GRE

DECEMBER 2023

PROJECT ID: 7070-06-72

WITH: N/A

COUNTY: CHIPPEWA

ORDER OF SHEETS

TOTAL SHEETS = 126

33

DESIGN DESIGNATION

A.A.D.T.	(2023)	=	1570
A.A.D.T.	(2043)	=	1570
D.H.V.		=	228
D.D.		=	61/39
T.		=	24.8%
DESIGN SPEED		=	60 MPH
ESALS		=	700,000

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)
- OVERHEAD (OH)
- 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

AUGUSTA - CADOTT

EAU CLAIRE/CHIPPEWA CO LN TO STH 29

STH 27

CHIPPEWA COUNTY

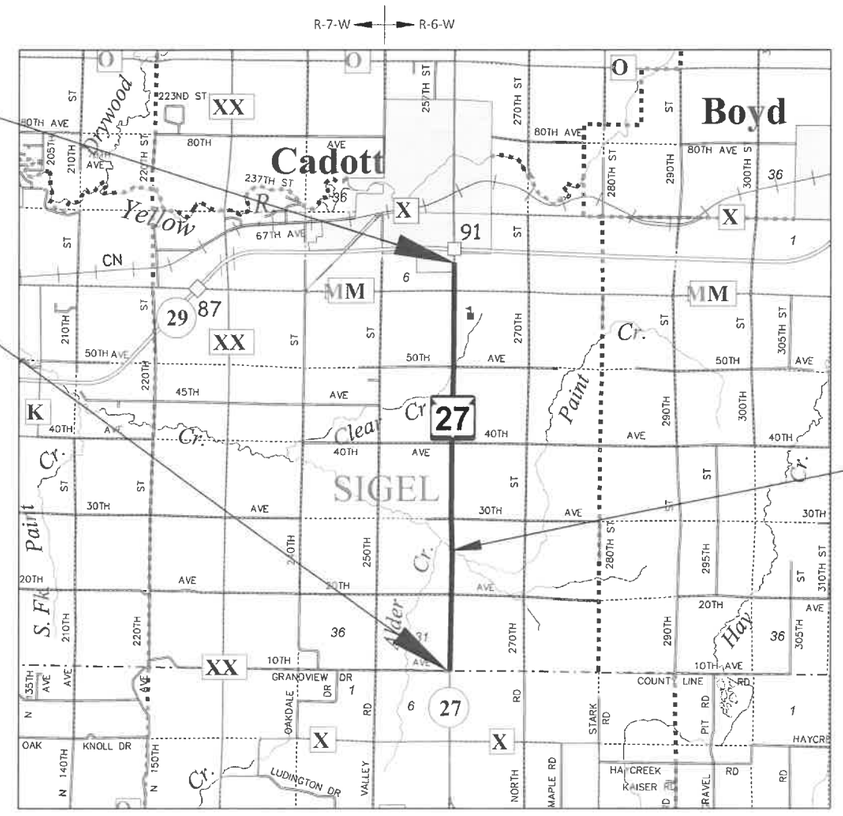
STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
7070-06-72	———	—

STATE PROJECT NUMBER

7070-06-72

END PROJECT
STA 288+45

BEGIN PROJECT
STA 11+15
X: 235,558.244
Y: 100,699.348



STRUCTURE B-09-0026

LAYOUT

SCALE 0 2 MI

TOTAL NET LENGTH OF CENTERLINE = 5.252 MI

HORIZONTAL POSITIONS SHOWN ON THIS PLAN ARE WISCONSIN COUNTY COORDINATES SYSTEM (WCCS), CHIPPEWA 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 12B.

ORIGINAL PLANS PREPARED BY

CORRE, INC.

CORRE ENGINEERING
1802 WARDEN STREET
EAU CLAIRE, WI 54703
(608)828-1011
www.correinc.com

WISCONSIN PROFESSIONAL ENGINEER
KEVIN L. MEYER
E-38309-006
ELK MOUND
WI

DATE: 6/28/23 (Professional Engineer Signature)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor	CORRE, INC
Designer	CORRE, INC
Project Manager	JOSHUA LANG, PE
Regional Examiner	NE REGION
Regional Supervisor	ANDY FULCER, PE

APPROVED FOR THE DEPARTMENT

DATE: 8/1/2023 John J. Lang P.E. (Signature)

E

FILE NAME : C:\OD\CORRE, INC\PROJECTS - WI-NW REGION\7070-06-02_CHIPPEWA CO_STH 27\500_CADD\501_C3D_2018\70700602\SHEETSPLAN\010101-TI.DWG

PLOT DATE : 4/14/2023 9:12 AM

PLOT BY : CAMERON SHIFFER, PE

PLOT NAME :

ORDER OF SECTION 2 SHEETS

GENERAL NOTES
PROJECT OVERVIEW
TYPICAL SECTIONS
CONSTRUCTION DETAILS
TRAFFIC CONTROL

WISDOT CONTACT

WISDOT NE REGION
JOSHUA LANG, PE
944 VANDERPERREN WAY
GREEN BAY, WI 54304
(920) 362-6170
JOSHUA.LANG@DOT.WI.GOV

DNR CONTACT

DNR SERVICE CENTER
LEAH NICOL
1300 W CLAIREMONT AVE
EAU CLAIRE, WI 54701
(715) 934-9014
LEAH.NICOL@WISCONSIN.GOV

CONSULTANT CONTACT

CORRE, INC.
KEVIN MEYER, PE
1802 WARDEN ST
EAU CLAIRE, WI 54703
(715) 299-1894
KMEYER@CORREINC.COM

UTILITY CONTACTS

CADOTT LIGHT AND WATER
MUNICIPAL LIGHT, WATER, WASTEWATER
ROLLY TICHY
110 CENTRAL ST, PO BOX 40
CADOTT, WI 54727-0040
(715) 289-4282
CADOTTPUBLICWORKS@CENTURYTEL.NET

CENTURYLINK GENERAL MAILBOX
COMMUNICATION LINE
CENTURYLINK OSP RELOCATIONS
RELOCATIONS@LUMEN.COM

MAGELLAN PIPELINE
GAS
CLAIR MADSEN
2451 W COUNTY ROAD C
ST PAUL, MN 55113-2513
(612) 750-1806
CLAIR.MADSEN@MAGELLANLP.COM

WE ENERGIES
GAS
TRAVIS KAHL
1921 8TH STREET SOUTH
WISCONSIN RAPIDS, WI 54494
(715) 421-7256
TRAVIS.KAHL@WE-ENERGIES.COM

XCEL ENERGY
ELECTRICITY
DAVID MELSNESS
PO BOX 8
EAU CLAIRE, WI 54702
(715) 737-1495
DAVID.J.MELSNESS@XCELENERGY.COM

CENTURYLINK
COMMUNICATION LINE
BRIAN HUHN
425 ELLINGSON AVENUE
HAWKINS, WI 54530
(608) 615-7347
BRIAN.HUHN@LUMEN.COM

EAU CLAIRE ENERGY COOPERATIVE
ELECTRICITY
JOSH VANINGAN
8214 HIGHWAY 12
FALL CREEK, WI 54742
(715) 836-6473
JVANINGAN@ECEC.COM

SPECTRUM
COMMUNICATION LINE
SHANE YODER
1201 MCCANN DR
ALTOONA, WI 54720
(715) 214-1175
SHANE.YODER@CHARTER.COM

XCEL ENERGY
ELECTRICITY - TRANSMISSION
MITCHELL DIENGER
414 NICOLLET MALL, 5TH FLOOR
MINNEAPOLIS, MN 55401
(612) 321-3109
MITCHELL.A.DIENGER@XCELENERGY.COM

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

GENERAL NOTES

-THERE ARE UTILITY FACILITIES WITHIN THE PROJECT AREA THAT ARE NOT SHOWN ON THE PLANS. THE CONTRACTOR SHALL COORDINATE THEIR CONSTRUCTION ACTIVITIES WITH A CALL TO DIGGERS HOTLINE AND/OR A DIRECT CALL TO THE UTILITIES THAT HAVE FACILITIES IN THE AREA. NOT ALL UTILITIES ARE MEMBERS OF DIGGERS HOTLINE.

-CONTRACTOR SHALL MAINTAIN ACCESS TO ALL DRIVEWAYS AT ALL TIMES. ACCESS SHALL BE PROVIDED DURING ALL NON-WORKING HOURS.

-THE CONTRACTOR'S PAVING OPERATIONS SHALL BE CONSISTENT WITH THE PLAN TYPICAL SECTIONS AND CONSTRUCTED TO PREVENT HMA LONGITUDINAL JOINTS FROM BEING LOCATED WITHIN A DRIVING OR TURNING LANE.

-HMA PAVEMENT WEIGHT CALCULATIONS ARE BASED ON 112 LB/SY/IN.

-CONTRACTOR WILL BE RESPONSIBLE FOR RESHAPING AND SEEDING ANY PREVIOUSLY GRASSED AREAS WHICH ARE DISTURBED BY THEIR OPERATION OUTSIDE OF THE NORMAL CONSTRUCTION LIMITS.

-THE QUANTITY OF THE ITEMS FOR EROSION PROTECTION INCLUDES AN UNDISTRIBUTED AMOUNT FOR PROTECTION, CONTROL, AND ABATEMENT OF WATER POLLUTION RESULTING FROM SOIL EROSION. THE DISTRIBUTION AND LOCATION OF THESE MATERIALS ARE TO BE DETERMINED BY THE ENGINEER.

-ALL DIMENSIONS ARE SHOWN TO THE EDGE OF PAVEMENT UNLESS NOTED OTHERWISE.

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 = 42.0 ACRES

TOTAL AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES = 1.65 ACRES

2

2

N

EAU CLAIRE/CHIPPEWA COUNTY LINE

10TH AVE

20TH AVE

PAINT CREEK

30TH AVE

40TH AVE

CLEAR CREEK

50TH AVE

CTH MM

LAVORATA RD

25 50 75 100 125 150 175 200 225 250 275

27

29

CULVERT REPLACEMENT
CP: 18027025570
STA 101+81

CULVERT REPLACEMENT
CP: 9027025579
STA 191+52

CULVERT REPLACEMENT
CP: 9027025581
STA 196+26

BEGIN PROJECT
STA 11+15

STRUCTURE B-09-0026
REHABILITATION
STA 95+35

REMOVING OLD STRUCTURE
CP: 18027025571
STA 98+72

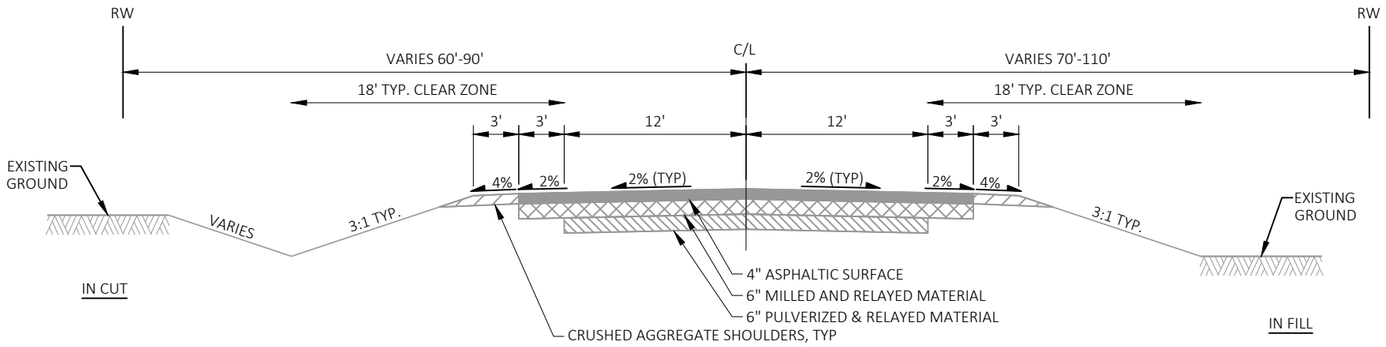
CULVERT REPLACEMENT
CP: 9027025578
STA 175+02

CULVERT REPLACEMENT
CP: 9027025584
STA 223+03

END PROJECT
STA 288+45

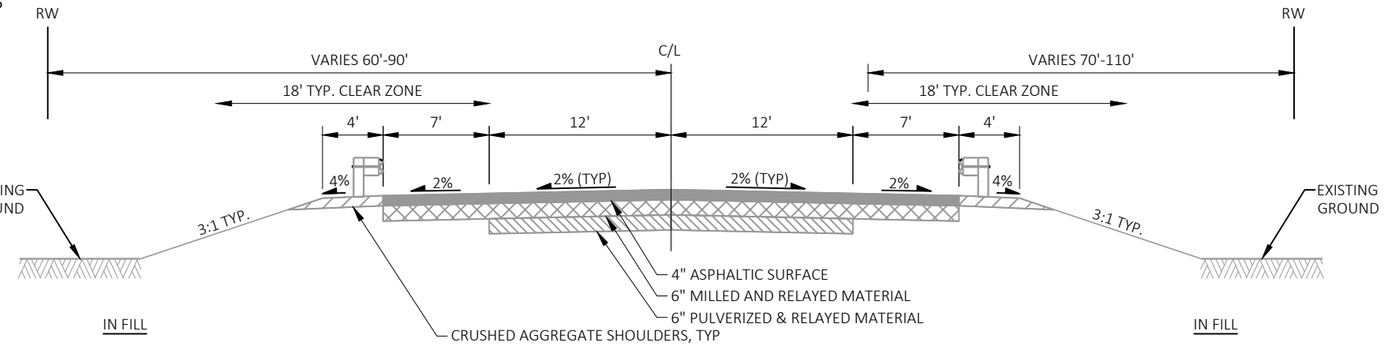
PROJECT NO: 7070-06-72	HWY: STH 27	COUNTY: CHIPPEWA	PROJECT OVERVIEW	SHEET 3	E

FILE NAME : C:\OD\CORRE, INC\PROJECTS - WI-NW REGION\7070-06-02_CHIPPEWA CO_STH 27\500_CADD\501_C3D_2018\70700602\SHEETSPLAN\020201-PO.DWG
LAYOUT NAME - 01
PLOT DATE : 4/14/2023 9:36 AM
PLOT BY : CAMERON SHIFFER, PE
PLOT NAME :
PLOT SCALE : 1 IN:2000 FT
WISDOT/CADDS SHEET 42



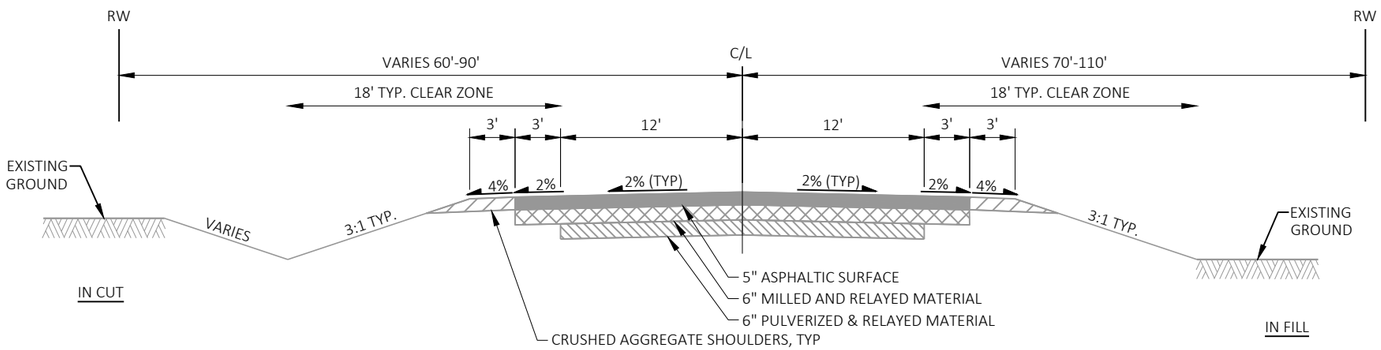
EXISTING TYPICAL SECTION

LEFT STATIONING	RIGHT STATIONING
STA 11+15 TO 94+11	STA 11+15 TO 93+97
STA 96+72 TO 275+65	STA 96+58 TO 275+65



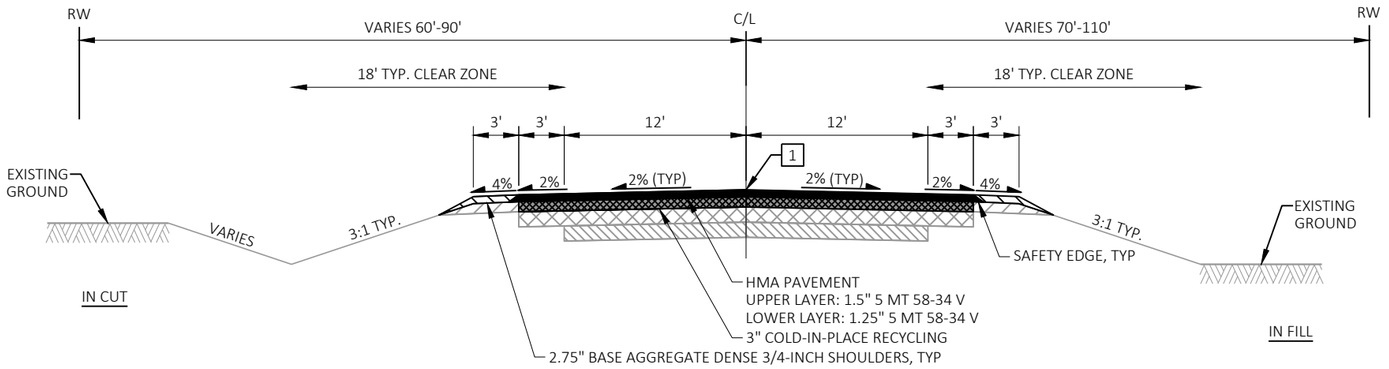
EXISTING TYPICAL SECTION

LEFT STATIONING	RIGHT STATIONING
STA 94+11 TO 95+06	STA 93+97 TO 94+92
STA 95+78 TO 96+72	STA 95+64 TO 96+58



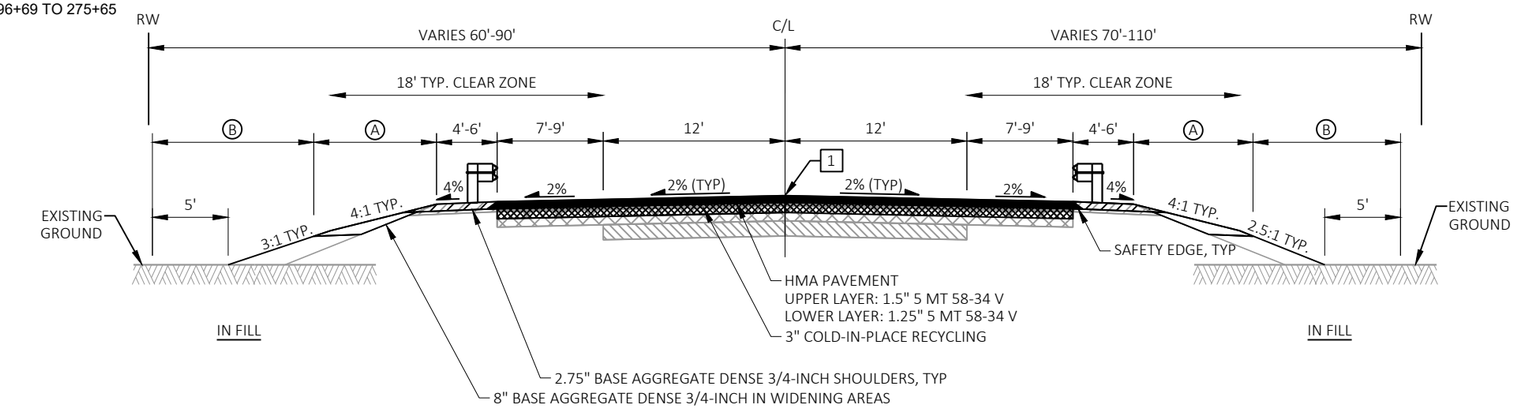
EXISTING TYPICAL SECTION

STA 275+65 TO 288+45



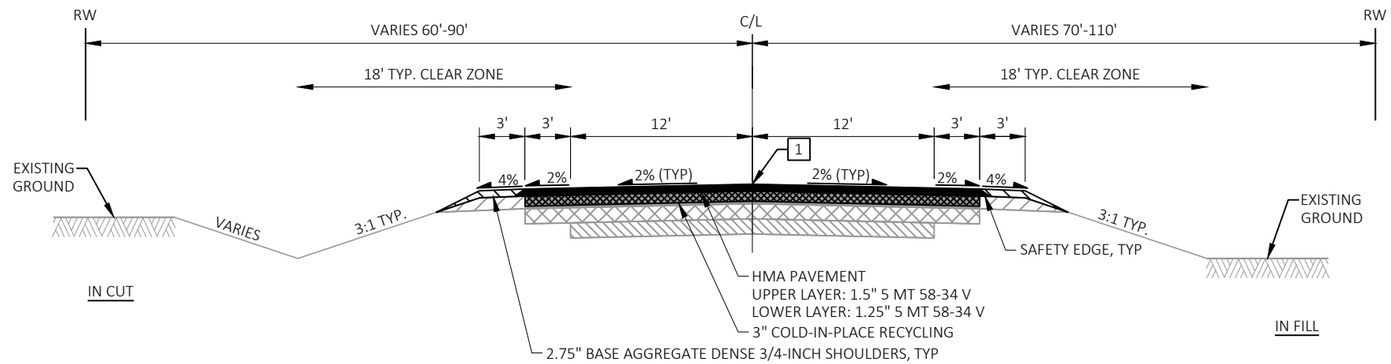
FINISHED TYPICAL SECTION

LEFT STATIONING	RIGHT STATIONING
STA 11+15 TO 94+13	STA 11+15 TO 93+62
STA 97+08 TO 275+65	STA 96+69 TO 275+65



FINISHED TYPICAL SECTION

LEFT STATIONING	RIGHT STATIONING
STA 94+13 TO 95+06	STA 93+62 TO 94+92
STA 95+78 TO 97+08	STA 95+64 TO 96+69



FINISHED TYPICAL SECTION

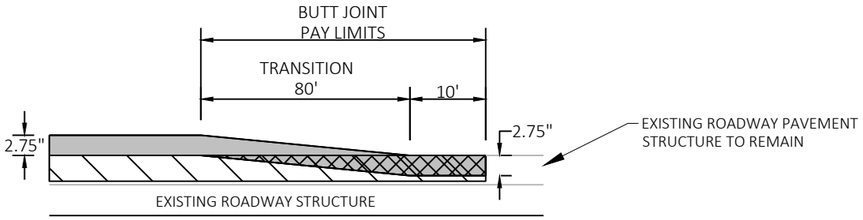
STA 275+65 TO 288+45

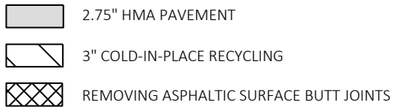
1 ASPHALTIC RUMBLE STRIPS, CENTERLINE

IN ANY DISTURBED AREAS

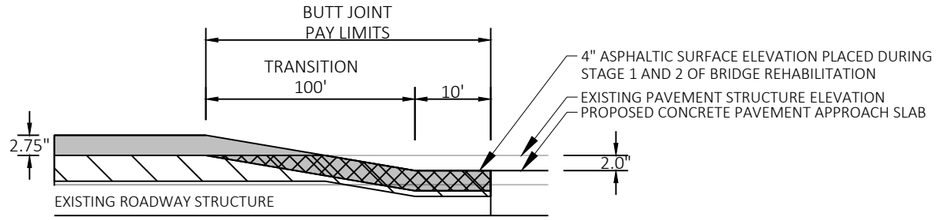
(A) FERTILIZER TYPE B; SEEDING MIXTURE NO. 20

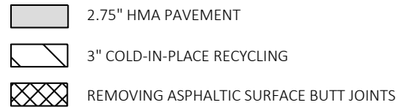
(B) FERTILIZER TYPE B; SEEDING MIXTURE NO. 20; SALVAGED TOPSOIL; MULCH OR EROSION MAT (SEE PLAN SHEETS FOR LOCATIONS)



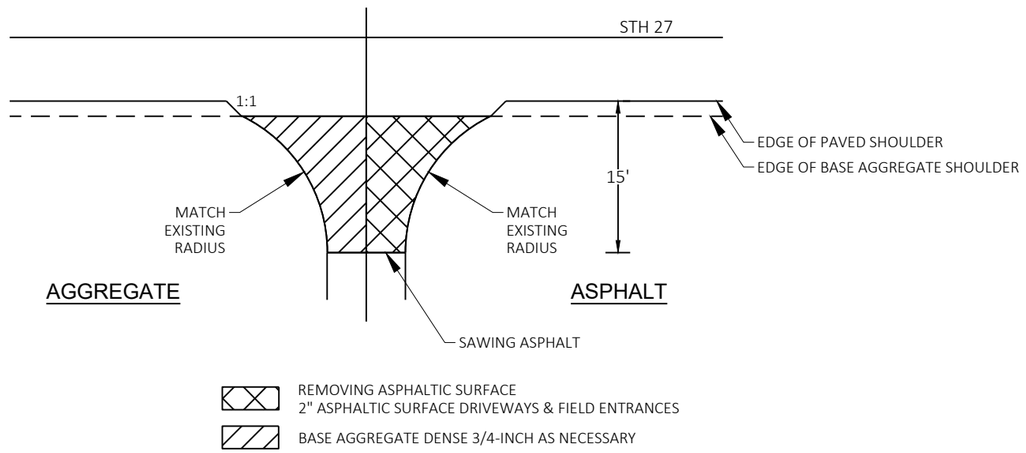


BUTT JOINTS
MAINLINE



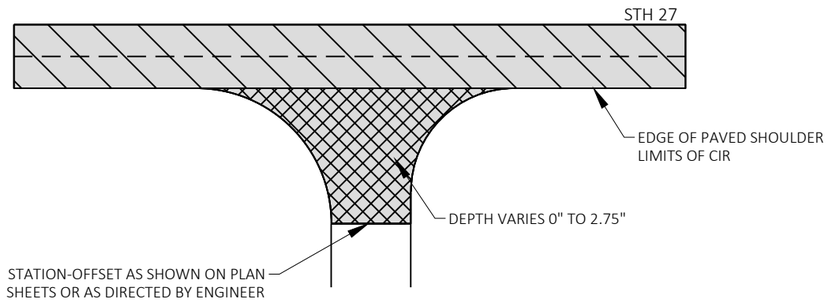


BUTT JOINTS
MAINLINE AT STRUCTURES



DRIVEWAYS

PROJECT NO: 7070-06-72	HWY: STH 27	COUNTY: CHIPPEWA	CONSTRUCTION DETAILS	SHEET 6	E

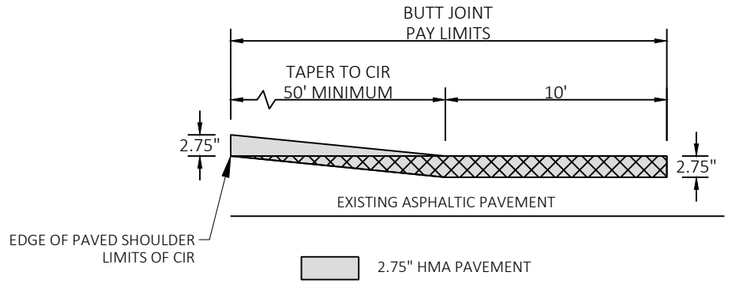


2.75" HMA PAVEMENT

3" COLD-IN-PLACE RECYCLING (CIR)

REMOVING ASPHALTIC SURFACE BUTT JOINTS

SIDEROADS
WITHOUT CURB AND GUTTER



2.75" HMA PAVEMENT

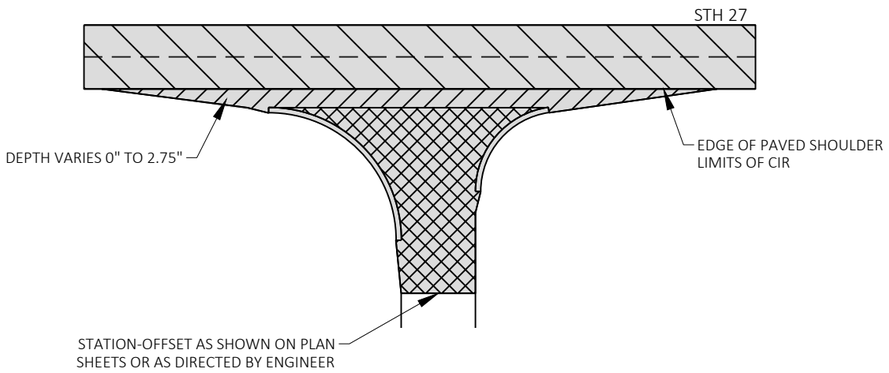
3" COLD-IN-PLACE RECYCLING (CIR)

REMOVING ASPHALTIC SURFACE BUTT JOINTS

SAW CUT IS CONSIDERED INCIDENTAL TO REMOVING ASPHALTIC SURFACE BUTT JOINTS.

AGGREGATE SIDE ROADS DO NOT REQUIRE BUTT JOINTS.

BUTT JOINTS
SIDE ROADS WITHOUT CURB AND GUTTER



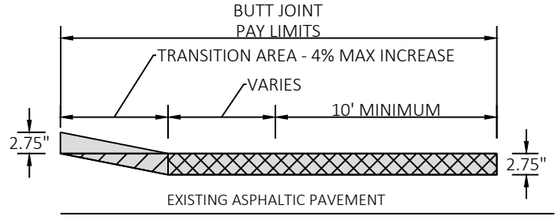
2.75" HMA PAVEMENT

3" COLD-IN-PLACE RECYCLING (CIR)

REMOVING ASPHALTIC SURFACE BUTT JOINTS

TRANSITION AREA

SIDEROADS
WITH CURB AND GUTTER



2.75" HMA PAVEMENT

3" COLD-IN-PLACE RECYCLING (CIR)

REMOVING ASPHALTIC SURFACE BUTT JOINTS

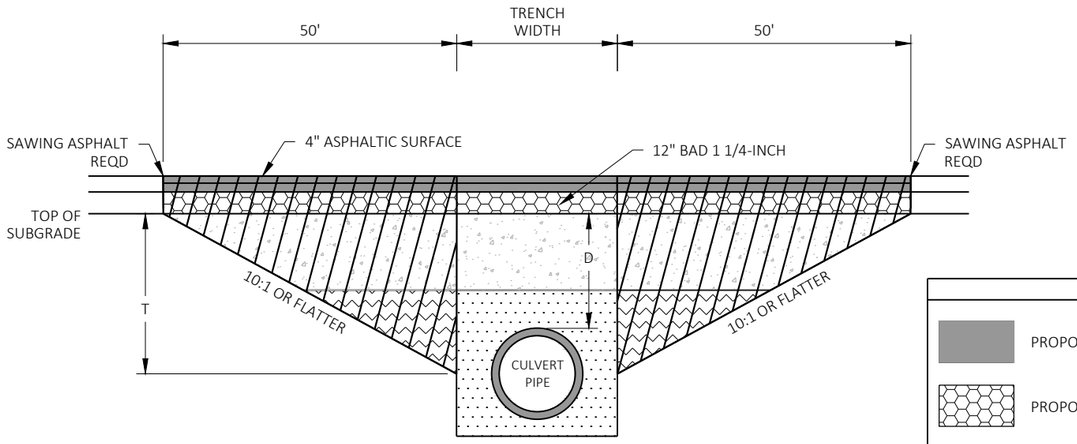
TRANSITION AREA

SAW CUT IS CONSIDERED INCIDENTAL TO REMOVING ASPHALTIC SURFACE BUTT JOINTS.

AGGREGATE SIDE ROADS DO NOT REQUIRE BUTT JOINTS.

TRANSITION AREA PAID FOR UNDER REMOVING ASPHALTIC SURFACE BUTT JOINTS BID ITEM.

BUTT JOINTS
SIDE ROADS WITH CURB AND GUTTER

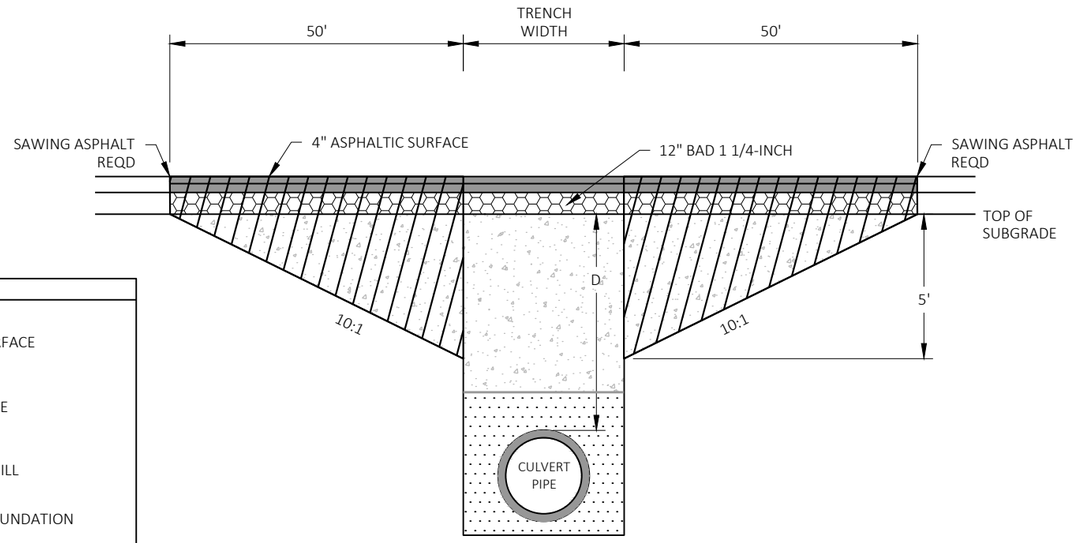


TRANSITION CUT DEPTH (T) = THE LESSER OF DEPTH TO CENTER OF PIPE OR 5 FT.
DO NOT EXTEND TRANSITION CUT BELOW HORIZONTAL CENTER OF PIPE.

DEPTH D < 6 FT

KEY

- PROPOSED SURFACE
- PROPOSED BASE
- TRENCH BACKFILL
- TRENCH OR FOUNDATION BACKFILL
- FOUNDATION BACKFILL
- TRANSITION CUT



DEPTH D ≥ 6 FT

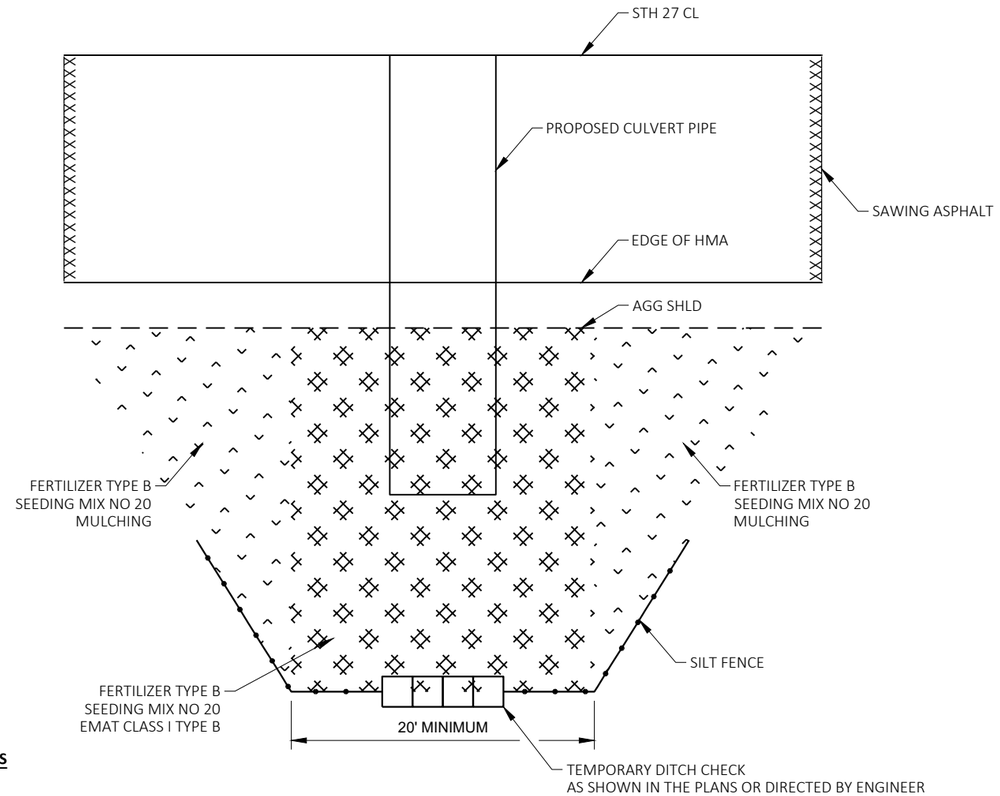
NOTES

TRANSITION CUT IS PAID AS EXCAVATION COMMON.
TRANSITION CUT WIDTH IS FROM SUBGRADE SHOULDER POINT TO SUBGRADE SHOULDER POINT.
BACKFILL THE TRANSITION CUT AREAS WITH FOUNDATION AND TRENCH BACKFILL AS SPECIFIED IN STANDARD SPEC 520.
PERFORM CULVERT PIPE INSTALLATION BEFORE COLD-IN-PLACE RECYCLING OPERATIONS.
PLACE ASPHALTIC SURFACE AFTER CULVERT PIPE INSTALLATION AND BEFORE COLD-IN-PLACE RECYCLING OPERATIONS.

CULVERT PIPE TRANSITION

STA 98+16 TO 99+28	D = 1.5' AT CENTERLINE (REMOVAL ONLY)
STA 101+29 TO 102+33	D = 2.3' AT CENTERLINE
STA 174+50 TO 175+54	D = 1.1' AT CENTERLINE
STA 191+00 TO 192+04	D = 5.2' AT CENTERLINE
STA 195+27 TO 196+82	D = 4.3' AT CENTERLINE
STA 222+88 TO 223+55	D = 1.2' AT CENTERLINE

2



NOTES

-WIDTH OF EROSION MAT 20' OR AS DIRECTED BY THE ENGINEER

-ANY DISTURBED AREAS NOT COVERED BY EROSION MAT SHALL BE FINISHED USING MULCH

-AN UNDISTRIBUTED AMOUNT OF TEMPORARY DITCH CHECKS IS INCLUDED IN THE PLAN FOR USE AT CULVERT REPLACEMENT LOCATIONS AND DITCH CLEANING LOCATIONS. FINAL LOCATION AND APPLICATION TO BE DETERMINED IN THE FIELD AS NECESSARY.

FINISHING ITEMS AT CULVERT PIPE TRANSITION

STA 98+16 TO 99+28

STA 136+92 TO 138+04

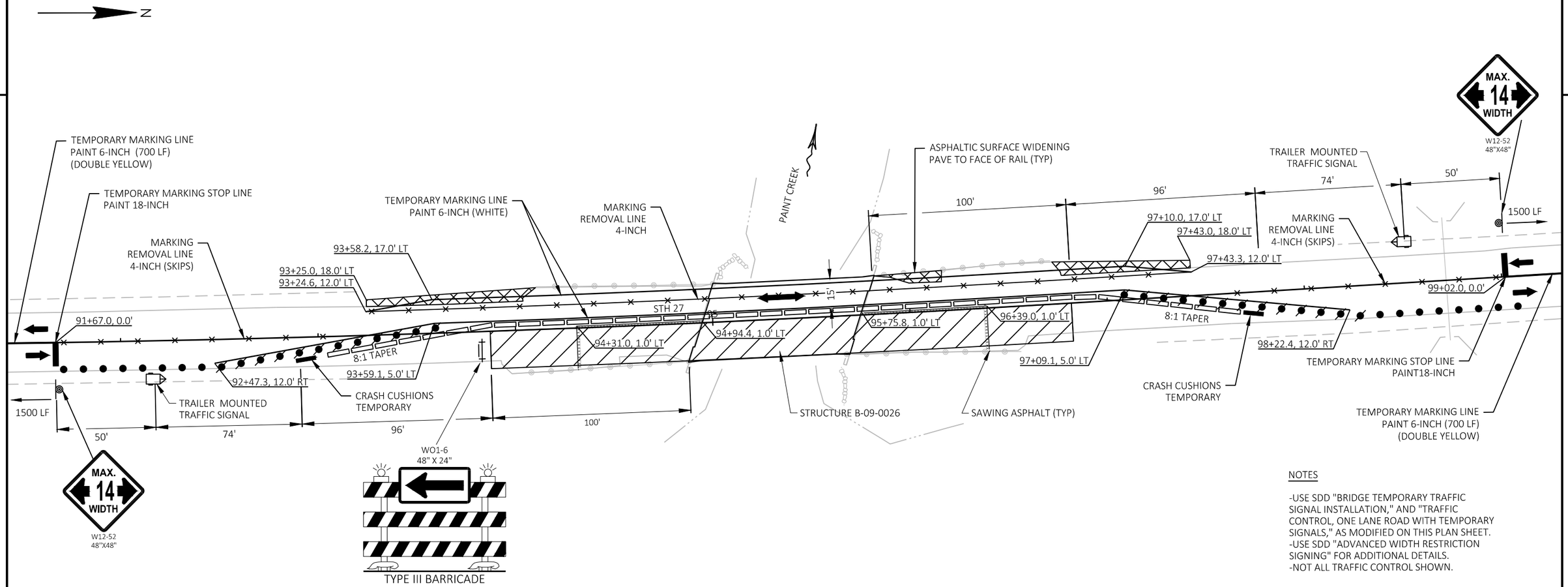
STA 174+50 TO 175+54

STA 191+00 TO 192+04

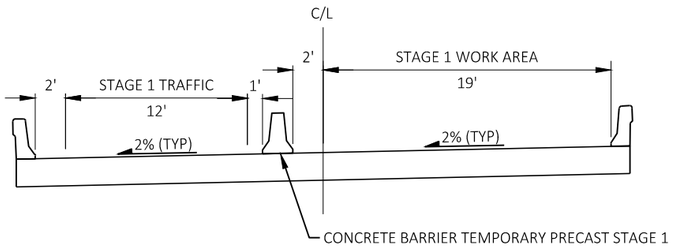
STA 195+27 TO 196+03

STA 196+03 TO 196+82

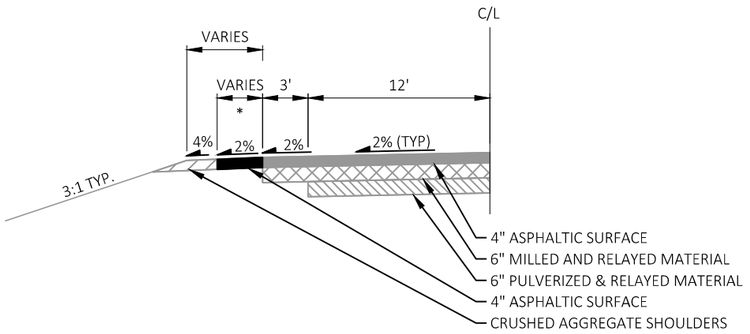
STA 222+88 TO 223+55



TYPE III BARRICADE



STAGE 1 TRAFFIC CONTROL - B-09-0026



TYPICAL TEMPORARY WIDENING SECTION - STH 27

* PREPARE FOUNDATION FOR ASPHALTIC SHOULDERS

LEFT STATIONING

STA 93+25 TO 94+11
STA 95+83 TO 96+17
STA 96+73 TO 97+43

NOTES

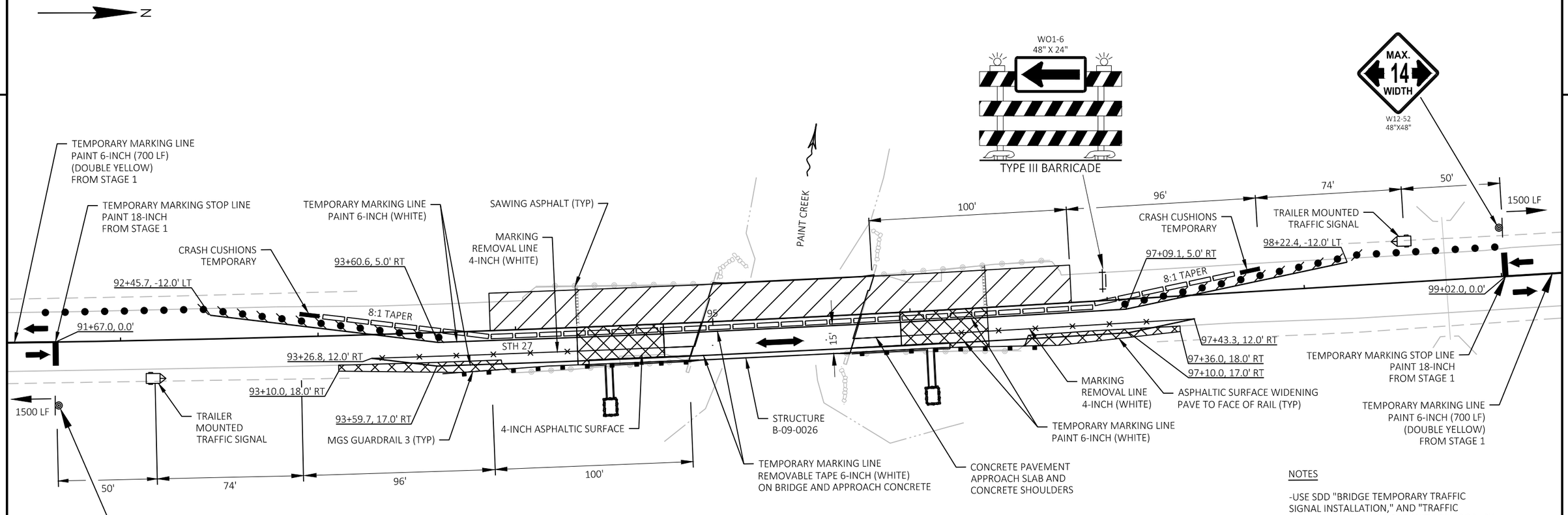
-USE SDD "BRIDGE TEMPORARY TRAFFIC SIGNAL INSTALLATION," AND "TRAFFIC CONTROL, ONE LANE ROAD WITH TEMPORARY SIGNALS," AS MODIFIED ON THIS PLAN SHEET.
-USE SDD "ADVANCED WIDTH RESTRICTION SIGNING" FOR ADDITIONAL DETAILS.
-NOT ALL TRAFFIC CONTROL SHOWN.

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WTH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- CONCRETE BARRIER TEMPORARY PRECAST
- WORK AREA
- ASPHALTIC SURFACE
- DIRECTION OF TRAFFIC

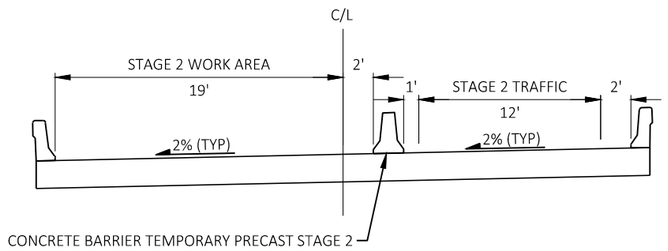
PROJECT NO: 7070-06-72	HWY: STH 27	COUNTY: CHIPPEWA	TRAFFIC CONTROL - STAGE 1	SHEET 10	E

FILE NAME : C:\OD\CORRE, INC\PROJECTS - WI-NW REGION\7070-06-02_CHIPPEWA CO_STH 27\500_CADD\501_C3D_2018\70700602\SHEETSPLAN\025001-TC.DWG
LAYOUT NAME - 025001-tc
PLOT DATE : 4/14/2023 10:00 AM PLOT BY : CAMERON SHIFFER, PE PLOT NAME : PLOT SCALE : 1 IN:50 FT
WISDOT/CADDS SHEET 42

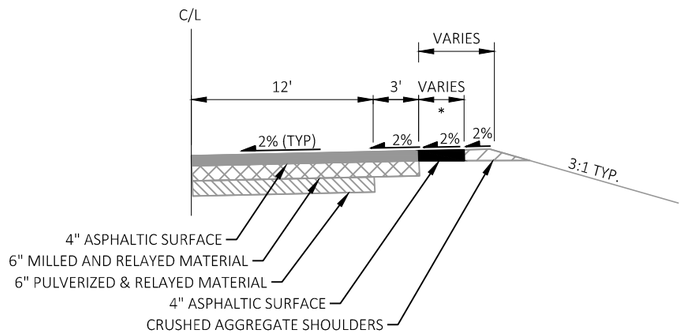


NOTES

-USE SDD "BRIDGE TEMPORARY TRAFFIC SIGNAL INSTALLATION," AND "TRAFFIC CONTROL, ONE LANE ROAD WITH TEMPORARY SIGNALS," AS MODIFIED ON THIS PLAN SHEET.
-USE SDD "ADVANCED WIDTH RESTRICTION SIGNING" FOR ADDITIONAL DETAILS.
-NOT ALL TRAFFIC CONTROL SHOWN.
-QUANTITY OF ASPHALTIC SURFACE INCLUDED FOR TIE IN AFTER STAGE 2 CONSTRUCTION TO SAW CUT.



STAGE 2 TRAFFIC CONTROL - B-09-0026



TYPICAL TEMPORARY WIDENING SECTION - STH 27

RIGHT STATIONING

STA 93+10 TO 93+95
STA 94+52 TO 94+87
STA 96+56 TO 97+36

* PREPARE FOUNDATION FOR ASPHALTIC SHOULDERS

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WTH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- CONCRETE BARRIER TEMPORARY PRECAST
- WORK AREA
- ASPHALTIC SURFACE
- DIRECTION OF TRAFFIC

PROJECT NO: 7070-06-72	HWY: STH 27	COUNTY: CHIPPEWA	TRAFFIC CONTROL - STAGE 2	SHEET 11	E

FILE NAME : C:\OD\CORRE, INC\PROJECTS - WI-NW REGION\7070-06-02_CHIPPEWA CO_STH 27\500_CADD\501_C3D_2018\70700602\SHEETSPLAN\025002-TC.DWG
LAYOUT NAME - 025002-tc
PLOT DATE : 4/14/2023 10:03 AM PLOT BY : CAMERON SHIFFER, PE PLOT NAME : PLOT SCALE : 1 IN:50 FT
WISDOT/CADDS SHEET 42

Estimate Of Quantities

7070-06-72

Line	Item	Item Description	Unit	Total	Qty
0002	201.0205	Grubbing	STA	9.000	9.000
0004	203.0100	Removing Small Pipe Culverts	EACH	5.000	5.000
0006	203.0211.S	Abatement of Asbestos Containing Material (structure) 01. B-9-26	EACH	1.000	1.000
0008	203.0220	Removing Structure (structure) 01. Sta 98+72	EACH	1.000	1.000
0010	203.0220	Removing Structure (structure) 02. Sta 196+26	EACH	1.000	1.000
0012	204.0110	Removing Asphaltic Surface	SY	370.000	370.000
0014	204.0115	Removing Asphaltic Surface Butt Joints	SY	5,150.000	5,150.000
0016	204.0165	Removing Guardrail	LF	378.000	378.000
0018	205.0100	Excavation Common	CY	4,247.000	4,247.000
0020	208.0100	Borrow	CY	805.000	805.000
0022	208.1500.S	Temporary Lane Shift During Culvert Work	EACH	5.000	5.000
0024	209.0200.S	Backfill Controlled Low Strength	CY	50.000	50.000
0026	210.1500	Backfill Structure Type A	TON	30.000	30.000
0028	211.0400	Prepare Foundation for Asphaltic Shoulders	STA	10.000	10.000
0030	211.0700.S	Prepare Foundation for CIR Base Layer (project) 01. 7070-06-72	EACH	1.000	1.000
0032	211.0800.S	Base Repair for CIR Layer	CY	1,000.000	1,000.000
0034	213.0100	Finishing Roadway (project) 01. 7070-06-72	EACH	1.000	1.000
0036	305.0110	Base Aggregate Dense 3/4-Inch	TON	5,020.000	5,020.000
0038	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	2,010.000	2,010.000
0040	327.1000.S	CIR Asphaltic Base Layer	SY	92,100.000	92,100.000
0042	415.0070	Concrete Pavement 7-Inch	SY	40.000	40.000
0044	415.0410	Concrete Pavement Approach Slab	SY	104.000	104.000
0046	455.0605	Tack Coat	GAL	11,765.000	11,765.000
0048	455.0770.S	Asphalt Stabilizing Agent	TON	315.000	315.000
0050	460.0105.S	HMA Percent Within Limits (PWL) Test Strip Volumetrics	EACH	1.000	1.000
0052	460.6645	HMA Pavement 5 MT 58-34 V	TON	14,950.000	14,950.000
0054	465.0105	Asphaltic Surface	TON	640.000	640.000
0056	465.0110	Asphaltic Surface Patching	TON	25.000	25.000
0058	465.0120	Asphaltic Surface Driveways and Field Entrances	TON	38.000	38.000
0060	465.0560	Asphaltic Rumble Strips, Centerline	LF	25,600.000	25,600.000
0062	502.3200	Protective Surface Treatment	SY	350.000	350.000
0064	502.3205	Pigmented Surface Sealer Reseal	SY	70.000	70.000
0066	509.0301	Preparation Decks Type 1	SY	150.000	150.000
0068	509.0302	Preparation Decks Type 2	SY	60.000	60.000
0070	509.0505.S	Cleaning Decks to Reapply Concrete Masonry Overlay	SY	350.000	350.000
0072	509.1500	Concrete Surface Repair	SF	370.000	370.000
0074	509.2000	Full-Depth Deck Repair	SY	15.000	15.000
0076	509.2500	Concrete Masonry Overlay Decks	CY	32.000	32.000
0078	509.9005.S	Removing Concrete Masonry Deck Overlay (structure) 01. B-9-26	SY	350.000	350.000
0080	509.9010.S	Removing Asphaltic Concrete Deck Overlay (structure) 01. B-9-26	SY	350.000	350.000
0082	520.1024	Apron Endwalls for Culvert Pipe 24-Inch	EACH	2.000	2.000
0084	520.1030	Apron Endwalls for Culvert Pipe 30-Inch	EACH	2.000	2.000
0086	520.3424	Culvert Pipe Class III-A Non-metal 24-Inch	LF	72.000	72.000
0088	520.3430	Culvert Pipe Class III-A Non-metal 30-Inch	LF	84.000	84.000
0090	520.8700	Cleaning Culvert Pipes	EACH	5.000	5.000
0092	522.0424	Culvert Pipe Reinforced Concrete Class IV 24-Inch	LF	54.000	54.000
0094	522.0430	Culvert Pipe Reinforced Concrete Class IV 30-Inch	LF	80.000	80.000
0096	522.0448	Culvert Pipe Reinforced Concrete Class IV 48-Inch	LF	64.000	64.000
0098	522.1024	Apron Endwalls for Culvert Pipe Reinforced Concrete 24-Inch	EACH	2.000	2.000
0100	522.1030	Apron Endwalls for Culvert Pipe Reinforced Concrete 30-Inch	EACH	2.000	2.000

7070-06-72

Line	Item	Item Description	Unit	Total	Qty
0102	522.1048	Apron Endwalls for Culvert Pipe Reinforced Concrete 48-Inch	EACH	2.000	2.000
0104	601.0588	Concrete Curb & Gutter 4-Inch Sloped 36-Inch Type TBT	LF	100.000	100.000
0106	601.0590	Concrete Curb & Gutter 4-Inch Sloped 36-Inch Type TBTT	LF	101.000	101.000
0108	602.3010	Concrete Surface Drains	CY	8.000	8.000
0110	603.8000	Concrete Barrier Temporary Precast Delivered	LF	475.000	475.000
0112	603.8125	Concrete Barrier Temporary Precast Installed	LF	950.000	950.000
0114	606.0200	Riprap Medium	CY	154.000	154.000
0116	614.0905	Crash Cushions Temporary	EACH	4.000	4.000
0118	614.2300	MGS Guardrail 3	LF	87.500	87.500
0120	614.2500	MGS Thrie Beam Transition	LF	160.000	160.000
0122	614.2610	MGS Guardrail Terminal EAT	EACH	4.000	4.000
0124	618.0100	Maintenance and Repair of Haul Roads (project) 01. 7070-06-72	EACH	1.000	1.000
0126	619.1000	Mobilization	EACH	1.000	1.000
0128	624.0100	Water	MGAL	50.000	50.000
0130	625.0500	Salvaged Topsoil	SY	7,990.000	7,990.000
0132	627.0200	Mulching	SY	2,250.000	2,250.000
0134	628.1504	Silt Fence	LF	2,550.000	2,550.000
0136	628.1520	Silt Fence Maintenance	LF	2,550.000	2,550.000
0138	628.1905	Mobilizations Erosion Control	EACH	2.000	2.000
0140	628.1910	Mobilizations Emergency Erosion Control	EACH	1.000	1.000
0142	628.2004	Erosion Mat Class I Type B	SY	5,740.000	5,740.000
0144	628.7504	Temporary Ditch Checks	LF	120.000	120.000
0146	628.7555	Culvert Pipe Checks	EACH	139.000	139.000
0148	629.0210	Fertilizer Type B	CWT	6.000	6.000
0150	630.0120	Seeding Mixture No. 20	LB	228.000	228.000
0152	630.0500	Seed Water	MGAL	189.000	189.000
0154	633.5200	Markers Culvert End	EACH	10.000	10.000
0156	638.2102	Moving Signs Type II	EACH	6.000	6.000
0158	638.4000	Moving Small Sign Supports	EACH	6.000	6.000
0160	642.5001	Field Office Type B	EACH	1.000	1.000
0162	643.0300	Traffic Control Drums	DAY	1,880.000	1,880.000
0164	643.0420	Traffic Control Barricades Type III	DAY	40.000	40.000
0166	643.0705	Traffic Control Warning Lights Type A	DAY	80.000	80.000
0168	643.0715	Traffic Control Warning Lights Type C	DAY	1,000.000	1,000.000
0170	643.0900	Traffic Control Signs	DAY	3,250.000	3,250.000
0172	643.1000	Traffic Control Signs Fixed Message	SF	64.000	64.000
0174	643.3165	Temporary Marking Line Paint 6-Inch	LF	28,660.000	28,660.000
0176	643.3170	Temporary Marking Line Epoxy 6-Inch	LF	16,550.000	16,550.000
0178	643.3180	Temporary Marking Line Removable Tape 6-Inch	LF	240.000	240.000
0180	643.3805	Temporary Marking Stop Line Paint 18-Inch	LF	24.000	24.000
0182	643.5000	Traffic Control	EACH	1.000	1.000
0184	645.0120	Geotextile Type HR	SY	521.000	521.000
0186	646.2040	Marking Line Grooved Wet Ref Epoxy 6-Inch	LF	70,050.000	70,050.000
0188	646.9000	Marking Removal Line 4-Inch	LF	750.000	750.000
0190	648.0100	Locating No-Passing Zones	MI	5.250	5.250
0192	650.5500	Construction Staking Curb Gutter and Curb & Gutter	LF	201.000	201.000
0194	650.6000	Construction Staking Pipe Culverts	EACH	5.000	5.000
0196	650.8000	Construction Staking Resurfacing Reference	LF	27,730.000	27,730.000
0198	650.9911	Construction Staking Supplemental Control (project) 01. 7070-06-72	EACH	1.000	1.000
0200	650.9920	Construction Staking Slope Stakes	LF	366.000	366.000

Estimate Of Quantities

7070-06-72

Line	Item	Item Description	Unit	Total	Qty
0202	661.0101	Temporary Traffic Signals for Bridges (structure) 01. B-09-26	EACH	1.000	1.000
0204	690.0150	Sawing Asphalt	LF	675.000	675.000
0206	715.0720	Incentive Compressive Strength Concrete Pavement	DOL	500.000	500.000
0208	740.0440	Incentive IRI Ride	DOL	20,950.000	20,950.000
0210	SPV.0035	Special 01. Partially Grouted Riprap	CY	30.000	30.000
0212	SPV.0055	Special 01. Incentive Density PWL HMA Pavement	DOL	11,340.000	11,340.000
0214	SPV.0055	Special 02. Incentive Air Voids HMA Pavement	DOL	14,950.000	14,950.000
0216	SPV.0055	Special 03. Incentive Density HMA Pavement Longitudinal Joints	DOL	11,050.000	11,050.000
0218	SPV.0090	Special 01. Ditch Cleaning	LF	1,590.000	1,590.000

3

CATEGORY	STATION	TO	STATION	LOCATION	* 201.0105 CLEARING STA	201.0205 GRUBBING STA
0010	96+00	-	99+00	LT	3	3
0010	159+00	-	161+00	LT	2	2
0010	195+00	-	197+00	LT	2	2
0010	258+00	-	259+00	RT	1	1
0010	279+00	-	280+00	LT & RT	1	1
				TOTAL 0010	9	9

*CLEARING TO BE COMPLETED BY OTHERS

CATEGORY	STATION	LOCATION	203.0100 REMOVING SMALL PIPE CULVERTS EACH	REMARKS
0010	101+81	ML	1	88 LF CPCS 36-INCH WITH LINER
0010	175+02	ML	1	63 LF CPCS 24-INCH WITH LINER
0010	191+52	ML	1	92 LF CPCS 30-INCH WITH LINER
0010	195+79	ML	1	72 LF CPCS 24-INCH WITH LINER
0010	223+03	ML	1	66 LF CPCS 30-INCH WITH LINER
		TOTAL 0010	5	

CATEGORY	STATION	LOCATION	203.0220.01 REMOVING STRUCTURE (STRUCTURE) (01. STA 98+72) EACH	203.0220.02 REMOVING STRUCTURE (STRUCTURE) (02. STA 196+26) EACH	REMARKS
0010	98+72	ML	1	-	63 LF CPCS 72-INCH
0010	196+26	ML	-	1	63 LF CPCS 72-INCH
		TOTAL 0010	1	1	

CATEGORY	STATION	LOCATION	204.0110 REMOVING ASPHALTIC SURFACE SY	REMARKS
0010	149+62	RT	35	PE
0010	178+46	LT	35	PE
0010	199+12	LT	40	PE
0010	212+64	RT	230	PE
0010	266+83	LT	30	PE
		TOTAL 0010	370	

CATEGORY	STATION	TO	STATION	LOCATION	204.0115 REMOVING ASPHALTIC SURFACE BUTT JOINTS SY	REMARKS
0010	12+15	-	12+05	ML	300	STH 27
0010	63+88			SIDEROAD	325	20TH AVE E
0010	63+90			SIDEROAD	330	20TH AVE W
0010	93+65		94+75	ML	475	STH 27
0010	95+95	-	97+05	ML	480	STH 27
0010	116+60			SIDEROAD	315	30TH AVE E
0010	116+67			SIDEROAD	345	30TH AVE W
0010	169+55			SIDEROAD	330	40TH AVE W
0010	169+56			SIDEROAD	320	40TH AVE E
0010	222+67			SIDEROAD	305	50TH AVE W
0010	222+68			SIDEROAD	295	50TH AVE E
0010	275+85			SIDEROAD	460	CTH MM E
0010	275+88			SIDEROAD	570	CTH MM W
0010	287+55	-	288+45	ML	300	STH 27
				TOTAL 0010	5,150	

CATEGORY	STATION	TO	STATION	LOCATION	204.0165 REMOVING GUARDRAIL LF
0010	93+97	-	94+92	RT	95
0010	94+11	-	95+06	LT	95
0010	95+64	-	96+58	RT	94
0010	95+78	-	96+72	LT	94
				TOTAL 0010	378

DIVISION	FROM/TO STATION	LOCATION	205.0100 COMMON EXCAVATION (1) CUT (2)	205.0100 COMMON EXCAVATION (1) EBS EXCAVATION (3)	SALVAGED/UNUSABLE PAVEMENT MATERIAL (4)	AVAILABLE MATERIAL (5)	UNEXPANDED FILL	EXPANDED FILL (13) FACTOR 1.25	MASS ORDINATE +/- (14)	WASTE	(16) 208.0100 BORROW	COMMENT
DIVISIONS												
B-9-26 SE	93+00/94+66.192	RT	2	0	0	2	139	174	-172	0	172	(18)
B-9-26 SW	93+00/94+66.192	LT	1	0	0	1	164	205	-204	0	204	(18)
B-9-26 NE	96+00/98+00	RT	1	0	0	1	163	204	-203	0	203	(18)
B-9-26 NW	96+00/98+00	LT	2	0	0	2	170	213	-211	0	211	(18)
CP 98+72	98+72	RT & LT	655	0	41	614	0	0	614	614	0	(17)(18)
CP 101+81	101+71/102+00	RT & LT	818	0	38	780	0	0	780	780	0	(17)(18)
CP 175+02	174+85/175+15	RT & LT	452	0	38	414	0	0	414	414	0	(17)(18)
CP 191+52	191+35/191+65	RT & LT	735	0	38	697	28	35	662	662	0	(17)(18)
CP 196+26	195+60/196+50	RT & LT	751	0	57	694	72	90	604	604	0	(17)(18)
CP 223+03	222+85/223+17.178	RT & LT	645	0	32	613	38	48	566	566	0	(17)(18)
SINKHOLE REPAIR	VARIOUS	RT & LT	0	0	0	0	12	15	15	0	15	(18)
APPROACH SLAB & ASPH SURF		ML	185	0	61	124	0	0	124	124	0	(18)
PROJECT SUBTOTAL			4,247	0	305	3,942	786	984	2,959	3,764	805	
GRAND TOTAL			4,247	0	305	3,942	786	984	2,959	3,764	805	
TOTAL COMMON EXC			4,247									

NOTES:
(1) COMMON EXCAVATION IS THE SUM OF THE CUT AND EBS EXCAVATION COLUMNS. ITEM NUMBER 205.0100
(2) SALVAGED/UNSUABLE PAVEMENT MATERIAL IS INCLUDED IN CUT.
(4) SALVAGED/UNUSABLE PAVEMENT MATERIAL
(5) AVAILABLE MATERIAL – CUT - SALVAGED/UNUSUABLE PAVEMENT MATERIAL
DEPENDING ON SELECTIONS: EXPANDED FILL = (UNEXPANDED FILL) * FILL FACTOR
(14) THE MASS ORDINATE + OR - QTY CALCULATED FOR THE DIVISION. PLUS QUANTITY INDICATES AN EXCESS OF MATERIAL WITHIN THE DIVISION. MINUS INDICATES A SHORTAGE OF MATERIAL WITHIN THE DIVISION.
(15) FACTORS USED TO COMPUTE ANTICIPATED WASTE AND THE COMPUTED WASTE VOLUME IDENTIFIED ARE FOR GENERAL INFORMATION ONLY.
(16) ADDITIONAL QUANTITY FOR POTENTIAL LANE SHIFT NOT INCLUDED
(17) SEE CONSTRUCTION DETAIL IN PLAN SET FOR CULVERT PIPE TRANSITION. EACH CULVERT IS AN ISOLATED LOCATION
(18) ALL SECTIONS ARE QUANTIFIED AS INDIVIDUAL DIVISIONS.

CATEGORY	STATION	LOCATION	208.1500.S TEMPORARY LANE SHIFT DURING CULVERT WORK EACH	* BORROW CY	* BASE AGGREGATE DENSE 1 1/4 INCH TONS	REMARKS
0010	98+72	ML	1	19	20	CULVERT PIPE REMOVAL
0010	101+81	ML	1	34	30	CULVERT PIPE REPLACEMENT
0010	175+02	ML	1	2	30	CULVERT PIPE REPLACEMENT
0010	191+52	ML	1	69	65	CULVERT PIPE REPLACEMENT
0010	196+26	ML	1	80	15	CULVERT PIPE REPLACEMENT
		TOTAL 0010	5			

*QUANTITIES SHOWN ARE FOR INFORMATION ONLY AND ARE CONSIDERED INCIDENTAL TO LANE SHIFT

3

CATEGORY	STATION	TO	STATION	LOCATION	211.0400 PREPARE FOUNDATION FOR ASPHALTIC SHOULDERS STA	REMARKS
0010	93+00	-	98+00	LT & RT	10	TEMP WIDENING
				TOTAL 0010	10	

CATEGORY	STATION	TO	STATION	LOCATION	211.0700.S.01 PREPARE FOUNDATION FOR CIR BASE LAYER (PROJECT) (01. 7070-06-72) EACH	211.0800.S BASE REPAIR FOR CIR LAYER CY
0010	11+15	-	288+45	PROJECT	1	1,000
				TOTAL 0010	1	1,000

CATEGORY	STATION	TO	STATION	LOCATION	305.0110 BASE AGGREGATE DENSE 3/4-INCH TON	REMARKS
0010	11+15	-	63+90	ML	900	BOP TO 20TH AVE
0010	63+90	-	95+01	ML	610	20TH AVE TO BRIDGE
0010	95+69	-	116+67	ML	440	BRIDGE TO 30TH AVE
0010	116+67	-	169+55	ML	930	30TH AVE TO 40TH AVE
0010	169+55	-	222+68	ML	940	40TH AVE TO 50TH AVE
0010	222+68	-	275+88	ML	980	50TH AVE TO CTH MM
0010	275+88	-	288+45	ML	220	CTH MM TO EOP
				TOTAL 0010	5,020	

CATEGORY	STATION	TO	STATION	LOCATION	305.0120 BASE AGGREGATE DENSE 1 1/4 INCH TON	REMARKS
0010	93+10		97+43	ML	35	B 9 26 TEMP WIDENING
0010	98+16	-	99+28	ML	335	CULVERT PIPE
0010	101+29	-	102+33	ML	310	CULVERT PIPE
0010	174+50	-	175+54	ML	310	CULVERT PIPE
0010	191+00	-	192+04	ML	310	CULVERT PIPE
0010	195+27	-	196+82	ML	460	CULVERT PIPE
0010	222+88	-	223+55	ML	250	CULVERT PIPE
				TOTAL 0010	2,010	

CATEGORY	STATION	TO	STATION	LOCATION	327.1000.S CIR ASPHALTIC BASE LAYER SY	455.0770.S ASPHALT STABILIZING AGENT TON
0010	11+15	-	94+75	ML	27,900	95
0010	95+95	-	288+45	ML	64,200	220
				TOTAL 0010	92,100	315

CATEGORY	STATION	TO	STATION	LOCATION	415.0070 CONCRETE PAVEMENT 7-INCH SY	415.0410 CONCRETE PAVEMENT APPROACH SLAB SY
0010	94+75	-	94+94	ML	20	52
0010	95+75	-	95+95	ML	20	52
				TOTAL 0010	40	104

CATEGORY	STATION	TO	STATION	LOCATION	455.0605 TACK COAT GAL	460.6645 HMA PAVEMENT 5 MT 58-34 V TON	465.0105 ASPHALTIC SURFACE TON	REMARKS
0010	98+16	-	99+28	ML	20	-	85	CULVERT PIPE
0010	101+29	-	102+33	ML	20	-	80	CULVERT PIPE
0010	174+50	-	175+54	ML	20	-	80	CULVERT PIPE
0010	191+00	-	192+04	ML	20	-	80	CULVERT PIPE
0010	195+27	-	196+82	ML	30	-	120	CULVERT PIPE
0010	222+88	-	223+55	ML	20	-	75	CULVERT PIPE
0010	93+10	-	97+43	ML	20	-	120	B-9-26 STAGING
0010	11+15	-	94+75	ML	3,390	4,340	-	BOP TO BRIDGE
0010	63+88	-		RT	35	50	-	20TH AVE E
0010	63+90	-		LT	35	50	-	20TH AVE W
0010	95+95	-	288+45	ML	7,850	10,100	-	BRIDGE TO EOP
0010	116+60	-		RT	35	50	-	30TH AVE E
0010	116+67	-		LT	40	50	-	30TH AVE W
0010	169+55	-		LT	35	50	-	40TH AVE W
0010	169+56	-		RT	35	50	-	40TH AVE E
0010	222+67	-		LT	35	40	-	50TH AVE W
0010	222+68	-		RT	30	40	-	50TH AVE E
0010	275+85	-		RT	45	60	-	CTH MM E
0010	275+88	-		LT	50	70	-	CTH MM W
				TOTAL 0010	11,765	14,950	640	

CATEGORY	STATION	TO	STATION	LOCATION	465.0110 ASPHALTIC SURFACE PATCHING TON	REMARKS
0010	11+15	-	288+45	UNDISTRIBUTED	25	POTHOLES, MISC REPAIRS
				TOTAL 0010	25	

CATEGORY	STATION	LOCATION	465.0120 ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES TON	REMARKS
0010	149+62	RT	4	2-INCH PE
0010	178+46	LT	4	2-INCH PE
0010	199+12	LT	5	2-INCH PE
0010	212+64	RT	21	2-INCH PE
0010	266+83	LT	4	2-INCH PE
		TOTAL 0010	38	

PWL MIXTURE USE TABLE

THE FOLLOWING ACCEPTANCE CRITERIA ARE APPLICABLE TO THIS PROJECT:

LOCATION	STATION	MIXTURE USE:	UNDERLYING SURFACE	BID ITEM	TONS	THICKNESS	QUALITY MANAGEMENT PROGRAM TO BE USED FOR: MIXTURE ACCEPTANCE	QUALITY MANAGEMENT PROGRAM TO BE USED FOR: DENSITY ACCEPTANCE
12 FOOT DRIVING LANE	11+15 TO 288+45	UPPER LAYER	5 MT 58-34 V	5 MT 58-34 V	5585	1.5-INCHES	INCENTIVE AIR VOIDS HMA PAVEMENT SPV.0055.02	INCENTIVE DENSITY PWL HMA PAVEMENT SPV.0055.01
12 FOOT DRIVING LANE	11+15 TO 288+45	LOWER LAYER	CIR	5 MT 58-34 V	4555	1.25-INCHES		
PAVED SHOULDERS	11+15 TO 288+45	UPPER LAYER	5 MT 58-34 V	5 MT 58-34 V	1540	1.5-INCHES		ACCEPTANCE TESTING BY CORE SPECIAL PROVISION, NOT ELLIGIBLE FOR INCENTIVE.
PAVED SHOULDERS	11+15 TO 288+45	LOWER LAYER	CIR	5 MT 58-34 V	1260	1.25-INCHES		
SIDE ROADS	VARIOUS	UPPER LAYER	5 MT 58-34 V	5 MT 58-34 V	280	1.5-INCHES		
SIDE ROADS	VARIOUS	LOWER LAYER	CIR	5 MT 58-34 V	230	1.25-INCHES		
12 FOOT DRIVING LANE	TEST STRIP	UPPER LAYER	5 MT 58-34 V	5 MT 58-34 V	600	1.5-INCHES	INCENTIVE AIR VOIDS HMA PAVEMENT SPV.0055.02	INCENTIVE DENSITY PWL HMA PAVEMENT SPV.0055.01
12 FOOT DRIVING LANE	TEST STRIP	LOWER LAYER	CIR	5 MT 58-34 V	600	1.25-INCHES		
PAVED SHOULDERS	TEST STRIP	UPPER LAYER	5 MT 58-34 V	5 MT 58-34 V	150	1.5-INCHES		ACCEPTANCE TESTING BY CORE SPECIAL PROVISION, NOT ELLIGIBLE FOR INCENTIVE.
PAVED SHOULDERS	TEST STRIP	LOWER LAYER	CIR	5 MT 58-34 V	150	1.25-INCHES		

CATEGORY	LOCATION	460.0105.S HMA PERCENT WITHIN LIMITS (PWL) TEST STRIP VOLUMETRICS EACH
0010	PROJECT	1
	TOTAL 0010	1

CATEGORY	STATION	TO	STATION	LOCATION	465.0560 ASPHALTIC RUMBLE STRIPS, CENTERLINE LF
0010	11+15	-	288+45	CL	25,600
				TOTAL 0010	25,600

CATEGORY	STATION	LOCATION	520.1024 APRON ENDWALLS FOR CULVERT PIPE 24-INCH EACH	520.1030 APRON ENDWALLS FOR CULVERT PIPE 30-INCH EACH	520.3424 CULVERT PIPE CLASS III-A NON-METAL 24-INCH LF	520.3430 CULVERT PIPE CLASS III-A NON-METAL 30-INCH LF	520.8700 CLEANING CULVERT PIPES EACH	522.0424 CULVERT PIPE REINFORCED CONCRETE CLASS IV 24-INCH LF	522.0430 CULVERT PIPE REINFORCED CONCRETE CLASS IV 30-INCH LF	522.0448 CULVERT PIPE REINFORCED CONCRETE CLASS IV 48-INCH LF	522.1024 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 24-INCH EACH	522.1030 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 30-INCH EACH	522.1048 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 48-INCH EACH	633.5200 MARKERS CULVERT END EACH	650.6000 CONSTRUCTION STAKING PIPE CULVERTS EACH	REMARKS
0010	69+78	ML	-	-	-	-	1	-	-	-	-	-	-	-	-	68 LF PACS 36X22-INCH WITH 21-INCH LINER, S=0.38%
0010	101+81	ML	-	-	-	-	-	-	-	64	-	-	2	2	1	
0010	126+52	ML	-	-	-	-	1	-	-	-	-	-	-	-	-	68 LF CPCS 27-INCH WITH 21-INCH LINER, S=0.66%
0010	138+48	ML	-	-	-	-	1	-	-	-	-	-	-	-	-	74 LF CPCS 24-INCH WITH 21-INCH LINER, S=1.94%
0010	175+02	ML	-	-	-	-	-	54	-	-	2	-	-	2	1	
0010	191+52	ML	-	2	-	84	-	-	-	-	-	-	-	2	1	
0010	196+26	ML	2	-	72	-	-	-	-	-	-	-	-	2	1	
0010	223+03	ML	-	-	-	-	-	-	80	-	-	2	-	2	1	
0010	242+78	ML	-	-	-	-	1	-	-	-	-	-	-	-	-	94 LF CPCS 36-INCH WITH 30-INCH LINER, S=3.85%
0010	258+55	ML	-	-	-	-	1	-	-	-	-	-	-	-	-	118 LF CPCS 30-INCH WITH 24-INCH LINER, S=7.87%
		TOTAL 0010	2	2	72	84	5	54	80	64	2	2	2	10	5	

CATEGORY	STATION	TO	STATION	LOCATION	601.0588 CONCRETE CURB & GUTTER 4-INCH SLOPED 36-INCH TYPE TBT LF	601.0590 CONCRETE CURB & GUTTER 4-INCH SLOPED 36-INCH TYPE TBTT LF
0010	94+36	-	94+88	RT	38	13
0010	94+50	-	95+00	LT	25	25
0010	95+69	-	96+19	RT	25	24
0010	95+82	-	96+34	LT	12	39
				TOTAL 0010	100	101

CATEGORY	STATION	LOCATION	602.3010 CONCRETE SURFACE DRAINS CY
0010	94+47	RT	2
0010	94+60	LT	2
0010	96+09	RT	2
0010	96+24	LT	2
		TOTAL 0010	8

CATEGORY	STATION	LOCATION	606.0200 RIPRAP MEDIUM CY	* 645.0120 GEOTEXTILE TYPE HR SY
0010	94+47	RT	3	11
0010	94+60	LT	3	11
0010	96+09	RT	3	11
0010	96+24	LT	3	11
0010	111+00	RT	22	58
0010	111+00	LT	15	42
0010	175+02	RT	6	18
0010	191+52	LT	8	24
0010	196+26	LT	6	18
0010	230+97	LT & RT	15	47
0010	242+78	LT & RT	36	98
0010	279+59	LT & RT	34	92
		TOTAL 0010	154	441

*OTHER QUANTITIES SHOWN ELSEWHERE IN PLAN

CATEGORY	STATION	TO	STATION	LOCATION	603.8000 CONCRETE BARRIER TEMPORARY PRECAST DELIVERED LF	603.8125 CONCRETE BARRIER TEMPORARY PRECAST INSTALLED LF	REMARKS
0010	92+65	-	98+02	ML	475	475	B-09-0026 STAGE 1
0010	92+65	-	98+02	ML	-	475	B-09-0026 STAGE 2
				TOTAL 0010	475	950	

CATEGORY	STATION	LOCATION	614.0905 CRASH CUSHIONS TEMPORARY EACH	BACK WIDTH	OBJECT MARKING PATTERN	CRASH TEST LEVEL	TRAFFIC DIRECTION	TRAFFIC LOCATION	CRASH CUSHION SHIELDS	REMARKS
0010	92+65	ML	1	2	OM-3R (W05-58R)	TL-3	UNIDIRECTIONAL	LT	CBTP	B-9-26 STAGE 1
0010	98+02	ML	1	2	OM-3L (W05-58L)	TL-3	UNIDIRECTIONAL	RT	CBTP	B-9-26 STAGE 1
0010	92+65	ML	1	2	OM-3L (W05-58L)	TL-3	UNIDIRECTIONAL	RT	CBTP	B-9-26 STAGE 2
0010	98+02	ML	1	2	OM-3R (W05-58R)	TL-3	UNIDIRECTIONAL	LT	CBTP	B-9-26 STAGE 2
		TOTAL 0010	4							

CATEGORY	STATION	TO	STATION	LOCATION	625.0500 SALVAGED TOPSOIL SY	627.0200 MULCHING SY	628.1504 SILT FENCE LF	628.1520 SILT FENCE MAINTENANCE LF	628.2004 EROSION MAT CLASS I TYPE B SY	628.7504 TEMPORARY DITCH CHECKS LF	628.7555 CULVERT PIPE CHECKS EACH	629.0210 FERTILIZER TYPE B CWT	630.0120 SEEDING MIXTURE NO. 20 LB	630.0500 SEED WATER MGAL	REMARKS
0010	54+42	-	54+92	LT & RT	115	-	75	75	115	10	5	0.1	4	3	DITCH CLEANING
0010	69+65	-	69+90	LT & RT	115	-	75	75	115	10	5	0.1	4	3	DITCH CLEANING
0010	93+31	-	94+75	RT	350	-	200	200	350	-	-	0.3	10	8	BG
0010	93+37	-	95+00	LT	435	-	200	200	435	-	-	0.3	12	10	BG
0010	95+68	-	97+60	RT	465	-	210	210	465	-	-	0.3	13	11	BG
0010	96+00	-	98+05	LT	595	-	230	230	595	-	-	0.4	17	14	BG
0010	98+16	-	99+28	LT & RT	545	330	80	80	215	10	-	0.4	15	13	CULV REMOVAL/DITCH CLEANING
0010	101+29	-	102+33	LT & RT	590	365	70	70	225	10	9	0.4	16	14	CULV REPLACEMENT/DITCH CLEANING
0010	110+72	-	111+79	LT & RT	85	-	80	80	85	-	18	0.1	3	2	DITCH CLEANING
0010	126+26	-	126+76	LT & RT	115	-	75	75	115	10	5	0.1	4	3	DITCH CLEANING
0010	159+73	-	160+23	LT & RT	115	-	75	75	115	10	7	0.1	4	3	DITCH CLEANING
0010	174+50	-	175+54	LT & RT	390	195	70	70	195	-	5	0.3	11	9	CULV REPLACEMENT/DITCH CLEANING
0010	191+00	-	192+04	LT & RT	685	310	90	90	375	-	7	0.5	19	16	CULV REPLACEMENT
0010	195+27	-	196+82	LT & RT	915	405	125	125	510	-	5	0.6	25	21	CULV REPLACEMENT/DITCH CLEANING
0010	206+71	-	207+21	LT & RT	115	-	75	75	115	10	7	0.1	4	3	DITCH CLEANING
0010	222+88	-	223+55	LT & RT	405	195	60	60	210	10	7	0.3	11	10	CULV REPLACEMENT/DITCH CLEANING
0010	230+72	-	231+22	LT & RT	95	-	65	65	95	-	7	0.1	3	3	DITCH CLEANING
0010	242+53	-	243+03	LT & RT	75	-	55	55	75	-	7	0.1	3	2	DITCH CLEANING
0010	258+29	-	258+79	LT & RT	115	-	75	75	115	10	5	0.1	4	3	DITCH CLEANING
0010	279+36	-	279+86	LT & RT	70	-	55	55	70	-	9	0.1	2	2	DITCH CLEANING
				UNDISTRIBUTED	1,600	450	510	510	1,150	30	31	1.2	44	36	
				TOTAL 0010	7,990	2,250	2,550	2,550	5,740	120	139	6.0	228	189	

