MAD

PROJECT ID: 5630-06-73

WITH: 5630-06-80

COUNTY: SAUK & COLUMBIA

NOVEMBER 2025

ORDER OF SHEETS

TOTAL SHEETS = 164

05

N

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

SAUK CITY - IH 39

V MERRIMAC N LIMIT TO CTH DL

STH 78

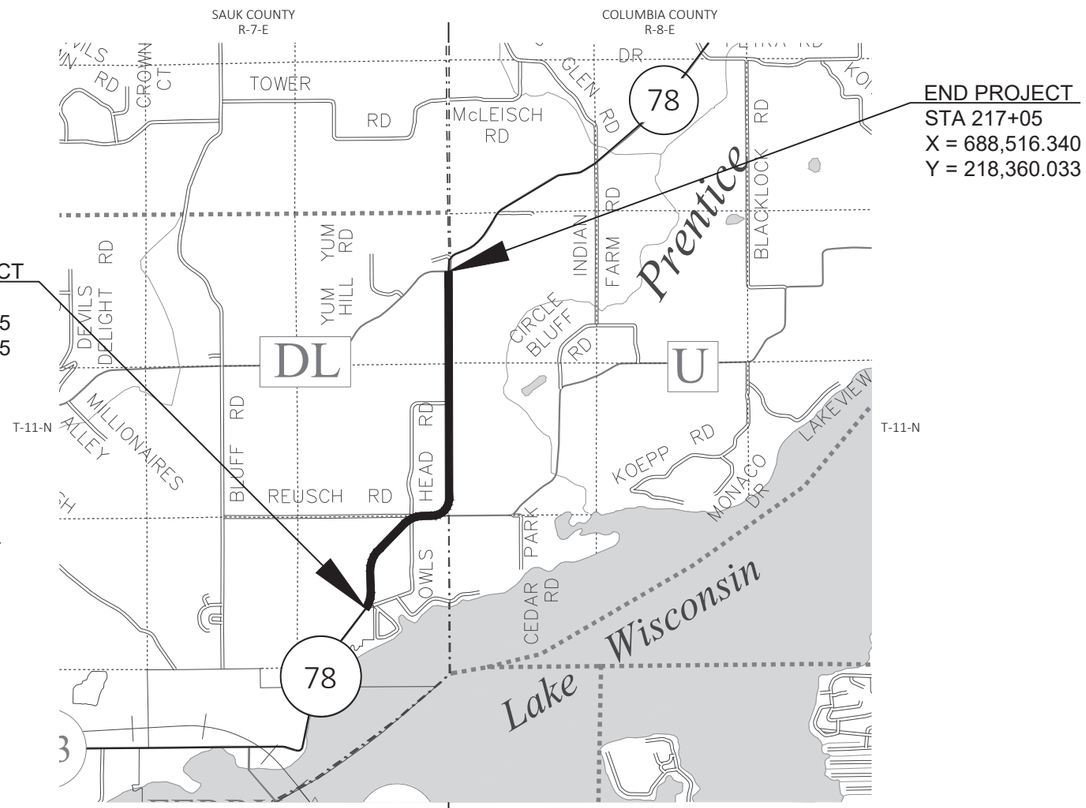
SAUK & COLUMBIA

STATE PROJECT NUMBER
5630-06-73

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
5630-06-73	WISC 2026061	1

DESIGN DESIGNATION 5630-06-03

A.A.D.T.	2026	=	1200
A.A.D.T.	2046	=	1400
D.H.V.		=	12.9-14.4
D.D.		=	60/40
T.		=	18.4%
DESIGN SPEED		=	55 MPH
ESALS		=	460,000



LAYOUT

SCALE 0 1 MI

TOTAL NET LENGTH OF CENTERLINE = 2.814 MI

HORIZONTAL POSITIONS SHOWN ON THIS PLAN ARE WISCONSIN COORDINATE REFERENCE SYSTEM (WISCRS), SAUK 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 18.

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

PREPARED BY

Surveyor	MSA PROFESSIONAL SERVICES
Designer	EMILY KENDALL, PE
Project Manager	JOSHUA KOEBERNICK, PE
Regional Examiner	SW REGION
Regional Supervisor	MARC SCHWEIGER, PE

APPROVED FOR THE DEPARTMENT

DATE: 9/24/2025 Joshua Koebernick P.E. (Signature)

E

FILE NAME : \\FIWMAD7P3158\N3PUBLIC\PDS\C3D\56300603\SHEETSPLAN\010101-TI.DWG PLOT DATE : 9/22/2025 9:42 AM PLOT BY : KENDALL, EMILY ANN PLOT NAME :

UTILITIES CONTACTS

ATC MANAGEMENT, INC
ELECTRICITY-TRANSMISSION
DOUG VOSBERG
5303 FEN OAK DR
MADISON, WI 53718
PHONE: (608) 877-7650
EMAIL: DVOSBERG@ATCLLC.COM

ALLIANT ENERGY
ELECTRICITY
WP&L ROAD PLANS
4902 NORTH BILTMORE LANE
MADISON, WI 53718
PHONE: (608) 458-3162
EMAIL: WPLROADPLANS@ALLIANTENERGY.COM

ALLIANT ENERGY
GAS/PETROLEUM
WP&L ROAD PLANS
4902 NORTH BILTMORE LANE
MADISON, WI 53718
PHONE: (608) 458-3162
EMAIL: WPLROADPLANS@ALLIANTENERGY.COM

FRONTIER COMMUNICATION OF WI LLC
COMMUNICATION LINE
CHRIS POLLACK
521 4TH ST
WAUSAU, WI 54403
PHONE: (715) 847-1240
EMAIL: CHRISTOPHER.POLLACK@FTR.COM

MERRIMAC MUNICIPAL WATER UTILITY
WATER
--
P.O. BOX 26
MERRIMAC, WI 53561-0026
PHONE: --
EMAIL: --

TDS METROCOM LLC
COMMUNICATION LINE
TDS TELECOM OSP
525 JUNCTION ROAD
MADISON, WI 53717
PHONE: (608) 664-0132
EMAIL: TDSTELECOMOSP@TDSTELECOM.COM

ORDER OF SECTION 2 DETAIL SHEETS

WISCONSIN DNR LIAISON

ANDY BARTA
DNR SOTUH CENTRAL REGION
3911 FISH HATCHERY RD
FITCHBURG, WI 53711
PHONE: (608) 275-3308
EMAIL: ANDREW.BARTA@WISCONSIN.GOV

DESIGN PROJECT MANAGER

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REGION SURVEY COORDINATOR

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WISDOT - SW REGION
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MADISON, WI 53704
PHONE: (608) 246-7918
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DESIGN PROJECT LEADER

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COUNTY HIGHWAY COMMISSIONER

PATRICK GAVINSKI
SAUK COUNTY
620 LINN SR, PO BOX 26
WEST BARABOO, WI 53913
PHONE: (608) 355-4855
EMAIL: PATRICK.GAVINSKI@SAUKCOUNTYWI.GOV

COUNTY HIGHWAY COMMISSIONER

DONALD NICHOLS
COLUMBIA COUNTY
338 WEST OLD HIGHWAY 16
WYOCENA, WI 53969
PHONE: (608) 429-2136
EMAIL: DONALD.NICHOLS@COLUMBIACOUNTYWI.GOV

VILLAGE OF MERRIMAC

JUSTIN SCHULTZ
DIRECTOR OF PUBLIC WORKS
100 COOK ST
MERRIMAC, WI 53561
PHONE: (608) 493-2122
EMAIL: PUBLICWORKS@MERRIMACWI.GOV

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 STRIPTURF:	.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 SLOPETURF:			.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 = 9.65 ACRES
TOTAL AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES = 0.45 ACRES

GENERAL NOTES

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

APPLY TACK COAT AT A RATE OF 0.07 GAL/SY TO MILLED PAVEMENT SURFACES AND 0.05 GAL/SY BETWEEN LAYERS OF HMA PAVEMENT.

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

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

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

RIGHT OF WAY INFORMATION SHOWN ON THE PLANS IS APPROXIMATE.

THE CONTRACTOR IS TO WORK WITH UTMOST CARE AND PROTECT ALL SURVEY MARKERS. REMOVAL OF ANY SURVEY MARKER IS TO BE WITH THE APPROVAL OF THE ENGINEER.

WHEN THE QUANTITY OF THE ITEMS OF BASE AGGREGATE, SUBBASE OR HMA PAVEMENT IS MEASURED FOR PAYMENT BY THE TON OR CUBIC YARD, THE DEPTH OR THICKNESS OF THE LAYERS SHOWN ON THE PLAN IS APPROXIMATE AND THE ACTUAL THICKNESS WILL DEPEND ON THE DISTRIBUTION OF THE MATERIAL AS DIRECTED BY THE ENGINEER.

PRIOR TO PLACING THE NEW BASE AGGREGATE DENSE COURSE OR PAVED SHOULDERS EXISTING UNCOMPACTED SHOULDER MATERIAL SHALL BE REMOVED OR DEPOSITED ON THE OUTER PORTION OF THE EXISTING SHOULDER OR AS DIRECTED BY THE ENGINEER.

THE EXACT LOCATION AND WIDTH OF DRIVEWAYS SHALL BE DETERMINED BY THE ENGINEER IN THE FIELD. DRIVEWAYS SHALL BE REPLACED IN KIND.

EROSION CONTROL FEATURES AS SHOWN IN THE PLANS ARE AT APPROXIMATE LOCATIONS. EXACT LOCATIONS WILL BE DETERMINED BY THE CONTRACTOR'S EROSION CONTROL IMPLEMENTATION PLAN (ECIP) AND APPROVED BY THE ENGINEER. MAINTAIN EROSION CONTROL MEASURES UNTIL SUCH A TIME AS THE ENGINEER DETERMINES THE MEASURE IS NO LONGER NECESSARY.

RADIUS DIMENSIONS FOR THE CURB AND GUTTER ARE TO THE FLANGE LINE UNLESS OTHERWISE NOTED.

CURVE DATA IS BASED ON THE RADIUS DEFINITION.

PAVEMENT REMOVAL WILL BE TO THE NEAREST JOINT OR A SAWED EDGE WILL BE REQUIRED AS DIRECTED BY THE ENGINEER.

SAWCUTS, AS SHOWN ON THE PLANS, ARE SUGGESTED LOCATIONS AND MAY BE ADJUSTED AT THE DISCRETION OF THE ENGINEER TO BETTER SUIT FIELD CONDITIONS.

PRIOR TO ORDERING DRAINAGE PIPES, THE CONTRACTOR SHALL FIELD VERIFY RELATED DRAINAGE INFORMATION IN THE PLAN WITH THE ENGINEER. PIPE ELEVATIONS, INLET ELEVATIONS, LENGTHS AND LOCATIONS AS SHOWN ON THE PLANS, MAY BE ADJUSTED TO FIT EXISTING FIELD CONDITIONS AS DIRECTED BY THE ENGINEER.

CURB AND GUTTER PLAN GRADES ARE AT THE FLANGE LINE UNLESS OTHERWISE NOTED.

THE PROPOSED SHOULDER WIDTH SHOWN IN THE TYPICAL SECTIONS ARE MINIMUM WIDTH. PERPETUATE EXISTING SHOULDERS THAT ARE WIDER THAN WHAT IS SHOWN IN THE TYPICAL SECTIONS.

THE CONTRACTOR'S PAVING OPERATION SHALL BE CONSISTENT WITH THE TYPICAL SECTIONS AND CONSTRUCTED TO PREVENT LONGITUDINAL JOINTS FROM BEING LOCATED WITHIN A DRIVING, TURNING, PASSING, OR PARKING LANE.

PRIOR TO PLACEMENT OF BEAM GUARD THE SHOULDERS SHALL BE IN PLACE, SHAPED AND COMPACTED.

CONTRACTOR SHALL MAINTAIN ACCESS TO ALL DRIVEWAYS AT ALL TIMES EXCEPT WHEN PAVING OR PIPE LAYING OPERATIONS REQUIRE THE DRIVEWAY TO BE CLOSED. ACCESS TO DRIVEWAYS SHALL BE RE-ESTABLISHED IMMEDIATELY AFTER OPERATIONS ARE COMPLETED. ACCESS SHALL BE PROVIDED DURING ALL NON-WORKING HOURS.

TRAFFIC CONTROL DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS DIRECTED BY THE ENGINEER.

DO NOT DRIVE OR STORE EQUIPMENT, OR STORE CONSTRUCTION MATERIALS IN ENVIRONMENTALLY SENSITIVE AREAS, WETLANDS OR WATERWAYS.

BEARINGS SHOWN ON THE PLAN ARE TRUE BEARINGS.

BEARINGS SHOWN ON THE PLAN ARE GROUND BEARINGS TO THE NEAREST SECOND.

MAINTAIN EXISTING NO PASSING ZONES.

STANDARD ABBREVIATIONS

ABUT	ABUTMENT
AC	ACRE
AGG	AGGREGATE
AH	AHEAD
∠	ANGLE
AADT	ANNUAL AVERAGE DAILY TRAFFIC
AEW	APRON ENDWALL
ASPH	ASPHALTIC
BK	BACK
BC	BACK OF CURB
BAD	BASE AGGREGATE DENSE
BL OR B/L	BASE LINE
BM	BENCH MARK
CB	CATCH BASIN
CL OR C/L	CENTER LINE
Δ	CENTRAL ANGLE OR DELTA
CE	COMMERCIAL ENTRANCE
CONC	CONCRETE
CSW	CONCRETE SIDEWALK
CONST	CONSTRUCTION
CP	CONTROL POINT
CO	COUNTY
CTH	COUNTY TRUCK HIGHWAY
CY	CUBIC YARD
CP	CULVERT PIPE
CPCA	CULVERT PIPE CORRUGATED ALUMINUM
CPCPE	CULVERT PIPE CORRUGATED POLYETHYLENE
CPCPP	CULVERT PIPE CORRUGATED POLYPROPYLENE
CPCS	CULVERT PIPE CORRUGATED STEEL
CPCSAC	CULVERT PIPE CORRUGATED STEEL ALUMINUM COATED
CPCSPC	CULVERT PIPE CORRUGATED STEEL POLYMER COATED
CPRC	CULVERT PIPE REINFORCED CONCRETE
CPRCHE	CULVERT PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL
CPS	CULVERT PIPE SALVAGED
CPT	CULVERT PIPE TEMPORARY
C & G	CURB AND GUTTER
D	DEGREE OF CURVE
DHV	DESIGN HOUR VOLUME
DIA	DIAMETER
DD	DIRECTIONAL DISTRIBUTION
DE	DRAINAGE EASEMENT
DWY	DRIVEWAY
EA	EACH
EB	EASTBOUND
EL OR ELEV	ELEVATION
EMB	EMBANKMENT
EW	ENDWALL
EAT	ENERGY ABSORBING TERMINAL
ESALS	EQUIVALENT SINGLE AXLE LOADS
EXC	EXCAVATION
EBS	EXCAVATION BELOW SUBGRADE
EXIST	EXISTING
FERT	FERTILIZER
FE	FIELD ENTRANCE
FL OR F/L	FLOW LINE
FT	FOOT
FTMS	FREE TRAFFIC MANAGEMENT SYSTEM
HES	HIGH EARLY STRENGTH
HE	HIGHWAY EASEMENT
CWT	HUNDRED WEIGHT
IN DIA	INCH DIAMETER
INL	INLET
ID	INSIDE DIAMETER
INTERS	INTERSECTION
IH	INTERSTATE HIGHWAY
INV	INVERT
JT	JOINT
LT	LEFT
LHF	LEFT HAND FORWARD
L	LENGTH OF CURVE
LF	LINEAR FOOT
LC	LONG CHORD OF CURVE
LS	LUMP SUM
MGAL	ONE THOUSAND GALLONS
MH	MANHOLE
ML OR M/L	MATCH LINE
NOM	NOMINAL
NC	NORMAL CROWN
NB	NORTHBOUND
NO	NUMBER
OD	OUTSIDE DIAMETER
PAVT	PAVEMENT
PLE	PERMANENT LIMITED EASEMENT
PC	POINT OF CURVATURE
PI	POINT OF INTERSECTION
PT	POINT OF TANGENCY
PCC	PORTLAND CEMENT CONCRETE
LB	POUND
PSI	POUNDS PER SQUARE INCH
PE	PRIVATE ENTRANCE
PROJ	PROJECT
PL	PROPERTY LINE
PRW	PROPOSED RIGHT OF WAY
R	RADIUS
RL OR R/L	REFERENCE LINE
REQD	REQUIRED
RT	RIGHT
RHF	RIGHT HAND FORWARD
R/W	RIGHT OF WAY
RD	ROAD
RDWY	ROADWAY
SHLDR	SHOULDER
SW	SIDEWALK
SB	SOUTHBOUND
SPECS	SPECIFICATIONS
SF	SQUARE FEET
SY	SQUARE YARD
SDD	STANDARD DETAIL DRAWINGS
STH	STATE TRUNK HIGHWAY
STA	STATION
SSPC	STORM SEWER PIPE COMPOSITE
SSCPE	STORM SEWER PIPE CORRUGATED POLYETHYLENE
SSCPP	STORM SEWER PIPE CORRUGATED POLYPROPYLENE
SSPNRC	STORM SEWER PIPE NON-REINFORCED CONCRETE
SSPRC	STORM SEWER PIPE REINFORCED CONCRETE
SSPRC	STORM SEWER PIPE REINFORCED CONCRETE
SSPRCHE	STORM SEWER PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL
SE	SUPERELEVATION
SL OR S/L	SURVEY LINE
TEMP	TEMPORARY
TI	TEMPORARY INTEREST
TLE	TEMPORARY LIMITED EASEMENT
TC	TOP OF CURB
TL OR T/L	TRANSIT LINE
T	TRUCKS (PERCENT OF)
TYP	TYPICAL
USH	UNITED STATES HIGHWAY
VAR	VARIABLE
VC	VERTICAL CURVE
VPC	VERTICAL POINT OF CURVATURE
VPI	VERTICAL POINT OF INTERSECTION
VPT	VERTICAL POINT OF TANGENCY
W	WEST
WB	WESTBOUND

2

N

2

VILLAGE OF MERRIMAC
BOUNDARY

BEGIN 5630-06-03 PROJECT
STA. 68+47

70

ELMA AVE

80

90

100

110

STH 78

120

OWLS HEAD RD

OWLS HEAD RD

OWLS HEAD RD

130

SAUK COUNTY

140

150

160

170

180

190

200

210

STH 78

OWLS HEAD RD

CTH DL

CTH U

COLUMBIA COUNTY

C-11-2027
BOX CULVERT TO BE EXTENDED
STA. 181+25

END 5630-06-03 PROJECT
STA. 217+05

ENVIRONMENTALLY
SENSITIVE AREA
BOUNDARY

LAKE WISCONSIN

BLAU DR

BEGIN 5630-06-80
PROJECT

STH 78

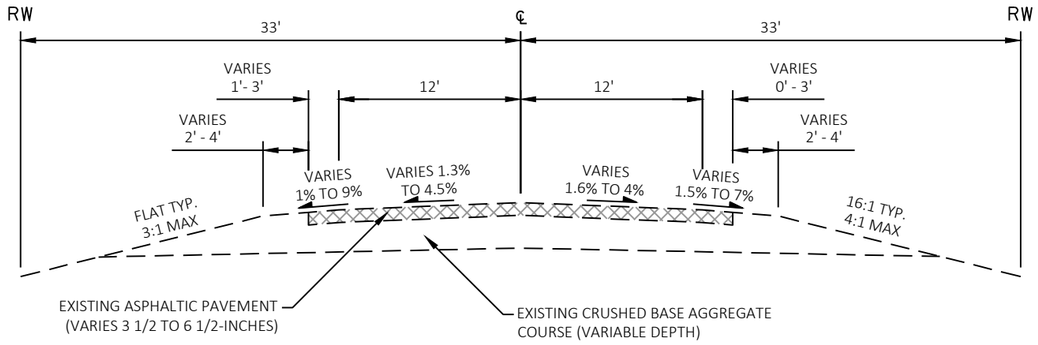
END 5630-06-80
PROJECT

PROJECT NO: 5630-06-73	HWY: STH 78	COUNTY: SAUK	PLAN OVERVIEW	SHEET 4	E

FILE NAME : \\FIWMAD7P3158\N3PUBLIC\PDS\C3D\56300603\SHEETSPLAN\020201-PO.DWG
LAYOUT NAME - 01

PLOT DATE : 9/22/2025 12:41 PM PLOT BY : KENDALL, EMILY ANN PLOT NAME : PLOT SCALE : 1 IN:1200 FT

WISDOT/CADDS SHEET 42

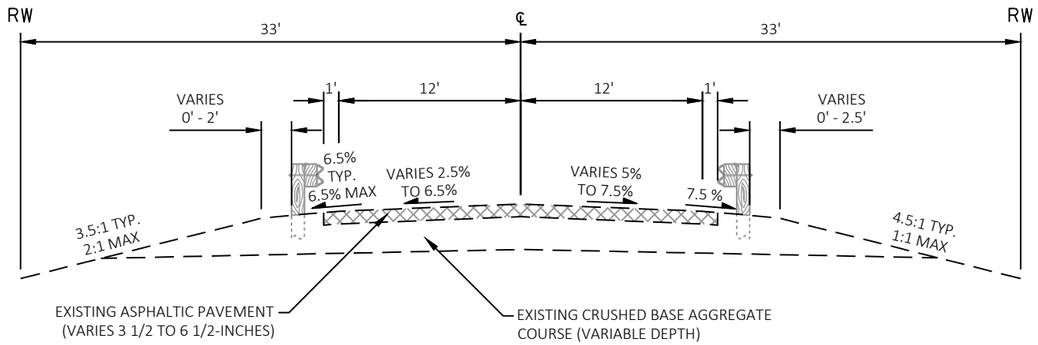


EXISTING TYPICAL SECTION LEFT

STA 68+47 - 180+71
STA 182+15 - 217+05

EXISTING TYPICAL SECTION RIGHT

STA 68+47 - 180+67
STA 181+79 - 217+05



EXISTING TYPICAL BEAMGUARD SECTION LEFT

STA 180+71 - 182+15

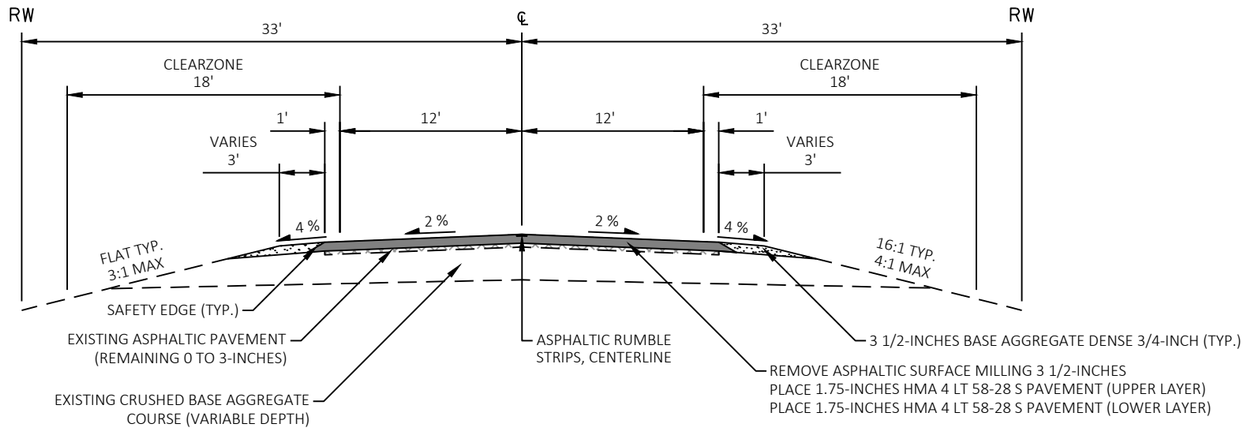
EXISTING TYPICAL BEAMGUARD SECTION RIGHT

STA 180+67 - 181+79

PAVEMENT CORE LOG

CORE NO.	DMI LOG (MILE)	STA	OFFSET (FT) FROM C/L		HMA THICKNESS (IN)	LAYER 1 MATERIAL
1	0.18	85+50.4	3	R	6.25	BASE
2	0.38	96+06.4	2.5	L	6.50	BASE
3	0.42	98+17.6	12	R	4.50	BASE
4	0.9	123+52.0	12	L	3.50	BASE
5	0.92	124+57.6	3	L	10.50	BASE
6	1.29	144+11.2	3	R	6.00	BASE
7	1.53	156+78.4	12	R	6.50	BASE/SAND
8	1.82	172+09.6	2.5	L	6.00	BASE
9	2.17	190+57.6	11	R	6.00	BASE
10	2.36	200+60.8	2.5	R	5.75	SAND
11	2.6	213+28.0	12	R	5.25	SAND
12	2.8	223+84.0	2.5	L	6.75	BASE

2



FINISHED TYPICAL SECTION LEFT

STA 68+47 - 178+36
STA 184+36 - 217+05

FINISHED TYPICAL SECTION RIGHT

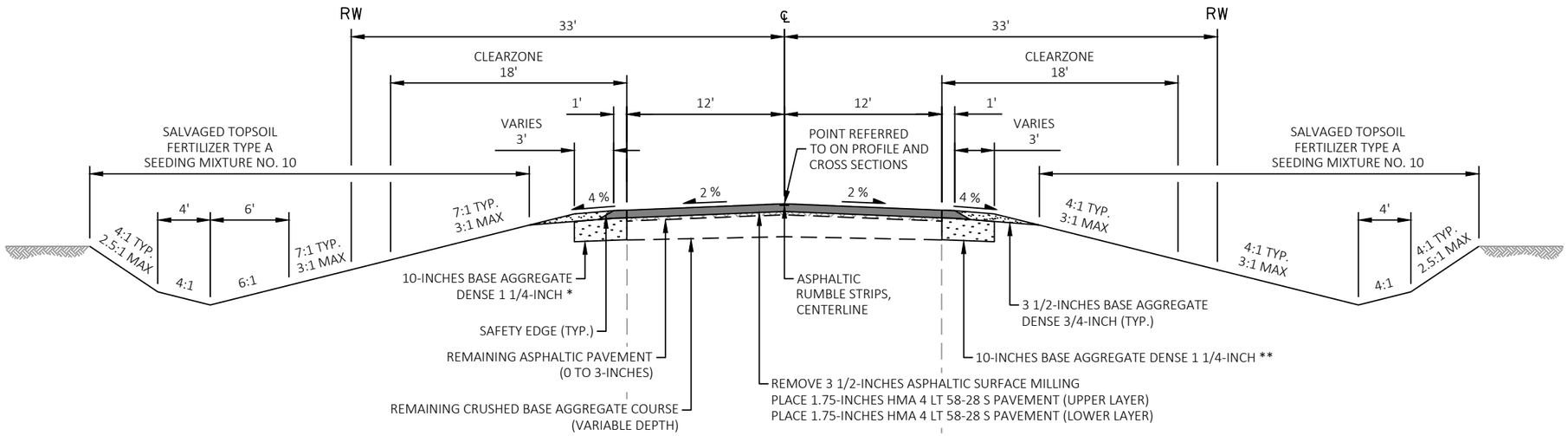
STA 68+47 - 177+90
STA 183+00 - 217+05

NOTES

FOR PAVEMENT MARKINGS SEE SDD
- PERMANENT LONGITUDINAL PAVEMENT MARKING
- TEMPORARY LONGITUDINAL PAVEMENT MARKING
- MOVING PAVEMENT MARKING OPERATION
- PAVEMENT MARKING (INTERSECTIONS)

PROJECT NO: 5630-06-73	HWY: STH 78	COUNTY: SAUK	TYPICAL SECTIONS	SHEET 6	E

2

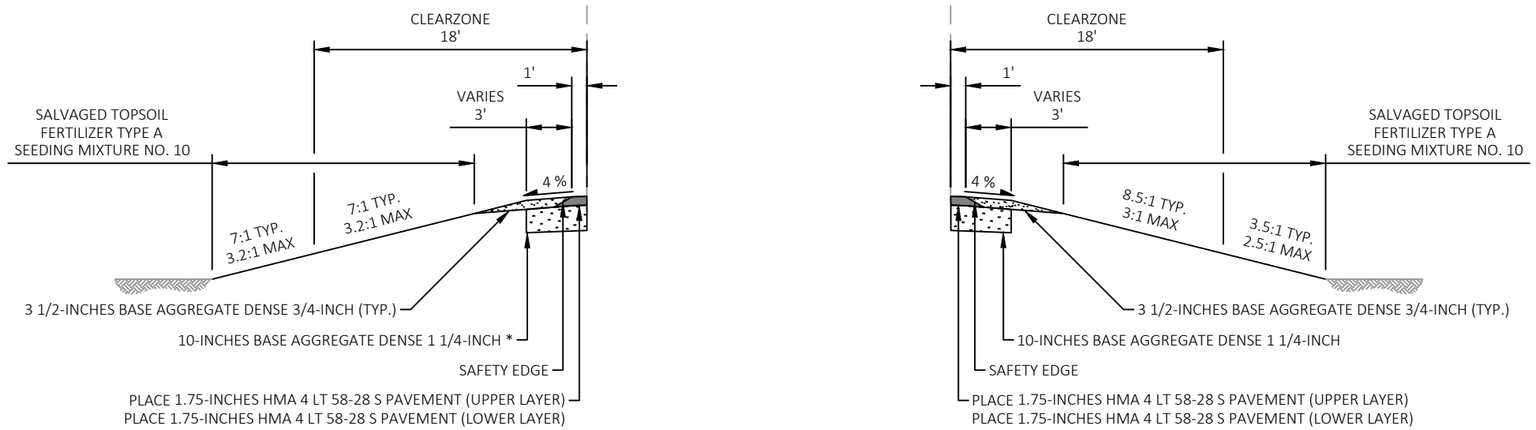


FINISHED TYPICAL SECTION LEFT - DITCH

STA 179+66 - 180+16
STA 182+72 - 183+75

FINISHED TYPICAL SECTION RIGHT - DITCH

STA 178+50 - 179+70
STA 182+12 - 182+19



FINISHED TYPICAL SECTION LEFT - FILL

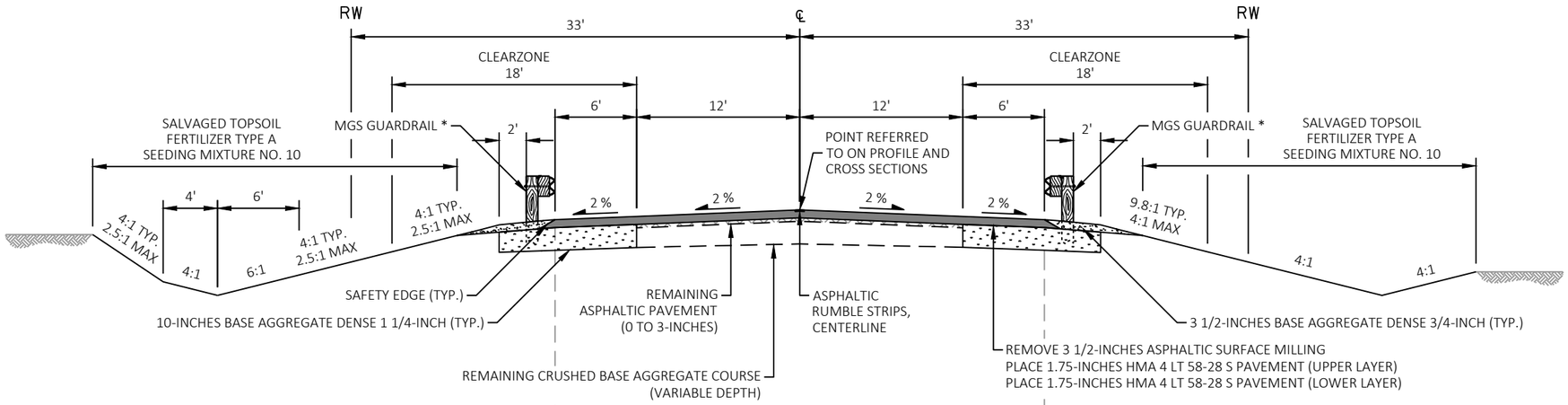
STA 178+36 - 179+66
STA 183+75 - 184+36

FINISHED TYPICAL SECTION RIGHT - FILL

STA 177+90 - 178+50
STA 181+93 - 182+12
STA 182+19 - 183+00

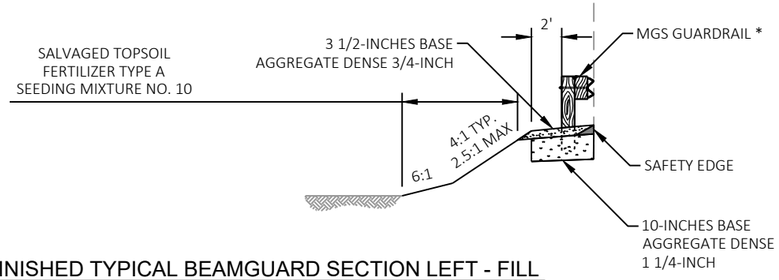
* NOTE: TRANSITION BASE AGGREGATE DENSE 1 1/4-INCH FROM 10" AT STA 183+00 LT TO 0" AT STA 184+00 LT (SEE CROSS SECTIONS FOR MORE INFO)

** NOTE: TRANSITION BASE AGGREGATE DENSE 1 1/4-INCH 0" AT STA 178+50 RT TO 10" STA 179+00 RT (SEE CROSS SECTIONS FOR MORE INFO)



FINISHED TYPICAL BEAMGUARD SECTION LEFT - DITCH

STA 180+16 - 181+50
STA 182+47 - 182+72

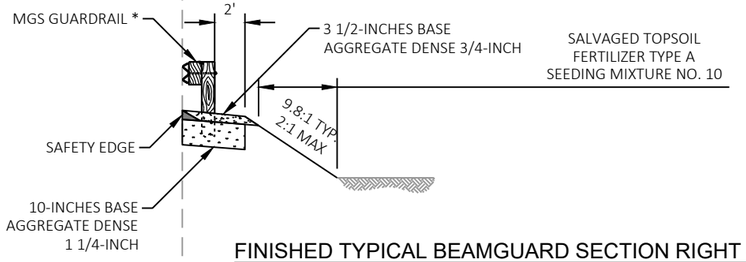


FINISHED TYPICAL BEAMGUARD SECTION LEFT - FILL

STA 181+50 - 182+47

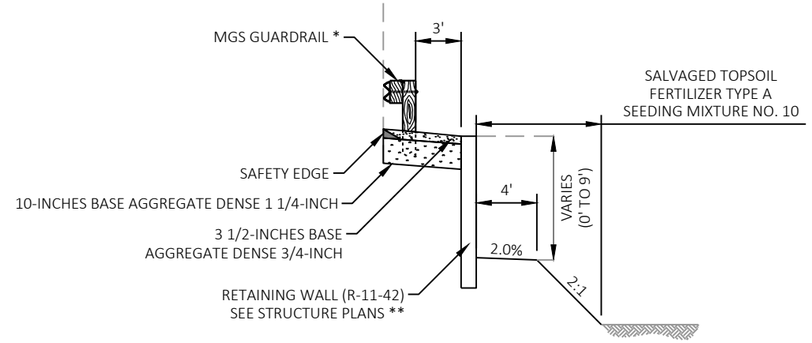
FINISHED TYPICAL BEAMGUARD SECTION RIGHT - DITCH

STA 179+70 - 180+16



FINISHED TYPICAL BEAMGUARD SECTION RIGHT - FILL

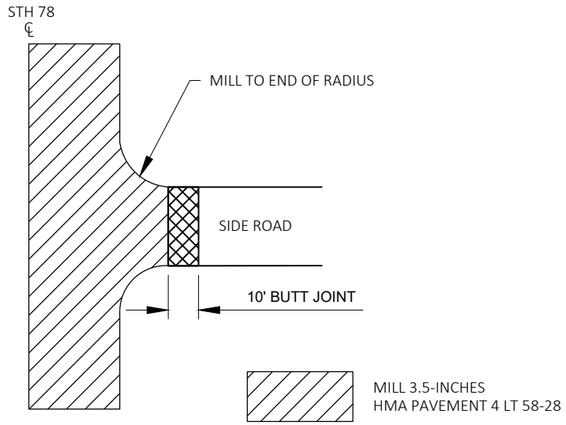
STA 180+16 - 180+98
STA 181+52 - 181+93



FINISHED TYPICAL BEAMGUARD SECTION RIGHT - RETAINING WALL

STA 180+98 - 181+52

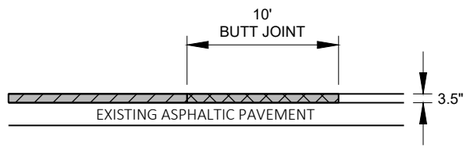
NOTE:
* SEE CONSTRUCTION DETAILS FOR MGS GUARDRAIL TYPES AND LOCATIONS
** SEE STRUCTURE PLANS FOR RETAINING WALL DETAILS

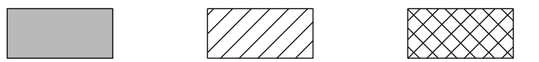


SIDE ROAD DETAIL - NO CURB & GUTTER

ELMA AVE
OWLS HEAD RD
OWLS HEAD RD
REUSCH RD
CTH U
CTH U
OWLS HEAD RD

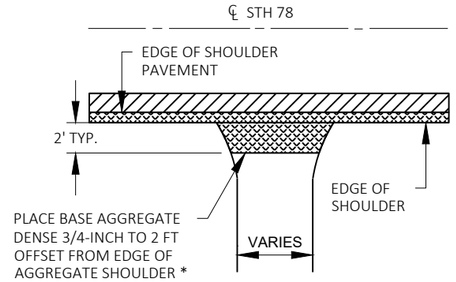
NOTE: WHEN MATCHING INTO AN UNPAVED SURFACE BUTT JOINT IS NOT REQUIRED.



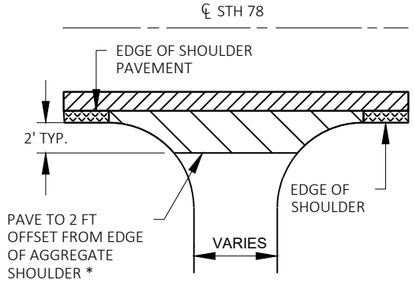


BUTT JOINT MAINLINE AND SIDE ROADS

NOTE: WHEN MATCHING INTO AN UNPAVED SURFACE BUTT JOINT IS NOT REQUIRED.

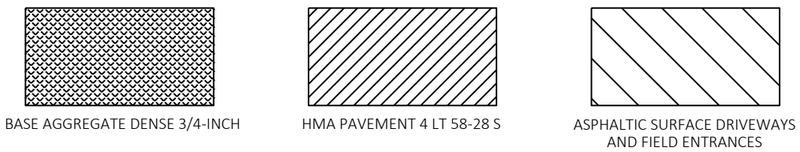


PLAN VIEW
EXISTING UNPAVED DRIVEWAY



PLAN VIEW
EXISTING PAVED DRIVEWAY

RURAL DRIVEWAY INTERSECTION DETAIL



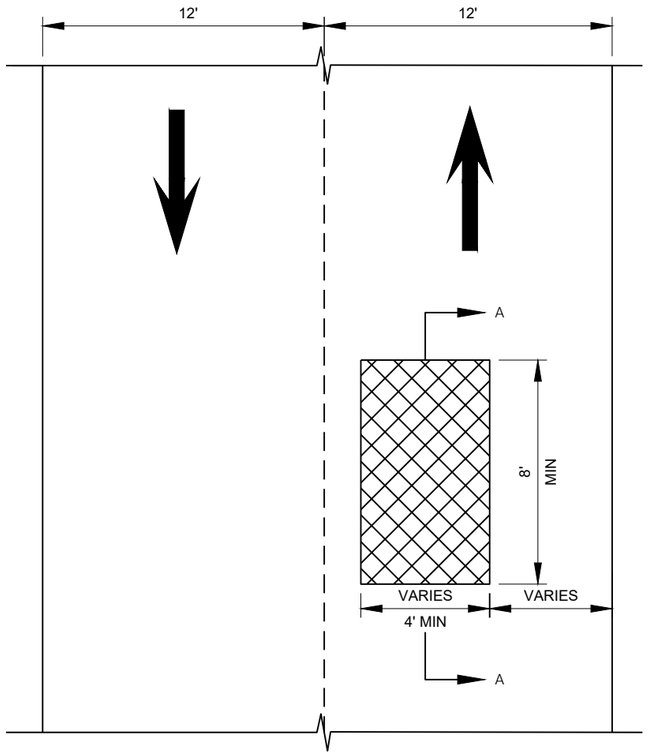
BASE AGGREGATE DENSE 3/4-INCH

HMA PAVEMENT 4 LT 58-28 S

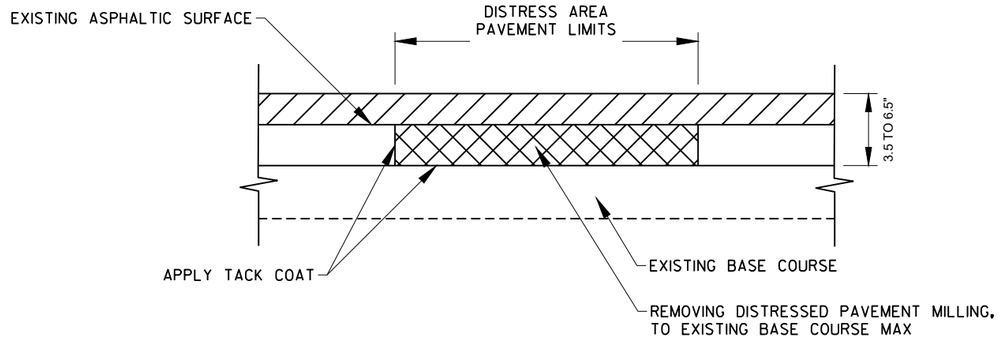
ASPHALTIC SURFACE DRIVEWAYS
AND FIELD ENTRANCES

* OR AS DIRECTED BY FIELD ENGINEER

NOTE: SEE SDD DRIVEWAYS WITHOUT CURB AND GUTTER RESURFACING PROJECTS RURAL AND DRIVEWAYS WITHOUT CURB AND GUTTER.



REMOVING DISTRESSED PAVEMENT MILLING
PLAN VIEW



REMOVING DISTRESSED PAVEMENT MILLING
SECTION A-A

3.5" REMOVING ASPHALTIC SURFACE MILLING
3.5" HMA PAVEMENT OVERLAY

REMOVING DISTRESSED PAVEMENT MILLING/
ASPHALTIC SURFACE

TRAVEL DIRECTION

EXACT LOCATION AND LIMITS OF REMOVING DISTRESSED PAVEMENT MILLING TO BE DETERMINED BY THE ENGINEER IN THE FIELD

STA. 180+18.75 - STA. 180+68.75, LT MGS GUARDRAIL TERMINAL EAT
STA. 180+68.75 - STA. 181+84.74, LT MGS LONG SPAN
STA. 181+84.74 - STA. 182+18.75, LT MGS GUARDRAIL
STA. 182+18.75 - STA. 182+68.75, LT MGS GUARDRAIL TERMINAL EAT

* TO FACE OF RAIL

N

EDGE OF BASE AGGREGATE SHOULDER (TYP.)
EDGE OF HMA PAVEMENT SHOULDER (TYP.)
EXISTING R/W
FINISHED R/W
BEGIN TAPER STA 179+66 13.0' LT
Pl: 179+34.67
EAT POST 1 STA 180+16 20.0' LT*
EAT POST 5 STA 180+41 19.0' LT*
EAT POST 9 STA 180+66 18.0' LT*
BEGIN MGS GUARDRAIL 3 L STA 180+69 18.0' LT*
C-11-2027 BOX CULVERT STA 181+25 SEE STRUCTURE PLANS
UNNAMED TRIBUTARY
SLOPE INTERCEPT (TYP.)
END MGS GUARDRAIL 3 L BEGIN MGS GUARDRAIL 3 STA 181+81 18.0' LT*
END MGS GUARDRAIL 3 STA 182+19 18.0' LT*
EAT POST 9 STA 182+22 18.0' LT*
EAT POST 5 STA 182+47 19.0' LT*
EAT POST 1 STA 182+72 20.0' LT*
BEGIN TAPER STA 183+22 13.0' LT
3'
1'
6'
15:1 TAPER
10:1 TAPER
12'
180
STH 78
R8'
28.125'

FINISHED R/W
SLOPE INTERCEPT (TYP.)
EXISTING R/W
BEGIN TAPER STA 179+20 13.0' RT
NEW DRIVEWAY LOCATION
EAT POST 1 STA 179+70 20.0' RT*
EAT POST 5 STA 179+95 19.0' RT*
EAT POST 9 STA 180+20 18.0' RT*
BEGIN MGS GUARDRAIL 3 STA 180+23 18.0' RT*
2' SHOULDER HINGE POINT STA 180+85 22.0' RT
END MGS GUARDRAIL 3 BEGIN MGS GUARDRAIL 3 HS STA 180+93.75 18.0' RT*
SLOPE BREAK
R-11-42 RETAINING WALL STA 180+98 TO STA 181+52 23.0' RT** SEE STRUCTURE PLANS
SLOPE BREAK
END MGS GUARDRAIL 3 HS BEGIN MGS SHORT RADIUS STA 181+58 18.0' RT*
BEGIN TAPER STA 182+22 13.0' RT
TLE
PROPOSED CULVERT PIPE CLASS III-A 18-INCH WITH APRON ENDWALLS FOR CULVERT PIPE 18-INCH AVOID GUARDRAIL POSTS
MGS SHORT RADIUS TERMINAL STA 181+93 26.0' TO 54.125' RT*

STA. 179+68.75 - STA. 180+18.75, RT MGS GUARDRAIL TERMINAL EAT
STA. 180+18.75 - STA. 180+93.75, RT MGS GUARDRAIL
STA. 180+93.75 - STA. 181+56.25, RT MGS GUARDRAIL TOP-MOUNTED
STA. 181+56.25 - STA. 181+60.17, RT MGS GUARDRAIL
STA. 181+60.17 - STA. 181+93.17, RT MGS GUARDRAIL SHORT RADIUS
STA. 181+93.17 - STA. 181+93.17, RT MGS GUARDRAIL SHORT RADIUS TERMINAL

** TO BACK OF RETAINING WALL

UTILITY LEGEND	
1	ALLIANT ENERGY
2	FRONTIER COMMUNICATIONS OF WI LLC

PROJECT NO: 5630-06-73	HWY: STH 78	COUNTY: SAUK	GUARDRAIL LAYOUT	SHEET 11	E

FILE NAME : \\FIWMAD7P3158\N3PUBLIC\PDS\C3D\56300603\SHEETSPLAN\021002-CD.DWG
LAYOUT NAME - 01
PLOT DATE : 9/22/2025 12:47 PM
PLOT BY : KENDALL, EMILY ANN
PLOT NAME :
PLOT SCALE : 1 IN:40 FT

2

N

MGS GUARDRAIL 3 L
112.50'

MGS GUARDRAIL TERMINAL EAT
53.125'

MGS GUARDRAIL 3
37.50'

MGS GUARDRAIL TERMINAL EAT
53.125'

GAP
18.75'

MGS EAT
POST 1

MGS EAT
POST 5

MGS EAT
POST 9

3.125'
3.125'
6.25'
2.59'
2.66'
6.25'
3.125'
3.125'
6.25'
3.125'
3.125'

MGS EAT
POST 9

MGS EAT
POST 5

MGS EAT
POST 1

180+00

181+00

182+00

MGS GUARDRAIL TERMINAL EAT
53.125'

MGS GUARDRAIL 3
62.5'

MGS GUARDRAIL 3 HS
73.162'

MGS GUARDRAIL 3
26.875'

MGS GUARDRAIL
SHORT RADIUS
12.6'

3.125'
3.125'
6.25'
3.125'
3.125'
3.125'
3.125'
3.125'
6.25'
1.875'

R15'

R8'

MGS EAT
POST 1

MGS EAT
POST 5

MGS EAT
POST 9

2.67'

ANCHOR POST ASSEMBLY TOP MOUNT
5 POSTS

16.912'

3.125'

6.25'

CONTROLLED RELEASE
TERMINAL (CRT) POSTS
2 POSTS

MGS GUARDRAIL 3
28.125'

MGS GUARDRAIL SHORT
RADIUS TERMINAL

NOTE

SEE THE FOLLOWING SDD;
- MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
- MIDWEST GUARDRAIL SYSTEM LONG SPAN (MGS L)
- MIDWEST GUARDRAIL SYSTEM (MGS) ENERGY ABSORBING TERMINAL (EAT)
- ANCHOR POST ASSEMBLY TOP MOUNTED
- SHORT RADIUS BEAM GUARD AND TERMINAL (MGS)

POSTS FOR GUARDRAIL SHALL BE PLACED INTO BLOCKOUTS AND SHALL NOT BE DRIVEN INTO THE MSE FILL. COORDINATE PLACEMENT OF GUARDRAIL POSTS WITH MSE REINFORCEMENT.

MGS GUARDRAIL BEAM ATTACHED TO ANCHOR POST ASSEMBLY TOP MOUNT TO BE CUSTOM FIELD CUT

PROJECT NO: 5630-06-73	HWY: STH 78	COUNTY: SAUK	GUARDRAIL POST LAYOUT	SHEET 12	E

2

N

CLEARING AND GRUBBING
4 STA

BEGIN PAVED SHOULDER TAPER
STA 179+66
13.0' LT

SAWING ASPHALT
358 LF

REMOVING GUARDRAIL
145 LF

SLOPE INTERCEPT

UNNAMED TRIBUTARY

FINISHED R/W

SAWING ASPHALT
20 LF

EXISTING R/W

PI 179+34.67

BEGIN PAVED SHOULDER TAPER
STA 183+22
13.0' LT

12'

12'

180

STH 78

12'

12'

FINISHED R/W

SLOPE INTERCEPT

BEGIN PAVED SHOULDER TAPER
STA 179+20
13.0' RT

SAWING ASPHALT
307 LF

REMOVING SMALL PIPE CULVERT
18-INCH CORRUGATED METAL
WITH CONCRETE ENDWALL
19 FT

REMOVING GUARDRAIL
115 LF

CLEARING AND GRUBBING
2 STA

BEGIN PAVED SHOULDER TAPER
STA 182+22
13.0' RT

EXISTING R/W

REMOVING SMALL PIPE CULVERT
18-INCH CORRUGATED METAL
WITH METAL ENDWALL
32 FT

UTILITY LEGEND	
1	ALLIANT ENERGY
2	FRONTIER COMMUNICATIONS OF WI LLC

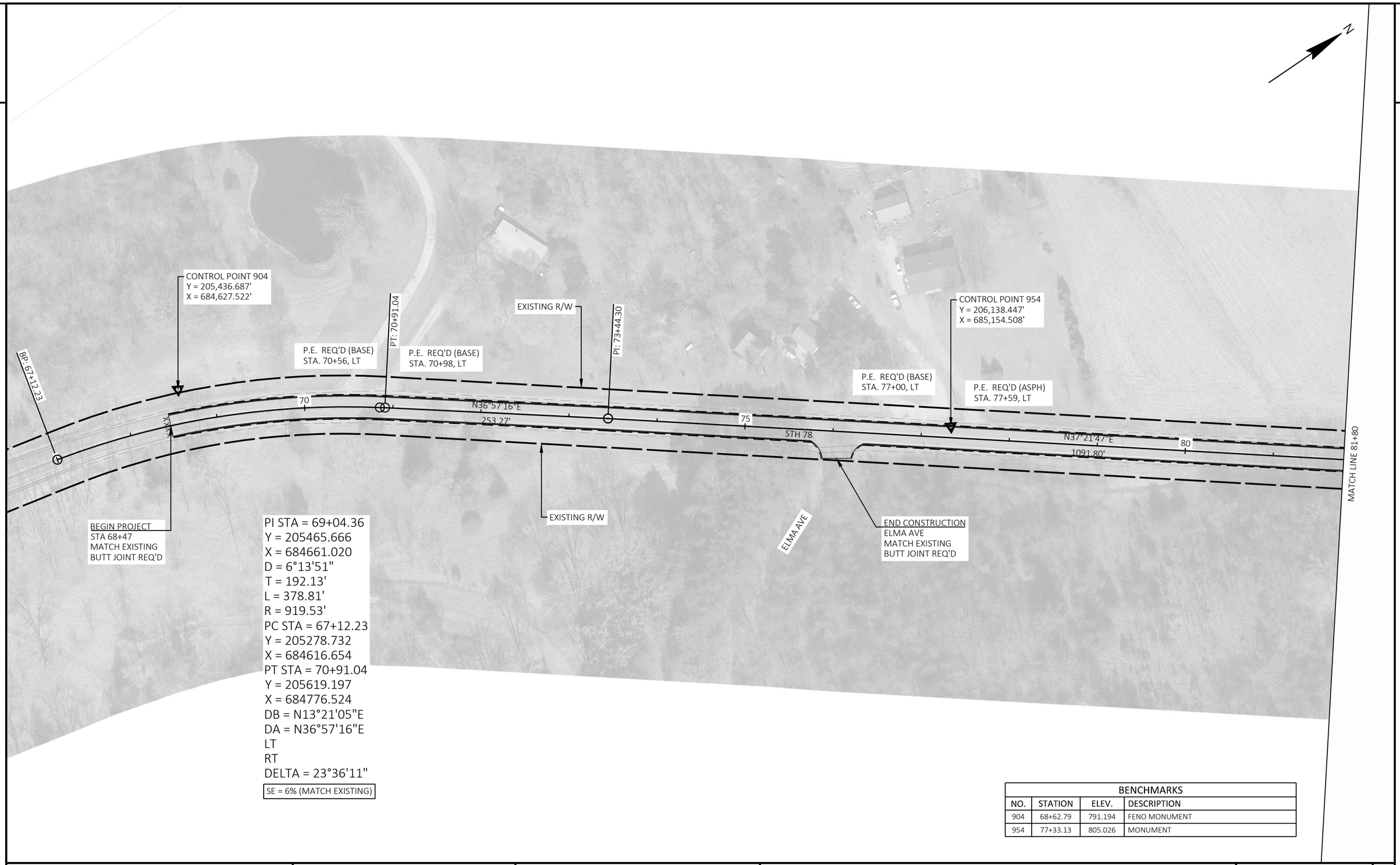
PROJECT NO: 5630-06-73	HWY: STH 78	COUNTY: SAUK	REMOVALS	SHEET 13	E

FILE NAME : \\FIWMAD7P3158\N3PUBLIC\PDS\C3D\56300603\SHEETSPLAN\021004-CD.DWG
LAYOUT NAME - 01

PLOT DATE : 9/22/2025 12:39 PM PLOT BY : KENDALL, EMILY ANN PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2



BENCHMARKS			
NO.	STATION	ELEV.	DESCRIPTION
904	68+62.79	791.194	FENO MONUMENT
954	77+33.13	805.026	MONUMENT

PROJECT NO: 5630-06-73	HWY: STH 78	COUNTY: SAUK	PLAN DETAILS	SHEET 14	E

2

PI STA = 87+88.23
Y = 206969.226
X = 685805.046
D = 5°40'44"
T = 352.12'
L = 677.57'
R = 1008.93'
PC STA = 84+36.11
Y = 206689.359
X = 685591.358
PT STA = 91+13.68
Y = 207321.279
X = 685798.193
DB = N37°21'47"E
DA = N01°06'55"W
LT
RT
DELTA = 38°28'42"

SE = 6% (MATCH EXISTING)

MATCH LINE 81+80

P.E. REQ'D (BASE)
STA. 82+89, LT

PC: 84+36.11

P.E. REQ'D (BASE)
STA. 84+84, LT

STH 78

85

P.E. REQ'D (BASE)
STA. 88+83, LT

P.E. REQ'D (ASPH)
STA. 89+26, LT

90

95

PI: 91+13.68

EXISTING R/W

PI: 92+52.21

PI: 94+84.53

N2°26'45"W
232.32'

N1°59'13"W
252.49'

38.88

MATCH LINE 96+50

N1°06'55"W
138.53'

EXISTING R/W

CONTROL POINT 951
Y = 207,833.620'
X = 685,767.239'

BORING 2
STA 96+06
OFFSET 2.5' LT

CONTROL POINT 952
Y = 207,592.599'
X = 685,777.510'

END CONSTRUCTION
OWL HEAD RD
MATCH EXISTING
BUTT JOINT REQ'D

BORING 1
STA 85+50
OFFSET 3.0' RT

OWLS HEAD RD

CONTROL POINT 953
Y = 207,129.143'
X = 685,796.134'

BENCHMARKS			
NO.	STATION	ELEV.	DESCRIPTION
953	89+22.82	800.964	MONUMENT
952	93+85.67	797.078	MONUMENT
951	96+26.81	801.501	MONUMENT

NOTE: SEE THE PAVEMENT CORE LOG TABLE IN TYPICAL SECTIONS FOR EXISTING PAVEMENT DEPTH

PROJECT NO: 5630-06-73	HWY: STH 78	COUNTY: SAUK	PLAN DETAILS	SHEET 15	E

FILE NAME : \\FIWMAD7P3158\N3PUBLIC\PDS\C3D\56300603\SHEETSPLAN\021201-PD.DWG
LAYOUT NAME - 02
PLOT DATE : 7/14/2025 3:46 PM
PLOT BY : KENDALL, EMILY ANN
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 42

PI STA = 98+40.15
Y = 208047.303
X = 685773.249
D = 2°36'16"
T = 103.13'
L = 206.11'
R = 2200.00'
PC STA = 97+37.02
Y = 207944.236
X = 685776.824
PT STA = 99+43.13
Y = 208150.253
X = 685779.331
DB = N01°59'13"W
DA = N03°22'51"E
LT
RT
DELTA = 5°22'04"

SE = 5% (MATCH EXISTING)

PI STA = 105+12.00
Y = 208675.890
X = 685977.159
D = 4°40'38"
T = 138.16'
L = 275.16'
R = 1225.00'
PC STA = 103+73.84
Y = 208557.598
X = 685905.776
PT STA = 106+49.00
Y = 208775.311
X = 686073.097
DB = N31°06'32"E
DA = N43°58'43"E
LT
RT
DELTA = 12°52'11"

SE = 6% (MATCH EXISTING)

PI STA = 101+62.79
Y = 208369.529
X = 685792.285
D = 6°26'16"
T = 219.66'
L = 430.71'
R = 890.00'
PC STA = 99+43.13
Y = 208150.253
X = 685779.331
PT STA = 103+73.84
Y = 208557.598
X = 685905.776
DB = N03°22'51"E
DA = N31°06'32"E
LT
RT
DELTA = 27°43'41"

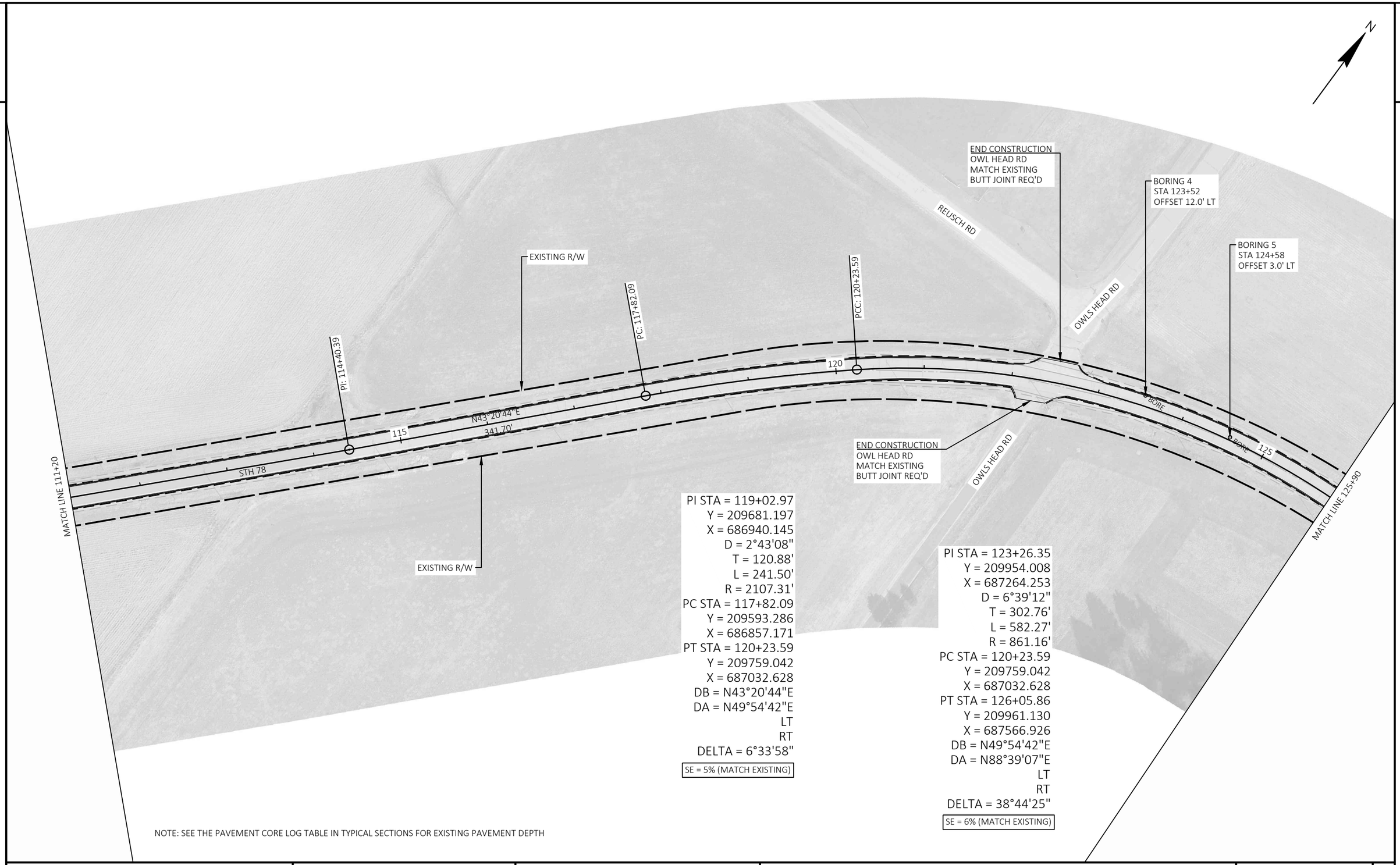
SE = 6% (MATCH EXISTING)

PCC: 97+37.02
PCC: 99+43.13
PCC: 103+73.84
PT: 106+49.00
F.E. REQ'D (BASE) STA. 104+00, LT
F.E. REQ'D (BASE) STA. 105+37, RT
EXISTING R/W
EXISTING R/W
STH 78
STH 78
100
105
110
N43°58'43"E
791.39'
BORING 3
STA 98+18
OFFSET 12.0' RT
MATCH LINE 96+50
MATCH LINE 111+20

NOTE: SEE THE PAVEMENT CORE LOG TABLE IN TYPICAL SECTIONS FOR EXISTING PAVEMENT DEPTH

PROJECT NO: 5630-06-73	HWY: STH 78	COUNTY: SAUK	PLAN DETAILS	SHEET 16	E

2



NOTE: SEE THE PAVEMENT CORE LOG TABLE IN TYPICAL SECTIONS FOR EXISTING PAVEMENT DEPTH

PROJECT NO: 5630-06-73	HWY: STH 78	COUNTY: SAUK	PLAN DETAILS	SHEET 17	E

FILE NAME : \\FIWMAD7P3158\N3PUBLIC\PDS\C3D\56300603\SHEETSPLAN\021201-PD.DWG
LAYOUT NAME - 04
PLOT DATE : 7/14/2025 3:47 PM
PLOT BY : KENDALL, EMILY ANN
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 42

2

2

MATCH LINE 125+90

PT: 126+05.86

STH 78

N88°39'07"E
413.99'

PC: 130+19.85

130

PCC: 132+46.93

135

MATCH LINE 140+60

EXISTING R/W

PT: 139+16.59

140

EXISTING R/W

PI STA = 136+20.31
Y = 210198.499
X = 688530.419
D = 9°25'32"
T = 373.38'
L = 669.66'
R = 607.88'
PC STA = 132+46.93
Y = 210026.736
X = 688198.894
PT STA = 139+16.59
Y = 210571.862
X = 688527.112
DB = N62°36'41"E
DA = N00°30'27"W
LT
RT
DELTA = 63°07'08"

SE = 6% (MATCH EXISTING)

PI STA = 131+35.39
Y = 209973.587
X = 688096.310
D = 11°28'04"
T = 115.54'
L = 227.08'
R = 499.63'
PC STA = 130+19.85
Y = 209970.869
X = 687980.806
PT STA = 132+46.93
Y = 210026.736
X = 688198.894
DB = N88°39'07"E
DA = N62°36'41"E
LT
RT
DELTA = 26°02'26"

SE = 6% (MATCH EXISTING)

CTH U

END CONSTRUCTION
CTH U
MATCH EXISTING
BUTT JOINT REQ'D

T11N R7E | T11N R8E | 25 | 30 | 36 | 31 | T10N R7E | T10N R8E

SECTION CORNER 1010
Y = 209,963.596
X = 688,521.262

BENCHMARKS			
NO.	STATION	ELEV.	DESCRIPTION
1010	134+33.34	--	SECTION CORNER

PROJECT NO: 5630-06-73	HWY: STH 78	COUNTY: SAUK	PLAN DETAILS	SHEET 18	E

FILE NAME : \\FIWMAD7P3158\N3PUBLIC\PDS\C3D\56300603\SHEETSPLAN\021201-PD.DWG
LAYOUT NAME - 05

PLOT DATE : 7/14/2025 3:47 PM PLOT BY : KENDALL, EMILY ANN PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

2

N

EXISTING R/W

PI: 144+85.91

MATCH LINE 140+60

N0°30'27"W

569.32'

145

150

N0°00'49"E

1464.08'

155

STH 78

MATCH LINE 155+30

BORING 6
STA 144+11
OFFSET 3.0' RT

EXISTING R/W

NOTE: SEE THE PAVEMENT CORE LOG TABLE IN TYPICAL SECTIONS FOR EXISTING PAVEMENT DEPTH

2

PROJECT NO: 5630-06-73	HWY: STH 78	COUNTY: SAUK	PLAN DETAILS	SHEET 19	E

FILE NAME : \\FIWMAD7P3158\N3PUBLIC\PDS\C3D\56300603\SHEETSPLAN\021201-PD.DWG
LAYOUT NAME - 06

PLOT DATE : 7/14/2025 3:47 PM PLOT BY : KENDALL, EMILY ANN PLOT NAME : PLOT SCALE : 1 IN:100 FT

2

N

SECTION CORNER 1015
Y = 212,605.236
X = 688,522.415

PI: 159+49.99

HMOD 1022
Y = 213,143.436'
X = 688,495.436'

EXISTING R/W

MATCH LINE 155+30

160

STH 78

165

N0°00'29"W

1988.68'

MATCH LINE 170+00

F.E. REQ'D (BASE)
STA. 155+76, RT

CSAH

F.E. REQ'D (BASE)
STA. 159+66, RT

BORING 7
STA 156+78
OFFSET 12.0' RT

EXISTING R/W

NOTE: SEE THE PAVEMENT CORE LOG TABLE IN TYPICAL SECTIONS FOR EXISTING PAVEMENT DEPTH

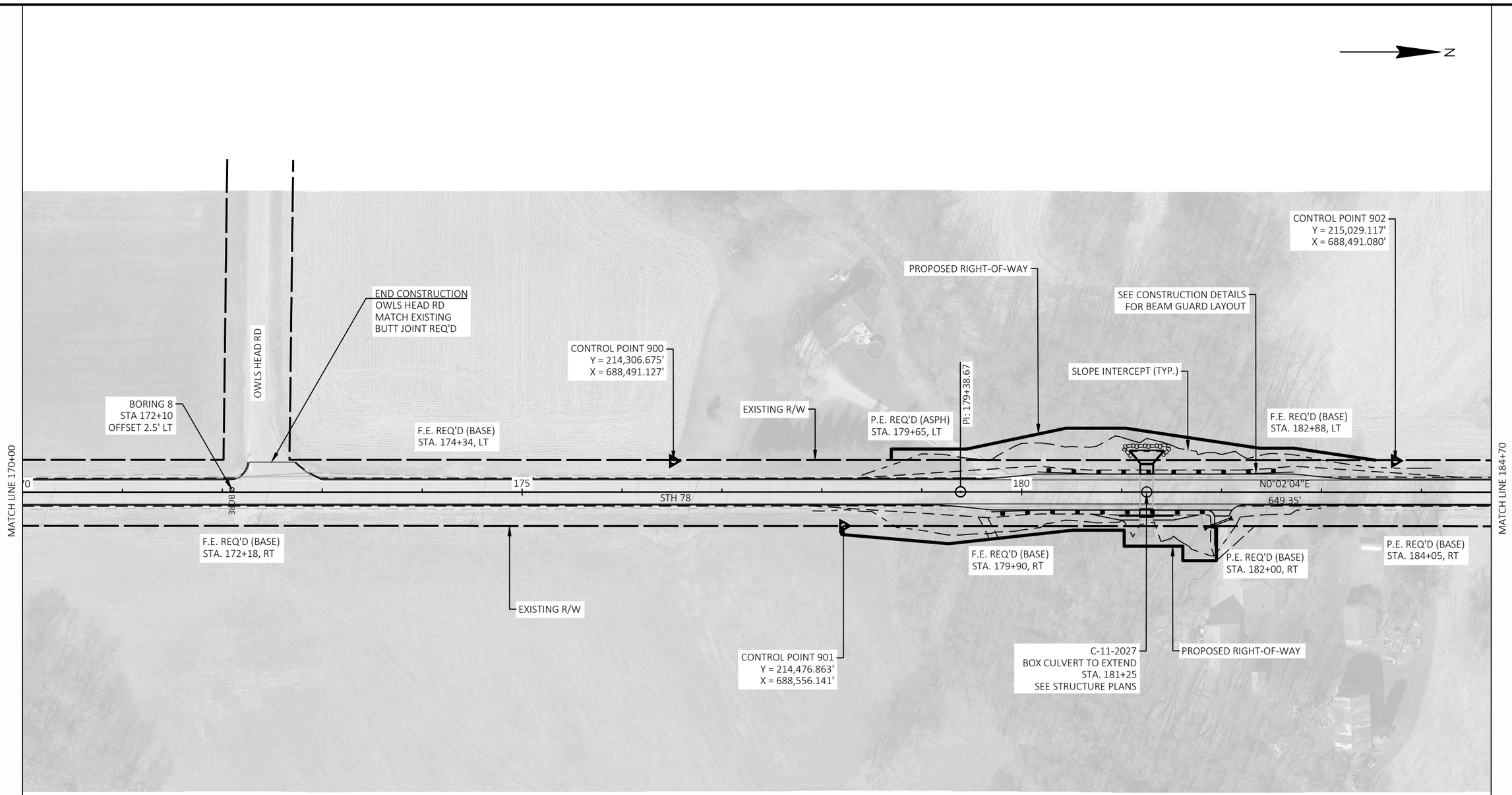
BENCHMARKS

NO.	STATION	ELEV.	DESCRIPTION
1015	159+49.99	--	SECTION CORNER
1022	164+88.19	873.050	MONUMENT HMOD

PROJECT NO: 5630-06-73	HWY: STH 78	COUNTY: SAUK	PLAN DETAILS	SHEET 20	E

FILE NAME : \\FIWMAD7P3158\N3PUBLIC\PDS\C3D\56300603\SHEETSPLAN\021201-PD.DWG
LAYOUT NAME - 07
PLOT DATE : 7/14/2025 3:48 PM
PLOT BY : KENDALL, EMILY ANN
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 42

2



NOTE:
- SEE THE PAVEMENT CORE LOG TABLE IN TYPICAL SECTIONS FOR EXISTING PAVEMENT DEPTH
- SEE PLAN AND PROFILE SHEETS FOR PROFILE FROM STA 178+50 TO STA 184+00

BENCHMARKS			
NO.	STATION	ELEV.	DESCRIPTION
900	176+51.43	879.842	FENO MONUMENT
901	178+21.61	872.697	FENO MONUMENT
902	183+73.85	867.668	FENO MONUMENT

2

N

SECTION CORNER 1014
Y = 215,237.974
X = 688,523.636

T11N R7E | T11N R8E
24 | 19
25 | 30
T11N R7E | T11N R8E

PI: 185+88.02

PI: 193+25.35

EXISTING R/W

MATCH LINE 184+70

MATCH LINE 198+50

185 — N0°03'22"W 737.33' — 190 — STH 78 — 195 — N0°32'30"W 575.57'

P.E. REQ'D (ASPH)
STA. 188+90, RT

F.E. REQ'D (BASE)
STA. 197+10, RT

CONTROL POINT 903
Y = 215,169.505'
X = 688,549.596'

BORING 9
STA 190+58
OFFSET 11.0' RT

EXISTING R/W

NOTE:SEE THE PAVEMENT CORE LOG TABLE IN TYPICAL SECTIONS FOR EXISTING PAVEMENT DEPTH

BENCHMARKS			
NO.	STATION	ELEV.	DESCRIPTION
903	185+14.28	875.566	FENO MONUMENT
1014	185+82.73	--	SECTION CORNER

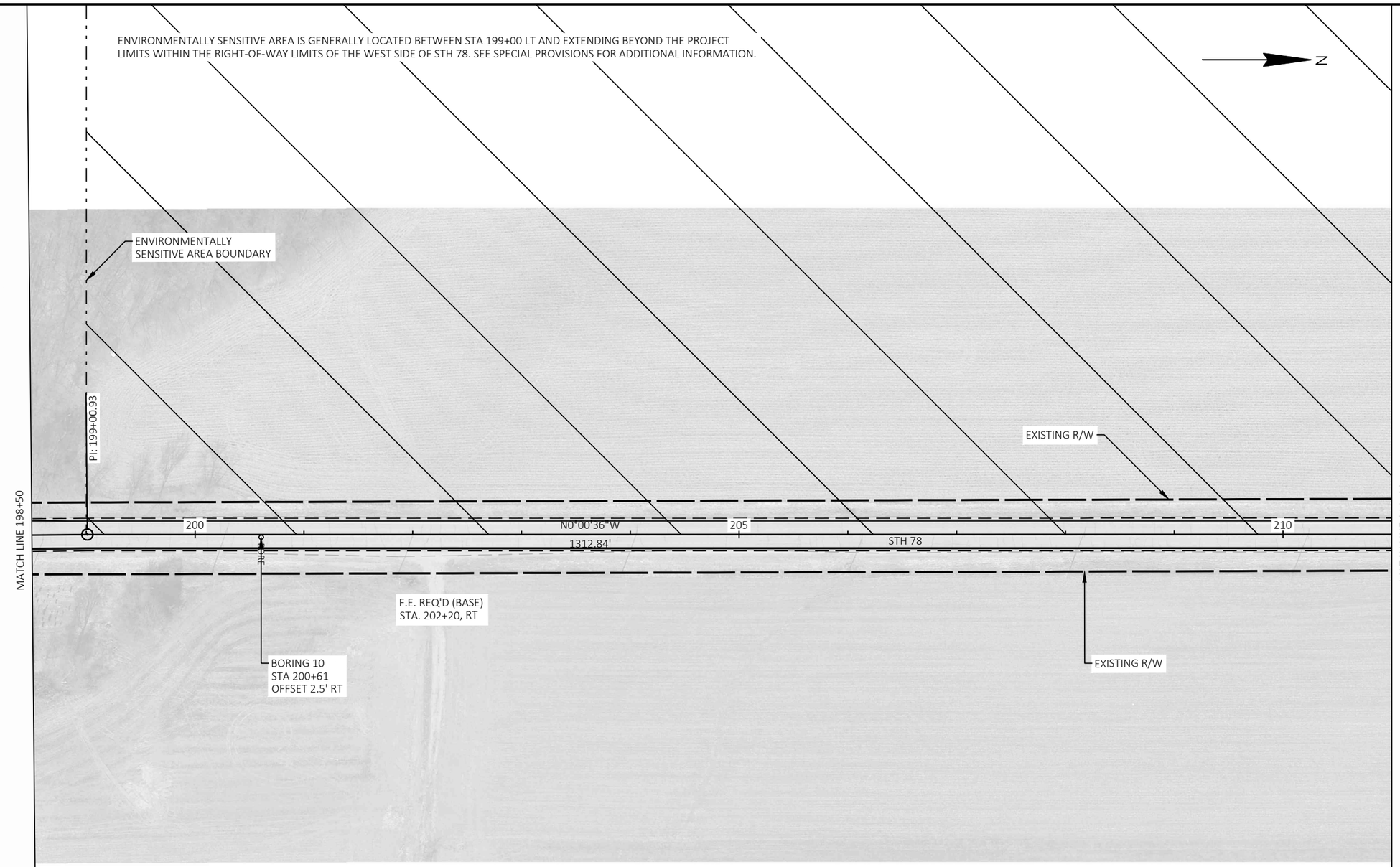
PROJECT NO: 5630-06-73	HWY: STH 78	COUNTY: SAUK	PLAN DETAILS	SHEET 22	E

FILE NAME : \\FIWMAD7P3158\N3PUBLIC\PDS\C3D\56300603\SHEETSPLAN\021201-PD.DWG
LAYOUT NAME - 09
PLOT DATE : 7/14/2025 3:48 PM
PLOT BY : KENDALL, EMILY ANN
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 42

2

ENVIRONMENTALLY SENSITIVE AREA IS GENERALLY LOCATED BETWEEN STA 199+00 LT AND EXTENDING BEYOND THE PROJECT LIMITS WITHIN THE RIGHT-OF-WAY LIMITS OF THE WEST SIDE OF STH 78. SEE SPECIAL PROVISIONS FOR ADDITIONAL INFORMATION.

N



NOTE: SEE THE PAVEMENT CORE LOG TABLE IN TYPICAL SECTIONS FOR EXISTING PAVEMENT DEPTH

2

PROJECT NO: 5630-06-73	HWY: STH 78	COUNTY: SAUK	PLAN DETAILS	SHEET 23	E

ENVIRONMENTALLY SENSITIVE AREA IS GENERALLY LOCATED BETWEEN STA. 199+00 AND EXTENDING BEYOND THE PROJECT LIMITS WITHIN THE RIGHT-OF-WAY LIMITS, STATION ON LT. SEE SPECIAL PROVISIONS FOR ADDITIONAL INFORMATION.

N

MATCH LINE 211+00

PI: 212+13.77

STH 78

215

N0°01'28"E

689.89'

CONTROL POINT 905
Y = 218,371.487'
X = 688,474.781'

CTH DL

EP: 219+03.66

BORING 11
STA 223+28
OFFSET 12' RT

END PROJECT
STA 217+05
MATCH EXISTING
BUTT JOINT REQ'D

ENVIRONMENTALLY SENSITIVE AREA BOUNDARY

SECTION CORNER 1013
Y = 217,868.985
X = 688,516.131

NOTE: SEE THE PAVEMENT CORE LOG TABLE IN TYPICAL SECTIONS FOR EXISTING PAVEMENT DEPTH

BENCHMARKS			
NO.	STATION	ELEV.	DESCRIPTION
1013	212+13.77	--	SECTION CORNER
905	217+16.25	908.243	FENO MONUMENT

2

2

N

SLOPE INTERCEPT (TYP.)

1938.67

180

185

SLOPE INTERCEPT (TYP.)

EXISTING R/W

PROPOSED CULVERT

LEGEND

EROSION MAT CLASS II, TYPE C

RIP RAP

SLOPE INTERCEPT

TEMPORARY DITCH CHECK

CULVERT PIPE DITCH CHECK

SURFACE WATER FLOW

PROJECT NO: 5630-06-73	HWY: STH 78	COUNTY: SAUK	EROSION CONTROL	SHEET 25	E

FILE NAME : \\FIWMAD7P3158\N3PUBLIC\PDS\C3D\56300603\SHEETSPLAN\022001-EC.DWG
LAYOUT NAME - 01

PLOT DATE : 6/24/2025 10:54 AM PLOT BY : KENDALL, EMILY ANN PLOT NAME : PLOT SCALE : 1 IN:50 FT

2

2

N

Sauk Co
M-01
FINISHED LOCATION

REMOVE
R-03
REMOVE
R-05

M-01
Sauk Co
EXISTING LOCATION

SIGN

180

STH 78

POST

SIGN

POST

R-02
REMOVE

R-04
REMOVE

M-02
Columbia Co
EXISTING LOCATION

R-01
ROUGH ROAD
REMOVE

Columbia Co
M-02
FINISHED LOCATION

LEGEND

EXISTING SIGN MOUNTED ON POST(S)

PROPOSED SIGN MOUNTED ON POST(S)

R-## DENOTES SIGN NUMBER FOR REMOVED SIGNS

M-## DENOTES SIGN NUMBER FOR MOVED SIGNS

PROJECT NO: 5630-06-73	HWY: STH 78	COUNTY: SAUK	PERMANENT SIGNING	SHEET 26	E

2

N

2

STOP
R1-1
36"X36"

TEMPORARY MARKING
PAINT 6-INCH
(DOUBLE YELLOW)

PI: 179+38.67

WO1-6
48" X 24"

TYPE III BARRICADE

STOP
R1-1
36"X36"

TEMPORARY MARKING
STOP LINE PAINT 18-INCH
(WHITE)

12'
12'

STH 78

180

TAPER 50'

12'

TAPER 50'

12'
12'

TEMPORARY MARKING
STOP LINE PAINT 18-INCH
(WHITE)

STOP
R1-1
36"X36"

MARKING REMOVAL LINE 4-INCH
310 LF

STOP
R1-1
36"X36"

TEMPORARY MARKING
PAINT 6-INCH
(DOUBLE YELLOW)

WO1-4R

LEGEND

- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL WITH TYPE C STEADY BURN LIGHT
- SIGN ON PERMANENT SUPPORT
- WORK AREA
- BASE AGGREGATE DENSE 3/4-INCH
- CC — CRASH CUSHION

NOTE:
- SEE SDD TRAFFIC CONTROL, ONE LANE ROAD STOP CONDITION FOR ADDITIONAL SIGNS.
- THE MAX WIDTH FOR SIGN W12-52 IS 11 FT
- DO NOT BLOCK DRIVEWAYS WITH EQUIPMENT, BARRIERS, OR BARRELS.

PROJECT NO: 5630-06-73	HWY: STH 78	COUNTY: SAUK	TRAFFIC CONTROL - STRUCTURE STAGING (STAGE 1)	SHEET 27	E

2

N

STOP
R1-1
36"X36"

TEMPORARY MARKING
PAINT 6-INCH
(DOUBLE YELLOW)

P.I. 179+38.67

WO5-52L
12"X36"

WO5-52R
12"X36"

WO1-4R

STOP
R1-1
36"X36"

TEMPORARY MARKING
STOP LINE PAINT 18-INCH
(WHITE)

12'

12'

STH 78

180

TAPER 50'

11'

CC

TEMPORARY MARKING LINE PAINT 6-INCH
(WHITE)

12'

12'

TEMPORARY MARKING
STOP LINE PAINT 18-INCH
(WHITE)

CONCRETE BARRIER
TEMPORARY PRECAST

WO5-52L
12"X36"

STOP
R1-1
36"X36"

TEMPORARY MARKING
PAINT 6-INCH
(DOUBLE YELLOW)

WO5-52R
12"X36"

STOP
R1-1
36"X36"

WO1-6
48" X 24"

TYPE III BARRICADE

LEGEND

- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL WITH TYPE C STEADY BURN LIGHT
- SIGN ON PERMANENT SUPPORT
- WORK AREA
- BASE AGGREGATE DENSE 3/4-INCH
- CC — CRASH CUSHION

NOTE:
- SEE SDD TRAFFIC CONTROL, ONE LANE ROAD STOP CONDITION FOR ADDITIONAL SIGNS.
- THE MAX WIDTH FOR SIGN W12-52 IS 11 FT
- DO NOT BLOCK DRIVEWAYS WITH EQUIPMENT, BARRIERS, OR BARRELS.

PROJECT NO: 5630-06-73	HWY: STH 78	COUNTY: SAUK	TRAFFIC CONTROL - STRUCTURE STAGING (STAGE 2)	SHEET 28	E

FILE NAME : \\FIWMAD7P3158\N3PUBLIC\PDS\C3D\56300603\SHEETSPLAN\025100-TC.DWG
LAYOUT NAME - 02 - EAST
PLOT DATE : 7/2/2025 11:10 AM PLOT BY : KENDALL, EMILY ANN PLOT NAME : PLOT SCALE : 1 IN:30 FT
WISDOT/CADDS SHEET 42

2

LEGEND

WORK ZONE

DETOUR ROUTE

THIS DETOUR IS ALSO USED FOR 5630-06-80.

N

DETAIL A

DETAIL B

DETAIL C

DETAIL D

DETAIL E

DETAIL F

DETAIL G

DETAIL H

DETAIL I

DETAIL J

DETAIL K

DETAIL L

DETAIL M

DETAIL N

DETAIL O

DETAIL P

DETAIL Q

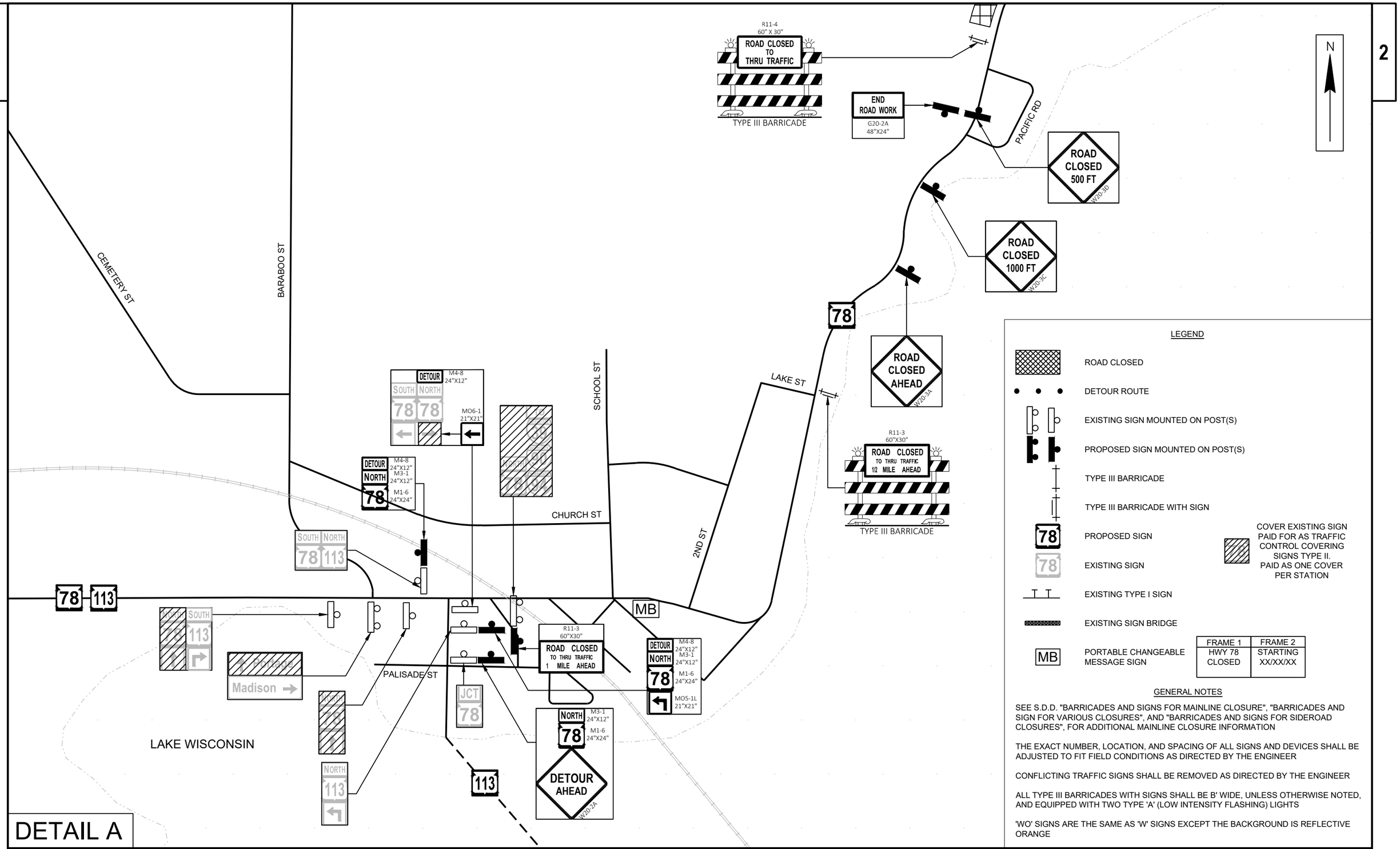
DETAIL R

PROJECT NO: 5630-06-73	HWY: STH 78	COUNTY: SAUK	DETOUR OVERVIEW	SHEET 29	E

FILE NAME : \\FIWMAD7P3158\N3PUBLIC\PDS\C3D\56300603\SHEETSPLAN\027001-DT.DWG
LAYOUT NAME - 01

PLOT DATE : 7/2/2025 11:52 AM PLOT BY : KENDALL, EMILY ANN PLOT NAME : PLOT SCALE : 1 IN:1.5 MI

WISDOT/CADDS SHEET 42



GENERAL NOTES

SEE S.D.D. "BARRICADES AND SIGNS FOR MAINLINE CLOSURE", "BARRICADES AND SIGN FOR VARIOUS CLOSURES", AND "BARRICADES AND SIGNS FOR SIDEROAD CLOSURES", FOR ADDITIONAL MAINLINE CLOSURE INFORMATION

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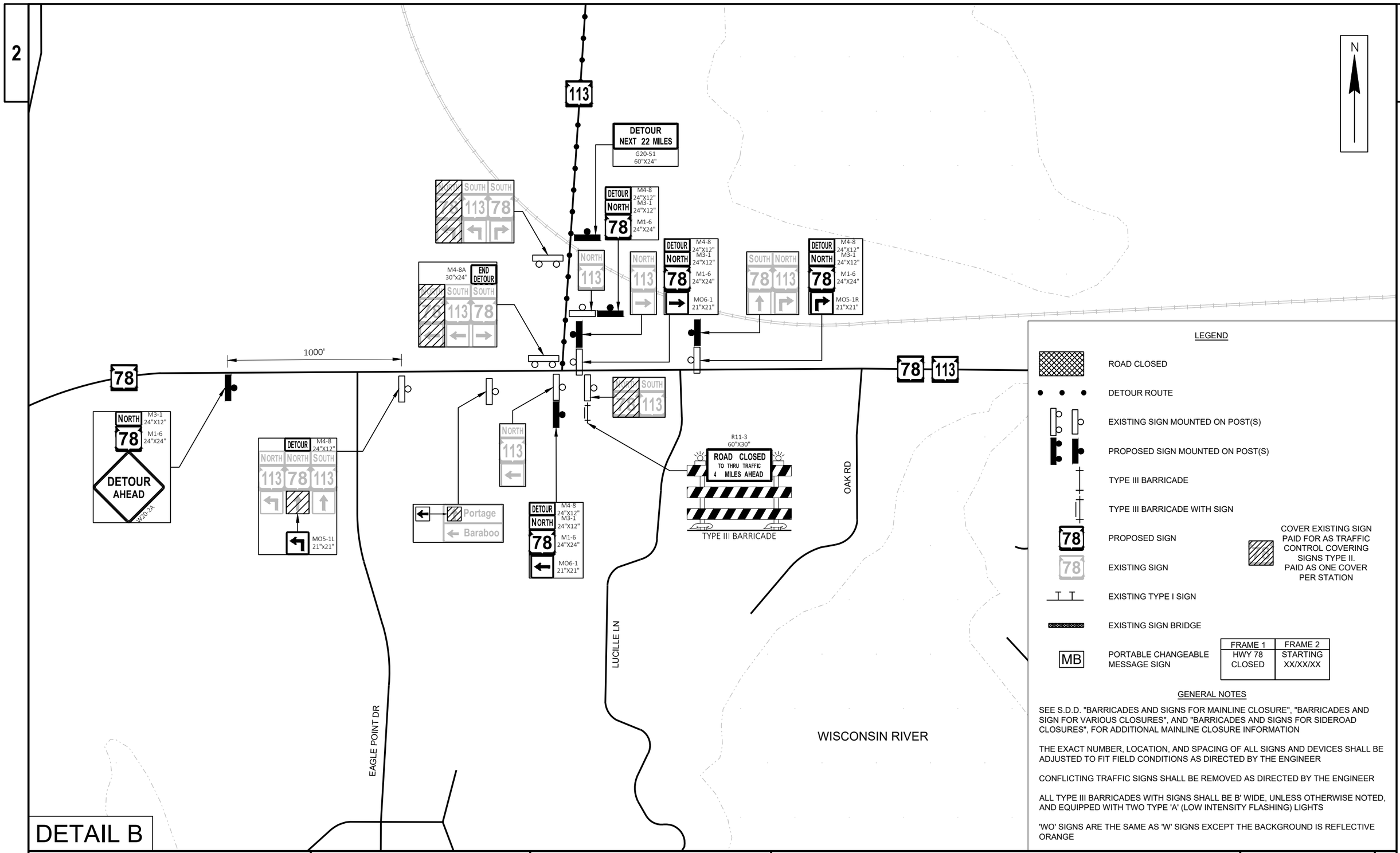
'WO' SIGNS ARE THE SAME AS 'W' SIGNS EXCEPT THE BACKGROUND IS REFLECTIVE ORANGE

PROJECT NO: 5630-06-73	HWY: STH 78	COUNTY: COLUMBIA	DETOUR DETAILS	SHEET 30	E

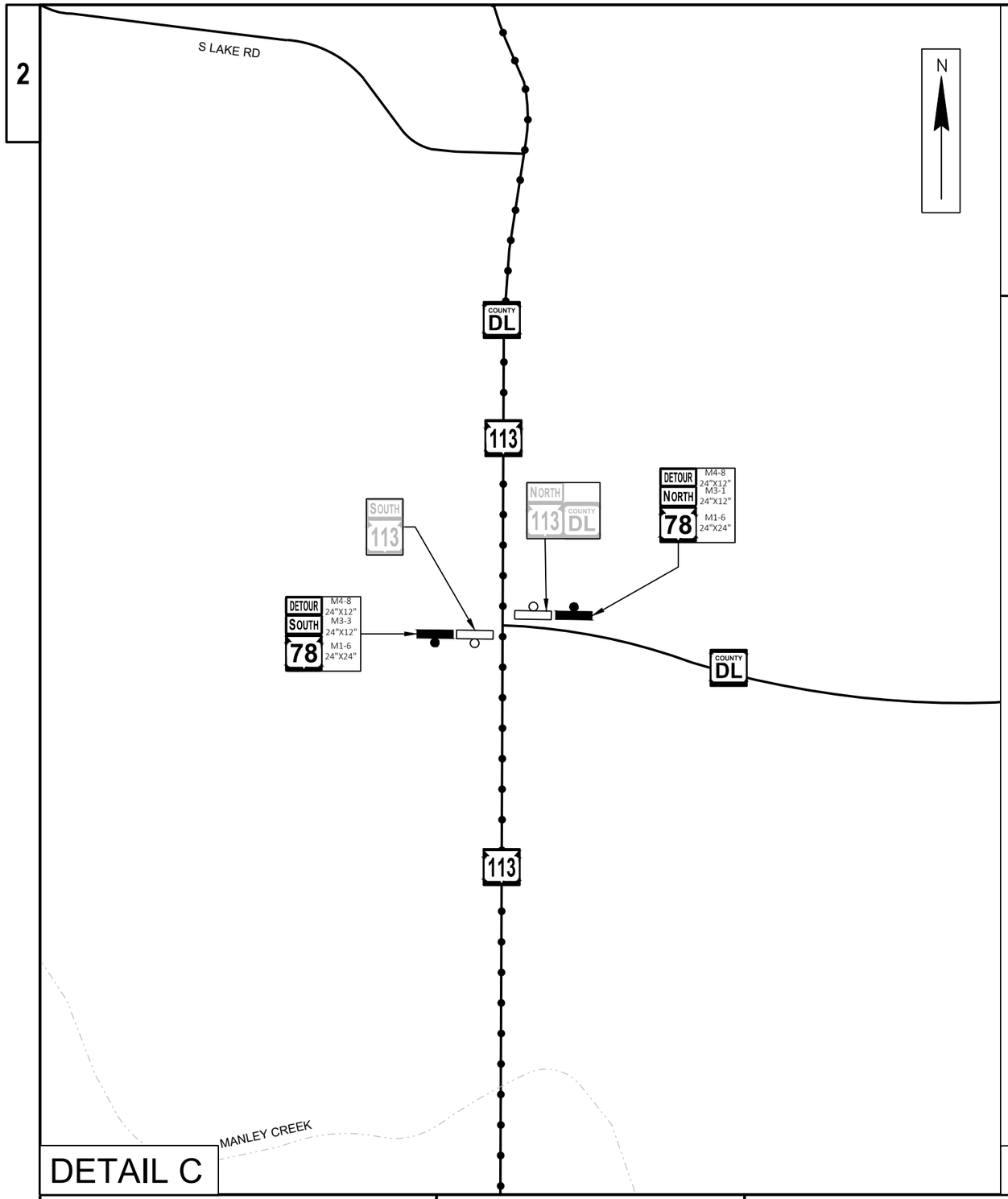


DETAIL B

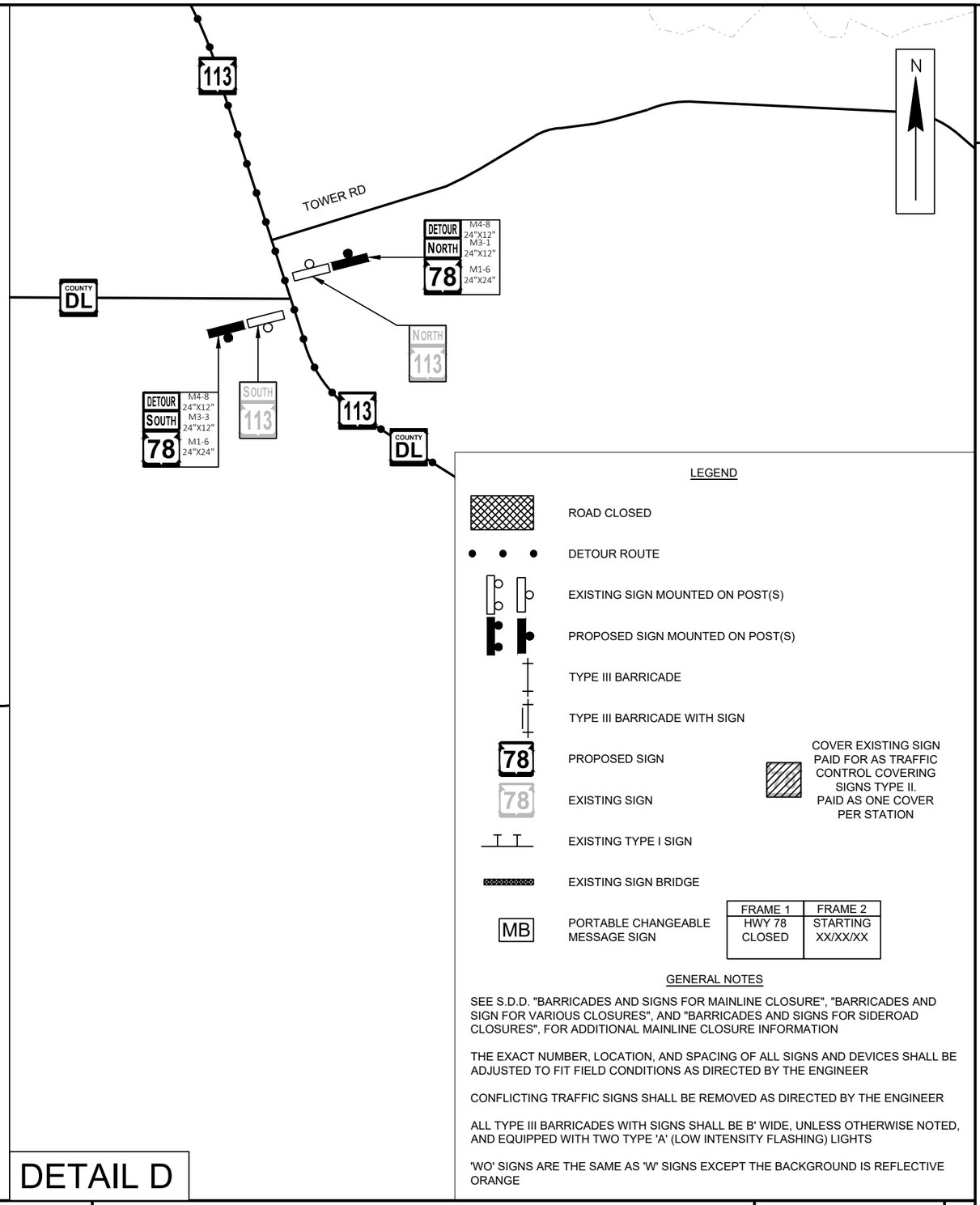
PROJECT NO: 5630-06-73	HWY: STH 78	COUNTY: COLUMBIA	DETOUR DETAILS	SHEET 31	E

FILE NAME : \\FIWMAD7P3158\N3PUBLIC\PDS\C3D\56300603\SHEETSPLAN\027002-DT.DWG
LAYOUT NAME - DETAIL B

PLOT DATE : 7/15/2025 1:48 PM PLOT BY : KENDALL, EMILY ANN PLOT NAME : PLOT SCALE : 1 IN:500 FT



DETAIL C



DETAIL D

LEGEND

- ROAD CLOSED
- DETOUR ROUTE
- EXISTING SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON POST(S)
- TYPE III BARRICADE
- TYPE III BARRICADE WITH SIGN
- PROPOSED SIGN (78)
- EXISTING SIGN (78)
- EXISTING TYPE I SIGN
- EXISTING SIGN BRIDGE
- MB — PORTABLE CHANGEABLE MESSAGE SIGN

FRAME 1	FRAME 2
HWY 78 CLOSED	STARTING XX/XX/XX

COVER EXISTING SIGN PAID FOR AS TRAFFIC CONTROL COVERING SIGNS TYPE II. PAID AS ONE COVER PER STATION

GENERAL NOTES

SEE S.D.D. "BARRICADES AND SIGNS FOR MAINLINE CLOSURE", "BARRICADES AND SIGN FOR VARIOUS CLOSURES", AND "BARRICADES AND SIGNS FOR SIDEROAD CLOSURES", FOR ADDITIONAL MAINLINE CLOSURE INFORMATION

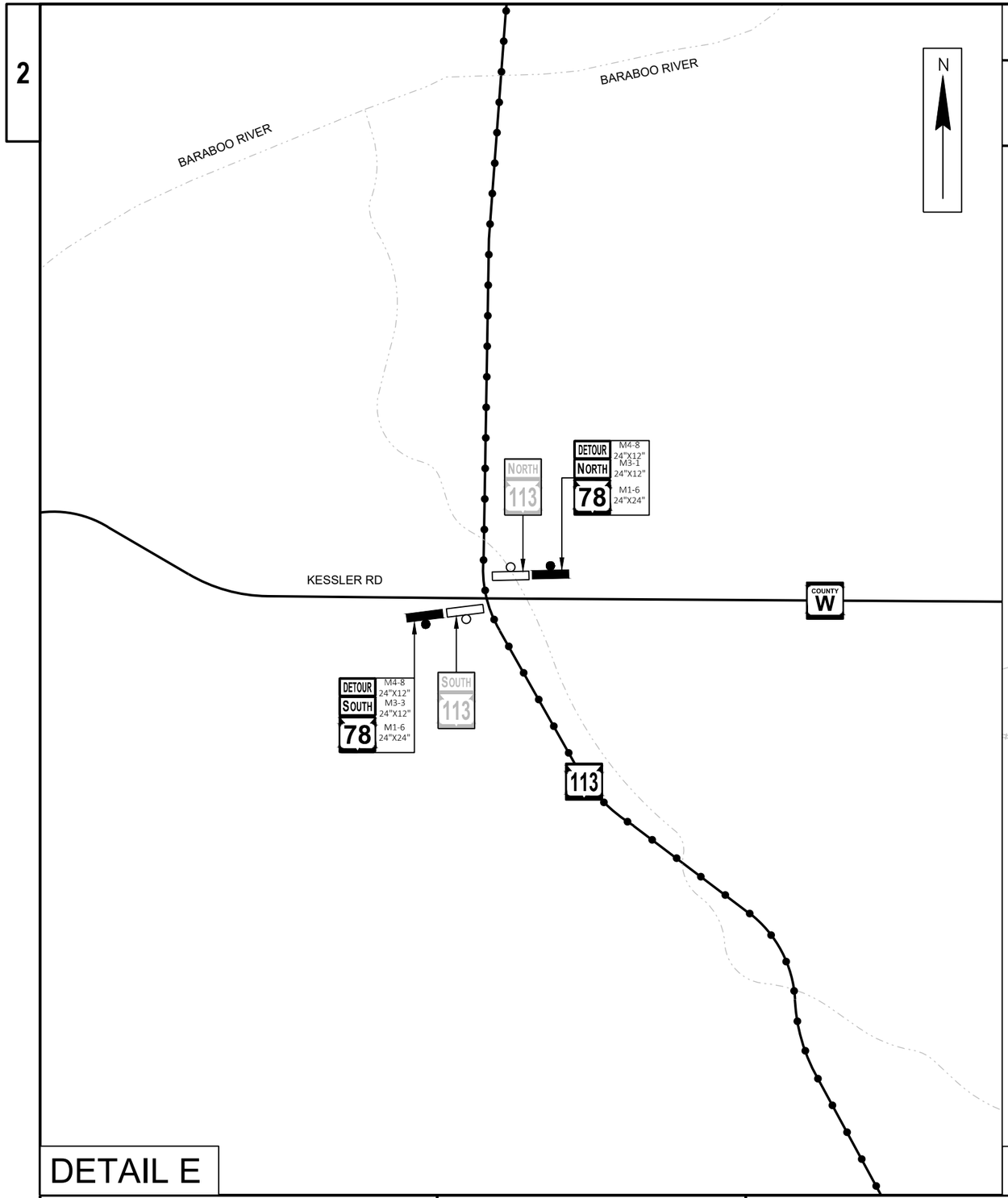
THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS DIRECTED BY THE ENGINEER

CONFLICTING TRAFFIC SIGNS SHALL BE REMOVED AS DIRECTED BY THE ENGINEER

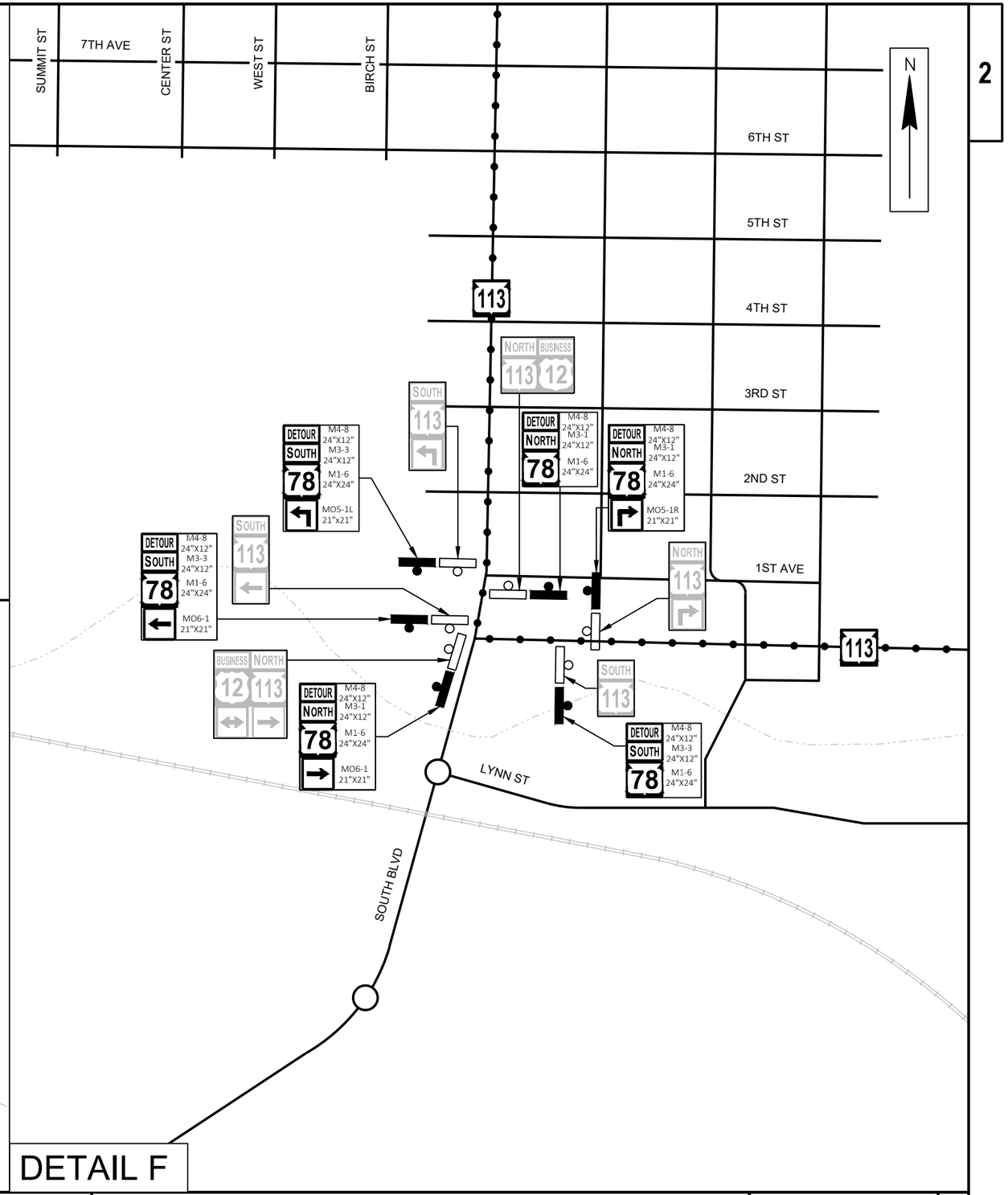
ALL TYPE III BARRICADES WITH SIGNS SHALL BE B' WIDE, UNLESS OTHERWISE NOTED, AND EQUIPPED WITH TWO TYPE 'A' (LOW INTENSITY FLASHING) LIGHTS

'WO' SIGNS ARE THE SAME AS 'W' SIGNS EXCEPT THE BACKGROUND IS REFLECTIVE ORANGE

PROJECT NO: 5630-06-73	HWY: STH 78	COUNTY: COLUMBIA	DETOUR DETAILS	SHEET 32	E

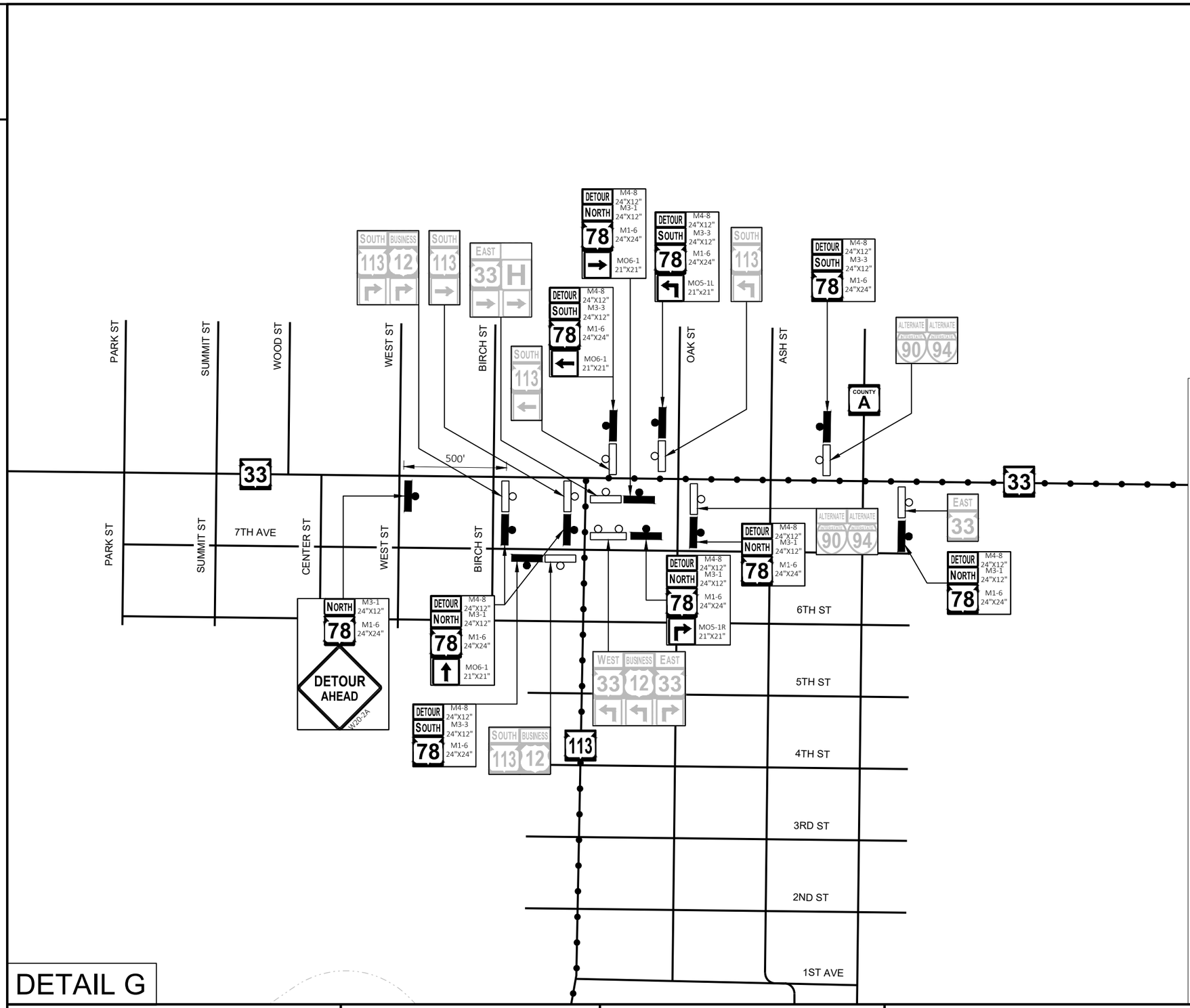


DETAIL E



DETAIL F

PROJECT NO: 5630-06-73	HWY: STH 78	COUNTY: COLUMBIA	DETOUR DETAILS	SHEET 33	E



DETAIL G

GENERAL NOTES

SEE S.D.D. "BARRICADES AND SIGNS FOR MAINLINE CLOSURE", "BARRICADES AND SIGN FOR VARIOUS CLOSURES", AND "BARRICADES AND SIGNS FOR SIDEROAD CLOSURES", FOR ADDITIONAL MAINLINE CLOSURE INFORMATION

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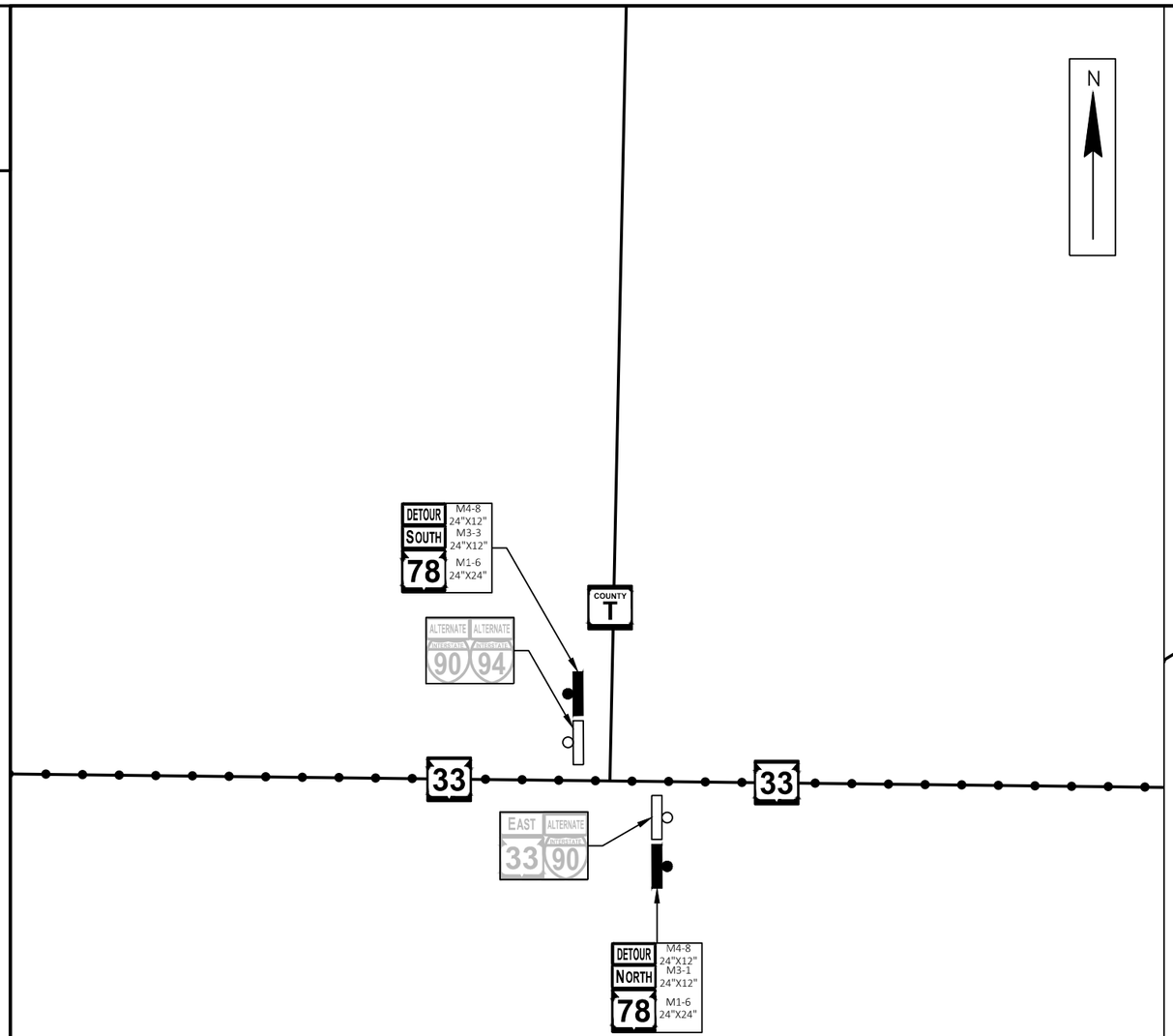
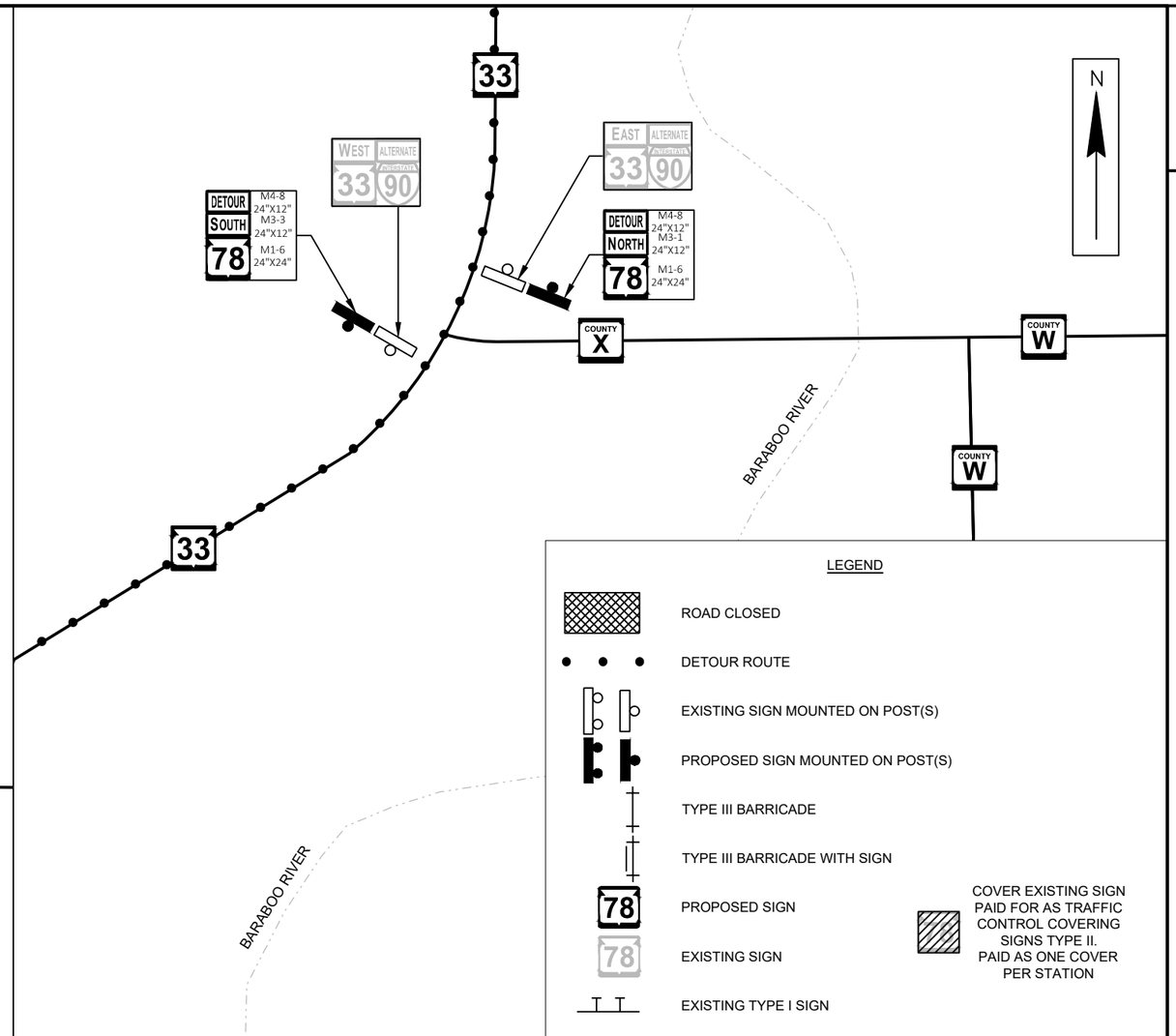
PROJECT NO: 5630-06-73	HWY: STH 78	COUNTY: COLUMBIA	DETOUR DETAILS	SHEET 34	E



DETAIL H



DETAIL I

LEGEND

- ROAD CLOSED
- DETOUR ROUTE
- EXISTING SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON POST(S)
- TYPE III BARRICADE
- TYPE III BARRICADE WITH SIGN
- PROPOSED SIGN (78)
- EXISTING SIGN (78)
- EXISTING TYPE I SIGN
- EXISTING SIGN BRIDGE
- MB — PORTABLE CHANGEABLE MESSAGE SIGN

FRAME 1	FRAME 2
HWY 78 CLOSED	STARTING XX/XX/XX

COVER EXISTING SIGN PAID FOR AS TRAFFIC CONTROL COVERING SIGNS TYPE II. PAID AS ONE COVER PER STATION

GENERAL NOTES

SEE S.D.D. "BARRICADES AND SIGNS FOR MAINLINE CLOSURE", "BARRICADES AND SIGN FOR VARIOUS CLOSURES", AND "BARRICADES AND SIGNS FOR SIDEROAD CLOSURES", FOR ADDITIONAL MAINLINE CLOSURE INFORMATION

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PROJECT NO: 5630-06-73	HWY: STH 78	COUNTY: COLUMBIA	DETOUR DETAILS	SHEET 35	E

2

N

BARABOO RIVER

COUNTY U

FAIRFIELD RD

33

DETOUR SOUTH 78 — M4-8 24"X12" / M3-3 24"X12" / M1-6 24"X24"

WEST ALTERNATE 33 90

EAST ALTERNATE 33 90

DETOUR NORTH 78 — M4-8 24"X12" / M3-1 24"X12" / M1-6 24"X24"

DETAIL J

BARABOO RIVER

2

N

DETOUR SOUTH 78 — M4-8 24"X12" / M3-3 24"X12" / M1-6 24"X24"

WEST ALTERNATE 33 90 94

33

EAST ALTERNATE 33 90

COUNTY W

DETOUR NORTH 78 — M4-8 24"X12" / M3-1 24"X12" / M1-6 24"X24"

PIG TAIL ALLEY RD

DETAIL K

LEGEND

- ROAD CLOSED
- DETOUR ROUTE
- EXISTING SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON POST(S)
- TYPE III BARRICADE
- TYPE III BARRICADE WITH SIGN
- 78 — PROPOSED SIGN
- 78 — EXISTING SIGN
- EXISTING TYPE I SIGN
- EXISTING SIGN BRIDGE
- MB — PORTABLE CHANGEABLE MESSAGE SIGN

COVER EXISTING SIGN PAID FOR AS TRAFFIC CONTROL COVERING SIGNS TYPE II. PAID AS ONE COVER PER STATION

FRAME 1	FRAME 2
HWY 78 CLOSED	STARTING XX/XX/XX

GENERAL NOTES

SEE S.D.D. "BARRICADES AND SIGNS FOR MAINLINE CLOSURE", "BARRICADES AND SIGN FOR VARIOUS CLOSURES", AND "BARRICADES AND SIGNS FOR SIDEROAD CLOSURES", FOR ADDITIONAL MAINLINE CLOSURE INFORMATION

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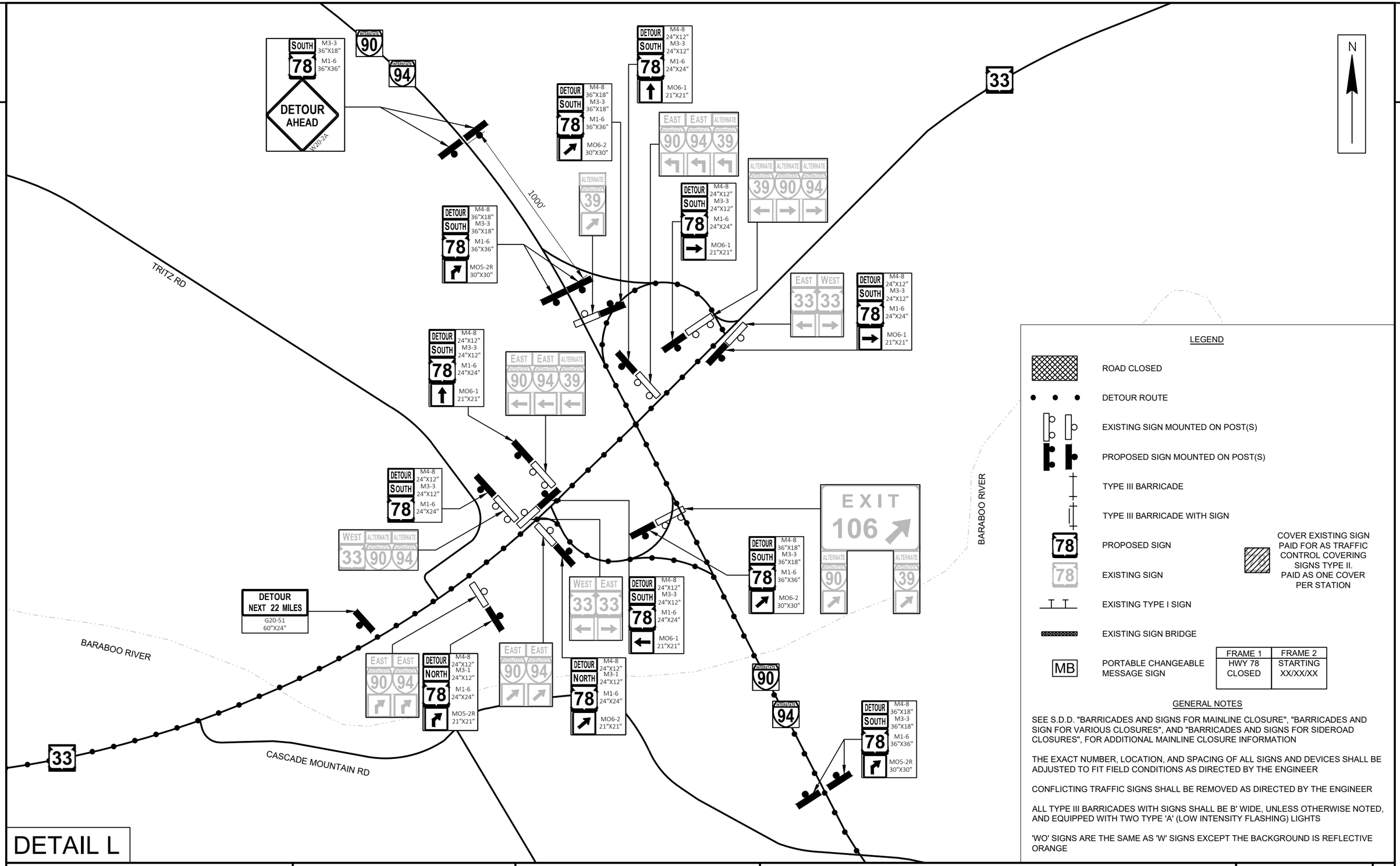
PROJECT NO: 5630-06-73	HWY: STH 78	COUNTY: COLUMBIA	DETOUR DETAILS	SHEET 36	E



DETAIL L

GENERAL NOTES

SEE S.D.D. "BARRICADES AND SIGNS FOR MAINLINE CLOSURE", "BARRICADES AND SIGN FOR VARIOUS CLOSURES", AND "BARRICADES AND SIGNS FOR SIDEROAD CLOSURES", FOR ADDITIONAL MAINLINE CLOSURE INFORMATION

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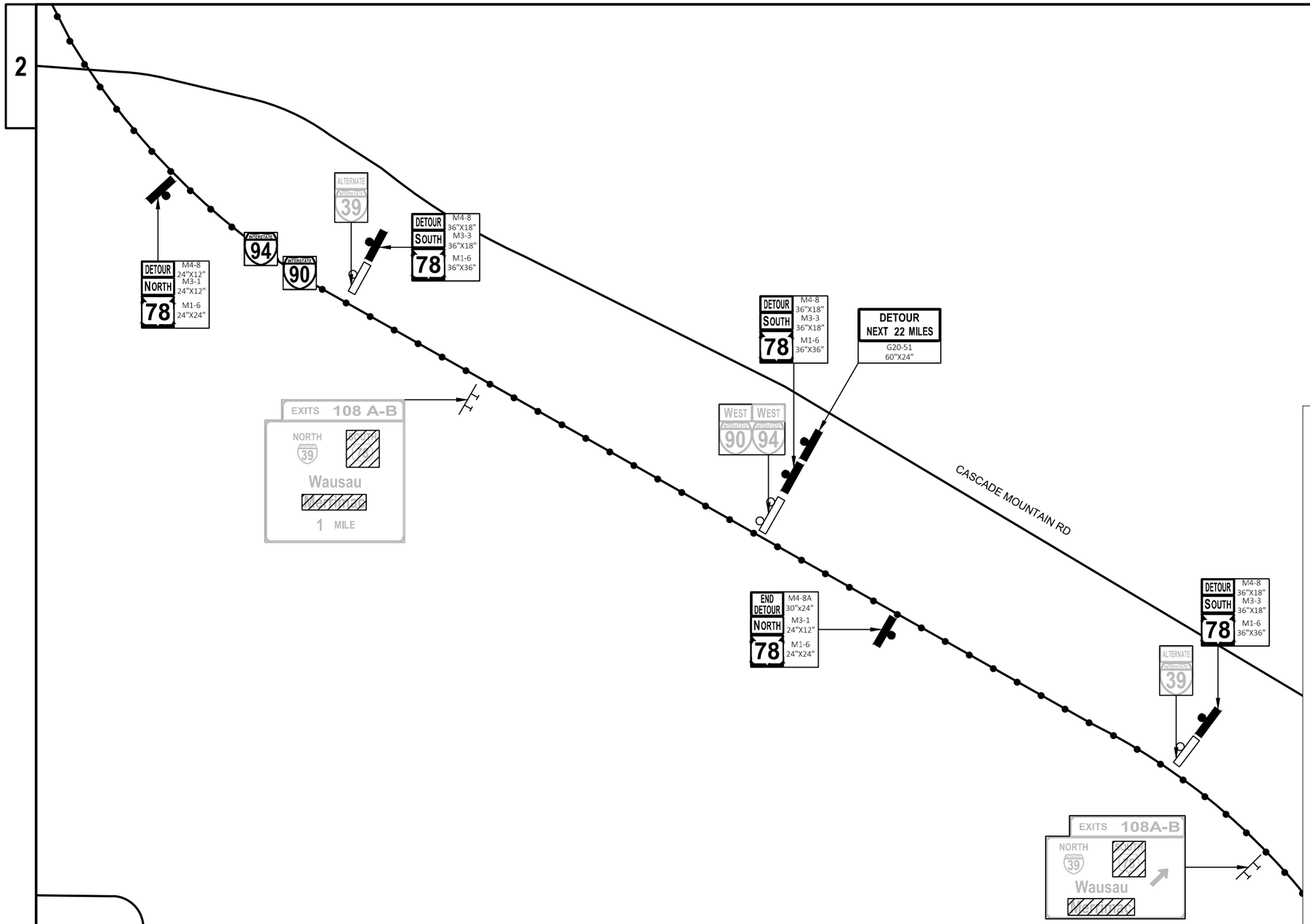
PROJECT NO: 5630-06-73	HWY: STH 78	COUNTY: COLUMBIA	DETOUR DETAILS	SHEET 37	E



DETAIL M

LEGEND

- ROAD CLOSED
- DETOUR ROUTE
- EXISTING SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON POST(S)
- TYPE III BARRICADE
- TYPE III BARRICADE WITH SIGN
- PROPOSED SIGN
- EXISTING SIGN
- EXISTING TYPE I SIGN
- EXISTING SIGN BRIDGE
- MB — PORTABLE CHANGEABLE MESSAGE SIGN

COVER EXISTING SIGN PAID FOR AS TRAFFIC CONTROL COVERING SIGNS TYPE II. PAID AS ONE COVER PER STATION

FRAME 1	FRAME 2
HWY 78 CLOSED	STARTING XX/XX/XX

GENERAL NOTES

SEE S.D.D. "BARRICADES AND SIGNS FOR MAINLINE CLOSURE", "BARRICADES AND SIGN FOR VARIOUS CLOSURES", AND "BARRICADES AND SIGNS FOR SIDEROAD CLOSURES", FOR ADDITIONAL MAINLINE CLOSURE INFORMATION

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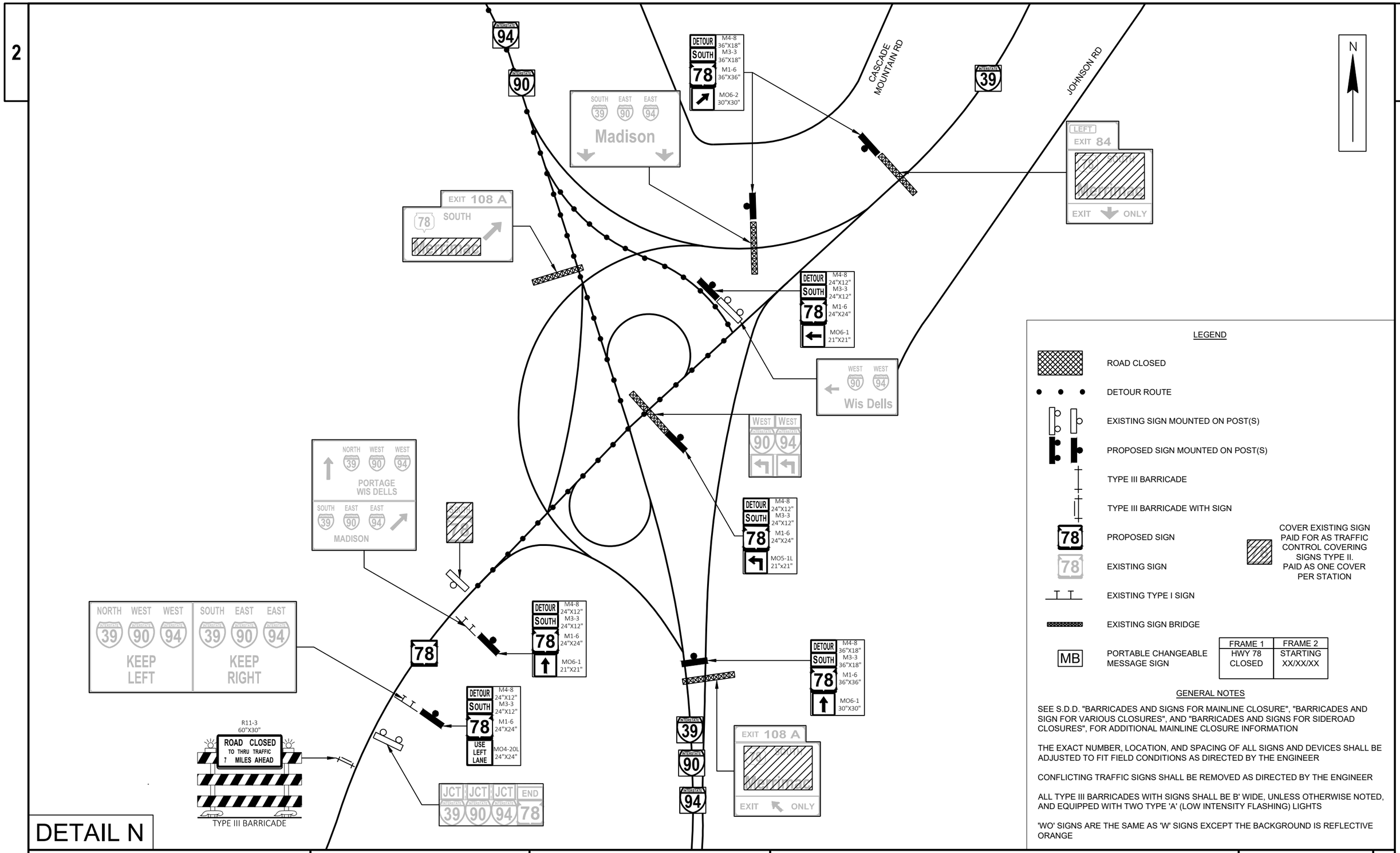
PROJECT NO: 5630-06-73	HWY: STH 78	COUNTY: COLUMBIA	DETOUR DETAILS	SHEET 38	E



DETAIL N

GENERAL NOTES

SEE S.D.D. "BARRICADES AND SIGNS FOR MAINLINE CLOSURE", "BARRICADES AND SIGN FOR VARIOUS CLOSURES", AND "BARRICADES AND SIGNS FOR SIDEROAD CLOSURES", FOR ADDITIONAL MAINLINE CLOSURE INFORMATION

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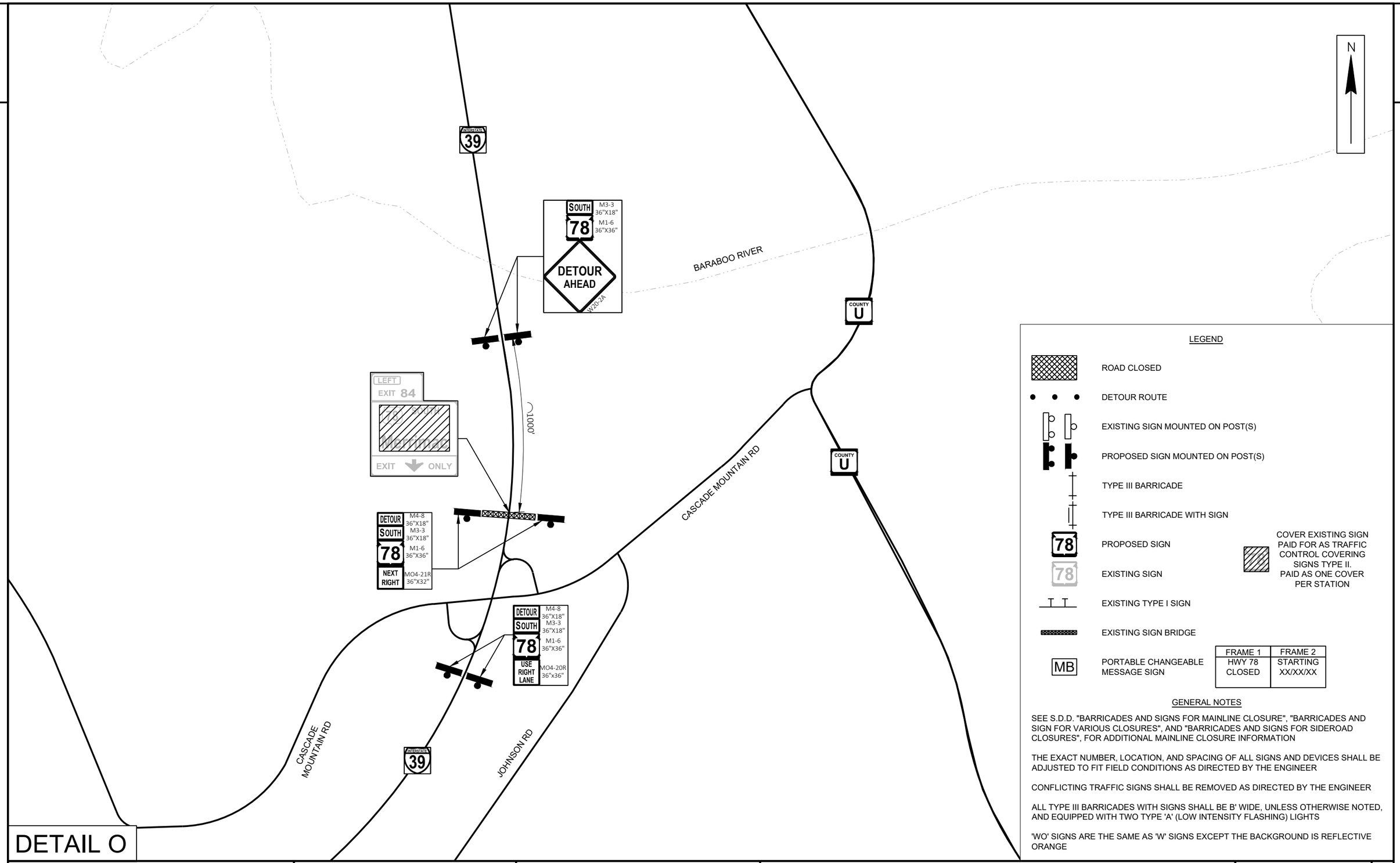
PROJECT NO: 5630-06-73	HWY: STH 78	COUNTY: COLUMBIA	DETOUR DETAILS	SHEET 39	E



DETAIL O

LEGEND

- ROAD CLOSED
- DETOUR ROUTE
- EXISTING SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON POST(S)
- TYPE III BARRICADE
- TYPE III BARRICADE WITH SIGN
- 78 — PROPOSED SIGN
- 78 — EXISTING SIGN
- EXISTING TYPE I SIGN
- EXISTING SIGN BRIDGE
- MB — PORTABLE CHANGEABLE MESSAGE SIGN

COVER EXISTING SIGN PAID FOR AS TRAFFIC CONTROL COVERING SIGNS TYPE II. PAID AS ONE COVER PER STATION

FRAME 1	FRAME 2
HWY 78 CLOSED	STARTING XX/XX/XX

GENERAL NOTES

SEE S.D.D. "BARRICADES AND SIGNS FOR MAINLINE CLOSURE", "BARRICADES AND SIGN FOR VARIOUS CLOSURES", AND "BARRICADES AND SIGNS FOR SIDEROAD CLOSURES", FOR ADDITIONAL MAINLINE CLOSURE INFORMATION

