EAU

NOVEMBER 2021

PROJECT ID: 7905-00-70

WITH: N/A

COUNTY: EAU CLAIRE

ORDER OF SHEETS

36

N

DESIGN DESIGNATION

A.A.D.T.	2022	=	2700
A.A.D.T.	2042	=	3200
D.H.V.		=	10.4
D.D.		=	60/40
T.		=	12.4%
DESIGN SPEED		=	55 MPH
ESALS		=	605,900

CONVENTIONAL SYMBOLS

PLAN
- CORPORATE LIMITS
- PROPERTY LINE
- LOT LINE
- LIMITED HIGHWAY EASEMENT
- EXISTING RIGHT OF WAY
- PROPOSED OR NEW R/W LINE
- SLOPE INTERCEPT
- REFERENCE LINE (300'EB')
- EXISTING CULVERT
- PROPOSED CULVERT (Box or Pipe)
- COMBUSTIBLE FLUIDS (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
- ELECTRIC (E)
- FIBER OPTIC (FO)
- GAS (G)
- SANITARY SEWER (SAN)
- STORM SEWER (SS)
- TELEPHONE (T)
- WATER (W)
- UTILITY PEDESTAL
- POWER POLE
- TELEPHONE POLE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

OSSEO - EAU CLAIRE

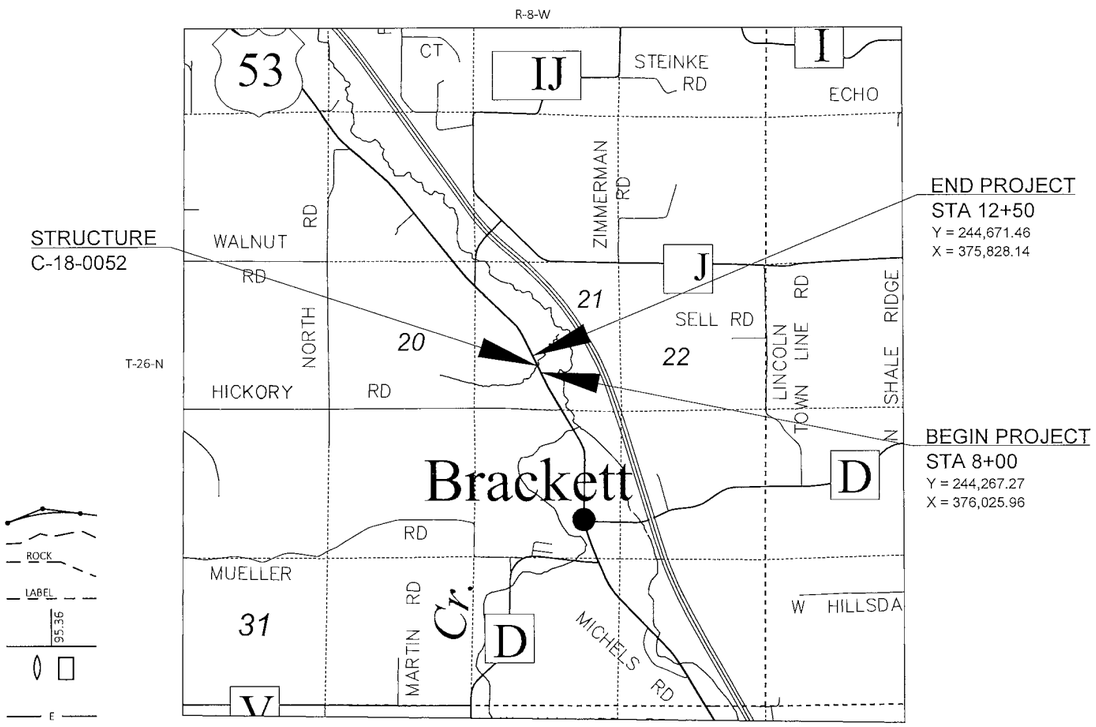
BRANCH OTTER CREEK CULVERT C-18-0052

USH 53

EAU CLAIRE COUNTY

STATE PROJECT NUMBER
7905-00-70

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
7905-00-70	WISC 2022027	1



STRUCTURE
C-18-0052

END PROJECT
STA 12+50
Y = 244,671.46
X = 375,828.14

BEGIN PROJECT
STA 8+00
Y = 244,267.27
X = 376,025.96

LAYOUT
SCALE 0 1 MI

TOTAL NET LENGTH OF CENTERLINE = 0.085 MI

HORIZONTAL POSITIONS SHOWN ON THIS PLAN ARE WISCONSIN COORDINATE REFERENCE SYSTEM (WISCRS), EAU CLAIRE 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 NAVD 88 (2012). GPS DERIVED ELEVATIONS ARE BASED ON GEOID 12A.

ORIGINAL PLANS PREPARED BY

MSA

1230 SOUTH BOULEVARD, BARABOO, WI 53913
(608) 356-2771 www.msa-ps.com

WISCONSIN
JOSHUA R SWENO
E-44384
WAUNAKEE WI
PROFESSIONAL ENGINEER

7/22/2021
Date

Signature

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor	MSA PROFESSIONAL SERVICES
Designer	MSA PROFESSIONAL SERVICES
Project Manager	NATHAN ULNESS
Regional Examiner	NW REGION
Regional Supervisor	JAMES KOENIG

APPROVED FOR THE DEPARTMENT

DATE: 7/22/2021

{Signature}

E

STANDARD ABBREVIATIONS

AC	ACRE
AGG	AGGREGATE
<	ANGLE
ASPH	ASPHALTIC
AC	ASPHALT CEMENT
ADT	AVERAGE DAILY TRAFFIC
B & B	BALLED AND BURLAPPED
BM	BENCH MARK
CB	CATCH BASIN
` OR C/L	CENTER LINE
C-C	CENTER TO CENTER
CONC	CONCRETE
CO	COUNTY
CTH	COUNTY TRUNK HIGHWAY
CY	CUBIC YARD
CULV	CULVERT
CP	CULVERT PIPE
CPRC	CULVERT PIPE REINFORCED CONCRETE
C & G	CURB AND GUTTER
D	DEGREE OF CURVE
DHV	DESIGN HOUR VOLUME
DIA OR |	DIAMETER
DIST	DISTRICT
DWY	DRIVEWAY
E	EAST
X	EAST GRID COORDINATE
EB	EASTBOUND
ELEC	ELECTRIC
EL OR ELEV	ELEVATION
EMB	EMBANKMENT
EW	ENDWALL
ESALS	EQUIVALENT SINGLE AXLE LOADS
EXC	EXCAVATION
EBS	EXCAVATION BELOW SUBGRADE
EXIST	EXISTING
EXP	EXPANSION
F-F	FACE TO FACE
FERT	FERTILIZER
FE	FIELD ENTRANCE
F/L	FLOW LINE
FT	FOOT
GN	GRID NORTH
HR	HANDICAP RAMP
HT	HEIGHT
CWT	HUNDREDWEIGHT
HYD	HYDRANT
IN DIA	INCH DIAMETER
INL	INLET
ID	INSIDE DIAMETER
I	INTERSECTION ANGLE
IE	INVERT ELEVATION
IP	IRON PIPE OR PIN
JCT	JUNCTION
L	LENGTH OF CURVE
LF	LINEAR FOOT
LC	LONG CHORD OF CURVE
LCB	LONG CHORD BEARING
LS	LUMP SUM
MH	MANHOLE
N	NORTH
Y	NORTH GRID COORDINATE
OE	OUTLET ELEVATION
OL	OUT LOT
OD	OUTSIDE DIAMETER
OH	OVERHEAD LINES
PAVT	PAVEMENT
PLE	PERMANENT LIMITED EASEMENT
PC	POINT OF CURVATURE
PI	POINT OF INTERSECTION
PT	POINT OF TANGENCY
PCC	PORTLAND CEMENT CONCRETE
LB	POUND
PE	PRIVATE ENTRANCE
R OR RAD	RADIUS
RR	RAILROAD
R	RANGE
~ OR R/L	REFERENCE LINE
REQD	REQUIRED
RT	RIGHT
R / W	RIGHT-OF-WAY
RD	ROAD
SALV	SALVAGED
SAN	SANITARY SEWER
SECT	SECTION
SHLDR	SHOULDER
SW	SIDEWALK
S	SOUTH
SB	SOUTHBOUND
SPECS	SPECIFICATIONS
SQ	SQUARE
SF OR SQ FT	SQUARE FEET
SY	SQUARE YARD
SSPRC	STORM SEWER PIPE REINFORCED CONCRETE
STD	STANDARD
SDD	STANDARD DETAIL DRAWINGS
STH	STATE TRUNK HIGHWAYS
STA	STATION
SS	STORM SEWER
T	TANGENT
TEL	TELEPHONE
TEMP	TEMPORARY
TLE	TEMPORARY LIMITED EASEMENT
T	TON
TC	TOP OF CURB
TN	TOWN
TRANS	TRANSITION
T	TRUCKS (percent of)
TYP	TYPICAL
UNCL	UNCLASSIFIED
USH	UNITED STATES HIGHWAY
VAR	VARIABLE
VERT	VERTICAL
VC	VERTICAL CURVE
VOL	VOLUME
WM	WATER MAIN
WV	WATER VALVE
W	WEST
WB	WESTBOUND
YD	YARD

ORDER OF TYPICAL SECTION & DETAIL SHEETS

1. GENERAL NOTES
2. TYPICAL SECTIONS
3. PROJECT CONTROL POINTS, TIES, AND COORDINATES
4. TRAFFIC CONTROL, DETOUR
5. TRAFFIC CONTROL, ALTERNATE ROUTE

DNR LIASON

WISCONSIN DEPARTMENT OF NATURAL RESOURCES
ATTN: LEAH NICOL
DNR WEST CENTRAL REGION HEADQUARTERS
1300 WEST CLAIREMONT AVENUE
EAU CLAIRE, WI 54701
715-934-9014
LEAH.NICOL@WISCONSIN.GOV

MSA DESIGN CONTACT

MSA PROFESSIONAL SERVICES, INC
ATTN: JOSH SWENO, P.E.
1230 SOUTH BOULEVARD
BARABOO, WI 53913
608-355-8852
JSWENO@MSA-PS.COM

WISDOT CONTACT

WISCONSIN DEPARTMENT OF TRANSPORTATION
ATTN: NATHAN ULNESS, PROJECT MANAGER
718 W CLAIREMONT AVENUE
EAU CLAIRE, WI 54701
715-563-4631
NATHAN.ULNESS@DOT.WI.GOV

UTILITIES

BURIED FIBER:
CHARTER COMMUNICATIONS
ATTN: SHANE YODER
1201 MCCANN DRIVE
ALTOONA, WI 54720
PHONE: 715-831-8940
EMAIL: SHANE.YODER@CHARTER.COM

BURIED ELECTRIC:
EAU CLAIRE ENERGY COOPERATIVE
ATTN: PATRICK BETHKE
8214 HWY 12
P.O. BOX 368
FALL CREEK, WI 54742-0368
PHONE: 715-832-1603
EMAIL: PBETHKE@ECEC.COM

BURIED TELEPHONE:
CENTURYLINK
ATTN: BRET CLARK
311 SOUTH COURT STREET
SPARTA, WI 54656
PHONE: 608-269-0819
EMAIL: BRET.CLARK@CENTURYLINK.COM

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

RUNOFF COEFFICIENT TABLE

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

TOTAL PROJECT AREA = 0.97 ACRES
TOTAL AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES = 0.97 ACRES

GENERAL NOTES

DISTURBED AREAS WITHIN THE RIGHT-OF-WAY, EXCEPT THE AREAS WITHIN THE FINISHED SHOULDER POINTS, SHALL BE FERTILIZED, SEEDED AND STABILIZED WITH EROSION MAT OR RIPRAP HEAVY AS DIRECTED BY THE ENGINEER.

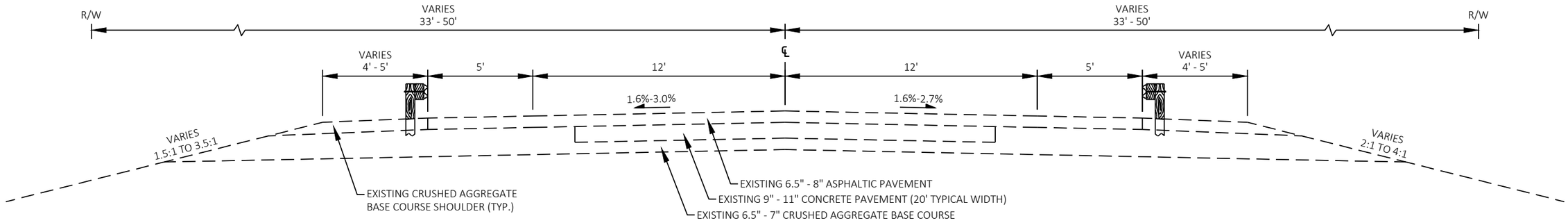
THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATIONS AS SHOWN ON THE PLANS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE AREA THAT ARE NOT SHOWN.

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

THE 5.75" ASPHALTIC SURFACE SHALL CONSIST OF A 2½" UPPER LAYER, AND A 3¼" LOWER LAYER. USE 12.5MM NOMINAL AGGREGATE FOR BOTH LAYER. A 4-MT 58-34 S MIX SHALL BE USED.

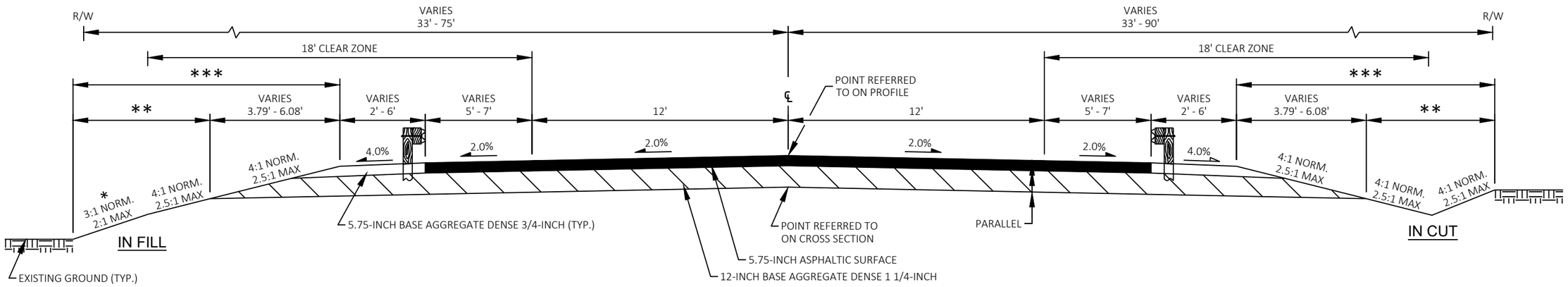
PLACE SILT FENCE AS SHOWN ON THE PLAN OR AS DIRECTED BY THE ENGINEER AND IN PLACE PRIOR TO CONSTRUCTION OR BRIDGE REMOVAL.

WETLANDS ARE NOT PRESENT.



EXISTING TYPICAL SECTION

STA 8+00 - STA 12+50



FINISHED TYPICAL SECTION

STA 8+00 - STA 12+50

NOTES:

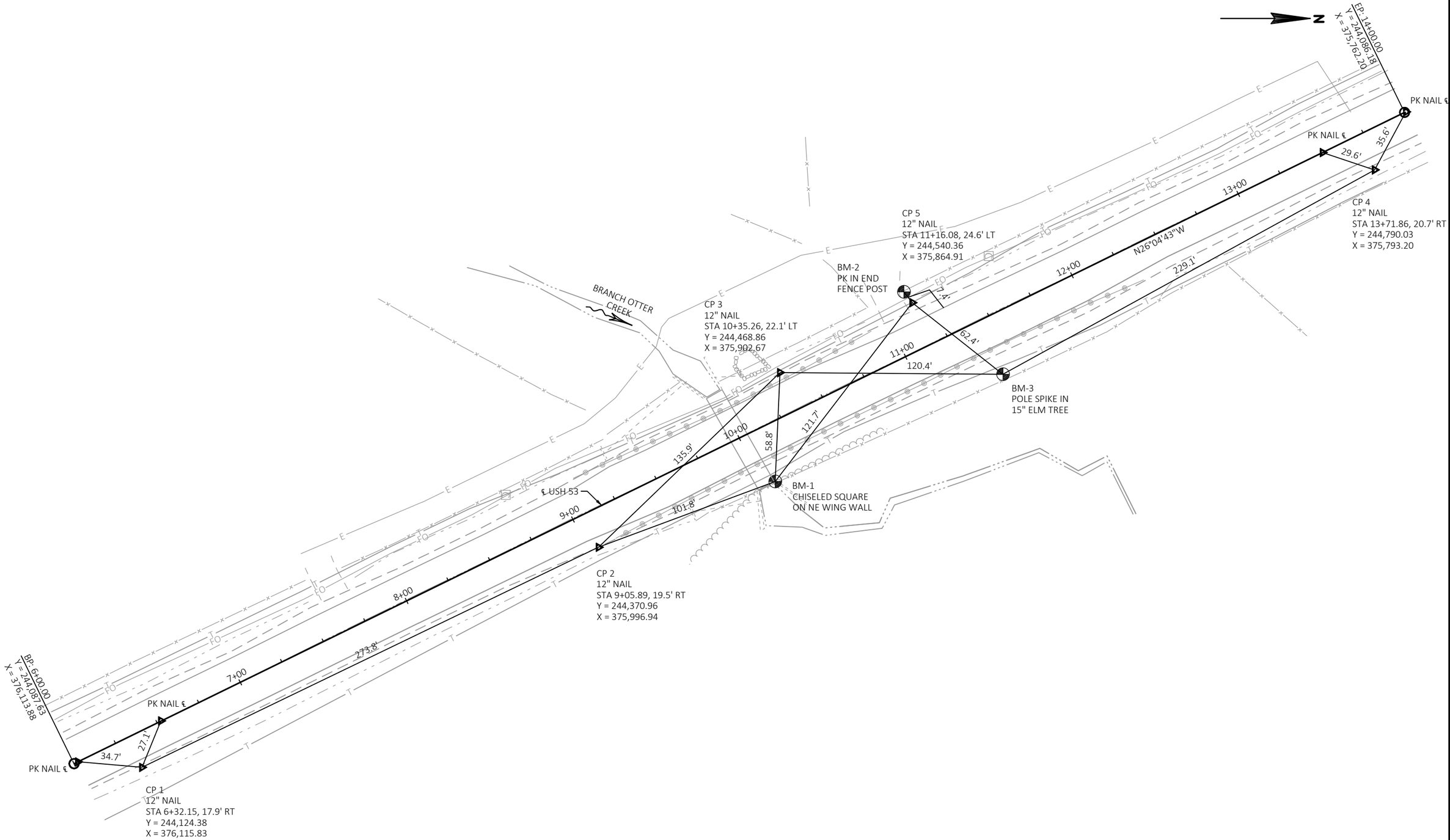
* 2:1 SLOPE STABILIZED WITH RIPRAP HEAVY OVER GEOTEXTILE TYPE HR

** SALVAGED TOPSOIL AND EROSION MAT URBAN CLASS I, TYPE B LIMITS

*** SEEDING MIXTURE #20, SEEDING TEMPORARY, & FERTILIZER TYPE B LIMITS

PROJECT NO: 7905-00-70	HWY: USH 53	COUNTY: EAU CLAIRE	TYPICAL SECTIONS	SHEET 3	E

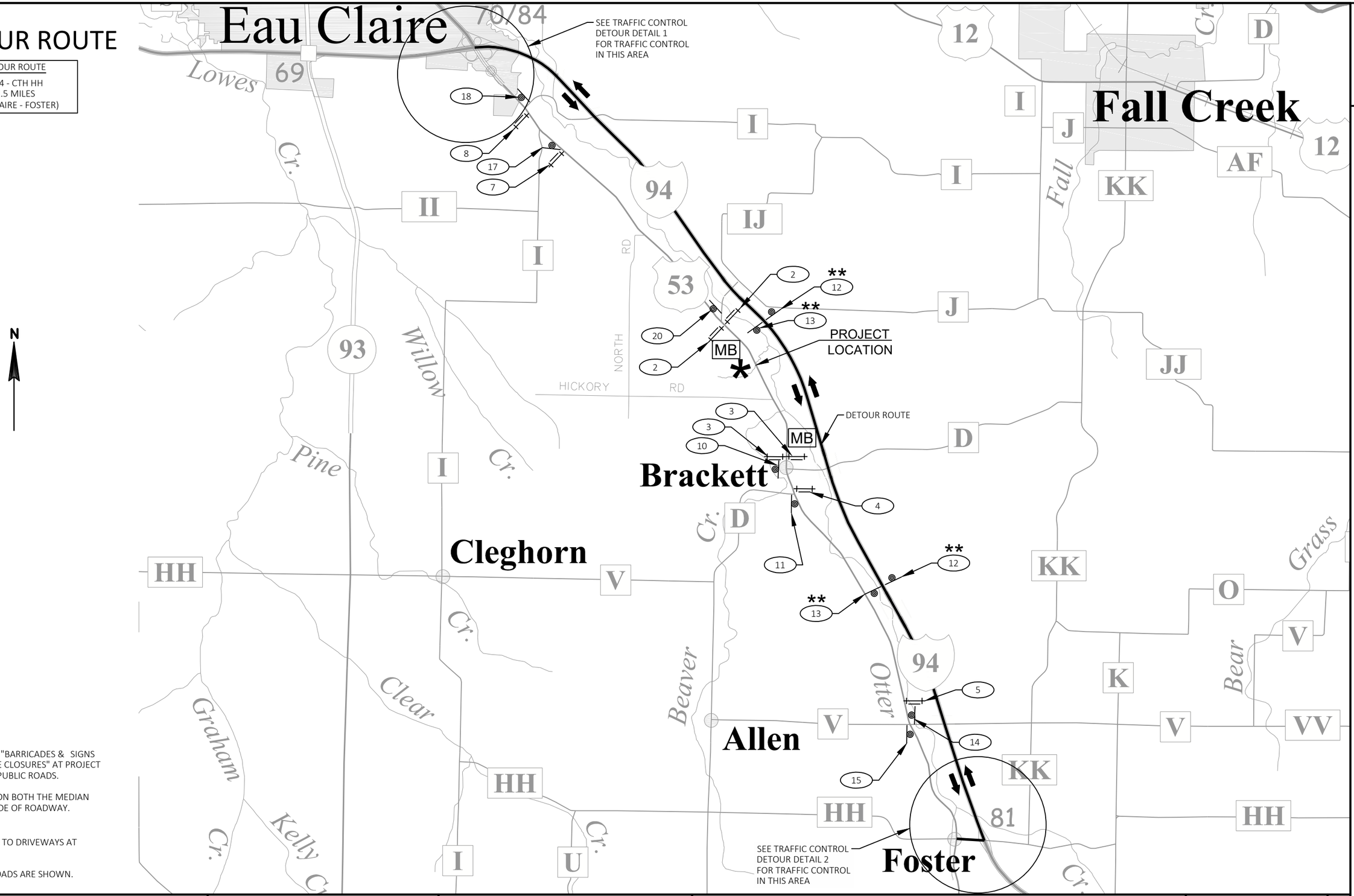
2



PROJECT NO: 7905-00-70	HWY: USH 53	COUNTY: EAU CLAIRE	PROJECT CONTROL POINTS, TIES, AND COORDINATES	SHEET 4	E

DETOUR ROUTE

DETOUR ROUTE
IH 94 - CTH HH
11.5 MILES
(EAU CLAIRE - FOSTER)



N

LEGEND

* UTILIZE S.D.D. "BARRICADES & SIGNS FOR MAINLINE CLOSURES" AT PROJECT ENDS & LAST PUBLIC ROADS.

** PLACE SIGNS ON BOTH THE MEDIAN AND RIGHT SIDE OF ROADWAY.

NOTES:

MAINTAIN ACCESS TO DRIVEWAYS AT ALL TIMES.

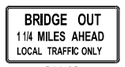
NOT ALL LOCAL ROADS ARE SHOWN.

PROJECT NO: 7905-00-70	HWY: USH 53	COUNTY: EAU CLAIRE	TRAFFIC CONTROL DETOUR ROUTE	SHEET 5	E

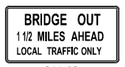
FILE NAME : P:\90S\93\00093451\CADD\SHEETSPLAN\027001_DT.DWG
LAYOUT NAME - 027001_dt
PLOT DATE : 7/26/2021 10:44 AM
PLOT BY : SHAWN DOLENS
PLOT NAME :
PLOT SCALE : 1 IN:1 MI

R11-4
60"X30"
1

R11-3B
60"X30"
2

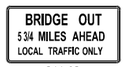


R11-3B
60"X30"
3



R11-3B
60"X30"
4

R11-3B
60"X30"
5

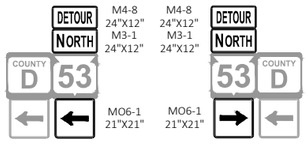


R11-3B
60"X30"
6

R11-3B
60"X30"
7

R11-3B
60"X30"
8

9



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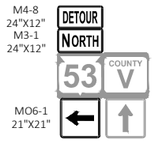

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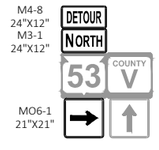

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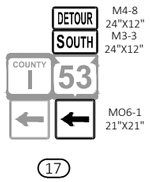

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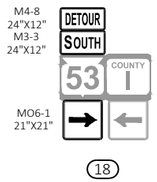

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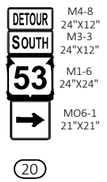

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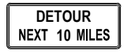

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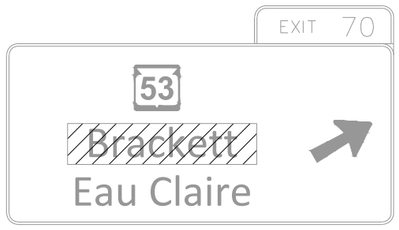

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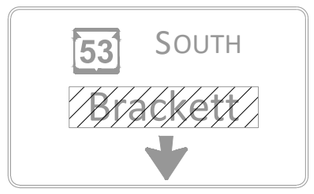

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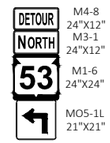

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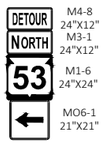

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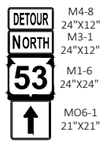


38

39

40

LEGEND

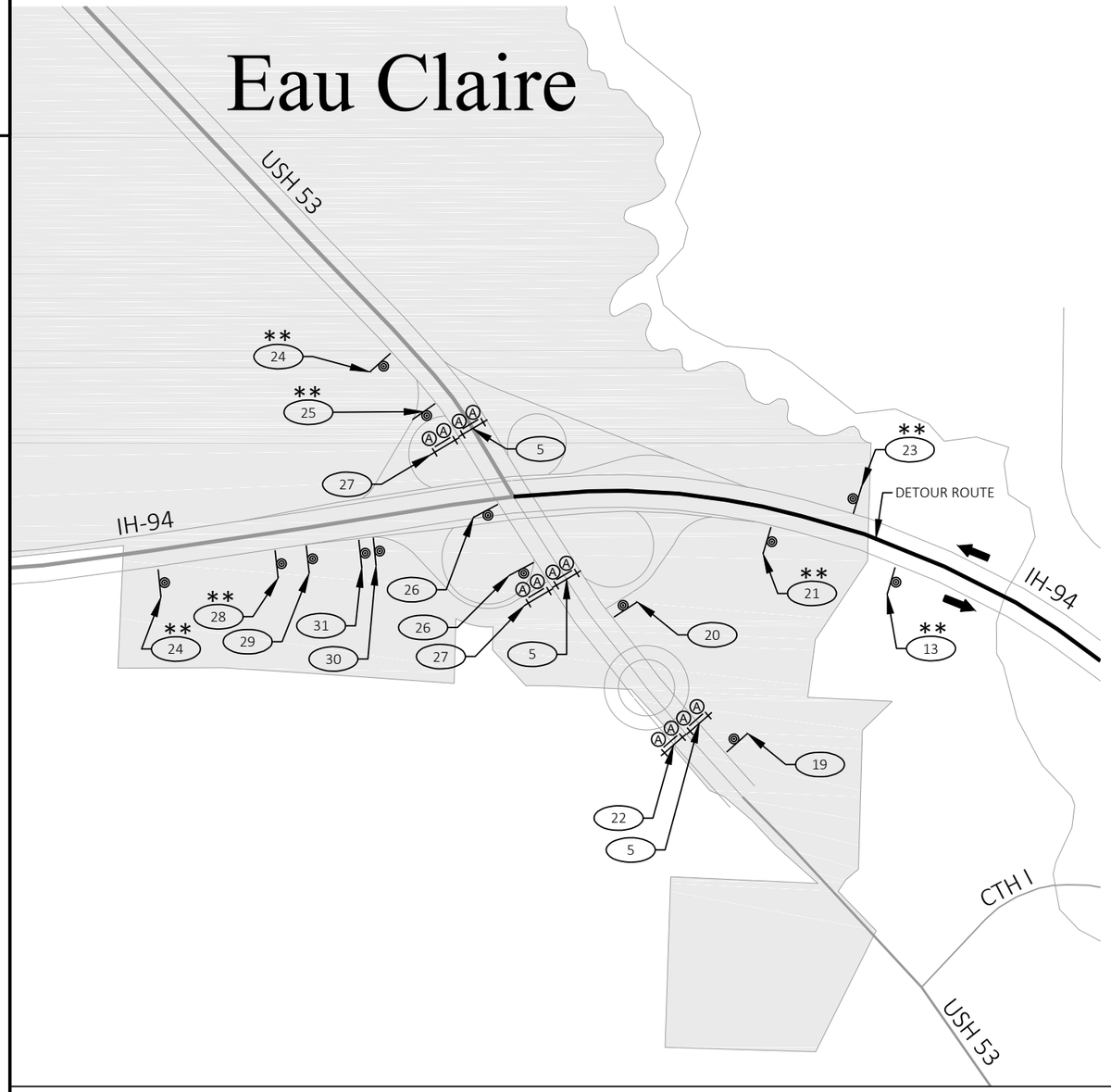
- TYPE III BARRICADE
- TYPE III BARRICADE WTH ATTACHED SIGN
- SIGN ON PERMANENT SUPPORT
- (A) TYPE A WARNING LIGHT (FLASHING)
- DIRECTION OF TRAFFIC
- MB PORTABLE CHANGEABLE MESSAGE BOARD
- 78 EXISTING SIGN
- EXISTING SIGN TO BE COVERED

TRAFFIC CONTROL AND DETOUR GENERAL NOTES

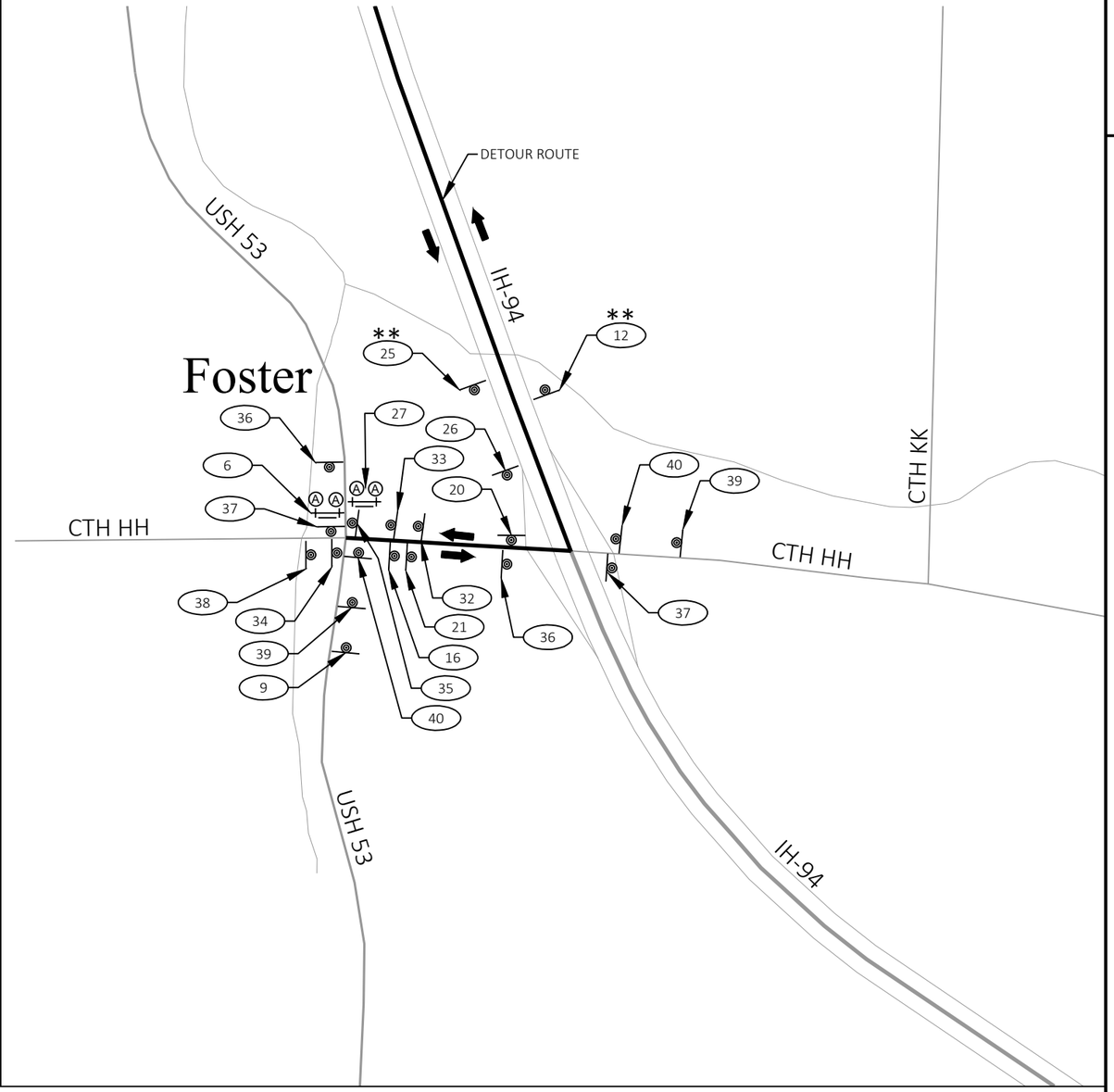
1. DRAWINGS SHOW TRAFFIC CONTROL DETOUR FOR A TYPICAL SITUATION. ADDITIONAL TRAFFIC CONTROL DEVICES MAY BE REQUIRED AND/OR LAYOUT DETAILS MODIFIED DEPENDING ON SITE CONDITIONS AS DIRECTED BY THE ENGINEER. ALL CHANGES TO THE TRAFFIC CONTROL DETOUR PLAN SHALL BE REVIEWED WITH THE PROJECT ENGINEER.
2. CONSIDER GEOMETRICS WHEN LOCATING TRAFFIC CONTROL SIGNS PCMS SO TRAFFIC HAS A CLEAR VIEW OF THE BOARD FOR A MINIMUM OF 1000 FEET IN FRONT OF MESSAGE BOARD.
3. PLACE TRAFFIC CONTROL SIGNS PCMS AND DISPLAY THE "PRIOR TO CONSTRUCTION" MESSAGE 7 DAYS PRIOR TO THE EXPECTED START OF THE PROPOSED WORK THAT WILL REQUIRE BRIDGE CLOSURE, ADJUST THE MESSAGE DATE ACCORDINGLY.
4. ALL SIGNS SHALL BE PLACED IN ACCORDANCE WITH THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES.
5. LOCATION AND SPACING OF SIGNS MAY BE ADJUSTED TO FIT FIELD CONDITIONS AS DIRECTED BY THE FIELD ENGINEER.
6. "MO" SIGNS ARE THE SAME AS "M" SIGNS EXCEPT THAT THE BACKGROUND IS ORANGE.
7. COVER, REMOVE, OR ALTER ANY EXISTING SIGNS THAT DISPLAY A CONFLICTING MESSAGE WITH THE PROPOSED DETOUR ROUTE.

