PROJECT ID: **2040-03-75**

WITH: 2040-20-70

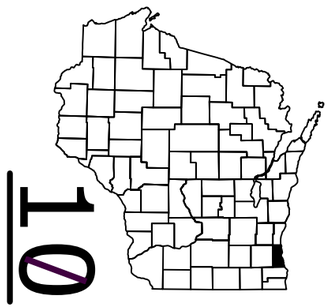
COUNTY: **MILWAUKEE**

FEB 13, 2024

ORDER OF SHEETS

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

TOTAL SHEETS = 212



N

DESIGN DESIGNATION

A.A.D.T.	2024	=	17,000
A.A.D.T.	2044	=	20,300
D.H.V.		=	2,010
D.D.		=	56/44
T.		=	5.0%
DESIGN SPEED		=	45 MPH (STA 131+00-176+00); 55 MPH (STA 176+00-249+30)
ESALS		=	1,700,000

CONVENTIONAL SYMBOLS

PLAN

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

PROFILE

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

UTILITIES

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

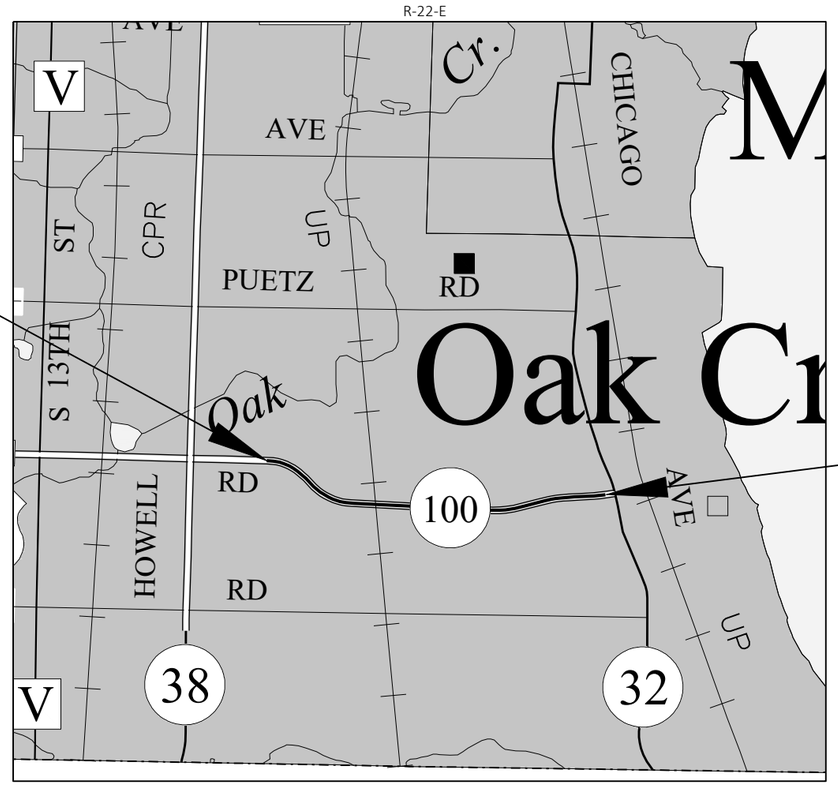
RYAN ROAD

SHEPARD AVE TO STH 32

STH 100
MILWAUKEE

STATE PROJECT NUMBER
2040-03-75

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
2040-03-75	WISC 2024221	1



BEGIN PROJECT
STA 131+00
X=607,972.890
Y=238,776.056

END PROJECT
STA 249+30
X=619,295.431
Y=237,578.194

LAYOUT

SCALE 0 1 MI

TOTAL NET LENGTH OF CENTERLINE = 2.241 miles

HORIZONTAL POSITIONS SHOWN ON THIS PLAN ARE WISCONSIN COORDINATE REFERENCE SYSTEM (WISCRS), MILWAUKEE COUNTY, NAD83 (2011), IN U.S. SURVEY FEET. POSITIONS SHOWN ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES ARE THE SAME AS GROUND DISTANCES.

ELEVATIONS ARE REFERENCED TO NAVD 88 (2012). GPS DERIVED ELEVATIONS ARE BASED ON GEOID 12A.

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor	WISDOT
Designer	WISDOT
Project Manager	ROBERT BELLIN
Regional Examiner	STEVE CHOJNACKI
Regional Supervisor	BENEDICT ERUCHALU

APPROVED FOR THE DEPARTMENT

DATE: 10/31/2023 Robert A. Bellin (Signature)

E

2

GENERAL NOTES

1) 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. COORDINATE CONSTRUCTION ACTIVITIES WITH A CALL TO DIGGERS HOTLINE AND/OR A DIRECT CALL TO THE UTILITIES THAT HAVE FACILITIES IN THE AREA. NOT ALL UTILITIES ARE MEMBERS OF DIGGERS HOTLINE.

2) CONTACT THE PROJECT ENGINEER, THE COUNTY SURVEYOR, AND SEWRPC AT LEAST TWO WEEKS BEFORE WORKING NEAR ANY SECTION CORNER MONUMENT.

3) VERIFY EXISTING PAVEMENT ELEVATIONS AT ALL TIE-INS TO EXISTING PAVEMENT PRIOR TO CONSTRUCTION. NOTIFY ENGINEER IF A DISCREPANCY IS FOUND BETWEEN PROPOSED PLAN ELEVATIONS AND EXISTING PAVEMENT ELEVATIONS.

4) CONSTRUCT PAVEMENT CONSISTENT WITH THE PLAN TYPICAL SECTIONS. LOCATE LONGITUDINAL JOINTS IN ASPHALT PAVEMENT OUTSIDE OF DRIVING, TURNING, BIKE, OR PARKING LANE UNLESS DIRECTED OTHERWISE BY THE ENGINEER.

5) SAWCUT EXISTING ASPHALT AND CONCRETE PAVEMENT AT THE MATCHLINE AS INDICATED ON THE PLAN OR AS DIRECTED BY THE ENGINEER.

6) RESHAPE, RESTORE AND FINISH ALL PREVIOUSLY GRASSED AREAS DISTURBED BY OPERATIONS OUTSIDE OF THE NORMAL CONSTRUCTION LIMITS AT NO EXPENSE TO THE DEPARTMENT

7) DISTURBED AREAS WITHIN THE RIGHT OF WAY ARE TO BE TOPSOILED, FERTILIZED, SEEDED, AND EROSION MAT WITHIN 5 DAYS AS DIRECTED BY THE ENGINEER.

8) PRIOR TO THE PLACEMENT OF STEEL PLATE BEAM GUARD OR MGS GUARDRAIL, THE SHOULDERS SHALL BE IN PLACE, SHAPED AND COMPACTED UNLESS SHOWN OTHERWISE.

9) ALL SIGN LOCATIONS SHALL BE REVIEWED BY THE ENGINEER PRIOR TO INSTALLATION.

ORDER OF SECTION 2 DETAIL SHEETS

GENERAL NOTES

UTILITY AND OTHER CONTACTS

PROJECT OVERVIEW

TYPICAL SECTIONS

CONSTRUCTION DETAILS

PLAN DETAILS AND EROSION CONTROL

TRAFFIC SIGNALS

PERMANENT SIGNING

PAVEMENT MARKING

TRAFFIC CONTROL

ALIGNMENT

HMA PAVING LAYER DEPTHS

PAVEMENT LOCATION	TOTAL PAVEMENT THICKNESS	LAYERS	TYPE
STH 100			
STA 131+00 - 249+30	2"	UPPER	4 MT 58-28 S

UTILITY CONTACTS

AT&T LEGACY - COMMUNICATION LINE
Kenneth Colwell
222 W Jackson
Woodstock, IL 60098
(312) 734-2223
kc1298@att.com

AT&T WISCONSIN - COMMUNICATION LINE
Matthew Dinnauer
2005 Pewaukee Rd
Waukesha, WI 53188-2443
(262) 896-7690
md9542@att.com

CENTURYLINK COMMUNICATIONS, LLC - COMMUNICATION LINE
General Mailbox Centurylink National OSP Reloc
CenturylinkNationalOSPRelocations@centurylink.com

LEVEL 3 COMMUNICATIONS LLC - COMMUNICATION LINE
Network Relocations
1025 Eldorado Blvd
Broomfield, CO 80021
NationalRelo@centurylink.com

ROGERS TELECOM - COMMUNICATION LINE
Vickie Moran
4804 N 40th St
Sheboygan, WI 53083
(920) 395-7125
vmoran@gabes.com

SPRINT COMMUNICATIONS CO LP - COMMUNICATION LINE
Dan Hilliard
849 Earl St
Saint Paul, MN 55106
(612) 217-3526
dan.j.hilliard@sprint.com

WINDSTREAM KDL, LLC - COMMUNICATION LINE
Mary Fisher
13935 Bishops Dr
Brookfield, WI 53005
(262) 792-7938
Mary.B.Fisher@windstream.com

WINDSTREAM NTI, LLC - COMMUNICATION LINE
Mary Fisher
13935 Bishops Dr
Brookfield, WI 53005
(262) 792-7938
Mary.B.Fisher@windstream.com

UTILITY CONTACTS

AT&T LOCAL NETWORK - COMMUNICATION LINE
Dale DeFever
39869 Linn St
Canton, MI 48147
(586) 242-2671
dd2579@att.com

AT&T MOBILITY - COMMUNICATION LINE
Marc Brown
301 E Milwaukee St
Janesville, WI 53545
(608) 755-5535
mb2682@att.com

ATC MANAGEMENT, INC. - ELECTRICITY-TRANSMISSION
Trans 220 Mailbox
801 O'keefe Rd
De Pere, WI 54115-6113
(920) 338-6582
dl-ATCDOTNotifications@atcllc.com

CHARTER COMMUNICATIONS - COMMUNICATION LINE
Beau Abuya
1320 N Dr Martin Luther King Jr Dr
Milwaukee, WI 53212-4002
(414) 908-1343
wis.engineering@charter.com

TDS METROCOM LLC - COMMUNICATION LINE
Michael Sweet
525 Junction Rd
Madison, WI 53717
(608) 664-4539
Michael.Sweet@tdstelecom.com

MILWAUKEE METROPOLITAN SEWERAGE DISTRICT - SEWER
Micki Klappa-Sullivan
260 W Seeboth St
Milwaukee, WI 53204
(414) 225-2178
MKlappaSullivan@mmsd.com

PAETEC COMMUNICATIONS, LLC - COMMUNICATION LINE
Mary Fisher
13935 Bishops Dr
Brookfield, WI 53005
(262) 792-7938
Mary.B.Fisher@windstream.com

VERIZON BUSINESS - COMMUNICATION LINE
OSP National Support/Investigations
2400 North Glenville
Richardson, TX 75082
Investigations@verizon.com

UTILITY CONTACTS

WE ENERGIES - ELECTRIC
WE Energies Utility Coordinator
500 S 116th Street
West Allis, WI 53214
(414) 221-2738
We-Utility-Relocations@we-energies.com

WE ENERGIES - GAS/PETROLEUM
WE Energies Utility Coordinator
500 S 116th Street
West Allis, WI 53214
(414) 221-2738
We-Utility-Relocations@we-energies.com

CITY OF OAK CREEK WATER AND SEWER UTILITY
Brian Johnston
(414) 766-6624
bjohnston@oakcreekwi.gov

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

2

OTHER CONTACTS

CITY OF OAK CREEK
Matthew Sullivan
8040 S. 6th Street
Oak Creek, WI 53154
(414) 766-7029
msullivan@oakcreekwi.org

OAK CREEK WATER AND SEWER UTILITY
Brian Johnston
170 West Drexel Ave
Oak Creek, WI 53154
(414) 570-8200 Ext. 24
bjohnston@water.oak-creek.wi.us

MILWAUKEE COUNTY DEPARTMENT OF TRANSPORTATION (MCDOT)
Transportation Services Division
Andrea Weddle-Henning
10320 W. Watertown Plank Rd.
Wauwatosa, WI 53226
(414) 257-5934
andrea.weddle-henning@milwaukeecountywi.gov

MILWAUKEE COUNTY DEPARTMENT OF TRANSPORTATION (MCDOT)
Highway Maintenance Division
Eduardo Santiago
10320 W. Watertown Plank Rd.
Wauwatosa, WI 53226
(414) 257-6569
eduardo.santiago@milwaukeecountywi.gov

MILWAUKEE COUNTY PARKS
Sarah Toomsen
9480 Watertown Plank Rd
Wauwatosa, WI 53226
(414) 257-7389
sarah.toomsen@milwaukeecountywi.gov

MILWAUKEE COUNTY PARKS
Blake Prusak
9480 Watertown Plank Rd
Wauwatosa, WI 53226
(414) 258-2322
blake.prusak@milwaukeecountywi.gov

UNION PACIFIC RAILROAD
Chris T. Keckeisen
1400 Douglas, Ms 0910
Omaha, Ne 68179
(402) 544-5131
Ctkeckei@Up.Com

WISDOT SIGNALS
Jarrett Gates
141 NW Barstow Street
Waukesha, WI 53188
(262) 548-5894
jarrett.gates@dot.wi.gov

WISDNR
Ryan Pappas
2300 N. Dr. Martin Luther King Jr. Dr.
Milwaukee, Wi 53212
(414) 750-7495
Ryan.pappas@wisconsin.gov

WISDOT STREET LIGHTING
Eric Perea
141 NW Barstow Street
Waukesha, WI 53087-0798
(262) 574-5422
Eric.Perea@dot.wi.gov

WISDOT ATR PULL BOXES - ELECTRICAL
Chad Bigler
Travel Survey Shop, 3633 Pierstoff St
PO Box 2583
Madison, WI 53704-2583
(608) 535-7413
chad.bigler@dot.wi.gov

SEWRPC
Rob Merry
W239 N1812 Rockwood Drive
Waukesha, WI 53187-1607
Phone: (262) 953-4289
Cell: (920) 912-1036
rmerry@sewrpc.org

WISDOT PROJECT MANAGER
Robert Bellin
141 NW Barstow Street, PO Box 798
Waukesha, WI 53188
(262) 521-4405
robert.bellin@dot.wi.gov

WISDOT RR COORDINATOR
JASON KAZMIERSKI
141 NW Barstow Street, PO Box 798
Waukesha, WI 53188
(262) 548-6700
JASON.KAZMIERSKI@DOT.WI.GOV

2

N

38

S HOWELL AVENUE

SHEPARD AVENUE

NICHOLSON ROAD

UNION PACIFIC RR

PENNSYLVANIA AVENUE

15TH AVENUE

S CHICAGO RD

100

32

100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250

BEGIN RESURFACING PROJECT
STA 131+00

END RESURFACING PROJECT
STA 249+30

ABOVEGROUND SIGNAL IMPROVEMENTS

PROJECT ID 2040-20-70
B-40-0530 BRIDGE DECK REPLACEMENT (EB)
B-40-0633 DECK SEALING (WB)

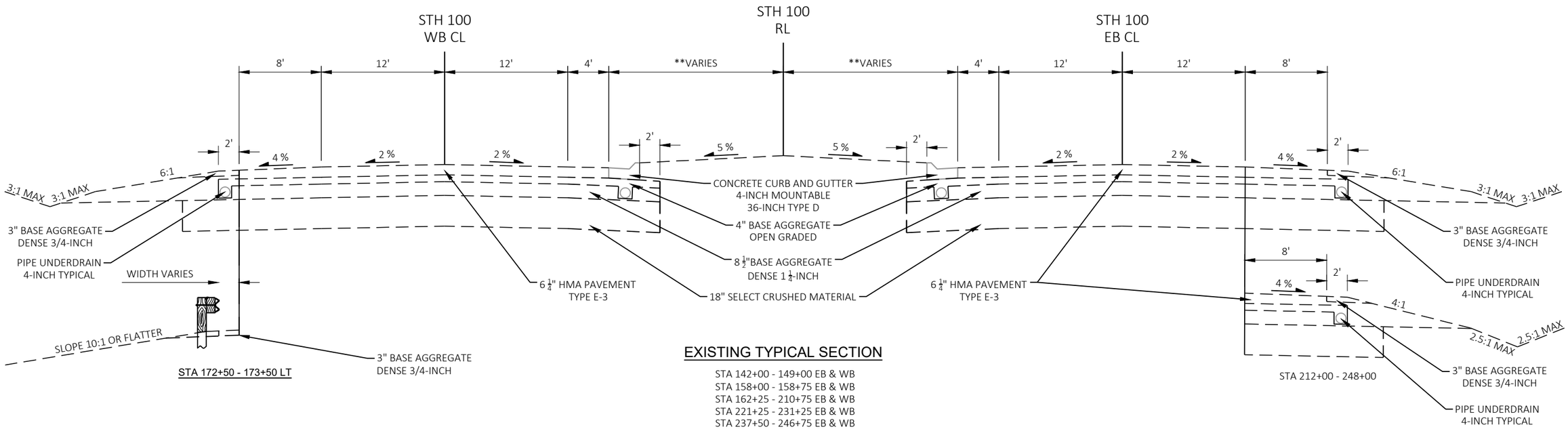
OAK LEAF TRAIL
UNDERPASS

PROJECT NO: 2040-03-75	HWY: STH 100	COUNTY: MILWAUKEE	PROJECT OVERVIEW	SHEET 5	E

FILE NAME : N:\PDS\C3D\20400305\SHEETSPLAN\020201-PO.DWG
LAYOUT NAME - 020201-po

PLOT DATE : 5/6/2022 9:55 AM PLOT BY : SMITH, CLAYTON L PLOT NAME : PLOT SCALE : 1 IN:1000 FT

2

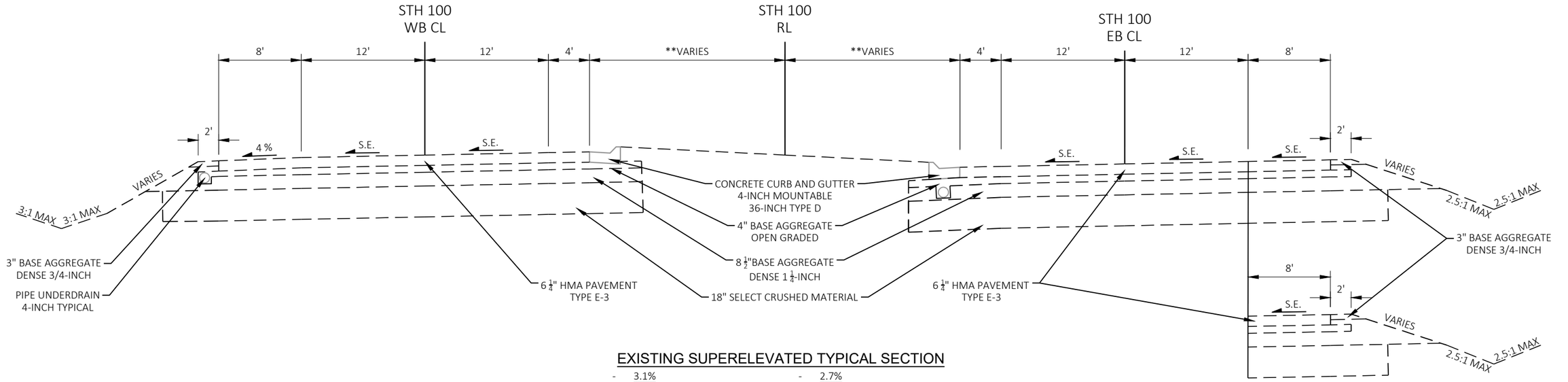


STA 172+50 - 173+50 LT

STA 212+00 - 248+00

EXISTING TYPICAL SECTION

STA 142+00 - 149+00 EB & WB
STA 158+00 - 158+75 EB & WB
STA 162+25 - 210+75 EB & WB
STA 221+25 - 231+25 EB & WB
STA 237+50 - 246+75 EB & WB



STA 212+00 - 248+00

EXISTING SUPERELEVATED TYPICAL SECTION

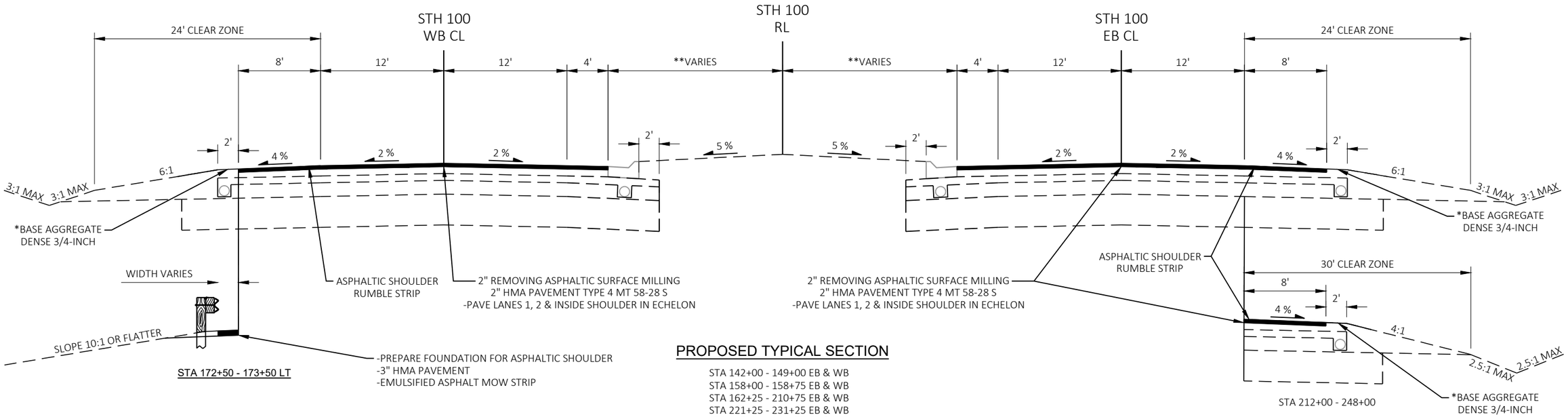
- 3.1%
  STA 131+00 - 142+00 EB
  STA 133+75 - 142+00 WB
- 3.0%
  STA 149+00 - 158+00 EB & WB
- 2.0%
  STA 158+75 - 162+25 EB & WB
- 2.7%
  STA 210+75 - 221+25 EB & WB
  STA 231+25 - 237+50 EB & WB
- 2.0%
  STA 246+75 - 248+00 EB
  STA 246+75 - 249+30 WB

**MEDIAN WIDTH VARIES
STA 128+50 - 131+50: MEDIAN WIDTH VARIES 13'-14'
STA 131+50 - 254+50: MEDIAN WIDTH 14'

PROJECT NO: 2040-03-75	HWY: STH 100	COUNTY: MILWAUKEE	TYPICAL SECTIONS	SHEET 6	E

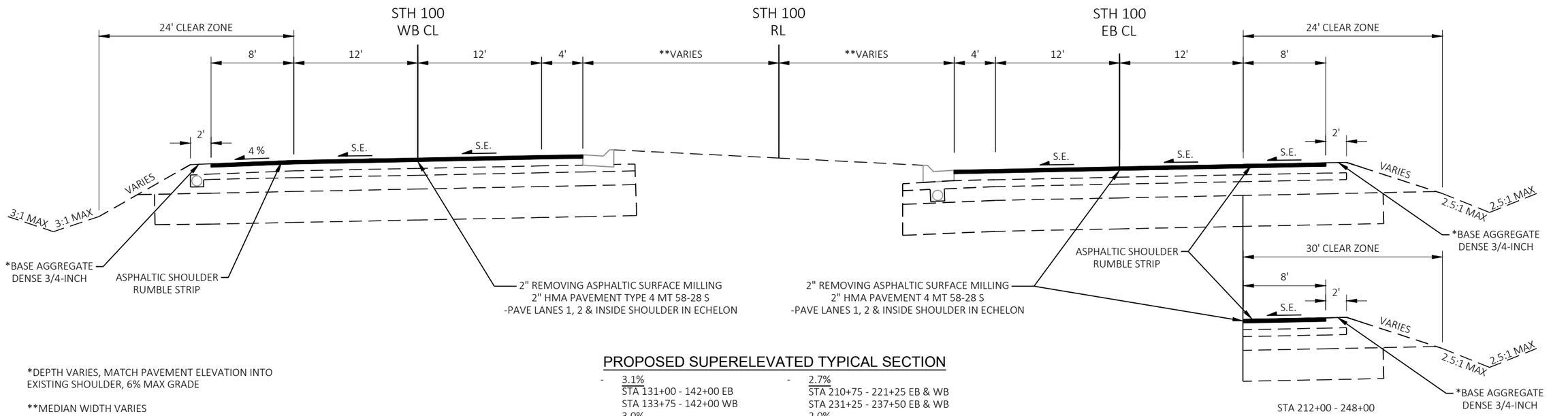
FILE NAME : N:\PDS\C3D\20400305\SHEETSPLAN\020301-TS.DWG
LAYOUT NAME - 020301-ts 1in-10ft
PLOT DATE : 1/24/2022 10:38 AM
PLOT BY : SMITH, CLAYTON L
PLOT NAME :
PLOT SCALE : 1 IN:10 FT
WISDOT/CADDS SHEET 42

2



PROPOSED TYPICAL SECTION

STA 142+00 - 149+00 EB & WB
STA 158+00 - 158+75 EB & WB
STA 162+25 - 210+75 EB & WB
STA 221+25 - 231+25 EB & WB
STA 237+50 - 246+75 EB & WB



*DEPTH VARIES, MATCH PAVEMENT ELEVATION INTO EXISTING SHOULDER, 6% MAX GRADE

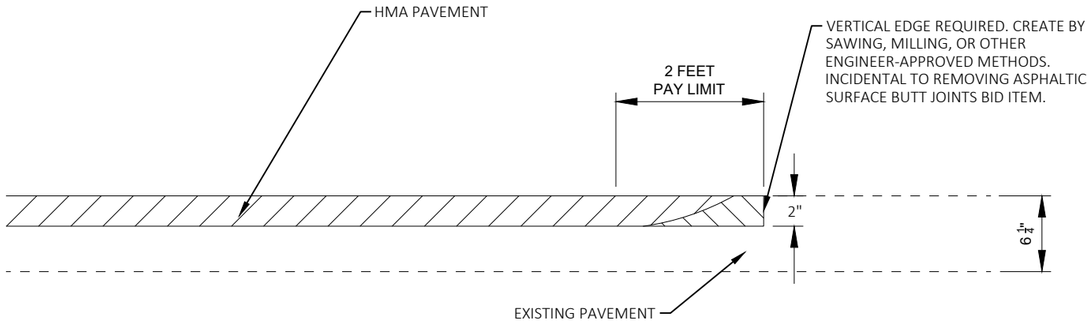
**MEDIAN WIDTH VARIES
STA 128+50 - 131+50: MEDIAN WIDTH VARIES 13'-14'
STA 131+50 - 254+50: MEDIAN WIDTH 14'

PROPOSED SUPERELEVATED TYPICAL SECTION

- 3.1%
  STA 131+00 - 142+00 EB
  STA 133+75 - 142+00 WB
- 3.0%
  STA 149+00 - 158+00 EB & WB
- 2.0%
  STA 158+75 - 162+25 EB & WB
- 2.7%
  STA 210+75 - 221+25 EB & WB
  STA 231+25 - 237+50 EB & WB
- 2.0%
  STA 246+75 - 248+00 EB
  STA 246+75 - 249+30 WB

PROJECT NO: 2040-03-75	HWY: STH 100	COUNTY: MILWAUKEE	TYPICAL SECTIONS	SHEET 7	E

2



REMOVE MATERIAL UNDER ITEM 'REMOVING ASPHALTIC SURFACE BUTT JOINT'

REMOVING ASPHALTIC SURFACE MILLING

BUTT JOINT - NO CHANGE IN PROFILE

BUTT JOINT DETAIL

STH 100	NICHOLSON RD	PENNSYLVANIA RD	15TH AVE
STA 131+00, RT	STA 28+86	STA 38+96	STA 48+84
STA 133+75, LT	STA 31+60	STA 41+17	STA 51+05
STA 170+23, LT			
STA 170+30, RT			
STA 172+03, LT			
STA 172+10, RT			
STA 248+00, RT			
STA 249+30, LT			

*FINAL MATCH LOCATION TO BE DETERMINED IN FIELD BY PROJECT ENGINEER

LEGEND

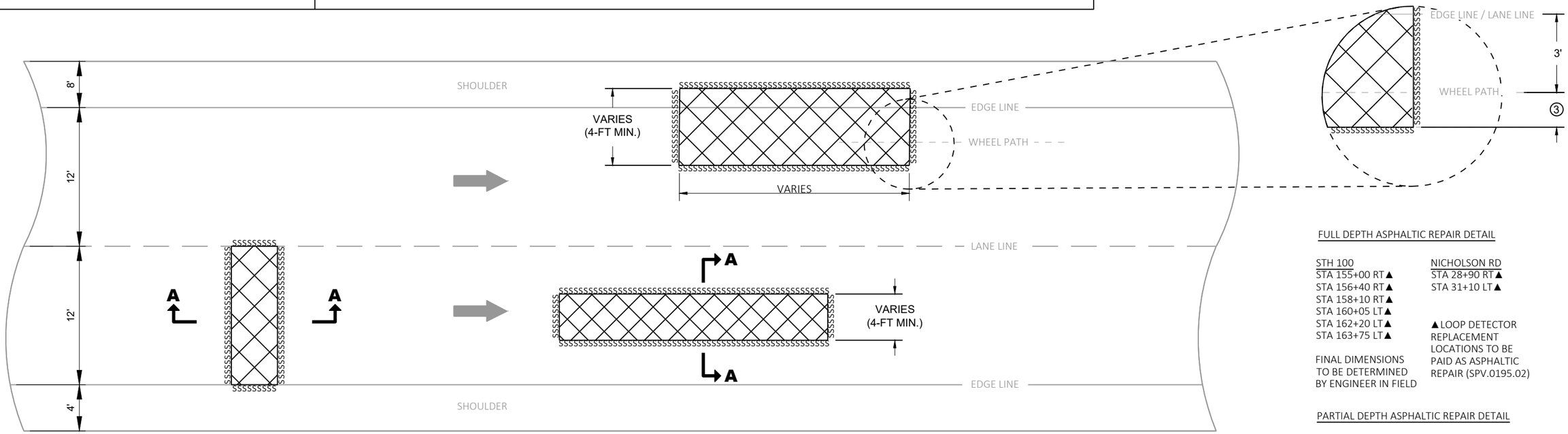
ASPHALTIC REPAIR

SSSSSS VERTICAL MILLED EDGE
SAW CUTTING AT THE CONTRACTORS DISCRETION

TTTTTTT TACK COAT

GENERAL NOTES

1. EXACT LOCATION, DEPTH AND SIZE OF REPAIR TO BE DETERMINED BY THE ENGINEER IN THE FIELD.
2. MILL PAVEMENT PER PLAN PRIOR TO MAKING ASPHALTIC REPAIR.
3. LOCATE LONGITUDINAL REPAIR JOINTS OUTSIDE OF WHEEL PATH. 12-INCH MINIMUM (24-INCH RECOMMENDED) FROM THE CENTER OF THE WHEEL PATH.
4. ASPHALTIC REPAIR PAVING TO BE DONE ON THE SAME DAY AS REMOVAL.



PLAN VIEW

FULL DEPTH ASPHALTIC REPAIR DETAIL

STH 100
STA 155+00 RT▲
STA 156+40 RT▲
STA 158+10 RT▲
STA 160+05 LT▲
STA 162+20 LT▲
STA 163+75 LT▲

NICHOLSON RD
STA 28+90 RT▲
STA 31+10 LT▲

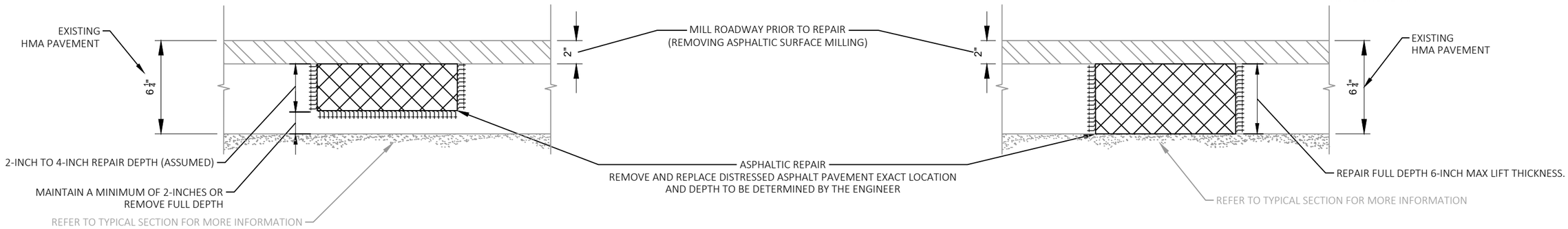
FINAL DIMENSIONS TO BE DETERMINED BY ENGINEER IN FIELD

▲LOOP DETECTOR REPLACEMENT LOCATIONS TO BE PAID AS ASPHALTIC REPAIR (SPV.0195.02)

PARTIAL DEPTH ASPHALTIC REPAIR DETAIL

STH 100
LOCATION TO BE DETERMINED BY ENGINEER IN FIELD

*REMOVING ASPHALTIC SURFACE MILLING PRIOR TO ASPHALTIC REPAIR



PARTIAL DEPTH

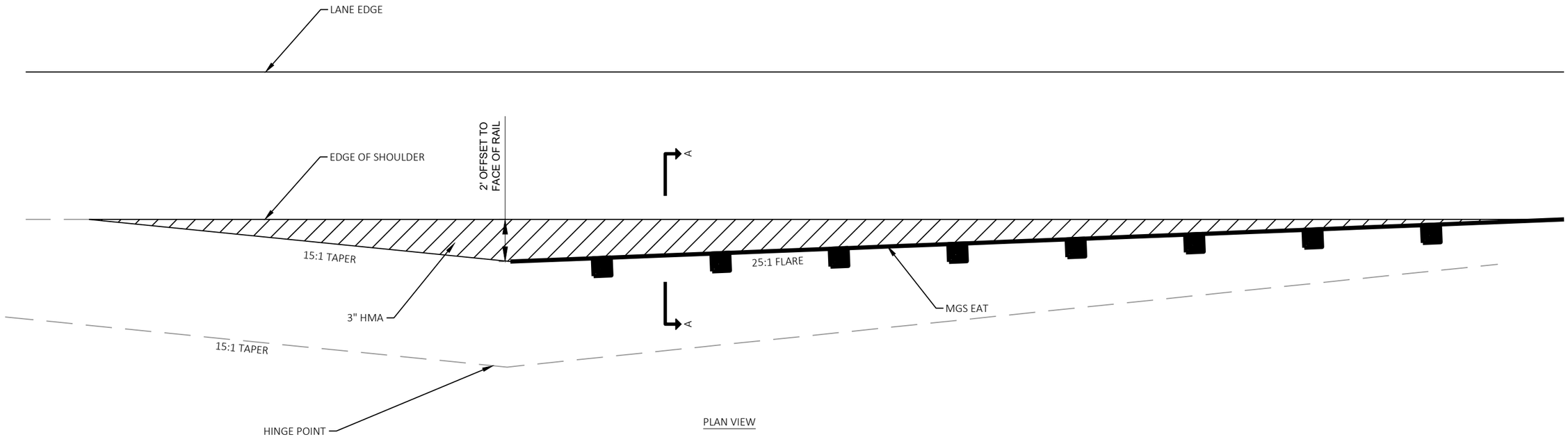
FULL DEPTH

SECTION A-A

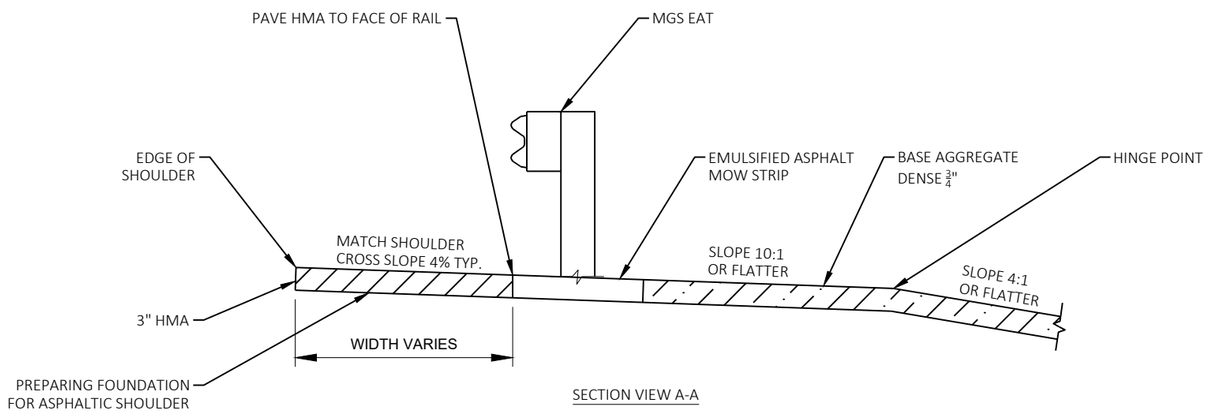
ASPHALTIC REPAIR

PROJECT NO: 2040-03-75	HWY: STH 100	COUNTY: MILWAUKEE	CONSTRUCTION DETAIL	SHEET 9	E

2



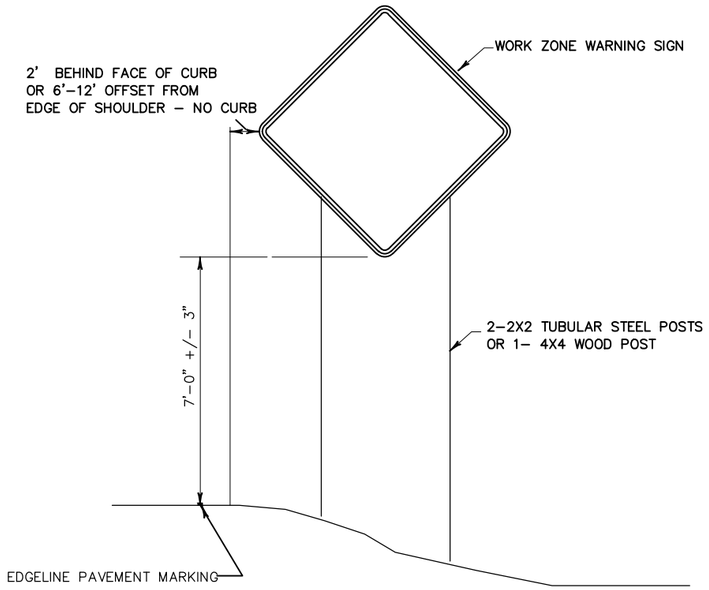
PLAN VIEW



SECTION VIEW A-A

MGS EAT PAVING DETAIL
STA 172+50 - 173+50 LT

PROJECT NO: 2040-03-75	HWY: STH 100	COUNTY: MILWAUKEE	CONSTRUCTION DETAIL	SHEET 10	E

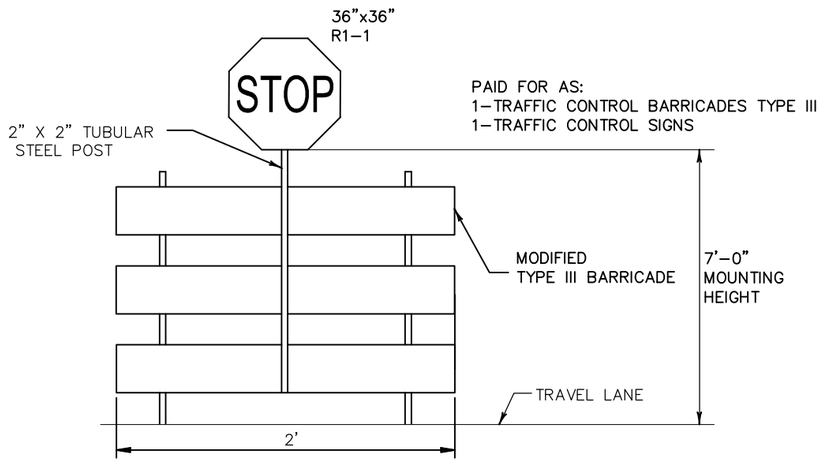


TYPICAL TEMPORARY TRAFFIC CONTROL DETAIL
MOUNTING ON FIXED SUPPORT

LONG TERM
7 DAYS OR MORE

GENERAL NOTES FOR TRAFFIC CONTROL

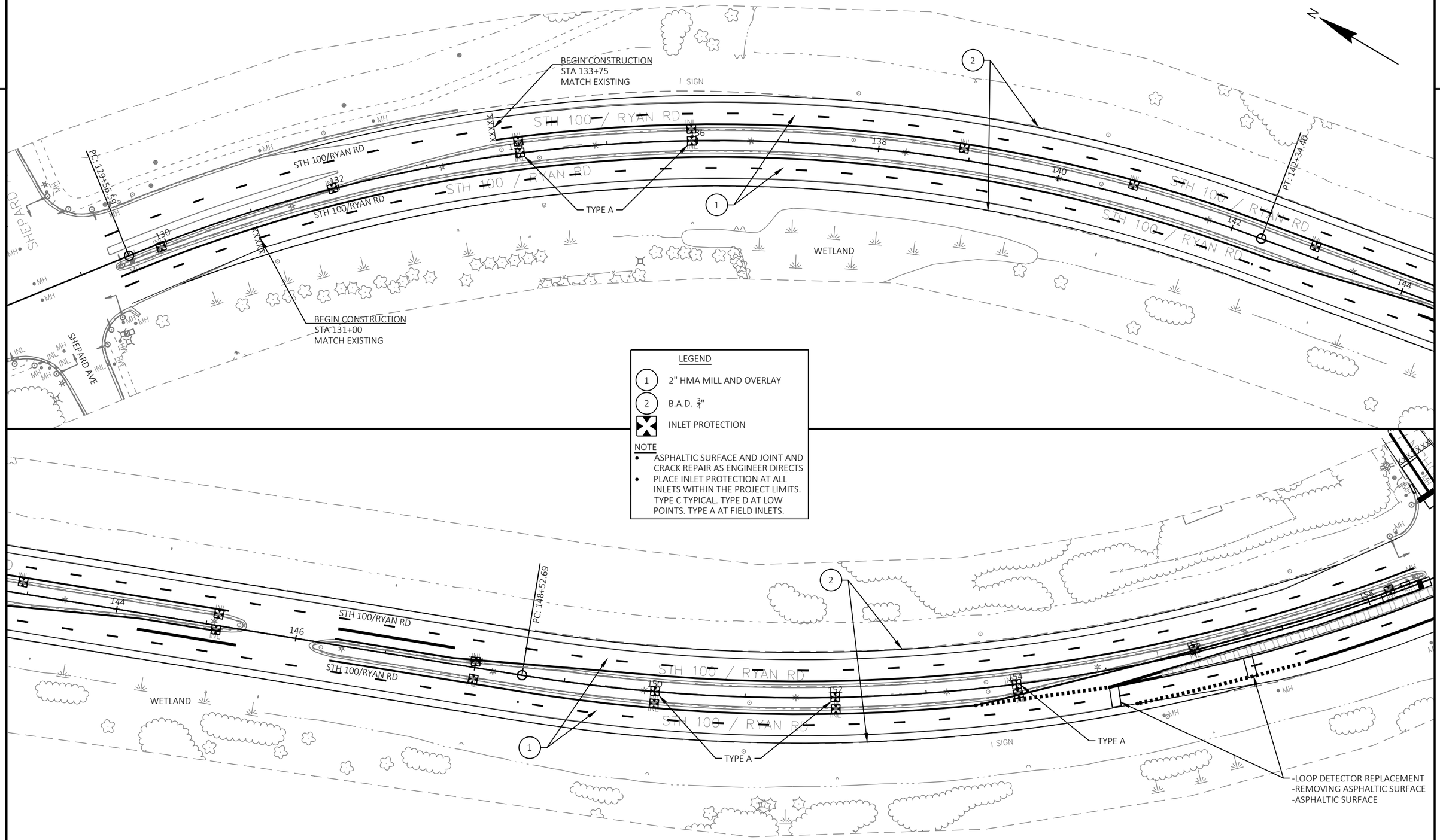
1. TRAFFIC CONTROL DRUMS IN TAPERS, SHALL BE EQUIPPED WITH WARNING LIGHTS, TYPE "C", ONE WAY LIGHTS IN TAPERS ONLY, UNLESS OTHERWISE SHOWN.
2. SIGN LOCATIONS ARE APPROXIMATE. THE ACTUAL LOCATION SPACING MAY BE ADJUSTED AS DIRECTED BY THE ENGINEER TO MEET FIELD CONDITIONS.
3. "WO" SIGNS ARE THE SAME AS "W" SIGNS EXCEPT THE BACKGROUND IS REFLECTIVE ORANGE.
4. ALL TRAFFIC CONTROL SIGNS SHALL BE 48" X 48" UNLESS OTHERWISE NOTED IN THE PLANS.
5. BARRICADE STRIPES ARE TO BE SLOPED DOWNWARD IN THE DIRECTIOIN OF TRAFFIC FLOW.



TEMPORARY STOP SIGN

PROJECT NO: 2040-03-75	HWY: STH 100	COUNTY: MILWAUKEE	SIGN MOUNT DETAIL	SHEET 11 E

2



LEGEND

1 2" HMA MILL AND OVERLAY

2 B.A.D. $\frac{3}{4}$"

INLET PROTECTION

NOTE

- ASPHALTIC SURFACE AND JOINT AND CRACK REPAIR AS ENGINEER DIRECTS
- PLACE INLET PROTECTION AT ALL INLETS WITHIN THE PROJECT LIMITS. TYPE C TYPICAL. TYPE D AT LOW POINTS. TYPE A AT FIELD INLETS.

PROJECT NO: 2040-03-75	HWY: STH 100	COUNTY: MILWAUKEE	PLAN DETAILS AND EROSION CONTROL	SHEET 12	E

FILE NAME : N:\PDS\C3D\20400305\SHEETSPLAN\021201-PD_1-100.DWG
LAYOUT NAME - 01
PLOT DATE : 10/30/2023 2:42 PM
PLOT BY : STARK, GARY W
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 44

END CONSTRUCTION
STA 31+60
MATCH EXISTING

REMOVE AND PLACE CONCRETE CURB AND GUTTER 4-INCH MOUNTABLE 36-INCH TYPE D

SIGNAL IMPROVEMENTS

-LOOP DETECTOR REPLACEMENT
-REMOVING ASPHALTIC SURFACE
-ASPHALTIC SURFACE

-BEAM GUARD REPAIR
-EMULSIFIED ASPHALT MOW STRIP
-REPAIR WASH OUT BEHIND CURB AND GUTTER
-BARRIER SYSTEM GRADING SHAPING FINISHING

STRUCTURE B-40-633

SILT FENCE

TYPE A

STRUCTURE B-40-530

BEAM GUARD REPAIR

REMOVE AND PLACE CONCRETE CURB AND GUTTER 4-INCH MOUNTABLE 36-INCH TYPE D

-LOOP DETECTOR REPLACEMENT
-REMOVING ASPHALTIC SURFACE
-ASPHALTIC SURFACE

BEGIN CONSTRUCTION
STA 28+86
MATCH EXISTING

LEGEND

1 2" HMA MILL AND OVERLAY

2 B.A.D. ¾"

INLET PROTECTION

NOTE

- ASPHALTIC SURFACE AND JOINT AND CRACK REPAIR AS ENGINEER DIRECTS
- PLACE INLET PROTECTION AT ALL INLETS WITHIN THE PROJECT LIMITS. TYPE C TYPICAL. TYPE D AT LOW POINTS. TYPE A AT FIELD INLETS.

-BEAM GUARD REPAIR
-EMULSIFIED ASPHALT MOW STRIP
-REPAIR WASH OUT BEHIND CURB AND GUTTER
-BARRIER SYSTEM GRADING SHAPING FINISHING
-PREPARING FOUNDATION FOR ASPHALTIC SHOULDER
-SEE MGS EAT PAVING DETAIL

-FILL DEPRESSION WITH TOPSOIL
-SEED MIXTURE TYPE 20
-EROSION CONTROL MAT URBAN CLASS 1 TYPE A

SILT FENCE

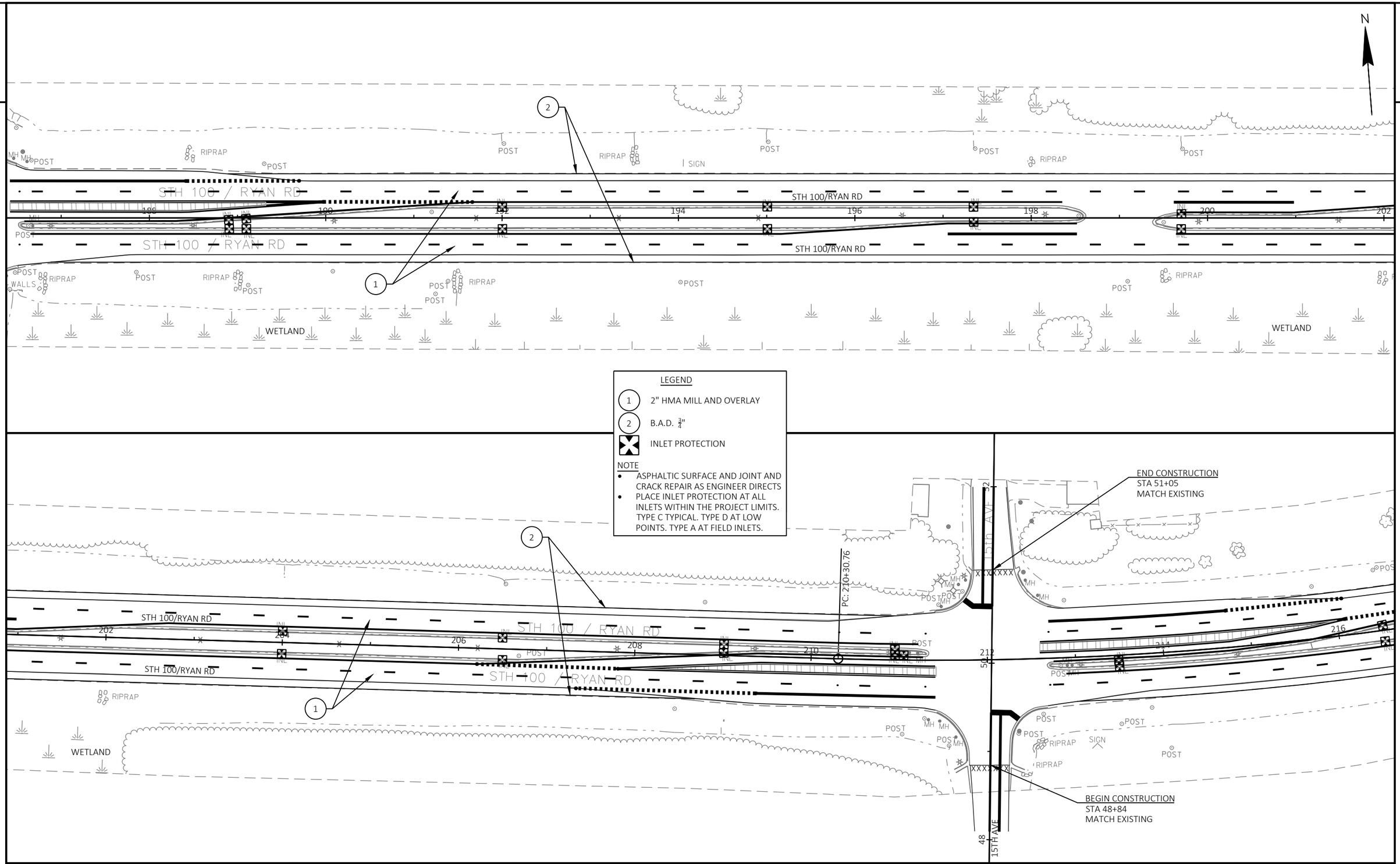
TYPE A

STRUCTURE C-40-79

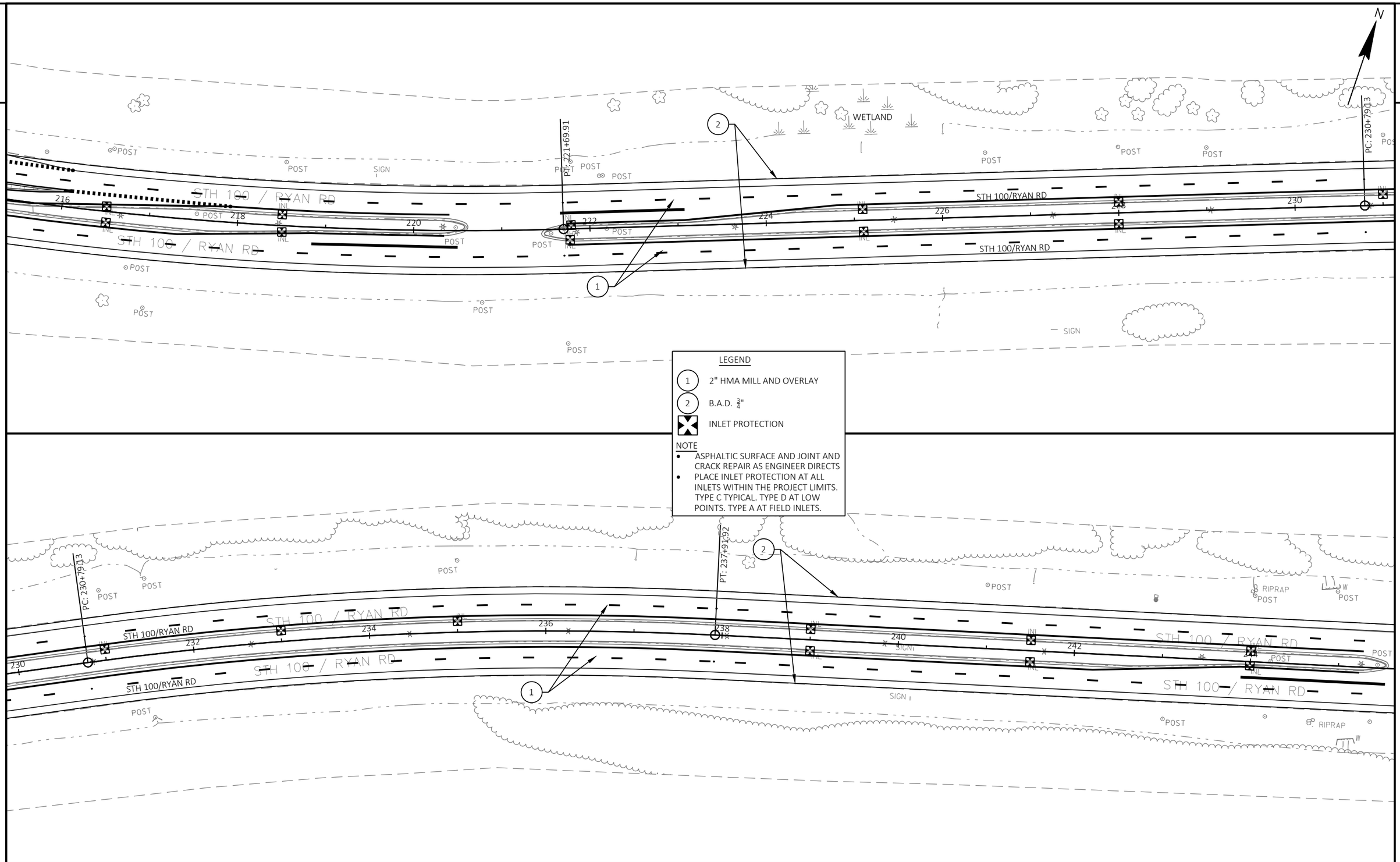
END CONSTRUCTION
STA 41+17
MATCH EXISTING

BEGIN CONSTRUCTION
STA 38+96
MATCH EXISTING

PROJECT NO: 2040-03-75	HWY: STH 100	COUNTY: MILWAUKEE	PLAN DETAILS AND EROSION CONTROL	SHEET 13	E



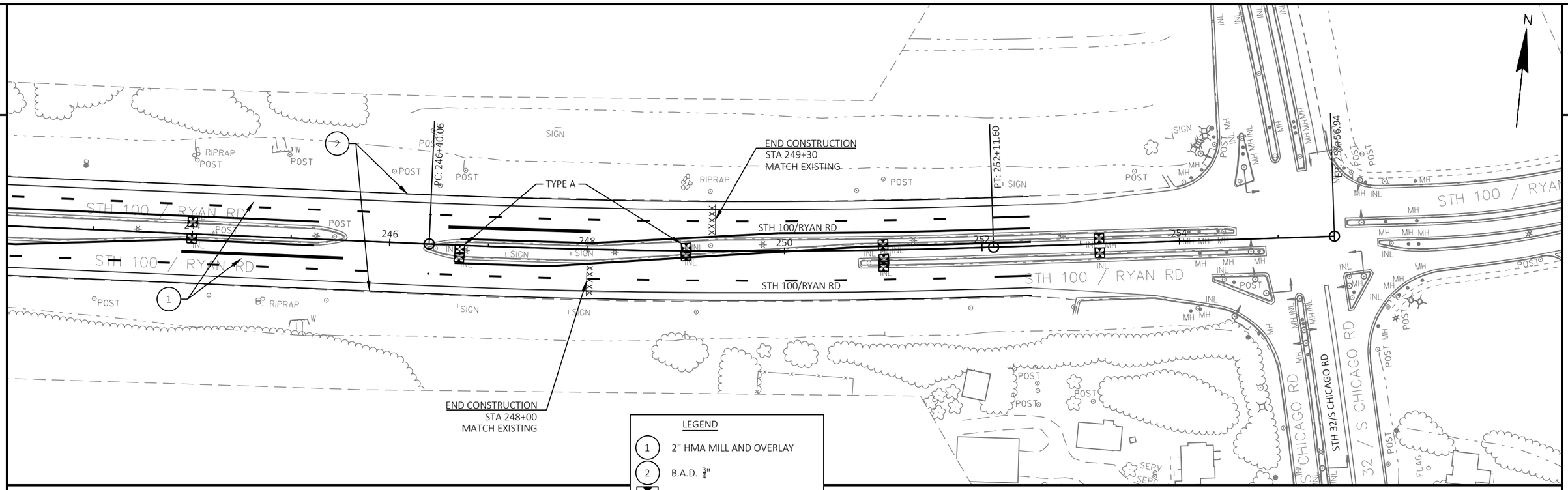
PROJECT NO: 2040-03-75	HWY: STH 100	COUNTY: MILWAUKEE	PLAN DETAILS AND EROSION CONTROL	SHEET 14	E



PROJECT NO: 2040-03-75	HWY: STH 100	COUNTY: MILWAUKEE	PLAN DETAILS AND EROSION CONTROL	SHEET 15	E

FILE NAME : N:\PDS\C3D\20400305\SHEETSPLAN\021201-PD_1-100.DWG
LAYOUT NAME - 04

PLOT DATE : 10/30/2023 2:43 PM PLOT BY : STARK, GARY W PLOT NAME : PLOT SCALE : 1 IN:100 FT



PROJECT NO: 2040-03-75	HWY: STH 100	COUNTY: MILWAUKEE	PLAN DETAILS AND EROSION CONTROL	SHEET 16	E

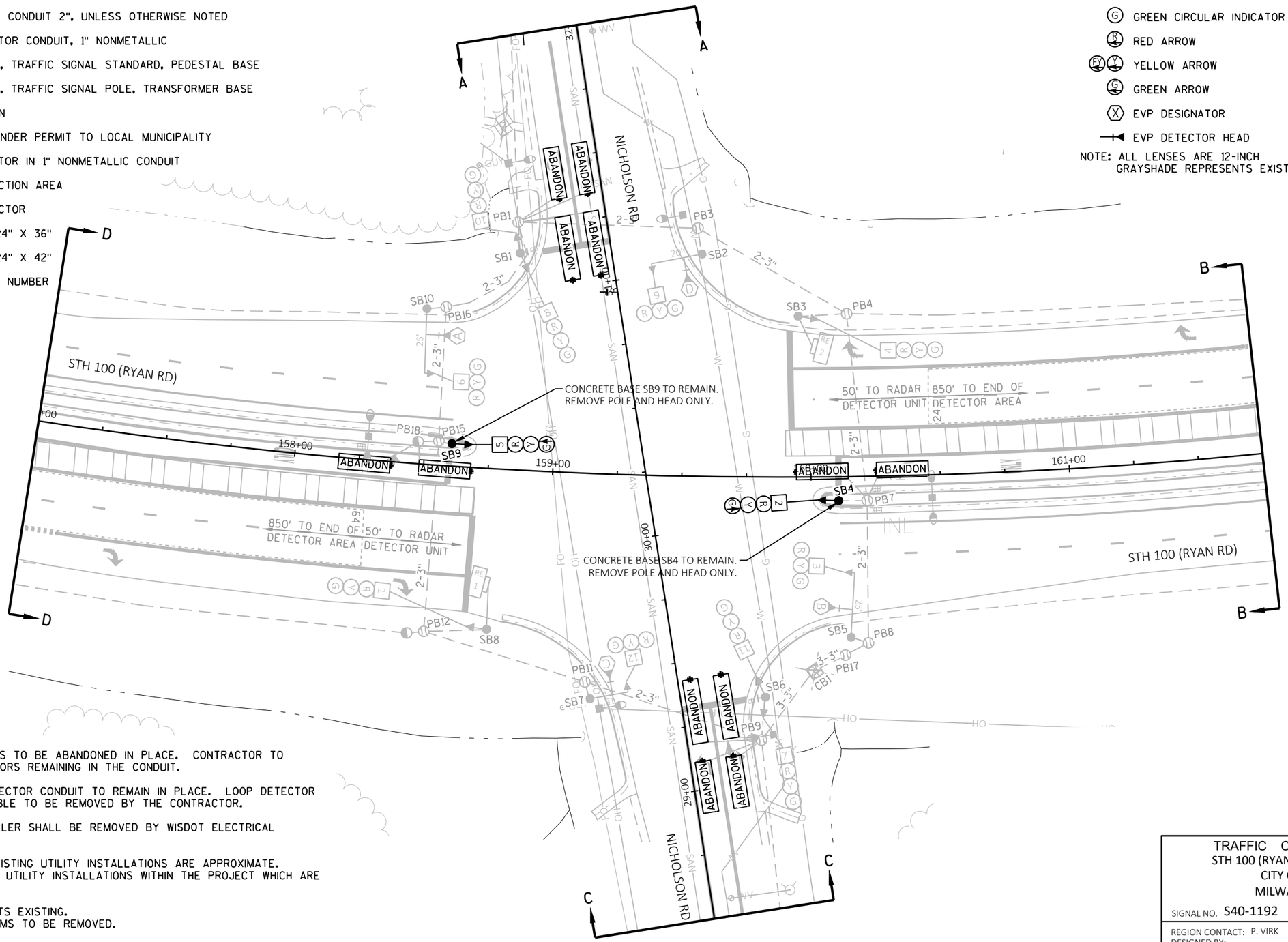
FILE NAME : N:\PDS\C3D\20400305\SHEETSPLAN\021201-PD_1-100.DWG
LAYOUT NAME - 05
PLOT DATE : 10/30/2023 2:43 PM
PLOT BY : STARK, GARY W
PLOT NAME :
PLOT SCALE : 1 IN:100 FT

LEGEND

- CONTROL CABINET
- NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED
- LOOP DETECTOR CONDUIT, 1" NONMETALLIC
- SIGNAL HEAD, TRAFFIC SIGNAL STANDARD, PEDESTAL BASE
- (XX') SIGNAL HEAD, TRAFFIC SIGNAL POLE, TRANSFORMER BASE
- PUSH BUTTON
- LUMINAIRE, UNDER PERMIT TO LOCAL MUNICIPALITY
- LOOP DETECTOR IN 1" NONMETALLIC CONDUIT
- RADAR DETECTION AREA
- RE XX RADAR DETECTOR
- PULL BOX, 24" X 36"
- PULL BOX, 24" X 42"
- XX SIGNAL HEAD NUMBER

- R RED CIRCULAR INDICATOR
- Y YELLOW CIRCULAR INDICATOR
- G GREEN CIRCULAR INDICATOR
- RA RED ARROW
- FY YELLOW ARROW
- GA GREEN ARROW
- X EVP DESIGNATOR
- EVP DETECTOR HEAD

NOTE: ALL LENSES ARE 12-INCH
GRAYSHADE REPRESENTS EXISTING



CONSTRUCTION NOTES:

1. EXISTING CONDUIT RUNS TO BE ABANDONED IN PLACE. CONTRACTOR TO REMOVE ANY CONDUCTORS REMAINING IN THE CONDUIT.
2. ABANDONED LOOP DETECTOR CONDUIT TO REMAIN IN PLACE. LOOP DETECTOR WIRE AND LEAD-IN CABLE TO BE REMOVED BY THE CONTRACTOR.
3. CABINET AND CONTROLLER SHALL BE REMOVED BY WISDOT ELECTRICAL PERSONNEL.
4. THE LOCATIONS OF EXISTING UTILITY INSTALLATIONS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT WHICH ARE NOT SHOWN.
5. GRAYSHADE REPRESENTS EXISTING.
   BOLD REPRESENTS ITEMS TO BE REMOVED.
6. CONCRETE BASES SB4 AND SB9 TO REMAIN. REMOVE POLES AND HEADS ONLY.

TRAFFIC CONTROL SIGNAL
STH 100 (RYAN RD) & NICHOLSON RD
CITY OF OAK CREEK
MILWAUKEE COUNTY

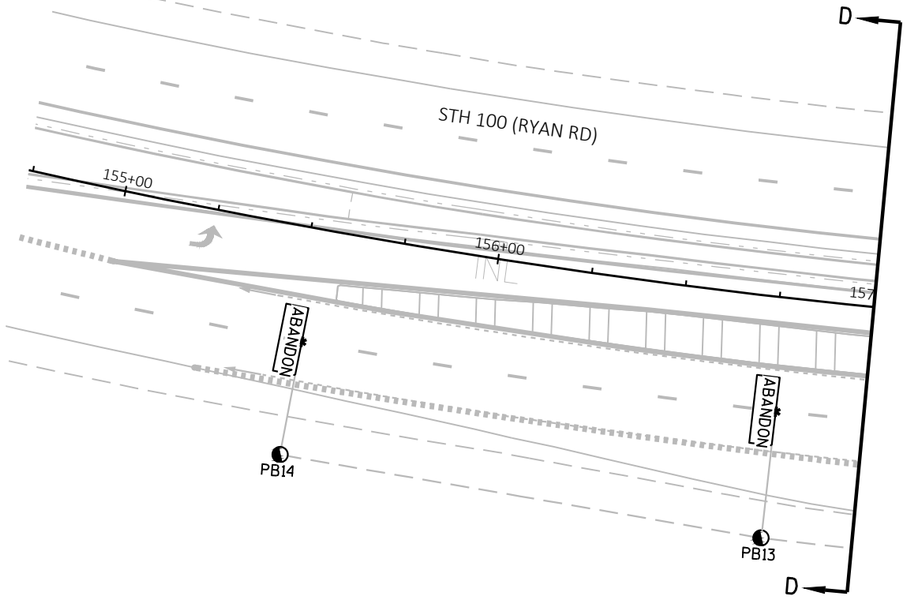
SIGNAL NO. S40-1192

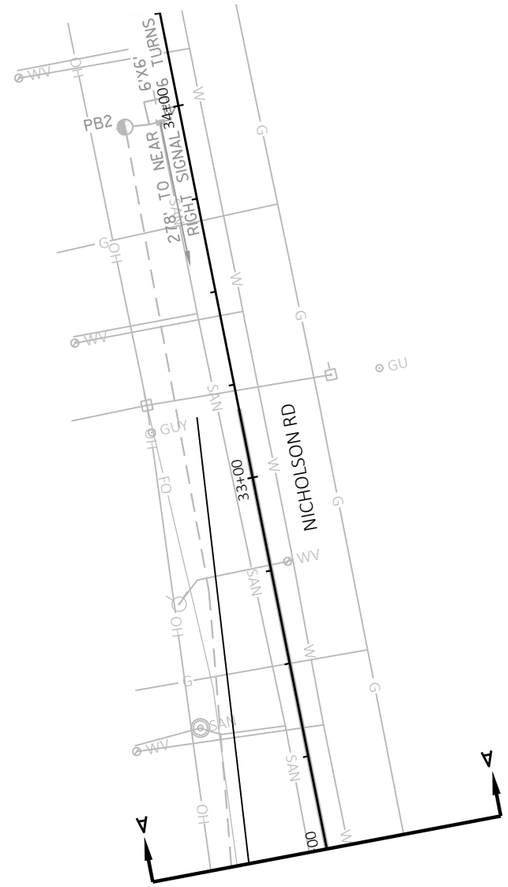
REGION CONTACT: P. VIRK
DESIGNED BY:
REVISED BY: S. WAGNER

PROJECT NO: 2040-03-75	HWY: STH 100	COUNTY: MILWAUKEE	TRAFFIC SIGNAL REMOVAL PLAN	SHEET 17	E

FILE NAME : N:\PDS\C3D\CAD\20400305\SIG\S40-1192\S40-1192_RM.DWG
LAYOUT NAME - S40-1192_RM_PG1
PLOT DATE : 1/4/2022 4:43 PM PLOT BY : WAGNER, SCOTT H PLOT NAME : PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

2





TRAFFIC CONTROL SIGNAL
STH 100 (RYAN RD) & NICHOLSON RD
CITY OF OAK CREEK
MILWAUKEE COUNTY

SIGNAL NO. S40-1192

REGION CONTACT: P. VIRK
DESIGNED BY:
REVISED BY: S. WAGNER

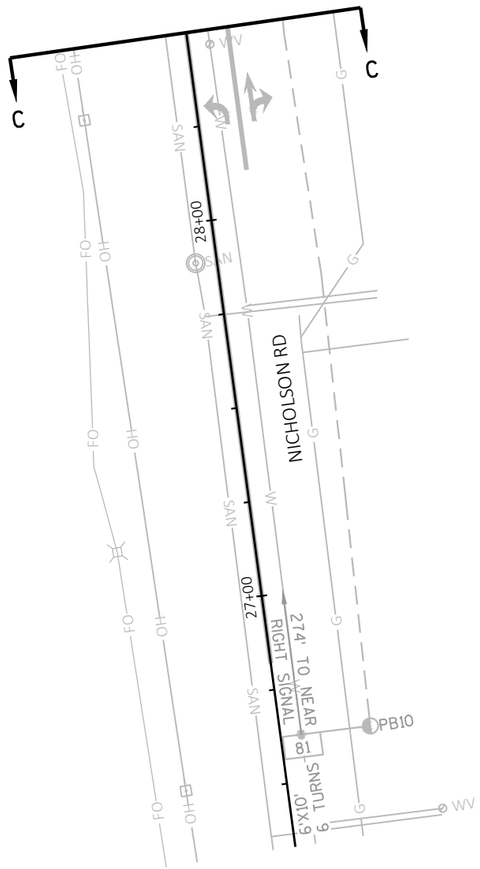
PAGE 2 OF 3

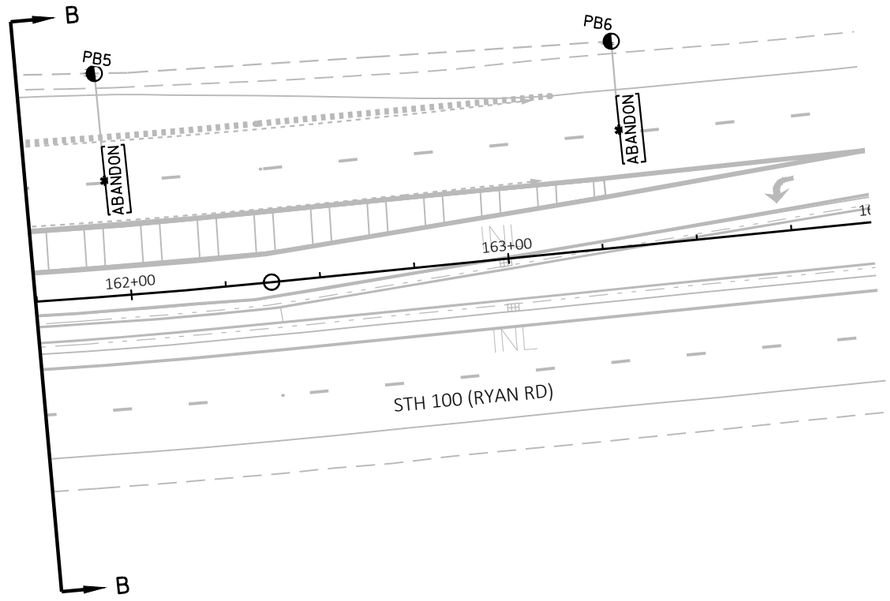
PROJECT NO: 2040-03-75	HWY: STH 100	COUNTY: MILWAUKEE	TRAFFIC SIGNAL REMOVAL PLAN	SHEET 18	E

FILE NAME : N:\PDS\C3D\CAD\20400305\SIG\S40-1192\S40-1192_RM.DWG
LAYOUT NAME - S40-1192_RM_PG2

PLOT DATE : 1/4/2022 4:43 PM PLOT BY : WAGNER, SCOTT H PLOT NAME : PLOT SCALE : ##########

2





TRAFFIC CONTROL SIGNAL
STH 100 (RYAN RD) & NICHOLSON RD
CITY OF OAK CREEK
MILWAUKEE COUNTY

SIGNAL NO. S40-1192

REGION CONTACT: P. VIRK
DESIGNED BY:
REVISED BY: S. WAGNER

PAGE 3 OF 3

PROJECT NO: 2040-03-75	HWY: STH 100	COUNTY: MILWAUKEE	TRAFFIC SIGNAL REMOVAL PLAN	SHEET 19	E

FILE NAME : N:\PDS\C3D\CAD\20400305\SIG\S40-1192\S40-1192_RM.DWG
LAYOUT NAME - S40-1192_RM_PG3

PLOT DATE : 1/4/2022 4:43 PM PLOT BY : WAGNER, SCOTT H PLOT NAME : PLOT SCALE : ##########

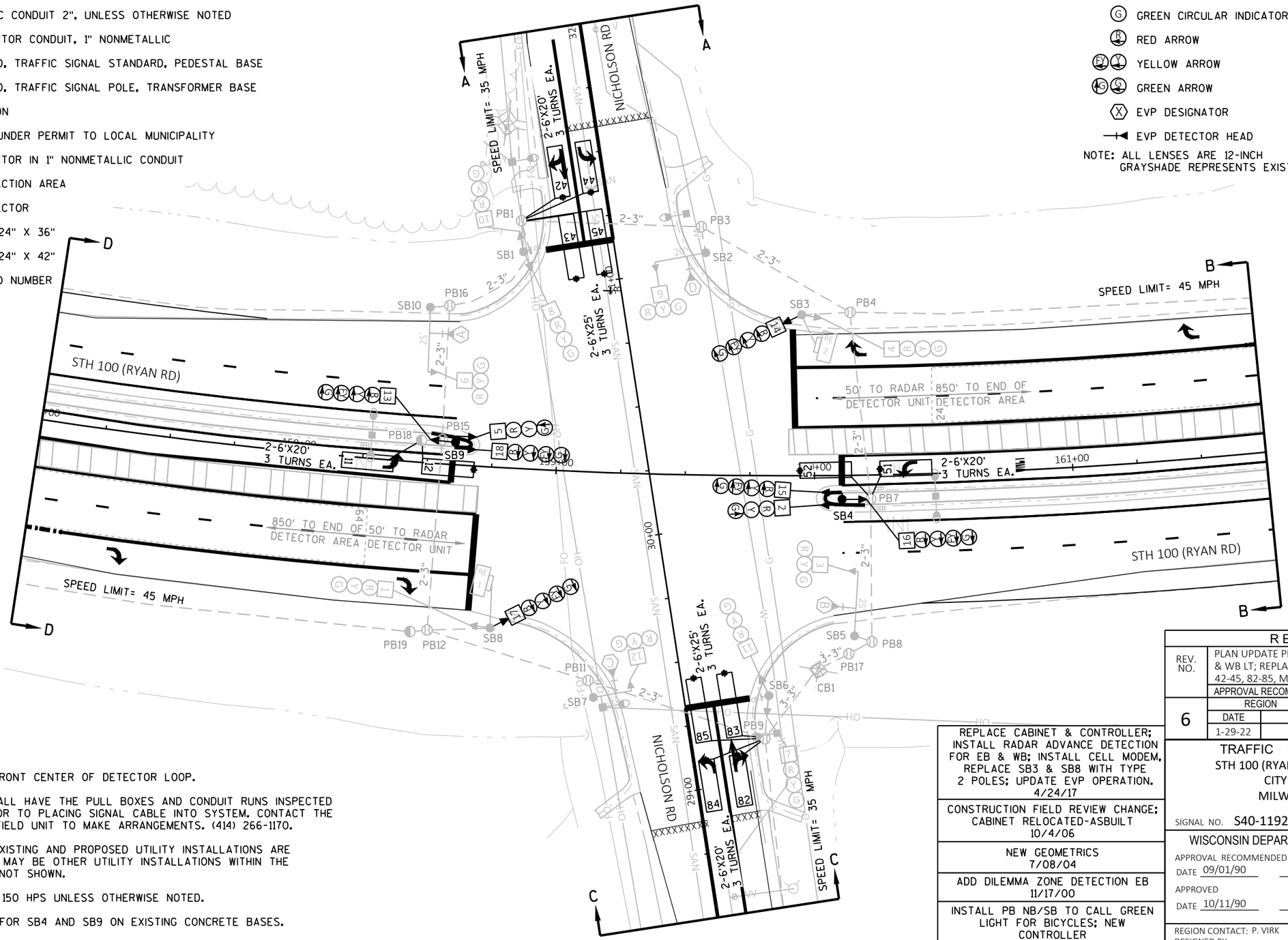
WISDOT/CADDS SHEET 42

LEGEND

- CONTROL CABINET
- NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED
- LOOP DETECTOR CONDUIT, 1" NONMETALLIC
- SIGNAL HEAD, TRAFFIC SIGNAL STANDARD, PEDESTAL BASE
- (XX') SIGNAL HEAD, TRAFFIC SIGNAL POLE, TRANSFORMER BASE
- PUSH BUTTON
- LUMINAIRE, UNDER PERMIT TO LOCAL MUNICIPALITY
- LOOP DETECTOR IN 1" NONMETALLIC CONDUIT
- RADAR DETECTION AREA
- RADAR DETECTOR
- PULL BOX, 24" X 36"
- PULL BOX, 24" X 42"
- XX SIGNAL HEAD NUMBER

- R RED CIRCULAR INDICATOR
- Y YELLOW CIRCULAR INDICATOR
- G GREEN CIRCULAR INDICATOR
- R RED ARROW
- FY Y YELLOW ARROW
- FG G GREEN ARROW
- X EVP DESIGNATOR
- EVP DETECTOR HEAD

NOTE: ALL LENSES ARE 12-INCH
GRAYSHADE REPRESENTS EXISTING



CONSTRUCTION NOTES:

1. * LOCATION IS TO FRONT CENTER OF DETECTOR LOOP.
2. THE CONTRACTOR SHALL HAVE THE PULL BOXES AND CONDUIT RUNS INSPECTED 5 WORKING DAYS PRIOR TO PLACING SIGNAL CABLE INTO SYSTEM. CONTACT THE WISDOT ELECTRICAL FIELD UNIT TO MAKE ARRANGEMENTS. (414) 266-1170.
3. THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATIONS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT WHICH ARE NOT SHOWN.
4. ALL LUMINAIRES ARE 150 HPS UNLESS OTHERWISE NOTED.
5. INSTALL NEW POLES FOR SB4 AND SB9 ON EXISTING CONCRETE BASES.

