RHI

FEBRUARY 2023

PROJECT ID: **9165-13-71**

WITH: N/A

COUNTY: **FOREST**

ORDER OF SHEETS

TOTAL SHEETS = 130

38

N

DESIGN DESIGNATION 9165-13-71

A.A.D.T.	2023	=	470
A.A.D.T.	2043	=	470
D.H.V.		=	66
D.D.		=	50/50
T.		=	13.0%
DESIGN SPEED		=	35 - 55 MPH
ESALS		=	109,500

CONVENTIONAL SYMBOLS

PLAN

- CORPORATE LIMITS
- PROPERTY LINE
- LOT LINE
- LIMITED HIGHWAY EASEMENT
- EXISTING RIGHT OF WAY
- PROPOSED OR NEW R/W LINE
- SLOPE INTERCEPT
- REFERENCE LINE (300'EB')
- EXISTING CULVERT
- PROPOSED CULVERT (Box or Pipe)
- COMBUSTIBLE FLUIDS (CAUTION)
- MARSH AREA
- WOODED OR SHRUB AREA

PROFILE

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

UTILITIES

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

ARGONNE - NELMA

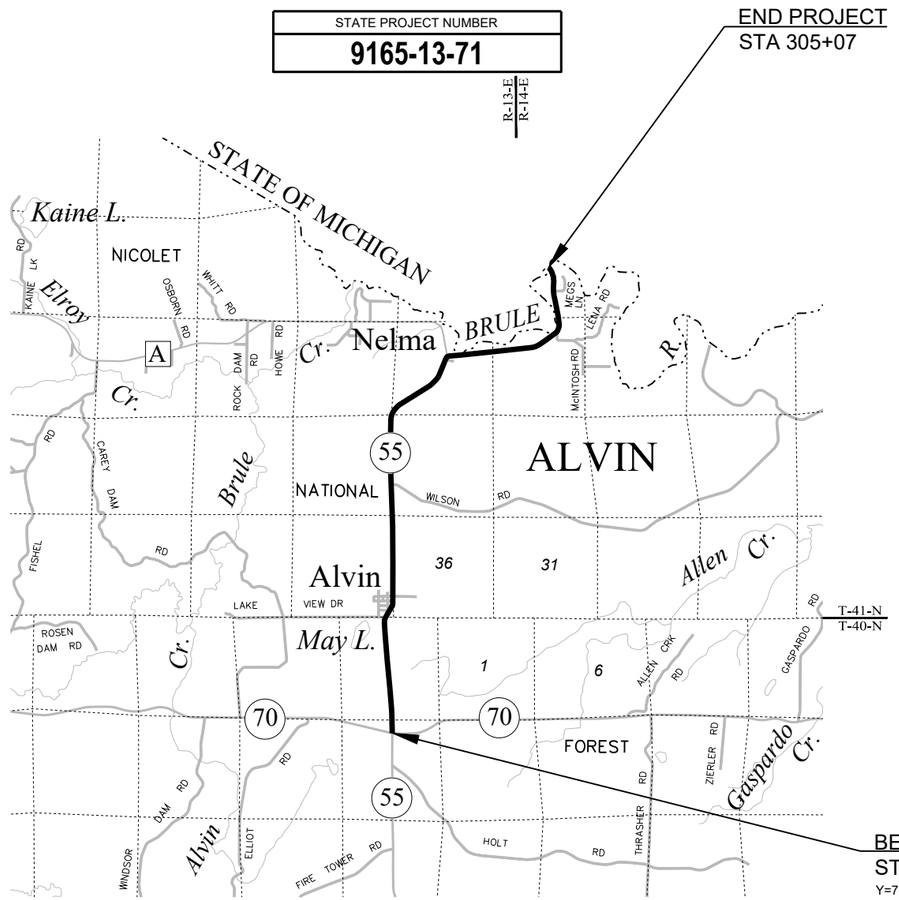
STH 70 TO MICHIGAN STATE LINE

STH 55

FOREST COUNTY

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
9165-13-71	———	———

STATE PROJECT NUMBER **9165-13-71**



LAYOUT

SCALE 0 1.5 MI

TOTAL NET LENGTH OF CENTERLINE = 5.762 MI

HORIZONTAL POSITIONS SHOWN ON THIS PLAN ARE WISCONSIN COORDINATE REFERENCE SYSTEM (WISCRS), FOREST 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.

emcs inc

500 North 17th Avenue
Wausau, WI 54401
715.845.1081 Fax 715.845.1099

WISCONSIN
ERIK M. OLESON
E-43597
WAUSAU, WI
PROFESSIONAL ENGINEER

10/27/2022 (Date) Erik M. Oleson (Signature)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor	EMCS, INC.
Designer	EMCS, INC.
Project Manager	ERIC GWIDT
Regional Examiner	GARRETT VICKMAN
Regional Supervisor	ANDREW FULCER

APPROVED FOR THE DEPARTMENT

DATE: 10/28/2022 (Signature)

E

FILE NAME : P:\53XX\5387.DP.21.STH55.FOR\CADDS\91651371\SHEETSPLAN\010101-TI.DWG PLOT DATE : 10/14/2022 2:15 PM PLOT BY : NICK MENNINGA PLOT NAME :

GENERAL NOTES

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

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

CROSS DRAIN PIPE LOCATIONS AND ELEVATIONS AS SHOWN ARE ON THE CROSS SECTION SHEETS ARE APPROXIMATE AND SHALL BE ADJUSTED TO FIT FIELD CONDITIONS.

AS-BUILTS USED FOR PLAN DEVELOPMENT

PROJECT NO: T 0231(4), CONSTRUCTION YEAR: 1948
PROJECT NO: 9165-04-70, CONSTRUCTION YEAR: 1986
PROJECT NO: 9165-07-60, CONSTRUCTION YEAR: 1999
PROJECT NO: 9165-09-70, CONSTRUCTION YEAR: 2003

ORDER OF SECTION 2 SHEETS

PROJECT OVERVIEW
TYPICAL SECTIONS
CONSTRUCTION DETAILS (INCLUDES EROSION CONTROL)
TRAFFIC CONTROL
DETOUR

UTILITIES

COMMUNICATIONS

FRONTIER COMMUNICATIONS OF WI LLC
TYLER COFFMAN
330 BLACKBURN ST
RIPON, WI 54971
PHONE: (217) 491-7186
EMAIL: TCOFFMAN@MSCON.COM

ELECTRIC

WE ENERGIES
PAUL MEEUSEN
119 E UNION AVE
CEDAR GROVE, WI 53013
PHONE: (920) 980-5053
EMAIL: PAUL.MEEUSEN@WE-ENERGIES.COM

RUNOFF COEFFICIENT TABLE

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

TOTAL PROJECT AREA = 46.1 ACRES
TOTAL AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES = 1.5 ACRES

DNR LIAISON

JON SIMONSEN
DNR NORTHERN REGION HEADQUARTERS
107 SUTLIFF
RHINELANDER, WI 54501
(715) 367-1936
JONATHAN.SIMONSEN@WISCONSIN.GOV

US FOREST SERVICE

MARK BEUNING, PE
FOREST ENGINEER
CHEQUAMEGON - NICOLET NF
SUPERVISOR OFFICE
500 HANSON LAKE RD
RHINELANDER, WI 54501
(715) 362-1300
MBEUNING@FS.FED.US

2

2

N

BEGIN PROJECT
STA 0+83
BEGIN MILL, CIR,
& OVERLAY

STH 70

STH 70

HOLT RD

0

40

MAY
LAKE

LAKEVIEW LN

4TH ST
3RD ST
2ND ST
1ST ST

80

SYDNEY RD

2526 RD

STH 55

120

REPLACE CULVERT
STA 66+75

REPLACE CULVERT
STA 118+89

WILSON BASSETT RD

UNNAMED
OPEN WATER

REPLACE CULVERT
STA 146+63

REPLACE CULVERT
STA 157+61

160

REPLACE CULVERT
STA 170+36

UNNAMED
OPEN WATER

200

REPLACE CULVERT
STA 194+18

REPLACE CULVERT
STA 209+76

REPLACE CULVERT
STA 214+46

CTH A

REMOVE AND REPLACE GUARDRAIL

REPLACE CULVERT
STA 219+08

SPENCER ST

240

REPLACE CULVERT
STA 250+88

RIDOLPHI RD

B-21-0022
TO REMAIN

REMOVE AND REPLACE
GUARDRAIL

BRULE RIVER

280

REPLACE CULVERT
STA 272+95

REPLACE CULVERT
STA 270+99

MCINTOSH RD

MEGS LN

END PROJECT
STA 305+07
MATCH B-21-0022

UNNAMED
STREAM

UNNAMED
STREAM

UNNAMED
STREAM

UNNAMED STREAM

UNNAMED STREAM

UNNAMED STREAM

ELVOY CREEK

WISCONSIN
MICHIGAN

WEST ALLEN CREEK

ALLEN CREEK

CHEQUAMEGON-NICOLET
NATIONAL FOREST

TOWN OF ALVIN

PROJECT NO: 9165-13-71	HWY: STH 55	COUNTY: FOREST	PROJECT OVERVIEW	SHEET 3	E

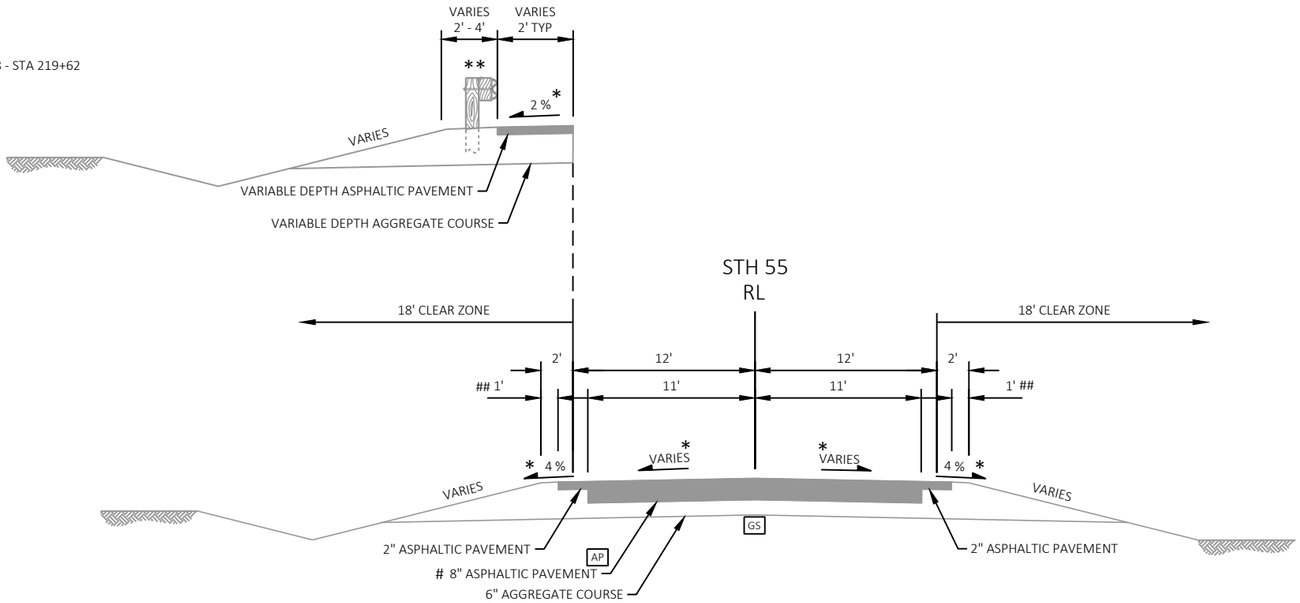
FILE NAME : P:\53XX\5387.DP.21.STH55.FOR\CADDS\91651371\SHEETSPLAN\020201-PO.DWG
LAYOUT NAME - 01

PLOT DATE : 10/14/2022 2:54 PM PLOT BY : NICK MENNINGA PLOT NAME : PLOT SCALE : 1 IN:2000 FT

WISDOT/CADDS SHEET 44

2

STA 217+08 - STA 219+62

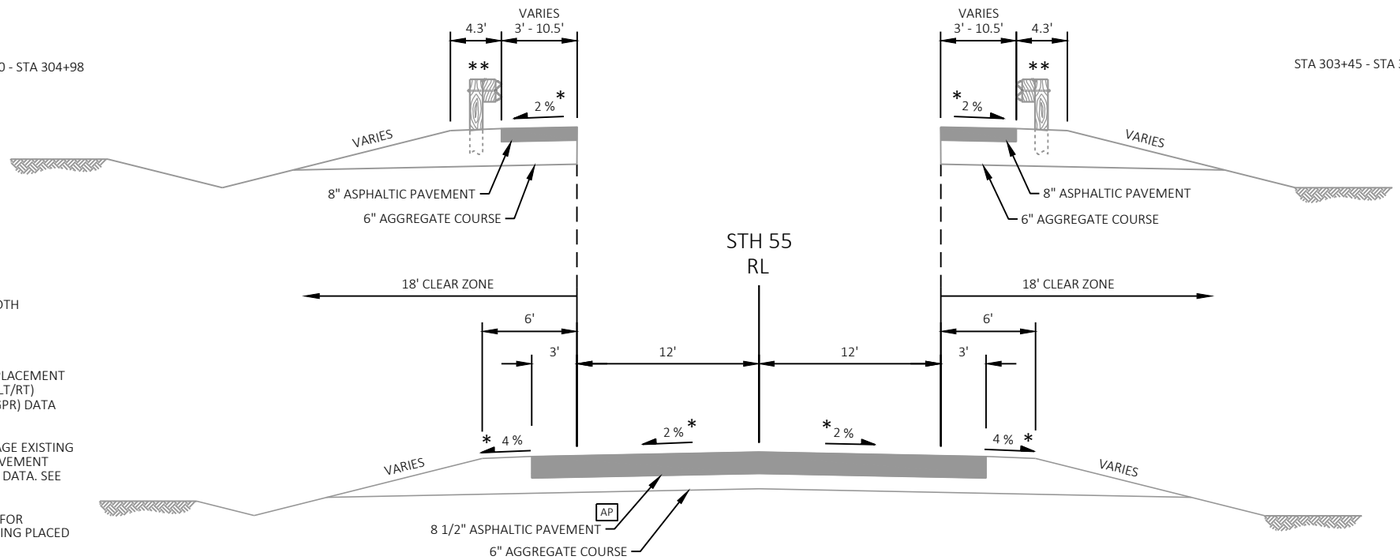


EXISTING TYPICAL SECTION

STA 0+83 - STA 287+35

STA 303+40 - STA 304+98

STA 303+45 - STA 304+92



EXISTING TYPICAL SECTION

STA 287+35 - STA 305+07

NOTES

* CROSS SLOPE VARIES DUE TO SUPERELEVATION AND PARTIAL WIDTH OVERLAY, SEE SECTION 5 SHEETS FOR FOR CURVE INFORMATION

** SEE SECTION 5 PLANS FOR LOCATION OF EXISTING GUARDRAIL

\# EXISTING PAVEMENT CORING DATA WAS COMPLETED PRIOR TO PLACEMENT OF AN 8' WIDE VARIABLE DEPTH (1 1/4" AT CENTERLINE, 0" AT 8' LT/RT) ASPHALTIC SURFACE OVERLAY. GROUND-PENETRATING RADAR (GPR) DATA WAS OBTAINED AFTER THE PARTIAL OVERLAY.

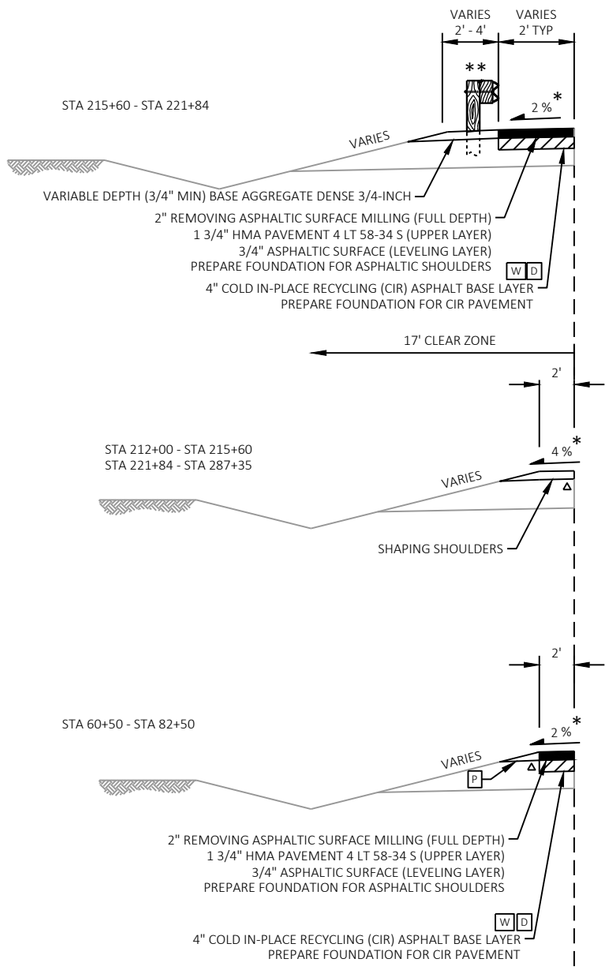
[AP] THE TYPICAL ASPHALTIC PAVEMENT DEPTH SHOWN IS THE AVERAGE EXISTING ASPHALTIC PAVEMENT DEPTH BASED ON GPR DATA. EXISTING PAVEMENT DEPTH RANGES FROM 5" TO 10 1/4" BASED ON GPR AND CORING DATA. SEE CONSTRUCTION DETAILS FOR GPR AND CORING DATA.

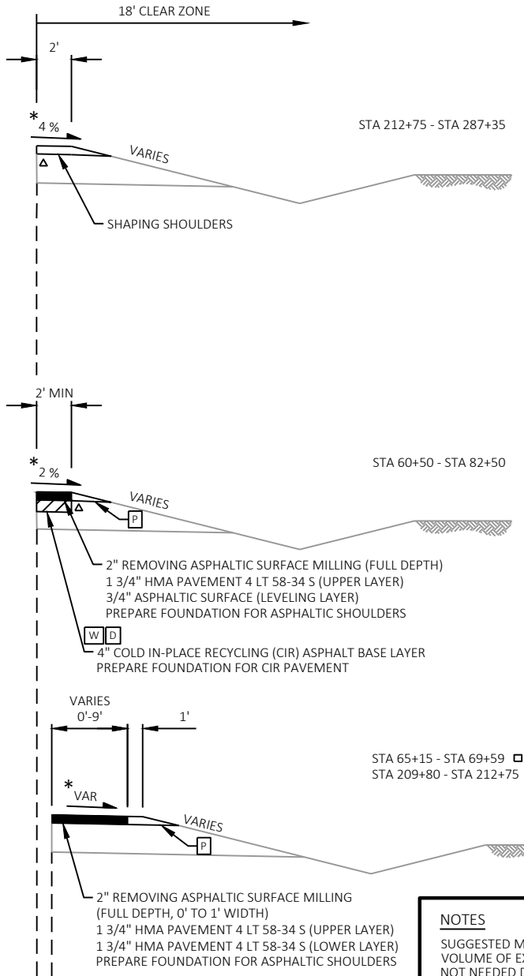
[GS] SEE CONSTRUCTION DETAILS - EXISTING GROUNDWATER SPRING FOR PAVEMENT STRUCTURE AND LOCATION INFORMATION OF PATCHING PLACED DURING PREVIOUS GROUNDWATER SPRING PIPE REPLACEMENT.

NO PAVED SHOULDER FROM STA 212+00 - STA 287+35

SEE PLAN VIEW CONSTRUCTION DETAILS FOR EXISTING CONCRETE APPROACH SLAB LOCATION

PROJECT NO: 9165-13-71	HWY: STH 55	COUNTY: FOREST	TYPICAL SECTIONS	SHEET 4	E





NOTES

* CROSS SLOPE VARIES DUE TO SUPERELEVATION, SEE SECTION 5 FOR PLANS FOR CURVE INFORMATION AND SEE THE MILLING TABLE NOTES ON THIS SHEET FOR MILLING DEPTHS

** SEE SECTION 5 PLANS FOR LOCATION OF PROPOSED GUARDRAIL

△ PAVEMENT SAFETY EDGE REQUIRED FOR PAVED SHOULDERS 3' OR LESS, SEE SDD "SAFETY EDGE"

□ DEPTH OF EXISTING PAVEMENT IS APPROXIMATELY 3 1/2". PAY AS REMOVING ASPHALTIC SURFACE.

[P] EXISTING AGGREGATE COURSE SHAPING TO BE PAID UNDER THE PREPARE FOUNDATION FOR ASPHALTIC SHOULDERS ITEM

REMOVE EXISTING PAVED SHOULDERS FULL DEPTH BEYOND 11' LT/RT

[W] TYPICAL WIDTH OF EXISTING PAVEMENT TO BE USED IN CIR IS 22', WIDTH OF PLACEMENT VARIES AS SHOWN

[D] TYPICAL DEPTH OF EXISTING MATERIAL TO BE INCORPORATED INTO CIR IS 7 3/4" AT CENTERLINE AND DEPTH VARIES ACROSS THE LANES TO YIELD A 2% CROSS SLOPE ALONG BOTTOM OF PROPOSED CIR, BASED ON EXISTING GPR AND CORING DATA THE CIR OPERATION MAY REACH A DEPTH BELOW THE EXISTING ASPHALTIC SURFACE IN SOME AREAS AND REQUIRE EXISTING AGGREGATE COURSE TO BE INCORPORATED INTO CIR LAYER

[E] MATCH EXISTING ELEVATION AT EDGE OF LANE (TYP)

SIDE ROAD WORK WILL CONSIST OF 1 3/4" REMOVING ASPHALTIC SURFACE MILLING AND 1 3/4" OF HMA PAVEMENT 4 LT 58-34 S

FINISHED TYPICAL SECTION

STA 0+83 - STA 112+80
STA 119+41 - STA 287+35

NOTES

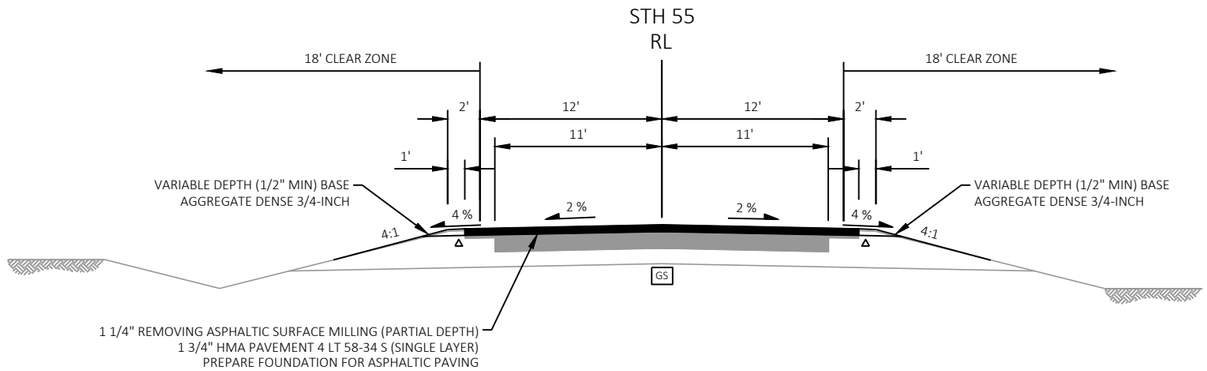
SUGGESTED MILLING DEPTHS PROVIDED IN THE TABLE BELOW ARE INTENDED TO REMOVE EXCESS VOLUME OF EXISTING ASPHALTIC PAVEMENT AND UNDERLYING SHOULDER AGGREGATE MATERIAL NOT NEEDED DURING THE CIR PROCESS AND MAY BE ADJUSTED AS NEEDED TO MATCH FIELD CONDITIONS AND LEAVE REQURIED VOLUMES FOR CIR, REDISTRIBUTE THE REMAINING EXISTING ASPHALTIC PAVEMENT ACROSS THE PROPOSED PAVING PLATFORM WITH A CONSISTENT 4" DEPTH AND A 2% CROSS SLOPE (IN NON-SUPERELEVATED ROADWAY SEGMENTS) DURING THE CIR PROCESS

TABLE DOES NOT APPLY IN SUPERELEVATED CURVES, MILL 2 1/2" OF EXISTING ASPHALTIC SURFACE ACROSS FULL PAVEMENT WIDTH IN SUPERELEVATED CURVES

ALTERNATE METHODS AND DEPTHS OF MILLING MAY BE UTILIZED BY THE CONTRACTOR IF APPROVED BY THE ENGINEER

LOCATION	REMOVING ASPHALTIC SURFACE MILLING DEPTH (APPROXIMATE)	
	CENTERLINE	11' LT OR RT
STA 0+83 - STA 60+50, LT & RT	0"	4 3/4"
STA 60+50 - STA 82+50, LT & RT	0"	4"
STA 82+50 - STA 112+80, RT	0"	4 3/4"
STA 119+41 - STA 212+75, RT	0"	4 3/4"
STA 82+50 - STA 112+80, LT	0"	4 3/4"
STA 119+41 - STA 212+00, LT	0"	4 3/4"
STA 212+00 - STA 215+60, LT	0"	5 1/2"
STA 212+75 - STA 287+35, RT	0"	5 1/2"
STA 215+60 - STA 221+84, LT	0"	4"
STA 221+84 - STA 287+35, LT	0"	5 1/2"

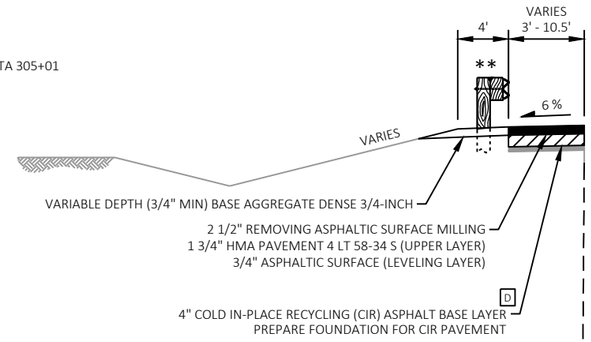
PROJECT NO: 9165-13-71	HWY: STH 55	COUNTY: FOREST	TYPICAL SECTIONS	SHEET 5	E



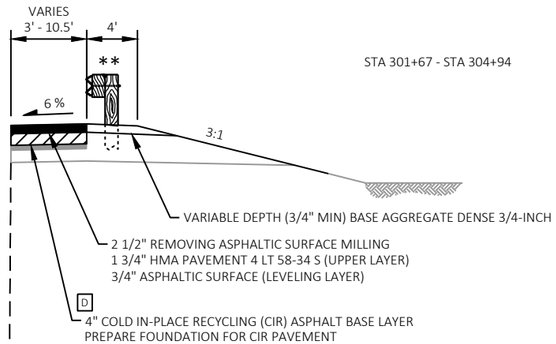
FINISHED TYPICAL SECTION

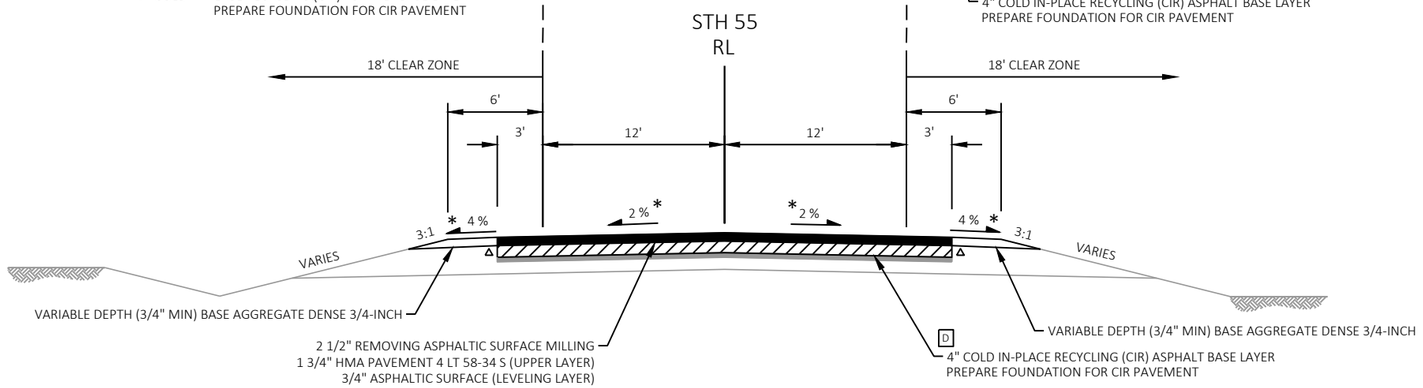
STA 112+80 - STA 119+41

STA 302+07 - STA 305+01



STA 301+67 - STA 304+94





FINISHED TYPICAL SECTION

STA 287+35 - STA 305+07

NOTES

* CROSS SLOPE VARIES DUE TO SUPERELEVATION, SEE SECTION 5 FOR PLANS FOR CURVE INFORMATION

** SEE SECTION 5 PLANS FOR LOCATION OF PROPOSED GUARDRAIL

△ PAVEMENT SAFETY EDGE REQUIRED FOR PAVED SHOULDERS 3' OR LESS, SEE SDD "SAFETY EDGE"

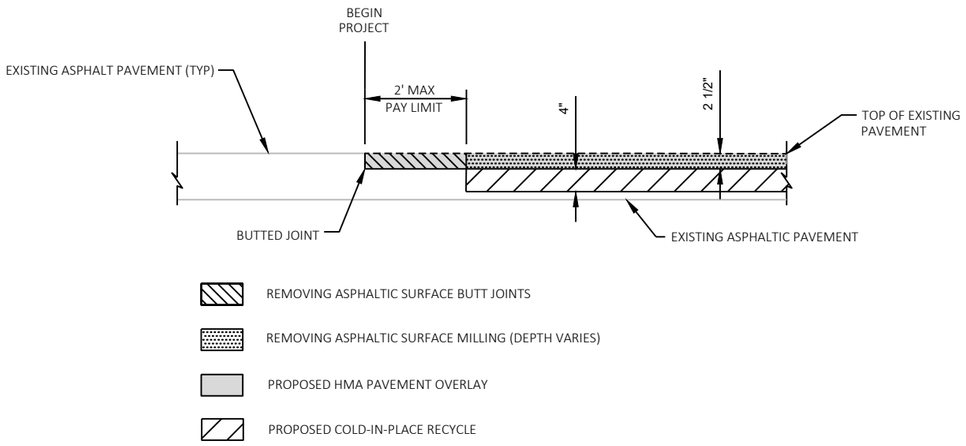
SEE PLAN VIEW CONSTRUCTION DETAILS FOR PROPOSED CONCRETE APPROACH SLAB LOCATION

[D] BASED ON EXISTING GPR AND CORING DATA THE CIR OPERATION MAY REACH A DEPTH BELOW THE EXISTING ASPHALTIC SURFACE IN SOME AREAS AND REQUIRE EXISTING AGGREGATE COURSE TO BE INCORPORATED INTO CIR LAYER

[GS] SEE CONSTRUCTION DETAILS - EXISTING GROUNDWATER SPRING FOR MILL DEPTH TRANSITION AND ADDITIONAL INFORMATION

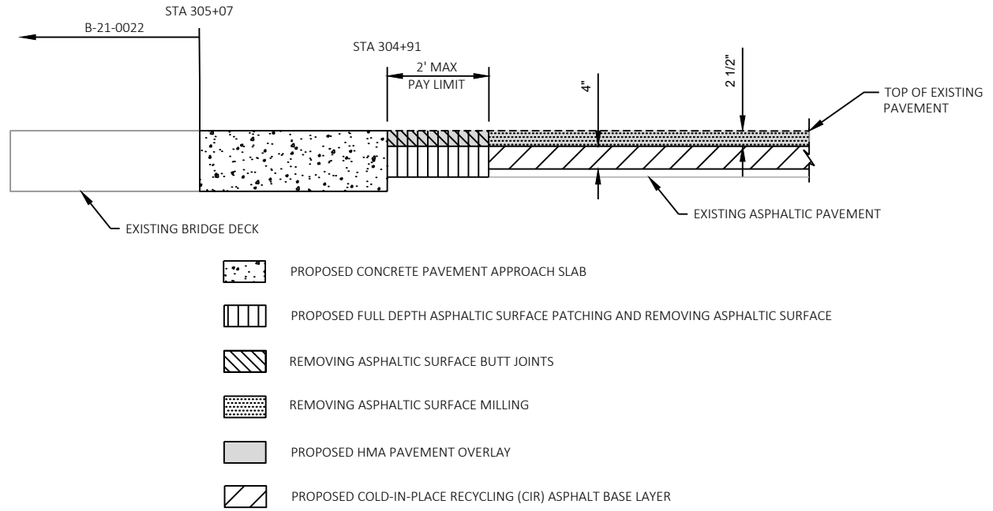
SIDE ROAD WORK WILL CONSIST OF 1 3/4" REMOVING ASPHALTIC SURFACE MILLING AND 1 3/4" OF HMA PAVEMENT 4 LT 58-34 S

PROJECT NO: 9165-13-71	HWY: STH 55	COUNTY: FOREST	TYPICAL SECTIONS	SHEET 6	E

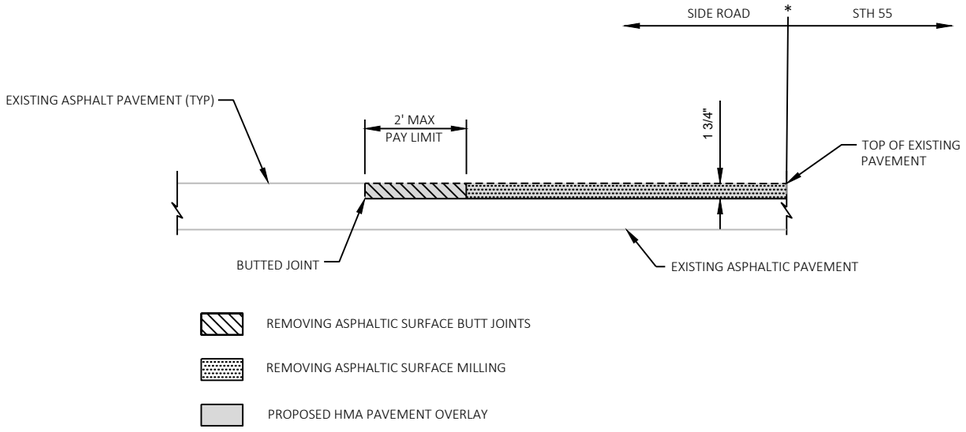


MAINLINE BUTT JOINT DETAIL

STA 0+83



APPROACH SLAB JOINT DETAIL



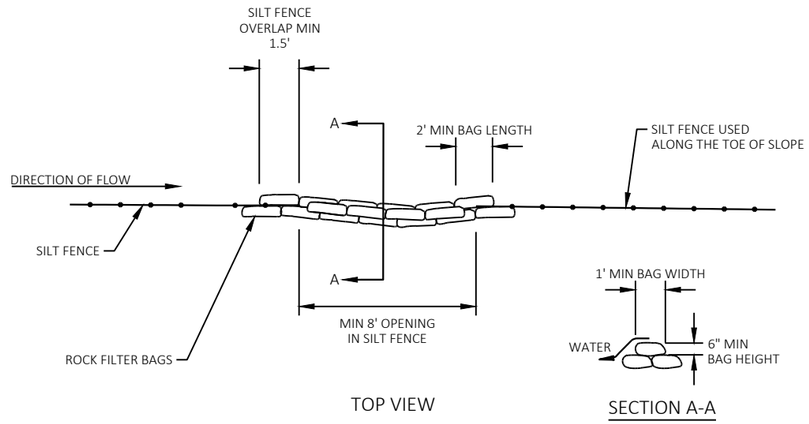
SIDE ROAD BUTT JOINT DETAIL

SEE SECTION 5 PLAN SHEETS FOR LOCATIONS

NOTES

FOR BASE AGGREGATE SIDE ROADS, EXTEND MILL AND OVERLAY TO END OF EXISTING PAVEMENT LIMITS. MATCH BASE AGGREGATE AT TOTAL SHOULDER WIDTH.

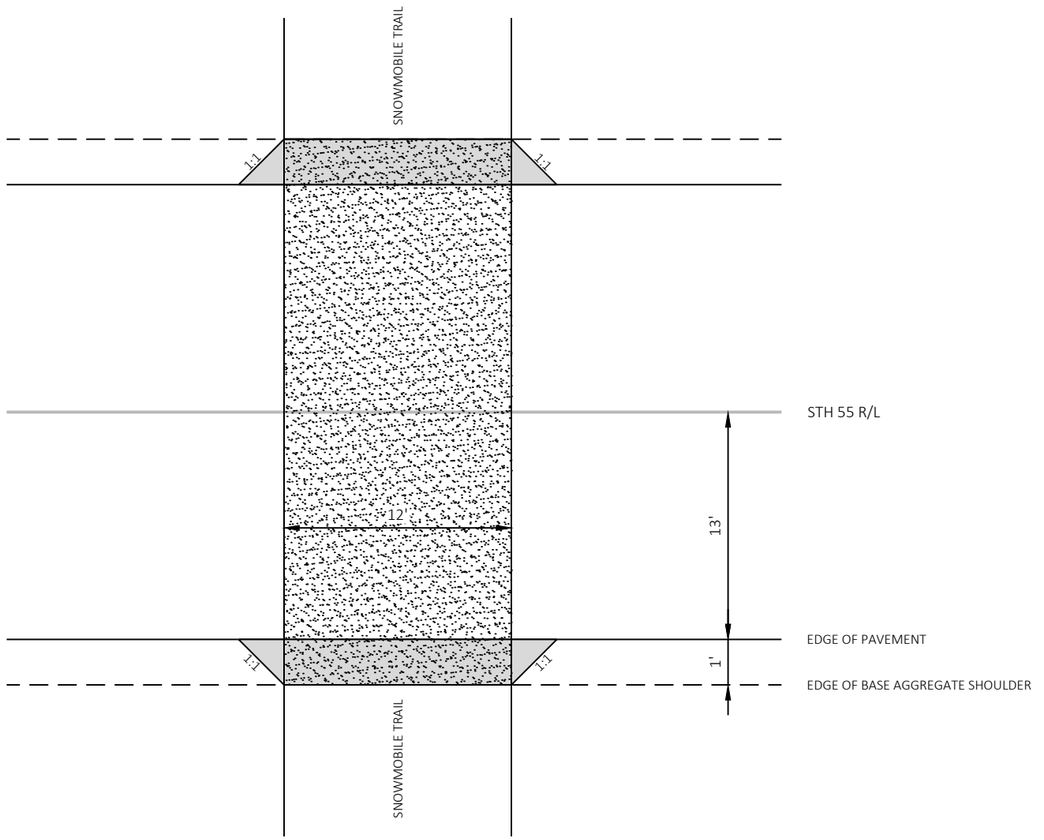
* SEE SECTION 5 SHEETS FOR LOCATIONS AND SIDE ROAD LIMITS.



SILT FENCE RELIEF (ROCK BAGS)

NOTE

PLACE AT LOW POINT OF SILT FENCE AS DIRECTED BY THE ENGINEER.



PROTECTIVE THERMOPLASTIC COATING AT SNOWMOBILE TRAIL CROSSING

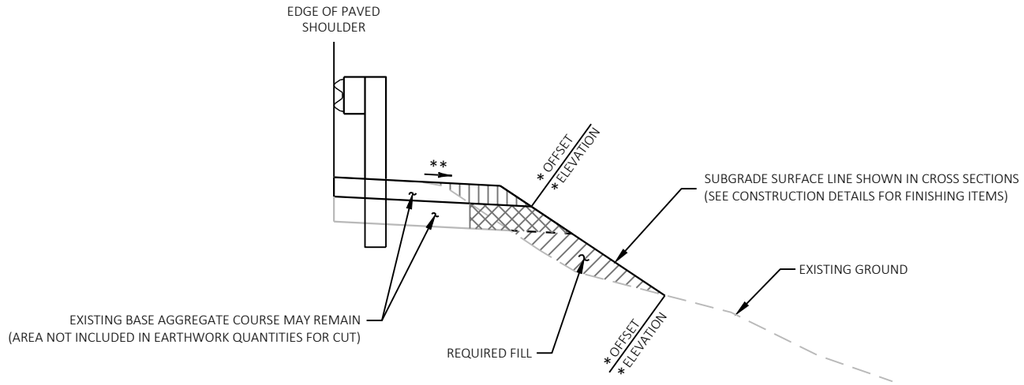
3 1/2-INCH MILL AND HMA OVERLAY FOR SNOWMOBILE TRAIL CROSSING

SNOWMOBILE TRAIL CROSSING DETAIL

STA 101+65
STA 201+23

NOTE

SEE CONSTRUCTION DETAILS - APPROACH SLAB REPLACEMENT AND THERMOPLASTIC COATING FOR ADDITIONAL COATING LOCATION NEAR B-21-0022



SHOULDER WIDENING EARTHWORK & BASE AGGREGATE FOR GUARDRAIL DETAIL

SEE SECTION 5 PLAN SHEETS, CROSS SECTIONS, AND TYPICAL SECTIONS FOR LOCATIONS

NOTES

BENCH FILL AS REQUIRED PER STANDARD SPECIFICATION 205.3.2(4).

*OFFSET AND ELEVATION PROVIDED TO THESE POINTS ON THE CROSS SECTIONS.

**SHOULDER SLOPE PROVIDED ON CROSS SECTIONS

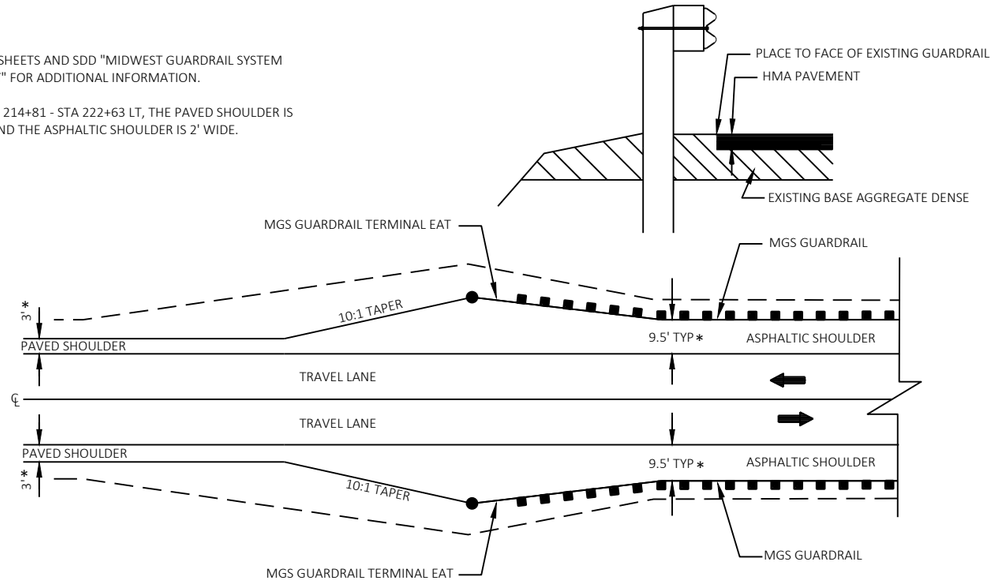
LEGEND

- NEW BASE AGGREGATE DENSE 3/4-INCH (3.25")
- NEW BASE AGGREGATE DENSE 1 1/4-INCH (8") IN WIDENING AREA
- FILL

NOTES

SEE PLAN SHEETS AND SDD "MIDWEST GUARDRAIL SYSTEM (MGS) EAT" FOR ADDITIONAL INFORMATION.

* FROM STA 214+81 - STA 222+63 LT, THE PAVED SHOULDER IS 0' WIDE AND THE ASPHALTIC SHOULDER IS 2' WIDE.



PAVED SHOULDER AT GUARDRAIL DETAIL

STA 214+81 - STA 222+63, LT
STA 301+68 - STA 305+01

PROJECT NO: 9165-13-71	HWY: STH 55	COUNTY: FOREST	CONSTRUCTION DETAILS	SHEET 8	E

NOTES

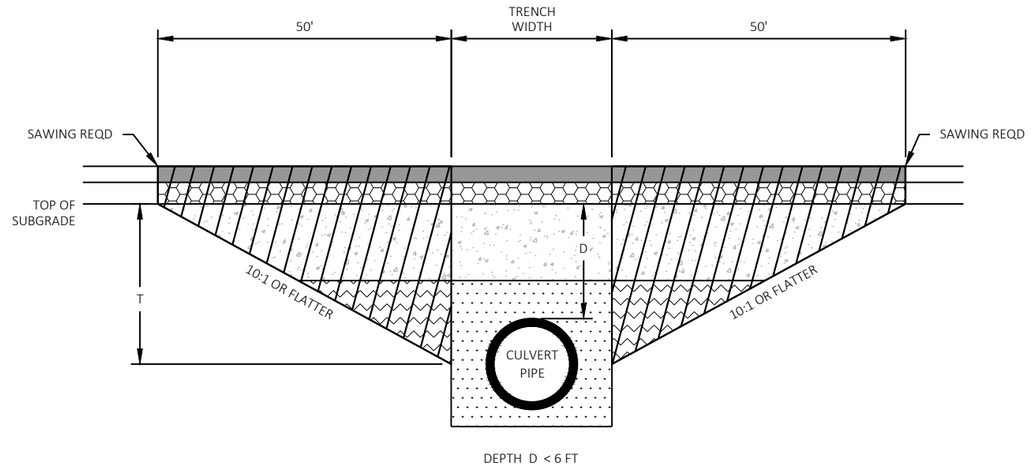
TRANSITION CUT IS PAID AS EXCAVATION COMMON.

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.

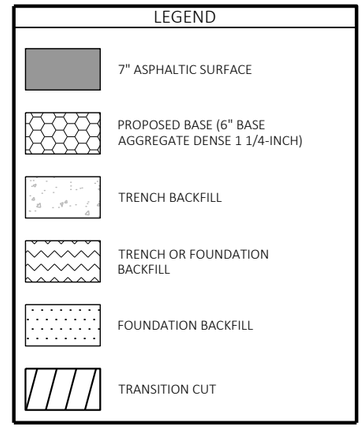
PERFORM CULVERT PIPE INSTALLATION BEFORE THE MILLING, COLD IN-PLACE RECYCLING, AND OVERLAY OPERATIONS IN PROJECT 9165-13-71.

ROUTE	STA (CL)	DEPTH D (FT)	PIPE DIA (IN)
STH 55	66+75	0.2	18
STH 55	118+89	0.0	24
STH 55	146+63	0.0	19X30
STH 55	157+61	1.2	24
STH 55	170+36	0.3	24
STH 55	194+18	0.0	24
STH 55	209+76	0.0	30
STH 55	214+46	0.5	29X45
STH 55	219+08	1.8	24
STH 55	250+88	0.0	30
STH 55	270+99	1.5	24
STH 55	272+95	2.3	24

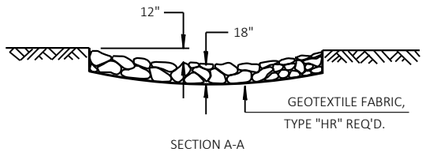


DEPTH D < 6 FT

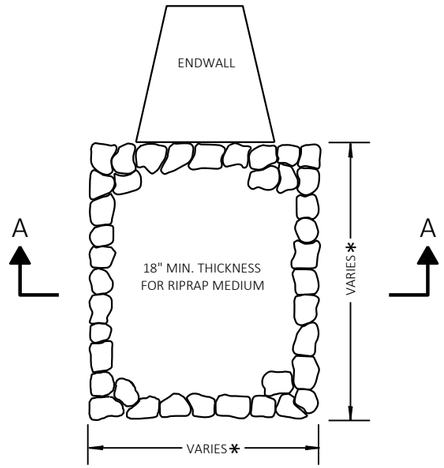
TRANSITION CUT DEPTH (T) = THE LESSER OF DEPTH TO CENTER OF PIPE OR 5 FT.
DO NOT EXTEND TRANSITION CUT BELOW HORIZONTAL CENTER OF PIPE.



CULVERT PIPE TRANSITION



SECTION A-A



RIPRAP MEDIUM TREATMENT AT CULVERTS

SEE CONSTRUCTION DETAILS FOR LOCATIONS AND DIMENSIONS *

2

LEGEND

W — EXISTING GROUNDWATER SPRING PIPE 6-INCH SCHEDULE 40 PLASTIC (DO NOT DISTURB)

EXISTING ASPHALTIC PAVEMENT PATCH OVER GROUNDWATER SPRING PIPE

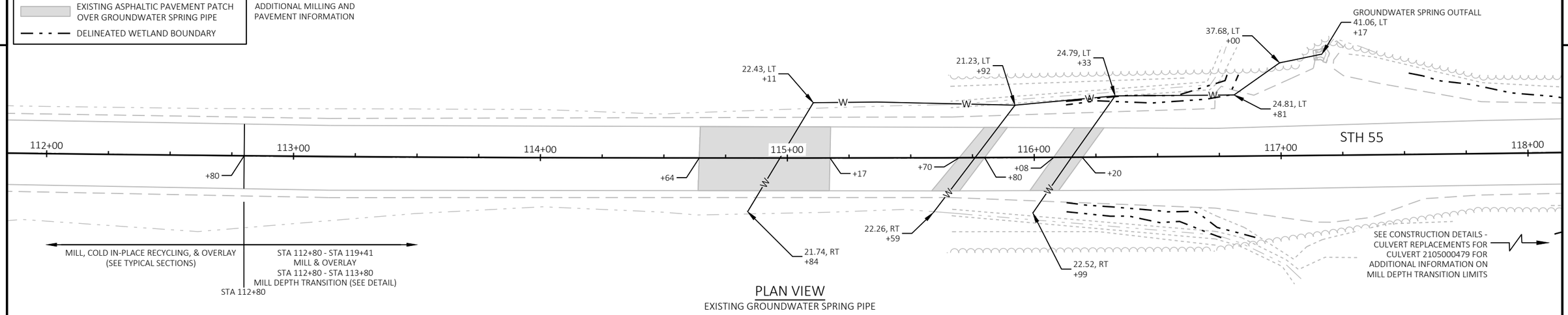
DELINEATED WETLAND BOUNDARY

NOTES

GROUNDWATER SPRING PIPE WAS RECONSTRUCTED BY OTHERS IN THE SUMMER OF 2022 (DO NOT DISTURB)

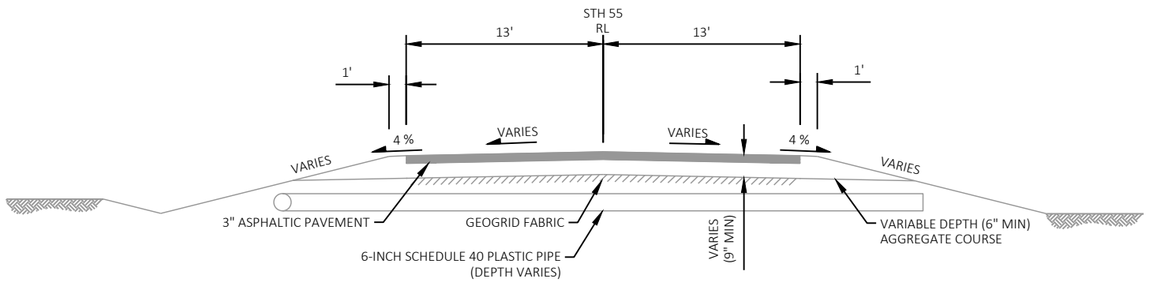
SEE TYPICAL SECTIONS FOR ADDITIONAL MILLING AND PAVEMENT INFORMATION

N



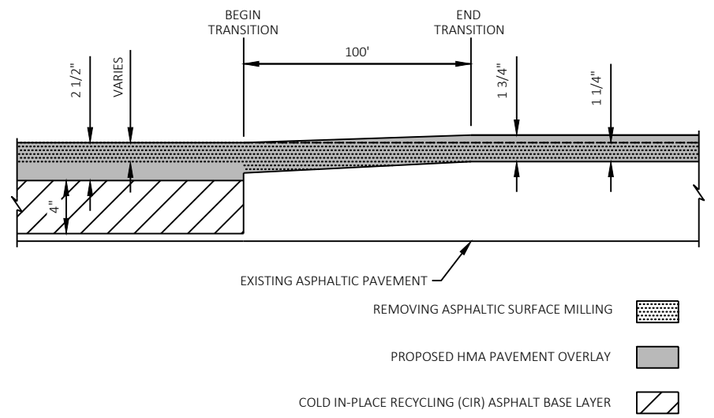
PLAN VIEW

EXISTING GROUNDWATER SPRING PIPE



EXISTING SECTION

ASPHALTIC PAVEMENT PATCHES AT GROUNDWATER SPRING PIPE
(SEE PLAN VIEW ABOVE FOR LOCATIONS)



MILL DEPTH TRANSITION DETAIL

STA 112+80 - STA 113+80
STA 118+41 - STA 119+41

PROJECT NO: 9165-13-71	HWY: STH 55	COUNTY: FOREST	CONSTRUCTION DETAILS - EXISTING GROUNDWATER SPRING	SHEET 10	E

FILE NAME : P:\53XX\5387.DP.21.STH55.FOR\CADDS\91651371\SHEETSPLAN\021002-CD.DWG
LAYOUT NAME - 01
PLOT DATE : 10/14/2022 3:02 PM
PLOT BY : NICK MENNINGA
PLOT NAME :
PLOT SCALE : 1 IN:10 FT
WISDOT/CADDS SHEET 44

EXISTING ASPHALTIC PAVEMENT CORING DATA

CORE ID	STATION	OFFSET	DEPTH (INCH)
1	294+90	6 LT	7.50
2	279+90	6 RT	7.75
3	264+90	9 LT	6.75
4	249+90	7 RT	9.50
5	234+90	9 LT	9.50
6	219+90	8 RT	8.25
7	204+90	6 LT	5.00
8	189+90	6 RT	7.25
9	174+90	10 LT	5.75
10	159+90	6 RT	6.00
11	144+90	5 LT	6.00
12	129+90	5 RT	5.00
13	114+90	8 LT	9.50
14	99+90	9 RT	7.75
15	84+90	11 LT	6.00
16	69+90	7 RT	8.50
17	54+90	6 LT	6.00
18	39+90	6 RT	6.50
19	24+90	4 LT	5.75
20	9+90	10 RT	8.00

NOTE
EXISTING ASPHALTIC PAVEMENT CORING DATA WAS COMPLETED PRIOR TO PLACEMENT OF AN 8' WIDE VARIABLE DEPTH ASPHALTIC SURFACE OVERLAY (FALL 2021). EXISTING ASPHALTIC PAVEMENT GROUND-PENETRATING RADAR (GPR) DATA WAS OBTAINED AFTER THE PARTIAL OVERLAY (SUMMER 2022).

EXISTING ASPHALTIC PAVEMENT GPR DATA

APPROXIMATE STATION	EXISTING ASPHALTIC PAVEMENT DEPTH (INCH)				WHEEL PATH AVERAGE
	SOUTHBOUND WHEEL PATHS		NORTHBOUND WHEEL PATHS		
	OUTSIDE	INSIDE	INSIDE	OUTSIDE	
0+70	6.2	5.7	5.4	5.6	5.7
1+74	6.6	7.0	5.0	5.2	5.9
2+78	7.4	7.3	5.1	6.7	6.6
3+81	7.6	6.8	5.1	6.2	6.4
4+85	6.8	7.2	5.7	6.5	6.5
5+89	7.6	8.1	5.2	6.0	6.7
6+93	6.4	5.3	5.5	6.4	5.9
7+97	6.2	5.8	6.5	6.8	6.3
9+01	5.7	6.0	6.6	8.1	6.6
10+04	6.0	5.1	5.8	8.3	6.3
11+08	5.5	5.9	7.1	8.2	6.7
12+12	5.8	7.0	7.0	7.7	6.9
13+16	6.3	6.0	8.5	7.9	7.2
14+20	6.7	5.5	8.2	8.0	7.1
15+24	7.3	5.8	7.3	7.8	7.0
16+27	6.2	6.5	8.2	8.2	7.3
17+31	6.5	5.9	7.7	8.2	7.1
18+35	7.7	5.8	8.1	7.9	7.4
19+39	7.5	5.8	8.2	7.8	7.3
20+43	6.8	5.5	8.2	7.7	7.0
21+47	6.3	5.4	7.9	7.0	6.7
22+50	6.5	6.4	7.1	7.8	7.0
23+54	7.0	6.4	6.2	8.8	7.1
24+58	6.9	8.5	7.3	9.4	8.0
25+62	7.6	7.8	7.7	9.8	8.2
26+66	7.1	8.4	8.6	8.4	8.1
27+69	8.8	7.9	7.5	9.7	8.5
28+73	7.6	7.2	7.6	8.8	7.8
29+77	7.8	6.6	8.1	9.8	8.1
30+81	6.3	6.9	8.0	8.5	7.4
31+85	7.6	7.8	8.6	9.3	8.3
32+89	7.8	8.0	7.2	8.4	7.9
33+92	6.8	6.9	8.4	8.9	7.7
34+96	7.8	7.3	7.3	7.4	7.4
36+00	7.4	6.8	6.0	7.1	6.8
37+04	7.4	8.3	8.4	8.2	8.1
38+08	8.0	7.2	8.6	8.3	8.1
39+12	6.8	7.1	6.4	7.5	6.9
40+15	6.6	7.2	6.9	7.7	7.1
41+19	7.5	6.5	7.7	8.8	7.6
42+23	9.3	6.9	8.0	8.4	8.2
43+27	6.3	6.7	8.0	8.0	7.2
44+31	5.6	7.0	6.1	6.9	6.4
45+35	8.2	8.3	7.3	7.5	7.8
46+38	9.8	7.5	8.7	7.9	8.5
47+42	8.1	6.2	8.4	9.3	8.0
48+46	7.9	9.2	7.2	8.4	8.2
49+50	9.0	9.1	6.9	7.8	8.2
50+54	9.3	6.4	7.6	8.2	7.9
51+57	6.9	6.2	6.7	6.7	6.6
52+61	7.5	6.8	6.2	7.8	7.1
53+65	7.3	7.6	6.3	7.7	7.2
54+69	7.5	7.7	7.1	7.8	7.5
55+73	8.6	7.2	8.6	9.1	8.4
56+77	9.7	7.3	8.1	9.4	8.6
57+80	7.6	6.1	6.6	8.2	7.1
58+84	7.8	8.2	9.3	8.3	8.4
59+88	6.3	7.3	7.6	10.1	7.8
60+92	8.2	5.8	7.2	9.2	7.6
61+96	8.4	6.2	8.0	8.9	7.9
63+00	8.9	5.8	8.8	8.5	8.0
64+03	7.3	6.7	6.7	7.2	7.0
65+07	8.8	6.6	7.8	7.3	7.6
66+11	8.4	6.8	7.8	8.4	7.8
67+15	7.1	6.5	8.9	8.6	7.8
68+19	7.3	6.3	7.2	9.4	7.5
69+23	6.0	6.5	9.1	7.8	7.3
70+26	7.0	7.3	7.8	8.2	7.6
71+30	6.4	6.5	9.1	7.7	7.4
72+34	7.0	6.1	8.5	7.9	7.4
73+38	6.5	7.4	8.8	8.9	7.9
74+42	6.7	6.4	9.0	8.5	7.6
75+45	5.6	6.1	8.6	7.4	6.9
76+49	6.9	5.2	8.6	6.7	6.9
77+53	6.4	6.6	8.9	8.5	7.6

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EXISTING ASPHALTIC PAVEMENT GPR DATA (CONT.)

APPROXIMATE STATION	EXISTING ASPHALTIC PAVEMENT DEPTH (INCH)				WHEEL PATH AVERAGE
	SOUTHBOUND WHEEL PATHS		NORTHBOUND WHEEL PATHS		
	OUTSIDE	INSIDE	INSIDE	OUTSIDE	
78+57	7.1	6.3	8.8	8.7	7.7
79+61	7.6	6.0	8.8	8.6	7.8
80+65	8.4	7.2	9.7	9.0	8.6
81+68	8.8	7.1	9.6	9.2	8.6
82+72	8.1	6.4	9.0	9.3	8.2
83+76	8.4	6.1	9.9	7.8	8.0
84+80	9.2	6.5	7.2	9.9	8.2
85+84	9.9	6.9	9.0	9.8	8.9
86+88	9.6	8.9	9.3	9.8	9.4
87+91	9.7	7.4	9.4	8.8	8.8
88+95	9.2	7.2	9.3	8.7	8.6
89+99	8.3	8.3	8.4	8.2	8.3
91+03	8.1	7.3	7.6	9.3	8.1
92+07	6.9	6.7	8.6	9.4	7.9
93+11	7.6	6.3	7.0	9.5	7.6
94+14	8.0	7.1	7.0	7.1	7.3
95+18	8.4	7.1	7.0	9.9	8.1
96+22	9.7	8.4	9.7	8.8	9.2
97+26	8.4	7.4	8.2	8.4	8.1
98+30	9.1	8.1	8.2	8.1	8.4
99+33	9.1	9.2	9.1	9.4	9.2
100+37	10.2	8.7	9.8	10.1	9.7
101+41	9.4	8.4	8.7	9.1	8.9
102+45	9.3	8.7	8.1	9.0	8.8
103+49	8.6	9.4	8.2	8.0	8.6
104+53	9.1	8.1	7.6	7.8	8.1
105+56	9.9	8.1	6.6	8.1	8.2
106+60	9.7	9.7	8.0	9.4	9.2
107+64	9.1	9.5	8.4	9.1	9.0
108+68	8.7	9.0	9.0	9.4	9.0
109+72	8.5	9.4	9.3	10.2	9.4
110+76	9.6	8.7	7.8	9.5	8.9
111+79	8.6	8.8	8.6	8.1	8.5
112+83	8.7	7.6	8.5	8.8	8.4
113+87	9.0	9.4	9.4	9.0	9.2
114+91	8.2	8.9	8.5	8.7	8.6
115+95	8.4	9.3	8.1	9.1	8.7
116+99	8.5	8.5	9.6	9.6	9.0
118+02	9.4	8.1	9.2	9.2	9.0
119+06	8.1	9.0	8.6	9.1	8.7
120+10	8.5	9.3	9.8	9.5	9.3
121+14	8.5	7.3	8.2	9.4	8.3
122+18	9.5	7.5	9.9	9.6	9.1
123+21	9.7	8.2	9.4	9.8	9.3
124+25	9.5	7.8	8.9	9.7	9.0
125+29	9.2	8.4	8.9	9.4	9.0
126+33	8.4	8.1	8.2	9.9	8.6
127+37	7.3	7.8	7.8	9.1	8.0
128+41	7.2	8.1	7.9	7.1	7.6
129+44	8.6	9.8	9.0	8.3	8.9
130+48	8.9	9.0	9.5	7.9	8.8
131+52	9.3	8.9	9.9	7.9	9.0
132+56	8.5	10.1	8.7	8.1	8.9
133+60	7.3	9.8	8.7	8.4	8.5
134+64	8.7	9.3	8.3	7.4	8.4
135+67	7.5	8.5	6.8	7.4	7.5
136+71	7.8	8.4	6.5	8.7	7.8
137+75	7.0	7.6	9.7	8.8	8.3
138+79	6.8	7.9	8.5	8.7	8.0
139+83	7.6	7.2	8.2	9.1	8.0
140+87	8.4	6.3	7.2	8.1	7.5
141+90	7.9	8.0	8.1	6.4	7.6
142+94	8.0	6.2	8.1	8.6	7.7
143+98	8.9	6.9	6.6	9.0	7.8
145+02	7.1	7.2	7.5	9.0	7.7
146+06	7.7	7.4	7.4	9.4	8.0
147+09	7.4	8.0	8.1	9.8	8.3
148+13	7.2	7.8	7.4	9.1	7.9
149+17	6.7	5.5	7.1	9.1	7.1
150+21	7.1	6.4	7.0	9.6	7.5
151+25	7.5	5.6	6.6	8.9	7.1
152+29	7.2	6.5	6.8	8.5	7.2
153+32	8.0	7.3	7.5	8.8	7.9
154+36	7.2	7.4	8.3	9.6	8.1
155+40	7.0	5.7	9.0	9.9	7.9

EXISTING ASPHALTIC PAVEMENT GPR DATA (CONT.)

APPROXIMATE STATION	EXISTING ASPHALTIC PAVEMENT DEPTH (INCH)				WHEEL PATH AVERAGE
	SOUTHBOUND WHEEL PATHS		NORTHBOUND WHEEL PATHS		
	OUTSIDE	INSIDE	INSIDE	OUTSIDE	
156+44	7.2	6.0	7.6	9.9	7.7
157+48	7.8	7.0	9.0	7.4	7.8
158+52	7.1	7.6	6.8	7.0	7.1
159+55	6.9	6.7	8.0	8.1	7.4
160+59	6.3	6.7	8.1	7.8	7.2
161+63	7.4	6.4	9.4	7.6	7.7
162+67	6.5	6.3	9.4	8.4	7.7
163+71	7.0	5.3	9.2	8.1	7.4
164+74	6.6	5.8	9.1	8.8	7.6
165+78	6.8	6.1	6.7	9.2	7.2
166+82	7.3	6.5	8.5	9.0	7.8
167+86	7.5	6.6	8.8	8.5	7.9
168+90	7.7	6.6	8.3	7.4	7.5
169+94	8.0	7.0	6.9	8.7	7.6
170+97	7.3	6.7	5.1	9.3	7.1
172+01	8.5	6.2	7.3	7.3	7.3
173+05	7.7	5.3	7.0	7.1	6.8
174+09	7.3	6.3	6.6	6.8	6.8
175+13	7.4	6.2	7.0	6.9	6.9
176+17	7.4	6.7	7.3	7.0	7.1
177+20	7.5	5.8	8.4	8.7	7.6
178+24	7.8	5.8	8.8	8.6	7.7
179+28	8.9	7.0	8.1	7.2	7.8
180+32	7.6	7.3	9.1	7.7	7.9
181+36	8.7	6.2	7.8	8.3	7.8
182+40	8.8	5.7	9.0	9.0	8.1
183+43	8.2	5.8	7.1	8.0	7.3
184+47	8.2	7.0	6.9	8.1	7.5
185+51	8.2	6.9	7.2	7.4	7.4
186+55	7.6	6.5	7.5	7.3	7.2
187+59	8.5	6.1	7.9	8.0	7.6
188+62	9.6	8.9	9.0	9.2	9.2
189+66	9.3	7.6	9.1	9.0	8.7
190+70	8.3	7.5	7.7	8.8	8.1
191+74	7.2	8.1	7.1	8.7	7.8
192+78	8.2	8.3	7.1	7.4	7.7
193+82	9.2	8.6	6.5	7.3	7.9
194+85	8.4	7.6	8.9	8.2	8.3
195+89	8.1	5.7	9.0	8.9	7.9
196+93	7.9	5.4	8.2	8.2	7.4
197+97	5.8	5.7	8.8	8.1	7.1
199+01	5.0	7.1	8.8	8.7	7.4
200+05	6.0	5.5	9.9	9.5	7.7
201+08	7.1	6.6	9.1	9.1	8.0
202+12	8.6	6.7	8.8	9.2	8.4
203+16	9.3	6.3	9.0	8.8	8.4
204+20	8.0	7.4	9.3	8.5	8.3
205+24	8.2	7.4	9.8	7.7	8.3
206+28	8.2	6.8	8.1	8.4	7.9
207+31	8.8	6.5	9.0	9.4	8.4
208+35	9.0	6.4	9.5	9.8	8.7
209+39	9.0	6.6	7.5	9.6	8.2
210+43	8.2	6.8	7.8	9.4	8.0
211+47	7.4	7.3	9.6	9.8	8.5
212+50	7.9	7.1	7.9	9.4	8.1
213+54	9.0	9.0	9.4	9.1	9.1
214+58	8.2	9.7	9.5	8.9	9.1
215+62	8.5	10.1	9.1	9.5	9.3
216+66	9.2	9.1	9.0	9.1	9.1
217+70	9.8	9.1	9.2	9.7	9.5
218+73	9.8	9.3	9.4	9.2	9.4
219+77	9.1	9.0	9.1	9.4	9.2
220+81	9.3	8.4	8.0	8.1	8.5
221+85	9.3	8.4	8.1	8.2	8.5
222+89	9.6	8.1	8.1	8.4	8.5
223+93	8.8	7.9	9.0	8.4	8.5
224+96	9.4	7.8	7.9	8.1	8.3
226+00	8.7	8.0	9.3	8.4	8.6
227+04	9.3	9.1	8.0	8.5	8.7
228+08	9.6	7.5	9.5	8.8	8.9
229+12	8.6	8.6	9.0	8.6	8.7
230+16	9.2	9.3	8.4	9.5	9.1
231+19	9.1	9.0	9.8	9.1	9.2
232+23	9.7	9.6	8.5	8.4	9.1
233+27	9.9	9.1	8.2	8.6	8.9

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EXISTING ASPHALTIC PAVEMENT GPR DATA (CONT.)

APPROXIMATE STATION	EXISTING ASPHALTIC PAVEMENT DEPTH (INCH)				
	SOUTHBOUND WHEEL PATHS		NORTHBOUND WHEEL PATHS		WHEEL PATH AVERAGE
	OUTSIDE	INSIDE	INSIDE	OUTSIDE	
234+31	9.4	8.3	10.0	9.1	9.2
235+35	9.6	8.1	9.4	9.3	9.1
236+38	8.9	10.3	9.8	9.2	9.6
237+42	9.0	9.7	8.7	8.7	9.0
238+46	9.4	7.8	8.8	8.0	8.5
239+50	9.1	8.1	8.3	8.7	8.6
240+54	8.8	9.4	8.8	8.5	8.9
241+58	8.7	8.9	8.4	9.6	8.9
242+61	9.0	6.8	8.3	9.5	8.4
243+65	9.1	8.0	9.5	9.3	9.0
244+69	9.7	9.2	9.6	9.5	9.5
245+73	9.2	8.5	8.1	8.7	8.6
246+77	9.8	8.7	9.0	9.8	9.3
247+81	8.6	8.5	7.9	10.1	8.8
248+84	8.7	9.1	7.0	9.3	8.5
249+88	9.0	8.9	9.0	9.3	9.0
250+92	8.6	6.9	9.8	9.2	8.6
251+96	8.7	6.5	9.4	9.1	8.4
253+00	7.8	6.3	7.5	7.7	7.3
254+04	7.1	5.7	6.1	7.8	6.7
255+07	8.0	9.0	7.3	7.4	7.9
256+11	7.9	9.3	7.1	7.6	8.0
257+15	7.2	6.9	6.8	7.0	7.0
258+19	8.9	5.6	7.6	7.2	7.3
259+23	9.4	5.8	6.8	7.3	7.3
260+26	9.0	8.0	6.6	7.6	7.8
261+30	7.7	6.9	6.4	7.4	7.1
262+34	7.3	6.8	7.1	7.1	7.1
263+38	7.6	7.4	7.7	9.5	8.1
264+42	8.2	7.8	9.4	9.6	8.7
265+46	9.0	7.2	9.4	9.2	8.7
266+49	8.1	6.1	9.6	9.4	8.3
267+53	8.6	7.7	9.4	8.4	8.5
268+57	9.5	7.3	8.2	7.7	8.2
269+61	9.1	6.9	8.3	7.8	8.0
270+65	8.4	7.9	8.1	8.0	8.1
271+69	8.2	9.1	9.9	8.5	8.9
272+72	9.5	9.5	8.8	8.1	9.0
273+76	8.6	9.8	9.6	9.1	9.3
274+80	9.1	8.9	8.6	9.5	9.0
275+84	8.1	8.4	8.8	9.0	8.6
276+88	8.3	8.0	8.2	8.0	8.1
277+92	8.0	7.7	7.9	8.1	7.9
278+95	9.7	9.1	8.1	8.4	8.8
279+99	9.0	8.2	7.7	8.3	8.3
281+03	9.2	9.3	7.8	8.4	8.7
282+07	9.4	9.7	8.1	8.1	8.8
283+11	9.1	9.2	7.2	7.9	8.3
284+14	9.6	9.5	7.6	7.8	8.6
285+18	10.2	9.4	8.8	8.5	9.2
286+22	9.8	8.6	8.5	8.1	8.7
287+26	8.4	8.1	8.1	8.2	8.2
288+30	7.4	7.8	8.6	9.9	8.4
289+34	8.2	8.1	8.7	9.9	8.7
290+37	9.0	9.0	7.7	9.7	8.8
291+41	9.5	9.4	9.2	9.1	9.3
292+45	9.6	9.3	8.6	9.6	9.3
293+49	6.8	7.5	8.7	9.8	8.2
294+53	8.1	8.7	7.6	8.2	8.1
295+57	8.3	8.8	6.5	7.7	7.8
296+60	8.5	7.9	8.5	8.5	8.3
297+64	8.9	8.9	9.0	8.2	8.7
298+68	8.6	9.0	7.4	8.7	8.4
299+72	8.7	8.7	8.7	9.0	8.7
300+76	9.4	8.4	8.7	9.8	9.1
301+80	8.9	8.5	7.9	9.8	8.8
302+83	8.3	9.0	8.8	8.4	8.6
303+87	7.8	7.4	9.6	9.6	8.6
304+91	7.2	7.1	7.9	7.4	7.4

2

LEGEND

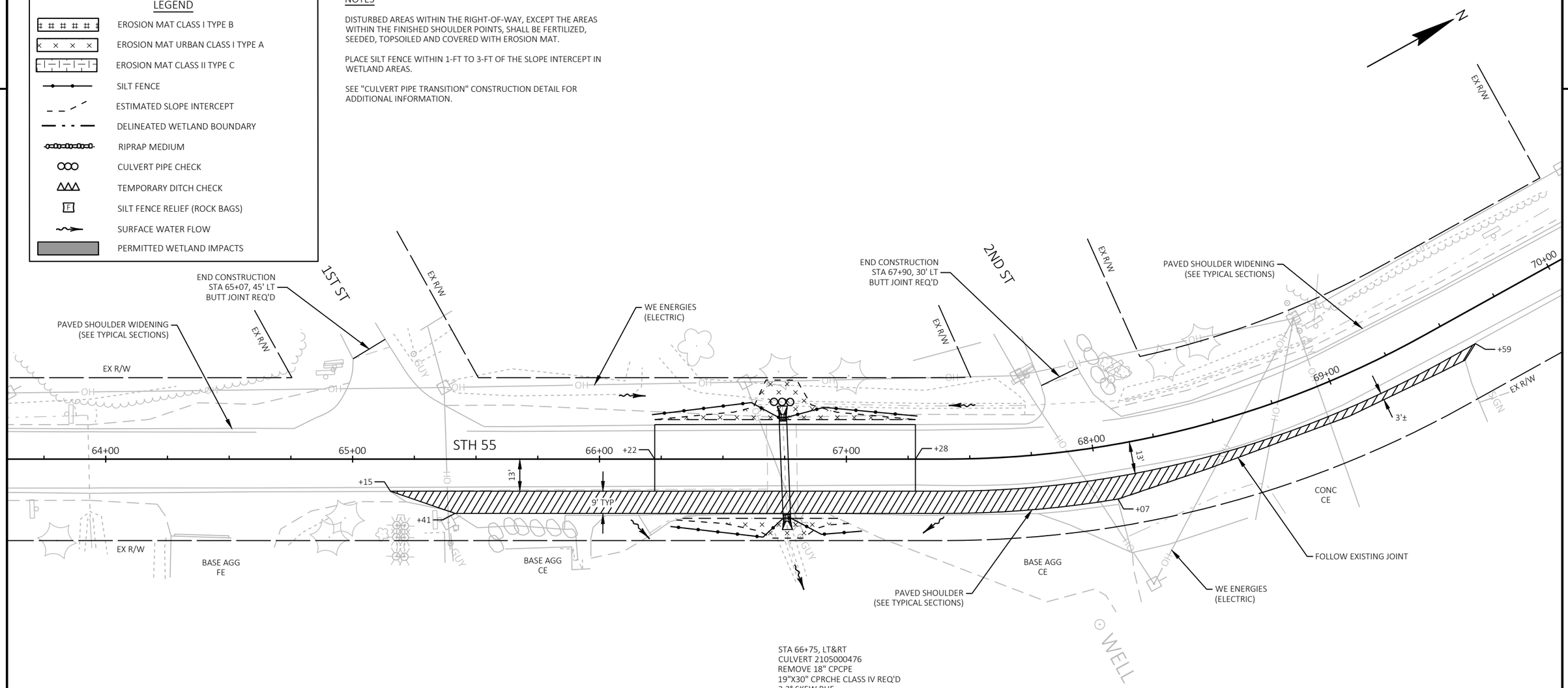
- EROSION MAT CLASS I TYPE B
- EROSION MAT URBAN CLASS I TYPE A
- EROSION MAT CLASS II TYPE C
- SILT FENCE
- ESTIMATED SLOPE INTERCEPT
- DELINEATED WETLAND BOUNDARY
- RIPRAP MEDIUM
- CULVERT PIPE CHECK
- TEMPORARY DITCH CHECK
- SILT FENCE RELIEF (ROCK BAGS)
- SURFACE WATER FLOW
- PERMITTED WETLAND IMPACTS

NOTES

DISTURBED AREAS WITHIN THE RIGHT-OF-WAY, EXCEPT THE AREAS WITHIN THE FINISHED SHOULDER POINTS, SHALL BE FERTILIZED, SEEDED, TOPSOILED AND COVERED WITH EROSION MAT.

PLACE SILT FENCE WITHIN 1-FT TO 3-FT OF THE SLOPE INTERCEPT IN WETLAND AREAS.

SEE "CULVERT PIPE TRANSITION" CONSTRUCTION DETAIL FOR ADDITIONAL INFORMATION.