PCMS MESSAGE OVERVIEW	
BRIDGE WORK AHEAD	BEGINS (DATE)

TRAFFIC CONTROL DETOUR DETAIL 1



TRAFFIC CONTROL DETOUR DETAIL 2



LEGEND

- TYPE III BARRICADE WTH ATTACHED SIGN
- SIGN ON PERMANENT SUPPORT
- (A) TYPE A WARNING LIGHT (FLASHING)
- DIRECTION OF TRAFFIC

N

NOTES:

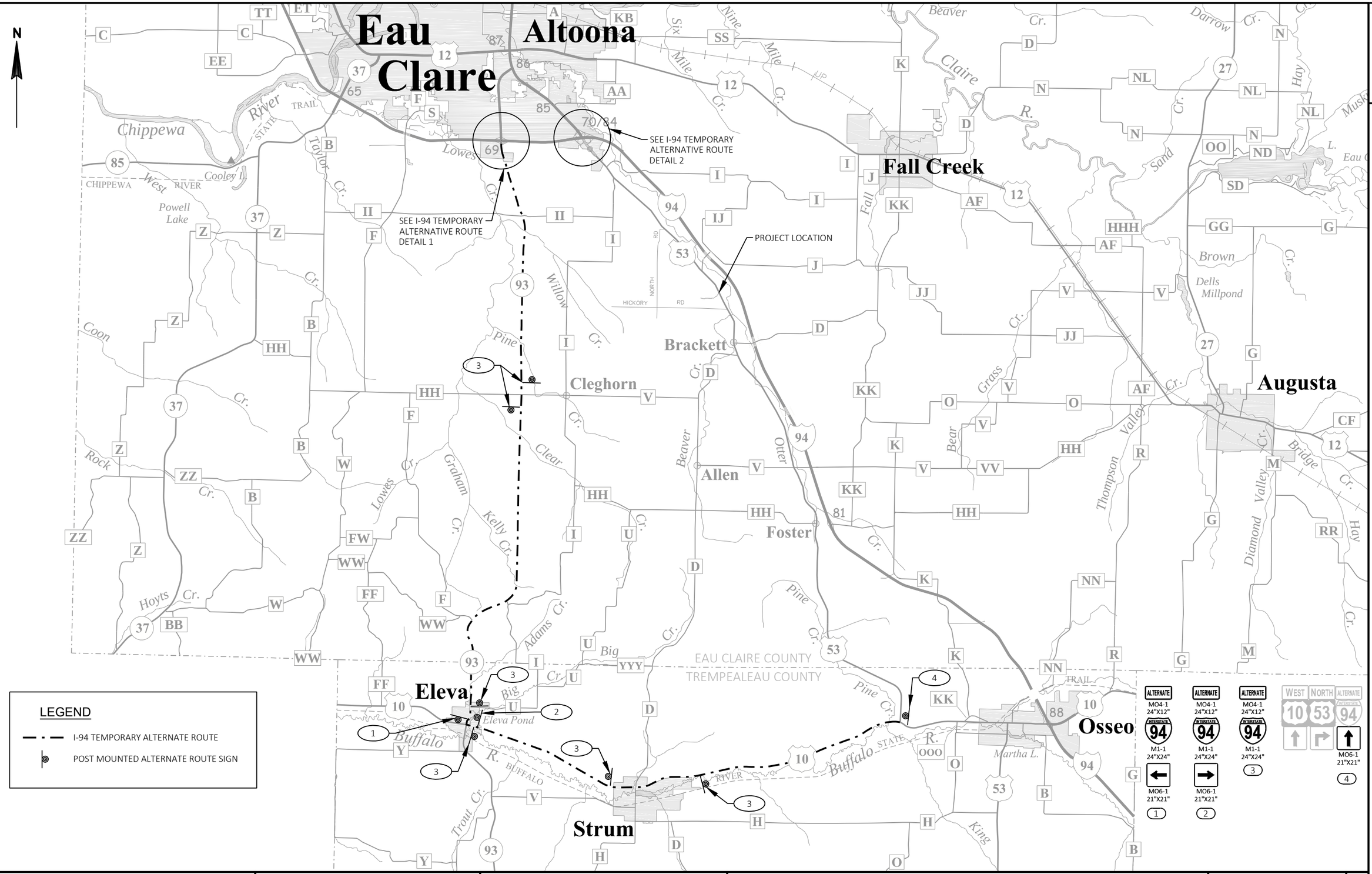
SEE SDD "BARRICADES AND SIGNS FOR MAINLINE CLOSURES"
SEE SDD "DETOUR SIGNING FOR MAINLINE CLOSURES"

** PLACE SIGNS ON BOTH THE MEDIAN AND RIGHT SIDE OF ROADWAY.

PROJECT NO: 7905-00-70	HWY: USH 53	COUNTY: EAU CLAIRE	TRAFFIC CONTROL DETOUR DETAILS 1 & 2	SHEET 7	E

FILE NAME : P:\90S\93\00093451\CADD\SHEETSPLAN\027001_DT.DWG
LAYOUT NAME - 027003_dt

PLOT DATE : 7/26/2021 10:53 AM PLOT BY : SHAWN DOLENS PLOT NAME : PLOT SCALE : 1 IN:1000 FT



PROJECT NO: 7905-00-70	HWY: USH 53	COUNTY: EAU CLAIRE	TRAFFIC CONTROL I-94 TEMPORARY ALTERNATE ROUTE OVERVIEW	SHEET 8	E

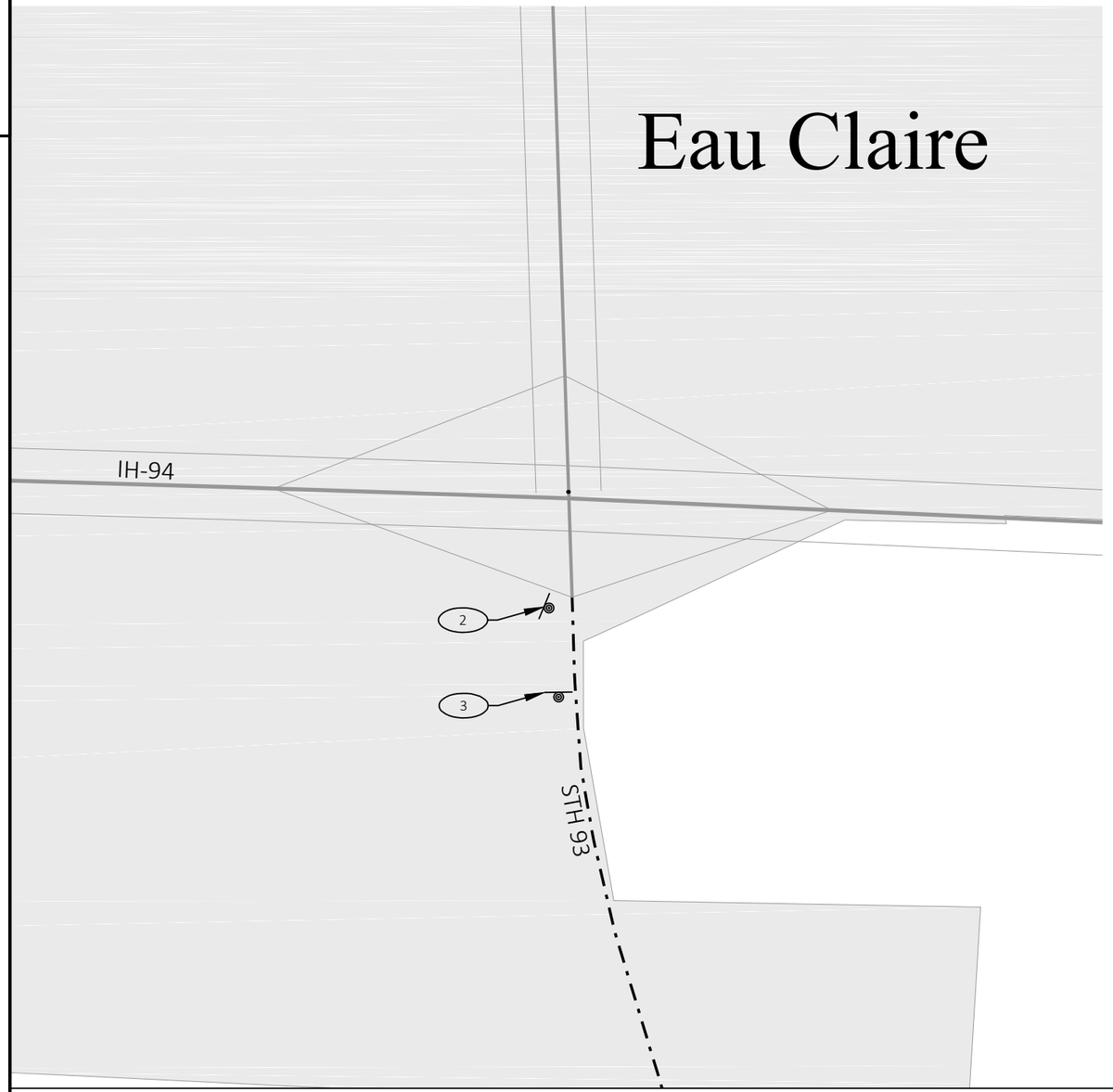
FILE NAME : P:\90S\93\00093451\CADD\SHEETSPLAN\027002_DT.DWG
LAYOUT NAME - 027004_dt

PLOT DATE : 7/19/2021 1:45 PM PLOT BY : SHAWN DOLENS PLOT NAME : PLOT SCALE : 1 IN:2 MI

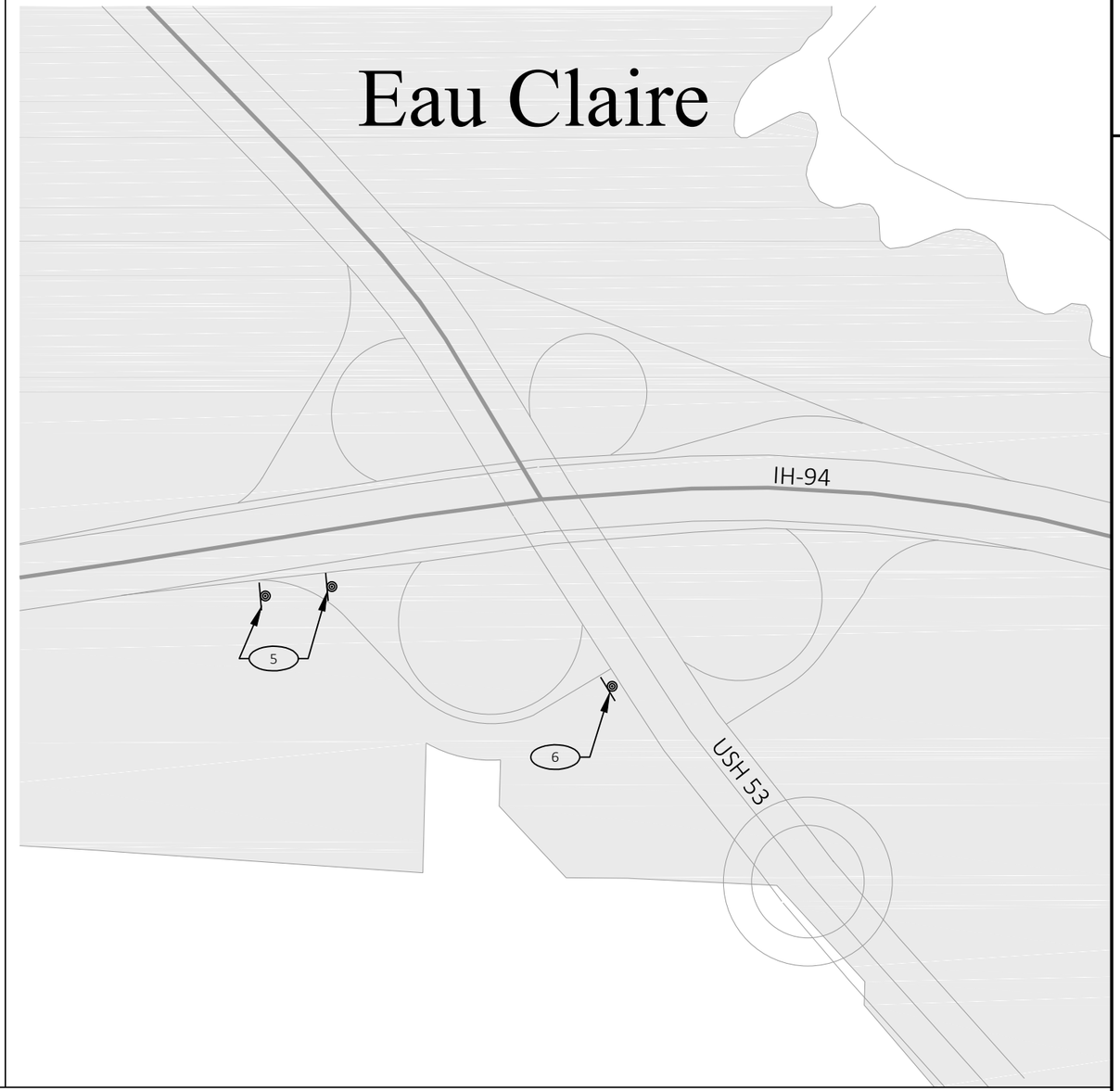
WISDOT/CADDS SHEET 42

2

I-94 TEMPORARY ALTERNATIVE ROUTE DETAIL 1



I-94 TEMPORARY ALTERNATIVE ROUTE DETAIL 2



2

ALTERNATE
MO4-1
24"X12"
INTERSTATE 94
M1-1
24"X24"
MO6-1
21"X21"
2

ALTERNATE
MO4-1
24"X12"
INTERSTATE 94
M1-1
24"X24"
3

WARNING AUTOMATIC GATES NOT WORK WHEN FLASHING
COVER SIGN
5

WARNING AUTOMATIC GATES NOT WORK WHEN FLASHING
COVER SIGN
6

LEGEND

I-94 TEMPORARY ALTERNATE ROUTE

POST MOUNTED ALTERNATE ROUTE SIGN

N

PROJECT NO: 7905-00-70	HWY: USH 53	COUNTY: EAU CLAIRE	I-94 TEMPORARY ALTERNATIVE ROUTE DETAILS 1 & 2	SHEET 9	E

FILE NAME : P:\90S\93\00093451\CADD\SHEETSPLAN\027002_DT.DWG
LAYOUT NAME - 027005_dt

PLOT DATE : 7/19/2021 1:46 PM PLOT BY : SHAWN DOLENS PLOT NAME : PLOT SCALE : 1 IN:500 FT

Estimate Of Quantities

7905-00-70

Line	Item	Item Description	Unit	Total	Qty
0002	201.0105	Clearing	STA	2.000	2.000
0004	201.0205	Grubbing	STA	2.000	2.000
0006	203.0100	Removing Small Pipe Culverts	EACH	3.000	3.000
0008	203.0220	Removing Structure (structure) 01. C-18-3176	EACH	1.000	1.000
0010	204.0100	Removing Concrete Pavement	SY	1,485.000	1,485.000
0012	204.0165	Removing Guardrail	LF	498.000	498.000
0014	204.0170	Removing Fence	LF	695.000	695.000
0016	204.0185	Removing Masonry	CY	3.000	3.000
0018	205.0100	Excavation Common	CY	1,010.000	1,010.000
0020	206.2000	Excavation for Structures Culverts (structure) 01. C-18-0052	LS	1.000	1.000
0022	208.0100	Borrow	CY	1,583.000	1,583.000
0024	210.2500	Backfill Structure Type B	TON	1,755.000	1,755.000
0026	213.0100	Finishing Roadway (project) 01. 7905-00-70	EACH	1.000	1.000
0028	305.0110	Base Aggregate Dense 3/4-Inch	TON	182.000	182.000
0030	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	1,560.000	1,560.000
0032	311.0110	Breaker Run	TON	157.000	157.000
0034	455.0605	Tack Coat	GAL	80.000	80.000
0036	465.0105	Asphaltic Surface	TON	504.000	504.000
0038	504.0100	Concrete Masonry Culverts	CY	140.000	140.000
0040	505.0400	Bar Steel Reinforcement HS Structures	LB	21,000.000	21,000.000
0042	505.0600	Bar Steel Reinforcement HS Coated Structures	LB	2,160.000	2,160.000
0044	516.0500	Rubberized Membrane Waterproofing	SY	27.000	27.000
0046	521.1018	Apron Endwalls for Culvert Pipe Steel 18-Inch	EACH	2.000	2.000
0048	521.3118	Culvert Pipe Corrugated Steel 18-Inch	LF	50.000	50.000
0050	606.0300	Riprap Heavy	CY	415.000	415.000
0052	606.0700	Grouted Riprap Heavy	CY	13.000	13.000
0054	614.2330	MGS Guardrail 3 K	LF	287.500	287.500
0056	614.2610	MGS Guardrail Terminal EAT	EACH	4.000	4.000
0058	618.0100	Maintenance And Repair of Haul Roads (project) 01. 7905-00-70	EACH	1.000	1.000
0060	619.1000	Mobilization	EACH	1.000	1.000
0062	624.0100	Water	MGAL	35.000	35.000
0064	625.0500	Salvaged Topsoil	SY	1,470.000	1,470.000
0066	628.1104	Erosion Bales	EACH	116.000	116.000
0068	628.1504	Silt Fence	LF	600.000	600.000
0070	628.1520	Silt Fence Maintenance	LF	600.000	600.000
0072	628.1905	Mobilizations Erosion Control	EACH	2.000	2.000
0074	628.1910	Mobilizations Emergency Erosion Control	EACH	2.000	2.000
0076	628.2008	Erosion Mat Urban Class I Type B	SY	1,472.000	1,472.000
0078	628.7504	Temporary Ditch Checks	LF	108.000	108.000
0080	628.7570	Rock Bags	EACH	116.000	116.000
0082	629.0210	Fertilizer Type B	CWT	1.250	1.250
0084	630.0120	Seeding Mixture No. 20	LB	53.000	53.000
0086	630.0200	Seeding Temporary	LB	53.000	53.000
0088	630.0300	Seeding Borrow Pit	LB	11.000	11.000
0090	630.0500	Seed Water	MGAL	44.000	44.000
0092	633.5100	Markers Row	EACH	14.000	14.000
0094	642.5001	Field Office Type B	EACH	1.000	1.000
0096	643.0420	Traffic Control Barricades Type III	DAY	1,980.000	1,980.000
0098	643.0705	Traffic Control Warning Lights Type A	DAY	2,904.000	2,904.000

7905-00-70

Line	Item	Item Description	Unit	Total	Qty
0100	643.0900	Traffic Control Signs	DAY	14,652.000	14,652.000
0102	643.0910	Traffic Control Covering Signs Type I	EACH	2.000	2.000
0104	643.0920	Traffic Control Covering Signs Type II	EACH	4.000	4.000
0106	643.1050	Traffic Control Signs PCMS	DAY	14.000	14.000
0108	643.5000	Traffic Control	EACH	1.000	1.000
0110	645.0105	Geotextile Type C	SY	298.000	298.000
0112	645.0120	Geotextile Type HR	SY	815.000	815.000
0114	646.1020	Marking Line Epoxy 4-Inch	LF	1,800.000	1,800.000
0116	650.4500	Construction Staking Subgrade	LF	450.000	450.000
0118	650.5000	Construction Staking Base	LF	450.000	450.000
0120	650.6000	Construction Staking Pipe Culverts	EACH	1.000	1.000
0122	650.6500	Construction Staking Structure Layout (structure) 01. C-18-0052	LS	1.000	1.000
0124	650.9910	Construction Staking Supplemental Control (project) 01. 7905-00-70	LS	1.000	1.000
0126	650.9920	Construction Staking Slope Stakes	LF	450.000	450.000
0128	690.0150	Sawing Asphalt	LF	16.000	16.000
0130	690.0250	Sawing Concrete	LF	40.000	40.000
0132	715.0502	Incentive Strength Concrete Structures	DOL	840.000	840.000
0134	ASP.1T0A	On-the-Job Training Apprentice at $5.00/HR	HRS	300.000	300.000
0136	ASP.1T0G	On-the-Job Training Graduate at $5.00/HR	HRS	300.000	300.000
0138	SPV.0060	Special 01. Temporary Water Diversion Culvert C-18-0052	EACH	1.000	1.000

3

CLEARING AND GRUBBING

STATION	-	STATION	LOCATION	201.0105 CLEARING STA	201.0205 GRUBBING STA
9+00	-	11+00	RT & LT	2	2
			TOTALS:	2	2

REMOVING PIPE CULVERTS

STATION	LOCATION	203.0100 REMOVING SMALL PIPE CULVERTS EACH	204.0185 REMOVING MASONRY CY	REMARKS
9+30	LT	---	1	
9+60	LT	1	---	18" CMCP
9+60	RT	---	1	
9+80	RT	1	---	18" CMCP
10+10	LT	1	---	18" CMCP
10+15	LT	---	1	
	TOTALS:	3	3	

REMOVING CONCRETE PAVEMENT

STATION	-	STATION	LOCATION	204.0100 REMOVING CONCRETE PAVEMENT SY
8+00	-	12+50	RT & LT	1,485
			TOTAL:	1,485

REMOVING GUARDRAIL

STATION	-	STATION	LOCATION	204.0165 REMOVING GUARDRAIL LF
9+10	-	10+90	LT	180
9+16	-	12+34	RT	318
			TOTAL:	498

3

REMOVAL ITEMS

STATION	-	STATION	LOCATION	204.0170 REMOVING FENCE LF
8+00	-	12+50	LT	415
9+69	-	12+50	RT	280
			TOTAL:	695

EXCAVATION COMMON

LOCATION	205.0100 EXC. COMMON CY (3)	FILL CY (1)	EXPANDED FILL CY (2)	WASTE CY	208.0100 BORROW CY
STA 8+00 - STA 12+50	1,010	1,550	2,016	-1,006	1,006
UNUSABLE PAVEMENT					577
TOTALS:	1,010	1,550	2,016	-1,006	1,583

(1) - NOT A BID ITEM - FOR INFORMATIONAL PURPOSES ONLY.
(2) - FILL EXPANSION 30%
(3) - EXISTING ASPHALTIC PAVEMENT IS INCLUDED IN COMMON EXCAVATION TOTALS. SEE EARTHWORK TABLE.

BASE AGGREGATE DENSE

STATION	-	STATION	305.0110 BASE AGGREGATE DENSE 3/4-INCH TON	305.0120 BASE AGGREGATE DENSE 1 1/4-INCH TON	624.0100 WATER MGAL
8+00	-	12+50	172	1,560	35
11+05		FE, LT	10	---	---
		TOTALS:	182	1,560	35

ASPHALTIC SURFACE

STATION	-	STATION	455.0605 TACK COAT GAL	465.0105 ASPHALTIC SURFACE TON
8+00	-	12+50	80	504
		TOTALS:	80	504

PIPE CULVERTS

STATION	LOCATION	521.1018 APRON ENDWALLS FOR CULVERT PIPE STEEL 18-INCH EACH	521.3118 CULVERT PIPE CORRUGATED STEEL 18-INCH LF	650.6000 CONSTRUCTION STAKING PIPE CULVERTS EACH
11+05	FIELD ENTRANCE, LT	2	50	1
	TOTALS:	2	50	1

EROSION BALES & ROCK BAGS

STATION	-	STATION	LOCATION	628.1104 EROSION BALES EA	628.7570 ROCK BAGS EA
8+00	-	12+50	RT	80	80
8+00	-	12+50	LT	36	36
			TOTAL:	116	116

GUARDRAIL

STATION	-	STATION	LOCATION	614.2330 MGS GUARDRAIL 3K LF	614.2610 MGS GUARDRAIL TERMINAL EAT EACH
9+10.00	-	10+91.25	LT	75	2
9+10.00	-	12+28.75	RT	212.5	2
			TOTALS:	287.5	4

SEEDING

STATION	-	STATION	LOCATION	625.0500 SALVAGED TOPSOIL 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
8+00	-	12+50	RT	880	0.70	30	30	---	25
8+00	-	12+50	LT	590	0.55	23	23	---	19
BORROW PIT			---	---	---	---	---	11	---
			TOTALS:	1,470	1.25	53	53	11	44

SILT FENCE

STATION	-	STATION	LOCATION	628.1504 SILT FENCE LF	628.1520 SILT FENCE MAINTENANCE LF
8+95	-	11+00	LT	235	235
8+95	-	12+50	RT	365	365
			TOTALS:	600	600

3

MOBILIZATION EROSION CONTROL

628.1905 MOBILIZATION EROSION CONTROL EACH	628.1910 MOBILIZATION EMERGENCY EROSION CONTROL EACH
2	2

EROSION MAT

STATION	-	STATION	LOCATION	628.2008 URBAN CLASS I TYPE B SY
8+00	-	12+50	RT	882
8+00	-	12+50	LT	590
			TOTAL:	1,472

DITCH CHECKS

STATION	LOCATION	628.7504 TEMPORARY DITCH CHECKS LF
8+50	LT	12
8+95	LT	12
9+00	RT	12
9+50	RT	12
9+60	LT	12
9+85	RT	12
10+35	LT	12
10+75	LT	12
11+75	LT	12
	TOTAL:	108

RIGHT OF WAY MARKERS

STATION	OFFSET	LOCATION	633.5100 MARKERS ROW EACH
12+50.00	32.90	RT	1
12+00.00	32.89	RT	1
10+75.00	95.00	RT	1
10+15.00	95.00	RT	1
9+35.98	49.86	RT	1
9+35.99	32.86	RT	1
8+00.00	32.84	RT	1
8+00.00	33.16	LT	1
8+80.00	33.15	LT	1
9+85.00	80.00	LT	1
10+50.00	80.00	LT	1
10+86.00	50.12	LT	1
10+86.00	33.12	LT	1
12+50.00	33.10	LT	1
		TOTAL:	14

TRAFFIC CONTROL

LOCATION	DAYS	TRAFFIC CONTROL BARRICADES TYPE III EACH	643.0420 TRAFFIC CONTROL BARRICADES TYPE III DAYS	TRAFFIC CONTROL WARNING LIGHTS TYPE A EACH	643.0705 TRAFFIC CONTROL WARNING LIGHTS TYPE A DAYS	TRAFFIC CONTROL SIGNS EACH	643.0900 TRAFFIC CONTROL SIGNS DAYS	643.0910 TRAFFIC* CONTROL COVERING SIGNS TYPE I EACH	643.0920 TRAFFIC* CONTROL COVERING SIGNS TYPE II EACH	TRAFFIC CONTROL SIGNS PCMS EACH	643.1050 TRAFFIC CONTROL SIGNS PCMS DAYS	643.5000 TRAFFIC CONTROL EACH
BEGINNING OF PROJECT	66	7	462	10	660	5	330	—	—	—	—	—
CTH D INTERSECTION (NORTH)	7	—	—	—	—	—	—	—	—	1	7	—
CTH D INTERSECTION (NORTH)	66	2	132	4	264	5	330	—	—	—	—	—
CTH D INTERSECTION (SOUTH)	66	1	66	—	—	4	264	—	—	—	—	—
CTH V INTERSECTION	66	1	66	—	—	7	462	—	—	—	—	—
USH 53/CTH HH INTERSECTION	66	2	132	4	264	32	2,112	—	1	—	—	—
CTH HH/IH-94 INTERCHANGE	66	—	—	—	—	38	2,508	—	—	—	—	—
IH-94 MILE 77	66	—	—	—	—	12	792	—	—	—	—	—
IH-94 MILE 74	66	—	—	—	—	12	792	—	—	—	—	—
USH 53/IH-94 INTERCHANGE	66	6	396	12	792	64	4,224	2	1	—	—	—
CTH I INTERSECTION (NORTH)	66	1	66	—	—	4	264	—	—	—	—	—
CTH I INTERSECTION (SOUTH)	66	1	66	—	—	4	264	—	—	—	—	—
CTH J INTERSECTION	66	2	132	4	264	6	396	—	—	—	—	—
CTH J INTERSECTION	7	—	—	—	—	—	—	—	—	1	7	—
END OF PROJECT	66	7	462	10	660	5	330	—	—	—	—	—
ALTERNATE ROUTE	66	—	—	—	—	24	1,584	—	2	—	—	—
TOTALS:			1,980		2,904		14,652	2	4		14	1

*NOTE: TRAFFIC CONTROL COVERING SIGNS TYPE I AND TRAFFIC CONTROL COVERING SIGNS TYPE II INCLUDE 1 CYCLE FOR ALL NECESSARY SIGNS

TEMPORARY WATER DIVERSION

STATION	SPV.0060.01 TEMPORARY WATER DIVERSION CULVERT C-18-0052 EACH
10+00	1
TOTAL:	1

PAVEMENT MARKING

STATION	-	STATION	LOCATION	646.1020 MARKING LINE EPOXY 4-INCH YELLOW LF	646.1020 MARKING LINE EPOXY 4-INCH WHITE LF
8+00	-	12+50	CENTERLINE - DOUBLE SOLID	900	—
8+00	-	12+50	EDGELINE LT & RT - SOLID	—	900
			TOTALS:	1,800	

STAKING

STATION	-	STATION	650.4500 CONSTRUCTION STAKING SUBGRADE LF	650.5000 CONSTRUCTION STAKING BASE LF	650.9910 CONSTRUCTION STAKING SUPPLEMENTAL CONTROL LS	650.9920 CONSTRUCTION STAKING SLOPE STAKES LF
8+00	-	12+50	450	450	---	450
		TOTALS:	450	450	1	450

SAWING

STATION	690.0150 SAWING ASPHALT LF	690.0250 SAWING CONCRETE LF
8+00	8	20
12+50	8	20
TOTALS:	16	40

PROJECT NO: 7905-00-70	HWY: USH 53	COUNTY: EAU CLAIRE	MISCELLANEOUS QUANTITIES	SHEET 13	E

TRANSPORTATION PROJECT PLAT NO: 7905-00-20 - 4.01 AMENDMENT NO. 1

AMENDS THE UTILITY INTEREST REQUIRED TABLE, THE EASEMENT TABLE, AND REMOVES UTILITY NUMBER 52 OF TRANSPORTATION PROJECT PLAT NO: 7905-00-20 - 4.01 RECORDED AS DOCUMENT NO. 1183427

THAT PART OF THE NORTHEAST ¼ OF THE SOUTHWEST ¼, BEING IN SECTION 21, TOWN 26 NORTH, RANGE 8 WEST, IN THE TOWN OF WASHINGTON, EAU CLAIRE COUNTY, WISCONSIN.

RELOCATION ORDER: USH 53 OSSEO - EAU CLAIRE, EAU CLAIRE COUNTY

TO PROPERLY ESTABLISH, LAY OUT, WIDEN, ENLARGE, EXTEND, CONSTRUCT, RECONSTRUCT, IMPROVE, OR MAINTAIN A PORTION OF THE HIGHWAY DESIGNATED ABOVE, THE STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION DEEMS IT NECESSARY TO RELOCATE OR CHANGE SAID HIGHWAY AND ACQUIRE CERTAIN LANDS AND INTERESTS OR RIGHTS IN LANDS FOR THE ABOVE PROJECT.

HEREBY ORDERS THAT:

TO EFFECT THIS CHANGE, PURSUANT TO AUTHORITY GRANTED UNDER SECTION 84.02 (3), 84.09, AND 84.30, WISCONSIN STATUTES, THE DEPARTMENT OF TRANSPORTATION

1. THAT PORTION OF SAID HIGHWAY AS SHOWN ON THIS PLAT IS LAID OUT AND ESTABLISHED TO THE LINES AND WIDTHS AS SO SHOWN FOR THE ABOVE PROJECT.
2. THE LANDS OR INTERESTS OR RIGHTS IN LANDS AS SHOWN ON THIS PLAT ARE REQUIRED BY THE DEPARTMENT FOR THE ABOVE PROJECT AND SHALL BE ACQUIRED IN THE NAME OF THE STATE OF WISCONSIN, PURSUANT TO THE PROVISIONS OF SECTION 84.09 (1) OR (2), WISCONSIN STATUTES.

EXISTING HIGHWAY RIGHT OF WAY BASED ON PLAT OF RIGHT OF WAY REQUIRED FED. AID PROJECT NO. 368C-D.

CONVENTIONAL SYMBOLS

FOUND IRON PIPE/PIN (1" UNLESS NOTED)
R/W MONUMENT •(SET)
R/W STANDARD ▲(SET)
SIGN | SIGN
SECTION CORNER MONUMENT
SECTION CORNER SYMBOL
FEE (HATCH VARIES)
TEMPORARY LIMITED EASEMENT
PERMANENT LIMITED EASEMENT
R/W BOUNDARY POINT RWB20
PARCEL NUMBER 102
UTILITY INTEREST 40
SIGN NUMBER (OFF PREMISE) 21-1
BUILDING

PROPOSED R/W LINE
EXISTING H.E. LINE
PROPERTY LINE
LOT & TIE LINES
SLOPE INTERCEPTS
CORPORATE LIMITS
NO ACCESS (BY PREVIOUS ACQUISITION/CONTROL)
ACCESS RESTRICTED (BY ACQUISITION)
NO ACCESS (BY STATUTORY AUTHORITY)
SECTION LINE
QUARTER LINE
SIXTEENTH LINE
EXISTING CENTERLINE
PROPOSED REFERENCE LINE
PARALLEL OFFSET

CONVENTIONAL UTILITY SYMBOLS

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

CONVENTIONAL ABBREVIATIONS

ACCESS POINT/ DRIVEWAY CONNECTION	AP	RELEASE OF RIGHTS	ROR
ACCESS RIGHTS	AR	REMAINING	REM.
ACRES	AC.	RIGHT-OF-WAY	R/W
AND OTHERS	ET.AL.	SECTION	SEC.
CENTERLINE	C/L	STATION	STA.
CERTIFIED SURVEY MAP	CSM	TEMPORARY LIMITED EASEMENT	TLE
CORNER	COR.	VOLUME	V.
DOCUMENT	DOC.		
EASEMENT	EASE.		
HIGHWAY EASEMENT	H.E.		
LAND CONTRACT	LC		
MONUMENT	MON.		
PAGE	P.		
PERMANENT LIMITED EASEMENT	PLE		
PROPERTY LINE	PL		
RECORDED AS	(100')		
REFERENCE LINE	R/L		

CURVE DATA

LONG CHORD	LCH
LONG CHORD BEARING	LCB
RADIUS	R
DEGREE OF CURVE	D
CENTRAL ANGLE OR DELTA	DELTA
LENGTH OF CURVE	L
TANGENT	TAN

BP STA = 7+00.00
Y = 244,177.45
X = 376,069.92

EP STA = 13+00.00
Y = 244,716.37
X = 375,806.16

R/W COURSE TABLE

COURSE	BEARING	DISTANCE
100 - 101	S26° 04' 15"E	50.00'
101 - 102	S52° 30' 00"E	139.58'
102 - 103	S26° 04' 43"E	60.00'
103 - 104	S03° 39' 44"W	91.00'
104 - 105	S63° 55' 45"W	17.00'
105 - 106	S26° 04' 15"E	135.99'
107 - 108	N26° 04' 15"W	80.00'
108 - 109	N50° 07' 26"W	114.98'
109 - 110	N26° 04' 43"W	65.00'
110 - 111	N13° 36' 42"E	46.78'
111 - 112	N63° 55' 45"E	17.00'
112 - 113	N26° 04' 15"W	164.00'

SCHEDULE OF LANDS & INTERESTS REQUIRED

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

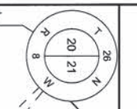
PARCEL NUMBER	OWNERS	INTEREST REQUIRED	R/W ACRES OR S.F. REQUIRED			TLE ACRES OR S.F.
			NEW	EXISTING	TOTAL	
1	JAMES STRAUCH	FEE & TLE	0.28 AC.	0.80 AC.	1.08 AC.	0.08 AC.