REPLACE CABINET & CONTROLLER; INSTALL RADAR ADVANCE DETECTION FOR EB & WB; INSTALL CELL MODEM. REPLACE SB3 & SB8 WITH TYPE 2 POLES; UPDATE EVP OPERATION. 4/24/17

CONSTRUCTION FIELD REVIEW CHANGE; CABINET RELOCATED-ASBUILT 10/4/06

NEW GEOMETRICS 7/08/04

ADD DILEMMA ZONE DETECTION EB 11/17/00

INSTALL PB NB/SB TO CALL GREEN LIGHT FOR BICYCLES; NEW CONTROLLER 5/96

REVISION

REV. NO.	PLAN UPDATE PER FIELD REVIEW; ADD FYA TO EB LT & WB LT; REPLACE LOOPS 11,12,21-23, 51, 52, 61-63, 42-45, 82-85, MOVE PB5-PB6 AND PB13-PB14			
	APPROVAL RECOMMENDED		APPROVED	
6	REGION		CENTRAL OFFICE	
	DATE	BY	DATE	BY
	1-29-22		2-3-22	

TRAFFIC CONTROL SIGNAL
STH 100 (RYAN RD) & NICHOLSON RD
CITY OF OAK CREEK
MILWAUKEE COUNTY

SIGNAL NO. S40-1192 CABINET TYPE: TS2-E CONTROLLER TYPE: ECONOLITE

WISCONSIN DEPARTMENT OF TRANSPORTATION

APPROVAL RECOMMENDED
DATE 09/01/90 EDWARD J. FRIEDE, REGION TRAFFIC ENGINEER

APPROVED
DATE 10/11/90 HARRY O. PRICE, STATE TRAFFIC ENGINEER

REGION CONTACT: P. VIRK
DESIGNED BY:
REVISED BY: S. WAGNER

PAGE 1 OF 4

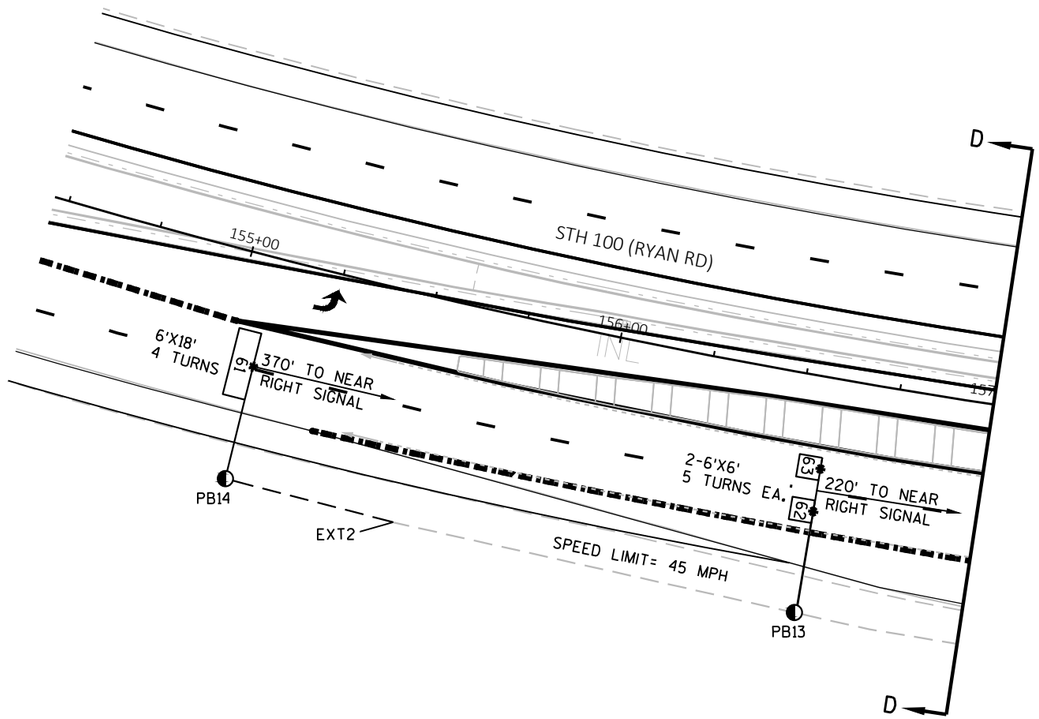
2-3-22

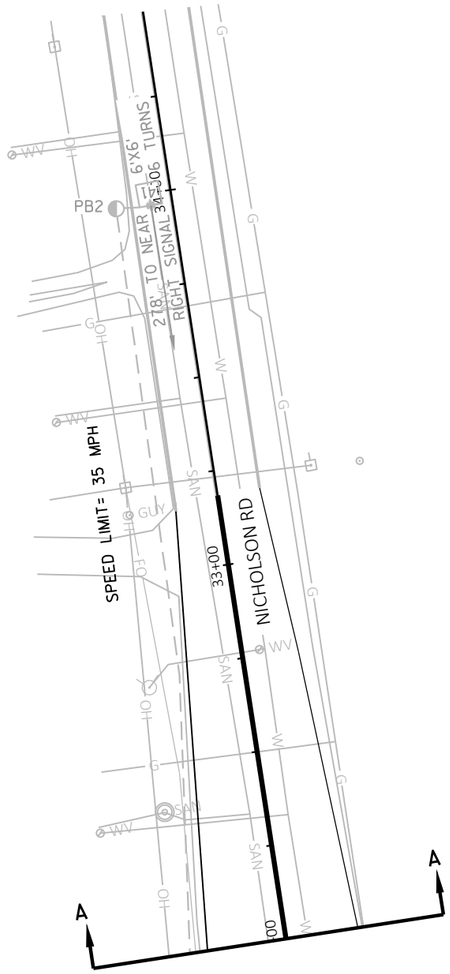
PROJECT NO: 2040-03-75	HWY: STH 100	COUNTY: MILWAUKEE	TRAFFIC SIGNAL PLAN	SHEET 20	E

FILE NAME : N:\PDS\C3D\CAD\20400305\SIG\S40-1192\S40-1192_R6_2020.DWG
LAYOUT NAME - S40-1192_PG1
PLOT DATE : 2/4/2022 8:57 AM PLOT BY : VANDE LEEST, CYNTHIA PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2





TRAFFIC CONTROL SIGNAL
STH 100 (RYAN RD) & NICHOLSON RD
CITY OF OAK CREEK
MILWAUKEE COUNTY

SIGNAL NO. S40-1192

REGION CONTACT: P. VIRK
DESIGNED BY:
REVISED BY: S. WAGNER

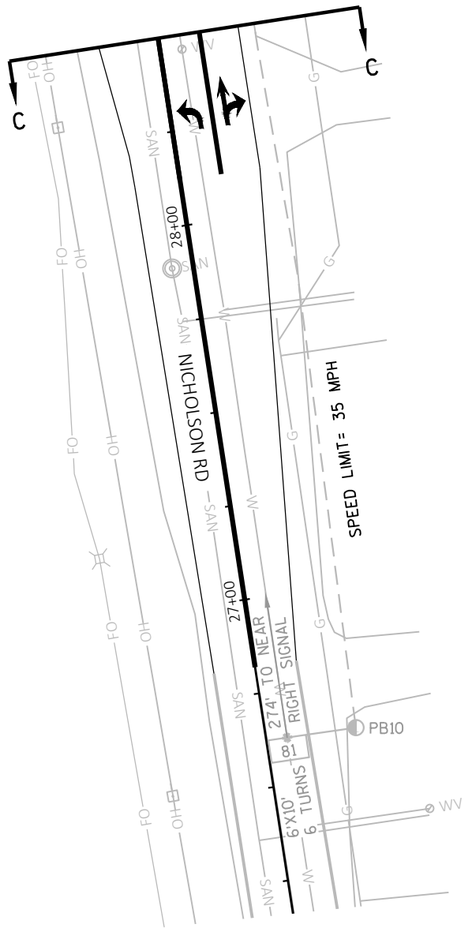
PAGE 2 OF 4

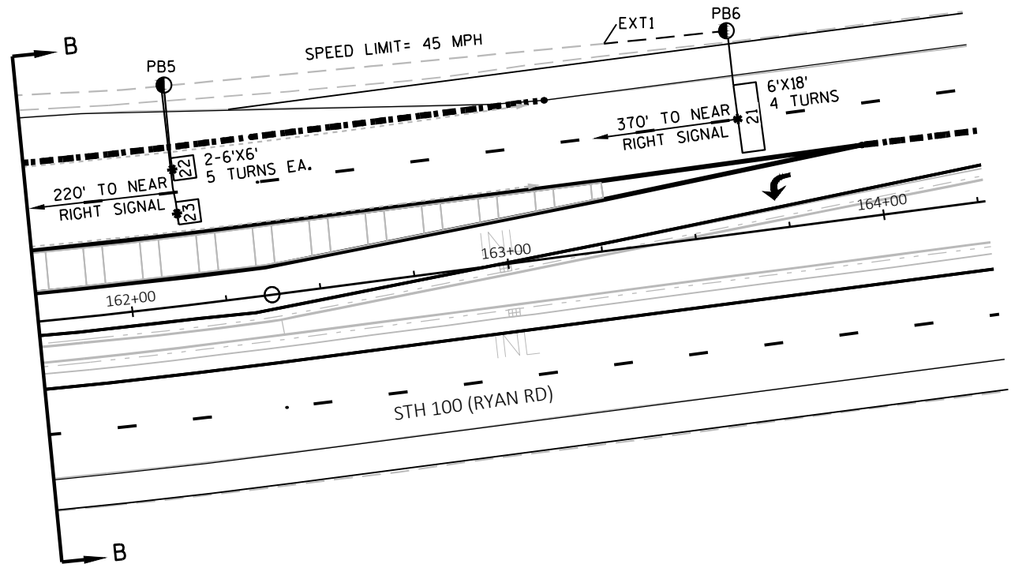
PROJECT NO: 2040-03-75	HWY: STH 100	COUNTY: MILWAUKEE	TRAFFIC SIGNAL PLAN	SHEET 21	E

FILE NAME : N:\PDS\C3D\CAD\20400305\SIG\S40-1192\S40-1192_R6_2020.DWG
LAYOUT NAME - S40-1192_PG2

PLOT DATE : 2/4/2022 8:57 AM PLOT BY : VANDE LEEST, CYNTHIA PLOT NAME : PLOT SCALE : ##########

2





N

TRAFFIC CONTROL SIGNAL
STH 100 (RYAN RD) & NICHOLSON RD
CITY OF OAK CREEK
MILWAUKEE COUNTY

SIGNAL NO. S40-1192

REGION CONTACT: P. VIRK
DESIGNED BY:
REVISED BY: S. WAGNER

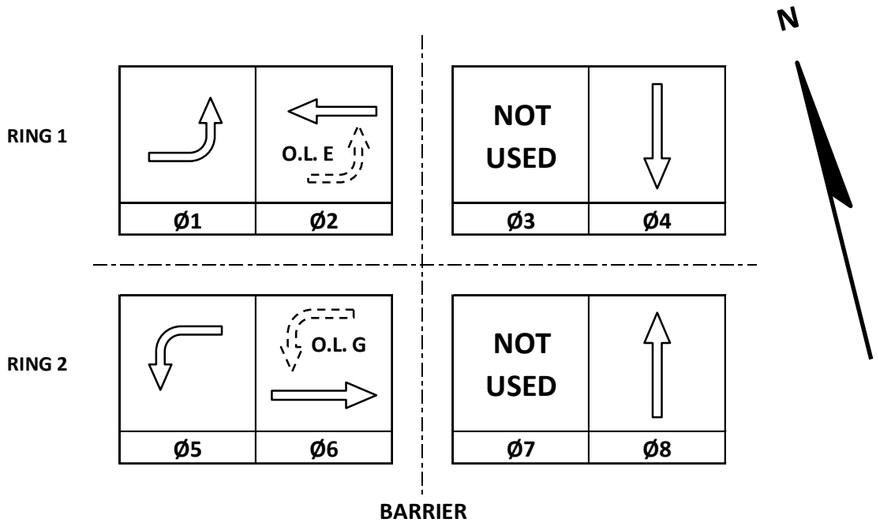
PAGE 3 OF 4

PROJECT NO: 2040-03-75	HWY: STH 100	COUNTY: MILWAUKEE	TRAFFIC SIGNAL PLAN	SHEET 22	E

FILE NAME : N:\PDS\C3D\CAD\20400305\SIG\S40-1192\S40-1192_R6_2020.DWG
LAYOUT NAME - S40-1192_PG3

PLOT DATE : 2/4/2022 8:57 AM PLOT BY : VANDE LEEST, CYNTHIA PLOT NAME : PLOT SCALE : ##########

	HEAD NUMBERS	FLASH
Ø1	13,14,15	R ←
Ø2	4,5,6	R
Ø3		
Ø4	10,11,12	R
Ø5	16,17,18	R ←
Ø6	1,2,3	R
Ø7		
Ø8	7,8,9	R
Ø2P		
Ø4P		
Ø6P		
Ø8P		
OLE	13,14,15	-
OLF		
OLG	16,17,18	-
OLH		



GENERAL NOTES

1 PHASE 1 AND PHASE 5 ARE OMITTED AT ALL TIMES EXCEPT DURING PREEMPTION.

CONTROLLER LOGIC

PHASE NUMBER	PHASE LOCKING	DUAL ENTRY W / Ø	PHASE RECALL	PHASE ACTIVE
1		6		X
2	X	6	MIN	X
3				
4		8		X
5		2		X
6	X	2	MIN	X
7				
8		4		X

EMERGENCY VEHICLE PREEMPTION SEQUENCE

EMERGENCY VEHICLE PREEMPTOR	A	B	C	D
MOVEMENT				
PHASE	2+5	6+1	4+8	8+4

AFTER PREEMPTION SEQUENCE 2+5 OR 6+1, CONTROLLER SHALL RETURN TO PHASES 2+6.
AFTER PREEMPTION SEQUENCE 4+8 OR 8+4, CONTROLLER SHALL RETURN TO PHASES 4+8.

TYPE OF INTERCONNECT/COMMUNICATION	
NONE	
CLOSED LOOP	
TWISTED PAIR	
FIBER OPTIC*	
FIBER OPTIC (ETHERNET)	
RADIO	
CELL MODEM	X

TYPE OF COORDINATION	
NONE	X
TBC	
TRAFFIC RESPONSIVE	
ADAPTIVE	
*LOCATION OF MASTER CONTROLLER NO:	S-
SIGNAL SYSTEM NO:	SS-

TYPE OF LIGHTING	
BY OTHER AGENCY	X
IN TRAFFIC CABINET	
IN SEPARATE DOT LIGHTING CABINET	

TYPE OF PRE-EMPT	
NONE	
RAILROAD	
EMERGENCY VEHICLE	X
GTT	X
TOMAR	
HARDWIRE	
OTHER	
LIFT BRIDGE	
QUEUE DETECTION	

DETECTOR LOGIC

DETECTOR INPUT	3	1	7	5	11	9	15	13	17	19	21					33	DETECTOR INPUT
PLAN LOOP DETECTOR*(S)	21	11	43	41	52	45	82	62	84	23						24	PLAN LOOP DETECTOR*(S)
CALLED PHASE	2	1	4	4	5	4	8	6	8	2						2	CALLED PHASE
CALL OPTION	X	X	X		X	X	X	X	X	X						X	CALL OPTION
DELAY TIME			X			X	X		X								DELAY TIME
EXTENTION OPTION	X	X	X	X	X	X	X	X	X	X						X	EXTENTION OPTION
EXTEND TIME				X													EXTEND TIME
USE ADDED INITIAL	X							X		X							USE ADDED INITIAL
CROSS SWITCH PHASE		2			6												CROSS SWITCH PHASE

DETECTOR INPUT	4	2	8	6	12	10	16	14	18	20	22					34	DETECTOR INPUT
PLAN LOOP DETECTOR*(S)	22	12	44	42	61	51	83	81	85	63						64	PLAN LOOP DETECTOR*(S)
CALLED PHASE	2	1	4	4	6	5	8	8	8	6						6	CALLED PHASE
CALL OPTION	X	X	X	X	X	X	X		X	X						X	CALL OPTION
DELAY TIME			X	X			X		X								DELAY TIME
EXTENTION OPTION	X	X	X	X	X	X	X	X	X	X						X	EXTENTION OPTION
EXTEND TIME								X									EXTEND TIME
USE ADDED INITIAL	X				X					X							USE ADDED INITIAL
CROSS SWITCH PHASE		2				6											CROSS SWITCH PHASE

STH 100 (RYAN RD) & NICHOLSON RD
CITY OF OAK CREEK
MILWAUKEE COUNTY
SIGNAL NO: S40-1192 CABINET TYPE: TS2-E
CONTROLLER TYPE: ECONOLITE
DATE: 02-2022 PAGE NO. 4 OF 4

2

PROJECT ID:	2040-03-75
INTERSECTION:	STH 100 (RYAN RD) & NICHOLSON RD

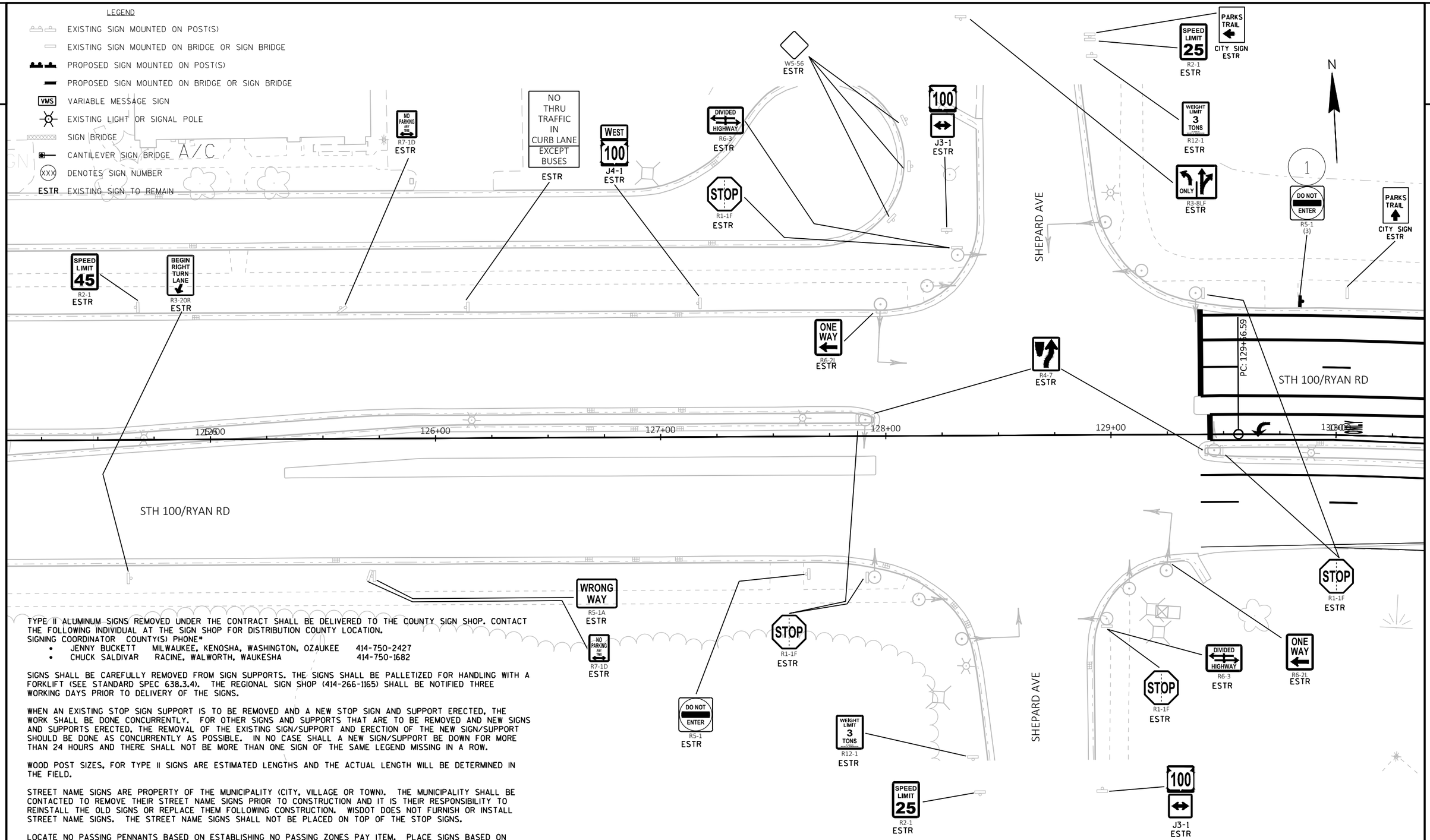
Signal Wire Color Coding	BLK - black	RED - red	GRN - green
	WHT - white	BLU - blue	ORG - orange

CB1 TO	AWG14 # OF CONDUCTORS	HEAD NO.	SIGNAL INDICATION WIRE COLOR									PED NEUTRAL	PED INPUT
			RED	YELLOW	GREEN	<RED>	<YELLOW>	<GREEN>	<FLASHING YELLOW>	D/WALK	WALK		
SB3	12	4	RED/BLK	ORG/BLK	GRN/BLK								
		14				RED	ORG	GRN	BLK/WHT				
SB4	12	2	RED	ORG	GRN								
		15				RED/BLK	ORG/BLK	GRN/BLK	BLK/WHT				
		16				RED/WHT	ORG/WHT	GRN/WHT	BLU/WHT				
SB8	12	1	RED	ORG	GRN								
		17				RED/BLK	ORG/BLK	GRN/BLK	BLK/WHT				
SB9	15	5	RED/BLK	ORG/BLK	GRN/BLK								
		13				RED	ORG	GRN	BLK/WHT				
		18				RED/WHT	ORG/WHT	GRN/WHT	BLU/WHT				

2

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- VMS VARIABLE MESSAGE SIGN
- EXISTING LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- XXX DENOTES SIGN NUMBER
- ESTR EXISTING SIGN TO REMAIN



TYPE II ALUMINUM SIGNS REMOVED UNDER THE CONTRACT SHALL BE DELIVERED TO THE COUNTY SIGN SHOP. CONTACT THE FOLLOWING INDIVIDUAL AT THE SIGN SHOP FOR DISTRIBUTION COUNTY LOCATION.
SIGNING COORDINATOR COUNTY(S) PHONE#

- JENNY BUCKETT MILWAUKEE, KENOSHA, WASHINGTON, OZAUKEE 414-750-2427
- CHUCK SALDIVAR RACINE, WALWORTH, WAUKESHA 414-750-1682

SIGNS SHALL BE CAREFULLY REMOVED FROM SIGN SUPPORTS. THE SIGNS SHALL BE PALLETIZED FOR HANDLING WITH A FORKLIFT (SEE STANDARD SPEC 638.3.4). THE REGIONAL SIGN SHOP (414-266-1165) SHALL BE NOTIFIED THREE WORKING DAYS PRIOR TO DELIVERY OF THE SIGNS.

WHEN AN EXISTING STOP SIGN SUPPORT IS TO BE REMOVED AND A NEW STOP SIGN AND SUPPORT ERECTED, THE WORK SHALL BE DONE CONCURRENTLY. FOR OTHER SIGNS AND SUPPORTS THAT ARE TO BE REMOVED AND NEW SIGNS AND SUPPORTS ERECTED, THE REMOVAL OF THE EXISTING SIGN/SUPPORT AND ERECTION OF THE NEW SIGN/SUPPORT SHOULD BE DONE AS CONCURRENTLY AS POSSIBLE. IN NO CASE SHALL A NEW SIGN/SUPPORT BE DOWN FOR MORE THAN 24 HOURS AND THERE SHALL NOT BE MORE THAN ONE SIGN OF THE SAME LEGEND MISSING IN A ROW.

WOOD POST SIZES, FOR TYPE II SIGNS ARE ESTIMATED LENGTHS AND THE ACTUAL LENGTH WILL BE DETERMINED IN THE FIELD.

STREET NAME SIGNS ARE PROPERTY OF THE MUNICIPALITY (CITY, VILLAGE OR TOWN). THE MUNICIPALITY SHALL BE CONTACTED TO REMOVE THEIR STREET NAME SIGNS PRIOR TO CONSTRUCTION AND IT IS THEIR RESPONSIBILITY TO REINSTALL THE OLD SIGNS OR REPLACE THEM FOLLOWING CONSTRUCTION. WISDOT DOES NOT FURNISH OR INSTALL STREET NAME SIGNS. THE STREET NAME SIGNS SHALL NOT BE PLACED ON TOP OF THE STOP SIGNS.

LOCATE NO PASSING PENNANTS BASED ON ESTABLISHING NO PASSING ZONES PAY ITEM. PLACE SIGNS BASED ON WHERE THE PAVEMENT MARKING FOR NO PASSING ZONES BEGIN.

BOX OUT OR CORING OF CONCRETE FOR SIGN POSTS IS INCIDENTAL TO THE POST.

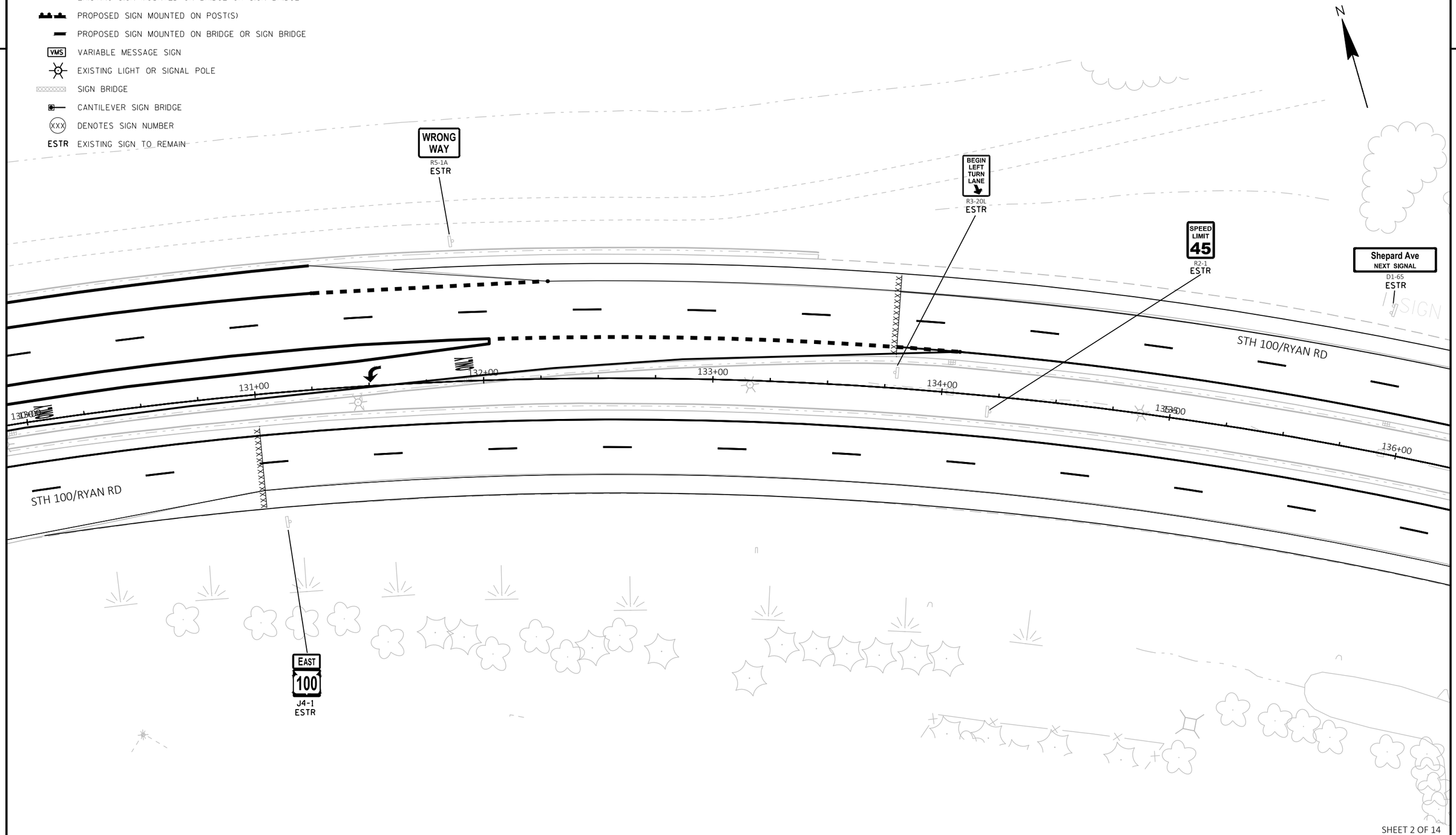
PROJECT NO: 2040-03-75	HWY: STH 100	COUNTY: MILWAUKEE	PERMANENT SIGNING PLAN	SHEET 25	E

FILE NAME : N:\PDS\C3D\CAD\20400305\SIGN\023201_PS_20.DWG
LAYOUT NAME - 023201_PS
PLOT DATE : 12/9/2021 1:18 PM
PLOT BY : ASHENFELTER, DANIEL
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

2

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- VMS — VARIABLE MESSAGE SIGN
- EXISTING LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- XXX — DENOTES SIGN NUMBER
- ESTR — EXISTING SIGN TO REMAIN



SHEET 2 OF 14

PROJECT NO: 2040-03-75	HWY: STH 100	COUNTY: MILWAUKEE	PERMANENT SIGNING PLAN	SHEET 26	E

FILE NAME : N:\PDS\C3D\CAD\20400305\SIGN\023201_PS_20.DWG
LAYOUT NAME - 023202_PS

PLOT DATE : 12/9/2021 1:19 PM PLOT BY : ASHENFELTER, DANIEL PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- VMS — VARIABLE MESSAGE SIGN
- EXISTING LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- XXX — DENOTES SIGN NUMBER
- ESTR — EXISTING SIGN TO REMAIN

T107 668.43

N

W3-3
ESTR

SPEED LIMIT 45
R2-1
ESTR

PT: 142+34.40

R4-7
ESTR

PC: 148+52.69

SIH 100/RYAN RD

136+00 137+00 138+00 139+00 140+00 141+00 142+00 143+00 144+00 145+00 146+00 147+00 148+00 149+00 150+00 151+00

STH 100/RYAN RD

W3-3
ESTR

SHEET 3 OF 14

PROJECT NO: 2040-03-75	HWY: STH 100	COUNTY: MILWAUKEE	PERMANENT SIGNING PLAN	SHEET 27	E

FILE NAME : N:\PDS\C3D\CAD\20400305\SIGN\023201_PS_20.DWG
LAYOUT NAME - 023203_PS

PLOT DATE : 12/9/2021 1:19 PM PLOT BY : ASHENFELTER, DANIEL PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

2

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- VMS VARIABLE MESSAGE SIGN
- EXISTING LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- (XXX) DENOTES SIGN NUMBER
- ESTR EXISTING SIGN TO REMAIN

W3-3 ESTR

SPEED LIMIT 35 R2-1 ESTR

Nicholson Rd D1-61 ESTR

N

BEGIN LEFT TURN LANE R3-20L ESTR

WRONG WAY R5-1A ESTR

WEIGHT LIMIT 3 TONS R12-1 ESTR

SPEED LIMIT 45 R2-1 ESTR

BEGIN LEFT TURN LANE R3-20L ESTR

WEST 100 J4-1 ESTR

EAST 100 J4-1 ESTR

SPEED LIMIT 45 R2-1 ESTR

Nicholson Rd D1-61 ESTR

WRONG WAY R5-1A ESTR

WEIGHT LIMIT 3 TONS R12-1 ESTR

SPEED LIMIT 35 R2-1 ESTR

W3-3 ESTR

NICHOLSON RD

STH 100/RYAN RD

PT: 162+37.07

SEE SHEET 5
FOR INTERSECTION DETAILS

SHEET 4 OF 14

PROJECT NO: 2040-03-75	HWY: STH 100	COUNTY: MILWAUKEE	PERMANENT SIGNING PLAN	SHEET 28	E

FILE NAME : N:\PDS\C3D\CAD\20400305\SIGN\023201_PS_20.DWG
LAYOUT NAME - 023204_PS

PLOT DATE : 12/9/2021 1:19 PM PLOT BY : ASHENFELTER, DANIEL PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- VMS — VARIABLE MESSAGE SIGN
- EXISTING LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- XXX — DENOTES SIGN NUMBER
- ESTR — EXISTING SIGN TO REMAIN

STH 100/RYAN RD

NICHOLSON RD

6 — MOUNT ON SIGNAL POLE — R4-7(3)

7 — Nicholson Rd — M1-94H MOUNT ON MAST ARM

8 — TO INTERSTATE 94 — J23-1 (3) MOUNT ON SIGNAL POLE

9 — ONE WAY — REMOVE — R6-2L(3)

10 — 100 100 — REMOVE — J3-1 (2S)

11 — 100 E Ryan Rd — M1-94S MOUNT ON MAST ARM

12 — DIVIDED HIGHWAY — REMOVE — R6-3 (2S)

13 — STOP — REMOVE — R1-1F (3)

R6-3 IS MOUNTED ABOVE R1-1F ON SIGNAL POLE

14 — STOP — REMOVE — R1-1F (3) MOUNT ON SIGNAL POLE

15 — DO NOT ENTER — REMOVE — R5-1(3)

16 — REMOVE — R4-7 (3) MOUNT ON SIGNAL POLE

17 — STOP — REMOVE — R1-1F (3) MOUNT ON SIGNAL POLE

18 — STOP — REMOVE — R1-1F (3) MOUNT ON SIGNAL POLE

19 — DO NOT ENTER — REMOVE — R5-1(3)

20 — STOP — REMOVE — R1-1F (3) MOUNT ON SIGNAL POLE

21 — 100 E Ryan Rd — M1-94S MOUNT ON MAST ARM

STREET NAME SIGNS MOVE BY OTHERS

22 — 100 — REMOVE — 100 — J3-1 (2S) MOUNT ON LIGHT POLE

23 — DIVIDED HIGHWAY — REMOVE — R6-3 (2S)

24 — STOP — R1-1F(3) — R6-3 IS MOUNTED ABOVE R1-1F ON SIGNAL POLE

25 — ONE WAY — REMOVE — R6-2L(3) MOUNT ON SIGNAL POLE

26 — Nicholson Rd — M1-94S MOUNT ON MAST ARM

157+00 158+00 159+00 160+00 161+00 162+00 PT: 162+37.01

32+00 31+00 30+00 29+00

N

SHEET 5 OF 14

PROJECT NO: 2040-03-75	HWY: STH 100	COUNTY: MILWAUKEE	PERMANENT SIGNING PLAN	SHEET 29	E

FILE NAME : N:\PDS\C3D\CAD\20400305\SIGN\023201_PS_20.DWG
LAYOUT NAME - 023205_PS

PLOT DATE : 12/9/2021 1:19 PM PLOT BY : ASHENFELTER, DANIEL PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

2

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- VMS — VARIABLE MESSAGE SIGN
- EXISTING LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- XXX — DENOTES SIGN NUMBER
- ESTR — EXISTING SIGN TO REMAIN

N

30
REMOVE
W5-52L
(3)

31
REMOVE
W5-52R
(3)

SPEED LIMIT 45
R2-1
ESTR

UNION PACIFIC RR

RIPRAP

RIPRAP

STH 100/RYAN RD

167+00 168+00 169+00 170+00 171+00 172+00 173+00 174+00 175+00 176+00 177+00 178+00 179+00 180+00 181+00 182+00

STH 100/RYAN RD

RIPRAP

27
28
BE PREPARED TO STOP
W3-4(3)

29
REMOVE
W5-52R
(3)

32
REMOVE
W5-52L
(3)

SPEED LIMIT 55
R2-1
ESTR

BEGIN LEFT TURN LANE
R3-20L
ESTR

Pennsylvania Ave
D1-61
ESTR

33
34
W3-3
MOVE SIGNS

T111
667.66

SHEET 6 OF 14

PROJECT NO: 2040-03-75	HWY: STH 100	COUNTY: MILWAUKEE	PERMANENT SIGNING PLAN	SHEET 30	E

FILE NAME : N:\PDS\C3D\CAD\20400305\SIGN\023201_PS_20.DWG
LAYOUT NAME - 023206_PS

PLOT DATE : 12/9/2021 1:19 PM PLOT BY : ASHENFELTER, DANIEL PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

2

2

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- VMS VARIABLE MESSAGE SIGN
- EXISTING LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- XXX DENOTES SIGN NUMBER
- ESTR EXISTING SIGN TO REMAIN

N

PENNSYLVANIA RD

44+00 43+00 42+00 41+00 40+00 39+00 38+00 37+00 36+00

STH 100/RYAN RD

181+00 182+00 183+00 184+00 185+00 186+00 187+00 188+00 189+00 190+00 191+00 192+00 193+00 194+00 195+00 196+00

WEST 100 J4-1 ESTR

SPEED LIMIT 45 W3-5 ESTR

R4-7 ESTR

56 ONE WAY REMOVE

SPEED LIMIT 35 R2-1 ESTR

DO NOT ENTER R5-1 ESTR

R4-7 ESTR

WRONG WAY R5-1A ESTR

BEGIN LEFT TURN LANE R3-20L ESTR

Pennsylvania Ave D1-61 ESTR

RIPRAP

SIGN

WRONG WAY R5-1A ESTR

DO NOT ENTER R5-1 ESTR

SPEED LIMIT 35 R2-1 ESTR

ONE WAY REMOVE 57

SPEED LIMIT 55 R2-1 ESTR

SEE SHEET 8
FOR INTERSECTION DETAILS

SHEET 7 OF 14

PROJECT NO: 2040-03-75	HWY: STH 100	COUNTY: MILWAUKEE	PERMANENT SIGNING PLAN	SHEET 31	E

FILE NAME : N:\PDS\C3D\CAD\20400305\SIGN\023201_PS_20.DWG
LAYOUT NAME - 023207_PS
PLOT DATE : 12/9/2021 1:19 PM PLOT BY : ASHENFELTER, DANIEL PLOT NAME : PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 42

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- VMS — VARIABLE MESSAGE SIGN
- EXISTING LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- (XXX) — DENOTES SIGN NUMBER
- ESTR — EXISTING SIGN TO REMAIN

35 MOUNT ABOVE R1-1 — ONE WAY — R6-1R (3)

36 MOUNT BELOW R6-3 — TRAFFIC ON 100 DOES NOT STOP — W4-4C (3)

58 STOP — R1-1(3)

59 DIVIDED HIGHWAY — R6-3 (2S)

STOP REMOVE

DIVIDED HIGHWAY REMOVE

STREET NAME SIGNS

PENNSYLVANIA RD

NO THRU TRUCKS

NO ENGINE BREAKING EXCEPT IN EMERGENCY

CITY SIGNS ESTR

37 MOUNT ABOVE R1-1 — ONE WAY — R6-1L (3)

N

RIPRAP

STH 100/RYAN RD

183+00 184+00 185+00 186+00 187+00 188+00 189+00

41+00 40+00

STH 100/RYAN RD

RIPRAP

RIPRAP

RIPRAP

40 ONE WAY — R6-1L (3) MOUNT ON LIGHT POLE ABOVE R1-1

STOP — R1-1 ESTR

DIVIDED HIGHWAY — R6-3 ESTR

39 TRAFFIC ON 100 DOES NOT STOP — W4-4C (3) MOUNT ON LIGHT POLE BELOW R6-3

38 ONE WAY — R6-1R (3) MOUNT ON LIGHT POLE ABOVE R1-1

WEIGHT LIMIT 3 TONS — R12-1 ESTR

PENNSYLVANIA RD

39+00 38+00

SHEET 8 OF 14

PROJECT NO: 2040-03-75	HWY: STH 100	COUNTY: MILWAUKEE	PERMANENT SIGNING PLAN	SHEET 32	E

FILE NAME : N:\PDS\C3D\CAD\20400305\SIGN\023201_PS_20.DWG
LAYOUT NAME - 023208_PS

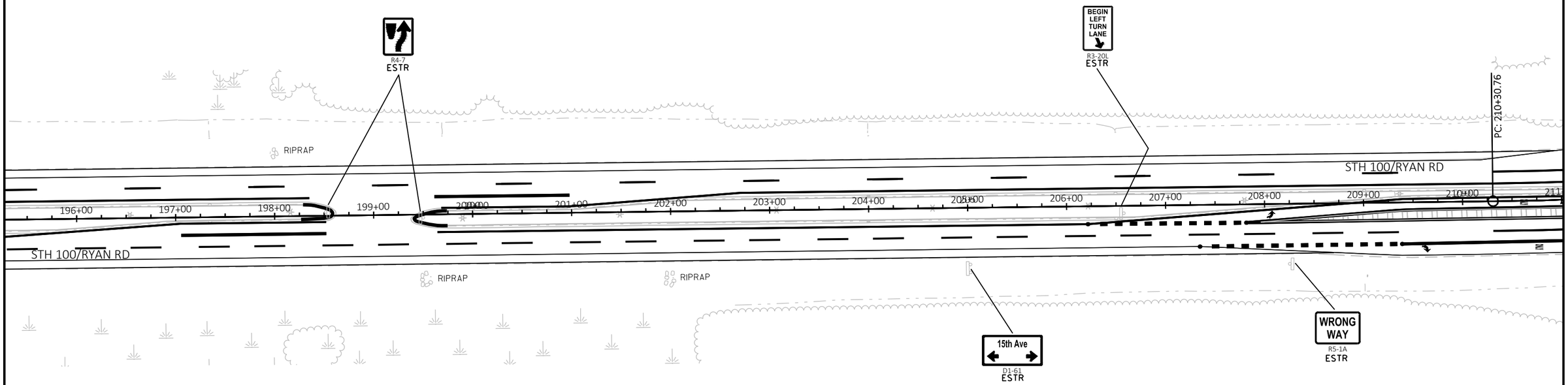
PLOT DATE : 12/9/2021 1:19 PM PLOT BY : ASHENFELTER, DANIEL PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- VMS — VARIABLE MESSAGE SIGN
- EXISTING LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- XXX — DENOTES SIGN NUMBER
- ESTR — EXISTING SIGN TO REMAIN



SHEET 9 OF 14

PROJECT NO: 2040-03-75	HWY: STH 100	COUNTY: MILWAUKEE	PERMANENT SIGNING PLAN	SHEET 33	E

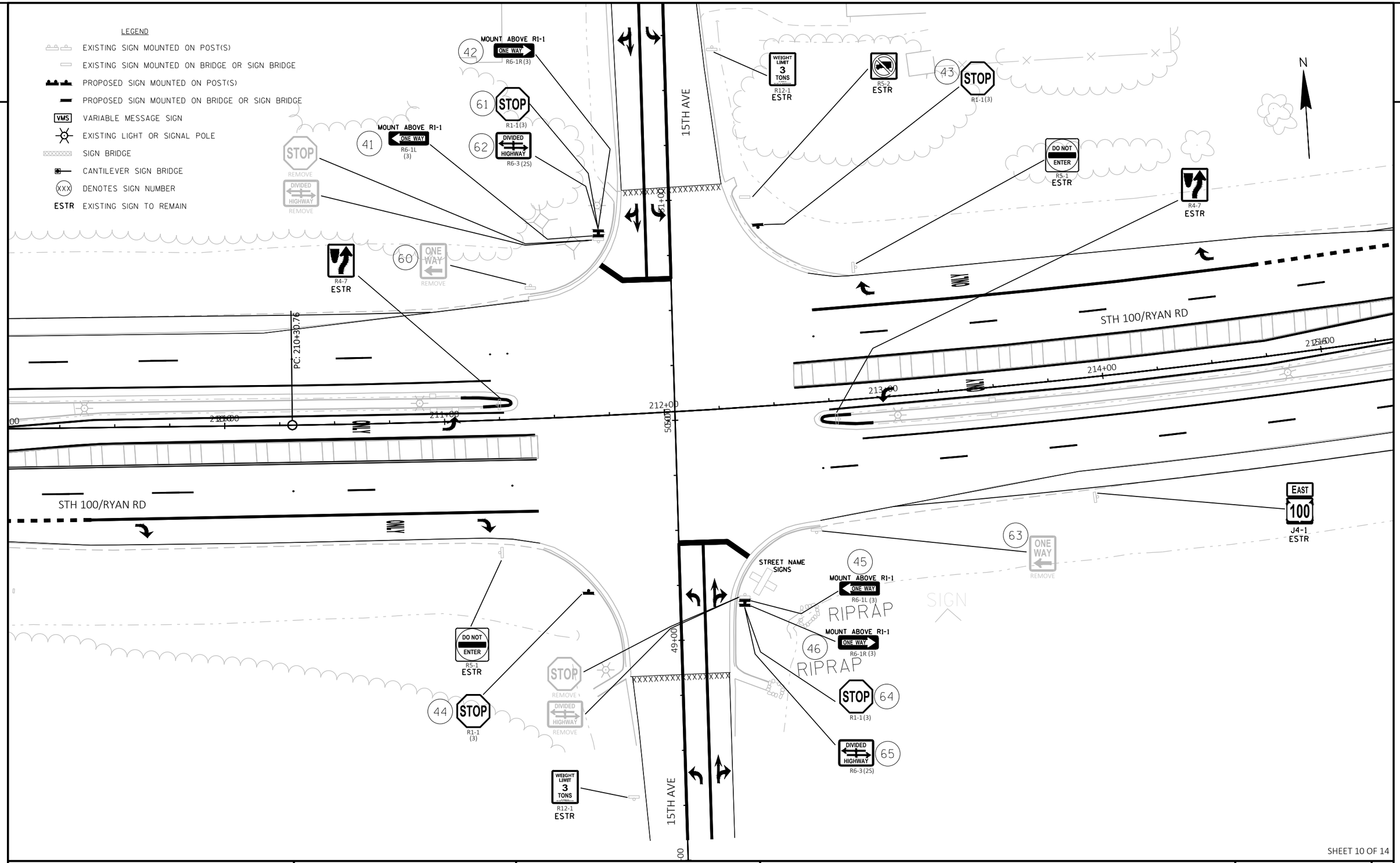
FILE NAME : N:\PDS\C3D\CAD\20400305\SIGN\023201_PS_20.DWG
LAYOUT NAME - 023209_PS

PLOT DATE : 12/9/2021 1:19 PM PLOT BY : ASHENFELTER, DANIEL PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- VMS — VARIABLE MESSAGE SIGN
- EXISTING LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- XXX — DENOTES SIGN NUMBER
- ESTR — EXISTING SIGN TO REMAIN



SHEET 10 OF 14

PROJECT NO: 2040-03-75	HWY: STH 100	COUNTY: MILWAUKEE	PERMANENT SIGNING PLAN	SHEET 34	E

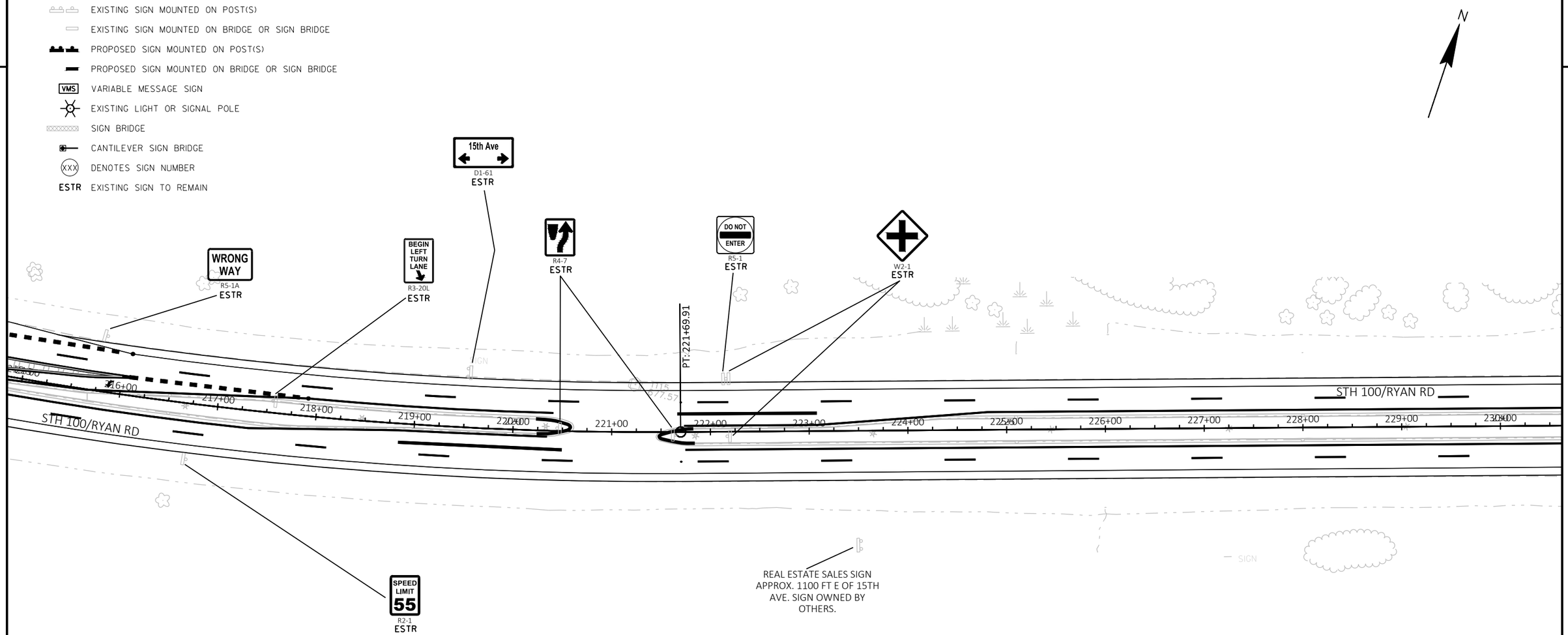
FILE NAME : N:\PDS\C3D\CAD\20400305\SIGN\023201_PS_20.DWG
LAYOUT NAME - 023210_PS

PLOT DATE : 12/9/2021 1:19 PM PLOT BY : ASHENFELTER, DANIEL PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- VMS — VARIABLE MESSAGE SIGN
- EXISTING LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- XXX — DENOTES SIGN NUMBER
- ESTR — EXISTING SIGN TO REMAIN



SHEET 11 OF 14

PROJECT NO: 2040-03-75	HWY: STH 100	COUNTY: MILWAUKEE	PERMANENT SIGNING PLAN	SHEET 35	E

FILE NAME : N:\PDS\C3D\CAD\20400305\SIGN\023201_PS_20.DWG
LAYOUT NAME - 023211_PS

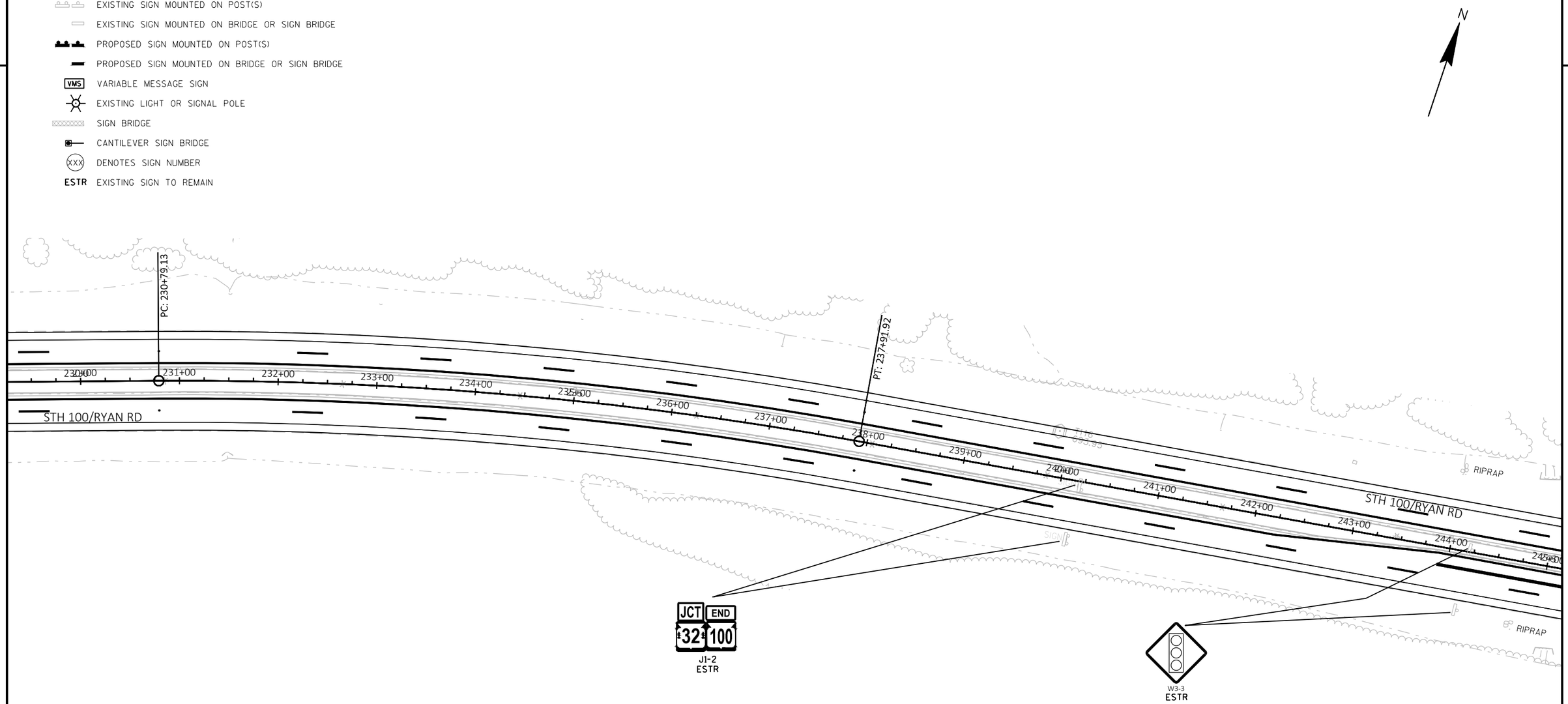
PLOT DATE : 12/9/2021 1:20 PM PLOT BY : ASHENFELTER, DANIEL PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

2

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- VMS — VARIABLE MESSAGE SIGN
- EXISTING LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- XXX — DENOTES SIGN NUMBER
- ESTR — EXISTING SIGN TO REMAIN



SHEET 12 OF 14

PROJECT NO: 2040-03-75	HWY: STH 100	COUNTY: MILWAUKEE	PERMANENT SIGNING PLAN	SHEET 36	E

FILE NAME : N:\PDS\C3D\CAD\20400305\SIGN\023201_PS_20.DWG
LAYOUT NAME - 023212_PS

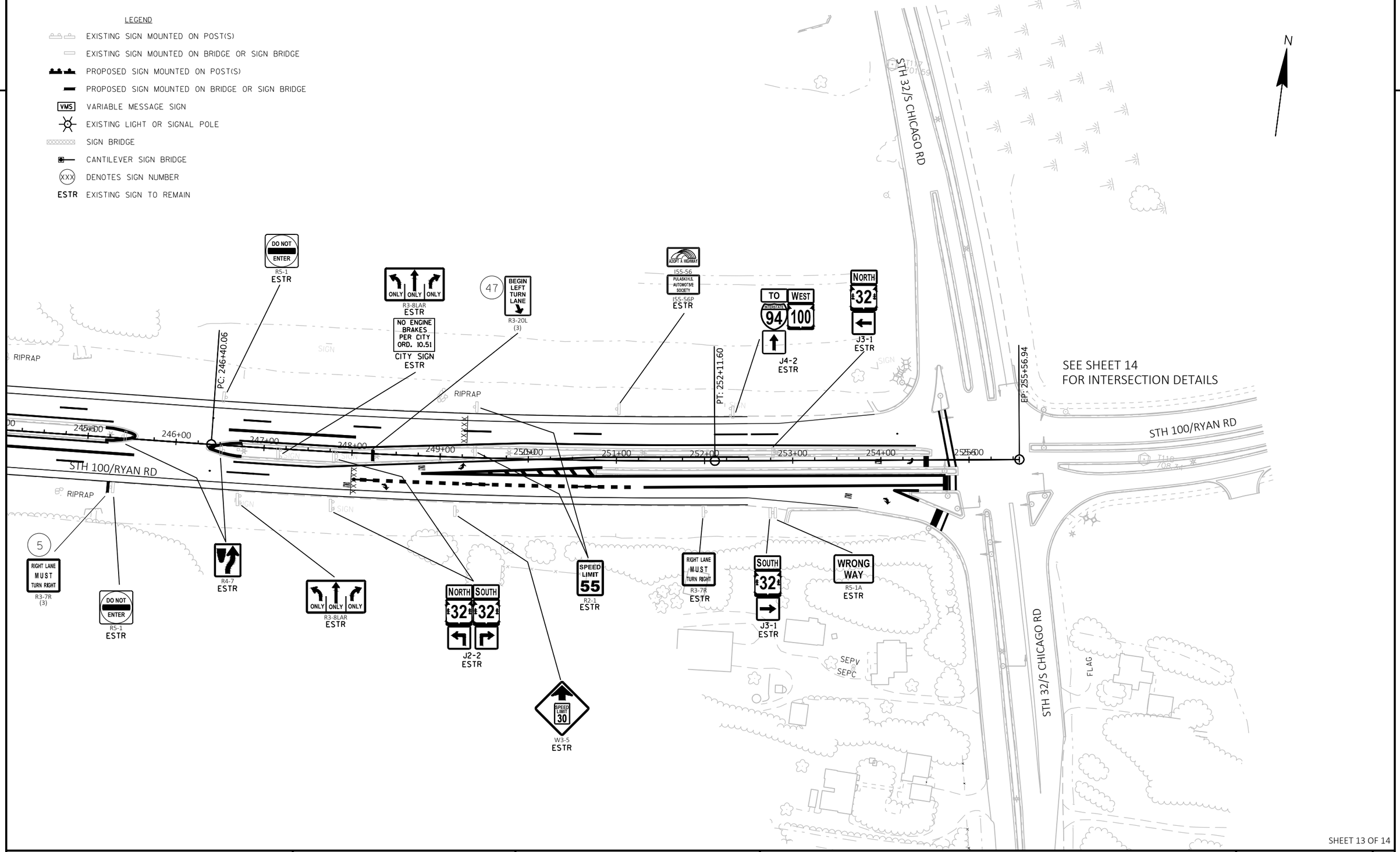
PLOT DATE : 12/9/2021 1:20 PM PLOT BY : ASHENFELTER, DANIEL PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

2

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- VMS VARIABLE MESSAGE SIGN
- EXISTING LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- XXX DENOTES SIGN NUMBER
- ESTR EXISTING SIGN TO REMAIN



SHEET 13 OF 14

PROJECT NO: 2040-03-75	HWY: STH 100	COUNTY: MILWAUKEE	PERMANENT SIGNING PLAN	SHEET 37	E

FILE NAME : N:\PDS\C3D\CAD\20400305\SIGN\023201_PS_20.DWG
LAYOUT NAME - 023213_PS

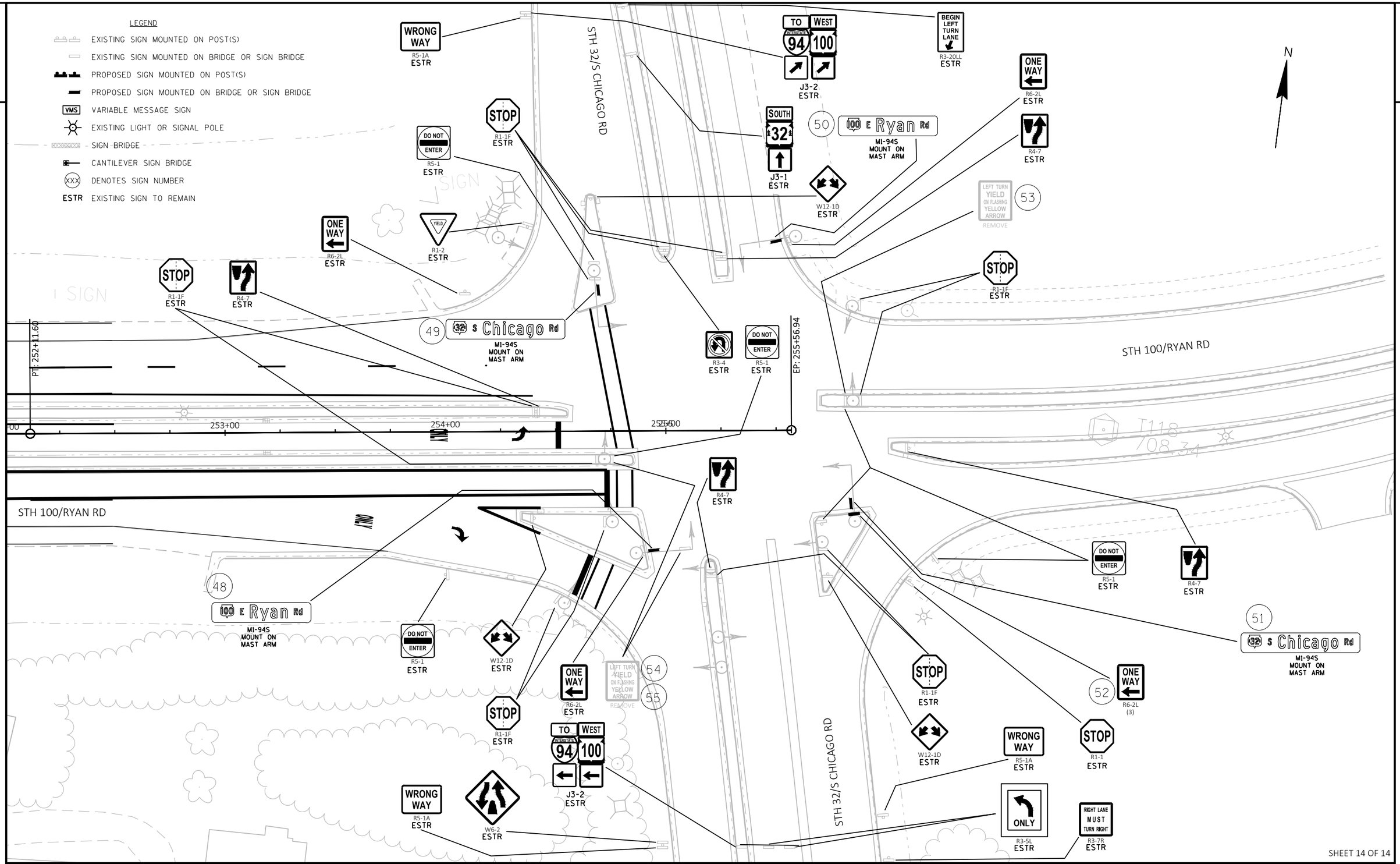
PLOT DATE : 12/9/2021 1:20 PM PLOT BY : ASHENFELTER, DANIEL PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

2

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- VMS VARIABLE MESSAGE SIGN
- EXISTING LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- (XXX) DENOTES SIGN NUMBER
- ESTR EXISTING SIGN TO REMAIN



SHEET 14 OF 14

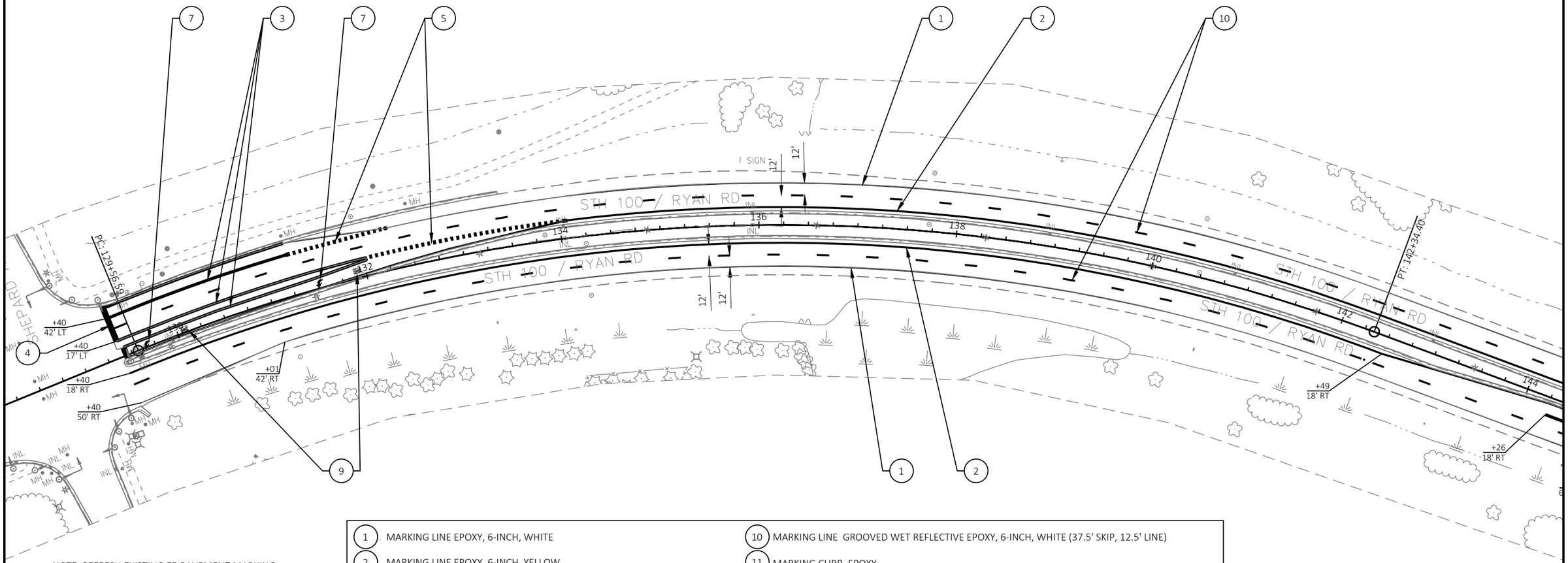
PROJECT NO: 2040-03-75	HWY: STH 100	COUNTY: MILWAUKEE	PERMANENT SIGNING PLAN	SHEET 38	E

FILE NAME : N:\PDS\C3D\CAD\20400305\SIGN\023201_PS_20.DWG
LAYOUT NAME - 023214_PS

PLOT DATE : 12/9/2021 1:20 PM PLOT BY : ASHENFELTER, DANIEL PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

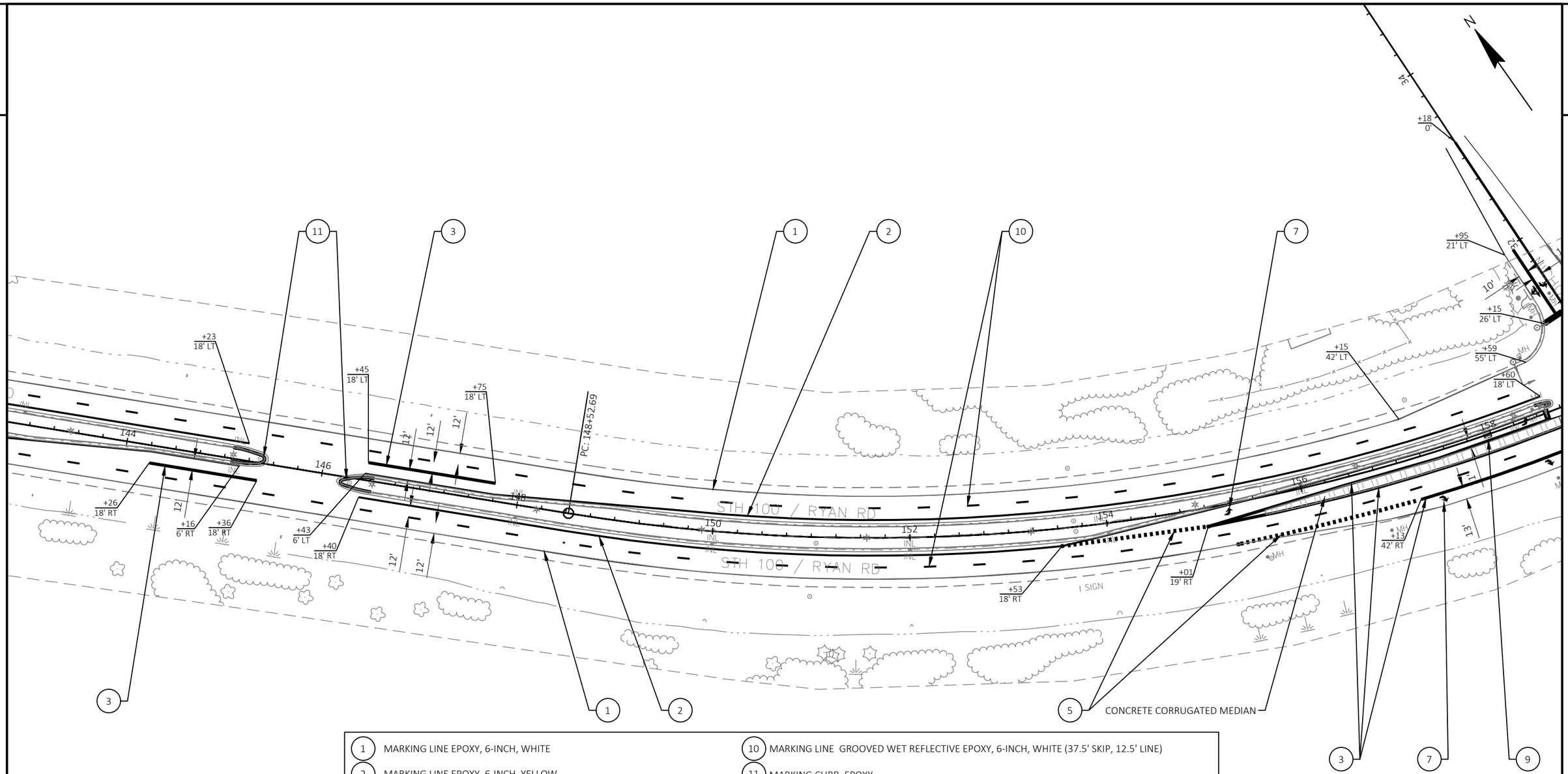
NOTE: REFRESH EXISTING WB PAVEMENT MARKING FROM SHEPARD AVE INTERSECTION (STA 129+40) TO PAVING LIMITS (STA 133+75)



NOTE: REFRESH EXISTING EB PAVEMENT MARKING FROM SHEPARD AVE INTERSECTION (STA 129+40) TO PAVING LIMITS (STA 131+00)

1	MARKING LINE EPOXY, 6-INCH, WHITE
2	MARKING LINE EPOXY, 6-INCH, YELLOW
3	MARKING LINE GROOVED WET REFLECTIVE EPOXY, 10-INCH, WHITE
4	MARKING STOP LINE EPOXY, 18-INCH, WHITE
5	MARKING LINE GROOVED WET REFLECTIVE EPOXY, 10-INCH, WHITE (9' SKIPS, 3' LINE)
6	MARKING ARROW EPOXY, TYPE 1
7	MARKING ARROW EPOXY, TYPE 2
8	MARKING ARROW EPOXY, TYPE 3
9	MARKING WORD EPOXY
10	MARKING LINE GROOVED WET REFLECTIVE EPOXY, 6-INCH, WHITE (37.5' SKIP, 12.5' LINE)
11	MARKING CURB, EPOXY
12	MARKING LINE EPOXY, 6-INCH, DOUBLE YELLOW
13	MARKING LINE CONTRAST EPOXY, 6-INCH, WHITE (37.5' SKIPS, 12.5' LINE)
14	MARKING LINE EPOXY, 10-INCH, WHITE

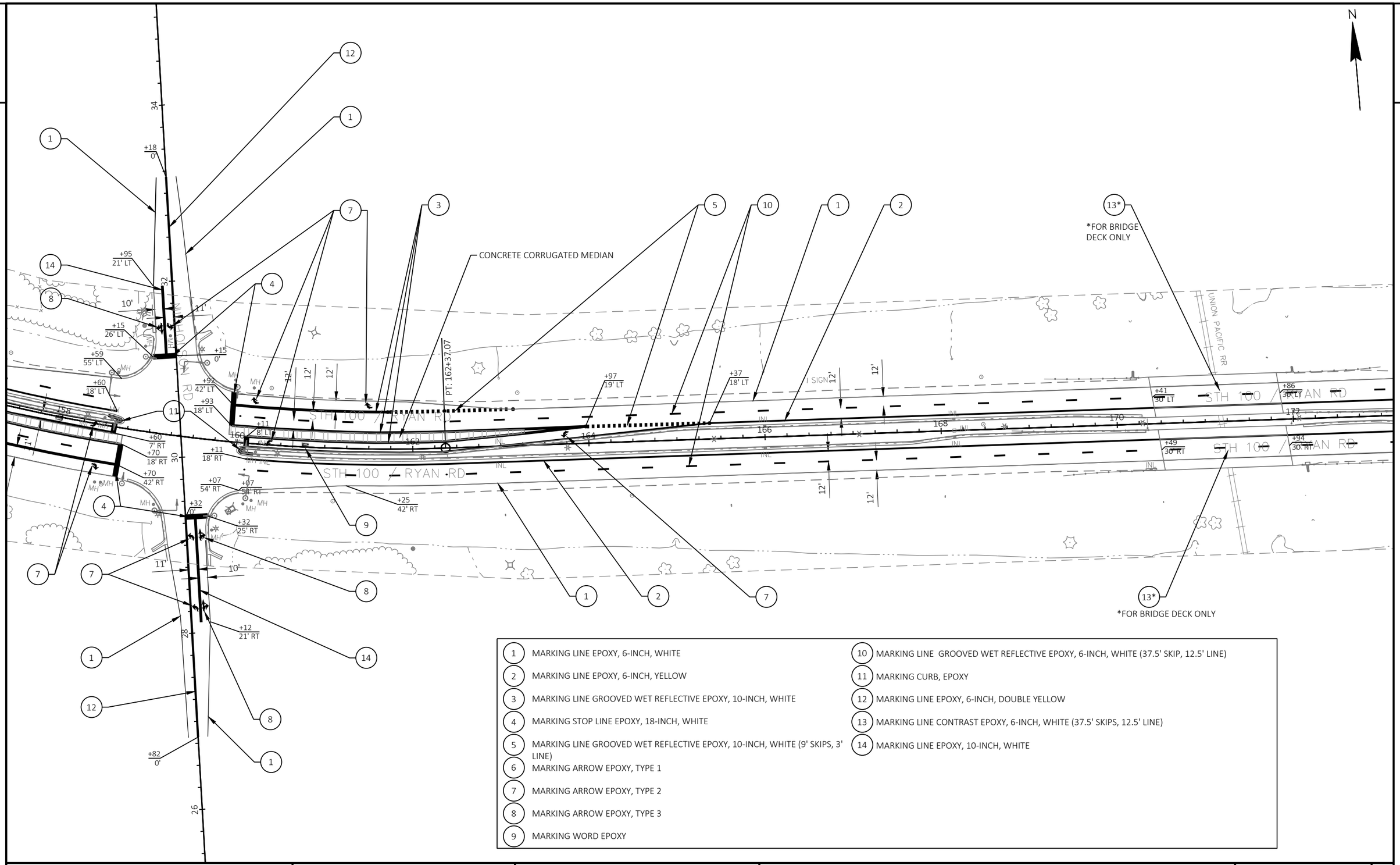
2



1	MARKING LINE EPOXY, 6-INCH, WHITE
2	MARKING LINE EPOXY, 6-INCH, YELLOW
3	MARKING LINE GROOVED WET REFLECTIVE EPOXY, 10-INCH, WHITE
4	MARKING STOP LINE EPOXY, 18-INCH, WHITE
5	MARKING LINE GROOVED WET REFLECTIVE EPOXY, 10-INCH, WHITE (9' SKIPS, 3' LINE)
6	MARKING ARROW EPOXY, TYPE 1
7	MARKING ARROW EPOXY, TYPE 2
8	MARKING ARROW EPOXY, TYPE 3
9	MARKING WORD EPOXY
10	MARKING LINE GROOVED WET REFLECTIVE EPOXY, 6-INCH, WHITE (37.5' SKIP, 12.5' LINE)
11	MARKING CURB, EPOXY
12	MARKING LINE EPOXY, 6-INCH, DOUBLE YELLOW
13	MARKING LINE CONTRAST EPOXY, 6-INCH, WHITE (37.5' SKIPS, 12.5' LINE)
14	MARKING LINE EPOXY, 10-INCH, WHITE

PROJECT NO: 2040-03-75	HWY: STH 100	COUNTY: MILWAUKEE	PAVEMENT MARKING	SHEET 40	E

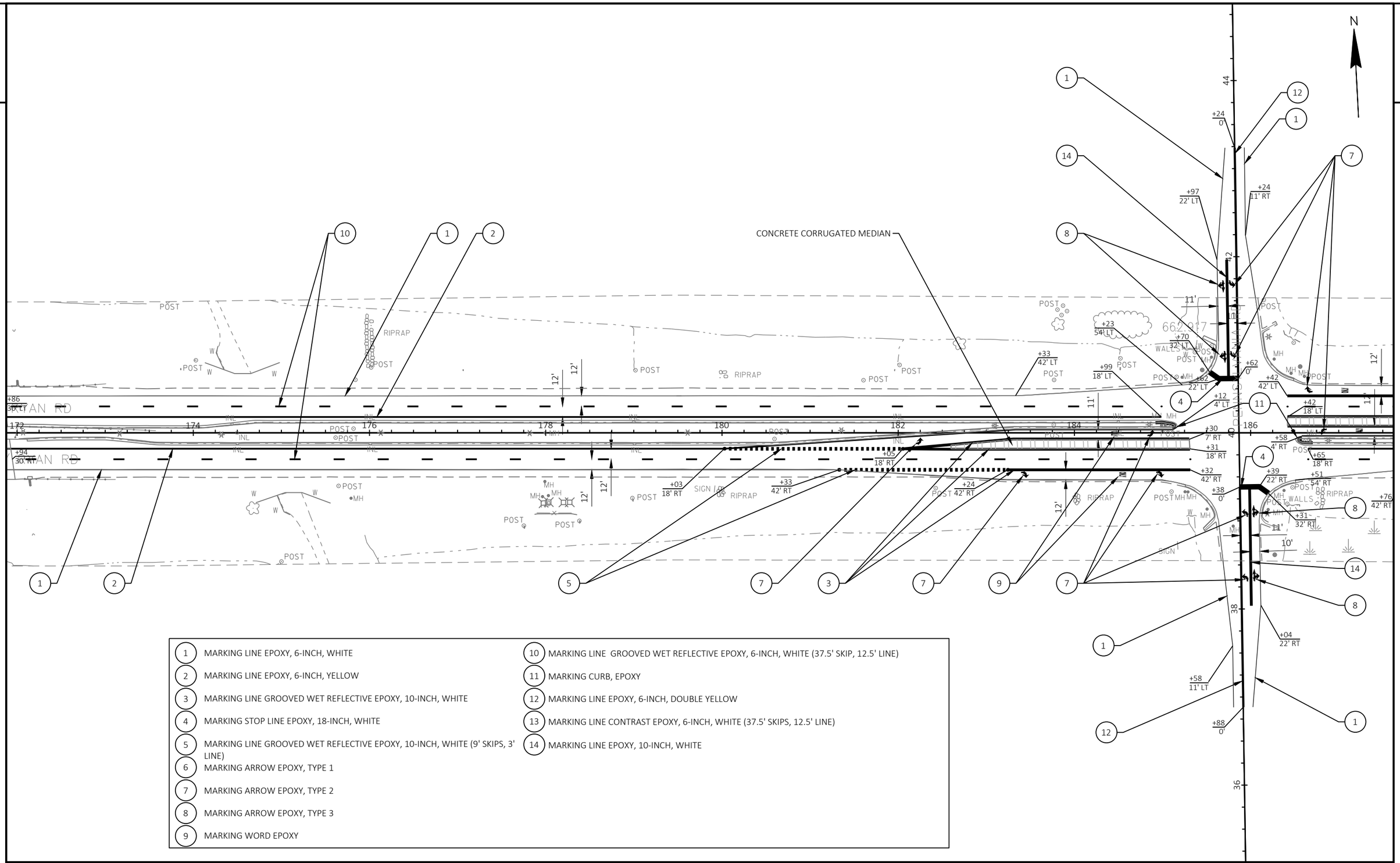
FILE NAME : N:\PDS\C3D\20400305\SHEETSPLAN\024501-PM_1-100.DWG
LAYOUT NAME - 02
PLOT DATE : 8/17/2023 1:48 PM
PLOT BY : STARK, GARY W
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 42



1	MARKING LINE EPOXY, 6-INCH, WHITE
2	MARKING LINE EPOXY, 6-INCH, YELLOW
3	MARKING LINE GROOVED WET REFLECTIVE EPOXY, 10-INCH, WHITE
4	MARKING STOP LINE EPOXY, 18-INCH, WHITE
5	MARKING LINE GROOVED WET REFLECTIVE EPOXY, 10-INCH, WHITE (9' SKIPS, 3' LINE)
6	MARKING ARROW EPOXY, TYPE 1
7	MARKING ARROW EPOXY, TYPE 2
8	MARKING ARROW EPOXY, TYPE 3
9	MARKING WORD EPOXY
10	MARKING LINE GROOVED WET REFLECTIVE EPOXY, 6-INCH, WHITE (37.5' SKIP, 12.5' LINE)
11	MARKING CURB, EPOXY
12	MARKING LINE EPOXY, 6-INCH, DOUBLE YELLOW
13	MARKING LINE CONTRAST EPOXY, 6-INCH, WHITE (37.5' SKIPS, 12.5' LINE)
14	MARKING LINE EPOXY, 10-INCH, WHITE

