	73
TOTAL =	145

PERMANENT SIGNING

APPROX. STATION	POSITION	LOCATION	SIGN CODE	SIGN DESCRIPTION	ORDER LINES	SIGN SIZE	634.0612 POSTS WOOD 4X6- INCH X 12-FT (EACH)	637.2230 SIGNS TYPE II REFLECTIVE F (SF)	638.2602 REMOVING SIGNS TYPE II (EACH)	638.3000 REMOVING SMALL SIGN SUPPORTS (EACH)
-	RIGHT	AT STH 54 & CTH ZZ	R12-55	XX TON BRDGE XX MILES AHEAD	30 TON / 4 MILES	48X18	--	--	1	1
-	RIGHT	AT CTH Z & RESHEL RD	R-12-55	XX TON BRDGE XX MILES AHEAD	30 TON / 3 MILES	48X18	--	--	1	1
10+42	RIGHT	MAINLINE	W5-52R	BRIDGE HASH MARKS		12X36	1	3	--	--
10+48	RIGHT	MAINLINE	R12-1	WEIGHT LIMIT XX TONS	30 TON	24X30	--	--	1	1
10+51	RIGHT	MAINLINE	W5-52R	BRIDGE HASH MARKS		12X36	--	--	1	1
10+54	LEFT	MAINLINE	W5-52L	BRIDGE HASH MARKS		12X36	--	--	1	1
10+55	LEFT	MAINLINE	W5-52L	BRIDGE HASH MARKS		12X36	1	3	--	--
10+94	RIGHT	MAINLINE	W5-52L	BRIDGE HASH MARKS		12X36	1	3	--	--
10+95	RIGHT	MAINLINE	W5-52L	BRIDGE HASH MARKS		12X36	--	--	1	1
10+97	LEFT	MAINLINE	W5-52R	BRIDGE HASH MARKS		12X36	--	--	1	1
10+97	LEFT	MAINLINE	R12-1	WEIGHT LIMIT XX TONS	30 TON	24X30	--	--	1	1
11+09	LEFT	MAINLINE	W5-52R	BRIDGE HASH MARKS		12X36	1	3	--	--
-	RIGHT	ON HAY CREEK RD	R12-55	XX TON BRDGE XX MILES AHEAD	30 TON / 1 MILES	48X18	--	--	1	1
-	LEFT	ON CTH Z	R-12-55	XX TON BRDGE XX MILES AHEAD	30 TON / 2 MILES	48X18	--	--	1	1
-	LEFT	AT STH 73 AND CTH Z	R-12-55	XX TON BRDGE XX MILES AHEAD	30 TON / 5 MILES	48X18	--	--	1	1
TOTALS =							4	12	11	11

R/W PROJECT NUMBER 7244-00-00	SHEET NUMBER 4.01	TOTAL SHEETS 2
FEDERAL PROJECT NUMBER		
PLAT OF RIGHT-OF-WAY REQUIRED FOR STH 54 - NORTH COUNTY LINE (HAY CREEK BRIDGE B-27-176)		
CTH Z		JACKSON COUNTY
CONSTRUCTION PROJECT NUMBER 7244-00-70		

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			
EXISTING R/W OR HE LINE	--- --				
PROPERTY LINE	--- --				
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	--- --				
CULVERT	--- --				
PARALLEL OFFSETS	--- --				

CONVENTIONAL ABBREVIATIONS

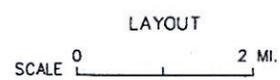
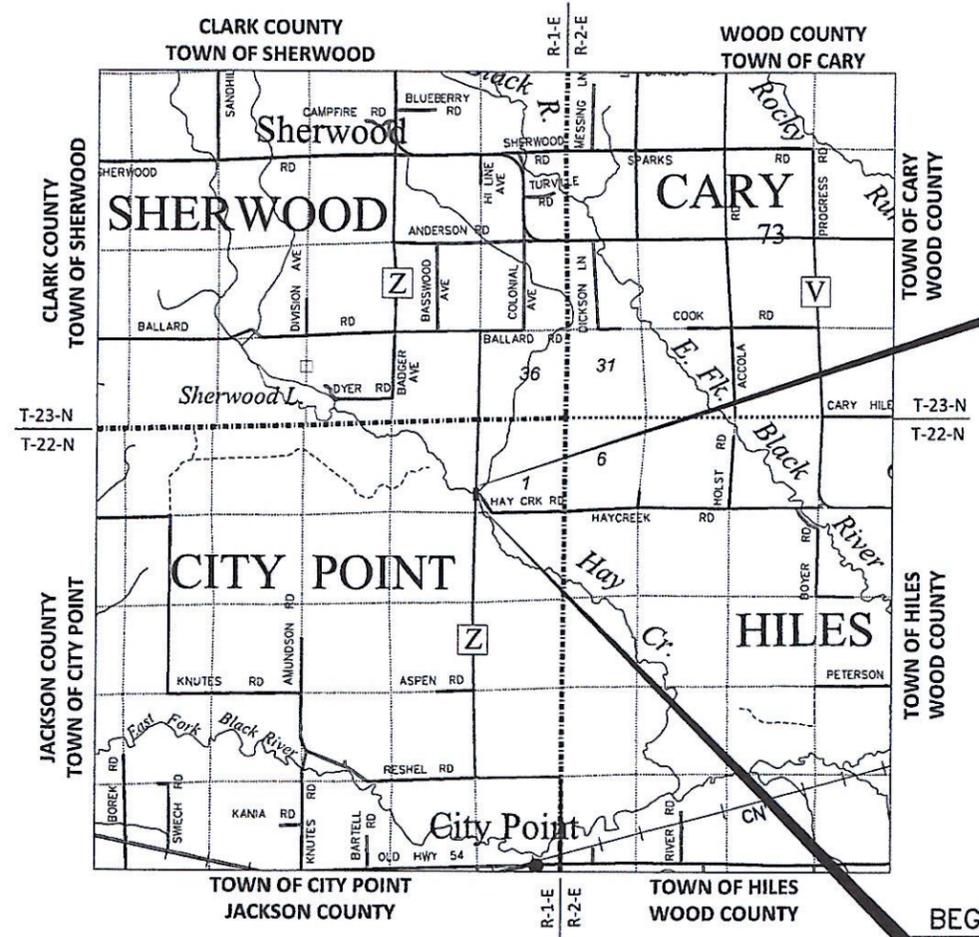
ACCESS RIGHTS	AR	POINT OF INTERSECTION	PI
ACRES	AC	PROPERTY LINE	PL
AHEAD	AH	RECORDED AS (100')	(100')
ALUMINUM	ALUM	REEL / IMAGE	R/I
AND OTHERS	ET AL	REFERENCE LINE	R/L
BACK	BK	REMAINING	REM
BLOCK	BLK	RESTRICTIVE DEVELOPMENT	RDE
CENTERLINE	C/L	EASEMENT	
CERTIFIED SURVEY MAP	CSM	RIGHT	RT
CONCRETE	CONC	RIGHT OF WAY	R/W
COUNTY	CO	SECTION	SEC
COUNTY TRUNK HIGHWAY	CTH	SEPTIC VENT	SEPV
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		
GRID NORTH	GN	TRANSPORTATION PROJECT	TPP
HIGHWAY EASEMENT	HE	PLAT	
IDENTIFICATION	ID	UNITED STATES HIGHWAY	USH
LAND CONTRACT	LC	VOLUME	V
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	--- --
GAS	--- --
TELEPHONE	--- --
OVERHEAD TRANSMISSION LINES	--- --
ELECTRIC	--- --
CABLE TELEVISION	--- --
FIBER OPTIC	--- --
SANITARY SEWER	--- --
STORM SEWER	--- --
ELECTRIC TOWER	--- --



TOTAL NET LENGTH OF CENTERLINE = 0.034 MI.

END RELOCATION ORDER
STA. 11+80.00
 1489.61' SOUTH AND 27.77' WEST OF THE
 E 1/4 CORNER OF SECTION 2, T.22N., R.1E.,
 TOWN OF CITY POINT, JACKSON COUNTY, WI
 Y=225,491.466
 X=518,116.134

BEGIN RELOCATION ORDER
STA. 10+00.00
 981.32' NORTH AND 66.00' EAST OF THE
 S.E. CORNER OF SECTION 2, T.22N., R.1E.,
 TOWN OF CITY POINT, JACKSON COUNTY, WI
 Y=225,311.529
 X=518,111.356

NOTES:

- POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COORDINATE REFERENCE SYSTEM COORDINATES (WISCRS), JACKSON COUNTY, NAD83(2011), IN U.S. SURVEY FEET. VALUES SHOWN ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.
- ALL NEW RIGHT-OF-WAY MONUMENTS WILL BE TYPE 2 (TYPICALLY 3/4" X 24" IRON REBARS), UNLESS OTHERWISE NOTED, AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT.
- ALL RIGHT-OF-WAY LINES DEPICTED IN THE NON-ACQUISITION AREAS ARE INTENDED TO RE-ESTABLISH EXISTING RIGHT-OF-WAY LINES AS DETERMINED FROM PREVIOUS PROJECTS, OTHER RECORDED DOCUMENTS, OR FROM CENTERLINE OF EXISTING PAVEMENTS.
- RIGHT-OF-WAY BOUNDARIES ARE DEFINED WITH COURSES OF THE PERIMETER OF THE HIGHWAY LANDS REFERENCED TO THE U.S. PUBLIC LAND SURVEY SYSTEM OR OTHER "SURVEYS" OF PUBLIC RECORD.
- DIMENSIONING FOR THE NEW RIGHT-OF-WAY IS MEASURED ALONG AND PERPENDICULAR TO THE NEW REFERENCE LINES.
- 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.
- FOR CURRENT ACCESS/DRIVEWAY INFORMATION, CONTACT THE JACKSON COUNTY HIGHWAY DEPARTMENT.
- PARCEL AND UTILITY IDENTIFICATION NUMBERS MAY NOT POINT TO ALL AREAS OF ACQUISITION, AS NOTED ON THE DETAIL PAGES.
- INFORMATION FOR THE BASIS OF EXISTING HIGHWAY RIGHT-OF-WAY POINTS OF REFERENCE AND ACCESS CONTROL ARE LISTED ON THE DETAIL PAGES.

JEWELL
 associates engineers, inc.
 Engineers - Architects - Surveyors

560 SUNRISE DRIVE
 SPRING GREEN, WI 53588
 PHONE : 608.588.7484
 FAX : 608.588.9322

I HEREBY CERTIFY THAT THIS PLAT WAS MADE FOR JACKSON COUNTY, WISCONSIN AND IS CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.



REVISION DATE
JUN 28 2022

APPROVED FOR JACKSON COUNTY
 DATE: 6-28-22
 (NAME/TITLE)

SCHEDULE OF LANDS & INTERESTS REQUIRED					
PARCEL NUMBER	OWNER (S)	INTEREST REQUIRED	R/W ACRES REQUIRED		
			NEW	EXISTING	TOTAL
1	VAN ERT ELECTRIC COMPANY, INC.	FEE	0.06	0.02	0.08

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

RIGHT OF WAY POINT TABLE				
POINT #	STATION	OFFSET	Y	X
1	10+00.00	33.00' LT.	225312.405	518078.367
2	10+41.00	33.00' LT.	225353.391	518079.456
3	10+41.00	64.00' LT.	225354.213	518048.467
4	11+00.00	64.00' LT.	225413.193	518050.033
5	11+41.00	33.00' LT.	225453.355	518082.110
6	11+80.00	33.00' LT.	225492.343	518083.146
7	11+80.00	33.00' RT.	225490.590	518149.123
8	11+14.00	33.00' RT.	225424.613	518147.370
9	10+00.00	33.00' RT.	225310.653	518144.344

RIGHT OF WAY LINE TABLE		
POINT TO POINT	BEARING	DISTANCE
1 TO 2	N01° 31' 16" E	41.00'
2 TO 3	N88° 28' 44" W	31.00'
3 TO 4	N01° 31' 16" E	59.00'
4 TO 5	N38° 36' 51" E	51.40'
5 TO 6	N01° 31' 16" E	39.00'
6 TO 7	S88° 28' 44" E	66.00'
7 TO 8	S01° 31' 16" W	66.00'
8 TO 9	S01° 31' 16" W	114.00'
9 TO 1	N88° 28' 44" W	66.00'



4

4

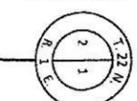
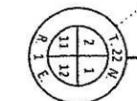
**TOWN OF
CITY POINT**

①
**VAN ERT ELECTRIC
COMPANY, INC.**
DOC. 186057, V. 173, P. 146

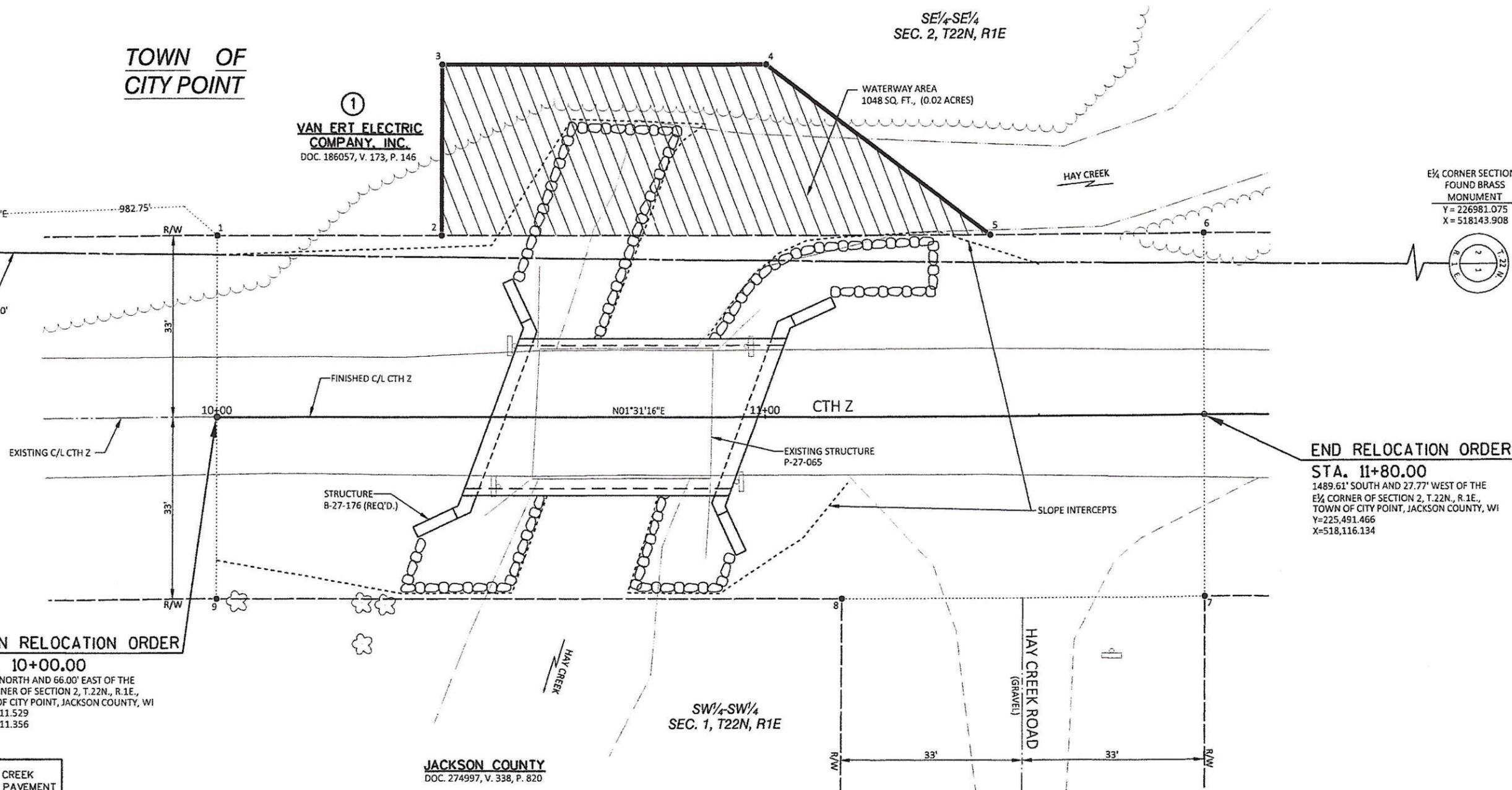
SE 1/4-SE 1/4
SEC. 2, T22N, R1E

SE CORNER SEC. 2
FOUND BRASS
MONUMENT
Y = 224330.208
X = 518045.356

E 1/4 CORNER SECTION 2
FOUND BRASS
MONUMENT
Y = 226981.075
X = 518143.908



EAST LINE OF THE
SE 1/4 OF SECTION 2
N02° 07' 45" E, 2652.70'



BEGIN RELOCATION ORDER

STA. 10+00.00
981.32' NORTH AND 66.00' EAST OF THE
S.E. CORNER OF SECTION 2, T.22N., R.1E.,
TOWN OF CITY POINT, JACKSON COUNTY, WI
Y=225,311.529
X=518,111.356

END RELOCATION ORDER

STA. 11+80.00
1489.61' SOUTH AND 27.77' WEST OF THE
E 1/4 CORNER OF SECTION 2, T.22N., R.1E.,
TOWN OF CITY POINT, JACKSON COUNTY, WI
Y=225,491.466
X=518,116.134

EXISTING C/L OF CTH Z AND HAY CREEK
ROAD BASED ON C/L OF EXISTING PAVEMENT

EXISTING RIGHT-OF-WAY FOR CTH Z AND
HAY CREEK ROAD BASED C/L OF EXISTING
PAVEMENTS AND WIS. STATUTE 82.31(2)

JACKSON COUNTY
DOC. 274997, V. 338, P. 820

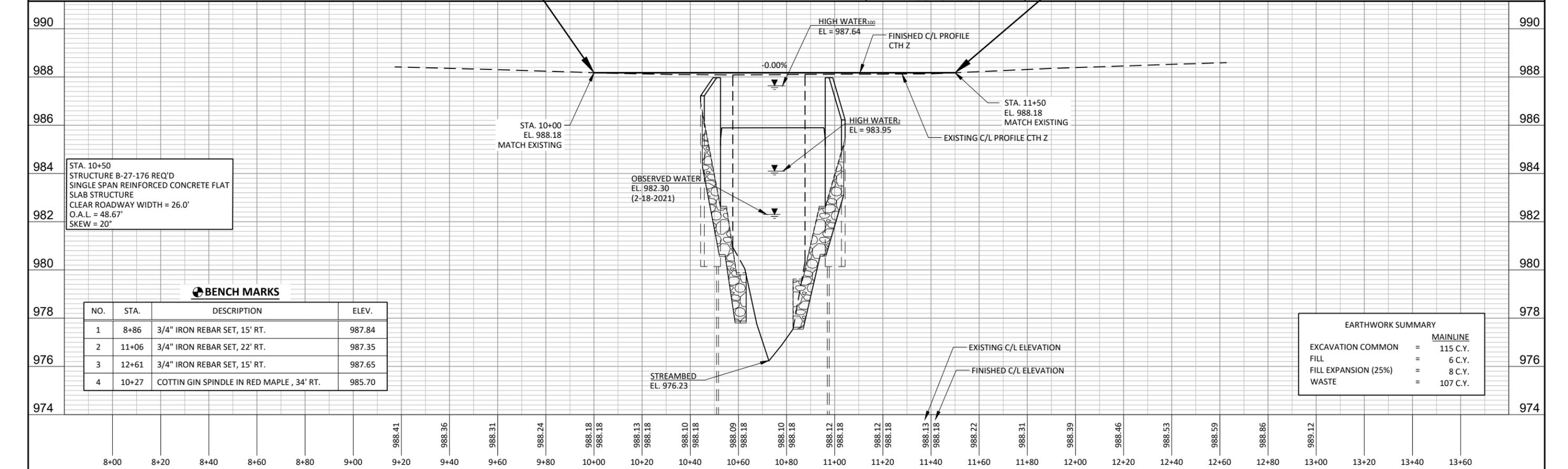
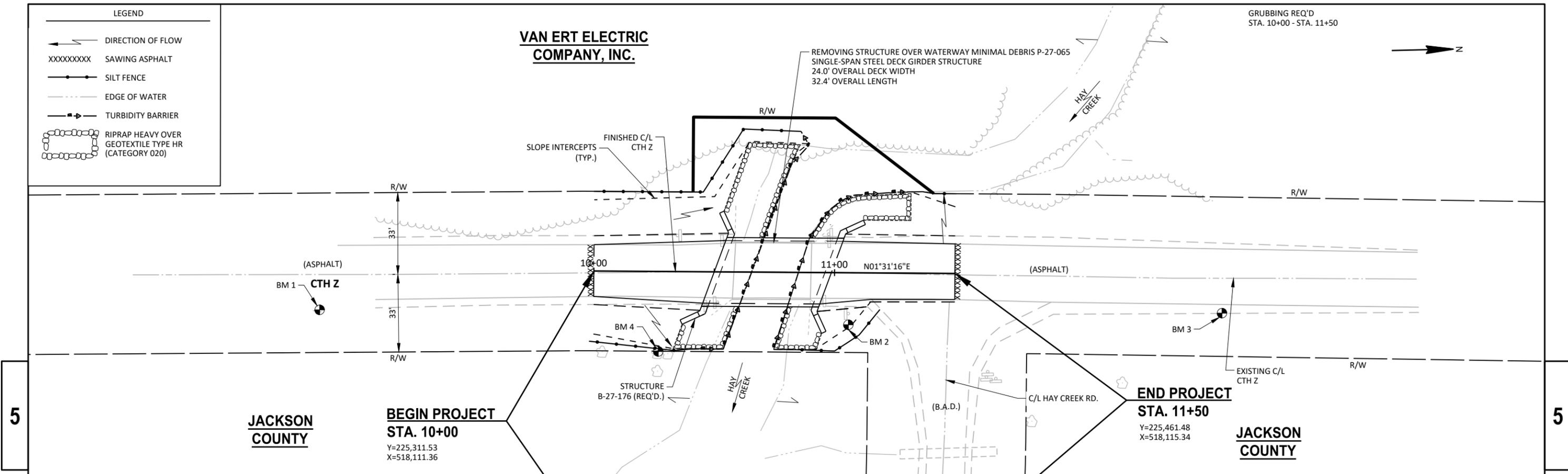
REVISION DATE	DATE: JUNE 8, 2022	SCALE: FEET	HWY: CTH Z	STATE R/W PROJECT NUMBER 7244-00-00	PLAT SHEET 4.02
	GRID FACTOR	0 10 20	COUNTY: JACKSON	CONSTRUCTION PROJECT NUMBER 7244-00-70	PS&E SHEET E

LEGEND

- ← DIRECTION OF FLOW
- XXXXXXX SAWING ASPHALT
- SILT FENCE
- - - EDGE OF WATER
- ▲— TURBIDITY BARRIER
- RIPRAP HEAVY OVER GEOTEXTILE TYPE HR (CATEGORY 020)

VAN ERT ELECTRIC COMPANY, INC.

GRUBBING REQ'D
STA. 10+00 - STA. 11+50



STA. 10+50
STRUCTURE B-27-176 REQ'D
SINGLE SPAN REINFORCED CONCRETE FLAT SLAB STRUCTURE
CLEAR ROADWAY WIDTH = 26.0'
O.A.L. = 48.67'
SKEW = 20°

BENCH MARKS

NO.	STA.	DESCRIPTION	ELEV.
1	8+86	3/4" IRON REBAR SET, 15' RT.	987.84
2	11+06	3/4" IRON REBAR SET, 22' RT.	987.35
3	12+61	3/4" IRON REBAR SET, 15' RT.	987.65
4	10+27	COTTIN GIN SPINDLE IN RED MAPLE, 34' RT.	985.70

EARTHWORK SUMMARY

	MAINLINE
EXCAVATION COMMON	= 115 C.Y.
FILL	= 6 C.Y.
FILL EXPANSION (25%)	= 8 C.Y.
WASTE	= 107 C.Y.