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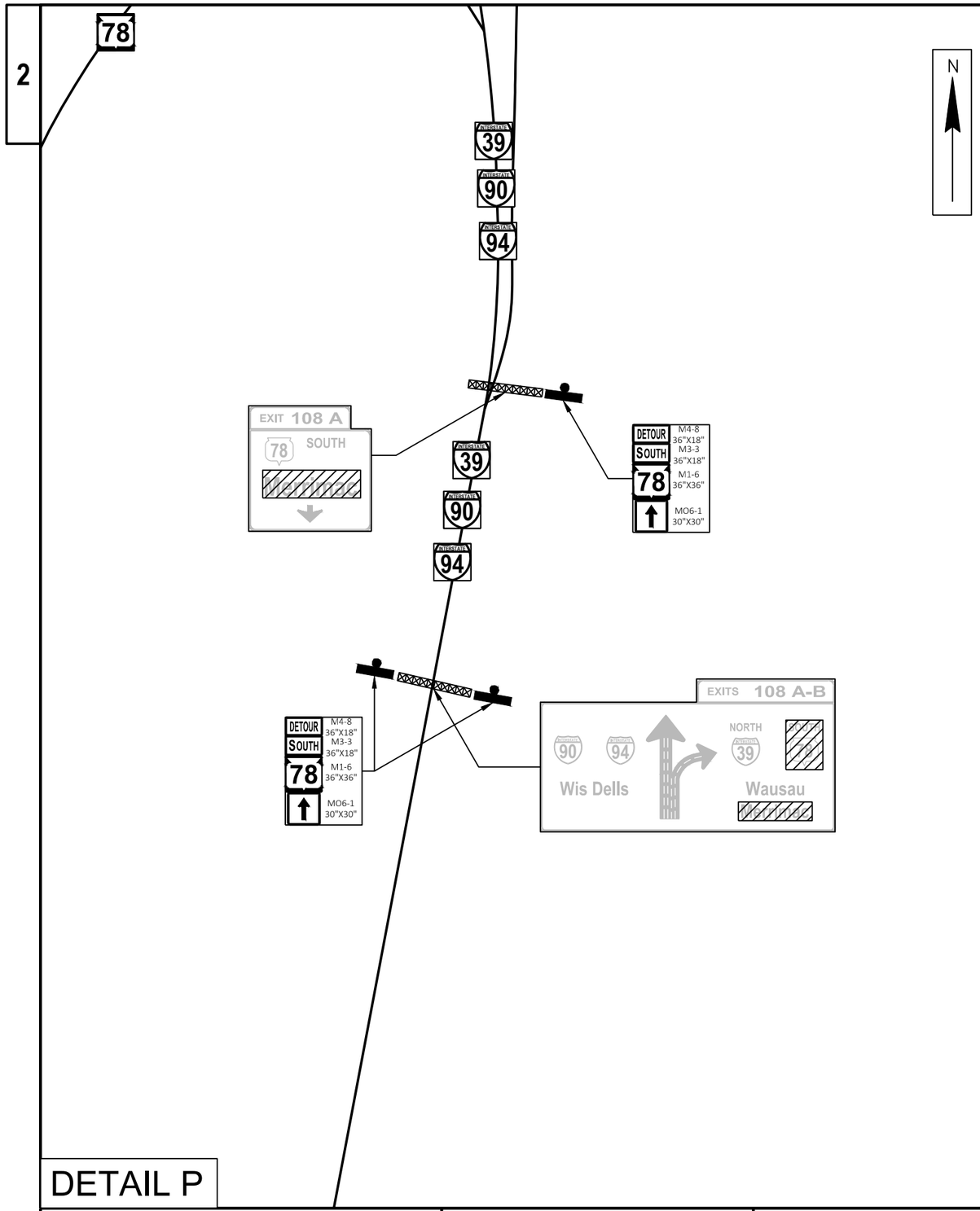
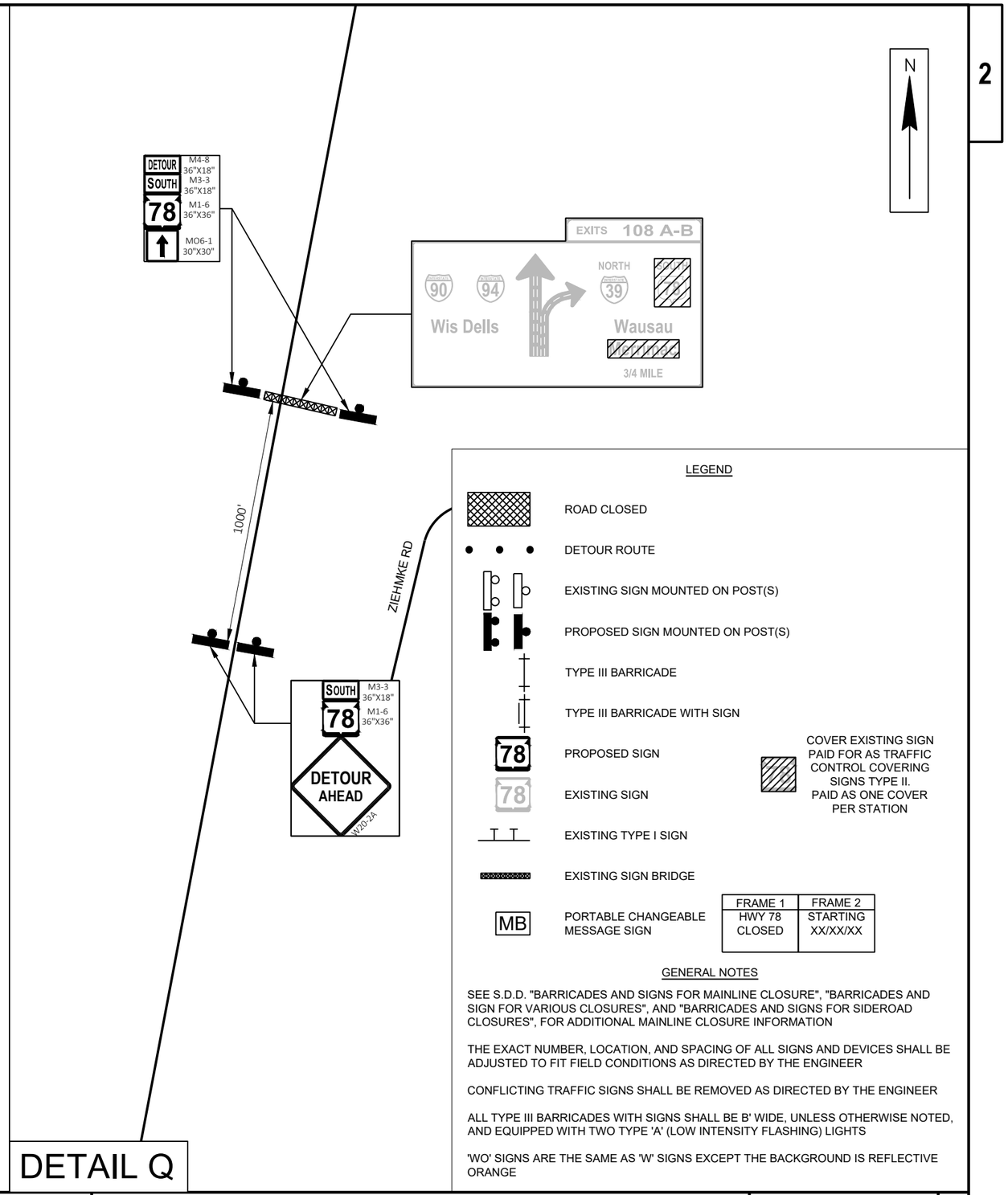
PROJECT NO: 5630-06-73	HWY: STH 78	COUNTY: COLUMBIA	DETOUR DETAILS	SHEET 40	E



DETAIL P



DETAIL Q

LEGEND

- ROAD CLOSED
- DETOUR ROUTE
- EXISTING SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON POST(S)
- TYPE III BARRICADE
- TYPE III BARRICADE WITH SIGN
- 78 PROPOSED SIGN
- 78 EXISTING SIGN
- EXISTING TYPE I SIGN
- EXISTING SIGN BRIDGE
- MB PORTABLE CHANGEABLE MESSAGE SIGN

COVER EXISTING SIGN PAID FOR AS TRAFFIC CONTROL COVERING SIGNS TYPE II. PAID AS ONE COVER PER STATION

FRAME 1	FRAME 2
HWY 78 CLOSED	STARTING XX/XX/XX

GENERAL NOTES

SEE S.D.D. "BARRICADES AND SIGNS FOR MAINLINE CLOSURE", "BARRICADES AND SIGN FOR VARIOUS CLOSURES", AND "BARRICADES AND SIGNS FOR SIDEROAD CLOSURES", FOR ADDITIONAL MAINLINE CLOSURE INFORMATION

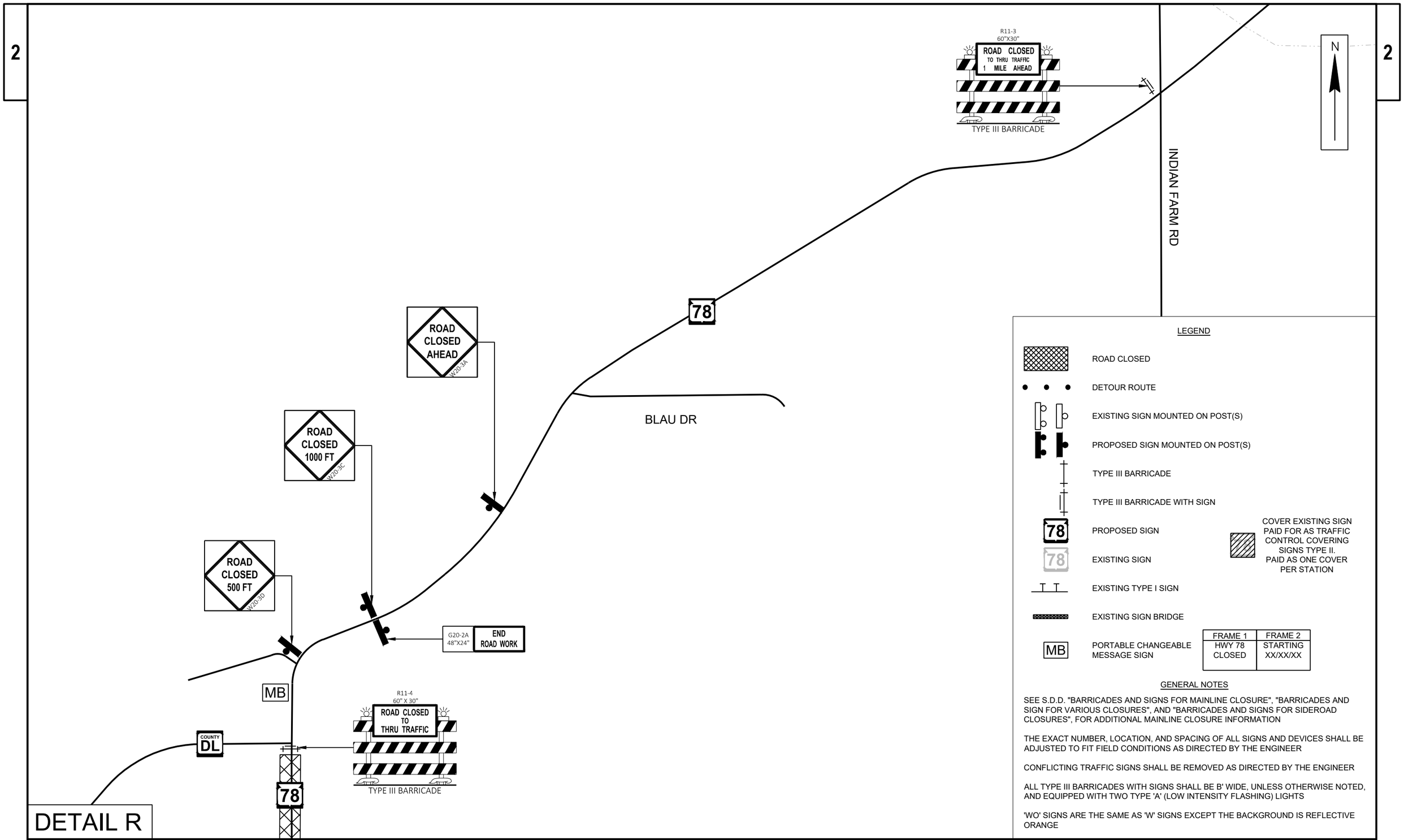
THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS DIRECTED BY THE ENGINEER

CONFLICTING TRAFFIC SIGNS SHALL BE REMOVED AS DIRECTED BY THE ENGINEER

ALL TYPE III BARRICADES WITH SIGNS SHALL BE B' WIDE, UNLESS OTHERWISE NOTED, AND EQUIPPED WITH TWO TYPE 'A' (LOW INTENSITY FLASHING) LIGHTS

'WO' SIGNS ARE THE SAME AS 'W' SIGNS EXCEPT THE BACKGROUND IS REFLECTIVE ORANGE

PROJECT NO: 5630-06-73	HWY: STH 78	COUNTY: COLUMBIA	DETOUR DETAILS	SHEET 41	E



DETAIL R

GENERAL NOTES

SEE S.D.D. "BARRICADES AND SIGNS FOR MAINLINE CLOSURE", "BARRICADES AND SIGN FOR VARIOUS CLOSURES", AND "BARRICADES AND SIGNS FOR SIDEROAD CLOSURES", FOR ADDITIONAL MAINLINE CLOSURE INFORMATION

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PROJECT NO: 5630-06-73	HWY: STH 78	COUNTY: COLUMBIA	DETOUR DETAILS	SHEET 42	E

5630-06-73

Line	Item	Item Description	Unit	Total	Qty
0002	201.0105	Clearing	STA	6.000	6.000
0004	201.0205	Grubbing	STA	6.000	6.000
0006	203.0100	Removing Small Pipe Culverts	EACH	2.000	2.000
0008	203.0220	Removing Structure (structure) 01. C-11-2027	EACH	1.000	1.000
0012	204.0115	Removing Asphaltic Surface Butt Joints	SY	530.000	530.000
0014	204.0120	Removing Asphaltic Surface Milling	SY	46,400.000	46,400.000
0016	204.0165	Removing Guardrail	LF	260.000	260.000
0018	205.0100	Excavation Common	CY	462.000	462.000
0020	206.2001	Excavation for Structures Culverts (structure) 01. C-11-2027	EACH	1.000	1.000
0022	208.0100	Borrow	CY	768.000	768.000
0024	210.2500	Backfill Structure Type B	TON	97.000	97.000
0026	211.0101	Prepare Foundation for Asphaltic Paving (project) 01. 5630-06-73	EACH	1.000	1.000
0028	213.0100	Finishing Roadway (project) 01. 5630-06-73	EACH	1.000	1.000
0032	305.0110	Base Aggregate Dense 3/4-Inch	TON	2,040.000	2,040.000
0034	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	310.000	310.000
0036	311.0115	Breaker Run	CY	24.000	24.000
0040	455.0605	Tack Coat	GAL	6,270.000	6,270.000
0042	460.2000	Incentive Density HMA Pavement	DOL	5,850.000	5,850.000
0044	460.5224	HMA Pavement 4 LT 58-28 S	TON	9,140.000	9,140.000
0046	465.0105	Asphaltic Surface	TON	1,070.000	1,070.000
0048	465.0120	Asphaltic Surface Driveways and Field Entrances	TON	30.000	30.000
0050	465.0560	Asphaltic Rumble Strips, Centerline	LF	14,900.000	14,900.000
0052	502.4205	Adhesive Anchors No. 5 Bar	EACH	88.000	88.000
0054	504.0100	Concrete Masonry Culverts	CY	40.000	40.000
0056	505.0400	Bar Steel Reinforcement HS Structures	LB	4,400.000	4,400.000
0058	505.0600	Bar Steel Reinforcement HS Coated Structures	LB	740.000	740.000
0060	509.1500	Concrete Surface Repair	SF	1.000	1.000
0062	511.1200	Temporary Shoring (structure) 01. C-11-2027	SF	745.000	745.000
0064	511.1200	Temporary Shoring (structure) 02. R-11-42	SF	200.000	200.000
0066	516.0500	Rubberized Membrane Waterproofing	SY	23.000	23.000
0068	520.1018	Apron Endwalls for Culvert Pipe 18-Inch	EACH	2.000	2.000
0070	520.3318	Culvert Pipe Class III-A 18-Inch	LF	25.000	25.000
0076	603.8000	Concrete Barrier Temporary Precast Delivered	LF	160.000	160.000
0078	603.8125	Concrete Barrier Temporary Precast Installed	LF	160.000	160.000
0080	606.0300	Riprap Heavy	CY	19.000	19.000
0082	612.0406	Pipe Underdrain Wrapped 6-Inch	LF	70.000	70.000
0084	614.0905	Crash Cushions Temporary	EACH	1.000	1.000
0090	614.2300	MGS Guardrail 3	LF	155.000	155.000
0092	614.2310	MGS Guardrail 3 HS	LF	74.000	74.000
0094	614.2340	MGS Guardrail 3 L	LF	113.000	113.000
0096	614.2350	MGS Guardrail Short Radius	LF	13.000	13.000
0098	614.2610	MGS Guardrail Terminal EAT	EACH	3.000	3.000
0100	614.2630	MGS Guardrail Short Radius Terminal	EACH	1.000	1.000
0102	614.8010	Anchor Post Assembly Top Mount	EACH	5.000	5.000
0104	618.0100	Maintenance and Repair of Haul Roads (project) 01. 5630-06-73	EACH	1.000	1.000
0106	619.1000	Mobilization	EACH	0.850	0.850
0108	624.0100	Water	MGAL	50.000	50.000
0110	625.0500	Salvaged Topsoil	SY	1,800.000	1,800.000
0116	628.1905	Mobilizations Erosion Control	EACH	4.000	4.000

5630-06-73

Line	Item	Item Description	Unit	Total	Qty
0118	628.1910	Mobilizations Emergency Erosion Control	EACH	4.000	4.000
0120	628.2027	Erosion Mat Class II Type C	SY	1,800.000	1,800.000
0122	628.7504	Temporary Ditch Checks	LF	200.000	200.000
0124	628.7555	Culvert Pipe Checks	EACH	10.000	10.000
0126	629.0205	Fertilizer Type A	CWT	1.200	1.200
0128	630.0110	Seeding Mixture No. 10	LB	24.000	24.000
0130	630.0500	Seed Water	MGAL	41.000	41.000
0134	634.0614	Posts Wood 4x6-Inch X 14-FT	EACH	3.000	3.000
0136	638.2102	Moving Signs Type II	EACH	2.000	2.000
0138	638.2602	Removing Signs Type II	EACH	5.000	5.000
0140	638.3000	Removing Small Sign Supports	EACH	7.000	7.000
0142	642.5001	Field Office Type B	EACH	1.000	1.000
0144	643.0300	Traffic Control Drums	DAY	830.000	830.000
0146	643.0420	Traffic Control Barricades Type III	DAY	2,500.000	2,500.000
0148	643.0705	Traffic Control Warning Lights Type A	DAY	4,870.000	4,870.000
0150	643.0715	Traffic Control Warning Lights Type C	DAY	320.000	320.000
0152	643.0900	Traffic Control Signs	DAY	30,610.000	30,610.000
0154	643.0910	Traffic Control Covering Signs Type I	EACH	15.000	15.000
0156	643.0920	Traffic Control Covering Signs Type II	EACH	9.000	9.000
0158	643.1050	Traffic Control Signs PCMS	DAY	16.000	16.000
0160	643.3165	Temporary Marking Line Paint 6-Inch	LF	10,980.000	10,980.000
0162	643.3805	Temporary Marking Stop Line Paint 18-Inch	LF	24.000	24.000
0164	643.5000	Traffic Control	EACH	0.850	0.850
0166	645.0105	Geotextile Type C	SY	79.000	79.000
0168	645.0120	Geotextile Type HR	SY	42.000	42.000
0170	646.2040	Marking Line Grooved Wet Ref Epoxy 6-Inch	LF	58,280.000	58,280.000
0172	646.9000	Marking Removal Line 4-Inch	LF	310.000	310.000
0176	650.5000	Construction Staking Base	LF	650.000	650.000
0178	650.6000	Construction Staking Pipe Culverts	EACH	1.000	1.000
0180	650.6501	Construction Staking Structure Layout (structure) 01. C-11-2027	EACH	1.000	1.000
0182	650.6501	Construction Staking Structure Layout (structure) 02. R-11-0042	EACH	1.000	1.000
0184	650.8000	Construction Staking Resurfacing Reference	LF	14,900.000	14,900.000
0186	650.9911	Construction Staking Supplemental Control (project) 01. 5630-06-73	EACH	1.000	1.000
0190	650.9920	Construction Staking Slope Stakes	LF	650.000	650.000
0192	690.0150	Sawing Asphalt	LF	725.000	725.000
0194	715.0502	Incentive Strength Concrete Structures	DOL	500.000	500.000
0196	740.0440	Incentive IRI Ride	DOL	29,800.000	29,800.000
0198	ASP.1T0A	On-the-Job Training Apprentice at $5.00/HR	HRS	1,200.000	1,200.000
0200	ASP.1T0G	On-the-Job Training Graduate at $5.00/HR	HRS	600.000	600.000
0202	SPV.0060	Special 01. Research and Locate Existing Land Parcel Monuments	EACH	3.000	3.000
0204	SPV.0060	Special 02. Landmark Reference Monuments	EACH	3.000	3.000
0206	SPV.0165	Special 01. Wall Concrete Panel Mechanically Stabilized Earth R-11-42	SF	313.000	313.000
0208	SPV.0180	Special 01. Removing Distressed Pavement Milling	SY	9,300.000	9,300.000

3

REMOVALS

CATEGORY	STATION	TO	STATION	LOCATION	201.0105 CLEARING STA	201.0205 GRUBBING STA	203.0100 REMOVING SMALL PIPE CULVERTS EACH	204.0115 REMOVING ASPHALTIC SURFACE BUTT JOINTS SY	204.0120 REMOVING ASPHALTIC SURFACE MILLING SY	204.0165 REMOVING GUARDRAIL LF	690.0150 SAWING ASPHALT LF	SPV.0180.01 SPECIAL (01. REMOVING DISTRESSED PAVEMENT MILLING) SY	REMARKS
0010	68+47	-	--	BEGIN	--	--	--	150	--	--	--	--	
0010	68+47	-	132+00	BEGIN TO CTH U	--	--	--	--	20,500	--	15	3,000	MILL DEPTH FOR ITEM 204.0120 IS 3.5 INCH
0010	75+95	-	--	ELMA	--	--	--	40	--	--	--	--	
0010	85+75	-	--	OWLS HEAD RD	--	--	--	25	--	--	--	--	
0010	122+50	-	--	OWLS HEAD RD / REUSCH RD	--	--	--	65	--	--	--	--	
0010	132+00	-	179+19	CTH U TO C-11-2027	--	--	--	--	14,300	--	10	2,700	MILL DEPTH FOR ITEM 204.0120 IS 3.5 INCH
0010	132+70	-	--	CTH U	--	--	--	48	--	--	--	--	
0010	172+35	-	--	OWLS HEAD RD	--	--	--	27	--	--	--	--	
0010	179+19	-	183+19	C-11-2027	6	6	2	--	1,700	260	685	400	MILL DEPTH FOR ITEM 204.0120 IS 3.5 INCH
0010	183+19	-	217+05	C-11-2027 TO END	--	--	--	--	9,900	--	15	3,200	MILL DEPTH FOR ITEM 204.0120 IS 3.5 INCH
0010	217+05	-	--	END	--	--	--	175	--	--	--	--	
				TOTAL 0010	6	6	2	530	46,400	260	725	9,300	
0020	179+19	-	183+19	C-11-2027				--	--	--	--	--	CONCRETE SLABS ARE INCIDENTAL TO REMOVING STRUCTURE ITEM
				TOTAL 0020	0	0	0	0	0	0	0	0	
				PROJECT TOTAL	6	6	2	530	46400	260	725	9300	

EARTHWORK

CATEGORY	STATION	TO	STATION	LOCATION	205.0100 EXCAVATION COMMON CY	208.0100 BORROW CY
0010	177+90	-	180+98	SOUTH OF C-11-2027	300	337
0010	180+98	-	181+18	R-11-42	140	0
0010	181+18	-	184+36	NORTH OF C-11-2027	22	431
				TOTAL 0010	462	768

211.0101.01

CATEGORY	STATION	TO	STATION	LOCATION	211.0101.01 PREPARE FOUNDATION FOR ASPHALTIC PAVING (PROJECT) (01. 5630-06-73) EACH
0010	68+47	-	217+05	STH 78	1
				TOTAL 0010	1

AGGREGATE

CATEGORY	STATION	TO	STATION	LOCATION	305.0110 BASE AGGREGATE DENSE 3/4-INCH TON	305.0120 BASE AGGREGATE DENSE 1 1/4-INCH TON	624.0100 WATER MGAL	REMARKS
0010	68+47	-	177+90	RT	642	--	13	
0010	177+90	-	184+32	RT	85	125	5	
0010	184+32	-	217+05	RT	192	--	4	
0010	68+47	-	178+40	LT	641	--	13	
0010	178+40	-	182+12	LT	82	155	5	
0010	182+12	-	217+05	LT	192	--	4	
0010				C-11-2027 RT	10	--	--	STRUCTURE STAGING
0010	68+47	-	217+05	UNDISTRIBUTED	196	30	6	
				TOTAL 0010	2,040	310	50	
0020	180+98	-	181+52	C-11-2027	--	--	--	
0020	180+98	-	181+52	R-11-42	--	--	--	
				TOTAL 0020	0	0	0	
				PROJECT TOTAL	2040	310	50	

HMA

CATEGORY	STATION	TO	STATION	LOCATION	455.0605 TACK COAT GAL	460.5224 HMA PAVEMENT 4 LT 58-28 S TON	465.0105 ASPHALTIC SURFACE TON	465.0120 ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES TON	465.0560 ASPHALTIC RUMBLE STRIPS, CENTERLINE LF
0010	68+47	-	132+00	BEGIN TO CTH U	2,670	4,000	350	10	6,365
0010	132+00	-	179+19	CTH U TO C-11-2027	1,910	2,800	310	--	4,730
0010	179+19	-	183+19	C-11-2027	280	410	50	15	410
0010	183+19	-	217+05	C-11-2027 TO END	1,410	1,930	360	5	3,395
				TOTAL 0010	6,270	9,140	1,070	30	14,900

CULVERT

CATEGORY	STATION	TO	STATION	LOCATION	520.1018 APRON ENDWALLS FOR CULVERT PIPE 18-INCH EACH	520.3318 CULVERT PIPE CLASS III-A 18-INCH LF
0010	181+85	-	182+13	DRIVEWAY CULVERT	2	25
				TOTAL 0010	2	25

NOTE:
CULVERT PIPE CLASS III-A 18-INCH
THICKNESS FOR STEEL IS 0.064 FT.

LANDSCAPING

CATEGORY	STATION	TO	STATION	LOCATION	625.0500 SALVAGED TOPSOIL SY	629.0205 FERTILIZER TYPE A CWT	630.0110 SEEDING MIXTURE NO. 10 LB	630.0500 SEED WATER MGAL
0010	179+49	-	183+97	LT	930	0.6	12.5	21
0010	178+50	-	182+54	RT	780	0.5	10.5	18
0010	68+47	-	217+05	UNDISTRIBUTED	90	0.1	1.0	2
				TOTAL 0010	1,800	1.2	24.0	41

EROSION CONTROL

CATEGORY	STATION	TO	STATION	LOCATION	628.2027 EROSION MAT CLASS II TYPE C SY	628.7504 TEMPORARY DITCH CHECKS LF	628.7555 CULVERT PIPE CHECKS EACH
0010	178+00	-	185+00	LT	930	110	--
0010	178+00	-	185+00	RT	780	80	9
0010	68+47	-	217+05	UNDISTRIBUTED	90	10	1
				TOTAL 0010	1,800	200	10

614.0905

CATEGORY	STATION	TO	STATION	LOCATION	614.0905 CRASH CUSHIONS TEMPORARY EACH	BACK WIDTH FT	OBJECT MARKING PATTERN	CRASH TEST LEVEL	TRAFFIC DIRECTION	TRAFFIC LOCATION	CRASH CUSHION SHIELDS
0010	181+30	-	181+70	C-11-2027 RT	1	4	OM-3L (WO5-58L)	TL-3	UNIDIRECTIONAL	L	TEMPORARY CONCRETE BARRIER BLUNT END
				TOTAL 0010	1						

GUARDRAIL

CATEGORY	STATION	TO	STATION	LOCATION	614.2300 MGS GUARDRAIL 3 LF	614.2310 MGS GUARDRAIL 3 HS LF	614.2340 MGS GUARDRAIL 3 L LF	614.2350 MGS GUARDRAIL SHORT RADIUS LF	614.2610 MGS GUARDRAIL TERMINAL EAT EACH	614.2630 MGS GUARDRAIL SHORT RADIUS TERMINAL EACH	614.8010 ANCHOR POST ASSEMBLY TOP MOUNT EACH
0010	179+19	-	182+12	RT	117.5	74	--	13	1	1	5
0010	180+32	-	183+20	LT	37.5	--	113	--	2	--	--
				TOTAL 0010	155	74	113	13	3	1	5

SIGNS

CATEGORY	STATION	LOCATION	634.0614 POSTS WOOD 4X6-INCH X 14-FT EACH	638.2102 MOVING SIGNS TYPE II EACH	638.2602 REMOVING SIGNS TYPE II EACH	638.3000 REMOVING SMALL SIGN SUPPORTS EACH	REMARKS
0010	180+15	LT	1	1	--	1	SAUK CO.
0010	180+85	LT	--	--	1	1	BRIDGE CLEARANCE
0010	181+55	LT	--	--	1	1	BRIDGE CLEARANCE
0010	180+35	RT	2	1	--	2	COLUMBIA CO.
0010	180+35	RT	--	--	1	--	ROUGH ROAD
0010	180+85	RT	--	--	1	1	BRIDGE CLEARANCE
0010	181+55	RT	--	--	1	1	BRIDGE CLEARANCE
		TOTAL 0010	3	2	5	7	

MARKING

CATEGORY	STATION	TO	STATION	LOCATION	646.2040 MARKING LINE GROOVED WET REF EPOXY 6-INCH LF	LF	REMARKS
0010	68+47	-	85+48	BEGIN TO OWELS HEAD RD	--	3,280	EDGELINE
0010	85+48	-	122+85	OWLS HEAD RD TO OWLS HEAD RD	--	7,375	EDGELINE
0010	122+85	-	172+61	OWLS HEAD RD TO OWLS HEAD RD	--	9,790	EDGELINE
0010	172+61	-	217+50	OWLS HEAD RD TO END	--	8,890	EDGELINE
0010	130+75	-	131+85	CTH U	--	115	EDGELINE
0010	68+47	-	142+40	STH 78	14,800	--	CENTERLINE
0010	142+40	-	149+70	STH 78	1,000	--	CENTERLINE
0010	149+70	-	154+00	STH 78	900	--	CENTERLINE
0010	154+00	-	161+63	STH 78	1,000	--	CENTERLINE
0010	161+63	-	217+05	STH 78	11,100	--	CENTERLINE
0010	130+75	-	131+85	CTH U	30	--	CENTERLINE
				TOTAL 0010	58,280		

TRAFFIC CONTROL

CATEGORY	STATION	TO	STATION	LOCATION	603.8000 CONCRETE BARRIER TEMPORARY PRECAST DELIVERED LF	603.8125 CONCRETE BARRIER TEMPORARY PRECAST INSTALLED LF	643.0300 TRAFFIC CONTROL DRUMS DAY	643.0420 TRAFFIC CONTROL BARRICADES TYPE III DAY	643.0705 TRAFFIC CONTROL WARNING LIGHTS TYPE A DAY	643.0715 TRAFFIC CONTROL WARNING LIGHTS TYPE C DAY	643.0900 TRAFFIC CONTROL SIGNS DAY	643.0910 TRAFFIC CONTROL COVERING SIGNS TYPE I EACH	643.0920 TRAFFIC CONTROL COVERING SIGNS TYPE II EACH	643.1050 TRAFFIC CONTROL SIGNS PCMS DAY	643.3165 TEMPORARY MARKING LINE PAINT 6-INCH YELLOW LF	643.3165 TEMPORARY MARKING LINE PAINT 6-INCH WHITE LF	643.3805 TEMPORARY MARKING STOP LINE PAINT 18-INCH LF	646.9000 MARKING REMOVAL LINE 4-INCH LF	REMARKS
0010	68+47	-	217+05	DETOUR	--	--	--	1,190	2,380	--	25,800	13	8	--	--	--	--	--	DURATION (85 DAYS)
0010	68+47	-	217+05	SIDEROADS	--	--	--	1,020	2,040	--	1,600	--	--	--	--	--	--	--	DURATION (85 DAYS)
0010	181+30	-	181+70	C-11-2027 LT	--	--	260	20	--	200	120	--	--	--	2,800	205	24	310	STRUCTURE STAGING (20 DAYS)
0010	181+30	-	181+70	C-11-2027 RT	140	140	420	30	--	90	300	--	--	--	0	225	--	--	STRUCTURE STAGING (30 DAYS)
0010	68+47	-	217+05	PROJECT BEGIN & END	--	--	70	--	--	--	--	--	--	14	--	--	--	--	DURATION (7 DAYS)
0010	68+47	-	217+05	PROJECT LENGTH	--	--	--	--	--	--	--	--	--	--	7,430	--	--	--	
0010	68+47	-	217+05	UNDISTRIBUTED	20	20	80	240	450	30	2,790	2	1	2	280	40	--	--	
				TOTAL 0010	160	160	830	2,500	4,870	320	30,610	15	9	16	10,980		24	310	

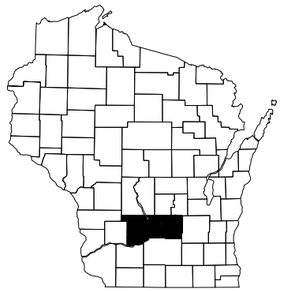
STAKING

CATEGORY	STATION	TO	STATION	LOCATION	650.5000 CONSTRUCTION STAKING BASE LF	650.6000 CONSTRUCTION STAKING PIPE CULVERTS EACH	650.6501.01 CONSTRUCTION STAKING STRUCTURE LAYOUT (STRUCTURE) (01. C-11-2027) EACH	650.6501.02 CONSTRUCTION STAKING STRUCTURE LAYOUT (STRUCTURE) (02. R-11-42) EACH	650.8000 CONSTRUCTION STAKING RESURFACING REFERENCE LF	650.9911.01 CONSTRUCTION STAKING SUPPLEMENTAL CONTROL (PROJECT) (01. 5630-06-73) EACH	650.9920 CONSTRUCTION STAKING SLOPE STAKES LF
0010	68+47	-	217+05	ENTIRE PROJECT	--	--	--	--	14,900	1	--
0010	177+90	-	184+33	C-11-2027	650	1	--	--	--	--	650
				TOTAL 0010	650	1	0	0	14,900	1	650
0020	177+90	-	184+33	C-11-2027	--	--	1	1	--	--	--
				TOTAL 0020	0	0	1	1	0	0	0
				PROJECT TOTAL	650	1	1	1	14900	1	650

SECTION CORNERS

CATEGORY	STATION	LOCATION	SPV.0060.01 SPECIAL (01. RESEARCH AND LOCATE EXISTING LAND PARCEL MONUMENTS) EACH	SPV.0060.02 SPECIAL (02. LANDMARK REFERENCE MONUMENTS) EACH	REMARKS
0010	159+50	0' RT	1	1	SECTION CORNER
0010	185+83	1' RT	1	1	SECTION CORNER
0010	212+14	0' RT	1	1	SECTION CORNER
		TOTAL 0010	3	3	

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
TRANSPORTATION PROJECT PLAT TITLE SHEET
5630-06-23
SAUK CITY - IH 39
V MERRIMAC N LIMIT TO CTH DL
STH 78
Sauk County and Columbia County



CONVENTIONAL SYMBOLS

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

SECTION CORNER SYMBOL
SECTION CORNER MONUMENT
GEODETIC SURVEY MONUMENT
SIXTEENTH CORNER MONUMENT
SIGN
OFF-PREMISE SIGN
R/W MONUMENT (TO BE SET)
NON-MONUMENTED R/W POINT
FOUND IRON PIN (1-INCH UNLESS NOTED)

	COMPENSABLE	NON-COMPENSABLE
ELECTRIC POLE		
TELEPHONE POLE		
PEDESTAL (LABEL TYPE) (TV, TEL, ELEC, ETC.)		

ACCESS RESTRICTED BY ACQUISITION
NO ACCESS (BY STATUTORY AUTHORITY)
ACCESS RESTRICTED (BY PREVIOUS PROJECT OR CONTROL)
NO ACCESS (NEW HIGHWAY)
PARCEL NUMBER 25
UTILITY NUMBER 40
PARALLEL OFFSETS

CONVENTIONAL ABBREVIATIONS

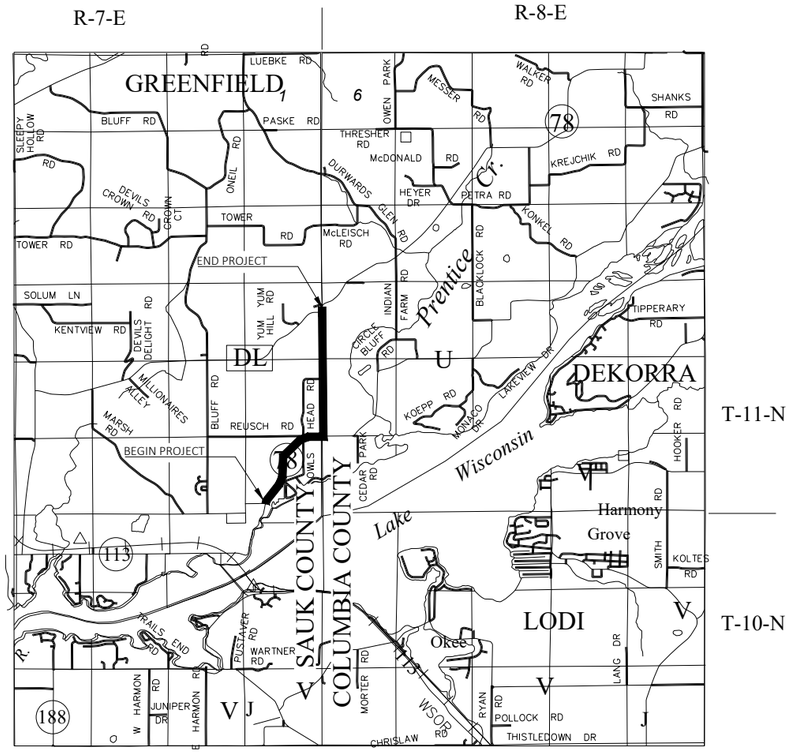
ACCESS RIGHTS	AR	POINT OF COMPOUND CURVE	PCC
ACRES	AC	POINT OF INTERSECTION	PI
AHEAD	AH	PROPERTY LINE	PL
ALUMINUM	ALUM	RECORDED AS	(100')
AND OTHERS	ET AL	REEL / IMAGE	R/I
BACK	BK	REFERENCE LINE	R/L
BLOCK	BLK	REMAINING	REM
CENTERLINE	C/L	RESTRICTIVE DEVELOPMENT EASEMENT	RDE
CERTIFIED SURVEY MAP	CSM	RIGHT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

CURVE DATA ABBREVIATIONS

LONG CHORD	LCH
LONG CHORD BEARING	LCB
RADIUS	R
DEGREE OF CURVE	D
CENTRAL ANGLE	Δ/DELTA
LENGTH OF CURVE	L
TANGENT	T
DIRECTION AHEAD	DA
DIRECTION BACK	DB

CONVENTIONAL UTILITY SYMBOLS

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



T-11-N

T-10-N

LAYOUT
SCALE 0 1 MI.

THE NOTES,CONVENTIONAL SIGNS, AND ABBREVIATIONS ARE ASSOCIATED WITH EACH TRANSPORTATION PROJECT PLAT FOR PROJECT 5630-06-23

NOTES:

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

ALL NEW RIGHT-OF-WAY MONUMENTS WILL BE TYPE 2 (TYPICALLY ¾" X 24" IRON REBARS), UNLESS OTHERWISE NOTED, AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT.

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

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

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

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

A PERMANENT LIMITED EASEMENT (PLE) IS A RIGHT FOR CONSTRUCTION AND MAINTENANCE PURPOSES, AS DEFINED HEREIN, INCLUDING THE RIGHT TO OPERATE NECESSARY EQUIPMENT THEREON AND THE RIGHT OF INGRESS AND EGRESS, AS LONG AS REQUIRED FOR SUCH PUBLIC PURPOSE, INCLUDING THE RIGHT TO PRESERVE, PROTECT, REMOVE, OR PLANT THEREON ANY VEGETATION THAT THE HIGHWAY AUTHORITIES MAY DEEM DESIRABLE, BUT WITHOUT PREJUDICE TO THE OWNER'S RIGHTS TO MAKE OR CONSTRUCT IMPROVEMENTS ON SAID LANDS OR TO FLATTEN THE SLOPES, PROVIDING SAID ACTIVITIES WILL NOT IMPAIR OR OTHERWISE ADVERSELY AFFECT THE HIGHWAY FACILITIES.

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

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

FOR THE CURRENT ACCESS/DRIVEWAY INFORMATION, CONTACT THE PLANNING UNIT OF THE WISCONSIN DEPARTMENT OF TRANSPORTATION OFFICE IN SOUTHWEST REGION, LA CROSSE

PARCEL AND UTILITY IDENTIFICATION NUMBERS MAY NOT POINT TO ALL AREAS OF ACQUISITION, AS NOTED ON THE TPP DETAIL PAGES.

INFORMATION FOR THE BASIS OF EXISTING HIGHWAY RIGHT-OF-WAY POINTS OF REFERENCE AND ACCESS CONTROL ARE LISTED ON THE TPP DETAIL PAGES.

PROJECT NUMBER 5630-06-23 - 4. 01
SHEET 2 OF 2

FILE NAME : C:\BOXDRV\BOX\DTSD-PROJECTS-PUBLIC\SWR-PROJECTS-STATE\DESIGN\56300603\SURVEYPLATS\PLATS\01 JOERG IN-HOUSE PLAT\5630-06-03 TPP JF.DWG
LAYOUT NAME: Title Sauk
PLOT DATE : 9/16/2015 3:04 PM PLOT BY : KENDALL, EMILY ANN PLOT NAME : _____

DOCUMENT #: 1260811
Recorded: 03-28-2024 at 3:35 PM
BRENT BAILEY
SAUK COUNTY REGISTER OF DEEDS
REGISTRAR'S OFFICE
Sauk Co, WI
RECEIVED FOR RECORD
Fee Amount: $25.00
This document has been filed cally

TRANSPORTATION PROJECT PLAT NO: 5630-06-23 - 4.01 AMENDMENT NO. 1

ADDS UTILITY NUMBER 101 TO TRANSPORTATION PROJECT PLAT NO. 5630-06-23 - 4.01 RECORDED AS DOCUMENT NUMBER 1237125

PART OF LOT 1 OF CSM #2350 V1, P2350, DOC# 544470 LOCATED IN AND INCLUDING PART OF THE NORTHEAST QUARTER OF THE NORTHEAST QUARTER OF SECTION 25, TOWNSHIP 11 NORTH RANGE 7 EAST ALL IN TOWN OF MERRIMAC, SAUK COUNTY, WISCONSIN AND PART OF THE NORTHWEST QUARTER OF THE NORTHWEST QUARTER OF SECTION 30, TOWNSHIP 11 NORTH, RANGE 8 EAST, TOWN OF CALEDONIA, COLUMBIA COUNTY, WISCONSIN.

RELOCATION ORDER: STH 78, SAUK CITY - IH 39, V MERRIMAC N LIMIT TO CTH DL, SAUK COUNTY AND COLUMBIA COUNTY

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

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

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

NOTES:

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

ALL NEW RIGHT-OF-WAY MONUMENTS WILL BE TYPE 2 (TYPICALLY ¾" X 24" IRON REBARS), UNLESS OTHERWISE NOTED, AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT.

FOR THE CURRENT ACCESS/DRIVEWAY INFORMATION, CONTACT THE PLANNING UNIT OF THE WISCONSIN DEPARTMENT OF TRANSPORTATION OFFICE IN LA CROSSE.

EXISTING HIGHWAY RIGHT-OF-WAY ON STH 78 SHOWN HEREIN IS BASED ON THE FOLLOWING POINT OF REFERENCE: PREVIOUS PROJECT DJ1885 AND CSM #2350 V1, P2350, DOC# 544470

EXISTING HIGHWAY RIGHT-OF-WAY ON OWL'S HEAD ROAD SHOWN HEREIN IS BASED ON THE FOLLOWING POINT OF REFERENCE: CSM #6494 DOC# 1144589

SIXTEENTH LINES WERE ESTABLISHED BY SECTION BREAKDOWN OF OBSERVED PLSS MONUMENTS.

FOR ADDITIONAL INFORMATION REFER TO THE TITLE SHEET, RECORDED AS SHEET 2 OF 2 OF DOCUMENT No. 1237125.

SCHEDULE OF LANDS & INTERESTS REQUIRED

PARCEL NUMBER	OWNER (S)	INTERESTS REQUIRED	R/W ACRES REQUIRED NEW	EXISTING	TOTAL	T.L.E. ACRES	P.L.E. ACRES
1	ALVIN SCHULTZ AND TRACY E. SEILER-SCHULTZ	FEE	0.032	0.256	0.288	--	--
2	LARRY W. SCHULTZ; WILLIS D. SCHULTZ AND LYLA SCHULTZ; GLENN D. AND LORI L. SCHULTZ	FEE	0.169	0.442	0.611	--	--
3	PAUL E. WASILEWSKI, AND COLLEEN M. WASILEWSKI	FEE/TLE	0.105	0.530	0.635	0.015	--
4	DAVID C. MAC LEISH, HAYDEN C. MAC LEISH	FEE	0.016	0.467	0.483	--	--

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

EASEMENT TABLE

UTILITY NUMBER	OWNER	RECORDING INFORMATION	LOCATED IN R/W PARCEL #
100	ALLIANT ENERGY ELECTRIC	DOC# 496898 UTILITY EASEMENT	3
100	ALLIANT ENERGY ELECTRIC	DOC# 467074 UTILITY EASEMENT	4
101	GTE NORTH, INC.	DOC# 599036 UTILITY EASEMENT	1 AND 2

UTILITY INTERESTS REQUIRED

UTILITY NUMBER	OWNER (S)	INTEREST REQUIRED
100	ALLIANT ENERGY ELECTRIC	RELEASE OF RIGHTS
101	FRONTIER NORTH, INC.	RELEASE OF RIGHTS

COORDINATE TABLE – R/W POINTS

PT.#	STATION	OFFSET	Y	X
100	725+51.24	0.00'	213920.788	688523.025
101	725+51.03	33.00' LT	213920.593	688490.025
102	725+51.96	33.00' LT	213921.523	688490.026
103	731+55.19	33.00' LT	214524.745	688490.305
104	731+55.19	44.00' LT	214524.751	688479.305
105	732+30.55	44.00' LT	214600.117	688479.340
106	733+30.00	65.00' LT	214699.574	688458.386
107	733+90.00	65.00' LT	214759.574	688458.414
108	735+23.78	45.00' LT	214893.348	688478.476
109	735+58.05	45.00' LT	214927.615	688478.492
110	736+40.00	33.00' LT	215009.559	688490.530
111	738+68.20	33.00' LT	215237.759	688490.636
112	738+68.72	33.00' RT	215238.353	688556.636
113	734+80.71	33.00' RT	214850.233	688556.455
114	734+80.71	67.50' RT	214850.217	688590.956
115	734+46.98	67.50' RT	214816.493	688590.941
116	734+46.98	53.00' RT	214816.499	688576.441
117	733+88.30	53.00' RT	214757.818	688576.413
118	733+88.30	37.00' RT	214757.826	688560.413
119	733+36.92	37.00' RT	214706.448	688560.390
120	732+12.70	50.65' RT	214582.221	688573.982
121	731+05.70	41.53' RT	214475.229	688564.809
122	731+05.70	33.00' RT	214475.233	688556.282
123	725+51.60	33.00' RT	213921.130	688556.025

FOUND SURVEY MONUMENTS

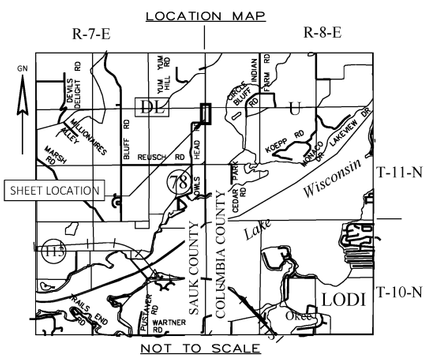
PT.#	Y	X	TYPE
1023	214315.981	688490.210	3/4 RB W/CAP
1024	214643.072	688490.382	3/4 RB W/CAP

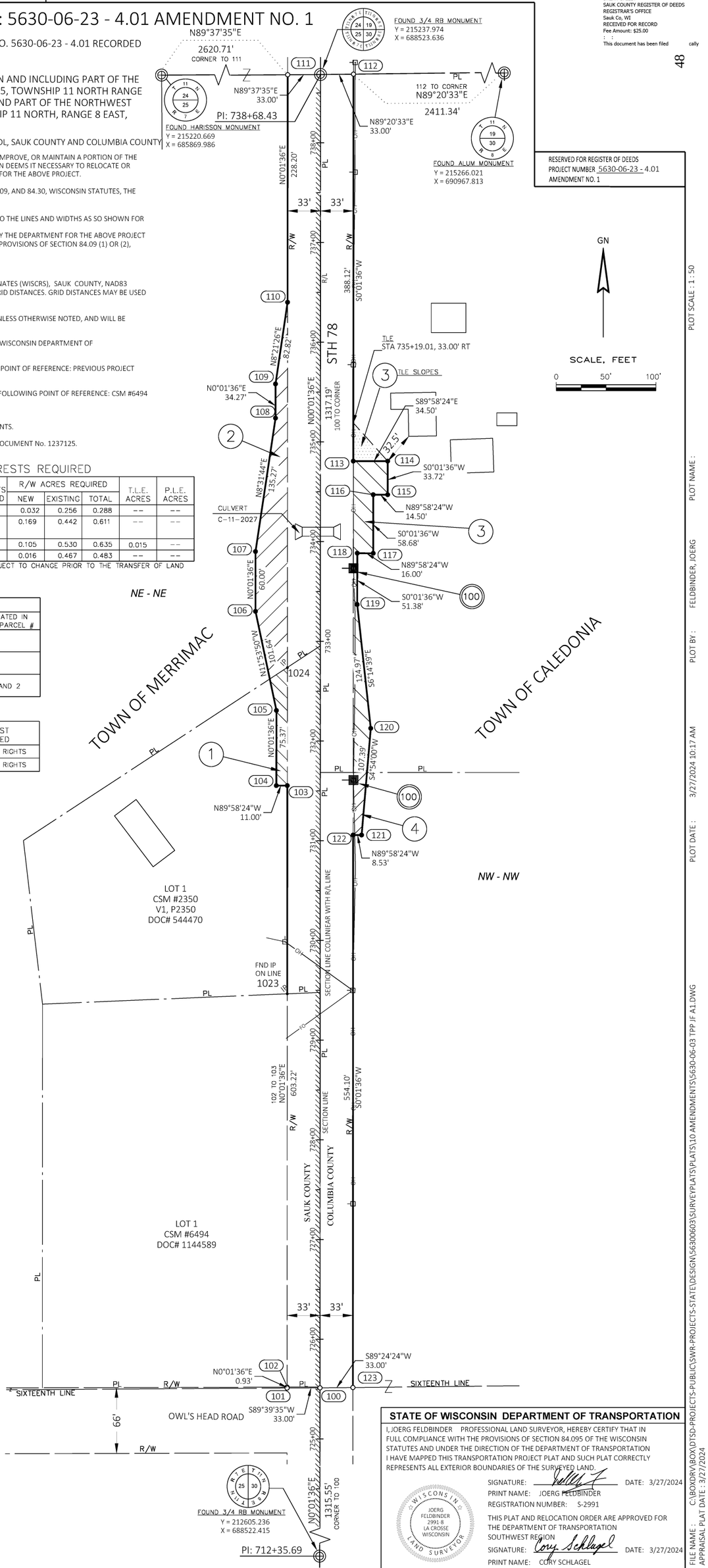
ALIGNMENT INFORMATION

PI: 712+35.69
DELTA=0°00'06" RT
DB=N00°01'30"E

PI: 738+68.43
DELTA=0°11'24" LT
DA=N00°09'48"W

LOCATION MAP





STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION

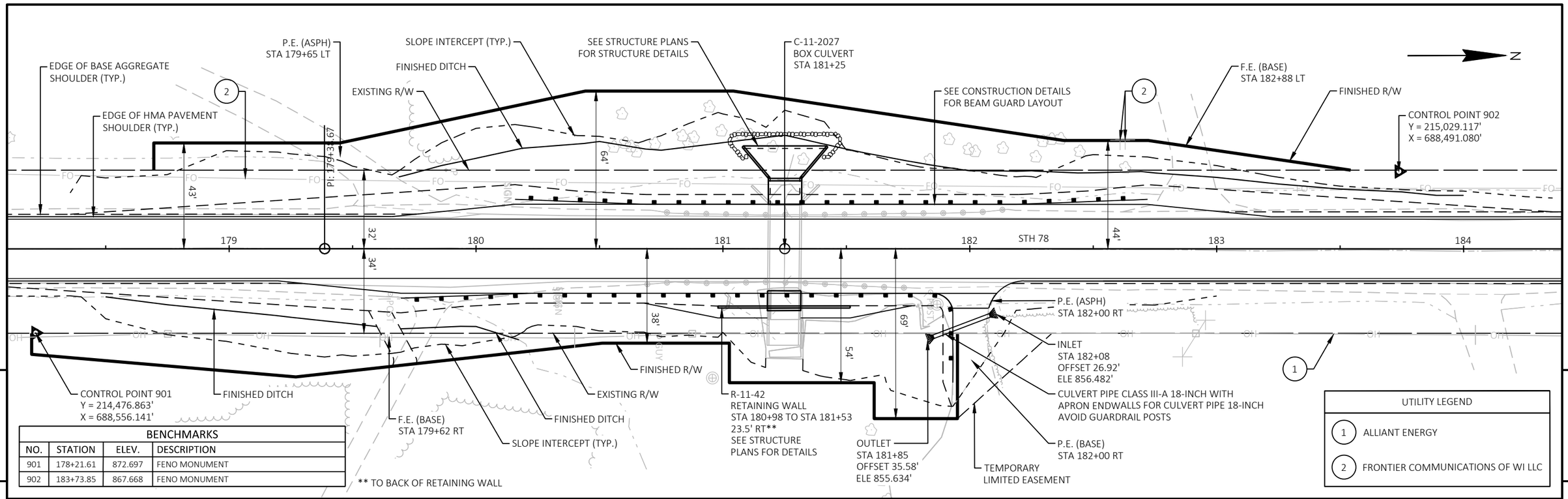
I, JOERG FELDBINDER PROFESSIONAL LAND SURVEYOR, HEREBY CERTIFY THAT IN FULL COMPLIANCE WITH THE PROVISIONS OF SECTION 84.095 OF THE WISCONSIN STATUTES AND UNDER THE DIRECTION OF THE DEPARTMENT OF TRANSPORTATION I HAVE MAPPED THIS TRANSPORTATION PROJECT PLAT AND SUCH PLAT CORRECTLY REPRESENTS ALL EXTERIOR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

SIGNATURE: _____ DATE: 3/27/2024
PRINT NAME: JOERG FELDBINDER
REGISTRATION NUMBER: S-2991

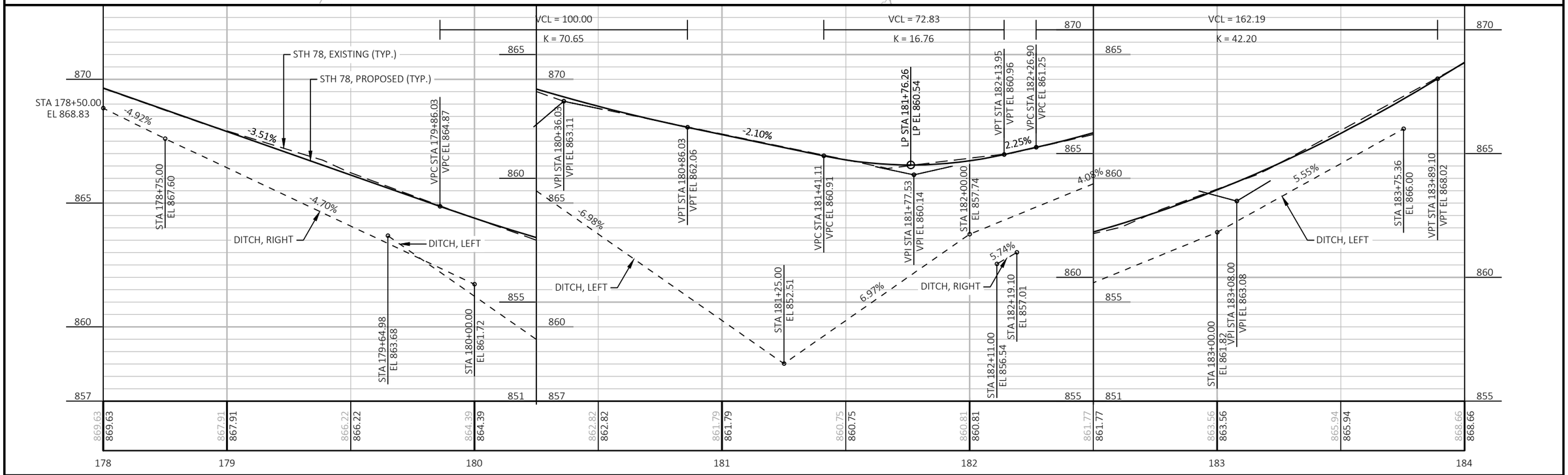
JOERG FELDBINDER 2991 S LA CROSSE WISCONSIN LAND SURVEYOR

THIS PLAT AND RELOCATION ORDER ARE APPROVED FOR THE DEPARTMENT OF TRANSPORTATION
SOUTHWEST REGION
SIGNATURE: _____ DATE: 3/27/2024
PRINT NAME: CORY SCHLAGEL

PLOT SCALE : 1 : 50
PLOT NAME :
PLOT BY : FELDBINDER, JOERG
PLOT DATE : 3/27/2024 10:17 AM
FILE NAME : C:\BOXDRV\BOX\DTSD-PROJECTS-PUBLIC\CSWR-PROJECTS-STATE\DESIGN\5630060 3\SURVEYPLAT'S\PLATS\10 AMENDMENTS\5630-06-03 TPP JF A1.DWG
APPRAISAL PLAT DATE : 3/27/2024



BENCHMARKS			
NO.	STATION	ELEV.	DESCRIPTION
901	178+21.61	872.697	FENO MONUMENT
902	183+73.85	867.668	FENO MONUMENT

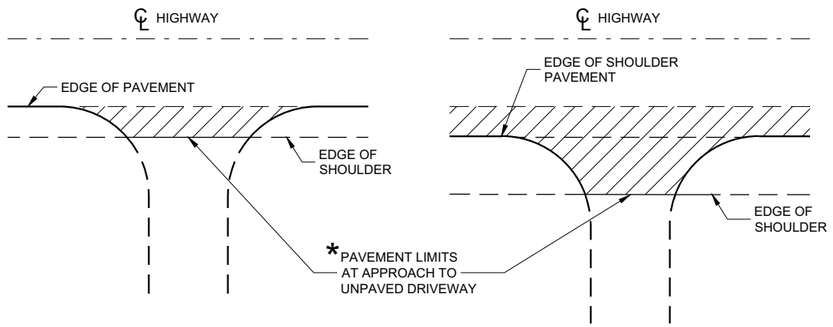


PROJECT NO: 5630-06-73	HWY: STH 78	COUNTY: SAUK	PLAN AND PROFILE: C-11-2027	SHEET 49	E

Standard Detail Drawing List

08D21-01	DRIVEWAYS WITHOUT CURB & GUTTER
08D22-01	DRIVEWAYS WITHOUT CURB & GUTTER RESURFACING PROJECTS RURAL
08E08-03	TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS
08E15-01	CULVERT PIPE CHECK
08F01-11	APRON ENDWALLS FOR CULVERT PIPE
09A01-14A	AT-GRADE SIDE ROAD INTERSECTION, TYPES "B1", "B2", "C" AND D AND TEE INTERSECTION BYPASS LANE
12A03-10	NAME PLATE (STRUCTURES)
13A11-04A	CENTERLINE RUMBLE STRIPS - ASPHALT
13A11-04D	CENTERLINE RUMBLE STRIPS - INTERSECTIONS, DRIVEWAYS, BRIDGES, RAILROADS
13C19-03	HMA LONGITUDINAL JOINTS
14B07-16A	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-16B	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-16C	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-16D	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-16F	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-16G	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-16H	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-16I	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-16L	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-16M	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-16N	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B08-02A	CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS
14B08-02B	CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS
14B08-02D	CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS
14B08-02E	CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS
14B29-01	SAFETY EDGE
14B42-07A	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-07B	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-07C	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-07D	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B43-04A	MIDWEST GUARDRAIL SYSTEM LONG SPAN MGS (L)
14B43-04C	MIDWEST GUARDRAIL SYSTEM LONG SPAN MGS (L)
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)
14B51-04A	ANCHOR POST ASSEMBLY TOP-MOUNTED
14B51-04B	ANCHOR POST ASSEMBLY TOP-MOUNTED
14B51-04C	ANCHOR POST ASSEMBLY TOP-MOUNTED
14B53-03A	SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)
14B53-03B	SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)
14B53-03C	SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)
14B53-03D	SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)
14B53-03E	SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)
14B53-03F	SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)
14B53-03G	SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)
14B53-03H	SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)
14B53-03I	SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)
15C02-09A	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-09B	BARRICADES AND SIGNS FOR VARIOUS CLOSURES
15C02-09C	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
15C08-24A	PERMANENT LONGITUDINAL PAVEMENT MARKINGS
15C08-24B	TEMPORARY LONGITUDINAL PAVEMENT MARKING
15C11-10B	CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS
15C12-09A	TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION
15C19-09A	MOVING PAVEMENT MARKING OPERATION TWO-LANE TWO-WAY ROADWAY
15C35-06A	PAVEMENT MARKING (INTERSECTIONS)
15D32-07	TRAFFIC CONTROL, ONE LANE ROAD STOP CONDITION
15D39-03	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
16A01-07	LANDMARK REFERENCE MONUMENTS AND COVERS

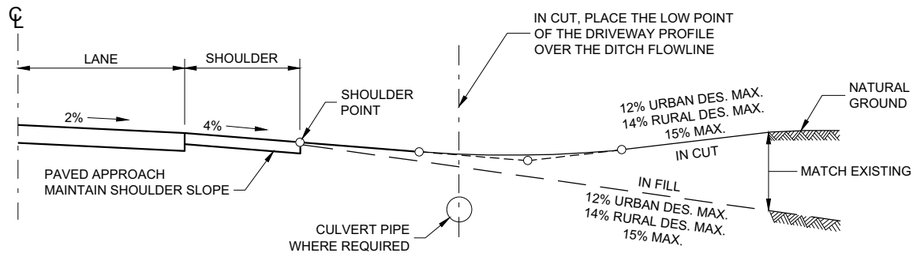
6



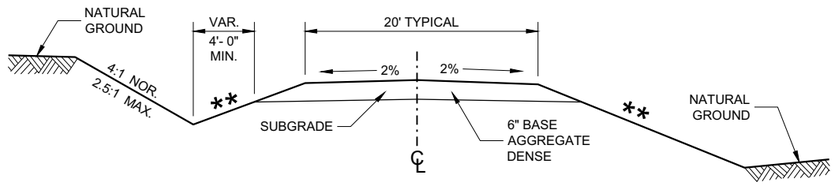
PLAN VIEW
(UNPAVED SHOULDER ON HIGHWAY)

PLAN VIEW
(PAVED SHOULDER ON HIGHWAY)

RURAL DRIVEWAY INTERSECTION DETAIL
(NO CURB AND GUTTER OR SIDEWALK)



TYPICAL DRIVEWAY PROFILES

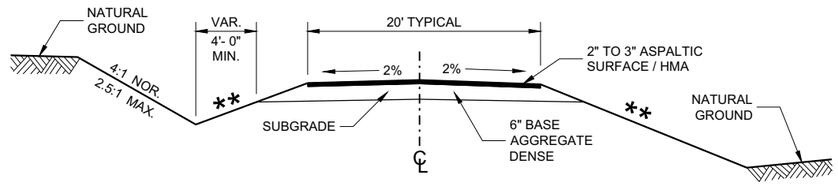


IN CUT **IN FILL**

TYPICAL CROSS SECTION FOR PRIVATE DRIVE OR FIELD ENTRANCE AGGREGATE SURFACE

** SLOPE CAN VARY WITH SPEED. SEE 11-45-30.6.2

POSTED SPEED MPH	MAX. SLOPE
<35	4:1
≥ 35 TO < 60	6:1
≥60	10:1



IN CUT **IN FILL**

TYPICAL CROSS SECTION FOR PRIVATE DRIVE OR FIELD ENTRANCE ASPHALTIC SURFACE

6

SDD 08D21 - 01

DRIVEWAYS WITHOUT CURB AND GUTTER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
December 2017 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS DEVE UNIT SUPERVISOR

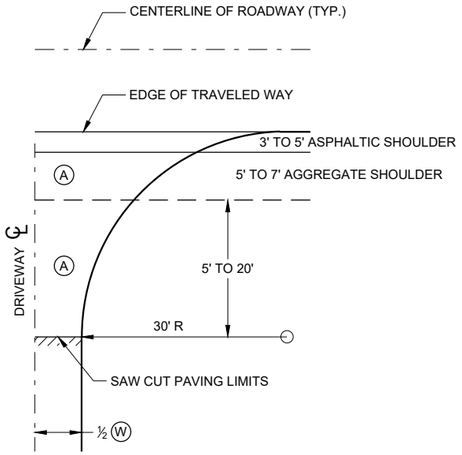
FHWA

6

SDD 08D21 - 01

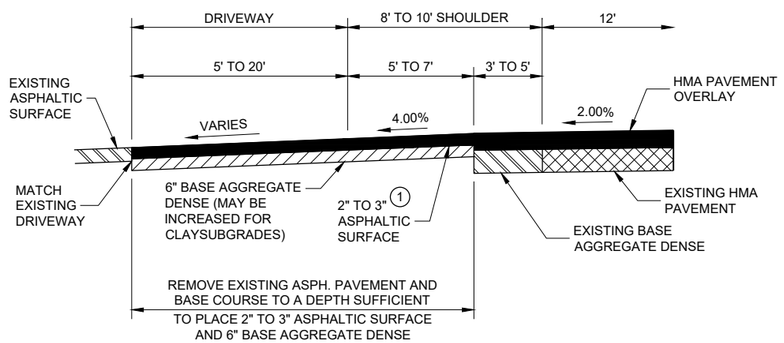
GENERAL NOTES

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



PLAN VIEW

HALF SECTION



PROFILE VIEW

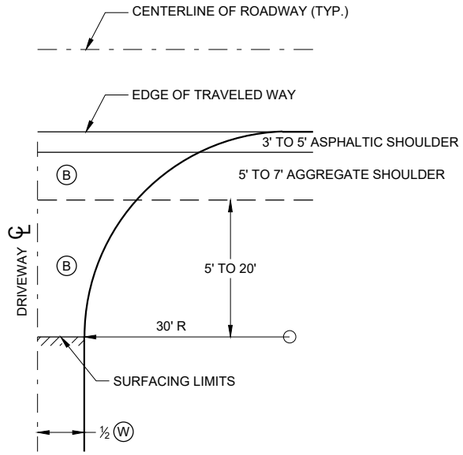
RURAL ENTRANCE WITH ASPHALTIC SURFACE

RESURFACING PROJECTS

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

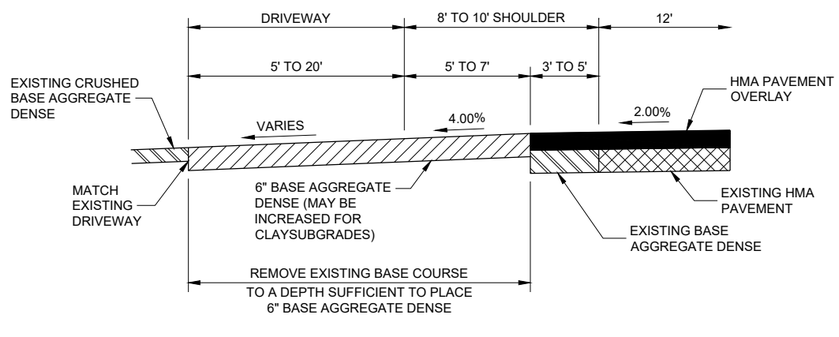
(B) : PAID FOR AS BASE AGGREGATE DENSE 1 ¼" (TON)

(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

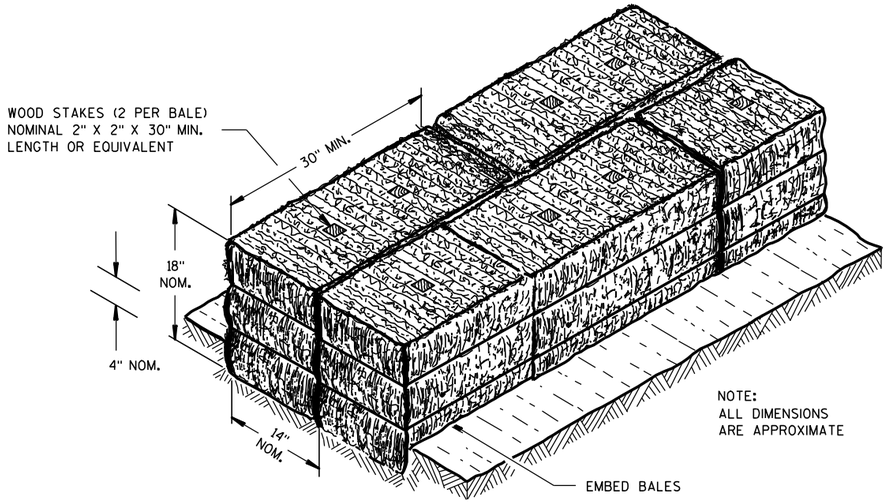
APPROVED
December 2016 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS DEVE ENGINEER
FHWA

6

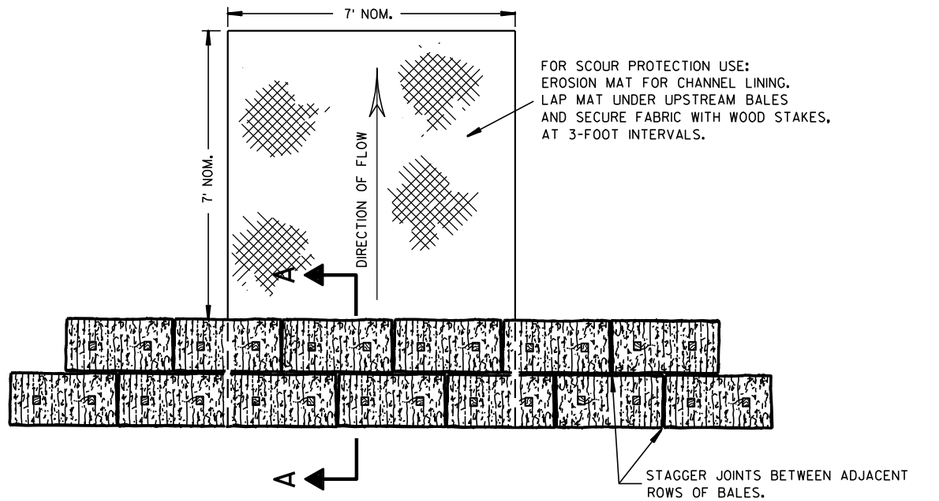
SDD 08D22 - 01

6

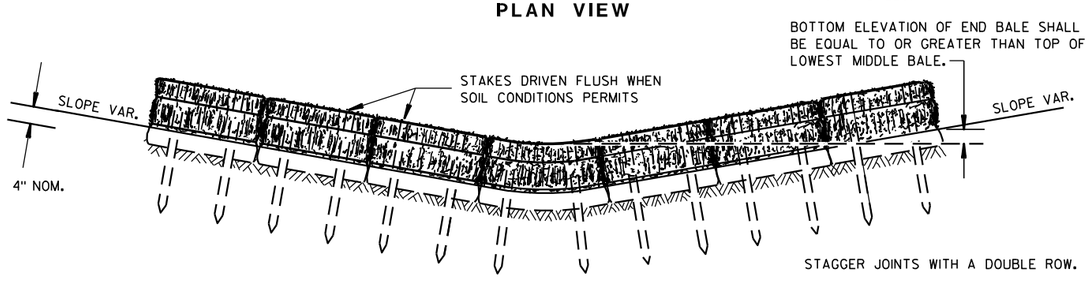
SDD 08D22 - 01



SECTION A-A



PLAN VIEW



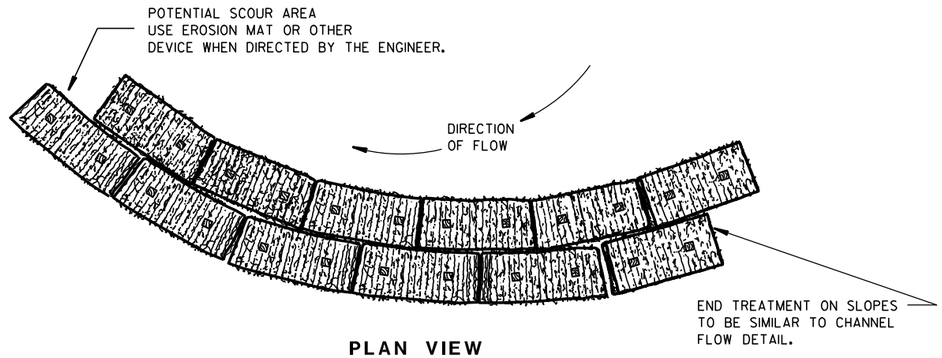
FRONT ELEVATION

TEMPORARY DITCH CHECK USING EROSION BALES (1)

GENERAL NOTES

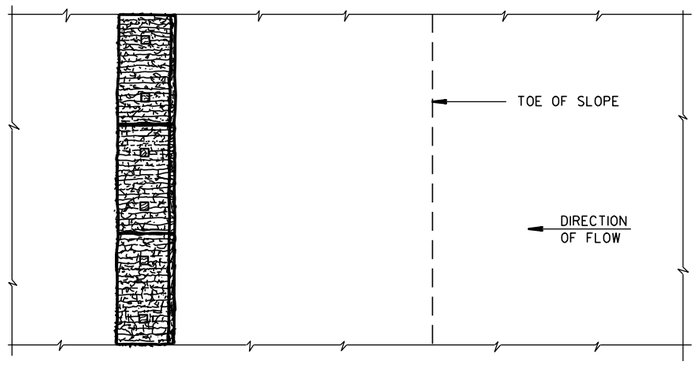
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

(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.

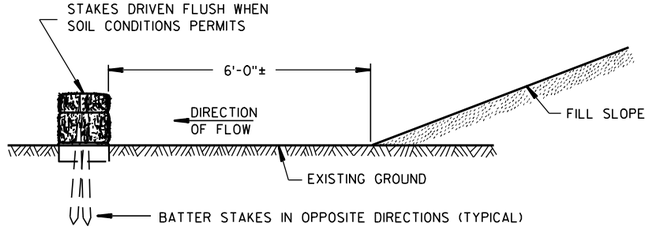


PLAN VIEW

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

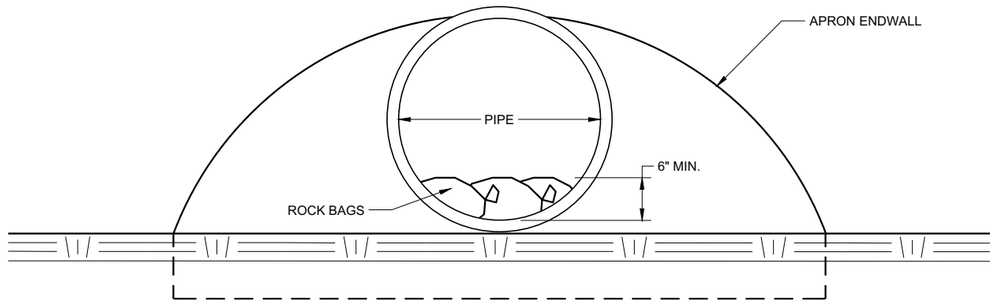
6/04/02 — DATE

/S/ Beth Cannestra — CHIEF ROADWAY DEVELOPMENT ENGINEER

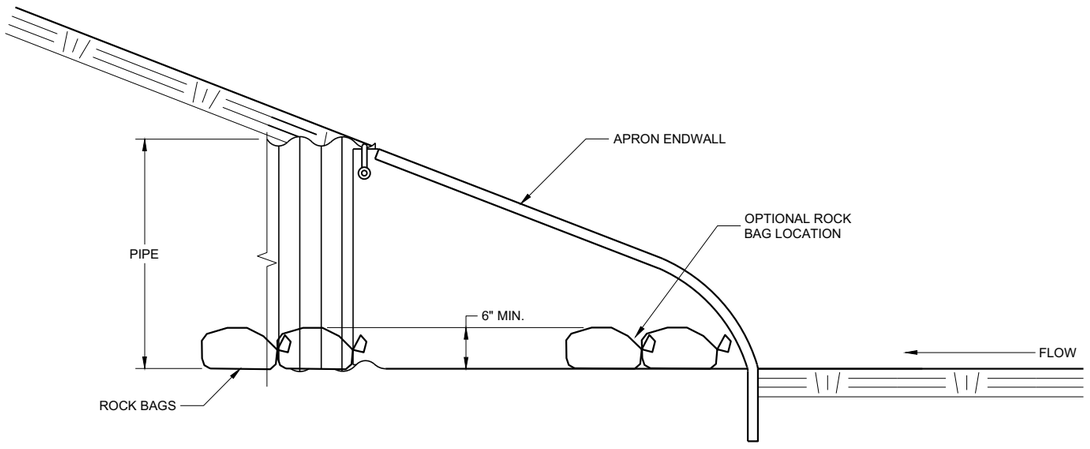
FHWA

6

S.D.D. 8 E 8-3



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

METAL APRON ENDWALLS

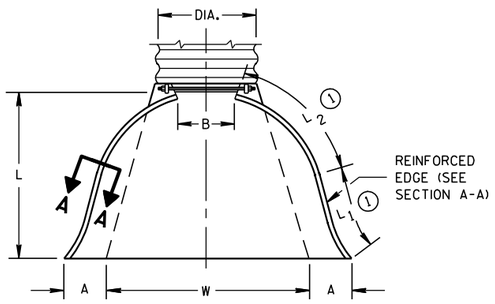
PIPE DIA. (IN.)	MIN. THICK. (Inches) STEEL	MIN. THICK. (Inches) ALUM.	DIMENSIONS (Inches) A (±1")	B (MAX.)	H (±1")	L (±1 1/2")	L1 ①	L2 ①	W (±2")	APPROX. SLOPE	BODY
12	.064	.060	6	6	6	21	12	17 1/2	24	2 1/2 to 1	1 Pc.
15	.064	.060	7	8	6	26	14	21 3/4	30	2 1/2 to 1	1 Pc.
18	.064	.060	8	10	6	31	15	28 1/4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

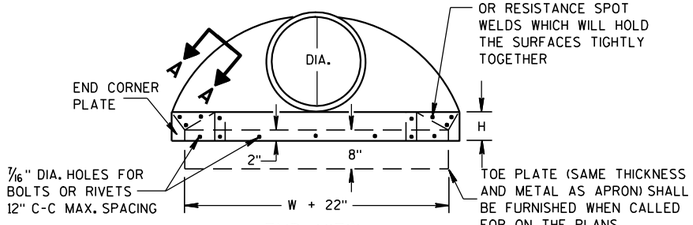
REINFORCED CONCRETE APRON ENDWALLS

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

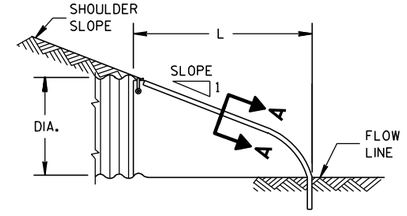
*MINIMUM
**MAXIMUM



PLAN VIEW

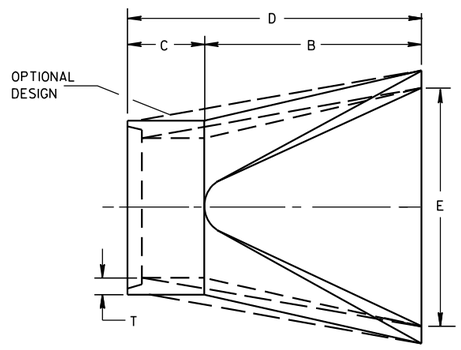


END VIEW

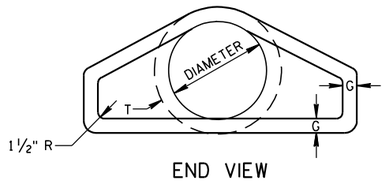


SIDE ELEVATION

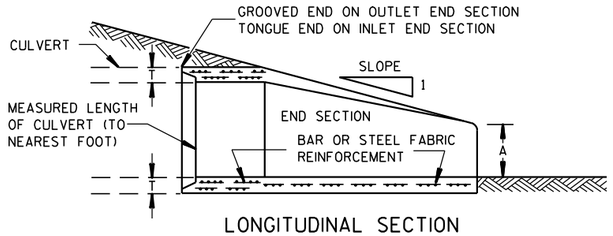
METAL ENDWALLS



PLAN

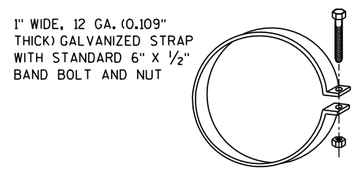


END VIEW



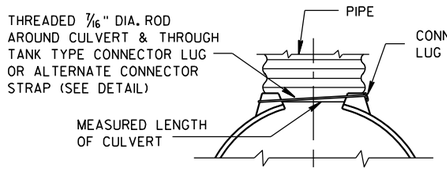
LONGITUDINAL SECTION

CONCRETE ENDWALLS

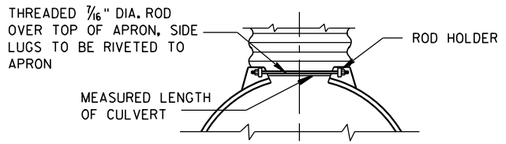


ALTERNATE FOR TYPE 1 CONNECTION

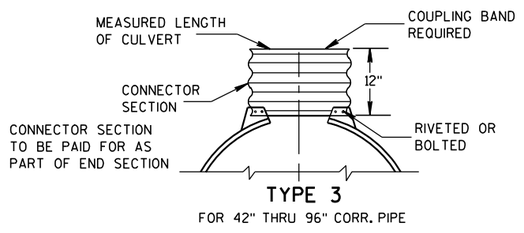
END SECTION CONNECTOR STRAP



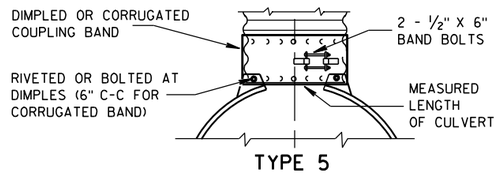
TYPE 1
FOR 12" THRU 24" CORR. PIPE



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

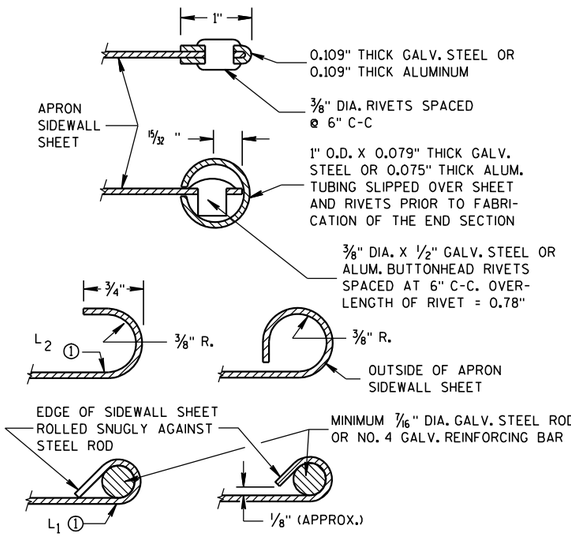
NOTE: DIMPLED BAND FITS OVER OUTSIDE OF ENDWALL. AND CORRUGATED BAND FITS INSIDE ENDWALL. DIMPLED BAND MAY BE USED WITH HELICALLY CORRUGATED PIPE.

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.

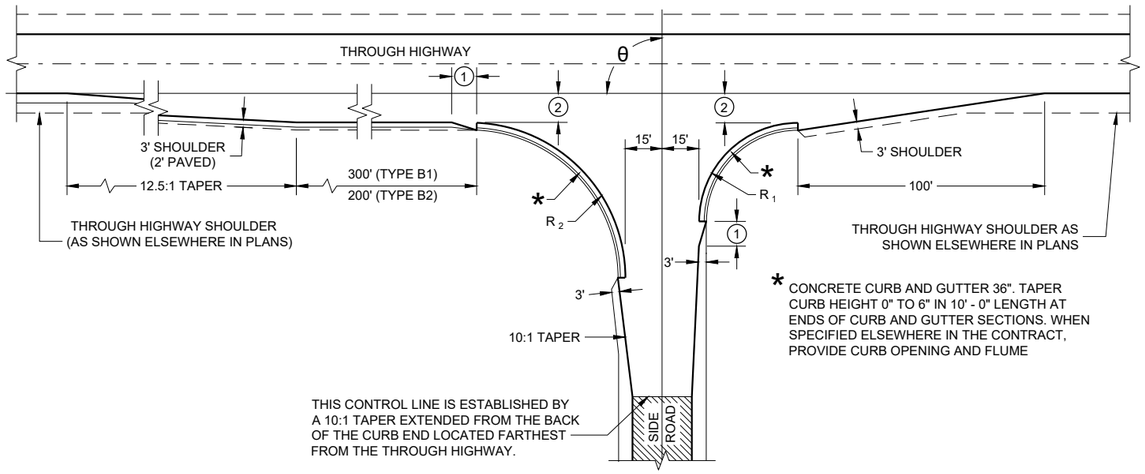
① FOR PIPE SIZES UP TO 60" DIAMETER, A 180° ROLLED EDGE MAY BE USED INSTEAD OF STEEL ROD REINFORCEMENT. SEE SECTION A-A.

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



* CONCRETE CURB AND GUTTER 36". TAPER CURB HEIGHT 0" TO 6" IN 10' - 0" LENGTH AT ENDS OF CURB AND GUTTER SECTIONS. WHEN SPECIFIED ELSEWHERE IN THE CONTRACT, PROVIDE CURB OPENING AND FLUME

TYPE "B1" AND "B2"

RADII DIMENSIONS FOR TYPES "B1", "B2", "C" AND "D" INTERSECTIONS

θ	R_1	R_2
65 - 70	35	70
71 - 80	40	70
81 - 90	40	60
91 - 100	50	55
101 - 110	60	45

GENERAL NOTES

DESIGNS MAY BE USED INTERCHANGEABLY IN COMBINATION OR SEPARATELY FOR ANY ONE COMPLETE INTERSECTION DEPENDING UPON INTERSECTION ANGLE AND SURFACING OF EACH APPROACH ROADWAY.

SIDE ROAD SURFACING NOTE

WHEN THE SIDE ROAD IS NOT PRESENTLY PAVED, PAVEMENT SHALL BE PLACED TO THE LIMITS SHOWN UNLESS OTHERWISE PROVIDED IN THE CONTRACT. WHERE THE CONSTRUCTION LIMITS ARE BEYOND THE PAVING LIMITS, CRUSHED AGGREGATE SURFACING SHALL BE PLACED BETWEEN THE PAVING LIMITS AND CONSTRUCTION LIMITS.

WHEN THE SIDE ROAD IS PRESENTLY PAVED, NEW PAVEMENT SHALL BE PLACED TO THE LIMITS OF DESIGN AS SHOWN AND BEYOND, IF NECESSARY, TO MEET EXISTING PAVEMENT.

WHEN THE SIDE ROAD IS THE CONSTRUCTION PROJECT, THE INTERSECTION SURFACING SHALL BE THE SAME AS FOR THE PROJECT.

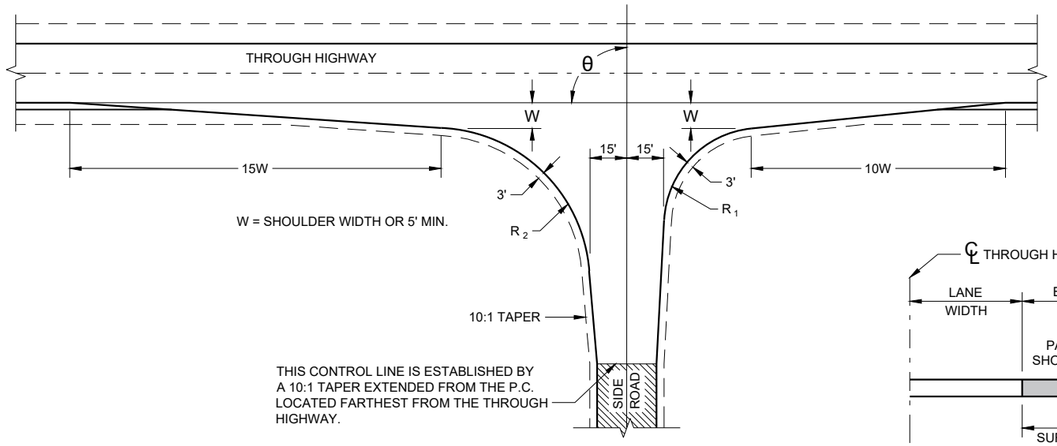
(1) 10-FT TYPICAL.

(2) 12-FT** PLUS ADDITIONAL WIDTH FOR BIKE LANE IF SHOWN ELSEWHERE IN THE PLAN.

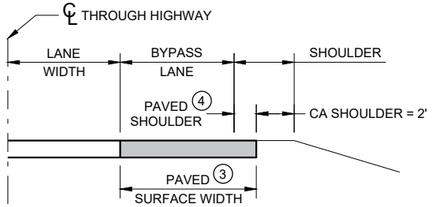
**10-FT MAY BE USED ON TYPE B2 ON RESURFACING PROJECTS IF SPECIFIED IN THE CONTRACT.

(3) BYPASS LANE PAVED SURFACE WIDTH OUTSIDE OF TRAVEL LANE
- ASPHALT = 12-FT PLUS PAVED SHOULDER WIDTH
- PC CONCRETE = 13-FT PLUS PAVED SHOULDER WIDTH

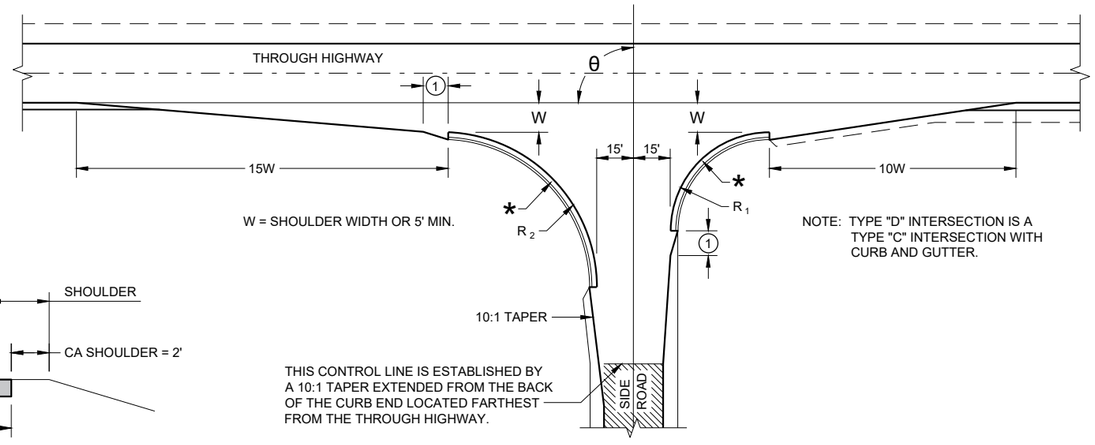
(4) BYPASS LANE PAVED SHOULDER WIDTH = THE GREATER OF 1-FT OR THE PAVED SHOULDER WIDTH OF THE THROUGH HIGHWAY.



TYPE "C"

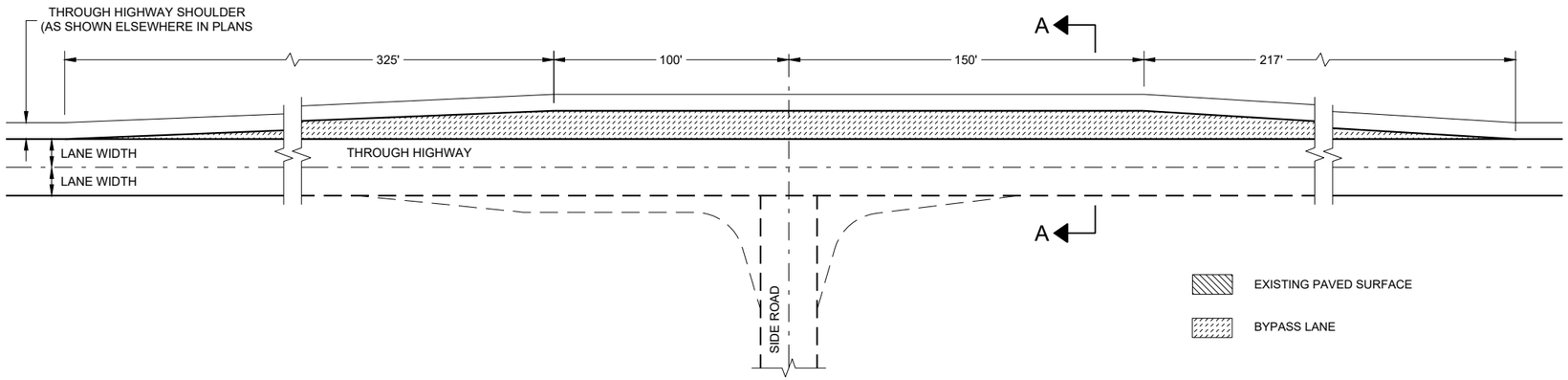


SECTION A - A
(SHOWING BYPASS LANE AND SHOULDER)



NOTE: TYPE "D" INTERSECTION IS A TYPE "C" INTERSECTION WITH CURB AND GUTTER.

TYPE "D"



TEE INTERSECTION BYPASS LANE DETAIL

AT GRADE SIDE ROAD INTERSECTION TYPES "B1", "B2", "C", "D" AND TEE INTERSECTION BYPASS LANE

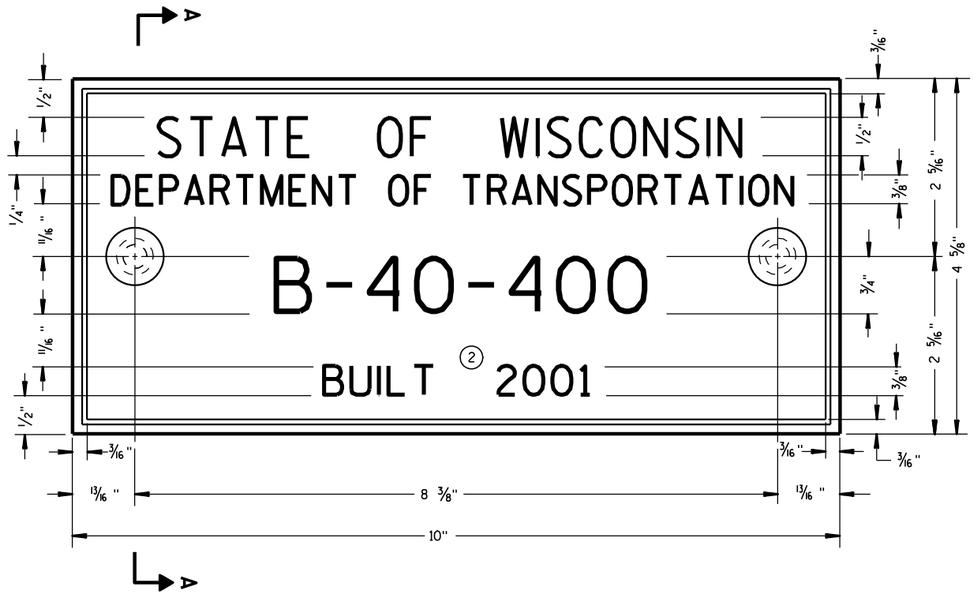
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

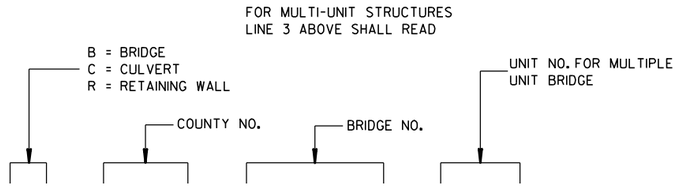
SDD 09A01 - 14a

6

SDD 09A01 - 14a



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



NUMBERING DESIGNATION
MULTI-UNIT STRUCTURES

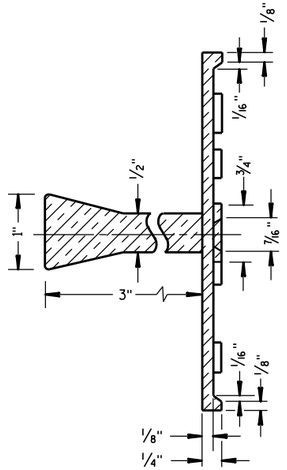
GENERAL NOTES

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

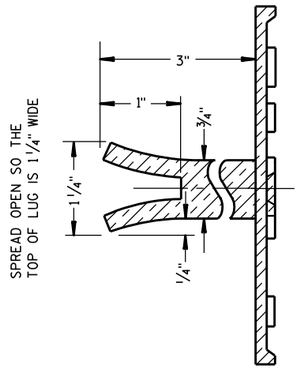
THE BRIDGE NUMBER AND YEAR BUILT SHOWN ON THIS DRAWING ARE EXAMPLES ONLY. SEE CONSTRUCTION PLANS FOR INDIVIDUAL NUMBERING AND YEAR BUILT.

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

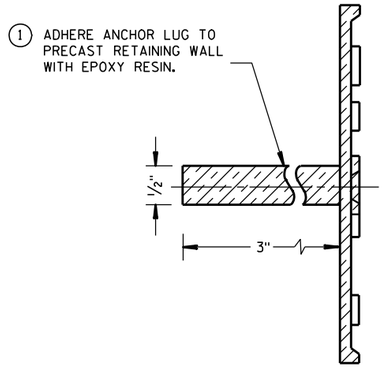
(2) REHABILITATION OF AN EXISTING STRUCTURE SHOULD USE THE DATE OF ORIGINAL STRUCTURE CONSTRUCTION.



SECTION A-A



ALTERNATE LUG



ALTERNATE LUG
(FOR ATTACHMENT TO PRECAST STRUCTURES)

NAME PLATE (STRUCTURES)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

3/26/10 DATE — /S/ Scot Beck — CHIEF STRUCTURAL DEVELOPMENT ENGINEER

FHWA

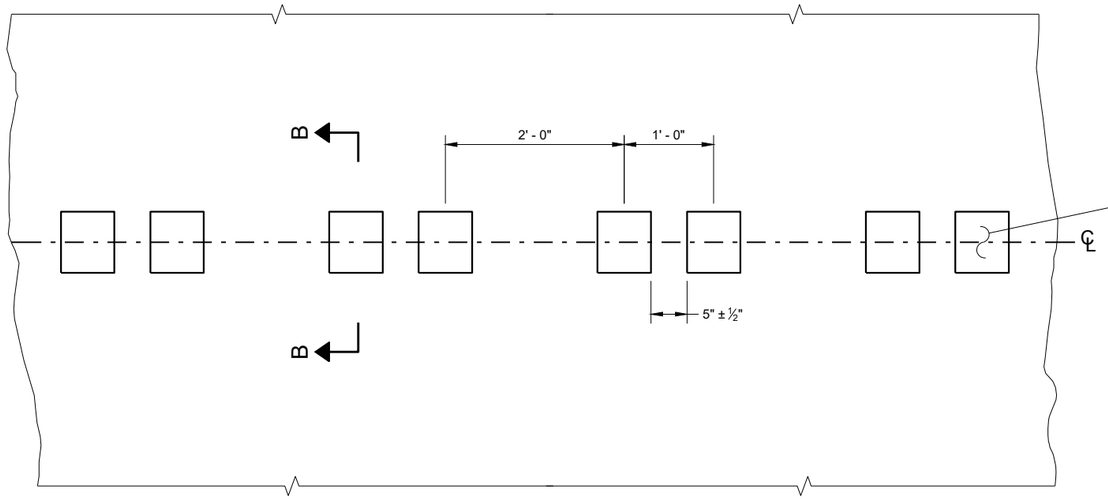
6

S.D.D. 12 A 3-10

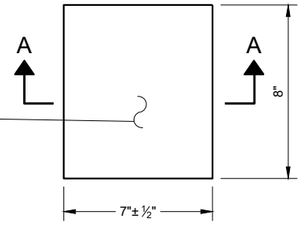
GENERAL NOTES

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

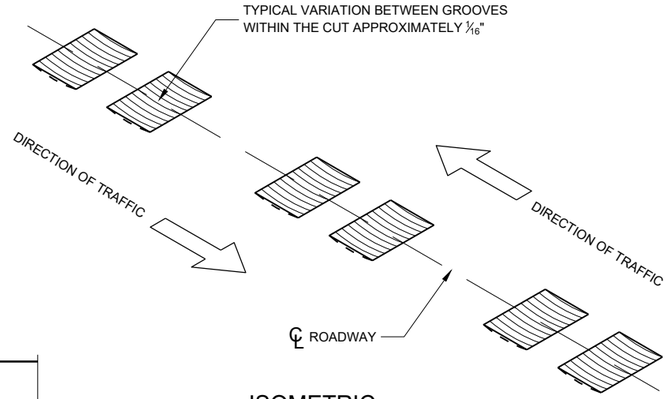
CENTERLINE GROOVES MAY BE OMITTED IN AREAS WITH HIGH CONCENTRATIONS OF DRIVEWAYS WHEN DIRECTED BY THE ENGINEER.



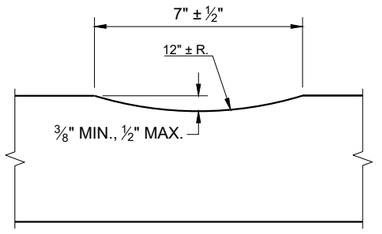
PLAN DETAIL VIEW



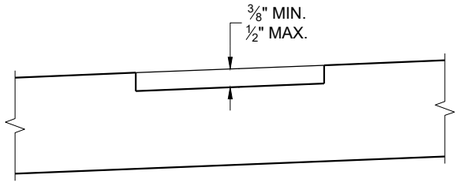
PLAN VIEW
(SINGLE GROOVE)



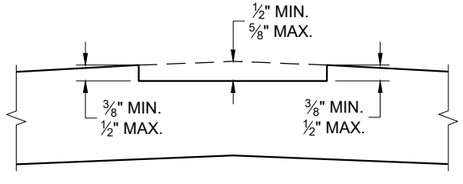
ISOMETRIC



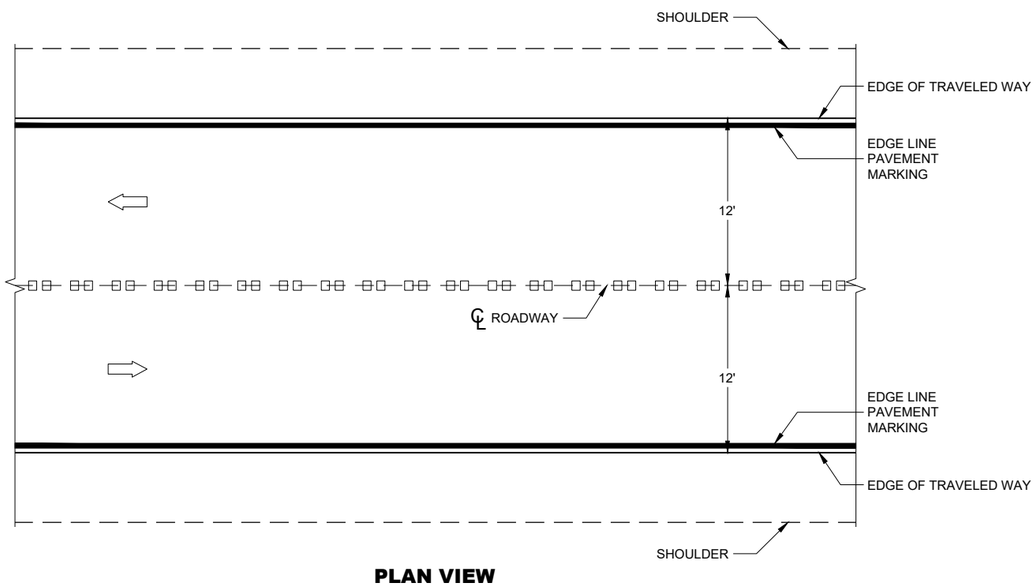
SECTION A - A



SECTION B - B
SUPERELEVATED ROADWAY



SECTION B - B
CROWNED ROADWAY



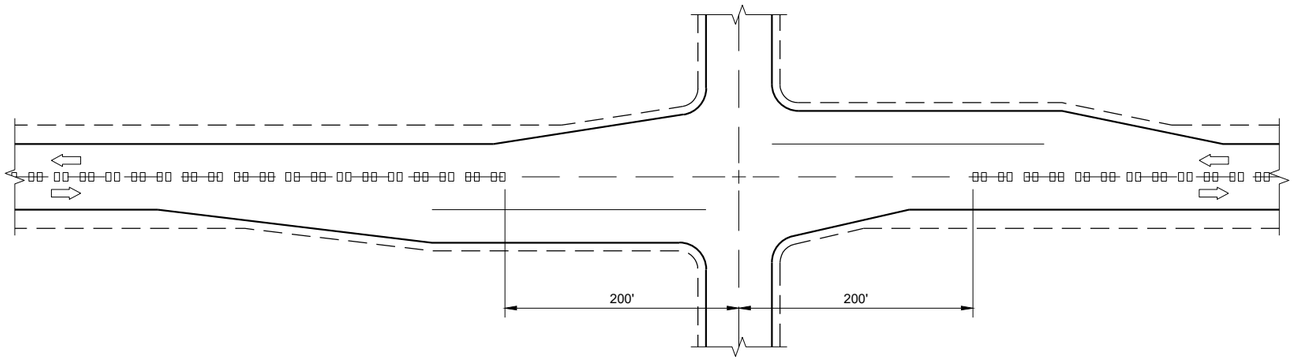
PLAN VIEW

CENTERLINE RUMBLE STRIPS - ASPHALT

CENTERLINE RUMBLE STRIPS - ASPHALT
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTA

6

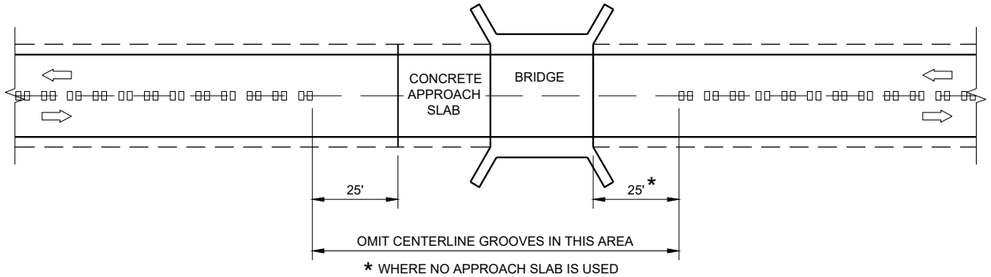
SDD 13A11 - 04a



CENTERLINE GROOVES AT INTERSECTIONS

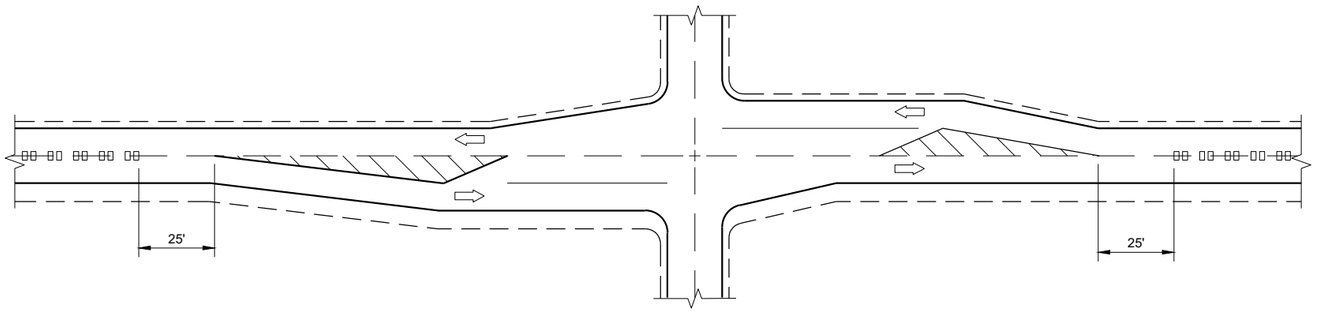
GENERAL NOTES

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

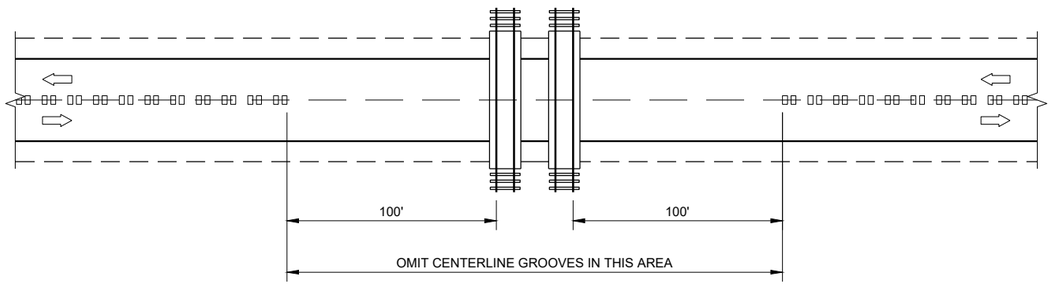


* WHERE NO APPROACH SLAB IS USED

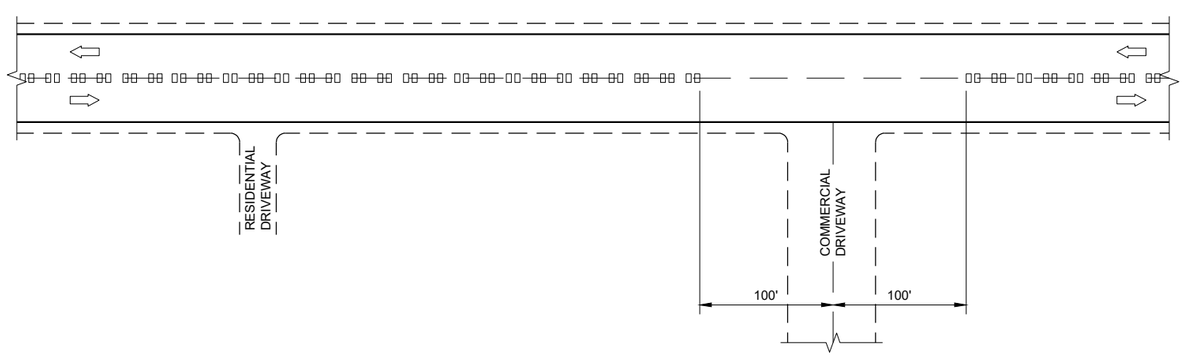
CENTERLINE GROOVES AT BRIDGES



CENTERLINE GROOVES AT INTERSECTIONS (WITH LEFT TURN LANES)



CENTERLINE GROOVES AT RAILROADS



CENTERLINE GROOVES AT DRIVEWAYS (1)

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

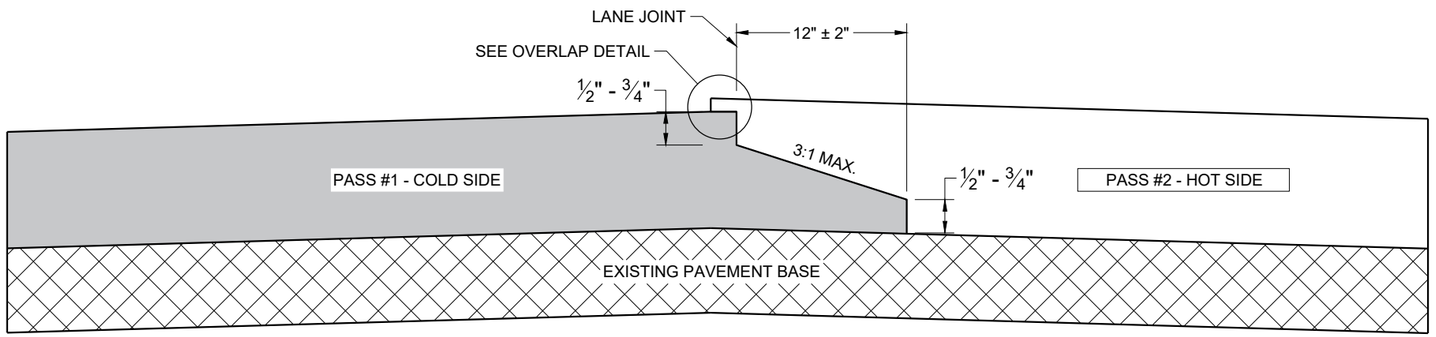
APPROVED
May 2023 — DATE
/S/ John Jenkins — ROADWAY STANDARDS DEVE ENGINEER

FHWA

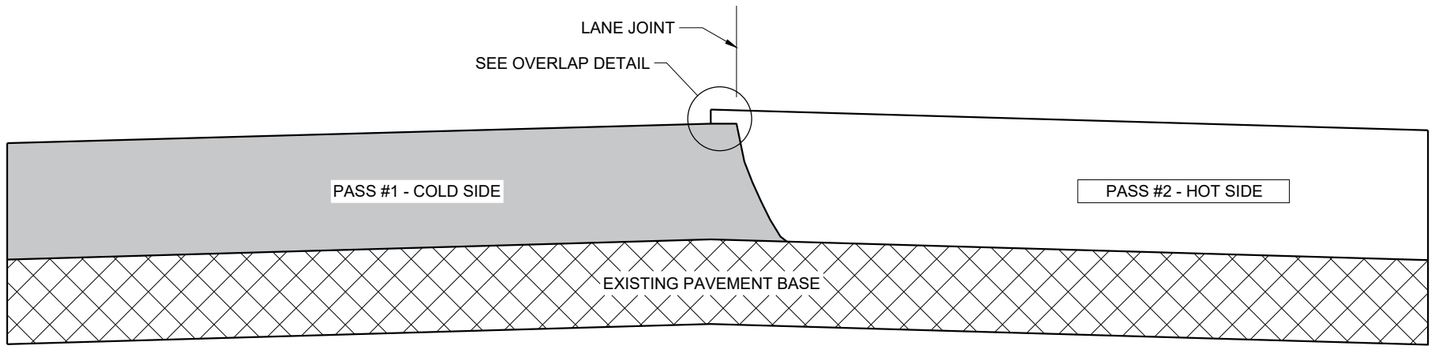
6

SDD 13A11 - 04d

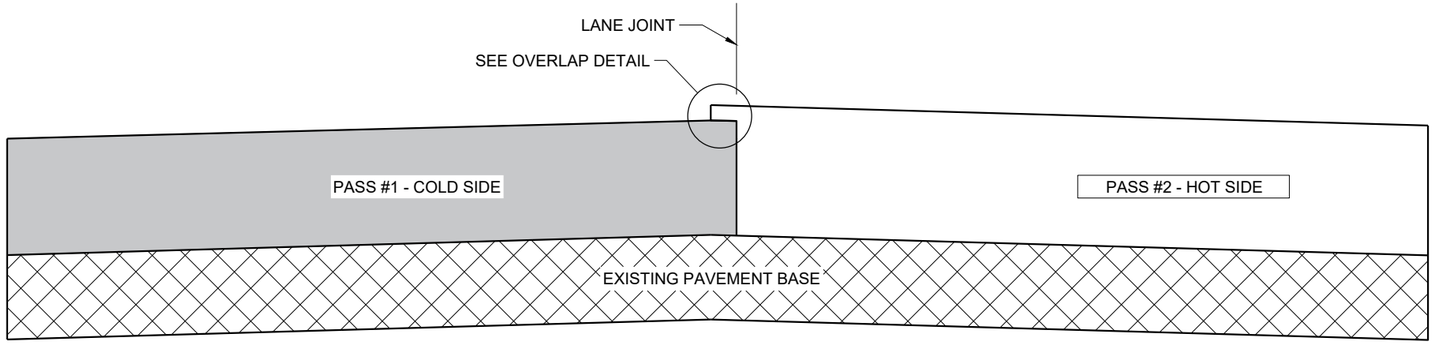
SDD 13A11 - 04d



TYPICAL PAVEMENT CROSS SECTION
NOTCHED WEDGE JOINT



TYPICAL PAVEMENT CROSS SECTION
VERTICAL JOINT



TYPICAL PAVEMENT CROSS SECTION
VERTICAL JOINT (MILLED)

GENERAL NOTES

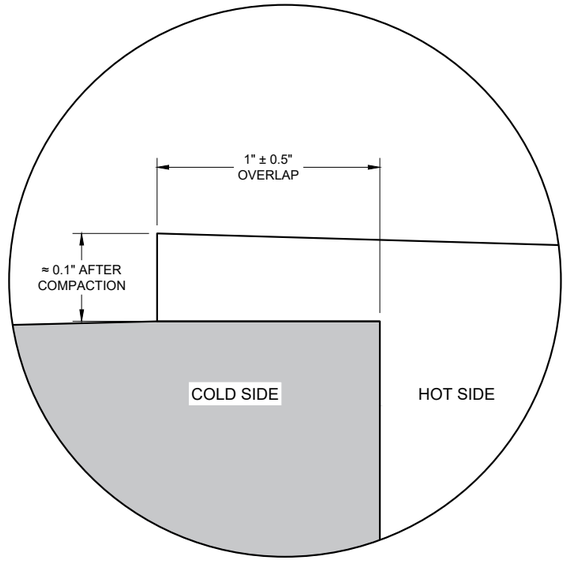
IN ADDITION TO THE DETAILS PROVIDED IN THIS DRAWING, CONFORM TO STANDARD SPECIFICATION 450.3.2.8 FOR WHEN A NOTCHED WEDGE JOINT IS REQUIRED AND FOR GENERAL JOINT CONSTRUCTION REQUIREMENTS.

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

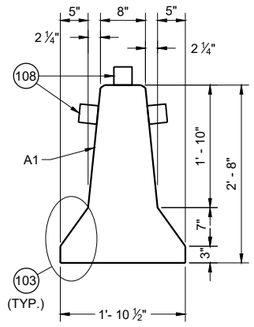
HMA LONGITUDINAL JOINTS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

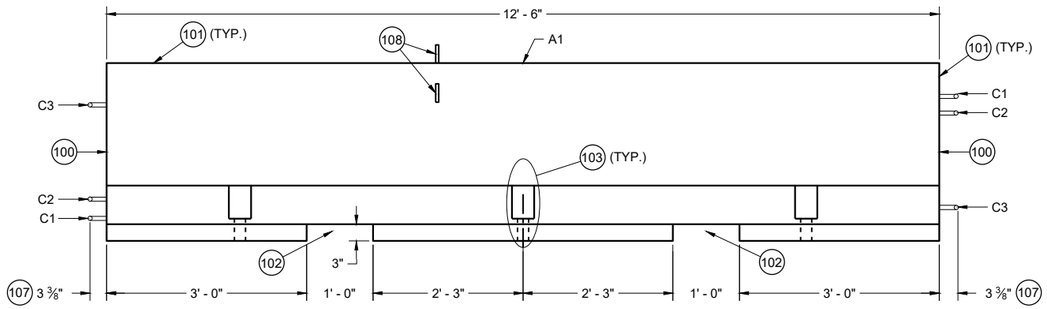
APPROVED
November 2020
DATE

/S/ Steven Hefel
HMA PAVEMENT ENGIN

FHWA



CROSS SECTION



PROFILE VIEW

GENERAL NOTES

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

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

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

(101) 1" OPTIONAL CHAMFER

(102) SEE LIFTING SLOT DETAIL

(103) SEE ANCHOR BLOCK DETAIL

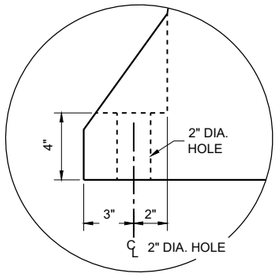
(104) 1 ¾" MIN. CLEAR COVER

(105) 2" MIN. CLEAR COVER

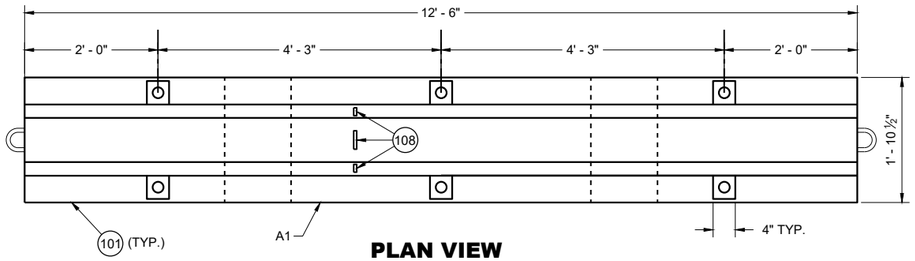
(106) 1" MIN. CLEAR COVER

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

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

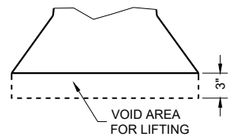


ANCHOR BLOCK DETAIL

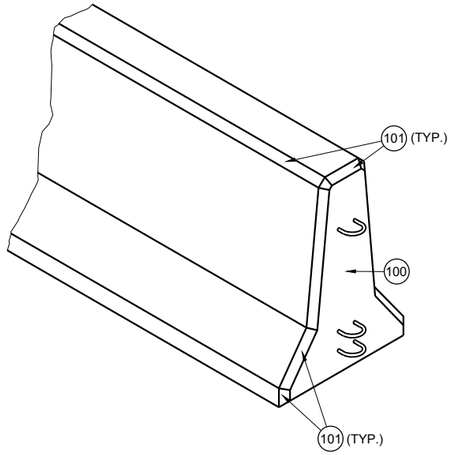


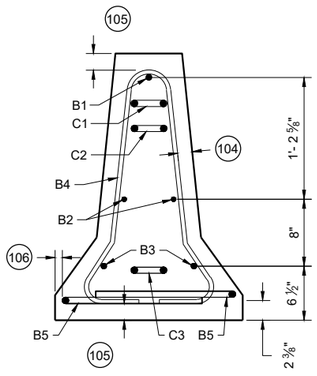
PLAN VIEW

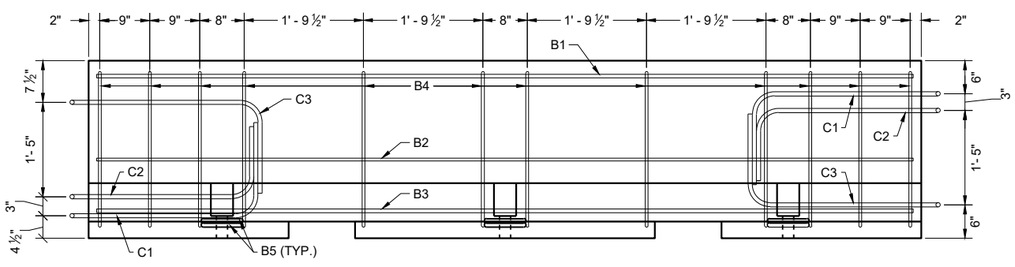
TEMPORARY BARRIER



LIFTING SLOT DETAIL (TYP.)







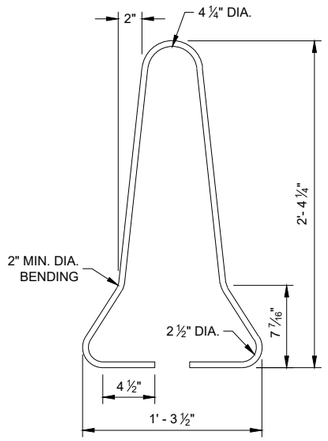
PROFILE VIEW

TEMPORARY BARRIER REINFORCEMENT

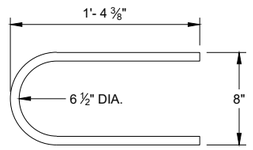
CONCRETE BARRIER TEMPORARY PRECAST, 12' - 6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

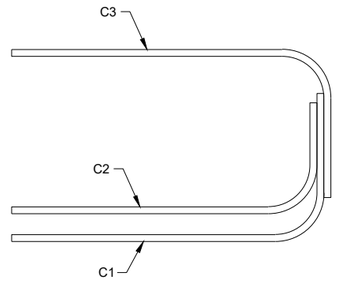
SDD 14B07-16a



B4 BAR DETAIL

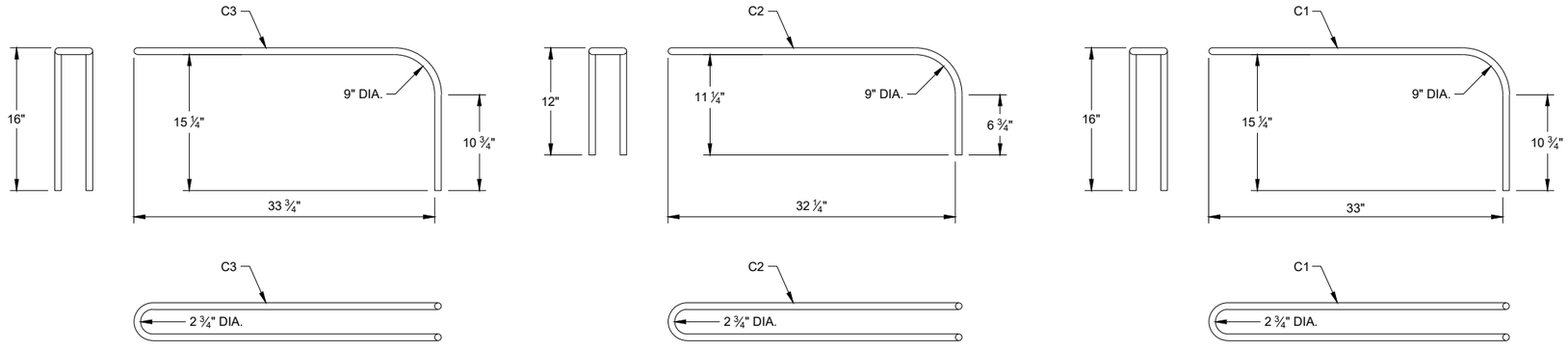


B5 BAR DETAIL



PROFILE VIEW

LOOP BAR ASSEMBLY



C BAR DETAILS

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SDD 14B07-16b

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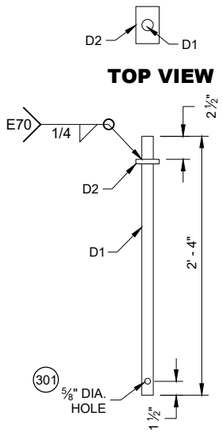
SDD 14B07-16b

CONCRETE BARRIER TEMPORARY PRECAST, 12' - 6"

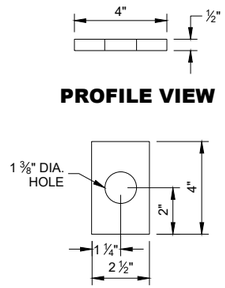
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



TOP VIEW

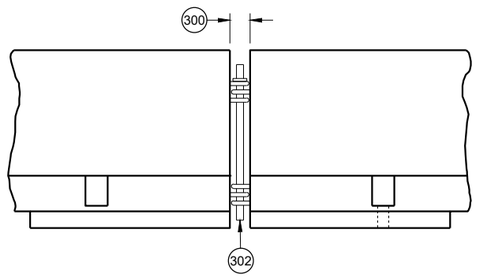
PROFILE VIEW

CONNECTOR PIN ASSEMBLY



PROFILE VIEW

TOP VIEW D2



CONNECTING TEMPORARY BARRIER SECTIONS

GENERAL NOTES

300 SET WITH 3 ⅝" WOOD BLOCK.

301 HOLE IS OPTIONAL.

302 CONNECTOR PIN ASSEMBLY.

303 CONCRETE PAVEMENT, APPROACH SLAB, OR DECK.

304 CONCRETE DECK.

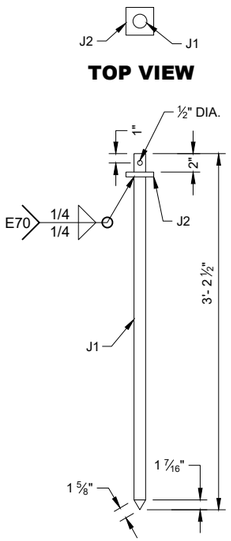
305 DO NOT USE ON CONCRETE BRIDGE DECK WITH ASPHALT OVERLAY OR CONCRETE PAVEMENT WITH ASPHALT OVERLAY.

306 MINIMUM OF 2" OF ASPHALT.

307 ASPHALT ANCHOR PIN ASSEMBLY

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

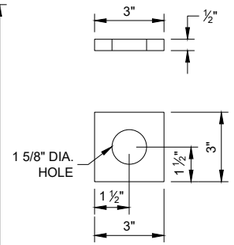
309 WHEN THERE IS ASPHALT OVERLAYING CONCRETE PAVEMENT, A 1 5/8" DIA. PILOT HOLE CAN BE DRILLED INTO THE OVERLAY AND CONCRETE. IF NEEDED DRILL A 3/4" PILOT HOLE IN BASE COURSE.



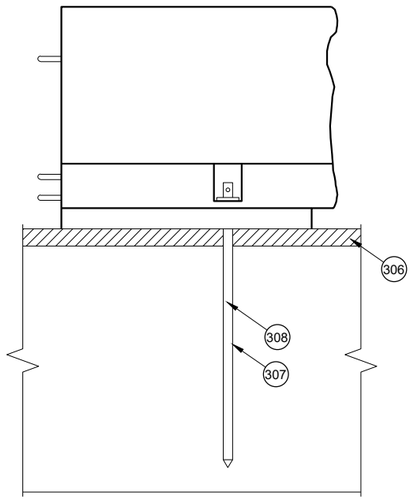
TOP VIEW

PROFILE VIEW

ASPHALT ANCHOR PIN ASSEMBLY

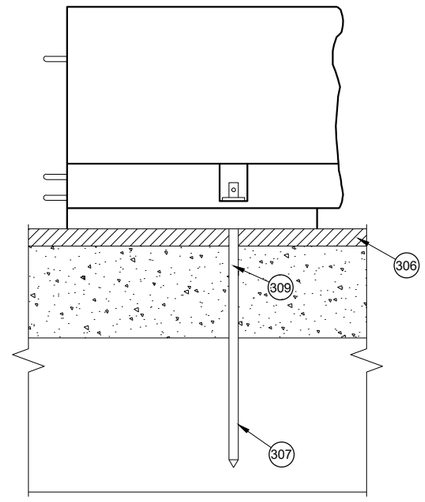


TOP VIEW J2



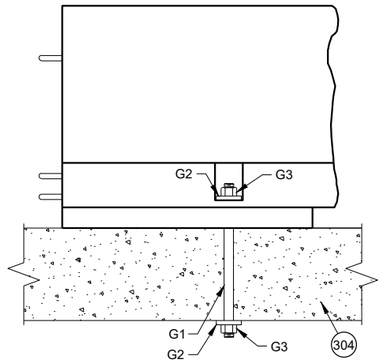
SIDE VIEW

ASPHALT ANCHOR INSTALLATION THROUGH ASPHALT PAVEMENT



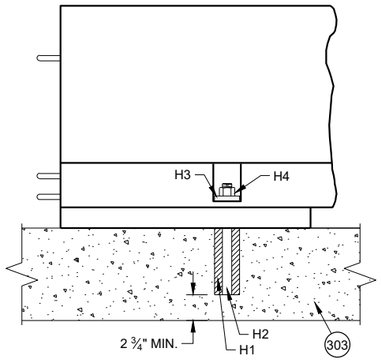
SIDE VIEW

ASPHALT ANCHOR INSTALLATION THROUGH ASPHALT OVERLAY ON TOP OF CONCRETE PAVEMENT



SIDE VIEW

THROUGH BOLT ANCHOR INSTALLATION (305)



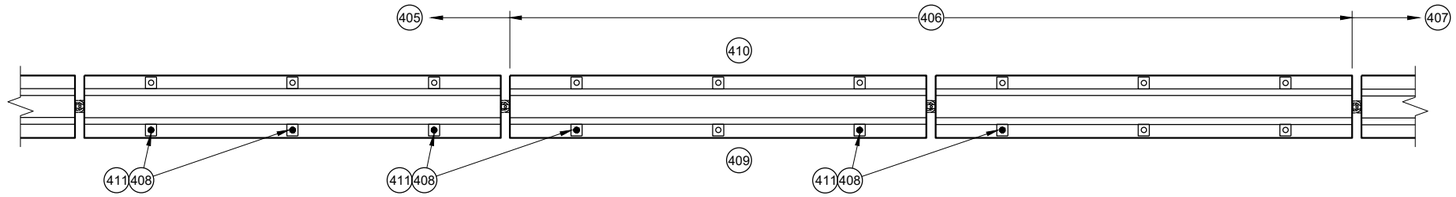
SIDE VIEW

ADHESIVE ANCHOR INSTALLATION (305)

CONCRETE BARRIER TEMPORARY PRECAST, 12' - 6"

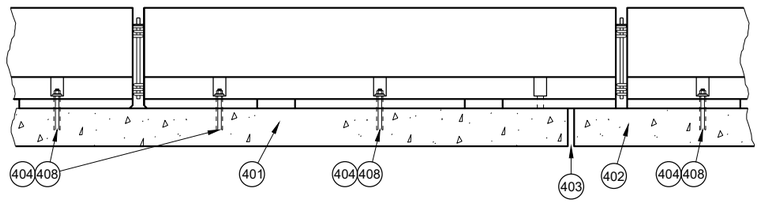
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6
SDD 14B07-16c



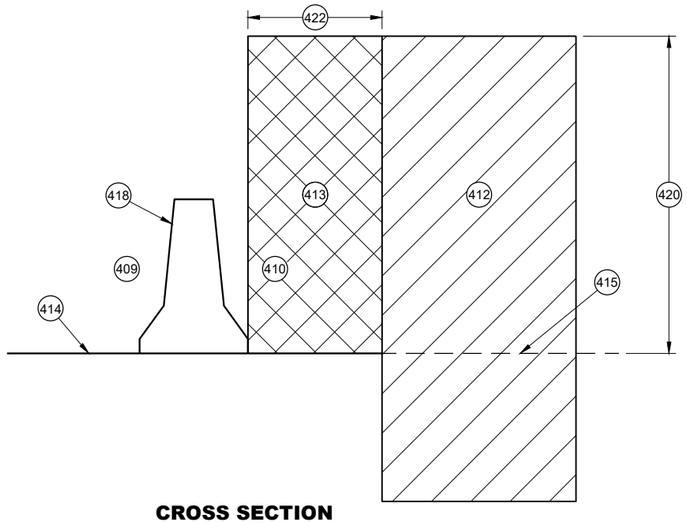
PLAN VIEW

TRANSITION FROM FREE STANDING TO ANCHORED BARRIER



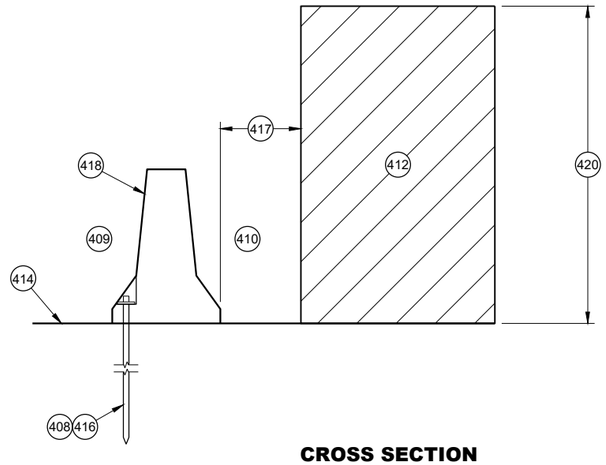
PROFILE VIEW

ANCHORED BARRIER NEAR EXPANSION JOINT (400)



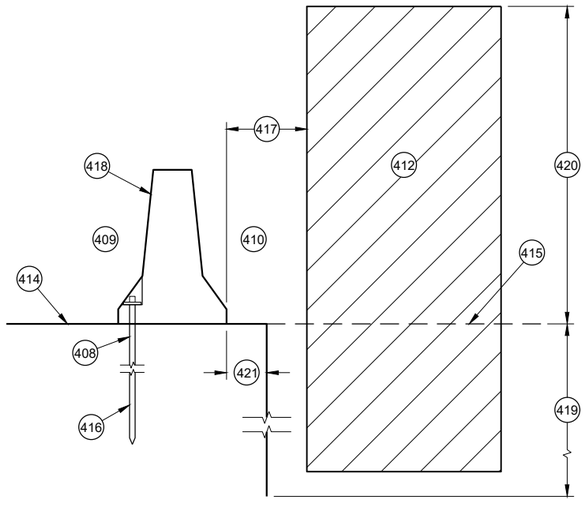
CROSS SECTION

FREE STANDING BARRIER



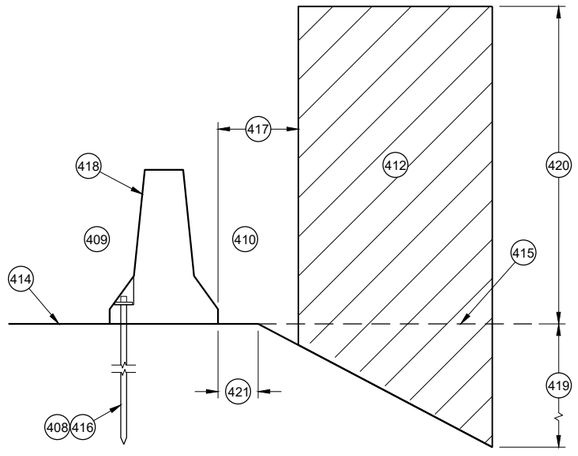
CROSS SECTION

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



CROSS SECTION

ANCHORED BARRIER NEAR VERTICAL DROP OFF



CROSS SECTION

ANCHORED BARRIER NEAR A SLOPE

GENERAL NOTES

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

(401) CONCRETE DECK

(402) CONCRETE DECK OR APPROACH SLAB.

(403) EXPANSION JOINT

(404) ADHESIVE ANCHOR SHOWN. SEE ANCHOR DETAILS.

(405) ANCHORED TEMPORARY BARRIER

(406) TRANSITION FROM ANCHORED TEMPORARY BARRIER TO FREE STANDING

(407) FREE STANDING BARRIER

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

(409) TRAFFIC SIDE

(410) NON-TRAFFIC SIDE

(411) ANCHOR LOCATION. SEE ANCHORING DETAILS.

(412) WORK AREA

(413) AREA FREE OF OBJECTS AND WORKERS

(414) GRADE LINE

(415) EXTENDED GRADE LINE

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

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

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

(419) DEPTHS OF 3 FEET OR MORE.

(420) Y = 6.5'

(421) OFFSET FROM BACK OF BARRIER EDGE:

CONCRETE PAVEMENT	0.5'
ASPHALT	0.5'

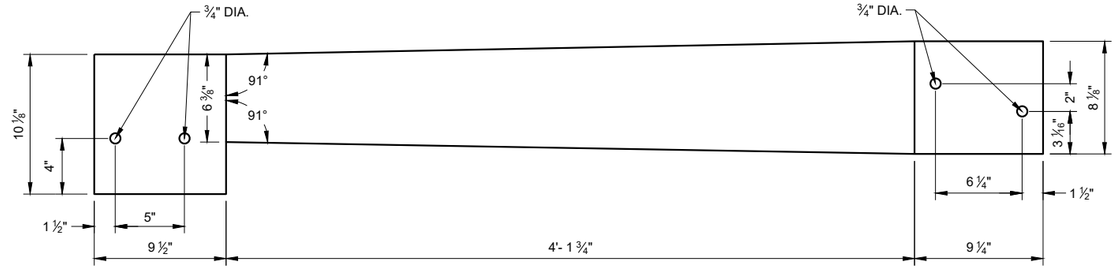
(422) POSTED SPEED (MPH):

45 OR GREATER	4.0'
40 OR LOWER	2.0'

CONCRETE BARRIER TEMPORARY PRECAST, 12' - 6"

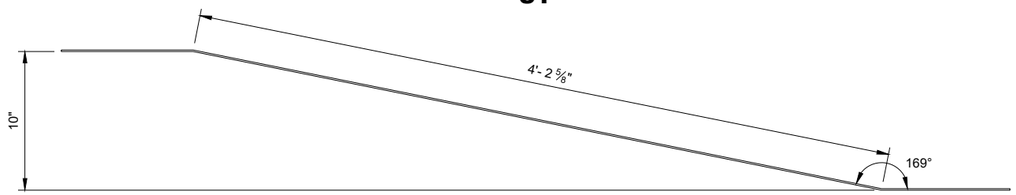
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6
SDD 14B07-16d



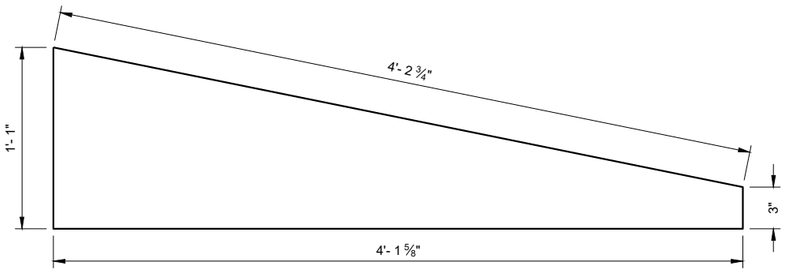
TOP VIEW

S1



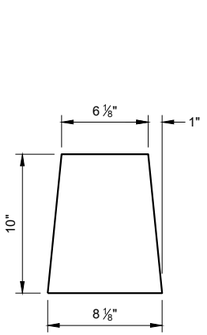
ELEVATION VIEW

S1

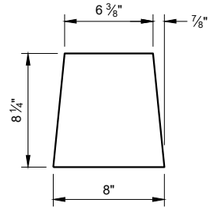


SIDE VIEW

S3



S2



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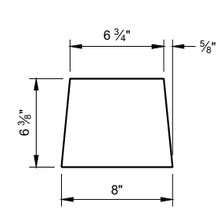
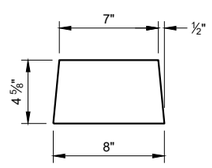
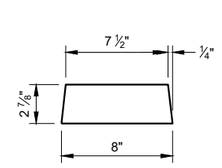


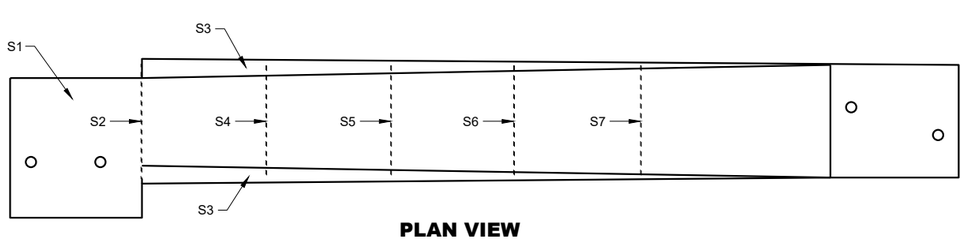
S5



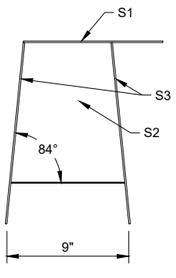
S6



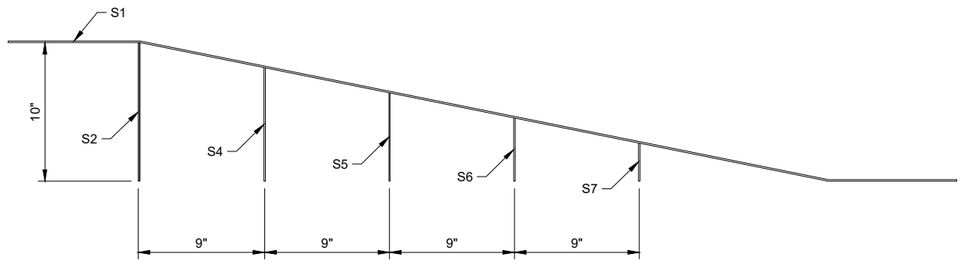
S7



PLAN VIEW



BACK VIEW



SIDE VIEW (600)

42" TOP CAP ASSEMBLY

GENERAL NOTES

STITCH WELD GUSSET PLATES AND END PLATES ON THREE SIDES

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

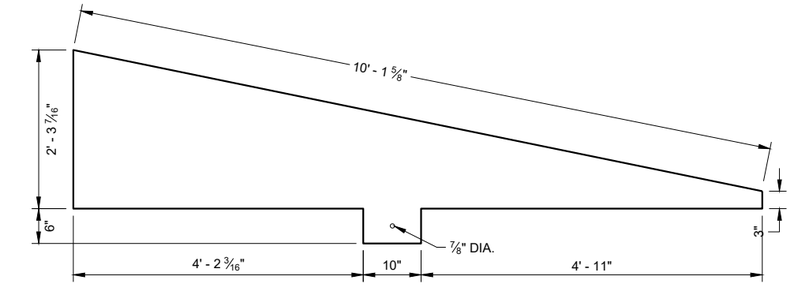
(600) SIDE PLATES (S3) NOT SHOWN FOR CLARITY.