PROJECT NO: 2040-03-75	HWY: STH 100	COUNTY: MILWAUKEE	PAVEMENT MARKING	SHEET 41 E

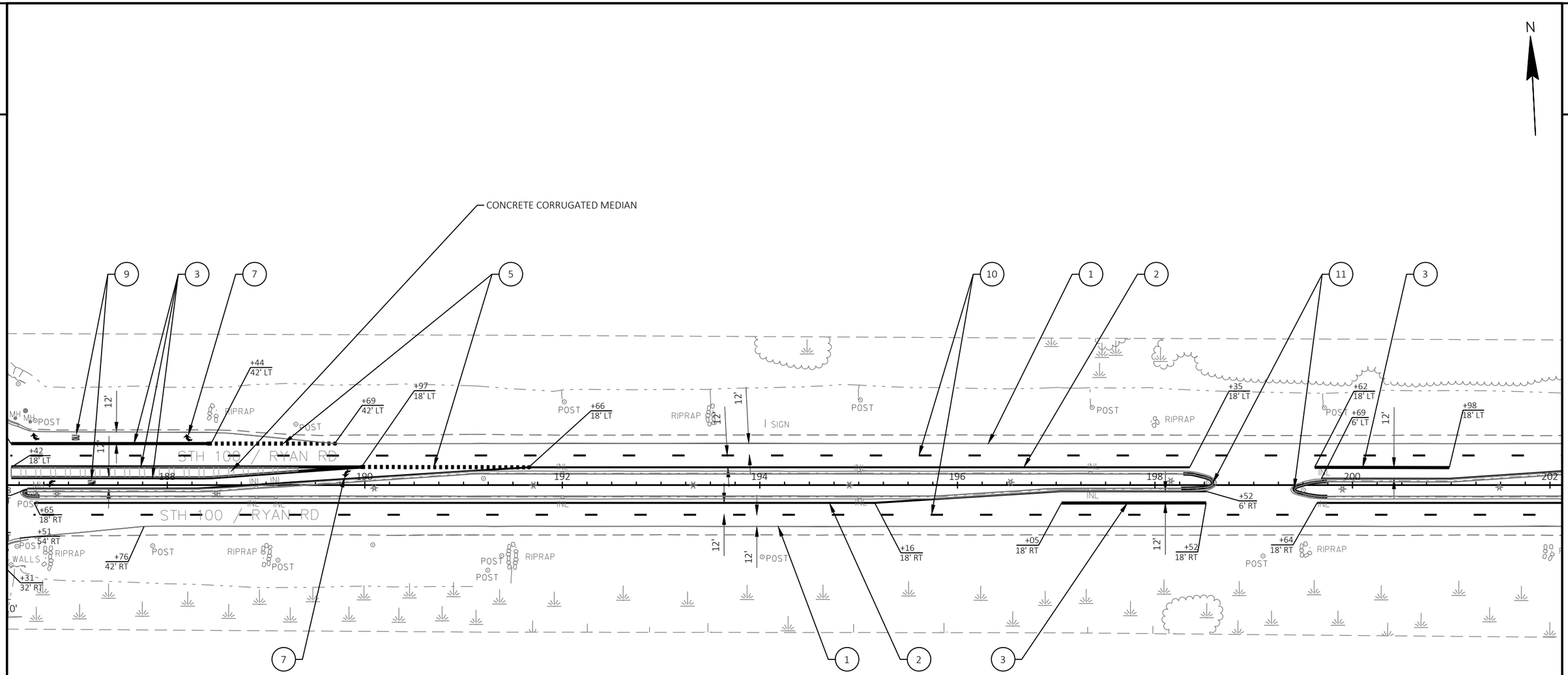
2



1	MARKING LINE EPOXY, 6-INCH, WHITE
2	MARKING LINE EPOXY, 6-INCH, YELLOW
3	MARKING LINE GROOVED WET REFLECTIVE EPOXY, 10-INCH, WHITE
4	MARKING STOP LINE EPOXY, 18-INCH, WHITE
5	MARKING LINE GROOVED WET REFLECTIVE EPOXY, 10-INCH, WHITE (9' SKIPS, 3' LINE)
6	MARKING ARROW EPOXY, TYPE 1
7	MARKING ARROW EPOXY, TYPE 2
8	MARKING ARROW EPOXY, TYPE 3
9	MARKING WORD EPOXY
10	MARKING LINE GROOVED WET REFLECTIVE EPOXY, 6-INCH, WHITE (37.5' SKIP, 12.5' LINE)
11	MARKING CURB, EPOXY
12	MARKING LINE EPOXY, 6-INCH, DOUBLE YELLOW
13	MARKING LINE CONTRAST EPOXY, 6-INCH, WHITE (37.5' SKIPS, 12.5' LINE)
14	MARKING LINE EPOXY, 10-INCH, WHITE

PROJECT NO: 2040-03-75	HWY: STH 100	COUNTY: MILWAUKEE	PAVEMENT MARKING	SHEET 42 E

2



1	MARKING LINE EPOXY, 6-INCH, WHITE
2	MARKING LINE EPOXY, 6-INCH, YELLOW
3	MARKING LINE GROOVED WET REFLECTIVE EPOXY, 10-INCH, WHITE
4	MARKING STOP LINE EPOXY, 18-INCH, WHITE
5	MARKING LINE GROOVED WET REFLECTIVE EPOXY, 10-INCH, WHITE (9' SKIPS, 3' LINE)
6	MARKING ARROW EPOXY, TYPE 1
7	MARKING ARROW EPOXY, TYPE 2
8	MARKING ARROW EPOXY, TYPE 3
9	MARKING WORD EPOXY
10	MARKING LINE GROOVED WET REFLECTIVE EPOXY, 6-INCH, WHITE (37.5' SKIP, 12.5' LINE)
11	MARKING CURB, EPOXY
12	MARKING LINE EPOXY, 6-INCH, DOUBLE YELLOW
13	MARKING LINE CONTRAST EPOXY, 6-INCH, WHITE (37.5' SKIPS, 12.5' LINE)
14	MARKING LINE EPOXY, 10-INCH, WHITE

PROJECT NO: 2040-03-75	HWY: STH 100	COUNTY: MILWAUKEE	PAVEMENT MARKING	SHEET 43 E

FILE NAME : N:\PDS\C3D\20400305\SHEETSPLAN\024501-PM_1-100.DWG
LAYOUT NAME - 05

PLOT DATE : 8/17/2023 1:48 PM PLOT BY : STARK, GARY W PLOT NAME : PLOT SCALE : 1 IN:100 FT

2

N

STH 100 / RYAN RD

CONCRETE CORRUGATED MEDIAN

RIPRAP

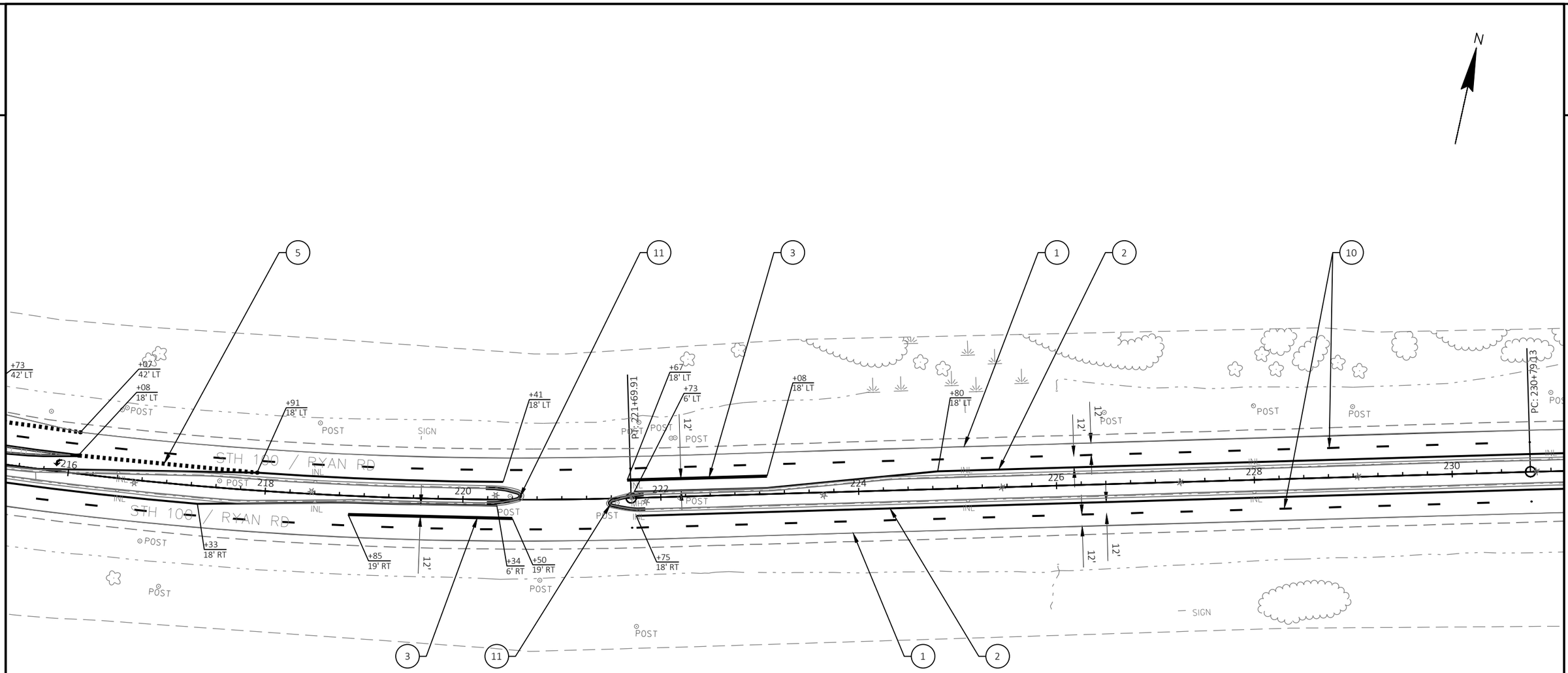
1	MARKING LINE EPOXY, 6-INCH, WHITE
2	MARKING LINE EPOXY, 6-INCH, YELLOW
3	MARKING LINE GROOVED WET REFLECTIVE EPOXY, 10-INCH, WHITE
4	MARKING STOP LINE EPOXY, 18-INCH, WHITE
5	MARKING LINE GROOVED WET REFLECTIVE EPOXY, 10-INCH, WHITE (9' SKIPS, 3' LINE)
6	MARKING ARROW EPOXY, TYPE 1
7	MARKING ARROW EPOXY, TYPE 2
8	MARKING ARROW EPOXY, TYPE 3
9	MARKING WORD EPOXY
10	MARKING LINE GROOVED WET REFLECTIVE EPOXY, 6-INCH, WHITE (37.5' SKIP, 12.5' LINE)
11	MARKING CURB, EPOXY
12	MARKING LINE EPOXY, 6-INCH, DOUBLE YELLOW
13	MARKING LINE CONTRAST EPOXY, 6-INCH, WHITE (37.5' SKIPS, 12.5' LINE)
14	MARKING LINE EPOXY, 10-INCH, WHITE

PROJECT NO: 2040-03-75	HWY: STH 100	COUNTY: MILWAUKEE	PAVEMENT MARKING	SHEET 44 E

FILE NAME : N:\PDS\C3D\20400305\SHEETSPLAN\024501-PM_1-100.DWG
LAYOUT NAME - 06

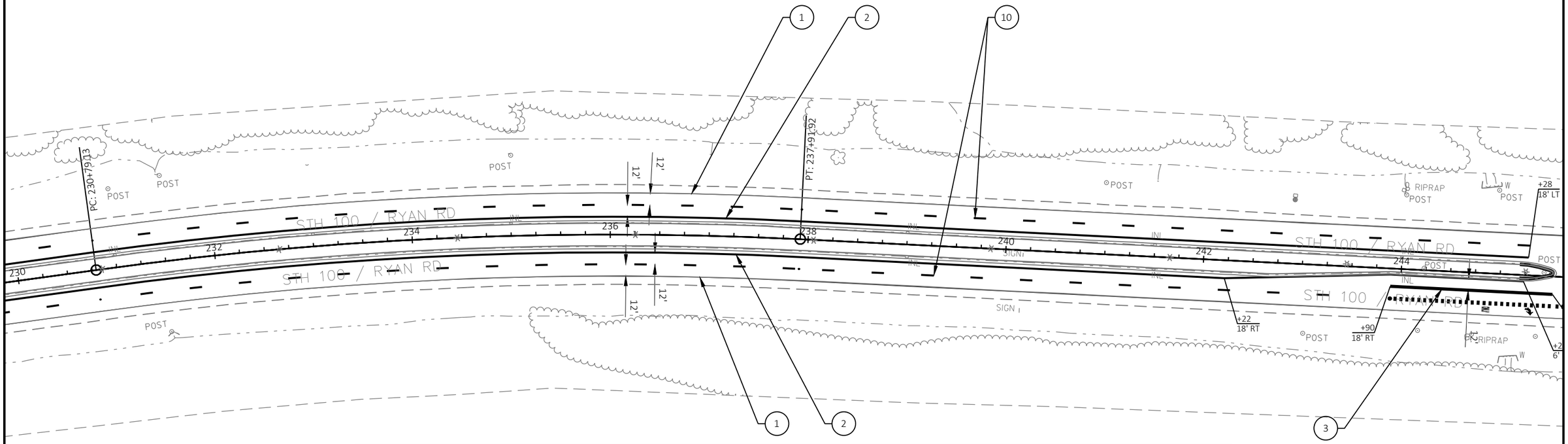
PLOT DATE : 8/17/2023 1:48 PM PLOT BY : STARK, GARY W PLOT NAME : PLOT SCALE : 1 IN:100 FT

2



1	MARKING LINE EPOXY, 6-INCH, WHITE
2	MARKING LINE EPOXY, 6-INCH, YELLOW
3	MARKING LINE GROOVED WET REFLECTIVE EPOXY, 10-INCH, WHITE
4	MARKING STOP LINE EPOXY, 18-INCH, WHITE
5	MARKING LINE GROOVED WET REFLECTIVE EPOXY, 10-INCH, WHITE (9' SKIPS, 3' LINE)
6	MARKING ARROW EPOXY, TYPE 1
7	MARKING ARROW EPOXY, TYPE 2
8	MARKING ARROW EPOXY, TYPE 3
9	MARKING WORD EPOXY
10	MARKING LINE GROOVED WET REFLECTIVE EPOXY, 6-INCH, WHITE (37.5' SKIP, 12.5' LINE)
11	MARKING CURB, EPOXY
12	MARKING LINE EPOXY, 6-INCH, DOUBLE YELLOW
13	MARKING LINE CONTRAST EPOXY, 6-INCH, WHITE (37.5' SKIPS, 12.5' LINE)
14	MARKING LINE EPOXY, 10-INCH, WHITE

2



1	MARKING LINE EPOXY, 6-INCH, WHITE
2	MARKING LINE EPOXY, 6-INCH, YELLOW
3	MARKING LINE GROOVED WET REFLECTIVE EPOXY, 10-INCH, WHITE
4	MARKING STOP LINE EPOXY, 18-INCH, WHITE
5	MARKING LINE GROOVED WET REFLECTIVE EPOXY, 10-INCH, WHITE (9' SKIPS, 3' LINE)
6	MARKING ARROW EPOXY, TYPE 1
7	MARKING ARROW EPOXY, TYPE 2
8	MARKING ARROW EPOXY, TYPE 3
9	MARKING WORD EPOXY
10	MARKING LINE GROOVED WET REFLECTIVE EPOXY, 6-INCH, WHITE (37.5' SKIP, 12.5' LINE)
11	MARKING CURB, EPOXY
12	MARKING LINE EPOXY, 6-INCH, DOUBLE YELLOW
13	MARKING LINE CONTRAST EPOXY, 6-INCH, WHITE (37.5' SKIPS, 12.5' LINE)
14	MARKING LINE EPOXY, 10-INCH, WHITE

PROJECT NO: 2040-03-75	HWY: STH 100	COUNTY: MILWAUKEE	PAVEMENT MARKING	SHEET 46 E

NOTE: REFRESH EXISTING WB PAVEMENT MARKING FROM PAVING LIMITS (STA 249+30) TO WIS 32 INTERSECTION (STA 255+00)

NOTE: REFRESH EXISTING EB PAVEMENT MARKING FROM PAVING LIMITS (STA 248+00) TO WIS 32 INTERSECTION (STA 255+00)

1	MARKING LINE EPOXY, 6-INCH, WHITE	10	MARKING LINE GROOVED WET REFLECTIVE EPOXY, 6-INCH, WHITE (37.5' SKIP, 12.5' LINE)
2	MARKING LINE EPOXY, 6-INCH, YELLOW	11	MARKING CURB, EPOXY
3	MARKING LINE GROOVED WET REFLECTIVE EPOXY, 10-INCH, WHITE	12	MARKING LINE EPOXY, 6-INCH, DOUBLE YELLOW
4	MARKING STOP LINE EPOXY, 18-INCH, WHITE	13	MARKING LINE CONTRAST EPOXY, 6-INCH, WHITE (37.5' SKIPS, 12.5' LINE)
5	MARKING LINE GROOVED WET REFLECTIVE EPOXY, 10-INCH, WHITE (9' SKIPS, 3' LINE)	14	MARKING LINE EPOXY, 10-INCH, WHITE
6	MARKING ARROW EPOXY, TYPE 1	15	MARKING DIAGONAL EPOXY, 12-INCH, WHITE
7	MARKING ARROW EPOXY, TYPE 2	16	MARKING CROSSWALK EPOXY TRANSVERSE LINE 6-INCH
8	MARKING ARROW EPOXY, TYPE 3	17	MARKING ISLAND NOSE, EPOXY
9	MARKING WORD EPOXY		

PROJECT NO: 2040-03-75	HWY: STH 100	COUNTY: MILWAUKEE	PAVEMENT MARKING	SHEET 47 E

FILE NAME : N:\PDS\C3D\20400305\SHEETSPLAN\024501-PM_1-100.DWG
LAYOUT NAME - 09

PLOT DATE : 8/17/2023 1:48 PM PLOT BY : STARK, GARY W PLOT NAME : PLOT SCALE : 1 IN:100 FT

2

2

1 TEMPORARY MARKING LINE REMOVABLE TAPE, 6-INCH, WHITE

2 TEMPORARY MARKING LINE REMOVABLE TAPE, 6-INCH, YELLOW

3 REMOVE PAVEMENT MARKING

NOTES:
- DRUM SPACING IS 25' UNLESS NOTED
- TRAFFIC CONTROL SHEETS ARE SUPPLEMENTAL TO SDD'S TRAFFIC CONTROL, SINGLE LANE CLOSURE, DIVIDED NON-FREEWAY/EXPRESSWAY; TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE LEFT LANE CLOSURE; AND TRAFFIC CONTROL, FULL LANE SHIFT, NON-FREEWAY/EXPRESSWAY OR MULTILANE DIVIDED 45 MPH AND UNDER; AS WELL AS PLAN DETOUR AND PLAN SIDE ROAD CLOSURE SHEETS.
- FIELD FIT SIGNS AS NEEDED AND AS ENGINEER DIRECTS

N

EAST 100 MB3-2 or MK3-2 or MN3-2 24"X12" M1-6 24"X24"

ROAD WORK AHEAD W20-1A 48"X48"

500'

PI: 102+06.63

STH 100/RYAN RD

102+00 103+00 104+00 105+00 106+00 107+00 108+00 109+00

500'

STH 100/RYAN RD

ROAD WORK AHEAD W20-1A 48"X48"

LEFT LANE CLOSED AHEAD W20-5A 48"X48"

STH 38/HOWELL AVE

500'

EAST 100 MB3-2 or MK3-2 or MN3-2 24"X12" M1-6 24"X24"

ROAD WORK AHEAD W20-1A 48"X48"

W4-2L 48"X48"

200' TAPER

FOLLOW SDD 15D27 "TRAFFIC CONTROL, SHOULDER CLOSURE ON DIVIDED ROADWAY, SPEEDS GREATER THAN 40 M.P.H." FOR PROPER SIGNAGE

TRAFFIC CONTROL SHEET 1 OF 11

LEGEND

- TYPE III BARRICADE WITH TWO TYPE "A" LIGHTS
- TYPE III BARRICADE W/ ATTACHED SIGN & 2 TYPE "A" LIGHTS
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- TRAFFIC CONTROL CONE 42-INCH
- DIRECTION OF TRAFFIC
- MB PORTABLE CHANGEABLE MESSAGE BOARD
- FLAGS, 16" X 16" MIN., ORANGE

PROJECT NO: 2040-03-75	HWY: STH 100	COUNTY: MILWAUKEE	TRAFFIC CONTROL - FULL CLOSURE	SHEET 48	E

FILE NAME : N:\PDS\C3D\20400305\SHEETSPLAN\025100-TC_EB-WBCLOSURE.DWG
LAYOUT NAME - 01
PLOT DATE : 10/31/2023 2:38 PM PLOT BY : BELLIN, ROBERT A PLOT NAME : PLOT SCALE : 1 IN:50 FT
WISDOT/CADDS SHEET 42

2

1 TEMPORARY MARKING LINE REMOVABLE TAPE, 6-INCH, WHITE

2 TEMPORARY MARKING LINE REMOVABLE TAPE, 6-INCH, YELLOW

3 REMOVE PAVEMENT MARKING

NOTES:
- DRUM SPACING IS 25' UNLESS NOTED
- TRAFFIC CONTROL SHEETS ARE SUPPLEMENTAL TO SDD'S TRAFFIC CONTROL, SINGLE LANE CLOSURE, DIVIDED NON-FREEWAY/EXPRESSWAY; TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE LEFT LANE CLOSURE; AND TRAFFIC CONTROL, FULL LANE SHIFT, NON-FREEWAY/EXPRESSWAY OR MULTILANE DIVIDED 45 MPH AND UNDER; AS WELL AS PLAN DETOUR AND PLAN SIDE ROAD CLOSURE SHEETS.
- FIELD FIT SIGNS AS NEEDED AND AS ENGINEER DIRECTS

N

R11-2L
48" X 30"
LANE CLOSED
TYPE III BARRICADE

PI: 109+93.17

10+00 111+00 112+00 113+00 114+00 115+00 116+00 117

540' TAPER

3

2

48"X48"

TRAFFIC CONTROL SHEET 2 OF 11

LEGEND

- TYPE III BARRICADE WITH TWO TYPE "A" LIGHTS
- TYPE III BARRICADE W/ ATTACHED SIGN & 2 TYPE "A" LIGHTS
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- TRAFFIC CONTROL CONE 42-INCH
- DIRECTION OF TRAFFIC
- MB PORTABLE CHANGEABLE MESSAGE BOARD
- FLAGS, 16" X 16" MIN., ORANGE

PROJECT NO: 2040-03-75	HWY: STH 100	COUNTY: MILWAUKEE	TRAFFIC CONTROL - FULL CLOSURE	SHEET 49	E

FILE NAME : N:\PDS\C3D\20400305\SHEETSPLAN\025100-TC_EB-WBCLOSURE.DWG
LAYOUT NAME - 02

PLOT DATE : 10/31/2023 2:50 PM PLOT BY : BELLIN, ROBERT A PLOT NAME : PLOT SCALE : 1 IN:50 FT

2

2

NOTES:
- DRUM SPACING IS 25' UNLESS NOTED
- TRAFFIC CONTROL SHEETS ARE SUPPLEMENTAL TO SDD'S TRAFFIC CONTROL, SINGLE LANE CLOSURE, DIVIDED NON-FREEWAY/EXPRESSWAY; TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE LEFT LANE CLOSURE; AND TRAFFIC CONTROL, FULL LANE SHIFT, NON-FREEWAY/EXPRESSWAY OR MULTILANE DIVIDED 45 MPH AND UNDER; AS WELL AS PLAN DETOUR AND PLAN SIDE ROAD CLOSURE SHEETS.
- FIELD FIT SIGNS AS NEEDED AND AS ENGINEER DIRECTS

1. TEMPORARY MARKING LINE REMOVABLE TAPE, 6-INCH, WHITE
2. TEMPORARY MARKING LINE REMOVABLE TAPE, 6-INCH, YELLOW
3. REMOVE PAVEMENT MARKING

N

R11-2L
48" X 30"
LANE CLOSED
TYPE III BARRICADE

WO1-6
48" X 24"
TYPE III BARRICADE

BEGIN LEFT TURN LANE
R3-20L
24"X36"

BEGIN LEFT TURN LANE
R3-20L
24"X36"

15' DRUM SPACE

117+00 118+00 119+00 120+00 121+00 122+00 123+00 124+00

100' TAPER

W1-4R
48"X48"

WO12-1D
48"X48"

TRAFFIC CONTROL SHEET 3 OF 11

LEGEND

- TYPE III BARRICADE WITH TWO TYPE "A" LIGHTS
- TYPE III BARRICADE W/ ATTACHED SIGN & 2 TYPE "A" LIGHTS
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- TRAFFIC CONTROL CONE 42-INCH
- DIRECTION OF TRAFFIC
- MB PORTABLE CHANGEABLE MESSAGE BOARD
- FLAGS, 16" X 16" MIN., ORANGE

PROJECT NO: 2040-03-75	HWY: STH 100	COUNTY: MILWAUKEE	TRAFFIC CONTROL - FULL CLOSURE	SHEET 50	E

FILE NAME : N:\PDS\C3D\20400305\SHEETSPLAN\025100-TC_EB-WBCLOSURE.DWG
LAYOUT NAME - 03

PLOT DATE : 10/31/2023 2:51 PM PLOT BY : BELLIN, ROBERT A PLOT NAME : PLOT SCALE : 1 IN:50 FT

WISDOT/CADDS SHEET 42

2

LEGEND

- TYPE III BARRICADE WITH TWO TYPE "A" LIGHTS
- TYPE III BARRICADE W/ ATTACHED SIGN & 2 TYPE "A" LIGHTS
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- TRAFFIC CONTROL CONE 42-INCH
- DIRECTION OF TRAFFIC
- MB — PORTABLE CHANGEABLE MESSAGE BOARD
- FLAGS, 16" X 16" MIN., ORANGE

1. TEMPORARY MARKING LINE REMOVABLE TAPE, 6-INCH, WHITE
2. TEMPORARY MARKING LINE REMOVABLE TAPE, 6-INCH, YELLOW
3. REMOVE PAVEMENT MARKING

N

ROAD WORK AHEAD
W20-1A
48"X48"

200'

END ROAD WORK
G20-2A
48"X24"

ONLY
COVER

R3-6R
42"X48"

NOTE: LANE DESIGNATION SIGN LOCATED NORTH OF DRIVEWAY AT LANE TAPER

R3-2
24"X24"

R11-2
48" X 30"
ROAD CLOSED
TYPE III BARRICADE

BEGIN PROJECT
STA 131+00

WO1-6
48" X 24"
TYPE III BARRICADE

PC: 129+56.59

STH 100/RYAN RD

150' TAPER

WO12-1D
30"X30"

124+00 125+00 126+00 127+00 128+00 129+00 130+00 131+00

270' TAPER

BEGIN RIGHT TURN LANE
R3-20R
24"X36"

R11-2L
48" X 30"
LANE CLOSED
TYPE III BARRICADE

R3-1
24"X24"

SHEPARD AVE

R11-2
48" X 30"
ROAD CLOSED
TYPE III BARRICADE

STH 100/RYAN RD
XXXXXX

MB

ROAD WORK AHEAD
W20-1A
48"X48"

END ROAD WORK
G20-2A
48"X24"

200'

ONLY ONLY
R3-8xx
36"X30"

ONLY
COVER

NOTE: LANE DESIGNATION SIGN LOCATED AT TAPER BEGIN POINT

USE FOLLOWING PCMS TEXT

FRAME 1: ROAD
TO
CLOSE

FRAME 2: XXXDAY (DAY OF WEEK)
XX/XX (MONTH/DAY)

*DEPLOY 7 DAYS PRIOR TO LANE CLOSURES. DO NOT NEED TO RE-DEPLOY IF CLOSURE IS CONTINUOUS FROM PROJECT ID 2040-20-70.

TRAFFIC CONTROL SHEET 4 OF 11

NOTES:

- DRUM SPACING IS 25' UNLESS NOTED
- TRAFFIC CONTROL SHEETS ARE SUPPLEMENTAL TO SDD'S TRAFFIC CONTROL, SINGLE LANE CLOSURE, DIVIDED NON-FREEWAY/EXPRESSWAY; TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE LEFT LANE CLOSURE; AND TRAFFIC CONTROL, FULL LANE SHIFT, NON-FREEWAY/EXPRESSWAY OR MULTILANE DIVIDED 45 MPH AND UNDER; AS WELL AS PLAN DETOUR AND PLAN SIDE ROAD CLOSURE SHEETS.
- FIELD FIT SIGNS AS NEEDED AND AS ENGINEER DIRECTS

PROJECT NO: 2040-03-75	HWY: STH 100	COUNTY: MILWAUKEE	TRAFFIC CONTROL - FULL CLOSURE	SHEET 51	E

2

N

NOTE: PLACE SIGNS ACROSS FROM EACH OTHER

END ROAD WORK
G20-2A
48"X24"

ROAD WORK AHEAD
W20-1A
48"X48"

R3-5A
42"X48"
ONLY

R11-2
48" X 30"
ROAD CLOSED
TYPE III BARRICADE

R11-2L
48" X 30"
LANE CLOSED
TYPE III BARRICADE

200'

NICHOLSON RD

STH 100/RYAN RD

161+00
160+00
159+00
158+00
157+00
34+00
33+00
32+00
31+00
30+00
29+00
28+00
27+00

TRAFFIC CONTROL SHEET 5 OF 11

LEGEND

- TYPE III BARRICADE WITH TWO TYPE "A" LIGHTS
- TYPE III BARRICADE W/ ATTACHED SIGN & 2 TYPE "A" LIGHTS
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- TRAFFIC CONTROL CONE 42-INCH
- DIRECTION OF TRAFFIC
- MB — PORTABLE CHANGEABLE MESSAGE BOARD
- FLAGS, 16" X 16" MIN., ORANGE

NOTES:
- DRUM SPACING IS 25' UNLESS NOTED
- TRAFFIC CONTROL SHEETS ARE SUPPLEMENTAL TO SDD'S, PLAN DETOUR, AND PLAN SIDE ROAD CLOSURE SHEETS.
- FIELD FIT SIGNS AS NEEDED AND AS ENGINEER DIRECTS

PROJECT NO: 2040-03-75	HWY: STH 100	COUNTY: MILWAUKEE	TRAFFIC CONTROL - FULL CLOSURE - S. NICHOLSON RD INTERSECTION	SHEET 52	E

FILE NAME : N:\PDS\C3D\20400305\SHEETSPLAN\025100-TC_EB-WBCLOSURE.DWG
LAYOUT NAME - 08
PLOT DATE : 10/31/2023 2:52 PM
PLOT BY : BELLIN, ROBERT A
PLOT NAME :
PLOT SCALE : 1 IN:50 FT
WISDOT/CADDS SHEET 42

2

2

N

NOTE: PLACE SIGNS ACROSS FROM EACH OTHER

END ROAD WORK
G20-2A
48"X24"

ROAD WORK AHEAD
W20-1A
48"X48"

ONLY
R3-5A
42"X48"

R11-2L
48" X 30"
LANE CLOSED
TYPE III BARRICADE

PENNSYLVANIA AVE

43+00 42+00 41+00 40+00 39+00 38+00 37+00

350'

188+00
187+00
186+00
185+00
184+00

STH 100/RYAN RD

R11-2L
48" X 30"
LANE CLOSED
TYPE III BARRICADE

350'

ONLY
R3-5A
42"X48"

R11-2
48" X 30"
ROAD CLOSED
TYPE III BARRICADE

ROAD WORK AHEAD
W20-1A
48"X48"

END ROAD WORK
G20-2A
48"X24"

NOTE: PLACE SIGNS ACROSS FROM EACH OTHER

TRAFFIC CONTROL SHEET 6 OF 11

LEGEND

- TYPE III BARRICADE WITH TWO TYPE "A" LIGHTS
- TYPE III BARRICADE W/ ATTACHED SIGN & 2 TYPE "A" LIGHTS
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- TRAFFIC CONTROL CONE 42-INCH
- DIRECTION OF TRAFFIC
- MB PORTABLE CHANGEABLE MESSAGE BOARD
- FLAGS, 16" X 16" MIN., ORANGE

NOTES:
- DRUM SPACING IS 25' UNLESS NOTED
- TRAFFIC CONTROL SHEETS ARE SUPPLEMENTAL TO SDD'S, PLAN DETOUR, AND PLAN SIDE ROAD CLOSURE SHEETS.
- FIELD FIT SIGNS AS NEEDED AND AS ENGINEER DIRECTS

PROJECT NO: 2040-03-75	HWY: STH 100	COUNTY: MILWAUKEE	TRAFFIC CONTROL - FULL CLOSURE - PENNSYLVANIA AVE. INTERSECTION	SHEET 53	E

FILE NAME : N:\PDS\C3D\20400305\SHEETSPLAN\025100-TC_EB-WBCLOSURE.DWG
LAYOUT NAME - 12
PLOT DATE : 10/31/2023 2:52 PM
PLOT BY : BELLIN, ROBERT A
PLOT NAME :
PLOT SCALE : 1 IN:50 FT
WISDOT/CADDS SHEET 42

2

2

N

STH 100/RYAN RD

214+00

213+00

212+00

211+00

210+00

R11-2L
48" X 30"
LANE CLOSED
TYPE III BARRICADE

ONLY
R3-5A
42"X48"

350'

15TH AVE

53+00

52+00

51+00

50+00

49+00

48+00

47+00

END ROAD WORK
G20-2A
48"X24"

ROAD WORK AHEAD
W20-1A
48"X48"

NOTE: PLACE SIGNS ACROSS FROM EACH OTHER

R11-2L
48" X 30"
LANE CLOSED
TYPE III BARRICADE

R11-2
48" X 30"
ROAD CLOSED
TYPE III BARRICADE

PC: 210+30.76

TRAFFIC CONTROL SHEET 7 OF 11

LEGEND

- TYPE III BARRICADE WITH TWO TYPE "A" LIGHTS
- TYPE III BARRICADE W/ ATTACHED SIGN & 2 TYPE "A" LIGHTS
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- TRAFFIC CONTROL CONE 42-INCH
- DIRECTION OF TRAFFIC
- MB PORTABLE CHANGEABLE MESSAGE BOARD
- FLAGS, 16" X 16" MIN., ORANGE

NOTES:
- DRUM SPACING IS 25' UNLESS NOTED
- TRAFFIC CONTROL SHEETS ARE SUPPLEMENTAL TO SDD'S, PLAN DETOUR, AND PLAN SIDE ROAD CLOSURE SHEETS.
- FIELD FIT SIGNS AS NEEDED AND AS ENGINEER DIRECTS

PROJECT NO: 2040-03-75	HWY: STH 100	COUNTY: MILWAUKEE	TRAFFIC CONTROL - FULL CLOSURE - 15TH AVE. INTERSECTION	SHEET 54	E

FILE NAME : N:\PDS\C3D\20400305\SHEETSPLAN\025100-TC_EB-WBCLOSURE.DWG
LAYOUT NAME - 15
PLOT DATE : 10/31/2023 2:53 PM PLOT BY : BELLIN, ROBERT A PLOT NAME : PLOT SCALE : 1 IN:50 FT
WISDOT/CADDS SHEET 42

NOTES:
- DRUM SPACING IS 25' UNLESS NOTED
- TRAFFIC CONTROL SHEETS ARE SUPPLEMENTAL TO SDD'S, PLAN DETOUR, AND PLAN SIDE ROAD CLOSURE SHEETS.
- FIELD FIT SIGNS AS NEEDED AND AS ENGINEER DIRECTS

N

ROAD WORK AHEAD
W20-1A
48" X48"

500'

END ROAD WORK
G20-2A
48"X24"

R11-2L
48" X 30"
LANE CLOSED
TYPE III BARRICADE

STH 32

350'

500'

E. RYAN RD.

SOUTH 32 USE LEFT LANE
WEST 100 USE RIGHT LANE
COVERING SIGN (DETOUR PLAN OVERRIDES)

TO 94 EAST
COVERING SIGN

ONLY
ONLY
COVERING SIGN

RIGHT LANE MUST TURN RIGHT
COVERING SIGN

TRAFFIC CONTROL SHEET 8 OF 11

LEGEND

- TYPE III BARRICADE WITH TWO TYPE "A" LIGHTS
- TYPE III BARRICADE W/ ATTACHED SIGN & 2 TYPE "A" LIGHTS
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- TRAFFIC CONTROL CONE 42-INCH
- DIRECTION OF TRAFFIC
- MB PORTABLE CHANGEABLE MESSAGE BOARD
- FLAGS, 16" X 16" MIN., ORANGE

PROJECT NO: 2040-03-75	HWY: STH 100	COUNTY: MILWAUKEE	TRAFFIC CONTROL - FULL CLOSURE - STH 32 AVE INTERSECTION	SHEET 55	E

FILE NAME : N:\PDS\C3D\20400305\SHEETSPLAN\025100-TC_EB-WBCLOSURE.DWG
LAYOUT NAME - STH 32 NORTH
PLOT DATE : 10/31/2023 2:53 PM PLOT BY : BELLIN, ROBERT A PLOT NAME : PLOT SCALE : 1 IN:50 FT

TRAFFIC CONTROL SHEET 9 OF 11

2

2

LEGEND

- TYPE III BARRICADE WITH TWO TYPE "A" LIGHTS
- TYPE III BARRICADE W/ ATTACHED SIGN & 2 TYPE "A" LIGHTS
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- TRAFFIC CONTROL CONE 42-INCH
- DIRECTION OF TRAFFIC
- MB — PORTABLE CHANGEABLE MESSAGE BOARD
- FLAGS, 16" X 16" MIN., ORANGE

NOTES:
- DRUM SPACING IS 25' UNLESS NOTED
- TRAFFIC CONTROL SHEETS ARE SUPPLEMENTAL TO SDD'S, PLAN DETOUR, AND PLAN SIDE ROAD CLOSURE SHEETS.
- FIELD FIT SIGNS AS NEEDED AND AS ENGINEER DIRECTS

N

NOTE: SEE TRAFFIC CONTROL - FULL CLOSURE - 5TH AVE FOR ADDITIONAL TRAFFIC CONTROL ON 5TH AVE

5TH AVE.

R11-2L 48" X 30" LANE CLOSED
TYPE III BARRICADE

EP: 255+56.94

STH 32

255+00

254+00

253+00

STH 100

STH 32

BEGIN LEFT TURN LANE
COVERING SIGN

COVERING SIGN
COVERING SIGN

TO WEST STH 100
COVERING SIGN

TO WEST STH 100
COVERING SIGN

R11-2L 48" X 30" LANE CLOSED
TYPE III BARRICADE

R11-2 48" X 30" ROAD CLOSED
TYPE III BARRICADE

USE FOLLOWING PCMS TEXT

FRAME 1: ROAD
TO
CLOSE

FRAME 2: XXXDAY (DAY OF WEEK)
XX/XX (MONTH/DAY)

*DEPLOY 7 DAYS PRIOR TO LANE CLOSURES

MB

PROJECT NO: 2040-03-75	HWY: STH 100	COUNTY: MILWAUKEE	TRAFFIC CONTROL - FULL CLOSURE - STH 32 INTERSECTION	SHEET 56	E

FILE NAME : N:\PDS\C3D\20400305\SHEETSPLAN\025100-TC_EB-WBCLOSURE.DWG
LAYOUT NAME - STH 32

PLOT DATE : 10/31/2023 2:54 PM PLOT BY : BELLIN, ROBERT A PLOT NAME : PLOT SCALE : 1 IN:50 FT

WISDOT/CADDS SHEET 42

2

2

1 TEMPORARY MARKING LINE REMOVABLE TAPE, 6-INCH, WHITE

2 TEMPORARY MARKING LINE REMOVABLE TAPE, 6-INCH, YELLOW

3 REMOVE PAVEMENT MARKING

NOTES:
- DRUM SPACING IS 25' UNLESS NOTED
- TRAFFIC CONTROL SHEETS ARE SUPPLEMENTAL TO SDD'S, PLAN DETOUR, AND PLAN SIDE ROAD CLOSURE SHEETS.
- FIELD FIT SIGNS AS NEEDED AND AS ENGINEER DIRECTS

N

R11-2L
48" X 30"
LANE CLOSED

TYPE III BARRICADE

TO WEST 94 100 NORTH 32

COVERING SIGN

ROAD WORK AHEAD
W20-1A
48"X48"

350'

STH 32

2

E. GARDEN PL.

TRAFFIC CONTROL SHEET 10 OF 11

LEGEND

- TYPE III BARRICADE WITH TWO TYPE "A" LIGHTS
- TYPE III BARRICADE W/ ATTACHED SIGN & 2 TYPE "A" LIGHTS
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- TRAFFIC CONTROL CONE 42-INCH
- DIRECTION OF TRAFFIC
- MB PORTABLE CHANGEABLE MESSAGE BOARD
- FLAGS, 16" X 16" MIN., ORANGE

PROJECT NO: 2040-03-75	HWY: STH 100	COUNTY: MILWAUKEE	TRAFFIC CONTROL - FULL CLOSURE - STH 32 AVE INTERSECTION	SHEET 57	E

FILE NAME : N:\PDS\C3D\20400305\SHEETSPLAN\025100-TC_EB-WBCLOSURE.DWG
LAYOUT NAME - STH 32 SOUTH

PLOT DATE : 10/31/2023 2:55 PM PLOT BY : BELLIN, ROBERT A PLOT NAME : PLOT SCALE : 1 IN:50 FT

2

NOTES:
- DRUM SPACING IS 25' UNLESS NOTED
- TRAFFIC CONTROL SHEETS ARE SUPPLEMENTAL TO SDD'S, PLAN DETOUR, AND PLAN SIDE ROAD CLOSURE SHEETS.
- FIELD FIT SIGNS AS NEEDED AND AS ENGINEER DIRECTS

N

R3-8xx
36"X30"

COVERING SIGN

R11-2L
48" X 30"

LANE CLOSED

TYPE III BARRICADE

200'

NOTE; SEE TRAFFIC CONTROL - FULL CLOSURE - STH 32 INTERSECTION FOR ADDITIONAL TRAFFIC CONTROL ON STH 32

ROAD WORK AHEAD

W20-1A
48"X48"

NOTE: DO NOT PLACE TRAFFIC CONTROL SIGNS WITHIN 50 FEET OF RAILROAD RIGHT OF WAY

WO12-1D
24"X24"

STH 32

EP: 255+56.94

5TH AVE

STH 100

254+00

255+00

TRAFFIC CONTROL SHEET 11 OF 11

LEGEND

- TYPE III BARRICADE WITH TWO TYPE "A" LIGHTS
- TYPE III BARRICADE W/ ATTACHED SIGN & 2 TYPE "A" LIGHTS
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- TRAFFIC CONTROL CONE 42-INCH
- DIRECTION OF TRAFFIC
- MB — PORTABLE CHANGEABLE MESSAGE BOARD
- FLAGS, 16" X 16" MIN., ORANGE

PROJECT NO: 2040-03-75	HWY: STH 100	COUNTY: MILWAUKEE	TRAFFIC CONTROL - FULL CLOSURE - 5TH AVE	SHEET 58	E

FILE NAME : N:\PDS\C3D\20400305\SHEETSPLAN\025100-TC_EB-WBCLOSURE.DWG
LAYOUT NAME - 5TH AVE
PLOT DATE : 10/31/2023 2:57 PM
PLOT BY : BELLIN, ROBERT A
PLOT NAME :
PLOT SCALE : 1 IN:50 FT
WISDOT/CADDS SHEET 42

NOTE: DO NOT PLACE TRAFFIC CONTROL SIGNS WITHIN 50 FEET OF RAILROAD RIGHT OF WAY

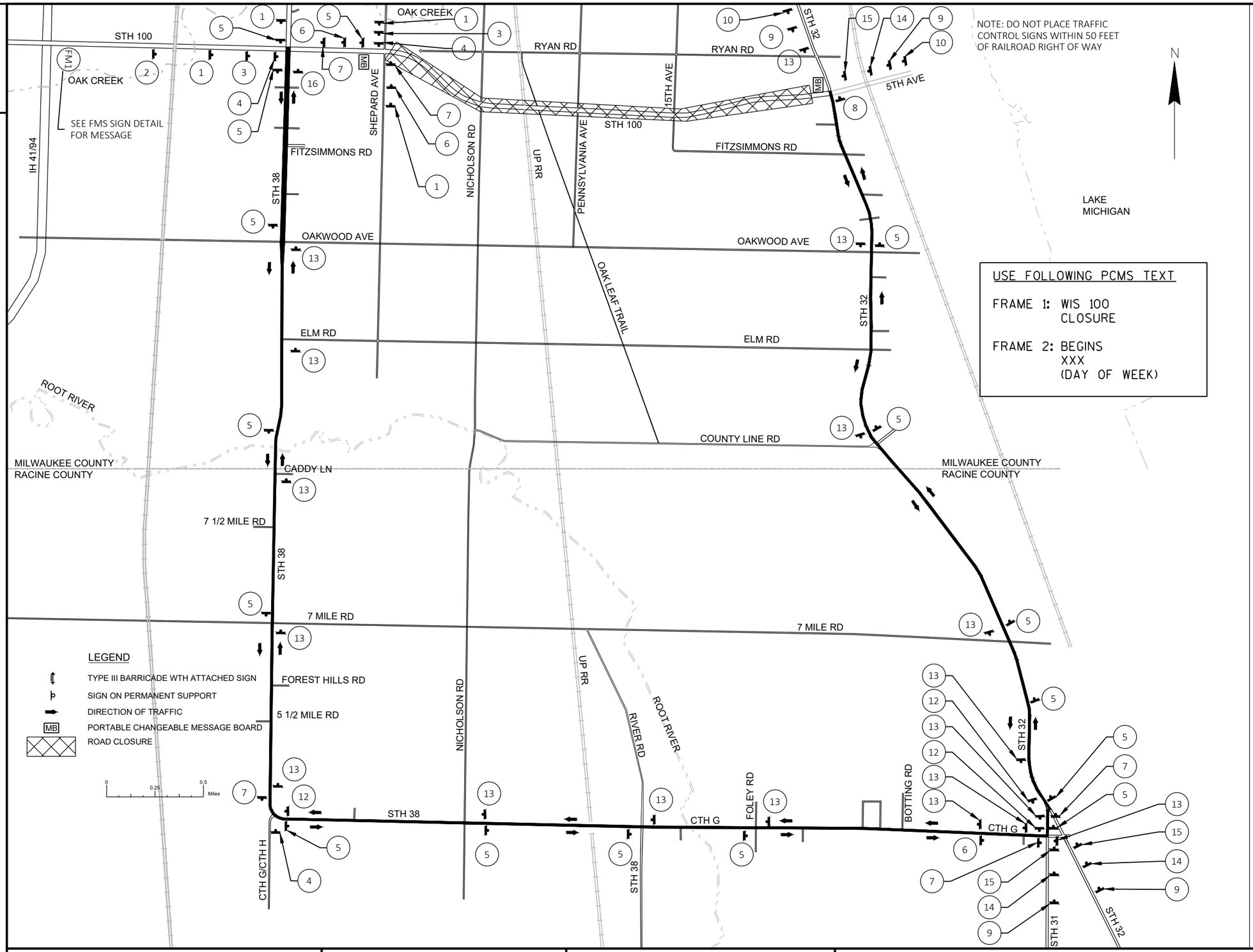
N

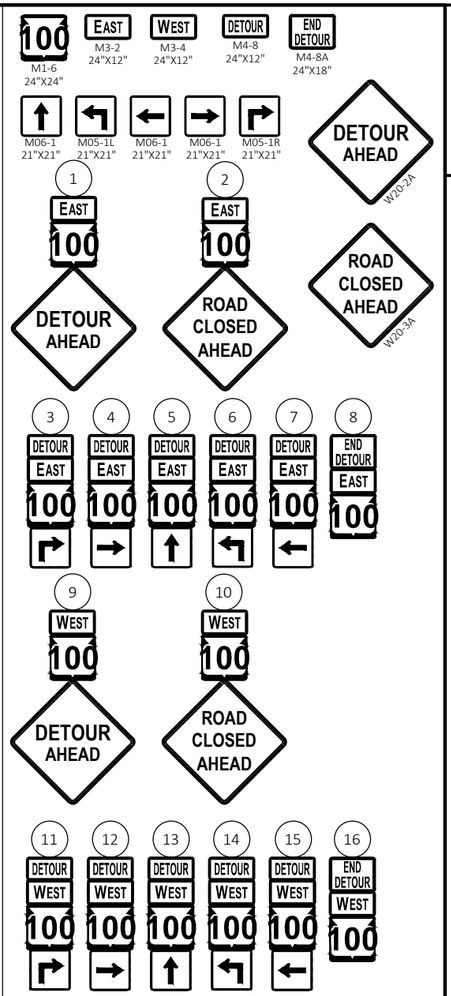
LAKE MICHIGAN

USE FOLLOWING PCMS TEXT

FRAME 1: WIS 100
CLOSURE

FRAME 2: BEGINS
XXX
(DAY OF WEEK)





GENERAL NOTES FOR DETOUR SIGNING

THE EXACT LOCATION AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER. DO NOT PLACE TRAFFIC CONTROL SIGNS WITHIN 50 FEET OF RAILROAD RIGHT OF WAY.

ALL SIGNS APPROPRIATE TO THE STATUS OF THE TRAFFIC CONTROL ZONE, INCLUDING PRE-EXISTING SIGNING IN THE VICINITY, SHALL BE COVERED OR REMOVED AS SPECIFIED IN THE PLANS AND/OR AS DIRECTED BY THE ENGINEER.

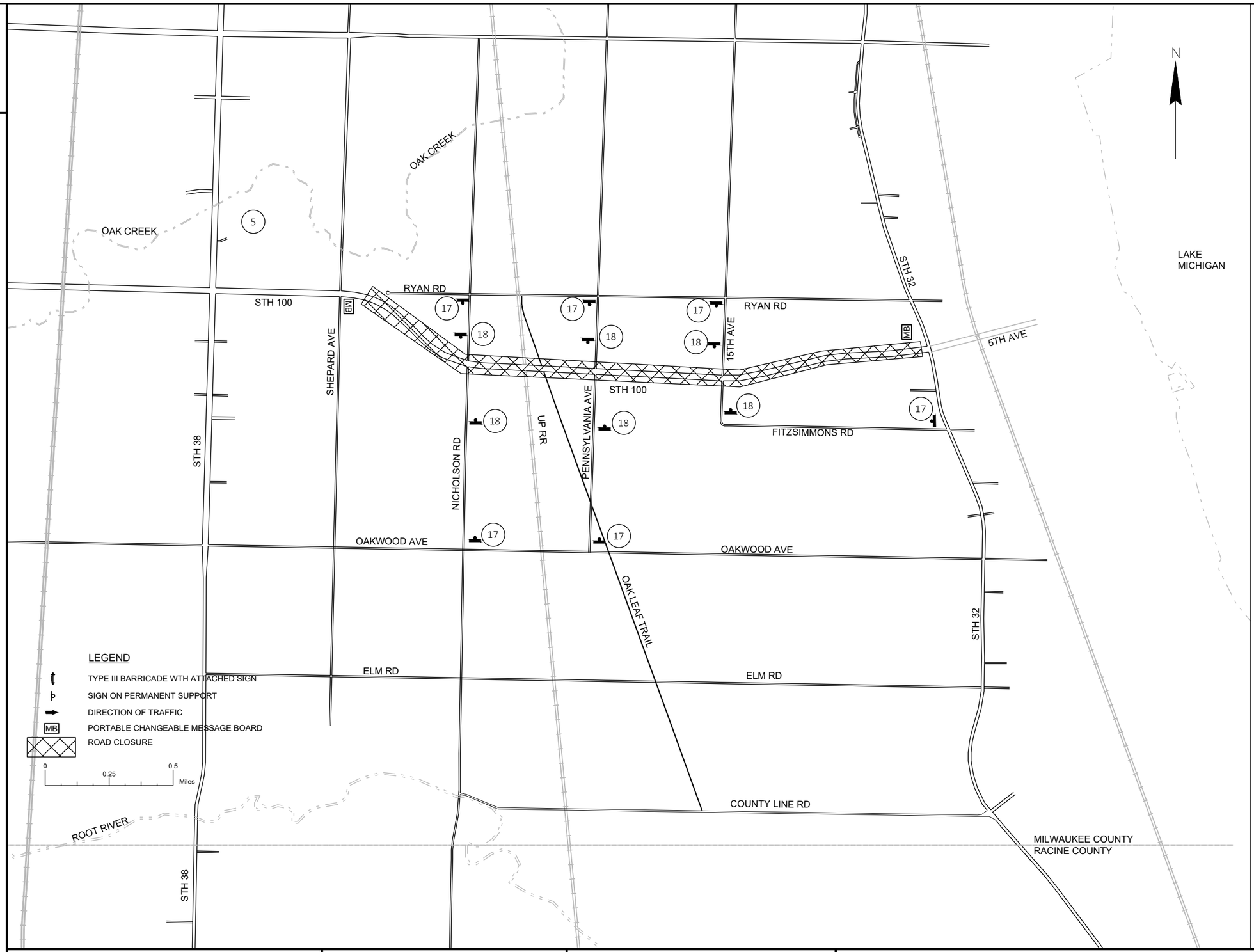
THE ERECTION AND PLACEMENT OF SIGNS SHALL BE IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

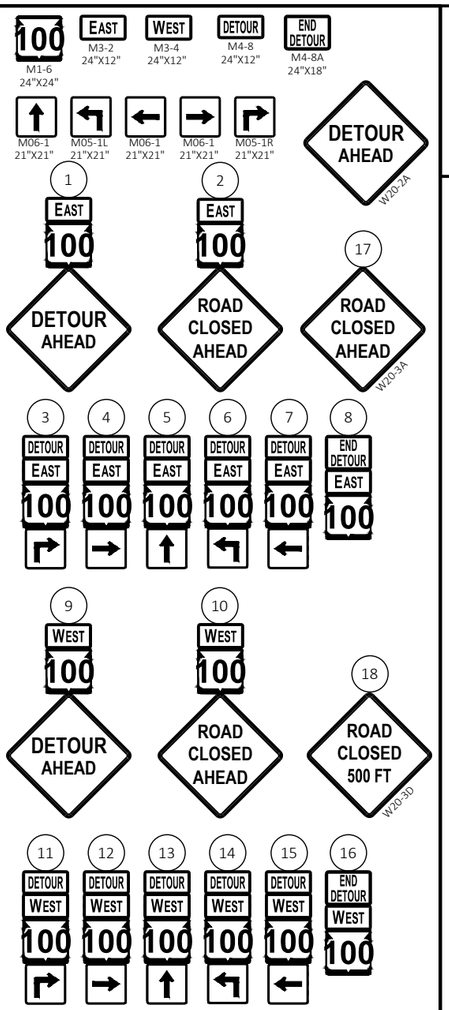
DETOUR SIGNING SHALL BE PERFORMED BY THE CONTRACTOR.

EXISTING ROUTE MARKERS FOR CLOSURE SECTION SHALL BE COVERED IN CONJUNCTION WITH INSTALLATION OF DETOUR ROUTE SIGNING.

DEPLOY MESSAGE BOARDS 5 DAYS PRIOR TO CLOSURE.

PROJECT NO: 2040-03-75	HWY: STH 100	COUNTY: MILWAUKEE	DETOUR ROTUE	SHEET 59	E





2

GENERAL NOTES FOR DETOUR SIGNING

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

ALL SIGNS APPROPRIATE TO THE STATUS OF THE TRAFFIC CONTROL ZONE, INCLUDING PRE-EXISTING SIGNING IN THE VICINITY, SHALL BE COVERED OR REMOVED AS SPECIFIED IN THE PLANS AND/OR AS DIRECTED BY THE ENGINEER.

THE ERECTION AND PLACEMENT OF SIGNS SHALL BE IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

DETOUR SIGNING SHALL BE PERFORMED BY THE CONTRACTOR.

EXISTING ROUTE MARKERS FOR CLOSURE SECTION SHALL BE COVERED IN CONJUNCTION WITH INSTALLATION OF DETOUR ROUTE SIGNING.

MESSAGE BOARDS TO BE DEPLOYED 5 DAYS PRIOR TO CLOSURE.

PROJECT NO: 2040-03-75	HWY: STH 100	COUNTY: MILWAUKEE	SIDEROAD CLOSURES	SHEET 60	E

2

2

N

PI: 102+06.63

PI: 109+93.17

SHEPARD AVE

PC: 129+56.59

100 105 110 115 120 125 130

S88° 04' 28"E
1963.42'

STH 100

10144
CP CHSLED SQ E CORNER OF SW ISLAND AT RYAN RD AND HOWELL AVE (2000)
689.172'

ALI STH 100
STA 128+66.45
EASTING 607,739.834
NORTHING 238,789.874

BEGIN PROJECT
STA 131+00.00
X=607,972.890
Y=238,776.056

PI: 136+26.65

PI: 142+34.40

PC: 148+52.69

PI: 162+37.07

130 135 140 145 150 155 160

S45° 28' 44"E
618.28'

STH 100

S NICHOLSON RD

13402
CP CHSLED X WEST EDGE
MEDIAN INLET RYAN RD
674.563'

14852
CP PC MONUMENT
673.662'

PI STA = 136From PID 2040-20-00+26.65
Y = 238764.330
X = 608499.607
DELTA = 42°35'44"
D = 3°20'01"
T = 670.06'
L = 1277.81'
R = 1718.80'
PC STA = 129From PID 2040-20-00+56.59
Y = 238786.845
X = 607829.930
PT STA = 142From PID 2040-20-00+34.40
Y = 238294.506
X = 608977.351
BK = S88°04'28.0"E
AH = S45°28'44.0"E

PI STA = 155From PID 2040-20-00+76.87
Y = 237353.205
X = 609934.521
DELTA = 41°31'55"
D = 3°00'00"
T = 724.18'
L = 1384.39'
R = 1909.84'
PC STA = 148From PID 2040-20-00+52.69
Y = 237860.983
X = 609418.183
PT STA = 162From PID 2040-20-00+37.07
Y = 237315.442
X = 610657.720
BK = S45°28'44.0"E
AH = S87°00'39.3"E

PI: 155+76.87

STA 159+36.11 R/L Ali-STH 100 =
STA 40+64.50 R/L Ali-Pennsylvania Ave
X=610,359.637
Y=237,354.705

PROJECT NO: 2040-03-75	HWY: STH 100	COUNTY: MILWAUKEE	ALIGNMENT DETAIL	SHEET 61	E

2

CP 16813
BM CHSLD CROSS WEST SIDE OF INLET
233' WEST OF WEST EDGE OF BRIDGE B-40-0530;
103' EAST OF 3RD L. POLE WEST OF BRIDGE B-40-0530;
5' NORTH OF BOC OF ISLAND FOR RYAN RD
N: 237284.653
E: 611233.239
EL: 691.007'

CP 17162
BERNTSEN F1000 FENO SPIKE
22' NORTH OF NORTH EDGE OF BRIDGE B-40-0530;
19' WEST OF WEST EDGE OF BRIDGE B-40-0530
N: 237342.118
E: 611585.245
EL: 680.608'

CP 17832
BERNTSEN F1000 FENO SPIKE 633' EAST OF EAST EDGE OF BRIDGE B-40-530;
126' WEST OF 4TH L. POLE FROM PENNSYLVANIA AVE;
5' SOUTH OF NORTH BOC OF ISLAND FOR RYAN RD
N: 237237.707
E: 612250.574
EL: 684.479'

CP 18642
BM CHLSD CROSS 47' NORTH OF BOC FOR RYAN RD;
28' EAST OF BOC FOR PENNSYLVANIA AVE;
3' SE OF NE END OF CONCRETE CULVERT
N: 237298.809
E: 613065.530
EL: 663.723'

PT: 162+37.07

UNION PACIFIC RR

17142
BM ALUMINUM CAP ON WALL
AT NE CORNER OF B-40-633
699.315'

S PENNSYLVANIA AVE

N

165 170 175 S87° 00' 39"E 4793.69' STH 100 180 185 190

17048
BM B-40-0530
UNION PACIFIC RAILROAD BRIDGE
698.649'

CP 17070
BERNTSEN F1000 FENO SPIKE
28' SOUTH OF SOUTH EDGE OF BRIDGE B-40-0530;
18; EAST OF EAST EDGE OF BRIDGE B-40-0530
N: 237191.082
E: 611485.325
EL: 683.132'

17501
BM CHSLD SQ ON CONCRETE BIKE TRAIL
BENCH SIDE RYAN RD AT BOX CULVERT C-40-79
681.793'

17472
BM ALUMINUM CAP ON WALL
AT SW CORNER OF C-40-79
691.408'

CP 16450
BERNTSEN F1000 FENO SPIKE;
585' WEST OF WEST EDGE OF BRIDGE B-40-0530;
74' EAST OF 3RD L. POLE FROM NICHOLSON RD;
5' NORTH OF SOUTH BOC OF ISLAND FOR RYAN RD
N: 237298.276
E: 610870.060
EL: 681.498'

STA 185+86.97 R/L Ali-STH 100 =
STA 39+99.74 R/L Ali-Pennsylvania Ave
X=613,004.406
Y=237,192.652

2

YAN RD;

55

PI STA = 216From PID 2040-20-00+04.59
Y = 237035.550
X = 616017.937
DELTA = 17°05'15"
D = 1°30'00"
T = 573.83'
L = 1139.14'
R = 3819.67'
PC STA = 210From PID 2040-20-00+30.76
Y = 237065.473
X = 615444.886
PT STA = 221From PID 2040-20-00+69.91
Y = 237175.328
X = 616574.483
BK = S87°00'39.3"E
AH = N75°54'06.1"E

PT: 221+69.91

PC: 210+30.76

15TH AVE

195 200 S87° 00' 39"E 4793.69' 205 STH 100 210 215 220

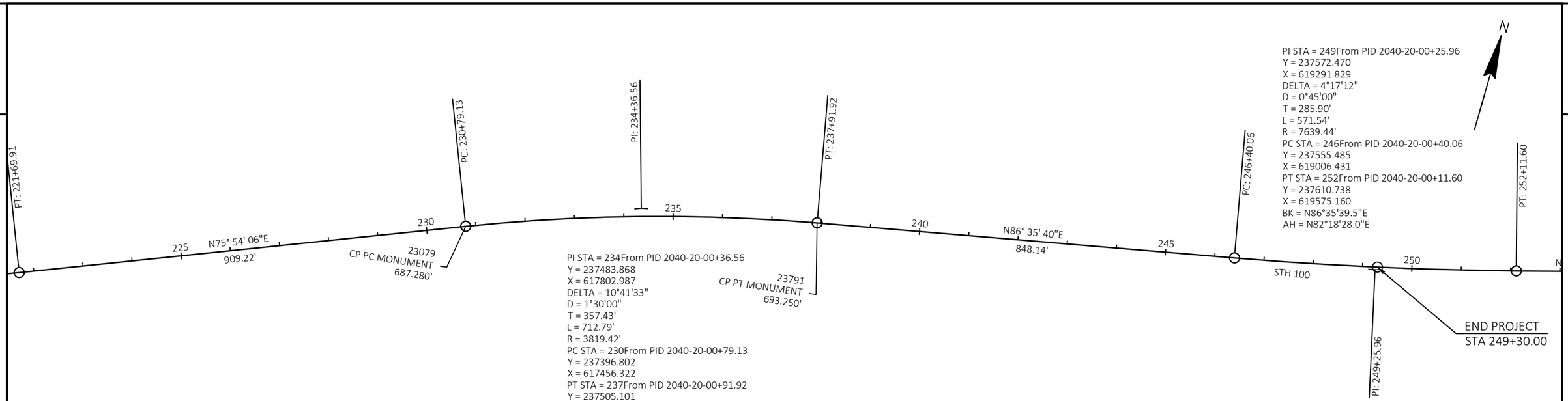
50

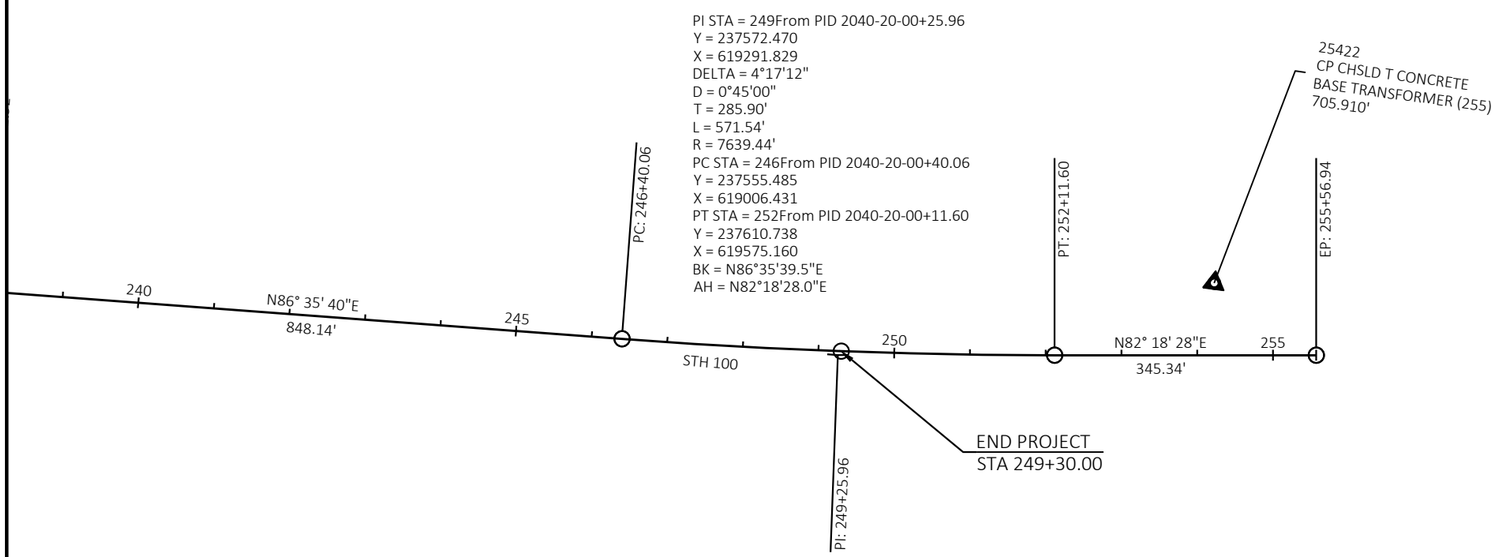
21030
CP PC MONUMENT
670.580'

PI: 216+04.59

STA 212+04.80 R/L Ali-STH 100 =
STA 39+63.61 R/L Ali-Pennsylvania Ave
X=615,618.836
Y=237,060.360

PROJECT NO: 2040-03-75	HWY: STH 100	COUNTY: MILWAUKEE	ALIGNMENT DETAIL	SHEET 62	E





PROJECT NO: 2040-03-75	HWY: STH 100	COUNTY: MILWAUKEE	ALIGNMENT DETAIL	SHEET 63	E

2040-03-75

Line	Item	Item Description	Unit	Total	Qty
0008	204.0115	Removing Asphaltic Surface Butt Joints	SY	82.000	82.000
0012	204.0125	Removing Asphaltic Surface Milling	TON	11,090.000	11,090.000
0014	204.0150	Removing Curb & Gutter	LF	40.000	40.000
0018	204.9060.S	Removing (item description) 01. Traffic Signals STH 100 (RYAN RD) & NICHOLSON RD	EACH	1.000	1.000
0020	204.9060.S	Removing (item description) 02. Loop Detector Wire and Lead-In Cable (STH 100 & Nicholson Rd)	EACH	1.000	1.000
0032	211.0101	Prepare Foundation for Asphaltic Paving (project) 01. 2040-03-75	EACH	1.000	1.000
0034	211.0400	Prepare Foundation for Asphaltic Shoulders	STA	1.000	1.000
0036	213.0100	Finishing Roadway (project) 01. 2040-03-75	EACH	1.000	1.000
0040	305.0110	Base Aggregate Dense 3/4-Inch	TON	1,070.000	1,070.000
0048	455.0605	Tack Coat	GAL	7,200.000	7,200.000
0050	460.0105.S	HMA Percent Within Limits (PWL) Test Strip Volumetrics	EACH	1.000	1.000
0052	460.0110.S	HMA Percent Within Limits (PWL) Test Strip Density	EACH	1.000	1.000
0056	460.2005	Incentive Density PWL HMA Pavement	DOL	7,140.000	7,140.000
0058	460.2007	Incentive Density HMA Pavement Longitudinal Joints	DOL	45,000.000	45,000.000
0060	460.2010	Incentive Air Voids HMA Pavement	DOL	12,090.000	12,090.000
0062	460.6224	HMA Pavement 4 MT 58-28 S	TON	12,090.000	12,090.000
0066	465.0110	Asphaltic Surface Patching	TON	20.000	20.000
0068	465.0510	Asphaltic Rumble Strips, Shoulder Divided Roadway	LF	18,850.000	18,850.000
0100	601.0553	Concrete Curb & Gutter 4-Inch Sloped 36-Inch Type D	LF	40.000	40.000
0118	614.0010	Barrier System Grading Shaping Finishing	EACH	2.000	2.000
0122	614.0397	Guardrail Mow Strip Emulsified Asphalt	SY	120.000	120.000
0124	614.0400	Adjusting Steel Plate Beam Guard	LF	160.000	160.000
0128	614.0950	Replacing Guardrail Posts and Blocks	EACH	8.000	8.000
0130	614.0951	Replacing Guardrail Rail and Hardware	LF	25.000	25.000
0132	614.0952	Replacing Guardrail Reflectors	EACH	4.000	4.000
0146	618.0100	Maintenance and Repair of Haul Roads (project) 01. 2040-03-75	EACH	1.000	1.000
0150	619.1000	Mobilization	EACH	0.400	0.400
0152	625.0105	Topsoil	CY	10.000	10.000
0158	628.1504	Silt Fence	LF	500.000	500.000
0160	628.1520	Silt Fence Maintenance	LF	400.000	400.000
0162	628.1905	Mobilizations Erosion Control	EACH	1.000	1.000
0164	628.1910	Mobilizations Emergency Erosion Control	EACH	1.000	1.000
0166	628.2006	Erosion Mat Urban Class I Type A	SY	50.000	50.000
0170	628.7005	Inlet Protection Type A	EACH	9.000	9.000
0172	628.7015	Inlet Protection Type C	EACH	85.000	85.000
0176	630.0120	Seeding Mixture No. 20	LB	10.000	10.000
0182	630.0500	Seed Water	MGAL	5.000	5.000
0184	633.5200	Markers Culvert End	EACH	10.000	10.000
0186	634.0618	Posts Wood 4x6-Inch X 18-FT	EACH	28.000	28.000
0188	637.2210	Signs Type II Reflective H	SF	357.800	357.800
0190	637.2215	Signs Type II Reflective H Folding	SF	44.760	44.760
0192	637.2230	Signs Type II Reflective F	SF	52.500	52.500
0194	638.2102	Moving Signs Type II	EACH	2.000	2.000
0196	638.2602	Removing Signs Type II	EACH	31.000	31.000
0198	638.3000	Removing Small Sign Supports	EACH	17.000	17.000
0200	642.5401	Field Office Type D	EACH	1.000	1.000
0202	643.0300	Traffic Control Drums	DAY	1,600.000	1,600.000
0204	643.0420	Traffic Control Barricades Type III	DAY	1,340.000	1,340.000
0206	643.0705	Traffic Control Warning Lights Type A	DAY	2,670.000	2,670.000

2040-03-75

Line	Item	Item Description	Unit	Total	Qty
0208	643.0900	Traffic Control Signs	DAY	9,710.000	9,710.000
0210	643.0920	Traffic Control Covering Signs Type II	EACH	22.000	22.000
0212	643.1000	Traffic Control Signs Fixed Message	SF	21.000	21.000
0214	643.1050	Traffic Control Signs PCMS	DAY	10.000	10.000
0216	643.3180	Temporary Marking Line Removable Tape 6-Inch	LF	2,110.000	2,110.000
0218	643.5000	Traffic Control	EACH	0.500	0.500
0224	646.2020	Marking Line Epoxy 6-Inch	LF	48,760.000	48,760.000
0226	646.2040	Marking Line Grooved Wet Ref Epoxy 6-Inch	LF	5,970.000	5,970.000
0228	646.4020	Marking Line Epoxy 10-Inch	LF	1,235.000	1,235.000
0230	646.4040	Marking Line Grooved Wet Ref Epoxy 10-Inch	LF	8,635.000	8,635.000
0232	646.5020	Marking Arrow Epoxy	EACH	53.000	53.000
0234	646.5120	Marking Word Epoxy	EACH	17.000	17.000
0236	646.5520	Marking Outfall Epoxy	EACH	97.000	97.000
0238	646.6120	Marking Stop Line Epoxy 18-Inch	LF	270.000	270.000
0240	646.7120	Marking Diagonal Epoxy 12-Inch	LF	100.000	100.000
0242	646.7420	Marking Crosswalk Epoxy Transverse Line 6-Inch	LF	200.000	200.000
0244	646.8120	Marking Curb Epoxy	LF	770.000	770.000
0246	646.8220	Marking Island Nose Epoxy	EACH	1.000	1.000
0248	646.9000	Marking Removal Line 4-Inch	LF	263.000	263.000
0252	650.8000	Construction Staking Resurfacing Reference	LF	23,660.000	23,660.000
0254	650.9911	Construction Staking Supplemental Control (project) 01. 2040-03-75	EACH	1.000	1.000
0260	652.0225	Conduit Rigid Nonmetallic Schedule 40 2-Inch	LF	53.000	53.000
0262	652.0800	Conduit Loop Detector	LF	924.000	924.000
0264	653.0135	Pull Boxes Steel 24x36-Inch	EACH	4.000	4.000
0266	653.0905	Removing Pull Boxes	EACH	4.000	4.000
0268	655.0230	Cable Traffic Signal 5-14 AWG	LF	38.000	38.000
0270	655.0240	Cable Traffic Signal 7-14 AWG	LF	132.000	132.000
0272	655.0260	Cable Traffic Signal 12-14 AWG	LF	607.000	607.000
0274	655.0270	Cable Traffic Signal 15-14 AWG	LF	325.000	325.000
0276	655.0700	Loop Detector Lead In Cable	LF	4,659.000	4,659.000
0278	655.0800	Loop Detector Wire	LF	3,120.000	3,120.000
0280	657.0255	Transformer Bases Breakaway 11 1/2-Inch Bolt Circle	EACH	2.000	2.000
0282	657.0305	Poles Type 2	EACH	2.000	2.000
0284	658.0173	Traffic Signal Face 3S 12-Inch	EACH	2.000	2.000
0286	658.0174	Traffic Signal Face 4S 12-Inch	EACH	6.000	6.000
0288	658.5070	Signal Mounting Hardware (location) 01. STH 100 (RYAN RD) & NICHOLSON RD	EACH	1.000	1.000
0290	659.5000.S	Lamp, Ballast, LED, Switch Disposal by Contractor	EACH	2.000	2.000
0292	690.0150	Sawing Asphalt	LF	812.000	812.000
0294	690.0250	Sawing Concrete	LF	20.000	20.000
0300	740.0440	Incentive IRI Ride	DOL	17,400.000	17,400.000
0306	ASP.1T0A	On-the-Job Training Apprentice at $5.00/HR	HRS	1,200.000	1,200.000
0308	ASP.1T0G	On-the-Job Training Graduate at $5.00/HR	HRS	900.000	900.000
0312	SPV.0060	Special 01. REPLACING STEEL PLATE BEAM GUARD BOLTS AND HARDWARE	EACH	9.000	9.000
0314	SPV.0060	Special 02. REPLACING END TERMINAL REFLECTIVE SHEETING AND MARKER POSTS	EACH	2.000	2.000
0316	SPV.0090	Special 01. MARKING CONTRAST EPOXY 6-INCH	LF	100.000	100.000
0318	SPV.0195	Special 02. ASPHALTIC REPAIR	TON	480.000	480.000

REMOVING ASPHALT

LOCATION			204.0115 REMOVING ASPHALTIC SURFACE BUTT JOINTS SY	204.0125 REMOVING ASPHALTIC SURFACE MILLING TON
STH 100 EB				
131+00	-	170+30	16	1,710
172+10	-	248+00	16	3,320
STH 100 WB				
133+75	-	170+23	16	1,585
172+03	-	249+30	16	3,375
NICHOLSON RD INTERSECTION			6	167
PENNSYLVANIA AVE INTERSECTION			6	140
15TH AVE INTERSECTION			6	143
STH 100 LT TURN LANES				
144+00				16
148+00				21
155+00				66
163+00				60
182+00				55
190+00				54
196+00				20
202+00				21
208+00				56
217+00				62
218+00				20
224+00				22
243+00				21
249+00				22
STH 100 MEDIAN OPENINGS				
145+75				31
199+00				32
221+00				36
246+00				35
		TOTAL	82	11,090

FOUNDATION PREPARATION

LOCATION	211.0101 PREPARING FOUNDATION FOR ASPHALTIC PAVING EA	211.0400 PREPARING FOUNDATION FOR ASPHALTIC SHOULDER STA
STA 172+50 - 173+50		1
PROJECT	1	
TOTAL	1	1

FINISHING ROADWAY

LOCATION	213.0100 FINISHING ROADWAY (2040-03-75) EA
PROJECT	1
TOTAL	1

CONCRETE CURB & GUTTER

STATION		204.0150 REMOVING CURB & GUTTER LF	601.0553 4-INCH SLOPED 36-INCH TYPE D LF	690.0250 SAWING CONCRETE LF
STH 100				
158+43	LT	10	10	5
160+19	RT	10	10	5
NICHOLSON RD				
29+15	RT	10	10	5
31+27	LT	10	10	5
TOTAL		40	40	20

SAWING

LOCATION		690.0150 SAWING ASPHALT LF
STH 100 EB		
155+00		68
156+40		68
158+10		134
STH 100 WB		
160+05		131
162+20		68
163+75		68
NICHOLSON RD		
28+90		160
31+10		115
TOTAL		812

CAT 0010

3

ASPHALTIC PAVEMENT ITEMS

LOCATION				460.6224 HMA PAVEMENT 4 MT 58-28 S TON	455.0605 TACK COAT GAL	460.0105.S PWL TEST STRIPS VOUMETRICS EA	460.0110.S PWL TEST STRIPS DENSITY EA
STH 100 EB							
	131+00	-	170+30	1,855			
	172+10	-	248+00	3,580			
STH 100 WB							
	133+75	-	170+23	1,725			
	172+03	-	249+30	3,652			
NICHOLSON RD INTERSECTION				208			
PENNSYLVANIA AVE INTERSECTION				184			
15TH AVE INTERSECTION				187			
STH 100 LEFT TURN LANES				555			
STH 100 MEDIAN OPENINGS				144			
STH 100 (PROJECT)					7,200	1	1
			TOTAL	12,090	7,200	1	1

PWL Mixture Use Table

The following acceptance criteria are applicable for this project:

Location	Station	Mixture Use	Underlying Surface	Bid Item	Tons	Thickness	Quality Management Program to be used for: Mixture Acceptance	Density Acceptance
12 foot driving lane	131+00 to 248+00 EB	Upper Layer	Milled Existing HMA Surface	4 MT 58-28 S	3,640	2"	PWL Incentive Air Voids HMA Pavement 460.2010	Incentive Density PWL HMA Pavement 460.2005
12 foot driving lane	133+75 to 249+30 WB	Upper Layer	Milled Existing HMA Surface	4 MT 58-28 S	3,630	2"	PWL Incentive Air Voids HMA Pavement 460.2010	Incentive Density PWL HMA Pavement 460.2005
4 foot inside shoulder	131+00 to 248+00 EB	Upper Layer	Milled Existing HMA Surface	4 MT 58-28 S	1,150	2"	PWL Incentive Air Voids HMA Pavement 460.2010	Acceptance testing by the department; Not elgibile for incentive or disincentive
8 foot outside shoulder	131+00 to 248+00 EB	Upper Layer	Milled Existing HMA Surface	4 MT 58-28 S	1,410	2"	PWL Incentive Air Voids HMA Pavement 460.2010	Acceptance testing by the department; Not elgibile for incentive or disincentive
4 foot inside shoulder	133+75 to 249+30 WB	Upper Layer	Milled Existing HMA Surface	4 MT 58-28 S	870	2"	PWL Incentive Air Voids HMA Pavement 460.2010	Acceptance testing by the department; Not elgibile for incentive or disincentive
8 foot outside shoulder	133+75 to 249+30 WB	Upper Layer	Milled Existing HMA Surface	4 MT 58-28 S	1,390	2"	PWL Incentive Air Voids HMA Pavement 460.2010	Acceptance testing by the department; Not elgibile for incentive or disincentive

TOTAL TONS 12,090

ASPHALT REPAIR

LOCATION	465.0110 ASPHALTIC SURFACE PATCHING TON	SPV.0195.02 ASPHALTIC REPAIR TON
STH 100 (PROJECT)	20	360
LOOP DETECTOR REPLACEMENTS	0	120
TOTAL	20	480

ASPHALTIC PAVEMENT ITEMS

LOCATION				465.0510 ASPHALTIC RUMBLE STRIPS, SHOULDER DIVIDED ROADWAY LF
STH 100 EB				
	131+50	-	155+00	2,350
	161+75	-	170+00	825
	172+25	-	181+25	900
	188+25	-	207+25	1,900
	214+50	-	248+00	3,350
STH 100 WB				
	134+00	-	157+50	2,350
	163+25	-	170+00	675
	172+25	-	183+25	1,100
	189+75	-	210+25	2,050
	216+00	-	249+50	3,350
			TOTAL	18,850

CAT 0010

3

BASE AGGREGATE

LOCATION			305.0110 3/4-INCH DENSE TON
STH 100 EB SHOULDERS			
131+00	-	159+00	130
160+00	-	170+30	50
172+12	-	185+25	61
186+50	-	211+50	154
212+50	-	248+00	164
STH 100 WB SHOULDERS			
133+50	-	159+00	118
160+00	-	170+30	50
172+12	-	185+25	61
186+50	-	211+50	118
212+50	-	248+00	164
		TOTAL	1,070