PROJECT NO: 7244-00-70

HWY: CTH Z

COUNTY: JACKSON

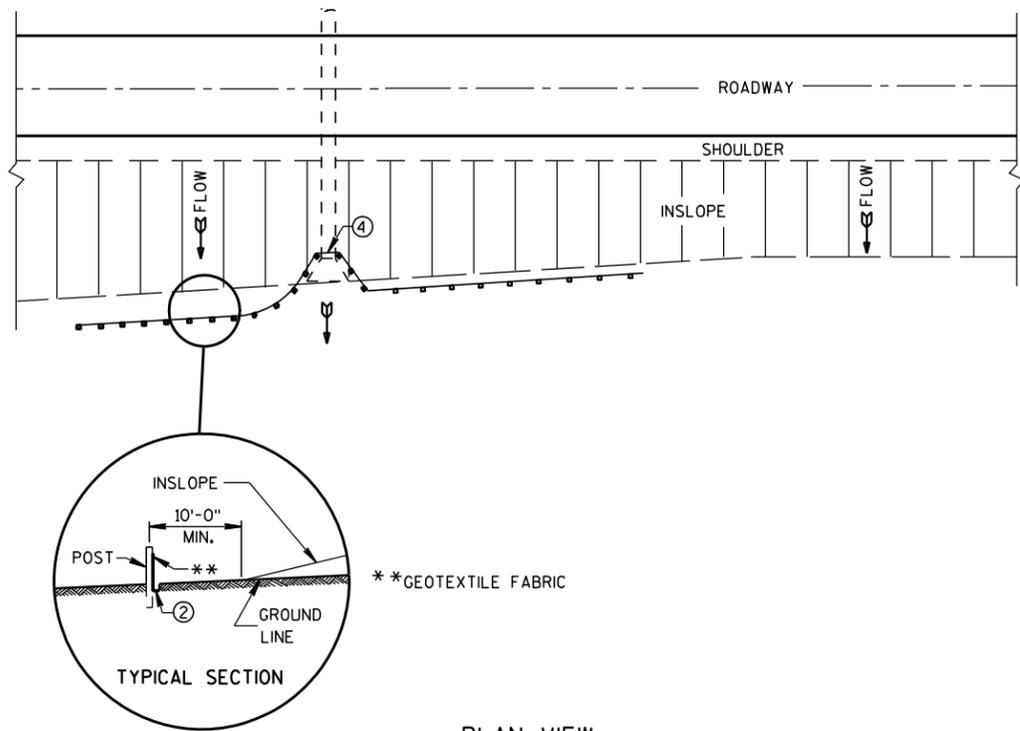
PLAN AND PROFILE: MAINLINE

SHEET

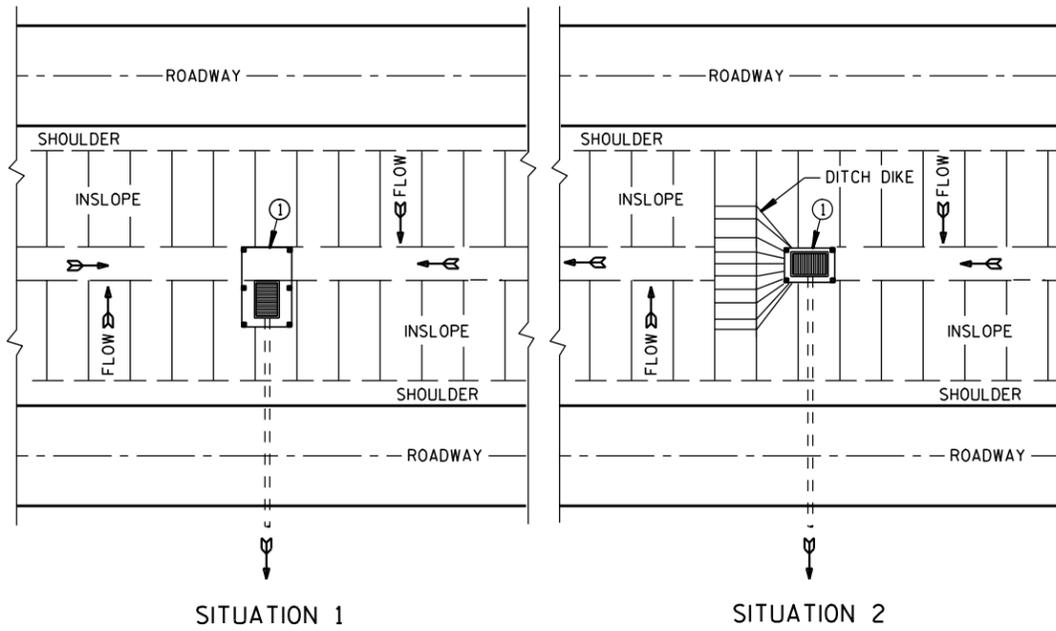
E

Standard Detail Drawing List

08E09-06	SILT FENCE
08E11-02	TURBIDITY BARRIER
12A03-10	NAME PLATE (STRUCTURES)
13C19-03	HMA LONGITUDINAL JOINTS
15A01-13A	MARKER POST FOR RIGHT-OF-WAY
15C02-08A	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-08B	BARRICADES AND SIGNS FOR VARIOUS CLOSURES
15C06-12	SIGNING & MARKING FOR TWO LANE BRIDGES
15C08-22A	LONGITUDINAL MARKING (MAINLINE)
15C08-23A	PERMANENT LONGITUDINAL PAVEMENT MARKINGS
15C11-10B	CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS



PLAN VIEW
TYPICAL APPLICATION OF SILT FENCE

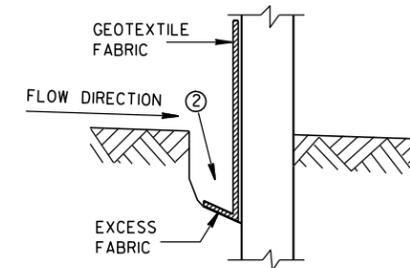


SITUATION 1 SITUATION 2
PLAN VIEW
SILT FENCE AT MEDIAN SURFACE DRAINS

GENERAL NOTES

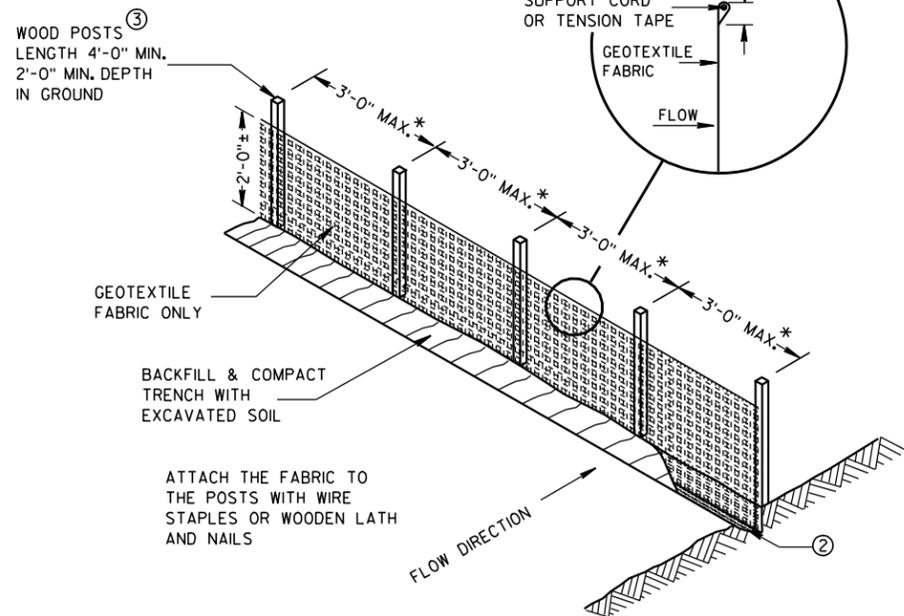
DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

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



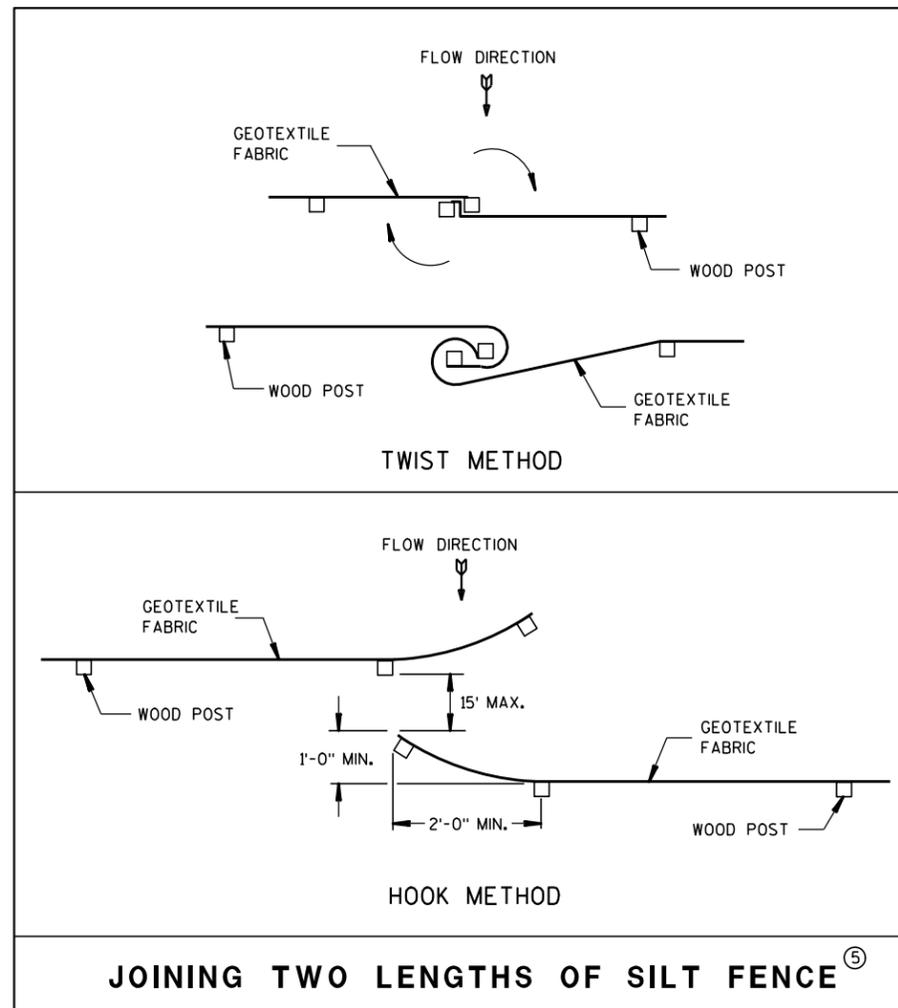
TRENCH DETAIL

NOTE: ADDITIONAL POST DEPTH OR TIE BACKS MAY BE REQUIRED IN UNSTABLE SOILS

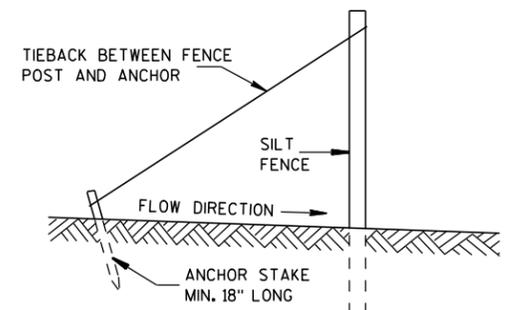


SILT FENCE

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



JOINING TWO LENGTHS OF SILT FENCE ⑤

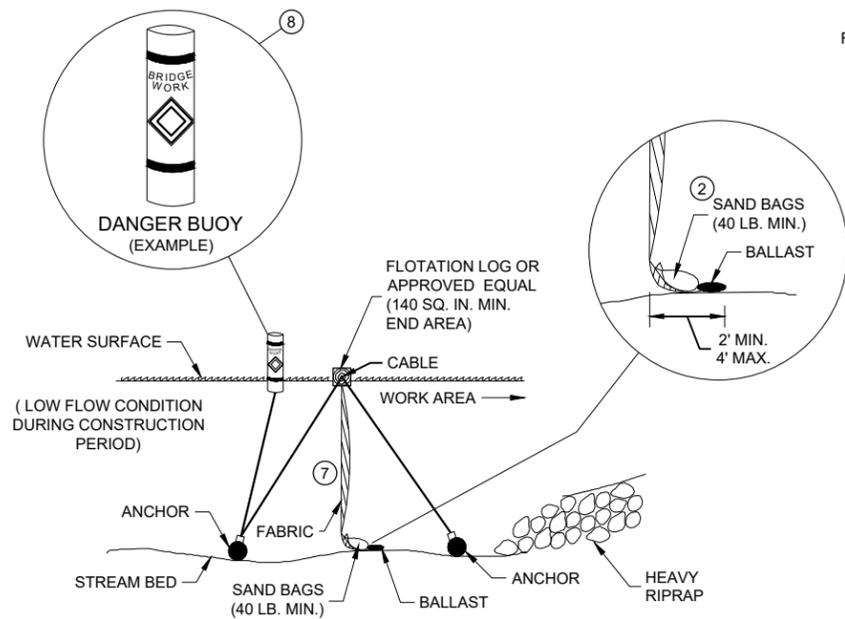


SILT FENCE TIE BACK
(WHEN REQUIRED BY THE ENGINEER)

SILT FENCE

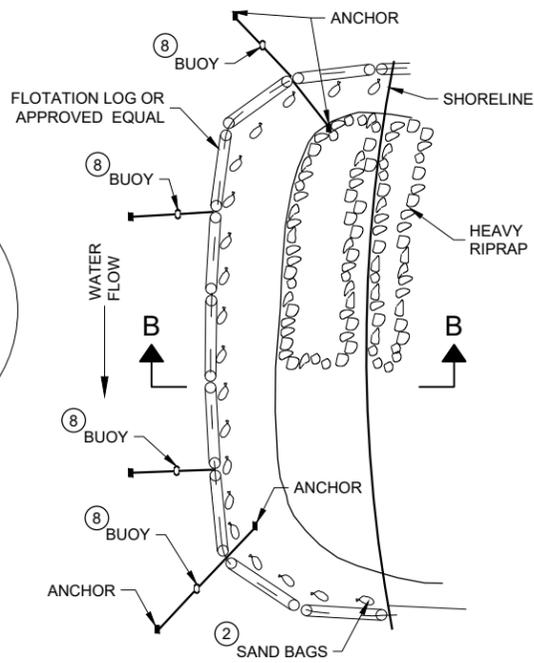
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

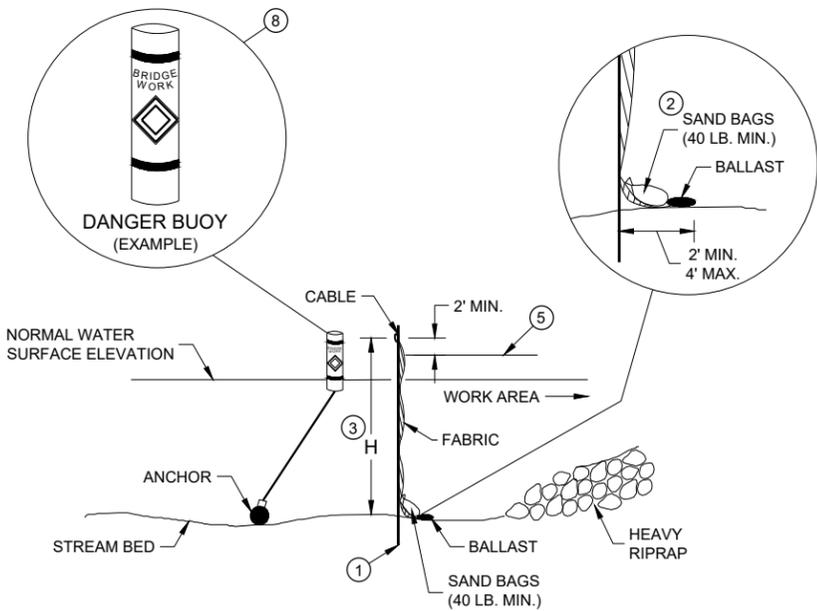


SECTION B - B

**TURBIDITY BARRIER - FLOAT ALTERNATIVE
CAUTION - SEE NOTE 6**

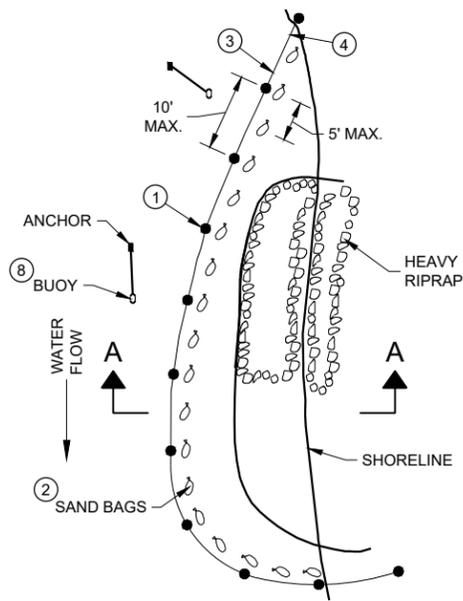


PLAN VIEW



SECTION A - A

TURBIDITY BARRIER - STANDARD POST INSTALLATION



PLAN VIEW

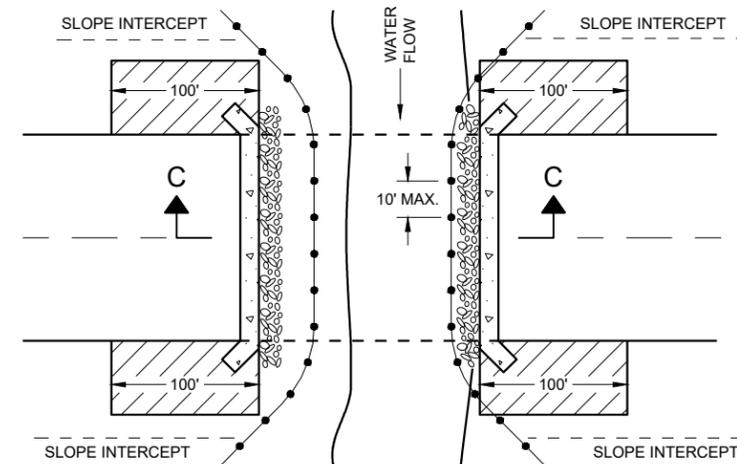
TURBIDITY BARRIER PLACEMENT DETAILS

GENERAL NOTES

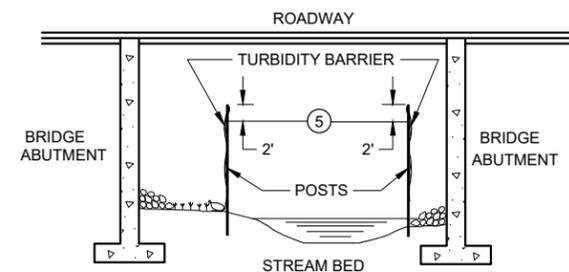
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

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 SAND BAGS 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 FEET, 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 Q2 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 BEDROCK 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.



PLAN VIEW



SECTION C - C

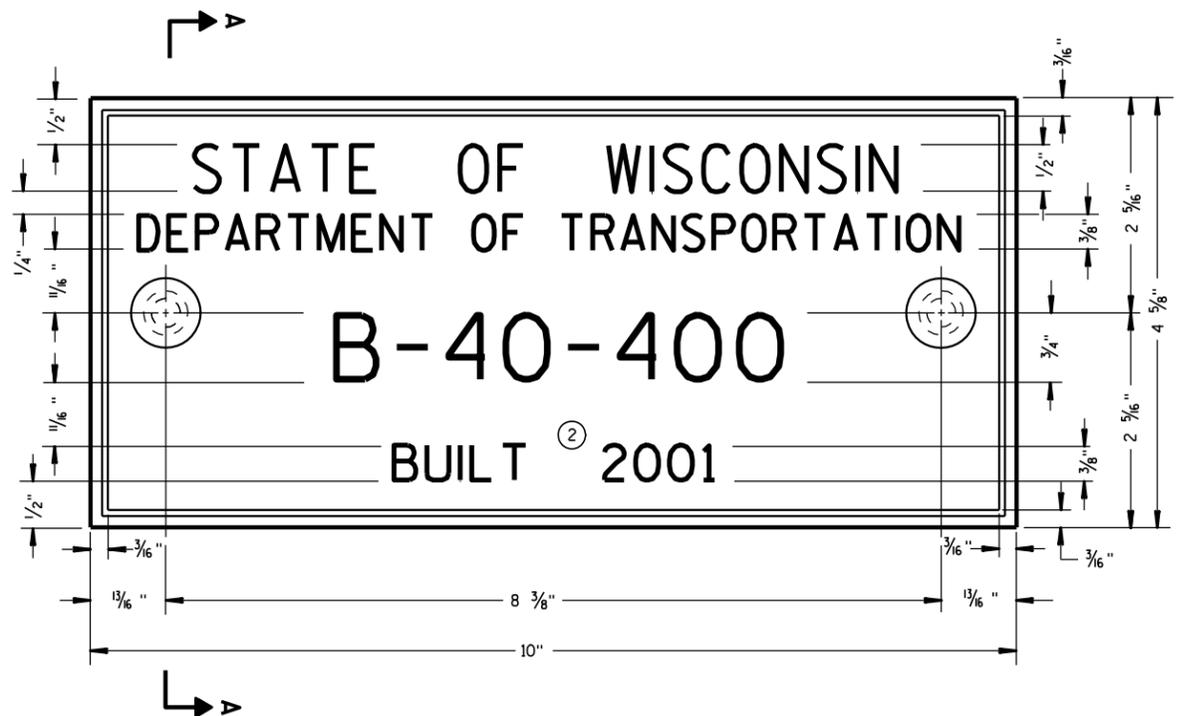
**TURBIDITY BARRIER DETAIL SHOWING
TYPICAL PLACEMENT AT STRUCTURES**

TURBIDITY BARRIER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
6/4/02 DATE /S/ Beth Cannestra
DATE CHIEF ROADWAY DEVELOPMENT
ENGINEER

FHWA



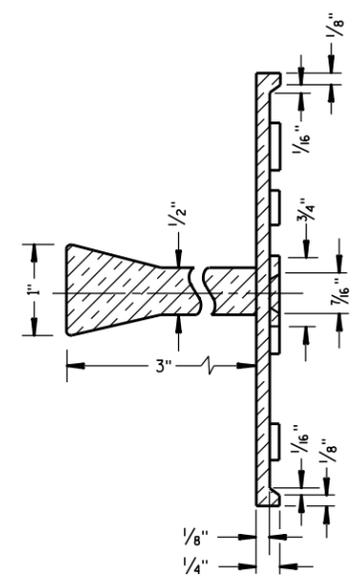
TYPICAL NAME PLATE
(BRIDGES, CULVERTS, AND RETAINING WALLS)

GENERAL NOTES

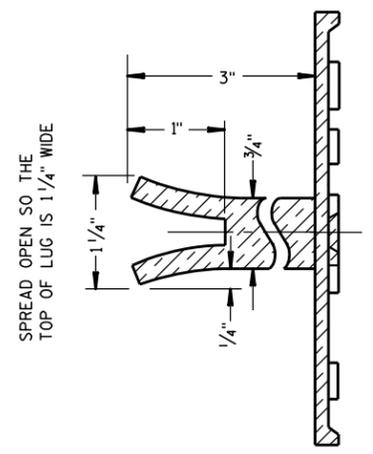
NAME PLATES TO BE INSTALLED ON BRIDGES, CULVERTS, AND RETAINING WALLS SHALL CONFORM TO THE REQUIREMENTS OF SECTION 502.3.11 OF THE STANDARD SPECIFICATIONS.

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



SPREAD OPEN SO THE TOP OF LUG IS 1 1/4" WIDE

ALTERNATE LUG

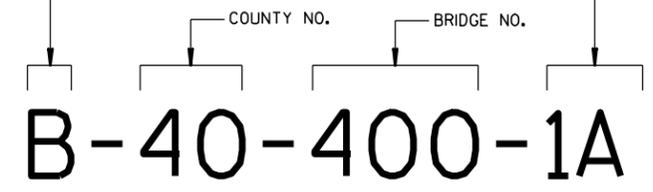
6

6

FOR MULTI-UNIT STRUCTURES
LINE 3 ABOVE SHALL READ

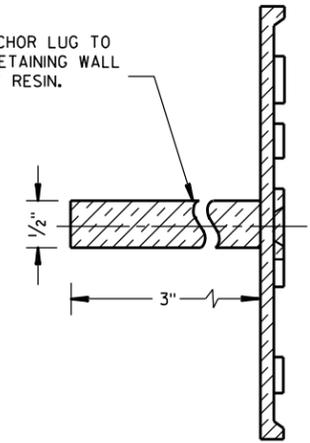
B = BRIDGE
C = CULVERT
R = RETAINING WALL

UNIT NO. FOR MULTIPLE
UNIT BRIDGE



**NUMBERING DESIGNATION
MULTI-UNIT STRUCTURES**

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

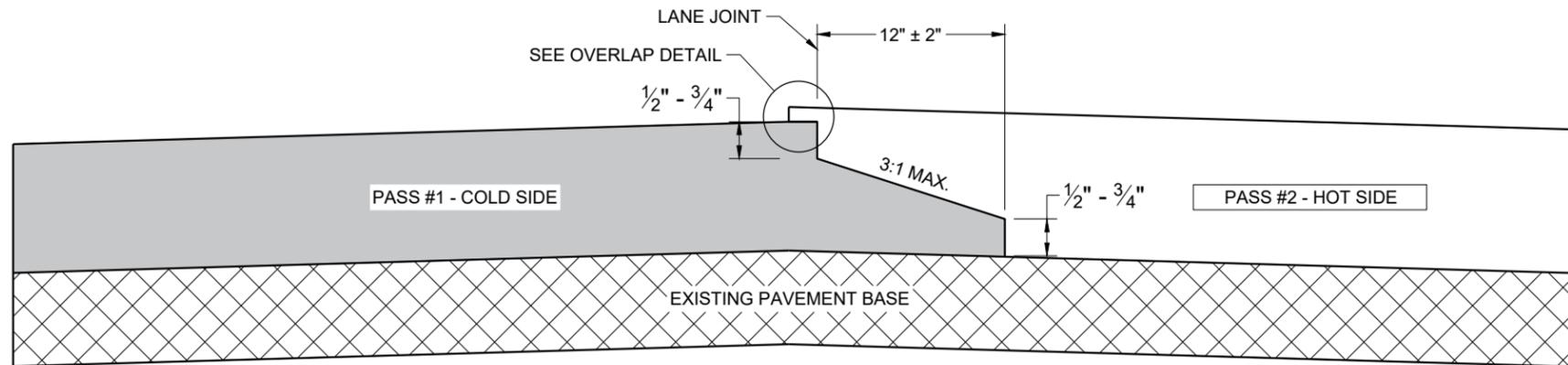


ALTERNATE LUG
(FOR ATTACHMENT TO PRECAST STRUCTURES)

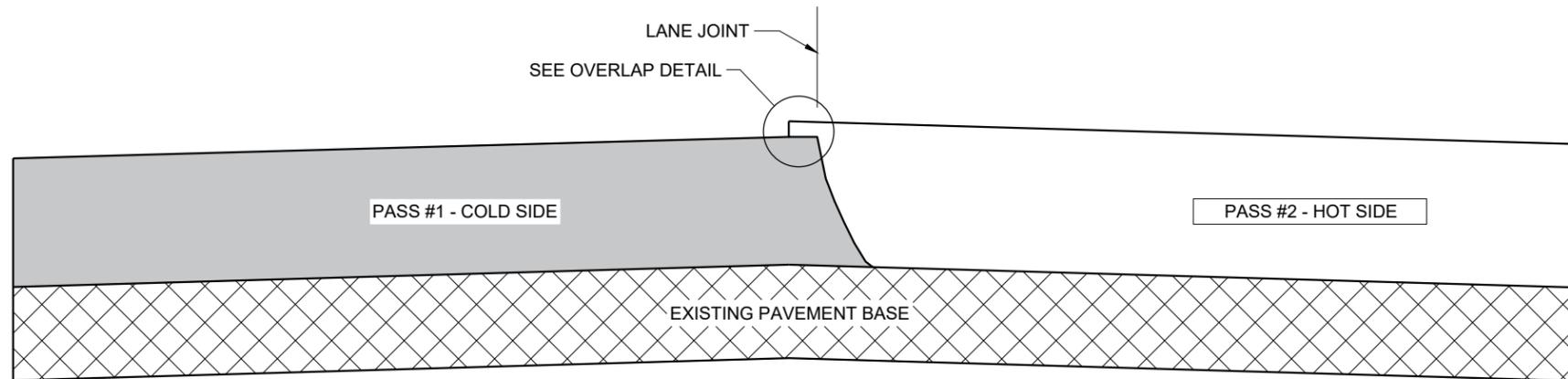
S.D.D. 12 A 3-10

S.D.D. 12 A 3-10

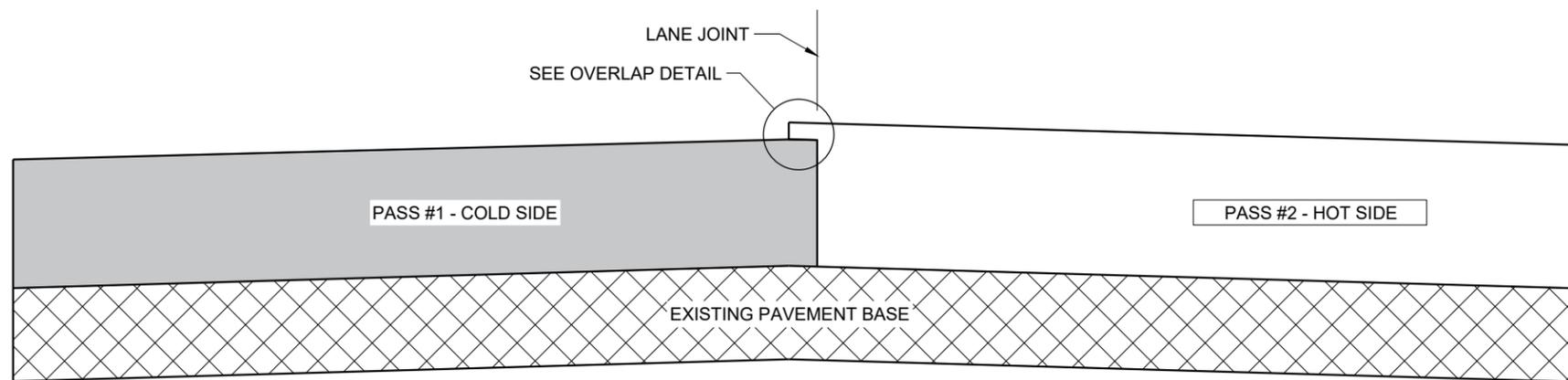
NAME PLATE (STRUCTURES)	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED DATE 3/26/10	/S/ Scot Becker CHIEF STRUCTURAL DEVELOPMENT ENGINEER
FHWA	



**TYPICAL PAVEMENT CROSS SECTION
NOTCHED WEDGE JOINT**



**TYPICAL PAVEMENT CROSS SECTION
VERTICAL JOINT**



**TYPICAL PAVEMENT CROSS SECTION
VERTICAL JOINT (MILLED)**

GENERAL NOTES

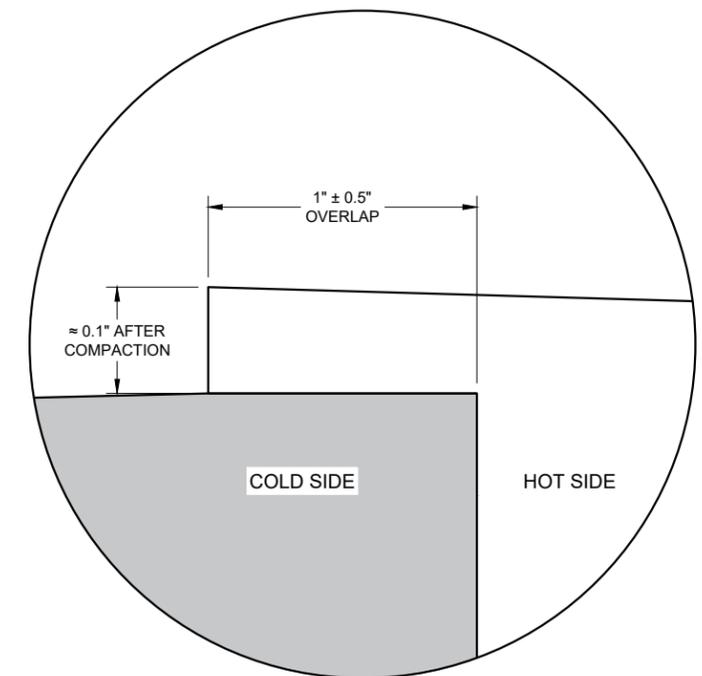
IN ADDITION TO THE DETAILS PROVIDED IN THIS DRAWING, CONFORM TO STANDARD SPECIFICATION 450.3.2.8 FOR WHEN A NOTCHED WEDGE JOINT IS REQUIRED AND FOR GENERAL JOINT CONSTRUCTION REQUIREMENTS.