ALL AREAS SHOWN IN ACRES UNLESS OTHERWISE NOTED

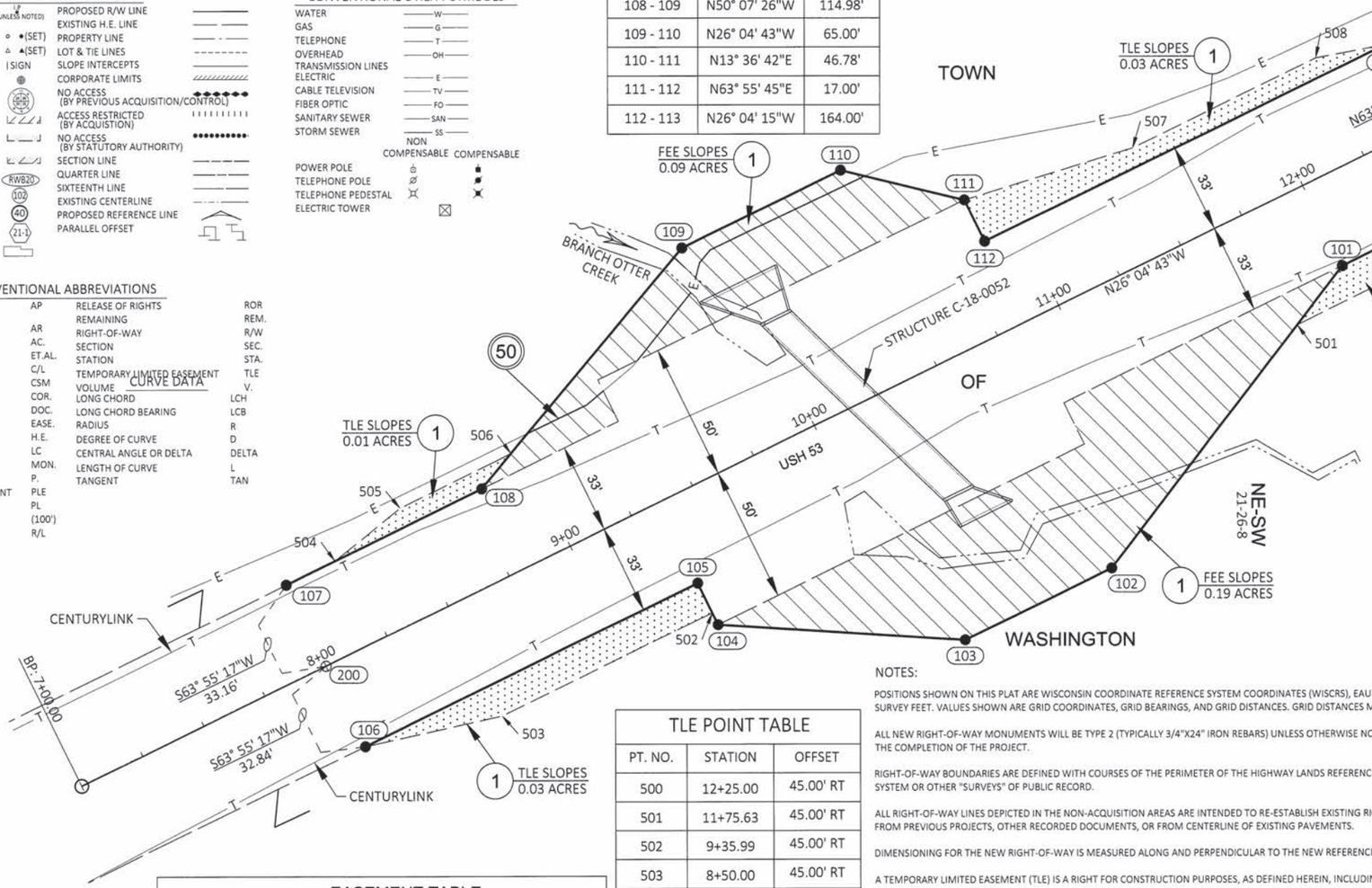
UTILITY INTERESTS REQUIRED

UTILITY NUMBER	UTILITY OWNERS	INTEREST REQUIRED
50	EAU CLAIRE ENERGY COOPERATIVE	RELEASE OF RIGHTS
51	CENTURYLINK	RELEASE OF RIGHTS

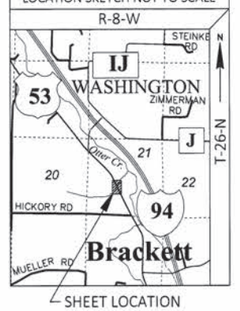
CONCRETE MONUMENT
W/BRSS DISK
Y = 245,232.55
X = 373,858.40



RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 7905-00-20 - 4.01
AMENDMENT NO. 1

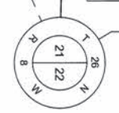


EAU CLAIRE COUNTY
LOCATION SKETCH NOT TO SCALE



SHEET LOCATION

CONCRETE MONUMENT
W/BRSS DISK
Y = 245,099.47
X = 379,106.14



GN

R/W POINT TABLE

PT. NO.	STATION	OFFSET
100	12+50.00	32.90' RT
101	12+00.00	32.89' RT
102	10+75.00	95.00' RT
103	10+15.00	95.00' RT
104	9+35.98	49.86' RT
105	9+35.99	32.86' RT
106	8+00.00	32.84' RT
107	8+00.00	33.16' LT
108	8+80.00	33.15' LT
109	9+85.00	80.00' LT
110	10+50.00	80.00' LT
111	10+86.00	50.12' LT
112	10+86.00	33.12' LT
113	12+50.00	33.10' LT
200	8+00.00	0.00' LT
201	12+50.00	0.00' LT

TLE POINT TABLE

PT. NO.	STATION	OFFSET
500	12+25.00	45.00' RT
501	11+75.63	45.00' RT
502	9+35.99	45.00' RT
503	8+50.00	45.00' RT
504	8+20.00	33.16' LT
505	8+50.00	40.00' LT
506	8+95.35	40.00' LT
507	11+50.00	40.00' LT
508	12+25.00	40.00' LT

EASEMENT TABLE

UTILITY NUMBER	OWNER	RECORDING INFORMATION	LOCATED IN R/W PARCEL
50	EAU CLAIRE ELECTRIC COOPERATIVE	DOC. 462336 VOL. 487, PG 177	1
50	EAU CLAIRE ELECTRIC COOPERATIVE	DOC. 763806 VOL. 1155, PG 597	1
51	CENTURYTEL OF CENTRAL WISCONSIN, LLC	DOC. 795652 VOL. 1244, PG 716	1
51	GENERAL TELEPHONE COMPANY OF WISCONSIN	DOC. 373401 VOL. 342, PG 569	1

NOTES:

POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COORDINATE REFERENCE SYSTEM COORDINATES (WISCRS), EAU CLAIRE 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.

ALL NEW RIGHT-OF-WAY MONUMENTS WILL BE TYPE 2 (TYPICALLY 3/4"X24" IRON REBARS) UNLESS OTHERWISE NOTED, AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT.

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

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

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

A TEMPORARY LIMITED EASEMENT (TLE) IS A RIGHT FOR CONSTRUCTION PURPOSES, AS DEFINED HEREIN, INCLUDING THE RIGHT TO OPERATE NECESSARY EQUIPMENT THEREON, THE RIGHT OF INGRESS AND EGRESS, AS LONG AS REQUIRED FOR SUCH PUBLIC PURPOSE, INCLUDING THE RIGHT TO PRESERVE, PROTECT, REMOVE, OR PLANT THEREON ANY VEGETATION THAT THE HIGHWAY AUTHORITIES MAY DEEM DESIRABLE. ALL (TLES) ON THIS PLAT EXPIRE AT THE COMPLETION OF THE CONSTRUCTION PROJECT FOR WHICH THIS INSTRUMENT IS GIVEN.

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

FOR THE CURRENT ACCESS CONTROL INFORMATION, CONTACT THE WISCONSIN DEPARTMENT OF TRANSPORTATION OFFICE IN EAU CLAIRE, WISCONSIN.

EXISTING RIGHT OF WAY FOR STH 53 ESTABLISHED FROM PREVIOUS DIVISION JOB 6076.

SCALE, FEET 0 25 50

MSA
ENGINEERING | ARCHITECTURE | SURVEYING
FUNDING | PLANNING | ENVIRONMENTAL
1230 SOUTH BOULEVARD, BARABOO, WI 53913
(608) 356-2771 www.msa-ps.com

I, KEVIN LORD PROFESSIONAL LAND SURVEYOR, HEREBY CERTIFY THAT IN FULL COMPLIANCE WITH THE PROVISIONS OF SECTION 84.095 OF THE WISCONSIN STATUTES AND UNDER THE DIRECTION OF THE DEPARTMENT OF TRANSPORTATION I HAVE SURVEYED AND MAPPED THIS TRANSPORTATION PROJECT PLAT AND SUCH PLAT CORRECTLY REPRESENTS ALL EXTERIOR BOUNDARIES OF THE SURVEYED LAND.

WISCONSIN LAND SURVEYOR — KEVIN O. LORD S-2645 MADISON, WIS.

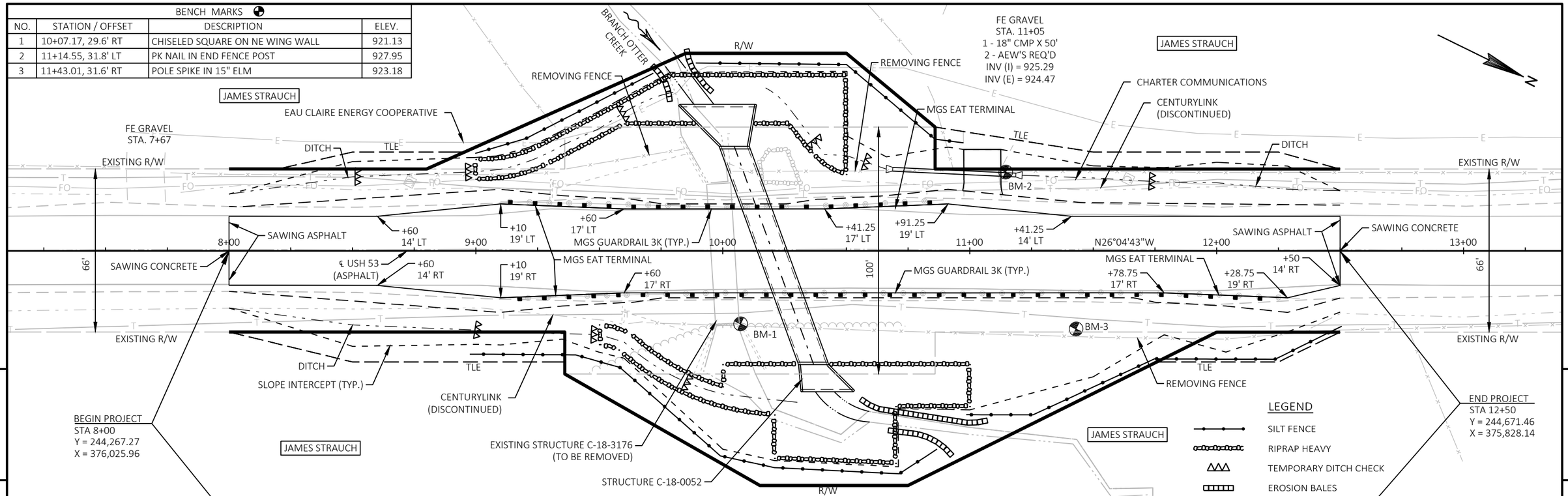
SIGNATURE: _____ DATE: 7/17/2020
PRINT NAME: KEVIN LORD
REGISTRATION NUMBER: S-2645

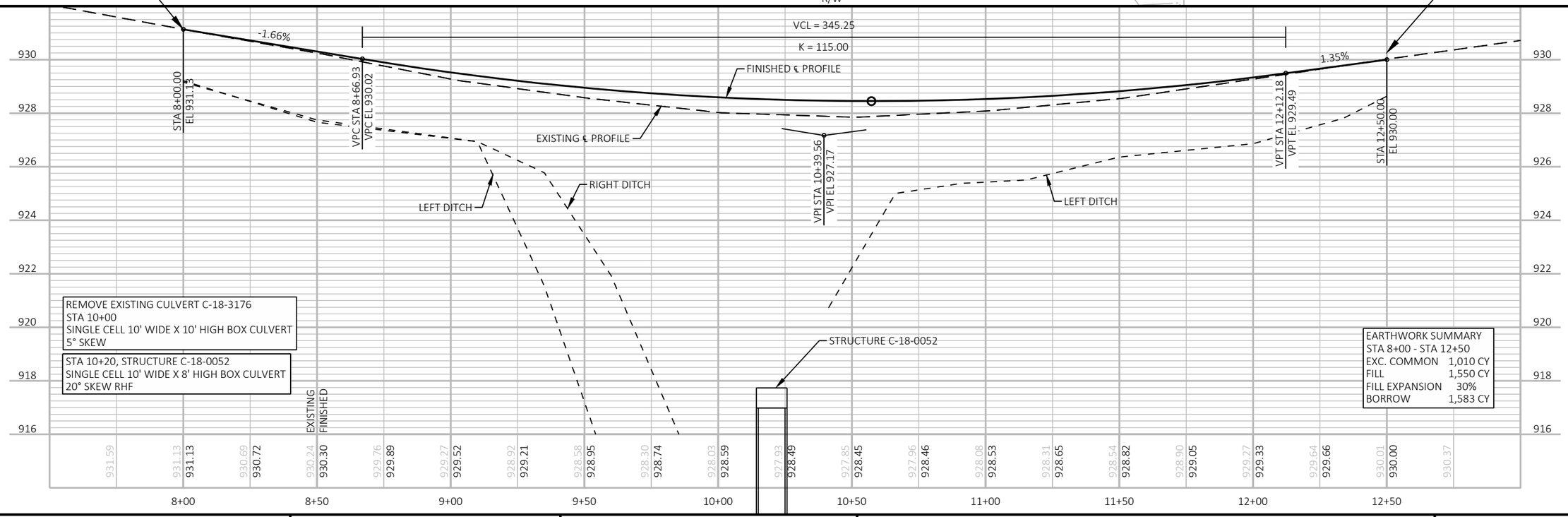
THIS PLAT AND RELOCATION ORDER ARE APPROVED FOR THE WISCONSIN DEPARTMENT OF TRANSPORTATION

SIGNATURE: _____ DATE: 7/17/2020
PRINT NAME: DEBRA STENSLAND

FILE NAME : P:\905\93\00093451\CADD\RW\7905_00_70_PRW.DWG
APPRAISAL PLAT DATE: OCTOBER 21, 2019
PLOT DATE : 7/17/2020 9:57 AM PLOT BY : BRAD LEE PLOT NAME : PLOT SCALE : 1 IN:50 FT
7905-00-20 - 4.01 - A1

BENCH MARKS			
NO.	STATION / OFFSET	DESCRIPTION	ELEV.
1	10+07.17, 29.6' RT	CHISELED SQUARE ON NE WING WALL	921.13
2	11+14.55, 31.8' LT	PK NAIL IN END FENCE POST	927.95
3	11+43.01, 31.6' RT	POLE SPIKE IN 15" ELM	923.18





REMOVE EXISTING CULVERT C-18-3176
STA 10+00
SINGLE CELL 10' WIDE X 10' HIGH BOX CULVERT
5° SKEW

STA 10+20, STRUCTURE C-18-0052
SINGLE CELL 10' WIDE X 8' HIGH BOX CULVERT
20° SKEW RHF

EARTHWORK SUMMARY	
STA 8+00 - STA 12+50	
EXC. COMMON	1,010 CY
FILL	1,550 CY
FILL EXPANSION	30%
BORROW	1,583 CY

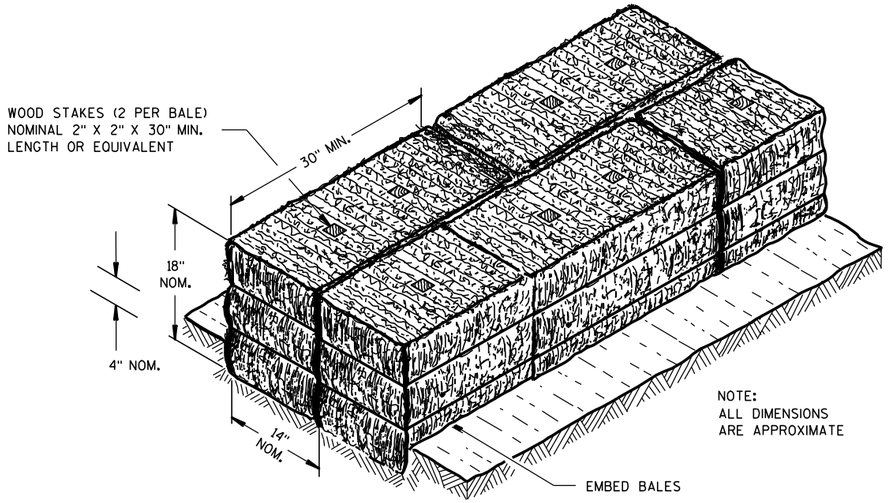
PROJECT NO: 7905-00-70	HWY: USH 53	COUNTY: EAU CLAIRE	PLAN AND PROFILE: USH 53	SHEET 15 E

FILE NAME : P:\90S\93\00093451\CADD\DESIGN\ALIPROFS\ALIPROF-USH 53.DWG
LAYOUT NAME - 050101_pp
PLOT DATE : 7/19/2021 2:30 PM PLOT BY : SHAWN DOLENS PLOT NAME : PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 44

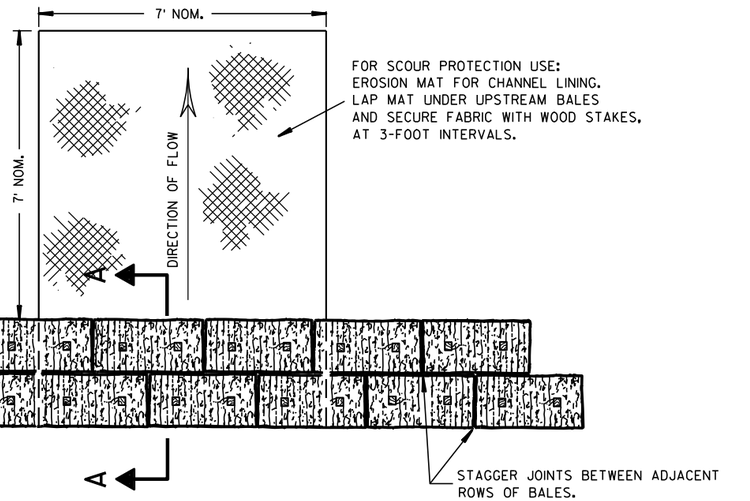
Standard Detail Drawing List

08E08-03	TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS
08E09-06	SILT FENCE
08F03-03	DETAILS FOR PIPE CATTLE PASS, CONCRETE ENDWALLS AND STEPS
12A03-10	NAME PLATE (STRUCTURES)
14B42-07A	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-07B	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-07C	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-07D	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B44-04A	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B44-04B	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B44-04C	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
15A01-13A	MARKER POST FOR RIGHT-OF-WAY
15A01-13B	FLEXIBLE MARKER POST FOR RIGHT-OF-WAY
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
15C08-20A	LONGITUDINAL MARKING (MAINLINE)
15C11-09B	CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS
15D38-02A	TEMPORARY TRAFFIC CONTROL SIGN MOUNTING
15D38-02B	ATTACHMENT OF SIGNS TO POSTS

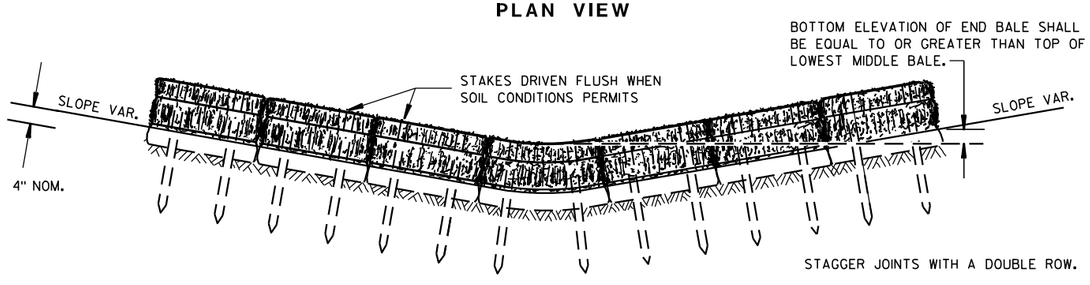
6



SECTION A-A



PLAN VIEW



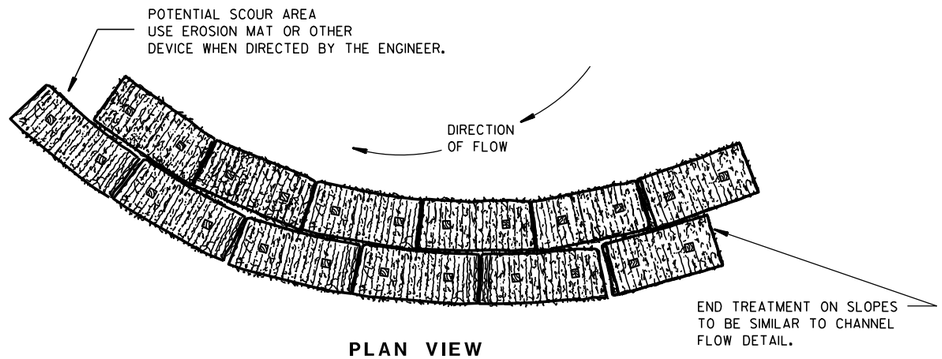
FRONT ELEVATION

TEMPORARY DITCH CHECK USING EROSION BALES (1)

GENERAL NOTES

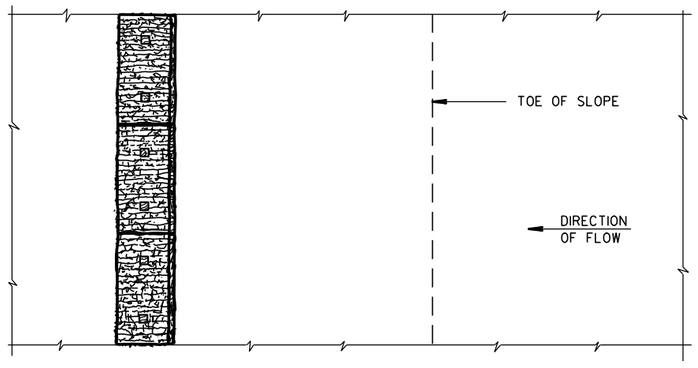
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

(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.

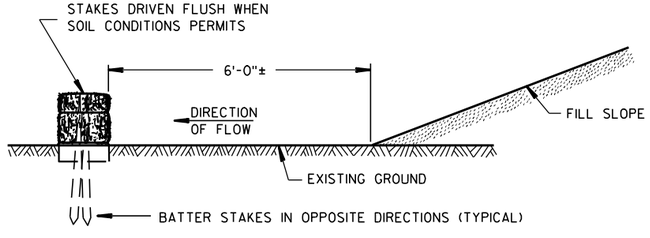


PLAN VIEW

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

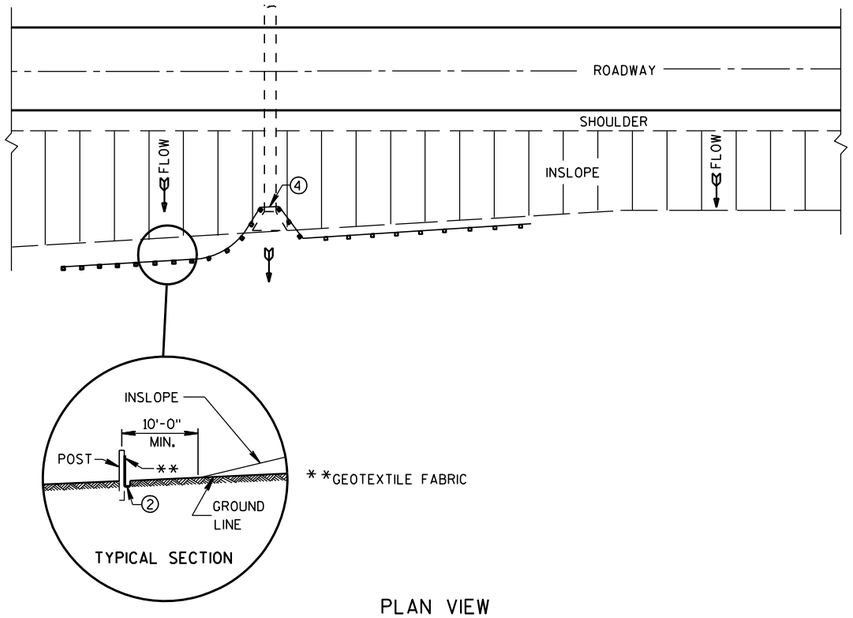
FHWA

6

S.D.D. 8 E 8-3

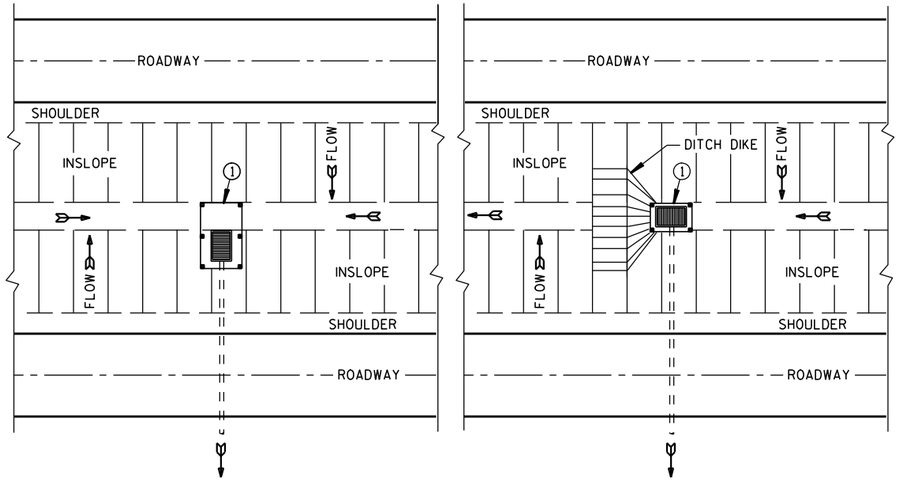
6

S.D.D. 8 E 8-3



PLAN VIEW

TYPICAL APPLICATION OF SILT FENCE



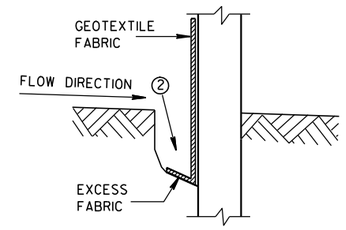
PLAN VIEW

SILT FENCE AT MEDIAN SURFACE DRAINS

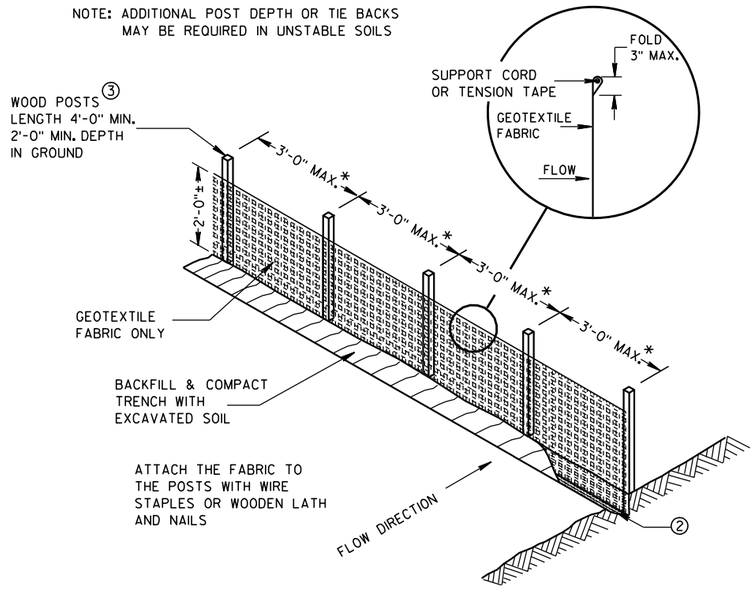
GENERAL NOTES

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

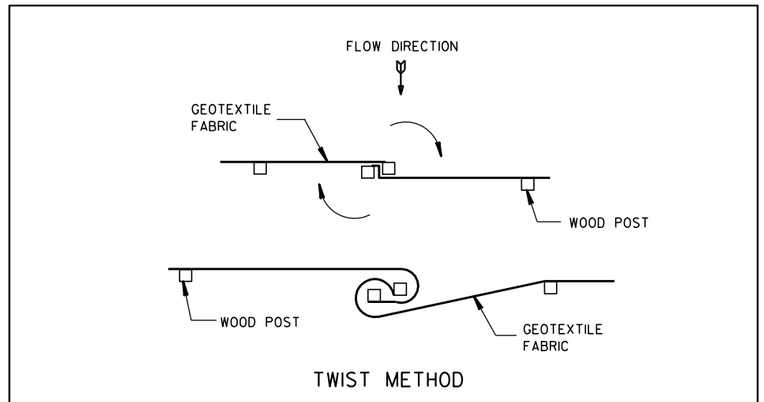
1. HORIZONTAL BRACE REQUIRED WITH 2" X 4" WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS.
2. FOR MANUAL INSTALLATIONS THE TRENCH SHALL BE A MINIMUM OF 4" WIDE & 6" DEEP TO BURY AND ANCHOR THE GEOTEXTILE FABRIC. FOLD MATERIAL TO FIT TRENCH AND BACKFILL & COMPACT TRENCH WITH EXCAVATED SOIL.
3. WOOD POSTS SHALL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



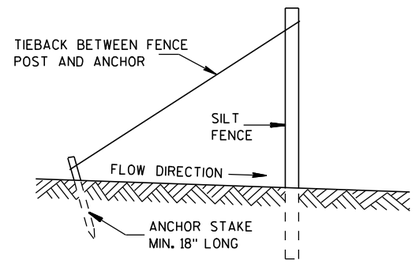
TRENCH DETAIL



SILT FENCE



JOINING TWO LENGTHS OF SILT FENCE 5



SILT FENCE TIE BACK

(WHEN REQUIRED BY THE ENGINEER)

SILT FENCE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

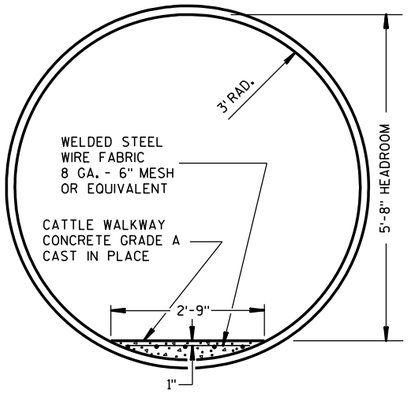
APPROVED
4-29-05 DATE
/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

6

S.D.D. 8 E 9-6

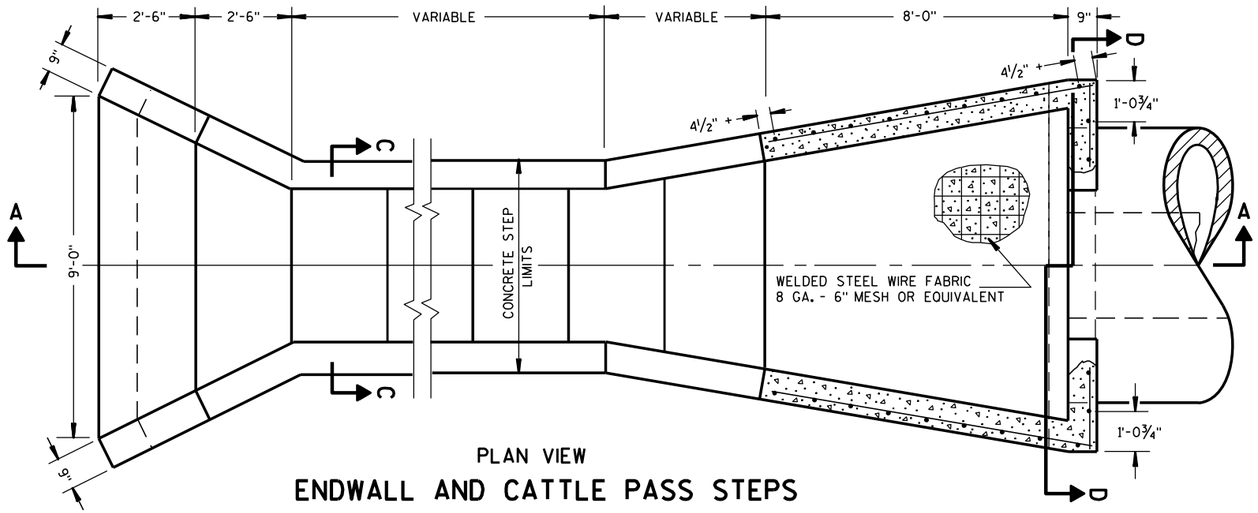
6

S.D.D. 8 E 9-6



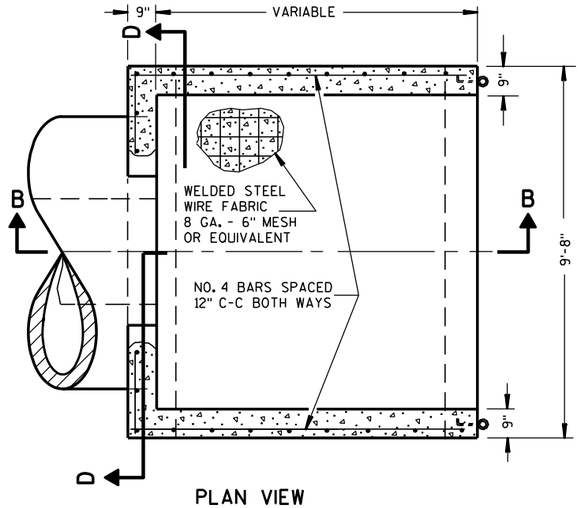
CROSS SECTION

CORRUGATED METAL PIPE CATTLE PASS



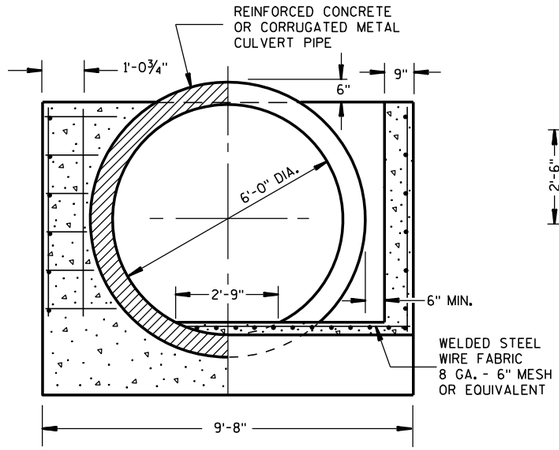
PLAN VIEW

ENDWALL AND CATTLE PASS STEPS

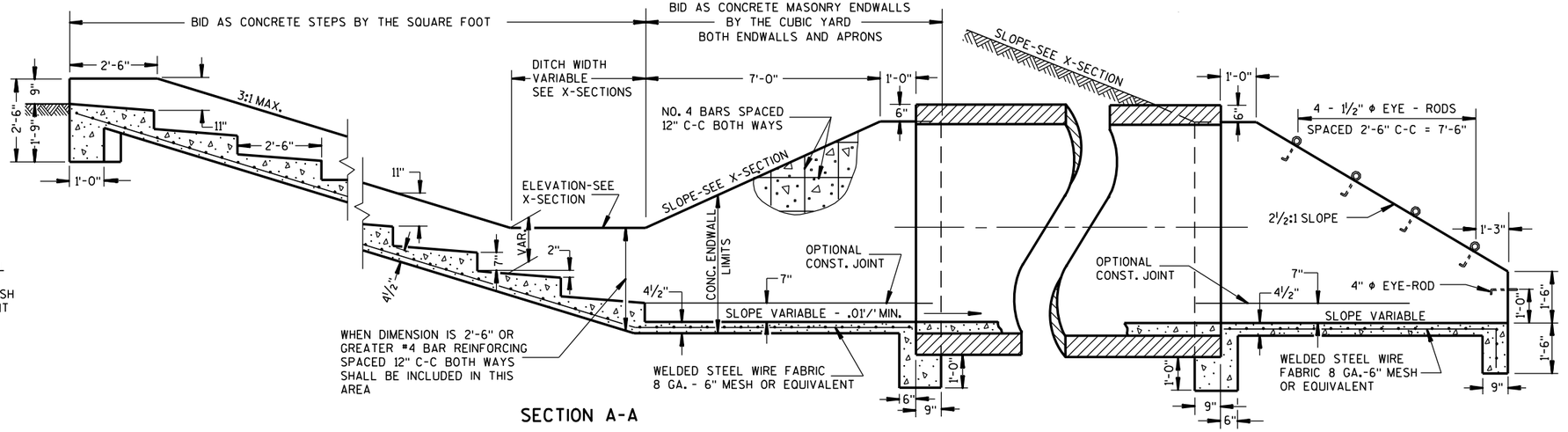


PLAN VIEW

ENDWALL FOR CATTLE PASS

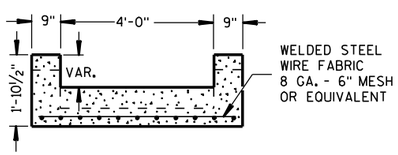


SECTION D-D

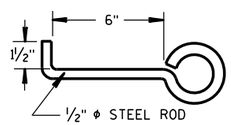


SECTION A-A

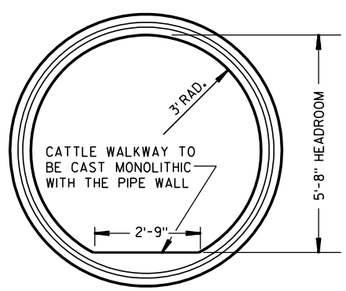
SECTION B-B



SECTION C-C



EYE-ROD ANCHOR



END VIEW

REINFORCED CONCRETE PIPE CATTLE PASS

GENERAL NOTES

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

ALL STEEL REINFORCEMENT IN ENDWALLS AND CATTLE PASS STEPS SHALL BE EMBEDDED 2 INCHES CLEAR UNLESS OTHERWISE NOTED.

ALL STEEL REINFORCEMENT OR FABRIC USED AS SHOWN ABOVE SHALL BE INCIDENTAL TO THE BID ITEM OF WHICH IT IS AN INTEGRAL PART.

EYE-RODS FOR FENCE CONNECTIONS SHALL BE PROVIDED BY THE CONTRACTOR AS AN INCIDENTAL TO THE BID ITEM OF CONCRETE MASONRY, ENDWALLS AND SHALL BE GALVANIZED.

CONCRETE USED FOR THE CATTLE WALKWAY WITHIN THE PIPE SHALL BE INCIDENTAL TO THE BID ITEM OF PIPE CATTLE PASS.