CONSTRUCTION STAKING

PROJECT	650.8000 RESURFACING REFERENCE LF	650.9911 SUPPLEMENTAL CONTROL (ID 2040-03-75) EA
STH 100	23,660	1
TOTAL	23,660	1

EROSION CONTROL

DESCRIPTION	STATION	-	STATION	628.1504 SILT FENCE LF	628.1520 SILT FENCE MAINT. LF
STH 100 WB	168+00		170+50	250	200
	171+75		174+25	250	200
			TOTAL	500	400

INLET PROTECTION

DESCRIPTION	STATION	-	STATION	628.7005 INLET PROTECTION TYPE A EA	628.7015 INLET PROTECTION TYPE C EA
STH 100	131+00		249+30	9	80
	UNDISTRIBUTED				5
			TOTAL	9	85

LANDSCAPING

LOCATION	625.0105 TOPSOIL CY	628.2006 EROSION MAT URBAN CLASS 1 TYPE A SY	630.0120 SEEDING MIXTURE TYPE 20 LB	630.0500 SEED WATER MGAL
STA 173+00 LT	6	16	1	2
NICHOLSON RD INTERSECTION	4	34	9	3
TOTAL	10	50	10	5

GUARDRAIL

DESCRIPTION	STATION	-	STATION	614.0010 BARRIER SYSTEM GRADING SHAPING FINISHING EA	614.0397 GUARDRAIL MOW STRIP EMULSIFIED ASPHALT SY	614.0400 ADJUSTING STEEL PLATE BEAM GUARD LF	614.0950 REPLACING GUARDRAIL POSTS AND BLOCKS EA	614.0951 REPLACING GUARDRAIL RAIL AND HARDWARE LF	614.0952 REPLACING GUARDRAIL REFLECTORS EA	SPV.0060.01 REPLACING STEEL PLATE BEAM GUARD BOLTS AND HARDWARE EA	SPV.0060.02 REPLACING END TERMINAL REFELCTIVE SHEETING AND MARKER POSTS EA
STH 100 WB	169+10		170+25	1	40	80	1	0	1	0	0
	172+00		173+00	1	80	80	3	0	1	0	1
	172+00		173+60	0	0	0	4	25	2	9	1
			TOTAL	2	120	160	8	25	4	9	2

MOBILIZATION

LOCATION	619.1000 MOBILIZATION EA
PROJECT	0.4
TOTAL	0.4

MOBILIZATIONS EROSION CONTROL

	628.1905 MOBILIZATIONS EROSION CONTROL EA	628.1910 MOBILIZATIONS EMERGENCY EROSION CONTROL EA
STH 100	1	1
TOTAL	1	1

BARRIER SYSTEM GRADING SHAPING FINISHING INCIDENTAL ITEMS

STATION	-	STATION	TOPSOIL CY	EROSION MAT URBAN CLASS 1 TYPE A SY	SEEDING MIXTURE TYPE 20 LB	SEED WATER MG
169+10		170+25	25	223	10	3
172+00		173+00	27	245	11	3
		TOTAL	52	468	21	6

CAT 0010

PROJECT NO: 2040-03-75	HWY: STH 100	COUNTY: MILWAUKEE	MISCELLANEOUS QUANTITIES	SHEET 69	E

PAVEMENT MARKING

LOCATION	GROOVED WET REFLECTIVE EPOXY 6-INCH WHITE SKIPS 646.2040 LF	GROOVED WET REFLECTIVE EPOXY 10-INCH WHITE 646.4040 LF	GROOVED WET REFLECTIVE EPOXY 10-INCH WHITE SKIPS 646.4040 LF	EPOXY 6-INCH WHITE 646.2020 LF	EPOXY 6-INCH YELLOW 646.2020 LF	EPOXY 6-INCH DOUBLE YELLOW 646.2020 LF	EPOXY 10-INCH WHITE SKIPS 646.4020 LF	EPOXY 10-INCH WHITE LINE 646.4020 LF	EPOXY 18-INCH STOP LINE 646.6120 LF	EPOXY 12-INCH DIAGONAL 646.7120 LF	EPOXY 6-INCH CROSSWALK TRANSVERSE LINE 646.7420 LF	CURB EPOXY YELLOW 646.8120 LF	ISLAND NOSE EPOXY YELLOW 646.8220 EACH	WHITE CONTRAST SKIPS SPV.0090.01 LF
STH 100														
EAST BOUND														
STA 129+40 - STA 159+00	700	1,030	80	2,920	2,790		80		40			75		
STA 160+00 - STA 185+25	630	860	100	2,500	2,500		100					25		50
STA 186+50 - STA 211+50	630	1,070	90	2,500	2,400		90					95		
STA 212+50 - STA 254+75	1,050	1,070		4,200	3,300					100	200	190		
WEST BOUND														
STA 129+40 - STA 159+00	700	850		2,500	2,350							100		
STA 160+00 - STA 185+25	630	960	70	2,500	2,500		70		40			25		50
STA 186+50 - STA 211+50	630	1,050	75	2,500	2,400		75					95		
STA 212+50 - STA 254+75	1,000	1,250	80	4,200	3,100		80					165	1	
NICHOLSON RD				500		600		200	50					
PENNSYLVANIA AVE				550		750		270	70					
15TH AVE				500		700		270	70					
SUBTOTALS	5,970	8,140	495	25,370	21,340	2,050	495	740	270	100	200	770	1	100
TOTAL	5,970	8,635			48,760		1,235		270	100	200	770	1	100

MARKER POSTS CULVERT END

633.5200

MARKERS CULVERT END

LOCATION	EA
PROJECT*	10
TOTAL	10

*REPLACE MISSING OR DEFICIENT MARKERS AS NEEDED

FIELD OFFICE

642.5401

FIELD OFFICE TYPE D

LOCATION	EA
PROJECT	1
TOTAL	1

PAVEMENT MARKING SYMBOLS

LOCATION	EPOXY WORD 646.5120 EACH	EPOXY ARROW 646.5020 EACH
STH 100		
EAST BOUND		
STA 155+20 RT		1
STA 157+31 RT		1
STA 157+90 RT	1	
STA 158+32 RT		1
STA 158+41 RT		1
STA 182+20 RT		1
STA 183+40 RT		1
STA 184+40 RT	1	
STA 184+50 RT	1	
STA 184+83 RT		1
STA 184+93 RT		1
STA 208+02 RT		1
STA 209+58 RT		1
STA 210+58 RT	1	
STA 210+72 RT	1	
STA 210+99 RT		1
STA 211+13 RT		1
STA 245+00 RT	1	
STA 245+25 RT		1
STA 248+00 RT	1	
STA 248+35 RT		1
STA 248+75 RT	1	
STA 249+25 RT		1
STA 253+60 RT	1	
STA 254+00 RT		1
STA 254+10 RT	1	
STA 254+30 RT		1
STH 100 EB SUBTOTAL	10	17

LOCATION	EPOXY WORD 646.5120 EACH	EPOXY ARROW 646.5020 EACH
STH 100		
WEST BOUND		
STA 131+90 LT	1	
STA 131+50 LT		1
STA 130+10 LT	1	
STA 129+60 LT		1
STA 160+21 LT		1
STA 160+39 LT		1
STA 160+80 LT	1	
STA 161+53 LT		1
STA 163+76 LT		1
STA 186+70 LT		1
STA 186+86 LT		1
STA 187+11 LT	1	
STA 187+26 LT	1	
STA 188+24 LT		1
STA 189+85 LT		1
STA 212+99 LT		1
STA 213+05 LT		1
STA 213+43 LT	1	
STA 213+46 LT	1	
STA 214+56 LT		1
STA 215+93 LT		1
STH 100 WB SUBTOTAL	7	14

LOCATION	EPOXY WORD 646.5120 EACH	EPOXY ARROW 646.5020 EACH
NICHOLSON RD		
STA 28+32 RT		2
STA 29+04 RT		2
STA 31+46 LT		2
PENNSYLVANIA AVE		
STA 38+31 RT		2
STA 39+04 RT		2
STA 40+95 LT		2
STA 41+76 LT		2
15TH AVE		
STA 48+30 RT		2
STA 49+10 RT		2
STA 50+98 LT		2
STA 51+78 LT		2
SIDEROADS SUBTOTAL	0	22
TOTAL	17	53

LOCATION	MARKING OUTFALLS EPOXY 646.5520 EA
STH 100	97
TOTAL	97

CAT 0010

3

TRAFFIC CONTROL

	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	643.5000 TRAFFIC CONTROL EA
STAGE 2	1,600	1,340	2,670	9,710	10	0.50
TOTAL	1,600	1,340	2,670	9,710	10	0.50

LOCATION	643.0920 TRAFFIC CONTROL COVERING SIGNS TYPE II EACH	NUMBER OF CYCLES (COVER/UNCOVER)
STA 130+00 - 129+00	5	1
5TH AVE	5	1
STH 32 NORTH	5	1
STH 32 SOUTH	7	1
TOTAL	22	

PAVEMENT MARKING REMOVAL

INTERSECTION	646.9000 MARKING REMOVAL LINE 4-INCH LF
SHEPARD AVE	263
TOTAL	263

SIGN	643.1000 TRAFFIC CONTROL FIXED MESSAGE SIGNS SF
FM1	21
TOTAL	21

TEMPORARY MARKING

INTERSECTION	643.3180 LINE REMOVABLE TAPE 6-INCH LF
SHEPARD AVE	1,810
STH 32	300
TOTAL	2,110

CAT 0010

TYPE II PERMANENT SIGNING

2040-03-75 STH 100

SIGN NO.	SIGN CODE & SIZE	SIGN MESSAGE	TYPE II SIGN SIZE W [IN.]	X	H [IN.]	637.2210 SIGNS TYPE II REFLC H [SF]	637.2230 SIGNS TYPE II REFLC F [SF]	637.2215 SIGNS TYPE II REFLC H FOLDING [SF]	638.2602 REMOVING SIGNS TYPE II [EA]	638.3000 REMOVING SMALL SIGN SUPPORTS [EA]	634.0618 POSTS WOOD 4"X 6"X18' [EA]	638.2102 MOVE SIGNS TYPE II [EA]	MOUNT ON SAME POST AS SIGN #	REMARKS / NEW SIGN LOCATION
1	R5-1 (3)		36	X	36	9.000	--	--	--	--	1	--	--	--
2		NOT USED												
3		NOT USED												
4		NOT USED												
5	R3-7R (3)		36	X	36	9.000	--	--	--	--	--	--	--	SHEET 13 OF 14; MOUNT ON OPPOSITE SIDE OF EXISTING R5-1
6	R4-7 (3)		36	X	48	12.000	--	--	1	--	--	--	--	SHEET 5 OF 14; MOUNT ON SIGNAL POLE
7	M1-94H	NICHOLSON RD	96	X	18	12.000	--	--	--	--	--	--	--	MOUNT ON MAST ARM
8	J23-1 (3)		36	X	84	21.000	--	--	1	--	--	--	--	MOUNT ON SIGNAL POLE
	MB4-5	TO	36	x	18									
	M1-1	IH 94	36	x	36									
	MB6-1	[SA]	30	x	30									
9	R6-2L (3)		36	X	48	12.000	--	--	1	1	1	--	--	--
10	J3-1 (2S)		24	X	45	7.500	--	--	1	1	1	--	--	--
	M1-6	WIS 100	24	x	24									
	M6-4		21	x	21									
11	M1-94S	WIS 100 E RYAN RD	90	X	18	11.250	--	--	--	--	--	--	--	MOUNT ON MAST ARM
12	R6-3 (2S)		30	X	24	5.000	--	--	1	--	--	--	--	MOUNT ABOVE R1-1F ON SIGNAL POLE
13	R1-1F (3)		36	X	36	--	--	7.460	1	--	--	--	12	MOUNT ON SIGNAL POLE
14	R1-1F (3)		36	X	36	--	--	7.460	1	--	--	--	--	MOUNT ON SIGNAL POLE
15	R5-1 (3)		36	X	36	9.000	--	--	1	1	1	--	--	--
16	R4-7 (3)		36	X	48	12.000	--	--	1	--	--	--	--	MOUNT ON SIGNAL POLE
17	R1-1F (3)		36	X	36	--	--	7.460	1	--	--	--	16	MOUNT ON SIGNAL POLE
18	R1-1F (3)		36	X	36	--	--	7.460	1	--	--	--	6	MOUNT ON SIGNAL POLE
19	R5-1 (3)		36	X	36	9.000	--	--	1	1	1	--	--	--
20	R1-1F (3)		36	X	36	--	--	7.460	1	--	--	--	--	MOUNT ON SIGNAL POLE

PROJECT NO: 2040-03-75	HWY: STH 100	COUNTY: MILWAUKEE	MISCELLANEOUS QUANTITIES – PERMANENT SIGNING	SHEET:	E

SIGN NO.	SIGN CODE & SIZE	SIGN MESSAGE	TYPE II SIGN SIZE W [IN.]	X	H [IN.]	637.2210 SIGNS TYPE II REFLC H [SF]	637.2230 SIGNS TYPE II REFLC F [SF]	637.2215 SIGNS TYPE II REFLC H FOLDING [SF]	638.2602 REMOVING SIGNS TYPE II [EA]	638.3000 REMOVING SMALL SIGN SUPPORTS [EA]	634.0618 POSTS WOOD 4"X 6"X18' [EA]	638.2102 MOVE SIGNS TYPE II [EA]	MOUNT ON SAME POST AS SIGN #	REMARKS / NEW SIGN LOCATION
21	M1-94S	WIS 100 E RYAN RD	90	X	18	11.250	--	--	--	--	--	--	--	MOUNT ON MAST ARM
22	J3-1 (2S)		24	X	45	7.500	--	--	1	--	--	--	--	MOUNT ON LIGHT POLE
	M1-6	WIS 100	24	x	24									
	M6-4		21	x	21									
23	R6-3 (2S)		30	X	24	5.000	--	--	1	--	--	--	--	MOUNT ABOVE R1-1F ON SIGNAL POLE
24	R1-1F (3)		36	X	36	--	--	7.460	1	--	--	--	23	MOUNT ON SIGNAL POLE
25	R6-2L (3)		36	X	48	12.000	--	--	1	--	--	--	--	MOUNT ON SIGNAL POLE
26	M1-94H	NICHOLSON RD	96	X	18	12.000	--	--	--	--	--	--	--	MOUNT ON MAST ARM
27	W3-4 (3)		36	X	36	--	9.000	--	--	--	1	--	--	SHEET 6 OF 14
28	W3-4 (3)		36	X	36	--	9.000	--	--	--	1	--	--	--
29	W5-52R (3)		18	X	54	--	6.750	--	1	1	1	--	--	--
30	W5-52L (3)		18	X	54	--	6.750	--	1	1	1	--	--	--
31	W5-52R (3)		18	X	54	--	6.750	--	1	1	1	--	--	--
32	W5-52L (3)		18	X	54	--	6.750	--	1	1	1	--	--	--
33	W3-3								--	1	1	1	--	MOVED TO STATION 173+00
34	W3-3								--	1	1	1	--	MOVED TO STATION 173+00
35	R6-1R (3)		54	X	18	6.750	--	--	--	--	--	--	58	SHEET 8 OF 14; MOUNT ABOVE R1-1
36	W4-4C (3)	TRAFFIC ON 100 DOES NOT STOP	36	X	15	--	3.750	--	--	--	--	--	58	MOUNT BELOW R1-1
37	R6-1L (3)		54	X	18	6.750	--	--	--	--	--	--	58	MOUNT ABOVE R1-1
38	R6-1R (3)		54	X	18	6.750	--	--	--	--	--	--	--	MOUNT ABOVE R1-1 ON LIGHT POLE
39	W4-4C (3)	TRAFFIC ON 100 DOES NOT STOP	36	X	15	--	3.750	--	--	--	--	--	38	MOUNT BELOW R1-1 ON LIGHT POLE
40	R6-1L (3)		54	X	18	6.750	--	--	--	--	--	--	38	MOUNT ABOVE R1-1 ON LIGHT POLE
41	R6-1L (3)		54	X	18	6.750	--	--	--	--	--	--	61	SHEET 10 OF 14; MOUNT ABOVE R1-1 OTHER SIDE OF SIGN NO. 42
42	R6-1R (3)		54	X	18	6.750	--	--	--	--	--	--	61	MOUNT ABOVE R1-1
43	R1-1 (3)		36	X	36	7.460	--	--	--	--	1	--	--	--
44	R1-1 (3)		36	X	36	7.460	--	--	--	--	1	--	--	--
45	R6-1L (3)		54	X	18	6.750	--	--	--	--	--	--	64	MOUNT ABOVE R1-1 ON OTHER SIDE OF SIGN NO. 46
46	R6-1R (3)		54	X	18	6.750	--	--	--	--	--	--	64	MOUNT ABOVE R1-1
47	R3-20L (3)		36	X	54	13.500	--	--	--	--	--	--	--	SHEET 13 OF 14; MOUNT ON LIGHT POLE

SIGN NO.	SIGN CODE & SIZE	SIGN MESSAGE	TYPE II SIGN SIZE W [IN.]	X	H [IN.]	637.2210 SIGNS TYPE II REFLC H [SF]	637.2230 SIGNS TYPE II REFLC F [SF]	637.2215 SIGNS TYPE II REFLC H FOLDING [SF]	638.2602 REMOVING SIGNS TYPE II [EA]	638.3000 REMOVING SMALL SIGN SUPPORTS [EA]	634.0618 POSTS WOOD 4"X 6"X18' [EA]	638.2102 MOVE SIGNS TYPE II [EA]	MOUNT ON SAME POST AS SIGN #	REMARKS / NEW SIGN LOCATION
48	M1-94S	WIS 100 E RYAN RD	90	X	18	11.250	--	--	--	--	--	--	--	SHEET 14 OF 14; MOUNT ON MAST ARM
49	M1-94S	WIS 32 S CHICAGO RD	108	X	18	13.500	--	--	--	--	--	--	--	MOUNT ON MAST ARM
50	M1-94S	WIS 100 E RYAN RD	90	X	18	11.250	--	--	--	--	--	--	--	MOUNT ON MAST ARM
51	M1-94S	WIS 32 S CHICAGO RD	108	X	18	13.500	--	--	--	--	--	--	--	MOUNT ON MAST ARM
52	R6-2L (3)		36	X	48	12.000	--	--	--	--	--	--	--	MOUNT ON SIGNAL POLE
53	R10-50								1	--	--	--	--	--
54	R10-50								1	--	--	--	--	--
55	R10-50								1	--	--	--	--	--
56	R6-2L								1	1	--	--	--	SHEET 7 OF 14
57	R6-2L								1	1	--	--	--	--
58	R1-1 (3)		36	X	36	7.460	--	--	1	1	1	--	--	SHEET 8 OF 14; MOUNT BELOW R6-1R
59	R6-3 (2S)		30	X	24	5.000	--	--	--	--	--	--	58	MOUNT BELOW R1-1
60	R6-2L								1	1	--	--	--	SHEET 10 OF 14
61	R1-1 (3)		36	X	36	7.460	--	--	1	1	1	--	--	MOUNT BELOW R6-1R
62	R6-3 (2S)		30	X	24	5.000	--	--	--	--	--	--	61	MOUNT BELOW R1-1
63	R6-2L								1	1	--	--	--	--
64	R1-1 (3)		36	X	36	7.460	--	--	1	1	1	--	--	MOUNT BELOW R6-1R
65	R6-3 (2S)		30	X	24	5.000	--	--	--	--	--	--	64	MOUNT BELOW R1-1
		UNDISTRIBUTED				--	--	--	--	--	2	--	--	--
	TOTALS					357.800	52.500	44.760	31	17	28	2		

SHEET 3 OF 3

PROJECT NO: 2040-03-75	HWY: STH 100	COUNTY: MILWAUKEE	MISCELLANEOUS QUANTITIES – PERMANENT SIGNING	SHEET:	E

STH 100 (RYAN RD) & NICHOLSON RD
MILWAUKEE COUNTY
CATEGORY 0020
S40-1192

3

TRAFFIC SIGNAL REMOVALS

LOCATION		204.9060.S.01 REMOVING TRAFFIC SIGNALS EACH	204.9060.S.02 REMOVING LOOP DETECTOR WIRE & LEAD-IN CABLE EACH
STH 100 (RYAN RD) & NICHOLSON RD		1	1
	TOTAL	1	1

REMOVING PULL BOXES

PULL BOX NO.		653.0905 REMOVING PULL BOXES EACH
PB5		1
PB6		1
PB13		1
PB14		1
	TOTAL	4

CONDUIT

FROM	TO		652.0225 CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH L.F.
EXT1	PB5		20
EXT2	PB6		33
		TOTAL	53

TRAFFIC DETECTOR LOOPS

LOOP NO.	HOME RUN PB	LOCATION** ^	SIZE (FT)x(FT)	NO. OF TURNS	SDD INSTALLATION REFERENCE	652.0800 CONDUIT LOOP DETECTOR L.F.	655.0700 LOOP DETECTOR LEAD IN CABLE L.F.	655.0800 LOOP DETECTOR WIRE L.F.
11	PB18	158+37, 1.4' RT	6'X20'	3	9F15-4B - LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	58	267	174
12	PB18	158+68.2, 1.5' RT	6'X20'	3	9F15-4B - LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	58	267	174
21	PB6	163+65.30.0' LT	6'X18'	4	9F15-4B - LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	54	509	216
22	PB5	162+14.9, 36.1' LT	6'X6'	5	9F15-4B - LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	30	359	150
23	PB5	162+14.8, 24.4' LT	6'X6'	5	9F15-4B - LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	30	359	150
42	PB1	158+97.5, 105.7' LT	6'X20'	3	9F15-4B - LOOP DETECTOR INSTALLED IN BASE COURSE WILL PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	58	301	174
43	PB1	159+04.5, 74.4' LT	6'X20'	3	9F15-4B - LOOP DETECTOR INSTALLED IN BASE COURSE WILL PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	58	301	174
44	PB1	159+08.9, 108.2' LT	6'X20'	3	9F15-4B - LOOP DETECTOR INSTALLED IN BASE COURSE WILL PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	58	301	174
45	PB1	159+15.8, 76.8' LT	6'X20'	3	9F15-4B - LOOP DETECTOR INSTALLED IN BASE COURSE WILL PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	58	301	174
51	PB7	160+25.4, 2.3' LT	6'X20'	3	9F15-4B - LOOP DETECTOR INSTALLED IN BASE COURSE WILL PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	58	92	174
52	PB7	159+94.4, 2.0' LT	6'X20'	3	9F15-4B - LOOP DETECTOR INSTALLED IN BASE COURSE WILL PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	58	92	174
61	PB14	155+07.9, 29.3' RT	6'X18'	4	9F15-4B - LOOP DETECTOR INSTALLED IN BASE COURSE WILL PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	54	542	216
62	PB13	156+57.9, 35.6' RT	6'X6'	5	9F15-4B - LOOP DETECTOR INSTALLED IN BASE COURSE WILL PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	30	388	150
63	PB13	156+57.9, 24.2' RT	6'X6'	5	9F15-4B - LOOP DETECTOR INSTALLED IN BASE COURSE WILL PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	30	388	150
82	PB9	159+71, 108.1' RT	6'X20'	3	9F15-4B - LOOP DETECTOR INSTALLED IN BASE COURSE WILL PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	58	48	174
83	PB9	159+66, 76.5' RT	6'X20'	3	9F15-4B - LOOP DETECTOR INSTALLED IN BASE COURSE WILL PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	58	48	174
84	PB9	159+59.8, 110.2' RT	6'X20'	3	9F15-4B - LOOP DETECTOR INSTALLED IN BASE COURSE WILL PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	58	48	174
85	PB9	159+54.6, 78.7' RT	6'X20'	3	9F15-4B - LOOP DETECTOR INSTALLED IN BASE COURSE WILL PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	58	48	174
					TOTAL	924	4659	3120

** LOCATION IS TO FRONT CENTER OF DETECTOR LOOP
^ FINAL LOCATION TO BE DETERMINED BY THE ENGINEER IN THE FIELD.

PROJECT NO: 2040-03-75	HWY: STH 100	COUNTY: MILWAUKEE	MISCELLANEOUS QUANTITIES	SHEET: 75	E

FILE NAME : N:\PDS\C3D\CAD\20400305\SIG\S40-1192\S40-1192_mq.pptx PLOT DATE : 12/11/2023 PLOT BY : DOTSHW PLOT NAME : S40-1192_mq.pdf PLOT SCALE : 1:1

STH 100 (RYAN RD) & NICHOLSON RD
MILWAUKEE COUNTY
CATEGORY 0020
S40-1192

3

PULL BOXES

PULL BOX NO.	LOCATION^	653.0135 PULL BOXES STEEL 24x36-INCH EACH
PB5	162+15.3, 58.5' LT	1
PB6	163+65.1, 53.5' LT	1
PB13	156+57.6, 62.7' RT	1
PB14	155+08.1, 59.8' RT	1
	TOTAL	4

^ FINAL LOCATION TO BE DETERMINED BY THE ENGINEER IN THE FIELD.

TRAFFIC SIGNAL CABLE AND WIRE

FROM	TO	655.0260 CABLE TRAFFIC SIGNAL 12-14 AWG L.F.	655.0270 CABLE TRAFFIC SIGNAL 15-14 AWG L.F.
CB1	SB3	229	
CB1	SB4	148	
CB1	SB8	230	
CB1	SB9		325
	TOTAL	607	325

TRAFFIC SIGNAL CABLE AND WIRE

FROM	TO	655.0230 CABLE TRAFFIC SIGNAL 5-14 AWG L.F.	655.0240 CABLE TRAFFIC SIGNAL 7-14 AWG L.F.
SB3	HEAD 14	--	22
SB4	HEAD 2	19	--
SB4	HEAD 15	--	22
SB4	HEAD 16	--	22
SB8	HEAD 17	--	22
SB9	HEAD 5	19	--
SB9	HEAD 13	--	22
SB9	HEAD 18	--	22
	TOTAL	38	132

POLES (CONTRACTOR FURNISHED)

SIGNAL BASE NO.	657.0255 TRANSFORMER BASES BREAKAWAY 11 1/2-INCH BOLT CIRCLE EACH	657.0305 POLES TYPE 2 EACH
SB4	1	1
SB9	1	1
TOTAL	2	2

FACES

SIGNAL HEAD NO.	SIGNAL BASE NO.	658.0173 TRAFFIC SIGNAL FACE 3S 12-INCH EACH	658.0174 TRAFFIC SIGNAL FACE 4S 12-INCH EACH
2	SB4	1	--
5	SB9	1	--
13	SB9	--	1
14	SB3	--	1
15	SB4	--	1
16	SB4	--	1
17	SB8	--	1
18	SB9	--	1
	TOTAL	2	6

SIGNAL MOUNTING HARDWARE

LOCATION	658.5070.01 SIGNAL MOUNTING HARDWARE L.S.
STH 100 (RYAN RD) & NICHOLSON RD	1
TOTAL	1

LAMP, BALLAST, LED, SWITCH DISPOSAL

FIXTURE TYPE	659.5000.S LAMP, BALLAST, LED, SWITCH DISPOSAL BY CONTRACTOR EACH
TRAFFIC SIGNAL, THREE SECTION	2
TOTAL	2

LAMP, BALLAST, LED, SWITCH DISPOSAL (FOR INFORMATION ONLY)

SIGNAL BASE NO.	TRAFFIC SIGNAL, THREE SECTION EACH
SB4	1
SB9	1
TOTAL	2

Standard Detail Drawing List

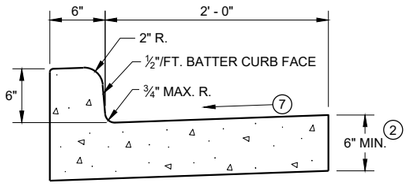
08D01-23A	CONCRETE CURB & GUTTER
08D01-23B	CONCRETE CURB, TIES AND CURB AND GUTTER APPLICATIONS
08D15-05A	EDGEDRAIN OUTLET AND OUTFALL MARKERS
08E09-06	SILT FENCE
08E10-02	INLET PROTECTION TYPE A, B, C AND D
09B02-10	CONDUIT
09B04-12	PULL BOX
09C03-04	TRANSFORMER/PEDESTAL BASES
09E01-15A	POLE MOUNTINGS FOR TRAFFIC SIGNALS TYPE 2
09E01-15G	HARDWARE DETAILS FOR POLE MOUNTINGS
09F15-04A	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 1)
09F15-04B	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)
13A05-06A	SHOULDER RUMBLE STRIPS, DIVIDED ROADWAY
13A05-06B	SHOULDER RUMBLE STRIPS, DIVIDED ROADWAY
13A10-03A	SHOULDER RUMBLE STRIPS - ASPHALT
13A10-03G	SHOULDER AND EDGE LINE RUMBLE STRIPS - CROSSINGS, INTERSECTIONS, BRIDGES, DRIVEWAYS
13C19-03	HMA LONGITUDINAL JOINTS
14B15-11A	STEEL PLATE BEAM GUARD, CLASS "A" INSTALLATION & ELEMENTS
14B15-11B	STEEL PLATE BEAM GUARD, CLASS "A" INSTALLATION & ELEMENTS
14B15-11C	STEEL PLATE BEAM GUARD, CLASS "A", INSTALLATION & ELEMENTS
14B16-04A	ANCHORAGE FOR STEEL PLATE BEAM GUARD TYPE 2
14B16-04B	ANCHORAGE FOR STEEL PLATE BEAM GUARD TYPE 2
14B18-06A	STEEL PLATE BEAM GUARD, CLASS "A" (AT BRIDGES, OBSTACLES AND SIDEROADS/DRIVEWAYS)
14B18-06B	STEEL PLATE BEAM GUARD, CLASS "A" AT MEDIAN APPROACH TO BRIDGES
14B20-12A	STEEL THRIE BEAM STRUCTURE APPROACH
14B20-12B	STEEL THRIE BEAM STRUCTURE APPROACH, CONNECTION TO SQUARE END PARAPETS
14B20-12C	STEEL THRIE BEAM STRUCTURE APPROACH, CONNECTION TO VERTICAL FACED PARAPETS
14B24-09A	STEEL PLATE BEAM GUARD ENERGY ABSORBING TERMINAL
14B24-09B	STEEL PLATE BEAM GUARD ENERGY ABSORBING TERMINAL
14B24-09C	STEEL PLATE BEAM GUARD ENERGY ABSORBING TERMINAL
14B28-04A	GUARDRAIL MOW STRIP
14B28-04B	GUARDRAIL MOW STRIP
14B29-01	SAFETY EDGE
14B42-07A	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-07B	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-07C	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-07D	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B44-04A	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B44-04B	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B44-04C	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B45-05A	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05B	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05C	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05D	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05I	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05J	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B47-05A	MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL
14B47-05B	MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL
14B47-05C	MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL
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
15C03-05	BARRICADES AND SIGNS FOR SIDEROAD CLOSURES
15C07-15B	PAVEMENT MARKING WORDS
15C07-15C	PAVEMENT MARKING ARROWS
15C08-23A	PERMANENT LONGITUDINAL PAVEMENT MARKINGS
15C08-23B	TEMPORARY LONGITUDINAL PAVEMENT MARKING
15C08-23C	PAVEMENT MARKING (TURN LANES)
15C11-10B	CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS
15C12-09A	TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION
15C33-04	STOP LINE AND CROSSWALK PAVEMENT MARKING
15C35-06A	PAVEMENT MARKING (INTERSECTIONS)
15D20-07A	TRAFFIC CONTROL, SINGLE LANE CLOSURE, DIVIDED NON-FREEWAY/EXPRESSWAY
15D20-07B	TRAFFIC CONTROL, SINGLE RIGHT LANE CLOSURE, UNDIVIDED NON-FREEWAY/EXPRESSWAY
15D21-07A	TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE LANE CLOSURE

6

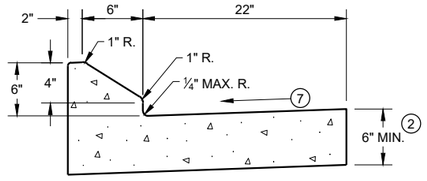
Standard Detail Drawing List

15D21-07B	TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE LANE CLOSURE
15D27-03	TRAFFIC CONTROL, SHOULDER CLOSURE ON DIVIDED ROADWAY, SPEEDS GREATER THAN 40 MPH
15D39-02	TRAFFIC CONTROL, DROP-OFF SIGNING
15D40-05A	TRAFFIC CONTROL, FULL LANE SHIFT NON-FREEWAY OR MULTILANE DIVIDED 45 MPH AND UNDER

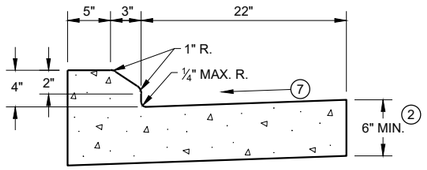
6



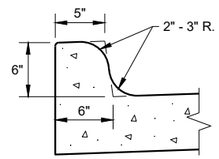
TYPES A (1) & D



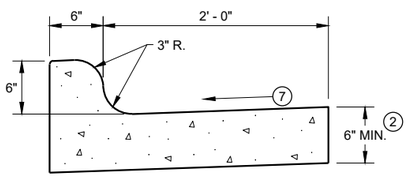
6" SLOPED CURB TYPES G (1) & J



4" SLOPED CURB TYPES G (1) & J

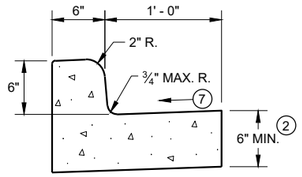


TYPES K (1) & L
(OPTIONAL CURB SHAPE)



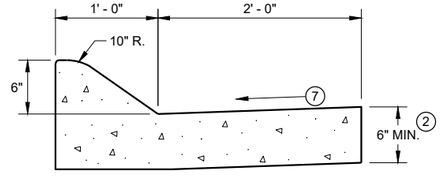
TYPES K (1) & L

CONCRETE CURB AND GUTTER 30"

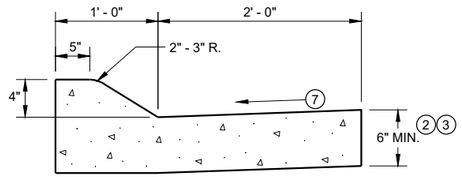


TYPES A (1) & D

CONCRETE CURB AND GUTTER 18"

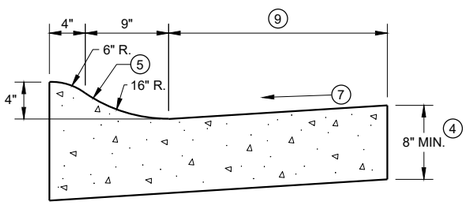


6" SLOPED CURB TYPES A (1) & D



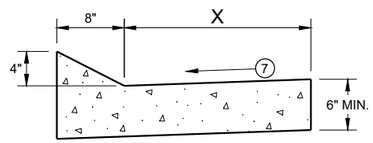
4" SLOPED CURB TYPES A (1) & D

CONCRETE CURB AND GUTTER 36"



4" SLOPED CURB TYPES R (1) & T

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

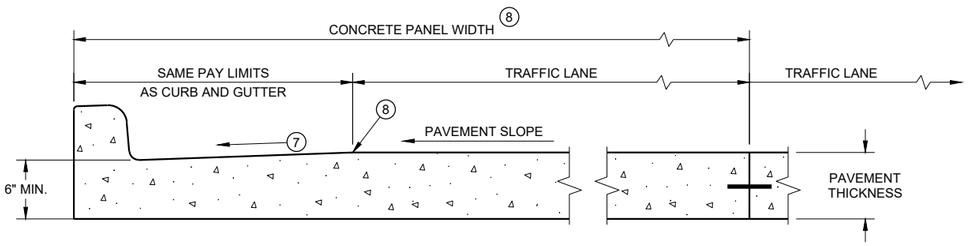


TYPES TBT & TBTT (1)

CONCRETE CURB AND GUTTER

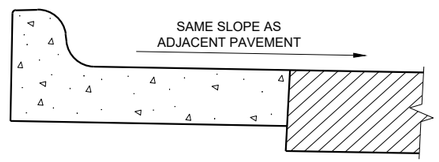
PAVEMENT THICKNESS AND MAXIMUM CONCRETE PANEL WIDTH TABLE

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



PARTIAL SECTION OF PAVEMENT * WITH INTEGRAL CURB AND GUTTER

* BIKE LANE IS NOT SHOWN



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

GENERAL NOTES

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

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

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

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

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

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

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

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

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

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

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

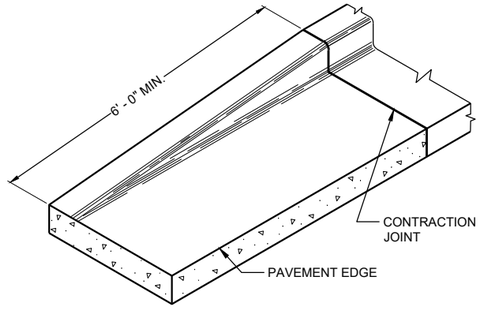
(8) INCLUDE LONGITUDINAL JOINT AND TIE BARS ALONG LANE EDGE WHEN CONCRETE PANEL WIDTH EXCEEDS THE MAXIMUM WIDTH PER TABLE BELOW. LONGITUDINAL JOINT(S) ARE NOT ALLOWED WITHIN TRAFFIC LANES AND BIKE LANES. LONGITUDINAL JOINT MAY BE SAWED.

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

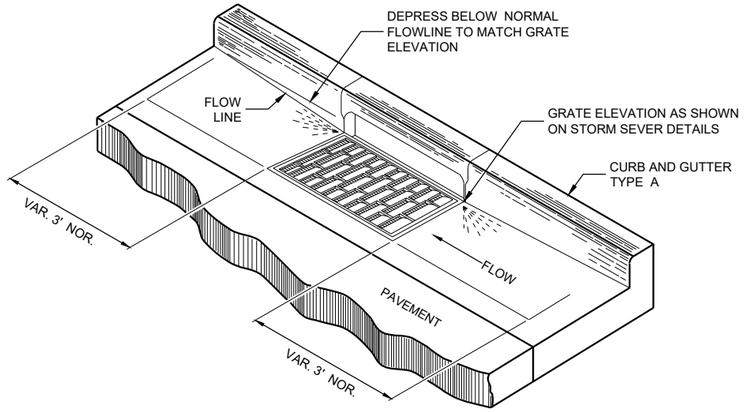
CONCRETE CURB AND GUTTER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6
SDD 08D01 - 23a



END SECTIONCURB AND GUTTER



DETAIL OF CURB AND GUTTER AT INLETS

(TYPICAL H INLET COVER SHOWN)

GENERAL NOTES

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

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

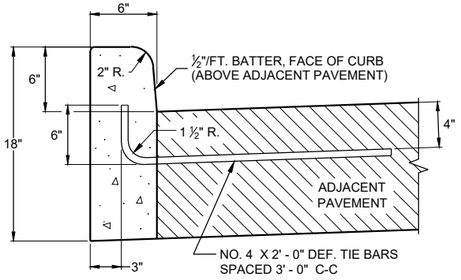
UNLESS OTHERWISE SHOWN ON THE TYPICAL CROSS SECTIONS, THE BASE AGGREGATE AND COMMON EXCAVATION LIMITS ARE 2' - 0" BEHIND THE BACK OF CURBS.

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

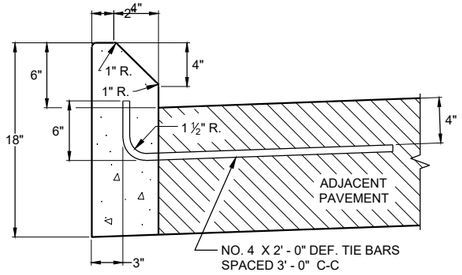
(2) THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 6" MINIMUM GUTTER THICKNESS IS MAINTAINED.

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

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

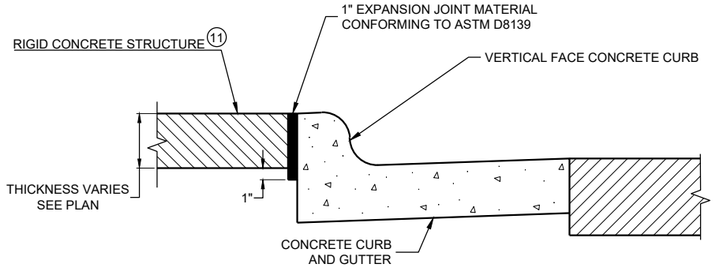


TYPES A (1) & D

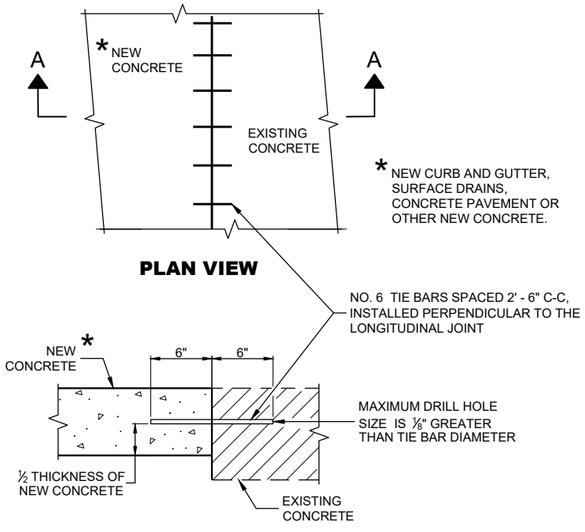


TYPES G (1) & J

CONCRETE CURB



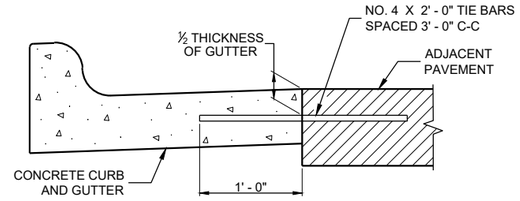
EXPANSION JOINT DETAIL FOR VERTICAL CURB ABUTTING A RIGID STRUCTURE (11)



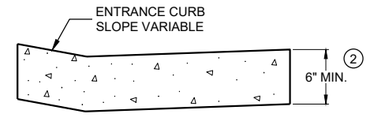
PLAN VIEW

SECTION A - A

TIE BARS DRILLED INTO EXISTING PAVEMENT



TYPICAL TIE BAR LOCATION (1)



DRIVEWAY ENTRANCE CURB (10)

(WHEN DIRECTED BY THE ENGINEER)

CONCRETE CURB, TIES AND CURB AND GUTTER APPLICATIONS

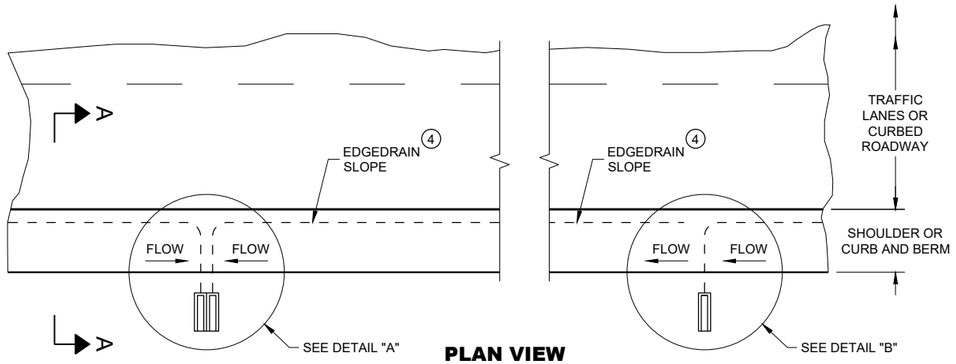
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

FHWA

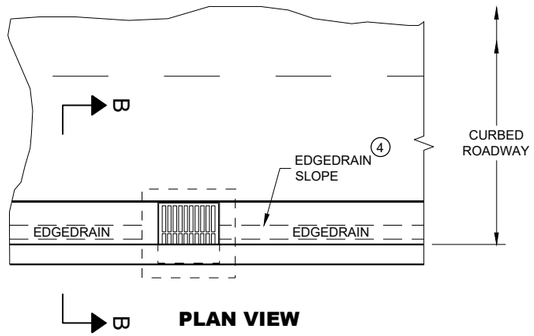
6

SDD08D01 - 23b



PLAN VIEW

ROADWAY WITH SHOULDERS OR CURBS
(EDGEDRAIN CONNECTS TO ROADSIDE) (2)



PLAN VIEW

ROADWAY WITH CURBS
(EDGEDRAIN CONNECTS INTO INLET STRUCTURE)

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) UNPERFORATED PIPE UNDERDRAIN AND FITTINGS FURNISHED FOR OUTFALL PIPE SHALL MEET THE REQUIREMENTS OF ONE OF THE FOLLOWING SPECIFICATIONS:

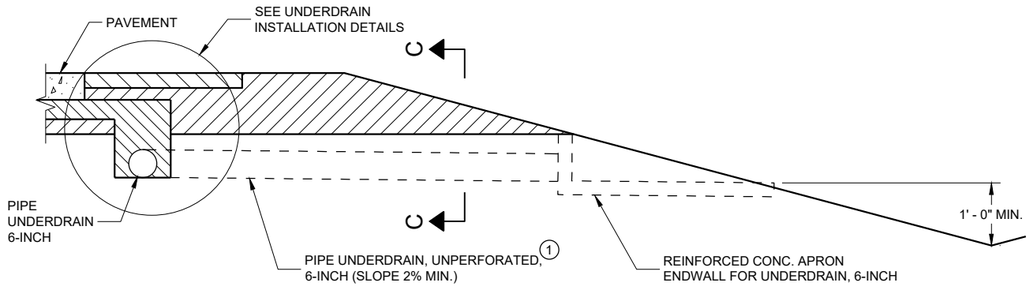
POLYVINYL CHLORIDE (PVC) PLASTIC DRAIN, WASTE, AND VENT PIPE AND FITTINGS, ASTM D 2665, SCHEDULE 40 PVC.

TYPE PSM POLYVINYL CHLORIDE (PVC) SEWER PIPE AND FITTINGS, ASTM D 3034, SDR 23.5 PVC SEWER PIPE.

(2) MAXIMUM SPACING OF EDGEDRAIN OUTLETS SHALL BE 250 FEET UNLESS OTHERWISE SPECIFIED IN THE CONTRACT OR DIRECTED BY THE ENGINEER.

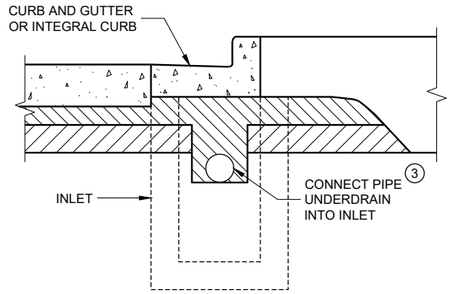
(3) EDGEDRAIN SHALL BE CONNECTED TO INLETS REGARDLESS OF FLOW DIRECTION FOR DRAINAGE AND MAINTENANCE ACCESS.

(4) EDGEDRAIN SHALL BE LAID PARALLEL TO THE GRADE OF ROADWAY.



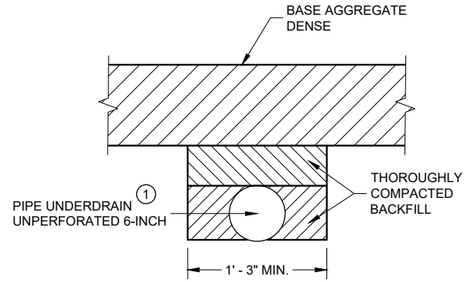
SECTION A - A

RURAL CROSS SECTION



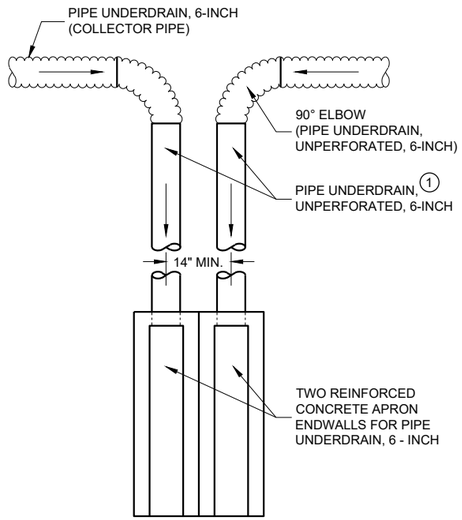
SECTION B - B

URBAN CROSS SECTION

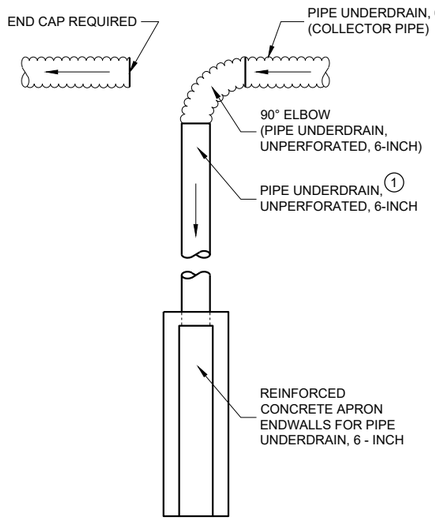


SECTION C - C

TRENCH FOR OUTFALL PIPE

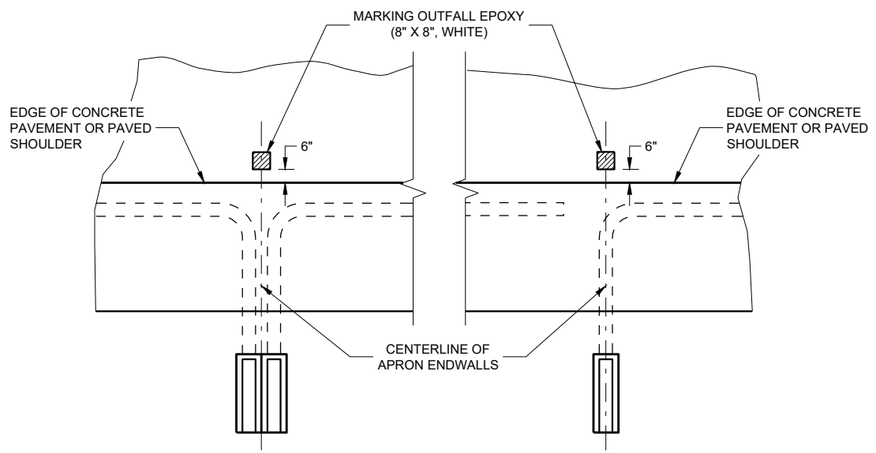


DETAIL "A"
TO BE USED AT LOW POINT LOCATIONS



DETAIL "B"
TO BE USED AT INTERMEDIATE LOCATIONS

TYPICAL DRAIN OUT DETAILS



LOW POINT LOCATIONS — INTERMEDIATE LOCATIONS

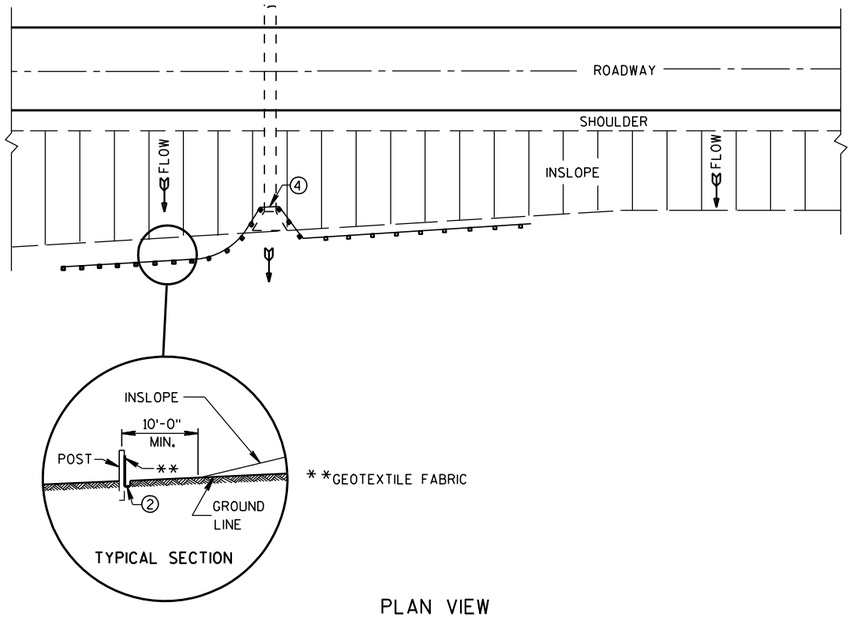
PAVEMENT MARKINGS FOR OUTFALL MARKERS

EDGEDRAIN OUTLET AND OUTFALL MARKERS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

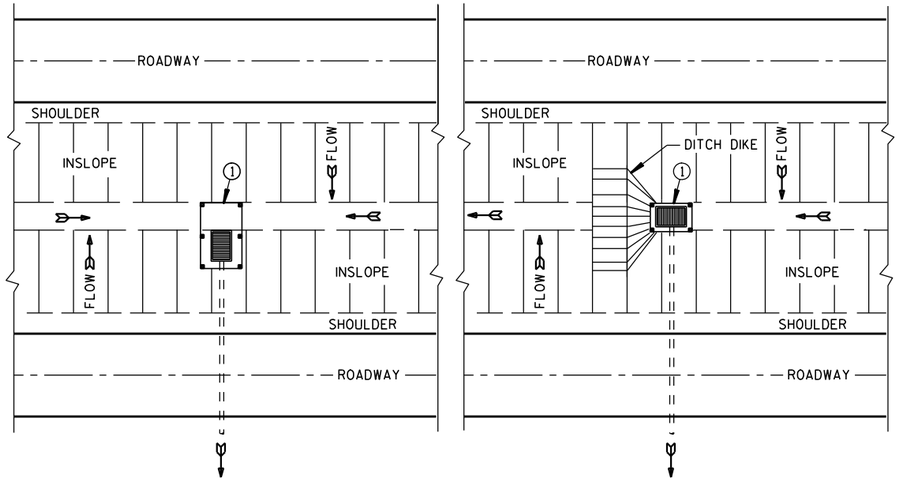
SDD08D15 - 05a

SDD08D15 - 05a



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.

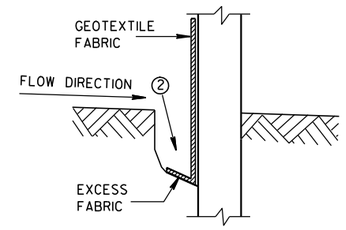
① HORIZONTAL BRACE REQUIRED WITH 2" X 4" WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS.

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.

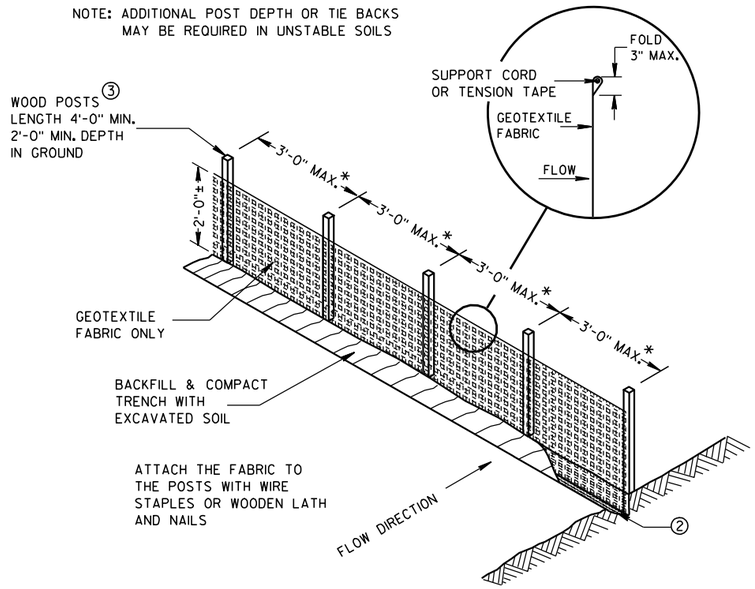
③ WOOD POSTS SHALL BE A MINIMUM SIZE OF 1⅛" X 1⅛" OF OAK OR HICKORY.

④ SILT FENCE TO EXTEND ACROSS THE TOP OF THE PIPE.

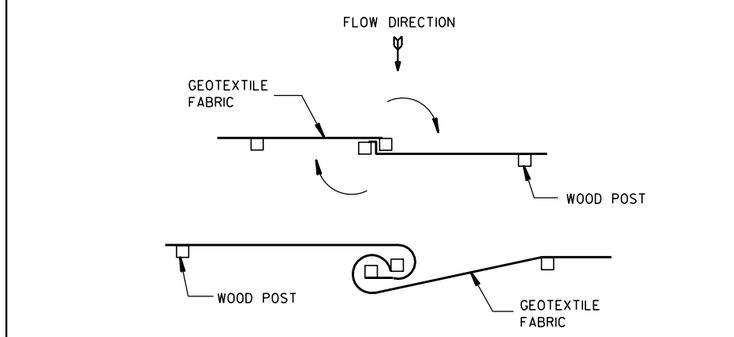
⑤ CONSTRUCT SILT FENCE FROM A CONTINUOUS ROLL IF POSSIBLE BY CUTTING LENGTHS TO AVOID JOINTS. IF A JOINT IS NECESSARY USE ONE OF THE FOLLOWING TWO METHODS; A) OVERLAP THE END POSTS AND TWIST, OR ROTATE, AT LEAST 180 DEGREES, B) HOOK THE END OF EACH SILT FENCE LENGTH.



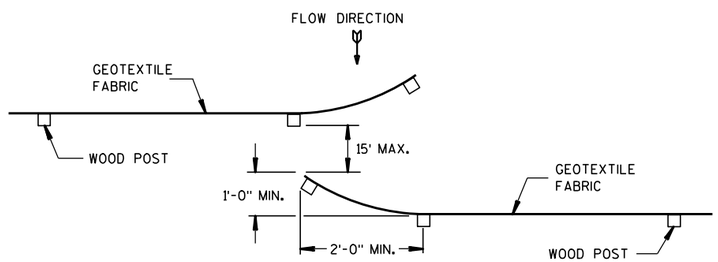
TRENCH DETAIL



SILT FENCE

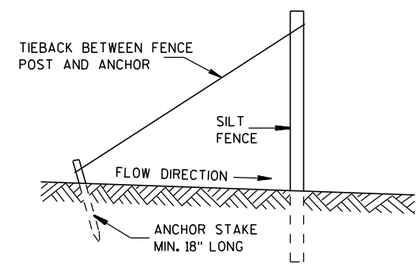


TWIST METHOD



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

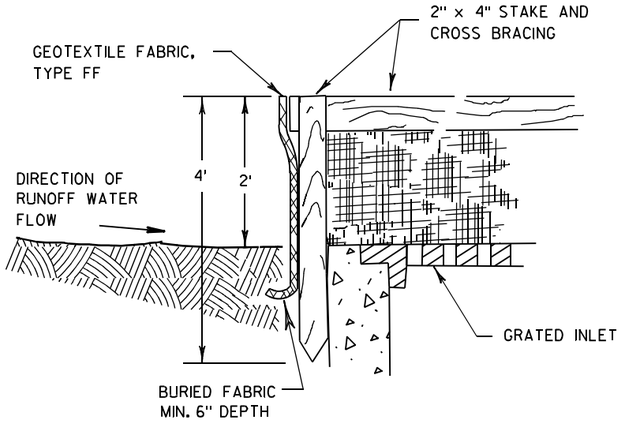
APPROVED
4-29-05 DATE
/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

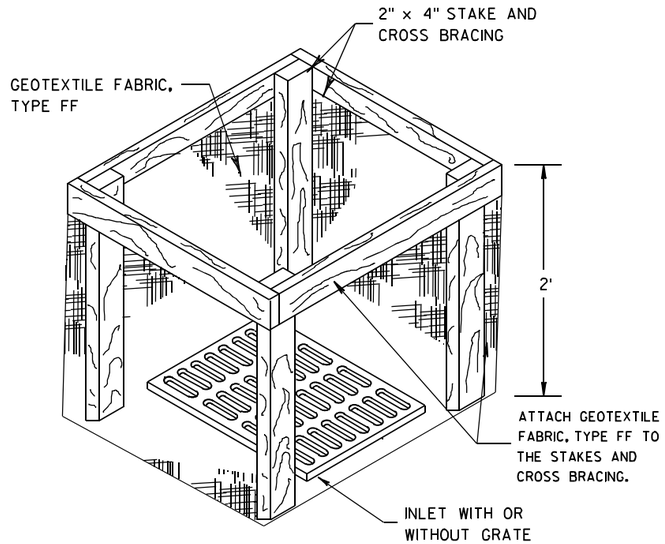
6

S.D.D. 8 E 9-6

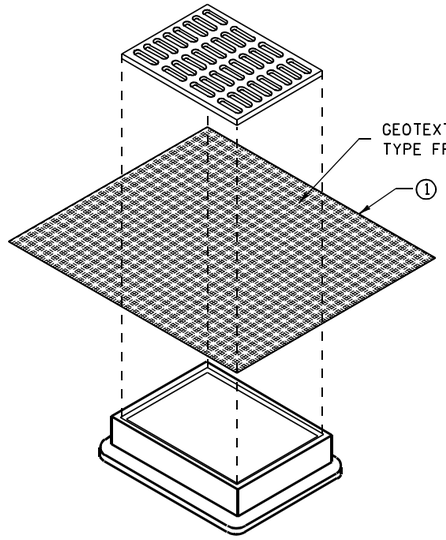
6

S.D.D. 8 E 9-6



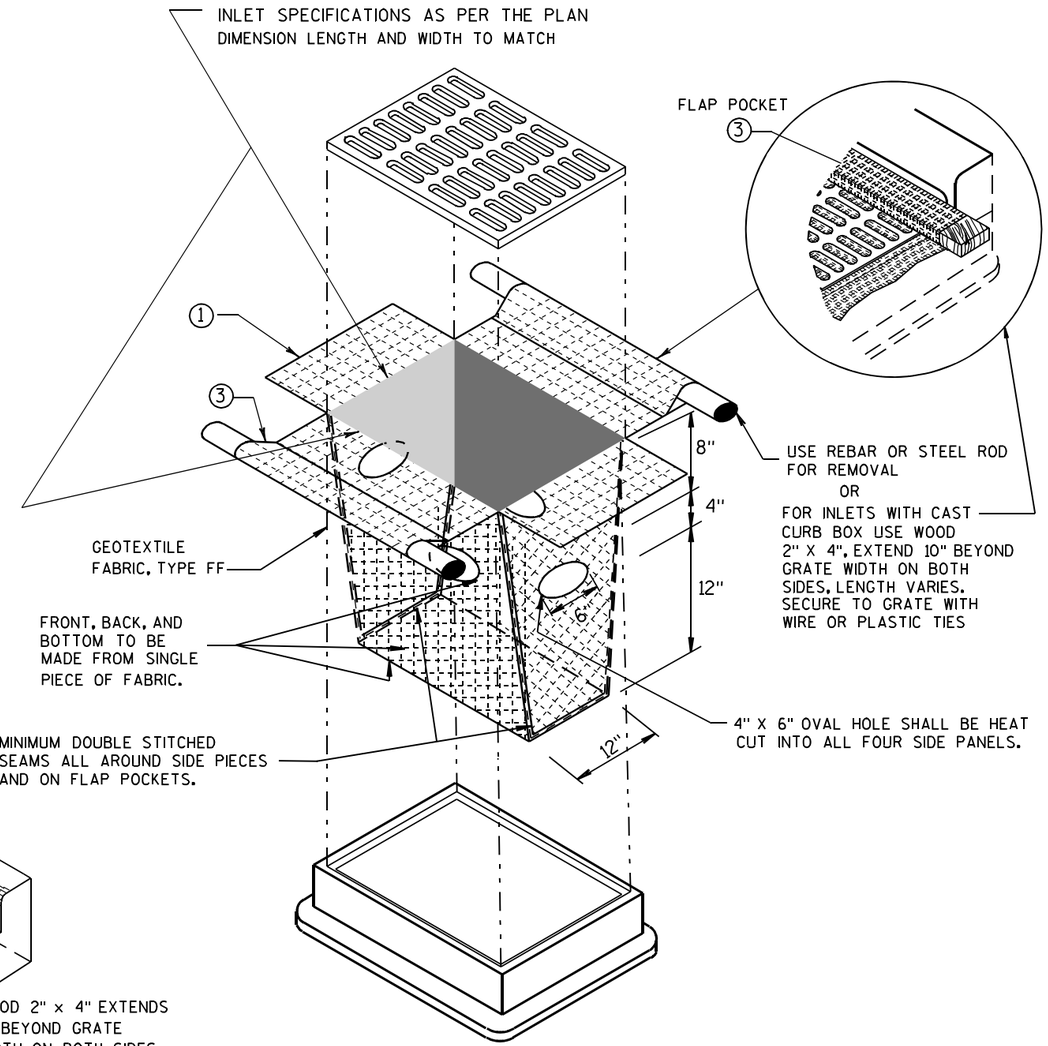


INLET PROTECTION, TYPE A



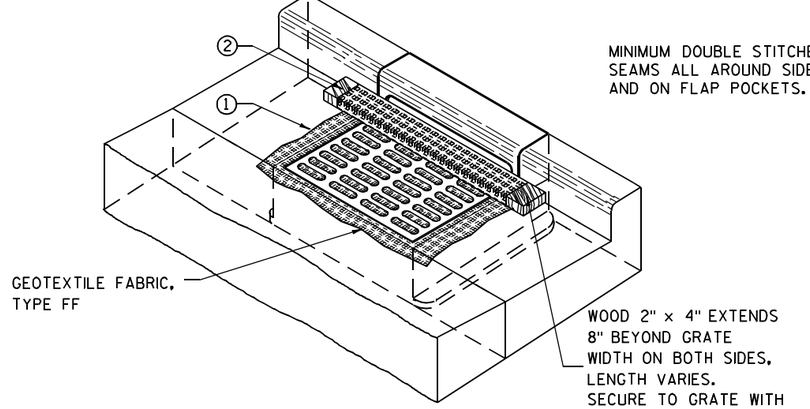
INLET PROTECTION, TYPE B
(WITHOUT CURB BOX)

(CAN BE INSTALLED IN ANY INLET WITHOUT A CURB BOX)



INLET PROTECTION, TYPE D

(CAN BE INSTALLED IN ANY INLET TYPE WITH
OR WITHOUT A CURB BOX AS PER NOTE ②)



INLET PROTECTION, TYPE C (WITH CURB BOX)

GENERAL NOTES

INLET PROTECTION DEVICES SHALL BE MAINTAINED OR REPLACED AT THE DIRECTION OF THE ENGINEER.

MANUFACTURED ALTERNATIVES APPROVED AND LISTED ON THE DEPARTMENT'S EROSION CONTROL PRODUCT ACCEPTABILITY LIST MAY BE SUBSTITUTED.

WHEN REMOVING OR MAINTAINING INLET PROTECTION, CARE SHALL BE TAKEN SO THAT THE SEDIMENT TRAPPED ON THE GEOTEXTILE FABRIC DOES NOT FALL INTO THE INLET. ANY MATERIAL FALLING INTO THE INLET SHALL BE REMOVED IMMEDIATELY.

① FINISHED SIZE, INCLUDING FLAP POCKETS WHERE REQUIRED, SHALL EXTEND A MINIMUM OF 10" AROUND THE PERIMETER TO FACILITATE MAINTENANCE OR REMOVAL.

② FOR INLET PROTECTION, TYPE C (WITH CURB BOX), AN ADDITIONAL 18" OF FABRIC IS WRAPPED AROUND THE WOOD AND SECURED WITH STAPLES. THE WOOD SHALL NOT BLOCK THE ENTIRE HEIGHT OF THE CURB BOX OPENING.

③ FLAP POCKETS SHALL BE LARGE ENOUGH TO ACCEPT WOOD 2X4.

INSTALLATION NOTES

TYPE B & C

TRIM EXCESS FABRIC IN THE FLOW LINE TO WITHIN 3" OF THE GRATE.

THE CONTRACTOR SHALL DEMONSTRATE A METHOD OF MAINTENANCE, USING A SEWN FLAP, HAND HOLDS OR OTHER METHOD TO PREVENT ACCUMULATED SEDIMENT FROM ENTERING THE INLET.

TYPE D

DO NOT INSTALL INLET PROTECTION TYPE D IN INLETS SHALLOWER THAN 30", MEASURED FROM THE BOTTOM OF THE INLET TO THE TOP OF THE GRATE.

TRIM EXCESS FABRIC IN THE FLOW LINE TO WITHIN 3" OF THE GRATE.

THE INSTALLED BAG SHALL HAVE A MINIMUM SIDE CLEARANCE, BETWEEN THE INLET WALLS AND THE BAG, MEASURED AT THE BOTTOM OF THE OVERFLOW HOLES, OF 3". WHERE NECESSARY THE CONTRACTOR SHALL CINCH THE BAG, USING PLASTIC ZIP TIES, TO ACHIEVE THE 3" CLEARANCE. THE TIES SHALL BE PLACED AT A MAXIMUM OF 4" FROM THE BOTTOM OF THE BAG.

INLET PROTECTION
TYPE A, B, C, AND D

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
10/16/02
DATE
/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

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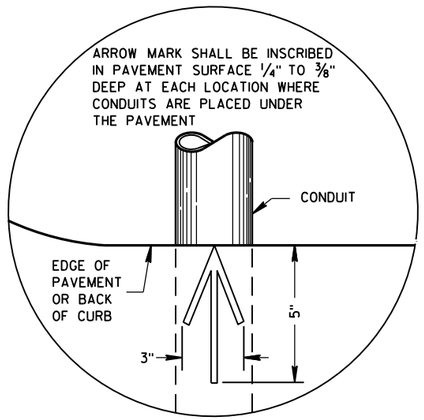
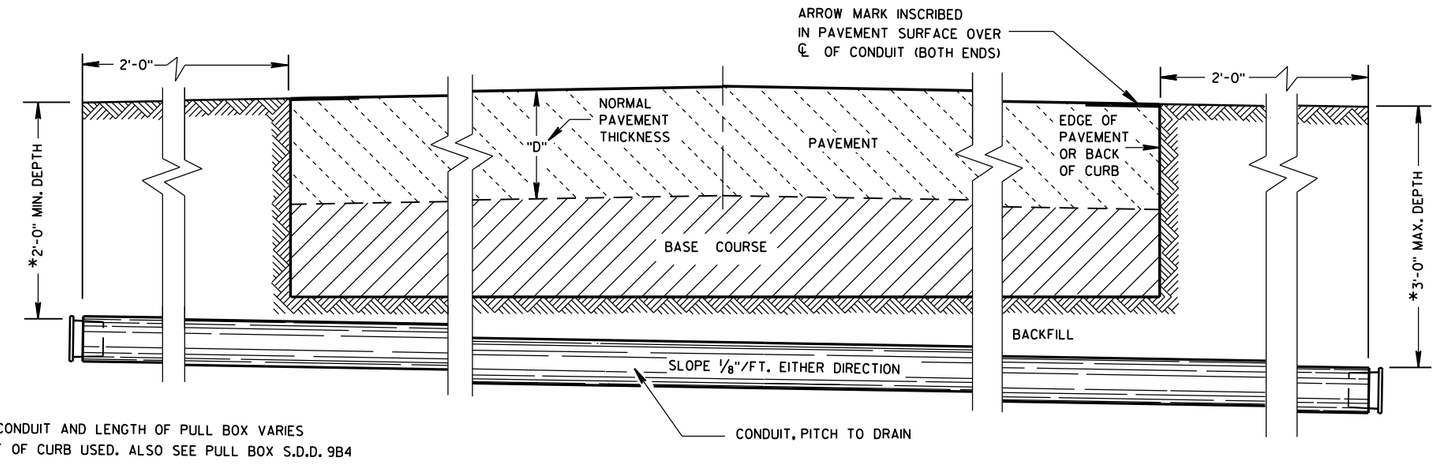
S.D.D. 8 E 10-2



PLAN VIEW

ARROW MARK



*DEPTH OF CONDUIT AND LENGTH OF PULL BOX VARIES WITH HEIGHT OF CURB USED. ALSO SEE PULL BOX S.D.D. 9B4

SIDE ELEVATION

DETAIL FOR CONDUIT UNDER PAVED HIGHWAYS

GENERAL NOTES

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

METALLIC (STANDARD SPECIFICATION 652.2.2) OR NONMETALLIC (STANDARD SPECIFICATION 652.2.3) CONDUIT SHALL BE FURNISHED AND PLACED AS SHOWN.

DEPTH OF CONDUIT INSTALLED BELOW THE TRAVELED WAY SHALL BE 24 INCHES MINIMUM AND 36 INCHES MAXIMUM.

DEPTH OF CONDUIT INSTALLED THAT IS NOT BELOW THE TRAVELED WAY SHALL BE 18 INCHES MINIMUM AND 36 INCHES MAXIMUM.

ANY EXCEPTION TO THE MAXIMUM DEPTH SHALL BE ONLY WITH THE WRITTEN APPROVAL OF THE ENGINEER.

THE TRENCH SHALL NOT BE BACKFILLED PRIOR TO INSPECTION OF THE CONDUIT.

ALL METALLIC CONDUIT RACEWAY ENDS SHALL BE REAMED AND THREADED.

ALL METALLIC CONDUIT IN WHICH WIRE OR CABLE IS TO BE INSTALLED SHALL BE BUSHED WITH APPROVED THREADED BUSHINGS BEFORE INSTALLATION OF THE WIRE OR CABLE.

ALL METALLIC CONDUITS IN WHICH WIRE OR CABLE IS NOT TO BE INSTALLED SHALL BE CAPPED WITH THREADED PROTECTIVE CAPS, AS APPROVED BY THE ENGINEER.

ALL NONMETALLIC CONDUIT SHALL BE CAPPED OR PLUGGED IMMEDIATELY AFTER INSTALLATION AND SHALL REMAIN CAPPED OR PLUGGED UNTIL WIRE/CABLES ARE INSTALLED.

NONMETALLIC CONDUITS IN WHICH WIRE OR CABLE IS NOT BEING INSTALLED SHALL REMAIN CAPPED OR PLUGGED.

BENDING OF PVC ELECTRICAL CONDUIT SHALL BE ACCOMPLISHED BY USING A BLANKET OR EMERSION TYPE TANK DESIGNED FOR THE PURPOSE OF BENDING PVC ELECTRICAL CONDUIT.

ALL CUT ENDS SHALL BE TRIMMED INSIDE AND OUTSIDE TO REMOVE ALL ROUGH EDGES ON NONMETALLIC CONDUIT. (SEE NEC 347.5)

WHEN REQUIRED TO CONNECT NONMETALLIC CONDUIT TO METALLIC CONDUIT, ONLY U.L. LISTED ADAPTER FITTINGS SHALL BE USED.

PRIOR TO CONDUIT ACCEPTANCE, CONDUIT CAPS OR PLUGS SHALL BE REMOVED, AND THE CAPS, PLUGS AND CONDUIT ENDS SHALL BE THOROUGHLY CLEANED AND THEN THE CAPS OR PLUGS REINSTALLED TO ENSURE THAT THE CAPS OR PLUGS CAN BE EASILY REMOVED IN THE FUTURE.

ALL CONDUIT BEING FURNISHED AND INSTALLED SHALL HAVE THE U.L. LABEL FIRMLY ATTACHED.

CONDUIT RUNS SHALL BE THE SAME SIZE OF CONDUIT FROM ONE END TO THE OTHER (FROM PULL BOX TO PULL BOX-OR-JUNCTION BOX TO JUNCTION BOX-OR-BASE TO BASE, ETC.).

TRACER WIRE SHALL BE INSTALLED AS STATED IN THE STANDARD SPECIFICATION, ITEM 652.3.1.1.

ALL CONDUIT RUNS SHALL BE STRAIGHT (WITHOUT BENDS) FROM PULL BOX TO PULL BOX, PULL BOX TO BASE AND BASE TO BASE AS SHOWN ON THE PLANS.

CONDUIT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
March, 2017 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL
FHWA

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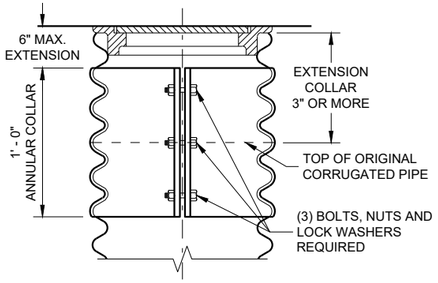
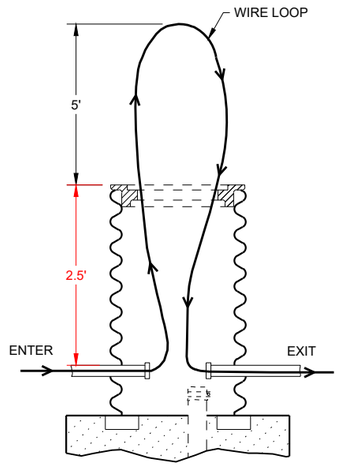
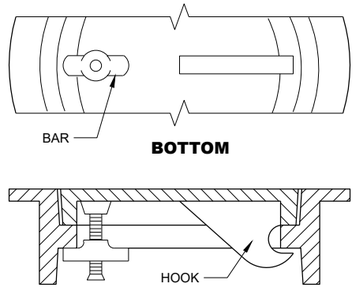
S.D.D. 9 B 2-10



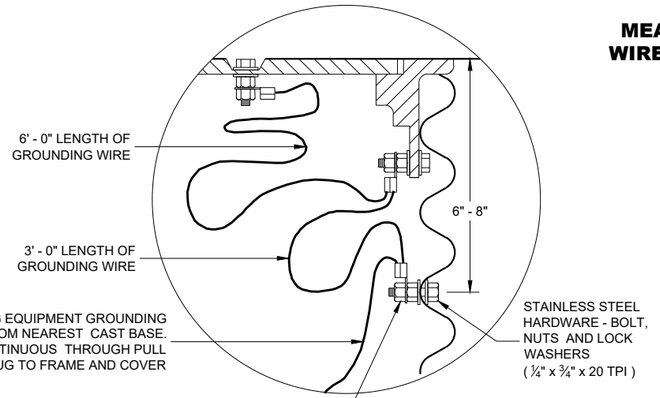
CORRUGATED PIPE EXTENDER



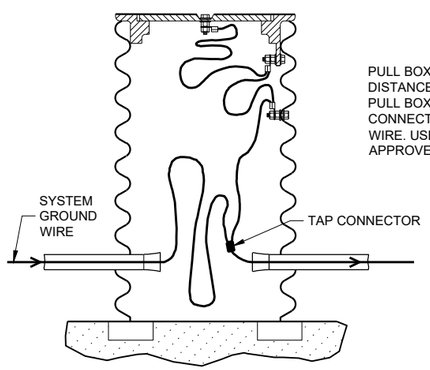
MEASUREMENT DETAIL FOR WIRE/CABLE IN THE PULL BOX



ALTERNATE COVER (LOCKING)
TIGHTENING BAR TYPE

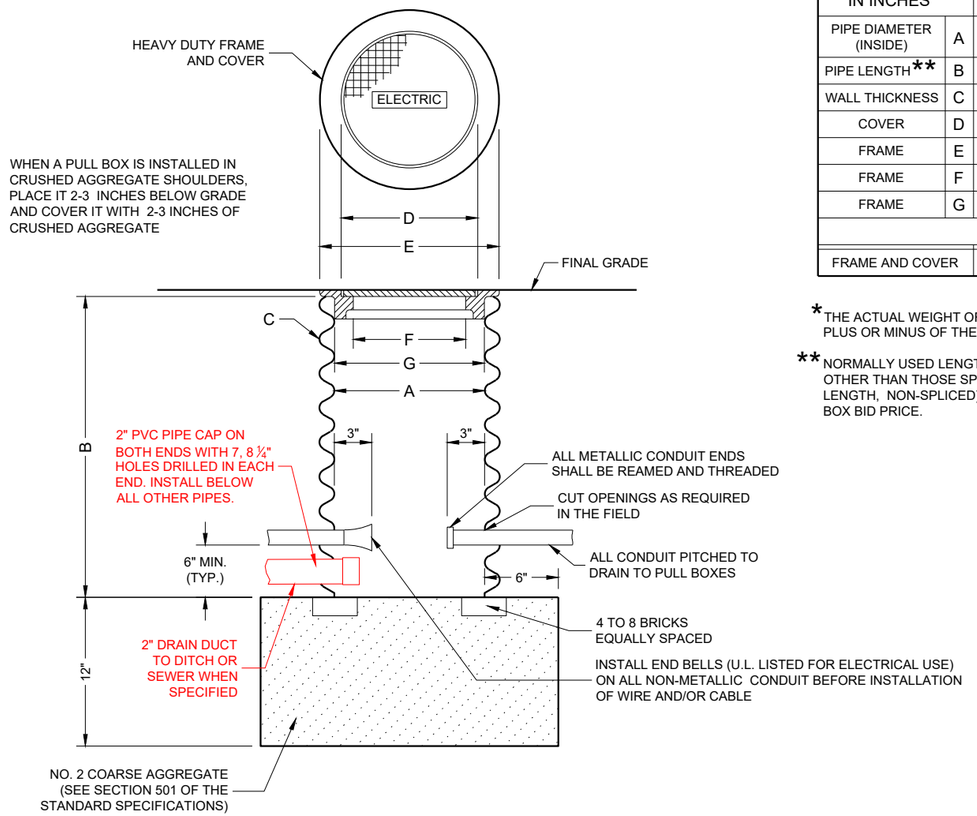


EQUIPMENT GROUNDING LUG AND LOCATION IN STEEL PULL BOXES



PULL BOX TO NEAREST BASE DISTANCE MORE THAN 20 FEET. PULL BOX GROUND WIRE SHALL CONNECT AT SYSTEM GROUNDING WIRE. USE DEPARTMENT APPROVED TAP CONNECTOR.