FOR ALL LONGITUDINAL JOINTS, ENSURE THE PAVER SCREED OVERLAPS THE PREVIOUSLY PLACED PAVEMENT BY $1" \pm 0.5"$ AND THE HOT SIDE OF THE JOINT REMAINS HIGHER THAN THE COLD SIDE BY APPROXIMATELY $0.1"$ AFTER FINAL COMPACTION. (IT WILL BE FLUSH WHEN PAVING IN ECHELON.)

ONLY REMOVE THE LONGITUDINAL NOTCHED WEDGE JOINT FOR SMA PAVEMENT OR AS DIRECTED BY THE ENGINEER TO ADDRESS SPECIFIC LENGTHS OF JOINT DAMAGED BY TRAFFIC.

WHEN MILLING BACK OR REMOVING ANY LONGITUDINAL JOINT, LIMIT THE MATERIAL REMOVED TO $2"$ FROM THE TOP NOTCH OR FROM THE VERTICAL JOINT EDGE ON THE COLD SIDE OF THE JOINT.

USE LONGITUDINAL MILLED JOINT AS PLANS SHOW OR THE AS THE ENGINEER DIRECTS.



OVERLAP DETAIL (TYPICAL)

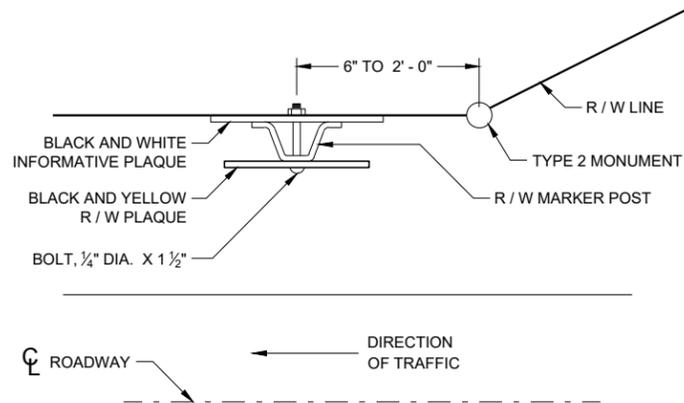
6

6

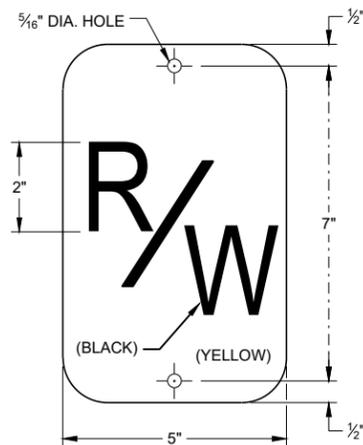
SDD 13C19 - 03

SDD 13C19 - 03

HMA LONGITUDINAL JOINTS	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED November 2020 DATE	/S/ Steven Hefel HMA PAVEMENT ENGINEER
FHWA	

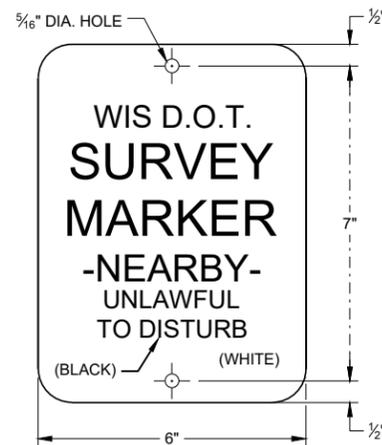


**PLAN VIEW
STEEL MARKER POST**



R / W PLAQUE

THE RIGHT-OF-WAY PLAQUE AND INFORMATIVE PLAQUE WILL BE FURNISHED BY THE WISCONSIN DEPARTMENT OF TRANSPORTATION.



INFORMATIVE PLAQUE

GENERAL NOTES

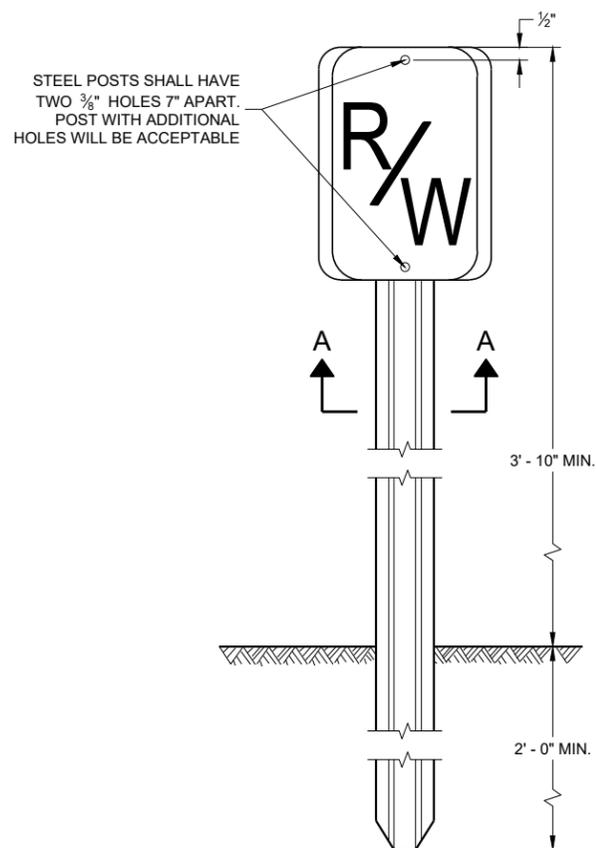
DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

A STEEL MARKER POST FOR RIGHT -OF-WAY SHALL BE PLACED IN THE RIGHT-OF-WAY WITH THE BACK OF THE POST ON THE LONGER RIGHT-OF-WAY TANGENT, 6 INCHES TO 24 INCHES FROM EACH TYPE 2 MONUMENT TO SERVE AS A GUARD POST, AND AT OTHER LOCATIONS AS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER.

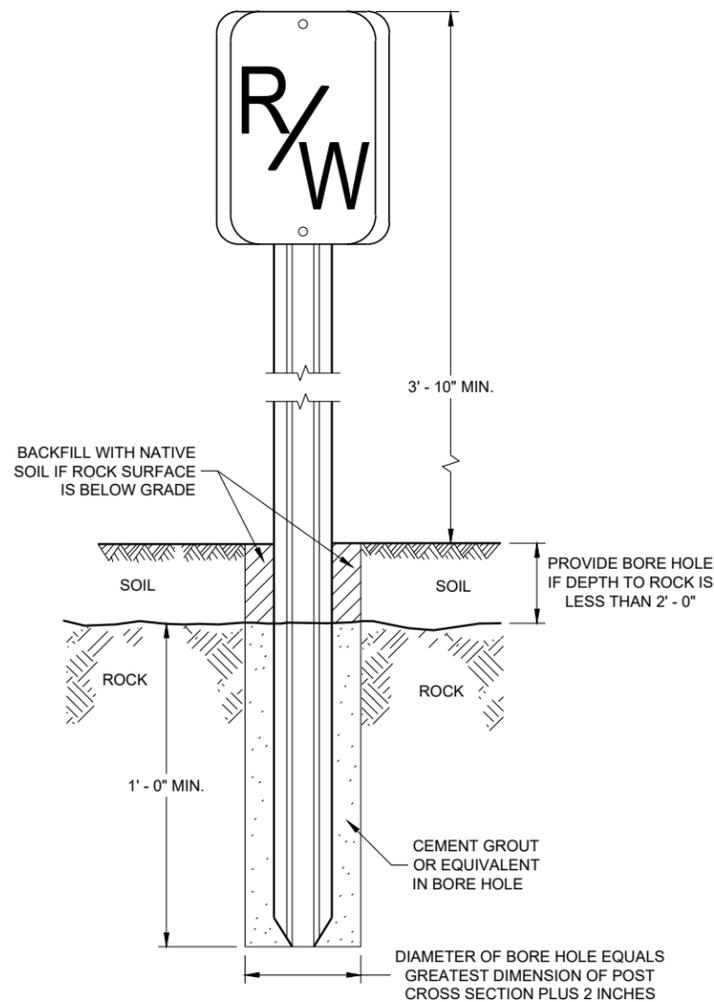
THE "R/W" PLAQUE SHALL FACE THE ROADWAY AND THE INFORMATIVE PLAQUE SHALL FACE AWAY FROM THE ROADWAY. "R/W" AND INFORMATIVE PLAQUES WILL BE FURNISHED BY THE WISCONSIN DEPARTMENT OF TRANSPORTATION.

STEEL MARKER POSTS SHALL MEET THE MINIMUM MATERIAL REQUIREMENTS FOR STEEL DELINEATOR POSTS; EXCEPT POSTS PAINTED WITH FEDERAL YELLOW ENAMEL NEED NOT BE ZINC COATED.

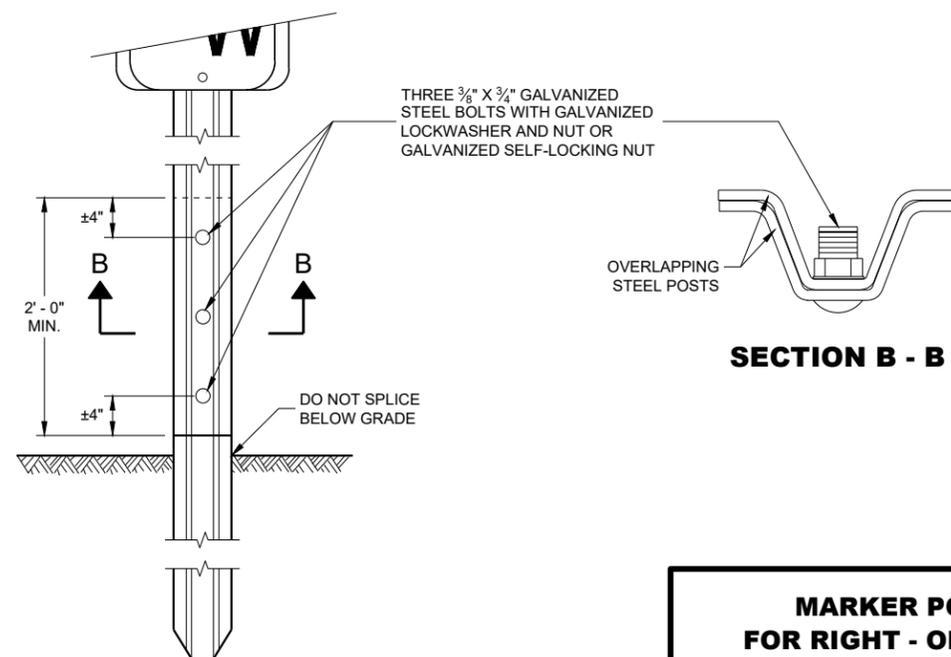
- ① IN AREAS OF SOLID ROCK, DRILL A BORE HOLE 2" GREATER THAN THE WIDEST DIMENSION OF THE POST CROSS SECTION INTO THE ROCK A MINIMUM DEPTH OF 12 INCHES. CUT OR SPLICE THE POST SO THAT A MINIMUM LENGTH OF 3' - 10" PROTRUDES ABOVE THE GROUND. BLOW OUT THE BORE HOLE IN THE ROCK USING COMPRESSED AIR. FILL THE BORE HOLE WITH CEMENT GROUT OR EQUIVALENT, DEPENDING ON THE STABILITY OF THE ROCK.



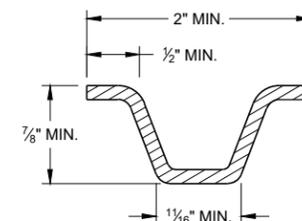
**FRONT VIEW
STEEL MARKER POST**



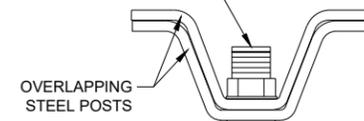
**FRONT VIEW
ROCK INSTALLATION** ①



**FRONT VIEW
SPLICE DETAIL**



MIN. WEIGHT 1.12 LB./FT.
SECTION A - A



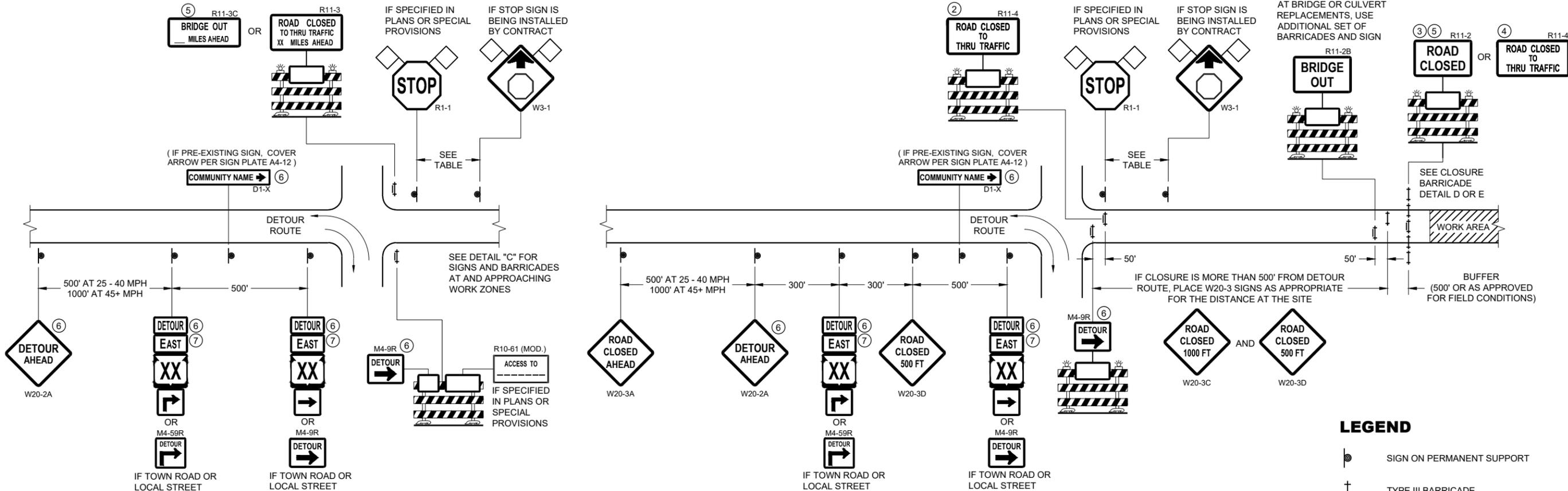
SECTION B - B

**MARKER POST
FOR RIGHT - OF - WAY**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
2/18/2016 DATE /S/ Ray Kumapayi
DATE CHIEF SURVEYING AND MAPPING ENGINEER

FHWA



**DETAIL A
MAINLINE CLOSURE WITH POSTED DETOUR**

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

**DETAIL B
MAINLINE CLOSURE WITH POSTED DETOUR**

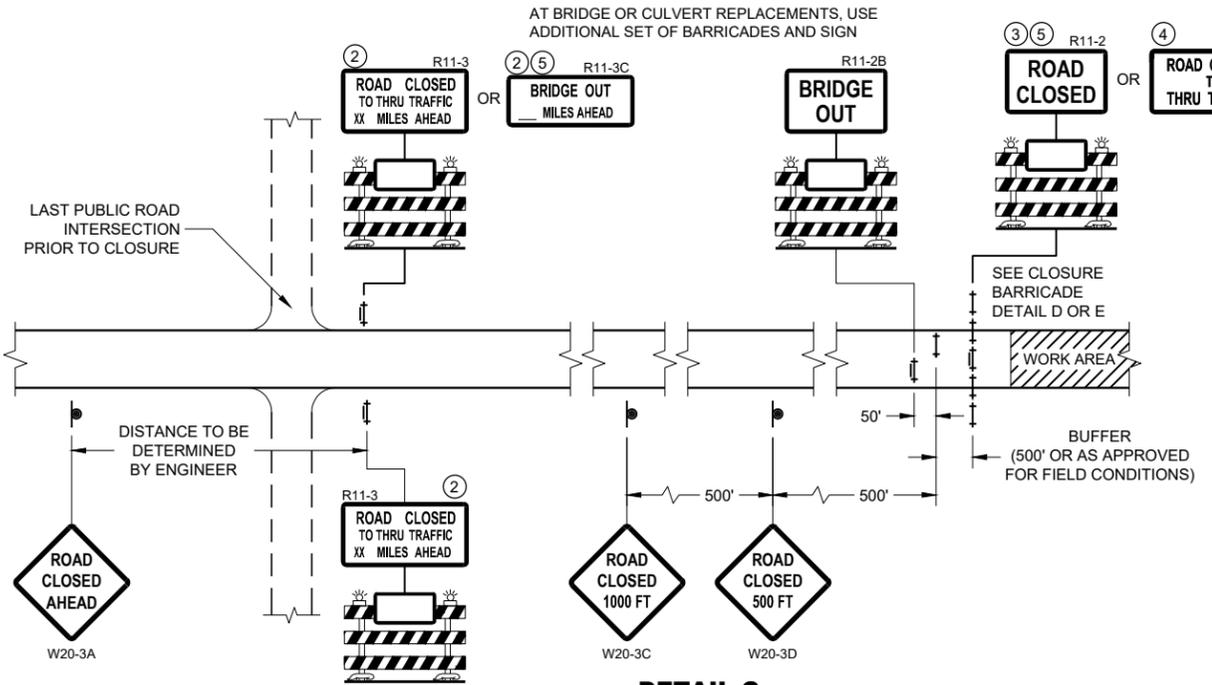
WORK ZONE LESS THAN 1/2 MILE FROM
DETOUR ROUTE (1000 FEET IF URBAN)

LEGEND

- SIGN ON PERMANENT SUPPORT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TYPE "A" WARNING LIGHT (FLASHING)
- WORK AREA
- FLAGS, 16" X 16" MIN. (ORANGE)

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

- M4 - 8
- M3 - X
- M1 - 4
- M1 - 6
- M1 - 5A
- M05 - 1
- M06 - 1



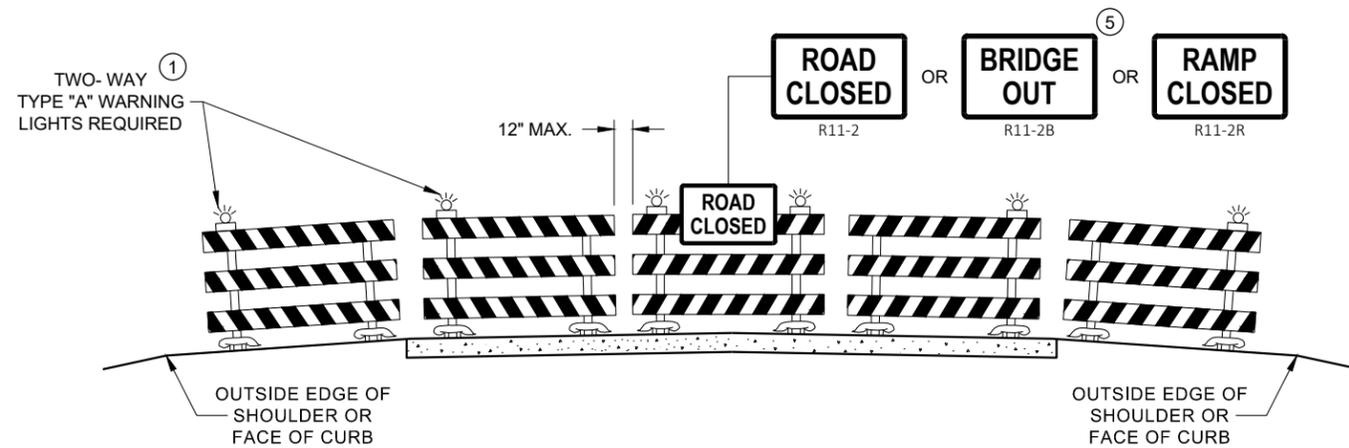
**DETAIL C
MAINLINE CLOSURE, NO POSTED DETOUR**

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

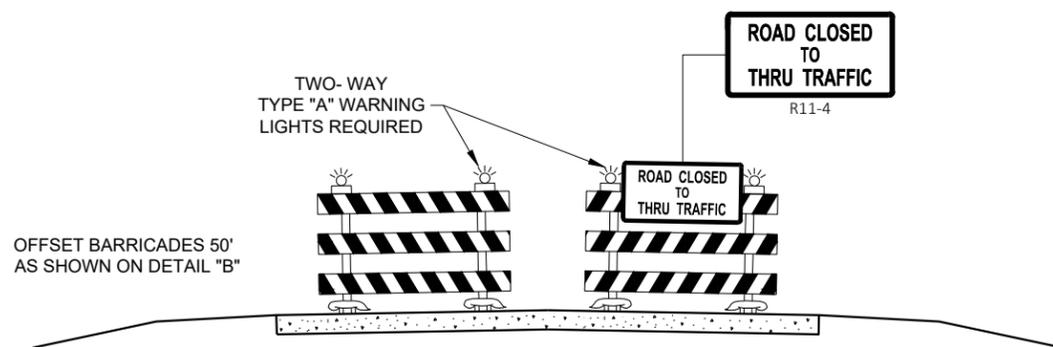
**BARRICADES AND SIGNS
FOR MAINLINE CLOSURES**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2020 /S/ Andrew Heidtke
DATE WORK ZONE 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 THE BARRICADES SHALL COVER NO MORE THAN THE TOP RAIL. THE SIGNS SHALL NOT COVER ANY PORTION OF THE MIDDLE RAIL 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:

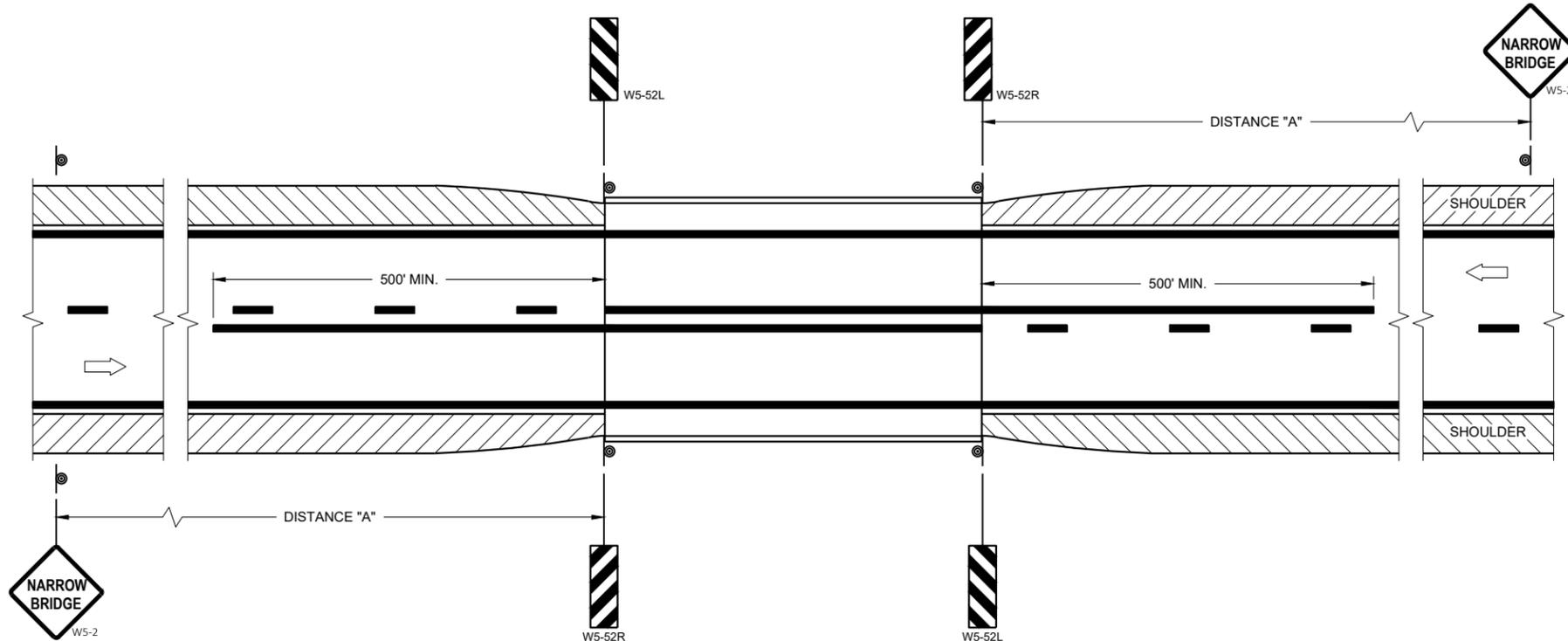
- R11 - 2 SHALL BE 48" X 30"
- R11 - 3 SHALL, R11 - 4 AND R10 - 61 SHALL BE 60" X 30"
- M4 - 9 SHALL BE 30" X 24"
- M3 - X SHALL BE 24" X 12" (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS)
- M4 - 8 SHALL BE 24" X 12" (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS)
- M1 - 4, M1 - 5A AND M1 - 6 SHALL BE 24" X 24" (36" X 36" IF NEEDED TO MATCH EXISTING SIGNS)
- MO5 - 1 AND MO6 - 1 SHALL BE 21" X 21" (30" X 30" IF NEEDED TO MATCH EXISTING SIGNS)
- 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 AN 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 ROAD 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.

