SUP | MARCH 2022

PROJECT ID: 8377-00-70
WITH: N/A

COUNTY: BURNETT

46

ORDER OF SHEETS

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

TOTAL SHEETS = 58

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

T UNION, YELLOW LAKE ROAD

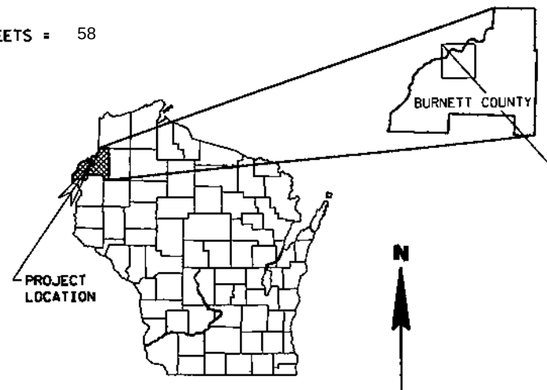
YELLOW LAKE BRIDGE B070060

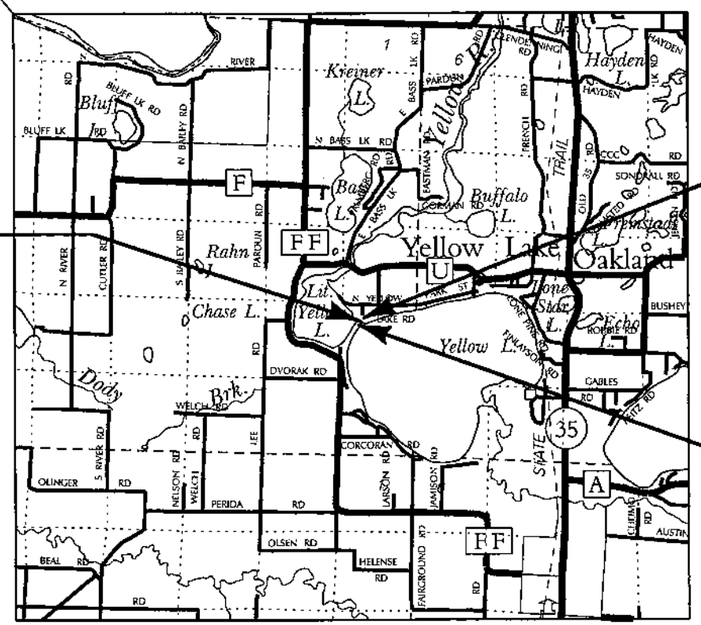
LOCAL STREET

BURNETT COUNTY

STATE PROJECT NUMBER
8377-00-70

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
8377-00-70	———	—





STRUCTURE B-07-0060

END PROJECT
STA. 21+25
Y = 205699.28
X = 219335.31

BEGIN PROJECT
STA. 18+40
Y = 205421.22
X = 219343.39

LAYOUT
SCALE 0 1 MI.

TOTAL NET LENGTH OF CENTERLINE = 0.054 MI.

HORIZONTAL POSITIONS SHOWN ON THIS PLAN ARE WISCONSIN COORDINATE REFERENCE SYSTEM (WISCRS), BURNETT COUNTY, NAD83 (2011), IN U.S. SURVEY FEET. POSITIONS SHOWN ARE GRID COORDINATES, GRID BEARINGS AND GRID DISTANCES. GRID DISTANCES ARE THE SAME AS GROUND DISTANCES. ELEVATIONS ARE REFERENCED TO NAVD88 (2012). GPS DERIVED ELEVATIONS ARE BASED ON GEOID 12A.

DESIGN DESIGNATION

A.A.D.T. (2020)	=	350
A.A.D.T. (2040)	=	475
D.H.V.	=	40
D.	=	50/50
T.	=	11%
DESIGN SPEED	=	20 MPH
ESALS	=	44,000

CONVENTIONAL SYMBOLS

PLAN
- CORPORATE LIMITS
- PROPERTY LINE (PL + 58.1)
- LOT LINE
- LIMITED HIGHWAY EASEMENT
- EXISTING RIGHT OF WAY
- PROPOSED OR NEW R/W LINE
- SLOPE INTERCEPT
- REFERENCE LINE
- EXISTING CULVERT
- PROPOSED CULVERT (Box or Pipe)
- COMBUSTIBLE FLUIDS (CAUTION)
- HIGH VOLTAGE (CAUTION)
- MARSH AREA
- WOODED OR SHRUB AREA

PROFILE
- GRADE LINE
- ORIGINAL GROUND
- MARSH OR ROCK PROFILE (To be noted as such) (ROCK)
- SPECIAL DITCH (LABEL)
- GRADE ELEVATION (95.36)
- CULVERT (Profile View)

UTILITIES
- OVERHEAD (OH)
- ELECTRIC (E)
- FIBER OPTIC (FO)
- GAS (G)
- SANITARY SEWER (SAN)
- STORM SEWER (SS)
- TELEPHONE (T)
- WATER (W)
- UTILITY PEDESTAL
- POWER POLE
- TELEPHONE POLE

ACCEPTED FOR
County of Burnett
10/11/2021 (Date) — Highway Commissioner

ACCEPTED FOR
Town of Union
10/13/21 (Date) — Town Chairman

ORIGINAL PLANS PREPARED BY

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

DANIEL N. SYDOW E-38363 WI PROFESSIONAL ENGINEER

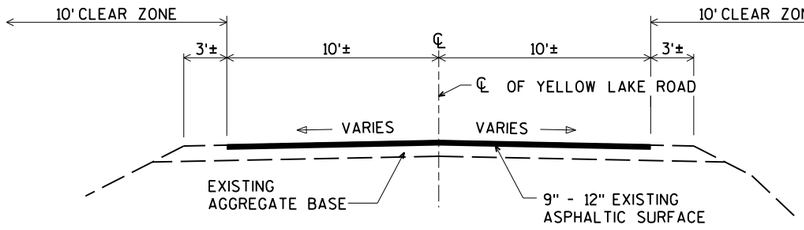
10/13/2021
DATE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

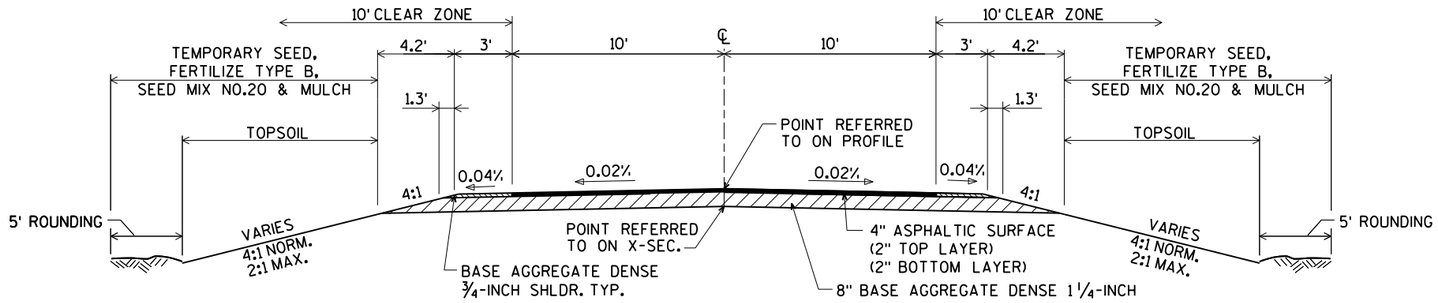
PREPARED BY	
Surveyor	AYRES ASSOCIATES INC
Designer	AYRES ASSOCIATES INC
Project Manager	TYLER RONGSTAD, PE
Regional Examiner	TOU YANG, PE
Regional Supervisor	TYLER RONGSTAD, PE

APPROVED FOR THE DEPARTMENT
Tyler Rongstad
DATE: ——— (Signature)

E

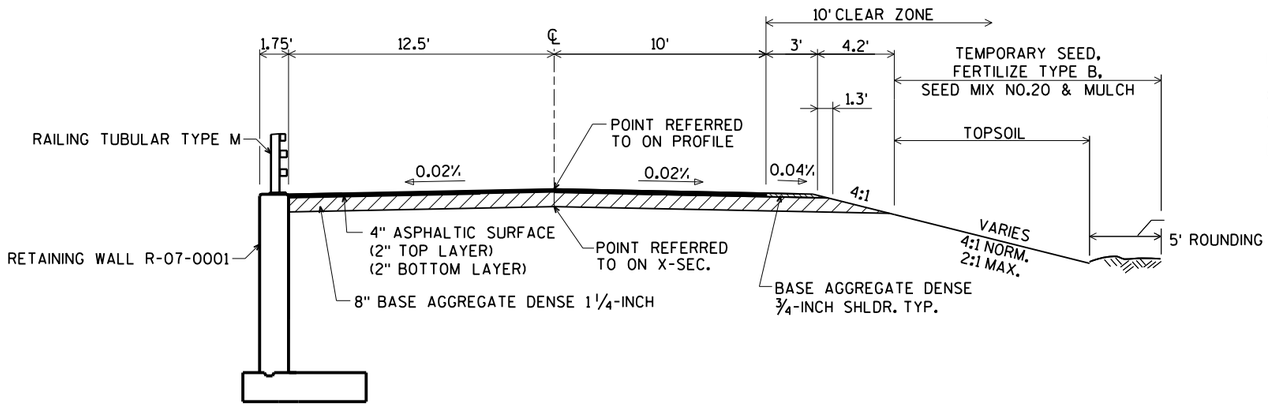


EXISTING TYPICAL SECTION



FINISHED TYPICAL SECTION

(STATION 18+40 TO STATION 19+73.75)
(STATION 20+26.25 TO STATION 21+25, RT)
(STATION 20+75 TO STATION 21+25, LT)



FINISHED TYPICAL SECTION

(STATION 20+26.25 TO STATION 20+75, LT)

WISCONSIN DEPARTMENT OF NATURAL RESOURCES CONTACT:

AMY CRONK
810 W MAPLE STREET
SPOONER, WI 54801
715-635-4229
715-320-3976
amy.cronk@wisconsin.gov

DESIGNER

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

COUNTY CONTACT:

BURNETT COUNTY HIGHWAY DEPARTMENT
8150 STATE ROAD 70
SIREN, WI 54872
ATTN: MICHAEL HOEFS
715-349-2285
mhoefs@burnettcounty.org

GENERAL NOTES

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

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

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

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

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

ASPHALTIC REMOVAL IS INCLUDED IN THE ITEM EXCAVATION COMMON.

TOPSOIL SHALL BE PLACED ON THE SLOPES, TO THE POINT OF INTERCEPT WITH THE ORIGINAL GROUND SHOWN ON THE CROSS SECTIONS.

THE DEPARTMENT OF TRANSPORTATION WILL FURNISH THE CONTRACTOR WITH A MONUMENT TO BE INSTALLED BY THE CONTRACTOR AS DIRECTED BY THE ENGINEER.

ELEVATIONS SHOWN ON THIS PLAN ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM (NAVD 88).

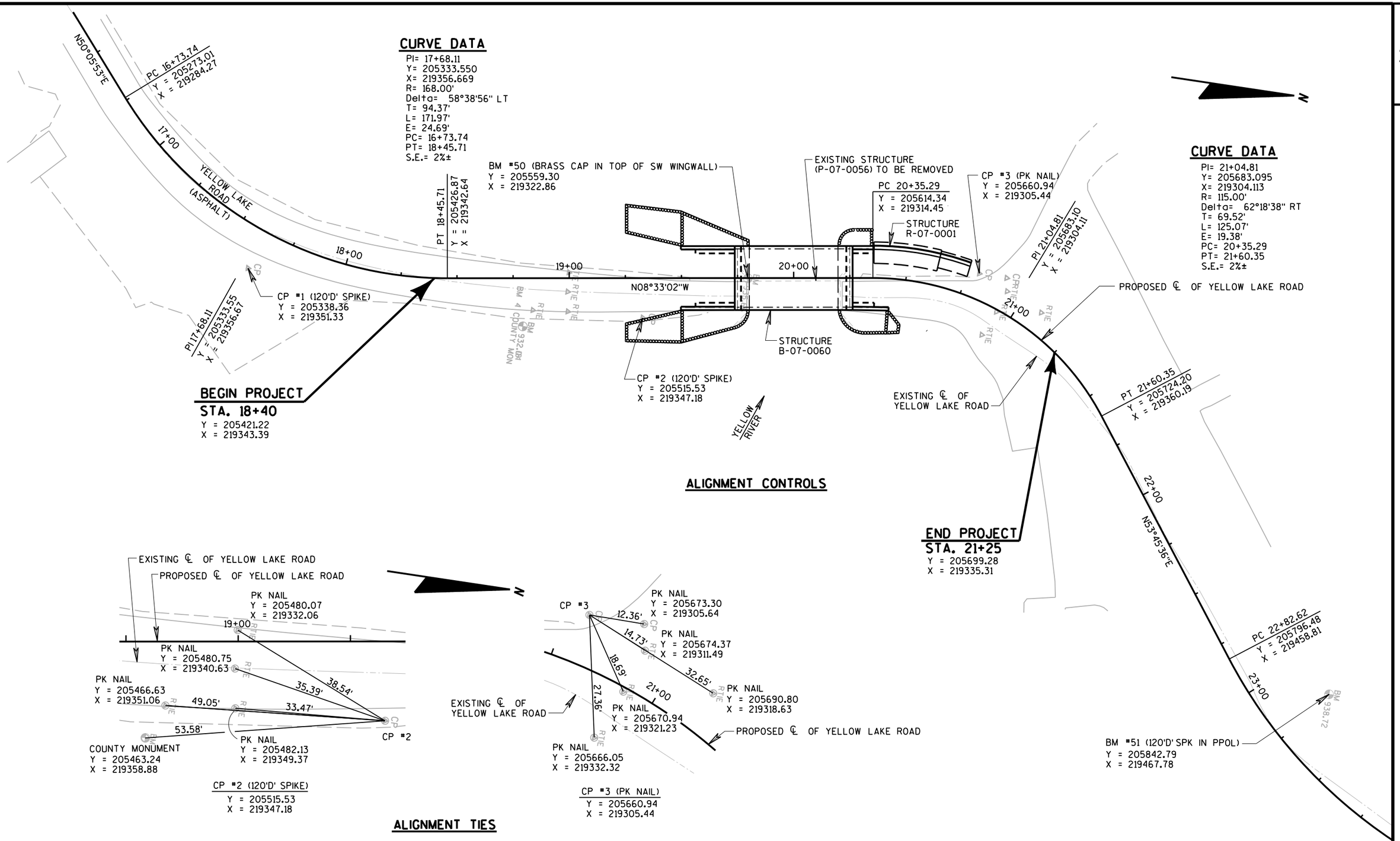
ASPHALT SURFACE SHALL USE ½" NOMINAL AGGREGATE SIZE.

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

UTILITIES

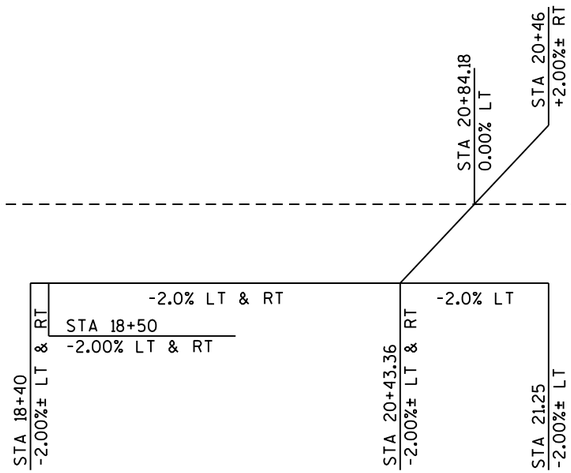
NORTHWESTERN WI ELECTRIC COMPANY
104 SOUTH PINE STREET
GRANTSBURG, WI 54840
ATTN: BILL COOPER
715-463-5371
BillCooperNWE@gmail.com

LUMEN TECHNOLOGIES - COMMUNICATIONS
2426 75TH AVE
OSCELOA, WI 54020
ATTN: MIKE VANDENBOS
715-294-2463
mike.vandenbos@lumen.com



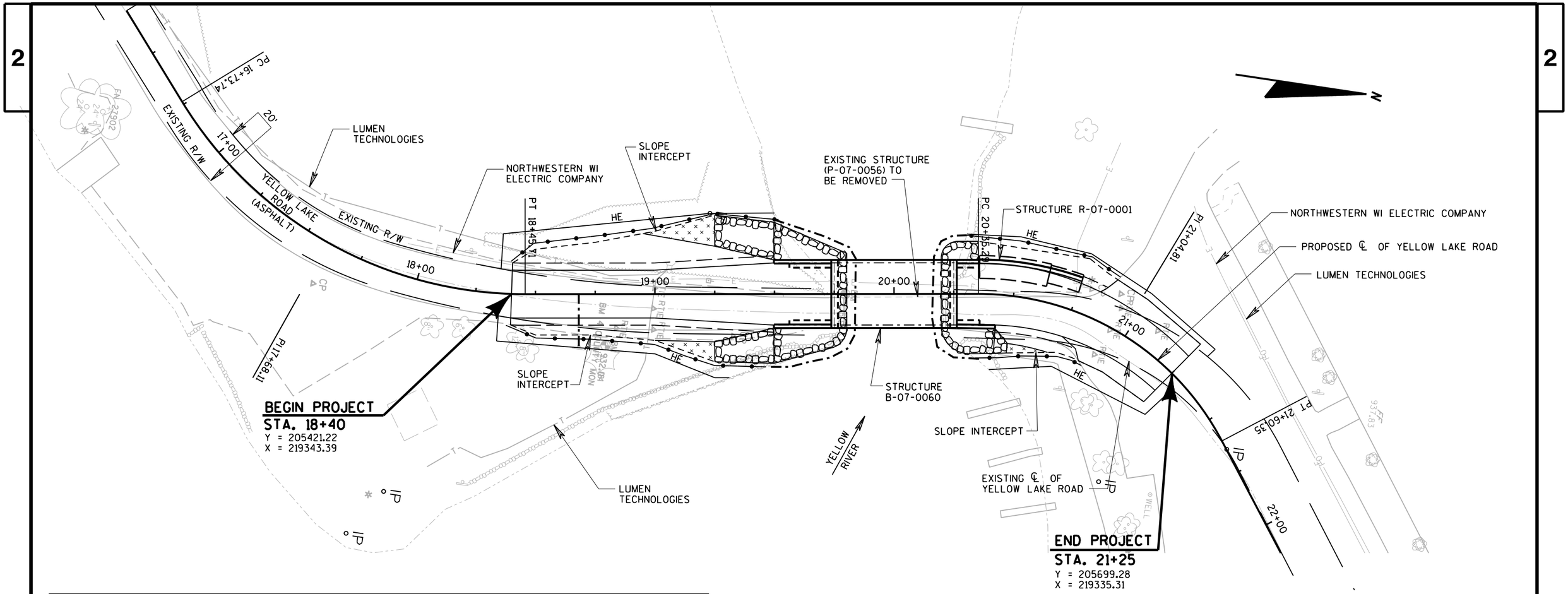
PROJECT NO: 8377-00-70	HWY: YELLOW LAKE ROAD	COUNTY: BURNETT	ALIGNMENT CONTROLS	SHEET 3	E

SUPERELEVATION:



SUPERELEVATION DIAGRAM

PROJECT NO: 8377-00-70	HWY: YELLOW LAKE ROAD	COUNTY: BURNETT	CONSTRUCTION DETAILS	SHEET 4	E



	HYDROLOGIC SOIL GROUP											
	A			B			C			D		
	SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)		
LAND USE:	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER
ROW CROPS	.08 .22	.16 .30	.22 .38	.12 .26	.20 .34	.27 .44	.15 .30	.24 .37	.33 .50	.19 .34	.28 .41	.38 .56
MEDIAN STRIP-TURF	.19 .24	.20 .26	.24 .30	.19 .25	.22 .28	.26 .33	.20 .26	.23 .30	.30 .37	.20 .27	.25 .32	.30 .40
SIDE SLOPE-TURF			.25 .32			.27 .34			.28 .36			.30 .38
PAVEMENT:												
ASPHALT	.70 - .95											
CONCRETE	.80 - .95											
BRICK	.70 - .80											
DRIVES, WALKS	.75 - .85											
ROOFS	.75 - .95											
GRAVEL ROADS, SHOULDERS	.40 - .60											

TOTAL PROJECT AREA = 0.389 ACRES
TOTAL AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES = 0.272 ACRES

HIGH WATER$_2$ EL. 930.39

LEGEND

- EROSION MAT CLASS II TYPE C
- SILT FENCE
- COFFERDAM
- RIPRAP HEAVY

PROJECT NO: 8377-00-70	HWY: YELLOW LAKE ROAD	COUNTY: BURNETT	EROSION CONTROL	SCALE, FEET 0 20 40	SHEET 5	E

2

N

DETOUR
Yellow Lake Rd
M4-8
24"X12"
M1-94
VARIESX15"
MO5-2L
21"X21"

DETOUR
Yellow Lake Rd
M4-8
24"X12"
M1-94
VARIESX15"
MO5-2R
21"X21"

COUNTY FF

COUNTY U

E BASS LAKE RD

R11-3C
60"X24"
BRIDGE OUT
1 MILE AHEAD
TYPE III BARRICADE

M4-9L
30"X24"
DETOUR
TYPE III BARRICADE

M1-94
VARIESX15"
Yellow Lake Rd
DETOUR
M4-59R
30"X30"

Yellow Lake Rd
DETOUR
M1-94
VARIESX15"
M4-9R
30"X24"

END
DETOUR
Yellow Lake Rd
M4-8A
24"X18"
M1-94
VARIESX15"

Yellow Lake Rd
DETOUR
M1-94
VARIESX15"
M4-9R
30"X24"

NORTH LAKE RD

Yellow Lake Rd
DETOUR
M1-94
VARIESX15"
M4-9L
30"X24"

Yellow Lake Rd
DETOUR
M1-94
VARIESX15"
M4-59L
30"X30"

M1-94
VARIESX15"
Yellow Lake Rd
DETOUR AHEAD
W20-2A

GROVER POINT RD

PARK STREET WEST

LITTLE YELLOW LAKE

LEE RD

Yellow Lake Rd
DETOUR
M1-94
VARIESX15"
M4-9R
30"X24"

Yellow Lake Rd
DETOUR
M1-94
VARIESX15"
M4-9L
30"X24"

YELLOW LAKE RD

YELLOW LAKE

Yellow Lake Rd
DETOUR
M1-94
VARIESX15"
M4-9R
30"X24"

END
DETOUR
Yellow Lake Rd
M4-8A
24"X18"
M1-94
VARIESX15"

M1-94
VARIESX15"
Yellow Lake Rd
DETOUR AHEAD
W20-2A

DVORAK RD

R11-3C
60"X24"
BRIDGE OUT
1/2 MILE AHEAD
TYPE III BARRICADE

M4-9L
30"X24"
DETOUR
TYPE III BARRICADE

BURNETT COUNTY TO PROVIDE PCMS BOARDS BEFORE AND DURING CONSTRUCTION.

LEGEND

- WORK ZONE
- DETOUR ROUTE
- EXISTING TYPE II SIGN ON PERMANENT SUPPORT
- PROPOSED DETOUR SIGN ON PERMANENT SUPPORT

PROJECT NO: 8377-00-70	HWY: YELLOW LAKE ROAD	COUNTY: BURNETT	DETOUR PLAN	SHEET 6	E

FILE NAME : I:\42\42-1211.00 - BURNETT CO, TN UNION, YELLOW LAKE ROAD\ROADWAY\421211_DT.DWG
LAYOUT NAME - Plan 1 IN 20 FT
PLOT DATE : 10/25/2021 2:59 PM
PLOT BY : BUTTERIS, BRADLEY
PLOT NAME :
PLOT SCALE : 1 IN:1000 FT
WISDOT/CADDS SHEET 42

Estimate Of Quantities

8377-00-70

Line	Item	Item Description	Unit	Total	Qty
0002	201.0105	Clearing	STA	3.000	3.000
0004	201.0205	Grubbing	STA	3.000	3.000
0006	203.0260	Removing Structure Over Waterway Minimal Debris (structure) 01. P-07-0056	EACH	1.000	1.000
0008	205.0100	Excavation Common	CY	94.000	94.000
0010	206.1000	Excavation for Structures Bridges (structure) 01. B-07-60	LS	1.000	1.000
0012	206.3000	Excavation for Structures Retaining Walls (structure) 01. R-07-1	LS	1.000	1.000
0014	206.5000	Cofferdams (structure) 01. B-07-60	LS	1.000	1.000
0016	208.0100	Borrow	CY	377.000	377.000
0018	210.1500	Backfill Structure Type A	TON	810.000	810.000
0020	213.0100	Finishing Roadway (project) 01. 8377-00-70	EACH	1.000	1.000
0022	305.0110	Base Aggregate Dense 3/4-Inch	TON	25.000	25.000
0024	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	350.000	350.000
0026	455.0605	Tack Coat	GAL	48.000	48.000
0028	465.0105	Asphaltic Surface	TON	170.000	170.000
0030	502.0100	Concrete Masonry Bridges	CY	245.000	245.000
0032	502.3200	Protective Surface Treatment	SY	200.000	200.000
0034	504.0500	Concrete Masonry Retaining Walls	CY	45.000	45.000
0036	505.0400	Bar Steel Reinforcement HS Structures	LB	6,280.000	6,280.000
0038	505.0600	Bar Steel Reinforcement HS Coated Structures	LB	30,280.000	30,280.000
0040	513.4061	Railing Tubular Type M	LF	227.000	227.000
0042	516.0500	Rubberized Membrane Waterproofing	SY	23.000	23.000
0044	517.1015.S	Concrete Staining Multi-Color (structure) 01. B-7-60	SF	770.000	770.000
0046	517.1015.S	Concrete Staining Multi-Color (structure) 02. R-7-1	SF	210.000	210.000
0048	517.1050.S	Architectural Surface Treatment (structure) 01. B-7-60	SF	770.000	770.000
0050	517.1050.S	Architectural Surface Treatment (structure) 02. R-7-1	SF	210.000	210.000
0052	550.0500	Pile Points	EACH	14.000	14.000
0054	550.1100	Piling Steel HP 10-Inch X 42 Lb	LF	945.000	945.000
0056	612.0406	Pipe Underdrain Wrapped 6-Inch	LF	210.000	210.000
0058	616.0700.S	Fence Safety	LF	225.000	225.000
0060	618.0100	Maintenance And Repair of Haul Roads (project) 01. 8377-00-70	EACH	1.000	1.000
0062	619.1000	Mobilization	EACH	1.000	1.000
0064	624.0100	Water	MGAL	18.000	18.000
0066	625.0100	Topsoil	SY	170.000	170.000
0068	627.0200	Mulching	SY	350.000	350.000
0070	628.1504	Silt Fence	LF	445.000	445.000
0072	628.1520	Silt Fence Maintenance	LF	890.000	890.000
0074	628.1905	Mobilizations Erosion Control	EACH	4.000	4.000
0076	628.1910	Mobilizations Emergency Erosion Control	EACH	4.000	4.000
0078	628.2027	Erosion Mat Class II Type C	SY	50.000	50.000
0080	628.7504	Temporary Ditch Checks	LF	50.000	50.000
0082	629.0210	Fertilizer Type B	CWT	0.300	0.300
0084	630.0120	Seeding Mixture No. 20	LB	11.000	11.000
0086	630.0200	Seeding Temporary	LB	11.000	11.000
0088	630.0300	Seeding Borrow Pit	LB	3.000	3.000
0090	630.0500	Seed Water	MGAL	10.000	10.000
0092	634.0614	Posts Wood 4x6-Inch X 14-FT	EACH	7.000	7.000
0094	637.2230	Signs Type II Reflective F	SF	39.250	39.250
0096	638.2602	Removing Signs Type II	EACH	7.000	7.000
0098	638.3000	Removing Small Sign Supports	EACH	5.000	5.000

Estimate Of Quantities

8377-00-70

Line	Item	Item Description	Unit	Total	Qty
0100	642.5001	Field Office Type B	EACH	1.000	1.000
0102	643.0420	Traffic Control Barricades Type III	DAY	1,760.000	1,760.000
0104	643.0705	Traffic Control Warning Lights Type A	DAY	2,880.000	2,880.000
0106	643.0900	Traffic Control Signs	DAY	3,840.000	3,840.000
0108	643.5000	Traffic Control	EACH	1.000	1.000
0110	645.0111	Geotextile Type DF Schedule A	SY	100.000	100.000
0112	645.0120	Geotextile Type HR	SY	310.000	310.000
0114	650.4500	Construction Staking Subgrade	LF	235.000	235.000
0116	650.5000	Construction Staking Base	LF	235.000	235.000
0118	650.6500	Construction Staking Structure Layout (structure) 01. B-07-60	LS	1.000	1.000
0120	650.6500	Construction Staking Structure Layout (structure) 02. R-07-1	LS	1.000	1.000
0122	650.9910	Construction Staking Supplemental Control (project) 01. 8377-00-70	LS	1.000	1.000
0124	650.9920	Construction Staking Slope Stakes	LF	235.000	235.000
0126	690.0150	Sawing Asphalt	LF	131.000	131.000
0128	715.0502	Incentive Strength Concrete Structures	DOL	1,740.000	1,740.000
0130	999.2005.S	Maintaining Bird Deterrent System (station) 01. 20+00	EACH	1.000	1.000
0132	SPV.0035	Special 01. Riprap Heavy Special	CY	160.000	160.000

3

3

CLEARING AND GRUBBING

STATION	TO	STATION	OFFSET	201.0105 CLEARING STA	201.0205 GRUBBING STA
18+40	-	21+25	LT & RT	3	3
TOTALS				3	3

YELLOW LAKE ROAD EARTHWORK SUMMARY

From/To Station	Location	Excavation Common (1) (item # 205.0100) Cut	Salvaged / Unuseable Pavement Material (5)	Unexpanded Fill	Expanded Fill (2) Factor 1.30	Mass Ordinate +/- (3)	Waste	Borrow (item #208.0100)	Comment:
18+40 - 21+25	YELLOW LAKE ROAD	94	0	362	471	-377	0	377	

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

FINISHING ROADWAY (ID 8377-00-70)

LOCATION	213.0100.01 EACH
YELLOW LAKE RD	1
TOTAL	1

PAVING AND BASE QUANTITIES

STA	TO	STA	305.0110 BASE AGGREGATE DENSE 3/4-INCH TON	305.0120 BASE AGGREGATE DENSE 1 1/4-INCH TON	455.0605 TACK COAT GAL	465.0105 ASPHALTIC SURFACE TON
18+40	--	19+73.75	20	190	23	90
20+26.25	--	21+25	5	145	23	70
UNDISTRIBUTED			0	15	2	10
TOTALS			25	350	48	170

ALL QUANTITIES CATEGORY 0010 UNLESS OTHERWISE NOTED

3

FENCE SAFETY

LOCATION	616.0700.S FENCE SAFETY LF
NORTH END OF PROJECT	225
TOTAL	225

MAINTENANCE AND REPAIR OF HAUL ROADS ID 8377-00-70

CATEGORY	618.0100.01 EACH
0030	1
TOTAL	1

WATER

PURPOSE	624.0100 WATER MGAL
COMPACTION	6
DUST CONTROL	12
TOTAL	18

EROSION CONTROL ITEMS

STA	TO	STA	LOCATION	625.0100 TOPSOIL SY	627.0200 MULCHING SY	628.1504 SILT FENCE LF	628.1520 SILT FENCE MAINTENANCE LF	628.2027 EROSION MAT CLASS II TYPE C SY	629.0210 FERTILIZER TYPE B CWT	630.0120 SEEDING MIXTURE NO. 20 LB	630.0200 SEEDING TEMPORARY LB	630.0300 SEEDING BORROW PIT LB	630.0500 SEED WATER MGAL
18+40	--	19+73.75	RT	20	60	115	230	10	0.0	2	2	2	2
18+40	--	19+73.75	LT	70	95	120	240	25	0.1	3	3		3
20+26.25	--	21+25	RT	5	40	50	100	5	0.0	1	1	0	1
20+26.25	--	21+25	LT	40	85	70	140	0	0.1	2	2		2
UNDISTRIBUTED				35	70	90	180	10	0.1	2	2	1	2
TOTALS				170	350	445	890	50	0.3	11	11	3	10

EROSION CONTROL MOBILIZATION ITEMS

LOCATION	628.1905 MOBILIZATIONS EROSION CONTROL EACH	628.1910 MOBILIZATIONS EMERGENCY EROSION CONTROL EACH
ID 8377-00-70	4	4
TOTALS	4	4

TEMPORARY DITCH CHECKS

LOCATION	628.7504 LF
UNDISTRIBUTED	50
TOTAL	50

ALL QUANTITIES CATEGORY 0010 UNLESS OTHERWISE NOTED

3

3

SIGNAGE

STATION	LOCATION	634.0614 POSTS WOOD 4X6-INCH X 14-FT EACH	637.2230 SIGNS TYPE II REFLECTIVE F SF	638.2602 REMOVING SIGNS TYPE II EACH	638.3000 REMOVING SMALL SIGN SUPPORTS EACH	SIGNAGE TYPE
18+50	RT	1	9	--	--	W1-1R (ROAD TURNS RIGHT)
18+50	RT	--	2.25	--	--	W13-1 (15 MPH)
18+68	RT	--	--	1	1	W5-3 (ONE LANE BRIDGE)
19+48	LT	1	3	--	--	W5-52L (BRIDGE HASH MARKS)
19+48	RT	1	3	--	--	W5-52R (BRIDGE HASH MARKS)
19+78	RT	--	--	1	--	R12-1 (WEIGHT LIMIT 25 TONS)
19+78	LT	--	--	1	1	W5-52L (BRIDGE HASH MARKS)
19+78	RT	--	--	1	1	W5-52R (BRIDGE HASH MARKS)
20+22	LT	--	--	1	--	R12-1 (WEIGHT LIMIT 25 TONS)
20+22	LT	--	--	1	1	W5-52R (BRIDGE HASH MARKS)
20+22	RT	--	--	1	1	W5-52L (BRIDGE HASH MARKS)
20+44	RT	1	3	--	--	W5-52L (BRIDGE HASH MARKS)
20+73	LT	1	8	--	--	W1-6 (ONE-DIRECTION LARGE
20+76	LT	1	3	--	--	W5-52R (BRIDGE HASH MARKS)
20+77	LT	1	8	--	--	W1-6 (ONE-DIRECTION LARGE
TOTALS		7	39.25	7	5	

FIELD OFFICE TYPE B

CATEGORY	642.5001 EACH
0010	1
TOTAL	1

TRAFFIC CONTROL ITEMS

LOCATION	DURATION DAYS	643.0420 BARRICADES TYPE III NO.	643.0420 BARRICADES TYPE III DAY	643.0705 WARNING LIGHTS TYPE A NO.	643.0705 WARNING LIGHTS TYPE A DAY	643.0900 SIGNS NO.	643.0900 SIGNS DAY
PER SDD 15C2	80	22	1,760	36	2,880	18	1,440
PER DETOUR PLAN	80	--	--	--	--	30	2,400
TOTALS			1,760		2,880		3,840

TRAFFIC CONTROL PLACEMENT SUBJECT TO ENGINEER APPROVAL

ALL QUANTITIES CATEGORY 0010 UNLESS OTHERWISE NOTED

3

3

STAKING ITEMS

CATEGORY	LOCATION	650.4500 CONSTRUCTION STAKING SUBGRADE LF	650.5000 CONSTRUCTION STAKING BASE LF	650.6500.01 CONSTRUCTION STAKING STRUCTURE LAYOUT (B-7-60) LS	650.9910.01 CONSTRUCTION STAKING SUPPLEMENTAL CONTROL (ID 8377-00-70) LS	650.9920 CONSTRUCTION STAKING SLOPE STAKES LF
0010	18+40 - 21+25	235	235	--	1	235
0020	B-7-60	--	--	1	--	--
TOTALS		235	235	1	1	235

SAWING ASPHALT

STATION	LOCATION	690.0150 LF
18+40	LT & RT	20
20+87 - 21+25	LT	44
20+87 - 21+25	RT	33
21+25	LT & RT	34
TOTAL		131

MAINTAINING BIRD DETERRENT SYSTEM

CATEGORY	STATION	999.2005.S MAINTAINING BIRD DETERRENT SYSTEM EACH
0010	20+00	1
	TOTAL 0010	1

ALL QUANTITIES CATEGORY 0010 UNLESS OTHERWISE NOTED

CONVENTIONAL SYMBOLS

SECTION LINE
QUARTER LINE
SIXTEENTH LINE
NEW REFERENCE LINE
NEW R/W LINE
EXISTING R/W LINE
PROPERTY LINE
LOT, TIE, AND OTHER MINOR LINES
SLOPE INTERCEPT
CORPORATE LIMITS
UNDERGROUND FACILITY (COMMUNICATIONS, ELECTRIC, ETC)
FEE ACQUISITION AREA (MATCHING VARIES BY OWNER)
TEMP. LIMITED EASEMENT AREA
EASEMENT AREA (HIGHWAY, PERMANENT LIMITED, OR RESTRICTED DEVELOPMENT)
TRANSMISSION STRUCTURES
BUILDING
BUILDING (TO BE REMOVED)
BRIDGE

PARCEL NUMBER
PLAT NUMBER
SECTION CORNER
NOTATION FOR COMBUSTABLE FLUIDS
NOTATION FOR HIGH VOLTAGE TRANSMISSION LINES
ACCESS CONTROLLED BY ACQUISITION
NO ACCESS (BY STATUTORY AUTHORITY)
ACCESS RESTRICTED (BY PREVIOUS PROJECT OR CONTROL)
NO ACCESS (NEW HIGHWAY)
NATIONAL GEODETIC SURVEY MONUMENT
SIXTEENTH CORNER MONUMENT
PARALLEL OFFSETS

UTILITY NUMBER
TLE POINT NUMBER
R/W MONUMENT
NON-MONUMENTED R/W POINT
FOUND IRON PIN
VALVE (GAS, WATER, ETC.)
SIGN
OFF-PREMISE SIGN

CONVENTIONAL ABBREVIATIONS

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

CURVE DATA ABBREVIATIONS

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

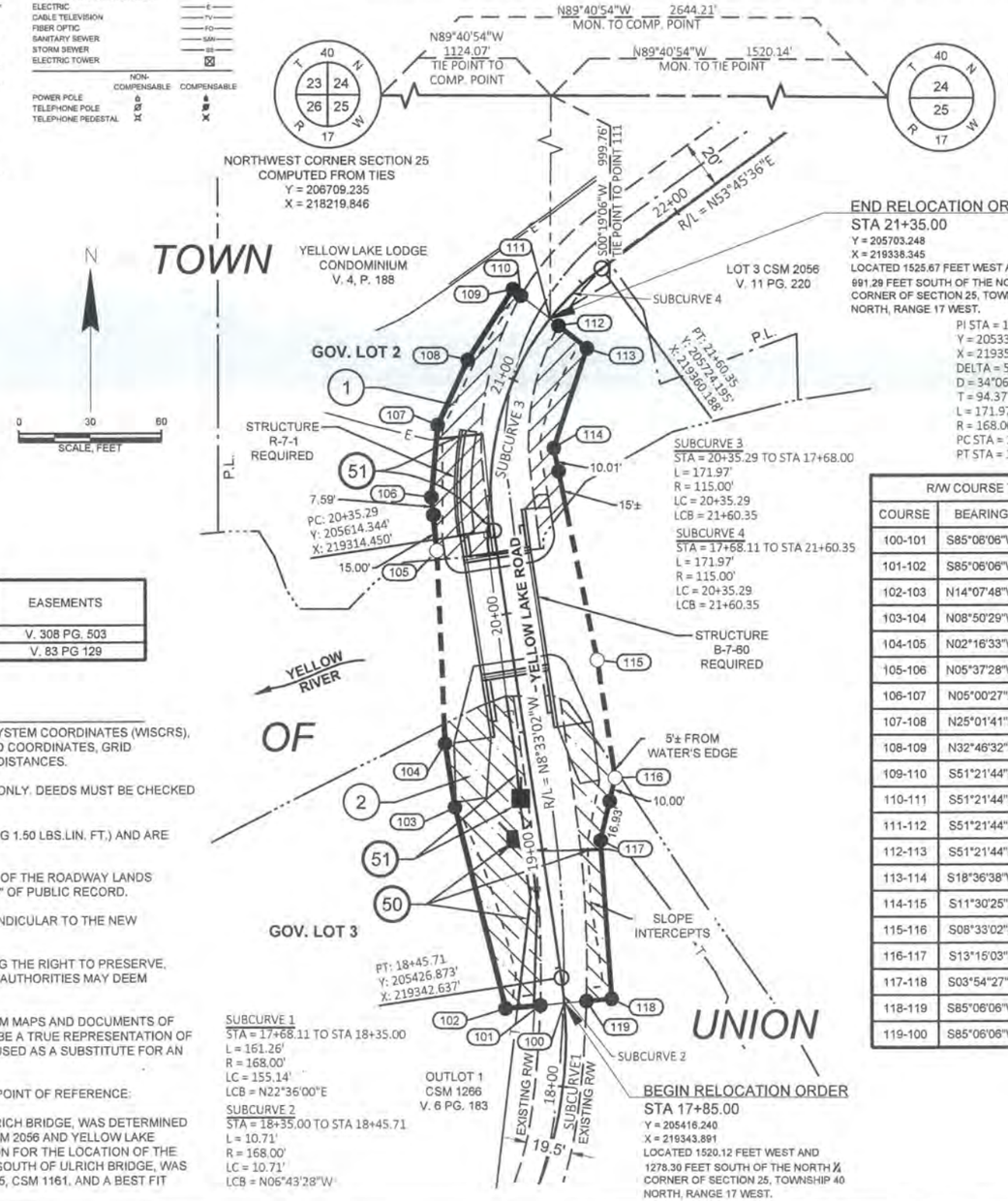
		NON-COMPENSABLE	COMPENSABLE
WATER	W		
GAS	G		
TELEPHONE	T		
OVERHEAD TRANSMISSION LINES	OH		
ELECTRIC	E		
CABLE TELEVISION	TV		
FIBER OPTIC	FO		
SANITARY SEWER	SAN		
STORM SEWER	SS		
ELECTRIC TOWER			
POWER POLE			
TELEPHONE POLE			
TELEPHONE PEDESTAL			

SCHEDULE OF LANDS AND INTERESTS REQUIRED

PARCEL NO.	OWNER(S)	INTEREST REQUIRED	R/W (ACRES) NEW	EXISTING	TOTAL
1	YELLOW LAKE LODGE CONDOMINIUM ASSOCIATION	HE	0.067	0.047	0.122
2	BURNETT COUNTY	HE	0.107	0.058	0.165

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

TOWN OF UNION HOLDS THE OWNERSHIP OR EASEMENT RIGHTS OF THE PRIVATE ROADWAY (YELLOW LAKE ROAD) FROM CTH FF TO THE ULRICH (YELLOW LAKE) BRIDGE AND THE ROADWAY SHOWN ON CSM 1266 PER DOC. NO. 399860



UTILITY INTERESTS REQUIRED

UTILITY NUMBER	UTILITY OWNER(S)	INTEREST REQUIRED	EASEMENTS
50	LUMEN TECHNOLOGIES	RELEASE OF RIGHTS	V. 308 PG. 503
51	NORTHWESTERN WI ELECTRIC	RELEASE OF RIGHTS	V. 83 PG 129

NOTES:

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

THIS PLAT IS A GRAPHIC REPRESENTATION AND IS FOR REFERENCE PURPOSE ONLY. DEEDS MUST BE CHECKED TO DETERMINE PROPERTY BOUNDARIES AND ACCESS RIGHTS

RIGHT-OF-WAY MONUMENTS ARE TYPE 2 (¾"x24" CAPPED IRON REBAR WEIGHING 1.50 LBS.LIN. FT.) AND ARE PLACED PRIOR TO OR AT THE TIME OF LAND TITLE TRANSFER.