STA 66+75, LT&RT
CULVERT 2105000476
REMOVE 18" CPCPE
19"X30" CPRCHE CLASS IV REQ'D
2.3° SKEW RHF
2-AEW FOR REINFORCED CONCRETE HORIZONTAL ELLIPTICAL REQ'D
MARKERS FOR CULVERT END REQ'D

PROJECT NO: 9165-13-71	HWY: STH 55	COUNTY: FOREST	CONSTRUCTION DETAILS - CULVERT REPLACEMENTS	SHEET 14	E

2

LEGEND

- EROSION MAT CLASS I TYPE B
- EROSION MAT URBAN CLASS I TYPE A
- EROSION MAT CLASS II TYPE C
- SILT FENCE
- ESTIMATED SLOPE INTERCEPT
- DELINEATED WETLAND BOUNDARY
- RIPRAP MEDIUM
- CULVERT PIPE CHECK
- TEMPORARY DITCH CHECK
- SILT FENCE RELIEF (ROCK BAGS)
- SURFACE WATER FLOW
- PERMITTED WETLAND IMPACTS

NOTES

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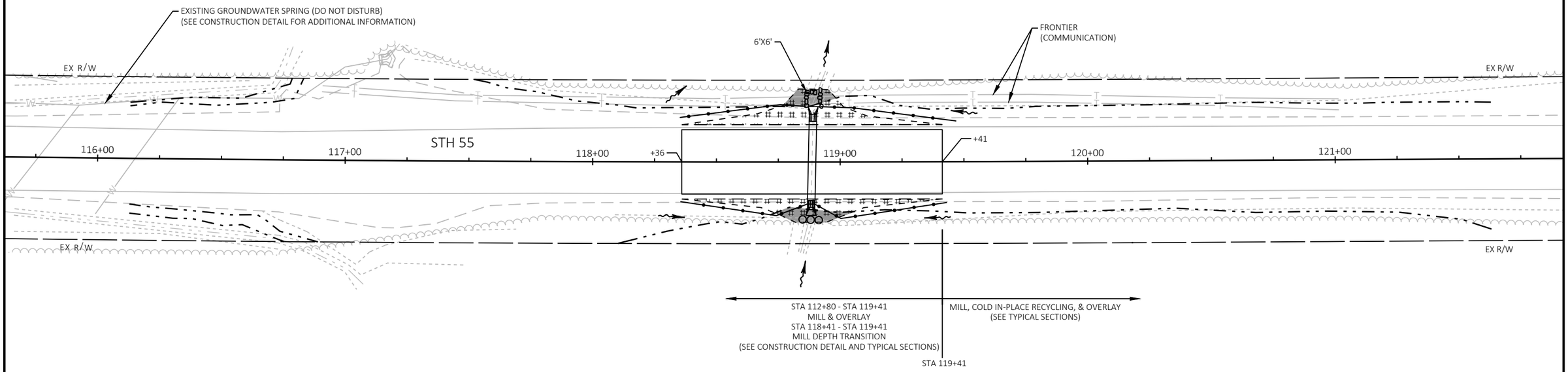
PLACE SILT FENCE WITHIN 1-FT TO 3-FT OF THE SLOPE INTERCEPT IN WETLAND AREAS.

SEE "CULVERT PIPE TRANSITION" CONSTRUCTION DETAIL FOR ADDITIONAL INFORMATION.

FLOWING WATER OBSERVED DURING SURVEY

N



STA 118+89, LT&RT
CULVERT 2105000479
REMOVE 24" CPCA
19"X30" CPRCHE CLASS IV REQ'D
1.2° SKEW LHF
2-AEW FOR REINFORCED CONCRETE HORIZONTAL ELLIPTICAL REQ'D
MARKERS FOR CULVERT END REQ'D

PROJECT NO: 9165-13-71	HWY: STH 55	COUNTY: FOREST	CONSTRUCTION DETAILS - CULVERT REPLACEMENTS	SHEET 15	E

2

LEGEND

- EROSION MAT CLASS I TYPE B
- EROSION MAT URBAN CLASS I TYPE A
- EROSION MAT CLASS II TYPE C
- SILT FENCE
- ESTIMATED SLOPE INTERCEPT
- DELINEATED WETLAND BOUNDARY
- RIPRAP MEDIUM
- CULVERT PIPE CHECK
- TEMPORARY DITCH CHECK
- SILT FENCE RELIEF (ROCK BAGS)
- SURFACE WATER FLOW
- PERMITTED WETLAND IMPACTS

NOTES

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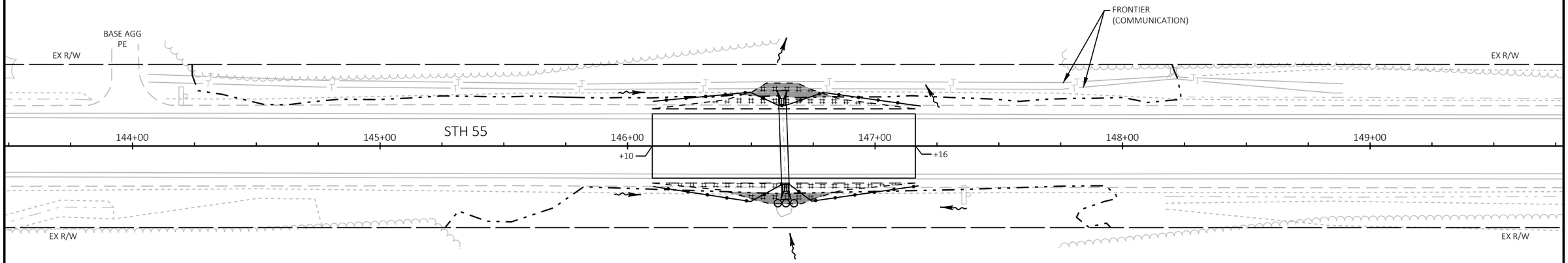
PLACE SILT FENCE WITHIN 1-FT TO 3-FT OF THE SLOPE INTERCEPT IN WETLAND AREAS.

SEE "CULVERT PIPE TRANSITION" CONSTRUCTION DETAIL FOR ADDITIONAL INFORMATION.

FLOWING WATER OBSERVED DURING SURVEY

N



STA 146+63, LT&RT
CULVERT 2105000480
REMOVE 18"X24" CPCA
19"X30" CPRCHE CLASS IV REQ'D
2.0° SKEW RHF
2-AEW FOR REINFORCED CONCRETE HORIZONTAL ELLIPTICAL REQ'D
MARKERS FOR CULVERT END REQ'D

PROJECT NO: 9165-13-71	HWY: STH 55	COUNTY: FOREST	CONSTRUCTION DETAILS - CULVERT REPLACEMENTS	SHEET 16	E

2

LEGEND

- EROSION MAT CLASS I TYPE B
- EROSION MAT URBAN CLASS I TYPE A
- EROSION MAT CLASS II TYPE C
- SILT FENCE
- ESTIMATED SLOPE INTERCEPT
- DELINEATED WETLAND BOUNDARY
- RIPRAP MEDIUM
- CULVERT PIPE CHECK
- TEMPORARY DITCH CHECK
- SILT FENCE RELIEF (ROCK BAGS)
- SURFACE WATER FLOW
- PERMITTED WETLAND IMPACTS

NOTES

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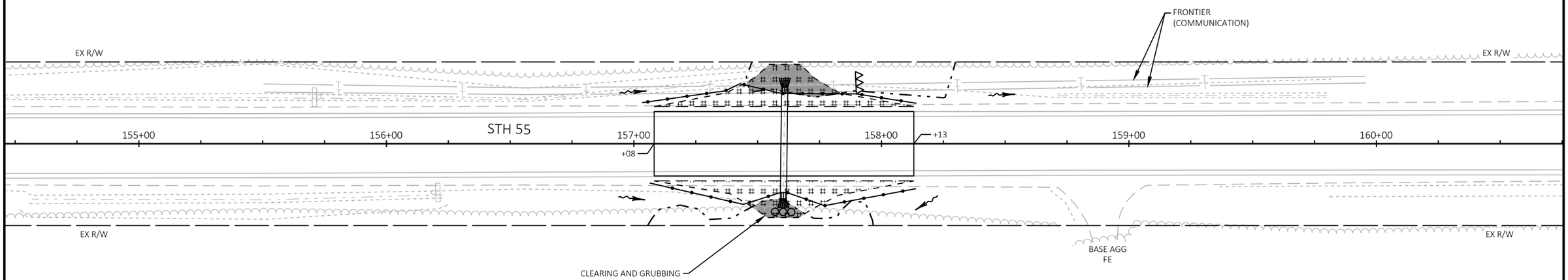
PLACE SILT FENCE WITHIN 1-FT TO 3-FT OF THE SLOPE INTERCEPT IN WETLAND AREAS.

SEE "CULVERT PIPE TRANSITION" CONSTRUCTION DETAIL FOR ADDITIONAL INFORMATION.

N



STA 157+61, LT&RT
CULVERT 2105000481
REMOVE 24" CPCA
24" CPRC CLASS IV REQ'D
0.7° SKEW LHF
2-AEW FOR REINFORCED CONCRETE REQ'D
MARKERS FOR CULVERT END REQ'D

2

PROJECT NO: 9165-13-71	HWY: STH 55	COUNTY: FOREST	CONSTRUCTION DETAILS - CULVERT REPLACEMENTS	SHEET 17	E

2

LEGEND

- EROSION MAT CLASS I TYPE B
- EROSION MAT URBAN CLASS I TYPE A
- EROSION MAT CLASS II TYPE C
- SILT FENCE
- ESTIMATED SLOPE INTERCEPT
- DELINEATED WETLAND BOUNDARY
- RIPRAP MEDIUM
- CULVERT PIPE CHECK
- TEMPORARY DITCH CHECK
- SILT FENCE RELIEF (ROCK BAGS)
- SURFACE WATER FLOW
- PERMITTED WETLAND IMPACTS

NOTES

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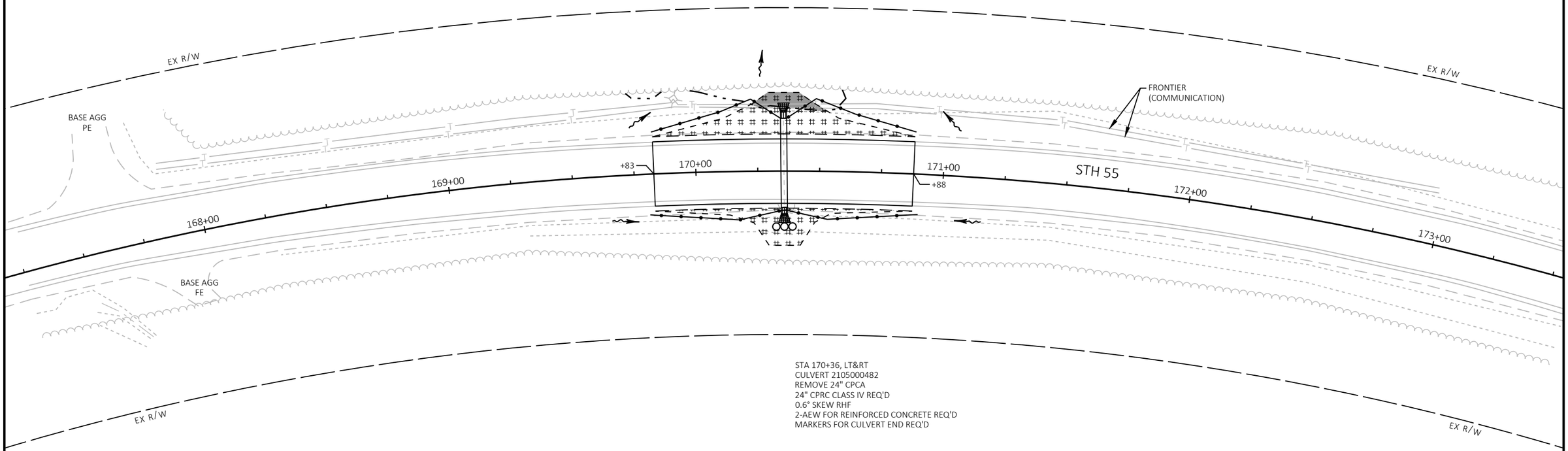
PLACE SILT FENCE WITHIN 1-FT TO 3-FT OF THE SLOPE INTERCEPT IN WETLAND AREAS.

SEE "CULVERT PIPE TRANSITION" CONSTRUCTION DETAIL FOR ADDITIONAL INFORMATION.



PROJECT NO: 9165-13-71	HWY: STH 55	COUNTY: FOREST	CONSTRUCTION DETAILS - CULVERT REPLACEMENTS	SHEET 18	E

2

LEGEND

- EROSION MAT CLASS I TYPE B
- EROSION MAT URBAN CLASS I TYPE A
- EROSION MAT CLASS II TYPE C
- SILT FENCE
- ESTIMATED SLOPE INTERCEPT
- DELINEATED WETLAND BOUNDARY
- RIPRAP MEDIUM
- CULVERT PIPE CHECK
- TEMPORARY DITCH CHECK
- SILT FENCE RELIEF (ROCK BAGS)
- SURFACE WATER FLOW
- PERMITTED WETLAND IMPACTS

NOTES

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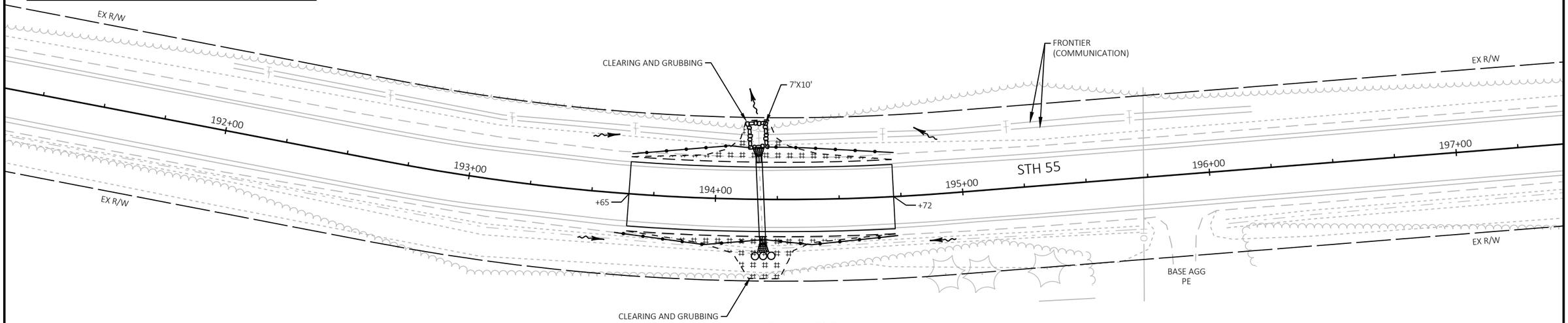
PLACE SILT FENCE WITHIN 1-FT TO 3-FT OF THE SLOPE INTERCEPT IN WETLAND AREAS.

SEE "CULVERT PIPE TRANSITION" CONSTRUCTION DETAIL FOR ADDITIONAL INFORMATION.



STA 194+18, LT&RT
CULVERT 2105000484
REMOVE 24" CPCS
24" CPRC CLASS IV REQ'D
3.1° SKEW RHF
2-AEW FOR REINFORCED CONCRETE REQ'D
MARKERS FOR CULVERT END REQ'D

PROJECT NO: 9165-13-71	HWY: STH 55	COUNTY: FOREST	CONSTRUCTION DETAILS - CULVERT REPLACEMENTS	SHEET 19	E

2

LEGEND

- EROSION MAT CLASS I TYPE B
- EROSION MAT URBAN CLASS I TYPE A
- EROSION MAT CLASS II TYPE C
- SILT FENCE
- ESTIMATED SLOPE INTERCEPT
- DELINEATED WETLAND BOUNDARY
- RIPRAP MEDIUM
- CULVERT PIPE CHECK
- TEMPORARY DITCH CHECK
- SILT FENCE RELIEF (ROCK BAGS)
- SURFACE WATER FLOW
- PERMITTED WETLAND IMPACTS

NOTES

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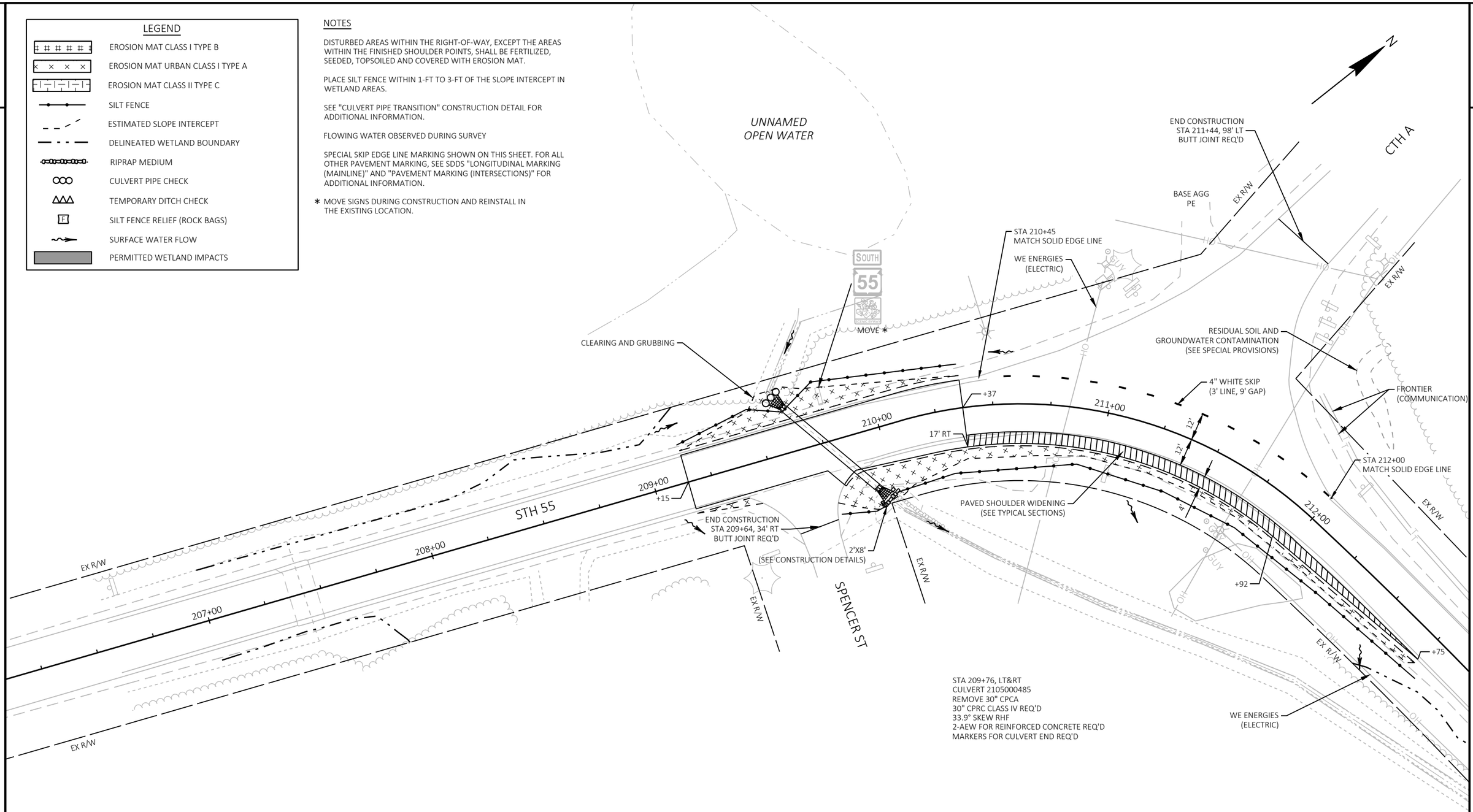
PLACE SILT FENCE WITHIN 1-FT TO 3-FT OF THE SLOPE INTERCEPT IN WETLAND AREAS.

SEE "CULVERT PIPE TRANSITION" CONSTRUCTION DETAIL FOR ADDITIONAL INFORMATION.

FLOWING WATER OBSERVED DURING SURVEY

SPECIAL SKIP EDGE LINE MARKING SHOWN ON THIS SHEET. FOR ALL OTHER PAVEMENT MARKING, SEE SDDS "LONGITUDINAL MARKING (MAINLINE)" AND "PAVEMENT MARKING (INTERSECTIONS)" FOR ADDITIONAL INFORMATION.

* MOVE SIGNS DURING CONSTRUCTION AND REINSTALL IN THE EXISTING LOCATION.



PROJECT NO: 9165-13-71	HWY: STH 55	COUNTY: FOREST	CONSTRUCTION DETAILS - CULVERT REPLACEMENTS	SHEET 20	E

FILE NAME : P:\53XX\5387.DP.21.STH55.FOR\CADDS\91651371\SHEETSPLAN\021004-CD.DWG
LAYOUT NAME - 07

PLOT DATE : 10/14/2022 3:04 PM PLOT BY : NICK MENNINGA PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

LEGEND

- EROSION MAT CLASS I TYPE B
- EROSION MAT URBAN CLASS I TYPE A
- EROSION MAT CLASS II TYPE C
- SILT FENCE
- ESTIMATED SLOPE INTERCEPT
- DELINEATED WETLAND BOUNDARY
- RIPRAP MEDIUM
- CULVERT PIPE CHECK
- TEMPORARY DITCH CHECK
- SILT FENCE RELIEF (ROCK BAGS)
- SURFACE WATER FLOW
- PERMITTED WETLAND IMPACTS

NOTES

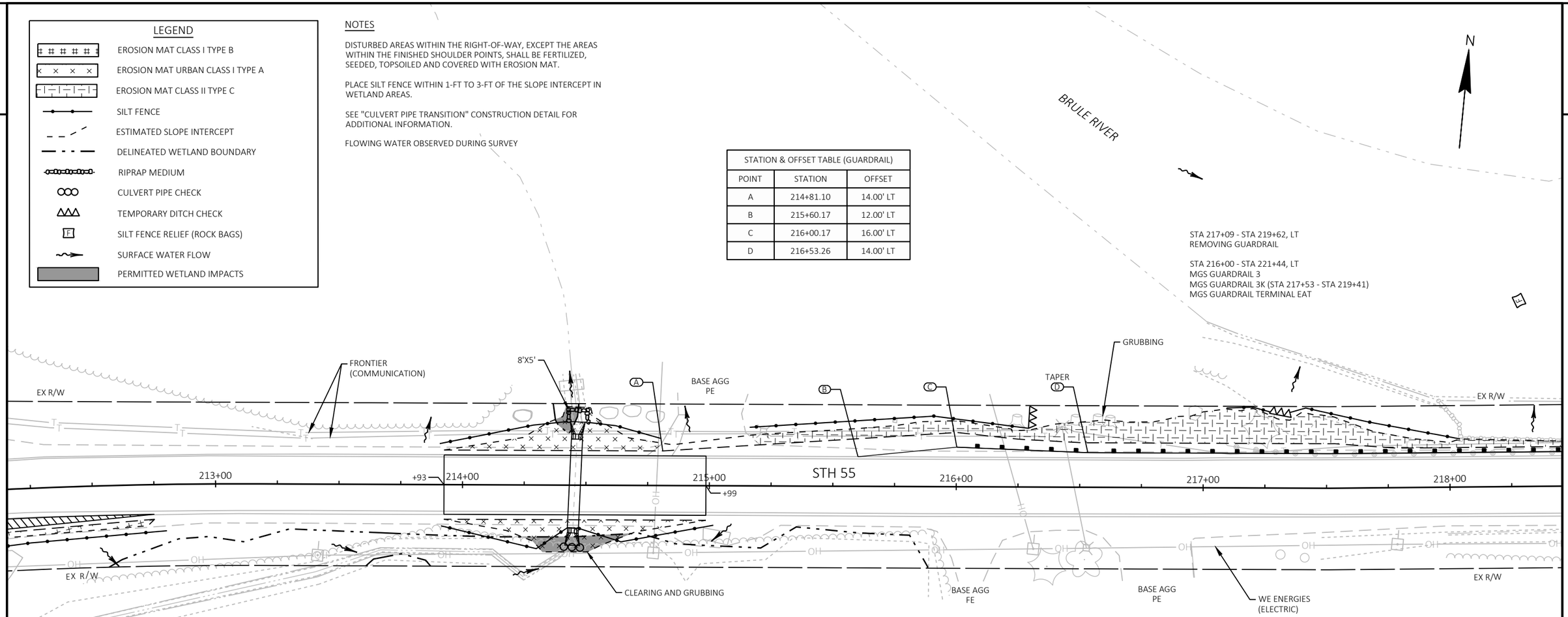
DISTURBED AREAS WITHIN THE RIGHT-OF-WAY, EXCEPT THE AREAS WITHIN THE FINISHED SHOULDER POINTS, SHALL BE FERTILIZED, SEEDED, TOPSOILED AND COVERED WITH EROSION MAT.

PLACE SILT FENCE WITHIN 1-FT TO 3-FT OF THE SLOPE INTERCEPT IN WETLAND AREAS.

SEE "CULVERT PIPE TRANSITION" CONSTRUCTION DETAIL FOR ADDITIONAL INFORMATION.

FLOWING WATER OBSERVED DURING SURVEY

STATION & OFFSET TABLE (GUARDRAIL)		
POINT	STATION	OFFSET
A	214+81.10	14.00' LT
B	215+60.17	12.00' LT
C	216+00.17	16.00' LT
D	216+53.26	14.00' LT



STA 214+46, LT&RT
CULVERT 2105000486
REMOVE 24" CPCA
29"X45" CPRCHE CLASS IV REQ'D
2.4° SKEW LHF
2-AEW FOR REINFORCED CONCRETE HORIZONTAL ELLIPTICAL REQ'D
MARKERS FOR CULVERT END REQ'D

2

PROJECT NO: 9165-13-71	HWY: STH 55	COUNTY: FOREST	CONSTRUCTION DETAILS - CULVERT AND GUARDRAIL REPLACEMENTS	SHEET 21	E

FILE NAME : P:\53XX\5387.DP.21.STH55.FOR\CADDS\91651371\SHEETSPLAN\021004-CD.DWG
LAYOUT NAME - 08

PLOT DATE : 10/14/2022 3:04 PM PLOT BY : NICK MENNINGA PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

LEGEND

- EROSION MAT CLASS I TYPE B
- EROSION MAT URBAN CLASS I TYPE A
- EROSION MAT CLASS II TYPE C
- SILT FENCE
- ESTIMATED SLOPE INTERCEPT
- DELINEATED WETLAND BOUNDARY
- RIPRAP MEDIUM
- CULVERT PIPE CHECK
- TEMPORARY DITCH CHECK
- SILT FENCE RELIEF (ROCK BAGS)
- SURFACE WATER FLOW
- PERMITTED WETLAND IMPACTS

NOTES

DISTURBED AREAS WITHIN THE RIGHT-OF-WAY, EXCEPT THE AREAS WITHIN THE FINISHED SHOULDER POINTS, SHALL BE FERTILIZED, SEEDED, TOPSOILED AND COVERED WITH EROSION MAT.

PLACE SILT FENCE WITHIN 1-FT TO 3-FT OF THE SLOPE INTERCEPT IN WETLAND AREAS.

SEE "CULVERT PIPE TRANSITION" CONSTRUCTION DETAIL FOR ADDITIONAL INFORMATION.

* MOVE SIGNS DURING CONSTRUCTION AND REINSTALL IN THE EXISTING LOCATION.

STATION & OFFSET TABLE (GUARDRAIL)		
POINT	STATION	OFFSET
E	220+90.94	14.00' LT
F	221+44.03	16.00' LT
G	221+84.03	12.00' LT
H	222+63.10	14.00' LT

N

STA 217+09 - STA 219+62, LT
REMOVING GUARDRAIL

STA 216+00 - STA 221+44, LT
MGS GUARDRAIL 3
MGS GUARDRAIL 3K (STA 217+53 - STA 219+41)
MGS GUARDRAIL TERMINAL EAT

BRULE RIVER

JCT COUNTY A
MOVE *

20 MPH
MOVE *

RIPRAP MEDIUM (SEE CONSTRUCTION DETAILS)

+14 30' LT

CLEARING AND GRUBBING

+78 30' LT

+21 24' LT

+71 21' LT

+53 18' LT

CLEARING AND GRUBBING

TAPER (E)

FRONTIER (COMMUNICATION)

EX R/W

218+00 | +56 | 219+00 | +61 | 220+00 | 221+00 | STH 55 | 222+00 | 223+00 | 224+00

EX R/W

EX R/W

WE ENERGIES (ELECTRIC)

STA 219+08, LT&RT
CULVERT 2105000487
REMOVE 24" CPCA
24" CP CLASS III-A NON-METAL REQ'D
1.7° SKEW RHF
2-AEW FOR REINFORCED CONCRETE REQ'D
MARKERS FOR CULVERT END REQ'D

PROJECT NO: 9165-13-71	HWY: STH 55	COUNTY: FOREST	CONSTRUCTION DETAILS - CULVERT AND GUARDRAIL REPLACEMENTS	SHEET 22	E

2

LEGEND

- EROSION MAT CLASS I TYPE B
- EROSION MAT URBAN CLASS I TYPE A
- EROSION MAT CLASS II TYPE C
- SILT FENCE
- ESTIMATED SLOPE INTERCEPT
- DELINEATED WETLAND BOUNDARY
- RIPRAP MEDIUM
- CULVERT PIPE CHECK
- TEMPORARY DITCH CHECK
- SILT FENCE RELIEF (ROCK BAGS)
- SURFACE WATER FLOW
- PERMITTED WETLAND IMPACTS

NOTES

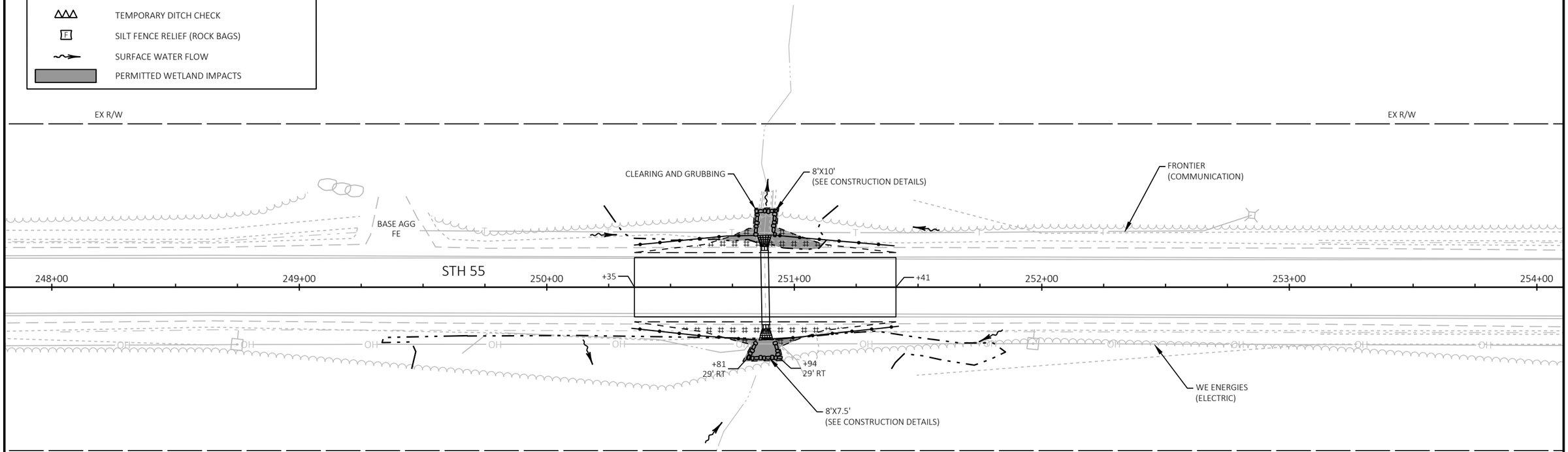
DISTURBED AREAS WITHIN THE RIGHT-OF-WAY, EXCEPT THE AREAS WITHIN THE FINISHED SHOULDER POINTS, SHALL BE FERTILIZED, SEEDED, TOPSOILED AND COVERED WITH EROSION MAT.

PLACE SILT FENCE WITHIN 1-FT TO 3-FT OF THE SLOPE INTERCEPT IN WETLAND AREAS.

SEE "CULVERT PIPE TRANSITION" CONSTRUCTION DETAIL FOR ADDITIONAL INFORMATION.

FLOWING WATER OBSERVED DURING SURVEY

N



STA 250+88, LT&RT
CULVERT 2105000489
REMOVE 24" CPCS
30" CPRC CLASS IV REQ'D
1.0° SKEW RHF
2-AEW FOR REINFORCED CONCRETE REQ'D
MARKERS FOR CULVERT END REQ'D

PROJECT NO: 9165-13-71	HWY: STH 55	COUNTY: FOREST	CONSTRUCTION DETAILS - CULVERT REPLACEMENTS	SHEET 23	E

2

LEGEND

- EROSION MAT CLASS I TYPE B
- EROSION MAT URBAN CLASS I TYPE A
- EROSION MAT CLASS II TYPE C
- SILT FENCE
- ESTIMATED SLOPE INTERCEPT
- DELINEATED WETLAND BOUNDARY
- RIPRAP MEDIUM
- CULVERT PIPE CHECK
- TEMPORARY DITCH CHECK
- SILT FENCE RELIEF (ROCK BAGS)
- SURFACE WATER FLOW
- PERMITTED WETLAND IMPACTS

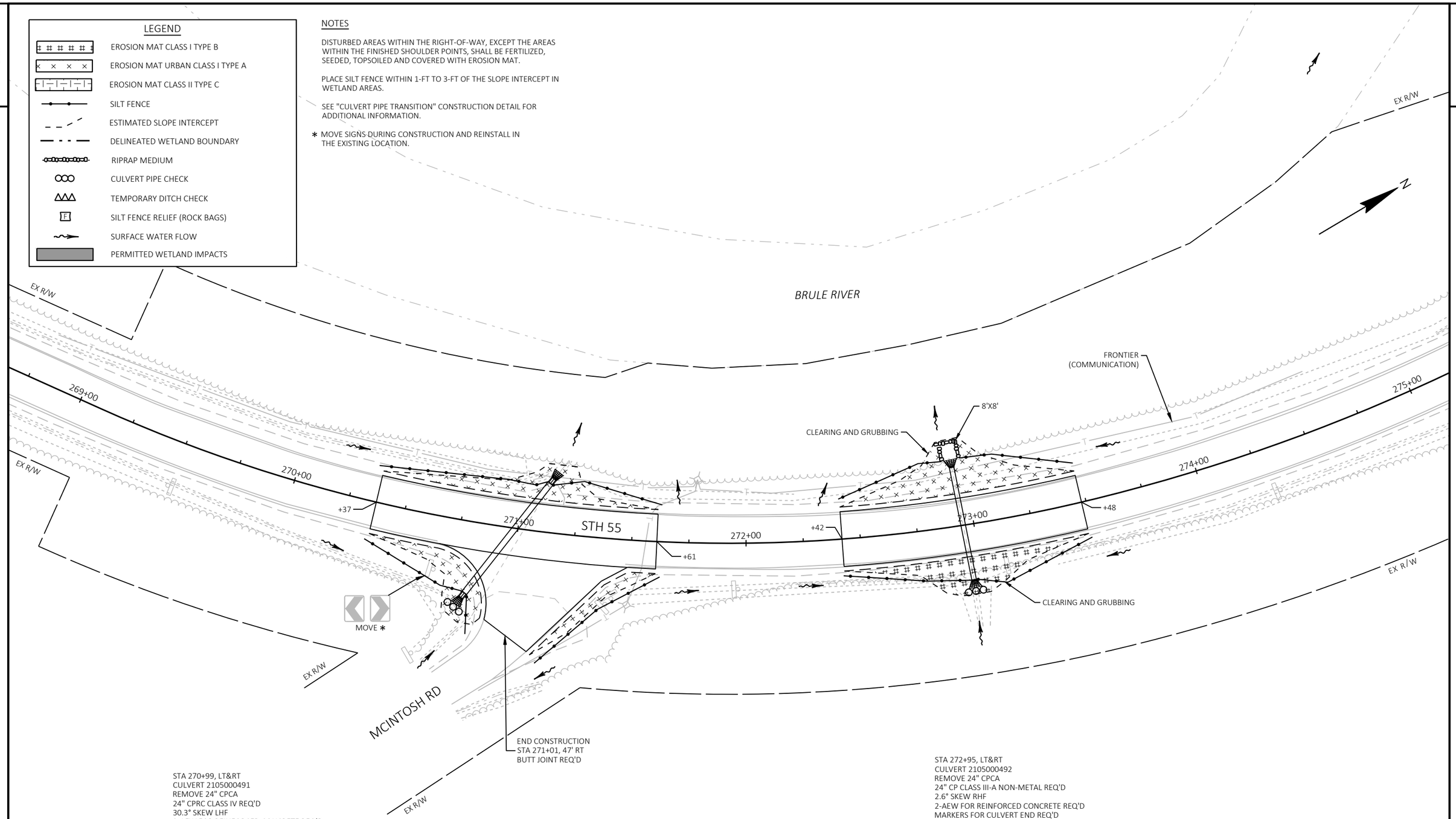
NOTES

DISTURBED AREAS WITHIN THE RIGHT-OF-WAY, EXCEPT THE AREAS WITHIN THE FINISHED SHOULDER POINTS, SHALL BE FERTILIZED, SEEDED, TOPSOILED AND COVERED WITH EROSION MAT.

PLACE SILT FENCE WITHIN 1-FT TO 3-FT OF THE SLOPE INTERCEPT IN WETLAND AREAS.

SEE "CULVERT PIPE TRANSITION" CONSTRUCTION DETAIL FOR ADDITIONAL INFORMATION.

* MOVE SIGNS DURING CONSTRUCTION AND REINSTALL IN THE EXISTING LOCATION.



PROJECT NO: 9165-13-71	HWY: STH 55	COUNTY: FOREST	CONSTRUCTION DETAILS - CULVERT REPLACEMENTS	SHEET 24	E

LEGEND

- EROSION MAT CLASS I TYPE B
- EROSION MAT URBAN CLASS I TYPE A
- EROSION MAT CLASS II TYPE C
- SILT FENCE
- ESTIMATED SLOPE INTERCEPT
- DELINEATED WETLAND BOUNDARY
- RIPRAP MEDIUM
- CULVERT PIPE CHECK
- TEMPORARY DITCH CHECK
- SILT FENCE RELIEF (ROCK BAGS)
- SURFACE WATER FLOW
- PERMITTED WETLAND IMPACTS

NOTES

DISTURBED AREAS WITHIN THE RIGHT-OF-WAY, EXCEPT THE AREAS WITHIN THE FINISHED SHOULDER POINTS, SHALL BE FERTILIZED, SEEDED, TOPSOILED AND COVERED WITH EROSION MAT.

PLACE SILT FENCE WITHIN 1-FT TO 3-FT OF THE SLOPE INTERCEPT IN WETLAND AREAS.

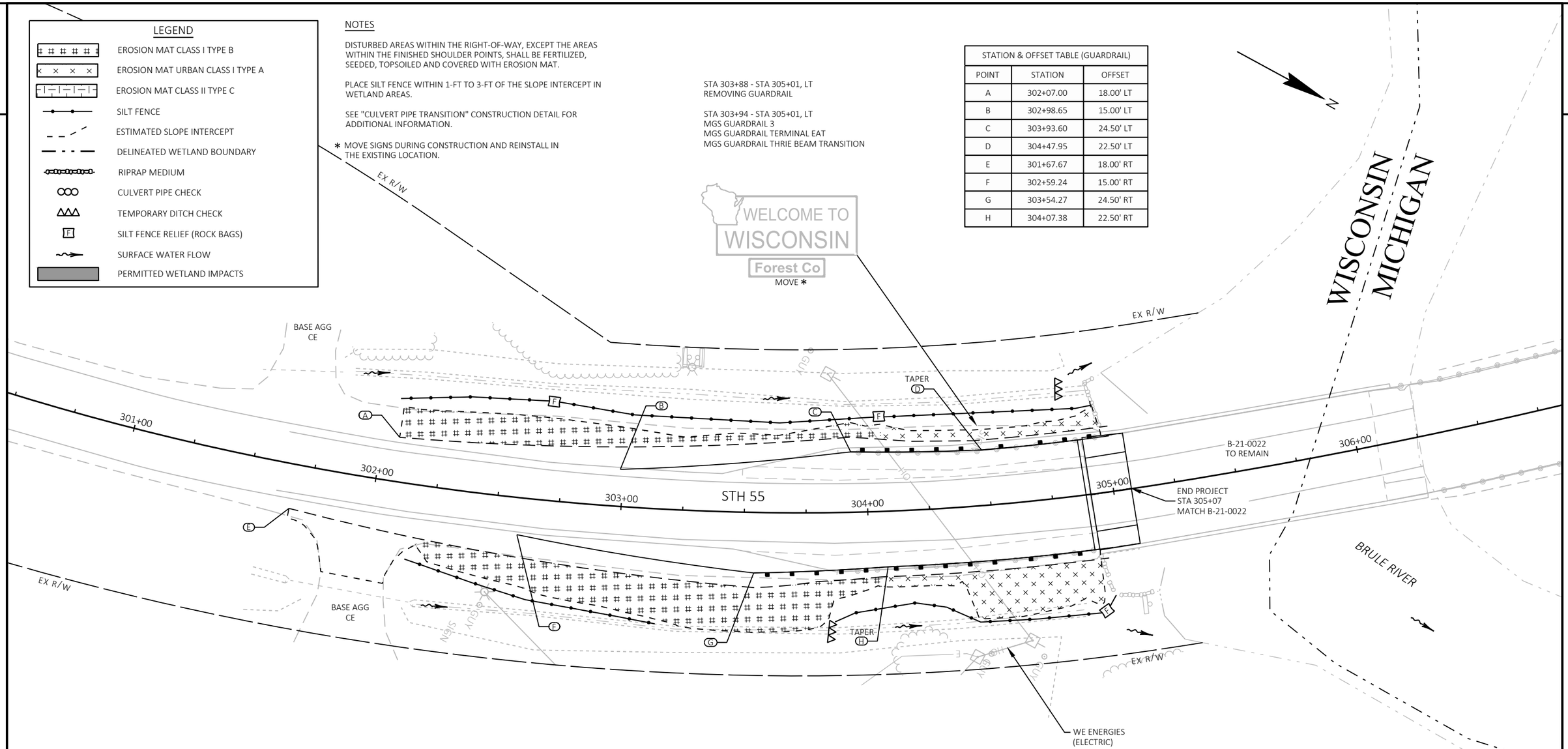
SEE "CULVERT PIPE TRANSITION" CONSTRUCTION DETAIL FOR ADDITIONAL INFORMATION.

* MOVE SIGNS DURING CONSTRUCTION AND REINSTALL IN THE EXISTING LOCATION.

STA 303+88 - STA 305+01, LT
REMOVING GUARDRAIL

STA 303+94 - STA 305+01, LT
MGS GUARDRAIL 3
MGS GUARDRAIL TERMINAL EAT
MGS GUARDRAIL THRIE BEAM TRANSITION

STATION & OFFSET TABLE (GUARDRAIL)		
POINT	STATION	OFFSET
A	302+07.00	18.00' LT
B	302+98.65	15.00' LT
C	303+93.60	24.50' LT
D	304+47.95	22.50' LT
E	301+67.67	18.00' RT
F	302+59.24	15.00' RT
G	303+54.27	24.50' RT
H	304+07.38	22.50' RT



PROJECT NO: 9165-13-71	HWY: STH 55	COUNTY: FOREST	CONSTRUCTION DETAILS - GUARDRAIL REPLACEMENTS	SHEET 25	E

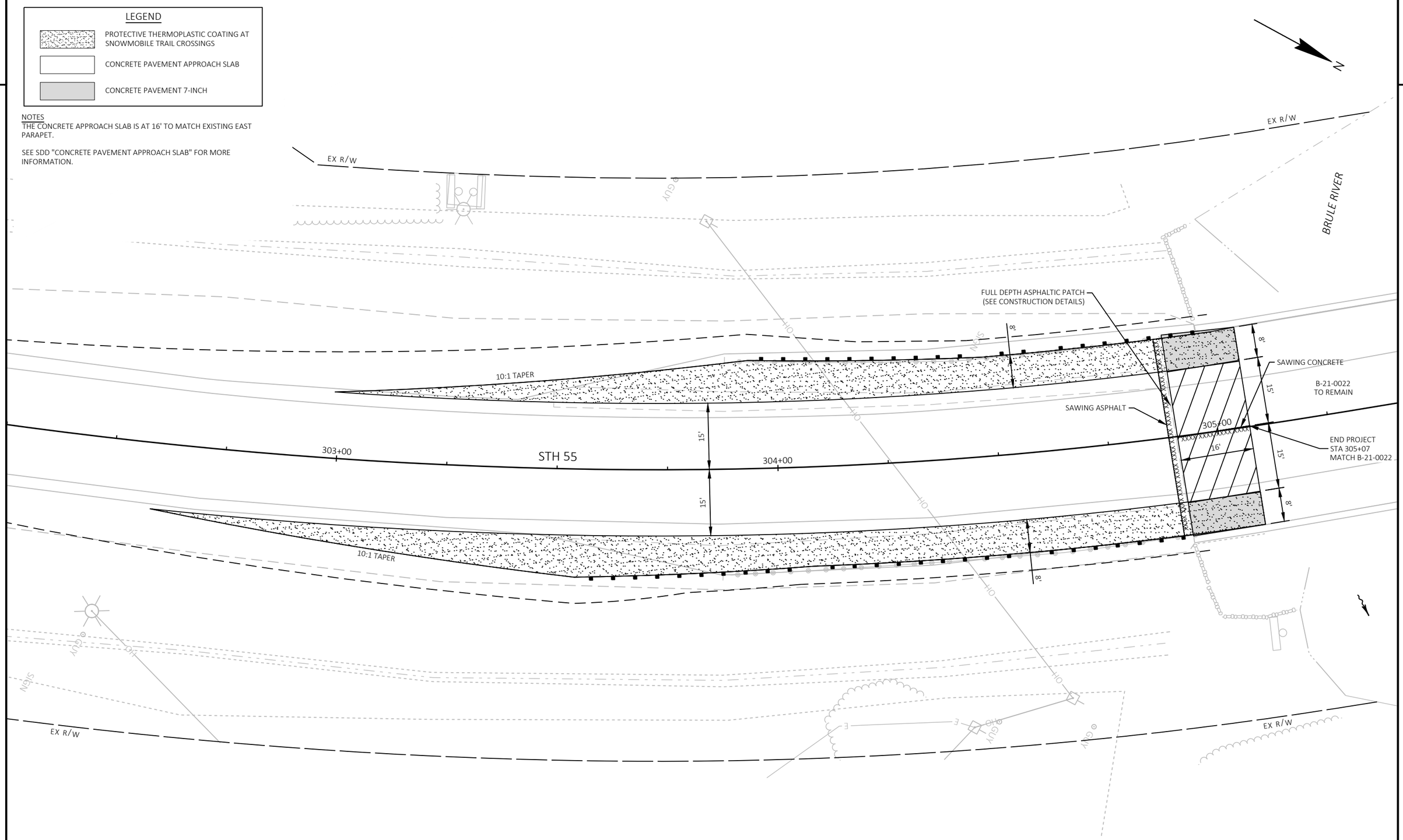
2

LEGEND

- PROTECTIVE THERMOPLASTIC COATING AT SNOWMOBILE TRAIL CROSSINGS
- CONCRETE PAVEMENT APPROACH SLAB
- CONCRETE PAVEMENT 7-INCH

NOTES
THE CONCRETE APPROACH SLAB IS AT 16' TO MATCH EXISTING EAST PARAPET.

SEE SDD "CONCRETE PAVEMENT APPROACH SLAB" FOR MORE INFORMATION.



PROJECT NO: 9165-13-71	HWY: STH 55	COUNTY: FOREST	CONSTRUCTION DETAILS - APPROACH SLAB REPLACEMENT AND THERMOPLASTIC COATING	SHEET 26	E

FILE NAME : P:\53XX\5387.DP.21.STH55.FOR\CADDS\91651371\SHEETSPLAN\021004-CD.DWG
LAYOUT NAME - 13

PLOT DATE : 10/14/2022 3:05 PM PLOT BY : NICK MENNINGA PLOT NAME : PLOT SCALE : 1 IN:20 FT

2

N

WISCONSIN
MICHIGAN

ELVOY CREEK

UNNAMED STREAM

UNNAMED STREAM

MAY LAKE

LAKEVIEW LN

4TH ST
3RD ST
2ND ST
1ST ST

SYDNEY RD

STH 55

40

80

120

160

200

240

280

BEGIN PROJECT
STA 0+83

STH 70

HOLT RD

WEST ALLEN CREEK

ALLEN CREEK

2526 RD

WILSON BASSETT RD

SPENCER ST

CTH A

RIDOLPHI RD

BRULE RIVER

MEGS LN

MCINTOSH RD

UNNAMED STREAM

UNNAMED STREAM

CHEQUAMEGON-NICOLET
NATIONAL FOREST

TOWN OF ALVIN

M1-6
24"X24"

55

ROAD
WORK
AHEAD

W20-1A

ROAD WORK
NEXT 2 MILES
G20-1
60"X24"

ROAD WORK
NEXT 4 MILES
G20-1
60"X24"

ROAD WORK
NEXT 2 MILES
G20-1
60"X24"

ROAD WORK
NEXT 4 MILES
G20-1
60"X24"

ROAD WORK
NEXT 6 MILES
G20-1
60"X24"

HWY 55
ROAD CLOSED
BEGINS XXX-XX
G20-57C
72"X36"

ROAD WORK
NEXT 6 MILES
G20-1
60"X24"

HWY 55
ROAD CLOSED
BEGINS XXX-XX
G20-57C
72"X36"

B-21-0022
TO REMAIN

END PROJECT
STA 305+07

LEGEND

1. PLACE TRAFFIC CONTROL SIGNS PER SDD "TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45 M.P.H. OR GREATER, TWO WAY UNDIVIDED ROAD OPEN TO TRAFFIC".
2. PLACE TRAFFIC CONTROL SIGNS PER "TYPICAL SIDEROAD APPROACH WARNING SIGN DETAIL" IN SDD "TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45 M.P.H. OR GREATER, TWO WAY UNDIVIDED ROAD OPEN TO TRAFFIC".
3. PLACE TRAFFIC CONTROL SIGNS AND DRUMS PER SDD "TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY" IN AREAS OF GUARDRAIL REPLAECMENT.
4. PLACE TRAFFIC CONTROL SIGNS PER "TYPICAL SIDEROAD APPROACH WARNING SIGNS 40 M.P.H OR LESS, TWO WAY UNDIVIDED ROAD OPEN TO TRAFFIC."

TRAFFIC CONTROL GENERAL NOTES

1. ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.
2. "WO" SIGNS ARE THE SAME AS "W" SIGNS EXCEPT THE BACKGROUND IS ORANGE.
3. IF CONTRACTOR ELECTS TO DO ANY WORK PRIOR TO DETOUR PLACE G20-57 7 DAYS BEFORE PROJECT AND REMOVE WHEN CONSTRUCTION BEGINS.
4. PLACE G20-57C SIGNS 7 DAYS PRIOR TO THE EXPECTED START OF THE DETOUR. ADJUST THE DATE ACCORDINGLY. REMOVE WHEN CONSTRUCTION BEGINS.
5. PLACE TRAFFIC CONTROL SIGNS PER "TRAFFIC CONTROL, DROP-OFF SIGNING" DURING MILL, CIR, AND OVERLAY OPERATIONS AS NEEDED.

PROJECT NO: 9165-13-71	HWY: STH 55	COUNTY: FOREST	TRAFFIC CONTROL - OVERVIEW	SHEET 27	E

FILE NAME : P:\53XX\5387.DP.21.STH55.FOR\CADDS\91651371\SHEETSPLAN\025101-TC.DWG
LAYOUT NAME - 01
PLOT DATE : 10/14/2022 3:10 PM PLOT BY : NICK MENNINGA PLOT NAME : PLOT SCALE : 1 IN:2000 FT
WISDOT/CADDS SHEET 44

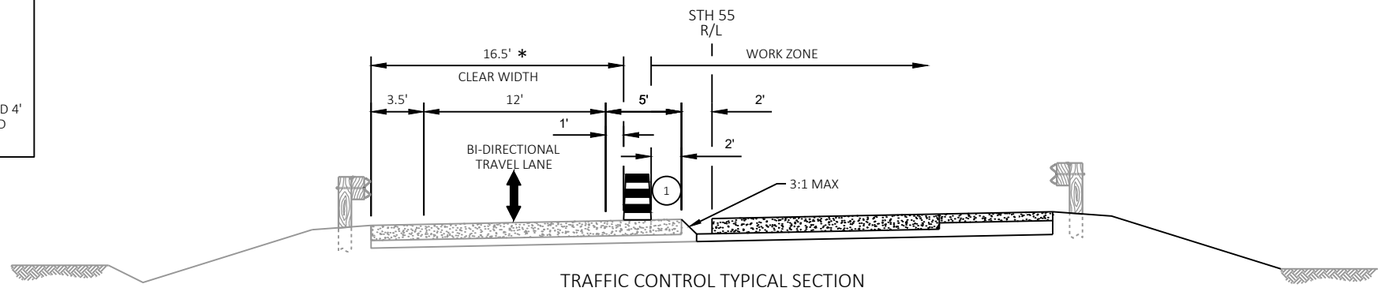
2

LEGEND

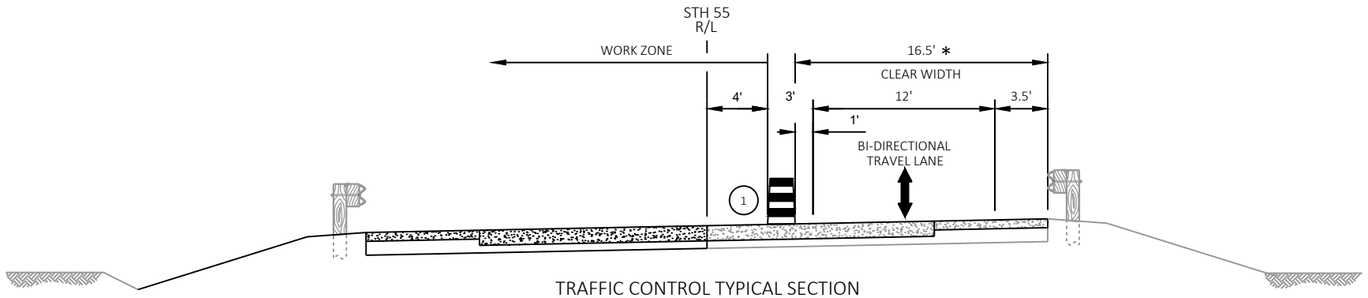
TRAFFIC CONTROL DRUM

TRAFFIC CONTROL FLOW ARROW

(1) MOVE TRAFFIC CONTROL DRUMS 2' IN STAGE 1 AND 4' IN STAGE 2 TO EDGE OF PROPOSED WORK TOWARD CENTERLINE DURING NON-WORKING HOURS.



TRAFFIC CONTROL TYPICAL SECTION
STH 55
STAGE 1 CONCRETE APPROACH SLAB REPLACEMENT AT B-21-0022



TRAFFIC CONTROL TYPICAL SECTION
STH 55
STAGE 2 CONCRETE APPROACH SLAB REPLACEMENT AT B-21-0022

NOTES
SEE TRAFFIC CONTROL PLAN SHEETS FOR MORE INFORMATION

* MAINTAIN 16' MINIMUM CLEAR WIDTH UNLESS OTHERWISE APPROVED BY THE ENGINEER

PROJECT NO: 9165-13-71	HWY: STH 55	COUNTY: FOREST	TRAFFIC CONTROL - TYPICAL SECTIONS	SHEET 28	E

LEGEND

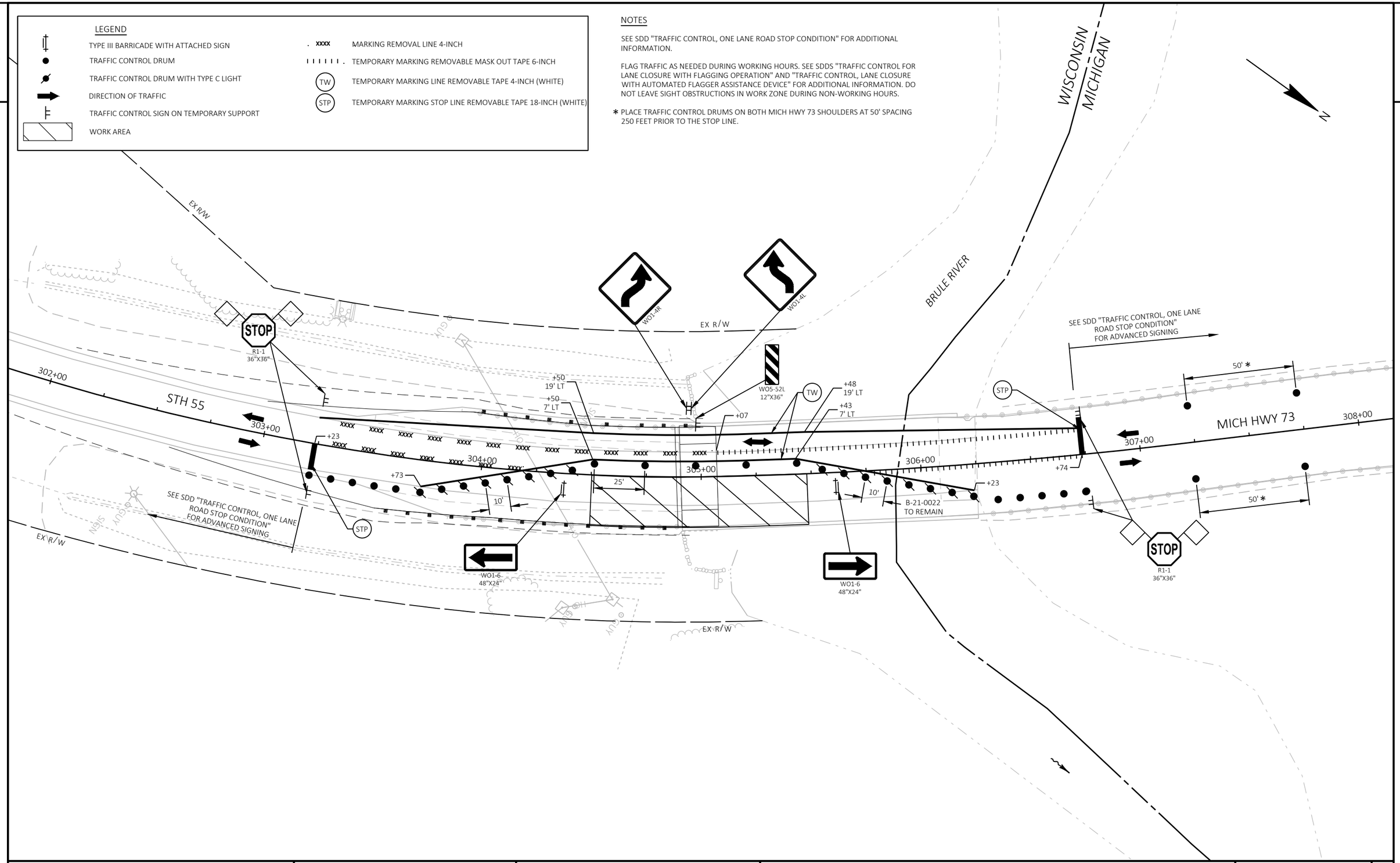
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C LIGHT
- DIRECTION OF TRAFFIC
- TRAFFIC CONTROL SIGN ON TEMPORARY SUPPORT
- WORK AREA
- xxxx MARKING REMOVAL LINE 4-INCH
- TEMPORARY MARKING REMOVABLE MASK OUT TAPE 6-INCH
- (TW) TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (WHITE)
- (STP) TEMPORARY MARKING STOP LINE REMOVABLE TAPE 18-INCH (WHITE)

NOTES

SEE SDD "TRAFFIC CONTROL, ONE LANE ROAD STOP CONDITION" FOR ADDITIONAL INFORMATION.

FLAG TRAFFIC AS NEEDED DURING WORKING HOURS. SEE SDDS "TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION" AND "TRAFFIC CONTROL, LANE CLOSURE WITH AUTOMATED FLAGGER ASSISTANCE DEVICE" FOR ADDITIONAL INFORMATION. DO NOT LEAVE SIGHT OBSTRUCTIONS IN WORK ZONE DURING NON-WORKING HOURS.

* PLACE TRAFFIC CONTROL DRUMS ON BOTH MICH HWY 73 SHOULDERS AT 50' SPACING 250 FEET PRIOR TO THE STOP LINE.



PROJECT NO: 9165-13-71	HWY: STH 55	COUNTY: FOREST	TRAFFIC CONTROL - STAGE 1	SHEET 29	E

FILE NAME : P:\53XX\5387.DP.21.STH55.FOR\CADDS\91651371\SHEETSPLAN\025103-TC.DWG
LAYOUT NAME - 01

PLOT DATE : 10/27/2022 9:28 AM PLOT BY : ERIK OLESON PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

LEGEND

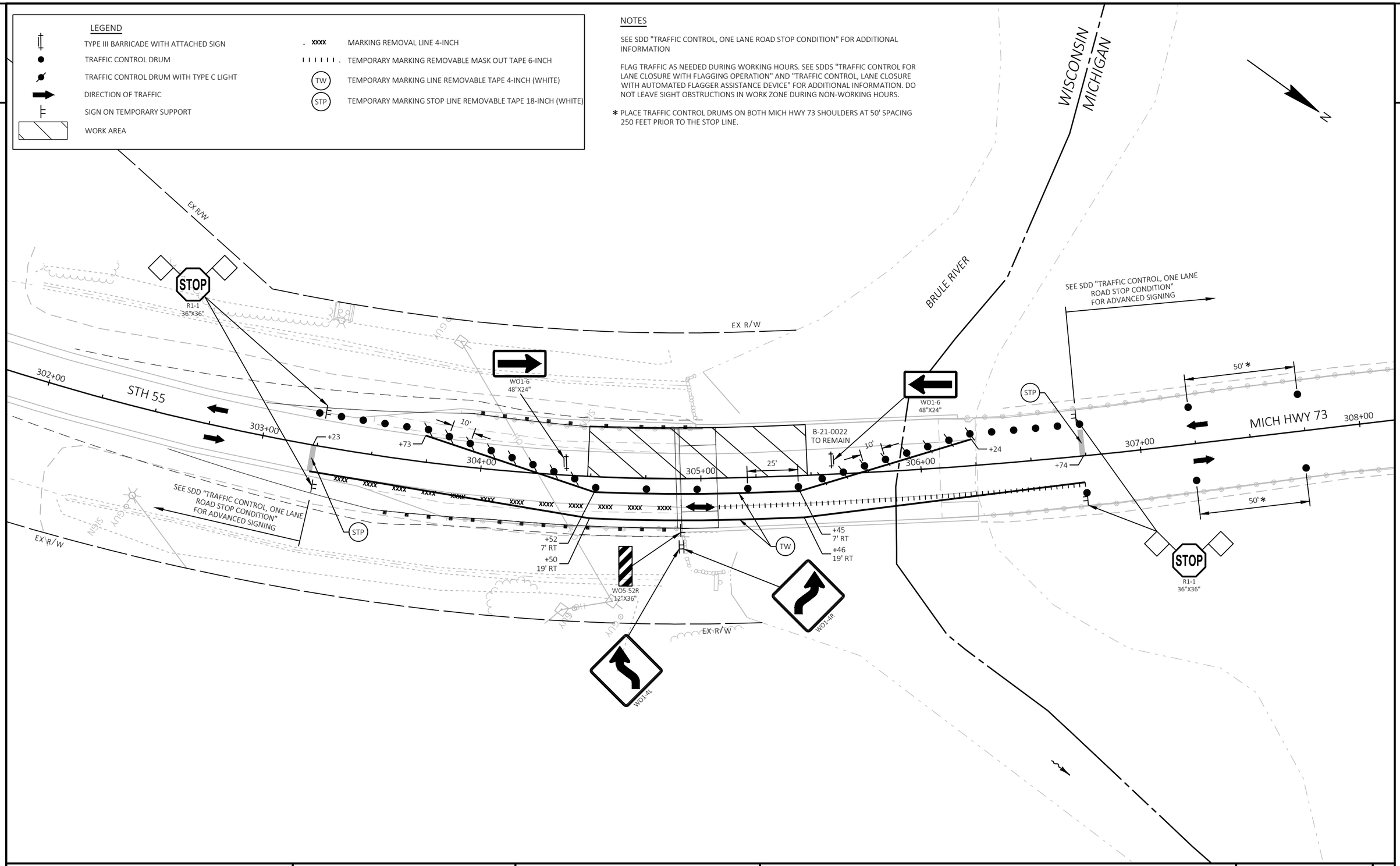
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C LIGHT
- DIRECTION OF TRAFFIC
- SIGN ON TEMPORARY SUPPORT
- WORK AREA
- . XXXX MARKING REMOVAL LINE 4-INCH
- TEMPORARY MARKING REMOVABLE MASK OUT TAPE 6-INCH
- (TW) TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (WHITE)
- (STP) TEMPORARY MARKING STOP LINE REMOVABLE TAPE 18-INCH (WHITE)

NOTES

SEE SDD "TRAFFIC CONTROL, ONE LANE ROAD STOP CONDITION" FOR ADDITIONAL INFORMATION

FLAG TRAFFIC AS NEEDED DURING WORKING HOURS. SEE SDDS "TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION" AND "TRAFFIC CONTROL, LANE CLOSURE WITH AUTOMATED FLAGGER ASSISTANCE DEVICE" FOR ADDITIONAL INFORMATION. DO NOT LEAVE SIGHT OBSTRUCTIONS IN WORK ZONE DURING NON-WORKING HOURS.

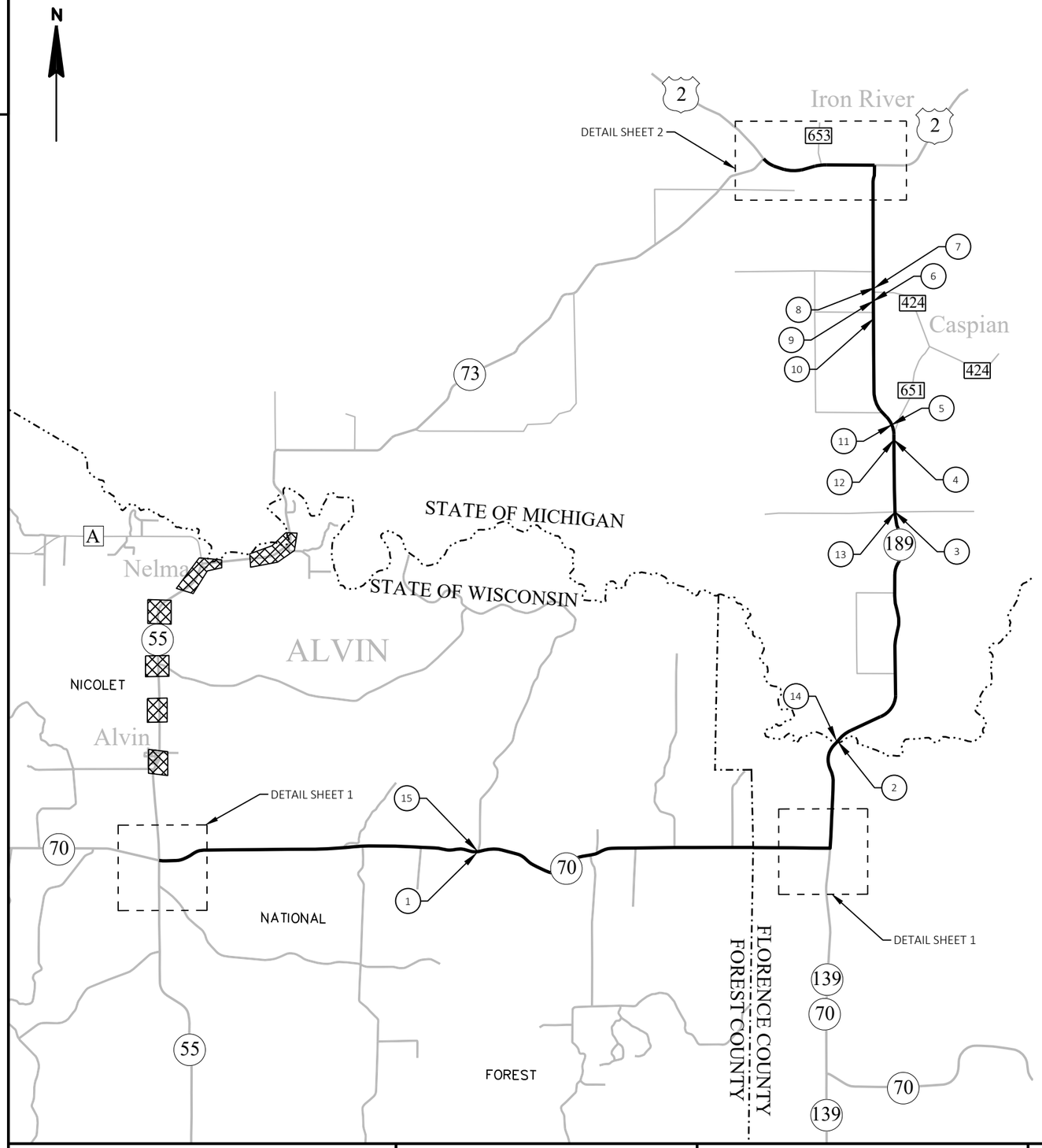
* PLACE TRAFFIC CONTROL DRUMS ON BOTH MICH HWY 73 SHOULDERS AT 50' SPACING 250 FEET PRIOR TO THE STOP LINE.



PROJECT NO: 9165-13-71	HWY: STH 55	COUNTY: FOREST	TRAFFIC CONTROL - STAGE 2	SHEET 30	E

FILE NAME : P:\53XX\5387.DP.21.STH55.FOR\CADDS\91651371\SHEETSPLAN\025104-TC.DWG
LAYOUT NAME - 01

PLOT DATE : 10/27/2022 9:28 AM PLOT BY : ERIK OLESON PLOT NAME : PLOT SCALE : 1 IN:40 FT



LEGEND

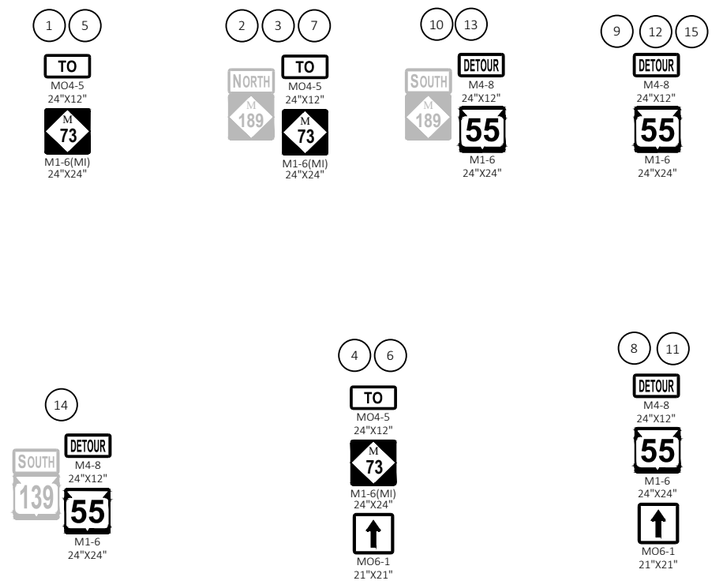
DETOUR ROUTE

CULVERT REPLACEMENT WORK ZONES

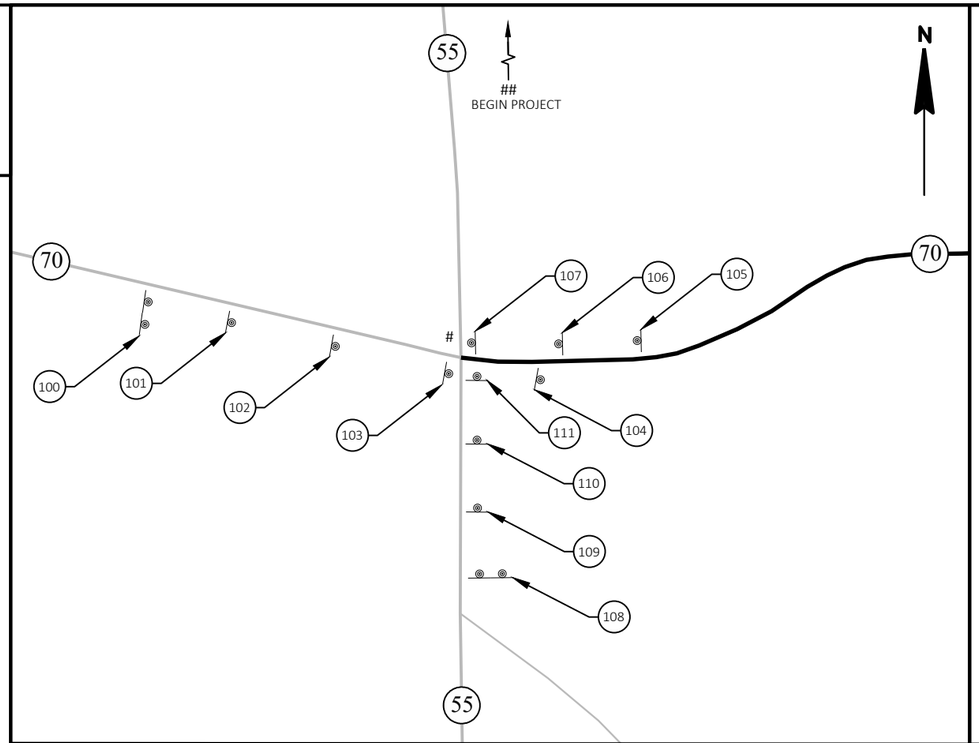
NOTES

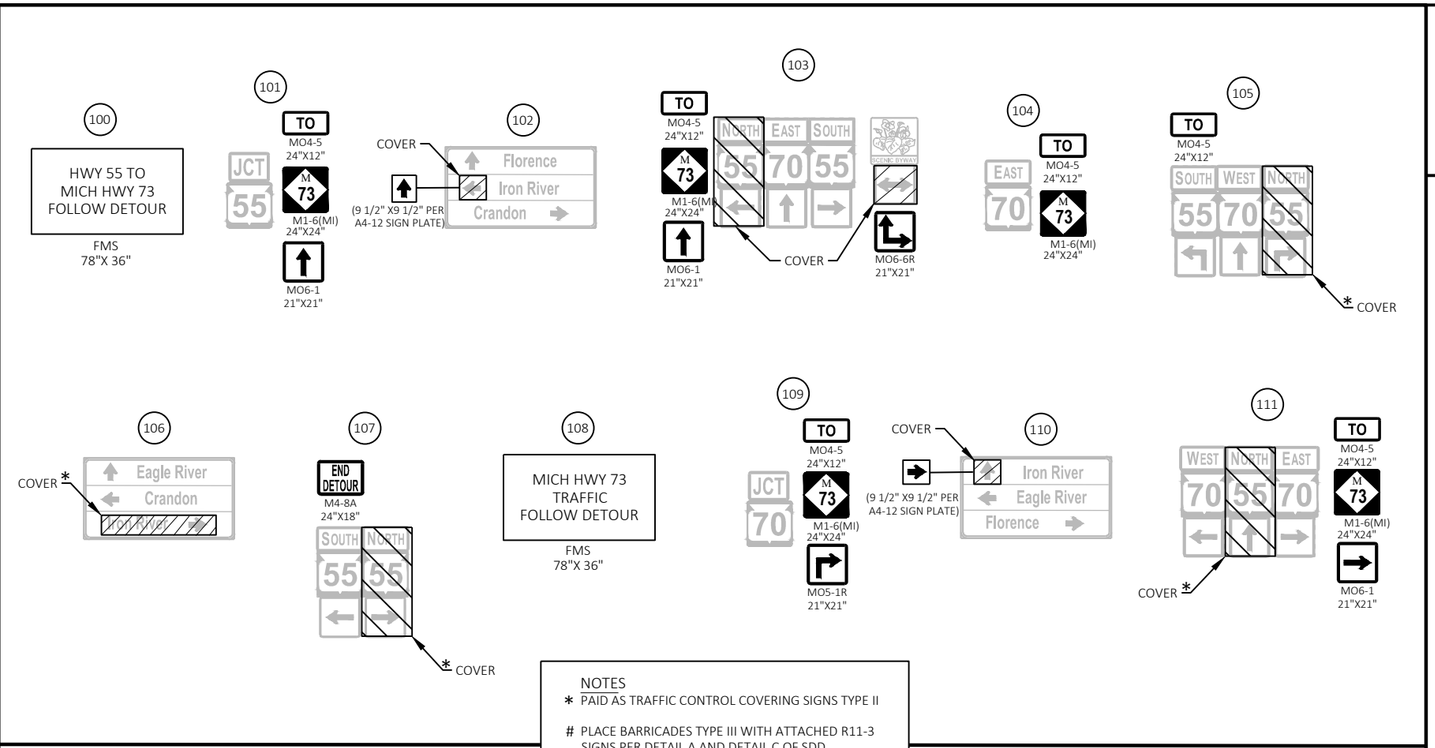
1. SEE SDD "BARRICADES AND SIGNS FOR MAINLINE CLOSURES" AND "DETOUR SIGNING FOR MAINLINE CLOSURES" FOR SPACING AND PLACEMENT OF SIGNS AND OTHER DEVICES.