CATEGORY	STATION	TO	STATION	LOCATION	614.2300 MGS GUARDRAIL 3 LF	614.2500 MGS THRIE BEAM TRANSITION LF	614.2610 MGS GUARDRAIL TERMINAL EAT EACH
0010	93+62	-	94+92	RT	37.5	40	1
0010	94+13	-	95+06	LT	-	40	1
0010	95+64	-	96+69	RT	12.5	40	1
0010	95+78	-	97+08	LT	37.5	40	1
				TOTAL 0010	87.5	160	4

CATEGORY	LOCATION	628.1905 MOBILIZATIONS EROSION CONTROL EACH	628.1910 MOBILIZATIONS EMERGENCY EROSION CONTROL EACH
0010	PROJECT	2	1
	TOTAL 0010	2	1

CATEGORY	LOCATION	624.0100 WATER MGAL
0010	PROJECT	50
	TOTAL 0010	50

CATEGORY	LOCATION	638.2102 MOVING SIGNS TYPE II EACH	638.4000 MOVING SMALL SIGN SUPPORTS EACH	REMARKS
0010	PROJECT	6	6	NO PASSING ZONE
	TOTAL 0010	6	6	

CATEGORY	LOCATION	643.0300 TRAFFIC CONTROL DRUMS DAYS	DEVICES	DAY	643.0420 TRAFFIC CONTROL BARRICADES TYPE III DAYS	DEVICES	DAY	643.0705 TRAFFIC CONTROL WARNING LIGHTS TYPE A DAYS	DEVICES	DAY	643.0715 TRAFFIC CONTROL WARNING LIGHTS TYPE C DAYS	DEVICES	DAY	643.0900 TRAFFIC CONTROL SIGNS DAYS	DEVICES	DAY	643.1000 TRAFFIC CONTROL SIGNS FIXED MESSAGE SF	643.5000 TRAFFIC CONTROL EACH	661.0101.01 TEMPORARY TRAFFIC SIGNALS FOR BRIDGES (STRUCTURE) (01. B-9-26) EACH	REMARKS
0010	PROJECT	-	-	-	-	-	-	-	-	-	-	-	-	110	21	2310	64	1	-	ADVANCED WARNING
0010	PROJECT	10	24	240	-	-	-	-	-	-	-	-	-	10	18	180	-	-	-	CULVERTS
0010	B-9-26	20	41	820	20	1	20	20	2	40	20	25	500	20	19	380	-	-	0.5	STAGE 1
0010	B-9-26	20	41	820	20	1	20	20	2	40	20	25	500	20	19	380	-	-	0.5	STAGE 2
	TOTAL 0010			1,880			40			80			1,000			3,250	64	1	1	

CATEGORY	STATION	TO	STATION	LOCATION	643.3165 TEMPORARY MARKING LINE PAINT 6-INCH LF	643.3170 TEMPORARY MARKING LINE EPOXY 6-INCH LF	643.3180 TEMPORARY MARKING LINE REMOVABLE TAPE 6-INCH LF	643.3805 TEMPORARY MARKING STOP LINE PAINT 18-INCH LF	646.2040 MARKING LINE GROOVED WET REF EPOXY 6-INCH LF	646.9000 MARKING REMOVAL LINE 4-INCH LF	REMARKS
0010	91+50	-	99+00	ML	3,800	-	-	24	-	500	STAGE 1 B-09-0026
0010	91+50	-	99+00	ML	760	-	240	-	-	250	STAGE 2 B-09-0026
0010	11+15	-	288+45	CL	12,050	-	-	-	-	-	CIR LAYER YELLOW CENTERLINE
0010	11+15	-	288+45	CL	12,050	-	-	-	-	-	LOWER LIFT YELLOW CENTERLINE
0010	11+15	-	288+45	CL	-	16,550	-	-	-	-	UPPER LIFT YELLOW CENTERLINE BEFORE RUMBLES
0010	11+15	-	288+45	LT	-	-	-	-	26,750	-	UPPER LIFT WHITE EDGE LINE
0010	11+15	-	288+45	RT	-	-	-	-	26,750	-	UPPER LIFT WHITE EDGE LINE
0010	11+15	-	288+45	CL	-	-	-	-	16,550	-	UPPER LIFT YELLOW CENTERLINE AFTER RUMBLES
				TOTAL 0010	28,660	16,550	240	24	70,050	750	

CATEGORY	STATION	TO	STATION	LOCATION	648.0100 LOCATING NO-PASSING ZONES MI
0010	11+15	-	288+45	ML	5.25
				TOTAL 0010	5.25

CATEGORY	STATION	TO	STATION	LOCATION	650.5500 CONSTRUCTION STAKING CURB GUTTER AND CURB & GUTTER LF	650.8000 CONSTRUCTION STAKING RESURFACING REFERENCE LF	650.9911.01 CONSTRUCTION STAKING SUPPLEMENTAL CONTROL (PROJECT) (01. 7070-06-72) EACH	650.9920 CONSTRUCTION STAKING SLOPE STAKES LF
0010	11+15	-	288+45	ML	201	27,730	1	366
				TOTAL 0010	201	27,730	1	366

CATEGORY	STATION	LOCATION	690.0150 SAWING ASPHALT LF	REMARKS
0010	94+31	ML	86	B-9-26 STAGE 1
0010	96+39	ML	86	B-9-26 STAGE 1
0010	94+31	ML	20	B-9-26 STAGE 2
0010	96+39	ML	20	B-9-26 STAGE 2
0010	98+16	ML	30	CULVERT REMOVAL
0010	99+28	ML	30	CULVERT REMOVAL
0010	101+29	ML	30	CULVERT REPLACEMENT
0010	102+33	ML	30	CULVERT REPLACEMENT
0010	149+62	RT	14	PE
0010	174+50	ML	30	CULVERT REPLACEMENT
0010	175+54	ML	30	CULVERT REPLACEMENT
0010	178+46	LT	13	PF
0010	191+00	ML	30	CULVERT REPLACEMENT
0010	192+04	ML	30	CULVERT REPLACEMENT
0010	195+27	ML	30	CULVERT REPLACEMENT
0010	196+82	ML	30	CULVERT REPLACEMENT
0010	199+12	LT	15	PE
0010	222+88	ML	75	CULVERT REPLACEMENT
0010	223+55	ML	32	CULVERT REPLACEMENT
0010	266+83	LT	14	PE
TOTAL 0010			675	

CATEGORY	STATION	TO	STATION	LOCATION	SPV.0090.01 SPECIAL (01. DITCH CLEANING) LF
0010	54+42	-	54+92	LT & RT	100
0010	69+53	-	70+03	LT & RT	100
0010	98+47	-	98+97	LT & RT	100
0010	101+56	-	102+06	LT & RT	100
0010	110+72	-	111+29	LT & RT	114
0010	126+26	-	126+76	LT & RT	100
0010	159+73		160+23	LT & RT	100
0010	174+77	-	175+27	LT & RT	100
0010	195+54	-	196+51	LT & RT	194
0010	206+71	-	207+21	LT & RT	100
0010	222+87	-	223+28	LT & RT	82
0010	230+72		231+22	LT & RT	100
0010	242+53	-	243+03	LT & RT	100
0010	258+29	-	258+79	LT & RT	100
0010	279+36	-	279+86	LT & RT	100
TOTAL 0010					1,590

STATION & OFFSET TABLE						
POINT	STATION	OFFSET	NORTHING	EASTING	ELEVATION	DESCRIPTION
CP 1	10+24.17	124.14 LT	100608.882	235433.842	1014.10	MAG NAIL

MITCHELL T & MICHELLE K RAMSEIER

N

10TH AVE

1

WETLAND BOUNDARY (TYP)

EXISTING CP: 18027025478
CPCS 30-INCH
WITH 24-INCH LINER TO REMAIN
STA 10+95.8

EAU CLAIRE ENERGY COOPERATIVE (ELEC)

R/W

OH

REMOVING ASPHALTIC SURFACE BUTT JOINTS
STA 11+15.0

AGG PE
18+48, LT

STA 22+00

N0° 10' 05"E
7984.84'

15

STH 27

36'

20

MATCHLINE

BEGIN PROJECT
STA 11+15
X = 235558.244
Y = 100699.348

12' TRAVEL LANES
3' PAVED SHLDS
3' AGG SHLDS

R/W

WETLAND BOUNDARY (TYP)

5

5

DAVID J & DIANE R ANTCZAK TRUST

JOSEPH B & LORETTA M SONNENTAG

N

EXISTING CP: 18027025567
CPCS 30-INCH
WITH 24-INCH LINER TO REMAIN
STA 37+14.4

R/W

WETLAND BOUNDARY (TYP)

STA 22+00

AGG PE
25+99, LT

25

N0° 10' 05"E
7984.84'

STH 27

30

36'

35

STA 37+25

MATCHLINE

AGG PE
23+99, RT

12' TRAVEL LANES
3' PAVED SHLDS
3' AGG SHLDS

OH

R/W

MATCHLINE

EAU CLAIRE ENERGY COOPERATIVE (ELEC)

WETLAND BOUNDARY (TYP)

SECTION CORNER - 1/4 CORNER
MAG NAIL
NORTHING: 103279.890
EASTING: 235565.940

T 28 N
R 6 W
31 32

WETLAND IMPACTS
AREA = 0.002 ACRES
TYPE: M

JOSHUA R & AMY L SPAETH

PROJECT NO: 7070-06-72	HWY: STH 27	COUNTY: CHIPPEWA	PLAN SHEETS	SHEET 23	E

FILE NAME : C:\OD\CORRE, INC\PROJECTS - WI-NW REGION\7070-06-02_CHIPPEWA CO_STH 27\500_CADD\501_C3D_2018\70700602\SHEETSPLAN\050201-PN.DWG
LAYOUT NAME - 01

PLOT DATE : 4/14/2023 7:26 AM PLOT BY : CAMERON SHIFFER, PE PLOT NAME : PLOT SCALE : 1 IN:100 FT

RANDY L & MARGIE A SPERBER

SPERBER TRUST

N

WETLAND BOUNDARY (TYP)

STA 37+25

MATCHLINE

R/W

AGG PE
43+96, LT

40

N0° 10' 05"E
7984.84'

45

STH 27

36'

50

AGG PE
45+96, RT

12' TRAVEL LANES
3' PAVED SHLDS
3' AGG SHLDS

STA 52+50

MATCHLINE

OH

R/W

EAU CLAIRE ENERGY
COOPERATIVE (ELEC)

5

5

JOSEPH B & LORETTA M SONNENTAG

MARVIN K & CAROL A SPERBER

IKE J & HEDWIG MAYRENS

N

DITCH CLEANING
STA 54+42 TO 54+92
LT & RT

EXISTING CP: 18027025568
CPCS 30-INCH
WITH 21-INCH LINER TO REMAIN
STA 54+65.5

FERTILIZER TYPE B
SEEDING MIX NO 20
EMAT CLASS I TYPE B (TYP)

SILT FENCE
(TYP)

TEMPORARY DITCH CHECK

STA 52+50

MATCHLINE

R/W

55

N0° 10' 05"E
7984.84'

36'

60

STH 27

65

CULVERT PIPE CHECKS

WETLAND BOUNDARY
(TYP)

12' TRAVEL LANES
3' PAVED SHLDS
3' AGG SHLDS

EAU CLAIRE ENERGY
COOPERATIVE (ELEC)

WETLAND IMPACTS
AREA = 0.005 ACRES
TYPE: M

REMOVING ASPHALTIC
SURFACE BUTT JOINTS
STA 63+89.9, 100.0' LT

20TH AVE

REMOVING ASPHALTIC
SURFACE BUTT JOINTS
STA 63+87.6, 100.0' RT

20TH AVE

SECTION CORNER
PK NAIL
NORTHING: 105975.927
EASTING: 235573.205

WETLAND BOUNDARY (TYP)

STA 67+75

MATCHLINE

JOSEPH B & LORETTA M SONNENTAG

DAVID V BREMNESS

STATION & OFFSET TABLE

POINT	STATION	OFFSET	NOTES
10	63+40.8	58.0 LT	RAD = 40'
11	63+10.8	15.0 LT	TAPER
12	63+40.8	18.0 LT	BR
13	63+69.5	30.1 LT	MR
14	63+80.8	59.0 LT	ER

STATION & OFFSET TABLE

POINT	STATION	OFFSET	NOTES
20	64+50.6	68.0 LT	RAD = 50'
21	64+00.6	66.8 LT	BR
22	64+15.8	32.2 LT	MR
23	64+50.6	18.0 LT	ER
24	64+95.6	15.0 LT	TAPER

STATION & OFFSET TABLE

POINT	STATION	OFFSET	NORTHING	EASTING	ELEVATION	DESCRIPTION
CP 2	63+87.07	100.24 RT	105971.098	235673.953	981.12	MAG NAIL

STATION & OFFSET TABLE

POINT	STATION	OFFSET	NOTES
30	63+36.6	58.0 RT	RAD = 40'
31	62+91.5	15.0 RT	TAPER
32	63+36.5	18.0 RT	BR
33	63+65.3	30.1 RT	MR
34	63+76.6	59.3 RT	ER

STATION & OFFSET TABLE

POINT	STATION	OFFSET	NOTES
40	64+35.6	53.0 RT	RAD = 35'
41	64+00.7	51.3 RT	BR
42	64+11.5	27.6 RT	MR
43	64+35.6	18.0 RT	ER
44	64+65.6	15.0 RT	TAPER

PROJECT NO: 7070-06-72	HWY: STH 27	COUNTY: CHIPPEWA	PLAN SHEETS	SHEET 24	E

FILE NAME : C:\OD\CORRE, INC\PROJECTS - WI-NW REGION\7070-06-02_CHIPPEWA CO_STH 27\500_CADD\501_C3D_2018\70700602\SHEETSPLAN\050201-PN.DWG
LAYOUT NAME - 02

PLOT DATE : 4/14/2023 7:26 AM PLOT BY : CAMERON SHIFFER, PE PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 44

IKE J & HEDWIG MAYRENS

RANDY E HASLOW

DITCH CLEANING
STA 69+53 TO 70+03
LT & RT

WETLAND IMPACTS
AREA = 0.001 ACRES
TYPE: M

EXISTING CP: 18027025569
PACS 36X22-INCH
WITH 21-INCH LINER TO REMAIN
STA 69+77.5
1 CLEANING CULVERT PIPES

EROSION MAT
CLASS I TYPE B (TYP)

SILT FENCE (TYP)

TEMPORARY DITCH CHECK

REPAIR SINKHOLE
WITH BORROW

AGG PE
71+77, LT

R/W

STA 67+75

MATCHLINE

70

N0° 10' 05"E
7984.84'

75

STH 27

80

36'

STA 83+00

MATCHLINE

12' TRAVEL LANES
3' PAVED SHLDS
3' AGG SHLDS

CULVERT PIPE CHECKS

WETLAND BOUNDARY (TYP)

EAU CLAIRE ENERGY
COOPERATIVE (ELEC)

R/W

WETLAND IMPACTS
AREA = 0.004 ACRES
TYPE: M

DAVID V BREMNESS

5

5

RANDY E HASLOW

DOROTHEA PANOSH

STATION & OFFSET TABLE		
POINT	STATION	OFFSET
200	94+36.5	16.7 RT
201	94+46.5	16.7 RT
202	94+49.8	17.3 LT
203	94+59.9	16.9 LT
204	94+66.1	16.7 LT
205	96+09.2	16.7 RT
206	96+15.4	16.7 RT
207	96+19.2	16.8 RT
208	96+24.0	16.7 LT
209	96+34.1	16.7 LT

ELEVATIONS TO BE
DETERMINED BASED UPON
FINAL DECK ELEVATION

FINAL PLACEMENT OF
FLUME MUST MAINTAIN
MINIMUM POST
SEPARATION DISTANCES
AS SHOWN IN STANDARD
DETAIL DRAWING

SECTION CORNER - 1/4 CORNER
PK NAIL
NORTHING: 108617.452
EASTING: 235582.086

CURVE 1
PI STA = 93+38.65
Y = 108922.960
X = 235582.371
DELTA = 3°19'54"
D = 0°30'00"
T = 333.26'
L = 666.34'
R = 11459.30'
PC STA = 90+05.39
PT STA = 96+71.72
SE =2.0%

WETLAND IMPACTS
AREA = 0.028 ACRES
TYPE: SS

CLEARING & GRUBBING
STA 96+00 TO 99+00 LT

WETLAND IMPACTS
AREA = 0.027 ACRES
TYPE: SS

REMOVING ASPHALTIC
SURFACE BUTT JOINTS
STA 94+74.8

CONCRETE PAVEMENT
APPROACH SLAB

WETLAND
BOUNDARY
(TYP)

REMOVING ASPHALTIC
SURFACE BUTT JOINTS
STA 95+94.8

93+52.1
15.0' LT

94+13.1, 21.0' LT
MGS EAT POST 1

94+66.2
19.0' LT

96+55.4
19.0' LT

PT: 96+71.72

97+08.4, 21.0' LT
MGS EAT POST 1

97+69.5
15.0' LT

FERTILIZER TYPE B
SEEDING MIX NO 20
EMAT CLASS I TYPE B (TYP)

STA 83+00

R/W

PC: 90+05.39

AGG PE
90+20, LT

85

N0° 10' 05"E
7984.84'

STH 27

90

36'

95

STA 98+25

MATCHLINE

203

202

204

200

201

208

209

205

207

206

AGG PE
85+66, RT

12' TRAVEL LANES
3' PAVED SHLDS
3' AGG SHLDS

R/W

MATCHLINE

EAU CLAIRE ENERGY
COOPERATIVE (ELEC)

93+01.3
15.0' RT

93+62.3, 21.0' RT
MGS EAT POST 1

94+15.5
19.0' RT

PAINT CREEK

EXISTING FILL
UP STATION
TO REMAIN

96+15.4
19.0' RT

96+68.5, 21.0' RT
MGS EAT POST 1

97+29.5
15.0' RT

PREPARE FOUNDATION FOR
ASPHALTIC SHOULDERS
STA 93+00 TO 98+00 LT & RT

WETLAND
BOUNDARY
(TYP)

CONCRETE SURFACE DRAIN
GEOTEXTILE FABRIC TYPE HR
RIPRAP MEDIUM (TYP)

REMOVING GUARDRAIL
STA 93+97 TO 94+92 RT
STA 94+11 TO 95+06 LT
STA 95+64 TO 96+58 RT
STA 95+78 TO 96+72 LT

STA 95+35
B-09-0026
TO REMAIN
CONCRETE OVERLAY
SEE STRUCTURE PLANS

SILT FENCE (TYP)
(TYP)

WETLAND IMPACTS
AREA = 0.004 ACRES
TYPE: SS

WETLAND IMPACTS
AREA = 0.013 ACRES
TYPE: SS

DAVID V BREMNESS

DONAVAN D BREMNESS

PROJECT NO: 7070-06-72	HWY: STH 27	COUNTY: CHIPPEWA	PLAN SHEETS	SHEET 25	E

FILE NAME : C:\OD\CORRE, INC\PROJECTS - WI-NW REGION\7070-06-02_CHIPPEWA CO_STH 27\500_CADD\501_C3D_2018\70700602\SHEETSPLAN\050201-PN.DWG
LAYOUT NAME - 03

PLOT DATE : 4/14/2023 7:26 AM PLOT BY : CAMERON SHIFFER, PE PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 44

DOROTHEA PANOSH

KRIS DUNSTON

WETLAND IMPACTS
AREA = 0.004 ACRES
TYPE: SS

TEMPORARY DITCH CHECK

WETLAND BOUNDARY (TYP)

DITCH CLEANING
STA 98+47 TO 98+97
LT & RT

DITCH CLEANING
STA 101+56 TO 102+06
LT & RT

FERTILIZER TYPE B
SEEDING MIX NO 20
EMAT CLASS I TYPE B (TYP)

SILT FENCE (TYP)

TEMPORARY DITCH CHECK

DITCH CLEANING
STA 110+72 TO 111+29
LT & RT

WETLAND IMPACTS
AREA = 0.011 ACRES
TYPE: SS

N

WETLAND BOUNDARY (TYP)

EFERTILIZER TYPE B
SEEDING MIX NO 20
EMAT CLASS I TYPE B (TYP)

SILT FENCE (TYP)

STA 98+25

MATCHLINE

AGG PE
101+14, LT

AGG PE
103+45, LT

R/W

100

STH 27

105

N3° 09' 49"W
1733.22'

36'

110

STA 113+50

MATCHLINE

AGG PE
99+67, RT

AGG PE
101+29, RT

AGG PE
103+61, RT

R/W

12' TRAVEL LANES
3' PAVED SHLDS
3' AGG SHLDS

CULVERT PIPE CHECKS

WETLAND BOUNDARY (TYP)

REPAIR SINKHOLE
WITH BORROW

WETLAND BOUNDARY (TYP)

CULVERT PIPE CHECKS

STA 98+72
CP: 18027025571
1 REMOVING OLD STRUCTURE (STA 98+72)
63 LF CPCS 72-INCH

STA 101+81
CP: 18027025570
1 REMOVING SMALL PIPE CULVERTS
88 LF CPCS 36-INCH WITH LINER
PROPOSED CP: 18027025570
CP CLASS IV 48-INCH
INVERT 1: 101+81.0, 31.6' LT, 951.60'
INVERT 2: 101+81.0, 32.4' RT, 952.00'
LENGTH: 64 LF
SLOPE: -0.62%
2 AEW CPRC 48-INCH

EAU CLAIRE ENERGY
COOPERATIVE (ELEC)

EXISTING CP: 18027025572
CPCS 60-INCH
WITH 48-INCH LINER TO REMAIN
STA 110+96.6

EXISTING CP: 18027025574
CPCS 60-INCH
WITH 48-INCH LINER TO REMAIN
STA 111+04.3

WETLAND IMPACTS
AREA = 0.014 ACRES
TYPE: SS

GEOTEXTILE TYPE HR (TYP)
RIPRAP MEDIUM (TYP)
NOTE:
ONLY FILL SCOUR HOLES
TUCK UNDER THE END OF EXISTING PIPES

WETLAND IMPACTS
AREA = 0.002 ACRES
TYPE: SS

DONAVAN D BREMNESS

FREDERICK C & ANGELA K WELTZIN

5

5

BRANDON J & KELLY J BRENNY

WAYNE R JR GREENE

STATION & OFFSET TABLE			
POINT	STATION	OFFSET	NOTES
50	116+19.4	53.0 LT	RAD = 35'
51	115+89.4	15.0 LT	TAPER
52	116+19.4	18.0 LT	BR
53	116+43.5	27.7 LT	MR
54	116+54.2	51.4 LT	ER

REMOVING ASPHALTIC
SURFACE BUTT JOINTS
STA 116+67.3, 100.0' LT

30TH AVE

CURVE 2
PI STA = 117+00.97
Y = 111281.874
X = 235451.993
DELTA = 2°57'35"
D = 0°30'00"
T = 296.03'
L = 591.94'
R = 11459.30'
PC STA = 114+04.94
PT STA = 119+96.88
SE = 2.0%

STATION & OFFSET TABLE			
POINT	STATION	OFFSET	NOTES
60	117+23.0	63.0 LT	RAD = 45'
61	116+78.3	62.7 LT	BR
62	116+91.4	31.1 LT	MR
63	117+23.0	18.0 LT	ER
64	117+68.0	15.0 LT	TAPER

WETLAND IMPACTS
AREA = 0.006 ACRES
TYPE: M

N

FERTILIZER TYPE B
SEEDING MIX NO 20
EMAT CLASS I TYPE B (TYP)

TEMPORARY DITCH CHECK

WETLAND BOUNDARY (TYP)

UNDERGROUND ELECTRIC

SILT FENCE (TYP)

PC: 114+04.94

PT: 119+96.88

STA 113+50

R/W

115

120

STH 27

36'

N0° 12' 14"W
6292.26'

125

STA 128+75

MATCHLINE

AGG PE
114+66, RT

SECTION CORNER
PK NAIL
NORTHING: 111244.399
EASTING: 235457.507

12' TRAVEL LANES
3' PAVED SHLDS
3' AGG SHLDS

AGG PE
128+62, RT

MATCHLINE

EAU CLAIRE ENERGY
COOPERATIVE (ELEC)

CULVERT PIPE CHECKS

EXISTING CP: 18027025573
CPCS 27-INCH
WITH 21-INCH LINER TO REMAIN
STA 126+52.0
1 CLEANING CULVERT PIPES

DITCH CLEANING
STA 126+26 TO 126+76
LT & RT

STATION & OFFSET TABLE			
POINT	STATION	OFFSET	NOTES
70	116+10.4	58.0 RT	RAD = 40'
71	115+65.4	15.0 RT	TAPER
72	116+10.4	18.0 RT	BR
73	116+39.4	30.3 RT	MR
74	116+50.5	59.8 RT	ER

REMOVING ASPHALTIC
SURFACE BUTT JOINTS
STA 116+59.9, 100.0' RT

30TH AVE

STATION & OFFSET TABLE			
POINT	STATION	OFFSET	NOTES
80	117+08.1	53.0 RT	RAD = 35'
81	116+73.0	51.6 RT	BR
82	116+83.8	27.8 RT	MR
83	117+08.1	18.0 RT	ER
84	117+38.1	15.0 RT	TAPER

STATION & OFFSET TABLE						
POINT	STATION	OFFSET	NORTHING	EASTING	ELEVATION	DESCRIPTION
CP 3	116+59.01	100.25 RT	111243.424	235557.313	958.49	MAG NAIL

KENNETH A & CARRIE L LOVELIEN

RODNEY & ALISA SCHOFIELD

PROJECT NO: 7070-06-72	HWY: STH 27	COUNTY: CHIPPEWA	PLAN SHEETS	SHEET 26	E

FILE NAME : C:\OD\CORRE, INC\PROJECTS - WI-NW REGION\7070-06-02_CHIPPEWA CO_STH 27\500_CADD\501_C3D_2018\70700602\SHEETSPLAN\050201-PN.DWG
LAYOUT NAME - 04

PLOT DATE : 4/14/2023 7:26 AM PLOT BY : CAMERON SHIFFER, PE PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 44

MITCHELL T & MICHELLE K RAMSEIER

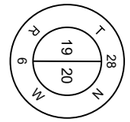
CAROL LEMAY

N

EXISTING CP: 18027025575
CPCS 30-INCH
WITH 24-INCH LINER TO REMAIN
STA 135+45.1

EXISTING CP: 18027025576
CPRC CLASS III 24-INCH TO REMAIN
STA 137+48.0

EXISTING CP: 18027025577
CPCS 24-INCH
WITH 21-INCH LINER TO REMAIN
STA 138+47.8
1 CLEANING CULVERT PIPES



SECTION CORNER - 1/4 CORNER
MAG NAIL
NORTHING: 113890.680
EASTING: 235442.590

STA 128+75

MATCHLINE

R/W

AGG PE
129+63, LT

AGG PE
137+06, LT

130

135

140

36'

STH 27

N0° 12' 14"W
6292.26'

12' TRAVEL LANES
3' PAVED SHLDS
3' AGG SHLDS

R/W

AGG PE
141+80, RT

WETLAND BOUNDARY
(TYP)

OH

OH

EAU CLAIRE ENERGY
COOPERATIVE (ELEC)

WETLAND IMPACTS
AREA = 0.009 ACRES
TYPE: M

STA 144+00

MATCHLINE

5

5

ROBERT A & BETTE J IRWIN TRUST

CAROL LEMAY

BRUCE A & BARBARA J RAMSEIER

N

STA 144+00

MATCHLINE

R/W

AGG PE
147+64, LT

145

150

155

36'

N0° 12' 14"W
6292.26'

STH 27

12' TRAVEL LANES
3' PAVED SHLDS
3' AGG SHLDS

R/W

OH

OH

OH

OH

OH

OH

OH

OH

OH

OH

REMOVING ASPHALTIC SURFACE

ASPH PE
149+62 RT
SAWING ASPHALT

EAU CLAIRE ENERGY
COOPERATIVE (ELEC)

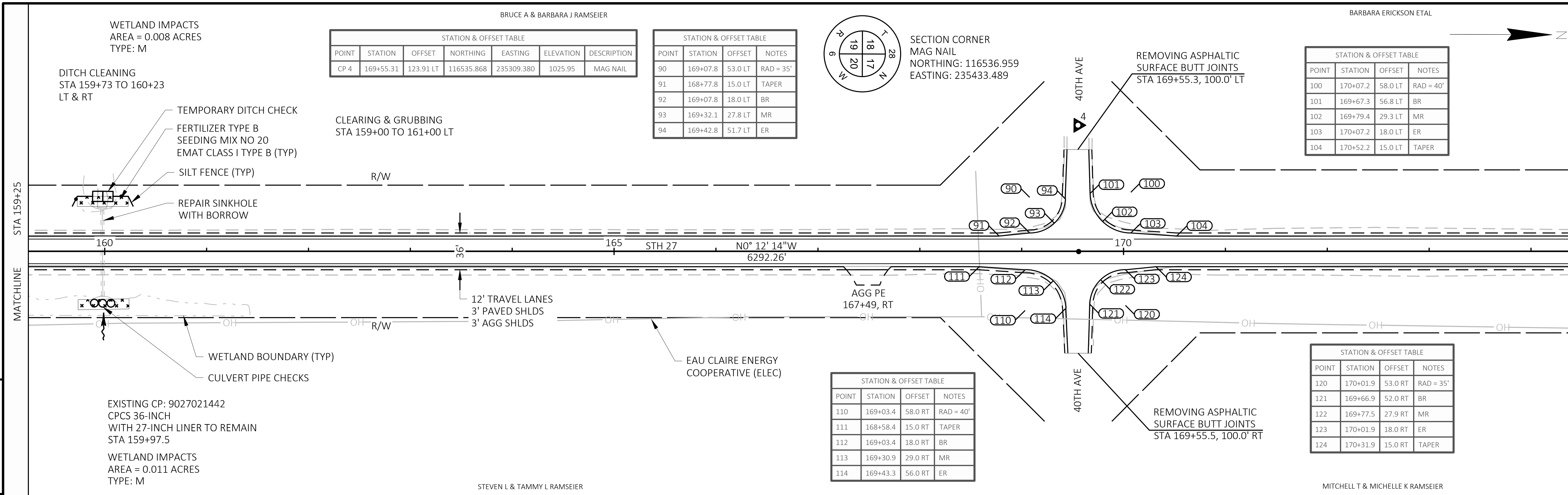
STA 159+25

MATCHLINE

ROBERT A & BETTE J IRWIN TRUST

STEVEN L & TAMMY L RAMSEIER

PROJECT NO: 7070-06-72	HWY: STH 27	COUNTY: CHIPPEWA	PLAN SHEETS	SHEET 27	E



BRUCE A & BARBARA J RAMSEIER
BARBARA ERICKSON ETAL
WETLAND IMPACTS
AREA = 0.008 ACRES
TYPE: M
DITCH CLEANING
STA 159+73 TO 160+23
LT & RT
TEMPORARY DITCH CHECK
FERTILIZER TYPE B
SEEDING MIX NO 20
EMAT CLASS I TYPE B (TYP)
SILT FENCE (TYP)
REPAIR SINKHOLE
WITH BORROW
CLEARING & GRUBBING
STA 159+00 TO 161+00 LT
SECTION CORNER
MAG NAIL
NORTHING: 116536.959
EASTING: 235433.489
40TH AVE
REMOVING ASPHALTIC
SURFACE BUTT JOINTS
STA 169+55.3, 100.0' LT
R/W
STA 159+25
MATCHLINE
160
165
STH 27
N0° 12' 14"W
6292.26'
170
36'
STA 174+50
12' TRAVEL LANES
3' PAVED SHLDS
3' AGG SHLDS
AGG PE
167+49, RT
WETLAND BOUNDARY (TYP)
CULVERT PIPE CHECKS
EAU CLAIRE ENERGY
COOPERATIVE (ELEC)
REMOVING ASPHALTIC
SURFACE BUTT JOINTS
STA 169+55.5, 100.0' RT
EXISTING CP: 9027021442
CPCS 36-INCH
WITH 27-INCH LINER TO REMAIN
STA 159+97.5
WETLAND IMPACTS
AREA = 0.011 ACRES
TYPE: M
STEVEN L & TAMMY L RAMSEIER
MITCHELL T & MICHELLE K RAMSEIER
5
5

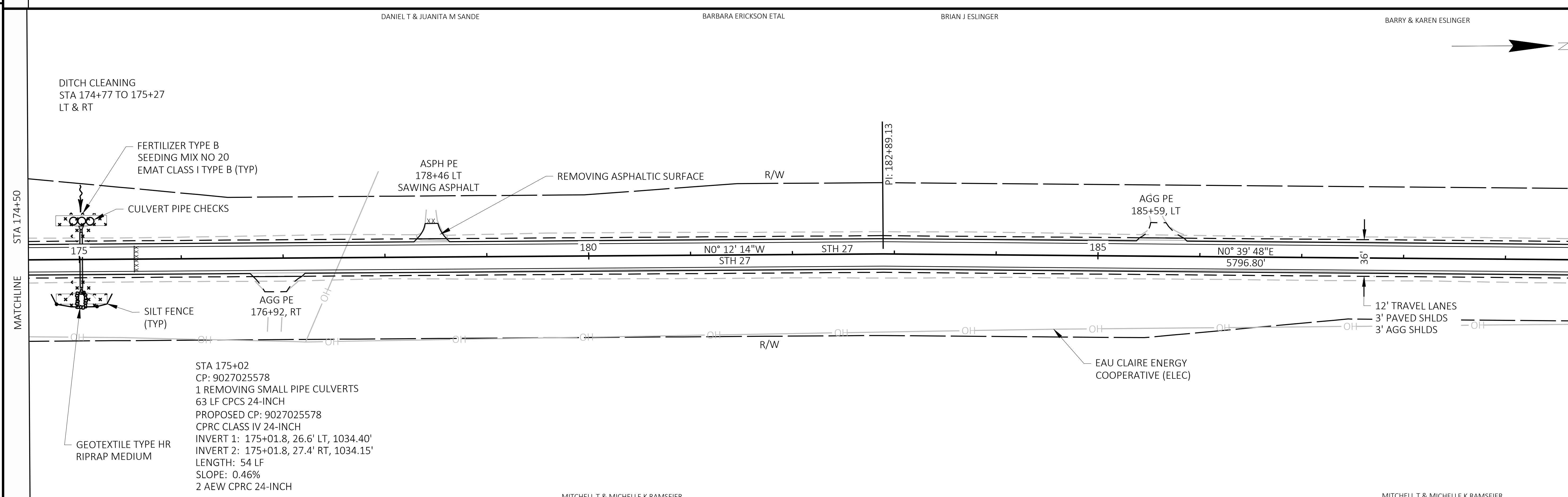
STATION & OFFSET TABLE						
POINT	STATION	OFFSET	NORTHING	EASTING	ELEVATION	DESCRIPTION
CP 4	169+55.31	123.91 LT	116535.868	235309.380	1025.95	MAG NAIL

STATION & OFFSET TABLE			
POINT	STATION	OFFSET	NOTES
90	169+07.8	53.0 LT	RAD = 35'
91	168+77.8	15.0 LT	TAPER
92	169+07.8	18.0 LT	BR
93	169+32.1	27.8 LT	MR
94	169+42.8	51.7 LT	ER

STATION & OFFSET TABLE			
POINT	STATION	OFFSET	NOTES
100	170+07.2	58.0 LT	RAD = 40'
101	169+67.3	56.8 LT	BR
102	169+79.4	29.3 LT	MR
103	170+07.2	18.0 LT	ER
104	170+52.2	15.0 LT	TAPER

STATION & OFFSET TABLE			
POINT	STATION	OFFSET	NOTES
110	169+03.4	58.0 RT	RAD = 40'
111	168+58.4	15.0 RT	TAPER
112	169+03.4	18.0 RT	BR
113	169+30.9	29.0 RT	MR
114	169+43.3	56.0 RT	ER

STATION & OFFSET TABLE			
POINT	STATION	OFFSET	NOTES
120	170+01.9	53.0 RT	RAD = 35'
121	169+66.9	52.0 RT	BR
122	169+77.5	27.9 RT	MR
123	170+01.9	18.0 RT	ER
124	170+31.9	15.0 RT	TAPER



DANIEL T & JUANITA M SANDE
BARBARA ERICKSON ETAL
BRIAN J ESLINGER
BARRY & KAREN ESLINGER
DITCH CLEANING
STA 174+77 TO 175+27
LT & RT
FERTILIZER TYPE B
SEEDING MIX NO 20
EMAT CLASS I TYPE B (TYP)
ASPH PE
178+46 LT
SAWING ASPHALT
REMOVING ASPHALTIC SURFACE
R/W
PI: 182+89.13
AGG PE
185+59, LT
CULVERT PIPE CHECKS
STA 174+50
MATCHLINE
175
180
N0° 12' 14"W
STH 27
185
N0° 39' 48"E
5796.80'
36'
STA 189+75
SILT FENCE
(TYP)
AGG PE
176+92, RT
12' TRAVEL LANES
3' PAVED SHLDS
3' AGG SHLDS
EAU CLAIRE ENERGY
COOPERATIVE (ELEC)
STA 175+02
CP: 9027025578
1 REMOVING SMALL PIPE CULVERTS
63 LF CPCS 24-INCH
PROPOSED CP: 9027025578
CPRC CLASS IV 24-INCH
INVERT 1: 175+01.8, 26.6' LT, 1034.40'
INVERT 2: 175+01.8, 27.4' RT, 1034.15'
LENGTH: 54 LF
SLOPE: 0.46%
2 AEW CPRC 24-INCH
GEOTEXTILE TYPE HR
RIPRAP MEDIUM
MITCHELL T & MICHELLE K RAMSEIER
MITCHELL T & MICHELLE K RAMSEIER

PROJECT NO: 7070-06-72	HWY: STH 27	COUNTY: CHIPPEWA	PLAN SHEETS	SHEET 28	E

BARRY & KAREN ELSINGER

JOSEPH P & TASHA L MORAVEC

MATTHEW A GWIAZDA

N

WETLAND IMPACTS
AREA = 0.010 ACRES
TYPE: M

STA 195+79
CP: 9027025580
1 REMOVING SMALL PIPE CULVERTS
72 LF CPCS 24-INCH WITH LINER

DITCH CLEANING
STA 195+54 TO 196+51
LT & RT

WETLAND IMPACTS
AREA = 0.012 ACRES
TYPE: M

STA 196+26
CP: 9027025581
1 REMOVING OLD STRUCTURE (STA 196+26)
63 LF CPCS 72-INCH
PROPOSED CP: 9027025581
CP CLASS III-A NON-METAL 24-INCH
INVERT 1: 196+26.0, 36.8' LT, 1014.60'
INVERT 2: 196+26.0, 35.2' RT, 1015.20'
LENGTH: 72 LF
SLOPE: -0.83%
2 AEW CP 24-INCH

WETLAND BOUNDARY (TYP)

GEOTEXTILE TYPE HR
RIPRAP MEDIUM

FERTILIZER TYPE B
SEEDING MIX NO 20
EMAT CLASS I TYPE B (TYP)

SILT FENCE
(TYP)

CLEARING & GRUBBING
STA 195+00 TO 197+00 LT

GEOTEXTILE TYPE HR
RIPRAP MEDIUM

WETLAND BOUNDARY (TYP)

SILT FENCE (TYP)

ASPH PE
199+12 LT
SAWING ASPHALT

REMOVING ASPHALTIC SURFACE

R/W

AGG PE
200+89, LT

AGG PE
204+53, LT

STA 189+75

MATCHLINE

190

195

STH 27

N0° 39' 48"E
5796.80'

200

36'

AGG PE
191+92, RT

AGG PE
196+67, RT

AGG PE
203+12, RT

12' TRAVEL LANES
3' PAVED SHLDS
3' AGG SHLDS

STA 205+00

MATCHLINE

CULVERT PIPE CHECKS

R/W

WETLAND BOUNDARY (TYP)

CULVERT PIPE CHECKS

EAU CLAIRE ENERGY
COOPERATIVE (ELEC)

STA 191+52
CP: 9027025579
1 REMOVING SMALL PIPE CULVERTS
92 LF CPCS 30-INCH WITH LINER
PROPOSED CP: 9027025579
CP CLASS III-A NON-METAL 30-INCH
INVERT 1: 191+52.3, 47.6' LT, 1021.50'
INVERT 2: 191+52.3, 36.2' RT, 1025.70'
LENGTH: 84 LF
SLOPE: -5.01%
2 AEW CP 30-INCH

FERTILIZER TYPE B
SEEDING MIX NO 20
EMAT CLASS I TYPE B (TYP)

WETLAND
BOUNDARY
(TYP)

WETLAND IMPACTS
AREA = 0.009 ACRES
TYPE: M

WETLAND IMPACTS
AREA = 0.007 ACRES
TYPE: M

SECTION CORNER - 1/4 CORNER
COTTON GIN SPIKE
NORTHING: 119193.192
EASTING: 235443.637

DONALD L & SHIRLEY A RAMSEIER

MITCHELL T & MICHELLE K RAMSEIER

ROBERT A & BETTE J IRWIN

JOSHUA J & KATRINA J HORVAT

MATTHEW A GWIAZDA

ALVIN R & ROSANNA J STEINER

N

DITCH CLEANING
STA 206+71 TO 207+21
LT & RT

FERTILIZER TYPE B
SEEDING MIX NO 20
EMAT CLASS I TYPE B (TYP)

TEMPORARY DITCH CHECK

SILT FENCE
(TYP)

WETLAND
BOUNDARY
(TYP)

R/W

STA 205+00

MATCHLINE

205

210

N0° 39' 48"E
5796.80'

STH 27

215

220

36'

12' TRAVEL LANES
3' PAVED SHLDS
3' AGG SHLDS

R/W

STA 220+25

MATCHLINE

CULVERT PIPE CHECKS

EXISTING CP: 9027025582
CPCS 36-INCH
WITH 27-INCH LINER TO REMAIN
STA 206+96.1

EAU CLAIRE ENERGY
COOPERATIVE (ELEC)

EXISTING CURB & GUTTER
TO REMAIN

REMOVING ASPHALTIC SURFACE

ASPH PE
212+64 RT

EXISTING CURB & GUTTER
TO REMAIN

EXISTING CP: 9027025583
CPRC CLASS V 72-INCH TO REMAIN
STA 216+90.3

CLEAR CREEK

EXISTING CP: 9027025592
CPRC CLASS V 72-INCH TO REMAIN
STA 217+04.6

WETLAND
BOUNDARY
(TYP)

JOSHUA J & KATRINA J HORVAT

LAMONT G LEISER

PROJECT NO: 7070-06-72	HWY: STH 27	COUNTY: CHIPPEWA	PLAN SHEETS	SHEET 29	E

FILE NAME : C:\OD\CORRE, INC\PROJECTS - WI-NW REGION\7070-06-02_CHIPPEWA CO_STH 27\500_CADD\501_C3D_2018\70700602\SHEETSPLAN\050201-PN.DWG
LAYOUT NAME - 07

PLOT DATE : 4/14/2023 7:26 AM PLOT BY : CAMERON SHIFFER, PE PLOT NAME : PLOT SCALE : 1 IN:100 FT

THOMAS E SR & SYLVIA L SHEPARD

ALVIN R & ROSANNA J STEINER

JOHN J & LINDA R STANEK

KIM S & NANCY F SIMENSON

FRANCIS L GILLETT

CRAIG S & REBECCA L HINZMANN

JOHN J & LINDA R STANEK

ROBERT T & ROXA K SEMMELHACK

ROBERT L & TERI L PANZER

ROBERT L & TERI L PANZER

ROBERT A & JOAN D HICKS

TOWN OF SIGEL

REMOVING ASPHALTIC SURFACE BUTT JOINTS
STA 222+66.9, 100.0' LT

DITCH CLEANING
STA 222+87 TO 223+28
LT & RT

WETLAND IMPACTS
AREA = 0.002 ACRES
TYPE: M

SECTION CORNER
MAG NAIL
NORTHING: 121849.822
EASTING: 235474.129

WETLAND IMPACTS
AREA = 0.002 ACRES
TYPE: M

DITCH CLEANING
STA 230+72 TO 231+22
LT & RT

STATION & OFFSET TABLE			
POINT	STATION	OFFSET	NOTES
130	222+23.0	53.0 LT	RAD = 35'
131	221+93.0	15.0 LT	TAPER
132	222+23.0	18.0 LT	BR
133	222+48.0	28.5 LT	MR
134	222+58.0	53.8 LT	ER

STATION & OFFSET TABLE			
POINT	STATION	OFFSET	NOTES
140	223+19.2	58.0 LT	RAD = 40'
141	222+79.2	56.8 LT	BR
142	222+91.4	29.3 LT	MR
143	223+19.2	18.0 LT	ER
144	223+64.2	15.0 LT	TAPER

STATION & OFFSET TABLE			
POINT	STATION	OFFSET	NOTES
150	222+17.2	58.0 RT	RAD = 40'
151	221+72.2	15.0 RT	TAPER
152	222+17.2	18.0 RT	BR
153	222+45.1	29.4 RT	MR
154	222+57.1	57.0 RT	ER

STATION & OFFSET TABLE			
POINT	STATION	OFFSET	NOTES
160	223+12.0	53.0 RT	RAD = 35'
161	222+77.1	53.9 RT	BR
162	222+87.0	28.6 RT	MR
163	223+12.0	18.0 RT	ER
164	223+42.0	15.0 RT	TAPER

STATION & OFFSET TABLE						
POINT	STATION	OFFSET	NORTHING	EASTING	ELEVATION	DESCRIPTION
CP 5	222+68.84	124.01 RT	121848.131	235598.632	1007.64	MAG NAIL

FERTILIZER TYPE B
SEEDING MIX NO 20
EMAT CLASS I TYPE B (TYP)

CULVERT PIPE CHECKS

WETLAND BOUNDARY (TYP)

GEOTEXTILE TYPE HR
RIPRAP MEDIUM

CULVERT PIPE CHECKS

SILT FENCE (TYP)

TEMPORARY DITCH CHECK

WETLAND BOUNDARY (TYP)

STA 223+03
CP: 9027025584
1 REMOVING SMALL PIPE CULVERTS
66 LF CPCS 30-INCH WITH LINER
PROPOSED CP: 9027025584
CPRC CLASS IV 30-INCH
INVERT 1: 223+03.0, 42.4' LT, 1006.20'
INVERT 2: 223+03.0, 37.5' RT, 1005.40'
LENGTH: 80 LF
SLOPE: 1.00%
2 AEW CPRC 30-INCH

12' TRAVEL LANES
3' PAVED SHLDS
3' AGG SHLDS

SILT FENCE (TYP)

FERTILIZER TYPE B
SEEDING MIX NO 20
EMAT CLASS I TYPE B (TYP)

GEOTEXTILE TYPE HR
RIPRAP MEDIUM

EXISTING CP: 9027025585
CPCS 30-INCH
WITH 24-INCH LINER TO REMAIN
STA 230+97.0

AGG PE
233+18, RT

AGG PE
234+17, RT

EAU CLAIRE ENERGY
COOPERATIVE (ELEC)

REMOVING ASPHALTIC SURFACE BUTT JOINTS
STA 222+68.2, 100.0' RT

CURVE 3
PI STA = 243+45.20
Y = 123925.786
X = 235498.672
DELTA = 2°35'32"
D = 0°30'00"
T = 259.27'
L = 518.45'
R = 11459.30'
PC STA = 240+85.93
PT STA = 246+04.38
SE = 2.0%

XCEL ENERGY
(ELEC TRANSMISSION)

WETLAND IMPACTS
AREA = 0.006 ACRES
TYPE: M

GEOTEXTILE TYPE HR
RIPRAP MEDIUM

WETLAND BOUNDARY
(TYP)

CULVERT PIPE CHECKS

AGG PE
239+17, LT

AGG PE
240+78, LT

AGG PE
248+95, LT

AGG PE
244+25, RT

AGG PE
248+18, RT

SILT FENCE (TYP)

FERTILIZER TYPE B
SEEDING MIX NO 20
EMAT CLASS I TYPE B (TYP)

GEOTEXTILE TYPE HR
RIPRAP MEDIUM

WETLAND BOUNDARY (TYP)

EAU CLAIRE ENERGY
COOPERATIVE (ELEC)

EXISTING CP: 9027025586
CPCS 36-INCH
WITH 30-INCH LINER TO REMAIN
STA 242+78.1
1 CLEANING CULVERT PIPES

WETLAND IMPACTS
AREA = 0.011 ACRES
TYPE: M

DITCH CLEANING
STA 242+53 TO 243+03
LT & RT

SECTION CORNER - 1/4 CORNER
MAG NAIL
NORTHING: 124509.904
EASTING: 235479.465

PROJECT NO: 7070-06-72	HWY: STH 27	COUNTY: CHIPPEWA	PLAN SHEETS	SHEET 30	E

FILE NAME : C:\OD\CORRE, INC\PROJECTS - WI-NW REGION\7070-06-02_CHIPPEWA CO_STH 27\500_CADD\501_C3D_2018\70700602\SHEETSPLAN\050201-PN.DWG
LAYOUT NAME - 08

PLOT DATE : 4/14/2023 7:26 AM PLOT BY : CAMERON SHIFFER, PE PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 44

ROBERT T & ROXA K SEMMELHACK

JOSEPH P WILD

N

DITCH CLEANING
STA 258+29 TO 258+79
LT & RT

MAGELLAN PIPELINE

PC: 265+28.36

STA 250+75

R/W

CULVERT PIPE CHECKS

AGG PE
260+12, LT

255

STH 27

N1° 55' 44"W
1923.98'

260

36'

265

STA 266+00

MATCHLINE

AGG PE
252+32, RT

OH

R/W

12' TRAVEL LANES
3' PAVED SHLDS
3' AGG SHLDS

EAU CLAIRE ENERGY
COOPERATIVE (ELEC)

SILT FENCE (TYP)

FERTILIZER TYPE B
SEEDING MIX NO 20
EMAT CLASS I TYPE B (TYP)

TEMPORARY DITCH CHECK

EXISTING CP: 9027025587
CPCS 30-INCH
WITH 24-INCH LINER TO REMAIN
STA 258+55.1
1 CLEANING CULVERT PIPES

CLEARING & GRUBBING
STA 258+00 TO 259+00 RT

5

ROBERT T & ROXA K SEMMELHACK

ROBERT T & ROXA K SEMMELHACK

NICOLE BETHKE

JAMES E & CHRISTINE R MICKELSON

BRIAN MATHIOWETZ

STATION & OFFSET TABLE						
POINT	STATION	OFFSET	NORTHING	EASTING	ELEVATION	DESCRIPTION
CP 6	275+88.74	98.75 LT	127166.710	235309.860	1066.11	MAG NAIL

SECTION CORNER
PK NAIL
NORTHING: 127159.250
EASTING: 235384.050

N

CLEARING & GRUBBING
STA 279+00 TO 280+00 LT & RT

REMOVING ASPHALTIC
SURFACE

PT: 267+60.21

REMOVING ASPHALTIC
SURFACE BUTT JOINTS
STA 275+88.4, 115.0' LT

CTH MM

EXISTING CURB & GUTTER
TO REMAIN

DITCH CLEANING
STA 279+36 TO 279+86
LT & RT

277+54.4
15.0' LT

SILT FENCE
(TYP)

GEOTEXTILE TYPE HR
RIPRAP MEDIUM

ASPH PE
266+83 LT
SAWING ASPHALT

AGG PE
268+93, LT

R/W

274+45.5
15.0' LT

FERTILIZER TYPE B
SEEDING MIX NO 20
EMAT CLASS I TYPE B (TYP)

STA 266+00

270

36'

N0° 46' 10"W
3153.12'

STH 27

275

280

STA 281+25

MATCHLINE

AGG PE
266+52, RT

171

172

173

170

174

183

184

182

181

180

CULVERT PIPE CHECKS

12' TRAVEL LANES
3' PAVED SHLDS
3' AGG SHLDS

EAU CLAIRE ENERGY
COOPERATIVE (ELEC)

CURVE 4
PI STA = 266+44.29
Y = 126223.658
X = 235421.288
DELTA = 1°09'33"
D = 0°30'00"
T = 115.93'
L = 231.84'
R = 11459.30'
PC STA = 265+28.36
PT STA = 267+60.21
SE = 2.0%

STATION & OFFSET TABLE			
POINT	STATION	OFFSET	NOTES
170	275+33.5	61.0 RT	RAD = 40'
171	274+43.5	15.0 RT	TAPER
172	275+33.5	21.0 RT	BR
173	275+61.6	32.5 RT	MR
174	275+73.5	60.5 RT	ER

STATION & OFFSET TABLE			
POINT	STATION	OFFSET	NOTES
180	276+39.8	61.0 RT	RAD = 40'
181	275+99.9	58.6 RT	BR
182	276+12.4	31.9 RT	MR
183	276+39.8	21.0 RT	ER
184	276+99.8	15.0 RT	TAPER

REMOVING ASPHALTIC
SURFACE BUTT JOINTS
STA 275+85.4, 115.0' RT

GEOTEXTILE TYPE HR
RIPRAP MEDIUM

EXISTING CP: 9027025588
CPCS 48-INCH
WITH 38-INCH LINER TO REMAIN
STA 279+59.4

ROBERT T & ROXA K SEMMELHACK

PAULE E & JENNIFER J STEFFES

5

PROJECT NO: 7070-06-72	HWY: STH 27	COUNTY: CHIPPEWA	PLAN SHEETS	SHEET 31	E

FILE NAME : C:\OD\CORRE, INC\PROJECTS - WI-NW REGION\7070-06-02_CHIPPEWA CO_STH 27\500_CADD\501_C3D_2018\70700602\SHEETSPLAN\050201-PN.DWG
LAYOUT NAME - 09

PLOT DATE : 4/14/2023 7:26 AM PLOT BY : CAMERON SHIFFER, PE PLOT NAME : PLOT SCALE : 1 IN:100 FT

BRIAN MATHIOWETZ

CADOTT CASTLE LLC

STANLEY SHARPE

N

EXISTING CP: 9027025589
CPCS 24-INCH
WITH 20-INCH LINER TO REMAIN
STA 289+94.9

LAVORATA RD

STA 281+25

MATCHLINE

R/W

AGG PE
282+94, LT

STH 27

285

36'

N0° 46' 10"W
3153.12'

290

295

REMOVING ASPHALTIC
SURFACE BUTT JOINTS
STA 288+45.0

AGG PE
282+76, RT

12' TRAVEL LANES
3' PAVED SHLDS
3' AGG SHLDS

END PROJECT
STA 288+45

OH

R/W

EAU CLAIRE ENERGY
COOPERATIVE (ELEC)

STA 296+50

MATCHLINE

STATION & OFFSET TABLE						
POINT	STATION	OFFSET	NORTHING	EASTING	ELEVATION	DESCRIPTION
CP 7	298+98.58	1.69 LT	129477.645	235375.891	1091.04	MAG NAIL

NEAR DIVIDED MEDIAN TO NORTH

JAMES K JAHR

CHARLES D & MARCELLA M JAHR

5

5

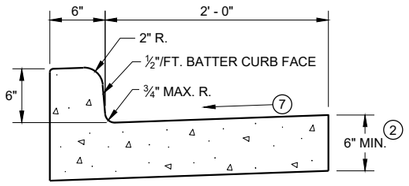
PROJECT NO: 7070-06-72	HWY: STH 27	COUNTY: CHIPPEWA	PLAN SHEETS	SHEET 32	E

Standard Detail Drawing List

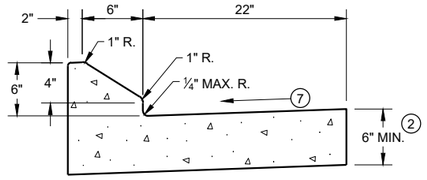
08D01-23A	CONCRETE CURB & GUTTER
08D01-23B	CONCRETE CURB, TIES AND CURB AND GUTTER APPLICATIONS
08D02-08A	CONCRETE SURFACE DRAINS FLUME TYPE AT STRUCTURES
08D02-08B	CONCRETE SURFACE DRAINS FLUME TYPE AT STRUCTURES
08D02-08C	CONCRETE SURFACE DRAINS FLUME TYPE AT STRUCTURES
08E08-03	TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS
08E09-06	SILT FENCE
08E15-01	CULVERT PIPE CHECK
08F01-11	APRON ENDWALLS FOR CULVERT PIPE
08F04-08	JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL
09G02-05A	BRIDGE TEMPORARY TRAFFIC SIGNAL INSTALLATION
09G02-05B	BRIDGE TEMPORARY TRAFFIC SIGNAL INSTALLATION
09G02-05C	BRIDGE TEMPORARY TRAFFIC SIGNAL INSTALLATION
13A11-04A	CENTERLINE RUMBLE STRIPS - ASPHALT
13A11-04B	CENTERLINE RUMBLE STRIPS - CONCRETE
13A11-04D	CENTERLINE RUMBLE STRIPS - INTERSECTIONS, DRIVEWAYS, BRIDGES, RAILROADS
13B02-09A	CONCRETE PAVEMENT APPROACH SLAB
13C19-03	HMA LONGITUDINAL JOINTS
14B07-16A	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-16B	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-16C	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-16D	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-16E	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-16F	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-16G	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-16H	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-16I	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-16J	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-16K	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-16L	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-16M	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-16N	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B08-02A	CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS
14B08-02B	CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS
14B08-02C	CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS
14B08-02D	CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS
14B08-02E	CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS
14B29-01	SAFETY EDGE
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)
14B45-05A	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05B	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05C	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05D	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05E	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05F	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05G	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05H	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05I	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05J	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05K	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05L	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
15A03-02A	FLEXIBLE MARKER POST FOR CULVERT END
15A03-02B	FLEXIBLE MARKER POST FOR CULVERT END
15C02-09F	ADVANCED WIDTH RESTRICTION SIGNING
15C04-05	TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45 M.P.H. OR GREATER TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC
15C08-23A	PERMANENT LONGITUDINAL PAVEMENT MARKINGS
15C08-23B	TEMPORARY LONGITUDINAL PAVEMENT MARKING
15C11-10A	CHANNELIZING DEVICES FLEXIBLE TUBULAR MARKER POST
15C11-10B	CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS
15C12-09A	TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION
15C12-09B	TRAFFIC CONTROL, LANE CLOSURE WITH AUTOMATED FLAGGER ASSISTANCE DEVICE

Standard Detail Drawing List

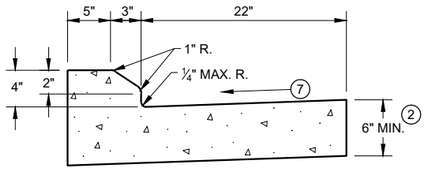
15C35-06A	PAVEMENT MARKING (INTERSECTIONS)
15D33-09	TRAFFIC CONTROL, ONE LANE ROAD WITH TEMPORARY SIGNALS
15D39-02	TRAFFIC CONTROL, DROP-OFF SIGNING
15D45-03	TRAFFIC CONTROL, SIGNING ON ROADWAYS WITH LOOSE GRAVEL
15D48-01	TRAFFIC CONTROL, LANE SHIFT IN FLAGGING OPERATION
15D51-01	TRAFFIC CONTROL, MOBILE OPERATIONS ON AN UNDIVIDED ROADWAY



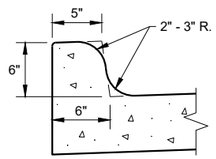
TYPES A (1) & D



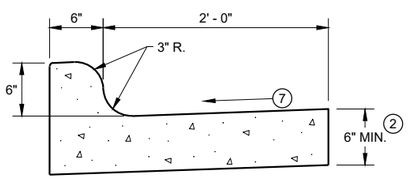
6" SLOPED CURB TYPES G (1) & J



4" SLOPED CURB TYPES G (1) & J

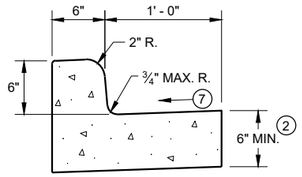


TYPES K (1) & L
(OPTIONAL CURB SHAPE)



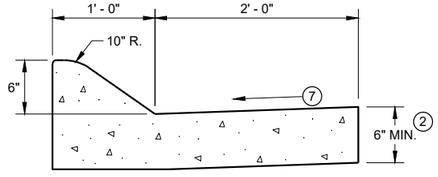
TYPES K (1) & L

CONCRETE CURB AND GUTTER 30"

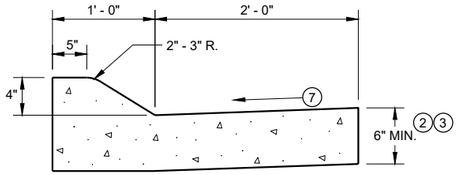


TYPES A (1) & D

CONCRETE CURB AND GUTTER 18"

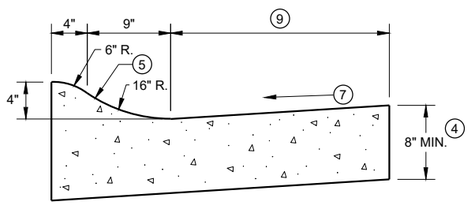


6" SLOPED CURB TYPES A (1) & D



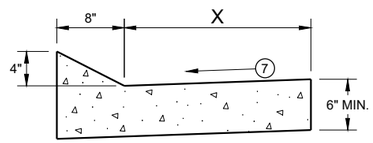
4" SLOPED CURB TYPES A (1) & D

CONCRETE CURB AND GUTTER 36"



4" SLOPED CURB TYPES R (1) & T

TBT & TBTT	X
30"	22"
36"	28"

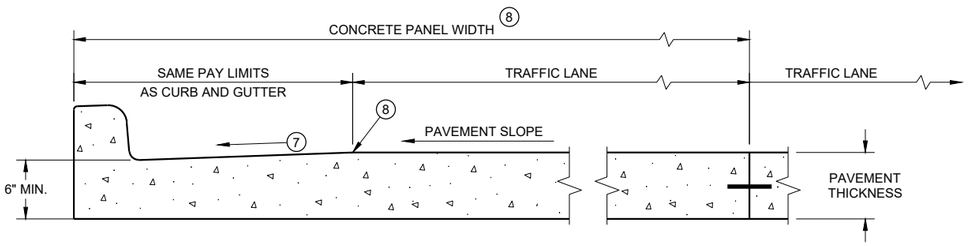


TYPES TBT & TBTT (1)

CONCRETE CURB AND GUTTER

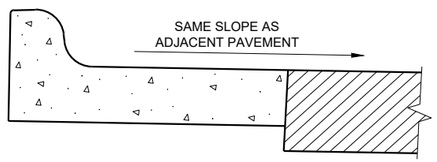
PAVEMENT THICKNESS AND MAXIMUM CONCRETE PANEL WIDTH TABLE

PAVEMENT THICKNESS	MAXIMUM PANEL WIDTH
LESS THAN 10"	12'
10" & ABOVE	15'



PARTIAL SECTION OF PAVEMENT * WITH INTEGRAL CURB AND GUTTER

* BIKE LANE IS NOT SHOWN



REVERSE SLOPE GUTTER (6)
(TYPICAL FOR ALL CURB & GUTTER TYPES)

GENERAL NOTES

DETAILS OF CONSTRUCTION AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

PAVEMENT TIES AND TIE BARS SHALL BE EPOXY COATED IN CONFORMANCE WITH SUBSECTION 505.2.6.2 OF THE STANDARD SPECIFICATIONS.

INTEGRAL CURB AND GUTTER SHALL CONFORM TO THE DETAILS SHOWN FOR CONCRETE CURB AND GUTTER INCLUDING THE TRANSVERSE GUTTER SLOPE.

UNLESS OTHERWISE SHOWN ON THE TYPICAL CROSS SECTIONS, THE BASE AGGREGATE AND COMMON EXCAVATION LIMITS ARE 2' - 0" BEHIND THE BACK OF CURBS.

(1) TIE BARS ARE REQUIRED FOR CURB AND GUTTERS TYPES A, G, K, R, AND TBTT.

(2) THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 6" MINIMUM GUTTER THICKNESS IS MAINTAINED.

(3) USE 8" MINIMUM GUTTER THICKNESS WHEN USED WITH AN ADJACENT CONCRETE TRUCK APRON PLACED BEHIND BACK OF CURB.

(4) THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 8" MINIMUM GUTTER THICKNESS IS MAINTAINED.

(5) UNLESS OTHERWISE NOTED, FOR STAKING PURPOSES THE FACE OF CURB IS 6" FROM THE BACK OF CURB.

(6) WHEN REVERSE SLOPE GUTTER IS REQUIRED, THE LOCATION(S) WILL BE SHOWN ELSEWHERE IN THE PLAN.

(7) USE 4% GUTTER CROSS SLOPE UNLESS OTHERWISE NOTED IN THE PLANS.

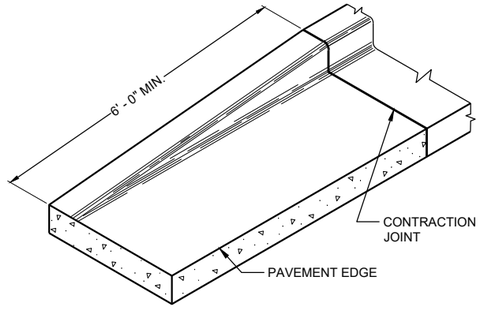
(8) INCLUDE LONGITUDINAL JOINT AND TIE BARS ALONG LANE EDGE WHEN CONCRETE PANEL WIDTH EXCEEDS THE MAXIMUM WIDTH PER TABLE BELOW. LONGITUDINAL JOINT(S) ARE NOT ALLOWED WITHIN TRAFFIC LANES AND BIKE LANES. LONGITUDINAL JOINT MAY BE SAWED.

(9) CONCRETE CURB AND GUTTER 4-INCH SLOPED 30-INCH TYPE "R" AND "T" = 17 INCHES
CONCRETE CURB AND GUTTER 4-INCH SLOPED 36-INCH TYPE "R" AND "T" = 23 INCHES

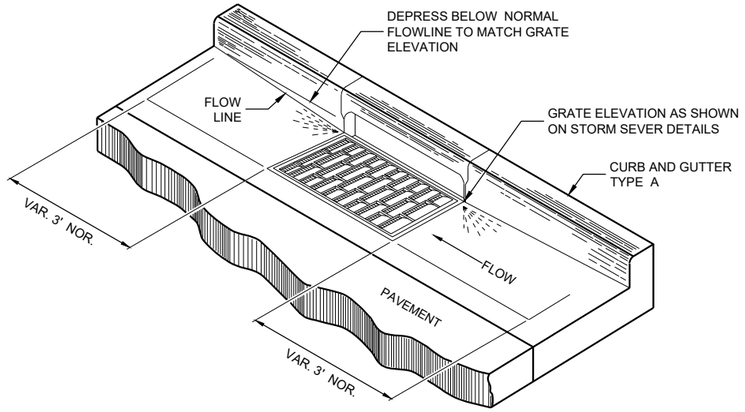
CONCRETE CURB AND GUTTER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6
SDD 08D01 - 23a



END SECTIONCURB AND GUTTER



DETAIL OF CURB AND GUTTER AT INLETS

(TYPICAL H INLET COVER SHOWN)

GENERAL NOTES

DETAILS OF CONSTRUCTION AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

PAVEMENT TIES AND TIE BARS SHALL BE EPOXY COATED IN CONFORMANCE WITH SUBSECTION 505.2.6.2 OF THE STANDARD SPECIFICATIONS.

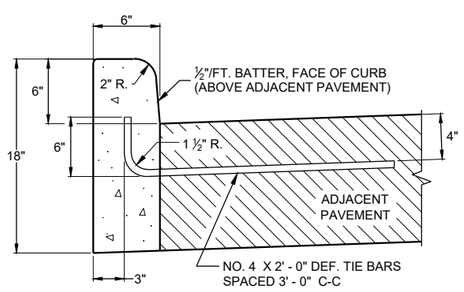
UNLESS OTHERWISE SHOWN ON THE TYPICAL CROSS SECTIONS, THE BASE AGGREGATE AND COMMON EXCAVATION LIMITS ARE 2' - 0" BEHIND THE BACK OF CURBS.

(1) TIE BARS ARE REQUIRED FOR CURB AND GUTTERS TYPES A, G, K, R, AND TBTT.

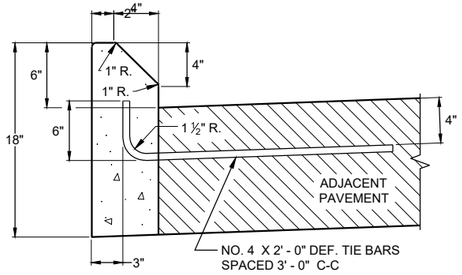
(2) THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 6" MINIMUM GUTTER THICKNESS IS MAINTAINED.

(10) REFER TO SDD 08D18 AND 08D19 FOR ADDITIONAL DRIVEWAY ENTRANCE CURB DETAILS.

(11) PLACE 1" THICK EXPANSION JOINT MATERIAL BETWEEN VERTICAL FACE CURB TYPES EXTENDING FROM THE TOP OF CURB TO 1 INCH BELOW THE ADJOINING CONCRETE SURFACE. RIGID CONCRETE STRUCTURES INCLUDE RAISED CONCRETE MEDIANS, CONCRETE SAFETY ISLANDS, SPLITTER ISLANDS, OR LOCATIONS IDENTIFIED ON THE PLANS.

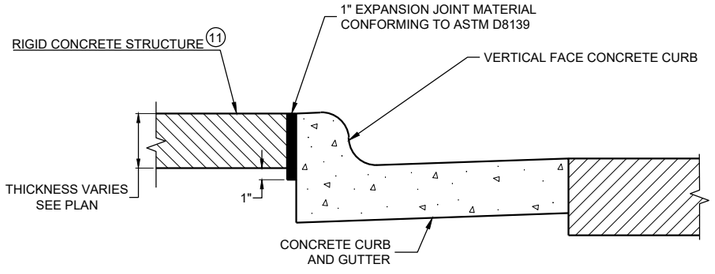


TYPES A (1) & D

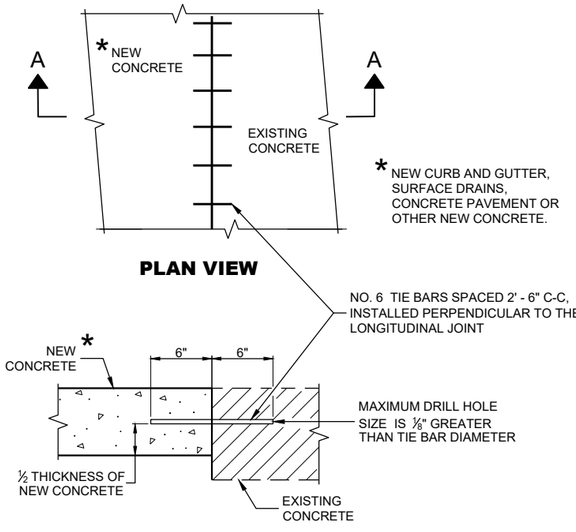


TYPES G (1) & J

CONCRETE CURB



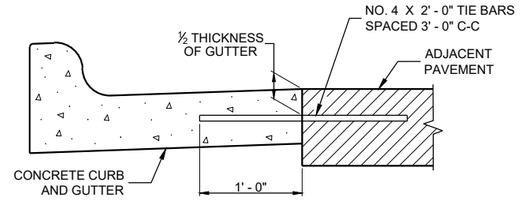
EXPANSION JOINT DETAIL FOR VERTICAL CURB ABUTTING A RIGID STRUCTURE (11)



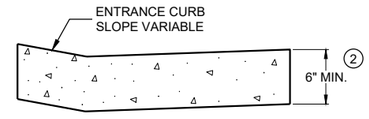
PLAN VIEW

SECTION A - A

TIE BARS DRILLED INTO EXISTING PAVEMENT



TYPICAL TIE BAR LOCATION (1)



DRIVEWAY ENTRANCE CURB (10)

(WHEN DIRECTED BY THE ENGINEER)

CONCRETE CURB, TIES AND CURB AND GUTTER APPLICATIONS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023 — DATE
/S/ Rodnery Taylor — ROADWAY STANDARDS DEVE ENGINEER

FHWA

6

SDD08D01 - 23b

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.

ALL STEEL REINFORCEMENT SHALL BE EMBEDDED 2 INCHES CLEAR UNLESS OTHERWISE SHOWN OR NOTED.

(1) USE A JOINT SEALANT CONFORMING TO STANDARD SPECIFICATION 415.2.6.

(2) NO. 4 X 2' - 0" TIE BARS SPACED AT 12" C-C TO BE PLACED BY BRIDGE CONTRACTOR OR DRILLED TIE BARS PLACED AS DIRECTED BY THE ENGINEER.

(3) PAVED CONCRETE SHOULDER (SDD 13A03) OR CONCRETE DRAINAGE SLAB.

(4) CONCRETE PAVEMENT APPROACH SLAB (SHOWN) OR STRUCTURE APPROACH SLAB AND CONCRETE PAVEMENT APPROACH SLAB. SEE SDD 13B02.

(5) PAVED CONCRETE SHOULDER (SDD 13A03) OR ASPHALT SHOULDER.

(6) CONCRETE CURB AND GUTTER 4-INCH SLOPED 36-INCH TYPE TBT OR TBTT. USE TYPE TBTT CURB WITH NO. 4 X 2' -0" TIE BARS SPACED AT 3' - 0" C-C ONLY WHEN ADJACENT TO CONCRETE PAVEMENTS.

(7) PLACE FLUME BEFORE MSG THRIE BEAM TRANSITION POST 1 (SEE SDD 14B45)

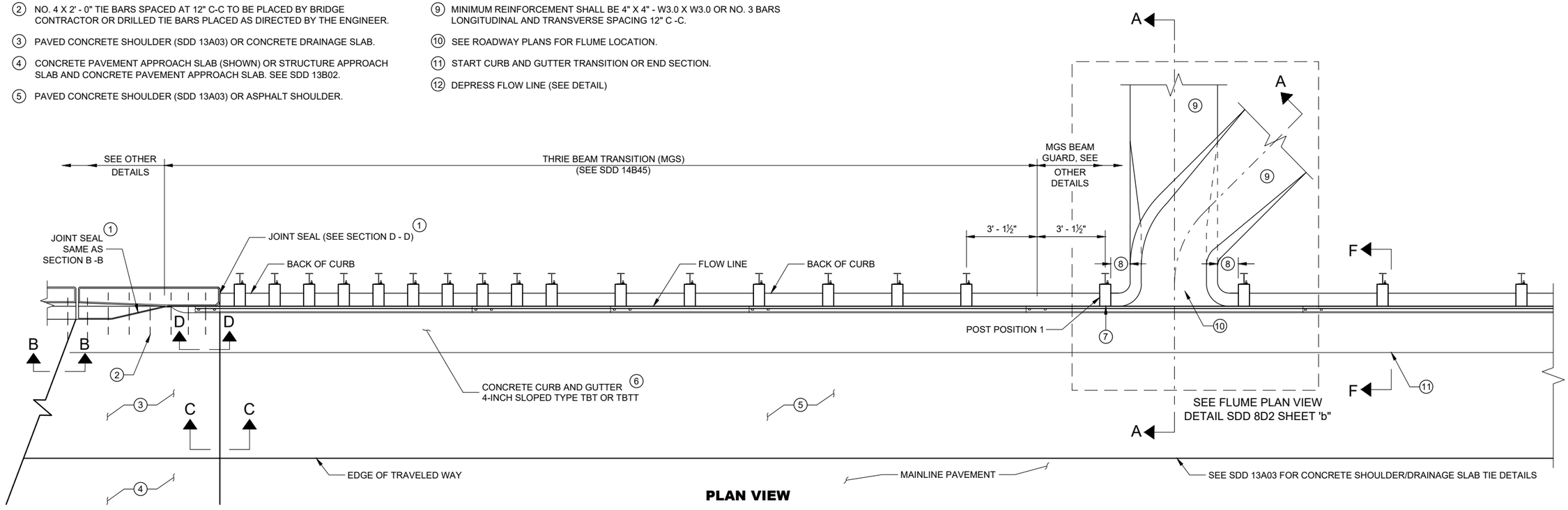
(8) CENTER FLUME BETWEEN POSTS. 6-INCH MINIMUM SEPARATION FROM OUTSIDE EDGE OF FLUME TO POSTS.

(9) MINIMUM REINFORCEMENT SHALL BE 4" X 4" - W3.0 X W3.0 OR NO. 3 BARS LONGITUDINAL AND TRANSVERSE SPACING 12" C -C.

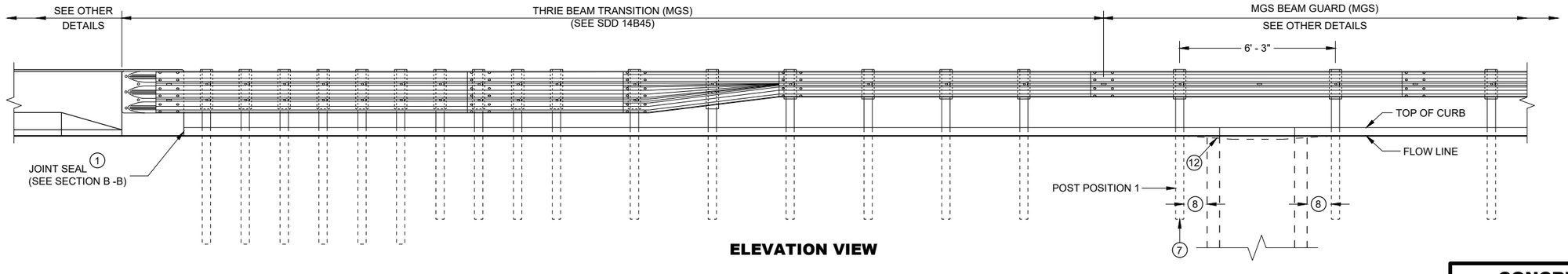
(10) SEE ROADWAY PLANS FOR FLUME LOCATION.

(11) START CURB AND GUTTER TRANSITION OR END SECTION.

(12) DEPRESS FLOW LINE (SEE DETAIL)



PLAN VIEW



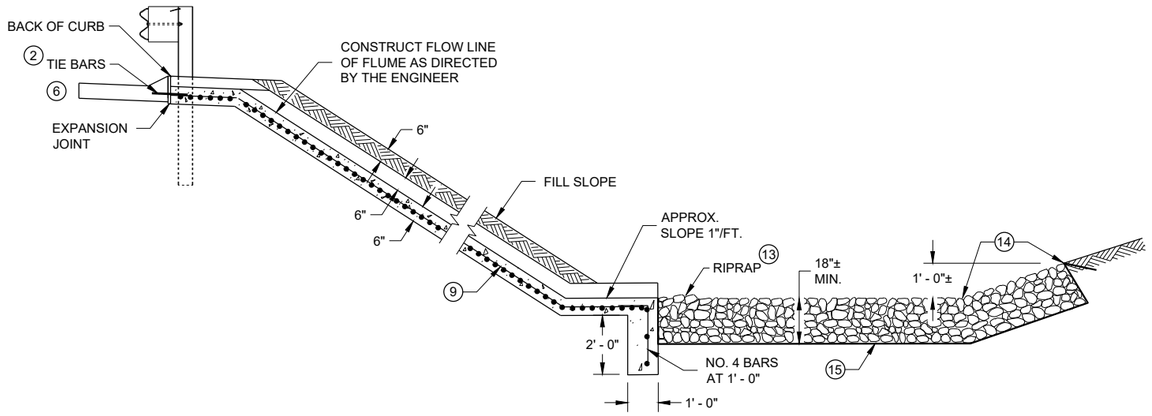
ELEVATION VIEW

CONCRETE SURFACE DRAINS FLUME TYPE AT STRUCTURES

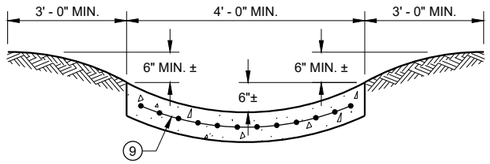
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

SDD 08D02 - 08a

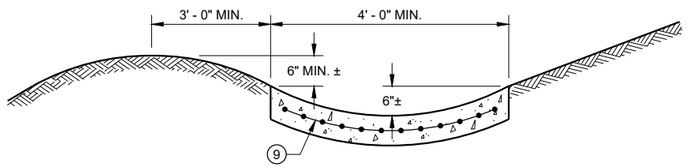
6



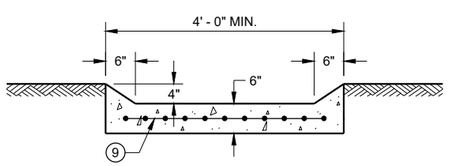
SECTION A - A



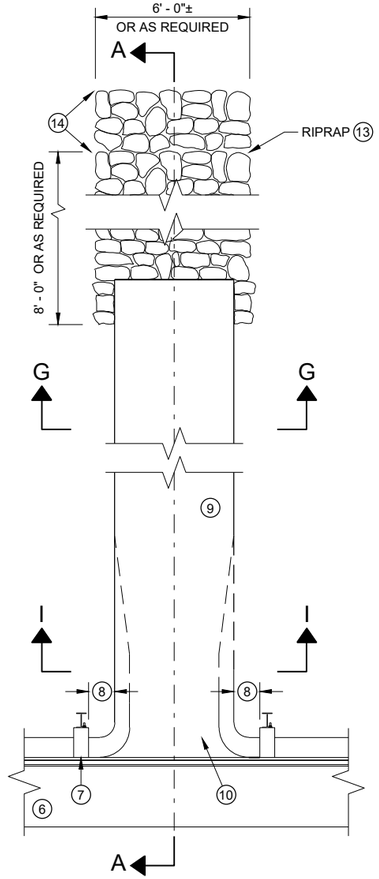
SECTION G - G



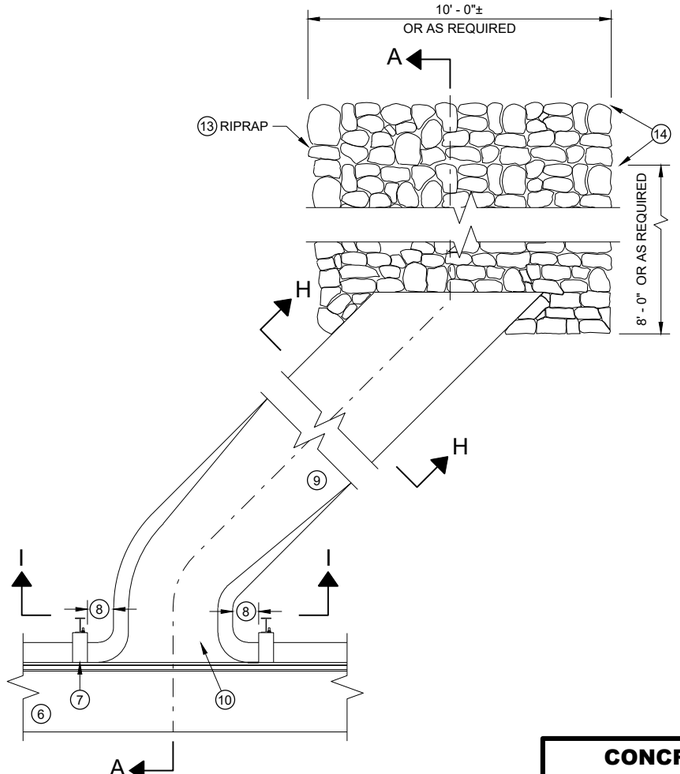
SECTION H - H



SECTION I - I



PLAN VIEW PERPENDICULAR FLUME



PLAN VIEW SKEWED FLUME

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.