CONCRETE BARRIER TEMPORARY PRECAST, 12' - 6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

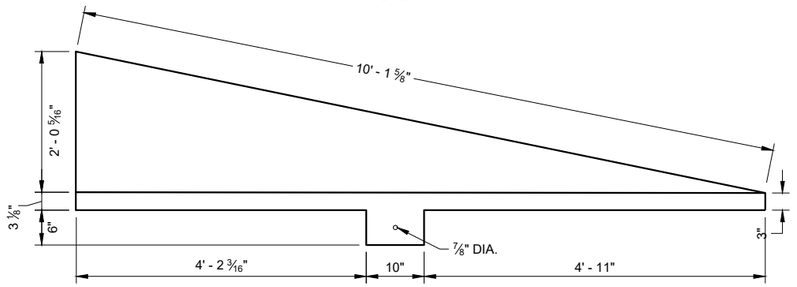
6

SDD 14B07-16f



SIDE VIEW
T4

END VIEW



SIDE VIEW
T3

END VIEW

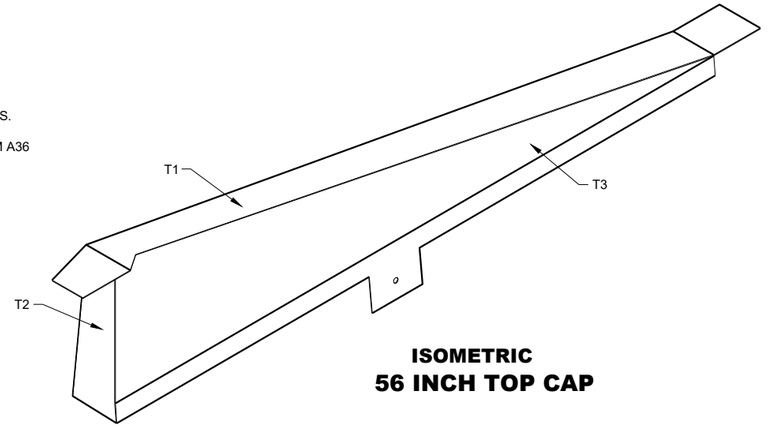
GENERAL NOTES

STITCH WELD GUSSET PLATES AND END PLATES ON THRIE SIDES

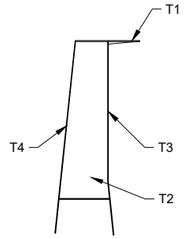
STITCH WELD TWO SIDE PLATES TO TOP PLATE, END PLATE AND GUSSETS.

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

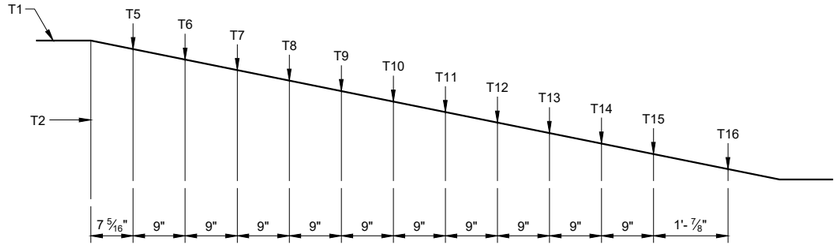
(700) SIDE PLATES (T3 AND T4) NOT SHOWN FOR CLARITY.



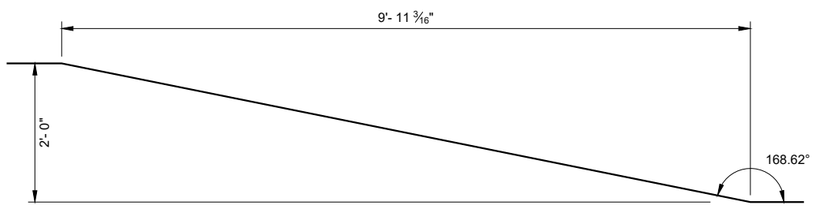
ISOMETRIC
56 INCH TOP CAP



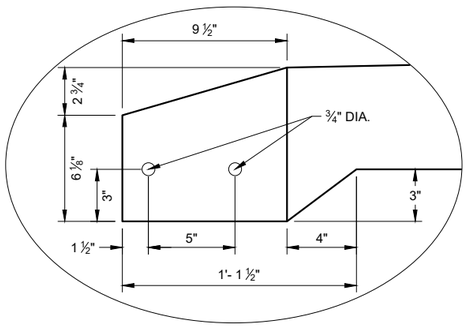
END VIEW
56 INCH TOP CAP



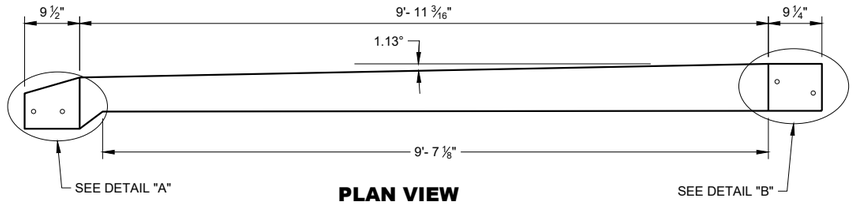
SIDE VIEW (700)
56 INCH TOP CAP



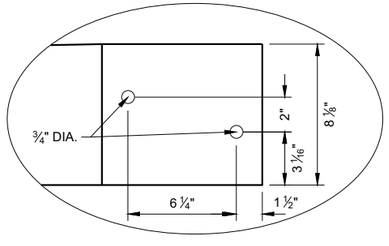
SIDE VIEW
TOP PLATE T1



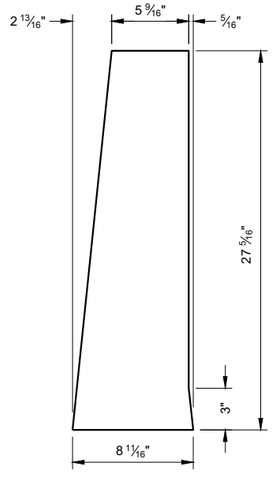
DETAIL "A"



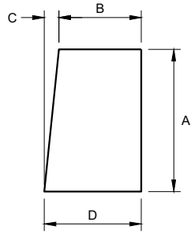
PLAN VIEW
TOP PLATE T1



DETAIL "B"



END PLATE T2



GUSSET PLATES
T5 - T16

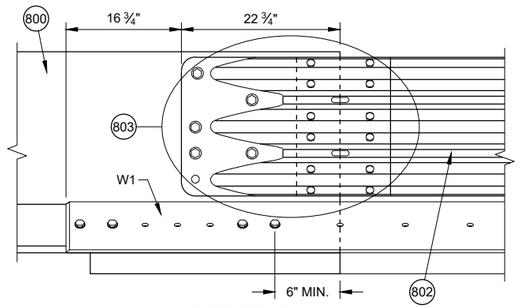
GUSSET DIMENSIONS				
GUSSET NO.	A	B	C	D
T5	22 13/16"	5 1/16"	2 5/16"	8 1/16"
T6	21"	5 7/8"	2 3/16"	8 1/16"
T7	19 3/16"	6 1/16"	1 15/16"	8 1/16"
T8	17 3/8"	6 1/4"	1 13/16"	8 1/16"
T9	15 5/16"	6 7/16"	1 9/16"	8 1/16"
T10	13 3/4"	6 5/8"	1 7/16"	8 1/16"
T11	11 15/16"	6 13/16"	1 1/4"	8 1/16"
T12	10 1/8"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

CONCRETE BARRIER TEMPORARY PRECAST, 12' - 6"

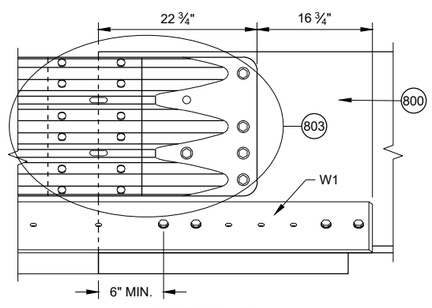
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

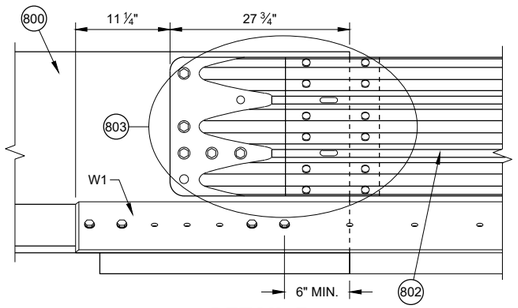
SDD 14B07-16g



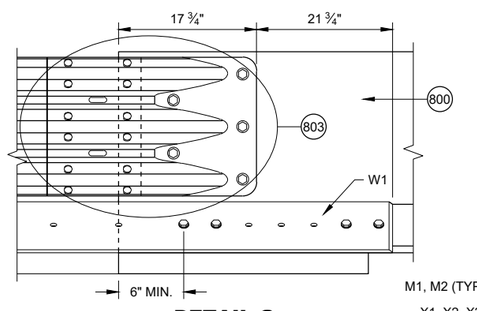
DETAIL D



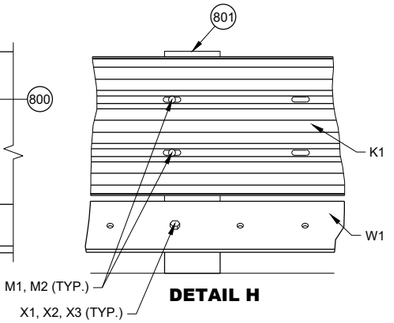
DETAIL E



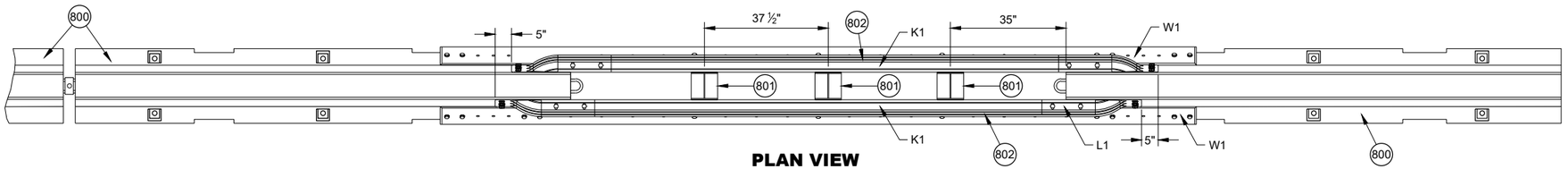
DETAIL F



DETAIL G



DETAIL H



PLAN VIEW

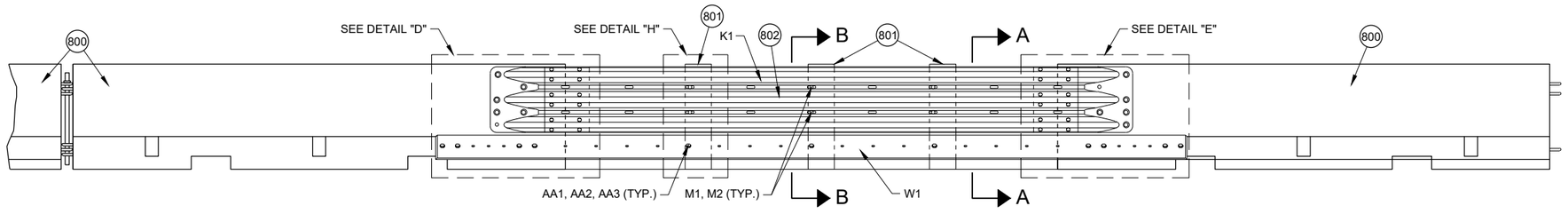
GENERAL NOTES

(800) FREE STANDING TEMPORARY BARRIER

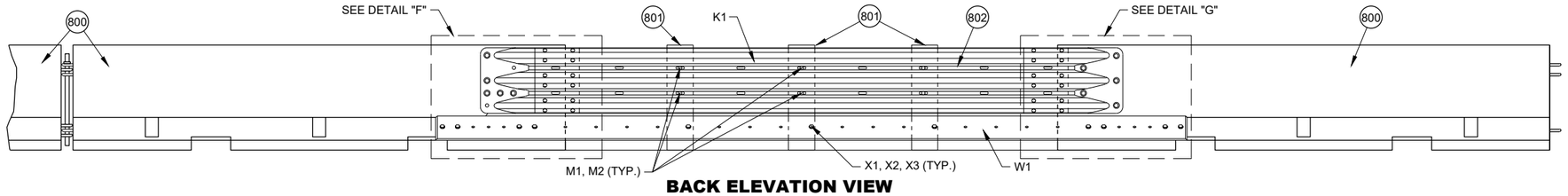
(801) GAP STIFFENER ASSEMBLY

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

(803) SEE THRIE BEAM RAIL TERMINAL CONNECTOR DETAIL



FRONT ELEVATION VIEW



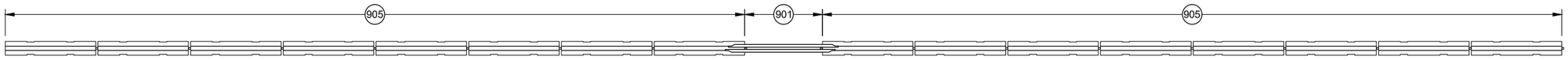
BACK ELEVATION VIEW

PORTABLE CONCRETE BARRIER GAP THRIE BEAM COVER

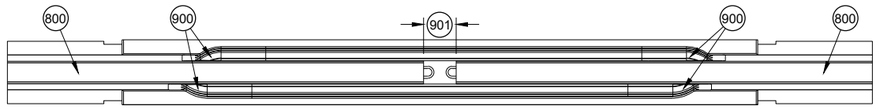
CONCRETE BARRIER TEMPORARY PRECAST, 12' - 6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6
SDD 14B07-16h



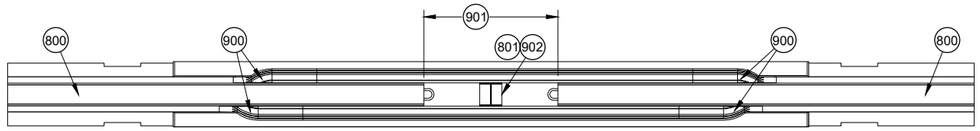
PLAN VIEW
GAP WITHIN SPACING



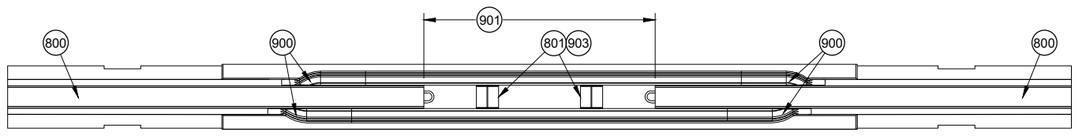
PLAN VIEW
TEMPORARY BARRIER GAP OVER 4" TO 1' MAX. (904)

GENERAL NOTES

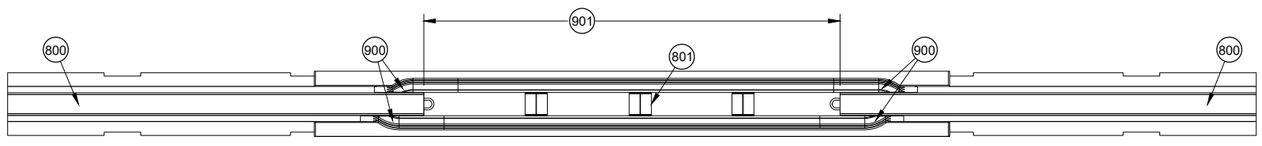
(900) SEE OTHER DETAILS FOR TEMPORARY GAP HARDWARE (TYP.)
(901) TEMPORARY BARRIER GAP
(902) GAP STIFFENER ASSEMBLY CENTERED IN THE GAP.
(903) GAP STIFFENER ASSEMBLY IS OFFSET 18 ¾" FROM CENTER
(904) MINIMUM NUMBER OF GAP STIFFENERS SHOWN FOR THE GAP RANGE SHOWN.
(905) MINIMUM OF 8 CONTINUOUS FREE STANDING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



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



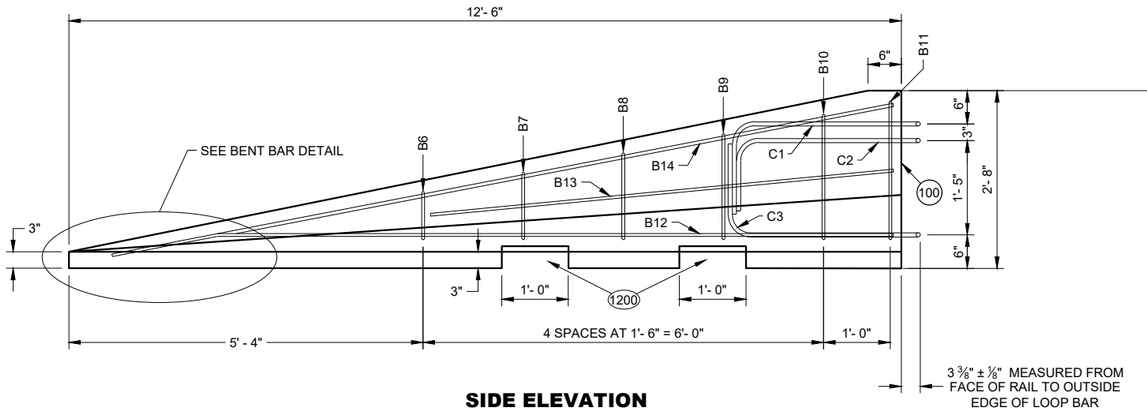
PLAN VIEW
TEMPORARY BARRIER GAP OVER 4' TO 7' MAX. (904)



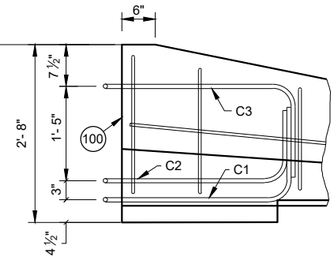
PLAN VIEW
TEMPORARY BARRIER GAP OVER 7' TO 12.5' MAX. (904)

CONCRETE BARRIER TEMPORARY PRECAST, 12' - 6"

6
SDD 14B07-16i



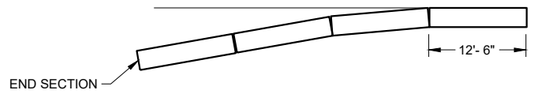
SIDE ELEVATION
(FOR CONNECTION TO LEFT END OF BARRIER)



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

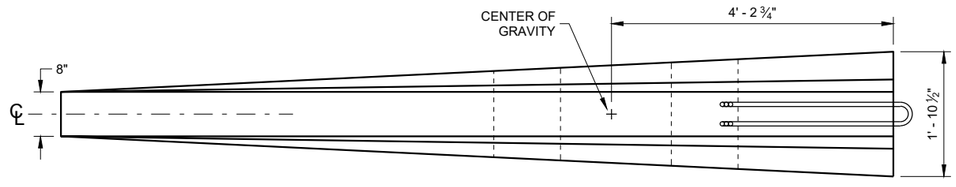
GENERAL NOTES

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

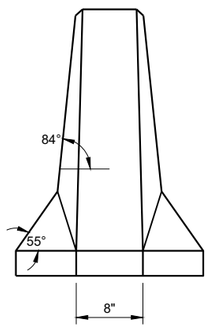


FLARE AT BARRIER END

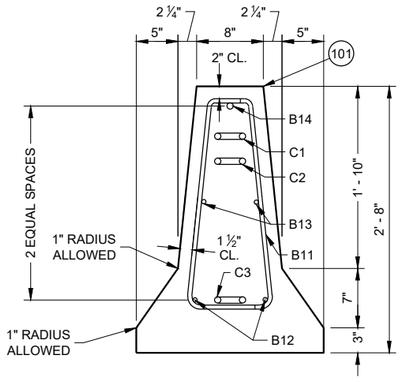
POSTED SPEED, (MPH)	FLARE RATE
40 OR LESS	6:1
45 OR GREATER	8:1



PLAN VIEW

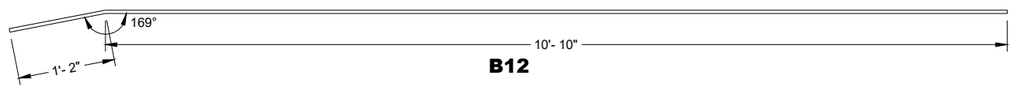


FRONT ELEVATION

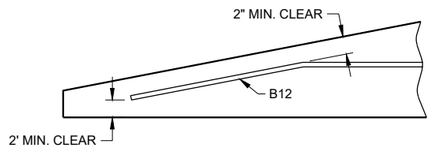


END SECTION

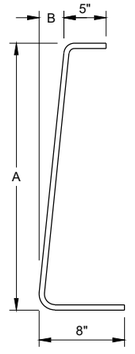
DETAILS OF BARRIER TAPER SECTION



B12



BENT BAR DETAIL



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

B BARS

2 OF EACH SIZE REQUIRED FOR STIRRUP ASSEMBLY

CONCRETE BARRIER TEMPORARY PRECAST, 12' - 6"

BILL OF MATERIALS - CONCRETE BARRIER PRECAST

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

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

6

SDD 14B07-16m

CONCRETE BARRIER TEMPORARY PRECAST, 12' - 6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 14B07-16m

BILL OF MATERIALS - CONCRETE BARRIER PRECAST

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

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

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SDD 14B07-16n

CONCRETE BARRIER TEMPORARY PRECAST, 12' - 6"

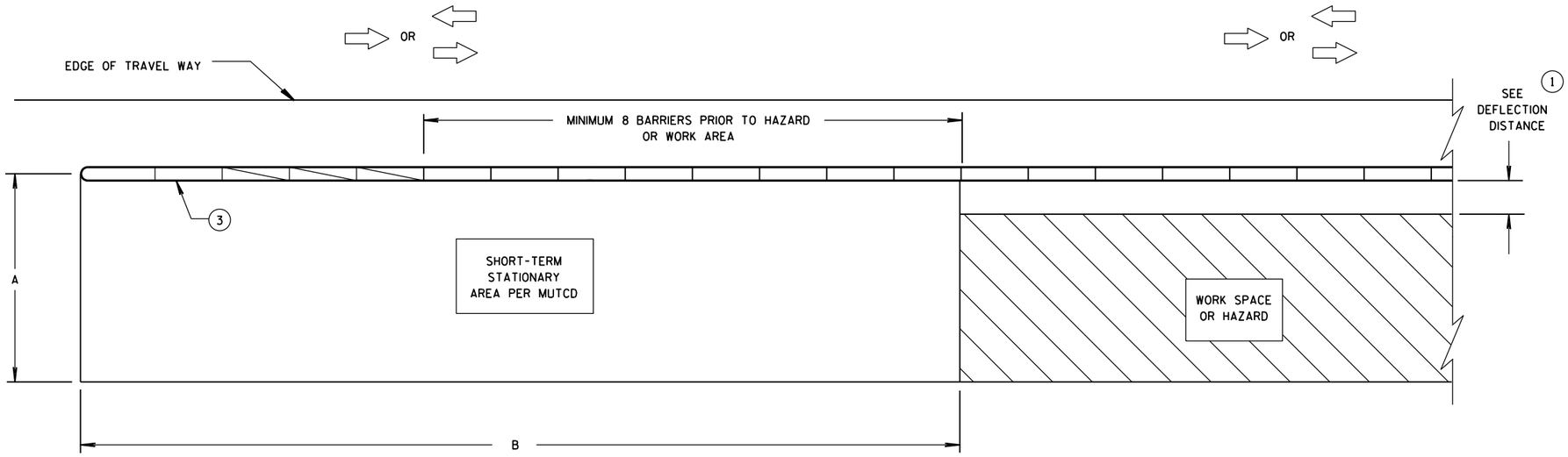
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

FHWA

6

SDD 14B07-16n



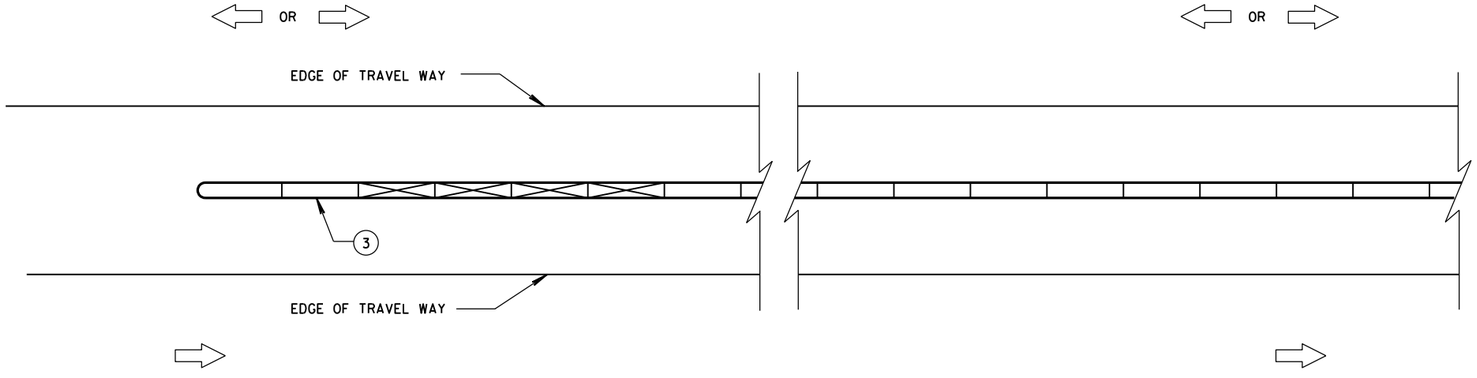
CRASH CUSHION/SAND BARREL ARRAY AND TEMPORARY BARRIER INSTALLATION FOR TRAFFIC ON ONE SIDE OF BARRIER

DIMENSION A TABLE (2)

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

DIMENSION B TABLE (2)

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



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

LEGEND

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

GENERAL NOTES

SEE STANDARD DETAIL DRAWING 14B7 FOR MORE INFORMATION.

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

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

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

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

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

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

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

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

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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

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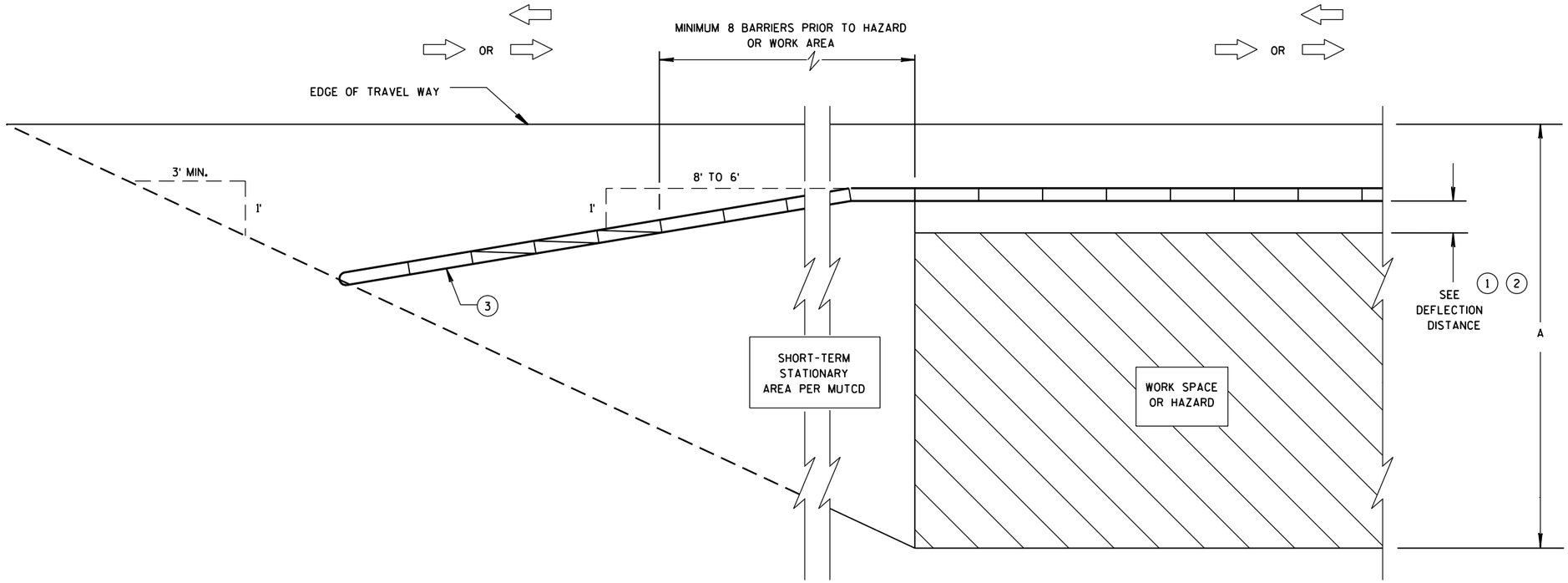
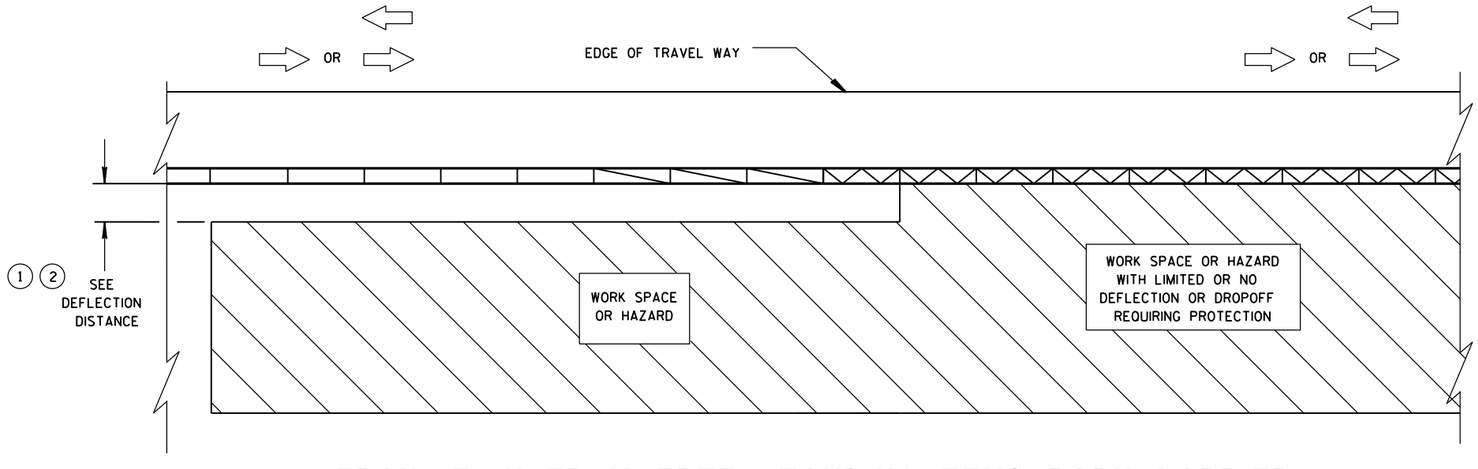


CRASH CUSHION/SAND BARREL ARRAY AND TEMPORARY BARRIER INSTALLATION FOR TRAFFIC ON ONE SIDE - FLARED INSTALLATION



TRANSITION FROM FREE STANDING TEMPORARY BARRIER TO ANCHORED BARRIER

LEGEND

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

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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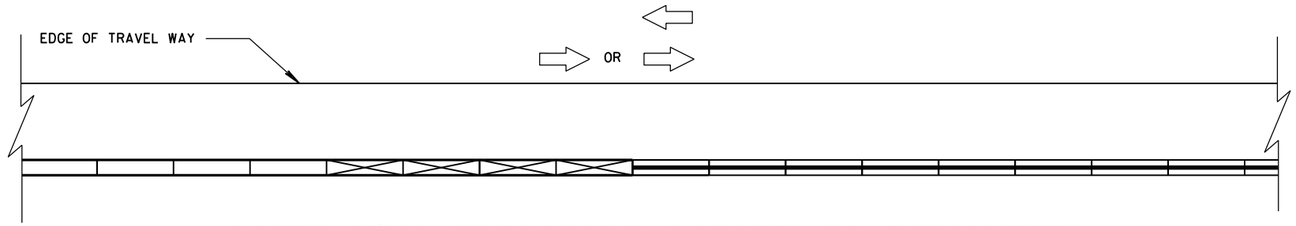
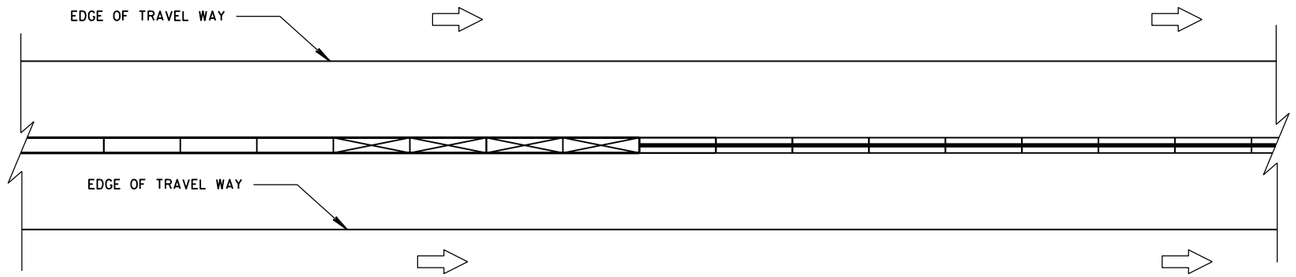
S.D.D. 14 B 8-2b



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



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

LEGEND

DIRECTION OF TRAVEL

CRASH CUSHION OR
SAND BARREL ARRAY

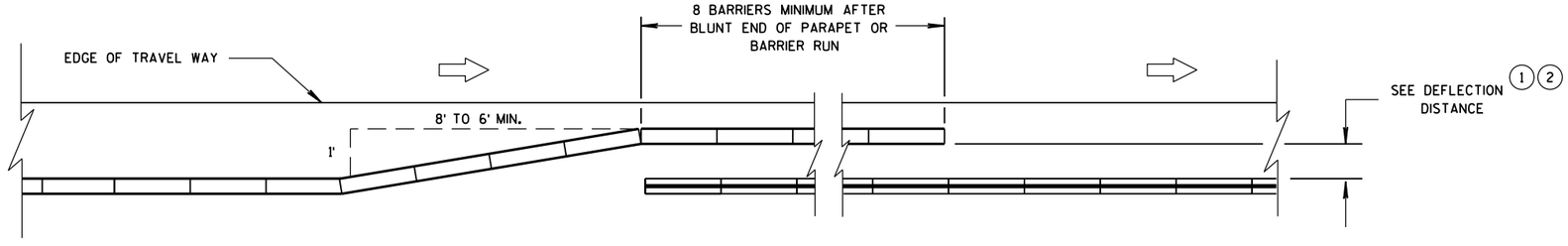
SEE FREE STANDING TRANSITION
TO TIED-DOWN SYSTEM DETAILS

SEE BI-DIRECTIONAL TRANSITION
TO TIED-DOWN SYSTEM DETAILS

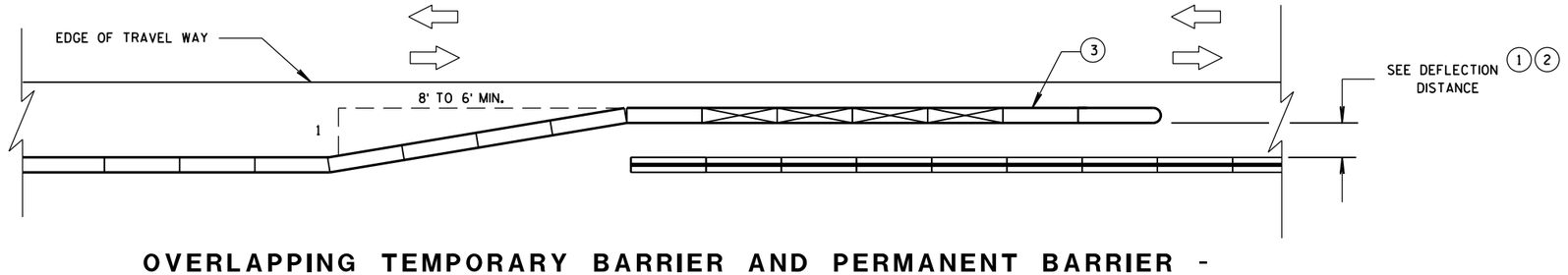
3 PINS PLACED ON
TRAFFIC SIDE OF BARRIER

PERMANENT CONCRETE BARRIER
OR CONCRETE PARAPET

FREE STANDING TEMPORARY
BARRIER



OVERLAPPING TEMPORARY BARRIER AND PERMANENT BARRIER -
ONE WAY TRAFFIC



OVERLAPPING TEMPORARY BARRIER AND PERMANENT BARRIER -
TWO WAY TRAFFIC

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

STATE OF WISCONSIN
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S.D.D. 14 B 8-2d

LEGEND

DIRECTION OF TRAVEL

CRASH CUSHION OR SAND BARREL ARRAY

SEE FREE STANDING TRANSITION TO TIED-DOWN SYSTEM DETAILS

SEE BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM DETAILS

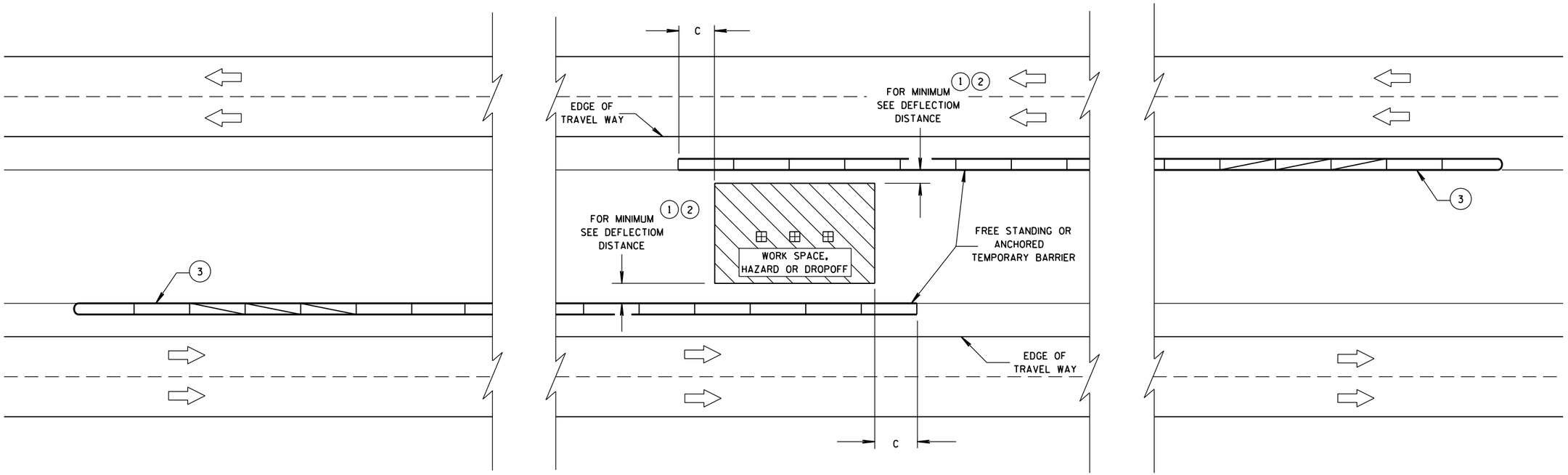
3 PINS PLACED ON TRAFFIC SIDE OF BARRIER

PERMANENT CONCRETE BARRIER OR CONCRETE PARAPET

FREE STANDING TEMPORARY BARRIER

DIMENSION C TABLE (2)

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



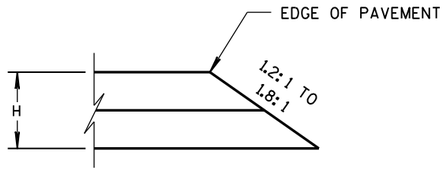
CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

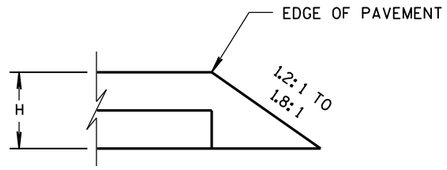
6

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



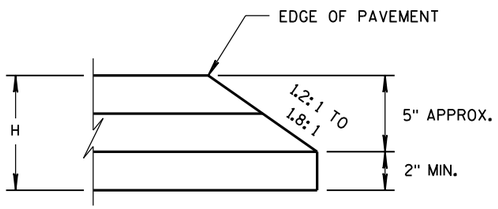
CONSTRUCTED WITH FINAL TWO LAYERS

FOR H 5" OR LESS



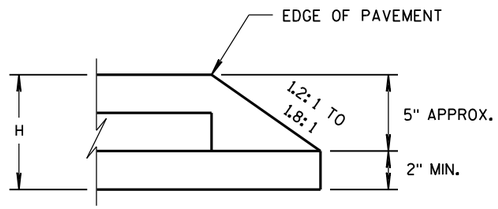
CONSTRUCTED WITH FINAL LAYER

FOR H 5" OR LESS



CONSTRUCTED WITH FINAL TWO LAYERS

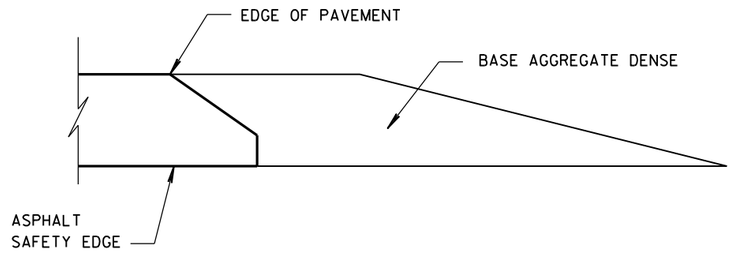
FOR H GREATER THAN 5"



CONSTRUCTED WITH FINAL LAYER

FOR H GREATER THAN 5"

HMA PAVEMENT AND HMA OVERLAYS



FINISHED SHOULDER AGGREGATE PLACEMENT

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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.

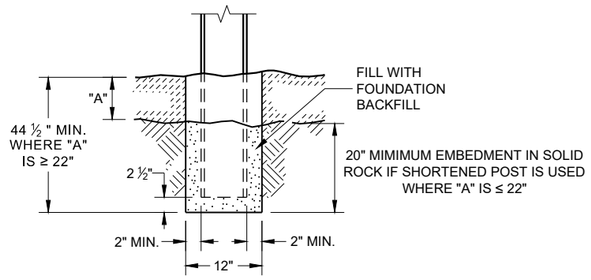
(3) IF ROCK IS ENCOUNTERED DURING EXCAVATION, PROVIDE A HOLE 12 INCHES IN DIAMETER EXTENDING 20 INCHES DEEP INTO THE ROCK. PLACE APPROXIMATELY 2 1/2" INCHES OF GRANULAR MATERIAL IN THE BOTTOM OF THE HOLE. CUT THE POSTS THE TO LENGTH AMD INSTALL. BACKFILL WITH EXCAVATED MATERIAL AND COMPACT. BACKFILL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

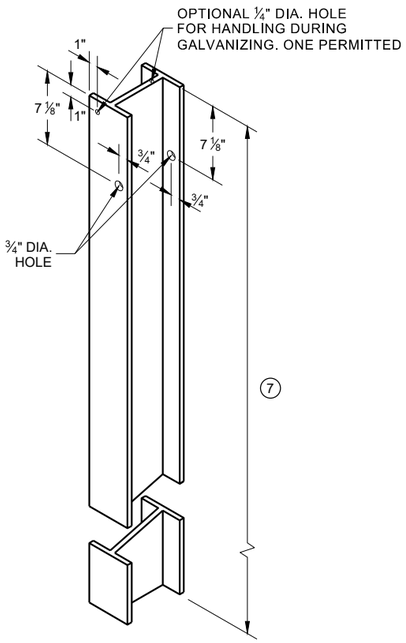
(5) FOR NEW MGS INSTALLATION TOP OF W-BEAM RAIL TOLERANCE IS ±1". FOR EXISTING MGS INSTALLATION TOP OF W-BEAM IS BETWEEN 27 ¾" TO 32".

(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.

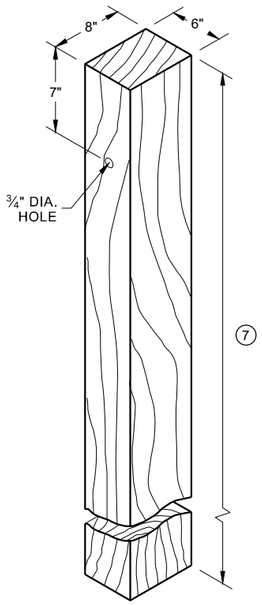
(7) TOTAL POST LENGTH FOR TYPE K IS 7' - 0".
TOTAL POST LENGTH FOR OTHER MGS TYPES IS 6' - 0".



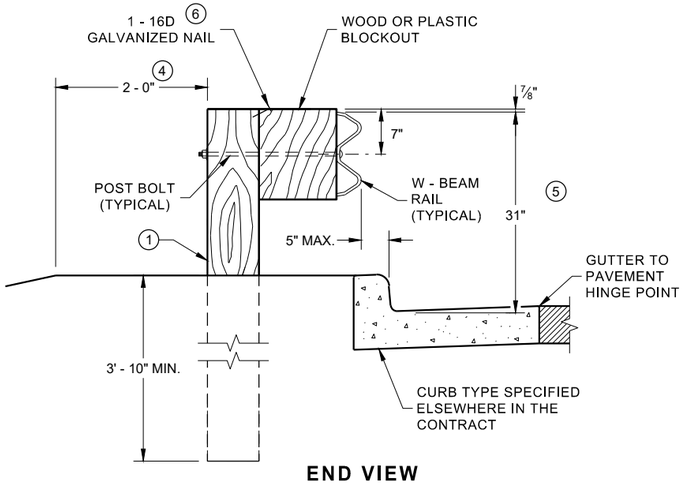
END VIEW
SETTING STEEL OR WOOD POST IN ROCK (3)



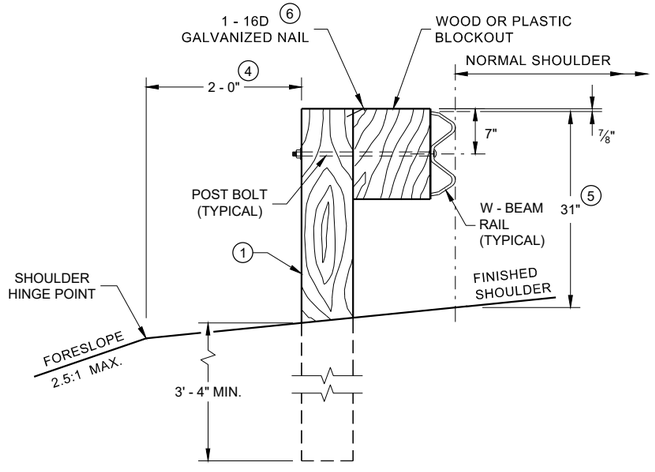
STEEL POST & HOLE PUNCHING DETAIL (W 6 X 9) (1)



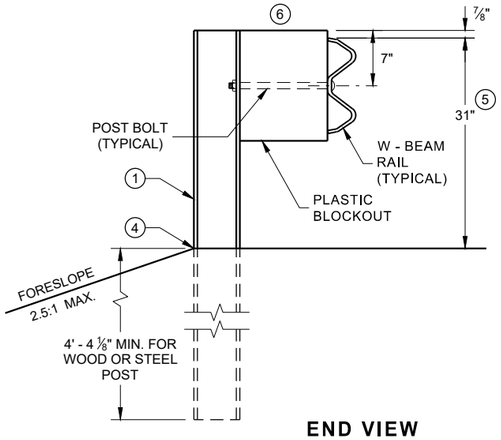
WOOD POST (6" X 8") NOMINAL (1)



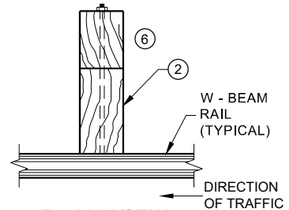
END VIEW
LOCATED ALONG A CURBED ROADWAY



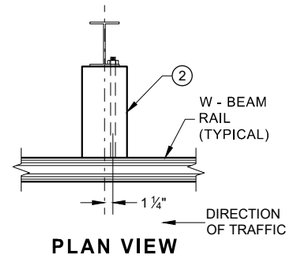
END VIEW
LOCATED ALONG A ROADWAY SHOULDER STANDARD INSTALLATION



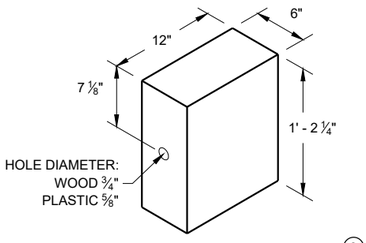
END VIEW
MGS LONGER POST AT HALFPOST SPACING W BEAM (K)



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

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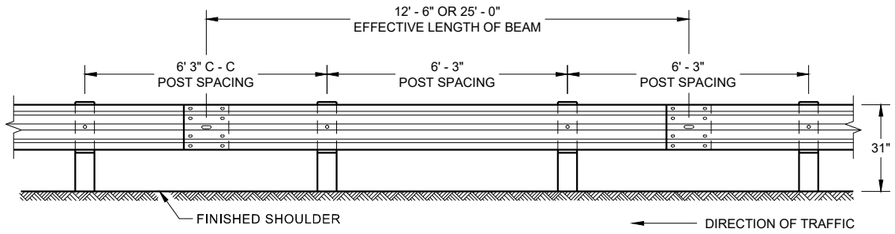
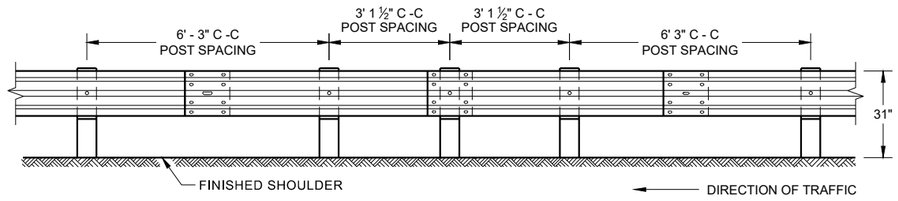
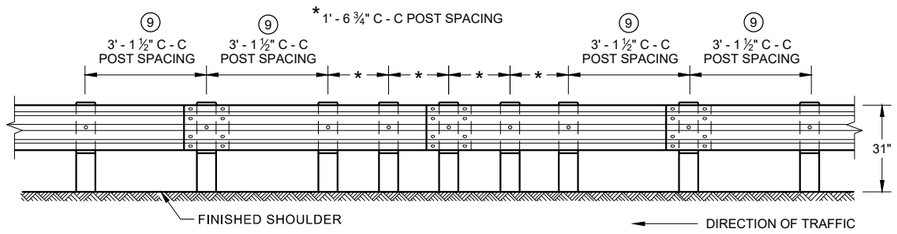


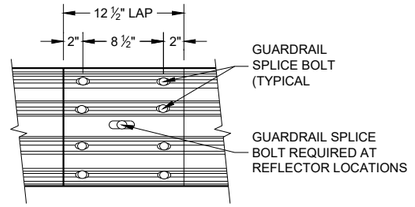
FRONT VIEW
POST SPACING STANDARD INSTALLATION



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

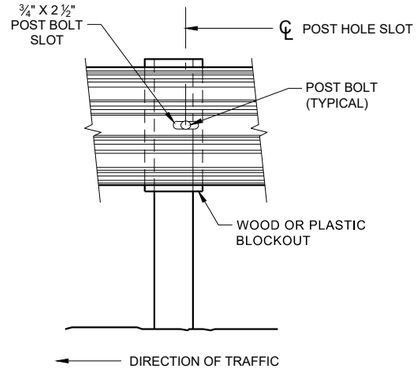
GENERAL NOTES

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

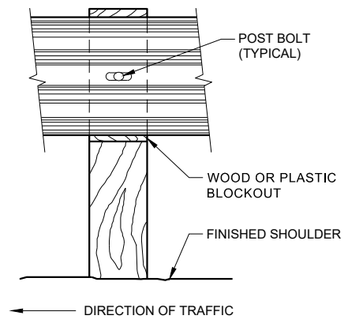
(9) 25 FEET OF HALF POST SPACING IS REQUIRED ON APPROACH AND DEPARTURE ENDS OF QUARTER POST SPACING.

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.

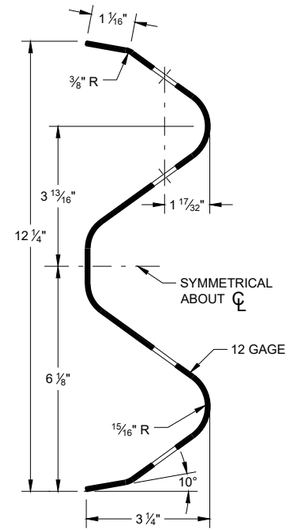
GUARD RAIL SPLICE BOLTS ARE A ⅝" DIAMETER ASTM A307 GUARDRAIL HEAD BOLT. A GUARDRAIL SPLICE BOLT REQUIRES ⅝" DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX NUT.



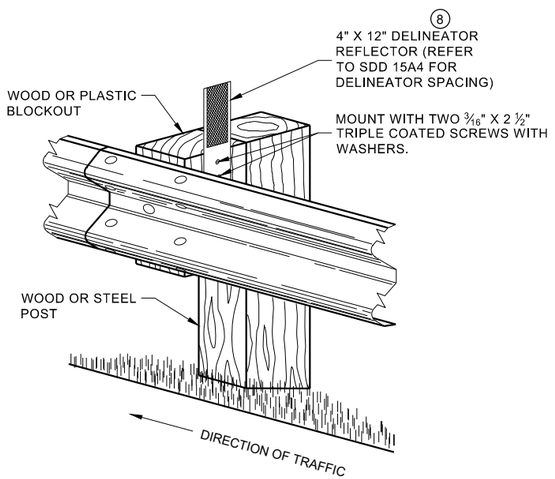
FRONT VIEW AT STEEL POST



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

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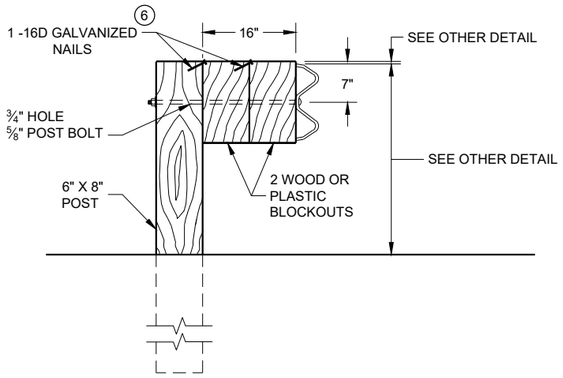
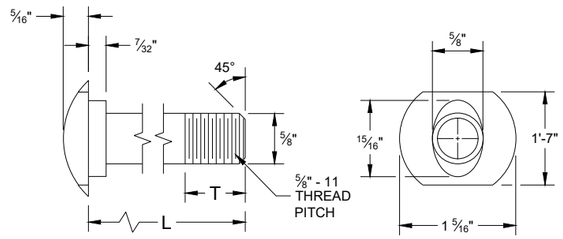


DETAIL FOR 16" BLOCKOUT DEPTH

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

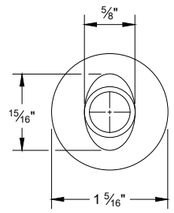
NOTE:

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

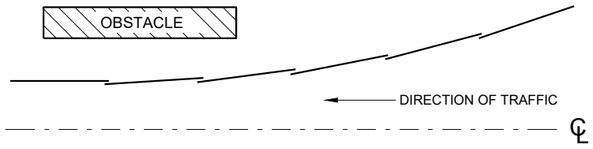


POST BOLT TABLE

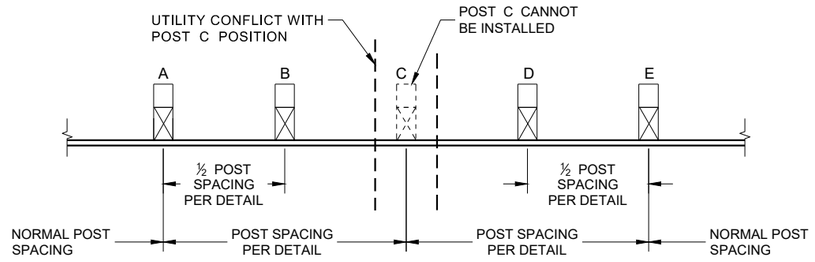
L	T (MIN.)
1 ¼"	1 ⅛"
2"	1 ¾"
10"	4"
14"	4 1⁄16"
18"	4"
21"	4 1⁄16"
25"	4"



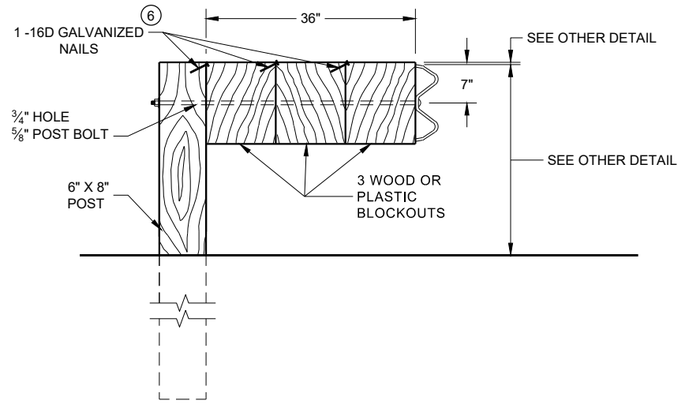
ALTERNATE BOLT HEAD



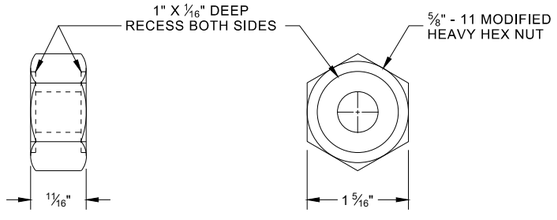
PLAN VIEW
BEAM LAPPING DETAIL



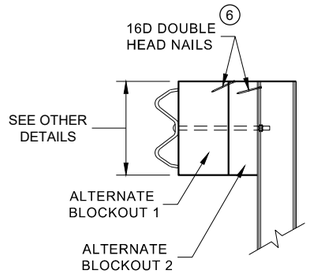
POST DRIVING FOR CONTINUOUS UNDERGROUND OBSTRUCTION



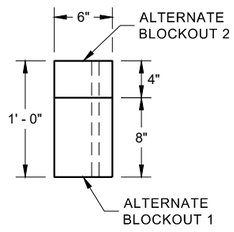
DETAIL FOR 36" BLOCKOUT DEPTH



POST BOLT, SPLICE BOLT AND RECESS NUT



SIDE VIEW



PLAN VIEW

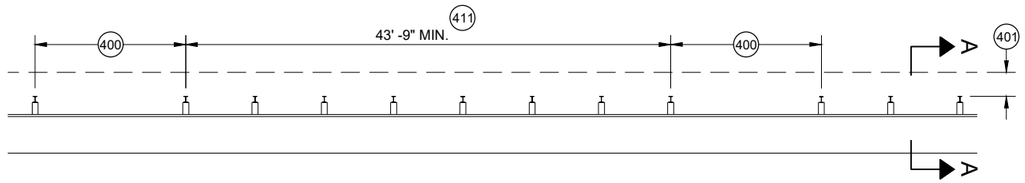
ALTERNATE WOOD BLOCKOUT DETAIL

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

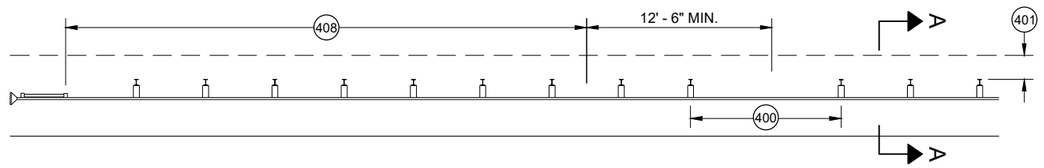
DO NOT USE 16" OR 36" BLOCKOUTS IF IT CAUSES THE POST TO BE DRIVEN BEYOND SHOULDER HINGE POINT OR CAUSES A FIXED OBJECT TO BE WITHIN THE DEFLECTION DISTANCE OF THE BARRIER.

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

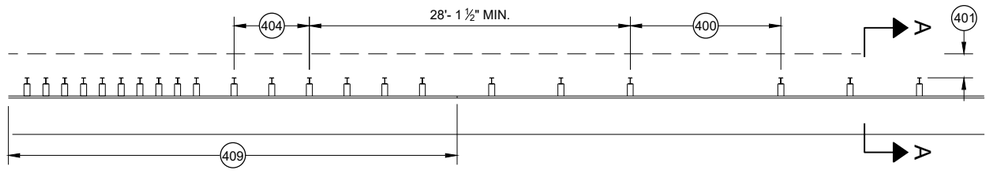
MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL



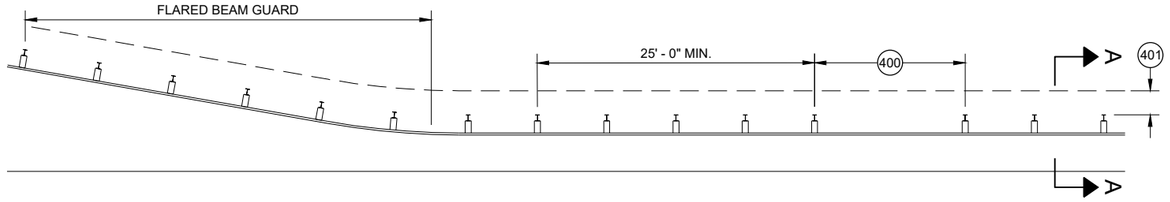
MISSING POST IN MGS GUARDRAIL



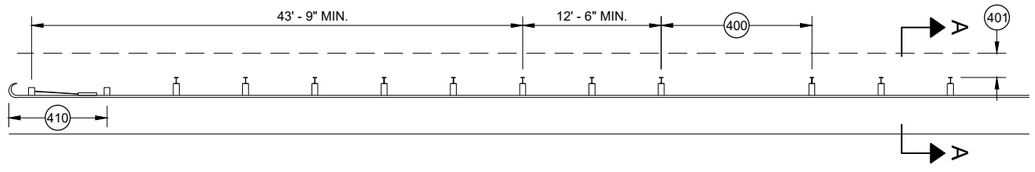
MISSING POST IN MGS GUARDRAIL NEAR EAT



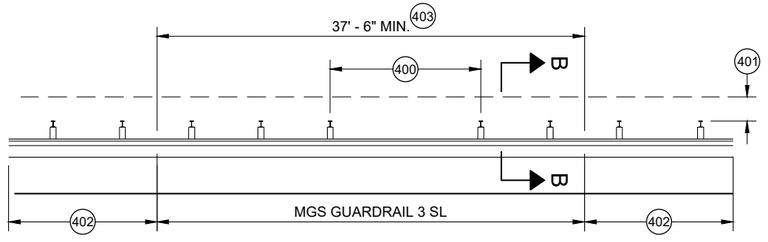
MISSING POST IN MGS GUARDRAIL NEAR AN APPROACH TRANSITION



MISSING POST IN MGS GUARDRAIL NEAR FLARED BEAM GUARD

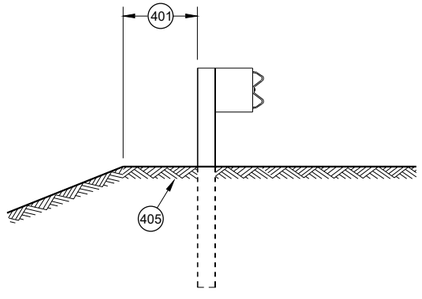


MISSING POST IN MGS GUARDRAIL NEAR A TYPE 2 END TERMINAL

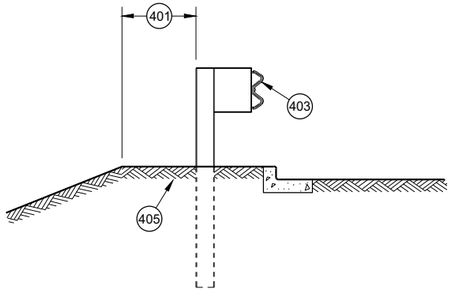


MISSING POST IN SHORT SPAN MGS GUARDRAIL NEAR CURB (SL) 407

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



SECTION A - A 406



SECTION B - B 406

MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

FHWA

6

SDD 14B42 - 07d

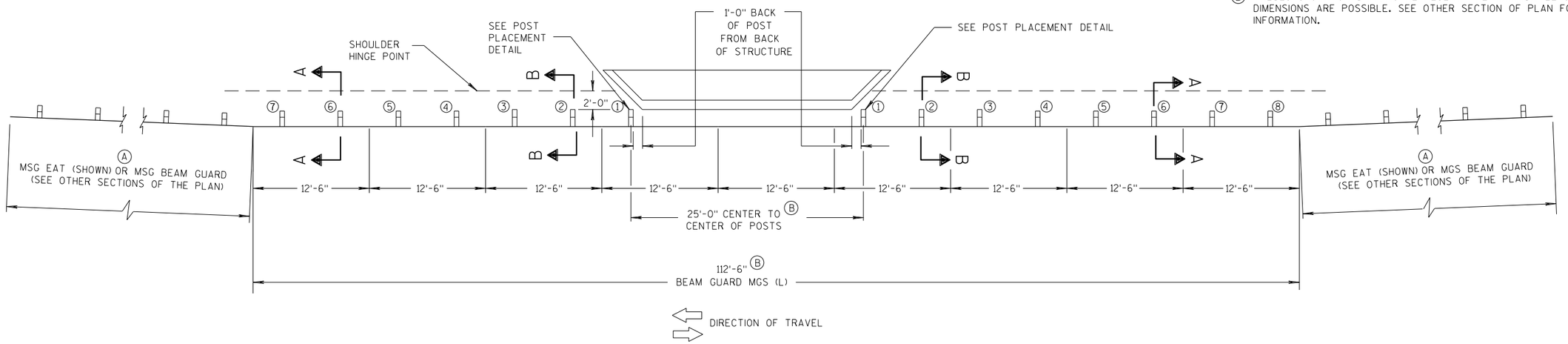
GENERAL NOTES

POSTS 1 THROUGH 3 ARE CRT POSTS.
ALL OTHER POSTS SHALL BE WOOD OR STEEL.

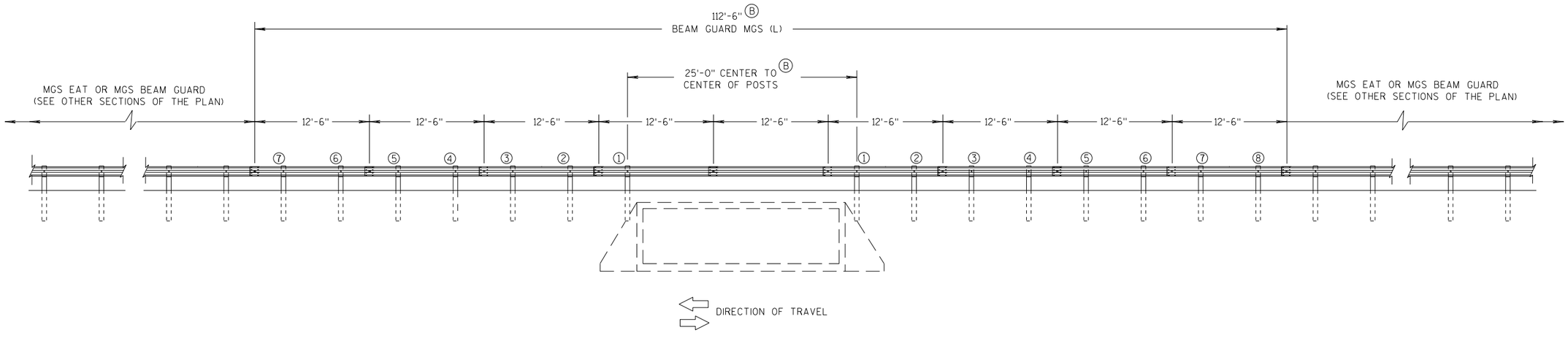
SEE SDD 14 B 42 FOR MORE DETAILS.

(A) FLARE FOR MGS EAT SHOWN. IF INSTALLING MGS NO FLARE NEEDED.

(B) VALUES SHOWN ON DRAWING REPRESENT THE MAXIMUM LENGTH. SHORTER DIMENSIONS ARE POSSIBLE. SEE OTHER SECTION OF PLAN FOR MORE INFORMATION.



PLAN VIEW



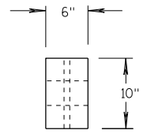
ELEVATION VIEW

MIDWEST GUARDRAIL SYSTEM LONG SPAN MGS (L) TWO-WAY TRAFFIC

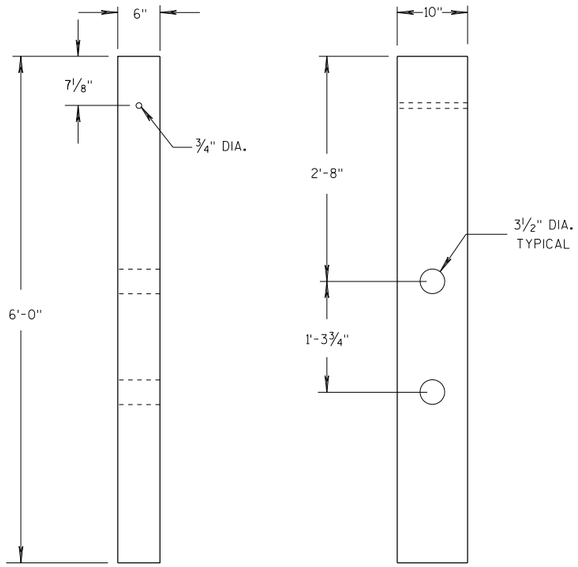
MIDWEST GUARDRAIL SYSTEM LONG SPAN MGS (L)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6
S.D.D. 14 B 43-4a

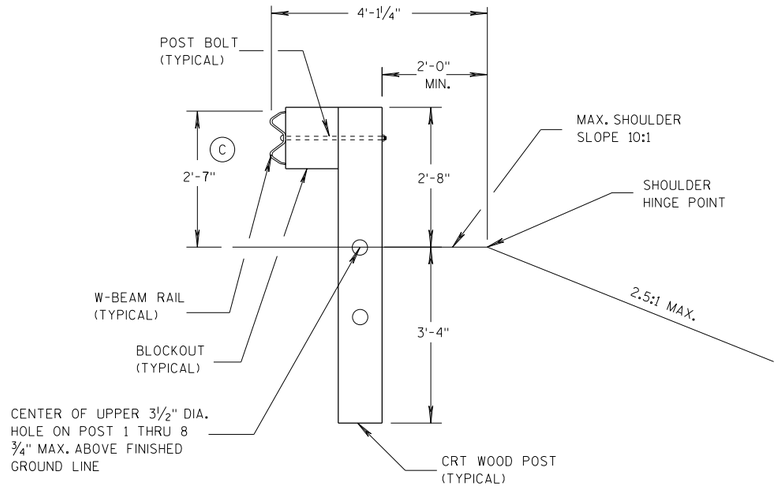


PLAN VIEW



FRONT VIEW SIDE VIEW

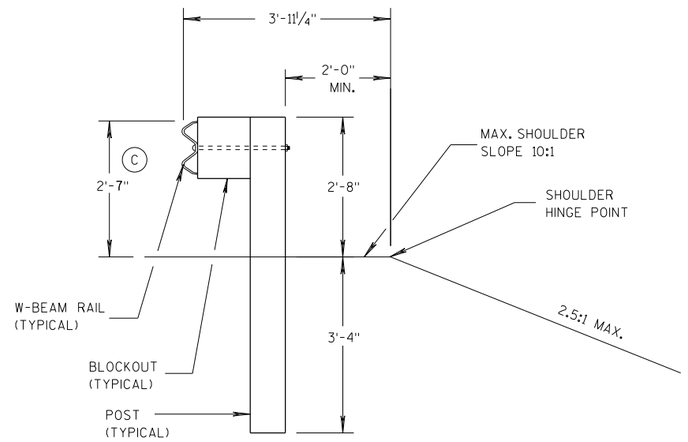
CRT WOOD POST



SECTION B-B

POSTS NO. 1-3

SEE OTHER DETAILS



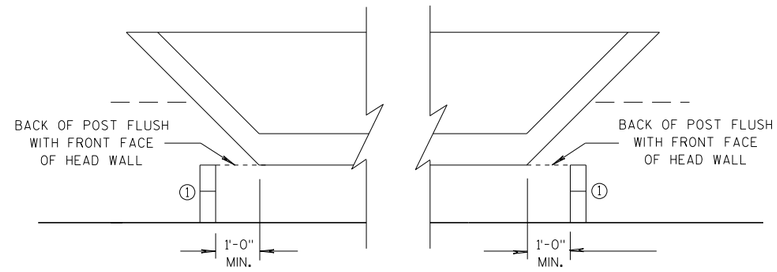
SECTION A-A

POSTS NO. 4-8

SEE OTHER DETAILS

GENERAL NOTES

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



POST PLACEMENT DETAIL

MIDWEST GUARDRAIL SYSTEM
LONG SPAN MGS (L)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
07/2018
DATE
/S/ Rodney Taylor
ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA

6
S.D.D. 14 B 43-4c

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.

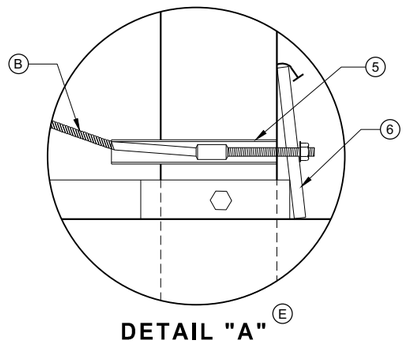
SEE SDD 14B42 FOR MORE INFORMATION.

* DO NOT ATTACH BLOCKOUTS TO POST 1 AND 2.

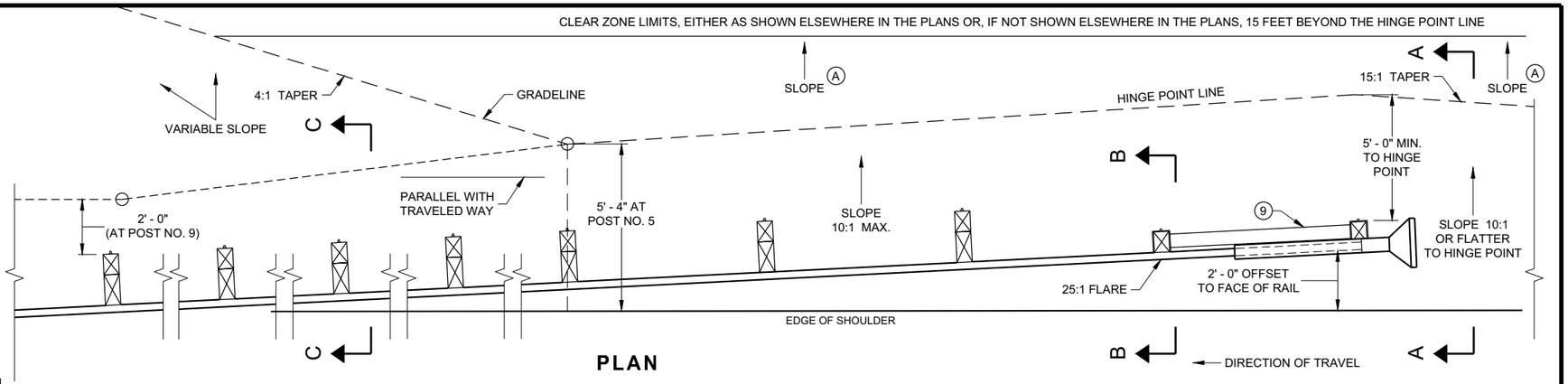
DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL.

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

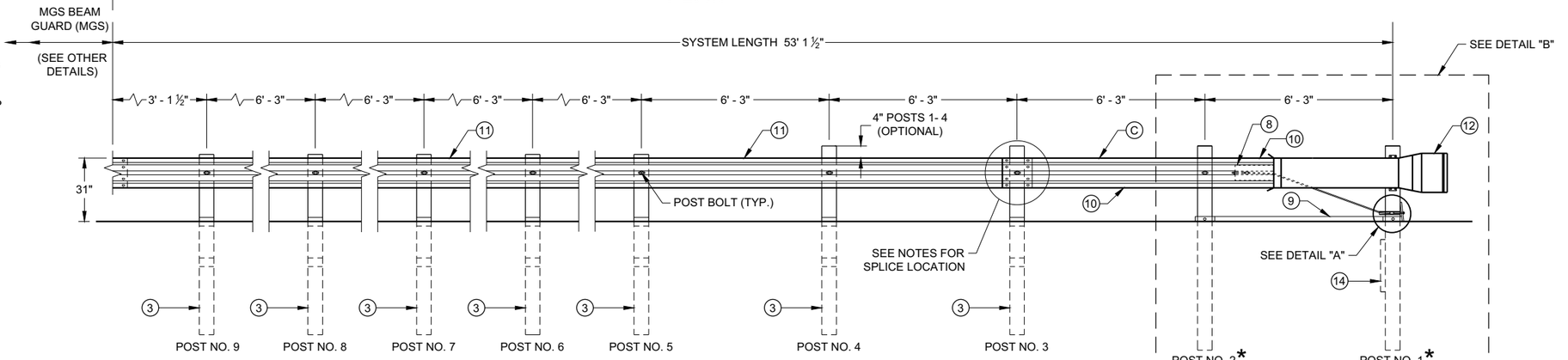
THE CENTER OF THE UPPER 3 ½" DIAMETER HOLE ON POST NUMBER 3 THROUGH POST 9 IS TO BE FLUSH WITH THE GROUND LINE UP TO A MAXIMUM OF 2" ABOVE GROUND LINE. WOOD BLOCKS ON POSTS NUMBERED 3 THROUGH 9 MAY BE ADJUSTED UP TO 3" ABOVE THE TOP OF POST.



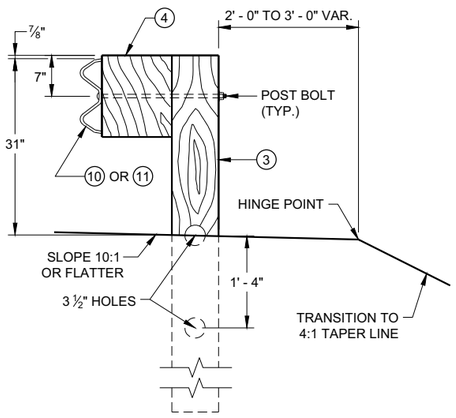
DETAIL "A" (E)



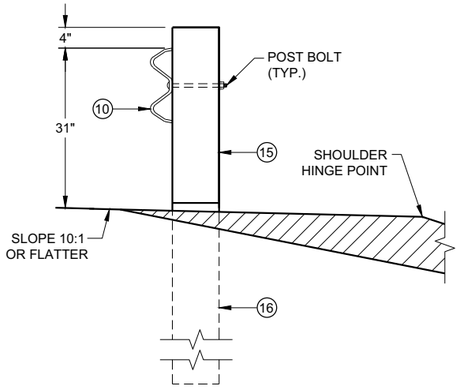
PLAN



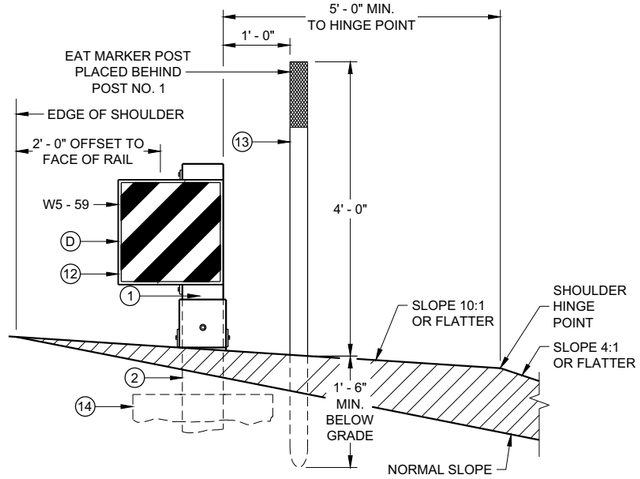
ELEVATION



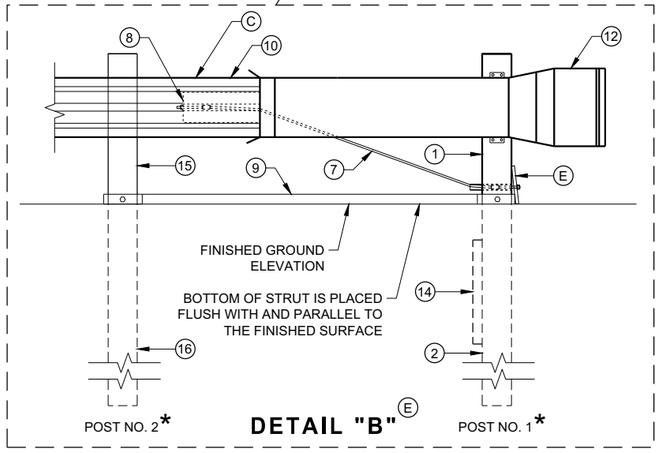
SECTION C - C
TYPICAL AT POST NOS. 3 - 9



SECTION B - B
TYPICAL AT POST NO. 2*



SECTION A - A
TYPICAL AT POST NO. 1*



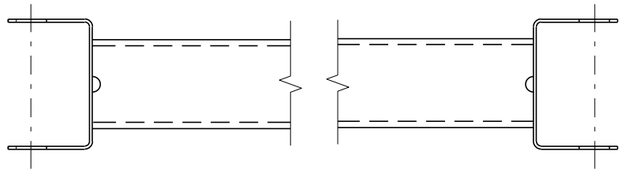
DETAIL "B" (E)

MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

SDD 14B44 - 04a

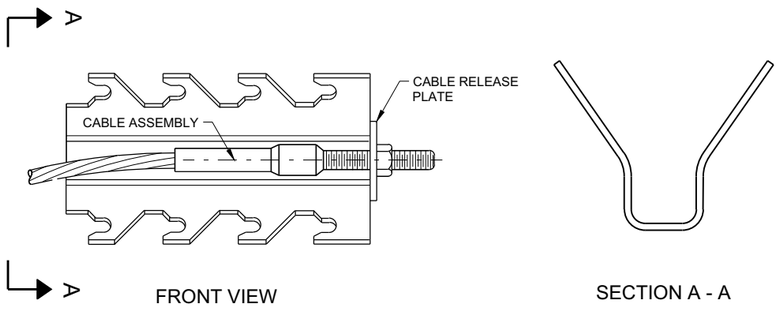
SDD 14B44 - 04a



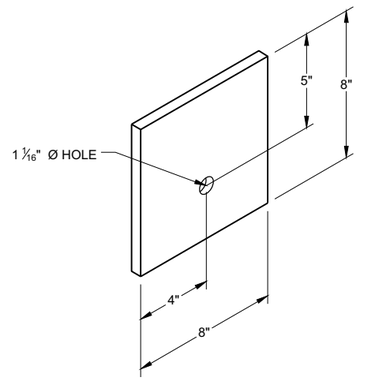
GENERIC GROUND STRUT ⑨ Ⓔ

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 ⑧ Ⓔ



BEARING PLATE ⑥ Ⓔ

6

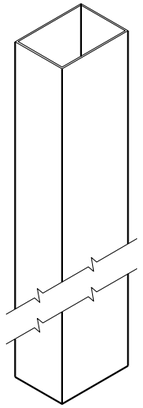
6

SDD 14B44 - 04b

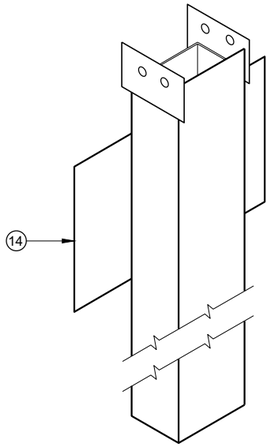
SDD 14B44 - 04b

MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL
(MGS)

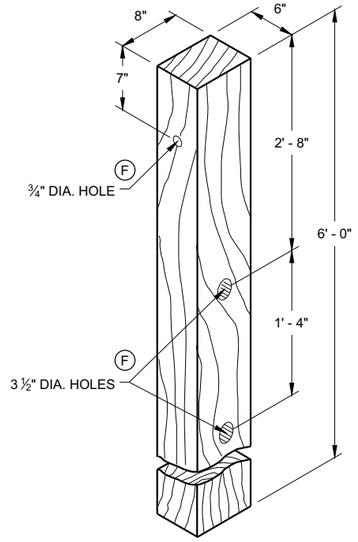
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



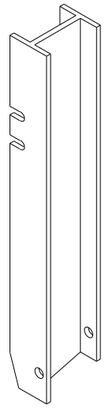
UPPER POST NO. 1 (1) (E)



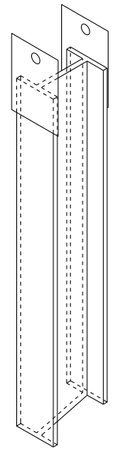
LOWER POST NO. 1 (2) (E)



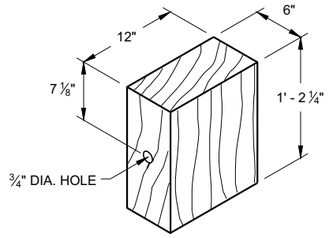
WOOD CRT POST (3) (E)
POSTS NUMBER 3-9



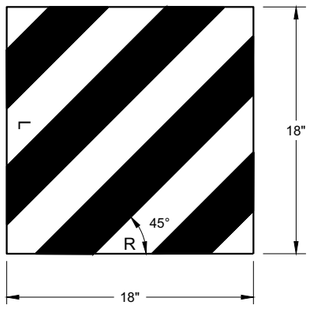
UPPER POST NO. 2 (15) (E)



LOWER POST NO. 2 (16) (E)

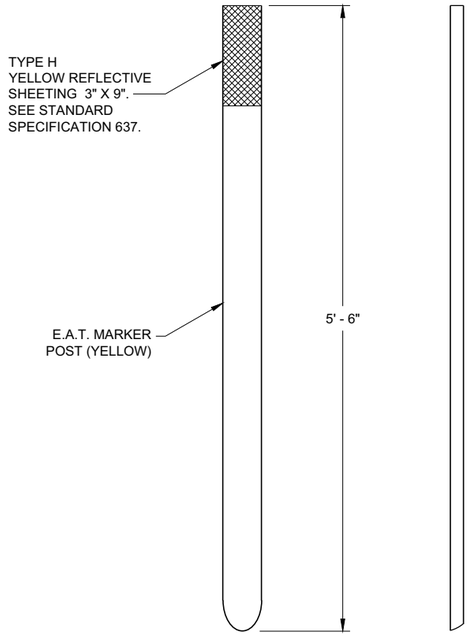


WOOD BLOCKOUT (4)
REQ'D. AT ALL POSTS EXCEPT POST NO'S 1 & 2



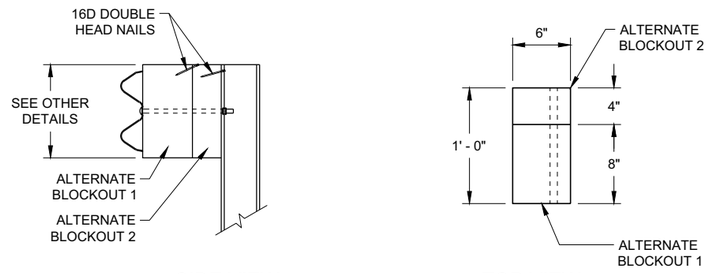
W5 - 59

REFLECTIVE SHEETING DETAIL (E)



FRONT VIEW SIDE VIEW

E.A.T. MARKER POST (13)



SIDE VIEW TOP VIEW

ALTERNATE WOOD BLOCKOUT DETAIL

MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)

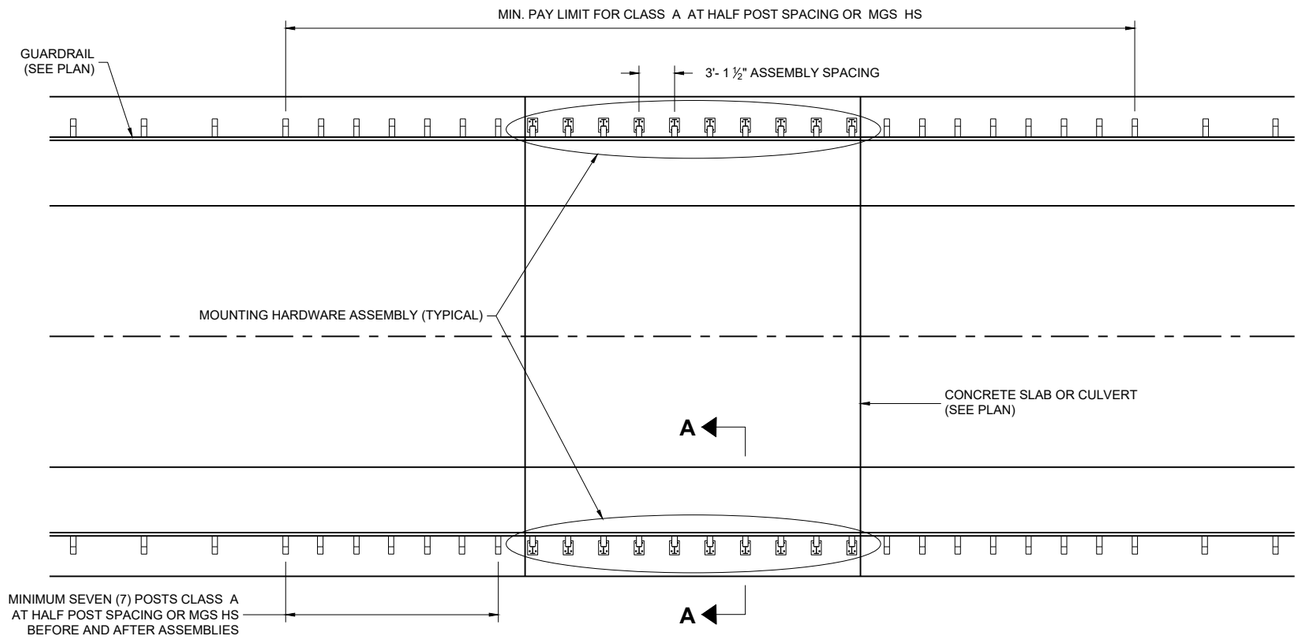
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

FHWA

6

SDD 14B44 - 04c



PLAN VIEW

GENERAL NOTES

HOLES DRILLED INTO CONCRETE SLAB OR CULVERT ARE 1 ⅛" DIAMETER.

POST BASE PLATE (AND BOTTOM PLATES IF USED) SHALL BE FLAT WITH ALL SURFACES SMOOTH, AND FREE FROM WARP AND ALL EDGES SMOOTH, STRAIGHT AND VERTICAL. ALL PLATE CUTS SHALL BE MACHINE OR MACHINE FLAME CUTS. CUT BOTTOM OF POST SO THAT POST WILL BE VERTICAL WHEN POST ASSEMBLY IS PLACED ON TOP OF CONCRETE. HEX BOLTS AND THREADED RODS ARE TO BE PLACED PERPENDICULAR TO THE BASE PLATE.

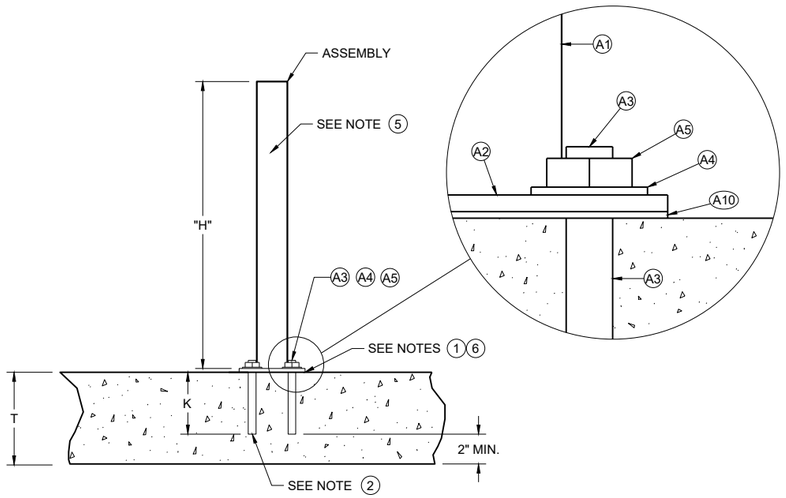
"H" DIMENSION WILL VARY. SEE PLAN FOR "H" DIMENSION. CONTRACTOR HAS OPTION OF INSTALLING POSTS THAT ARE TALLER THAN "H" DIMENSION AND CUT POSTS TO PROPER "H" DIMENSION IN THE FIELD. IF ELECTING TO FIELD CUT POSTS, DRILL HOLES AT APPROPRIATE LOCATIONS AND APPLY GALVANIZATION.

GALVANIZE STEEL COMPONENTS AFTER FABRICATION PER SECTION 614 OF THE WISCONSIN DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS.

INSTALL 1 NUT AND 1 WASHER WHERE APPLICABLE. PROVIDE SUFFICIENT LENGTH OF BOLT OR THREADED ROD TO ALLOW FOR ¼" TO ½" OF THREAD TO BEYOND THE NUT.

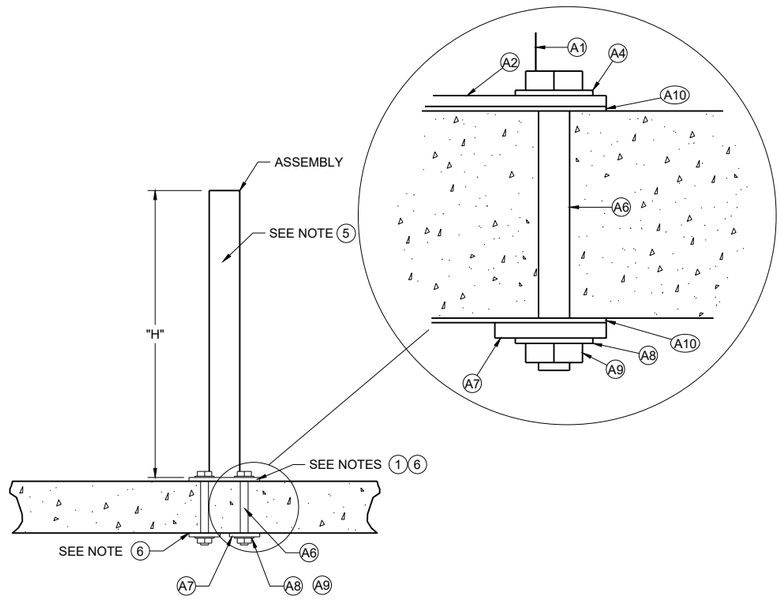
1. FILL BOLT SLOT OPENINGS IN POST SHIMS AND PLATE A2 WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. CAULK AROUND PERIMETER OF A2 WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER.
2. BOND STRENGTH OF ADHESIVE IS 1,305 PSI OR GREATER WITH A MINIMUM EMBEDMENT DEPTH OF 8-INCHES. IF MINIMUM EMBEDMENT CANNOT BE ACHIEVED, BOLT THROUGH STRUCTURE.
3. USE GAS-METAL ARC WELDING (GMAW) PROCESS WITH ER70S-3 WELDING WIRE AND ARGON-OXYGEN OR CO_2 COVER GAS.
4. OTHER COMPONENT OF BARRIER SYSTEM NOT SHOWN. SEE SDD 14B15 OR SDD 14B42 FOR MORE DETAILS.
5. HOLES TO MOUNT BEAM GUARD AND BLOCK NOT SHOWN ON DRAWINGS. SEE SDD 14B15 OR SDD 14B42 FOR MORE DETAILS.
6. ADD AND ADJUST SHIM PLATES AS NECESSARY TO INSTALL POST PLUMB. SEE (A10) FOR DETAIL.

Concrete Strength (f'c) PSI	"T" Inch	Min. "K" Inch
3,500	11 ≤	9
4,000	10 ≤	8



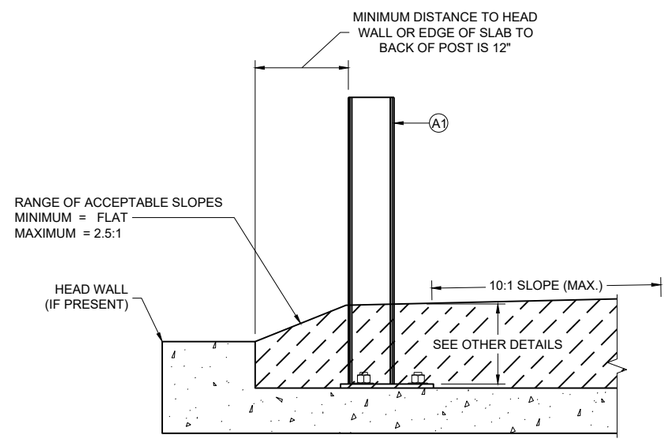
ADHESIVE ANCHOR DETAIL

SEE NOTE 4



BOLT THROUGH DETAIL

SEE NOTE 4



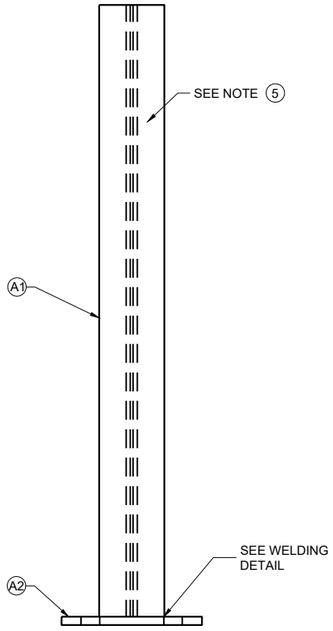
SECTION A - A

SEE NOTE 4

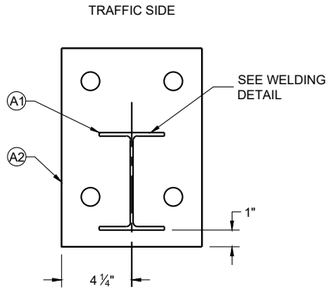
ANCHOR POST ASSEMBLY TOP MOUNTED

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

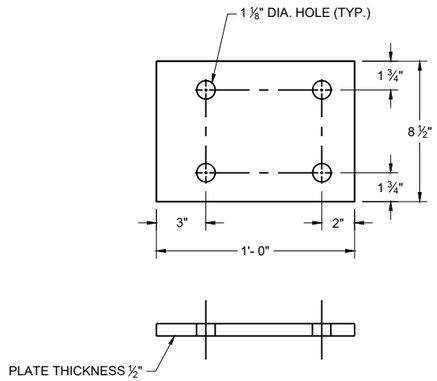
SDD 14B51-04a



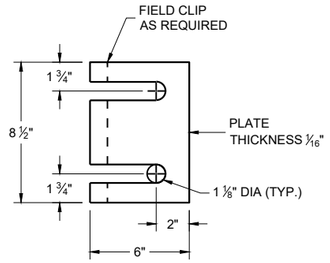
PROFILE VIEW
POST ASSEMBLY



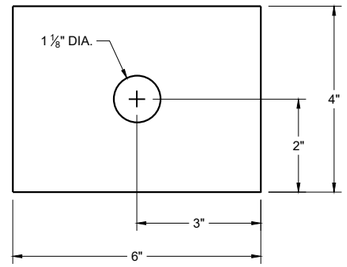
PLAN VIEW
POST ASSEMBLY



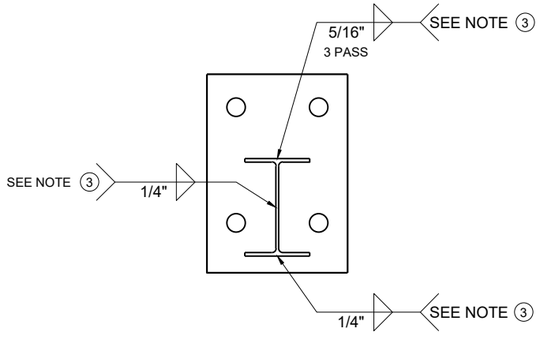
(A2) STEEL BASE PLATE



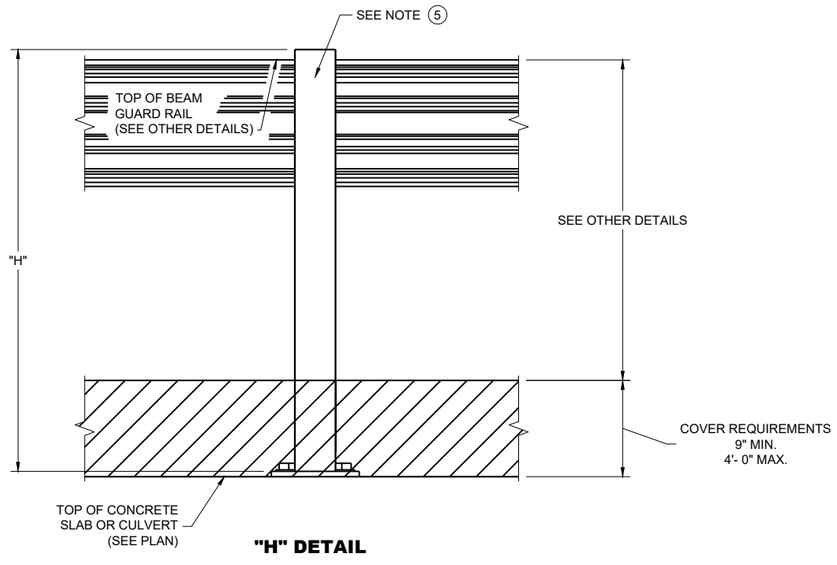
(A10) SHIM PLATE



(A7) PLATE WASHER



POST ASSEMBLY
WELDING DETAIL



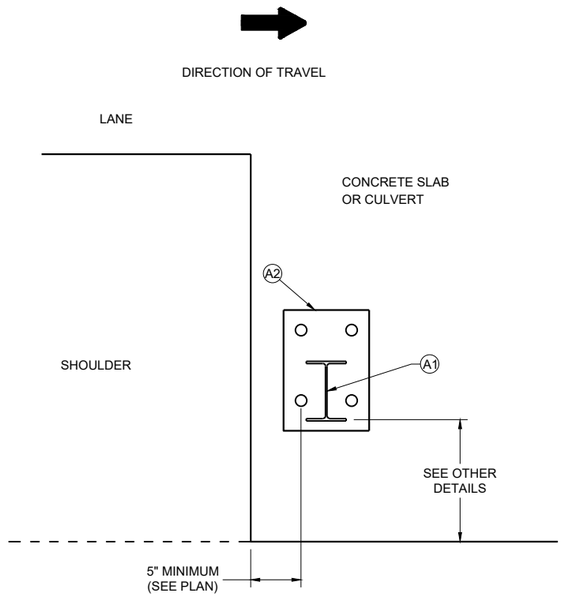
"H" DETAIL

SEE NOTE (4)

ANCHOR POST ASSEMBLY
TOP MOUNTED

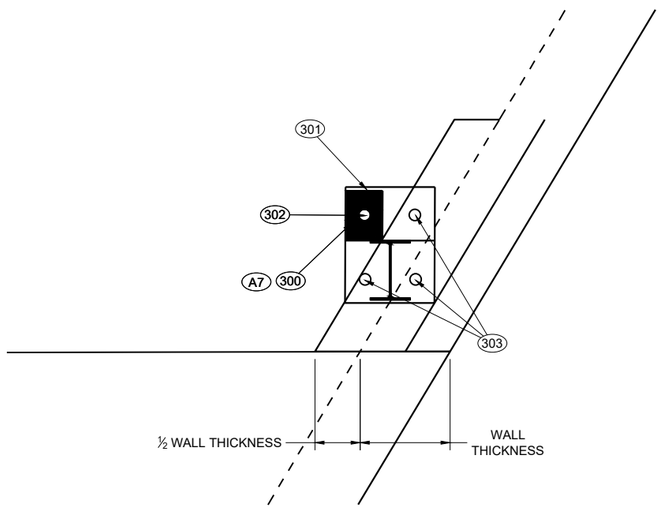
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6
SDD 14B51-04b



EDGE PLACEMENT

SEE NOTE (4)



TOP MOUNT OPTION NEAR EDGE OF SLAB

BILL OF MATERIALS LIST

ITEM	DESCRIPTION	MATERIAL SPECIFICATIONS	NOTES
(A1)	W6x9 or W6x8.5	ASTM A992 50 KSI MIN., ASTM A709 GRADE 50, OR ASTM A36	SEE SDD 14B15 OR 14B42 LENGTH WILL VARY
(A2)	STEEL BASE PLATE	ASTM A992 50 KSI MIN., ASTM A529 GRADE 50, ASTM A572 GRADE 50, OR ASTM A36	
(A3)	1" DIA. THREADED ROD	SAE J429 GRADE 2, OR ASTM F1554 GRADE 55	LENGTH WILL VARY
(A4)	1" DIA. FLAT WASHER	ASTM F844	
(A5)	1" HEX NUT	ASTM A563A	
(A6)	1" DIA. HEX BOLT	ASTM A307	LENGTH WILL VARY
(A7)	PLATE WASHER	ASTM A992 50 KSI MIN., ASTM A529 GRADE 50, ASTM A572 GRADE 50, OR ASTM A36	¼" THICKNESS
(A8)	1" DIA. FLAT WASHER	ASTM F844	
(A9)	1" DIA. HEX NUT	ASTM A563A	
(A10)	SHIM PLATE	SEE (A2)	4 MAX PER POST

NOTES

(300) Plate washer installed on underside of slab or culvert

(301) Top plate assembly on top of slab or culvert

(302) Bolt through option allowed

(303) Adhesive Anchors

ANCHOR POST ASSEMBLY
TOP MOUNTED

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
December 2024
DATE

/S/ Rodney Taylor
WORK ZONE ENGINFFR

FHWA

6

SDD 14B51-04c

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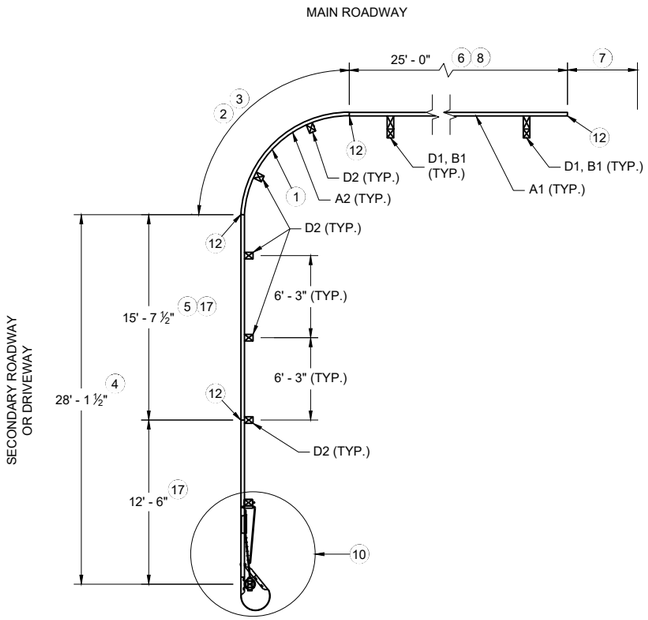
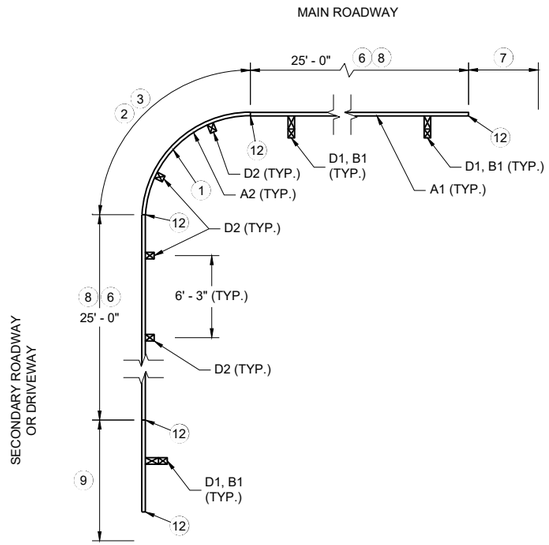
SDD 14B51-04c



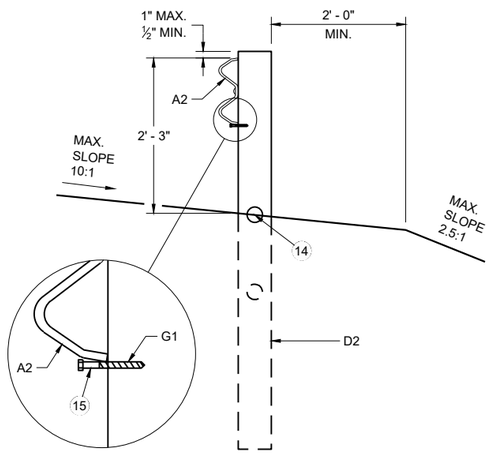
PLAN VIEW

SHORT RADIUS BEAM GUARD WITH SHORT RADIUS TERMINAL ON SECONDARY ROAD OR DRIVEWAY

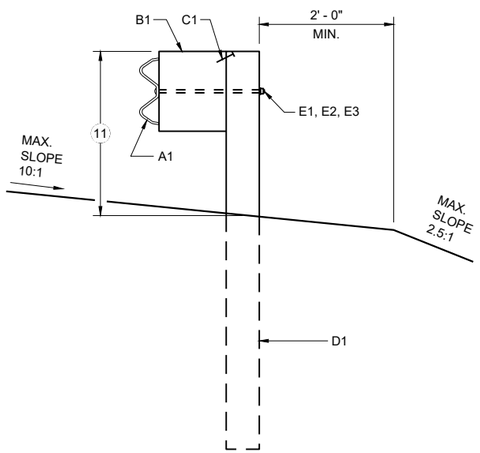


PLAN VIEW

SHORT RADIUS BEAM GUARD WITH EAT, ADDITIONAL BEAM GUARD OR TRANSITION TO RIGID BARRIER ON SECONDARY ROAD OR DRIVEWAY



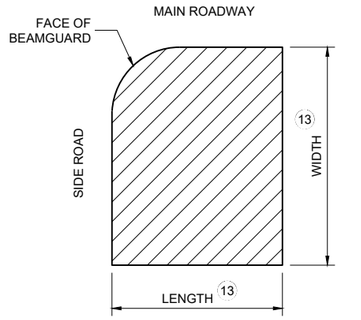
CONTROLLED RELEASE TERMINAL POST (CRT) IN RADIUS



BEAM GUARD POSTS IN HEIGHT TRANSITION

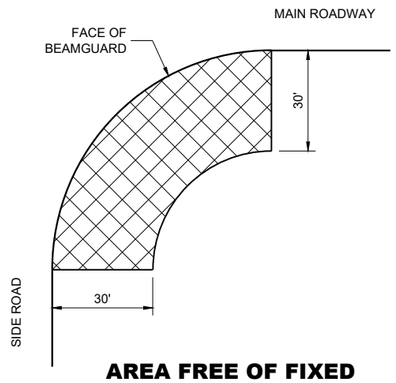
TABLE FOR RADIUS OF 32' AND LESS

RADIUS (FT)	LENGTH (FT)	WIDTH (FT)
8	25	15
16	30	15
24	40	20
32	50	30

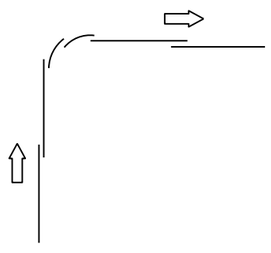


16

AREA FREE OF FIXED OBJECTS FOR RADIUS 32' AND LESS



AREA FREE OF FIXED OBJECTS FOR RADIUS GREATER THAN 32'



LAP SPLICE DETAIL

GENERAL NOTES

SEE PLANS FOR OTHER BARRIER SYSTEM AND LOCATION SPECIFICS.

SEE SDD 14B42 FOR MORE INFORMATION ON BEAM GUARD INSTALLATION, PARTS, MATERIALS, AND INSTALLATION INFORMATION.

GALVANIZE PARTS AFTER FABRICATION.

WELDING TO FOLLOW CURRENT REQUIREMENTS OF THE AMERICAN WELDING SOCIETY STRUCTURAL WELDING CODE ANSI / AWS D1.1.

UNLESS NOTED OTHERWISE, ALL PLATES ARE FLAT AND FREE OF WARP.

UNLESS NOTED OTHERWISE, ALL EDGES ARE SMOOTH, STRAIGHT AND VERTICAL.

ALL CUTS AND HOLES, EXCEPT IN BEAM GUARD RAIL ARE TO BE MACHINED OR MACHINE FLAME CUT.

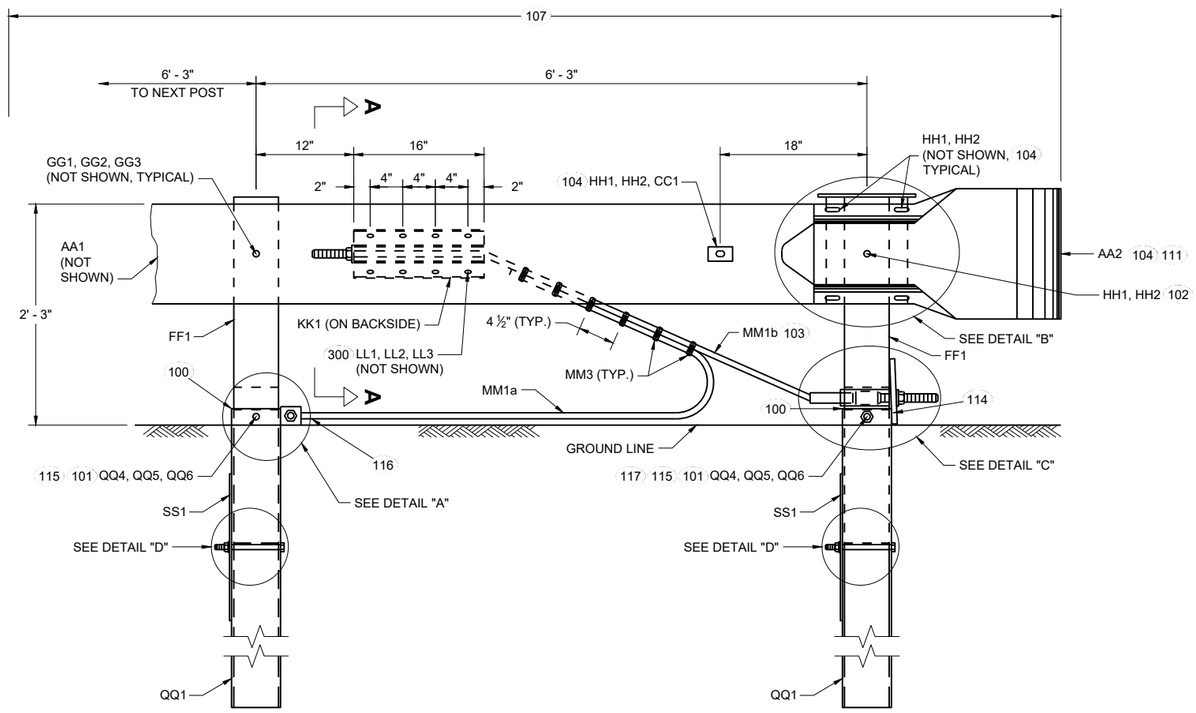
UNLESS NOTED OTHERWISE, CUT OR PROVIDE BOLTS THAT ARE ¼" TO ½" BEYOND THE NUT.

DRAWINGS ARE NOT TO SCALE.

1. RADIUS MEASURE FROM INSIDE OF RAIL. LENGTH OF BEAM GUARD SHORT RADIUS GUARD MEASURED ALONG TRAFFIC SIDE OF RAIL. RADIUS BETWEEN 8 FEET TO 150 FEET. SEE PLAN FOR REQUIRED RADIUS. BEAM GUARD RAIL IN RADIUS IS SHOP BENT. ODD RAIL LENGTH OR FIELD CUTS MAY BE REQUIRED.
2. CONTROLLED RELEASE TERMINAL (CRT) POSTS ARE USED IN THE RADIUS. CONTROLLED RELEASE TERMINAL (CRT) POSTS ARE SPACED 6' - 3". SEE PLAN FOR NUMBER OF CONTROLLED RELEASE (CRT) POSTS.
3. WITHIN RADIUS BEAM GUARD RAILS ARE NOT BOLTED TO POSTS. BEAM GUARD RAIL IS RESTED ON TOP OF LAG SCREW.
4. MINIMUM LENGTH OF BEAM GUARD ALONG SIDE ROAD OR DRIVEWAY TO INSTALL SHORT RADIUS TERMINAL. BEAM GUARD IS PAID WITH BEAM GUARD ITEM.
5. ODD LENGTH OF BEAM GUARD REQUIRED TO INSTALL SHORT RADIUS TERMINAL.
6. MINIMUM AMOUNT OF BEAM GUARD TO BE INSTALLED PRIOR TO TRANSITION TO RIGID BARRIER. ADDITIONAL BEAM GUARD, OR EAT. BEAM GUARD PAID FOR WITH BEAM GUARD ITEM. SEE PLANS FOR MORE DETAIL.
7. BEAM GUARD, EAT, OR TRANSITION TO RIGID BARRIER. SEE PLAN.
8. TOP OF BEAM GUARD BY THE RADIUS IS 27". HEIGHT OF BEAM GUARD IS 31" BY TRANSITION TO RIGID BARRIER, ADDITIONAL BEAM GUARD OR EAT.
9. ADDITIONAL BEAM GUARD, EAT OR TRANSITION TO RIGID BARRIER. BEAM GUARD SHOWN. SEE PLAN FOR DETAILS.
10. SHORT RADIUS TERMINAL (SEE OTHER DETAILS).
11. HEIGHT VARIES. SEE NOTE 8 AND 8 .
12. BEAM GUARD RAIL SPLICE LOCATION. SPLICE LOCATION REQUIRES PART F1 AND F2. SEE SDD 14B42 FOR DETAILS.
13. SEE TABLE FOR VALUES.
14. MAXIMUM HEIGHT FOR CENTER OF HOLE IS ¾" ABOVE FINISHED GROUND ±1".
15. DRILL POST $^{15}/_{64}$" DIA. PILOT HOLE. DO NOT HAMMER LAG SCREW INTO POST.
16. SMALL SIGNS ON BREAKAWAY HARDWARE ARE ACCEPTABLE.
17. TOP OF RAIL HEIGHT IS 27" WHEN USING A SHORT RADIUS TERMINAL (CRT).

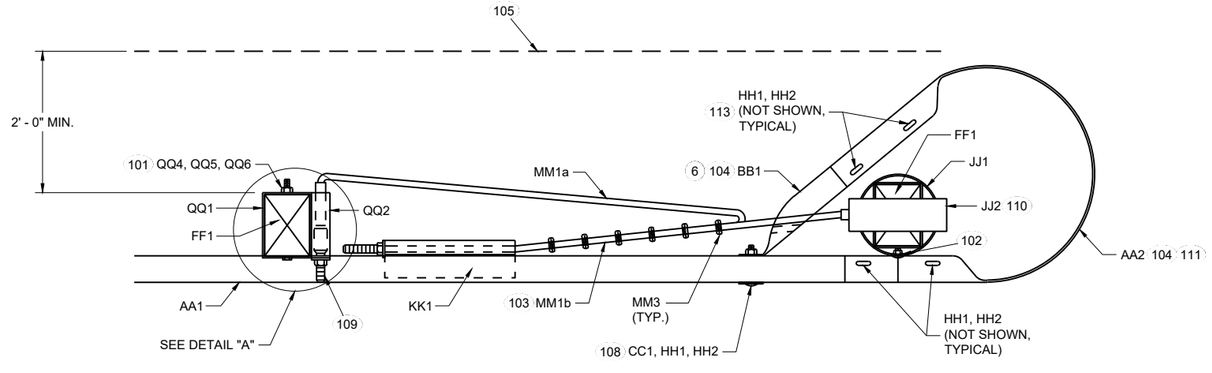
SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



PROFILE VIEW

SHORT RADIUS TERMINAL



TOP VIEW

SHORT RADIUS TERMINAL

GENERAL NOTES

100 TOP OF FOUNDATION TUBE 2 INCHES MAXIMUM ABOVE FINISHED GROUND.

101 WASHERS REQUIRED BETWEEN BOLT HEAD AND FOUNDATION TUBE AND BETWEEN NUT AND FOUNDATION TUBE.

102 SPLICE BOLT AND NUT CONNECTS BEAM GUARD RAIL, W-BEAM SECTION BUFFER, AND STEEL PIPE ASSEMBLY. NO WASHER REQUIRED. SEE DETAIL "B".

103 CABLE IS TAUT.

104 ADJUST AA2 AND BB1 TO FIT.

106 BREAK POINT OF SHOULDER.

106 TACK WELD CABLE CONNECTOR TUBE PLATE TO CABLE CONNECTION TUBE. SEE DETAIL "A" PROFILE VIEW.

107 PAY LIMIT FOR BEAM GUARD.

108 SQUARE WASHER BETWEEN HEAD OF BOLT AND TRAFFIC FACE OF BEAM GUARD. ROUND WASHER REQUIRED BETWEEN NUT AND BB1.

109 CUT OR PROVIDE THREADED STUD THAT IS FLUSH WITH FACE OF BEAM GUARD RAIL KK1 (PLUS OR MINUS ½" TOLERANCE). DEBURR AFTER CUTTING.

110 SEE STEEL PIPE ASSEMBLY DETAILS.

111 ATTACH UU2 WITH UU3. SHOP APPLY UU1 TO UU2.

112 FOUR (4) HH1 AND HH2 REQUIRED TO ATTACH AA1 TO AA2.

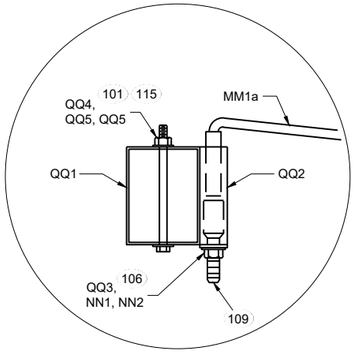
113 FOUR (4) HH1 AND HH2 REQUIRED TO ATTACH AA2 TO BB1.

114 NO MATERIAL IS TO BE PLACED AGAINST THE VERTICAL FACES OF BEARING PLATE.

115 PREVENT OR REMOVE MATERIALS THAT BLOCK ACCESS TO BOLTS FOR POST AND SOIL TUBE.

116 PREVENT OR REMOVE MATERIALS THAT BLOCK ACCESS TO BOLT. PLACE CABLE ON TOP OF MATERIAL.

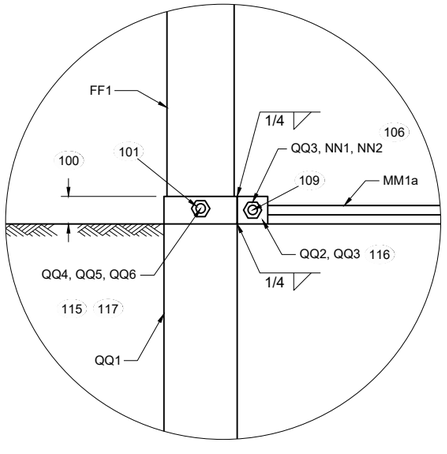
117 ONE WASHER BETWEEN BOLD HEAD AND FOUNDATION TUBE AND BETWEEN NUT AND FOUNDATION TUBE.



TOP VIEW

DETAIL "A"

(WOOD BREAKAWAY AND BEAM GUARD RAIL POSTS NOT SHOWN)



PROFILE VIEW

DETAIL "A"

SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)

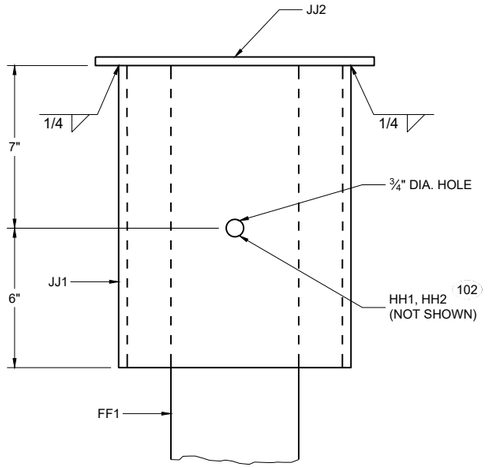
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 14B53-03b

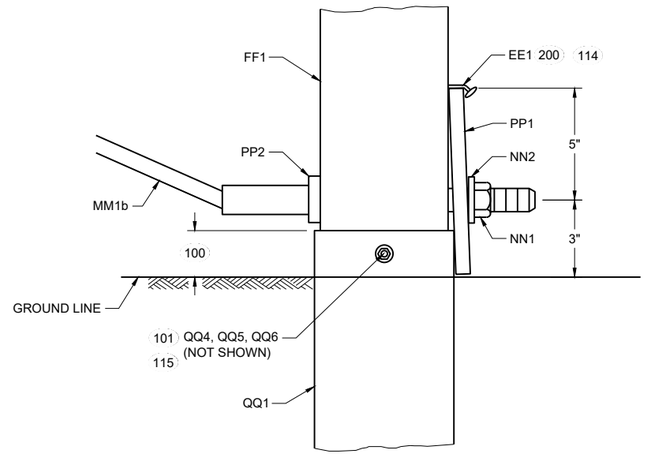
GENERAL NOTES

200 TWO (2) NAILS SPACED 4 INCHES CENTER TO CENTER.



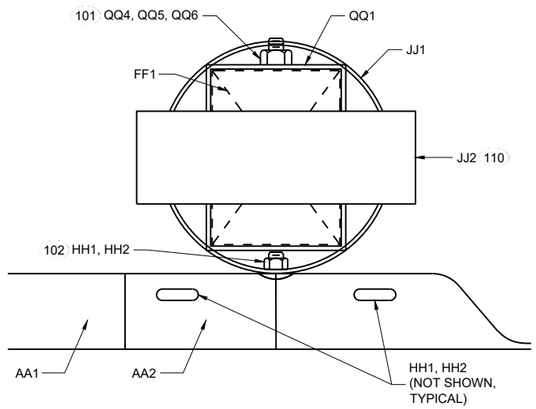
PROFILE VIEW

DETAIL "B"
STEEL PIPE ASSEMBLY
(BEAM GUARD AND W BEAM END SECTION NOT SHOWN)



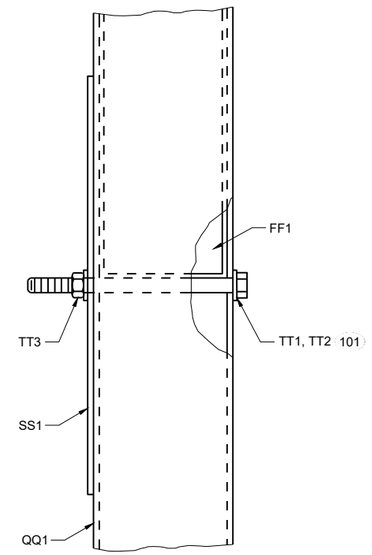
PROFILE VIEW

DETAIL "C"



PLAN VIEW

DETAIL "B"
STEEL PIPE ASSEMBLY



PROFILE VIEW

DETAIL "D"

SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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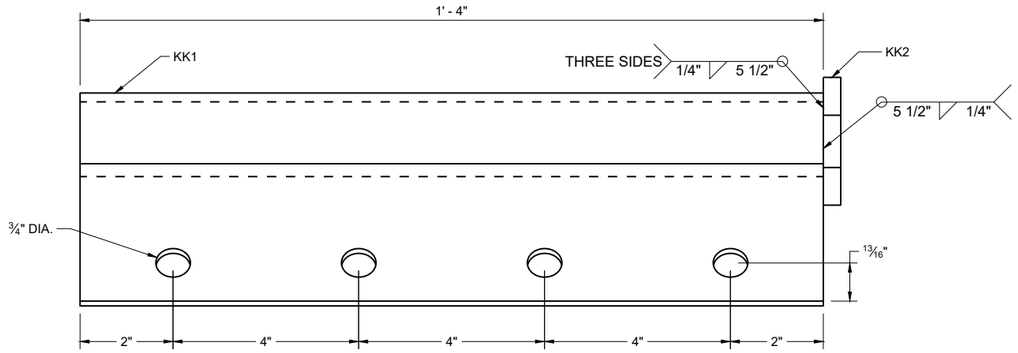
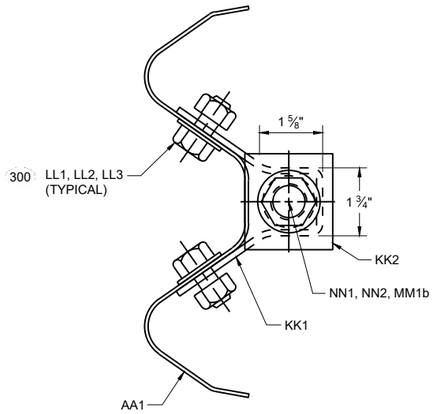
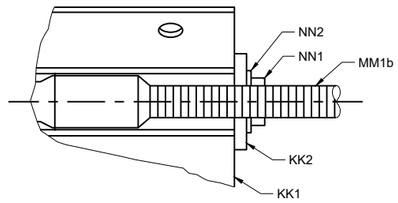
SDD 14B53-03c

GENERAL NOTES

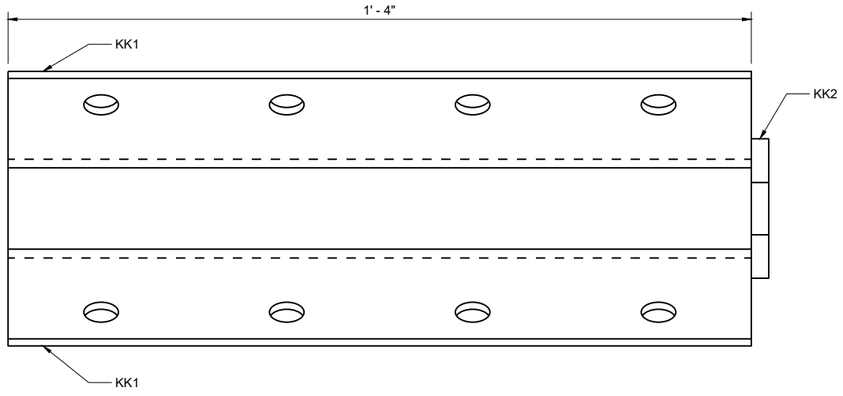
300 WASHERS REQUIRED BETWEEN BOLT HEAD AND BEAM GUARD RAIL AND BETWEEN NUT AND ANCHOR BRACKET. EIGHT (8) LL1 AND LL3 REQUIRED. SIXTEEN (16) LL2 REQUIRED.

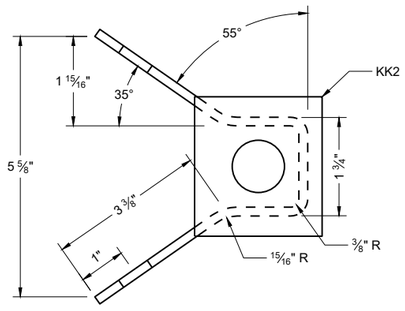




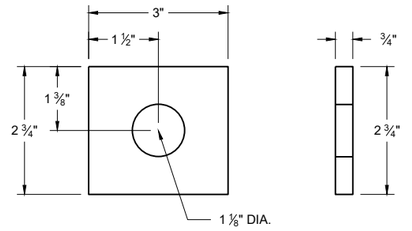


SECTION A - A





ANCHOR BRACKET (KK1, KK2)



ANCHOR BRACKET BEARING PLATE (KK2)

6

6

SDD 14B53-03d

SDD 14B53-03d

SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)

STATE OF WISCONSIN
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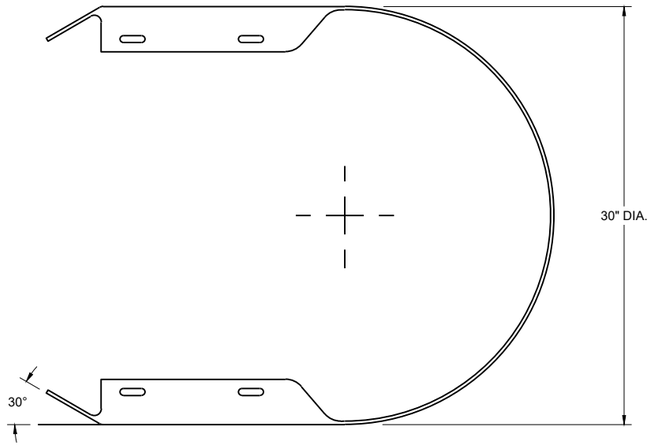
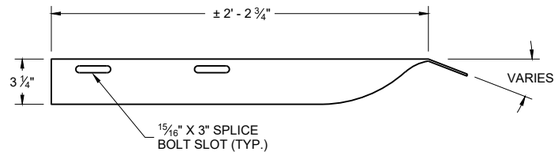
GENERAL NOTES

400 CROSS SECTION OF PART IS TO FIT OVER AA1 .

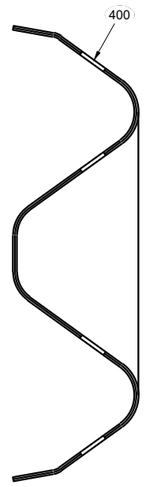
401 CROSS SECTION OF PART IS TO FIT OVER OR UNDER AA1 .



TOP VIEW

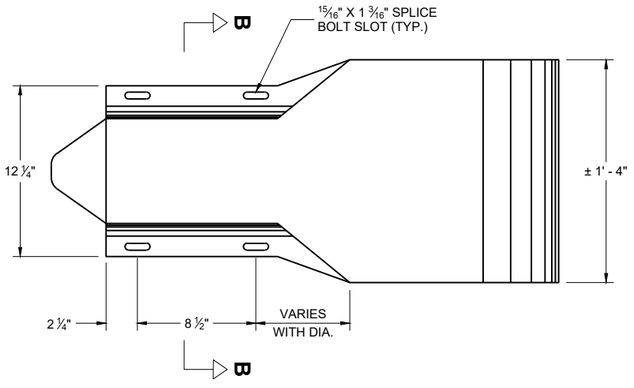


TOP VIEW



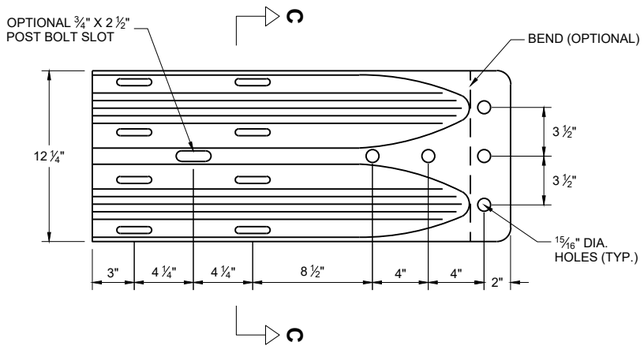
SECTION B -B

SECTION C -C



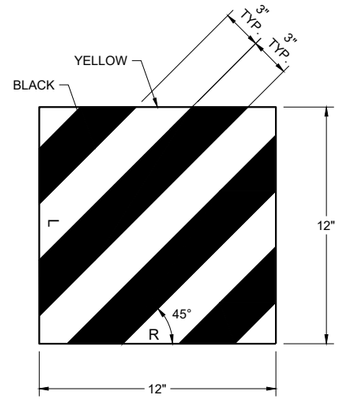
PROFILE VIEW

W BEAM
END SECTION BUFFER (AA2)



PROFILE VIEW

W BEAM
TERMINAL CONNECTOR (BB1)



REFLECTIVE SHEETING (UU1, UU2)

SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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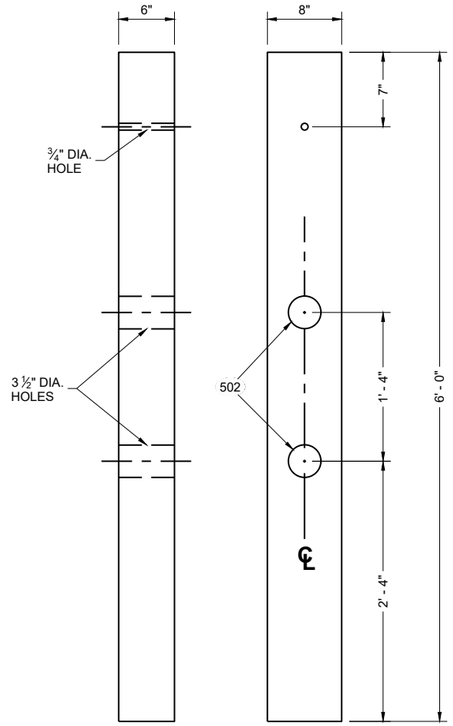
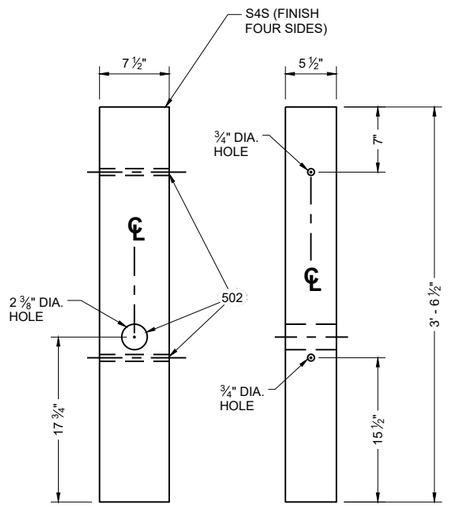
SDD 14B53-03e



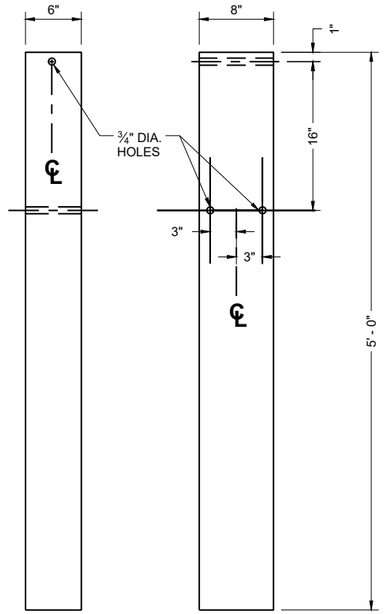
FRONT VIEW SIDE VIEW

CONTROLLED RELEASE POST (CRT) (DD2)



FRONT VIEW SIDE VIEW

WOOD BREAKAWAY POST (FF1)



FRONT VIEW SIDE VIEW

FOUNDATION TUBE (QQ1) 500

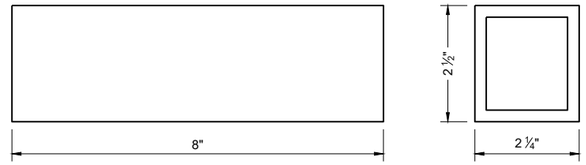
GENERAL NOTES

500 SEE DETAIL "D" FOR LOCATION AND ATTACHMENT OF SS1.

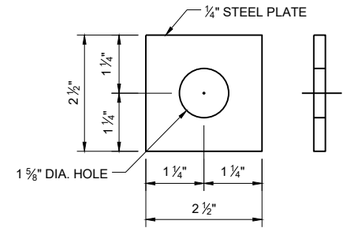
501 FOR MM1a THREADED STUD ONLY REQUIRED ON ONE END. SWAGED FITTING REQUIRED.

502 LOCATE HOLES ON THE CENTERLINE OF THE SIDE OF THE POST.

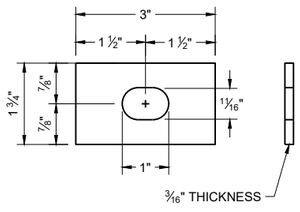
503 MM1a MAY HAVE ONE THREADED STUD 4 INCHES LONG. SEE NOTE 109 .