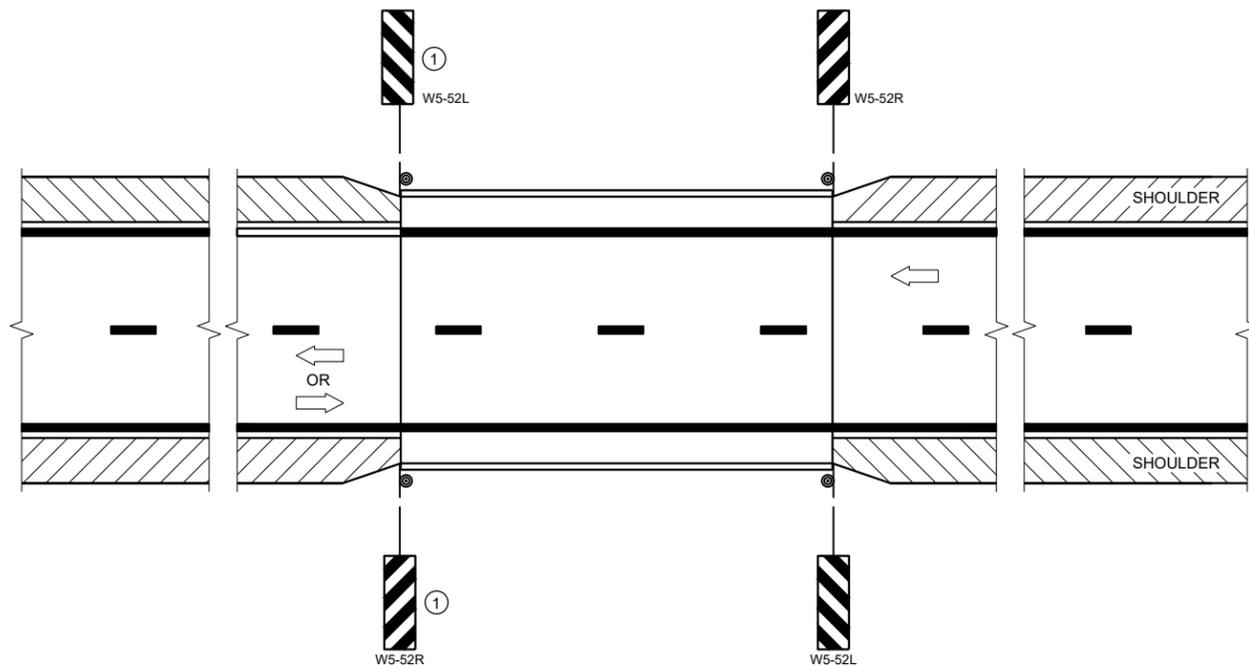
**BARRICADES AND SIGNS
FOR
VARIOUS CLOSURES**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2020 /S/ Andrew Heidtke
DATE WORK ZONE ENGINEER



SITUATION 1
 WARRANTING CRITERIA:
 BRIDGE WIDTH IS AT LEAST 16 FEET BUT LESS THAN 24 FEET.



SITUATION 2
 WARRANTING CRITERIA:
 1. BRIDGE WIDTH IS AT LEAST 24 FEET AND
 2. BRIDGE SHOULDER WIDTH IS LESS THAN 6 FEET

GENERAL NOTES

DETAILS OF TRAFFIC CONTROL DEVICES AND INSTALLATION NOT SHOWN ON THE DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS, THE SPECIAL PROVISIONS, AND THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

LOCATE W5-52 SIGN POST(S) BEHIND GUARDRAIL WHEN PRESENT.

PLACE THE EDGE OF THE W5-52 SIGN IN LINE WITH FACE OF CURB OR PARAPET.

ON BRIDGE ONLY PROJECTS, PLACE 300 FEET OF EDGELINE.

OMIT EDGELINES ON ROADWAYS WITHOUT EXISTING EDGELINES.

① OMIT ON ONE-WAY TRAVELED WAYS.

LEGEND

⊙ SIGN ON PERMANENT SUPPORT

➡ DIRECTION OF TRAFFIC

DISTANCE TABLE

POSTED OR 85TH PERCENTILE SPEED	DISTANCE "A"
25	150'
30	200'
35	250'
40	300'
45	400'
50	550'
55	700'

SIGNING AND MARKING FOR TWO LANE BRIDGES

STATE OF WISCONSIN
 DEPARTMENT OF TRANSPORTATION

APPROVED
 May 2023 /S/ Jeannie Silver
 DATE STATE SIGNING AND MARKING ENGINEER

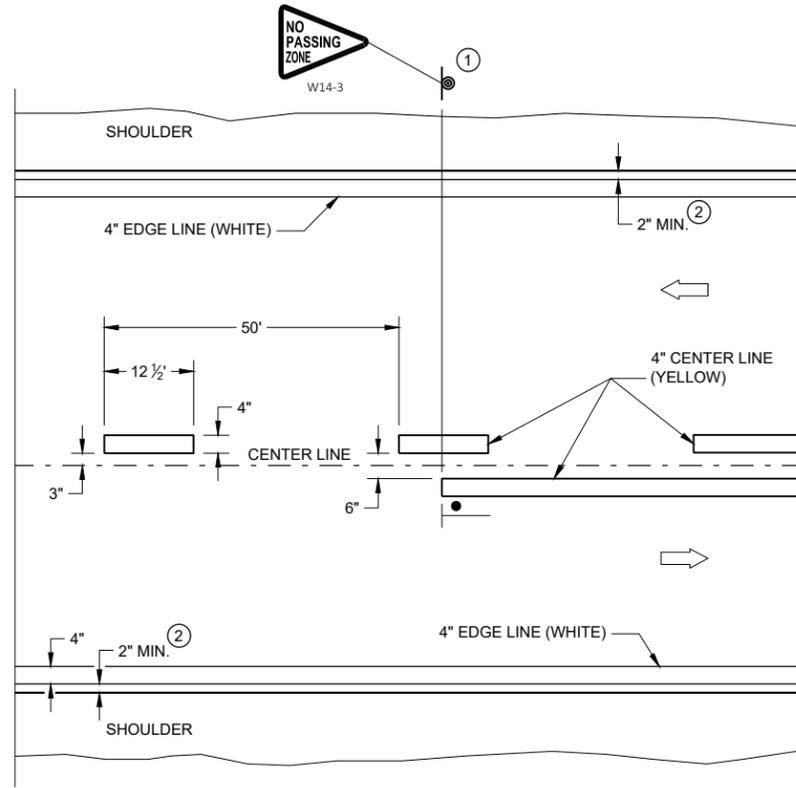
GENERAL NOTES

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

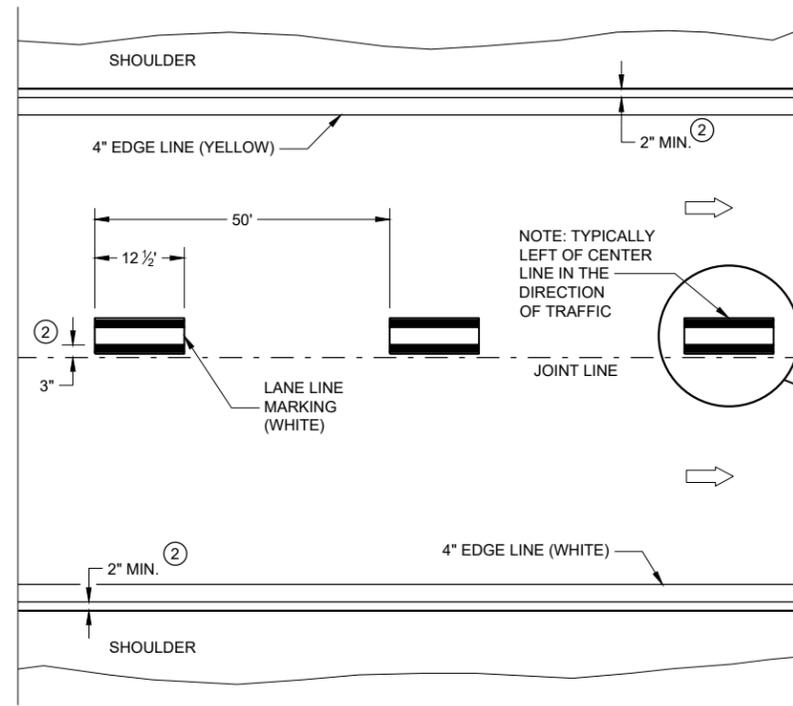
- ① LOCATE THE NO PASSING ZONE W14-3 SIGN WITHIN 50 FEET OF THE "T" MARKING
- ② MEASURE FROM EDGE OF MARKING TO JOINT LINE. THIS DOES NOT INCLUDE SPACE NEEDED FOR GROOVING OPERATIONS.

LEGEND

-  "T" MARKING
-  SIGN ON PERMANENT SUPPORT
-  DIRECTION OF TRAFFIC

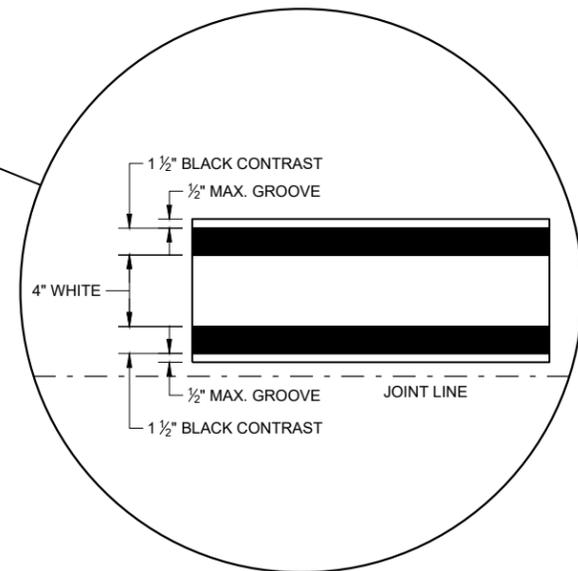


TWO WAY TRAFFIC



ONE WAY TRAFFIC

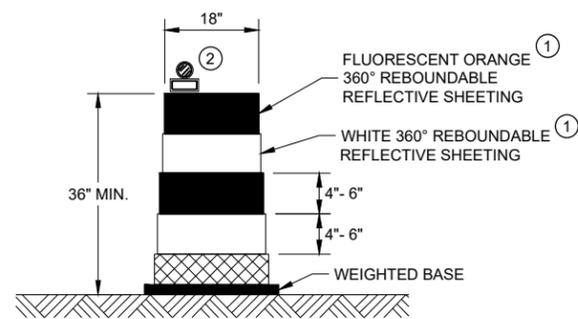
PERMANENT PAVEMENT MARKING



PERMANENT LONGITUDINAL PAVEMENT MARKINGS

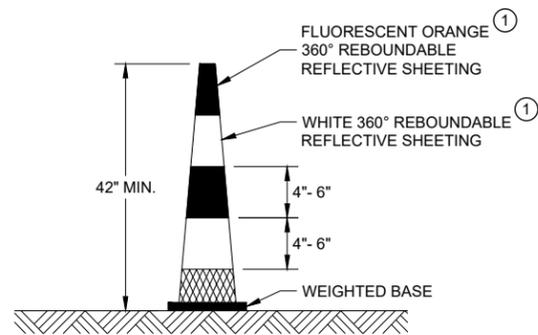
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
DATE: May 2022 /S/ Jeannie Silver
STATEWIDE SIGNING AND MARKING ENGINEER



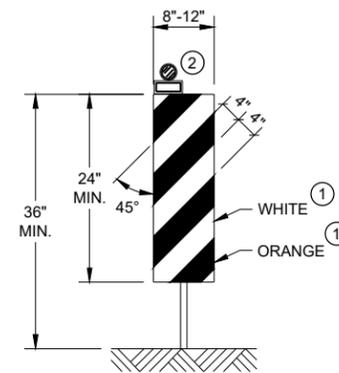
DRUM

BALLAST WIDTHS
RANGE FROM 24"-36"



42" CONE

DO NOT USE IN TAPERS
½ SPACING OF DRUMS
BALLAST WIDTHS
RANGE FROM 14"-20"

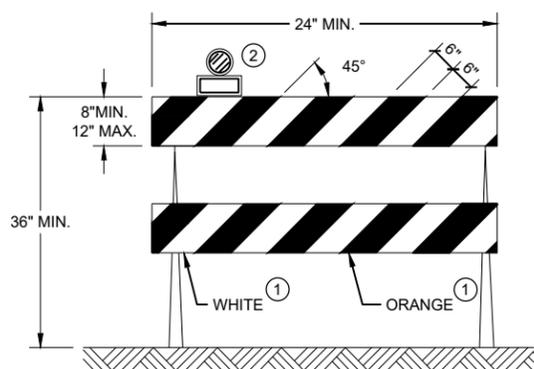


VERTICAL PANEL

THE STRIPES SHALL SLOPE DOWNWARD TO
THE TRAFFIC SIDE FOR CHANNELIZATION.

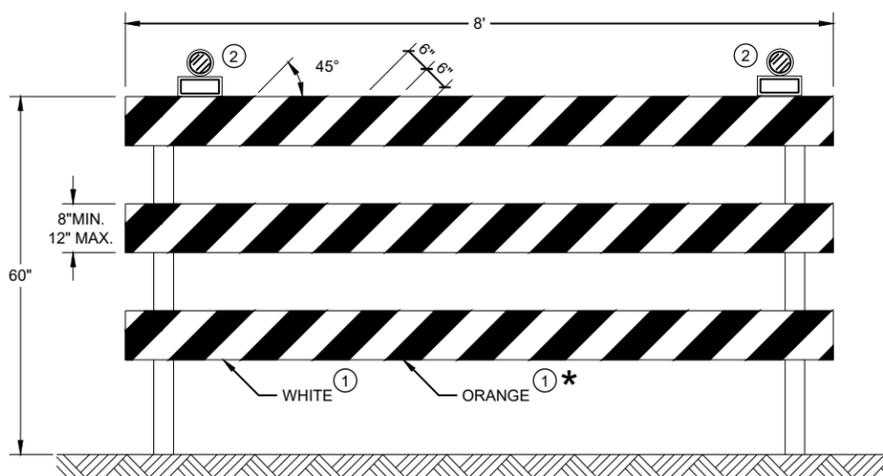
GENERAL NOTES

- ① REFLECTIVE SHEETING SHALL FOLLOW THE REQUIREMENTS IN THE APPROVED PRODUCTS LISTING FOR SIGN SHEETING.
- ② LOCATION OF WARNING LIGHTS WHEN SHOWN ON THE PLAN.



TYPE II BARRICADE

FOR RAILS LESS THAN 36" LONG, 4" WIDE STRIPES
MAY BE USED. ALL STRIPES SHALL SLOPE DOWNWARD
TO THE TRAFFIC SIDE FOR CHANNELIZATION.



TYPE III BARRICADE

IF SIGN MOUNTED, DO NOT COVER MORE THAN 50% OF THE TOP
TWO RAILS OR 33% OF THE TOTAL AREA OF THE THREE RAILS.

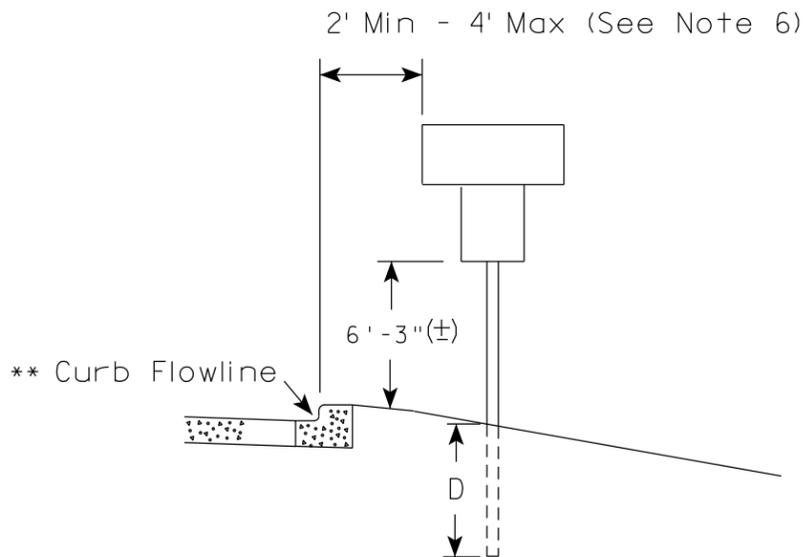
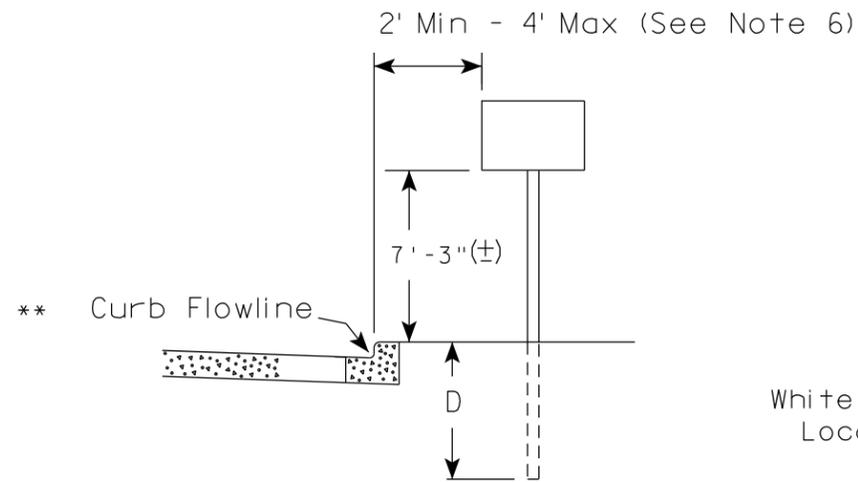
* IF USED FOR A PERMANENT APPLICATION USE RED SHEETING.

**CHANNELIZING DEVICES
DRUMS, CONES, BARRICADES
AND VERTICAL PANELS**

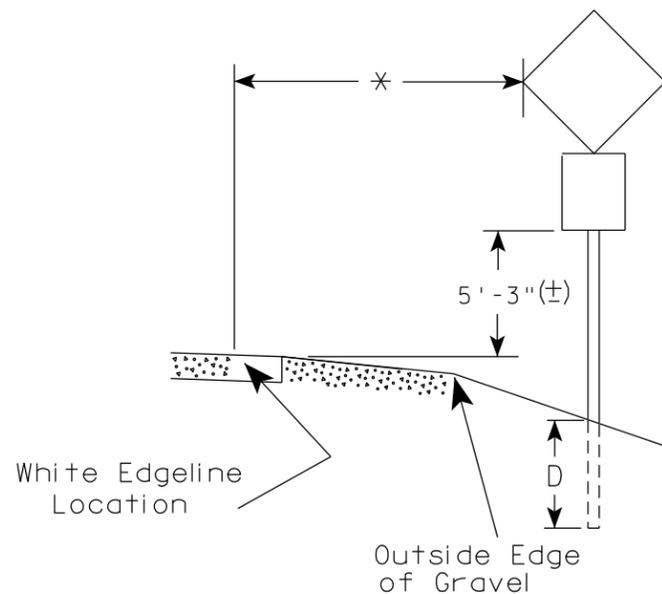
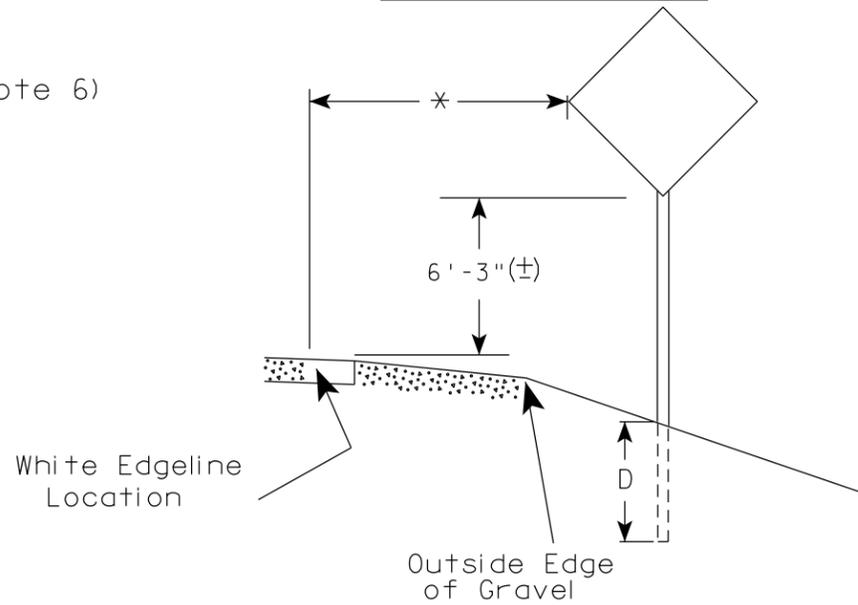
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
 November 2022 /S/ Andrew Heidtke
 DATE WORK ZONE ENGINEER
 FHWA

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 or behind barrier wall, see A4-10 sign plate.
The Double Arrow sign (W12-1D) 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" (±).
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 signs mounted on traffic signal poles is 5'- 3" (±).
5. Offset distance shall be consistent with existing signs or consistent throughout length of project.
6. The (±) tolerance for mounting height is 3 inches.
7. Folding signs shall be mounted at a height of 5'-3" (±) or as directed by the Engineer.

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.

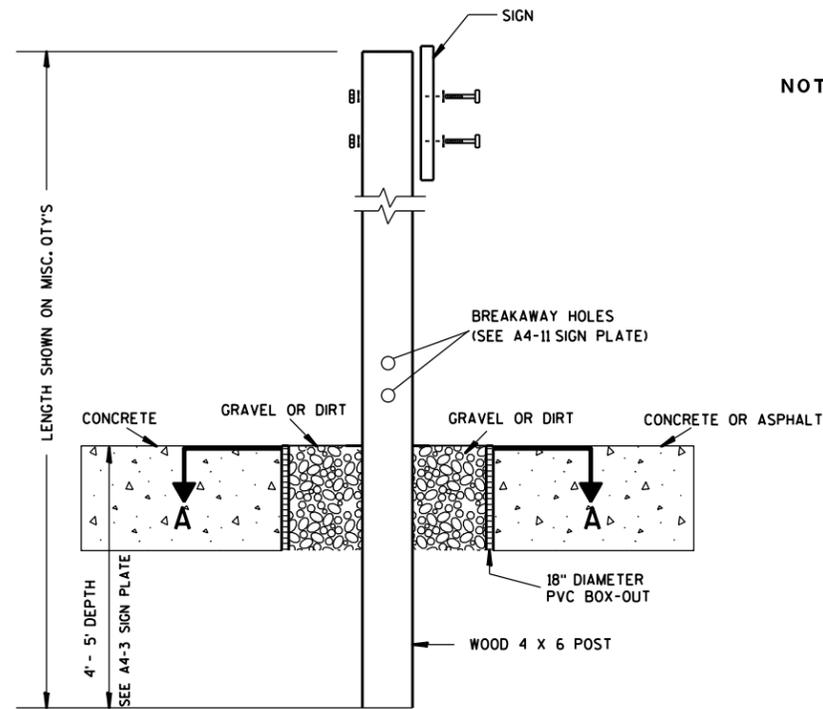
* 6 feet from edge of a paved shoulder or 12 feet from the edge of pavement (edge line location) or 2 feet from outside edge of gravel, whichever is greater unless directed by project engineer.

TYPICAL INSTALLATION OF PERMANENT TYPE II SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

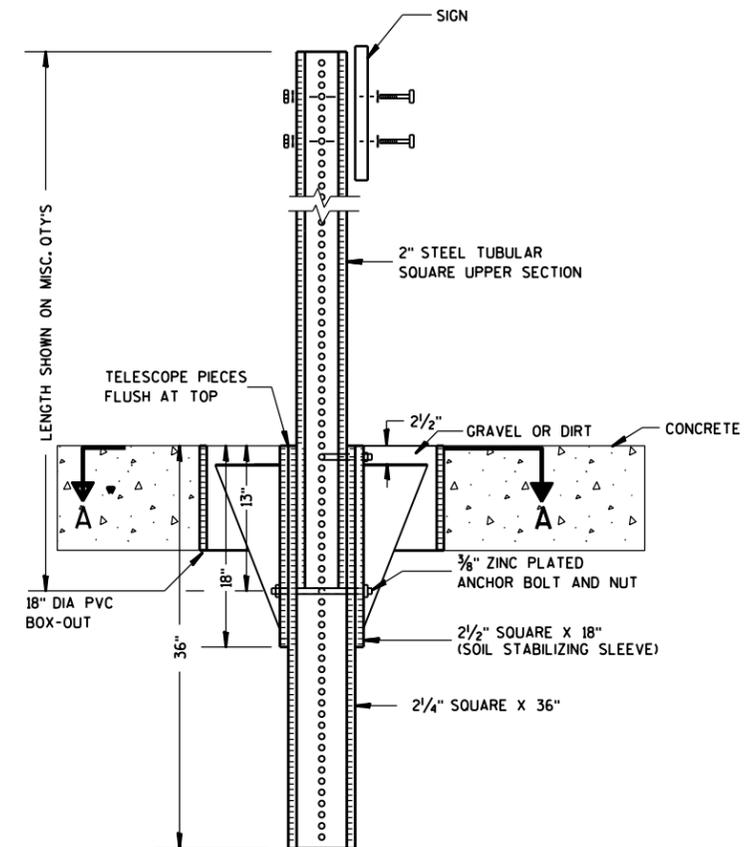
DATE 5/13/2020 PLATE NO. A4-3.22



ELEVATION VIEW

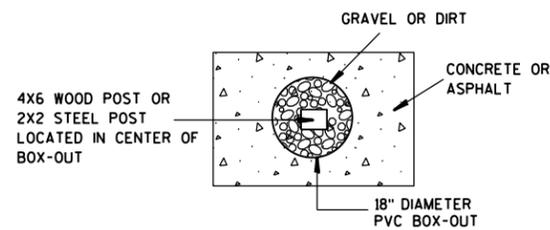
DETAIL OF WOOD 4 X 6 SIGN POST IN BOX-OUT

- NOTES:**
1. ALL MATERIAL TO BE APPROVED BY ENGINEER PRIOR TO INSTALLATION
 2. SEE SIGN PLATE A4-8 FOR SIGN HARDWARE REQUIREMENTS
 3. 18 INCH X 18 INCH SQUARE BOX-OUTS MAY BE USED FOR INSTALLATIONS IN EXISTING CONCRETE OR ASPHALT LOCATIONS.



ELEVATION VIEW

DETAIL OF STEEL 2 X 2 SIGN POST IN BOX-OUT



PLAN VIEW

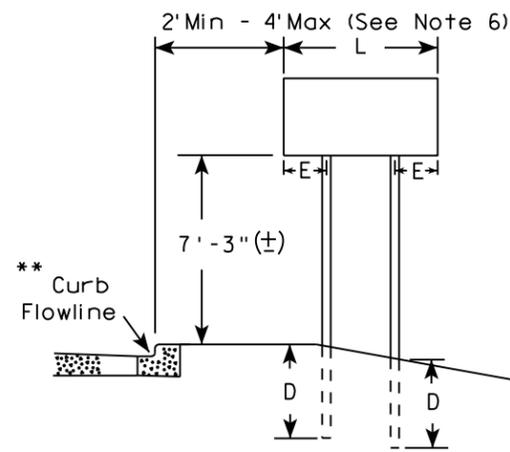
FOR NEW CONCRETE/ASPHALT INSTALLATIONS

SIGN POST BOX-OUTS A4-3B	
<small>WISCONSIN DEPT OF TRANSPORTATION</small>	
APPROVED <i>Matthew R Rauch</i> <small>for State Traffic Engineer</small>	
<small>DATE 1/27/14</small>	<small>PLATE NO. A4-3B.1</small>

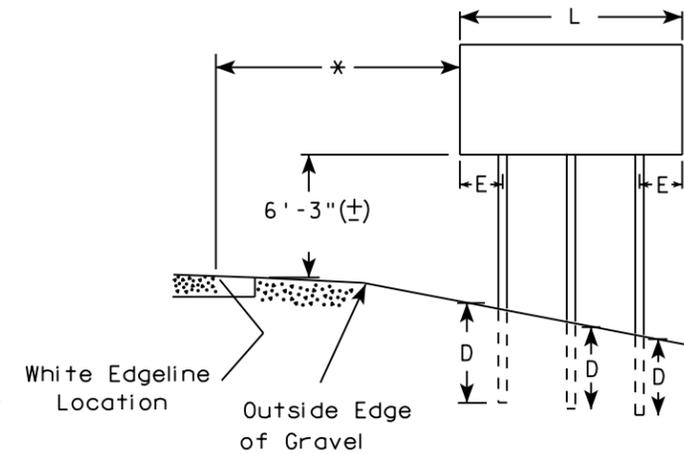
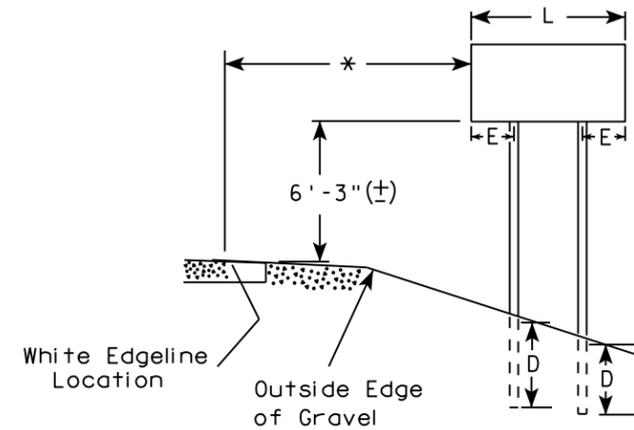
GENERAL NOTES

1. For 3 or 4 post installations, individual post spacing shall be greater than 3'-6".
2. See tables below for required number of posts.
3. For expressways and freeways, mounting height is 7'-3" (±) or 6'-3" (±) depending upon existence of sub-sign.
4. The (±) tolerance for mounting height is 3 inches.
5. J-Assemblies are considered to be one sign for mounting height.
6. Offset distance shall be consistent with existing signs or consistent throughout length of project.
7. Folding signs shall be mounted at a height of 5'-3" (±) or as directed by the engineer.
8. The Double Arrow sign (W12-1) shall be mounted at a height of 2'-3" (±). The Chevron sign (W1-8), Roundabout Chevron panel (R6-4B), Clearance Markers (W5-52), Mile Markers (D10 series), In Road Object Markers (W5-54) & End of Road Markers (W5-56) shall be mounted at a height of 4'-3" (±).