EQUIPMENT GROUNDING LUG AND LOCATION IN STEEL PULL BOXES



PULL BOX

GENERAL NOTES

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

ALL FRAMES AND COVERS SHALL BE HEAVY DUTY TYPE, SUITABLE FOR VEHICULAR TRAFFIC LOADS.

PULL BOXES LOCATED IN THE ROADWAYS SHALL HAVE LOCKING COVERS.

ENTRANCE HOLES INTO PULL BOXES SHALL BE CUT WITH A CIRCULAR HOLE SAW OR HYDRAULIC CONDUIT PUNCH. HOLE SIZE SHALL BE THE OUTSIDE DIAMETER OF THE CONDUIT THAT IS TO FIT IN THE OPENING PLUS NO MORE THAN ¼".

THE CONTRACTOR SHALL NOT INSTALL WIRE IN ANY PULL BOX UNTIL ITS INSTALLATION HAS BEEN INSPECTED AND ACCEPTED BY THE ENGINEER.

GROUNDING LUGS (MECHANICAL CONNECTORS) SHALL BE U.L. LISTED AND APPROVED FOR USE WITH COPPER WIRE.

ALL METALLIC CONDUIT IN WHICH WIRE AND/OR CABLE IS TO BE INSTALLED, SHALL BE BUSHED BEFORE INSTALLATION OF THE WIRE AND/OR CABLE.

WHEN PULL BOXES ARE INSTALLED FOR FUTURE USE, DO NOT INSTALL THE EQUIPMENT GROUNDING LUG. THE EQUIPMENT GROUNDING LUG, THE EQUIPMENT GROUNDING ELECTRODE AND THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE REQUIRED AND INSTALLED UNDER A FUTURE WIRING CONTRACT.

TABLE OF NOMINAL DIMENSIONS AND WEIGHTS

DIMENSION IN INCHES		CORRUGATED STEEL PIPE								
PIPE DIAMETER (INSIDE)	A	12	12	12	18	18	18	24	24	24
PIPE LENGTH**	B	24	30	36	24	30	36	36	42	48
WALL THICKNESS	C	0.064	0.064	0.064	0.064	0.064	0.064	0.064	0.064	0.064
COVER	D	10 ¼	10 ¼	10 ¼	16 ¼	16 ¼	16 ¼	22 ¼	22 ¼	22 ¼
FRAME	E	14 ½	14 ½	14 ½	20 ½	20 ½	20 ½	26 ½	26 ½	26 ½
FRAME	F	8 ½	8 ½	8 ½	14 ½	14 ½	14 ½	20 ½	20 ½	20 ½
FRAME	G	11 ½	11 ½	11 ½	17 ½	17 ½	17 ½	23 ½	23 ½	23 ½
WEIGHT IN POUNDS*										
FRAME AND COVER		60	60	60	110	110	110	155	155	155

*THE ACTUAL WEIGHT OF THE MANHOLE FRAME AND COVER MAY VARY WITHIN 5 PERCENT PLUS OR MINUS OF THE WEIGHTS SHOWN.

**NORMALLY USED LENGTHS. THE PROJECT ENGINEER SHALL DETERMINE IF PIPE LENGTHS, OTHER THAN THOSE SPECIFIED, SHALL BE USED, TO A MAXIMUM OF 48" (CONTINUOUS LENGTH, NON-SPLICED). THE ADDITIONAL LENGTH SHALL BE INCIDENTAL TO THE PULL BOX BID PRICE.

PULL BOX

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2022
DATE

/S/ Ahmet Demirbilek
STATE ELECTRICAL ENGI

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GENERAL NOTES

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

FOUR (4) BOLTS SHALL BE FURNISHED WITH EACH TRANSFORMER BASE. BOLTS SHALL BE 1" DIAMETER, 4" IN LENGTH, WITH WASHERS, LOCK WASHERS AND NUTS. BOLTS, NUTS AND WASHERS SHALL BE MANUFACTURED IN ACCORDANCE WITH SECTION 531.2.2 OF THE STANDARD SPECIFICATIONS.

LEVELING SHIMS, IF NEEDED, SHALL BE DESIGNED FOR THE PURPOSE AND USED UNDER CAST BASES WHEN PLUMBING POLES OR STANDARDS DURING INSTALLATION. THE USE OF WASHERS IN LIEU OF PROPER LEVELING SHIMS IS NOT ACCEPTABLE.

SHIM LENGTH SHALL BE LONG ENOUGH TO COMPLETELY COVER THE AREA UNDER THE LENGTH AND WIDTH OF THE BASE MOUNTING FLANGE.

DOUBLE NUTTING IS NOT ACCEPTABLE FOR LEVELING OR MOUNTING PURPOSES.

A NEMA APPROVED, U.L. LISTED, COPPER WITH BRASS OR STAINLESS STEEL SET SCREW, DIRECT BURY RATED, MECHANICAL CONNECTOR (LUG), SIZED TO ACCEPT AWG. #10 TO #4 COPPER STRANDED WIRE SHALL BE FURNISHED AND INSTALLED IN THE PEDESTAL AND TRANSFORMER BASES.

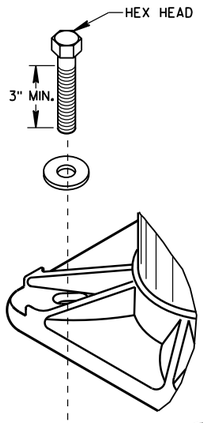
THE MECHANICAL CONNECTOR SHALL BE INSTALLED USING A 1/4" - 20 (TPI) STAINLESS STEEL HEX HEAD BOLT OF SUFFICIENT LENGTH TO FIRMLY ATTACH THE LUG TO THE BASE.

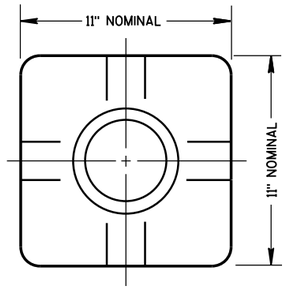
SHOULD THE MANNER OF ATTACHMENT OF THE LUG REQUIRE WASHERS, HEX NUTS, LOCK WASHER - THEY SHALL BE STAINLESS STEEL AS IS THE BOLT. THE MANNER OF ATTACHMENT SHALL NOT BLOCK ACCESSIBILITY TO WIRE PLACEMENT IN THE CONNECTOR.

PEDESTAL BASE COLLAR THREADING SHALL BE TAPERED AND IN ACCORDANCE WITH NATIONAL PIPE THREADING DIMENSIONS.

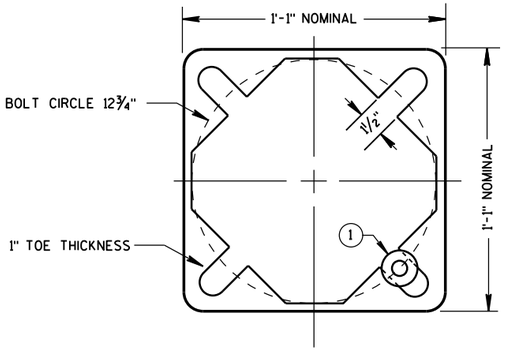
BASE COLLAR THREADING SHALL EXTEND INTO THE BASE COLLAR WITH SUFFICIENT DEPTH TO ACCEPT THE INSTALLATION OF TRAFFIC SIGNAL STANDARDS TO A DEPTH OF 1 1/2", THEN TIGHTENING TO A POINT OF BEING IMMOVABLE.

THE ACCESS DOOR SHALL BE OF THE SAME MATERIAL AS THE BASE.

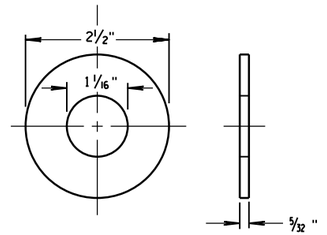




TOP VIEW
(PEDESTAL BASE)

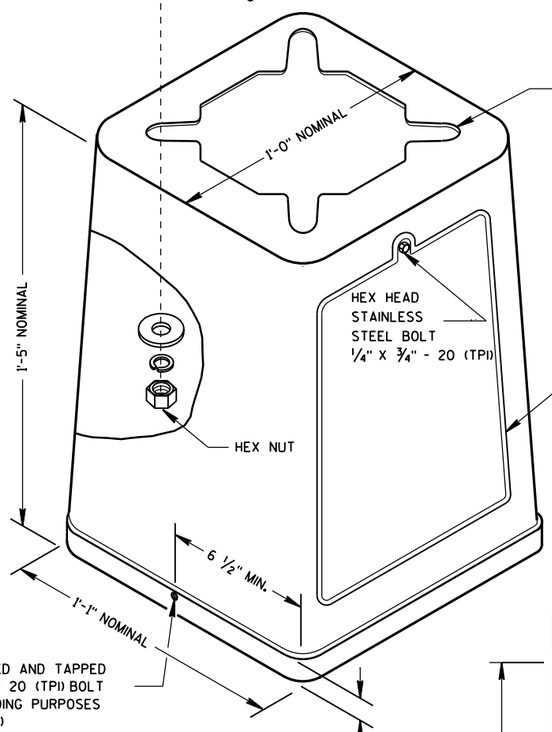


BOTTOM VIEW
(PEDESTAL BASE)

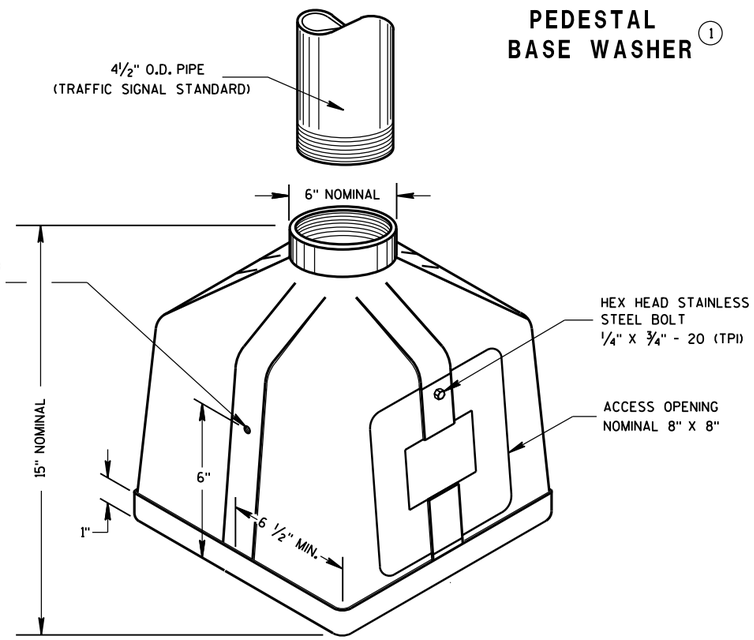


ZINC COATED STEEL WASHER
TO BE PROVIDED BY THE CONTRACTOR

PEDESTAL BASE WASHER (1)

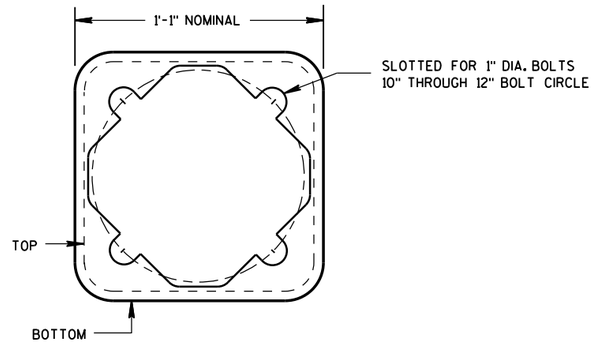


ISOMETRIC VIEW

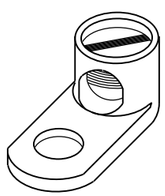


ISOMETRIC VIEW

PEDESTAL BASE



BOTTOM VIEW
(TRANSFORMER BASE)

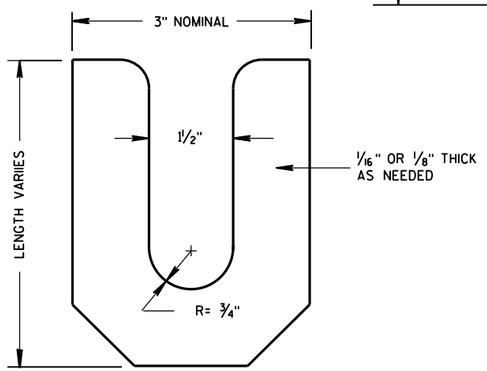


TYPICAL MECHANICAL CONNECTOR LUG

TO BE FURNISHED WITH EACH BASE

TRANSFORMER BASE

INTENDED FOR USE WITH TYPE 2, 3, 4, 5 & 6 POLES



LEVELING SHIM

TRANSFORMER/PEDESTAL BASES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Sept. 2014 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL
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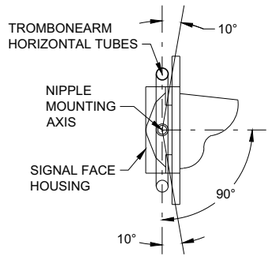
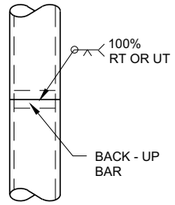


SECTION A-A

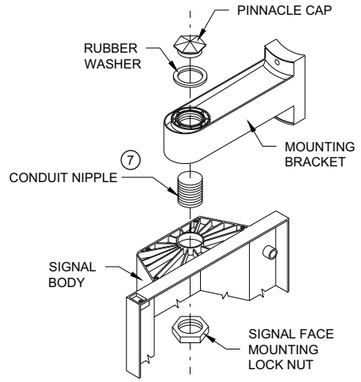
(10 DEGREES TILT REQUIREMENT OF FACE(S) IN THE TROMBONE MOUNTING)

FOR MANUFACTURERS USE ONLY

WELD TO BE 100% R.T. OR U.T. TESTED AS PER THE REQUIREMENTS OF AWS D 1.5-88. RECORDS OF COMPLIANCE OF SUCH TESTING SHALL BE FURNISHED TO THE OFFICE OF DESIGN / BRIDGE FOR VERIFICATION AND APPROVAL.



POLE SPLICE DETAIL



SIGNAL FACE MOUNTING DETAIL

(BANDED)

GENERAL NOTES

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

POLES SHALL BE EITHER ALUMINUM OR GALVANIZED STEEL AS CALLED FOR IN THE CONTRACT.

SECTION 657, POLES, OF THE STANDARD SPECIFICATIONS SHALL APPLY TO THIS DRAWING.

A PULL WIRE / ROPE SHALL BE INSTALLED IN EACH TROMBONE ARM RACEWAY DURING THE MANUFACTURING PROCESS.

TYPE 2 ALUMINUM POLES SHALL BE CONSTRUCTED OF 6063 - T6 ALUMINUM ALLOY. SLEEVING INSIDE THE POLE IS NOT ACCEPTABLE.

WHEN TRANSFORMER BASES ARE USED, WIRE CONNECTIONS SHALL BE MADE IN THE TRANSFORMER BASE.

(1) 4" X 6" REINFORCED HANDHOLE AND COVER ASSEMBLY WITH TWO (2) ¼" X ¾" - 20 TPI , STAINLESS STEEL, HEX HEAD BOLTS.

(2) SIGNAL FACE MOUNTING BRACKETS. MOUNT WITH CAP SCREWS AND BANDING.

(3) GROMMETS. 1" CHASE NIPPLES OR 1" CLOSE CONDUIT NIPPLES WITH BUSHINGS SHALL BE PROVIDED FOR 1 ⅜" HOLE IN POLE SHAFT FOR WIRING.

(4) SECURELY MOUNT DULL BLACK POLYCARBONATE BACKPLATES, PROJECTING 5" BEYOND ALL SIDES OF THE SIGNAL FACE HOUSING,PER MANUFACTURER'S RECOMMENDATIONS.

(5) POLE MOUNTED SIGNAL FACES SHALL REQUIRE ONE OR MORE MOUNTING SPACERS UNDER THE TOP MOUNTING BRACKET(S) ASREQUIRED, TO PLUMB THE SIGNAL FACES.

(6) CAST ALUMINUM TRANSFORMER BASE, WHEN REQUIRED.

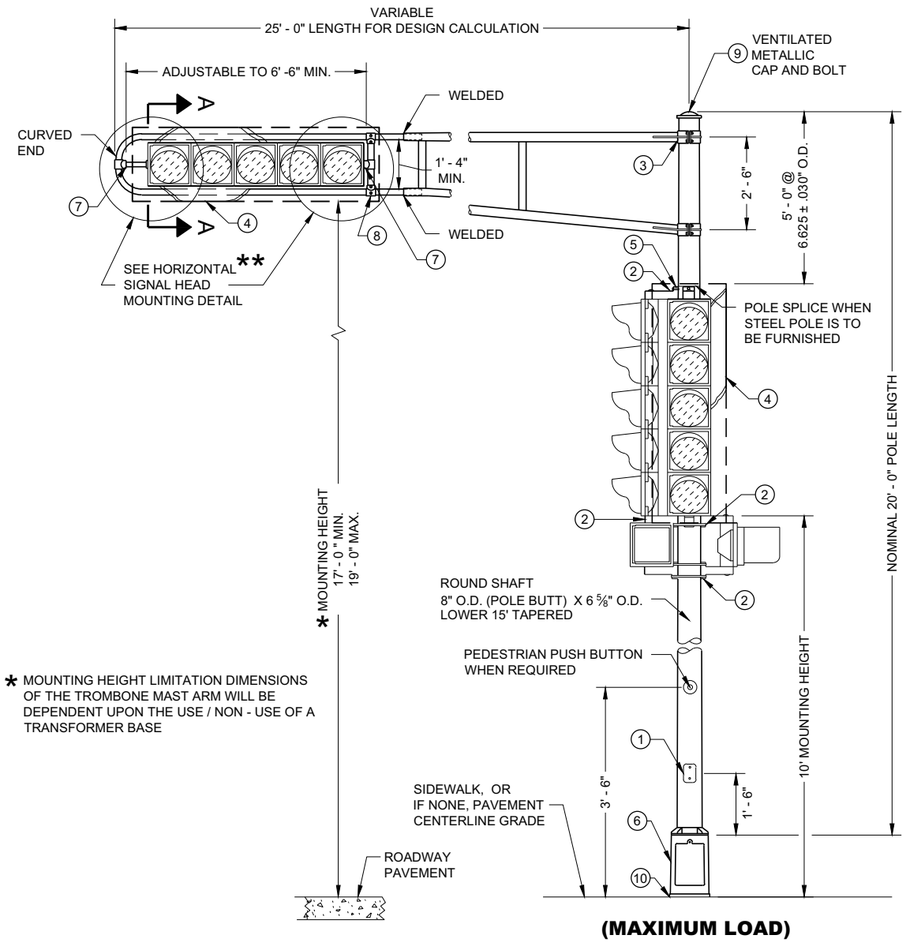
(7) USE 1 ½" ID NIPPLES ZINC-COATED RIGID METAL CONDUIT, LONG ENOUGH TO ACCOMMODATE FULL DEPTH THREADING INTO THE HEAD MOUNTING LOCK NUT IN ORDER TO TIGHTEN THE FACE, BUT THAT DO NOTINTERFERE WITH REFLECTOR CLOSURE. THREAD THE NIPPLE INTO THE MOUNTING BRACKET/ELBOW UNTIL TIGHT. USE APPROVED PINNACLE TYPE HARDWARE FROM A DEPARTMENT APPROVED MANUFACTURER TO CLOSE THE UNUSED 1 ½" OPENING IN SIGNAL FACES AND BRACKET ENDS.

(8) VERTICAL STRUT (ADJUSTABLE). ONE (1) SET SCREW (¼" X ¾" - 20 TPI STAINLESS STEEL, HEX HEAD) INTO EACH ARM MEMBER IF STRUTIS THE SLIDING TYPE.

(9) FURNISH AND INSTALL VENTILATED, CAST METALLIC (ALUMINUM ALLOY) CAPS. FASTEN CAPS WITH ONE (1) ¼" X ¾" - 20 TPI STAINLESS STEEL, HEX HEAD BOLT.

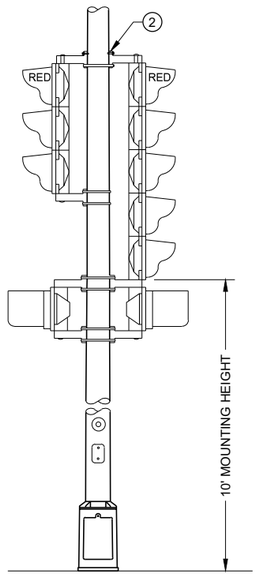
(10) SHIMMING, IF NEEDED, SHALL BE LOCATED BETWEEN THE CONCRETE FOUNDATION AND THE TRANSFORMER BASE.

(11) USE SERRATED LOCK WASHERS WITH NOTCHES BETWEEN END TEE AND SIGNAL HEAD.

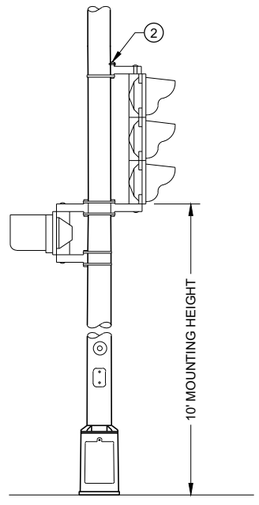


* MOUNTING HEIGHT LIMITATION DIMENSIONS OF THE TROMBONE MAST ARM WILL BE DEPENDENT UPON THE USE / NON - USE OF A TRANSFORMER BASE

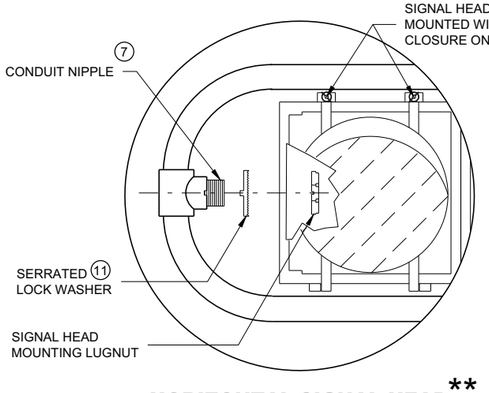
(MAXIMUM LOAD)



TYPICAL MOUNTING OF BACK TO BACK 3 AND 5 SECTION SIGNAL FACES



TYPICAL MOUNTING OF 3 SECTION SIGNAL FACE



HORIZONTAL SIGNAL HEAD MOUNTING DETAIL **

** SIGNAL HEAD ATTACHMENT ALSO APPLIES TO MOUNTING AT CROSS BAR

TYPE 2 POLE MOUNTING CONFIGURATION

POLE MOUNTINGS FOR TRAFFIC SIGNALS TYPE 2

STATE OF WISCONSIN
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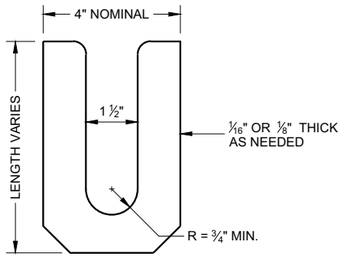
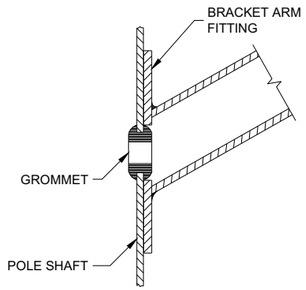
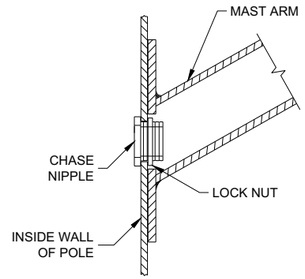


LEVELING SHIM (1)
SHALL BE ALUMINUM



TYPICAL APPLICATION OF GROMMET IN POLE SHAFT



TYPICAL APPLICATION OF CHASE NIPPLE IN POLE SHAFT

GENERAL NOTES

CLAMP BOLT-NUT TIGHTENING TORQUE SHALL BE INDICATED BY INDENT STAMPING (1/2 INCH NUMERALS AND LETTERS) OR WEATHERPROOF PRINTING ON THE INSIDE OF THE CLAMP THAT IS WELDED TO THE ARM MEMBER.

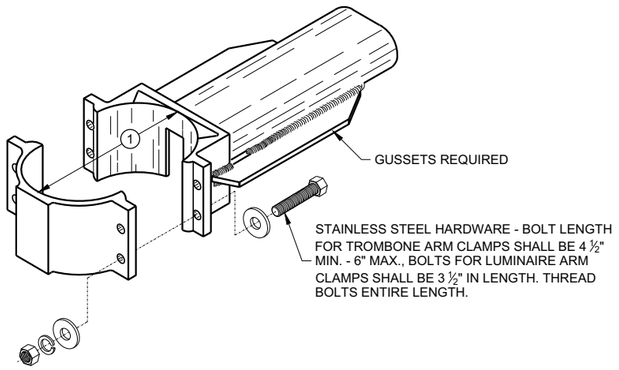
(1) 4.5" I.D. FOR LUMINAIRE MAST ARM CLAMP. 6.625" I.D. FOR TROMBONE MAST ARM CLAMP.

(2) INDIVIDUAL BASE PLATE ANCHOR ROD COVERS. (4 REQUIRED)

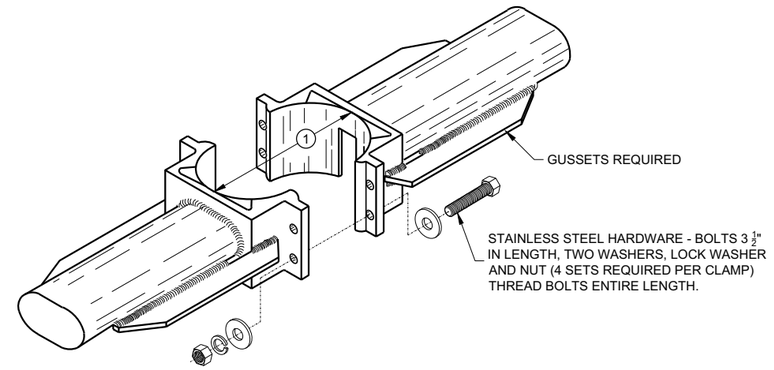
(3) BASE PLATE SLOTTED TO ACCEPT 11" THROUGH 12" BOLT CIRCLE USING 1" DIAMETER ANCHOR RODS.

(4) LEVELING SHIMS, DESIGNED FOR THE PURPOSE, SHALL BE USED WHEN PLUMBING POLES. THE USE OF WASHERS IN LIEU OF PROPER LEVELING SHIMS IS NOT ACCEPTABLE. LEVELING SHIMS SHALL BE USED ONLY BETWEEN THE TOP OF THE CONCRETE BASE AND A METALLIC BASE PLATE.

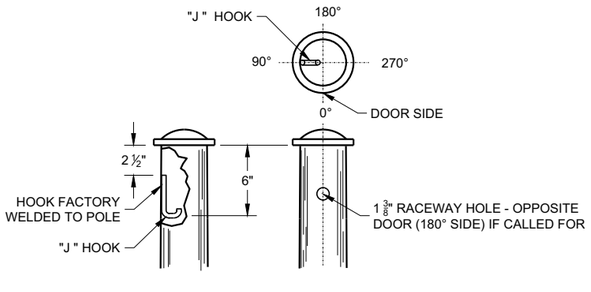
SHIMS SHALL BE LONG ENOUGH AND WIDE ENOUGH TO COMPLETELY COVER THE AREA UNDER THE LENGTH AND WIDTH OF THE BASE MOUNTING FLANGE.



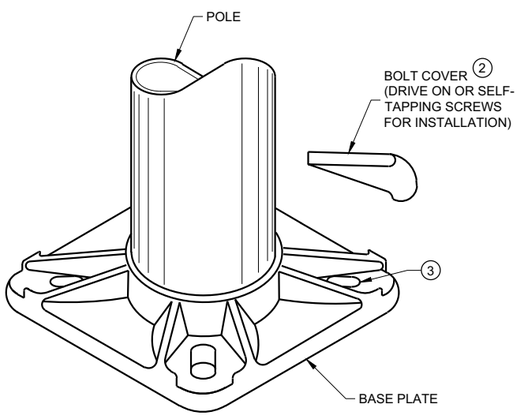
TYPICAL TROMBONE MAST ARM AND SINGLE LUMINAIRE MAST ARM MOUNTING CLAMP



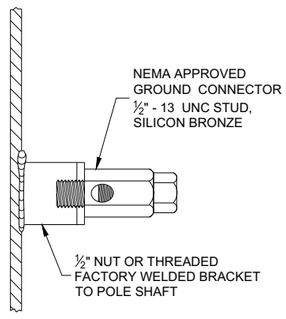
TYPICAL LUMINAIRE MAST ARM (DOUBLE) MOUNTING BRACKETS

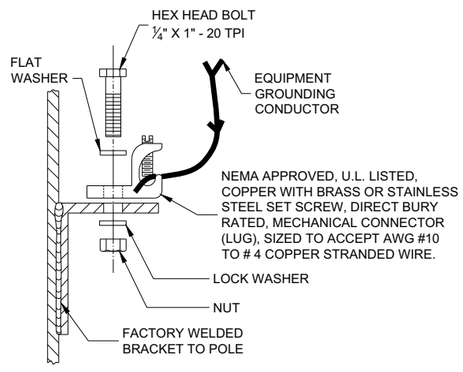


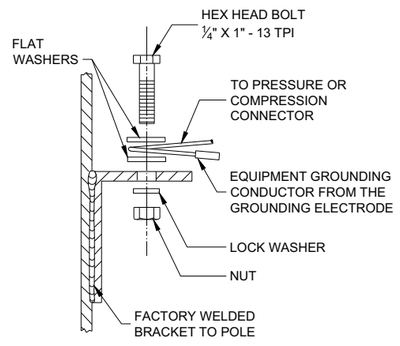
TYPICAL "J" HOOK LOCATION



BASE PLATE







TYPICAL GROUNDING CONNECTIONS
NUT, BOLT AND WASHERS SHALL BE STAINLESS STEEL

HARDWARE DETAILS FOR POLE MOUNTING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2018
DATE

/S/ Ahmet Demirbilek
STATE ELECTRICAL ENGI

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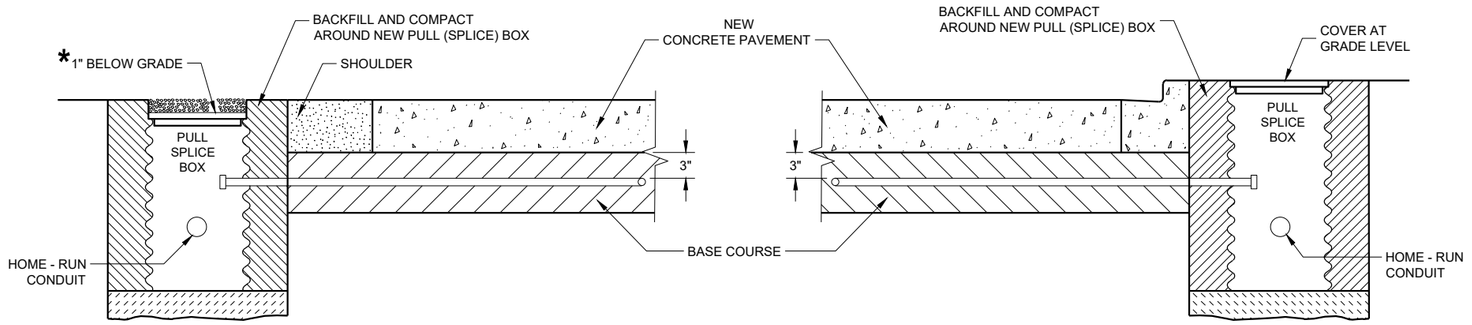
SDD 09E01 - 15g



SECTION A - A
NO CURB AND GUTTER

SECTION B - B
CURB AND GUTTER

*RECESS PULL (SPLICE) BOX SO THAT THE COVER IS 3" BELOW GRADE IN SHOULDER AREAS OF CRUSHED AGGREGATE. BACKFILL OVER COVER WITH THE CRUSHED AGGREGATE TO BRING THE AREA TO GRADE LEVEL.

LOOP DETECTOR INSTALLATION DETAIL

GENERAL NOTES

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

PITCH LEAD OUT CONDUIT TO DRAIN TO ROADSIDE PULL (SPLICE) BOX.

LOOP SIZE, LOCATION, NUMBER OF TURNS OF WIRE AND ASSOCIATED SIGNAL PHASE SHALL BE AS SHOWN ON THE PLANS.

SPLICES SHALL BE INSTALLED BY USING CAST IN PLACE SPLICE KITS LISTED ON THE DEPARTMENTS APPROVED PRODUCTS LIST OR AN ENGINEER APPROVED EQUAL. NON-INSULATED BUTT SPLICES TO FIT #12 AWG STRANDED WIRE SHALL BE USED. SPLICES SHALL BE SOLDERED AND INSULATED FROM EACH OTHER AS PER INSTRUCTIONS INCLUDED IN THE SPLICE KIT.

MEASURE GROUND RESISTANCE USING A MEGGER. REPLACE LOOP WIRE NOT ATTAINING A READING OF INFINITY TO GROUND.

AFTER SPLICING THE LOOP WIRE TO THE LOOP LEAD-IN CABLE, THE CONTRACTOR SHALL MEASURE INDUCTANCE, GROUND RESISTANCE AND WIRE RESISTANCE AT THE CABINET END OF THE LEAD-IN CABLE AND FURNISH A COPY OF THE READING TO THE PROJECT ENGINEER FOR EVALUATION.

LOOP DETECTOR LEADS SHALL BE IDENTIFIED WITH THEIR ASSOCIATED LOOP BY USE OF WATERPROOF TAGS AT BOTH ENDS OF THE CABLE. A LISTING OF THE CABLE IDENTIFICATION PER INDIVIDUAL LOOP LEAD-IN SHALL BE PLACED IN THE CABINET.

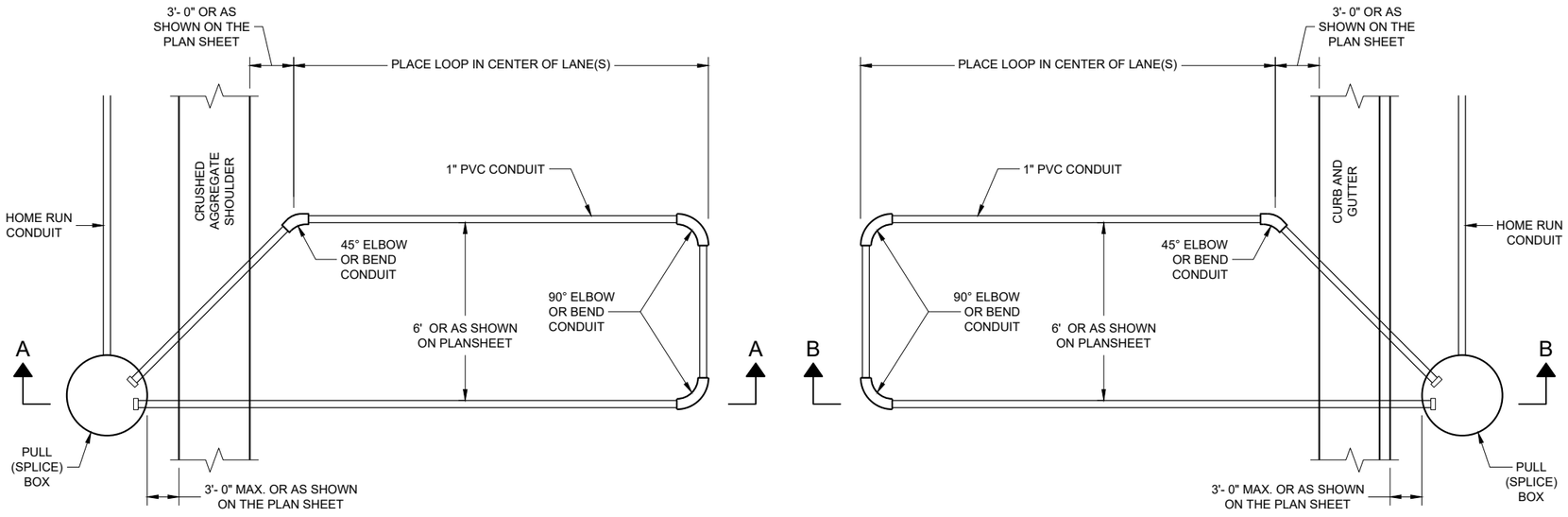
THE #12 AWG LOOP WIRE IN THE ROADSIDE PULL (SPLICE) BOX SHALL BE HAND TWISTED AT LEAST 3 TWISTS PER FOOT BEFORE BEING SPLICED TO THE LOOP LEAD-IN CABLE.

SPLICES OF LOOP WIRE TO LEAD-IN CABLE SHALL BE MADE ONLY IN PULL (SPLICE) BOXES AT THE SIDE OF THE ROAD.

THE #12 AWG LOOP WIRE SHALL BE INSTALLED FROM THE ROADSIDE PULL (SPLICE) BOX, THROUGH THE LOOP CONDUIT, BACK TO THE ROADSIDE PULL (SPLICE) BOX, AND BE INSTALLED IN ONE NON-SPLICED, CONTINUOUS LENGTH.

PROTECTION OF THE CONDUIT IN THE BASE COURSE SHALL BE REQUIRED AFTER INSTALLATION AND BEFORE NEW PAVEMENT IS INSTALLED.

SHOULD INSTALLATION REPAIR BE REQUIRED, IT SHALL BE DONE UNDER THE DIRECTION OF THE PROJECT ENGINEER.



TYPICAL PLAN LOOP DETECTOR WITH 18" OR 24" PULL (SPLICE) BOX

LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 1)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
September 2014
DATE
/S/ Ahmet Demirbilek
STATE ELECTRICAL ENGI

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SDD 09F15 - 04a

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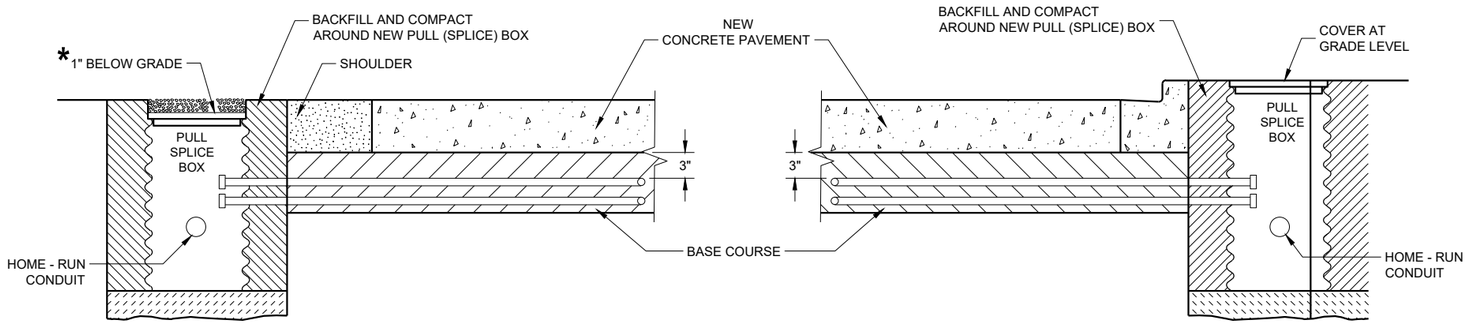
SDD 09F15 - 04a



SECTION A - A
NO CURB AND GUTTER

SECTION B - B
CURB AND GUTTER

* RECESS PULL (SPLICE) BOX SO THAT THE COVER IS 3" BELOW GRADE IN SHOULDER AREAS OF CRUSHED AGGREGATE. BACKFILL OVER COVER WITH THE CRUSHED AGGREGATE TO BRING THE AREA TO GRADE LEVEL.

LOOP DETECTOR INSTALLATION DETAIL

GENERAL NOTES

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

PITCH LEAD OUT CONDUIT TO DRAIN TO ROADSIDE PULL (SPLICE) BOX.

LOOP SIZE, LOCATION, NUMBER OF TURNS OF WIRE AND ASSOCIATED SIGNAL PHASE SHALL BE AS SHOWN ON THE PLANS.

SPLICES SHALL BE INSTALLED BY USING CAST IN PLACE SPLICE KITS LISTED ON THE DEPARTMENTS APPROVED PRODUCTS LIST OR AN ENGINEER APPROVED EQUAL. NON-INSULATED BUTT SPLICES TO FIT #12 AWG STRANDED WIRE SHALL BE USED. SPLICES SHALL BE SOLDERED AND INSULATED FROM EACH OTHER AS PER INSTRUCTIONS INCLUDED IN THE SPLICE KIT.

MEASURE GROUND RESISTANCE USING A MEGGER. REPLACE LOOP WIRE NOT ATTAINING A READING OF INFINITY TO GROUND.

AFTER SPLICING THE LOOP WIRE TO THE LOOP LEAD-IN CABLE, THE CONTRACTOR SHALL MEASURE INDUCTANCE, GROUND RESISTANCE AND WIRE RESISTANCE AT THE CABINET END OF THE LEAD-IN CABLE AND FURNISH A COPY OF THE READING TO THE PROJECT ENGINEER FOR EVALUATION.

LOOP DETECTOR LEADS SHALL BE IDENTIFIED WITH THEIR ASSOCIATED LOOP BY USE OF WATERPROOF TAGS AT BOTH ENDS OF THE CABLE. A LISTING OF THE CABLE IDENTIFICATION PER INDIVIDUAL LOOP LEAD-IN SHALL BE PLACED IN THE CABINET.

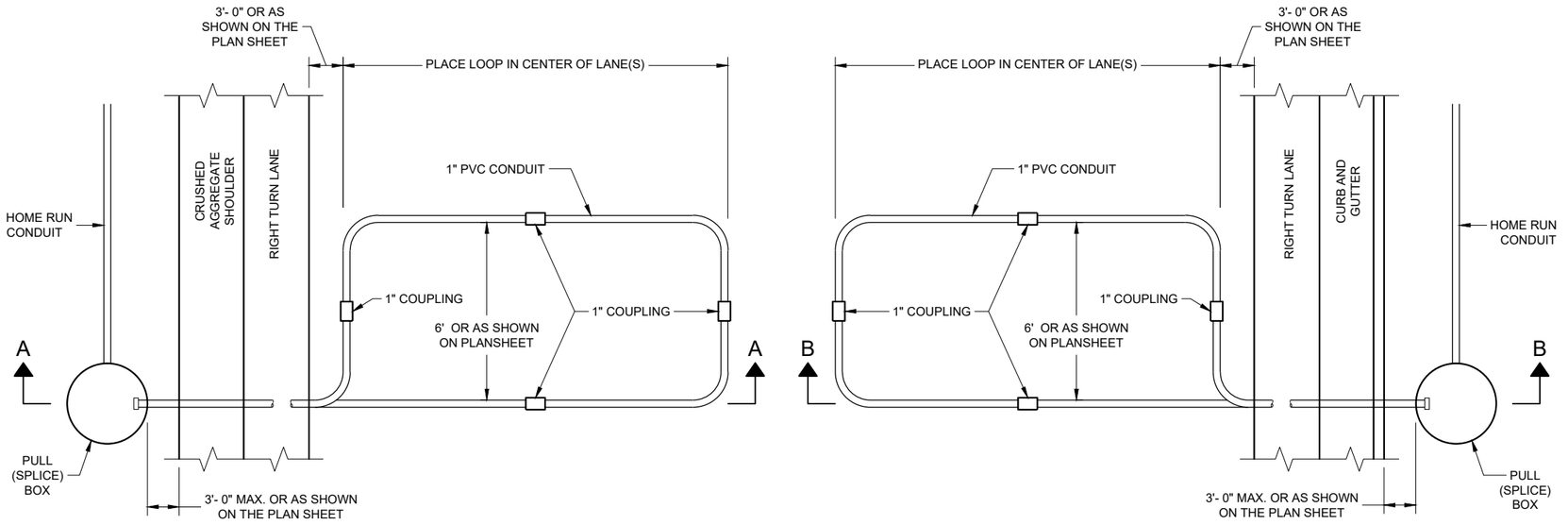
THE #12 AWG LOOP WIRE IN THE PULL (SPLICE) BOX SHALL BE HAND TWISTED AT LEAST 3 TWISTS PER FOOT BEFORE BEING SPLICED TO THE LOOP LEAD-IN CABLE.

SPLICES OF LOOP WIRE TO LEAD-IN CABLE SHALL BE MADE ONLY IN PULL (SPLICE) BOXES AT THE SIDE OF THE ROAD.

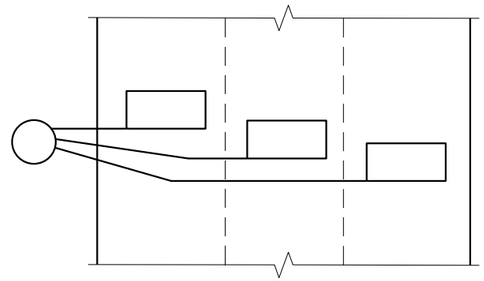
THE #12 AWG LOOP WIRE SHALL BE INSTALLED FROM THE ROADSIDE PULL (SPLICE) BOX, THROUGH THE LOOP CONDUIT, BACK TO THE ROADSIDE PULL (SPLICE) BOX, AND BE INSTALLED IN ONE NON-SPLICED, CONTINUOUS LENGTH.

PROTECTION OF THE CONDUIT IN THE BASE COURSE SHALL BE REQUIRED AFTER INSTALLATION AND BEFORE NEW PAVEMENT IS INSTALLED.

SHOULD INSTALLATION REPAIR BE REQUIRED, IT SHALL BE DONE UNDER THE DIRECTION OF THE PROJECT ENGINEER.



TYPICAL PLAN LOOP DETECTOR WITH 24" PULL (SPLICE) BOX



MULTI-LANE INSTALLATION

LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
September 2014
DATE
/S/ Ahmet Demirbilek
STATE ELECTRICAL ENGI

FHWA

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SDD 09F15 - 04b

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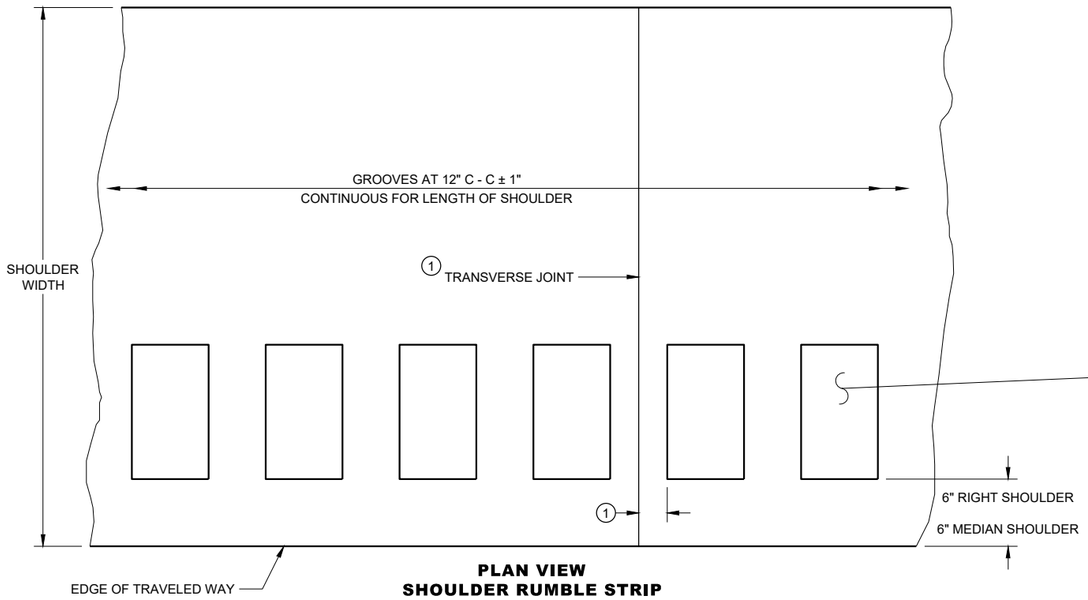
SDD 09F15 - 04b

GENERAL NOTES

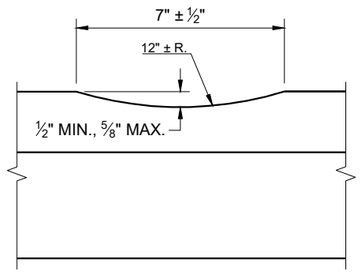
SDD 13A5, SHEET "b" SHOWS THE LOCATION OF THE RUMBLE STRIPS AT RAMP AND GORE LOCATIONS.

RUMBLE STRIPS ON EXPRESSWAYS:
DO NOT INSTALL SHOULDER RUMBLE STRIPS ACROSS SIDE ROAD INTERSECTIONS, COMMERCIAL AND PRIVATE DRIVEWAYS, ADJACENT TO RIGHT TURN LANES, LEFT TURN LANES, TURN LANE TAPERS, 25' IN ADVANCE OF BRIDGE DECKS, 25' IN ADVANCE OF BRIDGE APPROACHES, OR 100 FEET IN ADVANCE OF RAILROAD CROSSINGS.

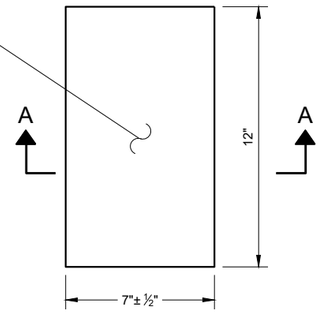
(1) CONCRETE PAVEMENT - RUMBLE STRIPS SHALL BE A MINIMUM OF 6 INCHES AWAY FROM TRANSVERSE JOINTS.



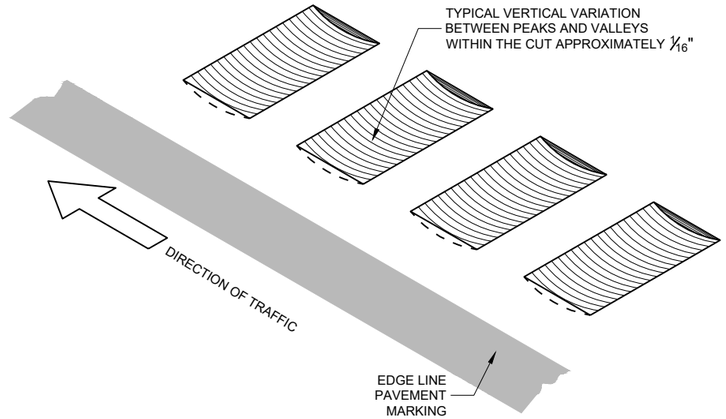
PLAN VIEW
SHOULDER RUMBLE STRIP



SECTION A - A

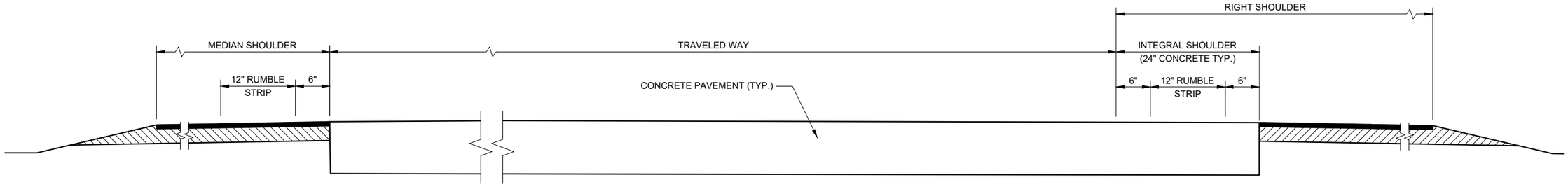


PLAN VIEW
(SINGLE GROOVE)



ISOMETRIC

PLACEMENT DETAIL FOR RUMBLE STRIP



SECTION VIEW

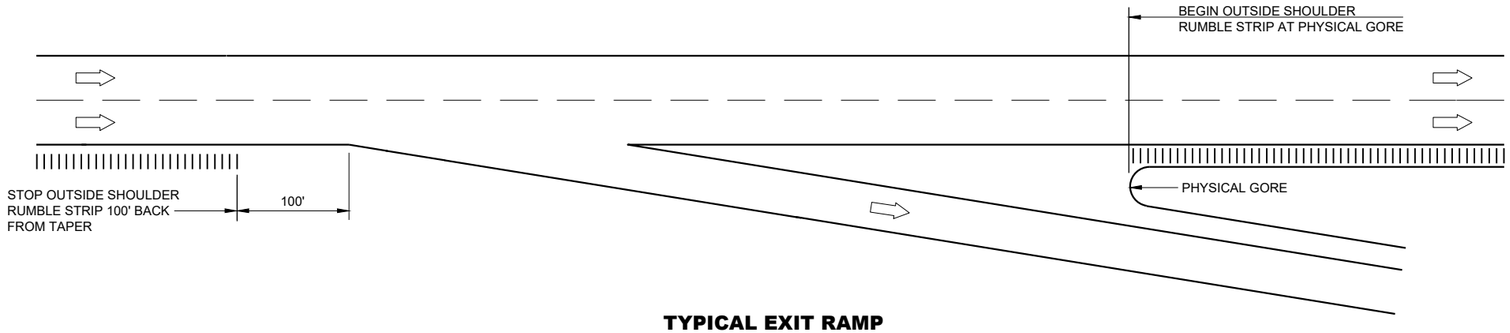
TYPICAL SHOULDER RUMBLE STRIPS
(ONE ROADWAY IS SHOWN)

SHOULDER RUMBLE STRIPS, DIVIDED ROADWAY

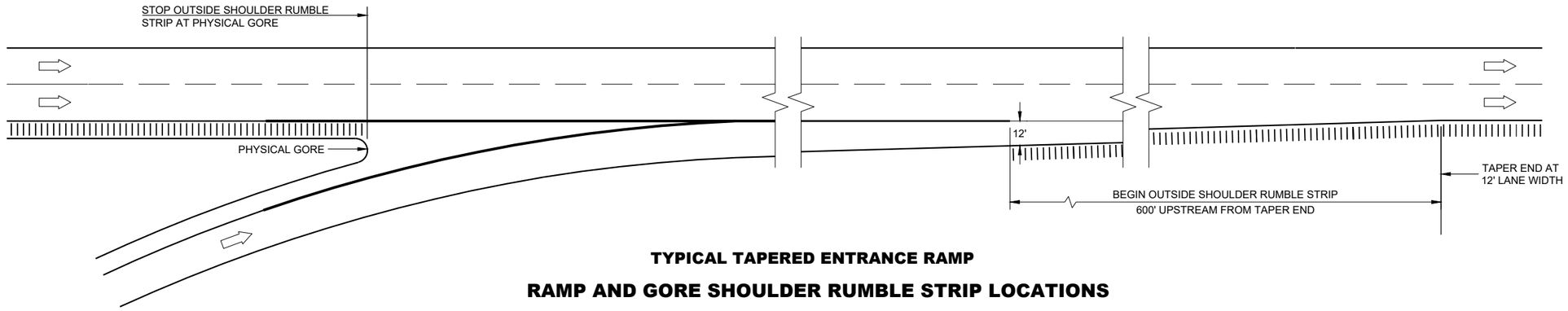
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 13A05-06a

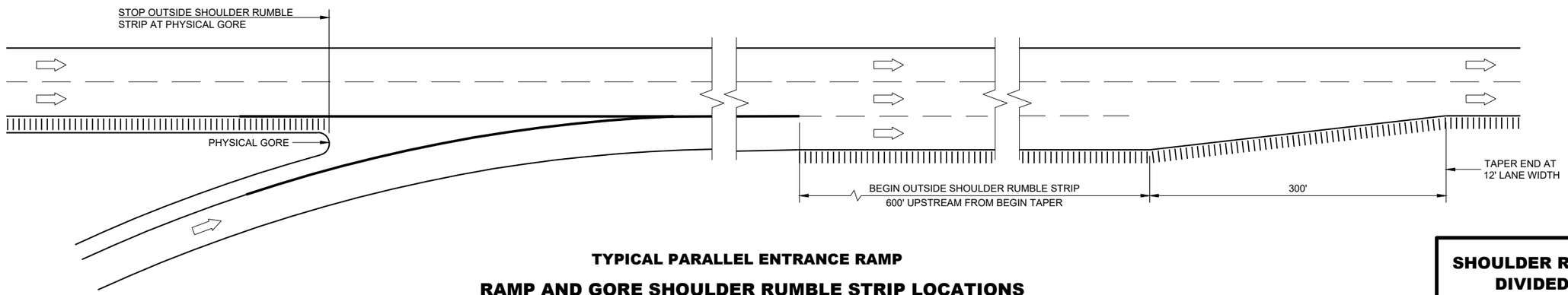


TYPICAL EXIT RAMP



TYPICAL TAPERED ENTRANCE RAMP

RAMP AND GORE SHOULDER RUMBLE STRIP LOCATIONS



TYPICAL PARALLEL ENTRANCE RAMP

RAMP AND GORE SHOULDER RUMBLE STRIP LOCATIONS

GENERAL NOTES

NO RUMBLE STRIP ON EXIT, DIRECTIONAL OR ENTRANCE RAMPS, EXCEPT NEAR THE ENTRANCE TAPER END AND ALONG THE PARALLEL RAMP AREA AS SHOWN.

RUMBLE STRIPS ON EXPRESSWAYS:
DO NOT INSTALL SHOULDER RUMBLE STRIPS ACROSS SIDE ROAD INTERSECTIONS, COMMERCIALAND PRIVATE DRIVEWAYS, ADJACENT TO RIGHT TURN LANES, LEFT TURN LANES, TURN LANE TAPERS, 25' IN ADVANCE OF BRIDGE DECKS, 25' IN ADVANCE OF BRIDGE APPROACHES, OR 100 FEET IN ADVANCE OF RAILROAD CROSSINGS.

LEGEND

DIRECTION OF TRAFFIC

SHOULDER RUMBLE STRIPS, DIVIDED ROADWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023 — DATE
/S/ Rodney Taylor — ROADWAY DESIGN STANDARDS UNIT SUPERVISOR
FHWA

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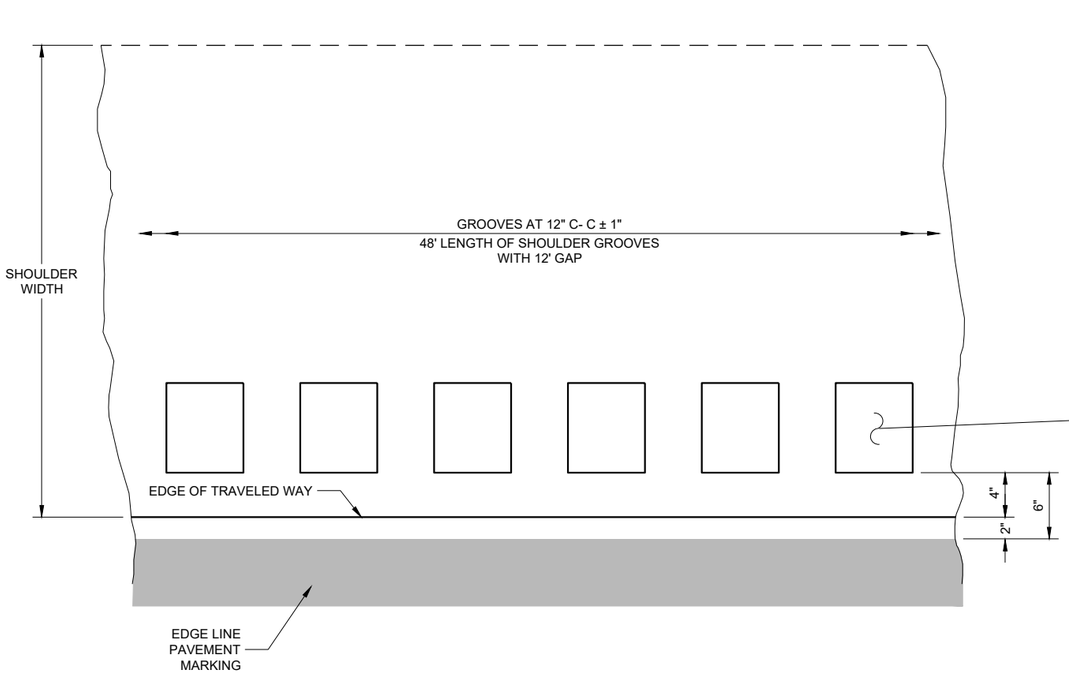
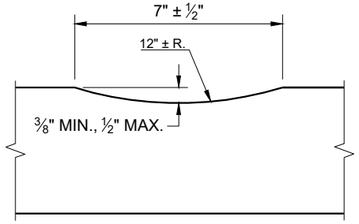
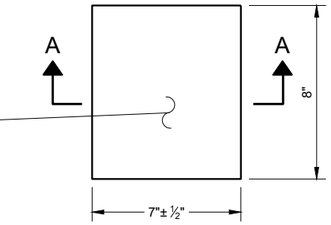
SDD 13A05-06b



PLAN DETAIL VIEW
SHOULDER WITH GROOVES



SECTION A - A

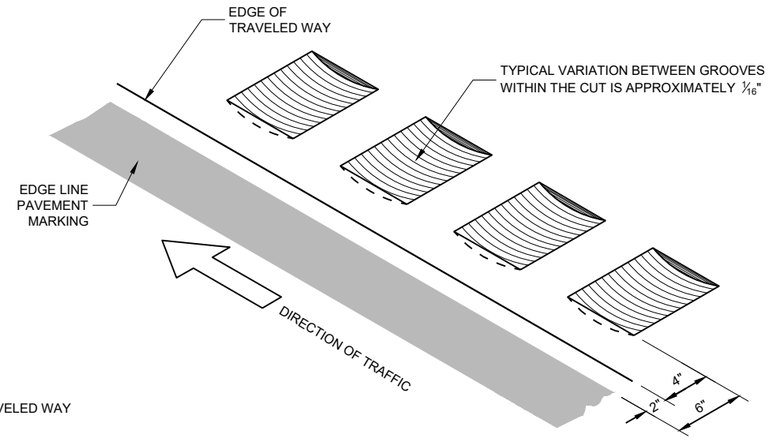


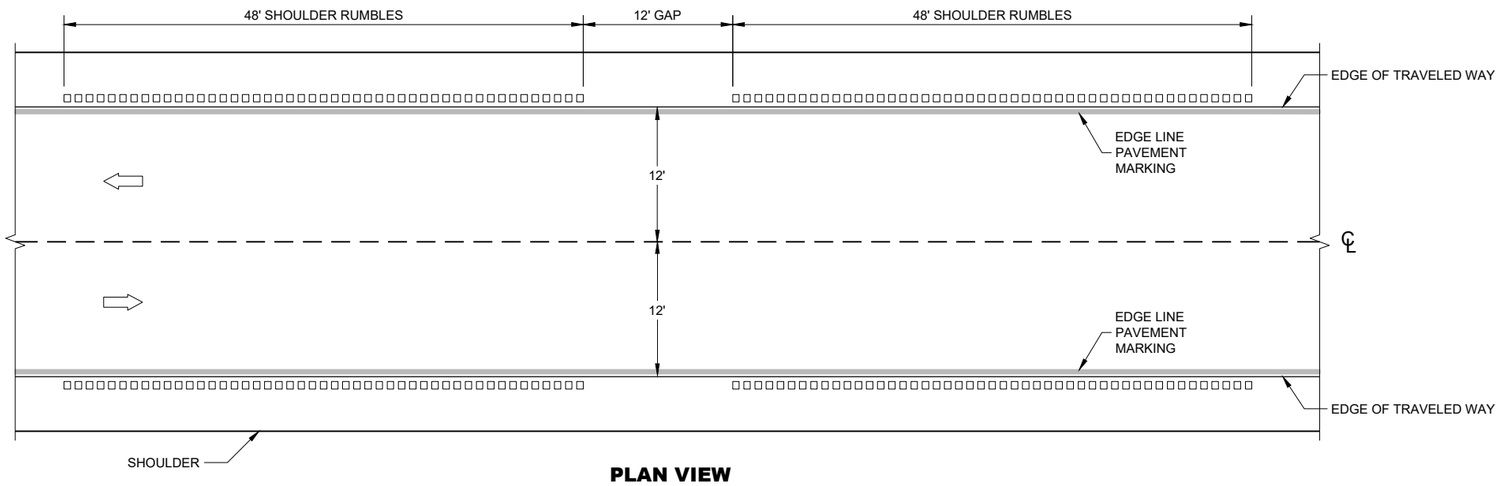
PLAN VIEW
(SINGLE GROOVE)

GENERAL NOTES

DO NOT MILL SHOULDER GROOVES THROUGH INTERSECTIONS, MARKED CROSSWALKS, NON-MOTORIZED PATH CROSSINGS, ETC. REFER TO SDD 13A10 SHEETS "g" AND "h".

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





PLAN VIEW

SHOULDER RUMBLE STRIPS - ASPHALT

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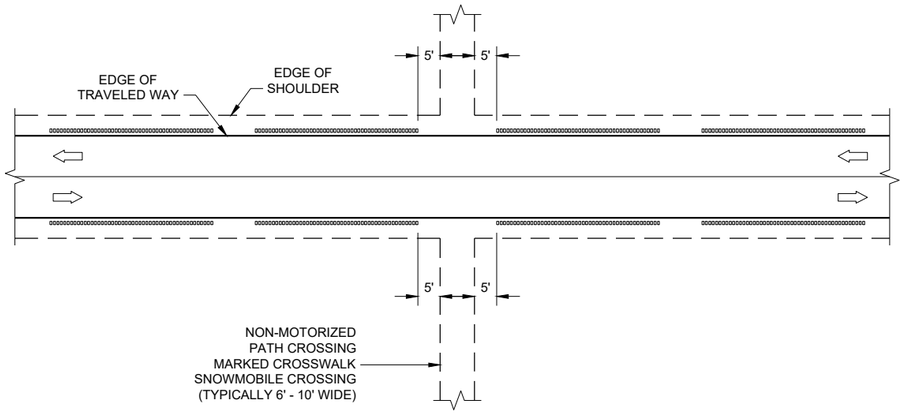
SDD 13A10 - 03a

SHOULDER RUMBLE STRIPS ASPHALT

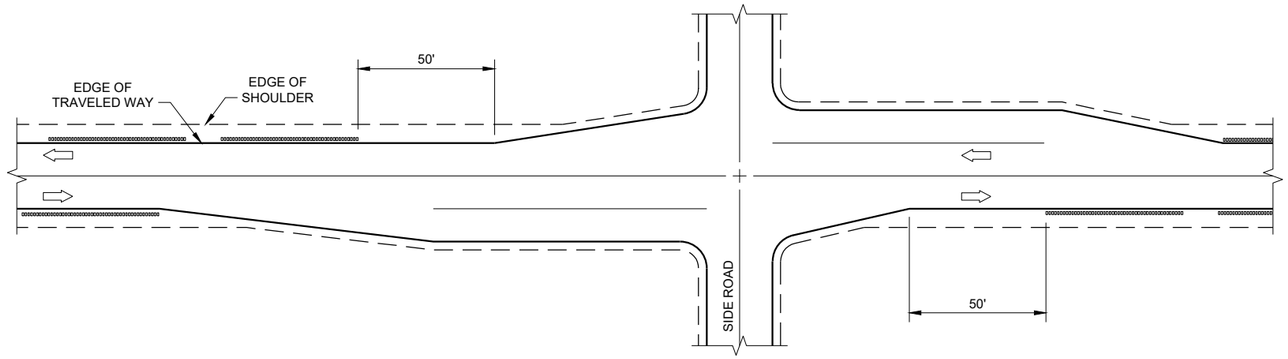
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

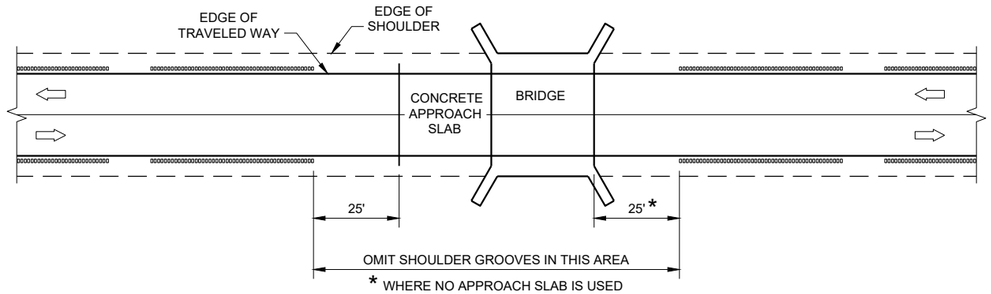
SDD 13A10 - 03a



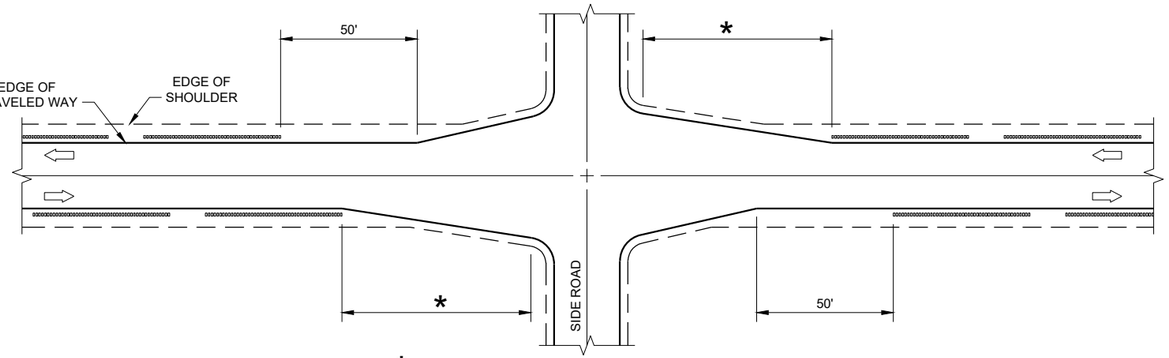
GROOVES AT MISCELLANEOUS CROSSINGS



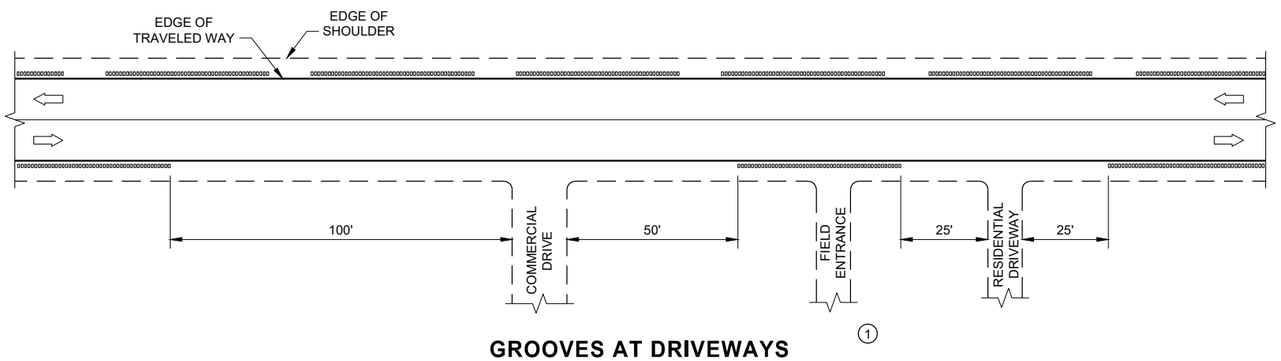
GROOVES AT RIGHT TURN LANE



GROOVES AT BRIDGES



GROOVES AT INTERSECTIONS WITH APPROACH TAPER



GROOVES AT DRIVEWAYS ①

GENERAL NOTES

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

SHOULDER AND EDGE LINE RUMBLE STRIPS CROSSINGS, INTERSECTIONS, BRIDGES, DRIVEWAYS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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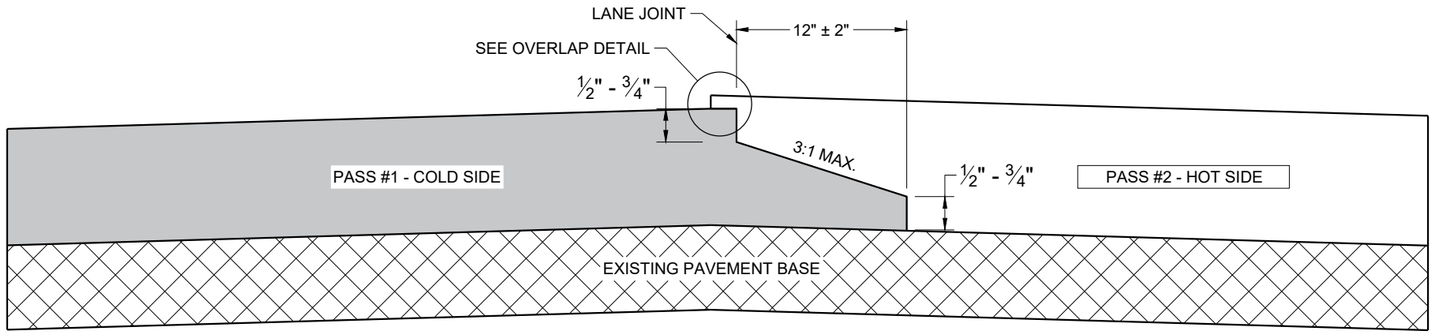
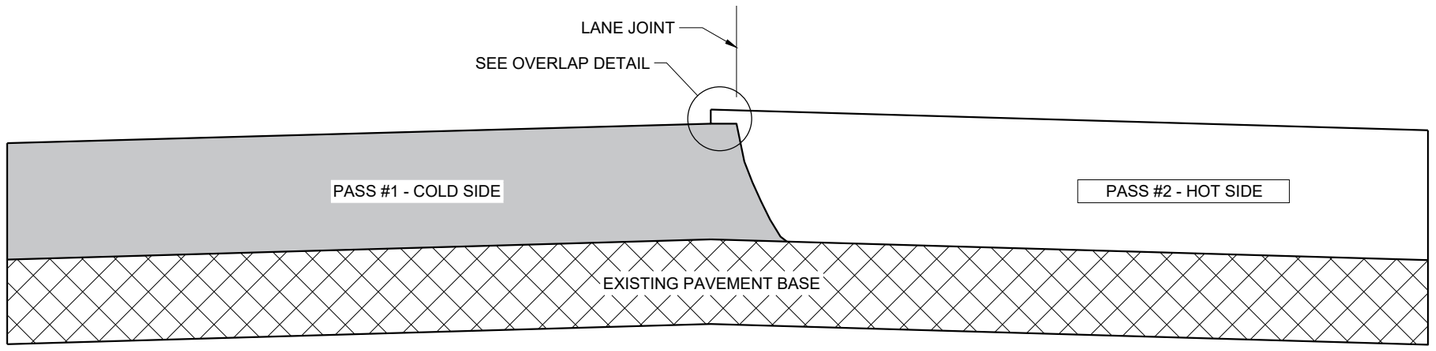
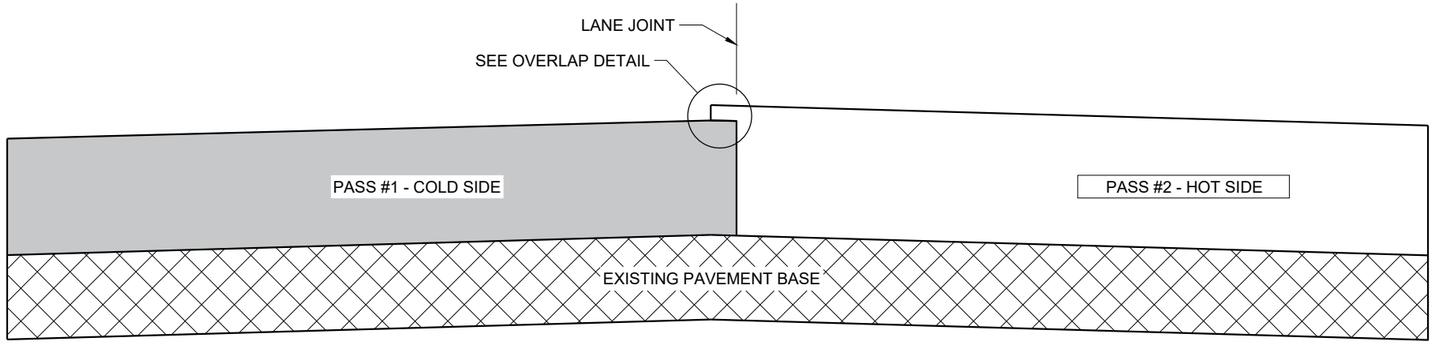
SDD 13A10 - 03g
SDD 13A10 - 03g



TYPICAL PAVEMENT CROSS SECTION
NOTCHED WEDGE JOINT



TYPICAL PAVEMENT CROSS SECTION
VERTICAL JOINT



TYPICAL PAVEMENT CROSS SECTION
VERTICAL JOINT (MILLED)

GENERAL NOTES

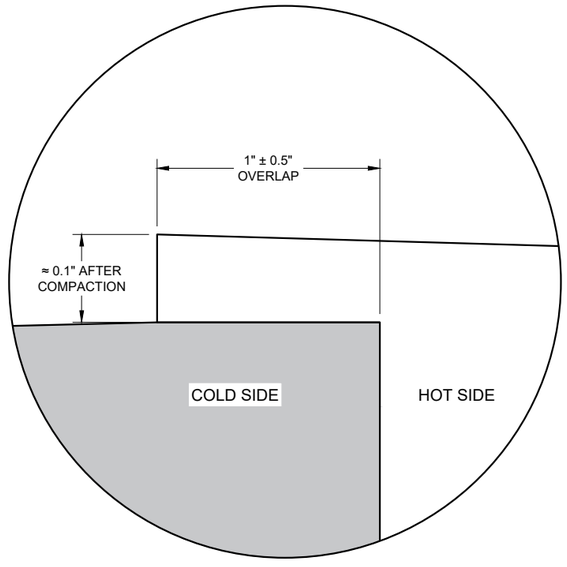
IN ADDITION TO THE DETAILS PROVIDED IN THIS DRAWING, CONFORM TO STANDARD SPECIFICATION 450.3.2.8 FOR WHEN A NOTCHED WEDGE JOINT IS REQUIRED AND FOR GENERAL JOINT CONSTRUCTION REQUIREMENTS.

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

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

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

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



OVERLAP DETAIL (TYPICAL)

6

6

SDD 13C19 - 03

SDD 13C19 - 03

HMA LONGITUDINAL JOINTS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2020
DATE

/S/ Steven Hefel
HMA PAVEMENT ENGIN

FHWA

GENERAL NOTES

(1) W6 X 9 OR W6 X 8.5 STEEL POSTS AND NOTCHED PLASTIC BLOCKOUTS ARE ACCEPTABLE ALTERNATIVES FOR 6" X 8" WOOD POSTS WITH WOOD OR PLASTIC BLOCKOUTS. USE APPROVED NOTCHED PLASTIC BLOCKOUTS WITH STEEL POSTS. APPROVED PLASTIC BLOCKOUT DESIGNS MAY VARY FROM THIS TYPICAL DETAIL WHEN USED IN CONJUNCTION WITH STEEL POSTS.

DO NOT MIX STEEL POSTS AND WOOD POSTS IN A SINGLE INSTALLATION.

(2) USE STRUCTURAL STEEL POSTS CONFORMING TO ASTM A 36. GALVANIZED POSTS ACCORDING TO AASHTO M 111. EITHER SET THE POSTS IN DRILLED HOLES OR DRIVE TO GRADE. REMOVE MUSHROOMING CAUSED BY DRIVING AND REPAIR DAMAGED SPELTER COATING ON GALVANIZED POSTS.

(3) INSTALL STEEL POSTS WITH HOLES ON APPROACHING TRAFFIC SIDE.

(4) USE EITHER WOOD OR APPROVED PLASTIC BLOCKOUTS ON WOOD POSTS.