RIGHT-OF-WAY BOUNDARIES ARE DEFINED WITH COURSES OF THE PERIMETER OF THE ROADWAY 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.

AN EASEMENT FOR HIGHWAY PURPOSES (HE), AS LONG AS SO USED, INCLUDING THE RIGHT TO PRESERVE, PROTECT, REMOVE OR PLANT THEREON ANY VEGETATION THAT THE HIGHWAY AUTHORITIES MAY DEEM DESIRABLE.

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

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

EXISTING 20' RIGHT OF WAY EASEMENT OF YELLOW LAKE ROAD, NORTH OF ULRICH BRIDGE, WAS DETERMINED FROM THE DESCRIBED EASEMENT IN DOC. NO. 392613, AND WAS SHOWN ON CSM 2056 AND YELLOW LAKE CONDOMINIUM. HELD THE RECORD FOR THE CSM AND FOUND MONUMENTATION FOR THE LOCATION OF THE EASEMENT. EXISTING 19.5' RIGHT OF WAY EASEMENT OF YELLOW LAKE ROAD, SOUTH OF ULRICH BRIDGE, WAS DETERMINED FROM THE DESCRIBED EASEMENT IN V. 333, P. 21, DOC. NO. 210385, CSM 1161, AND A BEST FIT CENTERLINE OF EXISTING ROADWAY ACROSS CSM 1266.

R/W COURSE TABLE

COURSE	BEARING	DISTANCE
100-101	S85°06'06"W	10.25'
101-102	S85°06'06"W	14.75'
102-103	N14°07'48"W	86.84'
103-104	N08°50'29"W	26.97'
104-105	N02°16'33"W	81.08'
105-106	N05°37'28"W	22.59'
106-107	N05°00'27"E	30.37'
107-108	N25°01'41"E	30.20'
108-109	N32°46'32"E	35.26'
109-110	S51°21'44"E	4.43'
110-111	S51°21'44"E	15.57'
111-112	S51°21'44"E	4.66'
112-113	S51°21'44"E	15.34'
113-114	S18°36'38"W	44.09'
114-115	S11°30'25"E	90.87'
115-116	S08°33'02"E	50.00'
116-117	S13°15'03"E	26.93'
117-118	S03°54'27"E	66.48'
118-119	S85°06'06"W	10.61'
119-100	S85°06'06"W	9.39'

R/W STATION & OFFSET TABLE

POINT	STATION	OFFSET
100	18+35.00	0.00'
101	18+35.00	10.25' LT
102	18+35.00	25.00' LT
103	19+23.03	33.73' LT
104	19+50.00	33.87' LT
105	20+30.59	25.01' LT
106	20+50.00	30.00' LT
107	20+75.00	25.00' LT
108	21+00.00	21.00' LT
109	21+30.00	20.00' LT
110	21+30.00	15.57' LT
111	21+30.00	0.00'
112	21+30.00	4.66' RT
113	21+30.00	20.00' RT
114	20+75.00	25.00' RT
115	19+75.00	35.00' RT
116	19+25.00	35.00' RT
117	19+00.00	25.00' RT
118	18+35.00	20.00' RT
119	18+35.00	9.39' RT

REVISION DATE

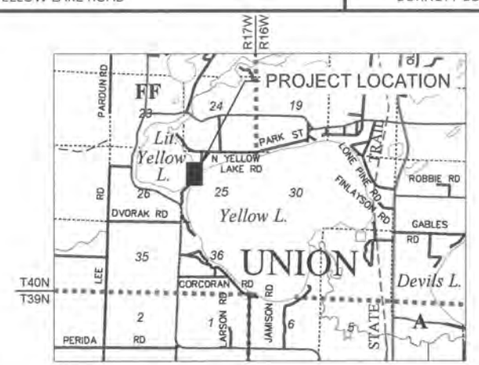
R/W PROJECT NUMBER	SHEET NUMBER	TOTAL SHEETS
8377-00-00		
CONSTRUCTION PROJECT NUMBER 8377-00-70	4.01	1

PLAT OF RIGHT OF WAY REQUIRED FOR

TOWN OF UNION - LOCAL STREET

YELLOW LAKE BRIDGE B-07-0060

YELLOW LAKE ROAD	BURNETT COUNTY



LOCATION SKETCH
SCALE 0 2 MI

TOTAL NET LENGTH OF CENTERLINE = 0.056 MI.

APPROVED FOR TOWN OF UNION

8/26/21
DATE

TOWN CHAIRMAN

PLAT PREPARED BY AYRES

THE SURVEY IS PREPARED AT THE REQUEST OF THE BURNETT COUNTY HIGHWAY DEPARTMENT FOR THE TOWN OF UNION.

THE FIELD SURVEY WAS PERFORMED IN APRIL 2020.

THIS SURVEY IS ACCURATE TO THE BEST OF MY KNOWLEDGE AND BELIEF.

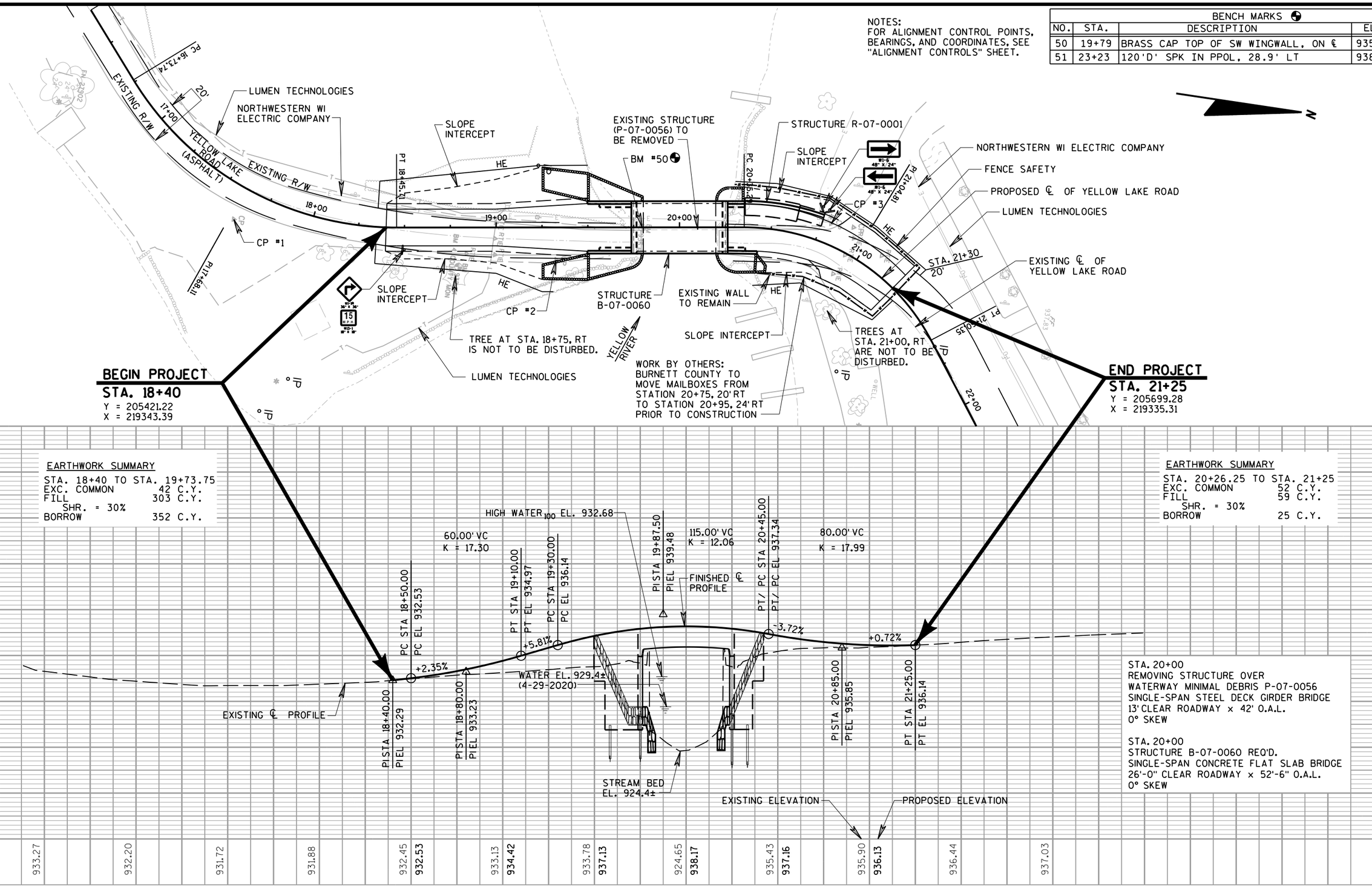
08/05/2021
DATE

CHRISTOPHER R. BADTKE, P.L.S.
S-3150

FILE NAME : I:\74\EC\421211.00 BURNETT CO. YELLOW LAKE RD\CADD\C3D\RW\83770000_0401.DWG
PLOT DATE : 4/13/2021 10:00 AM
PLOT BY : BADTKE, CHRISTOPHER
PLOT NAME :

NOTES:
FOR ALIGNMENT CONTROL POINTS, BEARINGS, AND COORDINATES, SEE "ALIGNMENT CONTROLS" SHEET.

BENCH MARKS			
NO.	STA.	DESCRIPTION	ELEV.
50	19+79	BRASS CAP TOP OF SW WINGWALL, ON ℄	935.66
51	23+23	120'D' SPK IN PPOL, 28.9' LT	938.72



EARTHWORK SUMMARY
STA. 18+40 TO STA. 19+73.75
EXC. COMMON 42 C.Y.
FILL 303 C.Y.
SHR. = 30%
BORROW 352 C.Y.

EARTHWORK SUMMARY
STA. 20+26.25 TO STA. 21+25
EXC. COMMON 52 C.Y.
FILL 59 C.Y.
SHR. = 30%
BORROW 25 C.Y.

STA. 20+00
REMOVING STRUCTURE OVER WATERWAY MINIMAL DEBRIS P-07-0056
SINGLE-SPAN STEEL DECK GIRDER BRIDGE
13'CLEAR ROADWAY x 42' O.A.L.
0° SKEW

STA. 20+00
STRUCTURE B-07-0060 REQ'D.
SINGLE-SPAN CONCRETE FLAT SLAB BRIDGE
26'-0" CLEAR ROADWAY x 52'-6" O.A.L.
0° SKEW

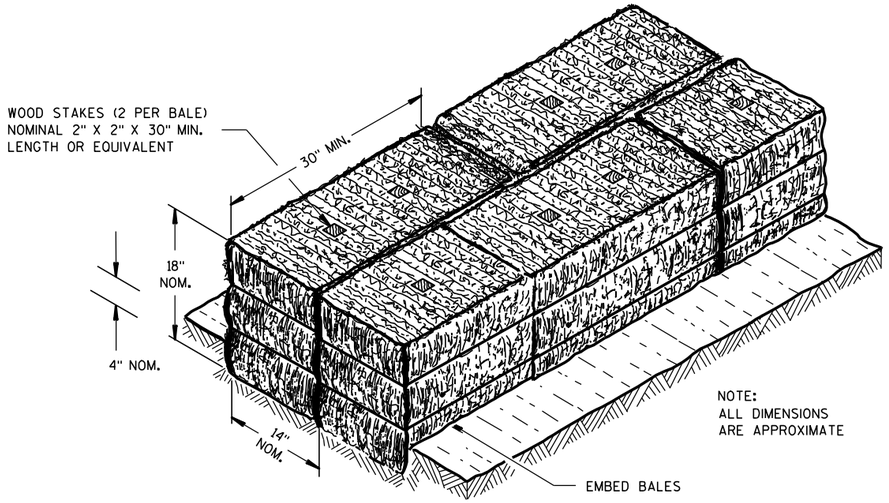
PROJECT NO: 8377-00-70	HWY: YELLOW LAKE ROAD	COUNTY: BURNETT	PLAN AND PROFILE	SCALE, FEET 0 25 50	SHEET 14	E

Standard Detail Drawing List

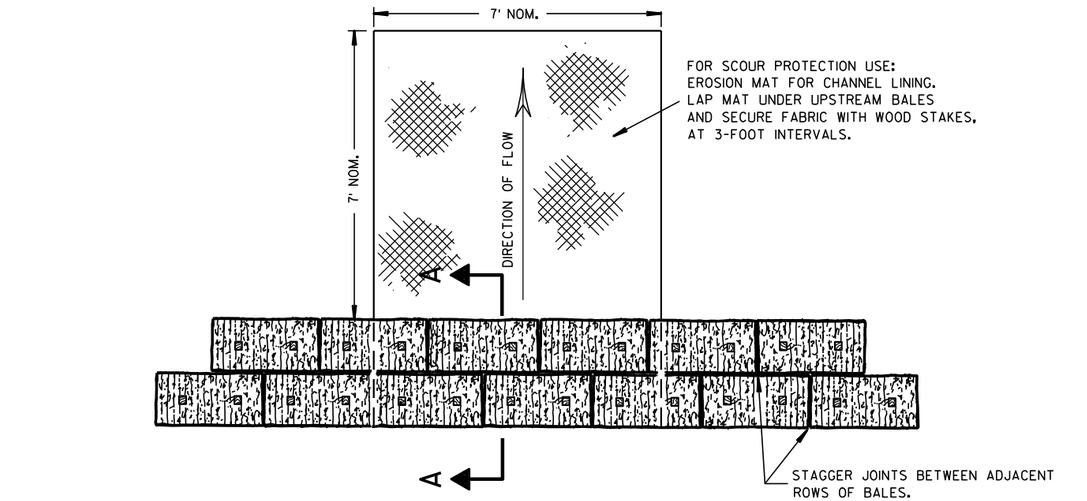
08E08-03	TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS
08E09-06	SILT FENCE
12A03-10	NAME PLATE (STRUCTURES)
15C02-08A	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-08B	BARRICADES AND SIGNS FOR VARIOUS CLOSURES
15C02-08C	DETOUR SIGNING FOR MAINLINE CLOSURES
15C06-09	SIGNING & MARKING FOR TWO LANE BRIDGES
15C11-09B	CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS

6

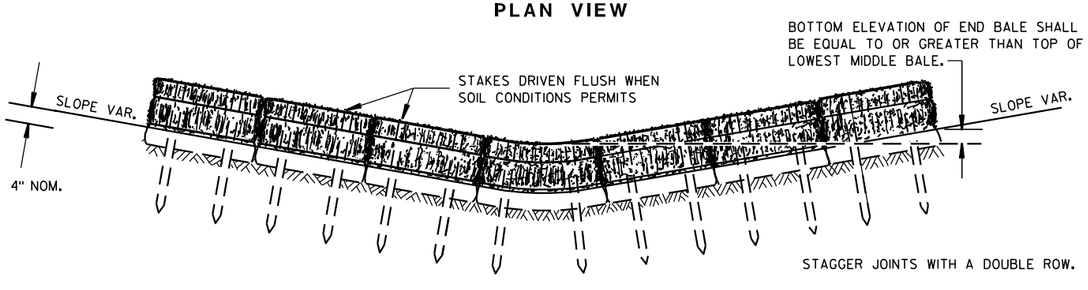
6



SECTION A-A



PLAN VIEW



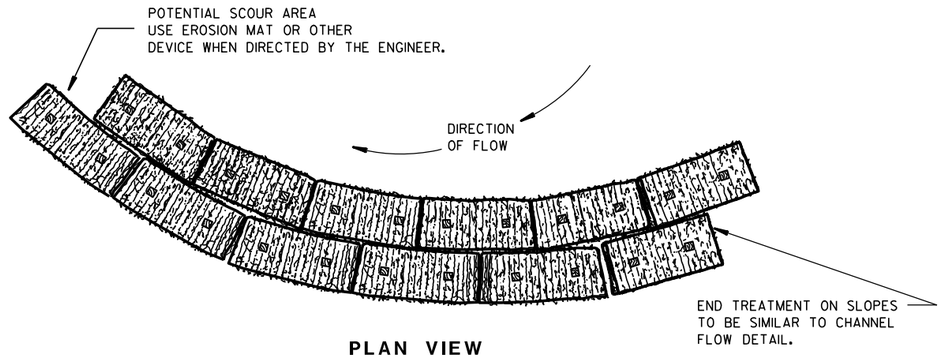
FRONT ELEVATION

TEMPORARY DITCH CHECK USING EROSION BALES (1)

GENERAL NOTES

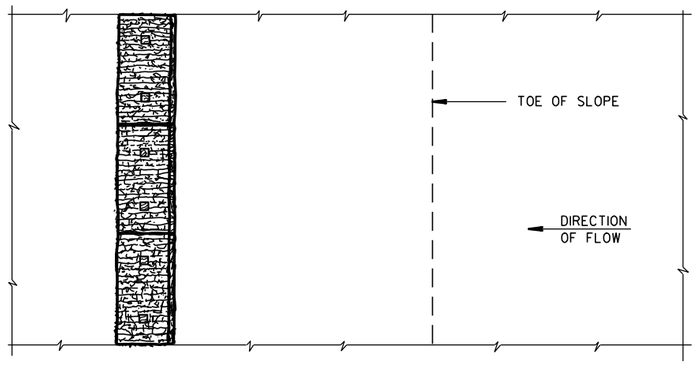
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

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

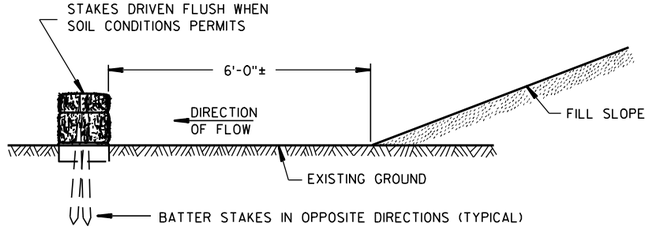


PLAN VIEW

WHEN ALTERING THE DIRECTION OF FLOW



PLAN VIEW



FRONT ELEVATION

WHEN EXISTING GROUND SLOPES AWAY FROM FILL SLOPE

EROSION BALES FOR SHEET FLOW

TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

6/04/02 — DATE

/S/ Beth Cannestra — CHIEF ROADWAY DEVELOPMENT ENGINEER

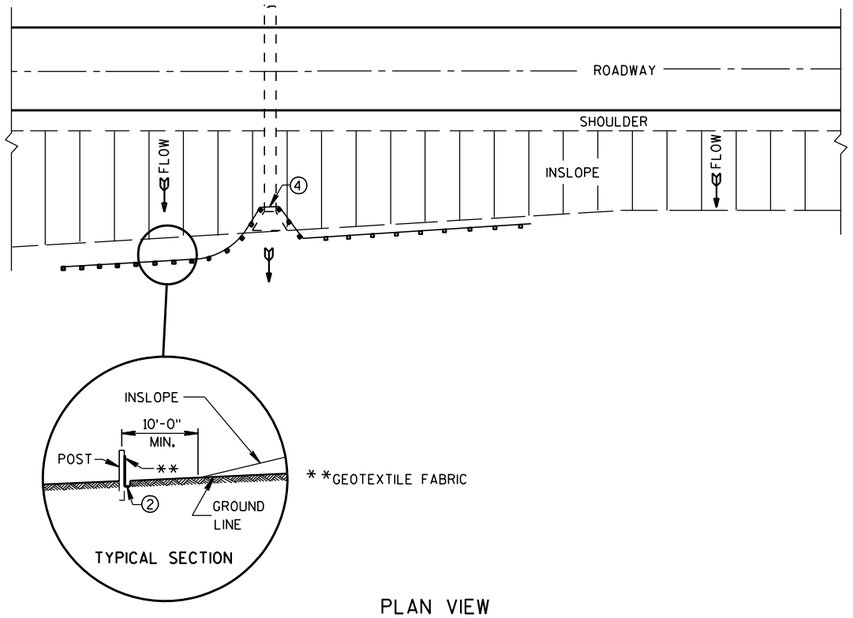
FHWA

6

S.D.D. 8 E 8-3

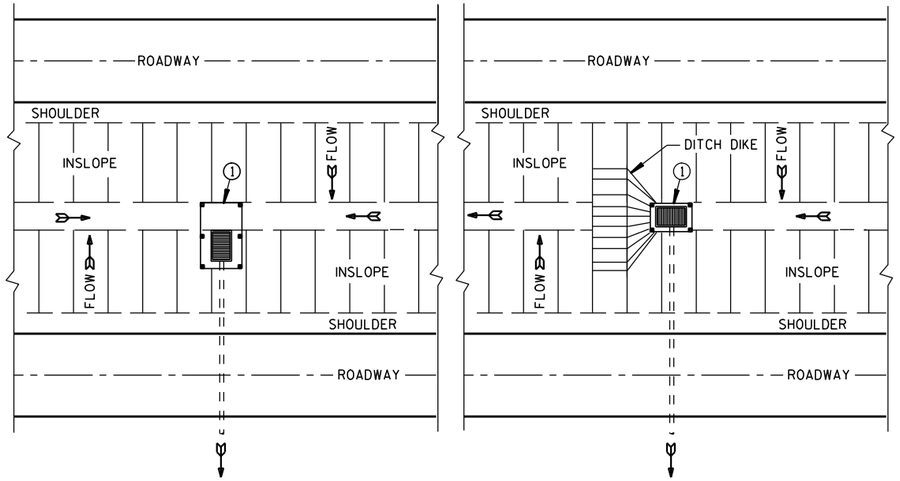
6

S.D.D. 8 E 8-3



PLAN VIEW

TYPICAL APPLICATION OF SILT FENCE



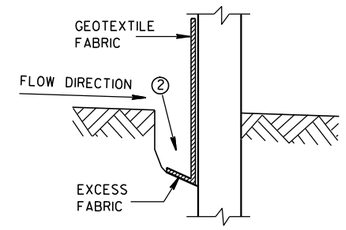
PLAN VIEW

SILT FENCE AT MEDIAN SURFACE DRAINS

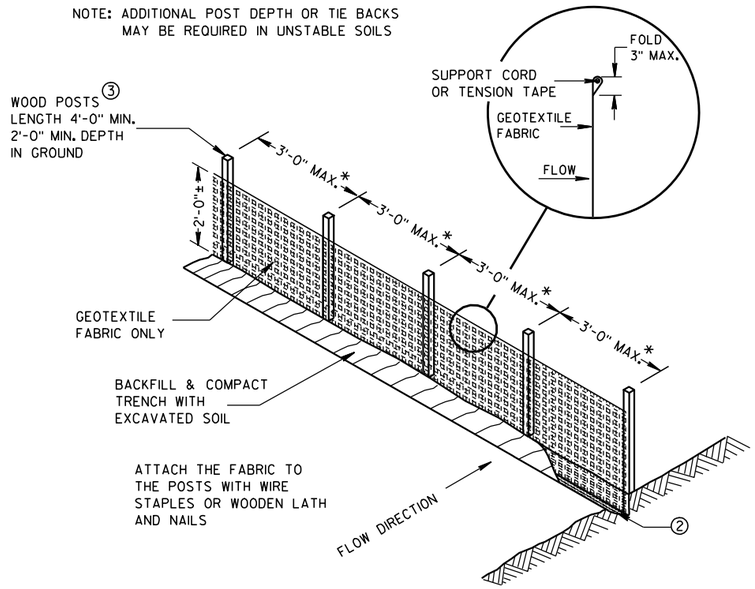
GENERAL NOTES

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

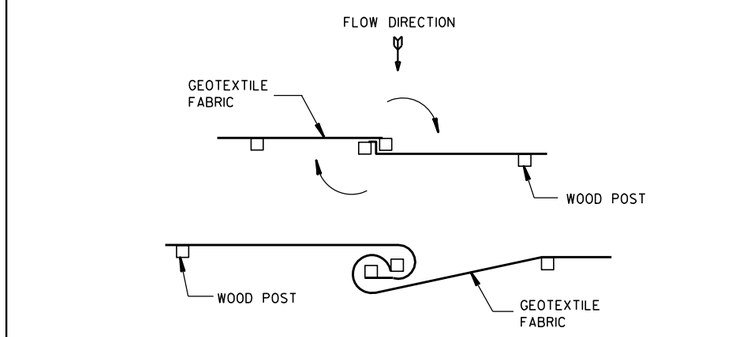
1. HORIZONTAL BRACE REQUIRED WITH 2" X 4" WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS.
2. FOR MANUAL INSTALLATIONS THE TRENCH SHALL BE A MINIMUM OF 4" WIDE & 6" DEEP TO BURY AND ANCHOR THE GEOTEXTILE FABRIC. FOLD MATERIAL TO FIT TRENCH AND BACKFILL & COMPACT TRENCH WITH EXCAVATED SOIL.
3. WOOD POSTS SHALL BE A MINIMUM SIZE OF 1⅛" X 1⅛" OF OAK OR HICKORY.
4. SILT FENCE TO EXTEND ACROSS THE TOP OF THE PIPE.
5. CONSTRUCT SILT FENCE FROM A CONTINUOUS ROLL IF POSSIBLE BY CUTTING LENGTHS TO AVOID JOINTS. IF A JOINT IS NECESSARY USE ONE OF THE FOLLOWING TWO METHODS; A) OVERLAP THE END POSTS AND TWIST, OR ROTATE, AT LEAST 180 DEGREES, B) HOOK THE END OF EACH SILT FENCE LENGTH.



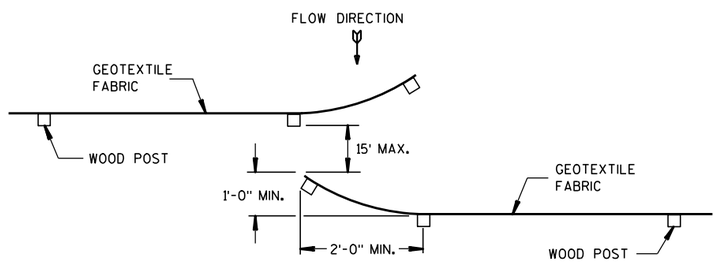
TRENCH DETAIL



SILT FENCE

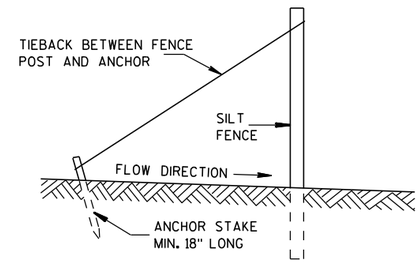


TWIST METHOD



HOOK METHOD

JOINING TWO LENGTHS OF SILT FENCE 5



SILT FENCE TIE BACK

(WHEN REQUIRED BY THE ENGINEER)

SILT FENCE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

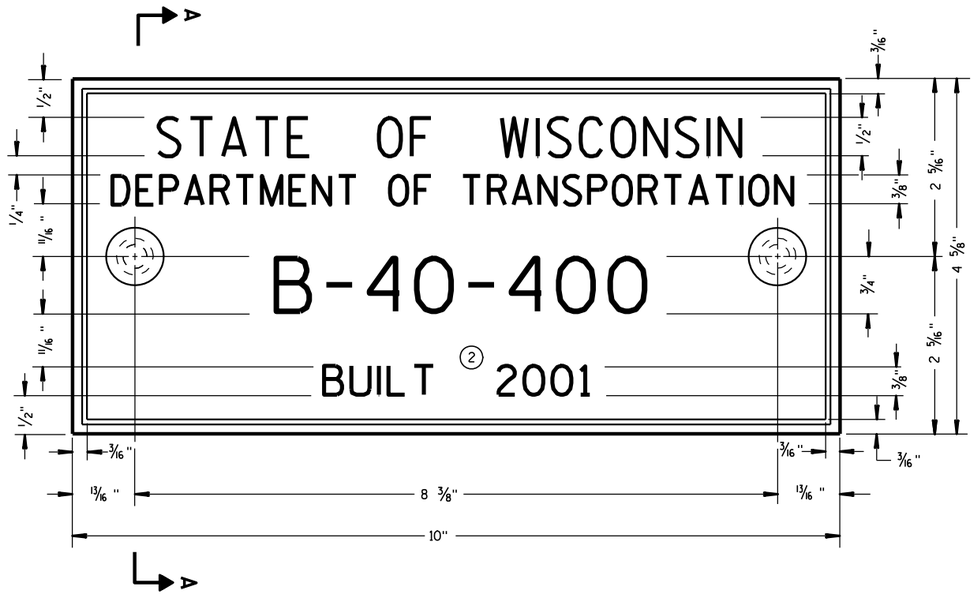
APPROVED
4-29-05 DATE
/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

6

S.D.D. 8 E 9-6

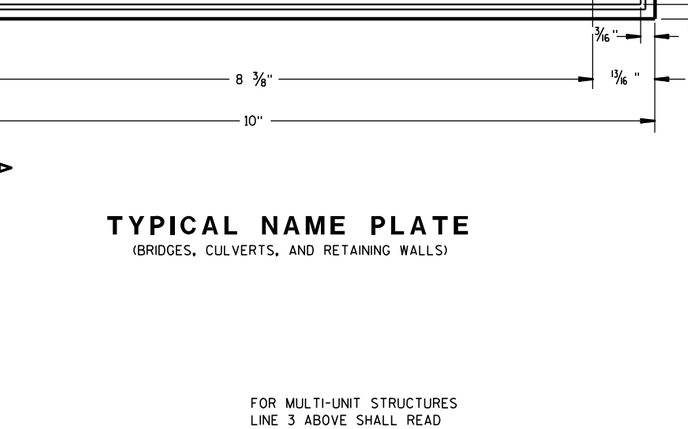
6

S.D.D. 8 E 9-6



TYPICAL NAME PLATE

(BRIDGES, CULVERTS, AND RETAINING WALLS)



NUMBERING DESIGNATION MULTI-UNIT STRUCTURES

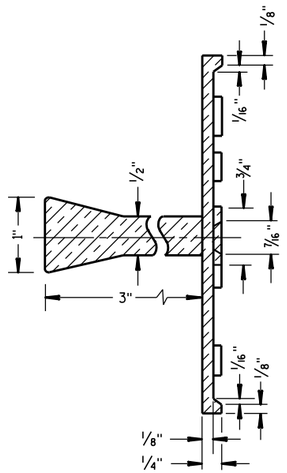
GENERAL NOTES

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

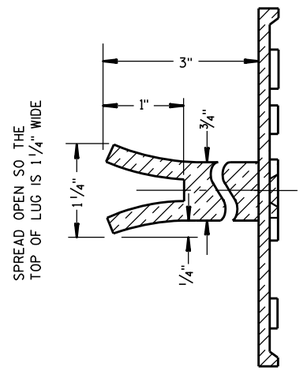
THE BRIDGE NUMBER AND YEAR BUILT SHOWN ON THIS DRAWING ARE EXAMPLES ONLY. SEE CONSTRUCTION PLANS FOR INDIVIDUAL NUMBERING AND YEAR BUILT.

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

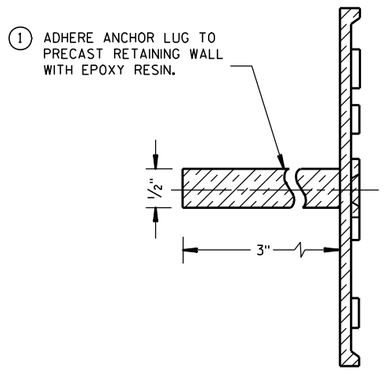
(2) REHABILITATION OF AN EXISTING STRUCTURE SHOULD USE THE DATE OF ORIGINAL STRUCTURE CONSTRUCTION.