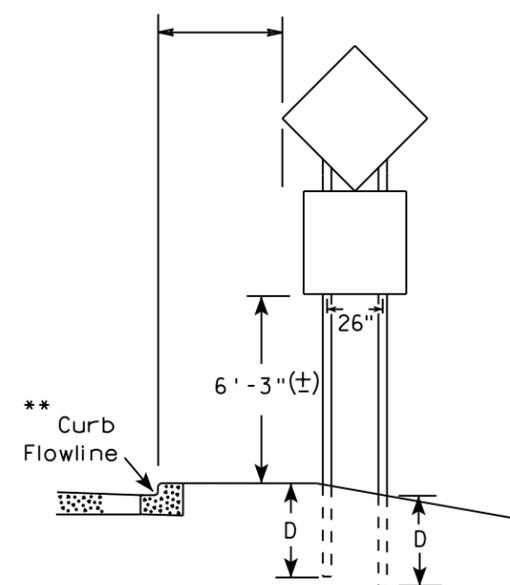
URBAN AREA



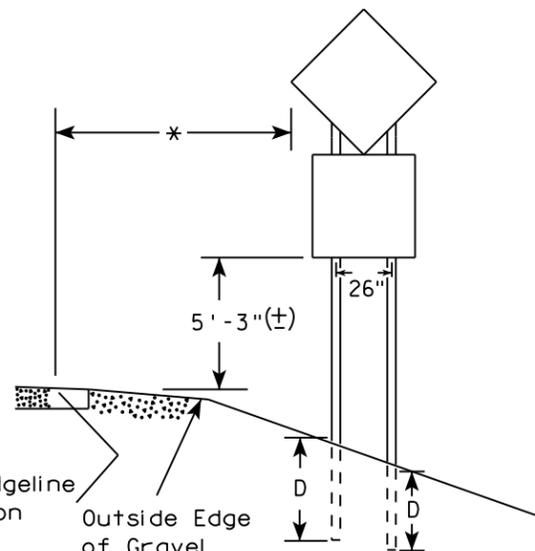
RURAL AREA (See Note 3)



2' Min - 4' Max (See Note 6)



48" DIAMOND WARNING SIGN



48" DIAMOND WARNING SIGN

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

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

*** See A4-3 sign plate for signs 4' or less in width and less than 20 S.F. in area.

SIGN SHAPE OTHER THAN DIAMOND (TWO POSTS REQUIRED)	
L	E
Greater than 48" Less than 60"	12"
60" to 108"	L/5

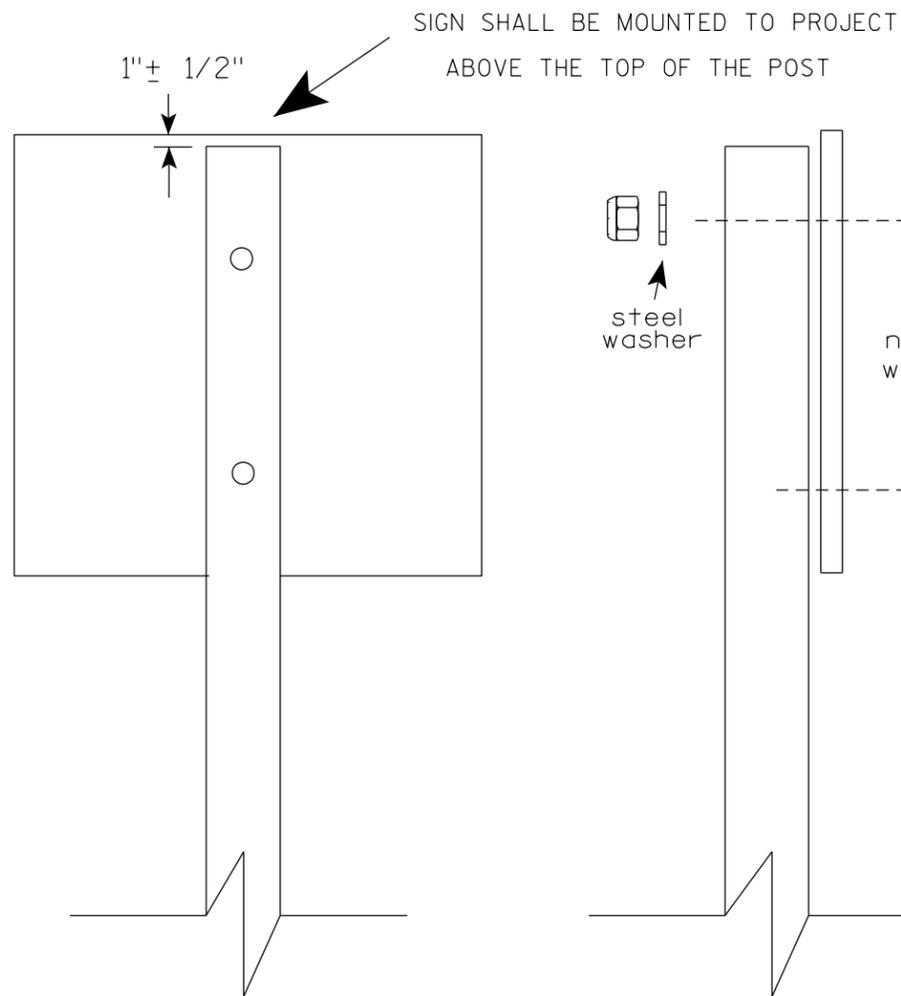
SIGN SHAPE OTHER THAN DIAMOND (THREE POSTS REQUIRED)	
L	E
Greater than 108" to 144"	12"

POST EMBEDMENT DEPTH

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

TYPICAL INSTALLATION OF TYPE II SIGNS ON MULTIPLE POSTS

WISCONSIN DEPT OF TRANSPORTATION
 APPROVED *Matthew R. Rauch*
 For State Traffic Engineer
 DATE 8/21/17 PLATE NO. A4-4.15



SIGN SHALL BE MOUNTED TO PROJECT
ABOVE THE TOP OF THE POST

1"± 1/2"

steel washer

nylon washer

steel washer

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

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

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

STRINGER BOLTING TO ALUMINUM SIGNS (SEE SIGN PLATE A4-18)

MACHINE BOLTS - 5/16" X 1-3/4" Length w/ lock nuts

WOOD POSTS (4" x 6")

LAG SCREWS - 3/8" X 3" (NO STRINGERS ON BACK OF SIGN)
3/8" X 4" (STRINGERS ON BACK OF SIGN)

SQUARE STEEL POSTS (2" x 2")

MACHINE BOLTS - 3/8" X 3-1/4" Length w/ nuts (NO STRINGER ON BACK OF SIGN)
3/8" X 5" Length w/ nuts (STRINGERS ON BACK OF SIGN)

RIVETS - 9/32" (6605-9-6) BULB-TITE, TRI-FOLD, ALUMINUM BODY/MANDREL
O.D. FLANGE .720-.765 INCH, GRIP RANGE .042-.375 INCH

WASHERS (ALL POSTS) -

1-1/4" O.D. X 3/8" I.D. X 1/16" STEEL

1-1/4" O.D. X 3/8" I.D. X .080 NYLON

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

ATTACHMENT OF SIGNS
TO POSTS

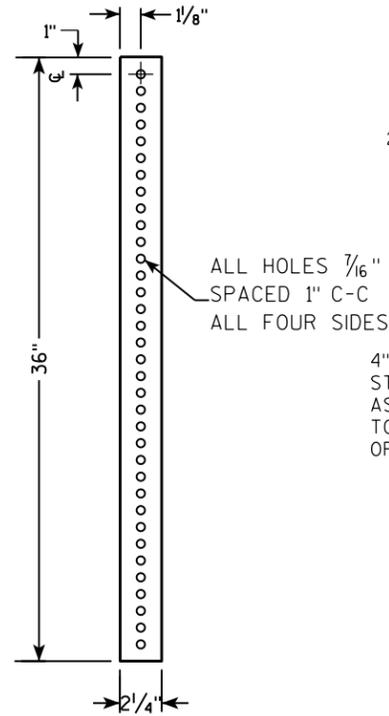
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R Rauch*
For State Traffic Engineer

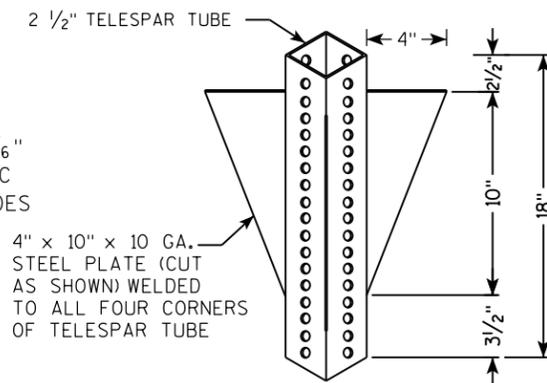
DATE 4/1/2020 PLATE NO. A4-8.9

**TELESCOPIC TUBING ANCHORS
TWO PIECE SYSTEM**

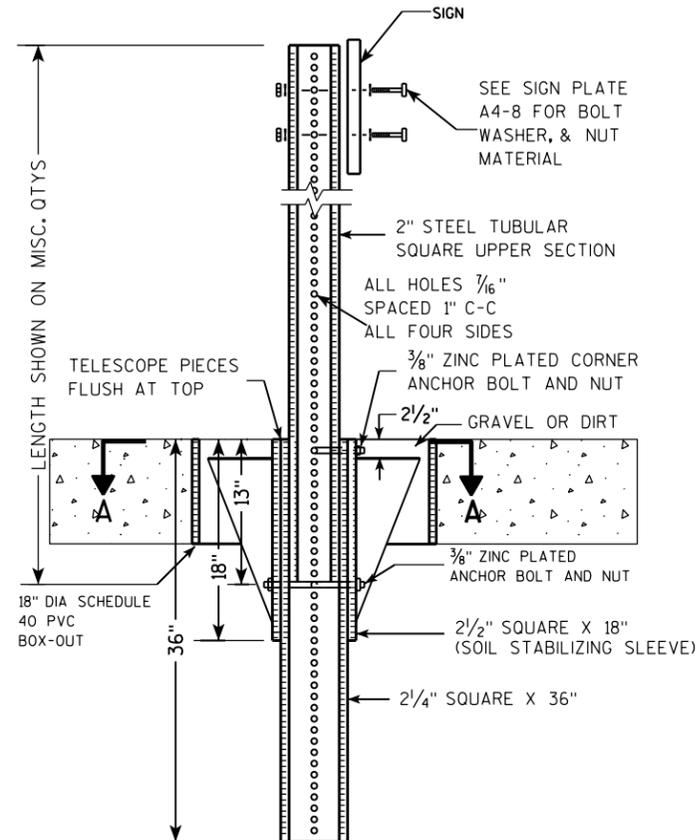
**2 1/4" SQUARE
12 GAUGE
PERFORATED
GALVANIZED FINISH**



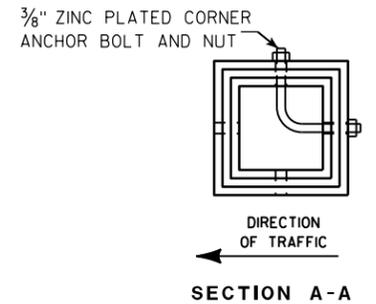
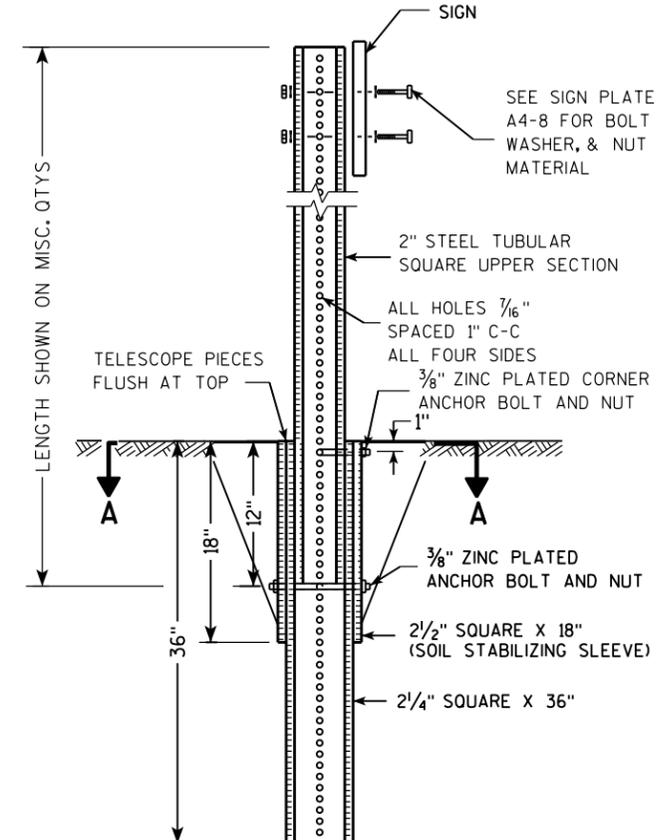
**2 1/2" SQUARE
12 GAUGE
OMNI-DIRECTIONAL
PERFORATED
SOIL STABILIZING SLEEVE
GALVANIZED FINISH**



**DETAIL OF TUBULAR STEEL SIGN POST
(IN POURED CONCRETE OR ASPHALT)**



**DETAIL OF TUBULAR STEEL SIGN POST
(IN LOCATIONS OTHER THAN POURED CONCRETE OR ASPHALT)**



Area of Sign Installation (Sq. Ft.)	Number of Required Posts
9 or less	1
Greater than 9 less than or equal to 18	2
Greater than 18 less than or equal to 27	3

Signs wider than 3 feet or larger than 9 sq. ft shall be mounted on multiple posts (see above table).

**TUBULAR STEEL
SIGN POST
A4-9**

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 2/05/15 PLATE NO. A4-9.9

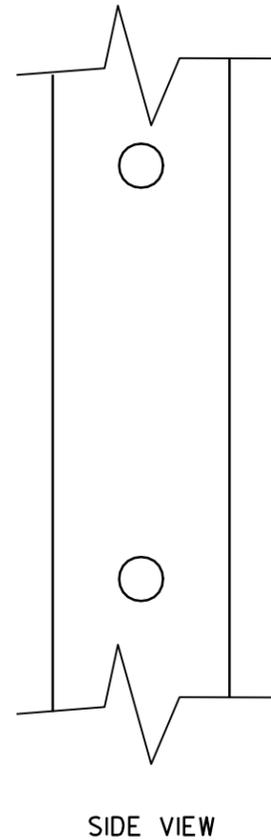
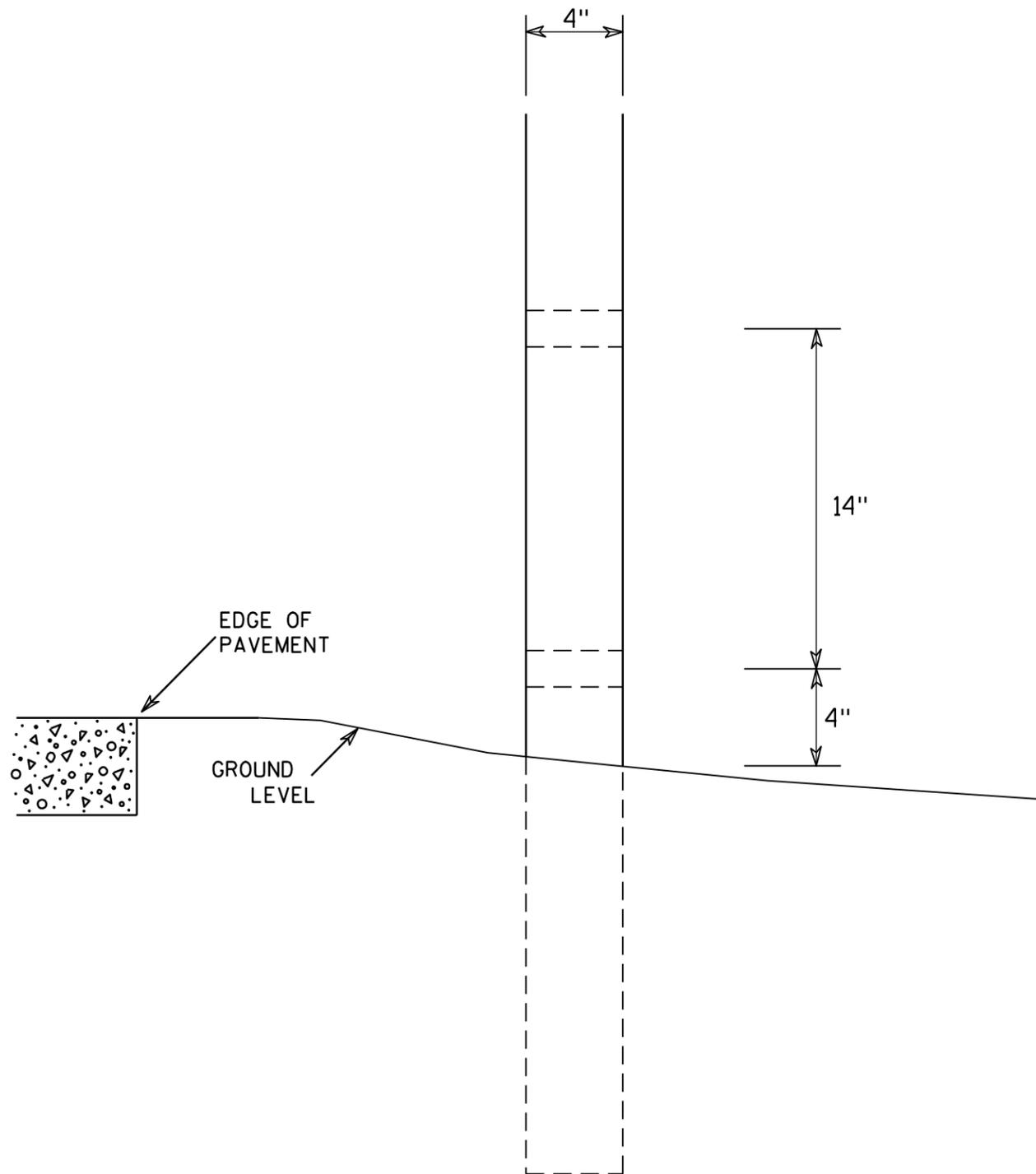
PROJECT NO:

HWY:

COUNTY:

SHEET NO:

E



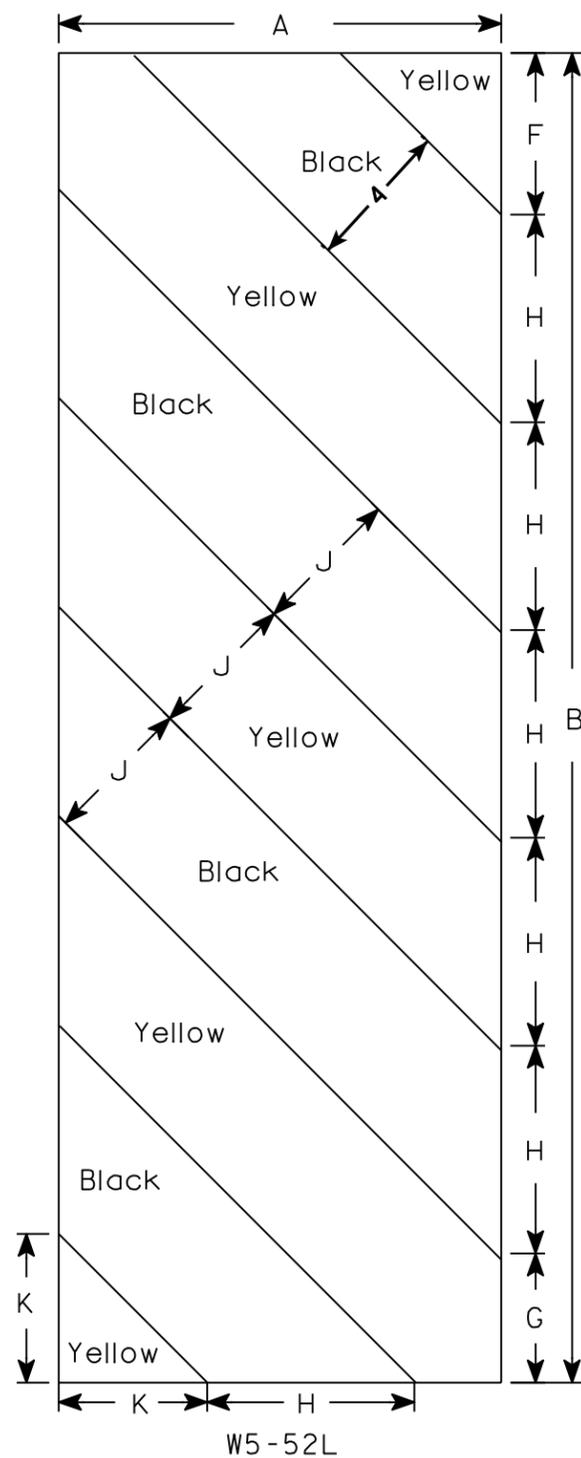
GENERAL NOTES

1. All 4 x 6 Wood Posts shall be modified by having two 1½" diameter holes drilled perpendicular to the roadway centerline.

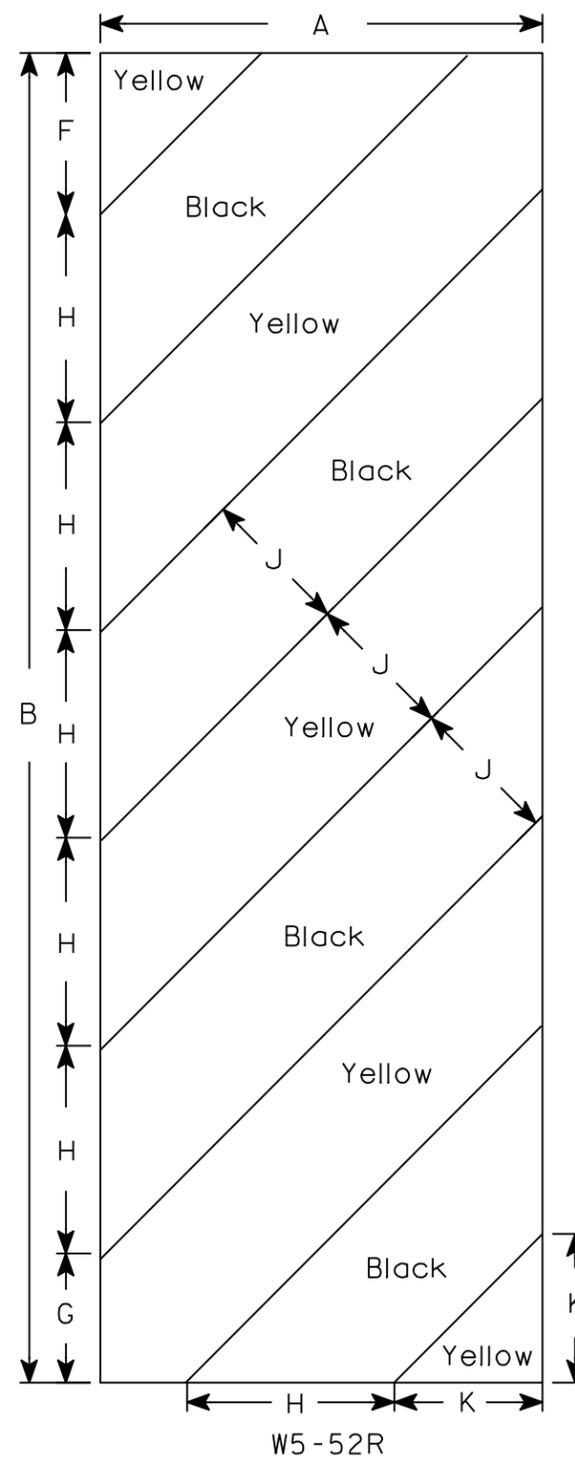
7

7

4 X 6 WOOD POST MODIFICATIONS	
<i>WISCONSIN DEPT OF TRANSPORTATION</i>	
APPROVED	 <small>for State Traffic Engineer</small>
DATE <u>3/27/97</u>	PLATE NO. <u>A4-11.2</u>



W5-52L



W5-52R

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - 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.

7

7

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	12	36				4 3/8	3 1/2	5 5/8	45°	4	4																3.0
2M	12	36				4 3/8	3 1/2	5 5/8	45°	4	4																3.0
3	18	54				6	5 1/2	8 1/2	45°	6	6 9/16																6.75
4																											
5																											

STANDARD SIGN
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

DESIGN DATA

LIVE LOAD:

DESIGN LOADING _____ HL-93
 INVENTORY RATING FACTOR _____ RF=1.17
 OPERATING RATING FACTOR _____ RF=1.51
 WISCONSIN STANDARD PERMIT VEHICLE (WIS-SPV) _____ 250 KIPS

STRUCTURE IS DESIGNED FOR A FUTURE WEARING SURFACE OF 20 P.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 _____ fy = 60,000 P.S.I.

FOUNDATION DATA

ABUTMENTS TO BE SUPPORTED ON PILING STEEL HP 10-INCH X 42 LB DRIVEN TO A REQUIRED DRIVING RESISTANCE OF 140 TONS** PER PILE AS DETERMINED BY THE MODIFIED GATES DYNAMIC FORMULA. ESTIMATE 35 FT PILE LENGTHS AT BOTH ABUTMENTS. PILE POINTS REQ'D AT ALL LOCATIONS.

**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. (2024) _____ 170
 A.D.T. (2044) _____ 250
 DESIGN SPEED _____ 40 M.P.H.

HYDRAULIC DATA

100 YEAR FREQUENCY _____
 DRAINAGE AREA _____ 16.5 SQ. MI.
 Q₁₀₀ TOTAL _____ 1,750 C.F.S.
 THROUGH STRUCTURE _____ 1,750 C.F.S.
 OVERTOPPING ROADWAY _____ N/A
 VELOCITY - THROUGH STRUCTURE _____ 7.0 F.P.S.
 WATERWAY AREA - THROUGH STRUCTURE _____ 250.0 SQ. FT.
 HIGH WATER₁₀₀ ELEVATION _____ 987.64
 SCOUR CRITICAL CODE _____ 5

EROSION CONTROL

Q₂ _____ 473 C.F.S.
 VELOCITY₂ _____ 2.8 F.P.S.
 HIGH WATER₂ ELEVATION _____ 983.95

LIST OF DRAWINGS

- GENERAL PLAN _____ 1.
- CROSS SECTION AND QUANTITIES _____ 2.
- SUBSURFACE EXPLORATION _____ 3.
- ABUTMENTS _____ 4.
- ABUTMENT DETAILS _____ 5.
- SUPERSTRUCTURE _____ 6.
- SUPERSTRUCTURE DETAILS _____ 7.
- RAILING TUBULAR TYPE M _____ 8.