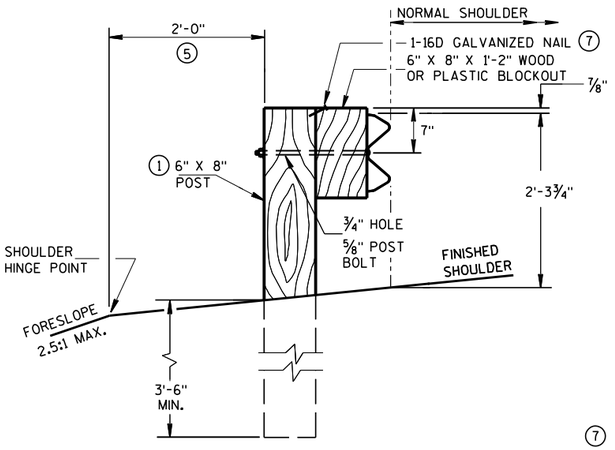
(5) IF THE DISTANCE FROM BACK OF POST TO SHOULDER HINGE POINT IS LESS THAN 2 FEET INSTALL LONGER POST AT HALF POST SPACING, W BEAM (LHW).

(6) IF ROCK IS ENCOUNTERED DURING EXCAVATION, THE ENGINEER MAY APPROVE USING A 12 INCH DIAMETER POST HOLE EXTENDING 20 INCHES DEEP INTO THE ROCK. PLACE GRANULAR MATERIAL IN THE BOTTOM OF THE HOLE APPROXIMATELY 2½ INCHES DEEP. CUT THE POSTS TO LENGTH AND PLACE IN YHE HOLE. BACKFILL WITH MATERIAL EXCAVATED FROM THE HOLE AND COMPACT ADEQUATEY.

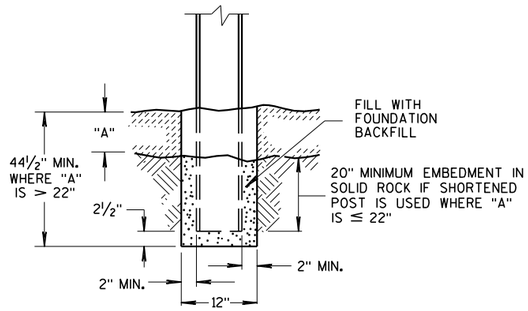
(7) WHEN USING STEEL POSTS AND WOOD BLOCKOUTS INSTALL FOUR 16D GALVANIZED NAILS. INSTALL NAILS AT THE BACK CORNERS OF THE BLOCK AND BEND THE NAILS OVER THE FLANGE OF THE STEEL POST.

INSTALL BEAM GUARD SECTIONS AND ALL NECESSARY HARDWARE ACCORDING TO THE APPLICABLE PLAN AND CURRENT STANDARD AND SUPPLEMENTAL SPECIFICATIONS.

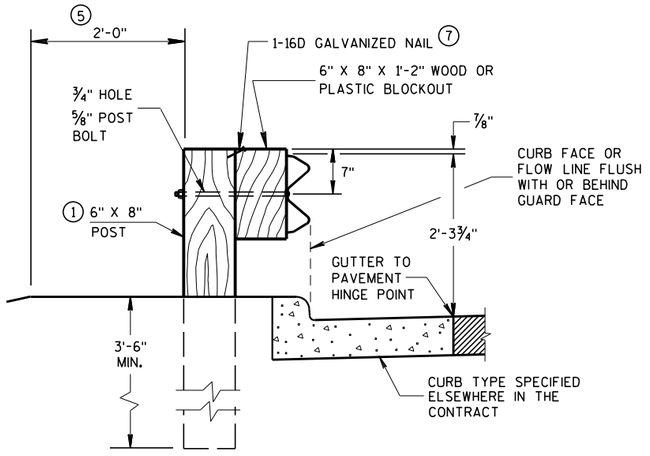
ALL DIMENSIONS ARE SUBJECT TO MANUFACTURER'S TOLERANCES EXCEPT WHERE ALLOWABLE TOLERANCES ARE SHOWN.



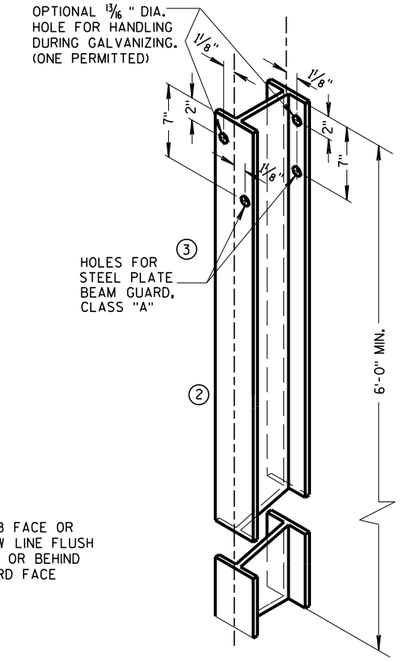
END VIEW
LOCATED ALONG A ROADWAY SHOULDER
STANDARD INSTALLATION



END VIEW
SETTING STEEL OR WOOD POST IN ROCK (6)

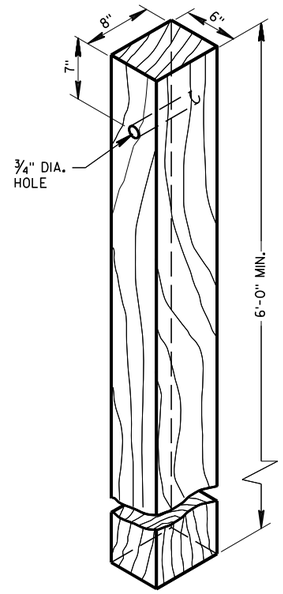


END VIEW
LOCATED ALONG A CURBED ROADWAY

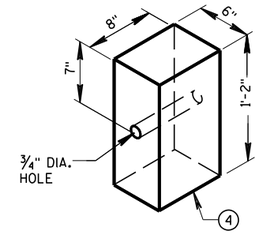


STEEL POST &
HOLE PUNCHING DETAIL
(W6 X 9) (1)

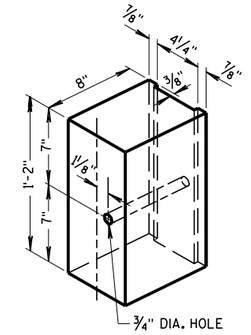
ALL HOLES 13/16" DIAMETER EXCEPT AS NOTED



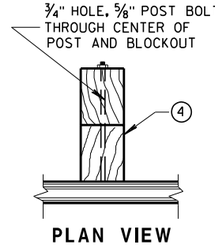
WOOD POST
(6"X8") NOMINAL



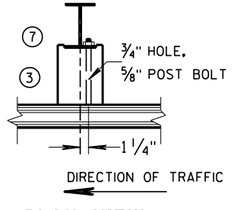
WOOD OR PLASTIC
BLOCKOUT FOR
WOOD POSTS



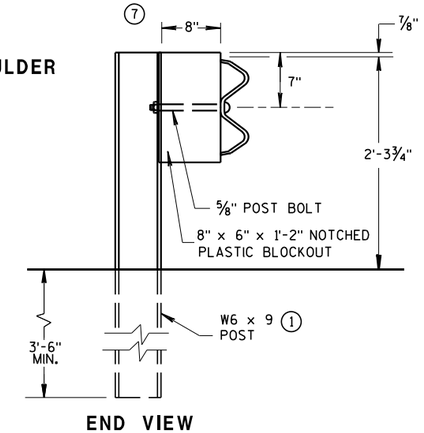
TYPICAL NOTCHED
PLASTIC BLOCKOUT
FOR STEEL POSTS (1)



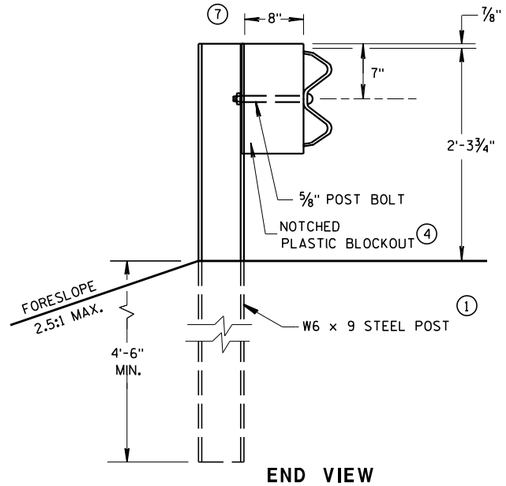
PLAN VIEW
WOOD POST, BLOCKOUT & BEAM



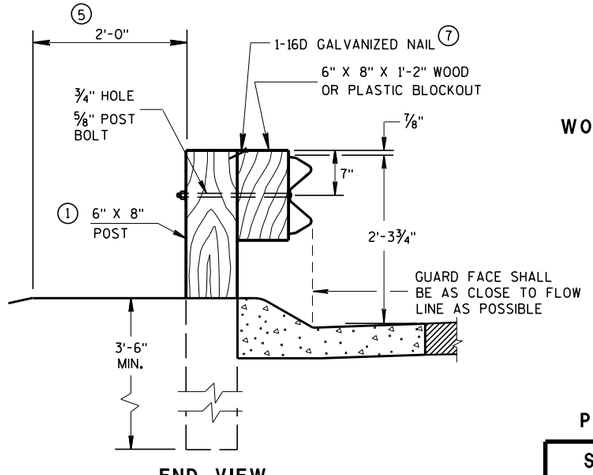
PLAN VIEW
STEEL POST, NOTCHED
PLASTIC BLOCKOUT & BEAM



END VIEW
STEEL POST & NOTCHED
PLASTIC BLOCKOUT ALTERNATIVE
STANDARD INSTALLATION



END VIEW
LONGER POST AT HALF
POST SPACING W BEAM
(LHW)



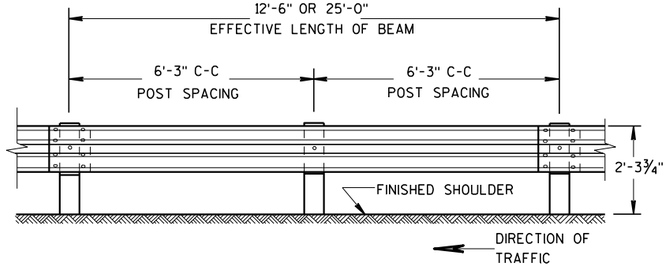
END VIEW
LOCATED ALONG A
MOUNTABLE CURBED ROADWAY

TYPICAL INSTALLATION OF STEEL PLATE BEAM GUARD

STEEL PLATE BEAM GUARD,
CLASS "A"
INSTALLATION & ELEMENTS

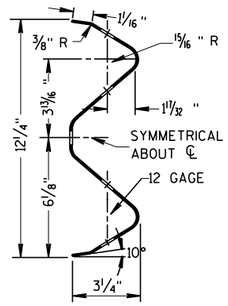
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6
S.D.D. 14 B 15-11a

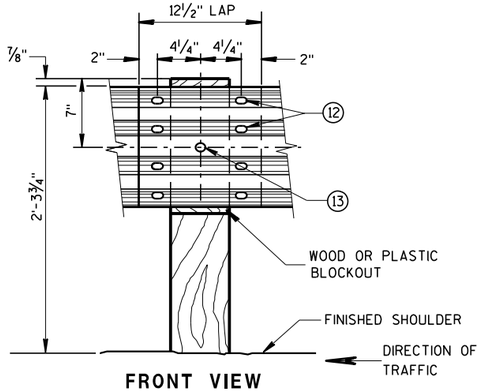


FRONT VIEW

POST SPACING STANDARD INSTALLATION



SECTION THRU W BEAM



FRONT VIEW

BEAM SPLICE AT WOOD POST AND POST MOUNTING DETAIL

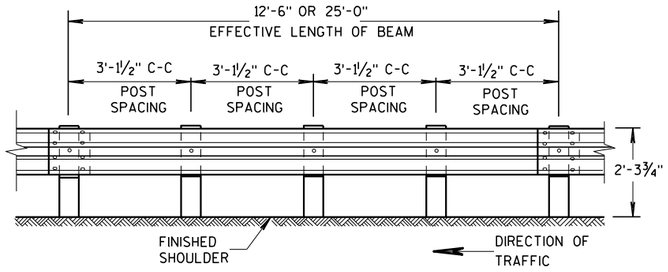
GENERAL NOTES

FURNISH GUARDRAIL DEFLECTORS FROM APPROVED PRODUCTS LIST.

(9) DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINA. START REFLECTORS AT POST #9 AND SPACE EVENLY EVERY 100 FEET (MAX.) TO THE END OF GUARDRAIL RUN, USING A MINIMUM OF 3 REFLECTORS.

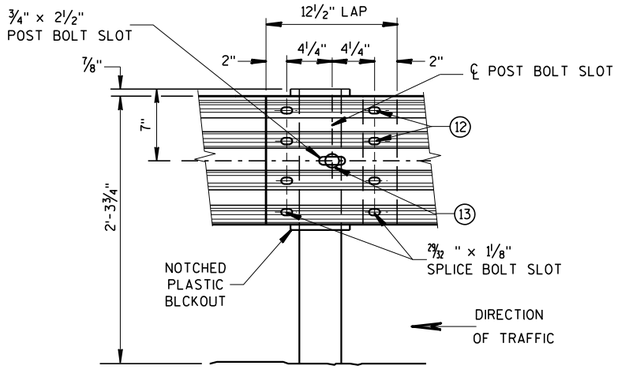
(12) 8 -⅝" ϕ X 2" BUTTON HEAD BOLTS WITH OVAL SHOULDERS & RECESS NUTS.

(13) ⅝" DIA. BUTTON HEAD BOLT AND RECESS NUT WITH ⅝" DIA. F844 FLAT WASHER UNDER NUT.



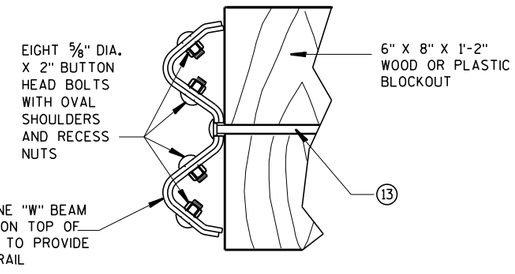
FRONT VIEW

POST SPACING FOR LONGER POST AT HALF POST SPACING W BEAM (LHW)



FRONT VIEW

BEAM SPLICE AT STEEL POST

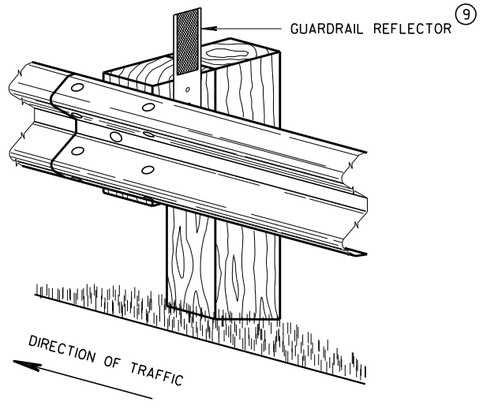


NESTED W BEAM (NW)

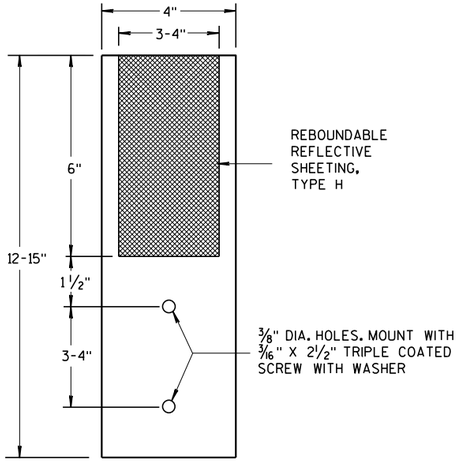
USE ALL OTHER STANDARD BEAM GUARD DETAILS FOR CONSTRUCTING NESTED W BEAM (NW)

TYPICAL SPLICING DETAILS OF STEEL PLATE BEAM GUARD

* USE DOUBLE SIDED WHITE GUADRAIL REFLECTORS ON ROADWAYS WITH BI-DIRECTIONAL TRAFFIC (NO MEDIAN). USE SINGLE SIDED WHITE (RIGHT SIDE) AND SINGLE SIDED YELLOW (LEFT SIDE) ON ROADWAYS WITH MEDIAN SEPARATION.



4" X 12" GUARDRAIL REFLECTOR DETAIL AND TYPICAL INSTALLATION *



4"x 12" GUARDRAIL REFLECTOR

STEEL PLATE BEAM GUARD, CLASS "A", INSTALLATION & ELEMENTS

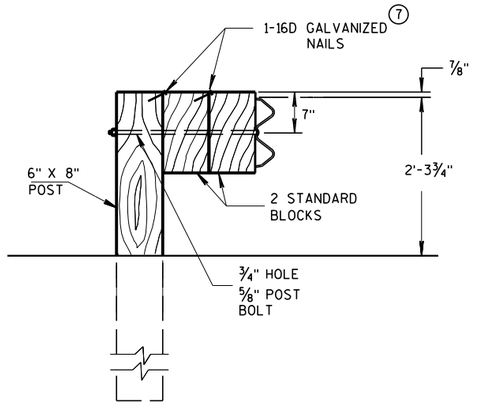
STATE OF WISCO 97
DEPARTMENT OF TRANSPORTATION

6

S.D.D. 14 B 15-11b

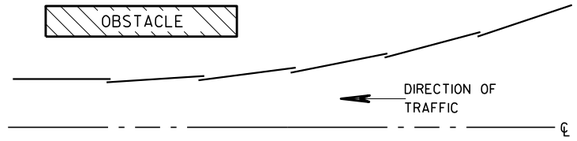
6

S.D.D. 14 B 15-11b

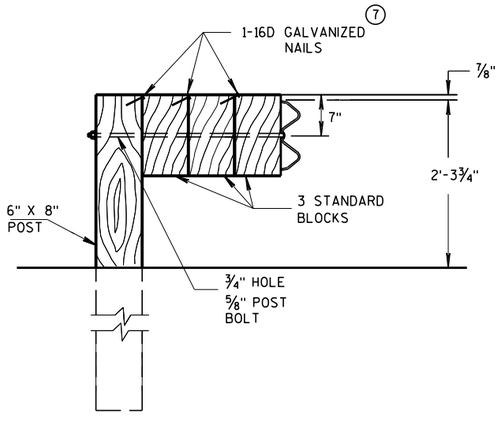


DETAIL FOR DOUBLE BLOCKS

THE NUMBER OF DOUBLE BLOCK POSTS WITHIN A BARRIER RUN IS UNLIMITED

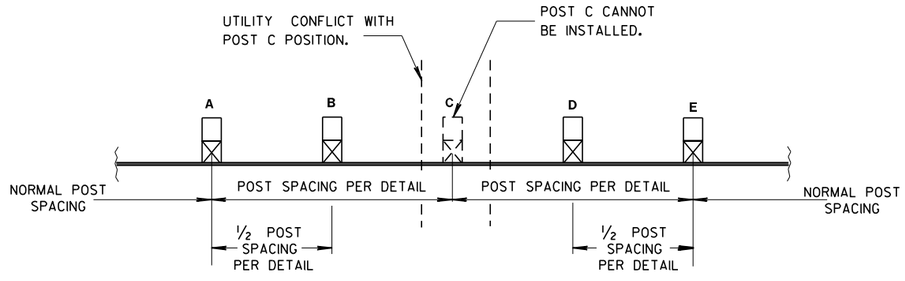


PLAN VIEW
BEAM LAPPING DETAIL



DETAIL FOR TRIPLE BLOCKS

TRIPLE BLOCK DETAIL IS LIMITED TO ONE LOCATION WITHIN A BEAM GUARD RUN.



POST DRIVING FOR CONTINUOUS UNDERGROUND OBSTRUCTION

NOTES: USE DOUBLE OR TRIPLE BLOCKS WHEN UNDERGROUND OBSTACLES PREVENT THE POST FROM BEING INSTALLED.

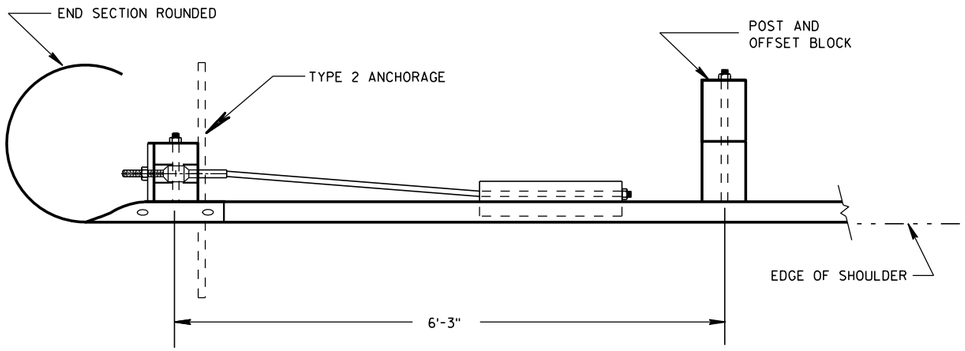
DO NOT USE EXTRA BLOCKOUTS IF IT CAUSES THE POST TO BE DRIVEN BEYOND SHOULDER HINGE POINT OR CAUSES A FIXED OBJECT TO BE WITHIN THE DEFLECTION DISTANCE OF THE BARRIER.

STEEL PLATE BEAM GUARD, CLASS "A", INSTALLATION & ELEMENTS

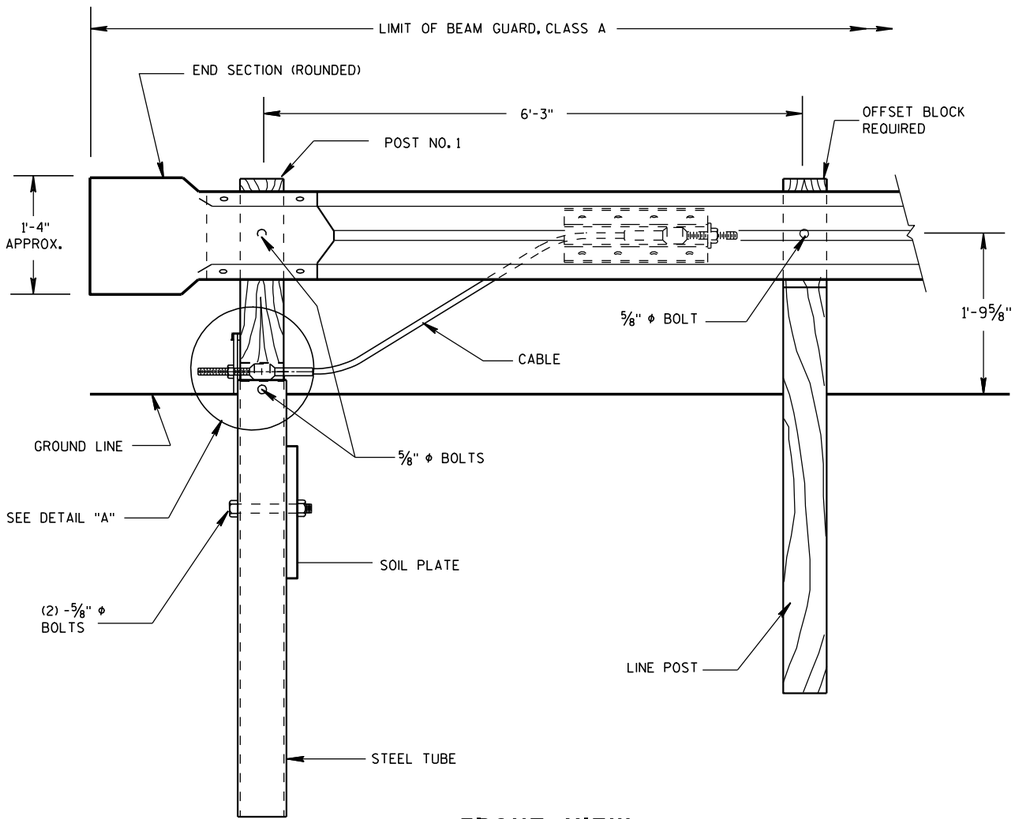
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2017
DATE
/S/ Rodney Taylor
ROADWAY STANDARDS UNIT SUPERVISOR
FHWA

6
S.D.D. 14 B 15-11c



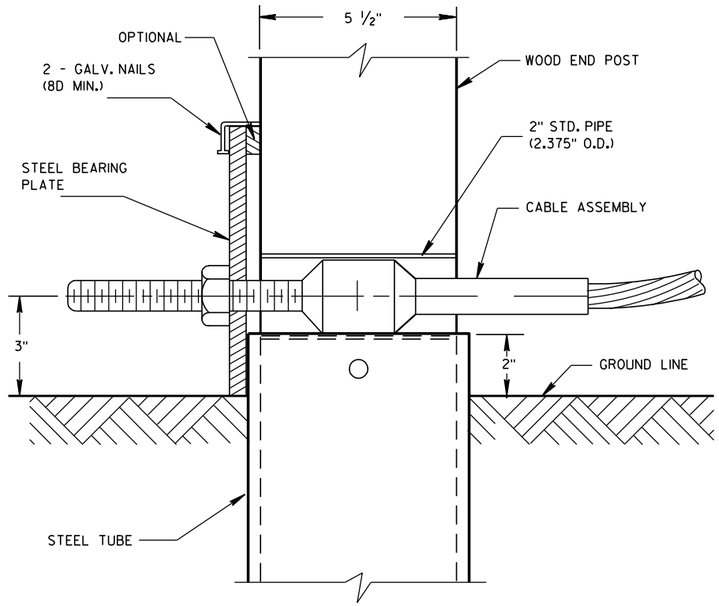
PLAN VIEW



FRONT VIEW

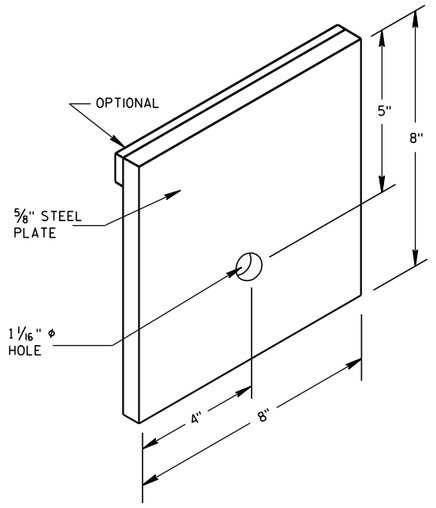
END TREATMENT WITH TYPE 2 ANCHORAGE

(USE ON ONE-WAY ROADWAYS ONLY - DEPARTING END)



DETAIL "A"

POST NO. 1



STEEL BEARING PLATE

ANCHORAGE FOR STEEL
PLATE BEAM GUARD
TYPE 2

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

S.D.D. 14 B 16-4a

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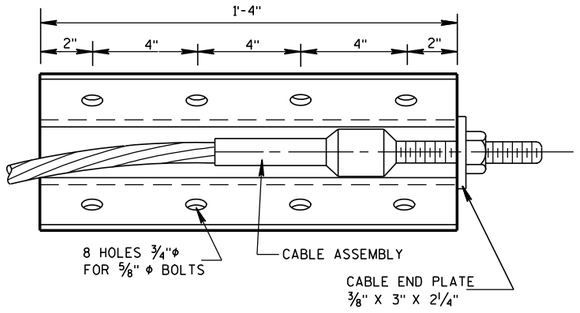
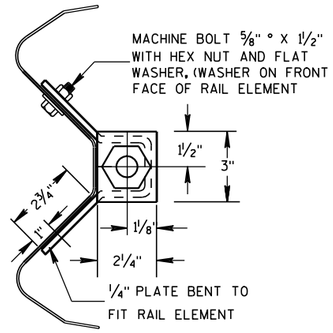
S.D.D. 14 B 16-4a

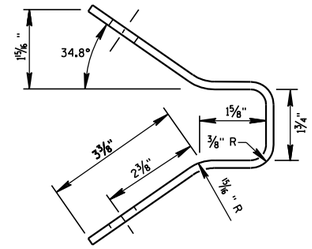


FRONT VIEW

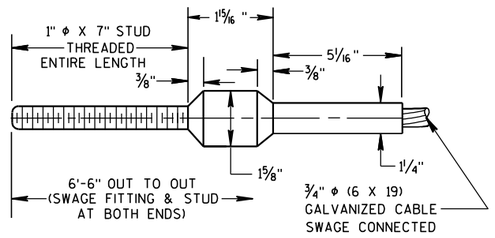


END VIEW

ANCHOR PLATE DETAIL



END VIEW OF BRACKET



CABLE ASSEMBLY

CABLE, SWAGE FITTING, STUD AND NUT SHALL DEVELOP
A MINIMUM BREAKING STRENGTH OF 40,000 LB
(TIGHTEN UNTIL TAUT)

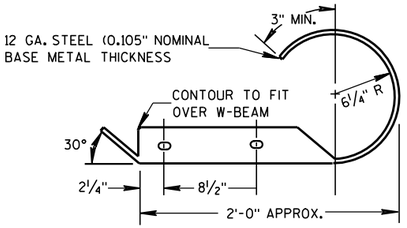
GENERAL NOTES

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

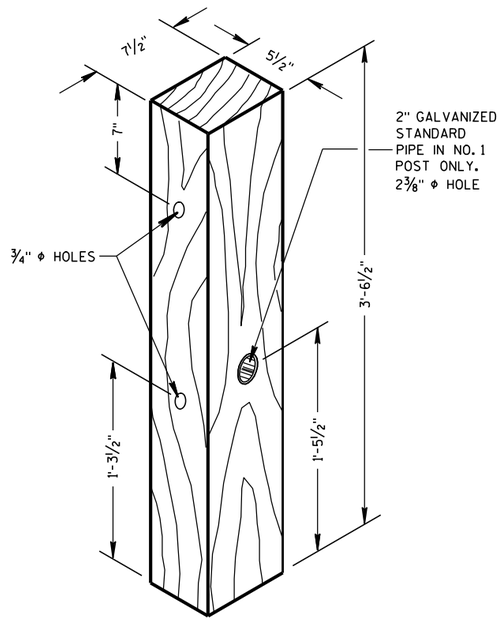
STRUCTURAL TUBING SHALL CONFORM TO THE REQUIREMENTS OF ASTM A-500 GRADE B OR ASTM A-501.

POST NO. 1 SHALL BE WOOD BREAKAWAY POST INSERTED AND BOLTED INTO STEEL TUBE.

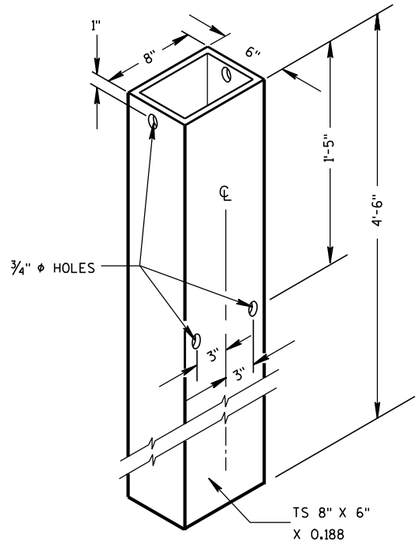
TYPE 2 ANCHORAGE SHALL CONSIST OF A STEEL TUBE, SOIL PLATE WOOD BREAKAWAY POST, BEARING PLATE, ANCHOR PLATE, CABLE ASSEMBLY AND ALL ASSOCIATED HARDWARE, ALL STEEL PARTS SHALL BE GALVANIZED.



PLAN VIEW

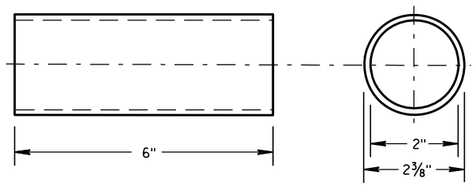


WOOD BREAKAWAY POST



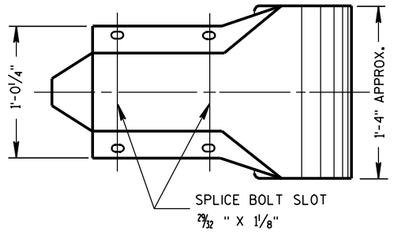
STEEL TUBE

STEEL TUBE SHALL CONFORM TO
REQUIREMENTS OF ASTM A500

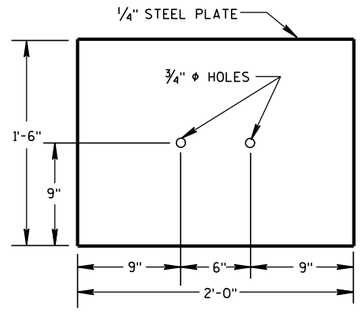


BREAKAWAY TERMINAL POST SLEEVE

GALVANIZED STANDARD STRENGTH STEEL PIPE, ASTM 53 GRADE "B"



FRONT VIEW
W BEAM END SECTION ROUNDED



SOIL PLATE

ANCHORAGE FOR STEEL
PLATE BEAM GUARD
TYPE 2

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
8/21/2007
DATE
/S/ Jerry H. [illegible]
ROADWAY STANDARDS ENGINEER
100
ENT
FHWA

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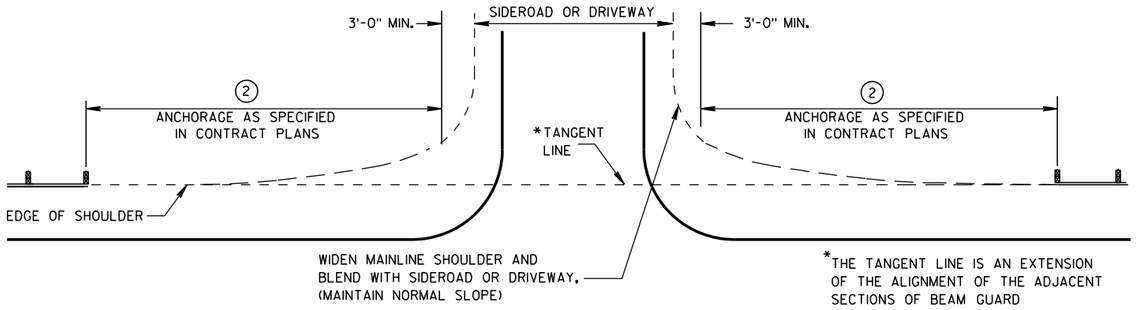
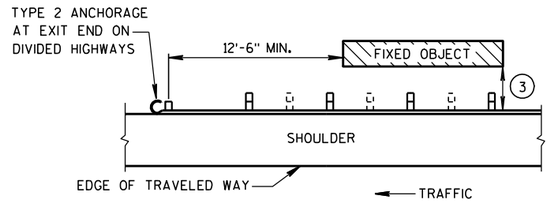
S.D.D. 14 B 16-4b

6

S.D.D. 14 B 16-4b



BEAM GUARD AT SIDEROADS OR DRIVEWAYS



BEAM GUARD AT OBSTACLES EXIT END - ONE WAY TRAFFIC

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP SHALL CONFORM TO THE PERTINENT STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

W6 X 9 OR W6 X 8.5 STEEL POSTS WITH NOTCHED PLASTIC BLOCKOUTS ARE ACCEPTABLE ALTERNATIVES FOR 6" X 8" WOOD POSTS WITH WOOD OR PLASTIC BLOCKOUTS. USE APPROVED NOTCHED PLASTIC BLOCKOUTS WITH STEEL POSTS.

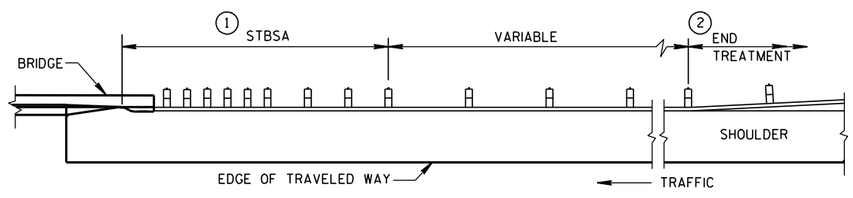
THE LOCATIONS AND LENGTHS OF BEAM GUARD ARE SHOWN ELSEWHERE IN THE PLAN.

(1) STEEL THRIE BEAM STRUCTURAL APPROACH (STBSA) - SEE CURRENT SDD 14B20.

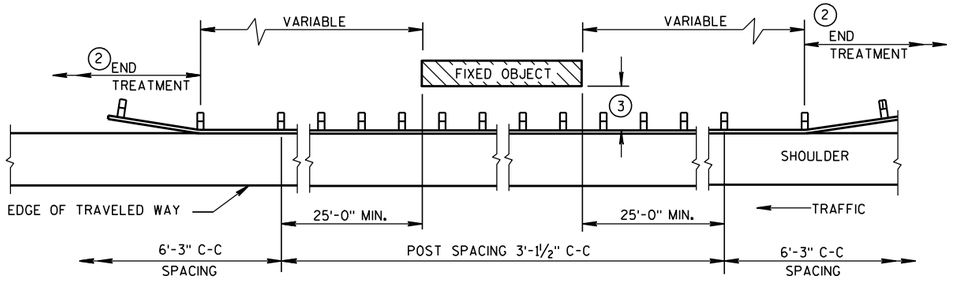
(2) USE AN APPROVED END TREATMENT FOR THE TRAFFIC APPROACH SIDE OF BRIDGE/OBSTACLES. USE TYPE 2 ANCHORAGE ONLY AT THE DOWNSTREAM ENDS OF BEAM GUARD LOCATED ALONG ROADWAYS WITH ONE WAY TRAFFIC.

(3)

MINIMUM LATERAL DISTANCE FROM FACE OF BEAM GUARD TO FIXED OBJECT	POST SPACING
3'-6"	3' - 1½"
4'-6"	6' - 3"

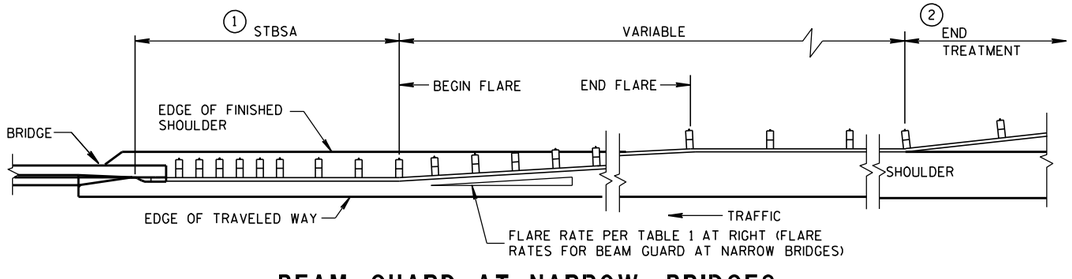


BEAM GUARD AT FULL WIDTH BRIDGES



BEAM GUARD AT OBSTACLES - TWO WAY TRAFFIC

(RAIL TO OBSTACLE CLEARANCE 3'-6" TO 4'-6")



BEAM GUARD AT NARROW BRIDGES
(FLARED TO SHOULDER EDGE, THEN PARALLEL TO ROADWAY)

TABLE 1
FLARE RATES FOR BEAM GUARD AT NARROW BRIDGES

POSTED SPEED (MPH)	FLARE RATE
25	13:1
30	15:1
35	16:1
40	18:1
45	21:1
50	24:1
55	26:1
65	30:1

STEEL PLATE BEAM GUARD CLASS "A" AT BRIDGES, OBSTACLES AND SIDEROADS/DRIVEWAYS

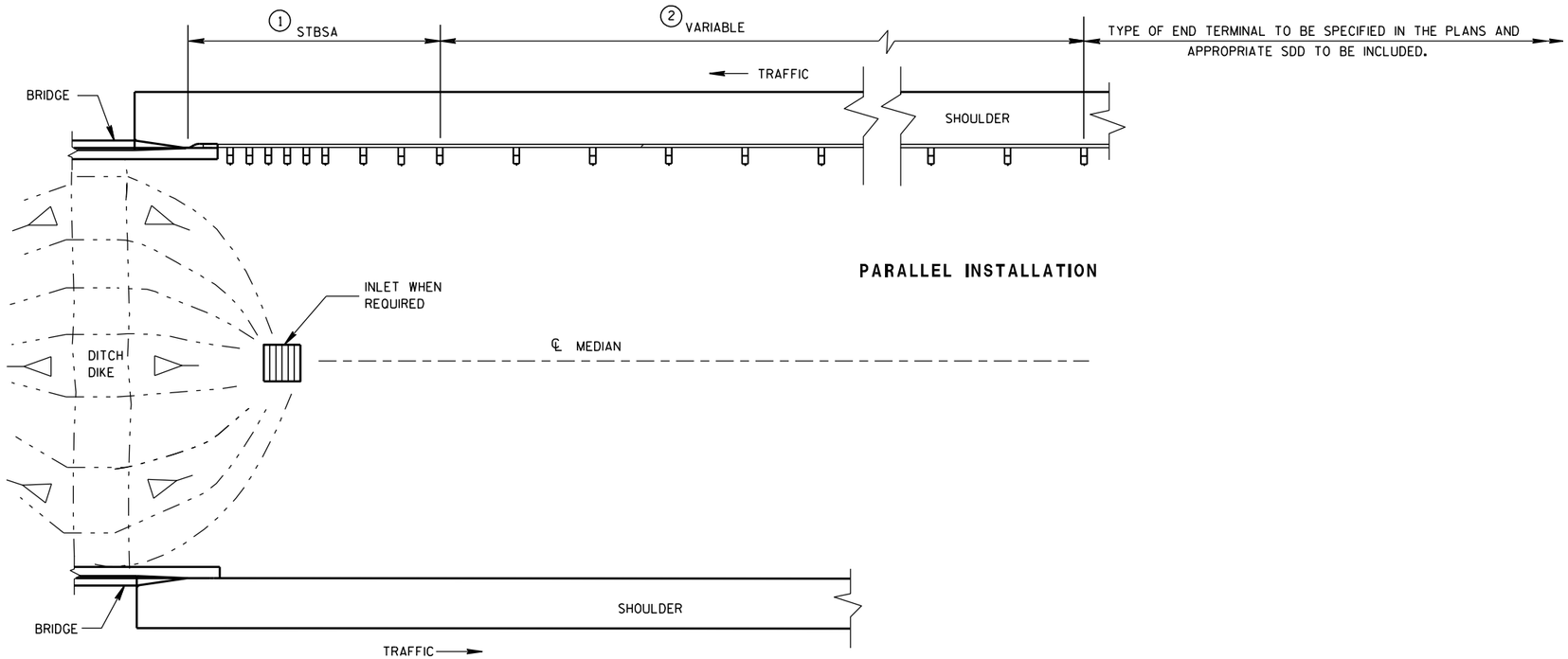
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
8-21-07 DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA

6
S.D.D. 14 B 18-6a

GENERAL NOTES

1. STEEL THRIE BEAM STRUCTURAL APPROACH (STBSA) - SEE CURRENT SDD 14B20.
2. LOCATIONS AND LENGTHS OF BEAM GUARD ARE SHOWN ELSEWHERE IN THE PLAN.



PARALLEL INSTALLATION

BEAM GUARD AT MEDIAN APPROACH TO BRIDGES

STEEL PLATE BEAM GUARD CLASS "A" AT MEDIAN APPROACH TO BRIDGES	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED	
8-21-07 DATE	/S/ Jerry H. Zogg ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA	

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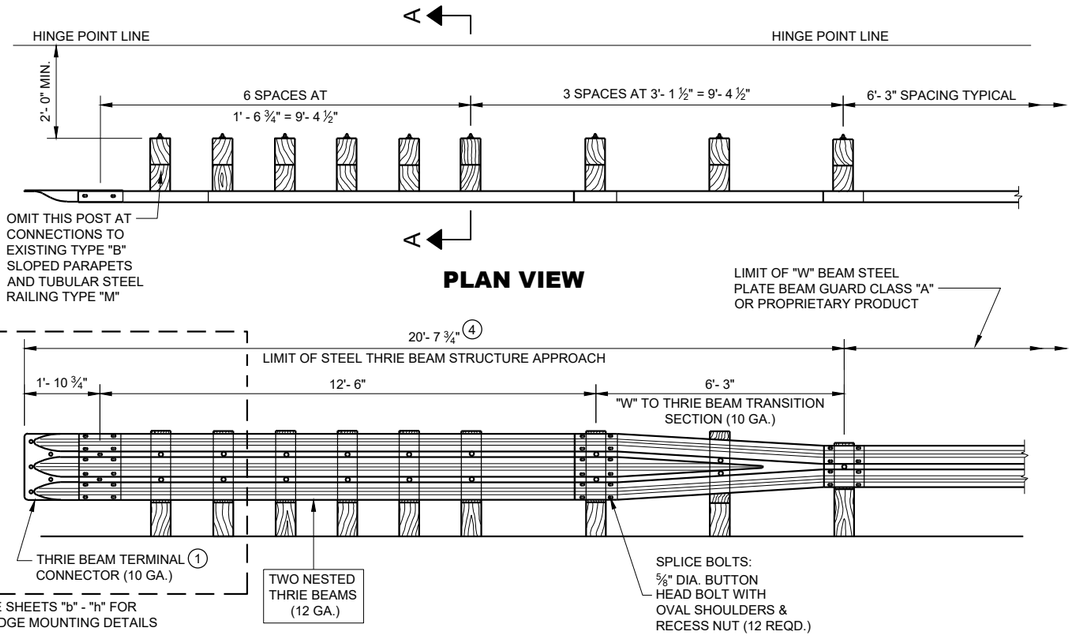
S.D.D. 14 B 18-6b



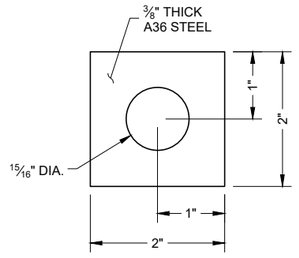


PLATE WASHER DETAIL

GENERAL NOTES

BOLT THE THRIE BEAM TO ALL POSTS AND BLOCKOUTS. DRILL OR PUNCH BOLT HOLES IN THE BEAM IF THE POST SPACING IS LESS THAN 6'-3".

DO NOT USE STEEL POSTS AND NOTCHED PLASTIC BLOCKOUTS IN THE STEEL THRIE BEAM STRUCTURAL APPROACH AND THE TRANSITION SECTION OF STEEL PLATE BEAM GUARD, CLASS "A" INSTALLATIONS.

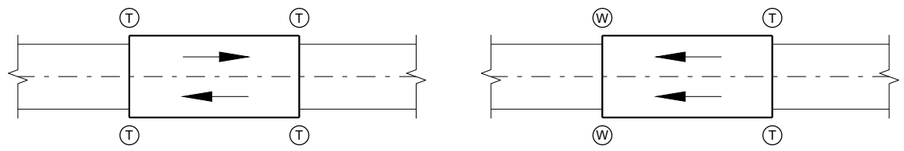
IF ROCK IS ENCOUNTERED, REMOVE ROCK TO FULL DEPTH OF POST PLUS 2 ½" , AND 12" DIAMETER AROUND POST. SEE 14B15 FOR MORE DETAILS.

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

(2) MINIMUM EMBEDMENT SHALL BE 4'- 0".

(3) POST BOLTS ARE ⅝" DIAMETER ASTM A307 BUTTON HEAD BOLT. A POST BOLT REQUIRES A ⅝" DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX AND A ⅝" DIAMETER F844 FLAT WASHER. LENGTH OF POST BOLT MAY VARY.

(4) ALL WOOD POSTS MUST BE 6" X 8" AND AT LEAST 7'-0" LONG.



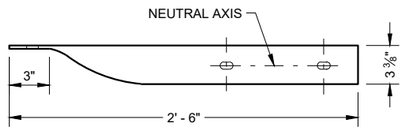
TWO WAY TRAFFIC

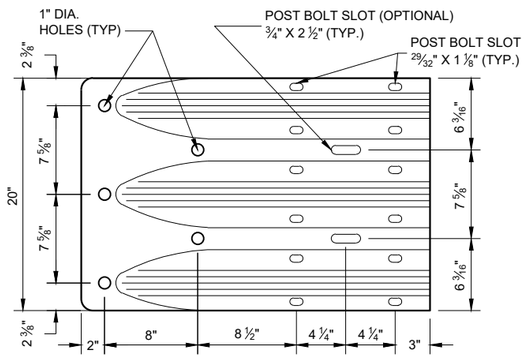
ONE WAY TRAFFIC

(T) THRIE BEAM CONNECTION

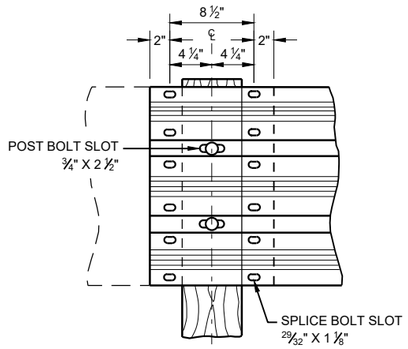
(W) W-BEAM CONNECTION WHEN REQUIRED

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

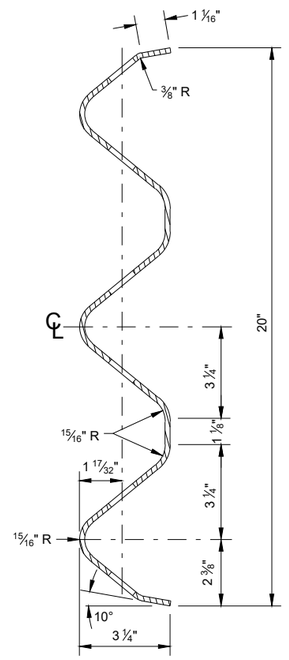




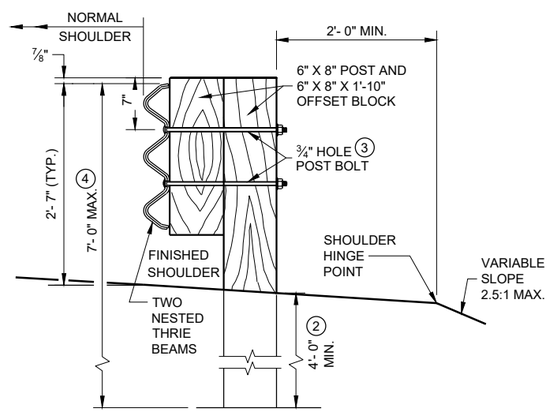
THRIE BEAM TERMINAL CONNECTOR



THRIE BEAM SPLICE



SECTION THRU BEAM RAIL ELEMENT



SECTION A-A

STEEL THRIE BEAM STRUCTURE APPROACH

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2022 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS DEVE ENGINEER

FHWA

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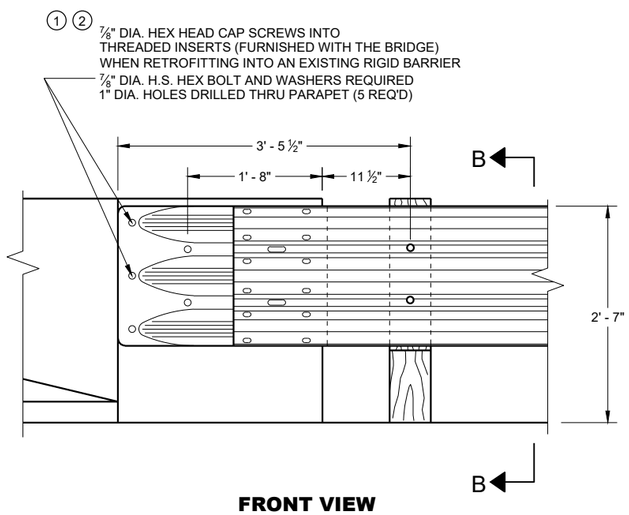
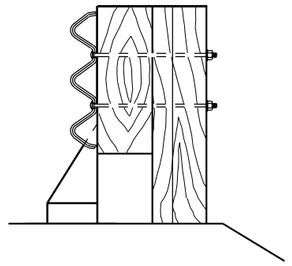
SDD 14B20 - 12a

SDD 14B20 - 12a



FRONT VIEW



SECTION B - B

THRIE BEAM CONNECTION TO BRIDGE PARAPET WITH SQUARE ENDS

GENERAL NOTES

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

BOLTS, NUTS AND WASHERS SHALL CONFORM TO ASTM A325, A449 AND GALVANIZED PER STANDARD SPECIFICATIONS 614.

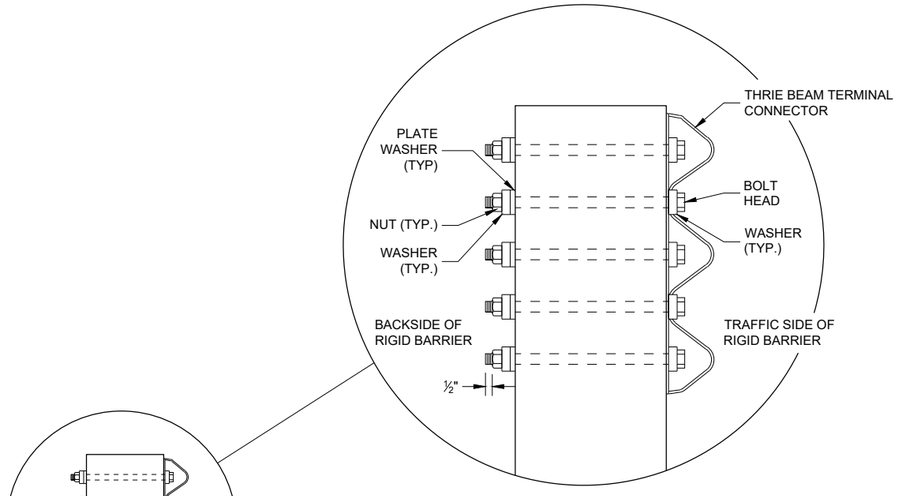
① DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

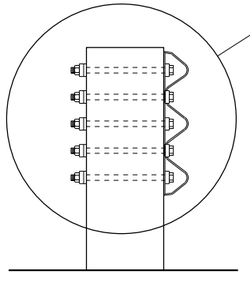
② BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM TERMINAL CONNECTOR. BOLTS THAT EXTEND THROUGH THE PARAPET AND OUT THE BACK FACE REQUIRE A HARDENED ROUND STEEL WASHER THAT IS 2" O.D. X 5/8" THICK AND ONE PLATE WASHER. REPAIR ANY DAMAGED CONCRETE FROM BOLT INSTALLATION.

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

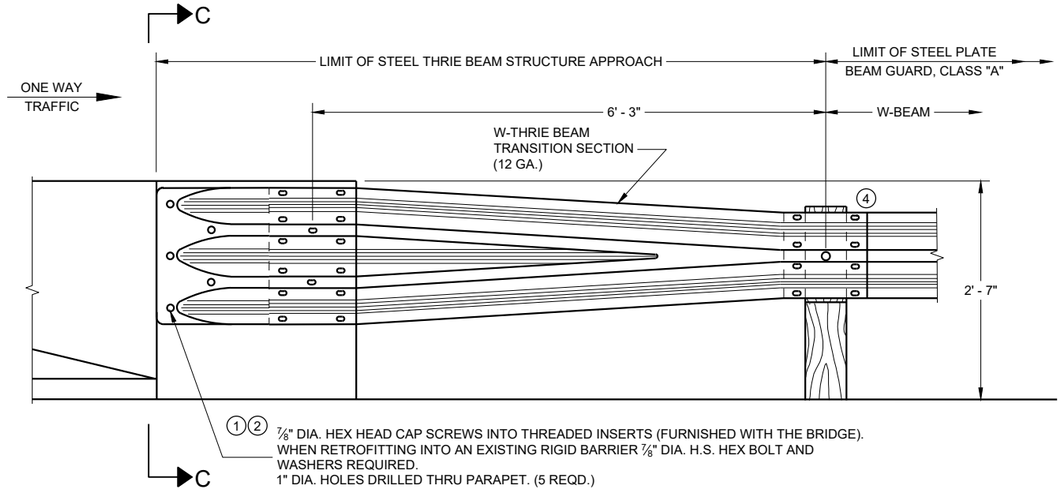
④ W6 X 9 OR W6 X 8.5 STEEL POSTS AND NOTCHED PLASTIC BLOCKOUTS ARE ACCEPTABLE ALTERNATIVES FOR 6" X 8" WOOD POST WITH WOOD OR PLASTIC BLOCKOUTS. USE APPROVED NOTCHED PLASTIC BLOCKOUTS WITH STEEL POSTS.

DO NOT USE STEEL POSTS AND NOTCHED PLASTIC BLOCKOUTS IN THE STEEL THRIE BEAM STRUCTURAL APPROACH AND THE TRANSITION SECTION OF STEEL PLATE BEAM GUARD, CLASS "A" INSTALLATIONS.





SECTION C - C



① ② ⅞" DIA. HEX HEAD CAP SCREWS INTO THREADED INSERTS (FURNISHED WITH THE BRIDGE). WHEN RETROFITTING INTO AN EXISTING RIGID BARRIER ⅞" DIA. H.S. HEX BOLT AND WASHERS REQUIRED.
1" DIA. HOLES DRILLED THRU PARAPET. (5 REQD.)

FRONT VIEW

W BEAM TRANSITION AND CONNECTION TO BRIDGE PARAPETS WITH SQUARE ENDS

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

STEEL THRIE BEAM STRUCTURE APPROACH, CONNECTION TO SQUARE END PARAPETS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2022
DATE

/S/ Rodney Taylor
ROADWAY STANDARDS DEVE ENGINEER

FHWA

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SDD 14B20 - 12b

GENERAL NOTES

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

BOLTS, NUTS AND WASHERS SHALL CONFORM TO ASTM A325, A449 AND GALVANIZED PER STANDARD SPECIFICATIONS 614.

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

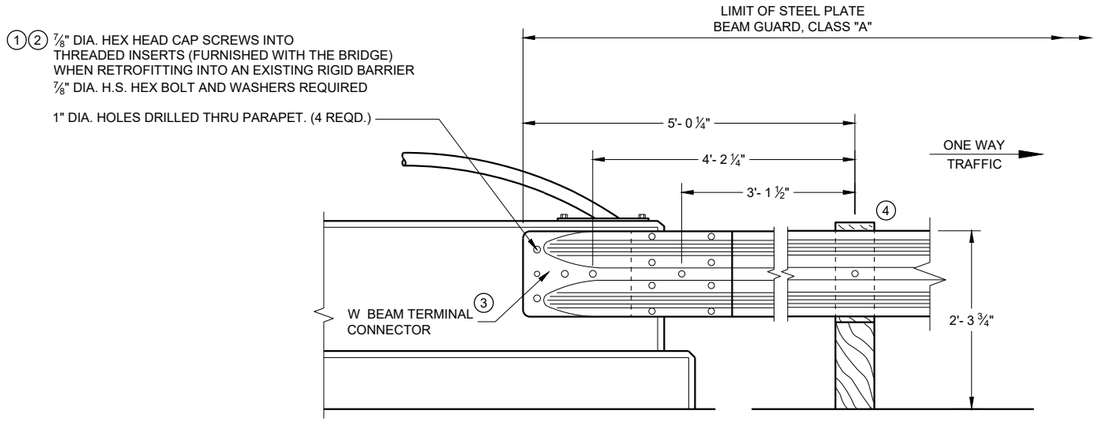
(2) BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM TERMINAL CONNECTOR. BOLTS THAT EXTEND THROUGH THE PARAPET AND OUT THE BACK FACE REQUIRE A HARDENED ROUND STEEL WASHER THAT IS 2" O.D. X 5/8" THICK AND ONE PLATE WASHER. REPAIR ANY DAMAGED CONCRETE FROM BOLT INSTALLATION.

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

(4) W6 X 9 OR W6 X 8.5 STEEL POSTS AND NOTCHED PLASTIC BLOCKOUTS ARE ACCEPTABLE ALTERNATIVES FOR 6" X 8" WOOD POST WITH WOOD OR PLASTIC BLOCKOUTS. USE APPROVED NOTCHED PLASTIC BLOCKOUTS WITH STEEL POSTS.

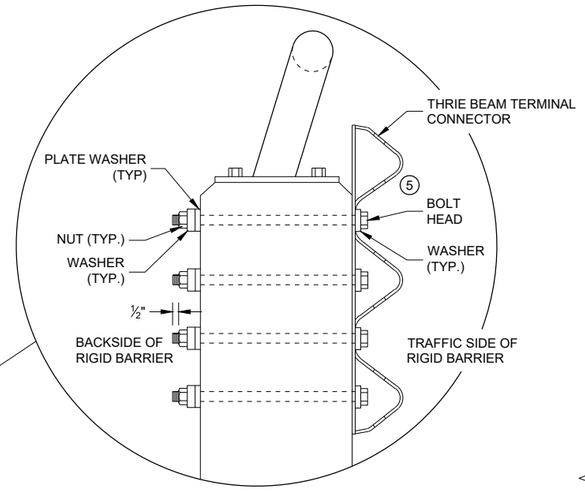
(5) BOLT, NUT AND WASHERS NO REQUIRED FOR THIS LOCATION WHEN RETROFITTING AN EXISTING PARAPET AND THE HOLE IS EITHER ABOVE PARAPET OR WITHIN 4 INCHES OF THE THE EDGE OF PARAPET.

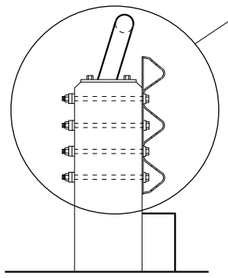
DO NOT USE STEEL POSTS AND NOTCHED PLASTIC BLOCKOUTS IN THE STEEL THRIE BEAM STRUCTURAL APPROACH AND THE TRANSITION SECTION OF STEEL PLATE BEAM GUARD, CLASS "A" INSTALLATIONS.



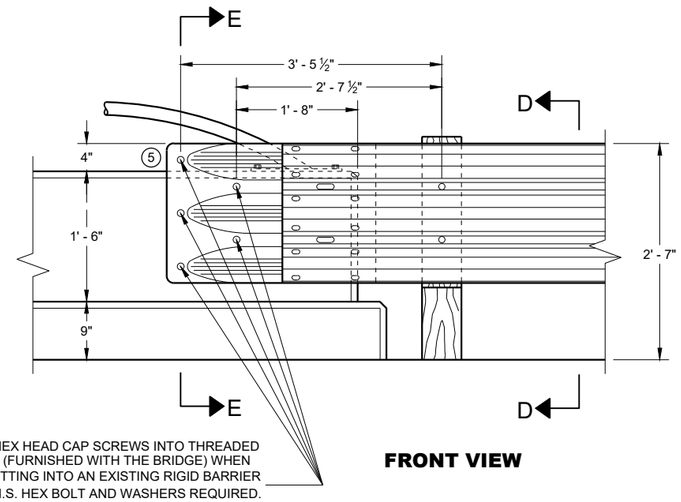
FRONT VIEW

W BEAM CONNECTION TO VERTICAL FACE PARAPET
(USE ONLY ON THE TRAFFIC EXIT END OF ONE WAY BRIDGES)

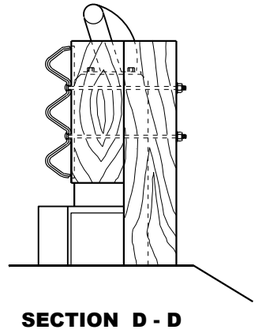




SECTION E - E



FRONT VIEW



SECTION D - D

THRIE BEAM CONNECTION TO VERTICAL FACED PARAPETS

STEEL THRIE BEAM STRUCTURE APPROACH, CONNECTION TO VERTICAL FACED PARAPETS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2022
DATE
/S/ Rodney Taylor
ROADWAY STANDARDS DEVE ENGINEER

FHWA

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SDD 14B20 - 12c

BILL OF MATERIALS

NOTE NO.	DESCRIPTION
①	WOOD BREAKAWAY TERMINAL POST: 5½" X 7½" X 3'-9"
②	STEEL TUBE TS 8" X 6" X 0.188", 6'-0"
④	WOOD BREAKAWAY CRT POST: 6" X 8" X 6'-0"
⑤	WOOD OFFSET BLOCKS: 6' X 8" X 1'-2"
⑥	PIPE SLEEVE: 2" X 5 ½" STANDARD PIPE
⑦	BEARING PLATE
⑧	BCT CABLE ASSEMBLY
⑨	CABLE ANCHOR BOX
⑩	STRUT & YOKE
⑪	STEEL PLATE BEAM, END PANEL 12 GA.
⑫	STEEL PLATE BEAM: 12 GA. 13'-6½"
⑬	IMPACT HEAD
⑭	0.040" ALUMINUM SHEET WITH REFLECTIVE SHEETING TYPE F PER SECTION 637 OF THE STANDARD SPECIFICATIONS

GENERAL NOTES

FOLLOW MANUFACTURE'S BOLTING RECOMMENDATIONS.

(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.

(D) THE TOP OF THE STEEL TUBE ON POSTS 1 AND 2 SHALL NOT BE MORE THAN 3" ABOVE THE FINISH GROUND ELEVATION.

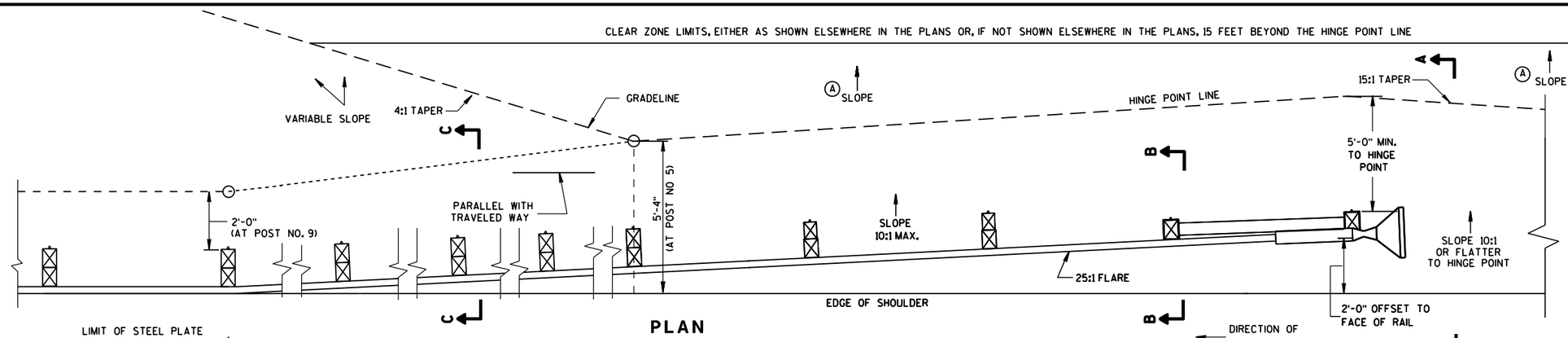
(E) THE CENTER OF THE UPPER 3½" DIAMETER HOLE ON POST 3 THROUGH 8 SHALL BE ¾" ABOVE THE FINISHED GROUND LINE.

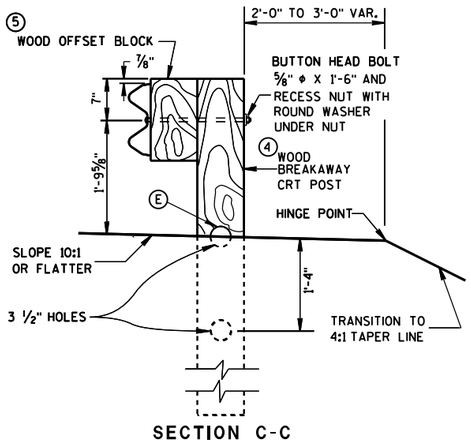
(F) ATTACH ALUMINUM SHEET TO E.A.T. HEAD USING 4 STAINLESS STEEL SELF-TAPPING SCREWS. ONE SCREW PER CORNER.

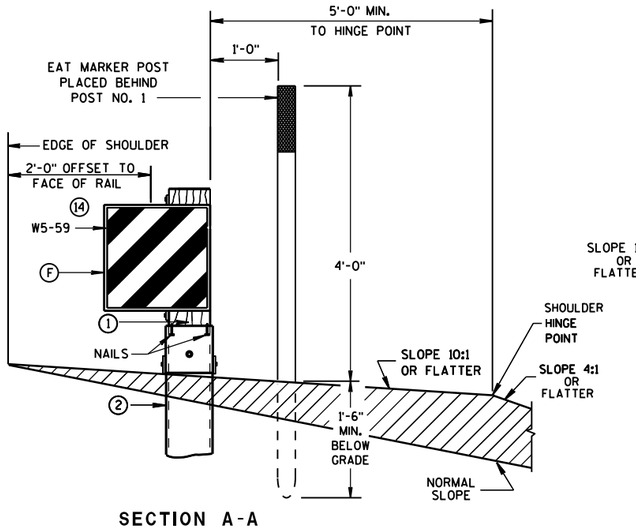
STEEL POSTS SHALL NOT BE ALLOWED FOR USE WITH ENERGY ABSORBING TERMINALS.

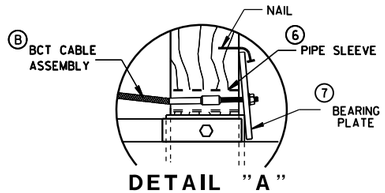
DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL.

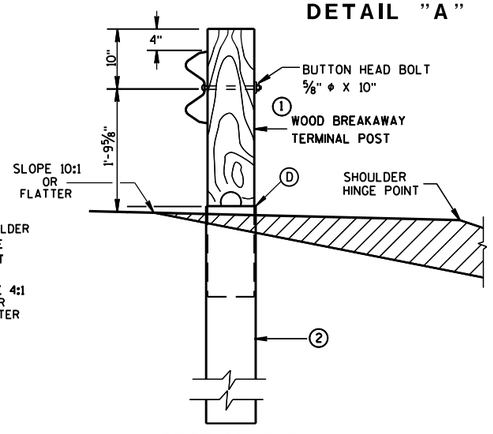
* DO NOT ATTACH BLOCKOUTS TO POSTS 1 AND 2.

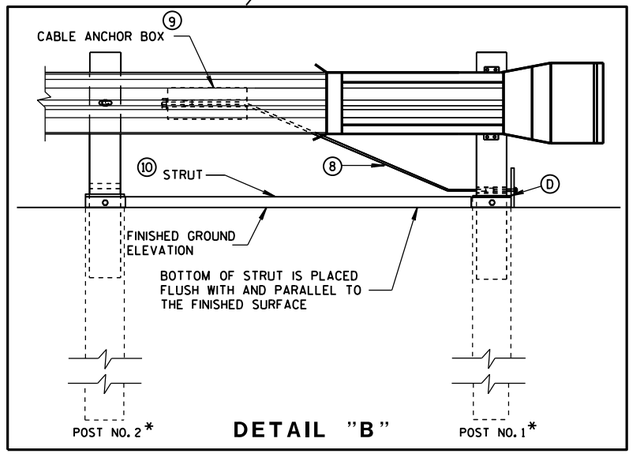










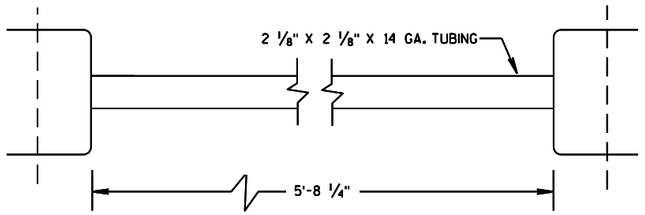


STEEL PLATE BEAM GUARD ENERGY ABSORBING TERMINAL

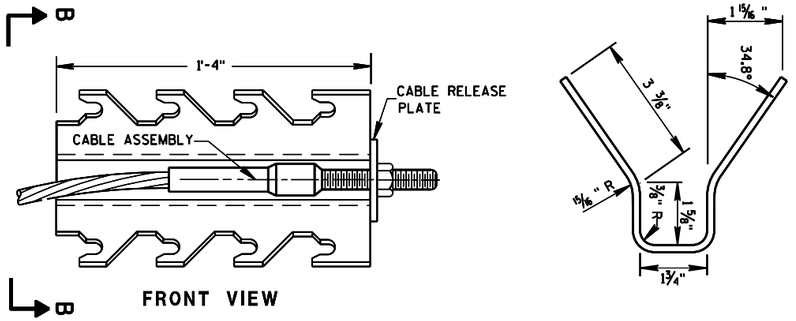
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

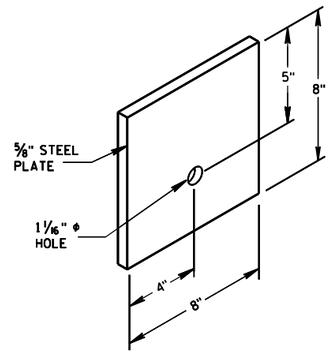
S.D.D. 14 B 24-9a



⑩ STRUT DETAIL



⑨ CABLE ANCHOR BOX



⑦ STEEL BEARING PLATE

6

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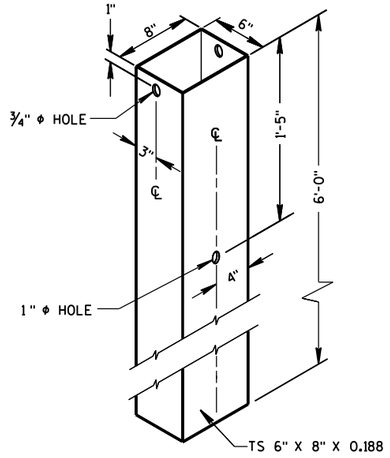
S.D.D. 14 B 24-9b

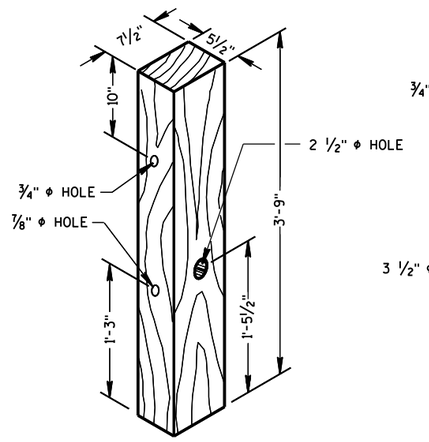
S.D.D. 14 B 24-9b

STEEL PLATE BEAM GUARD
ENERGY ABSORBING TERMINAL

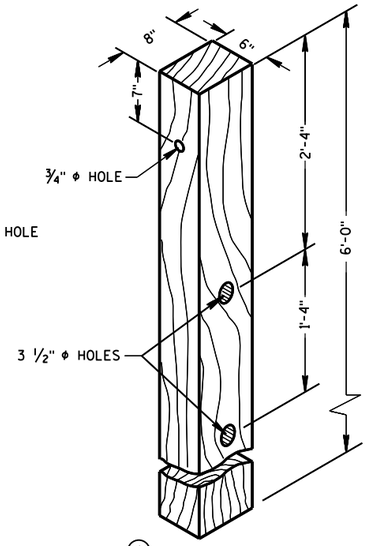
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI



② 72" STEEL TUBE
(POSTS NO. 1-2



① TERMINAL POST

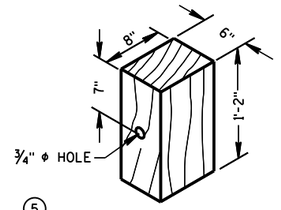


④ CRT POST
(POSTS NO'S 5-8

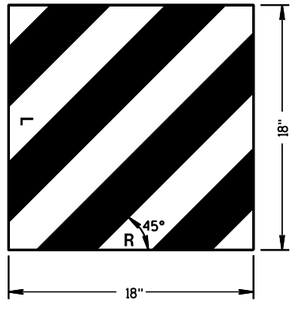
WOOD BREAKAWAY POSTS

GENERAL NOTES

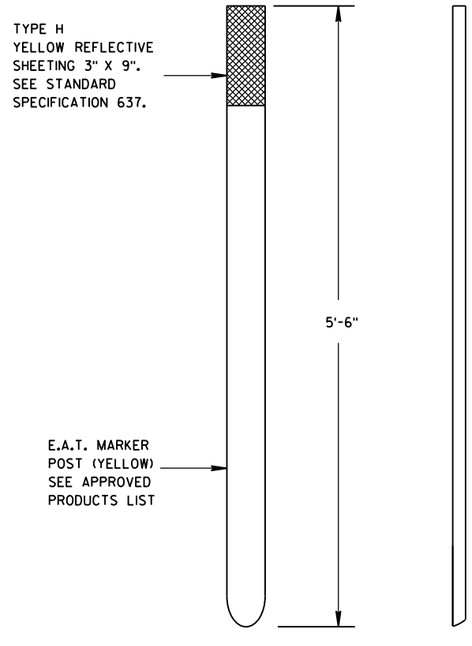
WHEN ROCK IS ENCOUNTERED DURING EXCAVATION, A 12 INCH DIA. POST HOLE EXTENDING 20 INCHES DEEP INTO THE ROCK MAY BE USED IF APPROVED BY THE ENGINEER. GRANULAR MATERIAL SHALL BE PLACED IN THE BOTTOM OF THE HOLE APPROXIMATELY 2 ½" INCHES DEEP TO PROVIDE DRAINAGE. THE SOIL TUBES SHALL BE FIELD CUT TO LENGTH, PLACED IN THE HOLE AND BACKFILLED WITH ADEQUATELY COMPACTED MATERIAL EXCAVATED FROM THE HOLE.



⑤ WOOD OFFSET BLOCK
REQ'D. AT ALL POSTS EXCEPT POST NO'S 1 & 2



⑭ REFLECTIVE SHEETING DETAILS



E.A.T. MARKER POST

STEEL PLATE BEAM GUARD
ENERGY ABSORBING TERMINAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2017
DATE
FHWA

/S/ Rodney Taylor
ROADWAY STANDARDS
UNIT SUPERV...

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S.D.D. 14 B 24-9c

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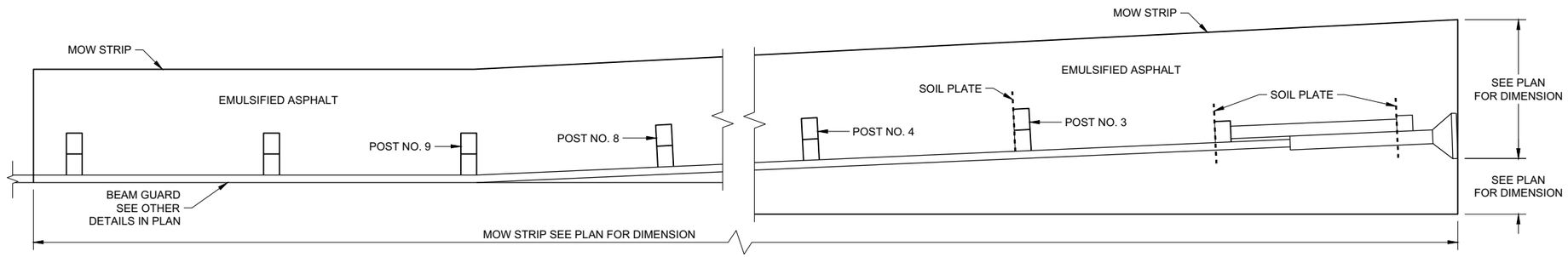
S.D.D. 14 B 24-9c



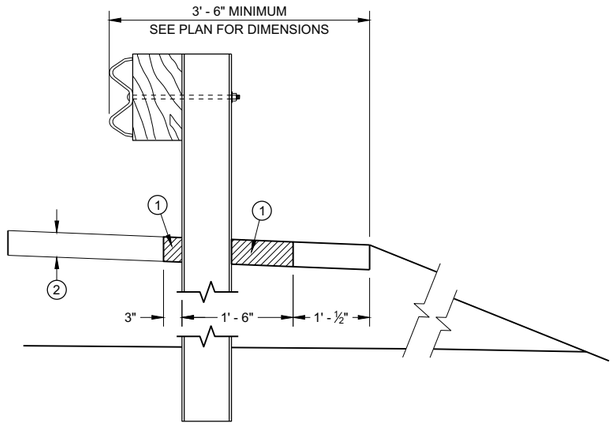
PLAN VIEW

MOW STRIP LAYOUT FOR ENERGY ABSORBING TERMINAL

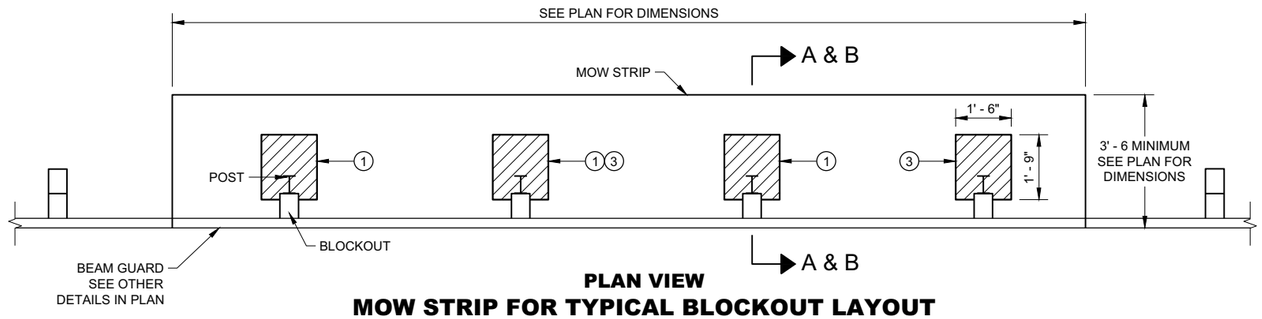
GENERAL NOTES

ONLY USE STEEL POSTS IN CONCRETE AND ASPHALT MOW STRIPS.