2. DETOUR IS IN PLACE DURING CULVERT REPLACEMENTS.



PROJECT NO: 9165-13-71	HWY: STH 55	COUNTY: FOREST	DETOUR	SHEET 31	E



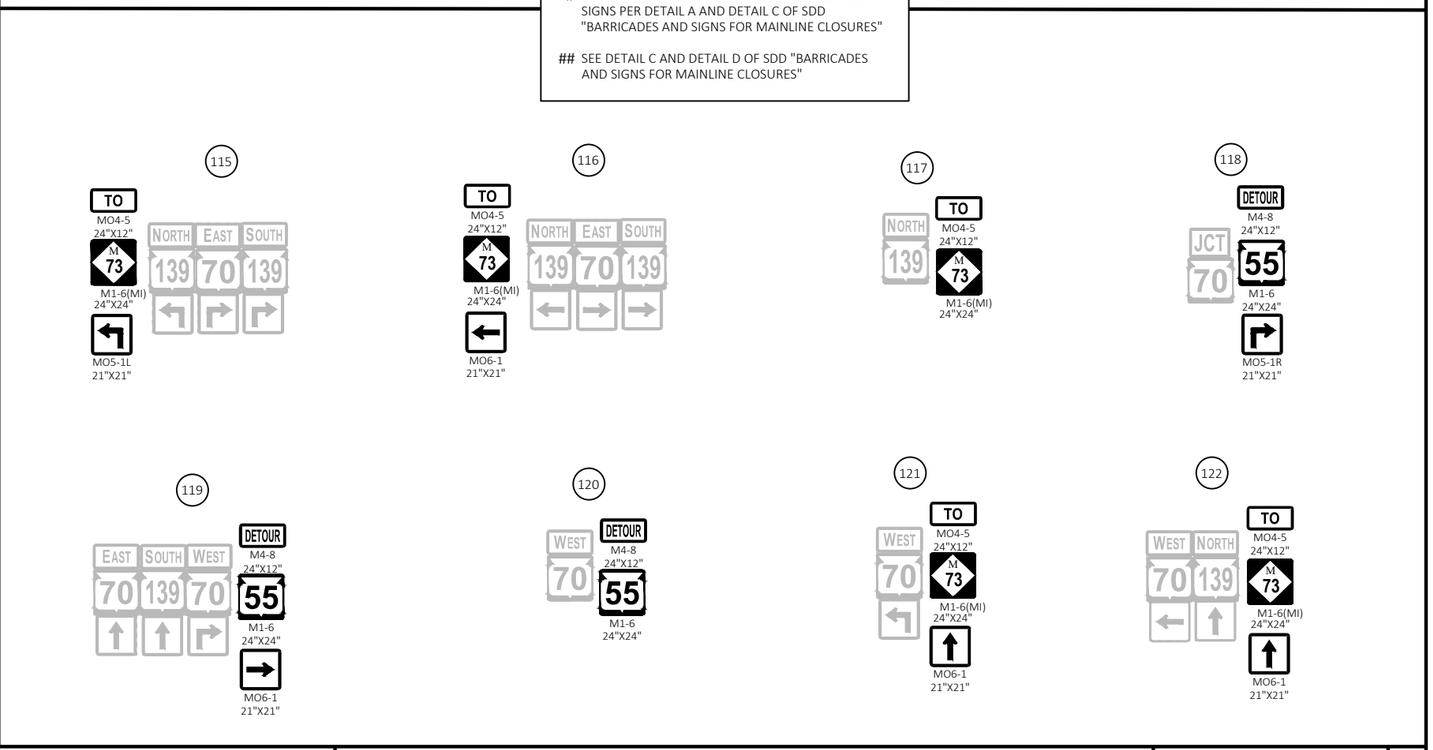


NOTES

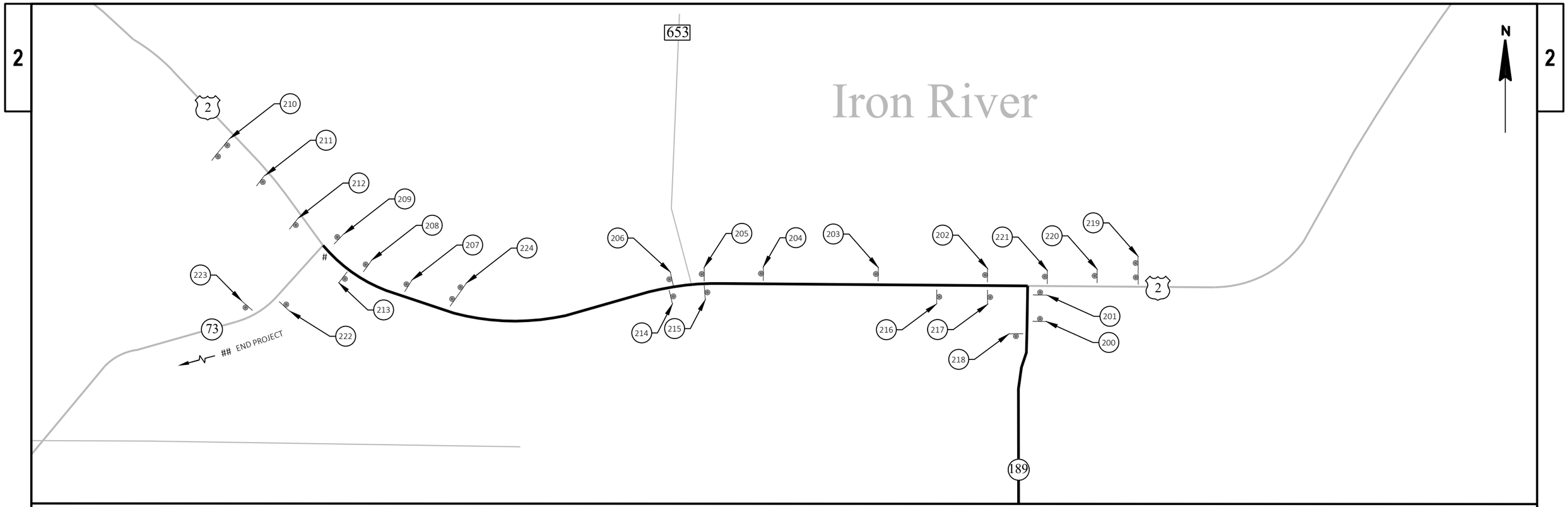
* PAID AS TRAFFIC CONTROL COVERING SIGNS TYPE II

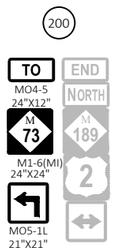
\# PLACE BARRICADES TYPE III WITH ATTACHED R11-3 SIGNS PER DETAIL A AND DETAIL C OF SDD "BARRICADES AND SIGNS FOR MAINLINE CLOSURES"

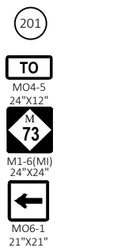
SEE DETAIL C AND DETAIL D OF SDD "BARRICADES AND SIGNS FOR MAINLINE CLOSURES"

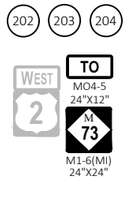


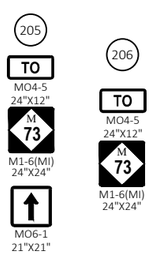
PROJECT NO: 9165-13-71	HWY: STH 55	COUNTY: FOREST	DETOUR - DETAIL SHEET 1	SHEET 32	E

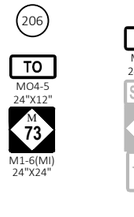


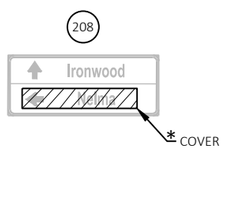


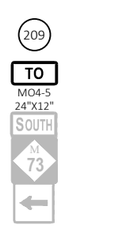


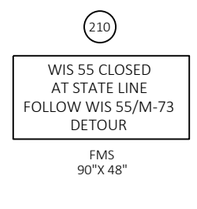


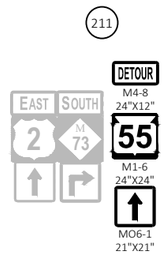


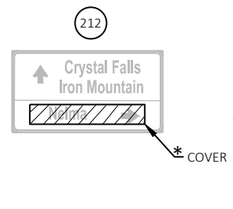


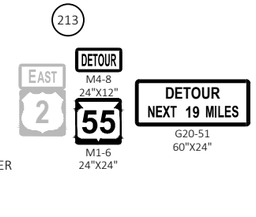


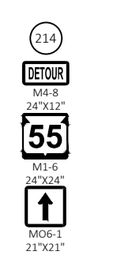


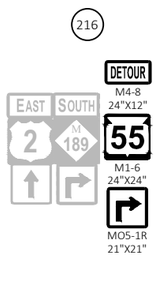


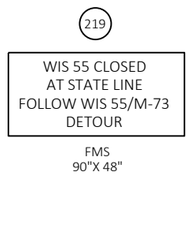


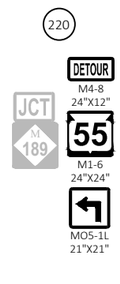


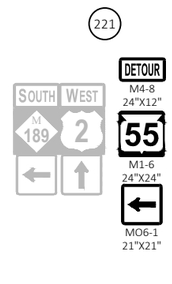


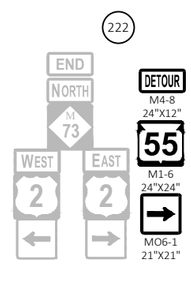


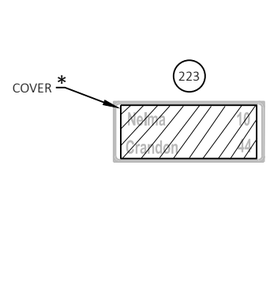


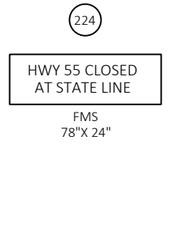












NOTES

* PAID AS TRAFFIC CONTROL COVERING SIGNS TYPE II

\# PLACE BARRICADES TYPE III WITH ATTACHED R11-3 SIGNS PER DETAIL A AND DETAIL C OF SDD "BARRICADES AND SIGNS FOR MAINLINE CLOSURES"

SEE DETAIL C AND DETAIL D OF SDD "BARRICADES AND SIGNS FOR MAINLINE CLOSURES"

PROJECT NO: 9165-13-71	HWY: STH 55	COUNTY: FOREST	DETOUR - DETAIL SHEET 2	SHEET 33	E

FILE NAME : P:\53XX\5387.DP.21.STH55.FOR\CADDS\91651371\SHEETSPLAN\027001-DT.DWG
LAYOUT NAME - 03
PLOT DATE : 10/27/2022 10:56 AM
PLOT BY : ERIK OLESON
PLOT NAME :
PLOT SCALE : 1 IN:1000 FT
WISDOT/CADDS SHEET 42

9165-13-71

Line	Item	Item Description	Unit	Total	Qty
0002	201.0205	Grubbing	STA	2.000	2.000
0004	203.0100	Removing Small Pipe Culverts	EACH	12.000	12.000
0006	204.0100	Removing Concrete Pavement	SY	84.000	84.000
0008	204.0110	Removing Asphaltic Surface	SY	255.000	255.000
0010	204.0115	Removing Asphaltic Surface Butt Joints	SY	60.000	60.000
0012	204.0120	Removing Asphaltic Surface Milling	SY	88,790.000	88,790.000
0014	204.0165	Removing Guardrail	LF	470.000	470.000
0016	204.0180	Removing Delineators and Markers	EACH	21.000	21.000
0018	205.0100	Excavation Common	CY	4,473.000	4,473.000
0020	211.0101	Prepare Foundation for Asphaltic Paving (project) 01. 9165-13-71	EACH	1.000	1.000
0022	211.0400	Prepare Foundation for Asphaltic Shoulders	STA	587.000	587.000
0024	211.0700.S	Prepare Foundation for CIR Base Layer (project) 01. 9165-13-71	EACH	1.000	1.000
0026	211.0800.S	Base Repair for CIR Layer	CY	500.000	500.000
0028	213.0100	Finishing Roadway (project) 01. 9165-13-71	EACH	1.000	1.000
0030	305.0110	Base Aggregate Dense 3/4-Inch	TON	300.000	300.000
0032	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	2,190.000	2,190.000
0034	305.0500	Shaping Shoulders	STA	146.000	146.000
0036	327.1000.S	CIR Asphaltic Base Layer	SY	85,972.000	85,972.000
0038	415.0070	Concrete Pavement 7-Inch	SY	29.000	29.000
0040	415.0410	Concrete Pavement Approach Slab	SY	55.000	55.000
0042	455.0605	Tack Coat	GAL	11,439.000	11,439.000
0044	455.0770.S	Asphalt Stabilizing Agent	TON	390.000	390.000
0046	460.2000	Incentive Density HMA Pavement	DOL	5,890.000	5,890.000
0048	460.5244	HMA Pavement 4 LT 58-34 S	TON	9,190.000	9,190.000
0050	465.0105	Asphaltic Surface	TON	5,270.000	5,270.000
0052	465.0110	Asphaltic Surface Patching	TON	4.000	4.000
0054	465.0450	Asphaltic Intersection Rumble Strips	SY	75.000	75.000
0056	520.3424	Culvert Pipe Class III-A Non-metal 24-Inch	LF	94.000	94.000
0058	522.0424	Culvert Pipe Reinforced Concrete Class IV 24-Inch	LF	168.000	168.000
0060	522.0430	Culvert Pipe Reinforced Concrete Class IV 30-Inch	LF	82.000	82.000
0062	522.1024	Apron Endwalls for Culvert Pipe Reinforced Concrete 24-Inch	EACH	12.000	12.000
0064	522.1030	Apron Endwalls for Culvert Pipe Reinforced Concrete 30-Inch	EACH	4.000	4.000
0066	522.2419	Culvert Pipe Reinforced Concrete Horizontal Elliptical Class HE-IV 19x30-Inch	LF	102.000	102.000
0068	522.2429	Culvert Pipe Reinforced Concrete Horizontal Elliptical Class HE-IV 29x45-Inch	LF	36.000	36.000
0070	522.2619	Apron Endwalls for Culvert Pipe Reinforced Concrete Horizontal Elliptical 19x30-Inch	EACH	6.000	6.000
0072	522.2629	Apron Endwalls for Culvert Pipe Reinforced Concrete Horizontal Elliptical 29x45-Inch	EACH	2.000	2.000
0074	606.0200	Riprap Medium	CY	52.000	52.000
0076	614.2300	MGS Guardrail 3	LF	312.500	312.500
0078	614.2330	MGS Guardrail 3 K	LF	187.500	187.500
0080	614.2500	MGS Thrie Beam Transition	LF	78.800	78.800
0082	614.2610	MGS Guardrail Terminal EAT	EACH	4.000	4.000
0084	618.0100	Maintenance And Repair of Haul Roads (project) 01. 9165-13-71	EACH	1.000	1.000
0086	619.1000	Mobilization	EACH	1.000	1.000
0088	624.0100	Water	MGAL	55.000	55.000
0090	625.0100	Topsoil	SY	3,510.000	3,510.000
0092	628.1504	Silt Fence	LF	4,450.000	4,450.000
0094	628.1520	Silt Fence Maintenance	LF	4,450.000	4,450.000
0096	628.1905	Mobilizations Erosion Control	EACH	4.000	4.000
0098	628.1910	Mobilizations Emergency Erosion Control	EACH	4.000	4.000

9165-13-71

Line	Item	Item Description	Unit	Total	Qty
0100	628.2004	Erosion Mat Class I Type B	SY	1,845.000	1,845.000
0102	628.2006	Erosion Mat Urban Class I Type A	SY	1,225.000	1,225.000
0104	628.2027	Erosion Mat Class II Type C	SY	440.000	440.000
0106	628.7504	Temporary Ditch Checks	LF	120.000	120.000
0108	628.7555	Culvert Pipe Checks	EACH	60.000	60.000
0110	628.7570	Rock Bags	EACH	85.000	85.000
0112	629.0210	Fertilizer Type B	CWT	2.300	2.300
0114	630.0130	Seeding Mixture No. 30	LB	70.000	70.000
0116	630.0500	Seed Water	MGAL	80.000	80.000
0118	633.5200	Markers Culvert End	EACH	46.000	46.000
0120	638.2102	Moving Signs Type II	EACH	5.000	5.000
0122	642.5201	Field Office Type C	EACH	1.000	1.000
0124	643.0300	Traffic Control Drums	DAY	786.000	786.000
0126	643.0420	Traffic Control Barricades Type III	DAY	192.000	192.000
0128	643.0705	Traffic Control Warning Lights Type A	DAY	288.000	288.000
0130	643.0715	Traffic Control Warning Lights Type C	DAY	192.000	192.000
0132	643.0900	Traffic Control Signs	DAY	3,834.000	3,834.000
0134	643.0920	Traffic Control Covering Signs Type II	EACH	7.000	7.000
0136	643.1000	Traffic Control Signs Fixed Message	SF	148.000	148.000
0138	643.3105	Temporary Marking Line Paint 4-Inch	LF	127,215.000	127,215.000
0140	643.3150	Temporary Marking Line Removable Tape 4-Inch	LF	700.000	700.000
0142	643.3850	Temporary Marking Stop Line Removable Tape 18-Inch	LF	24.000	24.000
0144	643.3960	Temporary Marking Removable Mask Out Tape 6-Inch	LF	530.000	530.000
0146	643.5000	Traffic Control	EACH	1.000	1.000
0148	645.0120	Geotextile Type HR	SY	161.000	161.000
0150	646.1020	Marking Line Epoxy 4-Inch	LF	60,900.000	60,900.000
0152	646.4520	Marking Line Same Day Epoxy 4-Inch	LF	44,550.000	44,550.000
0154	646.9000	Marking Removal Line 4-Inch	LF	560.000	560.000
0156	650.4500	Construction Staking Subgrade	LF	1,300.000	1,300.000
0158	650.5000	Construction Staking Base	LF	1,300.000	1,300.000
0160	650.6000	Construction Staking Pipe Culverts	EACH	12.000	12.000
0162	650.7000	Construction Staking Concrete Pavement	LF	16.000	16.000
0164	650.8000	Construction Staking Resurfacing Reference	LF	30,407.000	30,407.000
0166	650.9911	Construction Staking Supplemental Control (project) 01. 9165-13-71	EACH	1.000	1.000
0168	650.9920	Construction Staking Slope Stakes	LF	2,050.000	2,050.000
0170	690.0150	Sawing Asphalt	LF	1,360.000	1,360.000
0172	690.0250	Sawing Concrete	LF	16.000	16.000
0174	715.0720	Incentive Compressive Strength Concrete Pavement	DOL	500.000	500.000
0176	740.0440	Incentive IRI Ride	DOL	23,050.000	23,050.000
0178	SPV.0180	Special 01. Protective Thermoplastic Coating At Snowmobile Trail Crossings	SY	393.000	393.000

CLEARING AND GRUBBING ITEMS

STATION	TO	STATION	OFFSET	CLEARING STA	201.0205 GRUBBING STA
157+50	-	157+71	RT	--	--
194+11	-	194+22	LT&RT	--	--
209+51	-	209+67	LT	--	--
214+29	-	214+57	RT	--	--
216+44	-	216+66	LT	--	1
218+56	-	221+54	LT	--	1
250+84	-	250+94	LT	--	--
272+78	-	273+18	LT&RT	--	--
TOTALS				--	2

NOTE:
THE STATION RANGES WITHOUT QUANTITIES ARE INCIDENTAL CLEARING AND GRUBBING OF LIGHT BRUSH, SHRUBS, OTHER VEGETATION, AND TREES LESS THAN 3-INCHES IN DIAMETER

REMOVING SMALL PIPE CULVERT ITEMS

STATION	OFFSET	203.0100 REMOVING SMALL PIPE CULVERTS EACH	204.0180* REMOVING DELINEATORS AND MARKERS EACH	COMMENTS
66+75	LT&RT	1	2	18-INCH CPCPE
118+89	LT&RT	1	1	24-INCH CPCA
146+63	LT&RT	1	--	18-INCH X 24-INCH CPCA
157+61	LT&RT	1	1	24-INCH CPCA
170+36	LT&RT	1	--	24-INCH CPCA
194+18	LT&RT	1	--	24-INCH CPCS
209+76	LT&RT	1	--	30-INCH CPCA
214+46	LT&RT	1	1	24-INCH CPCA
219+08	LT&RT	1	1	24-INCH CPCA
250+88	LT&RT	1	--	24-INCH CPCS
270+99	LT&RT	1	--	24-INCH CPCA
272+95	LT&RT	1	--	24-INCH CPCA
TOTALS		12	6	

*ADDITIONAL QUANTITIES SHOWN ELSEWHERE

REMOVAL ITEMS

STATION	TO	STATION	OFFSET	204.0100 REMOVING CONCRETE PAVEMENT SY	204.0110 REMOVING ASPHALTIC SURFACE SY	204.0115 REMOVING ASPHALTIC SURFACE BUTT JOINTS SY	204.0120 REMOVING ASPHALTIC SURFACE MILLING SY
0+83	-	60+50	LT&RT	--	--	10	17,240
60+50	-	82+50	LT&RT	--	245	19	6,900
82+50	-	212+00	LT&RT	--	--	15	38,230
212+00	-	287+35	LT&RT	--	--	5	20,330
287+35	-	304+91	LT&RT	--	10	10	6,090
304+91	-	305+07	LT&RT	84	--	--	--
TOTALS				84	255	60	88,790

EARTHWORK

DIVISION	FROM/TO STATION	LOCATION	205.0100 EXCAVATION COMMON (NOTE 1)	SALVAGED/UNUSABLE PAVEMENT MATERIAL (NOTE 2)	AVAILABLE MATERIAL (NOTE 3)	UNEXPANDED FILL	EXPANDED FILL (NOTE 4)	MASS ORDINATE +/- (NOTE 5)
			CY	CY	CY	CY	CY FACTOR 1.25	CY
1	STA 66+22 - STA 67+28	CULVERT 2105000476	265	39	226	--	--	226
1	STA 118+36 - STA 119+41	CULVERT 2105000479	217	39	178	--	--	178
1	STA 146+10 - STA 147+16	CULVERT 2105000480	205	39	166	--	--	166
1	STA 157+08 - STA 158+13	CULVERT 2105000481	364	39	325	--	--	325
1	STA 169+83 - STA 170+88	CULVERT 2105000482	263	39	224	--	--	224
1	STA 193+65 - STA 194+72	CULVERT 2105000484	205	39	166	--	--	166
1	STA 209+15 - STA 210+37	CULVERT 2105000485	301	39	262	--	--	262
1	STA 213+92 - STA 214+99	CULVERT 2105000486	291	39	252	--	--	252
1	STA 218+56 - STA 219+61	CULVERT 2105000487	405	39	366	--	--	366
1	STA 250+35 - STA 251+41	CULVERT 2105000489	212	39	173	--	--	173
1	STA 270+37 - STA 271+61	CULVERT 2105000491	588	39	549	--	--	549
1	STA 272+42 - STA 273+48	CULVERT 2105000492	506	39	467	--	--	467
SUBTOTALS			3,822	468	3,354	0	0	3,354
2	STA 214+81 - STA 222+63	CTH A GUARDRAIL, LT	304	188	116	29	37	79
2	STA 302+07 - STA 305+01	BRULE RIVER GUARDRAIL, LT	182	72	110	5	5	105
2	STA 301+68 - STA 304+95	BRULE RIVER GUARDRAIL, RT	165	82	83	72	90	-7
SUBTOTALS			651	342	309	106	132	177
PROJECT TOTALS			4,473	810	3,663	106	132	3,531

NOTES:
1) SALVAGED/UNSUABLE PAVEMENT MATERIAL IS INCLUDED IN CUT
2) SALVAGED/UNUSABLE PAVEMENT MATERIAL = (AREA OF PROJECT PAVEMENT) * (TYPICAL DEPTH)
3) AVAILABLE MATERIAL = CUT - SALVAGED/UNUSABLE PAVEMENT MATERIAL
4) EXPANDED FILL FACTOR = (UNEXPANDED FILL) * (FILL FACTOR)
5) MASS ORDINATE = AVAILABLE MATERIAL - (EXPANDED FILL); POSITIVE INDICATES AN EXCESS OF MATERIAL

SHAPING SHOULDERS

STATION	TO	STATION	OFFSET	305.0500 STA
212+00	-	215+60	LT	4
212+75	-	287+35	RT	76
221+84	-	287+35	LT	67
TOTALS				146

BASE AGGREGATE ITEMS

STATION	TO	STATION	OFFSET	305.0110 BASE AGGREGATE DENSE 3/4-INCH TON	305.0120 BASE AGGREGATE DENSE 1 1/4-INCH TON	COMMENTS
66+22	-	67+27	LT&RT	1	171	CULVERT REPLACEMENT
112+80	-	119+41	LT&RT	20	--	MAINLINE
118+36	-	119+41	LT&RT	5	146	CULVERT REPLACEMENT
146+10	-	147+16	LT&RT	5	148	CULVERT REPLACEMENT
157+08	-	158+13	LT&RT	5	146	CULVERT REPLACEMENT
169+83	-	170+88	LT&RT	5	146	CULVERT REPLACEMENT
193+65	-	194+72	LT&RT	5	149	CULVERT REPLACEMENT
209+15	-	210+37	LT&RT	5	170	CULVERT REPLACEMENT
213+92	-	214+99	LT&RT	8	155	CULVERT REPLACEMENT
215+60	-	221+84	LT	44	135	GUARDRAIL
218+56	-	219+61	LT&RT	8	152	CULVERT REPLACEMENT
250+35	-	251+41	LT&RT	8	154	CULVERT REPLACEMENT
270+37	-	271+61	LT&RT	9	180	CULVERT REPLACEMENT
272+42	-	273+48	LT&RT	8	154	CULVERT REPLACEMENT
287+35	-	302+07	LT&RT	108	--	MAINLINE
302+07	-	304+91	LT&RT	58	176	GUARDRAIL
304+91	-	305+07	LT&RT	--	9	APPROACH SLAB
TOTALS				300	2,190	

ASPHALTIC ITEMS

STATION	TO	STATION	OFFSET	211.0101 PREPARE FOUNDATION FOR ASPHALTIC PAVING (9165-13-71) EACH	211.0400 PREPARE FOUNDATION FOR ASPHALTIC SHOULDERS STA	211.0700.S.01 PREPARE FOUNDATION FOR CIR BASE LAYER (9165-13-71) EACH	211.0800.S BASE REPAIR FOR CIR LAYER CY	327.1000.S COLD IN-PLACE RECYCLING (CIR) ASPHALT BASE LAYER SY	455.0605 TACK COAT GAL	455.0770.S ASPHALT STABILIZING AGENT TON	460.5244 HMA PAVEMENT 4 LT 58-34 S TON	465.0105 ASPHALTIC SURFACE TON	465.0110 ASPHALTIC SURFACE PATCHING TON	465.0450 ASPHALTIC INTERSECTION RUMBLE STRIPS SY	COMMENTS
0+83	-	60+50	LT&RT	--	122	--	--	17,238	2,148	77	1,755	752	--	75	MAINLINE PAVING
60+50	-	82+50	LT&RT	--	44	--	--	6,844	915	31	750	320	--	--	MAINLINE PAVING
65+15	-	69+59	RT	--	--	--	--	--	21	--	70	--	--	--	DRIVEWAY
66+22	-	67+27	LT&RT	--	--	--	--	--	38	--	--	125	--	--	CULVERT REPLACEMENT
82+50	-	112+80	LT&RT	--	60	--	--	8,753	1,091	40	891	384	--	--	MAINLINE PAVING
112+80	-	119+41	LT&RT	1	14	--	--	--	139	--	194	--	--	--	MAINLINE PAVING
118+36	-	119+41	LT&RT	--	--	--	--	--	30	--	--	120	--	--	CULVERT REPLACEMENT
119+41	-	212+00	LT&RT	--	184	--	--	26,748	3,431	123	2,805	1,201	--	--	MAINLINE PAVING
146+10	-	147+16	LT&RT	--	--	--	--	--	31	--	--	120	--	--	CULVERT REPLACEMENT
157+08	-	158+13	LT&RT	--	--	--	--	--	30	--	--	120	--	--	CULVERT REPLACEMENT
169+83	-	170+88	LT&RT	--	--	--	--	--	30	--	--	120	--	--	CULVERT REPLACEMENT
193+65	-	194+72	LT&RT	--	--	--	--	--	31	--	--	120	--	--	CULVERT REPLACEMENT
209+15	-	210+37	LT&RT	--	--	--	--	--	36	--	--	140	--	--	CULVERT REPLACEMENT
209+80	-	212+75	RT	--	4	--	--	--	6	--	22	--	--	--	PAVED SHOULDER WIDENING
212+00	-	287+35	LT&RT	--	152	--	--	20,093	2,534	90	2,070	887	--	--	MAINLINE PAVING
213+92	-	214+99	LT&RT	--	--	--	--	--	29	--	--	112	--	--	CULVERT REPLACEMENT
215+60	-	221+84	LT	--	7	--	--	138	17	1	14	6	--	--	GUARDRAIL PAVING
218+56	-	219+61	LT&RT	--	--	--	--	--	28	--	--	110	--	--	CULVERT REPLACEMENT
250+35	-	251+41	LT&RT	--	--	--	--	--	28	--	--	111	--	--	CULVERT REPLACEMENT
270+37	-	271+61	LT&RT	--	--	--	--	--	38	--	--	148	--	--	CULVERT REPLACEMENT
272+42	-	273+48	LT&RT	--	--	--	--	--	28	--	--	111	--	--	CULVERT REPLACEMENT
287+35	-	304+90	LT&RT	--	--	--	--	5,850	722	26	589	253	--	--	MAINLINE PAVING
302+59	-	304+90	LT&RT	--	--	--	--	306	37	1	30	13	--	--	GUARDRAIL PAVING
304+88	-	304+90	LT&RT	--	--	--	--	--	1	--	--	--	4	--	APPROACH SLAB PATCHING
PROJECT				--	--	1	500	--	--	--	--	--	--	--	EXCLUDES STATION 112+80 - STATION 119+41
TOTALS				1	587	1	500	85,972	11,439	390	9,190	5,270	4	75	

CULVERT PIPE ITEMS

STATION	OFFSET	204.0180* REMOVING DELINEATORS AND MARKERS EACH	633.5200* MARKERS CULVERT END EACH
11+13	LT&RT	1	2
23+60	LT&RT	1	2
34+23	LT&RT	1	2
46+90	LT&RT	1	2
64+03	LT&RT	2	2
71+16	LT&RT	2	2
81+75	LT&RT	2	2
176+42	LT&RT	1	2
237+60	LT&RT	1	2
266+52	LT&RT	2	2
291+67	LT&RT	1	2
TOTALS		15	22

*ADDITIONAL QUANTITIES SHOWN ELSEWHERE

CULVERT PIPE ITEMS

STATION	OFFSET	520.3424 CULVERT PIPE CLASS III-A NON-METAL 24-INCH LF	522.0424 CULVERT PIPE REINFORCED CONCRETE CLASS IV 24-INCH LF	522.0430 CULVERT PIPE REINFORCED CONCRETE CLASS IV 30-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	522.2419 CULVERT PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL CLASS HE-IV 19X30-INCH LF	522.2429 CULVERT PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL CLASS HE-IV 29X45-INCH LF	522.2619 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL 19X30-INCH EACH	522.2629 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL 29X45-INCH EACH	633.5200* MARKERS CULVERT END EACH
66+75	LT&RT	--	--	--	--	--	38	--	2	--	2
118+89	LT&RT	--	--	--	--	--	32	--	2	--	2
146+63	LT&RT	--	--	--	--	--	32	--	2	--	2
157+61	LT&RT	--	40	--	2	--	--	--	--	--	2
170+36	LT&RT	--	36	--	2	--	--	--	--	--	2
194+18	LT&RT	--	30	--	2	--	--	--	--	--	2
209+76	LT&RT	--	--	52	--	2	--	--	--	--	2
214+46	LT&RT	--	--	--	--	--	--	36	--	2	2
219+08	LT&RT	44	--	--	2	--	--	--	--	--	2
250+88	LT&RT	--	--	30	--	2	--	--	--	--	2
270+99	LT&RT	--	62	--	2	--	--	--	--	--	2
272+95	LT&RT	50	--	--	2	--	--	--	--	--	2
TOTALS		94	168	82	12	4	102	36	6	2	24

*ADDITIONAL QUANTITIES SHOWN ELSEWHERE

NOTE:
1) CULVERT PIPE INVERTS ARE SHOWN ON CROSS SECTIONS

CONCRETE PAVEMENT APPROACH SLAB ITEMS

LOCATION	STATION	TO	STATION	OFFSET	415.0410 CONCRETE PAVEMENT APPROACH SLAB SY	415.0070 CONCRETE PAVEMENT 7-INCH SY
B-21-0022	304+91	-	305+07	LT&RT	55	29
TOTALS					55	29

RIPRAP ITEMS

STATION		OFFSET	606.0200 RIPRAP MEDIUM CY	645.0120 GEOTEXTILE TYPE HR SY
118+89		LT	2	8
194+18		LT	4	13
209+96		RT	1	6
214+46		LT	2	9
219+08		LT	30	84
250+88		LT&RT	9	29
272+95		LT	4	12
TOTALS			52	161

EROSION CONTROL MOBILIZATION

LOCATION	628.1905 MOBILIZATIONS EROSION CONTROL EACH	628.1910 MOBILIZATIONS EMERGENCY EROSION CONTROL EACH
PROJECT	4	4
TOTALS	4	4

RESTORATION ITEMS

STATION	TO	STATION	OFFSET	625.0100 TOPSOIL SY	628.2004 EROSION MAT CLASS I TYPE B SY	628.2006 EROSION MAT URBAN CLASS I TYPE A SY	628.2027 EROSION MAT CLASS II TYPE C SY	629.0210 FERTILIZER TYPE B CWT	630.0130 SEEDING MIXTURE NO. 30 LB	630.0500 SEED WATER MGAL
66+22	-	67+28	LT&RT	86	--	86	--	0.1	2	2
118+36	-	119+41	LT&RT	103	103	--	--	--	2	3
146+10	-	147+16	LT&RT	96	96	--	--	--	2	3
157+08	-	158+13	LT&RT	155	155	--	--	--	3	4
169+83	-	170+88	LT&RT	138	138	--	--	0.1	3	4
193+65	-	194+72	LT&RT	106	106	--	--	0.1	2	3
209+15	-	212+75	LT&RT	227	--	227	--	0.2	5	6
213+93	-	222+63	LT&RT	803	235	214	354	0.5	15	10
250+35	-	251+41	LT&RT	93	93	--	--	--	2	3
270+37	-	271+61	LT&RT	165	--	165	--	0.1	3	4
272+42	-	273+48	LT&RT	199	86	113	--	0.2	4	5
302+07	-	304+97	LT&RT	639	464	175	--	0.5	12	15
UNDISTRIBUTED				700	369	245	86	0.5	15	18
TOTALS				3,510	1,845	1,225	440	2.3	70	80

NOTE: DO NOT APPLY FERTILIZER WITHIN 20-FT OF A WETLAND

EROSION CONTROL ITEMS

STATION	TO	STATION	OFFSET	628.1504 SILT FENCE LF	628.1520 SILT FENCE MAINTENANCE LF	628.7504 TEMPORARY DITCH CHECKS LF	628.7555 CULVERT PIPE CHECKS EACH	628.7570 ROCK BAGS EACH
66+22	-	67+28	LT&RT	200	200	--	3	--
118+36	-	119+41	LT&RT	220	220	--	4	--
146+10	-	147+16	LT&RT	230	230	--	4	--
157+08	-	158+13	LT&RT	230	230	15	4	--
169+83	-	170+88	LT&RT	230	230	--	4	--
193+65	-	194+72	LT&RT	220	220	--	4	--
209+15	-	212+75	LT&RT	410	410	--	5	--
213+93	-	222+63	LT&RT	620	620	45	10	18
250+35	-	251+41	LT&RT	200	200	--	--	--
270+37	-	271+61	LT&RT	270	270	--	4	--
272+42	-	273+48	LT&RT	220	220	--	4	--
302+07	-	304+97	LT&RT	510	510	30	--	50
UNDISTRIBUTED				890	890	30	14	17
TOTALS				4,450	4,450	120	60	85

MOVING SIGN ITEMS

STATION	OFFSET	SIGN MESSAGE	638.2102 MOVING SIGNS TYPE II EACH
209+77	LT	SOUTH / STH 55 / SCENIC BYWAY	1
220+14	LT	JCT / CTH A	1
221+35	LT	LEFT CURVE / 20 MPH	1
270+67	RT	CHEVRONS	1
304+45	LT	WELCOME TO WISCONSIN / FOREST COUNTY	1
TOTALS			5

TRAFFIC CONTROL COVERING SIGNS TYPE II

SIGN NUMBER	NUMBER OF CYCLES	643.0920 NO.	643.0920 EACH	COMMENTS
105	1	1	1	NORTH, STATE ROUTE 55, ADVANCED ARROW RIGHT
106	1	1	1	IRON RIVER
107	1	1	1	NORTH, STATE ROUTE 55, ARROW RIGHT
111	1	1	1	NORTH, STATE ROUTE 55, ARROW AHEAD
206	1	1	1	NELMA
210	1	1	1	NELMA
219	1	1	1	NELMA, CRANDON
			7	

TRAFFIC CONTROL ITEMS

LOCATION	STAGE DURATION DAYS	643.0300 TRAFFIC CONTROL DRUMS NO.	643.0300 TRAFFIC CONTROL DRUMS DAY	643.0420 TRAFFIC CONTROL BARRICADES TYPE III NO.	643.0420 TRAFFIC CONTROL BARRICADES TYPE III DAY	643.0705 TRAFFIC CONTROL WARNING LIGHTS TYPE A NO.	643.0705 TRAFFIC CONTROL WARNING LIGHTS TYPE A DAY	643.0715 TRAFFIC CONTROL WARNING LIGHTS TYPE C NO.	643.0715 TRAFFIC CONTROL WARNING LIGHTS TYPE C DAY	643.0900 TRAFFIC CONTROL SIGNS NO.	643.0900 TRAFFIC CONTROL SIGNS DAY
PROJECT	60	--	--	--	--	--	--	--	--	35	2,100
DETOUR	12	--	--	14	168	20	240	--	--	123	1,476
B-21-0022 APPROACH WORK	12	42	504	2	24	4	48	16	192	17	204
SHOULDER CLOSURES	6	47	282	--	--	--	--	--	--	9	54
TOTALS			786		192		288		192		3,834

TRAFFIC CONTROL SIGNS FIXED MESSAGE

LOCATION	SIGN SIZE W X H IN X IN	643.1000 SF	SIGN MESSAGE
SOUTH PROJECT LIMIT	72" X 36"	18.00	HWY 55 / ROAD CLOSED / BEGINS XXX-XX
NORTH PROJECT LIMIT	72" X 36"	18.00	HWY 55 / ROAD CLOSED / BEGINS XXX-XX
NORTHBOUND DETOUR ROUTE	78" X 36"	19.50	HWY 55 TO MICH HWY 73 FOLLOW DETOUR
NORTHBOUND DETOUR ROUTE	78" X 36"	19.50	MICH HWY 73 TRAFFIC FOLLOW DETOUR
NORTHBOUND DETOUR ROUTE	78" X 24"	13.00	WIS 55 CLOSED AT STATE LINE
SOUTHBOUND DETOUR ROUTE	90" X 48"	30.00	WIS 55 CLOSED AT STATE LINE FOLLOW WIS 55/M-73 DETOUR
SOUTHBOUND DETOUR ROUTE	90" X 48"	30.00	WIS 55 CLOSED AT STATE LINE FOLLOW WIS 55/M-73 DETOUR
TOTAL		148.00	

3

LONG LINE PAVEMENT MARKING ITEMS

STATION	TO	STATION	643.3105 TEMPORARY MARKING LINE PAINT 4-INCH SOLID YELLOW LF	643.3105 TEMPORARY MARKING LINE PAINT 4-INCH 4' LINE 46' SKIP YELLOW LF	646.1020 MARKING LINE EPOXY 4-INCH 3' LINE 9' SKIP WHITE LF	646.1020 MARKING LINE EPOXY 4-INCH SOLID WHITE LF	646.4520 MARKING LINE SAME DAY EPOXY 4-INCH SOLID YELLOW LF	646.4520 MARKING LINE SAME DAY EPOXY 4-INCH 12.5' LINE 37.5' SKIP YELLOW LF
0+83	-	305+07	121,350	3,930	50	60,850	40,450	4,100
CULVERT REPLACEMENTS			1,890	45	--	--	--	--
TOTALS			123,240	3,975	50	60,850	40,450	4,100
			127,215		60,900		44,550	

MARKING REMOVAL LINE AND TEMPORARY MARKING LINE ITEMS

STAGE	STATION	TO	STATION	643.3150 TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH WHITE LF	643.3850 TEMPORARY MARKING STOP LINE REMOVABLE TAPE 18-INCH WHITE LF	643.3960 TEMPORARY MARKING REMOVABLE MASK OUT TAPE 6-INCH LF	646.9000 MARKING REMOVAL LINE 4-INCH LF
1	303+23	-	306+74	351	24	365	378
2	303+23	-	306+74	349	--	165	182
TOTALS				700	24	530	560

3

PROTECTIVE THERMOPLASTIC COATING AT SNOWMOBILE TRAIL CROSSINGS

STATION	TO	STATION	OFFSET	SPV.0180.01 SY
	101+65		LT&RT	38
	201+23		LT&RT	39
302+59	-	305+07	RT	181
303+06	-	305+07	LT	135
TOTAL				393

GUARDRAIL ITEMS

STATION	TO	STATION	OFFSET	204.0165 REMOVING GUARDRAIL LF	614.2300 MGS GUARDRAIL 3 LF	614.2330 MGS GUARDRAIL 3 K LF	614.2500 MGS THRIE BEAM TRANSITION LF	614.2610 MGS GUARDRAIL TERMINAL EAT EACH
216+00	-	221+44	LT	250	250.0	187.5	--	2
303+54	-	304+95	RT	110	50.0	--	39.4	1
303+94	-	305+01	LT	110	12.5	--	39.4	1
TOTALS				470	312.5	187.5	78.8	4

WATER

LOCATION	624.0100 MGAL
PROJECT	55
TOTAL	55

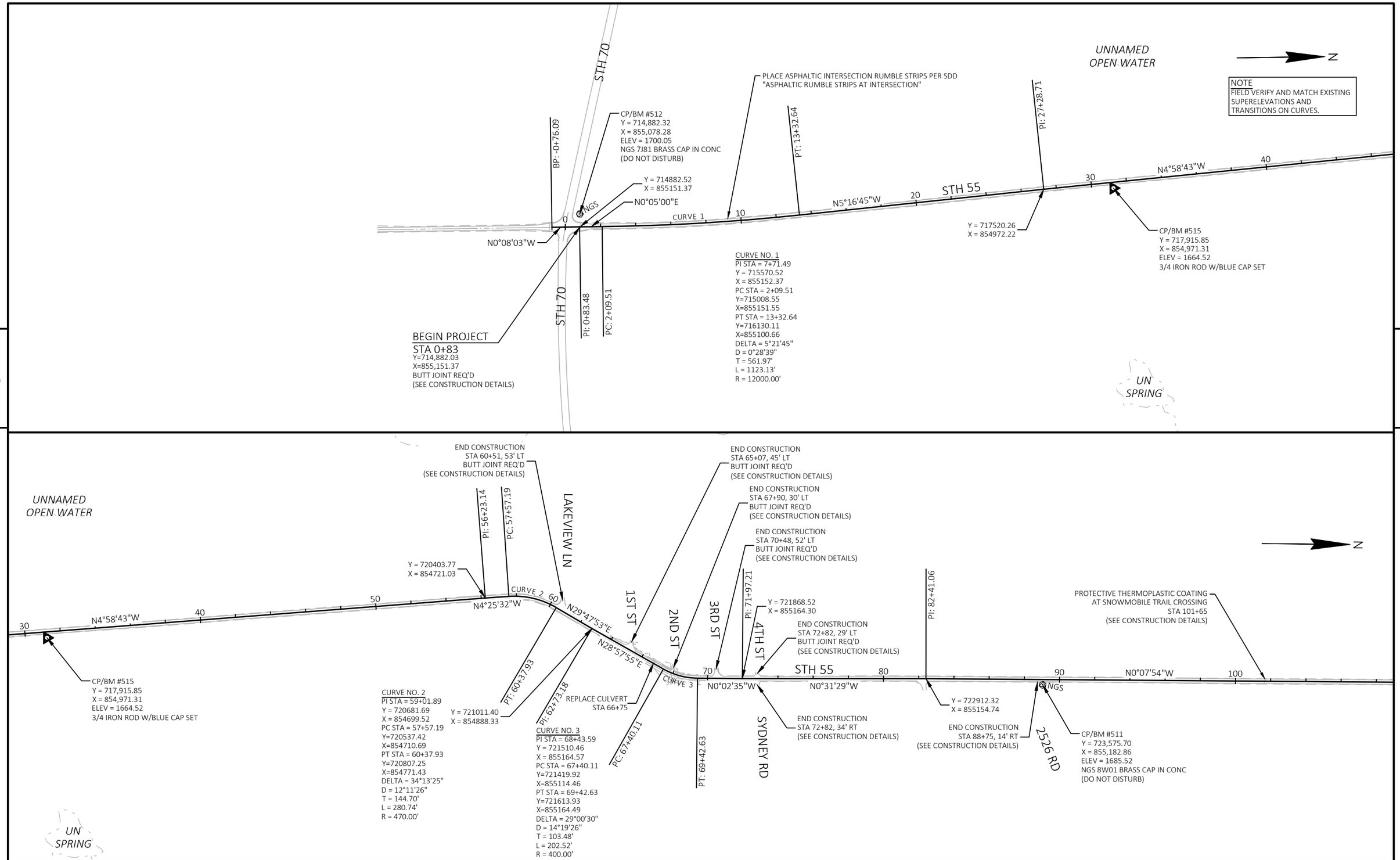
NOTE: THIS QUANTITY COVERS WATER USED IN BASE AGGREGATE DENSE PLACEMENT AND EARTHWORK OPERATIONS

SAWING ITEMS

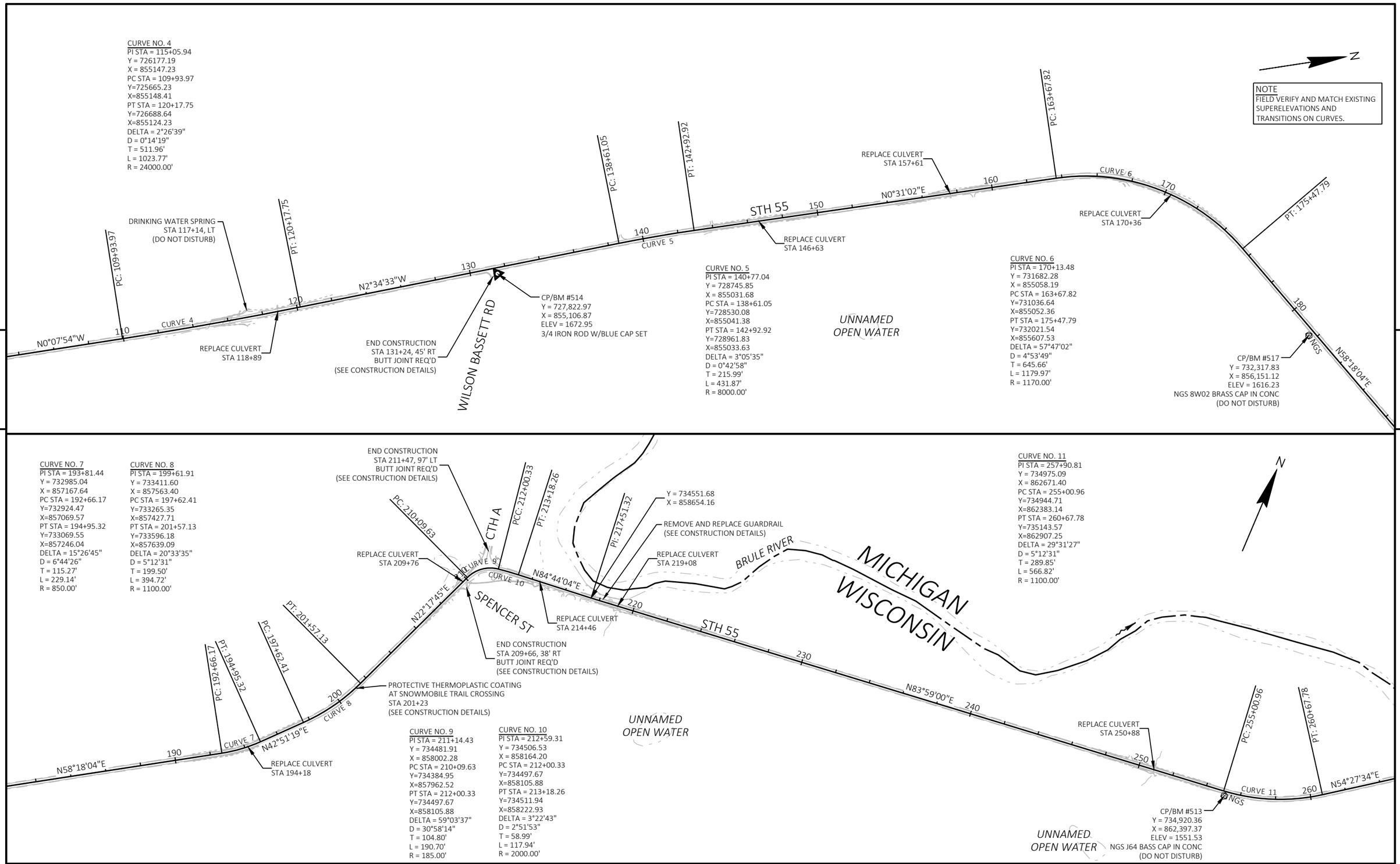
STATION	TO	STATION	OFFSET	690.0150 SAWING ASPHALT LF	690.0250 SAWING CONCRETE LF	COMMENTS
65+15	-	69+59	RT	580	--	DRIVEWAY REPLACEMENT
66+22	-	67+28	LT&RT	54	--	CUVLERT REPLACEMENT
118+36	-	119+41	LT&RT	52	--	CUVLERT REPLACEMENT
146+10	-	147+16	LT&RT	52	--	CUVLERT REPLACEMENT
157+08	-	158+13	LT&RT	52	--	CUVLERT REPLACEMENT
169+83	-	170+88	LT&RT	52	--	CUVLERT REPLACEMENT
193+65	-	194+72	LT&RT	52	--	CULVERT REPLACEMENT
209+15	-	210+37	LT&RT	98	--	CULVERT REPLACEMENT
213+93	-	214+99	LT&RT	48	--	CULVERT REPLACEMENT
218+56	-	219+61	LT&RT	48	--	CULVERT REPLACEMENT
250+35	-	251+41	LT&RT	48	--	CULVERT REPLACEMENT
270+37	-	271+61	LT&RT	132	--	CULVERT REPLACEMENT
272+42	-	273+48	LT&RT	48	--	CULVERT REPLACEMENT
304+89	-	305+07	LT&RT	45	16	APPROACH SLAB
TOTALS				1,360	16	

STAKING ITEMS

STATION	TO	STATION	OFFSET	650.4500 CONSTRUCTION STAKING SUBGRADE LF	650.5000 CONSTRUCTION STAKING BASE LF	650.6000 CONSTRUCTION STAKING PIPE CULVERTS EACH	650.7000 CONSTRUCTION STAKING CONCRETE PAVEMENT LF	650.8000 CONSTRUCTION STAKING RESURFACING REFERENCE LF	650.9911.01 CONSTRUCTION STAKING SUPPLEMENTAL CONTROL (9165-13-71) EACH	650.9920 CONSTRUCTION STAKING SLOPE STAKES LF	COMMENTS
0+83	-	60+50	LT&RT	--	--	--	--	5,967	--	--	MAINLINE PAVING
60+50	-	82+50	LT&RT	--	--	--	--	2,200	--	--	MAINLINE PAVING
66+22	-	67+27	LT&RT	105	105	1	--	--	--	105	CULVERT REPLACEMENT
82+50	-	212+00	LT&RT	--	--	--	--	12,950	--	--	MAINLINE PAVING
118+36	-	119+41	LT&RT	105	105	1	--	--	--	105	CULVERT REPLACEMENT
146+10	-	147+16	LT&RT	106	106	1	--	--	--	106	CULVERT REPLACEMENT
157+08	-	158+13	LT&RT	105	105	1	--	--	--	105	CULVERT REPLACEMENT
169+83	-	170+88	LT&RT	105	105	1	--	--	--	105	CULVERT REPLACEMENT
193+65	-	194+72	LT&RT	107	107	1	--	--	--	107	CULVERT REPLACEMENT
209+15	-	210+37	LT&RT	122	122	1	--	--	--	122	CULVERT REPLACEMENT
212+00	-	287+35	LT&RT	--	--	--	--	7,535	--	--	MAINLINE PAVING
213+92	-	214+99	LT&RT	107	107	1	--	--	--	107	CULVERT REPLACEMENT
215+60	-	221+84	LT	--	--	--	--	--	--	624	GUARDRAIL
218+56	-	219+61	LT&RT	105	105	1	--	--	--	--	CULVERT REPLACEMENT
250+35	-	251+41	LT&RT	106	106	1	--	--	--	106	CULVERT REPLACEMENT
270+37	-	271+61	LT&RT	124	124	1	--	--	--	124	CULVERT REPLACEMENT
272+42	-	273+48	LT&RT	103	103	1	--	--	--	103	CULVERT REPLACEMENT
287+35	-	304+91	LT&RT	--	--	--	--	1,755	--	--	MAINLINE PAVING
302+59	-	304+91	LT&RT	--	--	--	--	--	--	231	GUARDRAIL
304+91	-	305+07	LT&RT	--	--	--	16	--	--	--	APPROACH SLAB
PROJECT			LT&RT	--	--	--	--	--	1	--	
TOTALS				1,300	1,300	12	16	30,407	1	2,050	



PROJECT NO: 9165-13-71	HWY: STH 55	COUNTY: FOREST	PLAN	SHEET 40	E



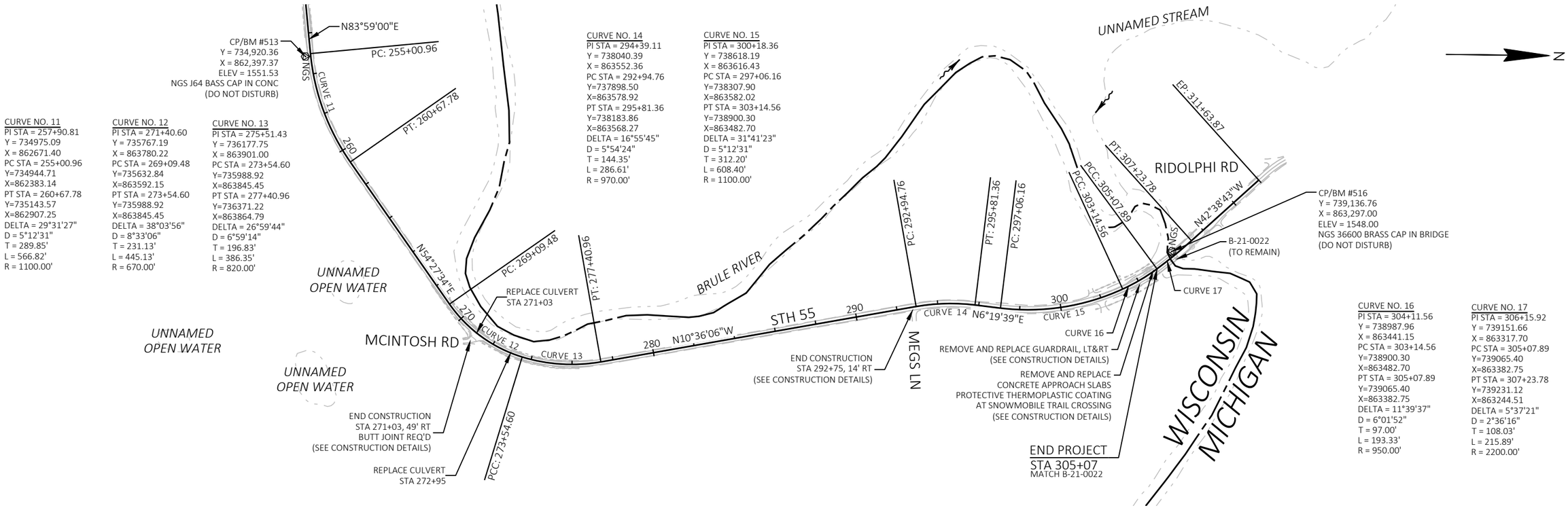
PROJECT NO: 9165-13-71	HWY: STH 55	COUNTY: FOREST	PLAN	SHEET 41	E

FILE NAME : P:\53XX\5387.DP.21.STH55.FOR\CADDS\91651371\SHEETSPLAN\050201-PN.DWG
LAYOUT NAME - 02

PLOT DATE : 10/14/2022 3:23 PM PLOT BY : NICK MENNINGA PLOT NAME : PLOT SCALE : 1 IN:500 FT

WISDOT/CADDS SHEET 44

NOTE
FIELD VERIFY AND MATCH EXISTING SUPERELEVATIONS AND TRANSITIONS ON CURVES.



CURVE NO. 11
PI STA = 257+90.81
Y = 734975.09
X = 862671.40
PC STA = 255+00.96
Y=734944.71
X=862383.14
PT STA = 260+67.78
Y=735143.57
X=862907.25
DELTA = 29°31'27"
D = 5°12'31"
T = 289.85'
L = 566.82'
R = 1100.00'

CURVE NO. 12
PI STA = 271+40.60
Y = 735767.19
X = 863780.22
PC STA = 269+09.48
Y=735632.84
X=863592.15
PT STA = 273+54.60
Y=735988.92
X=863845.45
DELTA = 38°03'56"
D = 8°33'06"
T = 231.13'
L = 445.13'
R = 670.00'

CURVE NO. 13
PI STA = 275+51.43
Y = 736177.75
X = 863901.00
PC STA = 273+54.60
Y=735988.92
X=863845.45
PT STA = 277+40.96
Y=736371.22
X=863864.79
DELTA = 26°59'44"
D = 6°59'14"
T = 196.83'
L = 386.35'
R = 820.00'

CURVE NO. 14
PI STA = 294+39.11
Y = 738040.39
X = 863552.36
PC STA = 292+94.76
Y=737898.50
X=863578.92
PT STA = 295+81.36
Y=738183.86
X=863568.27
DELTA = 16°55'45"
D = 5°54'24"
T = 144.35'
L = 286.61'
R = 970.00'

CURVE NO. 15
PI STA = 300+18.36
Y = 738618.19
X = 863616.43
PC STA = 297+06.16
Y=738307.90
X=863582.02
PT STA = 303+14.56
Y=738900.30
X=863482.70
DELTA = 31°41'23"
D = 5°12'31"
T = 312.20'
L = 608.40'
R = 1100.00'

CURVE NO. 16
PI STA = 304+11.56
Y = 738987.96
X = 863441.15
PC STA = 303+14.56
Y=738900.30
X=863482.70
PT STA = 305+07.89
Y=739065.40
X=863382.75
DELTA = 11°39'37"
D = 6°01'52"
T = 97.00'
L = 193.33'
R = 950.00'

CURVE NO. 17
PI STA = 306+15.92
Y = 739151.66
X = 863317.70
PC STA = 305+07.89
Y=739065.40
X=863382.75
PT STA = 307+23.78
Y=739231.12
X=863244.51
DELTA = 5°37'21"
D = 2°36'16"
T = 108.03'
L = 215.89'
R = 2200.00'

PROJECT NO: 9165-13-71	HWY: STH 55	COUNTY: FOREST	PLAN	SHEET 42	E

FILE NAME : P:\53XX\5387.DP.21.STH55.FOR\CADDS\91651371\SHEETSPLAN\050201-PN.DWG
LAYOUT NAME - 03
PLOT DATE : 10/14/2022 3:23 PM
PLOT BY : NICK MENNINGA
PLOT NAME :
PLOT SCALE : 1 IN:500 FT
WISDOT/CADDS SHEET 44

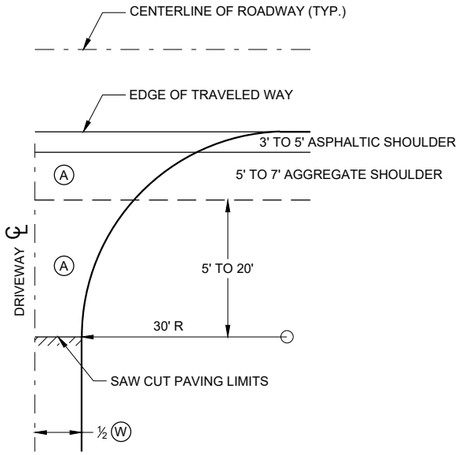
Standard Detail Drawing List

08D22-01	DRIVEWAYS WITHOUT CURB & GUTTER RESURFACING PROJECTS RURAL
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
08F02-01	APRON ENDWALLS FOR PIPE ARCH AND ELLIPTICAL PIPE
08F04-08	JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL
13A03-06	CONCRETE PAVEMENT SHOULDERS
13A08-01	ASPHALTIC RUMBLE STRIPS AT INTERSECTION
13B02-09A	CONCRETE PAVEMENT APPROACH SLAB
13C19-03	HMA LONGITUDINAL JOINTS
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)
14B45-05H	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05K	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
15A03-02A	FLEXIBLE MARKER POST FOR CULVERT END
15A03-02B	FLEXIBLE MARKER POST FOR CULVERT END
15C02-08A	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-08B	BARRICADES AND SIGNS FOR VARIOUS CLOSURES
15C02-08C	DETOUR SIGNING FOR MAINLINE CLOSURES
15C03-05	BARRICADES AND SIGNS FOR SIDEROAD CLOSURES
15C04-05	TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45 M.P.H. OR GREATER TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC
15C05-05	TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40 M.P.H. OR LESS
15C08-22A	LONGITUDINAL MARKING (MAINLINE)
15C08-22B	TEMPORARY LONGITUDINAL PAVEMENT MARKING
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
15C19-07A	MOVING PAVEMENT MARKING OPERATION TWO-LANE TWO-WAY ROADWAY
15C35-05A	PAVEMENT MARKING (INTERSECTIONS)
15D28-04	TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY
15D32-06	TRAFFIC CONTROL, ONE LANE ROAD STOP CONDITION
15D39-02	TRAFFIC CONTROL, DROP-OFF SIGNING
15D44-02	TRAFFIC CONTROL, SIGNING ON ROADWAYS WITH MILLED SURFACES
15D45-03	TRAFFIC CONTROL, SIGNING ON ROADWAYS WITH LOOSE GRAVEL
15D51-01	TRAFFIC CONTROL, MOBILE OPERATIONS ON AN UNDIVIDED ROADWAY

6

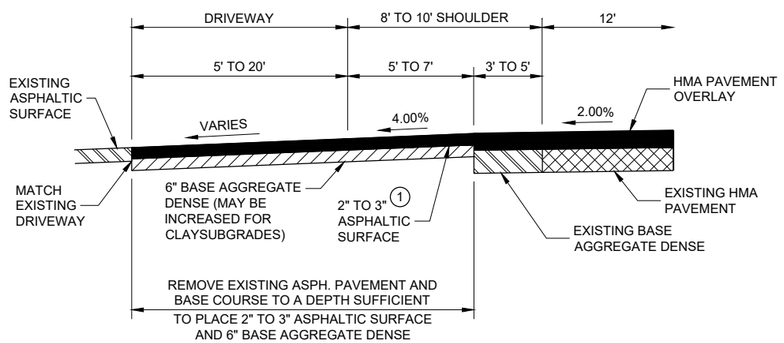
GENERAL NOTES

(1) DESIGN WILL DETERMINE FINAL DRIVEWAY ASPHALTIC THICKNESS BASED ON TYPE OF USAGE AND LOADINGS.



PLAN VIEW

HALF SECTION



PROFILE VIEW

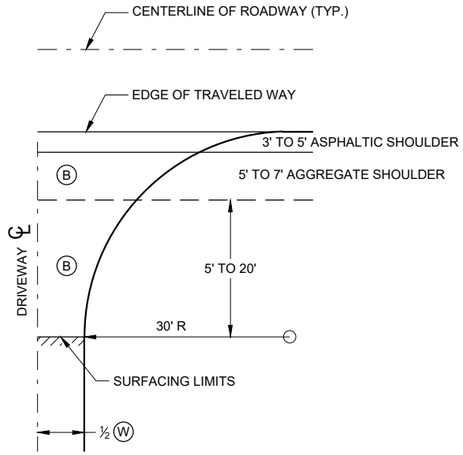
RURAL ENTRANCE WITH ASPHALTIC SURFACE

RESURFACING PROJECTS

(A) : PAID FOR AS ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES. (TON)

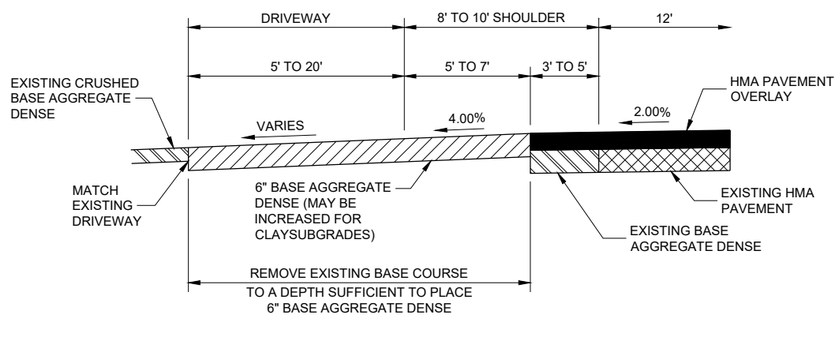
(B) : PAID FOR AS BASE AGGREGATE DENSE 1 ¼" (TON)

(W) : DRIVEWAY WIDTH 16' MIN. - 24' MAX.



PLAN VIEW

HALF SECTION



PROFILE VIEW

RURAL ENTRANCE WITH AGGREGATE SURFACE

6" BASE AGGREGATE DENSE

RESURFACING PROJECTS

DRIVEWAYS WITHOUT CURB AND GUTTER RESURFACING PROJECTS RURAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

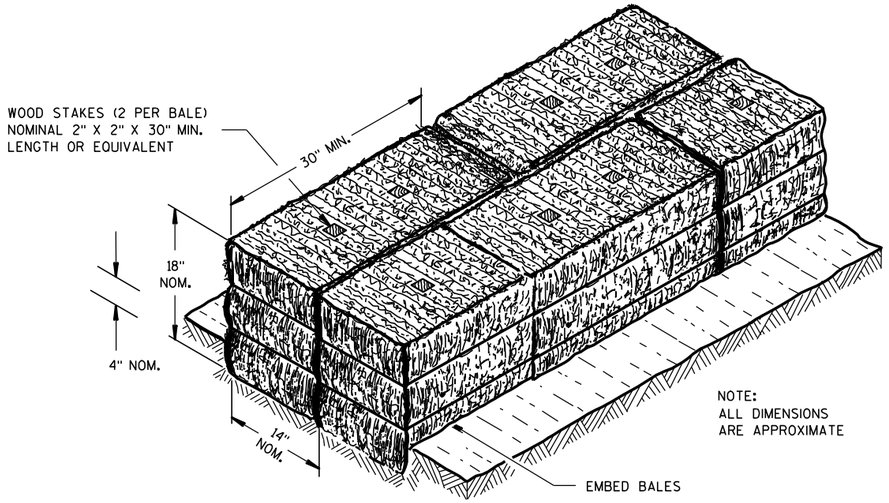
APPROVED
December 2016
DATE

/S/ Rodney Taylor
ROADWAY STANDARDS DEVE ENGINEER

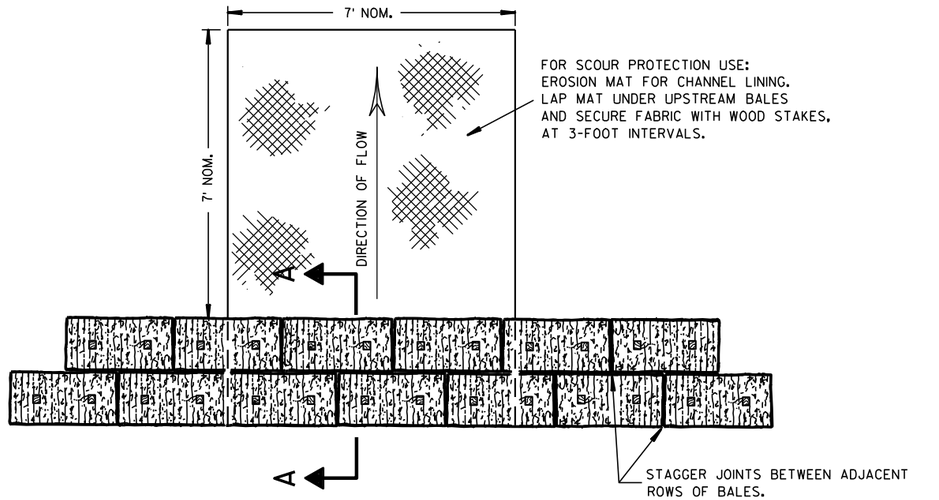
FHWA

6

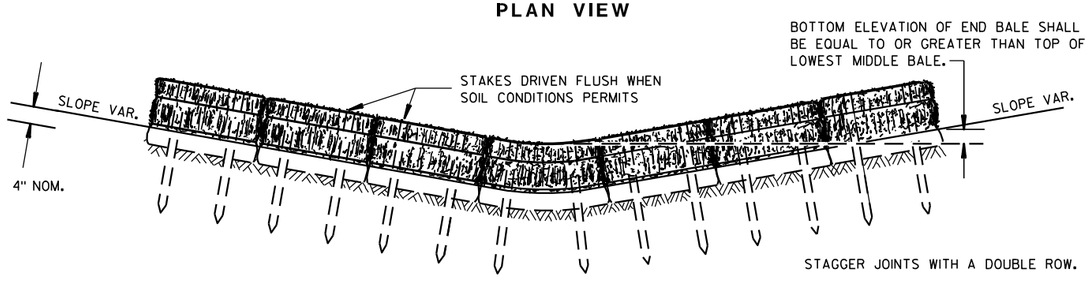
SDD 08D22 - 01



SECTION A-A



PLAN VIEW



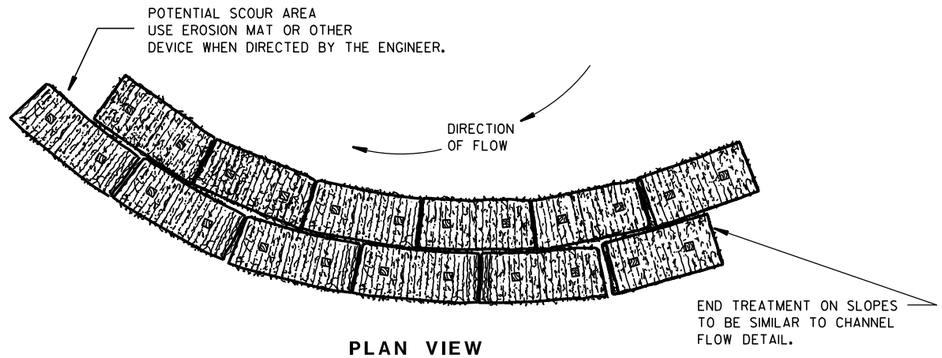
FRONT ELEVATION

TEMPORARY DITCH CHECK USING EROSION BALES ①

GENERAL NOTES

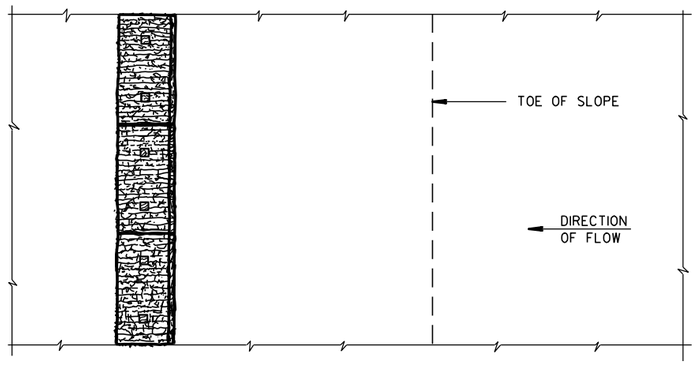
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

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.

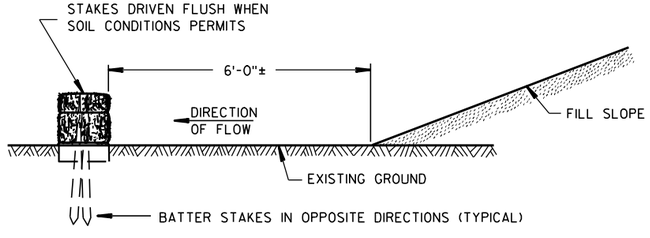


PLAN VIEW

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

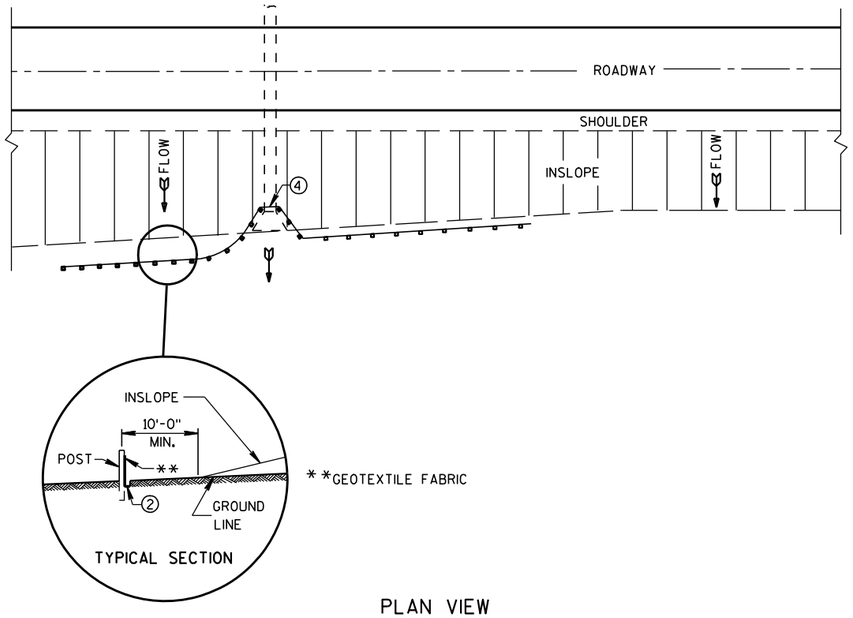
APPROVED

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

FHWA

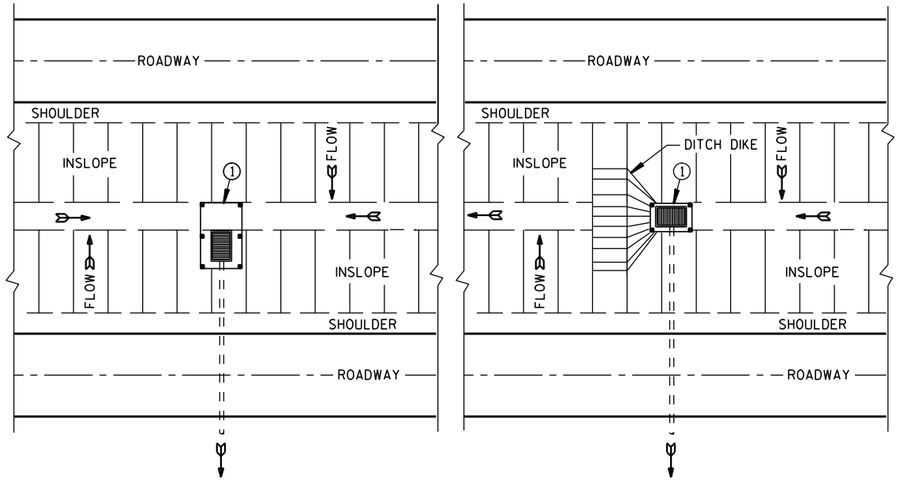
6

S.D.D. 8 E 8-3



PLAN VIEW

TYPICAL APPLICATION OF SILT FENCE



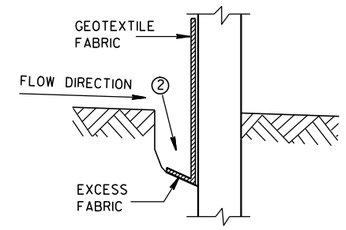
PLAN VIEW

SILT FENCE AT MEDIAN SURFACE DRAINS

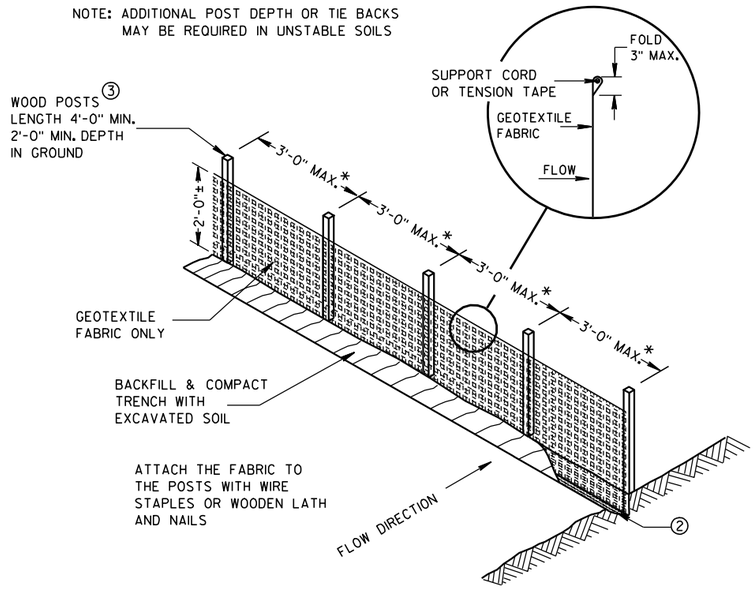
GENERAL NOTES

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

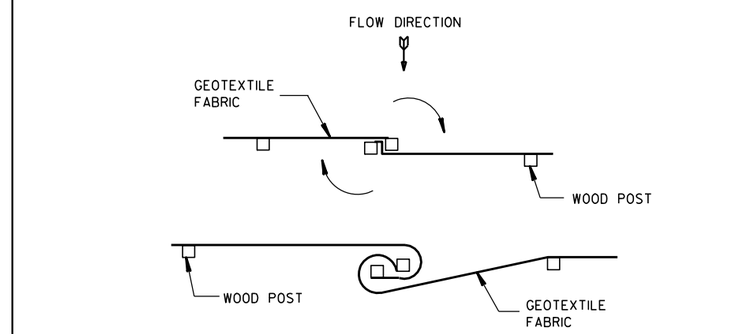
1. HORIZONTAL BRACE REQUIRED WITH 2" X 4" WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS.
2. FOR MANUAL INSTALLATIONS THE TRENCH SHALL BE A MINIMUM OF 4" WIDE & 6" DEEP TO BURY AND ANCHOR THE GEOTEXTILE FABRIC. FOLD MATERIAL TO FIT TRENCH AND BACKFILL & COMPACT TRENCH WITH EXCAVATED SOIL.
3. WOOD POSTS SHALL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



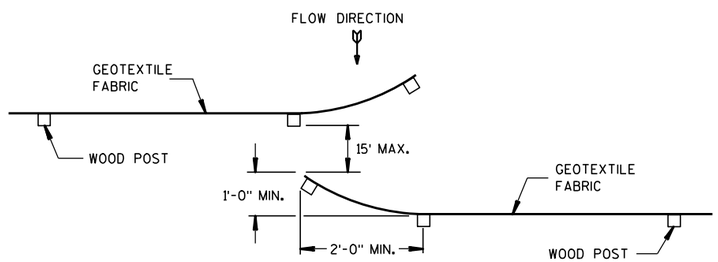
TRENCH DETAIL



SILT FENCE

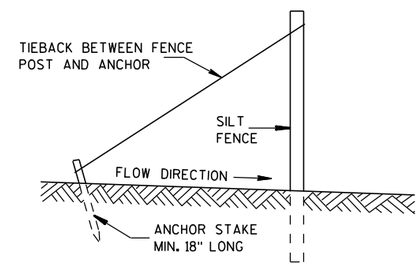


TWIST METHOD



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

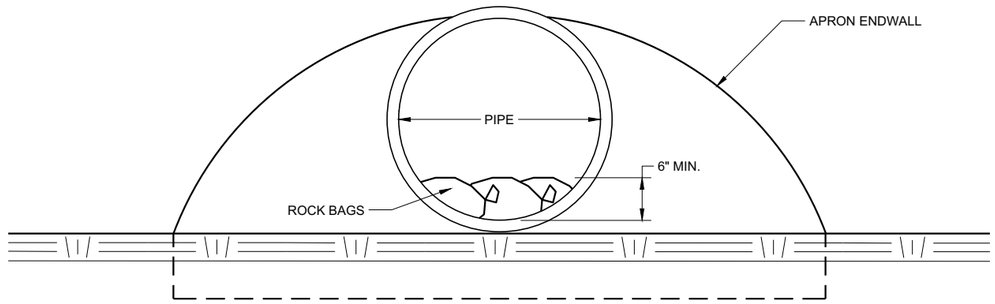
APPROVED
4-29-05 DATE
/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

6

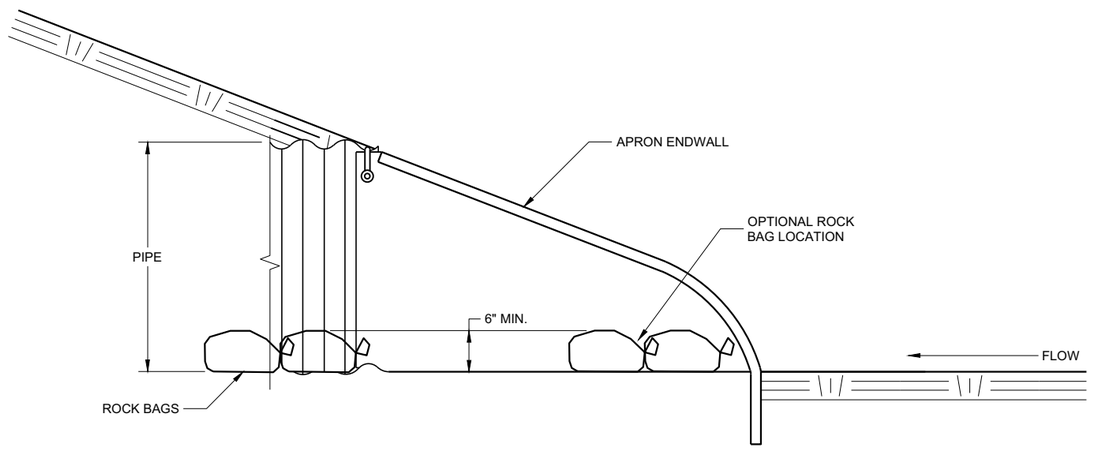
S.D.D. 8 E 9-6

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

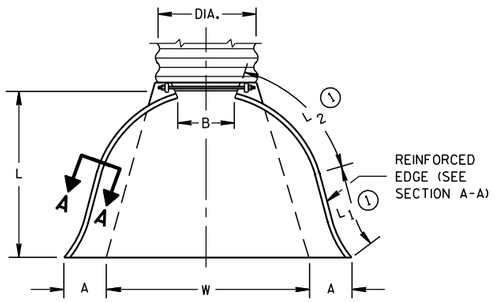
PIPE DIA. (IN.)	MIN. THICK. (Inches) STEEL	MIN. THICK. (Inches) ALUM.	DIMENSIONS (Inches) A (±1")	B (MAX.)	H (±1")	L (±1 1/2")	L1 ①	L2 ①	W (±2")	APPROX. SLOPE	BODY
12	.064	.060	6	6	6	21	12	17 1/2	24	2 1/2 to 1	1 Pc.
15	.064	.060	7	8	6	26	14	21 3/4	30	2 1/2 to 1	1 Pc.
18	.064	.060	8	10	6	31	15	28 1/4	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

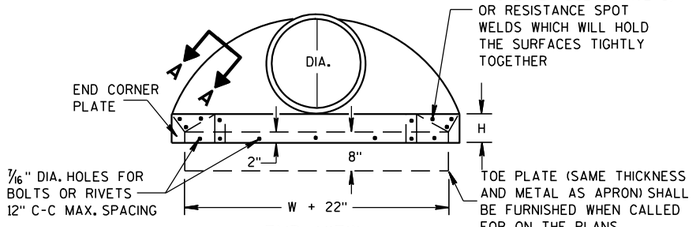
REINFORCED CONCRETE APRON ENDWALLS

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

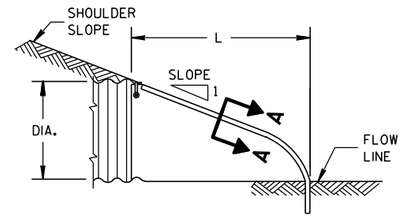
*MINIMUM
**MAXIMUM



PLAN VIEW

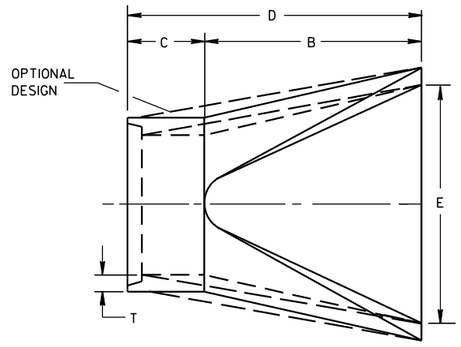


END VIEW

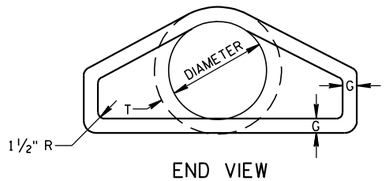


SIDE ELEVATION

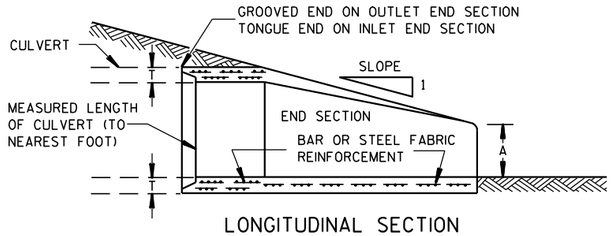
METAL ENDWALLS



PLAN

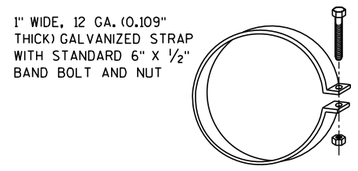


END VIEW



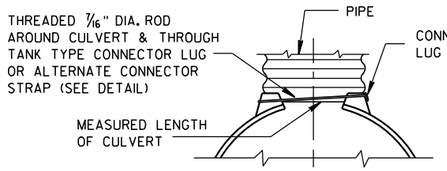
LONGITUDINAL SECTION

CONCRETE ENDWALLS

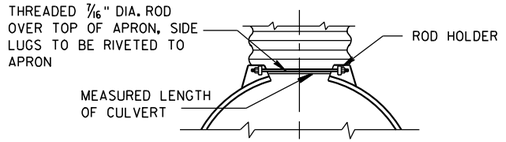


ALTERNATE FOR TYPE 1 CONNECTION

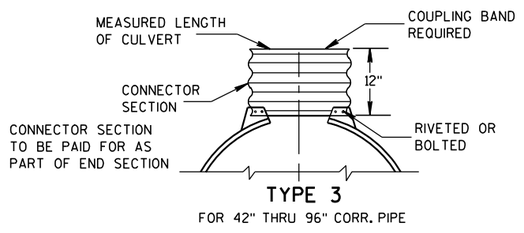
END SECTION CONNECTOR STRAP



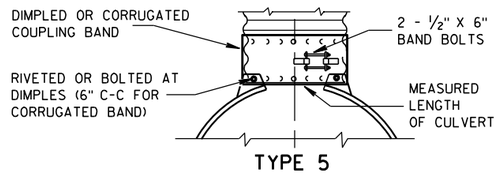
TYPE 1
FOR 12" THRU 24" CORR. PIPE



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

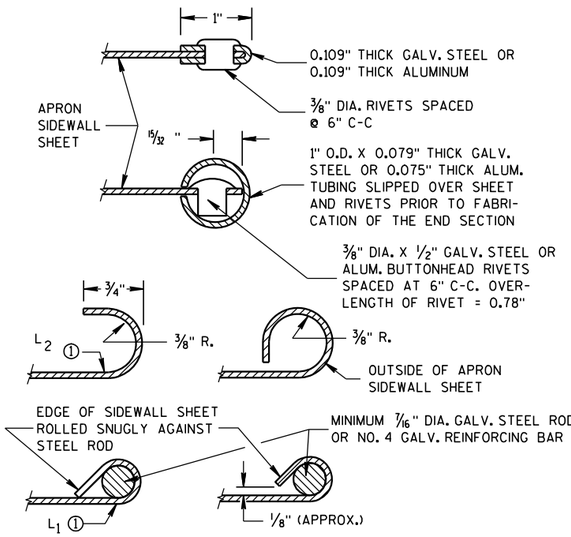
NOTE: DIMPLED BAND FITS OVER OUTSIDE OF ENDWALL. AND CORRUGATED BAND FITS INSIDE ENDWALL. DIMPLED BAND MAY BE USED WITH HELICALLY CORRUGATED PIPE.