SECTION A-A



ALTERNATE LUG



ALTERNATE LUG

(FOR ATTACHMENT TO PRECAST STRUCTURES)

NAME PLATE (STRUCTURES)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

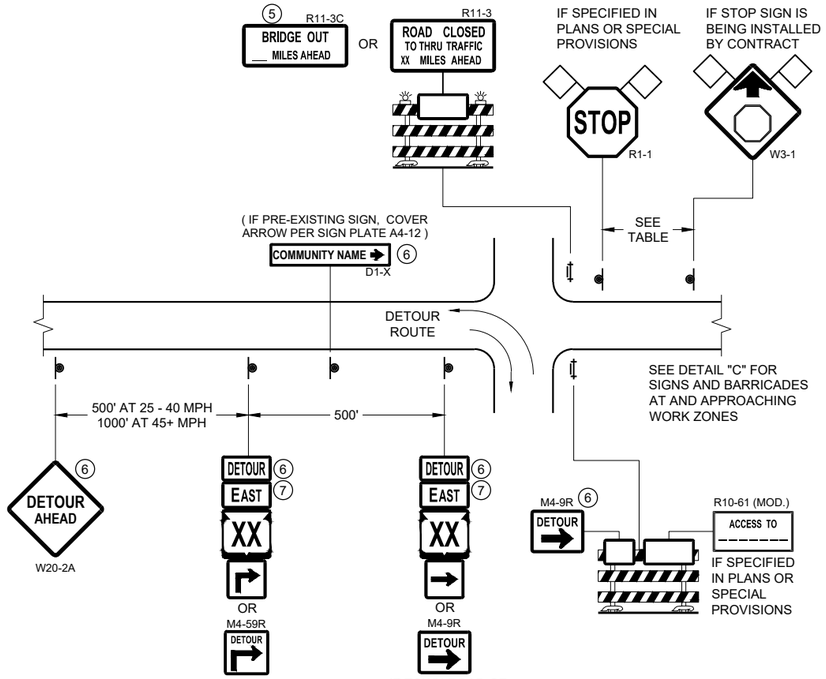
3/26/10 DATE

/S/ Scot Beck -- CHIEF STRUCTURAL DEVELOP ENGINEER

FHWA

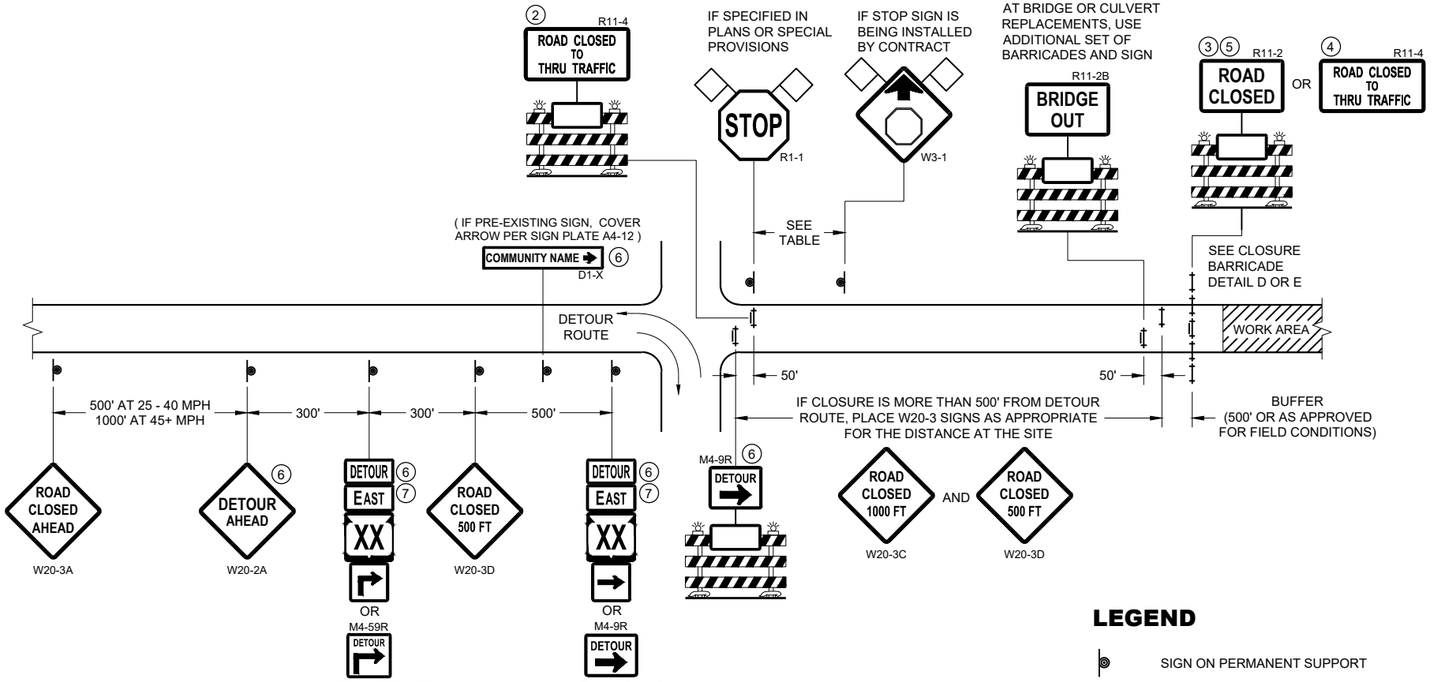
6

S.D.D. 12 A 3-10



DETAIL A
MAINLINE CLOSURE WITH POSTED DETOUR

WORK ZONE GREATER THAN OR EQUAL TO ½ MILE FROM DETOUR ROUTE (1000 FEET IF URBAN)



DETAIL B
MAINLINE CLOSURE WITH POSTED DETOUR

WORK ZONE LESS THAN ½ MILE FROM DETOUR ROUTE (1000 FEET IF URBAN)

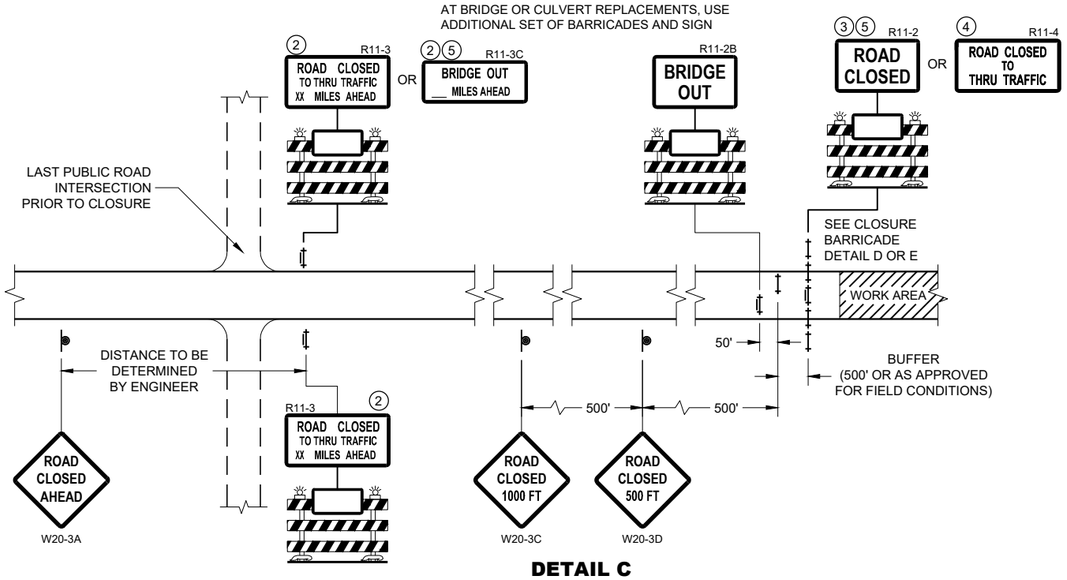
SPEED LIMIT (MPH)	"STOP AHEAD" ADVANCE WARNING DISTANCE (FT)
25	200
30	200
35	350
40	350
45	500
50	550
55	750

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

LEGEND

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

DETOUR M4 - 8
EAST M3 - X
XX M1 - 4 OR XX M1 - 6 OR COUNTY X M1 - 5A
M05 - 1 OR M06 - 1



DETAIL C
MAINLINE CLOSURE, NO POSTED DETOUR

BARRICADES AND SIGNS FOR MAINLINE CLOSURES

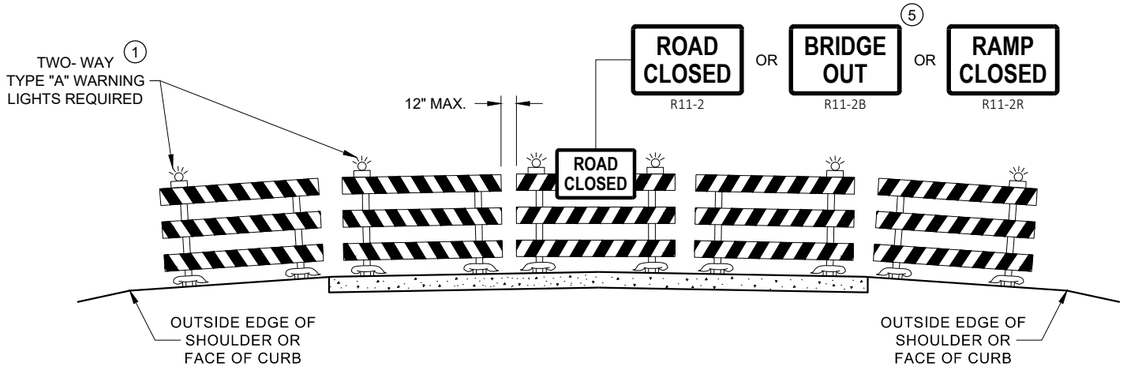
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

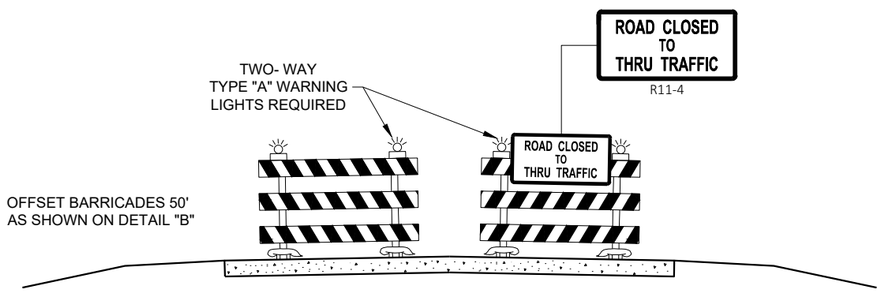
FHWA

SDD 15C02 - 08a

6
SDD 15C02 - 08a



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
DATE
/S/ Andrew Heidtke
WORK ZONE ENGINEE
FHWA

6

SDD 15C02 - 08b

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

LEGEND

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

GENERAL NOTES

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

IF THERE ARE EXISTING ROUTE MARKER ASSEMBLIES THAT WILL REMAIN IN PLACE, ADJUST THE LOCATION OF THE DETOUR ROUTE SIGNS TO CORRESPOND WITH THE EXISTING ASSEMBLIES. SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS. MODIFY EXISTING SIGNS WHERE POSSIBLE.

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

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

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

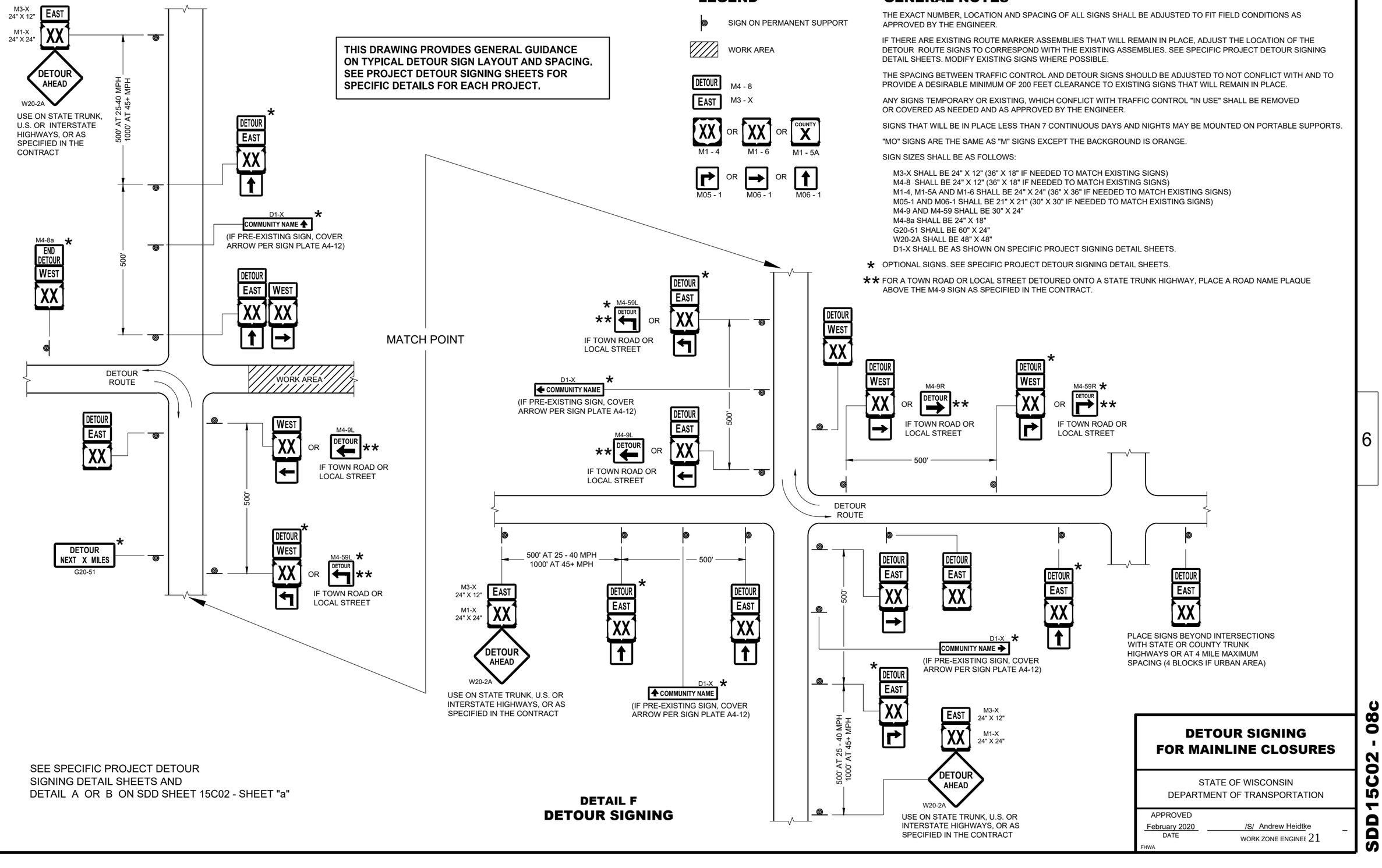
"MO" SIGNS ARE THE SAME AS "M" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

SIGN SIZES SHALL BE AS FOLLOWS:

- M3-X SHALL BE 24" X 12" (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS)
- M4-8 SHALL BE 24" X 12" (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)
- M05-1 AND M06-1 SHALL BE 21" X 21" (30" X 30" IF NEEDED TO MATCH EXISTING SIGNS)
- M4-9 AND M4-59 SHALL BE 30" X 24"
- M4-8a SHALL BE 24" X 18"
- G20-51 SHALL BE 60" X 24"
- W20-2A SHALL BE 48" X 48"
- D1-X SHALL BE AS SHOWN ON SPECIFIC PROJECT SIGNING DETAIL SHEETS.

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

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



SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS AND DETAIL A OR B ON SDD SHEET 15C02 - SHEET "a"

DETAIL F
DETOUR SIGNING

DETOUR SIGNING FOR MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2020
DATE

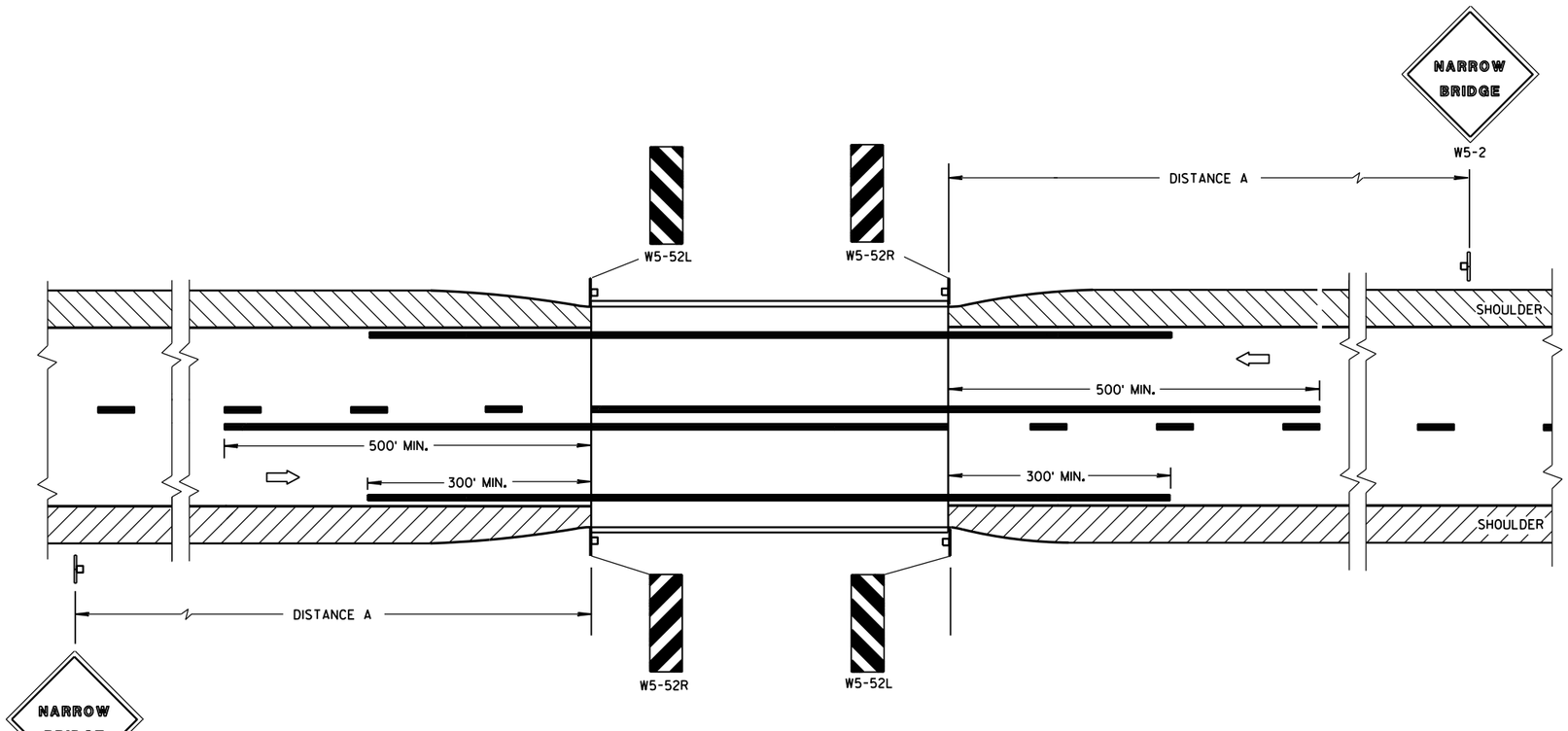
/S/ Andrew Heidtke
WORK ZONE ENGINEER

FHWA

SDD 15C02 - 08c

SDD 15C02 - 08c

6



SITUATION 1

WARRANTING CRITERIA:

BRIDGE WIDTH IS AT LEAST 16 FEET BUT LESS THAN 24 FEET.

DISTANCE TABLE

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

GENERAL NOTES

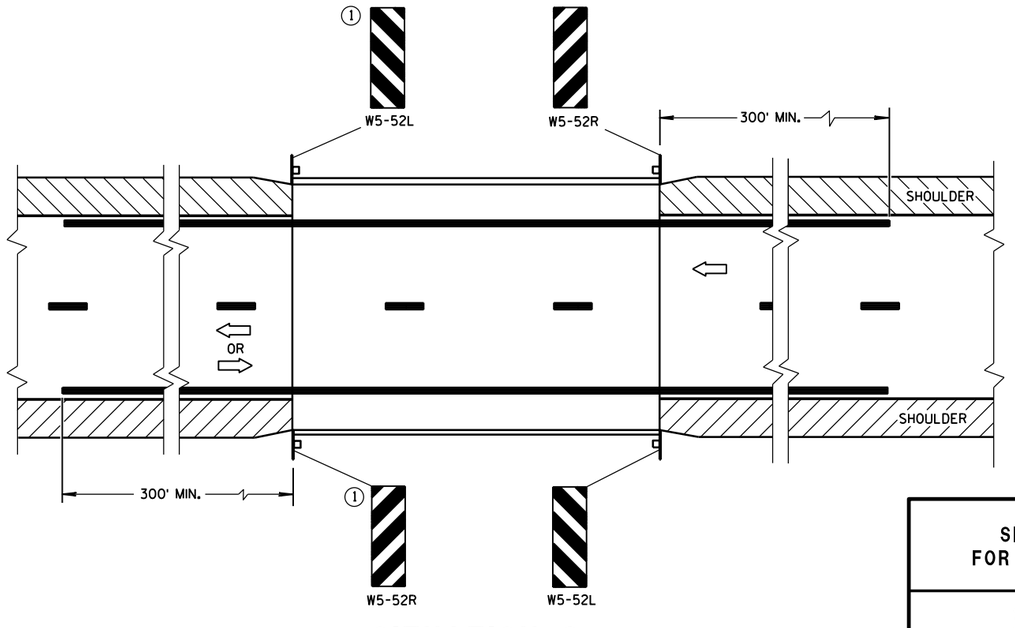
DETAILS OF TRAFFIC CONTROL DEVICES AND INSTALLATION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS, THE SPECIAL PROVISIONS, AND THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

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.

(1) OMIT ON ONE-WAY TRAVELLED WAYS.

⇨ DIRECTION OF TRAFFIC



SITUATION 2

WARRANTING CRITERIA:

1. BRIDGE WIDTH IS AT LEAST 24 FEET AND
2. BRIDGE SHOULDER WIDTH IS LESS THAN 6 FEET.

SIGNING & MARKING FOR TWO LANE BRIDGES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

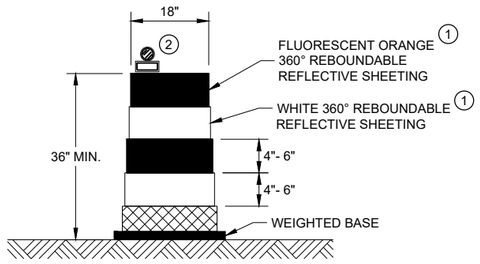
APPROVED
June 2017 — DATE
/S/ Matthew R. Rauch — STATE SIGNING AND MARKING ENGINEER
FHWA

6

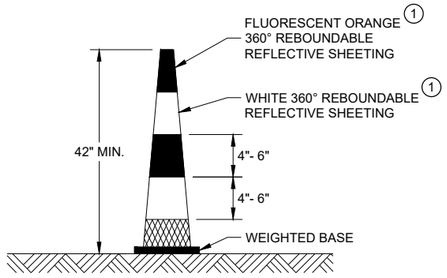
S.D.D. 15 C 6-9

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.

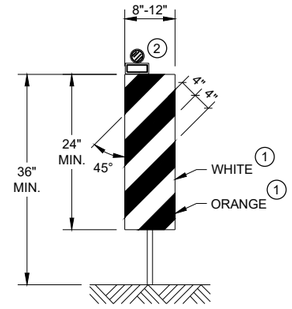


DRUM



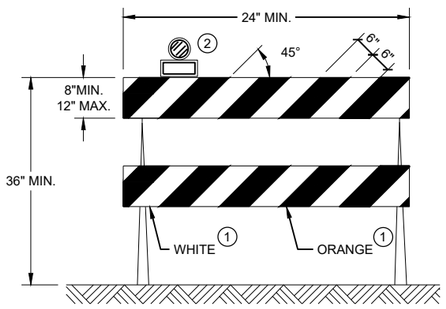
42" CONE

DO NOT USE IN TAPERS
½ SPACING OF DRUMS



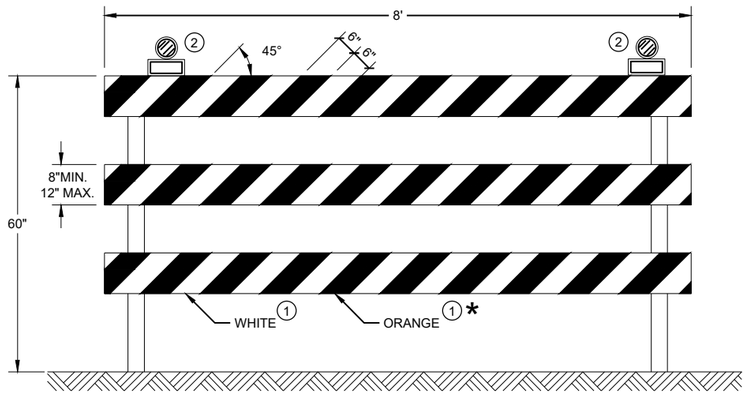
VERTICAL PANEL

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



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

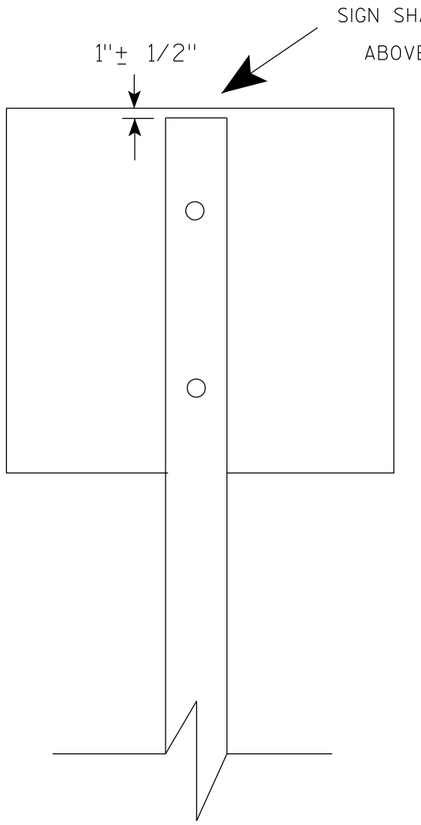
APPROVED
May 2021 — DATE
/S/ Andrew Heidtke — WORK ZONE ENGINEER
FHWA

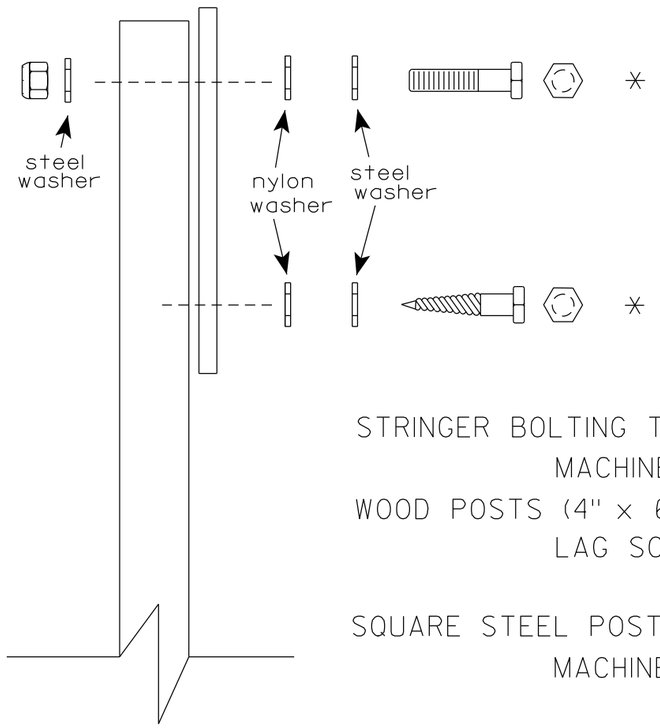
6

SDD15C11 - 09b

6

SDD15C11 - 09b





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

PROJECT NO: 8377-00-70	HWY: YELLOW LAKE ROAD	COUNTY: BURNETT		SHEET NO: 24	E

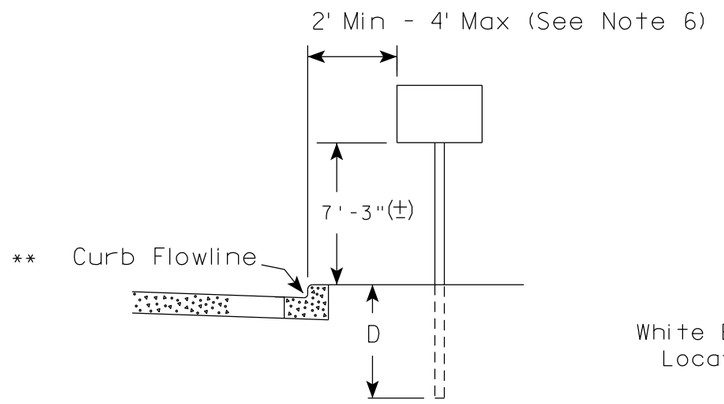
FILE NAME : C:\CAEFiles\Projects\tr_stdplate\A48.DGN PLOT DATE : 01-APRIL-2020 PLOT BY : dotc4c

WISDOT/CADDS SHEET 42

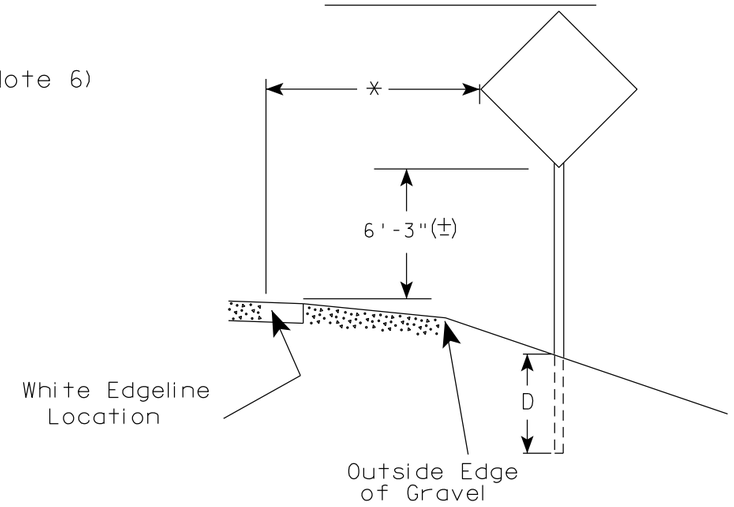
7

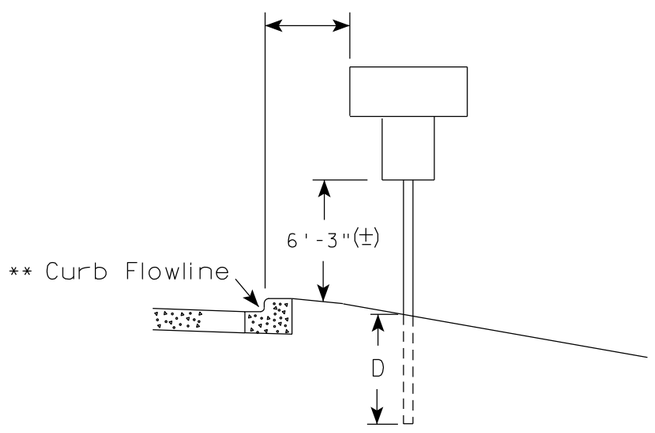
7

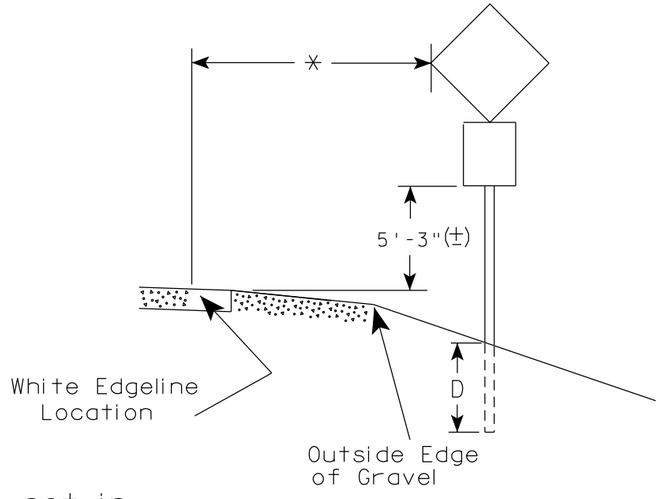
URBAN AREA



RURAL AREA (See Note 2)







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

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

POST EMBEDMENT DEPTH

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

GENERAL NOTES

1. Signs wider than 4 feet or 20 sq.ft or larger, shall be mounted on multiple posts. Refer to plate A4-4.
2. If signs are mounted on 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 directd by the Engineer.

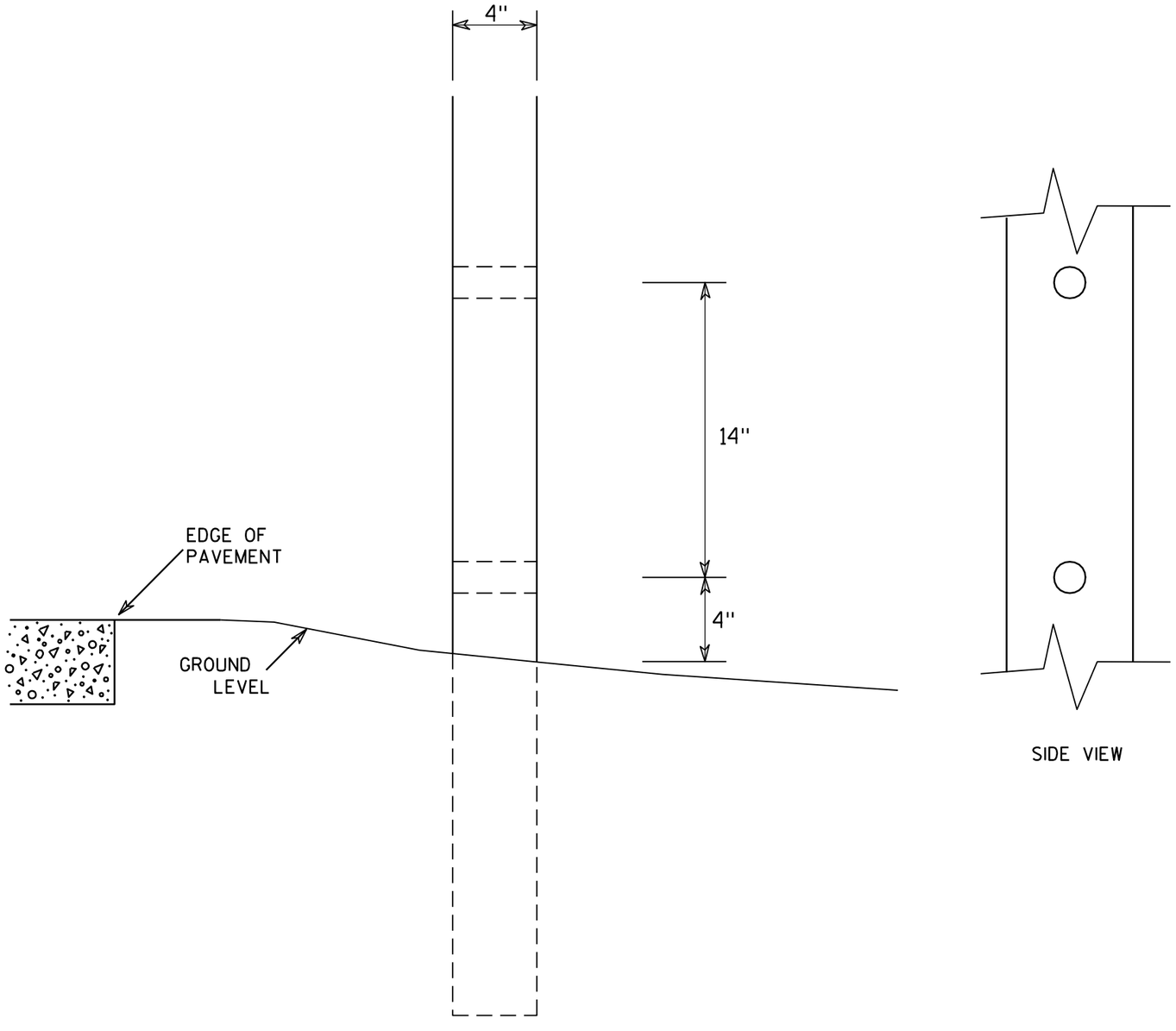
TYPICAL INSTALLATION OF PERMANENT TYPE II SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

PROJECT NO: 8377-00-70	HWY: YELLOW LAKE ROAD	COUNTY: BURNETT		SHEET NO: 25	E



SIDE VIEW

GENERAL NOTES

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

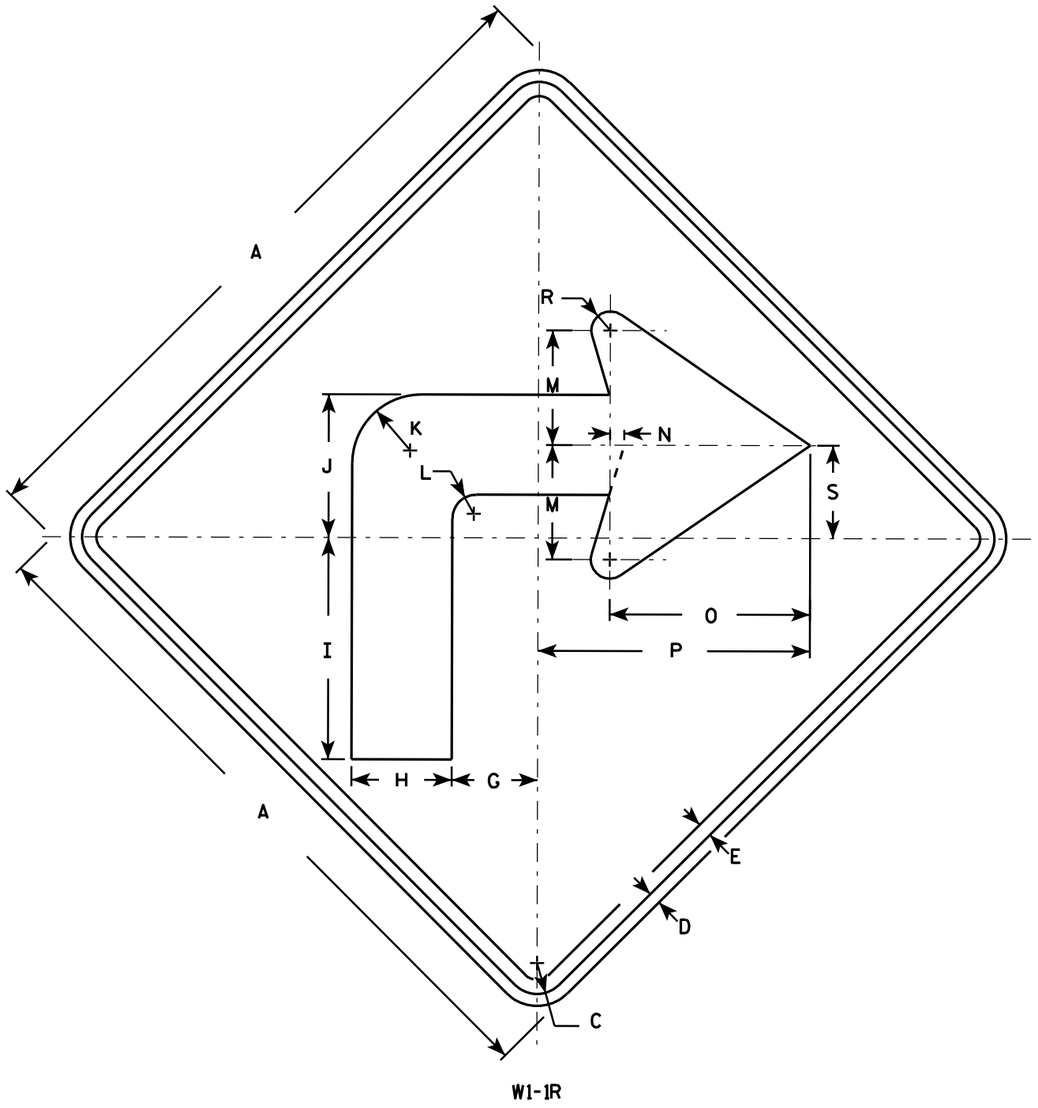
4 X 6 WOOD POST MODIFICATIONS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Chester J Spang for State Traffic Engineer