ALL STEEL REINFORCEMENT SHALL BE EMBEDDED 2 INCHES CLEAR UNLESS OTHERWISE SHOWN OR NOTED.

(1) USE A JOINT SEALANT CONFORMING TO STANDARD SPECIFICATION 415.2.6.

(2) NO. 4 X 2' - 0" TIE BARS SPACED AT 12" C-C TO BE PLACED BY BRIDGE CONTRACTOR OR DRILLED TIE BARS PLACED AS DIRECTED BY THE ENGINEER.

(3) PAVED CONCRETE SHOULDER (SDD 13A03) OR CONCRETE DRAINAGE SLAB.

(4) CONCRETE PAVEMENT APPROACH SLAB (SHOWN) OR STRUCTURE APPROACH SLAB AND CONCRETE PAVEMENT APPROACH SLAB. SEE SDD 13B02 AND STRUCTURE PLANS.

(5) PAVED CONCRETE SHOULDER (SDD 13A03) OR ASPHALT SHOULDER.

(6) CONCRETE CURB AND GUTTER 4-INCH SLOPED 36-INCH TYPE TBT OR TBTT. USE TYPE TBTT CURB WITH NO. 4 X 2' -0" TIE BARS SPACED AT 3' - 0" C-C ONLY WHEN ADJACENT TO CONCRETE PAVEMENTS.

(7) PLACE FLUME BEFORE MSG THRIE BEAM TRANSITION POST 1 (SEE SDD 14B45)

(8) CENTER FLUME BETWEEN POSTS. 6-INCH MINIMUM SEPARATION FROM OUTSIDE EDGE OF FLUME TO POSTS.

(9) MINIMUM REINFORCEMENT SHALL BE 4" X 4" - W3.0 X W3.0 OR NO. 3 BARS LONGITUDINAL AND TRANSVERSE SPACING 12" C -C.

(10) SEE ROADWAY PLANS FOR FLUME LOCATION.

(11) START CURB AND GUTTER TRANSITION OR END SECTION.

(12) DEPRESS FLOW LINE (SEE DETAIL)

(13) MEDIUM RIPRAP UNLESS OTHERWISE SPECIFIED.

(14) LIMITS OF ADDITIONAL RIPRAP WHEN SPECIAL DITCH AS REQUIRED.

(15) GEOTEXTILE TYPE HR.

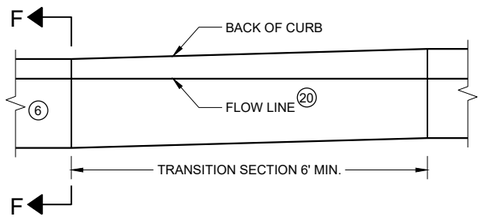
6

6

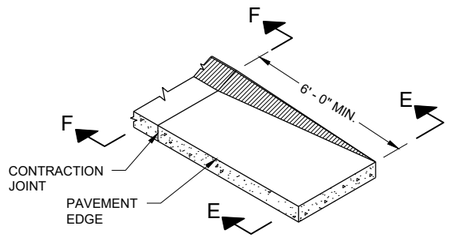
SDD 08D02 - 08b

SDD 08D02 - 08b

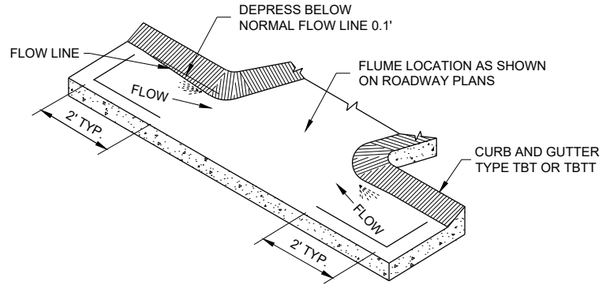
CONCRETE SURFACE DRAINS FLUME TYPE AT STRUCTURES



CURB AND GUTTER TRANSITION SECTION
CONCRETE CURB AND GUTTER 4-INCH SLOPED
36 INCH TYPE TBT OR TBTT



CURB AND GUTTER END SECTION
CONCRETE CURB AND GUTTER 4-INCH SLOPED
36 INCH TYPE TBT OR TBTT



CURB AND GUTTER FLOW LINE DEPRESSION
AT FLUMES CONCRETE CURB AND GUTTER
4-INCH SLOPED 36 INCH TYPE TBT OR TBTT

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.

ALL STEEL REINFORCEMENT SHALL BE EMBEDDED 2 INCHES CLEAR UNLESS OTHERWISE SHOWN OR NOTED.

(1) USE A JOINT SEALANT CONFORMING TO STANDARD SPECIFICATION 415.2.6.

(2) NO. 4 X 2' - 0" TIE BARS SPACED AT 12" C-C TO BE PLACED BY BRIDGE CONTRACTOR OR DRILLED TIE BARS PLACED AS DIRECTED BY THE ENGINEER.

(3) PAVED CONCRETE SHOULDER (SDD 13A03) OR CONCRETE DRAINAGE SLAB.

(4) CONCRETE PAVEMENT APPROACH SLAB (SHOWN) OR STRUCTURE APPROACH SLAB AND CONCRETE PAVEMENT APPROACH SLAB. SEE SDD 13B02 AND STRUCTURE PLANS.

(5) PAVED CONCRETE SHOULDER (SDD 13A03) OR ASPHALT SHOULDER.

(6) CONCRETE CURB AND GUTTER 4-INCH SLOPED 36-INCH TYPE TBT OR TBTT. USE TYPE TBTT CURB WITH NO. 4 X 2' -0" TIE BARS SPACED AT 3' - 0" C-C ONLY WHEN ADJACENT TO CONCRETE PAVEMENTS.

(7) PLACE FLUME BEFORE MSG THRIE BEAM TRANSITION POST 1 (SEE SDD 14B45)

(8) CENTER FLUME BETWEEN POSTS. 6-INCH MINIMUM SEPARATION FROM OUTSIDE EDGE OF FLUME TO POSTS.

(9) MINIMUM REINFORCEMENT SHALL BE 4" X 4" - W3.0 X W3.0 OR NO. 3 BARS LONGITUDINAL AND TRANSVERSE SPACING 12" C -C.

(10) SEE ROADWAY PLANS FOR FLUME LOCATION.

(11) START CURB AND GUTTER TRANSITION OR END SECTION.

(12) DEPRESS FLOW LINE (SEE DETAIL)

(13) MEDIUM RIPRAP UNLESS OTHERWISE SPECIFIED.

(14) LIMITS OF ADDITIONAL RIPRAP WHEN SPECIAL DITCH IS REQUIRED.

(15) GEOTEXTILE TYPE HR.

(16) MINIMUM REINFORCEMENT SHALL BE 6" X 6" - W4.0 X W4.0 OR NO. 3 BARS LONGITUDINAL AND TRANSVERSE SPACING 12" C - C.

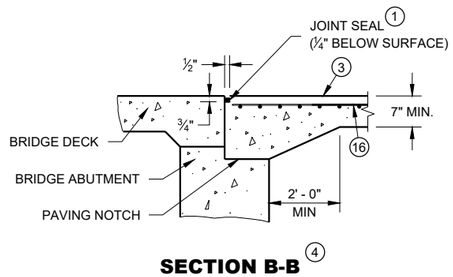
(17) MSG THRIE BEAM TRANSITION POST 1. SEE SDD 14B45 FOR ADDITIONAL CONSTRUCTION DETAILS AND ACCEPTABLE MATERIALS.

(18) MAINTAIN WIDTH, THICKNESS AND CROSS SLOPE OF ADJACENT TYPE TBT OR TBTT CURB. SEE NOTE 6 FOR TIE BAR SPACING.

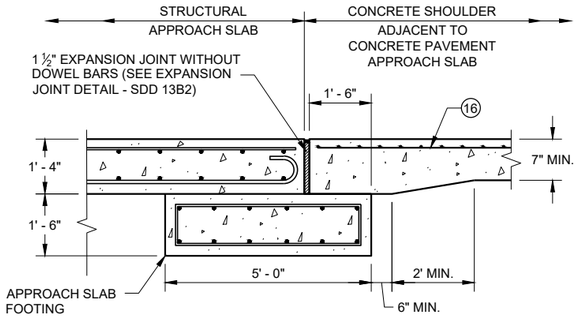
(19) ALIGN FACE OF POST BLOCK WITH FLOW LINE.

(20) MAINTAIN FLOW LINE AT EDGE OF PAVEMENT/FACE OF BEAM GUARD AS APPLICABLE.

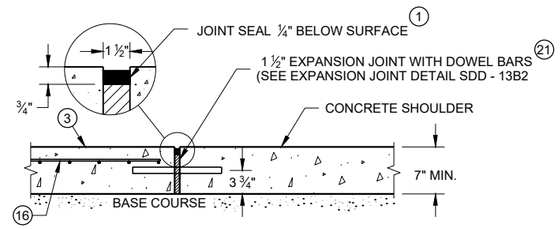
(21) DO NOT CONSTRUCT AN EXPANSION JOINT OR INSTALL DOWEL BARS WHEN ABUTTING HMA PAVEMENTS.



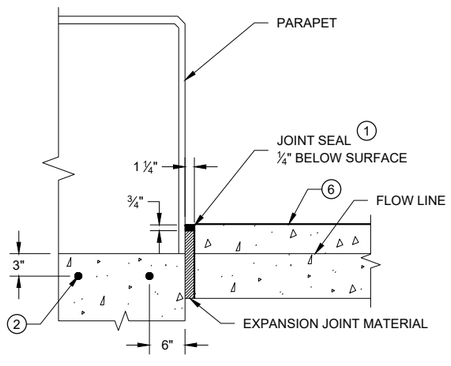
SECTION B-B (4)



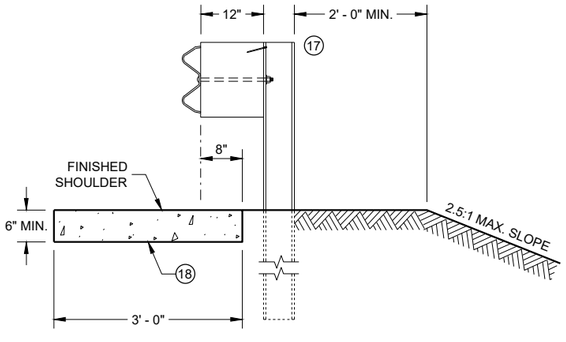
SECTION C - C
JOINT DETAIL FOR BRIDGE WITH STRUCTURAL APPROACH SLAB AND CONCRETE APPROACH SLAB



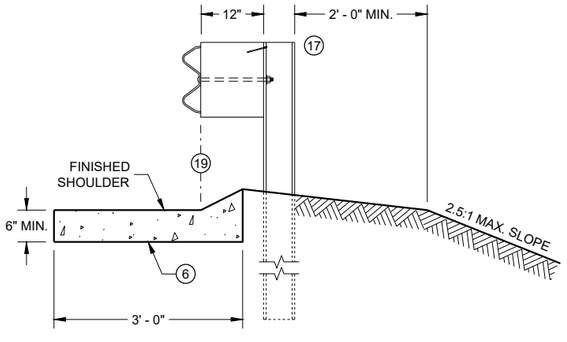
SECTION C - C
JOINT DETAIL FOR BRIDGE APPROACH WITH CONCRETE SHOULDERS



SECTION D - D



SECTION E - E



SECTION F - F

CONCRETE SURFACE DRAINS FLUME TYPE AT STRUCTURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS DEVE ENGINEER

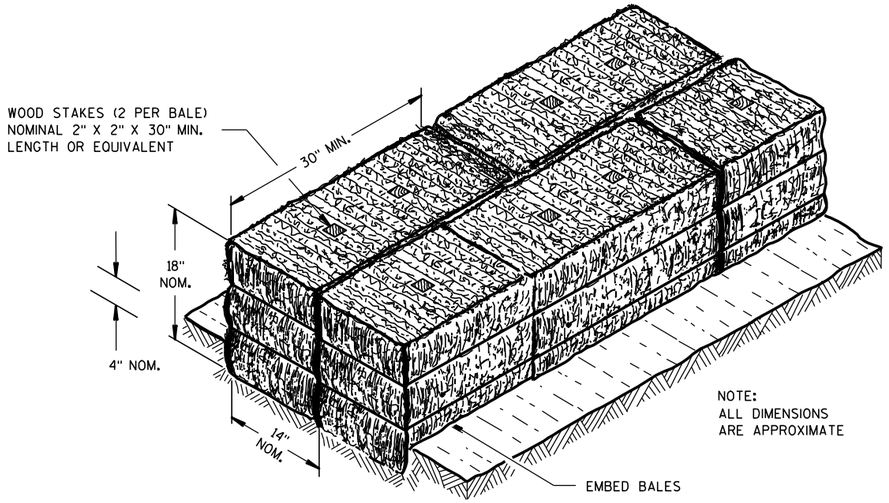
FHWA

6

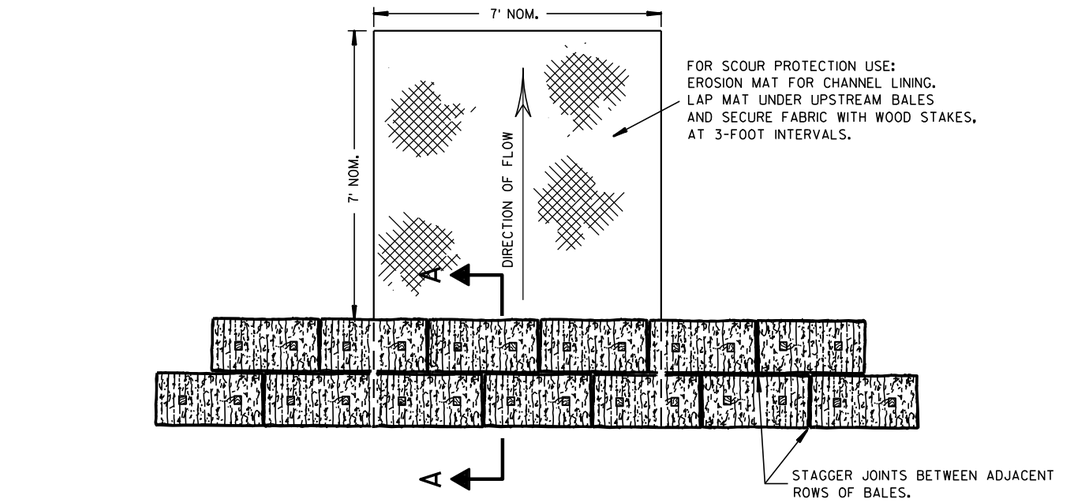
SDD 08D02 - 08c

6

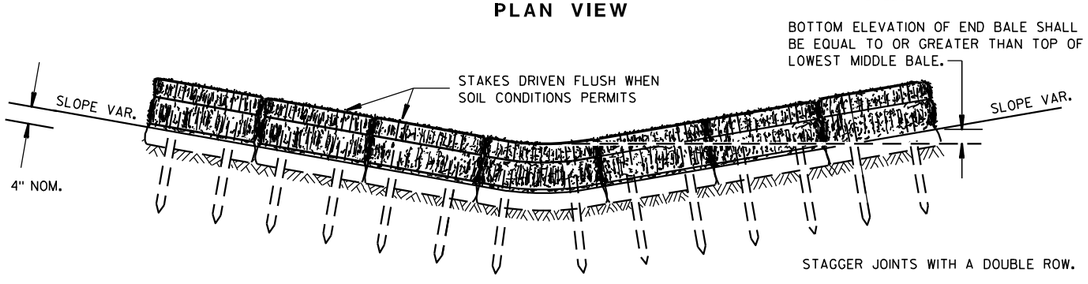
SDD 08D02 - 08c



SECTION A-A



PLAN VIEW



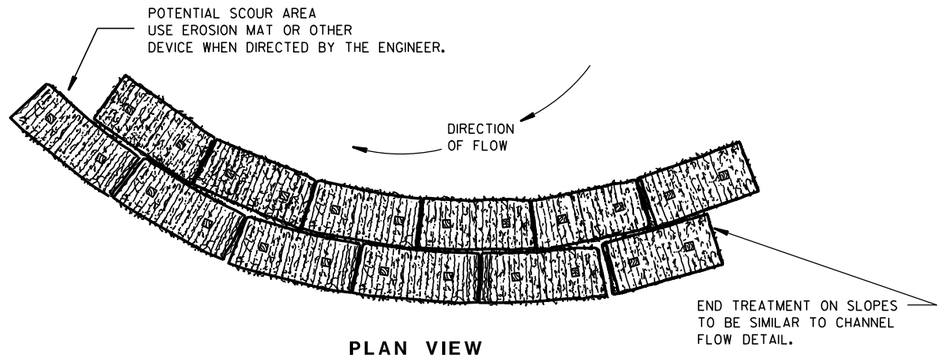
FRONT ELEVATION

TEMPORARY DITCH CHECK USING EROSION BALES (1)

GENERAL NOTES

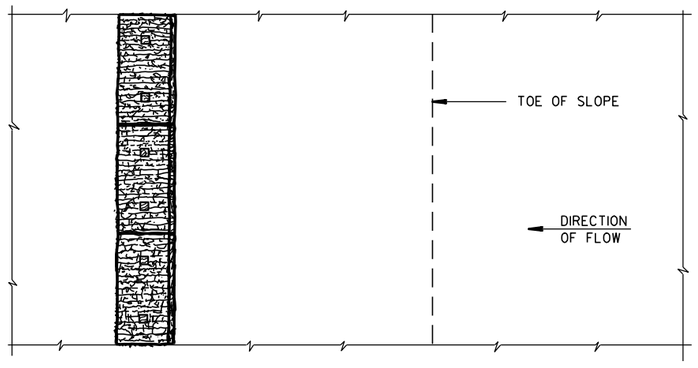
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

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

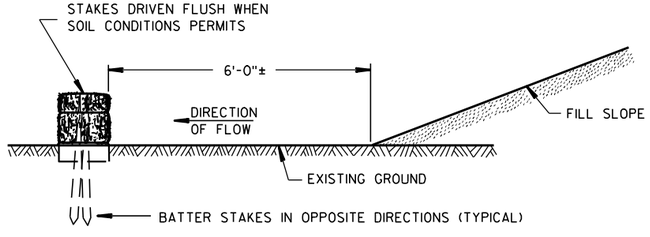


PLAN VIEW

WHEN ALTERING THE DIRECTION OF FLOW



PLAN VIEW



FRONT ELEVATION

WHEN EXISTING GROUND SLOPES AWAY FROM FILL SLOPE

EROSION BALES FOR SHEET FLOW

TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

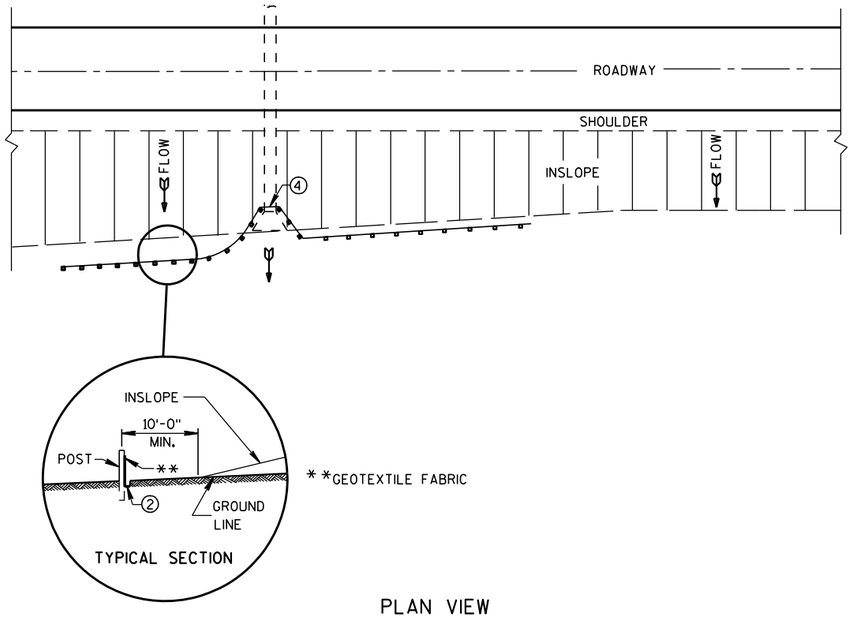
APPROVED
6/04/02 — DATE
/S/ Beth Cannestra — CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

6

S.D.D. 8 E 8-3

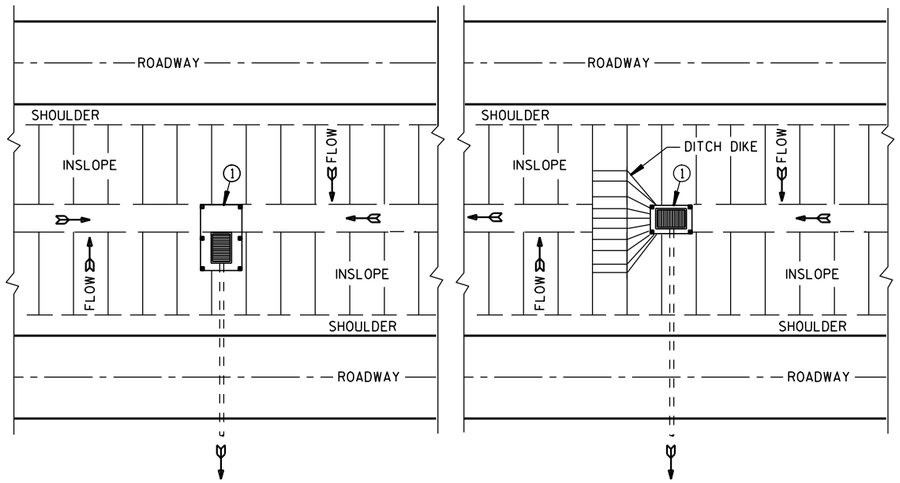
6

S.D.D. 8 E 8-3



PLAN VIEW

TYPICAL APPLICATION OF SILT FENCE



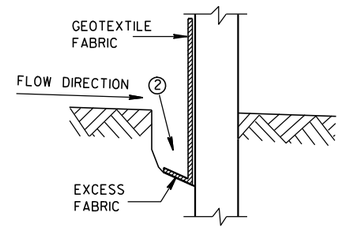
PLAN VIEW

SILT FENCE AT MEDIAN SURFACE DRAINS

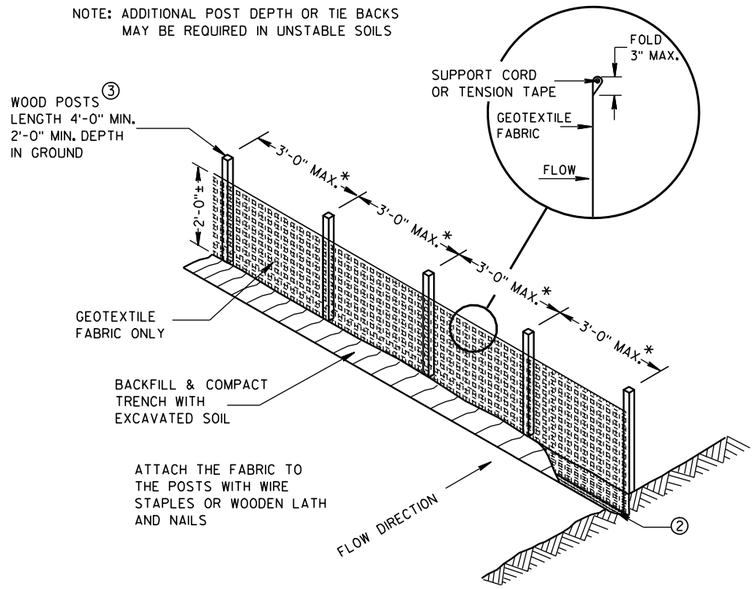
GENERAL NOTES

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

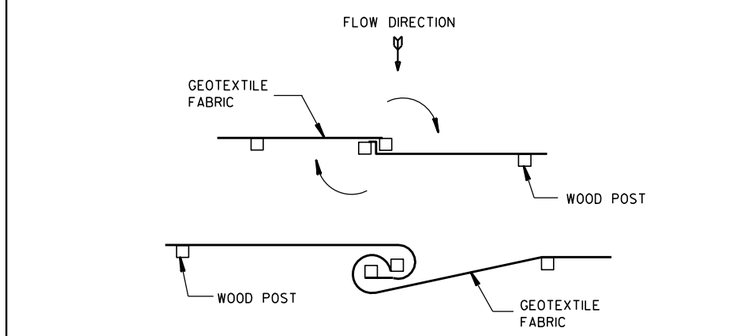
1. HORIZONTAL BRACE REQUIRED WITH 2" X 4" WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS.
2. FOR MANUAL INSTALLATIONS THE TRENCH SHALL BE A MINIMUM OF 4" WIDE & 6" DEEP TO BURY AND ANCHOR THE GEOTEXTILE FABRIC. FOLD MATERIAL TO FIT TRENCH AND BACKFILL & COMPACT TRENCH WITH EXCAVATED SOIL.
3. WOOD POSTS SHALL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



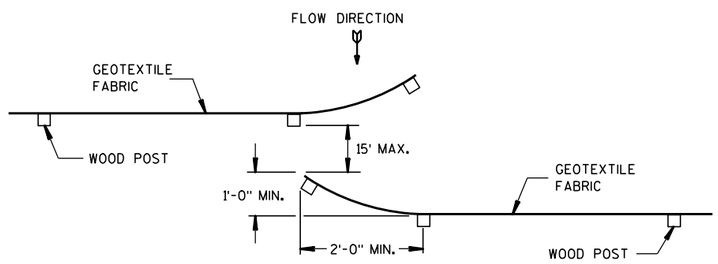
TRENCH DETAIL



SILT FENCE

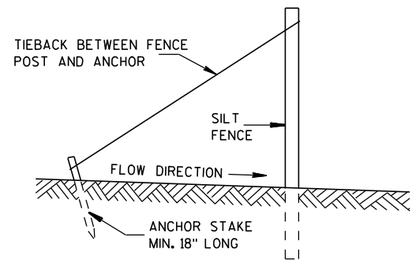


TWIST METHOD



HOOK METHOD

JOINING TWO LENGTHS OF SILT FENCE 5



SILT FENCE TIE BACK

(WHEN REQUIRED BY THE ENGINEER)

SILT FENCE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

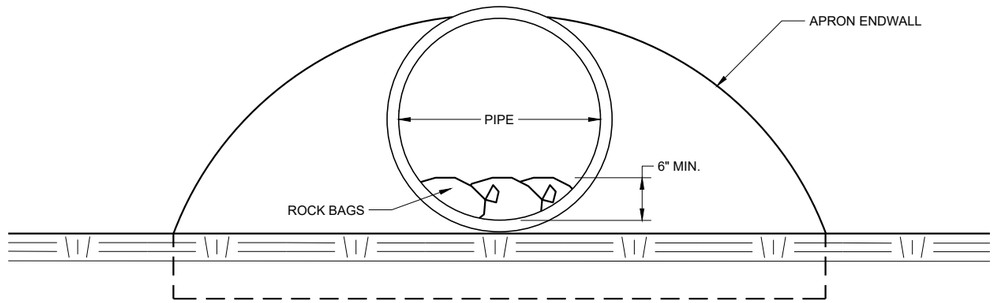
APPROVED
4-29-05 DATE
/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

6

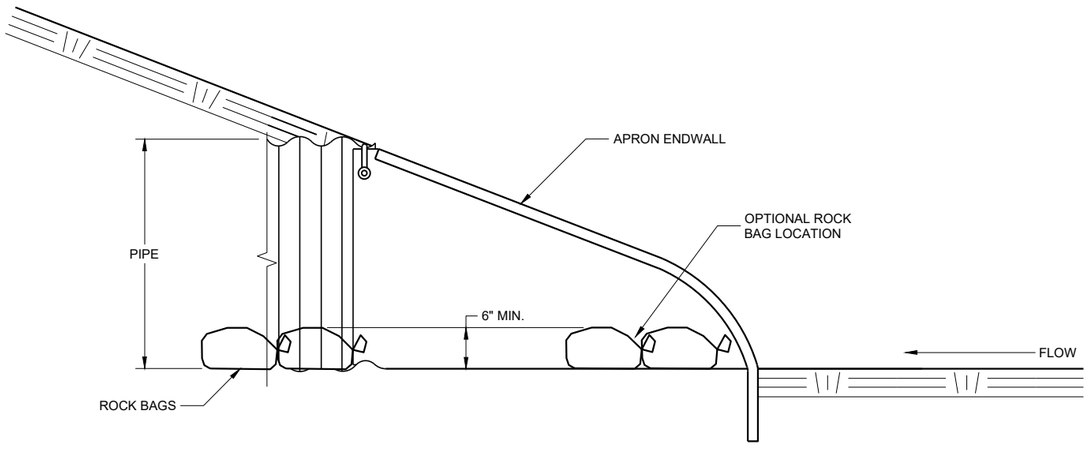
S.D.D. 8 E 9-6

6

S.D.D. 8 E 9-6



END VIEW



SIDE VIEW

CULVERT PIPE CHECK

(INSTALL ON INLET END ONLY)

CULVERT PIPE CHECK

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2019
DATE

/S/ Daniel Schave
EROSION CONTROL ENGI

FHWA

6

SDD 08E15 - 01

6

SDD 08E15 - 01

METAL APRON ENDWALLS

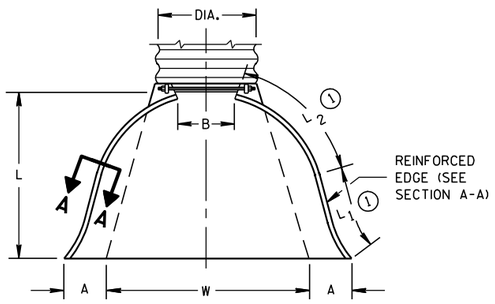
PIPE DIA. (IN.)	MIN. THICK. (Inches) STEEL	MIN. THICK. (Inches) ALUM.	DIMENSIONS (Inches) A (±1")	B (MAX.)	H (±1")	L (±1 1/2")	L1 ①	L2 ①	W (±2")	APPROX. SLOPE	BODY
12	.064	.060	6	6	6	21	12	17 1/2	24	2 1/2 to 1	1 Pc.
15	.064	.060	7	8	6	26	14	21 3/4	30	2 1/2 to 1	1 Pc.
18	.064	.060	8	10	6	31	15	28 1/4	36	2 1/2 to 1	1 Pc.
21	.064	.060	9	12	6	36	18	29 5/8	42	2 1/2 to 1	1 Pc.
24	.064	.075	10	13	6	41	18	37 1/4	48	2 1/2 to 1	1 Pc.
30	.079	.075	12	16	8	51	18	52 1/4	60	2 1/2 to 1	1 Pc.
36	.079	.105	14	19	9	60	24	59 3/4	72	2 1/2 to 1	2 Pc.
42	.109	.105	16	22	11	69	24	75 5/8	84	2 1/2 to 1	2 Pc.
48	.109	.105	18	27	12	78	24	81	90	2 1/4 to 1	3 Pc.
54	.109	.105	18	30	12	84	30	85 1/2	102	2 1/4 to 1	3 Pc.
60	.109×	.105×	18	33	12	87	—	—	114	2 to 1	3 Pc.
66	.109×	.105×	18	36	12	87	—	—	120	2 to 1	3 Pc.
72	.109×	.105×	18	39	12	87	—	—	126	2 to 1	3 Pc.
78	.109×	.105×	18	42	12	87	—	—	132	1 1/2 to 1	3 Pc.
84	.109×	.105×	18	45	12	87	—	—	138	1 1/2 to 1	3 Pc.
90	.109×	.105×	18	37	12	87	—	—	144	1 1/2 to 1	3 Pc.
96	.109×	.105×	18	35	12	87	—	—	150	1 1/2 to 1	3 Pc.

× EXCEPT CENTER PANEL SEE GENERAL NOTES

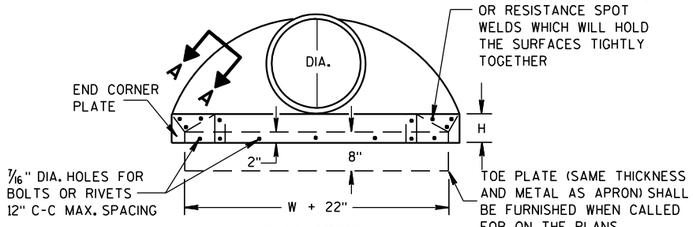
REINFORCED CONCRETE APRON ENDWALLS

PIPE DIA. (IN.)	DIMENSIONS (Inches) T	A	B	C	D	E	G	APPROX. SLOPE
12	2	4	24	48 7/8	72 1/8	24	2	3 to 1
15	2 1/4	6	27	46	73	30	2 1/4	3 to 1
18	2 1/2	9	27	46	73	36	2 1/2	3 to 1
21	2 3/4	9	36	37 1/2	73 1/2	42	2 3/4	3 to 1
24	3	9 1/2	43 1/2	30	73 1/2	48	3	3 to 1
27	3 1/4	10 1/2	49 1/2	24	73 1/2	54	3 1/4	3 to 1
30	3 1/2	12	54	19 3/4	73 1/2	60	3 1/2	3 to 1
36	4	15	63	34 3/4	97 3/4	72	4	3 to 1
42	4 1/2	21	63	35	98	78	4 1/2	3 to 1
48	5	24	72	26	98	84	5	3 to 1
54	5 1/2	27	65	* 33 1/4 - ** 35	* 98 1/4 - ** 100	90	5 1/2	2 2/5 to 1
60	6	* 30 - ** 35	60	39	99	96	5	2 to 1
66	6 1/2	* 24 - ** 30	* 72 - ** 78	* 21 - ** 27	99	102	5 1/2	2 to 1
72	7	* 24 - ** 36	78	21	99	108	6	2 to 1
78	7 1/2	* 24 - ** 36	78	21	99	114	6 1/2	2 to 1
84	8	36	90 1/2	21	111 1/2	120	6 1/2	1 1/2 to 1
90	8 1/2	41	87 1/2	24	111 1/2	132	6 1/2	1 1/2 to 1

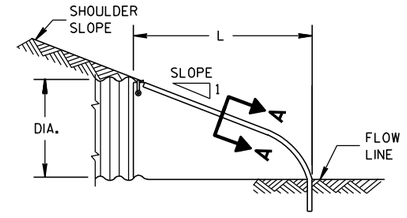
*MINIMUM
**MAXIMUM



PLAN VIEW

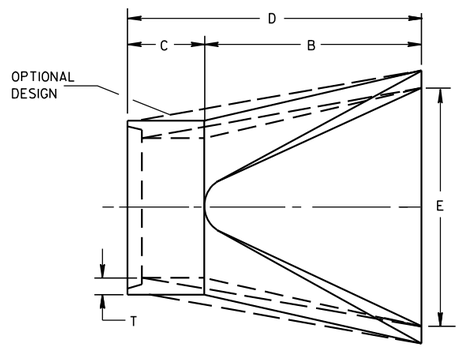


END VIEW

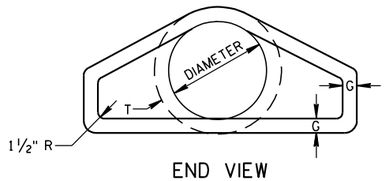


SIDE ELEVATION

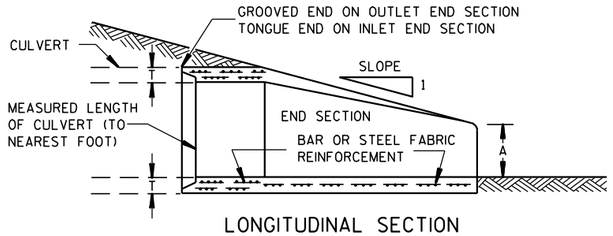
METAL ENDWALLS



PLAN

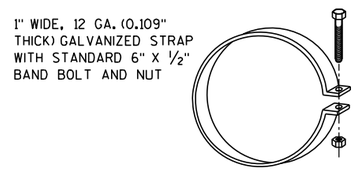


END VIEW



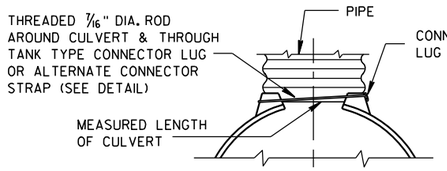
LONGITUDINAL SECTION

CONCRETE ENDWALLS

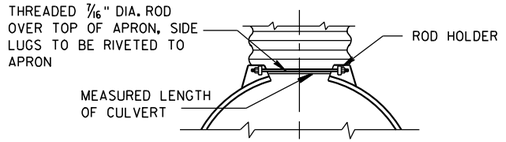


ALTERNATE FOR TYPE 1 CONNECTION

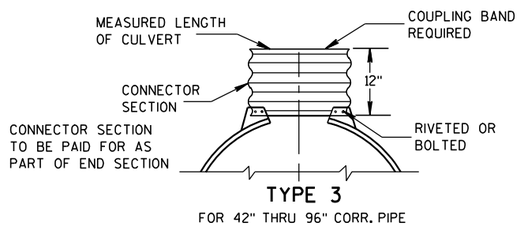
END SECTION CONNECTOR STRAP



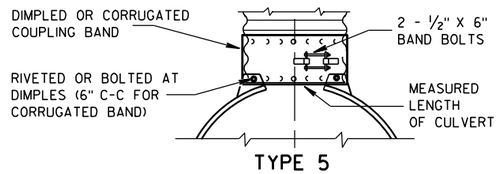
TYPE 1
FOR 12" THRU 24" CORR. PIPE



TYPE 2
FOR 30" THRU 96" CORR. PIPE



TYPE 3
FOR 42" THRU 96" CORR. PIPE



TYPE 5
ALTERNATE FOR:
ALL SIZES CORRUGATED CIRCULAR PIPE

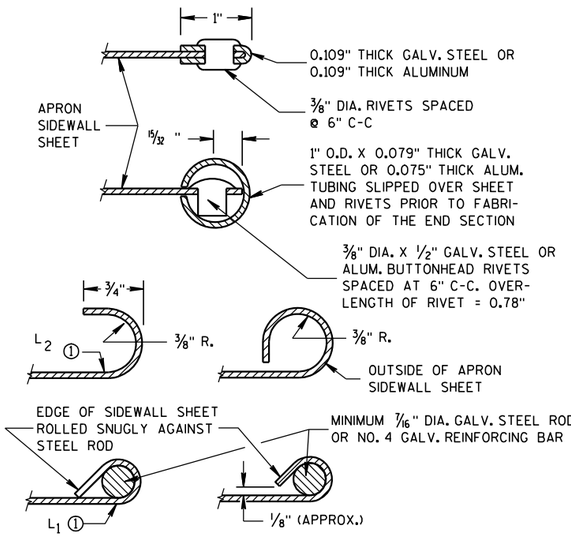
NOTE: DIMPLED BAND FITS OVER OUTSIDE OF ENDWALL. AND CORRUGATED BAND FITS INSIDE ENDWALL. DIMPLED BAND MAY BE USED WITH HELICALLY CORRUGATED PIPE.

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

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

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

CONNECTION DETAILS



SECTION A-A

GENERAL NOTES

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

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

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

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

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

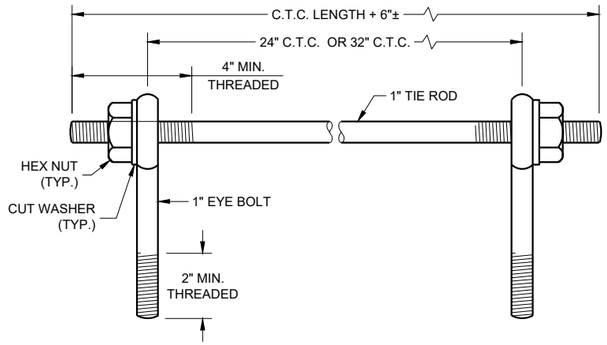
① FOR PIPE SIZES UP TO 60" DIAMETER, A 180° ROLLED EDGE MAY BE USED INSTEAD OF STEEL ROD REINFORCEMENT. SEE SECTION A-A.

APRON ENDWALLS FOR CULVERT PIPE

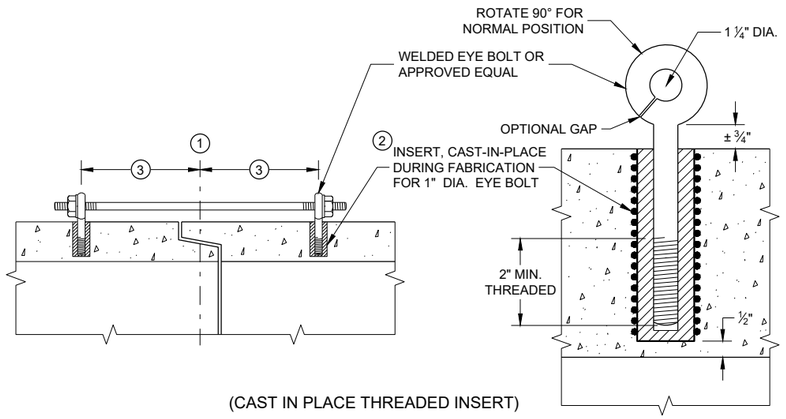
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

6
S.D.D. 8 F 1-11



EYE BOLTS AND TIE ROD



(CAST IN PLACE THREADED INSERT)

LONGITUDINAL SECTIONS

EYE BOLT AND TIE ROD ASSEMBLY (ALTERNATE NO. 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 APPLICABLE SPECIAL PROVISIONS.

CONCRETE CULVERT AND STORM SEWER PIPE SHALL BE TIED TOGETHER IN THE MANNER ILLUSTRATED BY THIS DETAIL AT LOCATIONS DESIGNATED IN THE STANDARD SPECIFICATIONS AND THE PLAN. THE CONTRACTOR MAY USE EITHER ALTERNATE 1, 2 OR 3 FOR DRAINAGE STRUCTURES. ONLY ALTERNATE 1 AND 3 MAY BE USED FOR CATTLE PASSES, UNLESS OTHERWISE STATED IN THE CONTRACT. THE MATERIALS, FABRICATION AND WORK NECESSARY TO TIE THE PIPE BY THIS DETAIL WILL BE CONSIDERED INCIDENTAL TO THE PIPE AND APRON ENDWALLS IF REQUIRED.

DETAILED DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR JOINT TIES SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL.

JOINT TIES TO BE HOT-DIP GALVANIZED PER ASTM A 153.

(1) CENTER LINE OF TONGUE AND GROOVE OR BELL AND SPIGOT JOINTS.

(2) THE INSIDE OF THE THREADED INSERTS SHALL BE CLEAN TO ALLOW THE INSERTION OF THREADED EYE BOLTS.

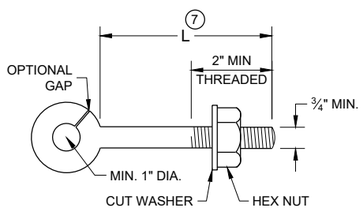
(3) HOLES SHALL BE CAST-IN-PLACE OR DRILLED PER THE APPLICABLE DETAIL, AND EQUAL DISTANCE FROM THE CENTERLINE OF THE JOINT.

(4) BOLT PROJECTION INSIDE OF PIPE SHALL NOT EXCEED 2 INCHES.

(5) OPENING TO BE ROD DIAMETER PLUS 1 INCH.

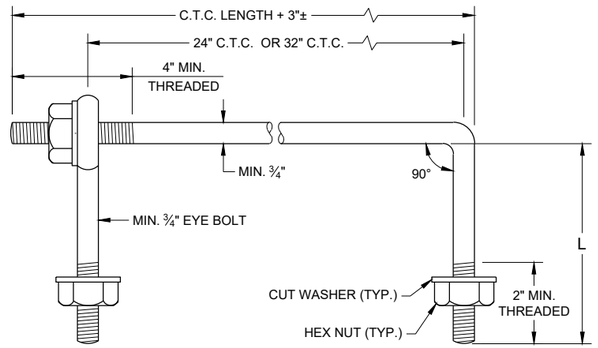
(6) LENGTH ADEQUATE TO EXTEND TO WITHIN ½ INCH OF THE INNER SURFACE OF THE PIPE.

(7) EYE BOLT LENGTH DETERMINED BY WALL THICKNESS, BELL THICKNESS AND BOLT PROJECTION INSIDE PIPE.

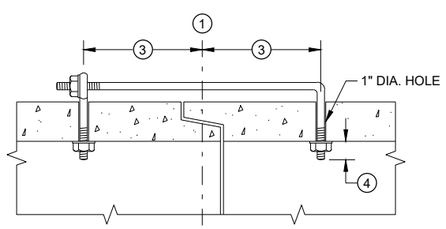


EYE BOLT (7)

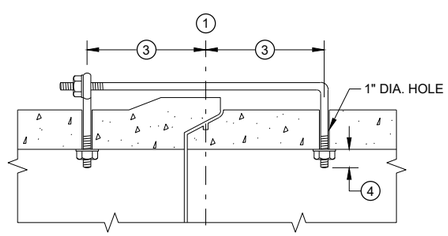
NOTE: TWO EYE BOLTS MAY BE USED WITH A 30" OR 38" LONG THREADED ROD IN LIEU OF THE 90° BENT TIE ROD.



EYE BOLT AND TIE ROD



(TONGUE AND GROOVE PIPE)



(MODIFIED BELL PIPE)

LONGITUDINAL SECTION

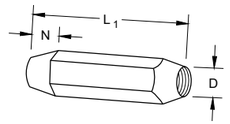
(JOINT TIES FOR 18" TO 66" DIA. CONCRETE PIPE)

EYE BOLT AND TIE ROD ASSEMBLY (ALTERNATE NO. 2)

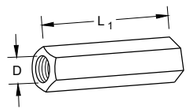
ADJUSTABLE TIE ROD TABLE

PIPE DIAMETER	TIE ROD DIAMETER	D	L_1	N
12 - 60	⅝	⅝	5	½
66 - 84	¾	¾	5	½
90 - 144	1	1	7	1 7/16

DIMENSIONS SHOWN ARE IN INCHES



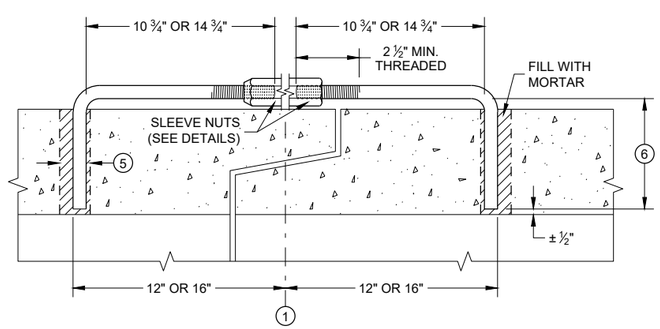
TAPERED



PLAIN

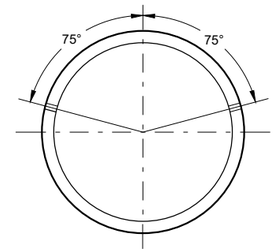
RIGHT AND LEFT THREADS

SLEEVE NUTS



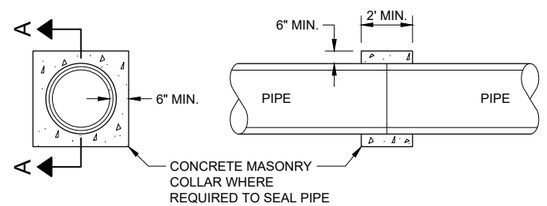
LONGITUDINAL SECTION

ADJUSTABLE TIE ROD (ALTERNATE NO. 3)



PLACEMENT OF (2) CAST-IN-PLACE INSERTS OR HOLES DURING FABRICATION FOR PIPE SECTIONS REQUIRING TIE RODS

TRANSVERSE SECTION



SECTION A - A

CONCRETE COLLAR DETAIL

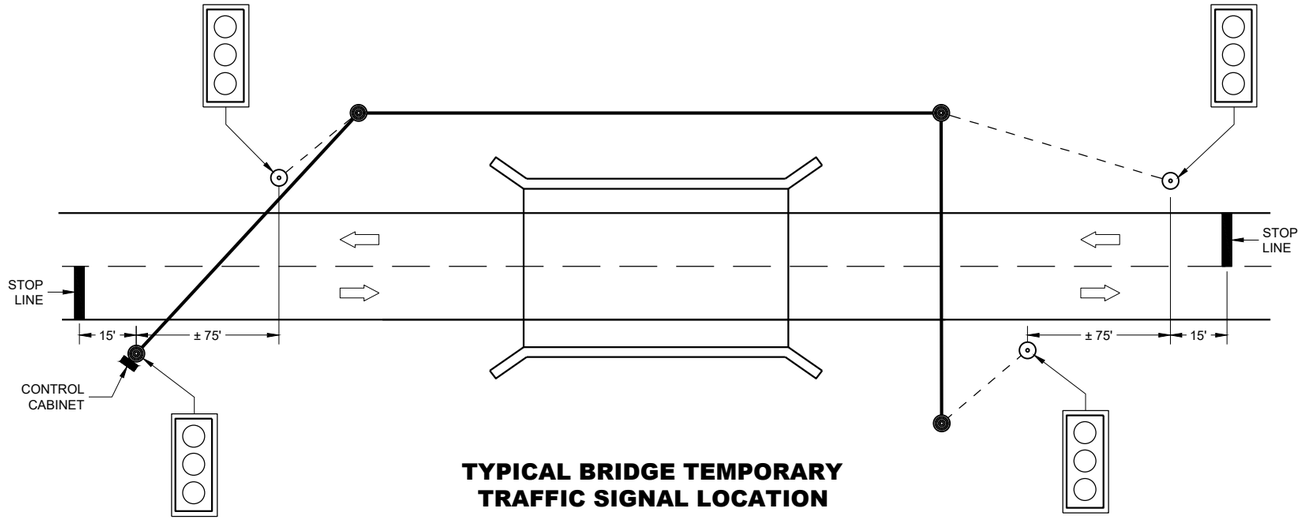
JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

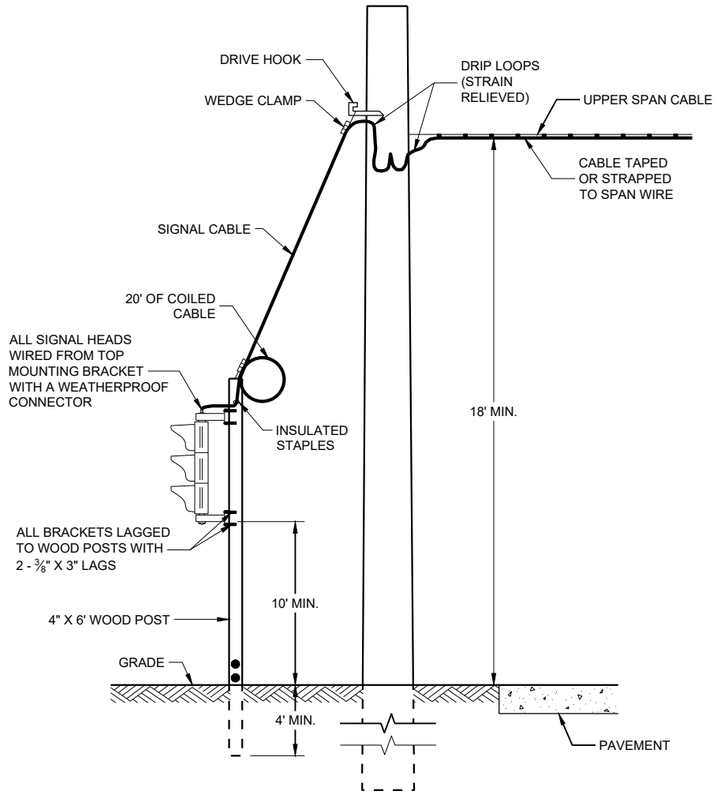
APPROVED
November 2021 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS DEVE ENGINEER
FHWA

SDD 08F04 - 08

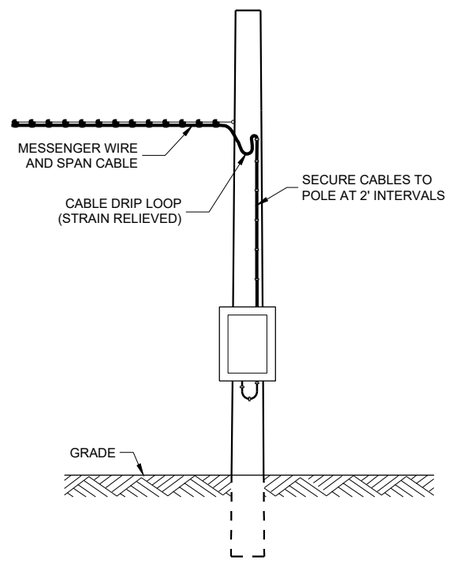
SDD 08F04 - 08



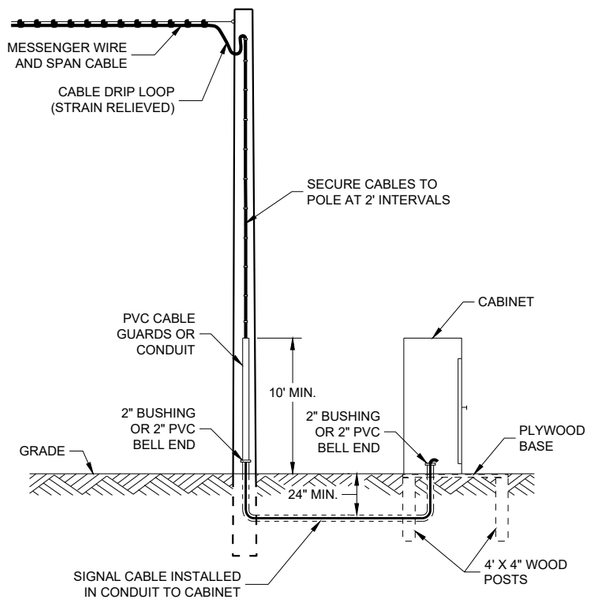
TYPICAL BRIDGE TEMPORARY TRAFFIC SIGNAL LOCATION



TYPICAL DROP TO TRAFFIC SIGNAL FACE



POLE MOUNT CABINET INSTALLATION



GROUND MOUNT CABINET INSTALLATION

LEGEND

- WOOD POLE (NON-BREAKAWAY)
- WOOD POST (BREADAWAY)
- SIGNAL CABLE
- SIGNAL CABLE W/MESSENGER
- DIRECTION OF TRAFFIC
- LED TRAFFIC SIGNAL WITH BACKPLATE (3-12")

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

POLE MOUNTED TRAFFIC SIGNAL CONTROL CABINET MAY BE MOUNTED ON THE SERVICE POLE IF THE ELECTRICAL UTILITY ALLOWS THE INSTALLATION.

WHEN UTILITY POLES ARE USED TO SPAN THE TEMPORARY OVERHEAD CABLE, WRITTEN PERMISSION MUST BE OBTAINED FROM THE OWNER OF THE POLES AND GIVEN TO THE PROJECT MANAGER. ALL PERTINENT UTILITY AND CODE CLEARANCES SHALL BE MAINTAINED.

WOOD POLES (NON-BREAKAWAY) SHALL BE NO CLOSER TO EDGE OF PAVEMENT THAN OFFSET DISTANCE CHART ALLOWS OR 4 FEET BEHIND PROTECTIVE BARRIER (BEAM GUARD, ETC.).

WOOD POSTS (BREAKAWAY) SHALL BE NO CLOSER THAN 2 FEET OUTSIDE OF SHOULDER.

VERTICAL CLEARANCE ETC. PER NEC.

TRAFFIC SIGNAL FACES SHALL BE TYPICALLY PLACED 12 FEET FROM EDGE OF PAVEMENT.

EACH TRAFFIC SIGNAL SHALL HAVE A BACKPLATE.

SIGNING, PAVEMENT MARKING AND LANE CONTROL REQUIREMENTS SHALL CONFORM TO STANDARD DETAIL DRAWING 15D33.

MINIMUM POLE LENGTHS	CLASS	POLE BURIAL DEPTHS
25'	V	5'
30'	V	6'
35'	IV	7'
40'	IV	8'
45'	IV	9'

OFFSET DISTANCES FOR TEMPORARY NON-BREAKAWAY POLES	
SPEED LIMIT	OFFSET DISTANCE*
GREATER THAN 45 MPH	18 FT
45 MPH OR LESS	12 FT
45 MPH OR LESS W/CURBS	2 FT

* NOTE: OFFSET MEASURED FROM OUTER EDGE OF OUTSIDE THRU LANE.

BRIDGE TEMPORARY TRAFFIC SIGNAL INSTALLATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
March 2018 — DATE
/S/ Ahmet Demirbilek — ROADWAY STANDARDS DEVE ENGINEER

FHWA

6

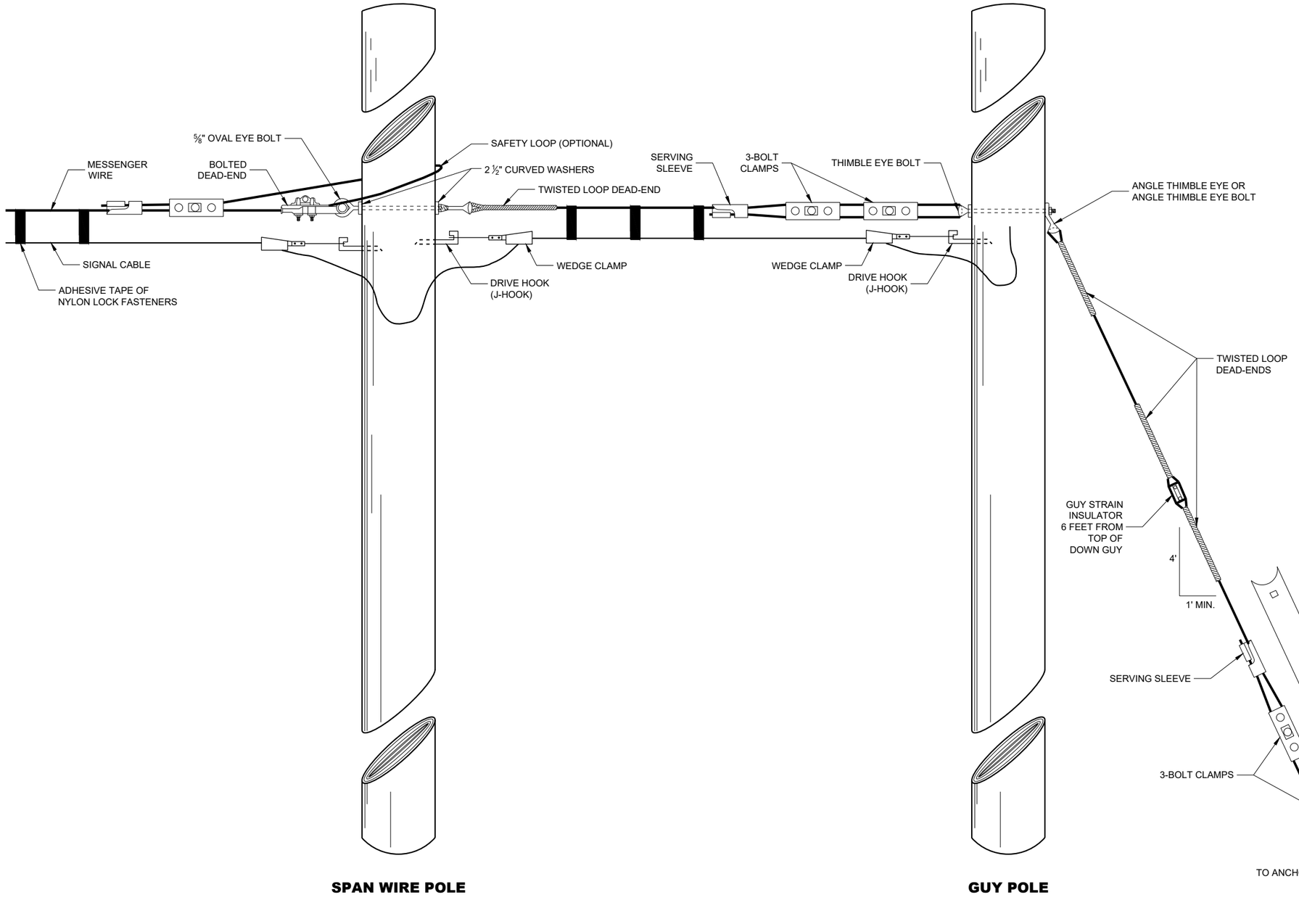
SDD09G02 - 05a

6

SDD09G02 - 05a

GENERAL NOTES

USE ¾" DRILL IN WOOD POLE TO PROVIDE FOR ⅝" BOLTS.



SPAN WIRE POLE

GUY POLE

TYPICAL DEAD-ENDINGS OR GUYING

BRIDGE TEMPORARY TRAFFIC SIGNAL INSTALLATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2015 — DATE
/S/ Ahmet Demerbilek — ROADWAY STANDARDS DEVE ENGINEER

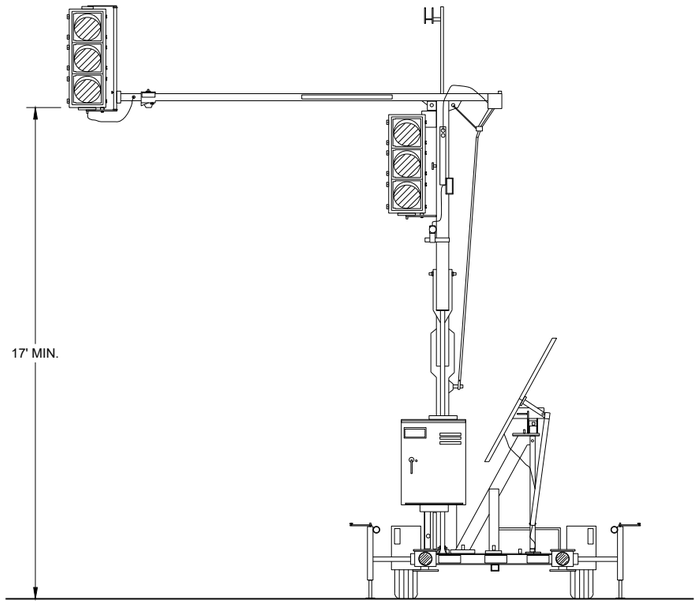
FHWA

6

SDD09G02 - 05b

6

SDD09G02 - 05b

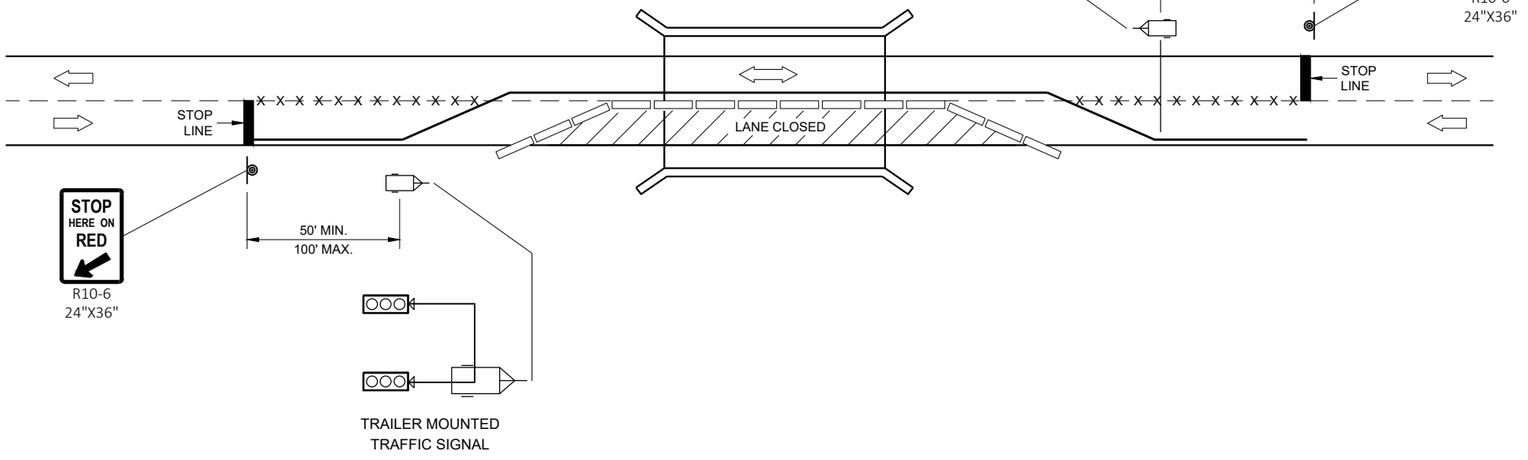


TRAILER MOUNTED TRAFFIC SIGNAL

GENERAL NOTES

DETAIL OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

SIGNING, PAVEMENT MARKING AND LANE CONTROL REQUIREMENTS SHALL CONFORM TO STANDARD DETAIL DRAWING 15D33.



TYPICAL TRAILER MOUNTED TRAFFIC SIGNAL LOCATION

LEGEND

- POST MOUNTED SIGN
- TEMPORARY PRECAST CONCRETE BARRIER
- TRAILER MOUNTED TRAFFIC SIGNAL
- REMOVE PAVEMENT MARKINGS
- DIRECTION OF TRAFFIC

BRIDGE TEMPORARY TRAFFIC SIGNAL INSTALLATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

June 2015
DATE

/S/ Ahmet Demerbilek
ROADWAY STANDARDS DEVE ENGINEER

FHWA

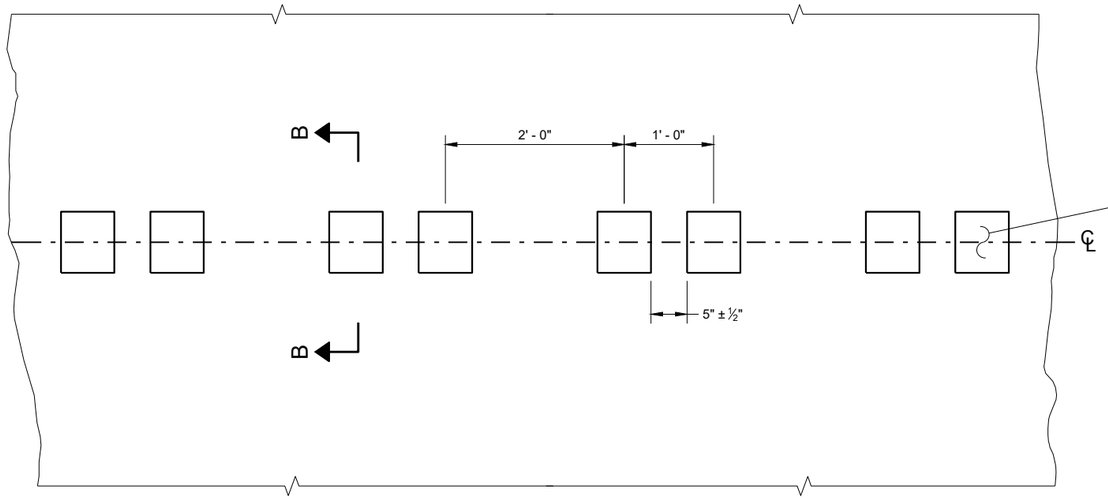
SDD09G02 - 05c

SDD09G02 - 05c

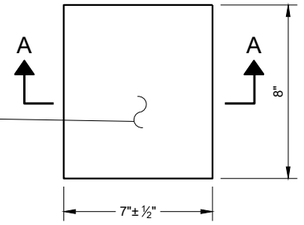
GENERAL NOTES

DO NOT MILL SHOULDER GROOVES THROUGH INTERSECTIONS, MARKED CROSSWALKS, NON-MOTORIZED PATH CROSSINGS, ETC. REFER TO SDD 13A11 SHEETS "d" AND "e".

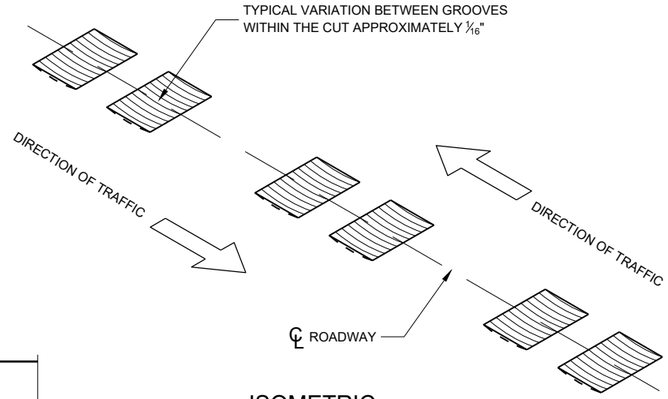
CENTERLINE GROOVES MAY BE OMITTED IN AREAS WITH HIGH CONCENTRATIONS OF DRIVEWAYS WHEN DIRECTED BY THE ENGINEER.



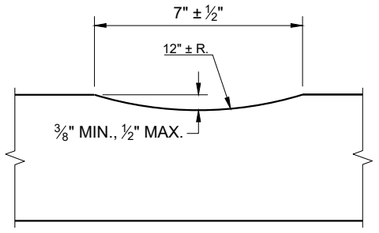
PLAN DETAIL VIEW



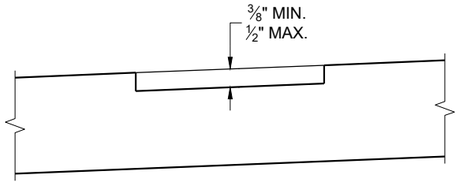
PLAN VIEW
(SINGLE GROOVE)



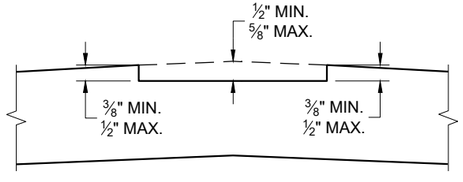
ISOMETRIC



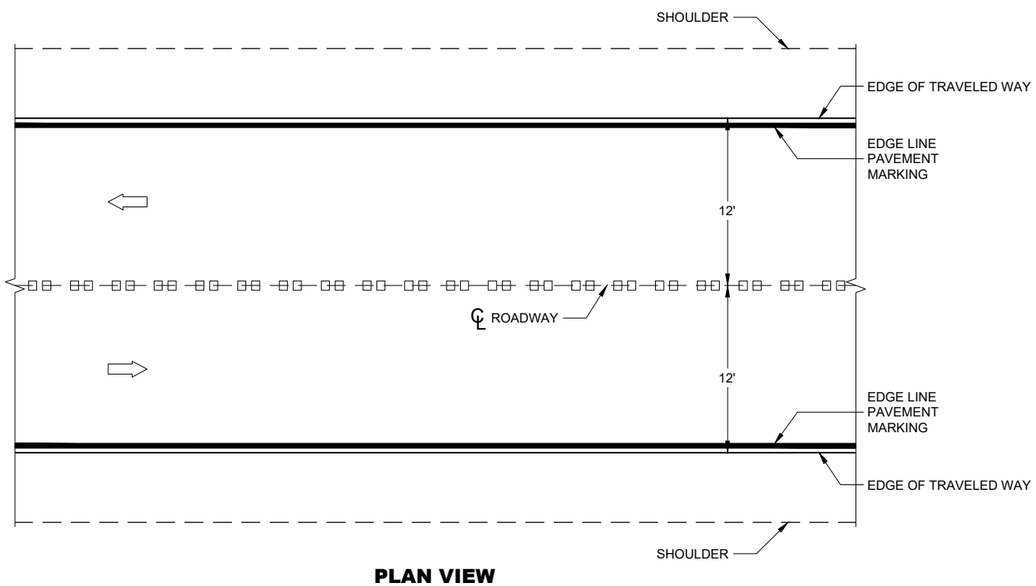
SECTION A - A



SECTION B - B
SUPERELEVATED ROADWAY



SECTION B - B
CROWNED ROADWAY



PLAN VIEW

CENTERLINE RUMBLE STRIPS - ASPHALT

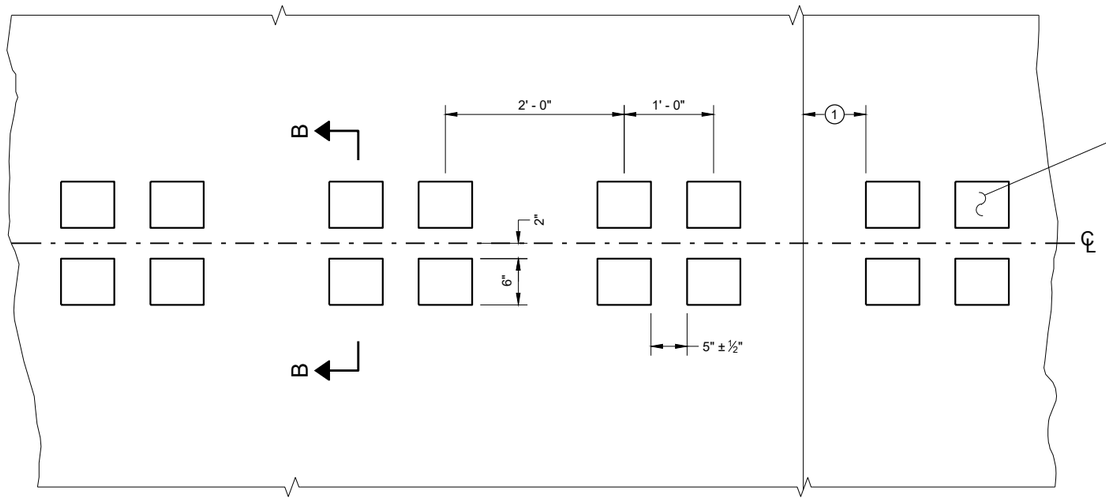
CENTERLINE RUMBLE STRIPS - ASPHALT	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTAT	48

6

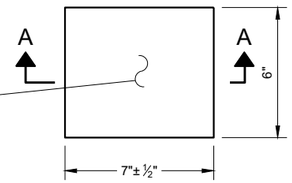
SDD 13A11 - 04a

6

SDD 13A11 - 04a



PLAN DETAIL VIEW



PLAN VIEW
(SINGLE GROOVE)

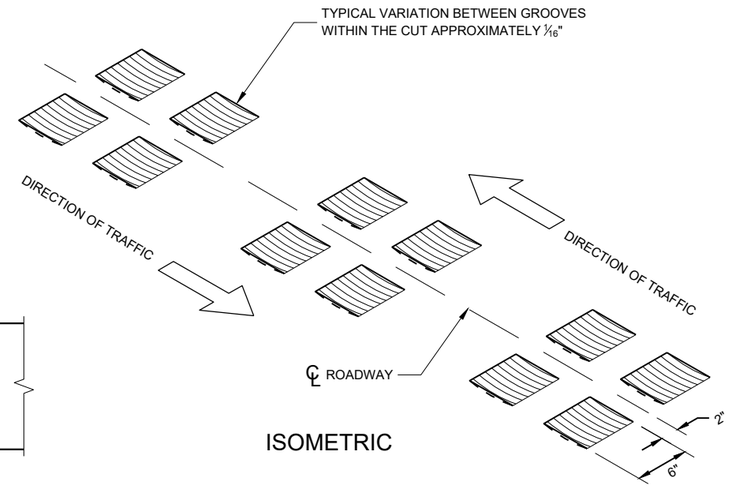
GENERAL NOTES

SDD 13A11, SHEET "d" SHOWS THE LOCATION OF RUMBLE STRIPS AT INTERSECTIONS, INTERSECTIONS WITH LEFT TURN LANES, BRIDGES, COMMERCIAL AND RESIDENTIAL DRIVEWAYS AND RAILROAD CROSSINGS.

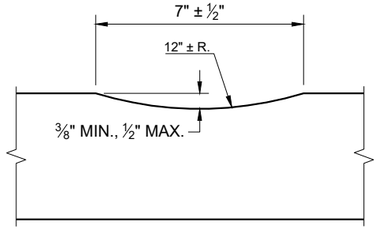
TEMPORARY PAVEMENT MARKINGS ARE TYPICALLY PLACED PRIOR TO RUMBLE STRIP INSTALLATION. PERMANENT MARKINGS ARE INSTALLED AFTER RUMBLE STRIP INSTALLATION.

CENTERLINE GROOVES MAY BE OMITTED IN AREAS WITH HIGH CONCENTRATIONS OF DRIVEWAYS WHEN DIRECTED BY THE ENGINEER.

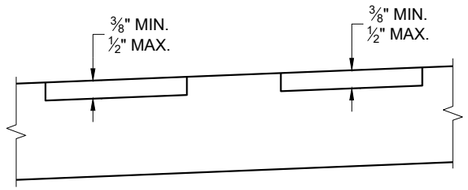
(1) CONCRETE PAVEMENT RUMBLE STRIPS SHALL BE A MINIMUM OF 6 INCHES FROM TRANSVERSE JOINTS.



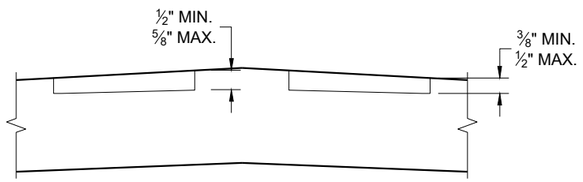
ISOMETRIC



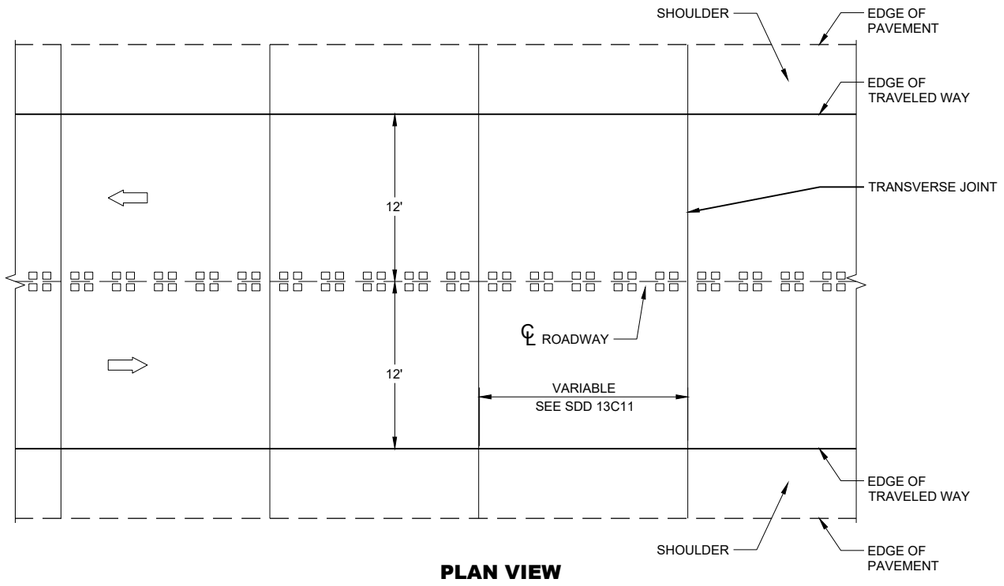
SECTION A - A



SECTION B - B
SUPERELEVATED ROADWAY



SECTION B - B
CROWNED ROADWAY



PLAN VIEW

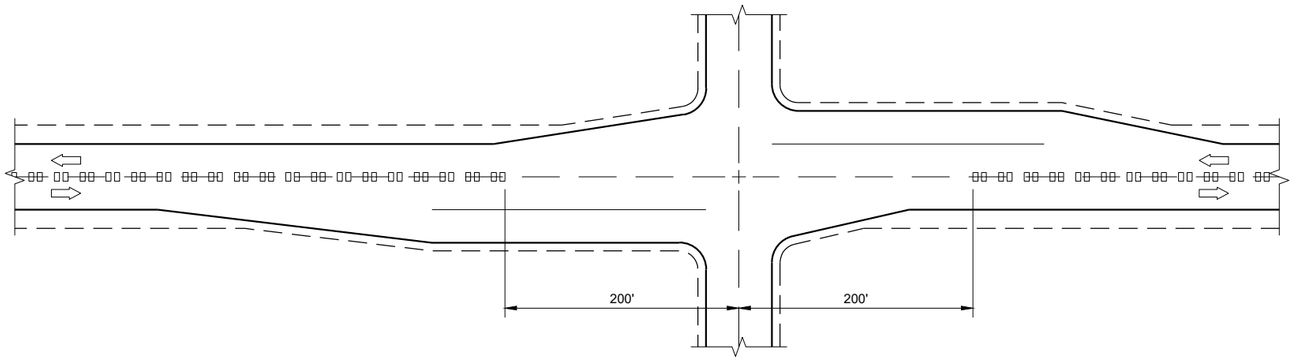
CENTERLINE RUMBLE STRIPS - CONCRETE

CENTERLINE RUMBLE STRIPS - CONCRETE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

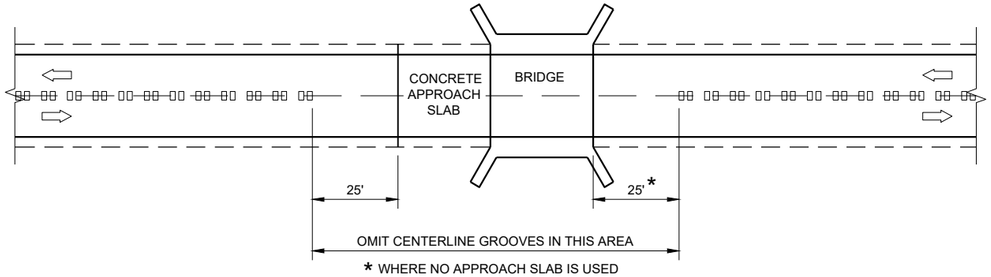
SDD 13A11 - 04b



CENTERLINE GROOVES AT INTERSECTIONS

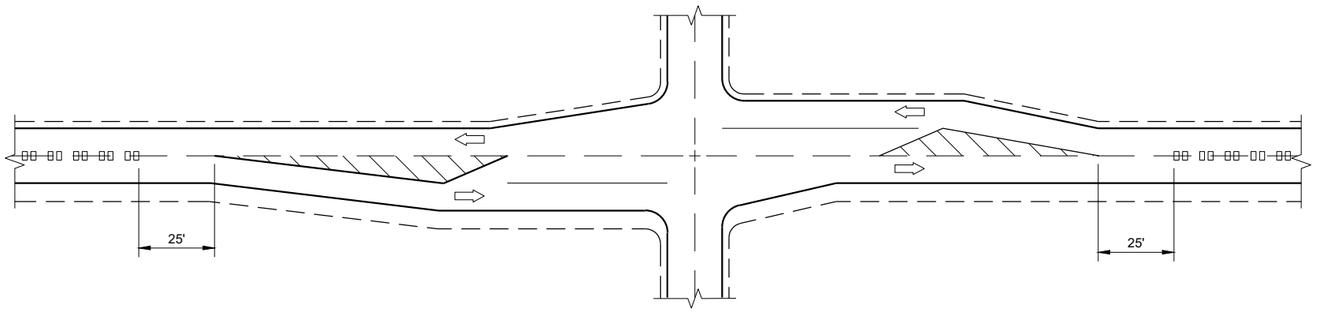
GENERAL NOTES

(1) CENTERLINE GROOVES MAY BE OMITTED IN AREAS WITH HIGH CONCENTRATIONS OF DRIVEWAYS WHEN DIRECTED BY THE ENGINEER.