DETAILS FOR PIPE CATTLE PASS, CONCRETE ENDWALL AND STEPS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

6/6/75 — DATE

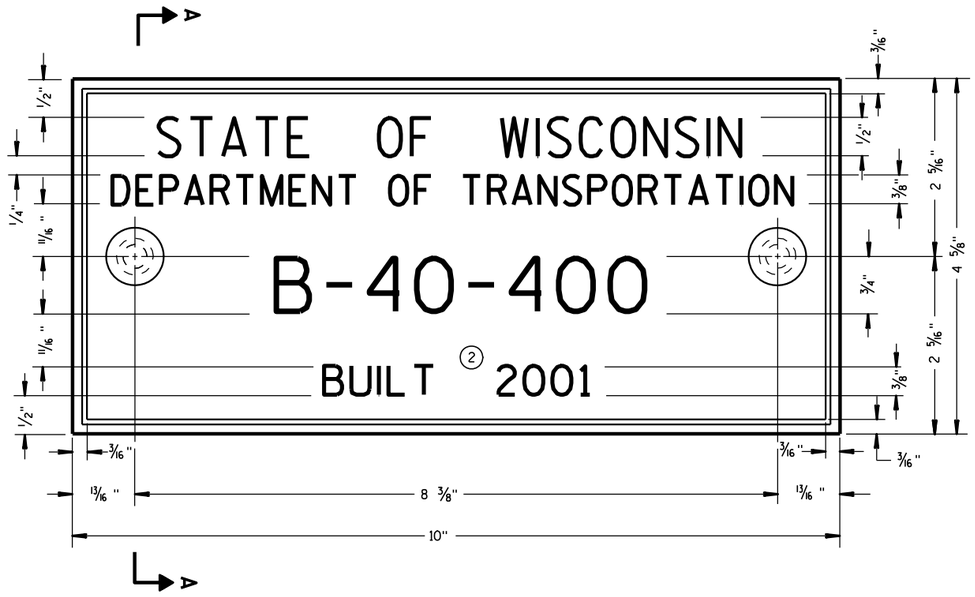
/S/ Harold Fiedler — STATE DESIGN ENGINEER

HWYS

FHWA

6

S.D.D. 8 F 3-3



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

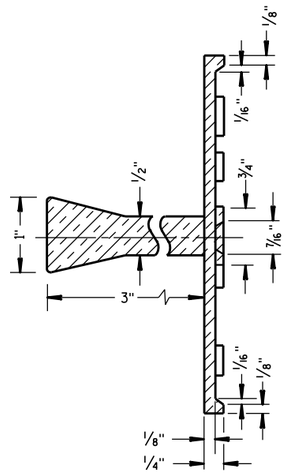
GENERAL NOTES

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

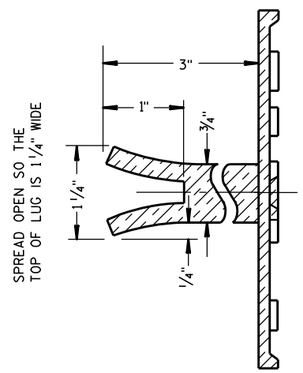
THE BRIDGE NUMBER AND YEAR BUILT SHOWN ON THIS DRAWING ARE EXAMPLES ONLY. SEE CONSTRUCTION PLANS FOR INDIVIDUAL NUMBERING AND YEAR BUILT.

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

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



SECTION A-A



ALTERNATE LUG

FOR MULTI-UNIT STRUCTURES LINE 3 ABOVE SHALL READ

B = BRIDGE
C = CULVERT
R = RETAINING WALL

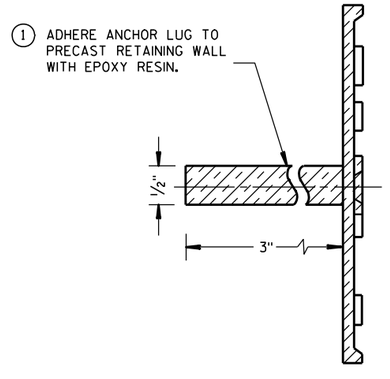
COUNTY NO.

BRIDGE NO.

UNIT NO. FOR MULTIPLE UNIT BRIDGE

B-40-400-1A

NUMBERING DESIGNATION
MULTI-UNIT STRUCTURES



ALTERNATE LUG
(FOR ATTACHMENT TO PRECAST STRUCTURES)

NAME PLATE (STRUCTURES)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

3/26/10 DATE

/S/ Scot Beck -- CHIEF STRUCTURAL DEVELOPMENT ENGINEER

FHWA

6

S.D.D. 12 A 3-10

(1) WOOD OR STEEL POSTS (w6X9 OR w6X8.5) MAY BE USED. DO NOT INTERMIX WOOD AND STEEL POSTS. INSTALL STEEL POSTS WITH HOLES ON APPROACHING TRAFFIC SIDE.

(2) USE WOOD OR APPROVED PLASTIC BLOCKOUTS. WOOD BLOCKOUTS MAY BE CONSTRUCTED OUT OF TWO OR MORE WOOD BLOCKOUTS. SEE ALTERNATE WOOD BLOCKOUT DETAIL. DIMENSIONS OF APPROVED PLASTIC BLOCKOUTS MAY VARY.

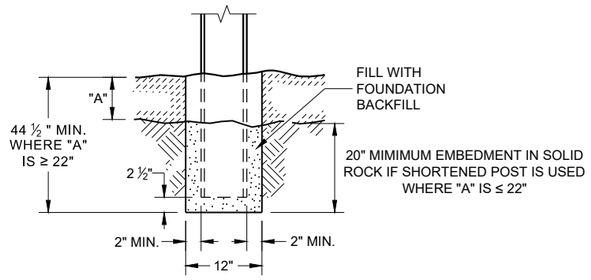
(3) IF ROCK IS ENCOUNTERED DURING EXCAVATION, PROVIDE A HOLE 12 INCHES IN DIAMETER EXTENDING 20 INCHES DEEP INTO THE ROCK. PLACE APPROXIMATELY 2 1/2" INCHES OF GRANULAR MATERIAL IN THE BOTTOM OF THE HOLE. CUT THE POSTS THE TO LENGTH AMD INSTALL. BACKFILL WITH EXCAVATED MATERIAL AND COMPACT. BACKFILL IS TO BE FREE OF LARGE ROCKS.

(4) WHEN THE DISTANCE FROM BACK OF POST TO SHOULDER HINGE POINT IS LESS THAN 2 FEET INSTALL LONGER POST AT HALF POST SPACING (K).

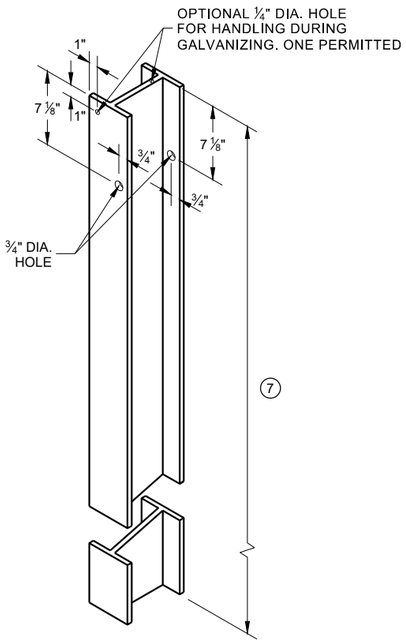
(5) FOR NEW MGS INSTALLATION TOP OF W-BEAM RAIL TOLERANCE IS ±1". FOR EXISTING MGS INSTALLATION TOP OF W-BEAM IS BETWEEN 27 ¾" TO 32".

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

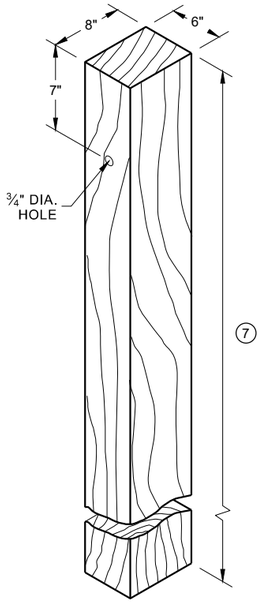
(7) TOTAL POST LENGTH FOR TYPE K IS 7' - 0".
TOTAL POST LENGTH FOR OTHER MGS TYPES IS 6' - 0".



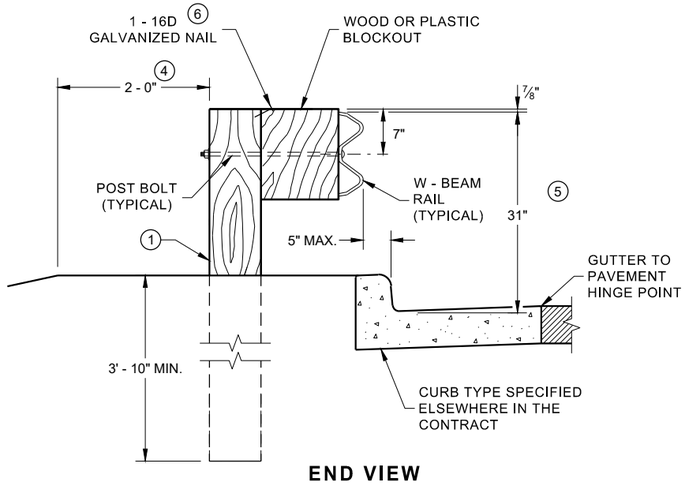
END VIEW
SETTING STEEL OR WOOD POST IN ROCK (3)



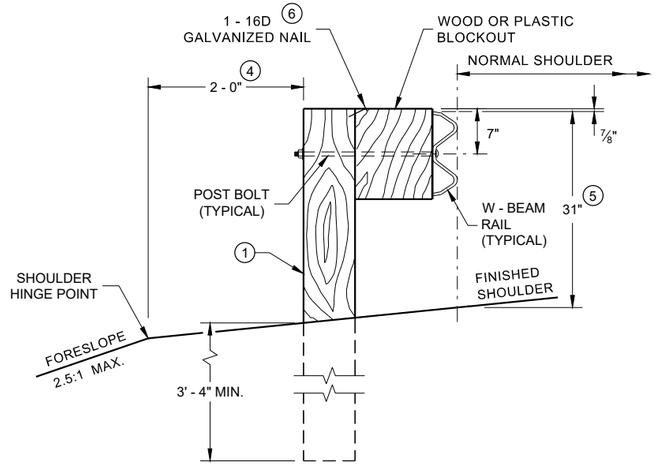
STEEL POST & HOLE PUNCHING DETAIL (W 6 X 9) (1)



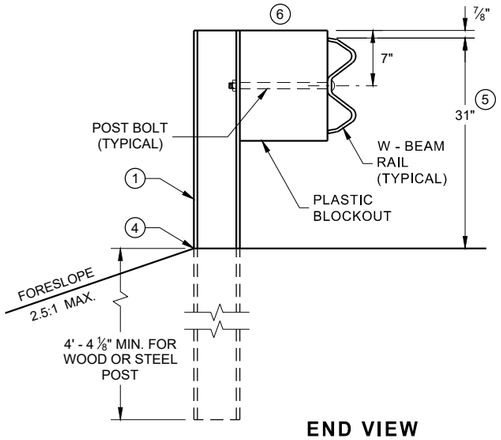
WOOD POST (6" X 8") NOMINAL (1)



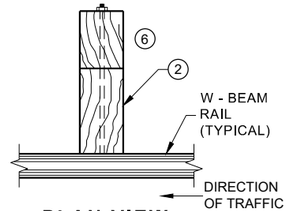
END VIEW
LOCATED ALONG A CURBED ROADWAY



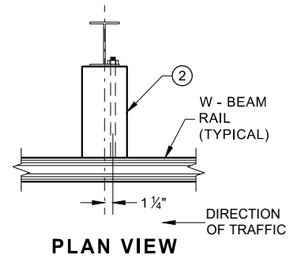
END VIEW
LOCATED ALONG A ROADWAY SHOULDER STANDARD INSTALLATION



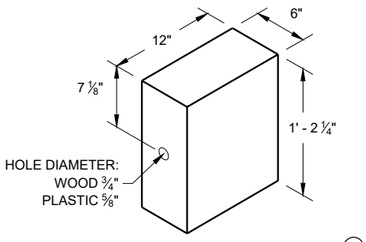
END VIEW
MGS LONGER POST AT HALFPOST SPACING W BEAM (K)



PLAN VIEW
WOOD POST, BLOCKOUT & BEAM



PLAN VIEW
STEEL POST, PLASTIC BLOCKOUT & BEAM



WOOD OR PLASTIC BLOCKOUT (2)

MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

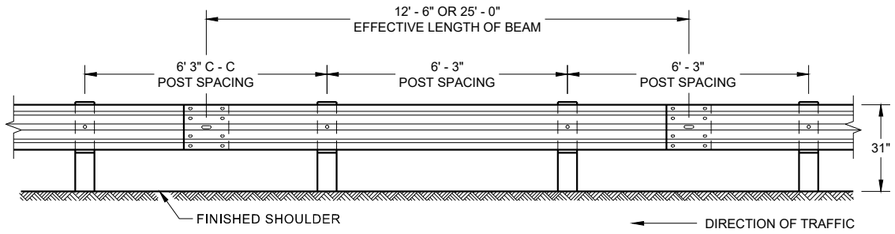
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

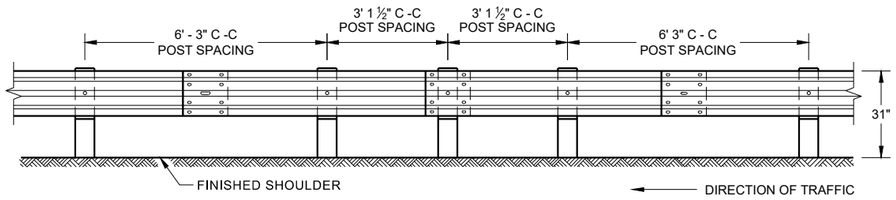
SDD 14B42 - 07a

6

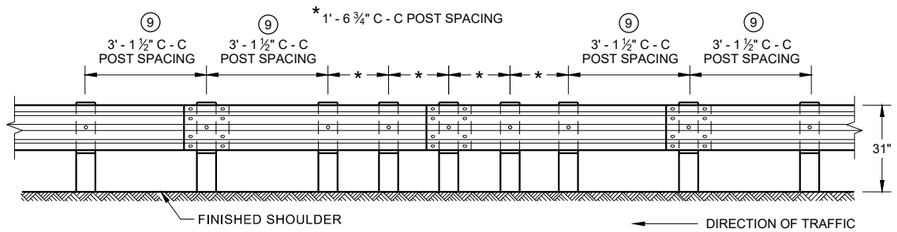
SDD 14B42 - 07a



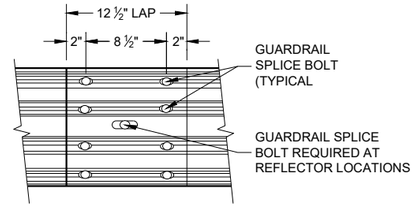
FRONT VIEW
POST SPACING STANDARD INSTALLATION



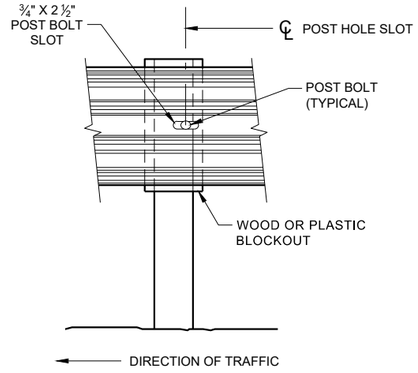
FRONT VIEW
HALF POST SPACING (HS) AND HALF POST SPACING WITH LONGER POSTS (K)



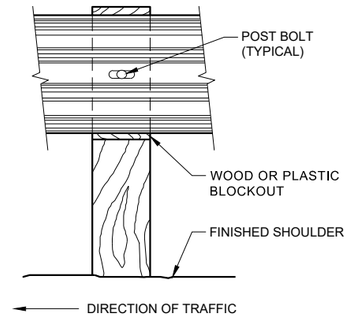
FRONT VIEW
QUARTER POST SPACING (QS)



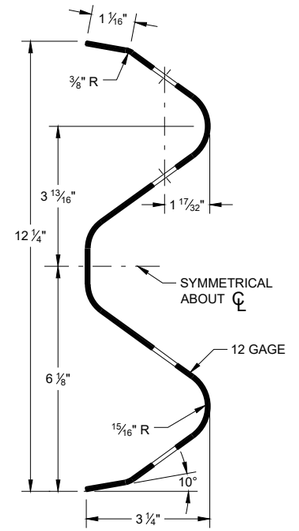
FRONT VIEW
MID-SPAN BEAM SPLICE



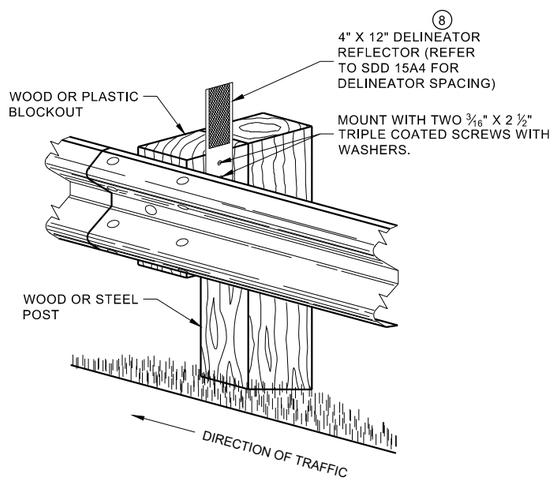
FRONT VIEW AT STEEL POST



FRONT VIEW AT WOOD POST



SECTION THRU W-BEAM RAIL



ONE SIDED REFLECTOR DETAIL AND TYPICAL INSTALLATION

GENERAL NOTES

⑧ DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL.

⑨ 25 FEET OF HALF POST SPACING IS REQUIRED ON APPROACH AND DEPARTURE ENDS OF QUARTER POST SPACING.

POST BOLTS ARE A ⅝" DIAMETER ASTM A307 GUARDRAIL BOLT. A POST BOLT REQUIRES ⅝" DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX NUT AND ⅝" DIAMETER F844 FLAT WASHER. POST BOLTS MAY BE LONGER IF MULTIPLE BLOCKOUTS ARE BEING USED.

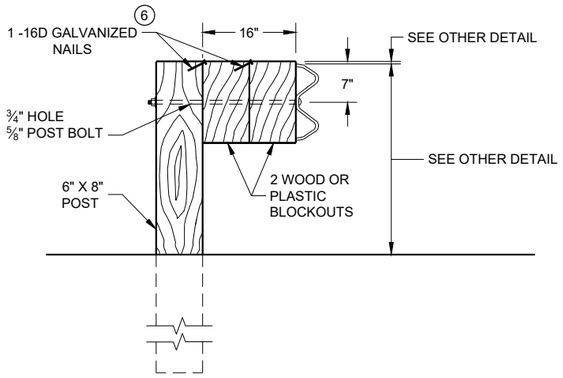
GUARD RAIL SPLICE BOLTS ARE A ⅝" DIAMETER ASTM A307 GUARDRAIL HEAD BOLT. A GUARDRAIL SPLICE BOLT REQUIRES ⅝" DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX NUT.

MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 14B42 - 07b
SDD 14B42 - 07b

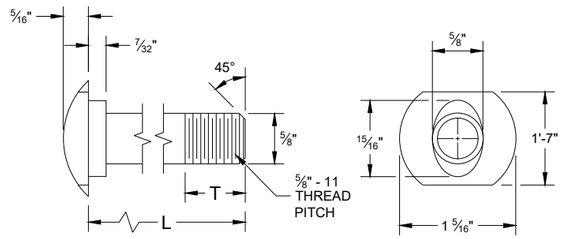


DETAIL FOR 16" BLOCKOUT DEPTH

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

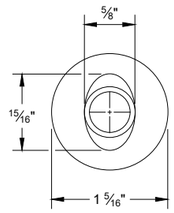
NOTE:

1. ALL FILLETS SHALL HAVE A MINIMUM RADIUS OF 3⁄16".
2. IF THE BOLT EXTENDS MORE THAN ¼" FROM THE NUT THE BOLT SHOULD BE TRIMMED BACK.

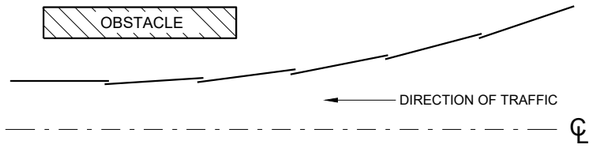


POST BOLT TABLE

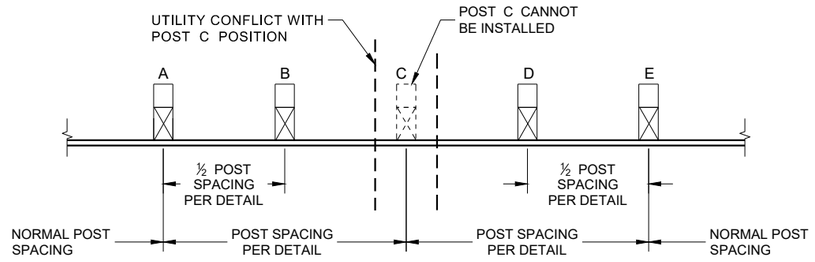
L	T (MIN.)
1 ¼"	1 ⅛"
2"	1 ¾"
10"	4"
14"	4 1⁄16"
18"	4"
21"	4 1⁄16"
25"	4"



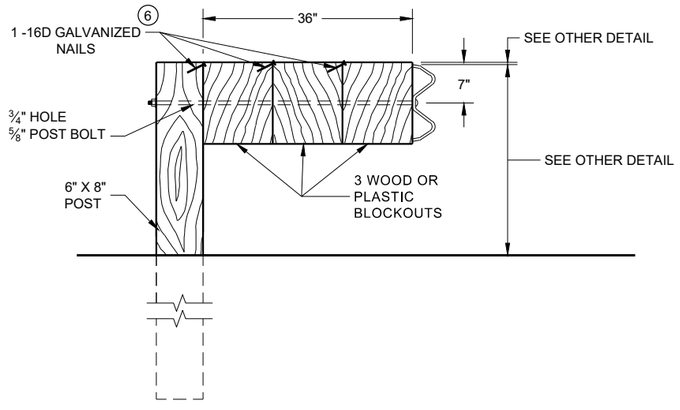
ALTERNATE BOLT HEAD



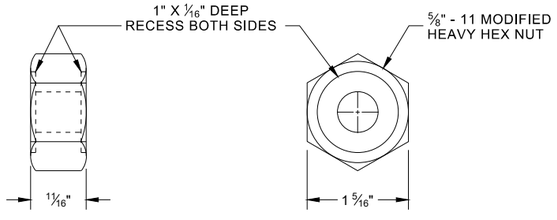
PLAN VIEW
BEAM LAPPING DETAIL



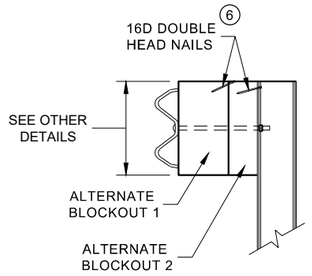
POST DRIVING FOR CONTINUOUS UNDERGROUND OBSTRUCTION



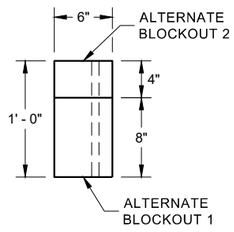
DETAIL FOR 36" BLOCKOUT DEPTH



POST BOLT, SPLICE BOLT AND RECESS NUT



SIDE VIEW



PLAN VIEW

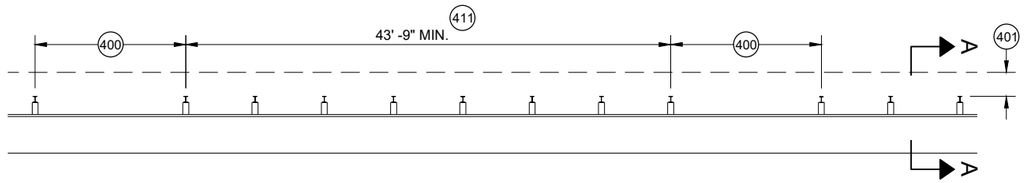
ALTERNATE WOOD BLOCKOUT DETAIL

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

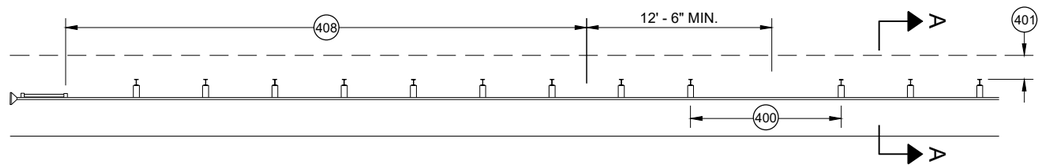
DO NOT USE 16" OR 36" BLOCKOUTS IF IT CAUSES THE POST TO BE DRIVEN BEYOND SHOULDER HINGE POINT OR CAUSES A FIXED OBJECT TO BE WITHIN THE DEFLECTION DISTANCE OF THE BARRIER.

(6) WHEN USING STEEL POST AD WOOD BLOCKOUTS, INSTALL FOUR 16D GALVANIZED NAILS. INSTALL NAILS AT THE BACK CORNERS OF THE BLOCK AND BEND THE NAILS OVER THE FLANGE OF THE STEEL POST.

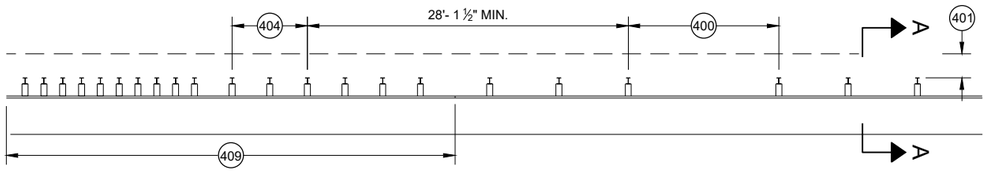
MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL



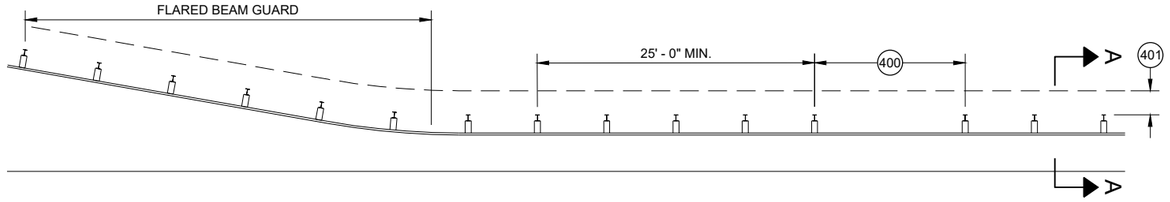
MISSING POST IN MGS GUARDRAIL



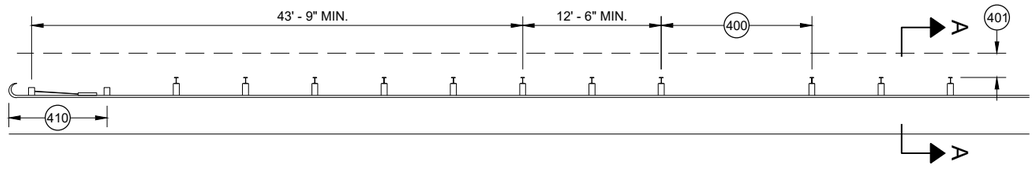
MISSING POST IN MGS GUARDRAIL NEAR EAT



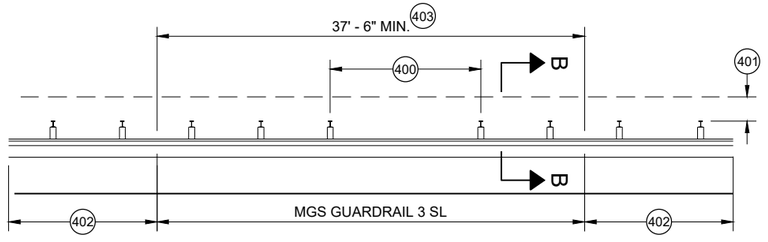
MISSING POST IN MGS GUARDRAIL NEAR AN APPROACH TRANSITION



MISSING POST IN MGS GUARDRAIL NEAR FLARED BEAM GUARD

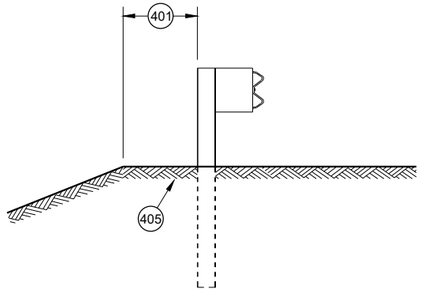


MISSING POST IN MGS GUARDRAIL NEAR A TYPE 2 END TERMINAL

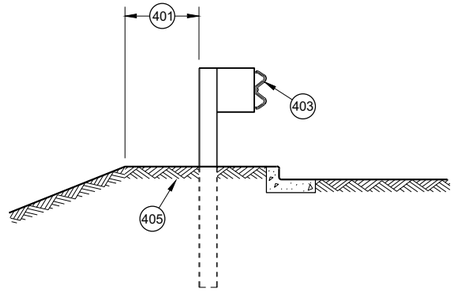


MISSING POST IN SHORT SPAN MGS GUARDRAIL NEAR CURB (SL) 407

(400) MAX SPAN 12' - 6"
(401) 2' MIN.
(402) MGS GUARDRAIL 3
(403) NESTING BEAM GUARD
(404) ASYMMETRIC TRANSITION
(405) SOIL WELL DRAINED AND COMPACTED
(406) SEE OTHER DRAWINGS IN THIS SDD
(407) SEE OTHER DRAWINGS FOR MIN. SPACING BETWEEN SPANS
(408) SEE SDD 14B44
(409) SEE SDD 14B45
(410) SEE SDD 14B47
(411) MINIMUM DISTANCE BETWEEN MISSING POST SPANS.



SECTION A - A 406



SECTION B - B 406

MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2021
DATE
/S/ Rodney Taylor
ROADWAY STANDARDS DEVE
UNIT SUPERVISOR

FHWA

6

SDD 14B42 - 07d

GENERAL NOTES

(A) THE SLOPE IN THE AREA BOUNDED BY THE GRADELINE, THE HINGE POINT LINE (HPL) AND THE CLEAR ZONE LIMITS (CZL) SHALL BE 4:1 OR FLATTER.

(B) AFTER FINAL ASSEMBLY, RECHECK CABLE TO BE SURE IT IS TAUT AND HAS NOT RELAXED

(C) DIFFERENT MANUFACTURERS REQUIRE DIFFERENT PERFORATED W - BEAM RAIL END PANELS. SEE MANUFACTURER'S INFORMATION.

(D) ATTACH ALUMINUM SHEET TO E.A.T. HEAD USING 4 STAINLESS STEEL SELF - TAPPING SCREWS. ONE SCREW PER CORNER.

(E) HARDWARE MAY VARY BETWEEN MANUFACTURER. SEE MANUFACTURER'S DRAWING FOR INFORMATION.

DIMENSIONS MAY VARY, MANUFACTURER'S INFORMATION.

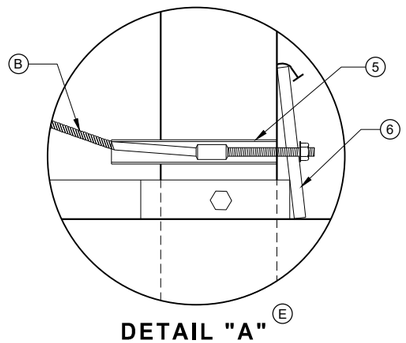
SEE SDD 14B42 FOR MORE INFORMATION.

* DO NOT ATTACH BLOCKOUTS TO POST 1 AND 2.

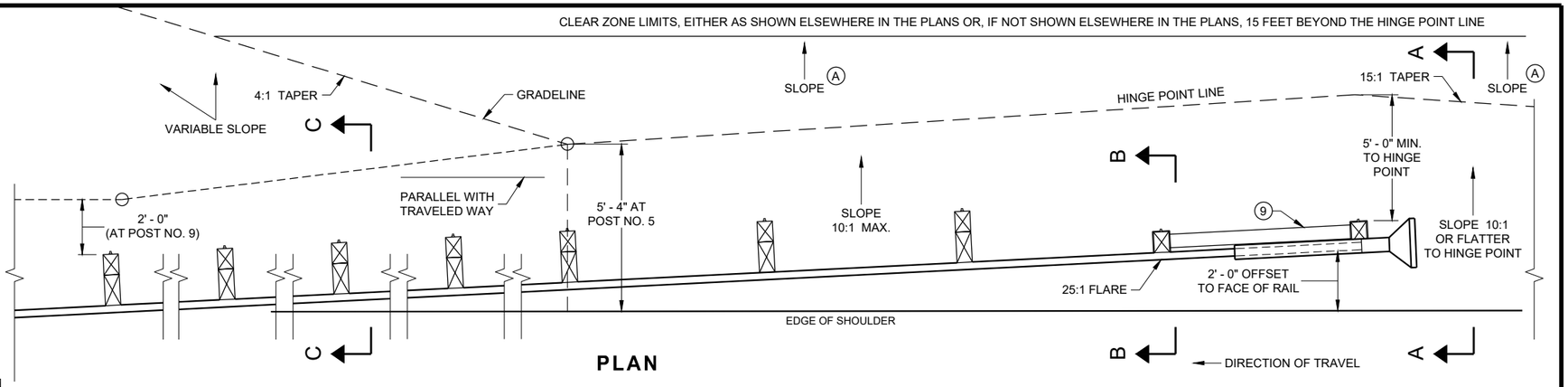
DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL.

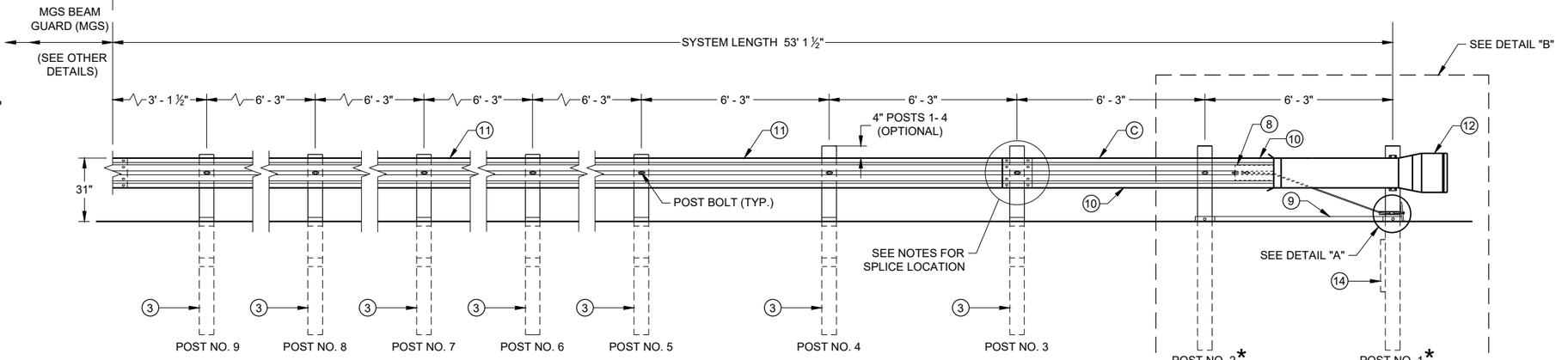
SEE MANUFACTURER'S DRAWING FOR SPLICE LOCATION, HARDWARE DIMENSIONS AND INSTALLATION INSTRUCTIONS.

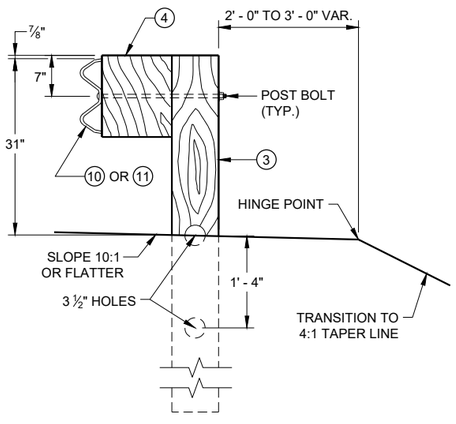
THE CENTER OF THE UPPER 3 ½" DIAMETER HOLE ON POST NUMBER 3 THROUGH POST 9 IS TO BE FLUSH WITH THE GROUND LINE UP TO A MAXIMUM OF 2" ABOVE GROUND LINE. WOOD BLOCKS ON POSTS NUMBERED 3 THROUGH 9 MAY BE ADJUSTED UP TO 3" ABOVE THE TOP OF POST.