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.

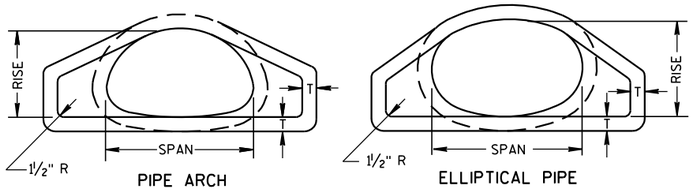
① FOR PIPE SIZES UP TO 60" DIAMETER, A 180° ROLLED EDGE MAY BE USED INSTEAD OF STEEL ROD REINFORCEMENT. SEE SECTION A-A.

APRON ENDWALLS FOR CULVERT PIPE

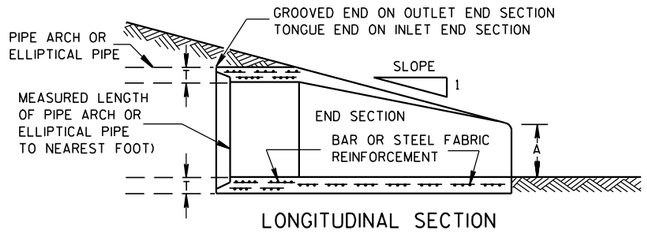
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

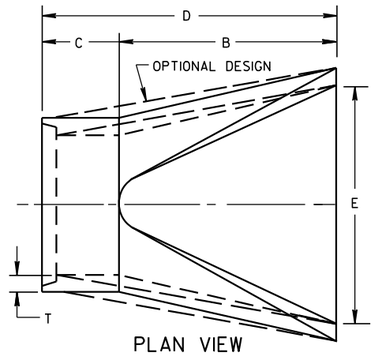
6
S.D.D. 8 F 1-11



END VIEW

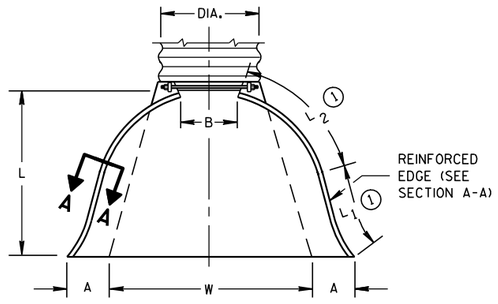


LONGITUDINAL SECTION

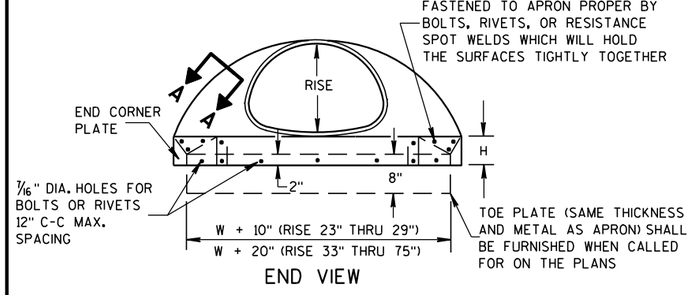


PLAN VIEW

CONCRETE ENDWALLS

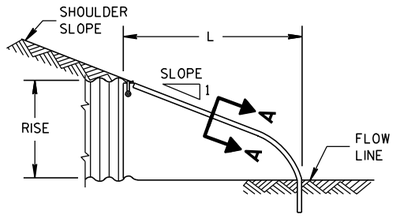


PLAN VIEW



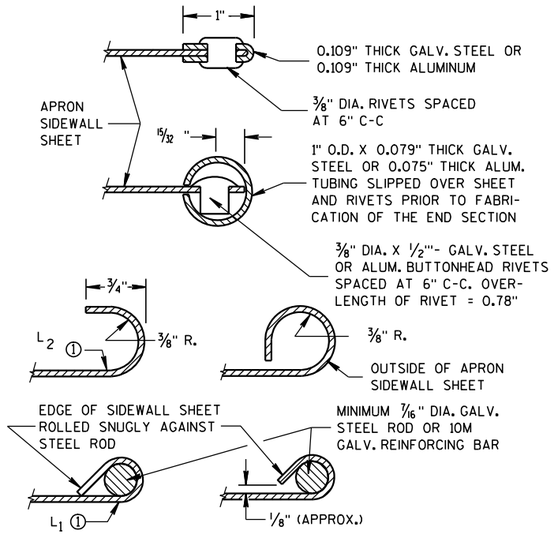
END CORNER PLATES MAY BE FASTENED TO APRON PROPER BY BOLTS, RIVETS, OR RESISTANCE SPOT WELDS WHICH WILL HOLD THE SURFACES TIGHTLY TOGETHER

END VIEW



SIDE ELEVATION

METAL ENDWALLS



SECTION A-A

2- 2/3" X 1/2" CORRUGATIONS

EQUIV. DIA. (Inches)	(Inches) SPAN	(Inches) RISE	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
15	17	13	.064	.060	7	9	6	19	14	16	30	2½ to 1	1 Pc.
18	21	15	.064	.060	7	10	6	23	14	19⅜	36	2½ to 1	1 Pc.
21	24	18	.064	.060	8	12	6	28	18	21¾	42	2½ to 1	1 Pc.
24	28	20	.064	.060	9	14	6	32	18	27½	48	2½ to 1	1 Pc.
30	35	24	.079	.075	10	16	6	39	18	37⅝	60	2½ to 1	1 Pc.
36	42	29	.079	.075	12	18	8	46	24	45⅜	75	2½ to 1	1 Pc.
42	49	33	.109	.105	13	21	9	53	24	54¾	85	2½ to 1	2 Pc.
48	57	38	.109	.105	18	26	12	63	24	68	90	2½ to 1	3 Pc.
54	64	43	.109	.105	18	30	12	70	24	72¾	102	2¼ to 1	3 Pc.
60	71	47	.109*	.105*	18	33	12	77	30	82¼	114	2¼ to 1	3 Pc.
66	77	52	.109*	.105*	18	36	12	77	—	—	126	2 to 1	3 Pc.
72	83	57	.109*	.105*	18	39	12	77	—	—	138	2 to 1	3 Pc.

3" X 1" CORRUGATIONS

EQUIV. DIA. (Inches)	(Inches) SPAN	(Inches) RISE	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
48	53	41	.109	.105	18	26	12	63	24	72¾	90	2½ to 1	2 Pc.
54	60	46	.109	.105	18	30	12	70	30	82¼	102	2 to 1	2 Pc.
60	66	51	.109*	.105*	18	33	12	77	—	—	114	1½ to 1	3 Pc.
66	73	55	.109*	.105*	18	36	12	77	—	—	126	1½ to 1	3 Pc.
72	81	59	.109*	.105*	18	39	12	77	—	—	138	2 to 1	3 Pc.
78	87	63	.109*	.105*	22	38	12	77	—	—	148	1½ to 1	3 Pc.
84	95	67	.109*	.105*	22	34	12	77	—	—	162	1½ to 1	3 Pc.
90	103	71	.109*	.105*	22	38	12	77	—	—	174	1½ to 1	3 Pc.
96	112	75	.109*	.105*	24	40	12	77	—	—	174	1½ to 1	3 Pc.

NOTE: ALL SPLICES TO BE LAP RIVETED OR BOLTED.

* EXCEPT CENTER PANEL SEE GENERAL NOTES

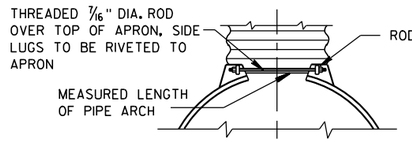
REINFORCED CONCRETE PIPE ARCH

EQUIV. DIA. (Inches)	DIMENSIONS (Inches) ** SPAN	** RISE	T	A	B	C	D	E	APPROX. SLOPE
24	29	18	3	8½	39	33	72	48	3 to 1
30	36	22	3½	9½	50	46	96	60	3 to 1
36	44	27	4	11⅛	60	36	96	72	3 to 1
42	51	31	4½	15 13/16	60	36	96	78	3 to 1
48	58	36	5	21	60	36	96	84	3 to 1
54	65	40	5½	25½	60	36	96	90	3 to 1
60	73	45	6	31	60	36	96	96	3 to 1
72	88	54	7	31	60	39	99	120	2 to 1
84	102	62	8	28½	83	19	102	144	2 to 1

REINFORCED CONCRETE ELLIPTICAL PIPE

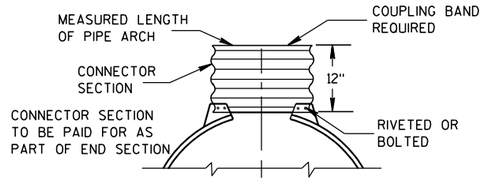
EQUIV. DIA. (Inches)	DIMENSIONS (Inches) ** SPAN	** RISE	T	A	B	C	D	E	APPROX. SLOPE
24	30	19	3¼	8½	39	33	72	48	3 to 1
30	38	24	3¾	9½	54	18	72	60	3 to 1
36	45	29	4½	11⅛	60	24	84	72	2½ to 1
42	53	34	5	15¾	60	36	96	78	2½ to 1
48	60	38	5½	21	60	36	96	84	2½ to 1
54	68	43	6	25½	60	36	96	90	2½ to 1
60	76	48	6½	30	60	36	96	96	2½ to 1

**NOMINAL SIZE



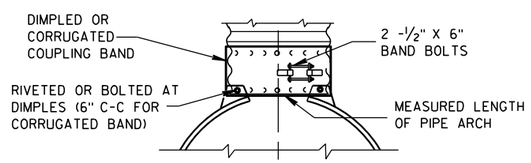
TYPE 2

FOR 17" X 13" THRU 112" X 75" PIPE ARCH



TYPE 3

FOR 64" X 43" THRU 112" X 75" PIPE ARCH



TYPE 5

ALTERNATE FOR:

ALL SIZES CORRUGATED PIPE ARCHES

NOTE: DIMPLED BAND FITS OVER OUTSIDE OF ENDWALL, AND CORRUGATED BAND FITS INSIDE ENDWALL.

CONNECTION DETAILS

GENERAL NOTES

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

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

ALL THREE PIECE STEEL APRON ENDWALLS FOR 66" X 51" PIPE ARCH AND LARGER SHALL HAVE 0.109" SIDES AND 0.138" CENTER PANELS. ALL THREE PIECE ALUMINUM APRON ENDWALLS FOR 66" X 51" PIPE ARCH 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 ARCH 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 77" X 52" THROUGH 112" X 75" 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 ARCH SIZES UP TO 73" X 55" A 180° ROLLED EDGE MAY BE USED INSTEAD OF STEEL ROD REINFORCEMENT. SEE SECTION A-A.

APRON ENDWALLS FOR PIPE ARCH AND ELLIPTICAL PIPE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

11/30/94 — DATE

/S/ Rory L. Rhinesmith — CHIEF ROADWAY DEVELOPMENT ENGINEER

FHWA

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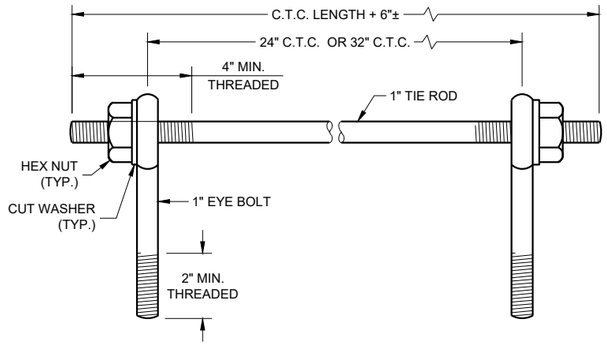
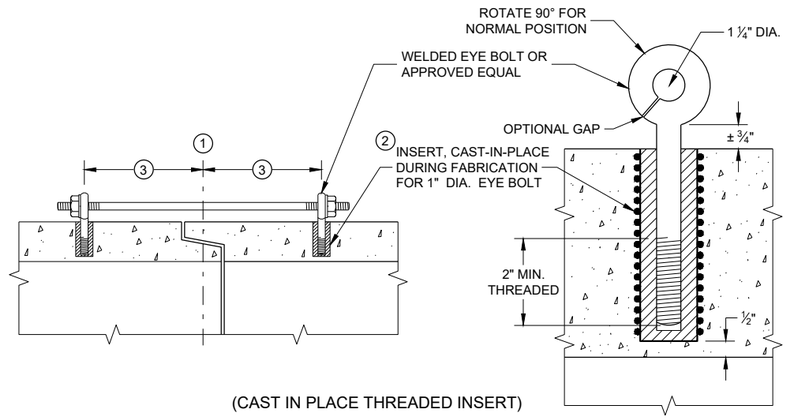
S.D.D. 8 F 2-1



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.

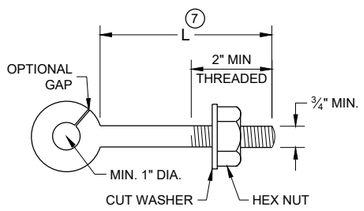
(3) HOLES SHALL BE CAST-IN-PLACE OR DRILLED PER THE APPLICABLE DETAIL, AND EQUAL DISTANCE FROM THE CENTERLINE OF THE JOINT.

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

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

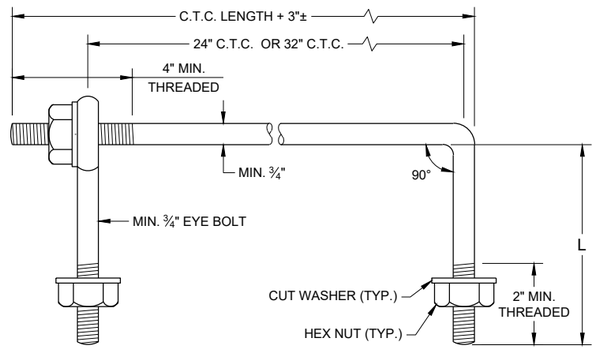
(6) LENGTH ADEQUATE TO EXTEND TO WITHIN ½ INCH OF THE INNER SURFACE OF THE PIPE.

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

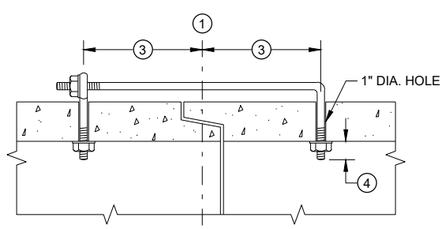


EYE BOLT (7)

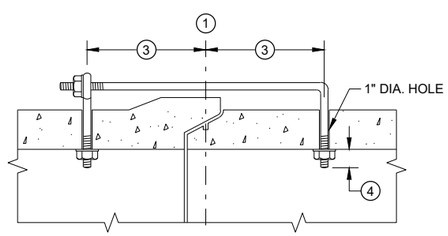
NOTE: TWO EYE BOLTS MAY BE USED WITH A 30" OR 38" LONG THREADED ROD IN LIEU OF THE 90° BENT TIE ROD.



EYE BOLT AND TIE ROD



(TONGUE AND GROOVE PIPE)



(MODIFIED BELL PIPE)

LONGITUDINAL SECTION

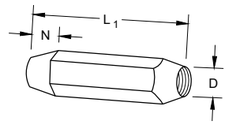
(JOINT TIES FOR 18" TO 66" DIA. CONCRETE PIPE)

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



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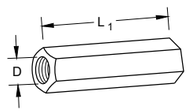
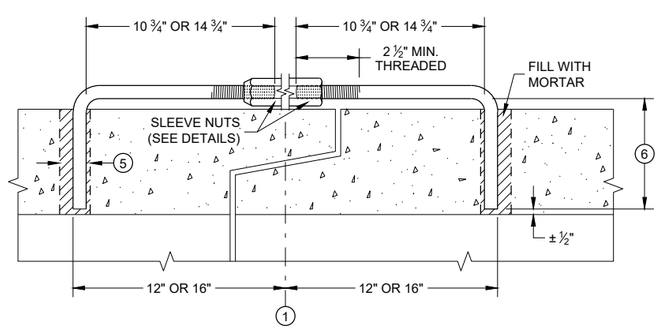


PLAIN

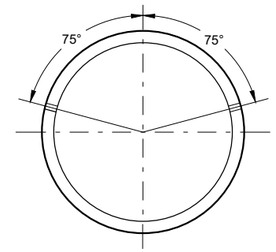
RIGHT AND LEFT THREADS

SLEEVE NUTS



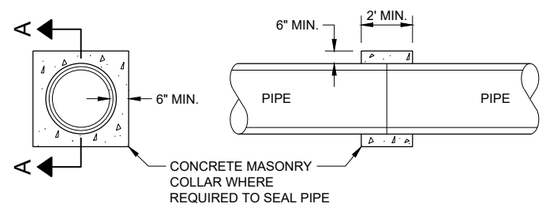
LONGITUDINAL SECTION

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

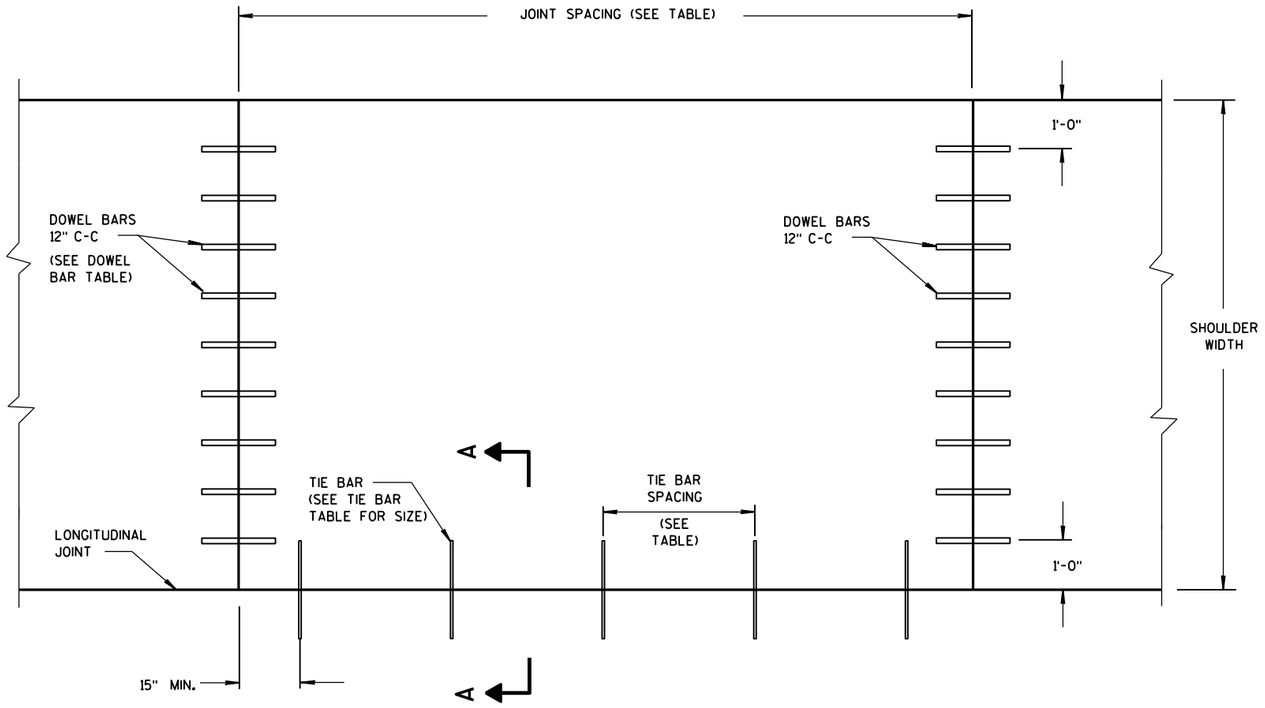
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

FHWA

SDD 08F04 - 08

SDD 08F04 - 08



PLAN VIEW

CONCRETE PAVEMENT SHOULDER

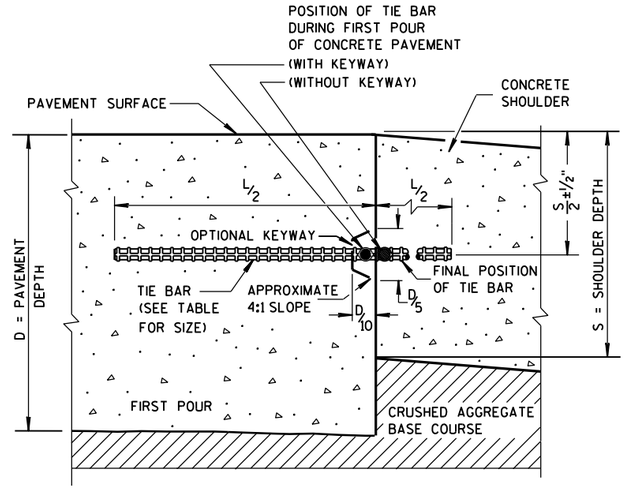
GENERAL NOTES

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.

TRANSVERSE JOINT DETAILS ARE SHOWN ELSEWHERE IN THE PLAN.

FINISH THE SHOULDER PAVEMENT CONFORMING TO SUBSECTION 415.3.8 OF THE STANDARD SPECIFICATIONS.

TIE BARS SHALL CONFORM TO SUBSECTION 505.2.4 OF THE STANDARD SPECIFICATIONS.



SECTION A-A

LONGITUDINAL CONSTRUCTION JOINT

TIE BAR TABLE

PAVEMENT DEPTH (D)	TIE BAR SIZE	TIE BAR LENGTH (L)	MAX. TIE BAR SPACING
< 10 ½"	NO. 4	30"	36"
≥ 10 ½"	NO. 5	36"	36"
	NO. 4*	30"	24"**

* SUBSTITUTE BENT BARS AT LONGITUDINAL JOINTS WHEN EQUIPMENT LIMITATIONS DURING CONSTRUCTION WARRANT (e.g. AUXILIARY LANES OR TURN LANES)

** CONFORM TO 15" MINUMUM SPACING FROM TRANSVERSE JOINTS; SPACING BETWEEN TIE BARS WILL BE 30" AT TRANSVERSE JOINTS.

PAVEMENT DEPTH, DOWEL BAR SIZE AND JOINT SPACING TABLE

PAVEMENT DEPTH (D)	DOWEL BAR DIAMETER***	CONTRACTION JOINT SPACING
5 ½", 6", 6 ½"	NONE	12'
7", 7 ½"	1"	14'
8", 8 ½"	1 ¼"	15'
9", 9 ½"	1 ¼"	15'
10" & ABOVE	1 ½"	15'

*** FOR DOWELED CONCRETE SHOULDERS WITH TRAPEZOIDAL CROSS SECTIONS, CHOSE THE APPROPRIATE DOWEL BAR DIAMETER BASED ON THE SMALLER PAVEMENT DEPTH (LIKELY THE OUTSIDE EDGE OF THE SHOULDER). IF USING BASKETS, USE BASKETS FOR THE AVERAGE THICKNESS OF THE CROSS SECTION.

CONCRETE PAVEMENT SHOULDERS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

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S.D.D. 13 A 3-6

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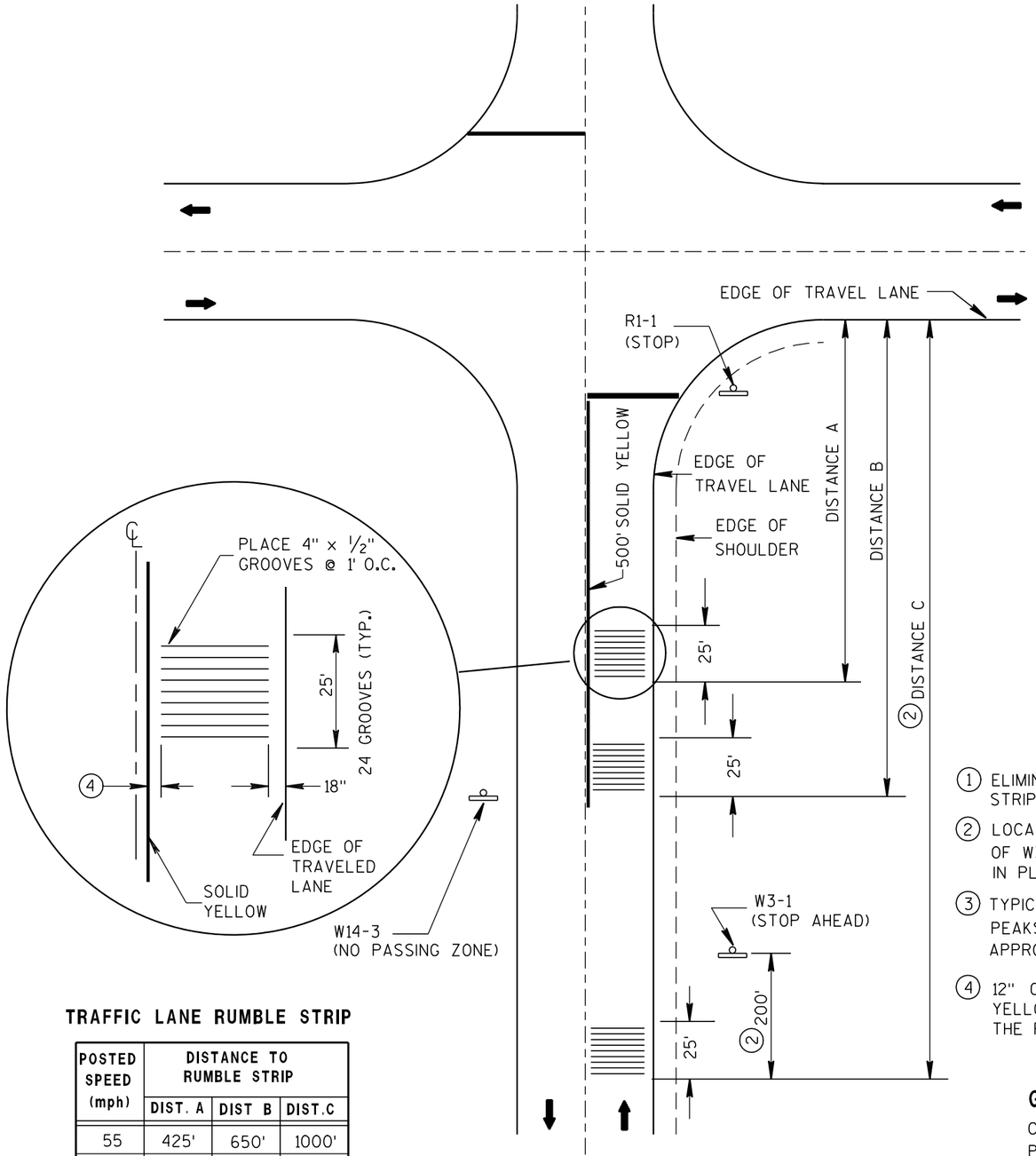
S.D.D. 13 A 3-6



ARROW SYMBOL (➡) SHOWS DIRECTION OF TRAVEL

PLAN VIEW

RUMBLE STRIP LOCATION

TRAFFIC LANE RUMBLE STRIP

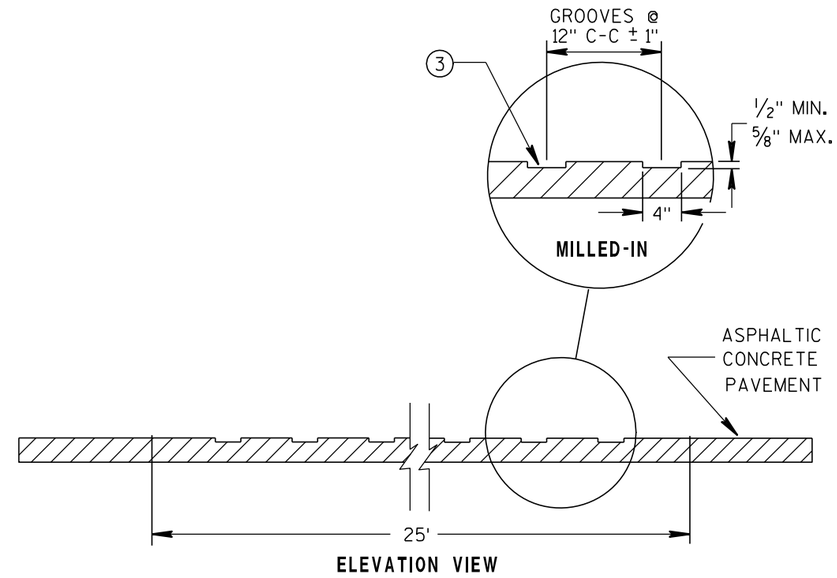
POSTED SPEED (mph)	DISTANCE TO RUMBLE STRIP		
	DIST. A	DIST B	DIST.C
55	425'	650'	1000'
50	325'	450'	800'
45	275'	400'	650'
40	225'	(1)	550'
35	175'	(1)	475'
≤ 30	125'	(1)	425'

(1) ELIMINATE THE MIDDLE SET OF RUMBLE STRIPS.

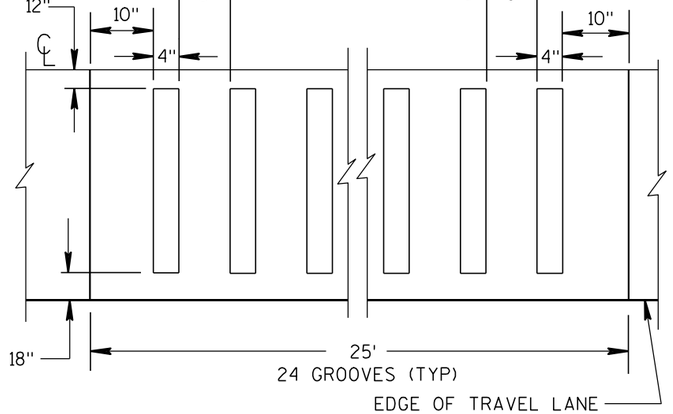
(2) LOCATE RUMBLE STRIP 200' IN ADVANCE OF W3-1 SIGN AS SHOWN. IF W3-1 IS NOT IN PLACE, USE DISTANCE C.

(3) TYPICAL VERTICAL VARIATION BETWEEN PEAKS AND VALLEYS WITHIN THE CUT APPROXIMATELY 1/16"

(4) 12" CLEAR BETWEEN THE SOLID YELLOW LINE AND THE EDGE OF THE RUMBLE.



ELEVATION VIEW



PLAN VIEW

ASPHALTIC PAVEMENT MILLED-IN

GENERAL NOTES

CONTRACTOR SHALL CONFIRM RUMBLE STRIP LOCATION WITH THE ENGINEER PRIOR TO INSTALLATION. THE ENGINEER MAY MODIFY THE RUMBLE STRIP LOCATION AS FIELD CONDITIONS DICTATE.

WHEN ASPHALTIC PAVEMENT IS NEW IN THE RUMBLE AREA THE CONTRACTOR SHALL ALLOW THE PAVEMENT TO CURE A MINIMUM OF 7 DAYS PRIOR TO RUMBLE INSTALLATION.

PAVEMENT MARKING AND SIGNING DETAILS AND SPECIFICATIONS ARE PROVIDED ELSEWHERE IN THE CONTRACT.

ASPHALTIC RUMBLE STRIPS AT INTERSECTION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

8/17/2011
DATE

/S/ Jerry H. Zogg
ROADWAY STANDARDS 152
ENGINEER

FHWA

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S.D.D. 13 A 8-1

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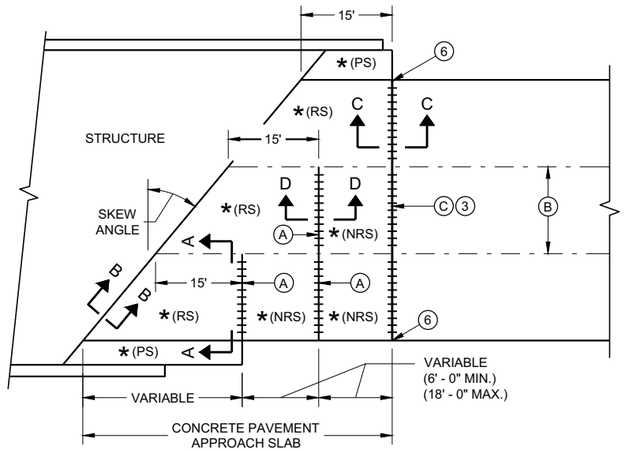
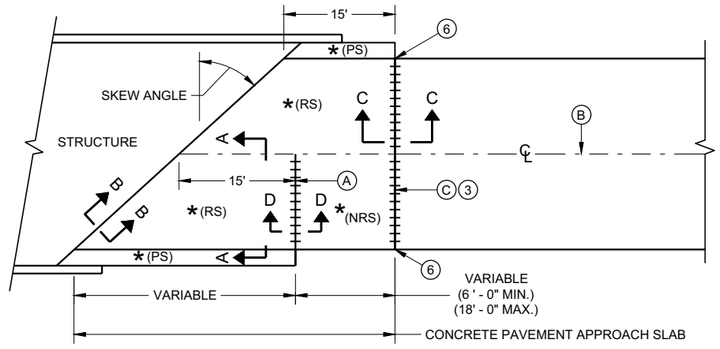
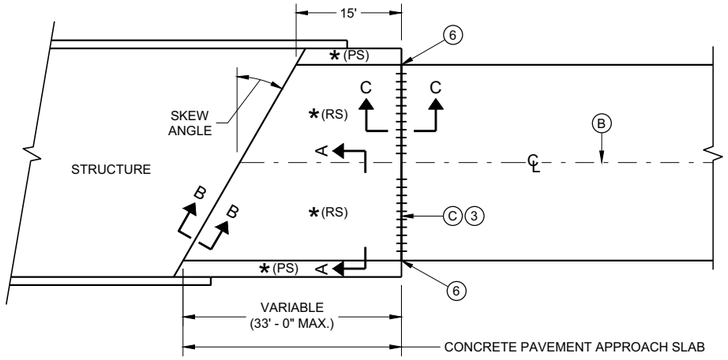
S.D.D. 13 A 8-1



SKEWED APPROACH
(PAVEMENT MORE THAN TWO LANES)



SKEWS > 20°
(PAVEMENT WIDTH ≤ 30')



SKEWS ≤ 20°
(PAVEMENT WIDTH ≤ 30')

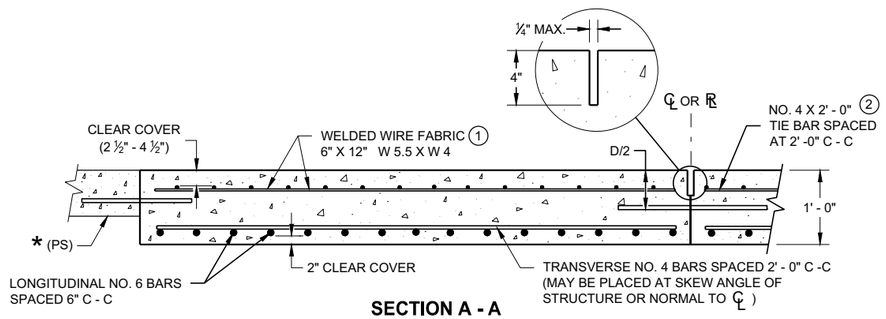
APPROACH SLAB AND ADJACENT PAVEMENT

* (RS) = REINFORCED CONCRETE SLAB

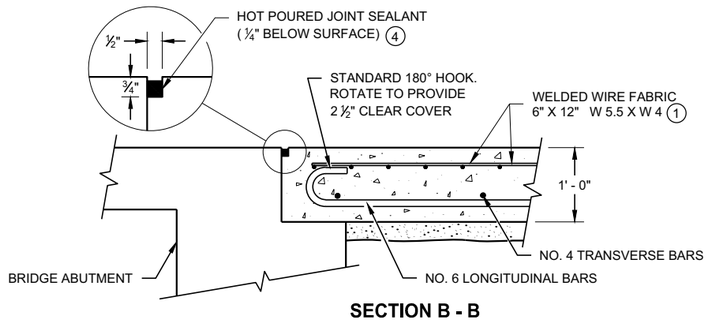
* (PS) = PAVED CONCRETE SHOULDER OR CONCRETE DRAINAGE SLAB

* (NRS) - NON - REINFORCED CONCRETE SLAB

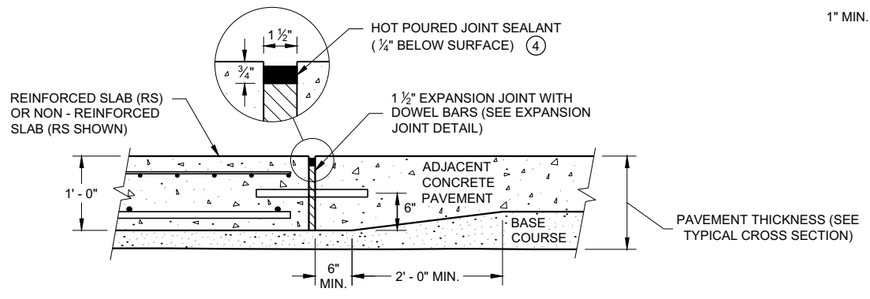
*** STANDARD DOWEL BAR DIAMETER (SEE SDD 13C11 AND SDD 13C13)



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.

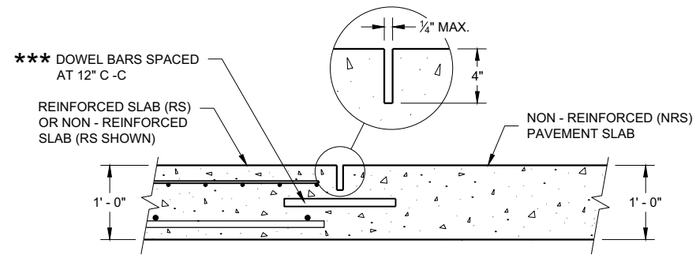
(5) PLACE EXPANSION CAP ON THE END OF THE DOWEL THAT IS NOT TACK WELDED TO THE BASKET. DO NOT FORCE DOWEL BAR PAST THE DOWEL STOP.

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

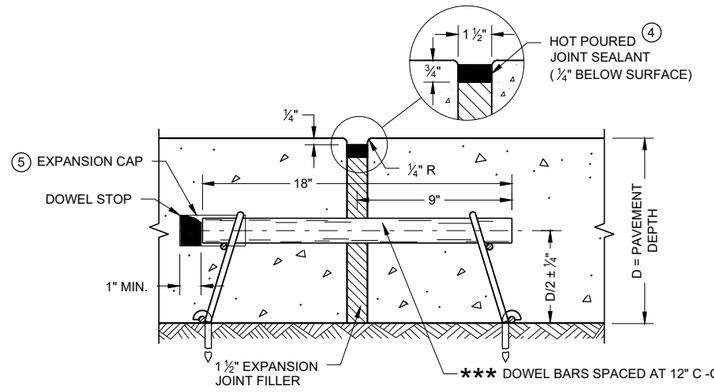
(A) STANDARD CONTRACTION JOINT NORMAL TO ℄ OR ℞.

(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

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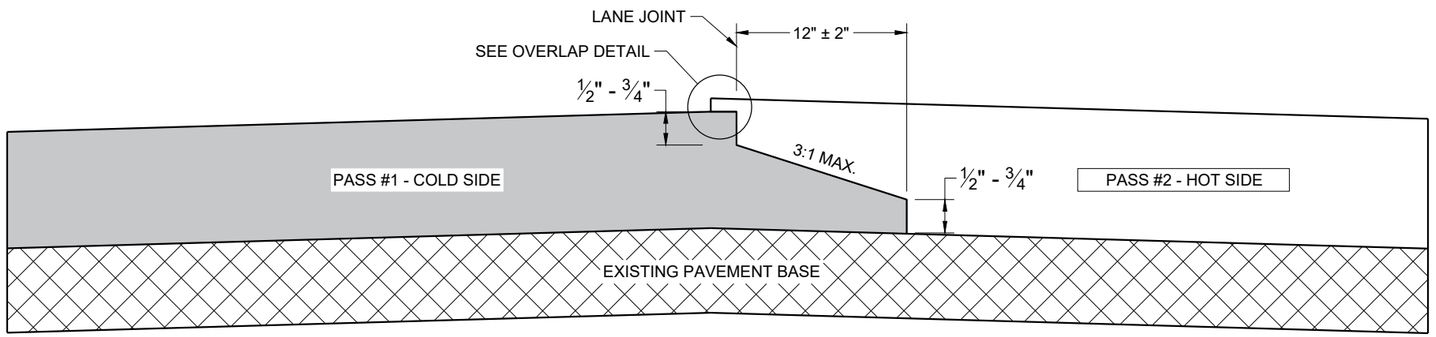
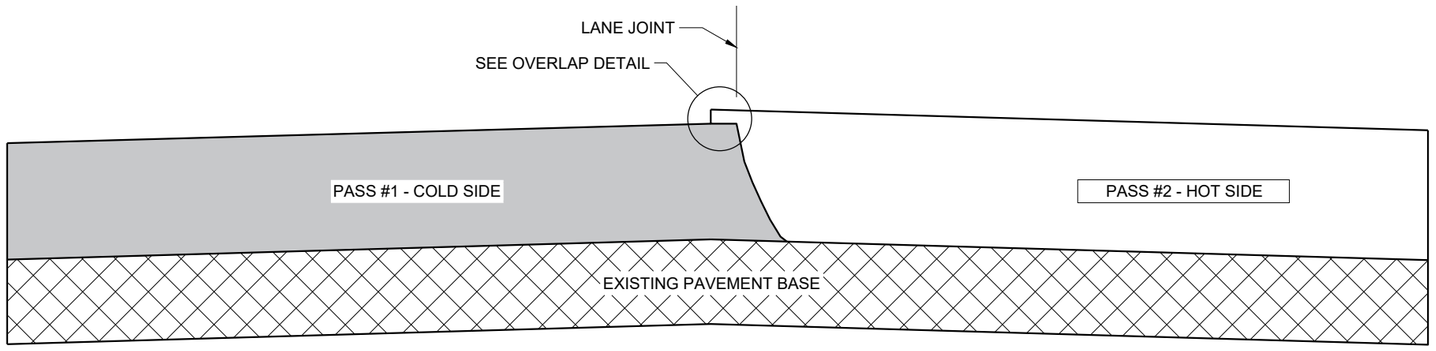
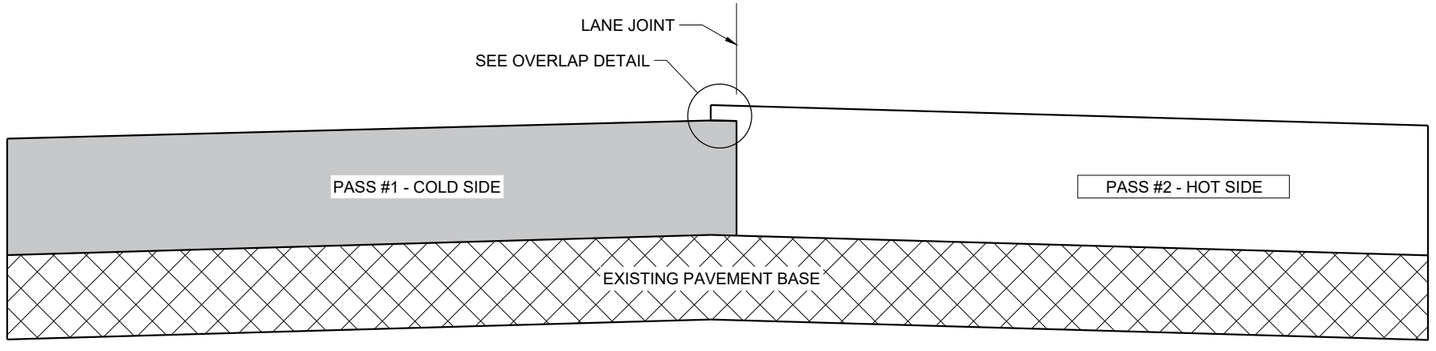
SDD 13B02 - 09a



TYPICAL PAVEMENT CROSS SECTION
NOTCHED WEDGE JOINT



TYPICAL PAVEMENT CROSS SECTION
VERTICAL JOINT



TYPICAL PAVEMENT CROSS SECTION
VERTICAL JOINT (MILLED)

GENERAL NOTES

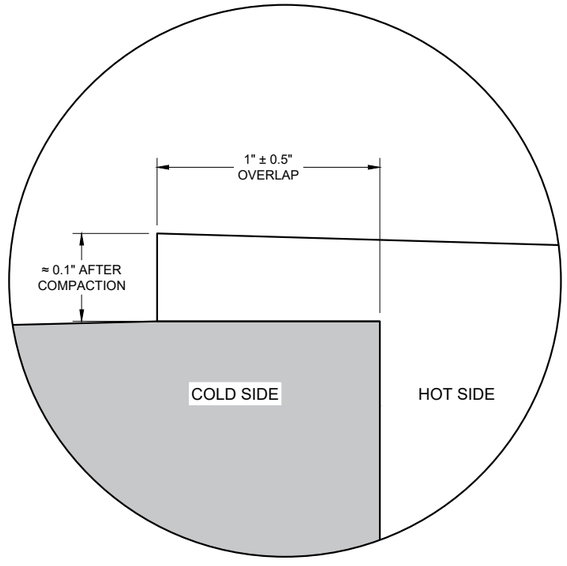
IN ADDITION TO THE DETAILS PROVIDED IN THIS DRAWING, CONFORM TO STANDARD SPECIFICATION 450.3.2.8 FOR WHEN A NOTCHED WEDGE JOINT IS REQUIRED AND FOR GENERAL JOINT CONSTRUCTION REQUIREMENTS.

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)

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SDD 13C19 - 03

SDD 13C19 - 03

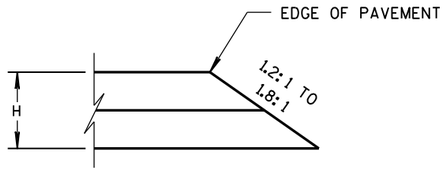
HMA LONGITUDINAL JOINTS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2020
DATE

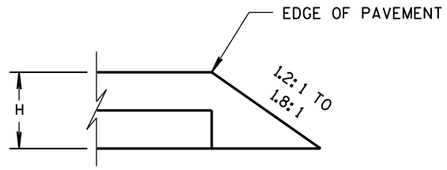
/S/ Steven Hefel
HMA PAVEMENT ENGIN

FHWA



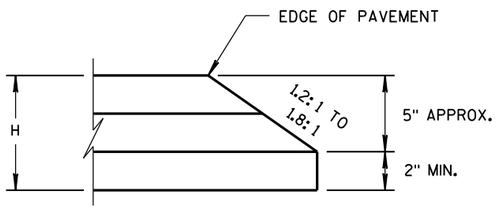
CONSTRUCTED WITH FINAL TWO LAYERS

FOR H 5" OR LESS



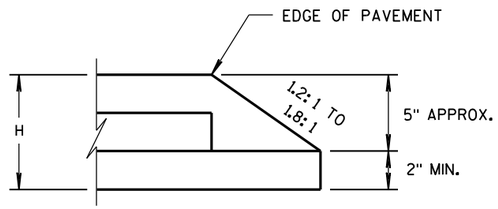
CONSTRUCTED WITH FINAL LAYER

FOR H 5" OR LESS



CONSTRUCTED WITH FINAL TWO LAYERS

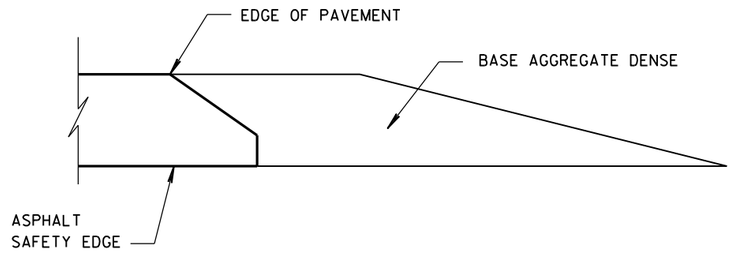
FOR H GREATER THAN 5"



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.

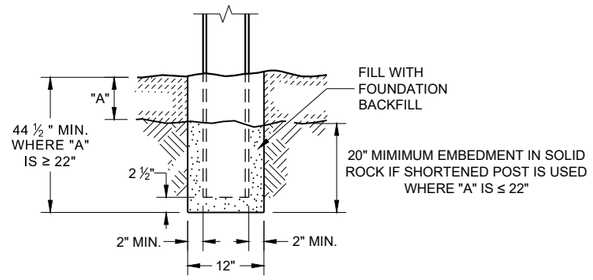
(3) IF ROCK IS ENCOUNTERED DURING EXCAVATION, PROVIDE A HOLE 12 INCHES IN DIAMETER EXTENDING 20 INCHES DEEP INTO THE ROCK. PLACE APPROXIMATELY 2 1/2" INCHES OF GRANULAR MATERIAL IN THE BOTTOM OF THE HOLE. CUT THE POSTS THE TO LENGTH AMD INSTALL. BACKFILL WITH EXCAVATED MATERIAL AND COMPACT. BACKFILL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

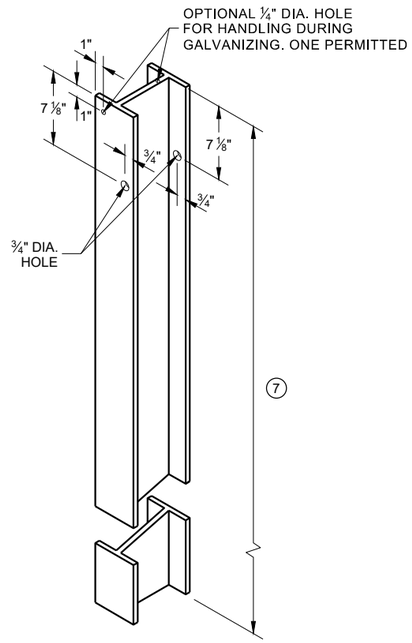
(5) FOR NEW MGS INSTALLATION TOP OF W-BEAM RAIL TOLERANCE IS ±1". FOR EXISTING MGS INSTALLATION TOP OF W-BEAM IS BETWEEN 27 ¾" TO 32".

(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.

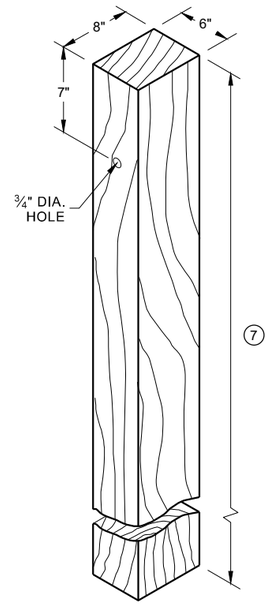
(7) TOTAL POST LENGTH FOR TYPE K IS 7' - 0".
TOTAL POST LENGTH FOR OTHER MGS TYPES IS 6' - 0".



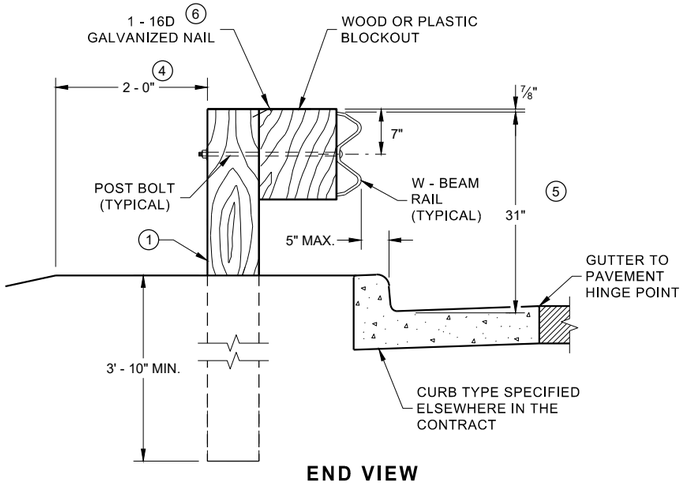
END VIEW
SETTING STEEL OR WOOD POST IN ROCK (3)



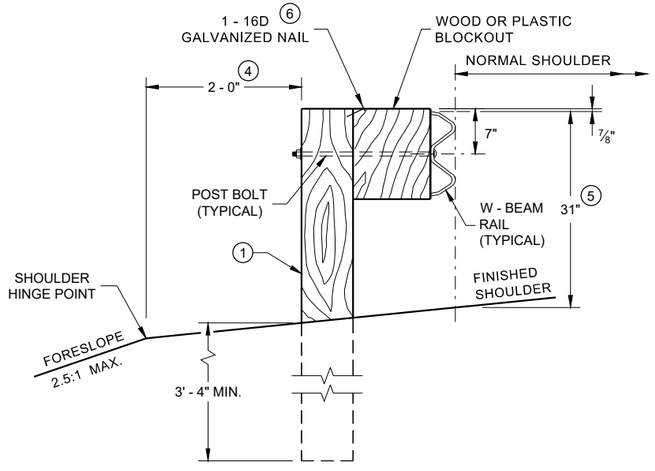
STEEL POST & HOLE PUNCHING DETAIL (W 6 X 9) (1)



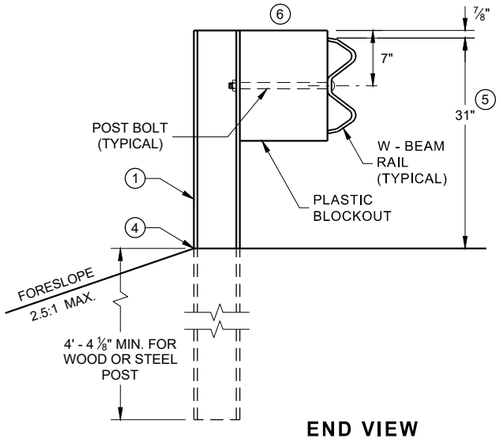
WOOD POST (6" X 8") NOMINAL (1)



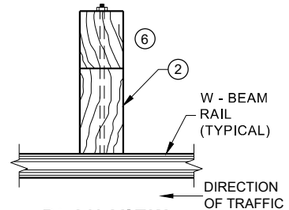
END VIEW
LOCATED ALONG A CURBED ROADWAY



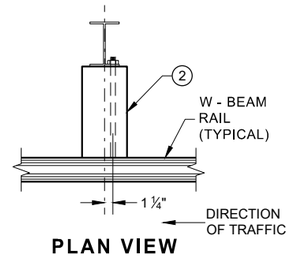
END VIEW
LOCATED ALONG A ROADWAY SHOULDER STANDARD INSTALLATION



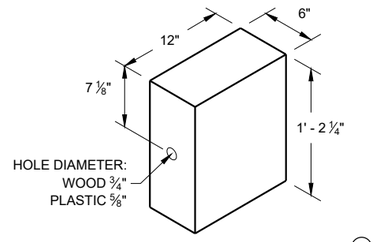
END VIEW
MGS LONGER POST AT HALFPOST SPACING W BEAM (K)



PLAN VIEW
WOOD POST, BLOCKOUT & BEAM



PLAN VIEW
STEEL POST, PLASTIC BLOCKOUT & BEAM

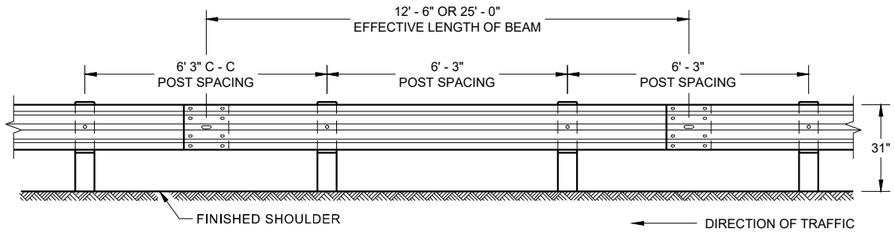


WOOD OR PLASTIC BLOCKOUT (2)

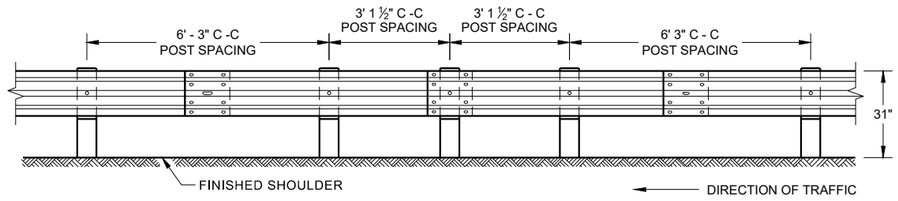
MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

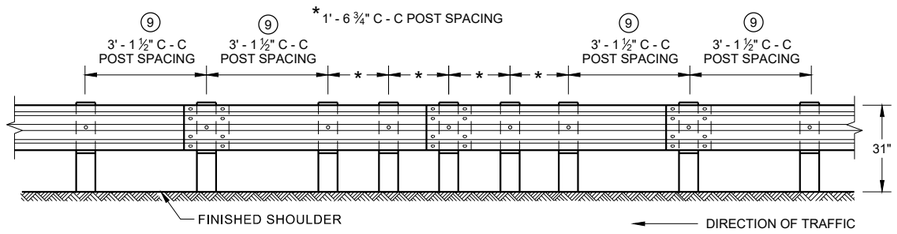
SDD 14B42 - 07a



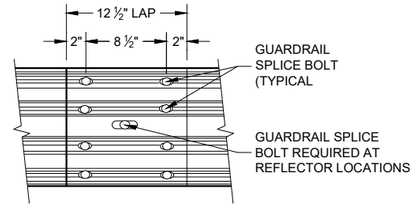
FRONT VIEW
POST SPACING STANDARD INSTALLATION



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

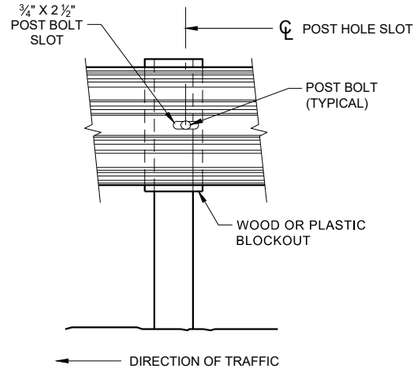
GENERAL NOTES

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

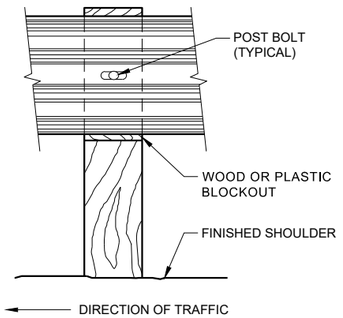
⑨ 25 FEET OF HALF POST SPACING IS REQUIRED ON APPROACH AND DEPARTURE ENDS OF QUARTER POST SPACING.

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.

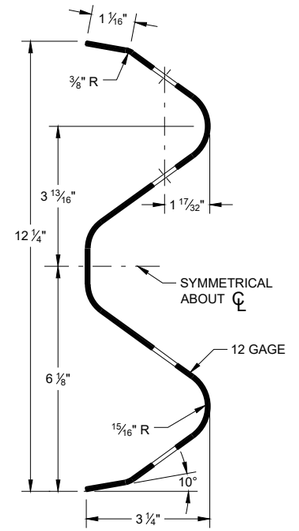
GUARD RAIL SPLICE BOLTS ARE A ⅝" DIAMETER ASTM A307 GUARDRAIL HEAD BOLT. A GUARDRAIL SPLICE BOLT REQUIRES ⅝" DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX NUT.



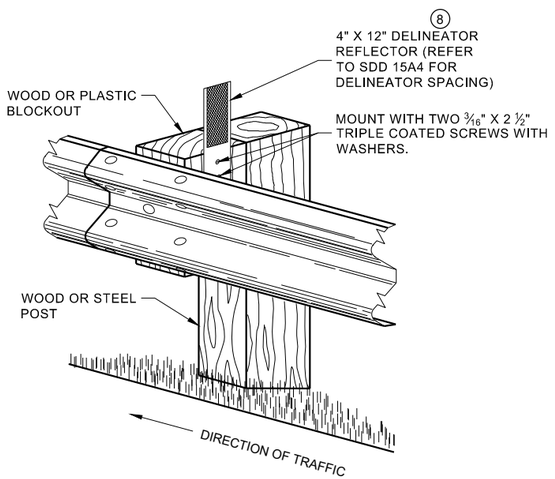
FRONT VIEW AT STEEL POST



FRONT VIEW AT WOOD POST



SECTION THRU W-BEAM RAIL

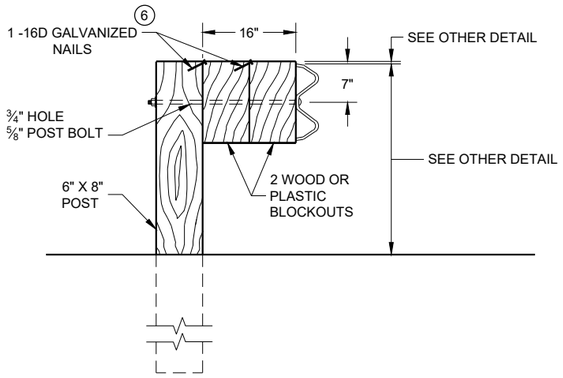


ONE SIDED REFLECTOR DETAIL
AND TYPICAL INSTALLATION

MIDWEST GUARDRAIL SYSTEM
(MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6
SDD 14B42 - 07b

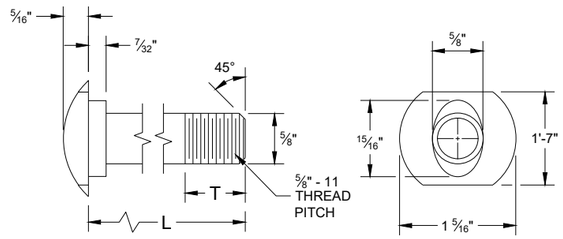


DETAIL FOR 16" BLOCKOUT DEPTH

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.

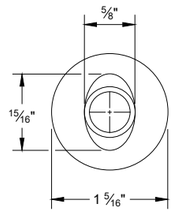
NOTE:

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

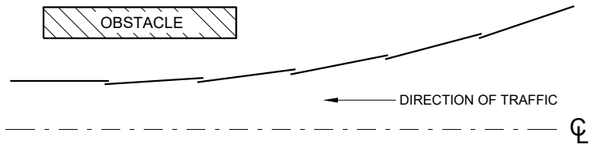


POST BOLT TABLE

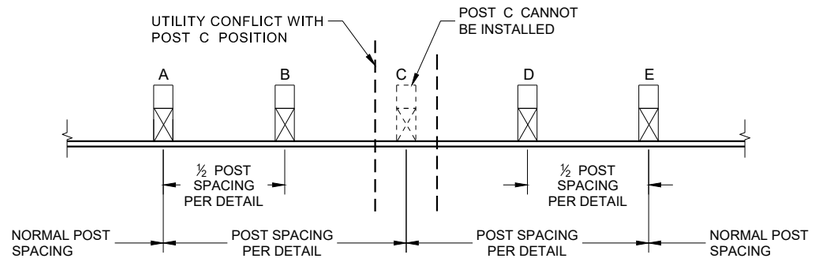
L	T (MIN.)
1 ¼"	1 ⅛"
2"	1 ¾"
10"	4"
14"	4 1⁄16"
18"	4"
21"	4 1⁄16"
25"	4"



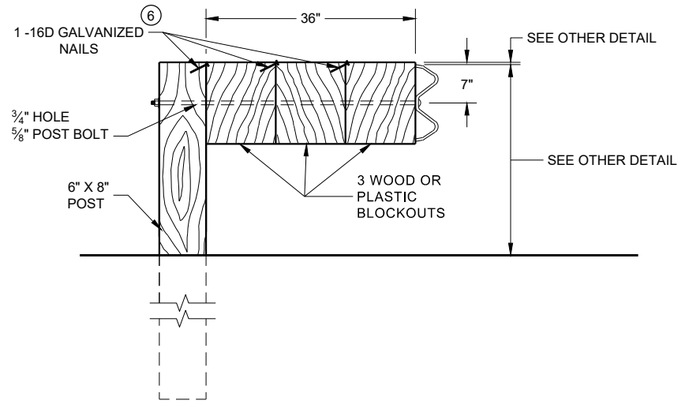
ALTERNATE BOLT HEAD



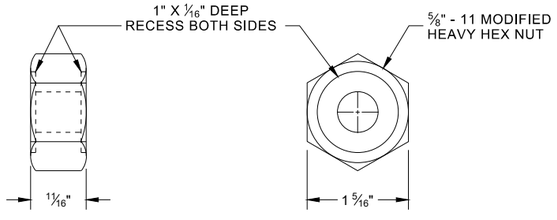
PLAN VIEW
BEAM LAPPING DETAIL



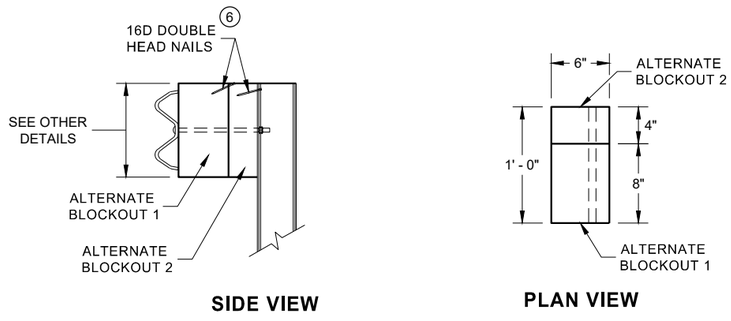
POST DRIVING FOR CONTINUOUS UNDERGROUND OBSTRUCTION



DETAIL FOR 36" BLOCKOUT DEPTH



POST BOLT, SPLICE BOLT AND RECESS NUT



ALTERNATE WOOD BLOCKOUT DETAIL

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

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

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

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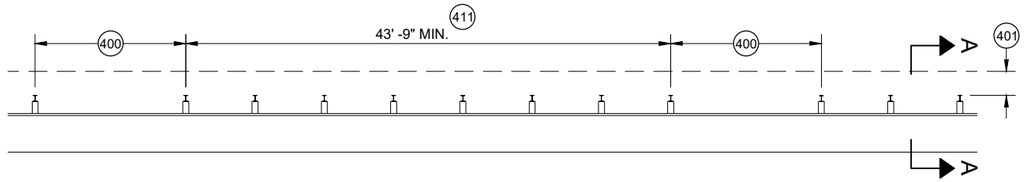
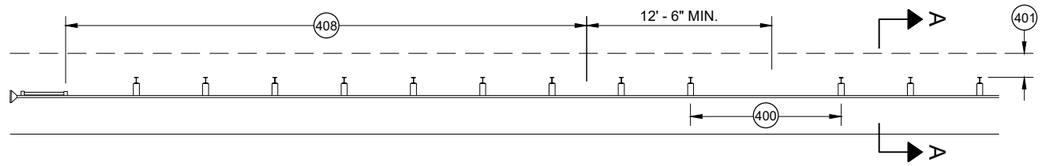
MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

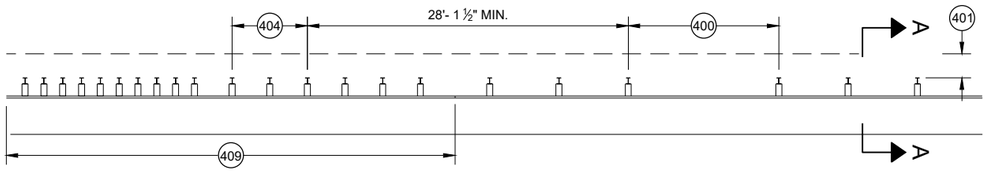
SDD 14B42 - 07c



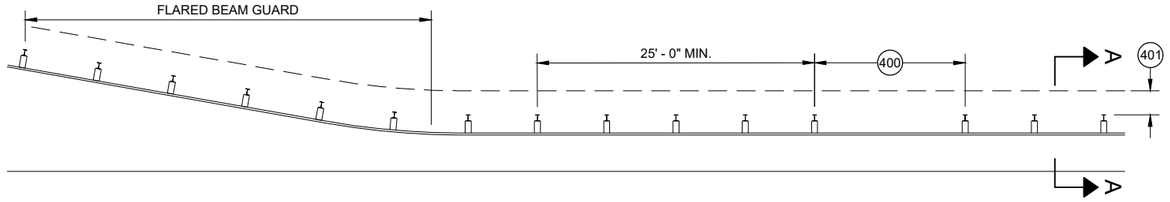
MISSING POST IN MGS GUARDRAIL



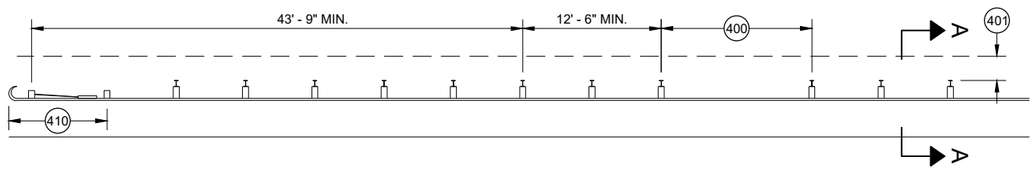
MISSING POST IN MGS GUARDRAIL NEAR EAT



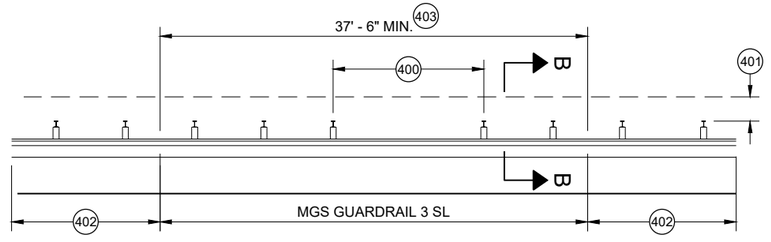
MISSING POST IN MGS GUARDRAIL NEAR AN APPROACH TRANSITION



MISSING POST IN MGS GUARDRAIL NEAR FLARED BEAM GUARD

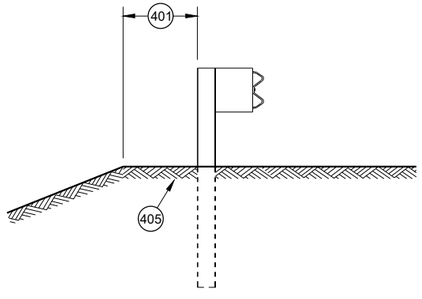


MISSING POST IN MGS GUARDRAIL NEAR A TYPE 2 END TERMINAL

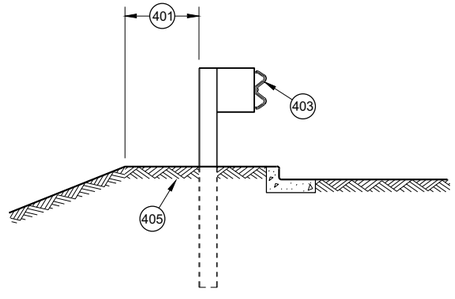


MISSING POST IN SHORT SPAN MGS GUARDRAIL NEAR CURB (SL) 407

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

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.