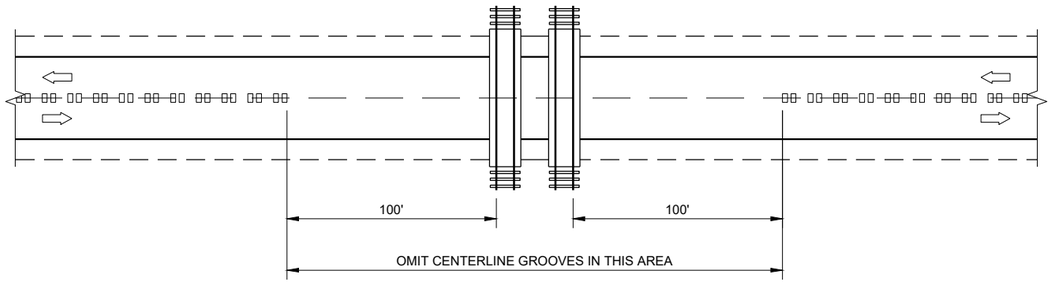


* WHERE NO APPROACH SLAB IS USED

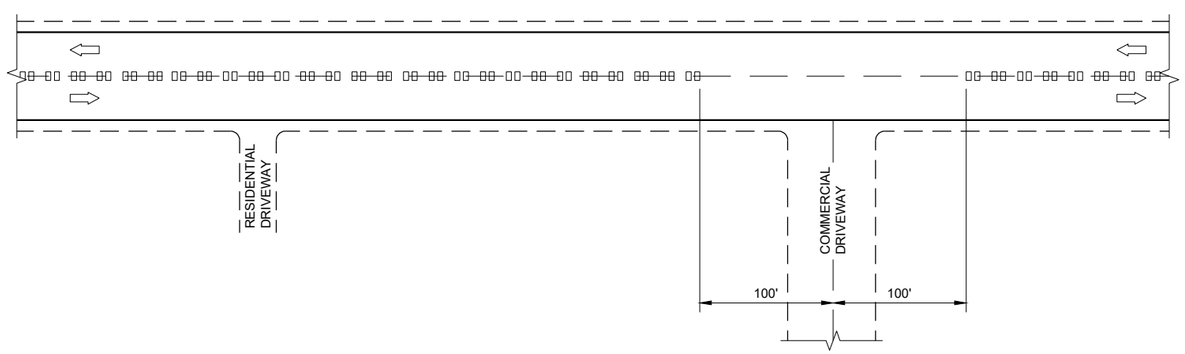
CENTERLINE GROOVES AT BRIDGES



CENTERLINE GROOVES AT INTERSECTIONS (WITH LEFT TURN LANES)



CENTERLINE GROOVES AT RAILROADS



CENTERLINE GROOVES AT DRIVEWAYS (1)

CENTER LINE RUMBLE STRIPS - INTERSECTIONS, DRIVEWAYS, BRIDGES, RAIL ROADS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

May 2023
DATE

/S/ John Jenkins
ROADWAY STANDARDS DEVE ENGINEER

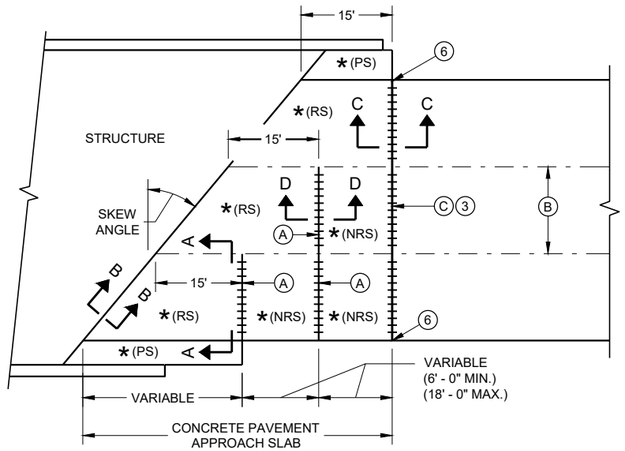
FHWA

6

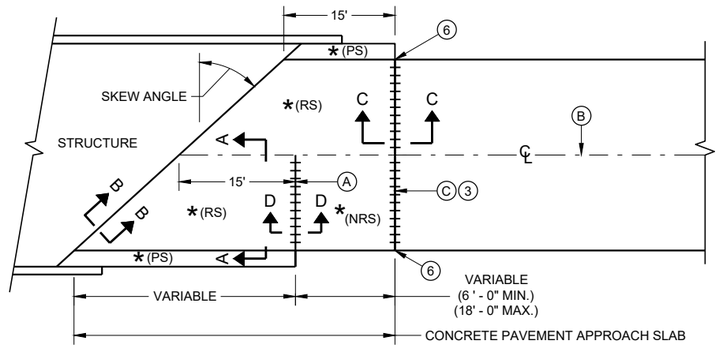
SDD 13A11 - 04d

6

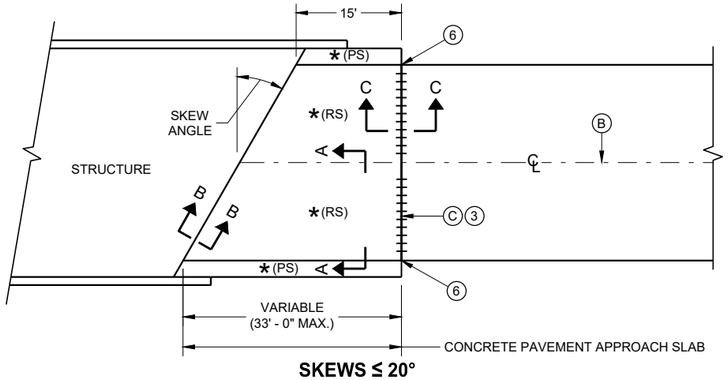
SDD 13A11 - 04d



SKEWED APPROACH
(PAVEMENT MORE THAN TWO LANES)



SKEWS > 20°
(PAVEMENT WIDTH ≤ 30')



SKEWS ≤ 20°
(PAVEMENT WIDTH ≤ 30')

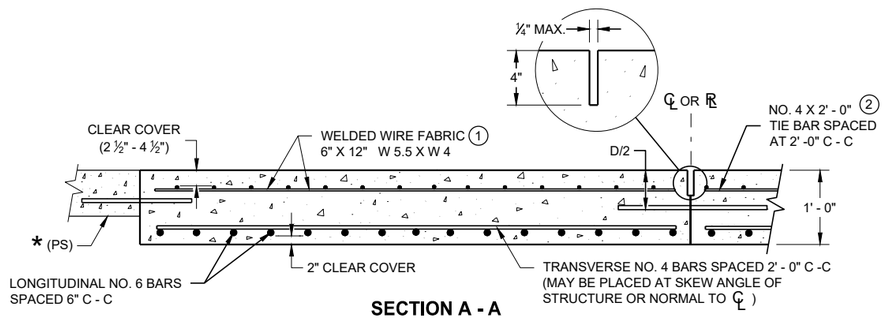
APPROACH SLAB AND ADJACENT PAVEMENT

* (RS) = REINFORCED CONCRETE SLAB

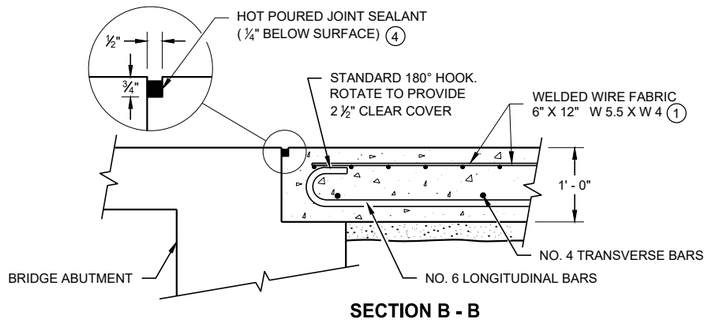
* (PS) = PAVED CONCRETE SHOULDER OR CONCRETE DRAINAGE SLAB

* (NRS) - NON - REINFORCED CONCRETE SLAB

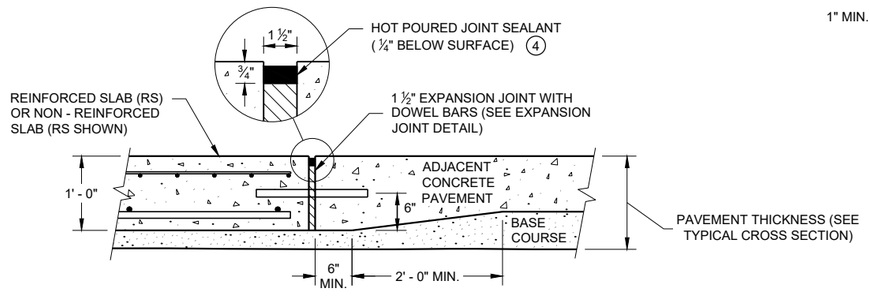
*** STANDARD DOWEL BAR DIAMETER (SEE SDD 13C11 AND SDD 13C13)



SECTION A - A
REINFORCEMENT POSITIONING DETAIL



SECTION B - B
BEND DETAIL
BOTTOM REINFORCEMENT



SECTION C - C
TRANSITION DETAIL
APPROACH SLAB TO ADJACENT PAVEMENT

GENERAL NOTES

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

TACK WELD DOWEL BARS TO THE BASKETS ON ALTERNATE ENDS.

(1) THE CONTRACTOR MAY USE NO. 4 BARS SPACED AT 2' - 0 " C - C IN BOTH THE LONGITUDINAL AND TRANSVERSE DIRECTIONS FOR TOP REINFORCEMENT AS AN ALTERNATIVE TO THE WELDED WIRE FABRIC.

(2) THE CONTRACTOR MAY OMIT THE BARS BETWEEN REINFORCED SLABS WHERE SLAB REINFORCEMENT BARS EXTEND ACROSS THE CENTERLINE OR REFERENCE LINE.

(3) DO NOT CONSTRUCT AN EXPANSION JOINT OR INSTALL DOWEL BARS WHEN ABUTTING AN HMA PAVEMENT.

(4) USE A JOINT SEALANT CONFORMING TO STANDARD SPECIFICATION 415.2.6.

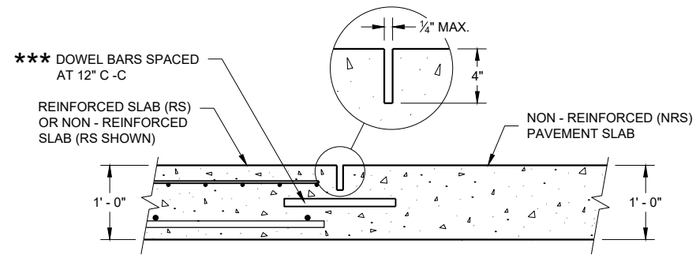
(5) PLACE EXPANSION CAP ON THE END OF THE DOWEL THAT IS NOT TACK WELDED TO THE BASKET. DO NOT FORCE DOWEL BAR PAST THE DOWEL STOP.

(6) EXTEND EXPANSION JOINT THROUGH ANY ADJACENT TIED CONCRETE.

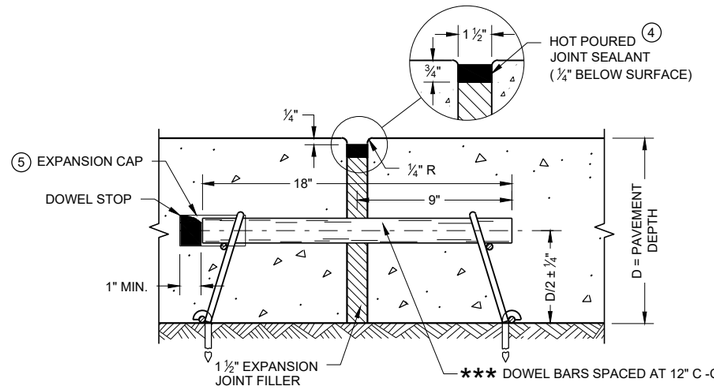
(A) STANDARD CONTRACTION JOINT NORMAL TO ℄ OR ℞.

(B) STANDARD LONGITUDINAL JOINT WITH TIE BARS.

(C) 1 ½" EXPANSION JOINT WITH DOWEL BARS NORMAL TO ℄ OR ℞ .



SECTION D - D
CONTRACTION JOINT



EXPANSION JOINT DETAIL

CONCRETE PAVEMENT APPROACH SLAB

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

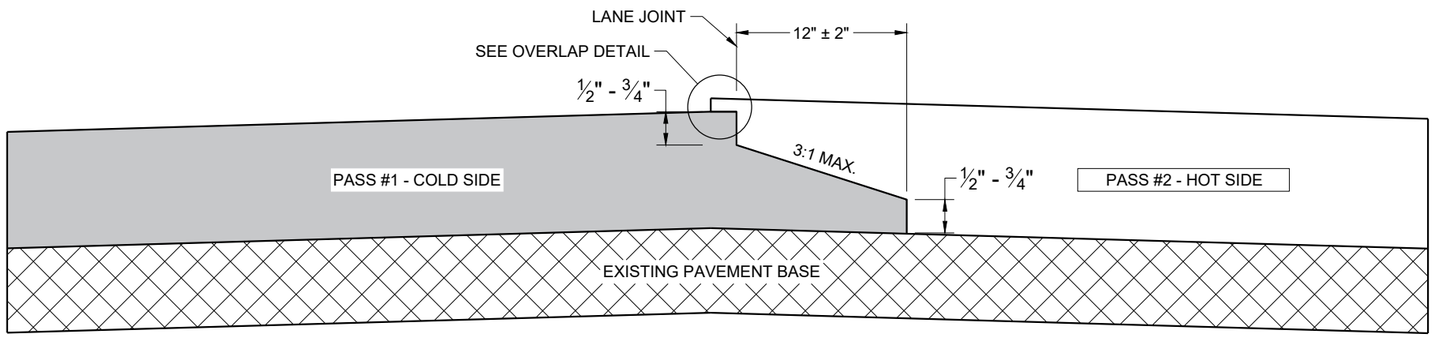
APPROVED
November 2018
DATE

/S/ Peter Kemp, P.E.
PAVEMENT SUPERVIS

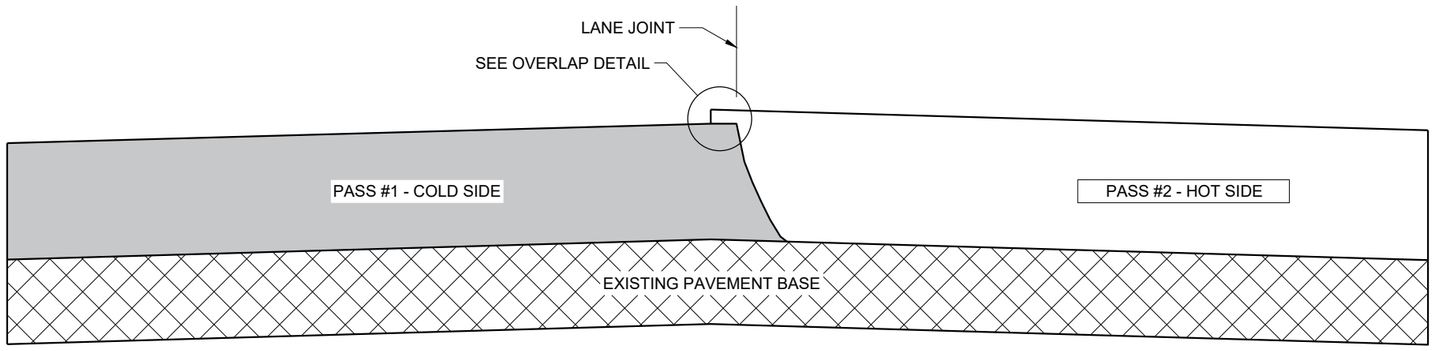
FHWA

6

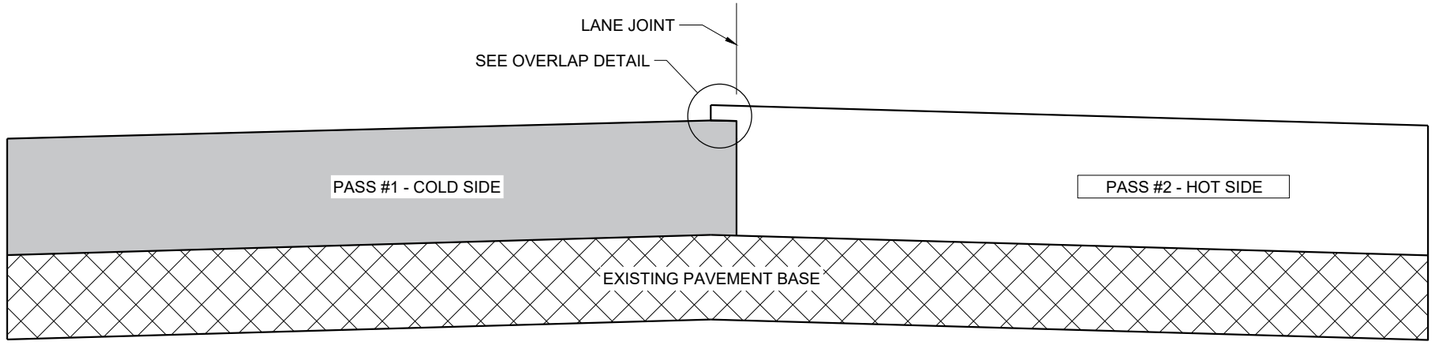
SDD 13B02 - 09a



TYPICAL PAVEMENT CROSS SECTION
NOTCHED WEDGE JOINT



TYPICAL PAVEMENT CROSS SECTION
VERTICAL JOINT



TYPICAL PAVEMENT CROSS SECTION
VERTICAL JOINT (MILLED)

GENERAL NOTES

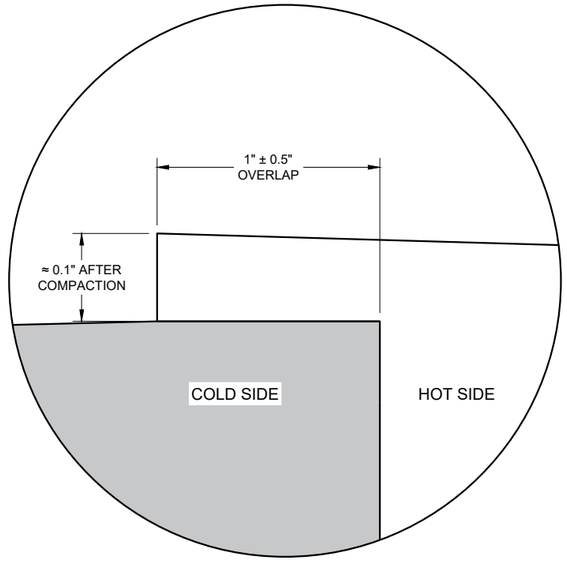
IN ADDITION TO THE DETAILS PROVIDED IN THIS DRAWING, CONFORM TO STANDARD SPECIFICATION 450.3.2.8 FOR WHEN A NOTCHED WEDGE JOINT IS REQUIRED AND FOR GENERAL JOINT CONSTRUCTION REQUIREMENTS.

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

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

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

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



OVERLAP DETAIL (TYPICAL)

6

6

SDD 13C19 - 03

SDD 13C19 - 03

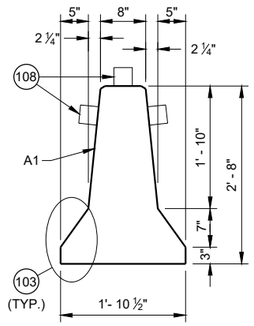
HMA LONGITUDINAL JOINTS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

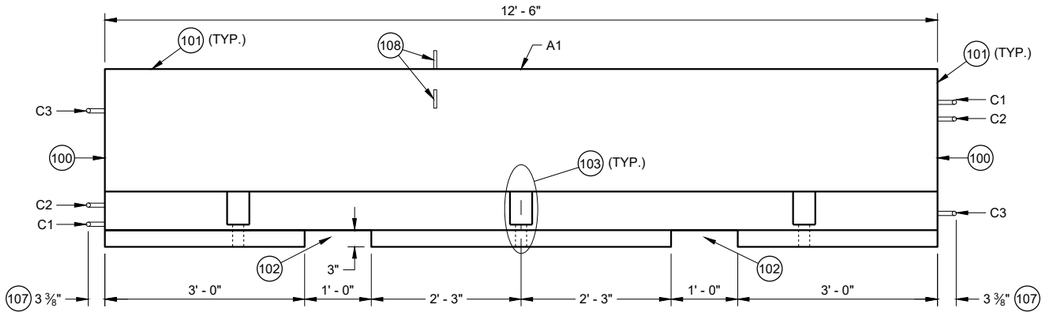
APPROVED
November 2020
DATE

/S/ Steven Hefel
HMA PAVEMENT ENGIN

FHWA



CROSS SECTION



PROFILE VIEW

GENERAL NOTES

PLACE BARRIER ON PAVED SURFACE. BEFORE PLACEMENT OF TEMPORARY BARRIER, REMOVE ALL LOOSE MATERIAL FROM PAVED SURFACE.

LOOP BARS C1, C2 AND C3 ARE NOT FOR PLACEMENT OR MOVEMENT OF BARRIER.

(100) PERMANENTLY FORM INTO ONE END OF BARRIER THE FOLLOWING INFORMATION:
- A. TYPE OF BARRIER: WI-CBTP
- B. MANUFACTURER
- C. DATE OF MANUFACTURE (MONTH AND YEAR)

(101) 1" OPTIONAL CHAMFER

(102) SEE LIFTING SLOT DETAIL

(103) SEE ANCHOR BLOCK DETAIL

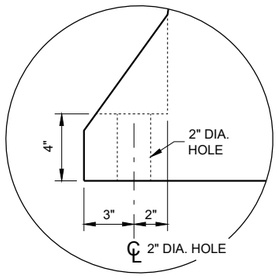
(104) 1 ¾" MIN. CLEAR COVER

(105) 2" MIN. CLEAR COVER

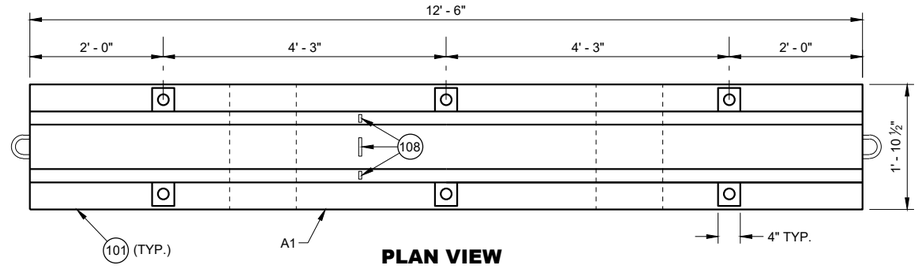
(106) 1" MIN. CLEAR COVER

(107) ± ⅛" MEASURED FROM FACE OF CONCRETE BARRIER TO OUTSIDE OF LOOP BAR (TYP.)

(108) USE DELINEATORS CONFORMING TO SECTION 633 OF THE STANDARD SPECIFICATIONS. CONTRACTOR MY USE ALTERNATE SHAPES AND HOUSING. INSTALL DELINEATORS ACCORDING TO MANUFACTURERS INSTRUCTION. INSTALL YELLOW REFLECTORS WHEN BARRIER IS LOCATED LEFT OF TRAFFIC AND WHITE WHEN BARRIER IS LOCATED RIGHT OF TRAFFIC. SPACE DELINEATORS A MAXIMUM OF 25 FEET APART, PROVIDE TO MOUNTED DELINEATORS IN ADDITION TO SIDE MOUNTED DELINEATORS ON BARRIER INSTALLATIONS LOCATED ON A CURVED ALIGNMENT LONGER THAT 200 FEET AND ON BARRIERS USED TO SEPARATE OPPOSING TRAFFIC.

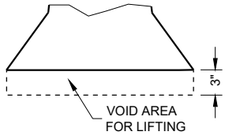


ANCHOR BLOCK DETAIL

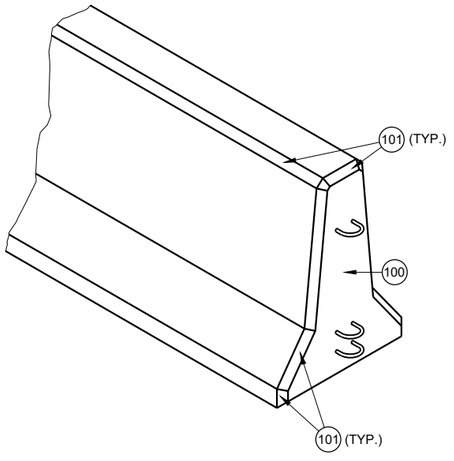


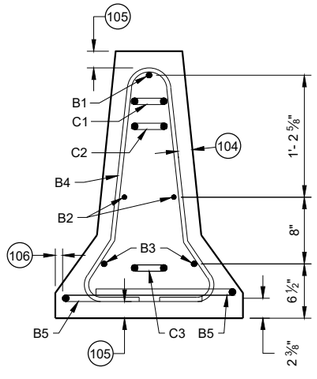
PLAN VIEW

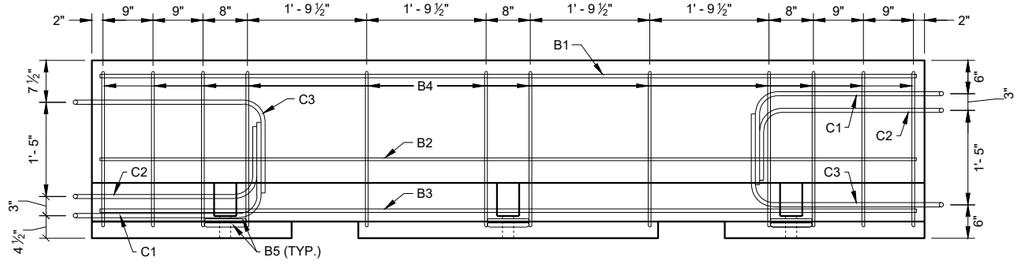
TEMPORARY BARRIER



LIFTING SLOT DETAIL (TYP.)







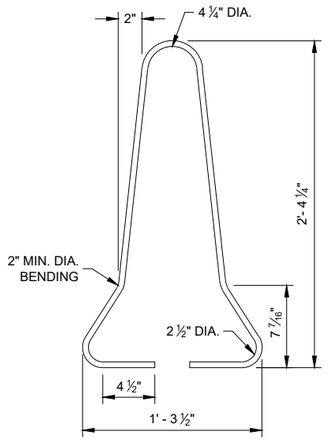
PROFILE VIEW

TEMPORARY BARRIER REINFORCEMENT

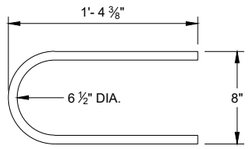
CONCRETE BARRIER TEMPORARY PRECAST, 12' - 6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

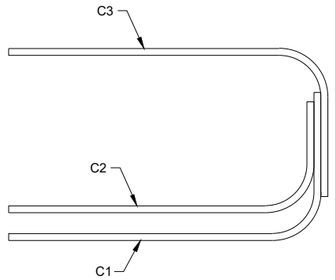
6
SDD 14B07-16a



B4 BAR DETAIL

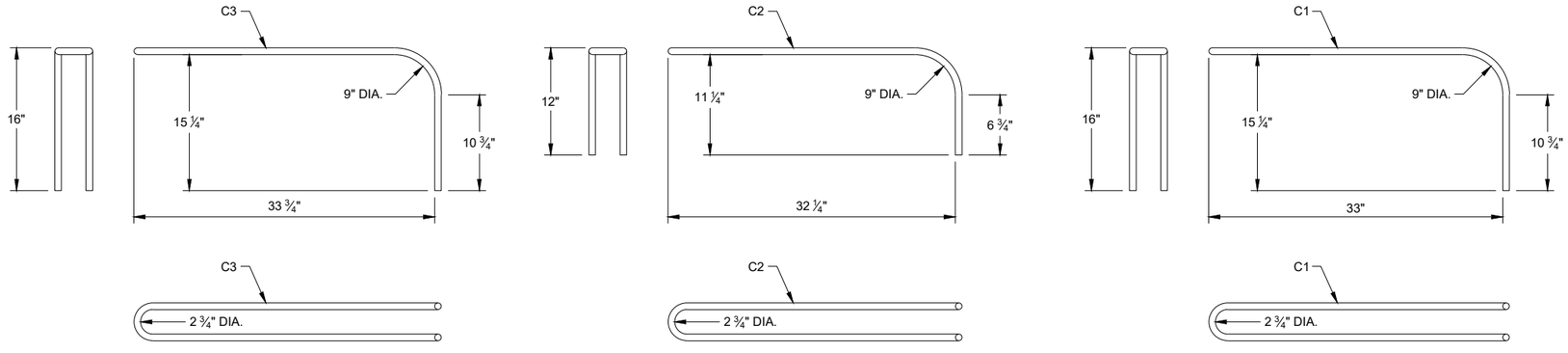


B5 BAR DETAIL



PROFILE VIEW

LOOP BAR ASSEMBLY



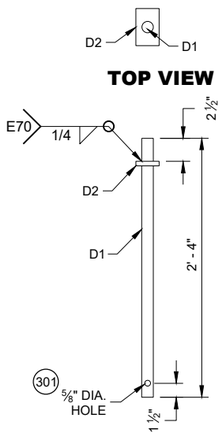
C BAR DETAILS

CONCRETE BARRIER TEMPORARY PRECAST, 12' - 6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

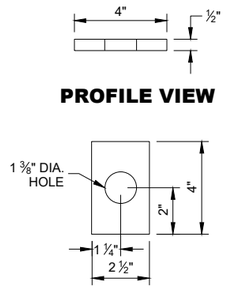
SDD 14B07-16b



TOP VIEW

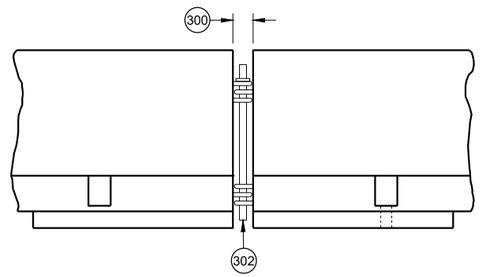
PROFILE VIEW

CONNECTOR PIN ASSEMBLY



PROFILE VIEW

TOP VIEW D2



CONNECTING TEMPORARY BARRIER SECTIONS

GENERAL NOTES

300 SET WITH 3 ⅝" WOOD BLOCK.

301 HOLE IS OPTIONAL.

302 CONNECTOR PIN ASSEMBLY.

303 CONCRETE PAVEMENT, APPROACH SLAB, OR DECK.

304 CONCRETE DECK.

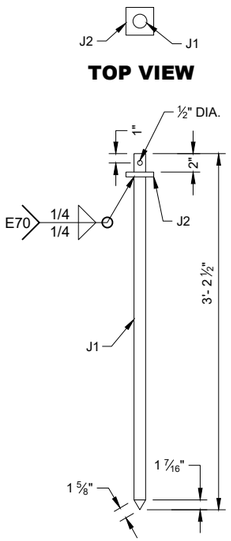
305 DO NOT USE ON CONCRETE BRIDGE DECK WITH ASPHALT OVERLAY OR CONCRETE PAVEMENT WITH ASPHALT OVERLAY.

306 MINIMUM OF 2" OF ASPHALT.

307 ASPHALT ANCHOR PIN ASSEMBLY

308 IF DRILLING A PILOT HOLE, THE MAX, DIA. OF THE HOLE IS 3/4"

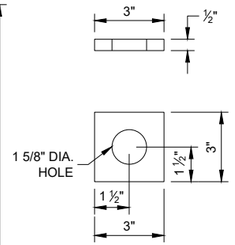
309 WHEN THERE IS ASPHALT OVERLAYING CONCRETE PAVEMENT, A 1 5/8" DIA. PILOT HOLE CAN BE DRILLED INTO THE OVERLAY AND CONCRETE. IF NEEDED DRILL A 3/4" PILOT HOLE IN BASE COURSE.



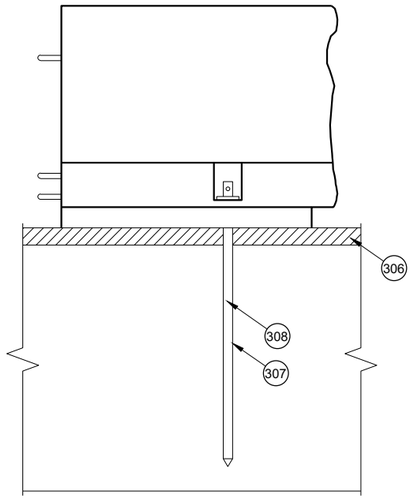
TOP VIEW

PROFILE VIEW

ASPHALT ANCHOR PIN ASSEMBLY

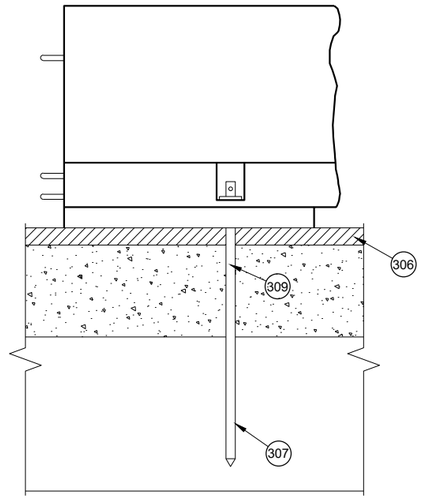


TOP VIEW J2



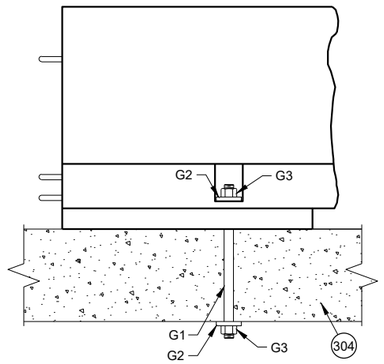
SIDE VIEW

ASPHALT ANCHOR INSTALLATION THROUGH ASPHALT PAVEMENT



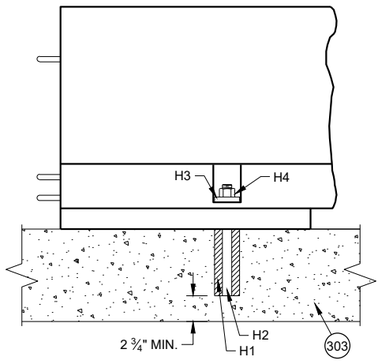
SIDE VIEW

ASPHALT ANCHOR INSTALLATION THROUGH ASPHALT OVERLAY ON TOP OF CONCRETE PAVEMENT



SIDE VIEW

THROUGH BOLT ANCHOR INSTALLATION (305)



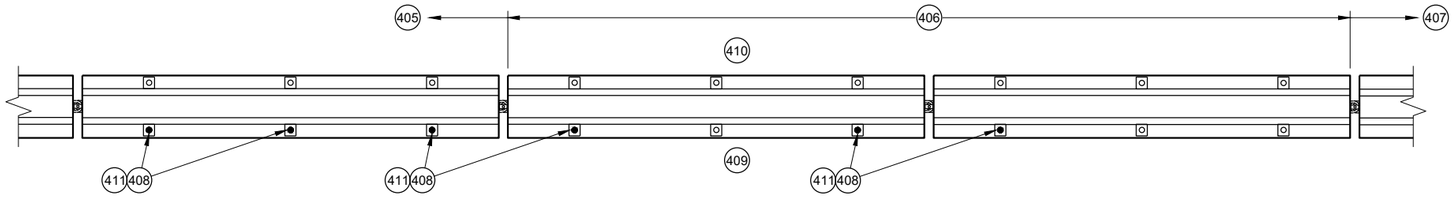
SIDE VIEW

ADHESIVE ANCHOR INSTALLATION (305)

CONCRETE BARRIER TEMPORARY PRECAST, 12' - 6"

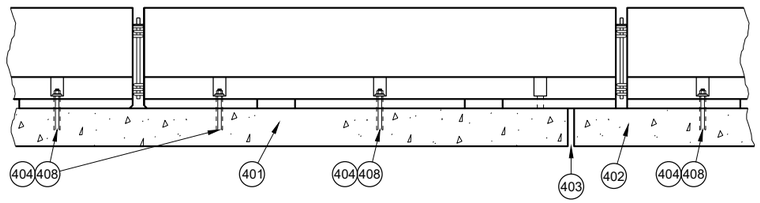
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6
SDD 14B07-16c



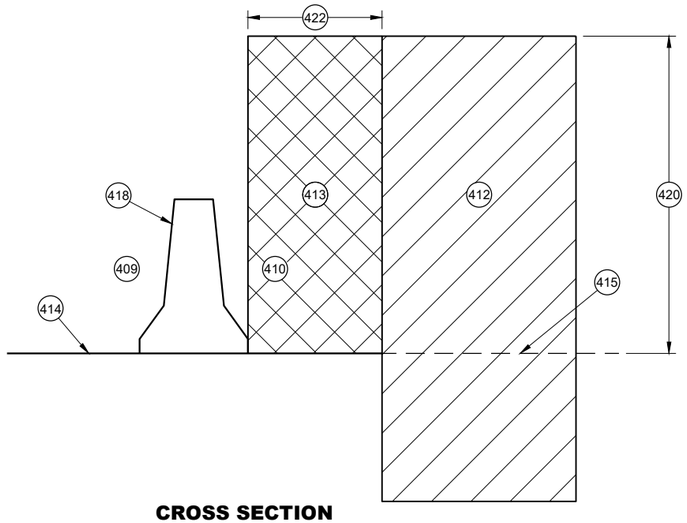
PLAN VIEW

TRANSITION FROM FREE STANDING TO ANCHORED BARRIER



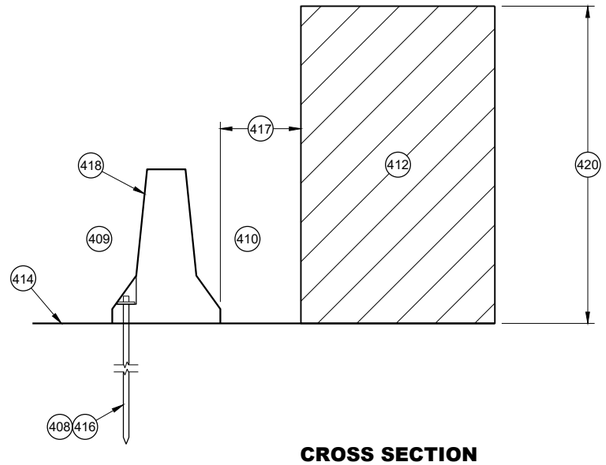
PROFILE VIEW

ANCHORED BARRIER NEAR EXPANSION JOINT (400)



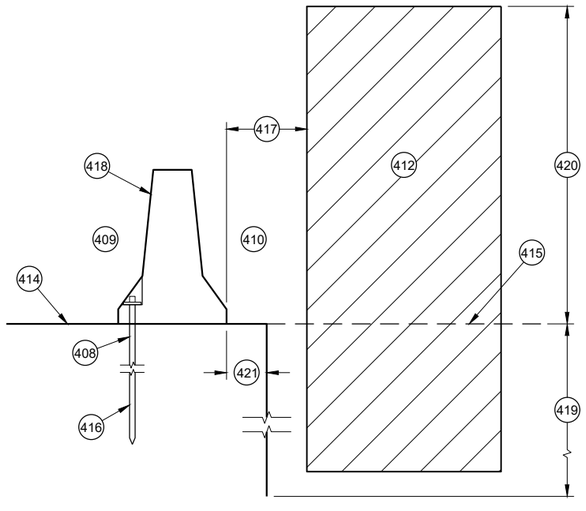
CROSS SECTION

FREE STANDING BARRIER



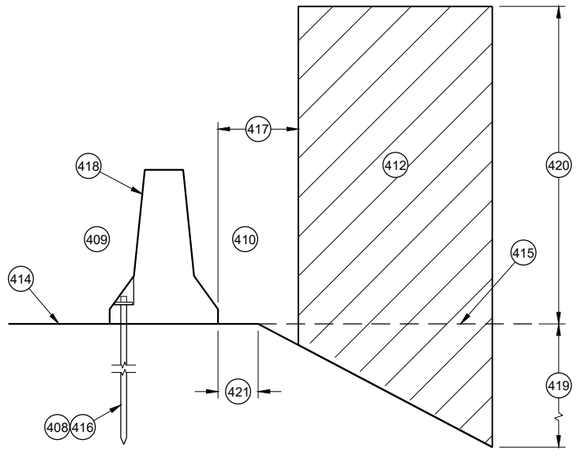
CROSS SECTION

ANCHORED BARRIER FOR OBJECTS ABOVE THE GRADE LINE AND NEAR THE BARRIER



CROSS SECTION

ANCHORED BARRIER NEAR VERTICAL DROP OFF



CROSS SECTION

ANCHORED BARRIER NEAR A SLOPE

GENERAL NOTES

(400) NO SINGLE CONCRETE BARRIER SECTION SHALL BE ANCHORED TO BOTH THE BRIDGE DECK AND THE APPROACH SLAB. ALL ANCHOR BOLT LOCATIONS SHALL BE ANCHORED TO THE DECK IN ACCORDANCE WITH THE DETAIL. NO MORE THAN ONE ANCHOR BOLT SHALL BE ELIMINATED FROM A BARRIER SECTION WHEN SPANNING AN EXPANSION JOINT.

(401) CONCRETE DECK

(402) CONCRETE DECK OR APPROACH SLAB.

(403) EXPANSION JOINT

(404) ADHESIVE ANCHOR SHOWN. SEE ANCHOR DETAILS.

(405) ANCHORED TEMPORARY BARRIER

(406) TRANSITION FROM ANCHORED TEMPORARY BARRIER TO FREE STANDING

(407) FREE STANDING BARRIER

(408) REMOVE ALL ANCHORS WHEN NO LONGER NEEDED. FILL CONCRETE PAVEMENTS, DECKS AND APPROACH SLABS WITH NON-SHRINK COMMERCIAL GROUT FROM THE APPROVED PRODUCT LIST. FILL ASPHALT PAVEMENTS WITH ASTM D6690 TYPE II RUBBERIZED CRACK FILLER.

(409) TRAFFIC SIDE

(410) NON-TRAFFIC SIDE

(411) ANCHOR LOCATION. SEE ANCHORING DETAILS.

(412) WORK AREA

(413) AREA FREE OF OBJECTS AND WORKERS

(414) GRADE LINE

(415) EXTENDED GRADE LINE

(416) ANCHORED TEMPORARY BARRIER. SEE BOLT THROUGH DECK, REMOVABLE ADHESIVE ANCHOR, OR AN ASPHALT ANCHOR ROD DETAILS FOR MORE INFORMATION. ASPHALT ANCHOR ROD SHOWN.

(417) WHEN OBJECTS EXTEND ABOVE THE GRADE. A MINIMUM OF 1 FOOT IS REQUIRED FROM BACK OF BARRIER TO OBJECT.

(418) OBJECTS ARE NOT TO BE PLACED ON, MOUNTED TO, OR ALLOWED TO LEAN AGAINST THE BARRIER WITHOUT WRITTEN PERMISSION OF THE PROJECT ENGINEER.

(419) DEPTHS OF 3 FEET OR MORE.

(420) Y = 6.5'

(421) OFFSET FROM BACK OF BARRIER EDGE:

CONCRETE PAVEMENT	0.5'
ASPHALT	0.5'

(422) POSTED SPEED (MPH):

45 OR GREATER	4.0'
40 OR LOWER	2.0'

CONCRETE BARRIER TEMPORARY PRECAST, 12' - 6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 14B07-16d

GENERAL NOTES

(500) EXISTING RIGID BARRIERS (VARIES)

(501) TEMPORARY BARRIER

(502) SEE OTHER DETAIL ON HOW TO ANCHOR TEMPORARY BARRIER (BARRIER ASPHALT ANCHOR SHOWN).

(503) ANCHORS ARE REQUIRED ON BOTH SIDE OF THE TEMPORARY BARRIER.

(504) NESTED RAILS ARE REQUIRED ON BOTH SIDES OF THE TEMPORARY BARRIER FOR ALL INSTALLATIONS.

(505) TRAFFIC TRAVELS FROM PERMANENT BARRIER TO TEMPORARY BARRIER.

(506) TRAFFIC TRAVELS FROM TEMPORARY BARRIER TO PERMANENT BARRIER.

(507) VERTICAL BARRIER

(508) SAFETY SHAPE BARRIER

(509) SINGLE SLOPE BARRIER

(510) CAP END PLATE PLACED FLUSH WITH UPSTREAM END OF RIGID BARRIER.

(511) BENT THRIE BEAM TO FIT.

(512) THRIE BEAM PIECES ARE OFFSET 15 ¼" TO PREVENT INTERFERENCE FROM THE ANCHORS ON OPPOSING SIDES.

(513) TWO (2) P1, P2 AND P3 ARE REQUIRED

(514) FIVE (5) N1, N2 AND N3 ARE REQUIRED

(515) TWO (2) R1, R2 AND R3 ARE REQUIRED

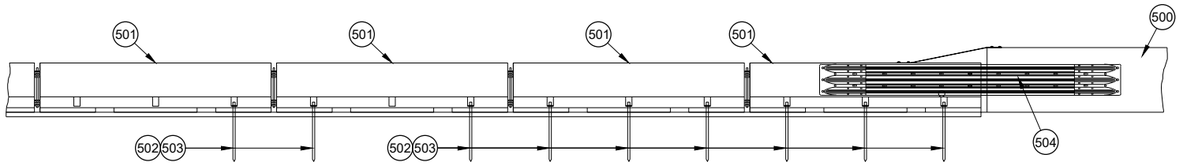
(516) CUT WOOD BLOCK TO FIT.

(517) SEE THRIE BEAM RAIL TERMINAL CONNECTOR DETAIL ASSEMBLY.

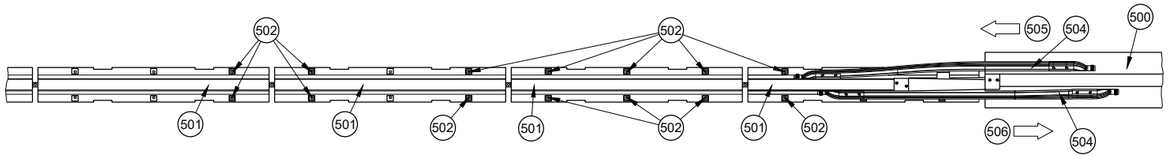
(518) CAP ASSEMBLY

(519) 4" MAX. GAP BETWEEN TEMPORARY BARRIER AND RIGID BARRIER.

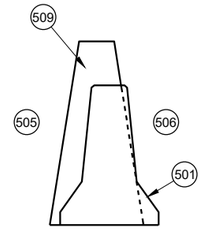
(520) ALL TWELVE SPLICE HOLES REQUIRE M1 AND M2



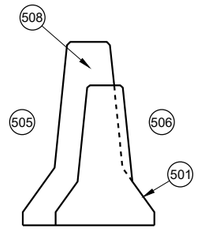
PROFILE VIEW



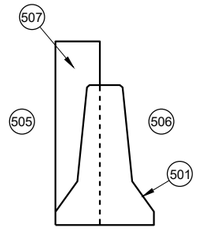
PLAN VIEW



CROSS SECTION TEMPORARY BARRIER PLACEMENT SINGLE SLOPE

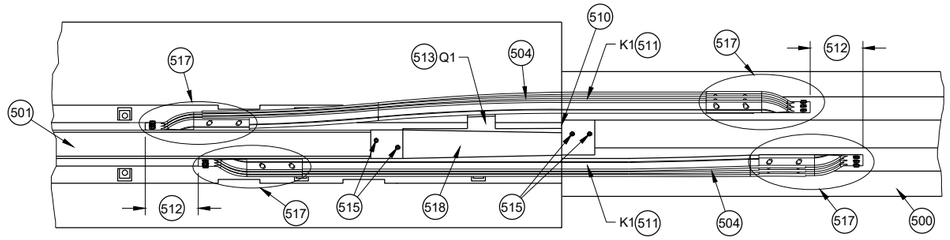


CROSS SECTION TEMPORARY BARRIER PLACEMENT SAFETY SHAPE

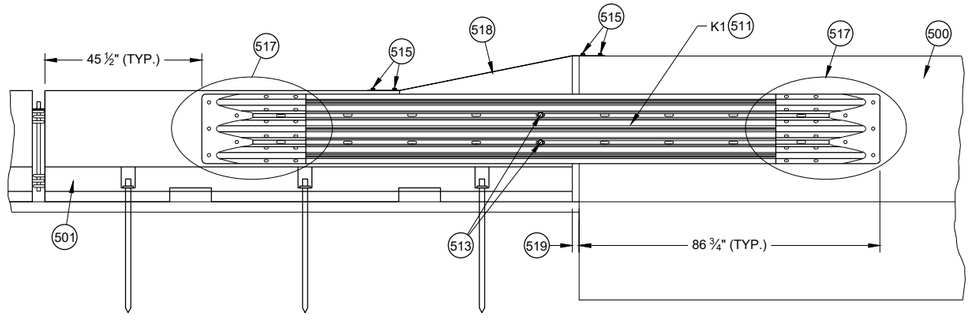


CROSS SECTION TEMPORARY BARRIER PLACEMENT VERTICAL

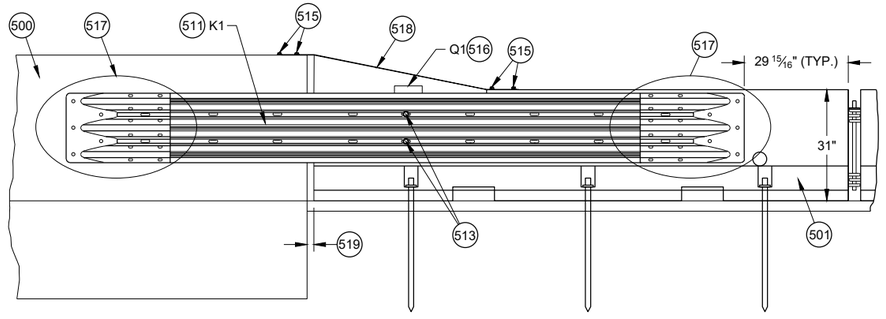
PLAN VIEW
TRANSITION TO RIGID BARRIER



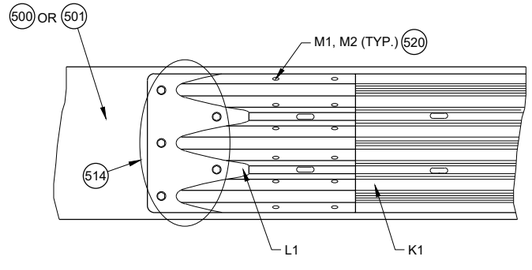
PLAN DETAIL VIEW
TRANSITION TO RIGID BARRIER



FRONT DETAIL VIEW
TRANSITION TO RIGID BARRIER



BACK DETAIL VIEW
TRANSITION TO RIGID BARRIER

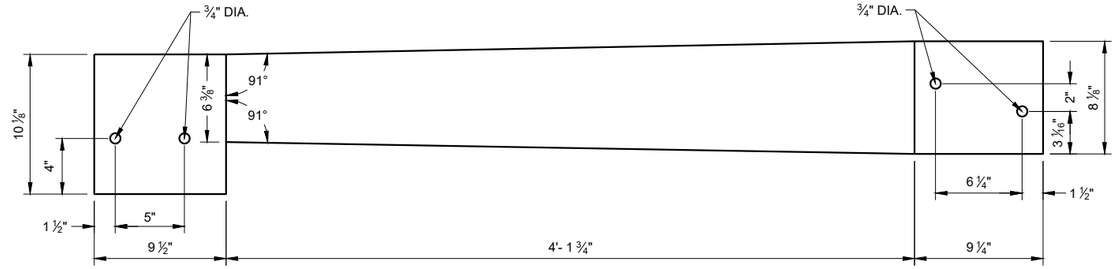


(517) DETAIL PLAN VIEW
THRIE BEAM RAIL TERMINAL CONNECTOR ASSEMBLY

CONCRETE BARRIER TEMPORARY PRECAST, 12' - 6"

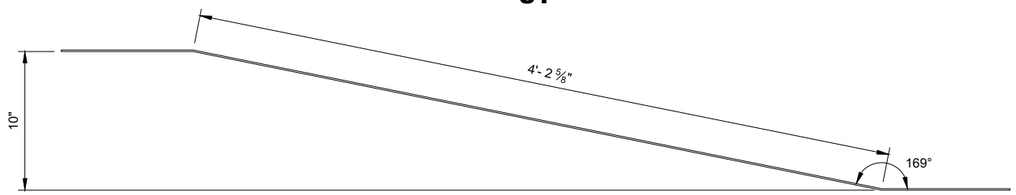
6

SDD 14B07-16e



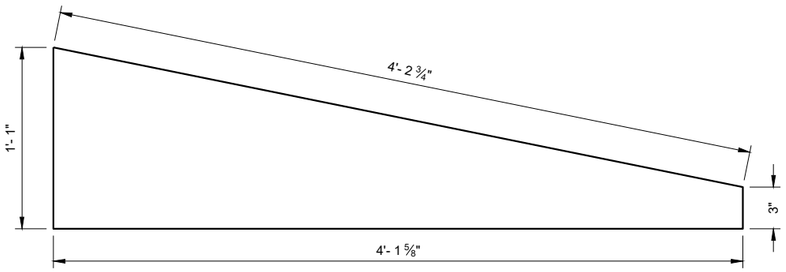
TOP VIEW

S1



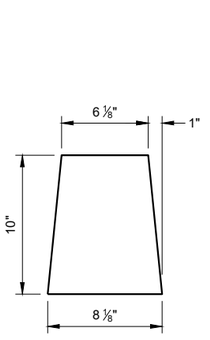
ELEVATION VIEW

S1

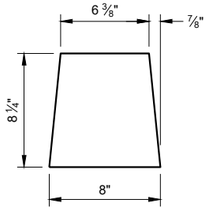


SIDE VIEW

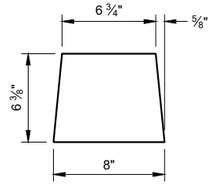
S3



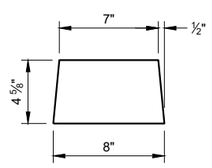
S2



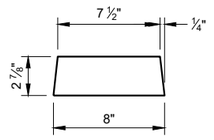
S4



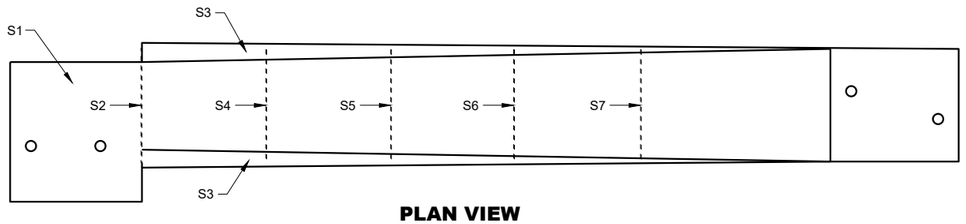
S5



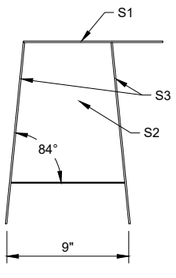
S6



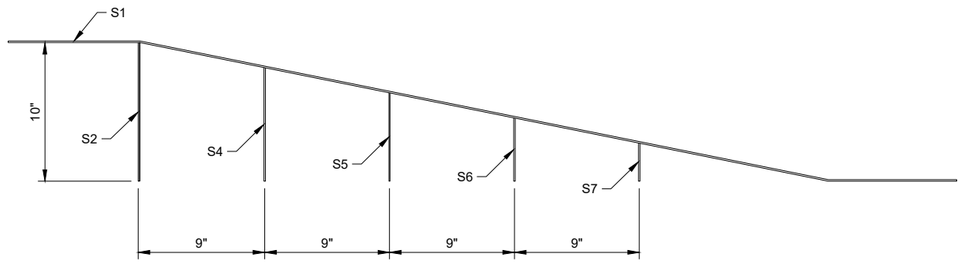
S7



PLAN VIEW



BACK VIEW



SIDE VIEW (600)

42" TOP CAP ASSEMBLY

GENERAL NOTES

STITCH WELD GUSSET PLATES AND END PLATES ON THREE SIDES

STITCH WELD TWO SIDE PLATES TO TOP PLATE, END PLATE AND GUSSETS.

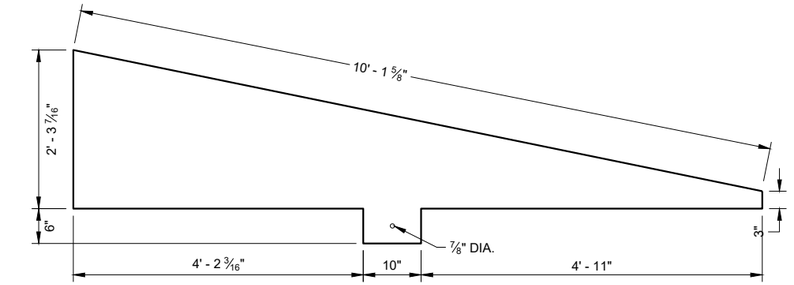
(600) SIDE PLATES (S3) NOT SHOWN FOR CLARITY.

CONCRETE BARRIER TEMPORARY PRECAST, 12' - 6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTA

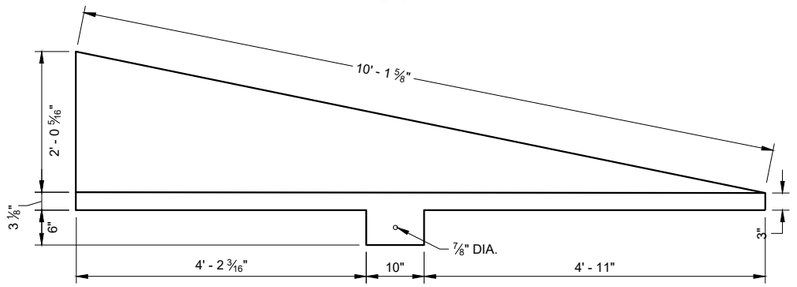
6

SDD 14B07-16f



SIDE VIEW
T4

END VIEW



SIDE VIEW
T3

END VIEW

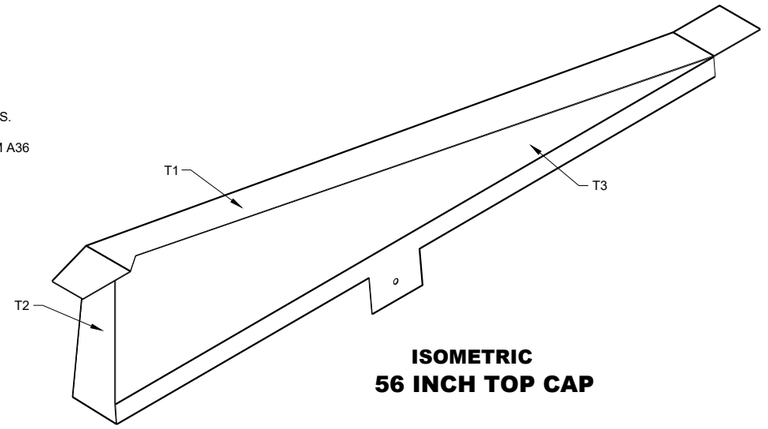
GENERAL NOTES

STITCH WELD GUSSET PLATES AND END PLATES ON THRIE SIDES

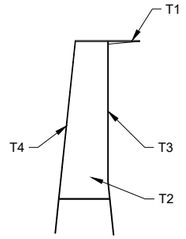
STITCH WELD TWO SIDE PLATES TO TOP PLATE, END PLATE AND GUSSETS.

SIDE PLATES, TOP PLATE, END PLATE AND GUSSETS ARE 12 GAUGE ASTM A36 GALVANIZED STEEL.

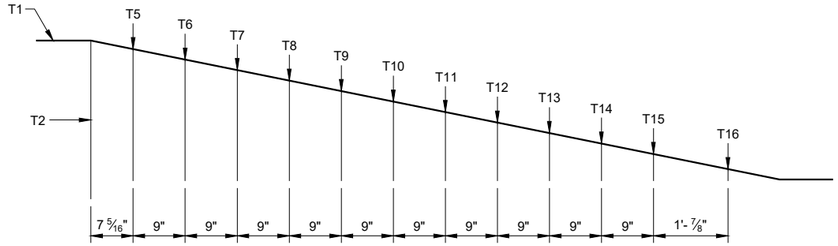
(700) SIDE PLATES (T3 AND T4) NOT SHOWN FOR CLARITY.



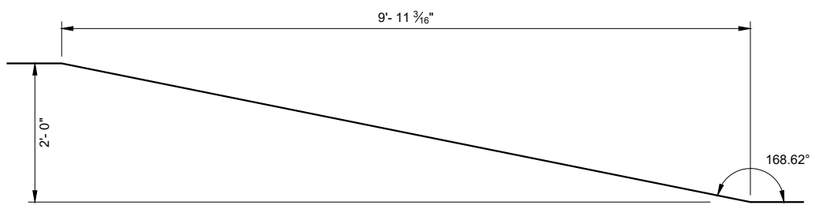
ISOMETRIC
56 INCH TOP CAP



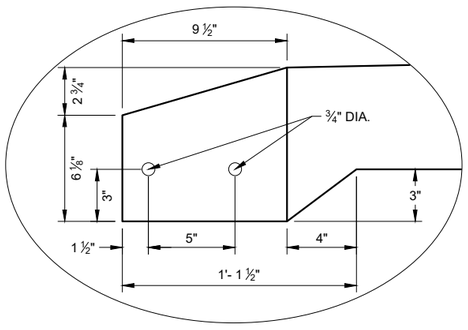
END VIEW
56 INCH TOP CAP



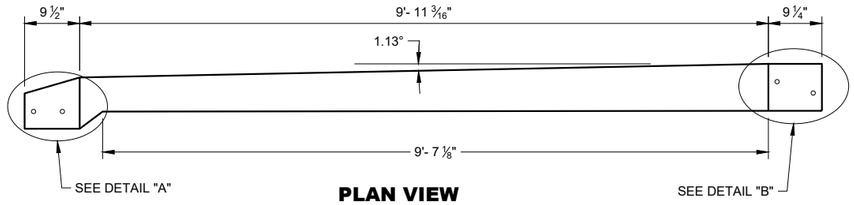
SIDE VIEW (700)
56 INCH TOP CAP



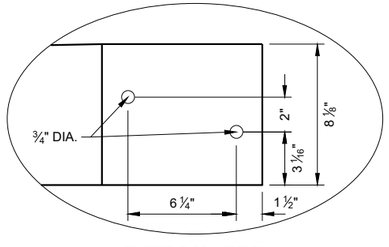
SIDE VIEW
TOP PLATE T1



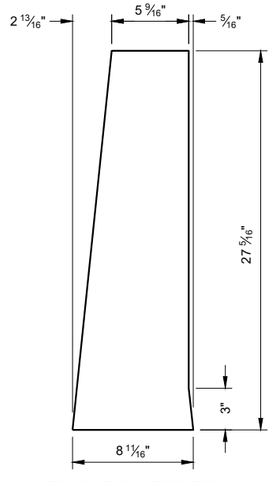
DETAIL "A"



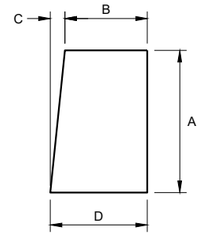
PLAN VIEW
TOP PLATE T1



DETAIL "B"



END PLATE T2



GUSSET PLATES
T5 - T16

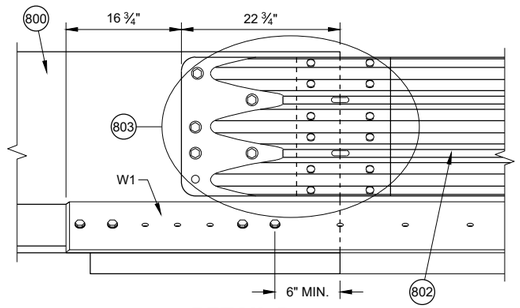
GUSSET DIMENSIONS				
GUSSET NO.	A	B	C	D
T5	22 13/16"	5 1/16"	2 5/16"	8 1/16"
T6	21"	5 7/8"	2 3/16"	8 1/16"
T7	19 3/16"	6 1/16"	1 15/16"	8 1/16"
T8	17 3/8"	6 1/4"	1 13/16"	8 1/16"
T9	15 5/16"	6 7/16"	1 9/16"	8 1/16"
T10	13 3/4"	6 5/8"	1 7/16"	8 1/16"
T11	11 15/16"	6 13/16"	1 1/4"	8 1/16"
T12	10 1/8"	7"	1 1/16"	8 1/16"
T13	8 5/16"	7 3/16"	7/8"	8 1/16"
T14	6 1/2"	7 3/8"	1 1/16"	8 1/16"
T15	4 11/16"	7 9/16"	1/2"	8"
T16	2 7/8"	7 3/4"	1/4"	8"

CONCRETE BARRIER TEMPORARY PRECAST, 12' - 6"

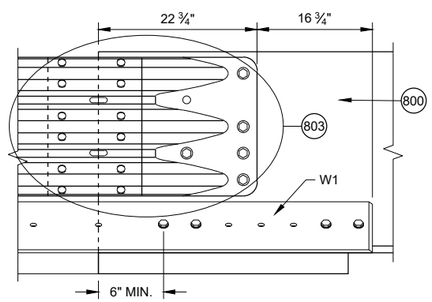
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

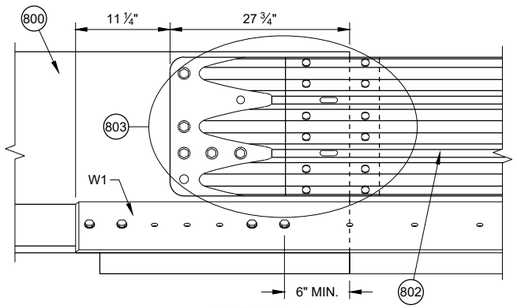
SDD 14B07-16g



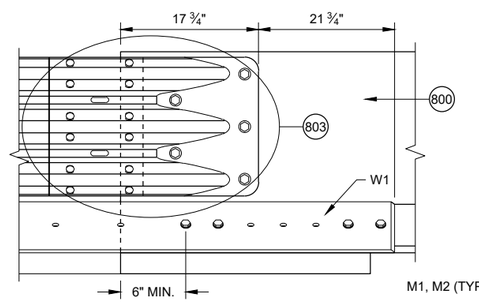
DETAIL D



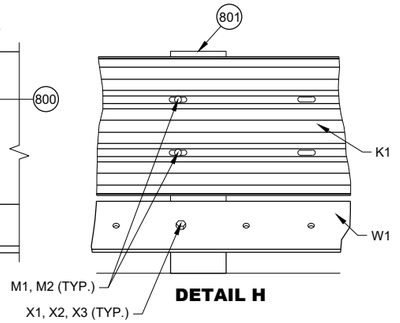
DETAIL E



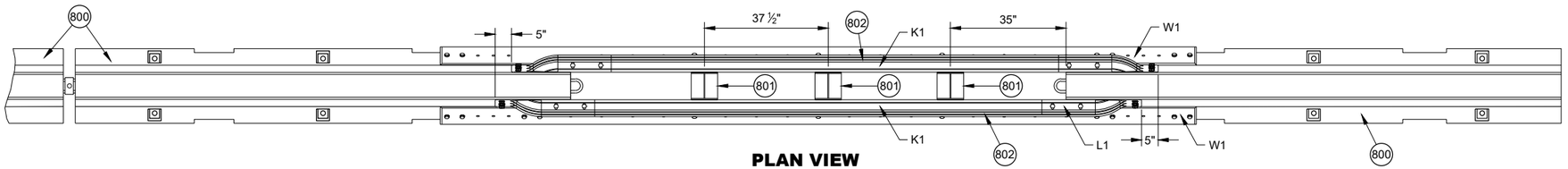
DETAIL F



DETAIL G



DETAIL H



PLAN VIEW

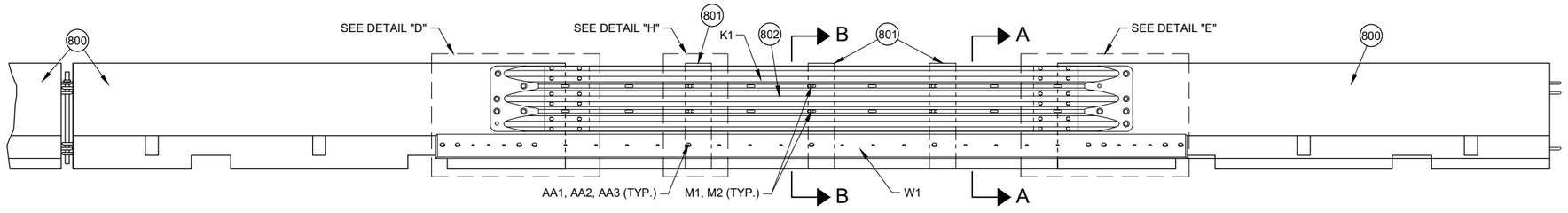
GENERAL NOTES

(800) FREE STANDING TEMPORARY BARRIER

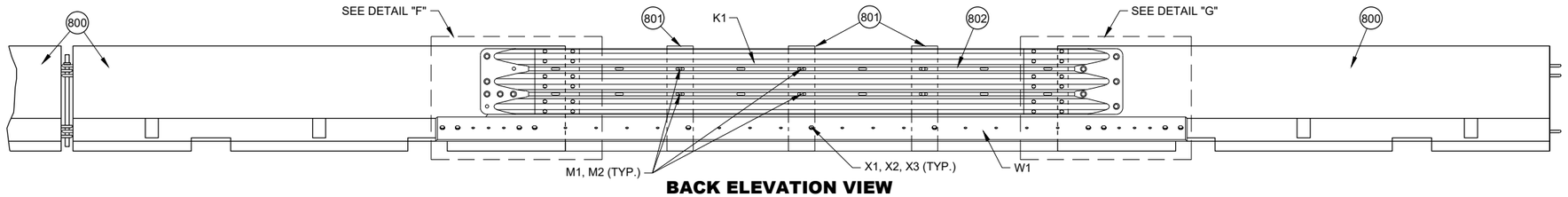
(801) GAP STIFFENER ASSEMBLY

(802) THRIE BEAMS ARE NESTED ON BOTH SIDES OF THE TEMPORARY BARRIER.

(803) SEE THRIE BEAM RAIL TERMINAL CONNECTOR DETAIL



FRONT ELEVATION VIEW



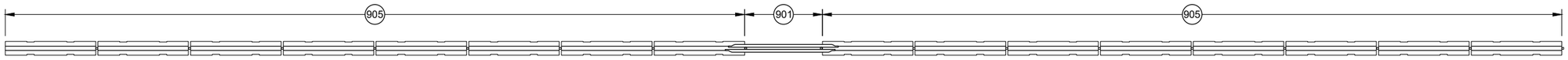
BACK ELEVATION VIEW

PORTABLE CONCRETE BARRIER GAP THRIE BEAM COVER

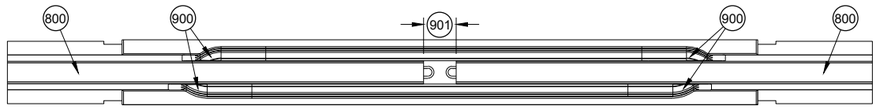
CONCRETE BARRIER TEMPORARY PRECAST, 12' - 6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6
SDD 14B07-16h



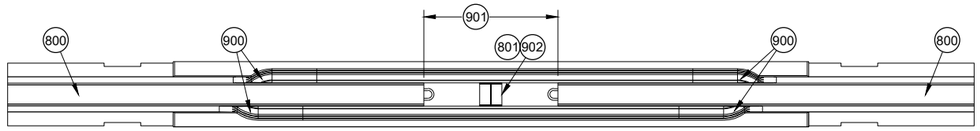
PLAN VIEW
GAP WITHIN SPACING



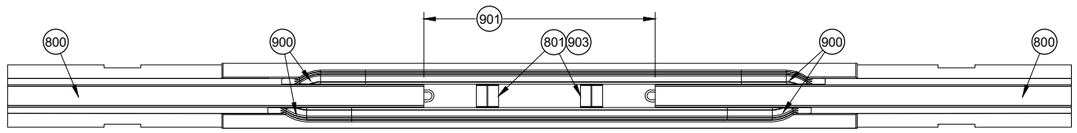
PLAN VIEW
TEMPORARY BARRIER GAP OVER 4" TO 1' MAX. (904)

GENERAL NOTES

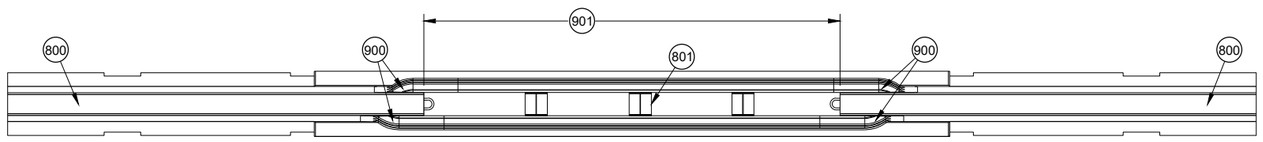
(900) SEE OTHER DETAILS FOR TEMPORARY GAP HARDWARE (TYP.)
(901) TEMPORARY BARRIER GAP
(902) GAP STIFFENER ASSEMBLY CENTERED IN THE GAP.
(903) GAP STIFFENER ASSEMBLY IS OFFSET 18 ¾" FROM CENTER
(904) MINIMUM NUMBER OF GAP STIFFENERS SHOWN FOR THE GAP RANGE SHOWN.
(905) MINIMUM OF 8 CONTINUOUS FREE STANDING TEMPORARY BARRIERS



PLAN VIEW
TEMPORARY BARRIER GAP OVER 1' TO 4' MAX. (904)



PLAN VIEW
TEMPORARY BARRIER GAP OVER 4' TO 7' MAX. (904)

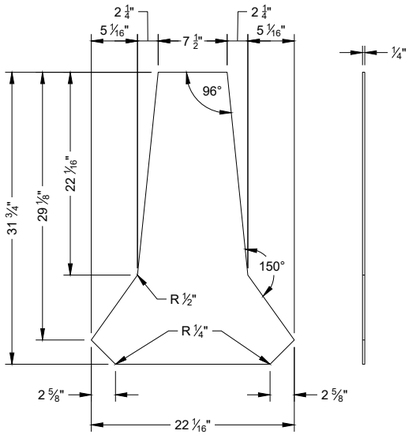


PLAN VIEW
TEMPORARY BARRIER GAP OVER 7' TO 12.5' MAX. (904)

CONCRETE BARRIER TEMPORARY PRECAST, 12' - 6"

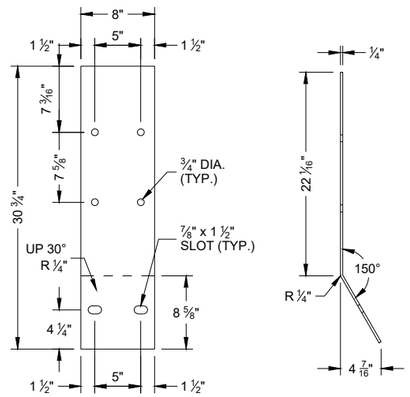
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6
SDD 14B07-16i



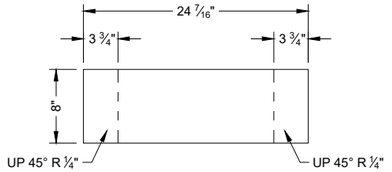
PROFILE VIEW SIDE VIEW

STIFFENER ASSEMBLY CENTER PANEL U1

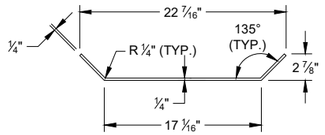


FLAT PATTERN SIDE VIEW

STIFFENER ASSEMBLY SIDE PANEL U2

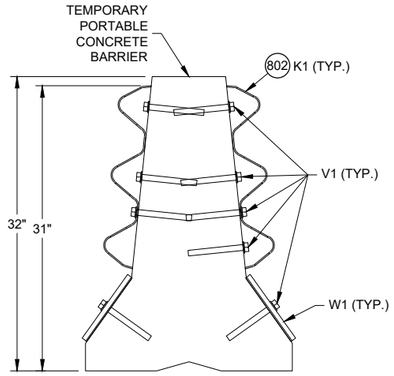


FLAT PATTERN

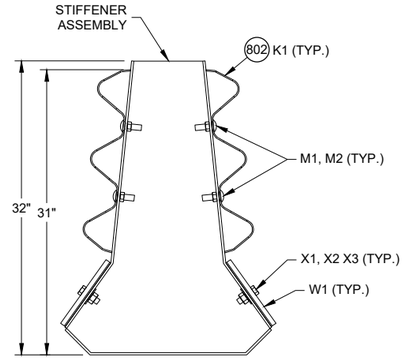


PROFILE VIEW

STIFFENER ASSEMBLY BOTTOM PANEL U3

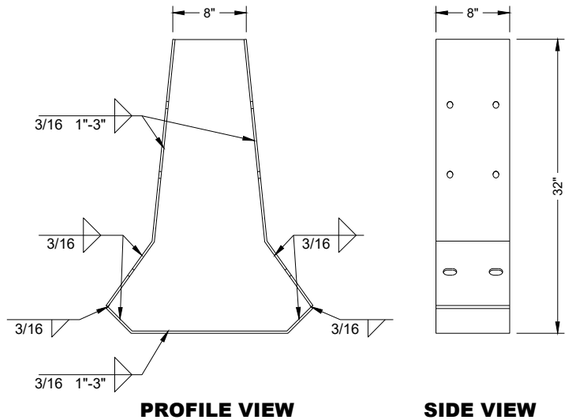


SECTION A - A



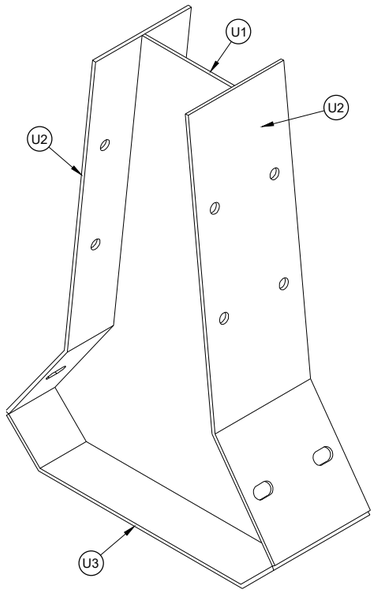
SECTION B - B

PLAN VIEW



PROFILE VIEW

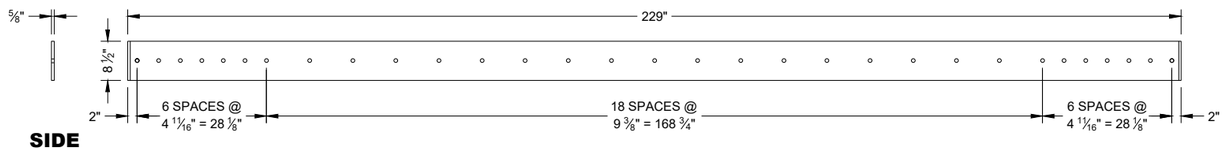
SIDE VIEW



ISOMETRIC

GAP STIFFENER ASSEMBLY

PLAN VIEW



SIDE VIEW

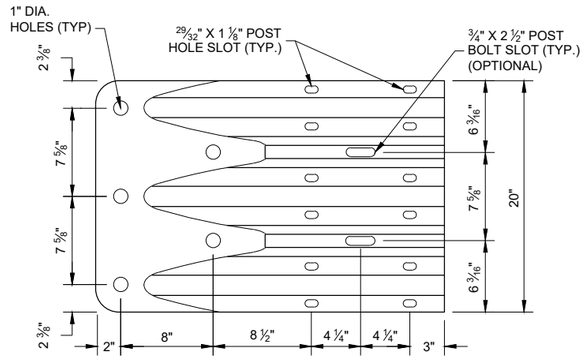
ELEVATION VIEW

W1 TOE PLATE

CONCRETE BARRIER TEMPORARY PRECAST, 12' - 6"

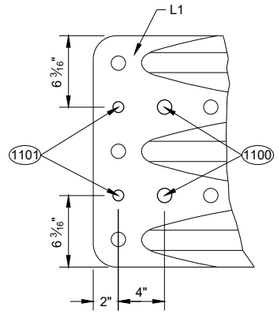
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6
SDD 14B07-16j



ELEVATION VIEW

THRIE BEAM TERMINAL CONNECTOR



ELEVATION VIEW

ADDITIONAL THRIE BEAM (1102) TERMINAL CONNECTOR HOLE DETAIL

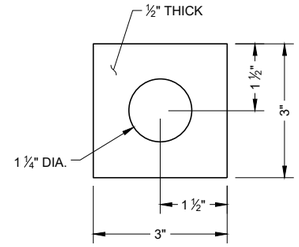


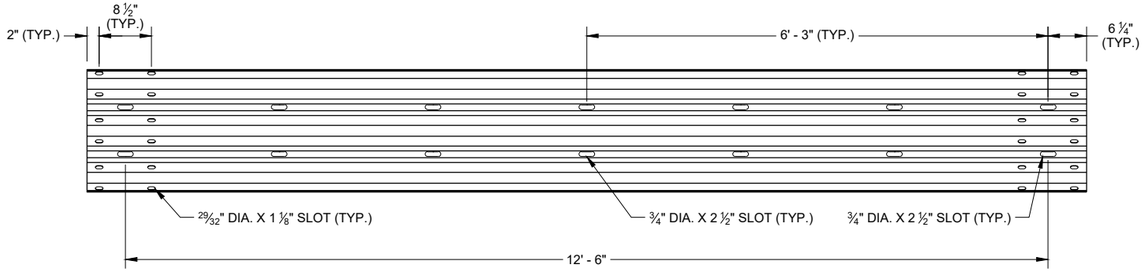
PLATE WASHER DETAIL G2, H3

GENERAL NOTES

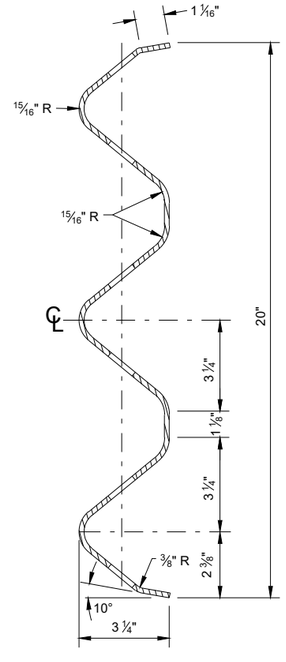
(1100) 1" DIA. HOLE

(1101) 3/4" DIA. HOLE

(1102) PROVIDE HOLES IN THRIE BEAM TERMINAL CONNECTOR TO LIMIT STEEL REINFORCEMENT OR LOOP BAR CONFLICT. CONTRACTOR MAY FIELD DRILL ADDITIONAL HOLE OR PROVIDE THRIE BEAM TERMINAL CONNECTOR WITH ADDITIONAL HOLES FROM SUPPLIER.