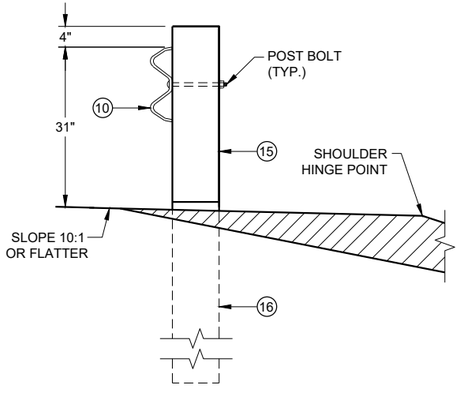
DETAIL "A" (E)



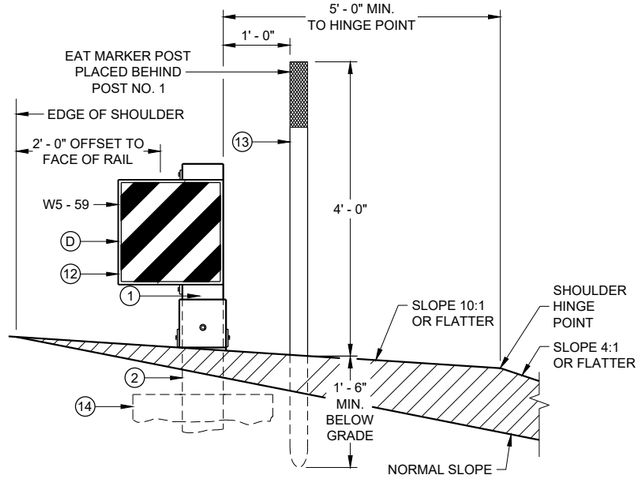




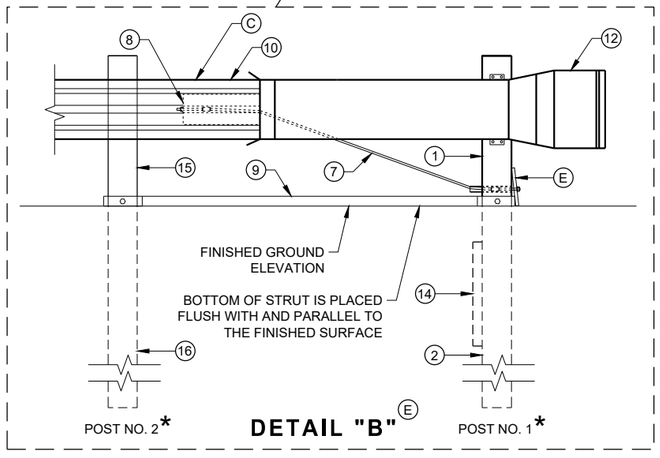
SECTION C - C
TYPICAL AT POST NOS. 3 - 9



SECTION B - B
TYPICAL AT POST NO. 2*



SECTION A - A
TYPICAL AT POST NO. 1*

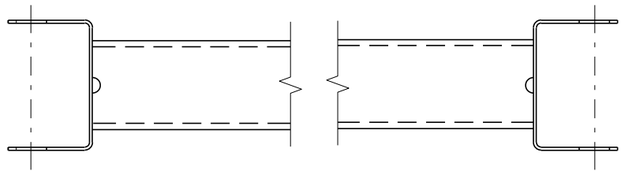


MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

SDD 14B44 - 04a

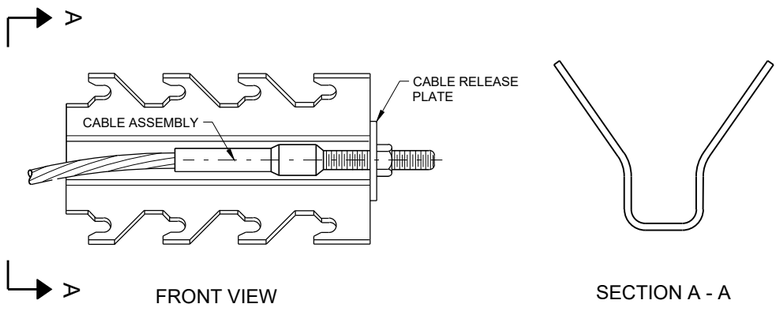
SDD 14B44 - 04a



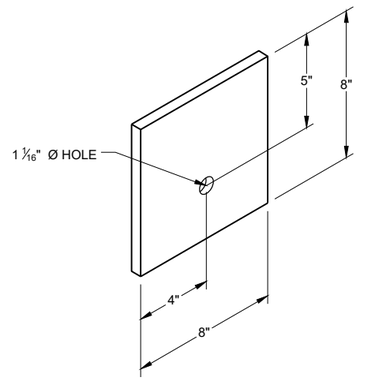
GENERIC GROUND STRUT ⑨ Ⓔ

BILL OF MATERIALS

PART NO.	DESCRIPTION MATERIALS PROVIDED BY MGS EAT MANUFACTURER. SEE MANUGACTURER'S DETAILS FOR MORE INFORMATION.
①	UPPER POST NO. 1 6" X 6" TUBE
②	LOWER POST NO. 1
③	WOOD CRT
④	WOOD BLOCKOUT
⑤	PIPE SLEEVE
⑥	BEARING PLATE
⑦	BCT CABLE ASSEMBLY
⑧	ANCHOR CABLE BOX
⑨	GROUND STRUT
⑩	PERFORATED W-BEAM RAIL END PANEL, 12'-6" LONG.
⑪	STANDARD W-BEAM RAIL. MULTIPLE SECTIONS REQUIRED. SECTIONS VARY IN LENGTH.
⑫	IMPACT HEAD
⑬	EAT MARKER POST - YELLOW (SEE APPROVED PRODUCTS LIST)
⑭	SOIL PLATE
⑮	UPPER POST NO. 2
⑯	LOWER POST NO. 2



GENERIC ANCHOR CABLE BOX ⑨ Ⓔ



BEARING PLATE ⑥ Ⓔ

6

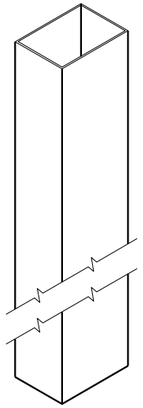
6

SDD 14B44 - 04b

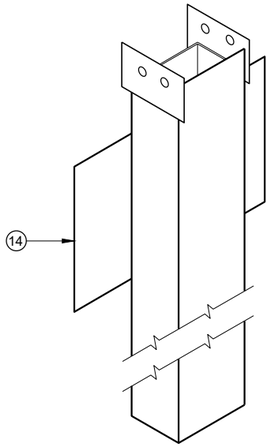
SDD 14B44 - 04b

MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL
(MGS)

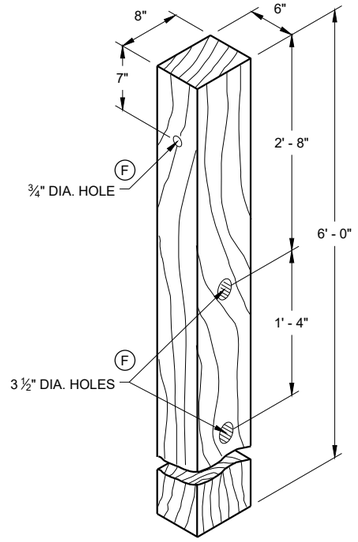
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



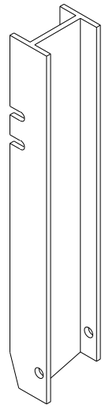
UPPER POST NO. 1 (1) (E)



LOWER POST NO. 1 (2) (E)



WOOD CRT POST (3) (E)
POSTS NUMBER 3-9



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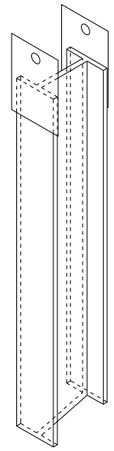
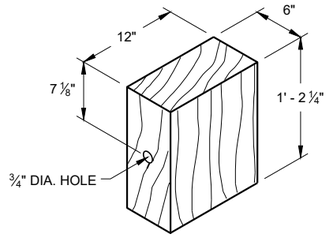
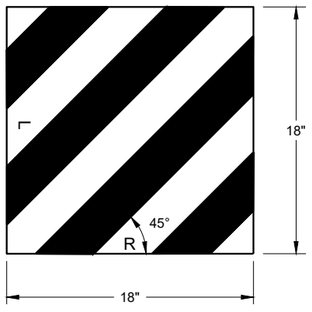


LOWER POST NO. 2 (16) (E)

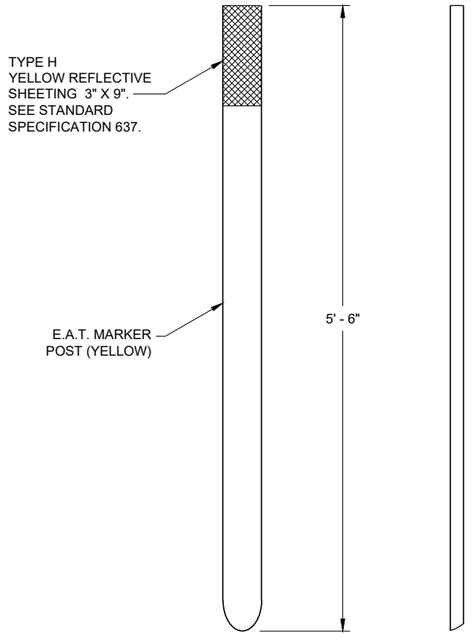


WOOD BLOCKOUT (4)
REQ'D. AT ALL POSTS EXCEPT POST NO'S 1 & 2



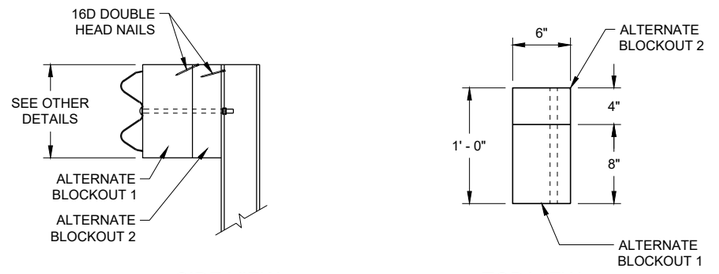
W5 - 59

REFLECTIVE SHEETING DETAIL (E)



FRONT VIEW SIDE VIEW

E.A.T. MARKER POST (13)



SIDE VIEW TOP VIEW

ALTERNATE WOOD BLOCKOUT DETAIL

MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)

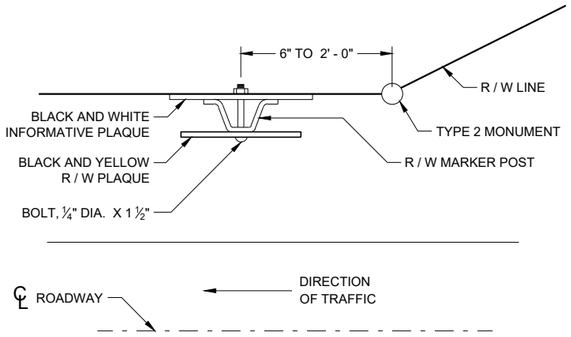
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
7/2018 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS DEVE UNIT SUPERVISOR

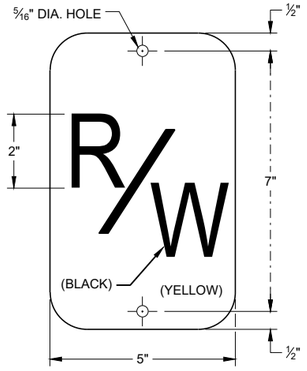
FHWA

6

SDD 14B44 - 04c

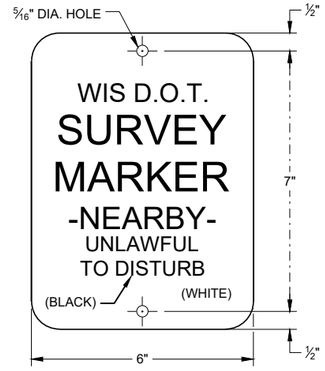


PLAN VIEW
STEEL MARKER POST



R / W PLAQUE

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



INFORMATIVE PLAQUE

GENERAL NOTES

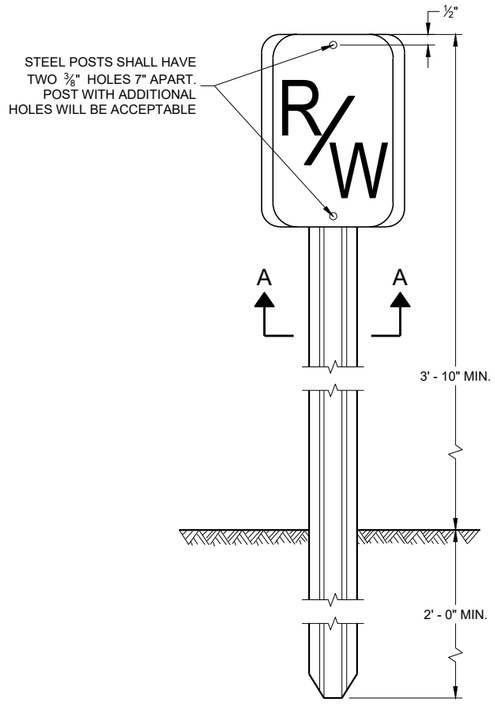
DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

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

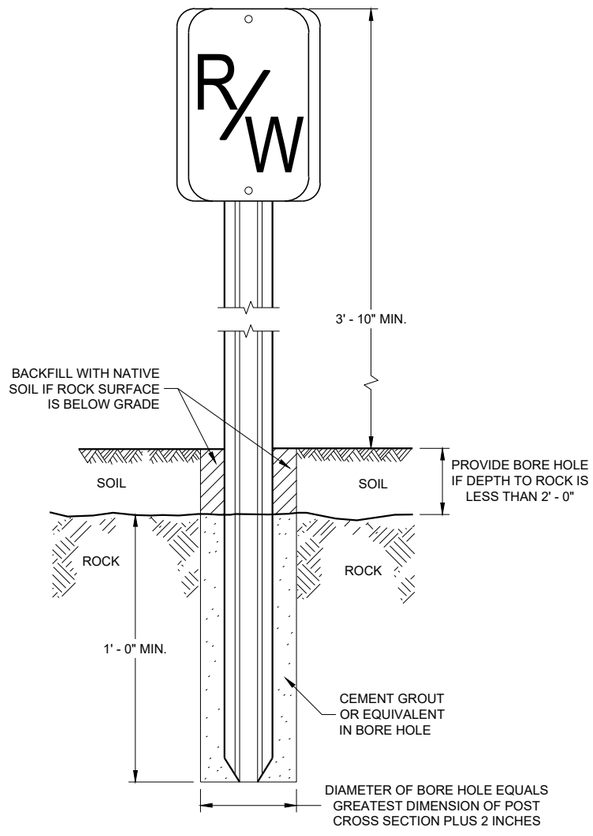
THE "R/W" PLAQUE SHALL FACE THE ROADWAY AND THE INFROMATIVE PLAQUE SHALL FACE AWAY FROM THE ROADWAY. "R/W" AND INFORMATIVE PLAQUES WILL BE FURNISHED BY THE WISCONSIN DEPARTMENT OF TRANSPORTATION.

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

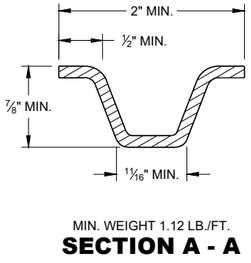
(1) IN AREAS OF SOLID ROCK, DRILL A BORE HOLE 2" GREATER THAN THE WIDEST DIMENSION OF THE POST CROSS SECTION INTO THE ROCK A MINIMUM DEPTH OF 12 INCHES. CUT OR SPLICE THE POST SO THAT A MINIMUM LENGTH OF 3' - 10" PROTRUDES ABOVE THE GROUND. BLOW OUT THE BORE HOLE IN THE ROCK USING COMPRESSED AIR. FILL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



FRONT VIEW
STEEL MARKER POST

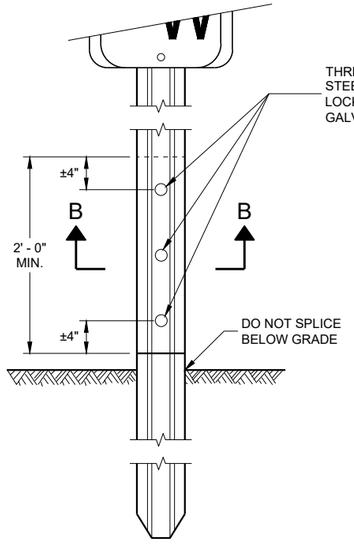


FRONT VIEW
ROCK INSTALLATION (1)

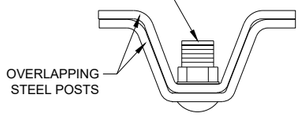


MIN. WEIGHT 1.12 LB./FT.

SECTION A - A



FRONT VIEW
SPLICE DETAIL



SECTION B - B

MARKER POST FOR RIGHT - OF - WAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

FHWA

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SDD 15A01 - 13a

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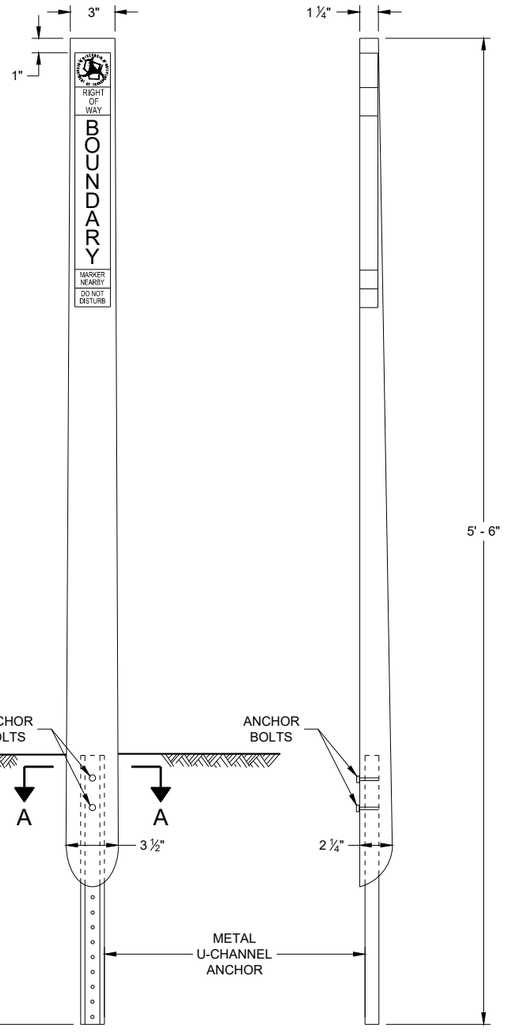
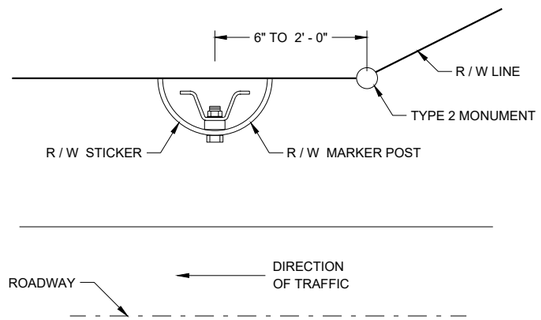
SDD15A01 - 13a

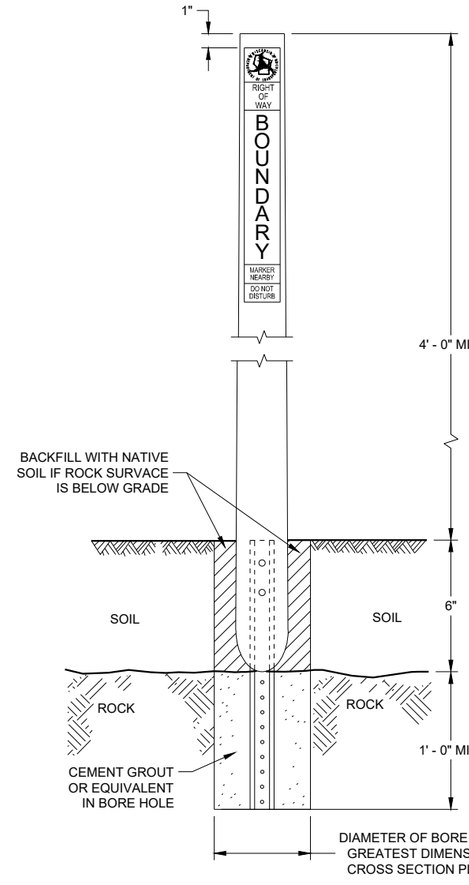


FRONT VIEW SIDE VIEW

FLEXIBLE MARKER POST FOR ① RIGHT-OF-WAY

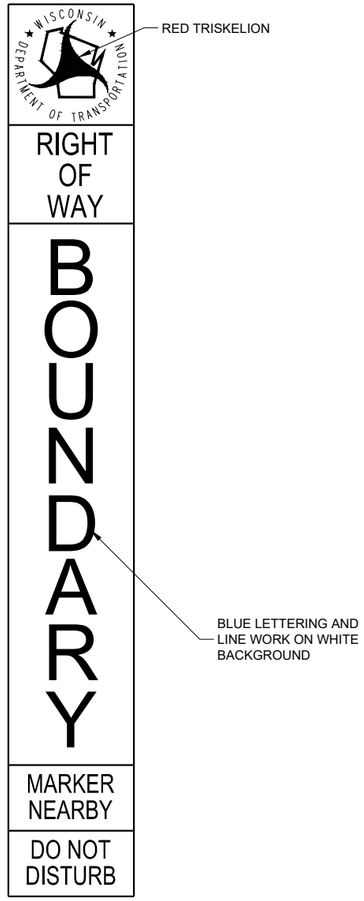


PLAN VIEW



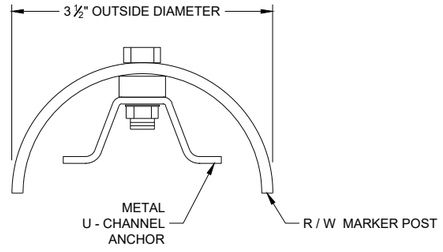
FRONT VIEW ① ②

ROCK INSTALLATION



RIGHT-OF-WAY STICKER

THE RIGHT-OF-WAY STICKER SHALL BE ATTACHED 1" FROM THE TOP OF THE RIGHT-OF-WAY POST PRIOR TO DELIVERY.



SECTION A - A

GENERAL NOTES

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

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

THE RIGHT-OF-WAY STICKER DIMENSIONS SHALL BE 2 ¼" X 17" AND THE STICKER SHALL BE MADE OF A NON-RELECTIVE VINYL MATERIAL. THE RIGHT-OF-WAY STICKER SHALL FACE THE ROADWAY.

INSTALL PER DEPTH OF MANUFACTURER'S RECOMMENDATION BUT NOT LESS THAN 18 INCHES BELOW GRADE FROM THE BOTTOM OF THE METAL U-CHANNEL ANCHOR.

① FLEXIBLE MARKER POSTS SHALL BE INCLUDED IN THE APPROVED PRODUCTS LIST FOR MARKER POSTS AND SHALL BE FEDERAL YELLOW IN COLOR.

② IN AREAS OF SOLID ROCK, DRILL A BORE HOLE 2" GREATER THAN THE WIDEST DIMENSION OF THE POST CROSS SECTION INTO THE ROCK A MINIMUM DEPTH OF 12 INCHES. CUT OR SPLICE THE POST SO THAT A MINIMUM LENGTH OF 4' - 0" PROTRUDES ABOVE THE GROUND. BLOW OUT THE BORE HOLE IN THE ROCK USING COMPRESSED AIR.

FILL THE BORE HOLE WITH CEMENT GROUT OR EQUIVALENT, DEPENDING ON THE STABILITY OF THE ROCK.

FLEXIBLE MARKER POST FOR RIGHT - OF -WAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

00-00-00
DATE

/S/ <AUTHOR>
CHIEF SURVEYING AND MA
ENGINEER

FHWA

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SDD15A01 - 13b

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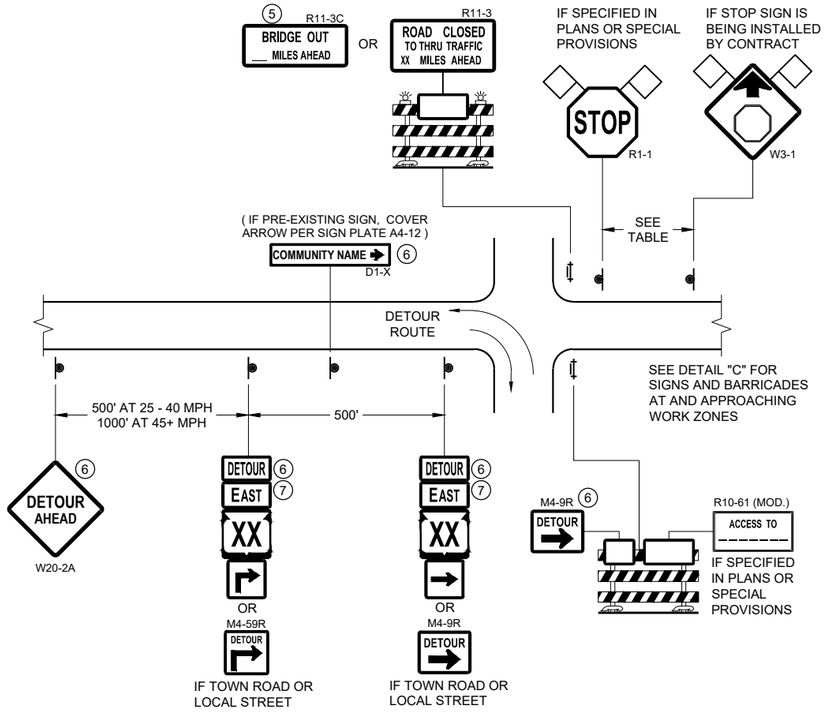
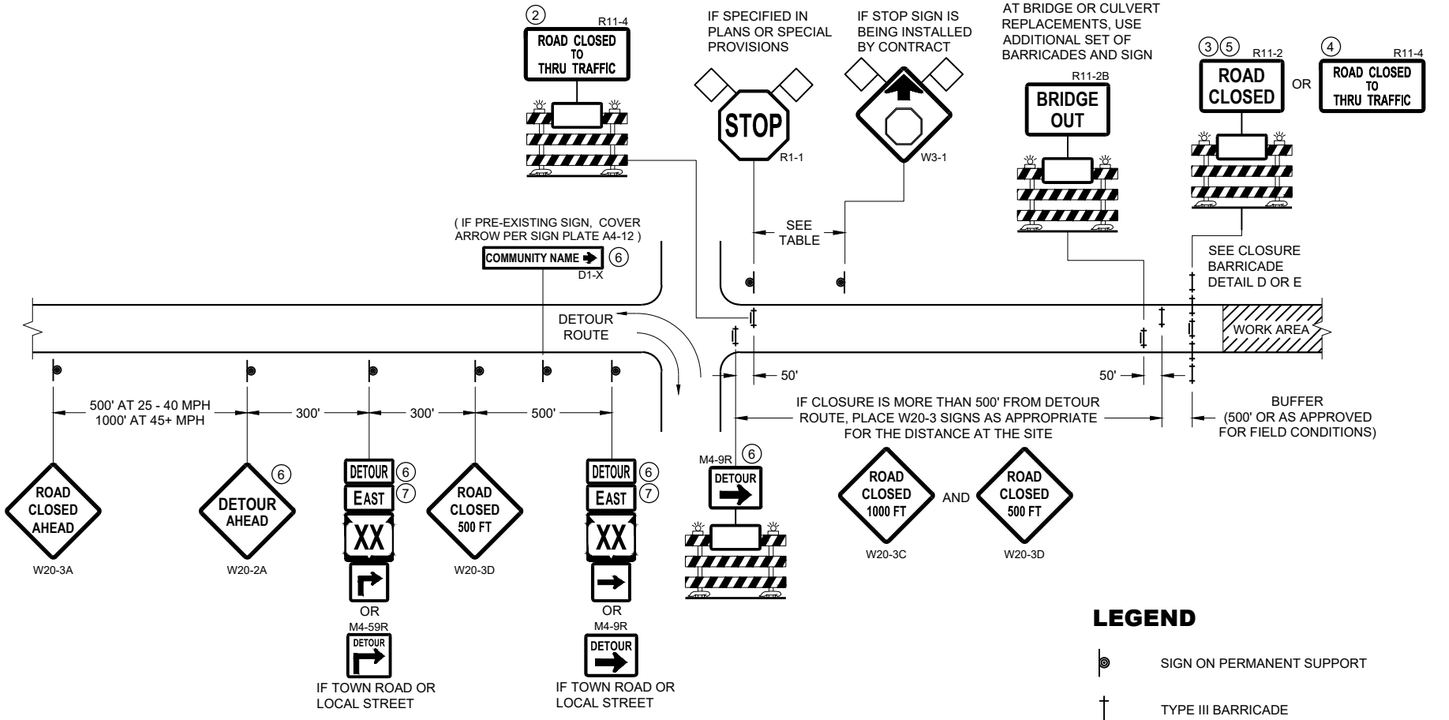
SDD15A01 - 13b



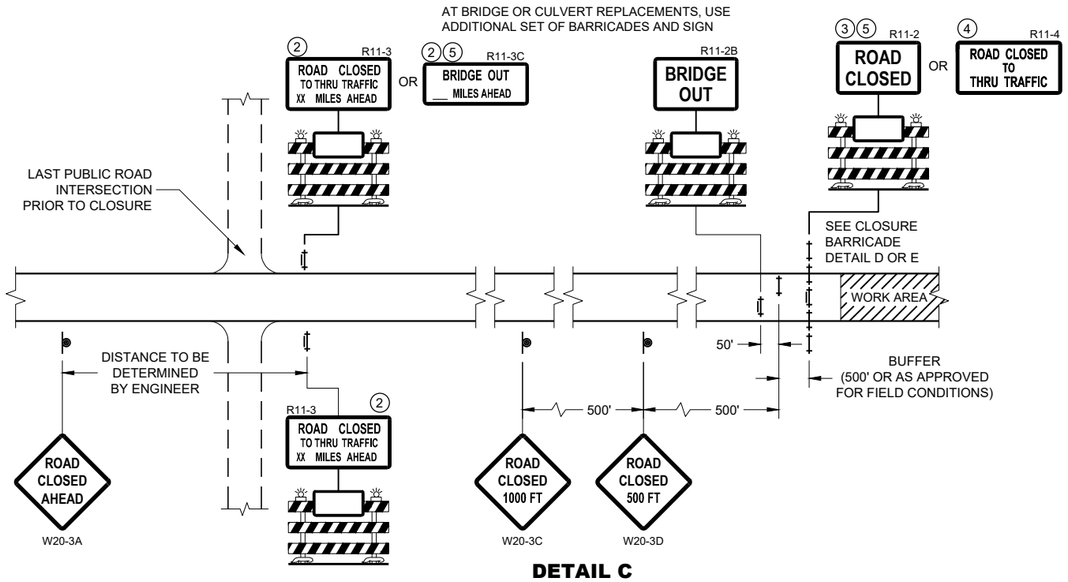
DETAIL A
MAINLINE CLOSURE WITH POSTED DETOUR

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)



DETAIL C
MAINLINE CLOSURE, NO POSTED DETOUR

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

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

LEGEND

- SIGN ON PERMANENT SUPPORT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- 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

BARRICADES AND SIGNS FOR MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

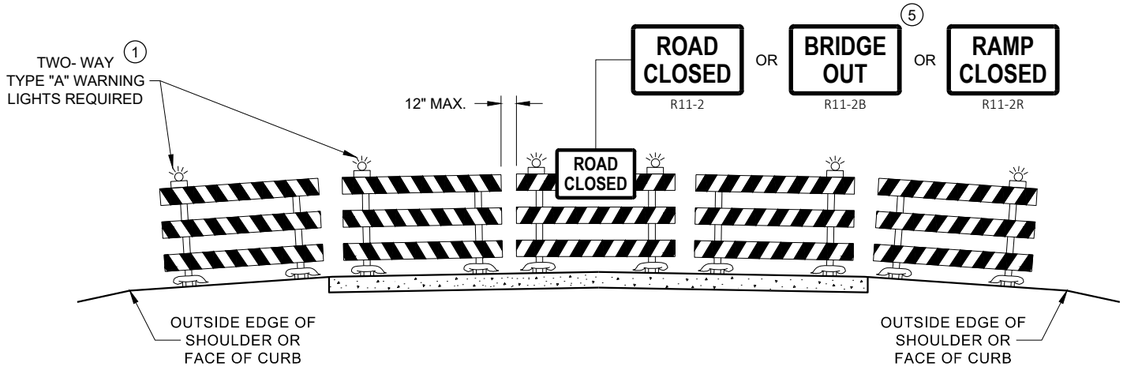
APPROVED
February 2020
DATE
/S/ Andrew Heidtke
WORK ZONE ENGINEER

FHWA

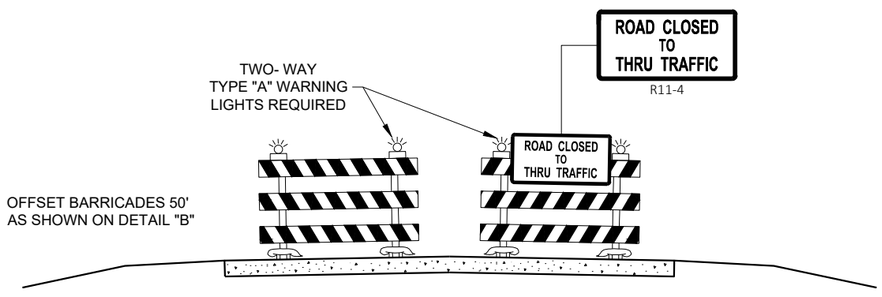
6

SDD 15C02 - 08a

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.