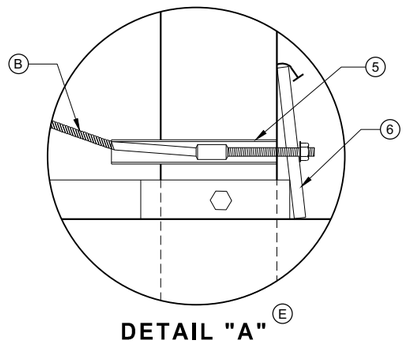
SEE SDD 14B42 FOR MORE INFORMATION.

* DO NOT ATTACH BLOCKOUTS TO POST 1 AND 2.

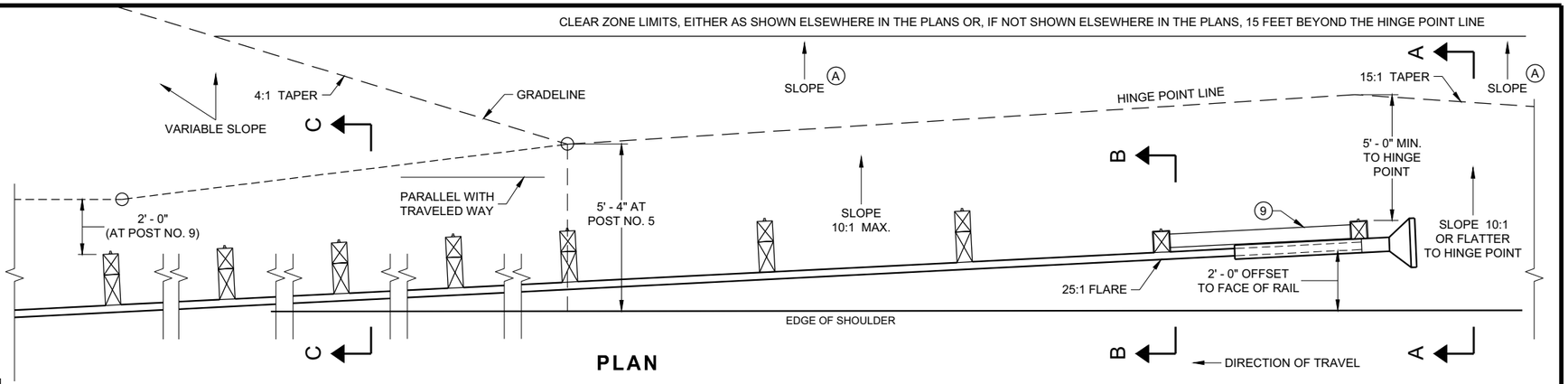
DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL.

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

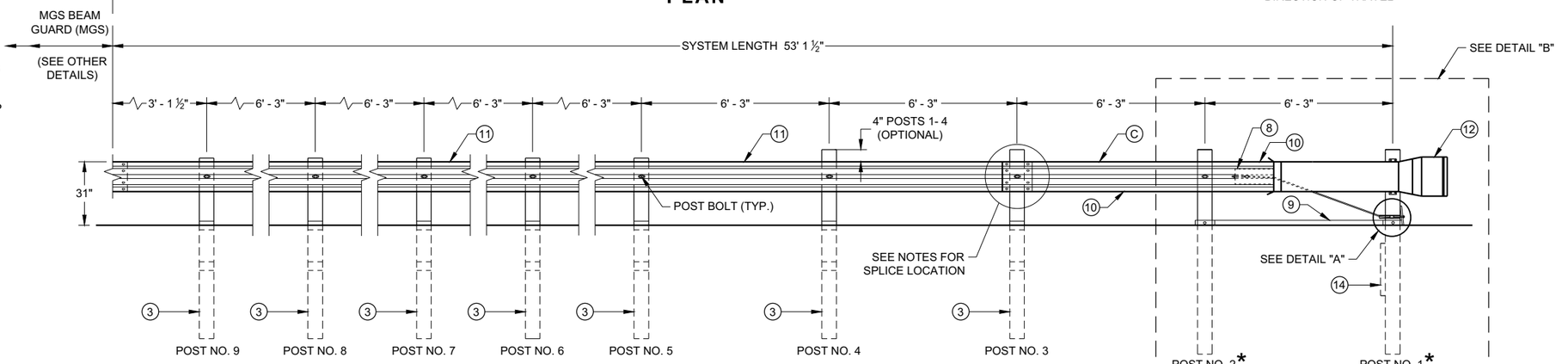
THE CENTER OF THE UPPER 3 ½" DIAMETER HOLE ON POST NUMBER 3 THROUGH POST 9 IS TO BE FLUSH WITH THE GROUND LINE UP TO A MAXIMUM OF 2" ABOVE GROUND LINE. WOOD BLOCKS ON POSTS NUMBERED 3 THROUGH 9 MAY BE ADJUSTED UP TO 3" ABOVE THE TOP OF POST.



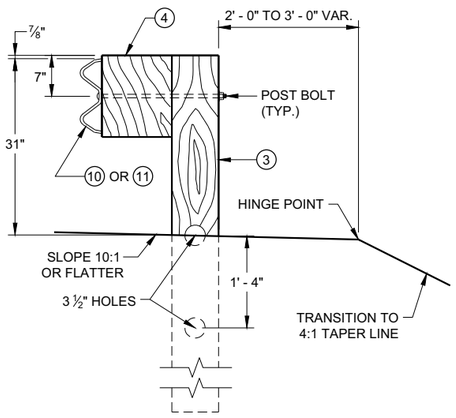
DETAIL "A" (E)



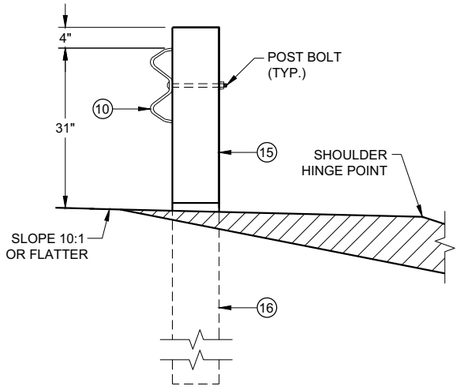
PLAN



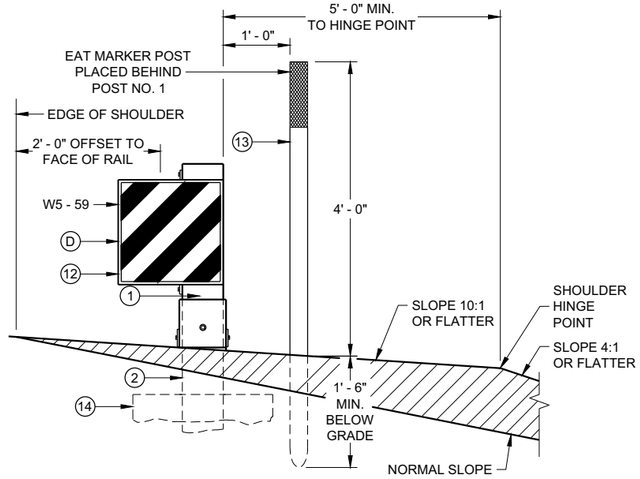
ELEVATION



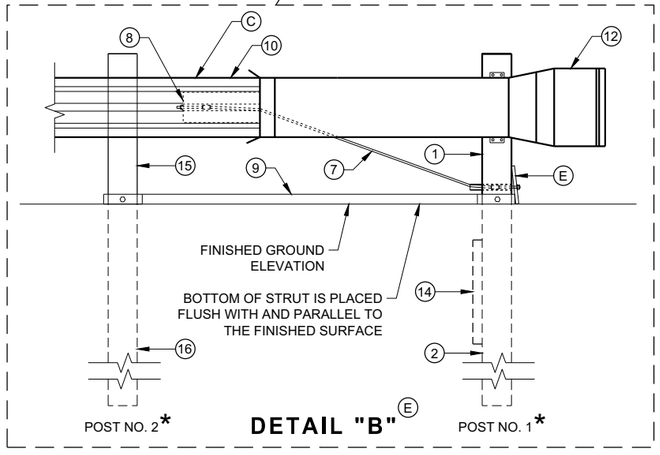
SECTION C - C
TYPICAL AT POST NOS. 3 - 9



SECTION B - B
TYPICAL AT POST NO. 2*



SECTION A - A
TYPICAL AT POST NO. 1*



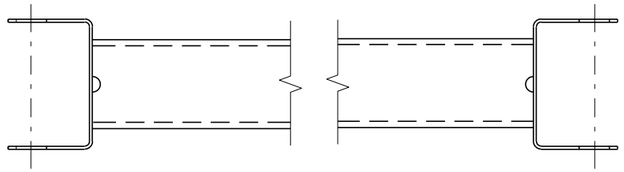
DETAIL "B" (E)

MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

SDD 14B44 - 04a

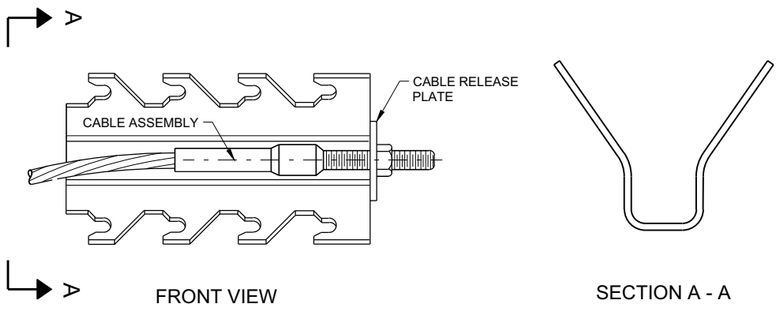
SDD 14B44 - 04a



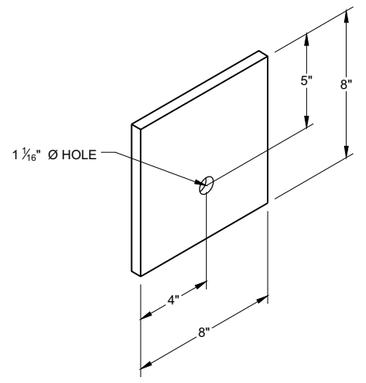
GENERIC GROUND STRUT ⑨ Ⓔ

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

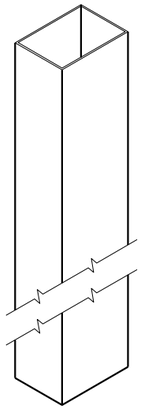
6

SDD 14B44 - 04b

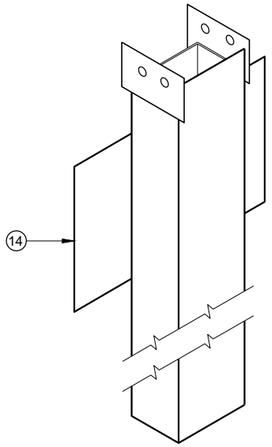
SDD 14B44 - 04b

MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL
(MGS)

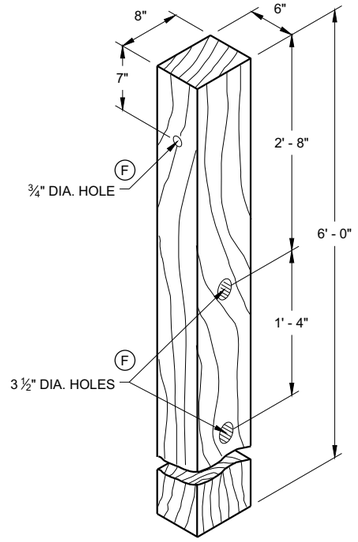
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



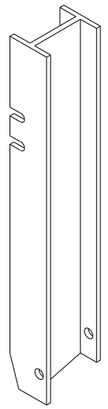
UPPER POST NO. 1 (1) (E)



LOWER POST NO. 1 (2) (E)



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



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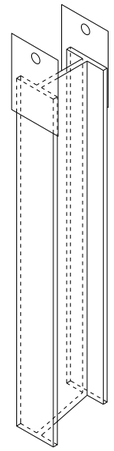
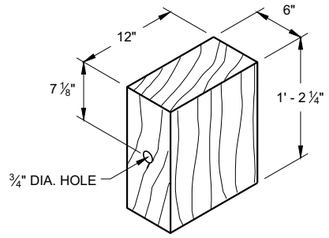
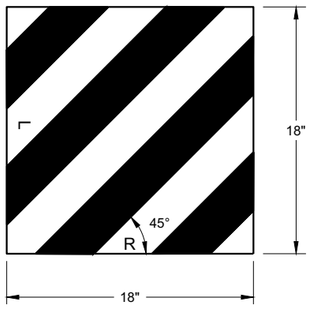


LOWER POST NO. 2 (16) (E)

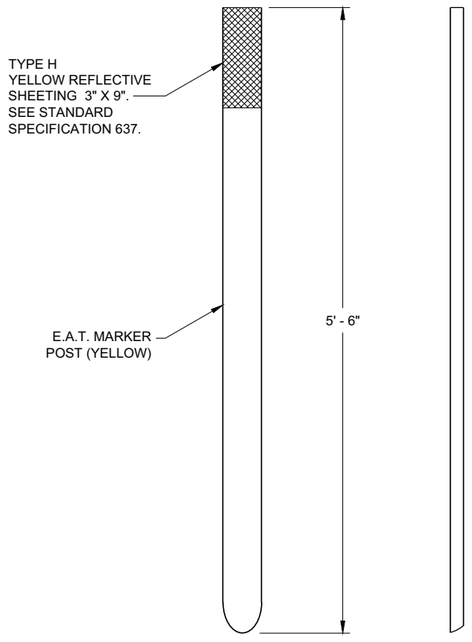


WOOD BLOCKOUT (4)
REQ'D. AT ALL POSTS EXCEPT POST NO'S 1 & 2



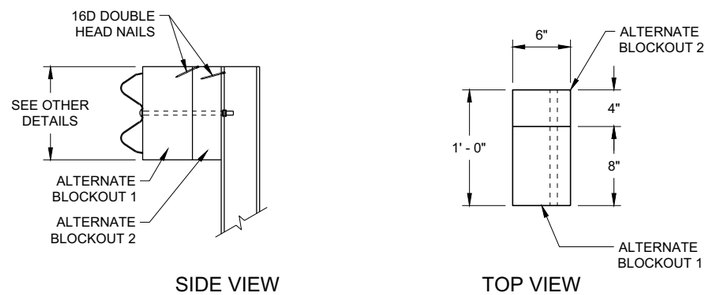
W5 - 59

REFLECTIVE SHEETING DETAIL (E)



FRONT VIEW SIDE VIEW

E.A.T. MARKER POST (13)



SIDE VIEW TOP VIEW

ALTERNATE WOOD BLOCKOUT DETAIL

MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)

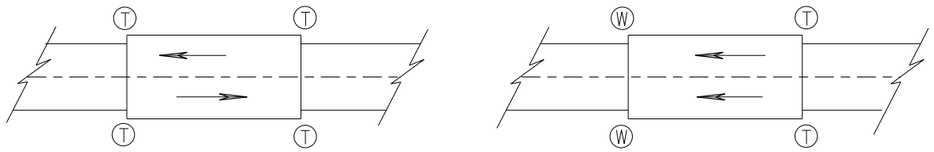
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

FHWA

6

SDD 14B44 - 04c



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.

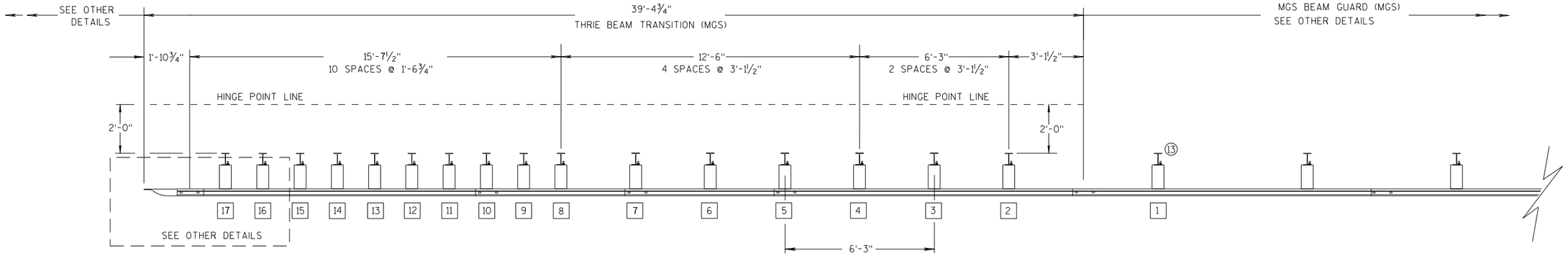
SEE STANDARD DETAIL DRAWING 14 B 42 FOR MORE INFORMATION.

POST 2 THROUGH 17 USES STEEL POST ONLY

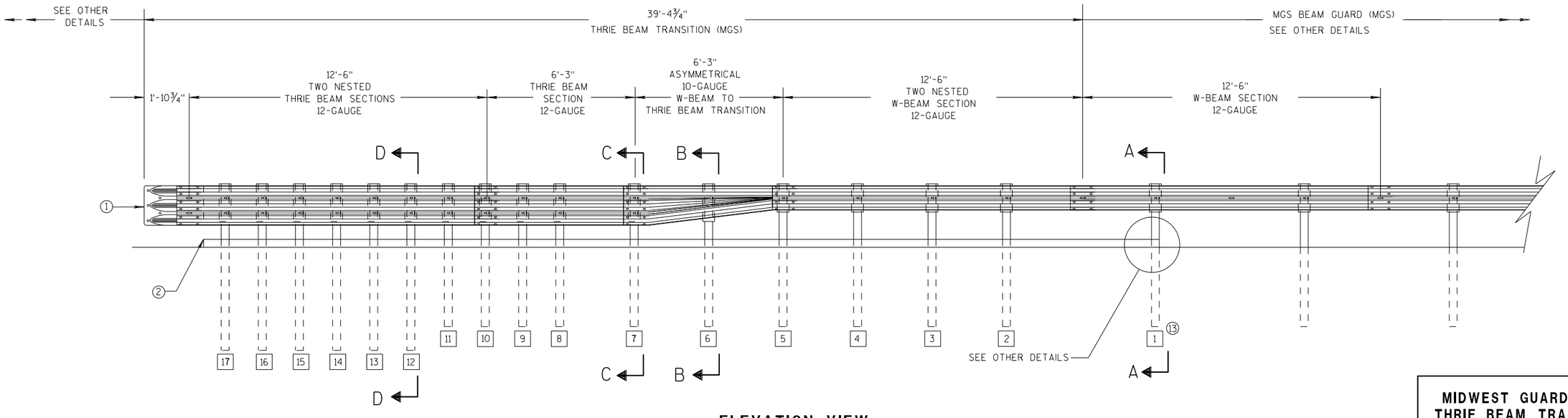
(1) BRIDGE RAILING TYPE "W" DOES NOT REQUIRE A TERMINAL CONNECTOR.

(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

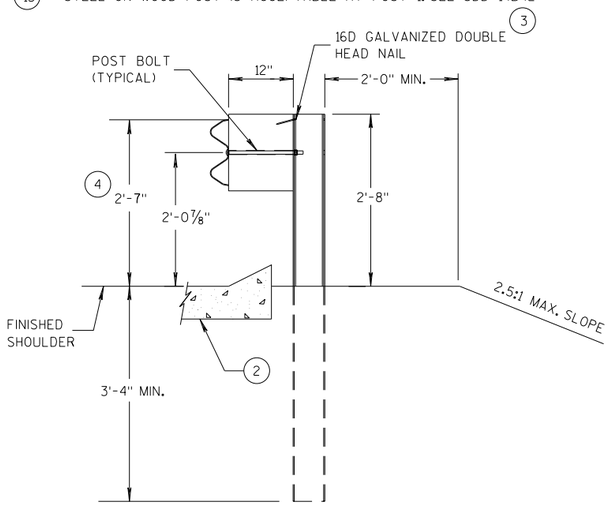
GENERAL NOTES

(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.

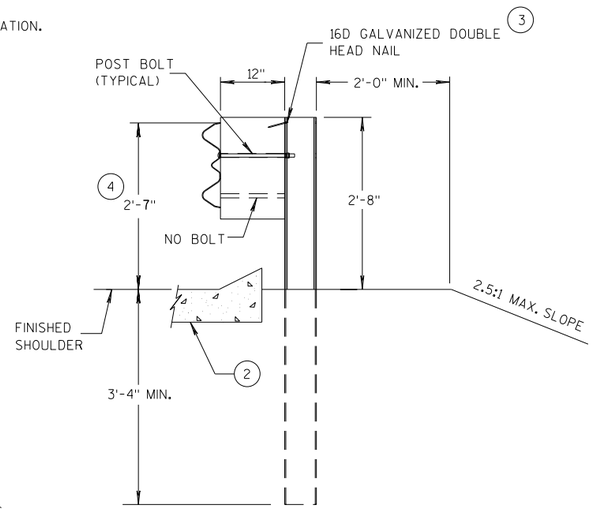
(4) TOLERANCE FOR TOP OF W-BEAM RAIL IS ± 1".

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



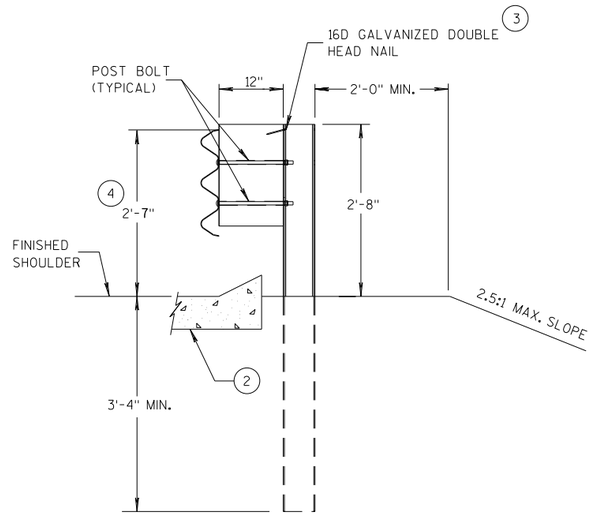
SECTION A-A (13)

POSTS 1-5



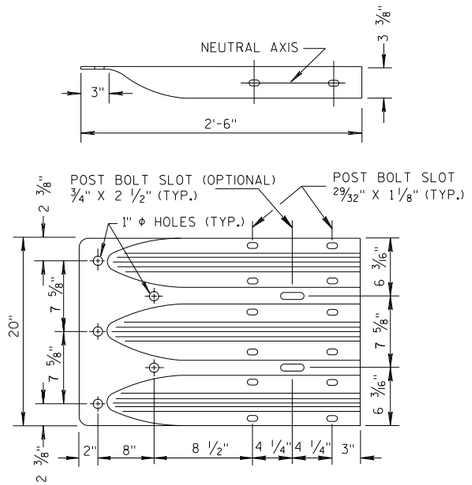
SECTION B-B

POST 6

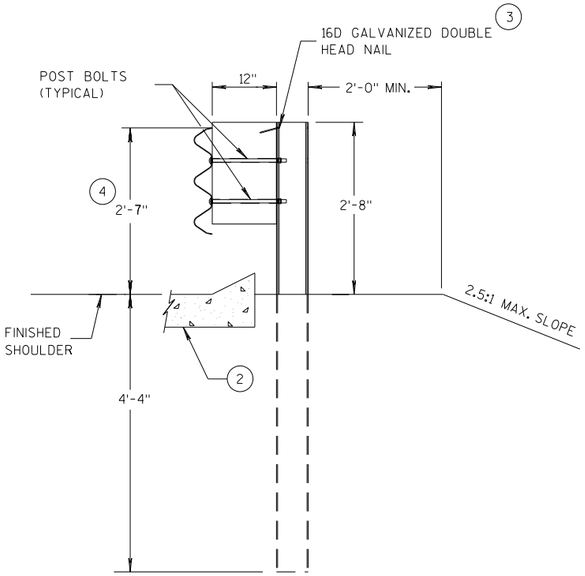


SECTION C-C

POSTS 7-11

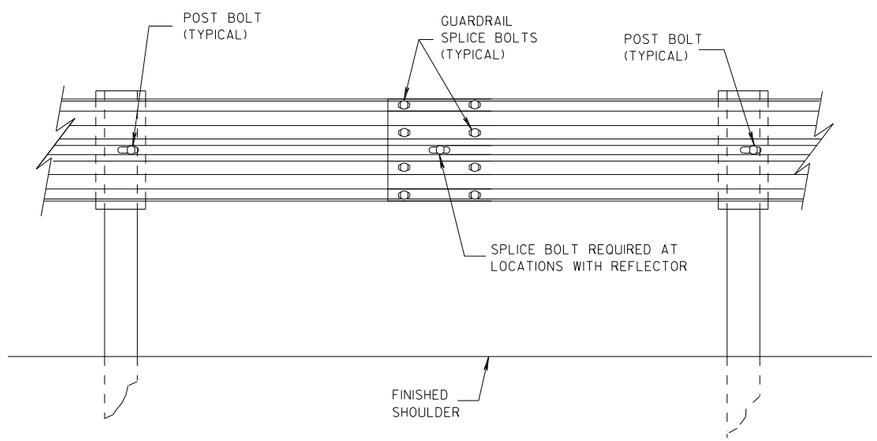


THRIE BEAM TERMINAL CONNECTOR



SECTION D-D

POSTS 12-17



SPLICE DETAIL

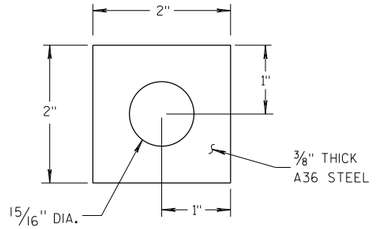
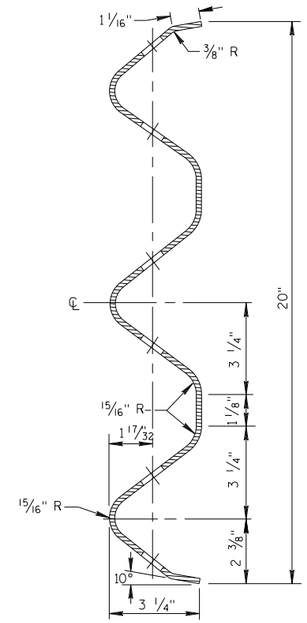


PLATE WASHER DETAIL



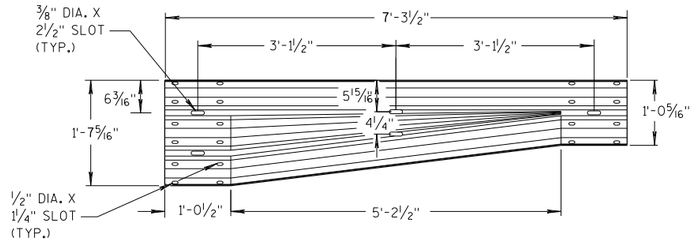
SECTION THRU THRIE BEAM RAIL ELEMENT

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

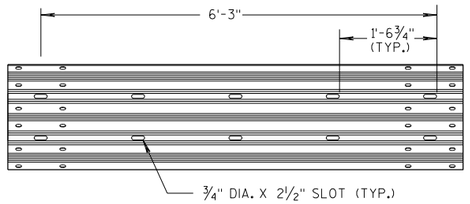
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

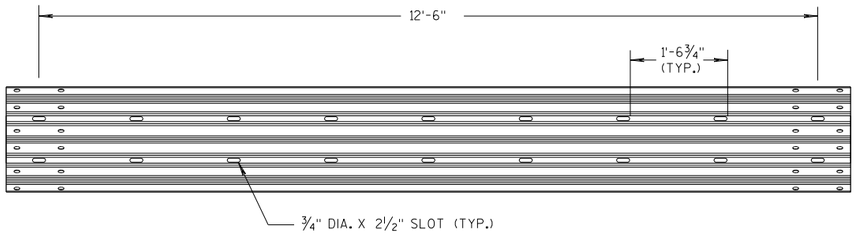
S.D.D. 14 B 45-5b



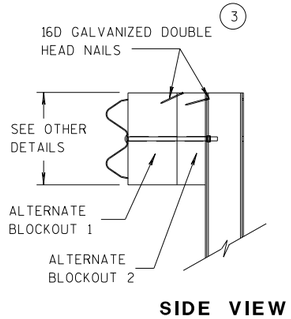
W-BEAM TO THRIE BEAM TRANSITION SECTION



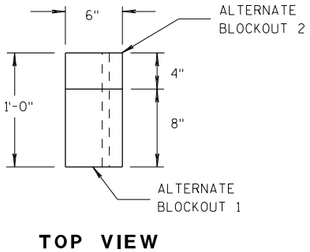
6'-3" THRIE BEAM SECTION



12'-6" THRIE BEAM SECTION

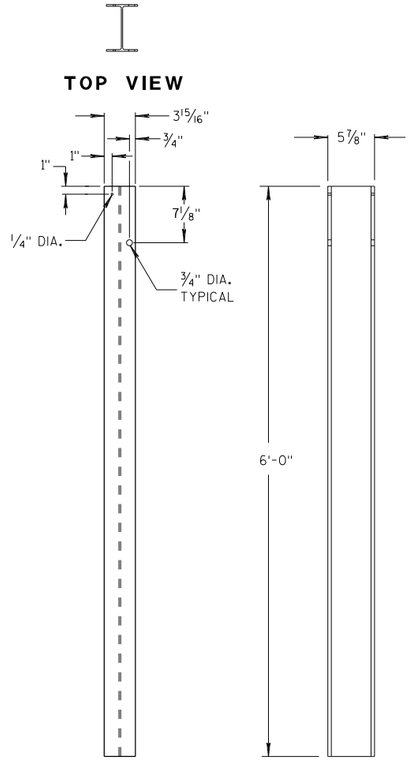


SIDE VIEW



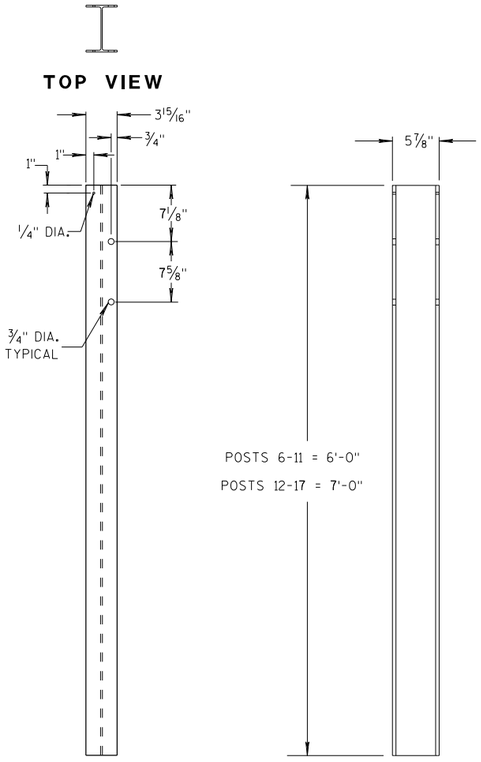
TOP VIEW

ALTERNATE WOOD BLOCKOUT DETAIL



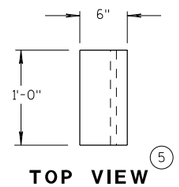
FRONT VIEW SIDE VIEW

STEEL POSTS 1-5 (13)

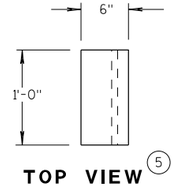


FRONT VIEW SIDE VIEW

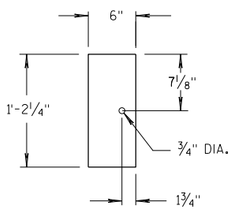
STEEL POSTS 6-17



TOP VIEW (5)

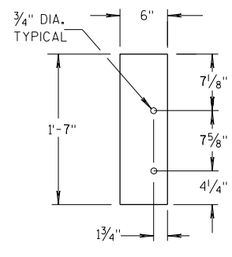


TOP VIEW (5)



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)

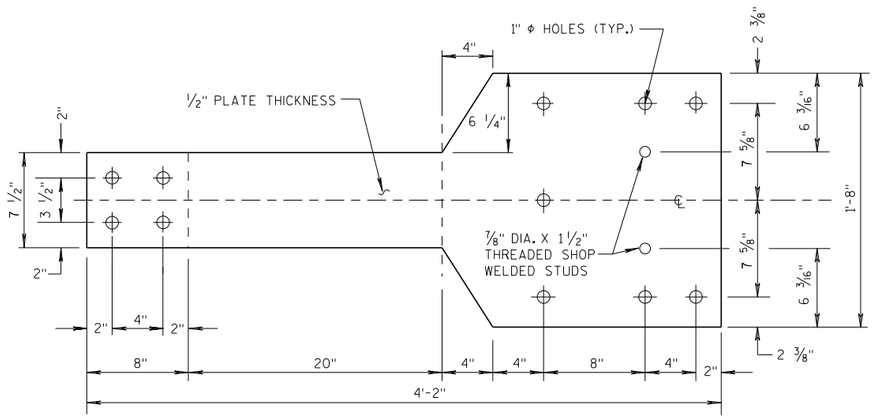
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOF

6

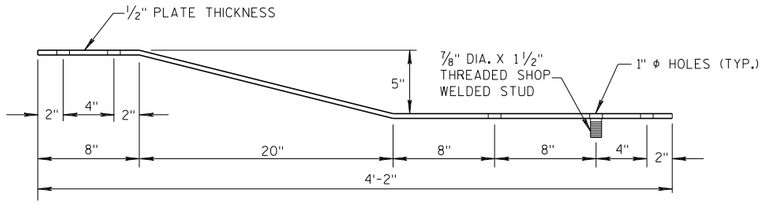
S.D.D. 14 B 45-5c

GENERAL NOTES

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

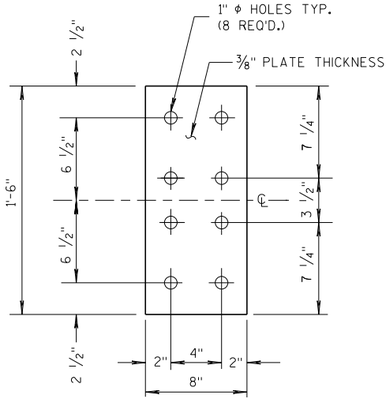


FRONT VIEW



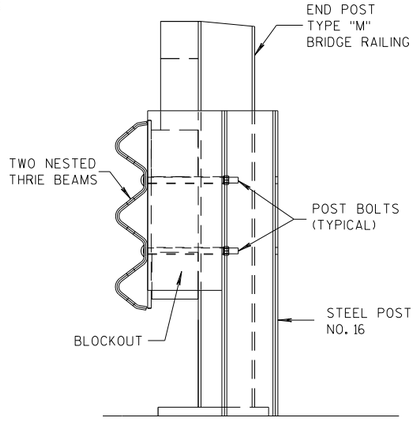
PLAN VIEW

BACK-UP PLATE DETAIL, TYPE "M"

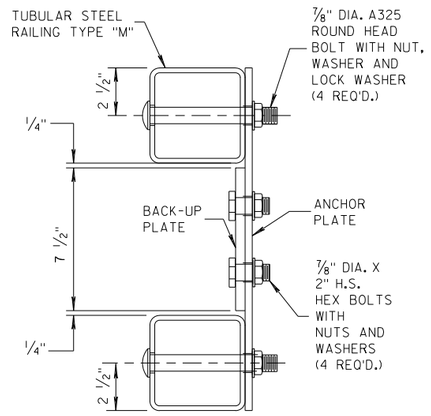


FRONT VIEW

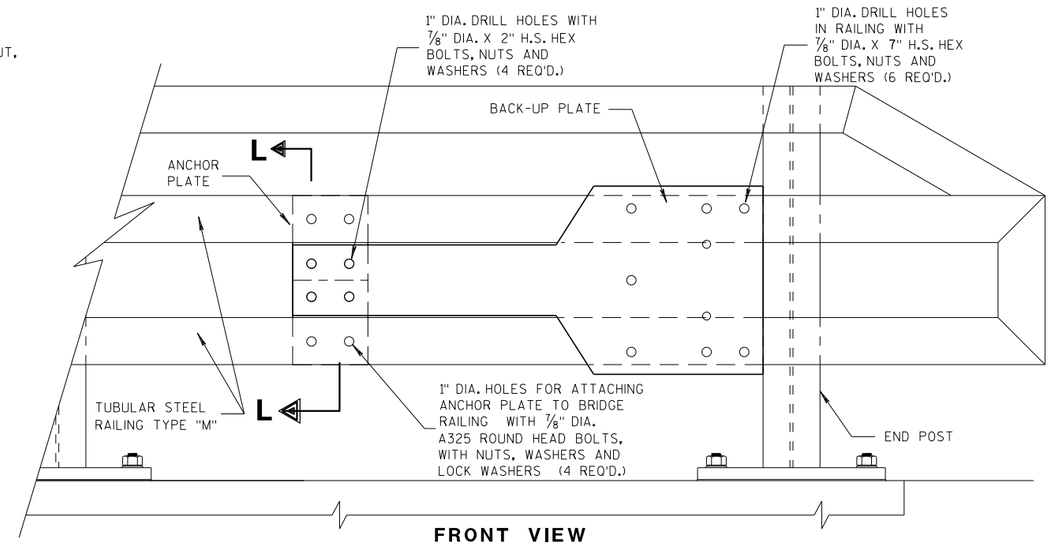
ANCHOR PLATE DETAIL, TYPE "M"



SECTION M-M

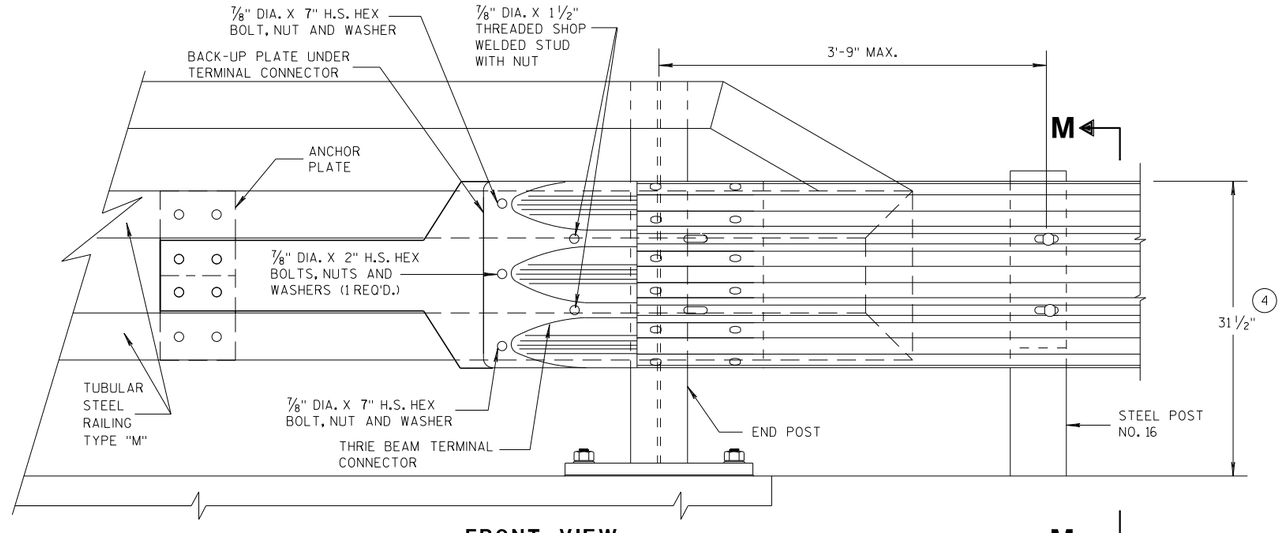


SECTION L-L

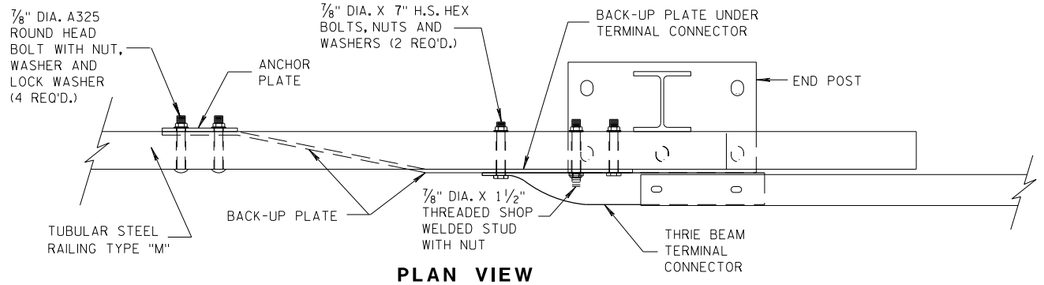


FRONT VIEW

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

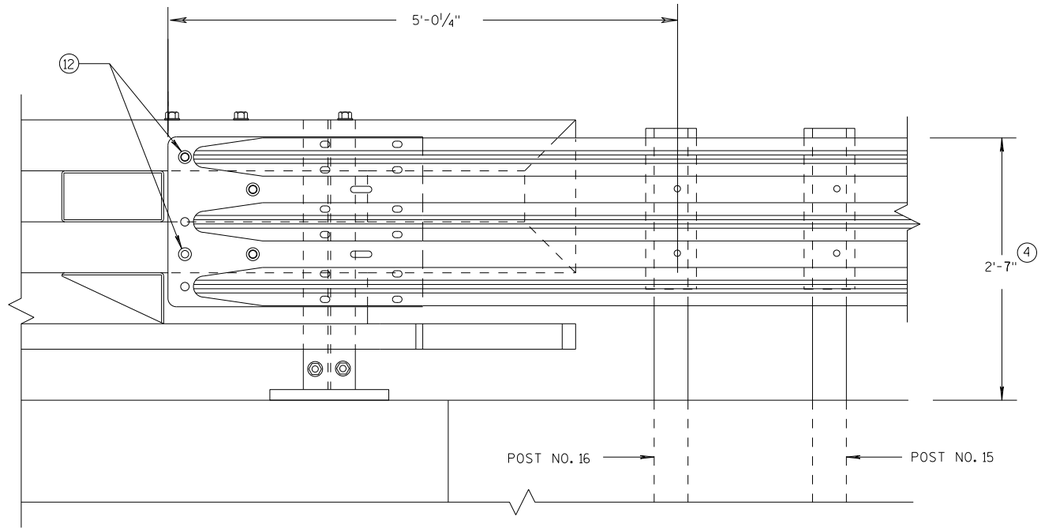
APPROVED
07/2018 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS UNIT SUPERVISOR
FHWA

6

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

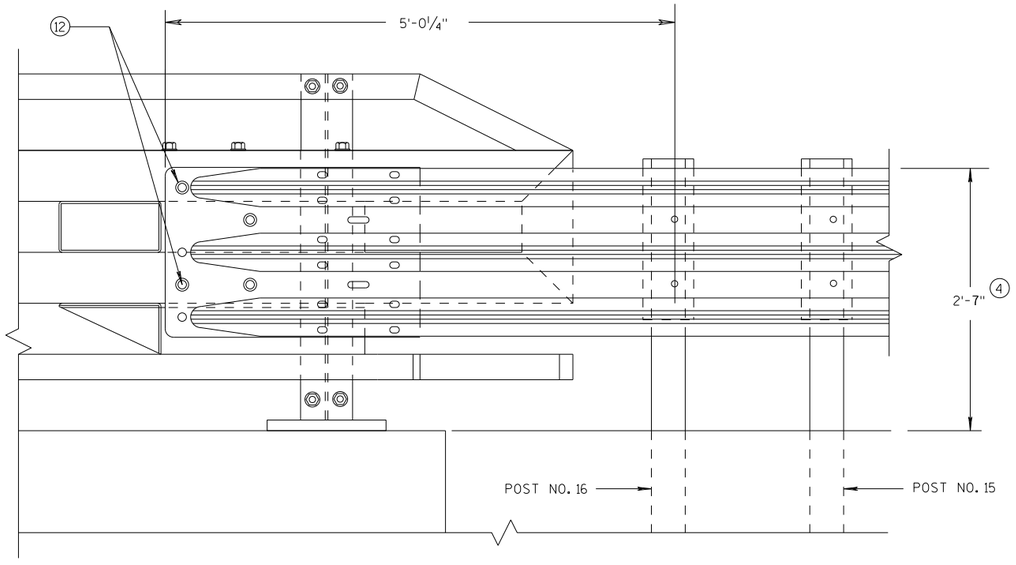
6

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



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

FHWA

NT

6

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

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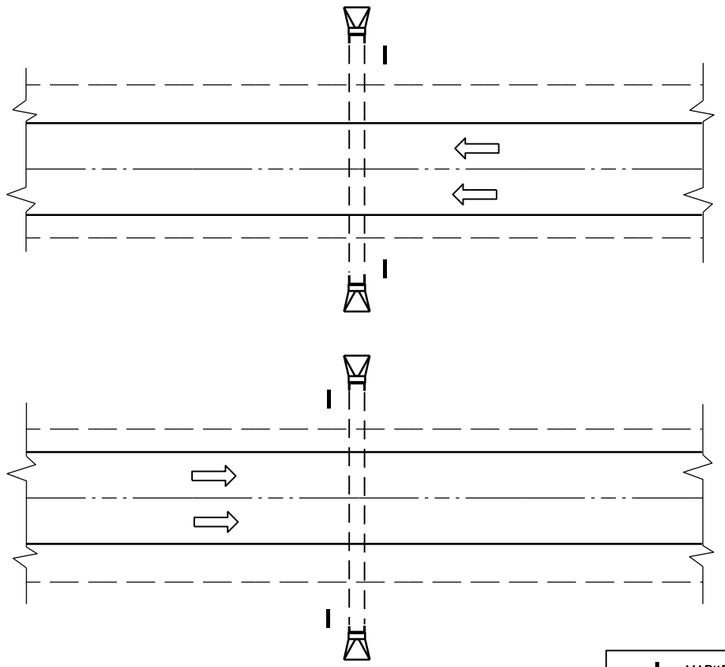
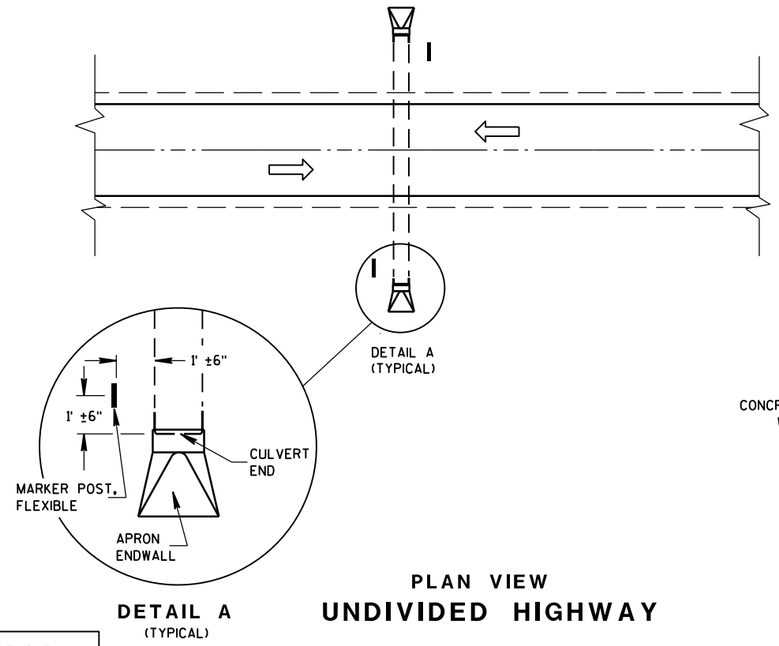
S.D.D. 14 B 45-5k



PLAN VIEW

DIVIDED HIGHWAY



DETAIL A
(TYPICAL)

PLAN VIEW

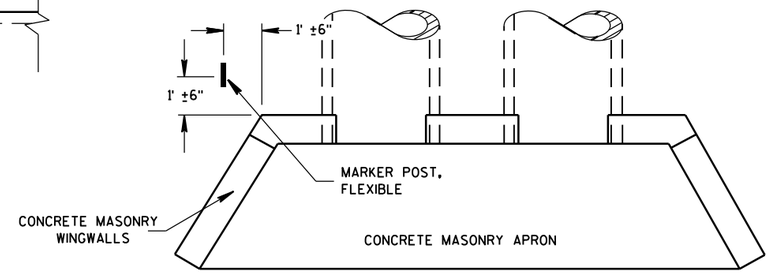
UNDIVIDED HIGHWAY

MARKER POST, FLEXIBLE

DIRECTION OF TRAFFIC FLOW

GENERAL NOTES

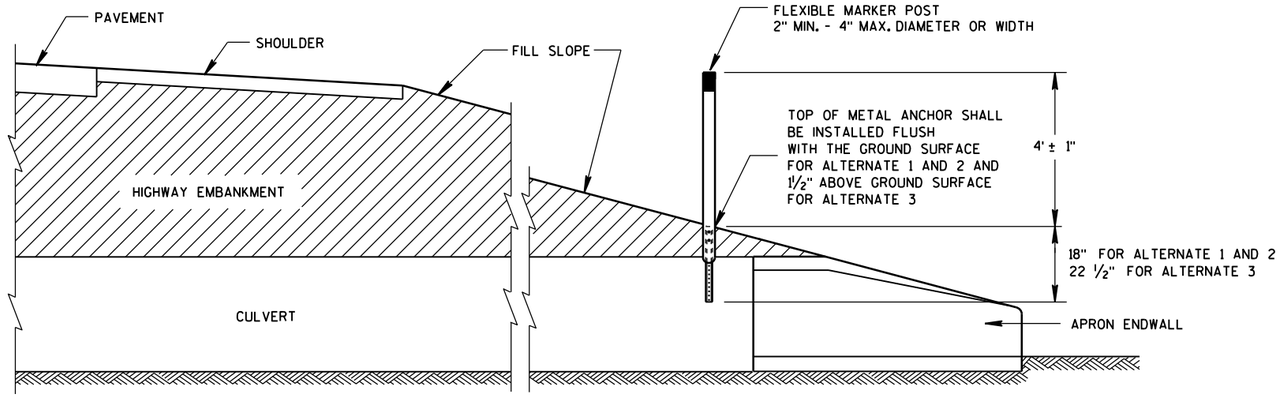
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.



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 TRANSPOI

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

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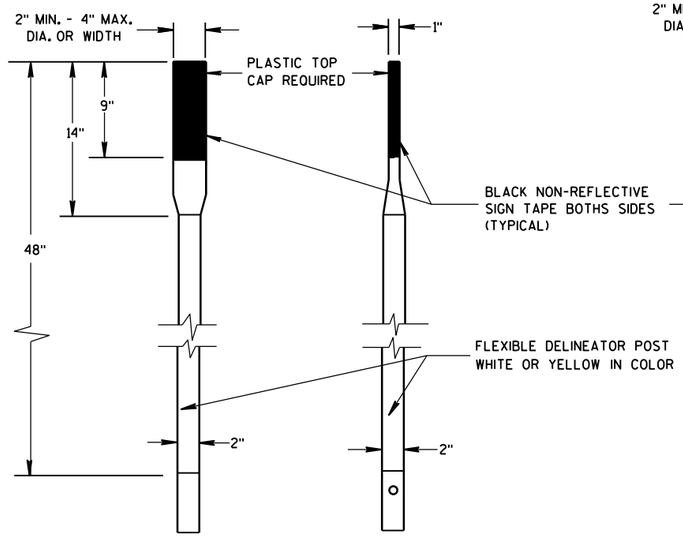
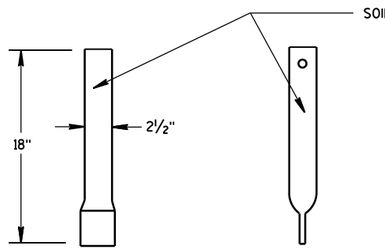
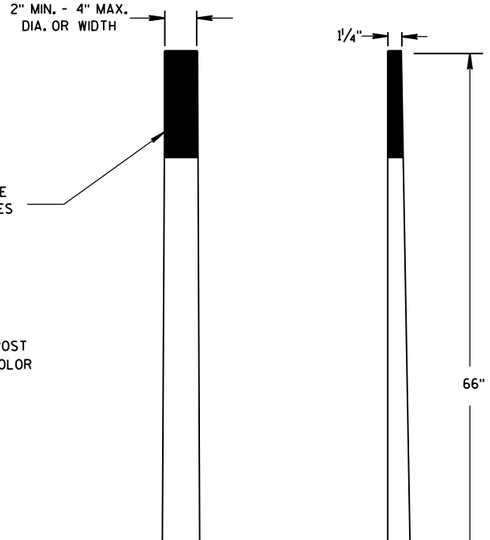
S.D.D. 15 A 3-2a





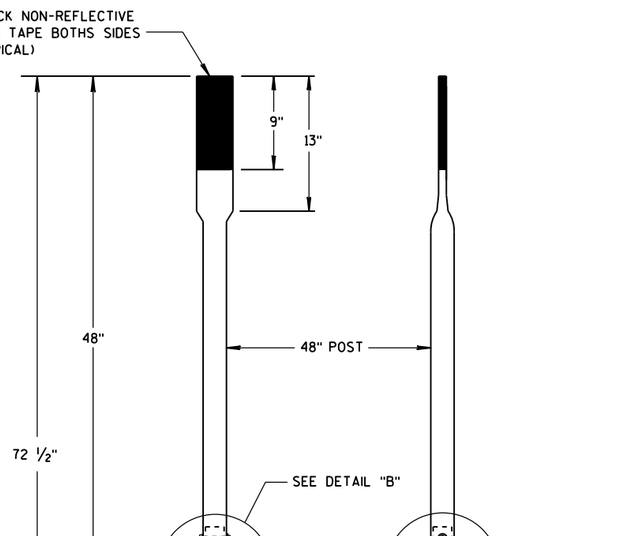
FRONT VIEW SIDE VIEW

ALTERNATE 1



FRONT VIEW SIDE VIEW

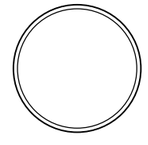
ALTERNATE 2



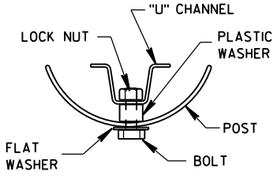
FRONT VIEW SIDE VIEW

ALTERNATE 3

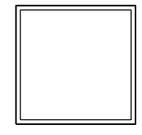
FLEXIBLE MARKER POSTS



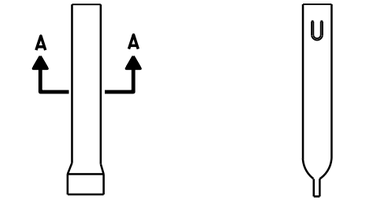
SECTION A-A



SECTION B-B

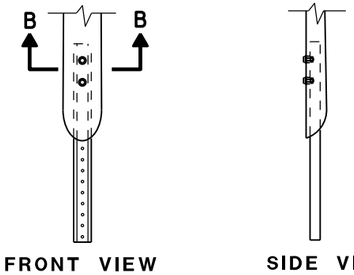


SECTION C-C



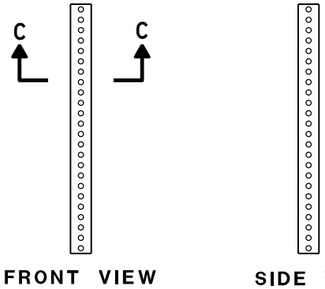
FRONT VIEW SIDE VIEW

ALTERNATE 1



FRONT VIEW SIDE VIEW

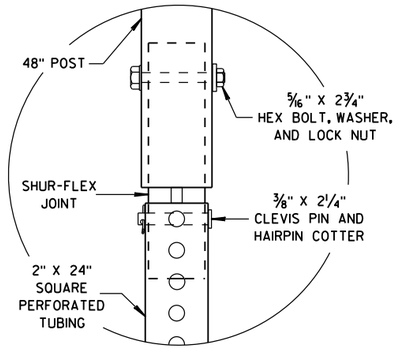
ALTERNATE 2



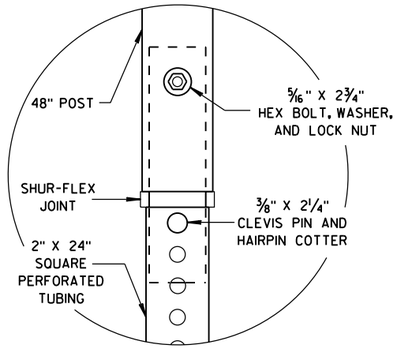
FRONT VIEW SIDE VIEW

ALTERNATE 3

FLEXIBLE MARKER POST ANCHORS



DETAIL B



DETAIL C

FLEXIBLE MARKER POST
FOR CULVERT END

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

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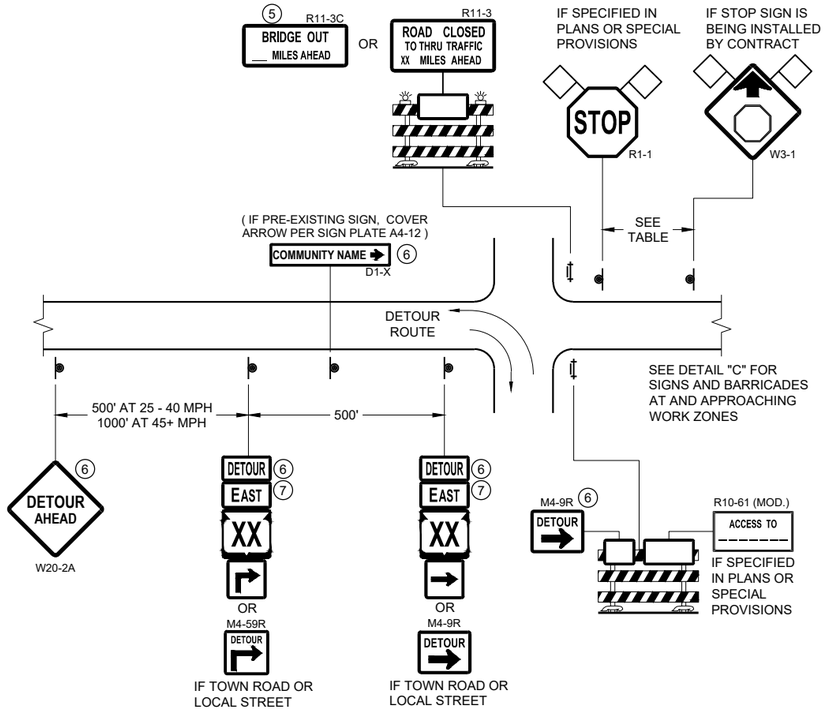
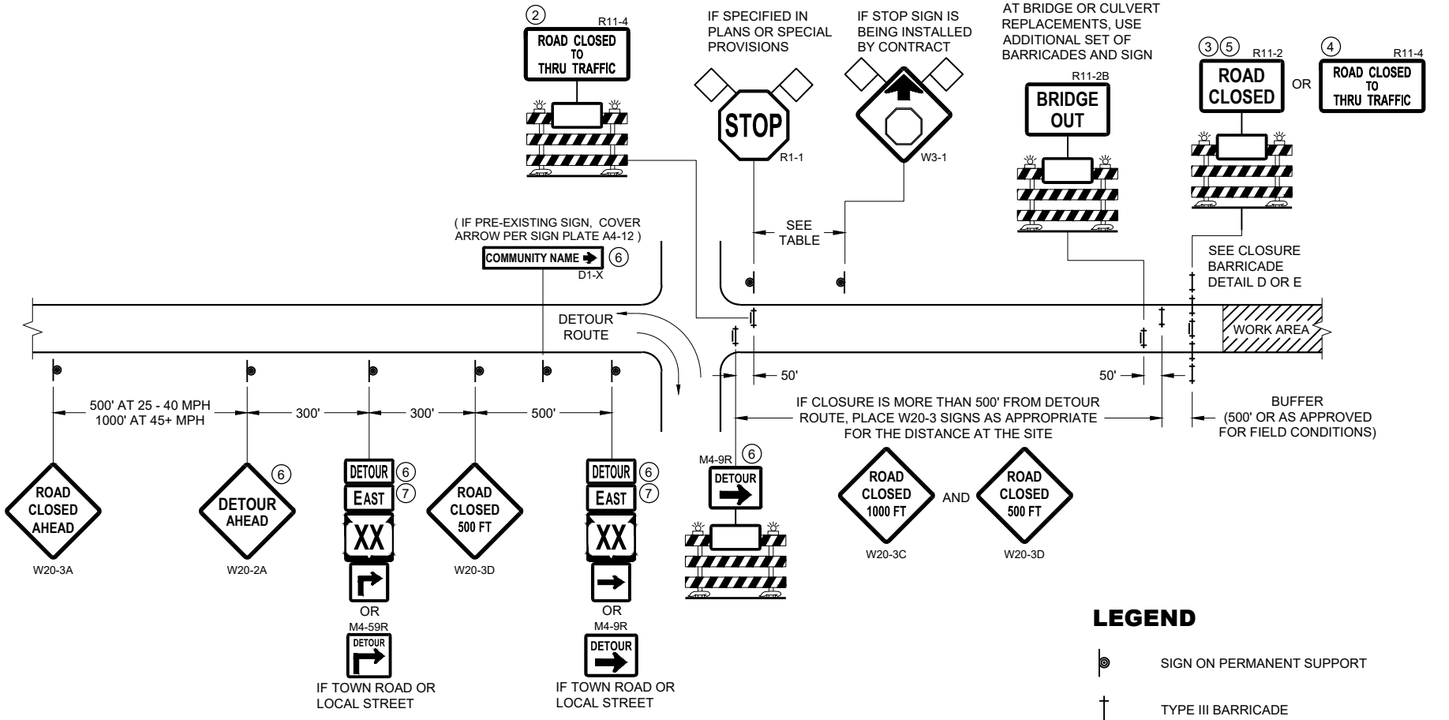
S.D.D. 15 A 3-2b



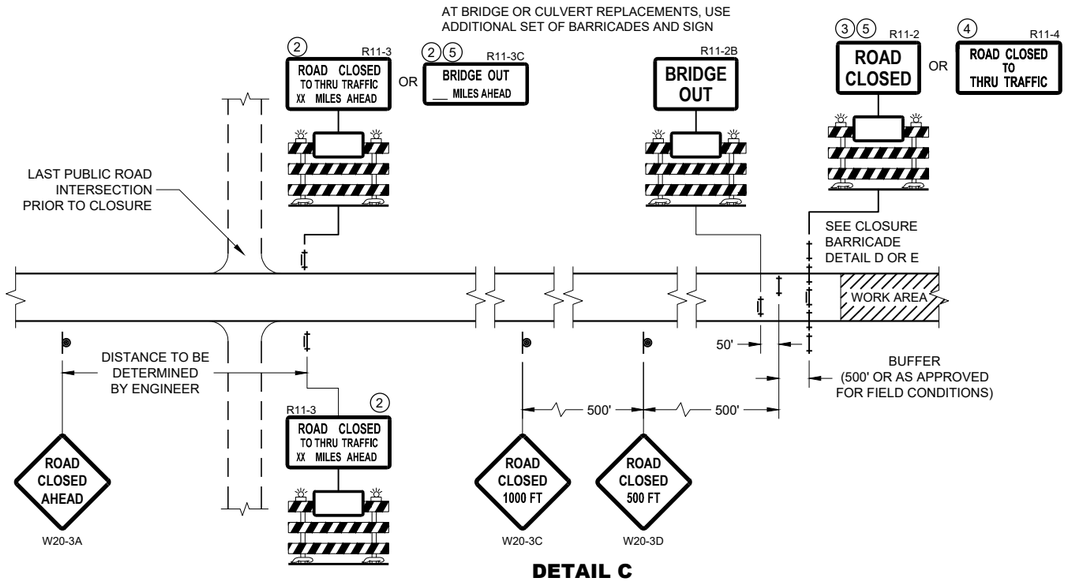
DETAIL A
MAINLINE CLOSURE WITH POSTED DETOUR

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



DETAIL B
MAINLINE CLOSURE WITH POSTED DETOUR

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



DETAIL C
MAINLINE CLOSURE, NO POSTED DETOUR

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

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

LEGEND

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

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

BARRICADES AND SIGNS FOR MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

FHWA

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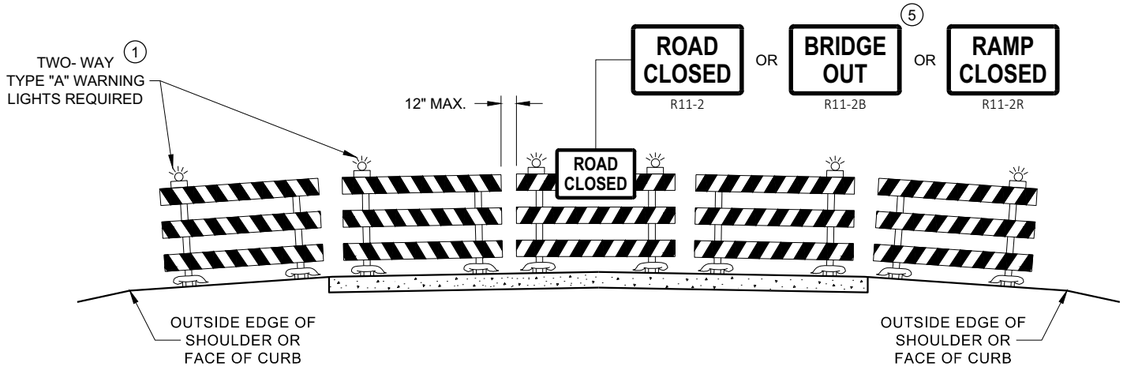
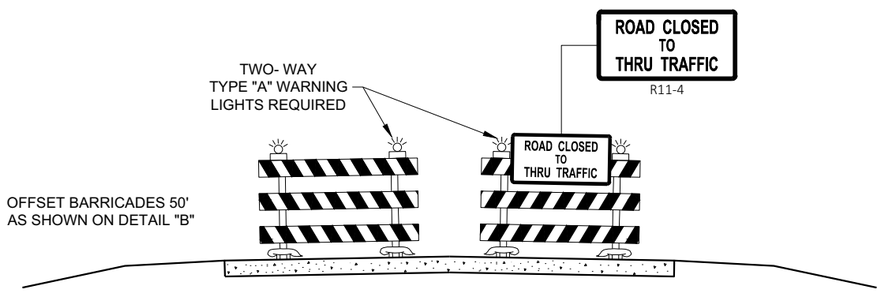
SDD 15C02 - 08a

SDD 15C02 - 08a



DETAIL D
ROAD CLOSURE BARRICADE DETAIL
APPROACH VIEW



DETAIL E
LANE CLOSURE BARRICADE DETAIL
APPROACH VIEW

SEE SDD 15C2 - SHEET "a" FOR LEGEND

GENERAL NOTES

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

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

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

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

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

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

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

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

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

ALL SIGNS SHALL BE 48" X 48" UNLESS OTHERWISE NOTED BELOW:
- R11 - 2 SHALL BE 48" X 30"
- R11 - 3 SHALL, R11 - 4 AND R10 - 61 SHALL BE 60 " X 30"
- M4 - 9 SHALL BE 30" X 24"
- M3 - X SHALL BE 24" X 12" (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS)
- M4 - 8 SHALL BE 24" X 12" (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS)
- M1 - 4, M1 - 5A AND M1 - 6 SHALL BE 24" X 24" (36" X 36" IF NEEDED TO MATCH EXISTING SIGNS)
- MO5 - 1 AND MO6 - 1 SHALL BE 21" X 21" (30" X 30" IF NEEDED TO MATCH EXISTING SIGNS)
- D1 - X SHALL BE AS SHOWN ON SPECIFIC PROJECT SIGNING DETAIL SHEETS.
- R1 - 1 SHALL BE 36" X 36"

(1) TWO WARNING LIGHTS SHALL BE PROVIDED ON THE CENTER BARRICADE AND A MINIMUM OF ONE WARNING LIGHT SHALL BE PROVIDED ON EACH OF THE OTHER BARRICADES WITHIN THE ROADWAY LIMITS. SPACING OF THE WARNING LIGHTS SHALL BE UNIFORM TO THE EDGE OF ROADWAY AS SHOWN (APPROX. 8 FOOT LIGHT SPACING.

(2) THESE SIGNS AND BARRICADES ARE NOT REQUIRED IF ROAD CLOSURE BEGINS AT AN INTERSECTION.

(3) FOR ROAD CLOSURE WITHOUT LOCAL ACCESS TO PROJECT, SEE ROAD CLOSURE BARRICADE DETAIL "D".

(4) FOR ROAD CLOSURE WITH LOCAL ACCESS TO PROJECT, SEE ROAD CLOSURE BARRICADE DETAIL "E".

(5) FOR BRIDGE OR CULVERT REPLACEMENTS, SUBSTITUTE "BRIDGE OUT" INSTEAD OF "ROAD CLOSED" ON R11 - 2 AND R11 - 3 SIGNS.

(6) INSTALL DETOUR AND COMMUNITY GUIDE SIGNS AND ARROWS ONLY IF SPECIFIED IN THE CONTRACT. IF THERE ARE EXISTING ROUTE MARKER ASSEMBLIES THAT WILL REMAIN IN PLACE, ADJUST THE LOCATION OF THE DETOUR ROUTE SIGNS TO CORRESPOND WITH THE EXISTING ASSEMBLIES. MODIFY EXISTING SIGNS WHERE POSSIBLE. SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS. IF DETOUR SIGNS ARE BEING INSTALLED BY OTHERS, PLACE THE CONTRACTED TRAFFIC CONTROL SIGNS TO ALLOW FOR PLACEMENT OF ALL WARNING, DETOUR AND GUIDE SIGNS AS SHOWN.

(7) "EAST" CARDINAL DIRECTION MARKERS AND RIGHT TURN ARROWS ARE SHOWN. USE OTHER CARDINAL DIRECTIONS AND ARROWS AS APPROPRIATE.

BARRICADES AND SIGNS FOR VARIOUS CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

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SDD 15C02 - 08b

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SDD 15C02 - 08b

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

LEGEND

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

GENERAL NOTES

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

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

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

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

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

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

SIGN SIZES SHALL BE AS FOLLOWS:

- M3-X SHALL BE 24" X 12" (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS)
- M4-8 SHALL BE 24" X 12" (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS)
- M1-4, M1-5A AND M1-6 SHALL BE 24" X 24" (36" X 36" IF NEEDED TO MATCH EXISTING SIGNS)
- M05-1 AND M06-1 SHALL BE 21" X 21" (30" X 30" IF NEEDED TO MATCH EXISTING SIGNS)
- M4-9 AND M4-59 SHALL BE 30" X 24"
- M4-8a SHALL BE 24" X 18"
- G20-51 SHALL BE 60" X 24"
- W20-2A SHALL BE 48" X 48"
- D1-X SHALL BE AS SHOWN ON SPECIFIC PROJECT SIGNING DETAIL SHEETS.

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

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

M3-X 24" X 12"
M1-X 24" X 24"
DETOUR AHEAD
W20-2A
USE ON STATE TRUNK, U.S. OR INTERSTATE HIGHWAYS, OR AS SPECIFIED IN THE CONTRACT

500' AT 25-40 MPH
1000' AT 45+ MPH

500'

M4-8a *
END DETOUR WEST XX

DETOUR EAST XX *

D1-X *
COMMUNITY NAME
(IF PRE-EXISTING SIGN, COVER ARROW PER SIGN PLATE A4-12)

DETOUR EAST WEST XX XX

DETOUR ROUTE

WORK AREA

DETOUR EAST XX

WEST XX OR M4-9L DETOUR ** IF TOWN ROAD OR LOCAL STREET

500'

DETOUR NEXT X MILES *
G20-51

DETOUR WEST XX *
OR M4-59L * DETOUR **
IF TOWN ROAD OR LOCAL STREET

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

MATCH POINT

* M4-59L ** DETOUR OR DETOUR EAST XX *
IF TOWN ROAD OR LOCAL STREET

D1-X *
COMMUNITY NAME
(IF PRE-EXISTING SIGN, COVER ARROW PER SIGN PLATE A4-12)

500'

M4-9L ** DETOUR OR DETOUR EAST XX
IF TOWN ROAD OR LOCAL STREET

DETOUR WEST XX

DETOUR WEST XX OR M4-9R DETOUR **
IF TOWN ROAD OR LOCAL STREET

DETOUR WEST XX * OR M4-59R * DETOUR **
IF TOWN ROAD OR LOCAL STREET

500'

DETOUR ROUTE

500' AT 25 - 40 MPH
1000' AT 45+ MPH

500'

M3-X 24" X 12"
M1-X 24" X 24"
DETOUR AHEAD
W20-2A
USE ON STATE TRUNK, U.S. OR INTERSTATE HIGHWAYS, OR AS SPECIFIED IN THE CONTRACT

DETOUR EAST XX *

D1-X *
COMMUNITY NAME
(IF PRE-EXISTING SIGN, COVER ARROW PER SIGN PLATE A4-12)

DETOUR EAST XX

500'

DETOUR EAST XX
DETOUR EAST XX *
D1-X *
COMMUNITY NAME
(IF PRE-EXISTING SIGN, COVER ARROW PER SIGN PLATE A4-12)

PLACE SIGNS BEYOND INTERSECTIONS WITH STATE OR COUNTY TRUNK HIGHWAYS OR AT 4 MILE MAXIMUM SPACING (4 BLOCKS IF URBAN AREA)

500' AT 25 - 40 MPH
1000' AT 45+ MPH

DETOUR EAST XX *
EAST XX M3-X 24" X 12" M1-X 24" X 24"
DETOUR AHEAD
W20-2A
USE ON STATE TRUNK, U.S. OR INTERSTATE HIGHWAYS, OR AS SPECIFIED IN THE CONTRACT

DETAIL F
DETOUR SIGNING

DETOUR SIGNING FOR MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2020
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEER

FHWA

SDD 15C02 - 08c

SDD 15C02 - 08c

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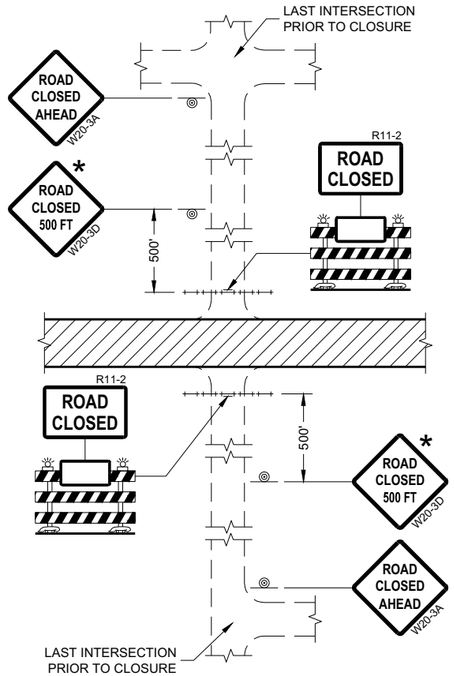
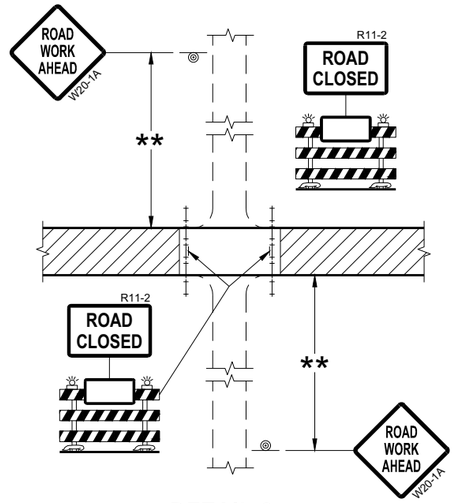


DETAIL 1
(NO ACCESS TO PROJECT)



DETAIL 2
(PUBLIC CROSS-TRAFFIC MAINTAINED.
NO ACCESS TO PROJECT)

GENERAL NOTES

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

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

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

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.

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

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

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

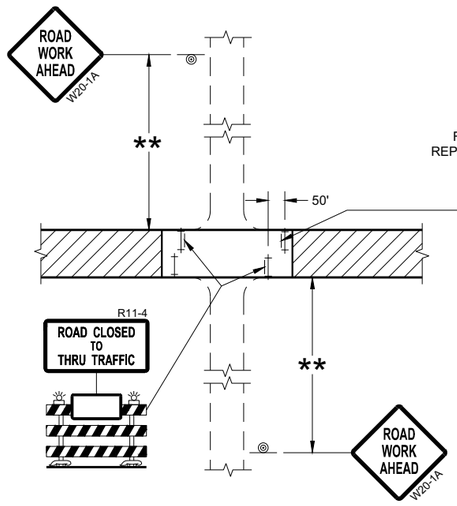
TYPE "A" LOW-INTENSITY FLASHING WARNING LIGHTS SHALL BE VISIBLE ON BOTH SIDES OF THE BARRICADE.

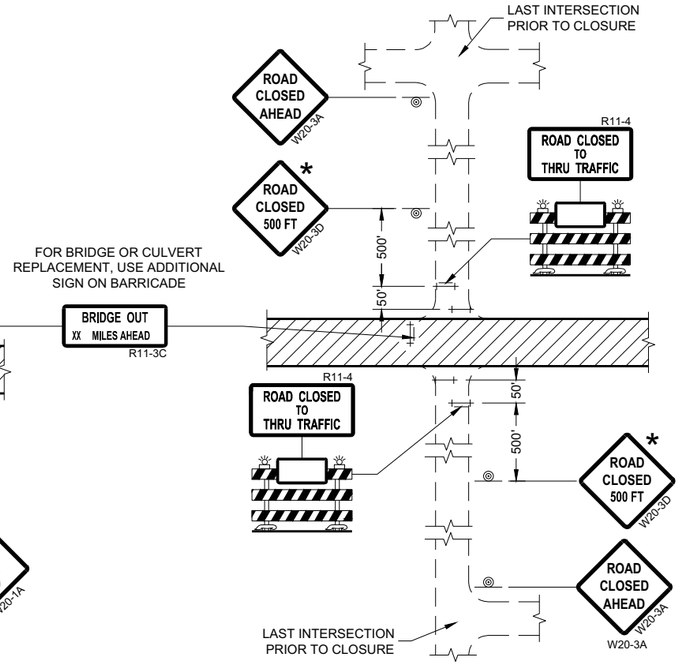
THE R11-2, R11-3, AND R11-4 SIGNS PLACED ON BARRICADES SHALL COVER NO MORE THAN THE TOP RAIL. THE SIGNS SHALL NOT COVER ANY PORTION OF THE MIDDLE OR BOTTOM RAILS.

ALL SIGNS SHALL BE 48" X 48" UNLESS OTHERWISE NOTED BELOW:
R11-2 SHALL BE 48" X 30".
R11-4 AND R11-3 SHALL BE 60" X 30".

* OMIT THE "ROAD CLOSED 500 FT." SIGN IF THE LAST INTERSECTION IS 500 FEET OR LESS FROM THE WORK ZONE.