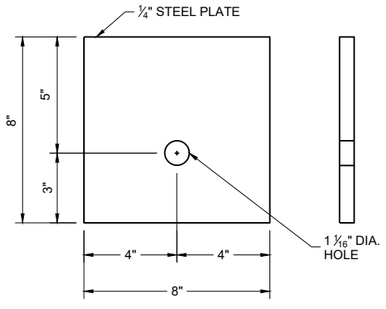
FOUNDATION TUBE - ANCHOR CABLE TUBE (QQ2)



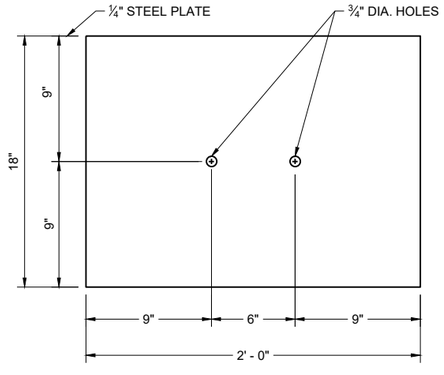
ANCHOR CABLE TUBE END PLATE (QQ3)



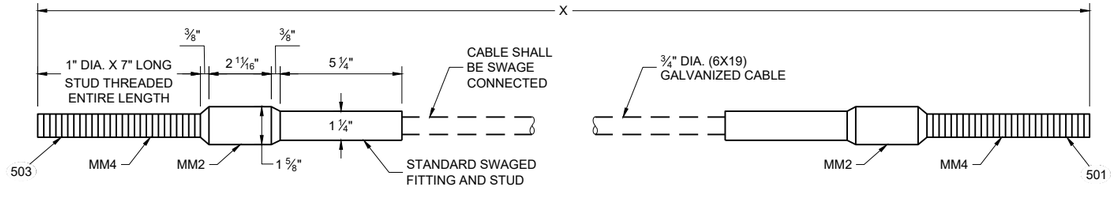
RECTANGULAR PLATE WASHER (CC1)



BEARING PLATE (PP1)



SOIL PLATE (SS1)



CABLE ASSEMBLY (MM1a, MM1b)

"X" LENGTH

MM1b	9' - 0"
MM1b	6' - 8"

SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

BILL OF MATERIALS - SHORT RADIUS BEAM GUARD (MGS)

PART	DESCRIPTION	MATERIALS SPECIFICATIONS	NOTES
A1	BEAM GUARD RAIL	AASHTO M180, CLASS A, TYPE 2	
		APPROVED PRODUCER	
A2	BEAM GUARD RAIL - SHOP BENT	INDICATE ON BACK OF RAIL THE RADIUS THAT RAIL WAS BENT TO. SHOP BEND RADIUS IS TO THE NEAREST FOOT. FOLLOW AASHTO M180 ON HOW TO MARK RADIUS INFORMATION.	
		AASHTO M180, CLASS A, TYPE 2	
		APPROVED PRODUCER	
B1	BLOCK - WOOD	WISDOT SPEC. 614	SEE SDD 14B42
C1	NAIL	ASTM A153 HOT DIP CLASS D	
		ASTM F1667 TYPE 1 STYLE 12 (16 DOUBLE HEAD)	
D1	POST-STRONG POST-WOOD	WISDOT SPEC. 614	SEE SDD 14B42
D2	POST-CRT-WOOD	WISDOT SPEC. 614	
E1	POST BOLT	ASTM A307 GRADE A OR SAE J429 GRADE 2	5/8" DIA. SEE SDD 14B42 FOR BOLT GEOMETRY
		AASHTO M180	
		GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1 / ASTM B695 CLASS 50, TYPE 1	
		UNC	
E2	POST BOLT - WASHER	ASTM F436 TYPE 1 (HARDEN TYPICALLY USED WITH STEEL) OR ASTM F844 (UNHARDENED TYPICALLY WITH WOOD)	5/8" DIA.
		GALV. AASHTO M111 / ASTM A 123 OR GALV. HOT DIP. TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329	
E3	POST BOLT - NUT	AASHTO M180 DOUBLE RECESSED HEAVY HEX HEAD	5/8" DIA. SEE SDD 14B42 FOR BOLT GEOMETRY
		GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1 / ASTM B695 CLASS 50, TYPE 1	
		UNC	
		OVER TAPPED NUTS OVER-SIZE AS SPECIFIED IN AASHTO 291 / ASTM A 563	
		ASTM A563 GRADE A HEAVY HEX HEAD	
F1	SPLICE BOLT	GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1 / ASTM B695 CLASS 50, TYPE 1	5/8" DIA. SEE SDD 14B42 FOR BOLT GEOMETRY
		ASTM A307 GRADE A OR SAE J429 GRADE 2	
		UNC	
		AASHTO M180	

PART	DESCRIPTION	MATERIALS SPECIFICATIONS	NOTES
F2	SPLICE BOLT - NUT	ASTM A563 GRADE A	5/8" DIA. SEE SDD 14B42 FOR BOLT GEOMETRY
		AASHTO M180 DOUBLE RECESSED HEAVY HEX HEAD	
		GALV. HOT DIP TO AASHTO M232 CLASS C/ASTM A153 CLASS C/ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1/ASTM B695 CLASS 50, TYPE 1	
		OVER TAPPED NUTS OVER-SIZE AS SPECIFIED IN AASHTO 291 / ASTM A 563	
		UNC	
G1	LAG SCREW	ASTM A308 GRADE A ASTM A153 CLASS D	1/2" DIA. 6" LONG
H1	DELINEATOR - BEAM GUARD		SEE SDD 14B42 FOR MORE INFORMATION
H2	DELINEATION - SHEETING	YELLOW OR WHITE	
		WISDOT SPEC 637 TYPE SH	
		APPROVED PRODUCT LIST	
J1	FOUNDATION BACKFILL	STANDARD SPEC. 614	
AA1	BEAM GUARD RAIL - PUNCHED	AASHTO M180, CLASS A, TYPE 2	
		APPROVED PRODUCER	
AA2	BEAM GUARD RAIL - END SECTION BUFFER	AASHTO M180, CLASS A, TYPE 2	
		APPROVED PRODUCER	
BB1	BEAM GUARD RAIL - TERMINAL CONNECTOR MODIFIED	AASHTO M180, CLASS A, TYPE 2	
		APPROVED PRODUCER	
CC1	SHORT RADIUS - SQUARE WASHER	AASHTO M180	
		GALV. AASHTO M111 / ASTM A123	
EE1	NAIL	ASTM A153 HOT DIP CLASS D	
		ASTM F1667 TYPE 1 STYLE 12 (16 DOUBLE HEADED)	
FF1	POST - BCT - WOOD	S4S FINISH ON 4 SIDES	
		WISDOT SPEC. 614	
GG1	POST BOLT	ASTM A307 GRADE A OR SAE J429 GRADE 2	3/8" DIA. SEE SDD 14B42 FOR BOLT GEOMETRY
		AASHTO M180	
		GALV. HOT DIP TO AASHTO M232 CLASS C/ASTM A153 CLASS C/ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1/ASTM B695 CLASS 50, TYPE 1	
		UNC	
GG2	POST BOLT - WASHER	ASTM F436 TYPE 1 (HARDEN TYPICALLY USED WITH STEEL) OR ASTM F844 (UNHARDENED TYPICALLY WITH WOOD)	3/8" DIA.
		GALV. AASHTO M111 / ASTM A 123 OR GALV. HOT DIP. TO AASHTO M232 CLASS C/ASTM A153 CLASS C / ASTM F2329	

SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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SDD 14B53-03g

BILL OF MATERIALS - SHORT RADIUS BEAM GUARD (MGS)

PART	DESCRIPTION	MATERIALS SPECIFICATIONS	NOTES
GG3	POST BOLT - NUT	ASTM A563 GRADE A	3/8" DIA. SEE 14B42 FOR GEOMETRY
		AASHTO M180 DOUBLE RECESSED HEAVY HEX HEAD	
		GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1 / ASTM B695 CLASS 50, TYPE 1	
		UNC	
		OVER TAPPED NUTS OVER-SIZE AS SPECIFIED IN AASHTO 291 / ASTM A 563	
		ASTM A563 GRADE A HEAVY HEX HEAD	
HH1	SPLICE BOLT	GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1 / ASTM B695 CLASS 50, TYPE 1	3/8" DIA. SEE SDD 14B42 FOR BOLT GEOMETRY
		ASTM A307 GRADE A OR SAE J429 GRADE 2	
		UNC	
		AASHTO M180 HEAD GEOMETRY	
HH2	SPLICE BOLT - NUT	ASTM A563 GRADE A	3/8" DIA. SEE SDD 14B42 FOR BOLT GEOMETRY
		AASHTO M180 DOUBLE RECESSED HEAVY HEX HEAD	
		GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1 / ASTM B695 CLASS 50, TYPE 1	
		OVER TAPPED NUTS OVER-SIZE AS SPECIFIED IN AASHTO 291 / ASTM A 563	
		UNC	
JJ1	PIPE - STEEL	ASTM A53 GALVANIZED GRADE B SCHEDULE 40	10" O.D.
JJ2	TOP PLATE	ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX STRENGTH 50 KSI OR ASTM A709 MAX STRENGTH 50 KSI OR ASTM A992 MAX STRENGTH 50 KSI	DIMENSIONS 3/8" X 4" X 1' - 0"
		GALV. AASHTO M111 / ASTM A123	
KK1	ANCHOR BRACKET	ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX STRENGTH 50 KSI OR ASTM A709 MAX STRENGTH 50 KSI OR ASTM A992 MAX STRENGTH 50 KSI	
		GALV. AASHTO M111 / ASTM A123	
KK2	ANCHOR BRACKET - BEARING PLATE	ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX STRENGTH 50 KSI OR ASTM A709 MAX STRENGTH 50 KSI OR ASTM A992 MAX STRENGTH 50 KSI	
		GALV. AASHTO M111 / ASTM A123	
LL1	ANCHOR BRACKET - BOLT	ASTM A307 GRADE B HEAVY HEX HEAD OR SAE J429 GRADE 2 HEAVY HEX HEAD	5/8" DIA.
		GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1 / ASTM B695 CLASS 50, TYPE 1	
		UNC	

PART	DESCRIPTION	MATERIALS SPECIFICATIONS	NOTES
LL2	ANCHOR BRACKET - WASHER	ASTM F436 TYPE 1 (HARDEN WASHER ONLY)	5/8" DIA.
		GALV. AASHTO M111 / ASTM A123 OR GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329	
LL3	ANCHOR BRACKET - NUT	ASTM A563 GRADE A	5/8" DIA.
		GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1 / ASTM B695 CLASS 50, TYPE 1	
		OVER TAPPED NUTS OVER-SIZE AS SPECIFIED IN AASHTO 291 / ASTM A 563	
		UNC	
MM1a	ANCHOR CABLE	AASHTO M30 / ASTM A741 INDEPENDENT WIRE CORE (IWRC) OR WIRE STRAND CORE (WCS), IMPROVED PLOW STEEL (IPS), 6X19, TYPE II OR IIc CLASS C ZINC COATED	
MM1b	ANCHOR CABLE	AASHTO M30 / ASTM A741 INDEPENDENT WIRE CORE (IWRC) OR WIRE STRAND CORE (WCS), IMPROVED PLOW STEEL (IPS), 6X19, TYPE II OR IIc CLASS C ZINC COATED	
MM2	ANCHOR CABLE - SWAGE FITTING	ASTM A576 GRADE 1035	
		SWAGE FITTINGS ARE TO BE FACTORY SWEDGED. WITH A BREAKING STRENGTH 40,000 LBS.	
		GALV. AASHTO M111 / ASTM A123	
		ASME B30.26 FORGED, CAST, OR DIE STAMPED WITH THE FOLLOWING INTO CONNECTION: NAME OF MANUFACTURER OR TRADEMARK OF CONNECTION'S MANUFACTURER, SIZE OR RATED LOAD, GRADE.	
MM3	WIRE ROPE CABLE CLAMPS	FF-C-450D TYPE 1 CLASS 1	3/4"
		ASTM A153 HOT DIP CLASS D	
MM4	ANCHOR CABLE - SWAGE FITTING - STUD	ASTM F3125 GRADE A325 TYPE 1 OR SAE GRADE 5 OR ASTM A449 TYPE 1 HEAVY HEX HEAD	
		GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1 / ASTM B695 CLASS 50, TYPE 1	
		UNC	
NN1	ANCHOR CABLE - NUT	ASTM A563 GRADE A	1" DIA.
		AASHTO M180 DOUBLE RECESSED HEAVY HEX HEAD	
		GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1 / ASTM B695 CLASS 50, TYPE 1	
		OVER TAPPED NUTS OVER-SIZE AS SPECIFIED IN AASHTO 291 / ASTM A 563	
		UNC	
NN2	ANCHOR CABLE - NUT - WASHER	ASTM F436 TYPE 1 (HARDEN WASHER ONLY)	1" DIA.
		GALV. AASHTO M111 / ASTM A123 OR GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329	

SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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SDD 14B53-03h

BILL OF MATERIALS - SHORT RADIUS BEAM GUARD (MGS)

PART	DESCRIPTION	MATERIALS SPECIFICATIONS	NOTES
PP1	BEARING PLATE AT POST	ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX STRENGTH 50 KSI OR ASTM A709 MAX STRENGTH 50 KSI OR ASTM A992 MAX STRENGTH 50 KSI	
		GALV. AASHTO M111 / ASTM A123	
PP2	PIPE - STEEL	ASTM A53 GALVANIZED GRADE B SCHEDULE 40	2" DIA. x 6" LONG
QQ1	FOUNDATION TUBE	ASTM A500 GRADE B	8" X 6" X 3/16"
		GALV. AASHTO M111 / ASTM A123	
QQ2	SHORT RADIUS - FOUNDATION TUBE - ANCHOR CABLE - TUBE	ASTM A500 GRADE B	DIMENSIONS 2 1/2" X 2 1/4" X 1/4" X 8"
		GALV. AASHTO M111 / ASTM A123	
QQ3	SHORT RADIUS - SOIL TUBE - ANCHOR CABLE - TUBE - END PLATE	ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX STRENGTH 50 KSI OR ASTM A709 MAX STRENGTH 50 KSI OR ASTM A992 MAX STRENGTH 50 KSI	DIMENSIONS 2 1/2" X 2 1/2" X 1/4"
		GALV. AASHTO M111 / ASTM A123	
QQ4	GROUND STRUT AND YOKE - BOLT	GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1 / ASTM B695 CLASS 50, TYPE 1	5/8 DIA.
		ASTM A307 GRADE B HEAVY HEX HEAD OR SAE J429 GRADE 2 HEAVY HEX HEAD	
		UNC	
QQ5	GROUND PLATE AND YOKE - WASHER	ASTM F436 TYPE 1 (HARDEN WASHER ONLY)	5/8 DIA.
		GALV. AASHTO M111 / ASTM A123 OR GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329	
QQ6	GROUND STRUT AND YOKE - NUT	HEAVY HEX	5/8 DIA.
		UNC	
		ASTM A563 GRADE A	
		OVER TAPPED NUTS AS SPECIFIED IN AASHTO 291 / ASTM A 563	
		GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1 / ASTM B695 CLASS 50, TYPE 1	

PART	DESCRIPTION	MATERIALS SPECIFICATIONS	NOTES
SS1	SOIL PLATE	ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX STRENGTH 50 KSI OR ASTM A709 MAX STRENGTH 50 KSI OR ASTM A992 MAX STRENGTH 50 KSI	
		GALV. AASHTO M111 / A123	
TT1	SOIL PLATE - BOLT	ASTM A307 GRADE B HEAVY HEX HEAD OR SAE J429 GRADE 2 HEAVY HEX HEAD	5/8 DIA.
		GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1 / ASTM B695 CLASS 50, TYPE 1	
		UNC	
TT2	SOIL PLATE - WASHER	ASTM F436 TYPE 1 (HARDEN WASHER ONLY)	5/8 DIA.
		GALV. AASHTO M111 / ASTM A123 OR GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329	
TT3	SOIL PLATE - NUT	GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1 / ASTM B695 CLASS 50, TYPE 1	5/8 DIA.
UU1	OBJECT MARKER - SHEETING	MUTCD / WISDOT OBJECT MARKER TYPE 3	PATTERN AND COLOR FOR SHEETING. SHEETING TYPE FOR MARKER.
		WISDOT SPEC 637 TYPE F	
		APPROVED PRODUCT LIST	
UU2	OBJECT MARKER - ALUMINUM PLATE	WISDOT SPEC 637 ALUMINUM PLATE	MATERIAL AND THICKNESS OF MATERIALS
UU3	OBJECT MARKER - SCREWS	STAINLESS SELF-TAPPING SCREWS	
VV1	FOUNDATION BACKFILL	WISDOT SPEC 614	

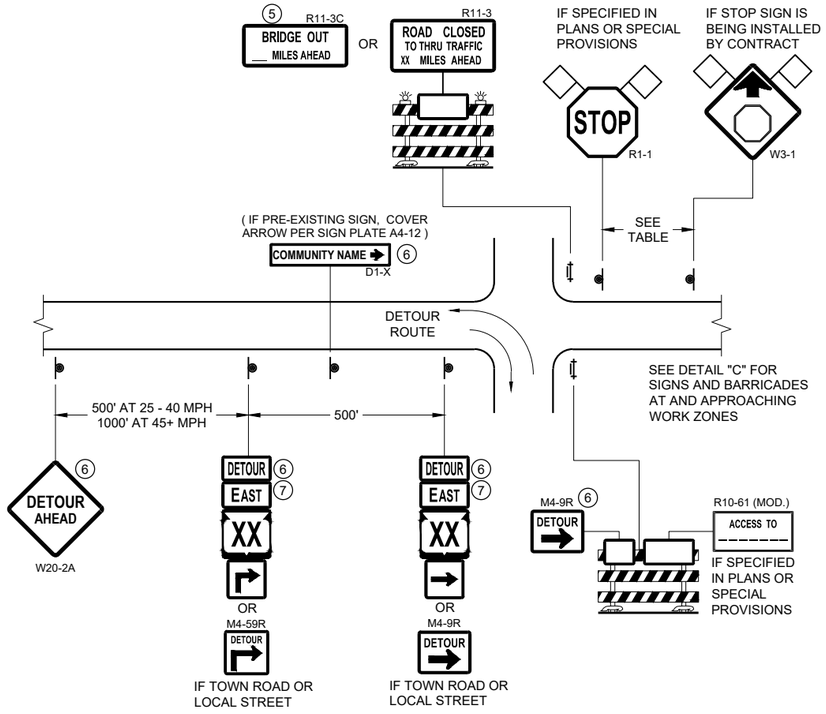
SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
December 2024 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS DEVELOPMENT UNIT SUPERVISOR

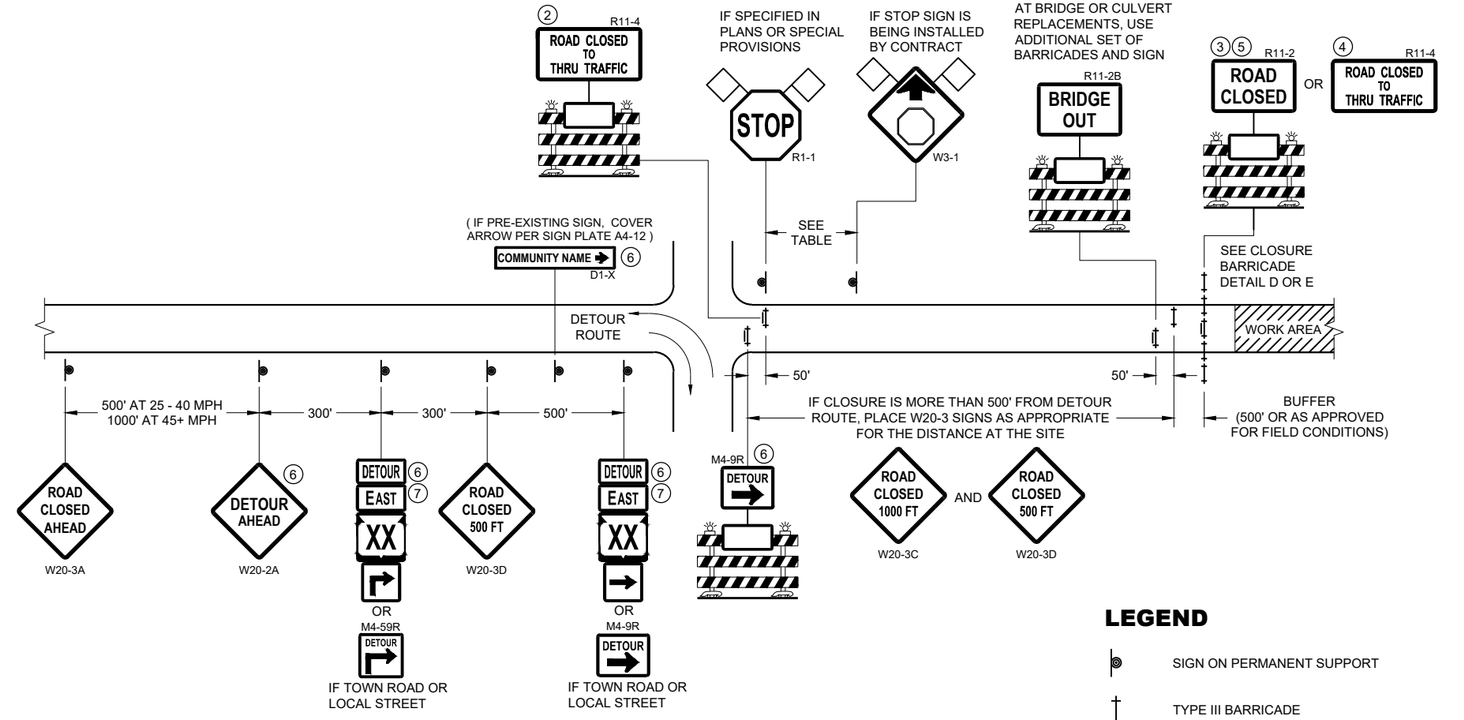
FHWA

6 SDD 14B53-03i



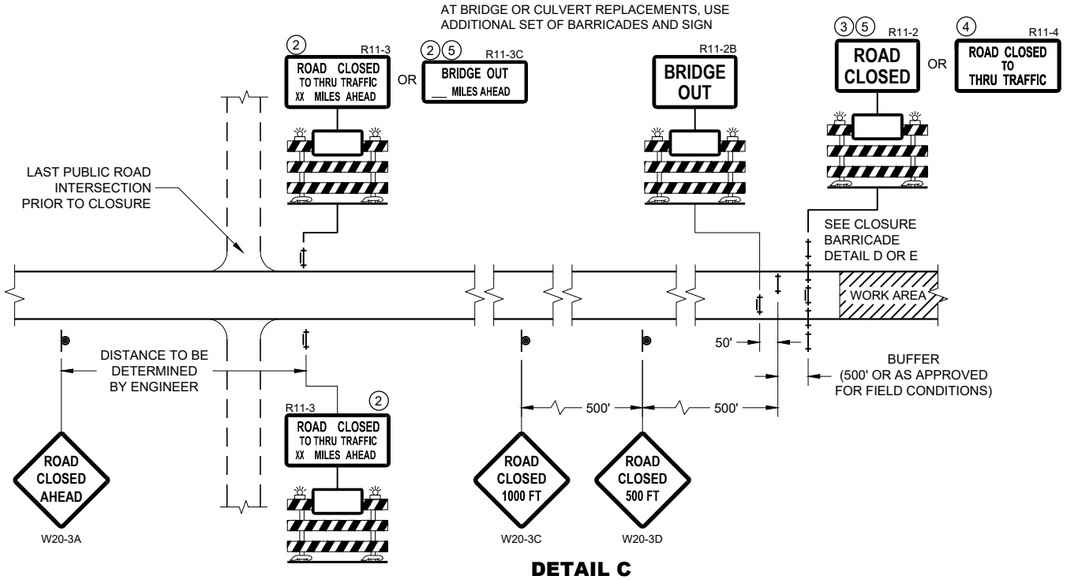
DETAIL A
MAINLINE CLOSURE WITH POSTED DETOUR

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
May 2023
DATE
/S/ Andrew Heidtke
WORK ZONE ENGINEER

FHWA

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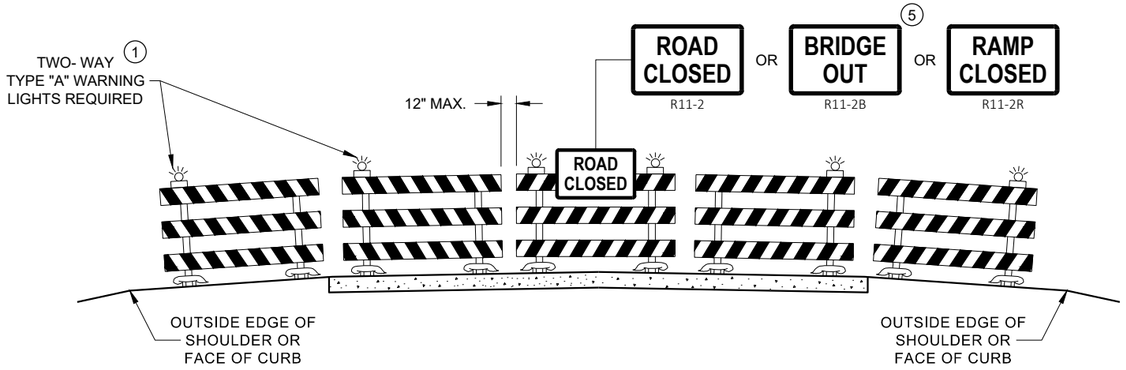
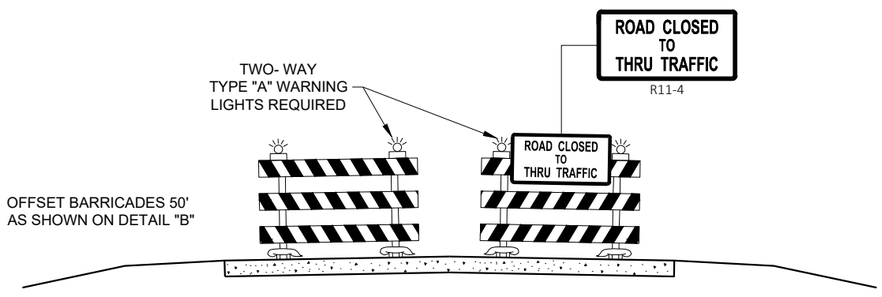
SDD 15C02 - 09a

SDD 15C02 - 09a



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
May 2023
DATE
/S/ Andrew Heidtke
WORK ZONE ENGINEER
FHWA

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SDD 15C02 - 09b

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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; OR XX — M1 - 6; OR COUNTY X — M1 - 5A
- M05 - 1; OR M06 - 1; OR M06 - 1

GENERAL NOTES

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

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

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

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

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

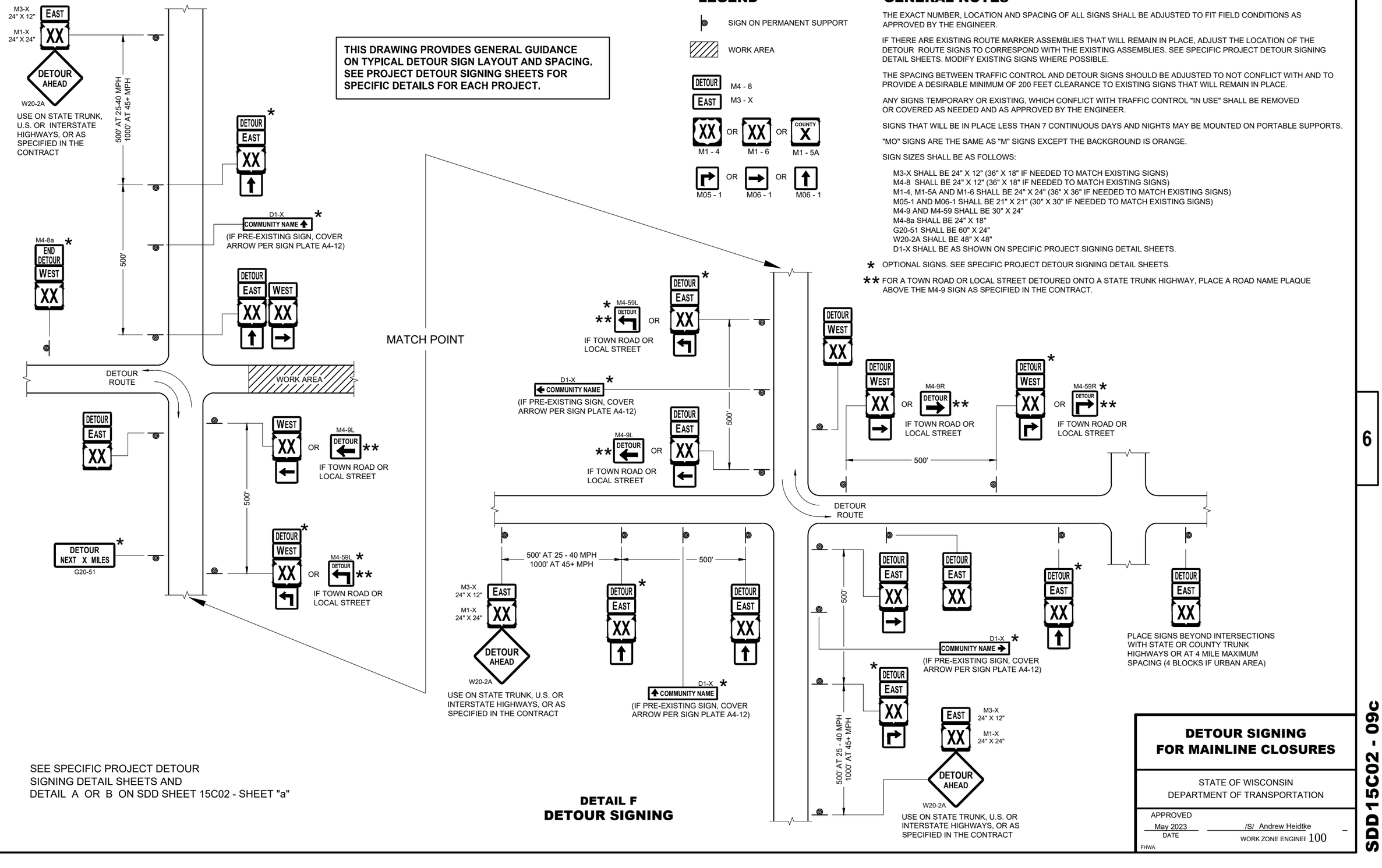
"MO" SIGNS ARE THE SAME AS "M" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

SIGN SIZES SHALL BE AS FOLLOWS:

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

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

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



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

DETAIL F
DETOUR SIGNING

DETOUR SIGNING FOR MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEER

FHWA

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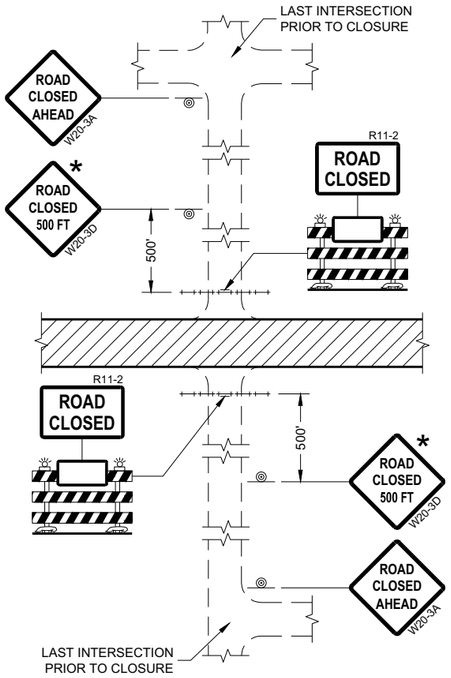
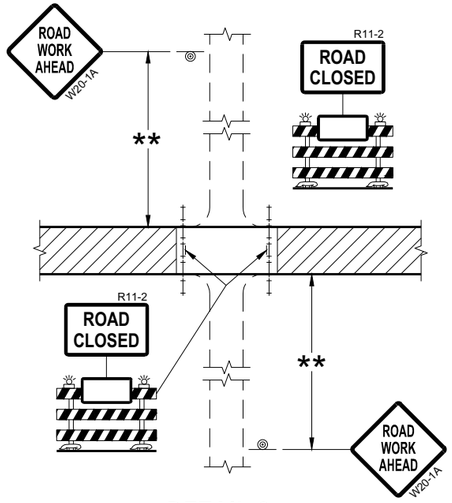
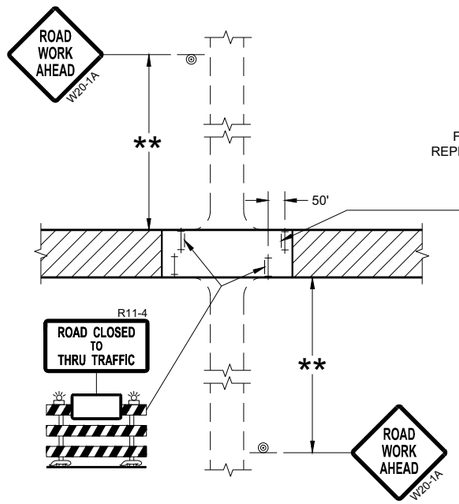
SDD 15C02 - 09c



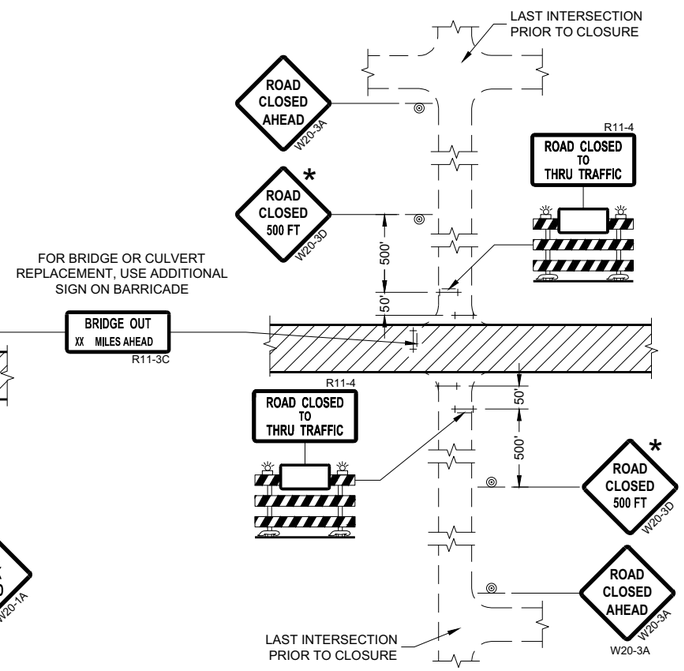
DETAIL 1
(NO ACCESS TO PROJECT)



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



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



DETAIL 4
(CONTRACTOR, LOCAL BUSINESS AND
RESIDENT 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.

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 ENGINEER

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.

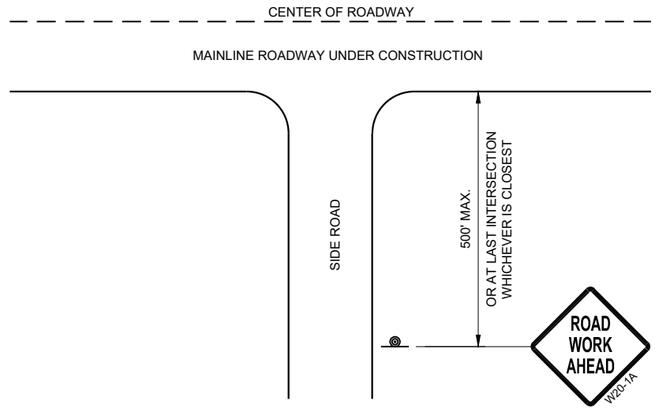
ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.

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.



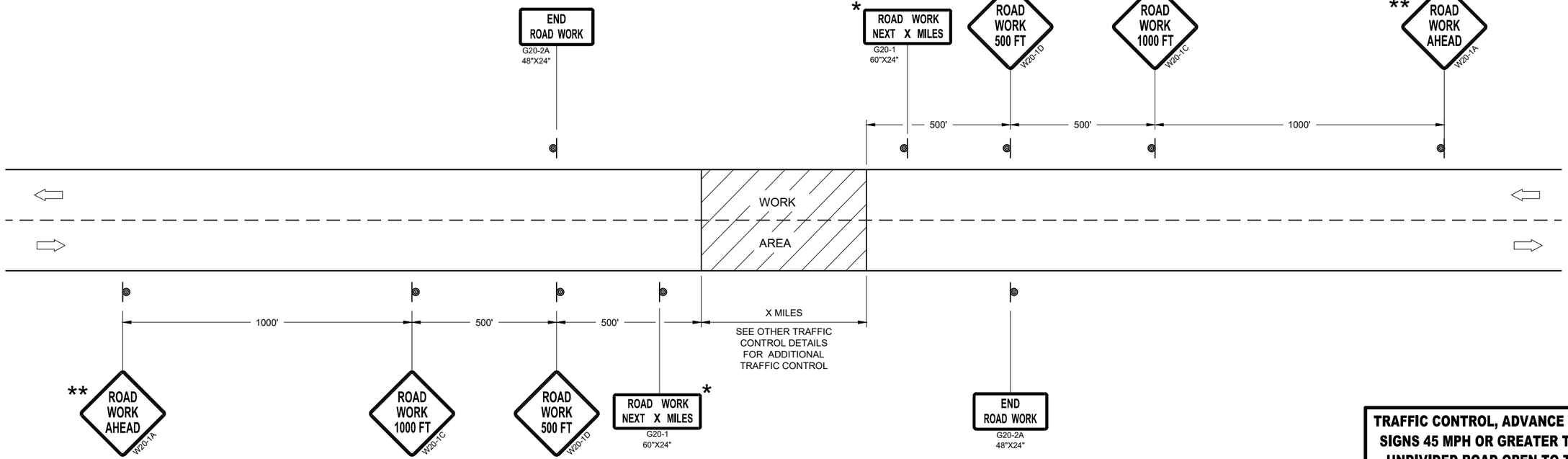
TYPICAL SIDE ROAD APPROACH WARNING SIGN DETAIL

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

FHWA

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SDD 15C04 - 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.

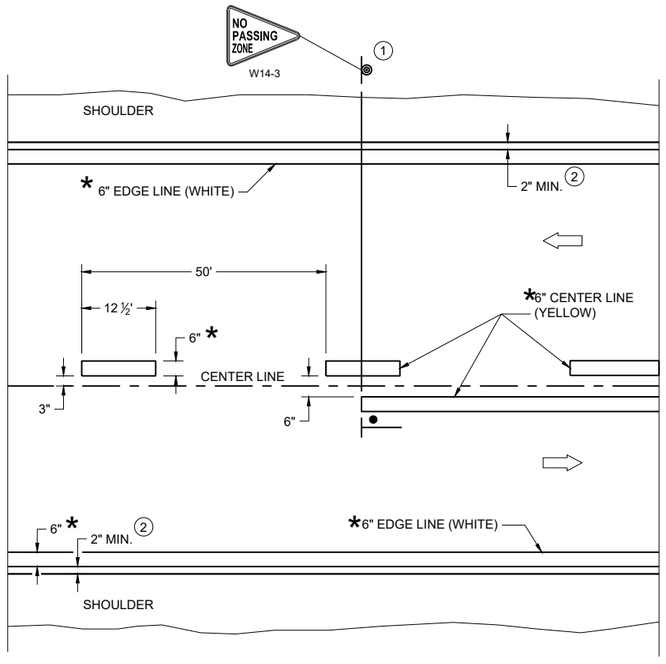
*CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES

LEGEND

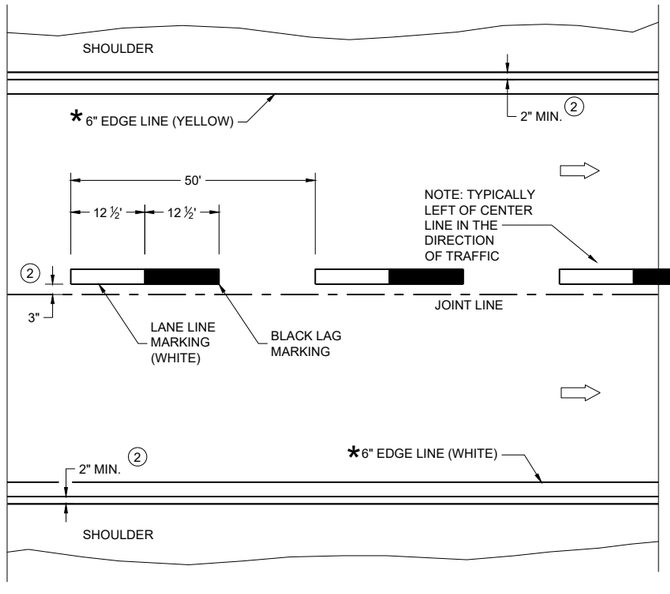
"T" MARKING

SIGN ON PERMANENT SUPPORT

DIRECTION OF TRAFFIC



TWO WAY TRAFFIC



ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING

6

SDD 15C08-24a

PERMANENT LONGITUDINAL PAVEMENT MARKINGS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

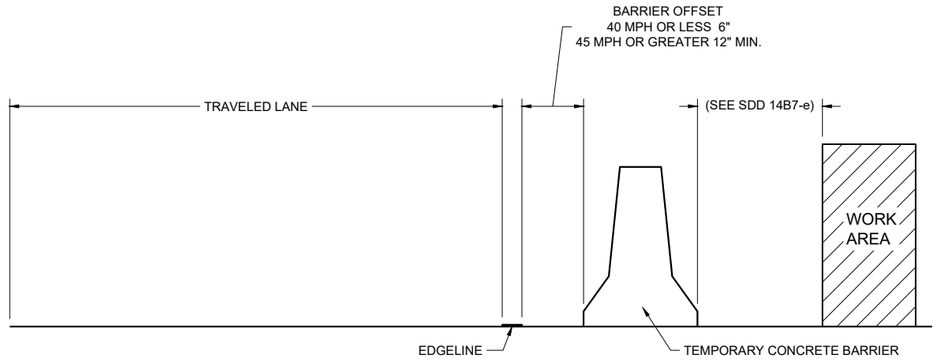
APPROVED
December 2024
DATE

/S/ Jeannie Silver
Statewide Pavement Marking Engineer

FHWA

6

SDD 15C08-24a



TEMPORARY BARRIER OFFSET FROM EDGELINE

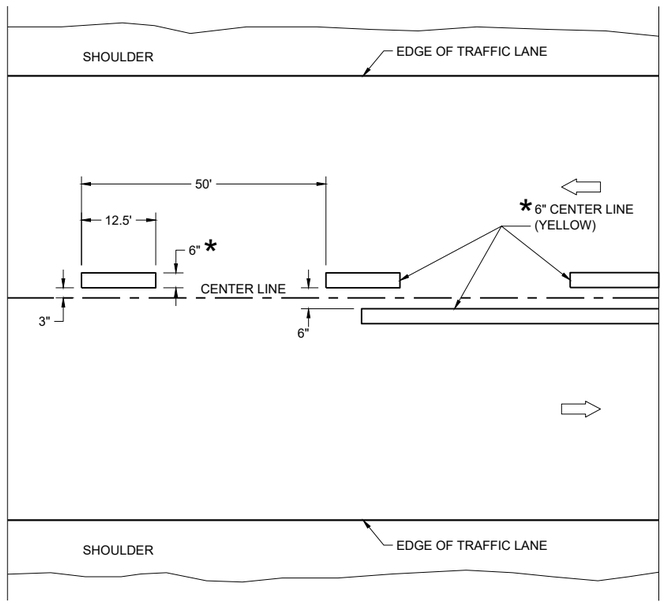
GENERAL NOTES

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

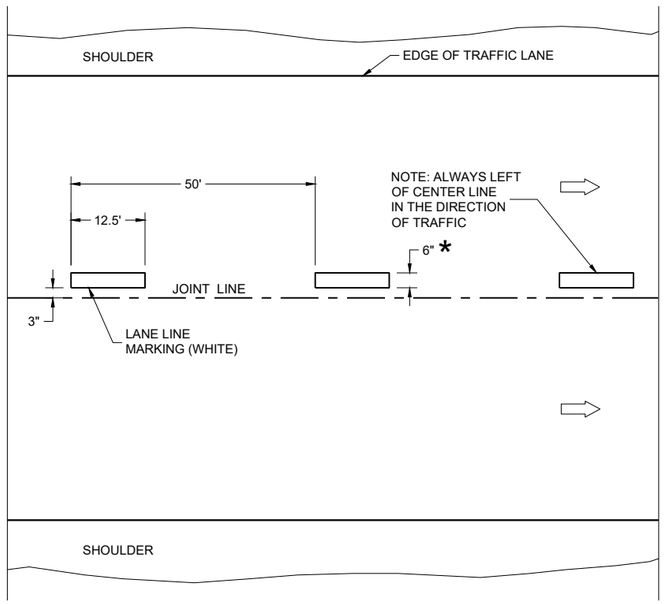
LEGEND

⇨ DIRECTION OF TRAFFIC

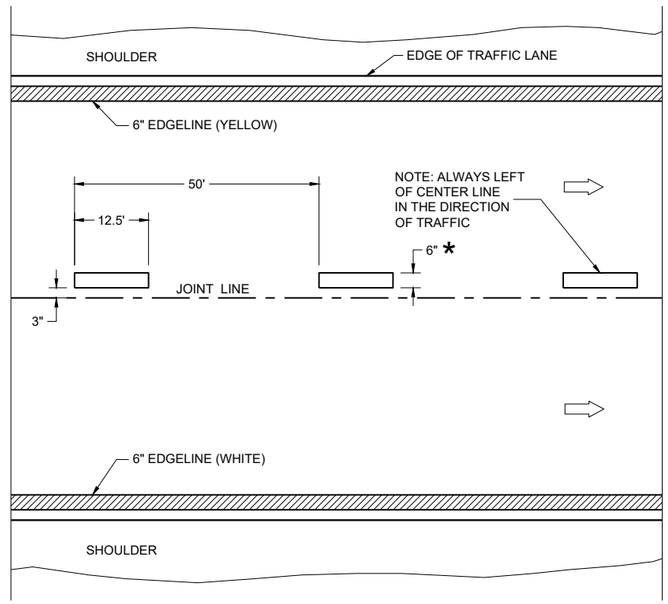
*CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES



TWO WAY TRAFFIC



ONE WAY TRAFFIC



FREEWAYS AND EXPRESSWAYS

TEMPORARY PAVEMENT MARKING

TEMPORARY LONGITUDINAL PAVEMENT MARKING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
December 2024
DATE

/S/ Jeannie Silver
Statewide Pavement Marking Engineer

FHWA

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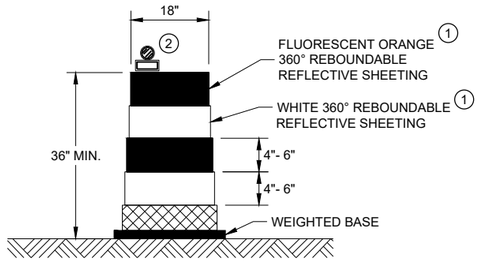
SDD 15C08-24b

6

SDD 15C08-24b

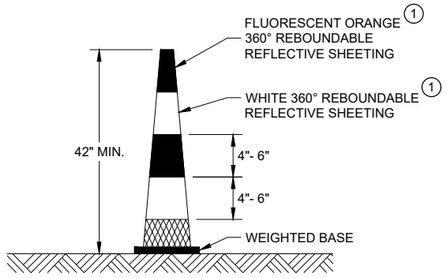
GENERAL NOTES

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



DRUM

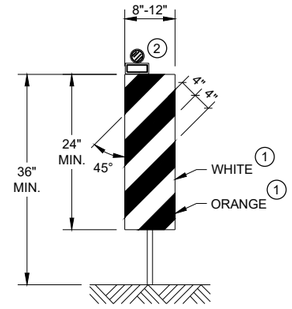
BALLAST WIDTHS
RANGE FROM 24"-36"



42" CONE

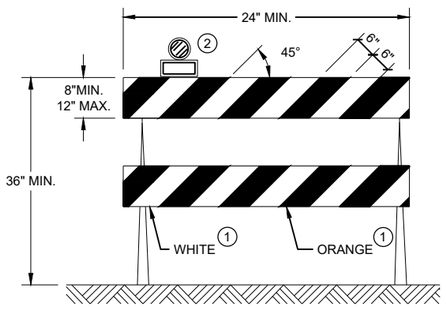
DO NOT USE IN TAPERS
½ SPACING OF DRUMS

BALLAST WIDTHS
RANGE FROM 14"-20"



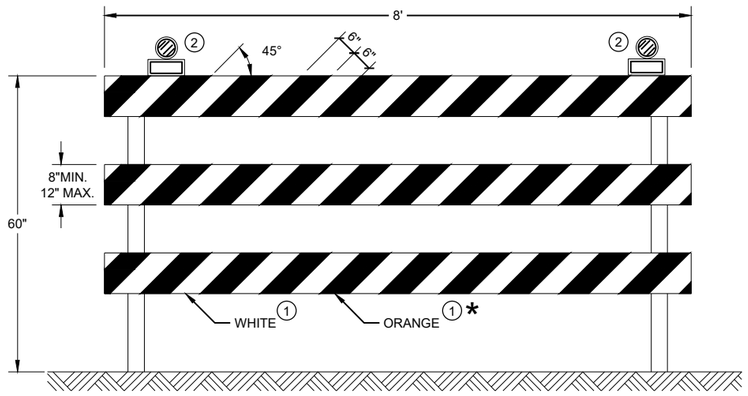
VERTICAL PANEL

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



TYPE II BARRICADE

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



TYPE III BARRICADE

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

* IF USED FOR A PERMANENT APPLICATION USE RED SHEETING.

CHANNELIZING DEVICES
DRUMS, CONES, BARRICADES
AND VERTICAL PANELS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

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SDD 15C11 - 10b

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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.

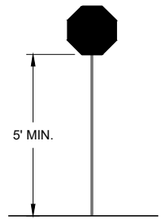
(3) EACH TEMPORARY PORTABLE RUMBLE STRIP ARRAY CONSISTS OF THREE RUMBLE STRIPS PLACED TRANSVERSE ACROSS THE LANE AT THE LOCATIONS SHOWN. WITHIN EACH ARRAY, SPACING BETWEEN RUMBLE STRIPS SHALL BE 15 FEET ON CENTER

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.



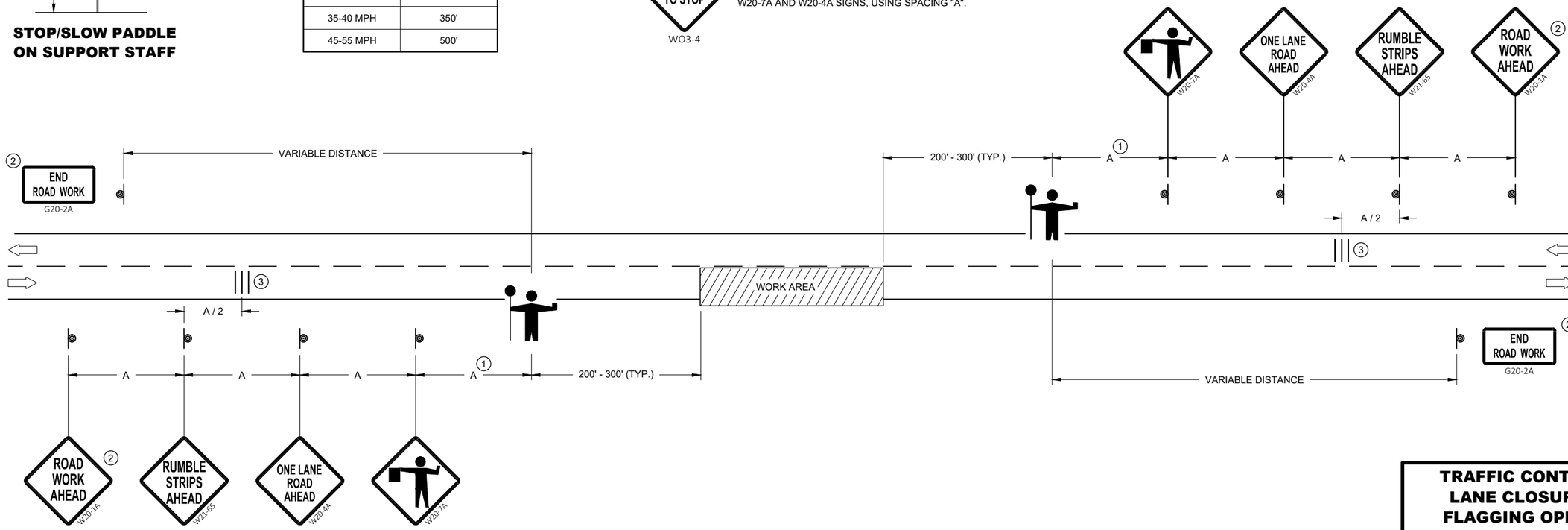
STOP/SLOW PADDLE ON SUPPORT STAFF

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

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SDD 15C12 - 09a

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SDD 15C12 - 09a

LEGEND

V1 LEAD VEHICLE

V2 MARKING VEHICLE

V3 SHADOW VEHICLE

TRUCK MOUNTED ATTENUATOR (TMA)

SIGN ON TEMPORARY SUPPORT

DIRECTION OF TRAFFIC

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.

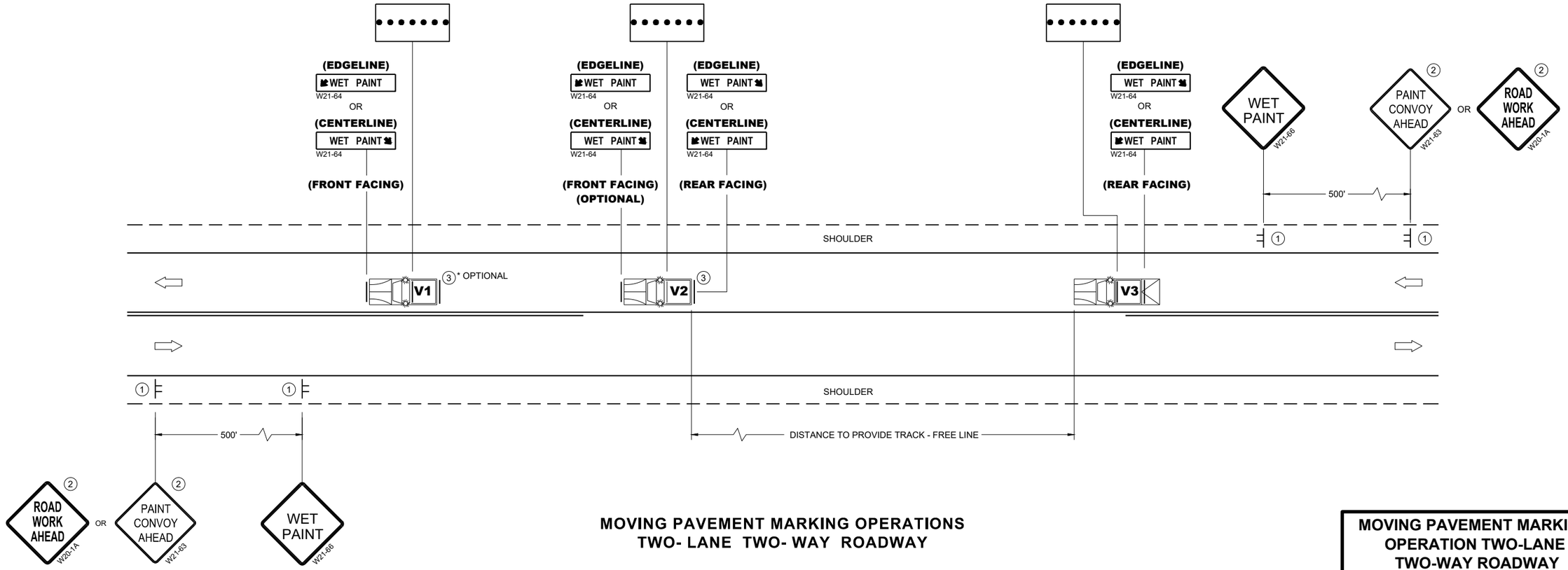
CONES SHOULD BE USED BETWEEN THE MARKING AND SHADOW VEHICLE AT 100 FOOT SPACING. CONES MAY BE OMITTED ON PAINTED LINE IF APPROVED BY THE ENGINEER. CONSIDER PAVEMENT MARKING DRY OR CURE TIMES AND TRAFFIC VOLUME.

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

(1) SIGNS SHALL BE REPEATED APPROXIMATELY EVERY THREE MILES AND AFTER EVERY MAJOR INTERSECTION.

(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.



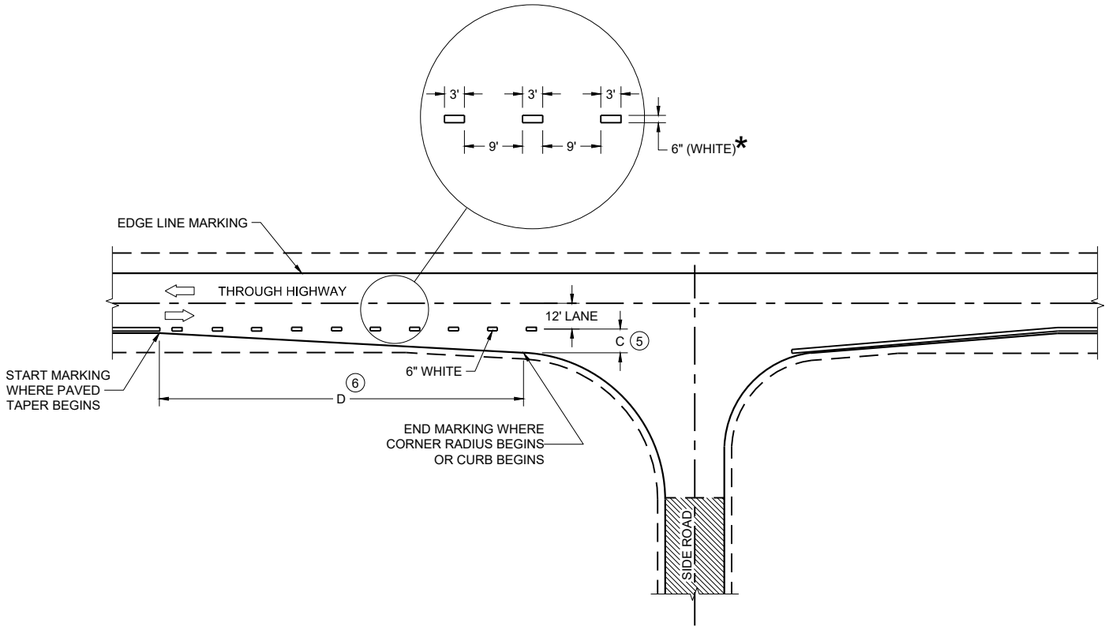
MOVING PAVEMENT MARKING OPERATIONS
TWO- LANE TWO- WAY ROADWAY

MOVING PAVEMENT MARKING OPERATION TWO-LANE TWO-WAY ROADWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
March 2024
DATE
/S/ Andrew Heidtke
WORK ZONE ENGINEER
FHWA

6
SDD 15C19-9a



MINOR INTERSECTION

*CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES

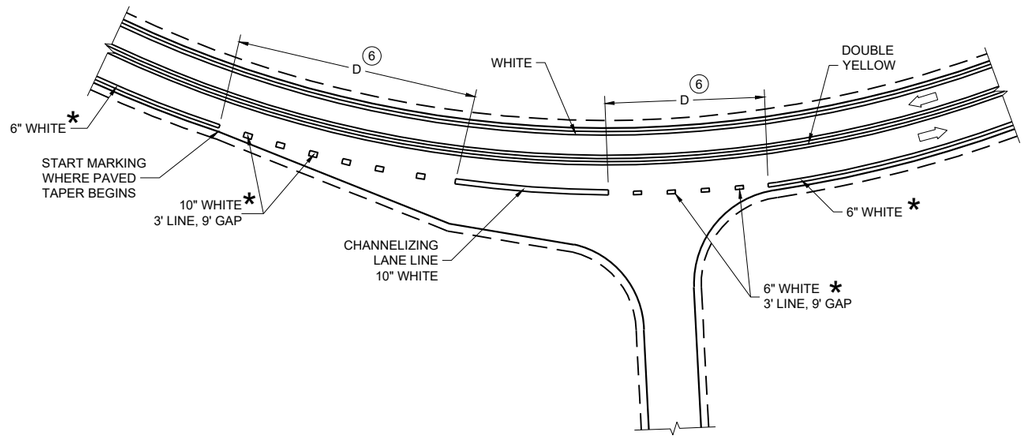
GENERAL NOTES

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

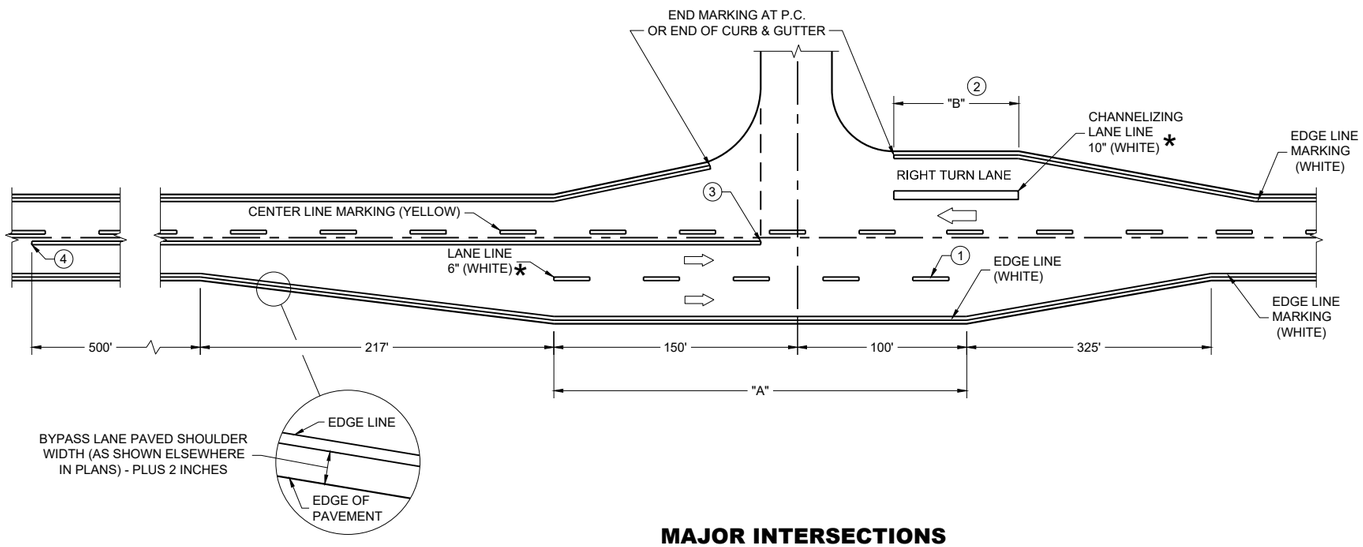
1. WHEN DISTANCE "A" IS LESS THAN 250 FEET, OMIT LANE LINE.
2. WHEN DISTANCE "B" IS LESS THAN 100 FEET, OMIT CHANNELIZING LANE LINE.
3. BARRIER LINE ENDS AT SIDE ROAD PAVEMENT / SURFACE EDGE EXTENSION.
4. BARRIER LINE STARTS 500 FEET PRIOR TO THE BYPASS TAPER.
5. WHEN DISTANCE "C" IS LESS THAN 4 FEET,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

LEGEND

DIRECTION OF TRAVEL



INTERSECTION ON OUTSIDE OF CURVE



MAJOR INTERSECTIONS

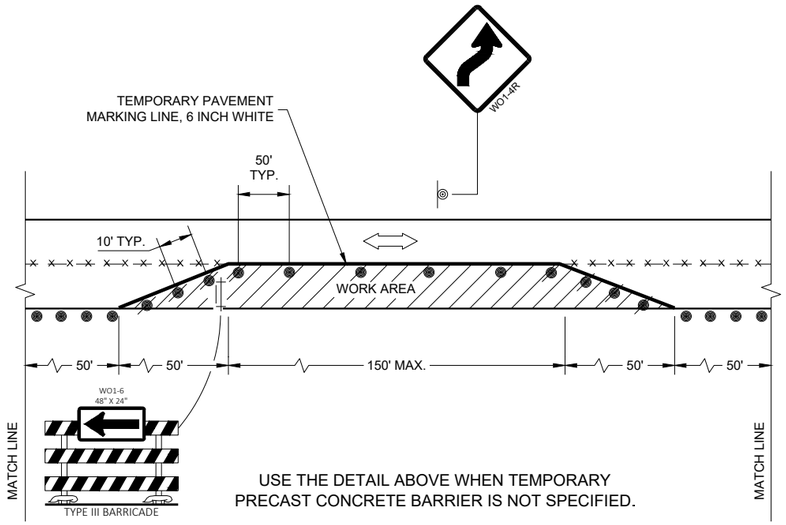
(INTERSECTION WITH FULL RIGHT TURN LANE OR BYPASS LANE)

PAVEMENT MARKING (INTERSECTIONS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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.

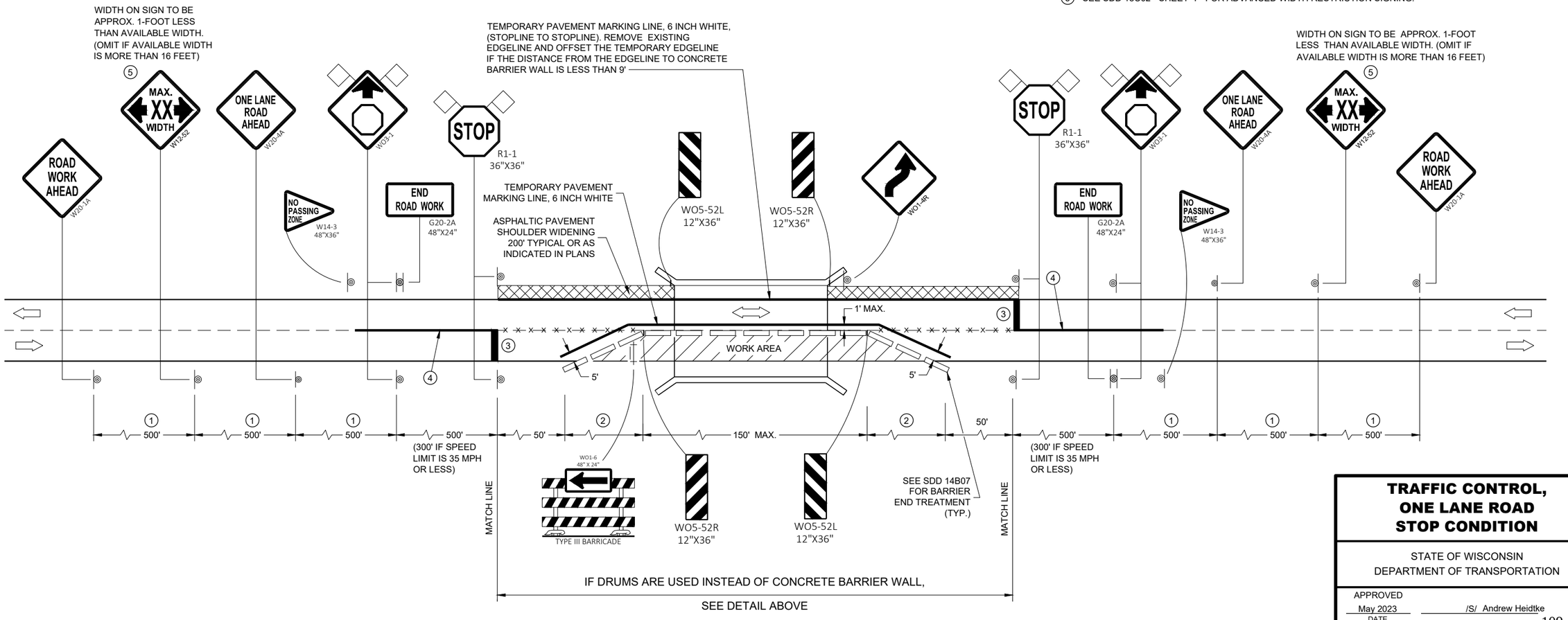
ALL SIGNS ARE 48" x 48" UNLESS OTHERWISE NOTED.

"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, 6 INCH DOUBLE YELLOW. WHEN THE DISTANCE FOR THE PRECEDING NO - PASSING ZONE IS LESS THAN THE MINIMUM DISTANCE BETWEEN ZONES AS INDICATED IN THE SPECIFICATIONS, THE TWO ZONES SHALL BE CONNECTED.
5. SEE SDD 15C02 - SHEET "F" FOR ADVANCED WIDTH RESTRICTION SIGNING.



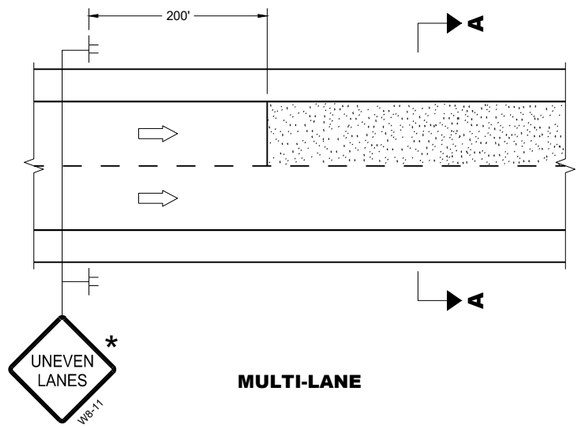
TRAFFIC CONTROL, ONE LANE ROAD STOP CONDITION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

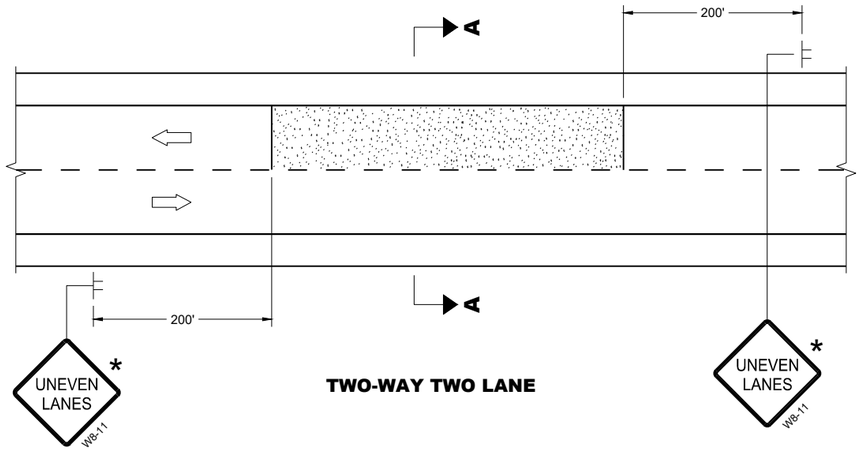
APPROVED
May 2023
DATE
/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

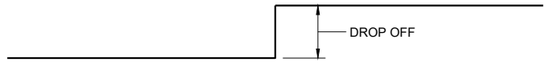
6
SDD 15D32-07



MULTI-LANE

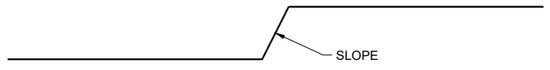


TWO-WAY TWO LANE

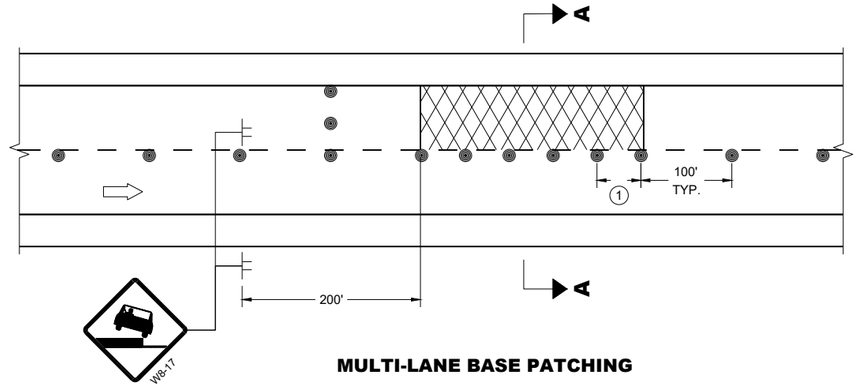


SECTION A - A

OR



SECTION A - A



MULTI-LANE BASE PATCHING

ADJACENT LANE DROP-OFFS

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.

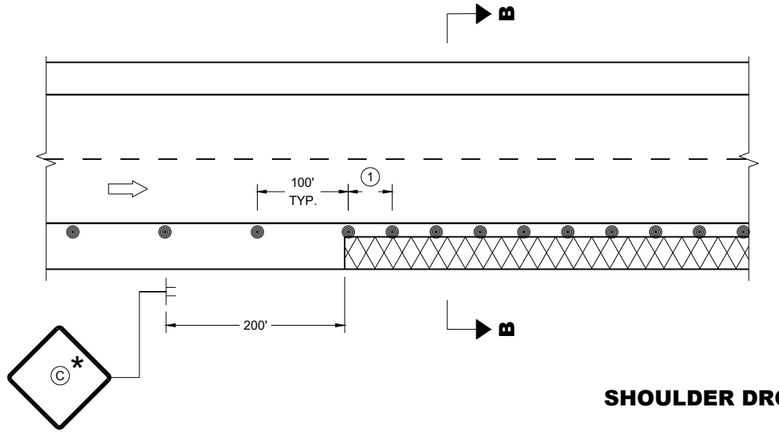
WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

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

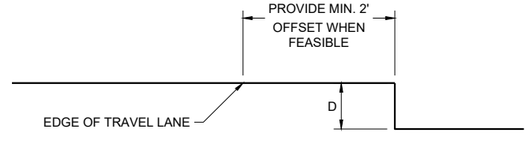
(1) USE CLOSER SPACING WHEN DELINEATING DROP-OFF.

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



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
February 2025 — DATE
/S/ Andrew Heidtke — WORK ZONE ENGINEER

FHWA

6
SDD 15D39-03

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.

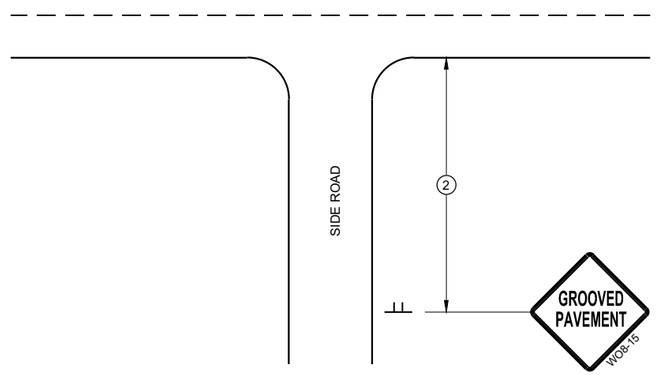
(1) PLACE SIGNS 350' IN ADVANCE OF MILLED SURFACES AND AT 1 MILE INTERVALS, OR AS DIRECTED BY THE ENGINEER.

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

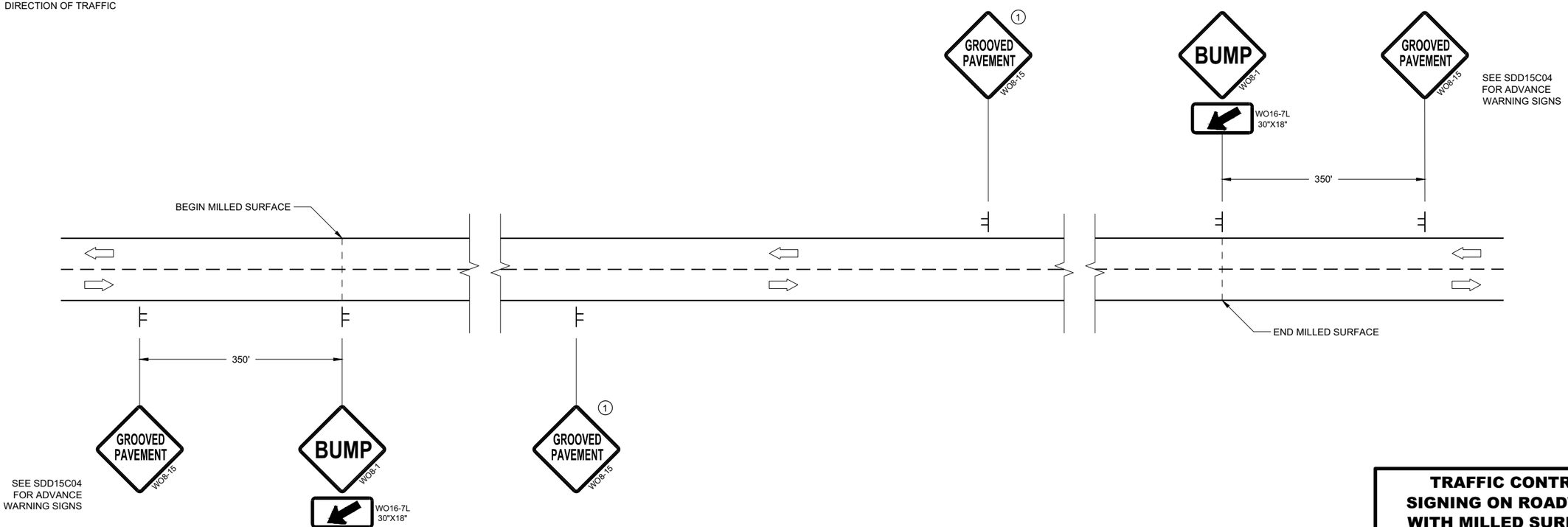
LEGEND

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

SDD 15D44 - 02

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.

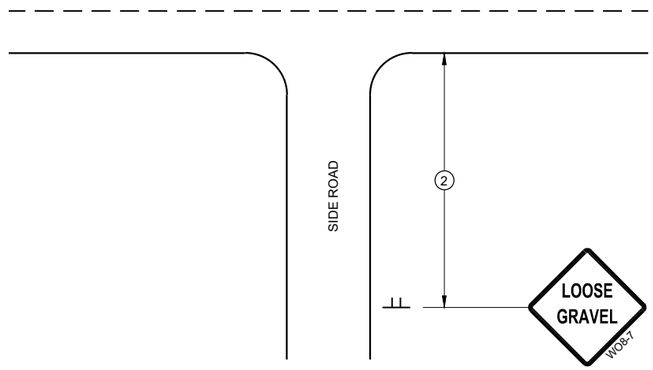
(2) PLACE SIGN 200' MIN. FROM INTERSECTION AND 200' MIN. AFTER ADVANCE WARNING SIGN SHOWN IN SDD 15C04.

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

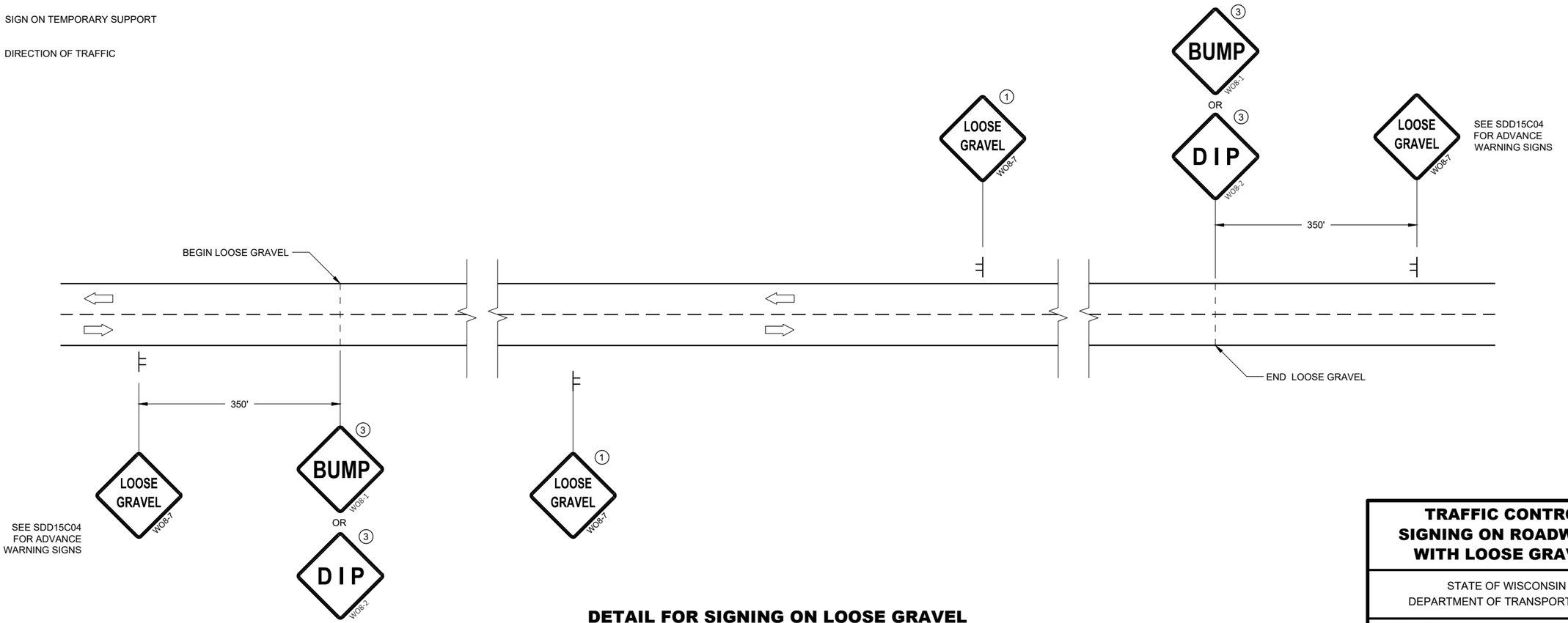
LEGEND

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

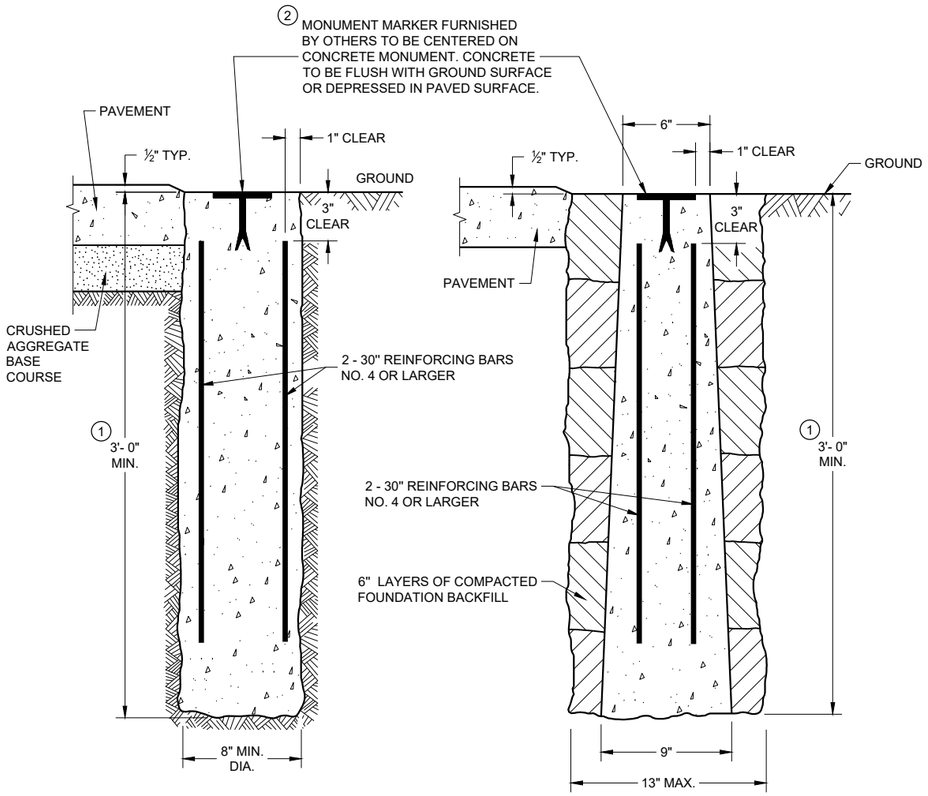
APPROVED
February 2021
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

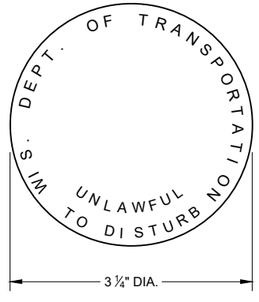
6

SDD 15D45 - 03



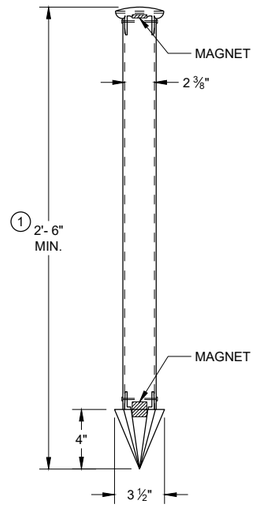
CAST-IN-PLACE **PRECAST**

CONCRETE MONUMENTS
TYPE A

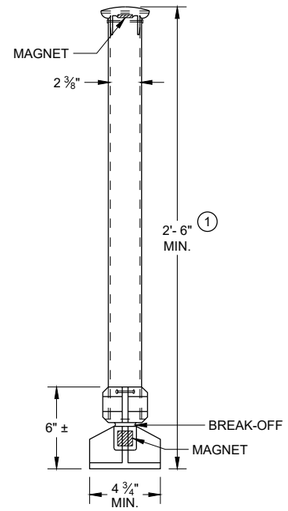


② **WIS DOT MONUMENT MARKER LOGO**

FOR TYPES "A", "C" & "D"

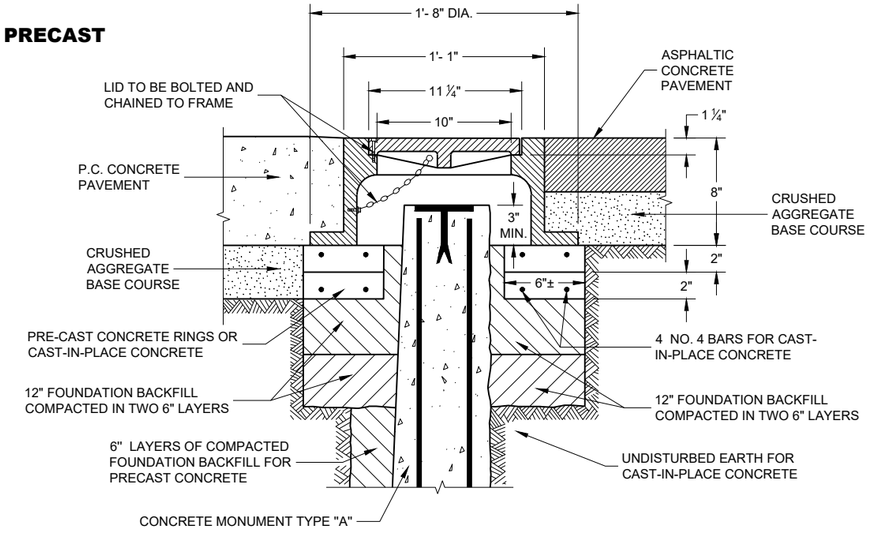


TYPE C
DRIVEN MONUMENT



TYPE D
NON-DRIVEN
BREAK-OFF MONUMENT

ALUMINUM MONUMENTS
(INCLUDES MARKER)



CAST IRON MONUMENT COVER
(APPROXIMATE WEIGHT 95 LBS)

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.

DETAILED DRAWINGS OF PROPOSED ALTERNATE DESIGNS FOR METAL MONUMENTS OR MONUMENT COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL.

PERMANENT MAGNETS SHALL BE INSERTED NEAR THE TOP AND BOTTOM OF ALL ALUMINUM MONUMENTS SO THE MONUMENT CAN EASILY BE DETECTED BY A METAL DETECTOR.

THE CAST IRON MONUMENT COVER SHALL BE A "NON-ROCKING" TYPE. ADJUSTMENT OF THE COVER TO GRADE MAY BE ACCOMPLISHED BY THE USE OF MORTAR AND BRICK, OR BY EITHER PRECAST OR CAST-IN-PLACE REINFORCED CONCRETE GRADE RINGS.

MONUMENTS SHALL BE LOCATED AND PLACED AT THE DIRECTION OF THE ENGINEER.

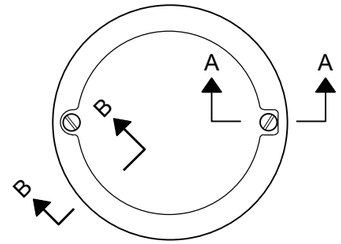
ALUMINUM MONUMENTS AND MONUMENT COVERS SHALL BE MADE FROM AN ALUMINUM AND MAGNESIUM ALLOY AS DETERMINED BY THE MANUFACTURER.

THE MONUMENT COVERS DETAILED ON THIS DRAWING ARE NOT EQUAL ALTERNATES. MONUMENT COVERS SHALL BE CAST IRON UNLESS ALUMINUM IS SPECIFIED ELSEWHERE IN THE CONTRACT.

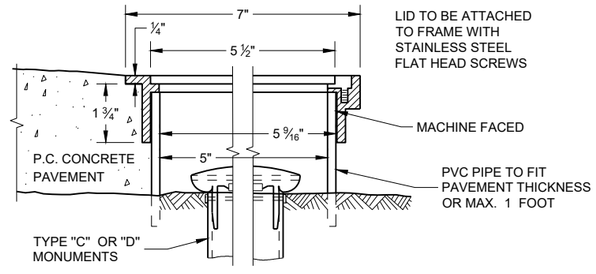
MONUMENT SHALL BE CAST-IN-PLACE CONCRETE UNLESS PRECAST CONCRETE OR ALUMINUM MONUMENTS ARE SPECIFIED IN THE CONTRACT OR PERMITTED BY THE ENGINEER.

① MINIMUM LENGTH SHALL BE 4'-0" FOR MONUMENTS INSTALLED IN PAVED AREAS.

② AN OFFICIAL COUNTY MONUMENT MARKER SUPPLIED BY A COUNTY MAY BE REQUIRED FOR SOME SECTION CORNERS AND WITNESS MONUMENTS INSTEAD OF THIS WISDOT MARKER.



TOP VIEW



SECTION B-B **SECTION A-A**

ALUMINUM MONUMENT COVER
(APPROXIMATE WEIGHT 2 LBS)
(FOR CONCRETE PAVEMENT ONLY)

LANDMARK REFERENCE MONUMENTS AND COVERS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
March 2018
DATE

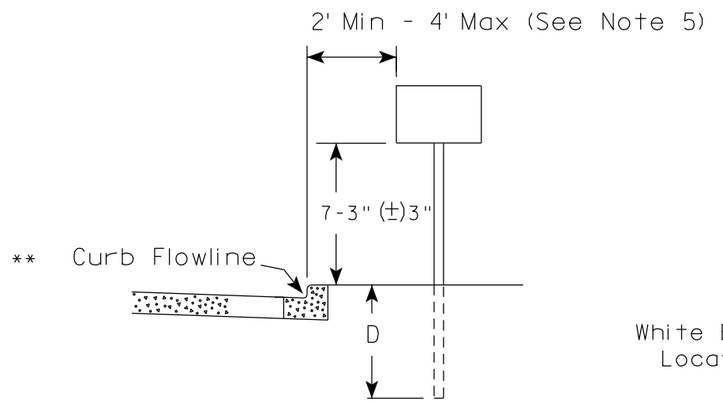
/S/ Raymond A. Kumapayii
CHIEF SURVEYING AND MA
ENGINEER

FHWA

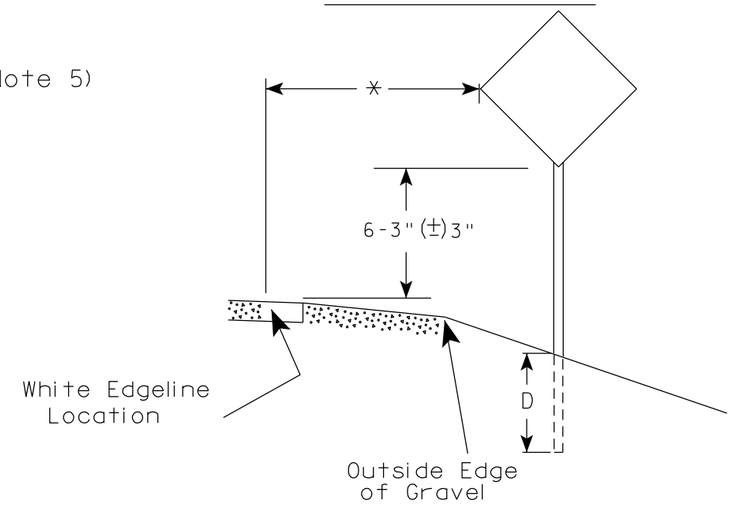
6

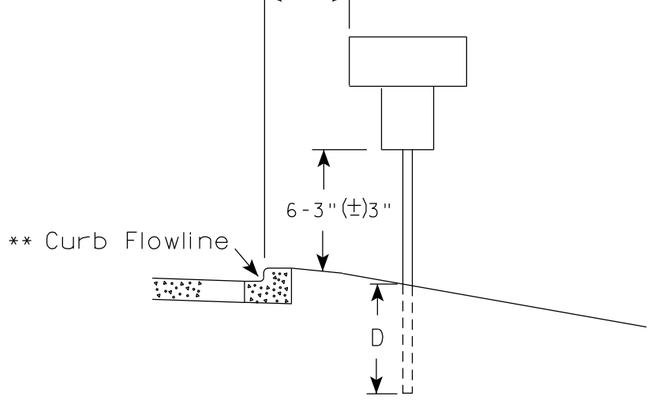
SDD 16A01 - 07

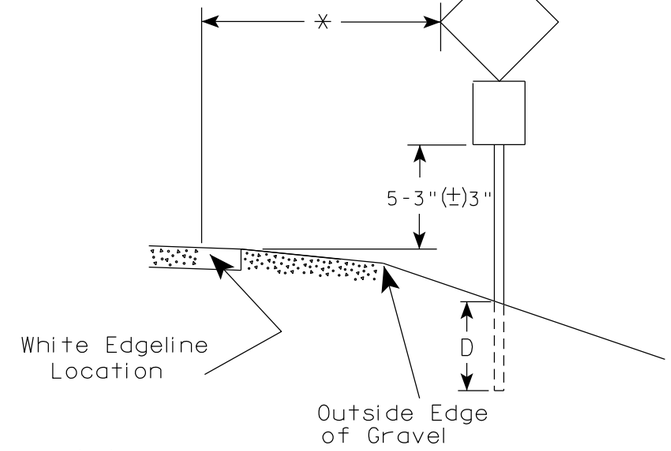
URBAN AREA



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" (±) 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".
3. For expressways and freeways, mounting height is 7'- 3" (±) 3" or 6'-3" (±) 3" depending upon existence of a sub-sign.
4. Minimum mounting height for signs mounted on traffic signal poles is 5'- 3" (±) 3".
5. Offset distance shall be consistent with existing signs or consistent throughout length of project.
6. Folding signs shall be mounted at a height of 5'-3" (±) 3" or as directd by the Engineer.

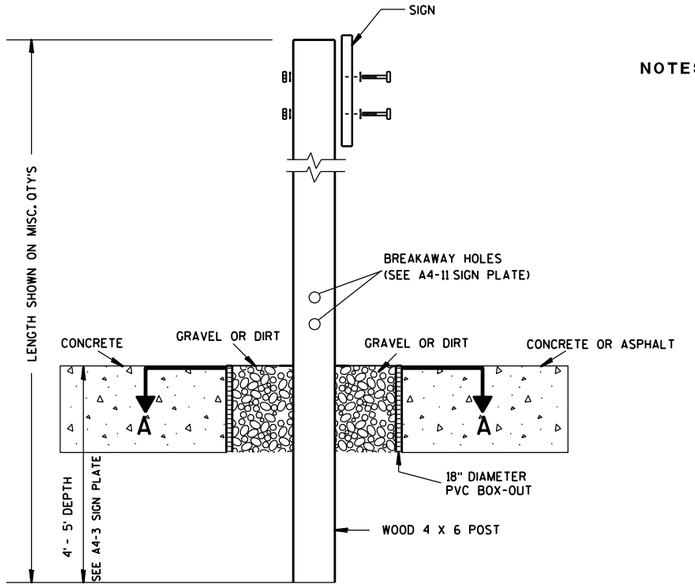
TYPICAL INSTALLATION OF PERMANENT TYPE II SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/6/23 PLATE NO. A4-3.23

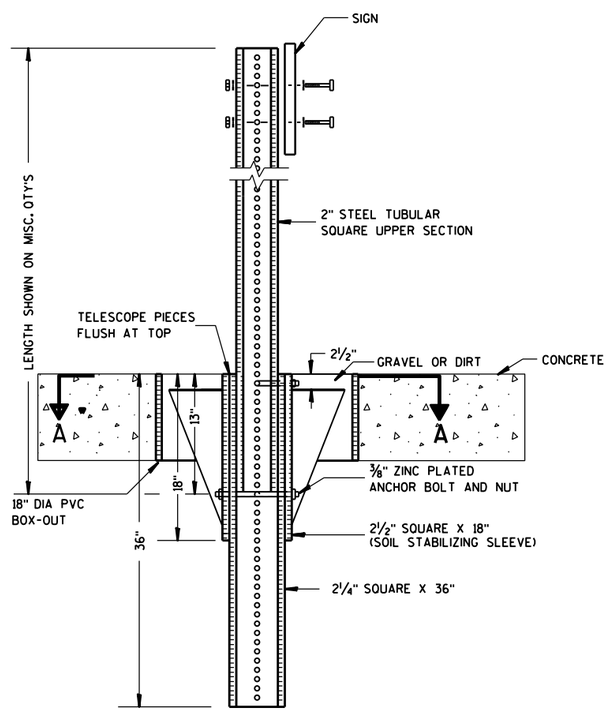
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 114	E



ELEVATION VIEW

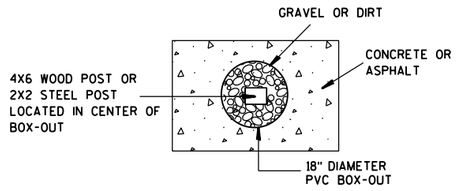
DETAIL OF WOOD 4 X 6 SIGN POST IN BOX-OUT

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

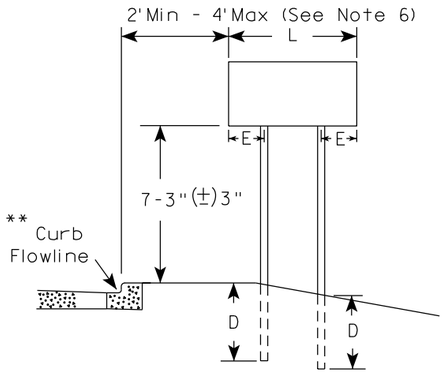
APPROVED Matthew R Rauch
for State Traffic Engineer

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

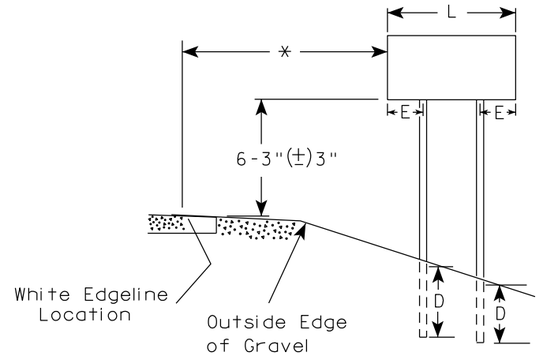
PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

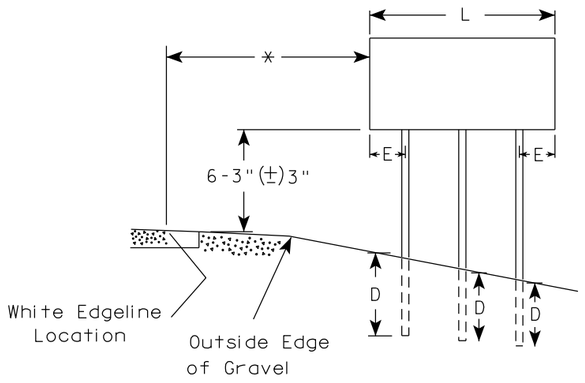
FILE NAME : C:\CAEFiles\Projects\tr_stdplate\A43B.DGN PLOT DATE : 27-JAN-2014 09:48 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 13.659812:1.000000 WISDOT/CADDS SHEET 42

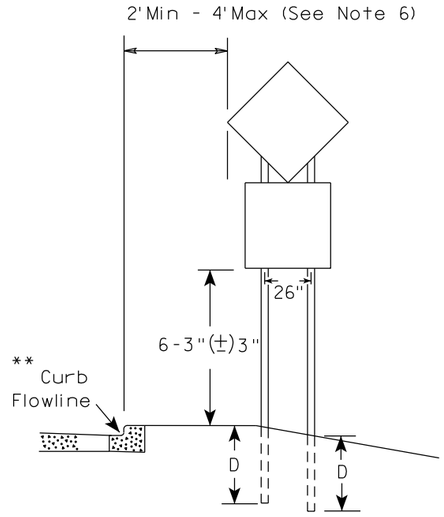
URBAN AREA



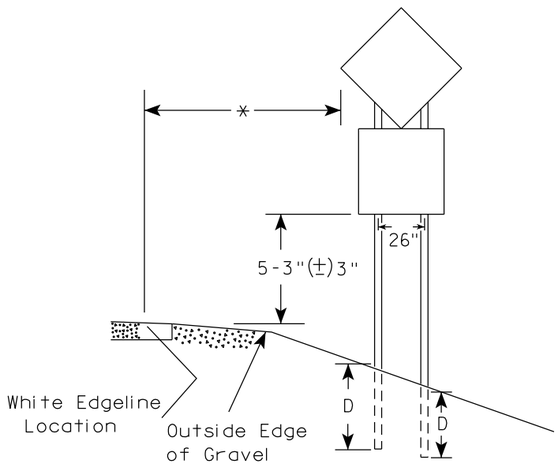
RURAL AREA (See Note 3)







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" (±) 3" or 6'-3" (±) 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" (±) 3" or as directed by the engineer.
8. The Double Arrow sign (W12-1) shall be mounted at a height of 2'-3" (±) 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" (±) 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'

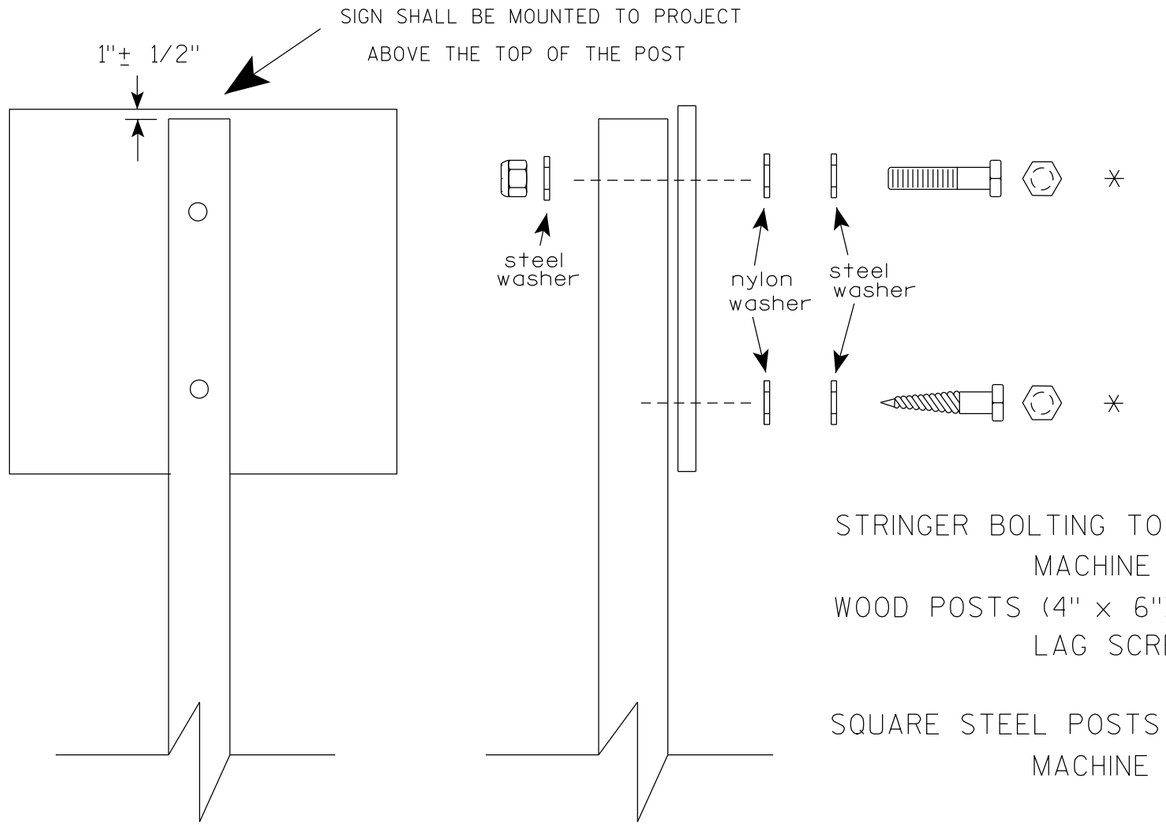
TYPICAL INSTALLATION OF TYPE II SIGNS ON MULTIPLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/6/23 PLATE NO. A4-4.16

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 116	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

PROJECT NO:

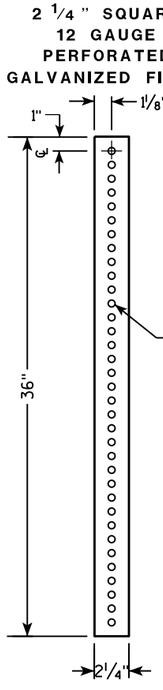
SHEET NO: 117 E

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

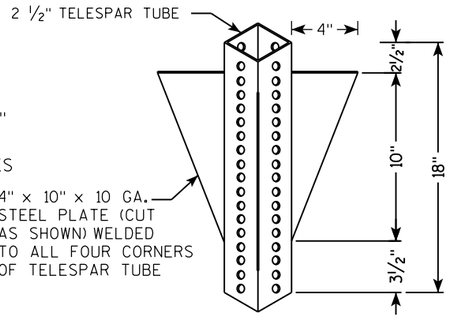
WISDOT/CADDS SHEET 42

TELESCOPIC TUBING ANCHORS
TWO PIECE SYSTEM

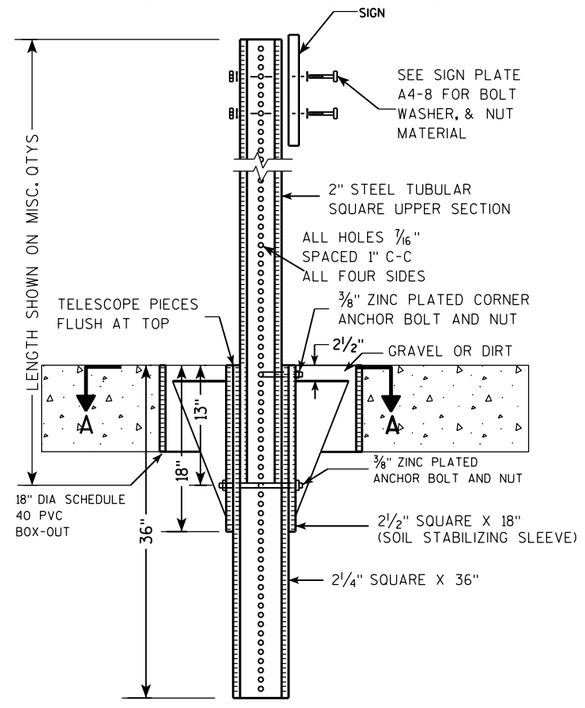
2 1/4 " SQUARE
12 GAUGE
PERFORATED
GALVANIZED FINISH



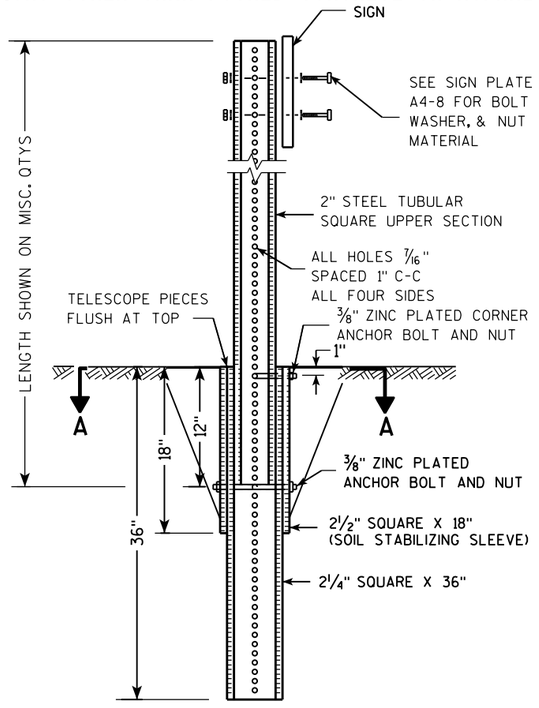
2 1/2 " SQUARE
12 GAUGE
OMNI-DIRECTIONAL
PERFORATED
SOIL STABILIZING SLEEVE
GALVANIZED FINISH

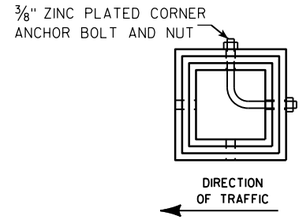


DETAIL OF TUBULAR STEEL SIGN POST
(IN POURED CONCRETE OR ASPHALT)



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





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

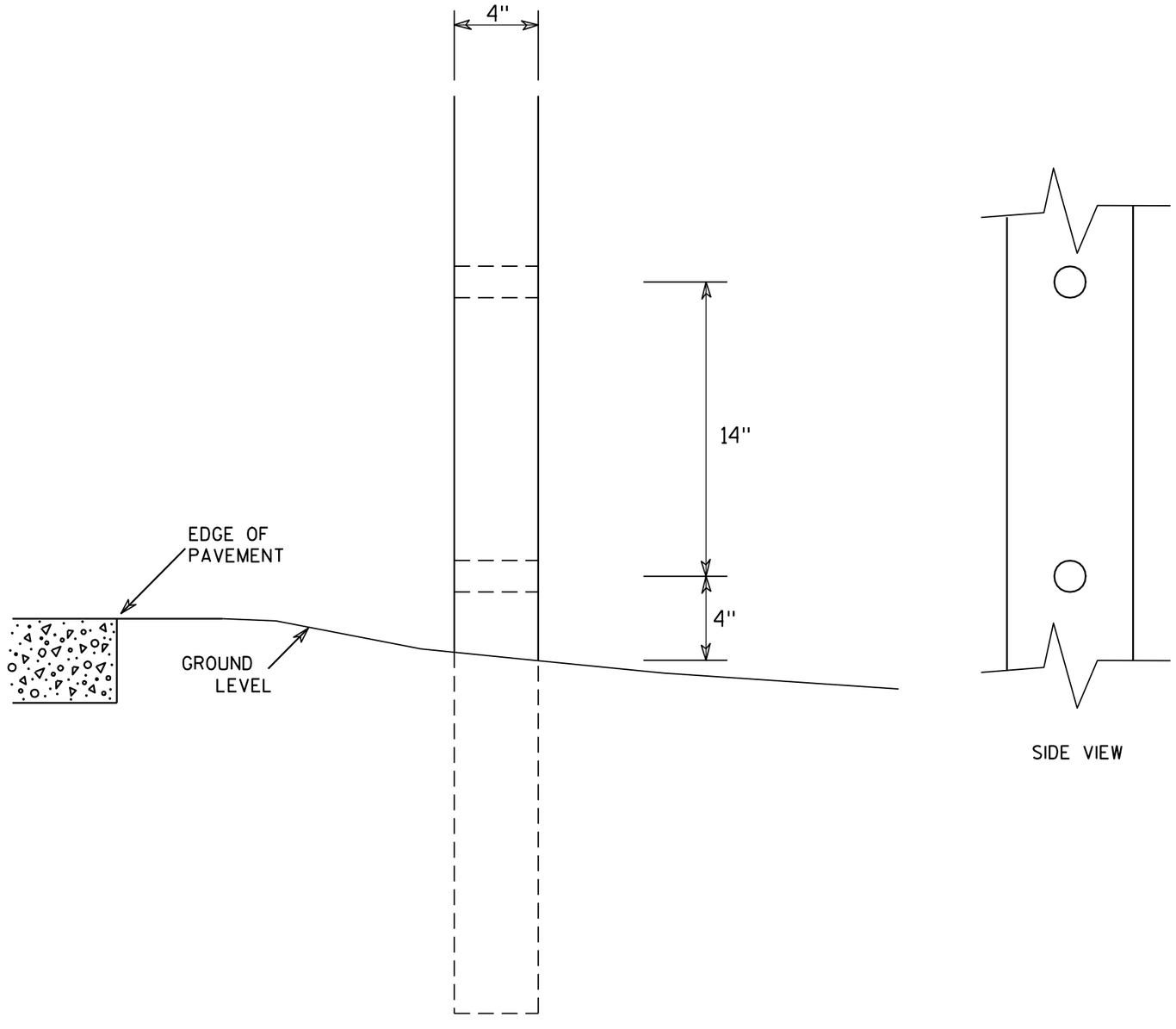
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/05/15 PLATE A4-9.9

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\A49.DGN PLOT DATE : 05-FEB-2015 17:09 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 13.659812:1.000000 WISDOT/CADDS SHEET 42



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.

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4 X 6 WOOD POST MODIFICATIONS

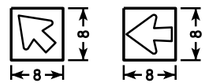
WISCONSIN DEPT OF TRANSPORTATION

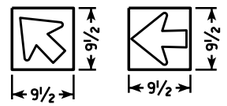
APPROVED Chester J Spang for State Traffic Engineer

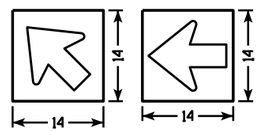
DATE 3/27/97 PLATE NO. A4-11.2

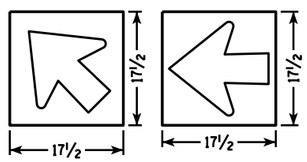
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 119	E

SIGN LAYOUT WITH VARIOUS SIZED MESSAGES







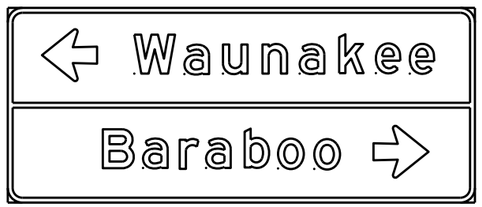


GENERAL NOTES

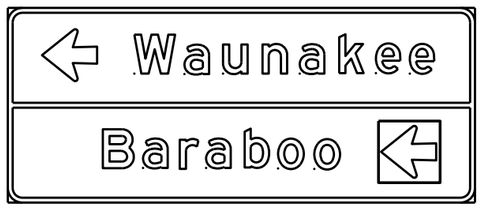
1. Materials shall conform to Standard Specification Section 637.
   Base - Sheet Aluminum 0.040" Thickness
   Sheeting - Orange Type F Reflective
   Arrow - Black Non-Reflective
2. Arrow signs shall be fastened to permanent sign by either aluminum rivets or aluminum self-tapping sheet metal screws. 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

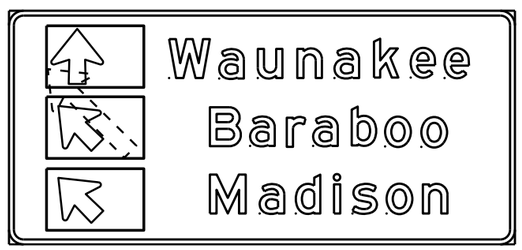
Lower Case Copy Size	Standard Width (Single Arrow)	2 Line Tilt Arrow Cover Width	3 Line Tilt Arrow Cover Width	Height
3¾" Series C	8	9 ½	14 ½	8
4½" Series D & E	9 ½	10	15	9 ½
6" Series D & E	14	16	20 ½	14
8" Series E	17 ½	20 ½	25	17 ½

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:

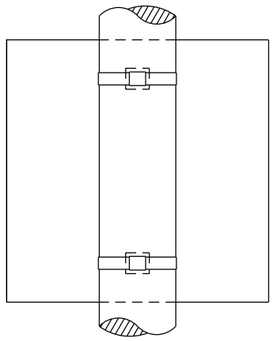
SHEET NO: E

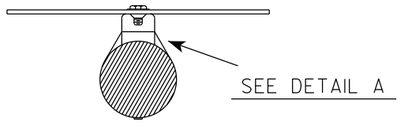
FILE NAME : C:\CAEFiles\Projects\tr_stdplate\A412.DGN PLOT DATE : 08-OCT-2014 11:50 PLOT BY : mscsja

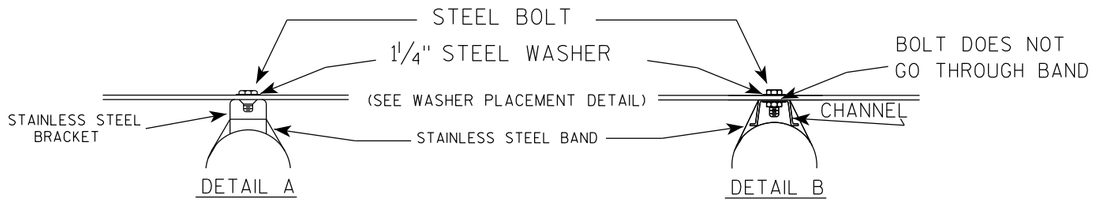
WISDOT/CADDS SHEET 42

BANDING

SINGLE SIGN



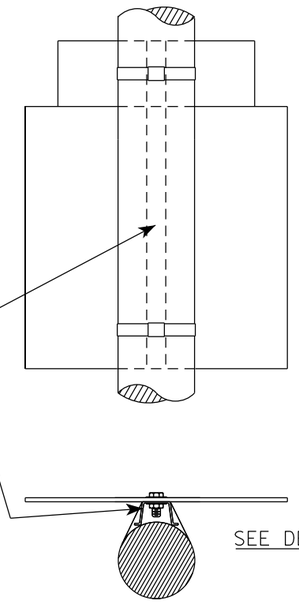




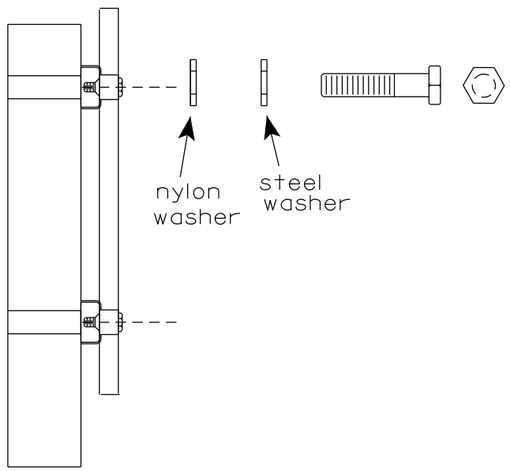
GENERAL NOTES

1. Any sign over 3 feet in width shall use the V-Block banding method. See A5-10 standard plate.
2. Signs 3 feet or greater in height shall have three bracket bands installed. Signs less than 3 feet in height shall have two bracket bands installed.
3. Banding and assembly bracket shall be stainless steel. All bands shall be ¾" in width and 0.025" thickness.
4. ALL SIGN MOUNTING BOLTS AND WASHERS SHALL BE EITHER:
   a. Hot dip or mechanically galvanized in accordance with ASTM Designation: A 153, Class D
   b. Electro-galvanized in accordance with ASTM designation: B 633, Type III, SC 3

"J" ASSEMBLY



WASHER PLACEMENT



WASHERS (ALL POSTS) -
1-1/4" O.D. X ⅜" I.D. X 1/16" STEEL
1-1/4" O.D. X ⅜" I.D. X .080 NYLON
FOR ALL TYPE H SIGNS

STANDARD SIGN
SIGN BANDING DETAILS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

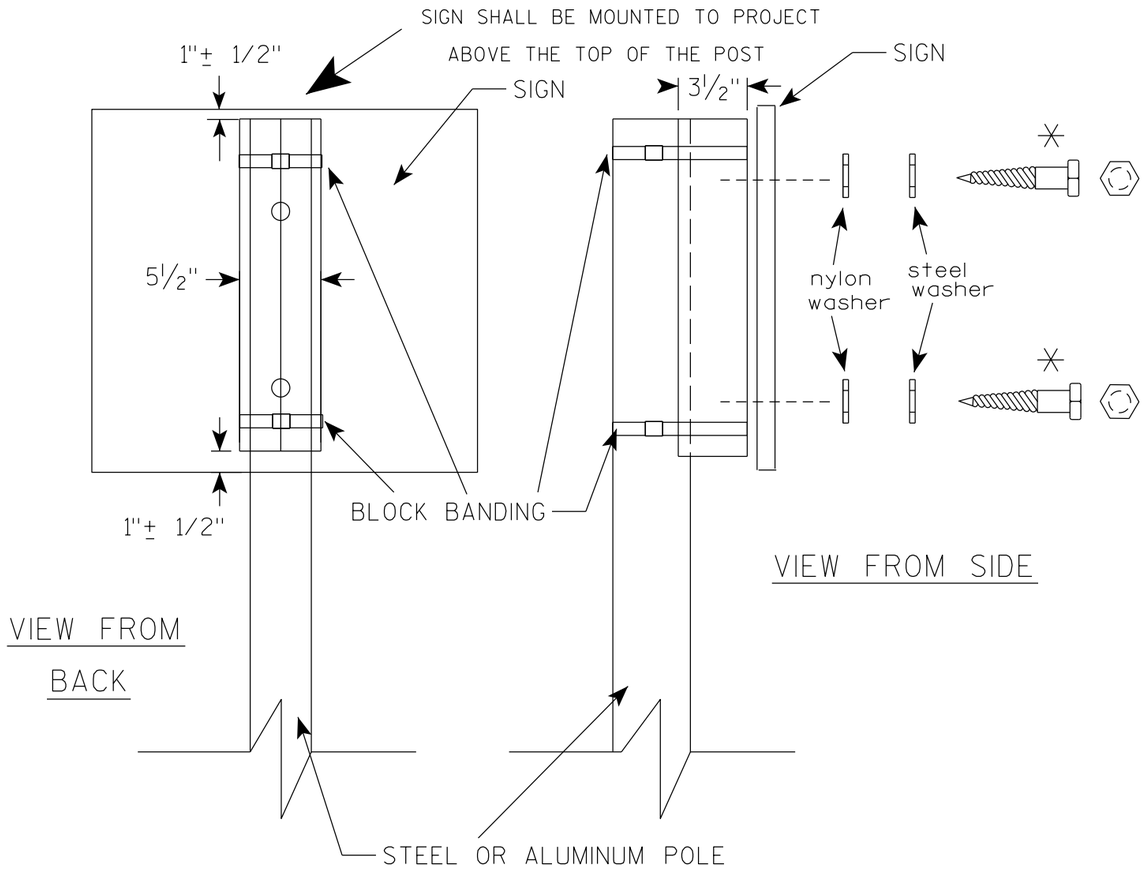
DATE 6/10/19 PLATE NO. A5-9.4

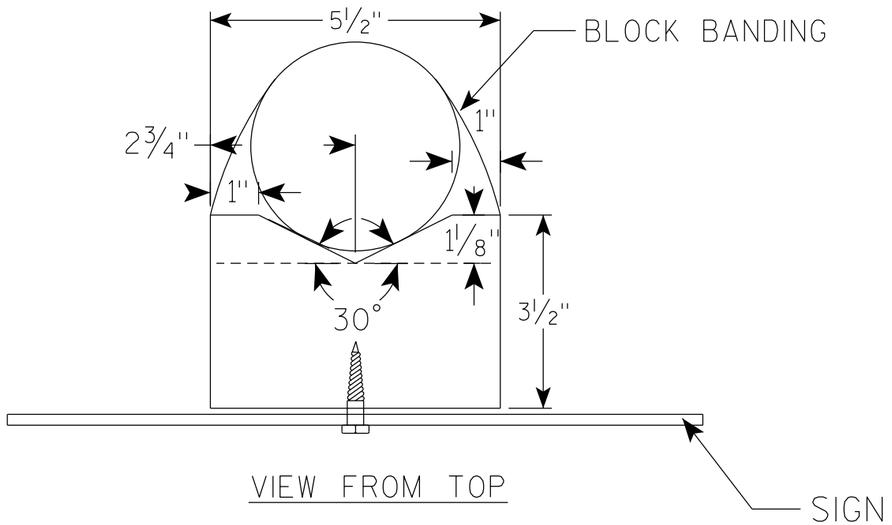
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 121	E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\A59.dgn PLOT DATE : 10-JUN 2019 4:10 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 42

7

7





GENERAL NOTES

1. WOOD 4"X6" POST MATERIAL SHALL CONFORM TO 507.2.2 OF THE WisDOT STANDARD SPECIFICATIONS
2. BLOCK BANDING AND CLIPS SHALL BE STAINLESS STEEL, ¾" WIDTH AND 0.025" THICKNESS
3. SIGNS 3' OR GREATER IN HEIGHT SHALL UTILIZE 3 BLOCK BANDS. SIGNS UNDER 3' IN HEIGHT SHALL UTILIZE 2 BLOCK BANDS
4. ACTUAL NUMBER OF FASTENERS PER SIGN VARIES WITH THE SIGN AREA, BUT NORNALLY THERE ARE TWO. FOR SIGNS GREATER THAN 9 S.F. 3 FASTENERS SHALL BE USED.
5. ALL SIGN MOUNTING BOLTS AND WASHERS SHALL BE EITHER:
   a. Hot dip or mechanically galvanized in accordance with ASTM Designation: A 153, Class D
   b. Electro-galvanized in accordance with ASTM Designation : B 633, TYPE III, SC 3
6. ALL BOLTS SHALL HAVE HEXAGONAL HEADS.
7. STEEL WASHERS SHALL BE 1¼" O.D. X ⅜" I.D. X 1/16"
8. NYLON WASHERS SHALL BE 1¼" O.D. X ⅜" I.D. X .080 FOR TYPE H OR TYPE F FACE SIGN

✳ LAG BOLTS SHALL BE ⅜" X 2½"

BLOCK BANDING DETAIL (V-BLOCK OPTION)

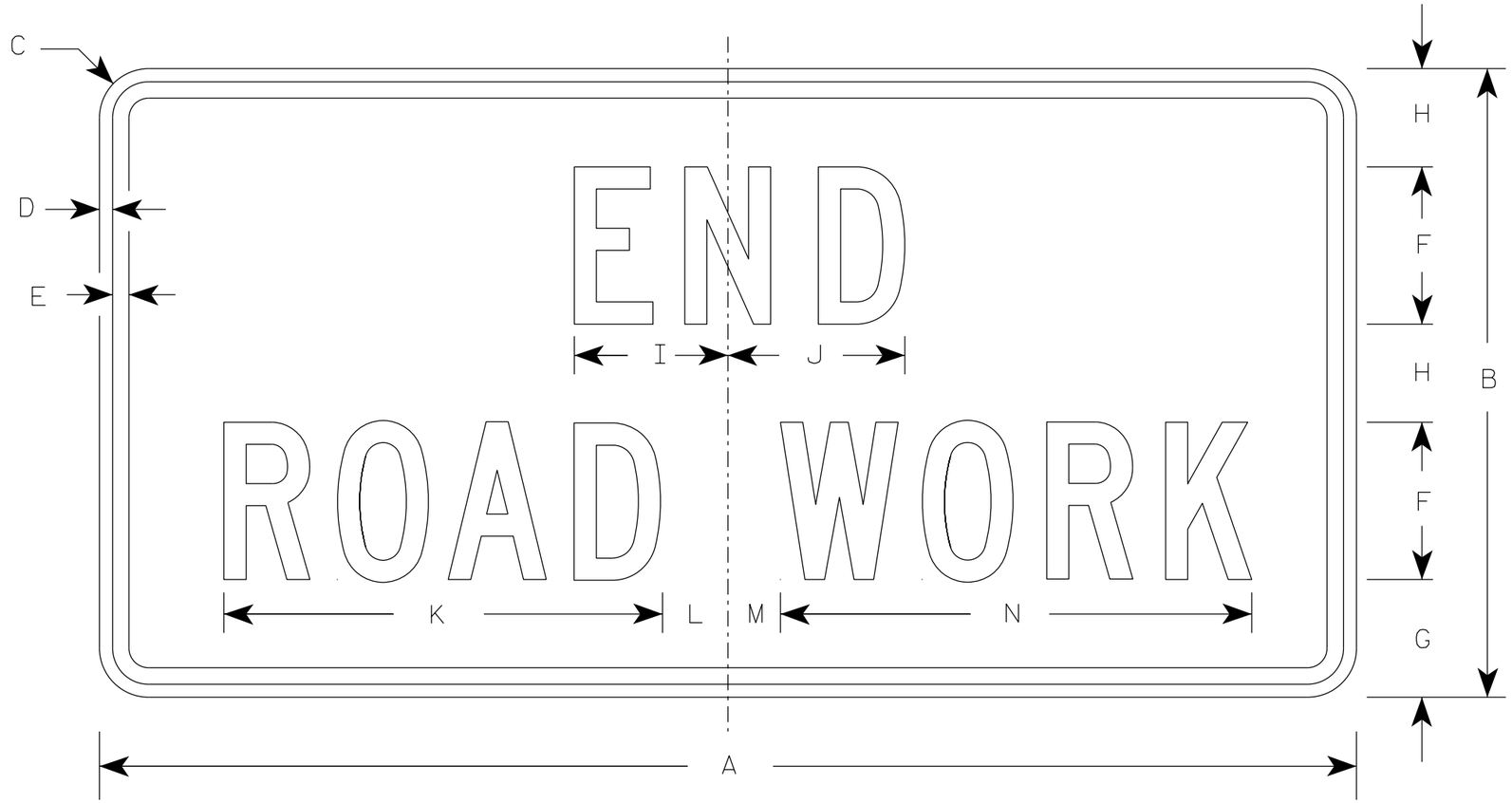
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 4/19/2022 PLATE NO. A5-10.3

PROJECT NO:

SHEET NO: 122 E



G20-2A

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.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36	18	1 1/2	3/8	1/2	4	3 3/4	2 1/2	4 1/8	4 1/8	11 1/8	2	1	12 1/8													4.5
2	48	24	1 7/8	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0
2M	48	24	1 7/8	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0
3	48	24	1 7/8	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0
4	48	24	1 7/8	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0
5	48	24	1 7/8	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0

STANDARD SIGN

G20-2A

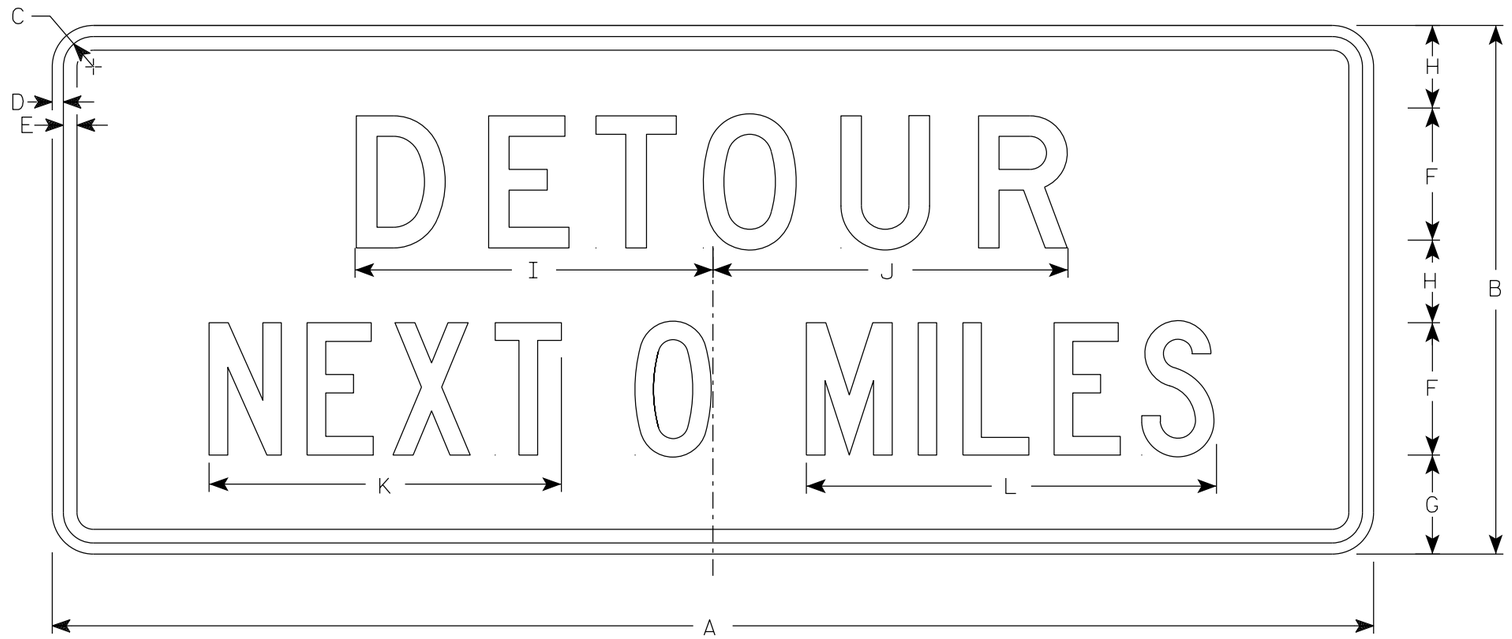
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 1/26/2023 PLATE NO. G20-2A.10

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

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\G202A.dgn PLOT DATE : 26-JAN 2023 8:27 PLOT BY : dotc4c PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 42



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 7/8	1/2	5/8	6	4 1/2	3 3/4	16 1/4	16 1/8	16	18 5/8															10.0
2M	60	24	1 7/8	1/2	5/8	6	4 1/2	3 3/4	16 1/4	16 1/8	16	18 5/8															10.0
3	60	24	1 7/8	1/2	5/8	6	4 1/2	3 3/4	16 1/4	16 1/8	16	18 5/8															10.0
4	60	24	1 7/8	1/2	5/8	6	4 1/2	3 3/4	16 1/4	16 1/8	16	18 5/8															10.0
5	60	24	1 7/8	1/2	5/8	6	4 1/2	3 3/4	16 1/4	16 1/8	16	18 5/8															10.0

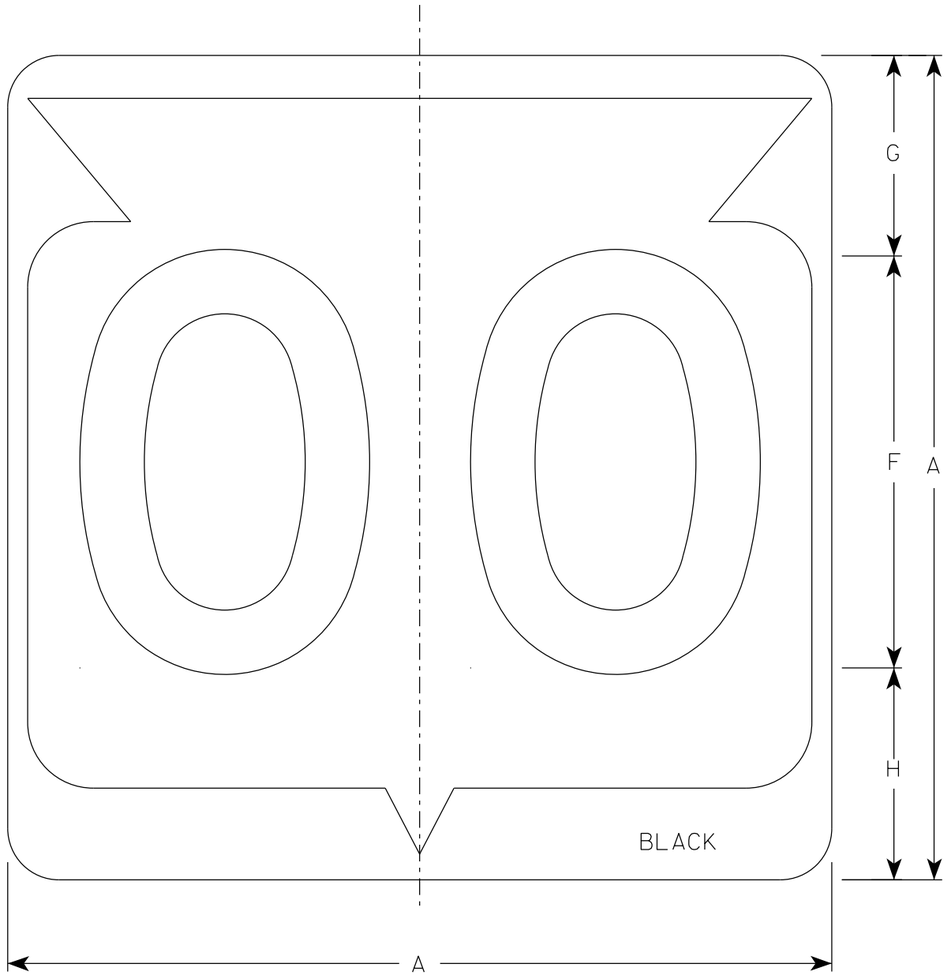
STANDARD SIGN
G20-51

WISCONSIN DEPT OF TRANSPORTATION

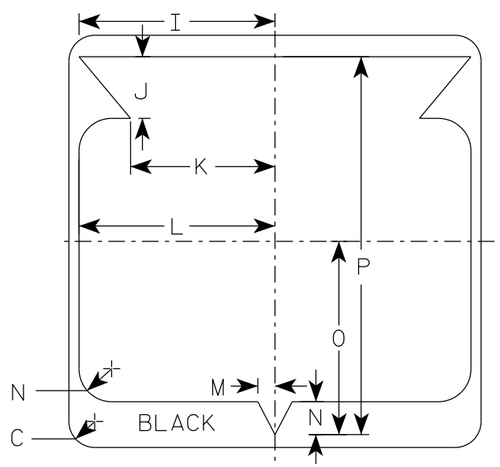
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 1/26/2023 PLATE NO. G20-51.3

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 124	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

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
2M	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

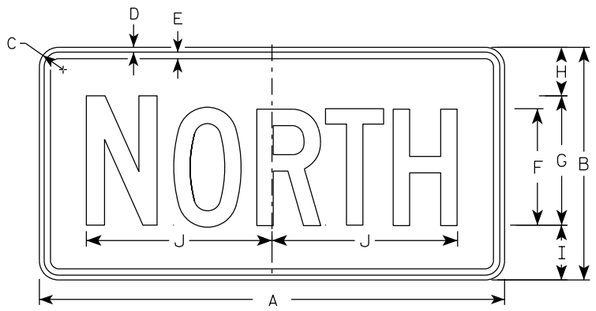
STATE ROUTE MARKER
M1-6 FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

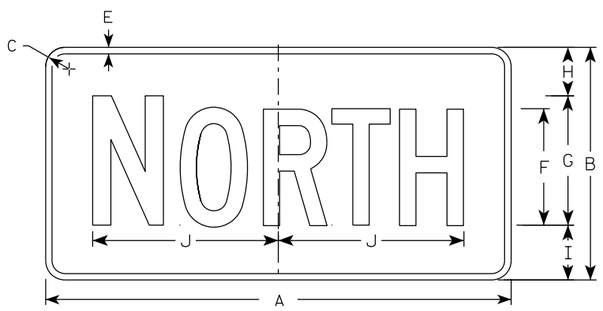
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/8/2022 PLATE NO. M1-6.11

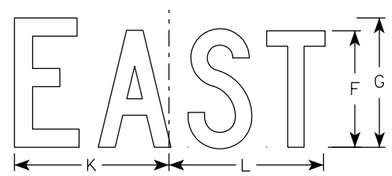
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 125	E



M3-1
MM3-1
MP3-1

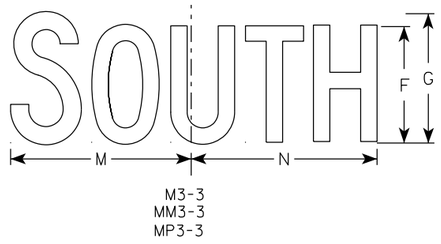


MB3-1
MK3-1
MN3-1

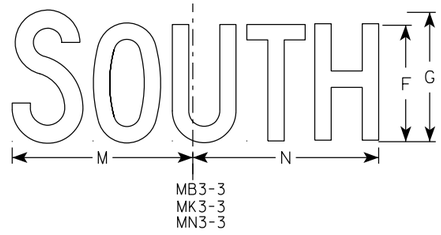


M3-2
MM3-2
MP3-2

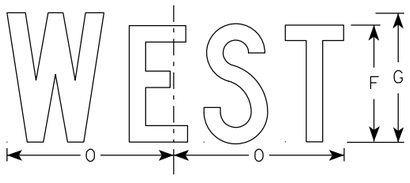
MB3-2
MK3-2
MN3-2



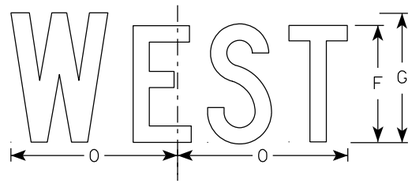
M3-3
MM3-3
MP3-3



MB3-3
MK3-3
MN3-3



M3-4
MM3-4
MP3-4



MB3-4
MK3-4
MN3-4

NOTES

1. All Signs Type II - Type H Reflective
2. Color:
   Background - See note 5
   Message - See note 5
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. M3-1 thru M3-4 Background - White
   Message - Black
   MB3-1 thru MB3-4 Background - Blue
   Message - White
   MK3-1 thru MK3-4 Background - Green
   Message - White
   MM3-1 thru MM3-4 Background - White
   Message - Green
   MN3-1 thru MN3-4 Background - Brown
   Message - White
   MP3-1 thru MP3-4 Background - White
   Message - Blue
6. Note the first letter of each direction is larger than the remainder of the message.