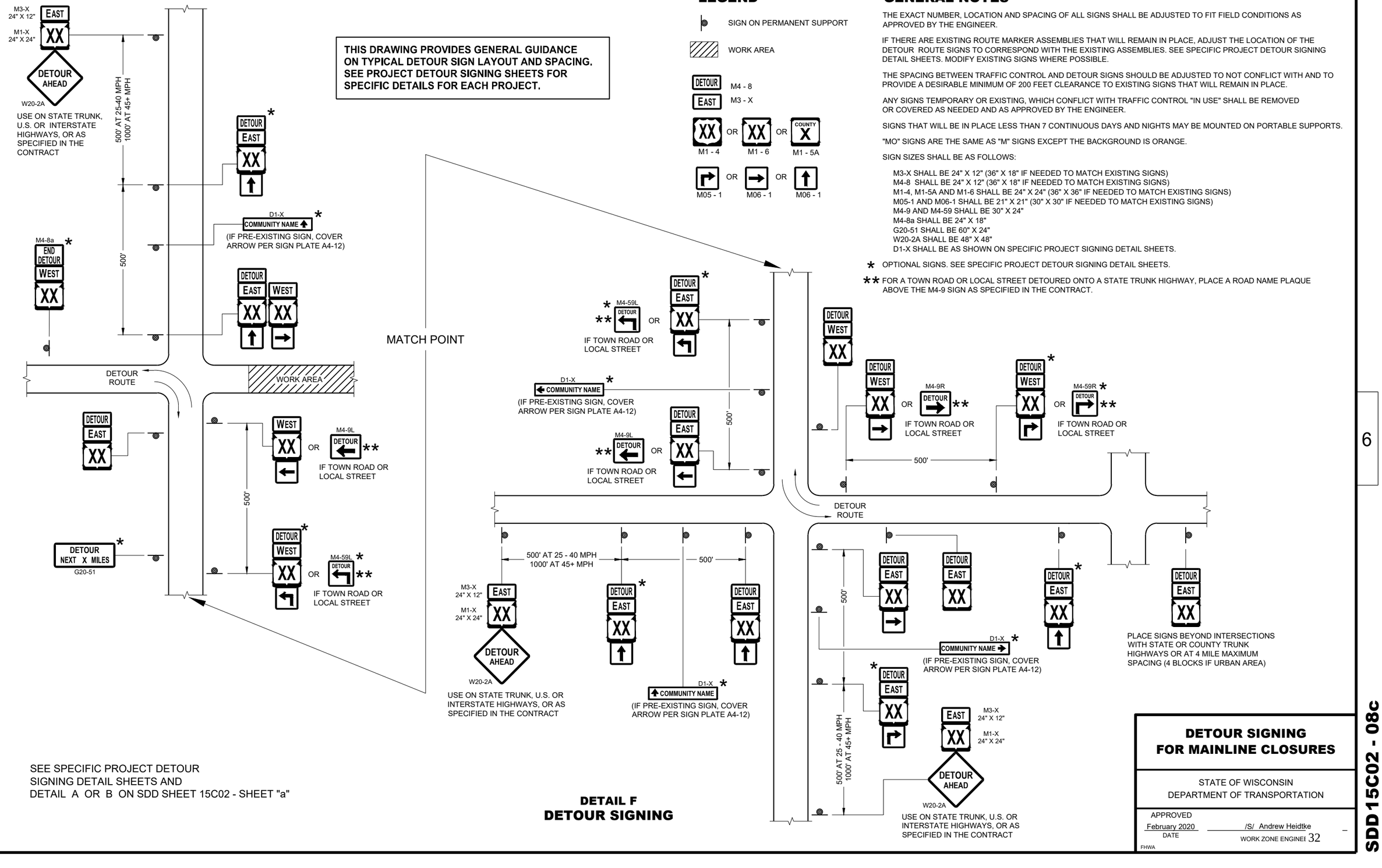
"MO" SIGNS ARE THE SAME AS "M" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

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

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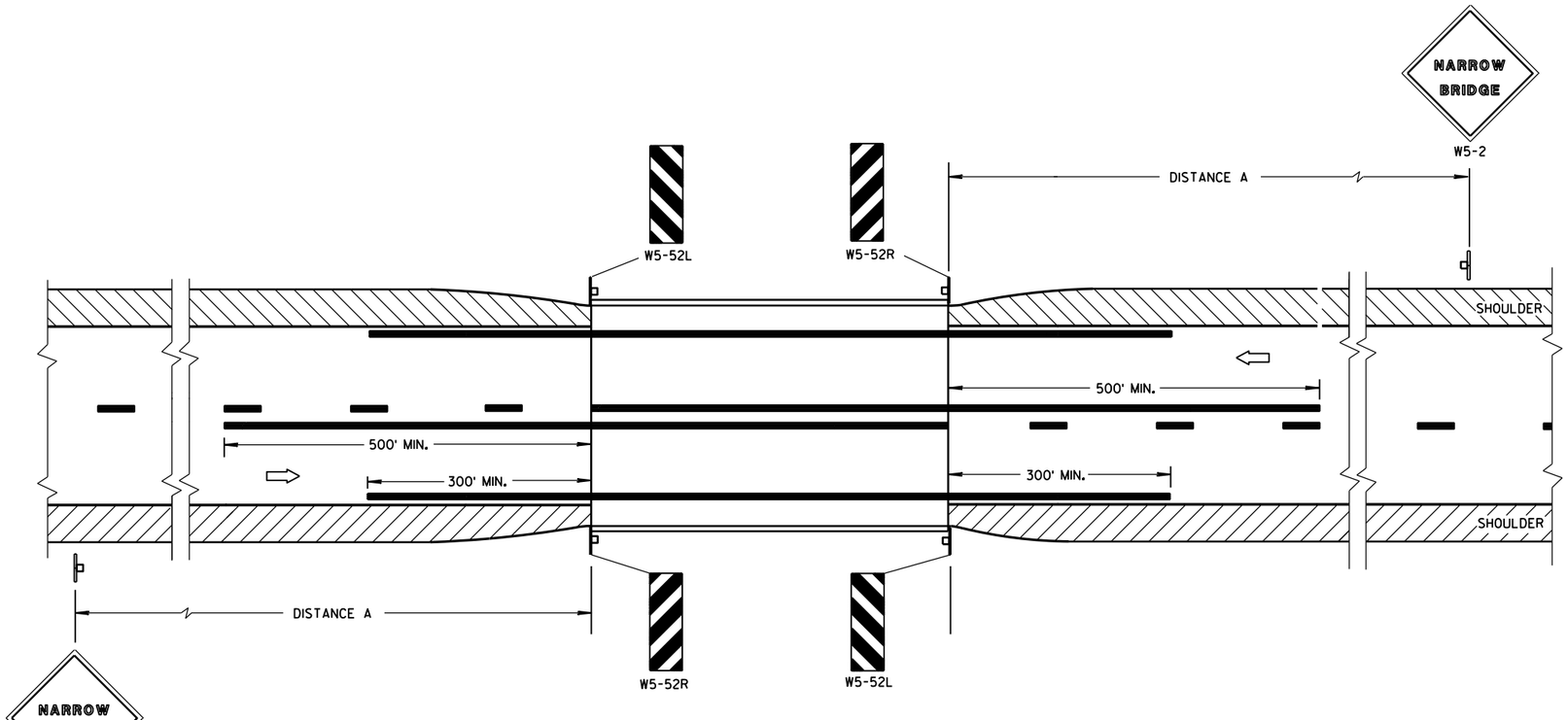


SITUATION 1

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

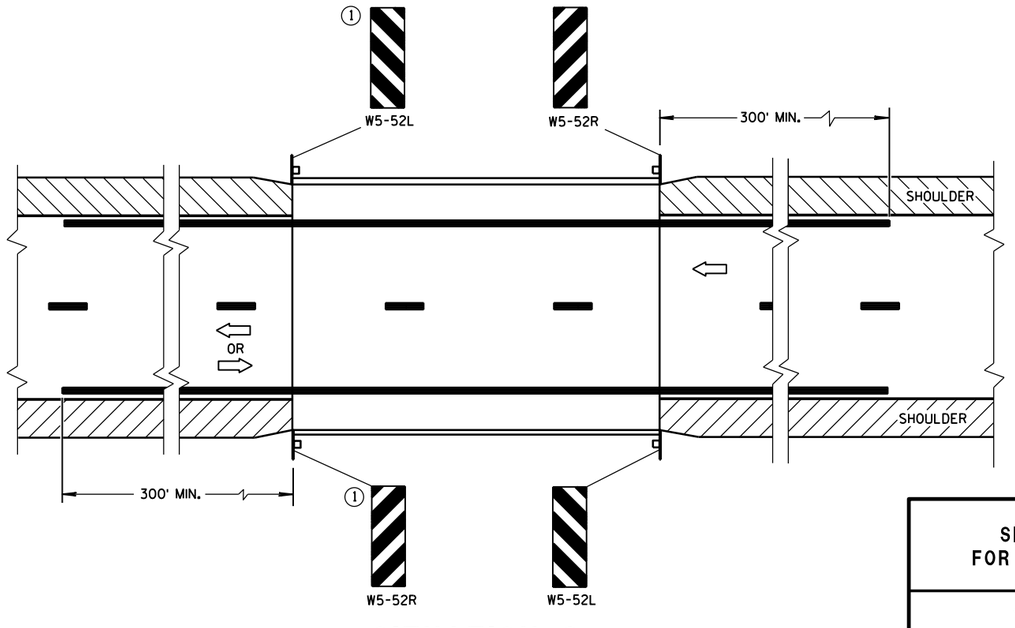
DETAILS OF TRAFFIC CONTROL DEVICES AND INSTALLATION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS, THE SPECIAL PROVISIONS, AND THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

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 MAR[illegible]EER

FHWA

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S.D.D. 15 C 6-9

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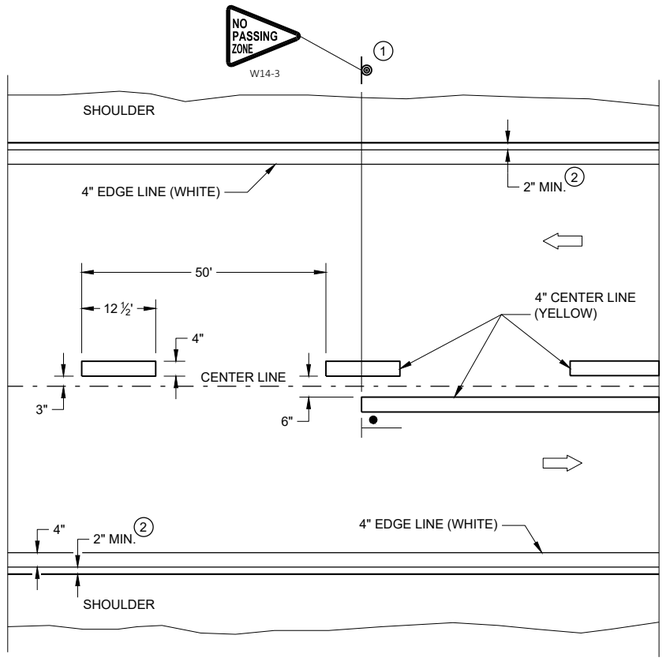
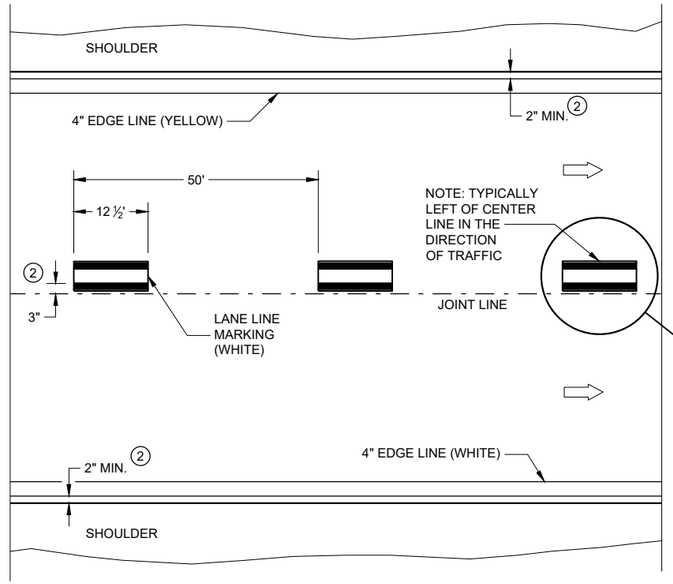
S.D.D. 15 C 6-9

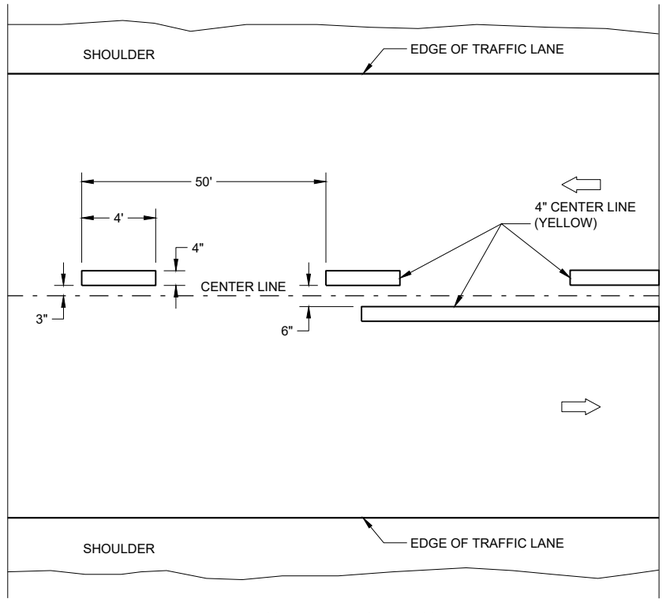


TWO WAY TRAFFIC

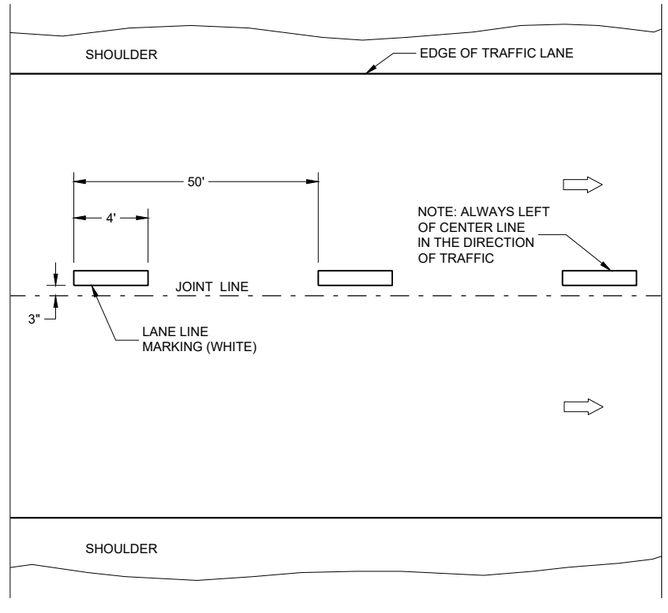


ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING



TWO WAY TRAFFIC



ONE WAY TRAFFIC

TEMPORARY PAVEMENT MARKING

GENERAL NOTES

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

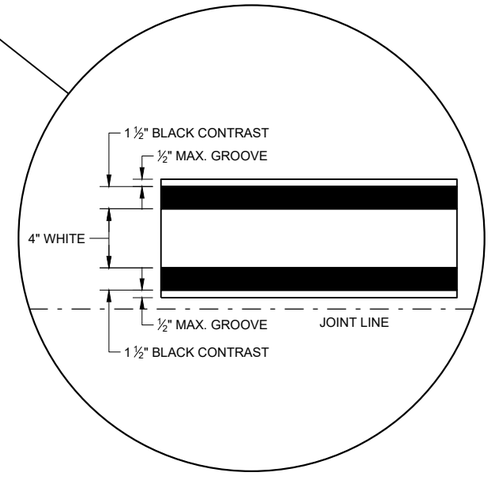
1. LOCATE THE NO PASSING ZONE W14-3 SIGN WITHIN 50 FEET OF THE "T" MARKING
2. MEASURE FROM EDGE OF MARKING TO JOINT LINE. THIS DOES NOT INCLUDE SPACE NEEDED FOR GROOVING OPERATIONS.

LEGEND

"T" MARKING

SIGN ON PERMANENT SUPPORT

DIRECTION OF TRAFFIC



LONGITUDINAL MARKING (MAINLINE)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2020 — DATE
/S/ Matthew Rauch — STATEWIDE SIGNING AND M ENGINEER

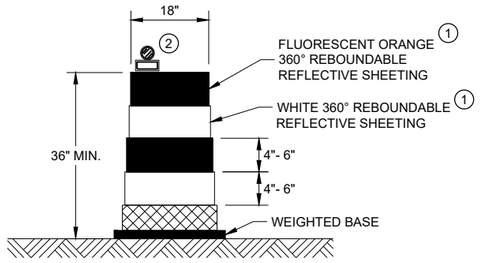
FHWA

SDD 15C08 - 20a

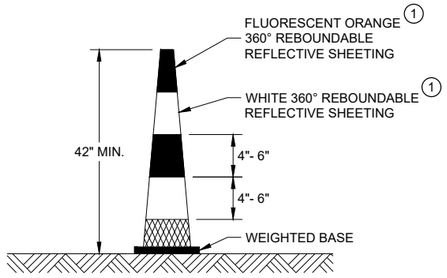
SDD 15C08 - 20a

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.

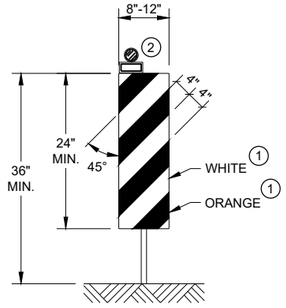


DRUM



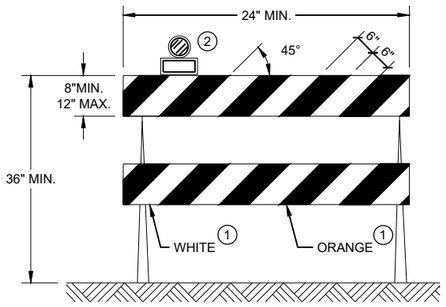
42" CONE

DO NOT USE IN TAPERS
½ SPACING OF DRUMS



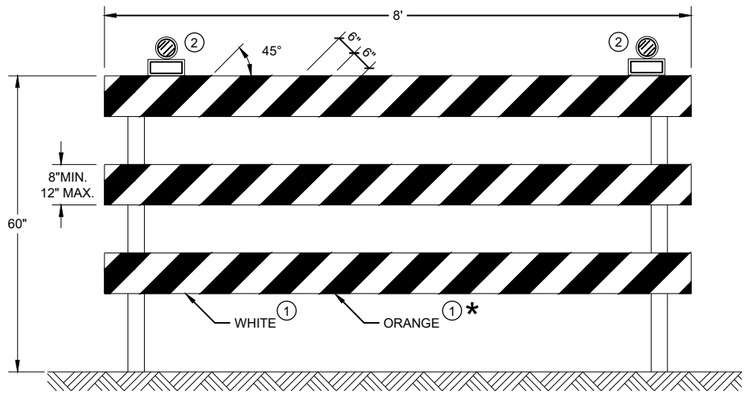
VERTICAL PANEL

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

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SDD 15C11 - 09b

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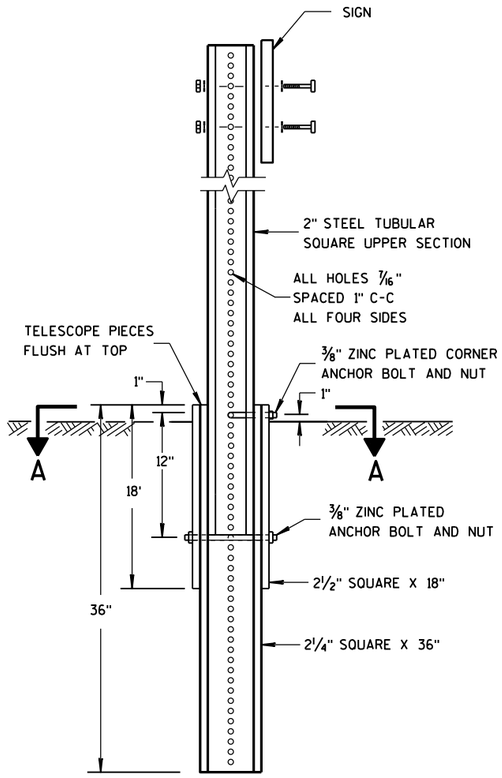
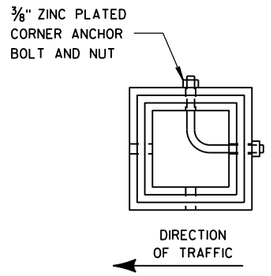
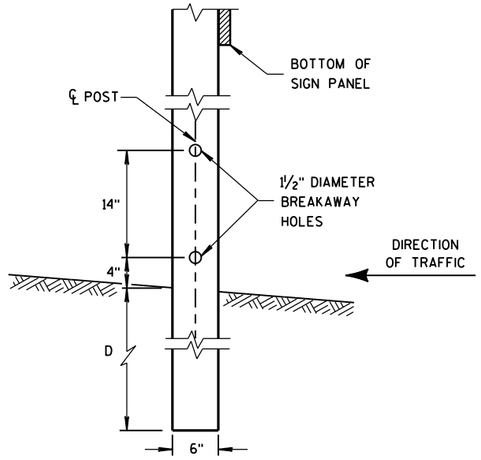
SDD 15C11 - 09b



DETAIL OF TUBULAR STEEL SIGN POST



SECTION A-A



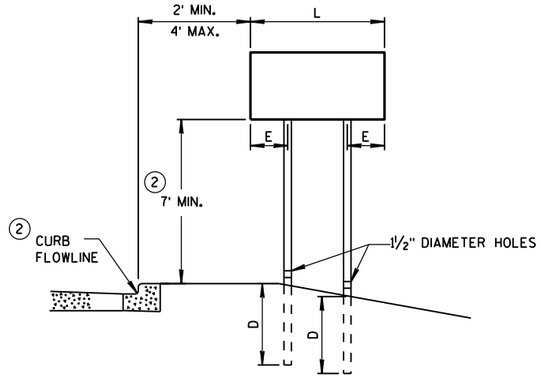
4"x6" WOOD POST MODIFICATION

GENERAL NOTES

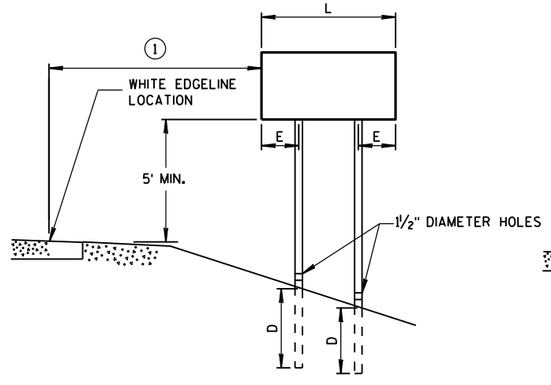
(1) 6 FEET FROM THE EDGE OF PAVEMENT (EDGE LINE LOCATION) UNLESS OTHERWISE DIRECTED BY THE PROJECT ENGINEER. LATERAL OFFSET SHOULD BE ADJUSTED TO AVOID THE DITCH FLOWLINE.

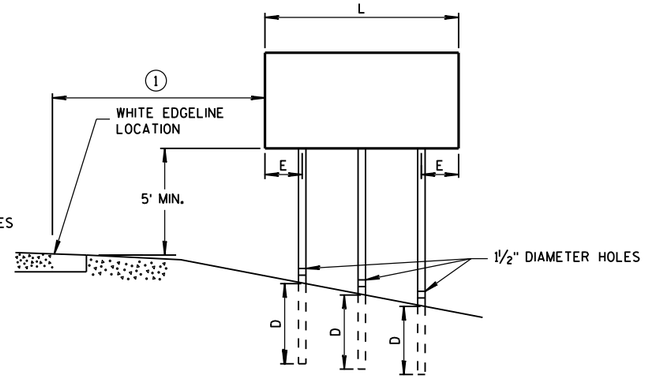
(2) THE EXISTENCE OF CURB AND GUTTER DOES NOT IN ITSELF MANDATE THE VERTICAL CLEARANCE ILLUSTRATED. THAT HEIGHT IS TYPICALLY MEASURED WHERE THERE IS SIDEWALK ADJACENT TO THE ROADWAY OR PARKING IS PERMITTED. IN THE ABSENCE OF SIDEWALK, VERTICAL CLEARANCE IS MEASURED FROM THE TOP OF THE CURB. IF NO SIDEWALK AND NO PARKING, VERTICAL CLEARANCE MAY BE REDUCED TO 5 FOOT MINIMUM. OFFSET OF SIGNS IS MEASURED FROM THE CURB FLOWLINE.

(3) FOR SIGNS REQUIRING 4 POSTS, SPACE INTERMEDIATE POSTS EVENLY.



URBAN AREA





RURAL AREA

POST MOUNTING DETAIL FOR TEMPORARY TRAFFIC CONTROL FIXED MESSAGE SIGNS

TUBULAR STEEL POSTS

AREA OF SIGN INSTALLATION (SQ. FT.)	NUMBER OF REQUIRED TUBULAR STEEL POSTS
9 OR LESS	1
GREATER THAN 9 LESS THAN OR EQUAL TO 18	2
GREATER THAN 18 LESS THAN OR EQUAL TO 27	3

SIGNS WIDER THAN 3 FEET OR LARGER THAN 9 SQ. FT. SHALL BE MOUNTED ON MULTIPLE POSTS (SEE ABOVE TABLE).

SIGNS LARGER THAN 27 SQ. FT. SHALL NOT BE MOUNTED ON TUBULAR STEEL POSTS.

WOOD POST EMBEDMENT DEPTH

AREA OF SIGN INSTALLATION (SQ. FT.)	D (MIN)
20 OR LESS	4'
GREATER THAN 20	5'

4" X 6" WOOD POST

POST SPACING REQUIREMENTS		NUMBER OF WOOD POSTS REQUIRED
L	E	
48" OR LESS AND LESS THAN 20 SQ. FT.	-	1
LESS THAN 60"	12"	2
60" TO 120"	L/5	2
GREATER THAN 120" LESS THAN 168"	12"	3
168" AND GREATER	12"	4

SEE NOTE (3)

TEMPORARY TRAFFIC CONTROL SIGN MOUNTING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

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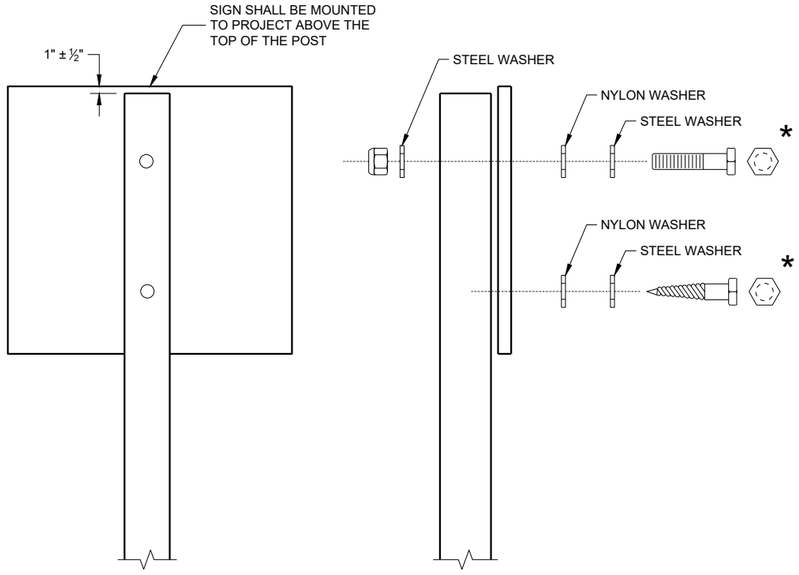
S.D.D. 15 D 38-2a
S.D.D. 15 D 38-2a



NUTS, BOLTS AND LAGS USED FOR MOUNTING SIGNS SHALL HAVE HEXAGONAL HEADS AND SHALL BE EITHER:

A. HOT DIP GALVANIZED IN ACCORDANCE WITH ASTM DESIGNATION: A 153, CLASS D, OR SC 3
B. ELECTRO-GALVANIZED IN ACCORDANCE WITH ASTM DESIGNATION: B 633, TYPE III, SC 3

THREADS ON BOLTS AND NUTS SHALL BE MANUFACTURED WITH SUFFICIENT ALLOWANCE FOR THE CADMIUM PLATE OR GALVANIZED COATING TO PERMIT THE NUTS TO RUN FREELY ON THE BOLTS.

WOOD POST (4" x 6")
LAG SCREWS - ⅜" x 3"
MACHINE BOLTS - 5/16" x 6 ½" OR 7" LENGTH W/NUTS

SQUARE STEEL POST (2" x 2")
MACHINE BOLTS - ⅜" x 3 ¼" LENGTH W/NUTS
RIVETS - 9/32" (6605-9-6) BULB-TITE, TRI-FOLD, ALUMINUM BODY/MANDREL O.D. FLANGE 0.720 - 0.765 INCH, GRIP RANGE 0.042 - 0.375 INCH

WASHERS (ALL POSTS) -
1 ¼" O.D. x ⅜" I.D. x 1/16" STEEL
1 ¼" O.D. x ⅜" I.D. x 0.080 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. FOR A SINGLE POST INSTALLATION, ALL SIGNS GREATER THAN 9 SQ. FT. REQUIRE THE USE OF 3 FASTENERS.

6

6

SDD 15D38 - 02b

SDD15D38 - 02b

ATTACHMENT OF SIGNS TO POSTS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2017
DATE
/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

STATE PROJECT NUMBER
7905-00-70

BENCH MARKS			
NO.	STATION	DESCRIPTION	ELEV.
1	10+07.17, 29.6' RT	CHISELED SQUARE ON NE WING WALL	921.13
2	11+14.55, 31.8' LT	PK NAIL IN END FENCE POST	927.95
3	11+43.01, 31.6' RT	POLE SPIKE IN 15" ELM	923.18

DESIGN DATA

LIVE LOAD:
- DESIGN LOADING: HL-93
- INVENTORY RATING FACTOR: 1.05
- OPERATIONAL RATING FACTOR: 1.35
- WISCONSIN STANDARD PERMIT VEHICLE (WIS-SPV) = 255 KIPS

TRAFFIC DATA:
- A.A.D.T. (2022) = 2,700
- A.A.D.T. (2042) = 3,200
- R.D.S. = 55 MPH

EARTH LOAD: DESIGNED FOR 9.5 TO 10.5 FEET OF FILL

MATERIAL PROPERTIES:
- CONCRETE MASONRY ——— f'c = 3,500 P.S.I.
- BAR STEEL REINFORCEMENT HS STRUCTURES ——— fy = 60,000 P.S.I.

FOUNDATION DATA:
- ALLOWABLE SOIL BEARING CAPACITY ——— 4,000 P.S.F.

HYDRAULIC DATA:
100 YEAR FREQUENCY
- DRAINAGE AREA ——— 1.6 SQ. MI.
- Q_{100} ——— 325 C.F.S.
- VELOCITY ——— 14.24 F.P.S.
- WATERWAY AREA ——— 29 SQ. FT.
- HIGH WATER $_{100}$ ELEVATION ——— 915.12 ±
- ROADWAY OVERFLOW DESIGN FREQUENCY ——— >100 YEARS
- SCOUR CRITICAL CODE ——— 8
- Q_2 ELEVATION (80 C.F.S.) ——— 911.92 ±
- VELOCITY $_2$ ——— 6.36 F.P.S.

LIST OF DRAWINGS

PLAN

SINGLE CELL REINFORCED CONCRETE BOX CULVERT

NOTE:
FOR FURTHER DETAILS FOR LAYOUT OF RIPRAP HEAVY SEE ROAD PLAN CROSS SECTIONS.

LEGEND

- ◯ - INDICATES WING NUMBER
- ◒ - DIMENSION GIVEN NORMAL TO ℄ USH 53.
- ⊠ - 18" MIN. WIDTH RUBBERIZED MEMBRANE WATERPROOFING UP WALLS AND ACROSS TOP SLAB.
- ⊖ - IN LIEU OF CONSTRUCTION JOINTS IN THE BOTTOM SLAB, THE CONTRACTOR MAY PROVIDE 2" DEEP SAWCUTS WITHIN 12 HOURS AFTER POURING.
- ★ - PROVIDE EYE-RODS FOR FENCE CONNECTIONS IN WINGS IN ACCORDANCE WITH SDD 8F3 - DETAILS FOR PIPE CATTLE PASS, CONCRETE ENDWALLS AND STEPS. MATERIALS AND INSTALLATION SHALL BE INCIDENTAL TO "CONCRETE MASONRY CULVERTS". CONTRACTOR SHALL COORDINATE PLACEMENT OF EYE-RODS WITH LANDOWNER.

ELEVATION

(LOOKING NORTH - NORMAL TO BOX)

OUTLET

UNDERCUT 1'-0" MIN. (INCLUDED IN EXCAVATION FOR STRUCTURES). EXTEND UNDERCUT 3'-0" BEYOND THE FOOTPRINT OF THE CULVERT ON EACH SIDE. PLACE GEOTEXTILE TYPE C AND BACKFILL WITH BREAKER RUN BETWEEN THE CUT OFF WALLS.

CONSULTANT DESIGN CONTACT:
JOSH SWENO
(608) 355-8852

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

NO.	DATE	REVISION	BY

MSA ENGINEERING | ARCHITECTURE | SURVEYING
FUNDING | PLANNING | ENVIRONMENTAL
1230 SOUTH BLVD, BARABOO WI 53913
(608) 356-2771 www.msa-ps.com

WISCONSIN
JOSHUA R. SWENO
E-44384
WAUNAKEE
WI
PROFESSIONAL ENGINEER
7/26/2021

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

ACCEPTED _____ SDR. 07/28/21
CHIEF STRUCTURES DESIGN ENGINEER DATE

STRUCTURE C-18-52

USH 53 OVER BRANCH OTTER CREEK

COUNTY	TOWN/CITY/VILLAGE
EAU CLAIRE	WASHINGTON

DESIGN SPEC. AASHTO LRFD BRIDGE DESIGN SPEC.

DESIGNED BY	DESIGN CK'D.	DRAWN BY	PLANS CK'D.
JZ	JRS	RLR	JRS

GENERAL PLAN

SH 38 OF 6

FILE= 00093451_01.DGN
DATE= #DATE#

93451_C-18-52_01.dgn 5/7/2020 1:25:19 PM CRooyakkers

STATE PROJECT NUMBER

7905-00-70

TOTAL ESTIMATED QUANTITIES

ITEM NUMBER	BID ITEM	UNIT	TOTAL
203.0220.01	REMOVING STRUCTURE C-18-3176	EACH	1
206.2000.01	EXCAVATION FOR STRUCTURES CULVERTS C-18-52	LS	1
210.2500	BACKFILL STRUCTURE TYPE B	TON	1,755
311.0110	BREAKER RUN	TON	157
504.0100	CONCRETE MASONRY CULVERTS	CY	140
505.0400	BAR STEEL REINFORCEMENT HS STRUCTURES	LB	21,000
505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB	2,160
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	27
606.0300	RIPRAP HEAVY	CY	415
606.0700	GROUTED RIPRAP HEAVY	CY	13
645.0105	GEOTEXTILE TYPE C	SY	298
645.0120	GEOTEXTILE TYPE HR	SY	815
	NON-BID ITEMS		
	PREFORMED FILLER	SIZE	¾"

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 MARK SIGNIFIES THE BAR SIZE.

THE CONCRETE IN THE CUT OFF WALL MAY BE PLACED UNDERWATER IF THE EXCAVATION CANNOT BE DEWATERED.

THE ALTERNATE CUT OFF WALL MAY BE USED IN LIEU OF THE CAST IN PLACE CUT OFF WALLS. PAYMENT SHALL BE BASED ON CONCRETE CUT OFF WALLS.

THIS STRUCTURE WILL REPLACE THE EXISTING STRUCTURE, A 10' WIDE X 10' HIGH SINGLE CELL REINFORCED CONCRETE BOX CULVERT.

THE UPPER LIMITS OF "EXCAVATION FOR STRUCTURES CULVERTS C-18-52" SHALL BE THE EXISTING GROUND LINE.

THE BACKFILL QUANTITIES ARE BASED ON THE PAY LIMITS SHOWN ON THE PLANS AND MAY NOT REFLECT ACTUAL PLACED QUANTITIES. "BACKFILL STRUCTURE TYPE B" REQUIRED ON THE BOX CULVERT SIDES AND TOP AND BEHIND WINGS FOR 3 FEET.

THE CONTRACTOR MAY FURNISH A PRECAST CONCRETE BOX CULVERT IN LIEU OF THE CAST-IN-PLACE BOX CULVERT WITH THE ACCEPTANCE OF THE SHOP DRAWINGS BY THE STRUCTURES DESIGN SECTION. THE PRECAST CONCRETE BOX CULVERT SHALL CONFORM TO PRECAST DETAILS IN CHAPTER 36 STANDARDS OF THE CURRENT WISCONSIN DOT BRIDGE MANUAL. PAYMENT FOR THE PRECAST CULVERT SHALL BE BASED ON THE QUANTITIES AND PRICES BID FOR THE ITEMS LISTED IN THE "TOTAL ESTIMATED QUANTITIES". ALL PRECAST BOX SECTIONS SHALL BE PLACED ON A BEDDING OF "BACKFILL STRUCTURE TYPE B" OF 6" MIN. DEPTH.

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

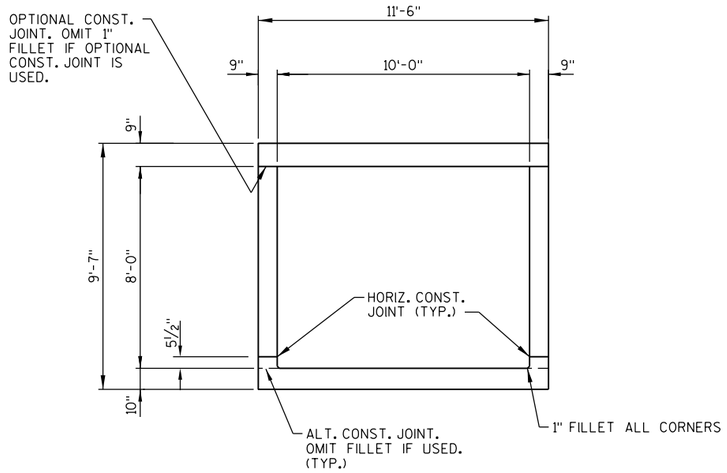
FILL MATERIAL EXCAVATED FOR THE CONSTRUCTION OF THE NEW STRUCTURE SHALL BE USED TO FILL THE SPACE OCCUPIED BY THE EXISTING STRUCTURE AFTER ITS REMOVAL. THIS WORK SHALL BE INCIDENTAL TO EXCAVATION FOR STRUCTURES.

IN LIEU OF USING BREAKER RUN FOR THE BOX CONSTRUCTION PLATFORM, THE CONTRACTOR MAY ELECT TO SUBSTITUTE #1 OR #2 CONCRETE COARSE AGGREGATE, SELECT CRUSHED MATERIAL OR OTHER GRANULAR MATERIAL AS APPROVED BY THE ENGINEER. THE CONTRACTOR IS RESPONSIBLE FOR BASE STABILITY WITH ANY SUBSTITUTED MATERIAL. THE REGION GEOTECHNICAL ENGINEER MAY BE CONTACTED TO DETERMINE IF "OTHER GRANULAR MATERIAL" IS ACCEPTABLE.

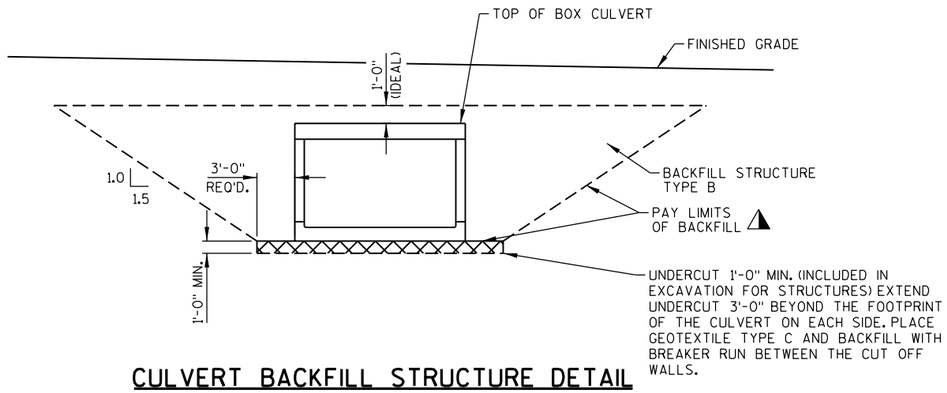
APRONS AND BOTTOM SLAB MAY BE POURED CONTINUOUSLY.

ELEVATIONS SHOWN ON THIS PLAN ARE REFERENCED TO USGS NAVD 88 (2012 ADJUSTED). BENCHMARKS WERE LOCATED IN THE FIELD USING GPS TECHNOLOGY.

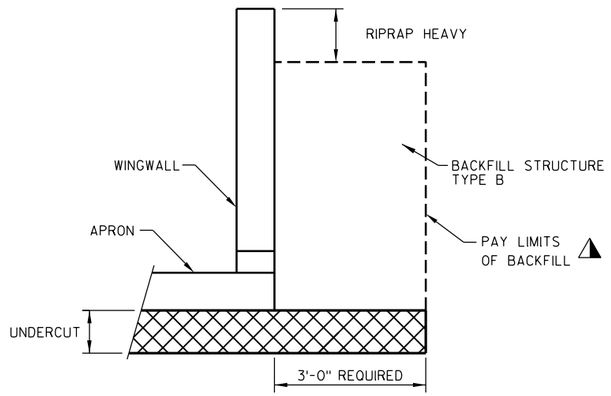
A TEMPORARY WATER DIVERSION SHALL BE PROVIDED DURING CONSTRUCTION OF THE NEW CULVERT. THE TEMPORARY WATER DIVERSION BID ITEM IS DETAILED IN THE SPECIAL PROVISIONS AND PROVIDED IN THE ROADWAY QUANTITIES.