** 500' MAX. OR AT LAST INTERSECTION, WHICHEVER IS CLOSEST.





DETAIL 3
(PUBLIC CROSS-TRAFFIC MAINTAINED.
CONTRACTOR, LOCAL BUSINESS AND
RESIDENT ACCESS TO PROJECT)

DETAIL 4
(CONTRACTOR, LOCAL BUSINESS AND
RESIDENT ACCESS TO PROJECT)

LEGEND

- SIGN ON PERMANENT SUPPORT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TYPE "A" WARNING LIGHT (FLASHING)
- WORK AREA

BARRICADES AND SIGNS FOR SIDEROAD CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
July 2018
DATE
/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

6
SDD 15C03 - 05

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.

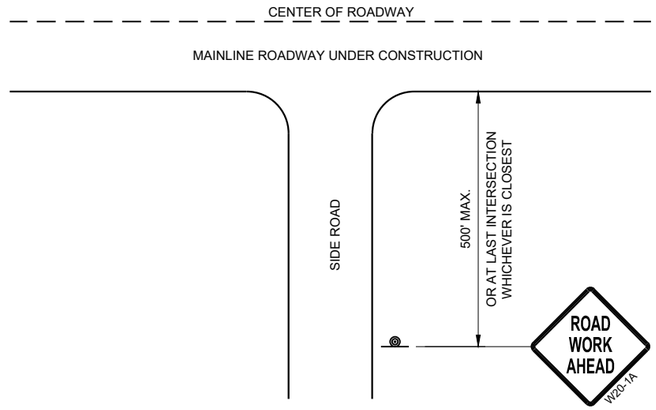
ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.

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.



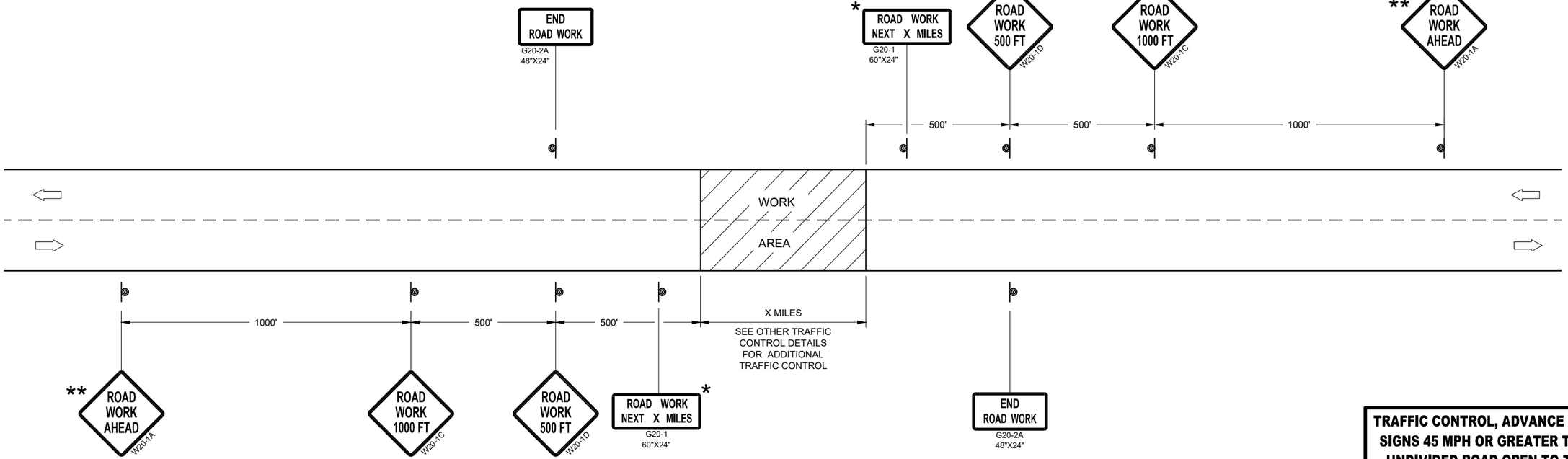
TYPICAL SIDE ROAD APPROACH WARNING SIGN DETAIL

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

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SDD 15C04 - 05

GENERAL NOTES

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

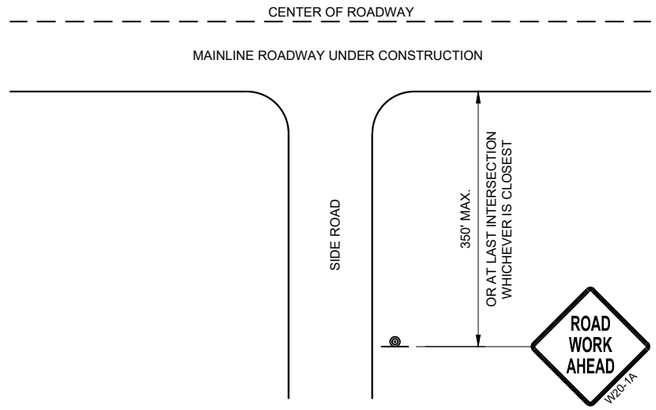
THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A MINIMUM OF 200 FEET (500 FEET DESIRABLE) CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS, 36"X36" SIGNS MAY BE USED INSTEAD OF 48" X 48" SIGNS.

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.

* THE THIRD W20-1 SIGN IS REQUIRED ONLY IF THERE IS AN INTERSECTION BETWEEN THE "ROAD WORK 500 FEET" SIGN AND THE WORK ZONE. ADJUST THE PLACEMENT OF THIS SIGN BASED ON INTERSECTION LOCATION AND OTHER FIELD CONDITIONS.



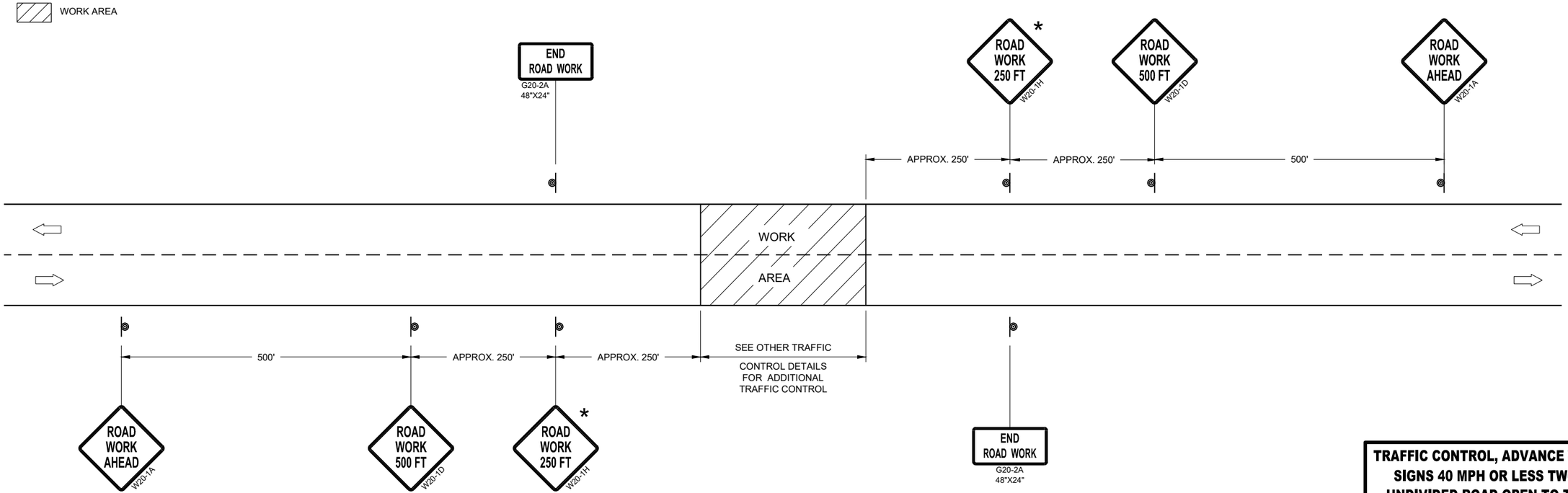
TYPICAL SIDE ROAD APPROACH WARNING SIGN DETAIL

LEGEND

SIGN ON PERMANENT SUPPORT

DIRECTION OF TRAFFIC

WORK AREA



TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40MPH OR LESS

TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40 MPH OR LESS TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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July 2018
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

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SDD 15C05 - 05

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

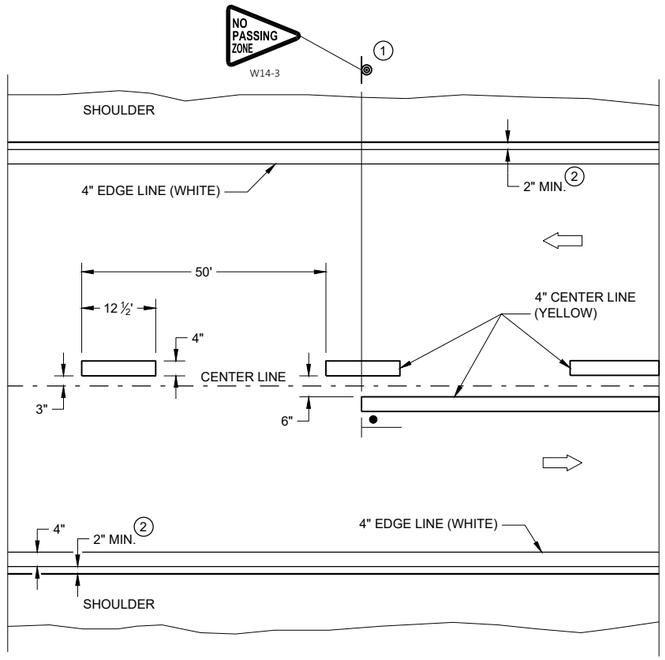
(2) MEASURE FROM EDGE OF MARKING TO JOINT LINE. THIS DOES NOT INCLUDE SPACE NEEDED FOR GROOVING OPERATIONS.

LEGEND

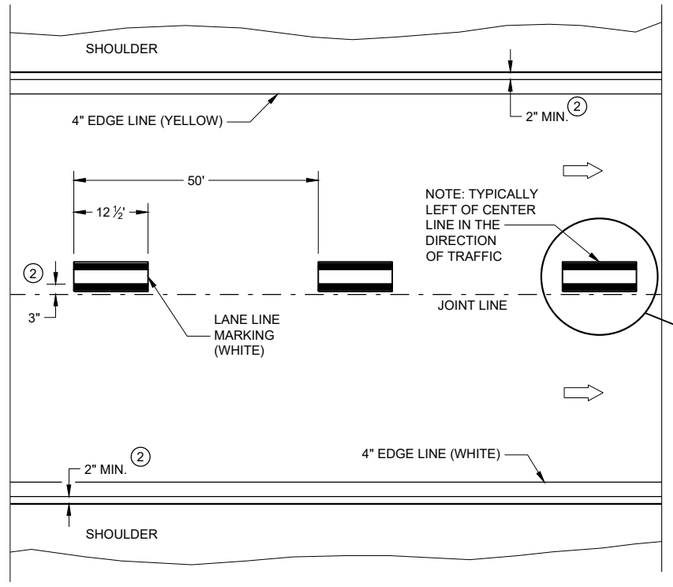
"T" MARKING

SIGN ON PERMANENT SUPPORT

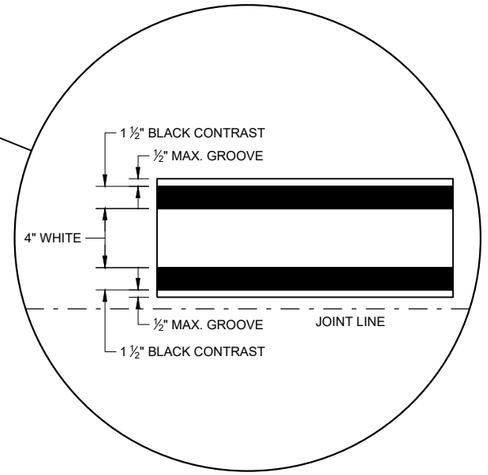
DIRECTION OF TRAFFIC



TWO WAY TRAFFIC



ONE WAY TRAFFIC



PERMANENT PAVEMENT MARKING

PERMANENT LONGITUDINAL PAVEMENT MARKINGS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2022 — DATE
/S/ Jeannie Silver — STATEWIDE SIGNING AND M ENGINEER

FHWA

6

SDD 15C08 - 22a

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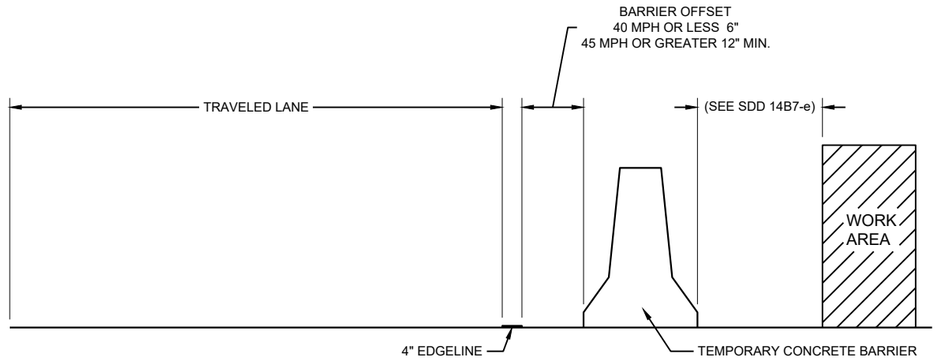
SDD 15C08 - 22a



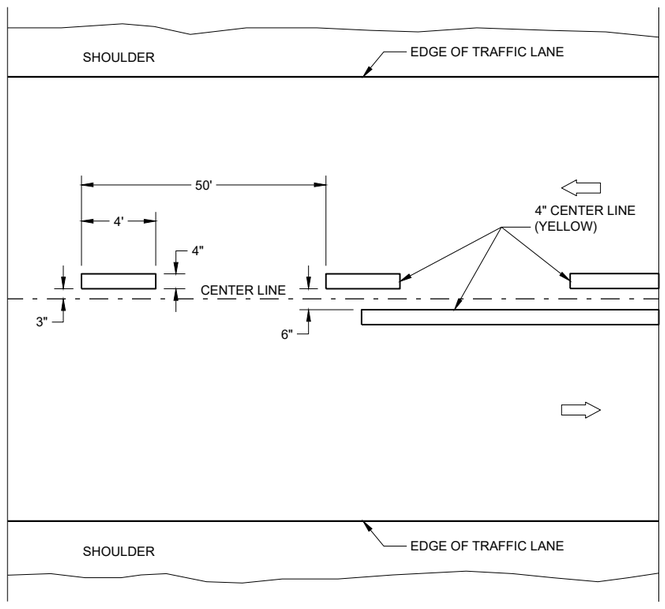
TEMPORARY BARRIER OFFSET FROM EDGELINE

GENERAL NOTES

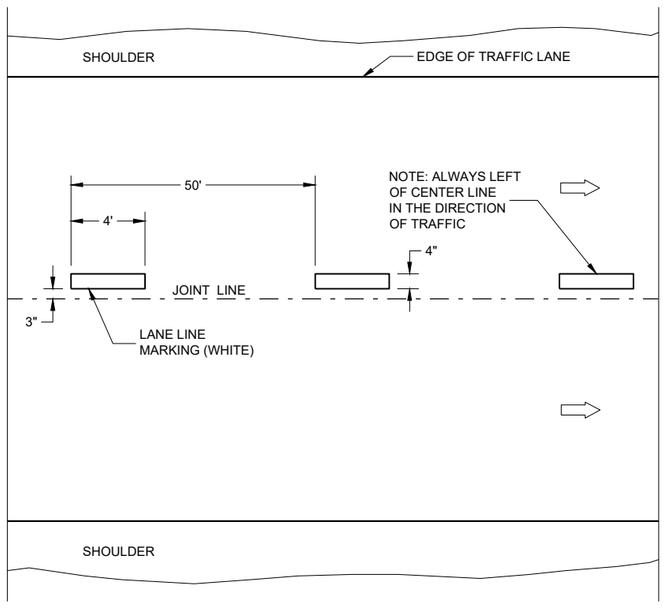
DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO STANDARD SPECIFICATIONS AND SPECIAL PROVISIONS.

LEGEND

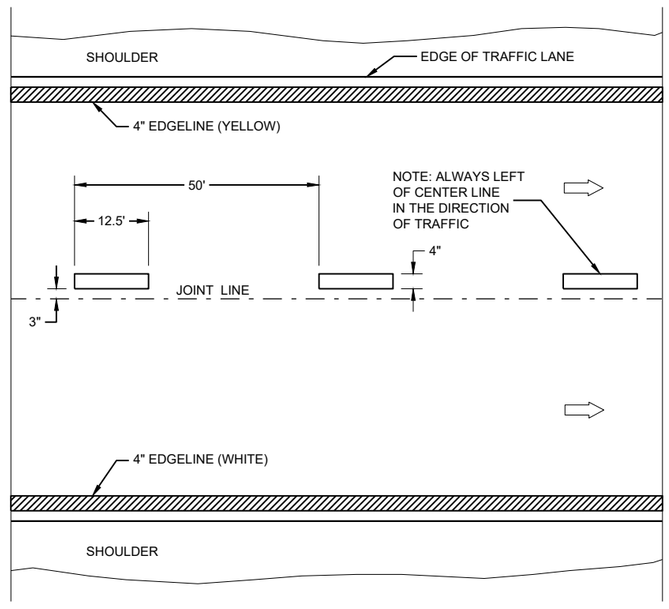
DIRECTION OF TRAFFIC



TWO WAY TRAFFIC



ONE WAY TRAFFIC



FREEWAYS AND EXPRESSWAYS

TEMPORARY PAVEMENT MARKING

TEMPORARY LONGITUDINAL PAVEMENT MARKING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

May 2022
DATE

/S/ Jeannie Silver
STATEWIDE SIGNING AND M ENGINEER

FHWA

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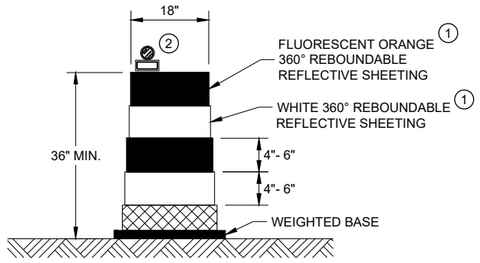
SDD 15C08 - 22b

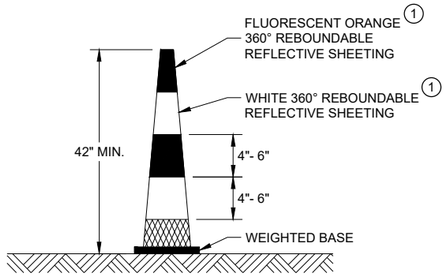
GENERAL NOTES

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

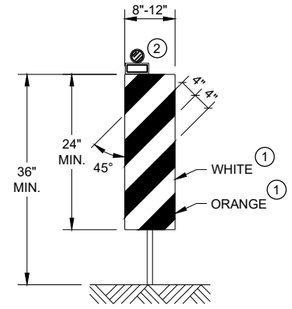
BALLAST WIDTHS
RANGE FROM 24"-36"



42" CONE

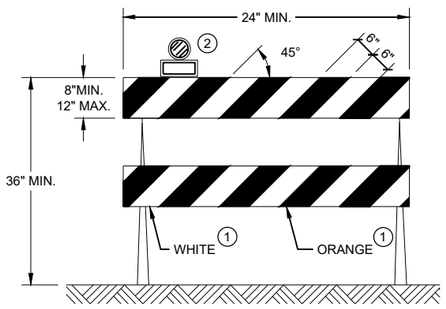
DO NOT USE IN TAPERS
½ SPACING OF DRUMS

BALLAST WIDTHS
RANGE FROM 14"-20"



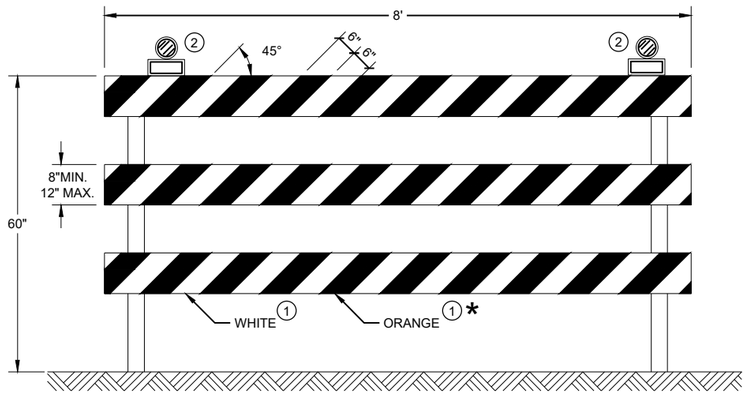
VERTICAL PANEL

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 ENGINEE

FHWA

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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.

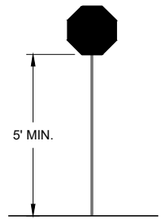
(3) EACH TEMPORARY PORTABLE RUMBLE STRIP ARRAY CONSISTS OF THREE RUMBLE STRIPS PLACED TRANSVERSE ACROSS THE LANE AT THE LOCATIONS SHOWN. WITHIN EACH ARRAY, SPACING BETWEEN RUMBLE STRIPS SHALL BE 15 FEET ON CENTER

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.



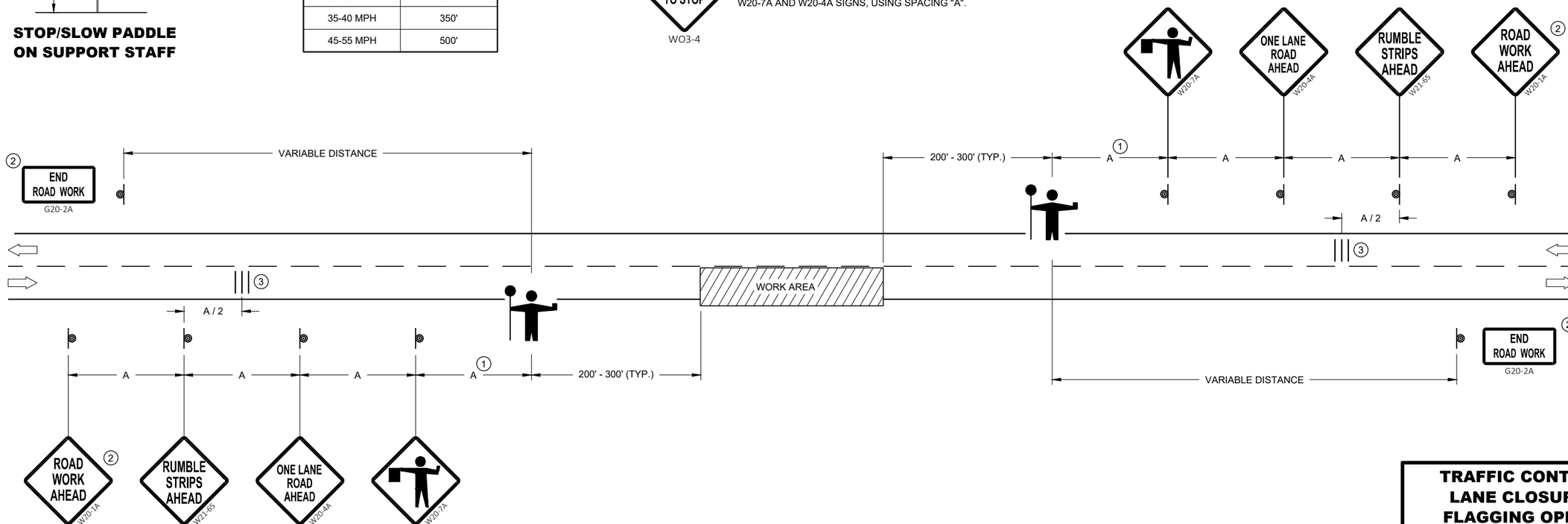
STOP/SLOW PADDLE ON SUPPORT STAFF

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

6

SDD 15C12 - 09a

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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

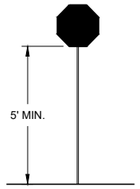
UTILIZE TEMPORARY PORTABLE RUMBLE STRIPS ON ALL FLAGGING OPERATIONS.

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.

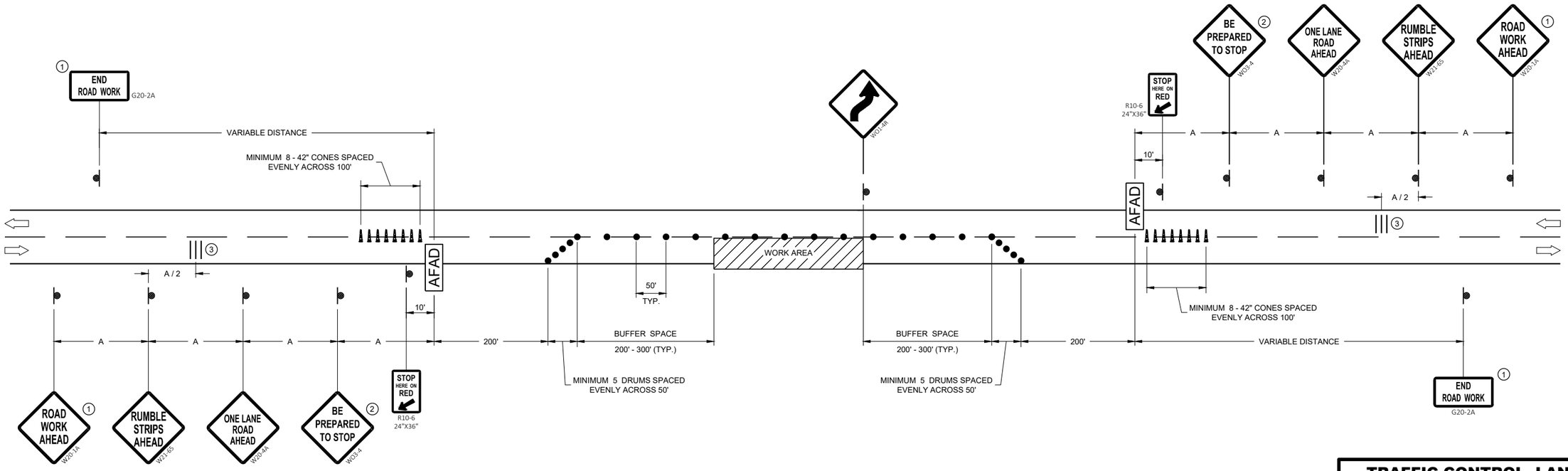
(3) EACH TEMPORARY PORTABLE RUMBLE STRIP ARRAY CONSISTS OF THREE RUMBLE STRIPS PLACED TRANSVERSELY AT THE LOCATIONS SHOWN. WITHIN EACH ARRAY, SPACING BETWEEN RUMBLE STRIPS SHALL BE 15 FEET ON CENTER.



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

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SDD 15D12 - 09b

SDD 15D12 - 09b

LEGEND

V1 LEAD VEHICLE

V2 MARKING VEHICLE

V3 SHADOW VEHICLE

TRUCK MOUNTED ATTENUATOR (TMA)

SIGN ON TEMPORARY SUPPORT

DIRECTION OF TRAFFIC

FLASHING ARROW PANEL (CAUTION)

GENERAL NOTES

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

ALL VEHICLES SHALL BE EQUIPPED WITH REAR FACING TYPE B OR C FLASHING ARROW PANEL OPERATING IN CAUTION MODE. SIGNS PLACED ON VEHICLES MUST NOT OBSCURE THE ARROW PANEL.

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

DISTANCE BETWEEN VEHICLES MAY VARY ACCORDING TO TERRAIN, SIGHT DISTANCE, PAINT DRYING TIME, 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 AND HORIZONTAL CURVES THAT RESTRICT SIGHT DISTANCE.

THE WORK AND SHADOW VEHICLES SHOULD PULL OVER PERIODICALLY TO ALLOW TRAFFIC TO PASS.

WHEN NO WORK ACTIVITY IS TAKING PLACE, REMOVE OR LAY STATIONARY SIGNS AND SUPPORTS FLAT ON THE GRADE WITH UPRIGHTS ORIENTED PARALLEL TO AND DOWNSTREAM FROM TRAFFIC.

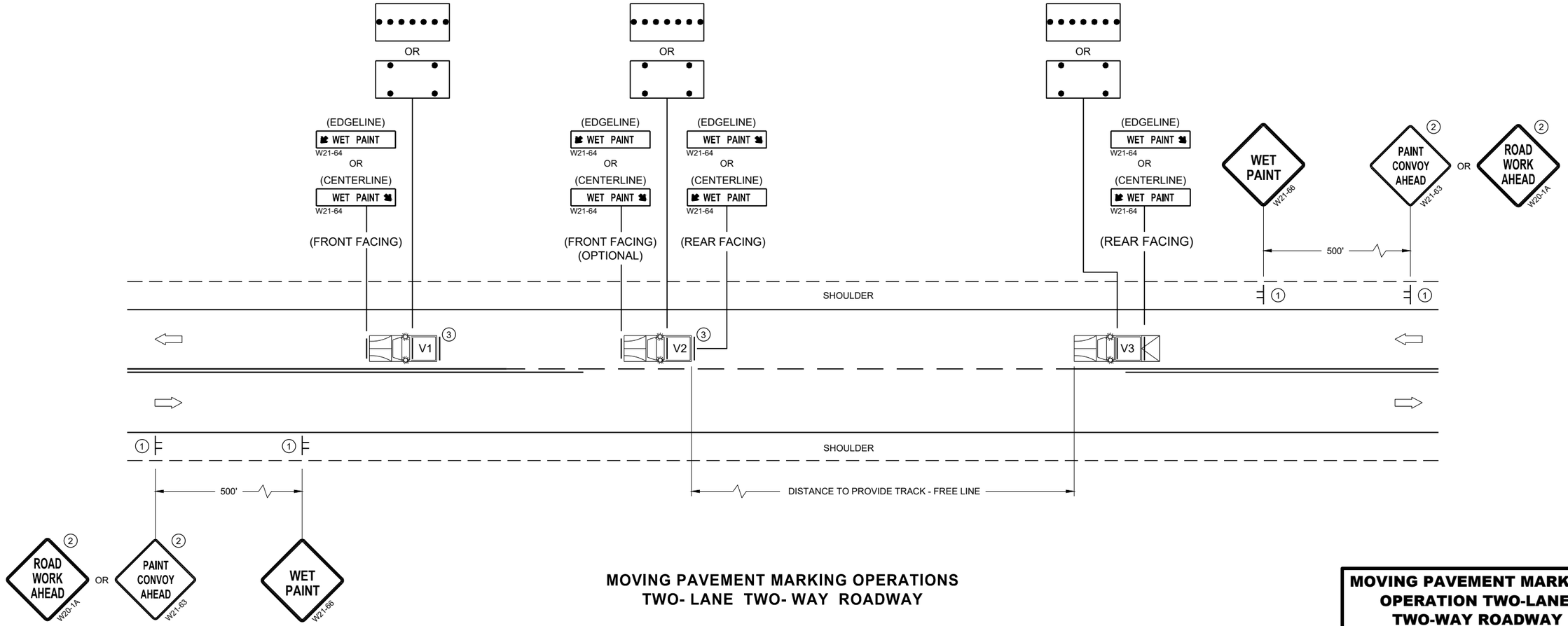
CONES SHOULD BE USED BETWEEN THE MARKING AND SHADOW VEHICLE AT 100 FOOT SPACING. CONES MAY BE OMITTED ON PAINTED LINE IF APPROVED BY THE ENGINEER. CONSIDER PAVEMENT MARKING DRY OR CURE TIMES AND TRAFFIC VOLUME.

CONES SHALL BE A MINIMUM OF 28" FOR WET PAVEMENT MARKING .

(1) SIGNS SHALL BE REPEATED APPROXIMATELY EVERY THREE MILES.

(2) IF CONSTRUCTION WORK ZONE SIGNS ARE IN PLACE, W20-1A OR W21-63 ARE NOT REQUIRED.

(3) V1 AND V2 CAN BE SWITCHED SO THAT THE MARKER IS THE LEAD VEHICLE.



MOVING PAVEMENT MARKING OPERATIONS
TWO- LANE TWO- WAY ROADWAY

MOVING PAVEMENT MARKING OPERATION TWO-LANE TWO-WAY ROADWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2022
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEER

FHWA

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SDD 15C19 - 07a

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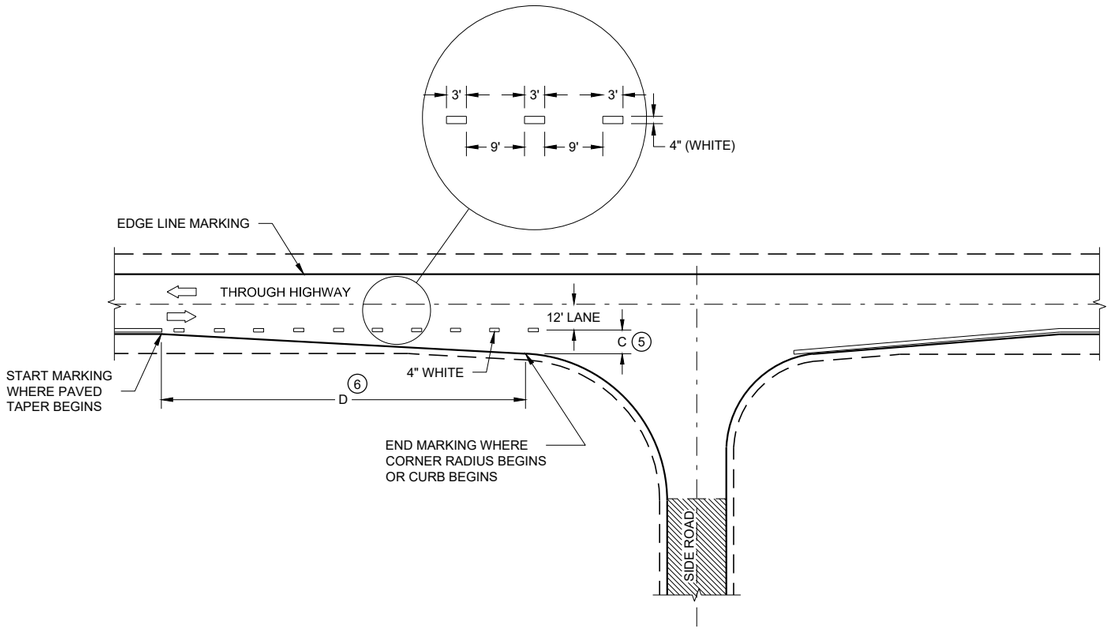
SDD 15C19 - 07a



MINOR INTERSECTION

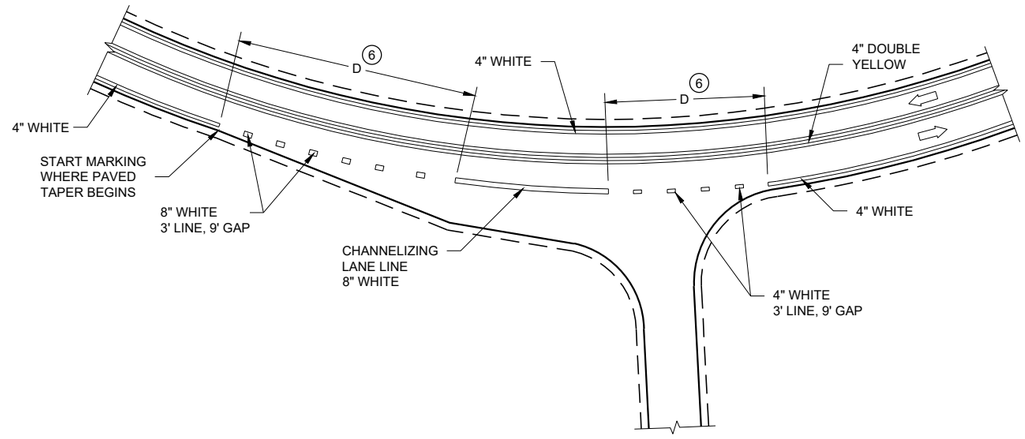
GENERAL NOTES

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

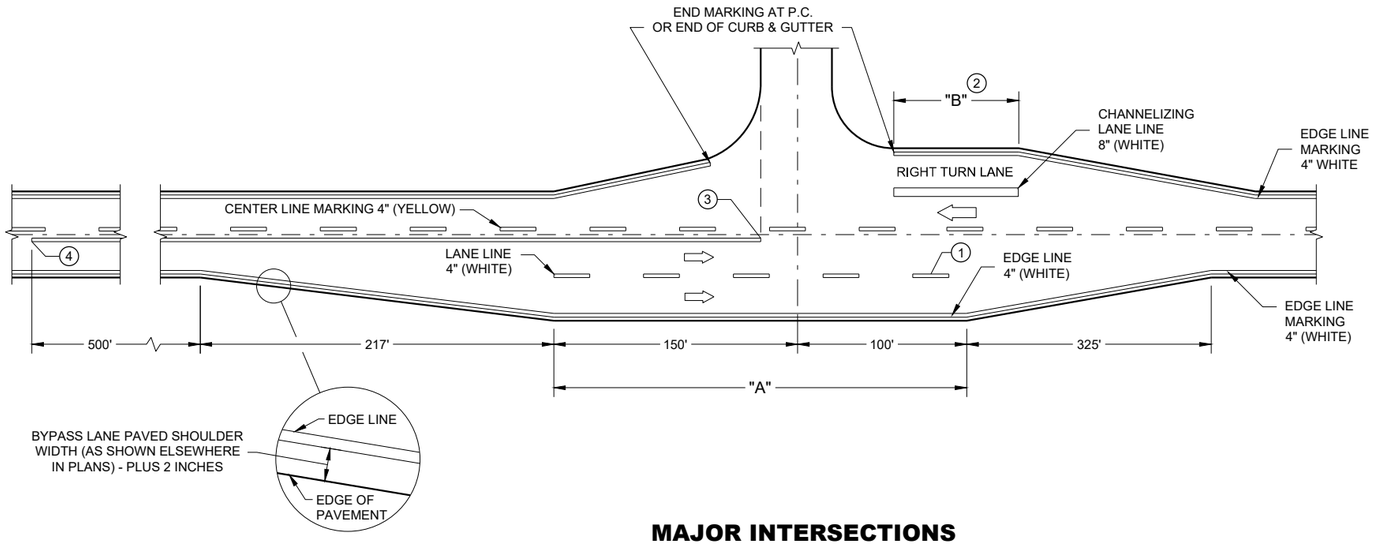
1. WHEN DISTANCE "A" IS LESS THAN 250 FEET, OMIT LANE LINE.
2. WHEN DISTANCE "B" IS LESS THAN 100 FEET, OMIT CHANNELIZING LANE LINE.
3. BARRIER LINE ENDS AT SIDE ROAD PAVEMENT / SURFACE EDGE EXTENSION.
4. BARRIER LINE STARTS 500 FEET PRIOR TO THE BYPASS TAPER.
5. WHEN DISTANCE "C" IS LESS THAN 4 FEET,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

LEGEND

DIRECTION OF TRAVEL



INTERSECTION ON OUTSIDE OF CURVE



MAJOR INTERSECTIONS

(INTERSECTION WITH FULL RIGHT TURN LANE OR BYPASS LANE)

PAVEMENT MARKING (INTERSECTIONS)

SDD 15C35 - 05a

6

LEGEND

SIGN ON PERMANENT SUPPORT

TRAFFIC CONTROL DRUM

DIRECTION OF TRAFFIC

WORK ZONE

GENERAL NOTES

ALL SIGNS ARE 48"X48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS IN URBAN AREAS, 36" X 36" SIGNS MAY BE USED IF APPROVED BY THE REGIONAL TRAFFIC UNIT.

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

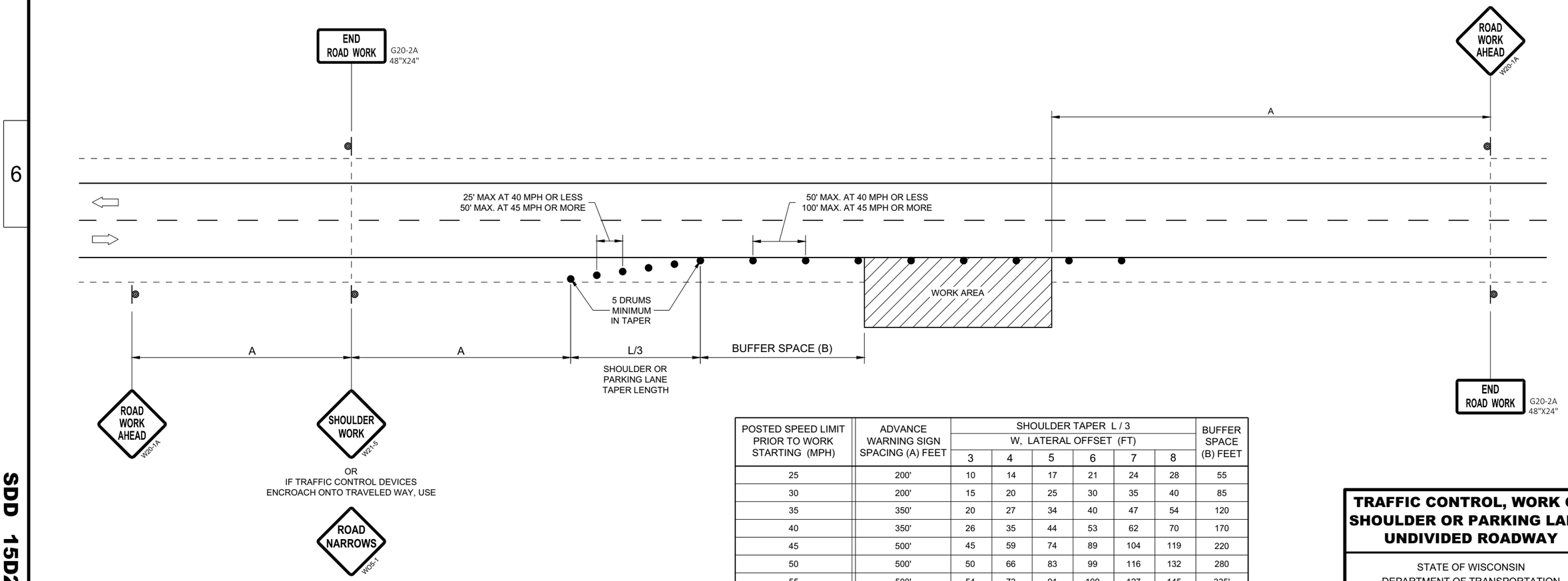
ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH THE TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

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

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

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

W20-1A AND G20-2A SIGNS ARE NOT REQUIRED IF THE WORK AREA IS WITHIN A LARGER WORK ZONE WHERE THESE SIGNS ARE ALREADY PRESENT. G20-2A SIGNS MAY ALSO BE OMITTED IF DURATION OF WORK IS LESS THAN 7 CONTINUOUS DAYS AND NIGHTS.



POSTED SPEED LIMIT PRIOR TO WORK STARTING (MPH)	ADVANCE WARNING SIGN SPACING (A) FEET	SHOULDER TAPER L / 3 W, LATERAL OFFSET (FT)						BUFFER SPACE (B) FEET
		3	4	5	6	7	8	
25	200'	10	14	17	21	24	28	55
30	200'	15	20	25	30	35	40	85
35	350'	20	27	34	40	47	54	120
40	350'	26	35	44	53	62	70	170
45	500'	45	59	74	89	104	119	220
50	500'	50	66	83	99	116	132	280
55	500'	54	73	91	109	127	145	335'

TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2020
DATE

/S/ Andrew Heidtke
STATEWIDE WORK ZONE T SAFETY ENGINEER

FHWA

SDD 15D28 - 04

SDD 15D28 - 04

LEGEND

TYPE III BARRICADE WITH ATTACHED SIGN

SIGN ON PERMANENT SUPPORT

TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT

TRAFFIC CONTROL DRUM

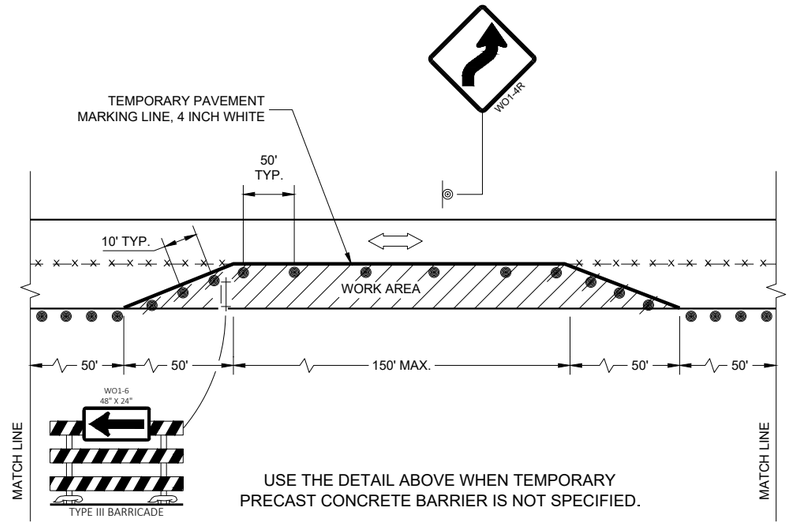
FLAGS, 16" X 16" MIN. (ORANGE)

REMOVING PAVEMENT MARKING

DIRECTION OF TRAFFIC

ASPHALTIC PAVEMENT WIDENING

CONCRETE BARRIER TEMPORARY PRECAST



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.

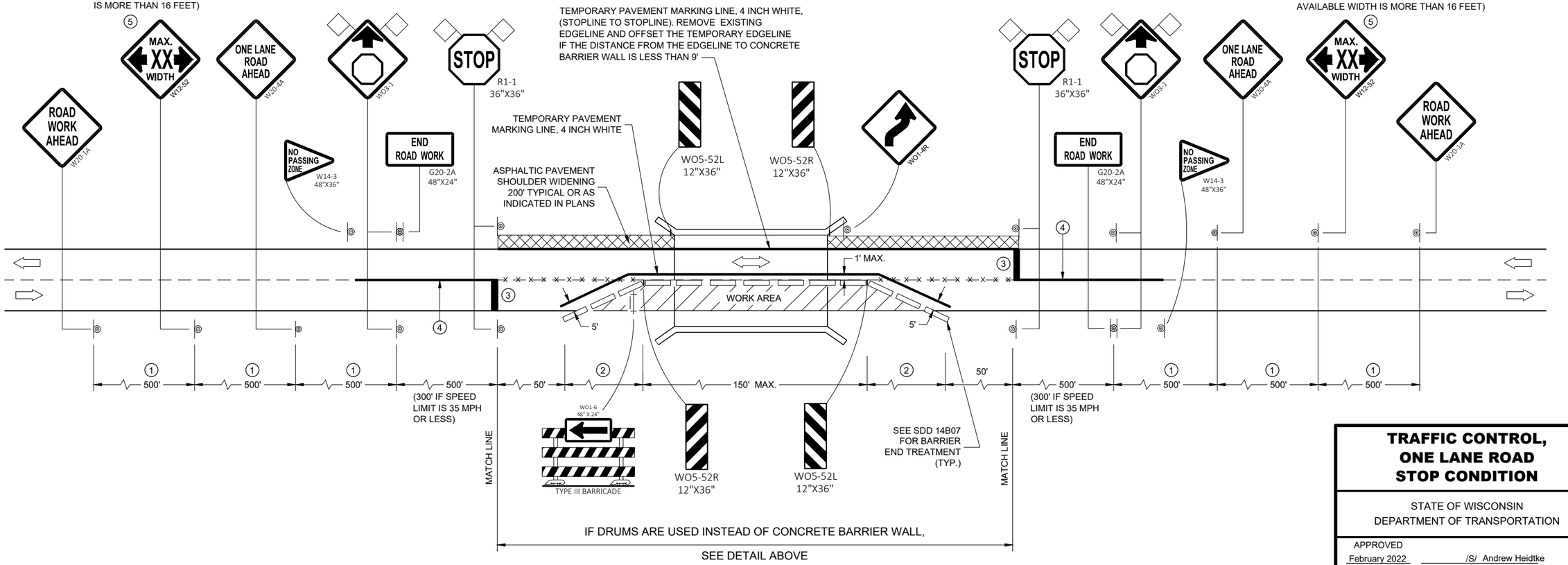
ALL SIGNS ARE 48" x 48" UNLESS OTHERWISE NOTED.

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

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. DIMENSION DETERMINED BY CBTP TAPER FROM EDGE LINE TO TANGENT SECTION OF THE ROAD.
3. TEMPORARY PAVEMENT MARKING LINE, 18 INCH WHITE STOP LINE.
4. 700 FOOT TEMPORARY PAVEMENT MARKING LINE, 4 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.
5. SEE SDD 15C02 - SHEET "F" FOR ADVANCED WIDTH RESTRICTION SIGNING.



TRAFFIC CONTROL, ONE LANE ROAD STOP CONDITION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

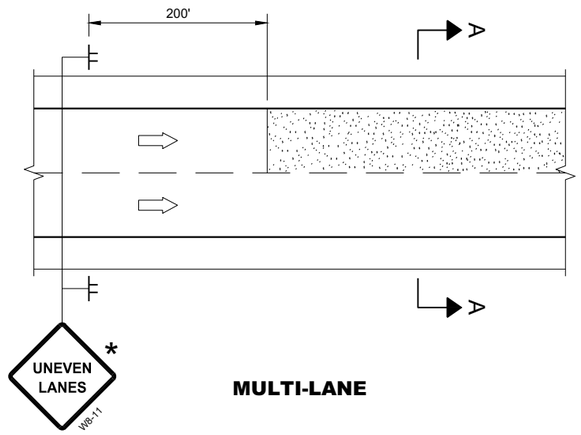
APPROVED
February 2022
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEER

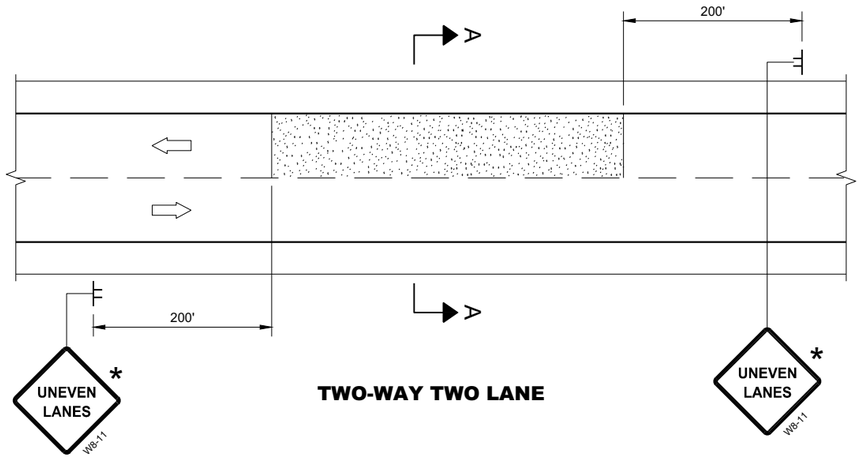
FHWA

SDD 15D32 - 06

SDD 15D32 - 06



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.

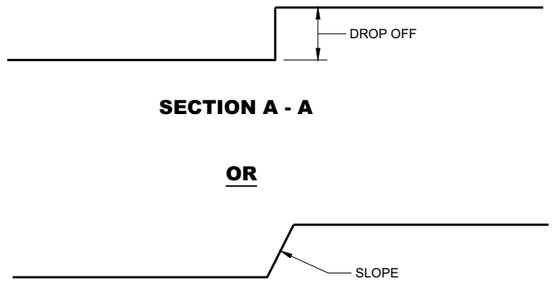
WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

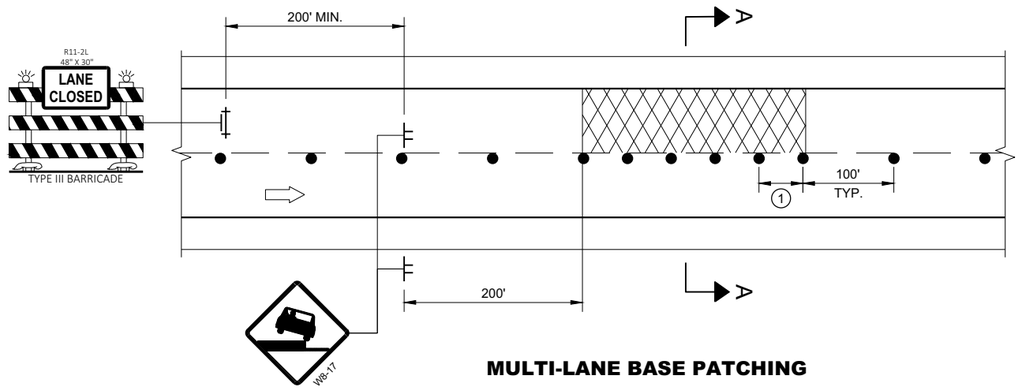
* IF THE DROP-OFF IS CONTINUOUS ALONG THE PROJECT, PLACE ADDITIONAL SIGNS EVERY 1 MILE AND AFTER EVERY ENTRANCE RAMP.

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

LEGEND

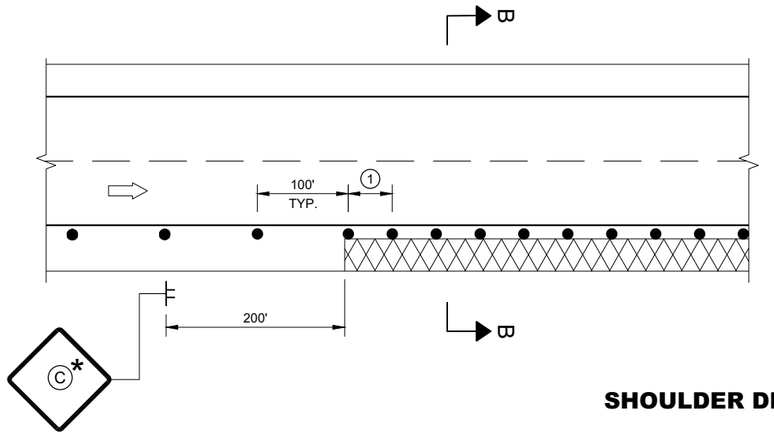
- SIGN ON TEMPORARY SUPPORT
- TRAFFIC CONTROL DRUM
- TYPE III BARRICADE WITH ATTACHED SIGN
- TYPE "A" WARNING LIGHT (FLASHING)
- DIRECTION OF TRAFFIC
- WORK AREA WITH DROP-OFF
- MILLED SURFACE



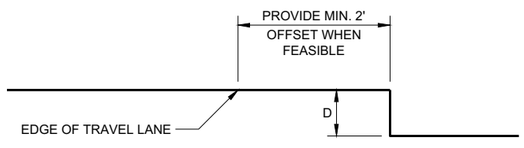


MULTI-LANE BASE PATCHING

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.

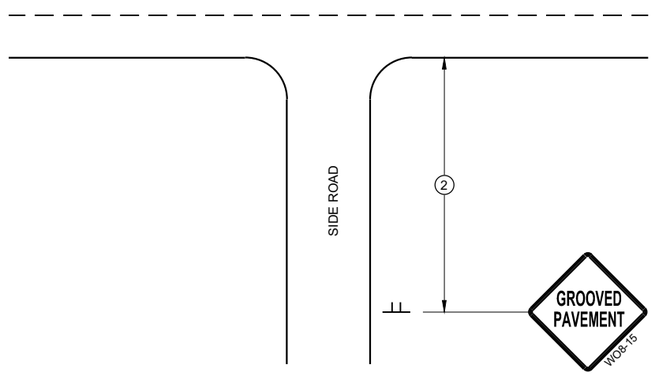
(1) PLACE SIGNS 350' IN ADVANCE OF MILLED SURFACES AND AT 1 MILE INTERVALS, OR AS DIRECTED BY THE ENGINEER.

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

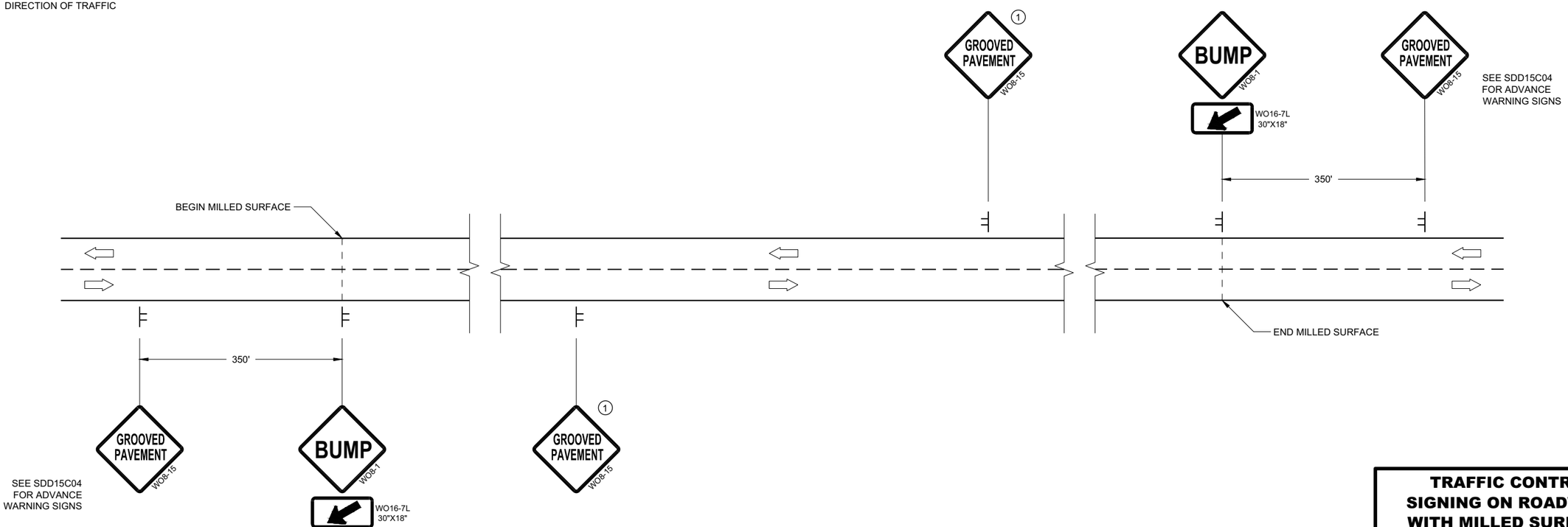
LEGEND

SIGN ON TEMPORARY SUPPORT

DIRECTION OF TRAFFIC



TYPICAL SIDE ROAD APPROACH SIGN DETAIL



DETAIL FOR SIGNING ON MILLED SURFACES

TRAFFIC CONTROL, SIGNING ON ROADWAYS WITH MILLED SURFACES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2020
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEER

FHWA

6
SDD 15D44 - 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.

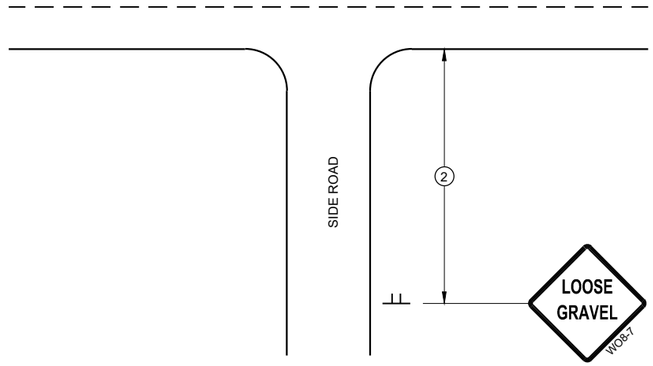
(2) PLACE SIGN 200' MIN. FROM INTERSECTION AND 200' MIN. AFTER ADVANCE WARNING SIGN SHOWN IN SDD 15C04.

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

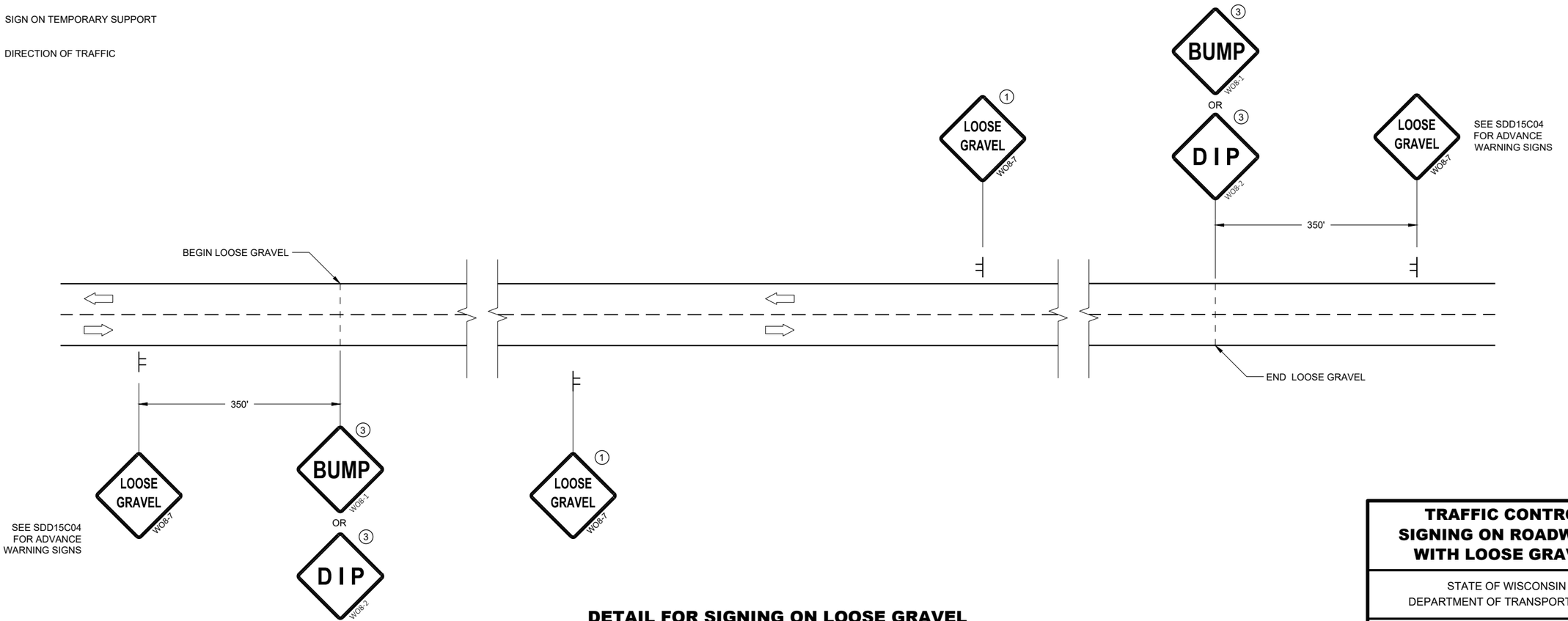
LEGEND

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

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.

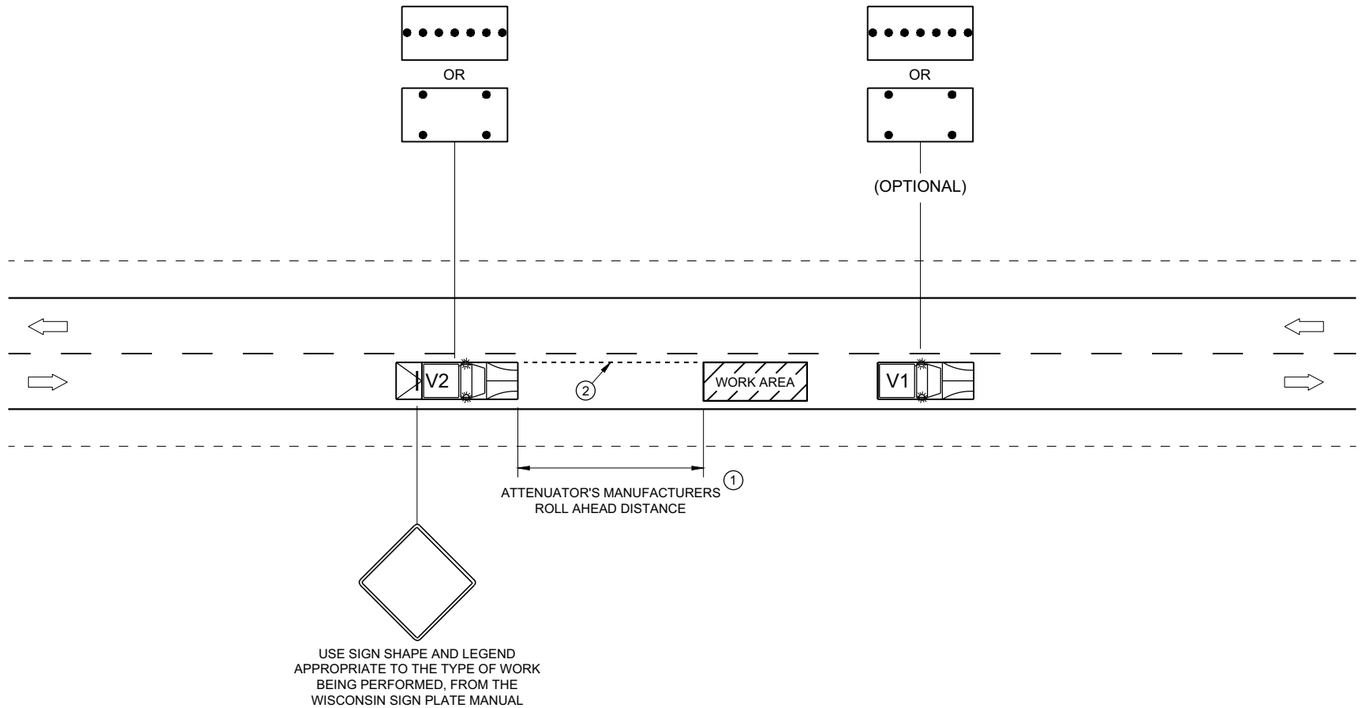
ALL VEHICLES SHALL BE EQUIPPED WITH TWO 360 DEGREE HIGH INTENSITY YELLOW FLASHING LIGHTS OR STROBE LIGHTS AND OPERATED WITH HEADLIGHTS TURNED ON.

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

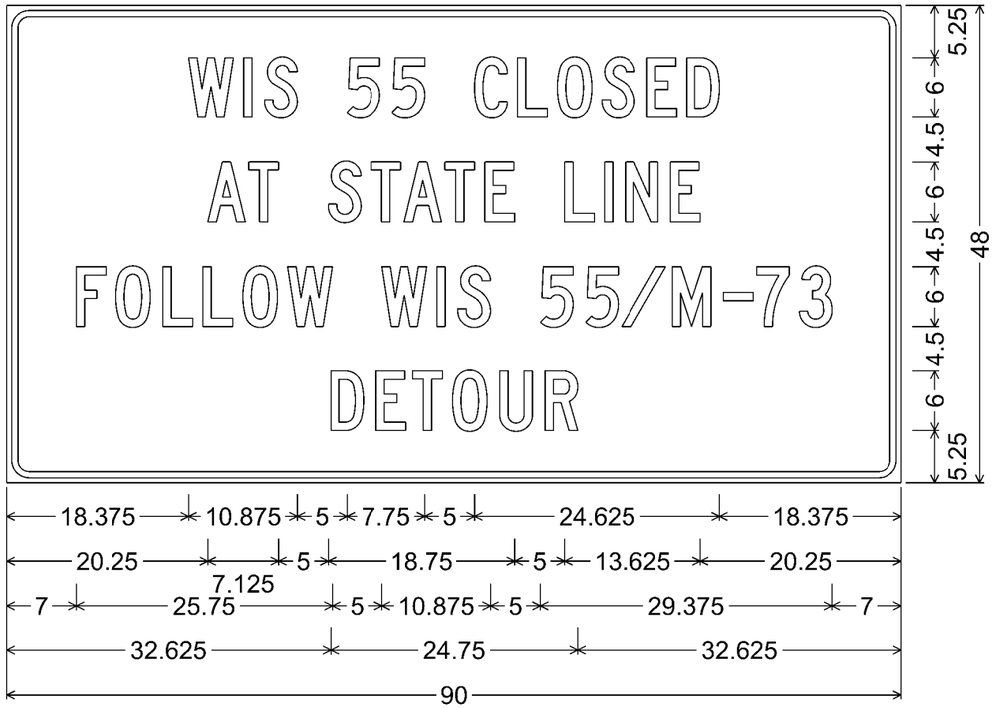
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

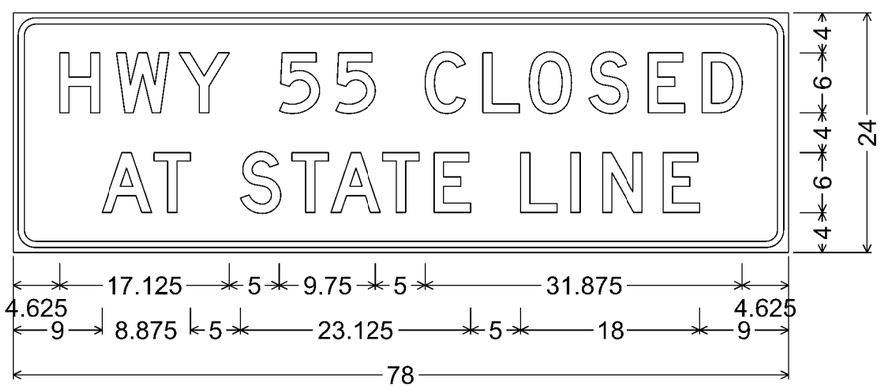
FHWA

6

SDD 15D51 - 01



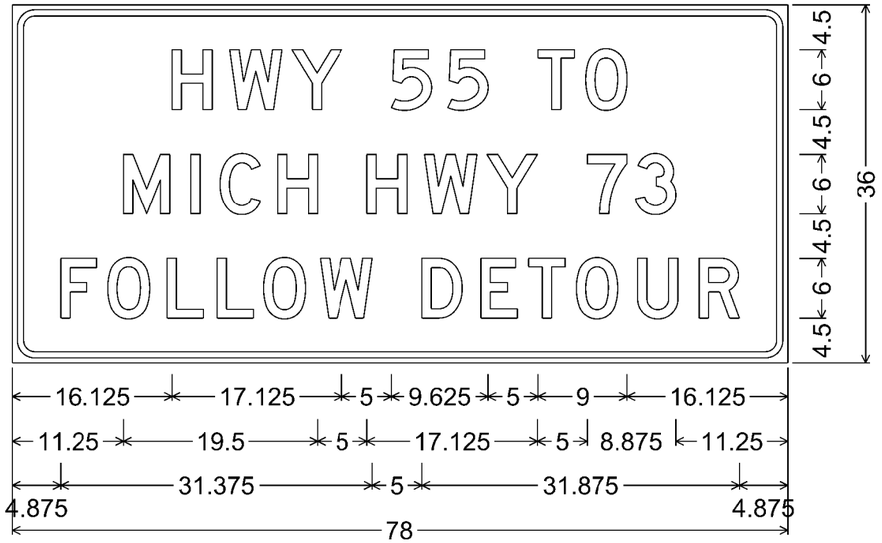
2.250" Radius, 0.625" Border, 0.500" Indent
"WIS", C; "55", C; "CLOSED", C; "AT", C; "STATE", C; "LINE", C;
"FOLLOW", C; "WIS", C; "55/M-73", C; "DETOUR", C;



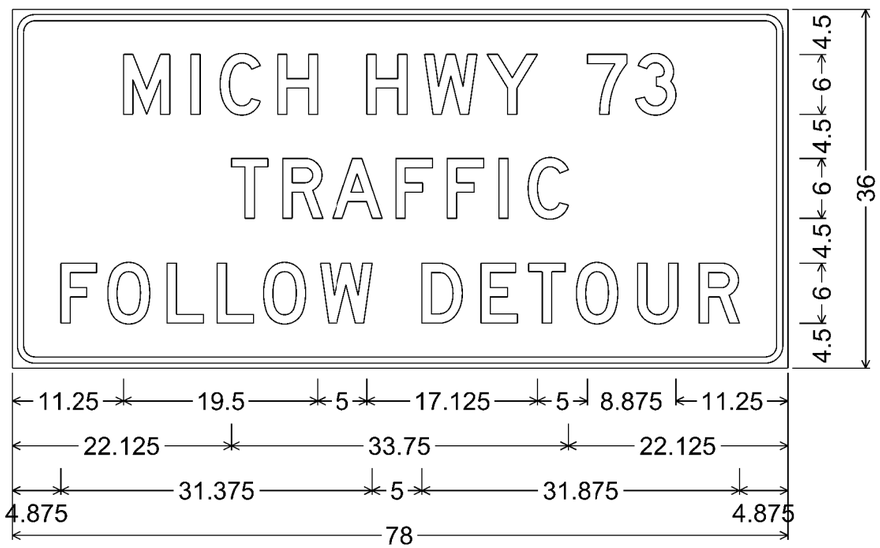
2.250" Radius, 0.625" Border, 0.500" Indent

NOTES

1. Fixed Message Signs Type II - Type F Reflective
2. Color:
   Background - Orange
   Message - Black
3. Message Series - D or as noted

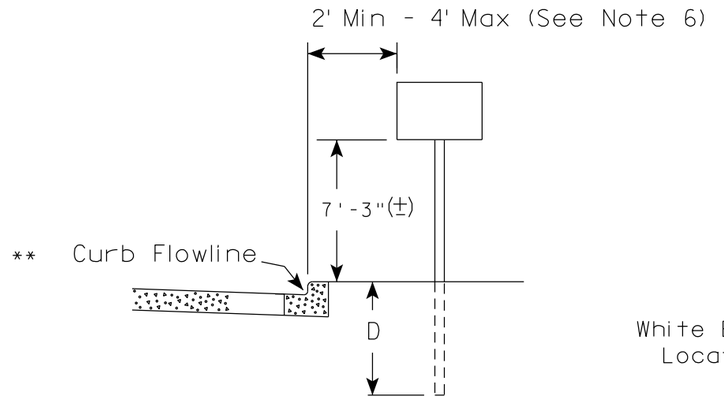


2.250" Radius, 0.625" Border, 0.500" Indent

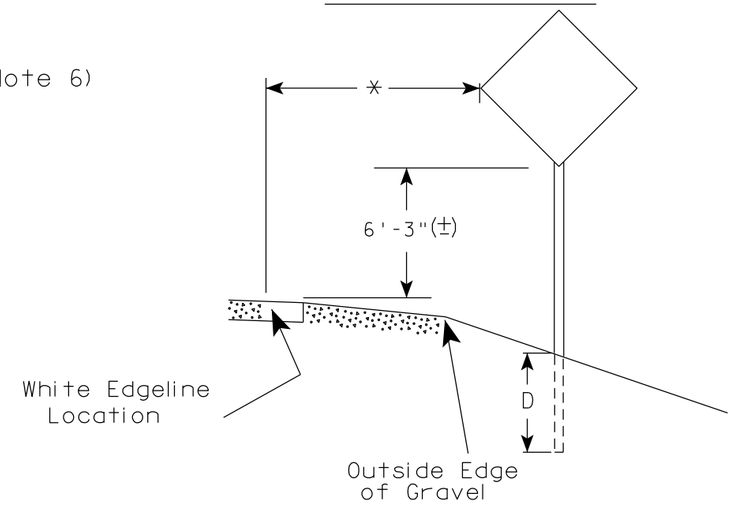


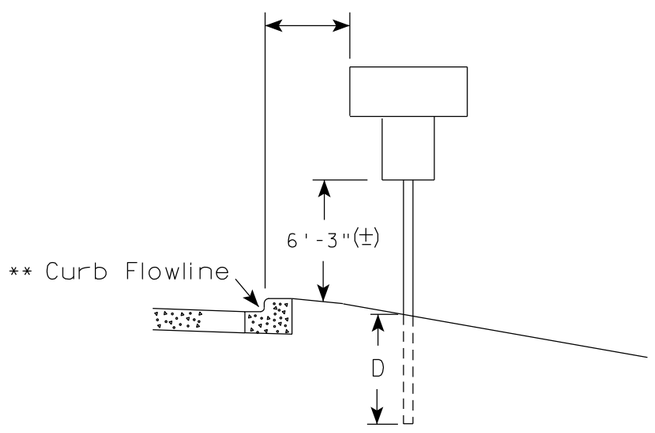
2.250" Radius, 0.625" Border, 0.500" Indent

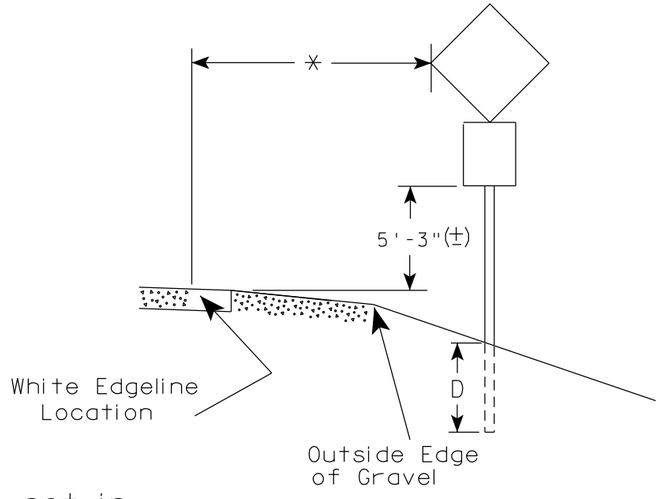
URBAN AREA



RURAL AREA (See Note 2)







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

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

POST EMBEDMENT DEPTH

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

GENERAL NOTES

1. Signs wider than 4 feet or 20 sq.ft or larger, shall be mounted on multiple posts. Refer to plate A4-4.
2. If signs are mounted on or behind barrier wall, see A4-10 sign plate.
   The Double Arrow sign (W12-1D) shall be mounted at a height of 2'-3" (±). The Chevron sign (W1-8), Roundabout Chevron panel (R6-4B), Enhanced Reference Markers, Clearance Markers (W5-52), Mile Markers (D10 series), In Road Object Markers (W5-54) & End of Road Markers (W5-56) shall be mounted at a height of 4'-3" (±).
3. For expressways and freeways, mounting height is 7'- 3" (±) or 6'-3" (±) depending upon existence of a sub-sign.
4. Minimum mounting height for signs mounted on traffic signal poles is 5'- 3" (±).
5. Offset distance shall be consistent with existing signs or consistent throughout length of project.
6. The (±) tolerance for mounting height is 3 inches.
7. Folding signs shall be mounted at a height of 5'-3" (±) or as directd by the Engineer.