DATE 3/27/97 PLATE NO. A4-11.2

PROJECT NO: 8377-00-70	HWY: YELLOW LAKE ROAD	COUNTY: BURNETT		SHEET NO: 26	E



W1-1R

NOTES

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

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

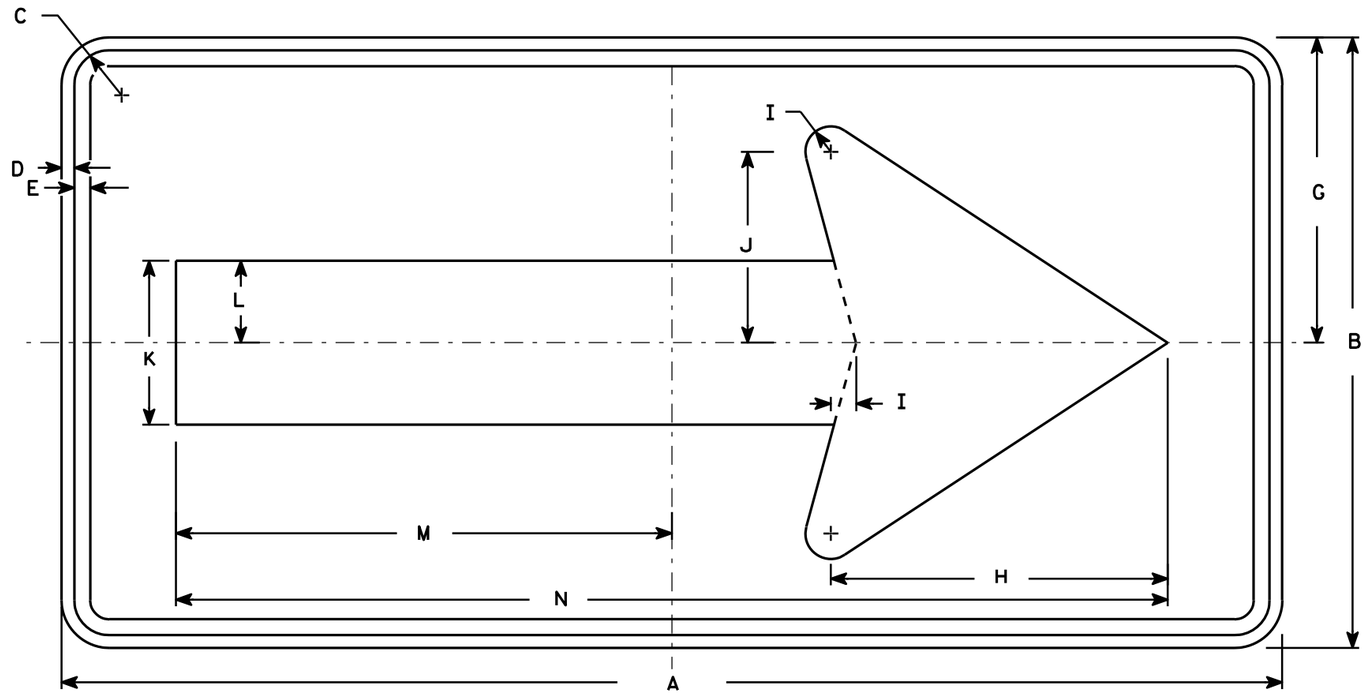
STANDARD SIGN
W1-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/15/12 PLATE NO. W1-1.11

PROJECT NO: 8377-00-70 | HWY: YELLOW LAKE ROAD | COUNTY: BURNETT | SHEET NO: 27 | E



W1-6

NOTES

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

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36	18	1 1/8	3/8	3/8		9	10	3/4	5 5/8	4 3/4	2 3/8	14 5/8	29 1/4													4.5
2S	48	24	1 3/8	1/2	5/8		12	13 1/4	1	7 1/2	6 1/2	3 1/4	19 1/2	39													8.0
2M	48	24	1 3/8	1/2	5/8		12	13 1/4	1	7 1/2	6 1/2	3 1/4	19 1/2	39													8.0
3	60	30	1 3/8	1/2	5/8		15	16 1/4	1 1/4	9 1/4	8	4	24 3/8	48 3/4													12.5
4	60	30	1 3/8	1/2	5/8		15	16 1/4	1 1/4	9 1/4	8	4	24 3/8	48 3/4													12.5
5	96	48	2 1/4	3/4	1		24	26 1/2	2	15	13	6 1/2	39	78													32.0

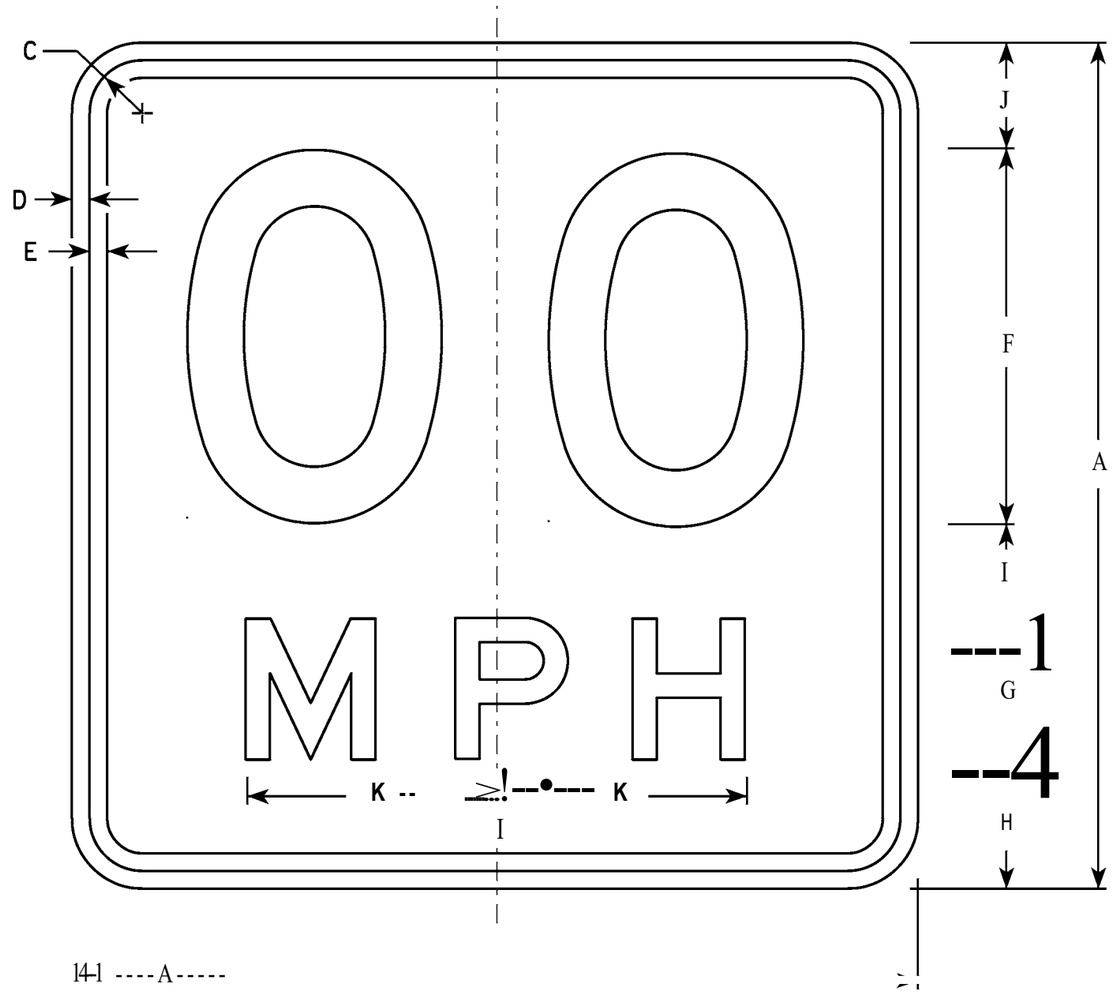
STANDARD SIGN
W1-6

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 6/7/10 PLATE NO. W1-6.8

PROJECT NO: 8377-00-70 | HWY: YELLOW LAKE ROAD | COUNTY: BURNETT | SHEET NO: 28



NOTES

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

W13-1

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

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	p	Q	R	S	T	U	V	W	X	y	Z	FOR
1	18		1 Va	%	%	8	3	2 r..	2	2 !14	5%																2.25
*2S	18		1 Va	%	%	8	3	2 r..	2	2 !14	5%																2.25
*2M	18		1 Va	%	%	8	3	2 r..	2	2 !14	5%																2.25
3	24		1 Va	%	!h	10	4	4	2 r..	3 !14	6%																4.00
4	36		1%	%	r..	16	6	s !h	4	4 V2	10 %																9.00
5	36		1%	%	r..	16	6	s V2	4	4 V2	10 %																9.00

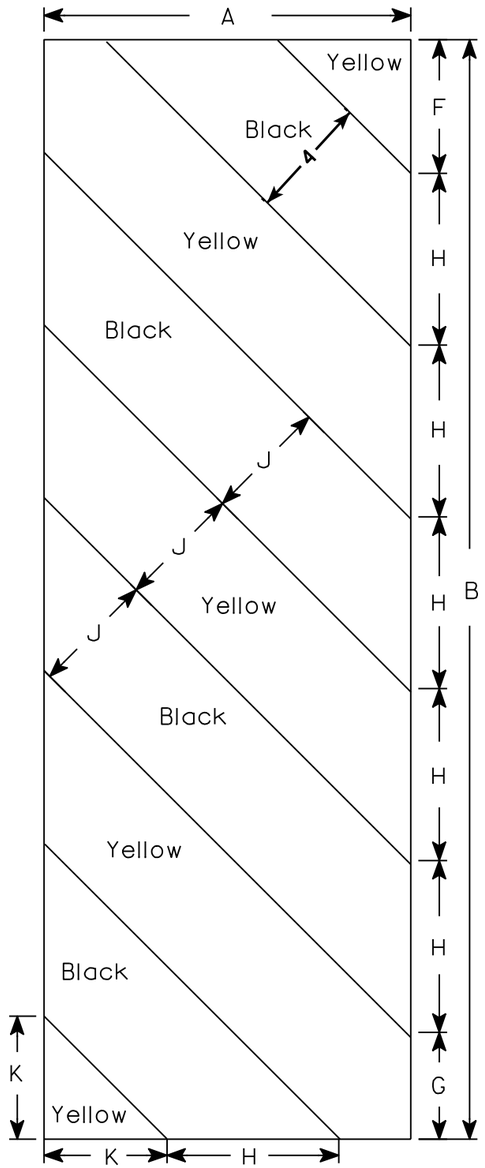
STANDARD SIGN
W13-1

WISCONSIN DEPT OF TRANSPORTAT/ON

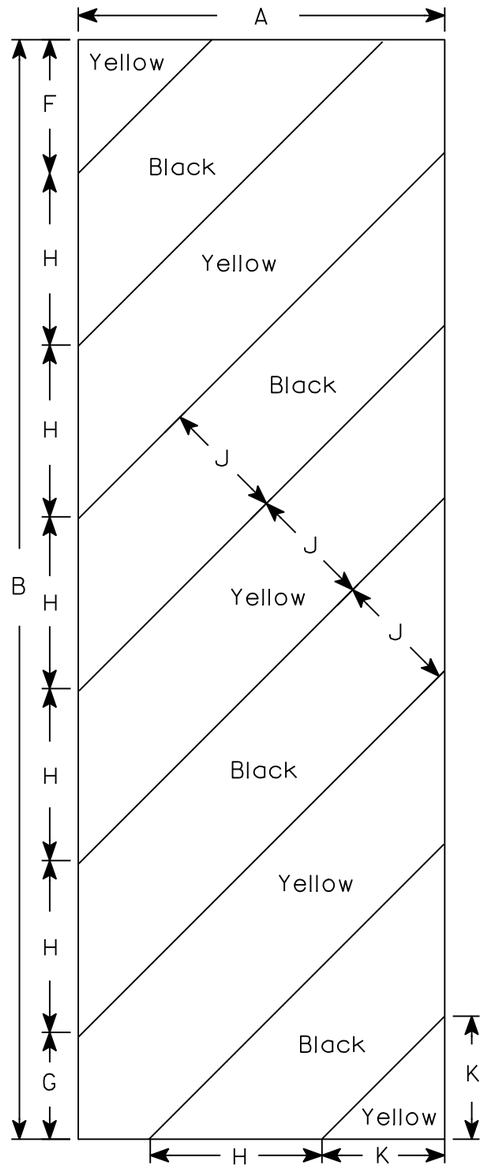
APPROVED I Rauch
for State Traffic Engl,,...,.

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

PROJECT NO: 8377-00-70 | HWY: YELLOW LAKE ROAD | COUNTY: BURNETT | SHEET NO: 29 | E



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.

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

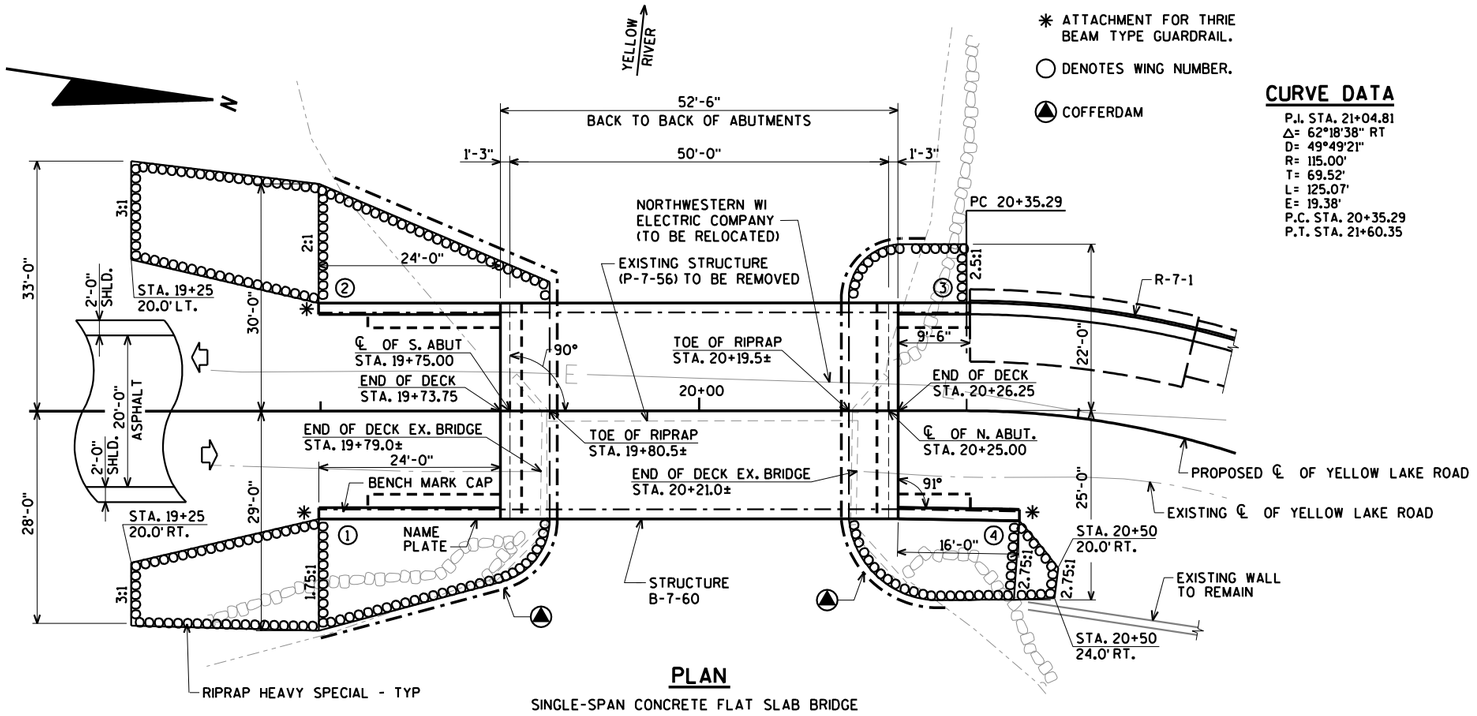
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/29/12 PLATE NO. W5-52.9

PROJECT NO: 8377-00-70 | HWY: YELLOW LAKE ROAD | COUNTY: BURNETT | SHEET NO: 30 | E

STATE PROJECT NUMBER

8377-00-70

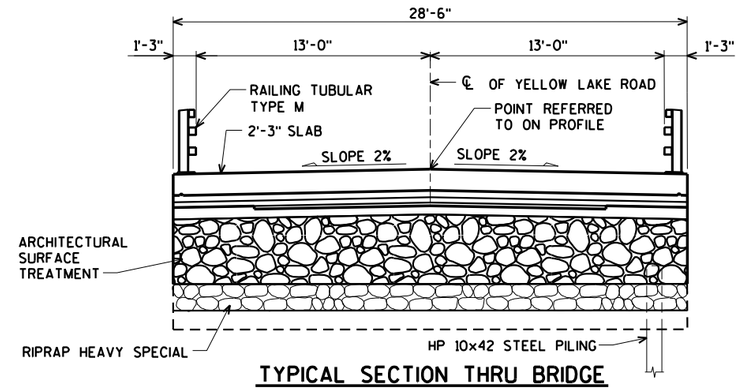


PLAN

SINGLE-SPAN CONCRETE FLAT SLAB BRIDGE

CURVE DATA

P.I. STA. 21+04.81
Δ= 62°18'38" RT
D= 49°49'21"
R= 115.00'
T= 69.52'
L= 125.07'
E= 19.38'
P.C. STA. 20+35.29
P.T. STA. 21+60.35



TYPICAL SECTION THRU BRIDGE

DESIGN DATA

LIVE LOAD:

DESIGN LOADING: HL-93
INVENTORY RATING FACTOR: 1.09
OPERATING RATING FACTOR: 1.41
WISCONSIN STANDARD PERMIT VEHICLE (WIS-SPV) = 250 KIPS

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

MATERIAL PROPERTIES:

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

HYDRAULIC DATA:

100 YEAR FREQUENCY

Q_{100} = 850 c.f.s. { BRIDGE = 644 c.f.s. / OVERFLOW = 206 c.f.s.
VEL.= 2.2 f.p.s.
HW_{100} = EL. 932.68
WATERWAY AREA = 298 sq. ft.
DRAINAGE AREA = 307 sq. mi.
SCOUR CRITICAL CODE = 5
DATUM = NAVD88 (2012)

2 YEAR FREQUENCY

Q_2 = 400 c.f.s.
VEL.= 2.1 f.p.s.
HW_2 = EL. 930.39

ROAD OVERTOPPING FREQUENCY

FREQUENCY = 19 YEARS
Q_{19} = 660 c.f.s.
HW_{19} = 931.72

FOUNDATION DATA:

ABUTMENTS TO BE SUPPORTED ON HP 10 x 42 STEEL PILING (WITH PILE POINTS) DRIVEN TO A REQUIRED DRIVING RESISTANCE OF 180 TONS ‡ PER PILE AS DETERMINED BY THE MODIFIED GATES DYNAMIC FORMULA. ESTIMATED LENGTH 70'-0" SOUTH ABUT. AND 65'-0" NORTH ABUT.

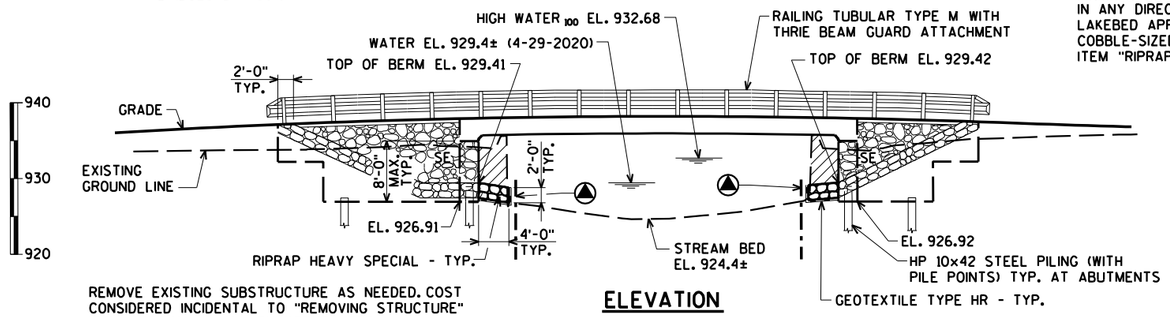
‡ THE FACTORED AXIAL RESISTANCE OF PILES IN COMPRESSION USED FOR DESIGN IS THE REQUIRED DRIVING RESISTANCE MULTIPLIED BY A RESISTANCE FACTOR OF 0.5 USING MODIFIED GATES TO DETERMINE DRIVEN PILE CAPACITY.

TRAFFIC DATA:

A.A.D.T. = 350 (2022)
A.A.D.T. = 475 (2042)
R.D.S. = 20 M.P.H.

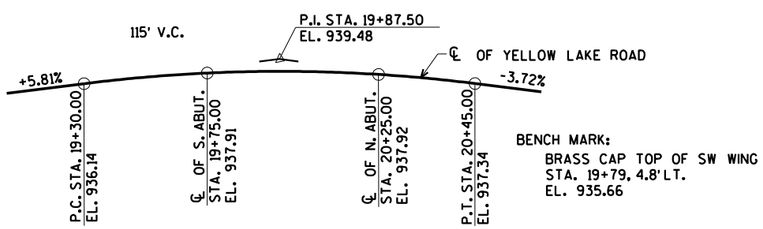
NOTE:
FILL VOIDS IN EXPOSED RIPRAP HEAVY SPECIAL WITH CLEAN COBBLE-SIZED ROCK RANGING FROM 2.5-INCHES TO 10-INCHES IN SIZE. PLACE THE COBBLE-SIZED ROCK SUCH THAT VOIDS IN THE FINISHED SURFACE ARE THREE INCHES OR LESS IN ANY DIRECTION AND ALSO SPREAD ON THE LAKEBED APPROX. 1-FOOT OUT FROM THE RIPRAP. COBBLE-SIZED RIPRAP TO BE INCLUDED IN THE BID ITEM "RIPRAP HEAVY SPECIAL".

COST OF EXCAVATION OR FILL IN THE HATCHED AREAS SHALL BE INCLUDED IN THE CONTRACT LUMP SUM PRICE FOR "EXCAVATION FOR STRUCTURES BRIDGES B-7-60".



REMOVE EXISTING SUBSTRUCTURE AS NEEDED. COST CONSIDERED INCIDENTAL TO "REMOVING STRUCTURE" ITEM. TYPICAL AT ALL SUBSTRUCTURES.

ELEVATION



BENCH MARK:
BRASS CAP TOP OF SW WING
STA. 19+79, 4.8'LT.
EL. 935.66

PROFILE GRADE LINE

(YELLOW LAKE ROAD)

LIST OF DRAWINGS

1. GENERAL PLAN
2. QUANTITIES AND NOTES
3. SUBSURFACE EXPLORATION
4. SOUTH ABUTMENT
5. SOUTH ABUTMENT WING DETAILS
6. SOUTH ABUTMENT WING AND FORMLINER DETAILS
7. SOUTH ABUTMENT PILE LAYOUT & BILL OF BARS
8. NORTH ABUTMENT
9. NORTH ABUTMENT WING 3 DETAILS
10. NORTH ABUTMENT WING 4 DETAILS
11. NORTH ABUTMENT PILE LAYOUT & BILL OF BARS
12. SUPERSTRUCTURE
13. SUPERSTRUCTURE DETAILS
14. TUBULAR STEEL RAILING TYPE 'M'

10/27/2021

BRIDGE OFFICE CONTACT:
AARON BONK
(608)-261-0261

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

NO.	DATE	REVISION	BY

ORIGINAL PLANS PREPARED BY

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

ACCEPTED _____ SDR 11/24/21
CHIEF STRUCTURES DESIGN ENGINEER DATE

STRUCTURE B-7-60

YELLOW LAKE ROAD OVER YELLOW RIVER

COUNTY		TOWN/~~CITY/VILLAGE~~	
BURNETT			UNION

DESIGN SPEC. AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS

DESIGNED BY	DESIGN CK'D.	DRAWN BY	PLANS CK'D.
ZSS	JCK	CLP	DNS

GENERAL PLAN

SHEET 1 OF 14
31

I.D.

DATE:

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

10/25/2021
PENTABLE:BReau_shd_util.tbl

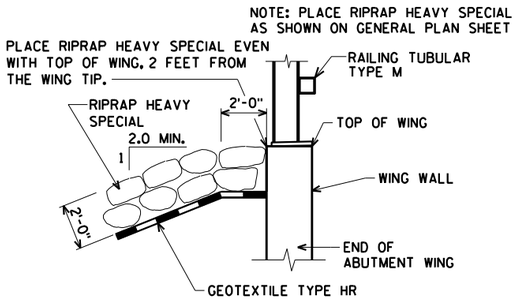
8

8

I:±42±42-1211.00 - Burnett Co, Tn Union, Yellow Lake Road±Structures±CADD±Final±421211 gp.dgn

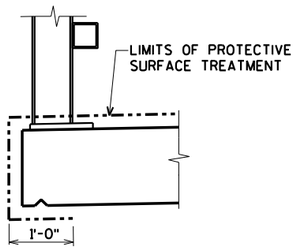
TOTAL ESTIMATED QUANTITIES

BID ITEM NUMBER	BID ITEMS	UNIT	S. ABUT.	N. ABUT.	SUPER.	TOTAL	CATEGORY 20	CATEGORY 30
203.0260	REMOVING STRUCTURE OVER WATERWAY MINIMAL DEBRIS P-07-0056	EACH	-----	-----	-----	1	1	-----
206.1000	EXCAVATION FOR STRUCTURES BRIDGES B-7-60	LS	-----	-----	-----	1	1	-----
206.5000	COFFERDAMS B-7-60	LS	-----	-----	-----	1	1	-----
210.1500	BACKFILL STRUCTURE TYPE A	TON	220	220	-----	440	440	-----
502.0100	CONCRETE MASONRY BRIDGES	CY	69.6	48.9	127.0	245	245	-----
502.3200	PROTECTIVE SURFACE TREATMENT	SY	-----	-----	200	200	200	-----
505.0400	BAR STEEL REINFORCEMENT HS STRUCTURES	LB	2,410	2,000	-----	4,410	4,410	-----
505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB	3,740	1,810	21,490	27,040	27,040	-----
513.4061	RAILING TUBULAR TYPE M	LF	50	27	105	182	182	-----
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	11	8	-----	19	19	-----
517.1015.S	CONCRETE STAINING MULTI-COLOR B-7-60	SF	440	330	-----	770	-----	770
517.1050.S	ARCHITECTURAL SURFACE TREATMENT B-7-60	SF	440	330	-----	770	-----	770
550.0500	PILE POINTS	EACH	7	7	-----	14	14	-----
550.1100	PILING STEEL HP 10-INCH x 42 LB	LF	490	455	-----	945	945	-----
612.0406	PIPE UNDERDRAIN WRAPPED 6-INCH	LF	90	60	-----	150	150	-----
645.0111	GEOTEXTILE TYPE DF SCHEDULE A	SY	60	40	-----	100	100	-----
645.0120	GEOTEXTILE TYPE HR	SY	230	80	-----	310	310	-----
SPV.0035.01	RIPRAP HEAVY SPECIAL	CY	120	40	-----	160	160	-----
	NON-BID ITEMS							
	FILLER	SIZE	-----	-----	-----	1/2" & 3/4"	-----	-----

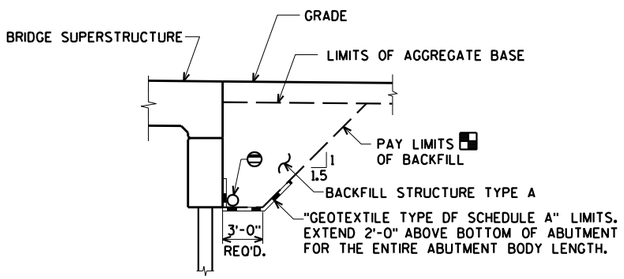


TYPICAL FILL SECTION AT WING TIPS

(WINGS 1, 2, AND 4)



PROTECTIVE SURFACE TREATMENT DETAIL



BACKFILL STRUCTURE LIMITS THRU ABUTMENT

- BACKFILL PAY LIMITS. BACKFILL BEYOND BACKFILL PAY LIMITS SHALL BE INCIDENTAL TO EXCAVATION FOR STRUCTURES. LIMITS OF EXCAVATION SHALL BE DETERMINED BY THE CONTRACTOR.
- PIPE UNDERDRAIN WRAPPED 6-INCH. SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. ATTACH RODENT SHIELD AT ENDS OF PIPE UNDERDRAIN AS DETAILED ON SHEET 7.

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

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

THE FIRST DIGIT OF A THREE DIGIT BAR NO. AND THE FIRST TWO DIGITS OF A FOUR DIGIT BAR NO. SIGNIFIES THE BAR SIZE.

JOINT FILLER SHALL CONFORM TO THE REQUIREMENTS OF A.A.S.H.T.O. DESIGNATION M 153, TYPE I, II OR III OR A.A.S.H.T.O. DESIGNATION M 213.

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

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

THE UPPER LIMITS OF "EXCAVATION FOR STRUCTURES BRIDGES B-7-60" SHALL BE THE EXISTING GROUNDLINE.

THE EXISTING STRUCTURE, P-07-56, TO BE REMOVED, IS A 42-FT. LONG SINGLE-SPAN STEEL DECK GIRDER BRIDGE ON CONCRETE ABUTMENTS WITH A 13-FT. CLEAR ROADWAY WIDTH.

THE BACKFILL QUANTITIES ARE BASED ON THE PAY LIMITS SHOWN ON THE PLANS AND MAY NOT REFLECT ACTUAL PLACED QUANTITIES. "BACKFILL STRUCTURE TYPE A" REQUIRED DIRECTLY BEHIND ABUTMENTS AND ABUTMENTS WINGS FOR 3 FEET. BACKFILL PLACED BEYOND PAY LIMITS OR EXCEEDING PLAN QUANTITIES SHALL BE INCIDENTAL TO EXCAVATION FOR STRUCTURES.

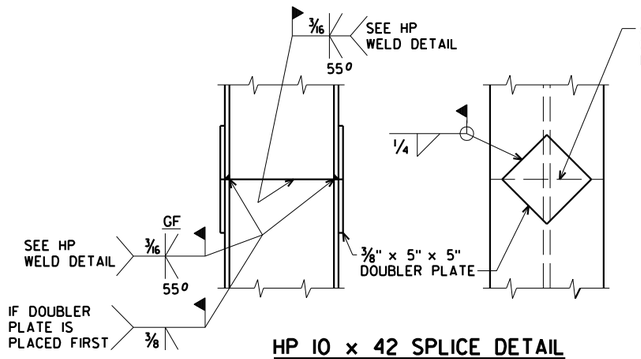
PROTECTIVE SURFACE TREATMENT IS TO BE APPLIED AS SHOWN IN DETAIL ON THIS SHEET.

BEVEL EXPOSED EDGES OF CONCRETE 3/4" UNLESS NOTED OTHERWISE.

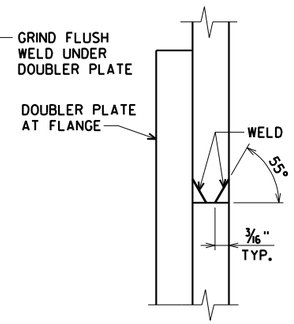
EXCAVATION BELOW THE ABUTMENT AND ABUTMENT BEDDING MATERIALS REQUIRES ENGINEER APPROVAL. GEOTEXTILE SHALL BE SET AT THE BOTTOM OF EXCAVATION AND EXTEND 2'-0" ABOVE BOTTOM OF ABUTMENT.

EXTENT OF BELOW GRADE SUBSTRUCTURES ARE NOT KNOWN. REMOVE EXISTING SUBSTRUCTURES AS NEEDED TO BUILD NEW SUBSTRUCTURES. COST OF SUBSTRUCTURE REMOVAL IS CONSIDERED INCIDENTAL TO "REMOVING STRUCTURE" BID ITEM.

AT ABUTMENTS, CONCRETE POURED UNDERWATER WILL BE ALLOWED AND SHALL BE DONE IN ACCORDANCE WITH SECTION 502.3.5.3 OF THE STANDARD SPECIFICATIONS.



HP 10 x 42 SPLICE DETAIL



HP WELD DETAIL

FLANGE SHOWN, WEB SIMILAR

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-7-60

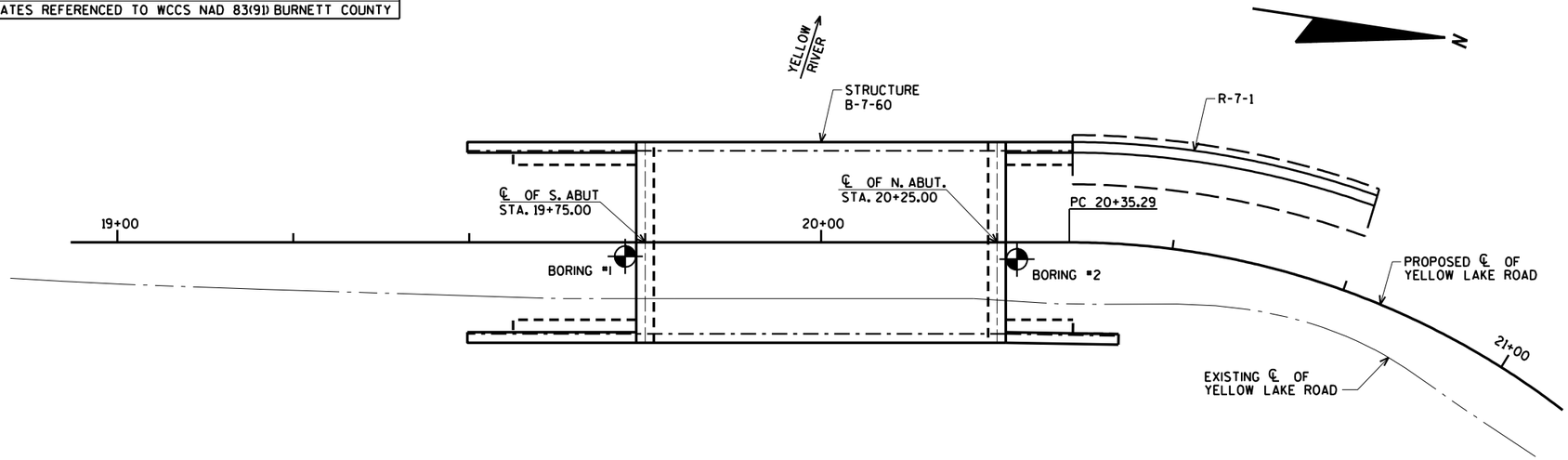
DRAWN BY CLP | PLANS CK'D. JCK

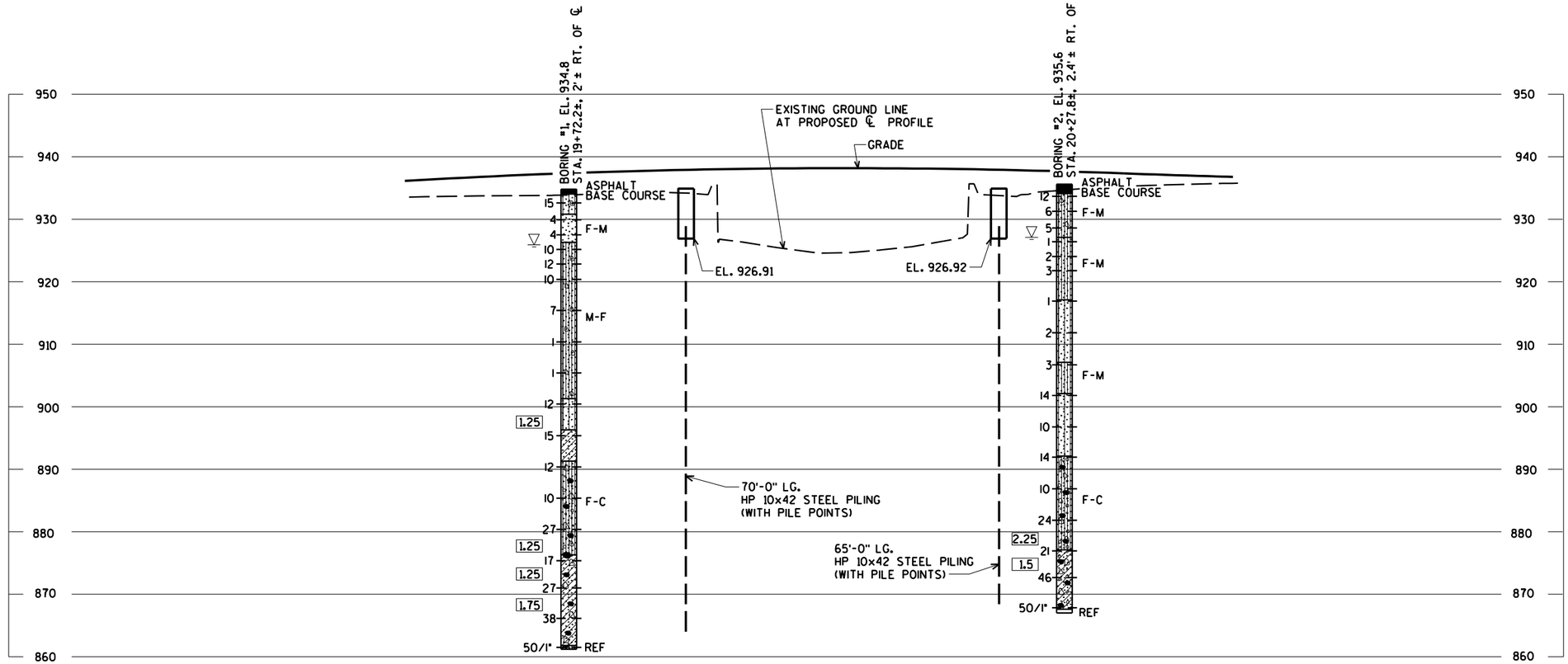
QUANTITIES AND NOTES

SHEET 2 OF 14
32

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

BORING #	DATE COMPLETED	NORTHING (Y)	EASTING (X)
1	JANUARY 12, 2021	205552.19	219325.82
2	JANUARY 12, 2021	205607.32	219317.91
BORINGS COMPLETED BY: ECS MIDWEST, LLC			
REPORT COMPLETED BY: ECS MIDWEST, LLC			
ALL COORDINATES REFERENCED TO WCCS NAD 83(91) BURNETT COUNTY			