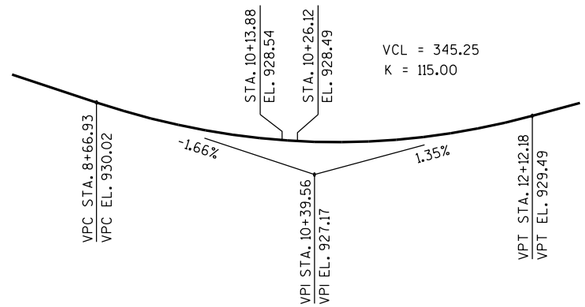
TYPICAL SECTION THRU BOX



CULVERT BACKFILL STRUCTURE DETAIL



WINGWALL BACKFILL DETAIL



PROFILE GRADE LINE - USH 53

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE C-18-52

DRAWN BY RLR | PLANS CK'D. JRS

CROSS SECTION, QUANTITIES, NOTES & DETAILS

SHEET 2 OF 6

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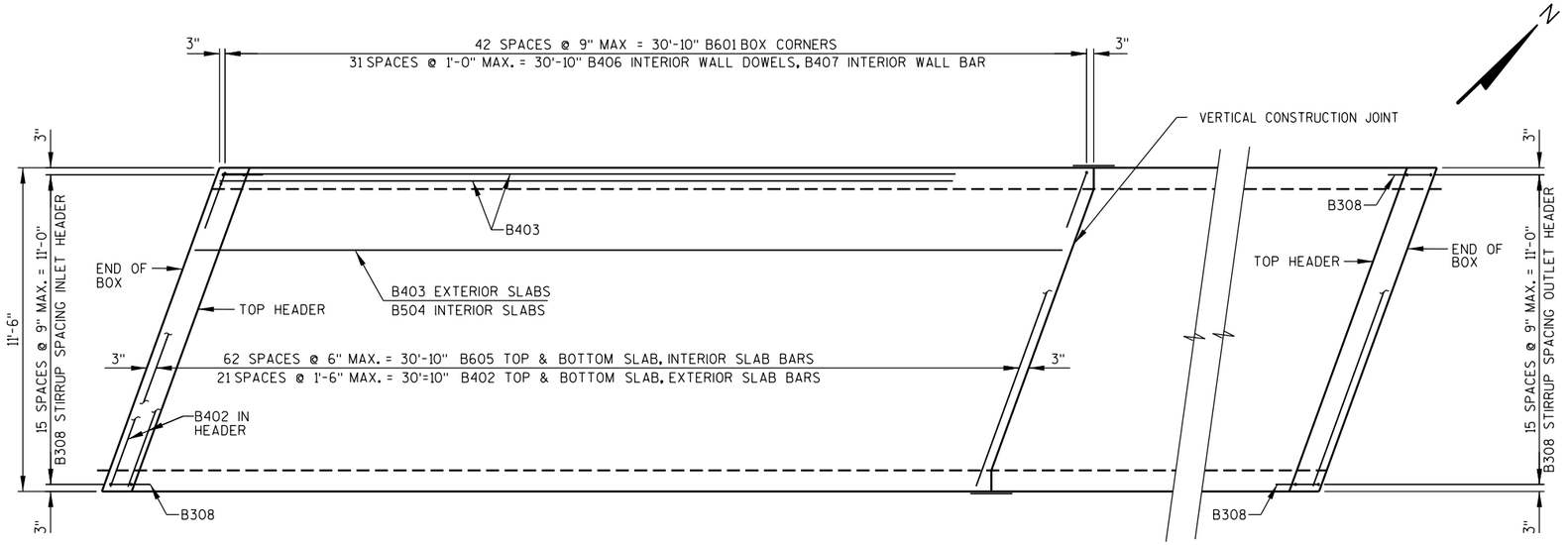
STATE PROJECT NUMBER
7905-00-70

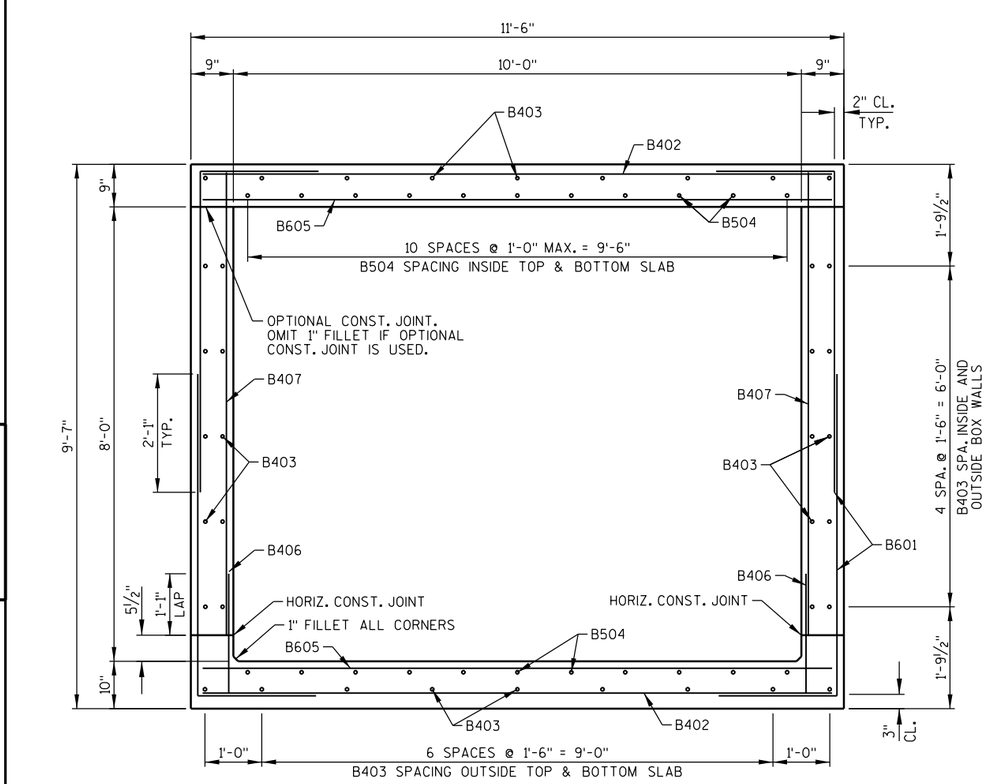


PLAN VIEW OF PANEL

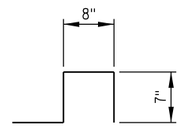
BILL OF BARS — UNCOATED 19,910 LBS.

MARK	NO. REQ'D.	LENGTH	BENT	LOCATION
B601	516	7'-8"	X	BOX CORNERS - TOP & BOTTOM - TRANS.
B402	136	11'-10"		BOX EXTERIOR SLABS & HEADERS - TRANS.
B403	114	31'-0"		BOX EXTERIOR SLABS & WALLS - LONGIT.
B504	66	31'-0"		BOX INTERIOR SLABS - LONGIT.
B605	378	11'-10"		BOX INTERIOR SLABS - TRANS.
B406	192	2'-2"		BOX INTERIOR WALL DOWELS - VERT.
B407	192	8'-1"		BOX INTERIOR WALLS - VERT.
B308	32	2'-2"		BOX HEADER STIRRUPS - VERT.
B509	82	4'-0"	X	BOX VERT. CONST. JOINT DOWELS - VERT.

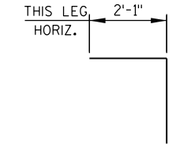
DIMENSIONS IN BENDING DETAILS ARE OUT TO OUT OF BAR.



TYPICAL SECTION THRU BOX



B308



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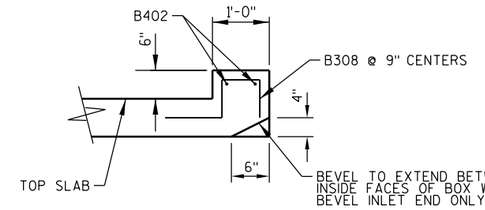
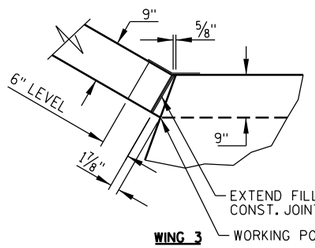
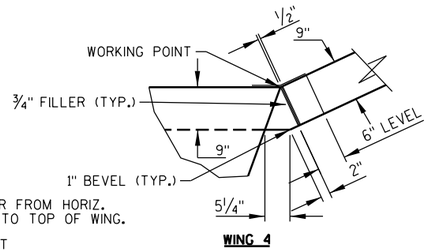


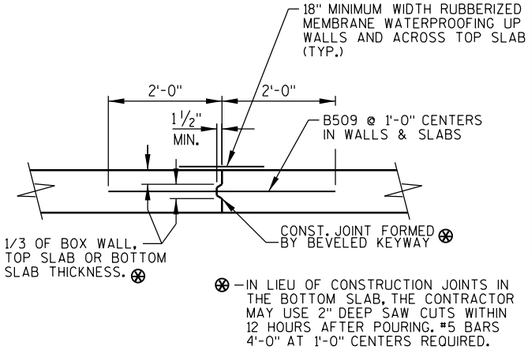
SECTION THRU TOP HEADER



WING 3

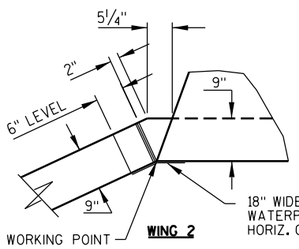


WING 4

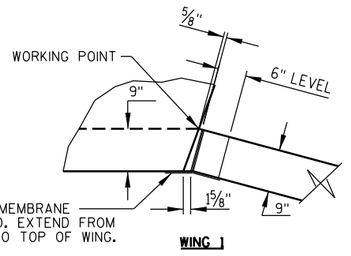


⊛ — IN LIEU OF CONSTRUCTION JOINTS IN THE BOTTOM SLAB, THE CONTRACTOR MAY USE 2" DEEP SAW CUTS WITHIN 12 HOURS AFTER POURING. #5 BARS 4'-0" AT 1'-0" CENTERS REQUIRED.

VERTICAL CONSTRUCTION JOINT



WING 2



WING 1

CORNER DETAILS

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE C-18-52

DRAWN BY CAR | PLANS CK'D. JRS

BOX CULVERT

SHEET 3 OF 6
40

FILE= 00093451.03.DGN
DATE= #DATE#

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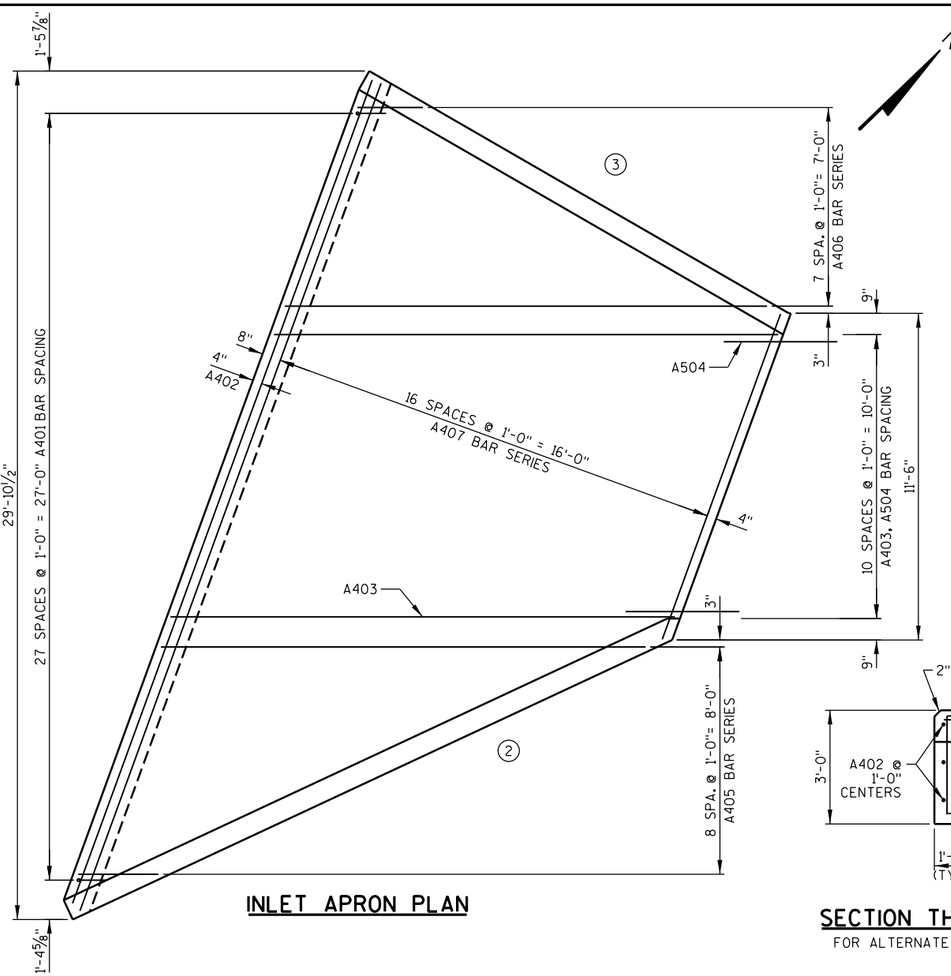
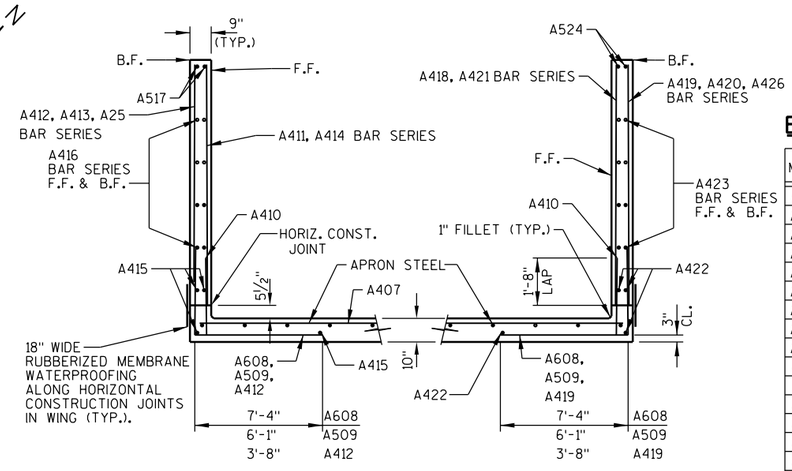
STATE PROJECT NUMBER
7905-00-70

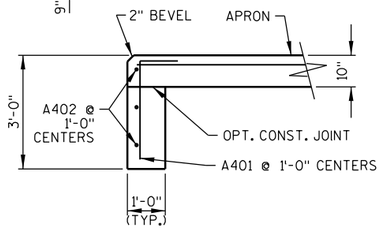
COATED 1330 LBS.
UNCOATED 660 LBS.



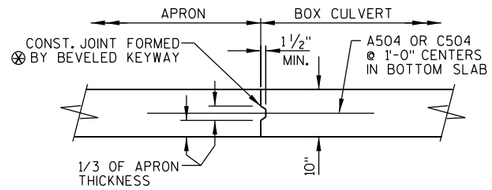
INLET APRON PLAN



SECTION THRU WINGS
(NORMAL TO WINGWALLS)



SECTION THRU INLET CUT OFF WALL
FOR ALTERNATE CUT OFF WALL DETAIL, SEE SHEET 5.



⊛ — IN LIEU OF CONSTRUCTION JOINTS IN THE BOTTOM SLAB, THE CONTRACTOR MAY USE 2" DEEP SAW CUTS WITHIN 12 HOURS AFTER POURING. #5 BARS 4'-0" AT 1'-0" CENTERS REQUIRED.

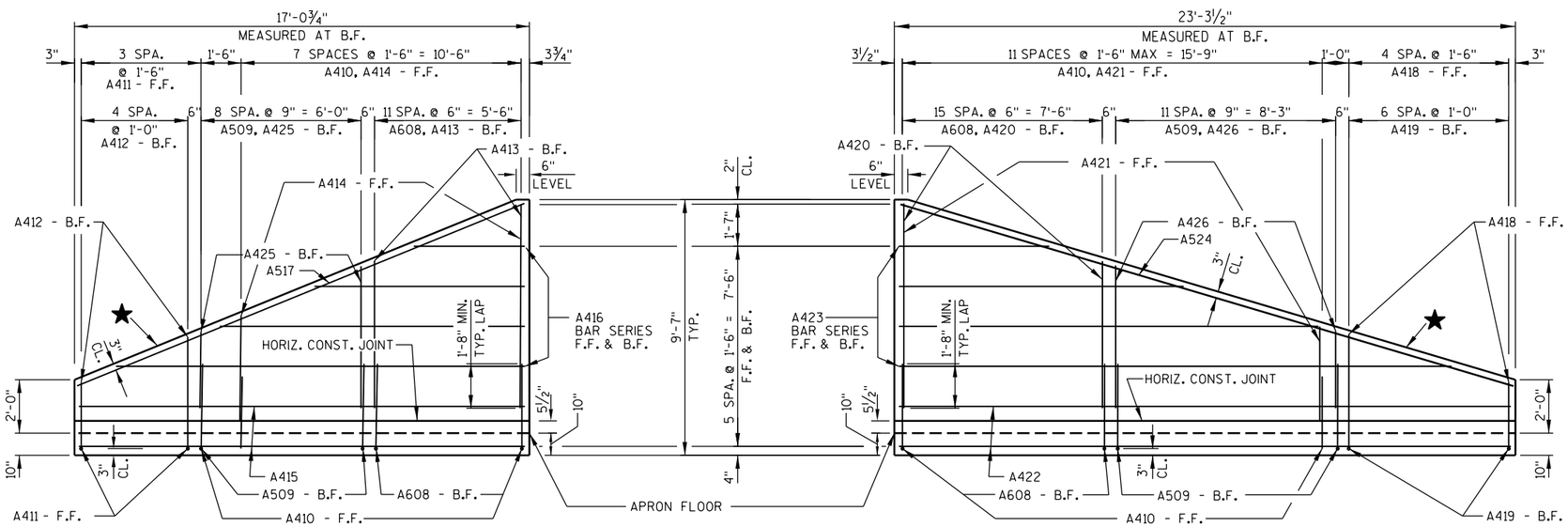
APRON CONNECTION DETAIL

BILL OF BARS

MARK	NUMBER REQUIRED COATED	NUMBER REQUIRED UNCOATED	LENGTH	BENT	BAR SERIES	LOCATION
A401	-	28	3'-6"	X		INLET APRON CUT OFF WALL - VERT.
A402	-	3	30'-10"			INLET APRON CUT OFF WALL - TRANS.
A403	-	11	17'-9"			INLET APRON - LONGIT.
A504	-	11	4'-0"			INLET APRON CONNECTION DOWELS
A405	-	9	9'-11"		*	INLET APRON @ WING 2 - LONGIT.
A406	-	8	9'-7"		*	INLET APRON @ WING 3 - LONGIT.
A407	-	17	21'-7"		*	INLET APRON - TRANS.
A608	28	-	10'-5"	X		WINGS 2 & 3 - B.F. DOWELS - VERT.
A509	21	-	9'-2"	X		WINGS 2 & 3 - B.F. DOWELS - VERT.
A410	20	-	2'-9"			WINGS 2 & 3 - F.F. DOWELS - VERT.
A411	4	-	3'-5"		*	WING 3 - F.F. - END - VERT.
A412	5	-	7'-0"	X	*	WING 3 - B.F. - END - VERT.
A413	12	-	6'-7"		*	WING 3 - B.F. - VERT.
A414	8	-	6'-1"		*	WING 3 - F.F. - VERT.
A415	4	-	16'-8"			WING 3 & INLET APRON - LONGIT.
A416	8	-	9'-9"		*	WING 3 - F.F. & B.F. - LONGIT.
A517	2	-	18'-1"			WING 3 - F.F. & B.F. - TOP - LONGIT.
A418	5	-	3'-5"		*	WING 2 - F.F. - END - VERT.
A419	7	-	7'-1"	X	*	WING 2 - B.F. - END - VERT.
A420	16	-	6'-7"		*	WING 2 - B.F. - VERT.
A421	12	-	5'-8"		*	WING 2 - F.F. - VERT.
A422	4	-	22'-11"			WING 2 & INLET APRON - LONGIT.
A423	8	-	13'-2"		*	WING 2 - F.F. & B.F. - LONGIT.
A524	2	-	23'-11"			WING 2 - F.F. & B.F. - TOP - LONGIT.
A425	9	-	4'-1"		*	WING 3 - B.F. - VERT.
A426	12	-	4'-1"		*	WING 2 - B.F. - VERT.

DIMENSIONS IN BENDING DETAILS ARE OUT TO OUT OF BAR.

* - LENGTH SHOWN FOR BAR IS AN AVERAGE LENGTH AND SHOULD ONLY BE USED FOR BAR WEIGHT CALCULATIONS. SEE BAR SERIES TABLE FOR ACTUAL LENGTHS. BENT BARS IF USED IN BAR SERIES TABLE SHALL BE BENT AFTER CUTTING.



INLET WING ELEVATIONS

WING 3 — WING 2

THIS LEG HORIZ. — A

MARK	A
A401	1'-0"
A608	7'-4"
A509	6'-1"
A412	3'-8"
A419	3'-8"

BAR SERIES TABLE

MARK	NO. REQUIRED	LENGTH
A405	1 SERIES OF 9	2'-10" TO 17'-0"
A406	1 SERIES OF 8	2'-3" TO 16'-11"
A407	1 SERIES OF 17	12'-2" TO 31'-0"
A411	1 SERIES OF 4	2'-6" TO 4'-4"
A412	1 SERIES OF 5	6'-2" TO 7'-10"
A413	1 SERIES OF 12	5'-6" TO 7'-8"
A414	1 SERIES OF 8	3'-11" TO 8'-2"
A416	2 SERIES OF 4	4'-2" TO 15'-4"
A418	1 SERIES OF 5	2'-6" TO 4'-3"
A419	1 SERIES OF 7	6'-2" TO 7'-11"
A420	1 SERIES OF 16	5'-6" TO 7'-8"
A421	1 SERIES OF 12	3'-6" TO 8'-2"
A423	2 SERIES OF 4	5'-8" TO 20'-9"
A425	1 SERIES OF 9	2'-10" TO 5'-4"
A426	1 SERIES OF 12	2'-10" TO 5'-4"

BUNDLE AND TAG EACH SERIES SEPARATELY

LEGEND

◯ — INDICATES WING NUMBER

F.F. — FRONT FACE

B.F. — BACK FACE

CL. — CLEAR

★ — PROVIDE EYE-RODS FOR FENCE CONNECTIONS IN WINGS IN ACCORDANCE WITH SDD 8F3 - DETAILS FOR PIPE CATTLE PASS, CONCRETE ENDWALLS AND STEPS. MATERIALS AND INSTALLATION SHALL BE INCIDENTAL TO "CONCRETE MASONRY CULVERTS". CONTRACTOR SHALL COORDINATE PLACEMENT OF EYE-RODS WITH LANDOWNER.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE C-18-52

DRAWN BY CAR | PLANS CK'D. JRS

INLET APRON & WING DETAILS

SHEET 4 OF 6
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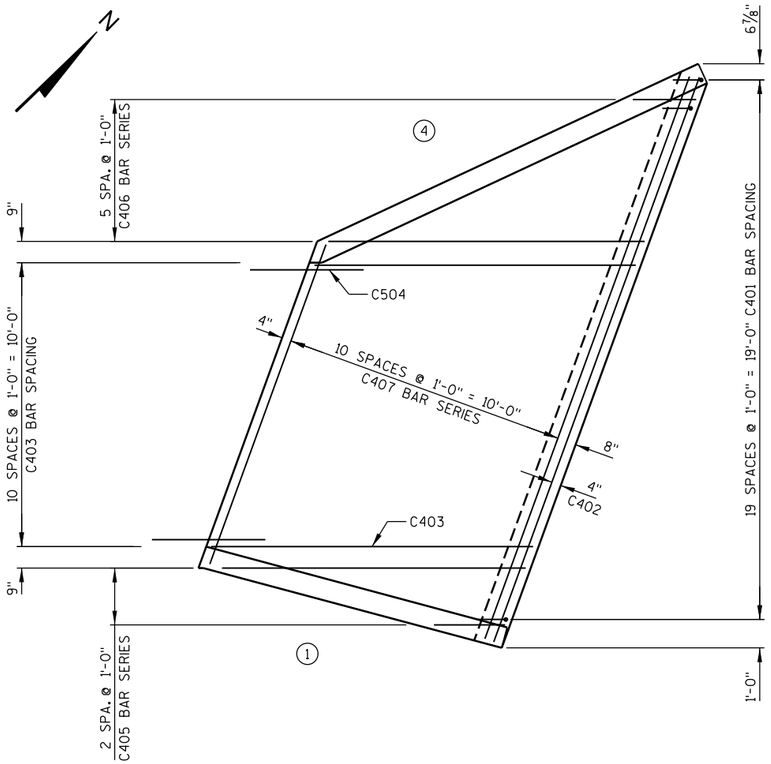
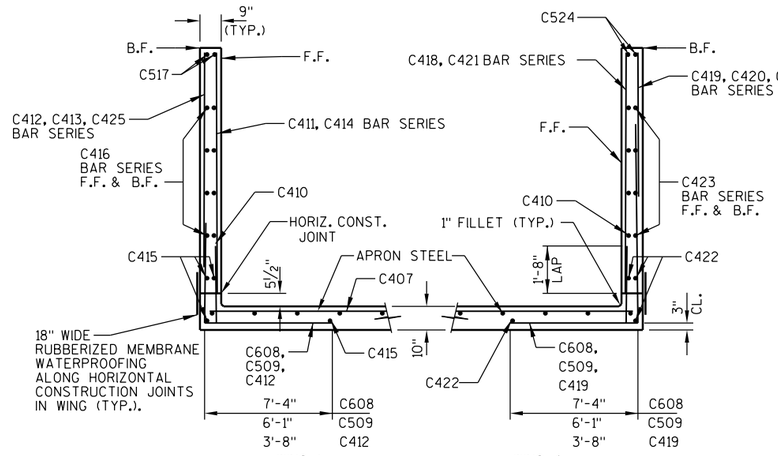
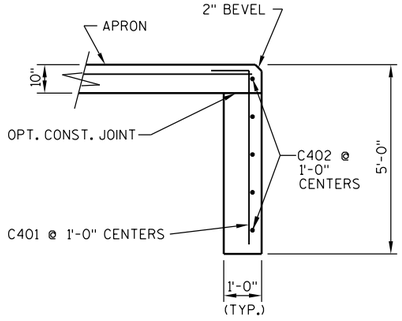
STATE PROJECT NUMBER
7905-00-70



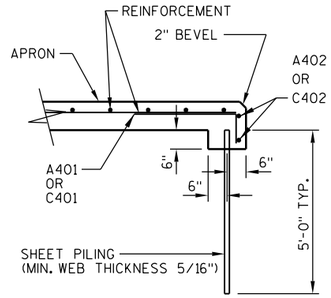
OUTLET APRON PLAN



SECTION THRU WINGS
(NORMAL TO WINGWALLS)



SECTION THRU OUTLET CUT OFF WALL



ALTERNATE CUT OFF WALL
PAYMENT BASED ON CONCRETE CUT OFF WALL.

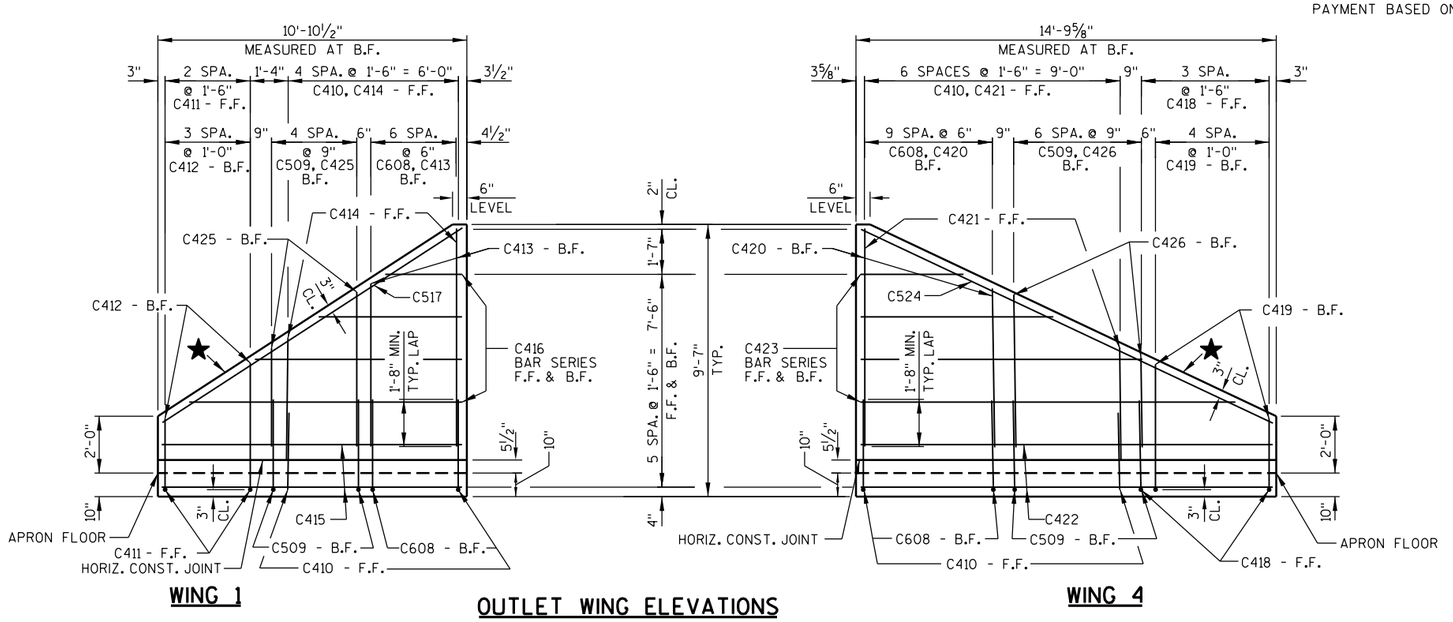
BILL OF BARS

COATED 830 LBS.
UNCOATED 430 LBS.

MARK	NUMBER REQUIRED COATED	NUMBER REQUIRED UNCOATED	LENGTH	BENT	BAR SERIES	LOCATION
C401	-	20	5'-6"	X		OUTLET APRON CUT OFF WALL - VERT.
C402	-	5	21'-2"			OUTLET APRON CUT OFF WALL - TRANS.
C403	-	11	11'-4"			OUTLET APRON - LONGIT.
C504	-	11	4'-0"			OUTLET APRON CONNECTION DOWELS
C405	-	3	6'-7"		*	OUTLET APRON @ WING 1 - LONGIT.
C406	-	6	6'-8"		*	OUTLET APRON @ WING 4 - LONGIT.
C407	-	11	16'-6"		*	OUTLET APRON - TRANS.
C608	17	-	10'-5"	X		WINGS 1 & 4 - B.F. DOWELS - VERT.
C509	12	-	9'-2"	X		WINGS 1 & 4 - B.F. DOWELS - VERT.
C410	12	-	2'-9"			WINGS 1 & 4 - F.F. DOWELS - VERT.
C411	3	-	3'-5"		*	WING 1 - F.F. - END - VERT.
C412	4	-	7'-2"	X	*	WING 1 - B.F. - END - VERT.
C413	7	-	6'-9"		*	WING 1 - B.F. - VERT.
C414	5	-	6'-2"		*	WING 1 - F.F. - VERT.
C415	4	-	10'-7"			WING 1 & OUTLET APRON - LONGIT.
C416	8	-	6'-2"		*	WING 1 - F.F. & B.F. - LONGIT.
C517	2	-	12'-7"			WING 1 - F.F. & B.F. - TOP - LONGIT.
C418	4	-	3'-7"		*	WING 4 - F.F. - END - VERT.
C419	5	-	7'-2"	X	*	WING 4 - B.F. - END - VERT.
C420	10	-	6'-8"		*	WING 4 - B.F. - VERT.
C421	7	-	6'-1"		*	WING 4 - F.F. - VERT.
C422	4	-	14'-6"			WING 4 & OUTLET APRON - LONGIT.
C423	8	-	8'-5"		*	WING 4 - F.F. & B.F. - LONGIT.
C524	2	-	16'-0"			WING 4 - F.F. & B.F. - TOP - LONGIT.
C425	5	-	4'-6"		*	WING 1 - B.F. - VERT.
C426	7	-	4'-3"		*	WING 4 - B.F. - VERT.

DIMENSIONS IN BENDING DETAILS ARE OUT TO OUT OF BAR.

* - LENGTH SHOWN FOR BAR IS AN AVERAGE LENGTH AND SHOULD ONLY BE USED FOR BAR WEIGHT CALCULATIONS. SEE BAR SERIES TABLE FOR ACTUAL LENGTHS. BENT BARS IF USED IN BAR SERIES TABLE SHALL BE BENT AFTER CUTTING.