RIPRAP HEAVY LAYOUT

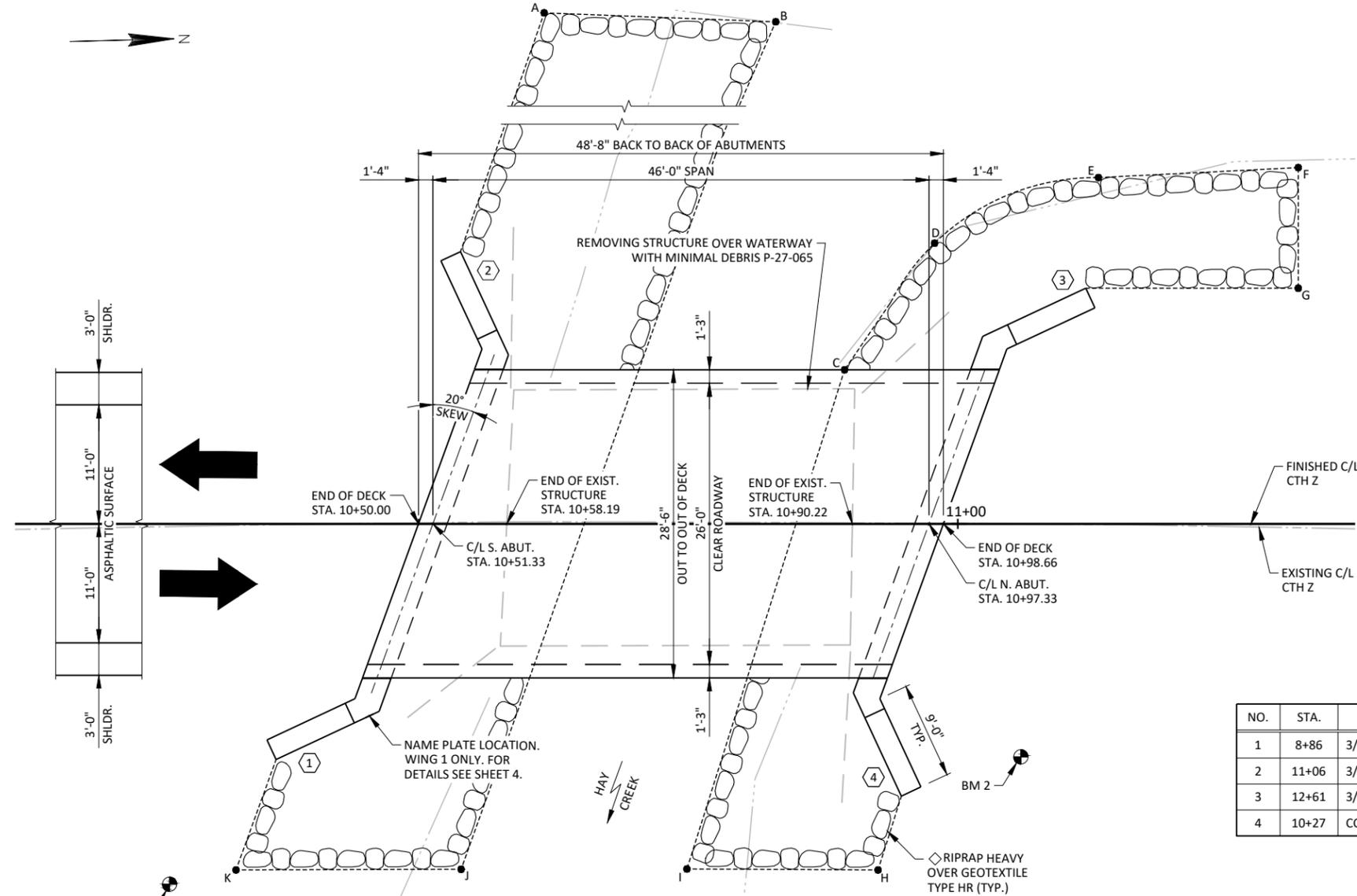
POINT	STATION	OFFSET
A	10+64	54' LT.
B	10+85	53' LT.
C	10+90	14' LT.
D	10+98	26' LT.
E	11+13	32' LT.
F	11+32	33' LT.
G	11+32	22' LT.
H	10+93	32' RT.
I	10+75	32' RT.
J	10+54	32' RT.
K	10+33	32' RT.

○ INDICATES WING NUMBER

◇ VOIDS IN THE RIPRAP HEAVY SHALL BE FILLED WITH SELECT CRUSHED MATERIAL

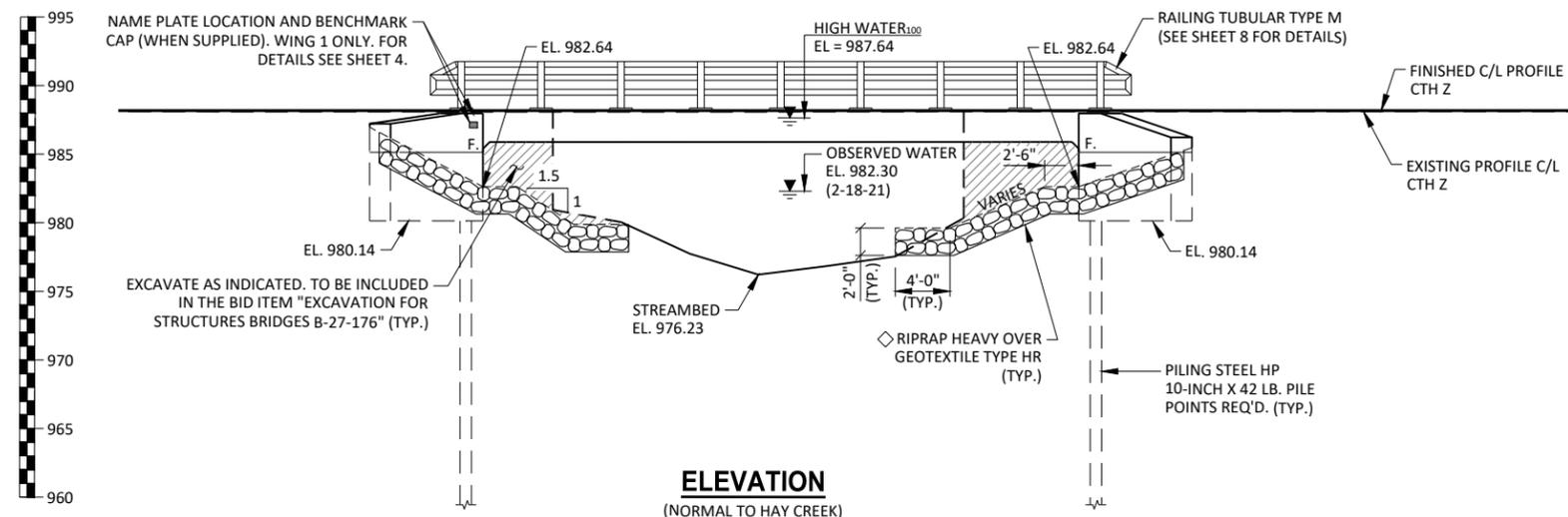
BENCH MARKS

NO.	STA.	DESCRIPTION	ELEV.
1	8+86	3/4" IRON REBAR SET, 15' RT.	987.84
2	11+06	3/4" IRON REBAR SET, 22' RT.	987.35
3	12+61	3/4" IRON REBAR SET, 15' RT.	987.65
4	10+27	COTTIN GIN SPINDLE IN RED MAPLE, 34' RT.	985.70



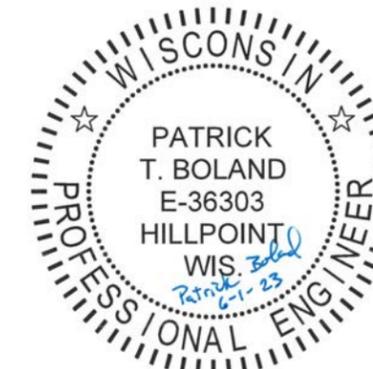
PLAN B-27-176

(SINGLE-SPAN REINFORCED CONCRETE FLAT SLAB)



ELEVATION

(NORMAL TO HAY CREEK)



DESIGN CONSULTANT
 PATRICK BOLAND, PE
 (608) 588-7484

BRIDGE OFFICE CONTACT
 AARON BONK, PE
 (608) 261-0261

NO.	DATE	REVISION	BY

JEWELL
 associates engineers, inc.
 Engineers - Architects - Surveyors
 560 SUNRISE DRIVE
 SPRING GREEN, WI 53588
 OFFICE: (608) 588-7484
 www.JewellAssoc.com

STATE OF WISCONSIN
 DEPARTMENT OF TRANSPORTATION
 ACCEPTED *[Signature]* SDR **11/03/23**
 CHIEF STRUCTURES DESIGN ENGINEER DATE

STRUCTURE B-27-176
 CTH Z OVER HAY CREEK

COUNTY: JACKSON TOWN/VILLAGE: _____ CITY POINT: _____

DESIGN SPEC: AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS

DESIGNED BY: CTMP DESIGN CK'D: PTB DRAWN BY: CTMP PLANS CK'D: PTB

GENERAL PLAN

SHEET 1 OF 8

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

ELEVATIONS SHOWN ON THE PLAN ARE REFERENCED TO THE NORTH AMERICA VERTICAL DATUM OF 1988 (NAVD 88).

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

JOINT FILLER SHALL CONFORM TO A.A.S.H.T.O. DESIGNATION M153, TYPE I, II OR III OR A.A.S.H.T.O. DESIGNATION M213.

THE SLOPE OF FILL IN FRONT OF THE ABUTMENTS SHALL BE COVERED WITH RIPRAP HEAVY AND GEOTEXTILE TYPE HR TO THE EXTENT SHOWN ON SHEET 1 AND IN THE ABUTMENT DETAILS, OR AS DIRECTED BY THE ENGINEER IN THE FIELD. VOIDS IN THE RIPRAP HEAVY SHALL BE FILLED WITH SELECT CRUSHED MATERIAL TO CREATE A WILDLIFE TRAVEL CORRIDOR. SELECT CRUSH MATERIAL IS PAID FOR UNDER BID ITEM "SELECT CRUSHED MATERIAL FOR TRAVEL CORRIDOR".

AT THE BACK FACE 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. SEE THIS SHEET FOR DETAIL.

ANY EXCAVATION BELOW THE ABUTMENT AND ASSOCIATED ABUTMENT BEDDING MATERIALS REQUIRE THE APPROVAL OF THE ENGINEER IN THE FIELD.

AT THE DECK, APPLY PROTECTIVE SURFACE TREATMENT TO THE TOP OF THE DECK (CONCRETE MATERIAL ONLY), THE SIDES OF THE DECK, AND THE EXTERIOR 12" OF THE UNDERSIDE OF THE DECK. AT THE ABUTMENTS, APPLY TO THE TOP AND EXTERIOR EXPOSED FACES OF WINGS AND THE FRONT FACE OF ABUTMENTS TO 12" PAST THE EDGE OF SLAB. SEE THIS SHEET FOR DETAIL.

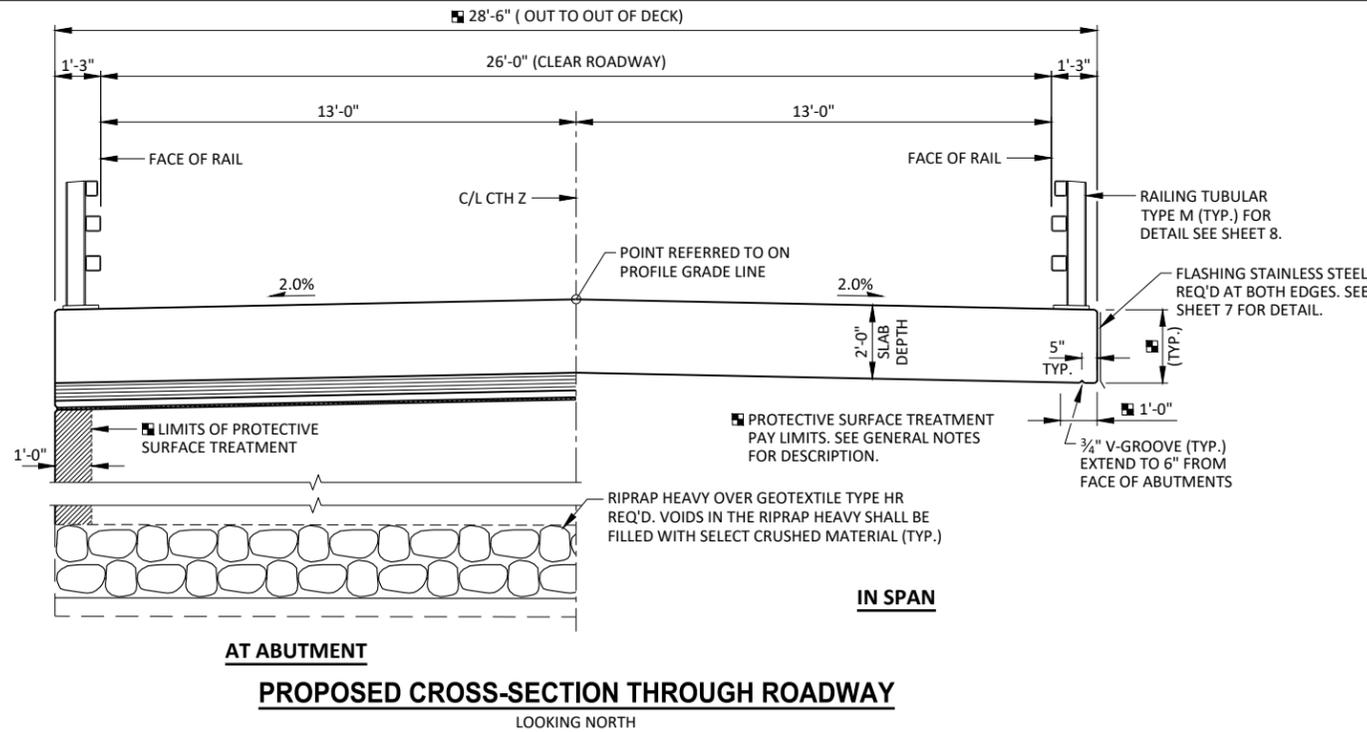
THE EXISTING STRUCTURE (P-27-065) IS A SINGLE SPAN STEEL DECK GIRDER STRUCTURE SUPPORTED ON TIMBER ABUTMENTS. THE STRUCTURE HAS A 24.0' BRIDGE WIDTH AND IS 32.4' LONG AND SHALL BE REMOVED.

ALL STATIONS AND ELEVATIONS SHOWN ARE IN FEET.

THE EXISTING GROUNDLINE SHALL BE THE UPPER LIMITS OF EXCAVATION FOR STRUCTURES.

SLAB FALSEWORK SHALL BE SUPPORTED ON PILES OR THE SUBSTRUCTURE UNLESS AN ALTERNATIVE METHOD IS APPROVED BY THE ENGINEER IN THE FIELD.

THE FIRST DIGIT OF A THREE DIGIT BAR MARK OR THE FIRST TWO DIGITS OF A FOUR DIGIT BAR MARK SIGNIFIES THE BAR SIZE.

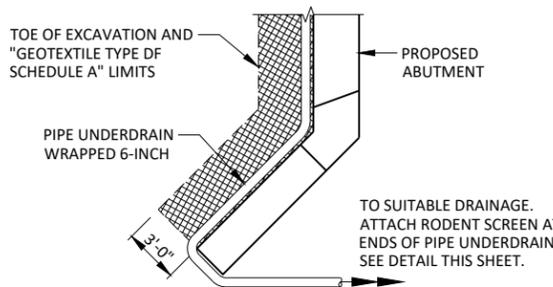


AT ABUTMENT

PROPOSED CROSS-SECTION THROUGH ROADWAY

LOOKING NORTH

IN SPAN



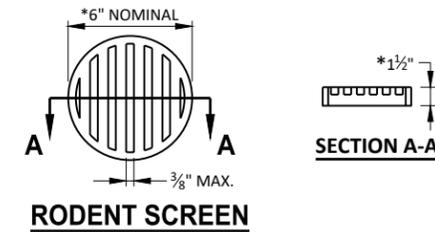
PIPE UNDERDRAIN DETAIL

NOTES:
* DIMENSIONS ARE APPROXIMATE. THE GRATE IS SIZED TO FIT INTO A PIPE COUPLING.

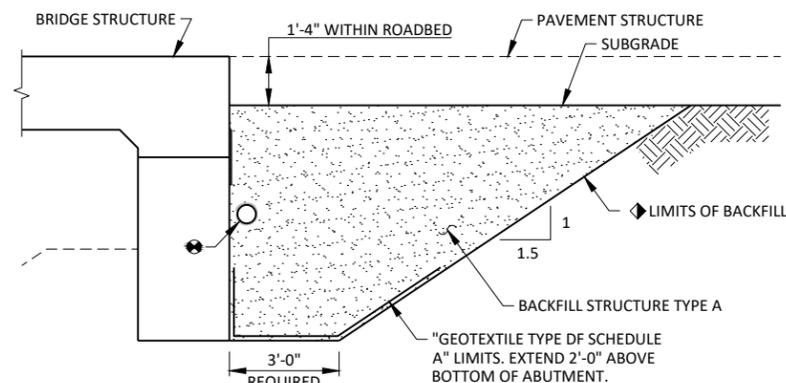
ORIENT SHIELD SO SLOTS ARE VERTICAL.

COST OF THE RODENT SCREEN, PIPE COUPLING, AND SCREWS ARE INCIDENTAL TO THE BID ITEM "PIPE UNDERDRAIN WRAPPED 6-INCH".

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



RODENT SCREEN



BACKFILL STRUCTURE DETAIL

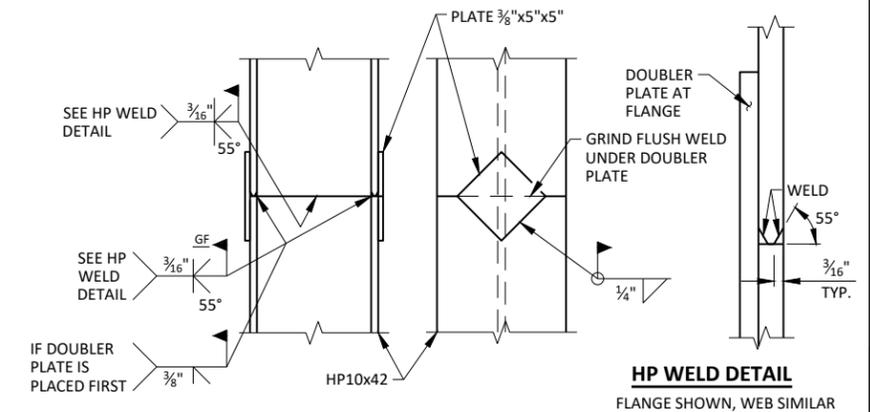
(TYPICAL AT ABUTMENTS. ABUTMENT BODY SHOWN - WING WALLS SIMILAR)

BACKFILL STRUCTURE TYPE A PAY LIMITS. BACKFILL BEYOND PAY LIMITS SHALL BE INCIDENTAL TO THE BID ITEM "EXCAVATION FOR STRUCTURES B-27-176". LIMITS OF EXCAVATION SHALL BE DETERMINED BY THE CONTRACTOR.

PIPE UNDERDRAIN WRAPPED (6-INCH), SLOPED 0.5% MIN. TO SUITABLE DRAINAGE. ATTACH RODENT SCREEN AT ENDS OF PIPE UNDERDRAIN AS DETAILED ON THIS SHEET. RODENT SCREEN TO BE INCLUDED IN THE BID ITEM "PIPE UNDERDRAIN WRAPPED 6-INCH."

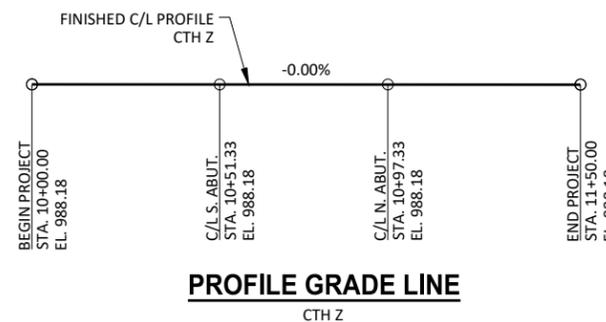
TOTAL ESTIMATED QUANTITIES

ITEM NUMBER	ITEM DESCRIPTION	UNIT	S. ABUT.	SUPER	N. ABUT.	TOTALS
203.0260	REMOVING STRUCTURE OVER WATERWAY MINIMAL DEBRIS P-27-065	EACH	--	--	--	1
206.1001	EXCAVATION FOR STRUCTURES BRIDGES B-27-176	EACH	--	--	--	1
210.1500	BACKFILL STRUCTURE TYPE A	TON	160	--	160	320
502.0100	CONCRETE MASONRY BRIDGES	CY	28	107	28	163
502.3200	PROTECTIVE SURFACE TREATMENT	SY	18	184	18	220
505.0400	BAR STEEL REINFORCEMENT HS STRUCTURES	LB	2,190	--	2,190	4,380
505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB	1,460	19,930	1,460	22,850
513.4061	RAILING TUBULAR TYPE M	LF	--	102	--	102
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	6	--	6	12
550.0500	PILE POINTS	EACH	7	--	7	14
550.1100	PILING STEEL HP 10-INCH X 42 LB	LF	245	--	245	490
606.0300	RIPRAP HEAVY	CY	130	--	90	220
612.0406	PIPE UNDERDRAIN WRAPPED 6-INCH	LF	75	--	75	150
645.0111	GEOTEXTILE TYPE DF SCHEDULE A	SY	50	--	50	100
645.0120	GEOTEXTILE TYPE HR	SY	210	--	145	355
SPV.0090.01	FLASHING STAINLESS STEEL	LF	--	87	--	87
SPV.0195.01	SELECT CRUSHED MATERIAL FOR TRAVEL CORRIDOR	TON	55	--	40	95
NON-BID ITEMS						
	FILLER	SIZE				1/2" & 3/4"
	NAME PLATE					



PILE SPLICE DETAIL

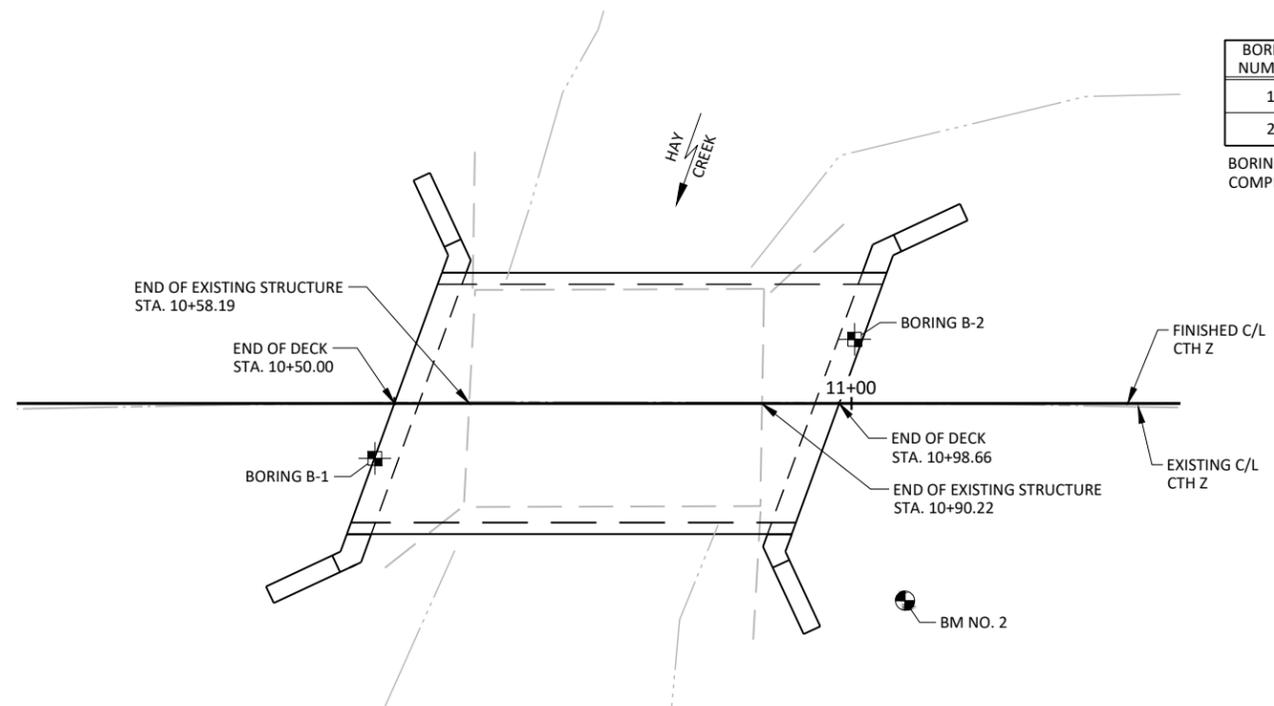
STEEL "HP" PILE MATERIAL SHALL BE ASTM A 572 GRADE 50.