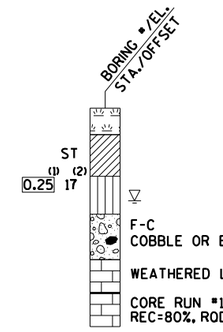
STATE PROJECT NUMBER

8377-00-70

MATERIAL SYMBOLS

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

LEGEND OF BORING



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

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

GROUND WATER ELEVATION

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

ABBREVIATIONS

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

SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

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

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-7-60

DRAWN BY CLP | PLANS CK'D. JCK

SUBSURFACE EXPLORATION

SHEET 3 OF 14
33

8

8

8/24/2021
PENTABLE:BReau_shd_util.tbl

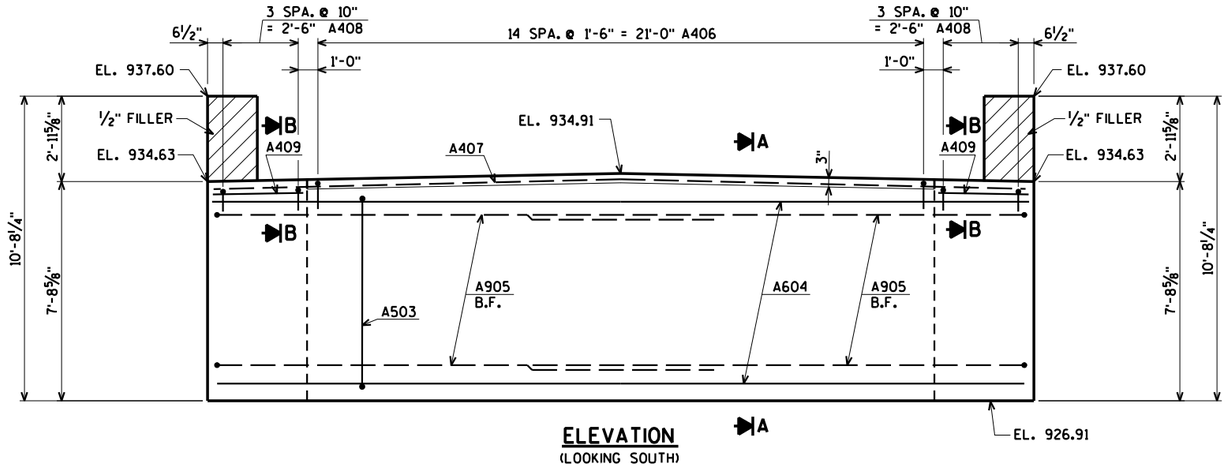
I:±42±42-1211.00 - Burnett Co, Tn Union, Yellow Lake Road±Structures±CADD±Final±421211 soil.dgn

10/25/2021
PENTABLE:BRequ_shd_util.tbl

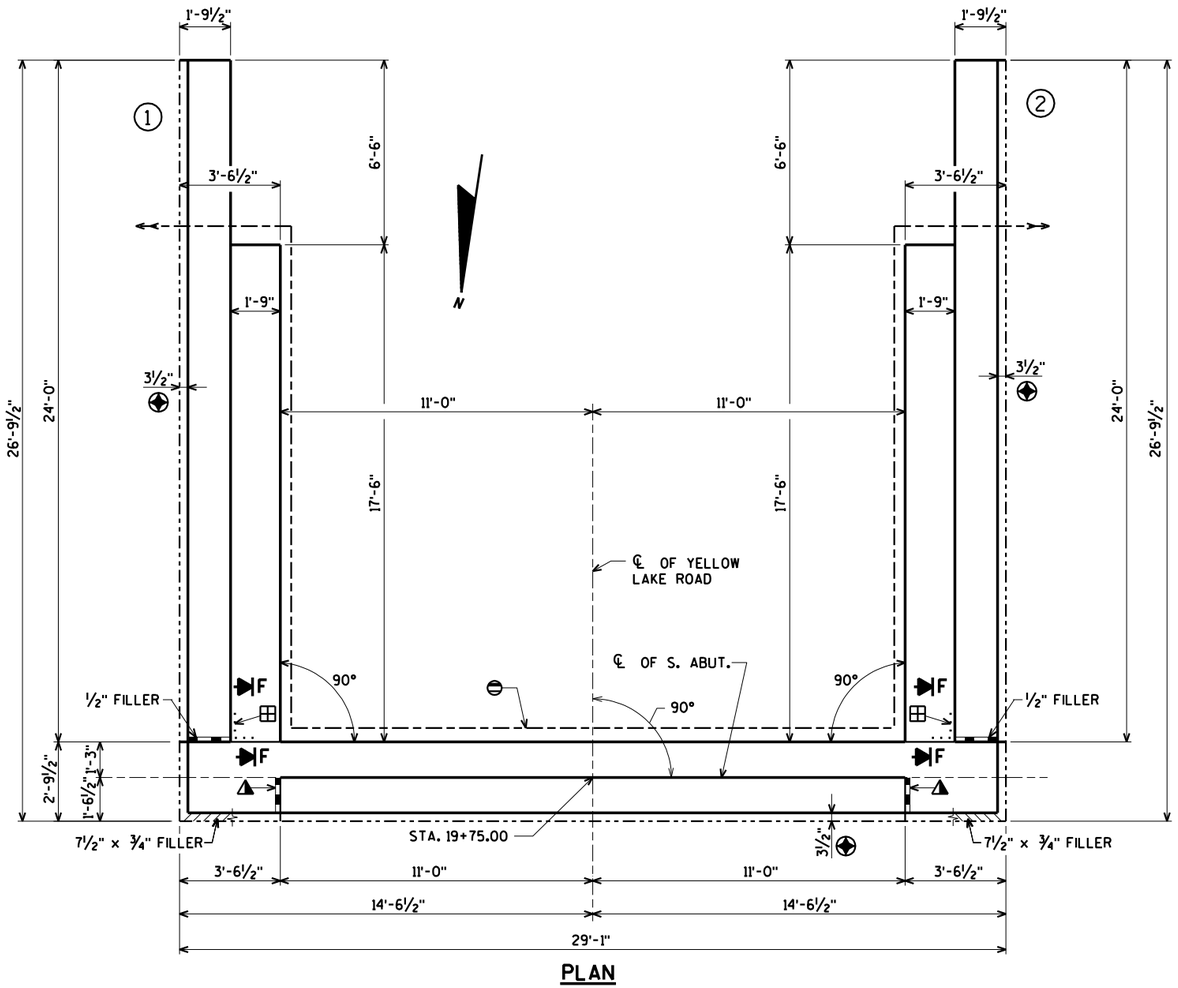
STATE PROJECT NUMBER

8377-00-70

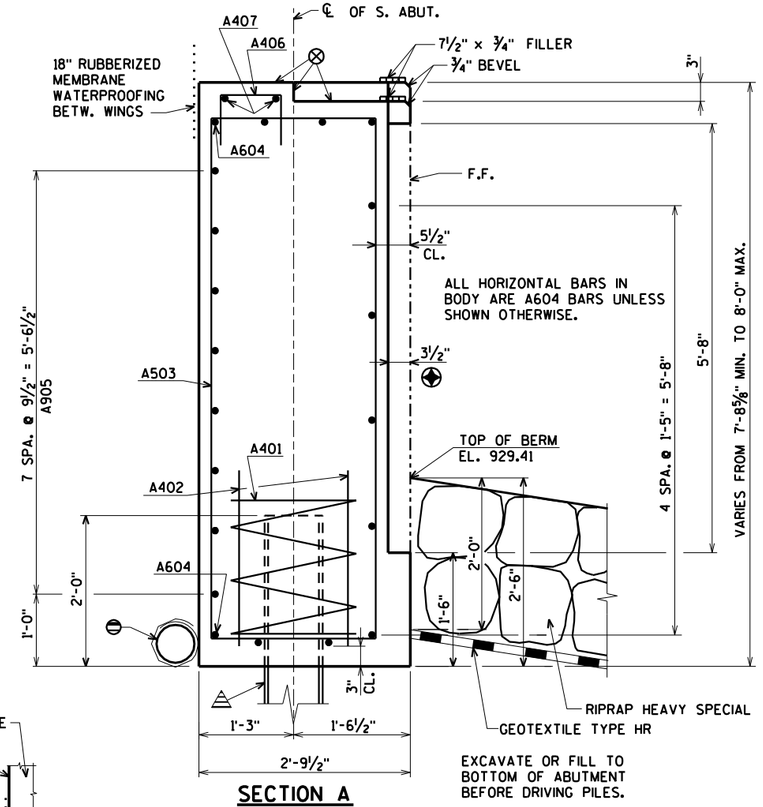
NOTE: SEAL ALL EXPOSED HORIZONTAL AND VERTICAL SURFACES OF ½" FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD ⅛" BELOW SURFACE OF CONCRETE).



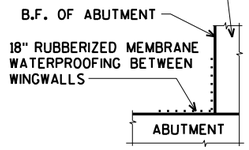
ELEVATION
(LOOKING SOUTH)



PLAN



SECTION A



SECTION F

△ ABUTMENT TO BE SUPPORTED ON HP 10 x 42 STEEL PILING (WITH PILE POINTS) DRIVEN TO A REO'D. DRIVING RESISTANCE OF 180 TONS PER PILE. ESTIMATED LENGTH 70'-0".

◈ FORMLINER
SEE DETAILS ON SHEET 6.

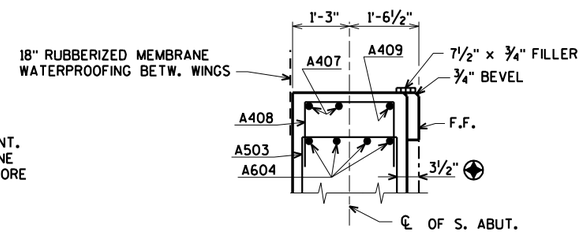
▲ ¾" CORK FILLER ON VERTICAL FACE ONLY.

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

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

⊞ VERTICAL 18" RUBBERIZED MEMBRANE WATERPROOFING TO EXTEND FROM BRIDGE SEAT TO TOP OF WINGWALL.

FOR PILE SPLICE DETAIL SEE SHEET 2.



SECTION B

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-7-60

DRAWN BY CLP | PLANS CK'D. JCK

SOUTH ABUTMENT

SHEET 4 OF 14
34

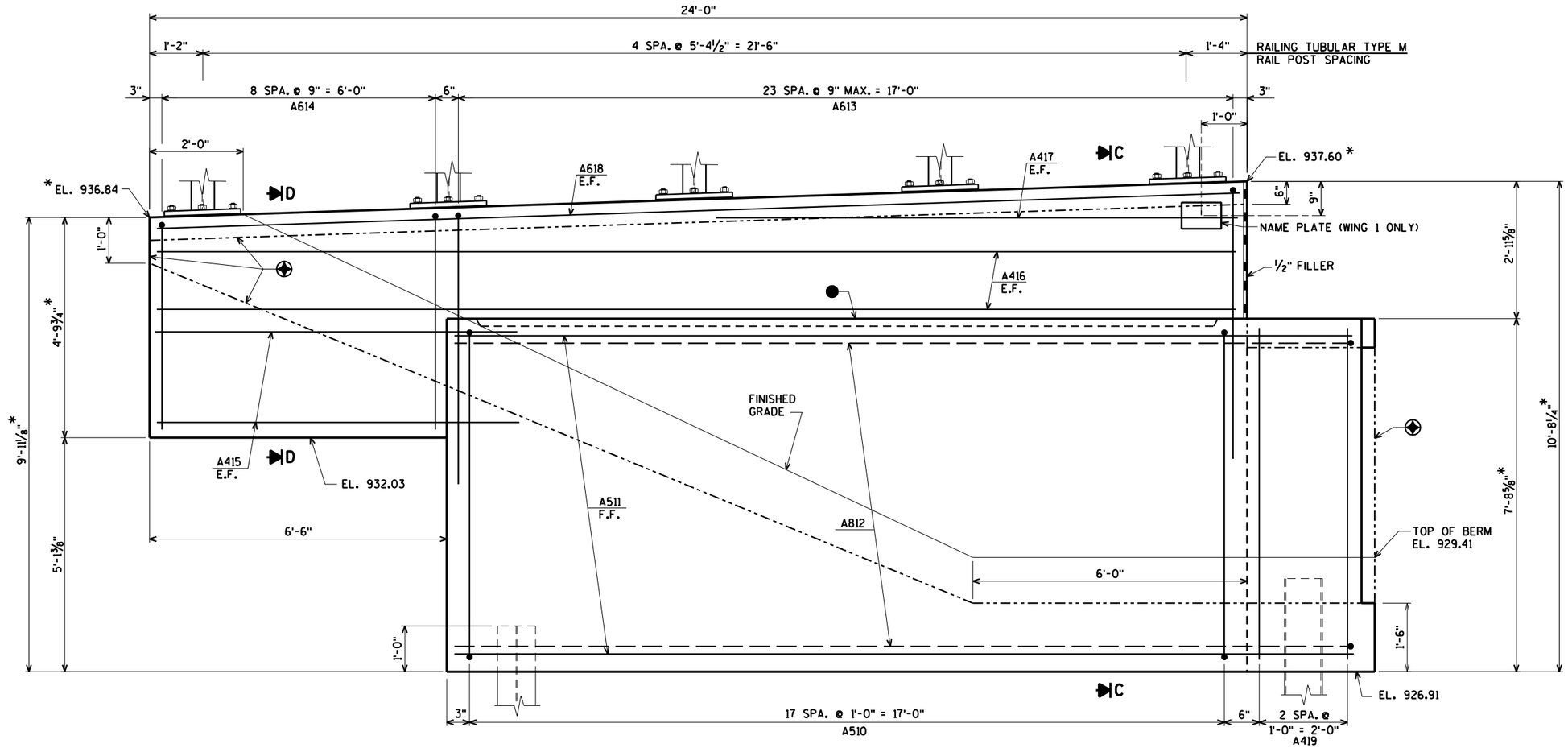
ORIGINAL PLANS PREPARED BY
AYRES
3433 Oakwood Hills Parkway
Eau Claire, WI 54701
www.AyresAssociates.com

8

8

I:±42±42-1211.00 - Burnett Co, Tn Union, Yellow Lake Road±Structures±CADD±Final±421211 sa.dgn

STATE PROJECT NUMBER
8377-00-70



ELEVATION - WING 1

(WING 1 SHOWN - WING 2 SIMILAR)

FOR SECTIONS C & D SEE SHEET 6.

FORMLINER
SEE DETAILS ON SHEET 6.

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

FOR PILE SPLICE DETAIL SEE SHEET 2.

* ELEVATIONS AND DIMENSIONS SHOWN ARE AT THE FRONT FACE OF WINGWALL.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-7-60

DRAWN BY CLP | PLANS CK'D. JCK

SOUTH ABUTMENT WING DETAILS

SHEET 5 OF 14
35

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

8/31/2021
PENTABLE:BReau_shd_util.tbl

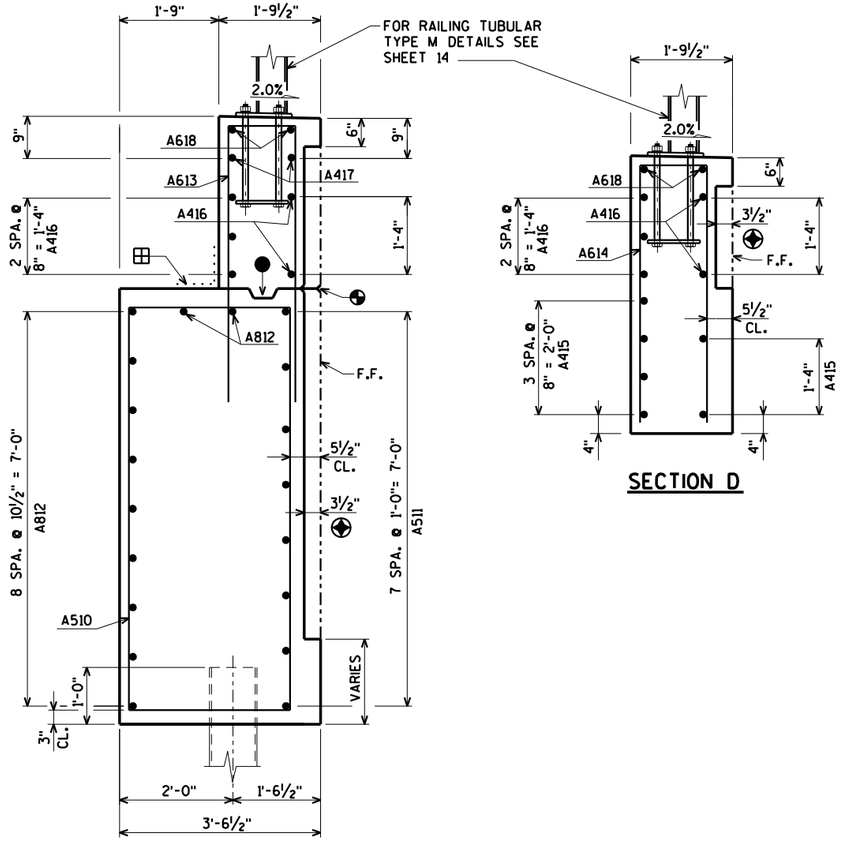
I:±42±42-1211.00 - Burnett Co, Tn Union, Yellow Lake Road±Structures±CADD±Final±421211sa.dgn

8

8

STATE PROJECT NUMBER

8377-00-70



SECTION C

SECTION D

FOR LOCATION OF SECTIONS C & D SEE SHEET 5.

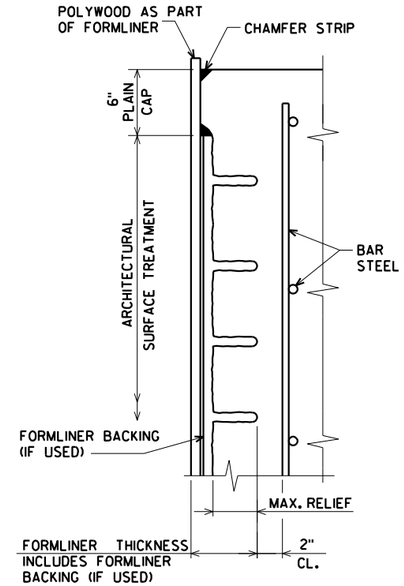
◈ FORMLINER

◈ ¾" "V" GROOVE ON FRONT FACE OF WINGWALL.

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

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

FOR PILE SPLICE DETAIL SEE SHEET 2.



SECTION THRU FORMLINER

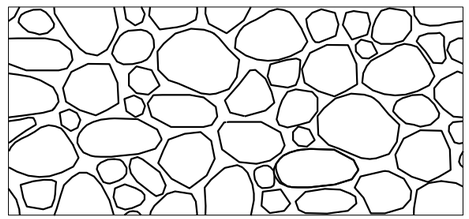
ABUTMENT NOTES

FORMLINER COURSING ON ABUTMENTS AND WINGS SHALL BE LEVEL.

THE FORMLINER COURSING ON THE WINGS SHALL BE VERTICALLY ALIGNED WITH THE FORMLINER COURSING ON THE FRONT OF THE ABUTMENT.

THE FORMLINER PATTERN SHALL BE CONTINUOUS ACROSS CONSTRUCTION JOINTS.

WRAPAROUND/MATCH FORMLINER PATTERN AT CORNERS.



FIELD STONE - RANDOM

FORMLINER THICKNESS = 3½"
SIZES BETWEEN 6" & 24"
MAX. RELIEF = 2½"

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-7-60

DRAWN BY CLP | PLANS CK'D. JCK

SOUTH ABUTMENT WING AND FORMLINER DETAILS

SHEET 6 OF 14
36

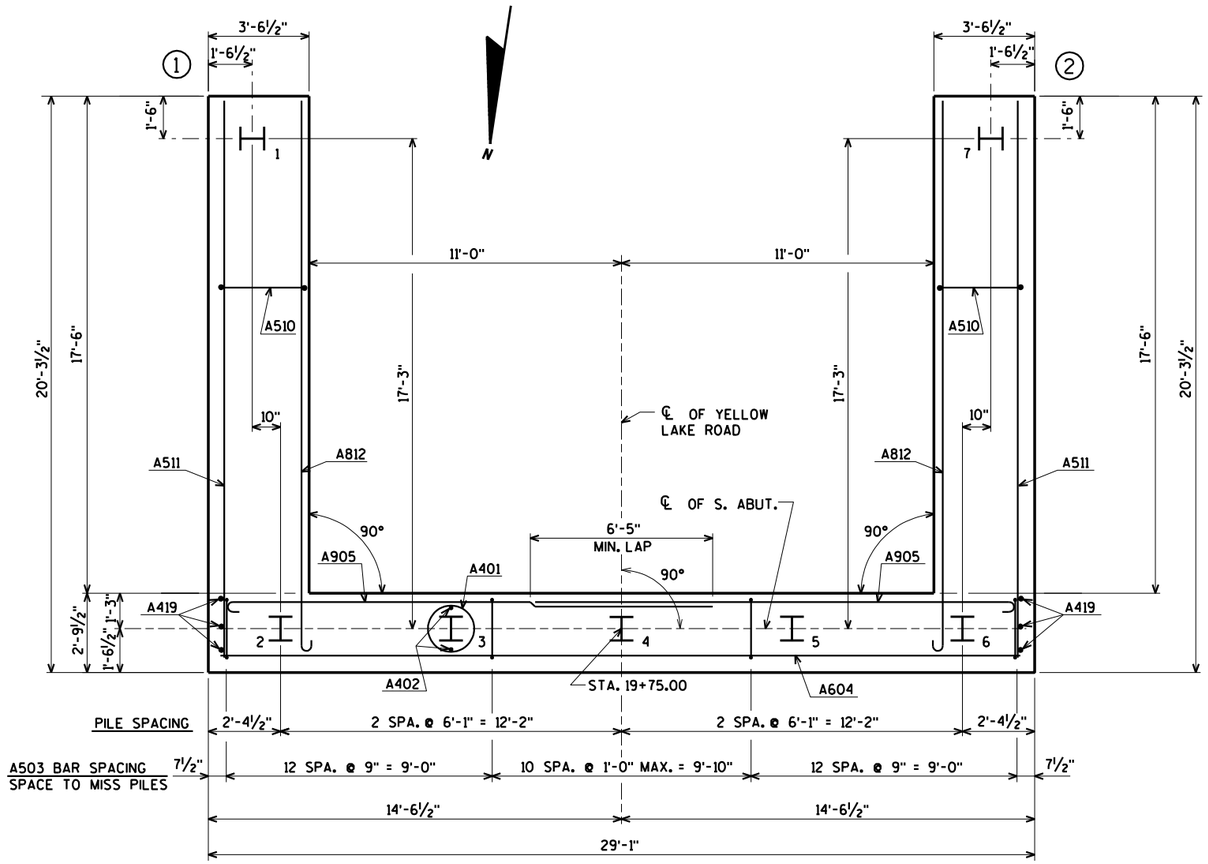
ORIGINAL PLANS PREPARED BY
AYRES 3433 Oakwood Hills Parkway Eau Claire, WI 54701 www.AyresAssociates.com

8/25/2021
PENTABLE:BReau_shd_util.tbl

I:±42±42-1211.00 - Burnett Co, Tn Union, Yellow Lake Road±Structures±CADD±Final±421211 sa.dgn

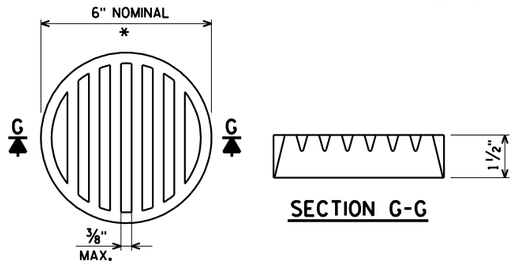
STATE PROJECT NUMBER

8377-00-70



PILE LAYOUT

FOR PILE SPLICE DETAIL SEE SHEET 2.



SECTION G-G

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

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

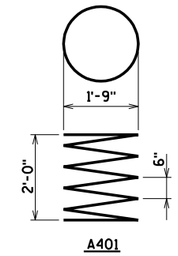
THE RODENT SHIELD SHALL BE PVC GRATE SIMILAR TO THIS DETAIL. THE GRATE IS COMMERCIALLY AVAILABLE AS A FLOOR STRAINER. A PIPE COUPLING IS REQUIRED FOR THE ATTACHMENT OF THIS SHIELD TO THE EXPOSED END OF THE PIPE UNDERDRAIN. THE SHIELD SHALL BE FASTENED TO THE PIPE COUPLING WITH TWO OR MORE NO. 10 x 1-INCH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

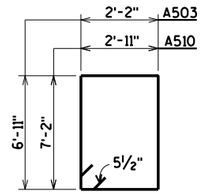
RODENT SHIELD DETAIL

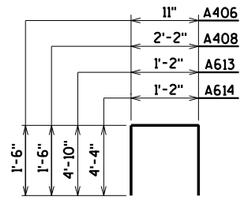
BILL OF BARS

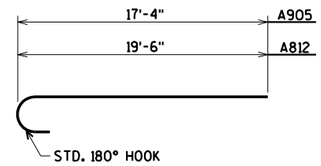
BAR NO.	COATED BAR	NO. REQ'D.	LENGTH	BENT BAR	BUNDLED BAR SERIES	3,740# COATED 2,410# UNCOATED LOCATION
A401		5	28-0	X		BODY @ PILES
A402		10	2-3			BODY @ PILES
A503		35	18-7	X		BODY VERT.
A604		12	28-2			BODY HORIZ.
A905		16	18-7	X		BODY HORIZ. B.F.
A406		15	3-9	X		BODY VERT. TOP
A407		2	28-2			BODY HORIZ. TOP
A408		8	5-0	X		BODY VERT. TOP @ WINGS
A409		2	2-11			BODY HORIZ. TOP F.F. @ WINGS
A510	X	36	20-9	X		WINGS 1 & 2 VERT.
A511	X	16	19-8			WINGS 1 & 2 HORIZ. F.F.
A812	X	22	20-5	X		WINGS 1 & 2 HORIZ. B.F. & TOP
A613	X	48	10-6	X		WINGS 1 & 2 VERT.
A614	X	18	9-6	X		WINGS 1 & 2 VERT.
A415	X	12	7-9			WINGS 1 & 2 HORIZ. E.F.
A416	X	10	23-7			WINGS 1 & 2 HORIZ. E.F.
A417	X	4	11-4			WINGS 1 & 2 HORIZ. E.F.
A618	X	4	23-7			WINGS 1 & 2 HORIZ. E.F.
A419		6	7-3			BODY VERT. END @ WINGS 1 & 2

BENDING DIMENSIONS ARE OUT TO OUT OF BARS.









NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-7-60

DRAWN BY CLP | PLANS CK'D. JCK

SOUTH ABUTMENT PILE LAYOUT & BILL OF BARS

SHEET 7 OF 14
37

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

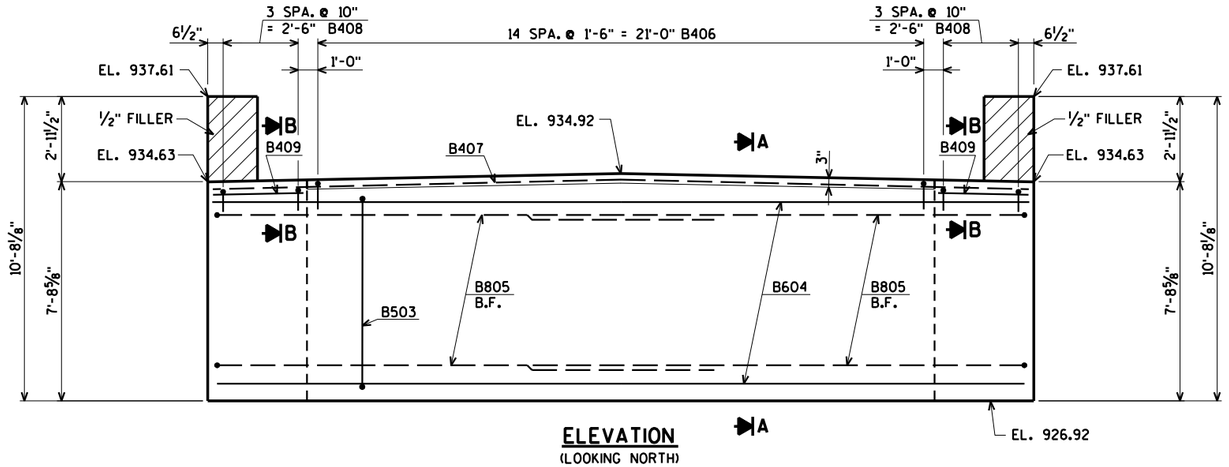
8/25/2021
PENTABLE:±Breau_shd_util.tbl

8

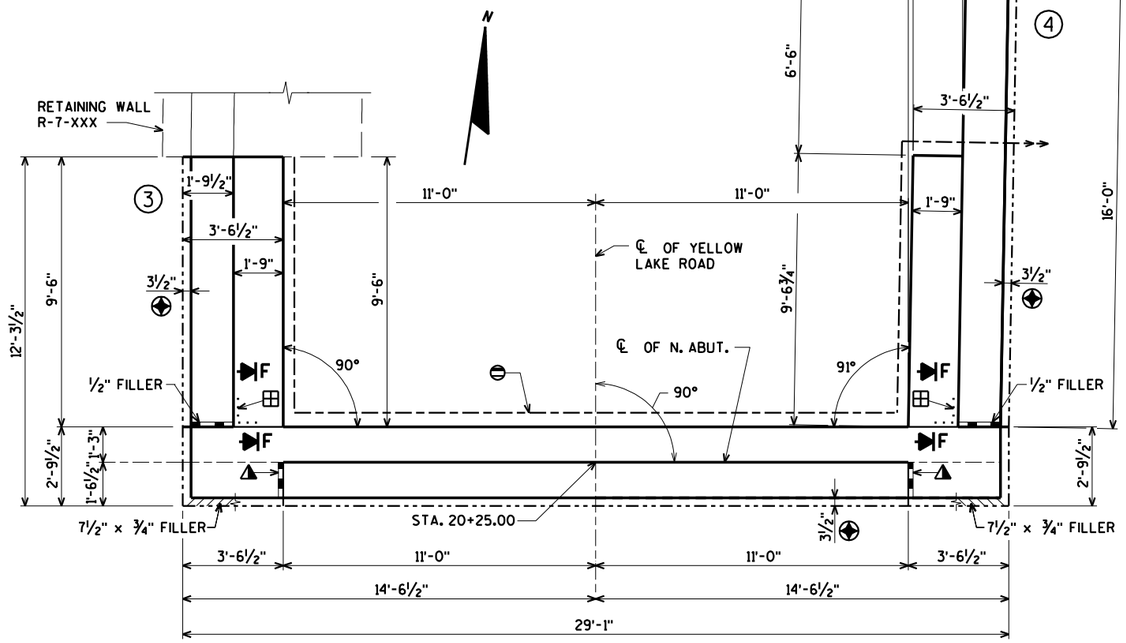
8

I:±42±42-1211.00 - Burnett Co, Tn Union, Yellow Lake Road±Structures±CADD±Final±421211 sa.dgn

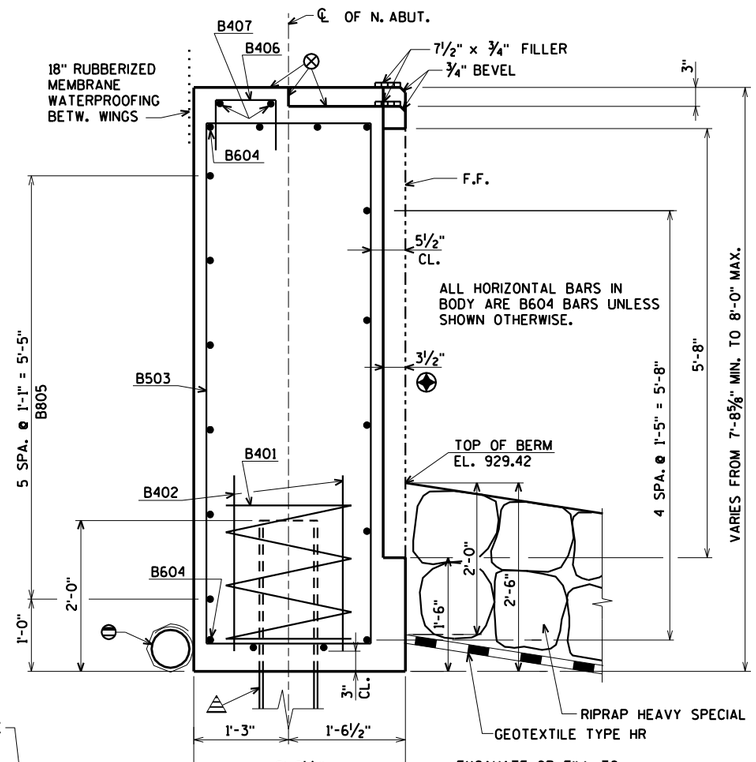
NOTE: SEAL ALL EXPOSED HORIZONTAL AND VERTICAL SURFACES OF ½" FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD ⅛" BELOW SURFACE OF CONCRETE).



ELEVATION
(LOOKING NORTH)



PLAN



SECTION A

EXCAVATE OR FILL TO BOTTOM OF ABUTMENT BEFORE DRIVING PILES.

△ ABUTMENT TO BE SUPPORTED ON HP 10 x 42 STEEL PILING (WITH PILE POINTS) DRIVEN TO A REQ'D. DRIVING RESISTANCE OF 180 TONS PER PILE. ESTIMATED LENGTH 65'-0".

SECTION F

⊕ FORMLINER
SEE DETAILS ON SHEET 6.

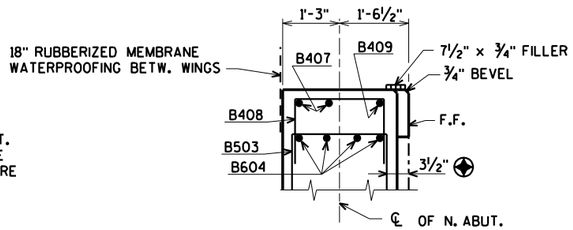
△ ¾" CORK FILLER ON VERTICAL FACE ONLY.

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

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

⊞ VERTICAL 18" RUBBERIZED MEMBRANE WATERPROOFING TO EXTEND FROM BRIDGE SEAT TO TOP OF WINGWALL.

FOR PILE SPLICE DETAIL SEE SHEET 2.



SECTION B

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-7-60

DRAWN BY CLP | PLANS CK'D. JCK

NORTH ABUTMENT

SHEET 8 OF 14
38

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

8

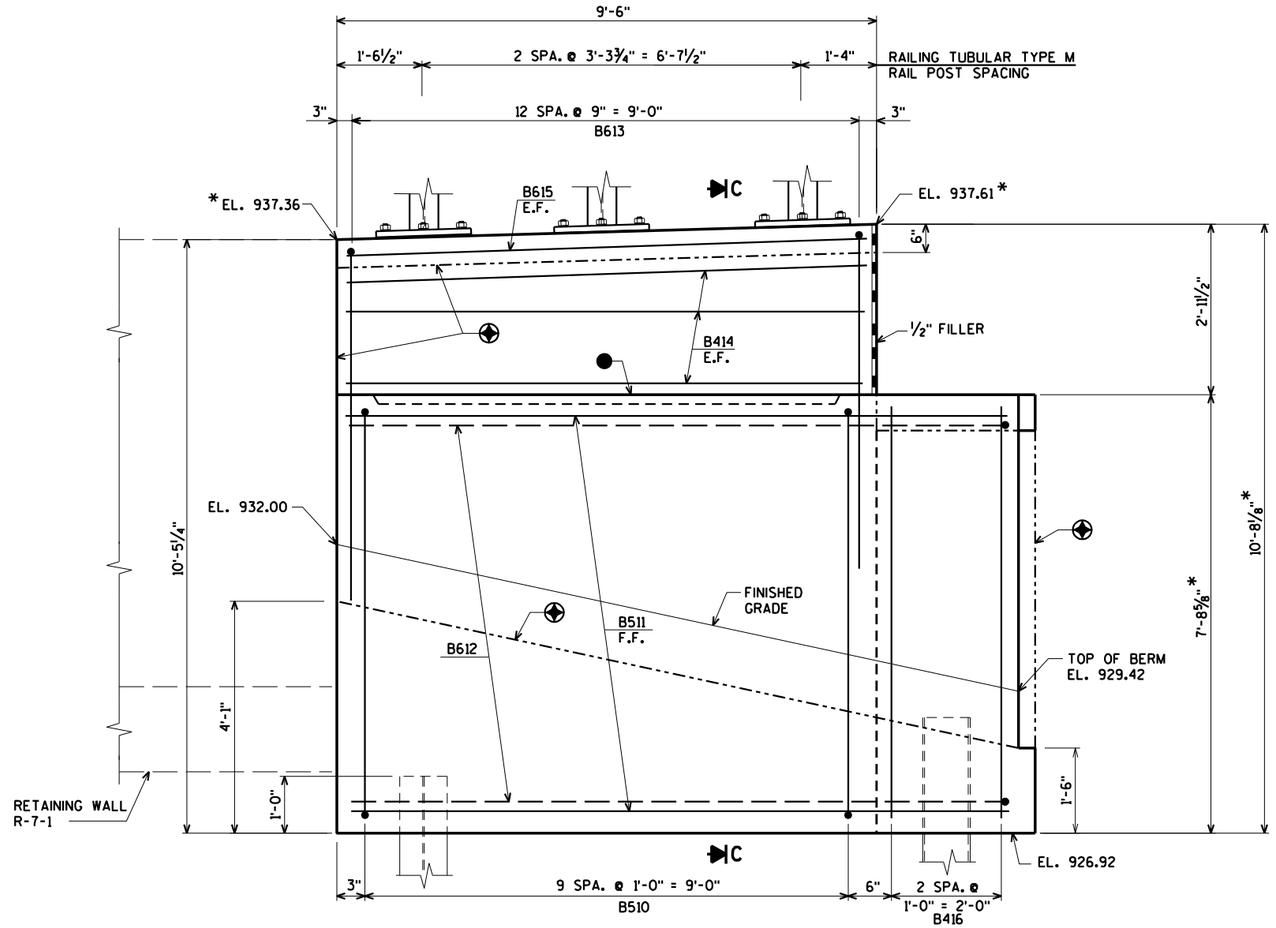
8

10/25/2021
PENTABLE:BRdau_shd_util.tbl

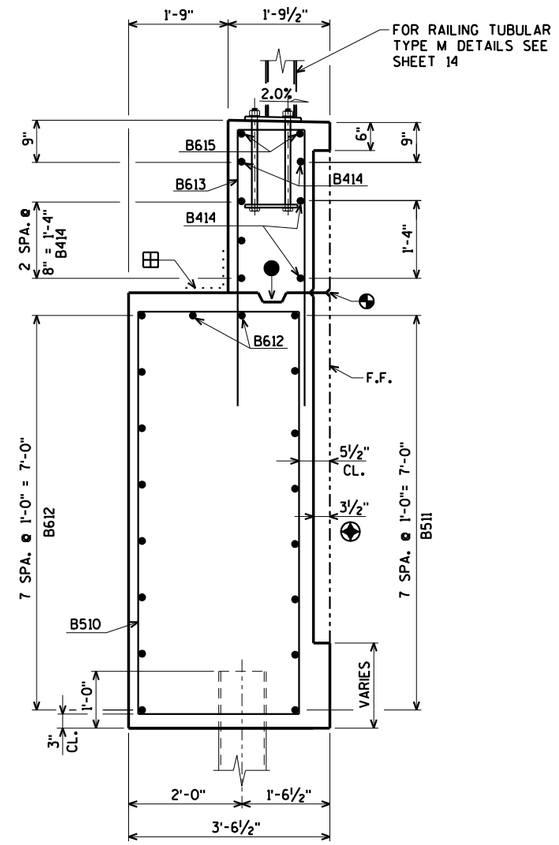
I:±42±42-1211.00 - Burnett Co, Tn Union, Yellow Lake Road±Structures±CADD±Final±421211na.dgn

STATE PROJECT NUMBER

8377-00-70



ELEVATION - WING 3



SECTION C

FORMLINER
SEE DETAILS ON SHEET 6.