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	24	12	1 1/2	3/8	3/8	6	7	2 1/4	2 3/4	10 1/4	7 7/8	8 3/8	10 1/4	9 3/4	8 3/4												2.00
2M	24	12	1 1/2	3/8	3/8	6	7	2 1/4	2 3/4	10 1/4	7 7/8	8 3/8	10 1/4	9 3/4	8 3/4												2.00
3	36	18	1 1/2	3/8	1/2	9	10	3 3/4	4 1/4	14 3/8	12	12 1/8	14	14 1/8	13												4.5
4	36	18	1 1/2	3/8	1/2	9	10	3 3/4	4 1/4	14 3/8	12	12 1/8	14	14 1/8	13												4.5
5	36	18	1 1/2	3/8	1/2	9	10	3 3/4	4 1/4	14 3/8	12	12 1/8	14	14 1/8	13												4.5

STANDARD SIGNS
M3-1 THRU M3-4
SERIES

WISCONSIN DEPT OF TRANSPORTATION

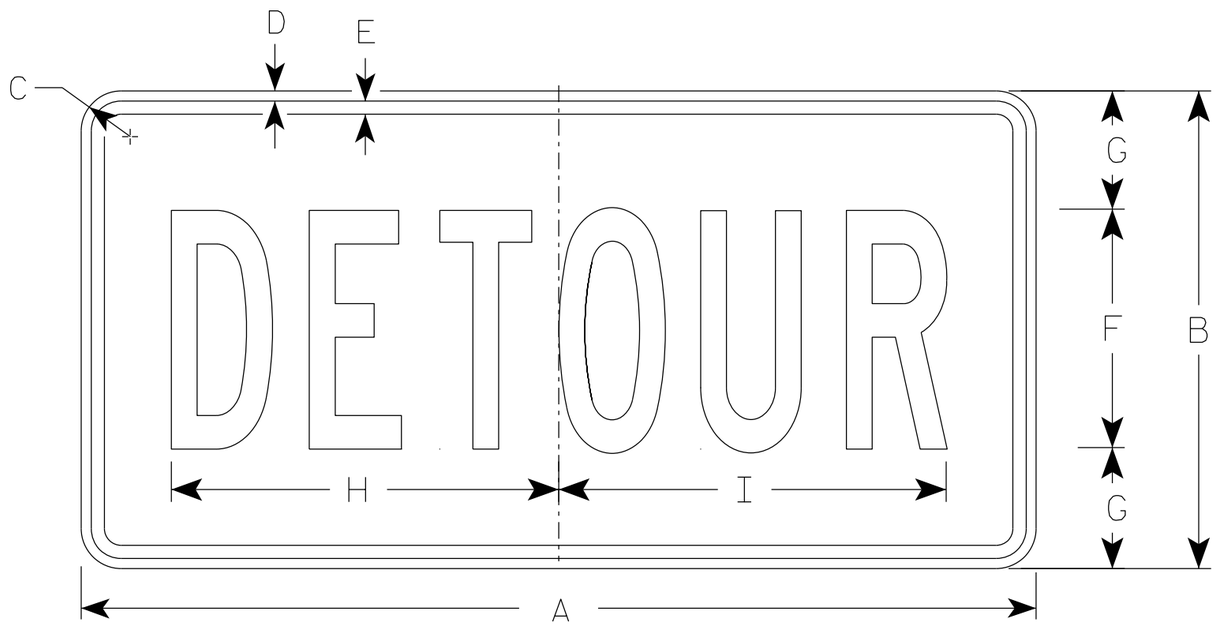
APPROVED Matthew R Rauch
For State Traffic Engineer

DATE 2/8/2023 PLATE NO. M3-1.15

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 126 | E

NOTES

1. Sign is Type II - Type F Reflective
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.



M4-8

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 1/2	3/8	3/8	6	3	10	10 1/4																		2.0
2M	24	12	1 1/2	3/8	3/8	6	3	10	10 1/4																		2.0
3	36	18	1 1/2	3/8	1/2	9	4 1/2	14 5/8	14 1/2																		4.5
4	36	18	1 1/2	3/8	1/2	9	4 1/2	14 5/8	14 1/2																		4.5
5	36	18	1 1/2	3/8	1/2	9	4 1/2	14 5/8	14 1/2																		4.5

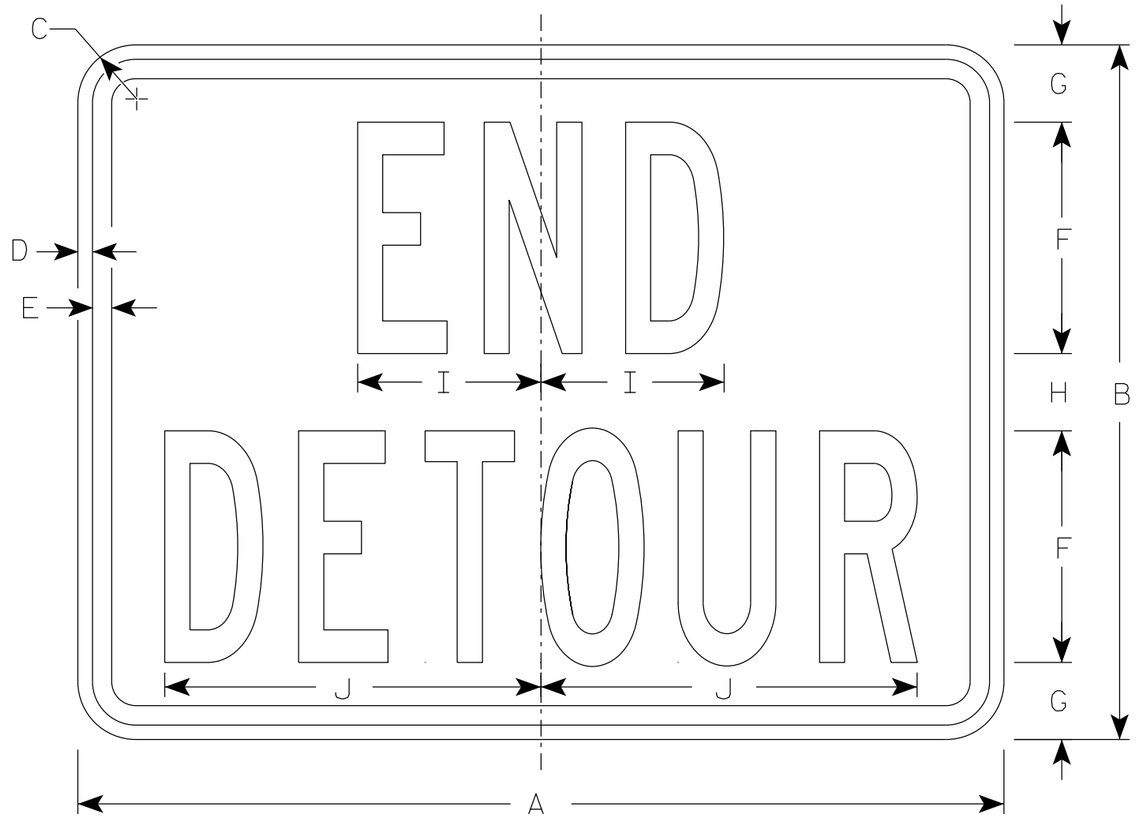
STANDARD SIGN
M4-8

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/9/2023 PLATE NO. M4-8.4

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E



M4-8A

NOTES

1. Sign is Type II - Type F Reflective
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 ½	⅜	½	6	2	2	4 ¾	9 ¾																	3.0
2M	24	18	1 ½	⅜	½	6	2	2	4 ¾	9 ¾																	3.0
3	30	24	1 ½	⅜	½	8	2 ½	3	6 ¾	13																	5.0
4	30	24	1 ½	⅜	½	8	2 ½	3	6 ¾	13																	5.0
5	30	24	1 ½	⅜	½	8	2 ½	3	6 ¾	13																	5.0

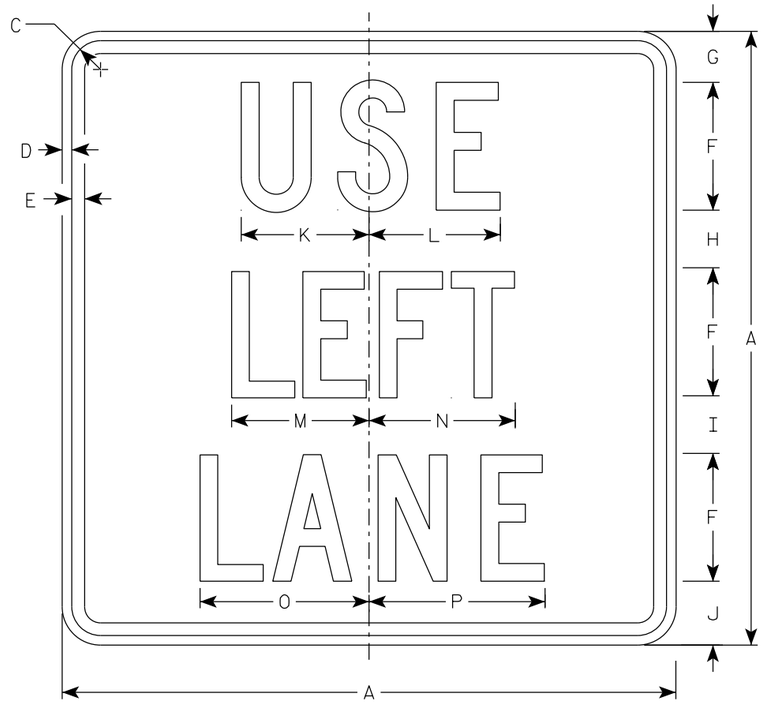
STANDARD SIGN
M4-8A

WISCONSIN DEPT OF TRANSPORTATION

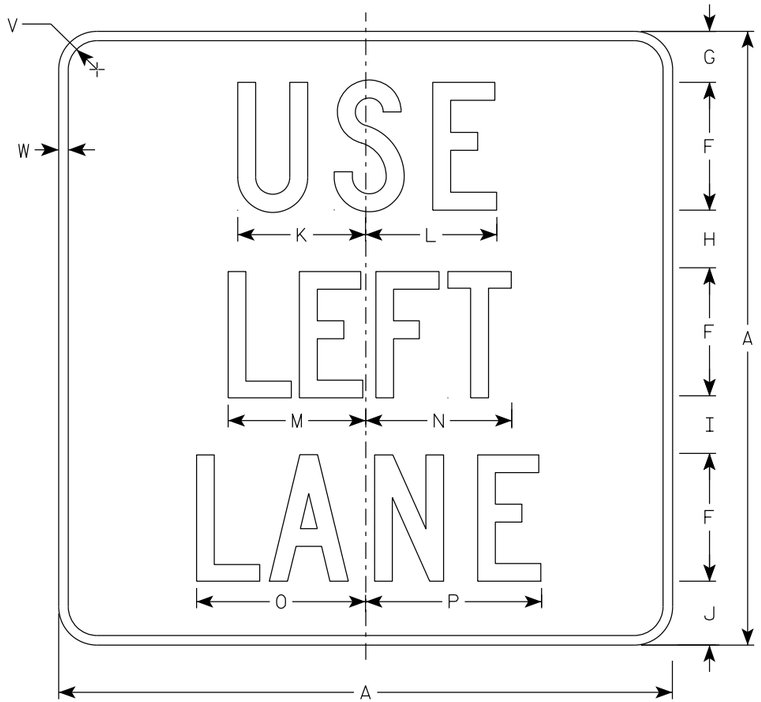
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/9/2023 PLATE NO. M4-8A.4

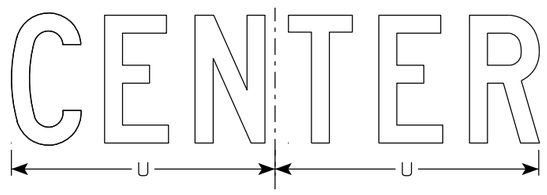
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 128 | E



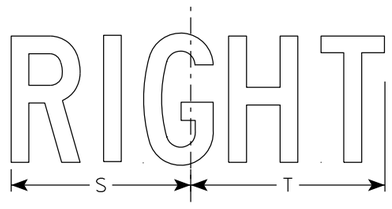
M4-20L
MM4-20L
MO4-20L
MP4-20L



MB4-20L
MK4-20L
MN4-20L
MR4-20L



M4-20C
MB4-20C
MK4-20C
MM4-20C
MN4-20C
MO4-20C
MP4-20C
MR4-20C



M4-20R
MB4-20R
MK4-20R
MM4-20R
MN4-20R
MO4-20R
MP4-20R
MR4-20R

NOTES

1. Sign is Type II - Type H except as Shown
2. Color:
   Background - See note 5
   Message - See note 5
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. M4-20 Background - White
   Message - Black
   MB4-20 Background - Blue
   Message - White
   MK4-20 Background - Green
   Message - White
   MM4-20 Background - White
   Message - Green
   MN4-20 Background - Brown
   Message - White
   MO4-20 Background - Orange - Type F Reflective
   Message - Black
   MP4-20 Background - White
   Message - Blue
   MR4-20 Background - Brown
   Message - Yellow

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	24		1 1/2	3/8	1/2	5	2	2 1/4	2 1/4	2 1/2	5	5 1/8	5 3/8	5 3/4	6 5/8	6 7/8			7	7 5/8	10 1/4	1 1/2	1/2				4.0
2M	24		1 1/2	3/8	1/2	5	2	2 1/4	2 1/4	2 1/2	5	5 1/8	5 3/8	5 3/4	6 5/8	6 7/8			7	7 5/8	10 1/4	1 1/2	1/2				4.0
3	36		2 1/4	5/8	3/4	7	4	3	3 1/2	4 1/2	7 1/2	7 3/4	8	8 5/8	9 7/8	10 1/4			10 3/8	11 3/8	14 3/8	1 7/8	1/2				9.0
4	36		2 1/4	5/8	3/4	7	4	3	3 1/2	4 1/2	7 1/2	7 3/4	8	8 5/8	9 7/8	10 1/4			10 3/8	11 3/8	14 3/8	1 7/8	1/2				9.0
5	36		2 1/4	5/8	3/4	7	4	3	3 1/2	4 1/2	7 1/2	7 3/4	8	8 5/8	9 7/8	10 1/4			10 3/8	11 3/8	14 3/8	1 7/8	1/2				9.0

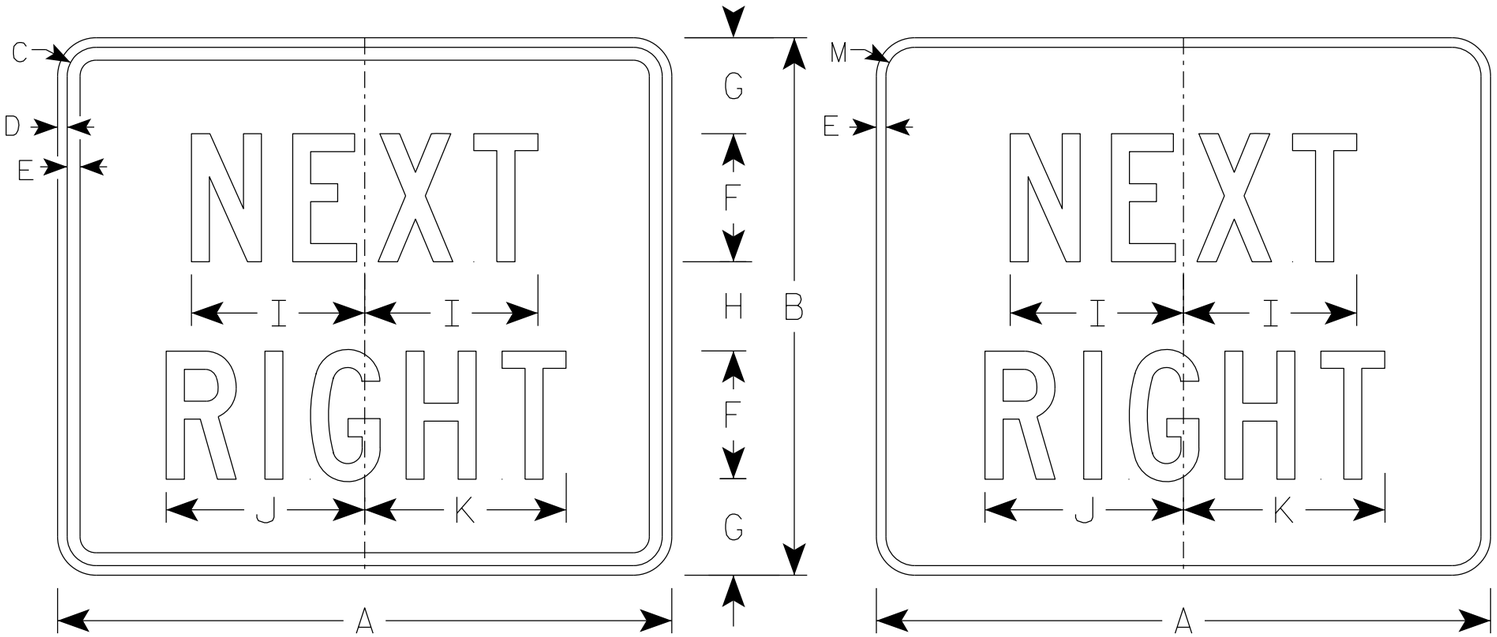
STANDARD SIGN
M4-20

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

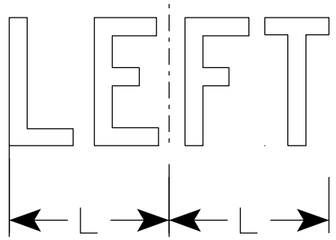
DATE 2/13/2023 PLATE NO. M4-20.6

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E



M4-21R
MM4-21R
MO4-21R
MP4-21R

MB4-21R
MK4-21R
MN4-21R
MR4-21R



M4-21L
MB4-21L
MK4-21L
MM4-21L
MN4-21L
MO4-21L
MP4-21L
MR4-21L

NOTES

1. Sign is Type II - Type H except as Shown
2. Color:
   Background - See note 5
   Message - See note 5
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. M4-21 Background - White
   Message - Black
   MB4-21 Background - Blue
   Message - White
   MK4-21 Background - Green
   Message - White
   MM4-21 Background - White
   Message - Green
   MN4-21 Background - Brown
   Message - White
   MO4-21 Background - Orange - Type F Reflective
   Message - Black
   MP4-21 Background - White
   Message - Blue
   MR4-21 Background - Brown
   Message - Yellow

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	21	1 1/8	3/8	1/2	5	3 3/4	3 1/2	6 3/4	7 3/4	7 7/8	6 1/4	1 1/2														3.5
2M	24	21	1 1/8	3/8	1/2	5	3 3/4	3 1/2	6 3/4	7 3/4	7 7/8	6 1/4	1 1/2														3.5
3	36	30	1 5/8	5/8	3/4	8	4 3/4	4 1/2	10 7/8	12 5/8	12 1/2	10 1/8	1 7/8														7.5
4	36	30	1 5/8	5/8	3/4	8	4 3/4	4 1/2	10 7/8	12 5/8	12 1/2	10 1/8	1 7/8														7.5
5																											

STANDARD SIGN
M4-21

WISCONSIN DEPT OF TRANSPORTATION

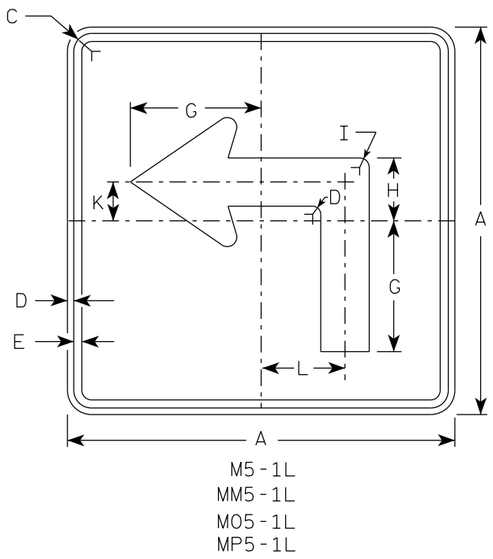
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/21/2022 PLATE NO. M4-21.5

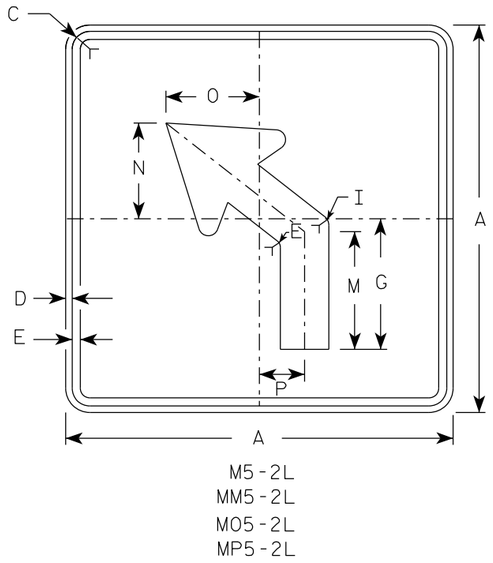
PROJECT NO: | HWY: | COUNTY: | SHEET NO: E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\M421.dgn PLOT DATE : 21-NOV 2022 7:55 PLOT BY : dotc4c PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 42

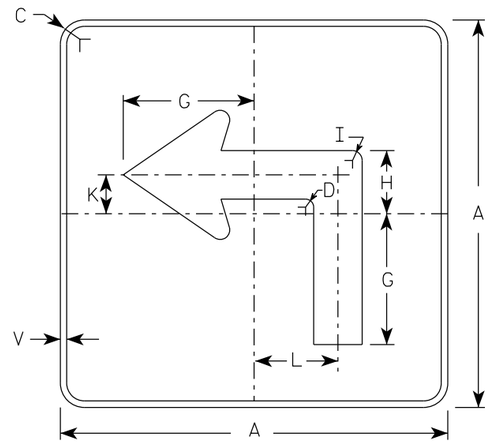
7



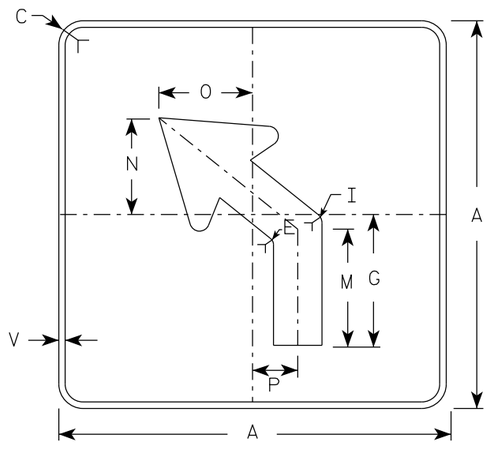
M5-1L
MM5-1L
MO5-1L
MP5-1L



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



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

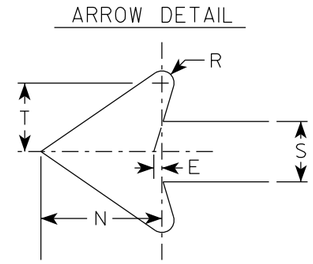


MB5-2L
MK5-2L
MN5-2L
MR5-2L

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
   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.

ARROW DETAIL



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	21		1 1/2	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		1/2					3.06
2M	21		1 1/2	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		1/2					3.06
3	30		1 7/8	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		1/2					6.25
4	30		1 7/8	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		1/2					6.25
5	30		1 7/8	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		1/2					6.25

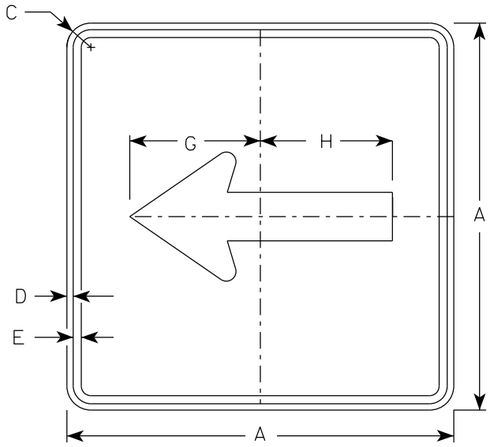
STANDARD SIGN
M5-1 & M5-2

WISCONSIN DEPT OF TRANSPORTATION

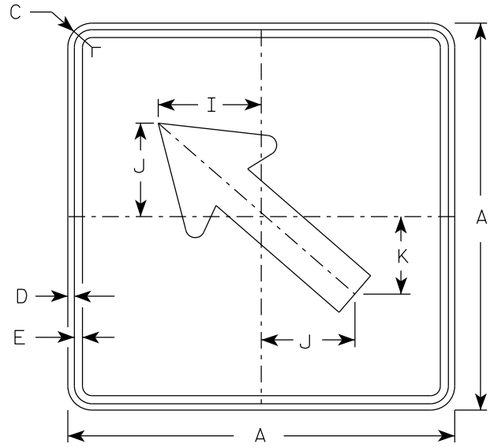
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/13/2023 PLATE NO. M5-1.15

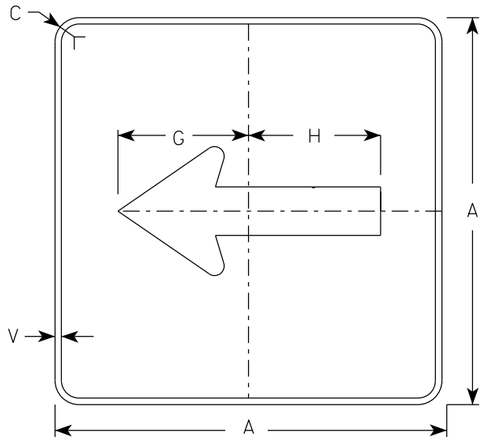
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 131 | E



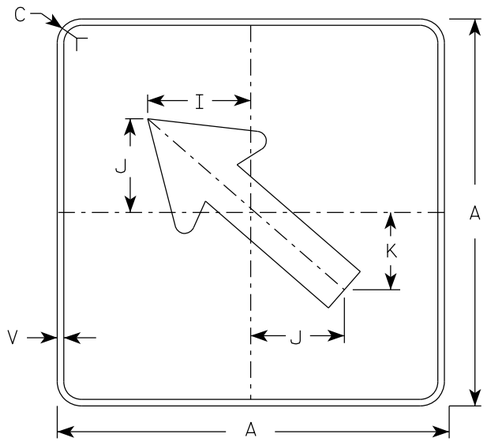
M6-1
MM6-1
MO6-1
MP6-1



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



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

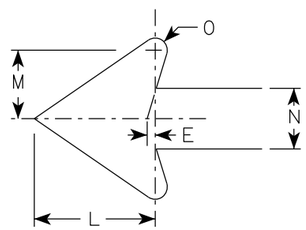


MB6-2
MK6-2
MN6-2
MR6-2

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. 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

ARROW DETAIL



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	21		1 1/2	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							1/2					3.06
2M	21		1 1/2	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							1/2					3.06
3	30		1 7/8	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							1/2					6.25
4	30		1 7/8	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							1/2					6.25
5	30		1 7/8	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							1/2					6.25

STANDARD SIGN
M6-1 & M6-2
SERIES

WISCONSIN DEPT OF TRANSPORTATION

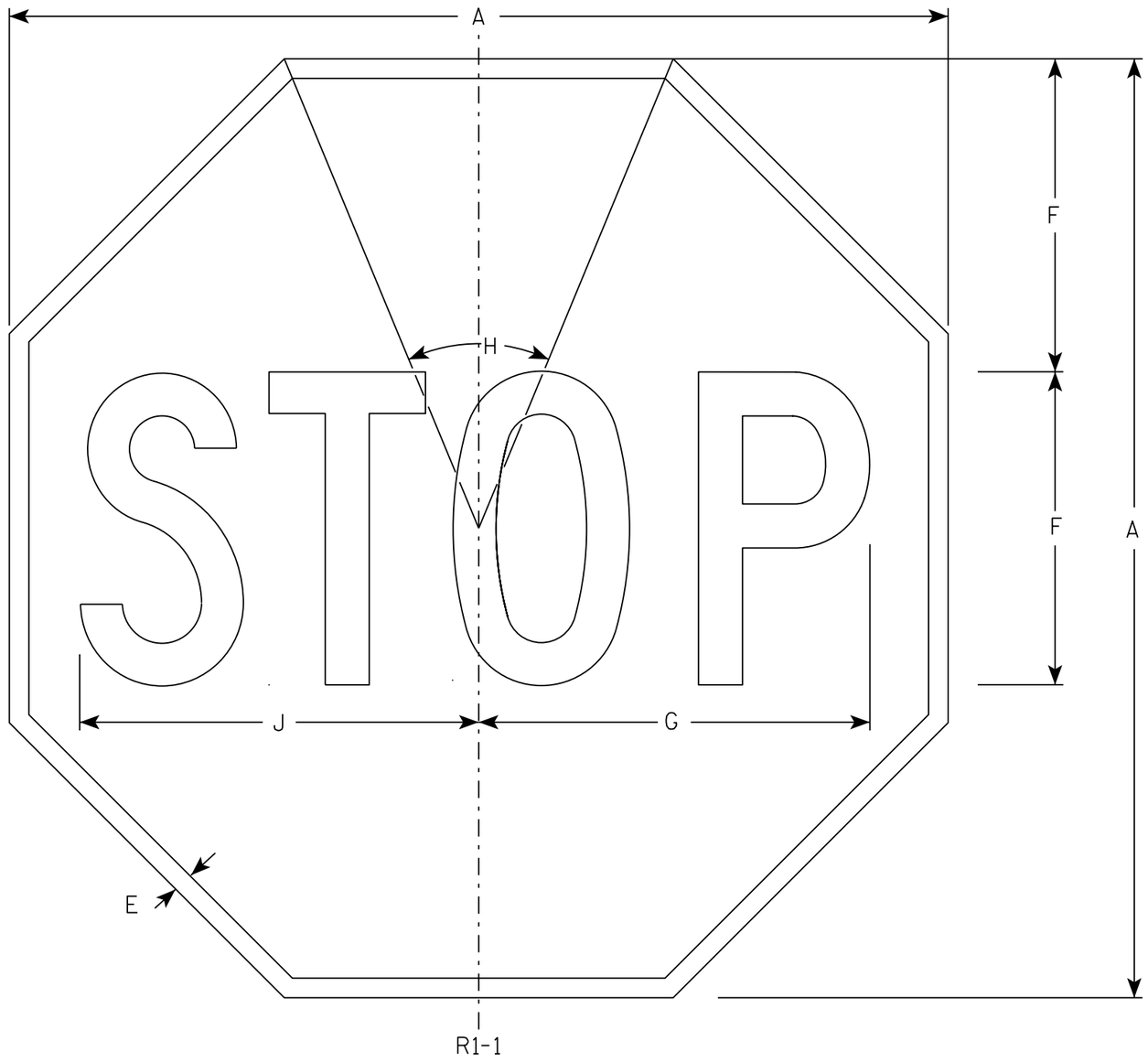
APPROVED Matthew R Rauch
For State Traffic Engineer

DATE 2/13/2023 PLATE NO. M6-1.16

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 132 | E

7

7



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

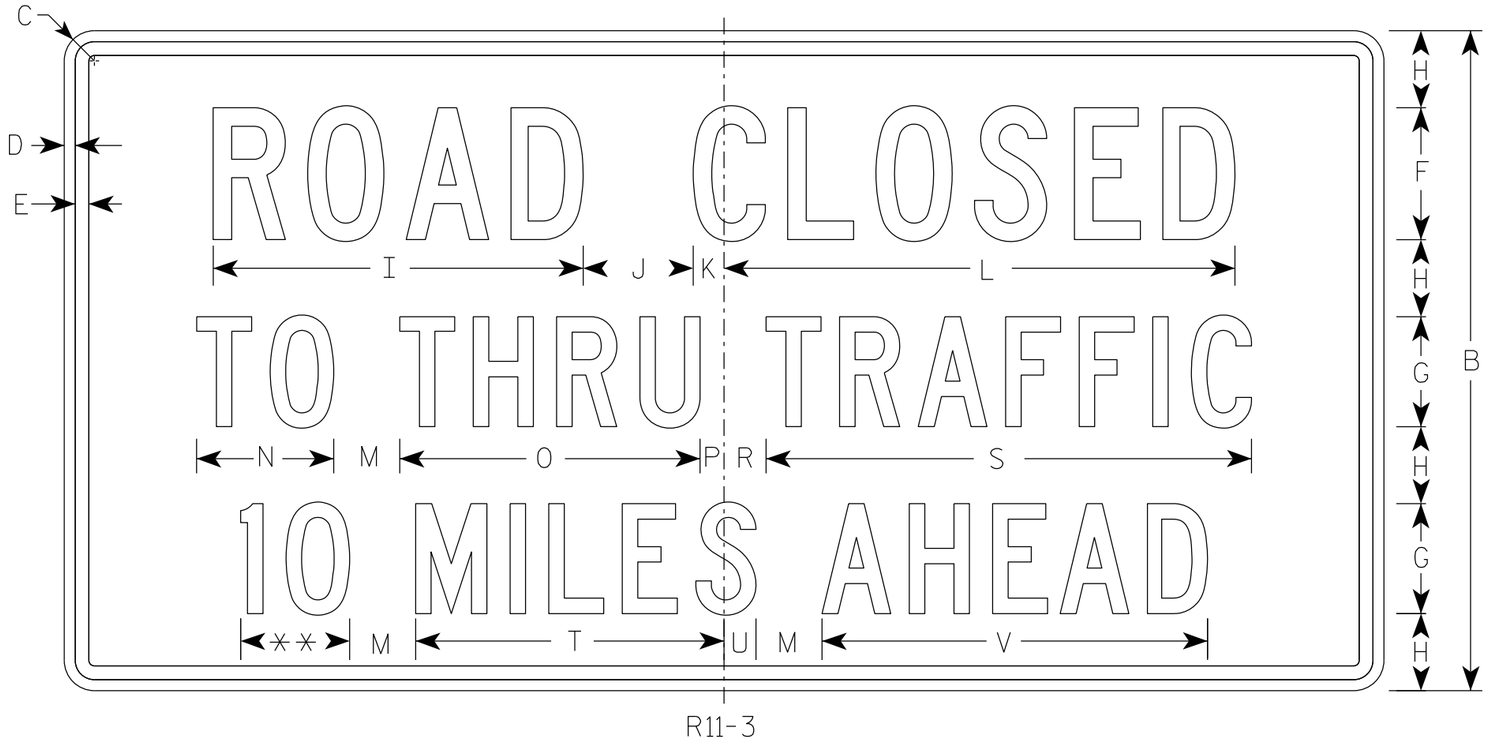
APPROVED Matthew R Rauch
for State Traffic Engineer

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

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 133	E

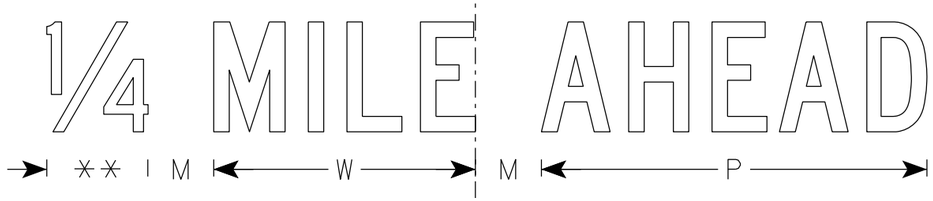
NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   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. Substitute appropriate numerals to nearest quarter mile and optically adjust spacing to achieve proper balance.



R11-3

** See Note 5



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36	18	1 1/2	3/8	3/8	4	3	2	11 1/4	3	1 1/8	15 3/8	2	3 3/4	8 1/4	5/8		1 3/8	13 1/4	8 3/8	7/8	10 1/2	7 1/8				4.5
2S	60	30	1 7/8	1/2	5/8	6	5	3 1/2	16 7/8	5	1 3/8	23 1/4	3	6 1/4	13 5/8	1 1/8		1 7/8	22 1/8	14	1 1/2	17 1/2	11 7/8				12.5
2M	60	30	1 7/8	1/2	5/8	6	5	3 1/2	16 7/8	5	1 3/8	23 1/4	3	6 1/4	13 5/8	1 1/8		1 7/8	22 1/8	14	1 1/2	17 1/2	11 7/8				12.5
3																											
4																											
5																											

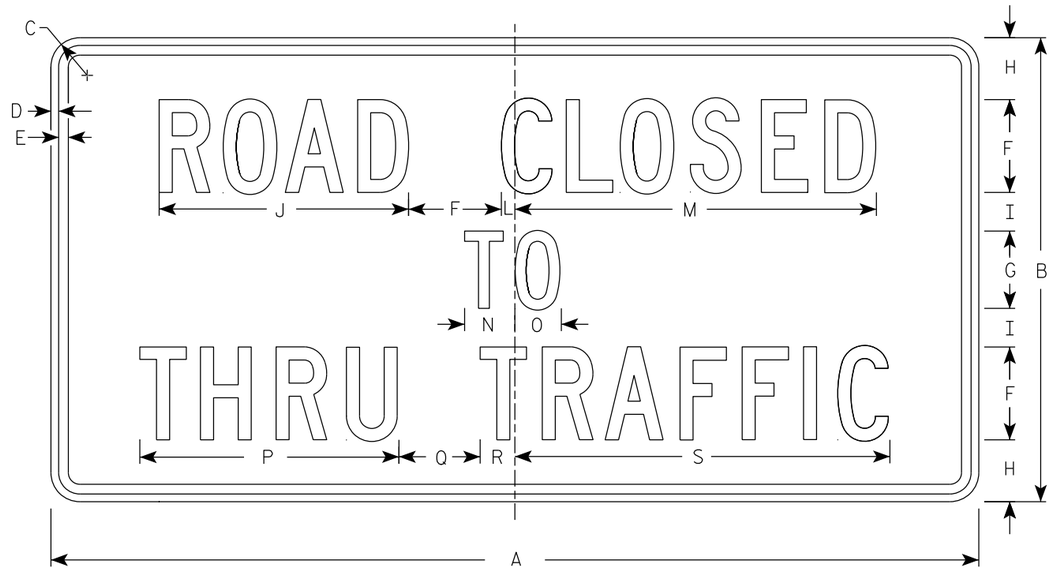
STANDARD SIGN
R11-3

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/5/24 PLATE NO. R11-3.10

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 134 E



R11-4

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   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.

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	60	30	1 7/8	1/2	5/8	6	5	4	2 1/2	16 1/8		7/8	23 3/8	3 1/4	3	16 3/4	5 1/4	2 1/4	24 1/4								12.5
2M	60	30	1 7/8	1/2	5/8	6	5	4	2 1/2	16 1/8		7/8	23 3/8	3 1/4	3	16 3/4	5 1/4	2 1/4	24 1/4								12.5
3																											
4																											
5																											

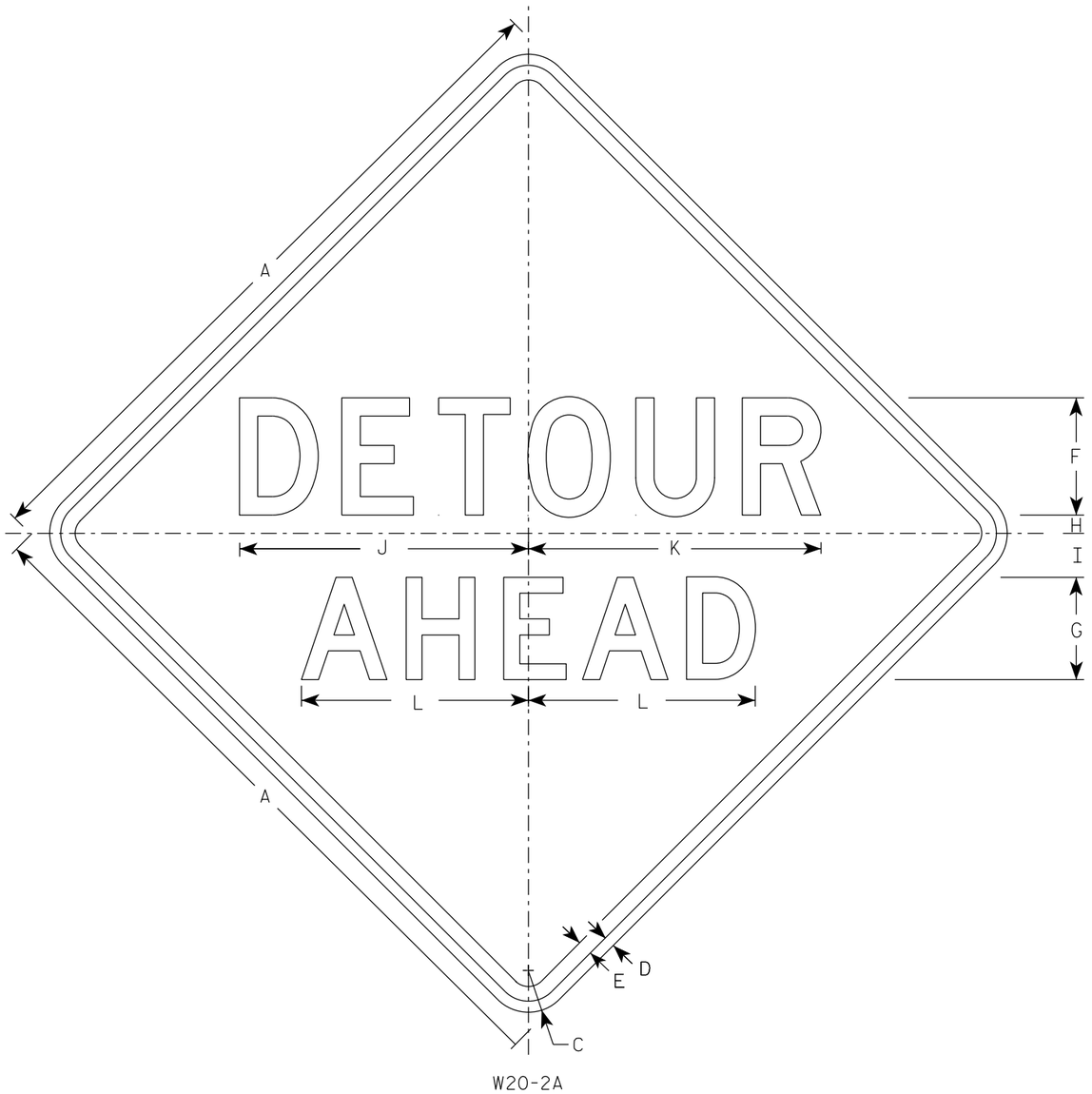
STANDARD SIGN
R11 - 4

WISCONSIN DEPT OF TRANSPORTATION

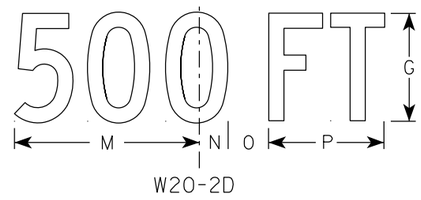
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/5/24 PLATE NO. R11-4.4

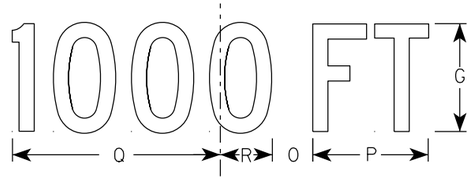
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 135 | E



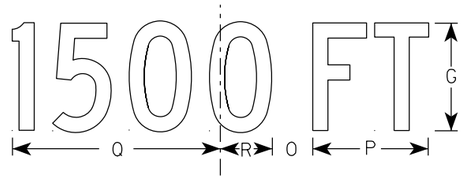
W20-2A



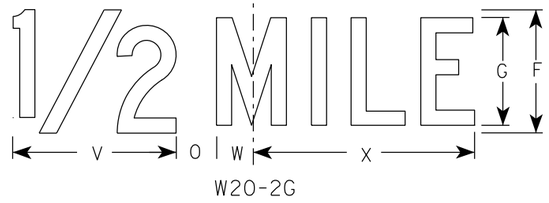
W20-2D



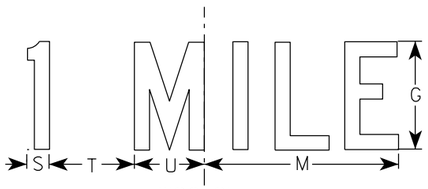
W20-2C



W20-2B



W20-2G



W20-2F

NOTES

1. Sign is Type II - Type F Reflective
2. Color:
   Background - Orange
   Message - Black
3. Message Series - See note 5
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. Line 1 is Series D.
   Line 2 is Series D for AHEAD and Series C for all other distances.

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		2 1/4	5/8	3/4	6	5	1	2 1/4	14 3/4	15	11 5/8	9	1 3/8	1 7/8	5 5/8	10 1/8	2 1/2	1 1/8	4 1/2	3 1/2	8	1 3/4	10 3/4			9.0
2S	48		3	3/4	1	8	7	1 1/4	3	19 3/4	20	15 1/2	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	10 5/8	2 3/8	14 3/8			16.0
2M	48		3	3/4	1	8	7	1 1/4	3	19 3/4	20	15 1/2	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	10 5/8	2 3/8	14 3/8			16.0
3	48		3	3/4	1	8	7	1 1/4	3	19 3/4	20	15 1/2	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	10 5/8	2 3/8	14 3/8			16.0
4	48		3	3/4	1	8	7	1 1/4	3	19 3/4	20	15 1/2	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	10 5/8	2 3/8	14 3/8			16.0
5	48		3	3/4	1	8	7	1 1/4	3	19 3/4	20	15 1/2	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	10 5/8	2 3/8	14 3/8			16.0

STANDARD SIGN
W20-2A,B,C,D,F & G

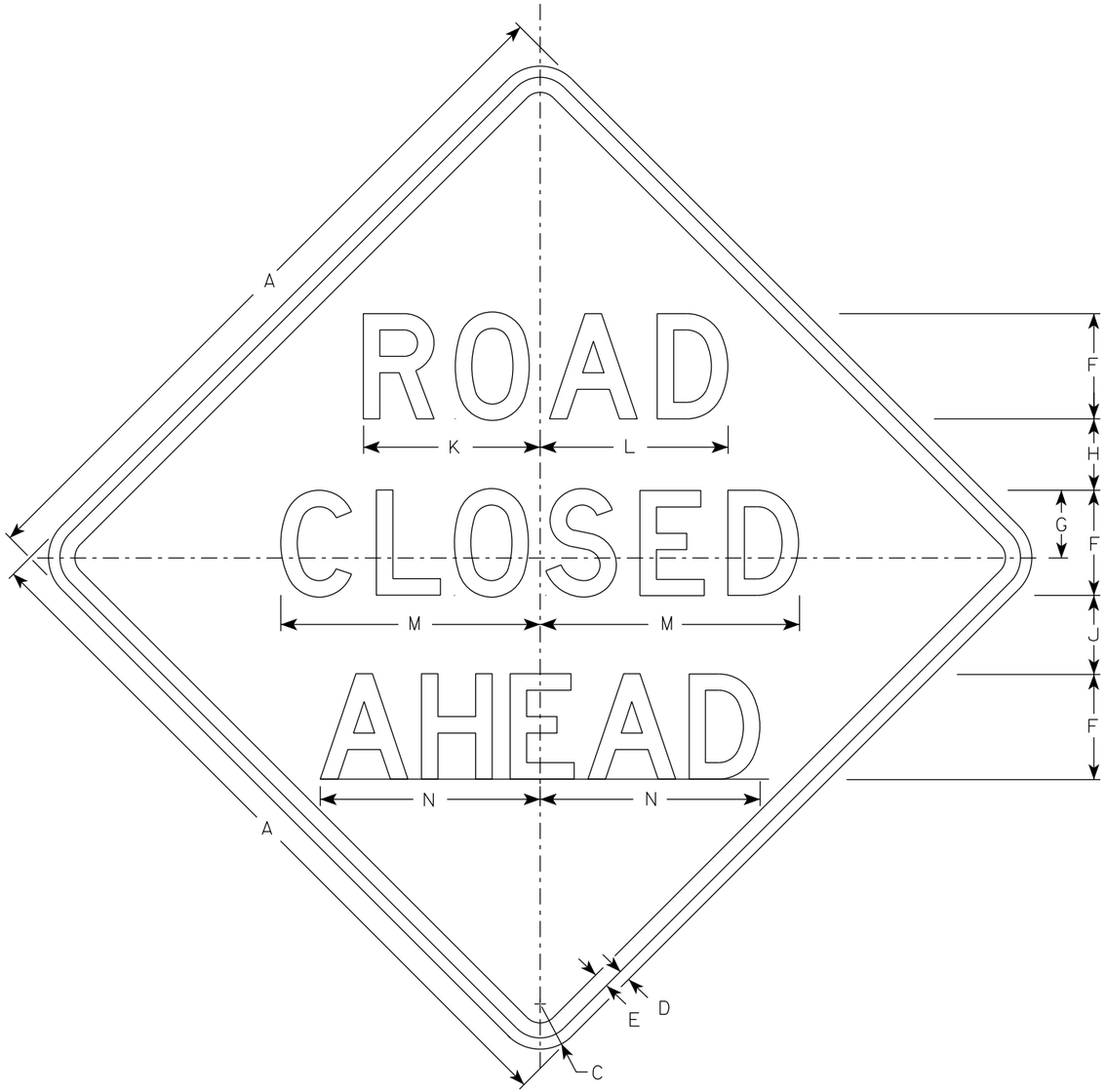
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
For State Traffic Engineer

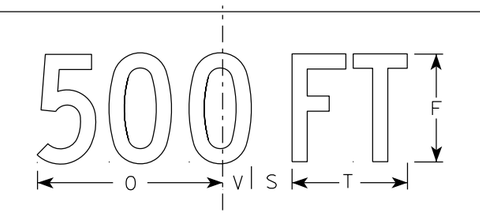
DATE 1/10/2024 PLATE NO. W20-2.7

PROJECT NO:	HWY:	COUNTY:		SHEET NO: E

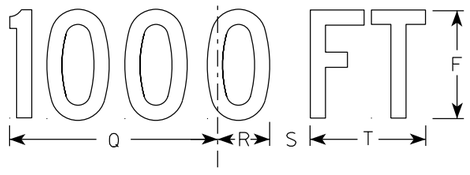
FILE NAME : C:\CAEfiles\Projects\tr_stdplate\W202.DGN PLOT DATE : 10-JAN 2024 11:36 PLOT BY : dotc4c PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 42



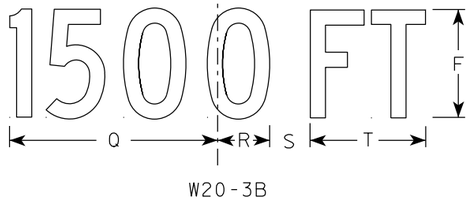
W20-3A



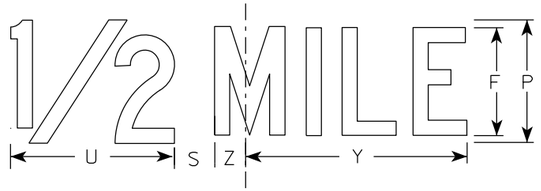
W20-3D



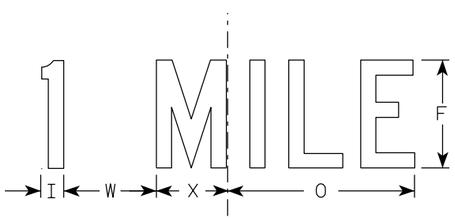
W20-3C



W20-3B



W20-3G



W20-3F

NOTES

1. Sign is Type II - Type F Reflective
2. Color:
   Background - Orange
   Message - Black
3. Message Series - see note 5
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. Lines 1 and 2 are Series D.
   Line 3 is Series D for AHEAD and Series C for all other distances.

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		2 1/4	5/8	3/4	5	3 3/8	3 1/2	1 1/8	4	8 3/8	8 7/8	12 1/2	11	9	6	10 1/8	2 1/2	1 7/8	5 5/8	8	1 3/8	4 1/2	3 1/2	10 3/4	1 3/4	9.0
2S	48		3	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	11 3/4	12 1/2	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0
2M	48		3	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	11 3/4	12 1/2	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0
3	48		3	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	11 3/4	12 1/2	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0
4	48		3	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	11 3/4	12 1/2	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0
5	48		3	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	11 3/4	12 1/2	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0

STANDARD SIGN
W20-3A, B, C, D, F & G

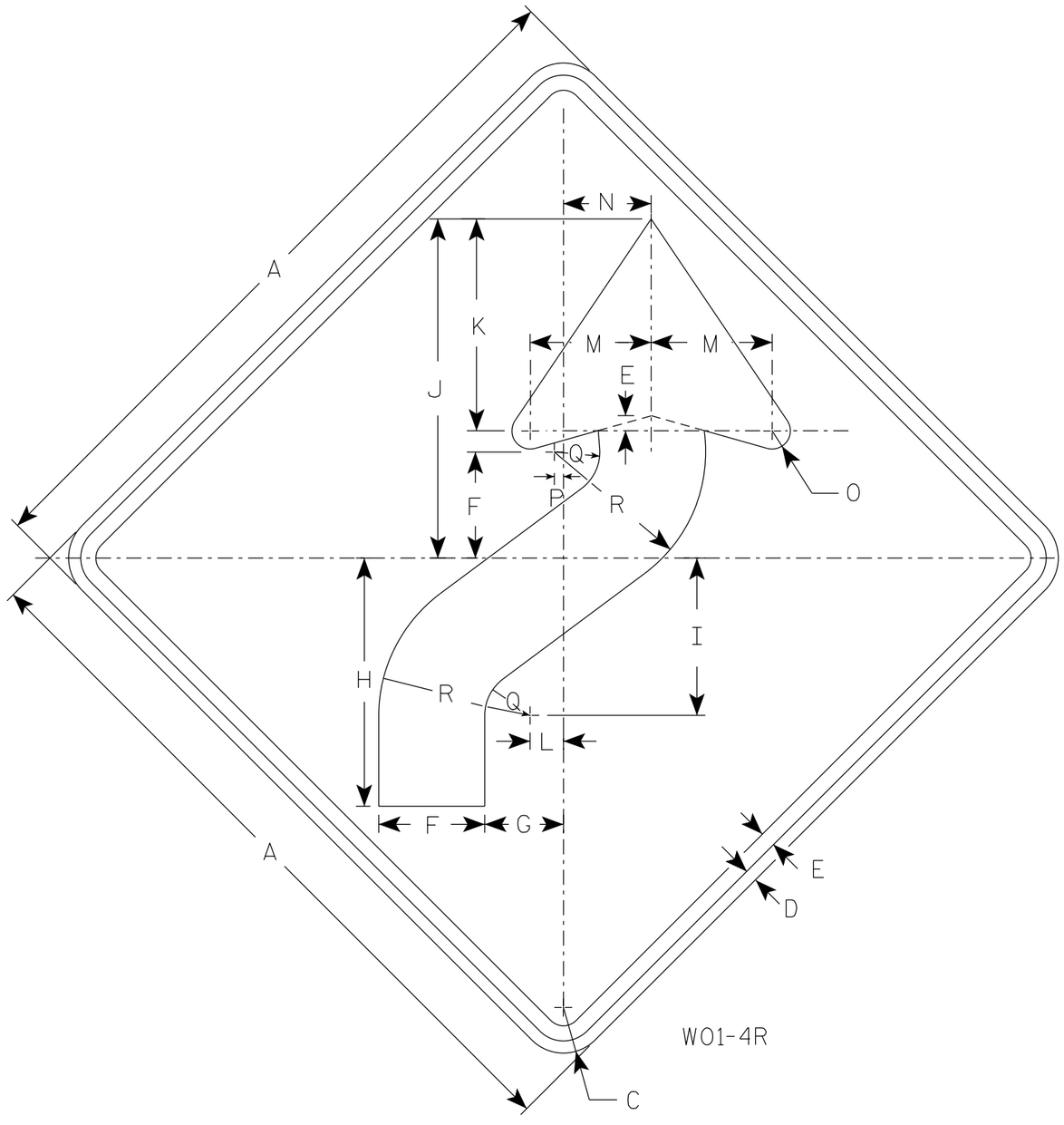
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 1/10/2024 PLATE NO. W20-3.8

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

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\W203.DGN PLOT DATE : 10-JAN 2024 12:02 PLOT BY : dotc4c PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 42



WO1-4R

NOTES

1. Sign is Type II - Type F Reflective
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. WO1-4L is the same as WO1-4R 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		2 1/4	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		3	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		3	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		3	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		3	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		3	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

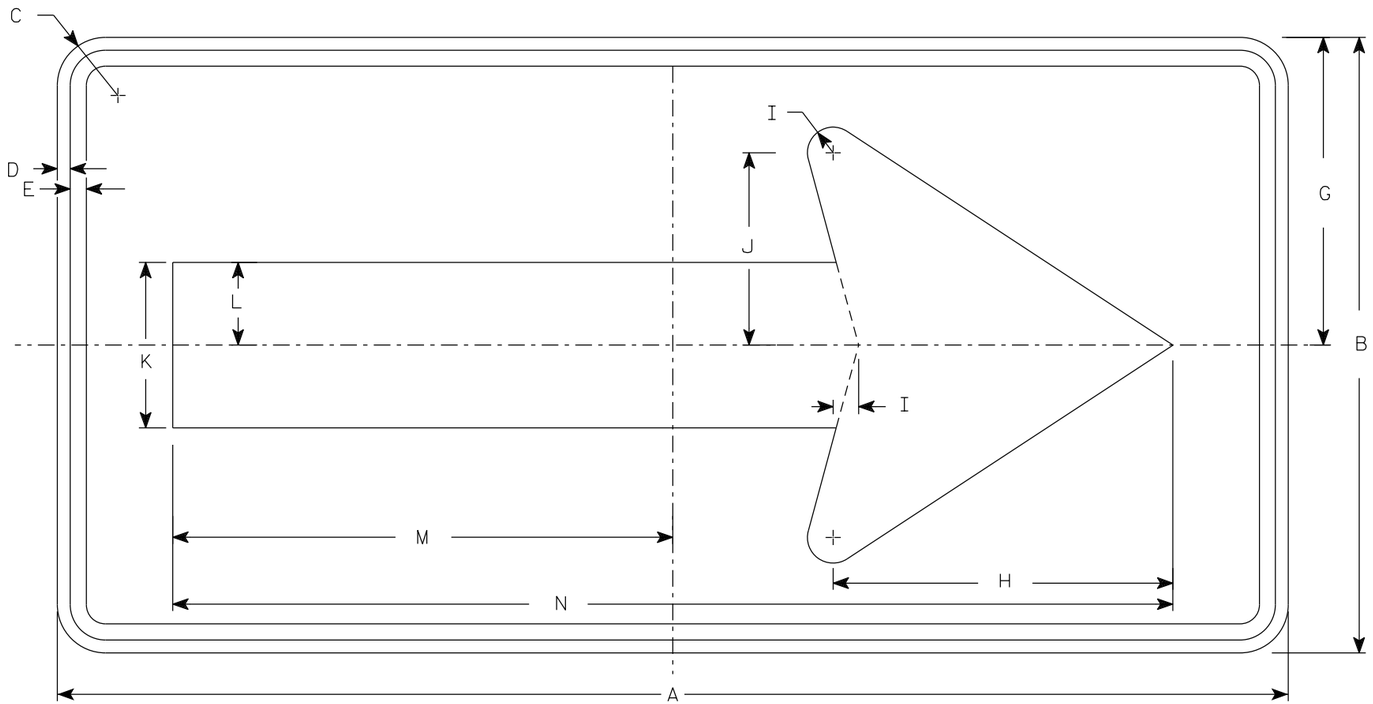
STANDARD SIGN
WO1-4

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
For State Traffic Engineer

DATE 1/24/2024 PLATE NO. WO1-4.2

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 138 | E



WO1-6

NOTES

1. Sign is Type II - Type F Reflective
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 7/8	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 7/8	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 7/8	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 7/8	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 7/8	1/2	5/8		15	16 1/4	1 1/4	9 1/4	8	4	24 3/8	48 3/4													12.5

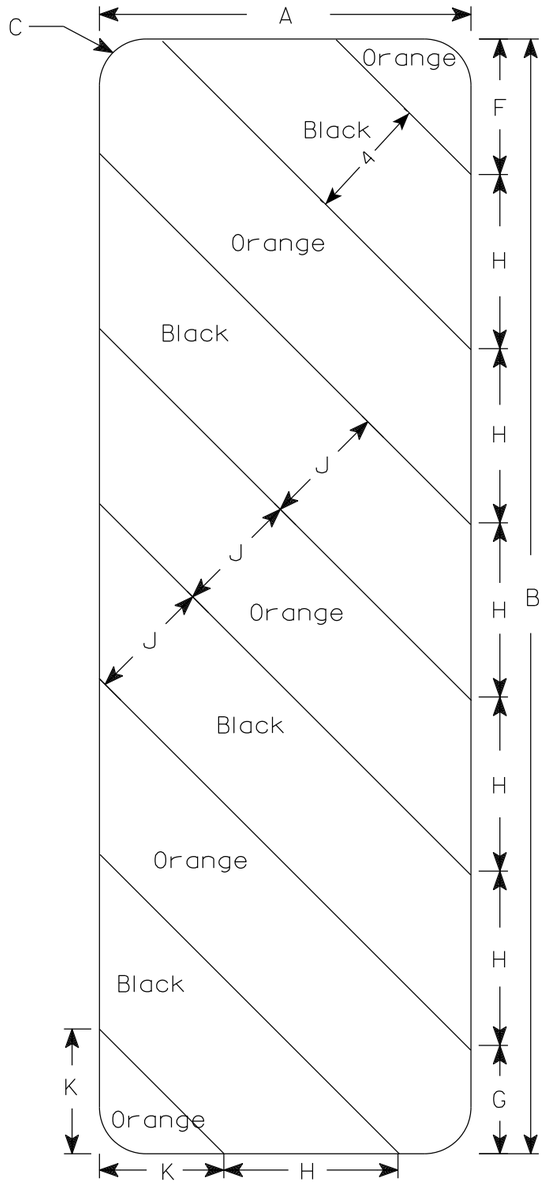
STANDARD SIGN
WO1-6

WISCONSIN DEPT OF TRANSPORTATION

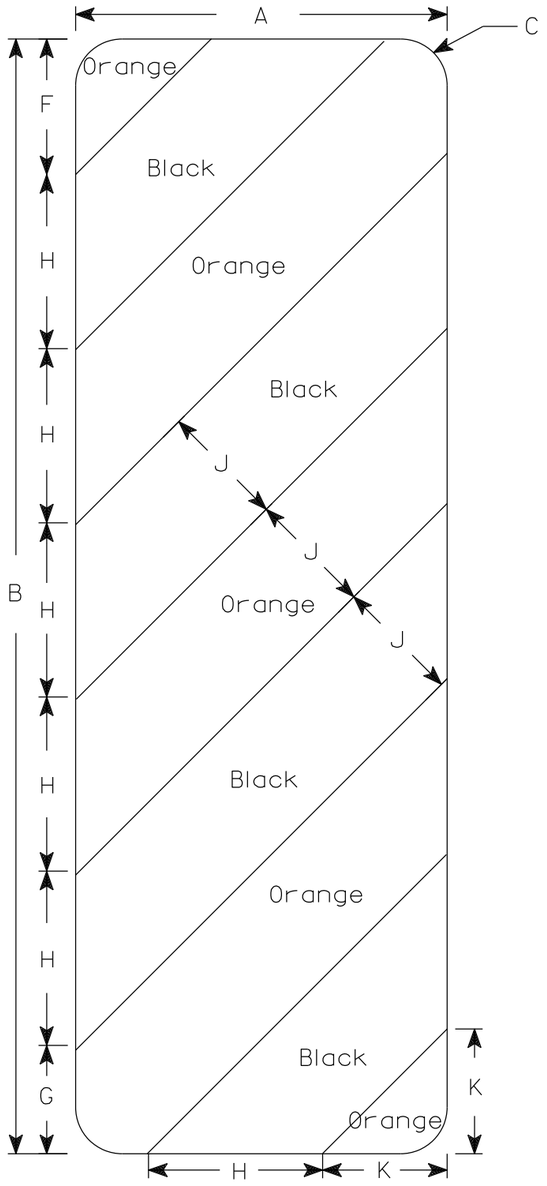
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 1/24/2024 PLATE NO. WO1-6.2

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



W05-52L



W05-52R

NOTES

1. Sign is Type II - Type F Reflective
2. Color:
   Background - Orange
   Message - Black
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	1 1/2			4 3/8	3 1/2	5 5/8	45°	4	4																3.0
2M	12	36	1 1/2			4 3/8	3 1/2	5 5/8	45°	4	4																3.0
3	18	54	1 1/2			6	5 1/2	8 1/2	45°	6	6 9/16																6.75
4																											
5																											

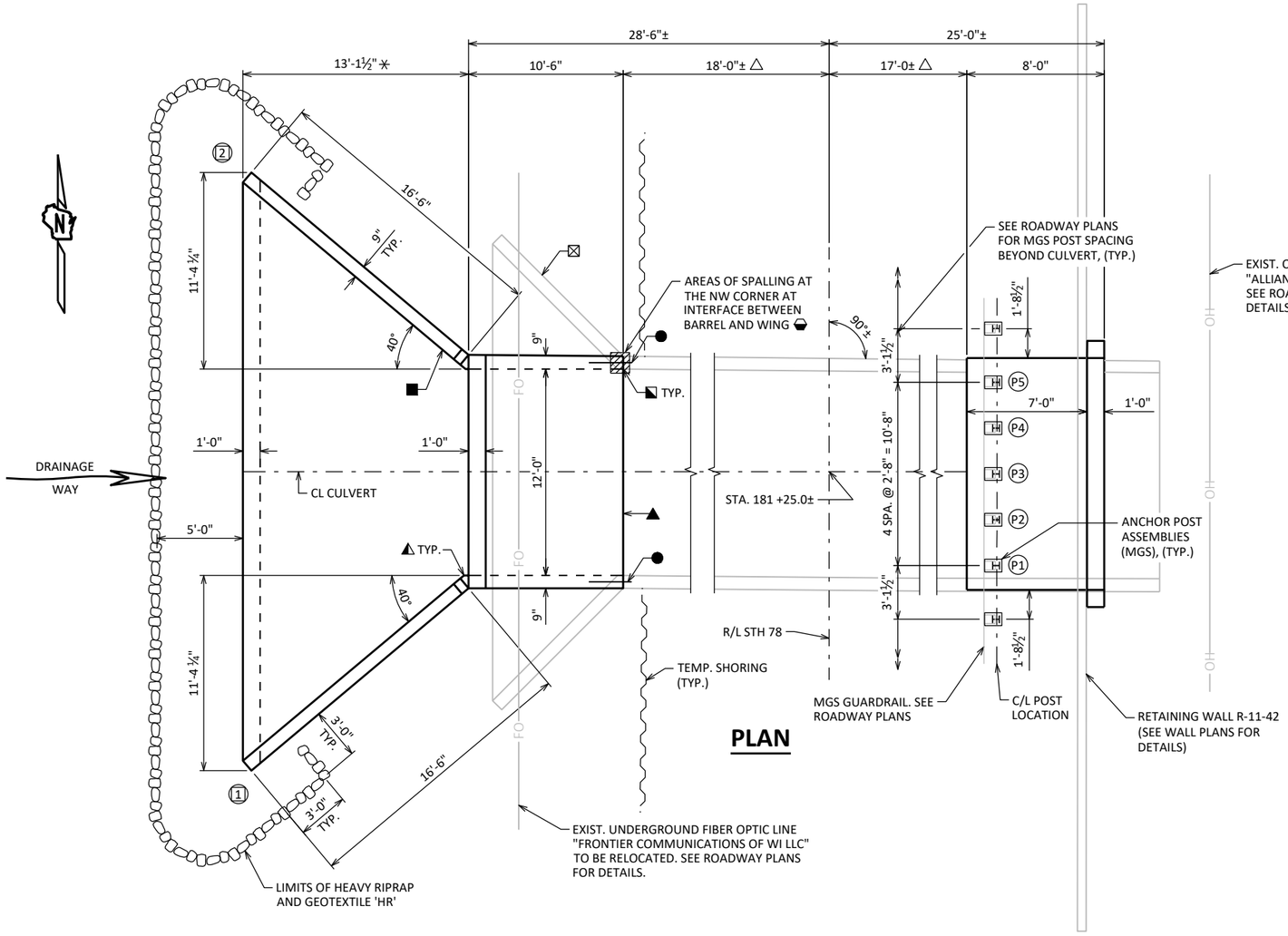
STANDARD SIGN
W05-52L & W05-52R

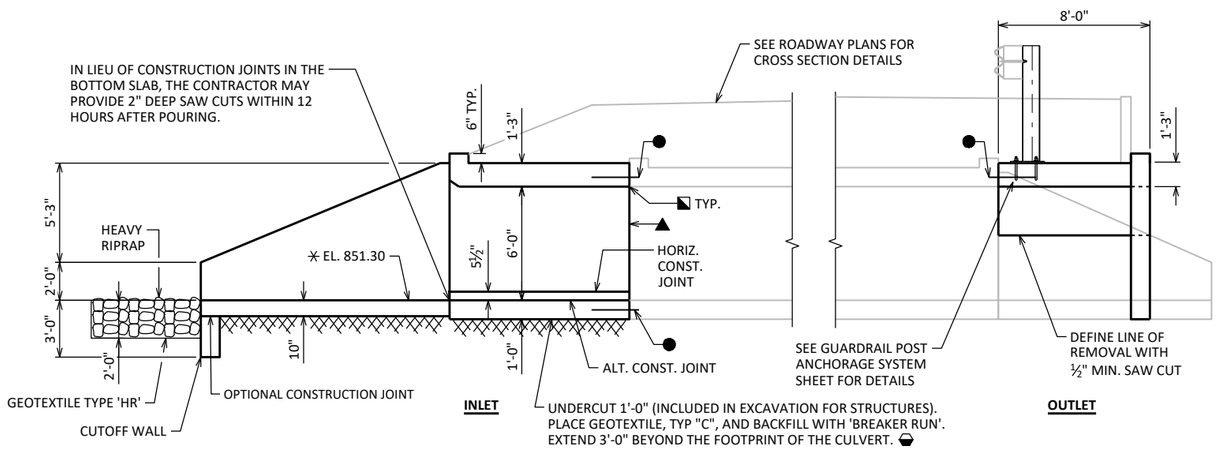
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/13/2024 PLATE NO. W05-52.2

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 140	E





ELEVATION

DESIGN DATA

LIVE LOAD:

DESIGN LOADING: HL-93
INVENTORY RATING: RF = 1.46
OPERATING RATING: RF = 1.89
WISCONSIN STANDARD PERMIT VEHICLE (WIS-SPV): 255 (KIPS)

EARTHLOAD:

DESIGNED FOR 2 TO 3 FT. OF FILL.

MATERIAL PROPERTIES:

CONCRETE MASONRY ——— f'_c = 3,500 PSI
BAR STEEL REINFORCEMENT ——— f_y = 60,000 PSI

TRAFFIC DATA

STH 78:
ADT = 1,340 (2034)
R.D.S. = 55 MPH

LIST OF DRAWINGS

1. GENERAL PLAN
2. INLET EXTENSION BOX DETAILS
3. OUTLET EXTENSION BOX DETAILS
4. GUARDRAIL POST ANCHORAGE SYSTEM
5. INLET APRON DETAILS
6. WINGS & BILL OF BARS
7. SUBSURFACE EXPLORATION

(P#) INDICATES GUARDRAIL POST NUMBER. SEE "GUARDRAIL POST ANCHORAGE SYSTEM" SHEET FOR POST GEOMETRY TABLE.

STATE PROJECT NUMBER

5630-06-73

- ◭ SEE CORNER DETAILS ON "WINGS & BILL OF BARS" SHEET.
- ■ NAME PLATE LOCATION (SEE "WINGS & BILL OF BARS" SHEET.) THE CONTRACTOR SHALL SUPPLY A NEW NAME PLATE IN ACCORDANCE WITH SECTION 502.3.11 OF THE STANDARD SPECIFICATIONS AND THE STANDARD DETAIL DRAWINGS. NAME PLATE TO SHOWN ORIGINAL CONSTRUCTION YEAR.
- ⚹ BUILD APRON AND END OF BOX LEVEL
- ⓝ INDICATES WING NUMBER
- △ EXIST. BARREL TO REMAIN IN PLACE
- ◪ INSIDE FACE OF WALLS & SLABS TO MATCH EXISTING (TYP.)
- ☒ REMOVE EXISTING APRON AND WINGS AT INLET END. EXTEND BAR STEEL REINFORCEMENT IN BOTTOM SLAB 2'-0" INTO NEW WORK.
- ● ADHESIVE ANCHORS NO. 5 BARS, EMBED 6" INTO SOUND CONCRETE AND SPACE AT 1'-0" CENTERS MAX. (TYP. IN ALL WALLS, TOP & BOT. SLABS)
- ▲ VERT. CONST. JOINT. SEE SHEET 2 FOR DETAILS.
- ◒ CONCRETE SURFACE REPAIR REQUIRED. LOCATIONS NOTED MAY NOT BE ALL INCLUSIVE, AND QUANTITIES SHOWN ON SHEET ARE APPROXIMATE. ADDITIONAL CONCRETE SURFACE REPAIR MAY BE REQUIRED DURING CONSTRUCTION AND SHOULD BE PERFORMED AS DIRECTED BY THE FIELD ENGINEER.

TOTAL ESTIMATED QUANTITIES

BID ITEM NUMBER	BID ITEMS	UNIT	TOTALS
203.0220	REMOVING STRUCTURE C-11-2027	EACH	1
206.2001	EXCAVATION FOR STRUCTURES CULVERTS C-11-2027	EACH	1
210.2500	BACKFILL STRUCTURE TYPE B	TON	97
311.0115	BREAKER RUN	CY	24
502.4205	ADHESIVE ANCHORS NO. 5 BAR	EACH	88
504.0100	CONCRETE MASONRY CULVERTS	CY	40
505.0400	BAR STEEL REINFORCEMENT HS STRUCTURES	LB	4,440
505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB	740
509.1500	CONCRETE SURFACE REPAIR	SF	1
511.1200	TEMPORARY SHORING C-11-2027	SF	745
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	20
606.0300	RIPRAP HEAVY	CY	19
645.0105	GEOTEXTILE TYPE C	SY	79
645.0120	GEOTECTILE TYPE HR	SY	42
	NON-BID ITEMS		
	FILLER	SIZE	3/4"

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

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

THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE.

BEVEL EXPOSED EDGES OF CONCRETE ¾" UNLESS OTHERWISE NOTED.

THE UPPER LIMITS OF "EXCAVATION FOR STRUCTURES CULVERTS C-11-2027" SHALL BE THE EXISTING GROUNDLINE.

ALL VOLUME WHICH CANNOT BE PLACED BEFORE CULVERT CONSTRUCTION AND NOT OCCUPIED BY THE NEW STRUCTURE SHALL BE BACKFILLED WITH STRUCTURE BACKFILL WITHIN THE LENGTH OF THE CULVERT INCLUDING THE APRON WING WALLS.

THE QUANTITY FOR BACKFILL STRUCTURE IS CALCULATED BASED ON THE DETAIL SHOWN IN THE PLANS.

THE CONCRETE IN THE CUTOFF WALLS MAY BE PLACED UNDERWATER IF THE EXCAVATION CANNOT BE DEWATERED.

PLACE 18" (MIN.) WIDE SHEET OF "RUBBERIZED MEMBRANE WATERPROOFING" ON TOP SLAB OVER ALL CONSTRUCTION JOINTS AND EXTEND DOWN TO 6" BELOW TOP OF BOTTOM SLAB. TWO LAYERS REQUIRED ON TOP SLAB, SEE " SECTION THRU INLET EXTENSION" ON SHEET 2 FOR DETAILS.

THE CONTRACTOR MAY ELECT TO SUBSTITUTE #1 OR #2 CONCRETE COARSE AGGREGATE, SELECT CRUSHED MATERIAL OR OTHER GRANULAR MATERIAL AS APPROVED BY THE FIELD ENGINEER, IN LIEU OF THE BREAKER RUN, TO BE UTILIZED AS A CONSTRUCTION PLATFORM FOR THE BOX. THE CONTRACTOR IS RESPONSIBLE FOR BASE STABILITY WITH ANY SUBSTITUTED MATERIAL.

CONCRETE FOR COLLAR IS INCLUDED IN BID ITEM "CONCRETE MASONRY CULVERTS".

STRUCTURE DESIGN CONTACTS:
MICAH BROOKS 608-266-5080
KYLE BUSCH 608-267-0465

NO.	DATE	REVISION	BY

BUREAU OF STRUCTURES

ACCEPTED KHB 7/28/25
CHIEF STRUCTURES DESIGN ENGINEER — DATE

STRUCTURE C-11-2027

STH 78 OVER DRAINAGE WAY

COUNTY: SAUK | TOWN: CALEDONIA

DESIGN SPEC.: AASHTO LRFD BRIDGE DESIGN SPECIFICATION

DESIGNED BY MWB | DESIGNED CK'D VS | DRAWN BY MWB/DTH | PLANS CK'D VS

GENERAL PLAN

SHEET 1 OF 7
141

I.D. 5630-06-03A DATE: MARCH 2024

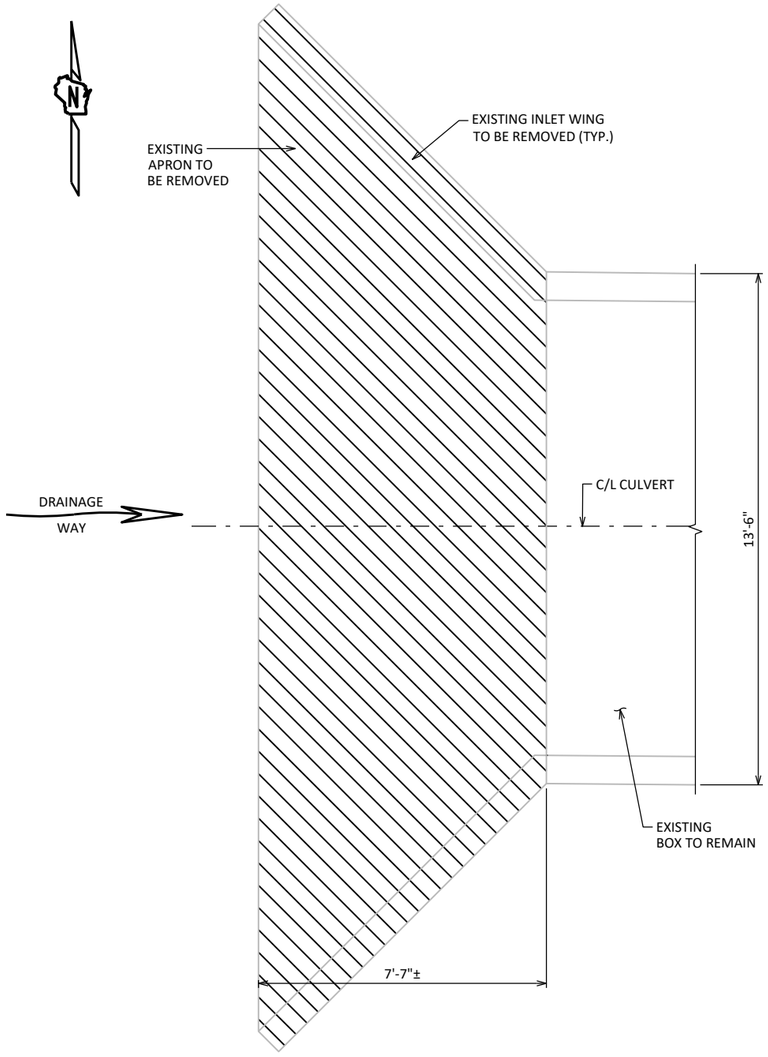
SCALE = 8

8

8

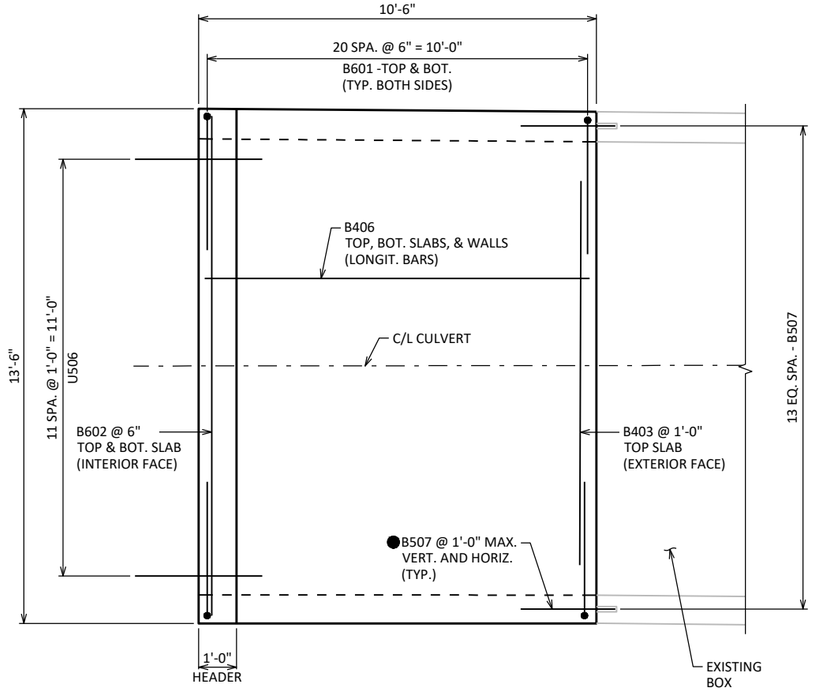
STATE PROJECT NUMBER

5630-06-73



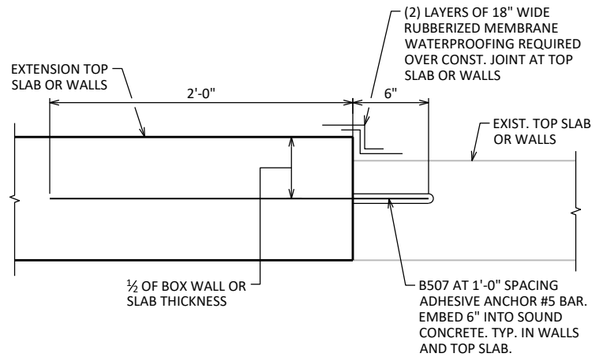
REMOVAL PLAN

(AT EXISTING INLET)



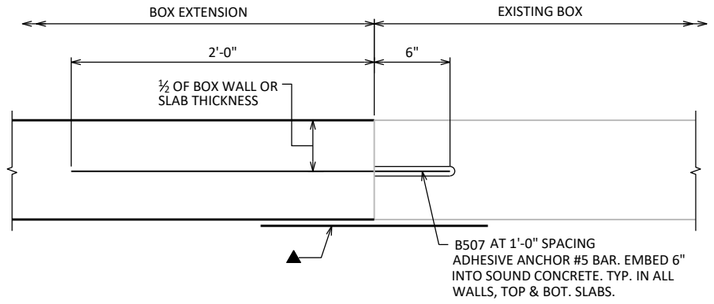
INLET EXTENSION PLAN

SEE SECTIONS BELOW AND VERTICAL CONSTRUCTION JOINT DETAIL FOR FURTHER DETAILS AND REINFORCEMENT REQUIRED.



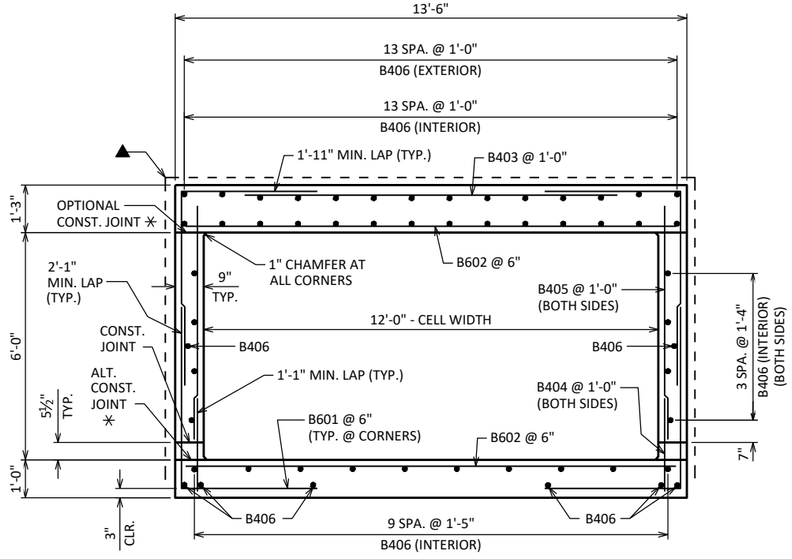
ALTERNATE CONSTRUCTION JOINT

(APPLICABLE IN THE CASE WHERE EXTENSION THICKNESS DOES NOT MATCH EXISTING)

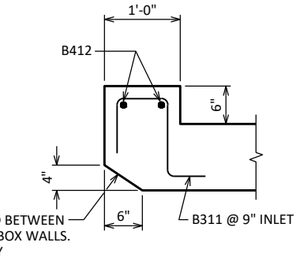


VERTICAL CONSTRUCTION JOINT

TYPICAL WALLS AND TOP SLAB



SECTION THRU INLET EXTENSION



SECTION THRU HEADER

▲ 18" MIN. WIDTH RUBBERIZED MEMBRANE WATERPROOFING UP WALLS AND ACROSS TOP SLAB AT VERT. JOINT. EXTEND 6" MIN. BELOW THE TOP OF BOTTOM SLAB.

✳ IF USED, OMIT CHAMFER AT JOINT.

● ADHESIVE ANCHORS NO. 5 BARS, EMBED 6" INTO SOUND CONCRETE AND SPACE AT 1'-0" CENTERS. ANCHORS SHALL BE APPROVED FOR USE IN CRACKED CONCRETE. ANCHORS SHALL BE 3 ¾" CLEAR MIN. TO FACE OF EXISTING OR NEW CONCRETE, EXISTING OR NEW BAR STEEL, AND ADJACENT ADHESIVE ANCHORS.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE C-11-2027

DRAWN BY WWR/DTH | PLANS CK'D VS

INLET EXTENSION BOX DETAILS

SHEET 2
142

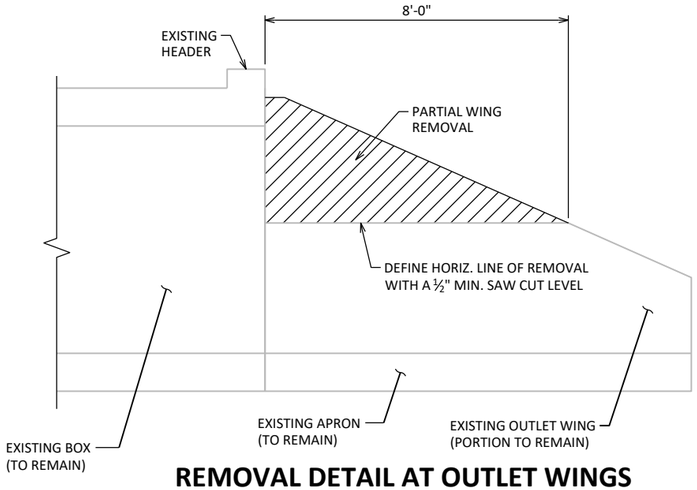
SCALE =

8

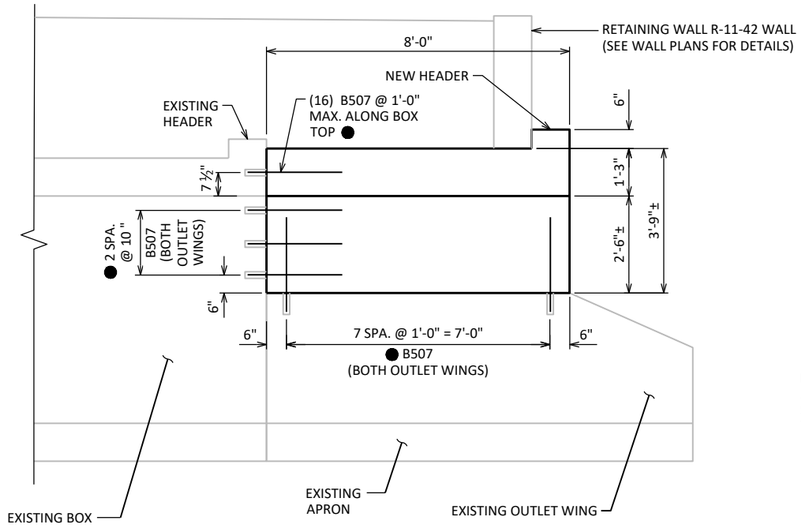
8

STATE PROJECT NUMBER

5630-06-73

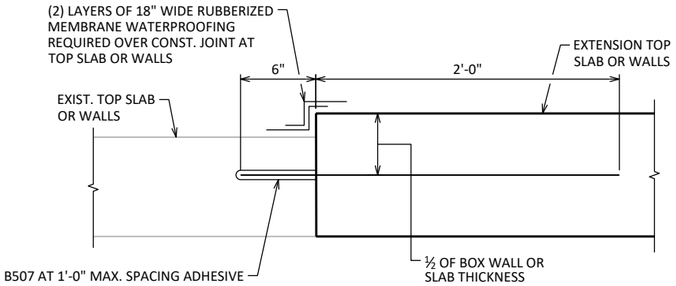


REMOVAL DETAIL AT OUTLET WINGS

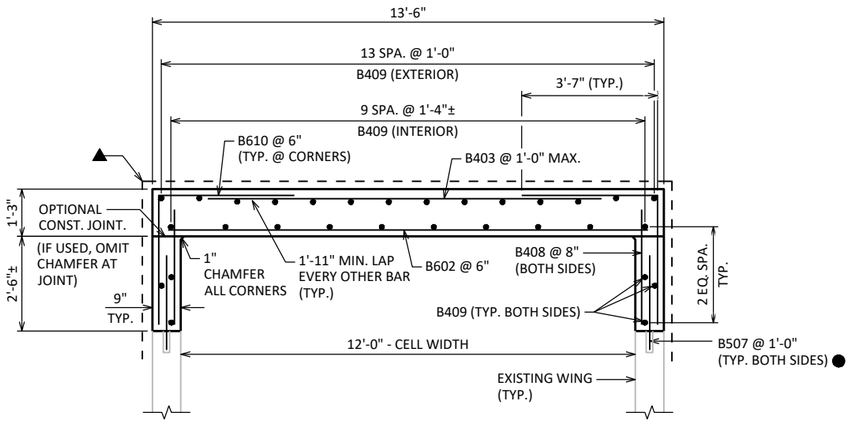


EXTENSION AT OUTLET WINGS

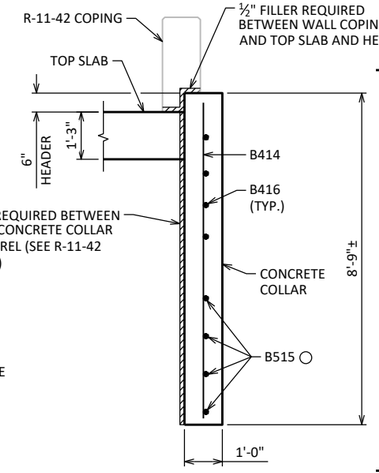
SEE SECTION BELOW, HEADER DETAILS, AND CONSTRUCTION JOINT DETAILS FOR FURTHER DETAILS AND REINFORCEMENT REQUIRED.



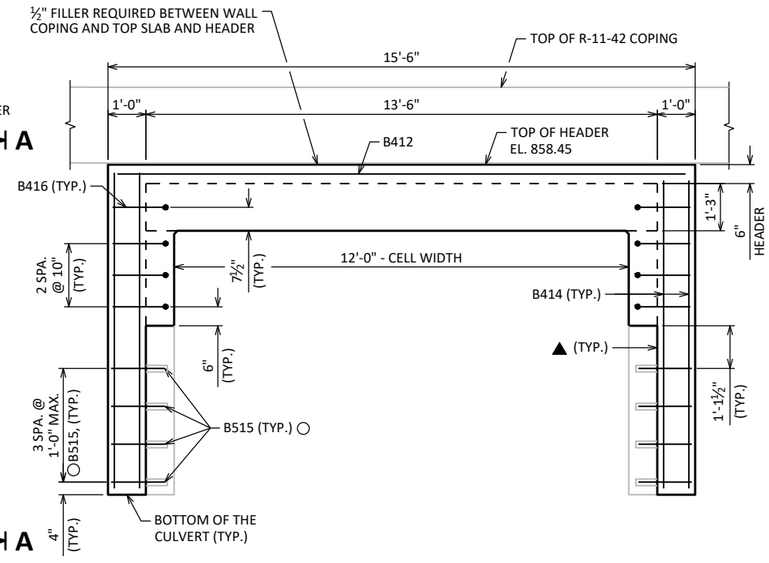
ALTERNATE CONSTRUCTION JOINT



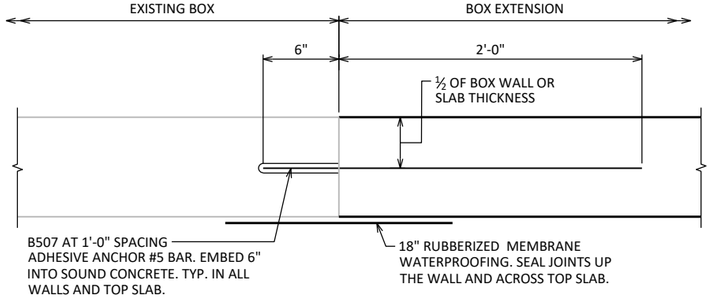
SECTION THRU OUTLET EXTENSION



SECTION A-A

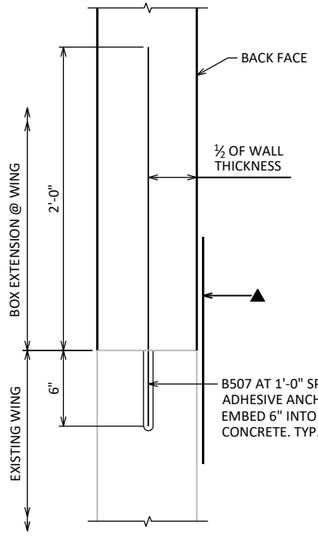


EAST END VIEW OF OUTLET EXTENSION



VERTICAL CONSTRUCTION JOINT

TYPICAL WALLS AND TOP SLAB



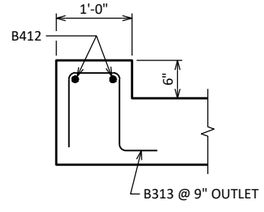
HORIZONTAL CONSTRUCTION JOINT

TYPICAL WALLS

▲ 18" MIN. WIDTH RUBBERIZED MEMBRANE WATERPROOFING UP WALLS AND ACROSS TOP SLAB AT VERT. JOINTS, ALONG WALLS AT HORIZ. JOINTS AND ALONG THE COLLAR WALLS AT VERTICAL JOINTS.

● ADHESIVE ANCHORS NO. 5 BARS, EMBED 6" INTO SOUND CONCRETE AND SPACE AT 1'-0" CENTERS MAX. ANCHORS SHALL BE APPROVED FOR USE IN CRACKED CONCRETE. ANCHORS SHALL BE 3 ¾" CLEAR MIN. TO FACE OF EXISTING OR NEW CONCRETE, EXISTING OR NEW BAR STEEL, AND ADJACENT ADHESIVE ANCHORS.

○ ADHESIVE ANCHORS NO. 5 BARS, EMBED 5" INTO EXISTING WALL AND SPACE AT 1'-0" CENTERS. ANCHORS SHALL BE 3 ¾" CLEAR MIN. TO FACE OF EXISTING OR NEW CONCRETE, EXISTING OR NEW BAR STEEL, AND ADJACENT ADHESIVE ANCHORS.



SECTION THRU HEADER

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE C-11-2027

DRAWN BY WWR/DTH | PLANS CK'D VS

OUTLET EXTENSION BOX DETAILS

SHEET 3
143

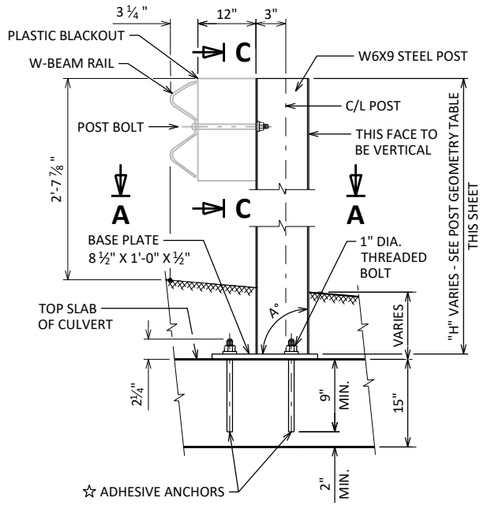
SCALE =

8

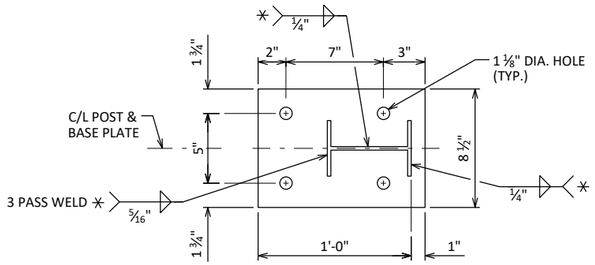
8

STATE PROJECT NUMBER

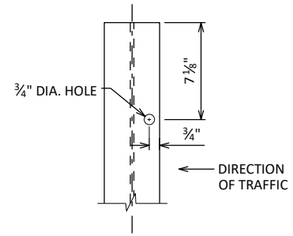
5630-06-73



ELEVATION
GUARDRAIL POST ANCHORS TYPE 1



SECTION A-A
POST & BASE PLATE



SECTION C-C
HOLE IN POST FLANGE ON APPROACHING TRAFFIC SIDE

NOTES

DETAILS SHOWN FOR POSTS, PLATES, ANCHORAGE SYSTEM AND INSTALLATION, BLOCKS, AND GUARD RAIL ARE NOT PART OF THE STRUCTURE CONTRACT, BUT ARE BID PER THE ROADWAY DESIGN PLANS.

POST BASE PLATES AND BOTTOM PLATES SHALL BE FLAT WITH ALL SURFACES SMOOTH AND FREE FROM WARP AND ALL EDGES SMOOTH, STRAIGHT AND VERTICAL. ALL PLATE CUTS SHALL BE MACHINE OR MACHINE FLAME CUTS.

CUT BOTTOM OF POST SO THAT POST WILL BE VERTICAL WHEN POST ASSEMBLY IS PLACED ON TOP OF THE CULVERT. ALONG THE ROADWAY THE POST WILL BE NORMAL TO GRADE LINE. HEX BOLTS AND THREADED RODS ARE TO BE PLACED PERPENDICULAR TO THE BASE PLATE.

POST, BASE PLATE AND BOTTOM PLATE, AND SHIMS SHALL BE GALVANIZED AFTER FABRICATION.

PRIOR TO GALVANIZING, ALL STEEL POSTS AND PLATES SHALL BE GIVEN A NO. 6 COMMERCIAL BLAST CLEANING BY SSPC SPECS.

ALL MATERIAL USED IN POSTS AND PLATES SHALL BE MADE FROM MATERIAL CONFORMING TO ASTM DESIGNATION A709 GRADE 50 OR 50S.

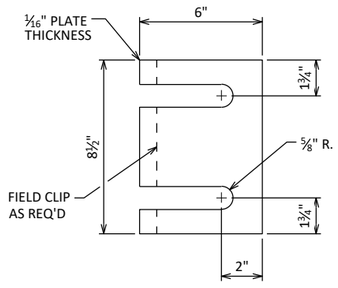
HEX BOLTS, THREADED RODS, HEX NUTS AND WASHERS SHALL CONFORM TO THE REQUIREMENTS OF ASTM F1554 GRADE 36, AND SHALL BE GALVANIZED. RODS ARE TO BE FULLY THREADED AND BOLTS TO BE THREADED 3". CHAMFER. TOP OF BOLTS AND RODS BEFORE THREADING.

STEEL SHIMS MAY BE USED BETWEEN PLATES AND SLAB WHERE REQUIRED FOR ALIGNMENT.

✳ WELDING IS TO BE COMPLETED USING THE GAS-METAL ARC WELDING (GMAW) PROCESS WITH ER70S-3 WELDING WIRE AND ARGON-OXYGEN OR CO_2 COVER GAS.

☆ ADHESIVE ANCHORS (1-INCH DIA. THREADED ROD). EMBED IN CONCRETE AS DETAILED. CHARACTERISTIC BOND STRENGTH SHALL MEET OR EXCEED 1305 PSI FOR UNCRACKED CONCRETE. SEE STANDARD SPECIFICATION 502.3.14 AND APPLY TO THREADED RODS.

■ CONTRACTOR TO FIELD VERIFY POSTS HEIGHT "H" BASED ON FIELD CONDITIONS.



STEEL SHIM DETAIL
4 PER POST

POST GEOMETRY TABLE

POST NO.	STATION	"A"	"H" ■
P1	181+19.51	90	5'-8 5/8"
P2	181+22.18	90	5'-8"
P3	181+24.84	90	5'-7 1/4"
P4	181+27.51	90	5'-6 1/2"
P5	181+30.17	90	5'-6"

8

8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE C-11-2027

DRAWN BY DTH | PLANS CK'D VS

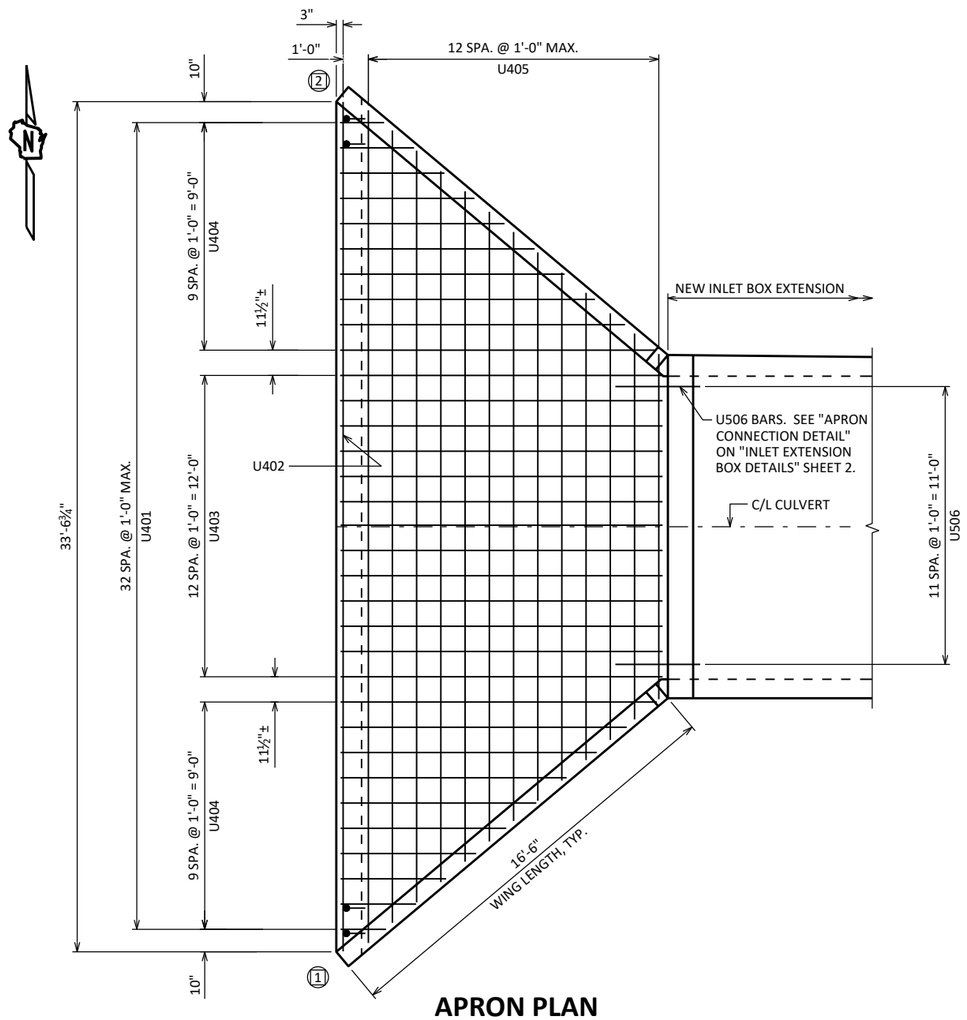
GUARDRAIL POST ANCHORAGE SYSTEM

SHEET 4
144

STATE PROJECT NUMBER

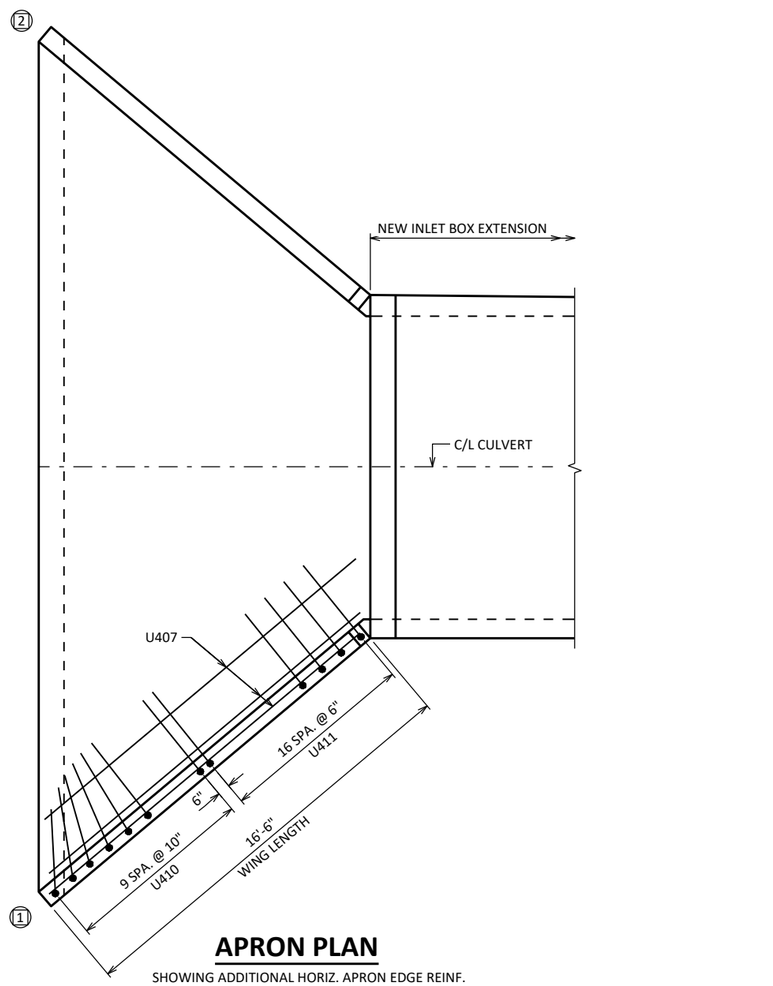
5630-06-73

INDICATES WING NUMBER



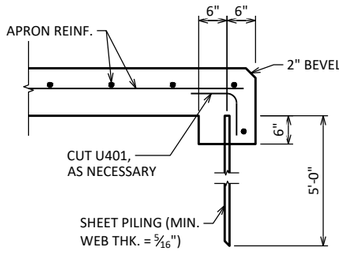
APRON PLAN

SHOWING LONGIT., TRANSVERSE, & CUT-OFF WALL REINF.
(APRON EDGE REINF. NOT SHOWN FOR CLARITY)



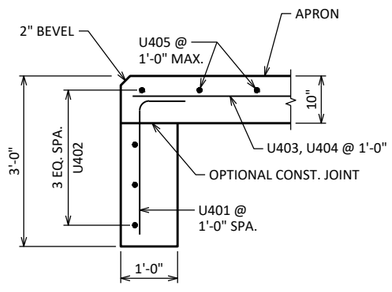
APRON PLAN

SHOWING ADDITIONAL HORIZ. APRON EDGE REINF.
WITH APRON/WING L-BARS. SEE "WING WALLS & BILL OF BARS" SHEET FOR FURTHER DETAILS.
(TYP. AT BOTH APRON EDGES)

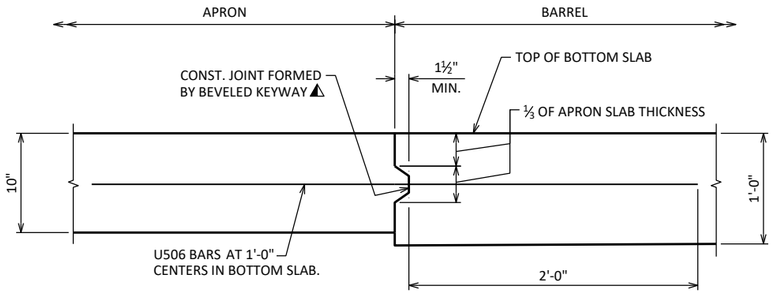


ALTERNATE CUT-OFF WALLS

THE ABOVE ALTERNATIVE MAY BE USED IN LIEU OF CAST-IN-PLACE CONCRETE CUT-OFF WALLS. PAYMENT WILL BE BASED ON THE CONCRETE CUT-OFF WALLS.



INLET CUT-OFF WALL



APRON CONNECTION DETAIL

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

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE C-11-2027

DRAWN BY WWR/DTH | PLANS CK'D VS

INLET APRON DETAILS

SHEET 5
145

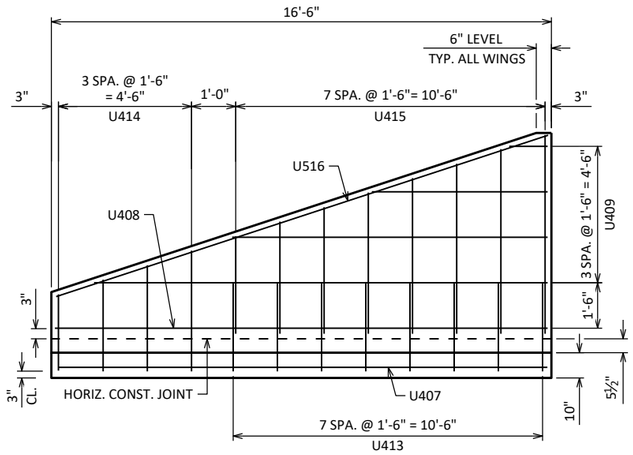
SCALE =

8

8

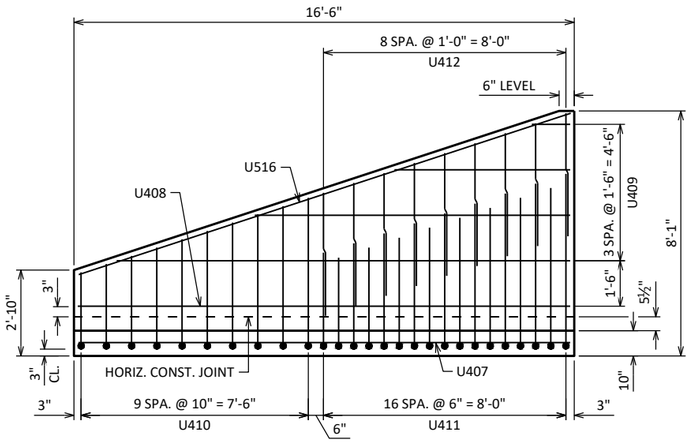
STATE PROJECT NUMBER

5630-06-73



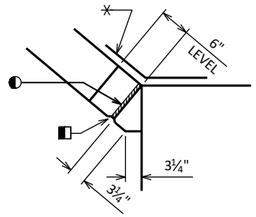
WING 1 - F.F. REINF.

(WING 2 SIMILAR)



WING 1 - B.F. REINF.

(WING 2 SIMILAR)



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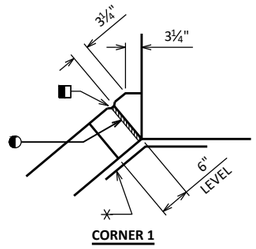
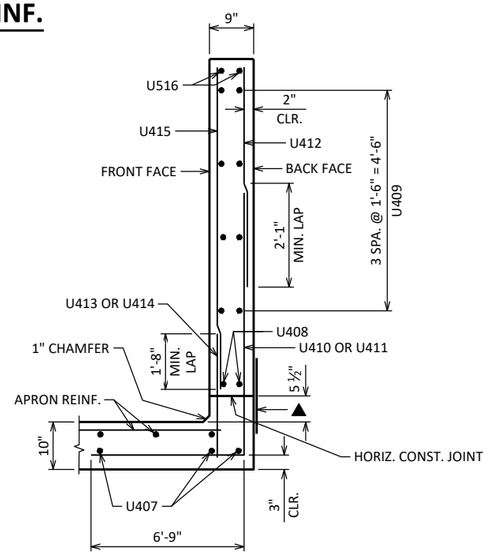
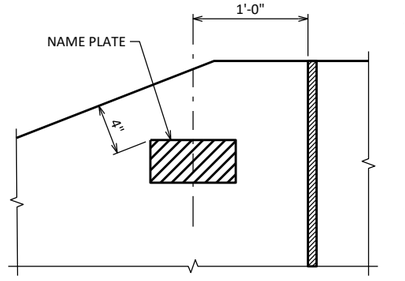


CORNER 1

CORNER DETAILS

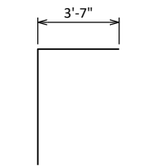


SECTION THRU WINGS



NAME PLATE DETAIL

WING 2



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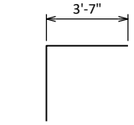

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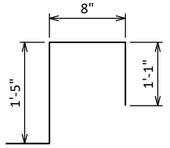

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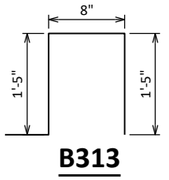

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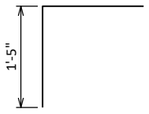

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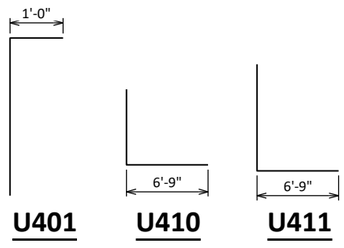


U401 **U410** **U411**

BILL OF BARS

NOTE: THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE.

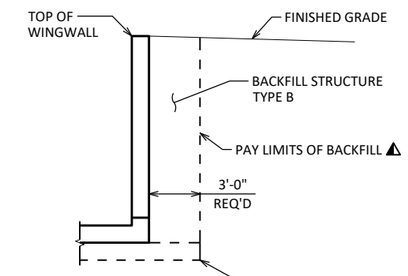
BAR MARK	COAT	NO. REQ'D	LENGTH	BENT	BAR SERIES	LOCATION
B601		84	8'-9"	X		INLET BOX-CORNERS
B602		58	13'-0"			INLET & OUTLET BOX-TRANSVERSE-INTERIOR FACE-SLABS
B403		20	9'-10"			INLET & OUTLET BOX-TRANSVERSE-EXTERIOR FACE-TOP SLAB
B404		22	2'-7"			INLET BOX-VERT. WALLS-DOWELS
B405		22	6'-10"			INLET BOX-VERT.-WALLS
B406		54	10'-2"			INLET BOX-LONGIT. TOP & BOT. SLABS, WALLS
B507		80	2'-6"			● INLET & OUTLET BOX-ADHESIVE ANCHOR BARS
B408		26	3'-3"			OUTLET BOX-VERT. WALLS
B409		30	7'-8"			OUTLET BOX-LONGIT. TOP SLAB & WALLS
B610		32	6'-10"	X		OUTLET BOX-CORNERS
B311		18	3'-6"	X		HEADER @ INLET-VERT.
B412		4	15'-2"			HEADERS-HORIZ.
B313		18	3'-10"	X		HEADER @ OUTLET-VERT.
B414		4	6'-6"			COLLAR-VERT.
B515		8	1'-3"			○ COLLAR-HORIZ. ADHESIVE ANCHORS
B416		8	2'-9"			COLLAR-HORIZ. CONNEC. BARS
U401		33	3'-6"	X		CUT OFF WALL/APRON-VERT.
U402		4	33'-6"			CUT OFF WALL/APRON-HORIZ.
U403		13	12'-9"			APRON-LONGIT.
U404		20	7'-2"		⚠	APRON-LONGIT.
U405		13	23'-3"		⚠	APRON-TRANSVERSE
U506		12	4'-0"			APRON/BOX-BOT. HORIZ. ANCHOR CONNEC. BARS
U407		6	16'-2"			APRON-HORIZ.-BOT.
U408	X	4	16'-2"			WINGS 1 & 2-HORIZ.-BOT.
U409	X	16	8'-4"		⚠	WINGS 1 & 2 HORIZ.-F.F. & B.F.
U410	X	20	10'-5"	X	⚠	WINGS 1 & 2-VERT. L-BARS-B.F.
U411	X	34	11'-1"	X	⚠	WINGS 1 & 2-VERT. L-BARS-B.F.
U412	X	18	4'-1"			WINGS 1 & 2-VERT. B.F.
U413	X	16	2'-11"			WINGS 1 & 2-VERT.-F.F. DOWELS
U414	X	8	3'-3"		⚠	WINGS 1 & 2-VERT.-F.F.
U415	X	16	4'-10"		⚠	WINGS 1 & 2-VERT.-F.F.
U516	X	4	16'-11"			WINGS 1 & 2-TOP-F.F. & B.F.

⚠ LENGTH SHOWN FOR BAR IS AN AVERAGE AND SHOULD ONLY BE USED FOR BAR WEIGHT CALCULATIONS. SEE BAR SERIES TABLE FOR ACTUAL LENGTHS.

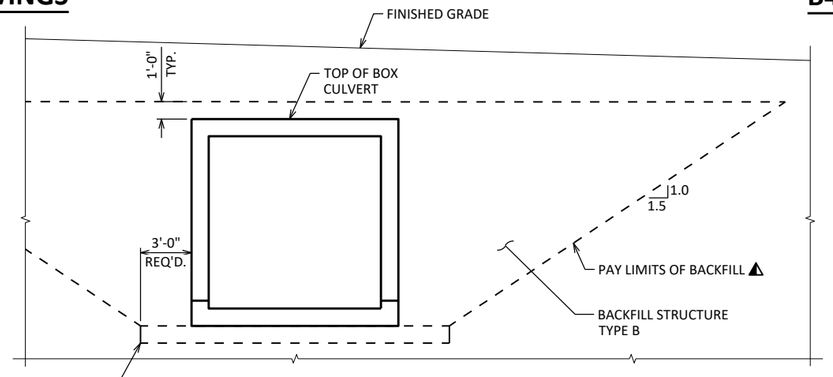
BAR SERIES TABLE

BUNDLE AND TAG EACH SERIES SEPARATELY.

BAR MARK	NO. REQ'D	LENGTH
U404	2 SERIES OF 10	1'-9" TO 12'-6"
U405	1 SERIES OF 13	13'-5" TO 33'-1"
U409	4 SERIES OF 4	1'-5" TO 15'-2"
U410	2 SERIES OF 10	9'-2" TO 11'-8"
U411	2 SERIES OF 17	9'-9" TO 12'-4"
U414	2 SERIES OF 4	2'-6" TO 4'-0"
U415	2 SERIES OF 8	3'-1" TO 6'-6"



TYPICAL SECTION THRU BOX CULVERT WINGWALL



TYPICAL SECTION THRU BOX CULVERT

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

◧ 1" BEVEL, TYP.

◐ ¾" FILLER TYPICAL. EXTEND FILLER FROM HORIZ. CONST. JOINT TO TOP OF WING.

✳ 18" RUBBERIZED MEMBRANE WATERPROOFING, PLACE ALONG HORIZ. CONST. JOINT TO TOP OF WALL.

▲ 18" RUBBERIZED MEMBRANE WATERPROOFING, PLACE ALONG HORIZ. CONST. JOINT FOR ENTIRE LENGTH OF WING.

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

◒ EXCAVATION BELOW SUBGRADE (EBS) REQUIRED AT THE INLET. USE BREAKER RUN TO FILL IN AREAS OF EBS. SEE ROADWAY PLANS FOR QUANTITIES.

● ADHESIVE ANCHORS NO. 5 BARS, EMBED 6" INTO SOUND CONCRETE AND SPACE AT 1'-0" CENTERS.

○ ADHESIVE ANCHORS NO. 5 BARS, EMBED 5" INTO EXISTING WALL AND SPACE AT 1'-0" CENTERS.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE C-11-2027

DRAWN BY WWR/DTH | PLANS CK'D VS

WINGS & BILL OF BARS

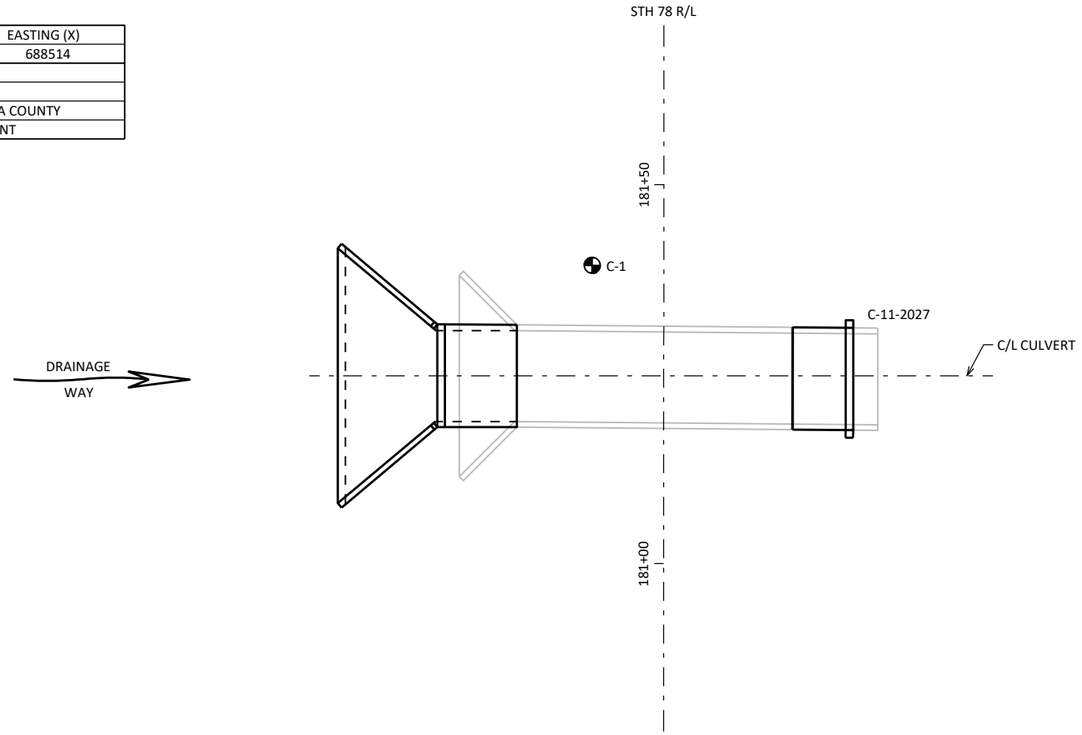
SHEET 6
146

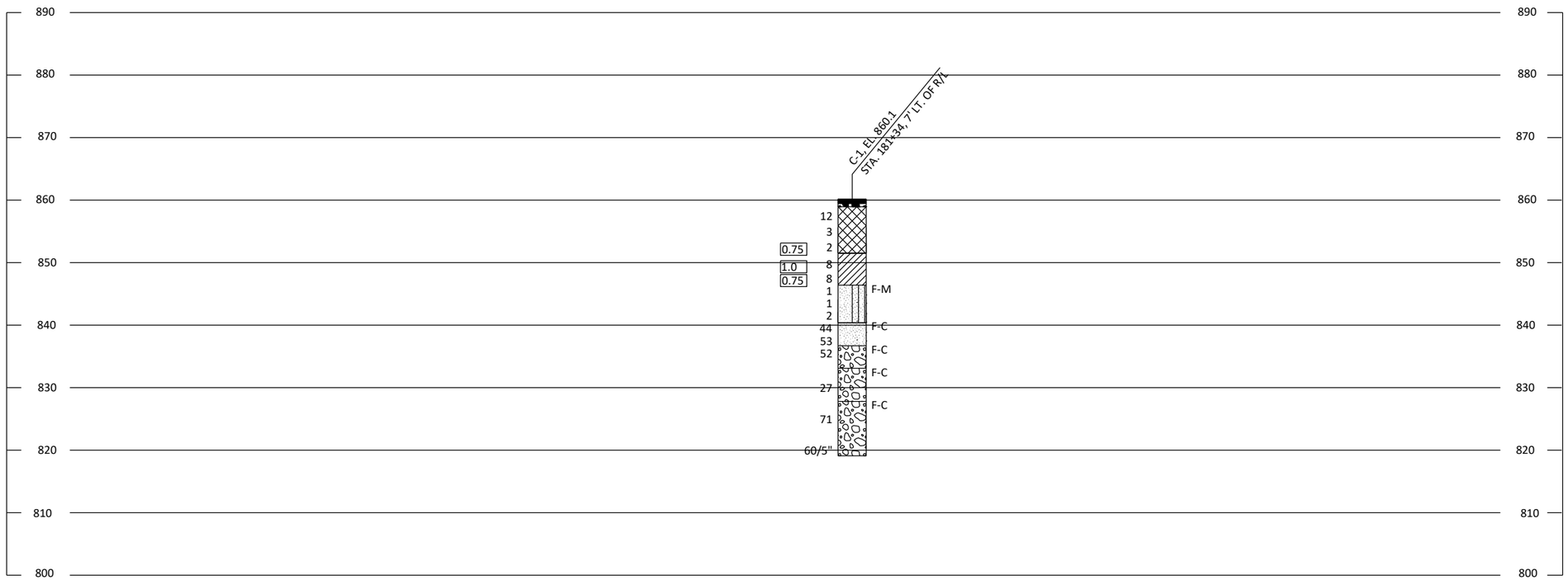
SCALE =

8

8

BORING #	DATE COMPLETED	NORTHING (Y)	EASTING (X)
C-1	9/26/2023	214795	688514
BORINGS COMPLETED BY: GESTRA			
REPORT COMPLETED BY: WISDOT			
ALL COORDINATES REFERENCED TO WCCS NAD 83 (91) COLUMBIA COUNTY			
COORDINATES COLLECTED USING NON-SURVEY GRADE EQUIPMENT			





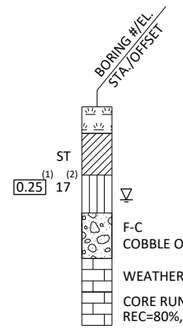
STATE PROJECT NUMBER

5630-06-73

MATERIAL SYMBOLS

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

LEGEND OF BORING



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

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

GROUND WATER ELEVATION

AT TIME OF DRILLING

END OF DRILLING

AFTER DRILLING

ABBREVIATIONS

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

SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

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

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE C-11-2027

DRAWN BY TLP/DTH | PLANS CK'D VS

SUBSURFACE EXPLORATION

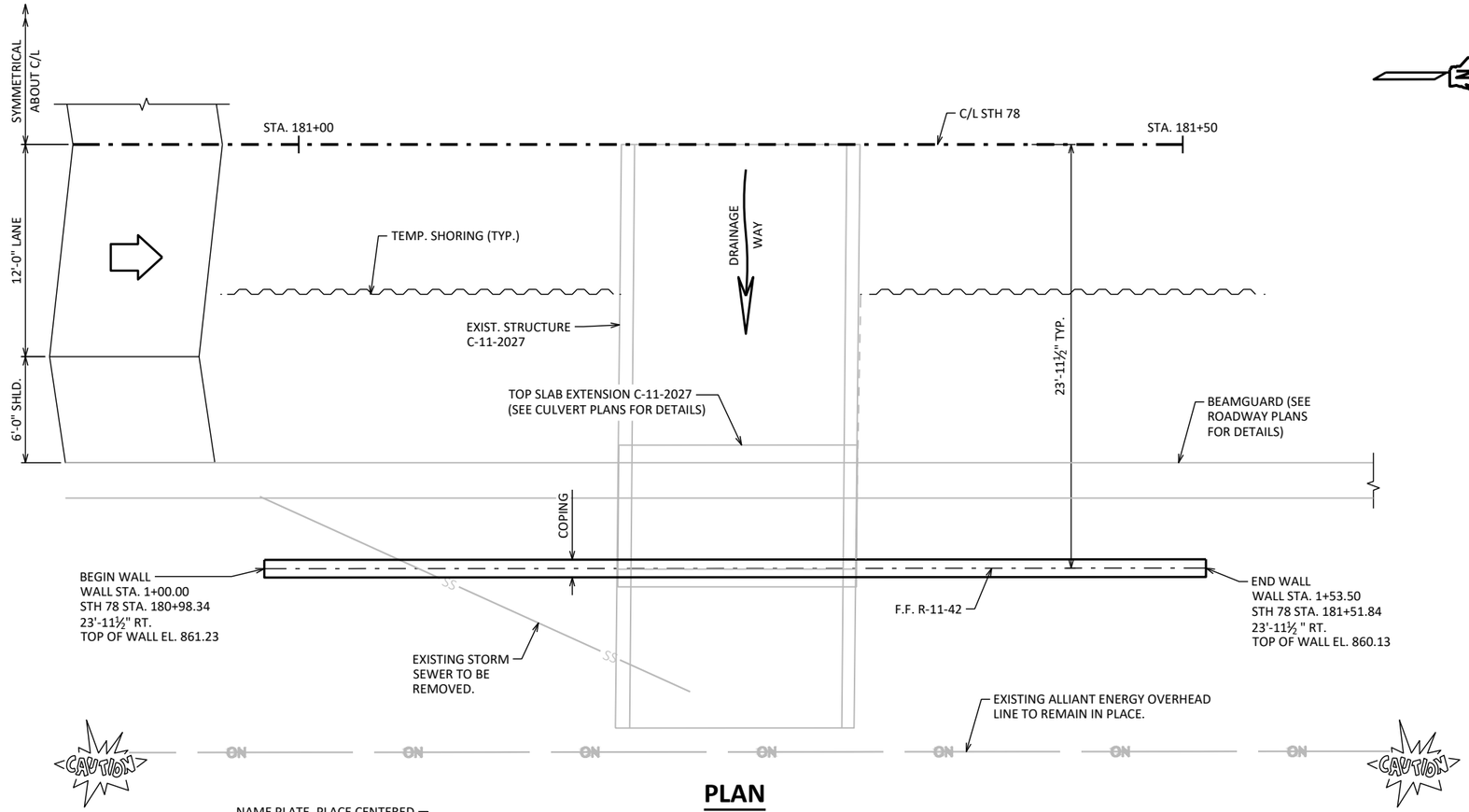
SHEET 7
147

8

8

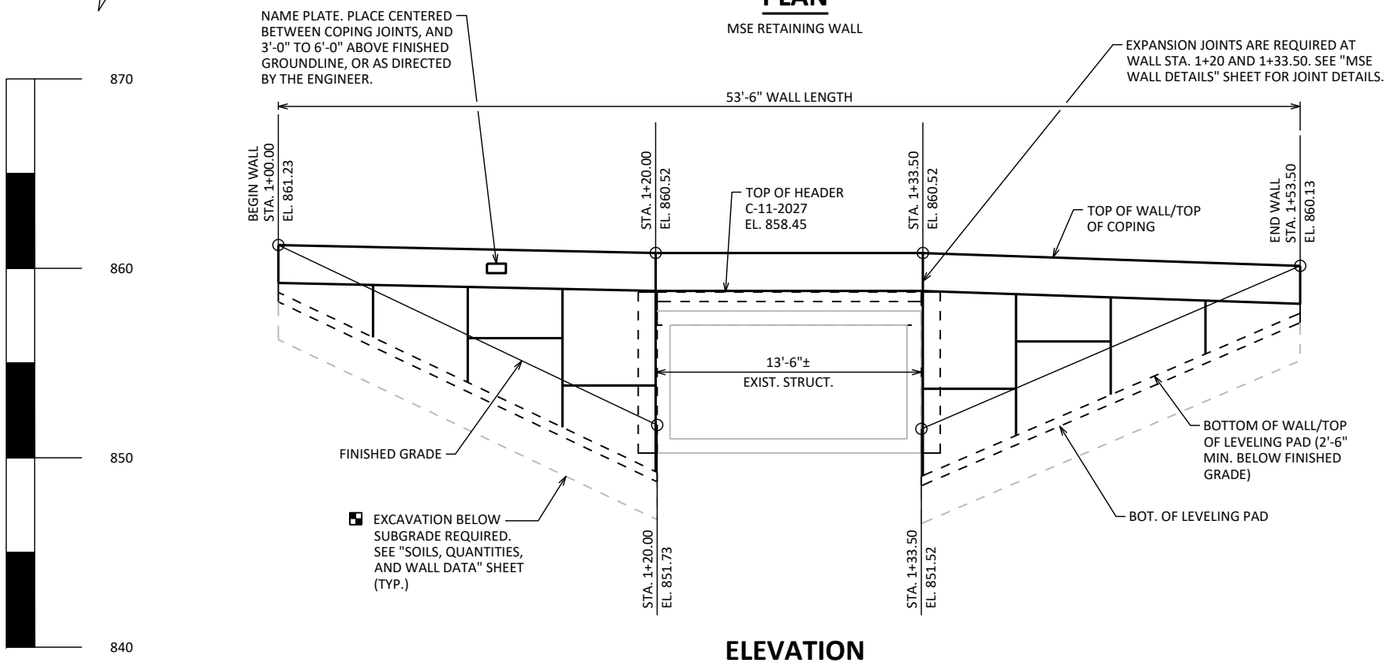
STATE PROJECT NUMBER

5630-06-73



PLAN

MSE RETAINING WALL



ELEVATION

LOOKING WEST AT F.F. OF WALL

DESIGN DATA

THE CONTRACTOR SHALL PROVIDE COMPLETE DESIGN, PLANS, DETAILS, SPECIFICATIONS, AND SHOP DRAWINGS FOR THE RETAINING WALLS IN ACCORDANCE WITH THE SPECIAL PROVISIONS. THE RETAINING WALL MANUFACTURER SHALL PROVIDE TECHNICAL ASSISTANCE TO THE CONTRACTOR DURING CONSTRUCTION. THE COST OF FURNISHING THESE ITEMS SHALL BE INCLUDED IN THE BID ITEM "WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH R-11-42".

PLANS, ELEVATIONS, AND DETAILS SHOWN ON THESE DRAWINGS ARE INTENDED TO INDICATE WALL LOCATIONS, LENGTHS, HEIGHTS, AND DETAILS COMMON TO THE WALL SYSTEM SELECTED. THE CONTRACTOR SHALL VERIFY THAT THE WALL SYSTEM SELECTED WILL CONFORM TO THE REQUIRED ALIGNMENTS AND DETAILS.

THE RETAINING WALL IS TO BE DESIGNED USING THE ELEVATIONS GIVEN ON THE "SOILS, QUANTITIES, AND WALL DATA" SHEET.

DESIGN FOR RETAINING WALL TO PROVIDE FOR FINISHED GRADE SLOPED BEHIND WALL AS SHOWN.

DESIGN RETAINING WALL FOR A LIVE LOAD SURCHARGE OF 240 PSF.

DESIGN RETAINING WALL FOR BEAMGUARD IMPACT FORCE OF 54 KIPS.

THE MAXIMUM VALUE OF THE ANGLE OF INTERNAL FRICTION OF THE WALL BACKFILL MATERIAL IN THE REINFORCED ZONE SHALL BE ASSUMED TO BE 30° WITHOUT CERTIFIED TEST VALUES.

POSTS FOR BEAMGUARD SHALL BE PLACED INTO BLOCKOUTS AND SHALL NOT BE DRILLED INTO THE MSE FILL. COORDINATE PLACEMENT OF BEAMGUARD POSTS WITH MSE REINFORCEMENT.

EXTENTS OF EXCAVATION BELOW SUBGRADE (EBS) SHALL BE DETERMINED BY THE SOILS ENGINEER DURING EXCAVATION. APPROXIMATELY 2 FEET OF EBS ARE EXPECTED.

MATERIAL PROPERTIES:

CONCRETE MASONRY (COPING) ——— f'_c = 3,500 P.S.I.
BAR STEEL REINFORCEMENT, GRADE 60 ——— f_y = 60,000 P.S.I.

ALLOWABLE WALL SYSTEMS

WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH (MSE)

LIST OF DRAWINGS

STRUCTURE DESIGN CONTACTS:

MICAH BROOKS 608-266-5080
KYLE BUSCH 608-267-0465

NO.	DATE	REVISION	BY

BUREAU OF STRUCTURES

ACCEPTED KHB 7/28/25
CHIEF STRUCTURES DESIGN ENGINEER — DATE

STRUCTURE R-11-42

RETAINING WALL OVER E. END OF C-11-2027

COUNTY	TOWN
SAUK	CALEDONIA

DESIGN SPEC.
AASHTO LRFD BRIDGE DESIGN SPECIFICATION

DESIGNED BY	DESIGNED CK'D	DRAWN BY	PLANS CK'D
MWB	SEH	MWB	SEH

GENERAL PLAN

SHEET 1 OF 4
148

SCALE = 8

I.D. 5630-06-03B DATE: FEB. 2024

SOIL PARAMETERS

SOIL DESCRIPTIONS	FRICTION ANGLE (DEGREES)	COHESION (PSF)	UNIT WEIGHT (PCF)
GRANULAR BACKFILL WITHIN THE WALL IN THE REINFORCING ZONE	30	0	120
FILL BEHIND AND BELOW THE REINFORCING ZONE EXISTING EMBANKMENT FILL	30	0	120
BORING R-1			
EBS OF 0.4 FEET OF VERY SOFT CLAY AND 1.6 FEET OF VERY LOOSE TO LOOSE SAND - COMPACTED BREAKER RUN STONE BACKFILL (849.2 FT. - 847.2 FT.)	36	0	140
SAND, FINE TO MEDIUM, BROWN, LITTLE SILT, TRACE TO FEW GRAVEL (847.2 FT. - 836.5 FT.	30	0	110
GRAVEL, FINE TO COARSE, BROWN, SOME SAND, FEW SILT (836.5 FT. - 834.0 FT.	31	0	115
SAND, FINE, TAN, TRACE SILT (834.0 FT - 819.0 FT.)	33	0	115
GRAVEL, FINE TO COARSE, TAN, SOME SAND, TRACE SILT (819.0 FT. - 812.5 FT.)	36	0	130

WALL EXTERNAL & OVERALL STABILITY EVALUATION

DIMENSIONS		
TOTAL WALL HEIGHT (FT) [1]	2.5	11.5 TO 11.6
EXPOSED WALL HEIGHT (FT)	0	9 TO 9.1
LENGTH OF REINFORCEMENT (FT) [2]	8.0	11.5
LENGTH OF REINF./WALL HEIGHT	3.2	1
WALL STATION	0+00 AND 53+94	0+20 AND 0+34
BORING USED	R-1 [6]	R-1 [6]
CAPACITY TO DEMAND RATIO (CDR) [3]		
SLIDING (CDR > 1.0)	2.13	1.59
ECCENTRICITY (CDR > 1.0)	7.1	2.36
GLOBAL STABILITY (CDR > 1.0)	N/A [4]	1.01 [5]
BEARING RESISTANCE (CDR > 1.0)	2.2	1.04
REQUIRED BEARING RESISTANCE (PSF)	2,273	2,926

1. THE TOTAL WALL HEIGHT INCLUDES AN EMBEDMENT OF 2.5 FEET.

2. THE LENGTH OF REINFORCEMENT IS THE MINIMUM REQUIRED LENGTH AT THAT LOCATION.

3. CDR REQUIREMENTS AND LOAD AND RESISTANCE FACTORS ARE PRESENTED IN CHAPTER 14 OF THE BRIDGE MANUAL.

4. N/A = NOT APPLICABLE, GLOBAL SLOPE STABILITY WAS EVALUATED AT THE CRITICAL WALL LOCATION.

5. CIRCULAR FAILURE SURFACE SEARCHED BY BISHOP'S METHOD. CDR FOR GLOBAL STABILITY WAS BASED ON A RESISTANCE FACTOR (φ) OF 0.65.

6. THE ANALYSIS ASSUMES THAT THE TOPSOIL, VERY SOFT LEAN CLAY, AND VERY LOOSE TO LOOSE SAND NOTED IN BORING R-1 ARE REMOVED TO A MINIMUM OF 2 FEET BELOW THE BOTTOM OF THE WALL AND BACKFILLED WITH COMPACTED BREAKER RUN STONE.

STATE PROJECT NUMBER

5630-06-73

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

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

BEVEL EXPOSED EDGES OF CONCRETE ¾" UNLESS OTHERWISE NOTED.

ALL WALL STATIONING AND OFFSETS ARE GIVEN TO THE FRONT FACE OF WALL R-11-42.

THE PLAN QUANTITY FOR THE ITEM "WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH" IS BASED ON A WALL HEIGHT MEASURED FROM THE TOP OF WALL TO A CONSTANT DEPTH OF 2'-6" BELOW FINISHED GRADE.

THE CONCRETE MASONRY & REINFORCING STEEL FOR THE CAST-IN-PLACE COPING ARE PAID FOR UNDER THE ITEM "WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH".

THE BACKFILL BEHIND THE MSE WALL WITH PRECAST CONCRETE FACING SHOULD BE GRANULAR AND FREE DRAINING.

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

THE UTILITY INFORMATION SHOWN ON THESE DRAWINGS CONCERNING TYPE AND LOCATION OF UNDERGROUND UTILITIES IS NOT GUARANTEED TO BE ACCURATE OR ALL-INCLUSIVE. THE CONTRACTOR IS RESPONSIBLE FOR MAKING THEIR OWN DETERMINATION AS TO TYPE AND LOCATION OF UNDERGROUND UTILITIES AS NECESSARY TO AVOID DAMAGE.

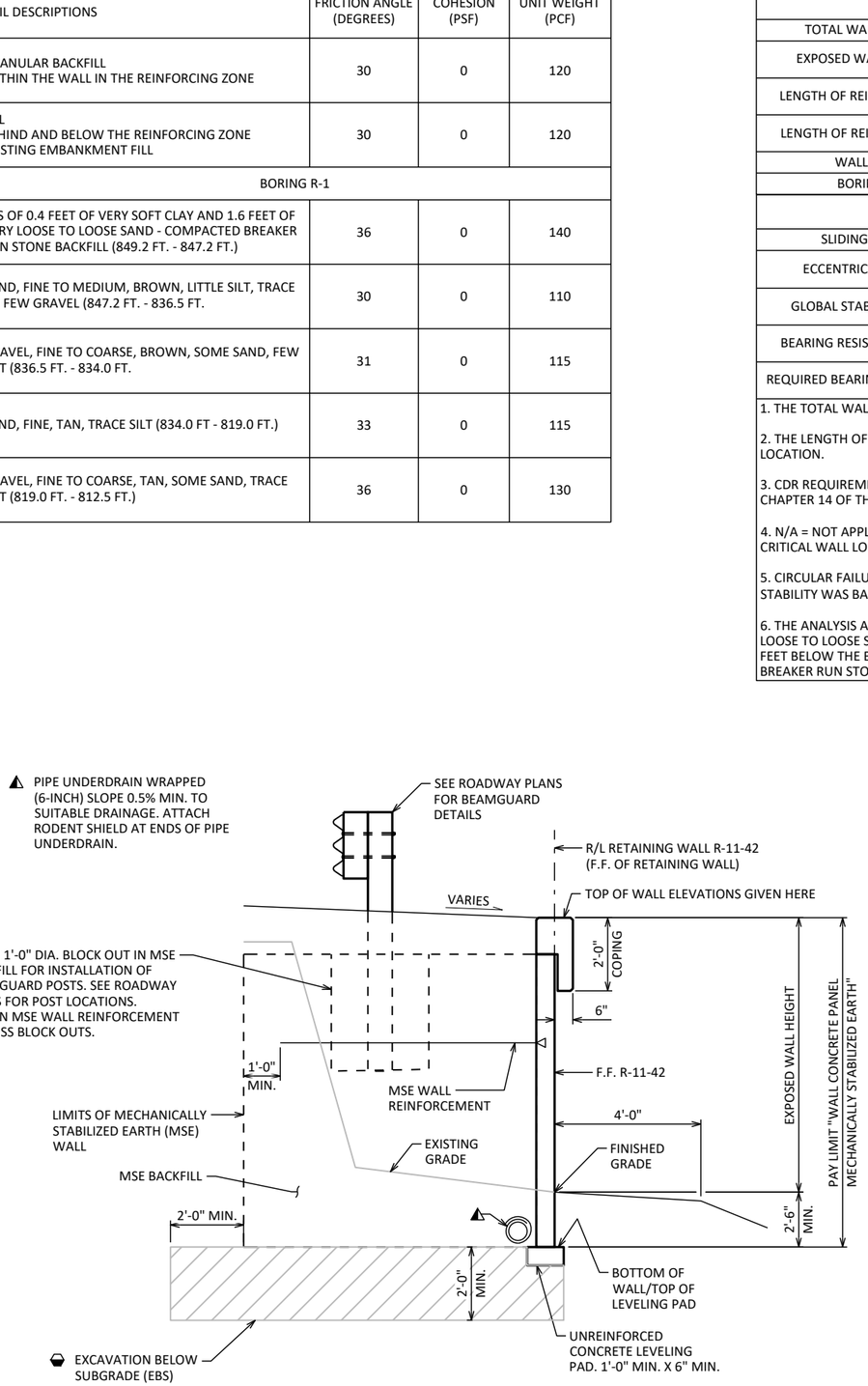
THE CONTRACTOR MUST COORDINATE THE CONSTRUCTION OF RETAINING WALL R-11-42 WITH THE EXTENSION OF C-11-2027.

THE REGION SOILS ENGINEER SHALL REVIEW THE SUBSURFACE CONDITIONS PRIOR TO THE CONSTRUCTION OF THE WALL.

EBS A MINIMUM OF 2'-0" WILL BE REQUIRED BELOW THE BOTTOM OF THE WALL AND A MINIMUM OF 3'-0" BEYOND THE MSE REINFORCING ZONE TO REMOVE THE VERY SOFT LEAN CLAY AND THE VERY LOOSE SAND NOTED IN THE BORING. THE SOILS SHOULD BE EVALUATED BY THE REGION SOILS ENGINEER DURING EXCAVATION AND PRIOR TO BEGINNING NEW CONSTRUCTION TO DETERMINE THE DEPTH AND EXTENT OF EBS. AREAS OF EBS ARE TO BE BACKFILLED WITH COMPACTED BREAKER RUN STONE.