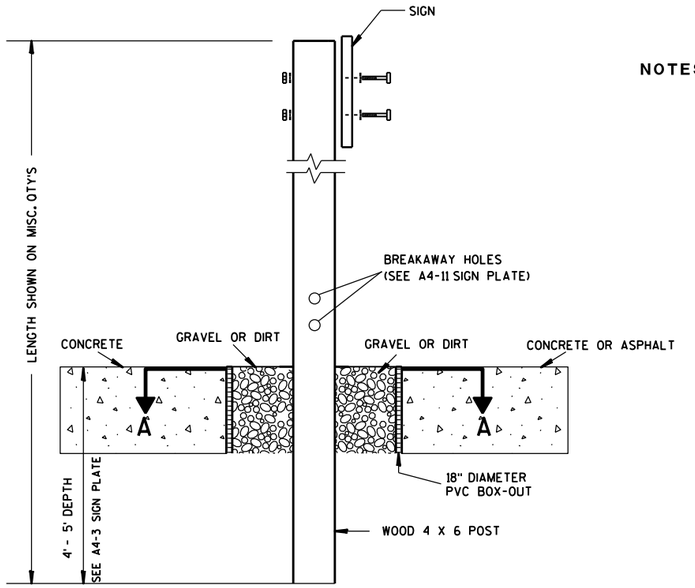
TYPICAL INSTALLATION OF PERMANENT TYPE II SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

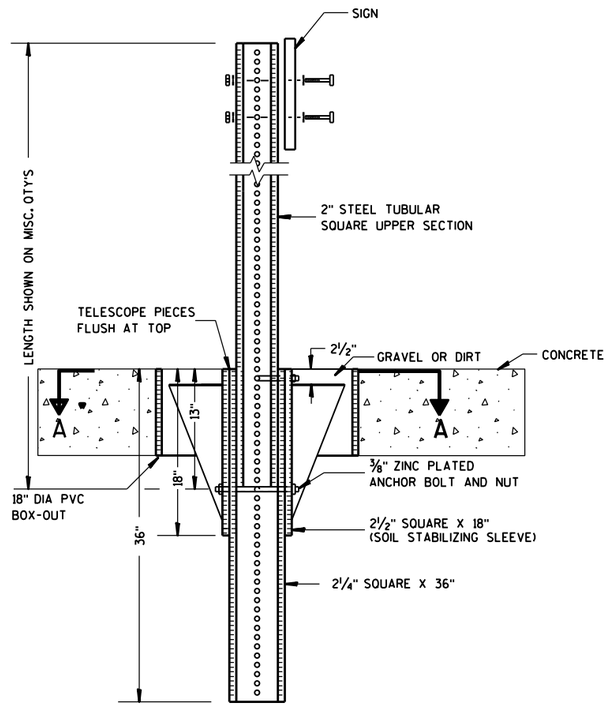
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 90	E



ELEVATION VIEW

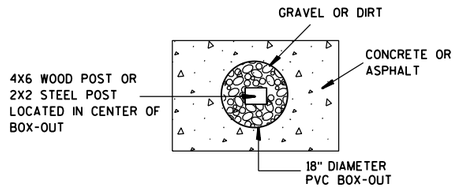
DETAIL OF WOOD 4 X 6 SIGN POST IN BOX-OUT

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



ELEVATION VIEW

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



PLAN VIEW

FOR NEW CONCRETE/ASPHALT INSTALLATIONS

SIGN POST BOX-OUTS A4-3B

WISCONSIN DEPT OF TRANSPORTATION

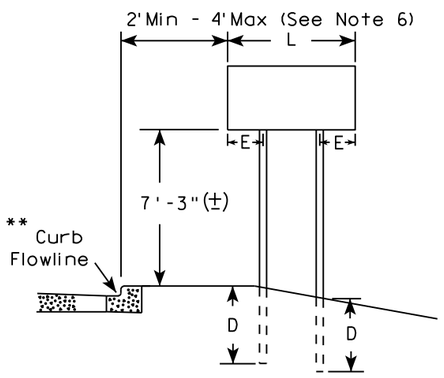
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 1/27/14 PLATE NO. A4-3B.1

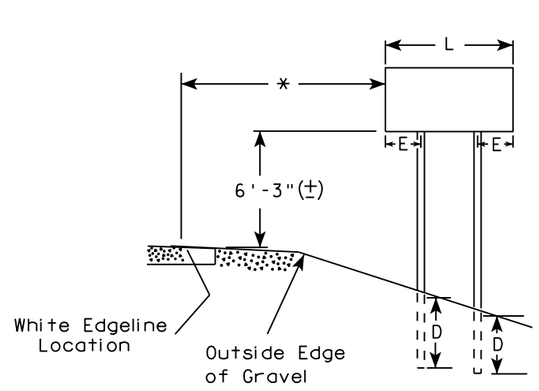
PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

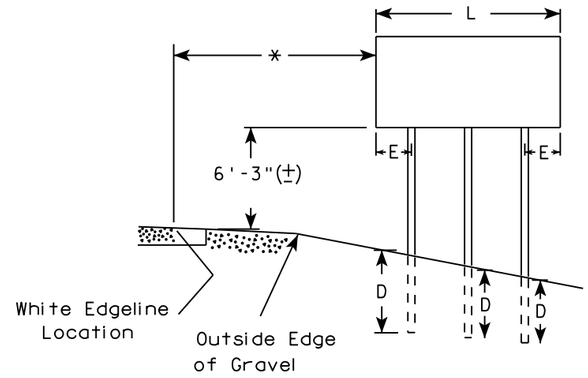
FILE NAME : C:\CAEFiles\Projects\tr_stdplate\A43B.DGN PLOT DATE : 27-JAN-2014 09:48 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 13.659812:1.000000 WISDOT/CADDS SHEET 42

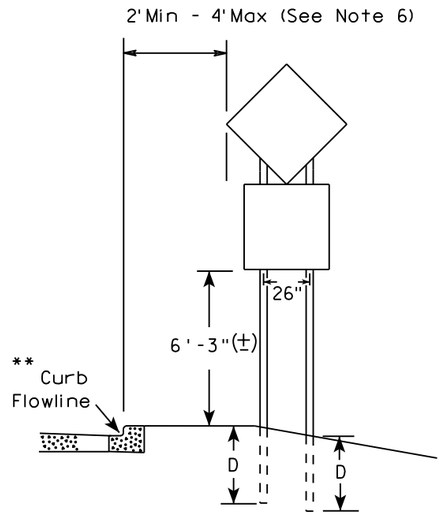
URBAN AREA



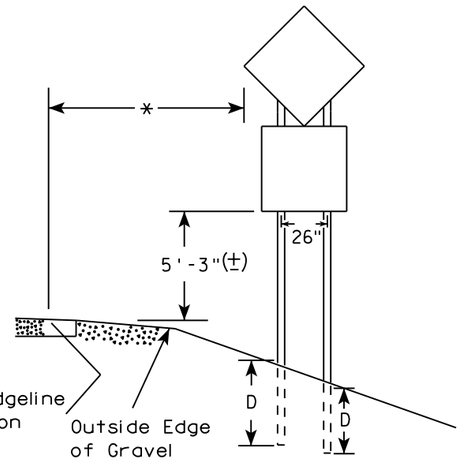
RURAL AREA (See Note 3)







48" DIAMOND WARNING SIGN



48" DIAMOND WARNING SIGN

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

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

GENERAL NOTES

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

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

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

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

POST EMBEDMENT DEPTH

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

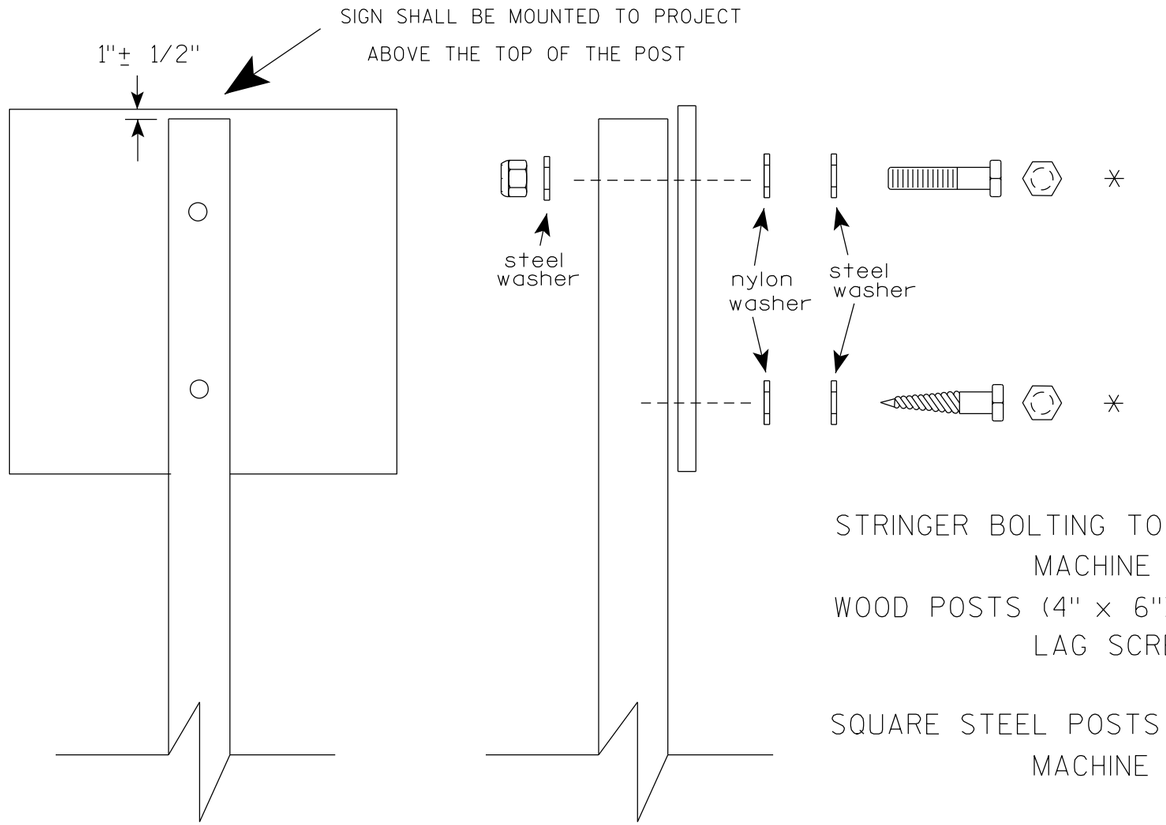
TYPICAL INSTALLATION OF TYPE II SIGNS ON MULTIPLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
For State Traffic Engineer

DATE 8/21/17 PLATE NO. A4-4.15

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 92	E



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

a. Hot dip galvanized in accordance with ASTM Designation: A 153, Class D, or SC 3

b. Electro-galvanized in accordance with ASTM Designation : B 633, TYPE III, SC 3.

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

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

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

WOOD POSTS (4" x 6")

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

SQUARE STEEL POSTS (2" x 2")

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

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

WASHERS (ALL POSTS) -

1-1/4" O.D. X 3/8" I.D. X 1/16" STEEL
1-1/4" O.D. X 3/8" I.D. X .080 NYLON

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

ATTACHMENT OF SIGNS TO POSTS

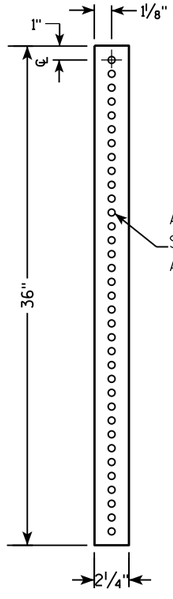
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

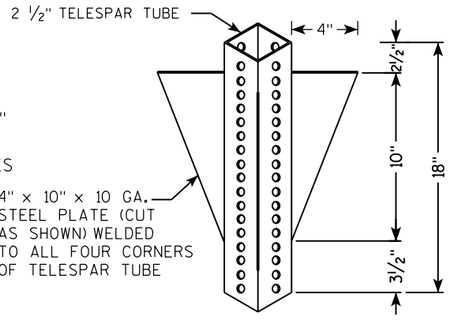
DATE 4/1/2020 PLATE NO. A4-8.9

TELESCOPIC TUBING ANCHORS
TWO PIECE SYSTEM

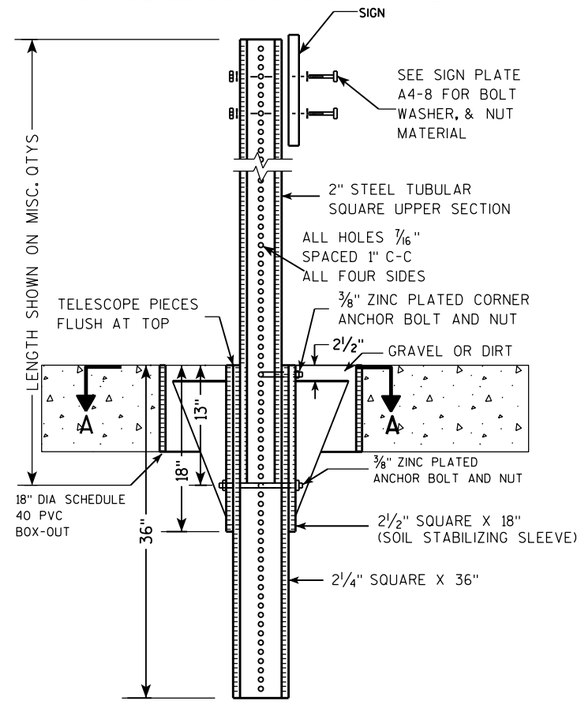
2 ¼ " SQUARE
12 GAUGE
PERFORATED
GALVANIZED FINISH



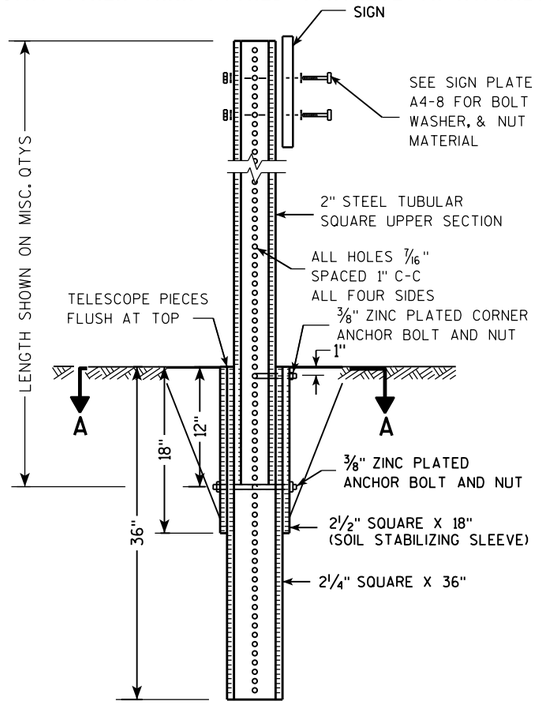
2 ½ " SQUARE
12 GAUGE
OMNI-DIRECTIONAL
PERFORATED
SOIL STABILIZING SLEEVE
GALVANIZED FINISH

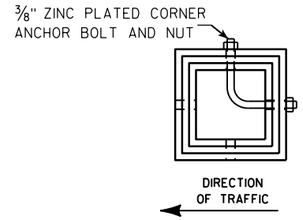


DETAIL OF TUBULAR STEEL SIGN POST
(IN POURED CONCRETE OR ASPHALT)



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





SECTION A-A

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

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

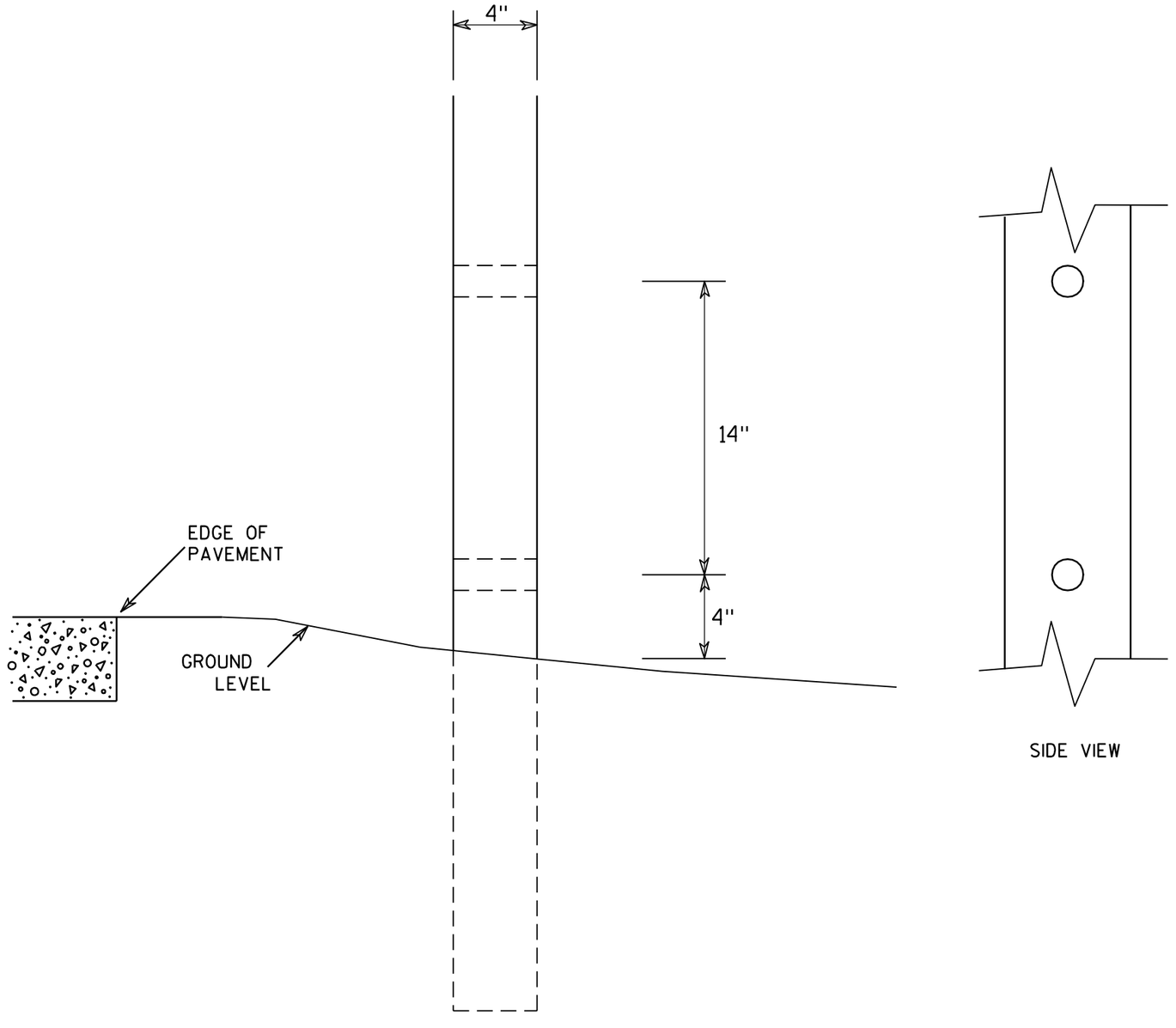
TUBULAR STEEL
SIGN POST
A4-9

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/05/15 PLATE 94 A4-9.9

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E



SIDE VIEW

GENERAL NOTES

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

7

7

4 X 6 WOOD POST MODIFICATIONS

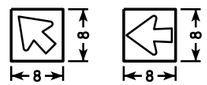
WISCONSIN DEPT OF TRANSPORTATION

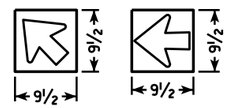
APPROVED Chester J Spang
for State Traffic Engineer

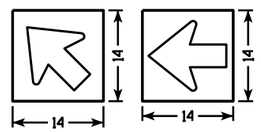
DATE 3/27/97 PLATE NO. A4-11.2

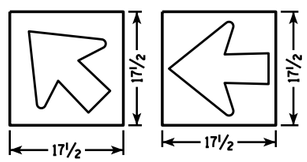
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 95	E

SIGN LAYOUT WITH VARIOUS SIZED MESSAGES







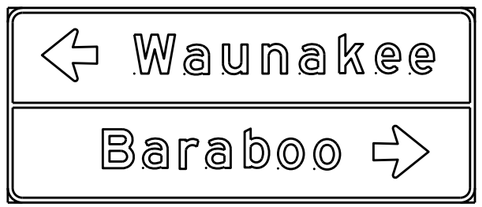


GENERAL NOTES

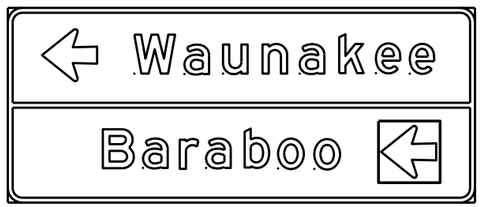
1. Materials shall conform to Standard Specification Section 637.
   Base - Sheet Aluminum 0.040" Thickness
   Sheeting - Orange Type F Reflective
   Arrow - Black Non-Reflective
2. Arrow signs shall be fastened to permanent sign by either aluminum rivets or aluminum self-tapping sheet metal screws. There shall be a minmum of 2 fasteners used per arrow sign.
3. There shall be a spacer consisting of a 0.08" nylon washer between the back of the arrow sign and the face of the permanent sign.
4. Arrows are per standard plate A1-2
5. Use separate arrow sign for each destination
6. Tilt arrow is always at 45 degrees
7. Arrow is centered on arrow sign

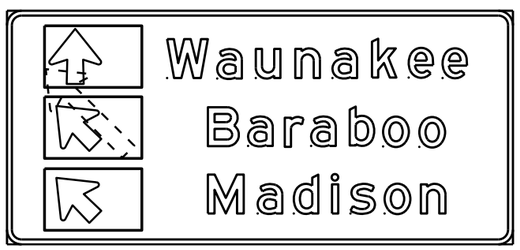
Lower Case Copy Size	Standard Width (Single Arrow)	2 Line Tilt Arrow Cover Width	3 Line Tilt Arrow Cover Width	Height
3¾" Series C	8	9 ½	14 ½	8
4½" Series D & E	9 ½	10	15	9 ½
6" Series D & E	14	16	20 ½	14
8" Series E	17 ½	20 ½	25	17 ½

BEFORE



AFTER





DESTINATION DIRECTIONAL ARROW FOR DETOUR SIGNS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 10/08/14

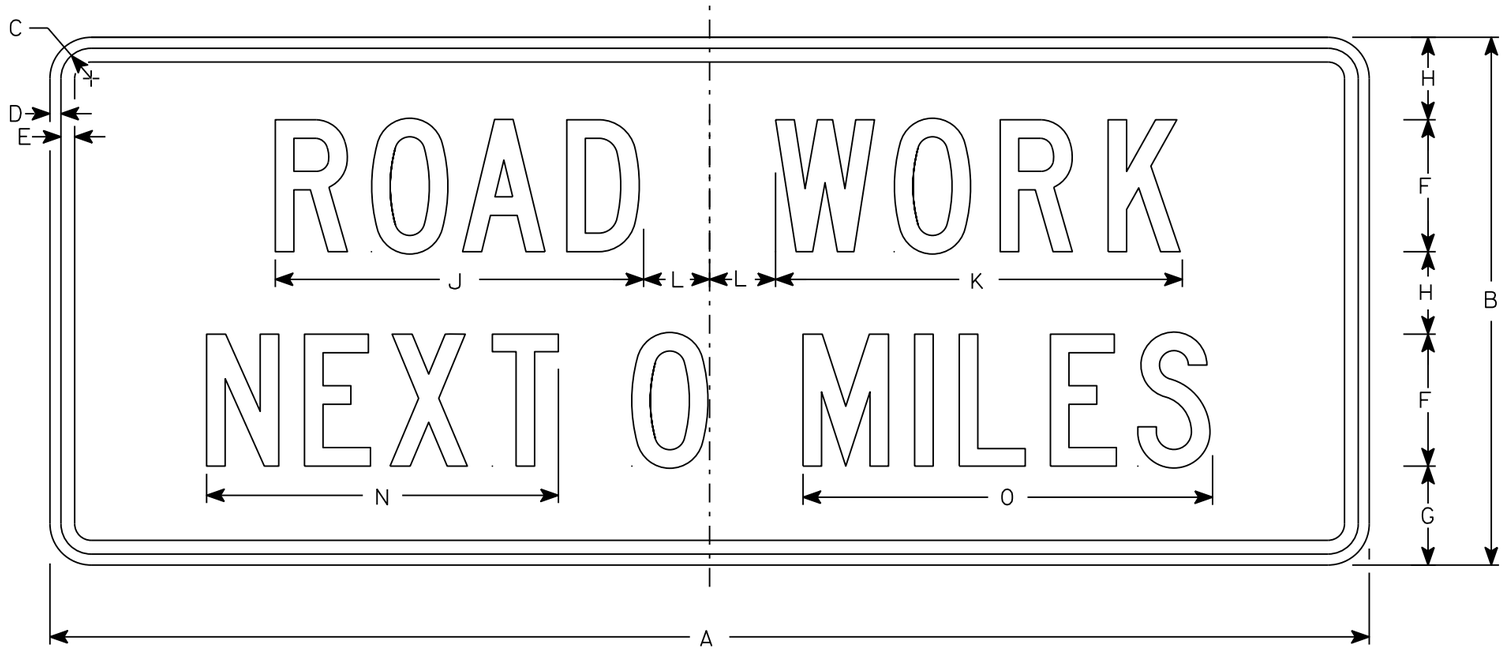
A4-12.2

PROJECT NO:

SHEET NO: E

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\A412.DGN PLOT DATE : 08-OCT-2014 11:50 PLOT BY : mscsja

WISDOT/CADDS SHEET 42



G20-1

NOTES

1. Sign is Type II - Type F Reflective
2. Color:
   Background - Orange
   Message - Black
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Round distance to nearest whole Mile and substitute appropriate numerals and optically adjust spacing to achieve proper balance

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	60	24	1 3/8	1/2	5/8	6	4 1/2	3 3/4		16 3/4	18 1/2	3		16	18 5/8												10
3																											
4	60	24	1 3/8	1/2	5/8	6	4 1/2	3 3/4		16 3/4	18 1/2	3		16	18 5/8												10
5																											

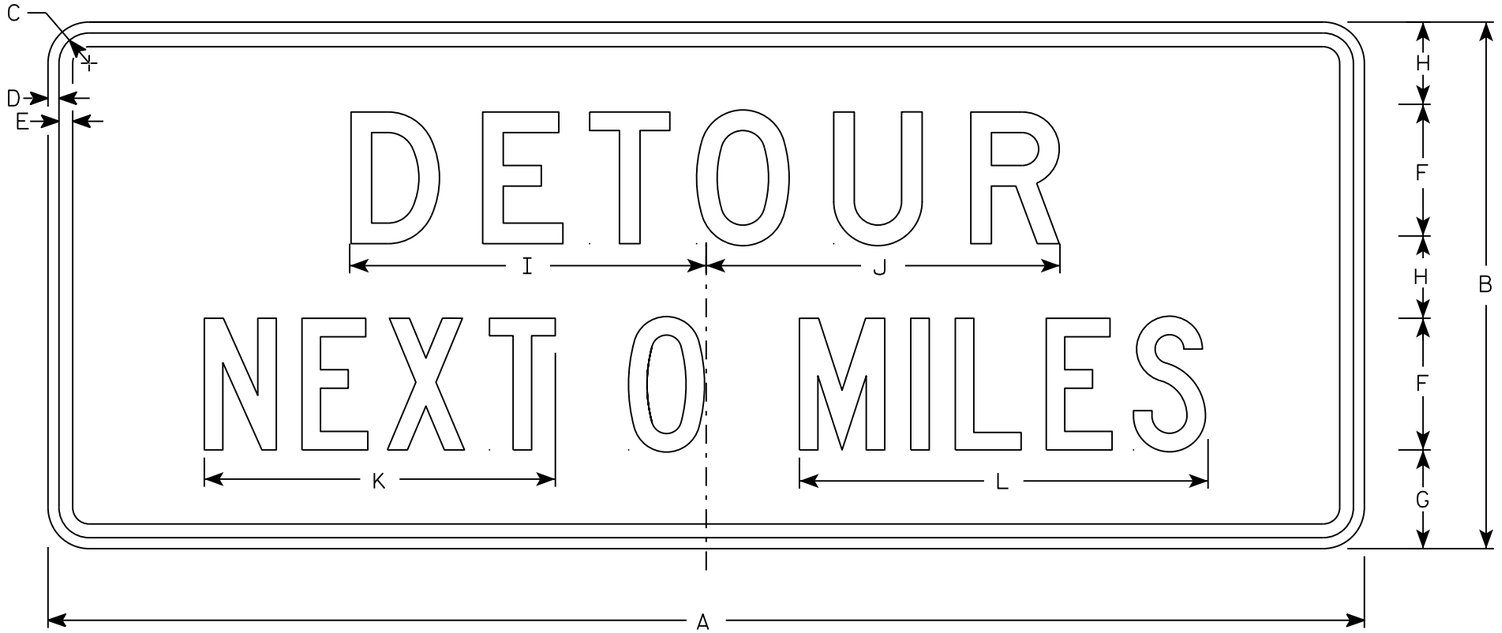
STANDARD SIGN
G20-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/14/17 PLATE NO. G20-1.8

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 97 | E



G20-51

NOTES

1. Sign is Type II - Type F Reflective
2. Color:
   Background - Orange
   Message - Black
3. Message Series - Line 1 is D and Line 2 is C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Round distance to nearest whole Mile and substitute appropriate numerals and optically adjust spacing to achieve proper balance

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	60	24	1 3/8	1/2	5/8	6	4 1/2	3 3/4	16 1/4	16 1/8	16	18 5/8															10
3																											
4	60	24	1 3/8	1/2	5/8	6	4 1/2	3 3/4	16 1/4	16 1/8	16	18 5/8															10
5																											

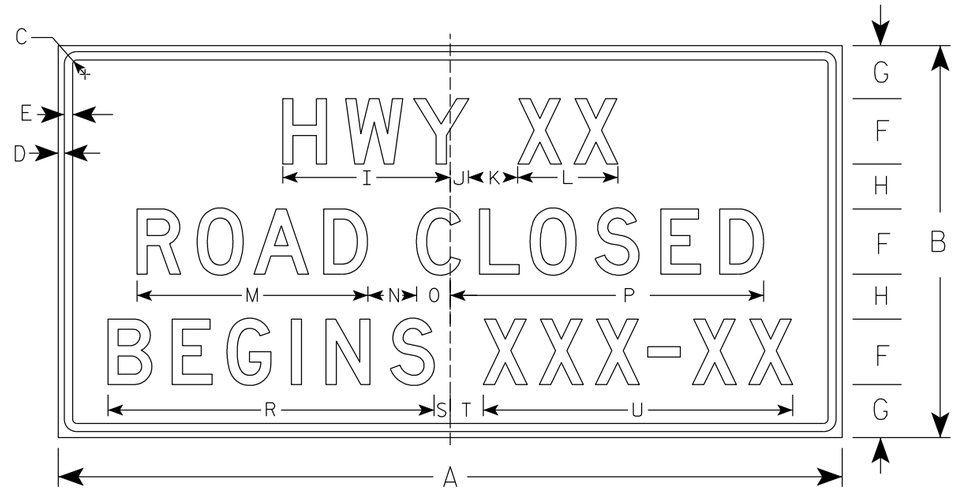
STANDARD SIGN
G20-51

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

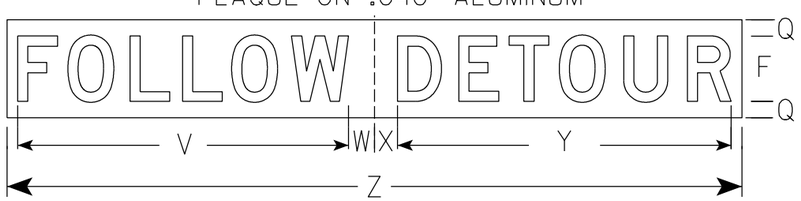
DATE 3/14/17 PLATE NO. G20-51.2

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 98	E



G20-57C

PLAQUE ON .040" ALUMINUM



USE ONLY ONCE WHEN ROAD IS CLOSED

NOTES

1. Sign is Type II - Type F Reflective
2. Color:
   Background - Orange
   Message - Black
3. Message Series - D
4. Substitute appropriate numeral and adjust spacing to achieve proper balance.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2																											
3	72	36	1 1/8	1/2	5/8	6	5	4	15 5/8	1 5/8	5	9 1/4	21 1/8	5	2 7/8	29	2	30	1 3/4	3 1/4	28 3/8	40 1/2	2	2	29 3/4	66	18.0
4	96	48	2 1/4	3/4	1	8	6 1/2	5 1/2	20 5/8	2 1/4	6	12 1/4	28 1/4	6	4 1/8	38 3/8	2	39 7/8	2	4	37 7/8	29 3/4	3 1/8	2 7/8	40 7/8	90	32.0
5																											

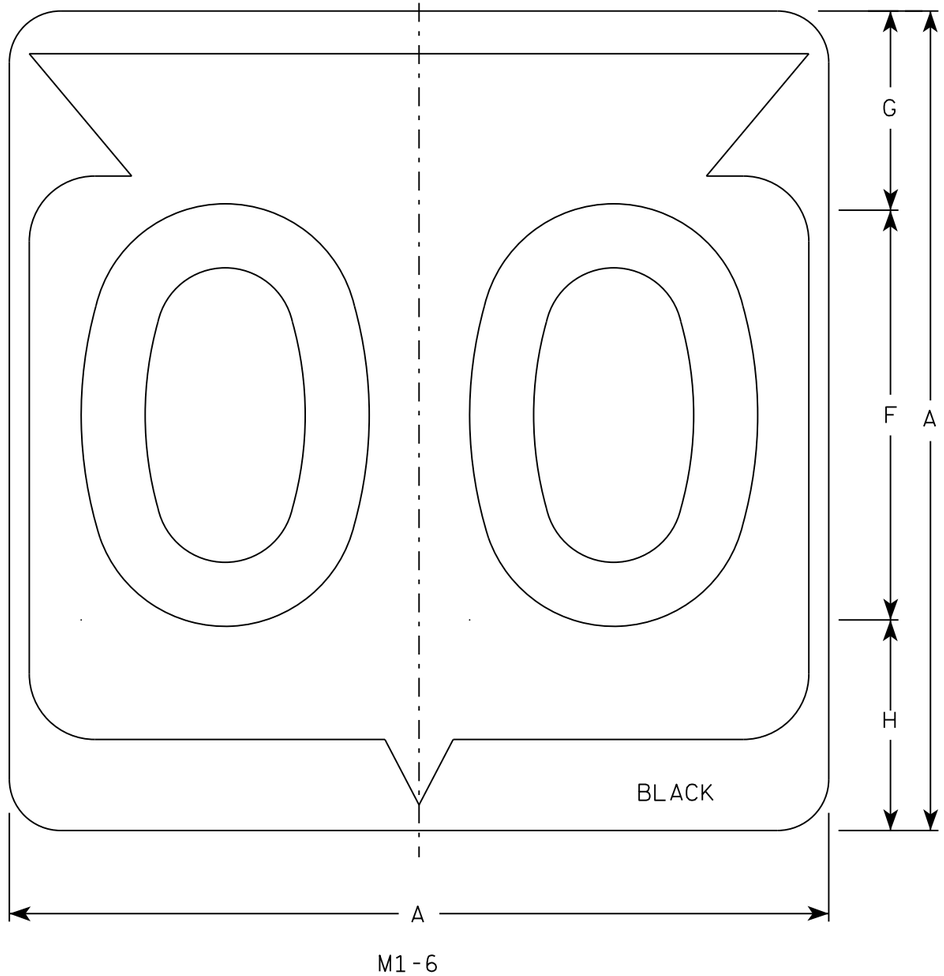
STANDARD SIGN
G20-57C

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 9/25/19 PLATE NO. G20-57C.1

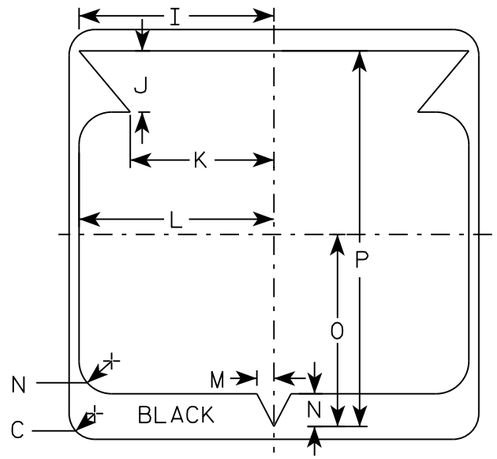
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 99 E



M1-6

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - D except 3 number signs Series C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	24		1 1/2			12	5 1/2	6 1/2	10 1/4	2 1/2	8 7/8	11 1/2	1	1 7/8	11 1/4	21 7/8											4.0
3	36		2 1/4			18	8 3/4	9 1/4	15 3/8	5 3/8	12 5/8	17 1/8	1 1/2	2 7/8	16 7/8	33											9.0
4	36		2 1/4			18	8 3/4	9 1/4	15 3/8	5 3/8	12 5/8	17 1/8	1 1/2	2 7/8	16 7/8	33											9.0
5	36		2 1/4			18	8 3/4	9 1/4	15 3/8	5 3/8	12 5/8	17 1/8	1 1/2	2 7/8	16 7/8	33											9.0

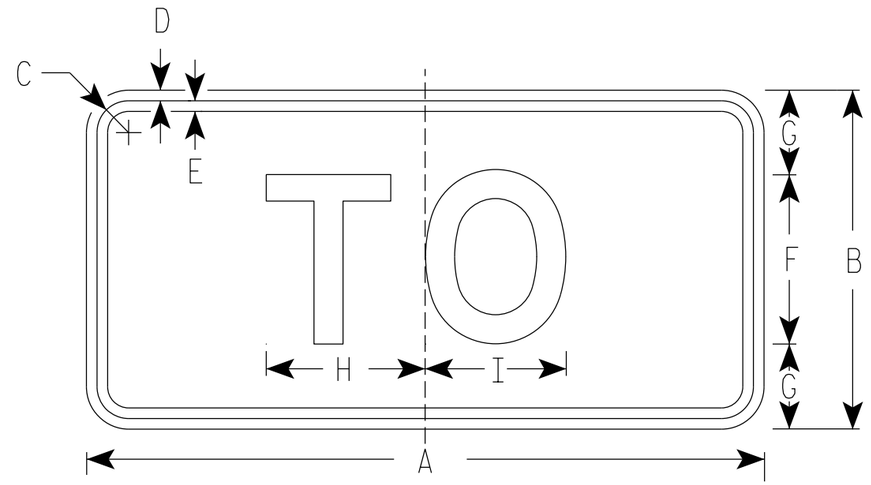
STATE ROUTE MARKER M1-6 FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

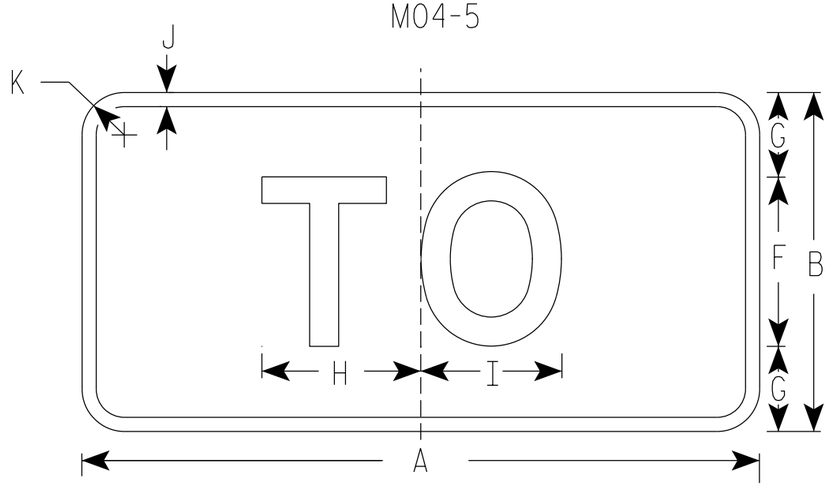
APPROVED Matthew R Rauch for State Traffic Engineer

DATE 3/16/18 PLATE NO. M1-6.10

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 100 | E



M4-5
MM4-5
MP4-5
M04-5



MB4-5
MK4-5
MN4-5

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - See note 5
   Message - See note 5
3. Message Series - E
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. M4-5 Background - White
   Message - Black

   MB4-5 Background - Blue
   Message - White

   MK4-5 Background - Green
   Message - White

   MM4-5 Background - White
   Message - Green

   MN4-5 Background - Brown
   Message - White

   MP4-5 Background - White
   Message - Blue

   M04-5 Background - Orange Type F Reflective
   Message - Black

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	24	12	1 1/8	3/8	3/8	6	3	5 3/8	5 1/4	1/2	1 1/2																2.00
3	36	18	1 3/8	3/8	1/2	9	4 1/2	8 1/4	8 3/8	1/2	1 1/2																4.5
4	36	18	1 3/8	3/8	1/2	9	4 1/2	8 1/4	8 3/8	1/2	1 1/2																4.5
5	36	18	1 3/8	3/8	1/2	9	4 1/2	8 1/4	8 3/8	1/2	1 1/2																4.5

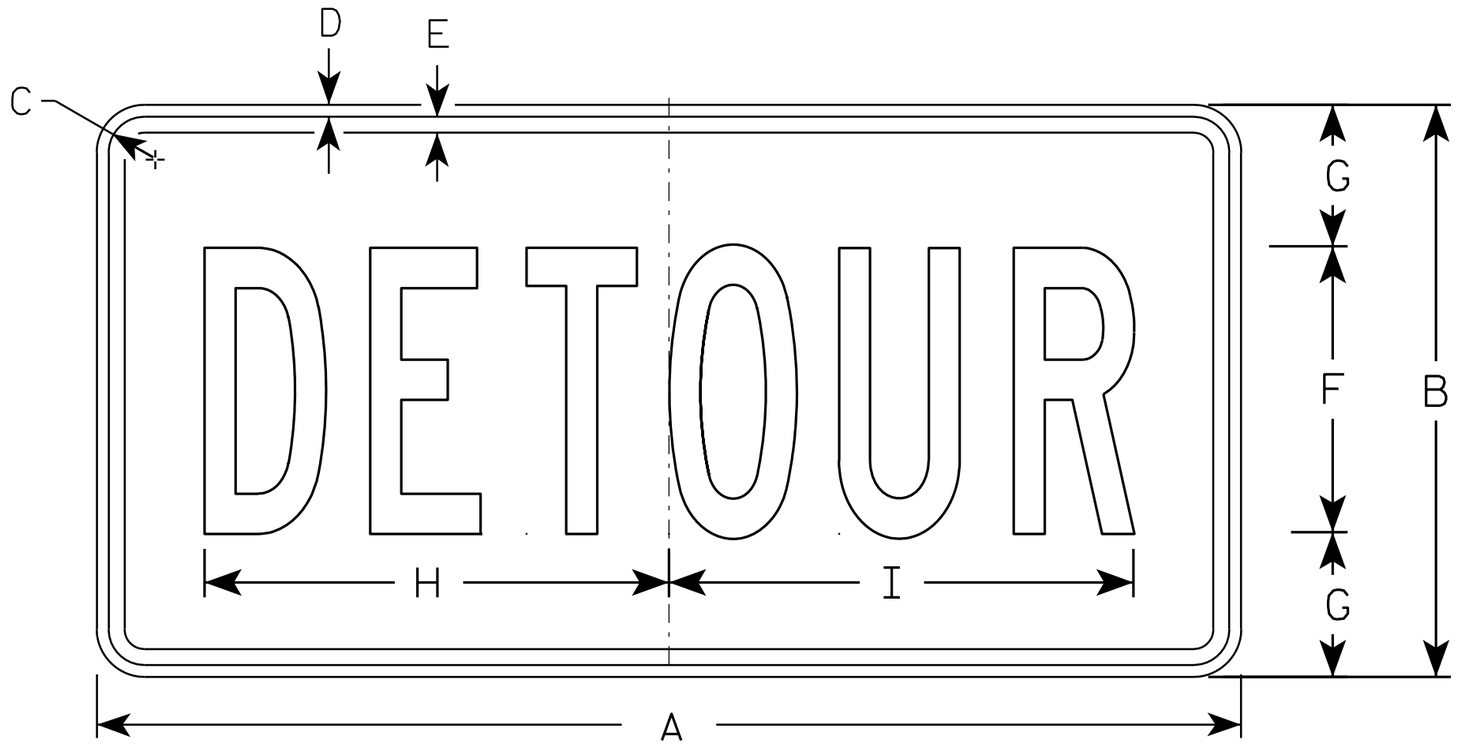
STANDARD SIGN
M4-5

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 03/7/19 PLATE NO. M4-5.9

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 101 | E



M4-8

NOTES

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

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	24	12	1 1/8	3/8	3/8	6	3	10	10 1/4																		2.0
3	36	18	1 1/8	3/8	1/2	9	4 1/2	14 5/8	14 1/2																		4.5
4																											
5																											

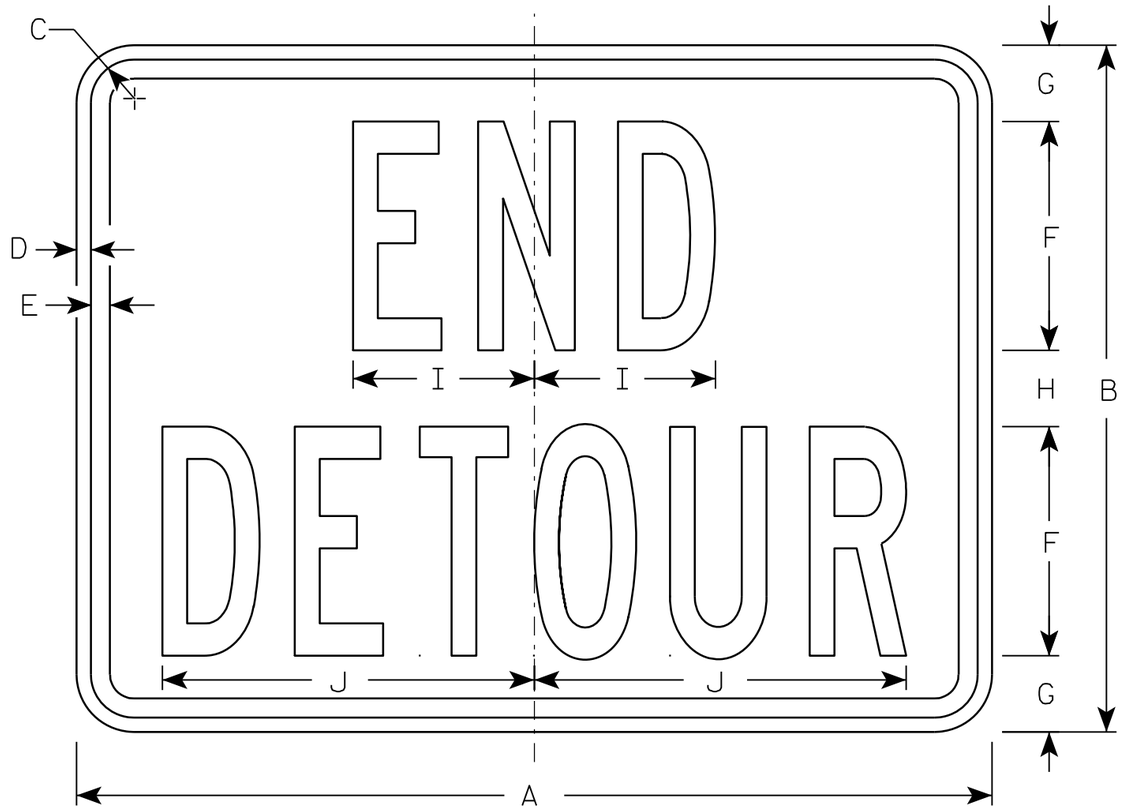
STANDARD SIGN
M4-8

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/10/10 PLATE NO. M4-8.2

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 102	E



M4-8A

NOTES

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

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	24	18	1 1/8	3/8	1/2	6	2	2	4 3/4	9 3/4																	3.0
3	30	24	1 1/8	3/8	1/2	8	2 1/2	3	6 3/4	13																	5.0
4																											
5																											

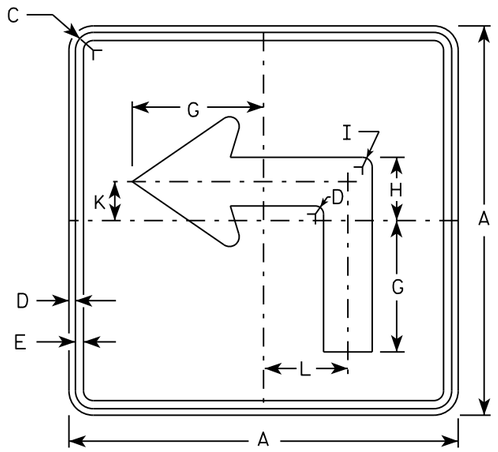
STANDARD SIGN
M4-8A

WISCONSIN DEPT OF TRANSPORTATION

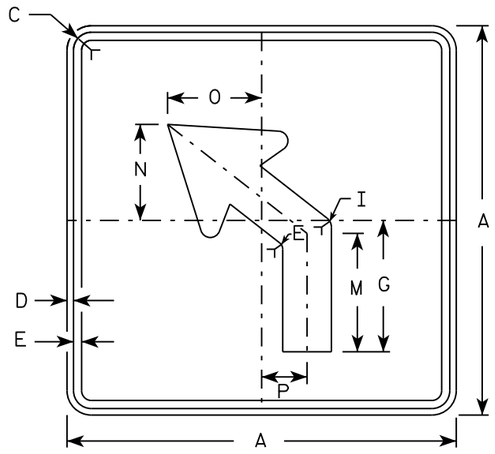
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/9/11 PLATE NO. M4-8A.2

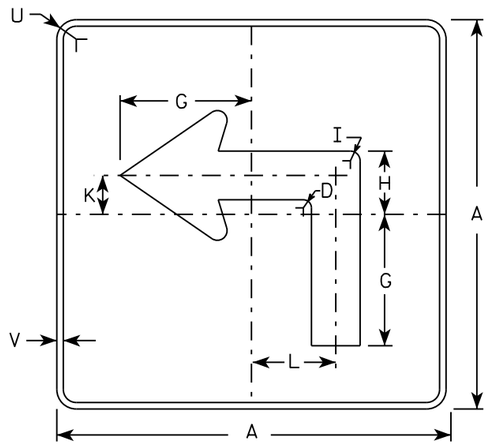
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 103	E



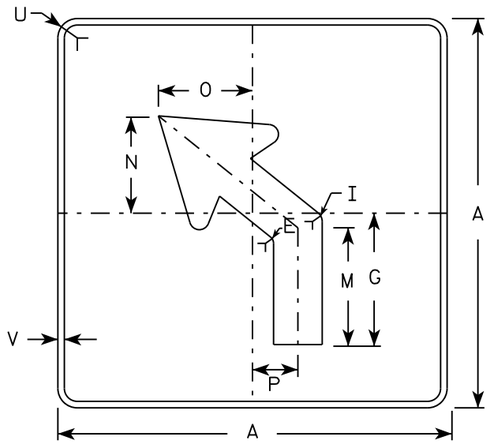
M5-1L
MM5-1L
MO5-1L
MP5-1L



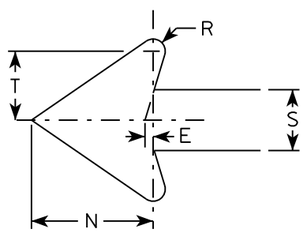
M5-2L
MM5-2L
MO5-2L
MP5-2L



MB5-1L
MK5-1L
MN5-1L
MR5-1L



MB5-2L
MK5-2L
MN5-2L
MR5-2L



NOTES

1. Signs are Type II - Type H reflective except as shown
2. Color:
   Background - See note 4
   Message - See note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. M5-1 and M5-2 Background - White
   Message - Black
   MB5-1 and MB5-2 Background - Blue
   Message - White
   MK5-1 and MK5-2 Background - Green
   Message - White
   MM5-1 and MM5-2 Background - White
   Message - Green
   MN5-1 and MN5-2 Background - Brown
   Message - White
   MO5-1 and MO5-2 Background - Orange - Type F Reflective
   Message - Black
   MP5-1 and MP5-2 Background - White - Type H Reflective
   Message - Blue
   MR5-1 and MR5-2 Background - Brown
   Message - Yellow
5. M5-1R same as M5-1L except arrow points right.
6. M5-2R same as M5-2L except arrow tilts right.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	21		1 1/8	3/8	3/8		7	3 3/8	5/8		2 1/8	4 1/2	6 3/8	5 1/4	5	2 1/2		1/2	2 5/8	3	1 1/2	1/2					3.06
3	30		1 3/8	1/2	5/8		10 1/8	4 7/8	7/8		3	6 1/2	9 1/8	7 1/2	7 1/4	3 1/2		3/4	3 3/4	4 1/4	1 7/8	1/2					6.25
4	30		1 3/8	1/2	5/8		10 1/8	4 7/8	7/8		3	6 1/2	9 1/8	7 1/2	7 1/4	3 1/2		3/4	3 3/4	4 1/4	1 7/8	1/2					6.25
5	30		1 3/8	1/2	5/8		10 1/8	4 7/8	7/8		3	6 1/2	9 1/8	7 1/2	7 1/4	3 1/2		3/4	3 3/4	4 1/4	1 7/8	1/2					6.25

STANDARD SIGN
M5-1 & M5-2

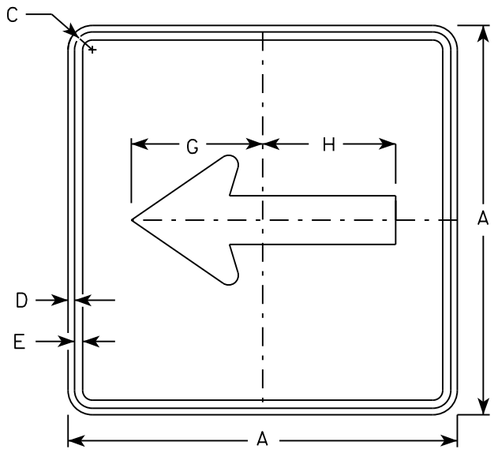
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

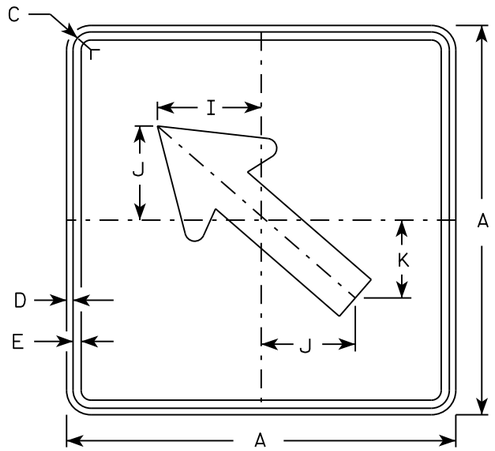
DATE 10/15/15 PLATE NO. M5-1.13

PROJECT NO: | HWY: | COUNTY: | SHEET NO: E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\M51.DGN PLOT DATE : 01-DEC-2015 18:07 PLOT BY : $$ plotuser $$ PLOT NAME : PLOT SCALE : 11.675051:1.000000



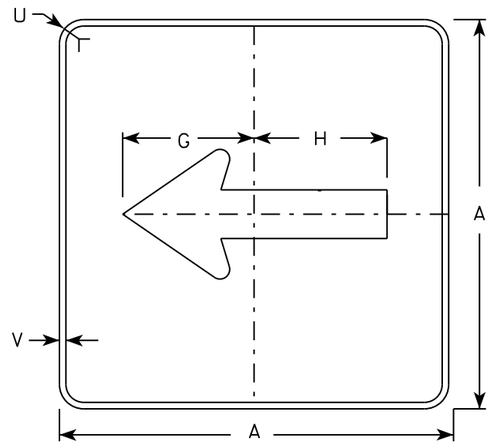
M6-1
MM6-1
MO6-1
MP6-1



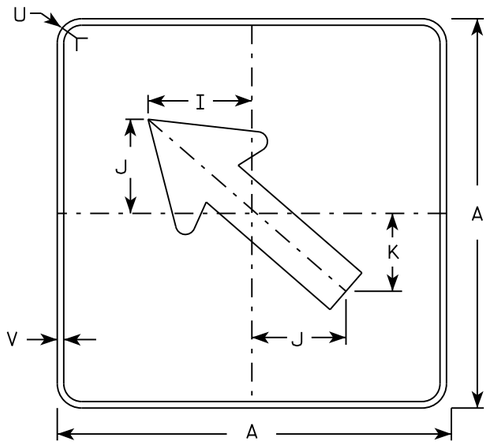
M6-2
MM6-2
MO6-2
MP6-2

NOTES

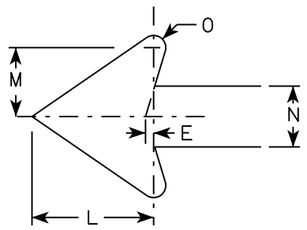
1. Signs are Type II - Type H except as Shown
2. Color:
   Background - See note 4
   Message - See note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. M6-1 and M6-2 Background - White
   Message - Black
   MB6-1 and MB6-2 Background - Blue
   Message - White
   MK6-1 and MK6-2 Background - Green
   Message - White
   MM6-1 and MM6-2 Background - White
   Message - Green
   MN6-1 and MN6-2 Background - Brown
   Message - White
   MO6-1 and MO6-2 Background - Orange - Type F Reflective
   Message - Black
   MP6-1 and MP6-2 Background - White
   Message - Blue
   MR6-1 and MR6-2 Background - Brown
   Message - Yellow



MB6-1
MK6-1
MN6-1
MR6-1



MB6-2
MK6-2
MN6-2
MR6-2



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	21		1 1/8	3/8	3/8		7 1/2	7 1/8	5 5/8	5	4 1/4	5 1/4	3	2 5/8	1/2						1 1/2	1/2						3.06
3	30		1 3/8	1/2	5/8		10 3/4	10 1/4	8	7 1/4	6	7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2						6.25
4	30		1 3/8	1/2	5/8		10 3/4	10 1/4	8	7 1/4	6	7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2						6.25
5	30		1 3/8	1/2	5/8		10 3/4	10 1/4	8	7 1/4	6	7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2						6.25

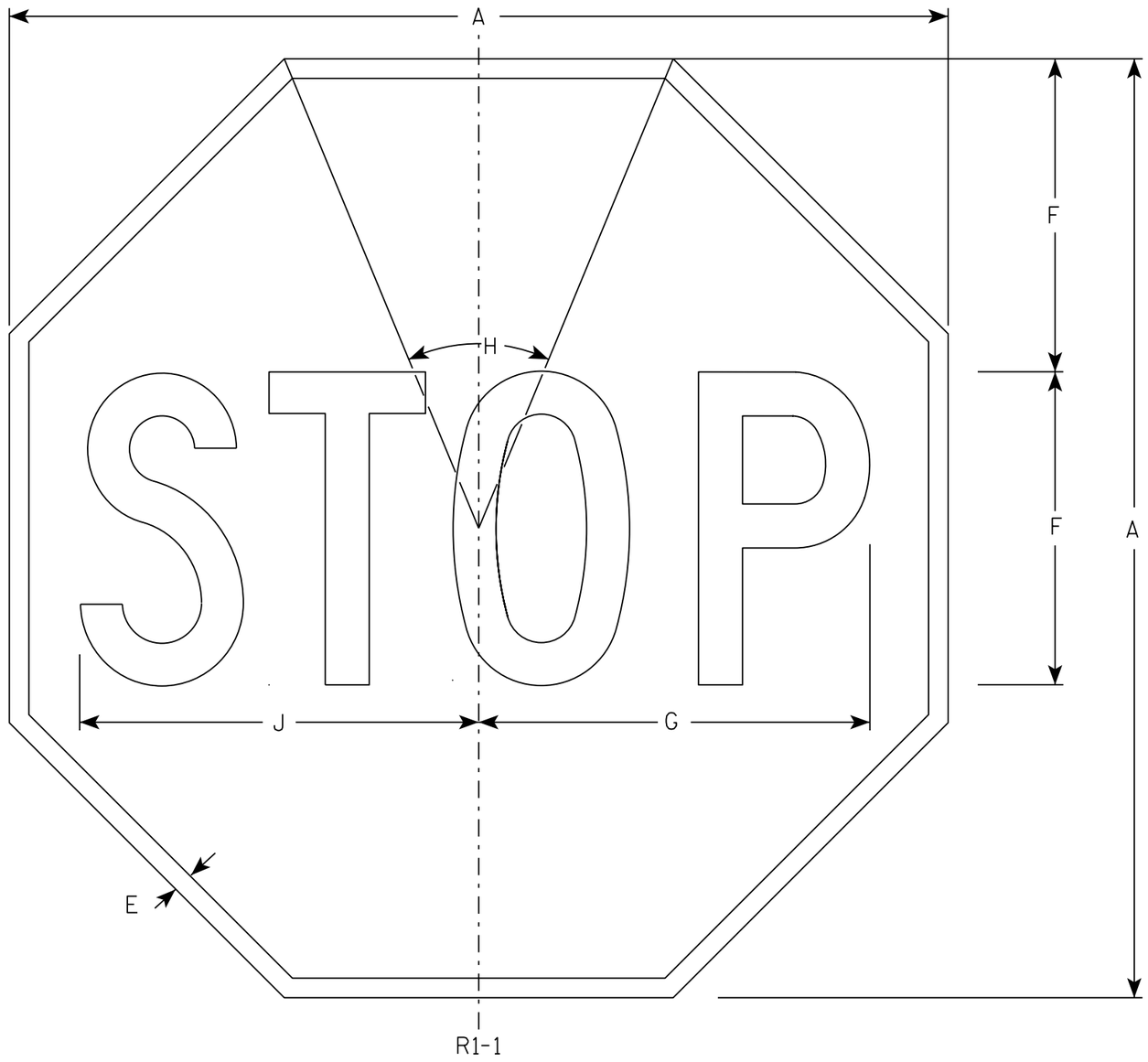
STANDARD SIGN
M6-1 & M6-2
SERIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 10/15/15 PLATE 105 M6-1.15

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E



NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Red
   Message - White
3. Message Series - C

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	30				5/8	10	12 1/2	45°		12 3/4																	5.18
2S	30				5/8	10	12 1/2	45°		12 3/4																	5.18
2M	36				3/4	12	15	45°		15 3/8																	7.46
3	36				3/4	12	15	45°		15 3/8																	7.46
4	48				1	16	20	45°		20 1/2																	13.25
5	48				1	16	20	45°		20 1/2																	13.25
6	18				3/8	6	7 3/4	45°		7 3/4																	1.86
7	12				1/4	4	5	45°		5 1/8																	0.78

STANDARD SIGN

R1-1

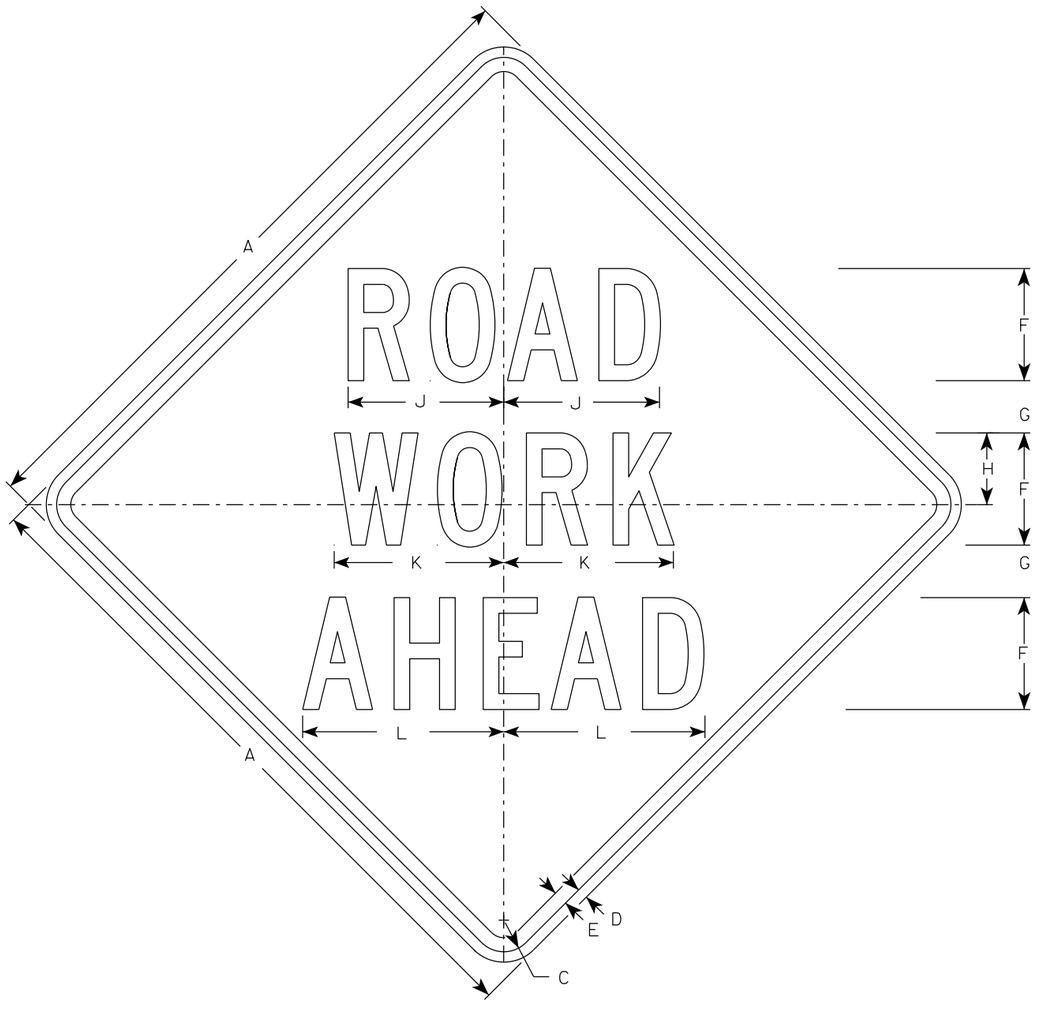
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch

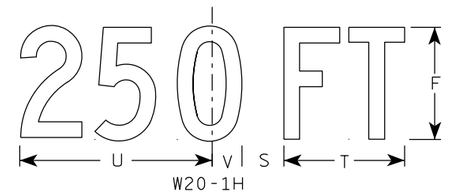
for State Traffic Engineer

DATE 11/12/15 PLATE NO. R1-1.13

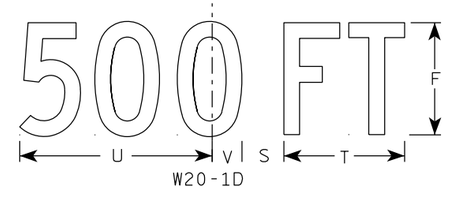
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 106	E



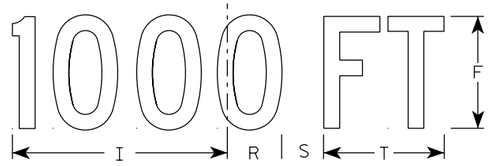
W20-1A



W20-1H



W20-1D

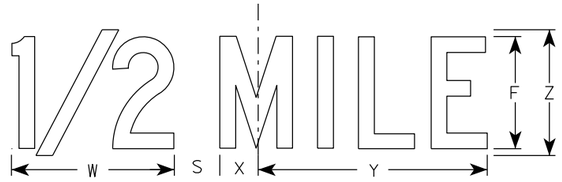


W20-1C

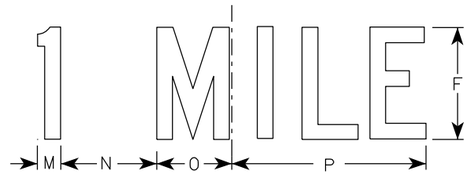
W20-1B

NOTES

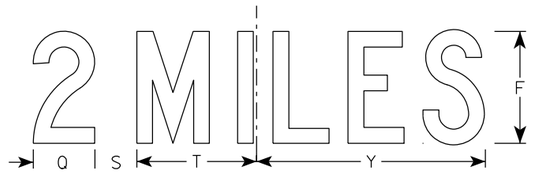
1. Sign is Type II - Type F Reflective
2. Color:
   Background - Orange
   Message - Black
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.