¾" "V" GROOVE ON FRONT
FACE OF WINGWALL.

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

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

FOR PILE SPLICE DETAIL SEE SHEET 2.

*ELEVATIONS AND DIMENSIONS SHOWN ARE AT
THE FRONT FACE OF WINGWALL.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-7-60

DRAWN BY CLP | PLANS CK'D. JCK

NORTH
ABUTMENT
WING 3 DETAILS

SHEET 9 OF 14
39

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

8/31/2021
PENTABLE:BReau_shd_util.tbl

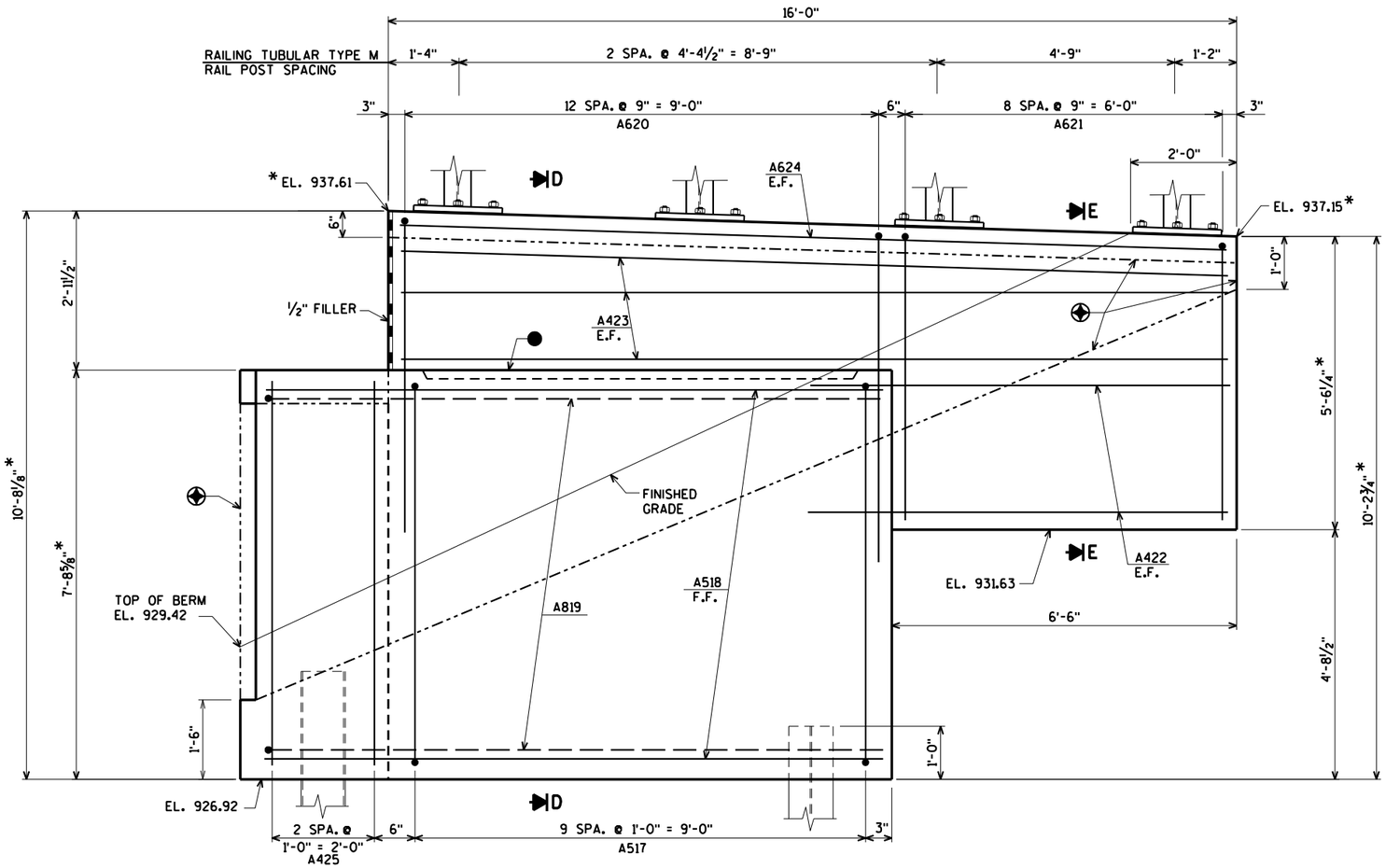
8

8

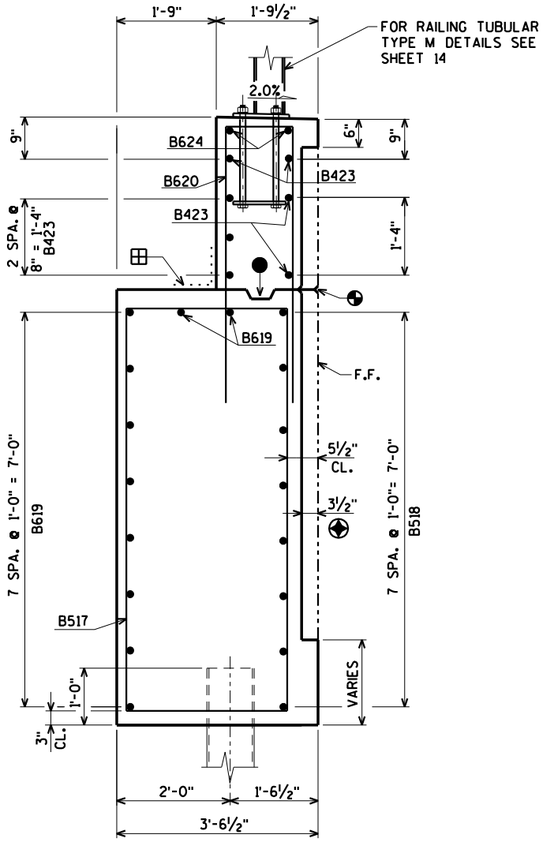
I:±42±42-1211.00 - Burnett Co, Tn Union, Yellow Lake Road±Structures±CADD±Final±421211na.dgn

STATE PROJECT NUMBER

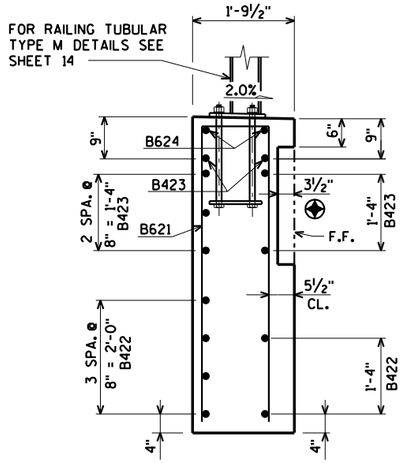
8377-00-70



ELEVATION - WING 4



SECTION D



SECTION E

◈ FORMLINER
SEE DETAILS ON SHEET 6.

◈ ¾" "V" GROOVE ON FRONT
FACE OF WINGWALL.

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

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

FOR PILE SPLICE DETAIL SEE SHEET 2.

* ELEVATIONS AND DIMENSIONS SHOWN ARE AT
THE FRONT FACE OF WINGWALL.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-7-60

DRAWN BY CLP | PLANS CK'D. JCK

NORTH ABUTMENT WING 4 DETAILS

SHEET 10 OF 14
40

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

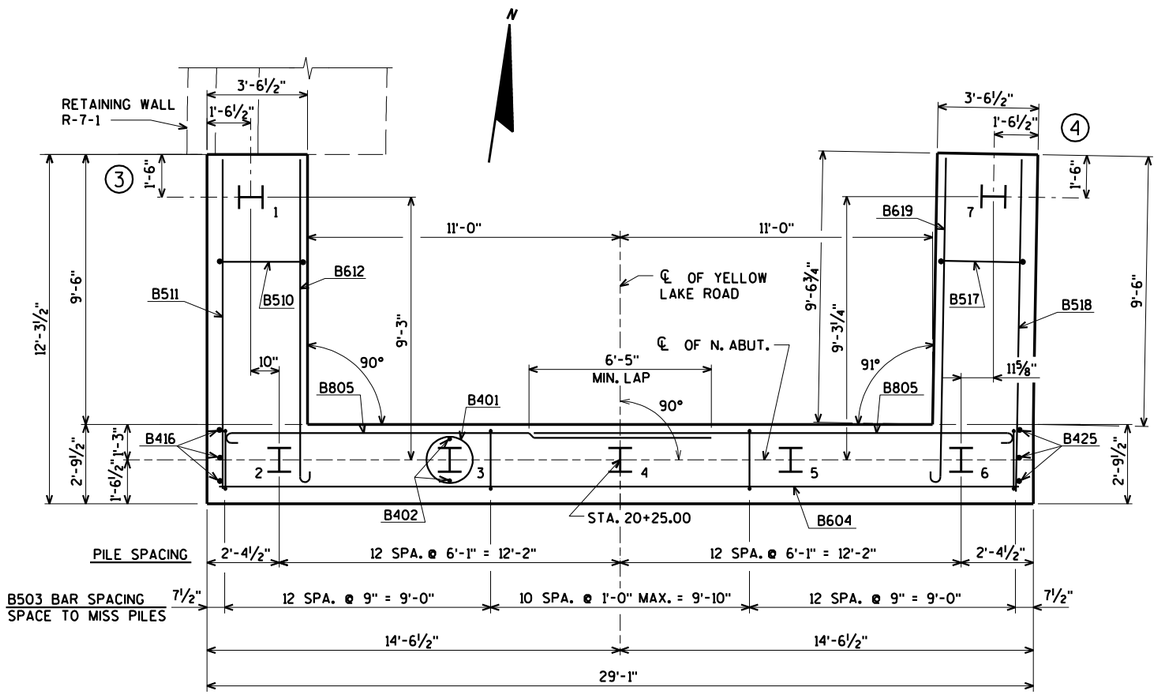
8/31/2021
PENTABLE:BReau_shd_util.tbl

8

8

I:±42±42-1211.00 - Burnett Co, Tn Union, Yellow Lake Road±Structures±CADD±Final±421211na.dgn

STATE PROJECT NUMBER
8377-00-70



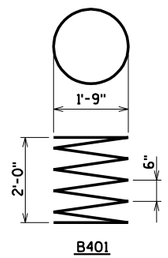
PILE LAYOUT

FOR PILE SPLICE DETAIL SEE SHEET 2.

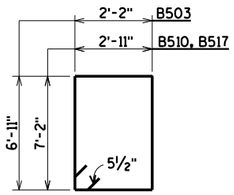
BILL OF BARS

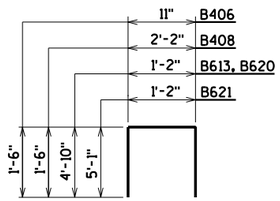
BAR NO.	COATED BAR	NO. REQ'D.	LENGTH	BENT BAR	BUNDLED BAR SERIES	1.810" COATED 2.000" UNCOATED LOCATION
B401		5	28-0	X		BODY @ PILES
B402		10	2-3			BODY @ PILES
B503		35	18-7	X		BODY VERT.
B604		12	28-2			BODY HORIZ.
B805		12	18-7	X		BODY HORIZ. @ WING B.F.
B406		15	3-9	X		BODY VERT. TOP
B407		2	28-2			BODY HORIZ. TOP
B408		8	5-0	X		BODY VERT. TOP @ WINGS
B409		2	2-11			BODY HORIZ. TOP F.F. @ WINGS
B510	X	10	20-9	X		WING 3 VERT.
B511	X	8	11-8			WING 3 HORIZ. F.F.
B612	X	10	12-4	X		WING 3 HORIZ. B.F. & TOP
B613	X	13	10-6	X		WING 3 VERT.
B414	X	7	9-2			WING 3 HORIZ. E.F.
B615	X	2	9-2			WING 3 HORIZ. E.F.
B416	X	3	7-3			BODY VERT. END @ WING 3
B517	X	10	20-9	X		WING 4 VERT.
B518	X	8	11-8			WING 4 HORIZ. F.F.
B619	X	10	12-4	X		WING 4 HORIZ. B.F. & TOP
B620	X	13	10-6	X		WING 4 VERT.
B621	X	9	11-0	X		WING 4 VERT.
B422	X	6	7-9			WING 4 HORIZ. E.F.
B423	X	7	15-7			WING 4 HORIZ. E.F.
B624	X	2	15-7			WING 4 HORIZ. E.F.
B425	X	3	7-3			BODY VERT. END @ WING 4

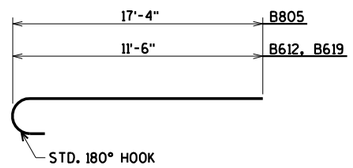
BENDING DIMENSIONS ARE OUT TO OUT OF BARS.



B401







NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-7-60

DRAWN BY CLP | PLANS CK'D. JCK

NORTH ABUTMENT PILE LAYOUT & BILL OF BARS

SHEET 11 OF 14
41

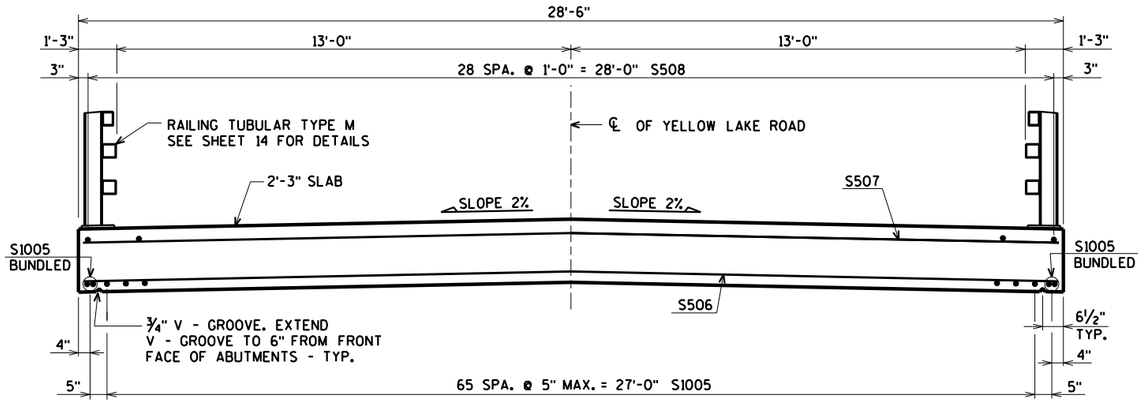
ORIGINAL PLANS PREPARED BY
AYRES
3433 Oakwood Hills Parkway
Eau Claire, WI 54701
www.AyresAssociates.com

8/25/2021
PENTABLE:BReau_shd_util.tbl

I:±42±42-1211.00 - Burnett Co, Tn Union, Yellow Lake Road±Structures±CADD±Final±421211na.dgn

STATE PROJECT NUMBER

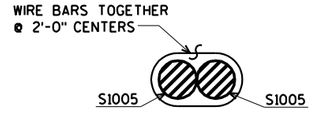
8377-00-70



TYPICAL SECTION THRU BRIDGE

TOP TRANSVERSE BARS IN SLAB SHALL BE SUPPORTED BY INDIVIDUAL BAR CHAIRS AT APPROXIMATELY 3'-0" CENTERS EACH WAY. BOTTOM LONGITUDINAL BARS SHALL BE SUPPORTED BY CONTINUOUS BAR CHAIRS AT APPROXIMATELY 4'-0" CENTERS.

ALL SLAB THICKNESS DIMENSIONS ARE MINIMUM. ANY TOLERANCES NECESSARY TO CORRECT CONSTRUCTION DISCREPANCIES ARE TO BE PLUS (+).

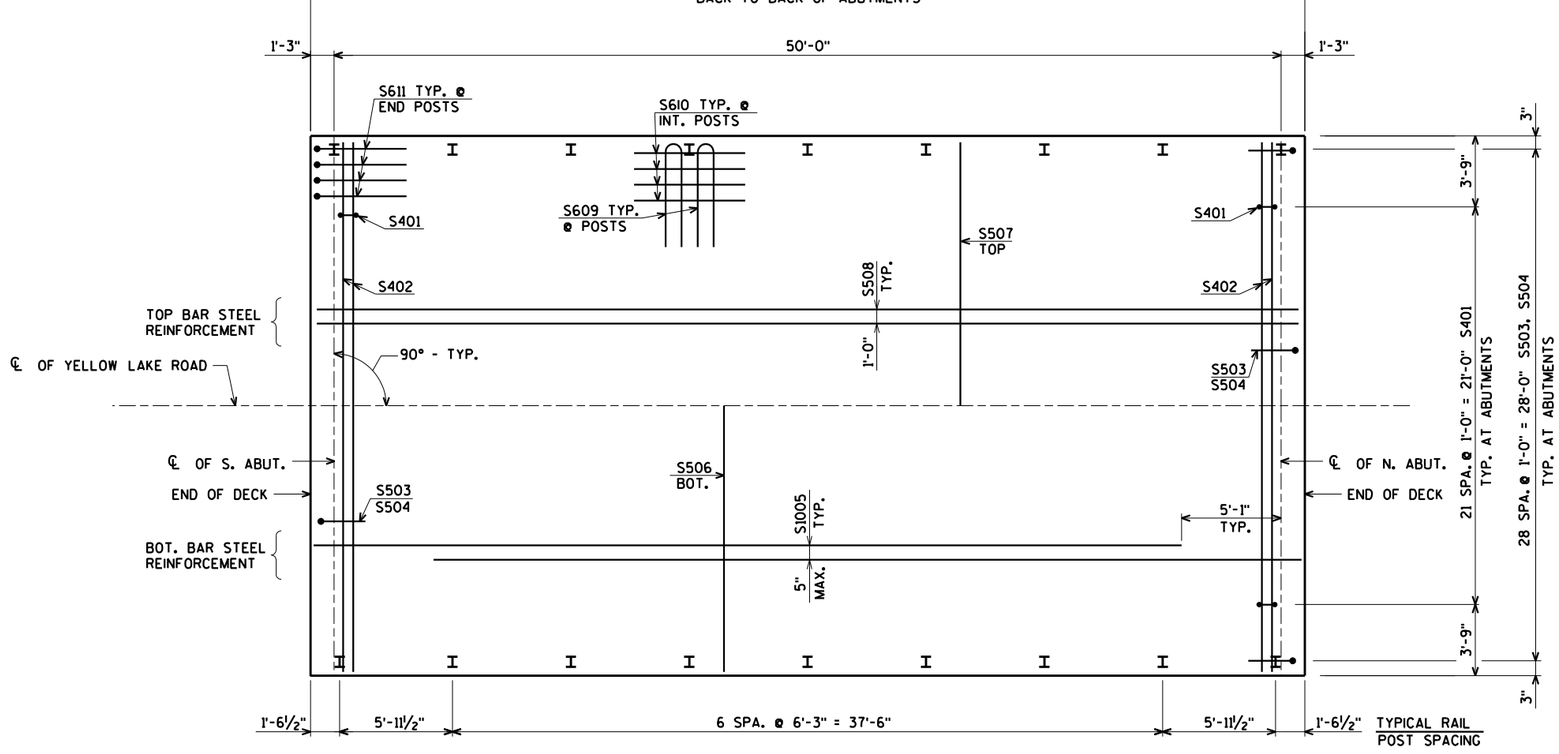


BUNDLING DETAIL

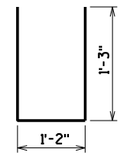
BILL OF BARS

BAR NO.	COATED BAR	NO. REQ'D.	LENGTH	BENT BAR	BUNDLED BAR	SERIES	21,490# COATED LOCATION
S401	X	44	3-6	X			SLAB @ ABUT. NOTCH
S402	X	4	21-8				SLAB @ ABUT. NOTCH
S503	X	58	6-6	X			SLAB @ ABUT.
S504	X	58	4-0	X			SLAB @ ABUT.
S1005	X	70	46-0		X		SLAB LONG. BOT.
S506	X	82	28-2				SLAB TRANS. BOT.
S507	X	53	28-2				SLAB TRANS. TOP
S508	X	29	52-2				SLAB LONG. TOP
S609	X	36	12-0	X			SLAB @ RAIL POSTS
S610	X	56	6-0				SLAB @ INT. RAIL POSTS
S611	X	16	6-0	X			SLAB @ END RAIL POSTS

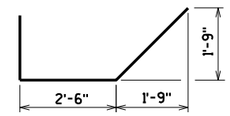
BENDING DIMENSIONS ARE OUT TO OUT OF BARS.



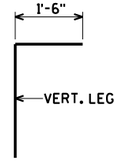
PLAN



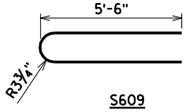
S401



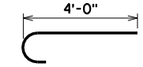
S503



S504



S609



S611

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-7-60

DRAWN BY CLP | PLANS CK'D. JCK

SUPERSTRUCTURE

SHEET 12 OF 14
42

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

10/25/2021
PENTABLE:BReau_shd_util.tbl

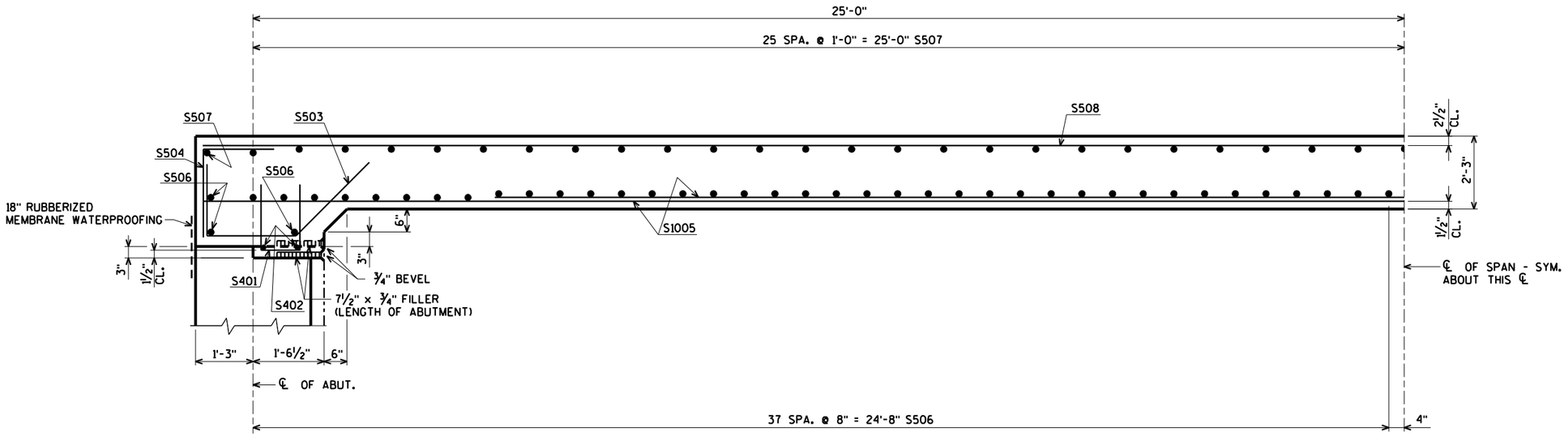
8

8

I:±42±42-1211.00 - Burnett Co, Tn Union, Yellow Lake Road±Structures±CADD±Final±421211 sup.dgn

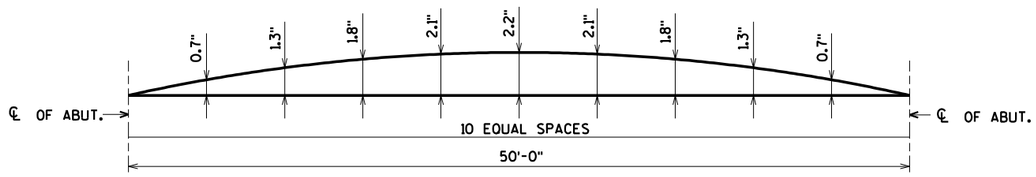
STATE PROJECT NUMBER

8377-00-70



FORMLINER
SEE DETAILS ON SHEET 6.

PART LONGITUDINAL SECTION



CAMBER DIAGRAM

CAMBER SPAN AS SHOWN TO PROVIDE FOR DEAD LOAD DEFLECTION & FUTURE CREEP. CAMBER DOES NOT INCLUDE ALLOWANCE FOR FORM SETTLEMENT.

CAMBER SHOWN IS BASED ON 3 TIMES DEAD LOAD DEFLECTION.

TO DETERMINE FALSEWORK ELEVATION AT EDGE OF SLAB, CROWN OR REFERENCE LINE, FOLLOW THIS PROCEDURE:

TOP OF SLAB ELEVATION AT FINAL GRADE
MINUS.... SLAB THICKNESS
PLUS..... CAMBER
PLUS..... FORM SETTLEMENT/DEFLECTION DUE TO PLACEMENT OF SLAB CONCRETE (TO BE COMPUTED BY THE CONTRACTOR)
EQUALS = TOP OF SLAB FLASEWORK ELEVATION

TOP OF SLAB ELEVATIONS

LOCATION	℄ OF W. ABUT.	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	℄ OF E. ABUT.
W. EDGE OF SLAB	937.63	937.72	937.80	937.85	937.88	937.89	937.88	937.85	937.80	937.73	937.63
℄ OF STRUCTURE	937.91	938.01	938.08	938.13	938.16	938.18	938.17	938.14	938.08	938.01	937.92
E. EDGE OF SLAB	937.63	937.72	937.80	937.85	937.88	937.89	937.88	937.85	937.80	937.73	937.63

ELEVATIONS SHOWN ARE FINISHED SLAB AND DO NOT INCLUDE ALLOWANCES OF DEAD LOAD DEFLECTION AND FUTURE CREEP.

SURVEY TOP OF SLAB ELEVATIONS

LOCATION	℄ OF S. ABUT.	5/10 PTS.	℄ OF N. ABUT.
W. EDGE OF SLAB			
℄ OF STRUCTURE			
E. EDGE OF SLAB			

PRIOR TO RELEASING SLAB FALSEWORK, TAKE TOP OF DECK ELEVATIONS AT THE ℄ OF ABUTMENTS AND AT 5/10 PTS. TO VERIFY CAMBER.
TAKE ELEVATIONS ALONG EDGE OF SLAB AND CROWN OR ℄.
RECORD THE ELEVATIONS IN THE ABOVE TABLE FOR THE "AS BUILT" PLANS.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-7-60

DRAWN BY CLP | PLANS CK'D. JCK

SUPERSTRUCTURE DETAILS

SHEET 13 OF 14
43

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

8

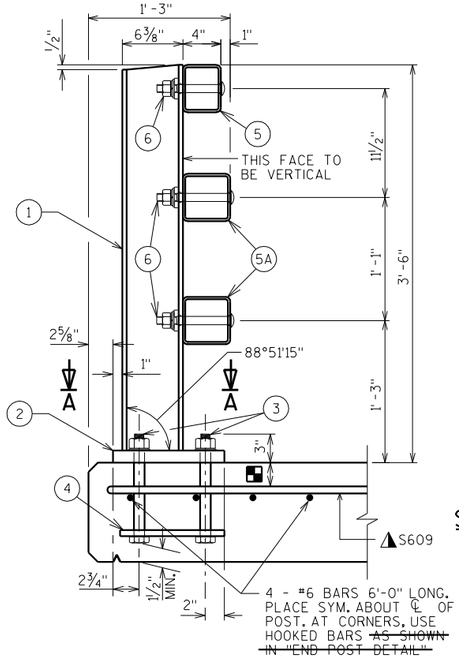
8

8/25/2021
PENTABLE:BReau_shd_util.tbl

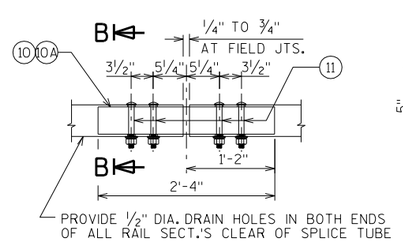
I:±42±42-1211.00 - Burnett Co, Tn Union, Yellow Lake Road±Structures±CADD±Final±421211sup.dgn

STATE PROJECT NUMBER

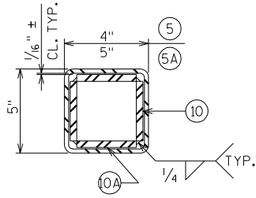
8377-00-70



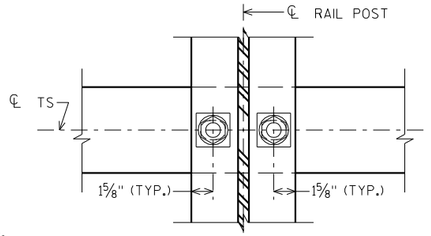
SECTION THRU RAILING ON SLAB



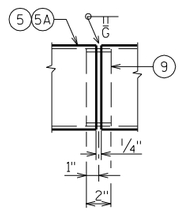
FIELD ERECTION JOINT DETAIL



SECTION B-B

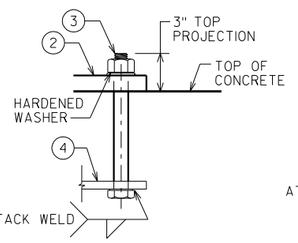


SECTION THRU POST WEB

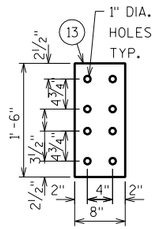


SHOP RAIL SPLICE DETAIL

LOCATION MUST BE SHOWN ON SHOP DRAWINGS

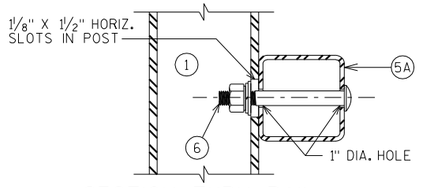


ANCHOR BOLTS



ANCHOR PLATE

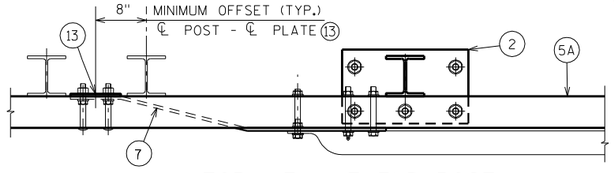
AT BEAM GUARD ATTACHMENT



SECTION THRU RAIL

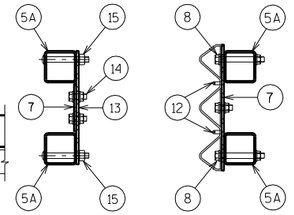
NOTE: CONNECTIONS AT LOWER RAILS SHOWN. CONNECTIONS AT TOP RAIL SIMILAR.

TYPICAL RAIL TO POST CONNECTIONS



TOP VIEW AT END POST

THRIE BEAM RAIL ATTACHMENT



SECTION C-C

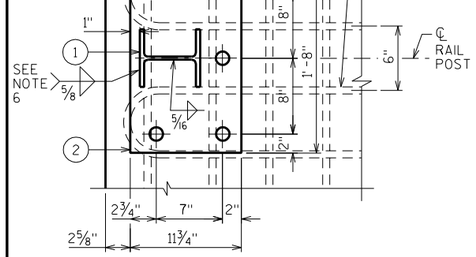
SECTION D-D

LEGEND

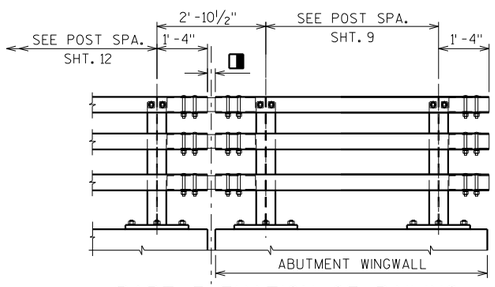
1. W6 x 25 WITH 1⅛" X 1½" HORIZ. SLOTS ON EACH SIDE OF POST FOR BOLT NO. 6. CUT BOTTOM OF POST TO MATCH CROSS SLOPE OF ROADWAY. PLACE POST VERTICAL. PLACE POSTS NORMAL TO GRADE LINE.
2. PLATE 1¼" x 11¾" x 1'-8" WITH 1 7/16" DIA. OVERSIZED HOLES FOR ANCHOR BOLTS NO. 3. WELD TO NO. 1 AS SHOWN.
3. ASTM A449 - 1⅛" DIA. ANCHOR BOLTS WITH NUT AND HARDENED WASHER (ALL GALVANIZED). 5 REQ'D. PER POST. THREAD 3" AND PLACE NORMAL TO PLATE NO. 2. CHAMFER TOP OF BOLTS BEFORE THREADING. USE 1'-9" LONG IN ABUTMENT WINGS. AT POSTS ON CONCRETE SLAB SUPERSTRUCTURES WHERE THE SLAB THICKNESS IS > 16" USE 1'-3" LONG. ~~USE 10¾" LONG AT ALL OTHER LOCATIONS.~~ (AN EQUIVALENT THREADED ROD WITH NUTS AND HARDENED WASHERS MAY BE SUBSTITUTED FOR ANCHOR BOLTS IN WINGS IF REQ'D. FOR CONSTRUCTABILITY.)
4. ⅝" x 11" x 1'-8" ANCHOR PLATE (GALVANIZED) WITH 1 3/16" DIA. HOLES FOR ANCHOR BOLTS NO. 3
5. TS 5 x 4 x 0.25 STRUCTURAL TUBING. ATTACH TO NO. 1 WITH NO. 6.
5A. TS 5 x 5 x 0.25 STRUCTURAL TUBING. ATTACH TO NO. 1 WITH NO. 6.
6. ⅞" DIA. A325 SLOTTED ROUND HEAD BOLT WITH NUT, 3/16" X 1⅝" X 1⅝" MIN. WASHER, AND LOCK WASHER (2 REQ'D. AT EACH RAIL TO POST LOCATION.)
7. ½" THK. BACK-UP PLATE WITH 2 - ⅞" X 1½" THREADED SHOP WELDED STUDS (NO. 12). BOLT TO RAIL AS SHOWN IN DETAIL. REQUIRED AT WINGS 1, 2, AND 4 ONLY. PLACE SYMMETRICALLY ABOUT TUBES NO. 5A.
8. 1" DIA. HOLES IN PLATE NO. 7 & TUBES NO. 5A FOR ⅞" DIA. A325 BOLTS WITH HEX NUTS AND WASHERS. 6 HOLES IN TUBES AND PLATE NO. 7.
9. SPLICE SLEEVE FABRICATED FROM ¼" PLATE. PROVIDE "SLIDING FIT".
10. ⅜" X 3⅝" X 2'-4" PLATE. 2 PER RAIL. USED IN NO. 5 & 5A.
10A. ⅜" X 2⅝" X 2'-4" PLATE USED IN NO. 5, ⅜" X 3⅝" X 2'-4" PLATE USED IN NO. 5A. 2 PER RAIL.
11. ⅞" DIA. A325 ROUND HEAD BOLT WITH NUT, WASHER, AND LOCK WASHER. USE 15/16" X 1¼" LONGIT. SLOTTED HOLES AT FIELD JOINTS ~~AND 15/16" X 2¼" MIN. LONGIT. SLOTTED HOLES AT EXP. JOINTS~~ IN PLATE NO. 10A.
12. ⅞" DIA. X 1½" LONG THREADED SHOP WELDED STUDS (2 REQ'D).
13. ¾" X 8" X 1'-6" PLATE. BOLT TO RAIL AS SHOWN IN DETAIL. REQ'D. AT THRIE BEAM GUARD RAIL ATTACHMENTS ONLY. PLACE SYM. ABOUT TUBES NO. 5A.
14. ⅞" DIA. X 2" LONG A325 HEX BOLT WITH NUT AND WASHER (5 REQ'D.).
15. 1" DIA. HOLES IN TUBES NO. 5A FOR ⅞" DIA. A325 ROUND HEAD BOLT WITH NUT, WASHER AND LOCK WASHER (4 REQ'D.). 4 HOLES IN TUBES.

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 ⅛ TURN.
4. RAILS SHALL BE CONTINUOUS OVER A MINIMUM OF THREE (3) POSTS WITHOUT SPLICES WHERE POSSIBLE. ~~RAILS SHALL BE SPLICED IN A PANEL OVER EXPANSION JOINTS.~~
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 SSPC SPECIFICATIONS.
10. PROVIDE SPLICE TUBES FOR AT END OF RAILING AT THE END OF WING 3.