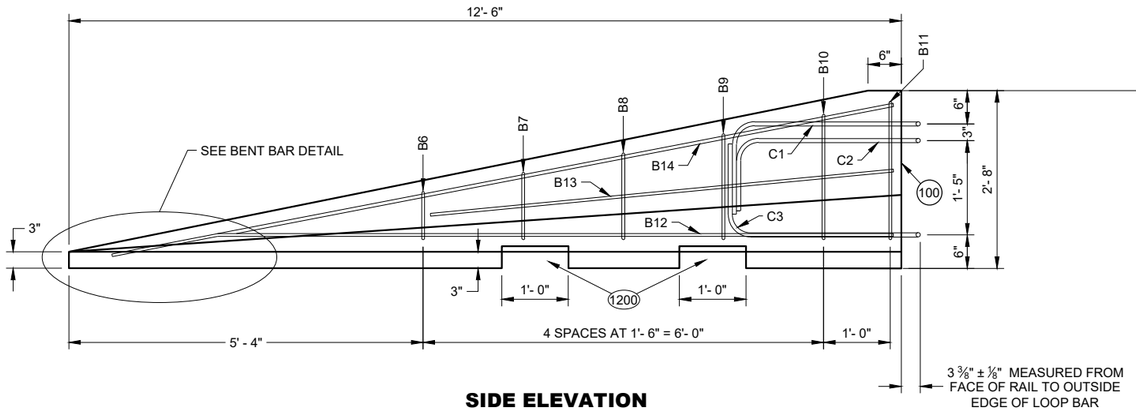


SLOTTED THRIE BEAM RAIL K1

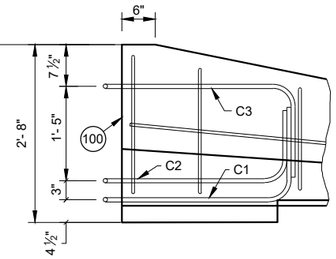


SECTION THROUGH BEAM K1

CONCRETE BARRIER TEMPORARY PRECAST, 12' - 6"



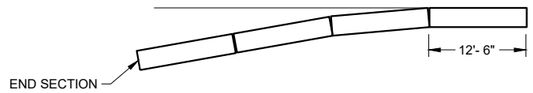
SIDE ELEVATION
(FOR CONNECTION TO LEFT END OF BARRIER)



SIDE ELEVATION
LOOP BAR ASSEMBLY INVERTED FOR OPPOSITE END
(FOR CONNECTION TO RIGHT END OF BARRIER)

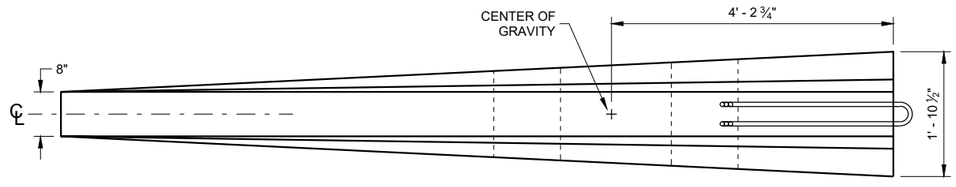
GENERAL NOTES

(1200) SEE LIFTING SLOT DETAIL. LOCATION OF LIFTING SLOTS DETERMINED BY CONTRACTOR.

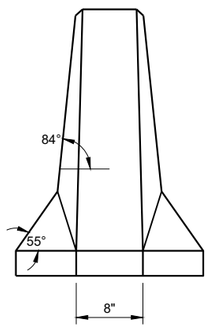


FLARE AT BARRIER END

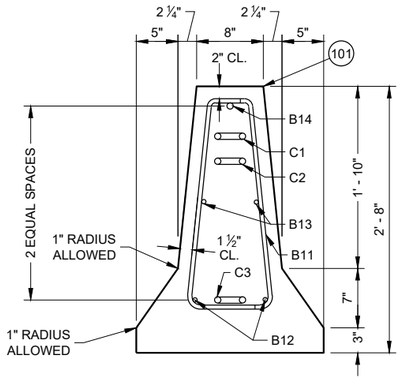
POSTED SPEED, (MPH)	FLARE RATE
40 OR LESS	6:1
45 OR GREATER	8:1



PLAN VIEW

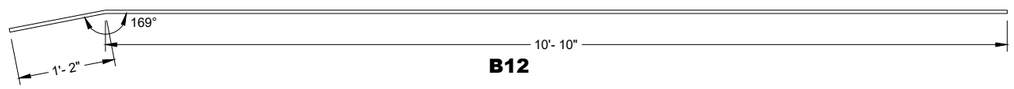


FRONT ELEVATION

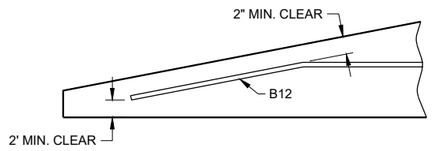


END SECTION

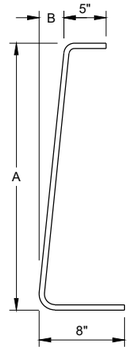
DETAILS OF BARRIER TAPER SECTION



B12



BENT BAR DETAIL



BAR	A	B
B6	10"	1"
B7	1'- 1"	1 ¼"
B8	1'- 5"	1 ⅝"
B9	1'- 8"	1 ⅞"
B10	2'- 0 ½"	2 ⅜"
B11	2'- 3"	2 ¾"

B BARS
2 OF EACH SIZE REQUIRED FOR STIRRUP ASSEMBLY

CONCRETE BARRIER TEMPORARY PRECAST, 12' - 6"

6
SDD 14B07-16I

BILL OF MATERIALS - CONCRETE BARRIER PRECAST

PART	DESCRIPTION	MATERIALS SPECIFICATIONS	NOTES
A1	PRECAST TEMPORARY BARRIER - CONCRETE	MIN. = f'c 5000 PSI	
B1	REBAR	STANDARD SPEC. 505.2 GRADE 60 UNCOATED REBAR	#5 REBAR, LENGTH 12'-2"
B2	REBAR	STANDARD SPEC. 505.2 GRADE 60 UNCOATED REBAR	#4 REBAR, LENGTH 12'-2"
B3	REBAR	STANDARD SPEC. 505.2 GRADE 60 UNCOATED REBAR	#5 REBAR, LENGTH 12'-2"
B4	REBAR	STANDARD SPEC. 505.2 GRADE 60 UNCOATED REBAR	#4 REBAR, LENGTH 6'-0"
B5	REBAR	STANDARD SPEC. 505.2 GRADE 60 UNCOATED REBAR	#6 REBAR, LENGTH 2'-11"
B6	REBAR	STANDARD SPEC. 505.2 GRADE 60 UNCOATED REBAR	#4 REBAR, LENGTH 1'-11"
B7	REBAR	STANDARD SPEC. 505.2 GRADE 60 UNCOATED REBAR	#4 REBAR, LENGTH 2'-2"
B8	REBAR	STANDARD SPEC. 505.2 GRADE 60 UNCOATED REBAR	#4 REBAR, LENGTH 2'-6"
B9	REBAR	STANDARD SPEC. 505.2 GRADE 60 UNCOATED REBAR	#4 REBAR, LENGTH 2'-9"
B10	REBAR	STANDARD SPEC. 505.2 GRADE 60 UNCOATED REBAR	#4 REBAR, LENGTH 3'-2"
B11	REBAR	STANDARD SPEC. 505.2 GRADE 60 UNCOATED REBAR	#4 REBAR, LENGTH 3'-4"
B12	REBAR	STANDARD SPEC. 505.2 GRADE 60 UNCOATED REBAR	#4 REBAR, LENGTH 12'-0"
B13	REBAR	STANDARD SPEC. 505.2 GRADE 60 UNCOATED REBAR	#4 REBAR, LENGTH 7'-9"
B14	REBAR	STANDARD SPEC. 505.2 GRADE 60 UNCOATED REBAR	#5 REBAR, LENGTH 11'-9"
C1	LOOP BAR	ASTM A709 GRADE 70 SMOOTH BAR OR ASTM A706 GRADE 60 REBAR UNCOATED	¾" DIA.
C2	LOOP BAR	ASTM A709 GRADE 70 SMOOTH BAR OR ASTM A706 GRADE 60 REBAR UNCOATED	¾" DIA.
C3	LOOP BAR	ASTM A709 GRADE 70 SMOOTH BAR OR ASTM A706 GRADE 60 REBAR UNCOATED	¾" DIA.
D1	CONNECTION PIN - ROD	ASTM A36 MIN. STRENGTH 36 KSI / ASTM A529 MAX. STRENGTH 50 KSI / ASTM A572 MAX STRENGTH 50 KSI / ASTM A709 MAX STRENGTH 50 KSI / ASTM A992 MAX STRENGTH 50 KSI	1 ¼" DIA.
D2	CONNECTION PIN - TOP PLATE	ASTM A36 MIN. STRENGTH 36 KSI / ASTM A529 MAX. STRENGTH 50 KSI / ASTM A572 MAX STRENGTH 50 KSI / ASTM A709 MAX STRENGTH 50 KSI / ASTM A992 MAX STRENGTH 50 KSI	
G1	BOLT THROUGH ANCHOR - THREADED ROD	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GALVANIZE TO AASHTO M298 CLASS 55 TYPE 2 / ASTM B695 CLASS 55 TYPE 2 A307 GRADE A OR SAE J429 GRADE 2 UNC	1 ⅛" DIA.
G2	BOLT THROUGH ANCHOR - WASHER, SQUARE	ASTM A36 MIN. STRENGTH 36 KSI / ASTM A529 MAX. STRENGTH 50 KSI / ASTM A572 MAX STRENGTH 50 KSI / ASTM A709 MAX STRENGTH 50 KSI / ASTM A992 MAX STRENGTH 50 KSI	
G3	BOLT THROUGH ANCHOR - NUT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GALVANIZE TO AASHTO M298 CLASS 55 TYPE 2 / ASTM B695 CLASS 55 UNC OVER TAP NUTS AS SPECIFIED IN AASHTO 291 / ASTM A 563 HEAVY HEX HEAD ASTM A563DH OR SAE J995 GRADE 5	
H1	ADHESIVE ANCHOR - ADHESIVE	ICC-ES-AC308 5 ¼" EMBEDMENT WITH A MIN. BOND STRENGTH OF 1,650 PSI. SEE 603.2 AND 603.3.1.2 OF THE WISCONSIN STANDARD SPECIFICATIONS FOR MORE INFORMATION ON ADHESIVE ANCHORS.	
H2	ADHESIVE ANCHOR - THREADED ROD	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GALVANIZE TO AASHTO M298 CLASS 55 TYPE 2 / ASTM B695 CLASS 55 TYPE 2 A307 GRADE A / SAE J429 GRADE 2 UNC	1 ⅛" DIA.
H3	ADHESIVE ANCHOR - WASHER, SQUARE	ASTM A36 MIN. STRENGTH 36 KSI / ASTM A529 MAX. STRENGTH 50 KSI / ASTM A572 MAX STRENGTH 50 KSI / ASTM A709 MAX STRENGTH 50 KSI / ASTM A992 MAX STRENGTH 50 KSI	
H4	ADHESIVE ANCHOR - NUT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GALVANIZE TO AASHTO M298 CLASS 55 TYPE 2 / ASTM B695 CLASS 55 UNC OVER TAP NUTS AS SPECIFIED IN AASHTO 291 / ASTM A 563 HEAVY HEX HEAD ASTM A563DH OR SAE J995 GRADE 5	
J1	ASPHALT ANCHOR PIN - ROD	ASTM A36 MIN. STRENGTH 36 KSI / ASTM A529 MAX. STRENGTH 50 KSI / ASTM A572 MAX STRENGTH 50 KSI / ASTM A709 MAX STRENGTH 50 KSI / ASTM A992 MAX STRENGTH 50 KSI	1 ½" DIA.
J2	ASPHALT ANCHOR PIN - STOP PLATE	ASTM A36 MIN. STRENGTH 36 KSI / ASTM A529 MAX. STRENGTH 50 KSI / ASTM A572 MAX STRENGTH 50 KSI / ASTM A709 MAX STRENGTH 50 KSI / ASTM A992 MAX STRENGTH 50 KSI	
K1	THRIE BEAM RAIL	AASHTO M180 CLASS A TYPE 2 APPROVED PRODUCER	12 GAUGE
L1	THRIE BEAM RAIL - TERMINAL	AASHTO M180 CLASS A TYPE 2 APPROVED PRODUCER	12 GAUGE

PART	DESCRIPTION	MATERIALS SPECIFICATIONS	NOTES
M1	SPLICE BOLT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 55 TYPE 2 / ASTM B695 CLASS 55 TYPE 2 UNC AASHTO M180 HEAD ASTM A307 GRADE B OR SAE J429 GRADE 2 OR ASTM F1554 GRADE 36	⅝" DIA.
M2	SPLICE BOLT - NUT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GALVANIZE TO AASHTO M298 CLASS 55 TYPE 2 / ASTM B695 CLASS 55 UNC OVER TAP NUTS AS SPECIFIED IN AASHTO 291 / ASTM A 563 AASHTO M180 RECESSED HEAVY HEX HEAD ASTM A563DH OR SAE J995 GRADE 5	
N1	THRIE BEAM RAIL TERMINAL - MECHANICAL ANCHOR	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GALVANIZE TO AASHTO M298 CLASS 55 TYPE 2 / ASTM B695 CLASS 55 UNC OVER TAP NUTS AS SPECIFIED IN AASHTO 291 / ASTM A 563 AASHTO M180 RECESSED HEAVY HEX HEAD ASTM A563DH OR SAE J995 GRADE 5	¾" DIA. LENGTH 6"
N2	THRIE BEAM RAIL TERMINAL - WASHER	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GALVANIZE TO AASHTO M298 CLASS 55 TYPE 2 / ASTM B695 CLASS 55 TYPE 2 F436 TYPE 1	
N3	THRIE BEAM RAIL TERMINAL MECHANICAL OR ADHESIVE ANCHOR	MINIMUM MECHANICAL OR ADHESIVE ANCHOR STRENGTH REQUIREMENTS: ULTIMATE TENSILE LOAD 17.9 KIPS AND ULTIMATE SHEAR LOAD 21.96 KIPS. SEE 603.2 AND 603.3.1.2 OF THE WISCONSIN STANDARD SPECIFICATIONS FOR MORE INFORMATION ON ADHESIVE ANCHORS.	
P1	THRIE BEAM RAIL CONNECTION 1-BOLT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GALVANIZE TO AASHTO M298 CLASS 55 TYPE 2 / ASTM B695 CLASS 55 UNC OVER TAP NUTS AS SPECIFIED IN AASHTO 291 / ASTM A 563 AASHTO M180 RECESSED HEAVY HEX HEAD ASTM A563DH OR SAE J995 GRADE 5	¾" DIA.
P2	THRIE BEAM RAIL CONNECTION 1-WASHER	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 55 TYPE 2 / ASTM B695 CLASS 55 TYPE 2 F436 TYPE 1	
P3	THRIE BEAM RAIL CONNETION 1- MECHANICAL OR ADHESIVE ANCHOR	MINIMUM MECHANICAL OR ADHESIVE ANCHOR STRENGTH REQUIREMENTS: ULTIMATE TENSILE LOAD 9.48 KIPS AND ULTIMATE SHEAR LOAD 10.48 KIPS. SEE 603.2 AND 603.3.1.2 OF THE WISCONSIN STANDARD SPECIFICATIONS FOR MORE INFORMATION ON ADHESIVE ANCHORS.	
Q1	BLOCK WOOD	SEE STANDARD SPEC. 614	
R1	CAP - BOLT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GALVANIZE TO AASHTO M298 CLASS 55 TYPE 2 / ASTM B695 CLASS 55 UNC OVER TAP NUTS AS SPECIFIED IN AASHTO 291 / ASTM A 563 AASHTO M180 RECESSED HEAVY HEX HEAD ASTM A563DH OR SAE J995 GRADE 5	⅝" DIA.
R2	CAP- BOLT - WASHER	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 55 TYPE 2 / ASTM B695 CLASS 55 TYPE 2 F436 TYPE 1	
R3	CAP - BOLT - MECHANICAL ANCHOR	MINIMUM MECHANICAL OR ADHESIVE ANCHOR STRENGTH REQUIREMENTS ULTIMATE TENSILE LOAD 12.14 KIPS AND ULTIMATE SHEAR LOAD 17.5 KIPS.SEE 603.2 AND 603.3.1.2 OF THE WISCONSIN STANDARD SPECIFICATIONS FOR MORE INFORMATION ON ADHESIVE ANCHORS.	12 GAUGE
S1	CAP 42-INCH TOP PLATE	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	12 GAUGE
S2	CAP 42-INCH END PLATE	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	12 GAUGE
S3	CAP 42-INCH SIDE PLATE	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	12 GAUGE
S4	CAP 42-INCH GUSSET 1	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	12 GAUGE
S5	CAP 42-INCH GUSSET 2	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	12 GAUGE
S6	CAP 42-INCH GUSSET 3	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	12 GAUGE
S7	CAP 42-INCH GUSSET 4	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	12 GAUGE

6

SDD 14B07-16m

CONCRETE BARRIER TEMPORARY PRECAST, 12' - 6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 14B07-16m

BILL OF MATERIALS - CONCRETE BARRIER PRECAST

PART	DESCRIPTION	MATERIALS SPECIFICATIONS	NOTES
T1	CAP 56-INCH TOP PLATE	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	12 GAUGE
T2	CAP 56-INCH END PLATE	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	12 GAUGE
T3	CAP 56-INCH SIDE PLATE 1	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	12 GAUGE
T4	CAP 56-INCH SIDE PLATE 2	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	12 GAUGE
T5	CAP 56-INCH GUSSET 1	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	12 GAUGE
T6	CAP 56-INCH GUSSET 2	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	12 GAUGE
T7	CAP 56-INCH GUSSET 3	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	12 GAUGE
T8	CAP 42-INCH GUSSET 4	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	12 GAUGE
T9	CAP 42-INCH GUSSET 5	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	12 GAUGE
T10	CAP 42-INCH GUSSET 6	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	12 GAUGE
T11	CAP 42-INCH GUSSET 7	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	12 GAUGE
T12	CAP 42-INCH GUSSET 8	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	12 GAUGE
T13	CAP 42-INCH GUSSET 9	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	12 GAUGE
T14	CAP 42-INCH GUSSET 10	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	12 GAUGE
T15	CAP 42-INCH GUSSET 11	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	12 GAUGE
T16	CAP 42-INCH GUSSET 12	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	12 GAUGE
U1	GAP STIFFENER	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	
U2	GAP STIFFENER - CONNECTOR PLATE 1	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	
U3	GAP STIFFENER - CONNECTOR PLATE 2	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	

PART	DESCRIPTION	MATERIALS SPECIFICATIONS	NOTES
V1	THRIE BEAM RAIL TERMINAL MECHANICAL OR ADHESIVE ANCHOR	MINIMUM MECHANICAL OR ADHESIVE ANCHOR STRENGTH REQUIREMENTS ULTIMATE TENSILE LOAD 24.0 KIPS AND ULTIMATE SHEAR LOAD 21.5 KIPS. SEE 603.2 AND 603.3.1.2 OF THE WISCONSIN STANDARD SPECIFICATIONS FOR MORE INFORMATION ON ADHESIVE ANCHORS.	¾" DIA.
V2	GAP STIFFENER - BOLT - NUT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C O R MECHANICAL GALVANIZE TO AASHTO M298 CLASS 50 TYPE 1 / ASTM B695 CLASS 50 TYPE 1 UNC OVER TAP NUTS AS SPECIFIED IN AASHTO 291/ASTM A 563 HEAVY HEX HEAD ASTM A563DH OR SAE J995 GRADE 5	
W1	TOE PLATE	AASHTO M111/ASTM A123 ASTM A36 MIN STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	
X1	TOE PLATE - CONNECTION BOLT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GALVANIZE TO AASHTO M298 CLASS 55 TYPE 2 / ASTM B695 CLASS 55 TYPE 2 UNC HEAVY HEX HEAD OR AASTHO M180 HEAD, ASTM F3125 GRADE A325 TYPE 1 HEAVY HEX HEAD OR SAE J429 GRADE 5 HEAVY HEX HEAD / ASTM A449 TYPE 1 HEAVY HEX HEAD. BOLTS MAY BE FULLY THREADED. PROVIDE ENOUGH THREADING FOR PROPER TIGHTENING OF BOLT.	¾" DIA.
X2	TOE PLATE - CONNECTION BOLT - WASHER	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GALVANIZE TO AASHTO M298 CLASS 55 TYPE 2 / ASTM B695 CLASS 55 TYPE 2 F436 TYPE 1 (HARDEN WASHER ONLY)	
X3	TOE PLATE - CONNECTION BOLT - NUT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GALVANIZE TO AASHTO M298 CLASS 55 TYPE 2 / ASTM B695 CLASS 55 UNC OVER TAP NUTS AS SPECIFIED IN AASHTO 291 / ASTM A 563 HEAVY HEX HEAD ASTM A563DH OR SAE J995 GRADE 5	

6

SDD 14B07-16n

CONCRETE BARRIER TEMPORARY PRECAST, 12' - 6"

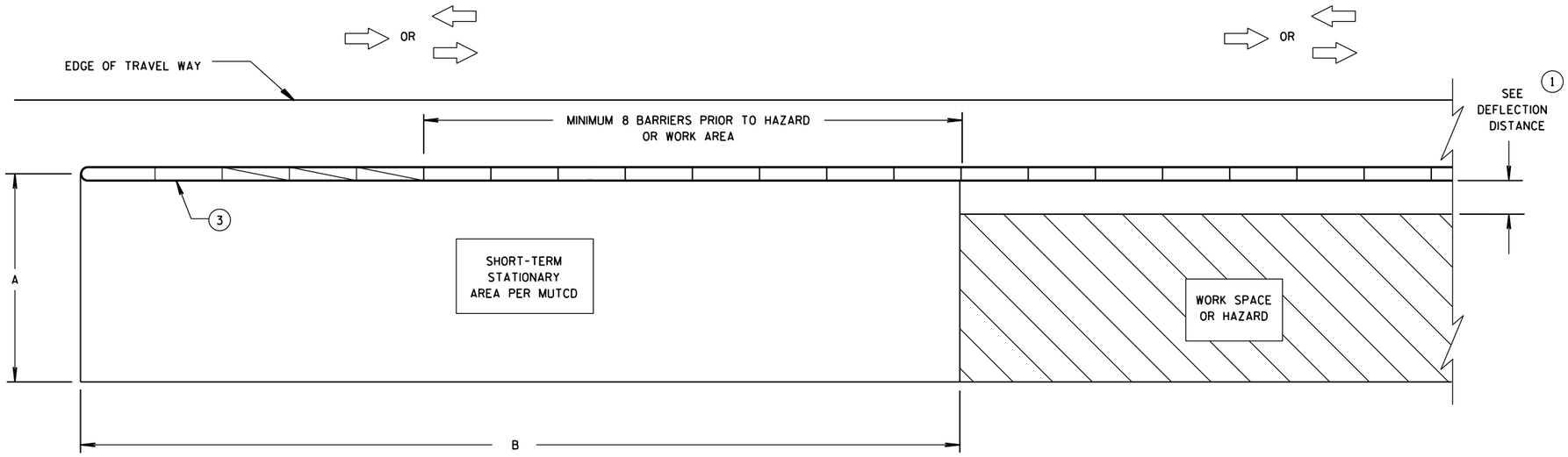
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2023 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS DEVE ENGINEER

FHWA

6

SDD 14B07-16n



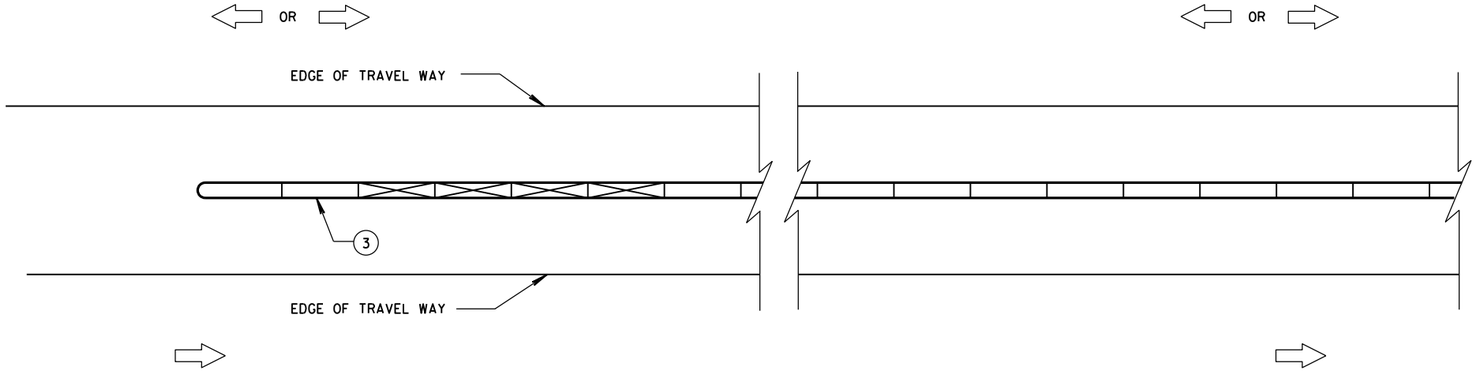
CRASH CUSHION/SAND BARREL ARRAY AND TEMPORARY BARRIER INSTALLATION FOR TRAFFIC ON ONE SIDE OF BARRIER

DIMENSION A TABLE (2)

FACILITY	POSTED SPEED MPH	DIMENSION A	
		MIN. FT	MAX. FT
FREEWAY/EXPRESSWAY	ALL	15	20
NON-FREEWAY/EXPRESSWAY	GREATER THAN OR EQUAL TO 45	10	15
NON-FREEWAY/EXPRESSWAY	LESS THAN 45	8	10
AADT LESS THAN 1,500	ALL	8	10

DIMENSION B TABLE (2)

POSTED SPEEDS MPH	DIMENSION B FT
20	115
25	155
30	200
35	250
40	305
45	360
50	425
55	495
60	570
65	645



CRASH CUSHION/SAND BARREL ARRAY AND TEMPORARY BARRIER INSTALLATION FOR TRAFFIC ON BOTH SIDES OF BARRIER

LEGEND

DIRECTION OF TRAVEL

CRASH CUSHION OR SAND BARREL ARRAY

SEE FREE STANDING TRANSITION TO TIED-DOWN SYSTEM DETAILS

SEE BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM DETAILS

3 PINS PLACED ON TRAFFIC SIDE OF BARRIER

PERMANENT CONCRETE BARRIER OR CONCRETE PARAPET

FREE STANDING TEMPORARY BARRIER

GENERAL NOTES

SEE STANDARD DETAIL DRAWING 14B7 FOR MORE INFORMATION.

DETAILS PROVIDE A GENERAL LAYOUT OF TEMPORARY CONCRETE BARRIER, CRASH CUSHIONS, SAND BARREL ARRAYS AND TIE DOWN TRANSITIONS. DETAILS PROVIDED MAY NOT FIT ALL POSSIBLE SITUATIONS OR SITE CONDITIONS. SEE OTHER SECTIONS OF THE CONTRACT OR PROJECT ENGINEER FOR MORE DETAILS.

ADDITIONAL TEMPORARY BARRIER MAY BE REQUIRED TO PROTECT TRAVELING PUBLIC FROM HAZARDS, CONTRACTOR'S OPERATIONS OR TO CONTROL TRAFFIC.

TEMPORARY BARRIER MAY BE REQUIRED TO BE ANCHORED TO PAVEMENT OR BRIDGE DECK.

FOR DETAILS ON CRASH CUSHION OR SAND BARREL ARRAYS SEE OTHER SECTIONS OF THE PLAN AND MANUFACTURE'S DETAILS.

SLOPES LEADING TO TEMPORARY BARRIER, CRASH CUSHION OR SAND BARREL ARRAY ARE 10:1 OR LESS.

(1) FOR DEFLECTION INFORMATION SEE STANDARD DETAIL DRAWING 14B7.

(2) VALUES PROVIDED MAY NOT FIT ALL POSSIBLE SITUATIONS OR SITE CONDITIONS. SEE OTHER SECTIONS OF THE CONTRACT OR PROJECT ENGINEER FOR MORE DETAILS.

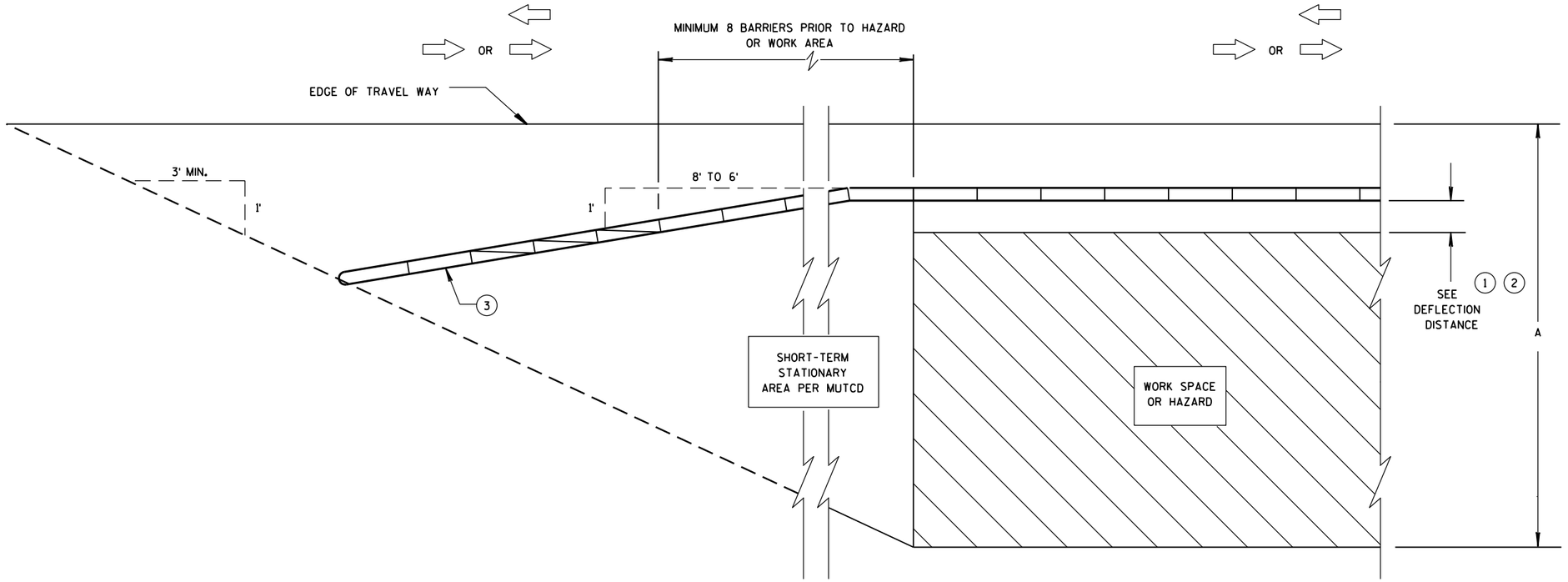
(3) ANCHOR TEMPORARY BARRIER ACCORDING TO CRASH CUSHION OR SAND BARREL MANUFACTURER'S RECOMMENDATIONS. IF MANUFACTURER'S RECOMMENDATIONS ARE NOT PROVIDED, ANCHOR 3 PINS ON TRAFFIC SIDE.

CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS

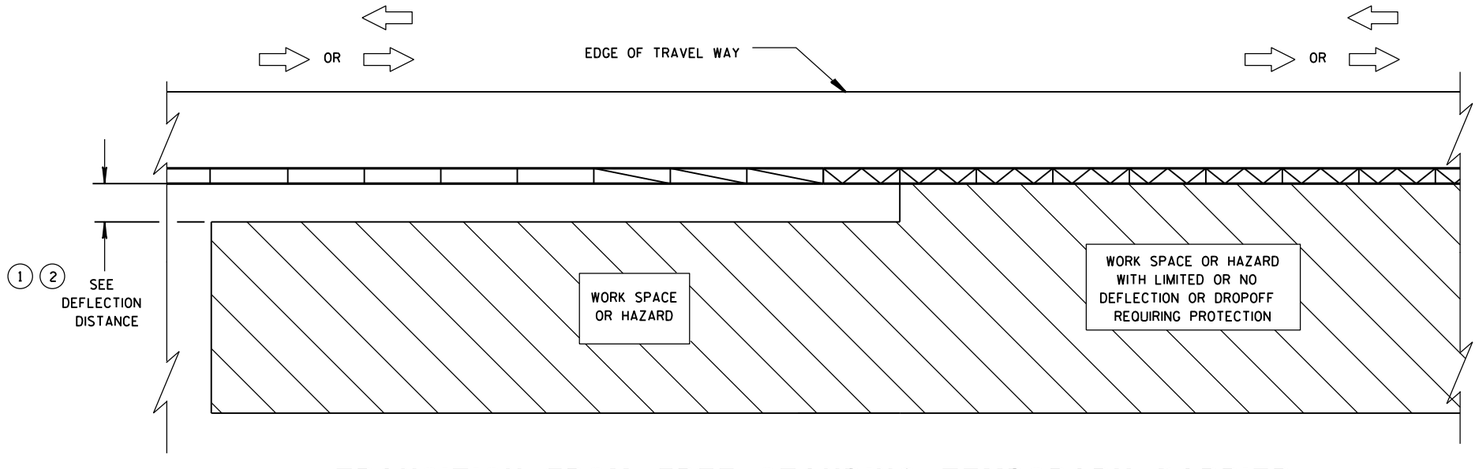
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

S.D.D. 14 B 8-2a



CRASH CUSHION/SAND BARREL ARRAY AND TEMPORARY BARRIER INSTALLATION FOR TRAFFIC ON ONE SIDE - FLARED INSTALLATION



TRANSITION FROM FREE STANDING TEMPORARY BARRIER TO ANCHORED BARRIER

LEGEND

- DIRECTION OF TRAVEL
- CRASH CUSHION OR SAND BARREL ARRAY
- SEE FREE STANDING TRANSITION TO TIED-DOWN SYSTEM DETAILS
- SEE BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM DETAILS
- 3 PINS PLACED ON TRAFFIC SIDE OF BARRIER
- PERMANENT CONCRETE BARRIER OR CONCRETE PARAPET
- FREE STANDING TEMPORARY BARRIER

CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS

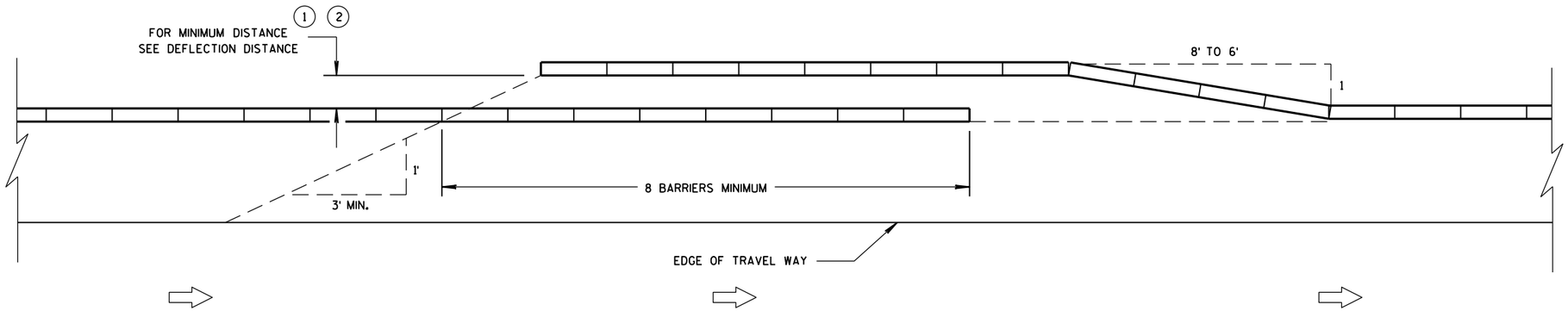
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6

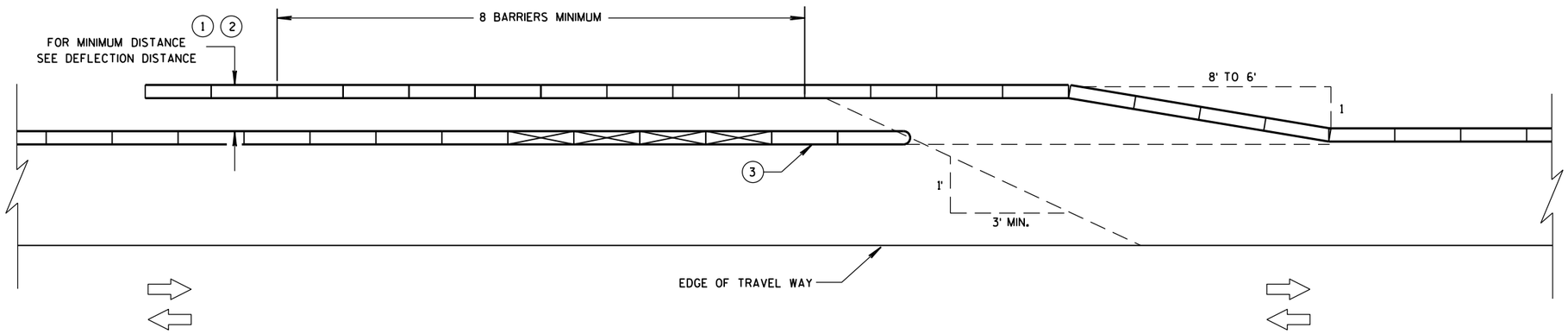
S.D.D. 14 B 8-2b

6

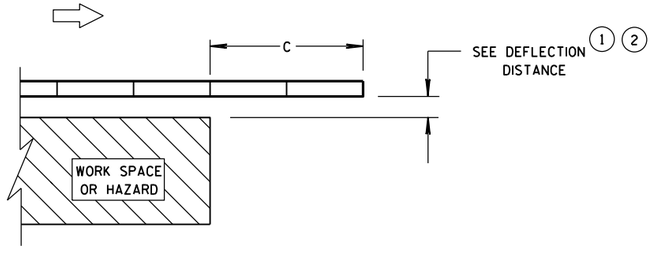
S.D.D. 14 B 8-2b



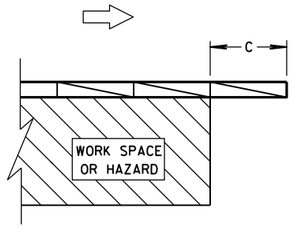
TEMPORARY BARRIER OVERLAP - ONE-WAY TRAFFIC



TEMPORARY BARRIER OVERLAP - TWO-WAY TRAFFIC



ENDING TEMPORARY BARRIER DOWNSTREAM - UNANCHORED



ENDING TEMPORARY BARRIER DOWNSTREAM - ANCHORED

LEGEND

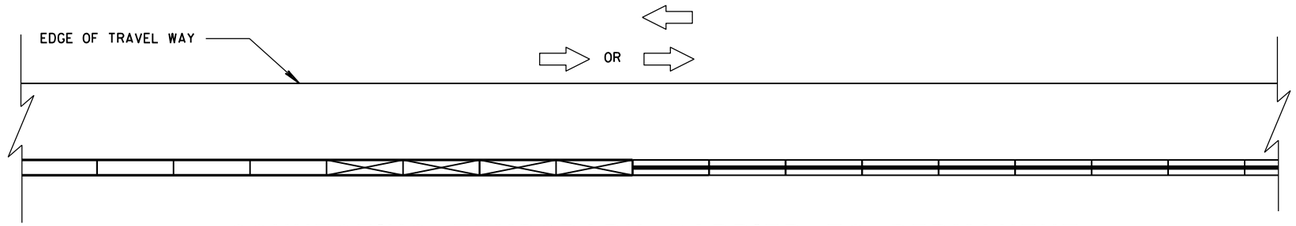
- DIRECTION OF TRAVEL
- CRASH CUSHION OR SAND BARREL ARRAY
- SEE FREE STANDING TRANSITION TO TIED-DOWN SYSTEM DETAILS
- SEE BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM DETAILS
- 3 PINS PLACED ON TRAFFIC SIDE OF BARRIER
- PERMANENT CONCRETE BARRIER OR CONCRETE PARAPET
- FREE STANDING TEMPORARY BARRIER

CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS

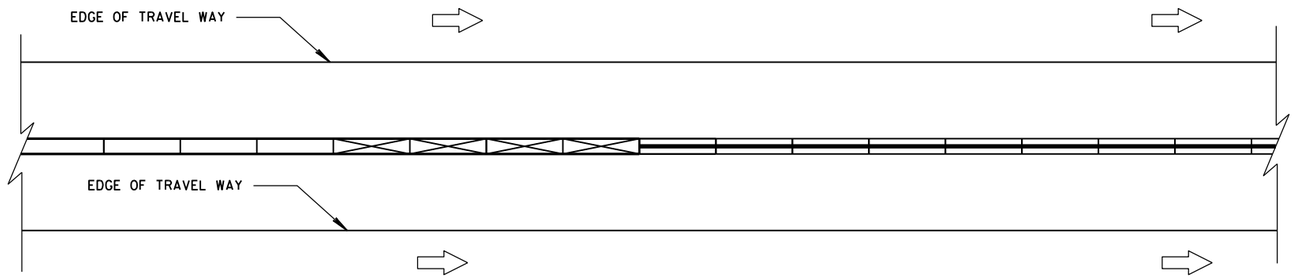
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

S.D.D. 14 B 8-2c



CONNECTING TEMPORARY BARRIER TO PERMANENT
CONCRETE BARRIER-TRAFFIC ON ONE SIDE



CONNECTING TEMPORARY BARRIER TO PERMANENT
CONCRETE BARRIER-TRAFFIC ON BOTH SIDES

LEGEND

DIRECTION OF TRAVEL

CRASH CUSHION OR
SAND BARREL ARRAY

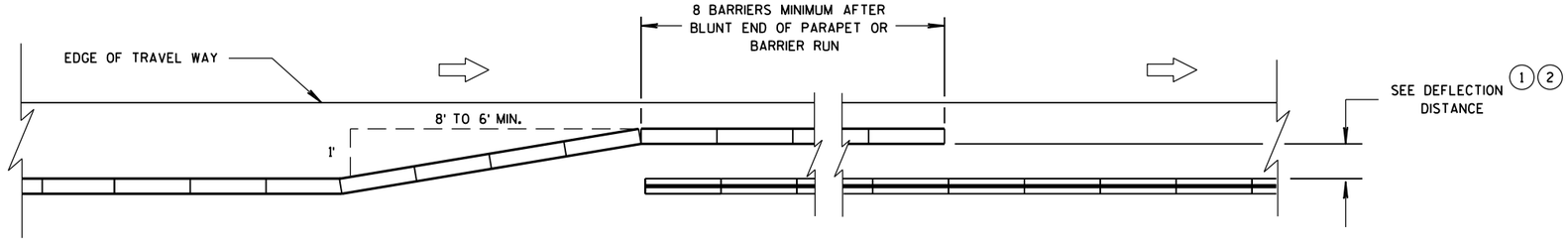
SEE FREE STANDING TRANSITION
TO TIED-DOWN SYSTEM DETAILS

SEE BI-DIRECTIONAL TRANSITION
TO TIED-DOWN SYSTEM DETAILS

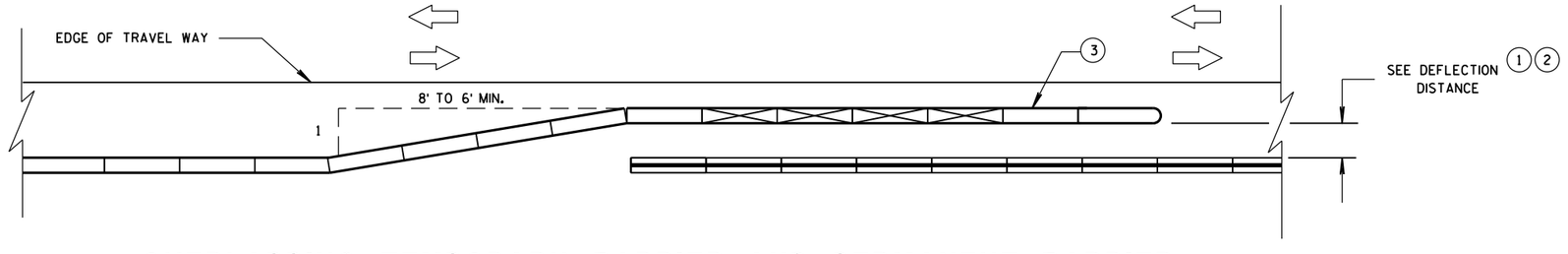
3 PINS PLACED ON
TRAFFIC SIDE OF BARRIER

PERMANENT CONCRETE BARRIER
OR CONCRETE PARAPET

FREE STANDING TEMPORARY
BARRIER



OVERLAPPING TEMPORARY BARRIER AND PERMANENT BARRIER -
ONE WAY TRAFFIC



OVERLAPPING TEMPORARY BARRIER AND PERMANENT BARRIER -
TWO WAY TRAFFIC

CRASH CUSHION/SAND BARREL
ARRAY AND OTHER TEMPORARY
BARRIER LAYOUT DETAILS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6

S.D.D. 14 B 8-2d

LEGEND

DIRECTION OF TRAVEL

CRASH CUSHION OR SAND BARREL ARRAY

SEE FREE STANDING TRANSITION TO TIED-DOWN SYSTEM DETAILS

SEE BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM DETAILS

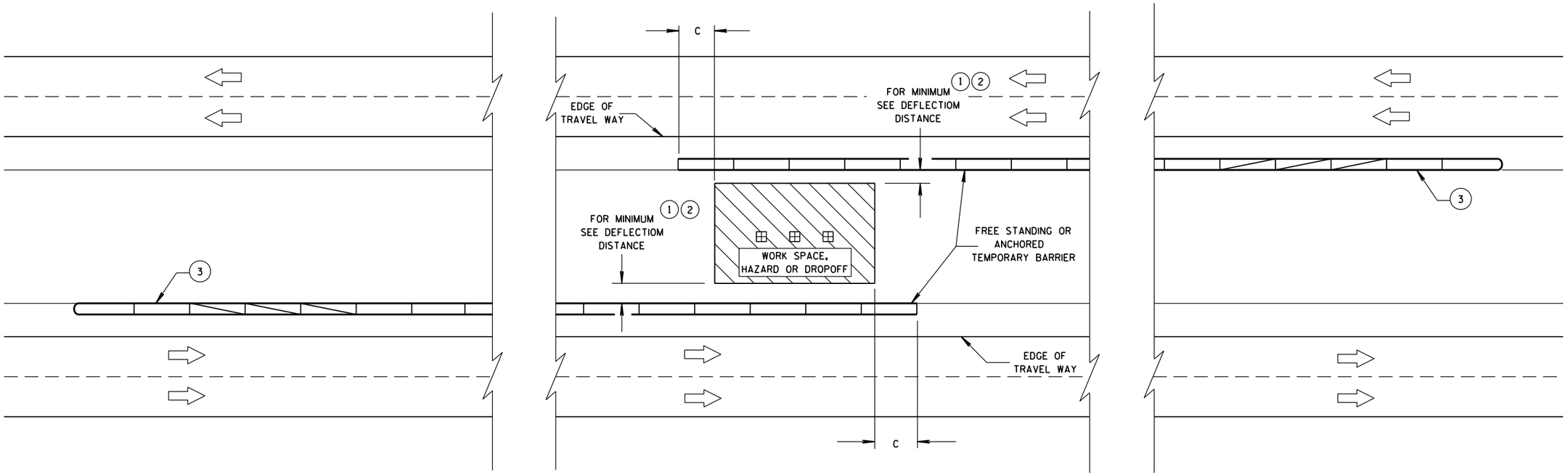
3 PINS PLACED ON TRAFFIC SIDE OF BARRIER

PERMANENT CONCRETE BARRIER OR CONCRETE PARAPET

FREE STANDING TEMPORARY BARRIER

DIMENSION C TABLE (2)

AVAILABLE DEFLECTION DISTANCE	MINIMUM LENGTH OF BARRIER BEYOND HAZARD FT
GREATER THAN 8'	12.5
LESS THAN OR EQUAL TO 8' BUT GREATER THAN 4'	50
LESS THAN OR EQUAL TO 4'	100



CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

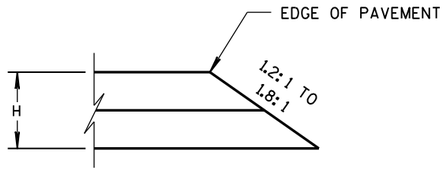
APPROVED
June, 2015 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS ENGINNER
FHWA

6

S.D.D. 14 B 8-2e

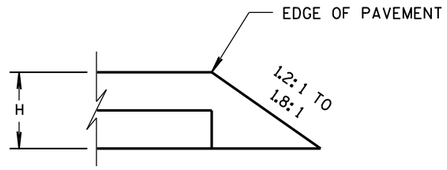
6

S.D.D. 14 B 8-2e



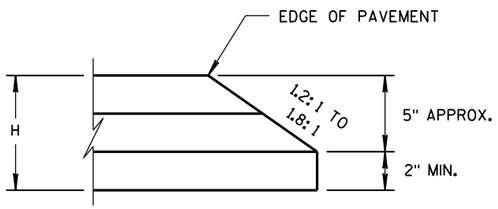
CONSTRUCTED WITH FINAL TWO LAYERS

FOR H 5" OR LESS



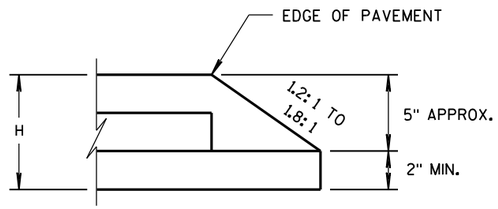
CONSTRUCTED WITH FINAL LAYER

FOR H 5" OR LESS



CONSTRUCTED WITH FINAL TWO LAYERS

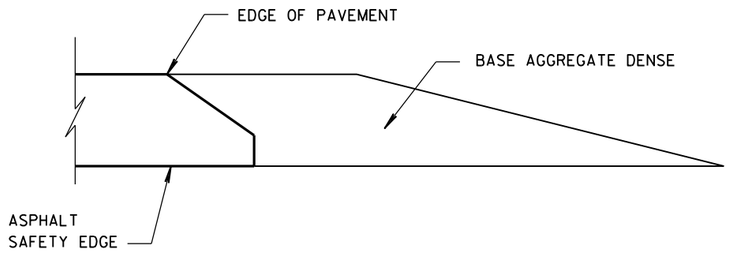
FOR H GREATER THAN 5"



CONSTRUCTED WITH FINAL LAYER

FOR H GREATER THAN 5"

HMA PAVEMENT AND HMA OVERLAYS



FINISHED SHOULDER AGGREGATE PLACEMENT

6

6

S.D.D. 14 B 29-1

S.D.D. 14 B 29-1

SAFETY EDGE SM

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

11/30/2012
DATE

/S/ Jerry H. Zoda
ROADWAY STANDARDS DEVELOPMENT ENGINEER

FHWA

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

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

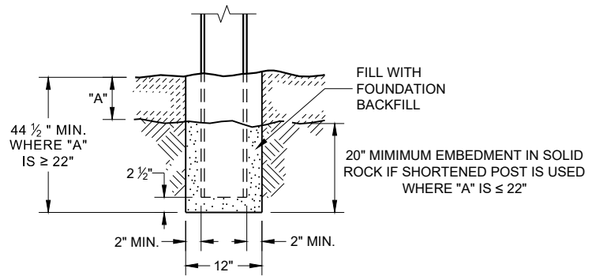
(3) IF ROCK IS ENCOUNTERED DURING EXCAVATION, PROVIDE A HOLE 12 INCHES IN DIAMETER EXTENDING 20 INCHES DEEP INTO THE ROCK. PLACE APPROXIMATELY 2 1/2" INCHES OF GRANULAR MATERIAL IN THE BOTTOM OF THE HOLE. CUT THE POSTS THE TO LENGTH AMD INSTALL. BACKFILL WITH EXCAVATED MATERIAL AND COMPACT. BACKFILL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

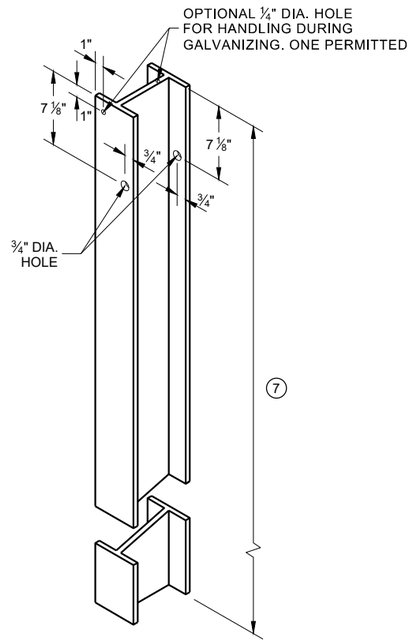
(5) FOR NEW MGS INSTALLATION TOP OF W-BEAM RAIL TOLERANCE IS ±1". FOR EXISTING MGS INSTALLATION TOP OF W-BEAM IS BETWEEN 27 ¾" TO 32".

(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.

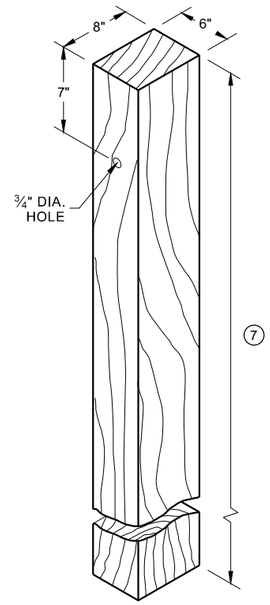
(7) TOTAL POST LENGTH FOR TYPE K IS 7' - 0".
TOTAL POST LENGTH FOR OTHER MGS TYPES IS 6' - 0".



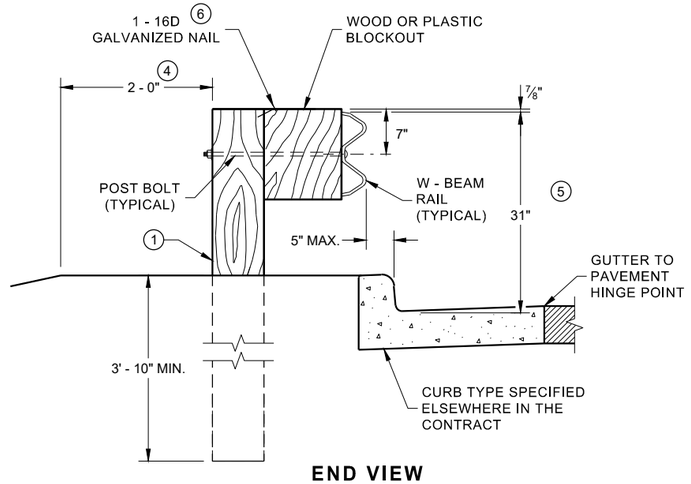
END VIEW
SETTING STEEL OR WOOD POST IN ROCK (3)



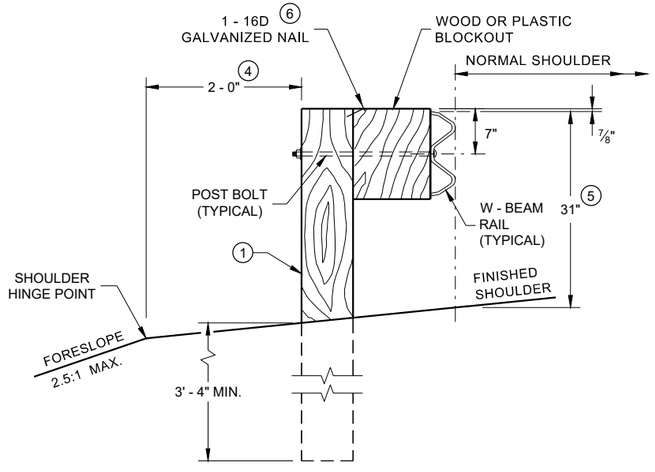
STEEL POST & HOLE PUNCHING DETAIL (W 6 X 9) (1)



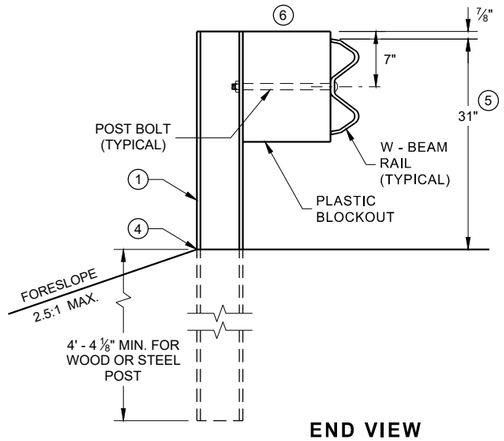
WOOD POST (6" X 8") NOMINAL (1)



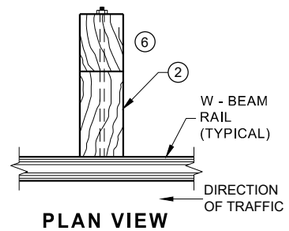
END VIEW
LOCATED ALONG A CURBED ROADWAY



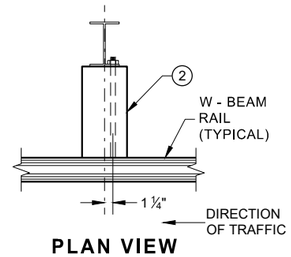
END VIEW
LOCATED ALONG A ROADWAY SHOULDER STANDARD INSTALLATION



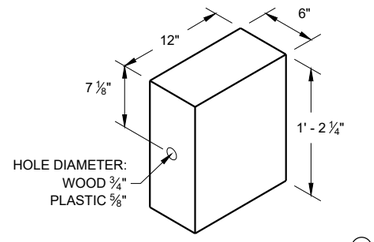
END VIEW
MGS LONGER POST AT HALFPOST SPACING W BEAM (K)



PLAN VIEW
WOOD POST, BLOCKOUT & BEAM



PLAN VIEW
STEEL POST, PLASTIC BLOCKOUT & BEAM



WOOD OR PLASTIC BLOCKOUT (2)

MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

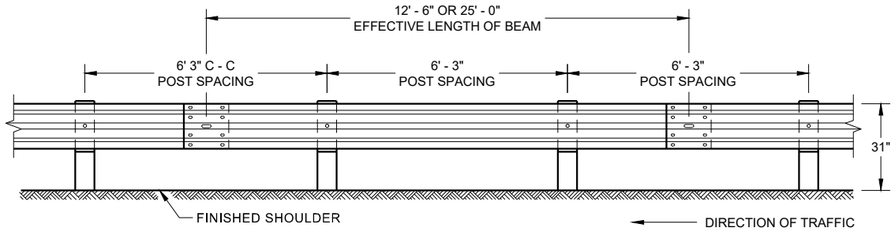
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

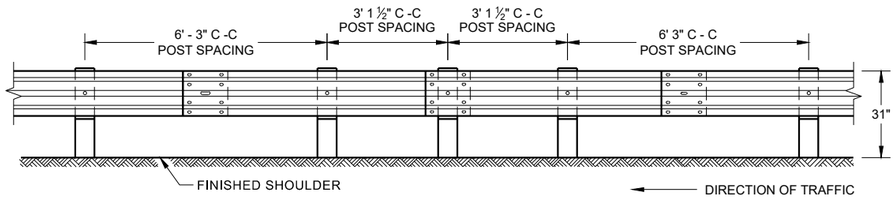
SDD 14B42 - 07a

6

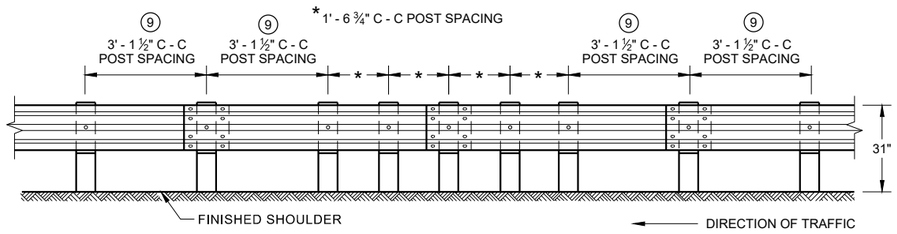
SDD 14B42 - 07a



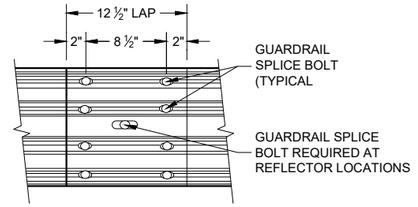
FRONT VIEW
POST SPACING STANDARD INSTALLATION



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

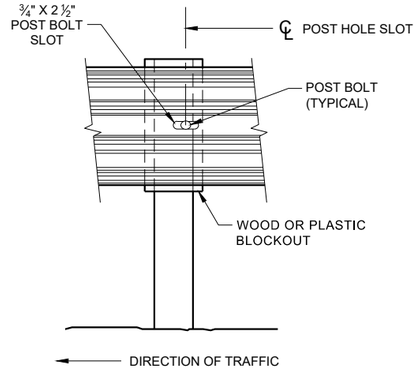
GENERAL NOTES

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

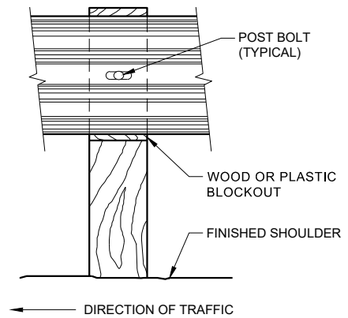
⑨ 25 FEET OF HALF POST SPACING IS REQUIRED ON APPROACH AND DEPARTURE ENDS OF QUARTER POST SPACING.

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.

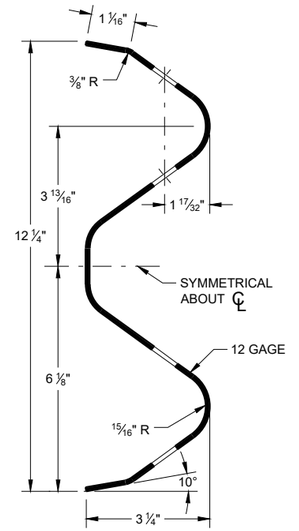
GUARD RAIL SPLICE BOLTS ARE A ⅝" DIAMETER ASTM A307 GUARDRAIL HEAD BOLT. A GUARDRAIL SPLICE BOLT REQUIRES ⅝" DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX NUT.



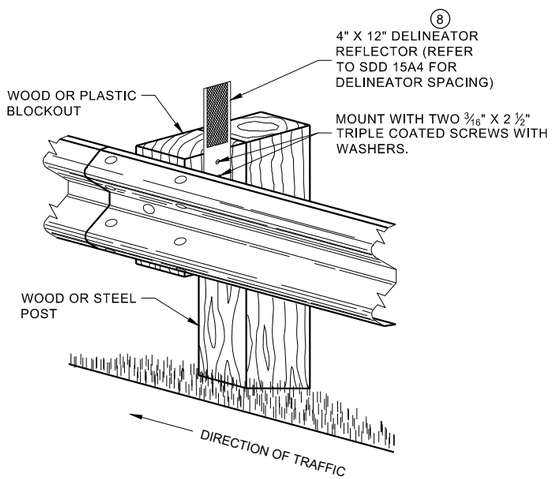
FRONT VIEW AT STEEL POST



FRONT VIEW AT WOOD POST



SECTION THRU W-BEAM RAIL



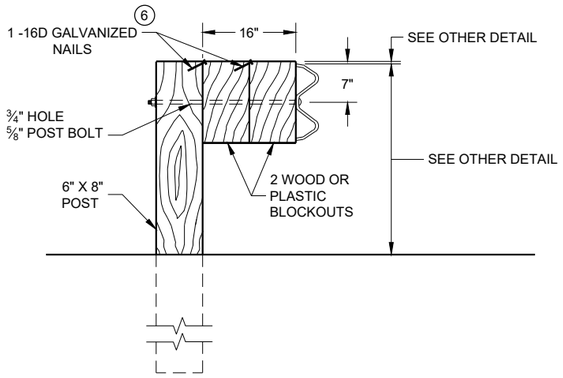
ONE SIDED REFLECTOR DETAIL
AND TYPICAL INSTALLATION

MIDWEST GUARDRAIL SYSTEM
(MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

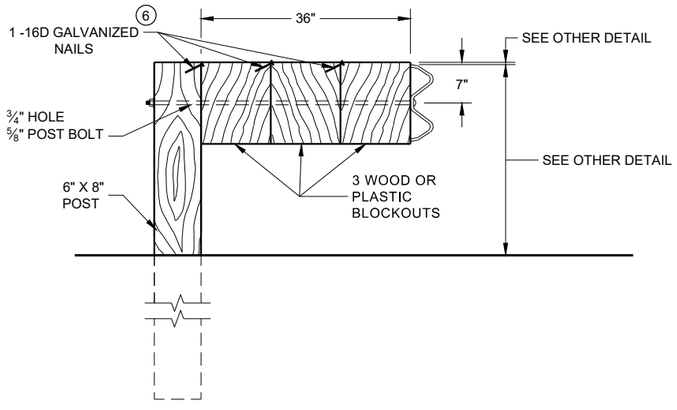
6

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.



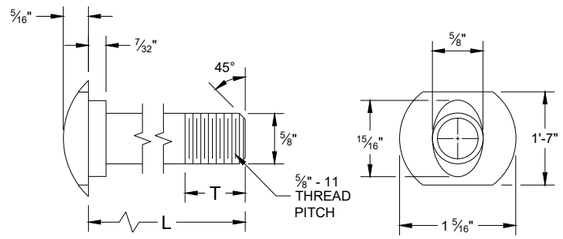
DETAIL FOR 36" BLOCKOUT DEPTH

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

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

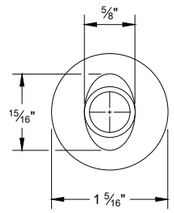
NOTE:

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.

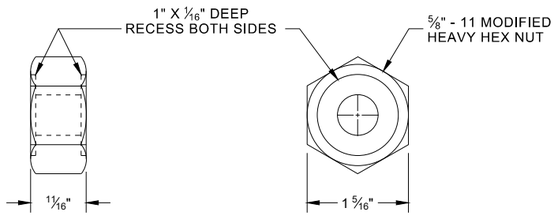


POST BOLT TABLE

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

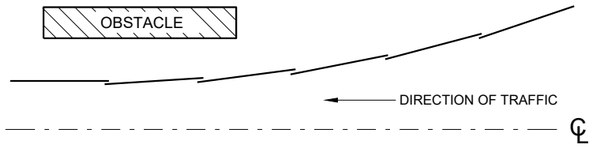


ALTERNATE BOLT HEAD

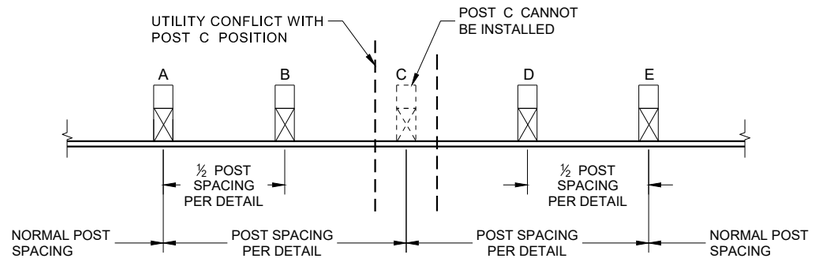


POST BOLT, SPLICE BOLT AND RECESS NUT

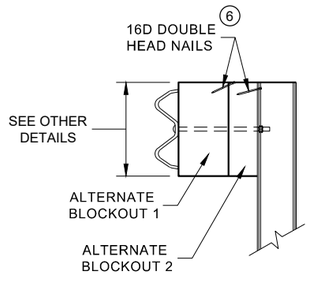
(6) WHEN USING STEEL POST AD WOOD BLOCKOUTS, INSTALL FOUR 16D GALVANIZED NAILS. INSTALL NAILS AT THE BACK CORNERS OF THE BLOCK AND BEND THE NAILS OVER THE FLANGE OF THE STEEL POST.



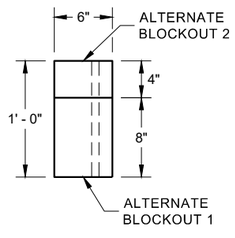
PLAN VIEW
BEAM LAPPING DETAIL



POST DRIVING FOR CONTINUOUS UNDERGROUND OBSTRUCTION



SIDE VIEW



PLAN VIEW

ALTERNATE WOOD BLOCKOUT DETAIL

6

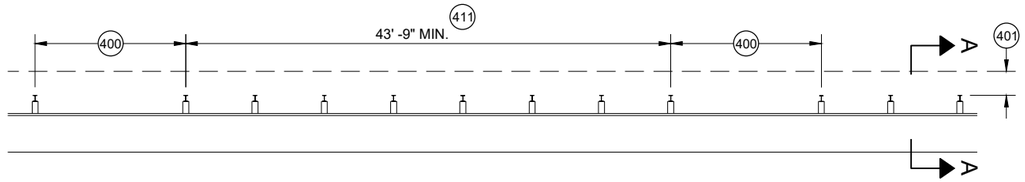
SDD 14B42 - 07c

MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

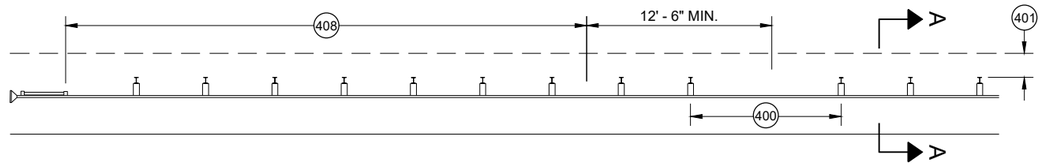
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

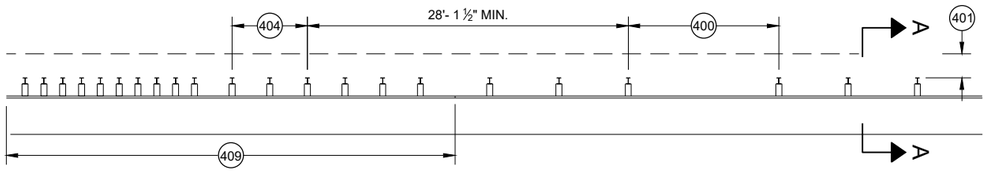
SDD 14B42 - 07c



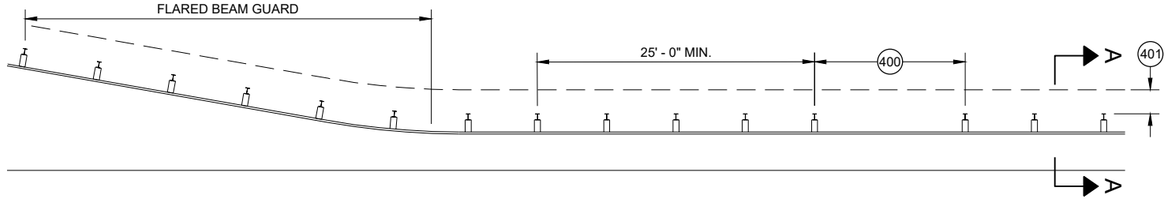
MISSING POST IN MGS GUARDRAIL



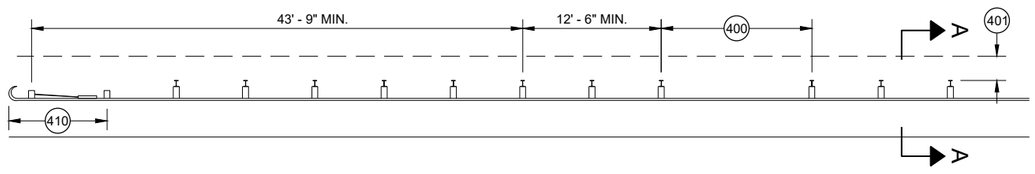
MISSING POST IN MGS GUARDRAIL NEAR EAT



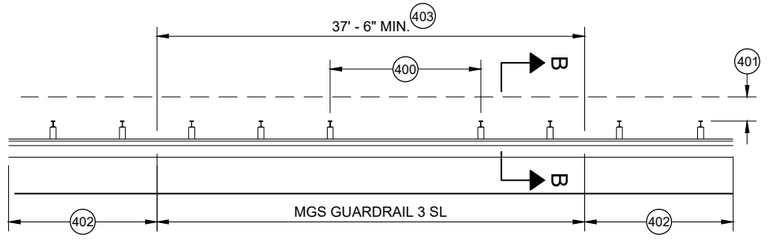
MISSING POST IN MGS GUARDRAIL NEAR AN APPROACH TRANSITION



MISSING POST IN MGS GUARDRAIL NEAR FLARED BEAM GUARD

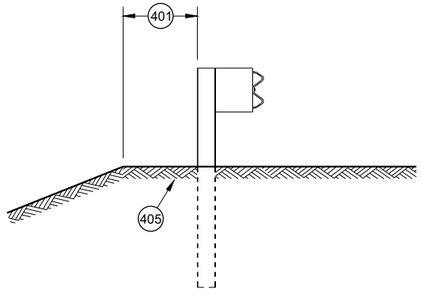


MISSING POST IN MGS GUARDRAIL NEAR A TYPE 2 END TERMINAL

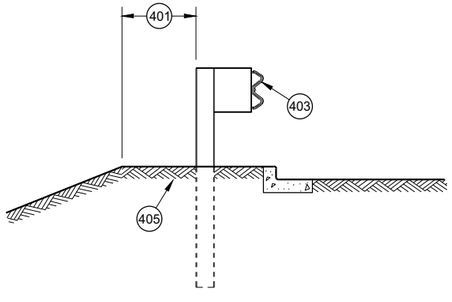


MISSING POST IN SHORT SPAN MGS GUARDRAIL NEAR CURB (SL) 407

(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.

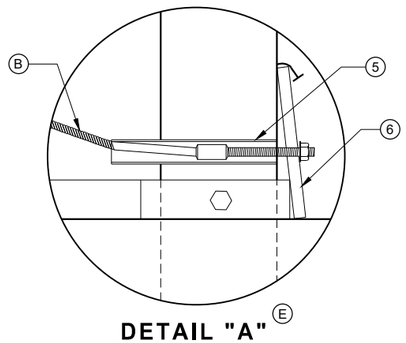
SEE SDD 14B42 FOR MORE INFORMATION.

* DO NOT ATTACH BLOCKOUTS TO POST 1 AND 2.

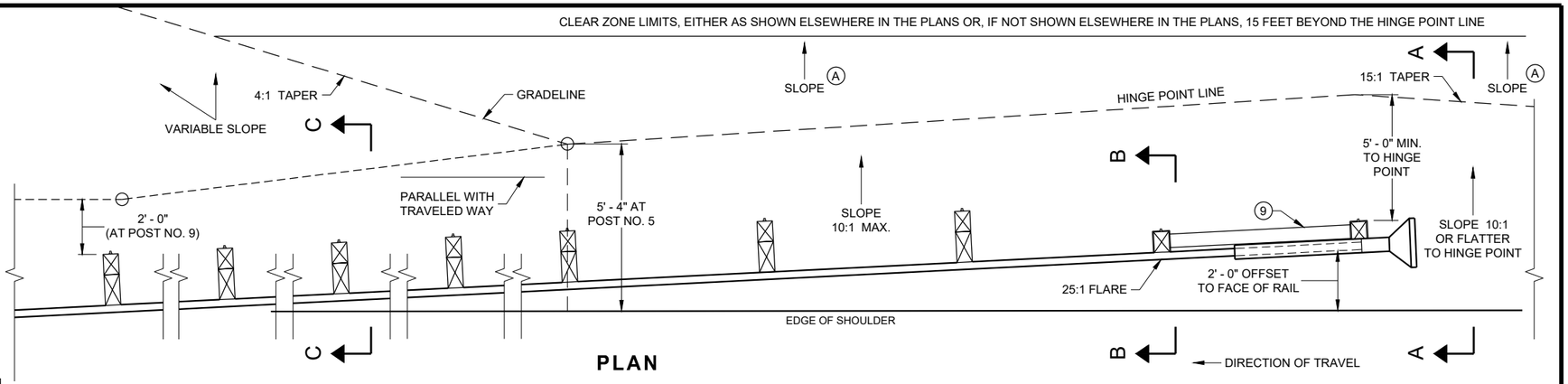
DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL.

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

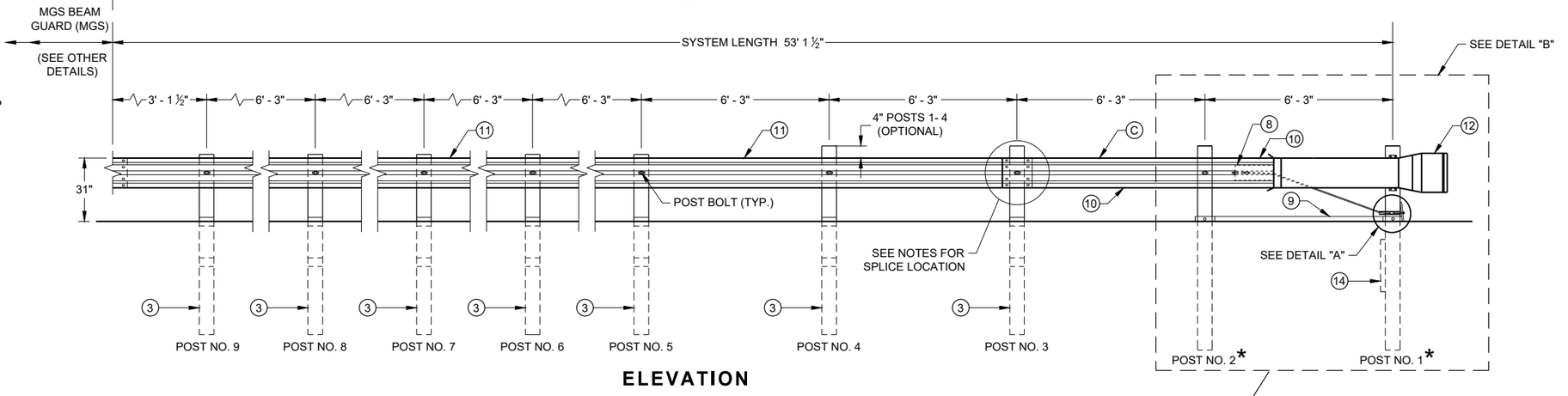
THE CENTER OF THE UPPER 3 ½" DIAMETER HOLE ON POST NUMBER 3 THROUGH POST 9 IS TO BE FLUSH WITH THE GROUND LINE UP TO A MAXIMUM OF 2" ABOVE GROUND LINE. WOOD BLOCKS ON POSTS NUMBERED 3 THROUGH 9 MAY BE ADJUSTED UP TO 3" ABOVE THE TOP OF POST.