1. CONTROLLED LOW-STRENGTH BACKFILL OR EMULSIFIED ASPHALT.
2. DEPTH OF MOW STRIP:
   ASPHALT - 4"
   CONCRETE - 4"
   EMULSIFIED ASPHALT - 1" OR LESS
3. FOR EMULSIFIED ASPHALT, MOW STRIP STRIP LEAVE OUTS NOT REQUIRED. (TYPICAL FOR ALL POSTS)

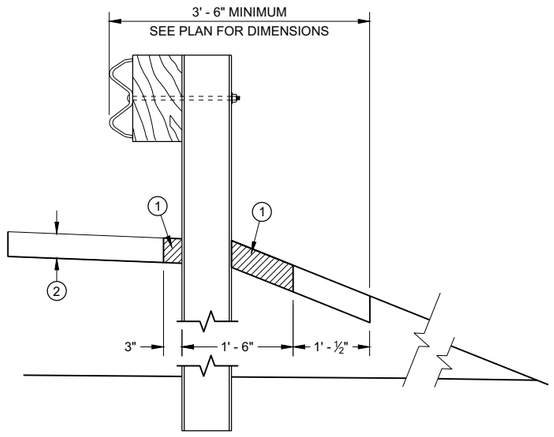


SECTION A - A

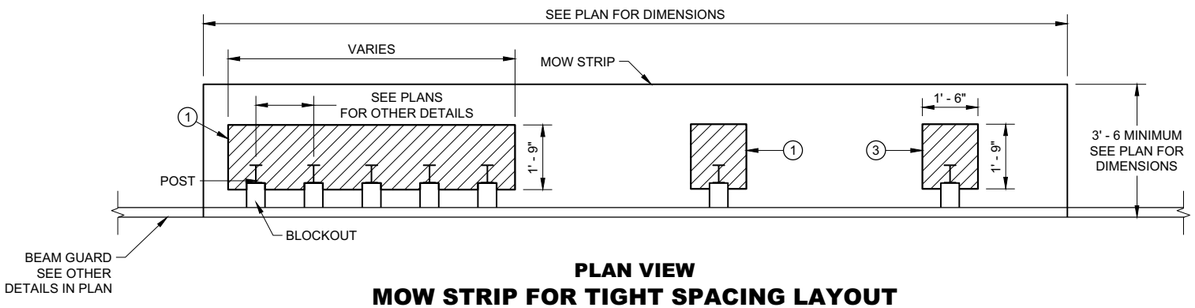


PLAN VIEW

MOW STRIP FOR TYPICAL BLOCKOUT LAYOUT

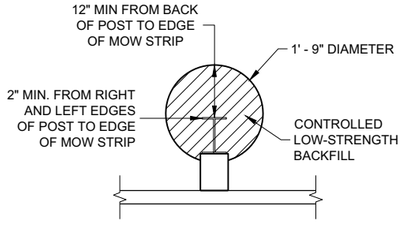


SECTION B - B

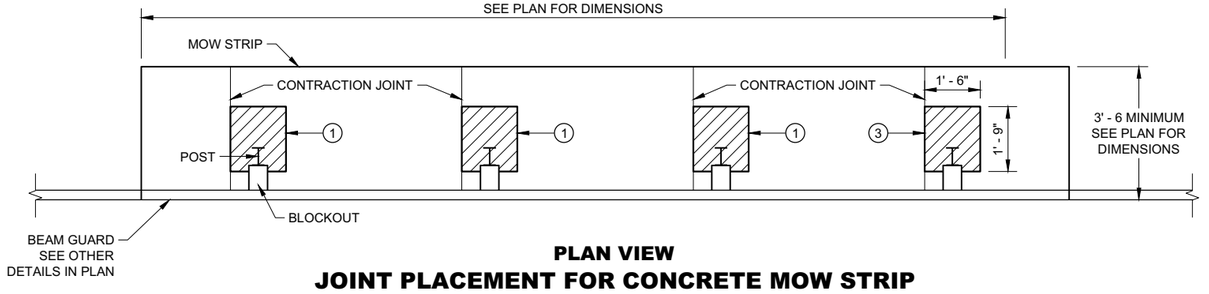


PLAN VIEW

MOW STRIP FOR TIGHT SPACING LAYOUT



ALTERNATIVE HMA MOW STRIP DESIGN



PLAN VIEW

JOINT PLACEMENT FOR CONCRETE MOW STRIP

GUARDRAIL MOW STRIP

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 14B28 - 04a

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SDD 14B28 - 04a

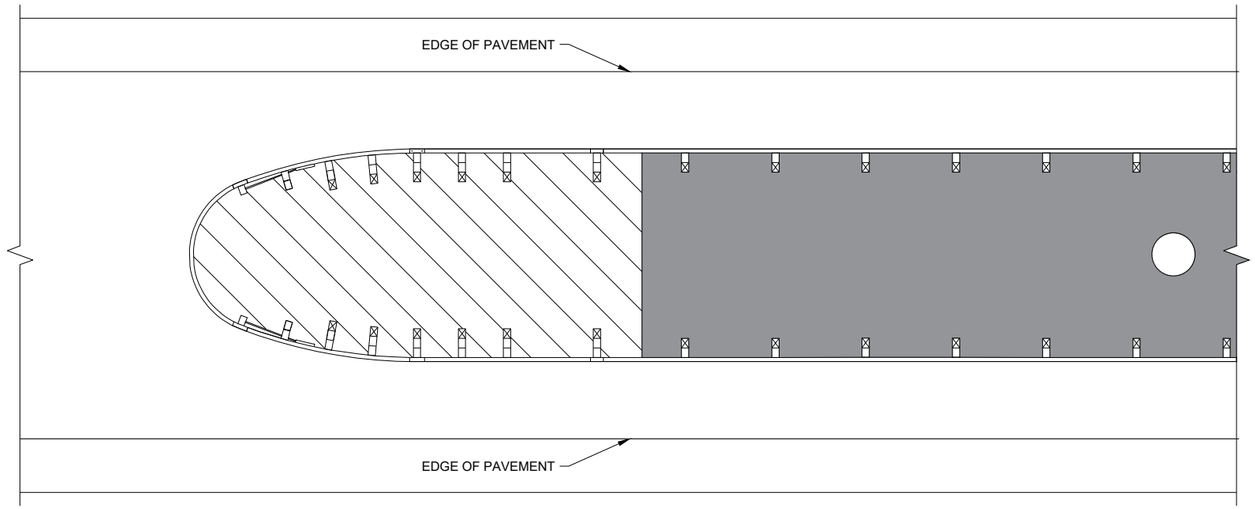
LEGEND

CONCRETE, ASPHALT, OR EMULSIFIED ASPHALT MOW STRIP (SEE OTHER DETAILS)

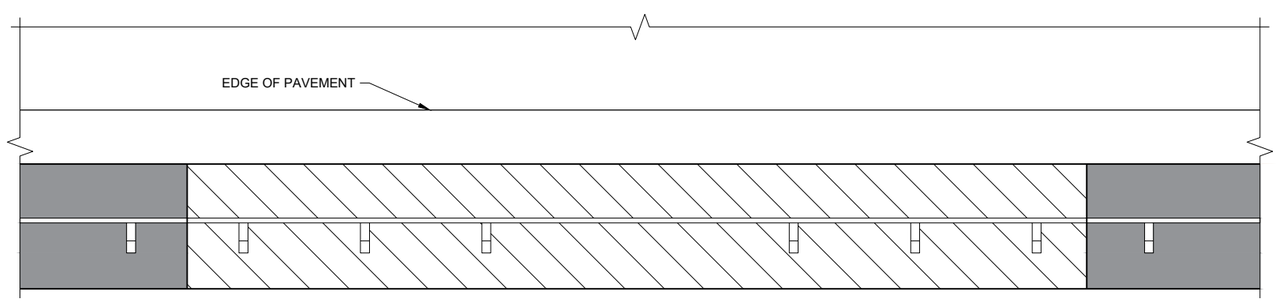
EMULSIFIED ASPHALT MOW STRIP (SEE OTHER DETAILS)

GENERAL NOTES

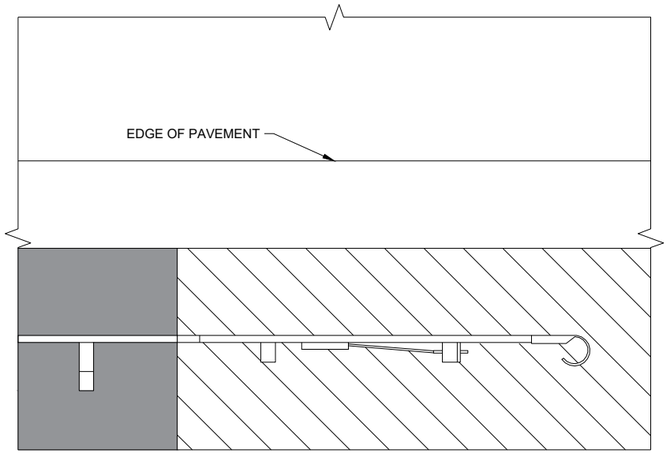
EXISTING THRIE BEAM BULLNOSES MAY HAVE WOOD POSTS. NEW THRIE BEAM BULLNOSE WILL HAVE STEEL POSTS.



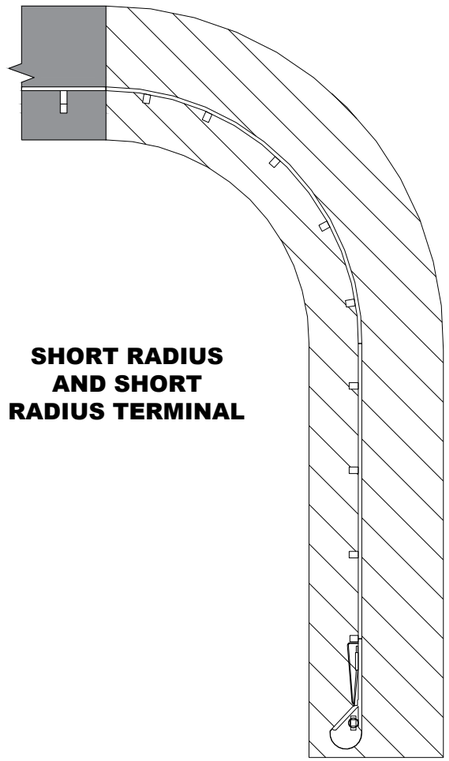
THRIE BEAM BULLNOSE



LONG - SPAN



TYPE 2 TERMINAL



SHORT RADIUS AND SHORT RADIUS TERMINAL

GUARDRAIL MOW STRIP

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
August 2020
DATE

/S/ Rodney Taylor
ROADWAY STANDARDS DEVE ENGINEER

FHWA

6

SDD 14B28 - 04b

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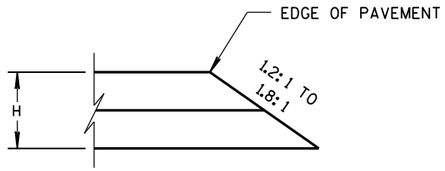
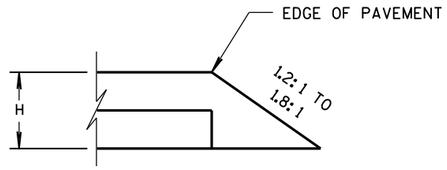
SDD 14B28 - 04b



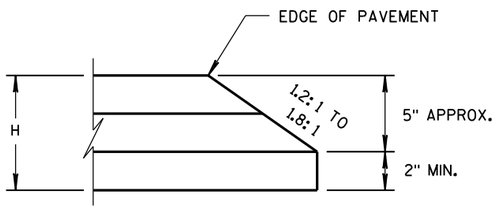
CONSTRUCTED WITH FINAL TWO LAYERS

FOR H 5" OR LESS



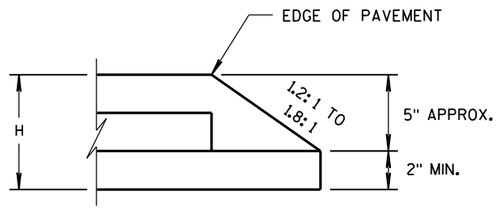
CONSTRUCTED WITH FINAL LAYER

FOR H 5" OR LESS



CONSTRUCTED WITH FINAL TWO LAYERS

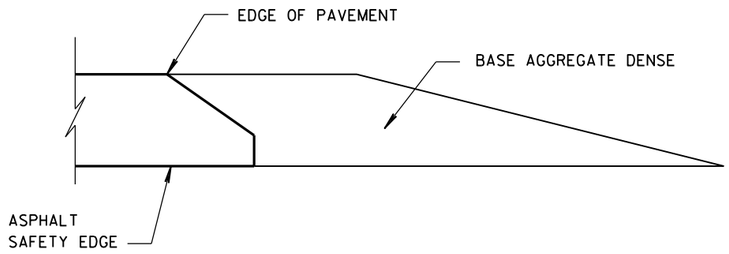
FOR H GREATER THAN 5"



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

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

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

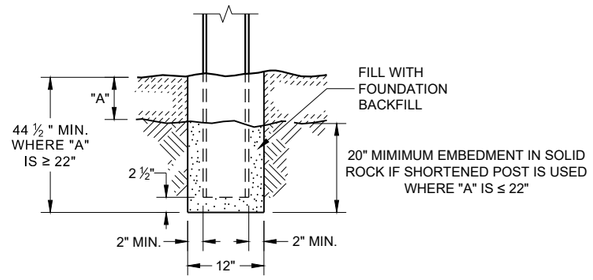
(3) IF ROCK IS ENCOUNTERED DURING EXCAVATION, PROVIDE A HOLE 12 INCHES IN DIAMETER EXTENDING 20 INCHES DEEP INTO THE ROCK. PLACE APPROXIMATELY 2 1/2" INCHES OF GRANULAR MATERIAL IN THE BOTTOM OF THE HOLE. CUT THE POSTS THE TO LENGTH AMD INSTALL. BACKFILL WITH EXCAVATED MATERIAL AND COMPACT. BACKFILL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

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

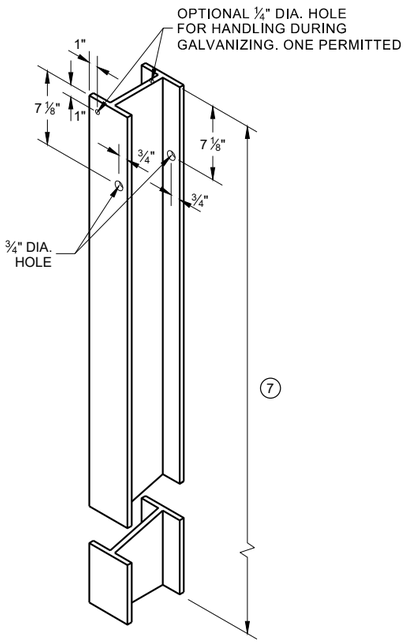
(5) FOR NEW MGS INSTALLATION TOP OF W-BEAM RAIL TOLERANCE IS ±1". FOR EXISTING MGS INSTALLATION TOP OF W-BEAM IS BETWEEN 27 ¾" TO 32".

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

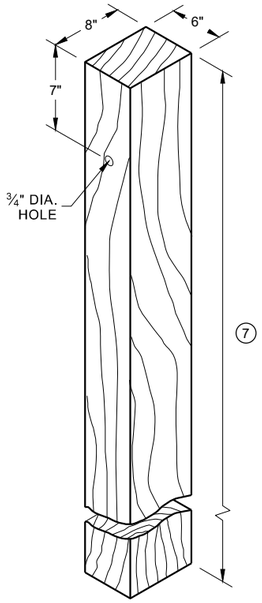
(7) TOTAL POST LENGTH FOR TYPE K IS 7' - 0".
TOTAL POST LENGTH FOR OTHER MGS TYPES IS 6' - 0".



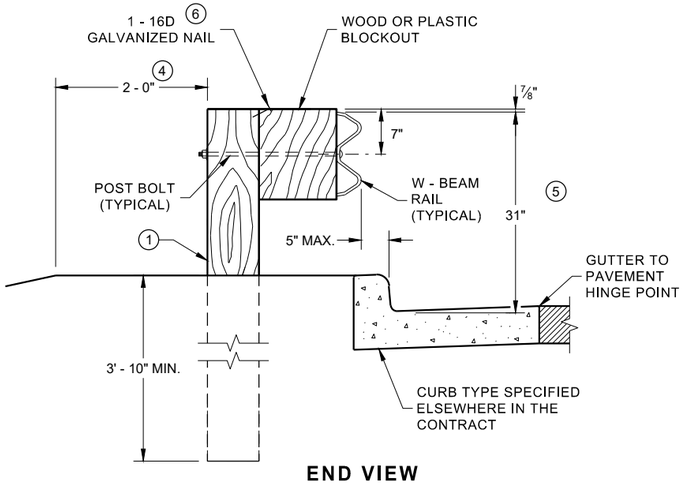
END VIEW
SETTING STEEL OR WOOD POST IN ROCK (3)



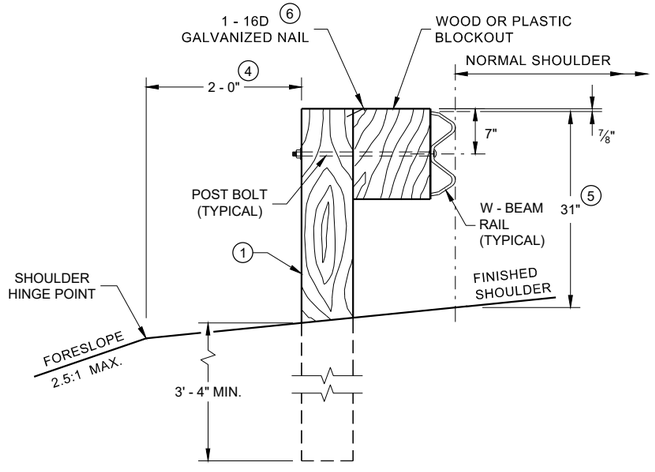
STEEL POST & HOLE PUNCHING DETAIL (W 6 X 9) (1)



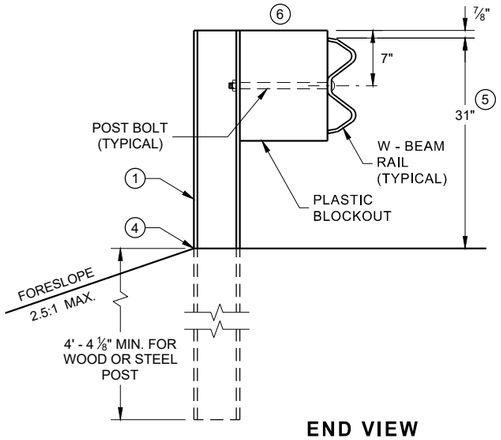
WOOD POST (6" X 8") NOMINAL (1)



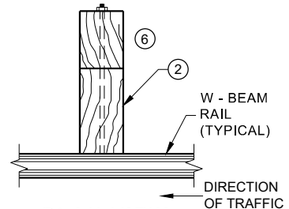
END VIEW
LOCATED ALONG A CURBED ROADWAY



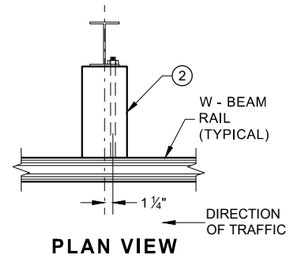
END VIEW
LOCATED ALONG A ROADWAY SHOULDER STANDARD INSTALLATION



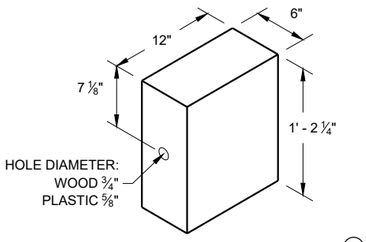
END VIEW
MGS LONGER POST AT HALFPOST SPACING W BEAM (K)



PLAN VIEW
WOOD POST, BLOCKOUT & BEAM



PLAN VIEW
STEEL POST, PLASTIC BLOCKOUT & BEAM



WOOD OR PLASTIC BLOCKOUT (2)

MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 14B42 - 07a

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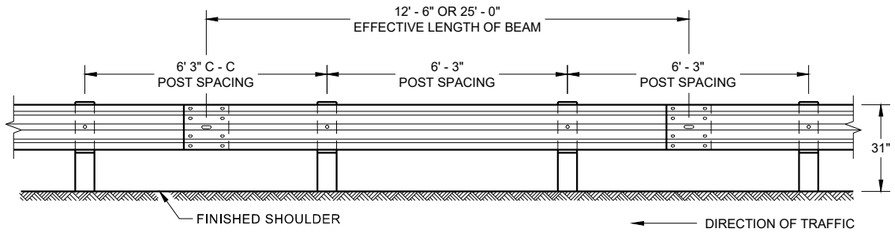
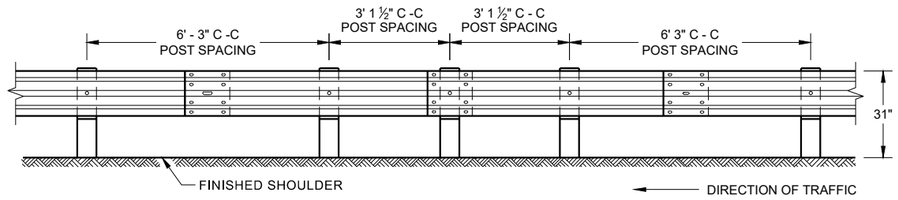
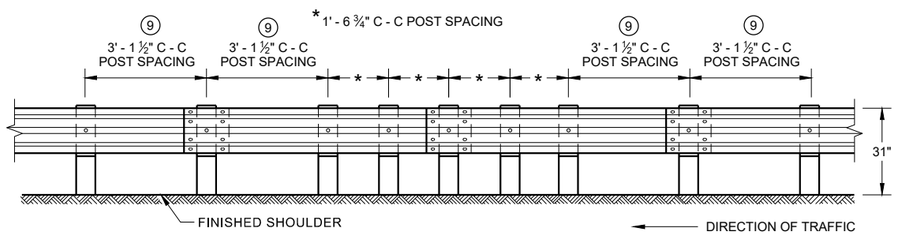
SDD 14B42 - 07a



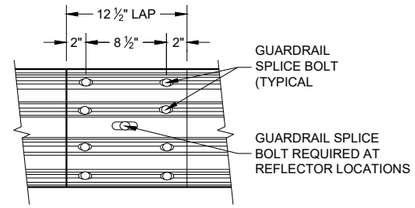
FRONT VIEW
POST SPACING STANDARD INSTALLATION



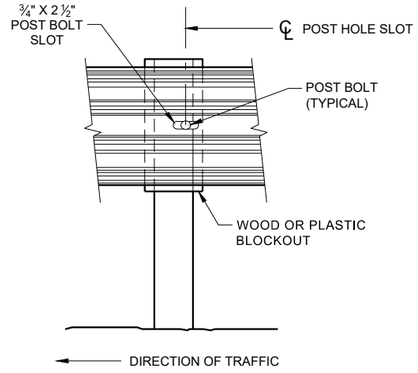
FRONT VIEW
HALF POST SPACING (HS) AND HALF POST SPACING WITH LONGER POSTS (K)



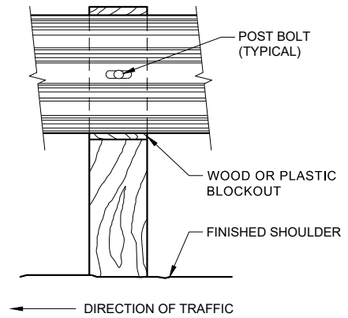
FRONT VIEW
QUARTER POST SPACING (QS)



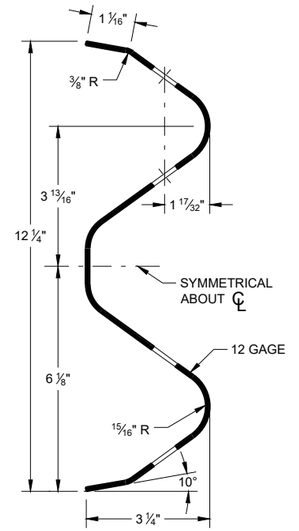
FRONT VIEW
MID-SPAN BEAM SPLICE



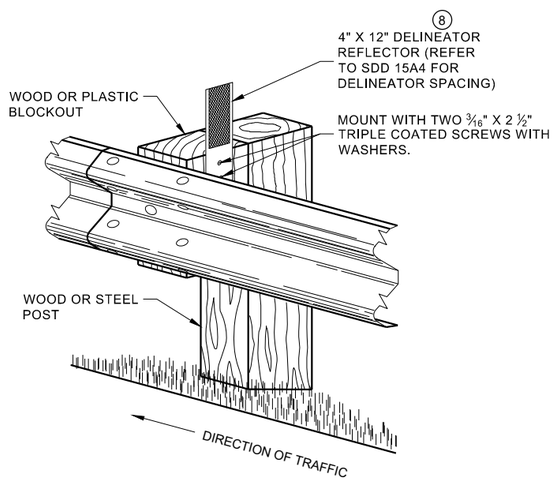
FRONT VIEW AT STEEL POST



FRONT VIEW AT WOOD POST



SECTION THRU W-BEAM RAIL



ONE SIDED REFLECTOR DETAIL AND TYPICAL INSTALLATION

GENERAL NOTES

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

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

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

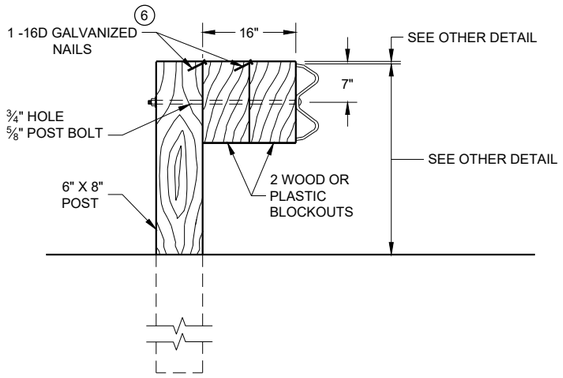
GUARD RAIL SPLICE BOLTS ARE A ⅝" DIAMETER ASTM A307 GUARDRAIL HEAD BOLT. A GUARDRAIL SPLICE BOLT REQUIRES ⅝" DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX NUT.

MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

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

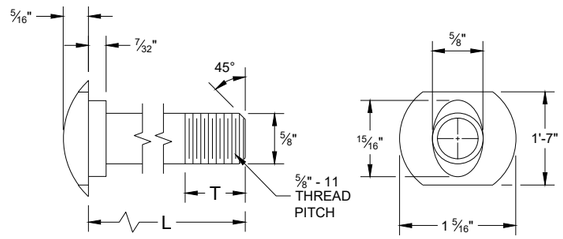


DETAIL FOR 16" BLOCKOUT DEPTH

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

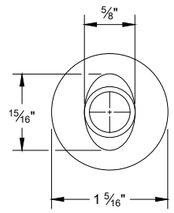
NOTE:

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

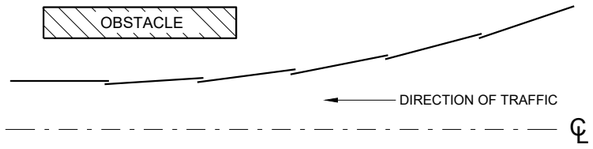


POST BOLT TABLE

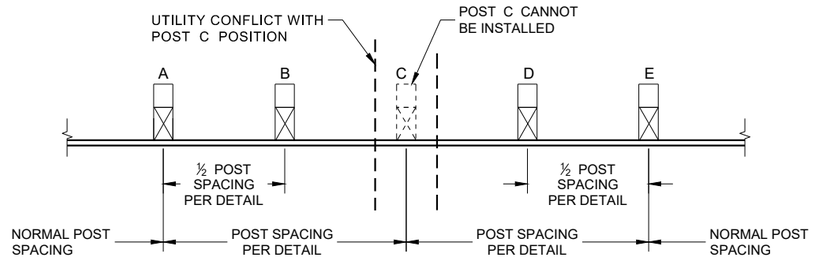
L	T (MIN.)
1 ¼"	1 ⅛"
2"	1 ¾"
10"	4"
14"	4 1⁄16"
18"	4"
21"	4 1⁄16"
25"	4"



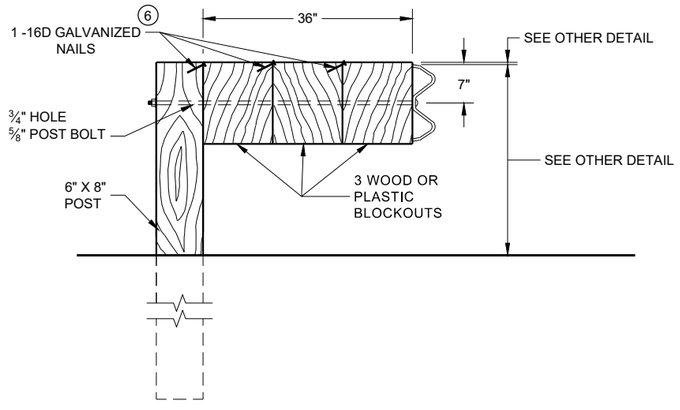
ALTERNATE BOLT HEAD



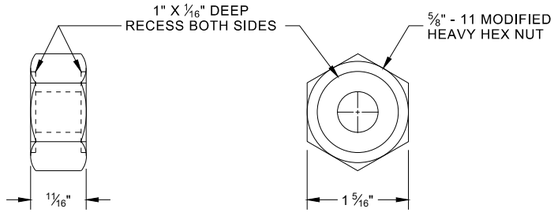
PLAN VIEW
BEAM LAPPING DETAIL



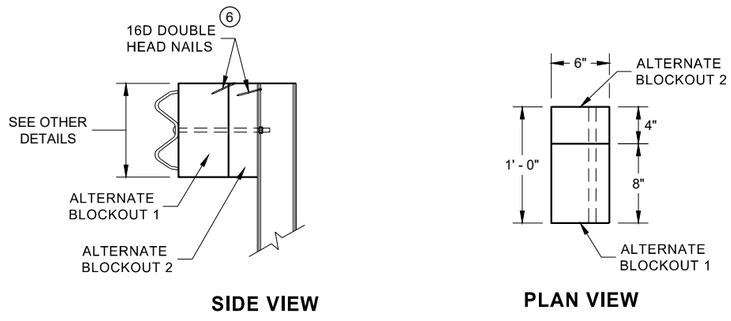
POST DRIVING FOR CONTINUOUS UNDERGROUND OBSTRUCTION



DETAIL FOR 36" BLOCKOUT DEPTH



POST BOLT, SPLICE BOLT AND RECESS NUT



SIDE VIEW

PLAN VIEW

ALTERNATE WOOD BLOCKOUT DETAIL

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

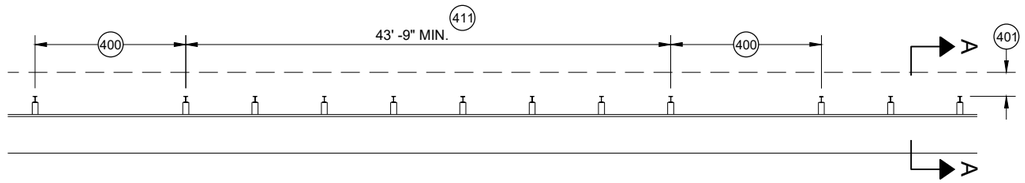
DO NOT USE 16" OR 36" BLOCKOUTS IF IT CAUSES THE POST TO BE DRIVEN BEYOND SHOULDER HINGE POINT OR CAUSES A FIXED OBJECT TO BE WITHIN THE DEFLECTION DISTANCE OF THE BARRIER.

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

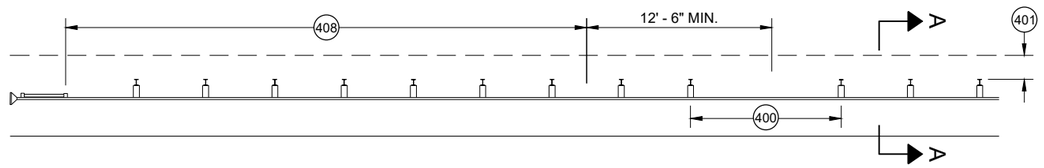
MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

6

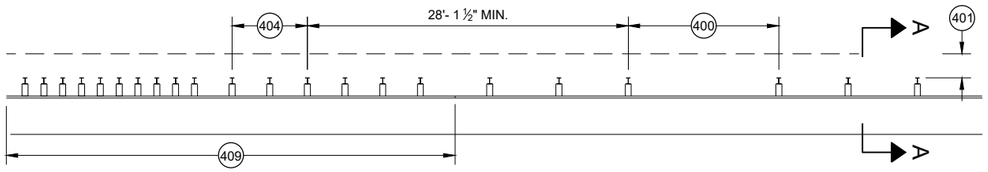
SDD 14B42 - 07c



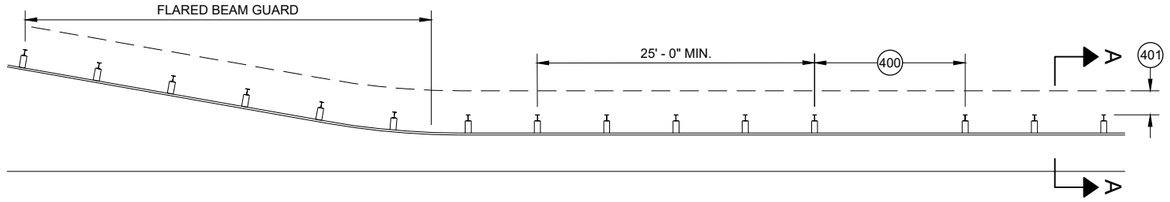
MISSING POST IN MGS GUARDRAIL



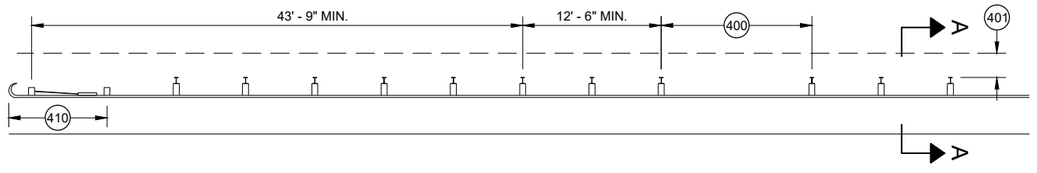
MISSING POST IN MGS GUARDRAIL NEAR EAT



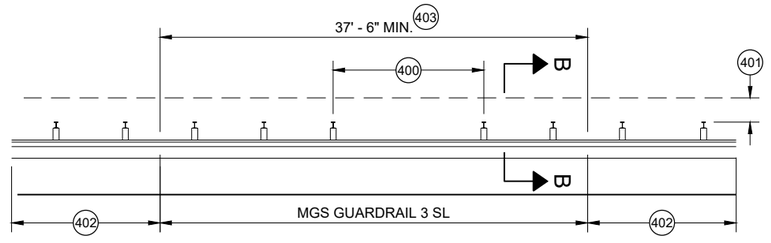
MISSING POST IN MGS GUARDRAIL NEAR AN APPROACH TRANSITION



MISSING POST IN MGS GUARDRAIL NEAR FLARED BEAM GUARD

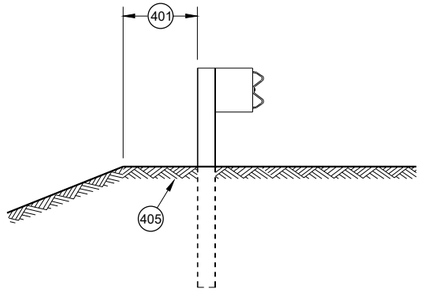


MISSING POST IN MGS GUARDRAIL NEAR A TYPE 2 END TERMINAL

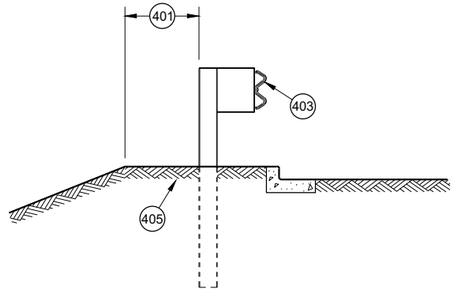


MISSING POST IN SHORT SPAN MGS GUARDRAIL NEAR CURB (SL) 407

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



SECTION A - A 406



SECTION B - B 406

MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

FHWA

6

SDD 14B42 - 07d

GENERAL NOTES

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

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

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

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

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

DIMENSIONS MAY VARY, MANUFACTURER'S INFORMATION.

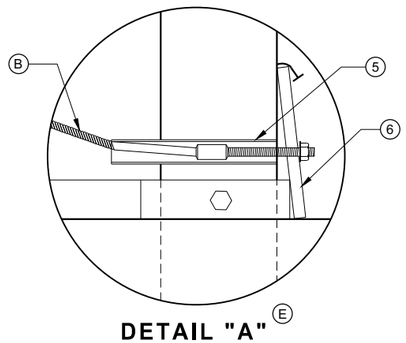
SEE SDD 14B42 FOR MORE INFORMATION.

* DO NOT ATTACH BLOCKOUTS TO POST 1 AND 2.

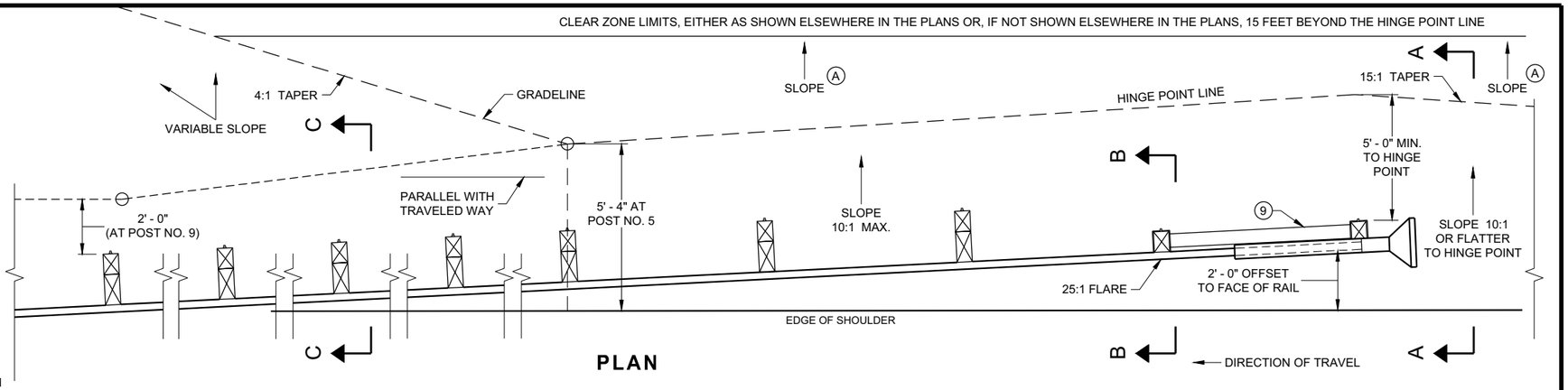
DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL.

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

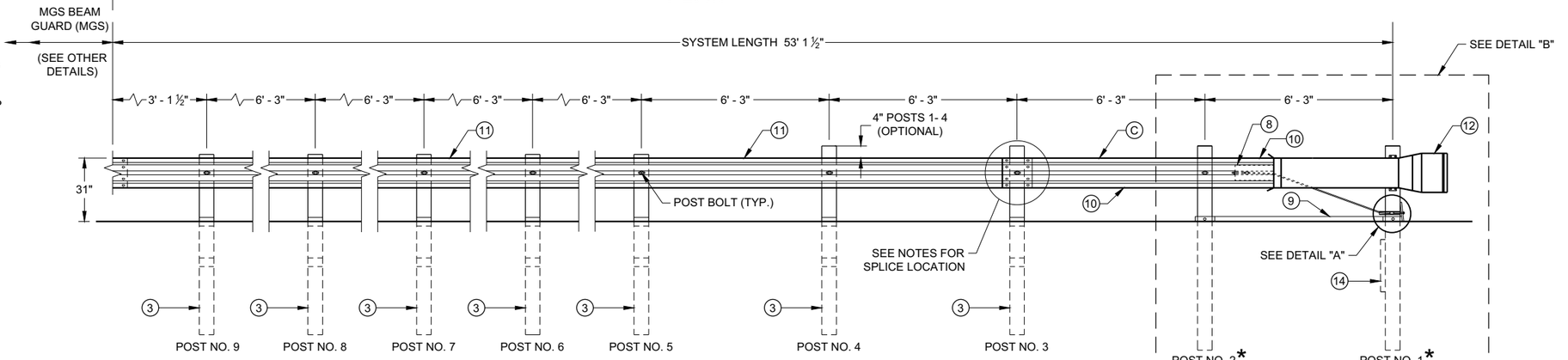
THE CENTER OF THE UPPER 3 ½" DIAMETER HOLE ON POST NUMBER 3 THROUGH POST 9 IS TO BE FLUSH WITH THE GROUND LINE UP TO A MAXIMUM OF 2" ABOVE GROUND LINE. WOOD BLOCKS ON POSTS NUMBERED 3 THROUGH 9 MAY BE ADJUSTED UP TO 3" ABOVE THE TOP OF POST.



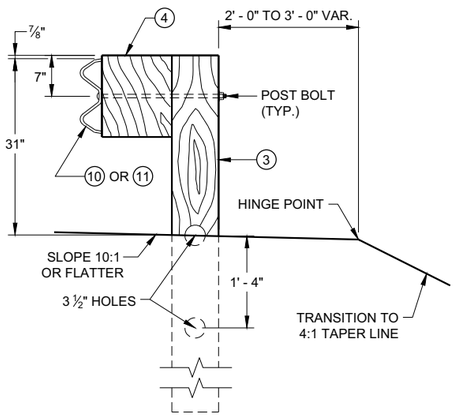
DETAIL "A" (E)



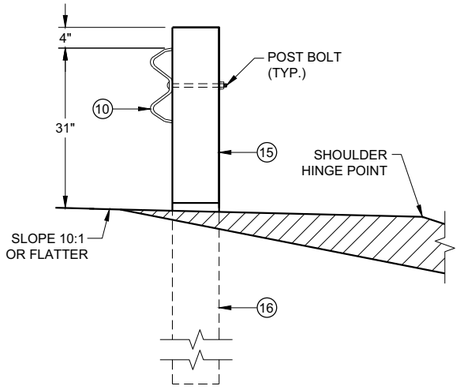
PLAN



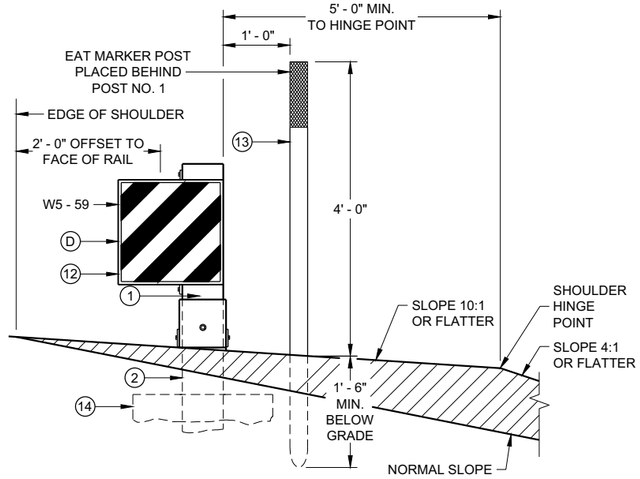
ELEVATION



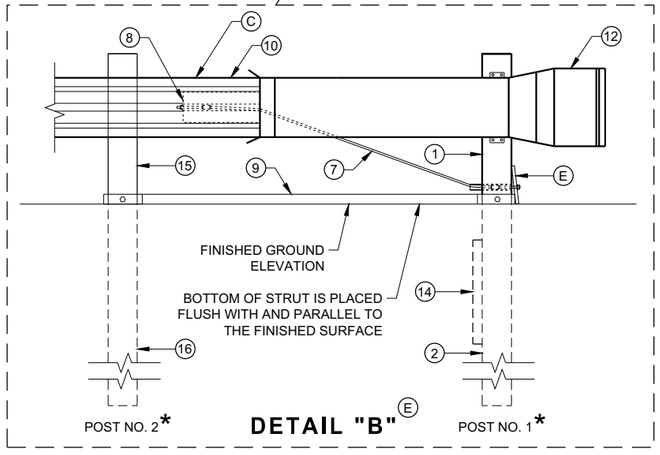
SECTION C - C
TYPICAL AT POST NOS. 3 - 9



SECTION B - B
TYPICAL AT POST NO. 2*



SECTION A - A
TYPICAL AT POST NO. 1*



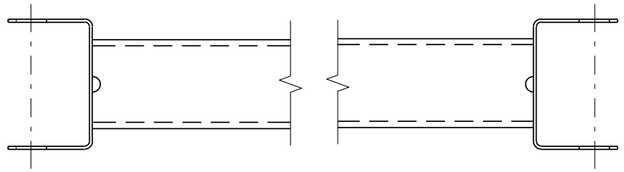
DETAIL "B" (E)

MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

SDD 14B44 - 04a

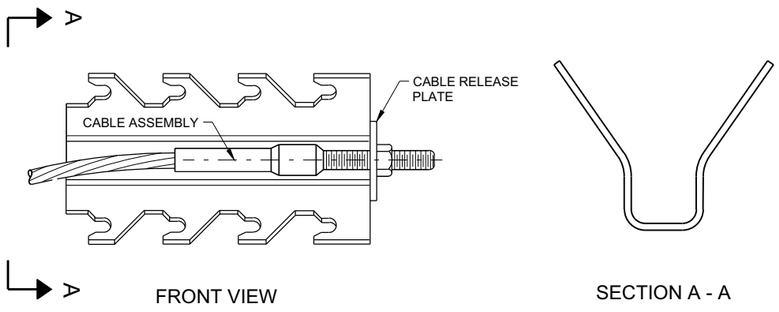
SDD 14B44 - 04a



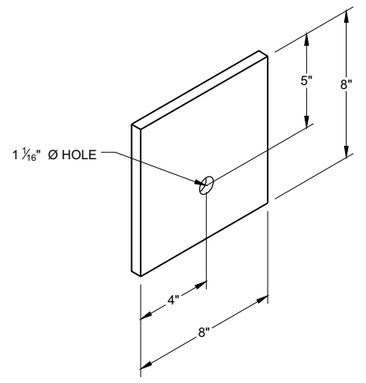
GENERIC GROUND STRUT ⑨ Ⓔ

BILL OF MATERIALS

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



GENERIC ANCHOR CABLE BOX ⑨ Ⓔ



BEARING PLATE ⑥ Ⓔ

6

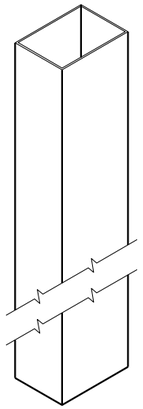
6

SDD 14B44 - 04b

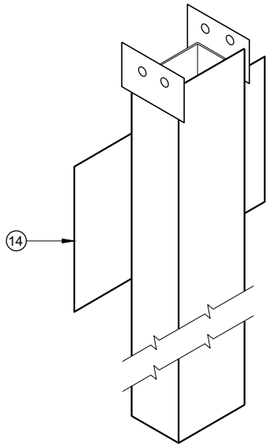
SDD 14B44 - 04b

MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL
(MGS)

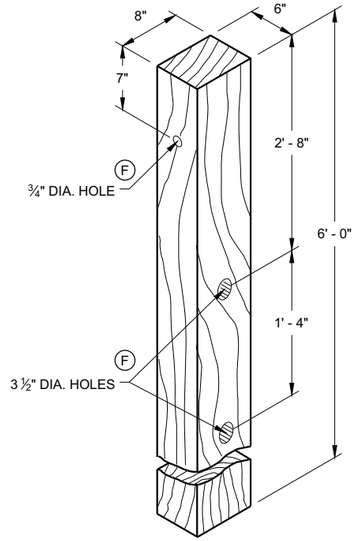
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



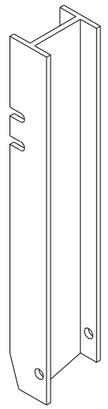
UPPER POST NO. 1 (1) (E)



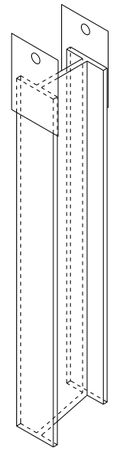
LOWER POST NO. 1 (2) (E)



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



UPPER POST NO. 2 (15) (E)



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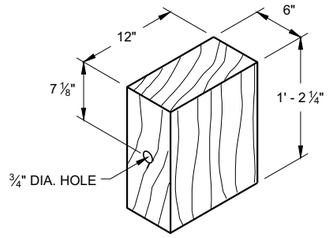
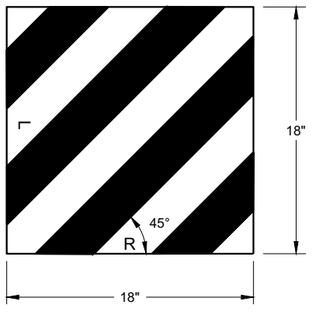
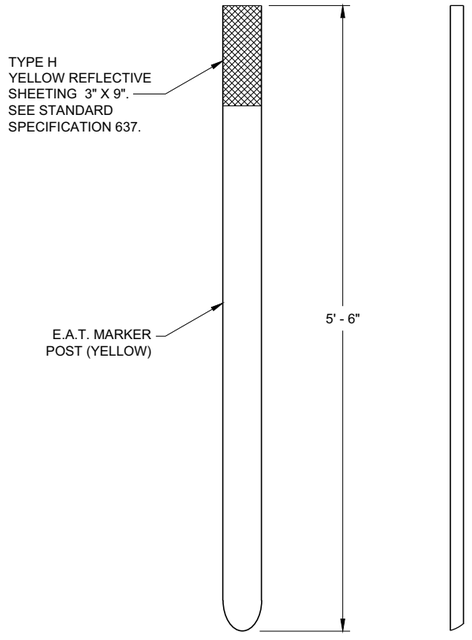


WOOD BLOCKOUT (4)
REQ'D. AT ALL POSTS EXCEPT POST NO'S 1 & 2



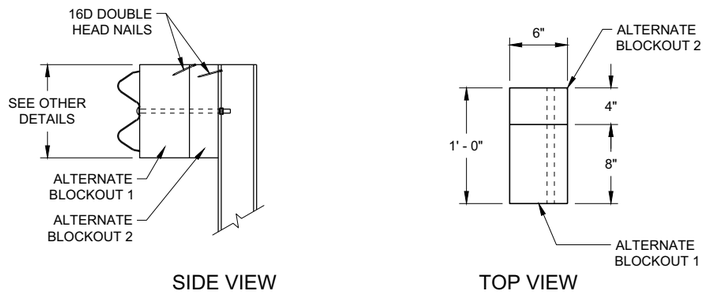
W5 - 59

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)

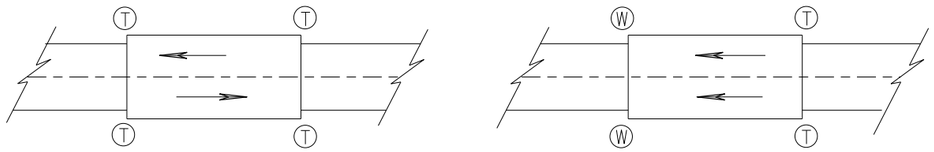
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

FHWA

6

SDD 14B44 - 04c
SDD 14B44 - 04c



TWO WAY TRAFFIC

ONE WAY TRAFFIC

(T) THRIE BEAM CONNECTION

(W) W-BEAM CONNECTION WHEN REQUIRED

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

GENERAL NOTES

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

TRANSITION USES STEEL POSTS ONLY.

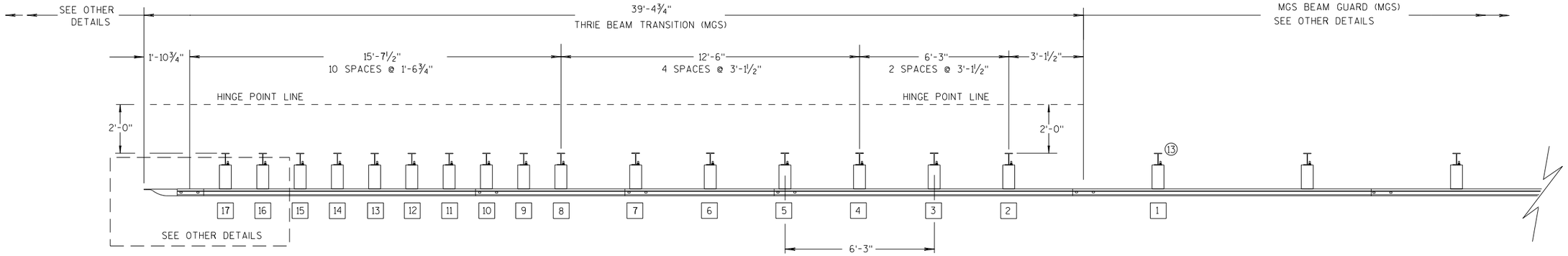
SEE STANDARD DETAIL DRAWING 14 B 42 FOR MORE INFORMATION.

POST 2 THROUGH 17 USES STEEL POST ONLY

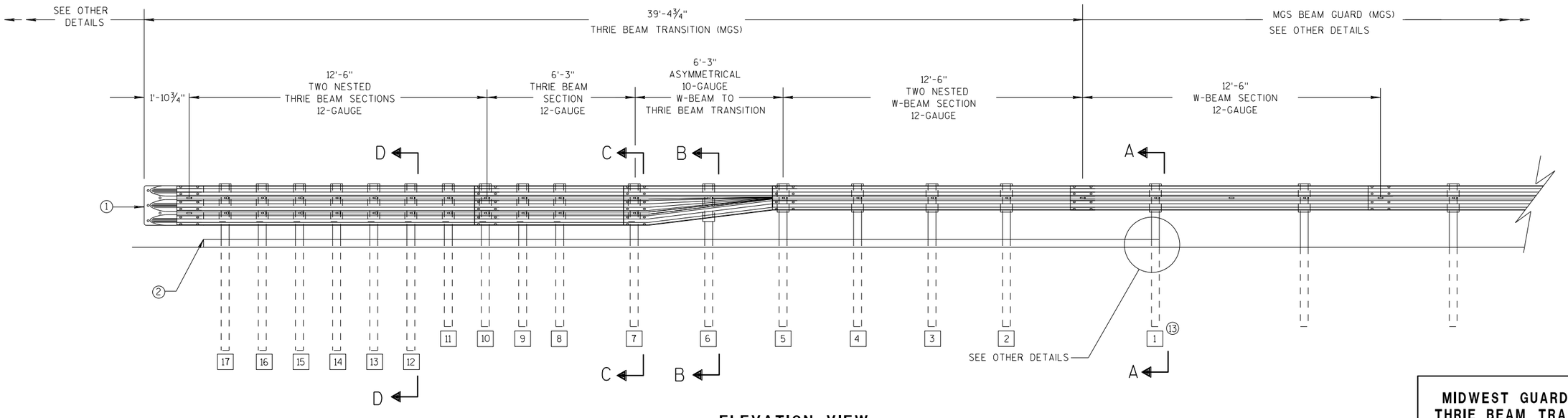
(1) BRIDGE RAILING TYPE "W" DOES NOT REQUIRE A TERMINAL CONNECTOR.

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

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



PLAN VIEW



ELEVATION VIEW

MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

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

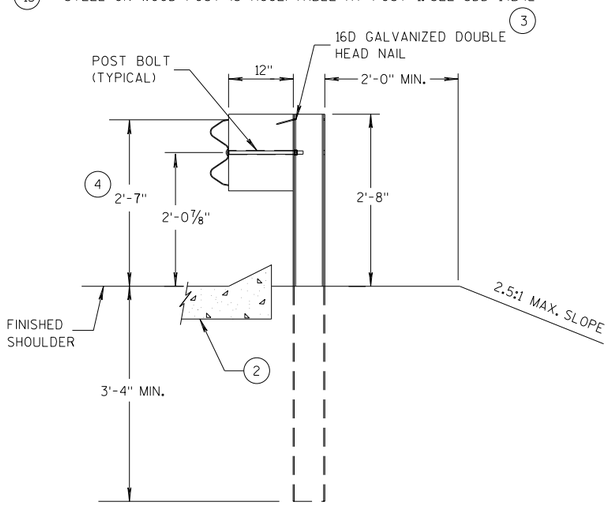
GENERAL NOTES

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

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

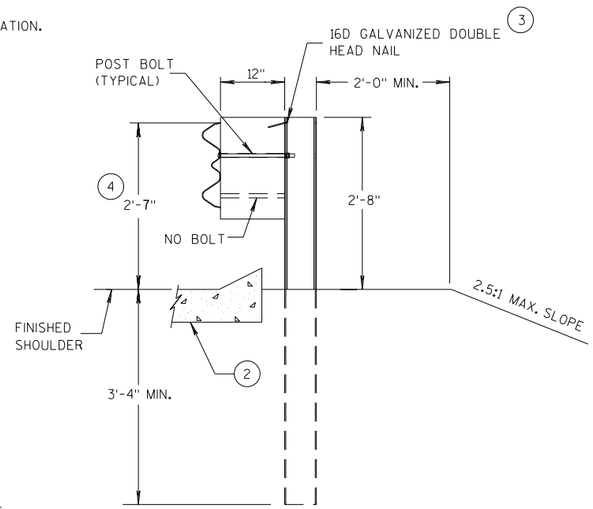
(4) TOLERANCE FOR TOP OF W-BEAM RAIL IS ± 1".

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



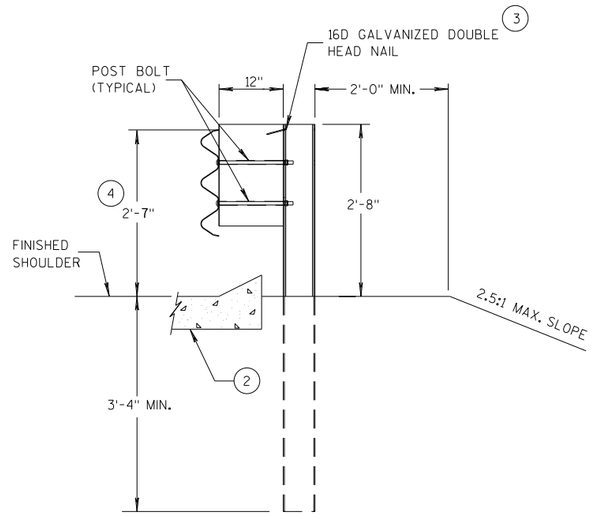
SECTION A-A (13)

POSTS 1-5



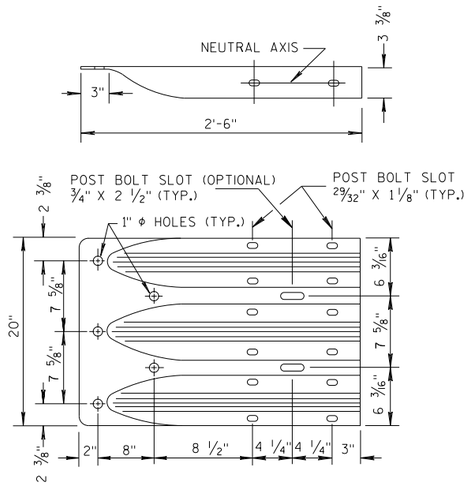
SECTION B-B

POST 6

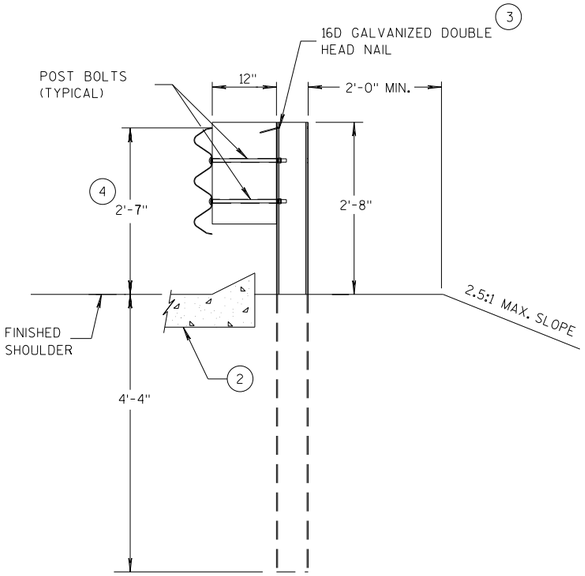


SECTION C-C

POSTS 7-11

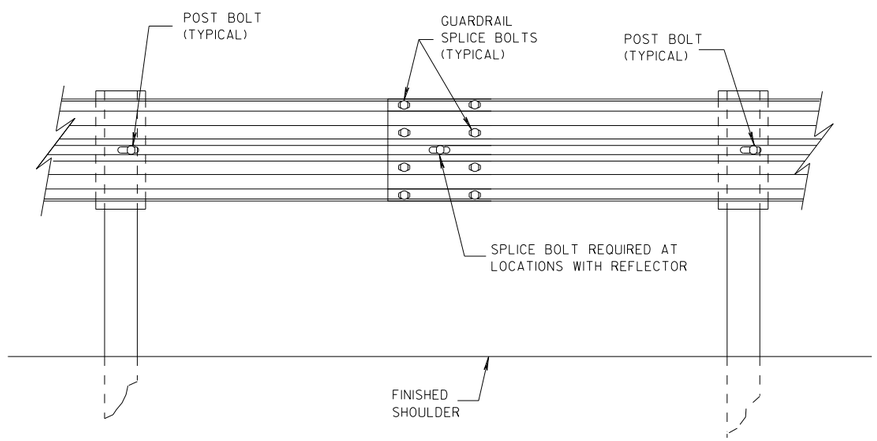


THRIE BEAM TERMINAL CONNECTOR



SECTION D-D

POSTS 12-17



SPLICE DETAIL

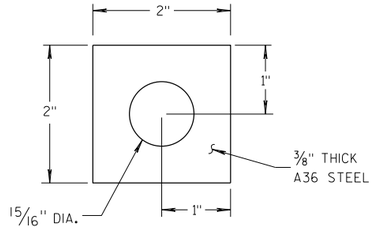
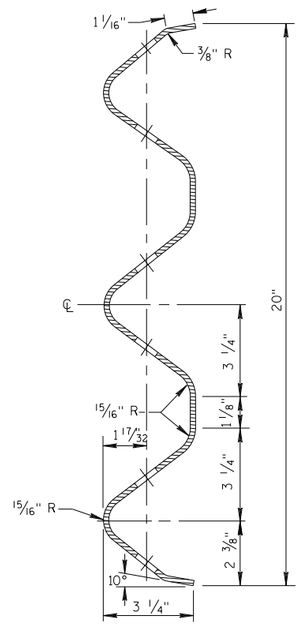


PLATE WASHER DETAIL



SECTION THRU THRIE BEAM RAIL ELEMENT

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

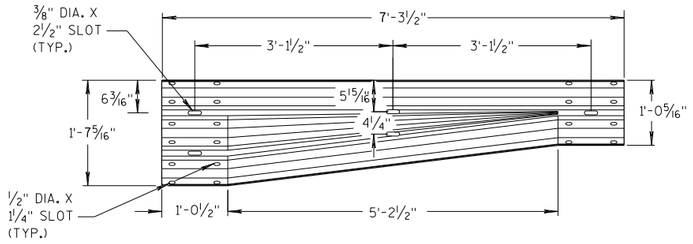
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR 120

6

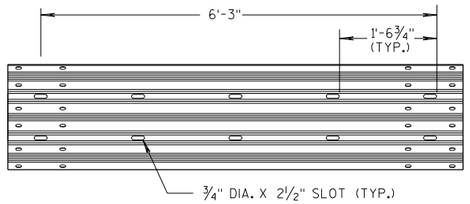
S.D.D. 14 B 45-5b

6

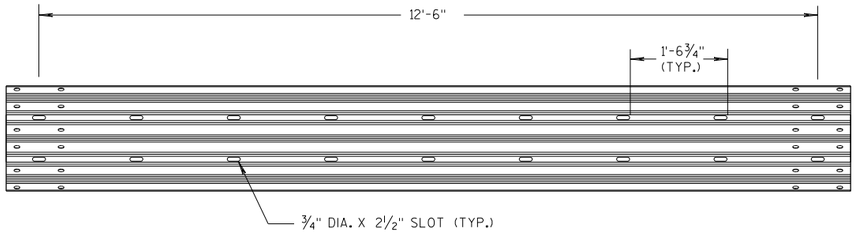
S.D.D. 14 B 45-5b



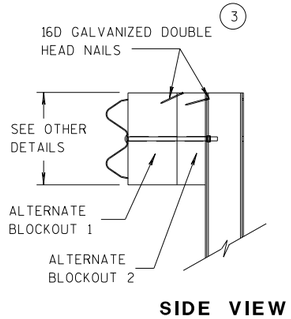
W-BEAM TO THRIE BEAM TRANSITION SECTION



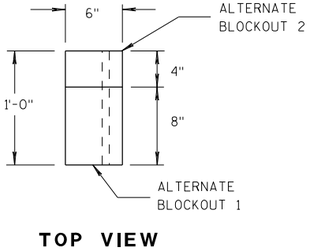
6'-3" THRIE BEAM SECTION



12'-6" THRIE BEAM SECTION

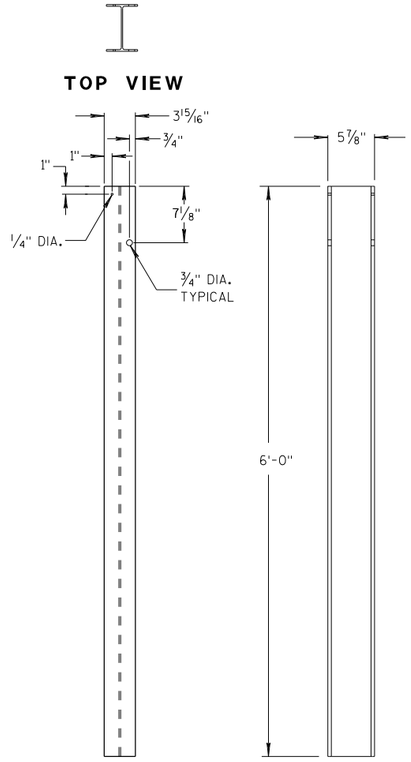


SIDE VIEW



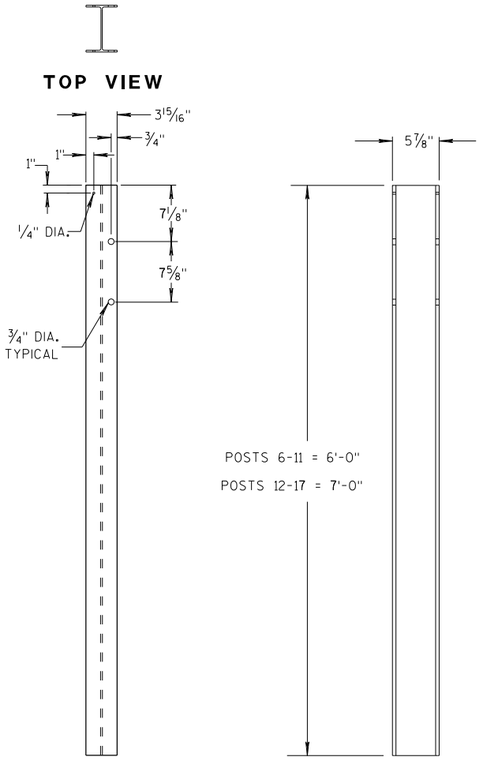
TOP VIEW

ALTERNATE WOOD BLOCKOUT DETAIL



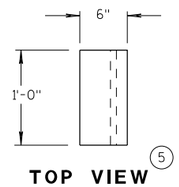
FRONT VIEW SIDE VIEW

STEEL POSTS 1-5 (13)

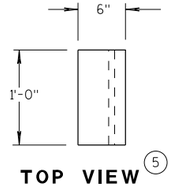


FRONT VIEW SIDE VIEW

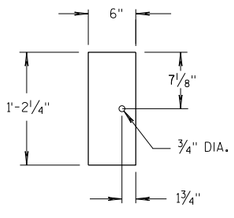
STEEL POSTS 6-17



TOP VIEW (5)

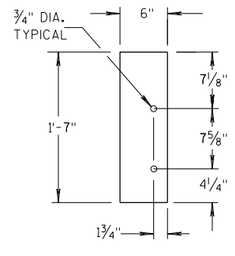


TOP VIEW (5)



FRONT VIEW

BLOCKOUT POSTS 1-5



FRONT VIEW

BLOCKOUT POSTS 6-17

GENERAL NOTES

STEEL POSTS ARE W6X9 OR W6X8.5.

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

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

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

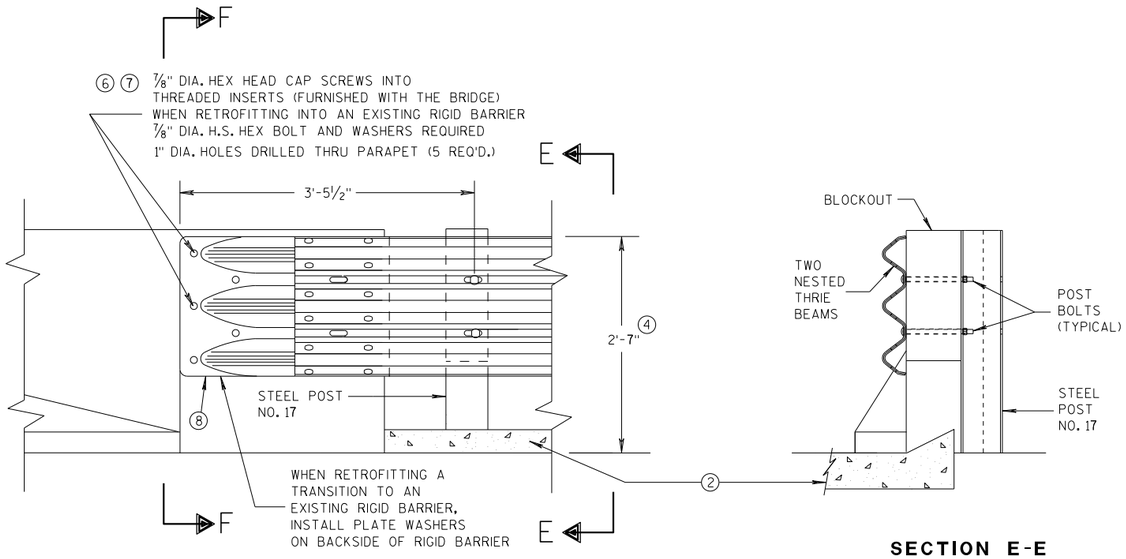
(13) STEEL OR WOOD POST IS ACCEPTABLE AT POST 1. SEE SDD 14B42.

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

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



FRONT VIEW

SECTION E-E

THRIE BEAM CONNECTION TO BRIDGE PARAPET WITH SQUARE ENDS

GENERAL NOTES

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

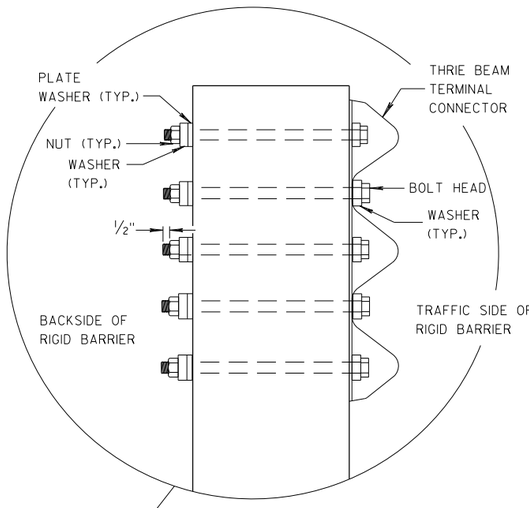
② OPTIONAL CURB AND GUTTER OR DRAINAGE FEATURE SEE PLAN FOR INFORMATION.

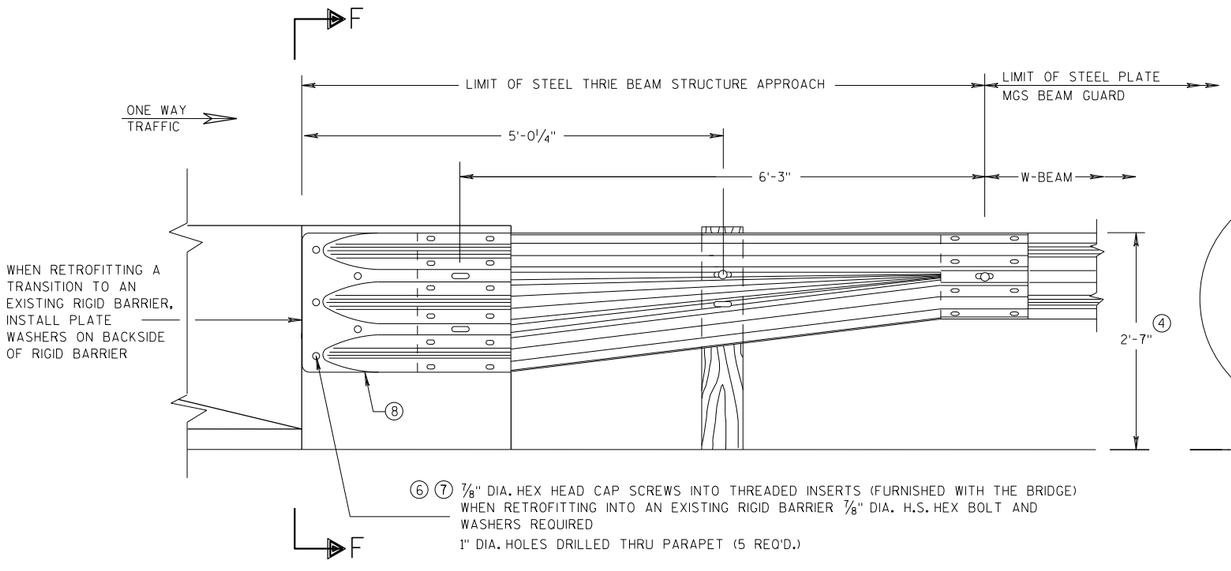
④ TOLERANCE FOR TOP OF BEAM IS ± 1".

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

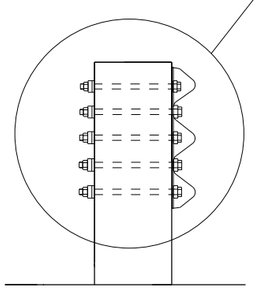
⑦ BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE.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

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

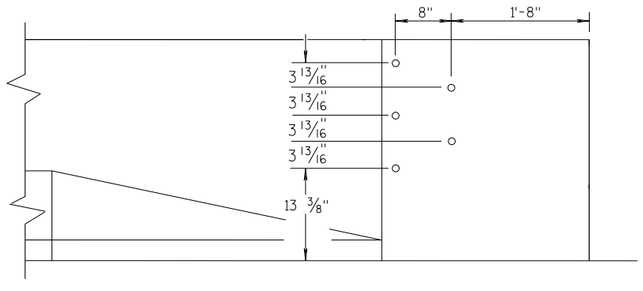




FRONT VIEW



SECTION F-F



DRILL HOLE LOCATION

W BEAM TRANSITION AND CONNECTION TO BRIDGE PARAPETS WITH SQUARE ENDS

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

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

6

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

6

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

GENERAL NOTES

COVER PLATE PANELS ARE 3/16" THICK.

ALL STIFFENERS ARE 1/4" THICK.

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

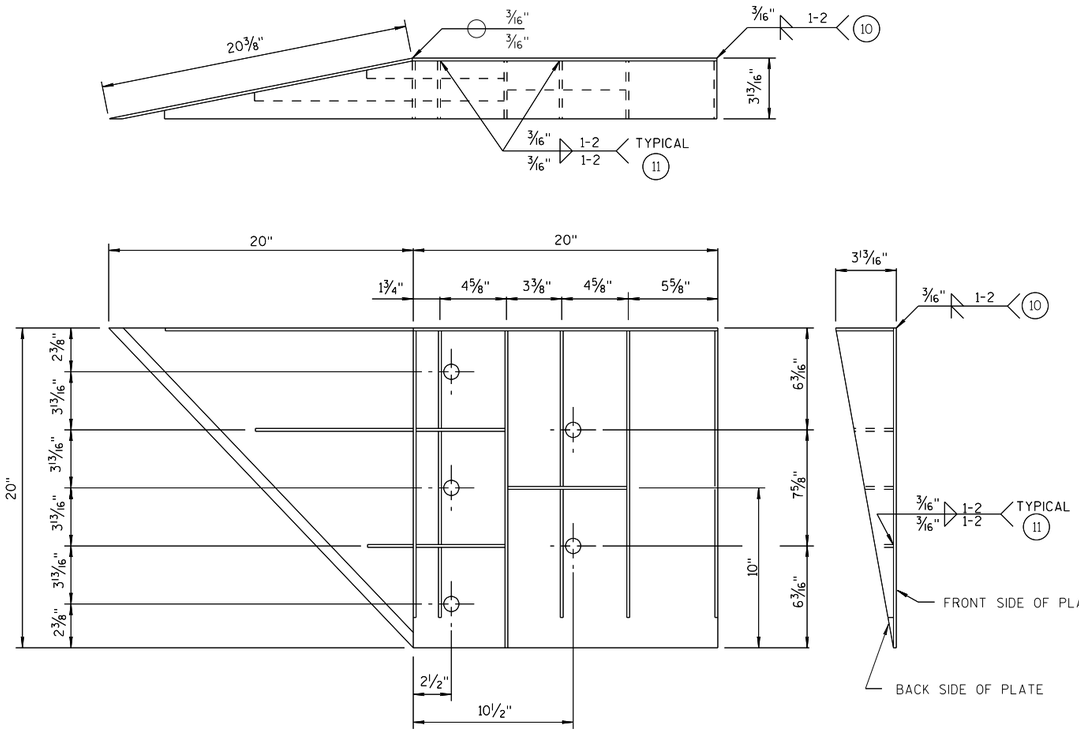
FOR GALVANIZED REQUIREMENTS, SEE SECTION 614 OF THE STANDARD SPECIFICATIONS.

ALL HOLE DIAMETERS SHALL BE 1".

FOR OPPOSITE SIDE INSTALLATION MIRROR DRAWINGS.