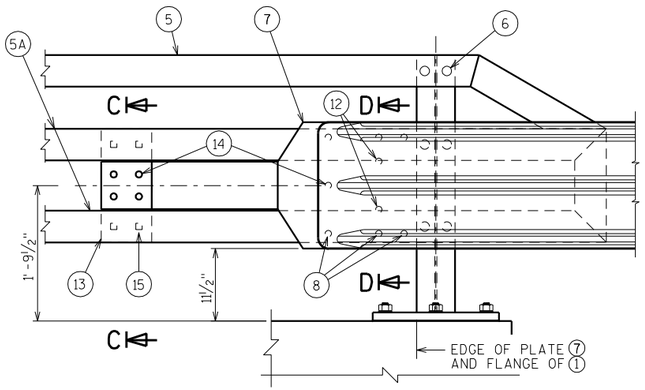


SECTION A-A



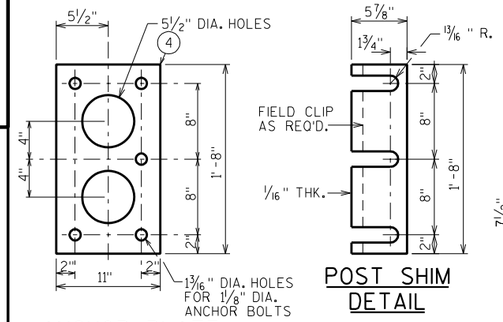
PART ELEVATION OF RAILING

AT WING 3



DETAIL AT END POST

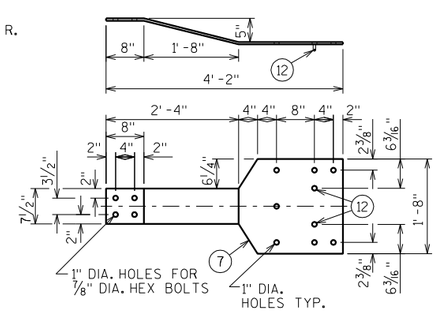
THRIE BEAM RAIL ATTACHMENT



ANCHOR PLATE

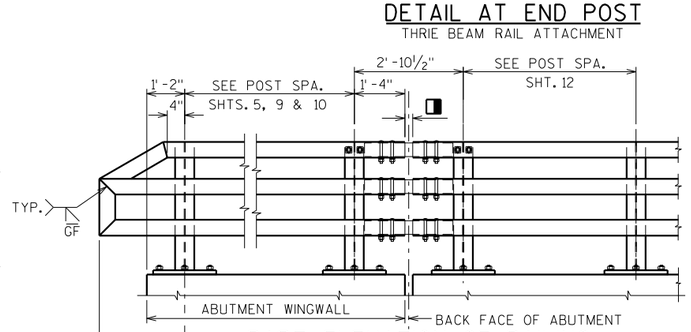
AT RAIL TO SLAB CONNECTION

POST SHIM DETAIL



BACK-UP PLATE DETAIL

AT BEAM GUARD ATTACHMENT



PART ELEVATION OF RAILING

WING 2 AND WING 4 SHOWN, WING 1 SIMILAR

◨ ¼" TO ¾" OPENING AT A1 ABUTMENTS.

⚠ TIE TO TOP MAT OF STEEL.

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

◨ PLACE BELOW TOP MAT SLAB REINFORCEMENT

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-7-60

DRAWN BY CLP | PLANS CK'D. JCK

TUBULAR STEEL RAILING TYPE 'M'

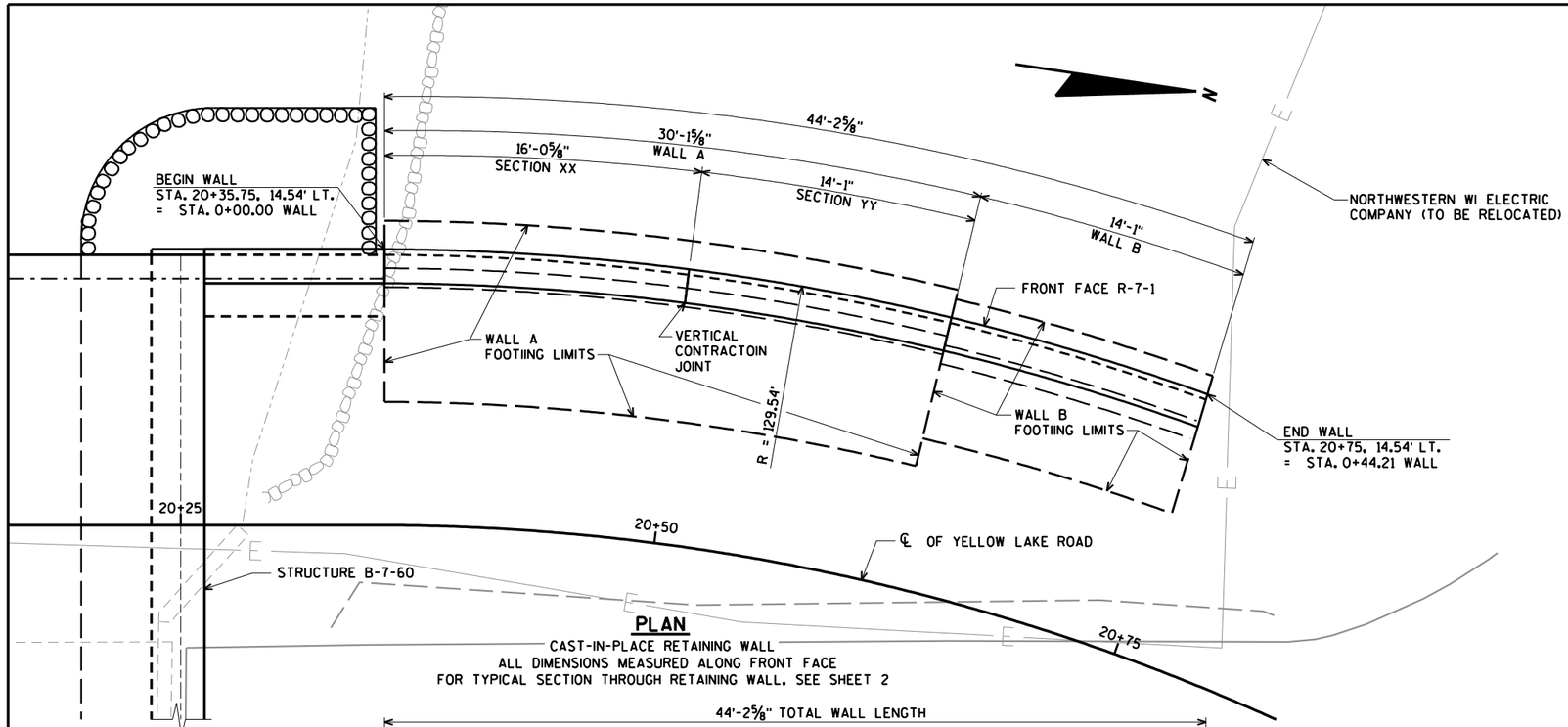
SHEET 14 OF 14

44

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

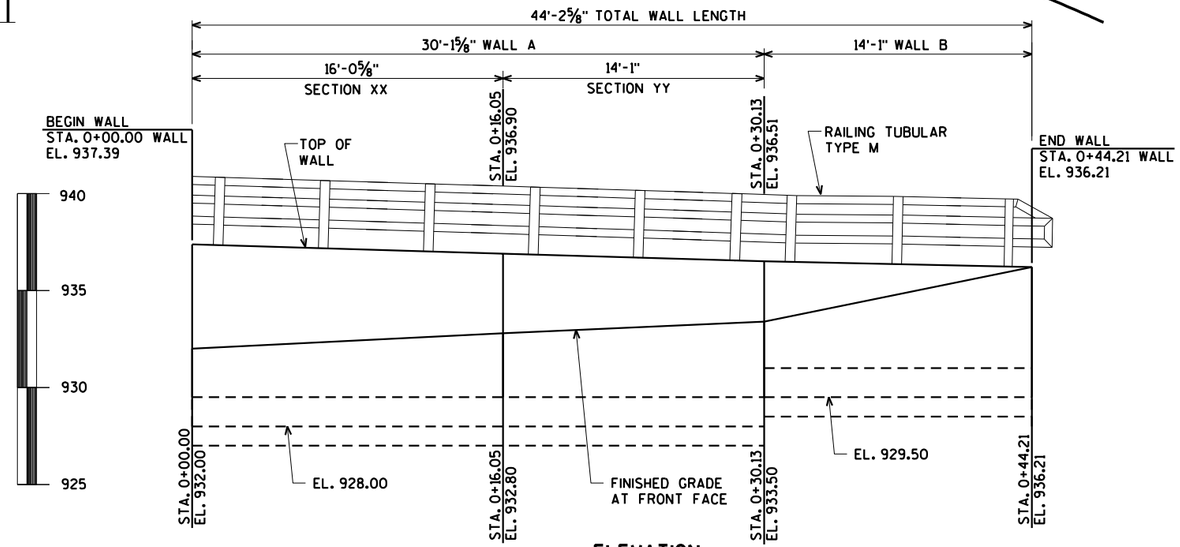
STATE PROJECT NUMBER

8377-00-70



PLAN

CAST-IN-PLACE RETAINING WALL
ALL DIMENSIONS MEASURED ALONG FRONT FACE
FOR TYPICAL SECTION THROUGH RETAINING WALL, SEE SHEET 2



ELEVATION

(LOOKING AT BACK FACE OF WALL)
ALL DIMENSIONS MEASURED ALONG FRONT FACE

TOTAL ESTIMATED QUANTITIES

ITEM NUMBER	BID ITEMS	TOTAL	CATEGORY 20	CATEGORY 30
206.3000	EXCAVATION FOR STRUCTURES RETAINING WALLS R-7-1	1 LS	1 LS	--- LS
210.1500	BACKFILL STRUCTURE TYPE A	370 TON	370 TON	--- TON
504.0500	CONCRETE MASONRY RETAINING WALLS	45 CY	45 CY	--- CY
505.0400	BAR STEEL REINFORCEMENT HS STRUCTURES	1,870 LB	1,870 LB	--- LB
505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	3,240 LB	3,240 LB	--- LB
513.4061	RAILING TUBULAR TYPE M	45 LF	45 LF	--- LF
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	4 SY	4 SY	--- SY
517.1015.S	CONCRETE STAINING MULTI-COLOR R-7-1	210 SF	--- SF	210 SF
517.1050.S	ARCHITECTURAL SURFACE TREATMENT R-7-1	210 SF	--- SF	210 SF
612.0406	PIPE UNDERDRAIN WRAPPED 6-INCH	60 LF	60 LF	--- LF

GEOMETRY TABLE

WALL STATION	ROADWAY STATION	OFFSET TO F.F. WALL	TOP OF WALL EL. AT F.F.	TOP OF WALL EL. AT B.F.	FINISHED GRADE EL.
0+00.00	20+35.75	14.54'	937.36	937.39	932.00
0+16.05	20+50.00	14.54'	936.87	936.90	932.80
0+30.13	20+62.50	14.54'	936.48	936.51	933.50
0+44.21	20+75.00	14.54'	936.18	936.21	936.21

LIST OF DRAWINGS

1. RETAINING WALL LAYOUT
2. RETAINING WALL DETAILS
3. WALL A DETAILS
4. WALL B DETAILS
5. WALL DETAILS & BILL OF BARS
6. TUBULAR STEEL RAILING TYPE 'M'
7. SUBSURFACE EXPLORATION

FOR GENERAL NOTES AND DESIGN DATA SEE SHEET 2

DANIEL N. SYDOW E-38363 WI PROFESSIONAL ENGINEER

11/01/2021

BRIDGE OFFICE CONTACT:
AARON BONK
(608)-261-0261

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

NO.	DATE	REVISION	BY

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

ACCEPTED SDR 12/06/21
CHIEF STRUCTURES DESIGN ENGINEER DATE

STRUCTURE R-7-1

RETAINING WALL ALONG YELLOW LAKE ROAD

COUNTY	TOWN ~~CITY/VILLAGE~~
BURNETT	UNION

DESIGN SPEC.
AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS

DESIGNED BY	DESIGN CK'D.	DRAWN BY	PLANS CK'D.
JLB	JCK	ZSS	DNS

RETAINING WALL LAYOUT

SHEET 1 OF 7
45

I.D.

DATE:

DATE:
DATE:
DATE:
DATE:

10/28/2021
PENTABLE:BReau_shd_util.tbl

8

8

I:±42±42-1211.00 - Burnett Co, Tn Union, Yellow Lake Road±Structures±CADD±Wall±421211 gp wall.dgn

10/28/2021
PENTABLE:BReau_shd_util.tbl

SOIL PARAMETERS

SOIL DESCRIPTION	FRICTION ANGLE ϕ	MOIST UNIT WEIGHT	COHESION, c_u	NET FACTORED BEARING RESISTANCE
GRANULAR BACKFILL	30°	120 pcf	0 psf	3,500 psf
FOUNDATION SOILS	30°	120 pcf	0 psf	3,500 psf

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.
BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2" CLEAR UNLESS SHOWN OR NOTED OTHERWISE.
THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE.
JOINT FILLER SHALL CONFORM TO THE REQUIREMENTS OF A.A.S.H.T.O. DESIGNATION M 153, TYPE I, II OR III OR A.A.S.H.T.O. DESIGNATION M 213.
AT THE BACK FACE OF THE RETAINING WALL ALL SPACES EXCAVATED AND NOT OCCUPIED BY THE NEW STRUCTURE SHALL BE BACKFILLED WITH BACKFILL STRUCTURE.
THE UPPER LIMITS OF "EXCAVATION FOR STRUCTURES RETAINING WALLS R-7-1" SHALL BE THE EXISTING GROUND.
THE BACKFILL QUANTITIES ARE BASED ON THE PAY LIMITS SHOWN ON THE PLANS AND MAY NOT REFLECT ACTUAL PLACED QUANTITIES. "BACKFILL STRUCTURE TYPE A" REQUIRED FOR THE ENTIRE WALL LENGTH. BACKFILL PLACED BEYOND PAY LIMITS OR EXCEEDING PLAN QUANTITIES SHALL BE INCIDENTAL TO EXCAVATION FOR STRUCTURES.

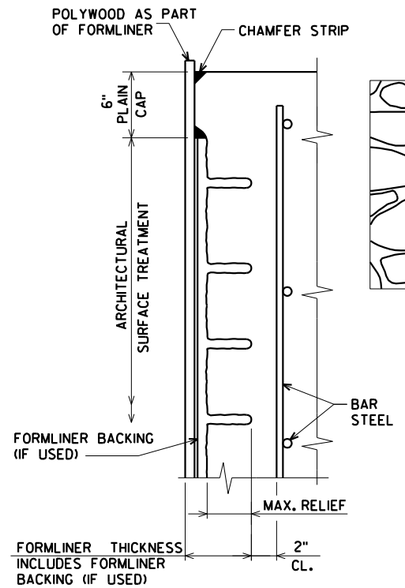
DESIGN DATA

LIVE LOAD:
80 psf SURCHARGE

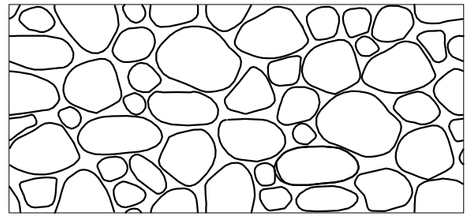
MATERIAL PROPERTIES:
CONCRETE MASONRY ——— f'_c = 3,500 p.s.i.
HIGH STRENGTH BAR STEEL REINFORCEMENT (GRADE 60) ——— f_y = 60,000 p.s.i.

FOUNDATION DATA:
RETAINING WALL TO BE SUPPORTED ON MATERIAL WITH A MINIMUM NET FACTORED BEARING RESISTANCE OF 3,500 psf. A GEOTECHNICAL ENGINEER WILL DETERMINE THE FACTORED BEARING RESISTANCE BY VISUAL INSPECTION PRIOR TO CONSTRUCTION OF THE RETAINING WALL FOOTING.

TRAFFIC DATA:
A.A.D.T. = 350 (2022)
A.A.D.T = 475 (2042)
R.D.S. = 20 MPH



SECTION THRU FORMLINER



FIELD STONE - RANDOM

FORMLINER THICKNESS = 3½"
SIZES BETWEEN 6" & 24"
MAX. RELIEF = 2½"

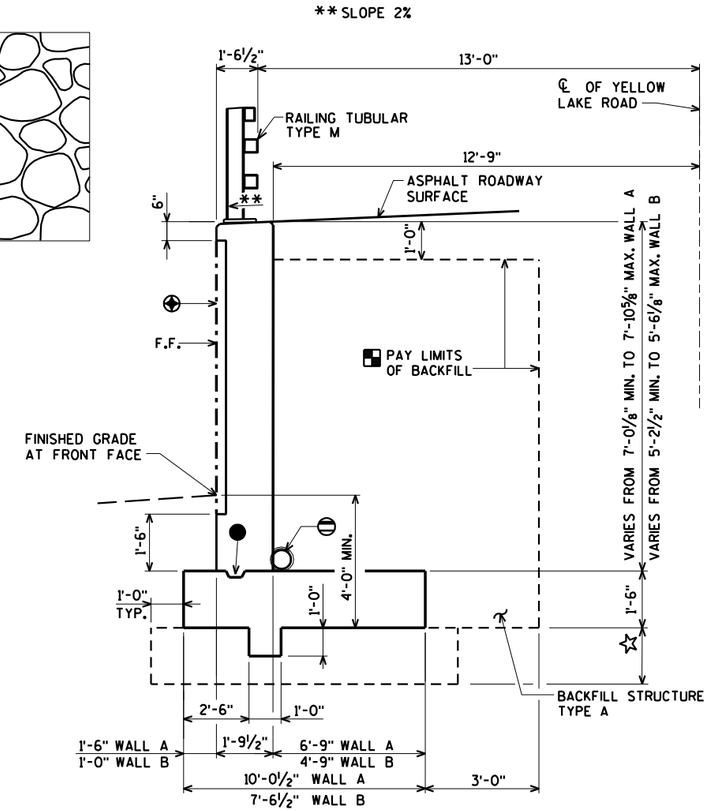
RETAINING WALL NOTES

FORMLINER COURSING ON RETAINING WALLS SHALL BE LEVEL.

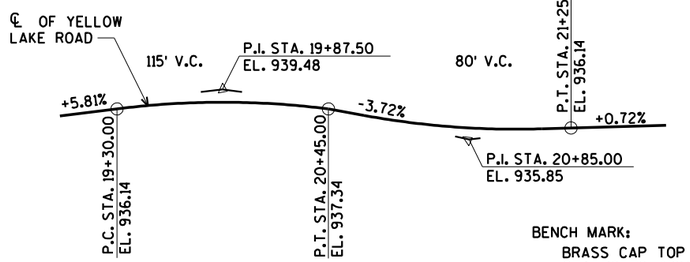
THE FORMLINER COURSING ON THE WALLS SHALL BE VERTICALLY ALIGNED WITH THE FORMLINER COURSING ON THE FRONT OF THE ADJACENT WINGWALL.

THE FORMLINER PATTERN SHALL BE CONTINUOUS ACROSS CONSTRUCTION JOINTS.

WRAPAROUND/MATCH FORMLINER PATTERN AT CORNERS.

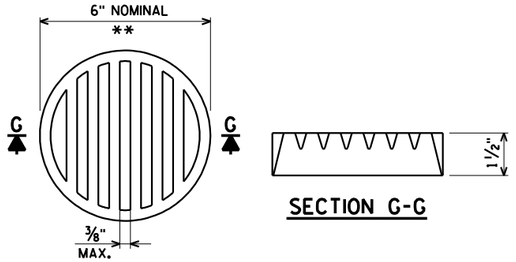


TYPICAL SECTION THRU RETAINING WALL



BENCH MARK:
BRASS CAP TOP OF SW WING
STA. 19+79, 4.8' LT.
EL. 935.66

PROFILE GRADE LINE
(YELLOW LAKE ROAD)



SECTION G-G

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

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

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

RODENT SHIELD DETAIL

- ARCHITECTURAL SURFACE TREATMENT
- KEYED CONST. JOINT - FORMED BY A BEVELED 2" x 6".
- BACKFILL LIMITS. BACKFILL BEYOND BACKFILL LIMITS SHALL BE INCIDENTAL TO EXCAVATION FOR STRUCTURES. LIMITS OF EXCAVATION SHALL BE DETERMINED BY THE CONTRACTOR.
- PIPE UNDERDRAIN WRAPPED 6-INCH. SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. ATTACH RODENT SHIELD AT ENDS OF PIPE UNDERDRAIN AS DETAILED ON THIS SHEET.
- ☆ UNDER CUT 5'-1" MIN. AT WALL A. UNDER CUT 3'-10" MIN. AT WALL B. EXCAVATION FOR UNDER CUT TO BE INCLUDED IN EXCAVATION FOR STRUCTURES. BACKFILL WITH "BACKFILL STRUCTURE TYPE A".

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE R-7-1

DRAWN BY ZSS | PLANS CK'D. JCK

RETAINING WALL DETAILS

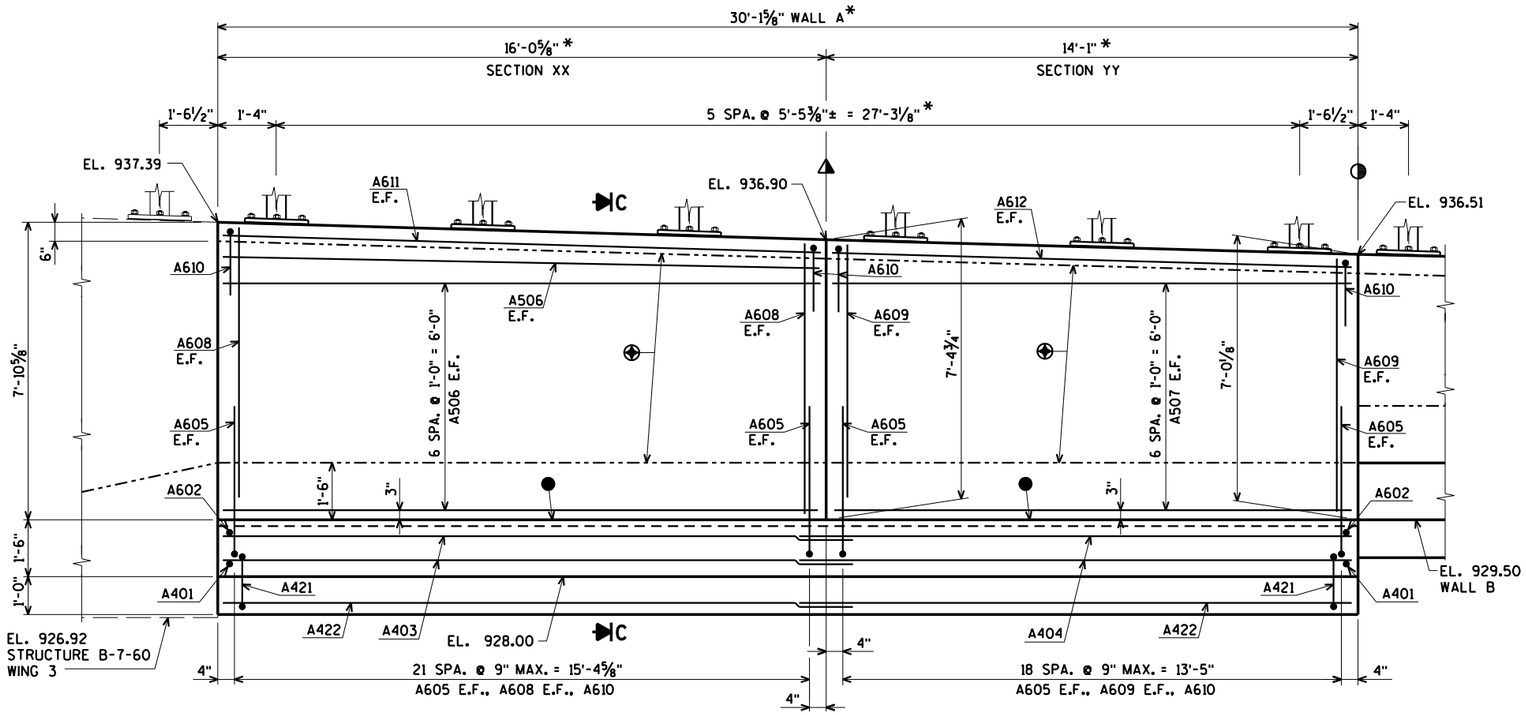
SHEET 2 OF 7
46

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

I:±42±42-1211.00 - Burnett Co, Tn Union, Yellow Lake Road±Structures±CADD±Wall±421211 gp wall.dgn

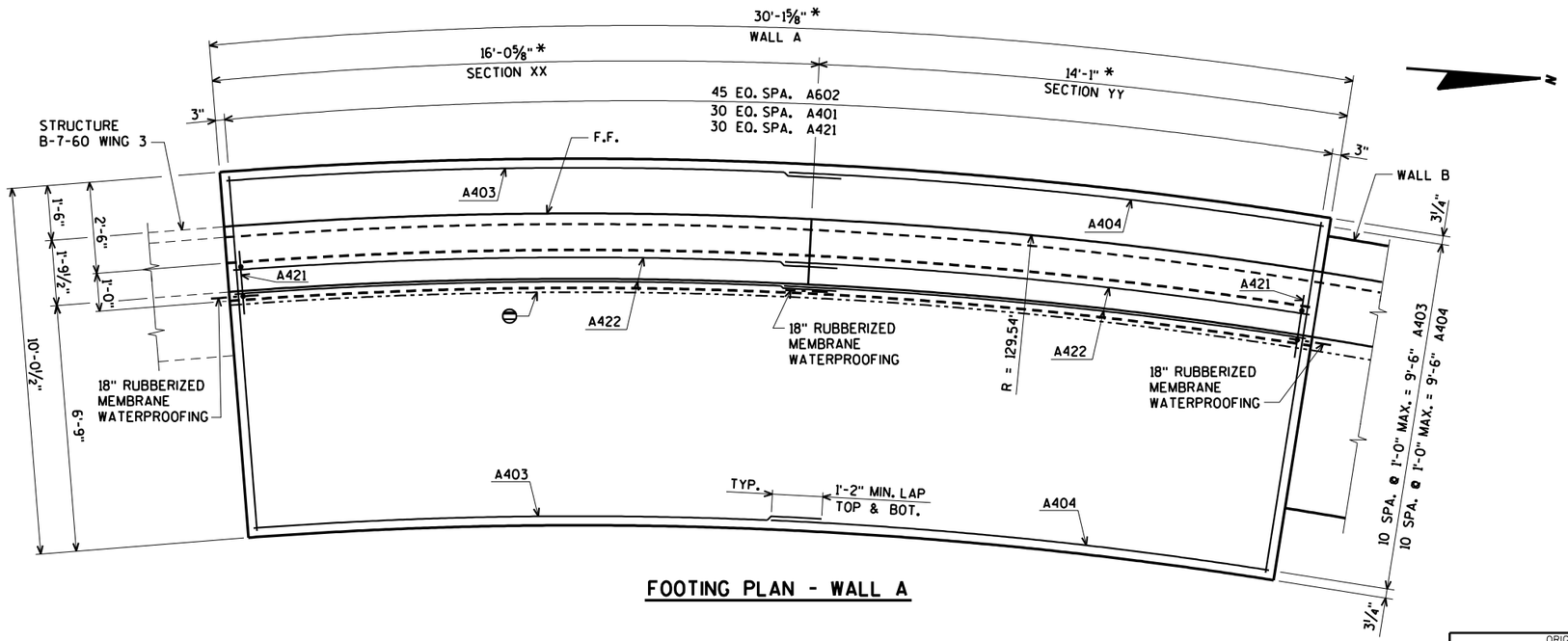
STATE PROJECT NUMBER

8377-00-70



ELEVATION - WALL A

LOOKING AT BACK FACE OF WALL



FOOTING PLAN - WALL A

FOR SECTION 'C' SEE SHEET 5.

⊖ PIPE UNDERDRAIN WRAPPED 6-INCH. SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. ATTACH RODENT SHIELD AT ENDS OF PIPE UNDERDRAIN AS DETAILED ON SHEET 2. RODENT SHIELD TO BE INCIDENTAL TO BID PRICE OF "PIPE UNDERDRAIN WRAPPED 6-INCH".

◑ DENOTES VERTICAL EXPANSION JOINT. SEE DETAIL ON SHEET 5.

◭ DENOTES VERTICAL CONTRACTION JOINT. SEE DETAIL ON SHEET 5.

● CONST. JOINT FORMED BY SURFACED BEVELED 2" x 6".

⊕ FORMLINER LIMITS AT FRONT FACE. SEE DETAILS ON SHEET 2.

* DIMENSIONS SHOWN ARE ALONG THE FRONT FACE OF RETAINING WALL.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE R-7-1

DRAWN BY CLP | PLANS CK'D. JCK

WALL A DETAILS

SHEET 3 OF 7
47

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

8

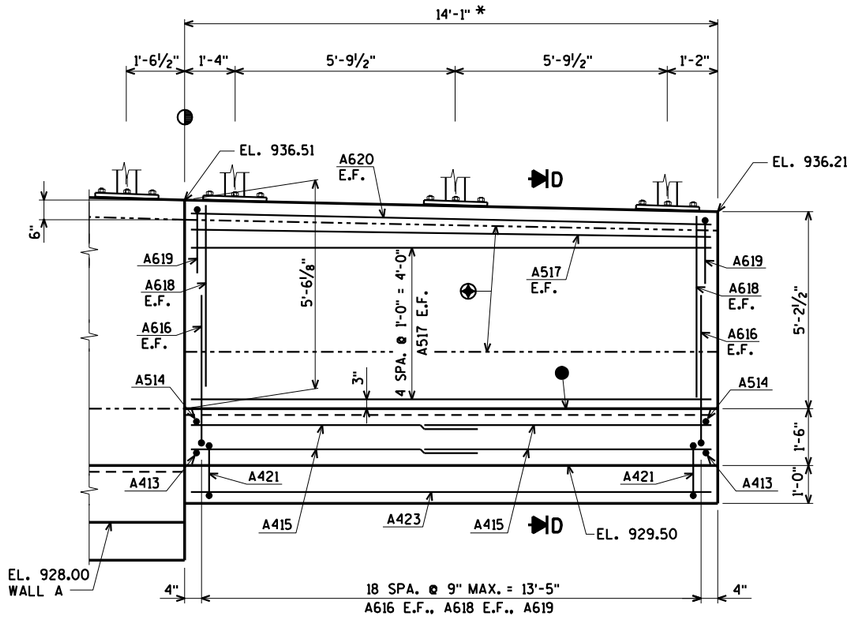
8

10/27/2021
PENTABLE:BReau_shd_util.tbl

I:±42±42-1211.00 - Burnett Co, Tn Union, Yellow Lake Road±Structures±CADD±Wall±421211 wall.dgn

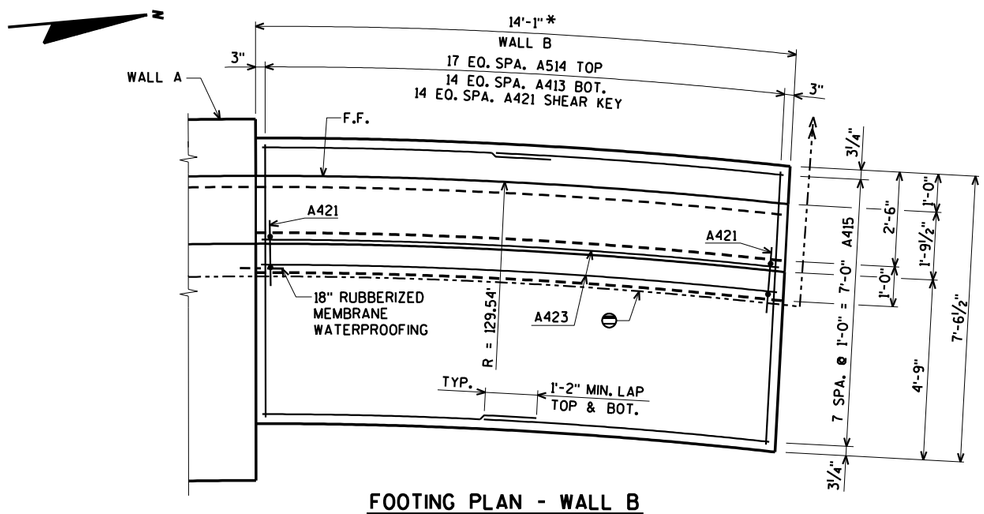
STATE PROJECT NUMBER

8377-00-70



ELEVATION - WALL B

LOOKING AT BACK FACE OF WALL



FOOTING PLAN - WALL B

FOR SECTION 'D' SEE SHEET 5.

⊖ PIPE UNDERDRAIN WRAPPED 6-INCH. SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. ATTACH RODENT SHIELD AT ENDS OF PIPE UNDERDRAIN AS DETAILED ON SHEET 2. RODENT SHIELD TO BE INCIDENTAL TO BID PRICE OF "PIPE UNDERDRAIN WRAPPED 6-INCH".

◑ DENOTES VERTICAL EXPANSION JOINT. SEE DETAIL ON SHEET 5.

● CONST. JOINT FORMED BY SURFACED BEVELED 2" x 6".

⊕ FORMLINER LIMITS AT FRONT FACE. SEE DETAILS ON SHEET 2.

* DIMENSIONS SHOWN ARE ALONG THE FRONT FACE OF RETAINING WALL.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE R-7-1

DRAWN BY CLP | PLANS CK'D. JCK

WALL B DETAILS

SHEET 4 OF 7
48

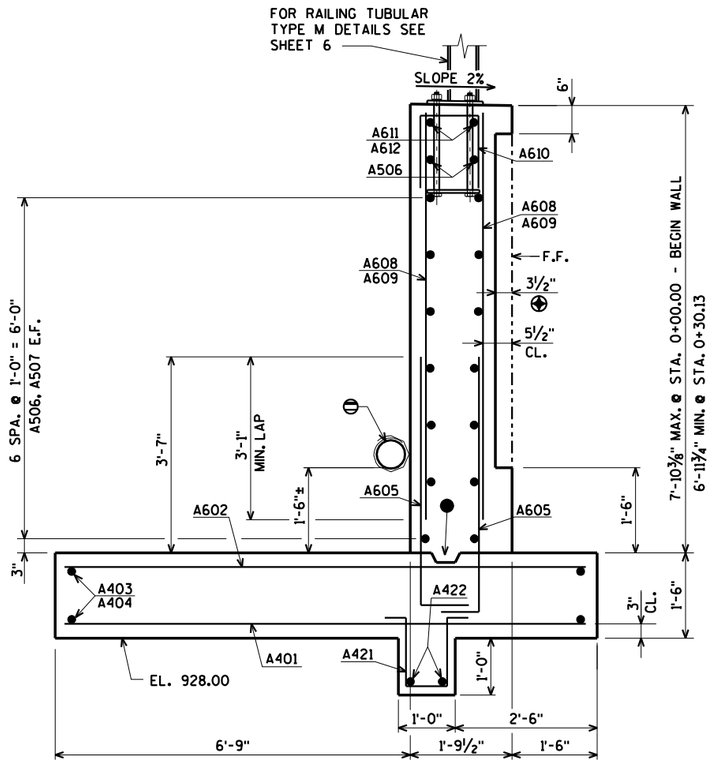
ORIGINAL PLANS PREPARED BY
AYRES
3433 Oakwood Hills Parkway
Eau Claire, WI 54701
www.AyresAssociates.com

10/27/2021
PENTABLE:BReau_shd_util.tbl

I:±42±42-1211.00 - Burnett Co, Tn Union, Yellow Lake Road±Structures±CADD±Wall±421211 wall.dgn

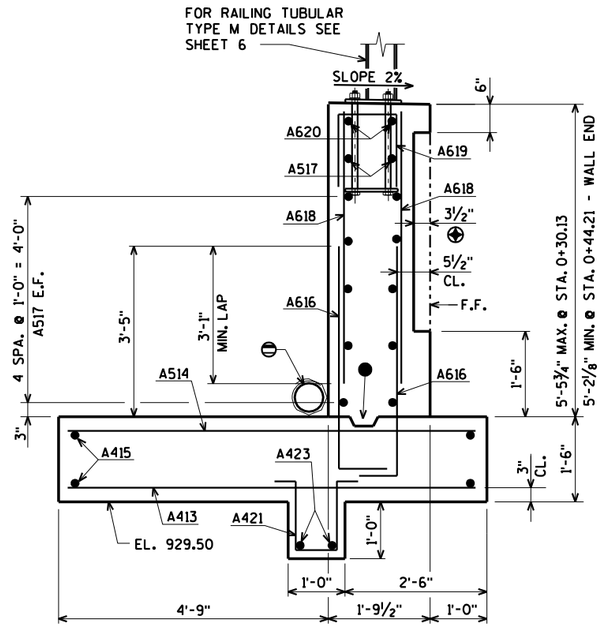
STATE PROJECT NUMBER

8377-00-70



SECTION C

FOR LOCATION OF SECTION 'C' SEE SHEET 3



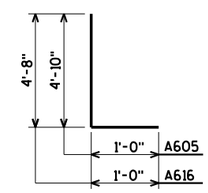
SECTION D

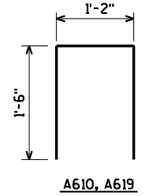
FOR LOCATION OF SECTION 'D' SEE SHEET 4

BILL OF BARS

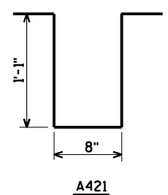
BAR NO.	COATED BAR	NO. REQ'D.	LENGTH	BENT BAR	BUNDLED BAR SERIES	3,240# COATED 1,870# UNCOATED LOCATION
A401		31	9-8			WALL FOOTING BOT. WALL A
A602		46	9-8			WALL FOOTING TOP WALL A
A403		22	16-8			WALL FOOTING TOP & BOT. WALL A SECTION XX
A404		22	14-8			WALL FOOTING TOP & BOT. WALL A SECTION YY
A605	X	82	5-8	X		WALL DOWELS E.F. WALL A
A506	X	16	15-8			WALL HORIZ. E.F. WALL A SECTION XX
A507	X	14	13-8			WALL HORIZ. E.F. WALL A SECTION YY
A608	X	44	7-1			WALL VERT. E.F. WALL A SECTION XX
A609	X	38	6-7			WALL VERT. E.F. WALL A SECTION YY
A610	X	41	3-10	X		WALL VERT. TOP WALL A
A611	X	2	15-8			WALL HORIZ. TOP E.F. WALL A SECTION XX
A612	X	2	13-8			WALL HORIZ. TOP E.F. WALL A SECTION YY
A413		15	7-2			WALL FOOTING BOT. WALL B
A514		18	7-2			WALL FOOTING TOP WALL B
A415		32	7-7			WALL FOOTING TOP & BOT. WALL B
A616	X	38	5-6	X		WALL DOWELS E.F. WALL B
A517	X	12	13-8			WALL HORIZ. E.F. WALL B
A618	X	38	4-11			WALL VERT. E.F. WALL B
A619	X	19	3-10	X		WALL VERT. TOP WALL B
A620	X	2	13-8			WALL HORIZ. TOP E.F. WALL B
A421		46	3-10	X		FOOTING SHEAR KEY VERT.
A422		4	15-8	X		WALL A SHEAR KEY HORIZ.
A423		2	13-6	X		WALL B SHEAR KEY HORIZ.