GEOMETRY TABLE

WALL STA.	C/L STH 78 STA.	OFFSET TO F.F. OF WALL	TOP OF WALL EL.	FINISHED GRADE EL.
1+00.00	180+98.34	23.96' RT.	861.23	861.23
1+20.00	181+18.34	23.96' RT.	860.52	851.73
1+33.50	181+31.84	23.96' RT.	860.52	851.52
1+53.50	181+51.84	23.96' RT.	860.13	860.13

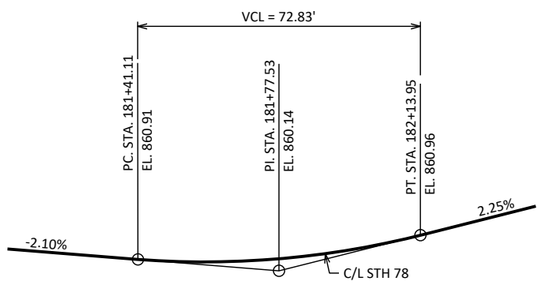


TYPICAL WALL SECTION

WALL STATIONS 1+00 TO 1+20 AND 1+33.94 TO 1+53.94

TOTAL ESTIMATED QUANTITIES

BID ITEM NUMBER	BID ITEMS	UNIT	TOTALS
511.1200	TEMPORARY SHORING R-11-42	SF	200
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	3
612.0406	PIPE UNDERDRAIN WRAPPED 6-INCH	LF	70
SPV.0165	WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH R-11-42	SF	313
	NON-BID ITEMS		
	PRE-FORMED JOINT FILLER	SIZE	¾"
	NON-BITUMINOUS JOINT SEALER		
	EXPANDED POLYSTYRENE	SIZE	1", 1½"
	FILLER	SIZE	½"
	CORK FILLER	SIZE	1"



PROFILE GRADE LINE - STH 78

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE R-11-42

DRAWN BY MWB | PLANS CK'D SEH

SOILS, QUANTITIES, AND WALL DATA

SHEET 2
149

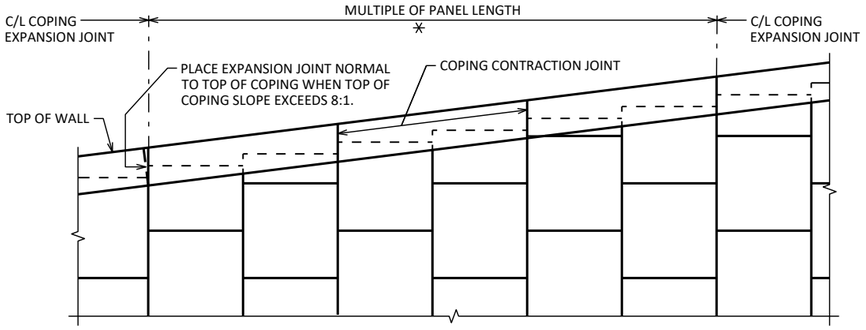
SCALE = 1

8

8

STATE PROJECT NUMBER

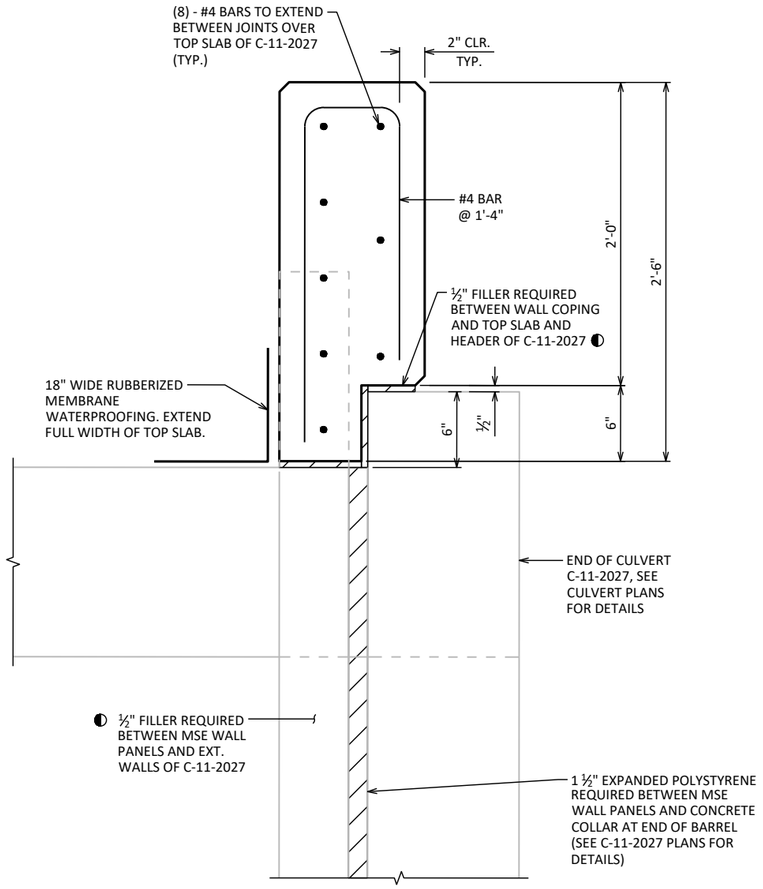
5630-06-73



CAST-IN-PLACE COPING PARTIAL ELEVATION

LOOKING AT F.F. OF WALL

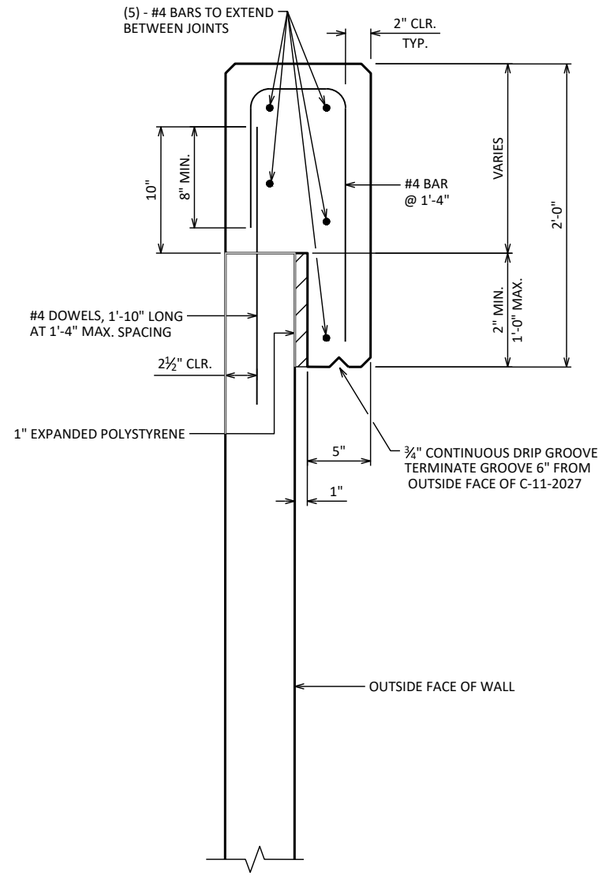
✳ ALL JOINTS MUST COINCIDE WITH A PANEL JOINT ON THE FRONT FACE OF WALL.



CAST-IN-PLACE CONCRETE COPING DETAIL

WALL STATIONS 1+20 TO 1+33.50

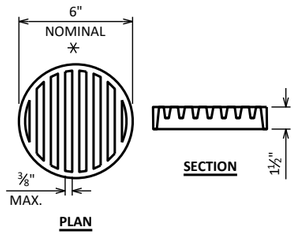
ALL BAR STEEL REINFORCEMENT IN COPING SHALL BE EPOXY COATED



CAST-IN-PLACE CONCRETE COPING DETAIL

WALL STATIONS 1+00 TO 1+20 AND 1+33.50 TO 1+53.50

ALL BAR STEEL REINFORCEMENT IN COPING SHALL BE EPOXY COATED

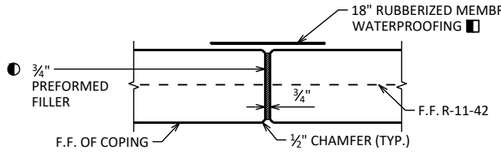


RODENT SHIELD DETAIL

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

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

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



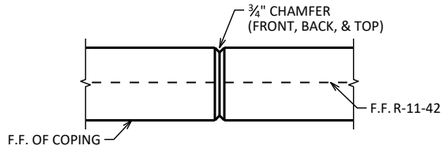
COPING EXPANSION JOINT

DO NOT RUN BAR STEEL THRU JOINT.
MAX. SPACING OF JOINT = 50'-0".

AN EXPANSION JOINT IS REQUIRED AT WALL STA. 1+20.00 AND WALL STA. 1+33.50

◧ MEMBRANE WATERPROOFING TO EXTEND FROM TOP OF COPING TO 6" BELOW TOP OF PANELS.

◐ SEAL ALL EXPOSED HORIZ. & VERT. SURFACES OF FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD ⅛" BELOW SURFACE OF CONCRETE.)



COPING CONTRACTION JOINT

DO NOT RUN BAR STEEL THRU JOINT.
MAX. SPACING OF JOINT = 12'-0".

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE R-11-42

DRAWN BY MWB | PLANS CK'D SEH

MSE WALL DETAILS

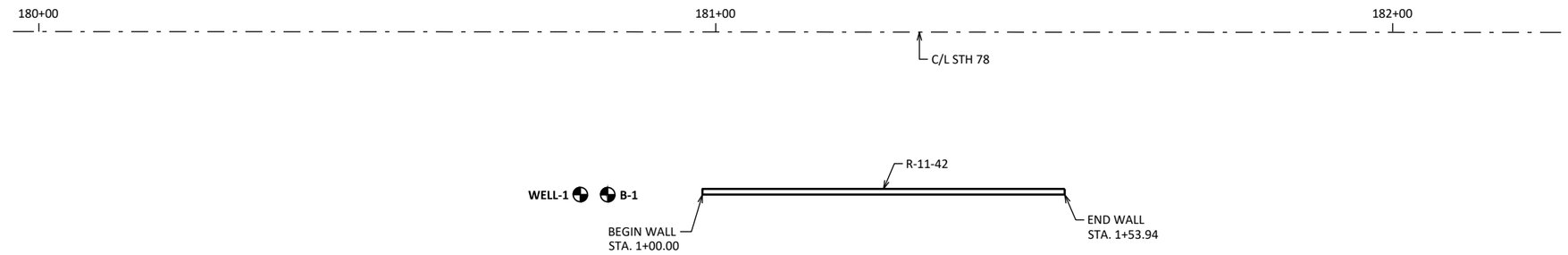
SHEET 3
150

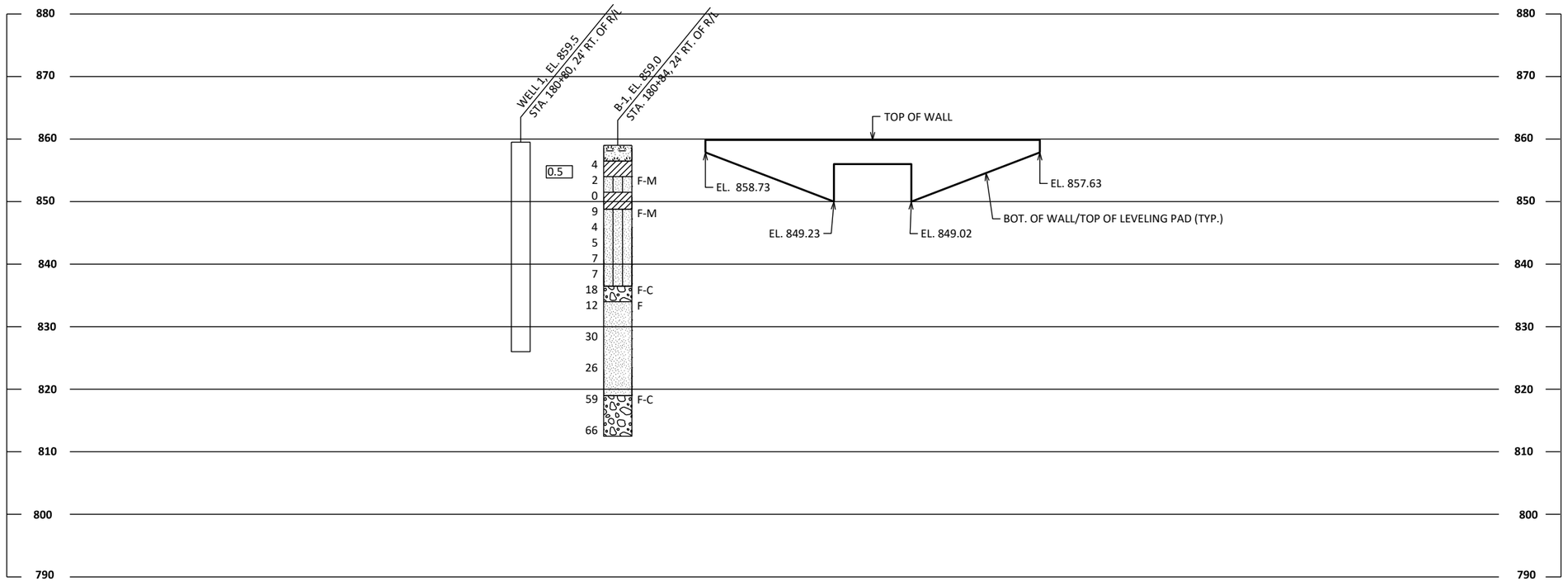
SCALE =

8

8

BORING #	DATE COMPLETED	NORTHING (Y)	EASTING (X)
B-1	04/18/2023	214739.7	688547.6
WELL-1	12/20/2023	214736	688548
BORINGS COMPLETED BY: WISDOT			
REPORT COMPLETED BY: WISDOT			
ALL COORDINATES REFERENCED TO WCCS NAD 83 (91) COLUMBIA COUNTY			
COORDINATES COLLECTED USING NON-SURVEY GRADE EQUIPMENT			





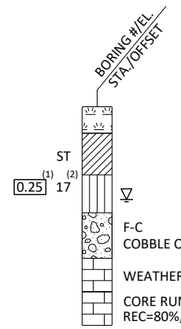
STATE PROJECT NUMBER

5630-06-73

MATERIAL SYMBOLS

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

LEGEND OF BORING



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

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

GROUND WATER ELEVATION

AT TIME OF DRILLING
END OF DRILLING
AFTER DRILLING

ABBREVIATIONS

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

SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

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

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE R-11-42

DRAWN BY TLP/MWB | PLANS CK'D SEH

SUBSURFACE EXPLORATION

SHEET 4
151

8

8

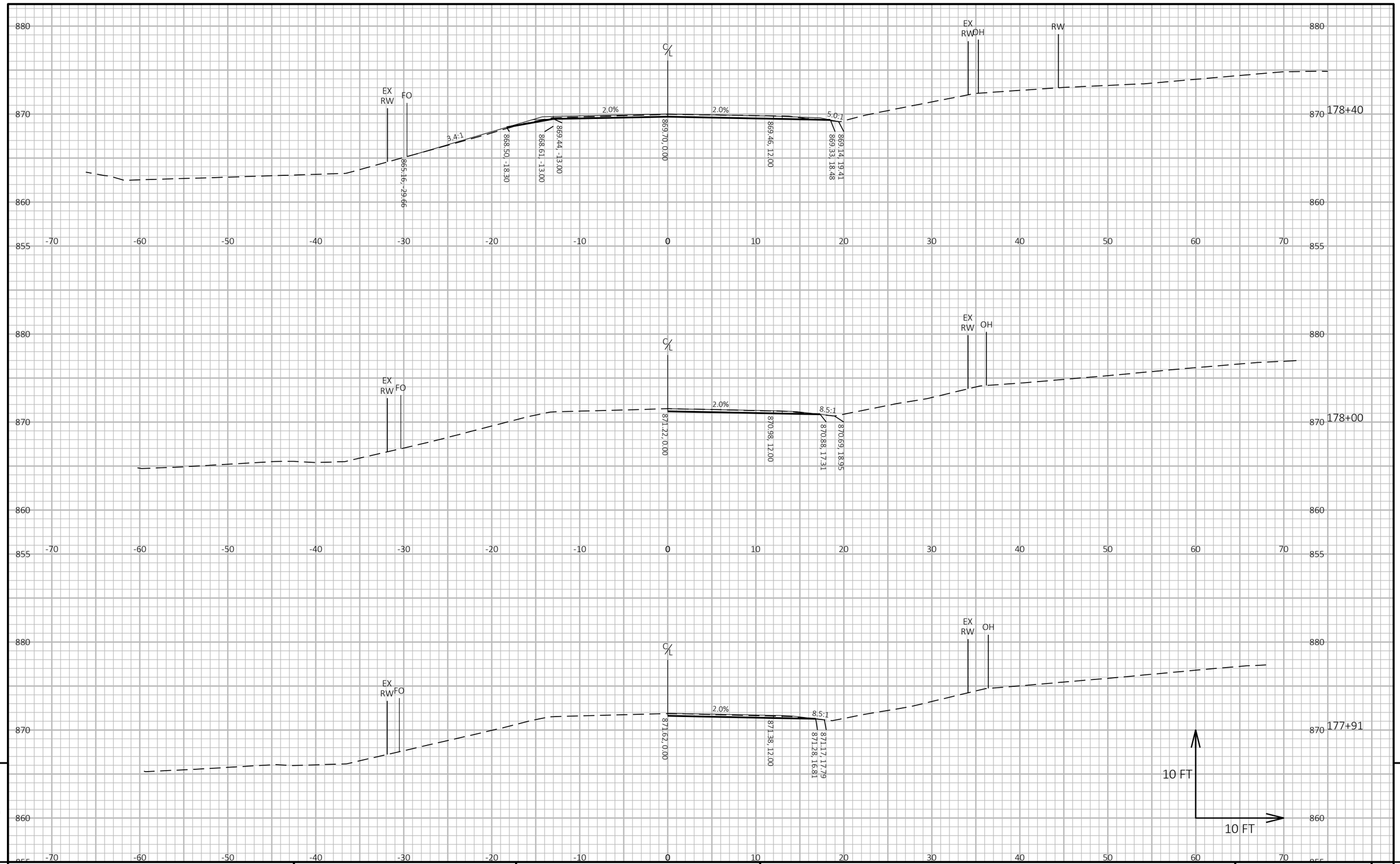
DIVISION	FROM STATION	TO STATION	LOCATION	205.0100 EXCAVATION COMMON (1) CUT (2)	205.0100 EXCAVATION COMMON (1) EBS EXCAVATION (3)	UNEXPANDED FILL	MASS ORDINATE +/- (14)	WASTE	208.0100 BORROW	COMMENT
STH78-ALI	177+90.50	181+17.50	SOUTH OF C-11-2027	300	0	337	-37	300	337	
STH78-ALI	181+17.50	181+51.55	R-11-42	0	140	0	0	0	0	EBS EXCAVATION IS FOR R-11-42
STH78-ALI	181+33.00	184+36.10	NORTH OF C-11-2027	22	0	431	-409	22	431	
			GRAND TOTAL	322	140	768	-446	322	768	
			TOTAL COMMON EXC	462						

NOTES

(1) COMMON EXCAVATION IS THE SUM OF THE CUT AND EBS EXCAVATION COLUMNS. ITEM NUMBER 205.0100
(2) CUT IS ROUNDED TO THE NEAREST 10.
(3) THE EXCAVATION AMOUNT SHOWN DOES NOT INCLUDE EXCAVATION BELOW THE EXISTING PAVEMENT FOR THE CULVERT TRENCH.
(14) THE MASS ORDINATE + OR - QTY CALCULATED FOR THE DIVISION. PLUS QUANTITY INDICATES AN EXCESS OF MATERIAL WITHIN THE DIVISION. MINUS INDICATES A SHORTAGE OF MATERIAL WITHIN THE DIVISION.

STATION	REAL STATION	DISTANCE	AREA (SF) CUT	AREA (SF) FILL	INCREMENTAL VOL (CY) (UNADJUSTED) CUT NOTE 1	INCREMENTAL VOL (CY) (UNADJUSTED) FILL NOTE 3	CUMULATIVE VOL (CY) CUT 1.00 NOTE 1	CUMULATIVE VOL (CY) EXPANDED FILL 1.00	CUMULATIVE VOL (CY) MASS ORDINATE NOTE 8
177+90.50	17790.50	0.00	0.00	0.86	0	0	0	0	0
178+00.00	17800.00	9.50	0.04	0.29	0	0	0	0	0
178+25.00	17825.00	25.00	0.49	0.35	0	0	0	0	0
178+35.63	17835.63	10.63	0.28	2.68	0	1	0	1	-1
178+50.00	17850.00	14.37	4.26	4.88	1	2	1	3	-2
178+75.00	17875.00	25.00	12.65	9.59	8	7	9	10	-1
179+00.00	17900.00	25.00	20.23	28.63	15	18	24	28	-4
179+25.00	17925.00	25.00	40.02	27.44	28	26	52	54	-2
179+38.67	17938.67	13.67	44.55	19.58	21	12	73	66	7
179+50.00	17950.00	11.33	35.71	14.86	17	7	90	73	17
179+75.00	17975.00	25.00	31.42	8.25	31	11	121	84	37
180+00.00	18000.00	25.00	76.98	11.11	50	9	171	93	78
180+25.00	18025.00	25.00	23.09	27.34	46	18	217	111	106
180+50.00	18050.00	25.00	2.98	60.31	12	41	229	152	77
180+75.00	18075.00	25.00	12.75	69.56	7	60	236	212	24
180+98.05	18098.05	23.05	70.91	97.35	36	71	272	283	-11
181+00.00	18100.00	1.95	61.42	49.01	5	5	277	288	-11
181+17.50	18117.50	17.50	8.19	103.44	23	49	300	337	-37
C-11-2027 (STA 181+17.50 TO STA 181+33.00)									
181+33.00	18133.00	0.00	7.59	118.96	0	0	300	337	-37
181+50.00	18150.00	17.00	0.00	71.85	2	60	302	397	-95
181+51.55	18151.55	1.55	0.00	263.03	0	10	302	407	-105
181+75.00	18175.00	23.45	1.15	133.16	0	172	302	579	-277
181+85.17	18185.17	10.17	0.13	125.12	0	49	302	628	-326
181+93.17	18193.17	8.00	0.31	96.85	0	33	302	661	-359
182+00.00	18200.00	6.83	0.33	55.51	0	19	302	680	-378
182+25.00	18225.00	25.00	0.00	29.45	0	39	302	719	-417
182+50.00	18250.00	25.00	4.51	21.25	2	23	304	742	-438
182+75.00	18275.00	25.00	8.97	4.50	6	12	310	754	-444
183+00.00	18300.00	25.00	3.17	5.01	6	4	316	758	-442
183+25.00	18325.00	25.00	1.38	2.53	2	3	318	761	-443
183+50.00	18350.00	25.00	1.76	1.15	1	2	319	763	-444
183+75.00	18375.00	25.00	1.62	1.05	2	1	321	764	-443
184+00.00	18400.00	25.00	0.11	1.90	1	1	322	765	-443
184+25.00	18425.00	25.00	0.00	2.37	0	2	322	767	-445
184+36.10	18436.10	11.10	0.00	2.05	0	1	322	768	-446

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

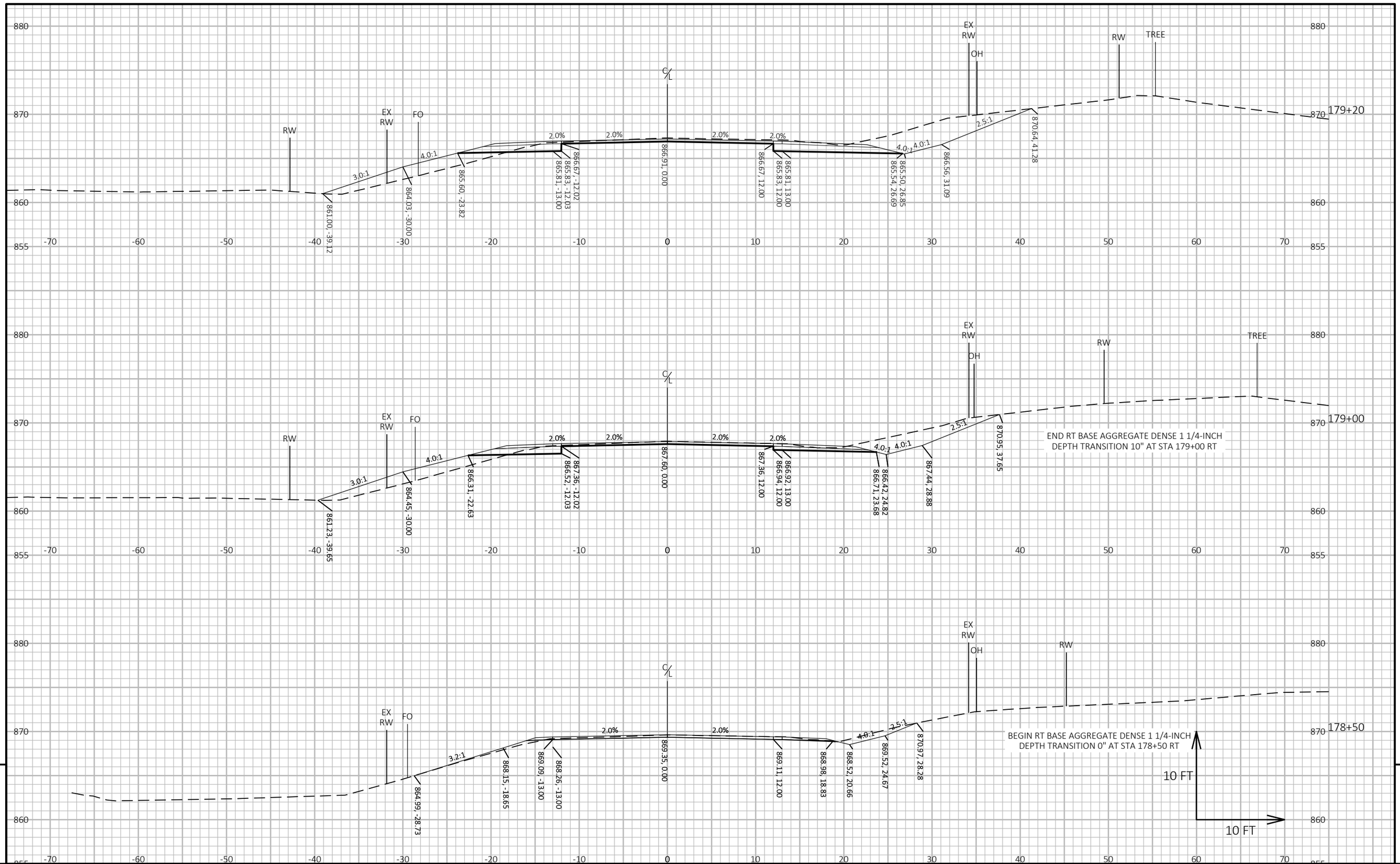


PROJECT NO: 5630-06-73	HWY: STH 78	COUNTY: SAUK	CROSS SECTIONS: BOX CULVERT C-11-2027	SHEET 153	E

FILE NAME : \\FIWMAD7P3158\N3PUBLIC\PDS\C3D\56300603\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 01

PLOT DATE : 7/14/2025 4:10 PM PLOT BY : KENDALL, EMILY ANN PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



9

9

PROJECT NO: 5630-06-73	HWY: STH 78	COUNTY: SAUK	CROSS SECTIONS: BOX CULVERT C-11-2027	SHEET 154	E

FILE NAME : \\FIWMAD7P3158\N3PUBLIC\PDS\C3D\56300603\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 02

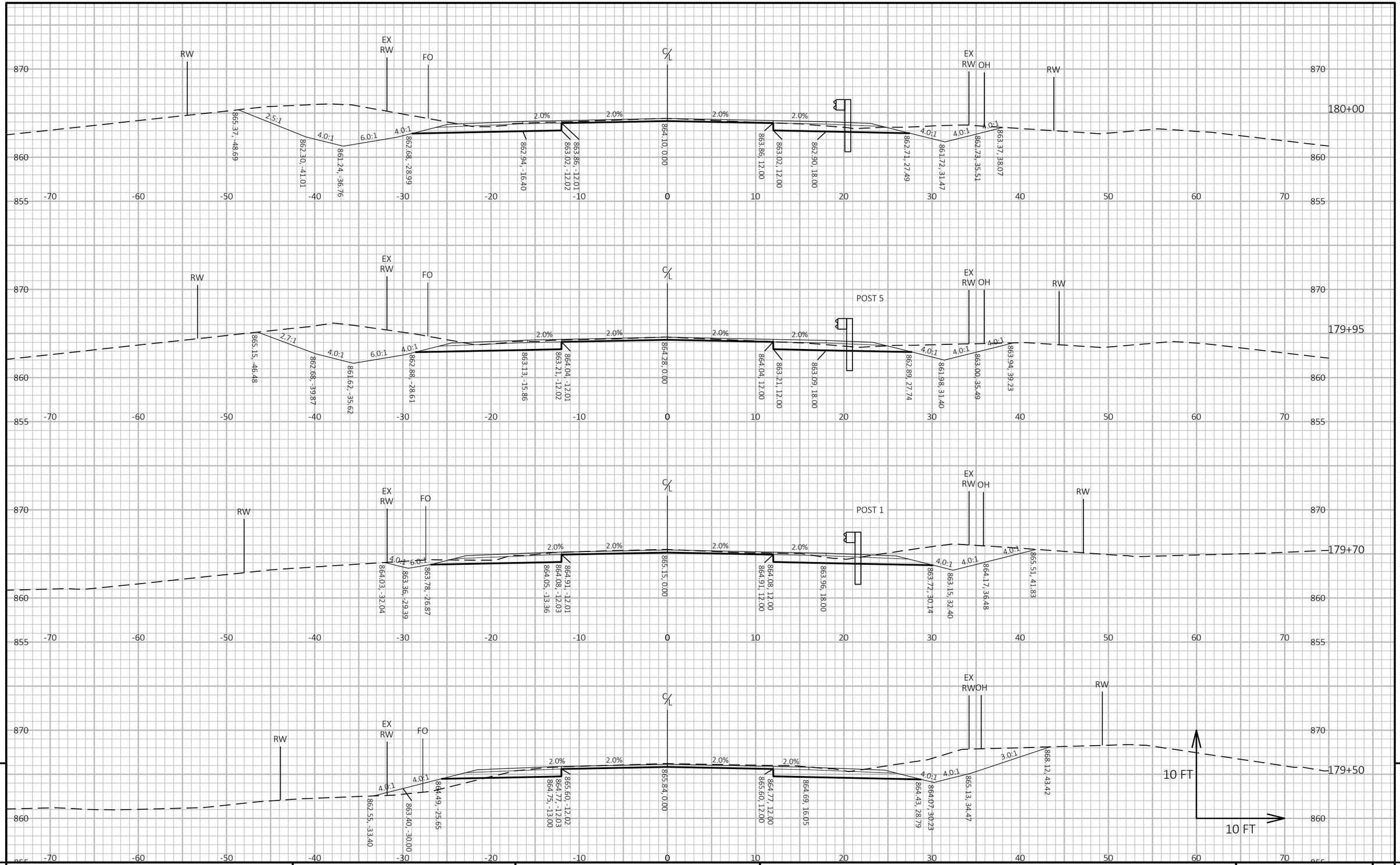
PLOT DATE : 7/14/2025 4:10 PM

PLOT BY : KENDALL, EMILY ANN

PLOT NAME :

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

WISDOT/CADDS SHEET 49



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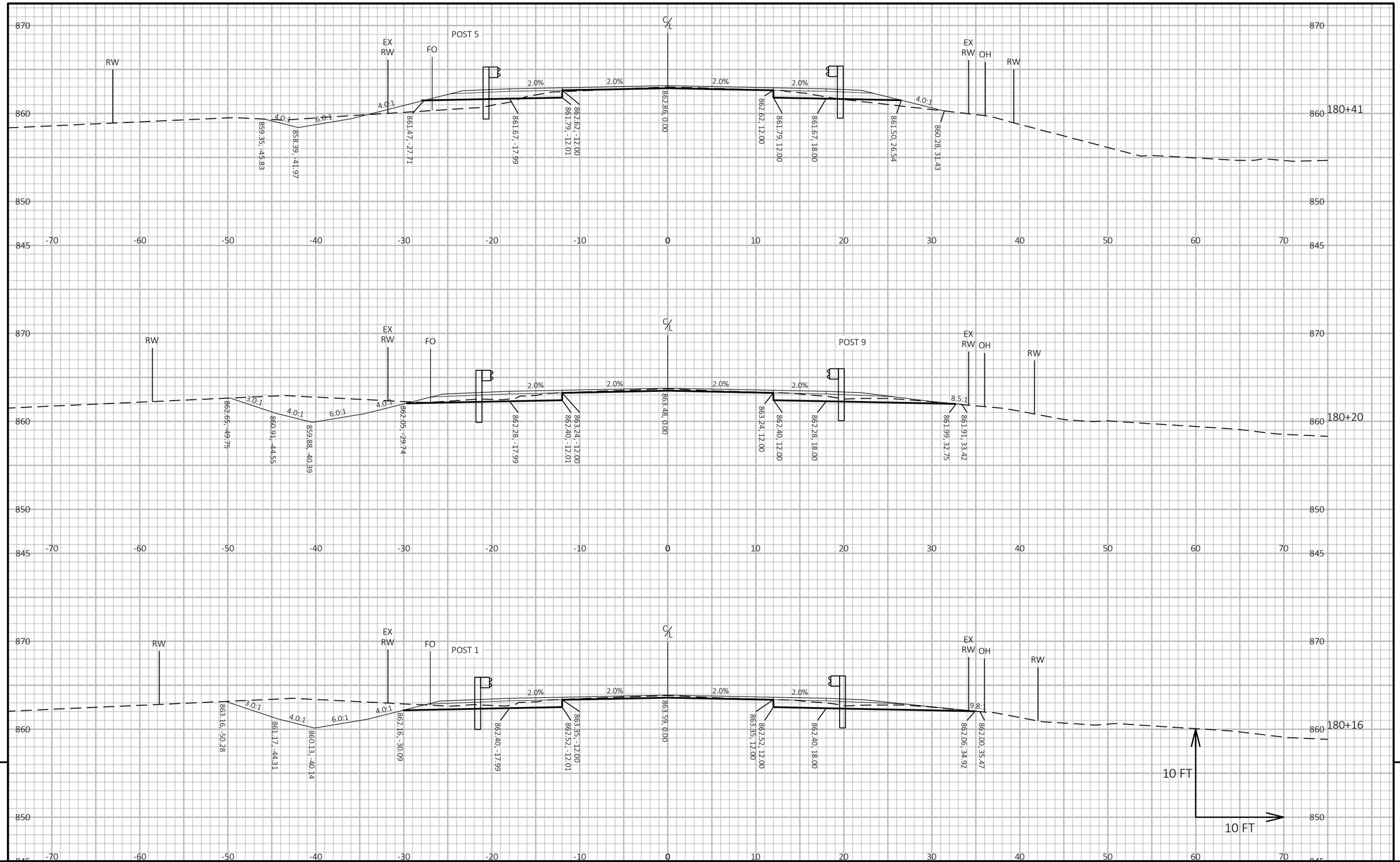
9

PROJECT NO: 5630-06-73	HWY: STH 78	COUNTY: SAUK	CROSS SECTIONS: BOX CULVERT C-11-2027	SHEET 155	E

FILE NAME : \\FIWMAD7P3158\N3PUBLIC\PDS\C3D\56300603\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 03

PLOT DATE : 7/14/2025 4:10 PM PLOT BY : KENDALL, EMILY ANN PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

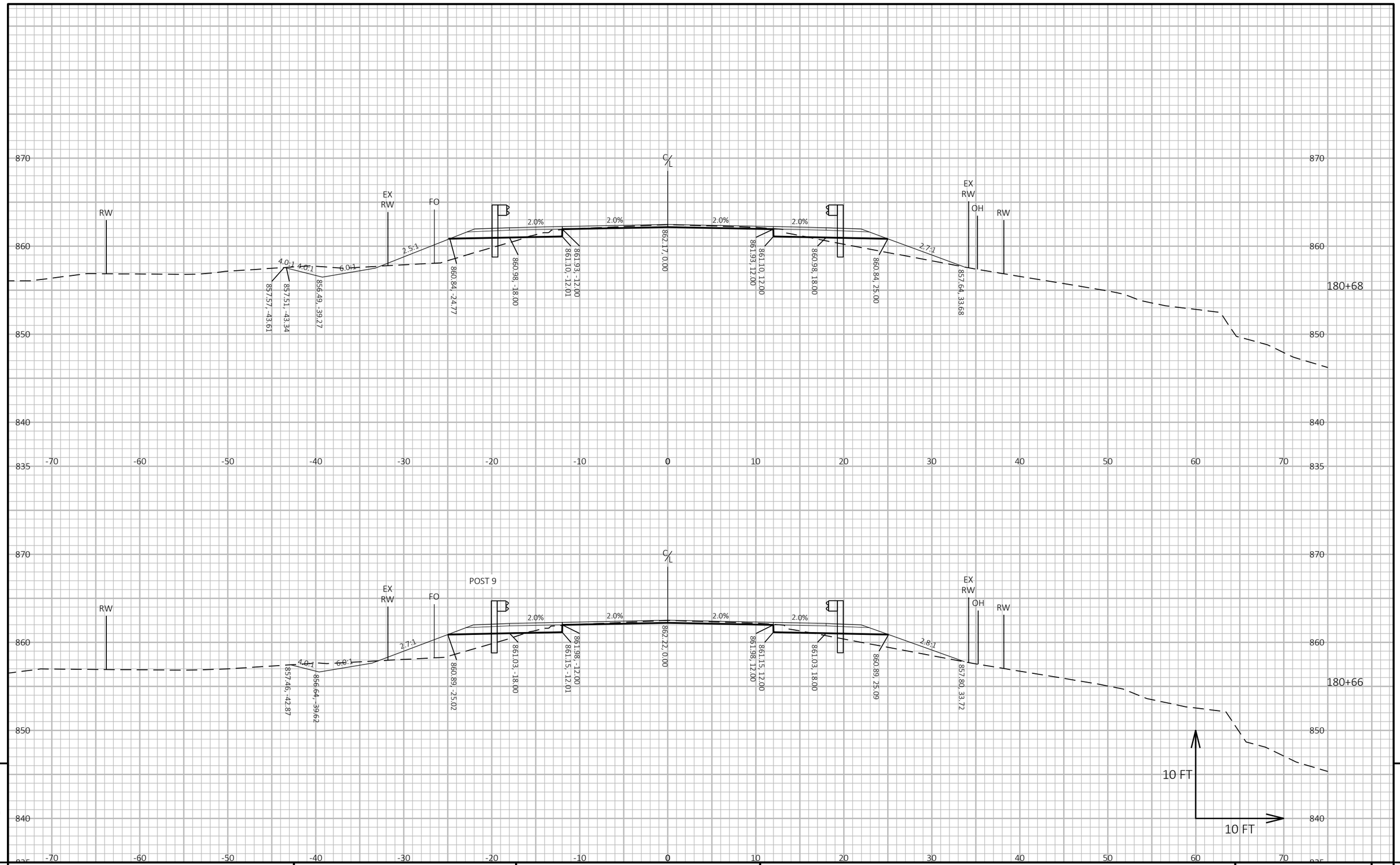


PROJECT NO: 5630-06-73	HWY: STH 78	COUNTY: SAUK	CROSS SECTIONS: BOX CULVERT C-11-2027	SHEET 156	E

FILE NAME : \\FIWMAD7P3158\N3PUBLIC\PDS\C3D\56300603\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 04

PLOT DATE : 7/14/2025 4:10 PM PLOT BY : KENDALL, EMILY ANN PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



9

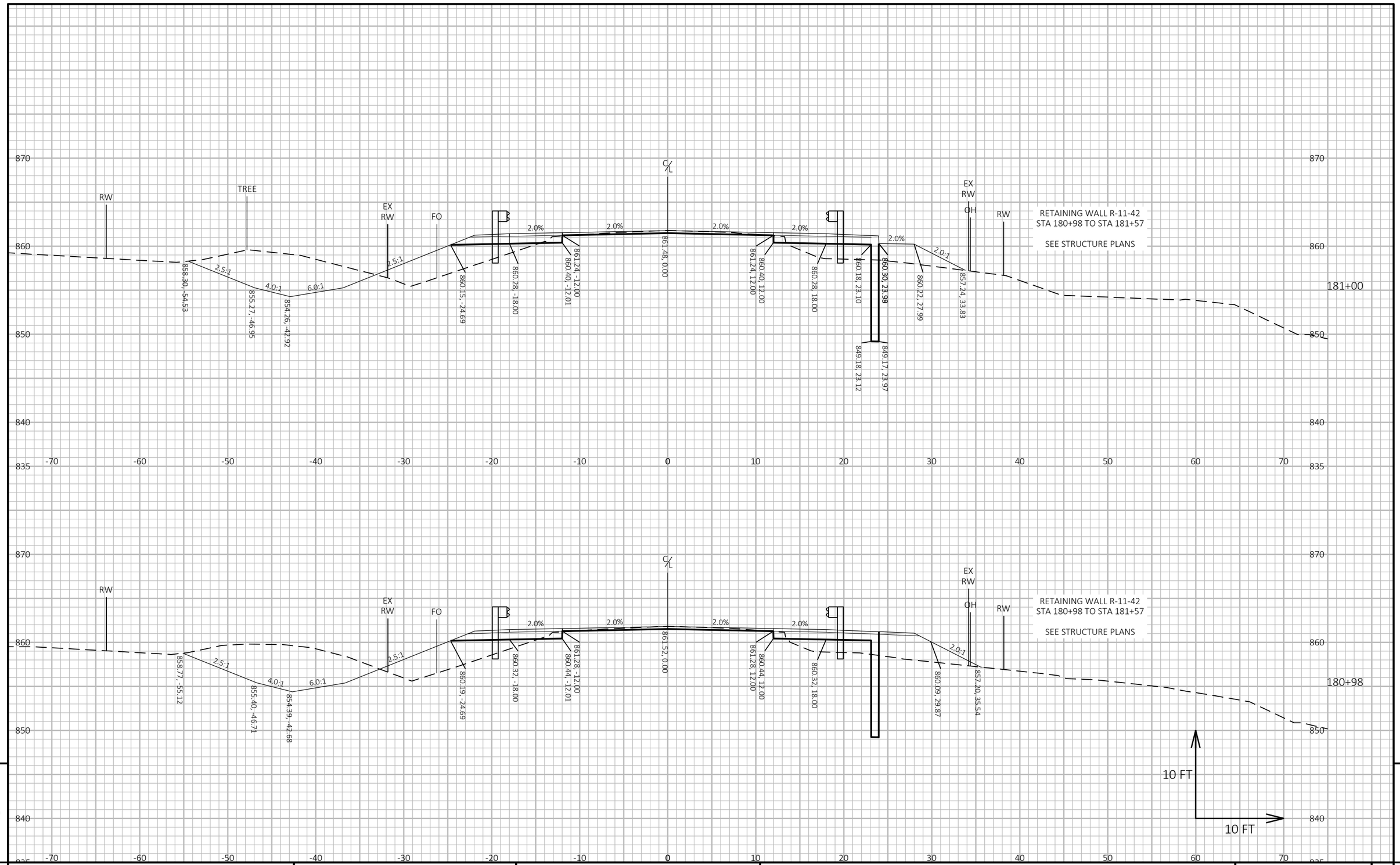
9

PROJECT NO: 5630-06-73	HWY: STH 78	COUNTY: SAUK	CROSS SECTIONS: BOX CULVERT C-11-2027	SHEET 157	E

FILE NAME : \\FIWMAD7P3158\N3PUBLIC\PDS\C3D\56300603\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 05

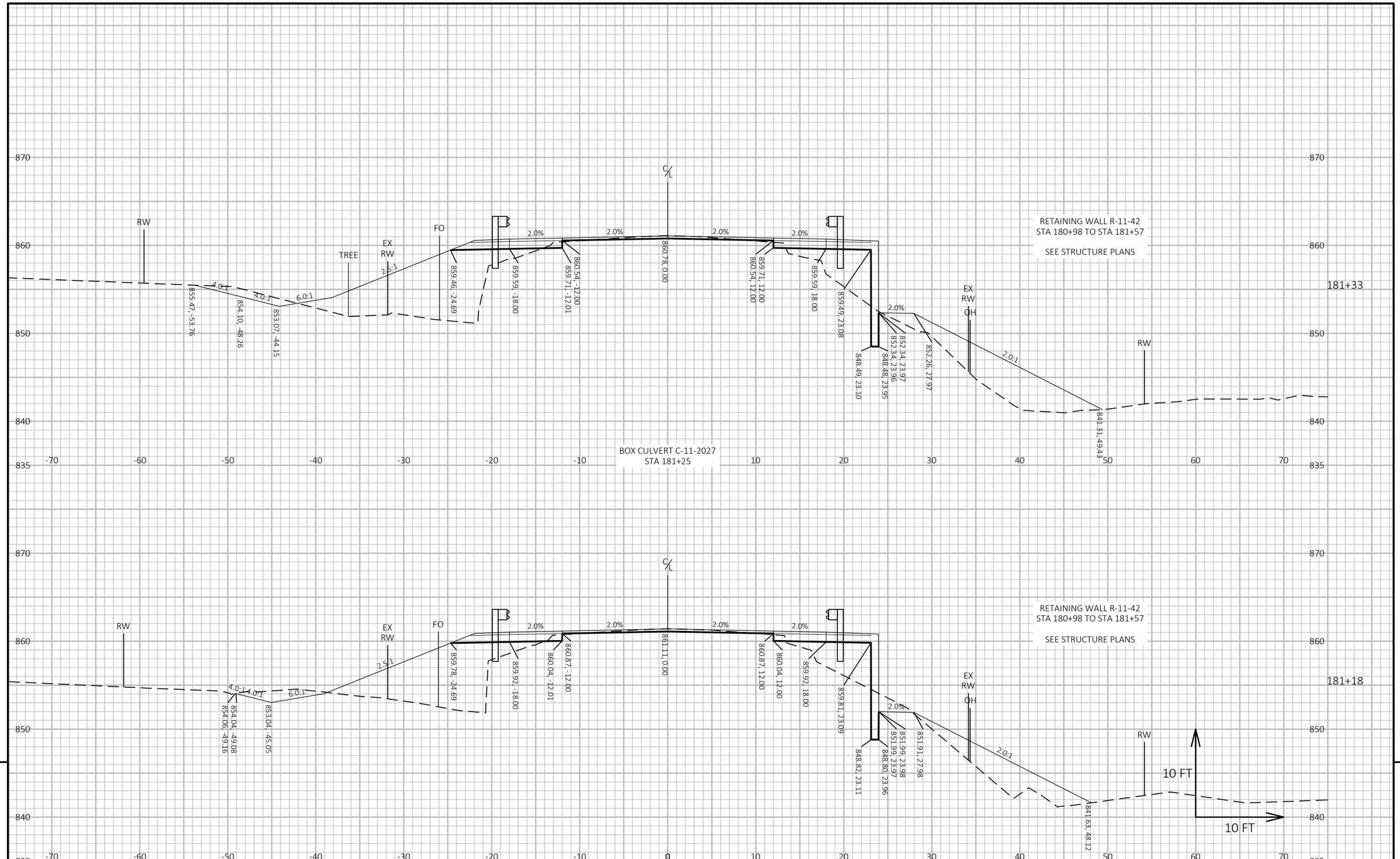
PLOT DATE : 7/14/2025 4:10 PM PLOT BY : KENDALL, EMILY ANN PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



PROJECT NO: 5630-06-73	HWY: STH 78	COUNTY: SAUK	CROSS SECTIONS: BOX CULVERT C-11-2027	SHEET 158	E

FILE NAME : \\FIWMAD7P3158\N3PUBLIC\PDS\C3D\56300603\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 06
PLOT DATE : 7/14/2025 4:10 PM
PLOT BY : KENDALL, EMILY ANN
PLOT NAME :
PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.
WISDOT/CADDS SHEET 49

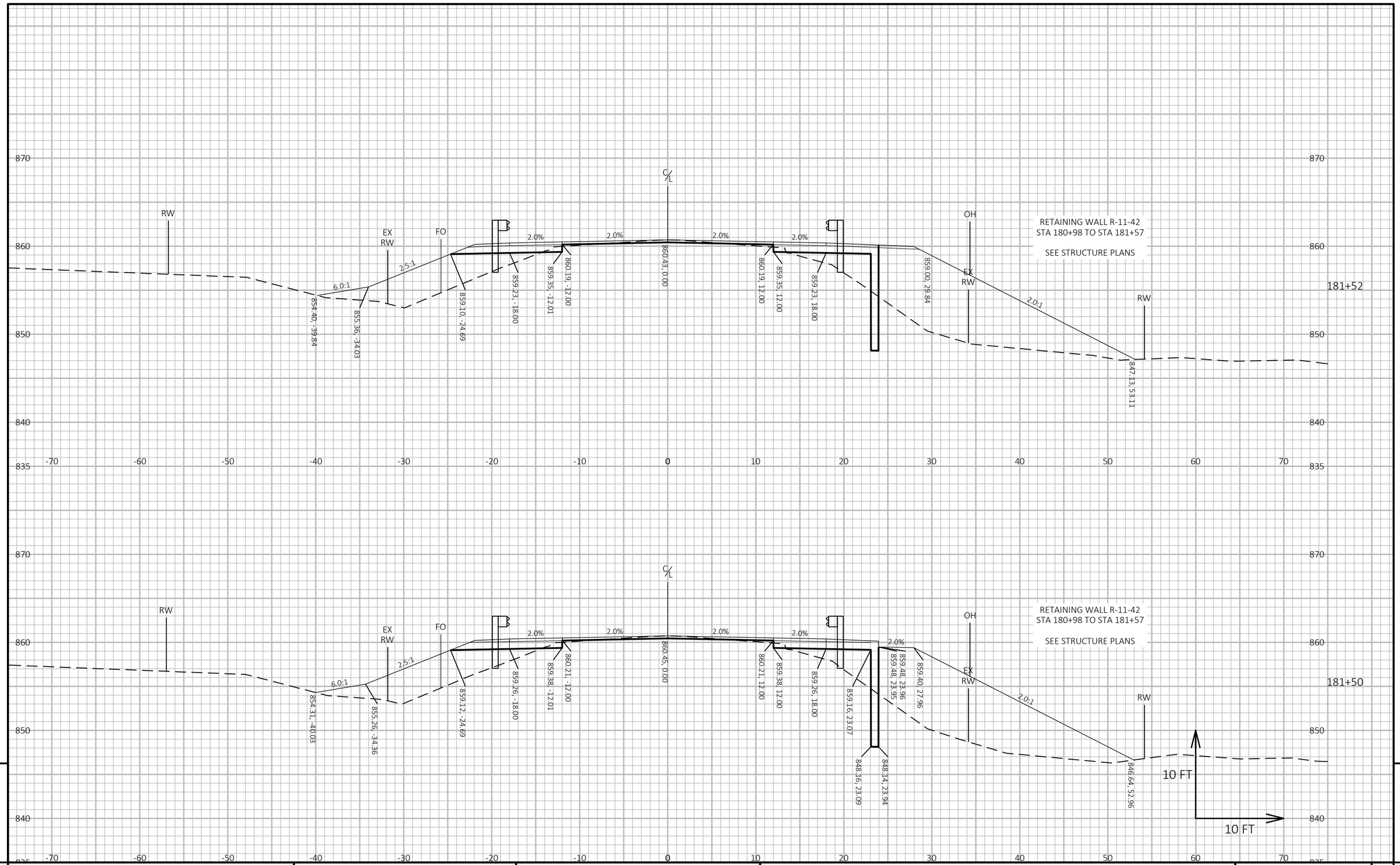


PROJECT NO: 5630-06-73	HWY: STH 78	COUNTY: SAUK	CROSS SECTIONS: BOX CULVERT C-11-2027	SHEET 159	E

FILE NAME : \\FIWMAD7P3158\N3PUBLIC\PDS\C3D\56300603\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 07

PLOT DATE : 7/14/2025 4:10 PM PLOT BY : KENDALL, EMILY ANN PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

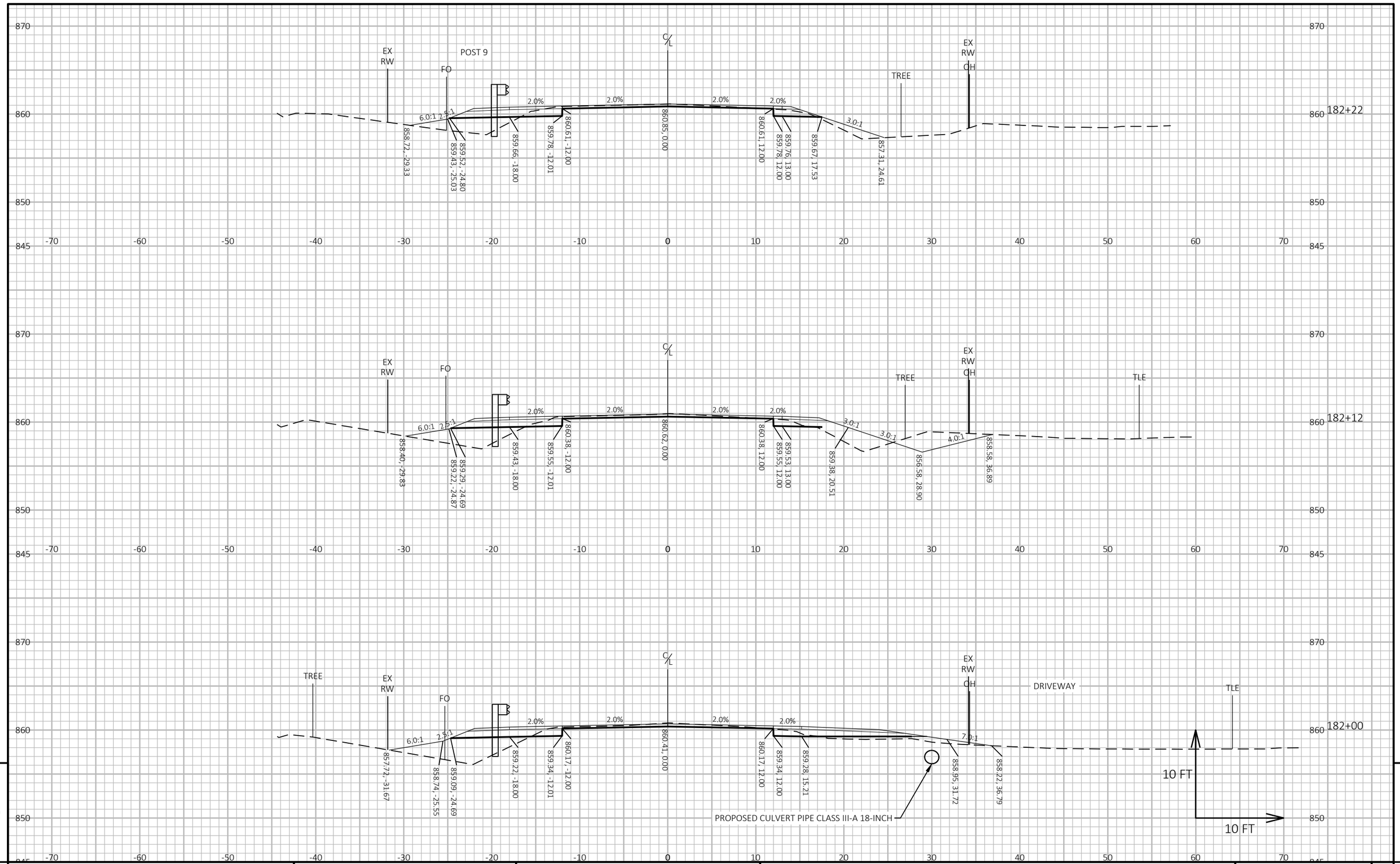


PROJECT NO: 5630-06-73	HWY: STH 78	COUNTY: SAUK	CROSS SECTIONS: BOX CULVERT C-11-2027	SHEET 160	E

FILE NAME : \\FIWMAD7P3158\N3PUBLIC\PDS\C3D\56300603\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 08

PLOT DATE : 7/14/2025 4:10 PM PLOT BY : KENDALL, EMILY ANN PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



9

9

PROJECT NO: 5630-06-73	HWY: STH 78	COUNTY: SAUK	CROSS SECTIONS: BOX CULVERT C-11-2027	SHEET 161	E

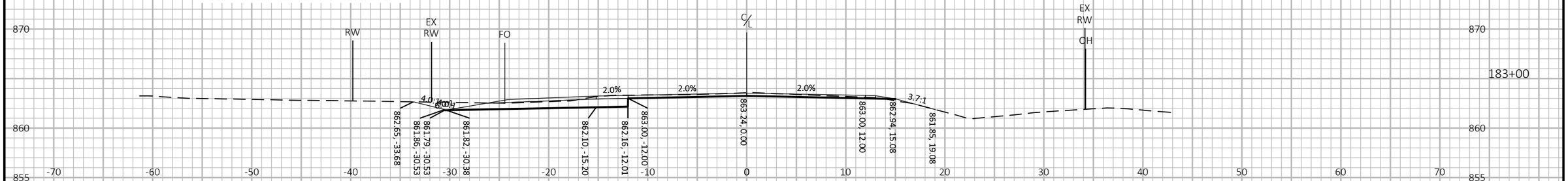
FILE NAME : \\FIWMAD7P3158\N3PUBLIC\PDS\C3D\56300603\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 09

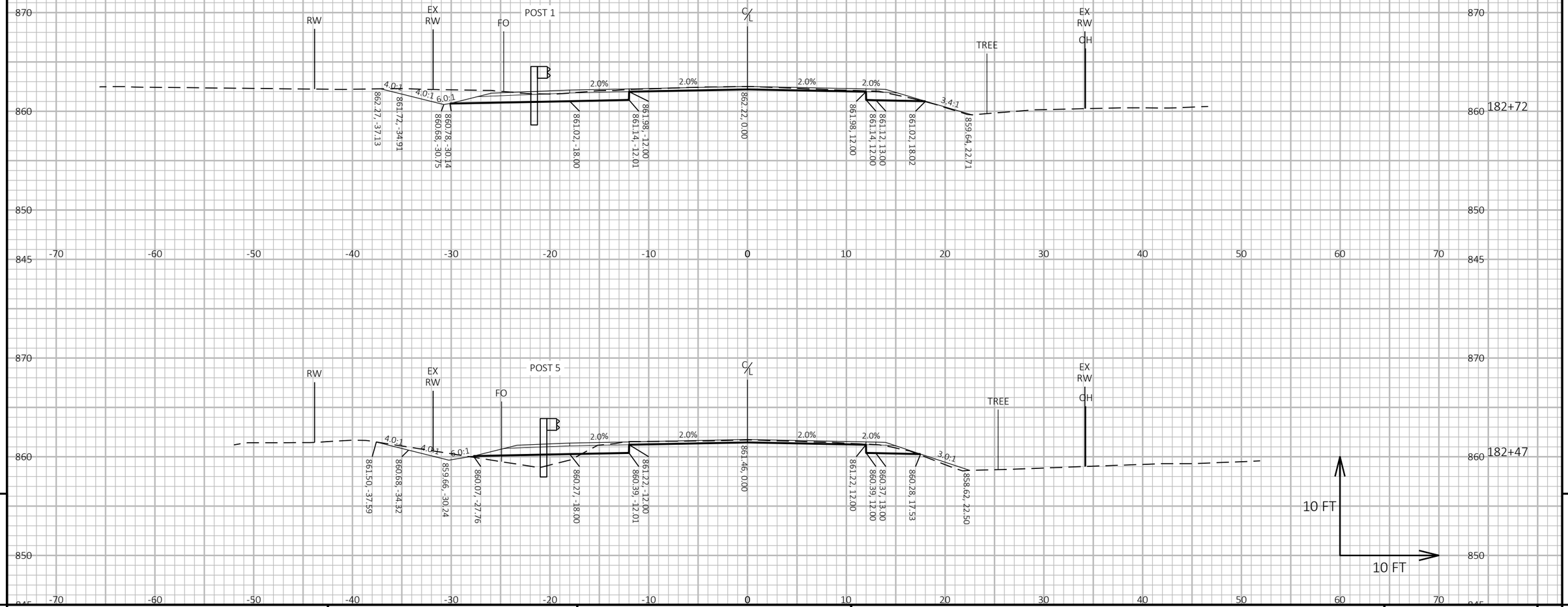
PLOT DATE : 7/14/2025 4:10 PM PLOT BY : KENDALL, EMILY ANN PLOT NAME :

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

WISDOT/CADDS SHEET 49

BEGIN LT BASE AGGREGATE DENSE 1 1/4-INCH
DEPTH TRANSITION 10" AT STA 183+00 LT





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9

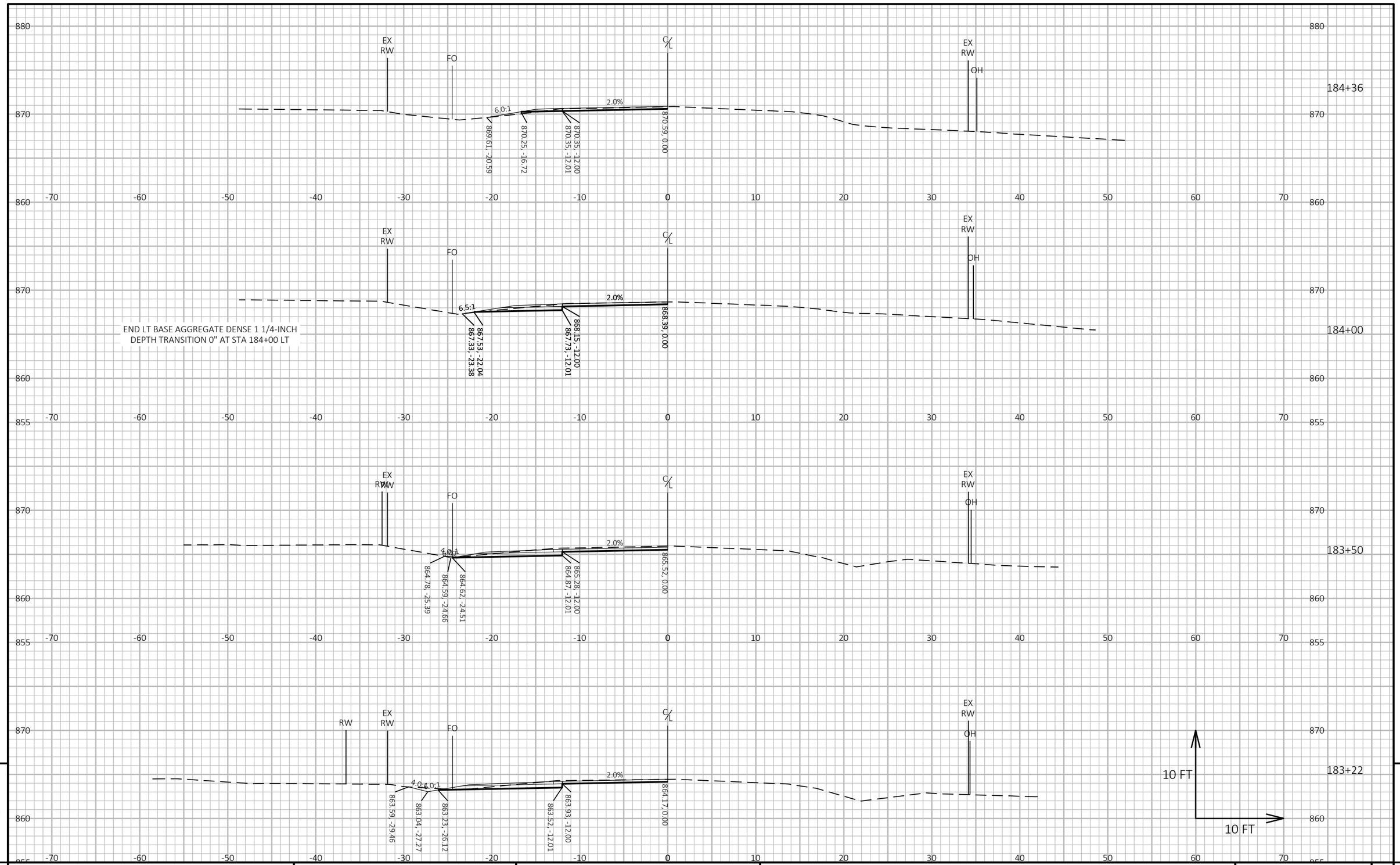
PROJECT NO: 5630-06-73	HWY: STH 78	COUNTY: SAUK	CROSS SECTIONS: BOX CULVERT C-11-2027	SHEET 162	E

FILE NAME : \\FIWMAD7P3158\N3PUBLIC\PDS\C3D\56300603\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 10

PLOT DATE : 7/14/2025 4:10 PM PLOT BY : KENDALL, EMILY ANN PLOT NAME :

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

WISDOT/CADDS SHEET 49



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PROJECT NO: 5630-06-73	HWY: STH 78	COUNTY: SAUK	CROSS SECTIONS: BOX CULVERT C-11-2027	SHEET 163	E

FILE NAME : \\FIWMAD7P3158\N3PUBLIC\PDS\C3D\56300603\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 11

PLOT DATE : 7/14/2025 4:10 PM

PLOT BY : KENDALL, EMILY ANN

PLOT NAME :

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

WISDOT/CADDS SHEET 49

Wisconsin Department of Transportation

Dedicated people creating transportation solutions
through innovation and exceptional service.

http://www.dot.wisconsin.gov

MAD

PROJECT ID: 5630-06-73

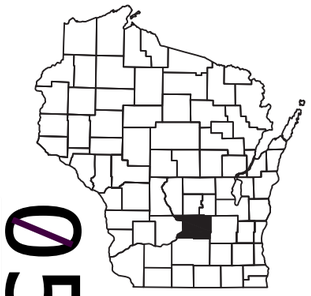
5630-06-80

COUNTY: **COLUMBIA**

NOVEMBER 2025

ORDER OF SHEETS

TOTAL SHEETS = 82



05

N

DESIGN DESIGNATION

A.A.D.T.	2026	=	1600
A.A.D.T.	2046	=	1700
D.H.V.		=	12.9
D.D.		=	60/40
T.		=	18.4%
DESIGN SPEED		=	55 MPH
ESALS		=	570,000

CONVENTIONAL SYMBOLS

PLAN

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

PROFILE

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

UTILITIES

- ELECTRIC (E)
- FIBER OPTIC (FO)
- GAS (G)
- 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

SAUK CITY - IH 39

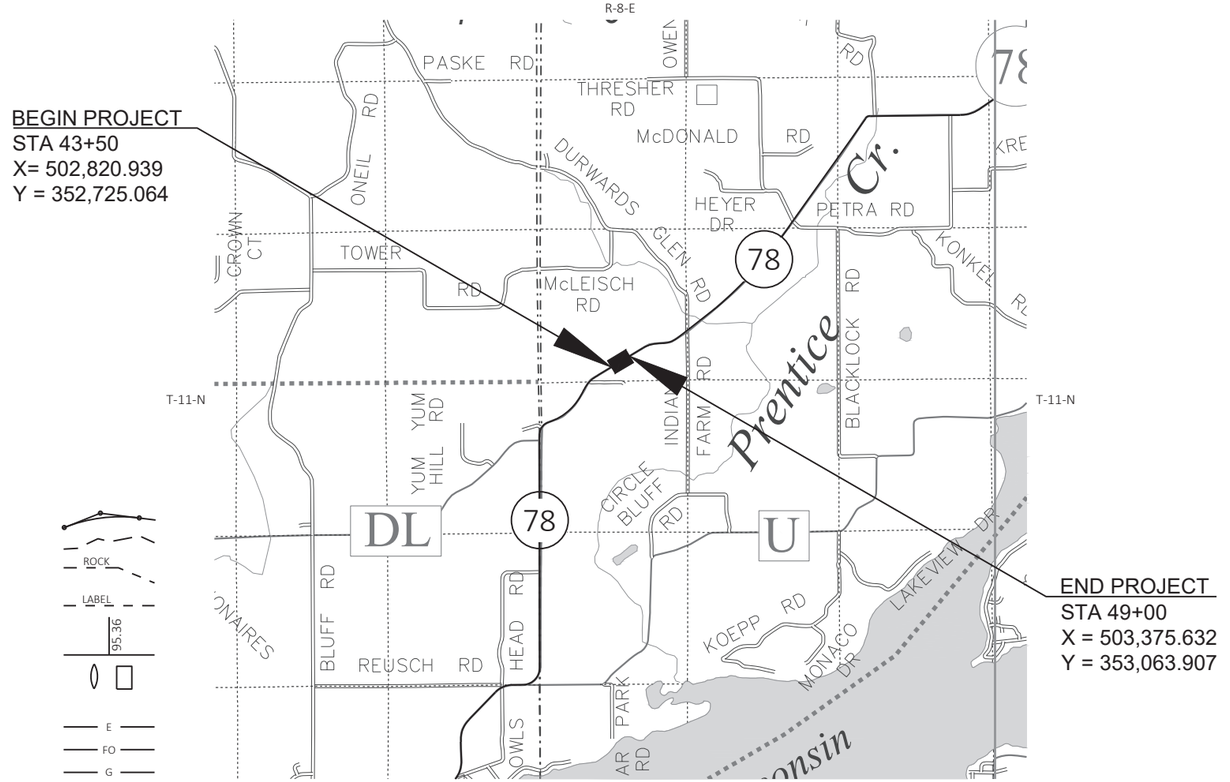
BOX CULVERT C-11-3005

STH 78

COLUMBIA

STATE PROJECT NUMBER
5630-06-80

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
5630-06-80	WISC 2026062	1



BEGIN PROJECT
STA 43+50
X= 502,820.939
Y = 352,725.064

END PROJECT
STA 49+00
X = 503,375.632
Y = 353,063.907

LAYOUT

SCALE 0 1 MI

TOTAL NET LENGTH OF CENTERLINE = 0.104 MI

HORIZONTAL POSITIONS SHOWN ON THIS PLAN ARE WISCONSIN COORDINATE REFERENCE SYSTEM (WISCRS), COLUMBIA 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 18.

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor	MSA PROFESSIONAL SERVICES
Designer	EMILY KENDALL, PE
Project Manager	JOSHUA KOEBERNICK, PE
Regional Examiner	SW REGION
Regional Supervisor	MARC SCHWEIGER, PE

APPROVED FOR THE DEPARTMENT

DATE: 9/24/2025 Joshua Koebernick P.E. (Signature)

E

FILE NAME : \\FIWMAD7P3158\N3PUBLIC\PDS\C3D\56300600\SHEETSPLAN\010101-TI.DWG PLOT DATE : 9/22/2025 3:00 PM PLOT BY : KENDALL, EMILY ANN PLOT NAME :

UTILITIES CONTACTS

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COMMUNICATION LINE
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ORDER OF SECTION 2 DETAIL SHEETS

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VILLAGE OF MERRIMAC

JUSTIN SCHULTZ
DIRECTOR OF PUBLIC WORKS
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PHONE: (608) 493-2122
EMAIL: PUBLICWORKS@MERRIMACWI.GOV

GENERAL NOTES

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

APPLY TACK COAT AT A RATE OF 0.05 GAL/SY BETWEEN LAYERS OF HMA PAVEMENT.

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

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

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

THE CONTRACTOR IS TO WORK WITH UTMOST CARE AND PROTECT ALL SURVEY MARKERS. REMOVAL OF ANY SURVEY MARKER IS TO BE WITH THE APPROVAL OF THE ENGINEER.

WHEN THE QUANTITY OF THE ITEMS OF BASE AGGREGATE, SUBBASE OR HMA PAVEMENT IS MEASURED FOR PAYMENT BY THE TON OR CUBIC YARD, THE DEPTH OR THICKNESS OF THE LAYERS SHOWN ON THE PLAN IS APPROXIMATE AND THE ACTUAL THICKNESS WILL DEPEND ON THE DISTRIBUTION OF THE MATERIAL AS DIRECTED BY THE ENGINEER.

PRIOR TO PLACING THE NEW BASE AGGREGATE DENSE COURSE OR PAVED SHOULDERS EXISTING UNCOMPACTED SHOULDER MATERIAL SHALL BE REMOVED OR DEPOSITED ON THE OUTER PORTION OF THE EXISTING SHOULDER OR AS DIRECTED BY THE ENGINEER.

THE EXACT LOCATION AND WIDTH OF DRIVEWAYS SHALL BE DETERMINED BY THE ENGINEER IN THE FIELD. DRIVEWAYS SHALL BE REPLACED IN KIND.

EROSION CONTROL FEATURES AS SHOWN IN THE PLANS ARE AT APPROXIMATE LOCATIONS. EXACT LOCATIONS WILL BE DETERMINED BY THE CONTRACTOR'S EROSION CONTROL IMPLEMENTATION PLAN (ECIP) AND APPROVED BY THE ENGINEER. MAINTAIN EROSION CONTROL MEASURES UNTIL SUCH A TIME AS THE ENGINEER DETERMINES THE MEASURE IS NO LONGER NECESSARY.

PAVEMENT REMOVAL WILL BE TO THE NEAREST JOINT OR A SAWED EDGE WILL BE REQUIRED AS DIRECTED BY THE ENGINEER.

SAWCUTS, AS SHOWN ON THE PLANS, ARE SUGGESTED LOCATIONS AND MAY BE ADJUSTED AT THE DISCRETION OF THE ENGINEER TO BETTER SUIT FIELD CONDITIONS.

PRIOR TO ORDERING DRAINAGE PIPES, THE CONTRACTOR SHALL FIELD VERIFY RELATED DRAINAGE INFORMATION IN THE PLAN WITH THE ENGINEER. PIPE ELEVATIONS, INLET ELEVATIONS, LENGTHS AND LOCATIONS AS SHOWN ON THE PLANS, MAY BE ADJUSTED TO FIT EXISTING FIELD CONDITIONS AS DIRECTED BY THE ENGINEER.

THE PROPOSED SHOULDER WIDTH SHOWN IN THE TYPICAL SECTIONS ARE MINIMUM WIDTH. PERPETUATE EXISTING SHOULDERS THAT ARE WIDER THAN WHAT IS SHOWN IN THE TYPICAL SECTIONS.

THE CONTRACTOR'S PAVING OPERATION SHALL BE CONSISTENT WITH THE TYPICAL SECTIONS AND CONSTRUCTED TO PREVENT LONGITUDINAL JOINTS FROM BEING LOCATED WITHIN A DRIVING, TURNING, PASSING, OR PARKING LANE.

PRIOR TO PLACEMENT OF BEAM GUARD THE SHOULDERS SHALL BE IN PLACE, SHAPED AND COMPACTED.

CONTRACTOR SHALL MAINTAIN ACCESS TO ALL DRIVEWAYS AT ALL TIMES EXCEPT WHEN PAVING OR PIPE LAYING OPERATIONS REQUIRE THE DRIVEWAY TO BE CLOSED. ACCESS TO DRIVEWAYS SHALL BE RE-ESTABLISHED IMMEDIATELY AFTER OPERATIONS ARE COMPLETED. ACCESS SHALL BE PROVIDED DURING ALL NON-WORKING HOURS.

TRAFFIC CONTROL DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS DIRECTED BY THE ENGINEER.

DO NOT DRIVE OR STORE EQUIPMENT, OR STORE CONSTRUCTION MATERIALS IN ENVIRONMENTALLY SENSITIVE AREAS, WETLANDS OR WATERWAYS.

BEARINGS SHOWN ON THE PLAN ARE TRUE BEARINGS.

BEARINGS SHOWN ON THE PLAN ARE GROUND BEARINGS TO THE NEAREST SECOND.

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 STRIPTURF:	.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 SLOPETURF:			.25 .32			.27 .34			.28 .36			.30 .38
PAVEMENT:												
ASPHALT:	.70 - .95											
CONCRETE:	.80 - .95											
BRICK:	.70 - .80											
DRIVES, WALKS:	.75 - .85											
ROOFS:	.75 - .95											
GRAVEL ROADS, SHOULDERS:	.40 - .60											

TOTAL PROJECT AREA = 0.48 ACRES
TOTAL AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES = 0.16 ACRES

STANDARD ABBREVIATIONS

ABUT	ABUTMENT
AC	ACRE
AGG	AGGREGATE
AH	AHEAD
∠	ANGLE
AADT	ANNUAL AVERAGE DAILY TRAFFIC
AEW	APRON ENDWALL
ASPH	ASPHALTIC
BK	BACK
BC	BACK OF CURB
BAD	BASE AGGREGATE DENSE
BL OR B/L	BASE LINE
BM	BENCH MARK
CB	CATCH BASIN
CL OR C/L	CENTER LINE
Δ	CENTRAL ANGLE OR DELTA
CE	COMMERCIAL ENTRANCE
CONC	CONCRETE
CSW	CONCRETE SIDEWALK
CONST	CONSTRUCTION
CP	CONTROL POINT
CO	COUNTY
CTH	COUNTY TRUCK HIGHWAY
CY	CUBIC YARD
CP	CULVERT PIPE
CPCA	CULVERT PIPE CORRUGATED ALUMINUM
CPCPE	CULVERT PIPE CORRUGATED POLYETHYLENE
CPCPP	CULVERT PIPE CORRUGATED POLYPROPYLENE
CPCS	CULVERT PIPE CORRUGATED STEEL
CPCSAC	CULVERT PIPE CORRUGATED STEEL ALUMINUM COATED
CPCSPC	CULVERT PIPE CORRUGATED STEEL POLYMER COATED
CPRC	CULVERT PIPE REINFORCED CONCRETE
CPRCHE	CULVERT PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL
CPS	CULVERT PIPE SALVAGED
CPT	CULVERT PIPE TEMPORARY
C & G	CURB AND GUTTER
D	DEGREE OF CURVE
DHV	DESIGN HOUR VOLUME
DIA	DIAMETER
DD	DIRECTIONAL DISTRIBUTION
DE	DRAINAGE EASEMENT
DWY	DRIVEWAY
EA	EACH
EB	EASTBOUND
EL OR ELEV	ELEVATION
EMB	EMBANKMENT
EW	ENDWALL
EAT	ENERGY ABSORBING TERMINAL
ESALS	EQUIVALENT SINGLE AXLE LOADS
EXC	EXCAVATION
EBS	EXCAVATION BELOW SUBGRADE
EXIST	EXISTING
FERT	FERTILIZER
FE	FIELD ENTRANCE
FL OR F/L	FLOW LINE
FT	FOOT
FTMS	FREE TRAFFIC MANAGEMENT SYSTEM
HES	HIGH EARLY STRENGTH
HE	HIGHWAY EASEMENT
CWT	HUNDRED WEIGHT
IN DIA	INCH DIAMETER
INL	INLET
ID	INSIDE DIAMETER
INTERS	INTERSECTION
IH	INTERSTATE HIGHWAY
INV	INVERT
JT	JOINT
LT	LEFT
LHF	LEFT HAND FORWARD
L	LENGTH OF CURVE
LF	LINEAR FOOT
LC	LONG CHORD OF CURVE
LS	LUMP SUM
MGAL	ONE THOUSAND GALLONS
MH	MANHOLE
ML OR M/L	MATCH LINE
NOM	NOMINAL
NC	NORMAL CROWN
NB	NORTHBOUND
NO	NUMBER
OD	OUTSIDE DIAMETER
PAVT	PAVEMENT
PLE	PERMANENT LIMITED EASEMENT
PC	POINT OF CURVATURE
PI	POINT OF INTERSECTION
PT	POINT OF TANGENCY
PCC	PORTLAND CEMENT CONCRETE
LB	POUND
PSI	POUNDS PER SQUARE INCH
PE	PRIVATE ENTRANCE
PROJ	PROJECT
PL	PROPERTY LINE
PRW	PROPOSED RIGHT OF WAY
R	RADIUS
RL OR R/L	REFERENCE LINE
REQD	REQUIRED
RT	RIGHT
RHF	RIGHT HAND FORWARD
R/W	RIGHT OF WAY
RD	ROAD
RDWY	ROADWAY
SHLDR	SHOULDER
SW	SIDEWALK
SB	SOUTHBOUND
SPECS	SPECIFICATIONS
SF	SQUARE FEET
SY	SQUARE YARD
SDD	STANDARD DETAIL DRAWINGS
STH	STATE TRUNK HIGHWAY
STA	STATION
SSPC	STORM SEWER PIPE COMPOSITE
SSCPE	STORM SEWER PIPE CORRUGATED POLYETHYLENE
SSCPP	STORM SEWER PIPE CORRUGATED POLYPROPYLENE
SSPNRC	STORM SEWER PIPE NON-REINFORCED CONCRETE
SSPRC	STORM SEWER PIPE REINFORCED CONCRETE
SSPRC	STORM SEWER PIPE REINFORCED CONCRETE
SSPRCHE	STORM SEWER PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL
SE	SUPERELEVATION
SL OR S/L	SURVEY LINE
TEMP	TEMPORARY
TI	TEMPORARY INTEREST
TLE	TEMPORARY LIMITED EASEMENT
TC	TOP OF CURB
TL OR T/L	TRANSIT LINE
T	TRUCKS (PERCENT OF)
TYP	TYPICAL
USH	UNITED STATES HIGHWAY
VAR	VARIABLE
VC	VERTICAL CURVE
VPC	VERTICAL POINT OF CURVATURE
VPI	VERTICAL POINT OF INTERSECTION
VPT	VERTICAL POINT OF TANGENCY
W	WEST
WB	WESTBOUND

2

N

SAUK COUNTY

COLUMBIA COUNTY

DURWARDS GLEN ROAD

INDIAN FARM ROAD

BLAU DR

CTH DL

BEGIN 5630-06-80 PROJECT
STA 43+50

END 5630-06-80 PROJECT
STA 49+00

C-11-3005
EXISTING BOX CULVERT
OVER UNNAMED TRIBUTARY
STA 46+25

ENVIRONMENTALLY
SENSITIVE AREA
BOUNDARY

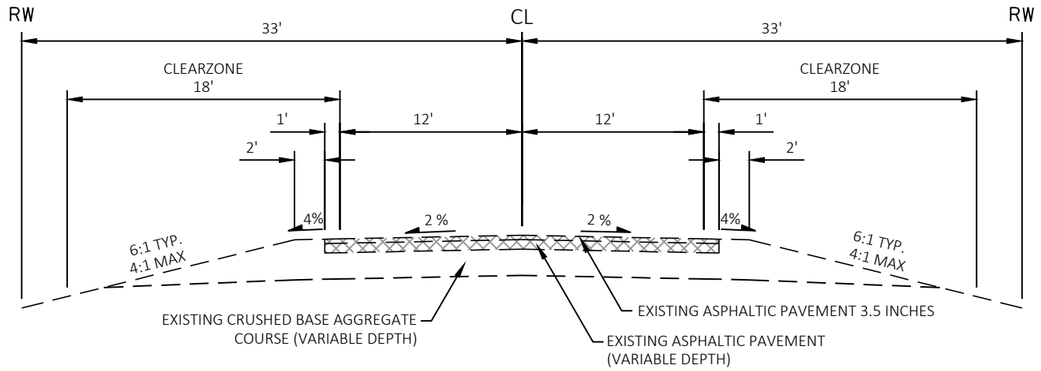
END 5630-06-73 PROJECT
STA 217+50

10 20 30 40 50 60 70 80 90

PROJECT NO: 5630-06-80	HWY: STH 78	COUNTY: COLUMBIA	PLAN OVERVIEW	SHEET 4	E

FILE NAME : \\FIWMAD7P3158\N3PUBLIC\PDS\C3D\56300600\SHEETSPLAN\020201-PO.DWG
LAYOUT NAME - 01

PLOT DATE : 9/24/2025 10:32 AM PLOT BY : KENDALL, EMILY ANN PLOT NAME : PLOT SCALE : 1 IN:700 FT

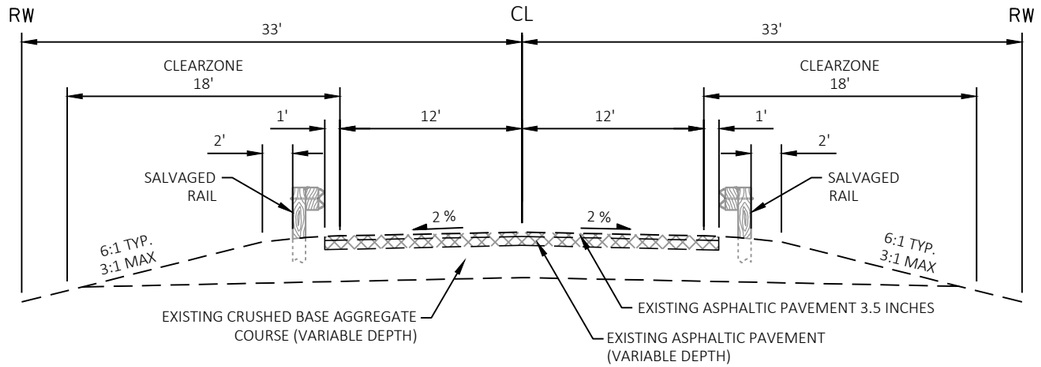


EXISTING TYPICAL SECTION LEFT

STA 43+50 - 44+82
STA 48+07 - 49+00

EXISTING TYPICAL SECTION RIGHT

STA 43+50 - 44+44
STA 47+70 - 49+00



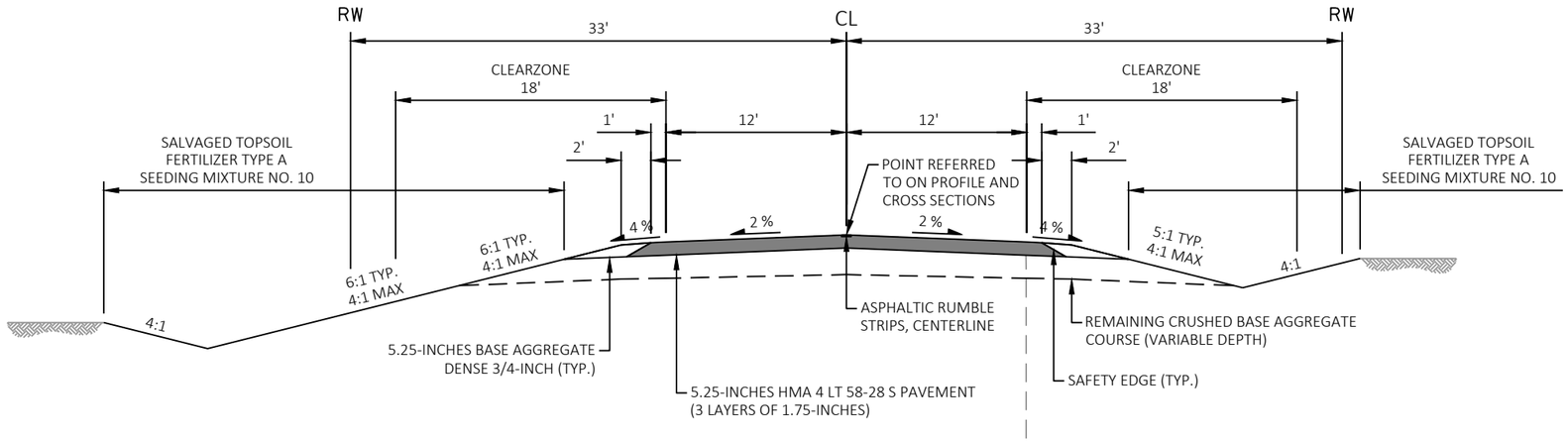
EXISTING TYPICAL BEAMGUARD SECTION LEFT

STA 44+82 - 48+07

EXISTING TYPICAL BEAMGUARD SECTION RIGHT

STA 44+44 - 47+70

2

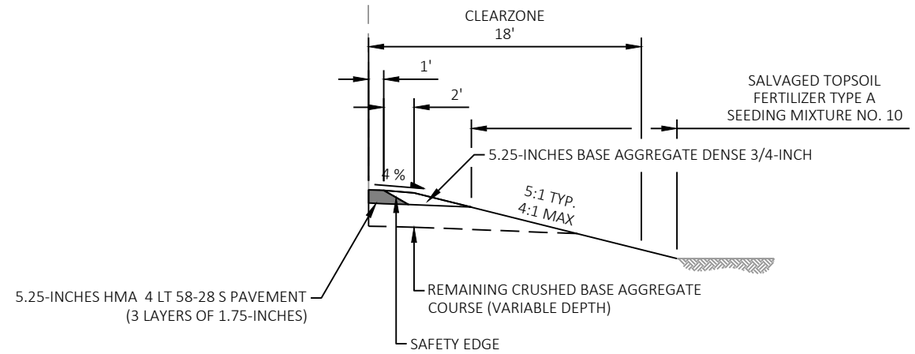


FINISHED TYPICAL SECTION LEFT - DITCH

STA 43+50 - 45+63
STA 46+83 - 49+00

FINISHED TYPICAL SECTION RIGHT - DITCH

STA 43+50 - 45+00
STA 46+83 - 48+50

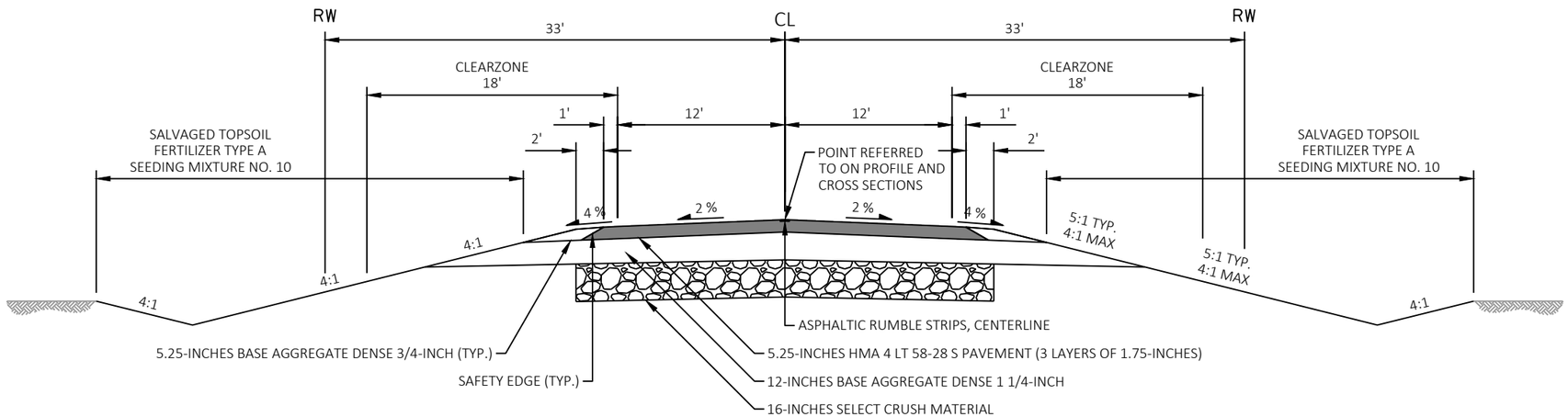


FINISHED TYPICAL SECTION RIGHT - FILL

STA 45+00 - 45+63
STA 48+50 - 49+00

PROJECT NO: 5630-06-80	HWY: STH 78	COUNTY: COLUMBIA	TYPICAL SECTIONS - FINISHED	SHEET 6	E

2

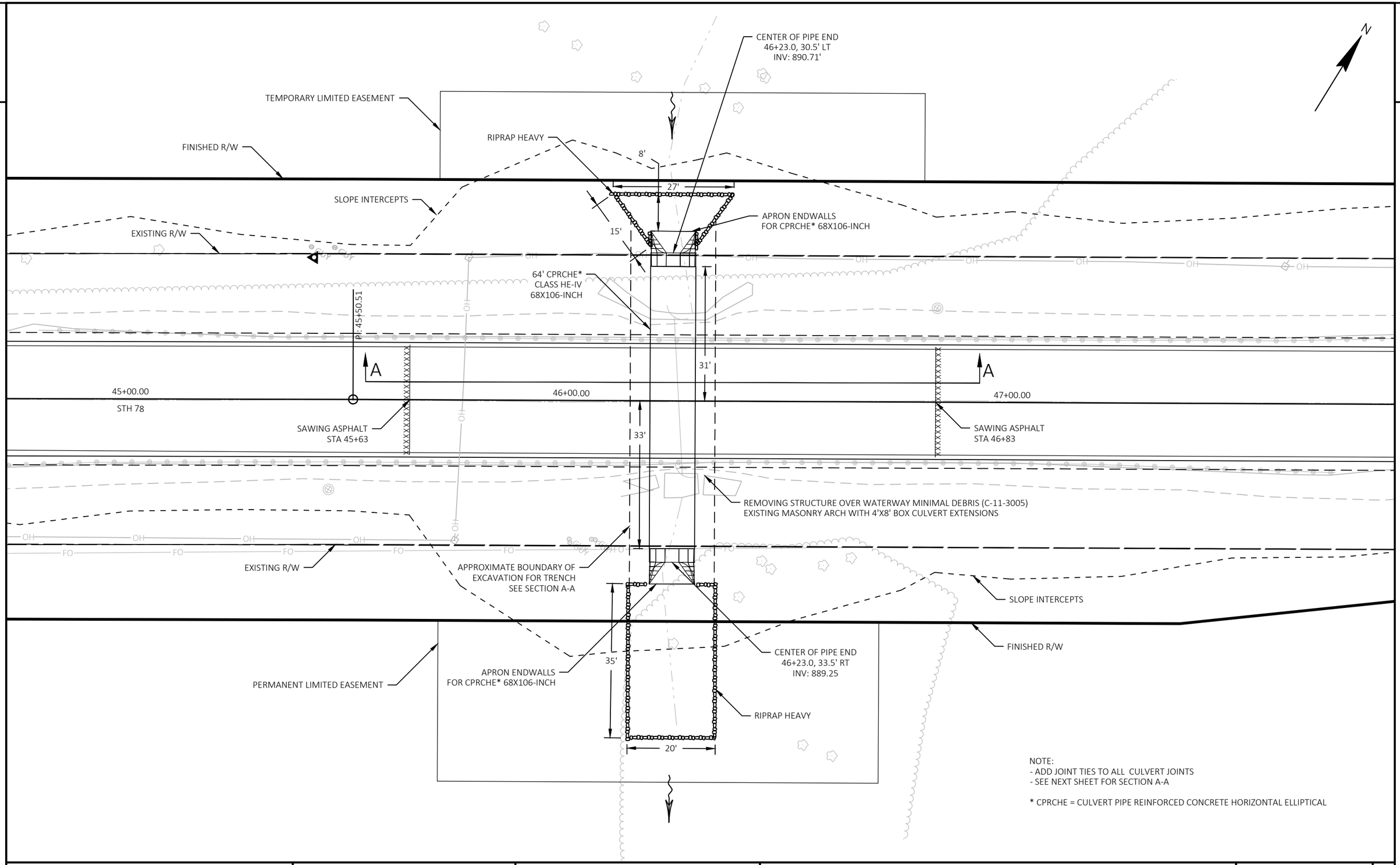


FINISHED TYPICAL SECTION

STA 45+63 - 46+83

NOTE: FOR PAVEMENT MARKINGS SEE SDD PERMANENT LONGITUDINAL PAVEMENT MARKING

2

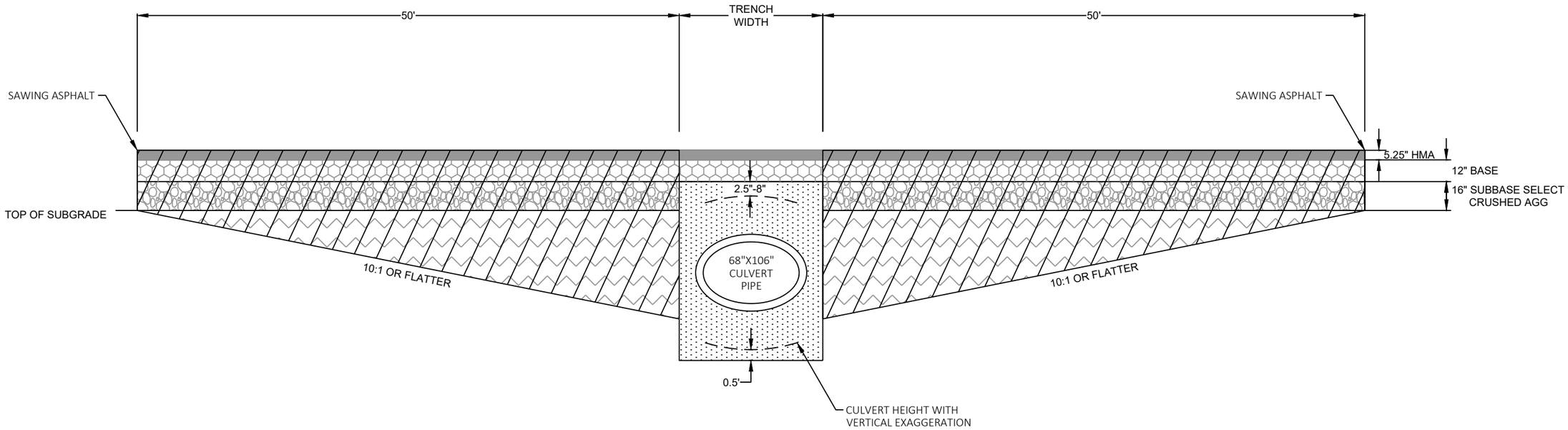


NOTE:
- ADD JOINT TIES TO ALL CULVERT JOINTS
- SEE NEXT SHEET FOR SECTION A-A

* CPRCHE = CULVERT PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL

PROJECT NO: 5630-06-80	HWY: STH 78	COUNTY: COLUMBIA	CONSTRUCTION DETAILS - CULVERT	SHEET 8	E

2



SECTION A-A

STA 45+63 - STA 46+83

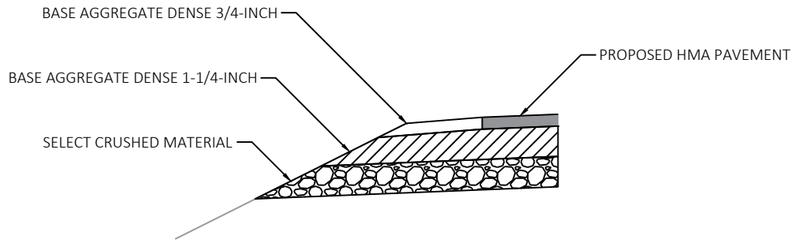
LEGEND

- PROPOSED SURFACE
- PROPOSED BASE
- TRENCH OR FOUNDATION BACKFILL
- FOUNDATION BACKFILL
- TRANSITION CUT
- SELECT CRUSHED AGG

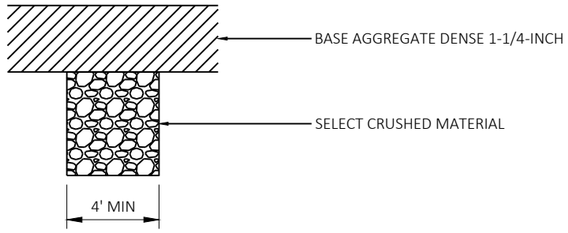
NOTES

- TRANSITION CUT IS PAID AS EXCAVATION COMMON.
- TRENCH BACKFILL AND FOUNDATION BACKFILL USED IN TRANSITION CUT AREA IS INCIDENTAL TO CULVERT PIPE BID ITEMS.
- VERTICAL DIMENSIONS HAVE BEEN EXAGGERATED BY A FACTOR OF 2.
- CULVERT PIPE DIMENSIONS HAVE NOT BEEN EXAGGERATED.
- CULVERT PIPE IS CLASS HE-IV 68"X106".

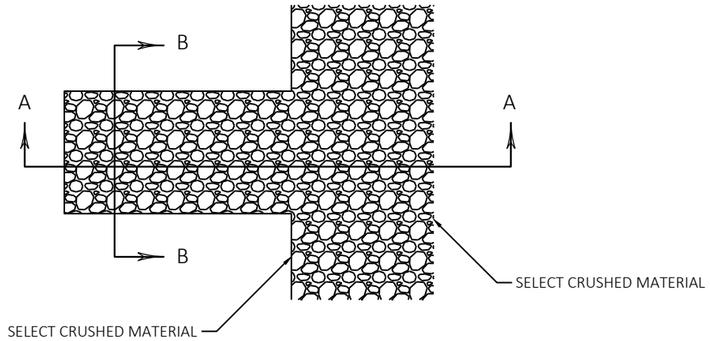
2



SECTION A-A



SECTION B-B



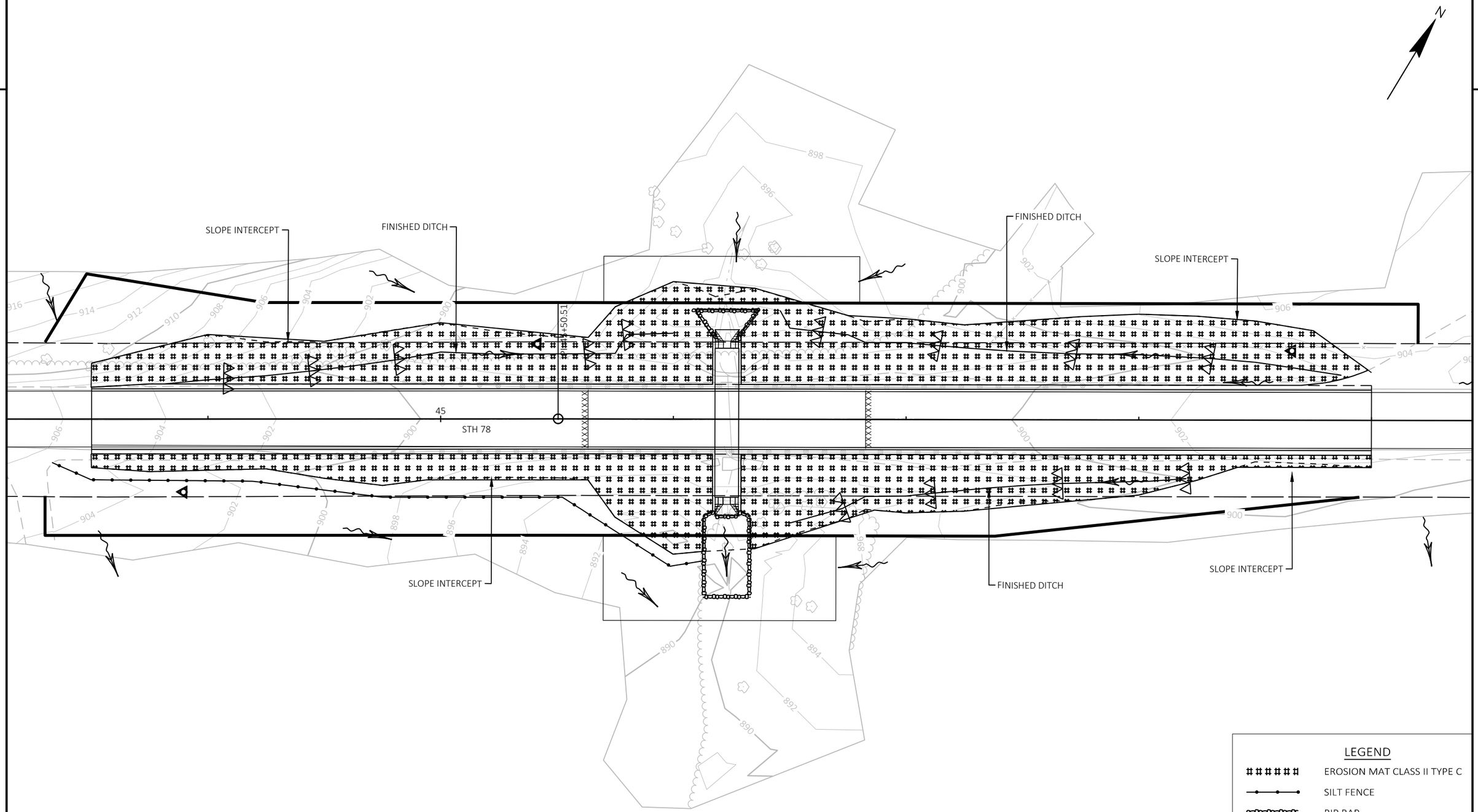
STH 78

STA 45+63 - STA 46+83

FRENCH DRAIN DETAIL

NOTES:
1. DRAINS TO BE CONSTRUCTED AT THE LOWEST POINT FOR EACH REGION LISTED ABOVE (LOCATIONS TO BE DETERMINED IN THE FIELD BY THE ENGINEER)
2. DO NOT COVER WITH TOPSOIL

2



PROJECT NO: 5630-06-80	HWY: STH 78	COUNTY: COLUMBIA	EROSION CONTROL	SHEET 11	E

FILE NAME : \\FIWMAD7P3158\N3PUBLIC\PDS\C3D\56300600\SHEETSPLAN\022001-EC.DWG
LAYOUT NAME - 01

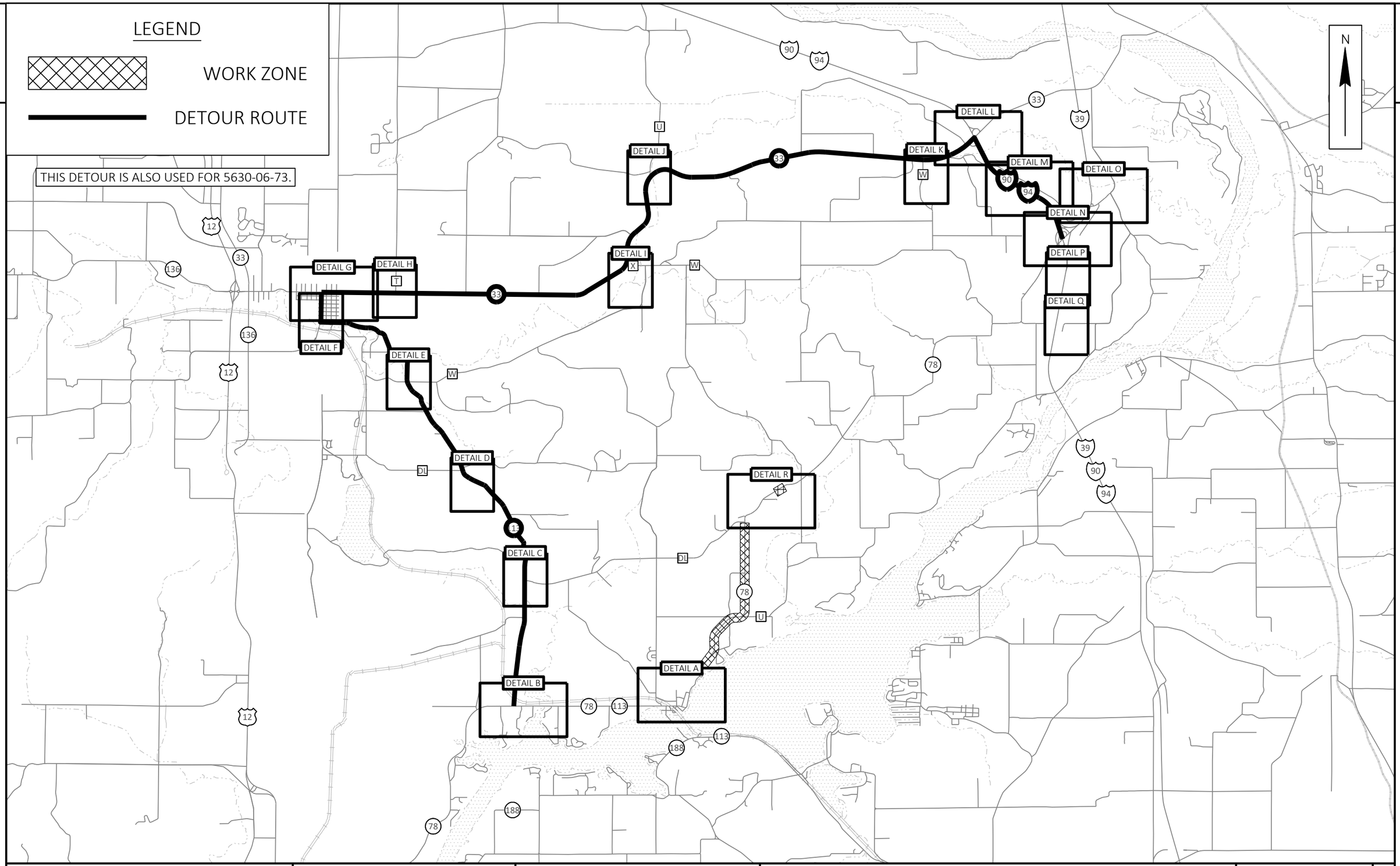
PLOT DATE : 6/26/2025 7:29 AM PLOT BY : KENDALL, EMILY ANN PLOT NAME : PLOT SCALE : 1 IN:40 FT

LEGEND

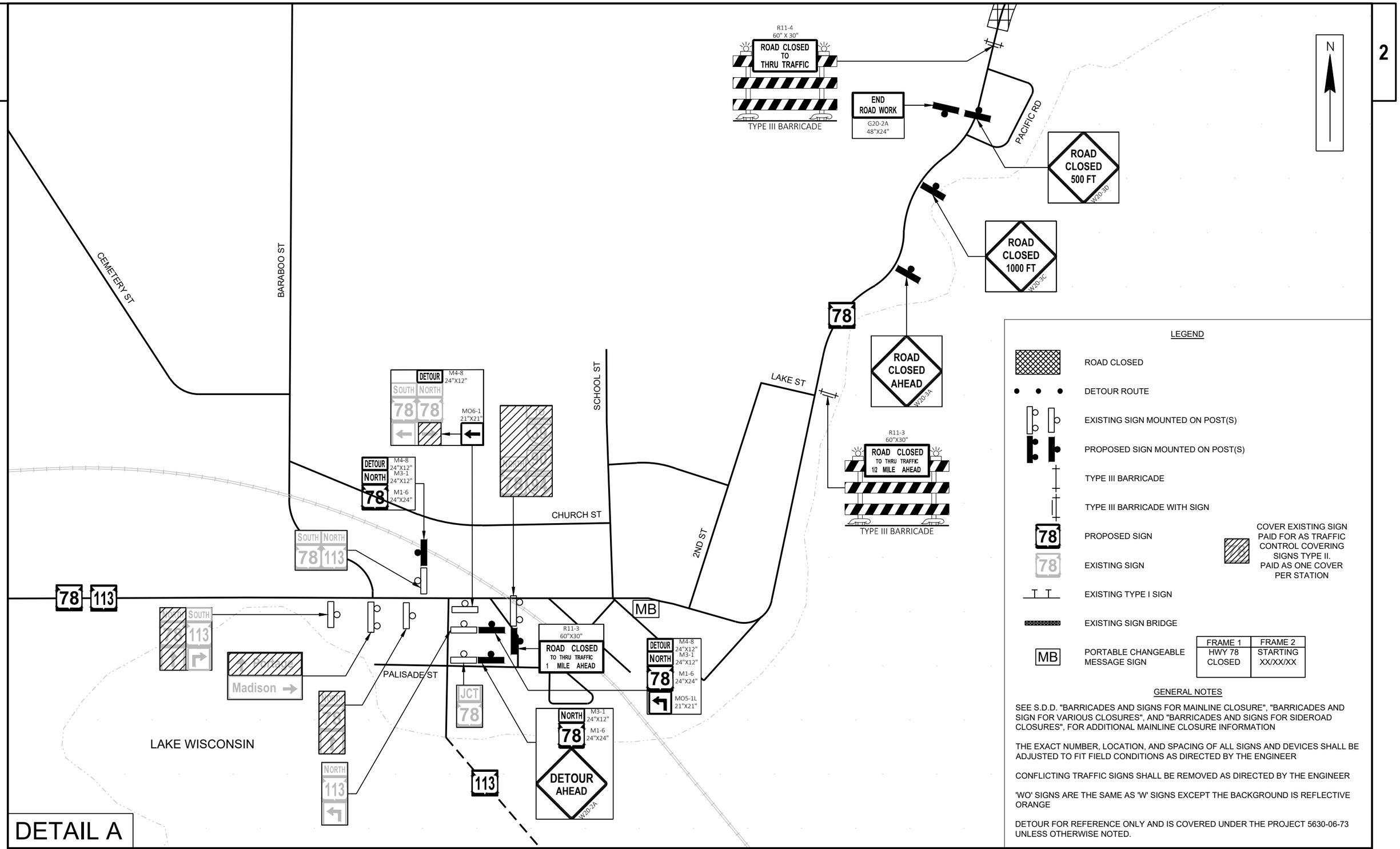
WORK ZONE

DETOUR ROUTE

THIS DETOUR IS ALSO USED FOR 5630-06-73.



PROJECT NO: 5630-06-73	HWY: STH 78	COUNTY: SAUK	DETOUR OVERVIEW	SHEET 12	E



DETAIL A

GENERAL NOTES

SEE S.D.D. "BARRICADES AND SIGNS FOR MAINLINE CLOSURE", "BARRICADES AND SIGN FOR VARIOUS CLOSURES", AND "BARRICADES AND SIGNS FOR SIDEROAD CLOSURES", FOR ADDITIONAL MAINLINE CLOSURE INFORMATION

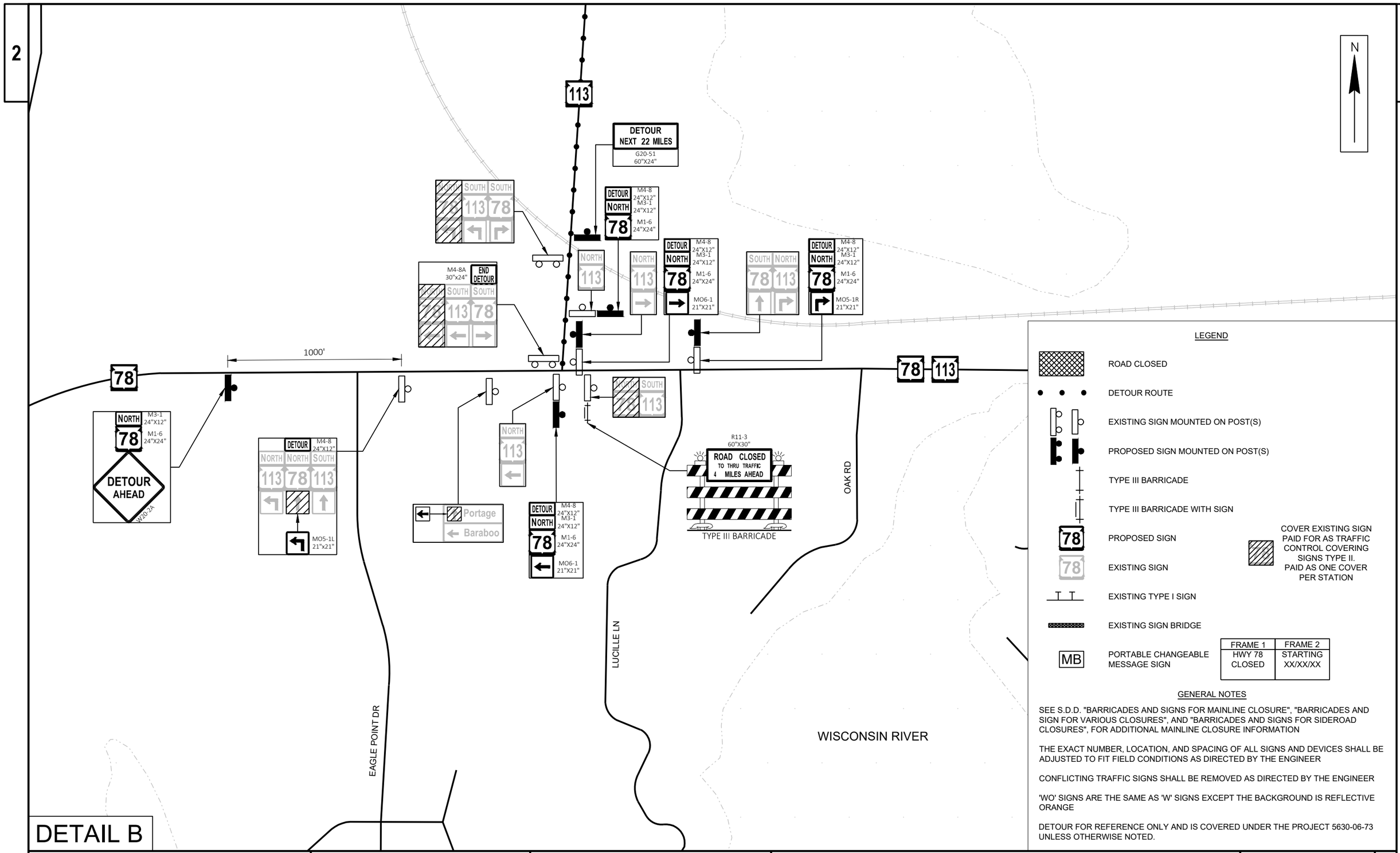
THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS DIRECTED BY THE ENGINEER

CONFLICTING TRAFFIC SIGNS SHALL BE REMOVED AS DIRECTED BY THE ENGINEER

'WO' SIGNS ARE THE SAME AS 'W' SIGNS EXCEPT THE BACKGROUND IS REFLECTIVE ORANGE

DETOUR FOR REFERENCE ONLY AND IS COVERED UNDER THE PROJECT 5630-06-73 UNLESS OTHERWISE NOTED.

PROJECT NO: 5630-06-80	HWY: STH 78	COUNTY: COLUMBIA	DETOUR DETAILS	SHEET 13	E



DETAIL B

GENERAL NOTES

SEE S.D.D. "BARRICADES AND SIGNS FOR MAINLINE CLOSURE", "BARRICADES AND SIGN FOR VARIOUS CLOSURES", AND "BARRICADES AND SIGNS FOR SIDEROAD CLOSURES", FOR ADDITIONAL MAINLINE CLOSURE INFORMATION

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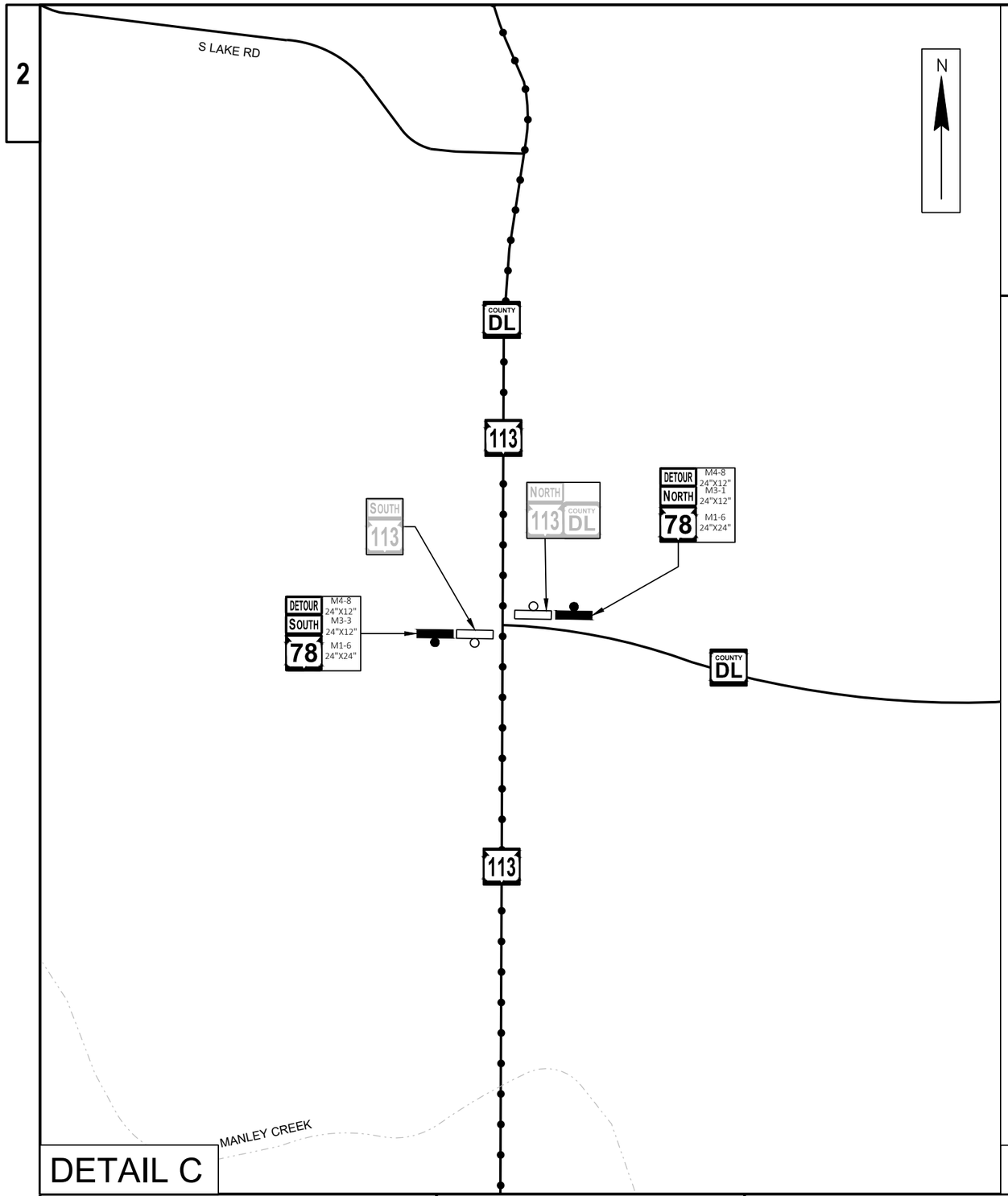
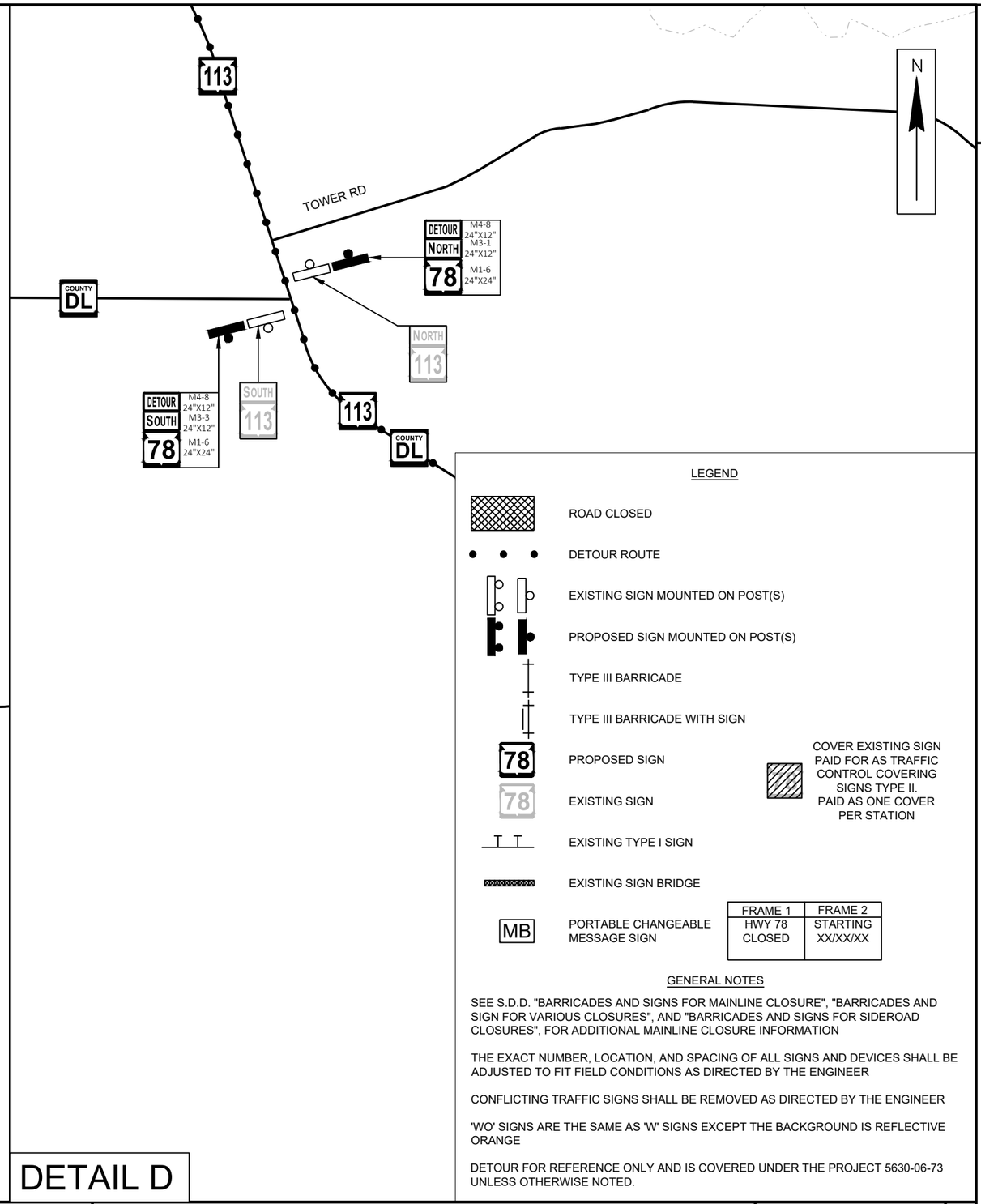
PROJECT NO: 5630-06-80	HWY: STH 78	COUNTY: COLUMBIA	DETOUR DETAILS	SHEET 14	E



DETAIL C



DETAIL D

LEGEND

- ROAD CLOSED
- DETOUR ROUTE
- EXISTING SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON POST(S)
- TYPE III BARRICADE
- TYPE III BARRICADE WITH SIGN
- PROPOSED SIGN
- EXISTING SIGN
- COVER EXISTING SIGN PAID FOR AS TRAFFIC CONTROL COVERING SIGNS TYPE II. PAID AS ONE COVER PER STATION
- EXISTING TYPE I SIGN
- EXISTING SIGN BRIDGE
- MB — PORTABLE CHANGEABLE MESSAGE SIGN

FRAME 1	FRAME 2
HWY 78 CLOSED	STARTING XX/XX/XX

GENERAL NOTES

SEE S.D.D. "BARRICADES AND SIGNS FOR MAINLINE CLOSURE", "BARRICADES AND SIGN FOR VARIOUS CLOSURES", AND "BARRICADES AND SIGNS FOR SIDEROAD CLOSURES", FOR ADDITIONAL MAINLINE CLOSURE INFORMATION

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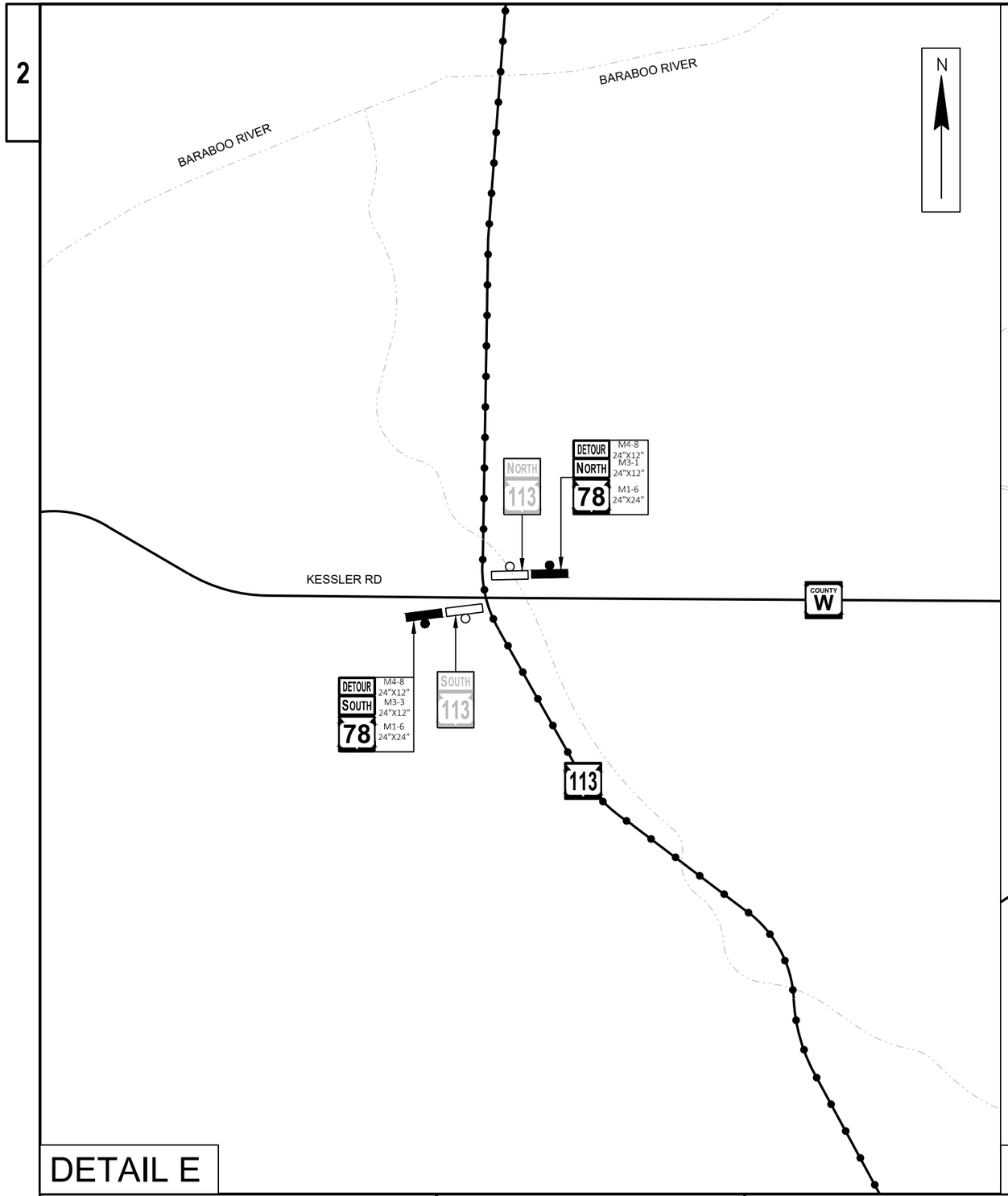
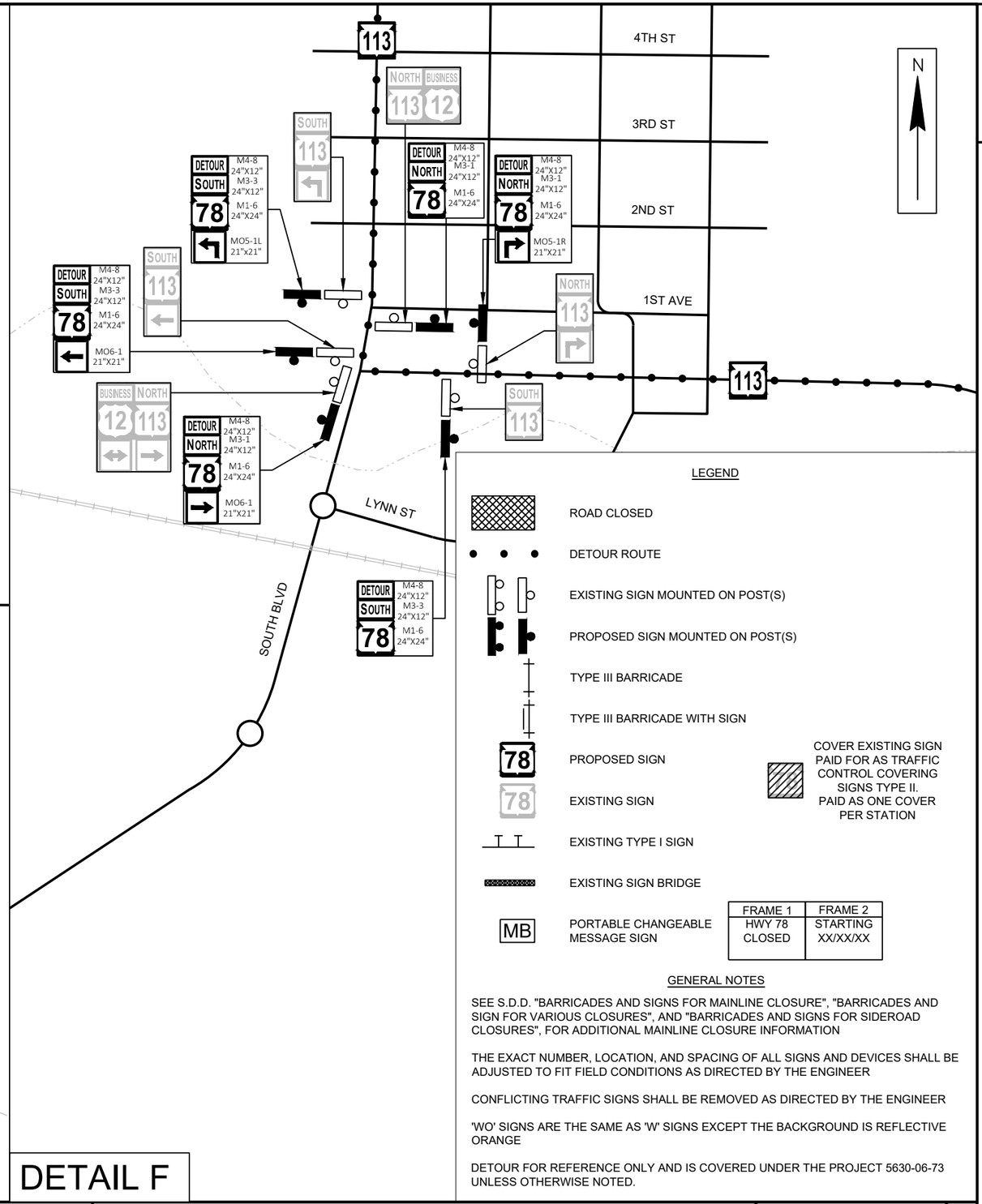
PROJECT NO: 5630-06-80	HWY: STH 78	COUNTY: COLUMBIA	DETOUR DETAILS	SHEET 15	E



DETAIL E



DETAIL F

LEGEND

- ROAD CLOSED
- DETOUR ROUTE
- EXISTING SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON POST(S)
- TYPE III BARRICADE
- TYPE III BARRICADE WITH SIGN
- PROPOSED SIGN (78)
- EXISTING SIGN (78)
- EXISTING TYPE I SIGN
- EXISTING SIGN BRIDGE
- MB — PORTABLE CHANGEABLE MESSAGE SIGN

COVER EXISTING SIGN PAID FOR AS TRAFFIC CONTROL COVERING SIGNS TYPE II. PAID AS ONE COVER PER STATION

FRAME 1	FRAME 2
HWY 78 CLOSED	STARTING XX/XX/XX

GENERAL NOTES

SEE S.D.D. "BARRICADES AND SIGNS FOR MAINLINE CLOSURE", "BARRICADES AND SIGN FOR VARIOUS CLOSURES", AND "BARRICADES AND SIGNS FOR SIDEROAD CLOSURES", FOR ADDITIONAL MAINLINE CLOSURE INFORMATION

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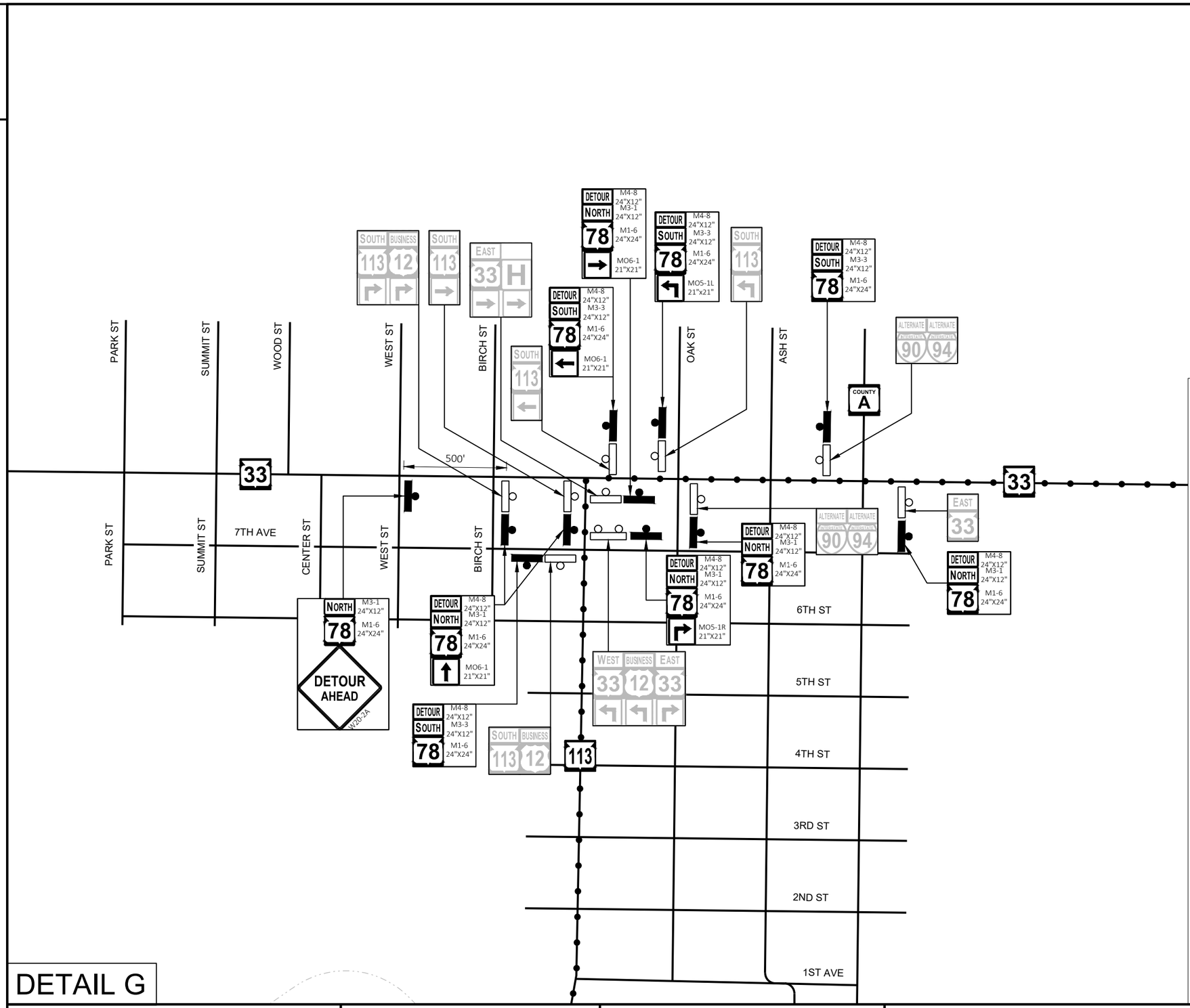
PROJECT NO: 5630-06-80	HWY: STH 78	COUNTY: COLUMBIA	DETOUR DETAILS	SHEET 16	E



N

2

2

LEGEND

- ROAD CLOSED
- DETOUR ROUTE
- EXISTING SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON POST(S)
- TYPE III BARRICADE
- TYPE III BARRICADE WITH SIGN
- PROPOSED SIGN
- EXISTING SIGN
- COVER EXISTING SIGN PAID FOR AS TRAFFIC CONTROL COVERING SIGNS TYPE II. PAID AS ONE COVER PER STATION
- EXISTING TYPE I SIGN
- EXISTING SIGN BRIDGE
- MB — PORTABLE CHANGEABLE MESSAGE SIGN

FRAME 1	FRAME 2
HWY 78 CLOSED	STARTING XX/XX/XX

GENERAL NOTES

SEE S.D.D. "BARRICADES AND SIGNS FOR MAINLINE CLOSURE", "BARRICADES AND SIGN FOR VARIOUS CLOSURES", AND "BARRICADES AND SIGNS FOR SIDEROAD CLOSURES", FOR ADDITIONAL MAINLINE CLOSURE INFORMATION

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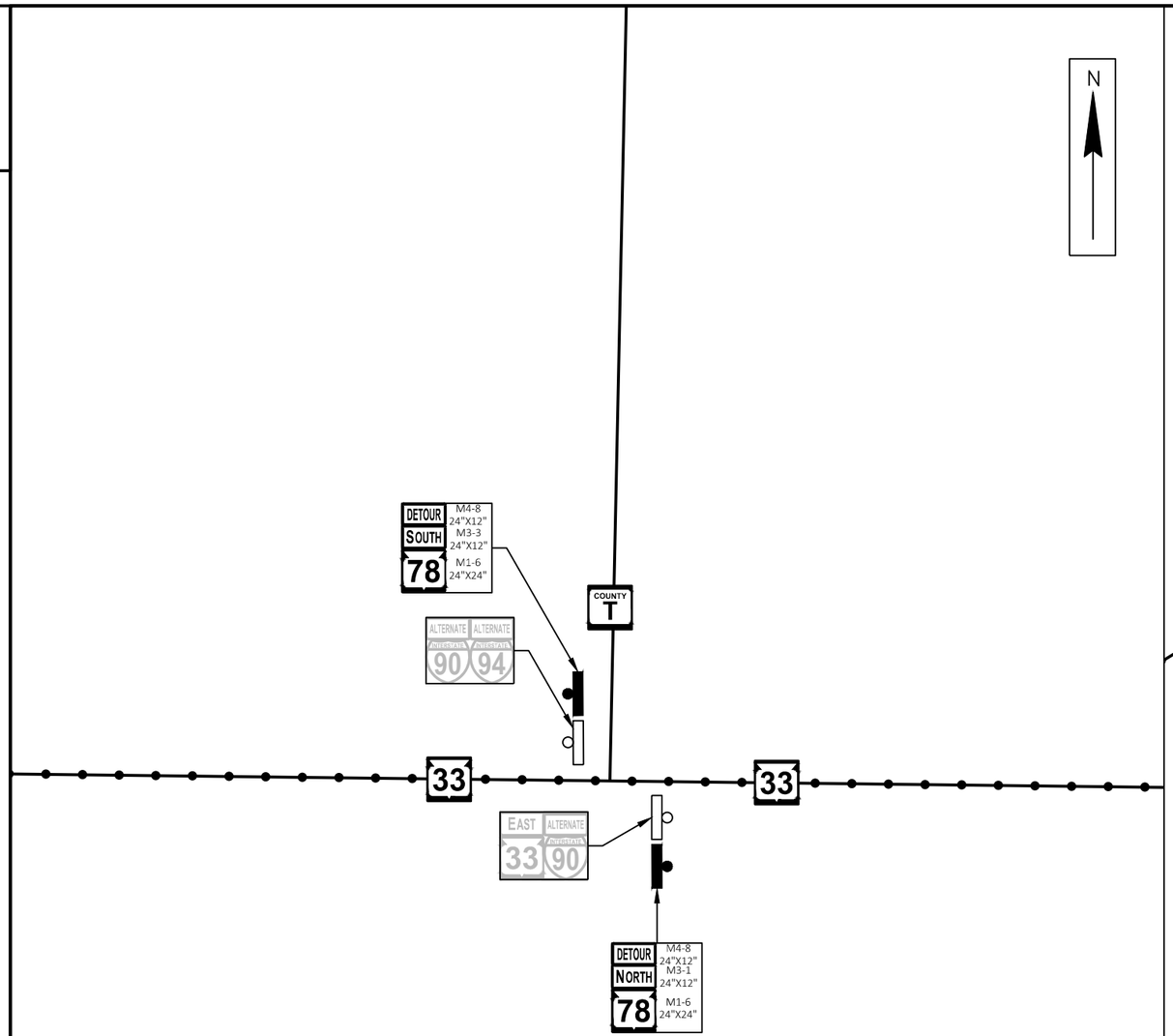
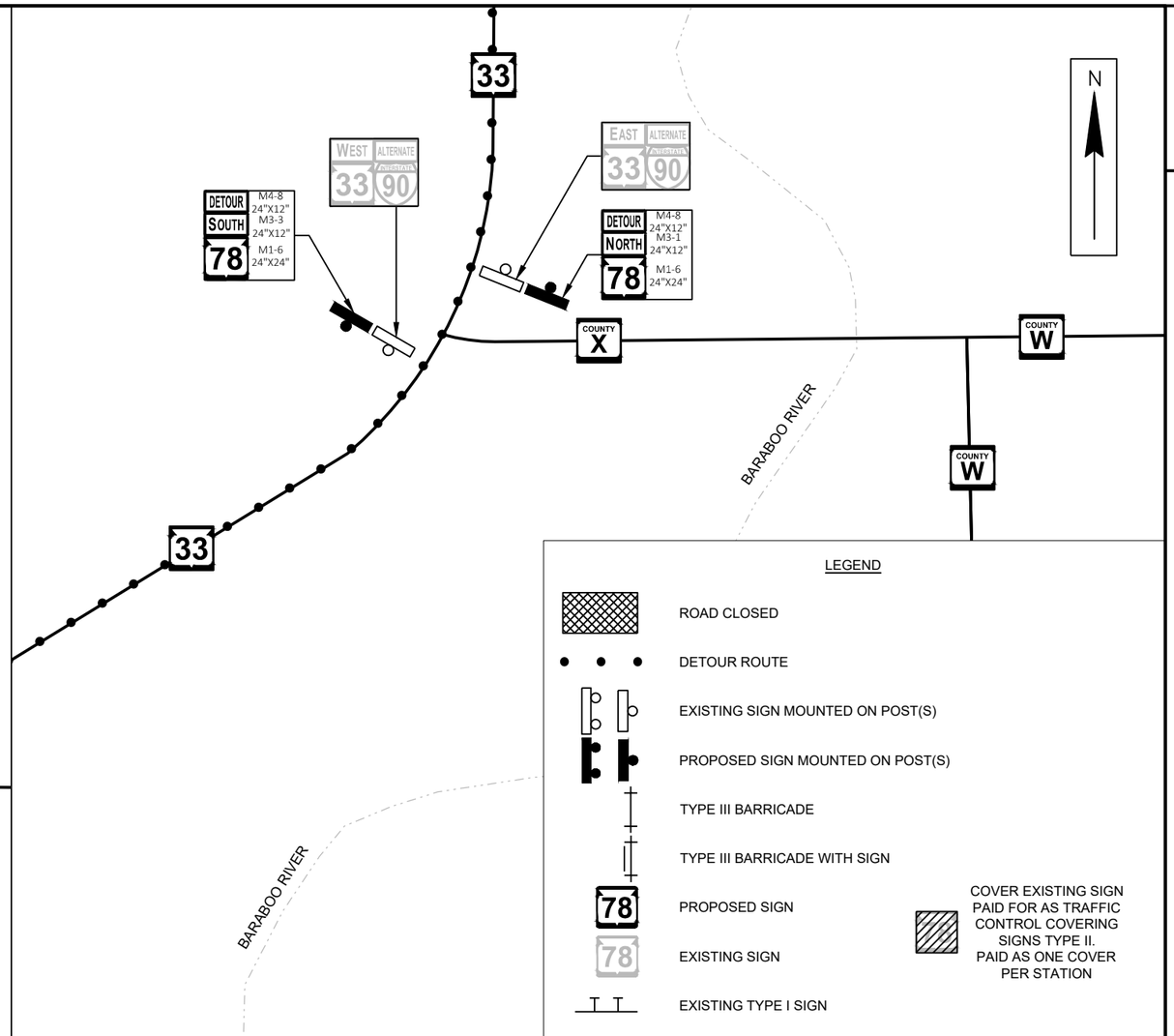
DETAIL G