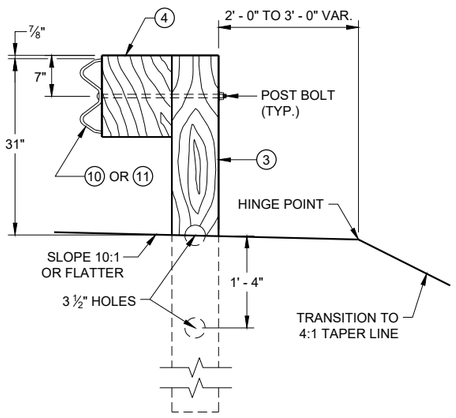
DETAIL "A" (E)



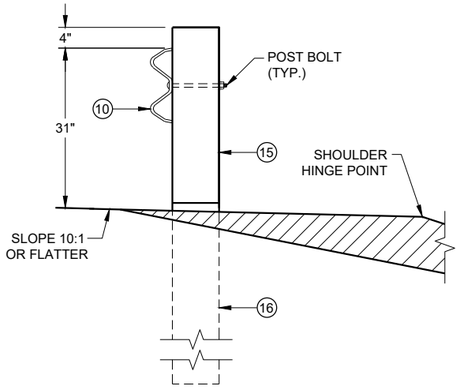
PLAN



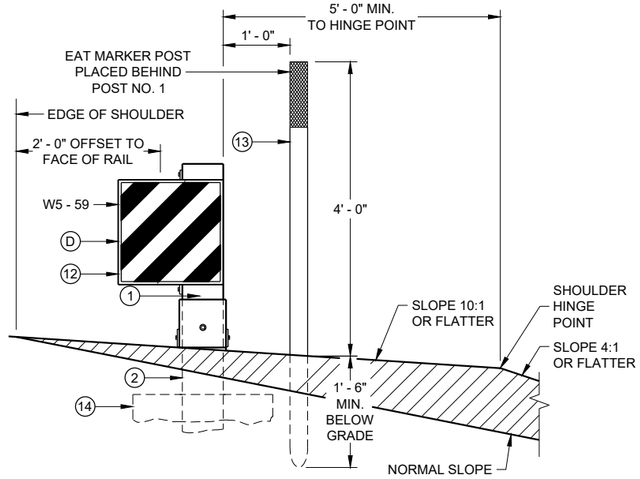
ELEVATION



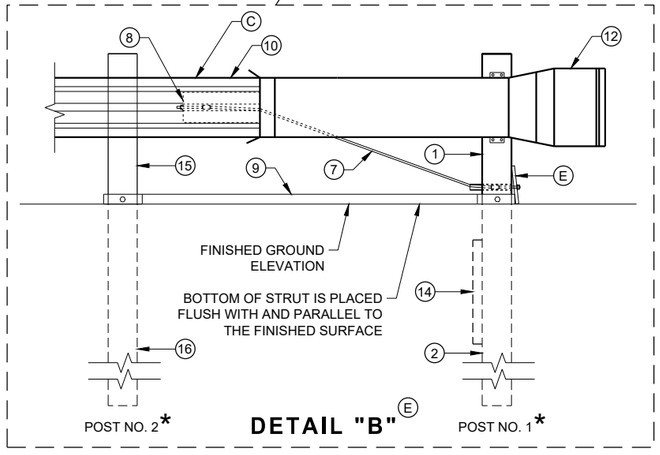
SECTION C - C
TYPICAL AT POST NOS. 3 - 9



SECTION B - B
TYPICAL AT POST NO. 2*



SECTION A - A
TYPICAL AT POST NO. 1*



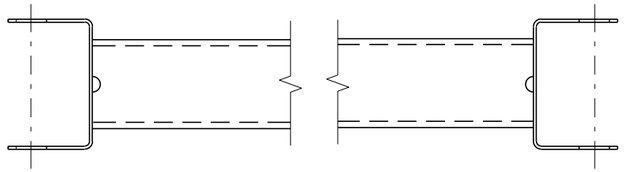
DETAIL "B" (E)

MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

SDD 14B44 - 04a

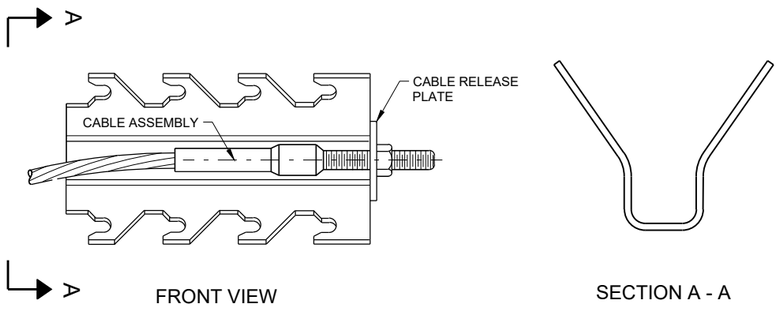
SDD 14B44 - 04a



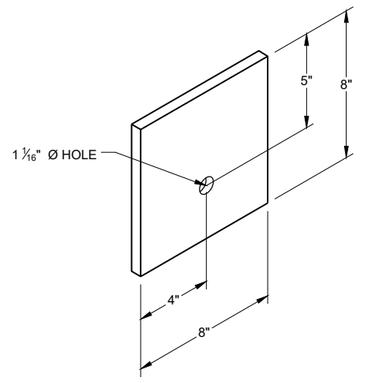
GENERIC GROUND STRUT ⑨ Ⓔ

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

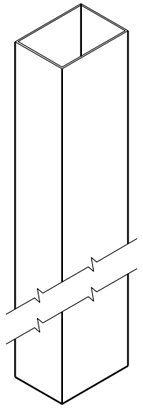
6

SDD 14B44 - 04b

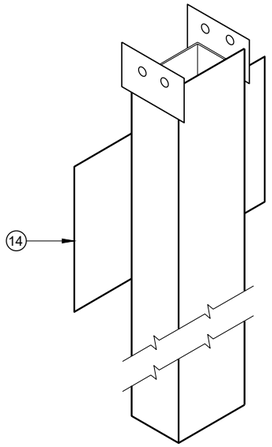
SDD 14B44 - 04b

MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL
(MGS)

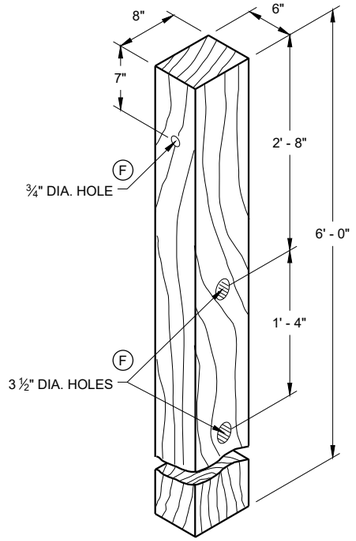
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



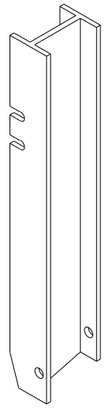
UPPER POST NO. 1 (1) (E)



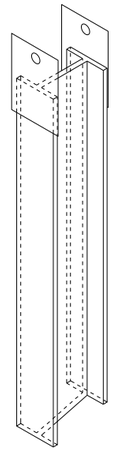
LOWER POST NO. 1 (2) (E)



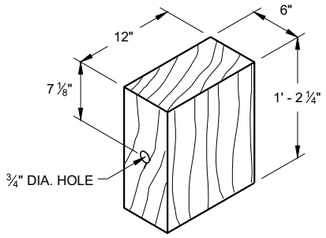
WOOD CRT POST (3) (E)
POSTS NUMBER 3-9



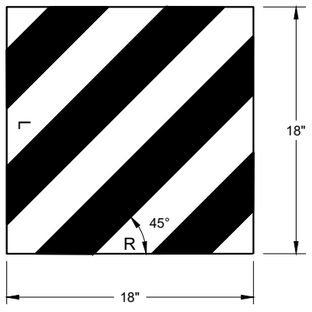
UPPER POST NO. 2 (15) (E)



LOWER POST NO. 2 (16) (E)

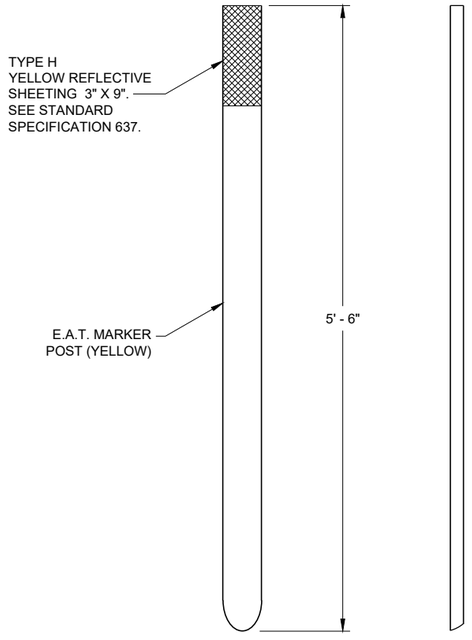


WOOD BLOCKOUT (4)
REQ'D. AT ALL POSTS EXCEPT POST NO'S 1 & 2



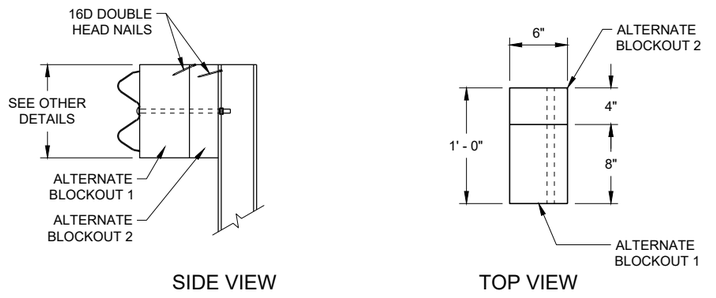
W5 - 59

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)

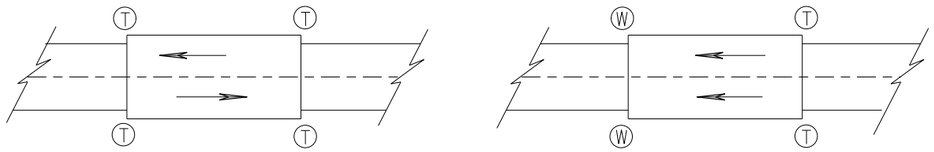
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

FHWA

6

SDD 14B44 - 04c



TWO WAY TRAFFIC

ONE WAY TRAFFIC

(T) THRIE BEAM CONNECTION

(W) W-BEAM CONNECTION WHEN REQUIRED

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

GENERAL NOTES

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

TRANSITION USES STEEL POSTS ONLY.

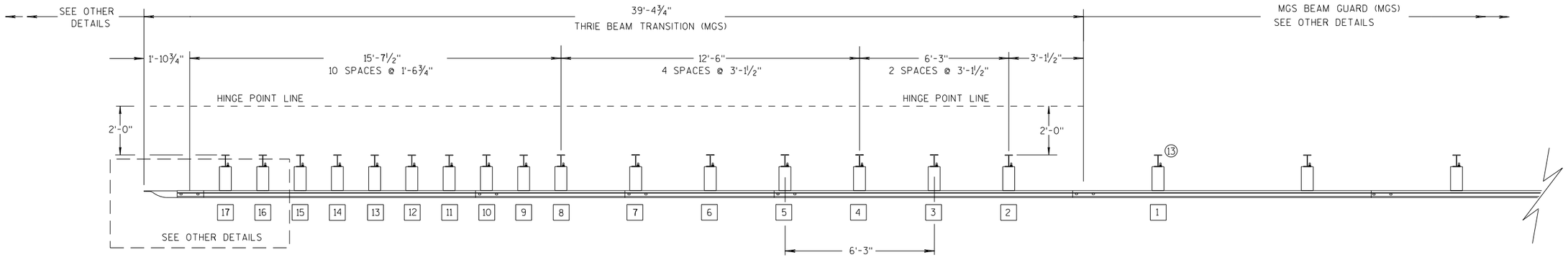
SEE STANDARD DETAIL DRAWING 14 B 42 FOR MORE INFORMATION.

POST 2 THROUGH 17 USES STEEL POST ONLY

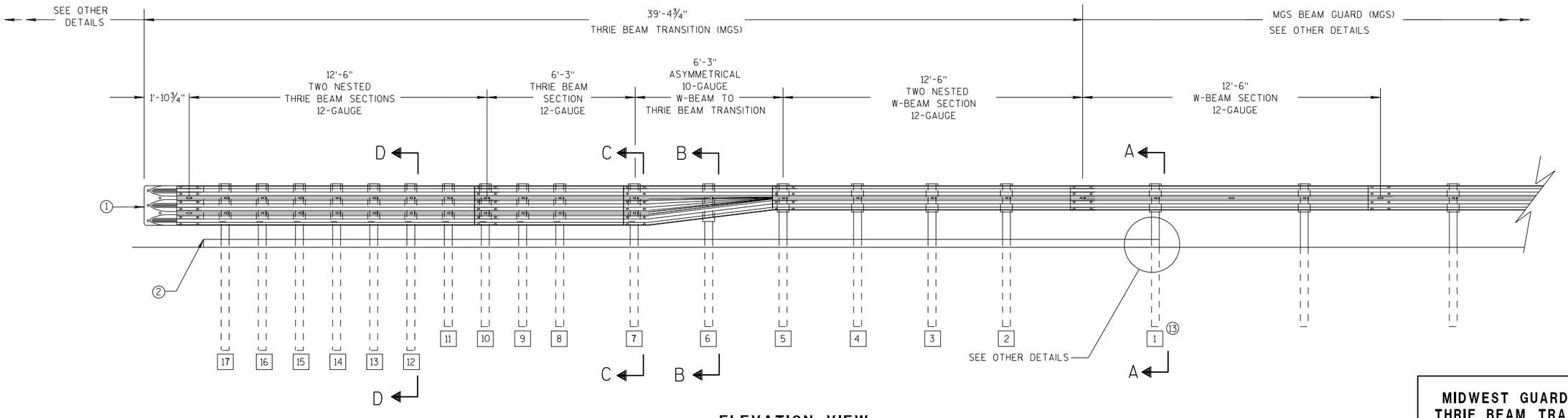
(1) BRIDGE RAILING TYPE "W" DOES NOT REQUIRE A TERMINAL CONNECTOR.

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

(13) STEEL OR WOOD POST IS ACCEPTABLE AT POST 1. SEE SDD14B42



PLAN VIEW



ELEVATION VIEW

MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

S.D.D. 14 B 45-5a

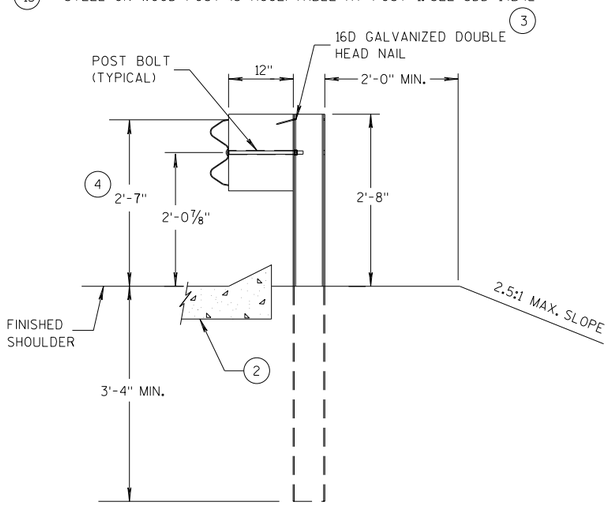
GENERAL NOTES

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

(3) WHEN USING STEEL POSTS AND WOOD BLOCKOUTS INSTALL FOUR 10D GALVANIZED NAILS. INSTALL NAILS AT THE BACK CORNERS OF THE BLOCK AND BEND THE NAILS OVER THE FLANGE OF THE STEEL POST.

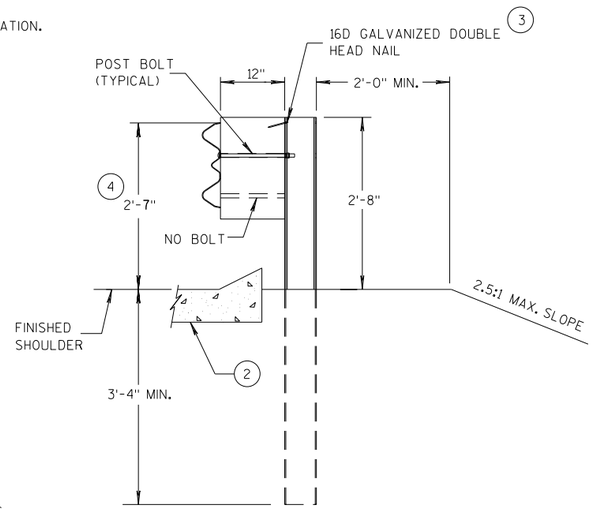
(4) TOLERANCE FOR TOP OF W-BEAM RAIL IS ± 1".

(13) STEEL OR WOOD POST IS ACCEPTABLE AT POST 1. SEE SDD 14B42



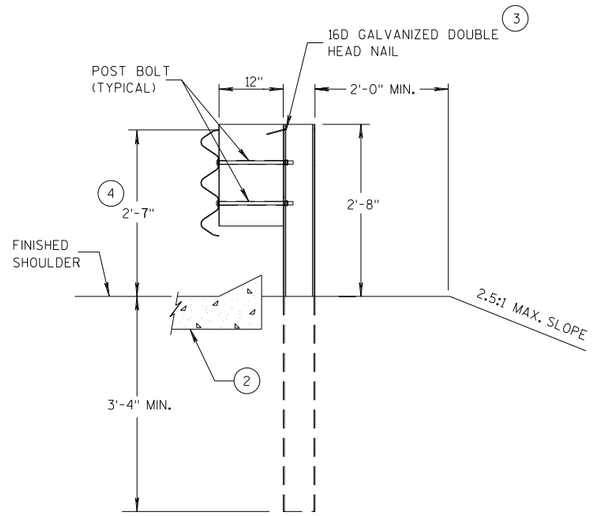
SECTION A-A (13)

POSTS 1-5



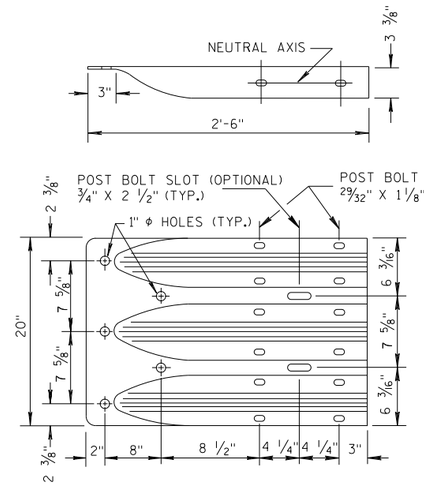
SECTION B-B

POST 6

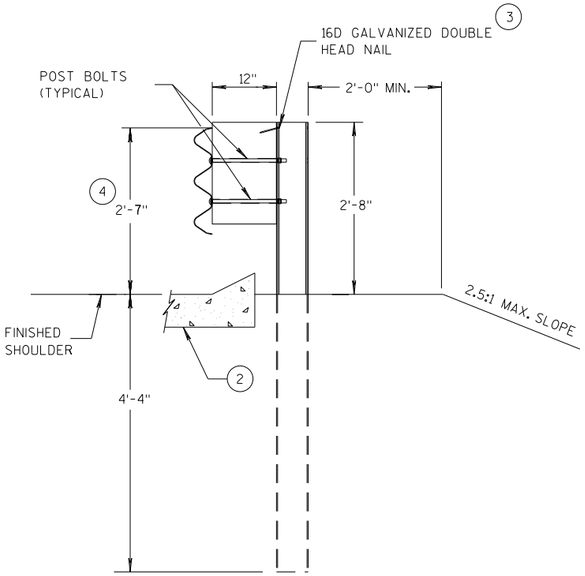


SECTION C-C

POSTS 7-11

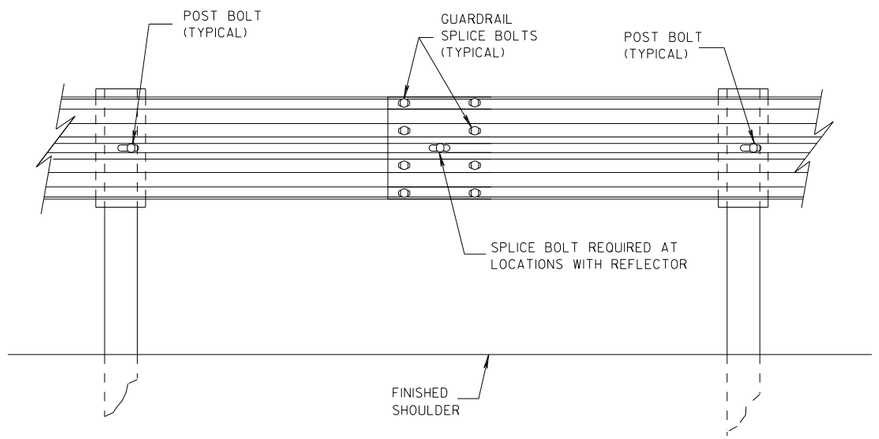


THRIE BEAM TERMINAL CONNECTOR



SECTION D-D

POSTS 12-17



SPLICE DETAIL

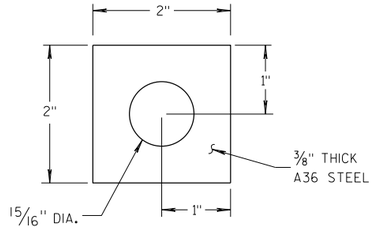
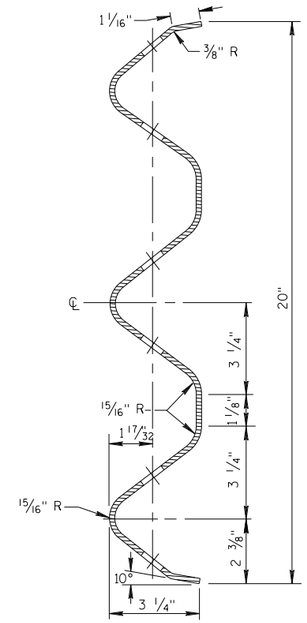


PLATE WASHER DETAIL



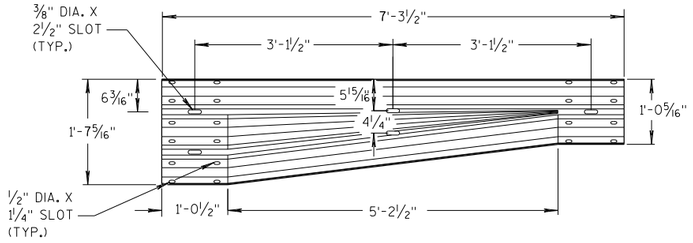
SECTION THRU THRIE BEAM RAIL ELEMENT

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

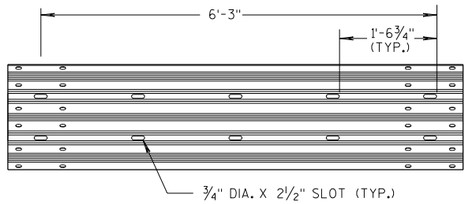
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOF

6

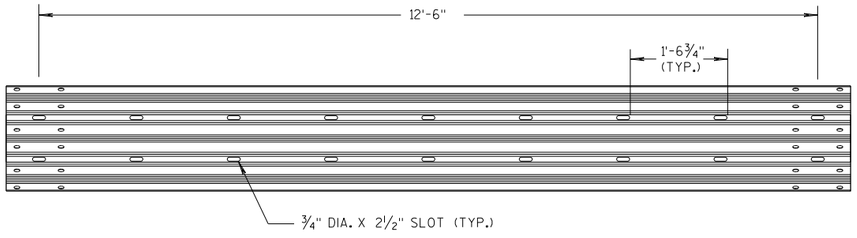
S.D.D. 14 B 45-5b



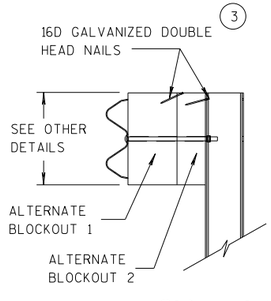
W-BEAM TO THRIE BEAM TRANSITION SECTION



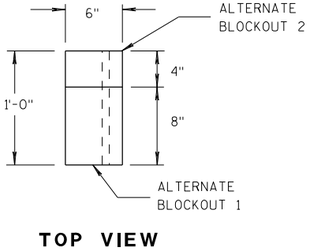
6'-3" THRIE BEAM SECTION



12'-6" THRIE BEAM SECTION

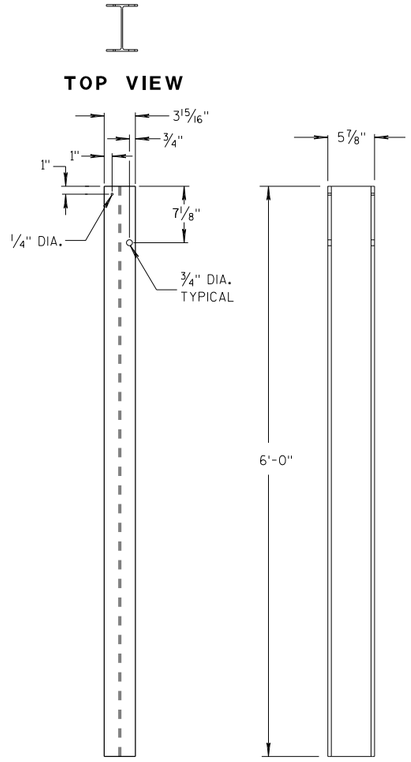


SIDE VIEW



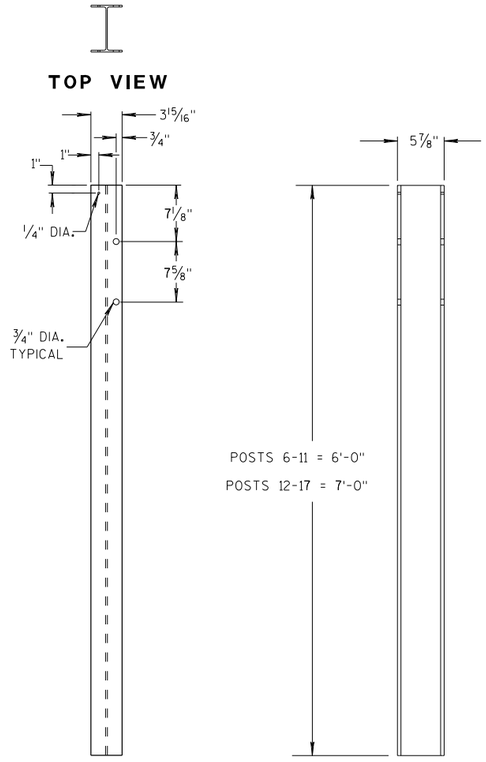
TOP VIEW

ALTERNATE WOOD BLOCKOUT DETAIL



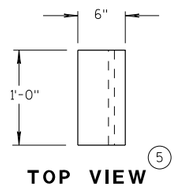
FRONT VIEW SIDE VIEW

STEEL POSTS 1-5 (13)

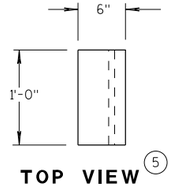


FRONT VIEW SIDE VIEW

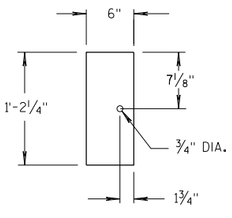
STEEL POSTS 6-17



TOP VIEW (5)

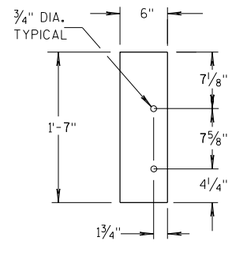


TOP VIEW (5)



FRONT VIEW

BLOCKOUT POSTS 1-5



FRONT VIEW

BLOCKOUT POSTS 6-17

GENERAL NOTES

STEEL POSTS ARE W6X9 OR W6X8.5.

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

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

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

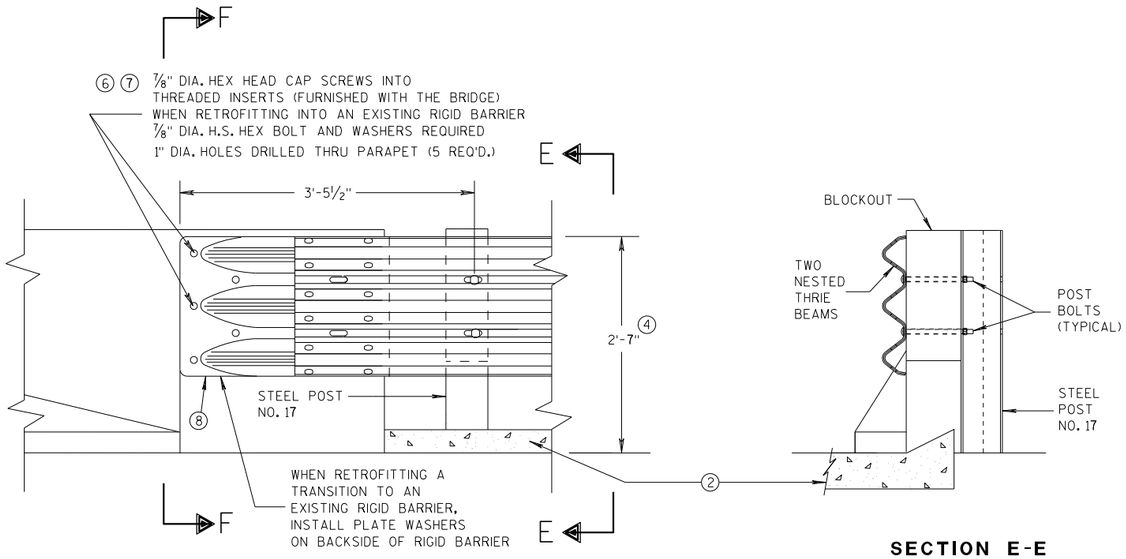
(13) STEEL OR WOOD POST IS ACCEPTABLE AT POST 1. SEE SDD 14B42.

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOF

6

S.D.D. 14 B 45-5c



FRONT VIEW

SECTION E-E

THRIE BEAM CONNECTION TO BRIDGE PARAPET WITH SQUARE ENDS

GENERAL NOTES

THESE ARE TYPICAL CONNECTION DETAILS. ADJUST THE POSTION OF CONNECTIONS TO EXISTING BRIDGES TO FIT THE ACTUAL BRIDGE AND SITE DIMENSIONS.

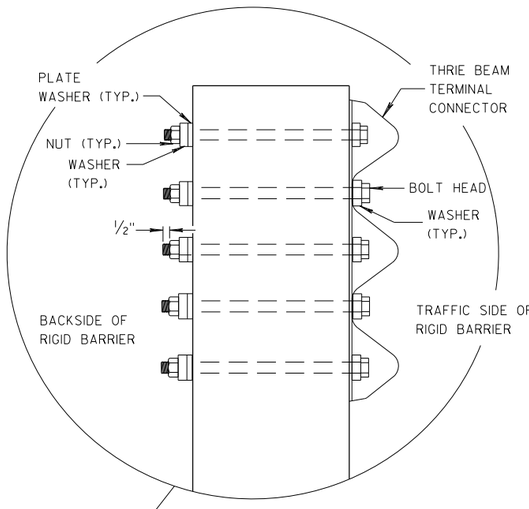
② OPTIONAL CURB AND GUTTER OR DRAINAGE FEATURE SEE PLAN FOR INFORMATION.

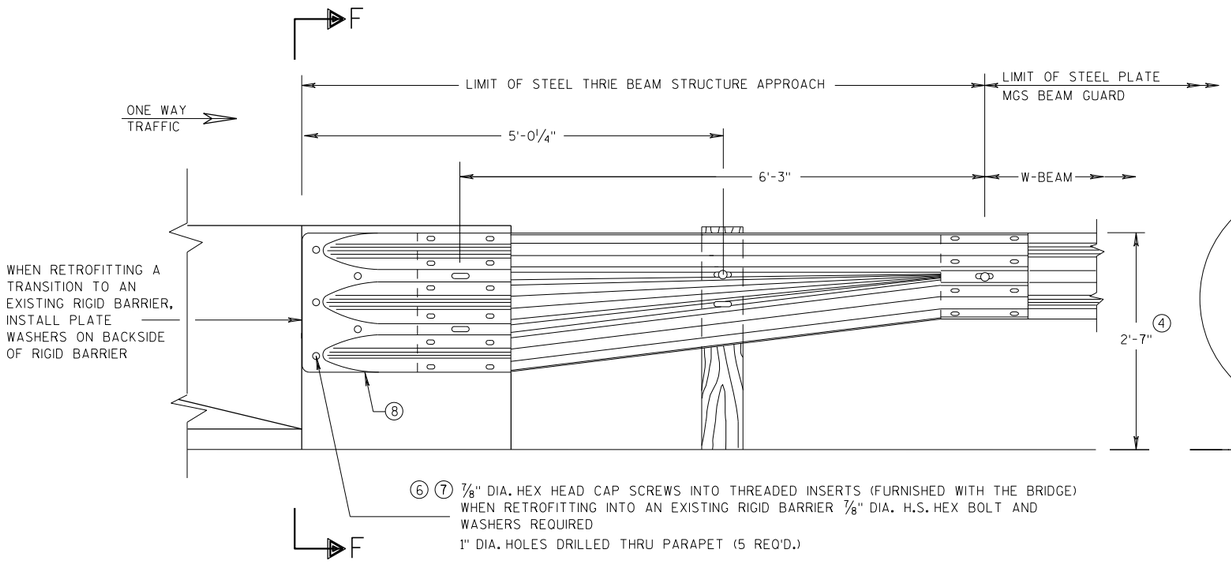
④ TOLERANCE FOR TOP OF BEAM IS ± 1".

⑥ DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

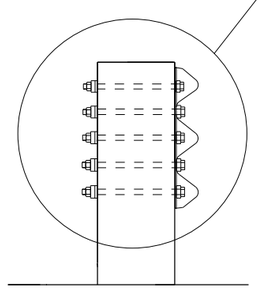
⑦ BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE. BOLTS THAT EXTEND THROUGH THE PARAPET AND OUT THE BACK FACE REQUIRE A HARDENED ROUND STEEL WASHER THAT IS 2" O.D. X 5/32" THICK AND ONE PLATE WASHER. REPAIR ANY DAMAGED CONCRETE FROM BOLT INSTALLATION.

⑧ THE RECESS FOR A W-BEAM CONNECTION, WHICH EXISTS ON SOME PARAPETS OF THIS TYPE, SHALL BE FILLED WITH A TREATED TIMBER BLOCKOUT. BLOCKOUT SIZE IS 1'-6" X 2'-0" X 3 1/2".

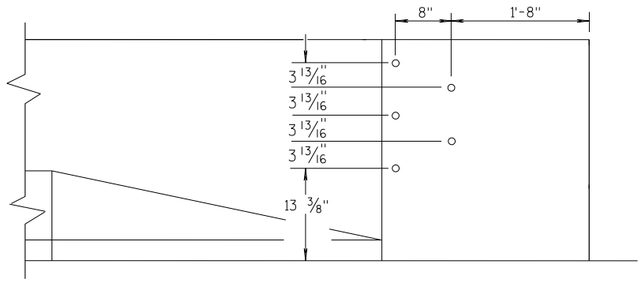




FRONT VIEW



SECTION F-F



DRILL HOLE LOCATION

W BEAM TRANSITION AND CONNECTION TO BRIDGE PARAPETS WITH SQUARE ENDS

(USE ONLY ON THE TRAFFIC EXIT END OF ONE WAY BRIDGES)

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
07/2018 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS D UNIT SUPERVIS
NT
FHWA

6

S.D.D. 14 B 45-5d

6

S.D.D. 14 B 45-5d

GENERAL NOTES

THESE ARE TYPICAL CONNECTION DETAILS. ADJUST THE POSTION OF CONNECTIONS TO EXISTING BRIDGES TO FIT THE ACTUAL BRIDGE AND SITE DIMENSIONS.

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

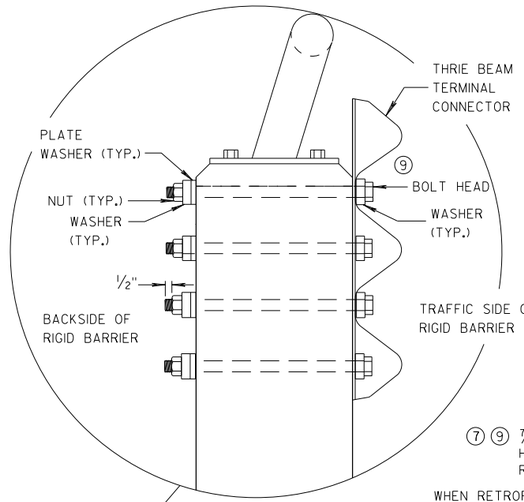
(4) TOLERANCE FOR TOP OF BEAM IS ± 1".

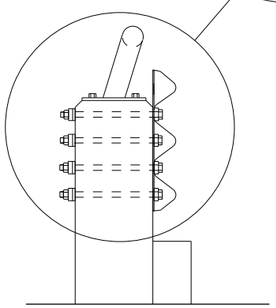
(6) DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

(7) BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE. BOLTS THAT EXTEND THROUGH THE PARAPET AND OUT THE BACK FACE REQUIRE A HARDENED ROUND STEEL WASHER THAT IS 2" O.D. X 5/32" THICK AND ONE PLATE WASHER. REPAIR ANY DAMAGED CONCRETE FROM BOLT INSTALLATION.

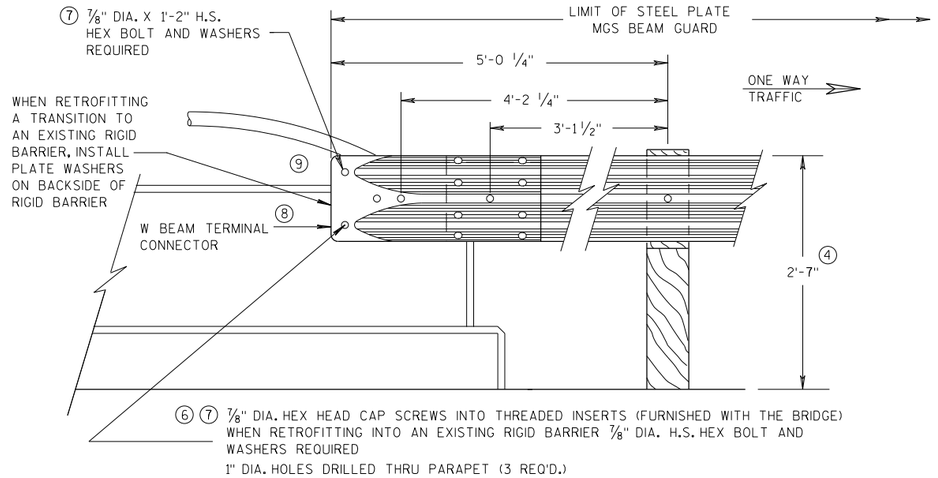
(8) THE RECESS FOR A W-BEAM CONNECTION, WHICH EXISTS ON SOME PARAPETS OF THIS TYPE, SHALL BE FILLED WITH A TREATED TIMBER BLOCKOUT. BLOCKOUT SIZE IS 1'-6" X 2'-0" X 3 ½".

(9) BOLT, NUT AND WASHERS NOT REQUIRED FOR THIS LOCATION WHEN RETROFITTING AN EXISTING PAPAPET AND THE HOLE IS EITHER ABOVE PARAPET OR WITHIN 4 INCHES OF THE EDGE OF PARAPET.





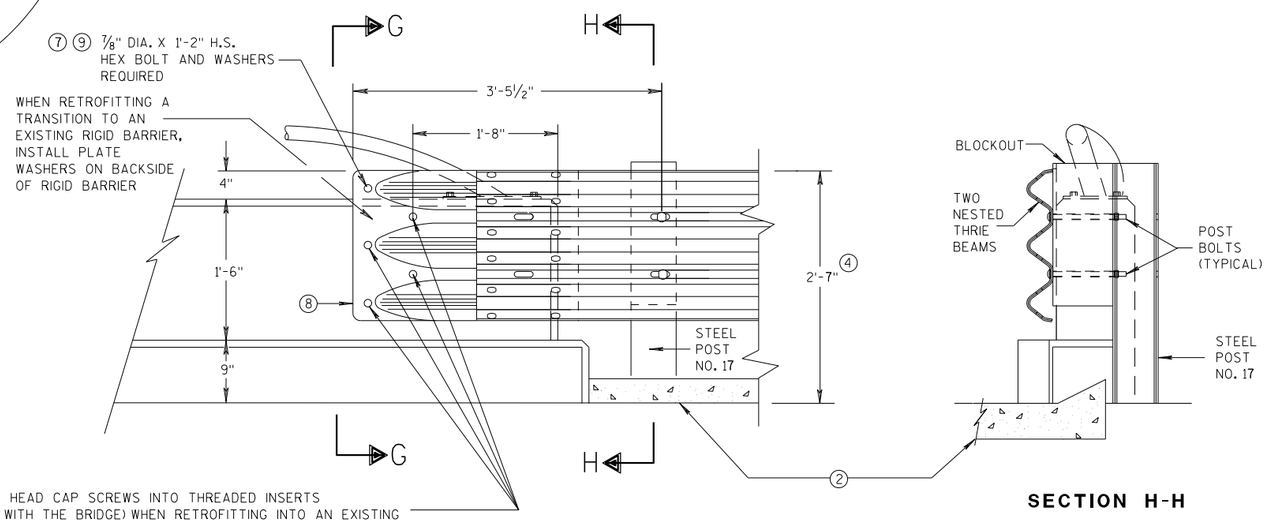
SECTION G-G



FRONT VIEW

W BEAM CONNECTION TO VERTICAL FACE PARAPET

(USE ONLY ON THE TRAFFIC EXIT END OF ONE WAY BRIDGES)



FRONT VIEW

SECTION H-H

THRIE BEAM CONNECTION TO VERTICAL FACED PARAPETS

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

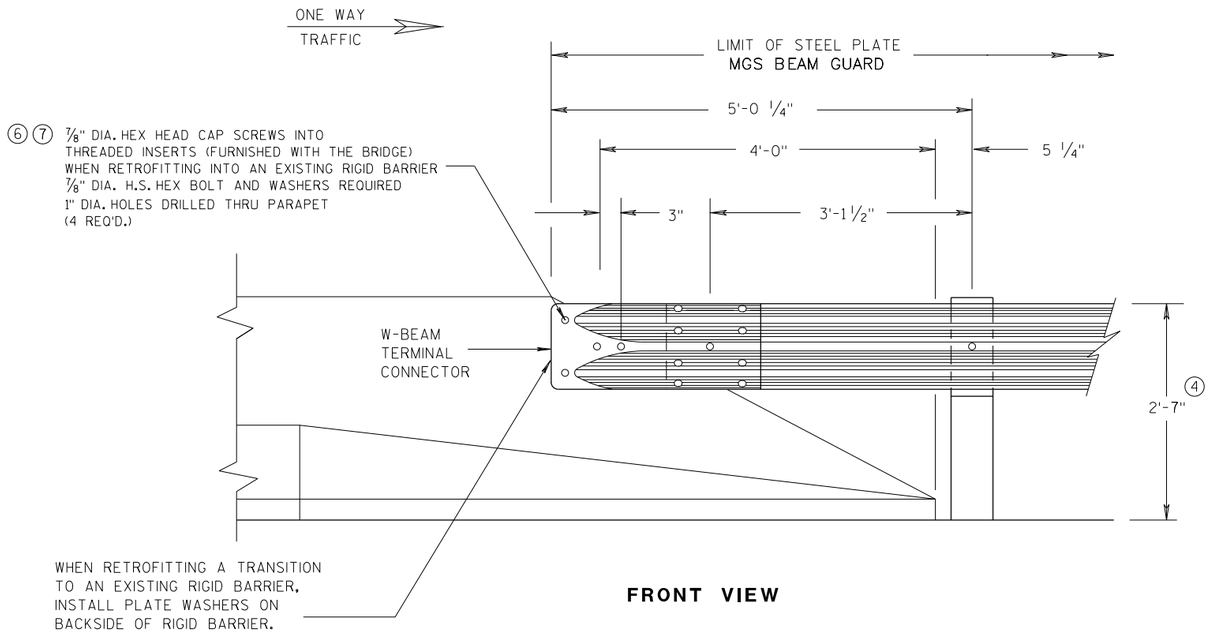
APPROVED
07/2018 — DATE
/S/ Rodney Taylor
ROADWAY STANDARDS D[illegible] UNIT SUPERVIS[illegible]
FHWA

6

S.D.D. 14 B 45-5e

6

S.D.D. 14 B 45-5e



FRONT VIEW

W BEAM CONNECTION TO PARAPETS WITH SLOPED ENDS

(USE ONLY AT TRAFFIC EXIT END OF ONE WAY BRIDGE)

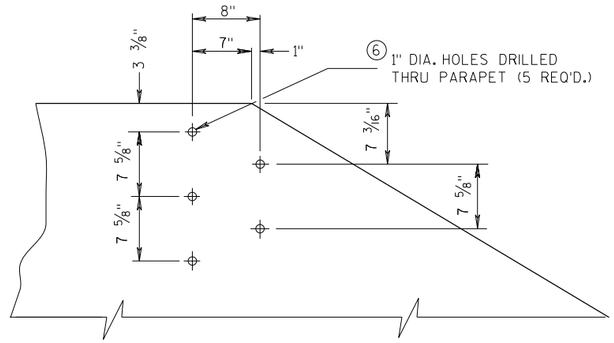
GENERAL NOTES

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

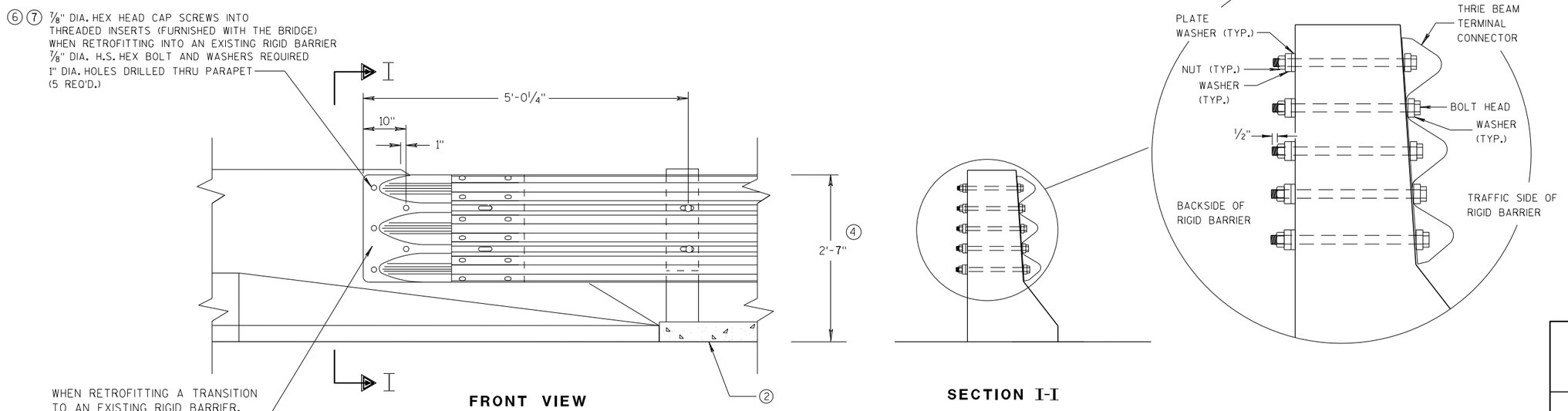
④ TOLERANCE FOR TOP OF BEAM IS ± 1".

⑥ DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

⑦ BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE. BOLTS THAT EXTEND THROUGH THE PARAPET AND OUT THE BACK FACE REQUIRE A HARDENED ROUND STEEL WASHER THAT IS 2" O.D. X 5/32" THICK AND ONE PLATE WASHER. REPAIR ANY DAMAGED CONCRETE FROM BOLT INSTALLATION.



DRILL HOLE LOCATION AND PATTERN FOR THRIE BEAM CONNECTION



FRONT VIEW

SECTION I-I

THRIE BEAM CONNECTION TO BRIDGE PARAPETS WITH SLOPED ENDS

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

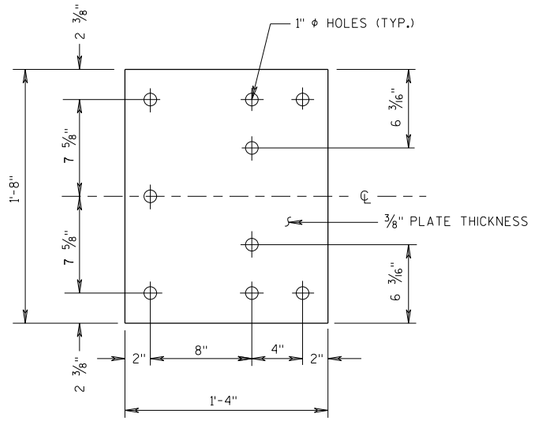
APPROVED
07/2018 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS [illegible] UNIT SUPERVI[illegible]ENT
FHWA

6

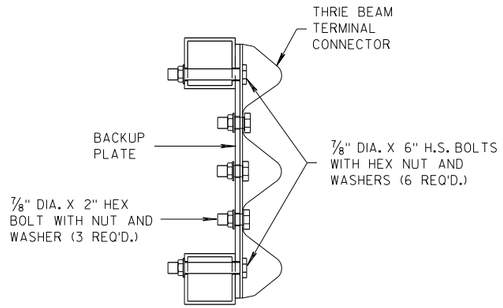
S.D.D. 14 B 45-5f

6

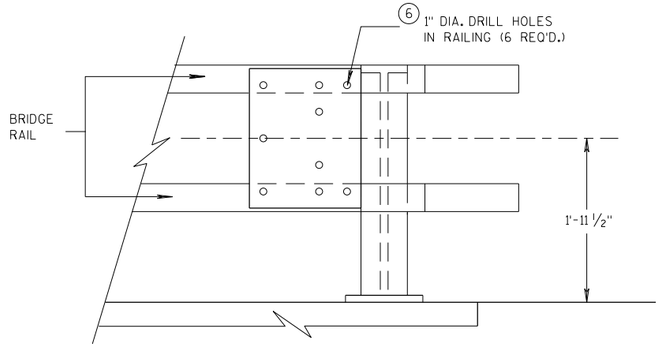
S.D.D. 14 B 45-5f



BACK-UP PLATE DETAIL



SECTION J-J

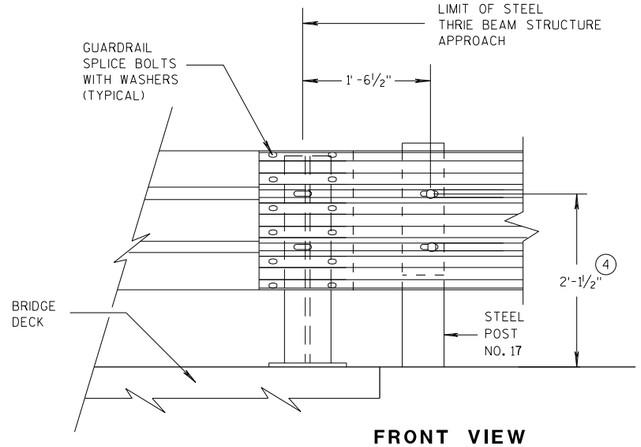


BACK-UP PLATE MOUNTING ONTO BRIDGE RAILING

GENERAL NOTES

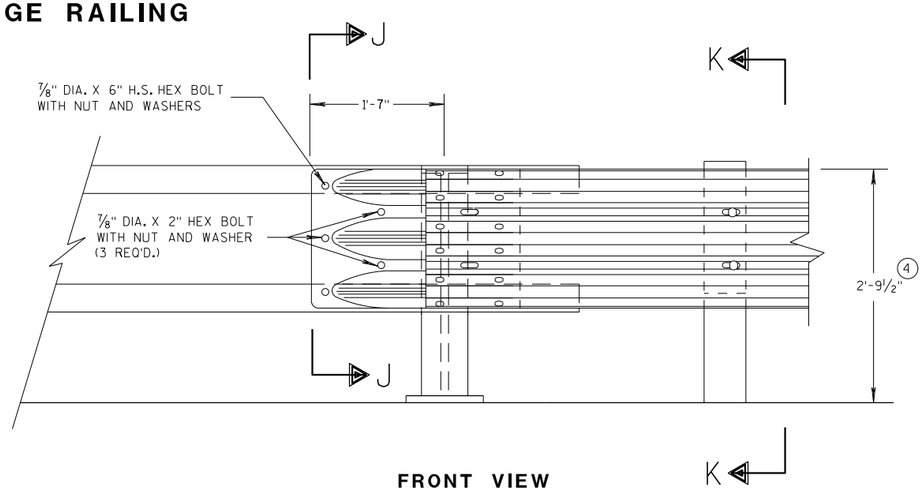
④ TOLERANCE FOR TOP OF BEAM IS ± 1".

⑥ DRILLING HOLES THROUGH THE PAPRPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

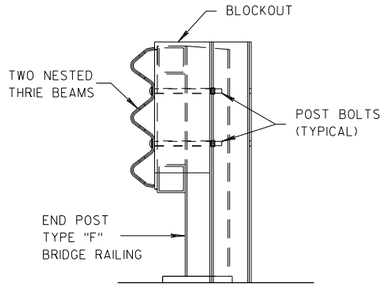


FRONT VIEW

THRIE BEAM CONNECTION TO STEEL RAILING TYPE "W"



FRONT VIEW



SECTION K-K

THRIE BEAM CONNECTION TO TUBULAR RAILING TYPE "F"

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED 07/2018 — DATE
FHWA

/S/ Rodney Taylor 86
ROADWAY STANDARDS DEVELOPMENT UNIT SUPERVISOR

6

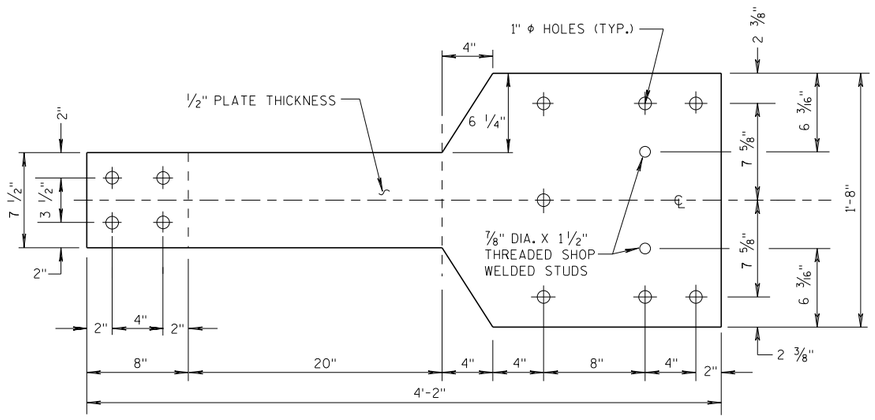
S.D.D. 14 B 45-5g

6

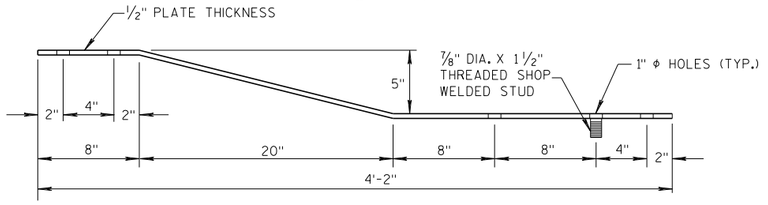
S.D.D. 14 B 45-5g

GENERAL NOTES

(4) TOLERANCE FOR TOP OF W-BEAM RAIL IS ± 1".

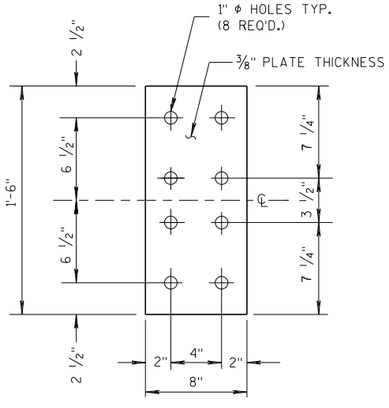


FRONT VIEW



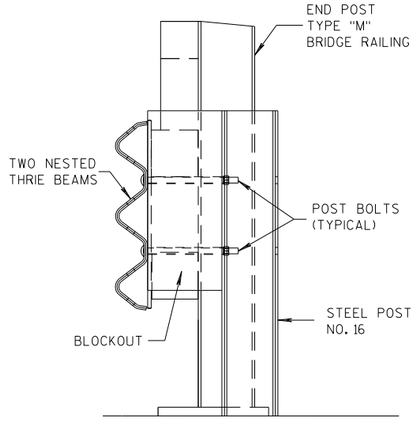
PLAN VIEW

BACK-UP PLATE DETAIL, TYPE "M"

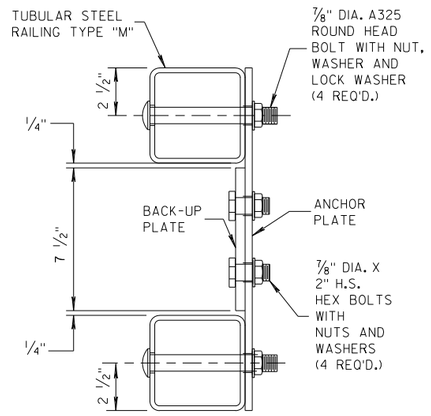


FRONT VIEW

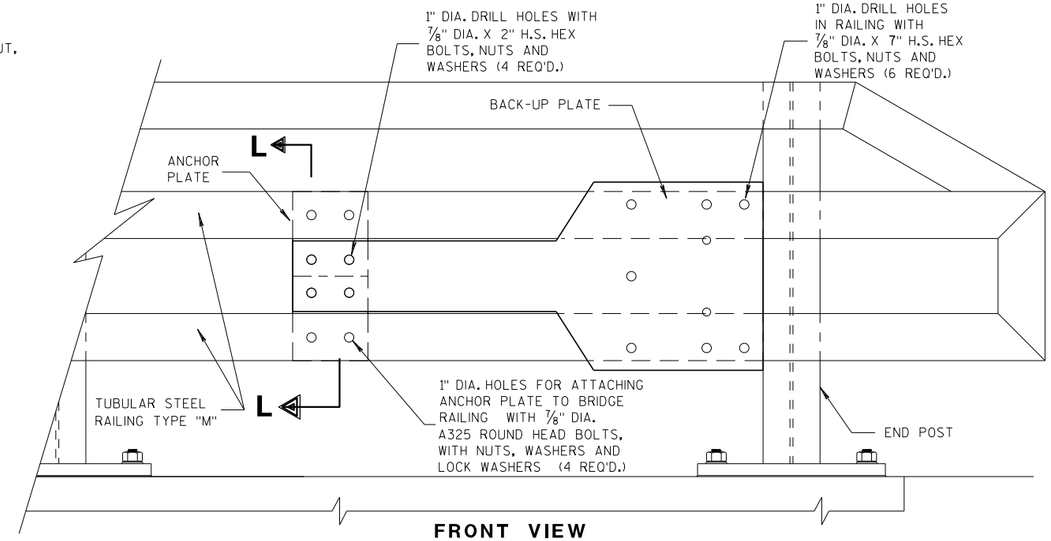
ANCHOR PLATE DETAIL, TYPE "M"



SECTION M-M

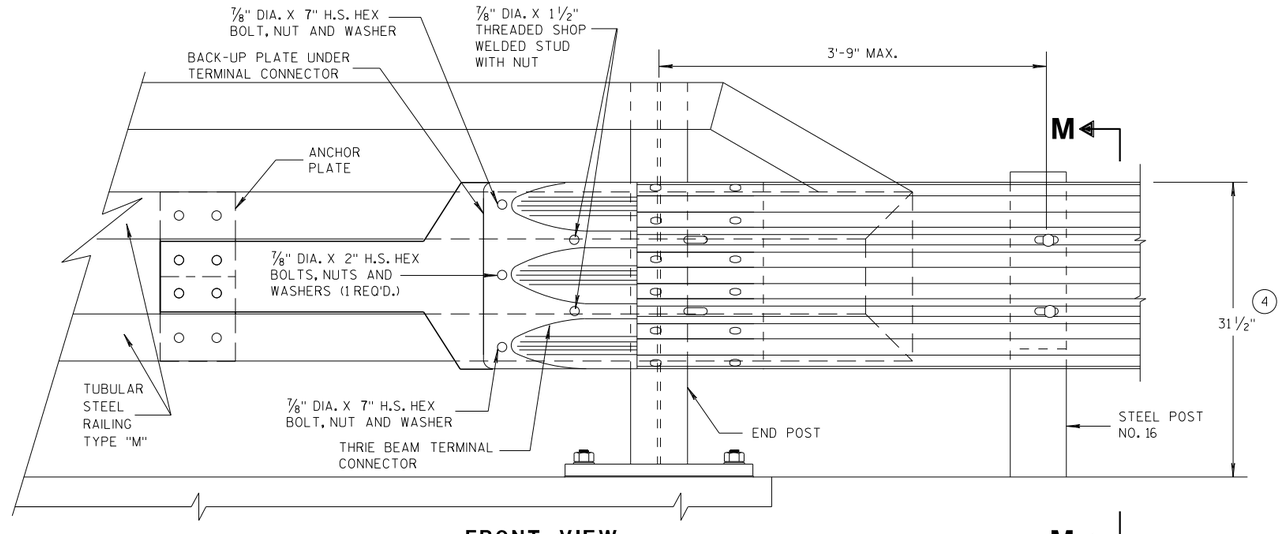


SECTION L-L

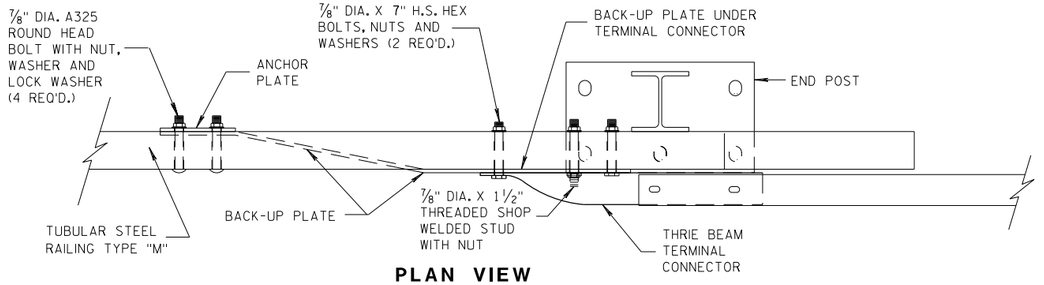


FRONT VIEW

ANCHOR AND BACK-UP PLATE MOUNTING TO BRIDGE RAILING, TYPE "M"



FRONT VIEW



PLAN VIEW

THRIE BEAM CONNECTION TO TUBULAR RAILING, TYPE "M"

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
07/2018 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS UNIT SUPERVISOR
FHWA

6

S.D.D. 14 B 45-5h

6

S.D.D. 14 B 45-5h

GENERAL NOTES

COVER PLATE PANELS ARE 3/16" THICK.

ALL STIFFENERS ARE 1/4" THICK.

CONNECTOR PLATE SHALL BE FABRICATED FROM ASTM GRADE A36 STEEL AND GALVANIZED.

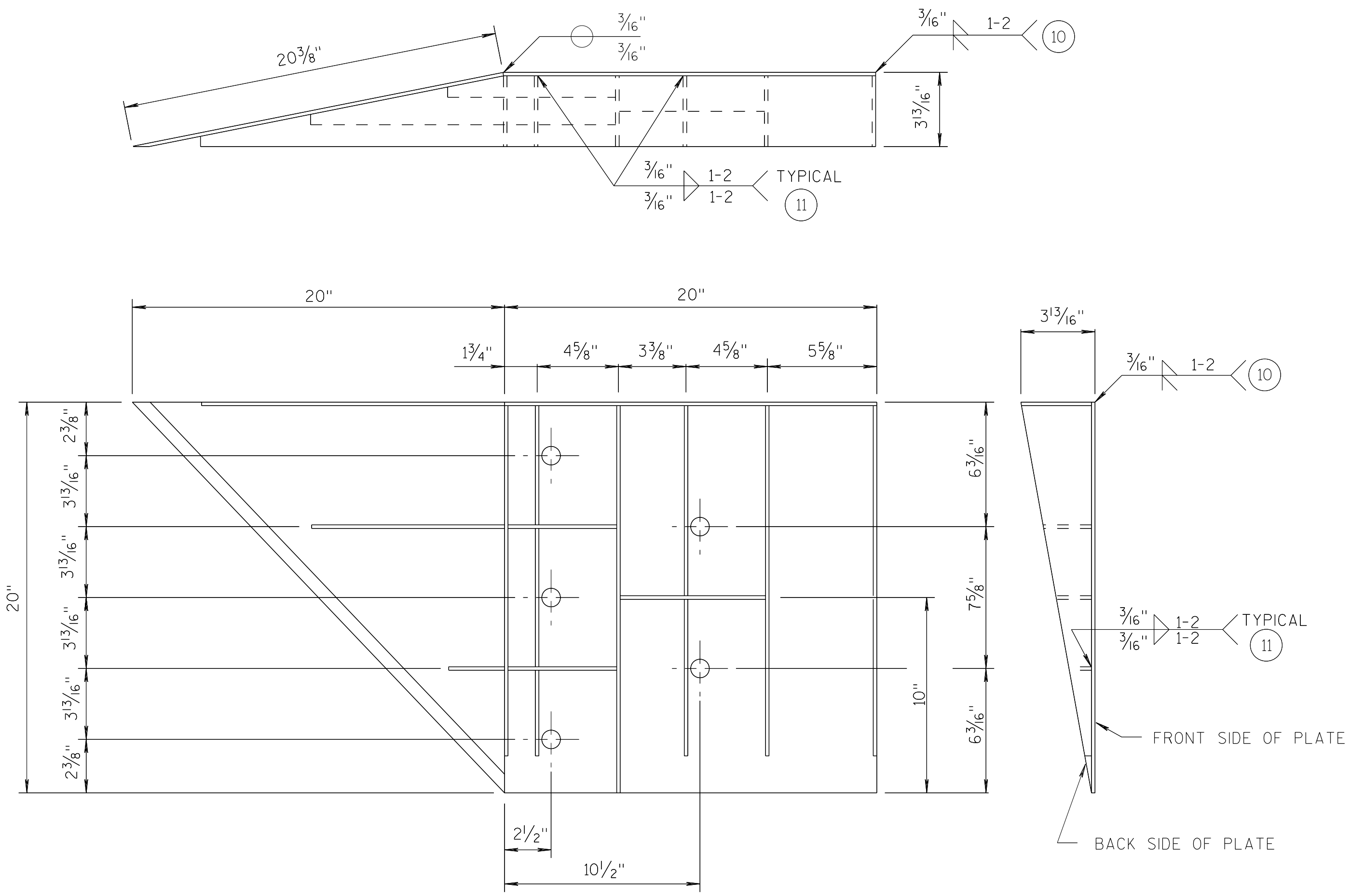
FOR GALVANIZED REQUIREMENTS, SEE SECTION 614 OF THE STANDARD SPECIFICATIONS.

ALL HOLE DIAMETERS SHALL BE 1".

FOR OPPOSITE SIDE INSTALLATION MIRROR DRAWINGS.

(10) STIFFENERS LOCATED AT THE OUTSIDE EDGES OF THE COVER PLATES SHALL BE WELDED AS FOLLOWS: SINGLE BEVEL GROOVE WELD ON EXTERNAL SIDES AND 3/16" FILLET WELD BY 1" LONG SPACED AT 2" ON INTERNAL SIDES.

(11) STIFFENERS LOCATED ON THE INSIDE OF THE COVER PLATE SHALL BE WELDED AS FOLLOWS: 3/16" FILLET WELD BY 1" LONG SPACED AT 2".



WELDING INSTRUCTION

(VIEWED FROM BACK SIDE OF PLATE)

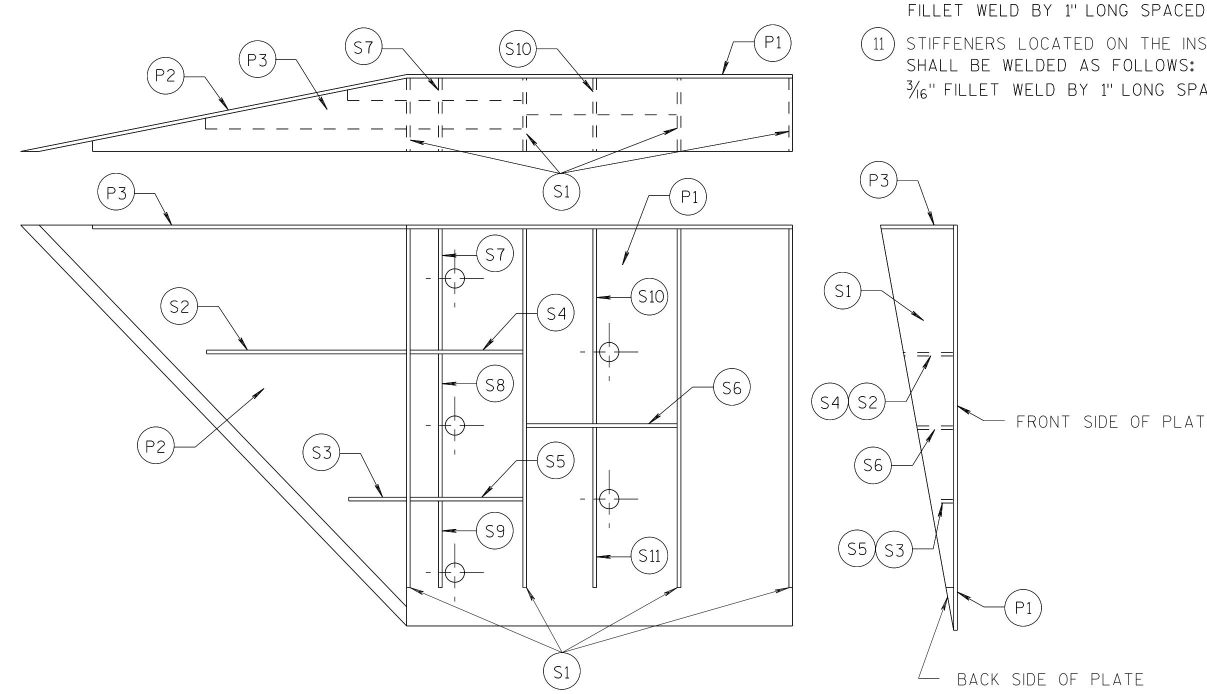


PLATE AND STIFFENER IDENTIFICATION

(VIEWED FROM BACK SIDE OF PLATE)

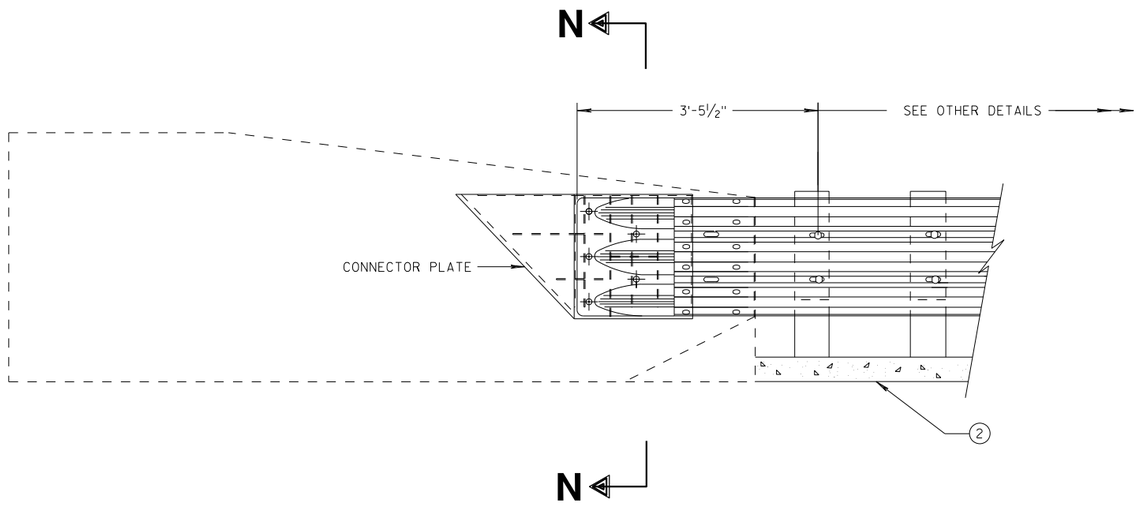
CONNECTOR PLATE DIMENSION (PER ASSEMBLY)				
PLATE	QUANTITY	SHAPE	SIZE (A x B x C x D)	THICKNESS
P1	1		20" x 20"	3/16"
P2	1		20" x 20" x 28 9/16"	3/16"
P3	1		39" x 3 5/8" x 20" x 19 5/16"	3/16"
S1	4		18 7/16" x 3 5/8" x 18 3/4"	1/4"
S2	1		10 1/4" x 2 7/16" x 10 3/8" x 1/2"	1/4"
S3	1		3" x 1 1/16" x 3 1/8" x 1/2"	1/4"
S4	1		6 1/8" x 2 7/16"	1/4"
S5	1		6 1/8" x 1 1/16"	1/4"
S6	1		7 3/4" x 1 3/4"	1/4"
S7	1		2 9/16" x 6" x 3 5/8" x 5 7/8"	1/4"
S8	1		1 5/32" x 7 1/2" x 2 1/2" x 7 3/8"	1/4"
S9	1		6 1/16" x 6 3/16" x 1 3/32"	1/4"
S10	1		1 7/8" x 9 7/8" x 3 5/8" x 9 11/16"	1/4"
S11	1		8 1/2" x 8 3/4" x 1 13/16"	1/4"

SINGLE SLOPE CONNECTION PLATE

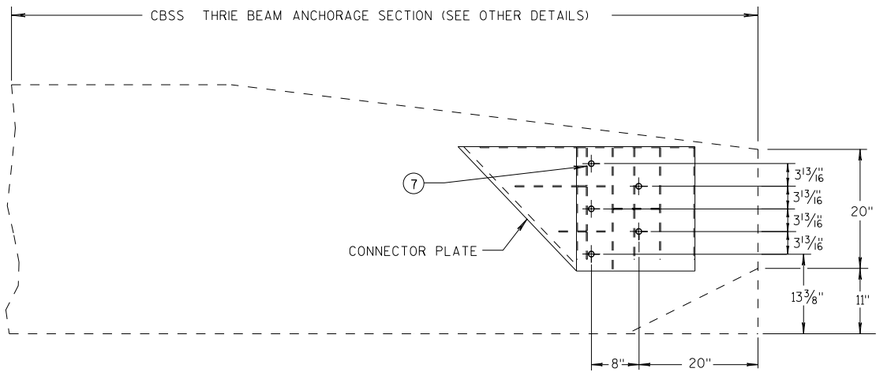
MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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



THRIE BEAM CONNECTION TO SINGLE SLOPE BARRIER



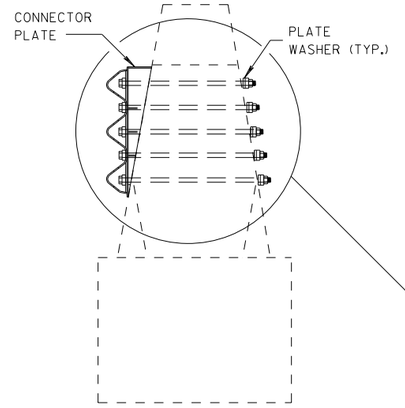
SINGLE SLOPE CONNECTION PLATE PLACEMENT

GENERAL NOTES

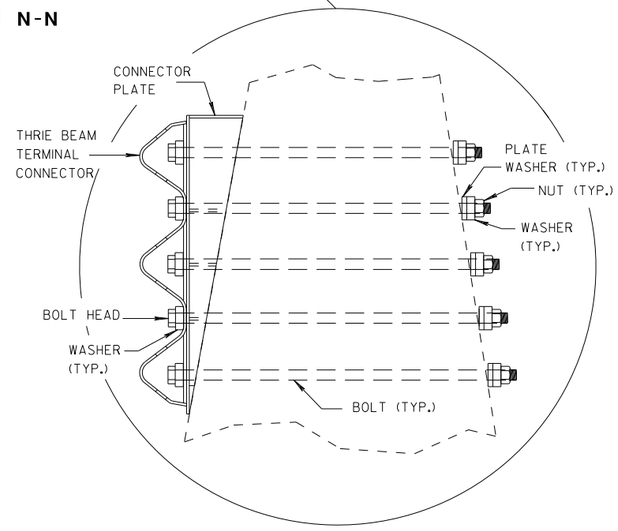
CONNECTOR PLATE, DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

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

(7) BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE. BOLTS THAT EXTEND THROUGH THE PARAPET AND OUT THE BACK FACE REQUIRE A HARDENED ROUND STEEL WASHER THAT IS 2" O.D. X 5/32" THICK AND ONE PLATE WASHER. REPAIR ANY DAMAGED CONCRETE FROM BOLT INSTALLATION.



SECTION N-N



MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

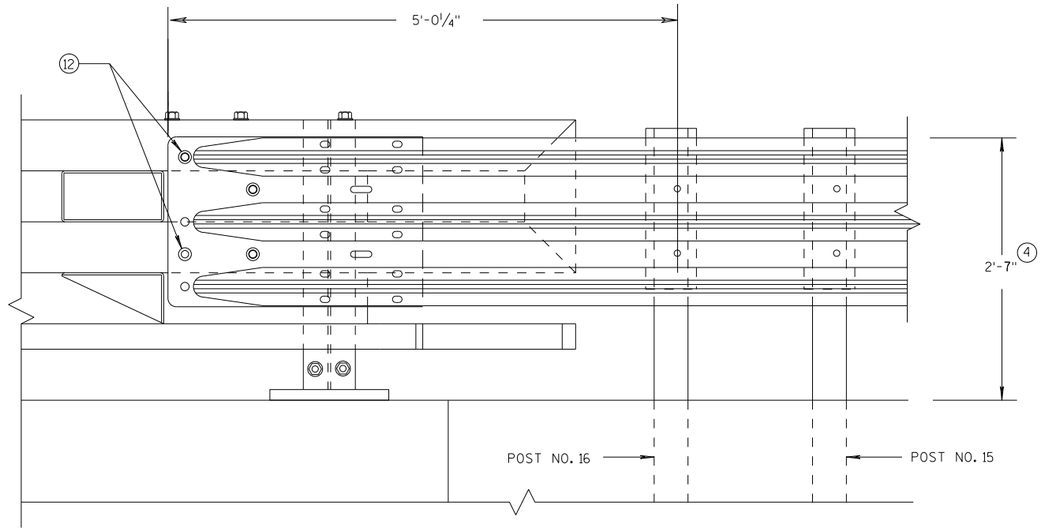
APPROVED
7/2018
DATE
/S/ Rodney Taylor
ROADWAY STANDARDS DI UNIT SUPERVIS
NT
FHWA

6

S.D.D. 14 B 45-5j

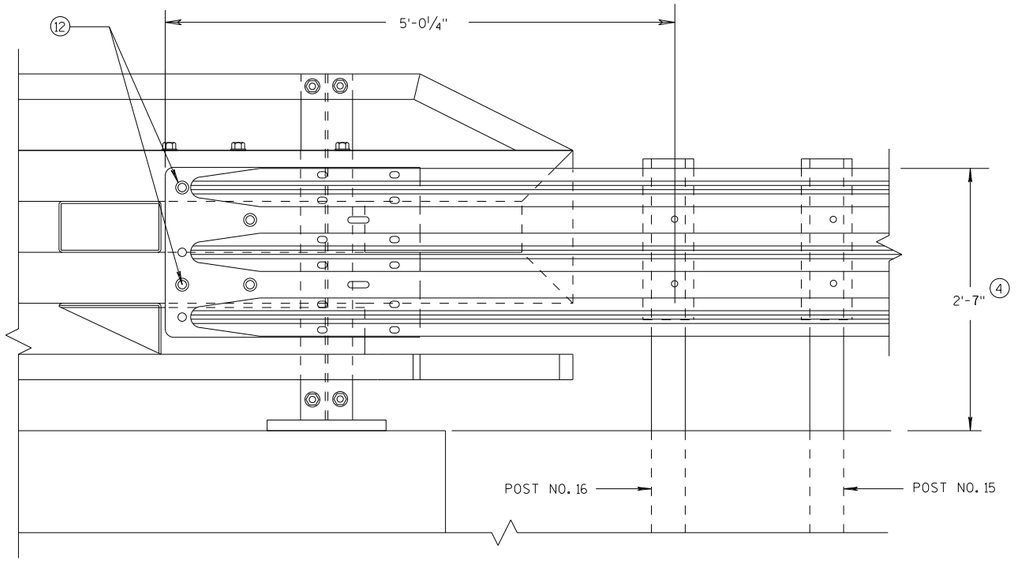
6

S.D.D. 14 B 45-5j



ELEVATION OF DETAIL AT NY3 END POST

THRIE BEAM RAIL ATTACHMENT



ELEVATION OF DETAIL AT NY4 END POST

THRIE BEAM RAIL ATTACHMENT

GENERAL NOTES

(4) TOLERANCE FOR TOP OF BEAM IS ± 1".

(12) BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE. ON BACKSIDE OF PARAPET ONE ROUND WASHER, AND NUT REQUIRED. BOLT THREAD IS TO EXTEND 1/2-INCH BEYOND NUT.

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

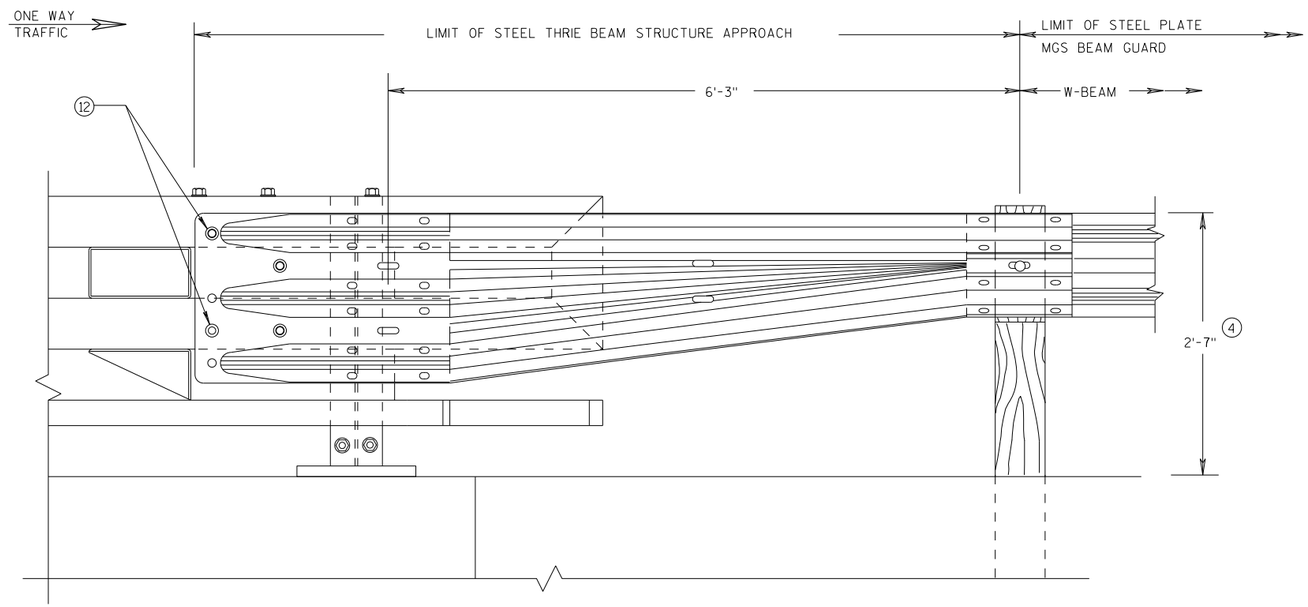
APPROVED
7/2018
DATE
/S/ Rodney Taylor
ROADWAY STANDARDS D UNIT SUPERVIS
NT
FHWA

6

S.D.D. 14 B 45-5k

6

S.D.D. 14 B 45-5k



FRONT VIEW

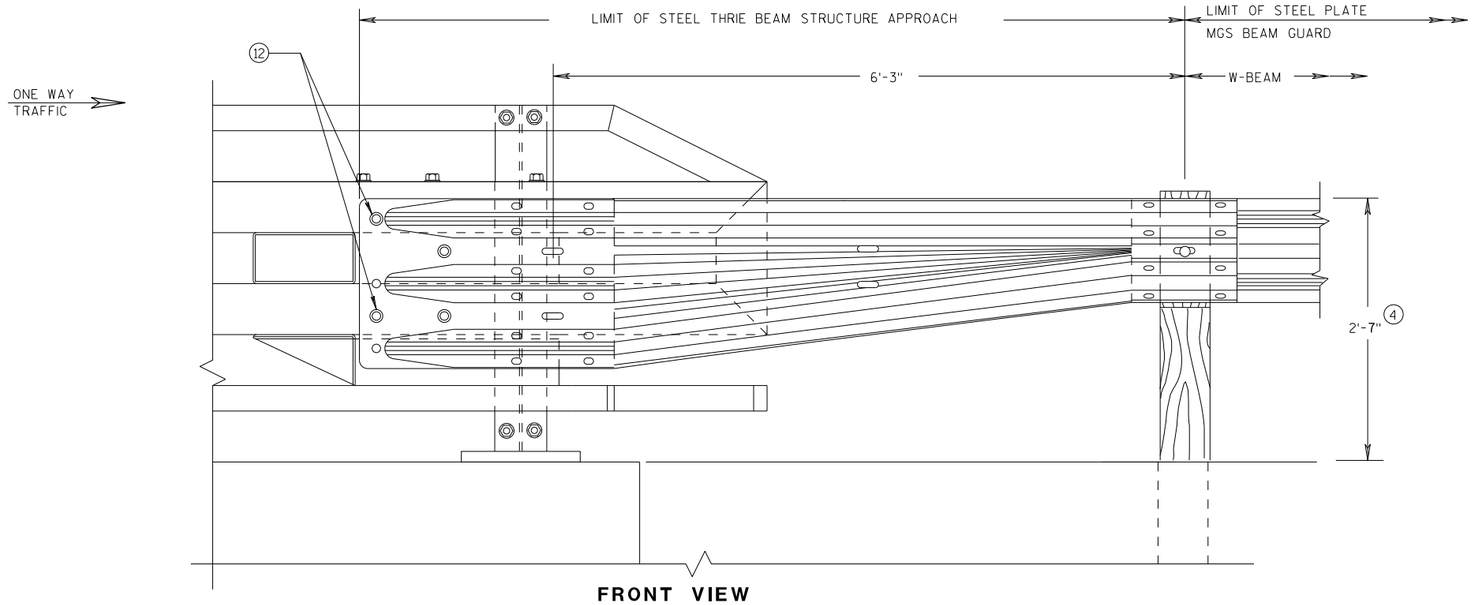
W BEAM TRANSITION AND CONNECTION TO BRIDGE RAILING TYPE "NY3"

(USE ONLY ON THE TRAFFIC EXIT END OF ONE WAY BRIDGES)

GENERAL NOTES

(4) TOLERANCE FOR TOP OF BEAM IS ± 1".