W20-1G



W20-1F



W20-1E

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 5/8	5/8	3/4	5	2 5/8	3 1/4	10 1/8	7	7 5/8	8 7/8	1 1/8	4 1/2	3 1/2	9	3 1/4	2 1/2	2 1/4	5 5/8	9	1 3/8	8	1 3/4	10 3/4	6	9.0
2S	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
2M	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
3	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
4	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
5	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0

STANDARD SIGN
W20-1A, B, C, D, E, F, G & H

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/25/2020 PLATE NO. W20-1.11

PROJECT NO:

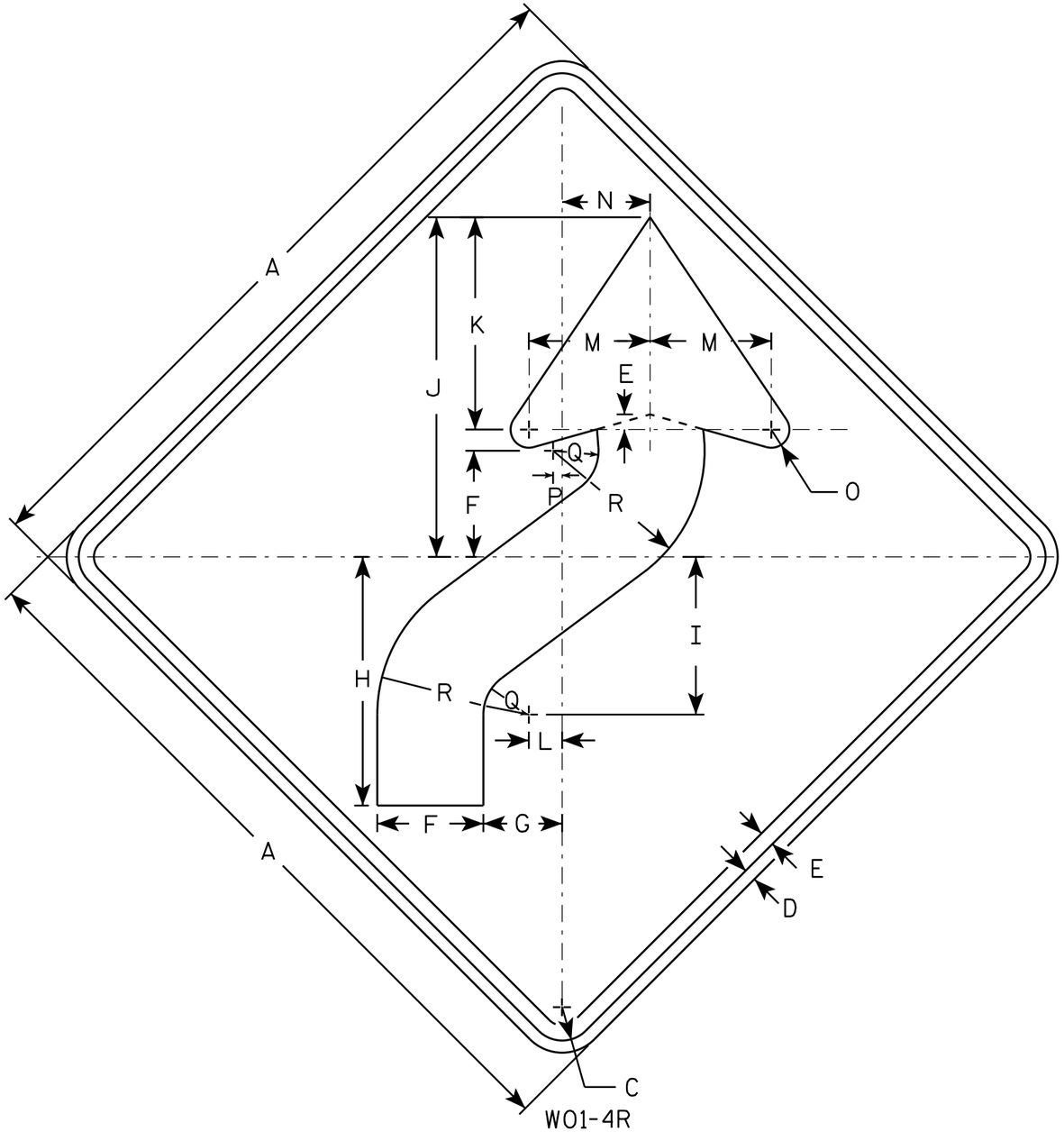
SHEET NO: E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\W201.DGN PLOT DATE : 25-MARCH-2020 PLOT BY : dotc4c

WISDOT/CADDS SHEET 42

7

7



W01-4R

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. W01-4L is the same as W01-4R except the arrow is reversed along the vertical centerline.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 5/8	5/8	3/4	5 1/4	4	12 3/8	7 7/8	16 7/8	10 1/2	1 5/8	6	4 1/2	1	1/2	2 1/4	7 1/2									9.0
2S	48		2 1/4	3/4	1	7	5 1/4	16 1/2	10 1/2	22 1/2	14	2 1/4	8	6	1 1/4	5/8	3	10									16.0
2M	48		2 1/4	3/4	1	7	5 1/4	16 1/2	10 1/2	22 1/2	14	2 1/4	8	6	1 1/4	5/8	3	10									16.0
3	48		2 1/4	3/4	1	7	5 1/4	16 1/2	10 1/2	22 1/2	14	2 1/4	8	6	1 1/4	5/8	3	10									16.0
4	48		2 1/4	3/4	1	7	5 1/4	16 1/2	10 1/2	22 1/2	14	2 1/4	8	6	1 1/4	5/8	3	10									16.0
5	48		2 1/4	3/4	1	7	5 1/4	16 1/2	10 1/2	22 1/2	14	2 1/4	8	6	1 1/4	5/8	3	10									16.0

STANDARD SIGN
W01-4

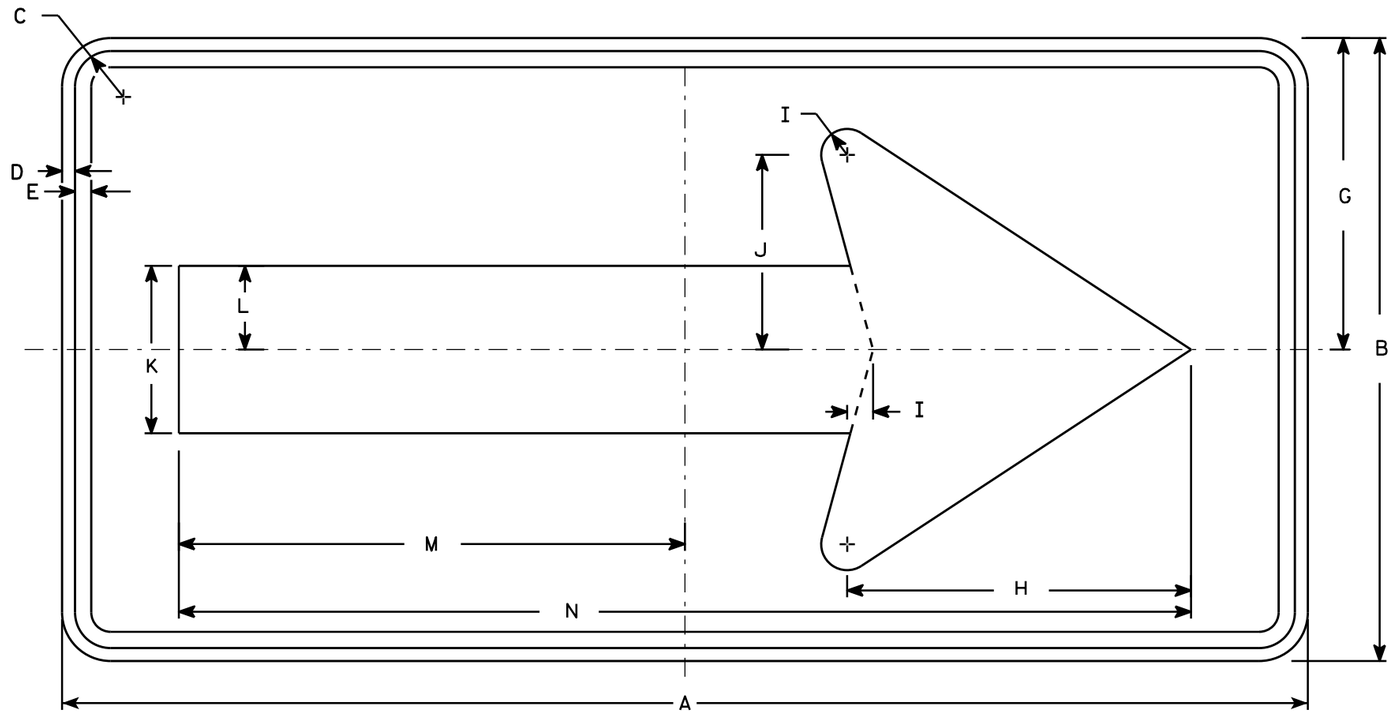
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/18/13 PLATE NO W01-4.1

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\W014.DGN PLOT DATE : 28-FEB-2014 11:35 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 6.755110:1.000000
WISDOT/CADDS SHEET 42



W01-6

NOTES

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

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

STANDARD SIGN
W01-6

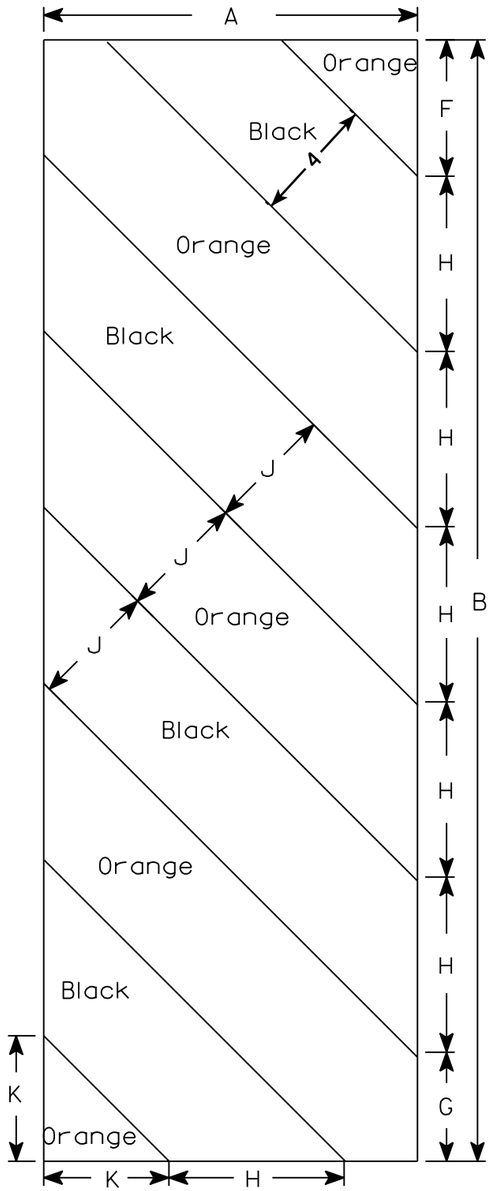
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

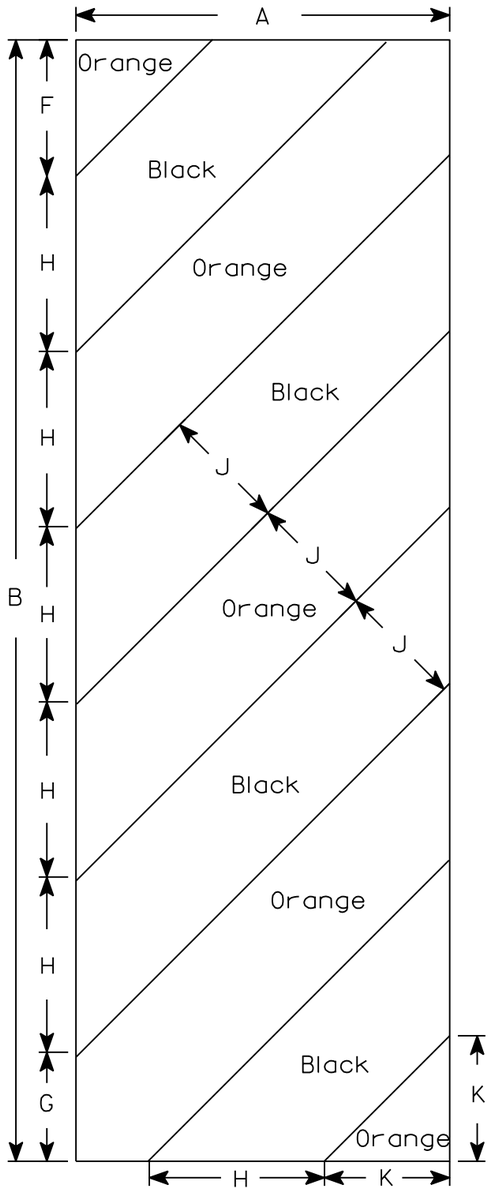
DATE 11/18/13 PLATE W01-6.1

PROJECT NO: | HWY: | COUNTY: | SHEET NO: E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\W016.DGN PLOT DATE : 28-FEB-2014 11:37 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 5.837526:1.000000 WISDOT/CADDS SHEET 42



W05-52L



W05-52R

NOTES

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

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

STANDARD SIGN

W05-52L & W05-52R

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/20/13 PLATE W05-52.1

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

DIVISION 2 - CTH A GUARDRAIL, LT

STATION	DISTANCE	AREA (SF) CUT	AREA (SF) SALVAGED/ UNUSABLE PAVEMENT MATERIAL	AREA (SF) FILL	INCREMENTAL VOLUME (CY) (UNADJUSTED) CUT	INCREMENTAL VOLUME (CY) (UNADJUSTED) SALVAGED/ UNUSABLE PAVEMENT MATERIAL	INCREMENTAL VOLUME (CY) (UNADJUSTED) FILL	CUMULATIVE VOLUME (CY) CUT 1.00	CUMULATIVE VOLUME (CY) SALVAGED/ UNUSABLE PAVEMENT MATERIAL 1.00	CUMULATIVE VOLUME (CY) EXPANDED FILL 1.25	MASS ORDINATE
214+81	0	9	7	0	0	0	0	0	0	0	0
215+00	19	9	7	0	6	5	0	6	5	0	2
215+60	60	10	7	0	21	14	0	27	19	0	8
216+00	40	11	7	1	15	10	1	43	29	1	13
216+25	25	11	7	0	10	6	0	53	35	1	17
216+51	26	12	7	0	11	6	0	64	41	1	22
216+53	2	12	7	0	1	0	0	65	41	1	22
216+70	17	14	7	0	8	4	0	73	45	1	26
217+00	30	20	7	0	19	7	0	92	53	1	38
217+53	53	13	7	0	33	13	0	125	66	1	58
217+78	25	10	7	0	11	6	0	136	72	1	63
218+00	22	9	7	0	8	5	0	144	77	2	66
218+50	50	7	7	1	15	12	1	159	89	3	68
219+00	50	7	7	1	14	12	1	173	101	4	68
219+08	8	7	7	0	2	2	0	175	103	4	68
219+16	8	8	7	1	2	2	0	177	105	4	68
219+41	25	9	7	0	8	6	1	185	111	5	69
219+50	9	10	7	0	3	2	0	188	113	5	70
220+00	50	9	7	1	17	12	1	206	125	7	74
220+30	30	8	7	4	9	7	3	215	132	10	73
220+50	20	8	7	3	6	5	2	221	137	13	71
220+91	41	8	7	3	13	10	4	234	147	18	69
220+93	2	8	7	3	1	0	0	234	147	18	69
221+19	26	10	7	3	9	6	3	243	154	21	68
221+44	25	13	7	4	11	6	3	254	160	26	69
221+84	40	13	7	2	19	10	5	273	169	31	72
222+00	16	13	7	2	8	4	1	281	173	33	75
222+50	50	8	7	1	19	12	3	300	185	36	79
222+63	13	6	6	1	3	3	0	304	188	37	79
					304	188	29				

NOTES:	
1 - CUT	CUT INCLUDES SALVAGED/UNUSABLE PAVEMENT MATERIAL. SALVAGED/UNUSABLE PAVEMENT MATERIAL IS CALCULATED ON THE SECTION 3 SUMMARY SHEET.
2 - FILL	DOES NOT INCLUDE SALVAGED/UNUSABLE PAVEMENT AREA/VOLUME. SALVAGED/UNUSABLE PAVEMENT MATERIAL IS CALCULATED ON THE SECTION 3 SUMMARY SHEET.
3 - EXPANDED MATERIAL	(UNEXPANDED MATERIAL)*(EXPANSION FACTOR)
4 - MASS ORDINATE	CUT - (EXPANDED FILL); POSITIVE. INDICATES AN EXCESS OF MATERIAL

9

9

PROJECT NO: 9165-13-71 | HWY: STH 55 | COUNTY: FOREST | EARTHWORK DATA | SHEET 111 | E

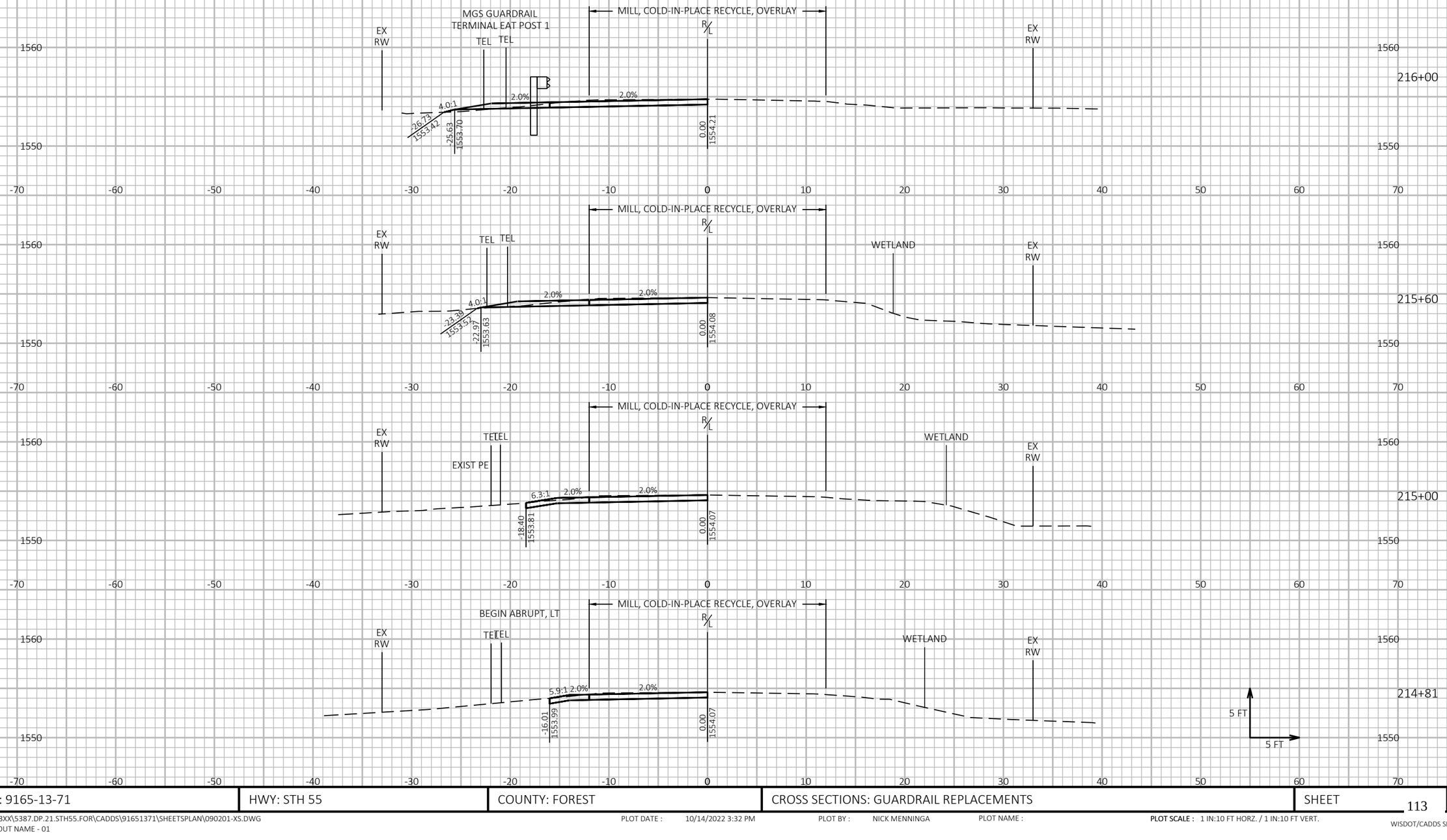
DIVISION 2 - BRULE RIVER GUARDRAIL, LT

STATION	DISTANCE	AREA (SF) CUT	AREA (SF) SALVAGED/ UNUSABLE PAVEMENT MATERIAL	AREA (SF) FILL	INCREMENTAL VOLUME (CY) (UNADJUSTED) CUT	INCREMENTAL VOLUME (CY) (UNADJUSTED) SALVAGED/ UNUSABLE PAVEMENT MATERIAL	INCREMENTAL VOLUME (CY) (UNADJUSTED) FILL	CUMULATIVE VOLUME (CY) CUT 1.00	CUMULATIVE VOLUME (CY) SALVAGED/ UNUSABLE PAVEMENT MATERIAL 1.00	CUMULATIVE VOLUME (CY) EXPANDED FILL 1.25	MASS ORDINATE
302+07	0	14	7	0	0	0	0	0	0	0	0
302+50	43	15	7	0	23	10	0	23	10	0	12
302+59	9	15	7	0	5	2	0	28	13	0	15
302+99	39	14	7	0	21	9	0	49	22	0	27
303+50	51	15	7	0	28	12	0	77	34	0	43
303+54	4	16	7	0	2	1	0	80	35	0	44
303+79	25	16	7	0	15	6	0	94	41	0	53
303+94	14	16	7	1	8	3	0	103	45	1	57
304+00	6	16	7	1	4	2	0	107	46	1	59
304+04	4	16	7	1	2	1	0	109	47	1	61
304+07	3	15	7	1	2	1	0	111	48	1	62
304+19	12	15	7	0	7	3	0	118	51	1	65
304+45	26	15	7	0	14	6	0	132	57	1	73
304+48	3	15	7	0	2	1	0	134	58	1	74
304+91	43	21	7	3	29	10	2	162	68	4	90
304+95	4	36	7	2	4	1	0	167	69	4	93
305+01	7	33	7	0	8	2	0	175	71	5	100
305+07	6	33	7	0	7	1	0	182	72	5	105
					182	72	5				

DIVISION 2 - BRULE RIVER GUARDRAIL, RT

STATION	DISTANCE	AREA (SF) CUT	AREA (SF) SALVAGED/ UNUSABLE PAVEMENT MATERIAL	AREA (SF) FILL	INCREMENTAL VOLUME (CY) (UNADJUSTED) CUT	INCREMENTAL VOLUME (CY) (UNADJUSTED) SALVAGED/ UNUSABLE PAVEMENT MATERIAL	INCREMENTAL VOLUME (CY) (UNADJUSTED) FILL	CUMULATIVE VOLUME (CY) CUT 1.00	CUMULATIVE VOLUME (CY) SALVAGED/ UNUSABLE PAVEMENT MATERIAL 1.00	CUMULATIVE VOLUME (CY) EXPANDED FILL 1.25	MASS ORDINATE
301+68	0	8	7	0	0	0	0	0	0	0	0
302+00	32	10	7	1	11	8	1	11	8	1	2
302+07	7	9	7	0	2	2	0	13	9	1	3
302+50	43	9	7	3	14	10	3	28	20	5	3
302+59	9	9	7	4	3	2	1	31	22	6	2
302+99	39	9	7	9	13	9	10	44	32	19	-6
303+50	51	11	7	22	19	12	30	63	44	56	-38
303+54	4	11	7	24	2	1	4	64	45	61	-41
303+79	25	14	7	5	12	6	14	76	51	78	-53
303+94	14	16	7	0	8	3	2	84	54	80	-50
304+00	6	16	7	0	4	2	0	88	56	80	-48
304+04	4	16	7	0	2	1	0	90	57	80	-46
304+07	3	16	7	0	2	1	0	92	58	80	-45
304+19	12	15	7	0	7	3	0	99	61	80	-41
304+45	26	15	7	2	14	6	1	113	67	81	-35
304+48	3	14	7	3	2	1	0	115	67	82	-34
304+91	43	25	7	5	31	10	6	147	78	89	-21
304+95	4	34	7	0	4	1	0	151	79	90	-18
305+01	7	28	7	0	7	2	0	158	80	90	-12
305+07	6	29	7	0	6	1	0	165	82	90	-7
					165	82	72				

NOTES:	
1 - CUT	CUT INCLUDES SALVAGED/UNUSABLE PAVEMENT MATERIAL. SALVAGED/UNUSABLE PAVEMENT MATERIAL IS CALCULATED ON THE SECTION 3 SUMMARY SHEET.
2 - FILL	DOES NOT INCLUDE SALVAGED/UNUSABLE PAVEMENT AREA/VOLUME. SALVAGED/UNUSABLE PAVEMENT MATERIAL IS CALCULATED ON THE SECTION 3 SUMMARY SHEET.
3 - EXPANDED MATERIAL	(UNEXPANDED MATERIAL)*(EXPANSION FACTOR)
4 - MASS ORDINATE	CUT - (EXPANDED FILL); POSITIVE. INDICATES AN EXCESS OF MATERIAL



9

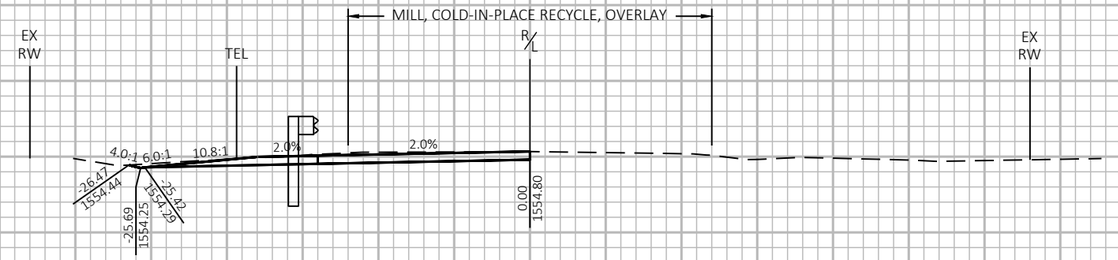
PROJECT NO: 9165-13-71	HWY: STH 55	COUNTY: FOREST	CROSS SECTIONS: GUARDRAIL REPLACEMENTS	SHEET 113	E

9

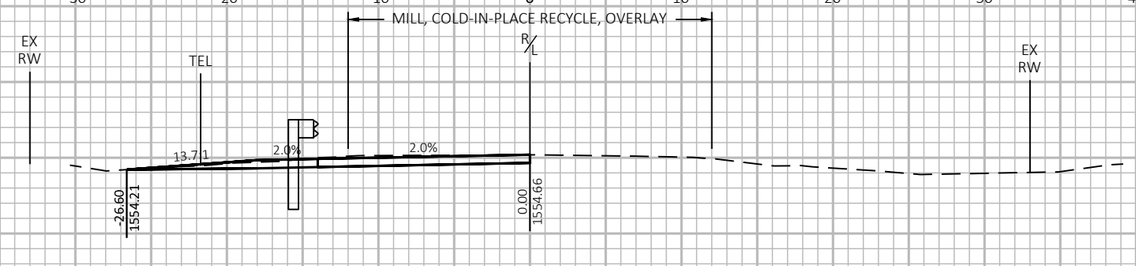
FILE NAME : P:\53XX\5387.DP.21.STH55.FOR\CADDS\91651371\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 01

PLOT DATE : 10/14/2022 3:32 PM PLOT BY : NICK MENNINGA PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



216+70



216+53

216+51

216+25

9

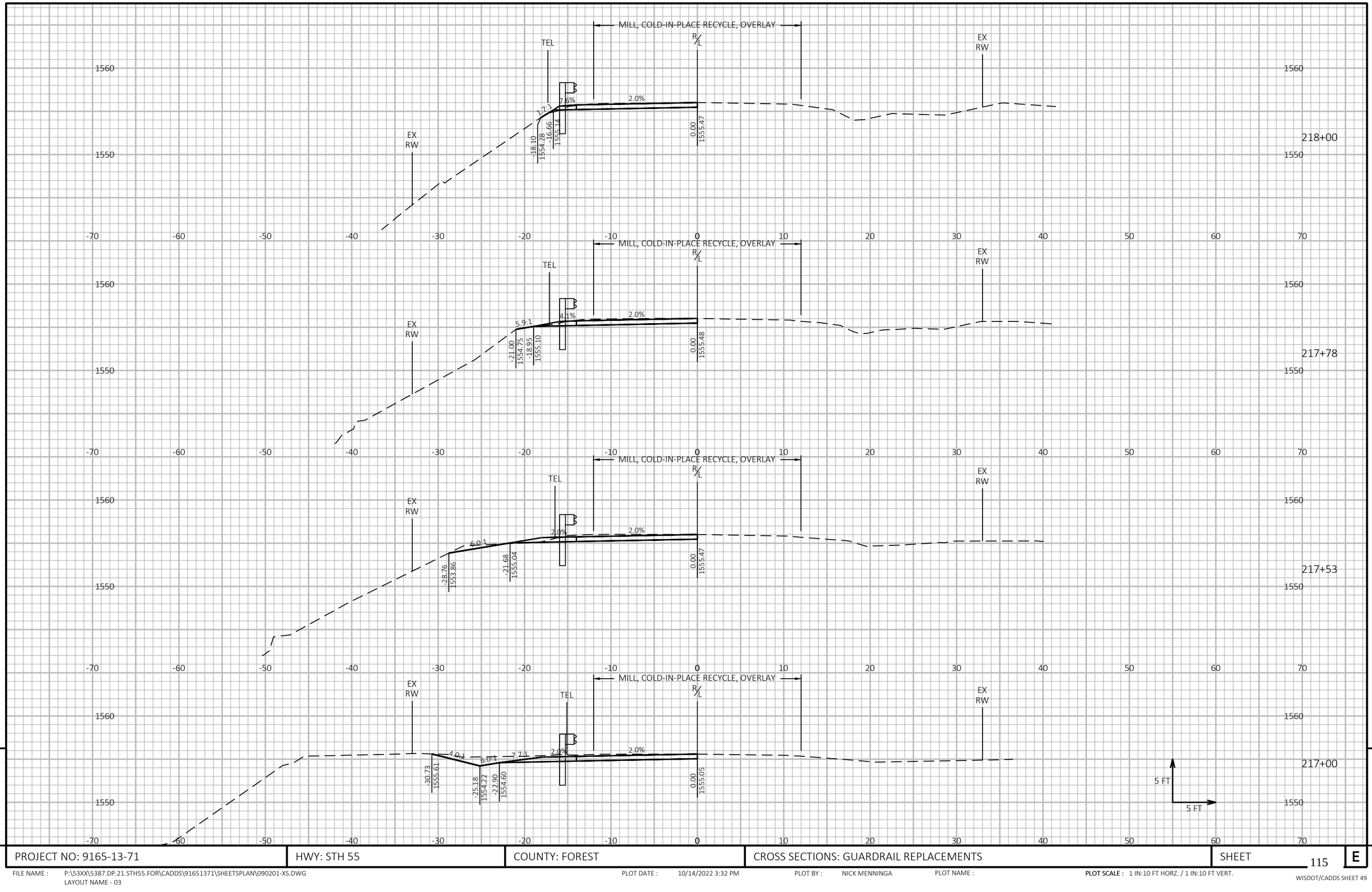
9

PROJECT NO: 9165-13-71	HWY: STH 55	COUNTY: FOREST	CROSS SECTIONS: GUARDRAIL REPLACEMENTS	SHEET 114	E

FILE NAME : P:\53XX\5387.DP.21.STH55.FOR\CADDS\91651371\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 02

PLOT DATE : 10/14/2022 3:32 PM PLOT BY : NICK MENNINGA PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



9

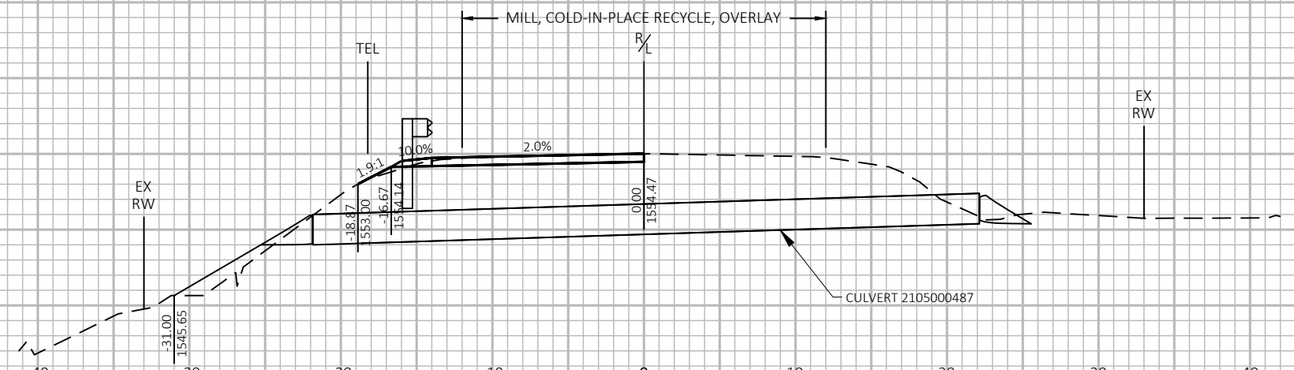
9

PROJECT NO: 9165-13-71	HWY: STH 55	COUNTY: FOREST	CROSS SECTIONS: GUARDRAIL REPLACEMENTS	SHEET 115	E

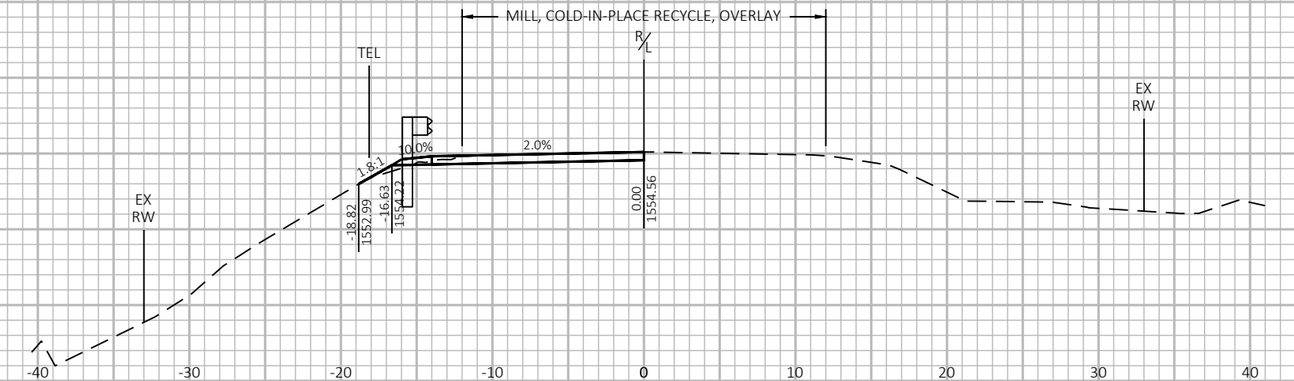
FILE NAME : P:\53XX\5387.DP.21.STH55.FOR\CADDS\91651371\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 03

PLOT DATE : 10/14/2022 3:32 PM PLOT BY : NICK MENNINGA PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

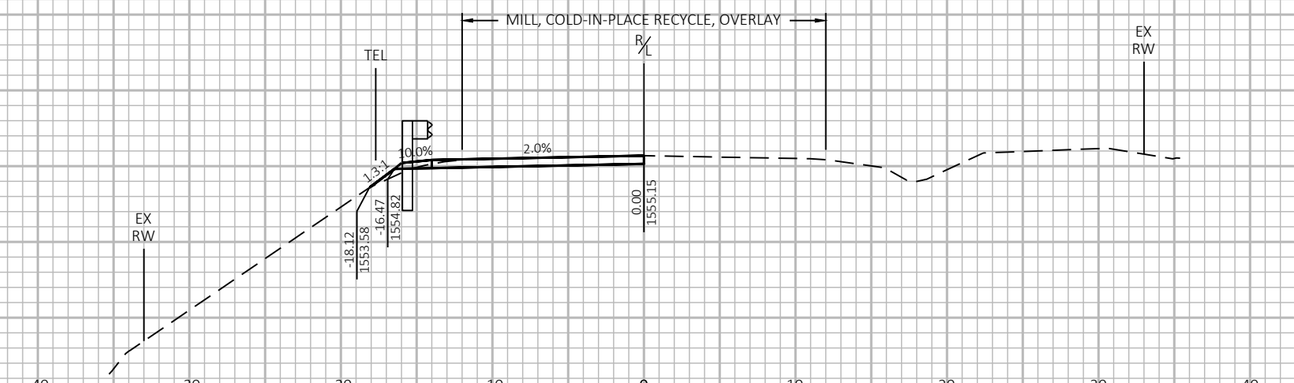
WISDOT/CADDS SHEET 49



219+08



219+00



218+50

9

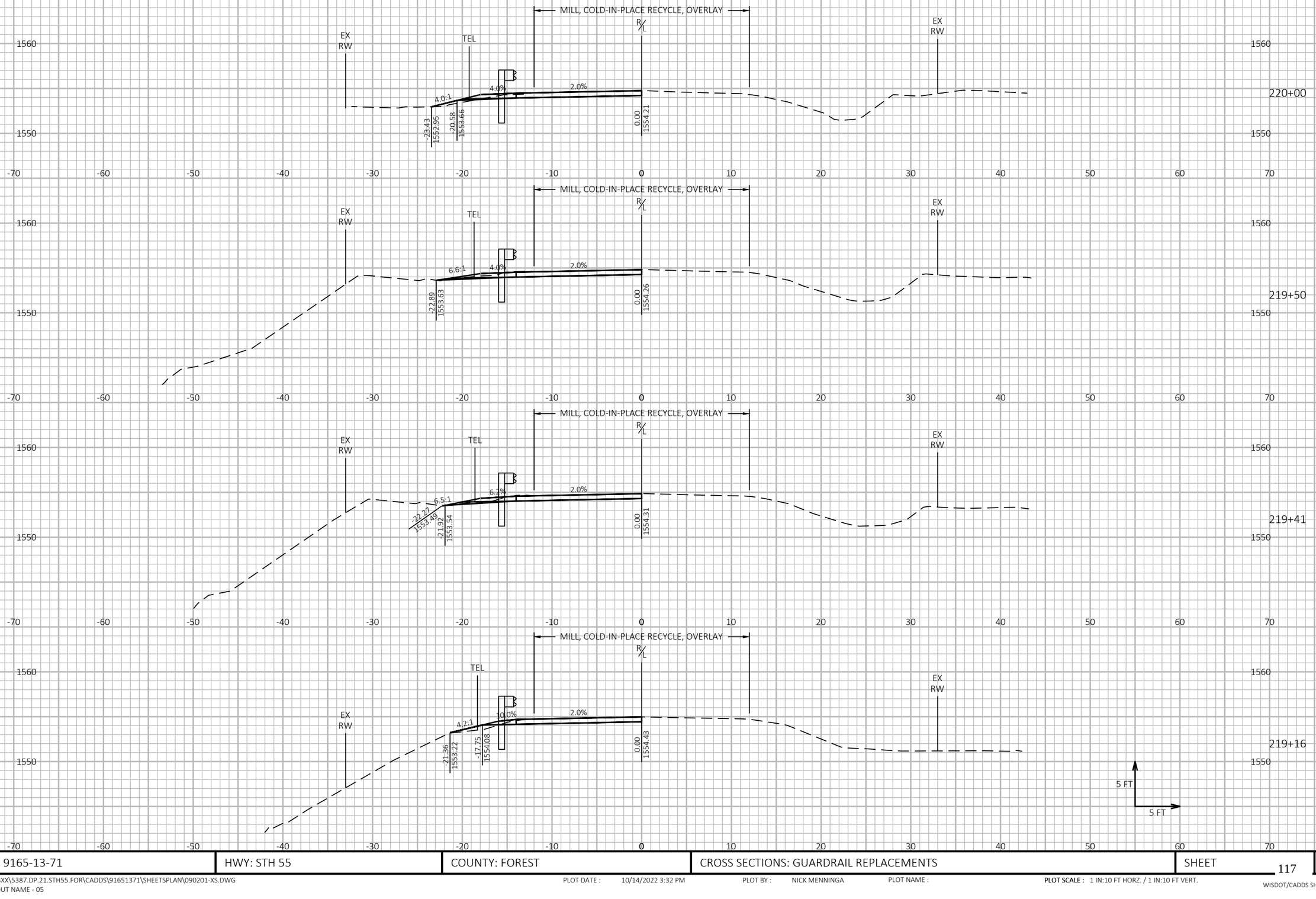
9

PROJECT NO: 9165-13-71	HWY: STH 55	COUNTY: FOREST	CROSS SECTIONS: GUARDRAIL REPLACEMENTS	SHEET 116	E

FILE NAME : P:\53XX\5387.DP.21.STH55.FOR\CADDS\91651371\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 04

PLOT DATE : 10/14/2022 3:32 PM PLOT BY : NICK MENNINGA PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

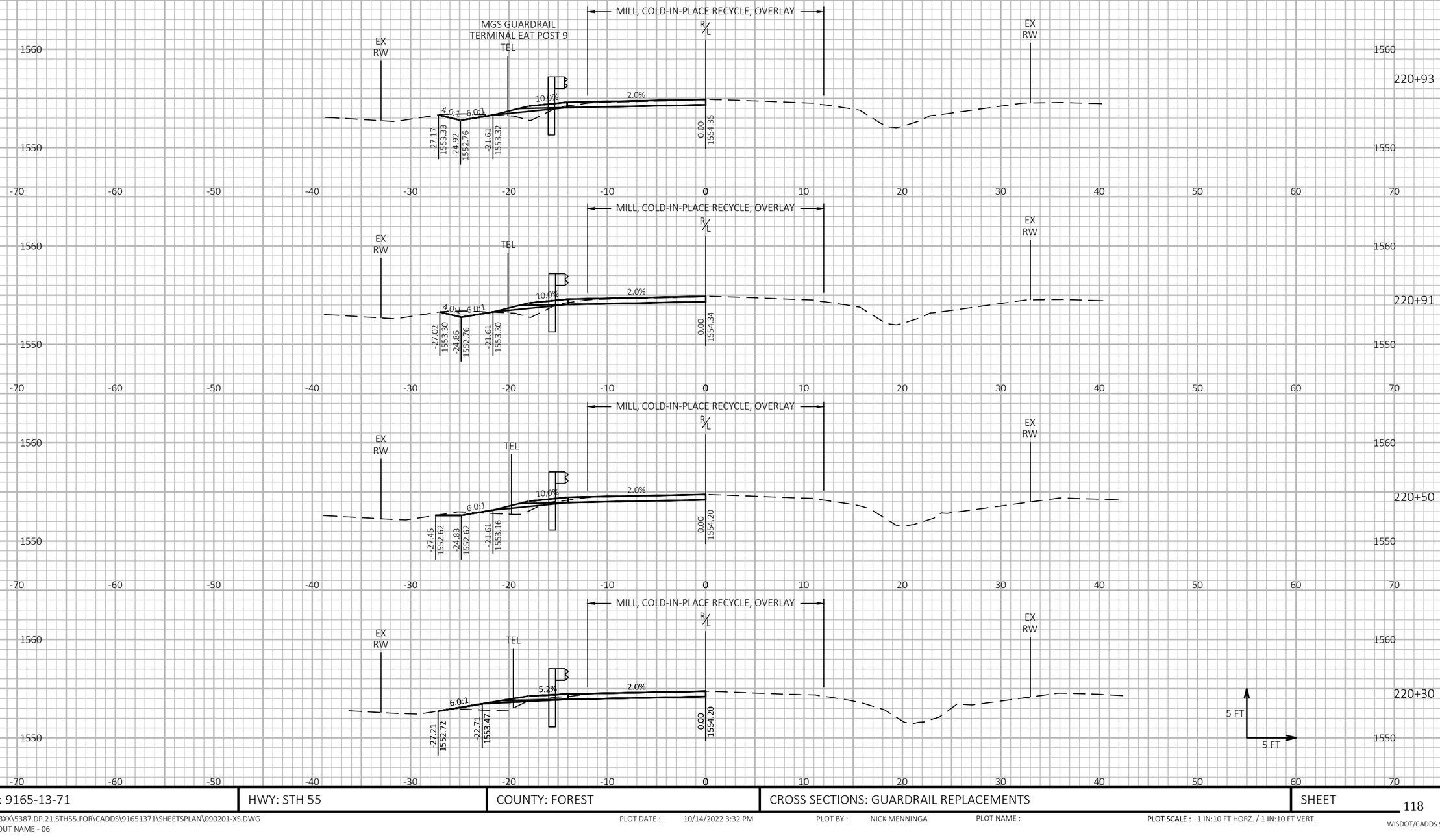


9

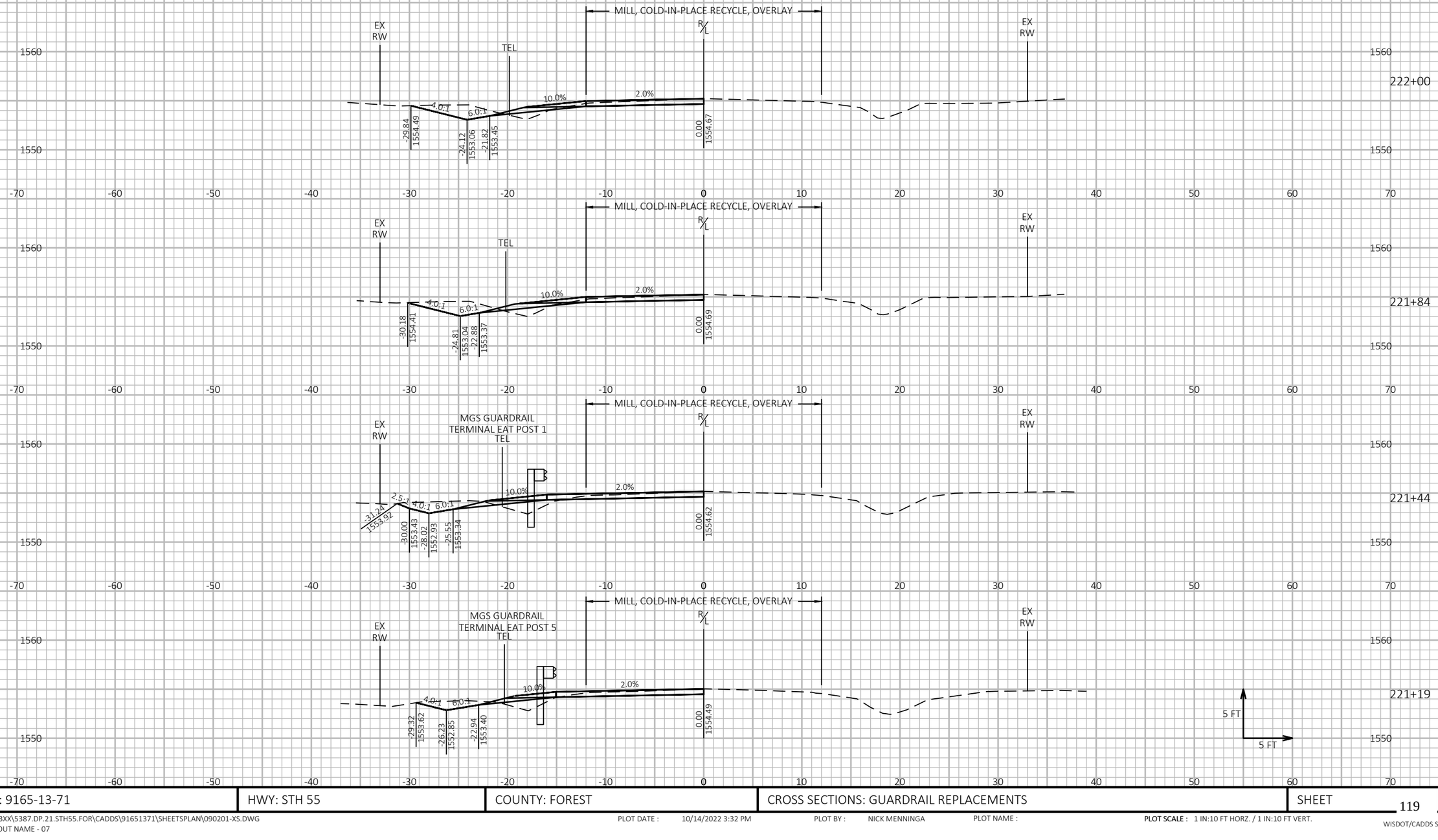
9

PROJECT NO: 9165-13-71	HWY: STH 55	COUNTY: FOREST	CROSS SECTIONS: GUARDRAIL REPLACEMENTS	SHEET 117	E

FILE NAME : P:\53XX\5387.DP.21.STH55.FOR\CADDS\91651371\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 05
PLOT DATE : 10/14/2022 3:32 PM
PLOT BY : NICK MENNINGA
PLOT NAME :
PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.
WISDOT/CADDS SHEET 49



9	PROJECT NO: 9165-13-71	HWY: STH 55	COUNTY: FOREST	CROSS SECTIONS: GUARDRAIL REPLACEMENTS	SHEET 118 E



9

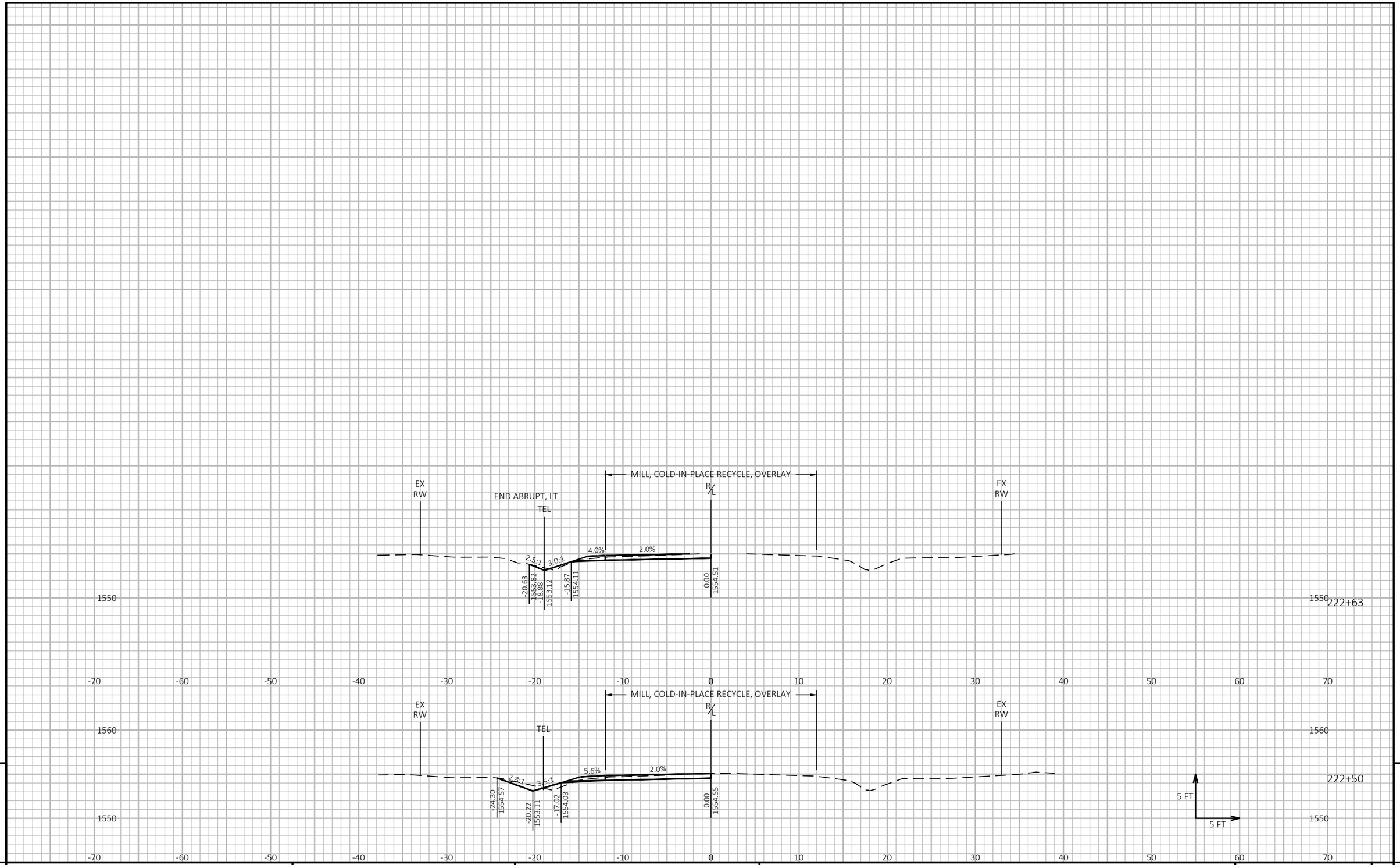
9

PROJECT NO: 9165-13-71	HWY: STH 55	COUNTY: FOREST	CROSS SECTIONS: GUARDRAIL REPLACEMENTS	SHEET 119	E

FILE NAME : P:\53XX\5387.DP.21.STH55.FOR\CADDS\91651371\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 07

PLOT DATE : 10/14/2022 3:32 PM PLOT BY : NICK MENNINGA PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



9

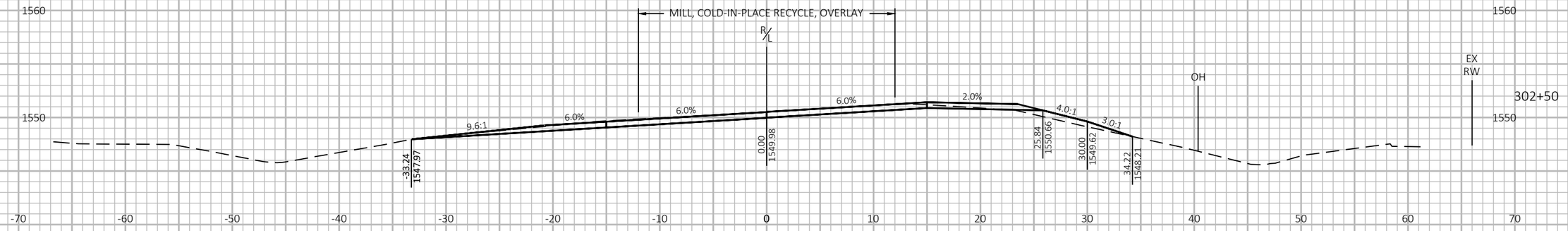
9

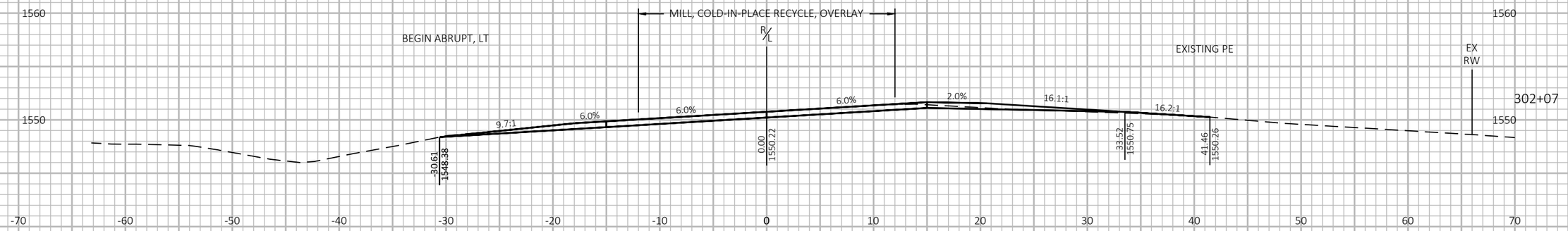
PROJECT NO: 9165-13-71	HWY: STH 55	COUNTY: FOREST	CROSS SECTIONS: GUARDRAIL REPLACEMENTS	SHEET 120	E

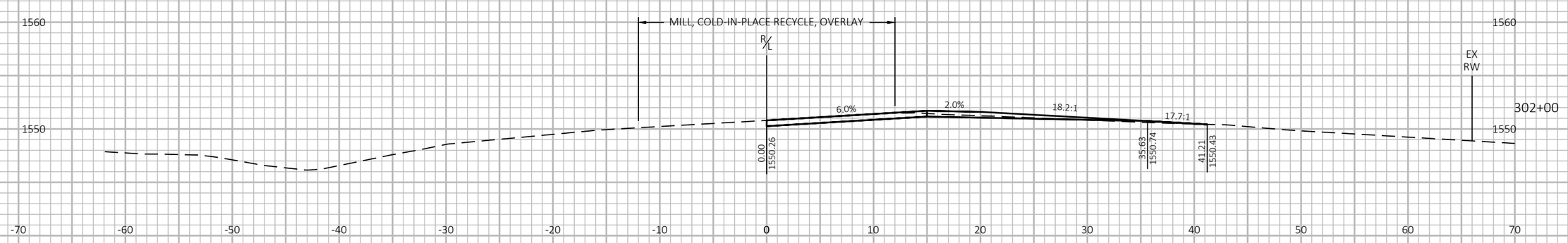
FILE NAME : P:\53XX\5387.DP.21.STH55.FOR\CADDS\91651371\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 08

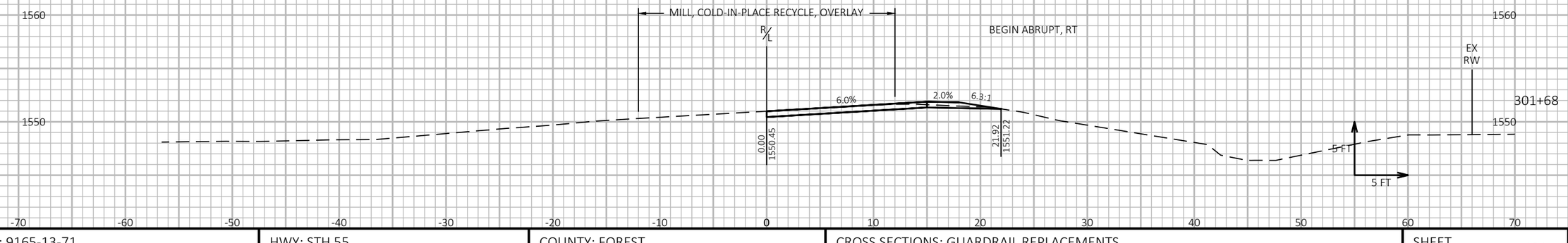
PLOT DATE : 10/14/2022 3:32 PM PLOT BY : NICK MENNINGA PLOT NAME :

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









9 9

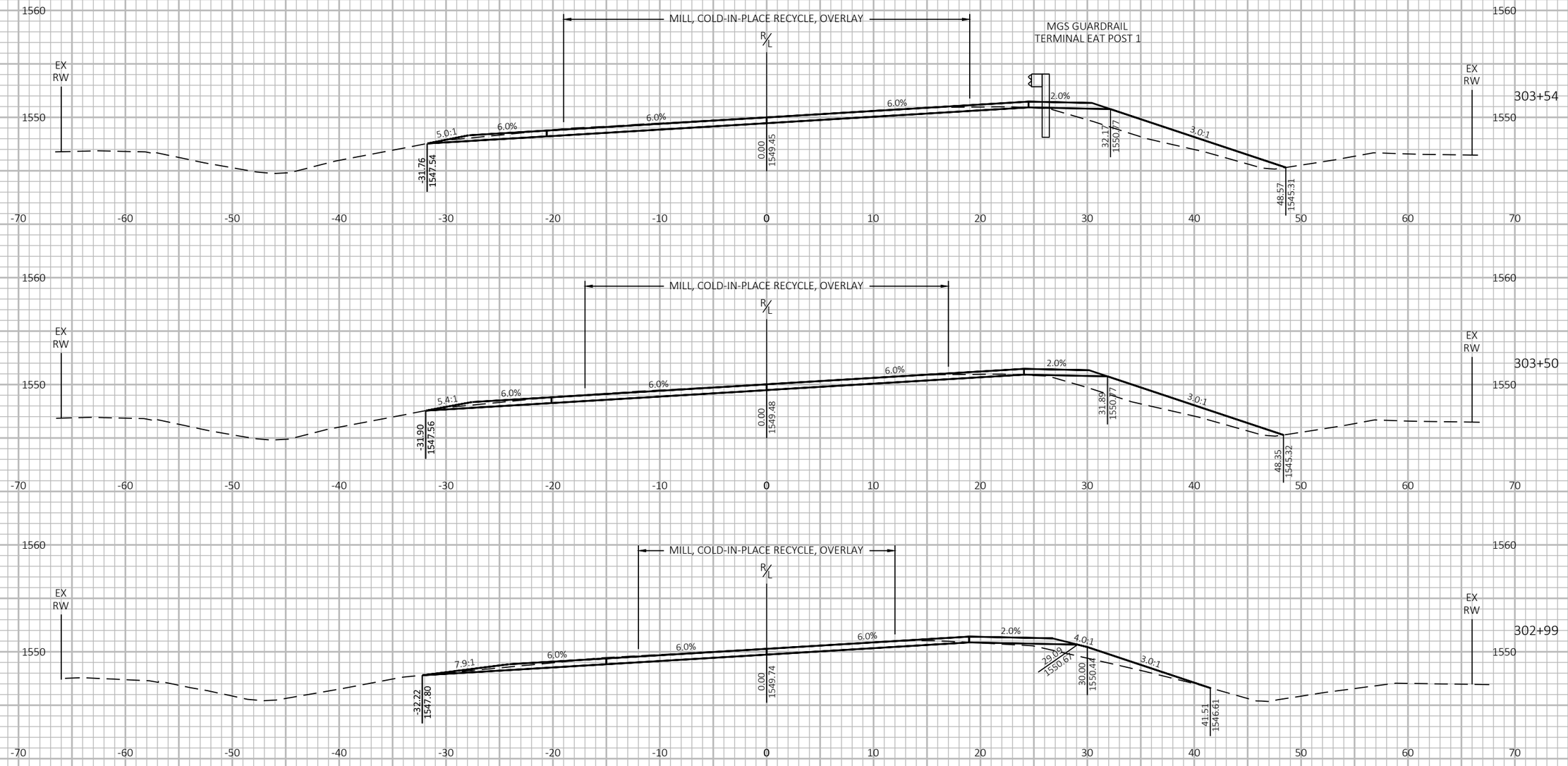
PROJECT NO: 9165-13-71	HWY: STH 55	COUNTY: FOREST	CROSS SECTIONS: GUARDRAIL REPLACEMENTS	SHEET 121	E

FILE NAME : P:\53XX\5387.DP.21.STH55.FOR\CADDS\91651371\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 09

PLOT DATE : 10/14/2022 3:33 PM PLOT BY : NICK MENNINGA PLOT NAME :

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

WISDOT/CADDS SHEET 49



9

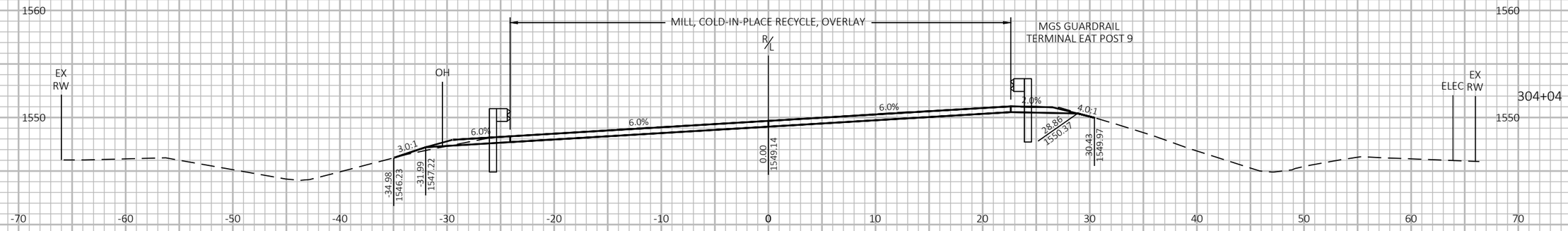
9

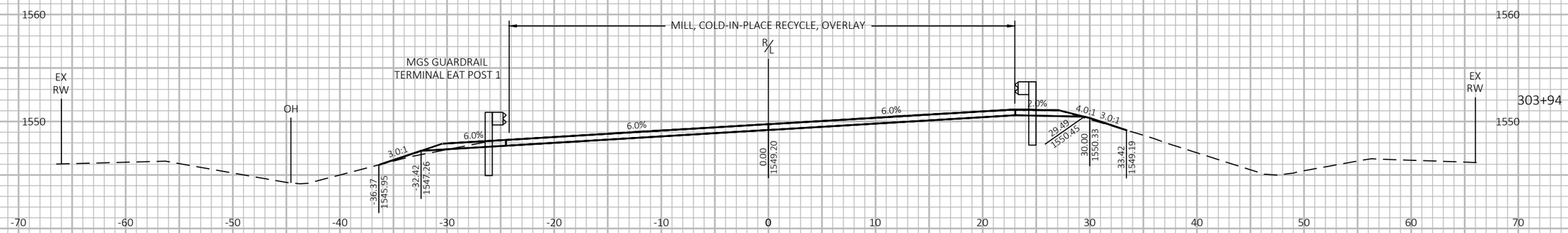
PROJECT NO: 9165-13-71	HWY: STH 55	COUNTY: FOREST	CROSS SECTIONS: GUARDRAIL REPLACEMENTS	SHEET 122	E

FILE NAME : P:\53XX\5387.DP.21.STH55.FOR\CADDS\91651371\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 10

PLOT DATE : 10/14/2022 3:33 PM PLOT BY : NICK MENNINGA PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49





9

9

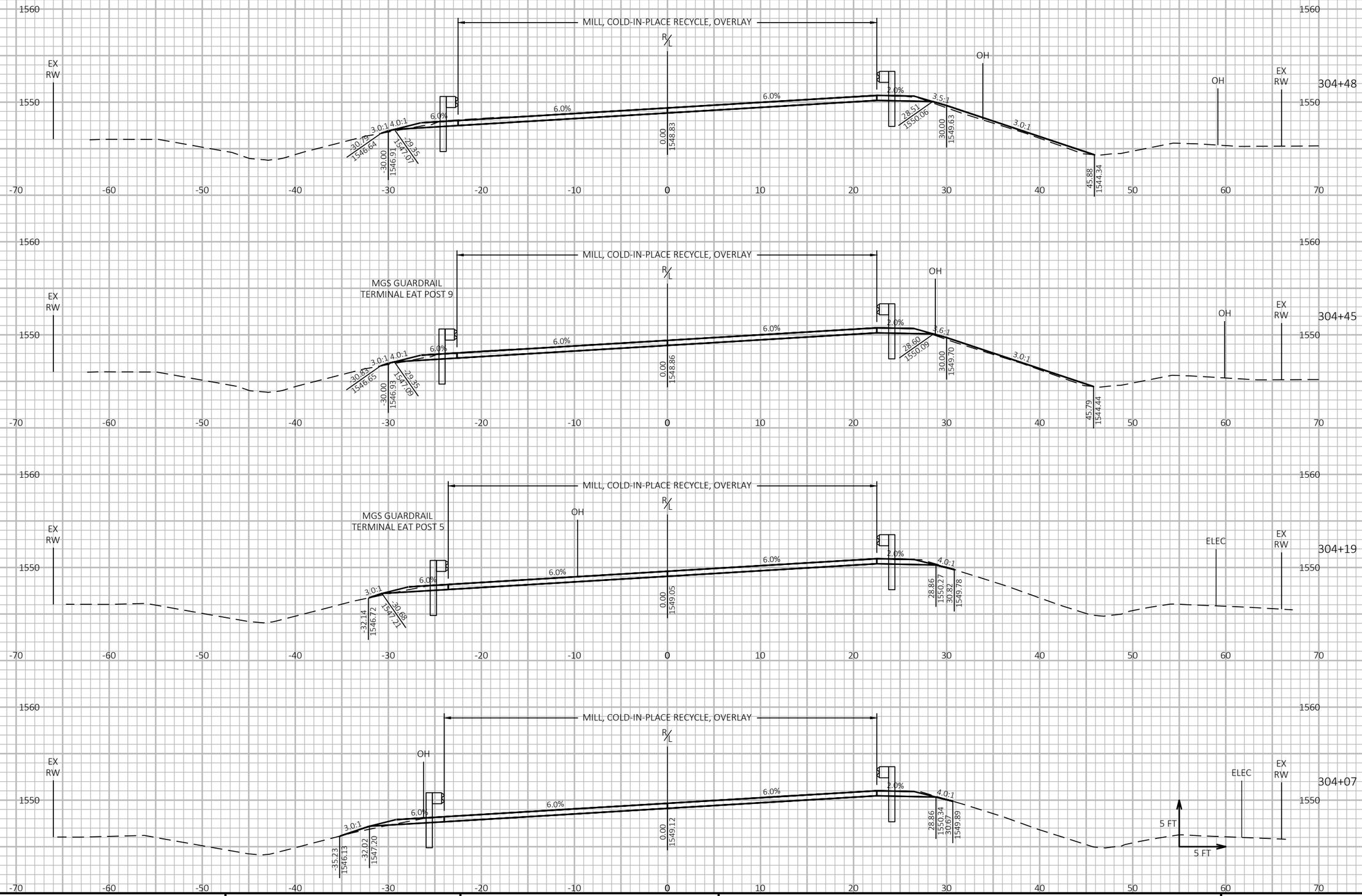
PROJECT NO: 9165-13-71	HWY: STH 55	COUNTY: FOREST	CROSS SECTIONS: GUARDRAIL REPLACEMENTS	SHEET 123	E

FILE NAME : P:\53XX\5387.DP.21.STH55.FOR\CADDS\91651371\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 11

PLOT DATE : 10/14/2022 3:33 PM PLOT BY : NICK MENNINGA PLOT NAME :

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

WISDOT/CADDS SHEET 49



9

9

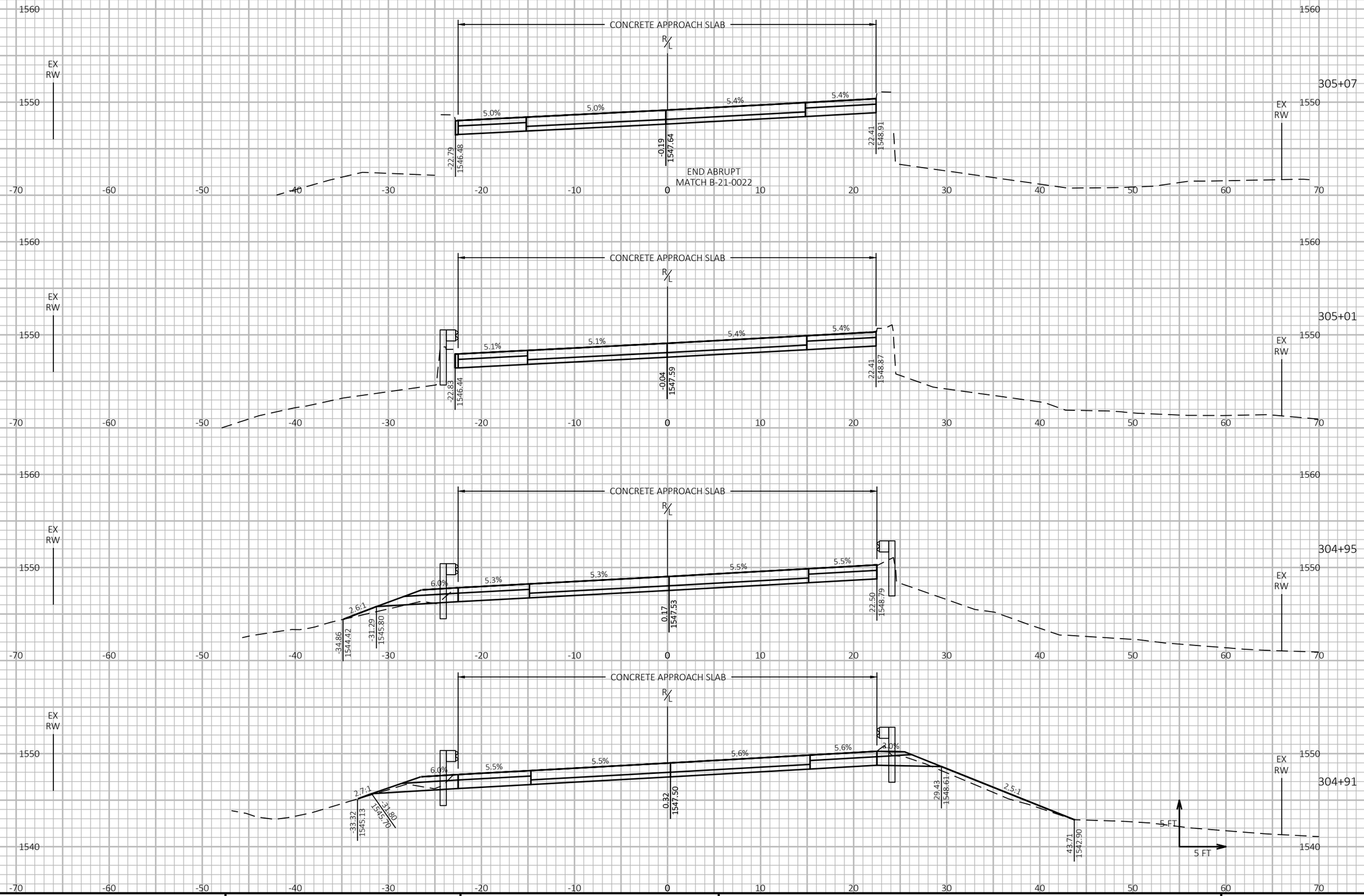
PROJECT NO: 9165-13-71	HWY: STH 55	COUNTY: FOREST	CROSS SECTIONS: GUARDRAIL REPLACEMENTS	SHEET 124	E

FILE NAME : P:\53XX\5387.DP.21.STH55.FOR\CADDS\91651371\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 12

PLOT DATE : 10/14/2022 3:33 PM PLOT BY : NICK MENNINGA PLOT NAME :

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

WISDOT/CADDS SHEET 49



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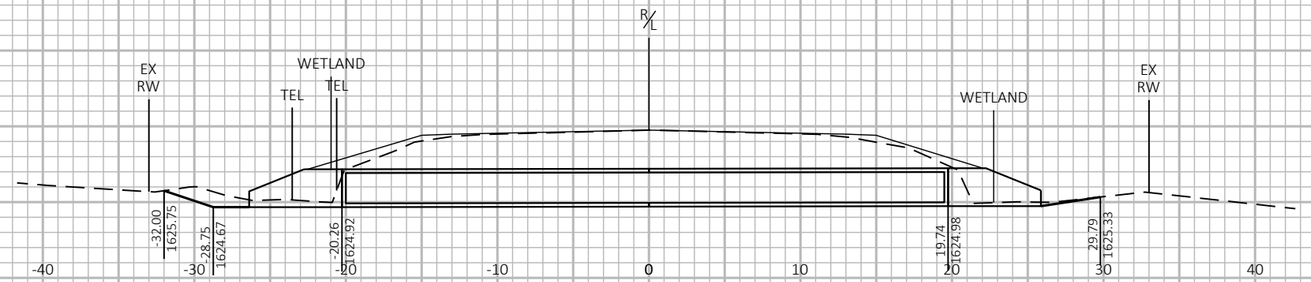
PROJECT NO: 9165-13-71	HWY: STH 55	COUNTY: FOREST	CROSS SECTIONS: GUARDRAIL REPLACEMENTS	SHEET 125	E

FILE NAME : P:\53XX\5387.DP.21.STH55.FOR\CADDS\91651371\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 13

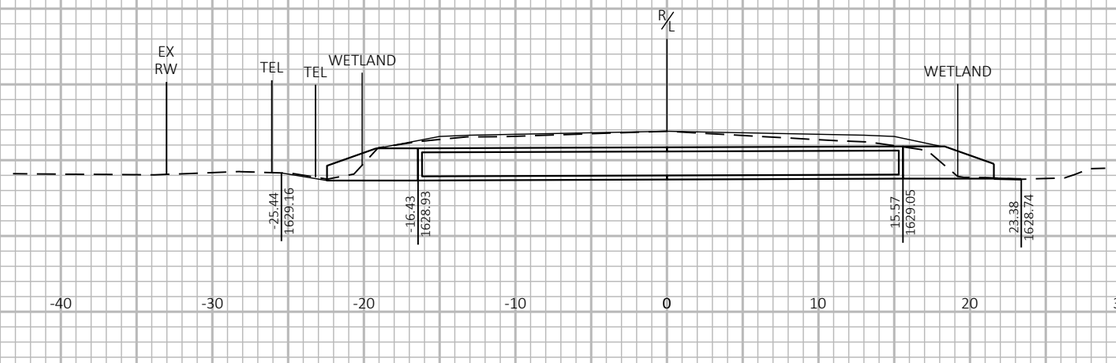
PLOT DATE : 10/14/2022 3:33 PM PLOT BY : NICK MENNINGA PLOT NAME :

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

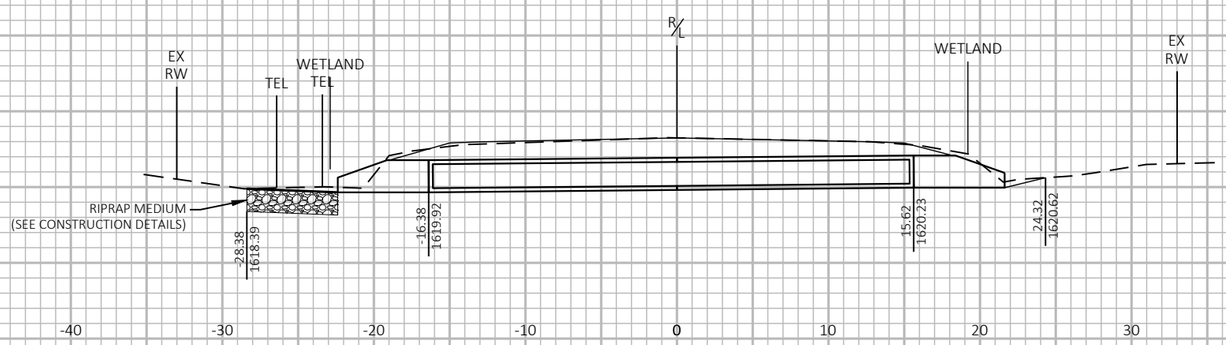
WISDOT/CADDS SHEET 49



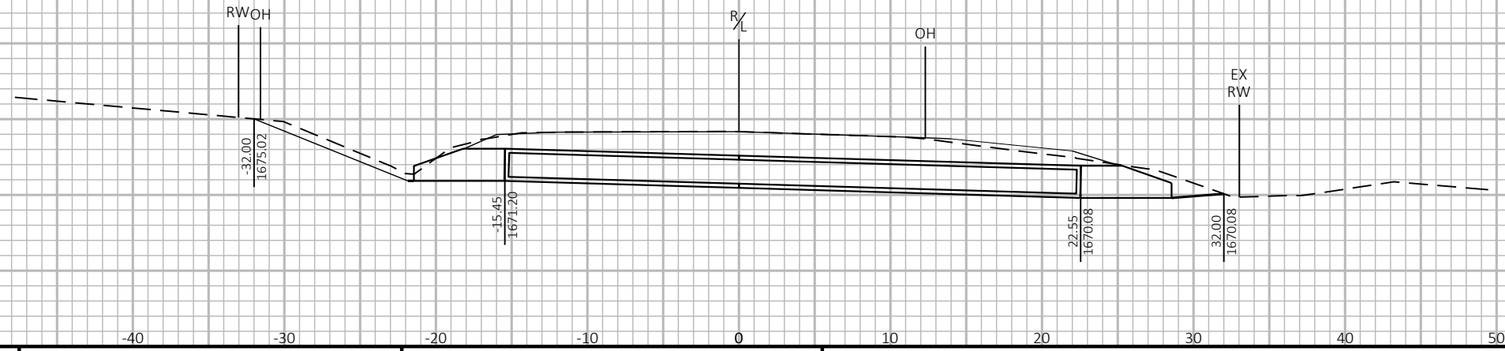
CULVERT 2105000481
157+61
CROSS SECTION CUT AT
A 0.7° SKEW LHF



146+63
CULVERT 2105000480
CROSS SECTION CUT AT
A 2.0° SKEW RHF



118+89
CULVERT 2105000479
CROSS SECTION CUT AT
A 1.2° SKEW LHF



66+75
CULVERT 2105000476
CROSS SECTION CUT AT
A 2.3° SKEW RHF

9

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PROJECT NO: 9165-13-71	HWY: STH 55	COUNTY: FOREST	CROSS SECTIONS: CULVERT REPLACEMENTS	SHEET 126	E

FILE NAME : P:\53XX\5387.DP.21.STH55.FOR\CADDS\91651371\SHEETSPLAN\090202-XS.DWG
LAYOUT NAME - 01

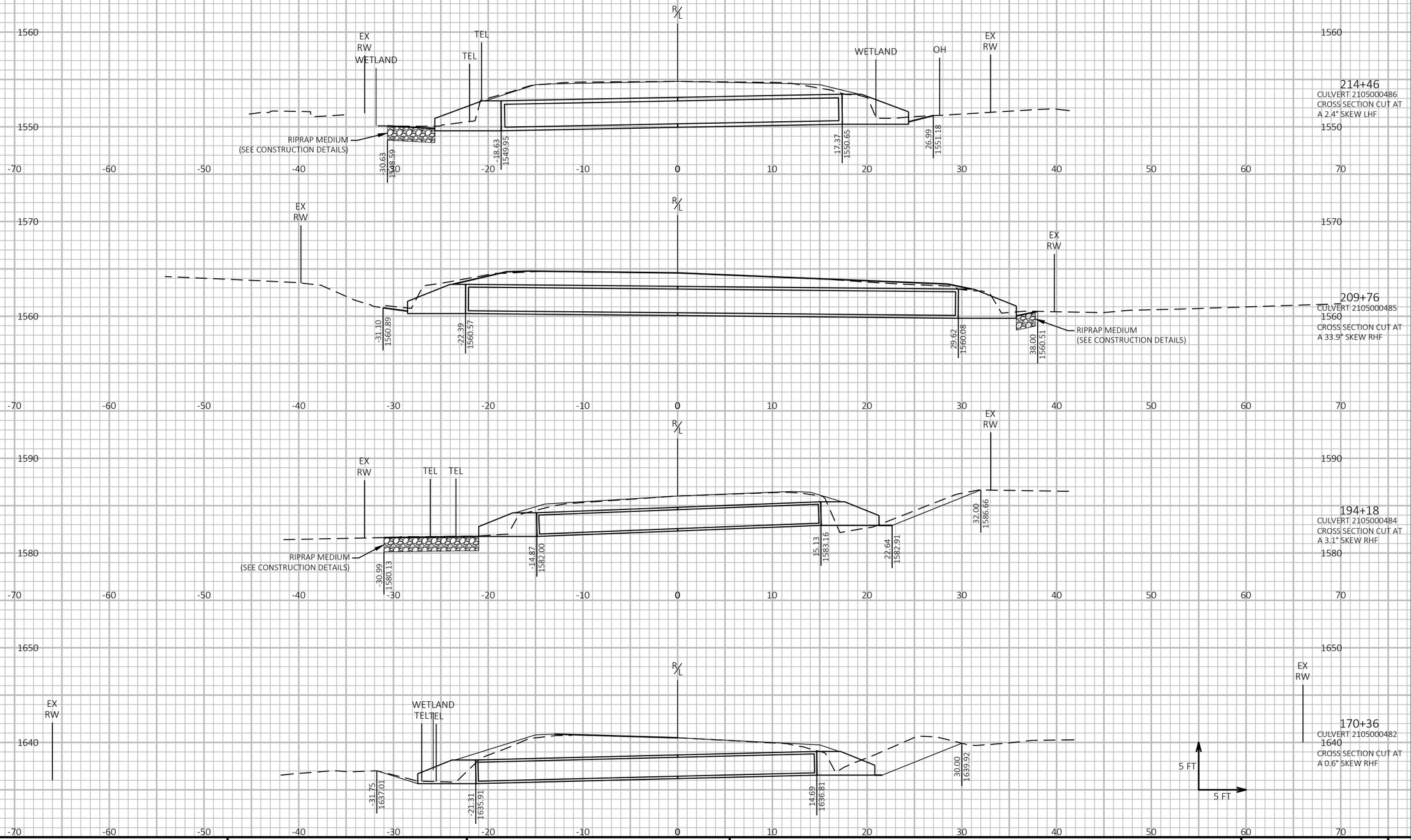
PLOT DATE : 10/14/2022 3:34 PM

PLOT BY : NICK MENNINGA

PLOT NAME :

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

WISDOT/CADDS SHEET 49



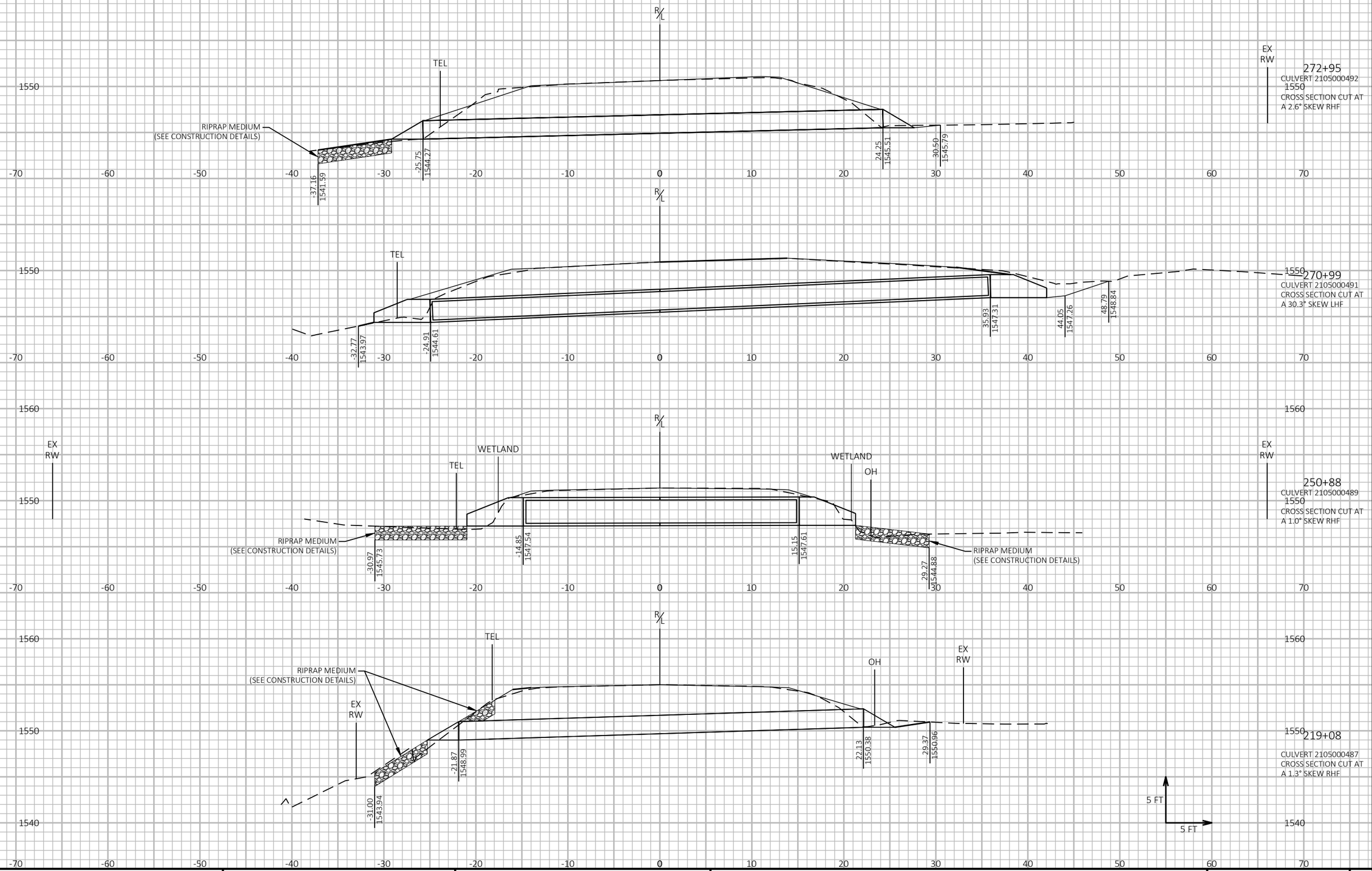
PROJECT NO: 9165-13-71	HWY: STH 55	COUNTY: FOREST	CROSS SECTIONS: CULVERT REPLACEMENTS	SHEET 127	E

FILE NAME : P:\53XX\5387.DP.21.STH55.FOR\CADDS\91651371\SHEETSPLAN\090202-XS.DWG
LAYOUT NAME - 02

PLOT DATE : 10/14/2022 3:34 PM PLOT BY : NICK MENNINGA PLOT NAME :

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

WISDOT/CADDS SHEET 49



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PROJECT NO: 9165-13-71	HWY: STH 55	COUNTY: FOREST	CROSS SECTIONS: CULVERT REPLACEMENTS	SHEET 128	E

FILE NAME : P:\53XX\5387.DP.21.STH55.FOR\CADDS\91651371\SHEETSPLAN\090202-XS.DWG
LAYOUT NAME - 03

PLOT DATE : 10/14/2022 3:34 PM PLOT BY : NICK MENNINGA PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

Notes

Wisconsin Department of Transportation

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