PROJECT NO: 5630-06-80	HWY: STH 78	COUNTY: COLUMBIA	DETOUR DETAILS	SHEET 17	E



DETAIL H



DETAIL I

LEGEND

- ROAD CLOSED
- DETOUR ROUTE
- EXISTING SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON POST(S)
- TYPE III BARRICADE
- TYPE III BARRICADE WITH SIGN
- PROPOSED SIGN (78)
- EXISTING SIGN (78)
- EXISTING TYPE I SIGN
- EXISTING SIGN BRIDGE
- MB — PORTABLE CHANGEABLE MESSAGE SIGN

FRAME 1	FRAME 2
HWY 78 CLOSED	STARTING XX/XX/XX

COVER EXISTING SIGN PAID FOR AS TRAFFIC CONTROL COVERING SIGNS TYPE II. PAID AS ONE COVER PER STATION

GENERAL NOTES

SEE S.D.D. "BARRICADES AND SIGNS FOR MAINLINE CLOSURE", "BARRICADES AND SIGN FOR VARIOUS CLOSURES", AND "BARRICADES AND SIGNS FOR SIDEROAD CLOSURES", FOR ADDITIONAL MAINLINE CLOSURE INFORMATION

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PROJECT NO: 5630-06-80	HWY: STH 78	COUNTY: COLUMBIA	DETOUR DETAILS	SHEET 18	E

2

N

BARABOO RIVER

COUNTY U

FAIRFIELD RD

33

DETOUR SOUTH 78 — M4-8 24"X12" / M3-3 24"X12" / M1-6 24"X24"

WEST ALTERNATE 33 90

EAST ALTERNATE 33 90

DETOUR NORTH 78 — M4-8 24"X12" / M3-1 24"X12" / M1-6 24"X24"

DETAIL J

BARABOO RIVER

2

N

DETOUR SOUTH 78 — M4-8 24"X12" / M3-3 24"X12" / M1-6 24"X24"

WEST ALTERNATE 33 90

33

33

EAST ALTERNATE 33 90

COUNTY W

PIG TAIL ALLEY RD

DETOUR NORTH 78 — M4-8 24"X12" / M3-1 24"X12" / M1-6 24"X24"

DETAIL K

LEGEND

- ROAD CLOSED
- DETOUR ROUTE
- EXISTING SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON POST(S)
- TYPE III BARRICADE
- TYPE III BARRICADE WITH SIGN
- 78 — PROPOSED SIGN
- 78 — EXISTING SIGN
- COVER EXISTING SIGN PAID FOR AS TRAFFIC CONTROL COVERING SIGNS TYPE II. PAID AS ONE COVER PER STATION
- EXISTING TYPE I SIGN
- EXISTING SIGN BRIDGE
- MB — PORTABLE CHANGEABLE MESSAGE SIGN

FRAME 1	FRAME 2
HWY 78 CLOSED	STARTING XX/XX/XX

GENERAL NOTES

SEE S.D.D. "BARRICADES AND SIGNS FOR MAINLINE CLOSURE", "BARRICADES AND SIGN FOR VARIOUS CLOSURES", AND "BARRICADES AND SIGNS FOR SIDEROAD CLOSURES", FOR ADDITIONAL MAINLINE CLOSURE INFORMATION

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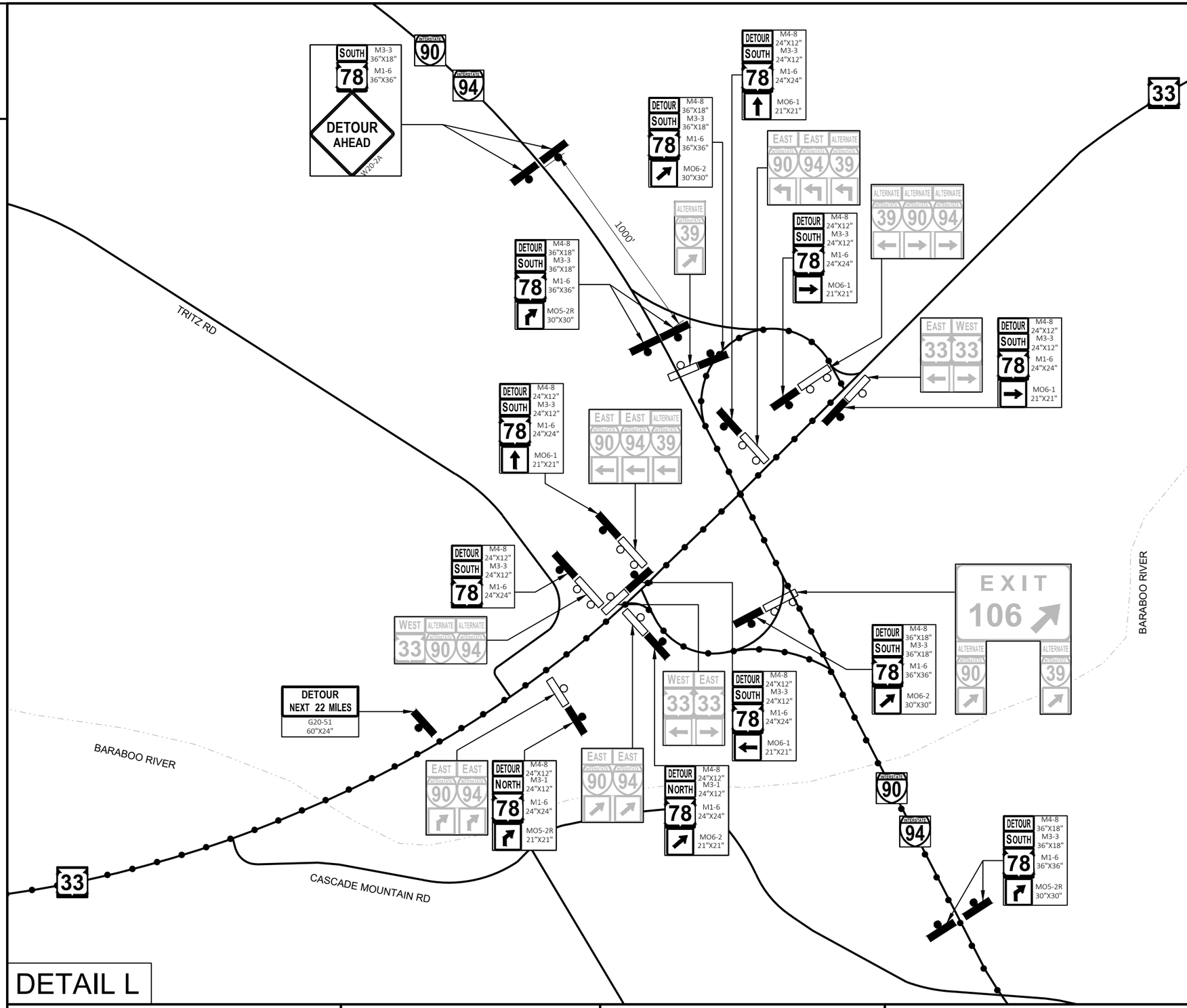
PROJECT NO: 5630-06-80	HWY: STH 78	COUNTY: COLUMBIA	DETOUR DETAILS	SHEET 19	E



DETAIL L

LEGEND

- ROAD CLOSED
- DETOUR ROUTE
- EXISTING SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON POST(S)
- TYPE III BARRICADE
- TYPE III BARRICADE WITH SIGN
- PROPOSED SIGN
- EXISTING SIGN
- EXISTING TYPE I SIGN
- EXISTING SIGN BRIDGE
- MB — PORTABLE CHANGEABLE MESSAGE SIGN
- COVER EXISTING SIGN PAID FOR AS TRAFFIC CONTROL COVERING SIGNS TYPE II. PAID AS ONE COVER PER STATION

FRAME 1	FRAME 2
HWY 78 CLOSED	STARTING XX/XX/XX

GENERAL NOTES

SEE S.D.D. "BARRICADES AND SIGNS FOR MAINLINE CLOSURE", "BARRICADES AND SIGN FOR VARIOUS CLOSURES", AND "BARRICADES AND SIGNS FOR SIDEROAD CLOSURES", FOR ADDITIONAL MAINLINE CLOSURE INFORMATION

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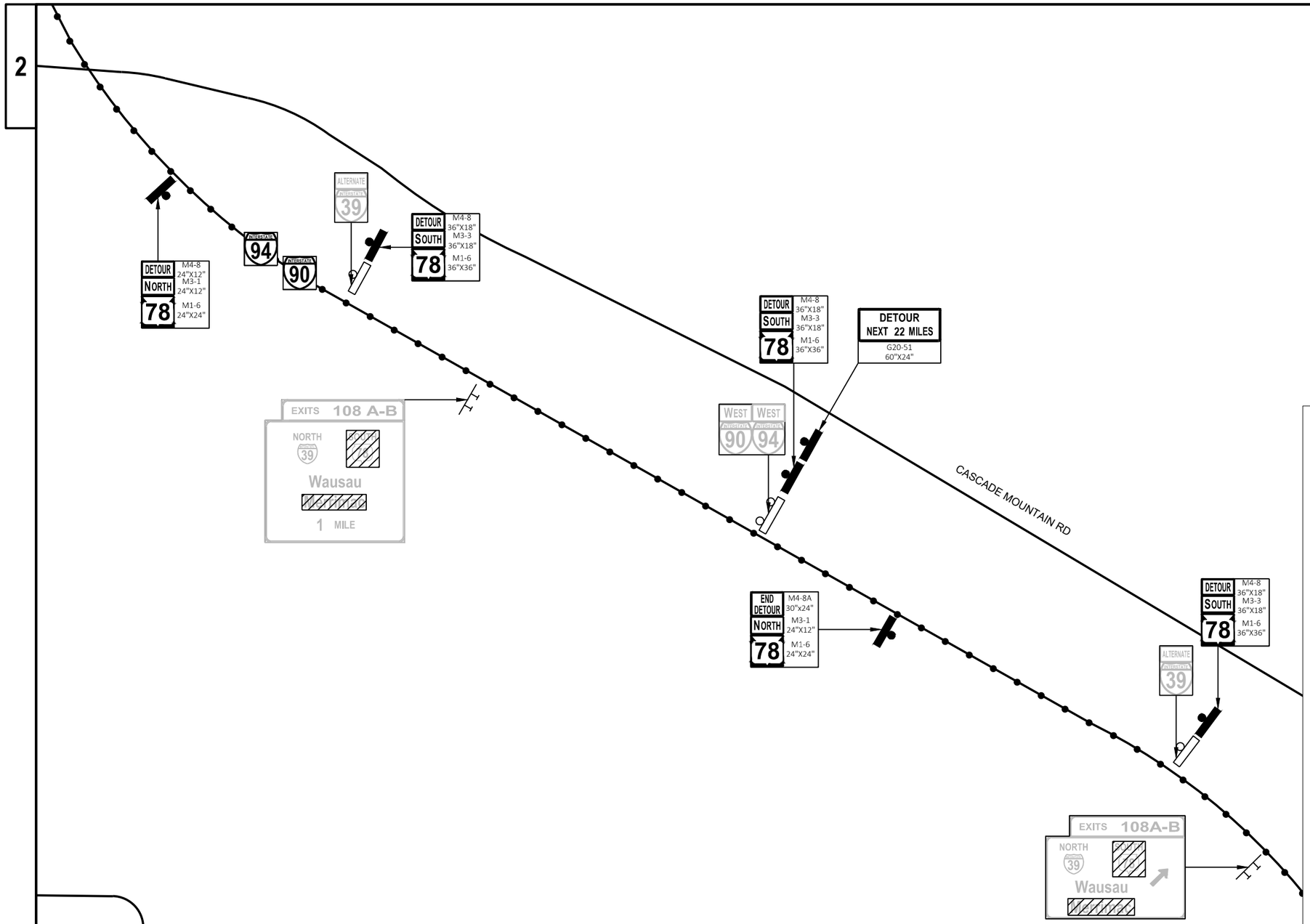
PROJECT NO: 5630-06-80	HWY: STH 78	COUNTY: COLUMBIA	DETOUR DETAILS	SHEET 20	E



DETAIL M

LEGEND

- ROAD CLOSED
- DETOUR ROUTE
- EXISTING SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON POST(S)
- TYPE III BARRICADE
- TYPE III BARRICADE WITH SIGN
- PROPOSED SIGN
- EXISTING SIGN
- EXISTING TYPE I SIGN
- EXISTING SIGN BRIDGE
- MB — PORTABLE CHANGEABLE MESSAGE SIGN

COVER EXISTING SIGN PAID FOR AS TRAFFIC CONTROL COVERING SIGNS TYPE II. PAID AS ONE COVER PER STATION

FRAME 1	FRAME 2
HWY 78 CLOSED	STARTING XX/XX/XX

GENERAL NOTES

SEE S.D.D. "BARRICADES AND SIGNS FOR MAINLINE CLOSURE", "BARRICADES AND SIGN FOR VARIOUS CLOSURES", AND "BARRICADES AND SIGNS FOR SIDEROAD CLOSURES", FOR ADDITIONAL MAINLINE CLOSURE INFORMATION

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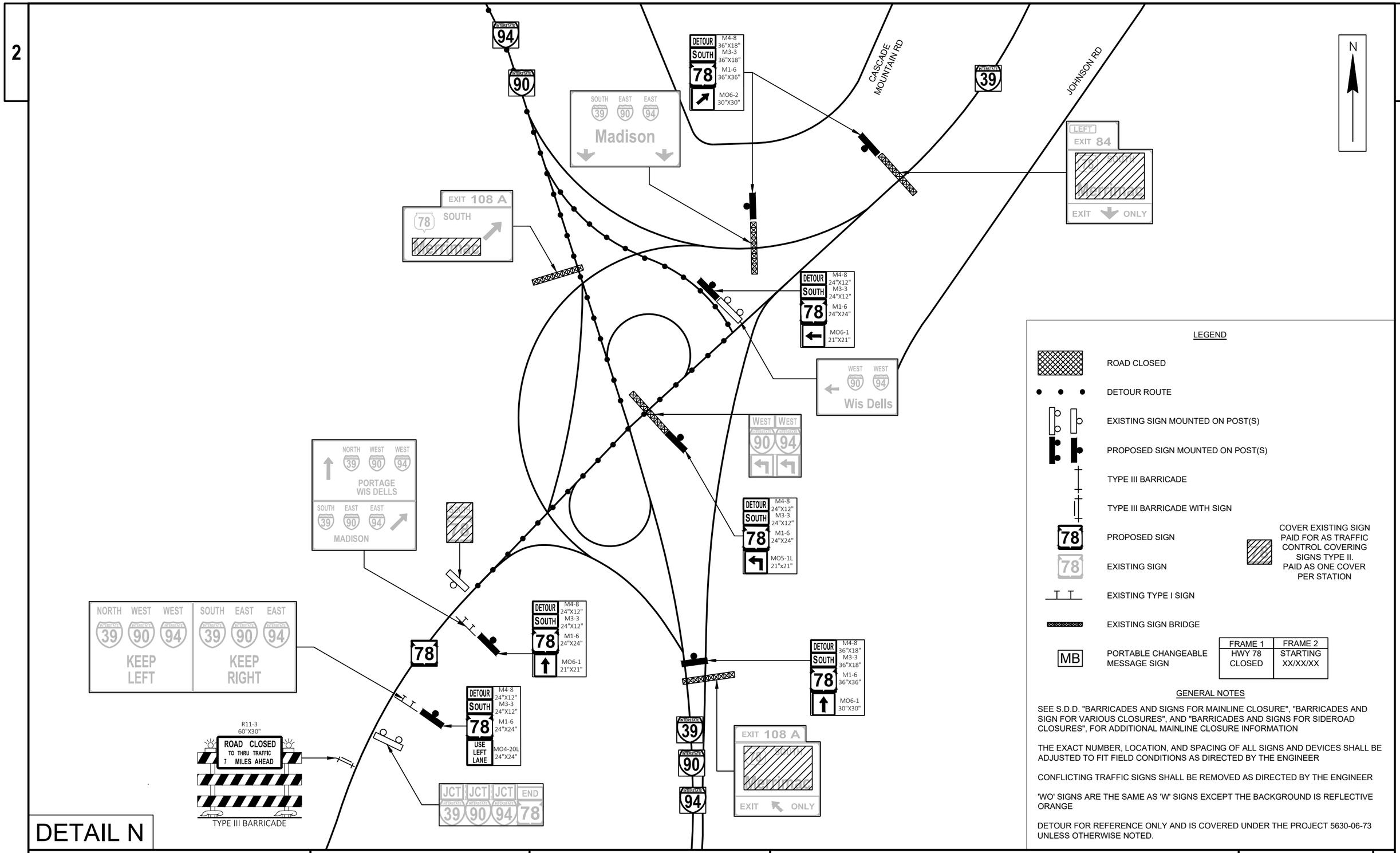
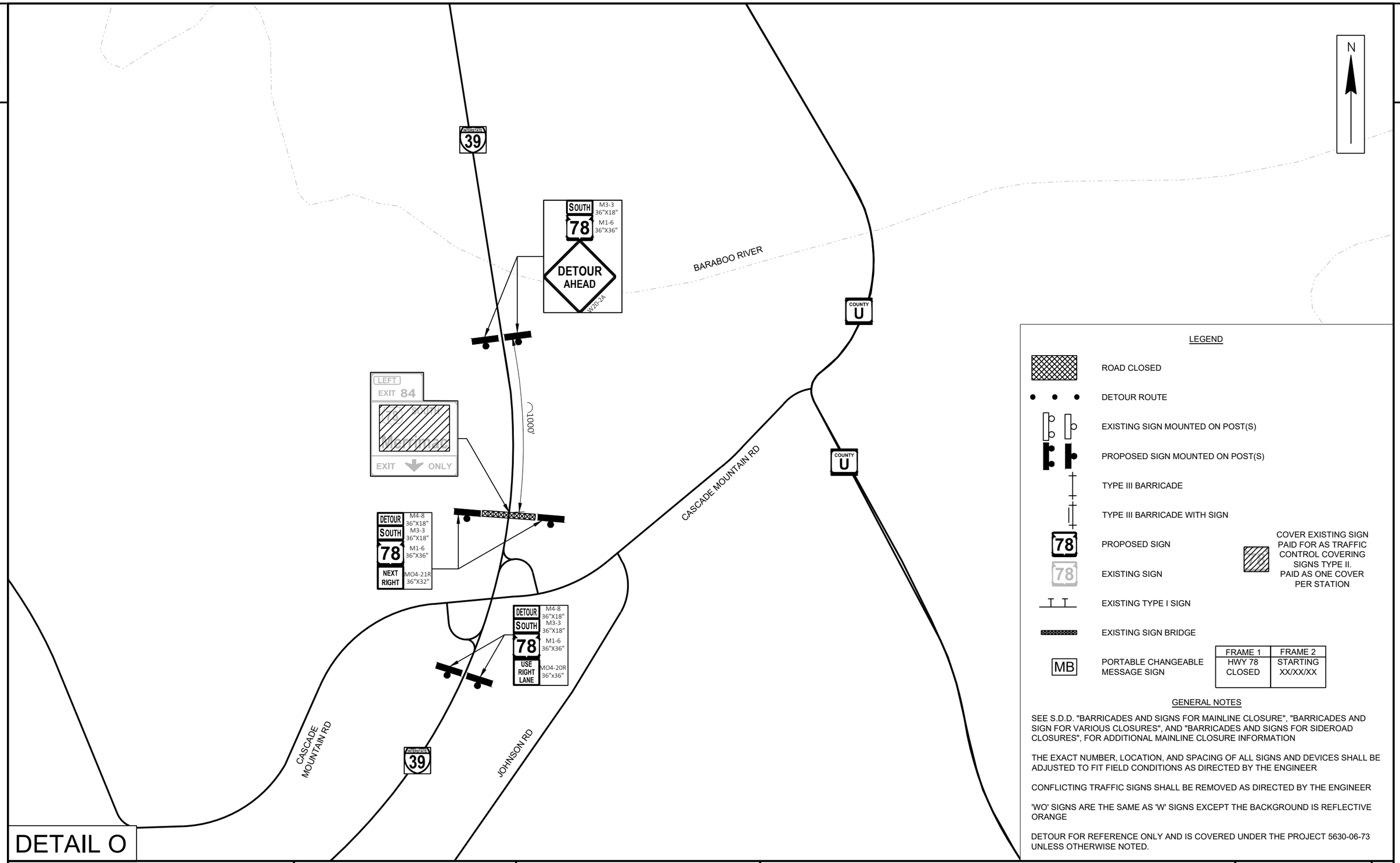
PROJECT NO: 5630-06-80	HWY: STH 78	COUNTY: COLUMBIA	DETOUR DETAILS	SHEET 21	E



DETAIL N

PROJECT NO: 5630-06-80	HWY: STH 78	COUNTY: COLUMBIA	DETOUR DETAILS	SHEET 22	E



DETAIL O

LEGEND

- ROAD CLOSED
- DETOUR ROUTE
- EXISTING SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON POST(S)
- TYPE III BARRICADE
- TYPE III BARRICADE WITH SIGN
- 78 — PROPOSED SIGN
- 78 — EXISTING SIGN
- EXISTING TYPE I SIGN
- EXISTING SIGN BRIDGE
- MB — PORTABLE CHANGEABLE MESSAGE SIGN

FRAME 1	FRAME 2
HWY 78 CLOSED	STARTING XX/XX/XX

COVER EXISTING SIGN PAID FOR AS TRAFFIC CONTROL COVERING SIGNS TYPE II. PAID AS ONE COVER PER STATION

GENERAL NOTES

SEE S.D.D. "BARRICADES AND SIGNS FOR MAINLINE CLOSURE", "BARRICADES AND SIGN FOR VARIOUS CLOSURES", AND "BARRICADES AND SIGNS FOR SIDEROAD CLOSURES", FOR ADDITIONAL MAINLINE CLOSURE INFORMATION

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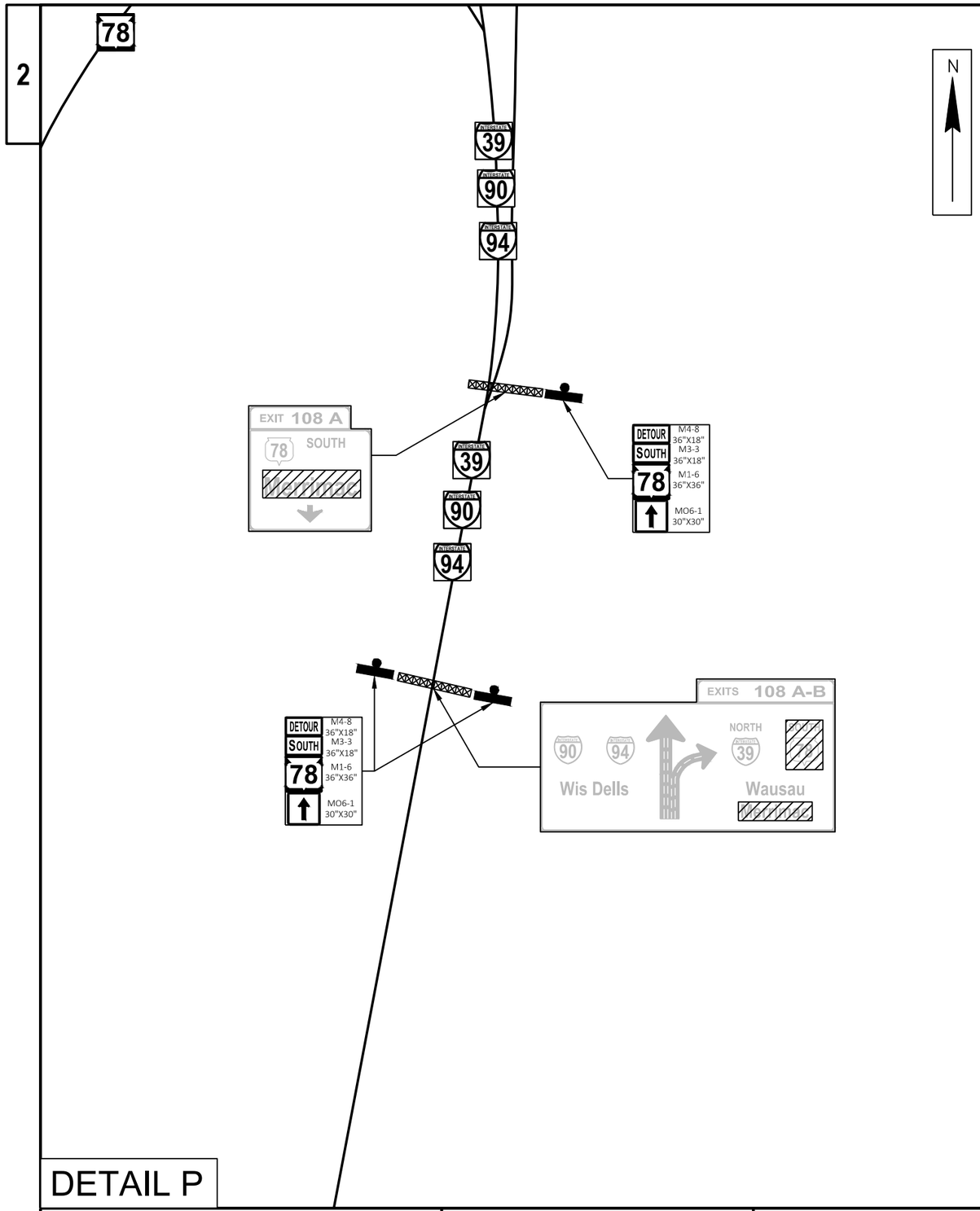
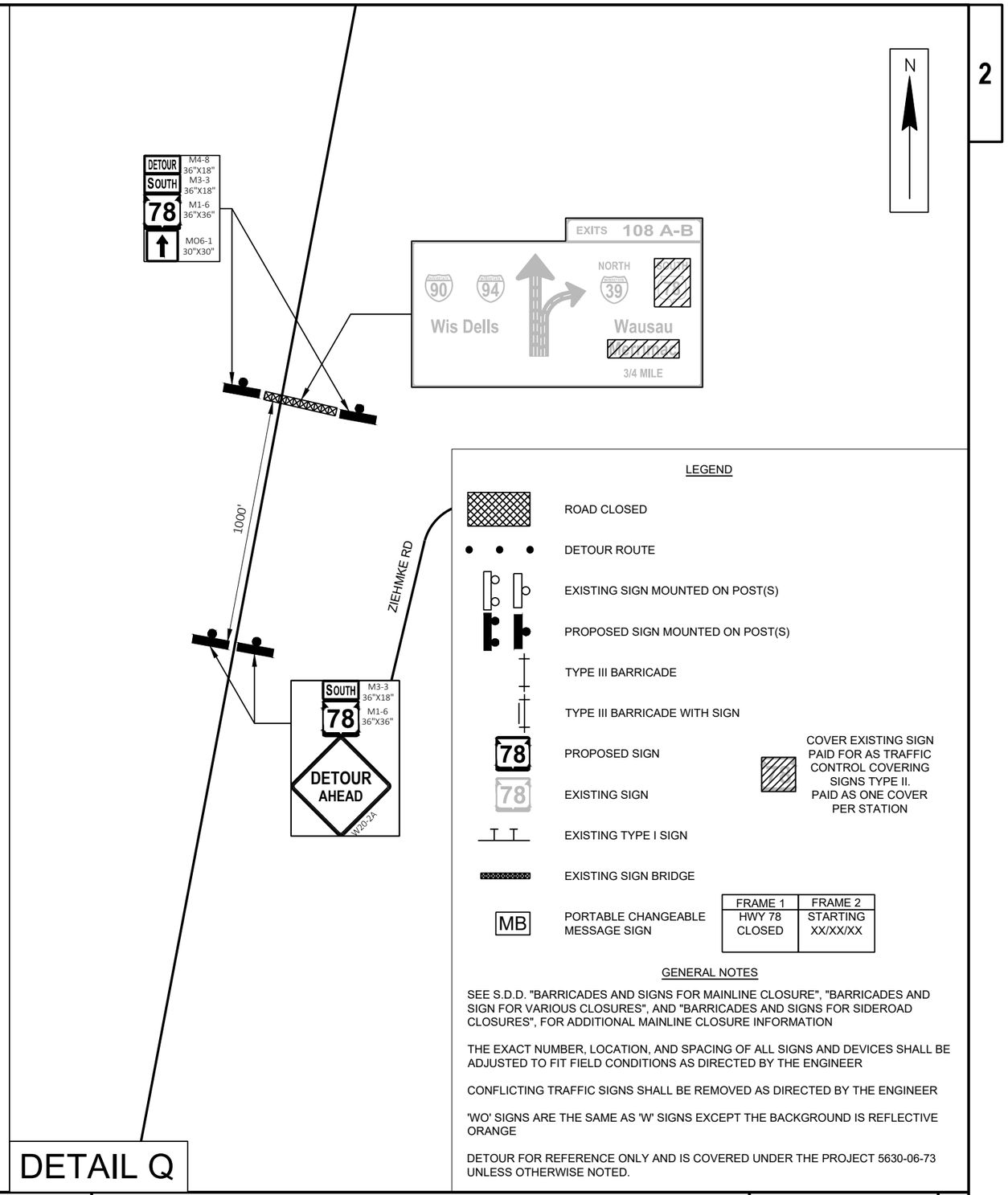
PROJECT NO: 5630-06-80	HWY: STH 78	COUNTY: COLUMBIA	DETOUR DETAILS	SHEET 23	E



DETAIL P



DETAIL Q

LEGEND

- ROAD CLOSED
- DETOUR ROUTE
- EXISTING SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON POST(S)
- TYPE III BARRICADE
- TYPE III BARRICADE WITH SIGN
- 78 — PROPOSED SIGN
- 78 — EXISTING SIGN
- EXISTING TYPE I SIGN
- EXISTING SIGN BRIDGE
- MB — PORTABLE CHANGEABLE MESSAGE SIGN

COVER EXISTING SIGN PAID FOR AS TRAFFIC CONTROL COVERING SIGNS TYPE II. PAID AS ONE COVER PER STATION

FRAME 1	FRAME 2
HWY 78 CLOSED	STARTING XX/XX/XX

GENERAL NOTES

SEE S.D.D. "BARRICADES AND SIGNS FOR MAINLINE CLOSURE", "BARRICADES AND SIGN FOR VARIOUS CLOSURES", AND "BARRICADES AND SIGNS FOR SIDEROAD CLOSURES", FOR ADDITIONAL MAINLINE CLOSURE INFORMATION

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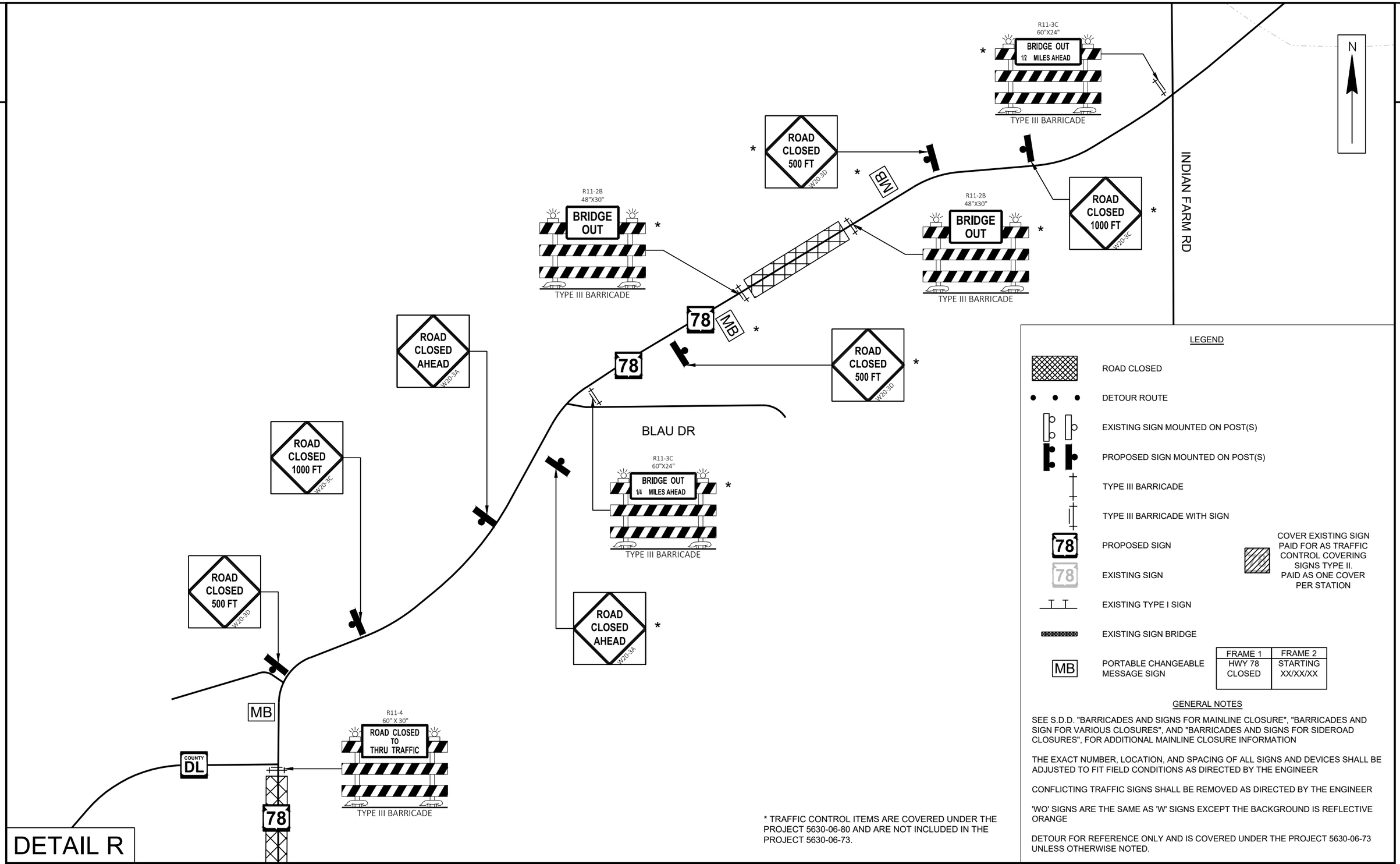
PROJECT NO: 5630-06-80	HWY: STH 78	COUNTY: COLUMBIA	DETOUR DETAILS	SHEET 24	E

2



LEGEND

- ROAD CLOSED
- DETOUR ROUTE
- EXISTING SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON POST(S)
- TYPE III BARRICADE
- TYPE III BARRICADE WITH SIGN
- 78 — PROPOSED SIGN
- 78 — EXISTING SIGN
- EXISTING TYPE I SIGN
- EXISTING SIGN BRIDGE
- MB — PORTABLE CHANGEABLE MESSAGE SIGN

COVER EXISTING SIGN PAID FOR AS TRAFFIC CONTROL COVERING SIGNS TYPE II. PAID AS ONE COVER PER STATION

FRAME 1	FRAME 2
HWY 78 CLOSED	STARTING XX/XX/XX

GENERAL NOTES

SEE S.D.D. "BARRICADES AND SIGNS FOR MAINLINE CLOSURE", "BARRICADES AND SIGN FOR VARIOUS CLOSURES", AND "BARRICADES AND SIGNS FOR SIDEROAD CLOSURES", FOR ADDITIONAL MAINLINE CLOSURE INFORMATION

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* TRAFFIC CONTROL ITEMS ARE COVERED UNDER THE PROJECT 5630-06-80 AND ARE NOT INCLUDED IN THE PROJECT 5630-06-73.

DETAIL R

PROJECT NO: 5630-06-80	HWY: STH 78	COUNTY: COLUMBIA	DETOUR DETAILS	SHEET 25	E

FILE NAME : \\FIWMAD7P3158\N3PUBLIC\PDS\C3D\56300600\SHEETSPLAN\027002-DT.DWG
LAYOUT NAME - DETAIL R
PLOT DATE : 9/24/2025 11:00 AM PLOT BY : KENDALL, EMILY ANN PLOT NAME : PLOT SCALE : 1 IN:500 FT
WISDOT/CADDS SHEET 42

2

PI STA = 31+15.34
Y = 352098.451
X = 501809.046
DELTA = 27°44'45" RT
D = 9°32'57"
T = 148.18'
L = 290.55'
R = 600.00'
PC STA = 29+67.16
Y = 351968.682
X = 501737.502
PT STA = 32+57.71
Y = 352179.992
X = 501932.777
DB = N28°52'07"E
DA = N56°36'52"E

PI STA = 55+73.08
Y = 353388.138
X = 503907.709
DELTA = 26°27'00" RT
D = 9°32'57"
T = 141.01'
L = 276.99'
R = 600.00'
PC STA = 54+32.08
Y = 353314.786
X = 503787.284
PT STA = 57+09.06
Y = 353400.172
X = 504048.200
DB = N58°39'15"E
DA = N85°06'15"E

PC: 29+67.16
N28°52'07"E
494.13'
30
BLAU DR
PT: 32+57.71
N56°36'52"E
288.25'
35
PI: 35+45.96
N59°12'17"E
714.85'
40
PI: 42+60.81
N58°30'37"E
289.70'
45
PI: 45+50.51
N58°37'29"E
632.40'
50
PI: 51+82.92
N58°39'15"E
249.16'
55
PC: 54+32.08
PT: 57+09.06
N85°06'15"E
435.52'

BEGIN PROJECT
STA 43+50

END PROJECT
STA 49+00

PROJECT NO: 5630-06-80	HWY: STH 78	COUNTY: COLUMBIA	ALIGNMENT DETAIL	SHEET 26	E

5630-06-80

Line	Item	Item Description	Unit	Total	Qty
0002	201.0105	Clearing	STA	6.000	6.000
0004	201.0205	Grubbing	STA	6.000	6.000
0010	203.0260	Removing Structure Over Waterway Minimal Debris (structure) 01. C-11-3005	EACH	1.000	1.000
0018	205.0100	Excavation Common	CY	1,324.000	1,324.000
0022	208.0100	Borrow	CY	192.000	192.000
0030	213.0100	Finishing Roadway (project) 02. 5630-06-80	EACH	1.000	1.000
0032	305.0110	Base Aggregate Dense 3/4-Inch	TON	60.000	60.000
0034	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	330.000	330.000
0038	312.0110	Select Crushed Material	TON	370.000	370.000
0040	455.0605	Tack Coat	GAL	40.000	40.000
0042	460.2000	Incentive Density HMA Pavement	DOL	90.000	90.000
0044	460.5224	HMA Pavement 4 LT 58-28 S	TON	120.000	120.000
0050	465.0560	Asphaltic Rumble Strips, Centerline	LF	120.000	120.000
0072	522.2368	Culvert Pipe Reinforced Concrete Horizontal Elliptical Class HE-III 68x106-Inch	LF	64.000	64.000
0074	522.2668	Apron Endwalls for Culvert Pipe Reinforced Concrete Horizontal Elliptical 68x106-Inch	EACH	2.000	2.000
0080	606.0300	Riprap Heavy	CY	75.000	75.000
0086	614.0920	Salvaged Rail	LF	650.000	650.000
0088	614.0925	Salvaged Guardrail End Treatments	EACH	4.000	4.000
0106	619.1000	Mobilization	EACH	0.150	0.150
0108	624.0100	Water	MGAL	25.000	25.000
0110	625.0500	Salvaged Topsoil	SY	2,690.000	2,690.000
0112	628.1504	Silt Fence	LF	310.000	310.000
0114	628.1520	Silt Fence Maintenance	LF	310.000	310.000
0116	628.1905	Mobilizations Erosion Control	EACH	2.000	2.000
0118	628.1910	Mobilizations Emergency Erosion Control	EACH	2.000	2.000
0120	628.2027	Erosion Mat Class II Type C	SY	2,690.000	2,690.000
0122	628.7504	Temporary Ditch Checks	LF	140.000	140.000
0126	629.0205	Fertilizer Type A	CWT	2.000	2.000
0128	630.0110	Seeding Mixture No. 10	LB	37.000	37.000
0130	630.0500	Seed Water	MGAL	65.000	65.000
0132	633.5200	Markers Culvert End	EACH	2.000	2.000
0144	643.0300	Traffic Control Drums	DAY	160.000	160.000
0146	643.0420	Traffic Control Barricades Type III	DAY	190.000	190.000
0148	643.0705	Traffic Control Warning Lights Type A	DAY	380.000	380.000
0152	643.0900	Traffic Control Signs	DAY	140.000	140.000
0158	643.1050	Traffic Control Signs PCMS	DAY	16.000	16.000
0164	643.5000	Traffic Control	EACH	0.150	0.150
0168	645.0120	Geotextile Type HR	SY	120.000	120.000
0170	646.2040	Marking Line Grooved Wet Ref Epoxy 6-Inch	LF	2,600.000	2,600.000
0174	650.4500	Construction Staking Subgrade	LF	120.000	120.000
0176	650.5000	Construction Staking Base	LF	120.000	120.000
0178	650.6000	Construction Staking Pipe Culverts	EACH	1.000	1.000
0188	650.9911	Construction Staking Supplemental Control (project) 02. 5630-06-80	EACH	1.000	1.000
0190	650.9920	Construction Staking Slope Stakes	LF	550.000	550.000
0192	690.0150	Sawing Asphalt	LF	52.000	52.000

3

REMOVALS

CATEGORY	STATION	TO	STATION	LOCATION	201.0105 CLEARING STA	201.0205 GRUBBING STA	203.0260.01 REMOVING STRUCTURE OVER WATERWAY MINIMAL DEBRIS (STRUCTURE) (01. C-11-3005) EACH	614.0920 SALVAGED RAIL LF	614.0925 SALVAGED GUARDRAIL END TREATMENTS EACH	690.0150 SAWING ASPHALT LF	REMARKS
0010	46+10	-	46+90	RT	1	1	--	325	2	--	
0010	43+50	-	47+10	LT	5	5	--	325	2	--	
0010	45+63			C-11-3005	--	--	--	--	--	26	START OF CULVERT TRENCH
0010	46+83			C-11-3005	--	--	--	--	--	26	END OF CULVERT TRENCH
				TOTAL 0010	6	6	0	650	4	52	
0020	45+63	-	46+83	C-11-3005	--	--	1	--	--	--	
				TOTAL 0020	0	0	1	0	0	0	
				PROJECT TOTAL	6	6	1	650	4	52	

AGGREGATE

CATEGORY	STATION	TO	STATION	LOCATION	305.0110 BASE AGGREGATE DENSE 3/4-INCH TON	305.0120 BASE AGGREGATE DENSE 1 1/4-INCH TON	312.0110 SELECT CRUSHED MATERIAL TON	624.0100 WATER MGAL
0010	43+50	-	49+00	SHOULDERS	55	--	--	3
0010	45+63	-	46+83	BASE	--	300	--	13
0010	45+63	-	46+83	SUBBASE	--	--	335	7
0010	43+50	-	49+00	UNDISTRIBUTED	5	30	35	2
				TOTAL 0010	60	330	370	25

LANDSCAPING

CATEGORY	STATION	TO	STATION	LOCATION	625.0500 SALVAGED TOPSOIL SY	629.0205 FERTILIZER TYPE A CWT	630.0110 SEEDING MIXTURE NO. 10 LB	630.0500 SEED WATER MGAL
0010	43+00	-	49+50	LT	1,560	1.0	21	35
0010	43+00	-	49+50	RT	1,000	0.8	14	25
0010	43+00	-	49+50	UNDISTRIBUTED	130	0.2	2	5
				TOTAL 0010	2,690	2.0	37	65

EARTHWORK

CATEGORY	STATION	TO	STATION	LOCATION	205.0100 EXCAVATION COMMON CY	208.0100 BORROW CY
0010	43+50	-	49+00		1,324	192
				TOTAL 0010	1,324	192

HMA

CATEGORY	STATION	TO	STATION	LOCATION	455.0605 TACK COAT GAL	460.5224 HMA PAVEMENT 4 LT 58-28 S TON	465.0560 ASPHALTIC RUMBLE STRIPS, CENTERLINE LF
0010	45+63	-	46+83	TOP HMA LAYER	20	40	120
0010	45+63	-	46+83	MIDDLE HMA LAYER	20	40	--
0010	45+63	-	46+83	BOTTOM HMA LAYER	--	40	--
				TOTAL 0010	40	120	120

CULVERT

CATEGORY	STATION	TO	STATION	LOCATION	522.2368 CULVERT PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL CLASS HE-III 68X106-INCH LF	522.2668 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL 68X106-INCH EACH	633.5200 MARKERS CULVERT END EACH
0020	46+18	-	46+28	C-11-3005	64	2	2
				TOTAL 0020	64	2	2

3

PROJECT NO: 5630-06-80	HWY: STH 78	COUNTY: COLUMBIA	MISCELLANEOUS QUANTITIES	SHEET 29	E

3

EROSION CONTROL

CATEGORY	STATION	TO	STATION	LOCATION	606.0300 RIPRAP HEAVY CY	628.1504 SILT FENCE LF	628.1520 SILT FENCE MAINTENANCE LF	628.2027 EROSION MAT CLASS II TYPE C SY	628.7504 TEMPORARY DITCH CHECKS LF	645.0120 GEOTEXTILE TYPE HR SY
0010	43+00	-	49+50	LT	--	--	--	1,560	90	--
0010	43+00	-	49+50	RT	--	290	290	1,000	40	--
0010	43+00	-	49+50	UNDISTRIBUTED	--	20	20	130	10	--
				TOTAL 0010	0	310	310	2,690	140	0
0020	43+00	-	49+50	LT	15	--	--	--	--	30
0020	43+00	-	49+50	RT	55	--	--	--	--	80
0020	43+00	-	49+50	UNDISTRIBUTED	5	--	--	--	--	10
				TOTAL 0020	75	0	0	0	0	120
				PROJECT TOTAL	75	310	310	2690	140	120

3

TRAFFIC CONTROL

CATEGORY	LOCATION	643.0300 TRAFFIC CONTROL DRUMS DAY	643.0420 TRAFFIC CONTROL BARRICADES TYPE III DAY	643.0705 TRAFFIC CONTROL WARNING LIGHTS TYPE A DAY	643.0900 TRAFFIC CONTROL SIGNS DAY	643.1050 TRAFFIC CONTROL SIGNS PCMS DAY	REMARKS
0010	DETOUR	140	170	340	120	14	DETOUR DURATION (14 DAYS)
0010	UNDISTRIBUTED	20	20	40	20	2	
	TOTAL 0010	160	190	380	140	16	

PAVEMENT MARKING

CATEGORY	STATION	TO	STATION	LOCATION	646.2040 MARKING LINE GROOVED WET REF EPOXY 6-INCH LF	REMARKS
0010	43+00	-	49+50	STH 78	1,300	CENTERLINE (YELLOW)
0010	43+00	-	49+50	STH 78	1,300	EDGELINE (WHITE)
				TOTAL 0010	2,600	

STAKING

CATEGORY	STATION	TO	STATION	LOCATION	650.4500 CONSTRUCTION STAKING SUBGRADE LF	650.5000 CONSTRUCTION STAKING BASE LF	650.6000 CONSTRUCTION STAKING PIPE CULVERTS EACH	650.9911.01 CONSTRUCTION STAKING SUPPLEMENTAL CONTROL (PROJECT) (01. 5630-06-80) EACH	650.9920 CONSTRUCTION STAKING SLOPE STAKES LF
0010	43+50	-	49+00	STH 78	120	120	--	1	550
				TOTAL 0010	120	120		1	550
0020	43+50	-	49+00	STH 78	--	--	1	--	--
				TOTAL 0020	0	0	1	0	0
				PROJECT TOTAL	120	120	1	1	550

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
TRANSPORTATION PROJECT PLAT TITLE SHEET
5630-06-20
SAUK CITY - IH 39
BOX CULVERT C-11-3072
STH 78
COLUMBIA

CONVENTIONAL SYMBOLS

SECTION LINE
QUARTER LINE
SIXTEENTH LINE
NEW REFERENCE LINE
NEW R/W LINE
EXISTING R/W OR HE LINE
PROPERTY LINE
LOT, TIE & OTHER MINOR LINES
SLOPE INTERCEPT
CORPORATE LIMITS
UNDERGROUND FACILITY (COMMUNICATIONS, ELECTRIC, ETC) — W (TYPE)
NEW R/W (FEE OR HE) (HATCHING VARIES BY OWNER)
TEMPORARY LIMITED EASEMENT AREA
EASEMENT AREA (PERMANENT LIMITED OR RESTRICTED DEVELOPMENT)
TRANSMISSION STRUCTURES
BUILDING — TO BE REMOVED
BRIDGE — CULVERT

SECTION CORNER SYMBOL
SECTION CORNER MONUMENT
GEODETIC SURVEY MONUMENT
SIXTEENTH CORNER MONUMENT
SIGN — OFF-PREMISE SIGN (81-25)
PARCEL NUMBER 25 — UTILITY NUMBER 40
PARALLEL OFFSETS

R/W MONUMENT (TO BE SET)
NON-MONUMENTED R/W POINT
FOUND IRON PIN (1-INCH UNLESS NOTED) IP

	COMPENSABLE	NON-COMPENSABLE
ELECTRIC POLE	■	□
TELEPHONE POLE	◪	⌀
PEDESTAL (LABEL TYPE) (TV, TEL, ELEC, ETC.)	⧓	⧒

ACCESS RESTRICTED BY ACQUISITION
NO ACCESS (BY STATUTORY AUTHORITY)
ACCESS RESTRICTED (BY PREVIOUS PROJECT OR CONTROL)
NO ACCESS (NEW HIGHWAY)

CONVENTIONAL ABBREVIATIONS

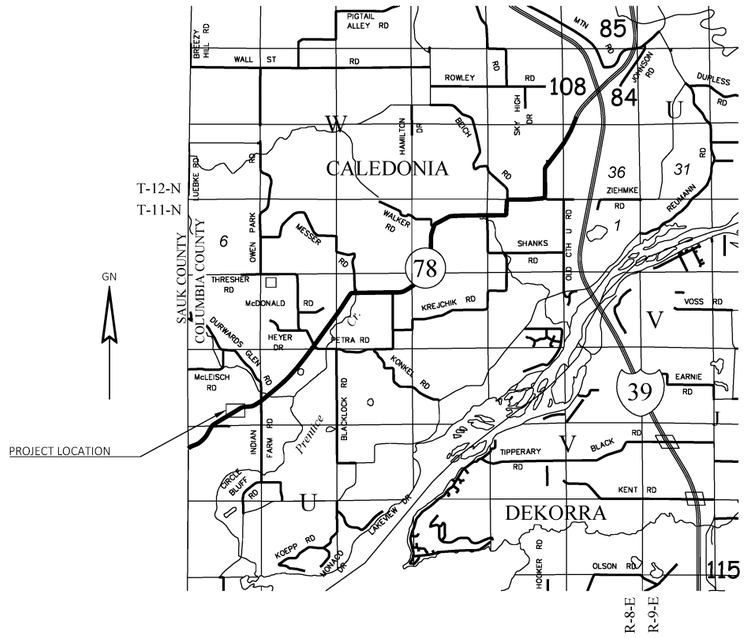
ACCESS RIGHTS	AR	POINT OF COMPOUND CURVE	PCC
ACRES	AC	POINT OF INTERSECTION	PI
AHEAD	AH	PROPERTY LINE	PL
ALUMINUM	ALUM	RECORDED AS	(100')
AND OTHERS	ET AL	REEL / IMAGE	R/I
BACK	BK	REFERENCE LINE	R/L
BLOCK	BLK	REMAINING	REM
CENTERLINE	C/L	RESTRICTIVE DEVELOPMENT EASEMENT	RDE
CERTIFIED SURVEY MAP	CSM	RIGHT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

CURVE DATA ABBREVIATIONS

LONG CHORD	LCH
LONG CHORD BEARING	LCB
RADIUS	R
DEGREE OF CURVE	D
CENTRAL ANGLE	Δ /DELTA
LENGTH OF CURVE	L
TANGENT	T
DIRECTION AHEAD	DA
DIRECTION BACK	DB

CONVENTIONAL UTILITY SYMBOLS

WATER	W
GAS	G
TELEPHONE	T
OVERHEAD TRANSMISSION LINES	OH
ELECTRIC	E
CABLE TELEVISION	TV
FIBER OPTIC	FO
SANITARY SEWER	SAN
STORM SEWER	SS
ELECTRIC TOWER	⊠



LAYOUT
SCALE 0 1 MI.

THE NOTES,CONVENTIONAL SIGNS, AND ABBREVIATIONS ARE ASSOCIATED WITH EACH TRANSPORTATION PROJECT PLAT FOR PROJECT 5630-06-20

NOTES:

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

ALL NEW RIGHT-OF-WAY MONUMENTS WILL BE TYPE 2 (TYPICALLY ¾" X 24" IRON REBARS), UNLESS OTHERWISE NOTED, AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT.

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

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

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

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

A PERMANENT LIMITED EASEMENT (PLE) IS A RIGHT FOR CONSTRUCTION AND MAINTENANCE PURPOSES, AS DEFINED HEREIN, INCLUDING THE RIGHT TO OPERATE NECESSARY EQUIPMENT THEREON AND THE RIGHT OF INGRESS AND EGRESS, AS LONG AS REQUIRED FOR SUCH PUBLIC PURPOSE, INCLUDING THE RIGHT TO PRESERVE, PROTECT, REMOVE, OR PLANT THEREON ANY VEGETATION THAT THE HIGHWAY AUTHORITIES MAY DEEM DESIRABLE, BUT WITHOUT PREJUDICE TO THE OWNER'S RIGHTS TO MAKE OR CONSTRUCT IMPROVEMENTS ON SAID LANDS OR TO FLATTEN THE SLOPES, PROVIDING SAID ACTIVITIES WILL NOT IMPAIR OR OTHERWISE ADVERSELY AFFECT THE HIGHWAY FACILITIES.

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

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

FOR THE CURRENT ACCESS/DRIVEWAY INFORMATION, CONTACT THE PLANNING UNIT OF THE WISCONSIN DEPARTMENT OF TRANSPORTATION OFFICE IN MADISON

PARCEL AND UTILITY IDENTIFICATION NUMBERS MAY NOT POINT TO ALL AREAS OF ACQUISITION, AS NOTED ON THE TPP DETAIL PAGES.

INFORMATION FOR THE BASIS OF EXISTING HIGHWAY RIGHT-OF-WAY POINTS OF REFERENCE AND ACCESS CONTROL ARE LISTED ON THE TPP DETAIL PAGES.

PROJECT NUMBER 5630-06-20 - 4. 01
SHEET 2 OF 2

FILE NAME : C:\BOXDRV\BOX\DTSD-PROJECTS-PUBLIC\SWR-PROJECTS-STATE\DESIGN\56300600\SURVEYPLATS\PLATS\01 JOERG IN-HOUSE PLAT\C3D\5630-06-20 TPP JF.DWG
LAYOUT NAME: Title
PLOT DATE : 9/16/2015 3:04 PM PLOT BY : FELDBINDER, JOERG PLOT NAME : _____

TRANSPORTATION PROJECT PLAT NO: 5630-06-20 - 4.01

PART OF THE SOUTWEST QUARTER OF THE SOUTHEAST QUARTER OF SECTION 18, TOWNSHIP 11 NORTH, RANGE 8 EAST, TOWN OF CALEDONIA, COLUMBIA COUNTY, WISCONSIN.

RELOCATION ORDER: STH 78, SAUK CITY - IH 39 (BOX CULVERT C-11-3072), COLUMBIA COUNTY

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

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

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

NOTES:

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

ALL NEW RIGHT-OF-WAY MONUMENTS WILL BE TYPE 2 (TYPICALLY ¾" X 24" IRON REBARS), UNLESS OTHERWISE NOTED, AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT.

FOR THE CURRENT ACCESS/DRIVEWAY INFORMATION, CONTACT THE PLANNING UNIT OF THE WISCONSIN DEPARTMENT OF TRANSPORTATION OFFICE IN MADISON.

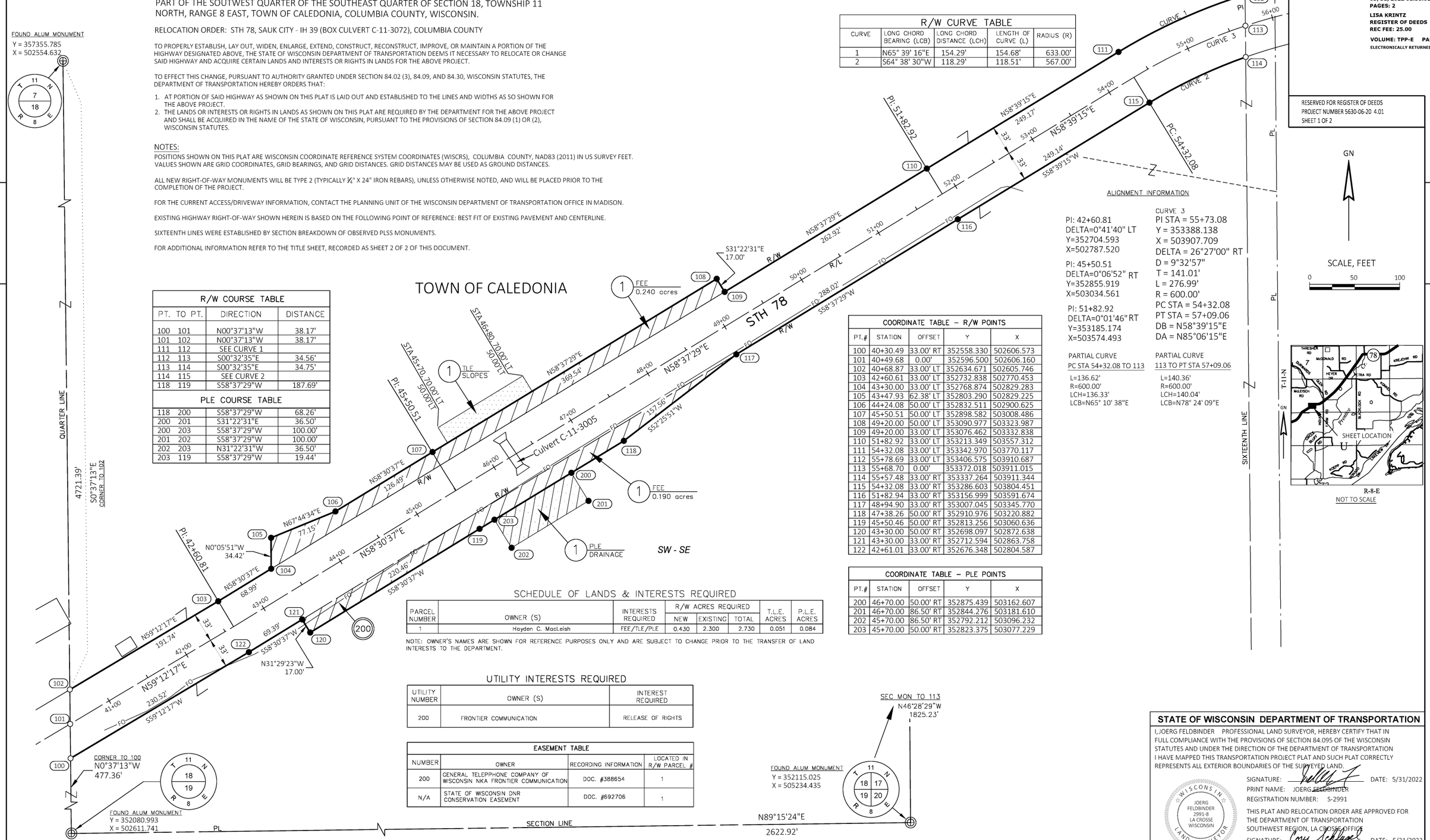
EXISTING HIGHWAY RIGHT-OF-WAY SHOWN HEREIN IS BASED ON THE FOLLOWING POINT OF REFERENCE: BEST FIT OF EXISTING PAVEMENT AND CENTERLINE.

SIXTEENTH LINES WERE ESTABLISHED BY SECTION BREAKDOWN OF OBSERVED PLSS MONUMENTS.

FOR ADDITIONAL INFORMATION REFER TO THE TITLE SHEET, RECORDED AS SHEET 2 OF 2 OF THIS DOCUMENT.

DOC # 956928
REGISTER OF DEEDS
COLUMBIA COUNTY
RECORDED ON:
05/31/2022 01:38:01 PM
PAGES: 2
LISA KRINTZ
REGISTER OF DEEDS
REC FEE: 25.00
VOLUME: TPP-E PAGE: 49
ELECTRONICALLY RETURNED TO SENDER

RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 5630-06-20 4.01
SHEET 1 OF 2



R/W COURSE TABLE

PT. TO PT.	DIRECTION	DISTANCE
100 101	N00°37'13"W	38.17'
101 102	N00°37'13"W	38.17'
111 112	SEE CURVE 1	
112 113	S00°32'35"E	34.56'
113 114	S00°32'35"E	34.75'
114 115	SEE CURVE 2	
118 119	S58°37'29"W	187.69'

PLE COURSE TABLE

118	200	S58°37'29"W	68.26'
200	201	S31°22'31"E	36.50'
200	203	S58°37'29"W	100.00'
201	202	S58°37'29"W	100.00'
202	203	N31°22'31"W	36.50'
203	119	S58°37'29"W	19.44'

R/W CURVE TABLE

CURVE	LONG CHORD BEARING (LCB)	LONG CHORD DISTANCE (LCH)	LENGTH OF CURVE (L)	RADIUS (R)
1	N65° 39' 16"E	154.29'	154.68'	633.00'
2	S64° 38' 30"W	118.29'	118.51'	567.00'

COORDINATE TABLE – R/W POINTS

PT.#	STATION	OFFSET	Y	X
100	40+30.49	33.00' RT	352558.330	502606.573
101	40+49.68	0.00'	352596.500	502606.160
102	40+68.87	33.00' LT	352634.671	502605.746
103	42+60.61	33.00' LT	352732.838	502770.453
104	43+30.00	33.00' LT	352768.874	502829.283
105	43+47.93	62.38' LT	352803.290	502829.225
106	44+24.08	50.00' LT	352832.511	502900.625
107	45+50.51	50.00' LT	352898.582	503008.486
108	49+20.00	50.00' LT	353090.977	503323.987
109	49+20.00	33.00' LT	353076.462	503332.838
110	51+82.92	33.00' LT	353213.349	503557.312
111	54+32.08	33.00' LT	353342.970	503770.117
112	55+78.69	33.00' LT	353406.575	503910.687
113	55+68.70	0.00'	353372.018	503911.015
114	55+57.48	33.00' RT	353337.264	503911.344
115	54+32.08	33.00' RT	353286.603	503804.451
116	51+82.94	33.00' RT	353156.999	503591.674
117	48+94.90	33.00' RT	353007.045	503345.770
118	47+38.26	50.00' RT	352910.976	503220.882
119	45+50.46	50.00' RT	352813.256	503060.636
120	43+30.00	50.00' RT	352698.097	502872.638
121	43+30.00	33.00' RT	352712.594	502863.758
122	42+61.01	33.00' RT	352676.348	502804.587

COORDINATE TABLE – PLE POINTS

PT.#	STATION	OFFSET	Y	X
200	46+70.00	50.00' RT	352875.439	503162.607
201	46+70.00	86.50' RT	352844.276	503181.610
202	45+70.00	86.50' RT	352792.212	503096.232
203	45+70.00	50.00' RT	352823.375	503077.229

SCHEDULE OF LANDS & INTERESTS REQUIRED

PARCEL NUMBER	OWNER (S)	INTERESTS REQUIRED	R/W ACRES REQUIRED NEW	EXISTING	TOTAL	T.L.E. ACRES	P.L.E. ACRES
1	Hayden C. MacLeish	FEE/TLE/PLE	0.430	2.300	2.730	0.051	0.084

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

UTILITY INTERESTS REQUIRED

UTILITY NUMBER	OWNER (S)	INTEREST REQUIRED
200	FRONTIER COMMUNICATION	RELEASE OF RIGHTS

EASEMENT TABLE

NUMBER	OWNER	RECORDING INFORMATION	LOCATED IN R/W PARCEL #
200	GENERAL TELEPPHONE COMPANY OF WISCONSIN NKA FRONTIER COMMUNICATION	DOC. #388654	1
N/A	STATE OF WISCONSIN DNR CONSERVATION EASEMENT	DOC. #692706	1

ALIGNMENT INFORMATION

PI: 42+60.81
DELTA=0°41'40" LT
Y=352704.593
X=502787.520

PI: 45+50.51
DELTA=0°06'52" RT
Y=352855.919
X=503034.561

PI: 51+82.92
DELTA=0°01'46"RT
Y=353185.174
X=503574.493

PARTIAL CURVE
PC STA 54+32.08 TO 113
L=136.62'
R=600.00'
LCH=136.33'
LCB=N65° 10' 38"E

CURVE 3
PI STA = 55+73.08
Y = 353388.138
X = 503907.709
DELTA = 26°27'00" RT
D = 9°32'57"
T = 141.01'
L = 276.99'
R = 600.00'
PC STA = 54+32.08
PT STA = 57+09.06
DB = N58°39'15"E
DA = N85°06'15"E

PARTIAL CURVE
113 TO PT STA 57+09.06
L=140.36'
R=600.00'
LCH=140.04'
LCB=N78° 24' 09"E

GN
SCALE, FEET
0 50 100

NOT TO SCALE

STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION

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

SIGNATURE: _____ DATE: 5/31/2022
PRINT NAME: JOERG FELDBINDER
REGISTRATION NUMBER: S-2991

JOERG FELDBINDER 2991-8 LA CROSSE WISCONSIN — WISCONSIN LAND SURVEYOR

THIS PLAT AND RELOCATION ORDER ARE APPROVED FOR THE DEPARTMENT OF TRANSPORTATION SOUTHWEST REGION, LA CROSSE OFFICE
SIGNATURE: _____ DATE: 5/31/2022
PRINT NAME: CORY SCHLAGEL

FILE NAME : C:\BOXDRV\BOX\DTSD-PROJECTS-PUBLIC\SWR-PROJECTS-STATE\DESIGN\56300600\SURVEYPLATS\PLATS\01 JOERG IN-HOUSE PLAT\C3D\5630-06-20 TPP JF.DWG PLOT DATE : PLOT BY : FELDBINDER, JOERG PLOT NAME : PLOT SCALE : 1 IN:50 FT
APPRAISAL PLAT DATE : 5/31/2022

BEGIN PROJECT
STA 43+50
X = 502,820.939
Y = 352,725.064

EDGE OF BASE AGGREGATE SHOULDER (TYP.)
EDGE OF HMA PAVEMENT SHOULDER (TYP.)
SLOPE INTERCEPT
SALVAGED GUARDRAIL END TREATMENTS
FINISHED R/W
CONTROL POINT 903
Y = 352,878.726'
X = 503,010.140'
PI: 45+50.51
TLE
UNNAMED TRIBUTARY
EXISTING R/W
SALVAGED RAIL
336 LF
SALVAGED GUARDRAIL END TREATMENTS
CONTROL POINT 901
Y = 353,045.501'
X = 503,288.237'
F.E. REQ'D (BASE)
STA. 49+23, LT

32'
1'
2'
12'
33'
N58°30'37"E
289.70'
45
STH 78
N58°37'29"E
632.40'
N58°37'29"E
632.40'

SEE CONSTRUCTION DETAILS
FOR CULVERT INFORMATION

END PROJECT
STA 49+00
X = 503,375.632
Y = 353,063.907

CONTROL POINT 902
Y = 352,745.013'
X = 502,913.647'

SALVAGED RAIL
336 LF
SALVAGED GUARDRAIL END TREATMENTS
EXISTING R/W
FINISHED R/W
PLE
FO UTILITY CONTINUES
TO STA 49+00
OFFSET 33 FT (APPROX.)
SLOPE INTERCEPT
SALVAGED GUARDRAIL END TREATMENTS
EDGE OF HMA PAVEMENT SHOULDER (TYP.)
EDGE OF BASE AGGREGATE SHOULDER (TYP.)

BENCHMARKS			
NO.	STATION	ELEV.	DESCRIPTION
902	43+89.48	903.175	CP FENO
903	45+41.60	897.545	CP FENO
901	48+65.80	905.127	CP FENO
900	49+60.48	899.270	CP FENO

UTILITY LEGEND
1 ALLIANT ENERGY
2 FRONTIER COMMUNICATIONS OF WI LLC

915
910
905
900
895
890
886

VCL = 235.00
K = 49.00
VCL = 125.00
K = 49.64
EXISTING PROFILE
PROPOSED PROFILE
-4.42%
BEGIN PROJECT
STA 43+50
LP STA 46+15.80
LP EL 898.58
VPT STA 46+34.32
VPT EL 898.61
VPC STA 48+04.54
VPC EL 901.85
END PROJECT
STA 49+00
VPI STA 48+72.04
VPI EL 903.80
2.90%
0.38%
VPC STA 43+99.32
VPC EL 903.36
VPI STA 45+16.82
VPI EL 898.17
SEE CONSTRUCTION DETAILS
FOR CULVERT INFORMATION
VPC STA 46+39.03
VPC EL 898.63
VPI STA 47+01.53
VPI EL 898.87
VPT STA 47+64.03
VPT EL 900.68
HP STA 48+95.28
HP EL 903.16
VCL = 135.00
K = 31.33
PROPOSED ELEVATION
EXISTING ELEVATION

905.44	903.20	901.25	899.78	898.87	898.52	898.54	899.05	900.11	901.64	902.81	903.12	
43	44		45		46		47		48		49	

PROJECT NO: 5630-06-80	HWY: STH 78	COUNTY: COLUMBIA	PLAN AND PROFILE: CULVERT PIPE	SHEET 33	E

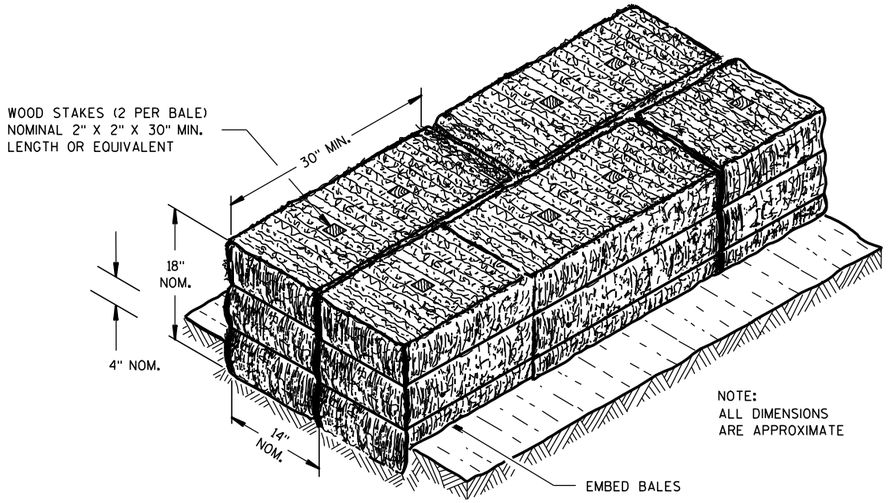
FILE NAME : \\FIWMAD7P3158\N3PUBLIC\PDS\C3D\56300600\SHEETSPLAN\050101-PP.DWG
LAYOUT NAME - 01
PLOT DATE : 9/24/2025 12:44 PM PLOT BY : KENDALL, EMILY ANN PLOT NAME : PLOT SCALE : 1 IN:40 FT

Standard Detail Drawing List

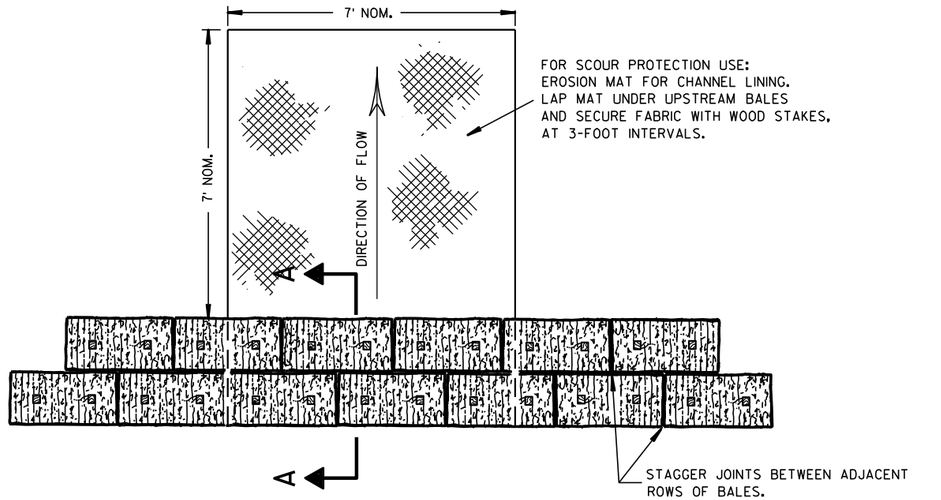
08E08-03	TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS
08E09-06	SILT FENCE
08E15-01	CULVERT PIPE CHECK
08F02-01	APRON ENDWALLS FOR PIPE ARCH AND ELLIPTICAL PIPE
08F04-08	JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL
13A11-04A	CENTERLINE RUMBLE STRIPS - ASPHALT
13A11-04D	CENTERLINE RUMBLE STRIPS - INTERSECTIONS, DRIVEWAYS, BRIDGES, RAILROADS
13C19-03	HMA LONGITUDINAL JOINTS
14B29-01	SAFETY EDGE
15A03-02A	FLEXIBLE MARKER POST FOR CULVERT END
15A03-02B	FLEXIBLE MARKER POST FOR CULVERT END
15C02-09A	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-09B	BARRICADES AND SIGNS FOR VARIOUS CLOSURES
15C02-09C	DETOUR SIGNING FOR MAINLINE CLOSURES
15C08-24A	PERMANENT LONGITUDINAL PAVEMENT MARKINGS
15C11-10B	CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS

6

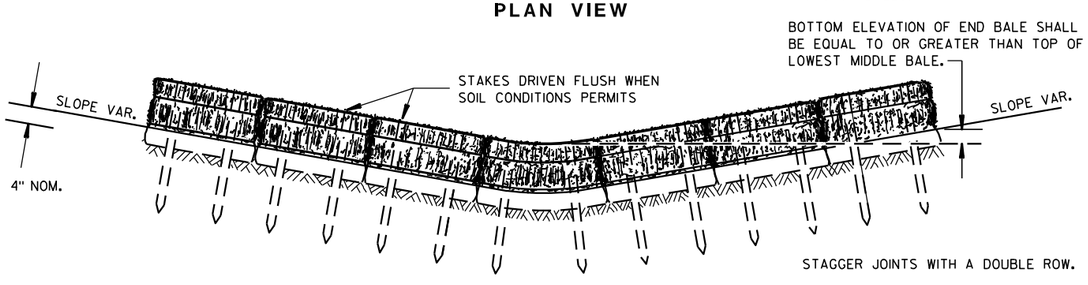
6



SECTION A-A



PLAN VIEW



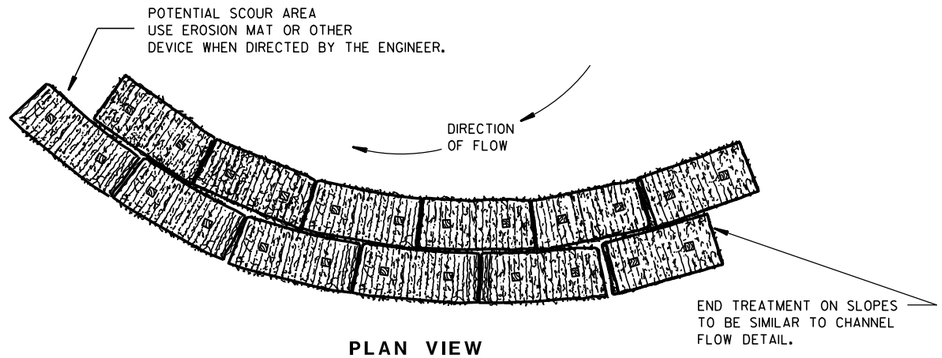
FRONT ELEVATION

TEMPORARY DITCH CHECK USING EROSION BALES (1)

GENERAL NOTES

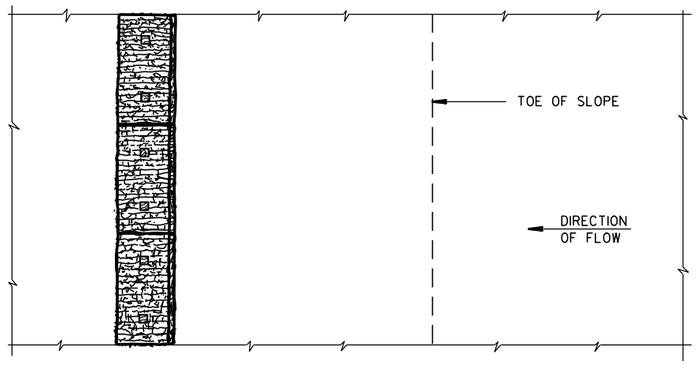
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

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

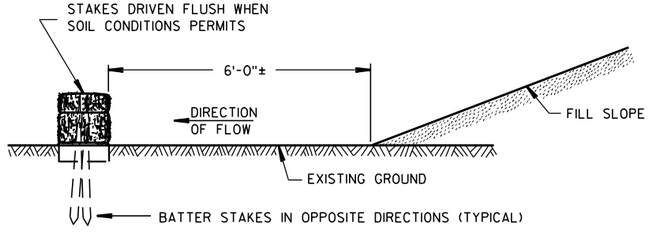


PLAN VIEW

WHEN ALTERING THE DIRECTION OF FLOW



PLAN VIEW



FRONT ELEVATION

WHEN EXISTING GROUND SLOPES AWAY FROM FILL SLOPE

EROSION BALES FOR SHEET FLOW

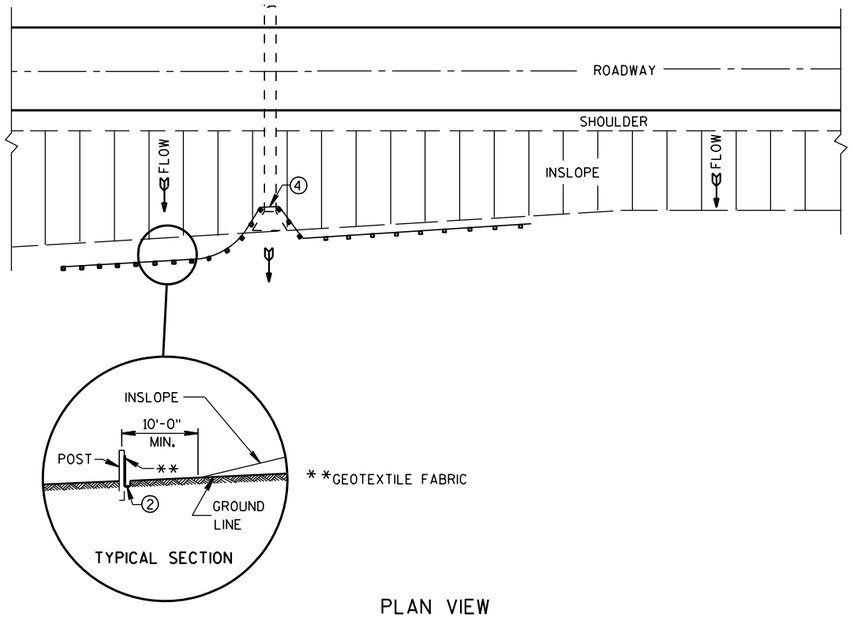
TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

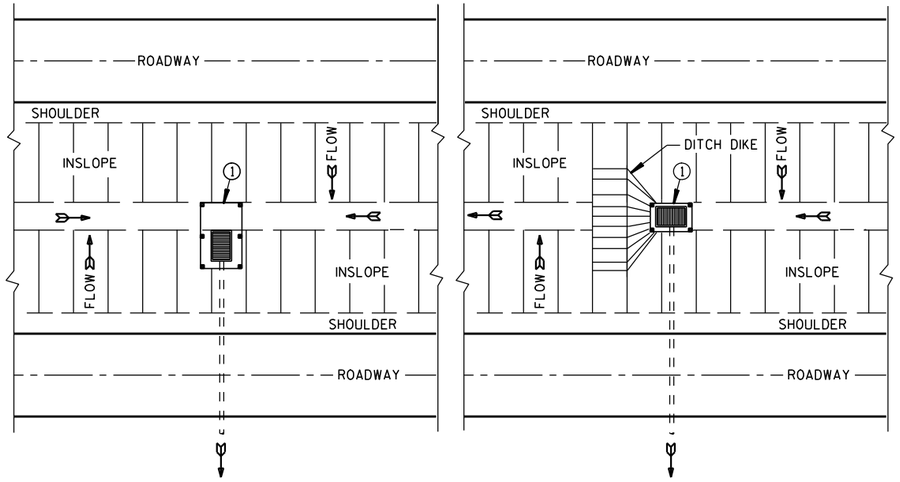
6/04/02 DATE — /S/ Beth Cannestra — CHIEF ROADWAY DEVELOPMENT ENGINEER

FHWA



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.

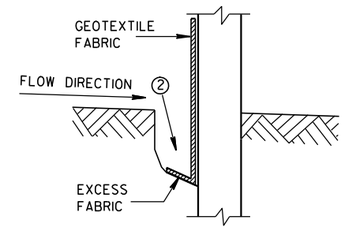
(1) HORIZONTAL BRACE REQUIRED WITH 2" X 4" WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS.

(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.

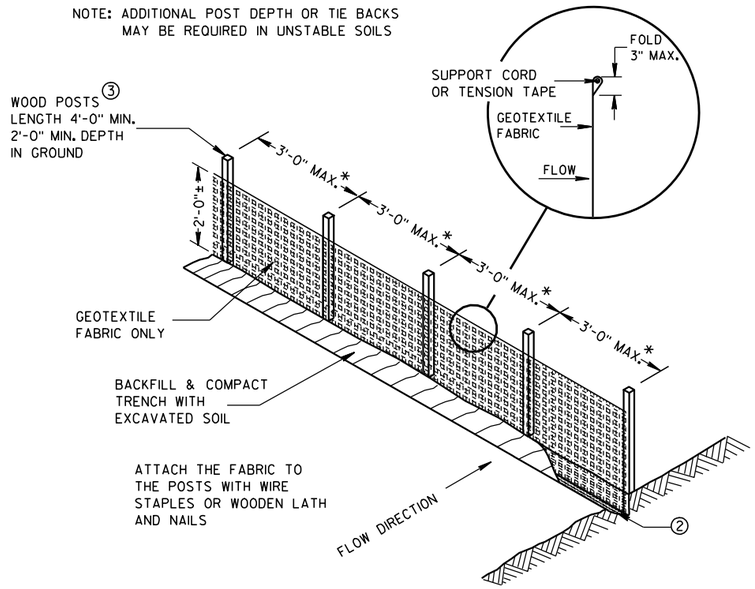
(3) WOOD POSTS SHALL BE A MINIMUM SIZE OF 1⅛" X 1⅛" OF OAK OR HICKORY.

(4) SILT FENCE TO EXTEND ACROSS THE TOP OF THE PIPE.

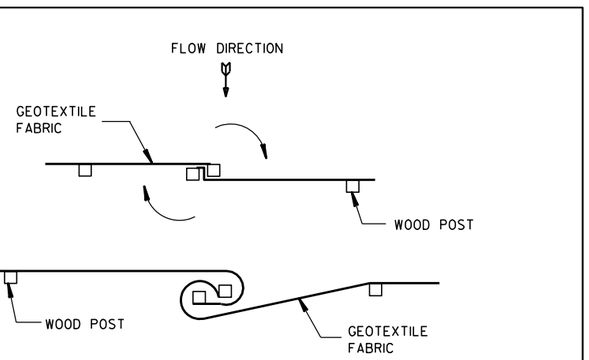
(5) CONSTRUCT SILT FENCE FROM A CONTINUOUS ROLL IF POSSIBLE BY CUTTING LENGTHS TO AVOID JOINTS. IF A JOINT IS NECESSARY USE ONE OF THE FOLLOWING TWO METHODS; A) OVERLAP THE END POSTS AND TWIST, OR ROTATE, AT LEAST 180 DEGREES, B) HOOK THE END OF EACH SILT FENCE LENGTH.



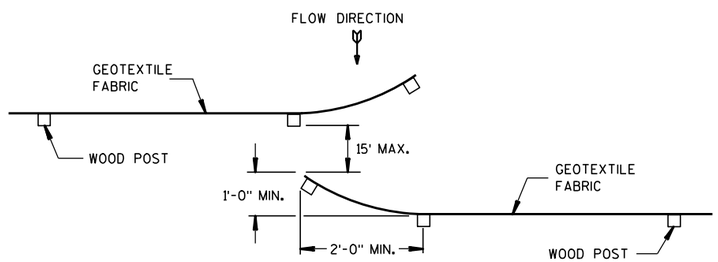
TRENCH DETAIL



SILT FENCE

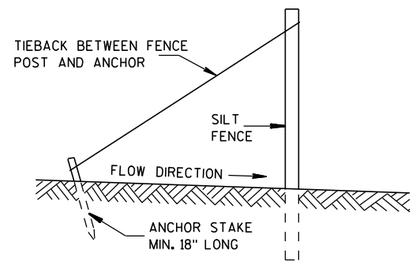


TWIST METHOD



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

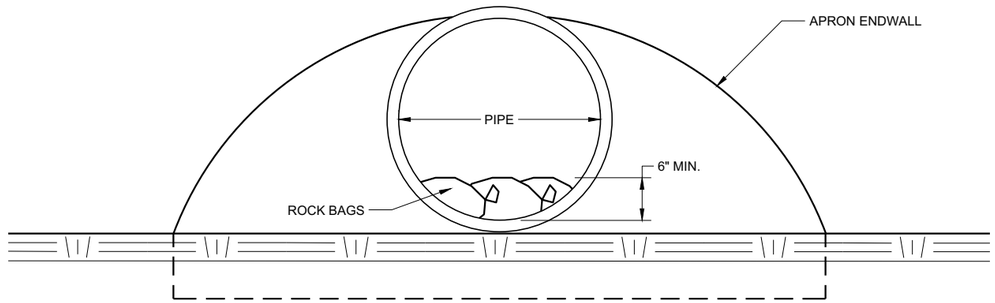
APPROVED
4-29-05 DATE
/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

6

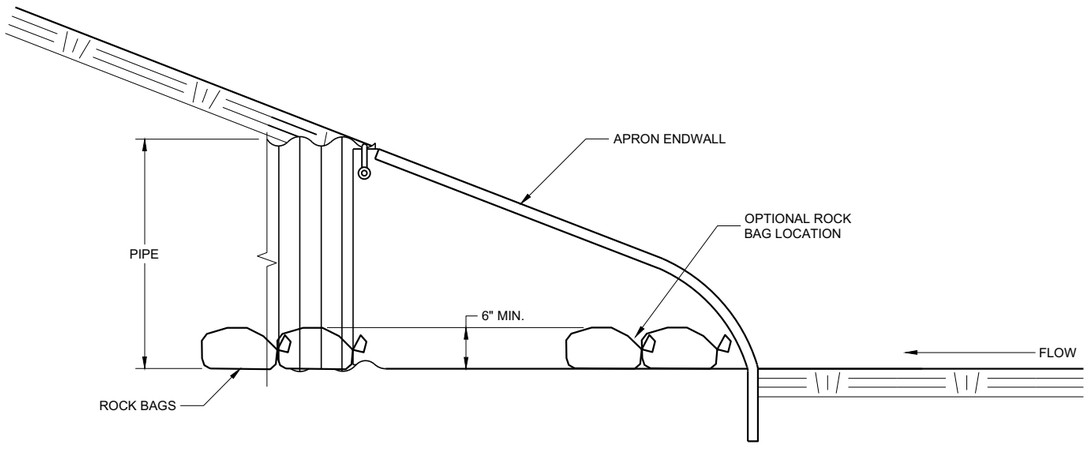
S.D.D. 8 E 9-6

6

S.D.D. 8 E 9-6



END VIEW



SIDE VIEW

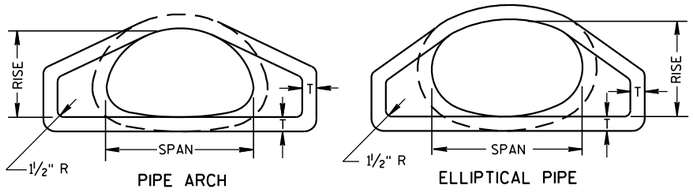
CULVERT PIPE CHECK

(INSTALL ON INLET END ONLY)

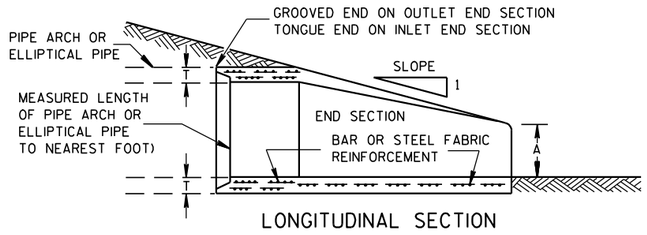
CULVERT PIPE CHECK	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED May 2019 DATE	/S/ Daniel Schave EROSION CONTROL ENGI
FHWA	

6

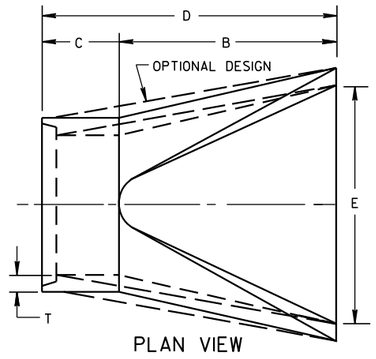
SDD 08E15 - 01



END VIEW

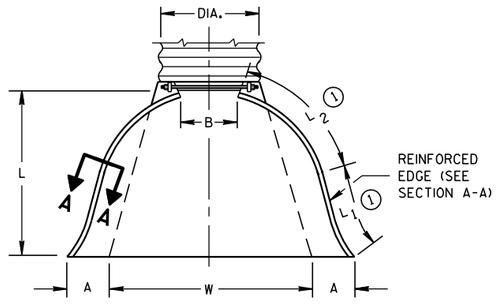


LONGITUDINAL SECTION

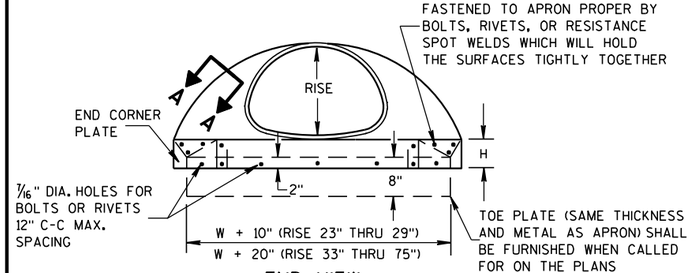


PLAN VIEW

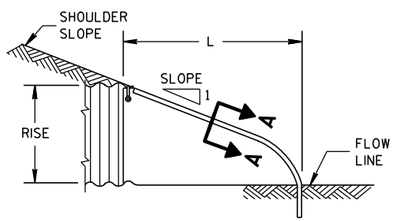
CONCRETE ENDWALLS



PLAN VIEW

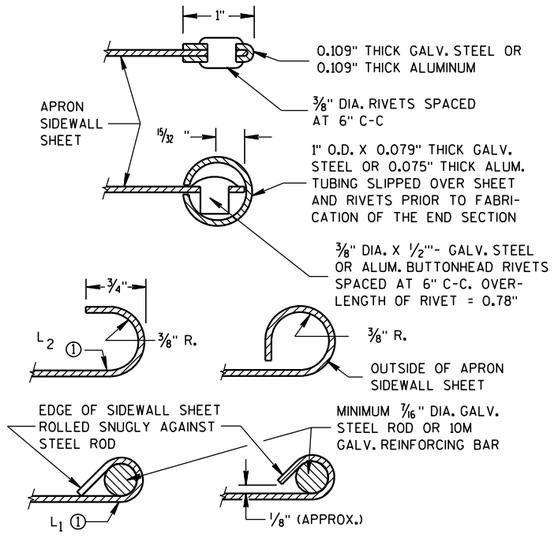


END VIEW



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

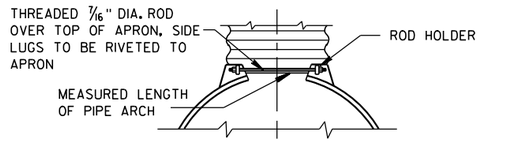
REINFORCED CONCRETE PIPE ARCH

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

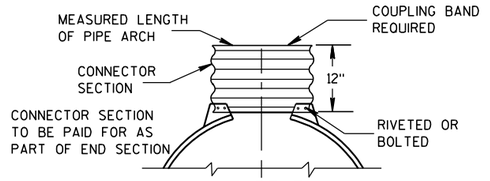
EQUIV. DIA. (Inches)	DIMENSIONS (Inches) ** SPAN	** RISE	T	A	B	C	D	E	APPROX. SLOPE
24	30	19	3¼	8½	39	33	72	48	3 to 1
30	38	24	3¾	9½	54	18	72	60	3 to 1
36	45	29	4½	11⅛	60	24	84	72	2½ to 1
42	53	34	5	15¾	60	36	96	78	2½ to 1
48	60	38	5½	21	60	36	96	84	2½ to 1
54	68	43	6	25½	60	36	96	90	2½ to 1
60	76	48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

**NOMINAL SIZE



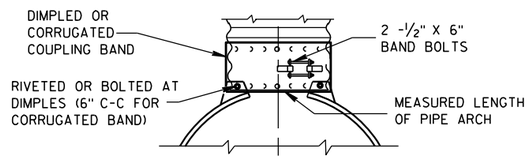
TYPE 2

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

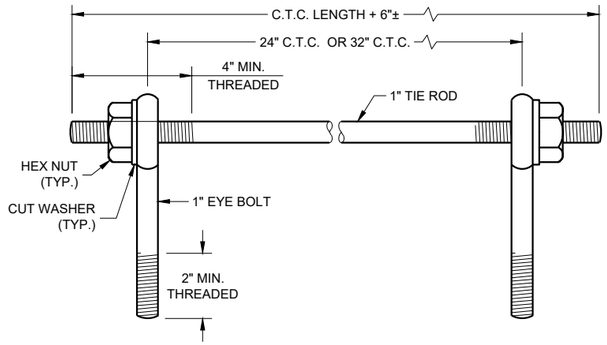
11/30/94 — DATE

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

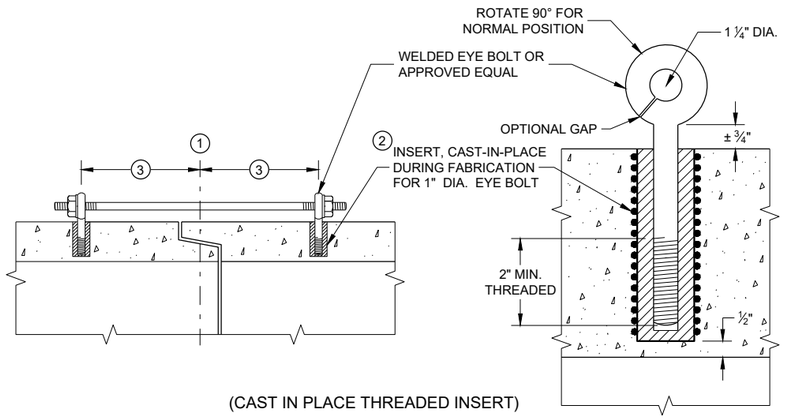
FHWA

6

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

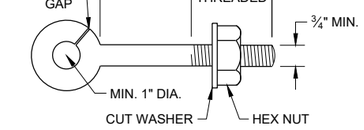
DETAILS OF CONSTRUCTION, MATERIALS, AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

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.

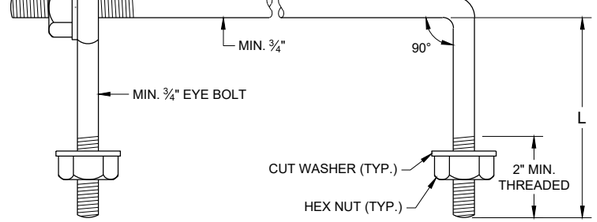
JOINT TIES TO BE HOT-DIP GALVANIZED PER ASTM A 153.

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.

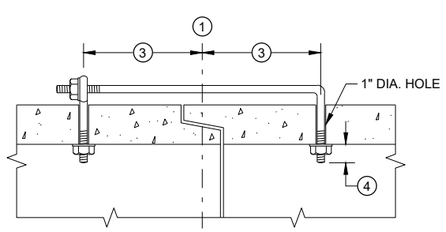


EYE BOLT (7)

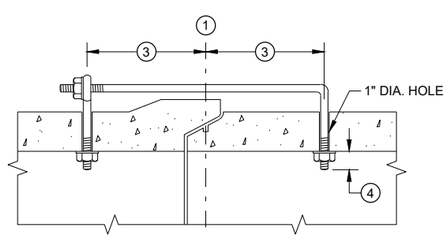
NOTE: TWO EYE BOLTS MAY BE USED WITH A 30" OR 38" LONG THREADED ROD IN LIEU OF THE 90° BENT TIE ROD.



EYE BOLT AND TIE ROD



(TONGUE AND GROOVE PIPE)



(MODIFIED BELL PIPE)

LONGITUDINAL SECTION

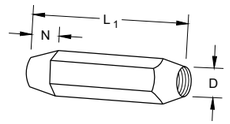
(JOINT TIES FOR 18" TO 66" DIA. CONCRETE PIPE)

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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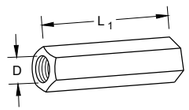
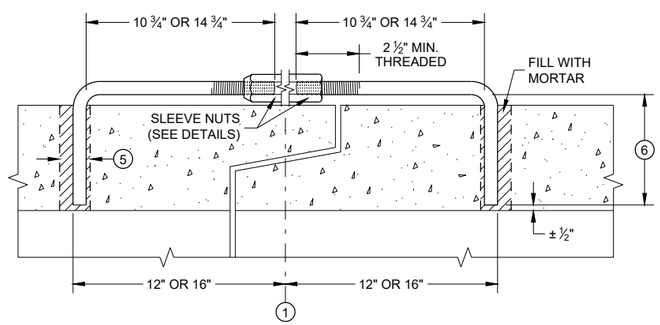


PLAIN

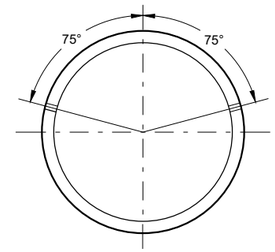
RIGHT AND LEFT THREADS

SLEEVE NUTS



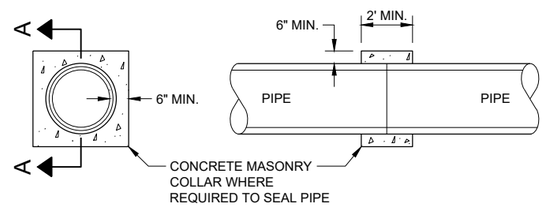
LONGITUDINAL SECTION

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

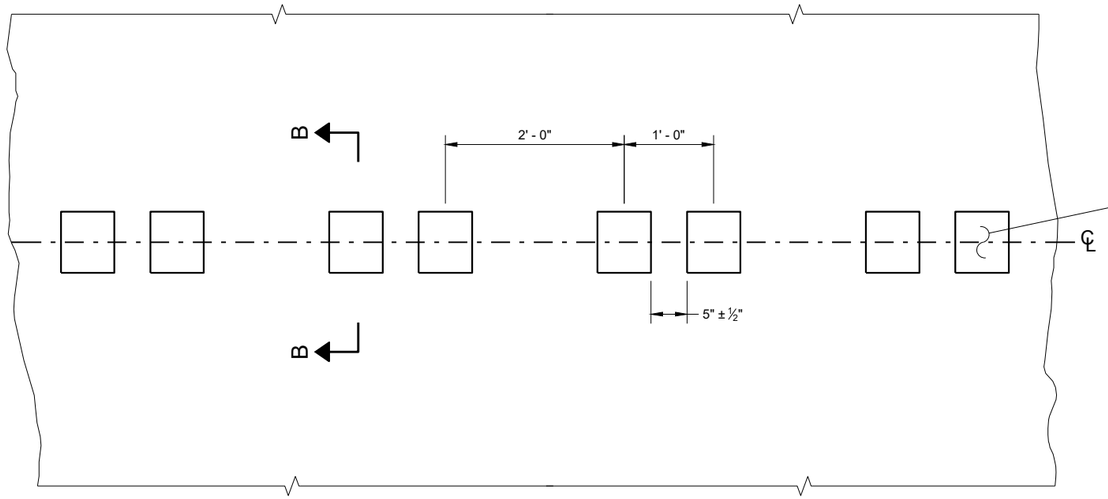
SDD 08F04 - 08

SDD 08F04 - 08

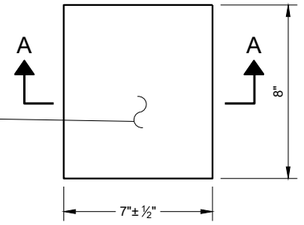
GENERAL NOTES

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

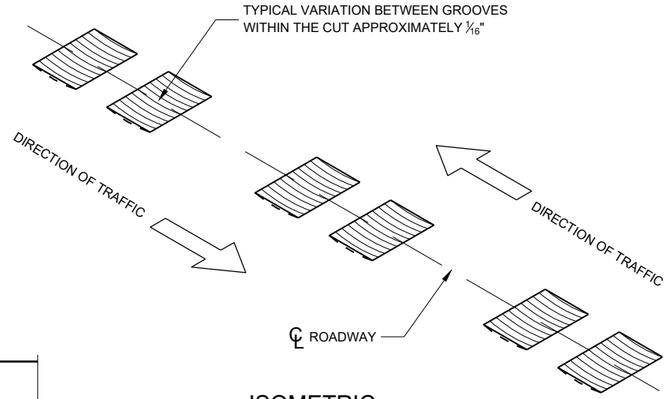
CENTERLINE GROOVES MAY BE OMITTED IN AREAS WITH HIGH CONCENTRATIONS OF DRIVEWAYS WHEN DIRECTED BY THE ENGINEER.



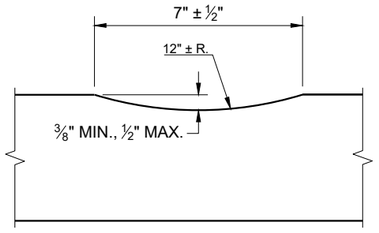
PLAN DETAIL VIEW



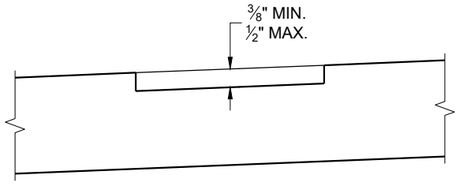
PLAN VIEW
(SINGLE GROOVE)



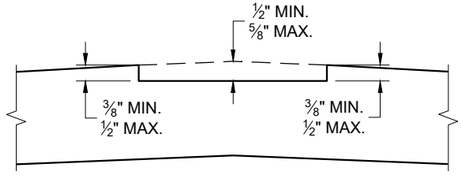
ISOMETRIC



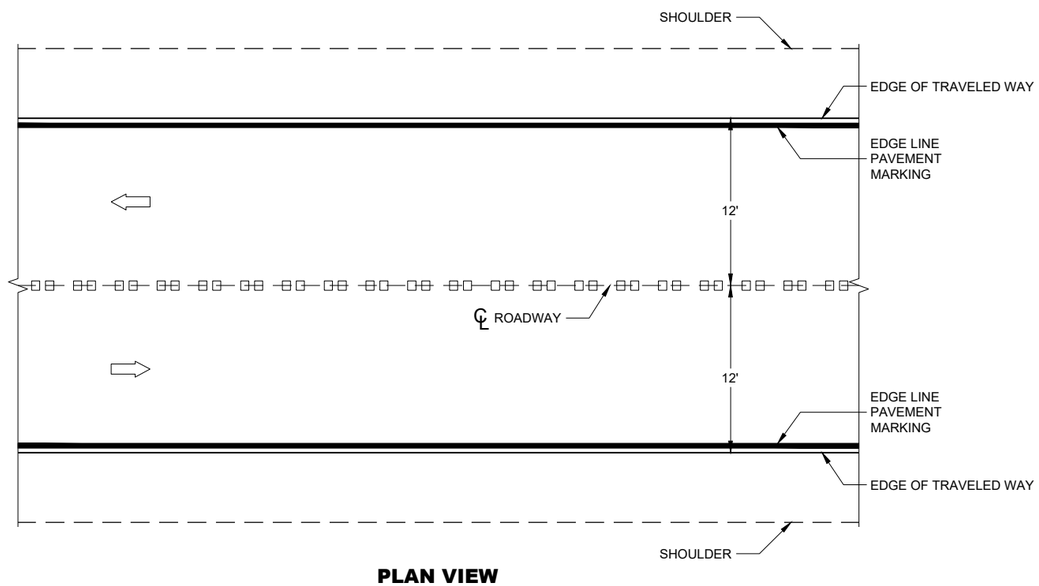
SECTION A - A



SECTION B - B
SUPERELEVATED ROADWAY



SECTION B - B
CROWNED ROADWAY



PLAN VIEW

CENTERLINE RUMBLE STRIPS - ASPHALT

CENTERLINE RUMBLE STRIPS - ASPHALT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 13A11 - 04a

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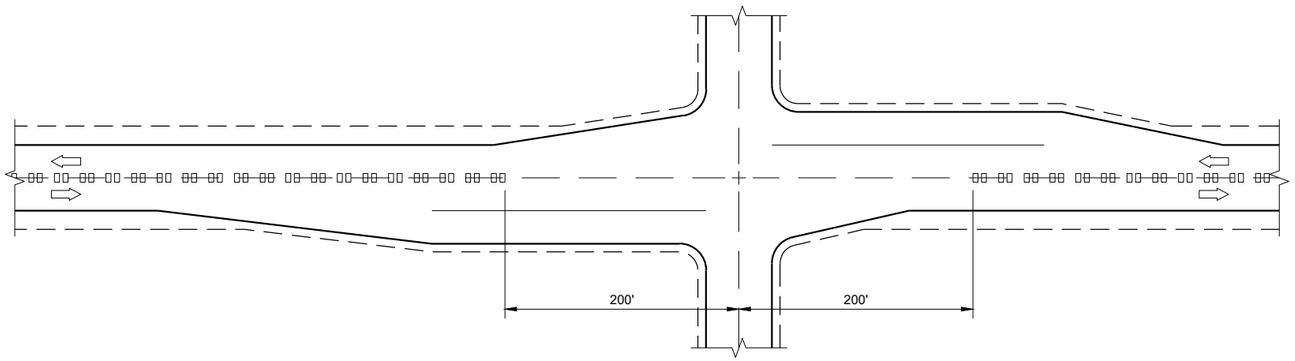
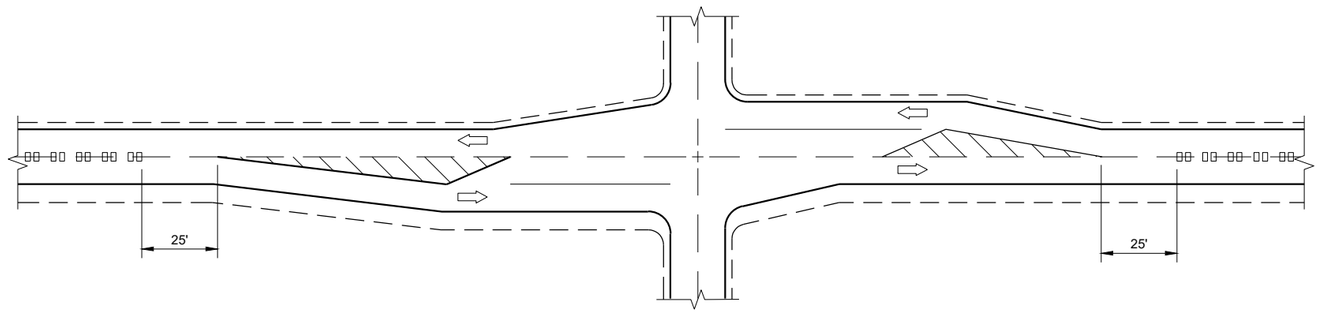
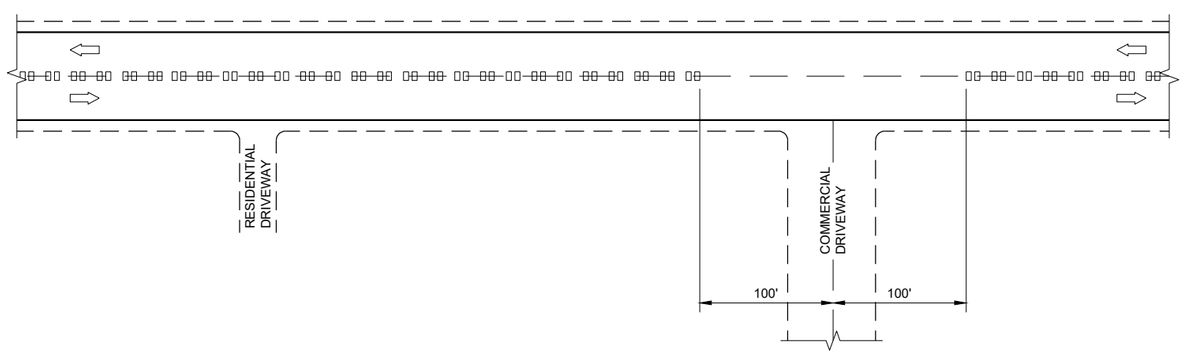
SDD 13A11 - 04a



CENTERLINE GROOVES AT INTERSECTIONS



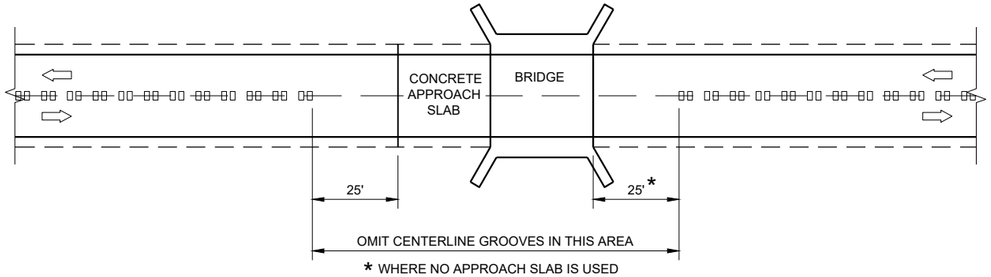
CENTERLINE GROOVES AT INTERSECTIONS (WITH LEFT TURN LANES)



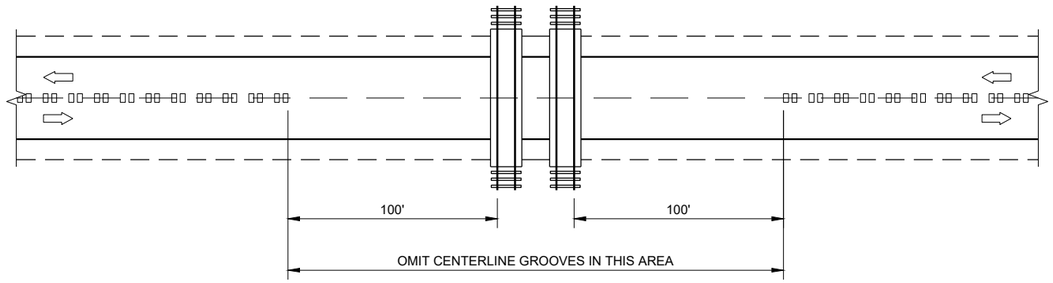
CENTERLINE GROOVES AT DRIVEWAYS (1)

GENERAL NOTES

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



CENTERLINE GROOVES AT BRIDGES



CENTERLINE GROOVES AT RAILROADS

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

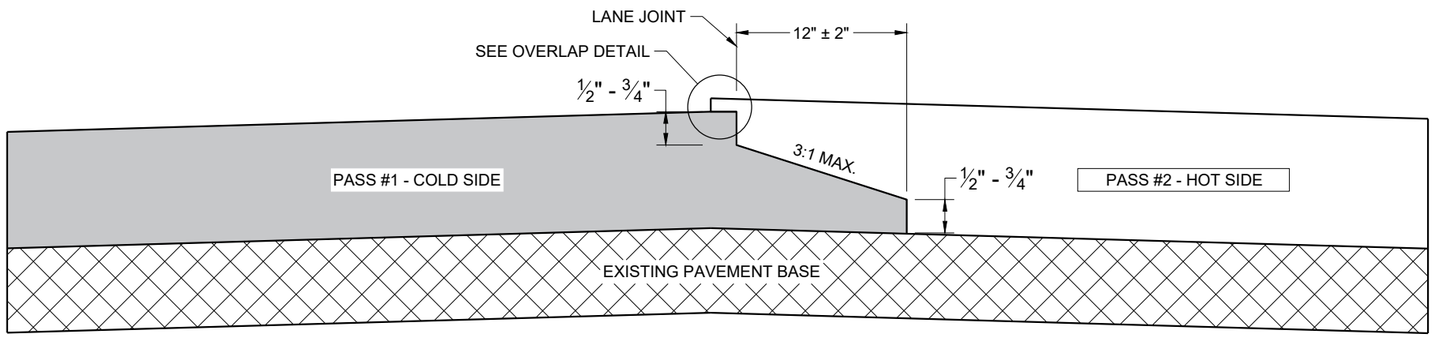
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023 — DATE
/S/ John Jenkins — ROADWAY STANDARDS DEVE ENGINEER

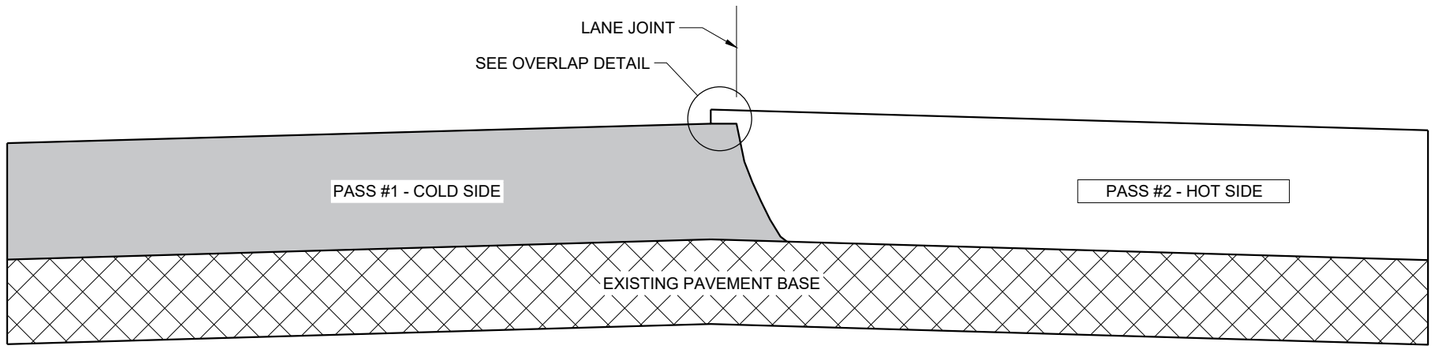
FHWA

6

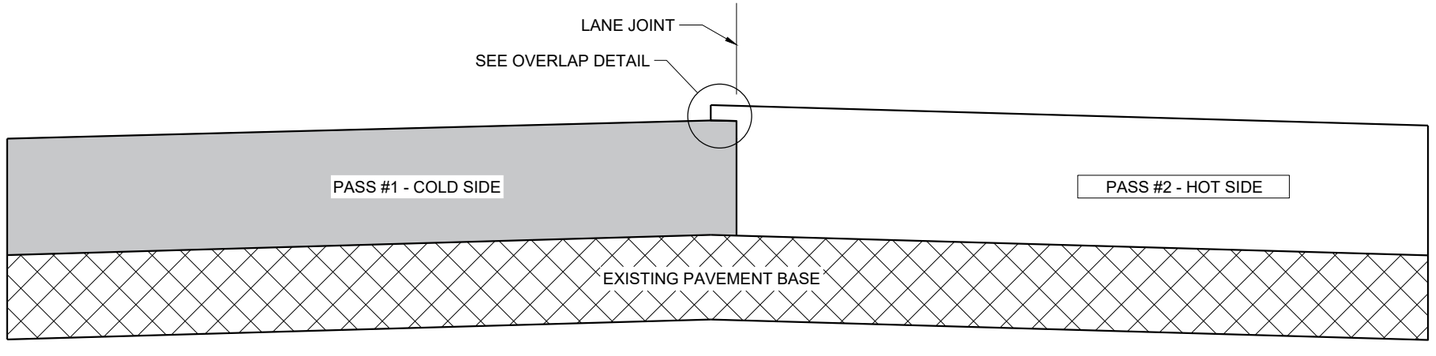
SDD 13A11 - 04d



TYPICAL PAVEMENT CROSS SECTION
NOTCHED WEDGE JOINT



TYPICAL PAVEMENT CROSS SECTION
VERTICAL JOINT



TYPICAL PAVEMENT CROSS SECTION
VERTICAL JOINT (MILLED)

GENERAL NOTES

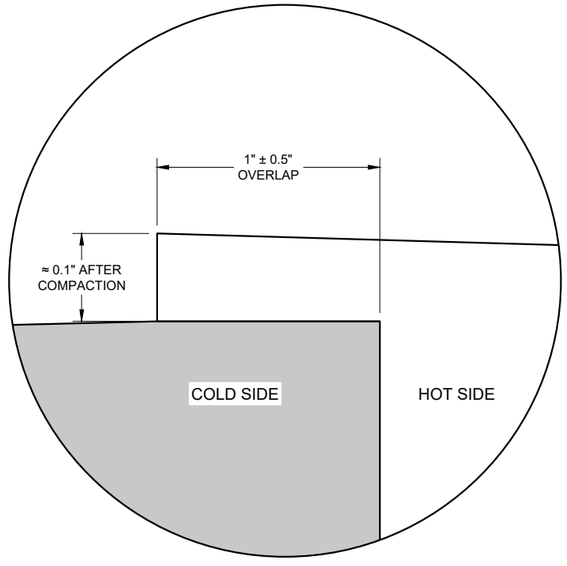
IN ADDITION TO THE DETAILS PROVIDED IN THIS DRAWING, CONFORM TO STANDARD SPECIFICATION 450.3.2.8 FOR WHEN A NOTCHED WEDGE JOINT IS REQUIRED AND FOR GENERAL JOINT CONSTRUCTION REQUIREMENTS.

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)

HMA LONGITUDINAL JOINTS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2020
DATE

/S/ Steven Hefel
HMA PAVEMENT ENGIN

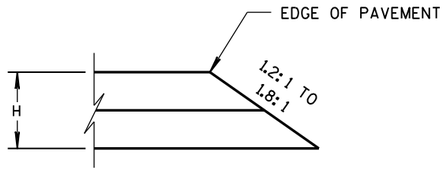
FHWA

6

SDD 13C19 - 03

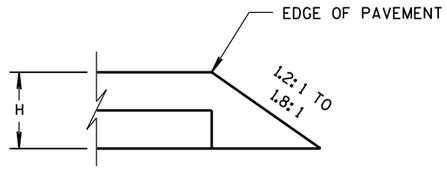
6

SDD 13C19 - 03



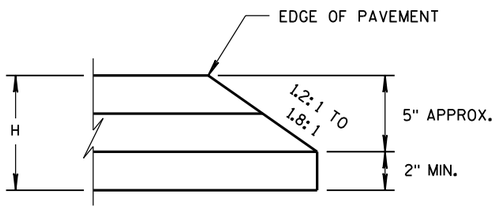
CONSTRUCTED WITH FINAL TWO LAYERS

FOR H 5" OR LESS



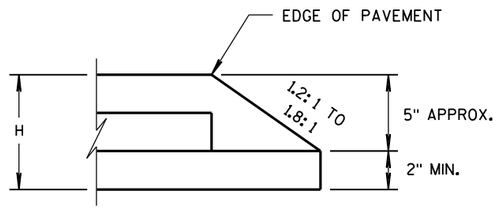
CONSTRUCTED WITH FINAL LAYER

FOR H 5" OR LESS



CONSTRUCTED WITH FINAL TWO LAYERS

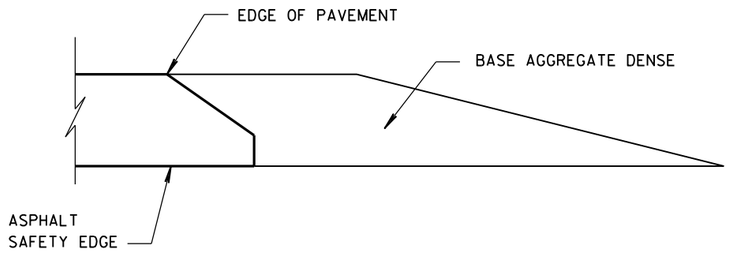
FOR H GREATER THAN 5"



CONSTRUCTED WITH FINAL LAYER

FOR H GREATER THAN 5"

HMA PAVEMENT AND HMA OVERLAYS



FINISHED SHOULDER AGGREGATE PLACEMENT

6

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S.D.D. 14 B 29-1

S.D.D. 14 B 29-1

SAFETY EDGE SM

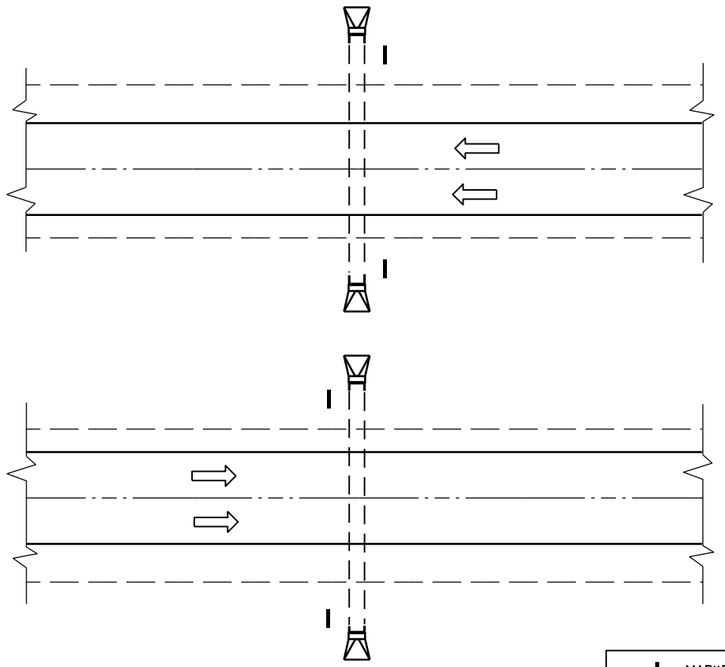
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

11/30/2012
DATE

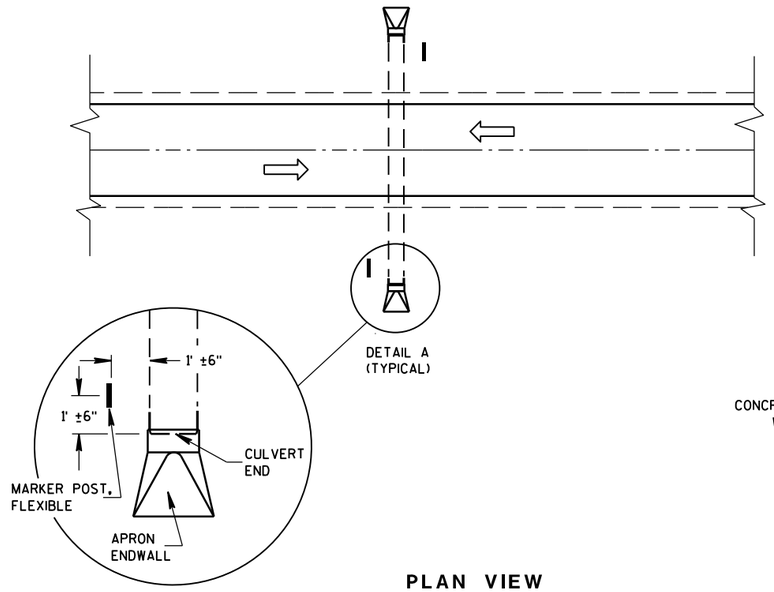
/S/ Jerry H. Zoda
ROADWAY STANDARDS DEVELOPMENT ENGINEER

FHWA



PLAN VIEW

DIVIDED HIGHWAY



DETAIL A
(TYPICAL)

PLAN VIEW

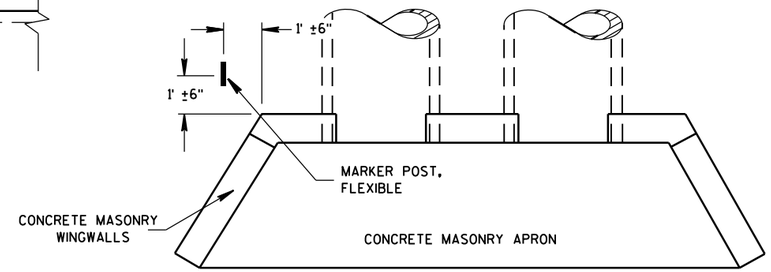
UNDIVIDED HIGHWAY

MARKER POST, FLEXIBLE

DIRECTION OF TRAFFIC FLOW

GENERAL NOTES

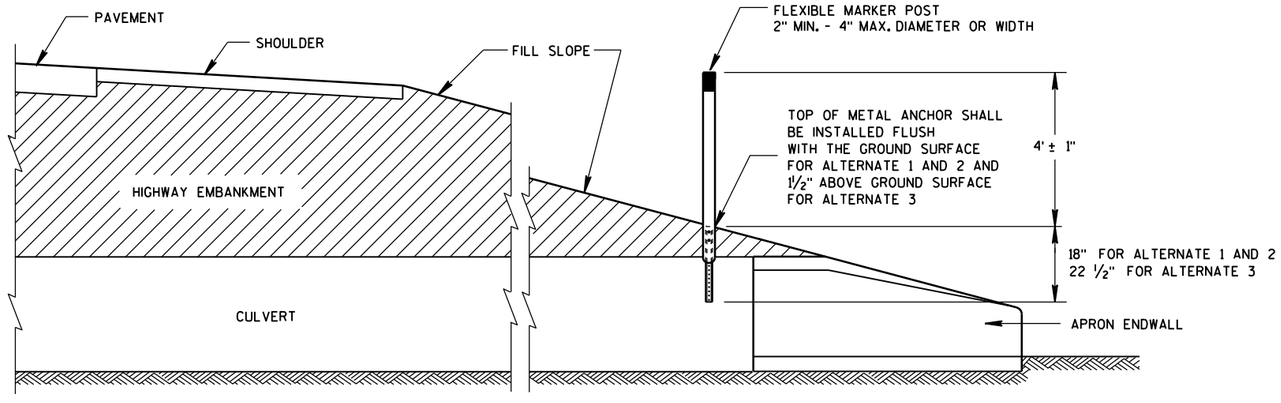
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.



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

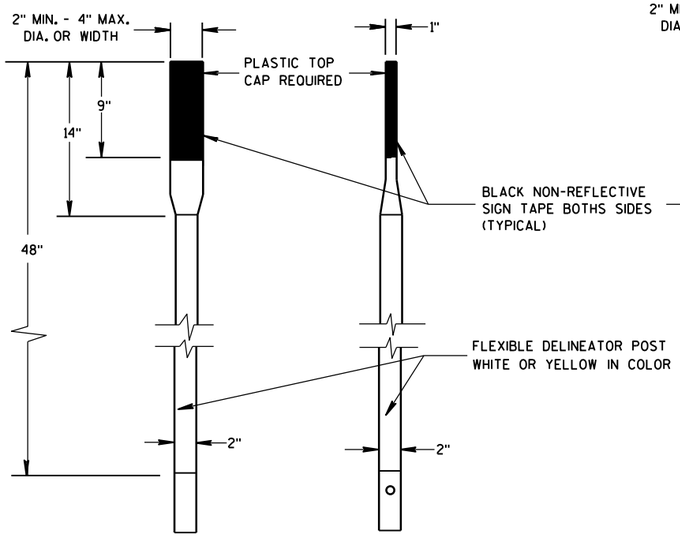
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

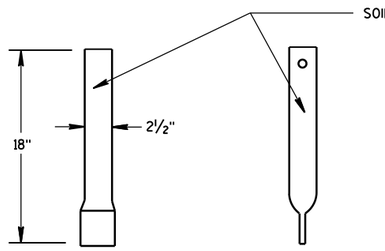
6

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

6

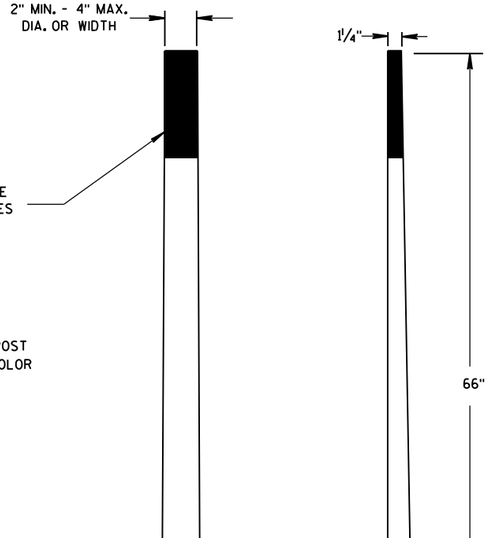
S.D.D. 15 A 3-2a





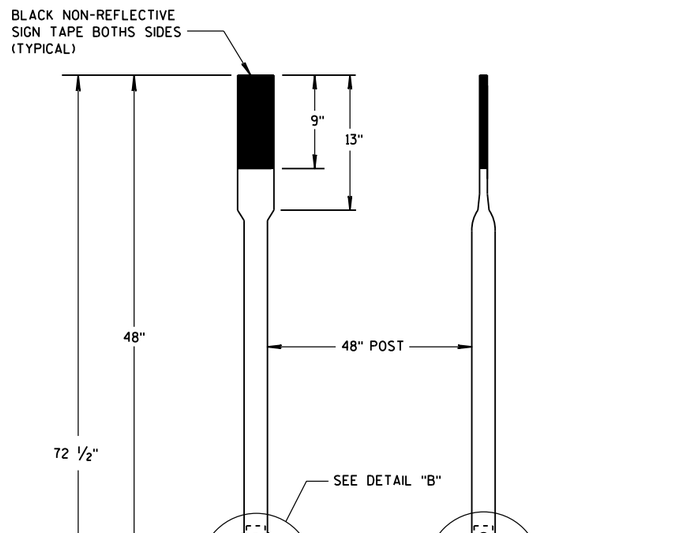
FRONT VIEW SIDE VIEW

ALTERNATE 1



FRONT VIEW SIDE VIEW

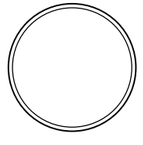
ALTERNATE 2



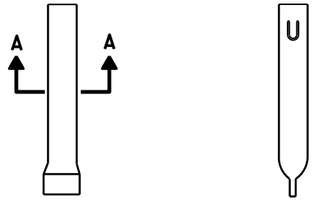
FRONT VIEW SIDE VIEW

ALTERNATE 3

FLEXIBLE MARKER POSTS

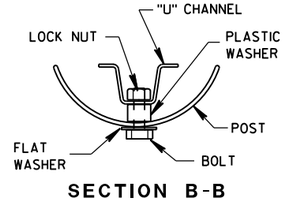


SECTION A-A

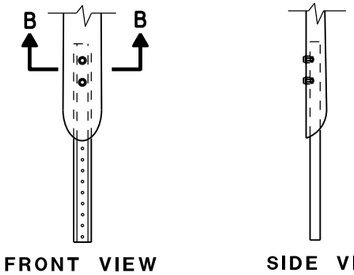


FRONT VIEW SIDE VIEW

ALTERNATE 1

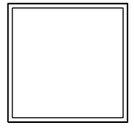


SECTION B-B

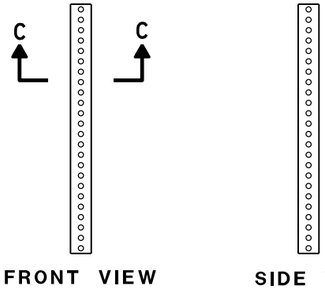


FRONT VIEW SIDE VIEW

ALTERNATE 2



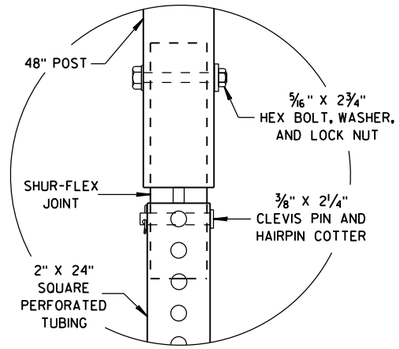
SECTION C-C



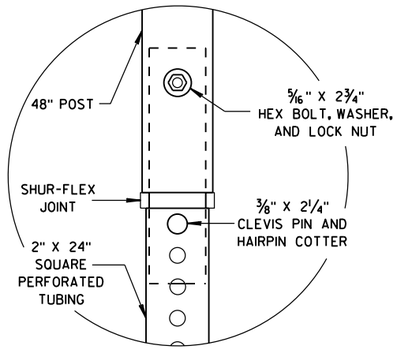
FRONT VIEW SIDE VIEW

ALTERNATE 3

FLEXIBLE MARKER POST ANCHORS



DETAIL B



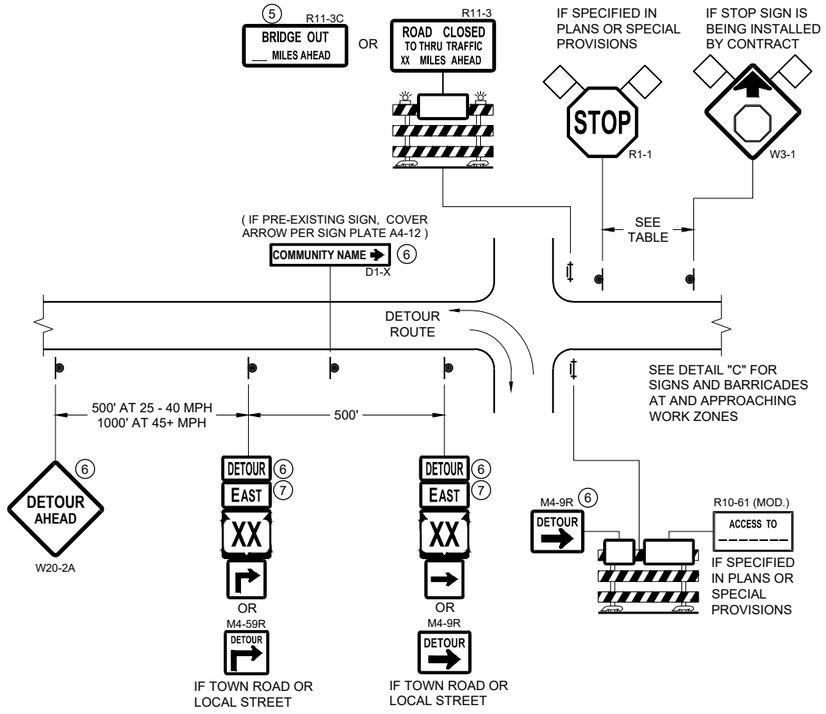
DETAIL C

FLEXIBLE MARKER POST
FOR CULVERT END

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

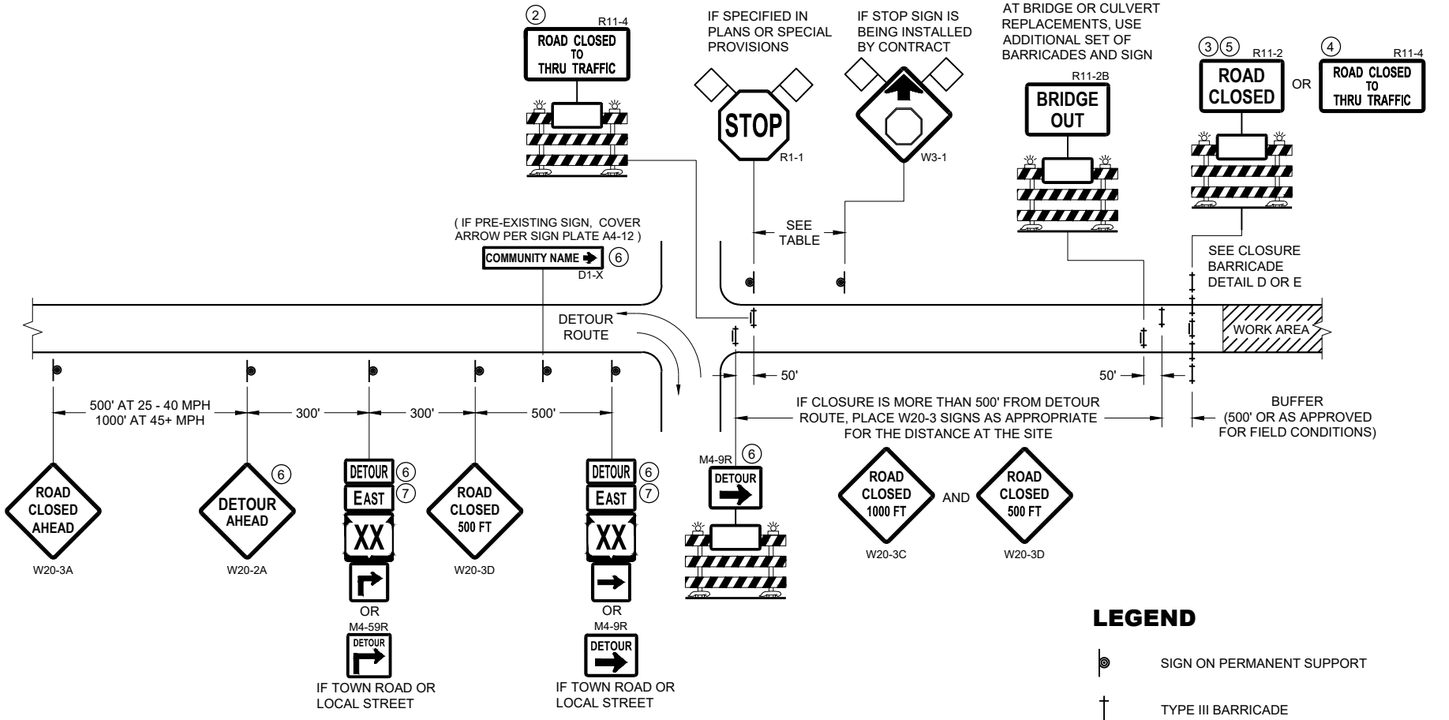
APPROVED
10/1/2012 — DATE
/S/ Travis Feltes — STATE TRAFFIC ENGINEER
FHWA

6
S.D.D. 15 A 3-2b



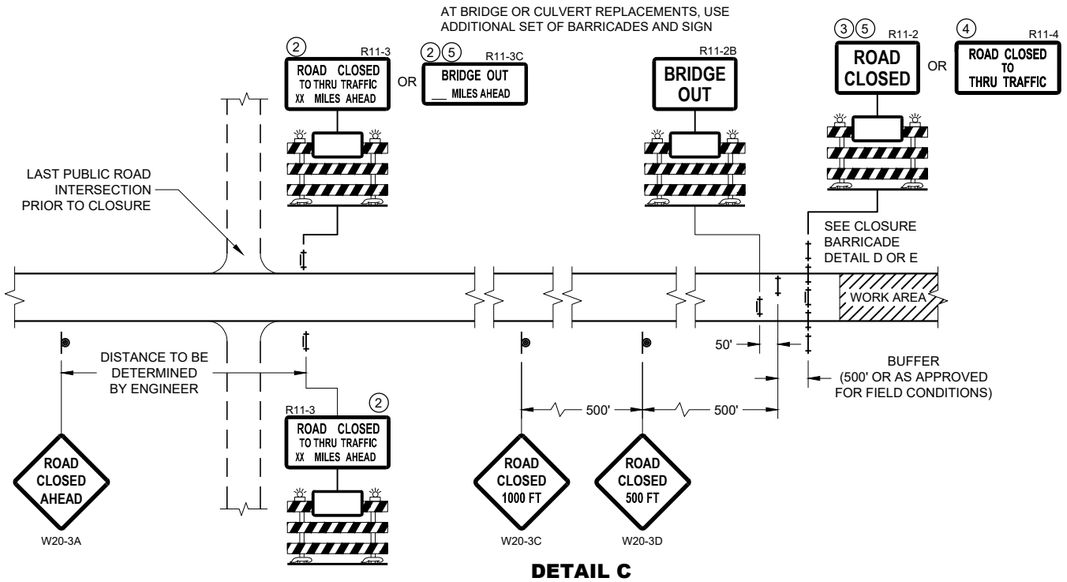
DETAIL A
MAINLINE CLOSURE WITH POSTED DETOUR

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

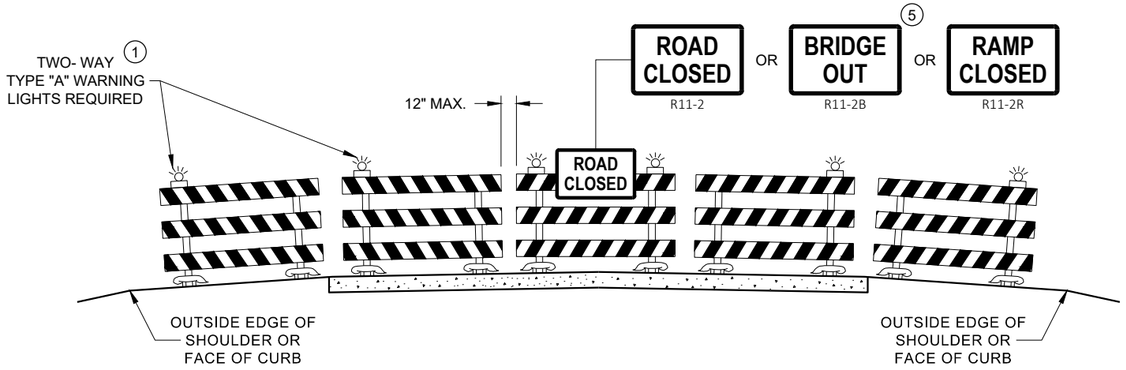
BARRICADES AND SIGNS FOR MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

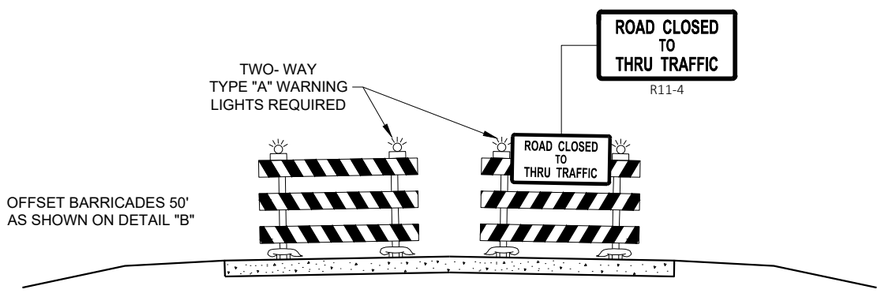
APPROVED
May 2023
DATE
/S/ Andrew Heidtke
WORK ZONE ENGINEER

FHWA

SDD 15C02 - 09a



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
May 2023 — DATE
/S/ Andrew Heidtke — WORK ZONE ENGINEER
FHWA

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SDD 15C02 - 09b

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SDD 15C02 - 09b

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.