(12) BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE. ON BACKSIDE OF PARAPET ONE ROUND WASHER, AND NUT REQUIRED. BOLT THREAD IS TO EXTEND 1/2-INCH BEYOND NUT.



FRONT VIEW

W BEAM TRANSITION AND CONNECTION TO BRIDGE RAILING TYPE "NY4"

(USE ONLY ON THE TRAFFIC EXIT END OF ONE WAY BRIDGES)

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
7/2018 DATE
FHWA

/S/ Rodney Taylor
ROADWAY STANDARDS D
UNIT SUPERVIS

91

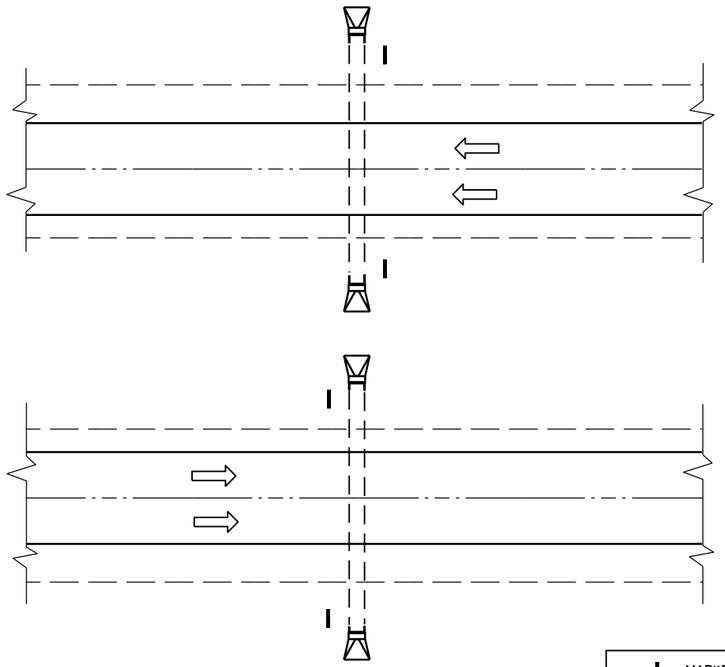
NT

6

S.D.D. 14 B 45-5L

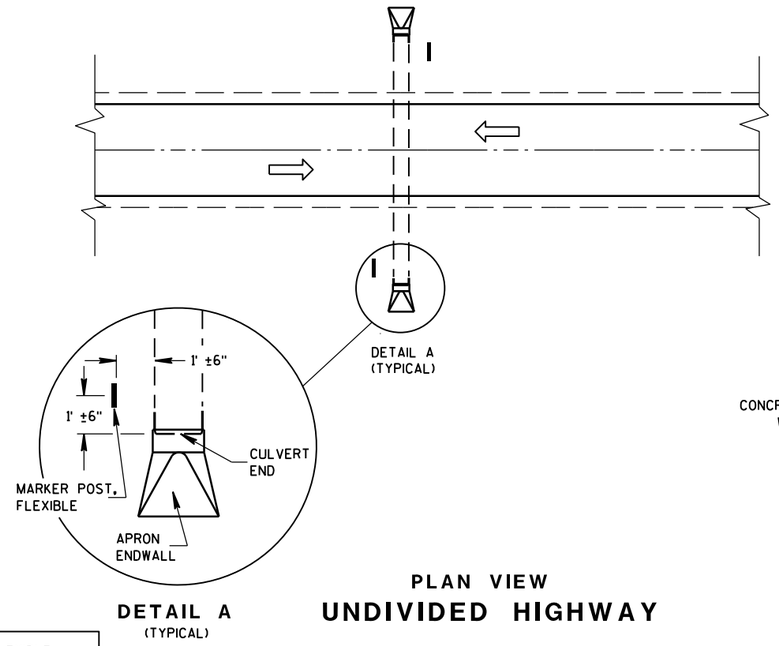
6

S.D.D. 14 B 45-5L



PLAN VIEW

DIVIDED HIGHWAY



DETAIL A
(TYPICAL)

PLAN VIEW

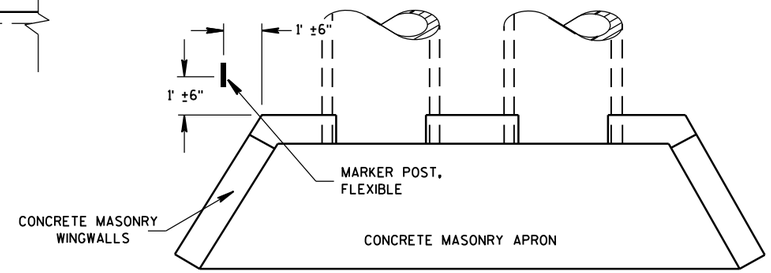
UNDIVIDED HIGHWAY

MARKER POST, FLEXIBLE

DIRECTION OF TRAFFIC FLOW

GENERAL NOTES

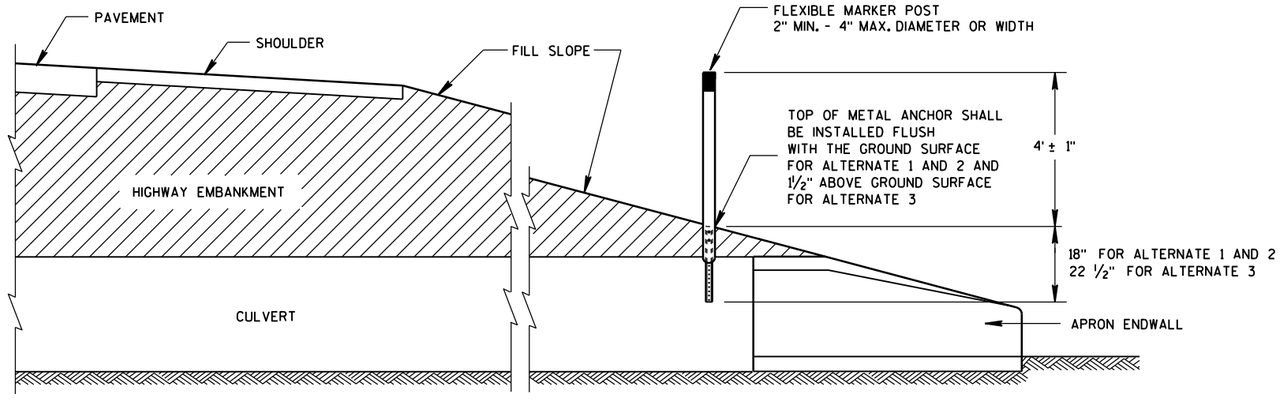
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.



PLAN VIEW

CONCRETE MASONRY ENDWALLS FOR CULVERT PIPE AND PIPE ARCH

FLEXIBLE MARKER POST LOCATION



CROSS SECTION

FLEXIBLE MARKER POST

FLEXIBLE MARKER POST FOR CULVERT END

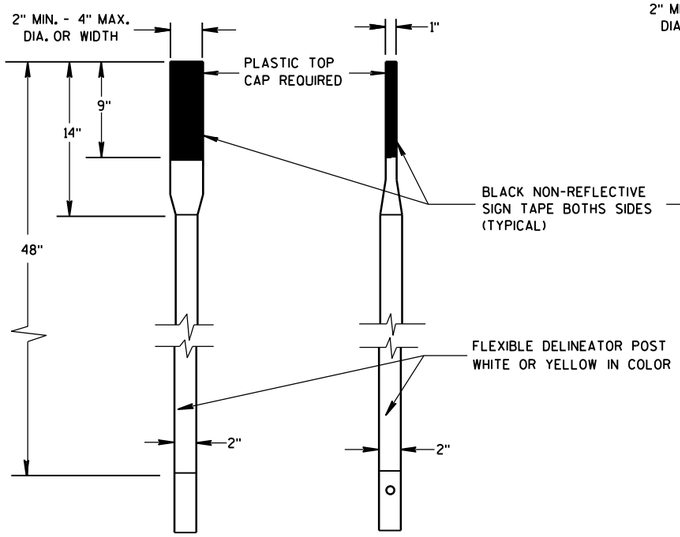
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

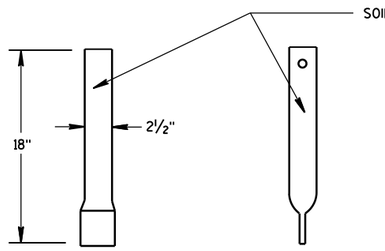
6

S.D.D. 15 A 3-2a

6

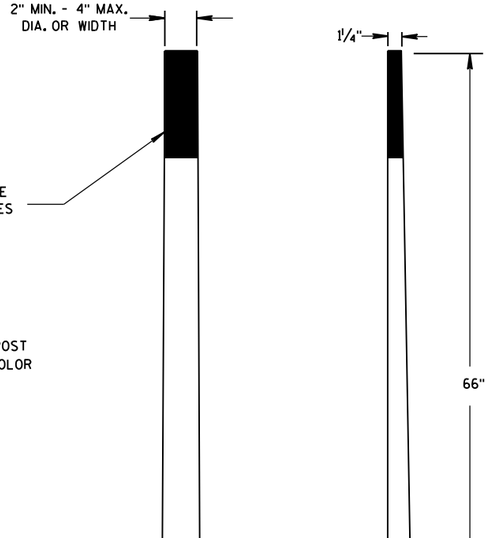
S.D.D. 15 A 3-2a





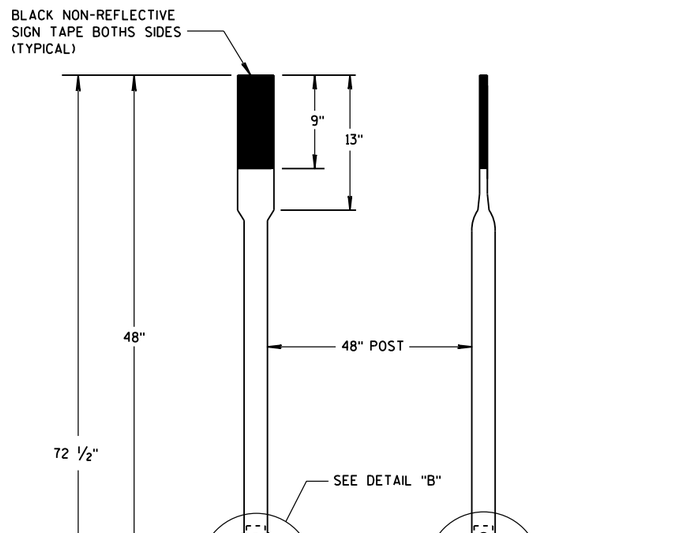
FRONT VIEW SIDE VIEW

ALTERNATE 1



FRONT VIEW SIDE VIEW

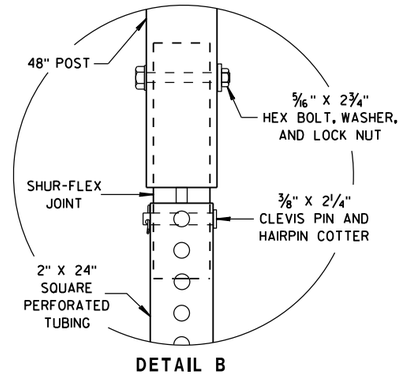
ALTERNATE 2



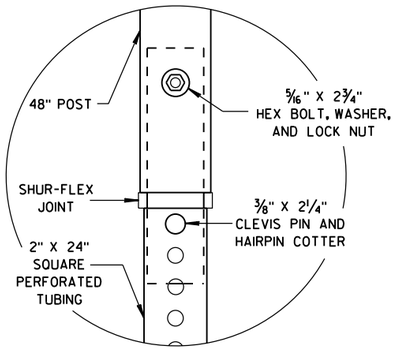
FRONT VIEW SIDE VIEW

ALTERNATE 3

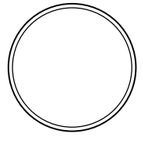
FLEXIBLE MARKER POSTS



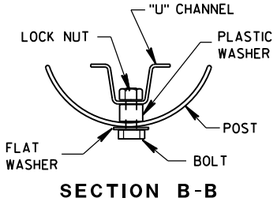
DETAIL B



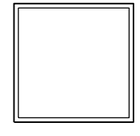
DETAIL C



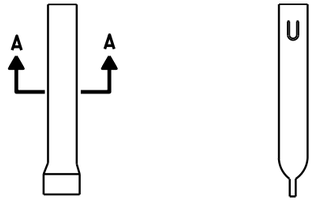
SECTION A-A



SECTION B-B

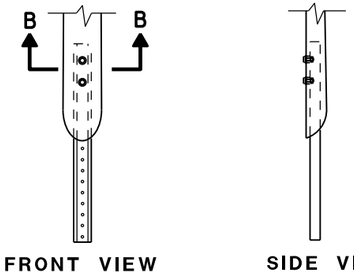


SECTION C-C



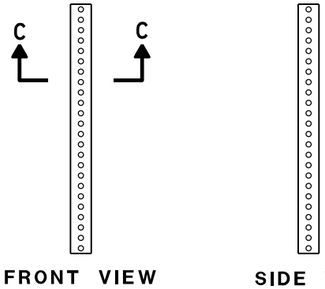
FRONT VIEW SIDE VIEW

ALTERNATE 1



FRONT VIEW SIDE VIEW

ALTERNATE 2



FRONT VIEW SIDE VIEW

ALTERNATE 3

FLEXIBLE MARKER POST ANCHORS

FLEXIBLE MARKER POST
FOR CULVERT END

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

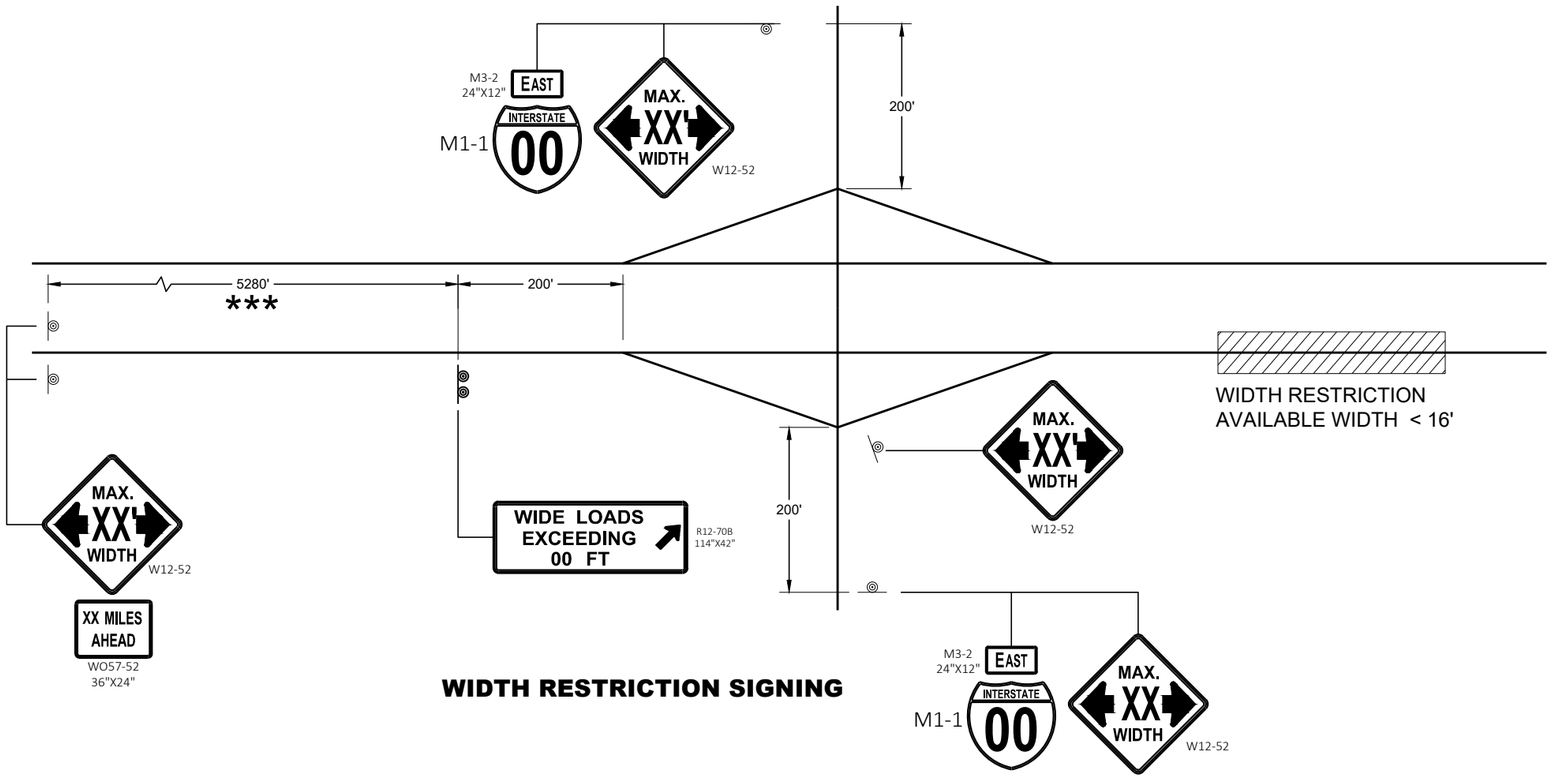
APPROVED
10/1/2012 — DATE
/S/ Travis Feltes — STATE TRAFFIC ENGINEER
FHWA

6

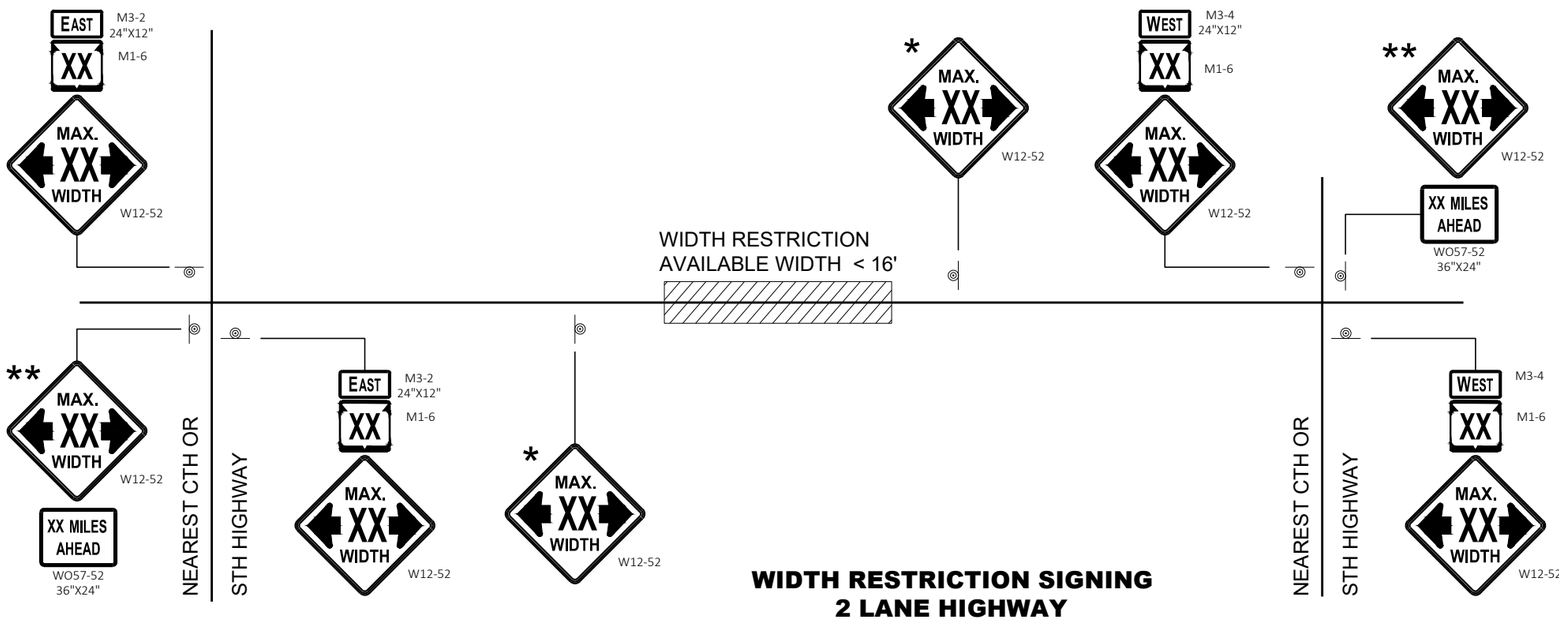
S.D.D. 15 A 3-2b

6

S.D.D. 15 A 3-2b



WIDTH RESTRICTION SIGNING



WIDTH RESTRICTION SIGNING
2 LANE HIGHWAY

LEGEND

◎ SIGN ON PERMANENT SUPPORT

GENERAL NOTES

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

THE SPACING BETWEEN 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.

ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.

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

WIDTH ON SIGN TO BE APPROXIMATELY ONE FOOT LESS THAN AVAILABLE WIDTH.

* PLACE 500 FEET AFTER THE W20 - 1A AND 500 FEET BEFORE ADDITIONAL SIGNS FOR ROADWAYS WITH A PRE - CONSTRUCTION SPEED LIMIT OF 45 MPH OR MORE. FOR 35-40 MPH, USE 350 FOOT TYPICAL SPACING. FOR 25-30 MPH, USE 200 FOOT TYPICAL SPACING.

** SIGN SHALL BE VISIBLE FROM ROADWAY.

*** ADDITIONAL SIGNS NEEDED IF THERE IS AN ON RAMP BETWEEN SIGNS.

WIDTH ON SIGN TO BE APPROX. 1 - FOOT LESS THAN AVAILABLE WIDTH

6

6

SDD 15C02 - 09f

SDD 15C02 - 09f

ADVANCED WIDTH RESTRICTION SIGNING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

GENERAL NOTES

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS.

THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A MINIMUM OF 200 FEET (500 FEET DESIRABLE) CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

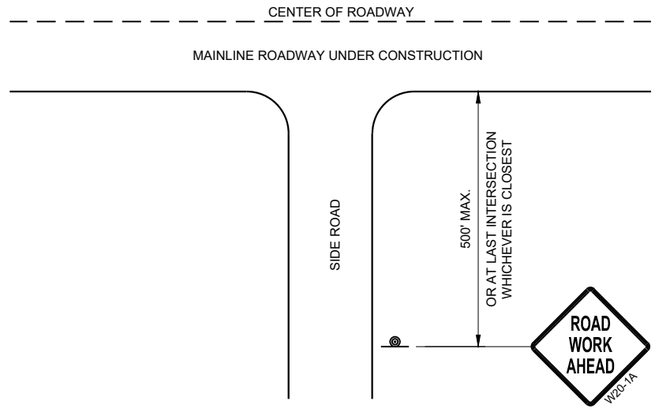
ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.

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

IF A "STOP" SIGN MUST BE REMOVED FOR A WORK OPERATION, A TEMPORARY "STOP" SIGN SHALL BE PLACED PRIOR TO THE SIGN REMOVAL, OR A FLAGGER SHALL BE PROVIDED UNTIL THE SIGN IS REESTABLISHED.

* OMIT G20-1 SIGNS IF LENGTH OF WORK AREA IS 2 MILES OR LESS

** PLACE AN ADDITIONAL W20-1A "ROAD WORK AHEAD" SIGN IF WORK AREA WITHIN THE PROJECT IS SEPARATED BY MORE THAN 2 MILES FROM PREVIOUS WORK AREA.



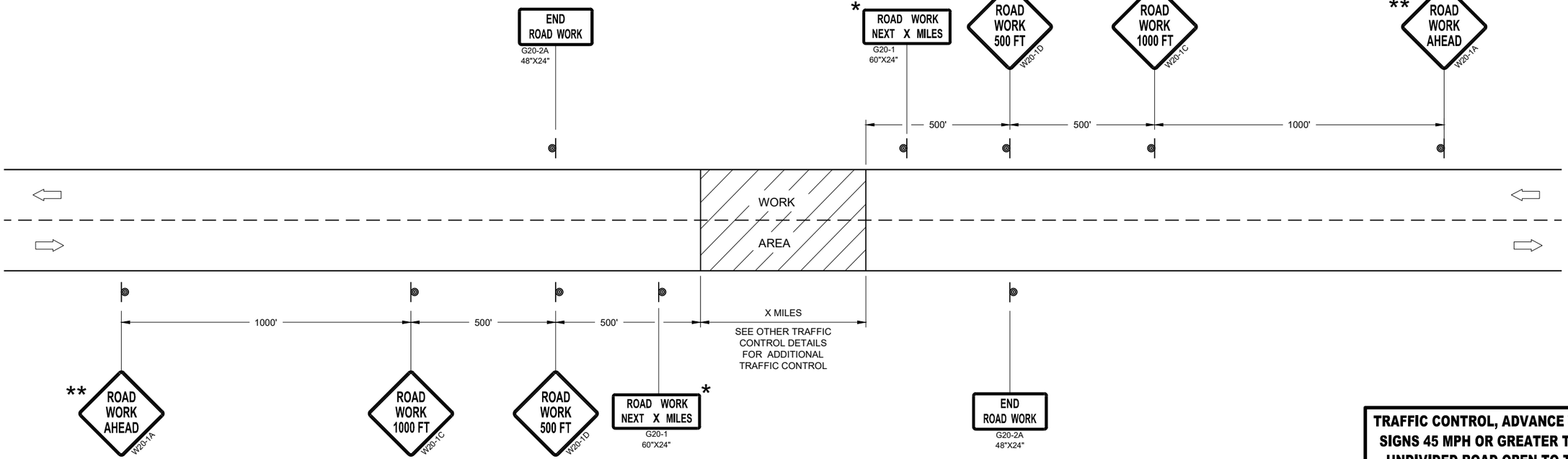
TYPICAL SIDE ROAD APPROACH WARNING SIGN DETAIL

LEGEND

SIGN ON PERMANENT SUPPORT

DIRECTION OF TRAFFIC

WORK AREA



TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45MPH OR GREATER

TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45 MPH OR GREATER TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
July 2018
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

6

SDD 15C04 - 05

* CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES

GENERAL NOTES

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

(1) LOCATE THE NO PASSING ZONE W14-3 SIGN WITHIN 50 FEET OF THE "T" MARKING

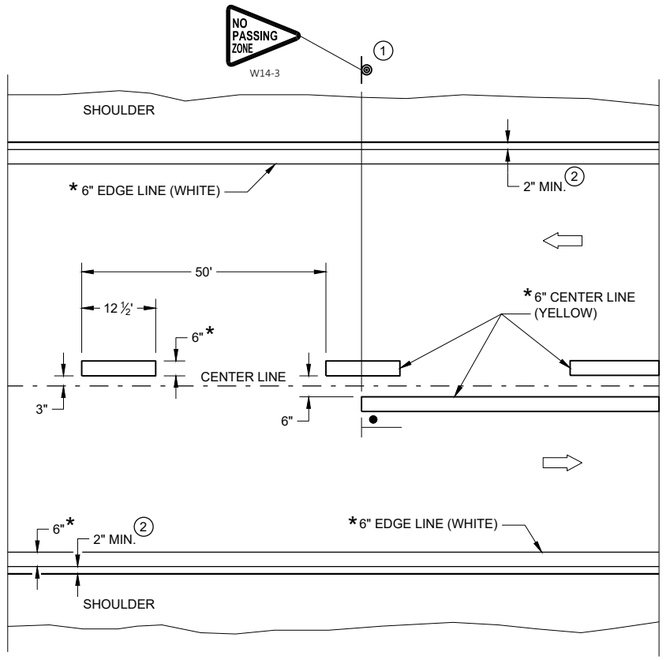
(2) MEASURE FROM EDGE OF MARKING TO JOINT LINE. THIS DOES NOT INCLUDE SPACE NEEDED FOR GROOVING OPERATIONS.

LEGEND

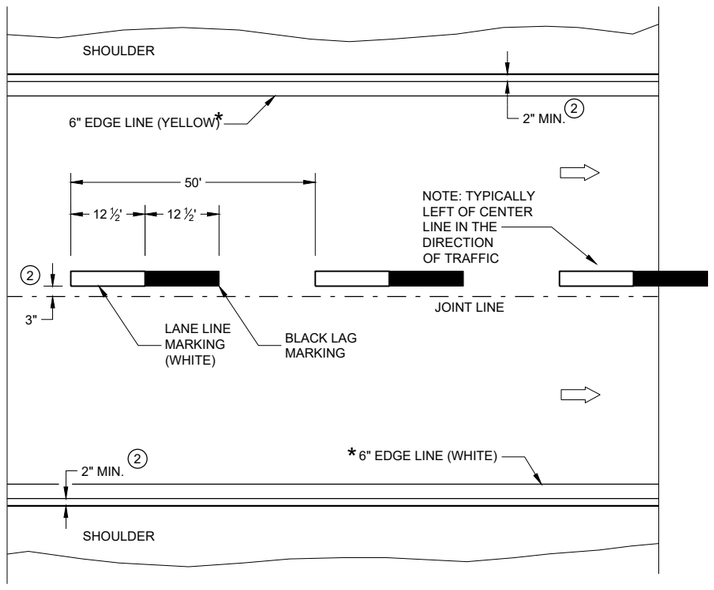
"T" MARKING

SIGN ON PERMANENT SUPPORT

DIRECTION OF TRAFFIC



TWO WAY TRAFFIC



ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING

PERMANENT LONGITUDINAL PAVEMENT MARKINGS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

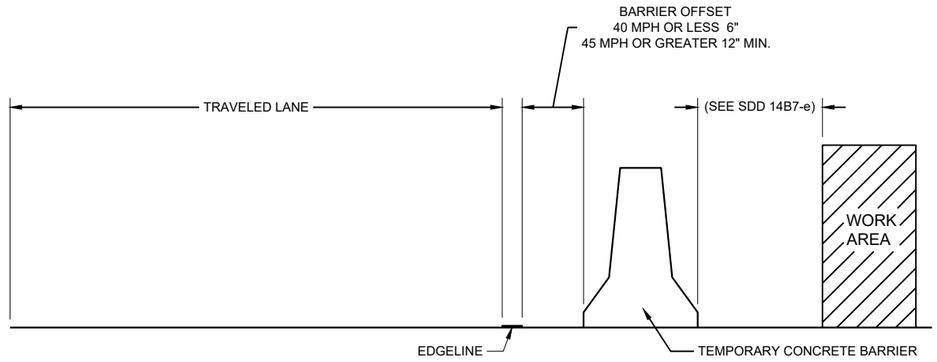
May 2023 — DATE

/S/ Jeannie Silver — STATEWIDE SIGNING AND M ENGINEER

FHWA

6

SDD 15C08-23a



TEMPORARY BARRIER OFFSET FROM EDGELINE

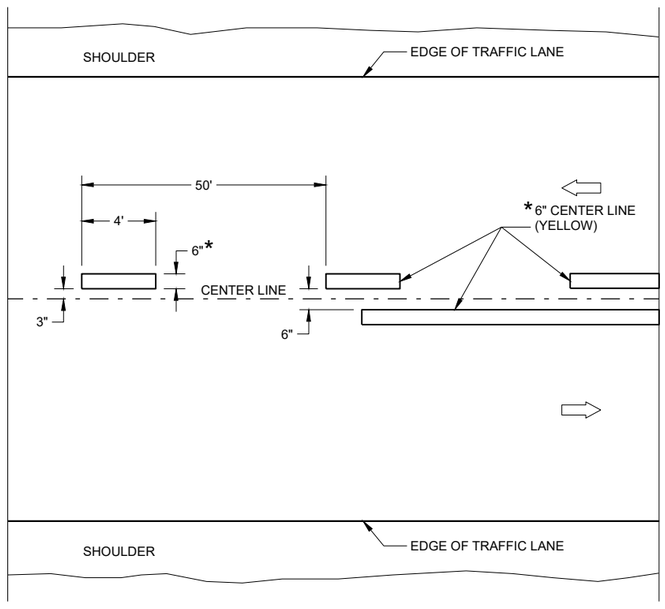
GENERAL NOTES

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

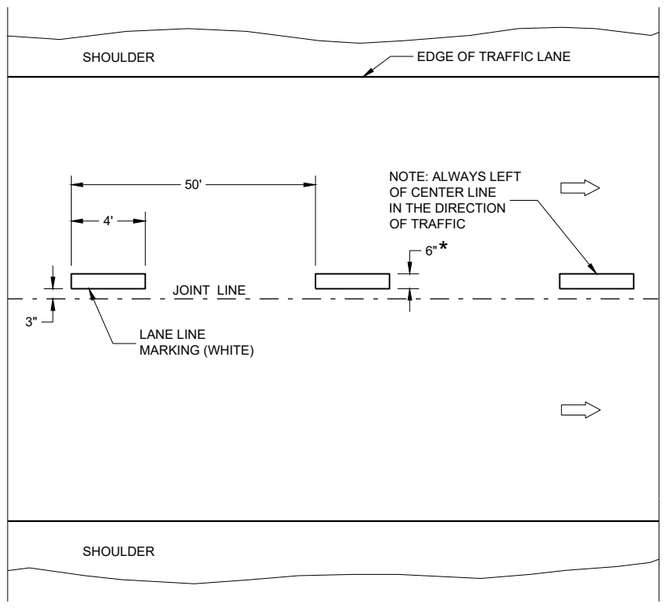
LEGEND

⇨ DIRECTION OF TRAFFIC

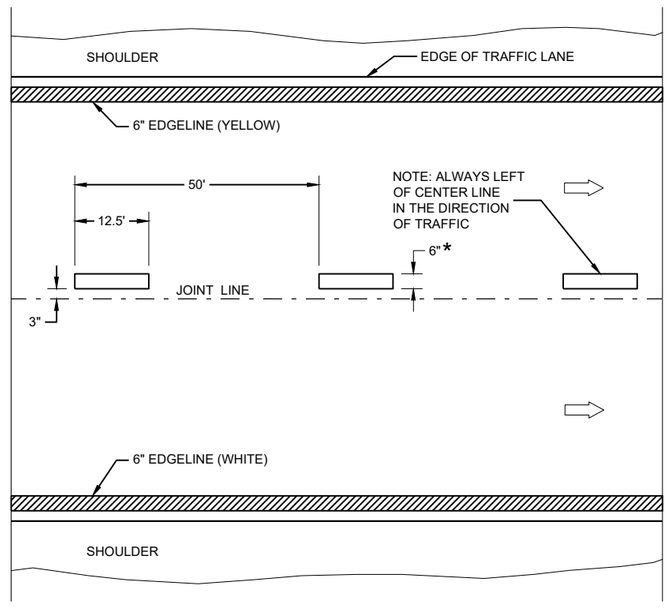
* CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES



TWO WAY TRAFFIC



ONE WAY TRAFFIC



FREEWAYS AND EXPRESSWAYS

TEMPORARY PAVEMENT MARKING

TEMPORARY LONGITUDINAL PAVEMENT MARKING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023 — DATE
/S/ Jeannie Silver — STATEWIDE SIGNING AND M ENGINEER

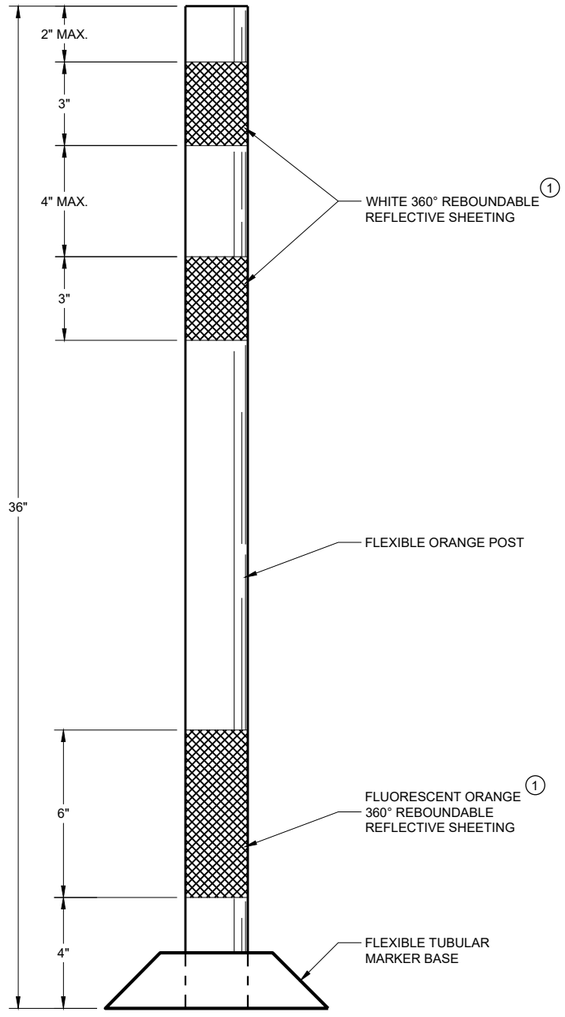
FHWA

6

SDD 15C08-23b

6

SDD 15C08-23b



FLEXIBLE TUBULAR MARKER POST WORK ZONE

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.

SURFACE MOUNTED BASES SHALL BE FURNISHED IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS TO BE COMPATIBLE WITH FLEXIBLE TUBULAR MARKER POSTS TO A SIZE AND SHAPE THAT WILL PROVIDE A STABLE POST FOUNDATION WHEN SECURED TO THE PAVEMENT.

THE ASPHALTIC ADHESIVE OR BUTYL PAD FURNISHED SHALL BE IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS, UNLESS DIRECTED BY THE ENGINEER TO USE BOLTS.

(1) REFLECTIVE SHEETING SHALL FOLLOW THE REQUIREMENTS IN THE APPROVED PRODUCTS LISTING FOR SIGN SHEETING.

CHANNELIZING DEVICES FLEXIBLE TUBULAR MARKER POST

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2022
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEER

FHWA

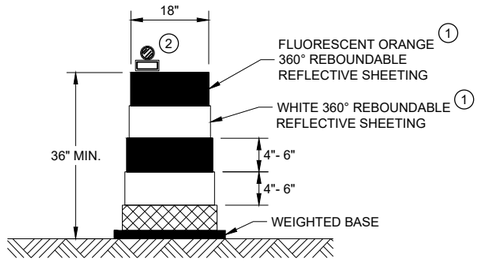
6

SDD 15C11 - 10a

SDD 15C11 - 10a

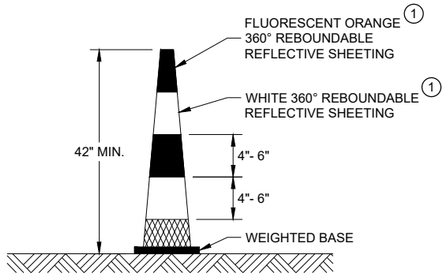
GENERAL NOTES

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

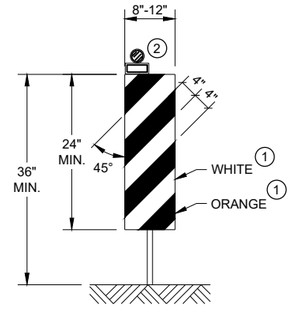
BALLAST WIDTHS
RANGE FROM 24"-36"



42" CONE

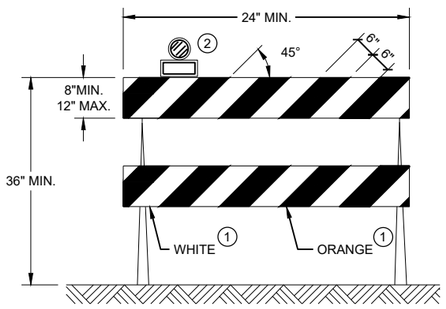
DO NOT USE IN TAPERS
½ SPACING OF DRUMS

BALLAST WIDTHS
RANGE FROM 14"-20"



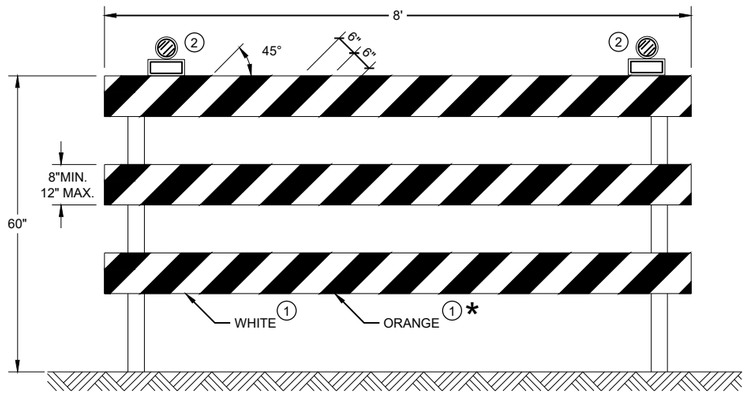
VERTICAL PANEL

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



TYPE II BARRICADE

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



TYPE III BARRICADE

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

* IF USED FOR A PERMANENT APPLICATION USE RED SHEETING.

CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2022
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEER

FHWA

6

SDD 15C11 - 10b

6

SDD 15C11 - 10b

LEGEND

SIGN ON PORTABLE OR PERMANENT SUPPORT

TEMPORARY PORTABLE RUMBLE STRIP ARRAY

DIRECTION OF TRAFFIC

WORK AREA

FLAGGER, EQUIPPED WITH STOP/SLOW PADDLE FASTENED ON SUPPORT STAFF

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.

ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.

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

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

THE FIRST ADVANCE WARNING SIGN SHOULD TYPICALLY BE LOCATED IN ADVANCE OF THE ANTICIPATED TRAFFIC BACKUP OR QUEUE.

WHEN A SIDE ROAD OR RAMP INTERSECTS THE FACILITY ON WHICH THE WORK IS BEING PERFORMED, ADDITIONAL TRAFFIC CONTROLS SHALL BE PROVIDED AS SPECIFIED IN THE PLANS AND/OR THE SPECIAL PROVISIONS OR AS APPROVED BY THE ENGINEER.

FLAGGING

FLAGGERS SHALL BE IN SIGHT OF EACH OTHER OR IN DIRECT COMMUNICATION AT ALL TIMES. THEY SHALL BE EQUIPPED WITH STOP/SLOW PADDLES FASTENED ON SUPPORT STAFFS. WHEN THE FLAGGING OPERATION IS NOT IN EFFECT REMOVE TEMPORARY PORTABLE RUMBLE STRIPS PRIOR TO COVERING OR REMOVING ALL ADVANCE SIGNING.

(1) FOR MOVING WORK OPERATIONS, POST ADDITIONAL W20-7A FLAGGER SIGNS AT APPROXIMATELY 3,500' INTERVALS IN THE MOVING WORK OPERATION OR AS APPROVED BY THE ENGINEER.

(2) SIGN NOT REQUIRED IF FLAGGING OPERATION OCCURS WITHIN A SIGNED ROAD WORK ZONE AREA.

WHEN THE DISTANCE BETWEEN FLAGGERS EXCEEDS 2 MILES, A PILOT CAR IS REQUIRED. WHEN CURVES REDUCE SIGHT DISTANCE BELOW 400', A PILOT CAR IS REQUIRED.

TEMPORARY PORTABLE RUMBLE STRIPS

UTILIZE TEMPORARY PORTABLE RUMBLE STRIPS ON ALL FLAGGING OPERATIONS.

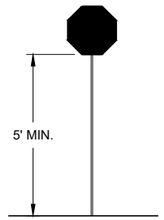
(3) EACH TEMPORARY PORTABLE RUMBLE STRIP ARRAY CONSISTS OF THREE RUMBLE STRIPS PLACED TRANSVERSE ACROSS THE LANE AT THE LOCATIONS SHOWN. WITHIN EACH ARRAY, SPACING BETWEEN RUMBLE STRIPS SHALL BE 15 FEET ON CENTER

ONLY USE TEMPORARY PORTABLE RUMBLE STRIPS FROM THE APPROVED PRODUCTS LIST.

INSTALL TEMPORARY RUMBLE STRIPS PER MANUFACTURER'S RECOMMENDATIONS.

PLACE ADVANCE SIGNING PRIOR TO INSTALLING TEMPORARY RUMBLE STRIPS.

DO NOT INSTALL TEMPORARY PORTABLE RUMBLE STRIPS ON GRAVEL, MILLED SURFACES, OR ASPHALT THAT HAS BEEN PAVED LESS THAN 12 HOURS.



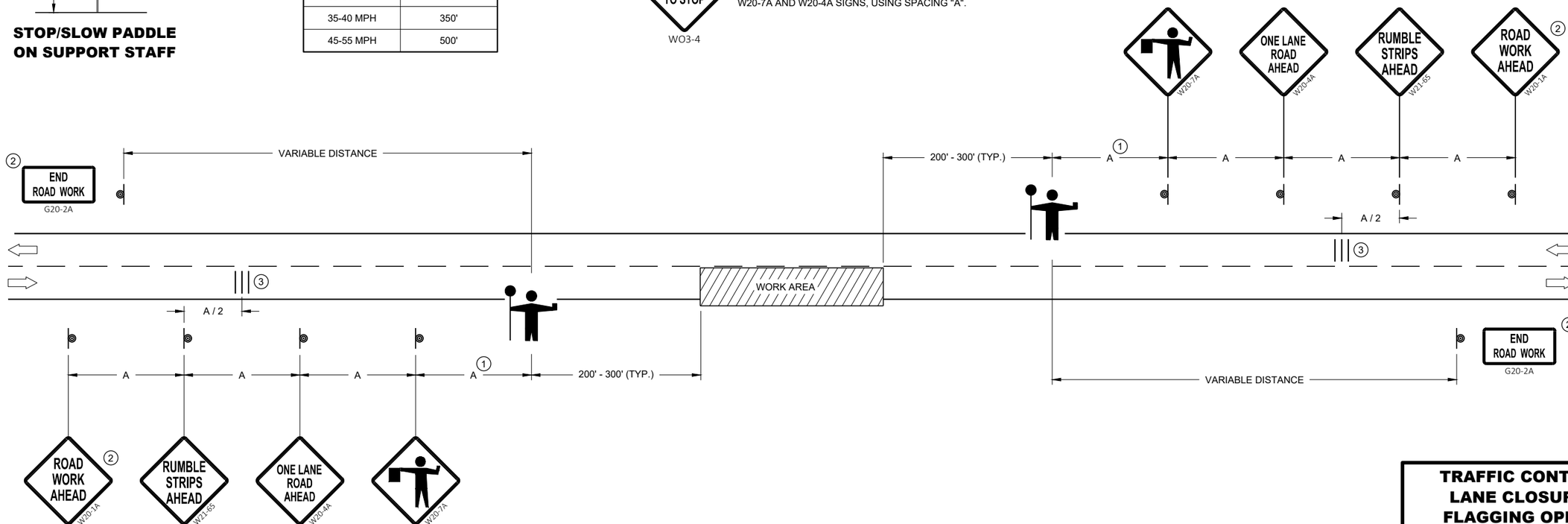
STOP/SLOW PADDLE ON SUPPORT STAFF

SIGN AND TEMPORARY RUMBLE STRIP ARRAY SPACING TABLE

SPEED LIMIT	SPACING "A"
25-30 MPH	200'
35-40 MPH	350'
45-55 MPH	500'

WO3-4

USE OF WO3-4 SIGN IS OPTIONAL. WHEN USED, THIS SIGN SHALL BE LOCATED BETWEEN THE W20-7A AND W20-4A SIGNS, USING SPACING "A".



TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2022
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

SDD 15C12 - 09a

SDD 15C12 - 09a

GENERAL NOTES

SIGN ON PERMANENT SUPPORT

TRAFFIC CONTROL CONE 42-INCH

TRAFFIC CONTROL DRUM

TEMPORARY PORTABLE RUMBLE STRIP ARRAY

DIRECTION OF TRAFFIC

WORK AREA

AFAD — AUTOMATED FLAGGER ASSISTANCE DEVICE (AFAD)

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.

ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.

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

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

THE FIRST ADVANCE WARNING SIGN SHOULD TYPICALLY BE LOCATED IN ADVANCE OF THE ANTICIPATED TRAFFIC BACKUP OR QUEUE.

WHEN A SIDE ROAD OR RAMP INTERSECTS THE FACILITY ON WHICH THE WORK IS BEING PERFORMED, ADDITIONAL TRAFFIC CONTROLS SHALL BE PROVIDED AS SPECIFIED IN THE PLANS AND/OR THE SPECIAL PROVISIONS OR AS APPROVED BY THE ENGINEER.

FLAGGING

IF THE AUTOMATED FLAGGER ASSISTANCE DEVICE (AFAD) STOPS WORKING, FLAGGERS SHALL BE IN SIGHT OF EACH OTHER OR IN DIRECT COMMUNICATION AT ALL TIMES. THEY SHALL BE EQUIPPED WITH STOP/SLOW PADDLES FASTENED ON SUPPORT STAFFS. WHEN THE FLAGGING OPERATION IS NOT IN EFFECT REMOVE TEMPORARY PORTABLE RUMBLE STRIPS PRIOR TO COVERING OR REMOVING ALL ADVANCE SIGNING.

WHEN THE DISTANCE BETWEEN FLAGGERS EXCEEDS 2 MILES, A PILOT CAR IS REQUIRED. WHEN CURVES REDUCE SIGHT DISTANCE BELOW 400', A PILOT CAR IS REQUIRED.

(1) SIGN NOT REQUIRED IF FLAGGING OPERATION OCCURS WITHIN A SIGNED ROAD WORK ZONE AREA.

(2) IF FLAGGERS ARE PHYSICALLY NEEDED TO FLAG, REPLACE WO3-4 SIGNS WITH W20-7A SIGNS.

TEMPORARY PORTABLE RUMBLE STRIPS

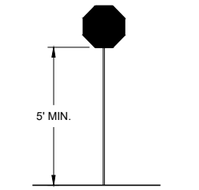
UTILIZE TEMPORARY PORTABLE RUMBLE STRIPS ON ALL FLAGGING OPERATIONS.

ONLY USE TEMPORARY PORTABLE RUMBLE STRIPS FROM THE APPROVED PRODUCTS LIST.

PLACE ADVANCE SIGNING PRIOR TO INSTALLING TEMPORARY RUMBLE STRIPS.

DO NOT INSTALL TEMPORARY PORTABLE RUMBLE STRIPS ON GRAVEL, MILLED SURFACES, OR ASPHALT THAT HAS BEEN PAVED LESS THAN 12 HOURS.

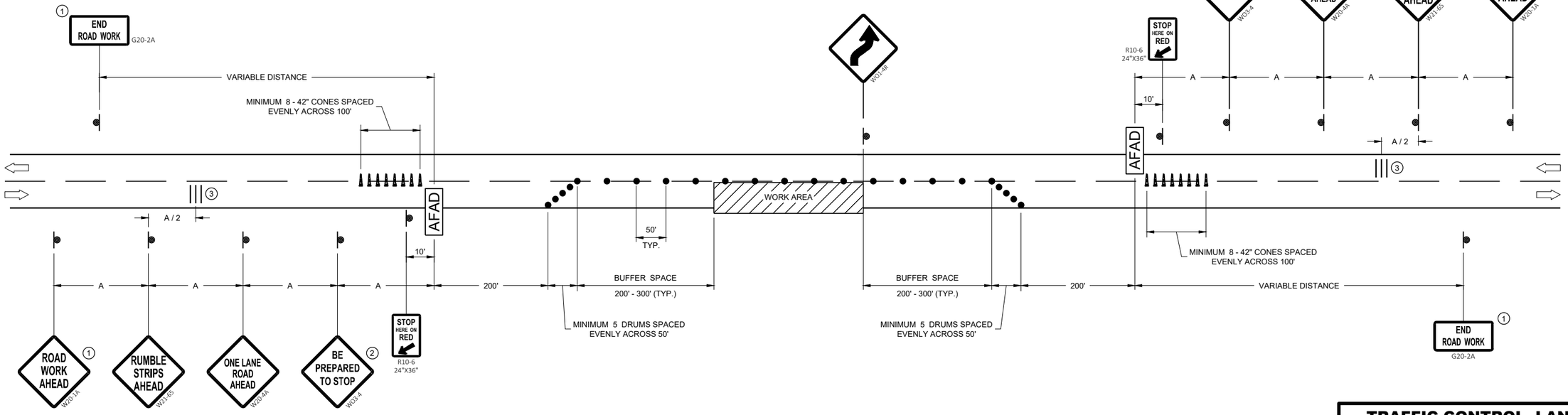
(3) EACH TEMPORARY PORTABLE RUMBLE STRIP ARRAY CONSISTS OF THREE RUMBLE STRIPS PLACED TRANSVERSELY AT THE LOCATIONS SHOWN. WITHIN EACH ARRAY, SPACING BETWEEN RUMBLE STRIPS SHALL BE 15 FEET ON CENTER.



STOP/SLOW PADDLE ON SUPPORT STAFF

SIGN AND TEMPORARY RUMBLE STRIP ARRAY SPACING TABLE

SPEED LIMIT	SPACING "A"
25-30 MPH	200'
35-40 MPH	350'
45-55 MPH	500'



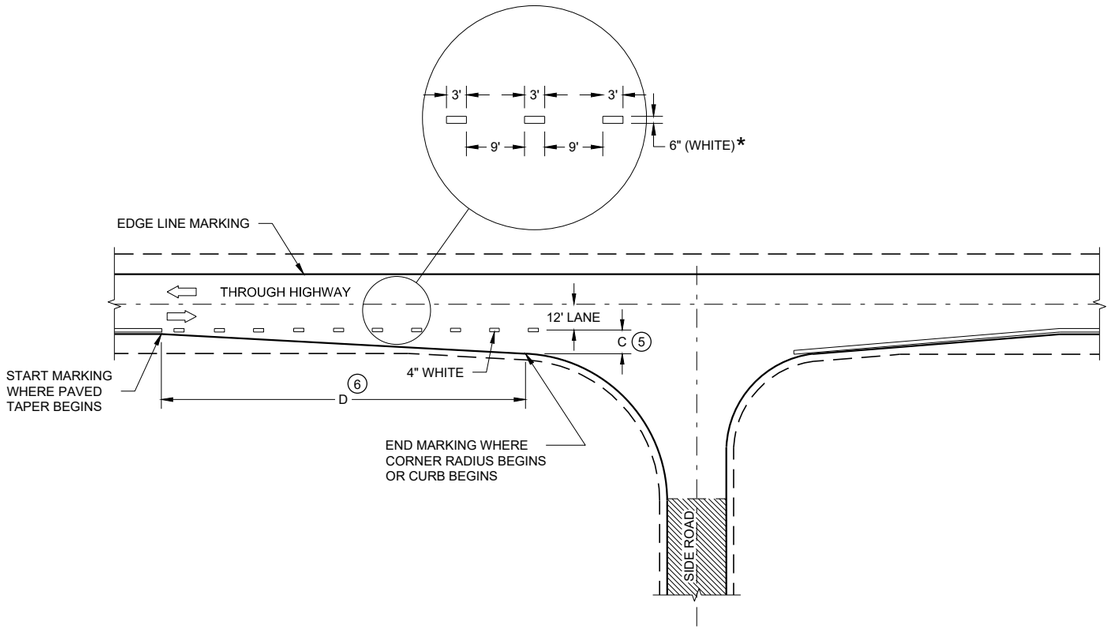
TRAFFIC CONTROL, LANE CLOSURE WITH AUTOMATED FLAGGER ASSISTANCE DEVICE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

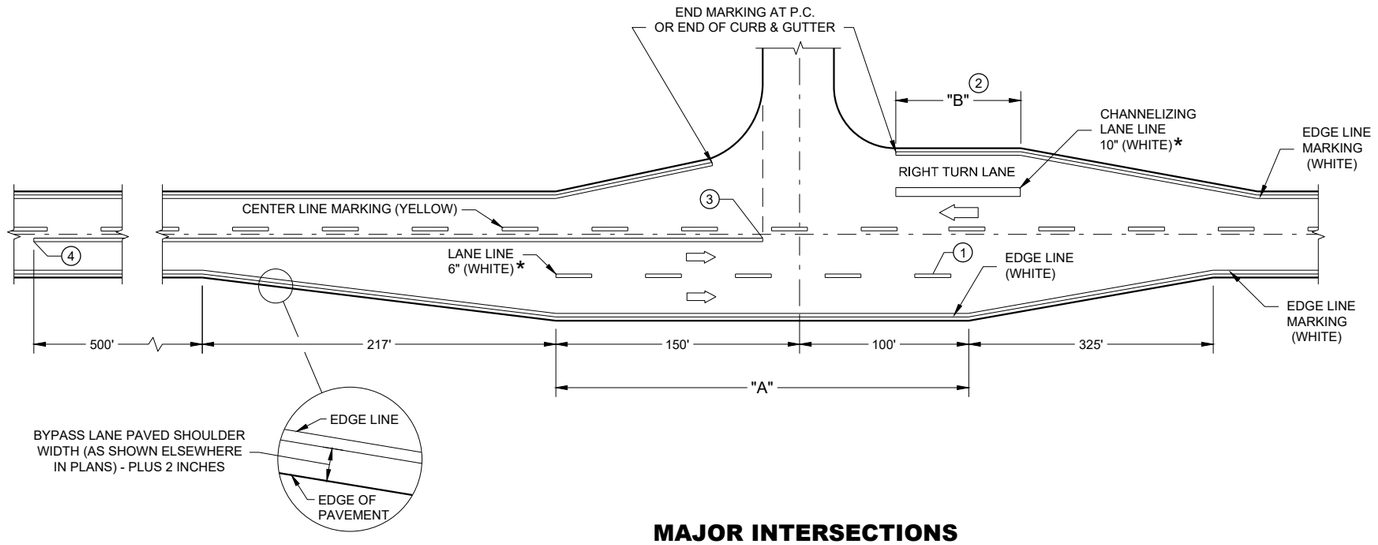
APPROVED
May 2022 — DATE
/S/ Andrew Heidtke — WORK ZONE ENGINEER
FHWA

SDD 15C12 - 09b

SDD 15C12 - 09b



MINOR INTERSECTION



MAJOR INTERSECTIONS

(INTERSECTION WITH FULL RIGHT TURN LANE OR BYPASS LANE)

* CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES

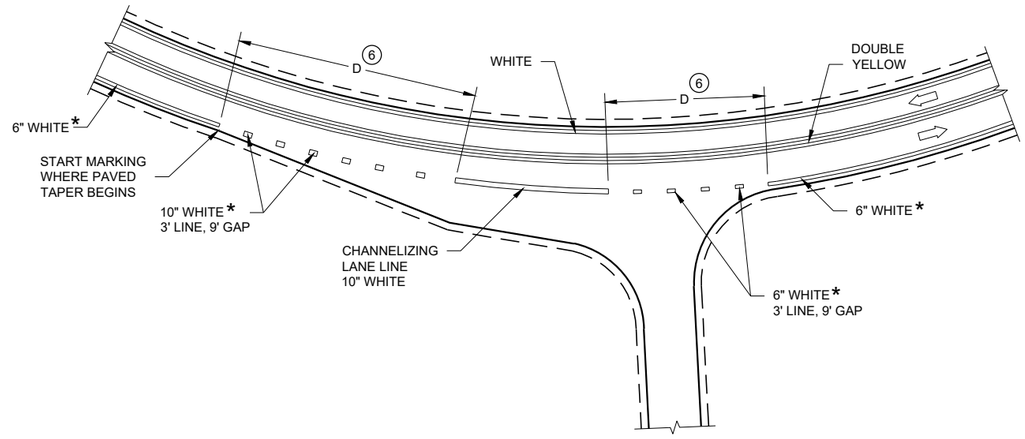
GENERAL NOTES

OMIT EDGE LINES THROUGH INTERSECTIONS. CONTINUE EDGE LINES THROUGH DRIVEWAYS.

1. WHEN DISTANCE "A" IS LESS THAN 250 FEET, OMIT LANE LINE.
2. WHEN DISTANCE "B" IS LESS THAN 100 FEET, OMIT CHANNELIZING LANE LINE.
3. BARRIER LINE ENDS AT SIDE ROAD PAVEMENT / SURFACE EDGE EXTENSION.
4. BARRIER LINE STARTS 500 FEET PRIOR TO THE BYPASS TAPER.
5. WHEN DISTANCE "C" IS LESS THAN 4 FEET, OMIT DOTTED EXTENSION.
6. WHEN DISTANCE "D" IS LESS THAN 50 FEET, OMIT DOTTED EXTENSION.

LEGEND

DIRECTION OF TRAVEL

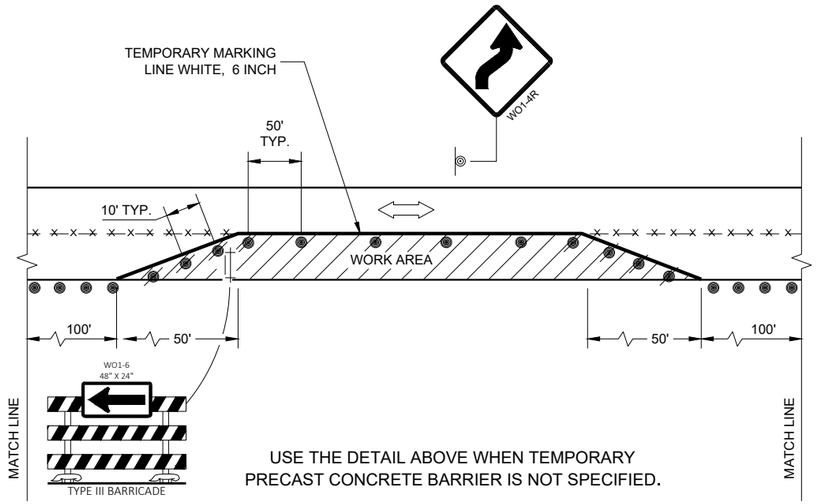


INTERSECTION ON OUTSIDE OF CURVE

PAVEMENT MARKING (INTERSECTIONS)

LEGEND

- TYPE III BARRICADE WITH ATTACHED SIGN
- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- TRAFFIC CONTROL DRUM
- FLAGS, 16" X 16" MIN. (ORANGE)
- REMOVING PAVEMENT MARKING
- DIRECTION OF TRAFFIC
- ASPHALTIC PAVEMENT WIDENING
- CONCRETE BARRIER TEMPORARY PRECAST
- TEMPORARY SIGNAL. SEE SDD 09G02 FOR EXACT PLACEMENT



USE THE DETAIL ABOVE WHEN TEMPORARY PRECAST CONCRETE BARRIER IS NOT SPECIFIED.

GENERAL NOTES

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

THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND TO PROVIDE A MINIMUM OF 200 FEET (500 FEET DESIRABLE) CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE..

THIS LANE CLOSURE IS TYPICAL FOR CLOSING RIGHT LANE - REVERSE FOR CLOSING LEFT LANE.

ALL SIGNS ARE 48" x 48" UNLESS OTHERWISE NOTED.

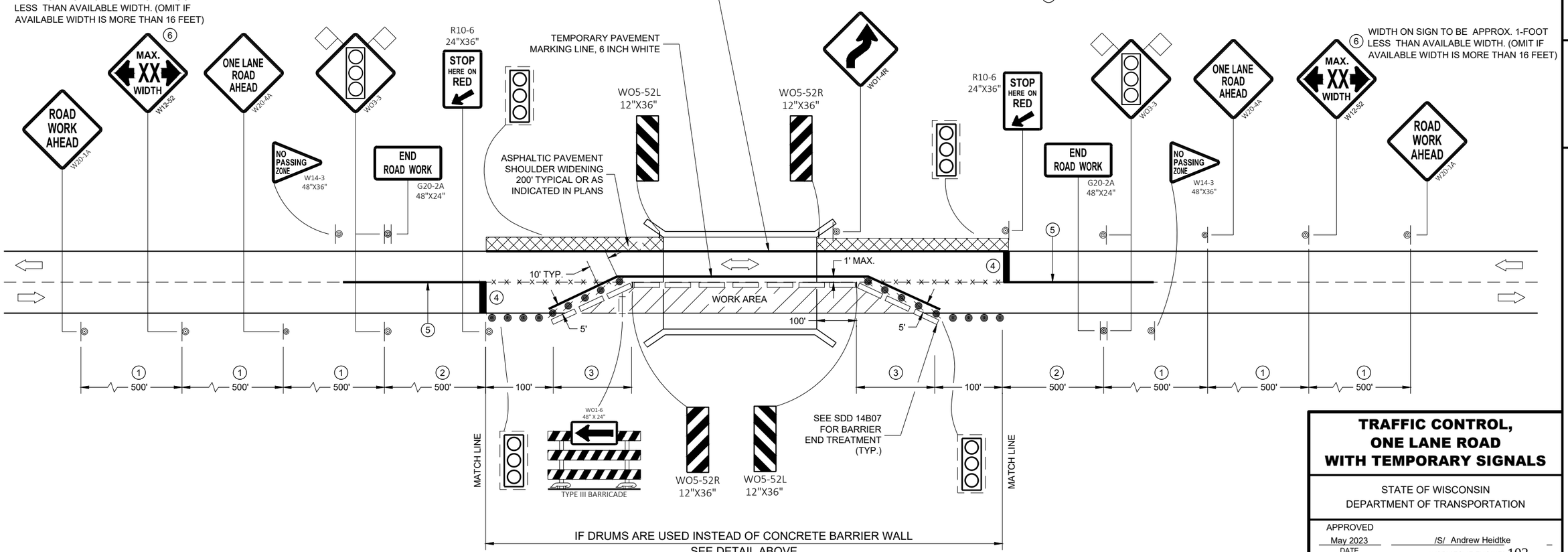
"WO" IS THE SAME AS "W" EXCEPT THE BACKGROUND IS ORANGE.

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

REMOVE PAVEMENT MARKING AND PLACE TEMPORARY PAVEMENT MARKING LINES IF THE CLOSURE IS TO BE IN PLACE FOR 4 OR MORE CONTINUOUS DAYS AND NIGHTS.

INSTALL OVERHEAD TEMPORARY SIGNAL HEADS ABOVE THE MIDDLE OF THE TRAVEL LANE THEY ARE CONTROLLING.

1. 500 FOOT SPACING SHOWN IS FOR ROADWAYS WITH A PRE-CONSTRUCTION REGULATORY SPEED LIMIT OF 45 MPH OR MORE. FOR 35 - 40 MPH, USE 350 FOOT TYPICAL SPACING. FOR 25 - 30 MPH, USE 200 FOOT TYPICAL SPACING.
2. USE 300 FOOT SPACING IF THE PRE - CONSTRUCTION REGULATORY SPEED IS 35 MPH OR LESS.
3. DIMENSION DETERMINED BY CBTP TAPER FROM EDGE LINE TO TANGENT SECTION OF THE ROAD.
4. TEMPORARY PAVEMENT MARKING LINE, 18 INCH WHITE STOP LINE.
5. 700 FOOT TEMPORARY PAVEMENT MARKING LINE, 6 INCH DOUBLE YELLOW . WHEN THE DISTANCE FOR THE PRECEDING NO - PASSING ZONE IS LESS THAN THE MINIMUM DISTANCE BETWEEN ZONES AS INDICATED IN THE SPECIFICATIONS, THE TWO ZONES SHALL BE CONNECTED.
6. SEE SDD 15C02 - SHEET "F" FOR ADVANCED WIDTH RESTRICTION SIGNING.



TRAFFIC CONTROL, ONE LANE ROAD WITH TEMPORARY SIGNALS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

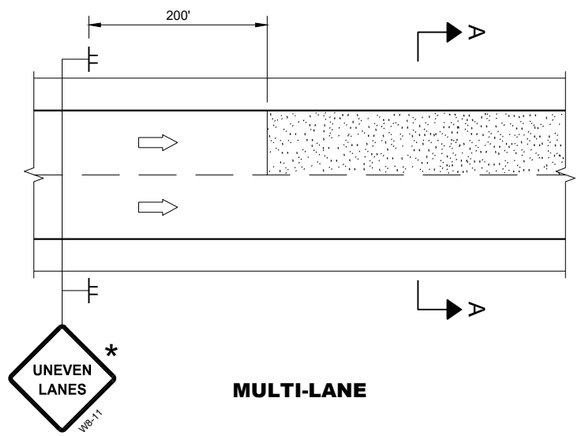
FHWA

6

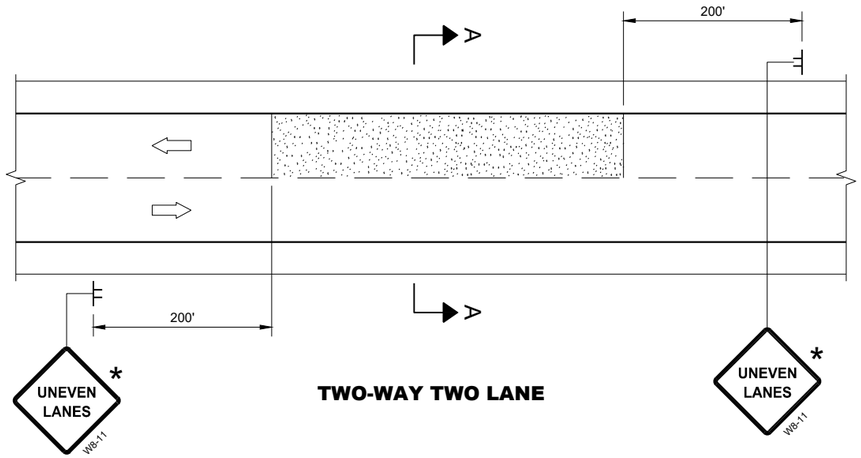
SDD 15D33-09

6

SDD 15D33-09



MULTI-LANE



TWO-WAY TWO LANE

GENERAL NOTES

FOR SPOT LOCATIONS USE ENGINEERING JUDGEMENT WHEN PLACING ADDITIONAL SIGNS.

ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.

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

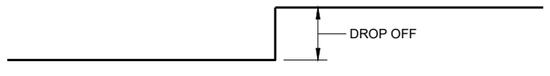
WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

* IF THE DROP-OFF IS CONTINUOUS ALONG THE PROJECT, PLACE ADDITIONAL SIGNS EVERY 1 MILE AND AFTER EVERY ENTRANCE RAMP.

(1) USE CLOSER SPACING WHEN DELINEATING DROP-OFF.

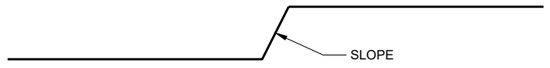
LEGEND

- SIGN ON TEMPORARY SUPPORT
- TRAFFIC CONTROL DRUM
- TYPE III BARRICADE WITH ATTACHED SIGN
- TYPE "A" WARNING LIGHT (FLASHING)
- DIRECTION OF TRAFFIC
- WORK AREA WITH DROP-OFF
- MILLED SURFACE

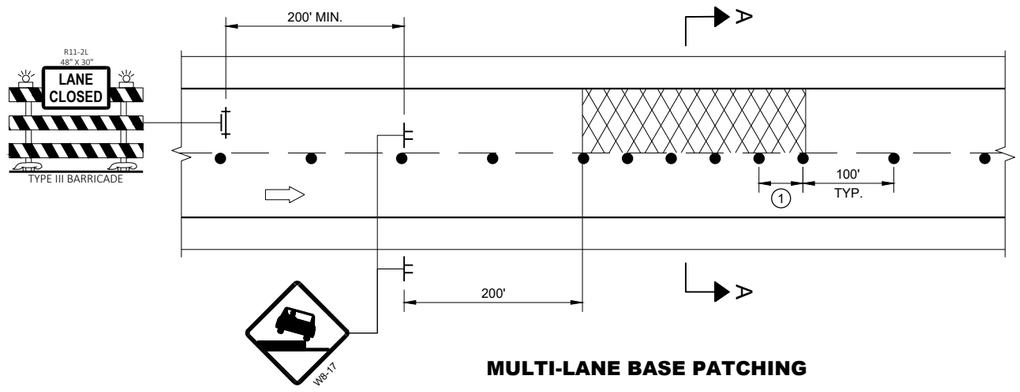


SECTION A - A

OR

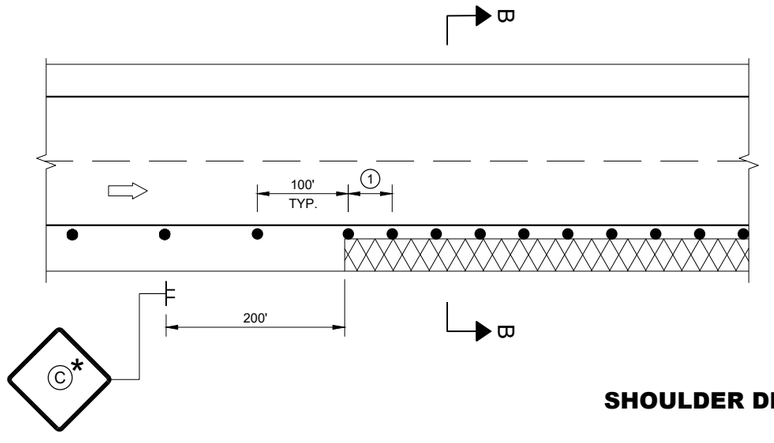


SECTION A - A

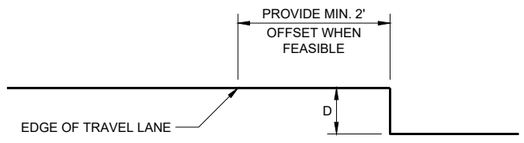


MULTI-LANE BASE PATCHING

ADJACENT LANE DROP-OFFS



SHOULDER DROP-OFFS



SECTION B - B

D	SIGN (C)
< 2" WITH A SLOPE STEEPER THAN 3:1	LOW SHOULDER WO8-9
2" < 6" WITH A SLOPE STEEPER THAN 3:1	SHOULDER DROP - OFF W8-9A PROVIDE A 3:1 OR FLATTER SLOPE OF MATERIAL ADJACENT TO THE PAVEMENT

TRAFFIC CONTROL, DROP-OFF SIGNING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
March 2018
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

6

SDD 15D39 - 02

GENERAL NOTES

DRAWING NOT TO SCALE. ALL SIGNS AND POSTS ON THIS SHEET SHALL BE PAID FOR WITH 'TRAFFIC CONTROL SIGNS' BID ITEM. ALL SIDE ROADS WHICH ARE UNDER CONSTRUCTION OF CURB AND GUTTER AND/OR GRADING SHALL BE ADEQUATELY SIGNED.

ALL SIGNS AND DEVICES SHALL BE IN CONFORMANCE WITH THE WISCONSIN MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (WMUTCD). SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE WISDOT STANDARD SIGN PLATES.

"WO" SIGNS ARE THE SAME AS "W" SIGNS EXCEPT THAT THE BACKGROUND IS ORANGE.

ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.

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

ALL SIGNS INAPPROPRIATE TO THE STATUS OF THE CONTROL ZONE, INCLUDING PRE-EXISTING SIGNS IN THE VICINITY, SHALL BE COVERED OR REMOVED AS DIRECTED BY THE ENGINEER.

SEE 15C34 FOR ADDITIONAL TRAFFIC CONTROL SIGNING WHEN CENTERLINE PAVEMENT MAKINGS ARE MISSING. 'DO NOT PASS' SIGNS MUST BE INSTALLED ON THE SAME DAY AS MILLING OPERATIONS.

(1) PLACE SIGNS 350' IN ADVANCE OF CHIP SEALED OR LOOSE GRAVEL SURFACES AND AT 1 MILE INTERVALS, OR AS DIRECTED BY THE ENGINEER.

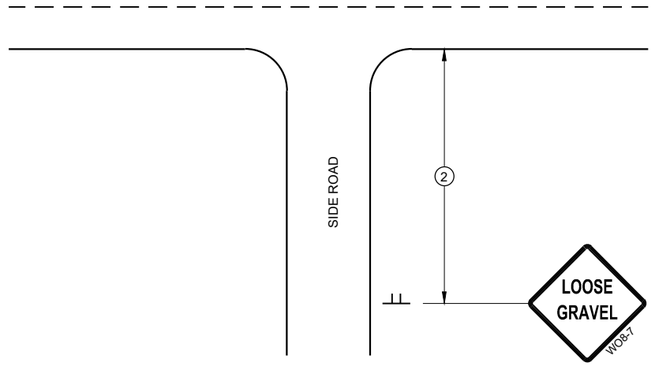
(2) PLACE SIGN 200' MIN. FROM INTERSECTION AND 200' MIN. AFTER ADVANCE WARNING SIGN SHOWN IN SDD 15C04.

(3) ADD WO8-1 OR WO8-2 SIGN WHEN THE CONDITION IS PRESENT.

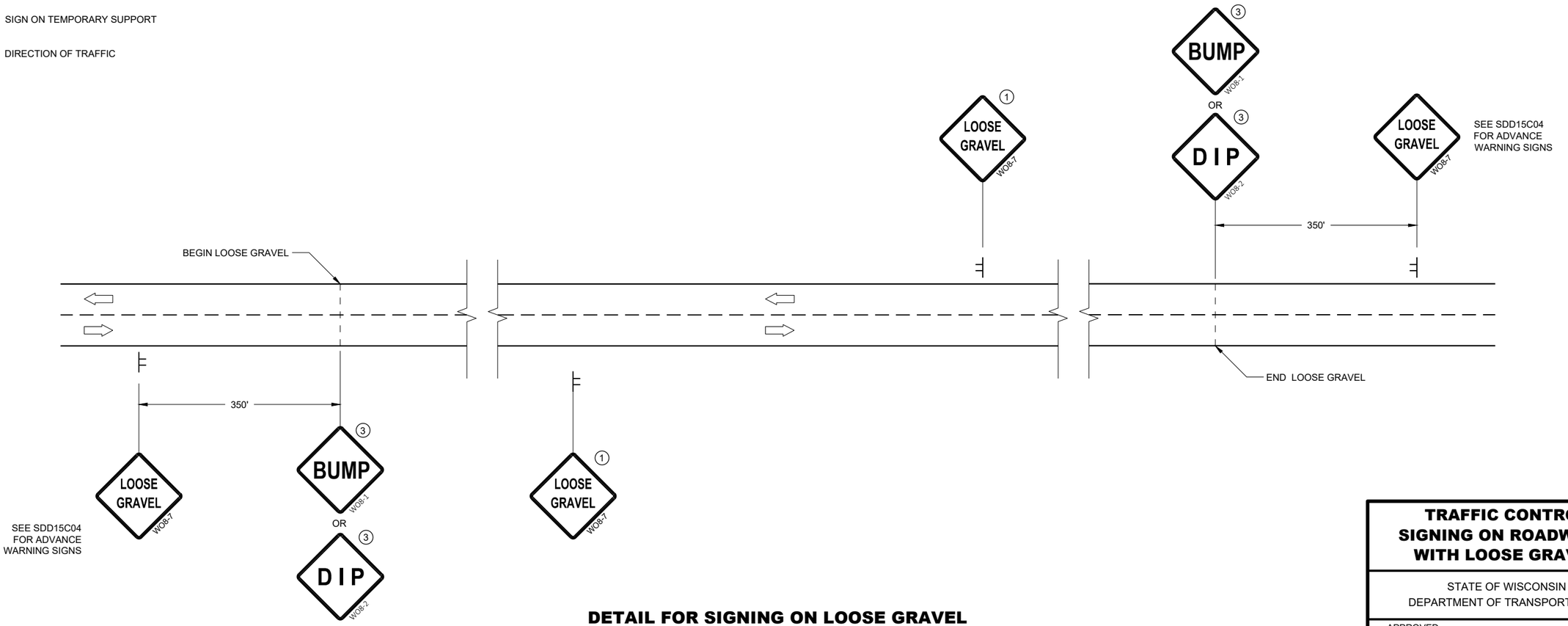
LEGEND

SIGN ON TEMPORARY SUPPORT

DIRECTION OF TRAFFIC



TYPICAL SIDE ROAD APPROACH SIGN DETAIL



DETAIL FOR SIGNING ON LOOSE GRAVEL OR CHIP SEALED SURFACES

TRAFFIC CONTROL SIGNING ON ROADWAYS WITH LOOSE GRAVEL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

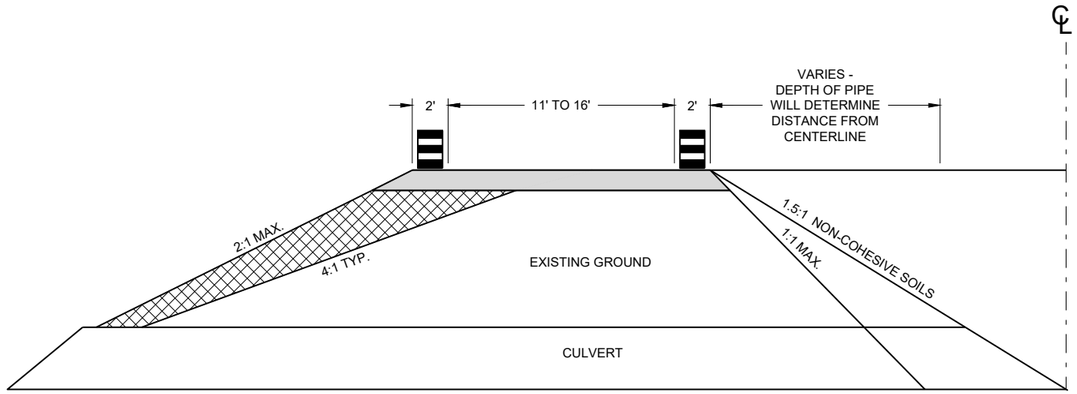
APPROVED
February 2021
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

6

SDD 15D45 - 03



CROSS SECTION

GENERAL NOTES

USE 1:1 FOR COHESIVE CLAYS AND SILTS, LOAMS, SANDY CLAYS AND ANGULAR GRAVEL SOILS.
USE 1.5:1 FOR NON-COHESIVE SOILS.

THE TAPER SHOULD EXTEND ACROSS THE SHOULDER UNLESS DOING SO WOULD GREATLY CONFLICT WITH THE WORK OPERATION.

ALL LANE CLOSURE SIGNS SHALL BE REMOVED OR COVERED AND ALL DEVICES REMOVED BEYOND THE SHOULDER WHEN WORK IS NOT IN PROGRESS AND THE LANE IS RESTORED TO A SAFE OPERATING CONDITION.