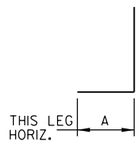


WING 1 — OUTLET WING ELEVATIONS — WING 4

BAR SERIES TABLE

MARK	NO. REQUIRED	LENGTH
C405	1 SERIES OF 3	2'-6" TO 10'-8"
C406	1 SERIES OF 6	2'-3" TO 11'-1"
C407	1 SERIES OF 11	11'-11" TO 21'-0"
C411	1 SERIES OF 3	2'-6" TO 4'-5"
C412	1 SERIES OF 4	6'-2" TO 8'-1"
C413	1 SERIES OF 7	5'-10" TO 7'-8"
C414	1 SERIES OF 5	4'-3" TO 8'-2"
C416	2 SERIES OF 4	2'-9" TO 9'-7"
C418	1 SERIES OF 4	2'-6" TO 4'-8"
C419	1 SERIES OF 5	6'-2" TO 8'-1"
C420	1 SERIES OF 10	5'-8" TO 7'-8"
C421	1 SERIES OF 7	4'-0" TO 8'-2"
C423	2 SERIES OF 4	3'-7" TO 13'-2"
C425	1 SERIES OF 5	3'-6" TO 5'-6"
C426	1 SERIES OF 7	3'-2" TO 5'-4"

BUNDLE AND TAG EACH SERIES SEPARATELY



MARK	A
C401	1'-0"
C608	7'-4"
C509	6'-1"
C412	3'-8"
C419	3'-8"

LEGEND

◯ — INDICATES WING NUMBER

F.F. — FRONT FACE

B.F. — BACK FACE

CL. — CLEAR

★ — PROVIDE EYE-RODS FOR FENCE CONNECTIONS IN WINGS IN ACCORDANCE WITH SDD 8F3 - DETAILS FOR PIPE CATTLE PASS, CONCRETE ENDWALLS AND STEPS. MATERIALS AND INSTALLATION SHALL BE INCIDENTAL TO "CONCRETE MASONRY CULVERTS". CONTRACTOR SHALL COORDINATE PLACEMENT OF EYE-RODS WITH LANDOWNER.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE C-18-52

DRAWN BY CAR | PLANS CK'D. JRS

OUTLET APRON & WING DETAILS

SHEET 5 OF 6
42

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DATE= 7/19/2021

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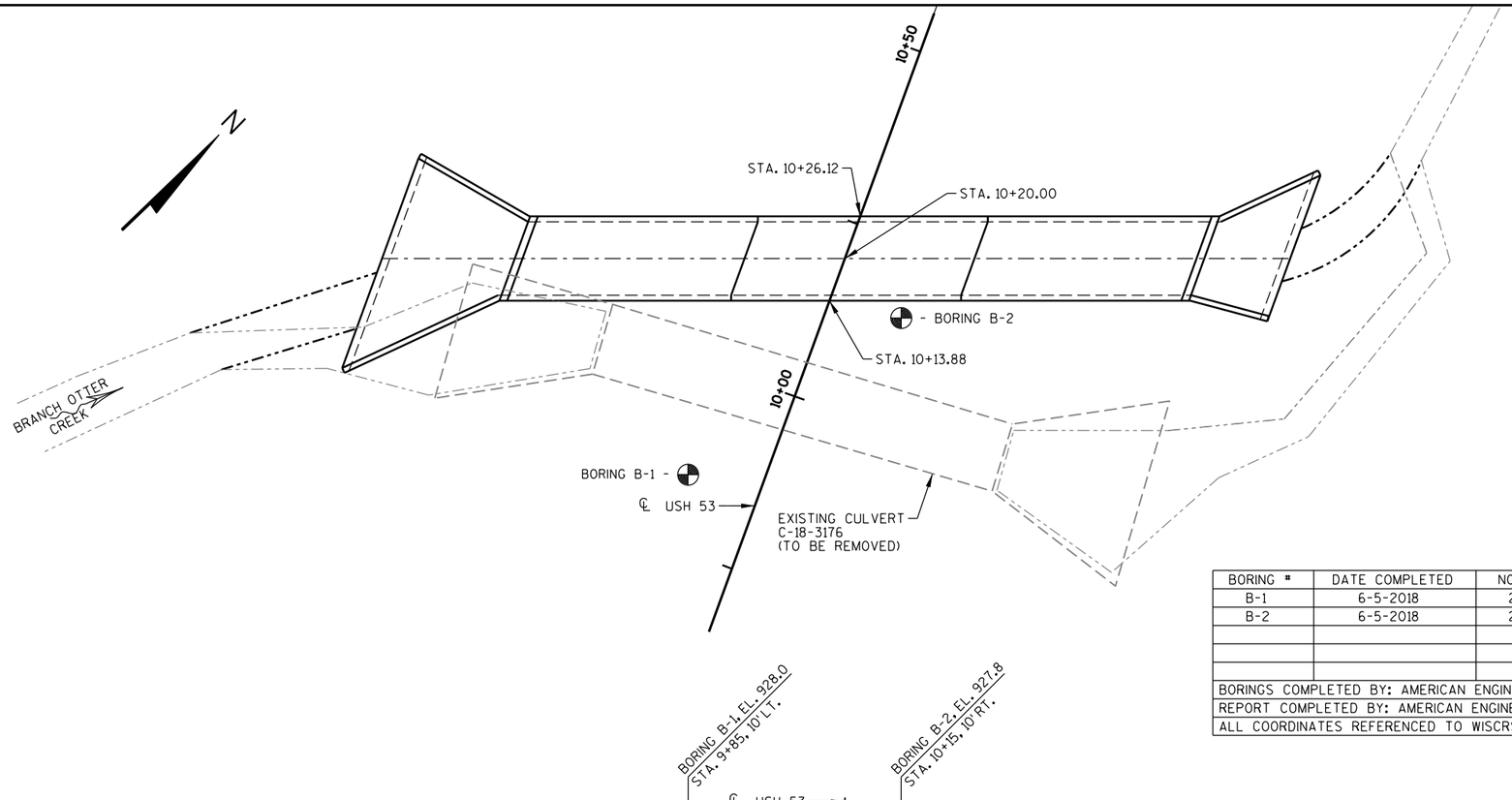
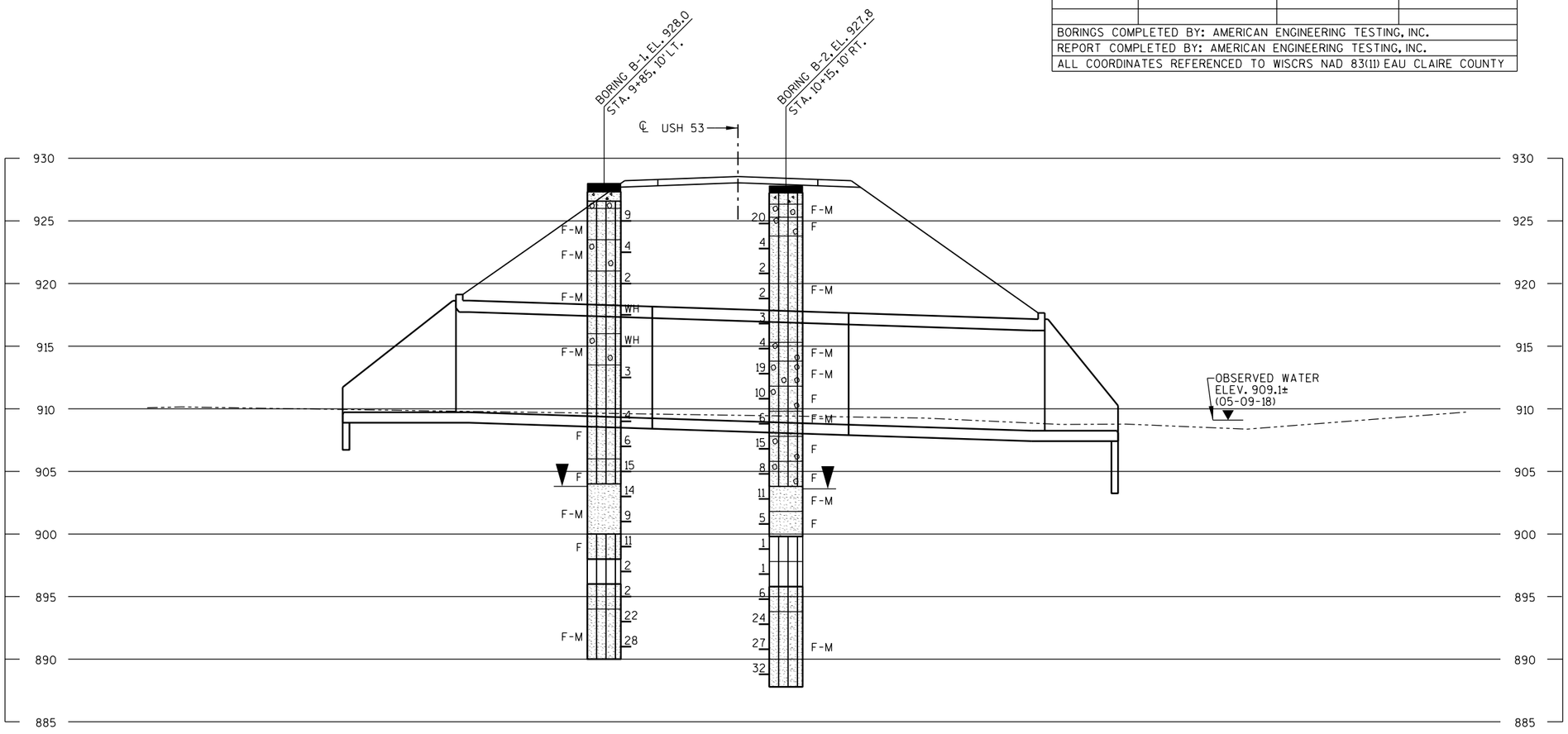


BORING #	DATE COMPLETED	NORTHING (Y)	EASTING (X)
B-1	6-5-2018	244,429.0	375,935.7
B-2	6-5-2018	244,464.8	375,940.4
BORINGS COMPLETED BY: AMERICAN ENGINEERING TESTING, INC.			
REPORT COMPLETED BY: AMERICAN ENGINEERING TESTING, INC.			
ALL COORDINATES REFERENCED TO WISCRS NAD 83(11) EAU CLAIRE COUNTY			



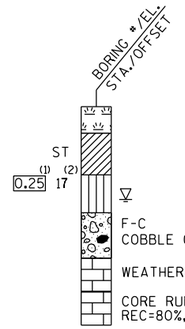
STATE PROJECT NUMBER

7905-00-70

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
WH-WEIGHT OF HAMMER

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 C-18-52

DRAWN BY RLR | PLANS CK'D. JRS

SUBSURFACE EXPLORATION

SHEET 6 OF 6
43

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FILE= 00093451_06.DGN

93451_C-18-52_06.dgn 5/7/2020 11:31:37 AM CRooyakkers

PROJECT I.D. 7905-00-70 EARTHWORK SUMMARY

STA	EXCAVATION COMMON CY	EXCAVATION ROCK CY	FILL (1) CY	EXPANDED FILL (2) CY	BORROW CY
8+00.00					
	134	0	3	4	-130
8+50.00					
	163	0	11	14	-149
9+10.00					
	56	0	10	13	-43
9+35.00					
	59	0	46	60	1
9+60.00					
	72	0	478	621	549
10+00.00					
	71	0	529	688	617
10+41.25					
	49	0	129	168	119
10+66.25					
	45	0	133	173	128
10+91.25					
	117	0	183	238	121
11+50.00					
	60	0	19	25	-35
11+78.75					
	60	0	6	8	-52
12+03.75					
	69	0	3	4	-65
12+28.75					
	55	0	0	0	-55
12+50.00					
SUBTOTALS	1,010	0	1,550	2,016	1,006
UNUSABLE PAVEMENT (3)					577
TOTALS	**1,010**	**0**	**1,550**	**2,016**	**1,583**

(1) - NOT A BID ITEM - FOR INFORMATIONAL PURPOSES ONLY.
(2) - FILL EXPANSION 30%
(3) - EXISTING PAVEMENT BASED ON AVE THK OF 7.25" OF ASPHALT & 10" CONCRETE PER BORING LOG.

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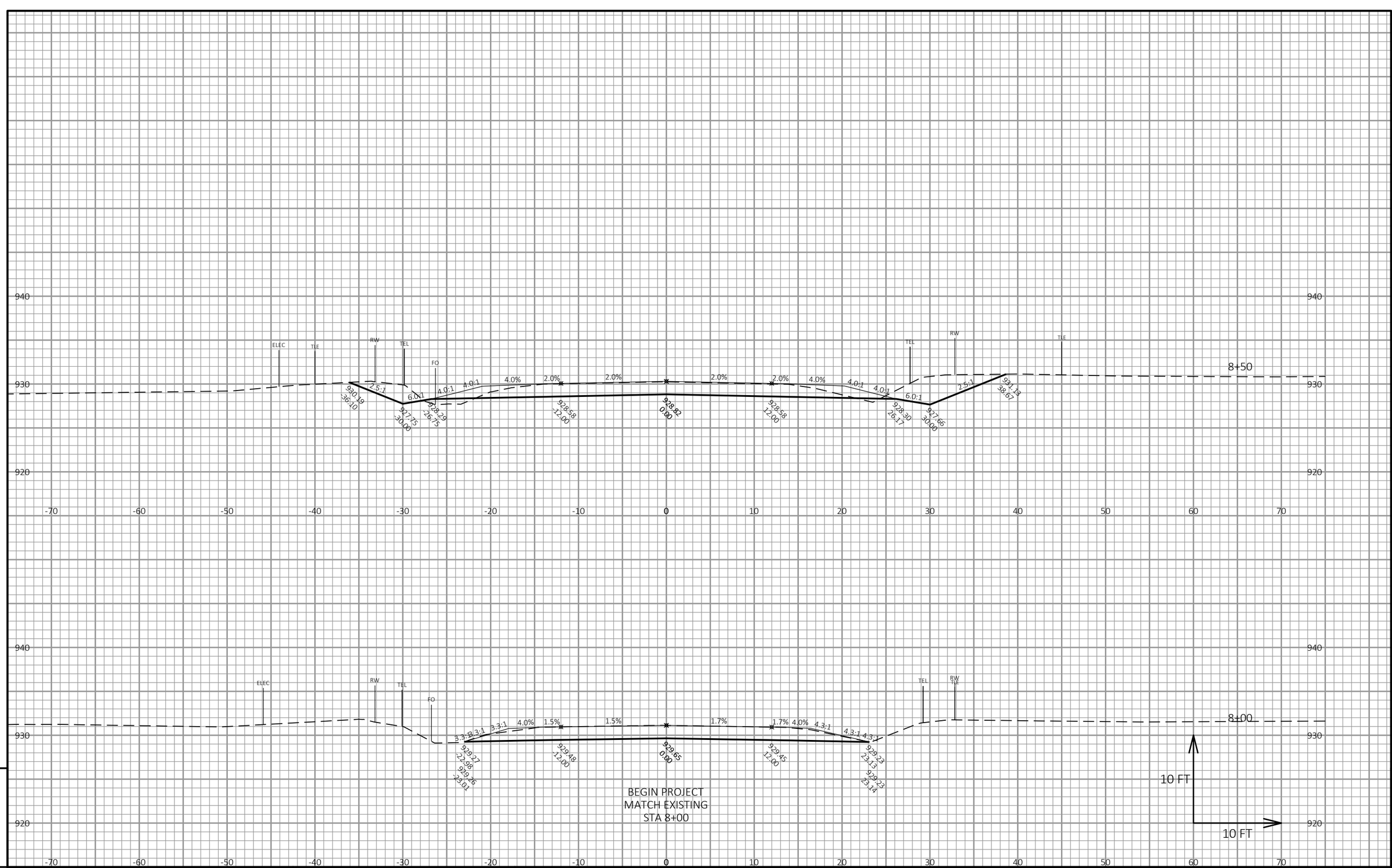


PROJECT NO: 7905-00-70	HWY: USH 53	COUNTY: EAU CLAIRE	CROSS SECTIONS: USH 53	SHEET 45	E

FILE NAME : P:\90S\93\00093451\CADD\DESIGN\CORRIDORS\CORRIDOR-USH 53.DWG
LAYOUT NAME - 090201_xs

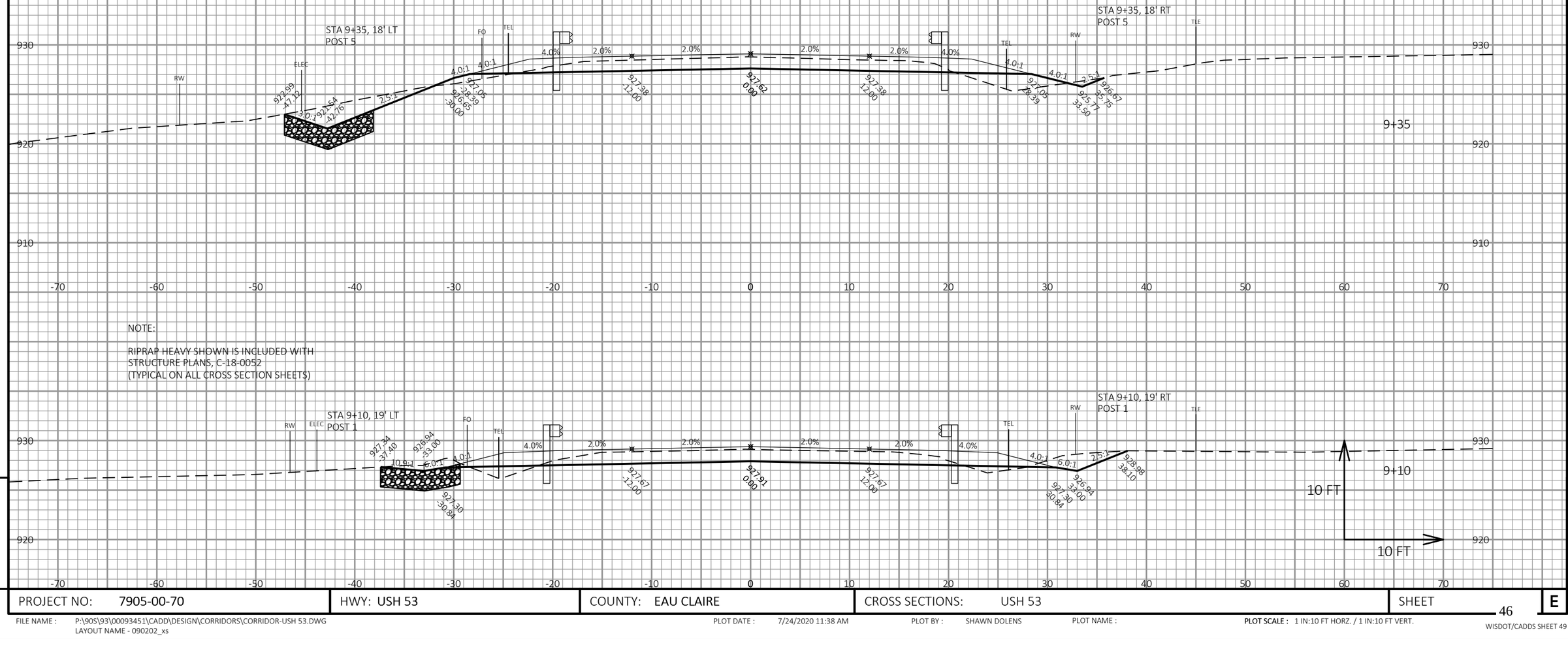
PLOT DATE : 7/24/2020 11:37 AM

PLOT BY : SHAWN DOLENS

PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



NOTE:

RIPRAP HEAVY SHOWN IS INCLUDED WITH
STRUCTURE PLANS, C-18-0052
(TYPICAL ON ALL CROSS SECTION SHEETS)

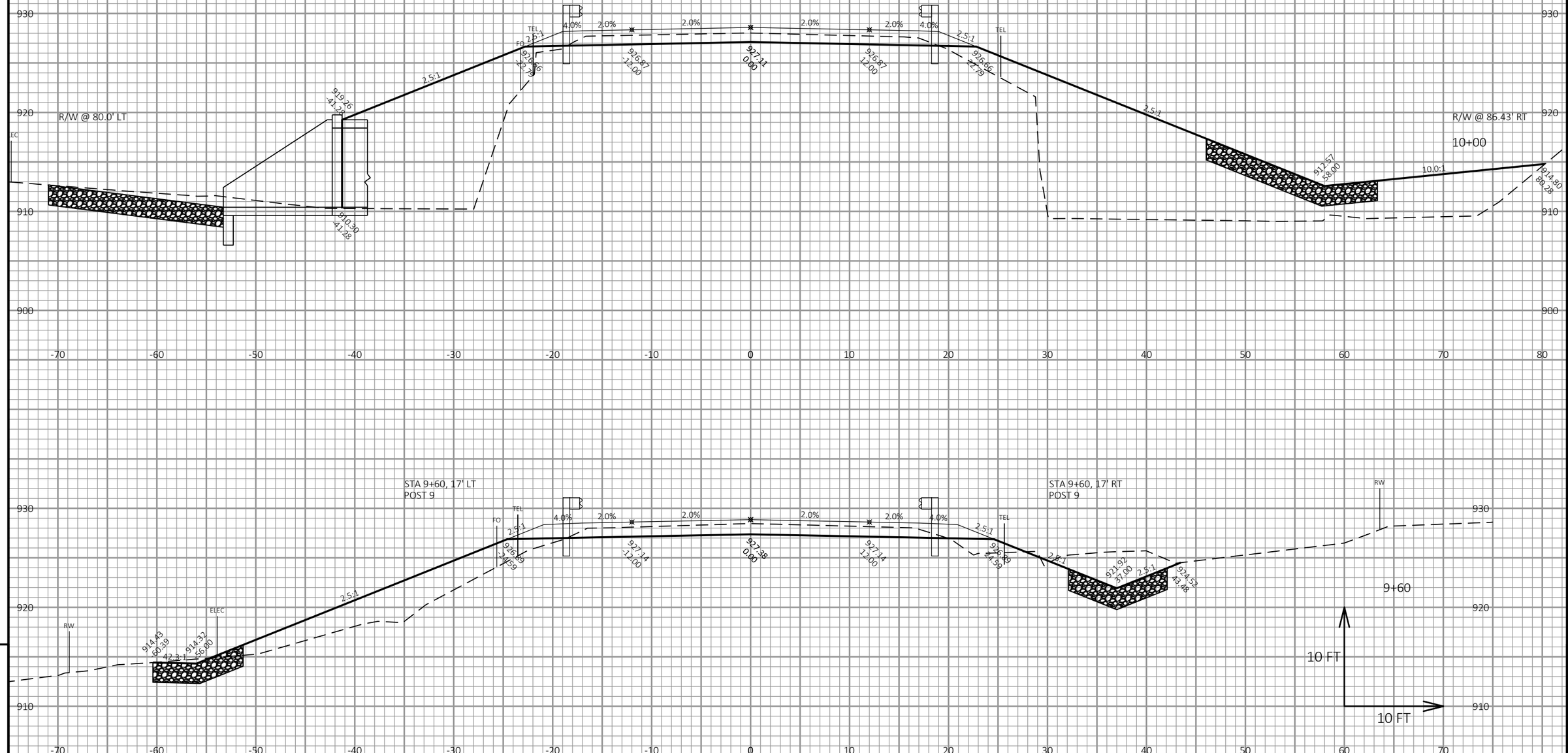
PROJECT NO: 7905-00-70	HWY: USH 53	COUNTY: EAU CLAIRE	CROSS SECTIONS: USH 53	SHEET 46 E

FILE NAME : P:\90S\93\00093451\CADD\DESIGN\CORRIDORS\CORRIDOR-USH 53.DWG
LAYOUT NAME - 090202_xs

PLOT DATE : 7/24/2020 11:38 AM PLOT BY : SHAWN DOLENS PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

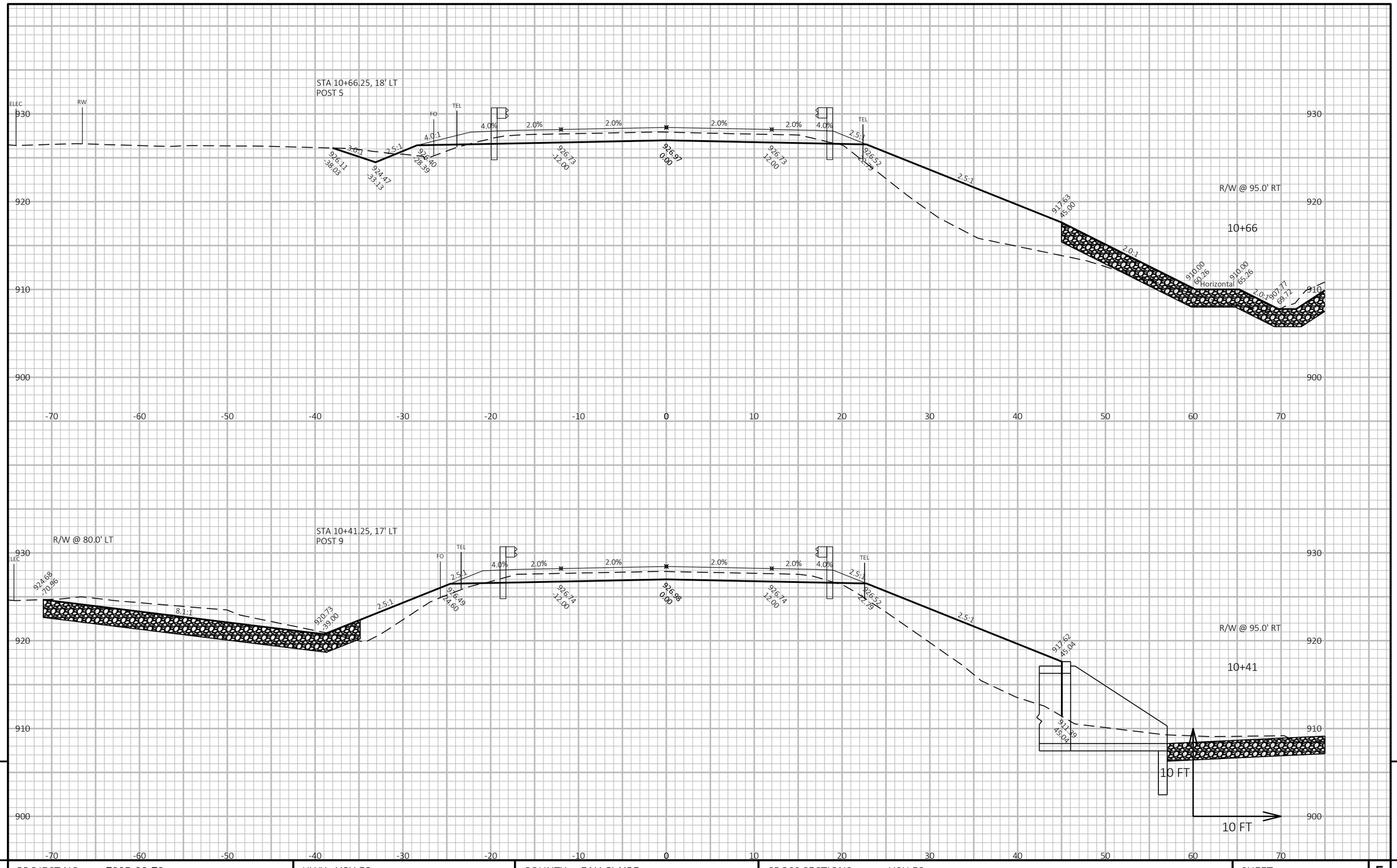
STRUCTURE C-18-0052



PROJECT NO: 7905-00-70	HWY: USH 53	COUNTY: EAU CLAIRE	CROSS SECTIONS: USH 53	SHEET 47 E

FILE NAME : P:\90S\93\00093451\CADD\DESIGN\CORRIDORS\CORRIDOR-USH 53.DWG
LAYOUT NAME - 090203_xs

PLOT DATE : 7/24/2020 11:38 AM PLOT BY : SHAWN DOLENS PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.



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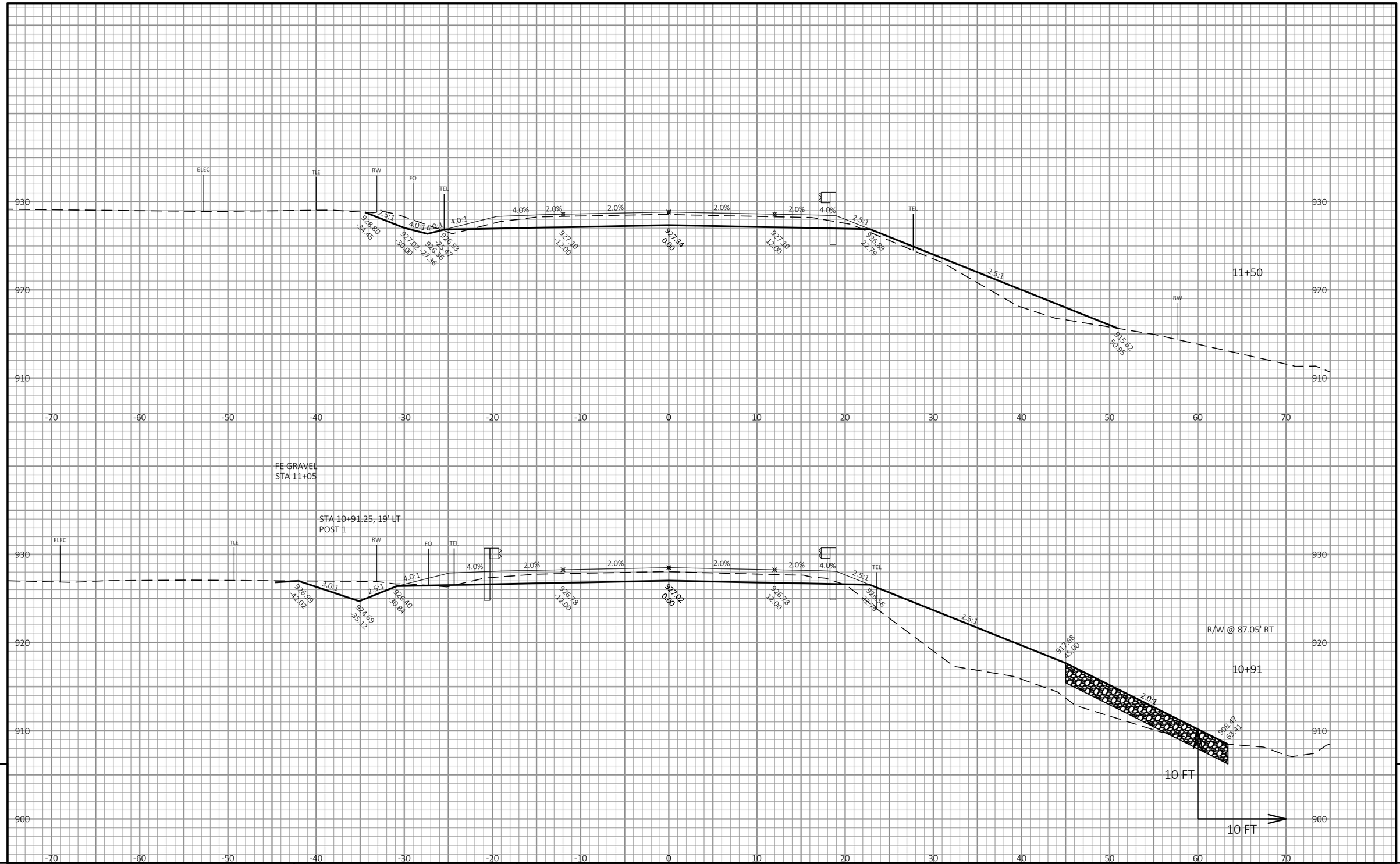
PROJECT NO: 7905-00-70	HWY: USH 53	COUNTY: EAU CLAIRE	CROSS SECTIONS: USH 53	SHEET 48	E

FILE NAME : P:\90S\93\00093451\CADD\DESIGN\CORRIDORS\CORRIDOR-USH 53.DWG
LAYOUT NAME - 090204_xs

PLOT DATE : 7/26/2021 10:08 AM PLOT BY : SHAWN DOLENS PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.



PROJECT NO: 7905-00-70	HWY: USH 53	COUNTY: EAU CLAIRE	CROSS SECTIONS: USH 53	SHEET 49 E

FILE NAME : P:\90S\93\00093451\CADD\DESIGN\CORRIDORS\CORRIDOR-USH 53.DWG
LAYOUT NAME - 090205_xs

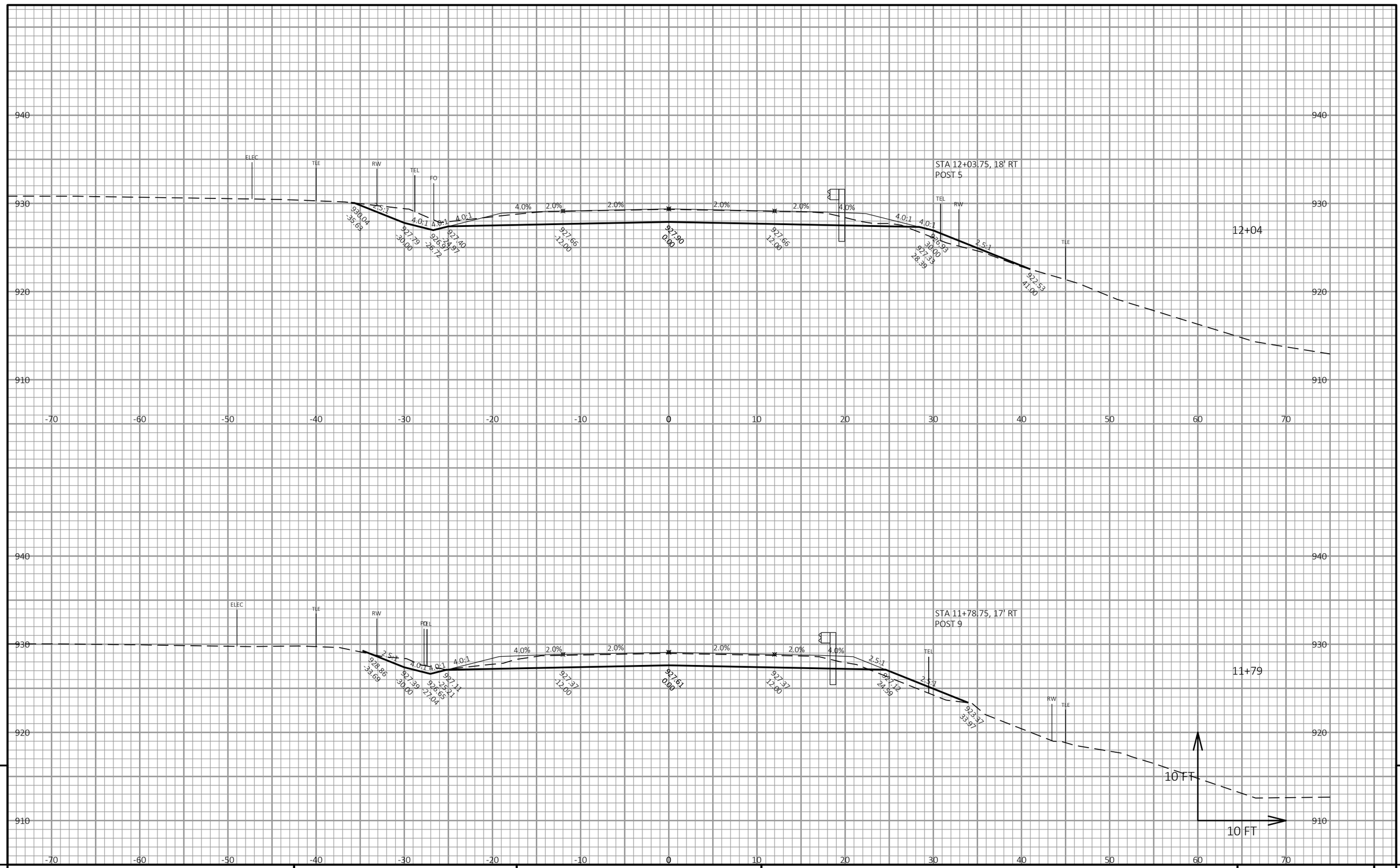
PLOT DATE : 7/24/2020 11:38 AM

PLOT BY : SHAWN DOLENS

PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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PROJECT NO: 7905-00-70	HWY: USH 53	COUNTY: EAU CLAIRE	CROSS SECTIONS: USH 53	SHEET	E

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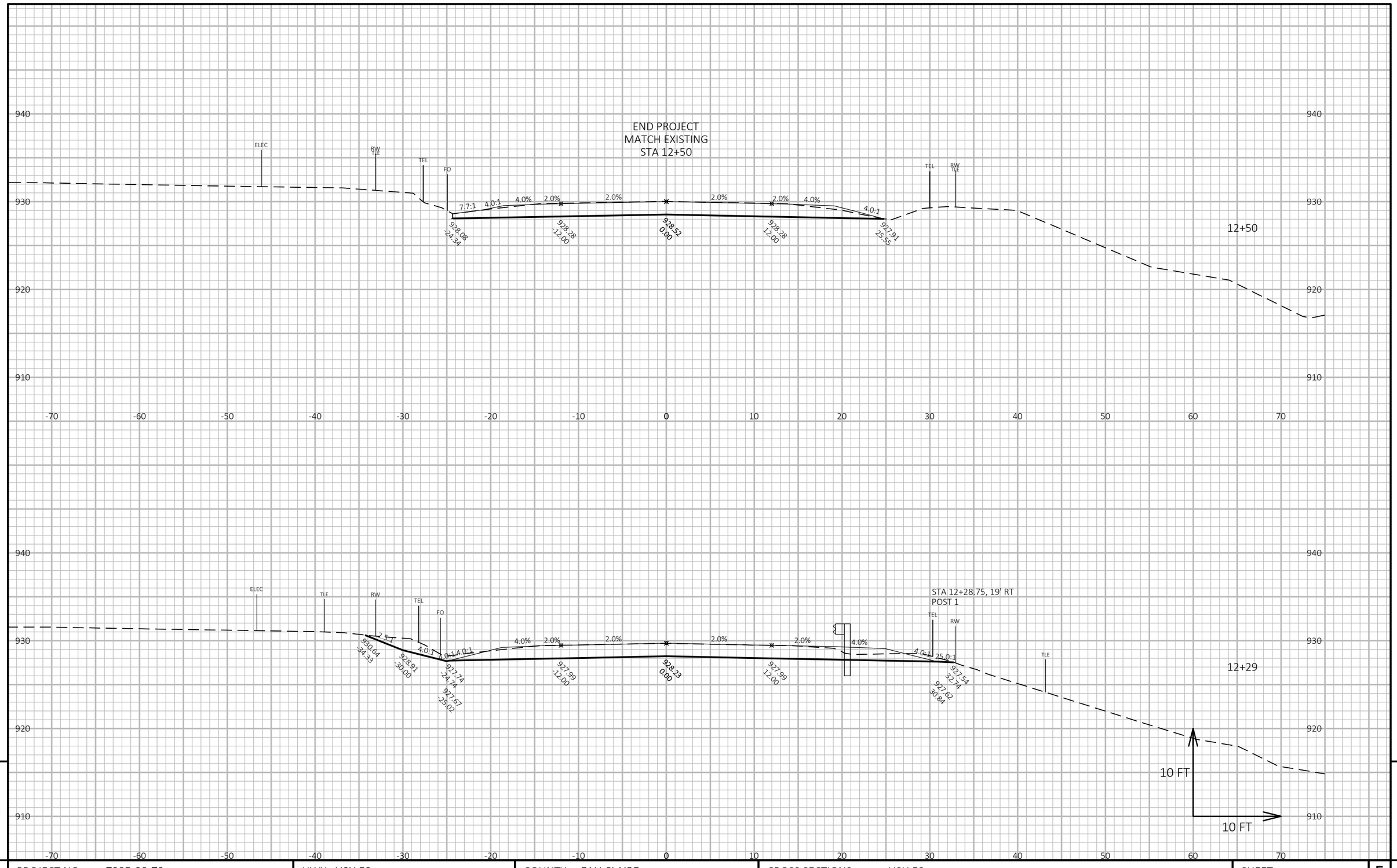
FILE NAME : P:\90S\93\00093451\CADD\DESIGN\CORRIDORS\CORRIDOR-USH 53.DWG
LAYOUT NAME - 090206_xs

PLOT DATE : 7/24/2020 11:38 AM PLOT BY : SHAWN DOLENS PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.



PROJECT NO: 7905-00-70	HWY: USH 53	COUNTY: EAU CLAIRE	CROSS SECTIONS: USH 53	SHEET 51	E

FILE NAME : P:\90S\93\00093451\CADD\DESIGN\CORRIDORS\CORRIDOR-USH 53.DWG
LAYOUT NAME - 090207_xs

PLOT DATE : 7/26/2021 10:14 AM PLOT BY : SHAWN DOLENS PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

Wisconsin Department of Transportation

Dedicated people creating transportation solutions
through innovation and exceptional service.

http://www.dot.wisconsin.gov