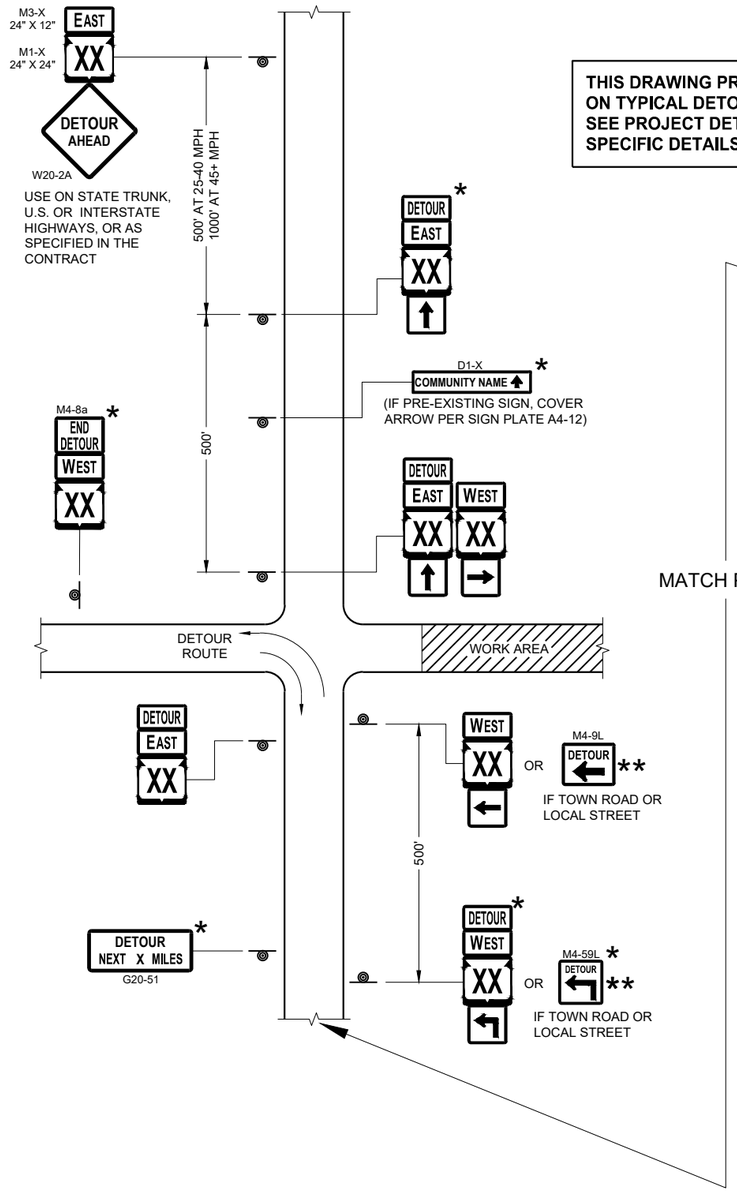
"MO" SIGNS ARE THE SAME AS "M" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

SIGN SIZES SHALL BE AS FOLLOWS:

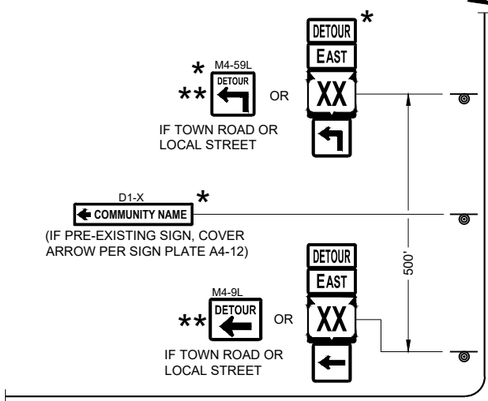
- M3-X SHALL BE 24" X 12" (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS)
- M4-8 SHALL BE 24" X 12" (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS)
- M1-4, M1-5A AND M1-6 SHALL BE 24" X 24" (36" X 36" IF NEEDED TO MATCH EXISTING SIGNS)
- M05-1 AND M06-1 SHALL BE 21" X 21" (30" X 30" IF NEEDED TO MATCH EXISTING 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.

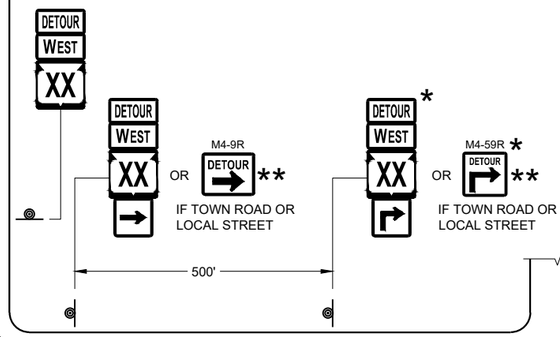
* OPTIONAL SIGNS. SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS.

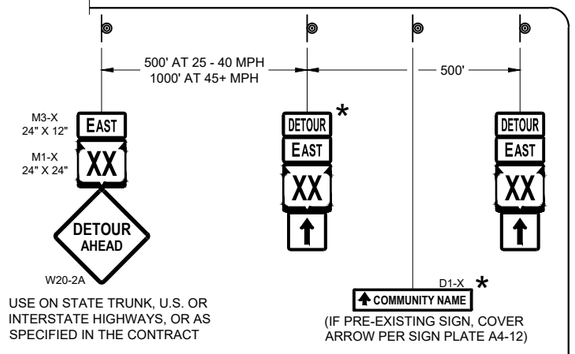
** FOR A TOWN ROAD OR LOCAL STREET DETOURED ONTO A STATE TRUNK HIGHWAY, PLACE A ROAD NAME PLAQUE ABOVE THE M4-9 SIGN AS SPECIFIED IN THE CONTRACT

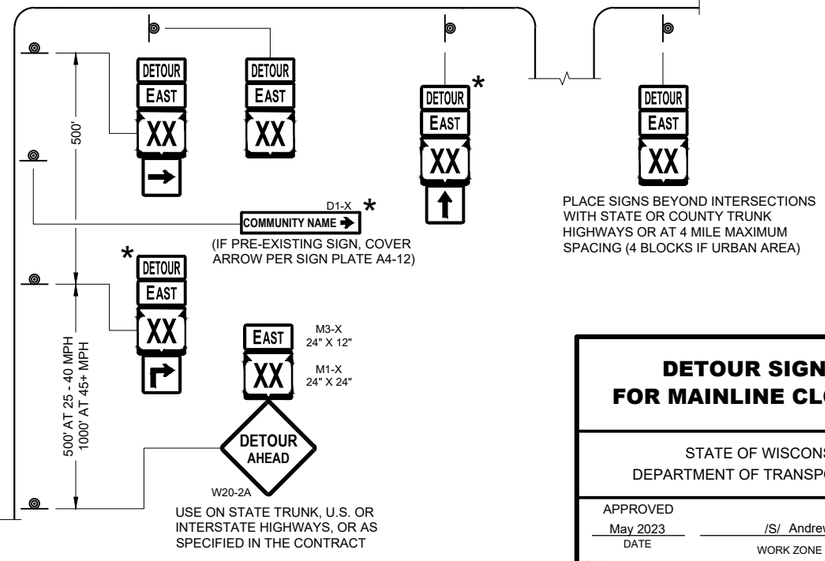


MATCH POINT









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

DETAIL F
DETOUR SIGNING

DETOUR SIGNING FOR MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEER

FHWA

6

SDD 15C02 - 09c

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.

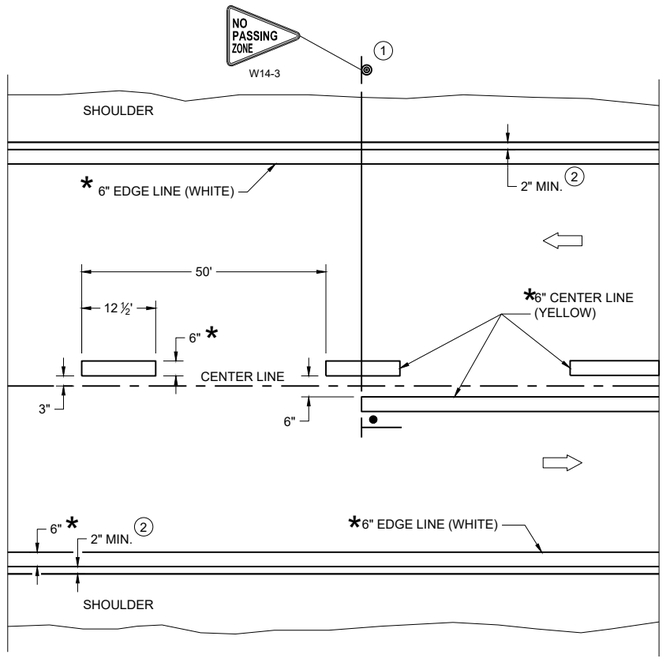
*CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES

LEGEND

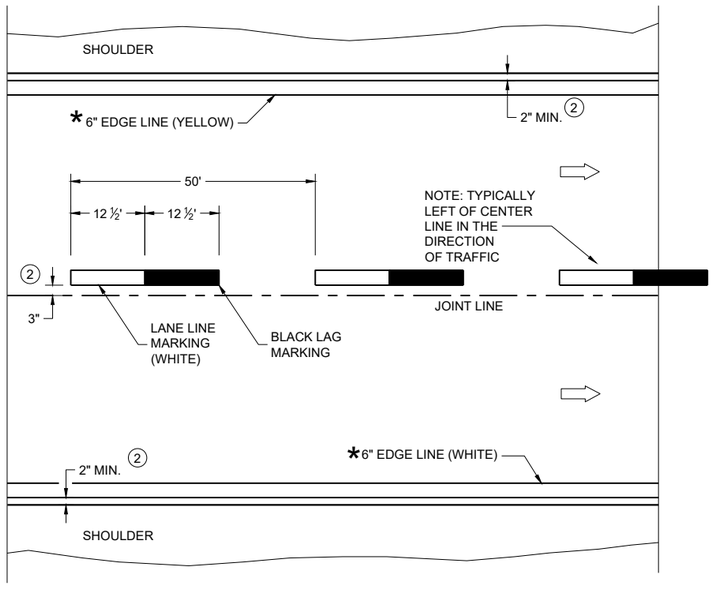
"T" MARKING

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 December 2024 DATE	/S/ Jeannie Silver Statewide Pavement Marking Engineer
FHWA	

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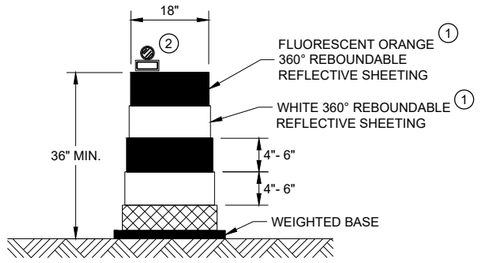
SDD 15C08-24a

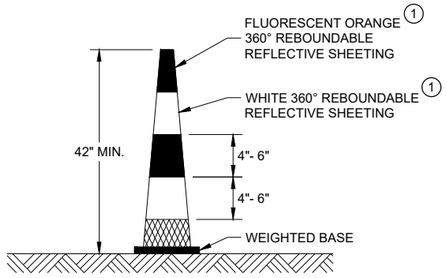
GENERAL NOTES

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

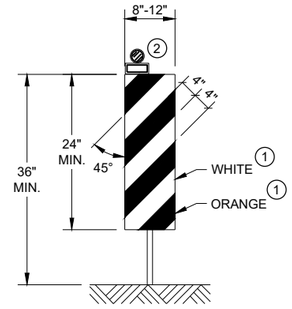
BALLAST WIDTHS
RANGE FROM 24"-36"



42" CONE

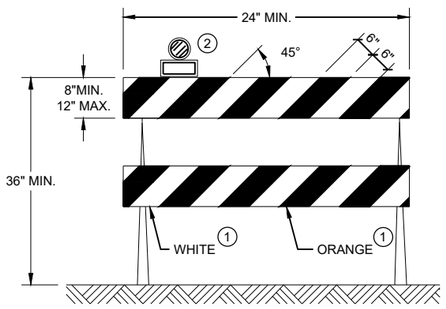
DO NOT USE IN TAPERS
½ SPACING OF DRUMS

BALLAST WIDTHS
RANGE FROM 14"-20"



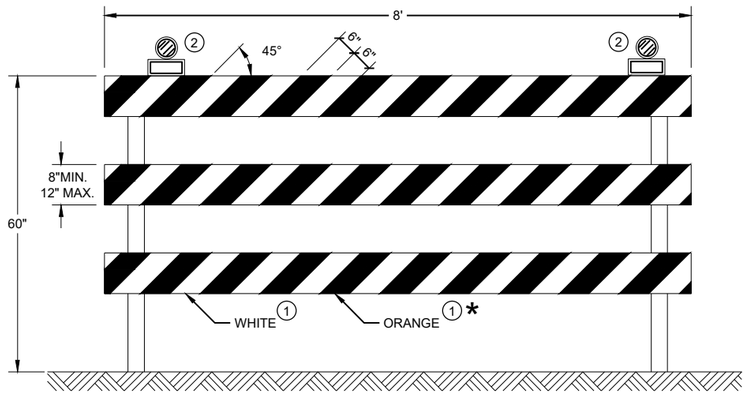
VERTICAL PANEL

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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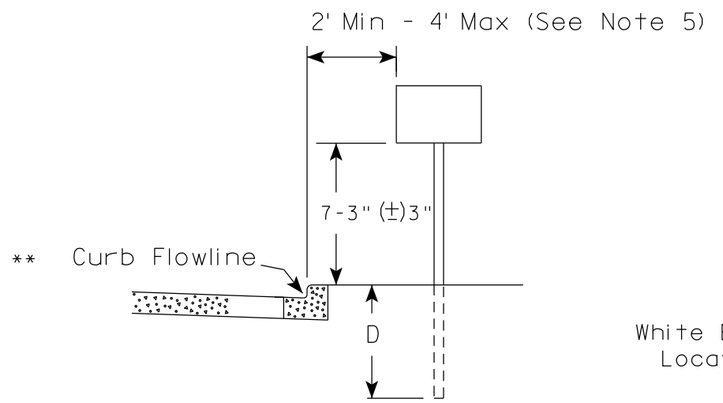
SDD 15C11 - 10b

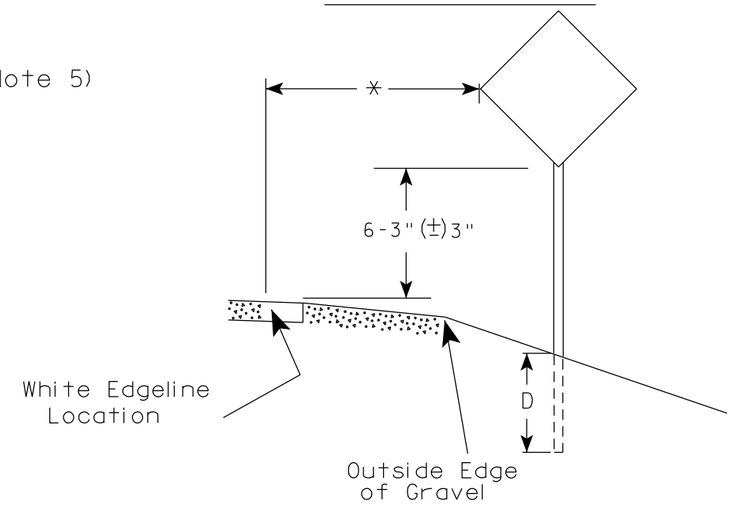
6

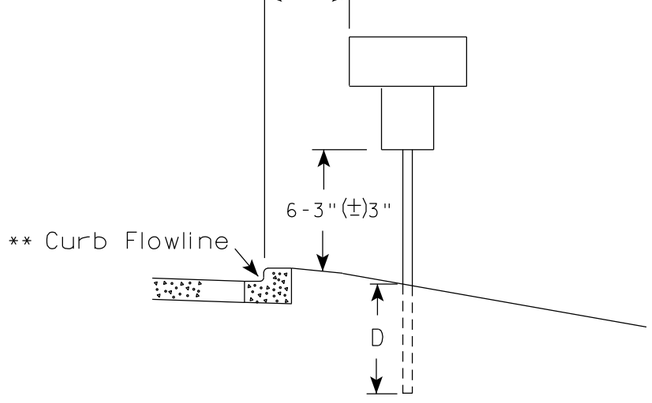
SDD 15C11 - 10b

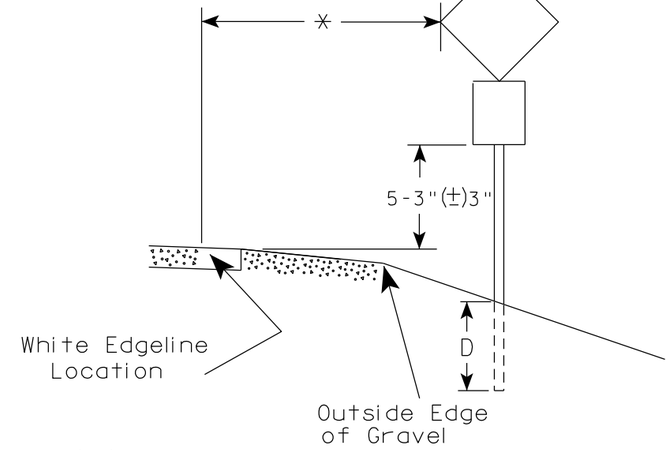
URBAN AREA



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" (±) 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".
3. For expressways and freeways, mounting height is 7'- 3" (±) 3" or 6'-3" (±) 3" depending upon existence of a sub-sign.
4. Minimum mounting height for signs mounted on traffic signal poles is 5'- 3" (±) 3".
5. Offset distance shall be consistent with existing signs or consistent throughout length of project.
6. Folding signs shall be mounted at a height of 5'-3" (±) 3" or as directd by the Engineer.

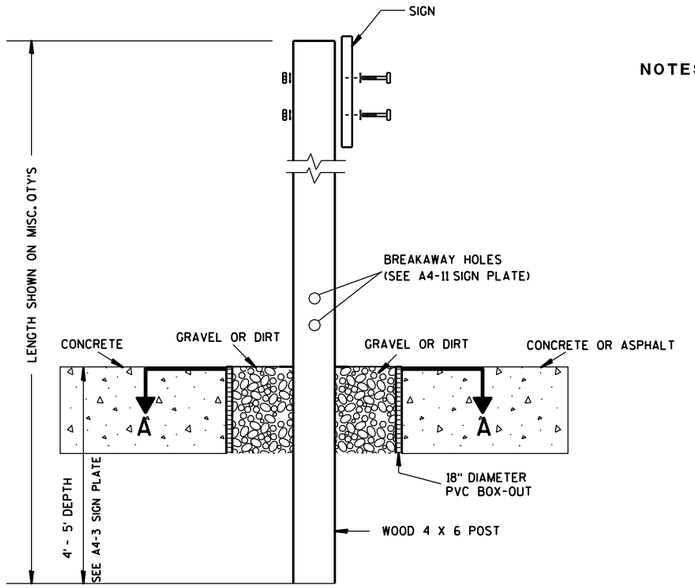
TYPICAL INSTALLATION OF PERMANENT TYPE II SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/6/23 PLATE NO. A4-3.23

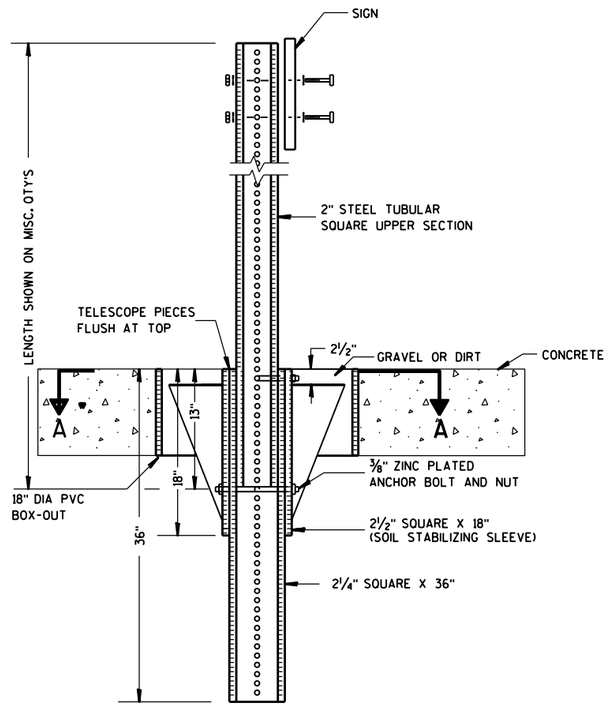
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 51	E



ELEVATION VIEW

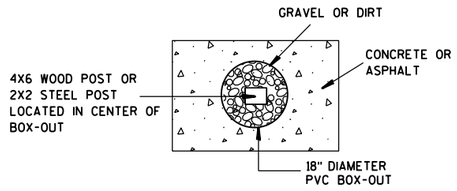
DETAIL OF WOOD 4 X 6 SIGN POST IN BOX-OUT

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

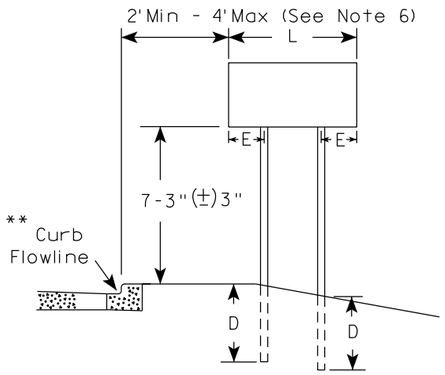
APPROVED Matthew R Rauch
for State Traffic Engineer

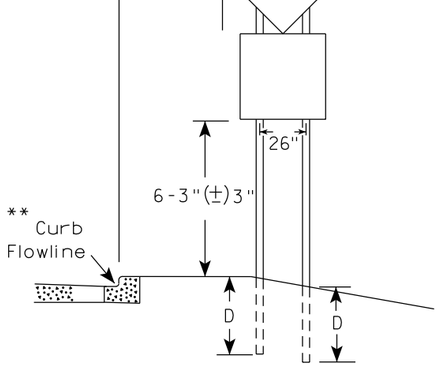
DATE 1/27/14 PLATE NO. A4-3B.1

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

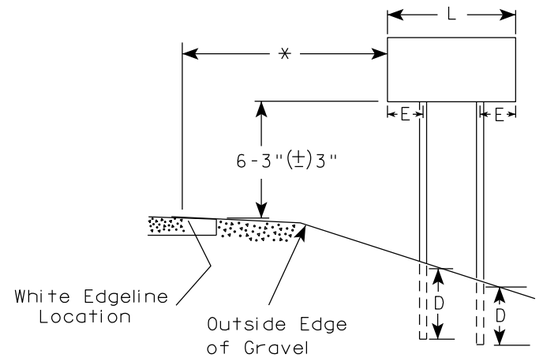
URBAN AREA

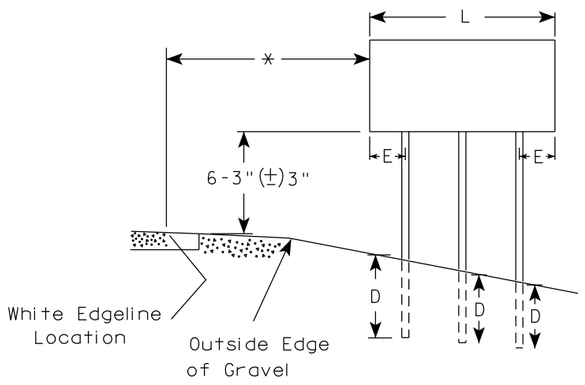


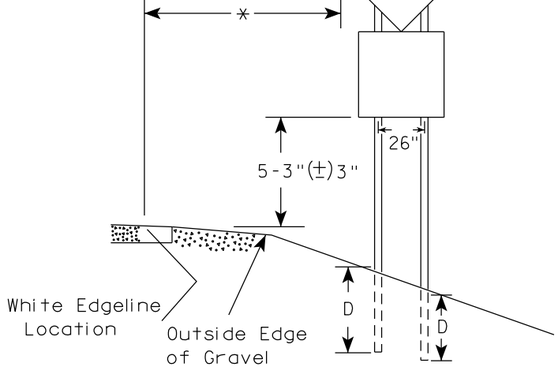


48" DIAMOND WARNING SIGN

RURAL AREA (See Note 3)







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" (±) 3" or 6'-3" (±) 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" (±) 3" or as directed by the engineer.
8. The Double Arrow sign (W12-1) shall be mounted at a height of 2'-3" (±) 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" (±) 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'

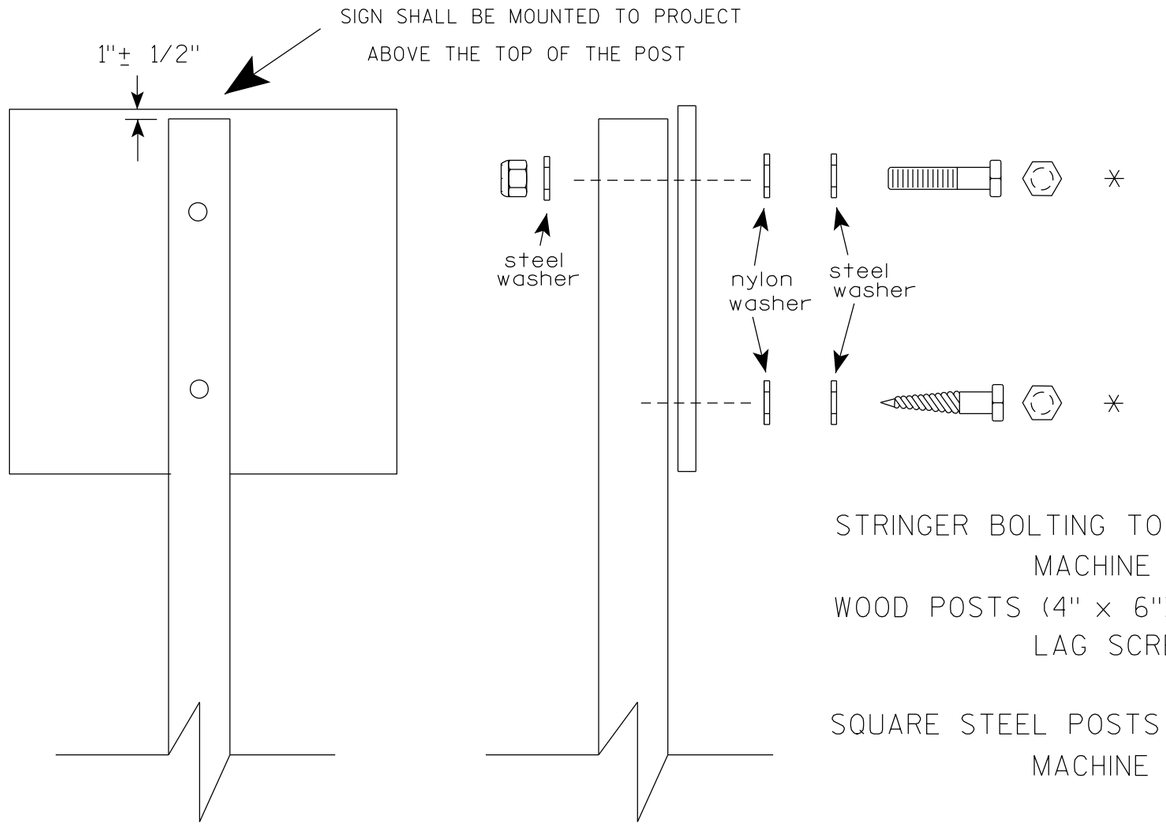
TYPICAL INSTALLATION OF TYPE II SIGNS ON MULTIPLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/6/23 PLATE NO. A4-4.16

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 53	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

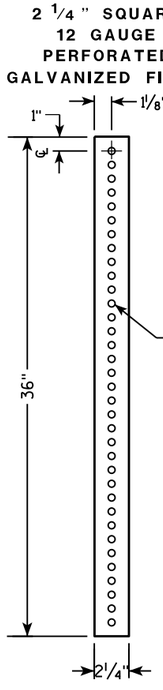
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

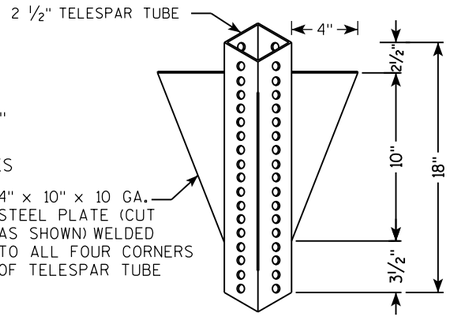
DATE 4/1/2020 PLATE NO. A4-8.9

TELESCOPIC TUBING ANCHORS
TWO PIECE SYSTEM

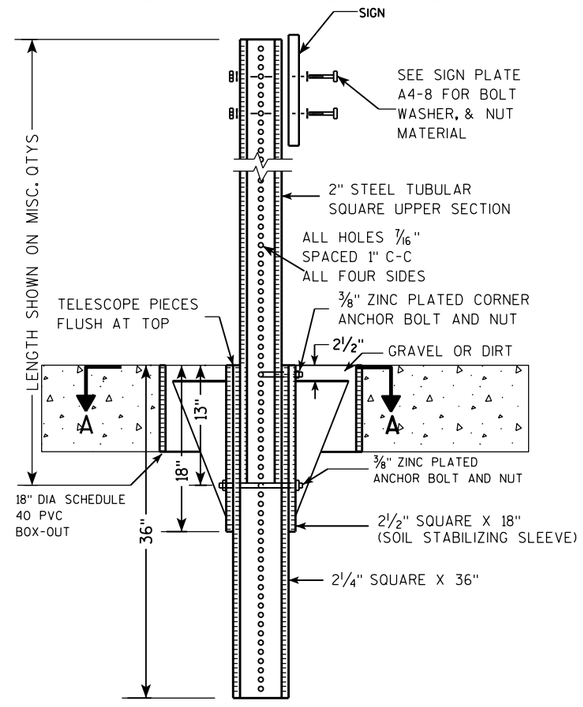
2 1/4 " SQUARE
12 GAUGE
PERFORATED
GALVANIZED FINISH



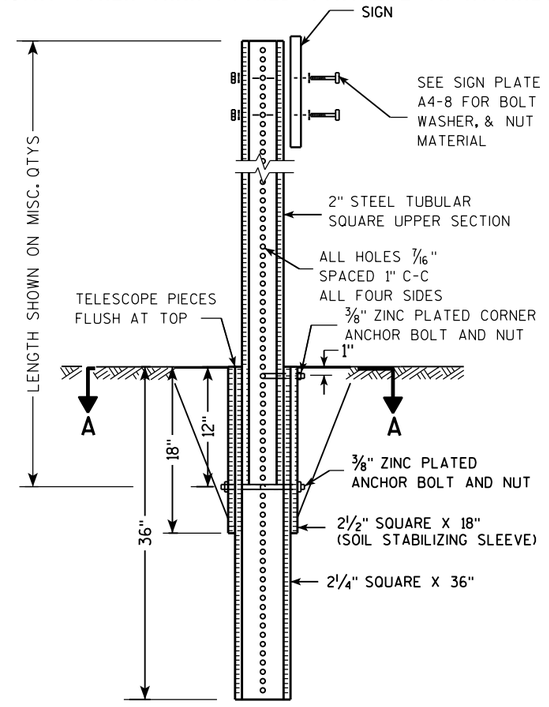
2 1/2 " SQUARE
12 GAUGE
OMNI-DIRECTIONAL
PERFORATED
SOIL STABILIZING SLEEVE
GALVANIZED FINISH

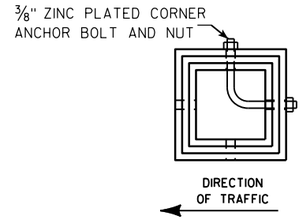


DETAIL OF TUBULAR STEEL SIGN POST
(IN POURED CONCRETE OR ASPHALT)



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





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).

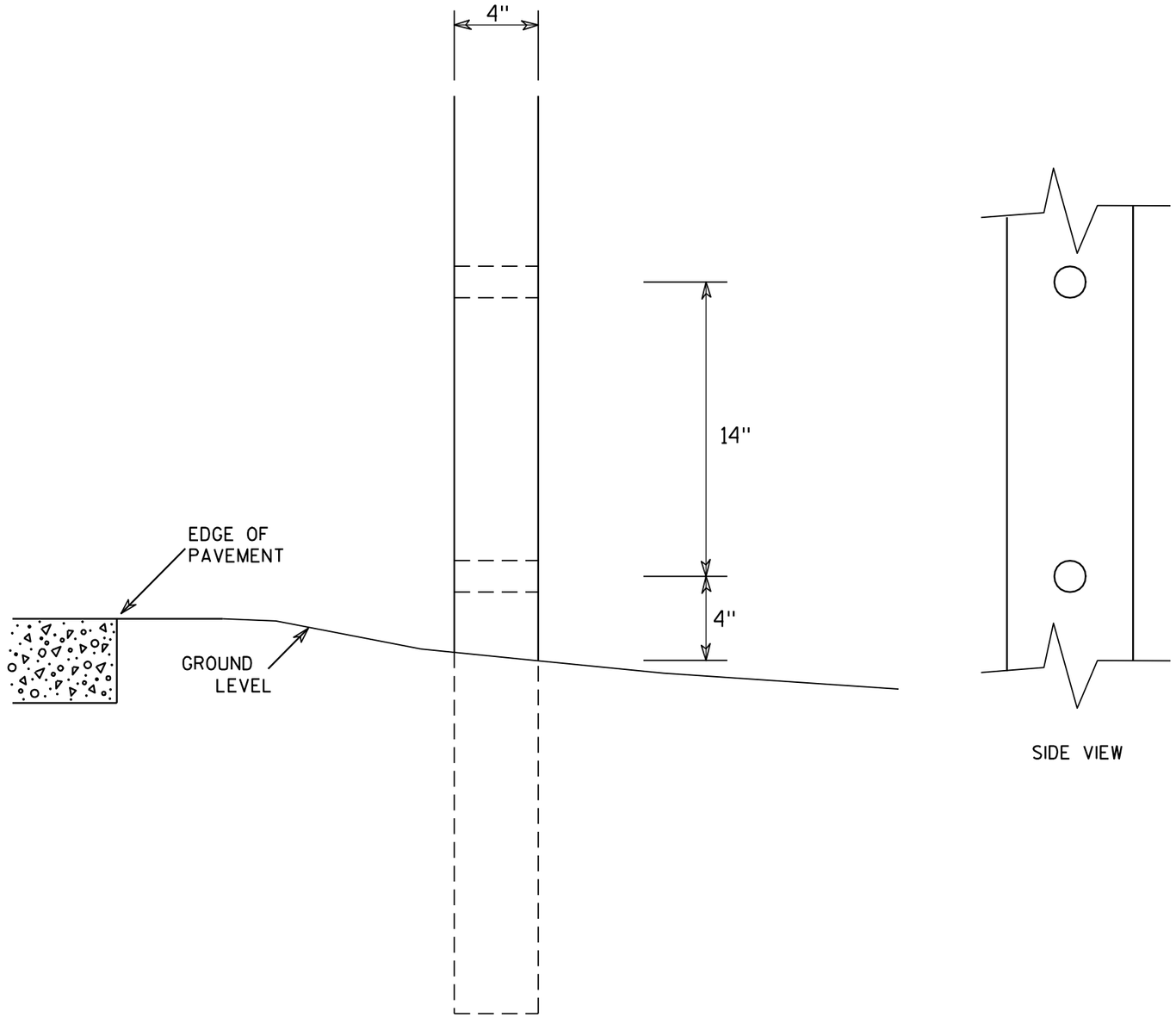
TUBULAR STEEL
SIGN POST
A4-9

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/05/15 PLATE 55 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.

4 X 6 WOOD POST MODIFICATIONS

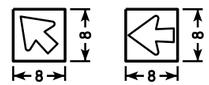
WISCONSIN DEPT OF TRANSPORTATION

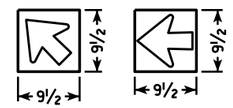
APPROVED Chester J Spang for State Traffic Engineer

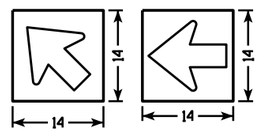
DATE 3/27/97 PLATE NO. A4-11.2

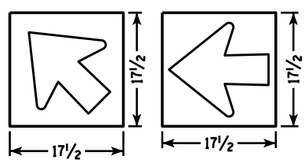
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 56	E

SIGN LAYOUT WITH VARIOUS SIZED MESSAGES







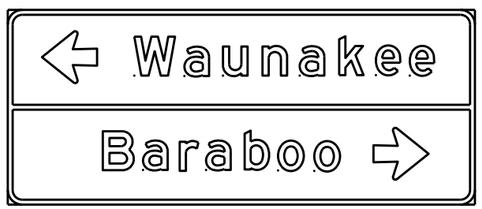


GENERAL NOTES

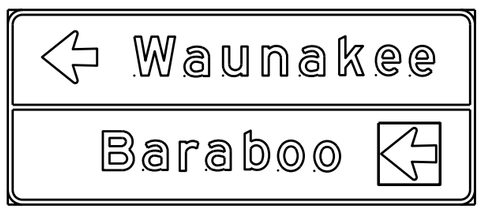
1. Materials shall conform to Standard Specification Section 637.
   Base - Sheet Aluminum 0.040" Thickness
   Sheeting - Orange Type F Reflective
   Arrow - Black Non-Reflective
2. Arrow signs shall be fastened to permanent sign by either aluminum rivets or aluminum self-tapping sheet metal screws. 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

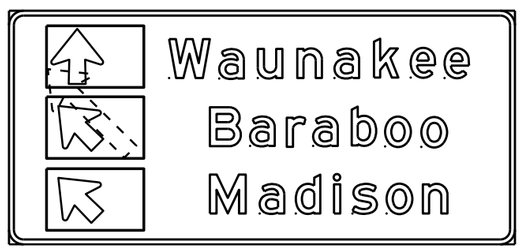
Lower Case Copy Size	Standard Width (Single Arrow)	2 Line Tilt Arrow Cover Width	3 Line Tilt Arrow Cover Width	Height
3¾" Series C	8	9 ½	14 ½	8
4½" Series D & E	9 ½	10	15	9 ½
6" Series D & E	14	16	20 ½	14
8" Series E	17 ½	20 ½	25	17 ½

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:

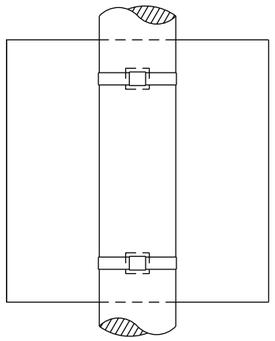
SHEET NO: E

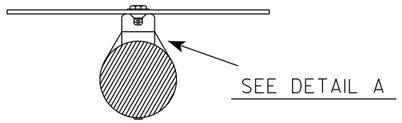
FILE NAME : C:\CAEFiles\Projects\tr_stdplate\A412.DGN PLOT DATE : 08-OCT-2014 11:50 PLOT BY : mscsja

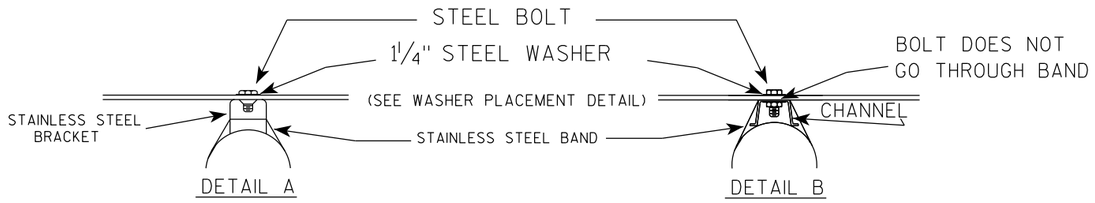
WISDOT/CADDS SHEET 42

BANDING

SINGLE SIGN



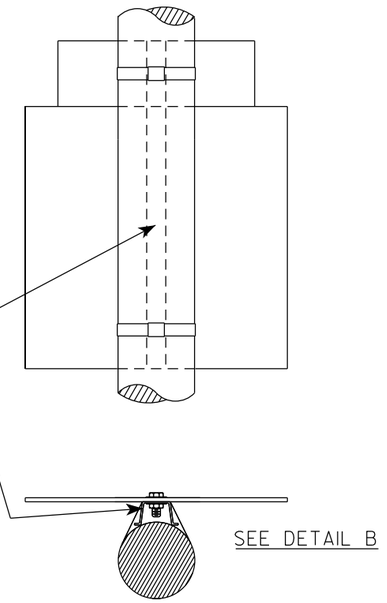




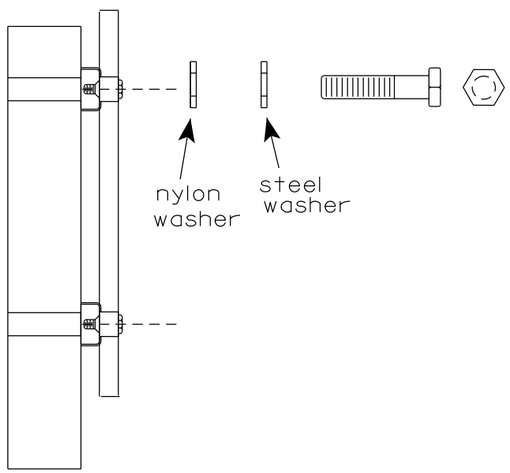
GENERAL NOTES

1. Any sign over 3 feet in width shall use the V-Block banding method. See A5-10 standard plate.
2. Signs 3 feet or greater in height shall have three bracket bands installed. Signs less than 3 feet in height shall have two bracket bands installed.
3. Banding and assembly bracket shall be stainless steel. All bands shall be ¾" in width and 0.025" thickness.
4. ALL SIGN MOUNTING BOLTS AND WASHERS SHALL BE EITHER:
   a. Hot dip or mechanically galvanized in accordance with ASTM Designation: A 153, Class D
   b. Electro-galvanized in accordance with ASTM designation: B 633, Type III, SC 3

"J" ASSEMBLY



WASHER PLACEMENT



WASHERS (ALL POSTS) -
1-1/4" O.D. X ⅜" I.D. X 1/16" STEEL
1-1/4" O.D. X ⅜" I.D. X .080 NYLON
FOR ALL TYPE H SIGNS

STANDARD SIGN
SIGN BANDING DETAILS

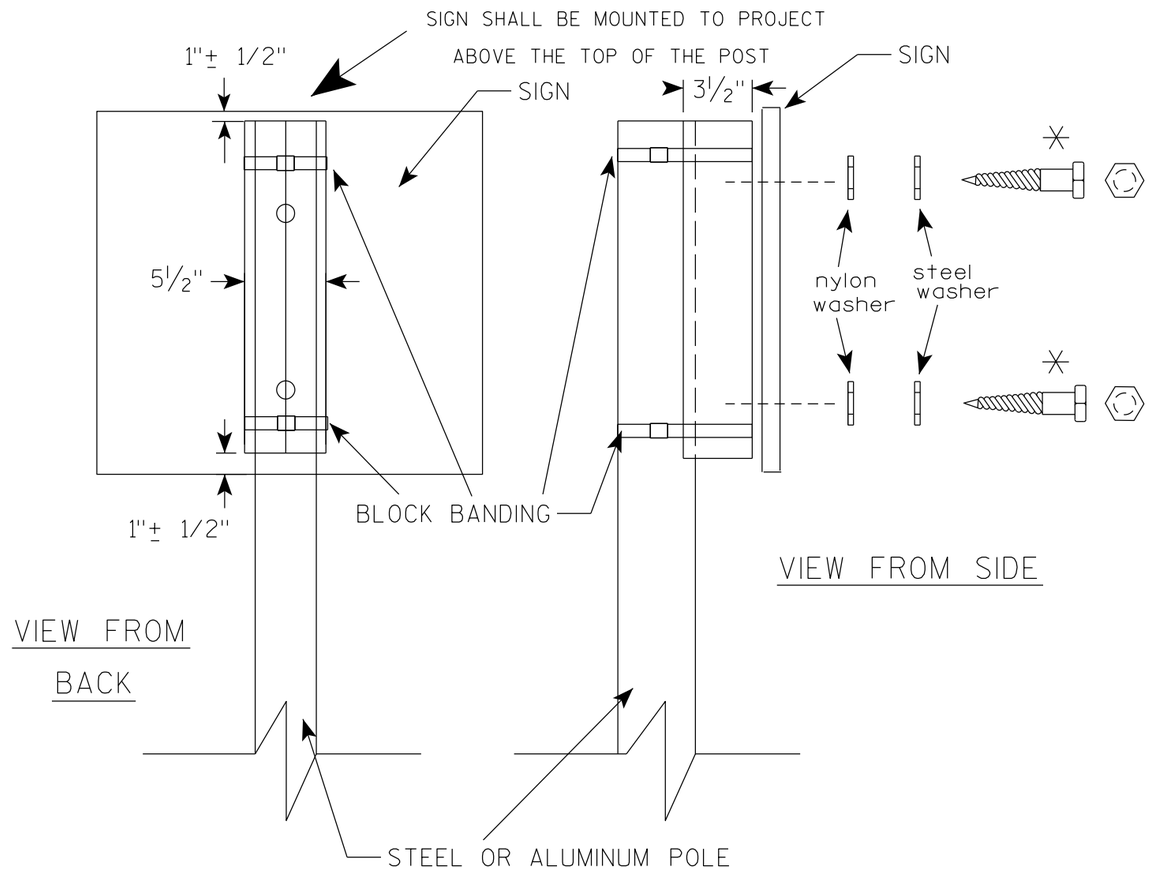
WISCONSIN DEPT OF TRANSPORTATION

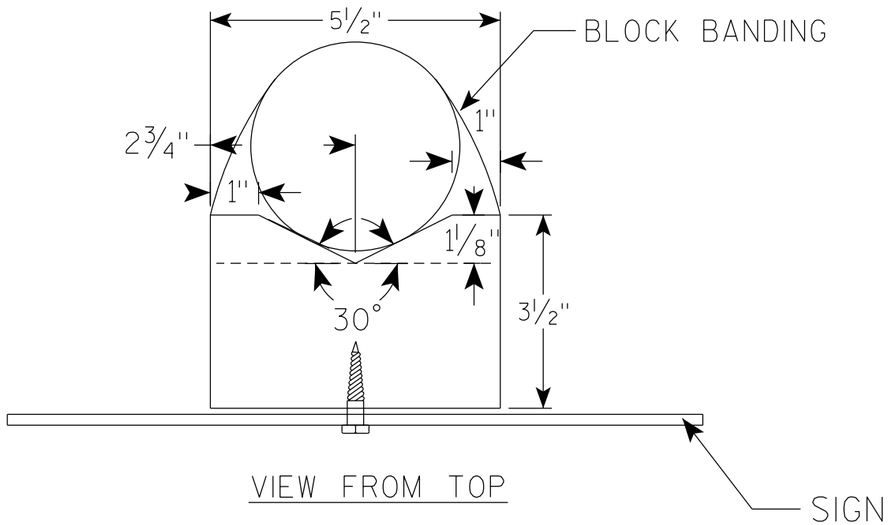
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 6/10/19 PLATE NO. A5-9.4

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 58	E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\A59.dgn PLOT DATE : 10-JUN 2019 4:10 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : $$.....plotscale.....$$





GENERAL NOTES

1. WOOD 4"X6" POST MATERIAL SHALL CONFORM TO 507.2.2 OF THE WisDOT STANDARD SPECIFICATIONS
2. BLOCK BANDING AND CLIPS SHALL BE STAINLESS STEEL, ¾" WIDTH AND 0.025" THICKNESS
3. SIGNS 3' OR GREATER IN HEIGHT SHALL UTILIZE 3 BLOCK BANDS. SIGNS UNDER 3' IN HEIGHT SHALL UTILIZE 2 BLOCK BANDS
4. ACTUAL NUMBER OF FASTENERS PER SIGN VARIES WITH THE SIGN AREA, BUT NORNALLY THERE ARE TWO. FOR SIGNS GREATER THAN 9 S.F. 3 FASTENERS SHALL BE USED.
5. ALL SIGN MOUNTING BOLTS AND WASHERS SHALL BE EITHER:
   a. Hot dip or mechanically galvanized in accordance with ASTM Designation: A 153, Class D
   b. Electro-galvanized in accordance with ASTM Designation : B 633, TYPE III, SC 3
6. ALL BOLTS SHALL HAVE HEXAGONAL HEADS.
7. STEEL WASHERS SHALL BE 1¼" O.D. X ⅜" I.D. X 1/16"
8. NYLON WASHERS SHALL BE 1¼" O.D. X ⅜" I.D. X .080 FOR TYPE H OR TYPE F FACE SIGN

✳ LAG BOLTS SHALL BE ⅜" X 2½"

BLOCK BANDING DETAIL (V-BLOCK OPTION)

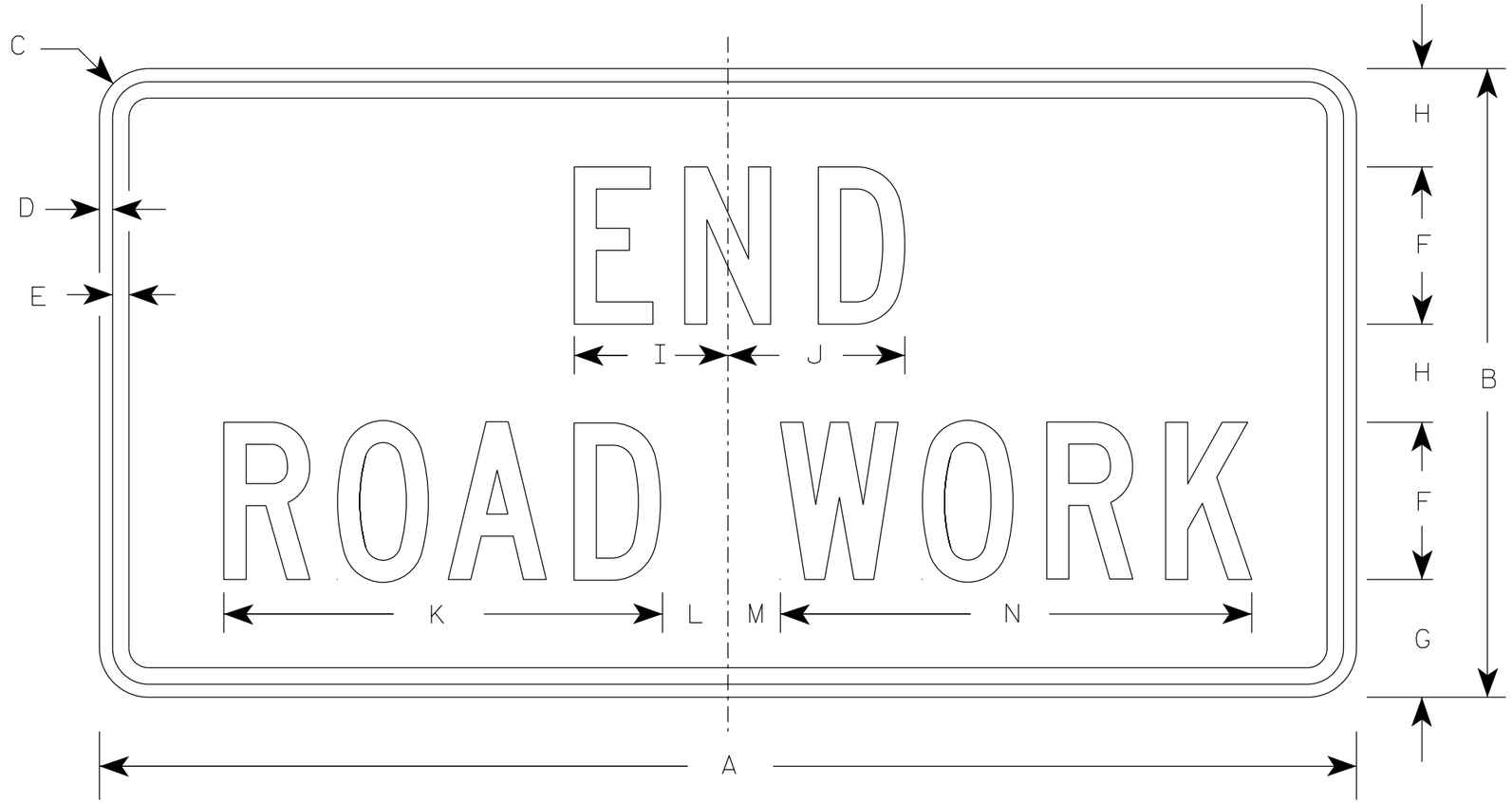
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 4/19/2022 PLATE NO. A5-10.3

PROJECT NO:

SHEET NO: 59 E



G20-2A

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.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36	18	1 1/2	3/8	1/2	4	3 3/4	2 1/2	4 1/8	4 1/8	11 1/8	2	1	12 1/8													4.5
2	48	24	1 7/8	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0
2M	48	24	1 7/8	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0
3	48	24	1 7/8	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0
4	48	24	1 7/8	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0
5	48	24	1 7/8	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0

STANDARD SIGN

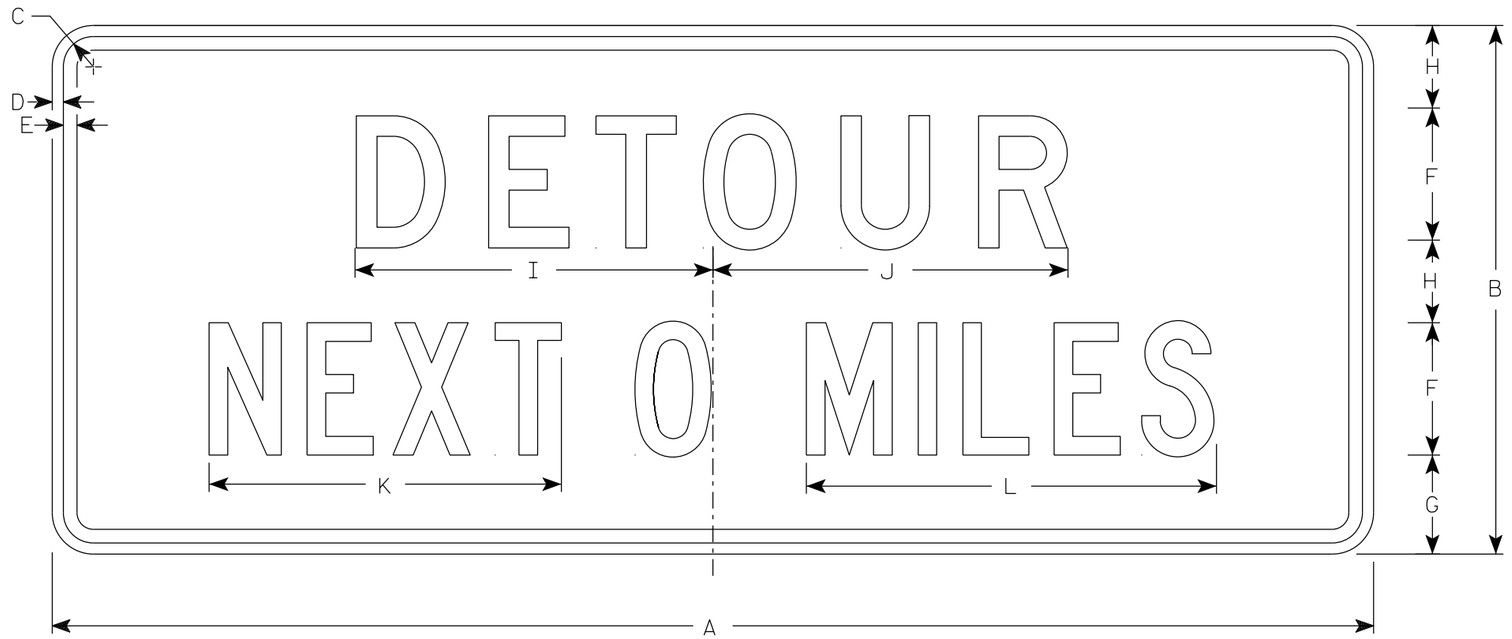
G20-2A

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 1/26/2023 PLATE NO. G20-2A.10

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 60 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 7/8	1/2	5/8	6	4 1/2	3 3/4	16 1/4	16 1/8	16	18 5/8															10.0
2M	60	24	1 7/8	1/2	5/8	6	4 1/2	3 3/4	16 1/4	16 1/8	16	18 5/8															10.0
3	60	24	1 7/8	1/2	5/8	6	4 1/2	3 3/4	16 1/4	16 1/8	16	18 5/8															10.0
4	60	24	1 7/8	1/2	5/8	6	4 1/2	3 3/4	16 1/4	16 1/8	16	18 5/8															10.0
5	60	24	1 7/8	1/2	5/8	6	4 1/2	3 3/4	16 1/4	16 1/8	16	18 5/8															10.0

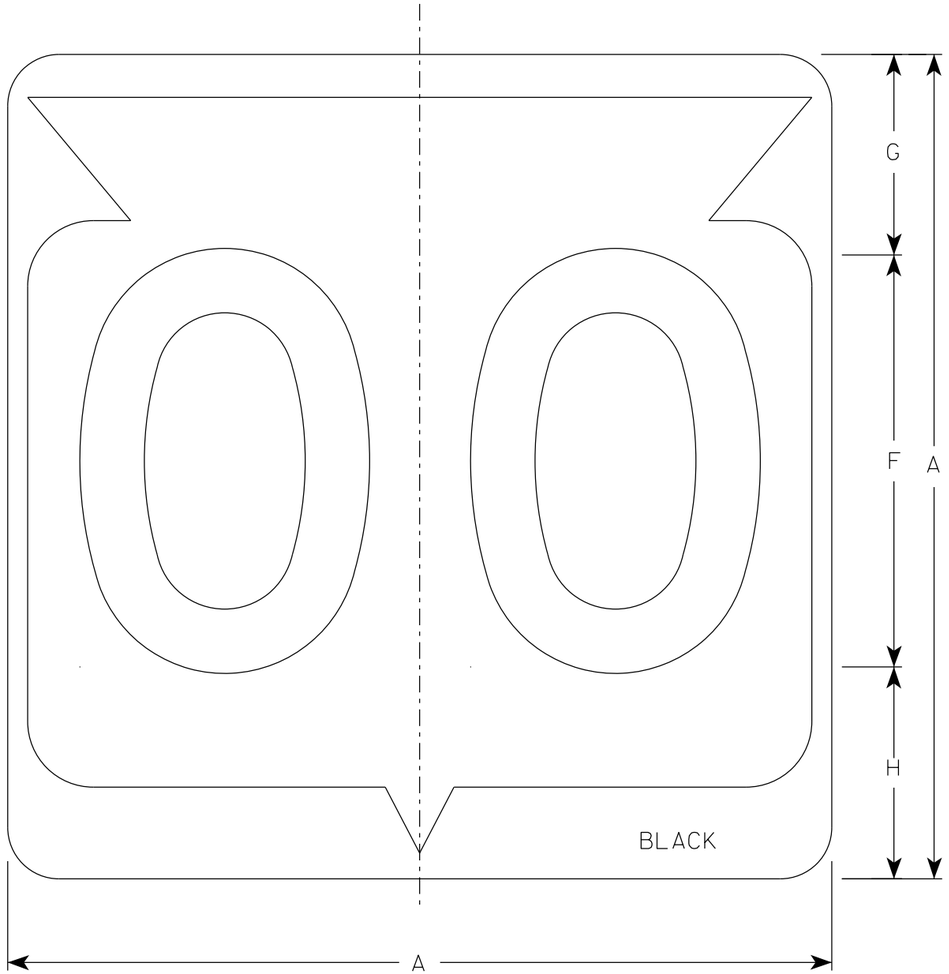
STANDARD SIGN
G20-51

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 1/26/2023 PLATE NO. G20-51.3

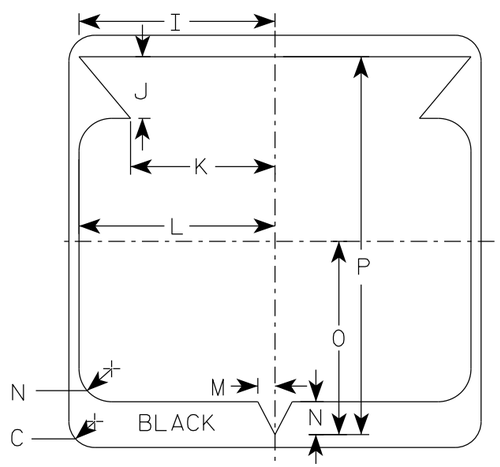
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 61	E



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



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
2M	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

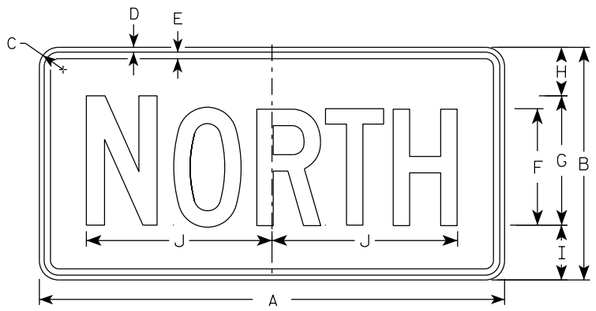
STATE ROUTE MARKER
M1-6 FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

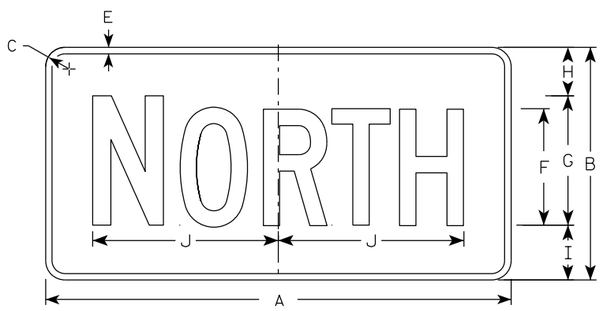
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/8/2022 PLATE NO. M1-6.11

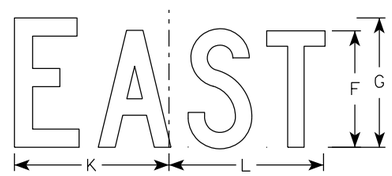
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 62	E



M3-1
MM3-1
MP3-1

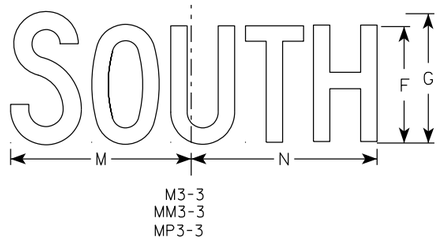


MB3-1
MK3-1
MN3-1

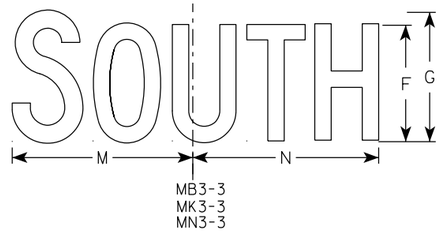


M3-2
MM3-2
MP3-2

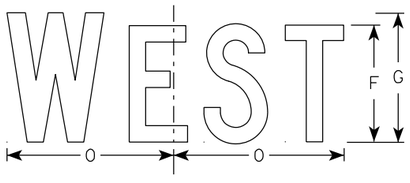
MB3-2
MK3-2
MN3-2



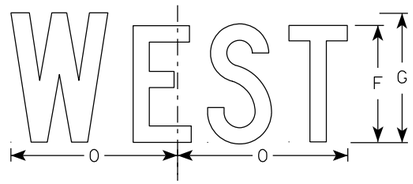
M3-3
MM3-3
MP3-3



MB3-3
MK3-3
MN3-3



M3-4
MM3-4
MP3-4



MB3-4
MK3-4
MN3-4

NOTES

1. All Signs Type II - Type H Reflective
2. Color:
   Background - See note 5
   Message - See note 5
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. M3-1 thru M3-4 Background - White
   Message - Black
   MB3-1 thru MB3-4 Background - Blue
   Message - White
   MK3-1 thru MK3-4 Background - Green
   Message - White
   MM3-1 thru MM3-4 Background - White
   Message - Green
   MN3-1 thru MN3-4 Background - Brown
   Message - White
   MP3-1 thru MP3-4 Background - White
   Message - Blue
6. Note the first letter of each direction is larger than the remainder of the message.

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	24	12	1 1/2	3/8	3/8	6	7	2 1/4	2 3/4	10 1/4	7 7/8	8 3/8	10 1/4	9 3/4	8 3/4												2.00
2M	24	12	1 1/2	3/8	3/8	6	7	2 1/4	2 3/4	10 1/4	7 7/8	8 3/8	10 1/4	9 3/4	8 3/4												2.00
3	36	18	1 1/2	3/8	1/2	9	10	3 3/4	4 1/4	14 3/8	12	12 1/8	14	14 1/8	13												4.5
4	36	18	1 1/2	3/8	1/2	9	10	3 3/4	4 1/4	14 3/8	12	12 1/8	14	14 1/8	13												4.5
5	36	18	1 1/2	3/8	1/2	9	10	3 3/4	4 1/4	14 3/8	12	12 1/8	14	14 1/8	13												4.5

STANDARD SIGNS
M3-1 THRU M3-4
SERIES

WISCONSIN DEPT OF TRANSPORTATION

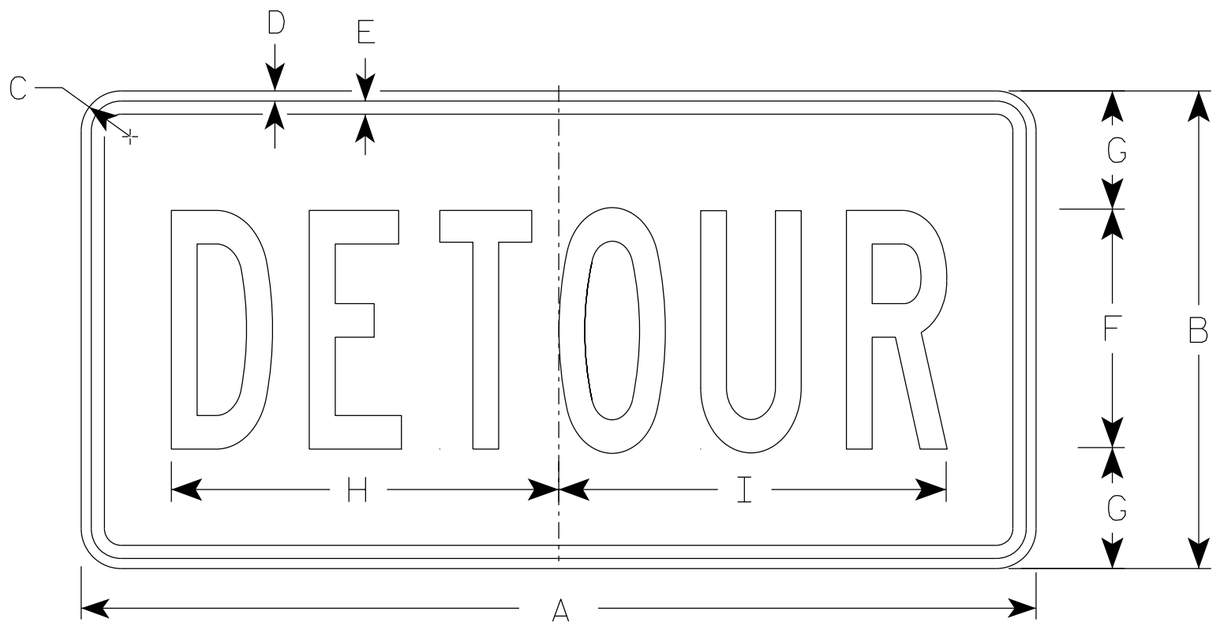
APPROVED Matthew R Rauch
For State Traffic Engineer

DATE 2/8/2023 PLATE NO. M3-1.15

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 63 | E

NOTES

1. Sign is Type II - Type F Reflective
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.



M4-8

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 1/2	3/8	3/8	6	3	10	10 1/4																		2.0
2M	24	12	1 1/2	3/8	3/8	6	3	10	10 1/4																		2.0
3	36	18	1 1/2	3/8	1/2	9	4 1/2	14 5/8	14 1/2																		4.5
4	36	18	1 1/2	3/8	1/2	9	4 1/2	14 5/8	14 1/2																		4.5
5	36	18	1 1/2	3/8	1/2	9	4 1/2	14 5/8	14 1/2																		4.5

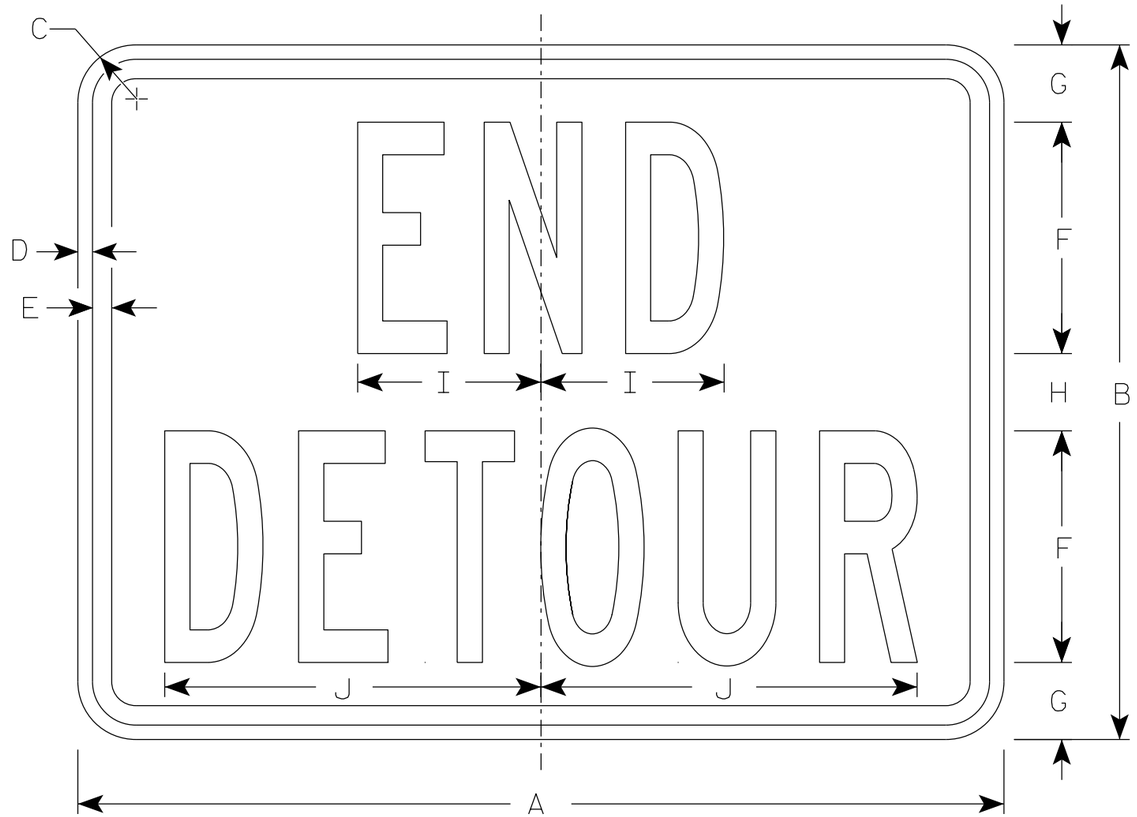
STANDARD SIGN
M4-8

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/9/2023 PLATE NO. M4-8.4

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 64	E



M4-8A

NOTES

1. Sign is Type II - Type F Reflective
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 ½	⅜	½	6	2	2	4 ¾	9 ¾																	3.0
2M	24	18	1 ½	⅜	½	6	2	2	4 ¾	9 ¾																	3.0
3	30	24	1 ½	⅜	½	8	2 ½	3	6 ¾	13																	5.0
4	30	24	1 ½	⅜	½	8	2 ½	3	6 ¾	13																	5.0
5	30	24	1 ½	⅜	½	8	2 ½	3	6 ¾	13																	5.0

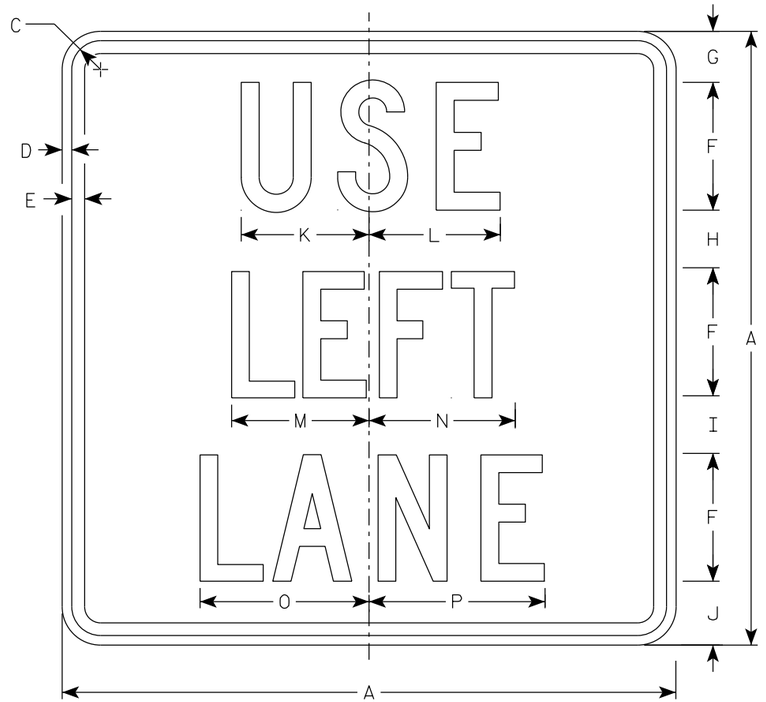
STANDARD SIGN
M4-8A

WISCONSIN DEPT OF TRANSPORTATION

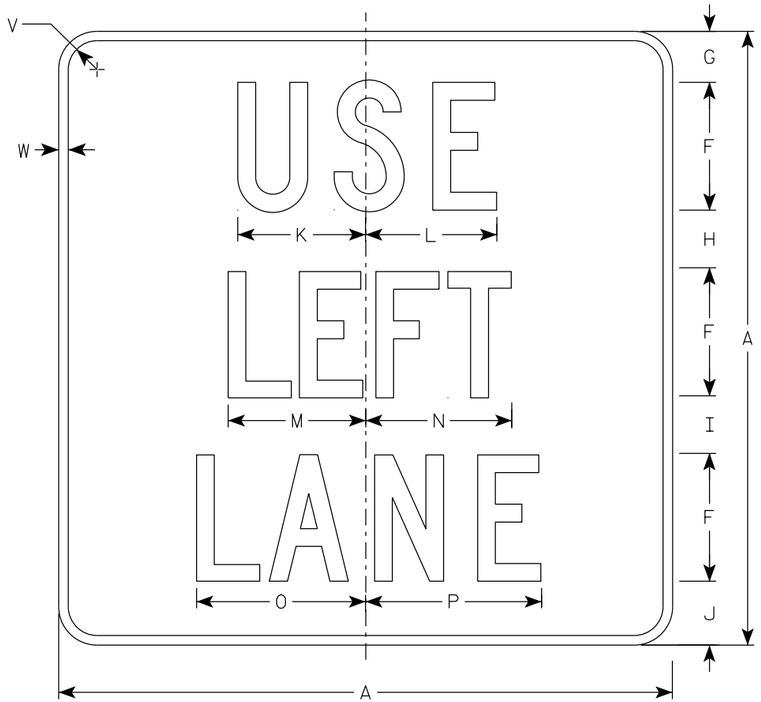
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/9/2023 PLATE NO. M4-8A.4

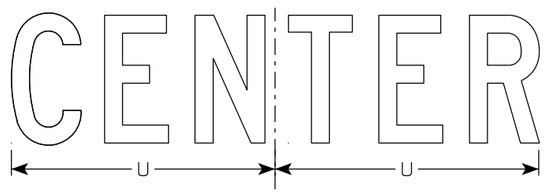
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 65 | E



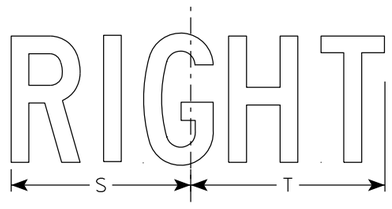
M4-20L
MM4-20L
MO4-20L
MP4-20L



MB4-20L
MK4-20L
MN4-20L
MR4-20L



M4-20C
MB4-20C
MK4-20C
MM4-20C
MN4-20C
MO4-20C
MP4-20C
MR4-20C



M4-20R
MB4-20R
MK4-20R
MM4-20R
MN4-20R
MO4-20R
MP4-20R
MR4-20R

NOTES

1. Sign is Type II - Type H except as Shown
2. Color:
   Background - See note 5
   Message - See note 5
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. M4-20 Background - White
   Message - Black
   MB4-20 Background - Blue
   Message - White
   MK4-20 Background - Green
   Message - White
   MM4-20 Background - White
   Message - Green
   MN4-20 Background - Brown
   Message - White
   MO4-20 Background - Orange - Type F Reflective
   Message - Black
   MP4-20 Background - White
   Message - Blue
   MR4-20 Background - Brown
   Message - Yellow

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	24		1 1/2	3/8	1/2	5	2	2 1/4	2 1/4	2 1/2	5	5 1/8	5 3/8	5 3/4	6 5/8	6 7/8			7	7 5/8	10 1/4	1 1/2	1/2				4.0
2M	24		1 1/2	3/8	1/2	5	2	2 1/4	2 1/4	2 1/2	5	5 1/8	5 3/8	5 3/4	6 5/8	6 7/8			7	7 5/8	10 1/4	1 1/2	1/2				4.0
3	36		2 1/4	5/8	3/4	7	4	3	3 1/2	4 1/2	7 1/2	7 3/4	8	8 5/8	9 7/8	10 1/4			10 3/8	11 3/8	14 3/8	1 7/8	1/2				9.0
4	36		2 1/4	5/8	3/4	7	4	3	3 1/2	4 1/2	7 1/2	7 3/4	8	8 5/8	9 7/8	10 1/4			10 3/8	11 3/8	14 3/8	1 7/8	1/2				9.0
5	36		2 1/4	5/8	3/4	7	4	3	3 1/2	4 1/2	7 1/2	7 3/4	8	8 5/8	9 7/8	10 1/4			10 3/8	11 3/8	14 3/8	1 7/8	1/2				9.0

STANDARD SIGN
M4-20

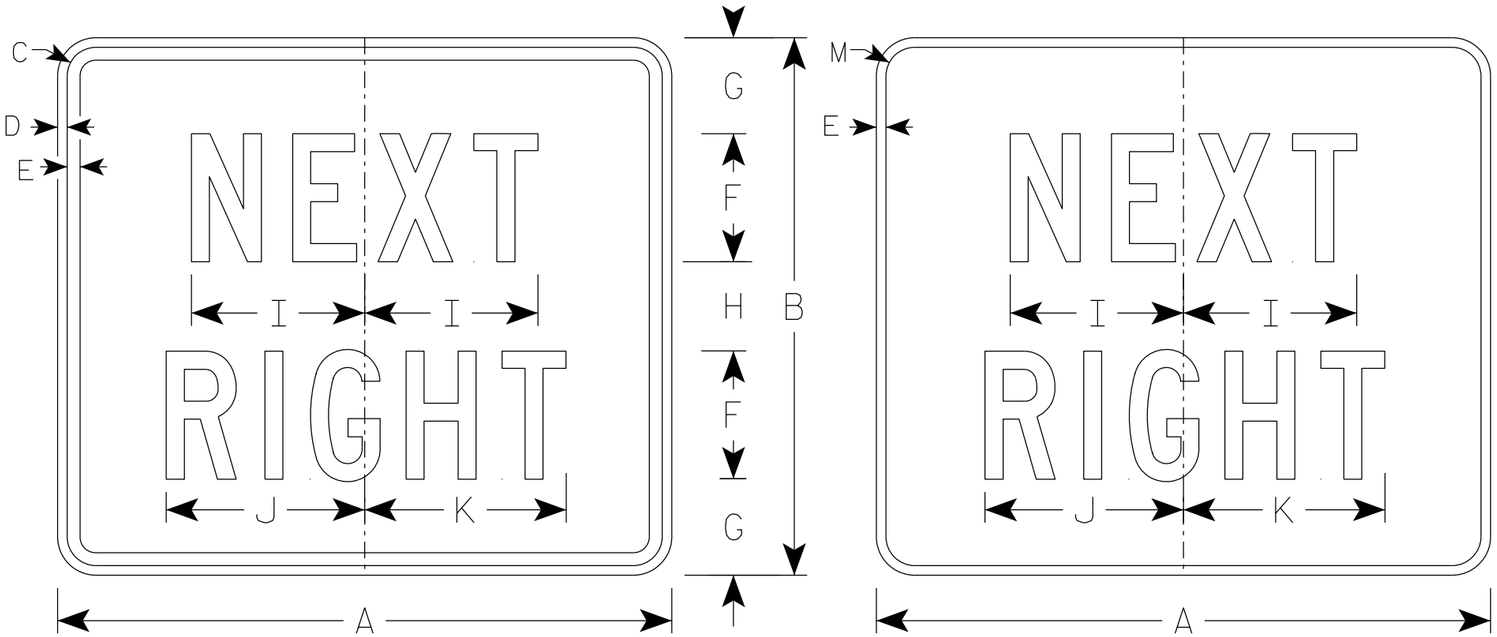
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/13/2023 PLATE NO. M4-20.6

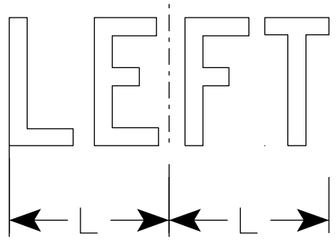
PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\M420.dgn PLOT DATE : 13-FEB 2023 8:25 PLOT BY : dotc4c PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 42



M4-21R
MM4-21R
MO4-21R
MP4-21R

MB4-21R
MK4-21R
MN4-21R
MR4-21R



M4-21L
MB4-21L
MK4-21L
MM4-21L
MN4-21L
MO4-21L
MP4-21L
MR4-21L

NOTES

1. Sign is Type II - Type H except as Shown
2. Color:
   Background - See note 5
   Message - See note 5
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. M4-21 Background - White
   Message - Black
   MB4-21 Background - Blue
   Message - White
   MK4-21 Background - Green
   Message - White
   MM4-21 Background - White
   Message - Green
   MN4-21 Background - Brown
   Message - White
   MO4-21 Background - Orange - Type F Reflective
   Message - Black
   MP4-21 Background - White
   Message - Blue
   MR4-21 Background - Brown
   Message - Yellow

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	21	1 1/8	3/8	1/2	5	3 3/4	3 1/2	6 3/4	7 3/4	7 7/8	6 1/4	1 1/2														3.5
2M	24	21	1 1/8	3/8	1/2	5	3 3/4	3 1/2	6 3/4	7 3/4	7 7/8	6 1/4	1 1/2														3.5
3	36	30	1 5/8	5/8	3/4	8	4 3/4	4 1/2	10 7/8	12 5/8	12 1/2	10 1/8	1 7/8														7.5
4	36	30	1 5/8	5/8	3/4	8	4 3/4	4 1/2	10 7/8	12 5/8	12 1/2	10 1/8	1 7/8														7.5
5																											

STANDARD SIGN
M4-21

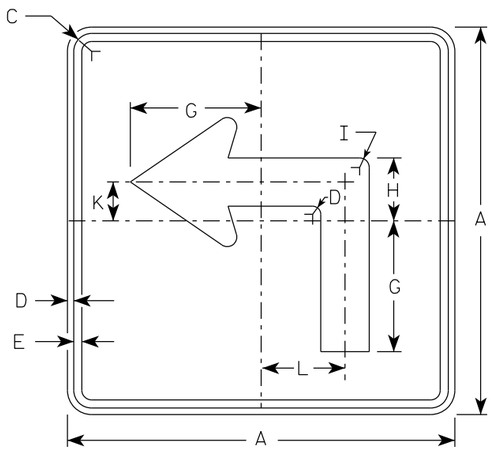
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

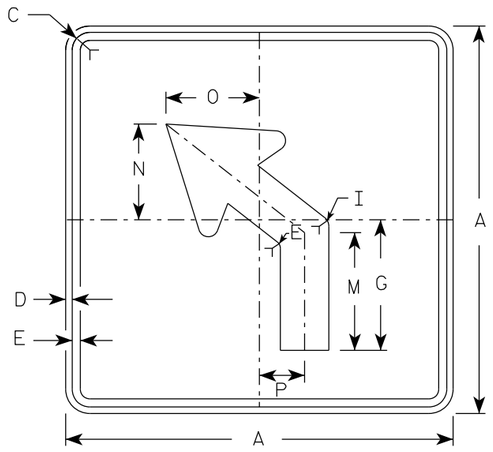
DATE 11/21/2022 PLATE NO. M4-21.5

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

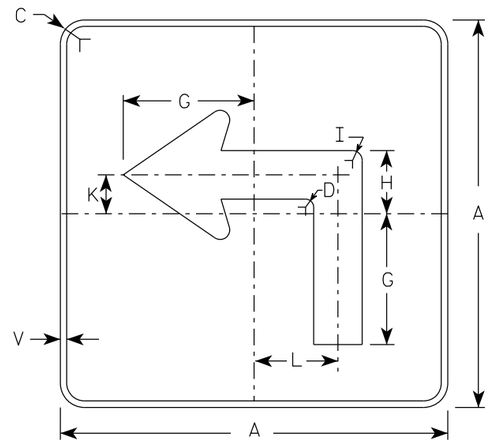
FILE NAME : C:\CAEfiles\Projects\tr_stdplate\M421.dgn PLOT DATE : 21-NOV 2022 7:55 PLOT BY : dotc4c PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 42



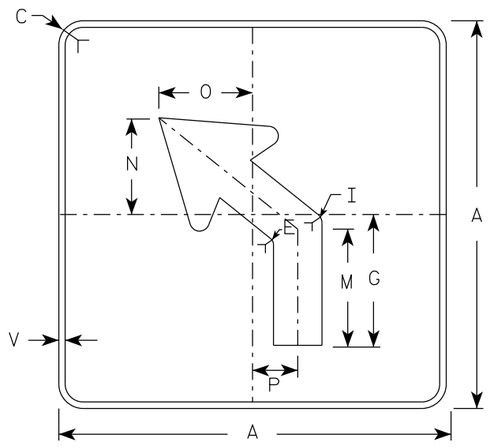
M5-1L
MM5-1L
MO5-1L
MP5-1L



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



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

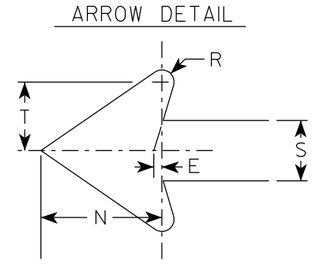


MB5-2L
MK5-2L
MN5-2L
MR5-2L

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
   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.

ARROW DETAIL



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	21		1 1/2	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		1/2					3.06
2M	21		1 1/2	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		1/2					3.06
3	30		1 7/8	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		1/2					6.25
4	30		1 7/8	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		1/2					6.25
5	30		1 7/8	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		1/2					6.25

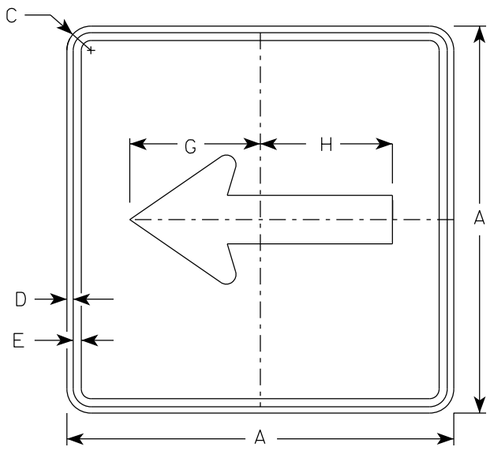
STANDARD SIGN
M5-1 & M5-2

WISCONSIN DEPT OF TRANSPORTATION

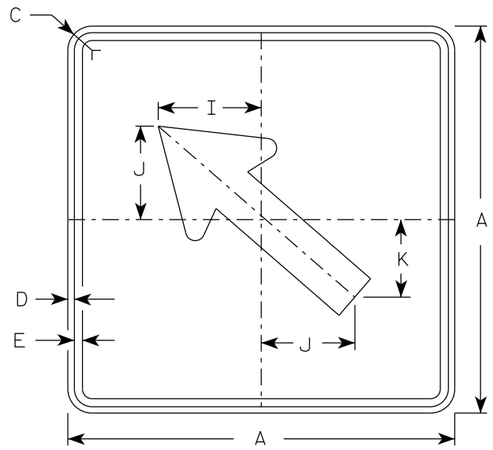
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/13/2023 PLATE NO. M5-1.15

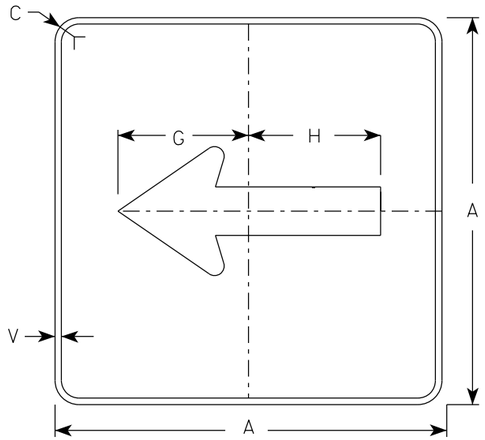
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 68 | E



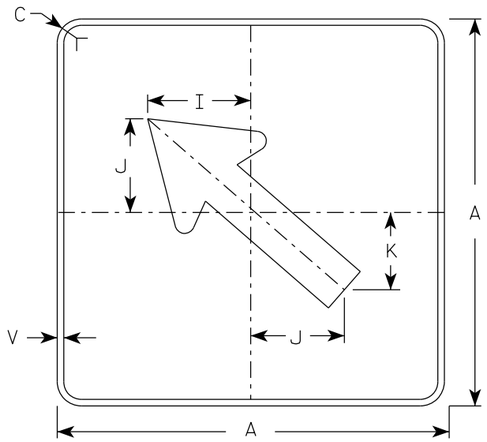
M6-1
MM6-1
MO6-1
MP6-1



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



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

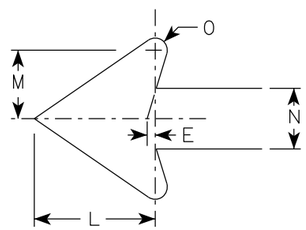


MB6-2
MK6-2
MN6-2
MR6-2

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. 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

ARROW DETAIL



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	21		1 1/2	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							1/2					3.06
2M	21		1 1/2	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							1/2					3.06
3	30		1 7/8	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							1/2					6.25
4	30		1 7/8	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							1/2					6.25
5	30		1 7/8	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							1/2					6.25

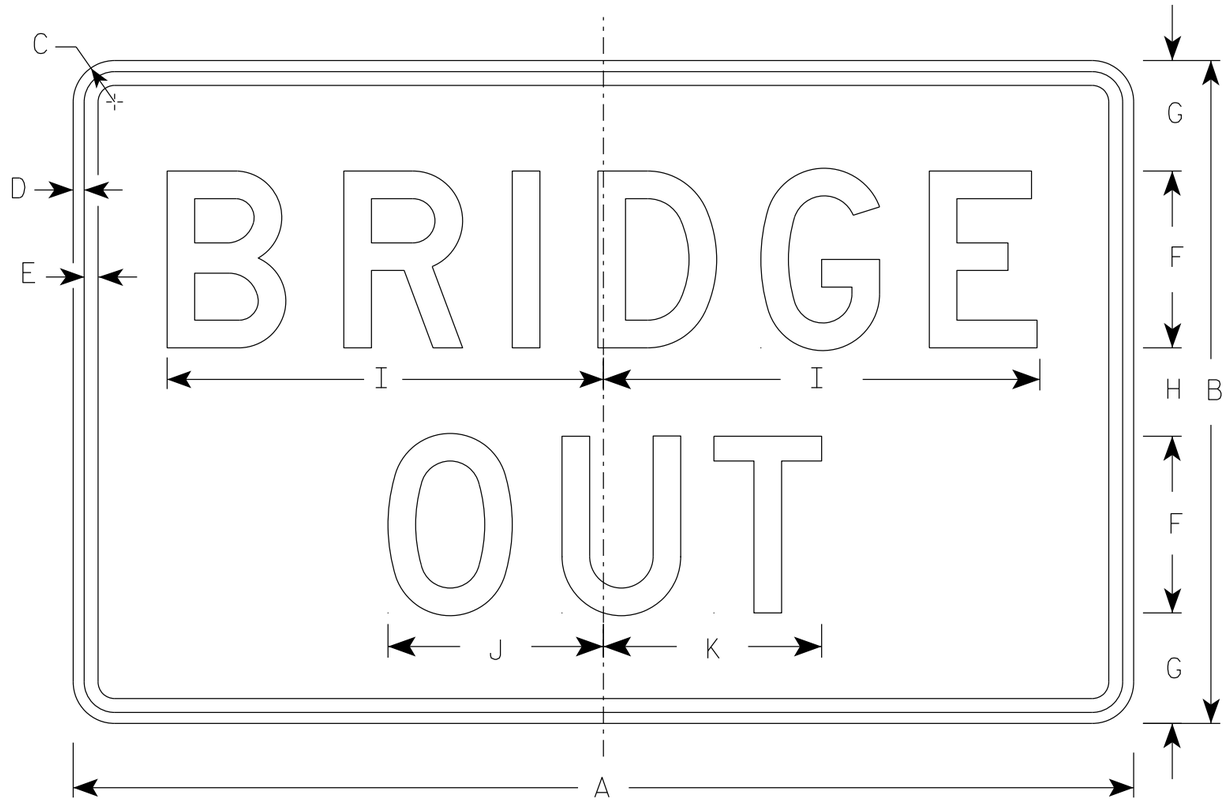
STANDARD SIGN
M6-1 & M6-2
SERIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/13/2023 PLATE NO. M6-1.16

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 69 | E



R11-2B

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - D
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																											
2S	48	30	1 7/8	1/2	5/8	8	5	4	19 3/4	9 3/4	9 7/8																10.0
2M	48	30	1 7/8	1/2	5/8	8	5	4	19 3/4	9 3/4	9 7/8																10.0
3	48	30	1 7/8	1/2	5/8	8	5	4	19 3/4	9 3/4	9 7/8																10.0
4	48	30	1 7/8	1/2	5/8	8	5	4	19 3/4	9 3/4	9 7/8																10.0
5	48	30	1 7/8	1/2	5/8	8	5	4	19 3/4	9 3/4	9 7/8																10.0

STANDARD SIGN
R11-2B

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
For State Traffic Engineer

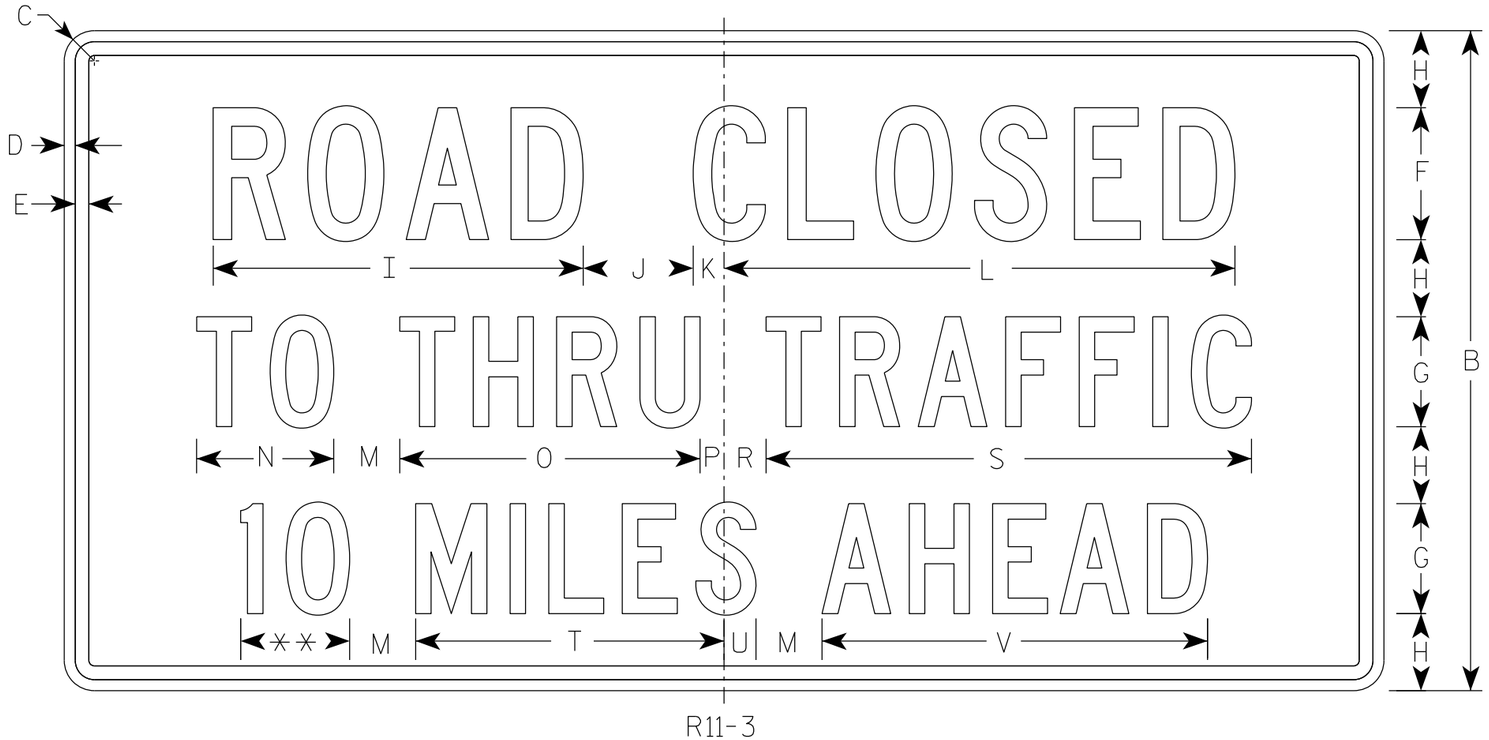
DATE 2/5/24 PLATE NO. R11-2B.3

PROJECT NO:

SHEET NO: 70 E

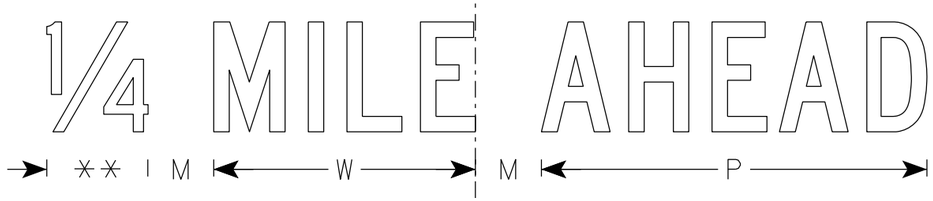
NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   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. Substitute appropriate numerals to nearest quarter mile and optically adjust spacing to achieve proper balance.



R11-3

** See Note 5



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36	18	1 1/2	3/8	3/8	4	3	2	11 1/4	3	1 1/8	15 3/8	2	3 3/4	8 1/4	5/8		1 3/8	13 1/4	8 3/8	7/8	10 1/2	7 1/8				4.5
2S	60	30	1 7/8	1/2	5/8	6	5	3 1/2	16 7/8	5	1 3/8	23 1/4	3	6 1/4	13 5/8	1 1/8		1 7/8	22 1/8	14	1 1/2	17 1/2	11 7/8				12.5
2M	60	30	1 7/8	1/2	5/8	6	5	3 1/2	16 7/8	5	1 3/8	23 1/4	3	6 1/4	13 5/8	1 1/8		1 7/8	22 1/8	14	1 1/2	17 1/2	11 7/8				12.5
3																											
4																											
5																											

STANDARD SIGN
R11-3

WISCONSIN DEPT OF TRANSPORTATION

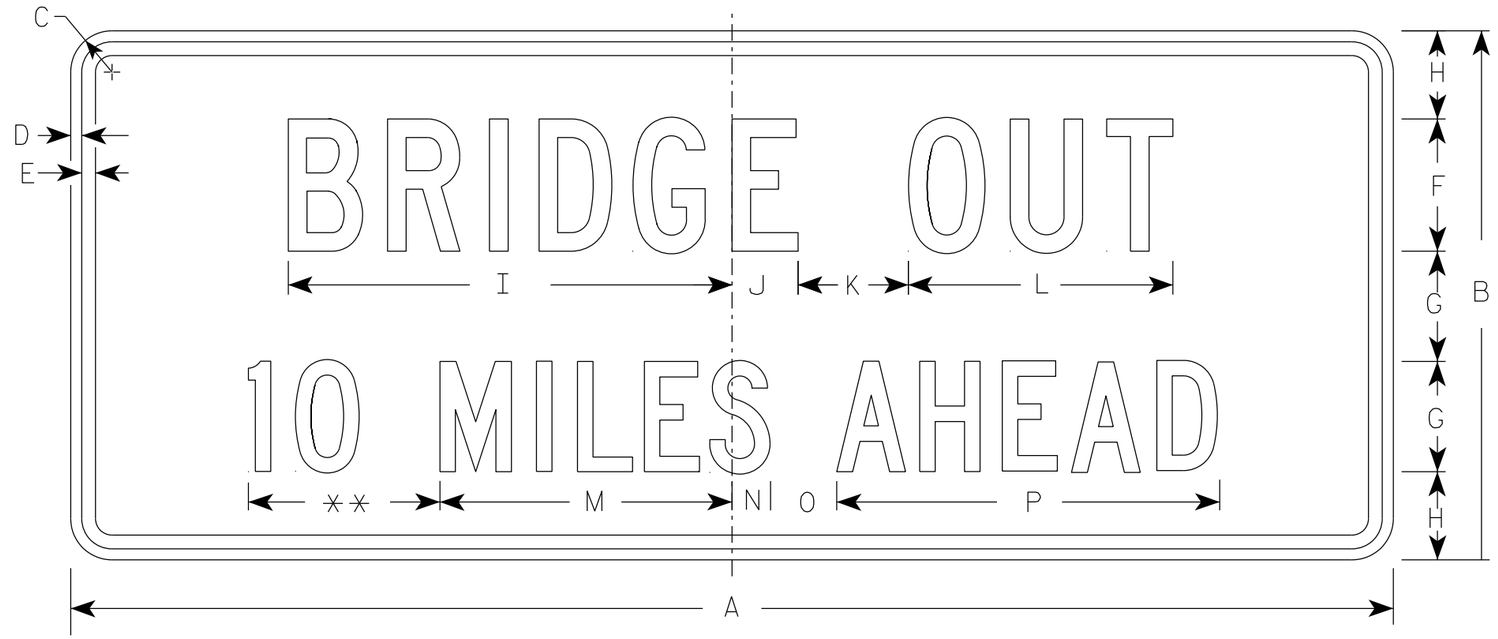
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/5/24 PLATE NO. R11-3.10

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 71 | E

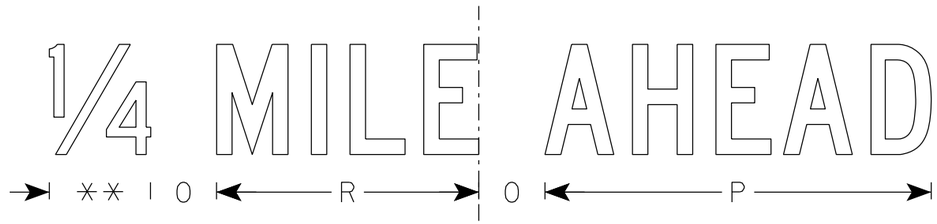
NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   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. Substitute appropriate numerals to nearest quarter mile and optically adjust spacing to achieve proper balance.



R11-3C

** See Note 5



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	15	1 1/2	1/2	5/8	4	3	2 1/2	13 1/4	2 1/4	3	8	8	1 1/2	2	10 3/4		7 1/8									3.75
2S	60	24	1 7/8	1/2	5/8	6	5	4	20 1/8	3	5	12	13 1/4	1 3/4	3	17 3/8		11 7/8									10.0
2M	60	24	1 7/8	1/2	5/8	6	5	4	20 1/8	3	5	12	13 1/4	1 3/4	3	17 3/8		11 7/8									10.0
3																											
4																											
5																											

STANDARD SIGN
R11-3C

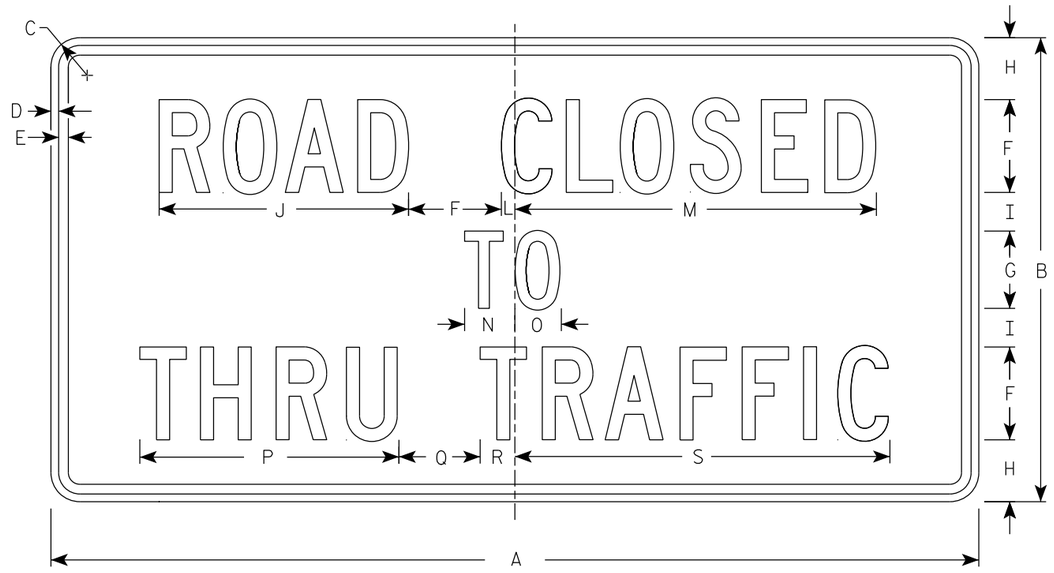
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/5/24 PLATE NO. R11-3C.4

PROJECT NO:

SHEET NO: 72 E



R11-4

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   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.

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	60	30	1 7/8	1/2	5/8	6	5	4	2 1/2	16 1/8		7/8	23 3/8	3 1/4	3	16 3/4	5 1/4	2 1/4	24 1/4								12.5
2M	60	30	1 7/8	1/2	5/8	6	5	4	2 1/2	16 1/8		7/8	23 3/8	3 1/4	3	16 3/4	5 1/4	2 1/4	24 1/4								12.5
3																											
4																											
5																											

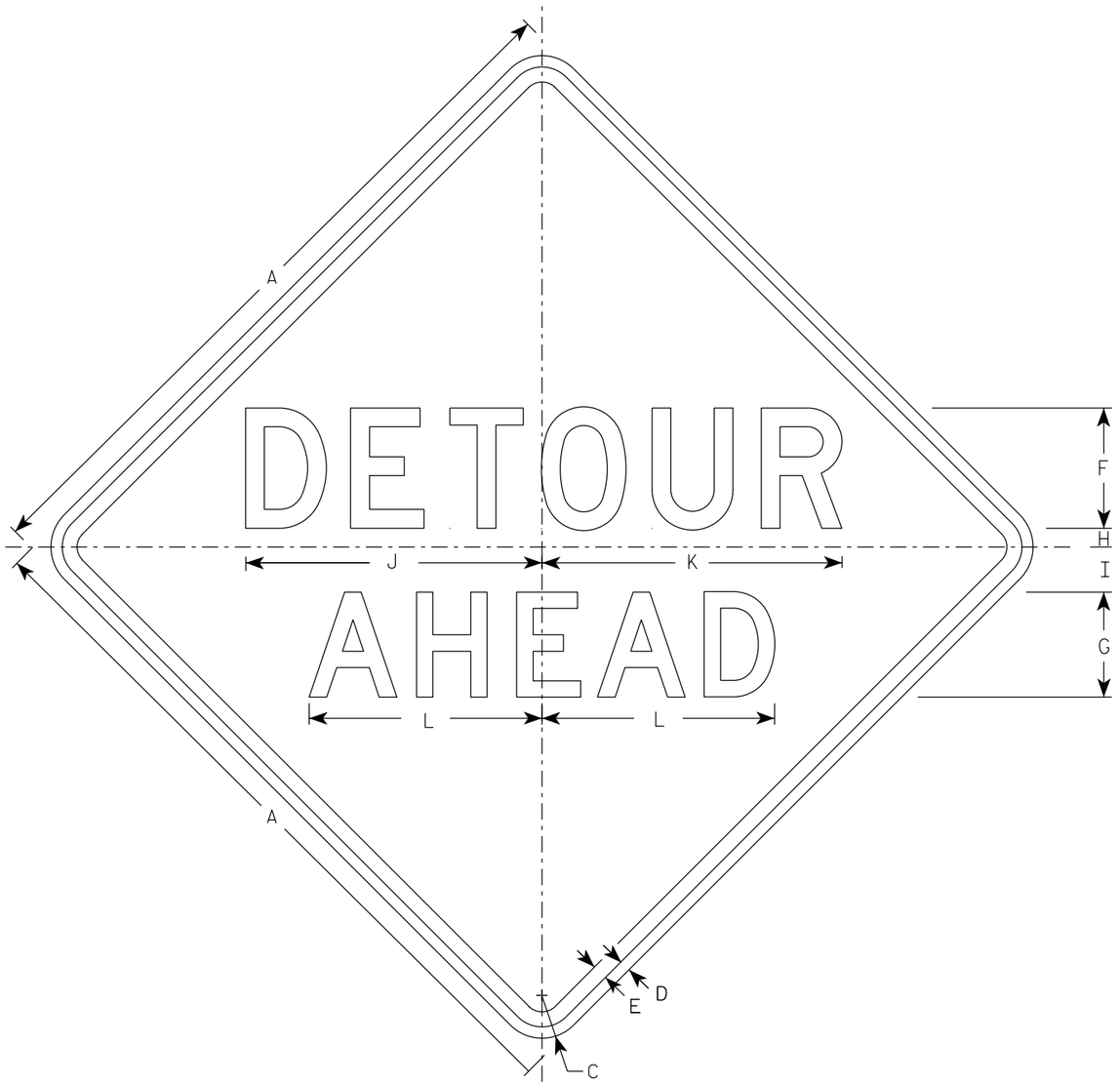
STANDARD SIGN
R11 - 4

WISCONSIN DEPT OF TRANSPORTATION

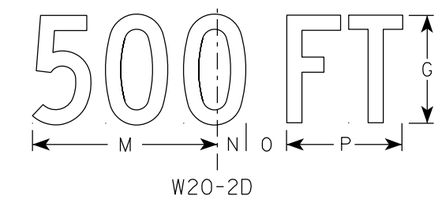
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/5/24 PLATE NO. R11-4.4

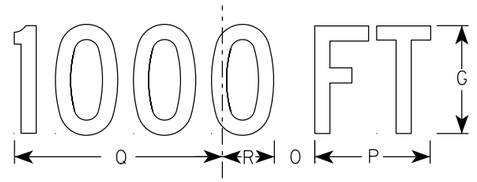
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 73 | E



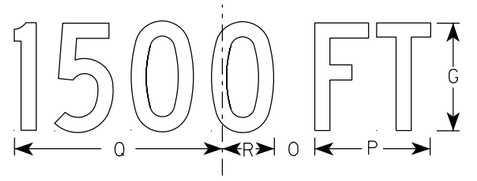
W20-2A



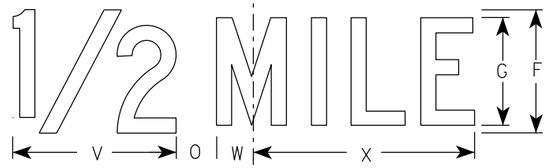
W20-2D



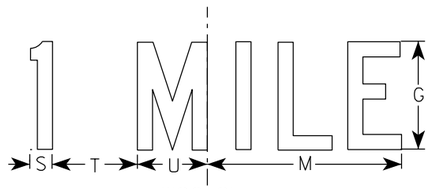
W20-2C



W20-2B



W20-2G



W20-2F

NOTES

1. Sign is Type II - Type F Reflective
2. Color:
   Background - Orange
   Message - Black
3. Message Series - See note 5
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. Line 1 is Series D.
   Line 2 is Series D for AHEAD and Series C for all other distances.

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		2 1/4	5/8	3/4	6	5	1	2 1/4	14 3/4	15	11 5/8	9	1 3/8	1 7/8	5 5/8	10 1/8	2 1/2	1 1/8	4 1/2	3 1/2	8	1 3/4	10 3/4			9.0
2S	48		3	3/4	1	8	7	1 1/4	3	19 3/4	20	15 1/2	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	10 5/8	2 3/8	14 3/8			16.0
2M	48		3	3/4	1	8	7	1 1/4	3	19 3/4	20	15 1/2	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	10 5/8	2 3/8	14 3/8			16.0
3	48		3	3/4	1	8	7	1 1/4	3	19 3/4	20	15 1/2	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	10 5/8	2 3/8	14 3/8			16.0
4	48		3	3/4	1	8	7	1 1/4	3	19 3/4	20	15 1/2	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	10 5/8	2 3/8	14 3/8			16.0
5	48		3	3/4	1	8	7	1 1/4	3	19 3/4	20	15 1/2	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	10 5/8	2 3/8	14 3/8			16.0

STANDARD SIGN
W20-2A,B,C,D,F & G

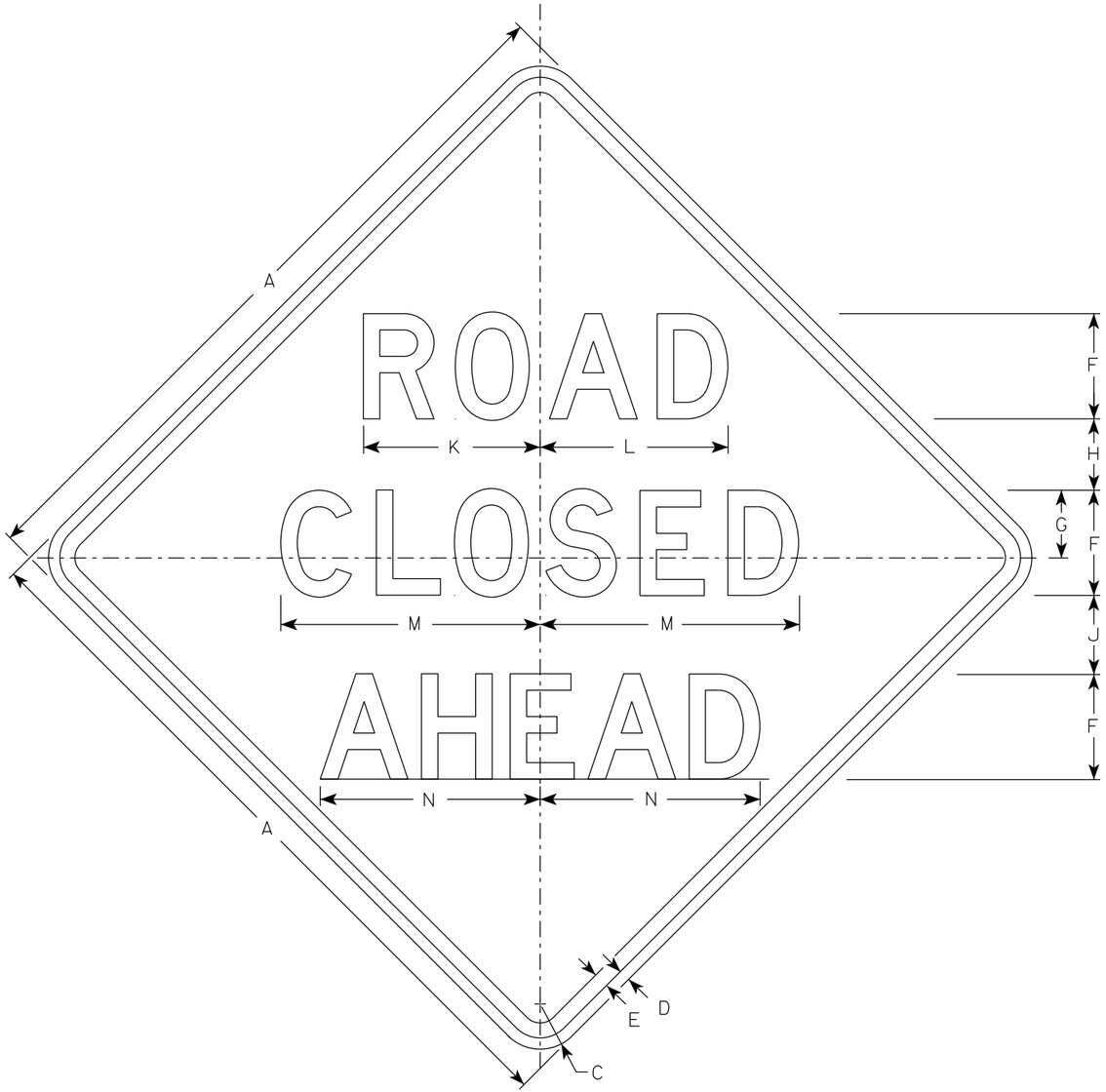
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
For State Traffic Engineer

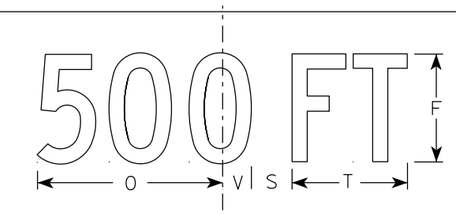
DATE 1/10/2024 PLATE NO. W20-2.7

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

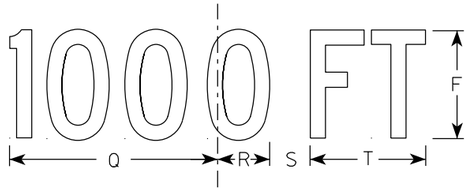
FILE NAME : C:\CAEfiles\Projects\tr_stdplate\W202.DGN PLOT DATE : 10-JAN 2024 11:36 PLOT BY : dotc4c PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 42



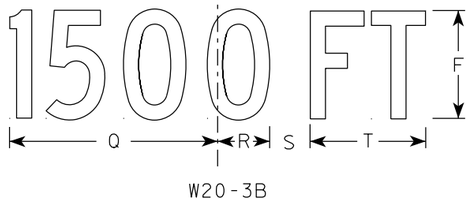
W20-3A



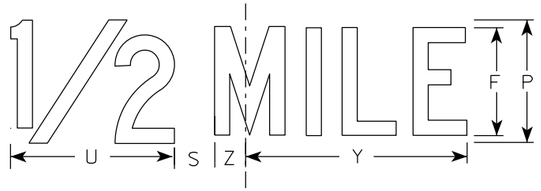
W20-3D



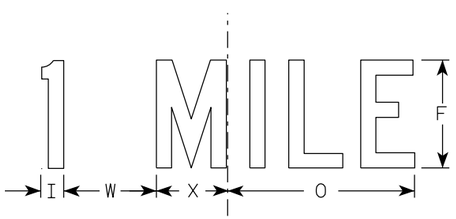
W20-3C



W20-3B



W20-3G



W20-3F

NOTES

1. Sign is Type II - Type F Reflective
2. Color:
   Background - Orange
   Message - Black
3. Message Series - see note 5
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. Lines 1 and 2 are Series D.
   Line 3 is Series D for AHEAD and Series C for all other distances.

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		2 1/4	5/8	3/4	5	3 3/8	3 1/2	1 1/8	4	8 3/8	8 7/8	12 1/2	11	9	6	10 1/8	2 1/2	1 7/8	5 5/8	8	1 3/8	4 1/2	3 1/2	10 3/4	1 3/4	9.0
2S	48		3	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	11 3/4	12 1/2	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0
2M	48		3	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	11 3/4	12 1/2	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0
3	48		3	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	11 3/4	12 1/2	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0
4	48		3	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	11 3/4	12 1/2	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0
5	48		3	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	11 3/4	12 1/2	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0

STANDARD SIGN
W20-3A, B, C, D, F & G

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 1/10/2024 PLATE NO. W20-3.8

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 75 | E

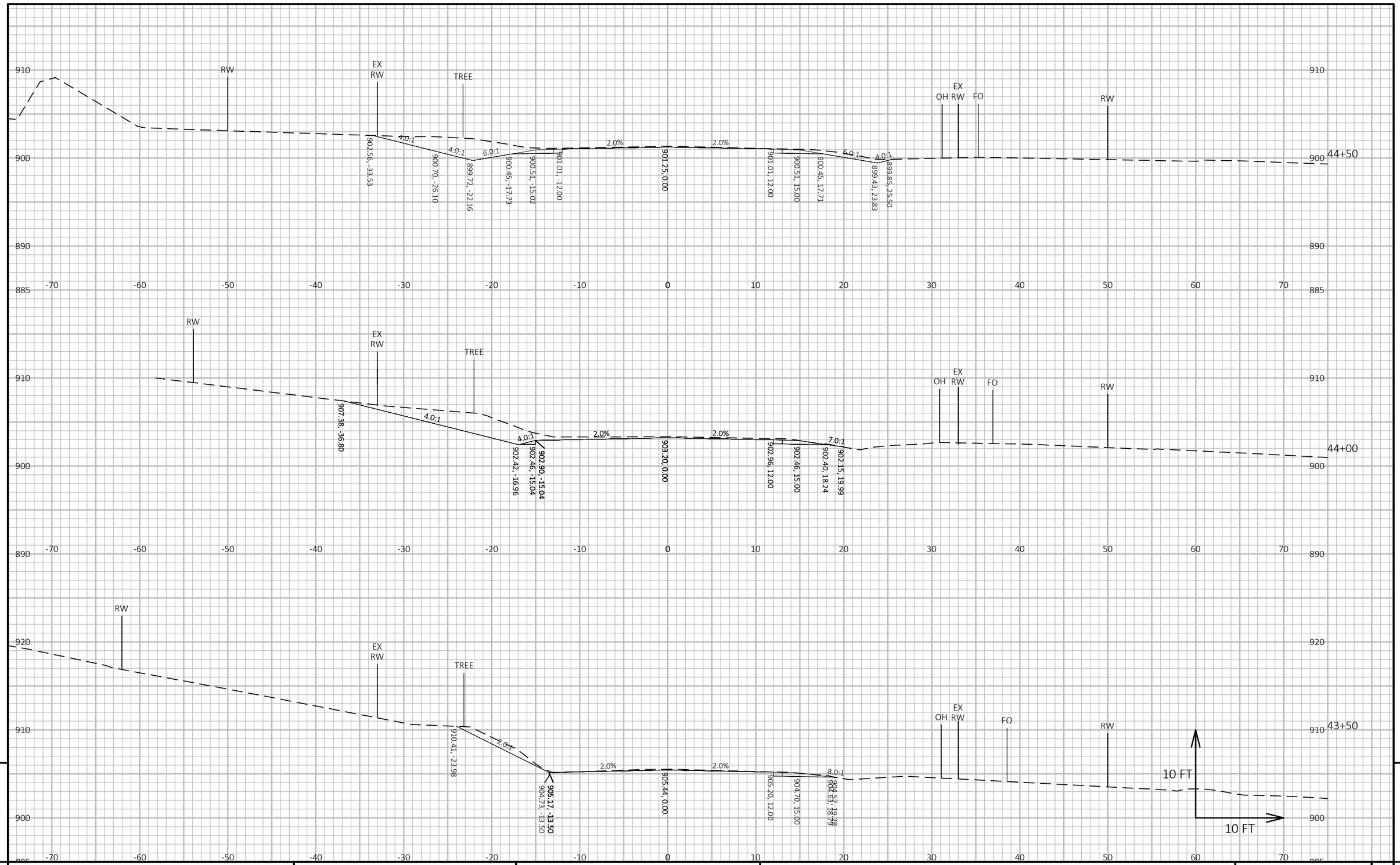
DIVISION	FROM STATION	TO STATION	LOCATION	205.0100 EXCAVATION COMMON (1) CUT (2)	205.0100 EXCAVATION COMMON (1) EBS EXCAVATION (3)	SALVAGED/UNUSABLE PAVEMENT MATERIAL (4)	AVAILABLE MATERIAL (5)	UNEXPANDED FILL	MASS ORDINATE +/- (14)	WASTE	208.0100 BORROW	COMMENT
ALIGN_STH 78	43+50.00	49+00.00	CULVERT PIPE	1,324	0	54	1,270	192	1,078	1,270	192	
			GRAND TOTAL	1,324	0	54	1,270	192	1,078	1,270	192	
			TOTAL COMMON EXC	1,324								

NOTES

(1) COMMON EXCAVATION IS THE SUM OF THE CUT AND EBS EXCAVATION COLUMNS. ITEM NUMBER 205.0100
(2) CUT IS ROUNDED TO THE NEAREST 10.
(3) THE EXCAVATION AMOUNT SHOWN DOES NOT INCLUDE EXCAVATION BELOW THE EXISTING PAVEMENT FOR THE CULVERT TRENCH.
(4) SALVAGED/UNUSABLE PAVEMENT MATERIAL
(5) AVAILABLE MATERIAL = CUT - SALVAGED/UNUSABLE PAVEMENT MATERIAL
(14) THE MASS ORDINATE + OR - QTY CALCULATED FOR THE DIVISION. PLUS QUANTITY INDICATES AN EXCESS OF MATERIAL WITHIN THE DIVISION. MINUS INDICATES A SHORTAGE OF MATERIAL WITHIN THE DIVISION.

STATION	REAL STATION	DISTANCE	AREA (SF) CUT	AREA (SF) SALVAGED/UNUSABLE PAVEMENT MATERIAL	AREA (SF) FILL	INCREMENTAL VOL (CY) (UNADJUSTED) CUT NOTE 1	INCREMENTAL VOL (CY) (UNADJUSTED) SALVAGED/UNUSABLE PAVEMENT MATERIAL NOTE 2	INCREMENTAL VOL (CY) (UNADJUSTED) FILL NOTE 3	CUMULATIVE VOL (CY) CUT 1.00 NOTE 1	CUMULATIVE VOL (CY) EXPANDED FILL 1.00	CUMULATIVE VOL (CY) MASS ORDINATE NOTE 8
43+50.00	4350.00	0.00	7.03	0.00	0.56	0	0	0	0	0	0
43+75.00	4375.00	25.00	18.97	0.00	0.48	12	0	0	12	0	12
44+00.00	4400.00	25.00	32.23	0.00	0.44	24	0	0	36	0	36
44+25.00	4425.00	25.00	24.75	0.00	0.57	26	0	0	62	0	62
44+50.00	4450.00	25.00	31.13	0.00	0.82	26	0	1	88	1	87
44+75.00	4475.00	25.00	38.61	0.00	1.15	32	0	1	120	2	118
45+00.00	4500.00	25.00	47.00	0.00	0.93	40	0	1	160	3	157
45+25.00	4525.00	25.00	26.87	0.00	2.24	34	0	1	194	4	190
45+50.00	4550.00	25.00	24.35	0.00	2.60	24	0	2	218	6	212
45+50.51	4550.51	0.51	24.23	0.00	2.64	0	0	0	218	6	212
45+63.37	4563.37	12.86	20.64	10.83	2.08	11	3	1	229	7	219
45+75.00	4575.00	11.63	139.82	10.83	5.34	35	5	2	264	9	247
46+00.00	4600.00	25.00	173.70	10.83	19.65	145	10	12	409	21	370
46+13.37	4613.37	13.37	129.05	10.83	85.73	75	5	26	484	47	414
46+25.00	4625.00	11.63	86.82	10.83	170.29	46	5	55	530	102	400
46+32.63	4632.63	7.63	133.47	10.83	98.29	31	3	38	561	140	390
46+50.00	4650.00	17.37	156.62	10.83	10.85	93	7	35	654	175	441
46+75.00	4675.00	25.00	141.72	10.83	0.19	138	10	5	792	180	564
46+82.63	4682.63	7.63	137.86	10.83	0.00	40	3	0	832	180	601
47+00.00	4700.00	17.37	64.53	0.00	1.31	65	3	0	897	180	663
47+25.00	4725.00	25.00	69.82	0.00	2.15	62	0	2	959	182	723
47+50.00	4750.00	25.00	77.30	0.00	0.61	68	0	1	1027	183	790
47+75.00	4775.00	25.00	79.87	0.00	0.48	73	0	1	1100	184	862
48+00.00	4800.00	25.00	76.25	0.00	0.67	72	0	1	1172	185	933
48+25.00	4825.00	25.00	62.68	0.00	1.15	64	0	1	1236	186	996
48+50.00	4850.00	25.00	41.60	0.00	1.39	48	0	1	1284	187	1043
48+75.00	4875.00	25.00	21.40	0.00	2.45	29	0	2	1313	189	1070
49+00.00	4900.00	25.00	2.38	0.00	3.17	11	0	3	1324	192	1078

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



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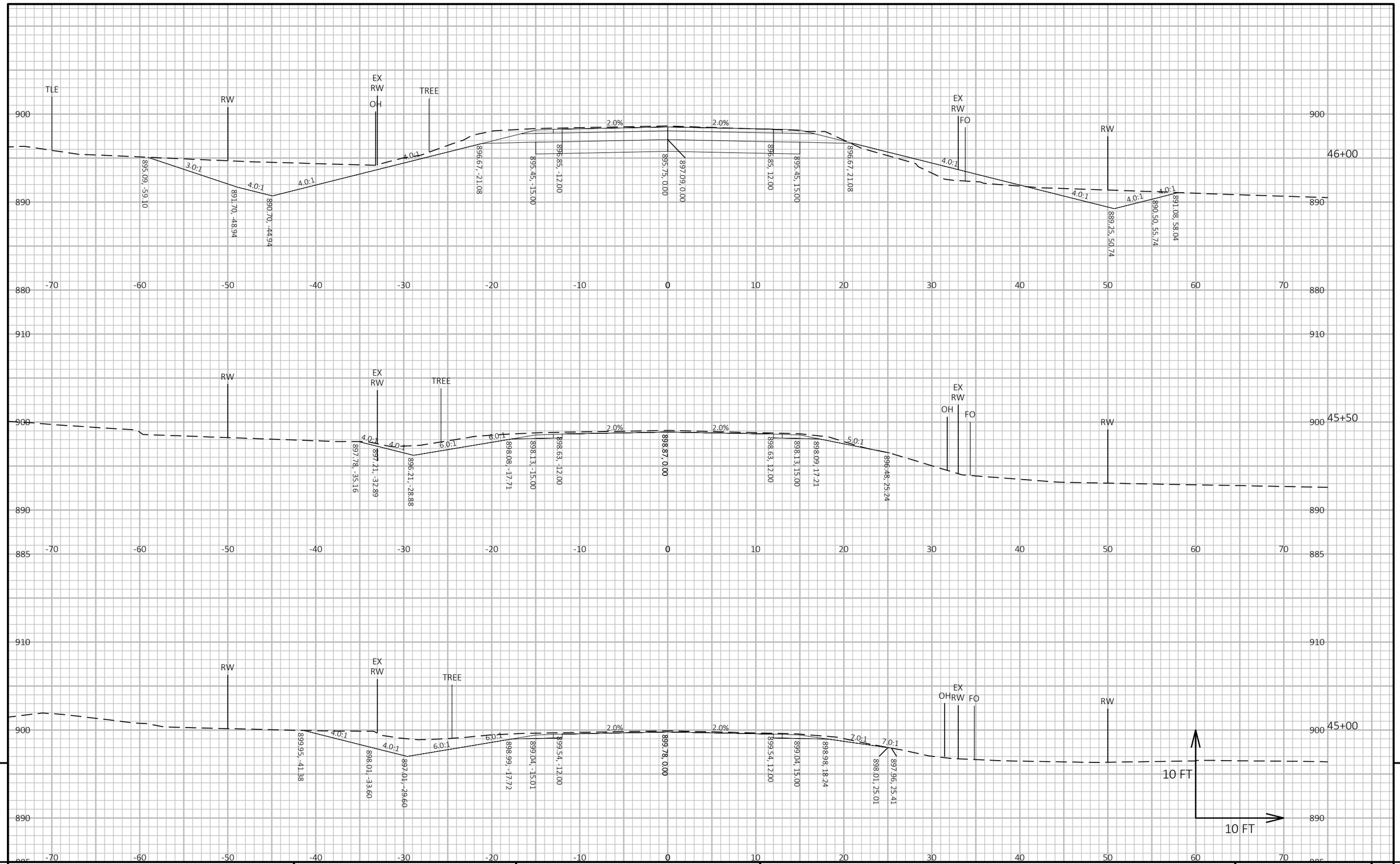
PROJECT NO: 5630-06-80	HWY: STH 78	COUNTY: COLUMBIA	CROSS SECTIONS: CULVERT PIPE	SHEET 77	E

FILE NAME : \\FIWMAD7P3158\N3PUBLIC\PDS\C3D\56300600\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 01

PLOT DATE : 9/24/2025 12:48 PM PLOT BY : KENDALL, EMILY ANN PLOT NAME :

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

WISDOT/CADDS SHEET 49



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FILE NAME : \\FIWMAD7P3158\N3PUBLIC\PDS\C3D\56300600\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 02

PLOT DATE : 9/24/2025 12:48 PM PLOT BY : KENDALL, EMILY ANN PLOT NAME :

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

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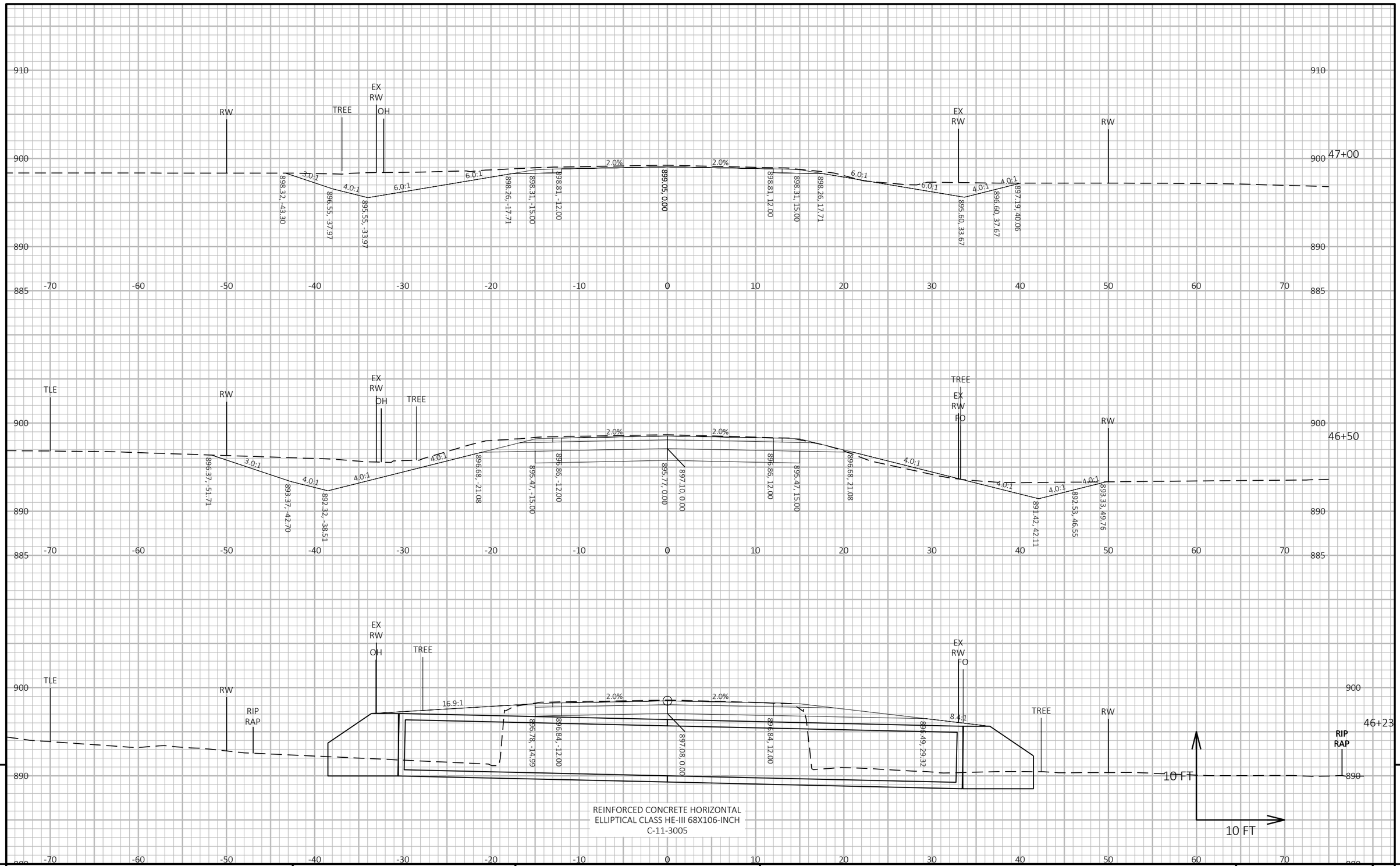
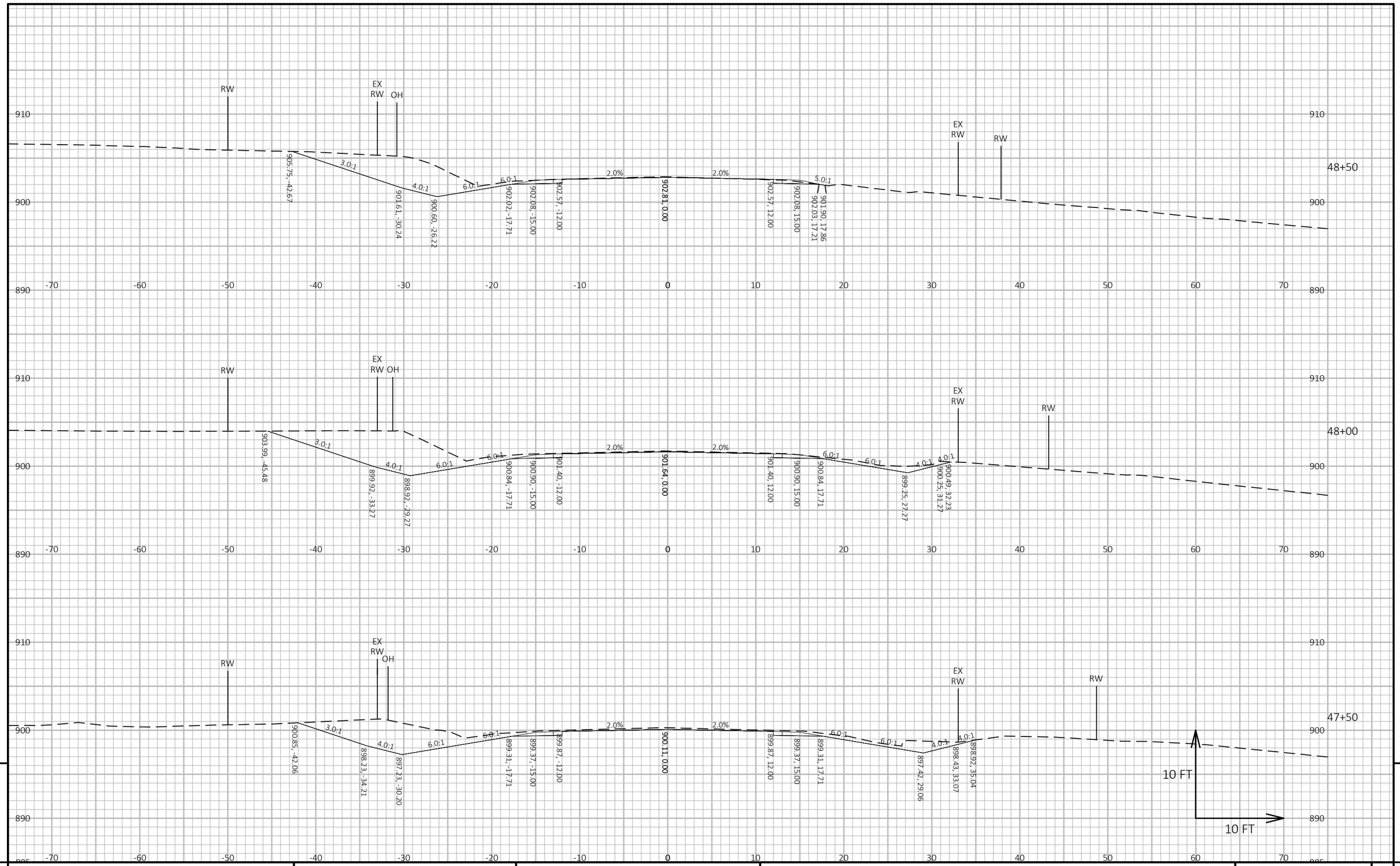


REINFORCED CONCRETE HORIZONTAL
ELLIPTICAL CLASS HE-III 68X106-INCH
C-11-3005

9 9

PROJECT NO: 5630-06-80	HWY: STH 78	COUNTY: COLUMBIA	CROSS SECTIONS: CULVERT PIPE	SHEET 79	E



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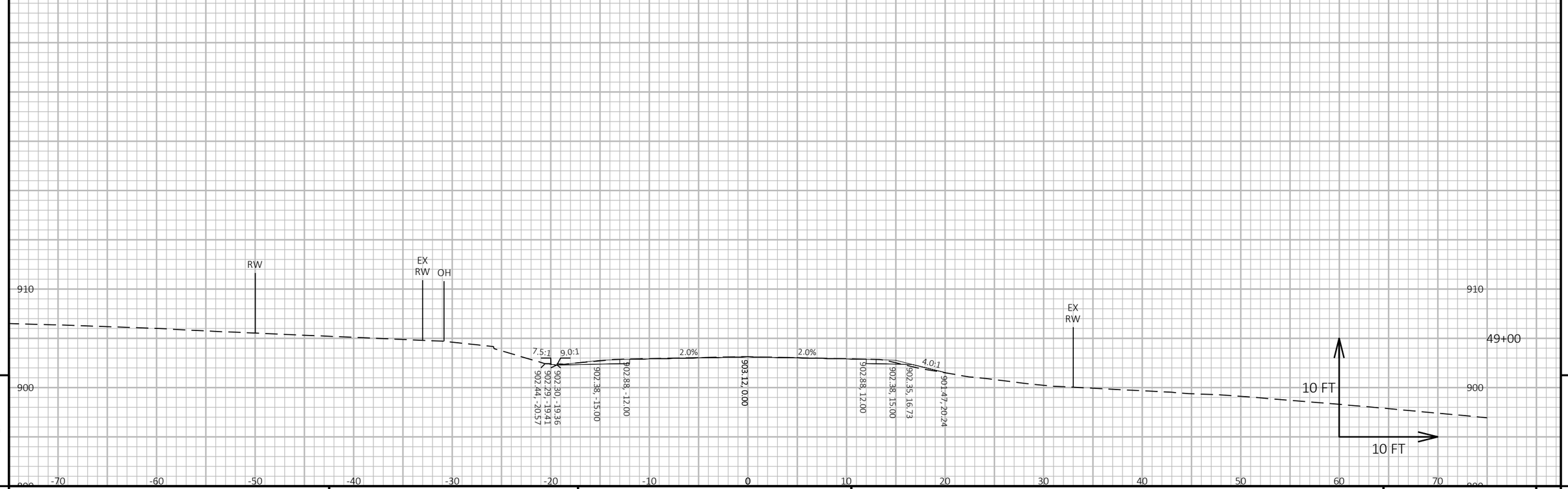
PROJECT NO: 5630-06-80	HWY: STH 78	COUNTY: COLUMBIA	CROSS SECTIONS: CULVERT PIPE	SHEET 80	E

FILE NAME : \\FIWMAD7P3158\N3PUBLIC\PDS\C3D\56300600\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 04

PLOT DATE : 9/24/2025 12:48 PM PLOT BY : KENDALL, EMILY ANN PLOT NAME :

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

WISDOT/CADDS SHEET 49



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PROJECT NO: 5630-06-80	HWY: STH 78	COUNTY: COLUMBIA	CROSS SECTIONS: CULVERT PIPE	SHEET 81	E

Wisconsin Department of Transportation

Dedicated people creating transportation solutions
through innovation and exceptional service.

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