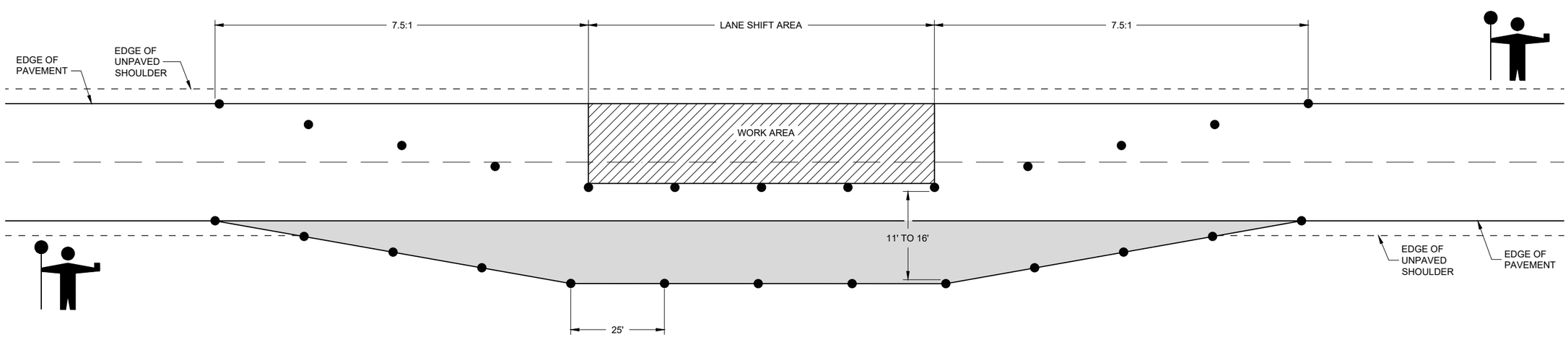
CHANNELIZING DEVICES PLACED ADJACENT TO WORK AREA SHALL BE PULLED BACK FROM TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

USE WITH SDD 15C12 "TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATIONS"

USE WITH SDD 15D45 "SIGNING ON ROADWAYS WITH LOOSE GRAVEL"

LEGEND

- DRUM WITHOUT WARNING LIGHT
- 6" BASE AGGREGATE DENSE 1 ¼" -INCIDENTAL TO LANE SHIFT ITEM
- FILL - INCIDENTAL TO LANE SHIFT ITEM
- WORK AREA
- FLAGGER, EQUIPPED WITH STOP/SLOW PADDLE FASTENED ON SUPPORT STAFF



LANE SHIFT IN FLAGGING OPERATION

TRAFFIC CONTROL, TEMPORARY LANE SHIFT DURING CULVERT WORK

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2021
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEER

FHWA

6

SDD 15D48 - 01

6

SDD 15D48 - 01

LEGEND

V1 WORK VEHICLE

V2 SHADOW VEHICLE

TRUCK MOUNTED ATTENUATOR (TMA)

FLASHING ARROW PANEL (CAUTION)

WORK AREA

DIRECTION OF TRAFFIC

POSTED SPEED PRIOR TO WORK STARTING (MPH)	DECISION SIGHT DISTANCE (D)
0 - 25	550'
30	550'
35	700'
40	700'
45	900'
50	900'
55	1200'

GENERAL NOTES

ALL SIGNS ARE 48"X48" UNLESS OTHERWISE NOTED.

MOBILE IS WORK THAT MOVES CONTINUOUSLY OR MOVES AT LEAST THE DECISION SIGHT DISTANCE EVERY 15 MINUTES.

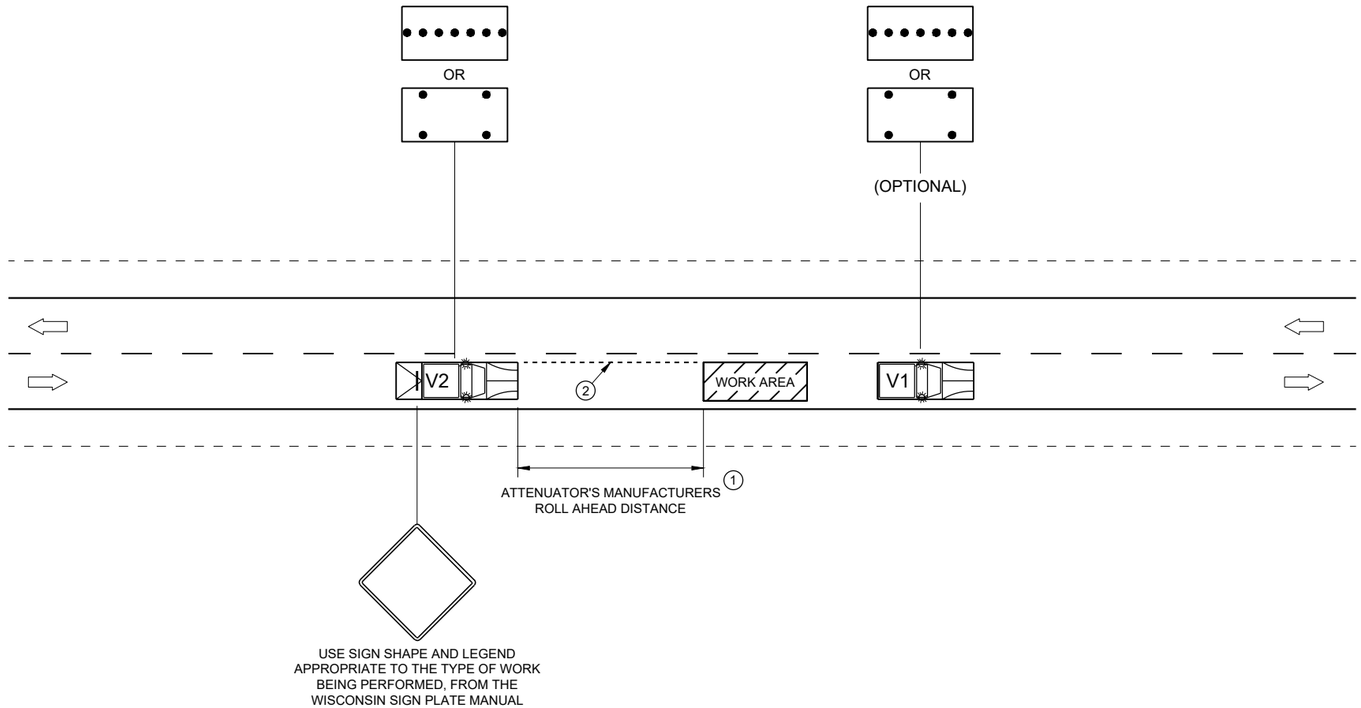
ALL VEHICLES SHALL BE EQUIPPED WITH TWO 360 DEGREE HIGH INTENSITY YELLOW FLASHING LIGHTS OR STROBE LIGHTS AND OPERATED WITH HEADLIGHTS TURNED ON.

ALL ARROW PANELS SHALL BE REAR FACING, TYPE "B" OR "C", AND DISPLAYING THE FLASHING CAUTION MODE. SIGNS PLACED ON VEHICLES MUST NOT OBSCURE THE ARROW PANEL.

USE AN ATTENUATOR ON THE REARMOST VEHICLE THAT BLOCKS ALL OR PART OF THE TRAFFIC LANE.

(1) DISTANCE BETWEEN VEHICLES MAY INCREASE FROM THE ATTENUATOR'S ROLL AHEAD BASED ON TERRAIN, SIGHT DISTANCE, AND OTHER FACTORS. WHENEVER ADEQUATE STOPPING SIGHT DISTANCE EXISTS TO THE REAR, SHADOW VEHICLES SHOULD MAINTAIN THE MINIMUM DISTANCE FROM THE WORK VEHICLE AND PROCEED AT THE SAME SPEED AS THE WORK VEHICLE. SHADOW VEHICLES SHOULD SLOW DOWN IN ADVANCE OF VERTICAL OR HORIZONTAL CURVES THAT RESTRICT SIGHT DISTANCE.

(2) ALIGN LEFT SIDE OF SHADOW VEHICLE WITH EDGE OF WORK AREA.



TRAFFIC CONTROL, MOBILE OPERATIONS ON AN UNDIVIDED ROADWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

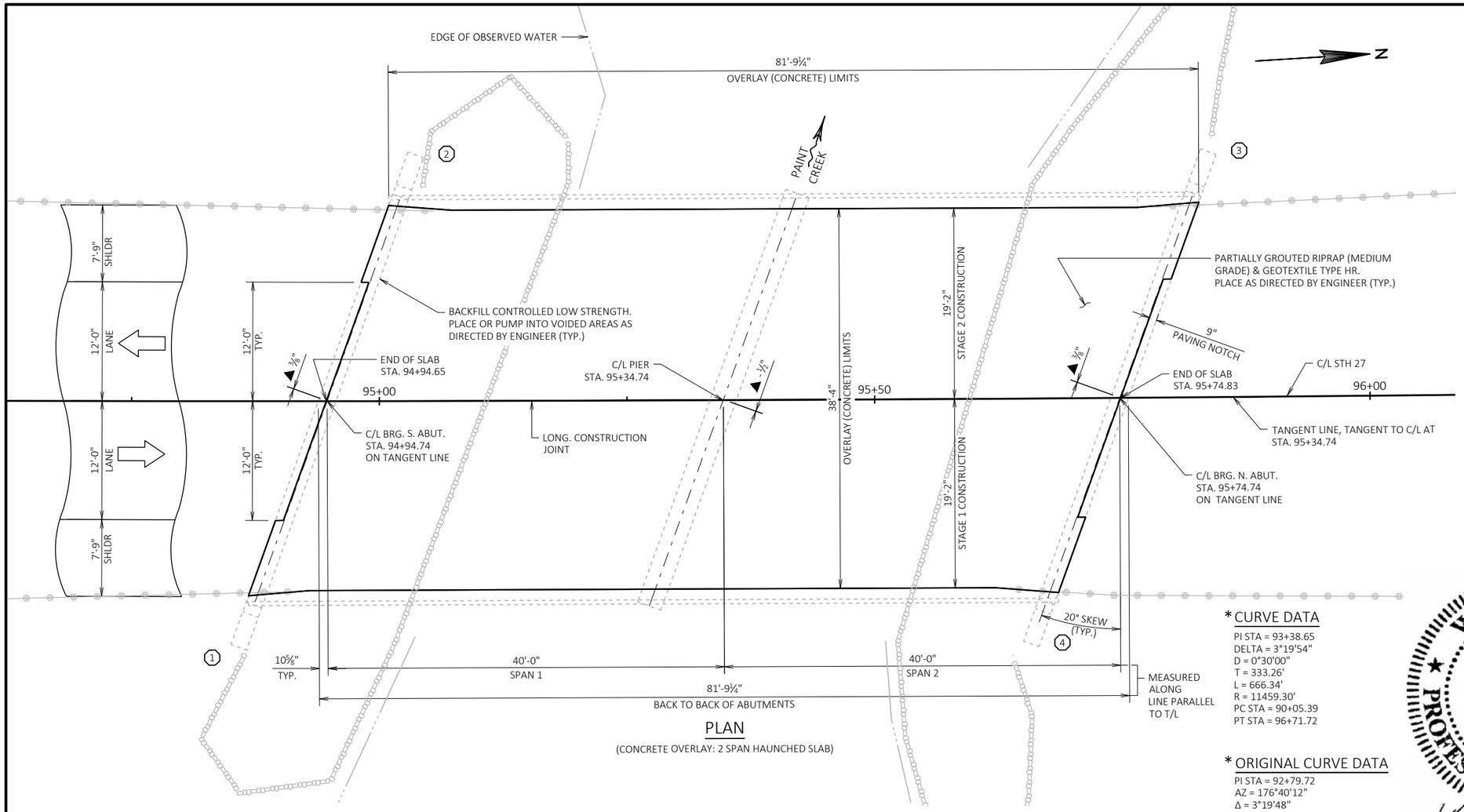
APPROVED
February 2021 — DATE
/S/ Andrew Heidtke — STATEWIDE WORK ZONE T SAFETY ENGINEER
FHWA

6

SDD 15D51 - 01

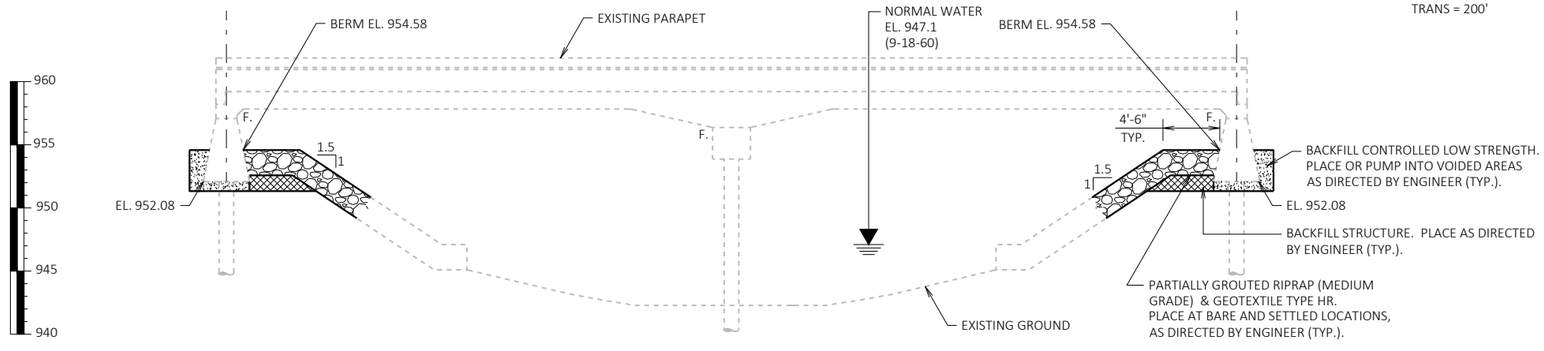
STATE PROJECT NUMBER

7070-06-72



PLAN

(CONCRETE OVERLAY: 2 SPAN HAUNCHED SLAB)



ELEVATION

(LOOKING WEST)

DESIGN DATA

LIVE LOAD:

DESIGN LOADING	HS20
INVENTORY RATING	HS18
OPERATING RATING	HS31
WISCONSIN STANDARD PERMIT VEHICLE (WIS-SPV)	250 KIPS

MATERIAL PROPERTIES:

CONCRETE MASONRY OVERLAY DECKS	f'c = 4,000 PSI
ALL OTHER CONCRETE	f'c = 3,500 PSI

TRAFFIC DATA

STH 27

ADT (2043) = 1570

DESIGN SPEED = 60 MPH

LEGEND

- ⬡ DENOTES WING NUMBER
- ∗ DIMENSIONS ON THE STRUCTURE ARE BASED OFF THE ORIGINAL PLAN AND CURVE DATA. STATIONS ARE BASED OFF CURRENT CURVE DATA.
- ▲ DIMENSIONS FROM C/L TO LINE PARALLEL TO TANGENT LINE, "-" INDICATES OFFSET TO RIGHT WHEN LOOKING UP STATION. OFFSETS BASED ON ORIGINAL CURVE DATA.

∗CURVE DATA

PI STA = 93+38.65
DELTA = 3°19'54"
D = 0°30'00"
T = 333.26'
L = 666.34'
R = 11459.30'
PC STA = 90+05.39
PT STA = 96+71.72

∗ORIGINAL CURVE DATA

PI STA = 92+79.72
AZ = 176°40'12"
Δ = 3°19'48"
D = 0°30" L
R = 11459.30
L = 666.00'
T = 333.12
SE = 0.02'/FT
TRANS = 200'

WISCONSIN
WILLIAM A. HOVE
E-33600
MADISON, WI
PROFESSIONAL ENGINEER

9/1/2022

LIST OF DRAWINGS

NO.	DATE	REVISION	BY

CORRE ENGINEERING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED _____ SDR 11/04/22
CHIEF STRUCTURES DESIGN ENGINEER — DATE

STRUCTURE B-9-26

STH 27 OVER PAINT CREEK

COUNTY	TOWN/~~CITY/VILLAGE~~
CHIPPEWA	SIGEL

DESIGN SPEC. REHABILITATION N/A

DESIGNED BY	DESIGN CK'D.	DRAWN BY	PLANS CK'D.
BH	ETP	PKF	BH

GENERAL PLAN

SHEET 1 OF 4

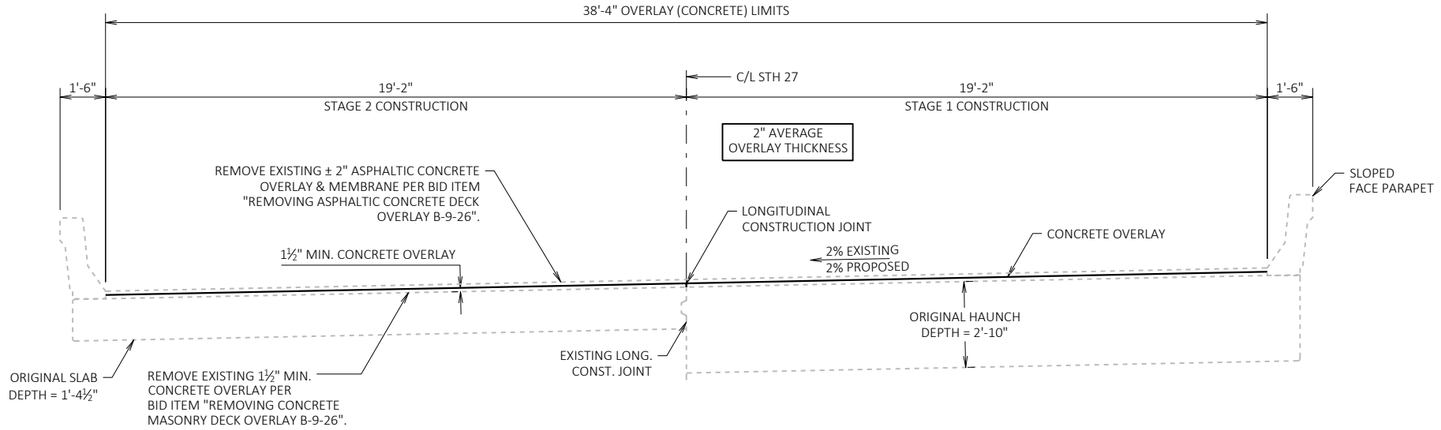
108

BRIDGE OFFICE CONTACT
AARON BONK, P.E.
TELEPHONE: (608) 261-0261

CONSULTANT CONTACT
BILL HOVE, P.E.
TELEPHONE: (262) 393-1260

STATE PROJECT NUMBER

7070-06-72



CROSS SECTION THRU BRIDGE

(LOOKING NORTH)

GENERAL NOTES

THE PROPOSED WORK INCLUDES REMOVAL OF THE EXISTING ASPHALTIC CONCRETE OVERLAY AND CONCRETE OVERLAY, PLACEMENT OF A CONCRETE OVERLAY, CONCRETE SURFACE REPAIR, SLOPE REPAIR, AND REPAIR OF ABUTMENT UNDERMINING.

DRAWINGS SHALL NOT BE SCALED.

DIMENSIONS AND ELEVATIONS ARE BASED ON THE EXISTING STRUCTURE PLANS.

PROFILE GRADE LINE SHALL BE DETERMINED IN THE FIELD BASED ON A MINIMUM OVERLAY THICKNESS OF 1½" PLACED ABOVE THE DECK AFTER SURFACE PREPARATION. EXPECTED AVERAGE OVERLAY THICKNESS IS 2". IF EXPECTED AVERAGE OVERLAY THICKNESS IS EXCEEDED BY MORE THAN ½", CONTACT THE STRUCTURE DESIGN SECTION.

THE AVERAGE OVERLAY THICKNESS IS BASED ON THE MINIMUM OVERLAY THICKNESS PLUS ½-INCH TO ACCOUNT FOR VARIATIONS IN THE DECK SURFACE.

A MINIMUM OF 1-INCH OF EXISTING CONCRETE COVER SHALL BE MAINTAINED OVER THE TOP MAT OF SLAB REINFORCEMENT. DO NOT EXPOSE MORE THAN ½ OF THE TOP BAR STEEL OVER THE PIERS DURING DECK PREPARATION WORK. IF NECESSARY, ADJACENT SPANS MUST BE SHORED.

ANY EXCAVATION REQUIRED TO COMPLETE THE WORK IS INCIDENTAL TO OTHER BID ITEMS.

ALL CONCRETE REMOVAL NOT COVERED WITH A CONCRETE OVERLAY SHALL BE DEFINED BY A ½" DEEP SAW CUT.

"PREPARATION DECKS TYPE 1", "PREPARATION DECKS TYPE 2", "FULL-DEPTH DECK REPAIR", AND "CONCRETE SURFACE REPAIR" QUANTITIES ARE APPROXIMATE. CONTRACTOR SHALL COORDINATE THE FIELD IDENTIFICATION AND DETERMINATION OF ALL REPAIR LOCATIONS WITH THE ENGINEER. DECK PREPARATION AND FULL-DEPTH DECK REPAIRS SHALL BE FILLED WITH "CONCRETE MASONRY OVERLAY DECKS".

ALL PREVIOUS PATCHES SHALL BE REMOVED UNDER THE BID ITEM FOR "PREPARATION DECKS TYPE 1", AND "PREPARATION DECKS TYPE 2".

MATERIALS, EQUIPMENT, ETC. SHALL NOT BE STOCKPILED/STORED ON THE BRIDGE DECK WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

PROTECTIVE SURFACE TREATMENT SHALL BE APPLIED TO THE ENTIRE TOP SURFACE OF THE NEW OVERLAY.

PIGMENTED SURFACE SEALER RESEAL SHALL BE APPLIED TO THE FRONT FACE AND TOP OF PARAPETS.

SEAL OVERLAY CONSTRUCTION JOINTS ACCORDING TO SECTION 502.3.13.1 OF THE STANDARD SPECIFICATIONS. COST INCIDENTAL TO BID ITEM "CONCRETE MASONRY OVERLAY DECKS".

BARE, SETTLED, AND DISTURBED AREAS OF RIPRAP SHALL BE REPAIRED AS DIRECTED BY THE ENGINEER. HAND PLACEMENT OF RIPRAP MAY BE REQUIRED. ALL WORK RELATED TO RIPRAP REPAIR IS INCLUDED IN THE BID ITEM "RARTIALLY GROUTED RIPRAP".

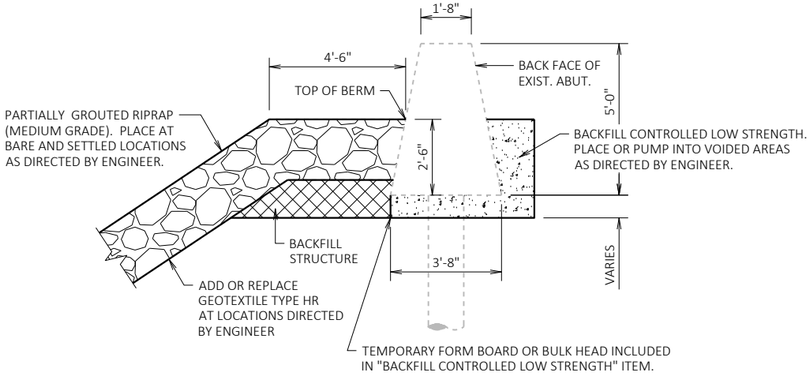
BACKFILL CONTROLLED LOW STRENGTH SHALL BE PLACED AS DIRECTED BY THE ENGINEER.

SEE ROAD PLANS FOR STAGING DETAILS.

TOTAL ESTIMATED QUANTITIES

ITEM NUMBER	BID ITEMS	UNIT	SOUTH ABUT.	PIER	NORTH ABUT.	SUPER	TOTAL
203.0211.S	ABATEMENT OF ASBESTOS CONTAINING MATERIAL B-9-26	EACH	----	----	----	1	1
209.0200.S	BACKFILL CONTROLLED LOW STRENGTH	CY	26	----	24	----	50
210.1500	BACKFILL STRUCTURE TYPE A	TON	17	----	13	----	30
502.3200	PROTECTIVE SURFACE TREATMENT	SY	----	----	----	350	350
502.3205	PIGMENTED SURFACE SEALER RESEAL	SY	----	----	----	70	70
509.0301	PREPARATION DECKS TYPE 1	SY	----	----	----	150	150
509.0302	PREPARATION DECKS TYPE 2	SY	----	----	----	60	60
509.0505.S	CLEANING DECKS TO REAPPLY CONCRETE MASONRY OVERLAY	SY	----	----	----	350	350
509.1500	CONCRETE SURFACE REPAIR	SF	30	20	20	300	370
509.2000	FULL-DEPTH DECK REPAIR	SY	----	----	----	15	15
509.2500	CONCRETE MASONRY OVERLAY DECKS	CY	----	----	----	32	32
509.9005.S	REMOVING CONCRETE MASONRY DECK OVERLAY B-9-26	SY	----	----	----	350	350
509.9010.S	REMOVING ASPHALTIC CONCRETE DECK OVERLAY B-9-26	SY	----	----	----	350	350
645.0120	GEOTEXTILE TYPE HR	SY	40	----	40	----	80
SPV.0035	PARTIALLY GROUTED RIPRAP	CY	15	----	15	----	30

ALL BID ITEMS ARE CATEGORY 0020



CROSS SECTION THRU ABUTMENT UNDERMINING REPAIR

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-9-26

DRAWN BY PKF | PLANS CK'D. BH

ORIGINAL PLAN PREPARED BY CORRE

CROSS SECTION & QUANTITIES

SHEET 2 OF 4

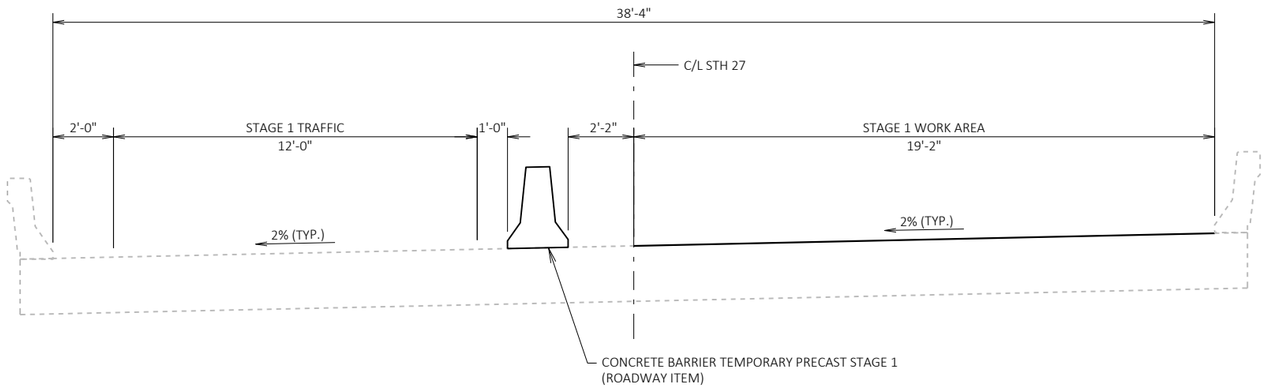
109

8

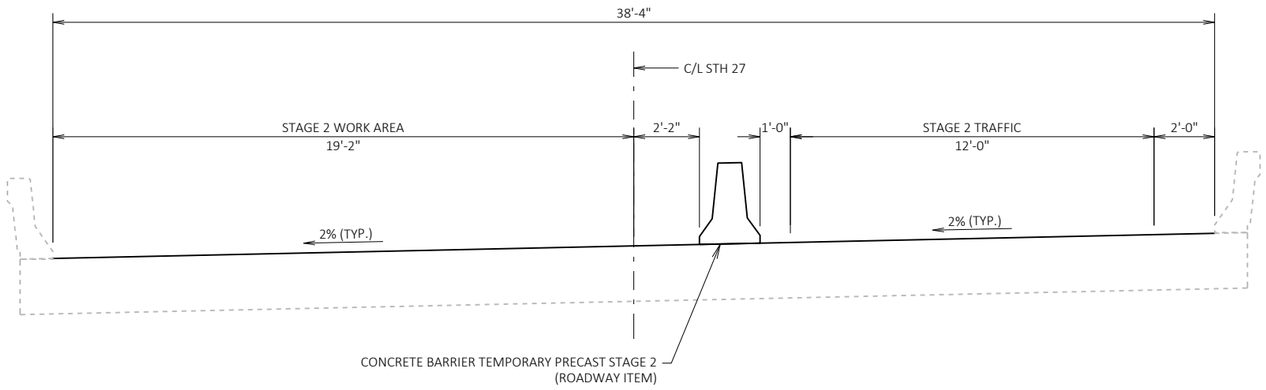
8

FILE NAME : C:\OD\CORRE, INC\PROJECTS - WI-NW REGION\7070-06-02_CHIPPEWA CO_STH 27\500_CADD\503_STRUCTURES\503.3_FINAL\080101 GP_B-9-26.DWG PLOT DATE : 8/30/2022 10:40 AM PLOT BY : PAULETTE FENSKE

STATE PROJECT NUMBER
7070-06-72



STAGE 1 TRAFFIC CONTROL



STAGE 2 TRAFFIC CONTROL

8

8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-9-26

DRAWN BY PKF | PLANS CK'D. BH

ORIGINAL PLAN PREPARED BY CORRE

STAGING DETAILS

SHEET 3 OF 4

110

FILE NAME : C:\OD\CORRE, INC\PROJECTS - WI-NW REGION\7070-06-02_CHIPPEWA CO_STH 27\500_CADD\503_STRUCTURES\503.3_FINAL\080101 GP_B-9-26.DWG PLOT DATE : 8/30/2022 10:40 AM PLOT BY : PAULETTE FENSKE

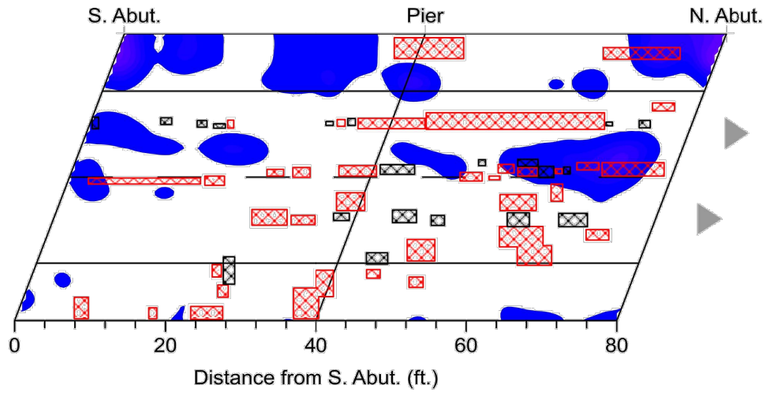
STATE PROJECT NUMBER

7070-06-72

NOTES:

DECK CONDIDTION SURVEY PERFORMED BY INFRASENSE ON 11/29/2021.

DEFECT AREAS SHOWN ON THIS SHEET ARE FOR INFORMATION ONLY. THE FIELD ENGINEER WILL SOUND THE DECK AND MARK REPAIR AREAS IN THE FIELD. RELATED QUANTITIES SHOWN ON SHEET 2 WERE INCREASED TO ACCOUNT FOR GROWTH AND VARIABILITY.



Conditions Legend		Orientation	Quantity Summary			General Information
Rebar-level deterioration detected by GPR	Delamination detected by IR		Condition	sq. ft.	%	Bridge ID: B090026 STH 27 over Paint Creek
Increasing severity -->	Patching	Direction of traffic	Delamination (IR)	303.4	9.5	Analyzed by: SB Reviewed by: AJC Completed: 11/29/2021
Delamination confirmed through sounding	Median	1-in = 20-ft 0 20	Deterioration (GPR)	595.4	18.8	
			Total	847.7	26.5	**Sheet 1 of 1**

INFRASENSE

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-9-26

DRAWN BY PKF | PLANS CK'D. BH

ORIGINAL PLAN PREPARED BY CORRE

DECK CONDITION SURVEY

SHEET 4 OF 4

111

8

8

FILE NAME : C:\OD\CORRE, INC\PROJECTS - WI-NW REGION\7070-06-02_CHIPPEWA CO_STH 27\500_CADD\503_STRUCTURES\503.3_FINAL\080101 GP_B-9-26.DWG PLOT DATE : 8/30/2022 10:40 AM PLOT BY : PAULETTE FENSKE

B-9-26 SE

STATION	REAL STATION	DISTANCE	AREA (SF)			INCREMENTAL VOL (CY) (UNADJUSTED)			CUMULATIVE VOL (CY)		
			CUT	SALVAGED/UNUSABLE PAVEMENT MATERIAL	FILL	CUT	SALVAGED/UNUSABLE PAVEMENT MATERIAL	FILL	CUT	EXPANDED FILL	MASS ORDINATE
						NOTE 1	NOTE 2	NOTE 3	1.00 NOTE 1	1.25	NOTE 8
93+00	9300.00	0.00	0.00	0.00	0.00	0	0	0	0	0	0
93+62.326	9362.33	62.33	0.00	0.00	49.26	0	0	57	0	71	-71
93+88.888	9388.89	26.56	0.00	0.00	45.38	0	0	47	0	130	-130
94+00	9400.00	11.11	0.00	0.00	23.58	0	0	14	0	148	-148
94+13.067	9413.07	13.07	0.00	0.00	1.43	0	0	6	0	155	-155
94+15.451	9415.45	2.38	0.00	0.00	0.41	0	0	0	0	155	-155
94+39.631	9439.63	24.18	1.43	0.00	8.42	1	0	4	1	160	-159
94+66.192	9466.19	26.56	0.92	0.00	13.94	1	0	11	2	174	-172

B-9-26 SW

STATION	REAL STATION	DISTANCE	AREA (SF)			INCREMENTAL VOL (CY) (UNADJUSTED)			CUMULATIVE VOL (CY)		
			CUT	SALVAGED/UNUSABLE PAVEMENT MATERIAL	FILL	CUT	SALVAGED/UNUSABLE PAVEMENT MATERIAL	FILL	CUT	EXPANDED FILL	MASS ORDINATE
						NOTE 1	NOTE 2	NOTE 3	1.00 NOTE 1	1.25	NOTE 8
93+00	9300.00	0.00	0.00	0.00	0.00	0	0	0	0	0	0
93+62.326	9362.33	62.33	0.00	0.00	31.61	0	0	36	0	45	-45
93+88.888	9388.89	26.56	0.00	0.00	31.00	0	0	31	0	84	-84
94+00	9400.00	11.11	0.00	0.00	41.45	0	0	15	0	103	-103
94+13.067	9413.07	13.07	0.00	0.00	49.42	0	0	22	0	130	-130
94+15.451	9415.45	2.38	0.00	0.00	48.39	0	0	4	0	135	-135
94+39.631	9439.63	24.18	0.00	0.00	32.79	0	0	36	0	180	-180
94+66.192	9466.19	26.56	1.11	0.00	8.24	1	0	20	1	205	-204

Notes:	
1 - CUT	CUT INCLUDES SALVAGED/UNUSABLE PAVEMENT MATERIAL
2 - SALVAGED/UNUSABLE PAVEMENT MATERIAL	THIS DOES NOT SHOW UP IN CROSS SECTIONS
3 - FILL	DOES NOT INCLUDE UNUSABLE PAVEMENT EXC VOLUME
8 - MASS ORDINATE	IF MARSH OR EBS TO BE BACKFILLED WITH COMMON OR BORROW: [(CUT - SALVAGED PAVT - EXPANDED MARSH EXC - EXPANDED EBS) - ((FILL - REDUCED MARSH IN FILL - REDUCED EBS IN FILL - EXPANDED ROCK) * FILL FACTOR)]

9

9

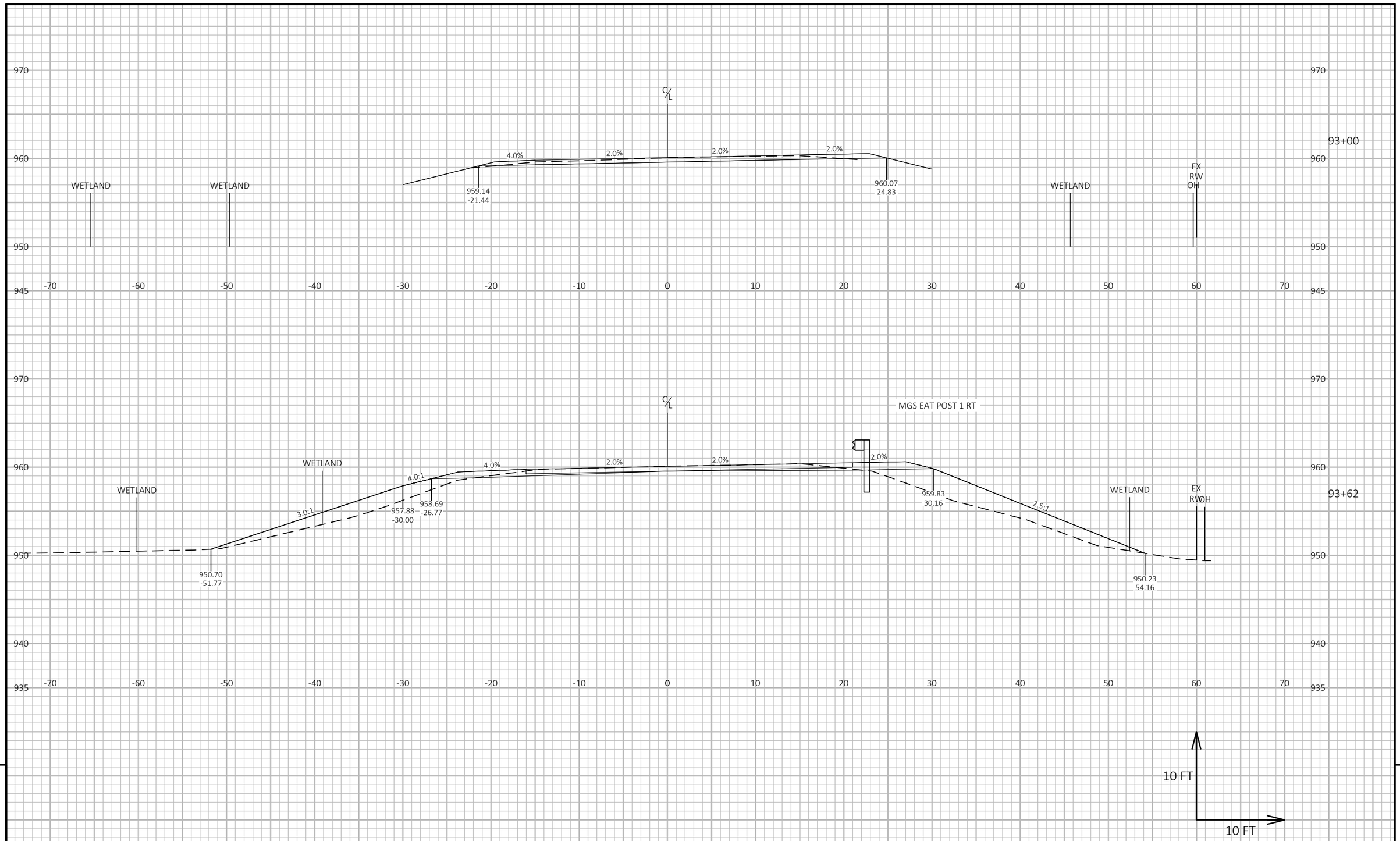
B-9-26 NE

STATION	REAL STATION	DISTANCE	AREA (SF)			INCREMENTAL VOL (CY) (UNADJUSTED)			CUMULATIVE VOL (CY)		
			CUT	SALVAGED/UNUSABLE PAVEMENT MATERIAL	FILL	CUT	SALVAGED/UNUSABLE PAVEMENT MATERIAL	FILL	CUT	EXPANDED FILL	MASS ORDINATE
						NOTE 1	NOTE 2	NOTE 3	1.00 NOTE 1	1.25	NOTE 8
96+00	9600.00	0.00	1.09	0.00	4.14	0	0	0	0	0	0
96+15.389	9615.39	15.39	0.95	0.00	18.37	1	0	6	1	8	-7
96+41.954	9641.95	26.56	0.00	0.00	38.04	0	0	28	1	43	-42
96+55.361	9655.36	13.41	0.00	0.00	45.56	0	0	21	1	69	-68
96+68.514	9668.51	13.15	0.00	0.00	42.36	0	0	21	1	95	-94
96+81.906	9681.91	13.39	0.00	0.00	39.89	0	0	20	1	120	-119
97+00	9700.00	18.09	0.00	0.00	27.62	0	0	23	1	149	-148
97+08.424	9708.42	8.42	0.00	0.00	21.23	0	0	8	1	159	-158
98+00	9800.00	91.58	0.00	0.00	0.00	0	0	36	1	204	-203

B-9-26 NW

STATION	REAL STATION	DISTANCE	AREA (SF)			INCREMENTAL VOL (CY) (UNADJUSTED)			CUMULATIVE VOL (CY)		
			CUT	SALVAGED/UNUSABLE PAVEMENT MATERIAL	FILL	CUT	SALVAGED/UNUSABLE PAVEMENT MATERIAL	FILL	CUT	EXPANDED FILL	MASS ORDINATE
						NOTE 1	NOTE 2	NOTE 3	1.00 NOTE 1	1.25	NOTE 8
96+00	9600.00	0.00	0.96	0.00	5.32	0	0	0	0	0	0
96+15.389	9615.39	15.39	1.50	0.00	2.44	1	0	2	1	3	-2
96+41.954	9641.95	26.56	0.00	0.00	0.00	1	0	1	2	4	-2
96+55.361	9655.36	13.41	0.00	0.00	0.01	0	0	0	2	4	-2
96+68.514	9668.51	13.15	0.00	0.00	15.33	0	0	4	2	9	-7
96+81.906	9681.91	13.39	0.00	0.00	16.37	0	0	8	2	19	-17
97+00	9700.00	18.09	0.00	0.00	34.34	0	0	17	2	40	-38
97+08.424	9708.42	8.42	0.00	0.00	44.06	0	0	12	2	55	-53
98+00	9800.00	91.58	0.00	0.00	30.27	0	0	126	2	213	-211

Notes:	
1 - CUT	CUT INCLUDES SALVAGED/UNUSABLE PAVEMENT MATERIAL
2 - SALVAGED/UNUSABLE PAVEMENT MATERIAL	THIS DOES NOT SHOW UP IN CROSS SECTIONS
3 - FILL	DOES NOT INCLUDE UNUSABLE PAVEMENT EXC VOLUME
8 - MASS ORDINATE	IF MARSH OR EBS TO BE BACKFILLED WITH COMMON OR BORROW: [(CUT - SALVAGED PAVT - EXPANDED MARSH EXC - EXPANDED EBS) - ((FILL - REDUCED MARSH IN FILL - REDUCED EBS IN FILL - EXPANDED ROCK) * FILL FACTOR)]



9

9

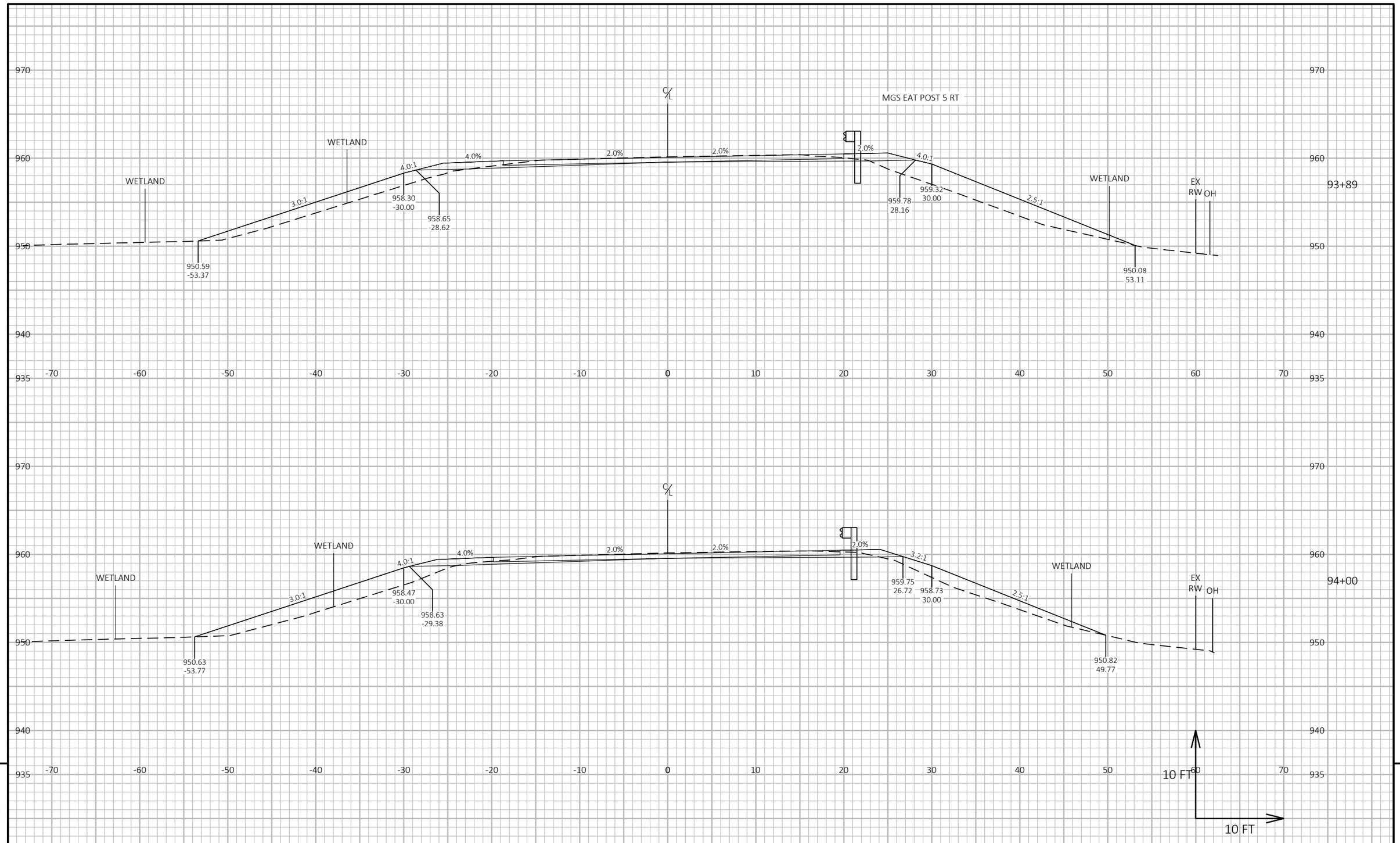
PROJECT NO: 7070-06-72	HWY: STH 27	COUNTY: CHIPPEWA	CROSS SECTIONS: STH 27	SHEET 114	E

FILE NAME : C:\OD\CORRE, INC\PROJECTS - WI-NW REGION\7070-06-02_CHIPPEWA CO_STH 27\500_CADD\501_C3D_2018\70700602\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 01

PLOT DATE : 4/14/2023 10:09 AM PLOT BY : CAMERON SHIFFER, PE PLOT NAME :

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

WISDOT/CADDS SHEET 49

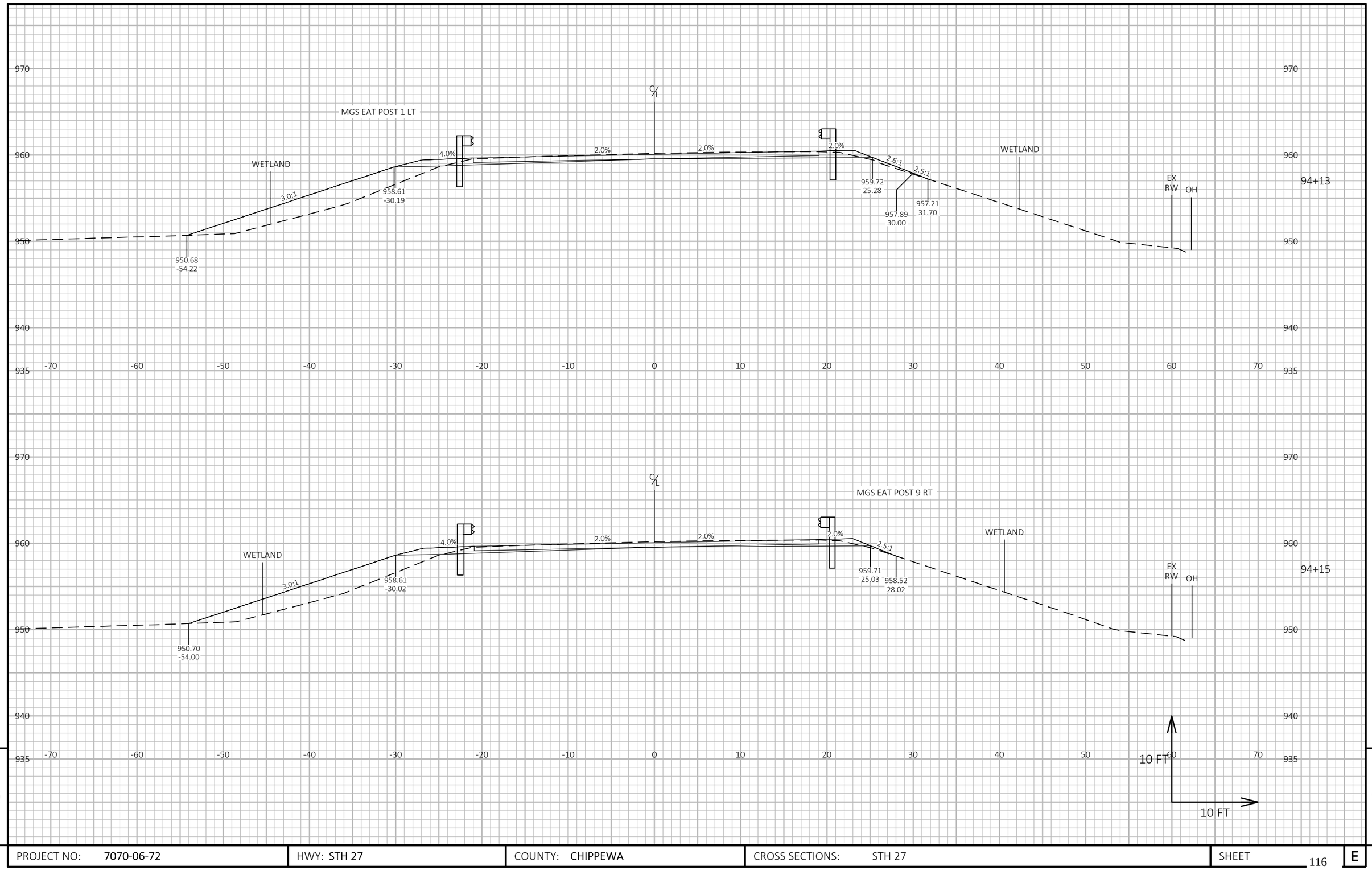


PROJECT NO: 7070-06-72	HWY: STH 27	COUNTY: CHIPPEWA	CROSS SECTIONS: STH 27	SHEET 115	E

FILE NAME : C:\OD\CORRE, INC\PROJECTS - WI-NW REGION\7070-06-02_CHIPPEWA CO_STH 27\500_CADD\501_C3D_2018\70700602\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 02

PLOT DATE : 4/14/2023 10:09 AM PLOT BY : CAMERON SHIFFER, PE PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

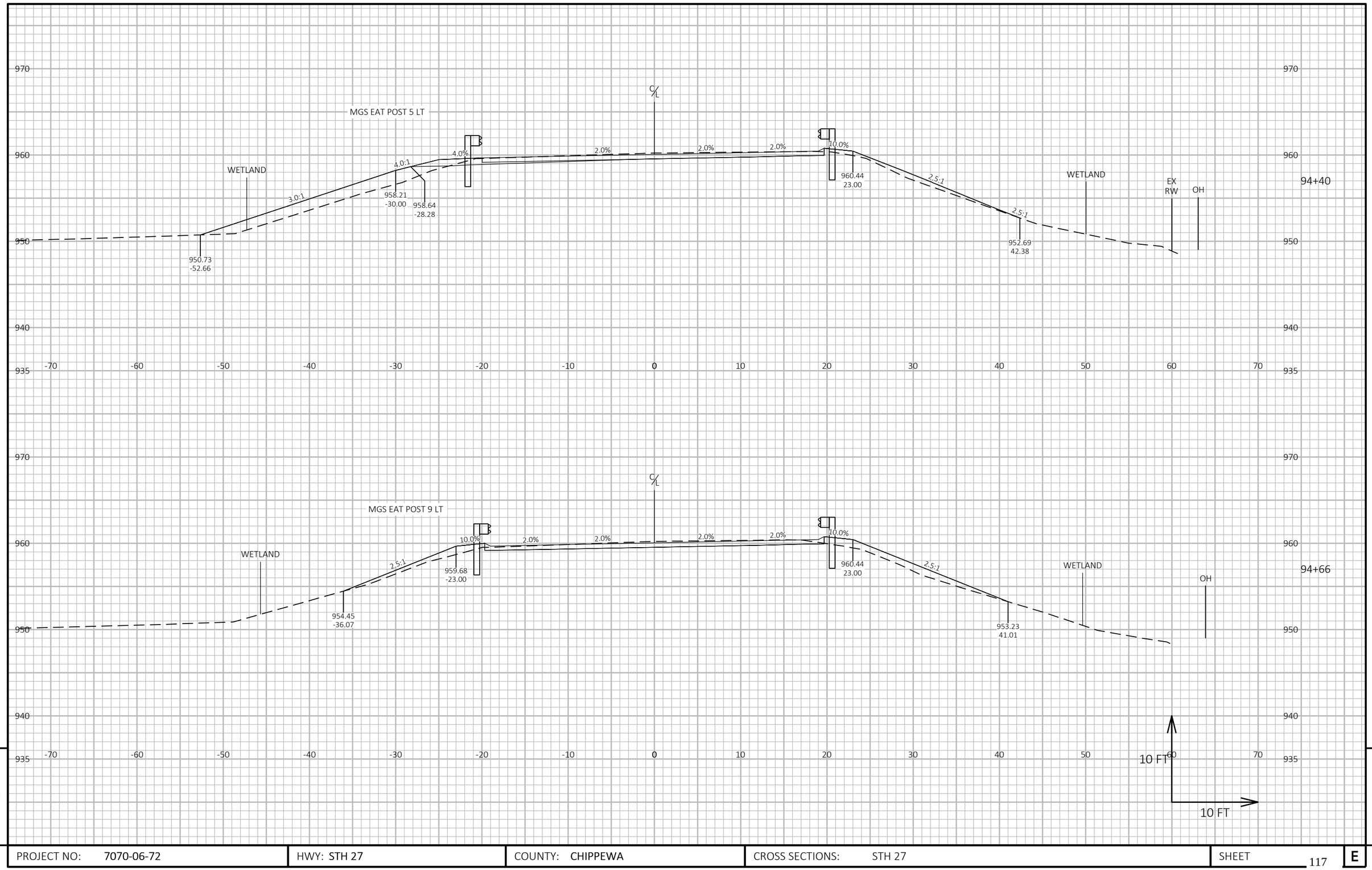


PROJECT NO: 7070-06-72	HWY: STH 27	COUNTY: CHIPPEWA	CROSS SECTIONS: STH 27	SHEET 116	E

FILE NAME : C:\OD\CORRE, INC\PROJECTS - WI-NW REGION\7070-06-02_CHIPPEWA CO_STH 27\500_CADD\501_C3D_2018\70700602\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 03

PLOT DATE : 4/14/2023 10:09 AM PLOT BY : CAMERON SHIFFER, PE PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

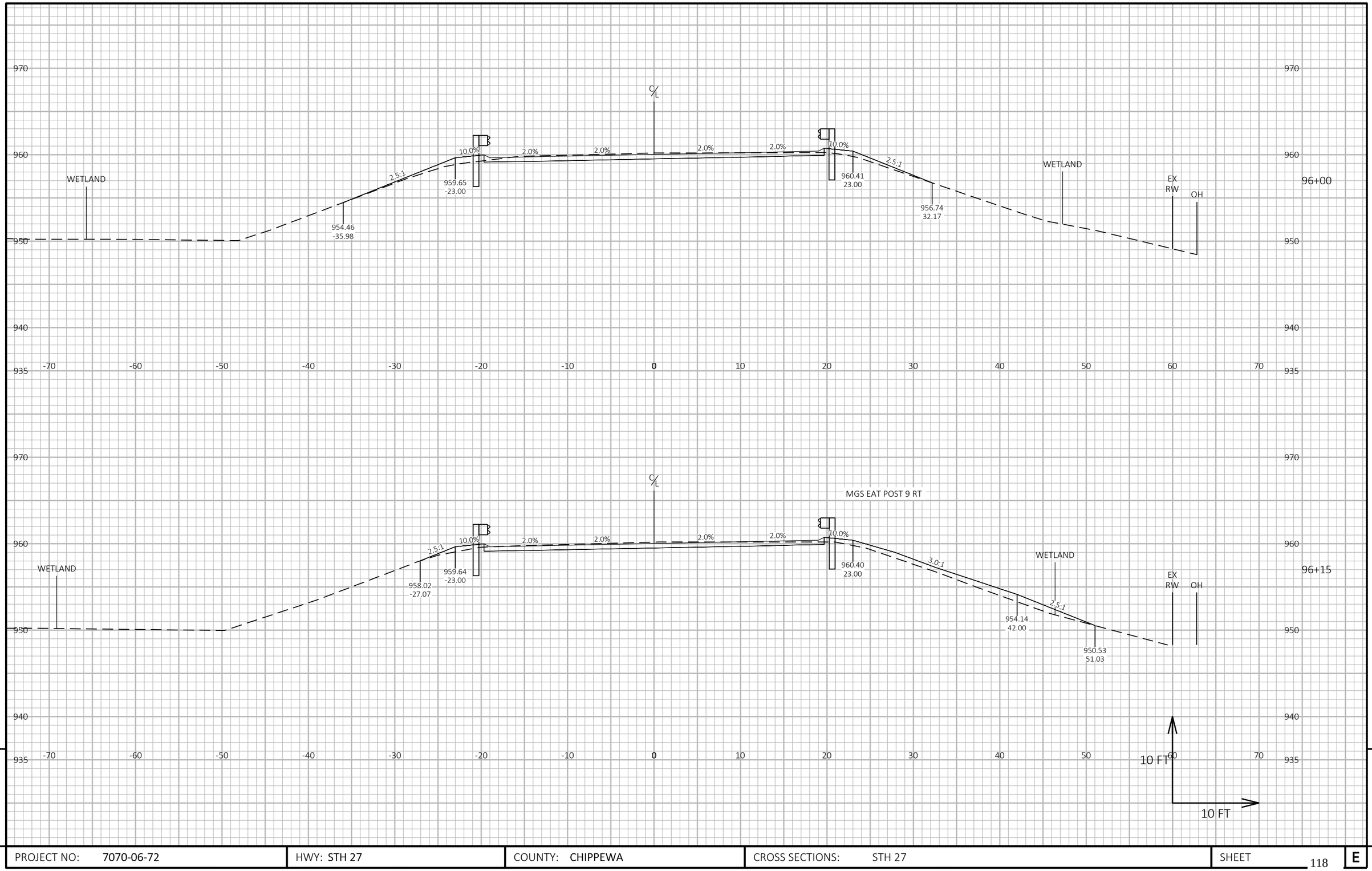


PROJECT NO: 7070-06-72	HWY: STH 27	COUNTY: CHIPPEWA	CROSS SECTIONS: STH 27	SHEET 117 E

FILE NAME : C:\OD\CORRE, INC\PROJECTS - WI-NW REGION\7070-06-02_CHIPPEWA CO_STH 27\500_CADD\501_C3D_2018\70700602\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 04

PLOT DATE : 4/14/2023 10:09 AM PLOT BY : CAMERON SHIFFER, PE PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

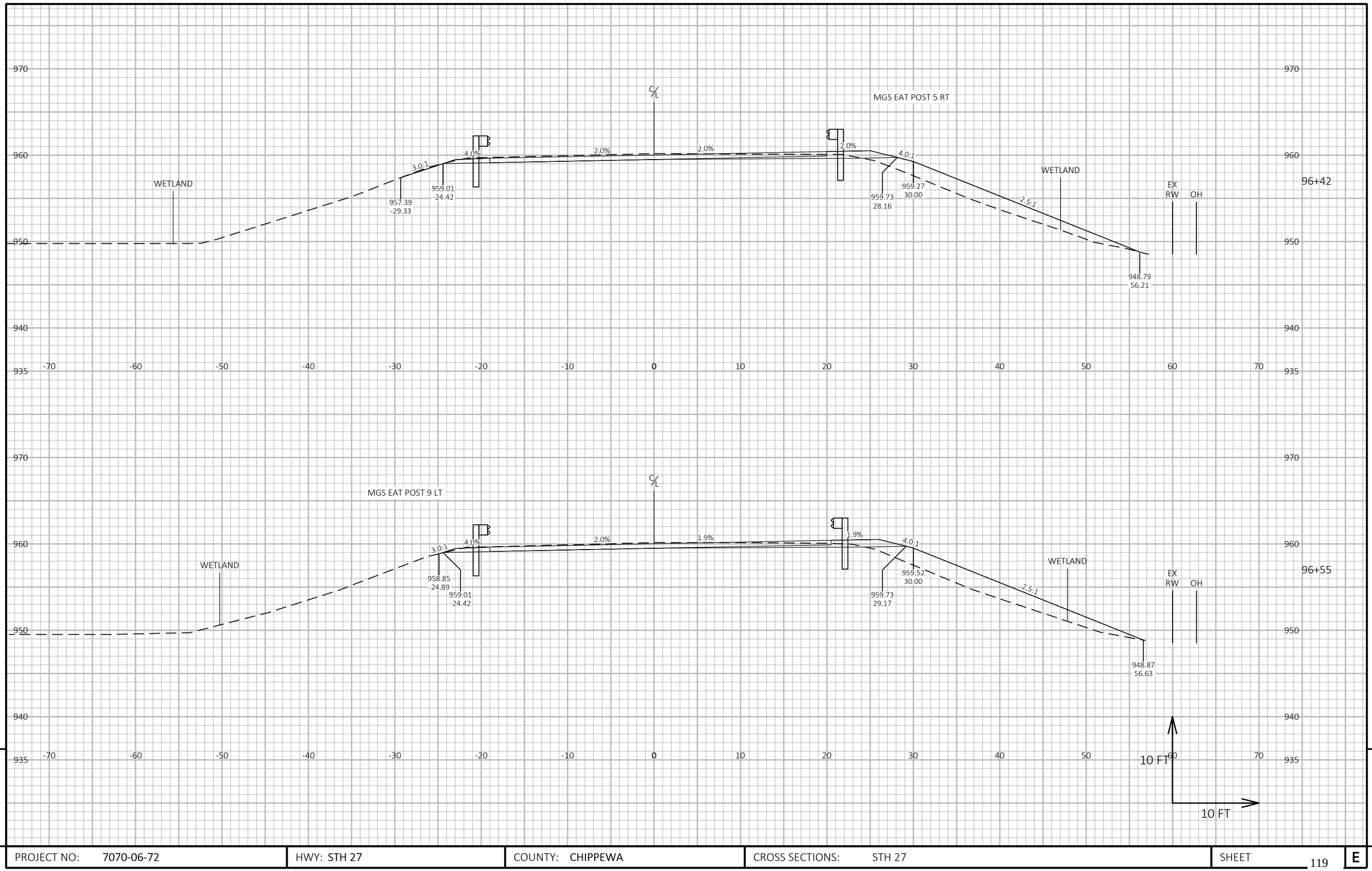


PROJECT NO: 7070-06-72	HWY: STH 27	COUNTY: CHIPPEWA	CROSS SECTIONS: STH 27	SHEET 118	E

FILE NAME : C:\OD\CORRE, INC\PROJECTS - WI-NW REGION\7070-06-02_CHIPPEWA CO_STH 27\500_CADD\501_C3D_2018\70700602\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 05

PLOT DATE : 4/14/2023 10:09 AM PLOT BY : CAMERON SHIFFER, PE PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

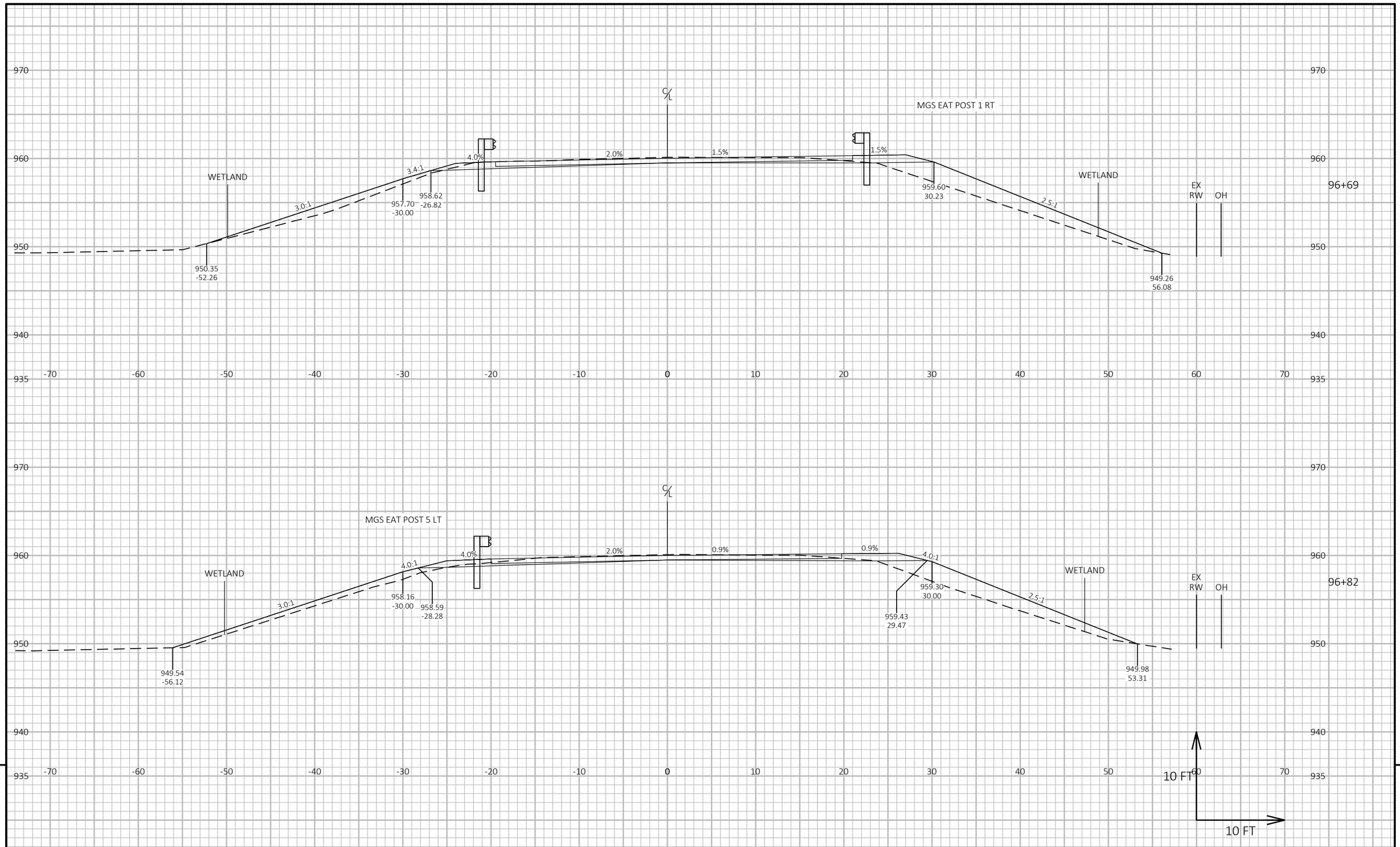


PROJECT NO: 7070-06-72	HWY: STH 27	COUNTY: CHIPPEWA	CROSS SECTIONS: STH 27	SHEET 119	E

FILE NAME : C:\OD\CORRE, INC\PROJECTS - WI-NW REGION\7070-06-02_CHIPPEWA CO_STH 27\500_CADD\501_C3D_2018\70700602\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 06

PLOT DATE : 4/14/2023 10:10 AM PLOT BY : CAMERON SHIFFER, PE PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

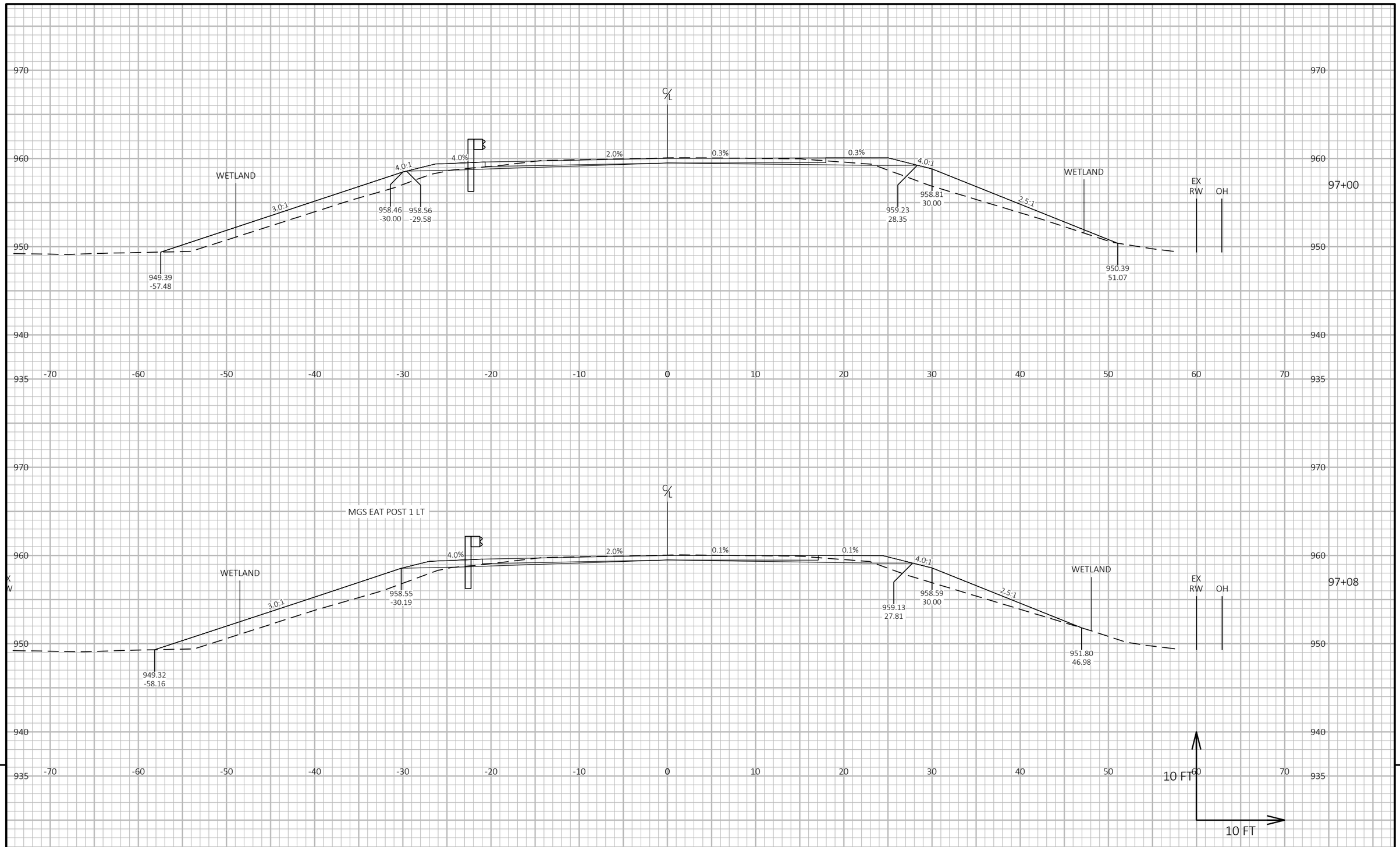


PROJECT NO: 7070-06-72	HWY: STH 27	COUNTY: CHIPPEWA	CROSS SECTIONS: STH 27	SHEET 120	E

FILE NAME : C:\OD\CORRE, INC\PROJECTS - WI-NW REGION\7070-06-02_CHIPPEWA CO_STH 27\500_CADD\501_C3D_2018\70700602\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 07

PLOT DATE : 4/14/2023 10:10 AM PLOT BY : CAMERON SHIFFER, PE PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



9

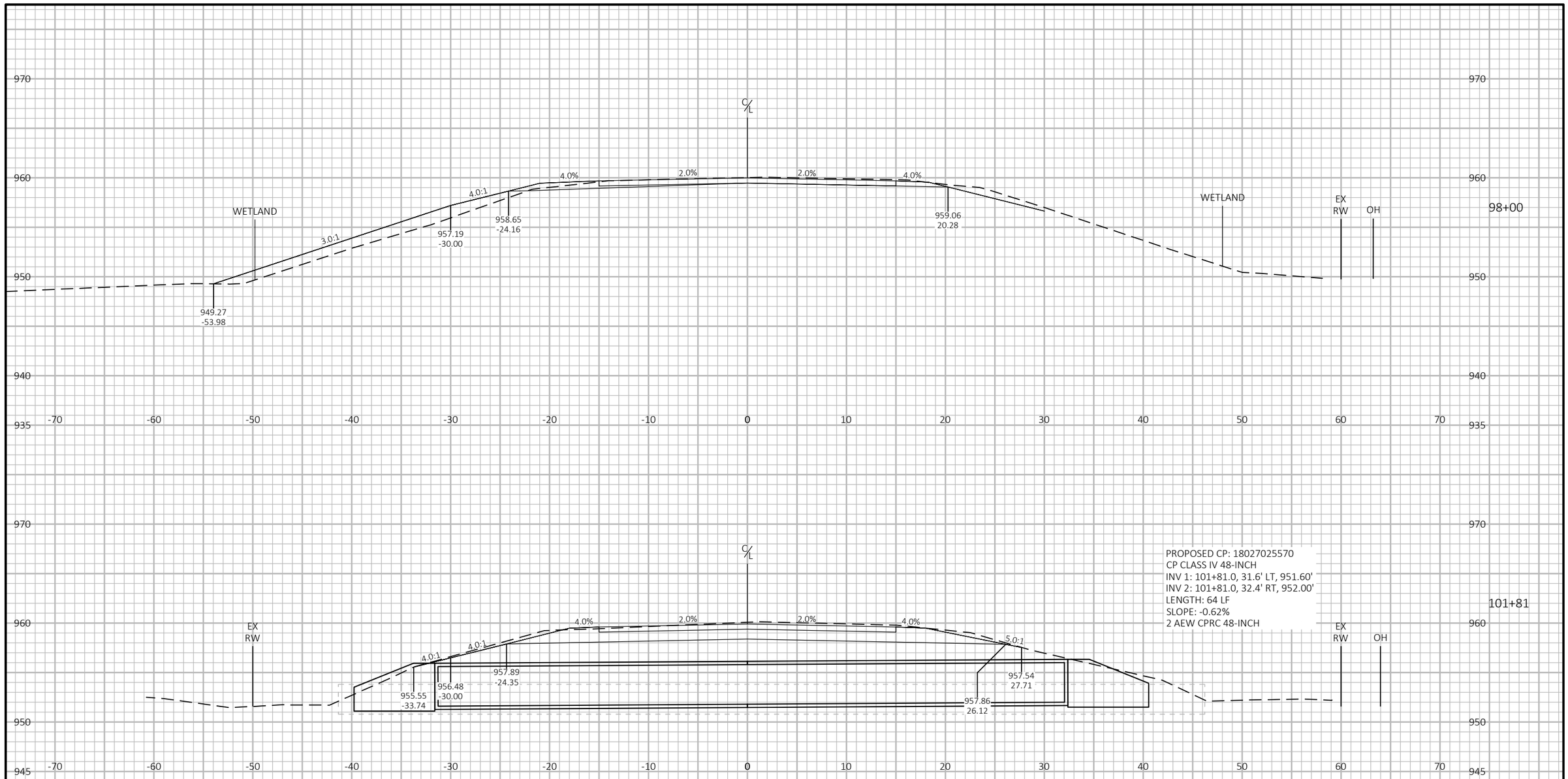
9

PROJECT NO: 7070-06-72	HWY: STH 27	COUNTY: CHIPPEWA	CROSS SECTIONS: STH 27	SHEET 121	E

FILE NAME : C:\OD\CORRE, INC\PROJECTS - WI-NW REGION\7070-06-02_CHIPPEWA CO_STH 27\500_CADD\501_C3D_2018\70700602\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 08

PLOT DATE : 4/14/2023 10:10 AM PLOT BY : CAMERON SHIFFER, PE PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



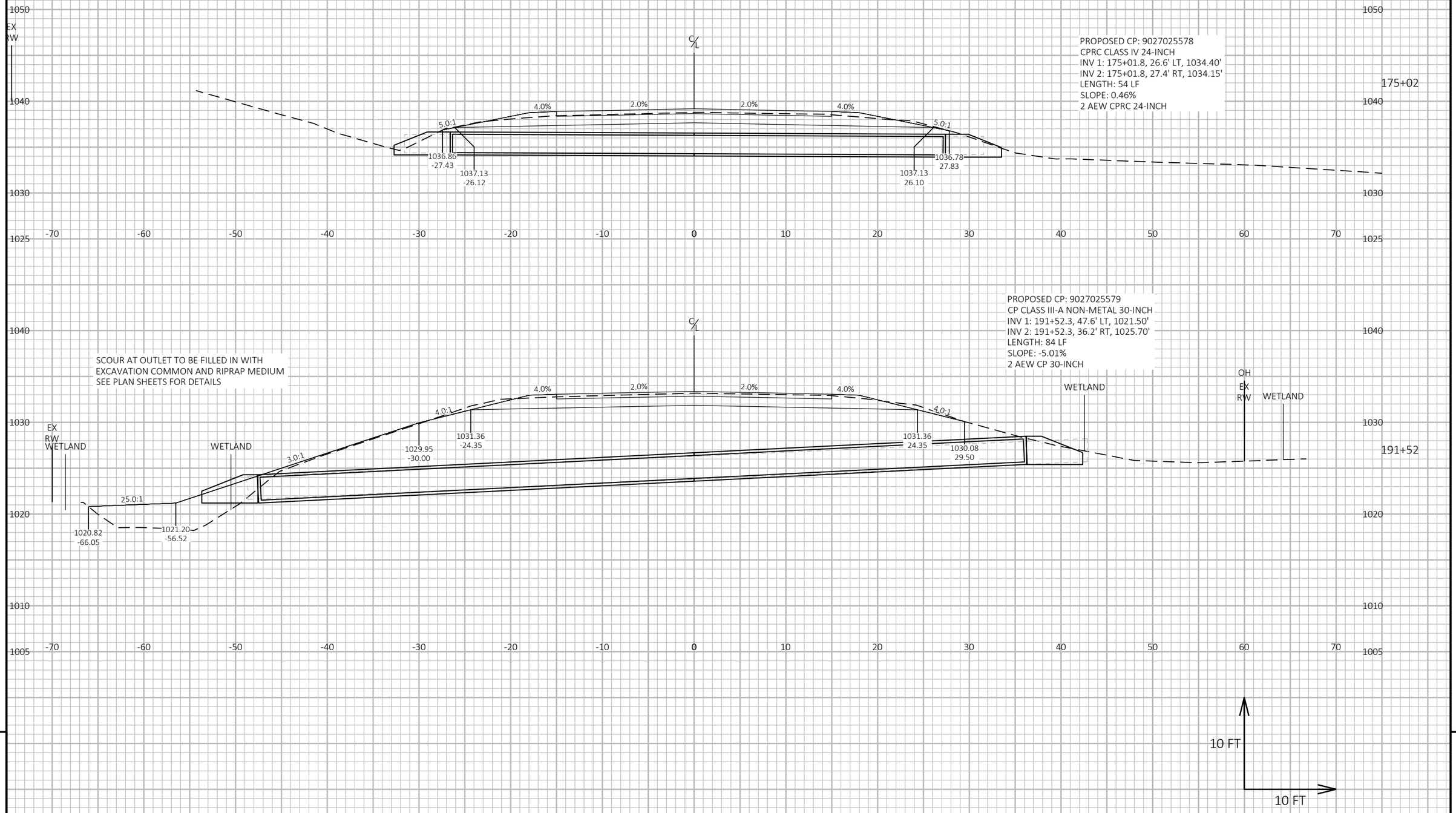
9

9

PROJECT NO: 7070-06-72	HWY: STH 27	COUNTY: CHIPPEWA	CROSS SECTIONS: STH 27	SHEET 122	E

FILE NAME : C:\OD\CORRE, INC\PROJECTS - WI-NW REGION\7070-06-02_CHIPPEWA CO_STH 27\500_CADD\501_C3D_2018\70700602\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 09

PLOT DATE : 4/14/2023 10:10 AM PLOT BY : CAMERON SHIFFER, PE PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

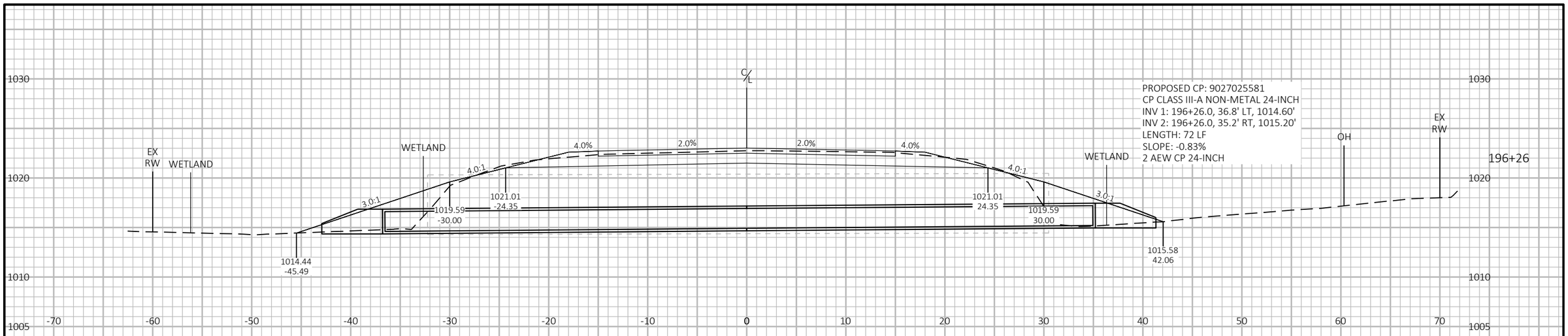


PROJECT NO: 7070-06-72	HWY: STH 27	COUNTY: CHIPPEWA	CROSS SECTIONS: STH 27	SHEET 123	E

FILE NAME : C:\OD\CORRE, INC\PROJECTS - WI-NW REGION\7070-06-02_CHIPPEWA CO_STH 27\500_CADD\501_C3D_2018\70700602\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 10

PLOT DATE : 4/14/2023 10:10 AM PLOT BY : CAMERON SHIFFER, PE PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



9

9

PROJECT NO: 7070-06-72	HWY: STH 27	COUNTY: CHIPPEWA	CROSS SECTIONS: STH 27	SHEET 124	E

FILE NAME : C:\OD\CORRE, INC\PROJECTS - WI-NW REGION\7070-06-02_CHIPPEWA CO_STH 27\500_CADD\501_C3D_2018\70700602\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 11

PLOT DATE : 4/14/2023 10:10 AM PLOT BY : CAMERON SHIFFER, PE PLOT NAME :

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

WISDOT/CADDS SHEET 49

Notes

Wisconsin Department of Transportation

Dedicated people creating transportation solutions
through innovation and exceptional service.

http://www.dot.wisconsin.gov