BENDING DIMENSIONS ARE OUT TO OUT OF BARS.

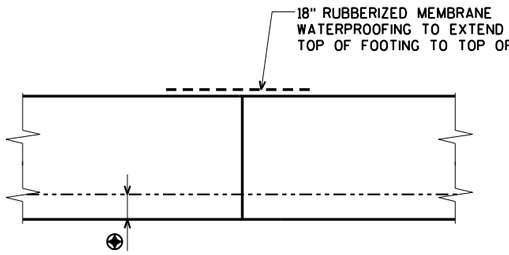




A610, A619

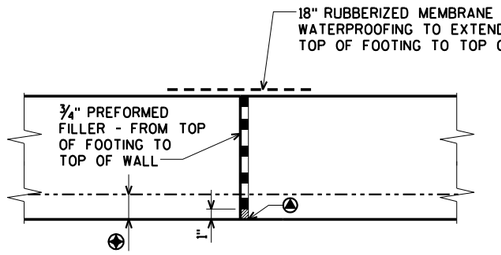


A421



VERTICAL CONTRACTION JOINT DETAIL

DO NOT RUN ANY BAR STEEL THRU JOINT



VERTICAL EXPANSION JOINT DETAIL

DO NOT RUN ANY BAR STEEL THRU JOINT

● CONST. JOINT FORMED BY SURFACED BEVELED 2" x 6".

⊕ FORMLINER
SEE DETAILS ON SHEET 2.

⊖ PIPE UNDERDRAIN WRAPPED 6-INCH. SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. ATTACH RODENT SHIELD AT ENDS OF PIPE UNDERDRAIN AS DETAILED ON SHEET 2. RODENT SHIELD TO BE INCIDENTAL TO BID PRICE OF "PIPE UNDERDRAIN WRAPPED 6-INCH".

▲ FILL WITH NON-STAINING GRAY SINGLE COMPONENT NON-BITUMINOUS JOINT SEALER. FROM 1'-0" BELOW GROUND LINE TO TOP OF WALL.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE R-7-1

DRAWN BY CLP | PLANS CK'D. JCK

WALL DETAILS & BILL OF BARS

SHEET 5 OF 7
49

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

8

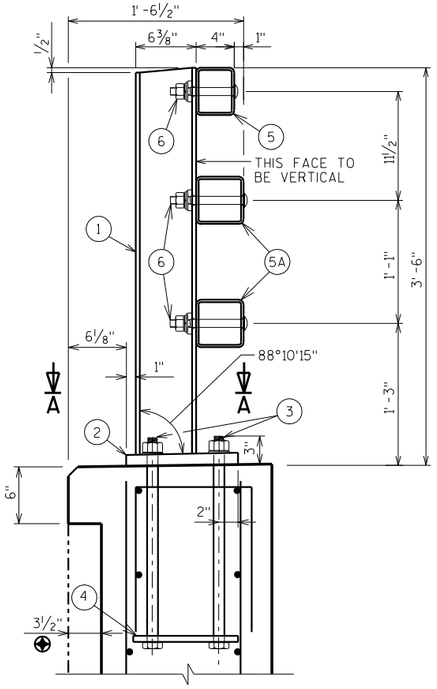
8

10/28/2021
PENTABLE:BReau_shd_util.tbl

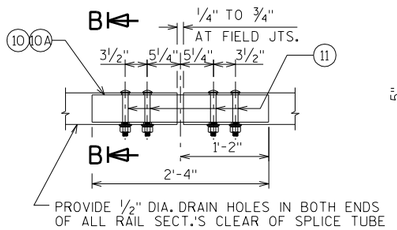
I:±42±42-1211.00 - Burnett Co, Tn Union, Yellow Lake Road±Structures±CADD±Wall±421211 wall.dgn

STATE PROJECT NUMBER

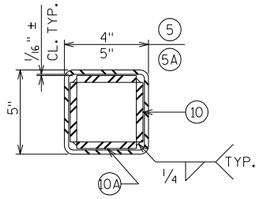
8377-00-70



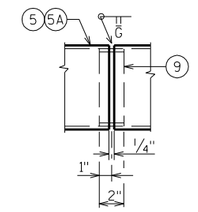
SECTION THRU RAILING ON RETAINNG WALL



FIELD ERECTION JOINT DETAIL

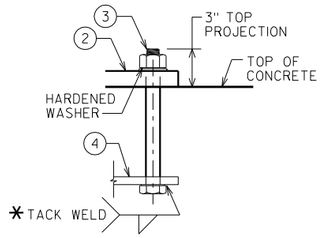


SECTION B-B

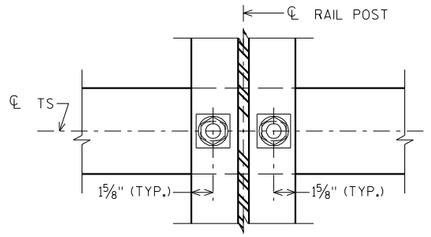


SHOP RAIL SPLICE DETAIL

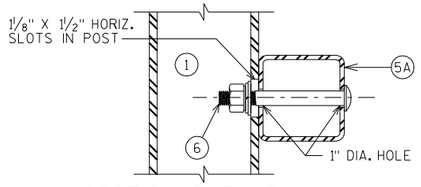
LOCATION MUST BE SHOWN ON SHOP DRAWINGS



ANCHOR BOLTS



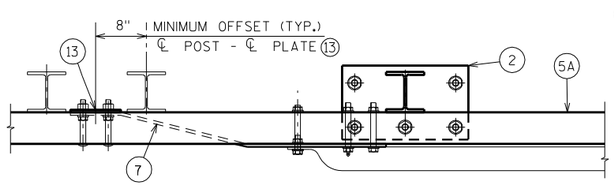
SECTION THRU POST WEB



SECTION THRU RAIL

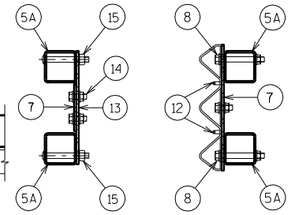
NOTE: CONNECTIONS AT LOWER RAILS SHOWN. CONNECTIONS AT TOP RAIL SIMILAR.

TYPICAL RAIL TO POST CONNECTIONS



TOP VIEW AT END POST

THRIE BEAM RAIL ATTACHMENT



SECTION C-C

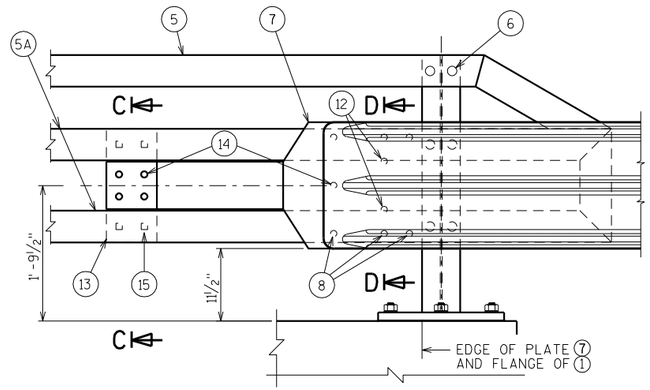
SECTION D-D

LEGEND

1. W6 x 25 WITH 1 1/8" X 1 1/2" HORIZ. SLOTS ON EACH SIDE OF POST FOR BOLT NO. 6. CUT BOTTOM OF POST TO MATCH CROSS SLOPE OF ROADWAY. PLACE POST VERTICAL. PLACE POSTS NORMAL TO GRADE LINE.
2. PLATE 1 1/4" x 11 3/4" x 1'-8" WITH 1 7/16" 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. USE 1'-9" LONG ~~IN ABUTMENT WINGS. AT POSTS ON CONCRETE SLAB SUPERSTRUCTURES WHERE THE SLAB THICKNESS IS > 16" USE 1'-3" LONG. USE 10 3/4" LONG AT ALL OTHER LOCATIONS.~~ (AN EQUIVALENT THREADED ROD WITH NUTS AND HARDENED WASHERS MAY BE SUBSTITUTED FOR ANCHOR BOLTS IN WINGS IF REQ'D. FOR CONSTRUCTABILITY.)
4. 5/8" x 11" x 1'-8" ANCHOR PLATE (GALVANIZED) WITH 1 3/16" DIA. HOLES FOR ANCHOR BOLTS NO. 3
5. TS 5 x 4 x 0.25 STRUCTURAL TUBING. ATTACH TO NO. 1 WITH NO. 6.
5A. TS 5 x 5 x 0.25 STRUCTURAL TUBING. ATTACH TO NO. 1 WITH NO. 6.
6. 7/8" DIA. A325 SLOTTED ROUND HEAD BOLT WITH NUT, 3/16" X 1 5/8" X 1 5/8" MIN. WASHER, AND LOCK WASHER (2 REQ'D. AT EACH RAIL TO POST LOCATION.)
7. 1/2" THK. BACK-UP PLATE WITH 2 - 7/8" X 1 1/2" THREADED SHOP WELDED STUDS (NO. 12). BOLT TO RAIL AS SHOWN IN DETAIL. REQUIRED AT THRIE BEAM GUARD RAIL ATTACHMENTS ONLY. PLACE SYMMETRICALLY ABOUT TUBES NO. 5A.
8. 1" DIA. HOLES IN PLATE NO. 7 & TUBES NO. 5A FOR 7/8" DIA. A325 BOLTS WITH HEX NUTS AND WASHERS. 6 HOLES IN TUBES AND PLATE NO. 7.
9. SPLICE SLEEVE FABRICATED FROM 1/4" PLATE. PROVIDE "SLIDING FIT".
10. 3/8" X 3 5/8" X 2'-4" PLATE. 2 PER RAIL. USED IN NO. 5 & 5A.
10A. 3/8" X 2 5/8" X 2'-4" PLATE USED IN NO. 5, 3/8" X 3 5/8" X 2'-4" PLATE USED IN NO. 5A. 2 PER RAIL.
11. 7/8" DIA. A325 ROUND HEAD BOLT WITH NUT, WASHER, AND LOCK WASHER. USE 15/16" X 1 1/4" LONGIT. SLOTTED HOLES AT FIELD JOINTS ~~AND 15/16" X 2 1/4" MIN. LONGIT. SLOTTED HOLES AT EXP. JOINTS~~ IN PLATE NO. 10A.
12. 7/8" DIA. X 1 1/2" LONG THREADED SHOP WELDED STUDS (2 REQ'D).
13. 3/4" X 8" X 1'-6" PLATE. BOLT TO RAIL AS SHOWN IN DETAIL. REQ'D. AT THRIE BEAM GUARD RAIL ATTACHMENTS ONLY. PLACE SYM. ABOUT TUBES NO. 5A.
14. 7/8" DIA. X 2" LONG A325 HEX BOLT WITH NUT AND WASHER (5 REQ'D.).
15. 1" DIA. HOLES IN TUBES NO. 5A FOR 7/8" DIA. A325 ROUND HEAD BOLT WITH NUT, WASHER AND LOCK WASHER (4 REQ'D.). 4 HOLES IN TUBES.

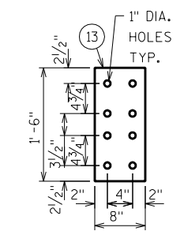
GENERAL NOTES

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. ~~RAILS SHALL BE SPLICED IN A PANEL OVER EXPANSION JOINTS.~~
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 SSPC SPECIFICATIONS.
10. PROVIDE SPLICE TUBES FOR AT END OF RAILING AT THE END OF WING 3.



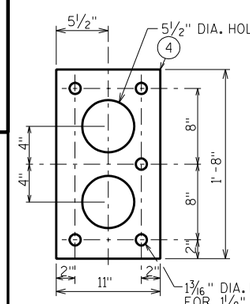
DETAIL AT END POST

THRIE BEAM RAIL ATTACHMENT



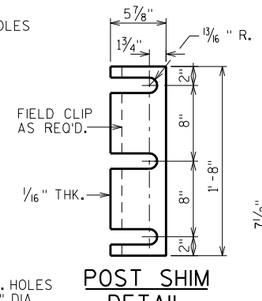
ANCHOR PLATE

AT BEAM GUARD ATTACHMENT

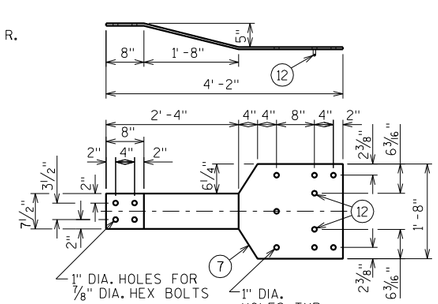


ANCHOR PLATE

AT RAIL TO WALL CONNECTION

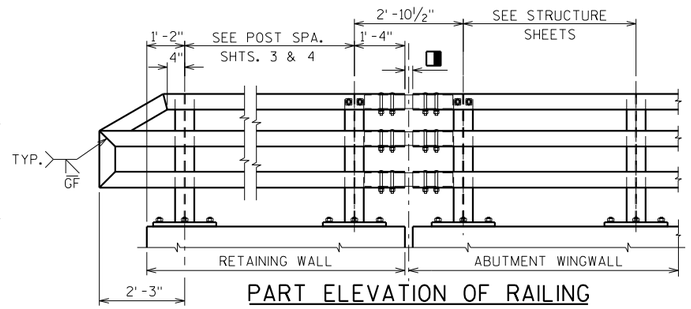


POST SHIM DETAIL



BACK-UP PLATE DETAIL

AT BEAM GUARD ATTACHMENT



PART ELEVATION OF RAILING

FORMLINER
SEE DETAILS ON SHEET 2.

1/4" TO 3/4" OPENING.

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

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE R-7-1

DRAWN BY CLP | PLANS CK'D. JCK

TUBULAR STEEL RAILING TYPE 'M'

SHEET 6 OF 7
50

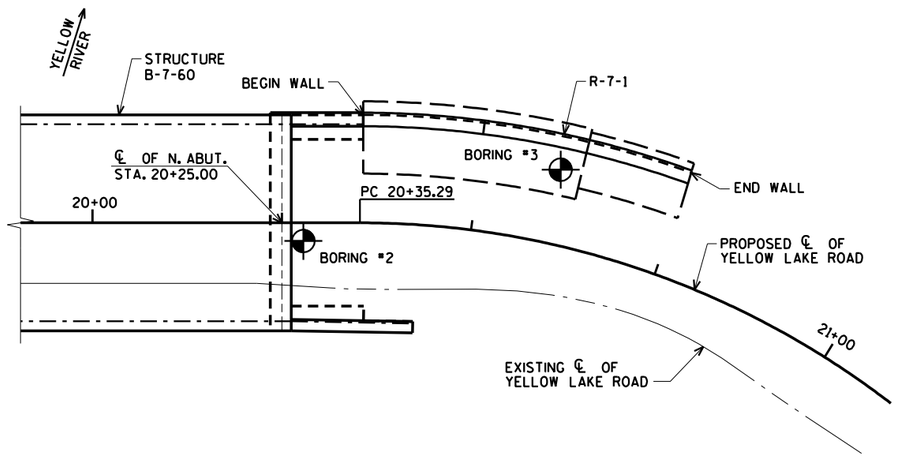
ORIGINAL PLANS PREPARED BY

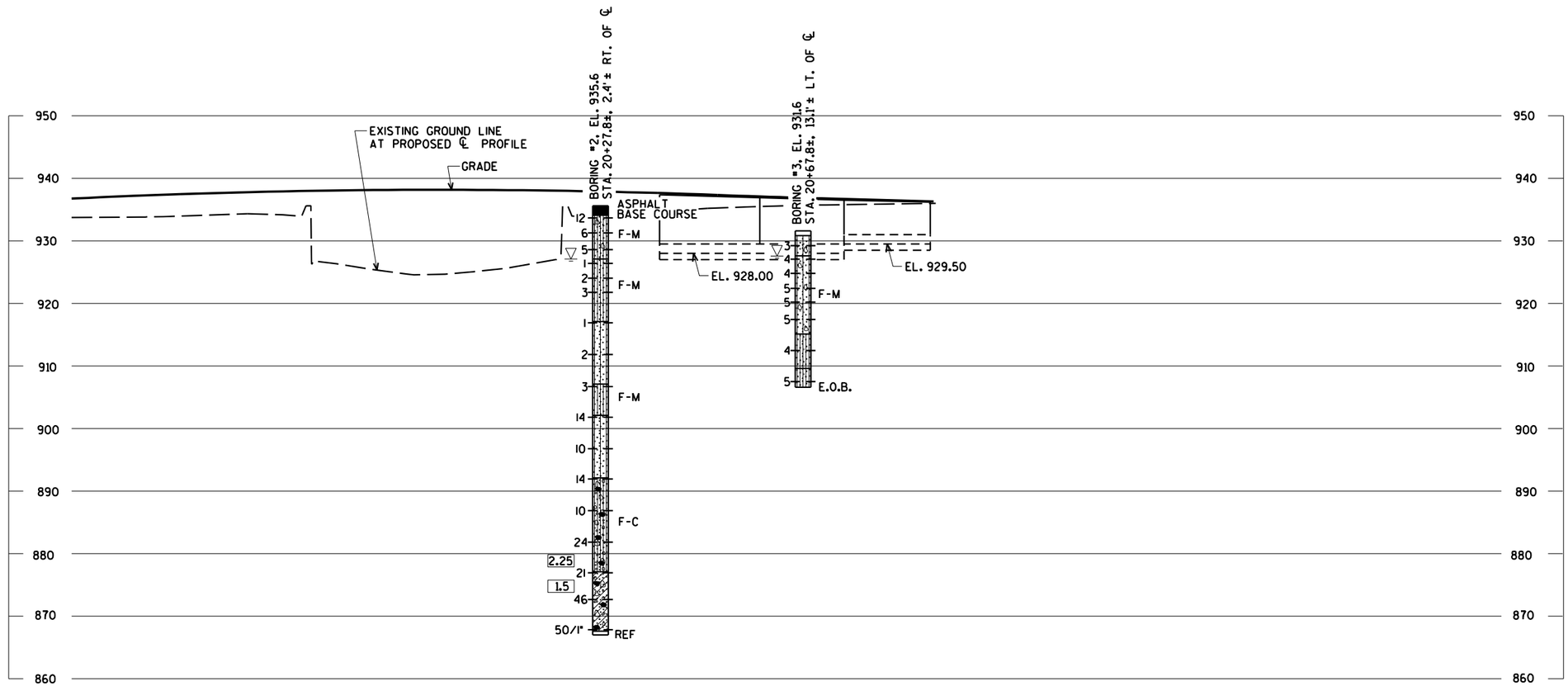
AYRES 3433 Oakwood Hills Parkway Eau Claire, WI 54701 www.AyresAssociates.com

8

8

BORING #	DATE COMPLETED	NORTHING (Y)	EASTING (X)
2	JANUARY 12, 2021	205607.32	219317.91
3	SEPTEMBER 21, 2021	205648.43	219301.24
BORINGS COMPLETED BY: ECS MIDWEST, LLC			
REPORT COMPLETED BY: ECS MIDWEST, LLC			
ALL COORDINATES REFERENCED TO WCCS NAD 83(91) BURNETT COUNTY			





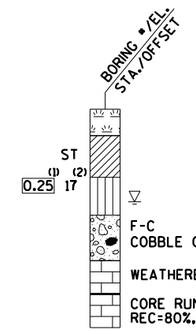
STATE PROJECT NUMBER

8377-00-70

MATERIAL SYMBOLS

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

LEGEND OF BORING



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

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

GROUND WATER ELEVATION

▽ AT TIME OF DRILLING

▼ END OF DRILLING

▽ AFTER DRILLING

ABBREVIATIONS

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

SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

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

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE R-7-1

DRAWN BY ZSS | PLANS CK'D. JCK

SUBSURFACE EXPLORATION

SHEET 7 OF 7

51

10/28/2021
PENTABLE:BReau_shd_util.tbl

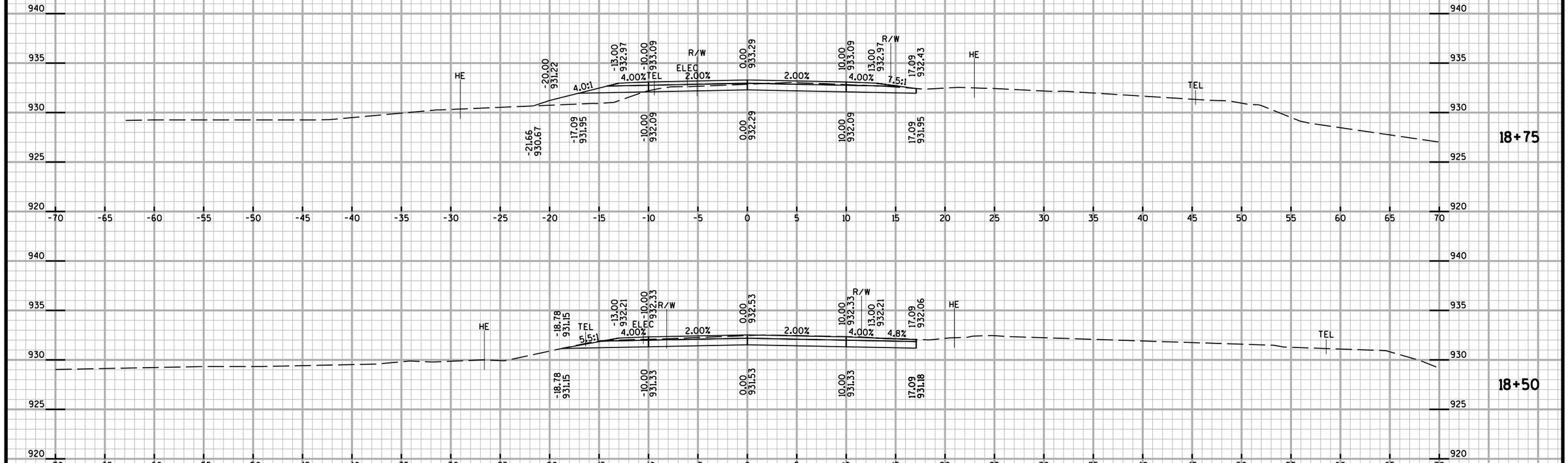
I:\42\42-1211.00 - Burnett Co, Tn Union, Yellow Lake Road\Structures\CADD\Wall\421211 soil wall.dgn

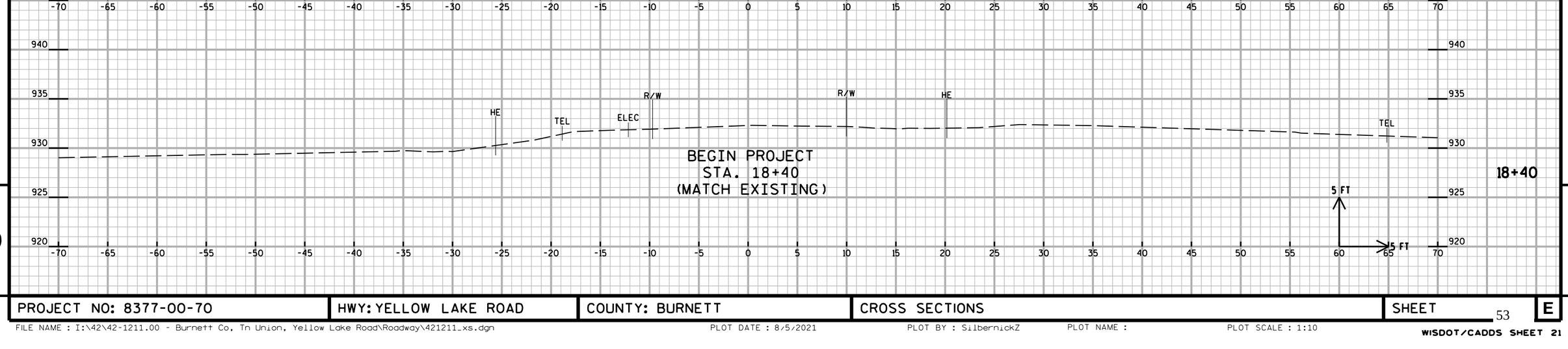
YELLOW LAKE ROAD COMPUTER EARTHWORK

Station	Distance	Area (SF)			Incremental Vol (CY) (Unadjusted)			Cumulative Vol (CY)		
		Cut	Unuseable Pavement Material	Fill	Cut	Salvaged / Unuseable Pavement Material	Fill	Cut 1.00	Expanded Fill 1.30	Mass Ordinate
					Note 1	Note 4	Note 2	Note 5		Note 3
18+40	--	34.5	0.0	0.0						
18+50	10.00	30.3	0.0	0.0	12	0	0	12	0	12
18+75	25.00	16.5	0.0	8.0	22	0	4	34	5	29
19+00	25.00	0.0	0.0	39.1	8	0	22	42	34	8
19+25	25.00	0.0	0.0	135.6	0	0	81	42	139	-97
19+50	25.00	0.0	0.0	98.8	0	0	109	42	281	-239
19+73.75	23.75	0.0	0.0	98.8	0	0	87	42	394	-352
B-7-60	--	--	--	--	--	--	--	--	--	--
20+26.25	--	0.0	0.0	35.9	--	--	--	--	--	--
20+50	23.75	0.0	0.0	35.9	0	0	32	42	436	-394
20+75	25.00	10.5	0.0	11.3	5	0	22	47	465	-418
21+00	25.00	28.4	0.0	0.0	18	0	5	65	471	-406
21+25	25.00	33.4	0.0	0.0	29	0	0	94	471	-377
					94	0	362			

Note 1 - Cut	Cut includes existing asphalt pavement.
Note 2 - Fill	Volume needed to be filled.
Note 3 - Mass Ordinate	(Cut) - (Fill * 1.30)
Note 4 - Salvaged / Unuseable Pavement Material	Existing asphalt pavement to be removed from Cut.
Note 5 - Cut	Cut reduced by salvaged/unuseable asphaltic pavement

STA. 18+40 TO 18+75





9

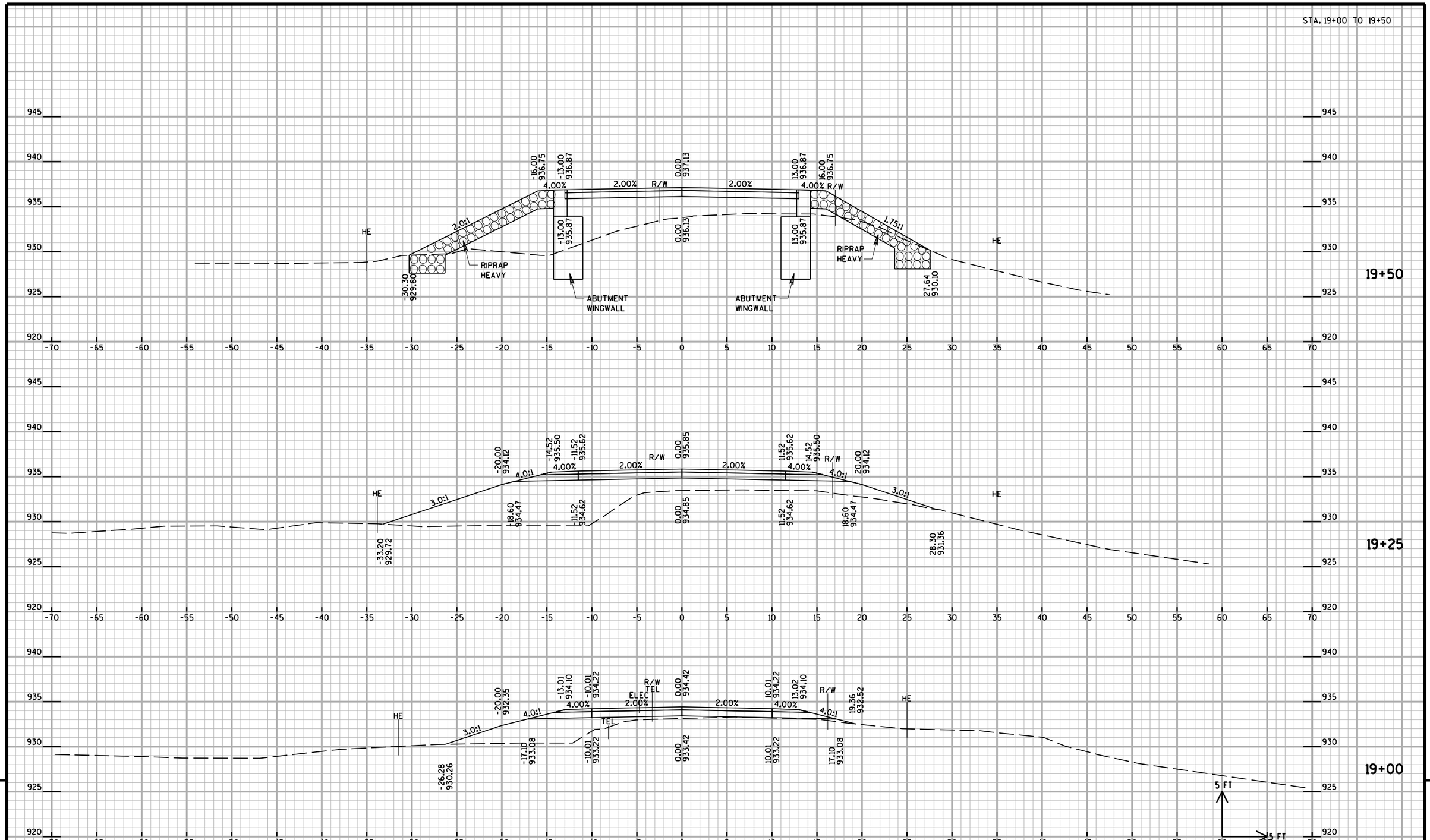
9

PROJECT NO: 8377-00-70	HWY: YELLOW LAKE ROAD	COUNTY: BURNETT	CROSS SECTIONS	SHEET	E

FILE NAME : I:\42\42-1211.00 - Burnett Co, Tn Union, Yellow Lake Road\Roadway\421211_xs.dgn PLOT DATE : 8/5/2021 PLOT BY : SilbernickZ PLOT NAME : PLOT SCALE : 1:10

WISDOT/CADDS SHEET 21

STA. 19+00 TO 19+50

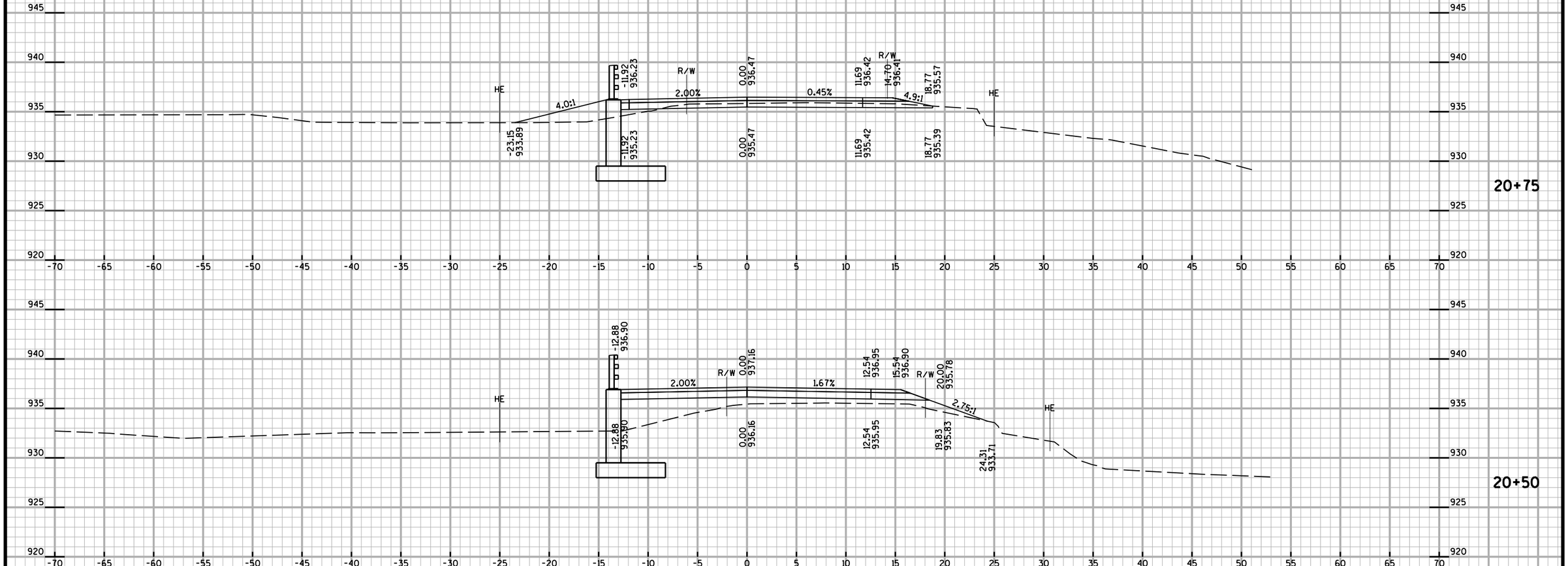


PROJECT NO: 8377-00-70	HWY: YELLOW LAKE ROAD	COUNTY: BURNETT	CROSS SECTIONS	SHEET	E

FILE NAME : I:\42\42-1211.00 - Burnett Co, Tn Union, Yellow Lake Road\Roadway\421211_xs.dgn PLOT DATE : 8/5/2021 PLOT BY : SilbernickZ PLOT NAME : PLOT SCALE : 1:10

WISDOT/CADDS SHEET 21

STA. 20+50 TO 20+75



STRUCTURE B-7-60

5 FT
5 FT

9

9

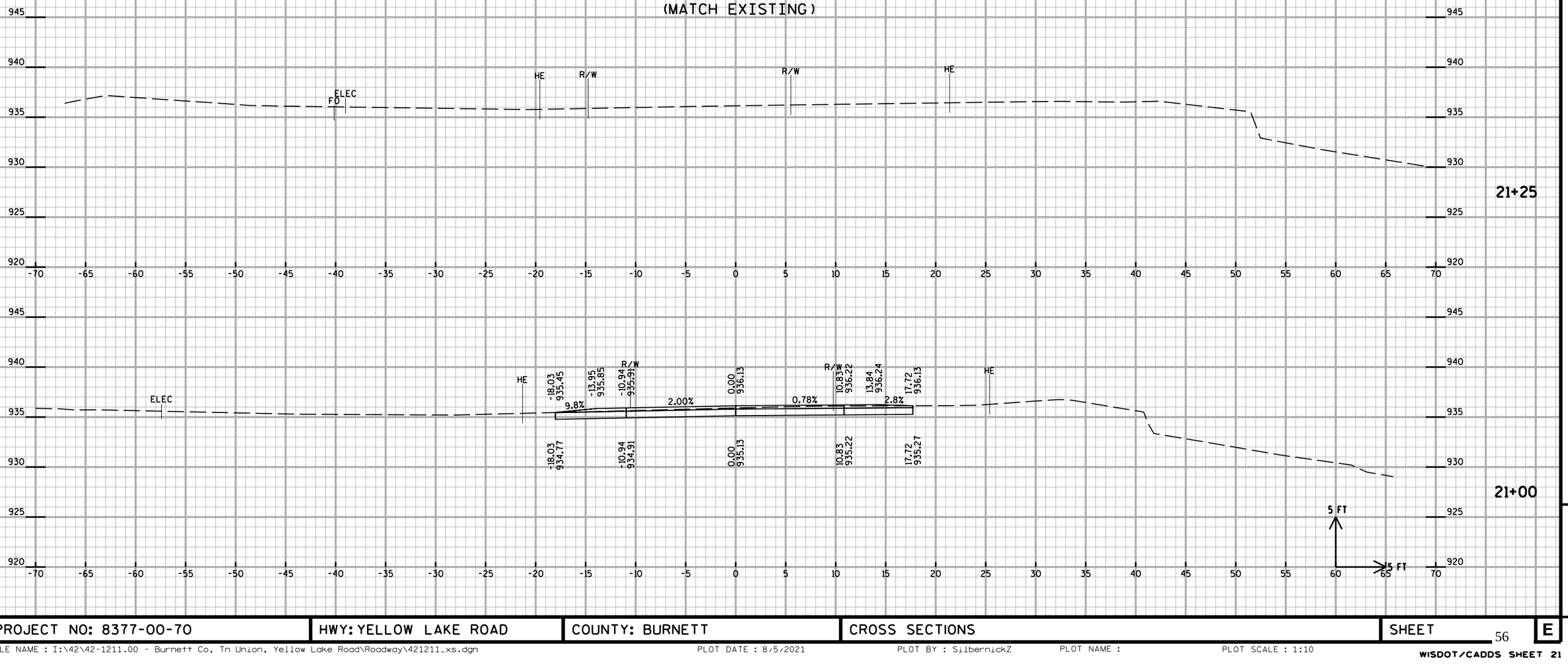
PROJECT NO: 8377-00-70	HWY: YELLOW LAKE ROAD	COUNTY: BURNETT	CROSS SECTIONS	SHEET	E

FILE NAME : I:\42\42-1211.00 - Burnett Co, Tn Union, Yellow Lake Road\Roadway\421211_xs.dgn PLOT DATE : 8/5/2021 PLOT BY : SilbernickZ PLOT NAME : PLOT SCALE : 1:10

WISDOT/CADDS SHEET 21

STA. 21+00 TO 21+25

END PROJECT
STA. 21+25
(MATCH EXISTING)



PROJECT NO: 8377-00-70	HWY: YELLOW LAKE ROAD	COUNTY: BURNETT	CROSS SECTIONS	SHEET	E

FILE NAME : I:\42\42-1211.00 - Burnett Co, Tn Union, Yellow Lake Road\Roadway\421211_xs.dgn PLOT DATE : 8/5/2021 PLOT BY : SilbernickZ PLOT NAME : PLOT SCALE : 1:10

WISDOT/CADDS SHEET 21

Notes

Wisconsin Department of Transportation

Dedicated people creating transportation solutions
through innovation and exceptional service.

http://www.dot.wisconsin.gov