PROFILE GRADE LINE

CTH Z

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-27-176			
DRAWN BY		CTMP	PLANS CKD. PTB
CROSS SECTION AND QUANTITIES			SHEET 2 OF 8



SOIL BORINGS			
BORING NUMBER	DATE COMPLETED	NORTHING (Y)	EASTING (X)
1	09/15/21	225,359.2	518,118.6
2	09/15/21	225,412.0	518,107.0

BORINGS & REPORT COMPLETED BY: AMERICAN ENGINEERING TESTING, INC. 4203 SCHOFIELD AVENUE, SUITE 1 SCHOFIELD, WI 54476

STATE PROJECT NUMBER
7244-00-70

MATERIAL SYMBOLS

Asphalt	Topsoil	Peat
Concrete	Fill	Gravel
Sand	Clay	Silt
Boulders or Cobbles	Limestone	Bedrock (unknown)
Shale	Sandstone	Igneous/meta

LEGEND OF BORING

Labels include: BORING/EL STA./OFFSET, ST, 0.25, F-C COBBLE OR BOULDER, WEATHERED LIMESTONE, CORE RUN #1 - 24'-29' REC=80%, RQD=72%

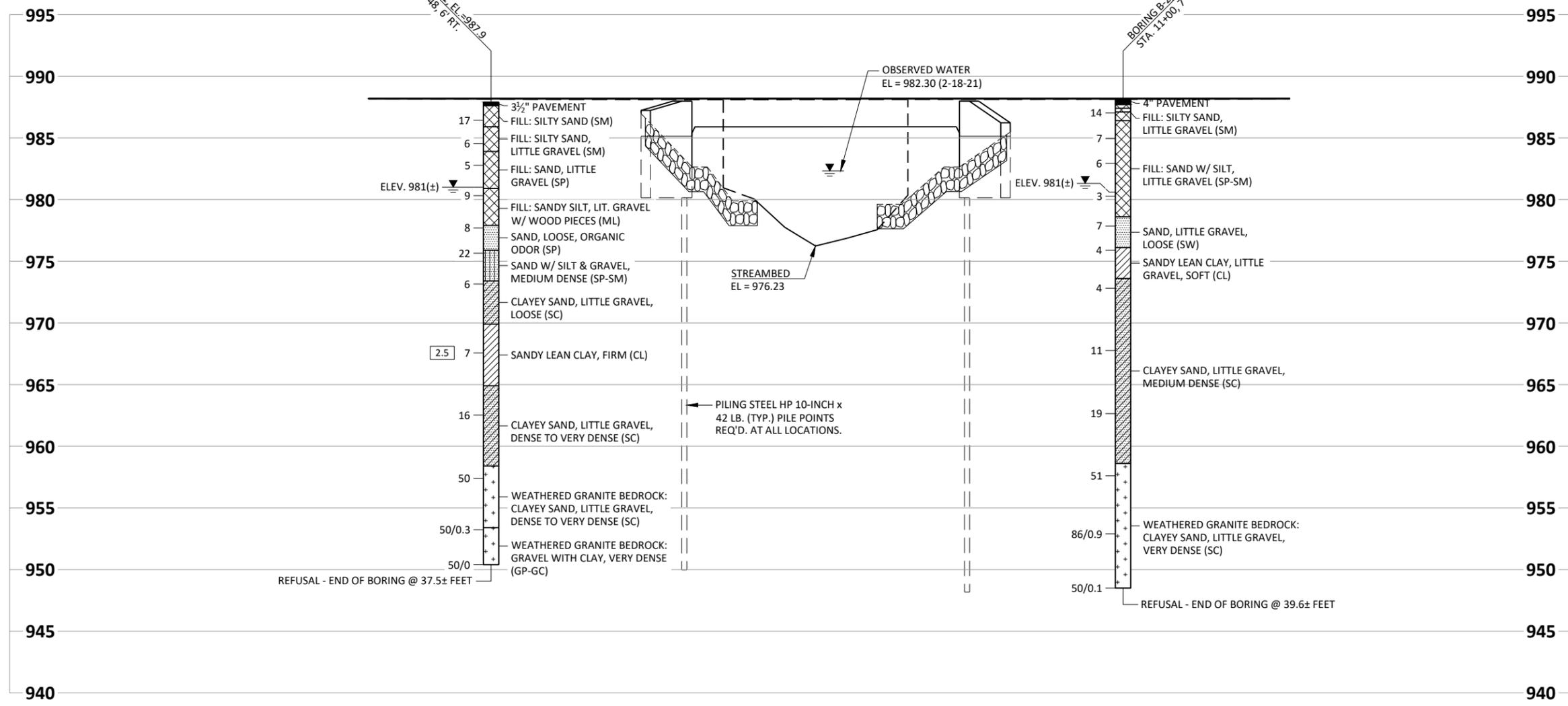
(1) UNCONFINED STRENGTH, AS DETERMINED BY A POCKET PENETROMETER (TSF)
(2) UNLESS OTHERWISE SPECIFIED, THE SPT 'N' VALUE IS BASED ON AASHTO T-206 STANDARD PENETRATION TEST. THE SPT 'N' VALUE PRESENTED HAS NOT BEEN CORRECTED FOR OVERBURDEN PRESSURE OR HAMMER EFFICIENCY.

GROUND WATER ELEVATIONS

	AT TIME OF DRILLING
	END OF DRILLING
	AFTER DRILLING

ABBREVIATIONS
F-FINE M-MEDIUM C-COURSE ST-SHELBY TUBE

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



8

8

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-27-176			
DRAWN BY: CTMP		PLANS CK'D: PTB	
SUBSURFACE EXPLORATION		SHEET 3 OF 8	

NOTES

SOME BARS HAVE BEEN OMITTED FOR CLARITY. SEE SHEET 5 FOR BILL OF BARS.

SEAT ELEVATIONS SHOWN IN THE ELEVATION VIEW ARE TAKEN AT THE C/L OF BEARING NEGLLECTING THE KEYED CONSTRUCTION JOINT.

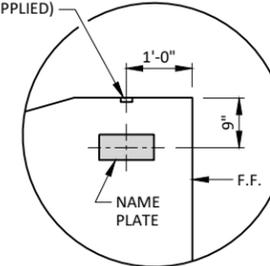
DO NOT PLACE FILL HIGHER THAN 3 FEET FROM BOTTOM OF ABUTMENT UNTIL SUPERSTRUCTURE IS IN PLACE.

SPACE REINFORCEMENT TO MISS PILING

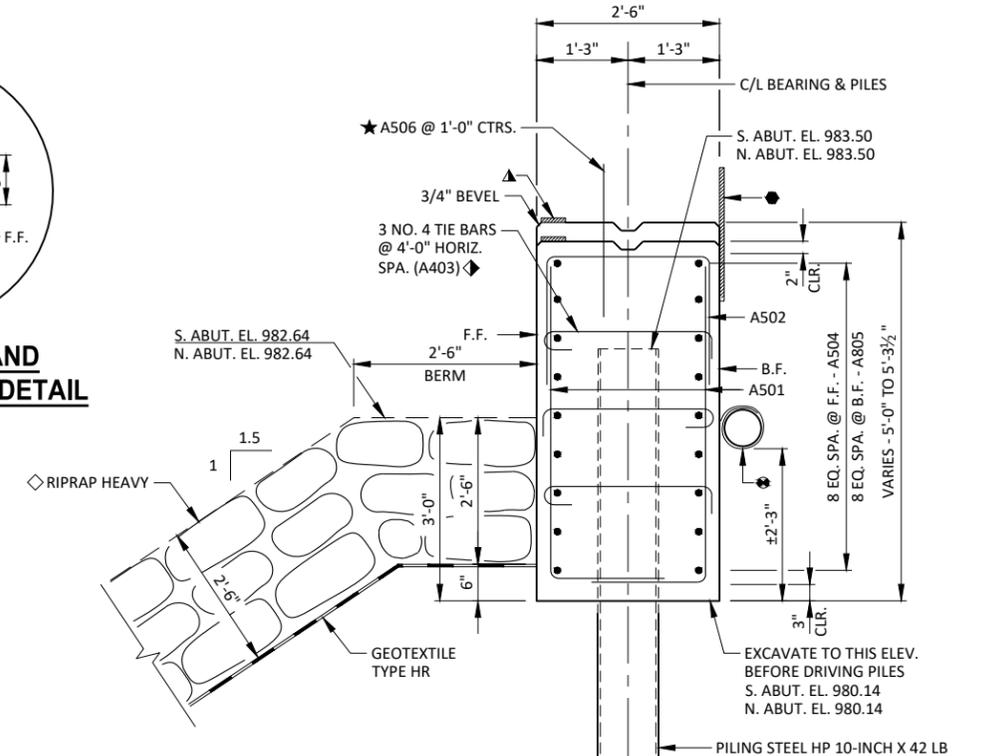
F.F. - FRONT FACE

B.F. - BACK FACE

BENCHMARK CAP (WHEN SUPPLIED)

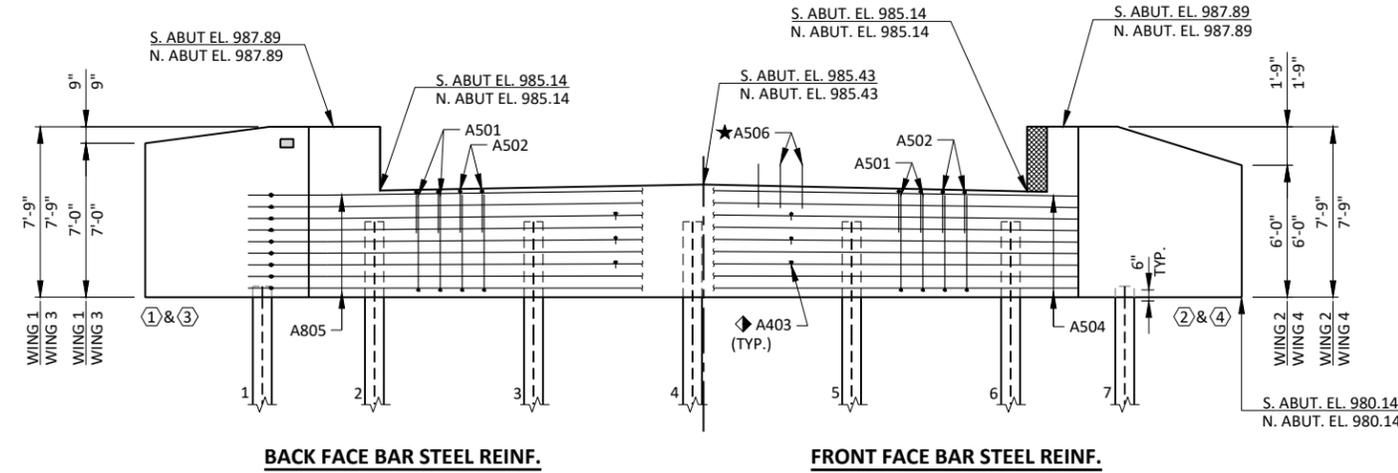


NAME PLATE AND BENCHMARK CAP DETAIL
(WING 1 ONLY)

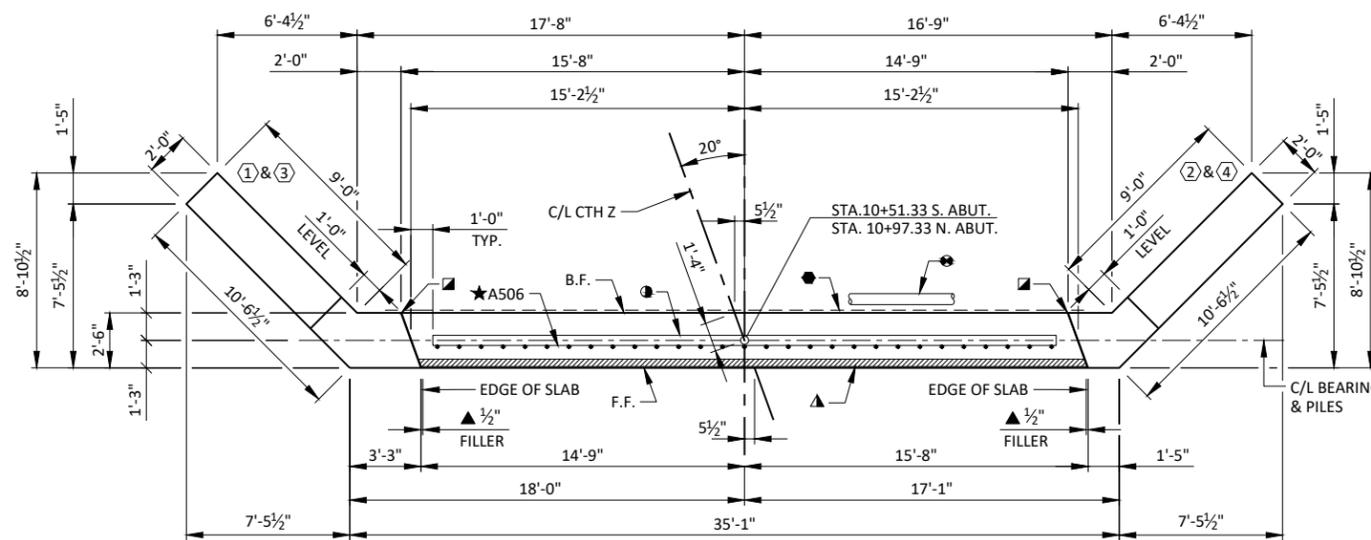


ABUTMENTS TO BE SUPPORTED ON PILING STEEL HP 10-INCH x 42 LB DRIVEN TO A REQUIRED DRIVING RESISTANCE OF 140 TONS PER PILE AS DETERMINED BY THE MODIFIED GATES DYNAMIC FORMULA. ESTIMATE 35 FT PILE LENGTHS AT BOTH ABUTMENTS.

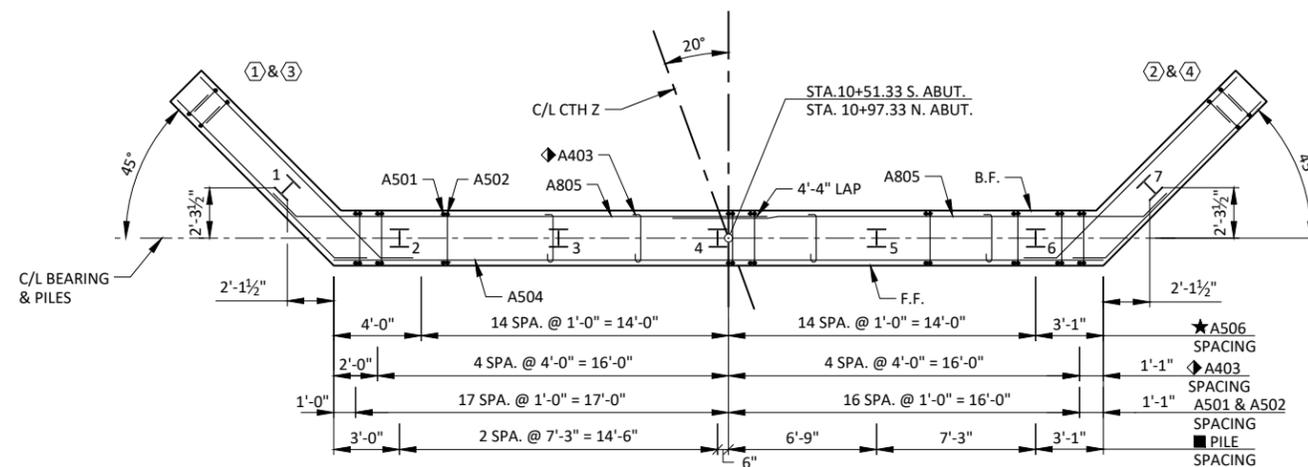
TYPICAL SECTION THROUGH ABUTMENT BODY



ELEVATION
(SOUTH ABUTMENT LOOKING SOUTH)
(NORTH ABUTMENT LOOKING NORTH)



PLAN

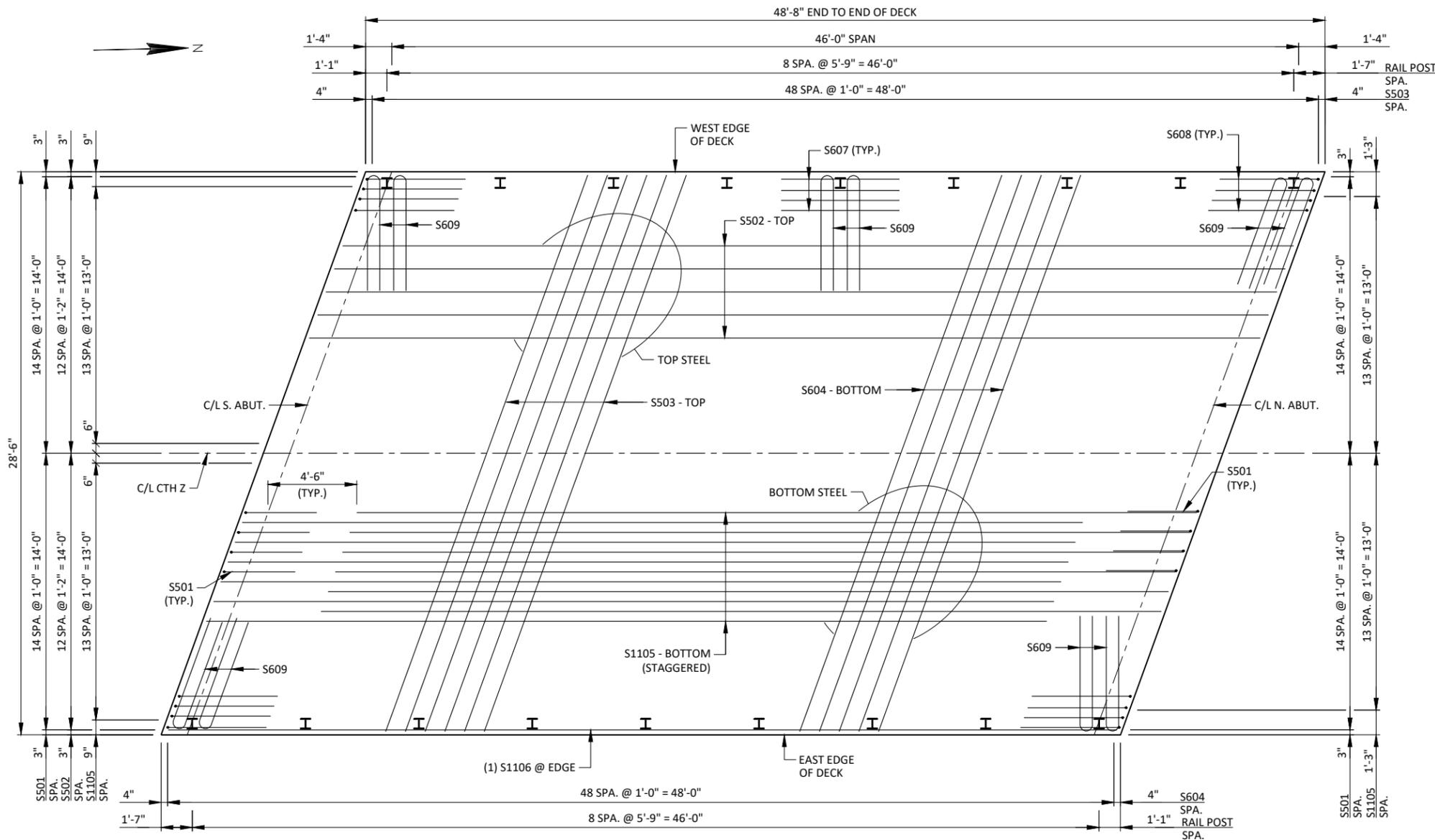


LAYOUT

LEGEND

- VERTICAL 18" RUBBERIZED MEMBRANE WATERPROOFING EXTEND FROM 9" BELOW BRIDGE SEAT TO 1" BELOW TOP OF WINGS.
- 18" RUBBERIZED MEMBRANE WATERPROOFING. (HORIZONTAL)
- ▲ 1/2" FILLER EXTEND AS SHOWN. SEAL ALL EXPOSED HORIZ. & VERT. SURFACES OF FILLER WITH NON-STAINING GRAY, NON-BITUMINOUS JOINT SEALER. (1" DEEP & HOLD 1/8" BELOW SURFACE OF CONCRETE)
- ▲ 3/4" x 4" PREFORMED FILLER, EXTEND FULL LENGTH OF ABUTMENTS BETWEEN EDGES OF SLAB.
- ★ A506 BARS MAY BE PLACED AFTER CONCRETE IS POURED BUT BEFORE IT HAS TAKEN ITS INITIAL SET. EMBED BAR 1'-0".
- PILE SPACING MEASURED AT BASE OF ABUTMENT BODY.
- PIPE UNDERDRAIN WRAPPED (6-INCH), SLOPED 0.5% MIN. TO SUITABLE DRAINAGN. ATTACH RODENT SCREEN AT ENDS OF PIPE UNDERDRAIN AS DETAILED ON SHEET 2. RODENT SCREEN TO BE INCLUDED IN THE BID ITEM "PIPE UNDERDRAIN WRAPPED 6-INCH."
- ◆ ALTERNATE THE POSITION OF THE 90° AND THE 180° BENDS AT EACH VERTICAL LAYER OF TIES.
- ◇ VOIDS IN THE RIPRAP HEAVY SHALL BE FILLED WITH SELECT CRUSHED MATERIAL.

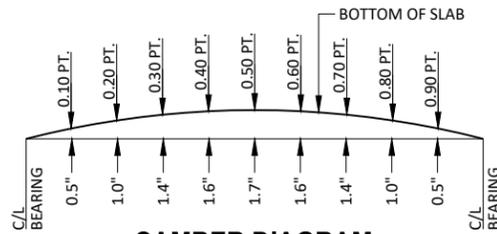
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-27-176			
DRAWN BY		CTMP	PLANS CK'D. PTB
ABUTMENTS			SHEET 4 OF 8



PLAN

TOP OF DECK ELEVATIONS

	C/L S. ABUT.	0.10 PNT.	0.20 PNT.	0.30 PNT.	0.40 PNT.	0.50 PNT.	0.60 PNT.	0.70 PNT.	0.80 PNT.	0.90 PNT.	C/L N. ABUT.
W. EDGE	987.89	987.89	987.89	987.89	987.89	987.89	987.89	987.89	987.89	987.89	987.89
C/L	988.18	988.18	988.18	988.18	988.18	988.18	988.18	988.18	988.18	988.18	988.18
E. EDGE	987.89	987.89	987.89	987.89	987.89	987.89	987.89	987.89	987.89	987.89	987.89



CAMBER DIAGRAM

CAMBER SHOWN IS BASED ON 3 TIMES DEAD LOAD DEFLECTIONS. CAMBER SPAN AS SHOWN TO PROVIDE FOR THEORETICAL DEADLOAD DEFLECTION AND FUTURE PLASTIC FLOW. CAMBER DOES NOT INCLUDE ALLOWANCE FOR FORM SETTLEMENT.

TO DETERMINE FALSEWORK ELEVATION AT EDGE OF SLAB OR CENTER LINE FOLLOW THIS PROCEDURE:
 TOP OF SLAB ELEVATION AT FINAL GRADE
 -SLAB THICKNESS
 +CAMBER
 +FORM SETTLEMENT/DEFLECTION DUE TO PLACEMENT OF SLAB CONCRETE (COMPUTED BY CONTRACTOR)
 =TOP OF SLAB FALSEWORK ELEVATION.

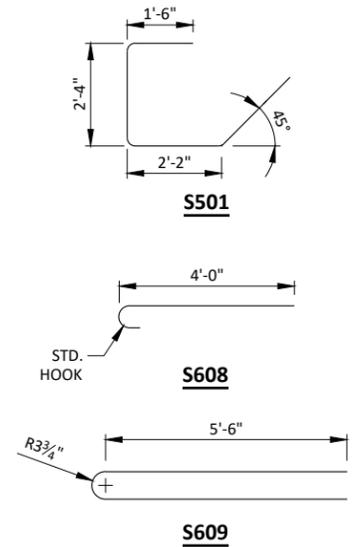
BILL OF BARS SUPERSTRUCTURE 19,930 LB (COATED)

BAR MARK	NO. REQ'D.	LENGTH	BENT	COAT	LOCATION
S501	58	8-0	X	X	ENDS OF DECK
S502	25	48-3		X	SLAB - TOP - LONGIT.
S503	55	29-11		X	SLAB - TOP - TRANS. & AT ABUT.
S604	49	29-11		X	SLAB - BOTTOM - TRANS.
S1105	55	42-9		X	SLAB - BOTTOM - LONGIT.
S1106	2	48-3		X	SLAB - BOTTOM - LONGIT. - EDGES
S607	56	6-0		X	RAIL POSTS - INTERIOR
S608	16	4-8	X	X	RAIL POSTS - CORNERS
S609	36	12-0	X	X	RAIL POSTS

NOTES: THE FIRST DIGIT OF A THREE DIGIT BAR MARK OR THE FIRST TWO DIGITS OF A FOUR DIGIT BAR MARK SIGNIFIES THE BAR SIZE.

DIMENSIONS IN BENDING DETAILS ARE OUT TO OUT OF BAR.

SOME BARS HAVE BEEN OMITTED FOR CLARITY.



NOTES

SUPPORT ALTERNATE TOP TRANSVERSE BARS IN SLAB BY INDIVIDUAL BAR CHAIRS AT APPROX. 3'-0" CENTERS. SUPPORT BOTTOM LONGITUDINAL BARS BY CONTINUOUS BAR CHAIRS AT APPROX. 4'-0" CENTERS.

PLACE TRANSVERSE BARS PARALLEL TO THE CENTERLINE OF SUBSTRUCTURE UNITS.

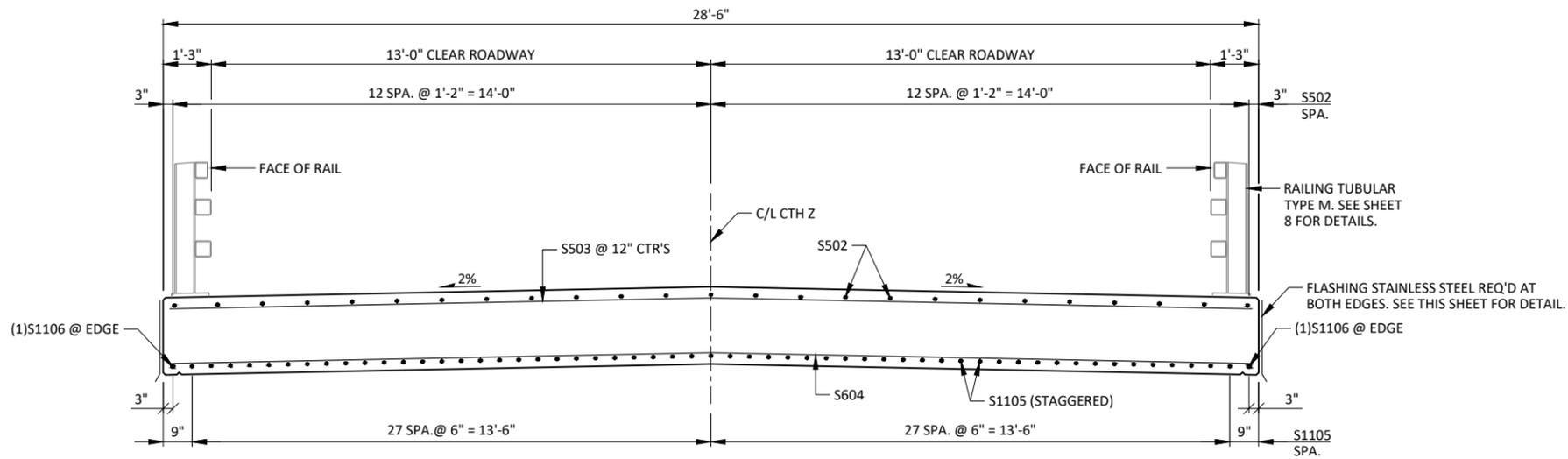
THE SLAB THICKNESS DIMENSION IS MINIMUM. ANY TOLERANCES NECESSARY TO CORRECT CONSTRUCTION DISCREPANCIES ARE TO BE PLUS (+).

SURVEY TOP OF DECK ELEVATIONS

	S. ABUT.	0.50 PT.	N. ABUT.
WEST EDGE OF DECK			
CENTER LINE			
EAST EDGE OF DECK			

PRIOR TO RELEASING SLAB FALSEWORK, TAKE TOP OF DECK ELEVATIONS AT THE C/L OF THE ABUTMENTS AND AT 0.50 PTS. TO VERIFY CAMBER. TAKE ELEVATIONS ALONG THE EDGE OF DECK AND CENTER LINE. RECORD THE ELEVATIONS IN THE ABOVE TABLE FOR THE "AS BUILT" PLANS.

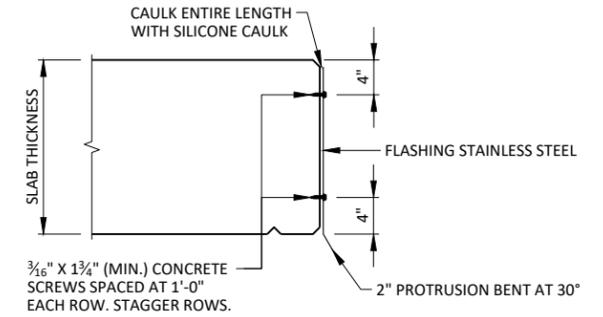
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-27-176			
DRAWN BY		CTMP	PLANS CK'D. PTB
SUPERSTRUCTURE			SHEET 6 OF 8



CROSS SECTION THROUGH ROADWAY

LEGEND

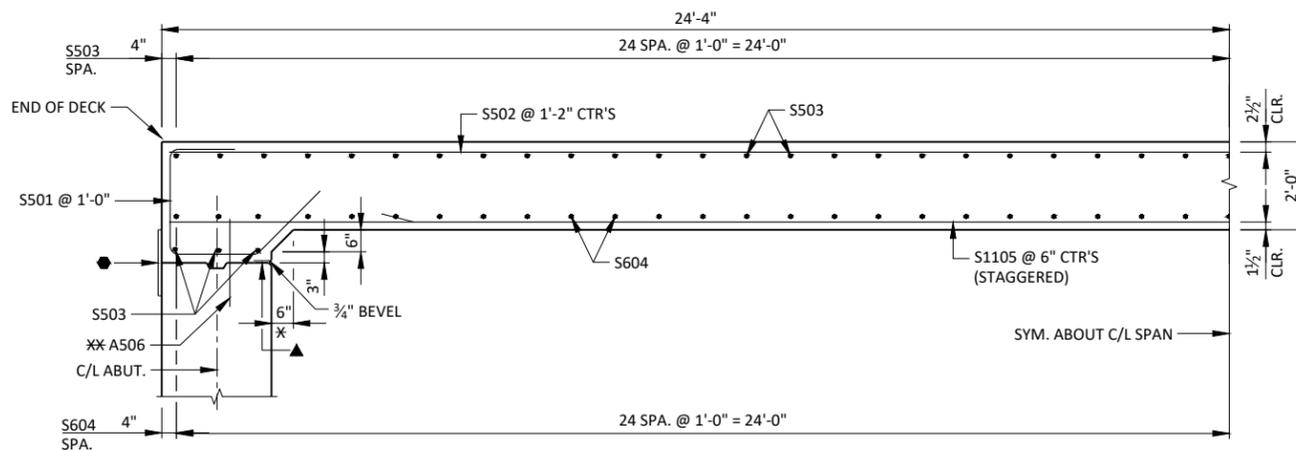
- 18" RUBBERIZED MEMBRANE WATERPROOFING. (HORIZONTAL)
- ▲ 3/4" x 4" PREFORMED FILLER, EXTEND FULL LENGTH OF ABUTMENTS BETWEEN EDGES OF SLAB.
- * DIMENSION IS NORMAL TO THE C/L OF SUBSTRUCTURE UNITS.
- ** SEE SHEET 4 FOR PLACEMENT OF A506 BARS.



STAINLESS STEEL FLASHING DETAIL

NOTES:

- THE BID ITEM "FLASHING STAINLESS STEEL" SHALL INCLUDE PROVIDING AND INSTALLING THE STAINLESS STEEL FLASHING, SILICONE CAULK, 3/16" CONCRETE SCREWS, AND CLEANING THE EDGE OF DECK PRIOR TO ATTACHMENT OF THE FLASHING.
- FLASHING TO BE INSTALLED AFTER APPLICATION OF PROTECTIVE SURFACE TREATMENT.
- CONCRETE SCREWS SHALL BE 410 STAINLESS STEEL.
- EXTEND FLASHING TO F.F. OF ABUTMENT.
- TOP OF FLASHING TO BEGIN APPROXIMATELY 1" BELOW TOP OF SLAB SURFACE.
- THE FLASHING IS TO BE A CONSTANT HEIGHT BASED ON THE THINNEST SLAB DEPTH OVER THE BRIDGE LENGTH.



PARTIAL LONGITUDINAL SECTION THROUGH ROADWAY

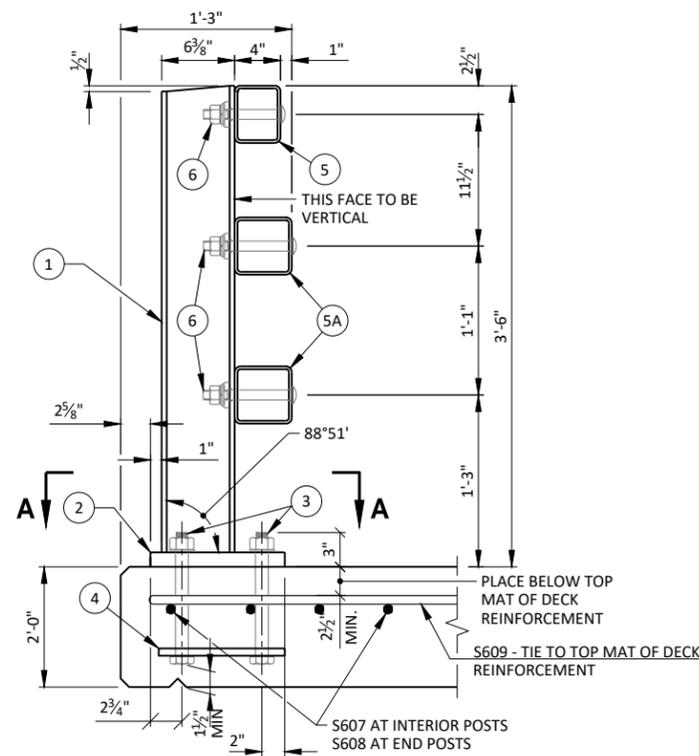
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-27-176			
DRAWN BY		CTMP	PLANS CK'D. PTB
SUPERSTRUCTURE DETAILS			SHEET 7 OF 8

LEGEND

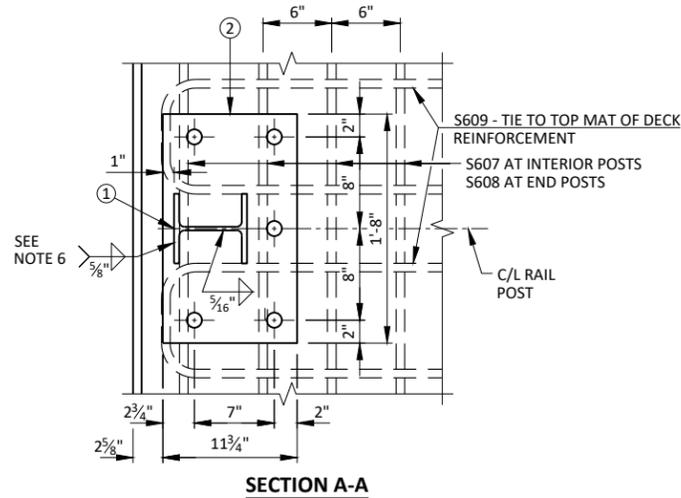
- ① W6x25 WITH 1 1/8" x 1 1/2" HORIZONTAL SLOTS ON EACH SIDE OF POST FOR BOLT NO. 6. CUT BOTTOM OF POST TO MATCH CROSS SLOPE OF ROADWAY. PLACE POST VERTICAL. PLACE POSTS NORMAL TO GRADE LINE.
- ② PLATE 1 1/4"x11 3/4"x1'-8" WITH 1 1/16" DIA. OVERSIZED HOLES FOR ANCHOR BOLTS NO. 3. WELD TO NO. 1 AS SHOWN.
- ③ ASTM A449 - 1 1/8" DIA. ANCHOR BOLTS WITH NUT AND HARDENED WASHER (ALL GALVANIZED). 5 REQ'D. PER POST. THREAD 3" AND PLACE NORMAL TO PLATE NO. 2. CHAMFER TOP OF BOLTS BEFORE THREADING. AT POSTS ON CONCRETE SLAB SUPERSTRUCTURES WHERE THE SLAB THICKNESS IS > 16" USE 1'-3" LONG.
- ④ 3/8"x11"x1'-8" ANCHOR PLATE (GALVANIZED) WITH 1 1/16" DIA. HOLES FOR ANCHOR BOLTS NO. 3.
- ⑤ TSS 5x4x0.25 STRUCTURAL TUBING. ATTACH TO NO. 1 WITH NO. 6.
- ⑤A TSS 5x5x0.25 STRUCTURAL TUBING. ATTACH TO NO. 1 WITH NO. 6.
- ⑥ 7/8" DIA. A325 SLOTTED ROUND HEAD BOLT WITH NUT, 3/16"x1 1/8"x1 1/8" MIN. WASHER, AND LOCK WASHER (2 REQ'D. AT EACH RAIL TO POST LOCATION).
- ⑨ SPLICE SLEEVE FABRICATED FROM 3/4" PLATE. PROVIDE "SLIDING FIT".
- ⑩ 3/8"x3 3/8"x2'-4" PLATE. 2 PER RAIL. USED IN NO. 5 & 5A.
- ⑩A 3/8"x2 3/8"x2'-4" PLATE USED IN NO. 5, 3/8"x3 3/8"x2'-4" PLATE USED IN NO. 5A. 2 PER RAIL.
- ⑪ 7/8" DIA. A325 ROUND HEAD BOLT WITH NUT, WASHER, AND LOCK WASHER. USE 1 1/16"x1 1/2" LONGIT. SLOTTED HOLES IN PLATE NO. 10A. AT FIELD JOINTS AND 1 1/16"x2 3/4" MIN. LONGIT. SLOTTED HOLES AT EXP. JOINTS IN PLATE NO. 10A. PROVIDE 1 1/16" DIA. ROUND HOLES IN TUBES NO. 5 AND NO. 5A.

GENERAL NOTES

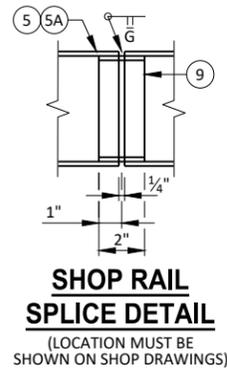
- 1. BID ITEM SHALL BE "RAILING TUBULAR TYPE M" WHICH INCLUDES ALL ITEMS SHOWN.
- 2. RAIL POST AND BASE PLATES SHALL CONFORM TO THE REQUIREMENTS OF ASTM A709 GRADE 50. HOLLOW RAILING STRUCTURAL TUBING SHALL CONFORM TO THE REQUIREMENTS OF ASTM A500 GRADE B OR C WITH A CERTIFIED FY=50 KSI. ANCHOR PLATES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



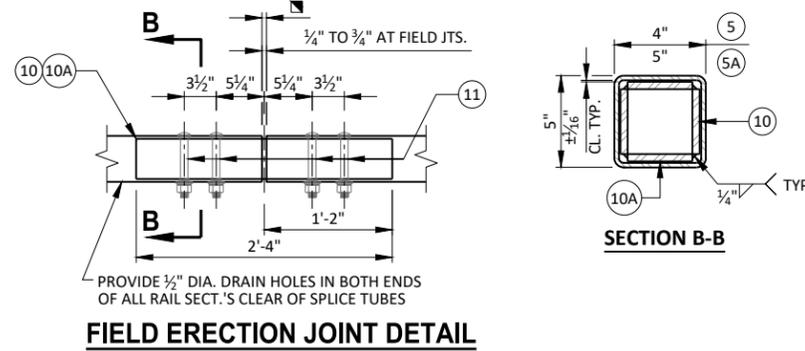
SECTION THROUGH RAILING ON DECK



SECTION A-A

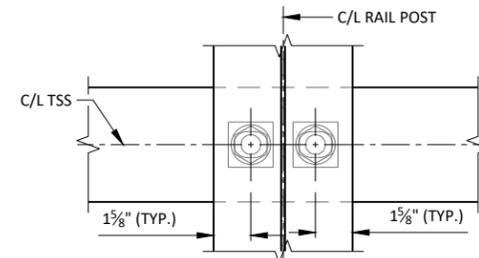


SHOP RAIL SPLICE DETAIL
(LOCATION MUST BE SHOWN ON SHOP DRAWINGS)

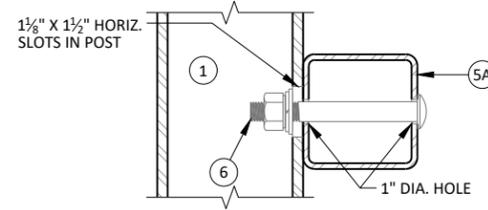


FIELD ERECTION JOINT DETAIL

RDWY. OPENING OR 2 1/2" MIN. FOR STRIP SEAL EXP. JOINT & (1/4" TO 3/4") OPENING FOR A1 ABUTMENT.



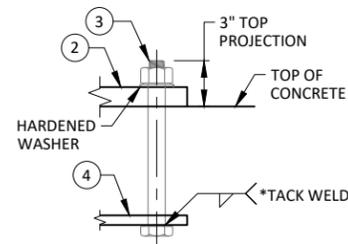
SECTION THROUGH POST WEB



SECTION THROUGH RAIL

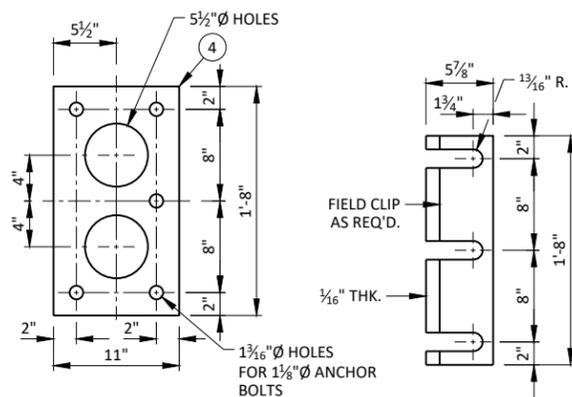
NOTE: CONNECTIONS AT LOWER RAILS SHOWN. CONNECTIONS AT TOP RAIL SIMILAR.

TYPICAL RAIL TO POST CONNECTIONS



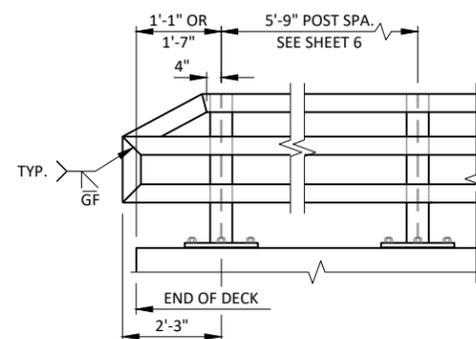
ANCHOR BOLTS

* ANCHOR BOLT ASSEMBLY MAY BE TACK WELDED, EITHER IN THE SHOP, OR IN THE FIELD AFTER THE ANCHOR PLATE IS PLACED.



ANCHOR PLATE
AT RAIL TO DECK CONNECTION

POST SHIM DETAIL



PART ELEVATION OF RAILING

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-27-176			
DRAWN BY		CTMP	PLANS CK'D. PTB
RAILING TUBULAR TYPE M		SHEET 8 OF 8	

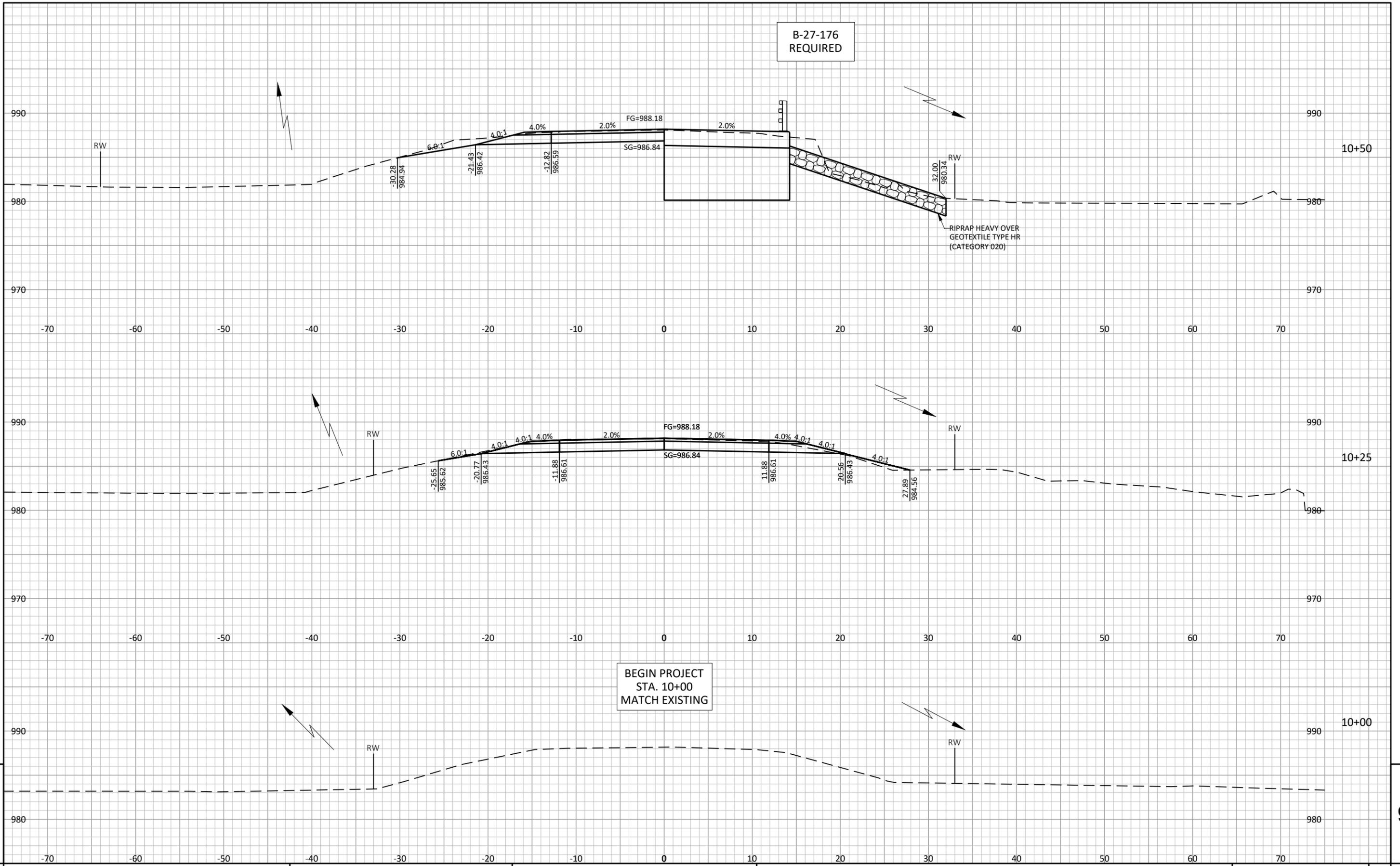
EARTHWORK-CTH Z

STATION	AREA (SF)		INCREMENTAL VOL (CY)			CUMMULATIVE VOLUME (CY)			
	CUT	FILL	CUT NOTE 1	FILL NOTE 2	FILL (25%) NOTE 3	CUT 1.00 NOTE 1	FILL	FILL (25%) NOTE 3	MASS ORDINATE NOTE 4
10+00	0	0	21	1	1	21	1	1	20
10+25	44	2	41	2	4	62	3	5	57
10+50	44	2	0	0	0	62	3	5	57
10+99	37	2	0	0	0	62	3	5	57
11+25	37	2	36	2	2	98	5	7	91
11+50	0	0	17	1	1	115	6	8	107
COLUMN TOTALS =			115	6	8				107

NOTES:	
1 - CUT	CUT INCLUDES SALVAGED/UNUSABLE PAVEMENT MATERIAL
2 - FILL	DOES NOT INCLUDE UNUSABLE PAVEMENT EXC VOLUME
3 - FILL 25%	(UNEXPANDED FILL)*1.25
4 - MASS ORDINATE	CUT + ROCK (10%) +REDUCED MARSH (60%) - FILL (25%)

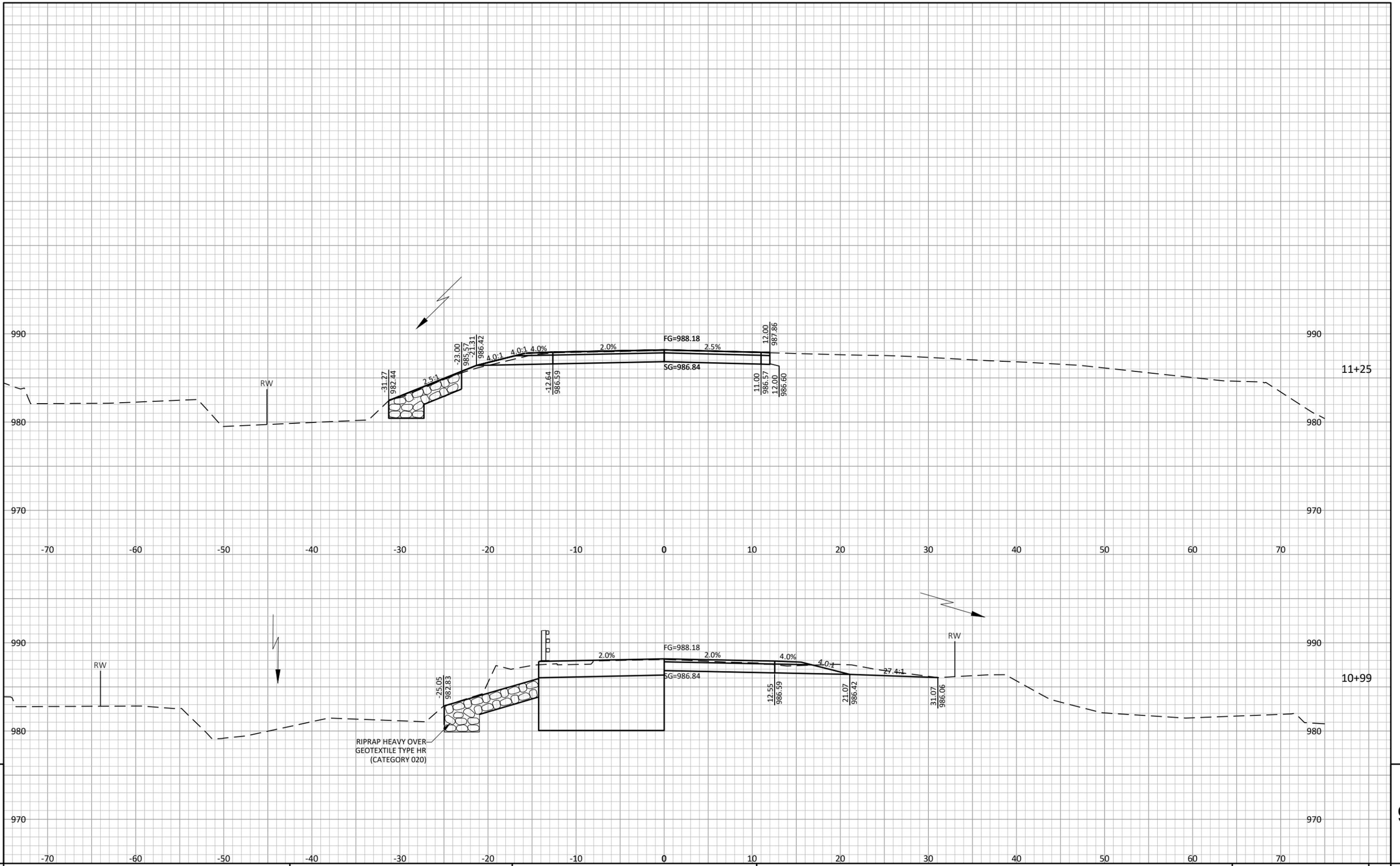
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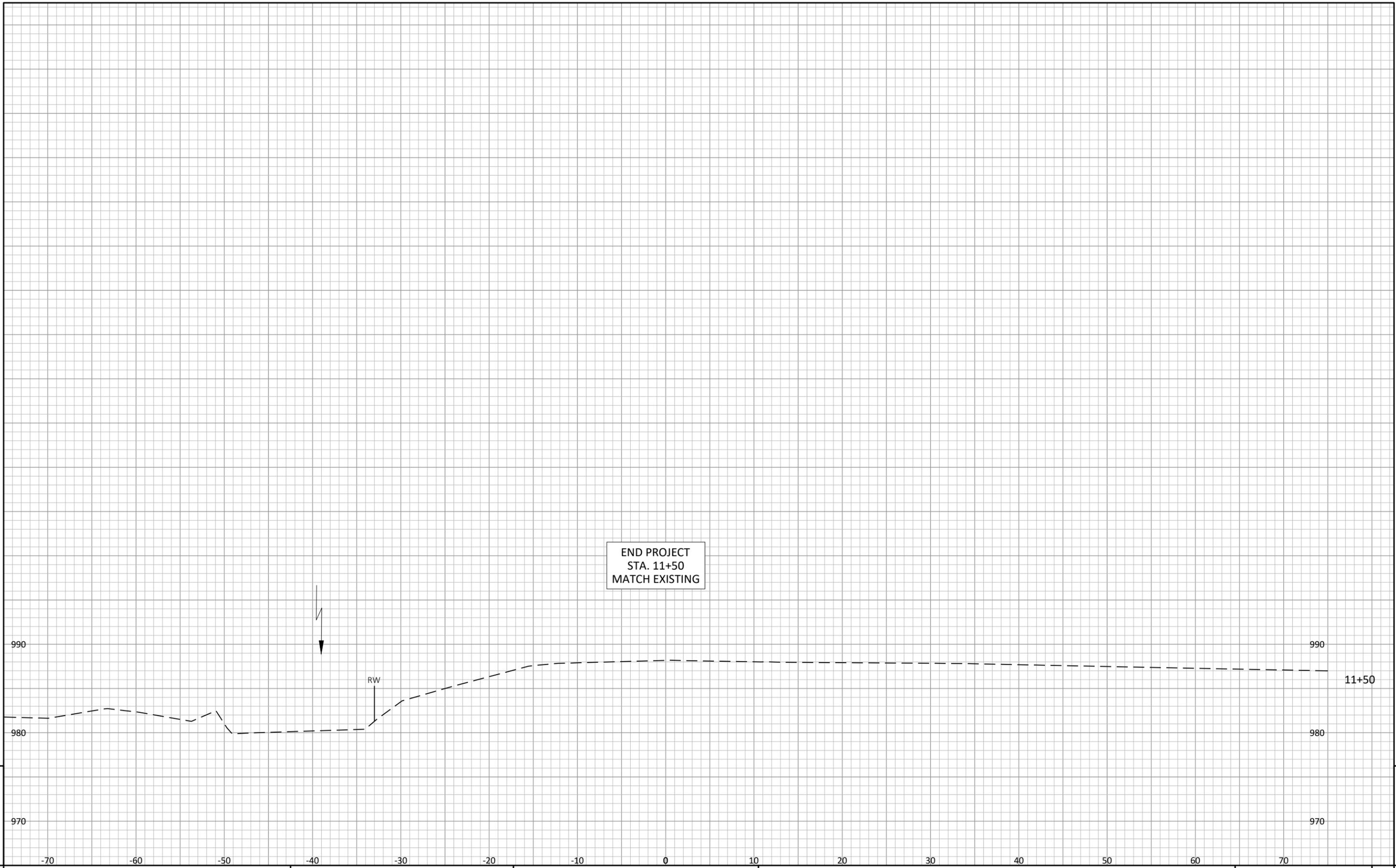
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END PROJECT
 STA. 11+50
 MATCH EXISTING



RW

11+50

9

9

PROJECT NO: 7244-00-70

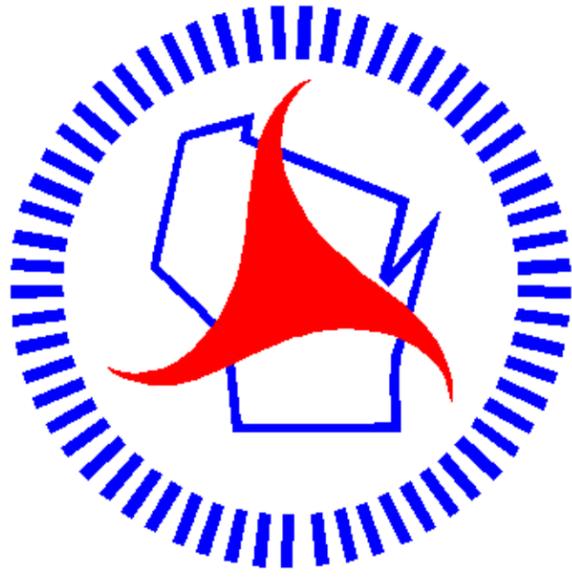
HWY: CTH Z

COUNTY: JACKSON

CROSS SECTIONS: MAINLINE

SHEET

E



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