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

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



WELDING INSTRUCTION

(VIEWED FROM BACK SIDE OF PLATE)

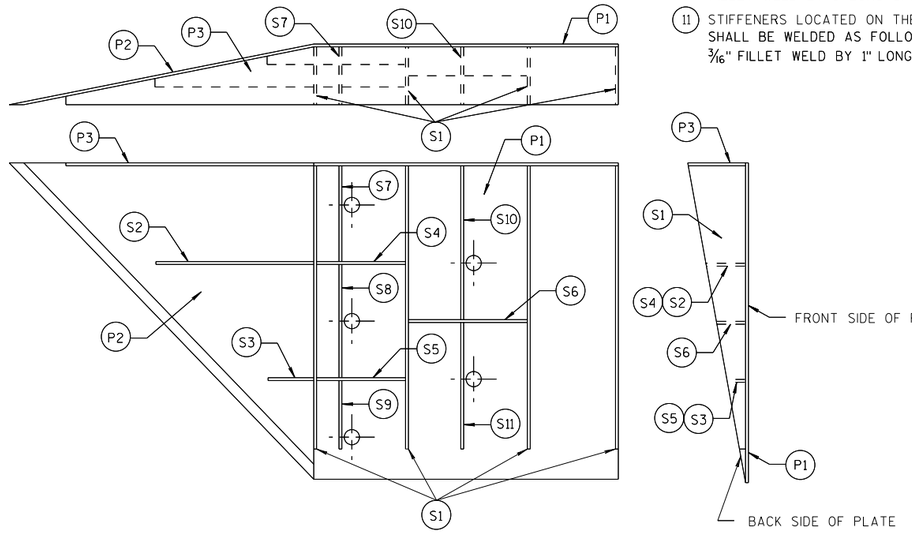


PLATE AND STIFFENER IDENTIFICATION

(VIEWED FROM BACK SIDE OF PLATE)

CONNECTOR PLATE DIMENSION (PER ASSEMBLY)

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

SINGLE SLOPE CONNECTION PLATE

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
7/2018
DATE
FHWA

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ROADWAY STANDARDS I
UNIT SUPERVI

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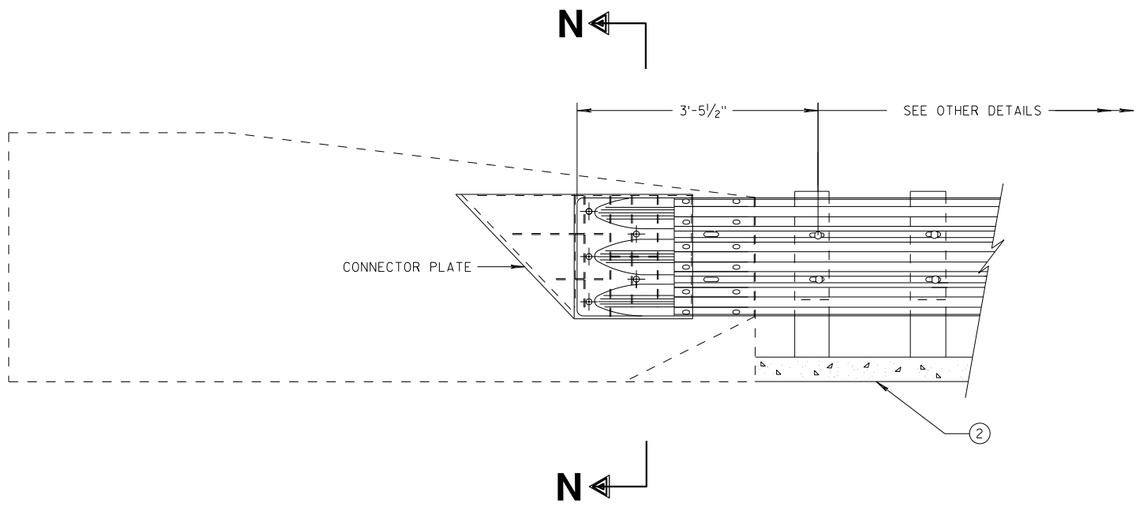
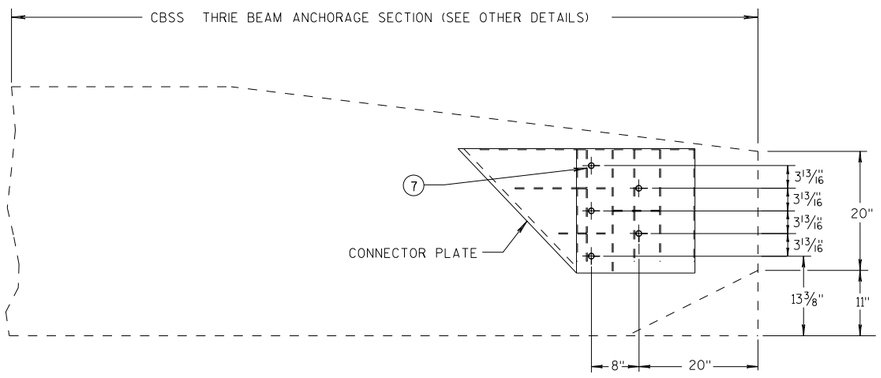
S.D.D. 14 B 45-5i



THRIE BEAM CONNECTION TO SINGLE SLOPE BARRIER



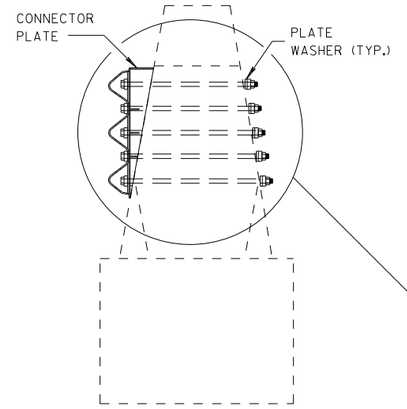
SINGLE SLOPE CONNECTION PLATE PLACEMENT

GENERAL NOTES

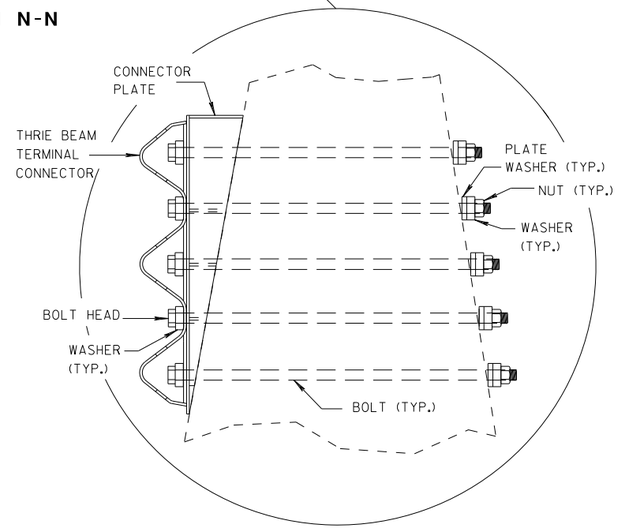
CONNECTOR PLATE, DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

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

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



SECTION N-N



MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
7/2018
DATE
FHWA

/S/ Rodney Taylor
ROADWAY STANDARDS DI
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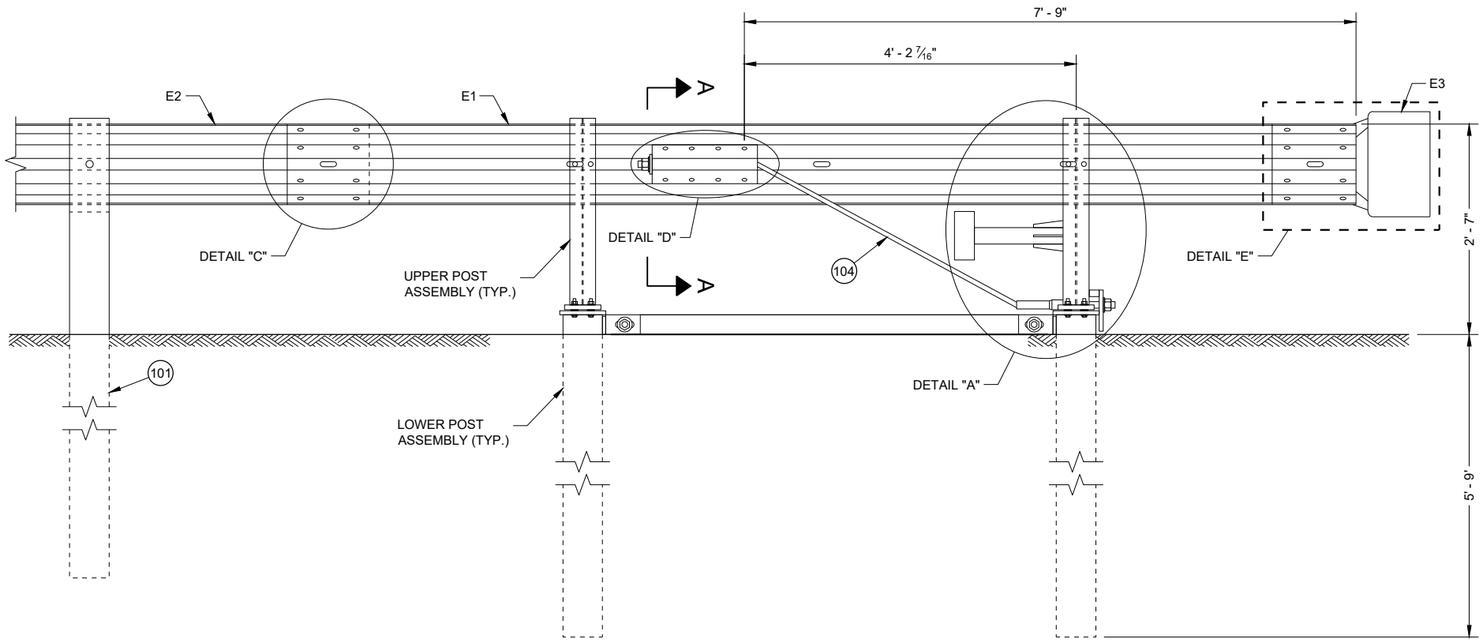
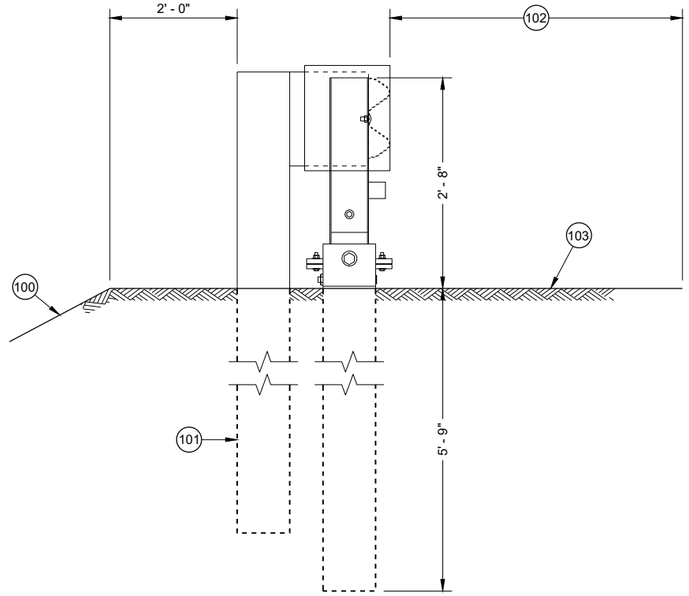
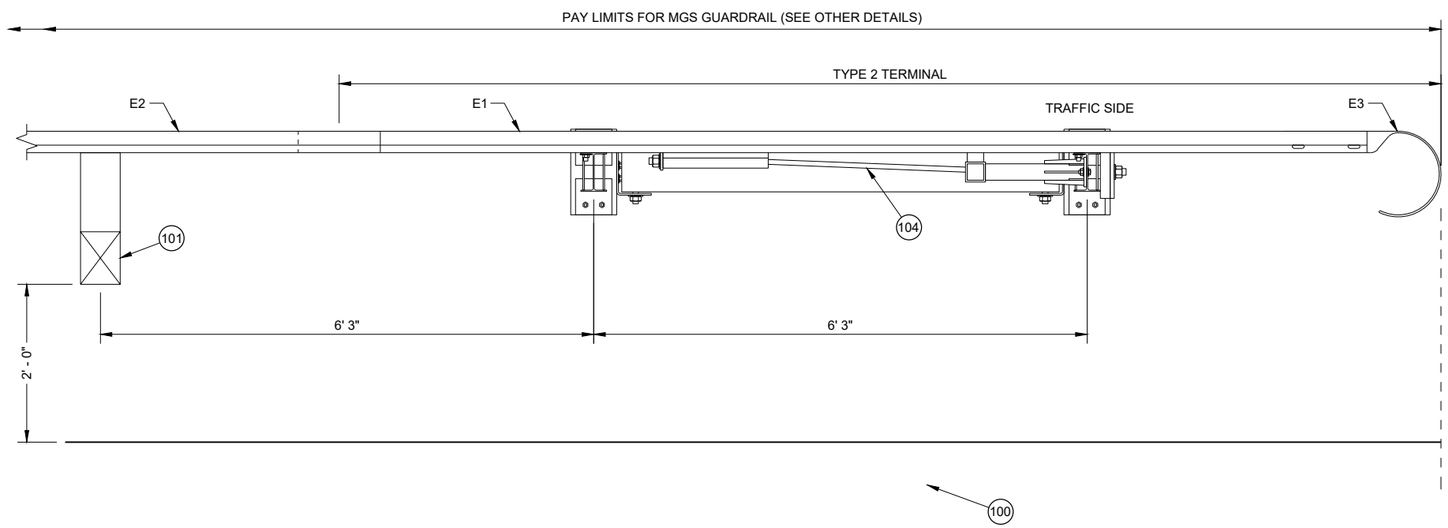
S.D.D. 14 B 45-5j



BACK VIEW
TYPE 2 TERMINAL



SIDE VIEW
TYPE 2 TERMINAL



TOP VIEW
TYPE 2 TERMINAL

GENERAL NOTES

(100) MAXIMUM SLOPE IS 2.5:1.

(101) SEE SDD 14B42 FOR MORE INFORMATION.

(102) SHOULDER

(103) MAXIMUM SLOPE IS 10:1.

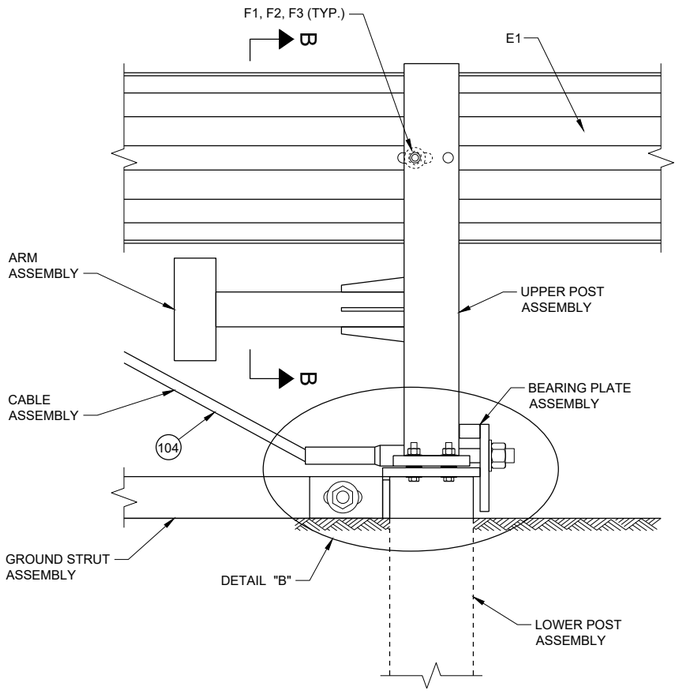
(104) AFTER ASSEMBLY, CABLE IS TO BE TIGHTENED WITHOUT TWISTING THE CABLE.

MIDWEST GUARDRAIL SYSTEM (MGS)
TYPE 2 TERMINAL

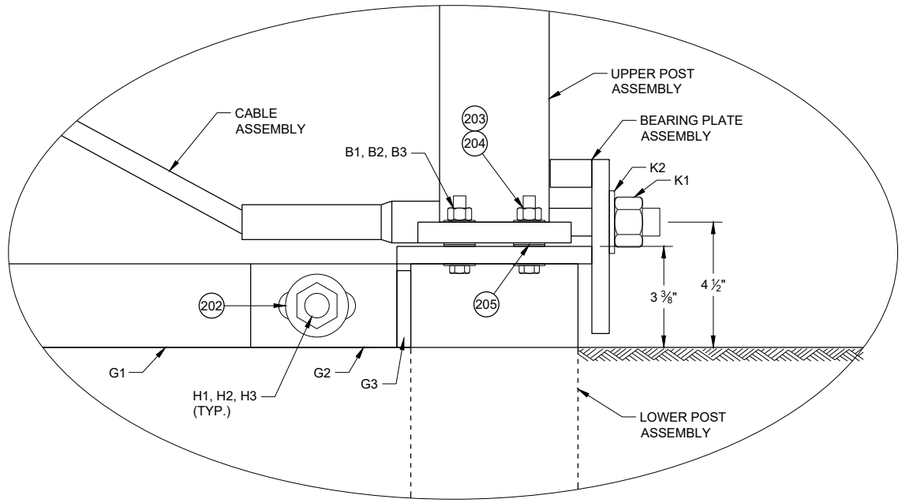
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 14B47 - 05a



DETAIL "A"



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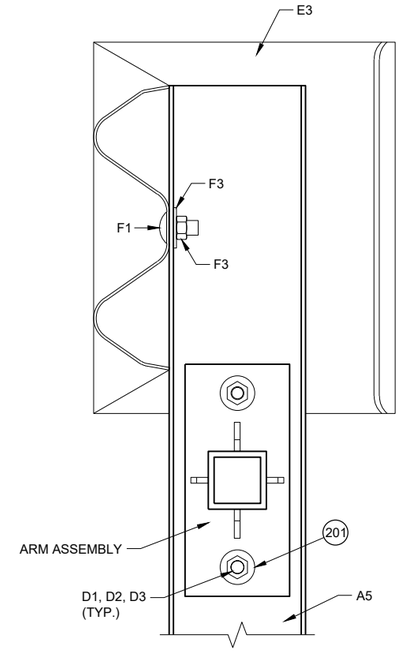
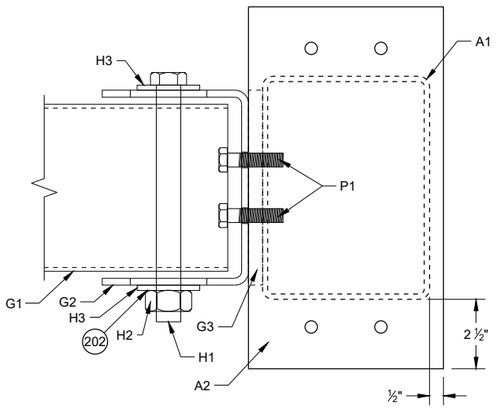
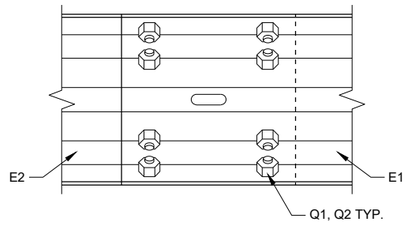


SECTION B - B



TOP VIEW

GROUND STRUT CONNECTION DETAIL



DETAIL "C"

GENERAL NOTES

200 INSTALL ONE WASHER UNDER BOLT HEAD AND RAIL AND ON WASHER BETWEEN NUT AND ANCHOR BRACKET ASSEMBLY.

201 INSTALL ONE WASHER UNDER BOLT HEAD AND UPPER POST ASSEMBLY AND ONE WASHER BETWEEN NUT AND ARM PLATE.

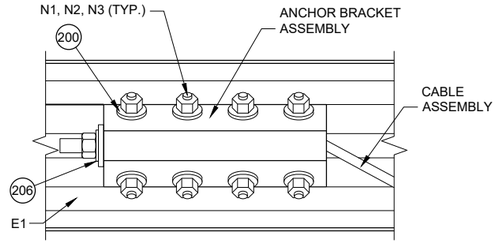
202 INSTALL ONE WASHER UNDER BOLT HEAD AND GROUND STRUT CONNECTOR AND ONE WASHER BETWEEN NUT AND GROUND STRUT CONNECTOR.

203 INSTALL ONE WASHER UNDER BOLT HEAD AND LOWER POST ASSEMBLY AND ONE WASHER BETWEEN NUT AND UPPER POST ASSEMBLY.

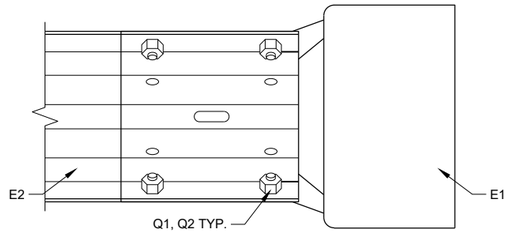
204 TORQUE VALUE IS BETWEEN 60 - 75 FT-LB.

205 TWO WASHERS BETWEEN UPPER AND LOWER POST ASSEMBLY.

206 INSTALL ONE WASHER BETWEEN NUT AND ANCHOR BRACKET ASSEMBLY.



DETAIL "D"



DETAIL "E"

MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL

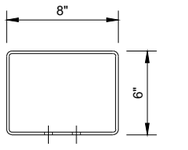
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

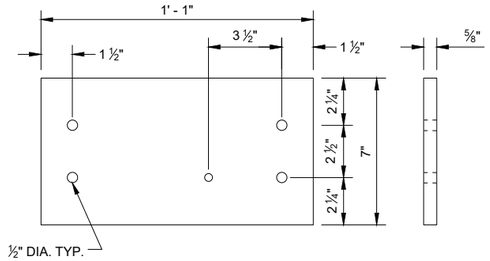
SDD 14B47 - 05b

GENERAL NOTES

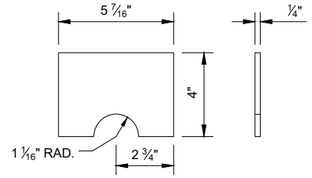
(300) TAP FOR 1/2" AFTER GALVANIZATION



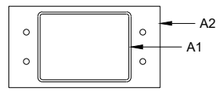
TOP VIEW



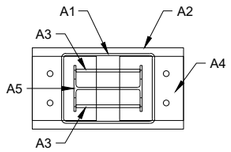
LOWER PLATE (A2)

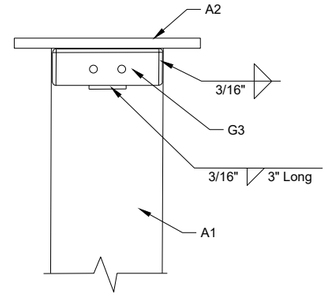


POST GUSSET (A3)

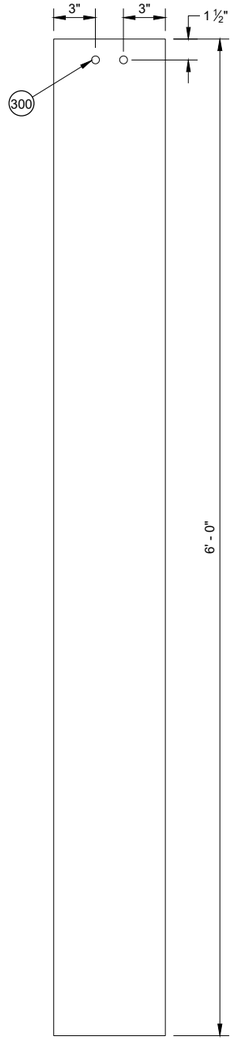


PLAN VIEW



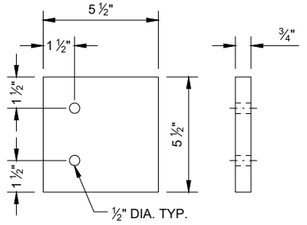


WELDING DETAIL
G3 AND A1

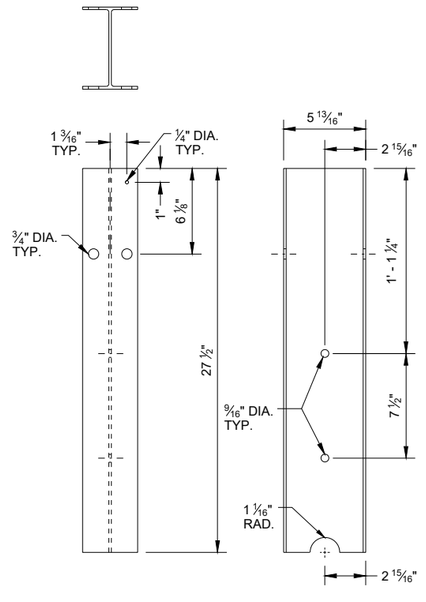


SIDE VIEW

FOUNDATION TUBE (A1)

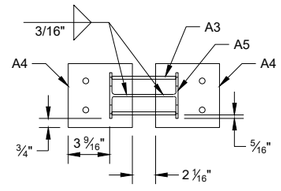


UPPER PLATE (A4)

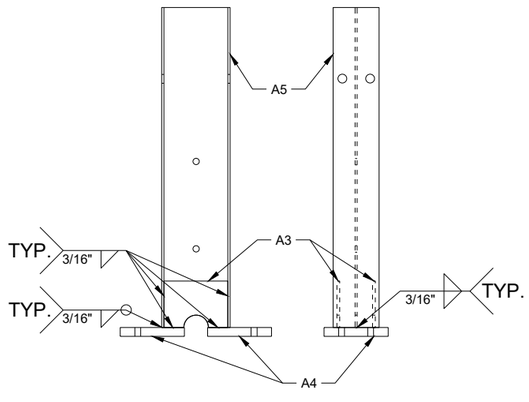


FRONT VIEW SIDE VIEW

TYPE 2 POST (A5)

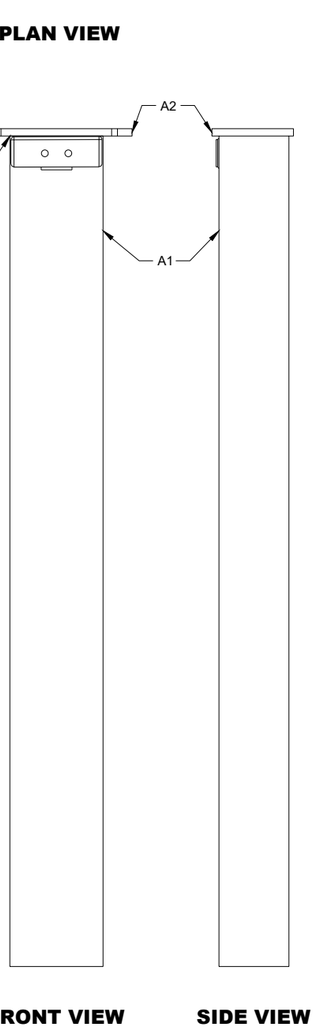


PLAN VIEW



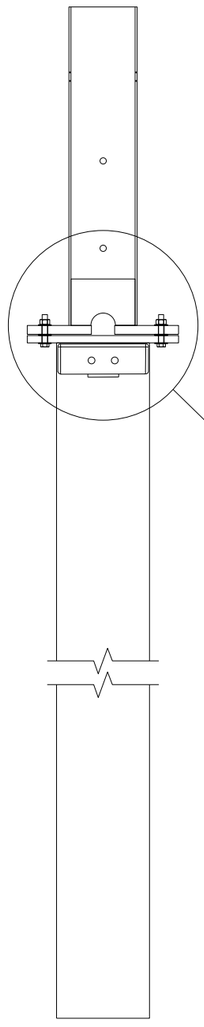
SIDE VIEW FRONT VIEW

UPPER POST ASSEMBLY

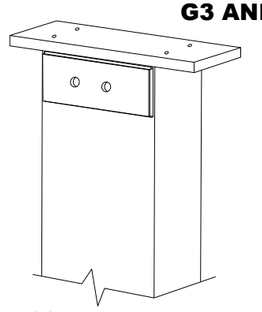


FRONT VIEW SIDE VIEW

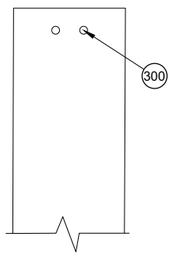
LOWER POST ASSEMBLY



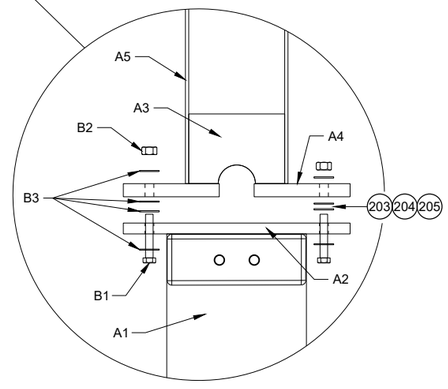
ASSEMBLED POST



ASSEMBLY DETAIL
ISOMETRIC



A1



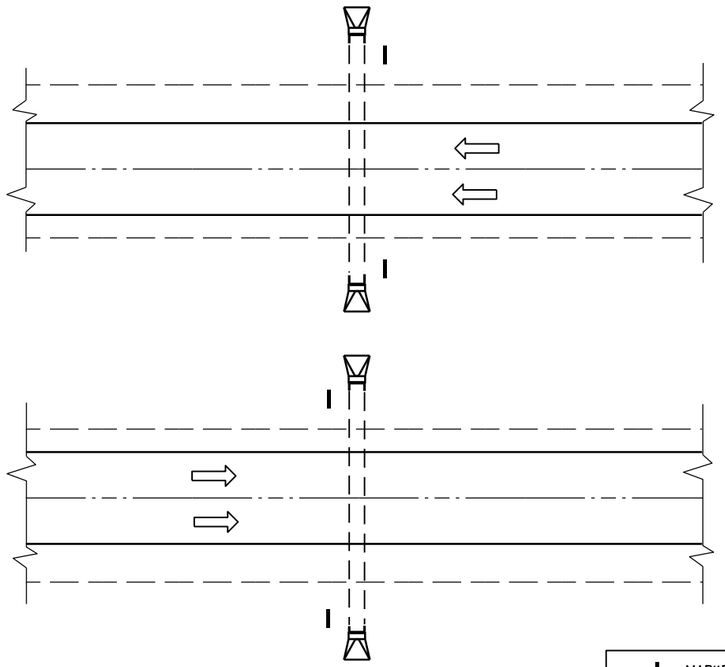
POST CONNECTION DETAIL

MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

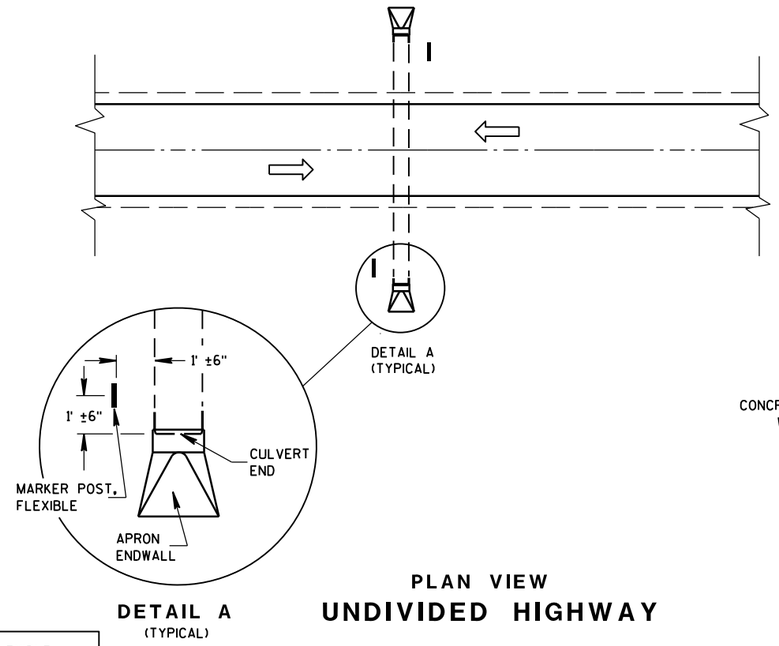
6

SDD14B47 - 05c



PLAN VIEW

DIVIDED HIGHWAY



DETAIL A
(TYPICAL)

PLAN VIEW

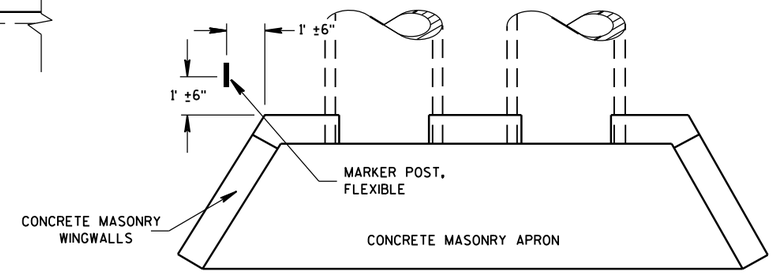
UNDIVIDED HIGHWAY

MARKER POST, FLEXIBLE

DIRECTION OF TRAFFIC FLOW

GENERAL NOTES

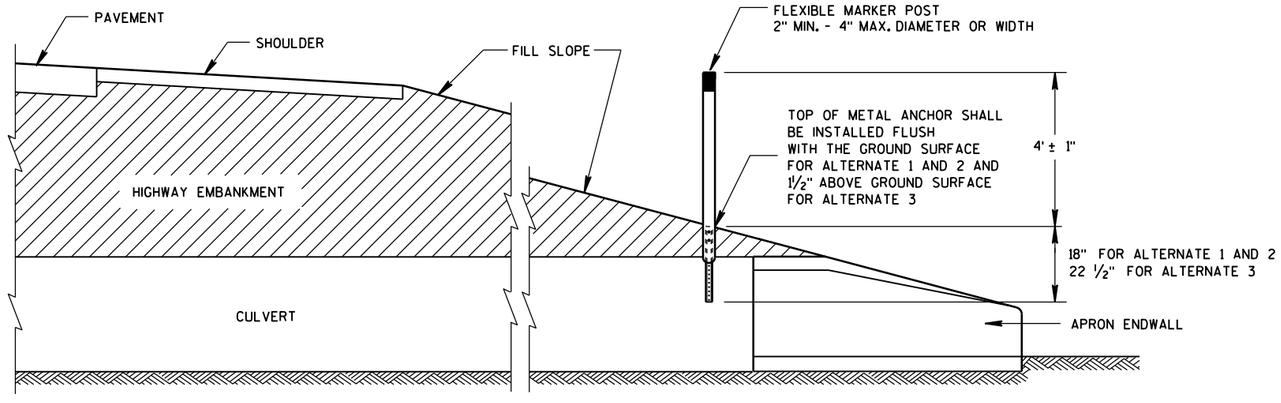
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.



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

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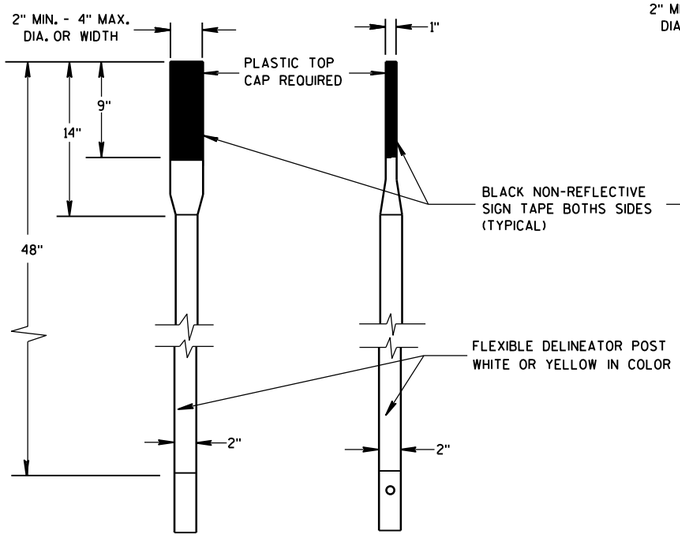
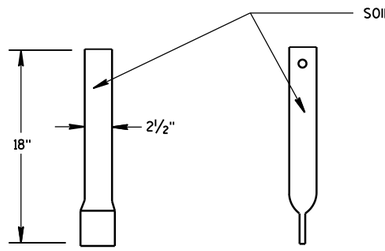
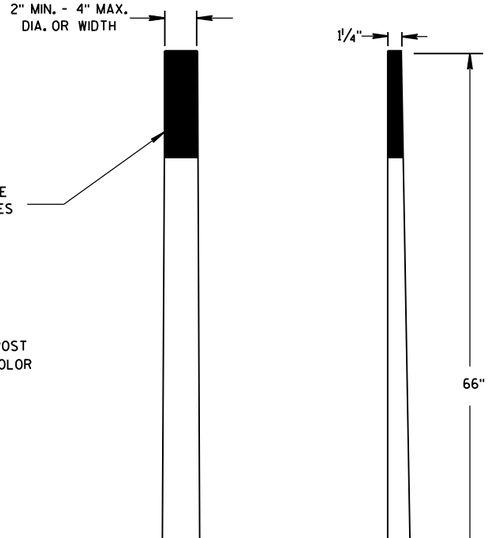
S.D.D. 15 A 3-2a





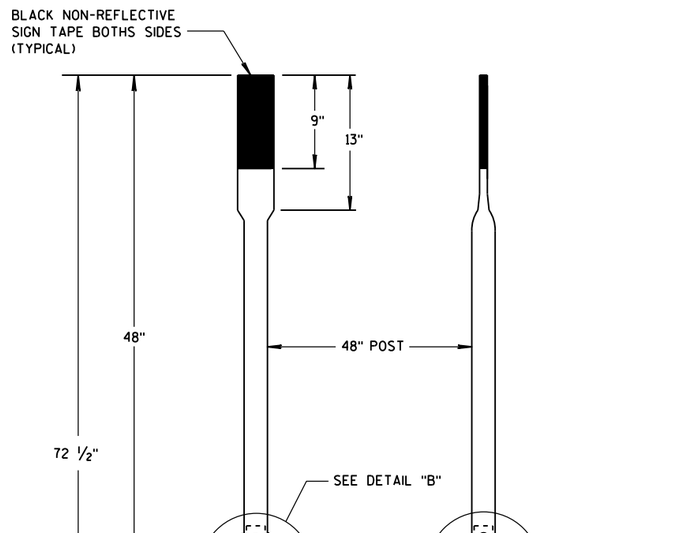
FRONT VIEW SIDE VIEW

ALTERNATE 1



FRONT VIEW SIDE VIEW

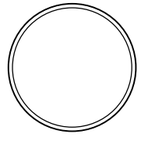
ALTERNATE 2



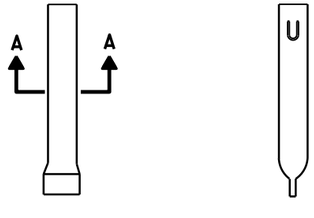
FRONT VIEW SIDE VIEW

ALTERNATE 3

FLEXIBLE MARKER POSTS

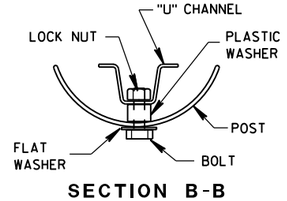


SECTION A-A

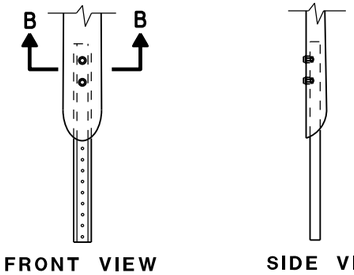


FRONT VIEW SIDE VIEW

ALTERNATE 1

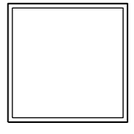


SECTION B-B

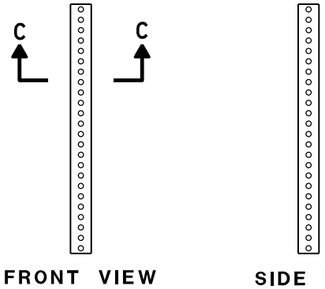


FRONT VIEW SIDE VIEW

ALTERNATE 2



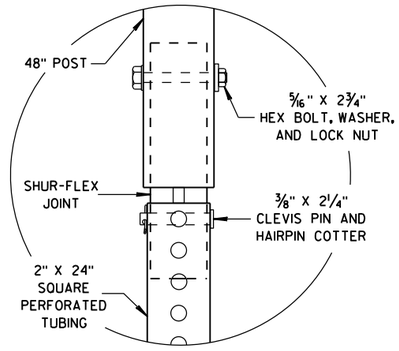
SECTION C-C



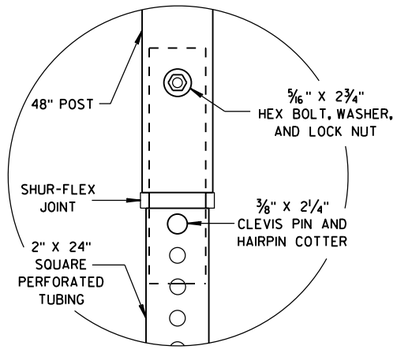
FRONT VIEW SIDE VIEW

ALTERNATE 3

FLEXIBLE MARKER POST ANCHORS



DETAIL B



DETAIL C

FLEXIBLE MARKER POST
FOR CULVERT END

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

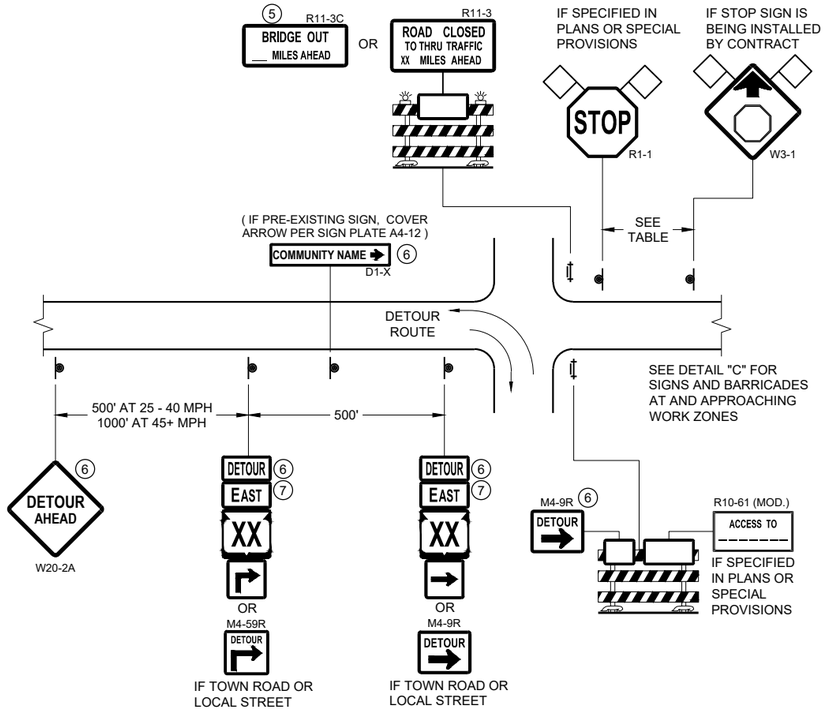
APPROVED
10/1/2012 — DATE
/S/ Travis Feltes — STATE TRAFFIC ENGINEER
FHWA

6

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

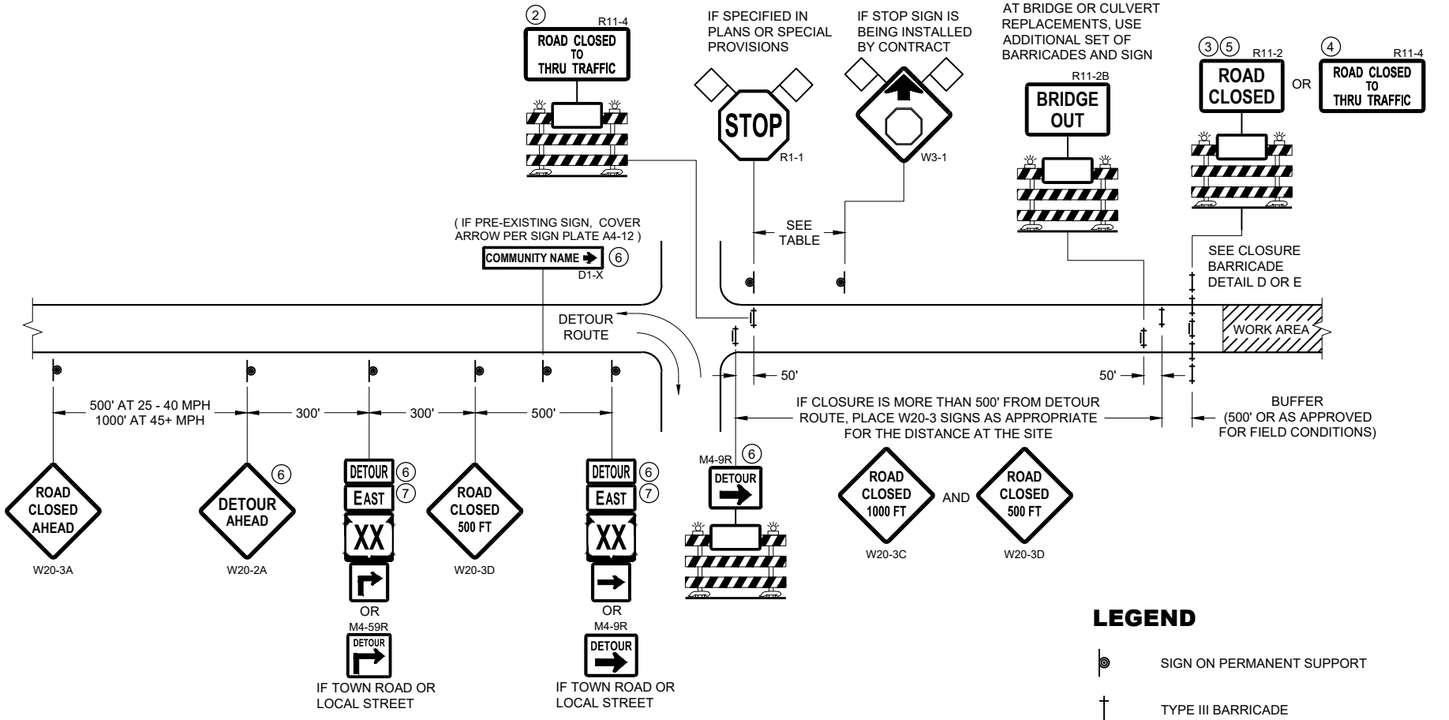
6

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



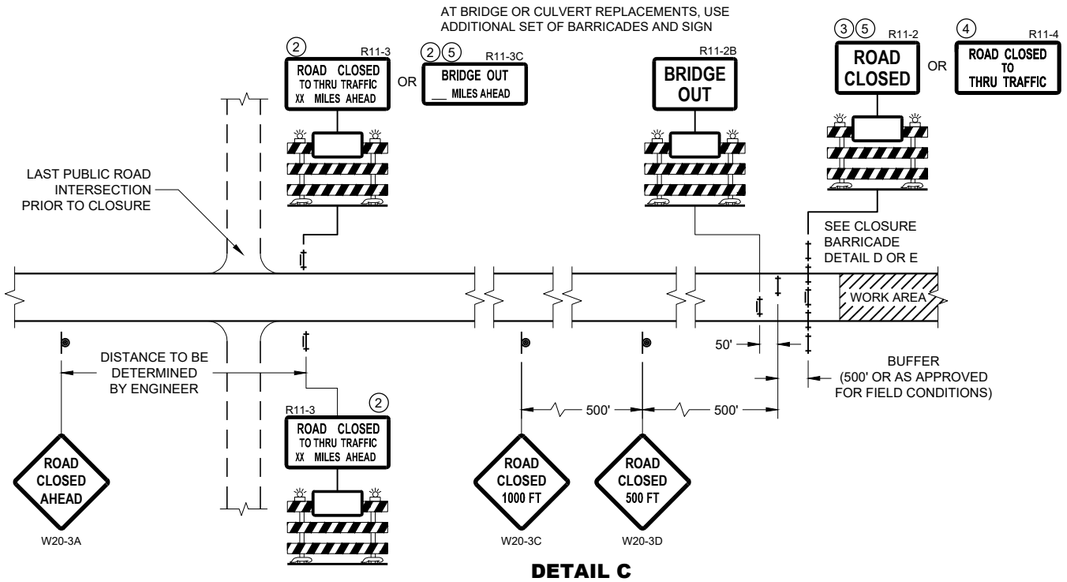
DETAIL A
MAINLINE CLOSURE WITH POSTED DETOUR

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

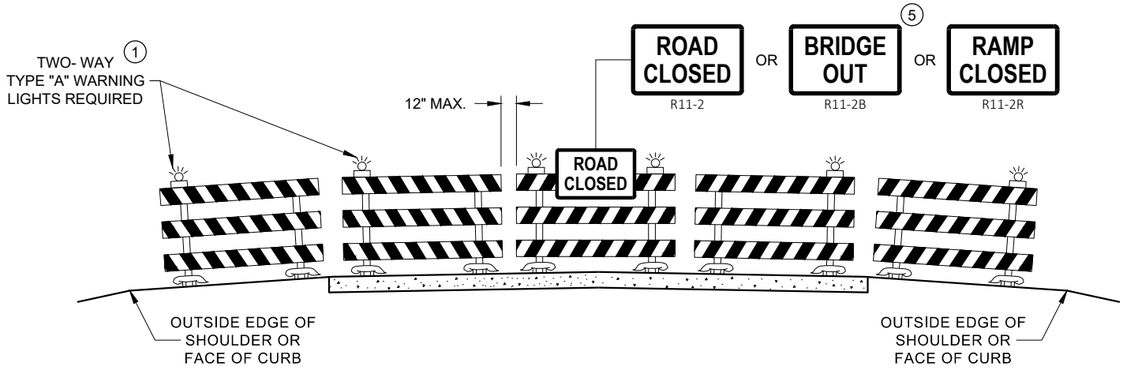
APPROVED
May 2023
DATE
/S/ Andrew Heidtke
WORK ZONE ENGINEER

FHWA

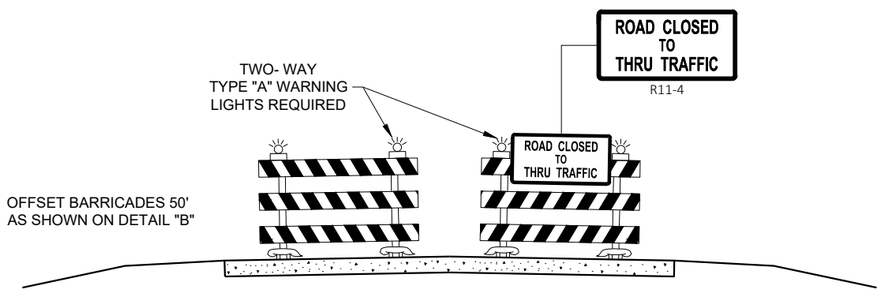
6

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 ENGINEE
FHWA

6

SDD 15C02 - 09b

6

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
- OR XX — M1 - 6
- OR COUNTY X — M1 - 5A
- OR — 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.

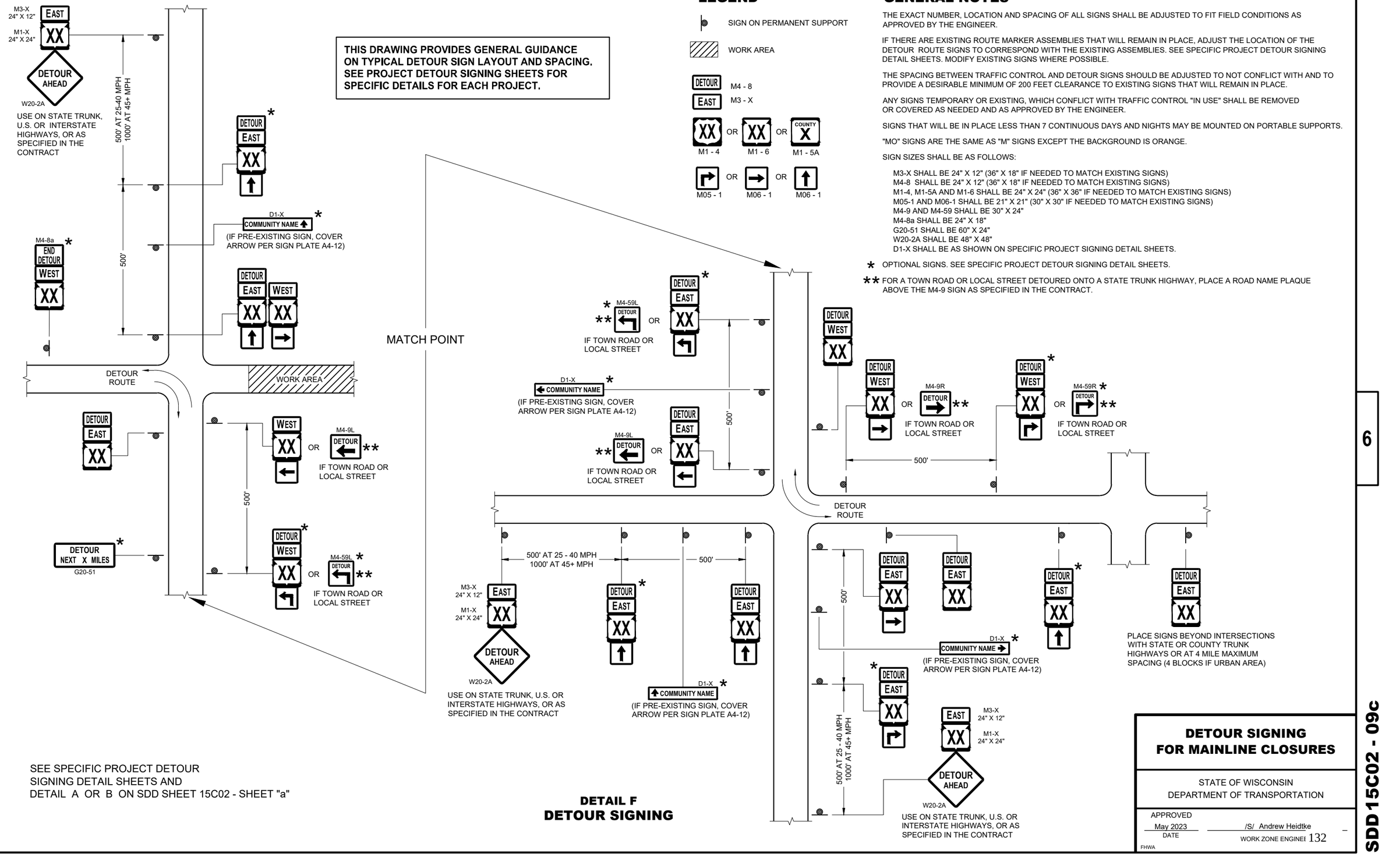
"MO" SIGNS ARE THE SAME AS "M" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

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

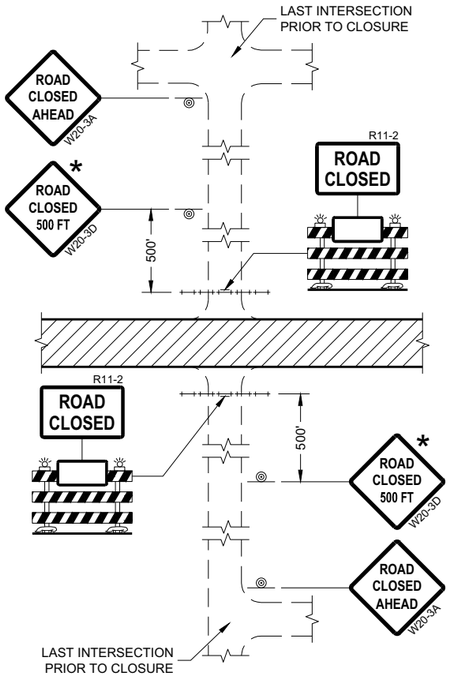
APPROVED
May 2023
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEER

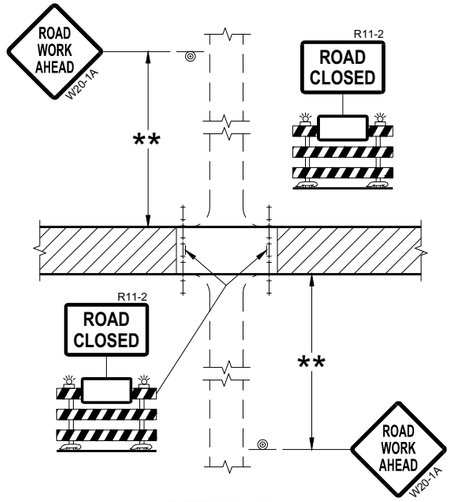
FHWA

6

SDD 15C02 - 09c



DETAIL 1
(NO ACCESS TO PROJECT)



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

GENERAL NOTES

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

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

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

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

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

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

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

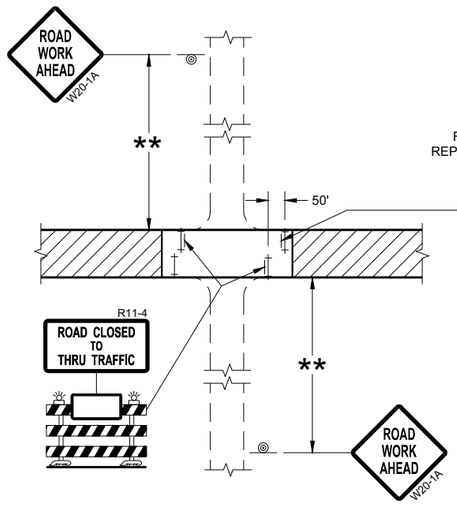
TYPE "A" LOW-INTENSITY FLASHING WARNING LIGHTS SHALL BE VISIBLE ON BOTH SIDES OF THE BARRICADE.

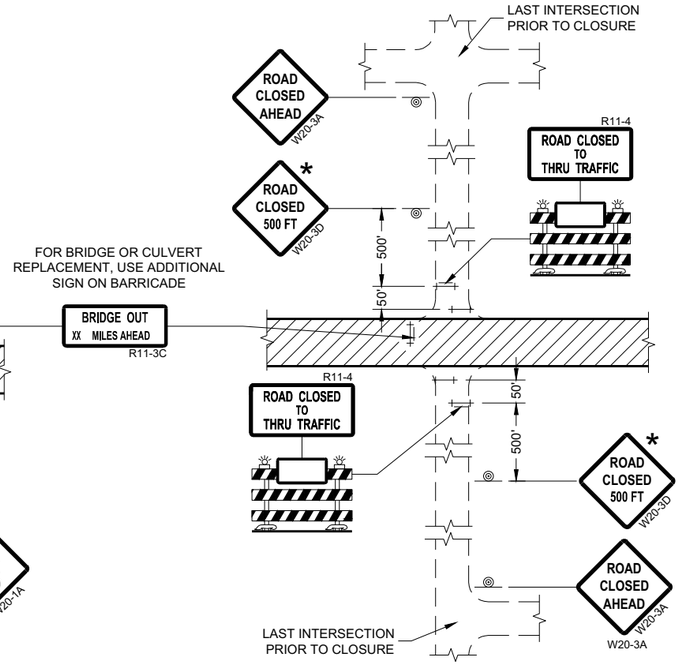
THE R11-2, R11-3, AND R11-4 SIGNS PLACED ON BARRICADES SHALL COVER NO MORE THAN THE TOP RAIL. THE SIGNS SHALL NOT COVER ANY PORTION OF THE MIDDLE OR BOTTOM RAILS.

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

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

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





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

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

LEGEND

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

BARRICADES AND SIGNS FOR SIDEROAD CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
July 2018
DATE

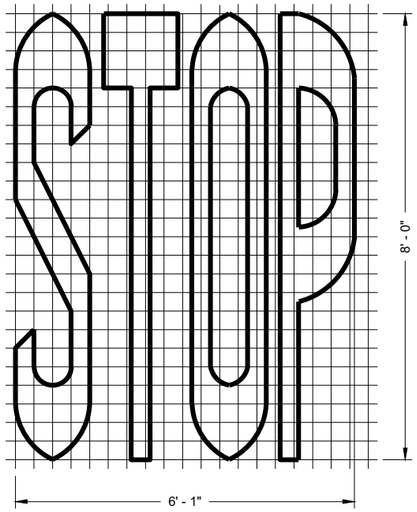
/S/ Andrew Heidtke
WORK ZONE ENGINEE

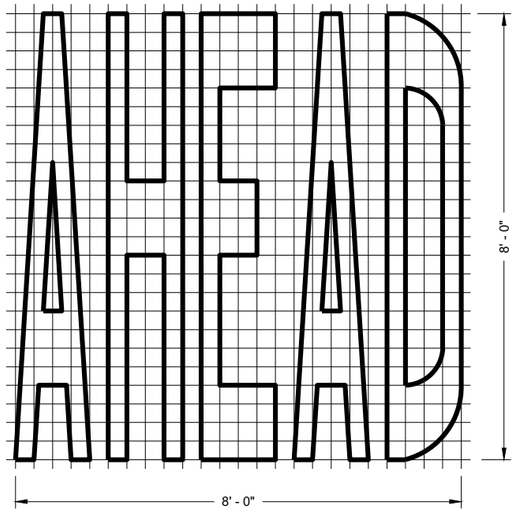
FHWA

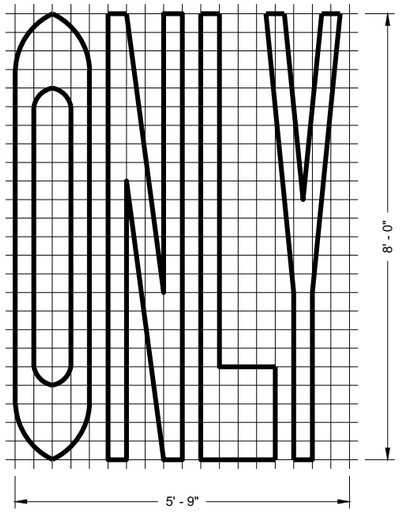
6

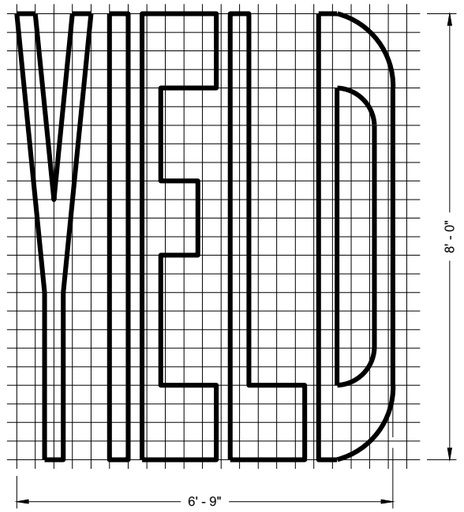
SDD 15C03 - 05

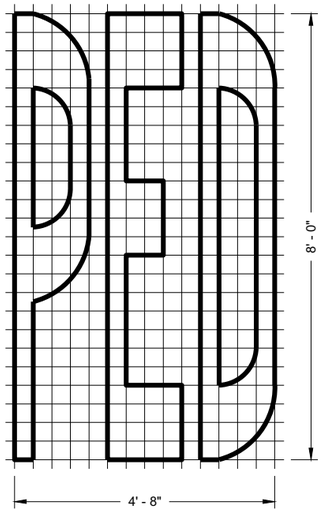
SDD 15C03 - 05



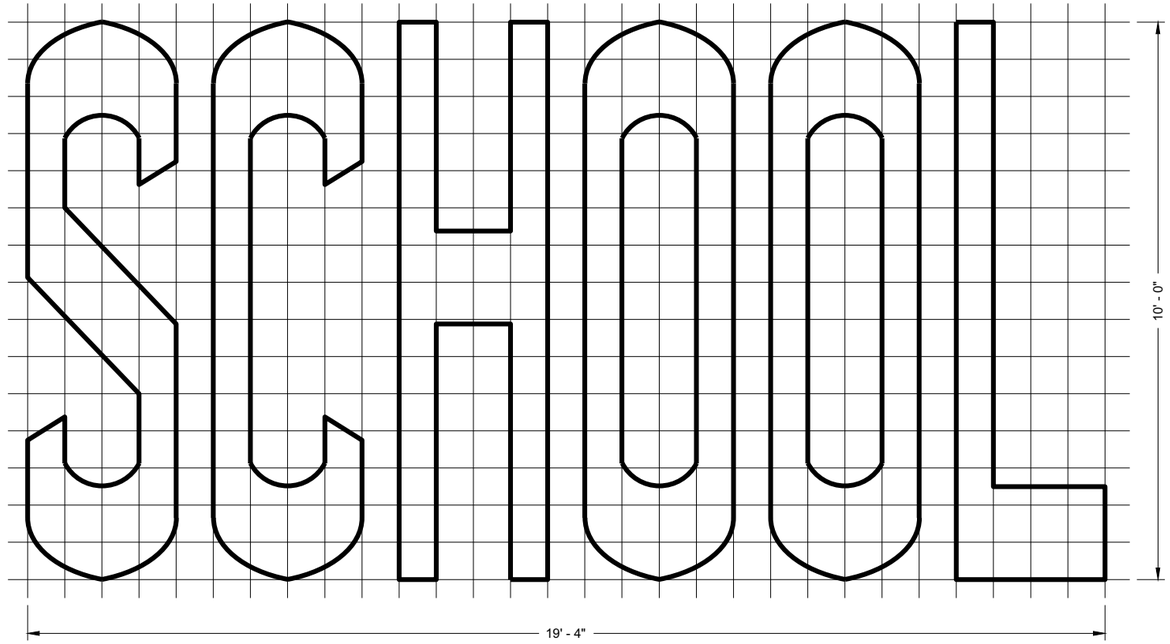








SINGLE LANE



TWO - LANE

GENERAL NOTES

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

PAVEMENT MARKING WORDS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2019
DATE

/S/ Matthew Rauch
STATE SIGNING AND MAF ENGINEER

FHWA

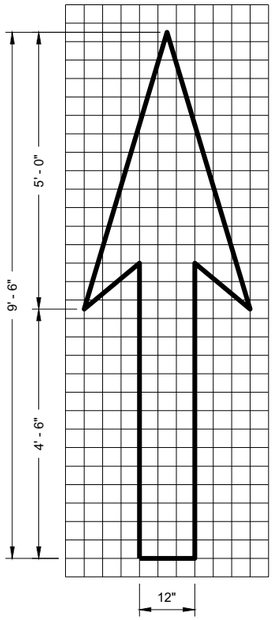
6

SDD 15C07 - 15b

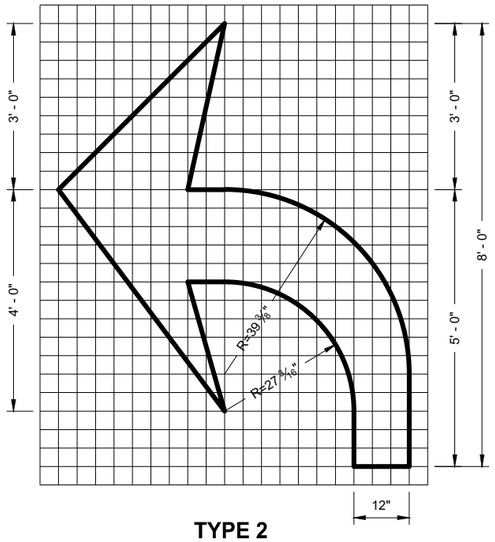
SDD 15C07 - 15b

GENERAL NOTES

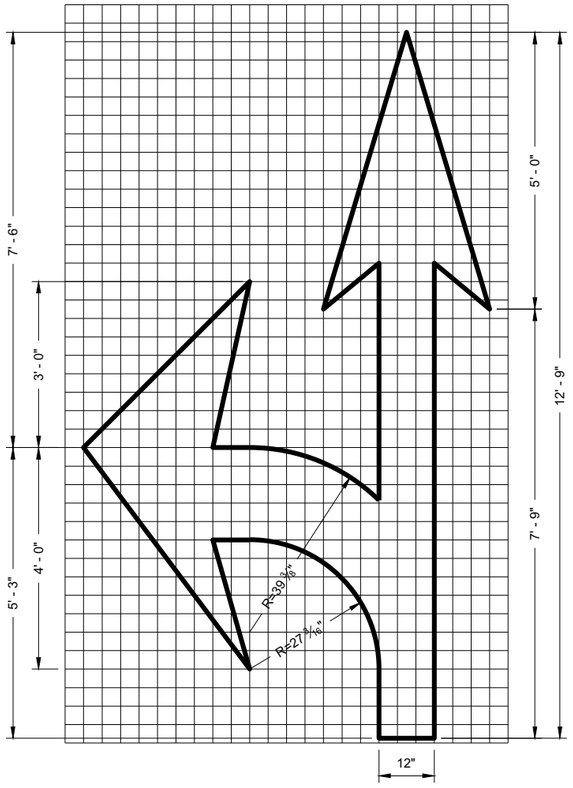
DETAILS OF INSTALLATION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.



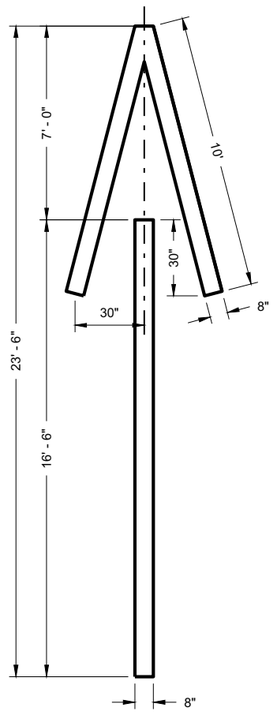
TYPE 1



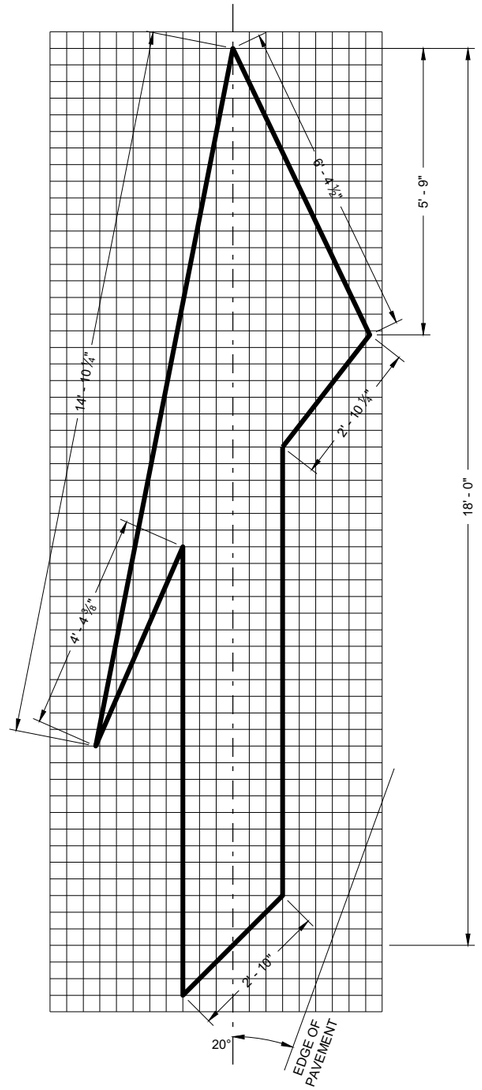
TYPE 2



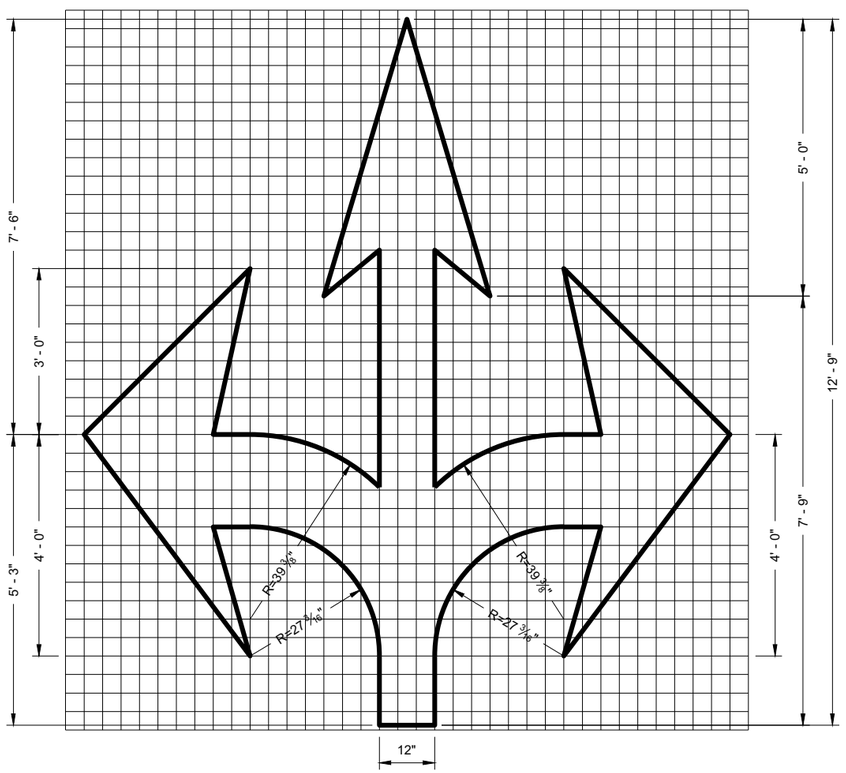
TYPE 3



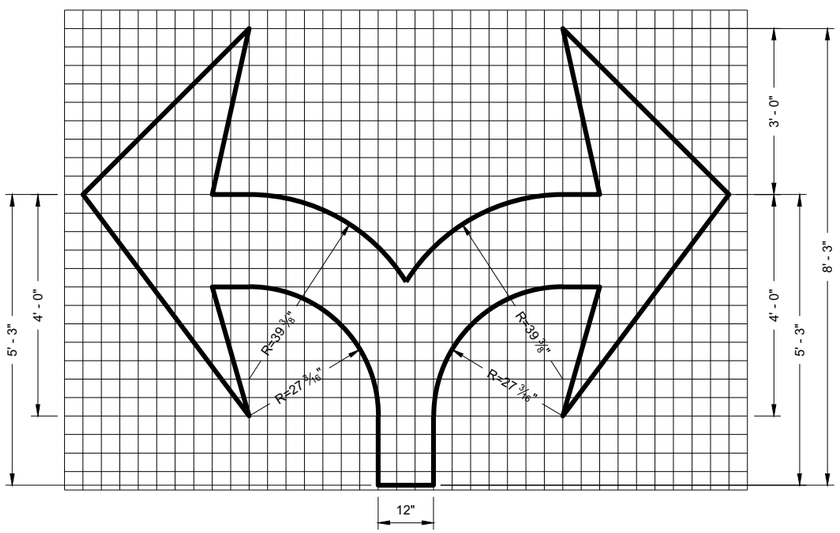
TYPE 4



TYPE 5 LANE DROP ARROW



TYPE 6



TYPE 7

PAVEMENT MARKING ARROWS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2019
DATE

/S/ Matthew Rauch
STATE SIGNING AND MAF ENGINEER

FHWA

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SDD 15C07 - 15c

6

SDD 15C07 - 15c

* CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES

GENERAL NOTES

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

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

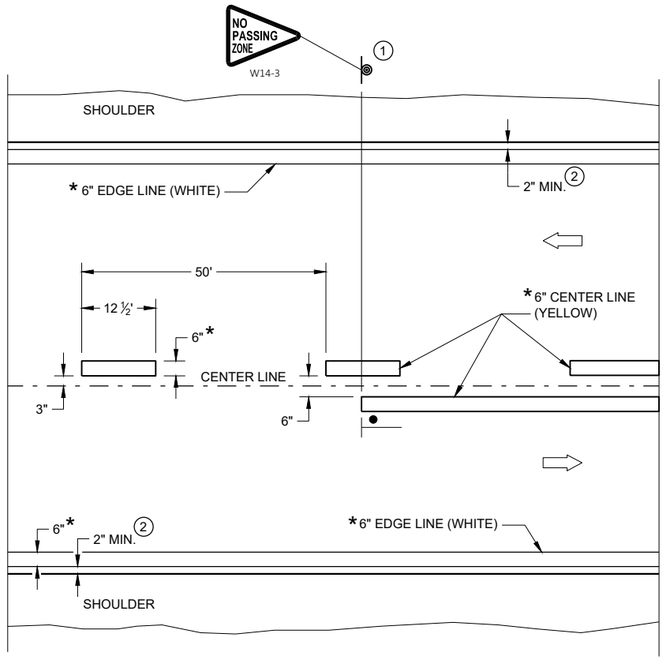
(2) MEASURE FROM EDGE OF MARKING TO JOINT LINE. THIS DOES NOT INCLUDE SPACE NEEDED FOR GROOVING OPERATIONS.

LEGEND

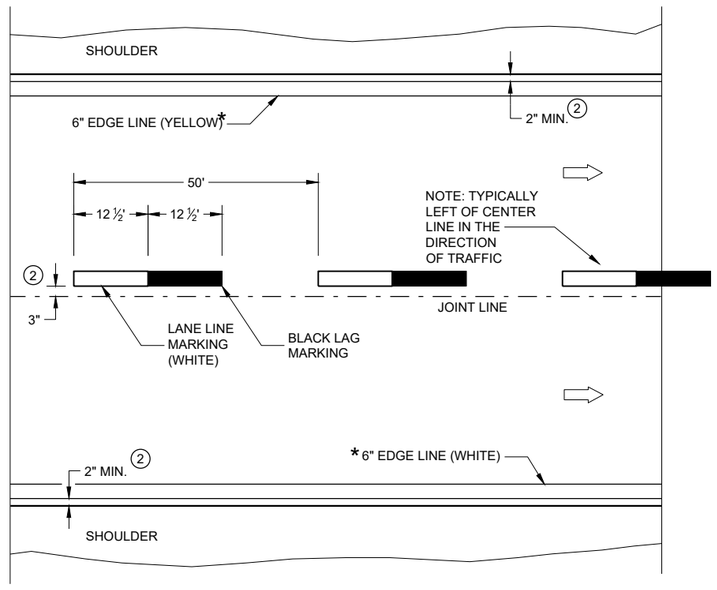
"T" MARKING

SIGN ON PERMANENT SUPPORT

DIRECTION OF TRAFFIC



TWO WAY TRAFFIC



ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING

PERMANENT LONGITUDINAL PAVEMENT MARKINGS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

May 2023 — DATE

/S/ Jeannie Silver — STATEWIDE SIGNING AND M ENGINEER

FHWA

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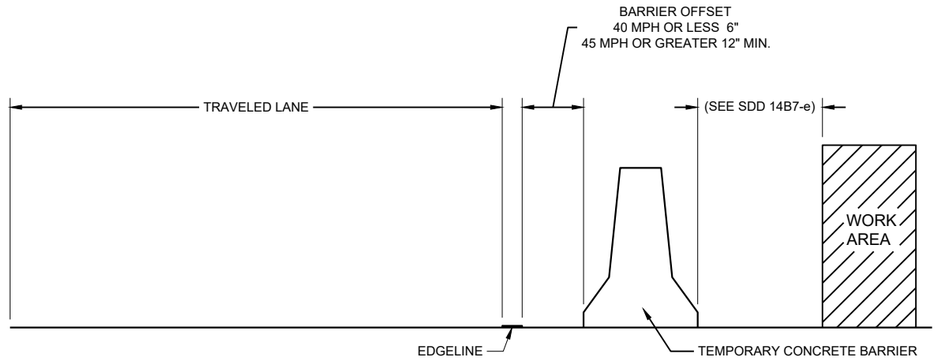
SDD 15C08-23a



TEMPORARY BARRIER OFFSET FROM EDGELINE

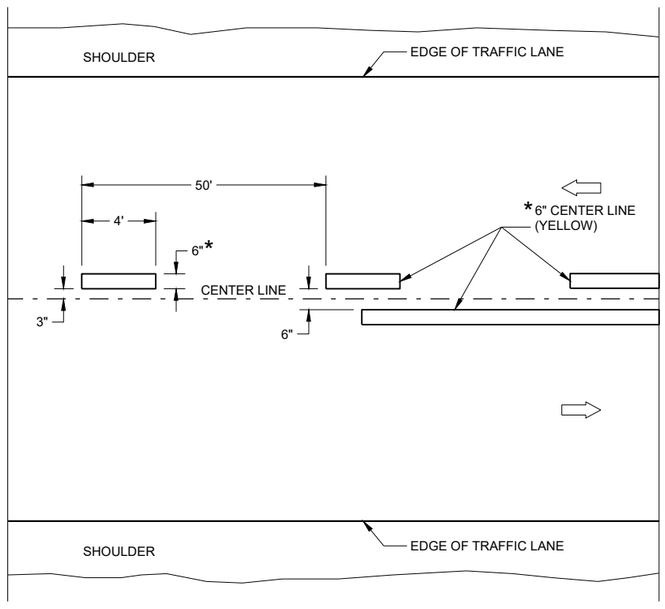
GENERAL NOTES

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

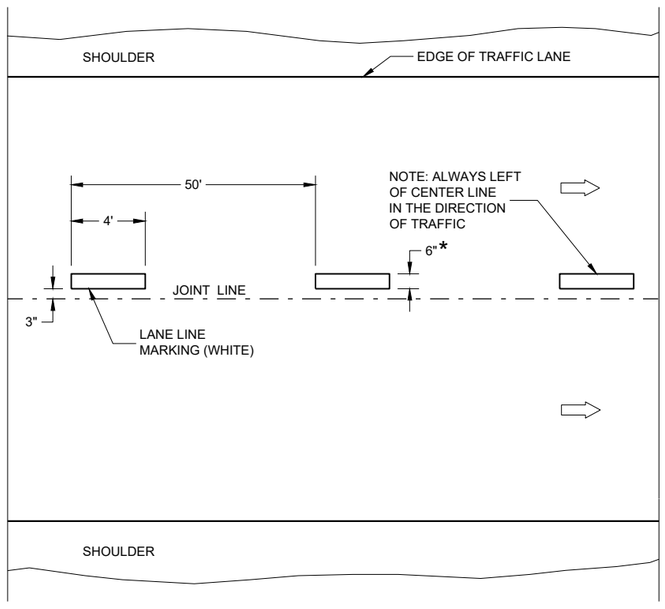
LEGEND

⇨ DIRECTION OF TRAFFIC

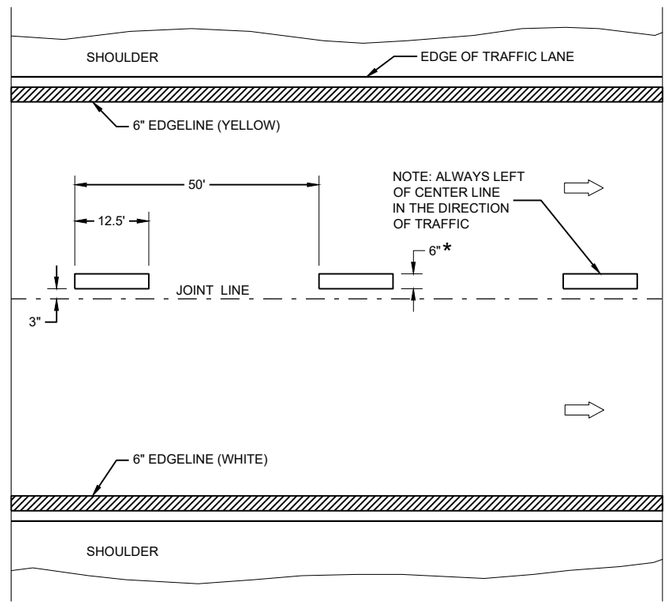
* CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES



TWO WAY TRAFFIC



ONE WAY TRAFFIC



FREEWAYS AND EXPRESSWAYS

TEMPORARY PAVEMENT MARKING

TEMPORARY LONGITUDINAL PAVEMENT MARKING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

FHWA

6

SDD 15C08-23b

6

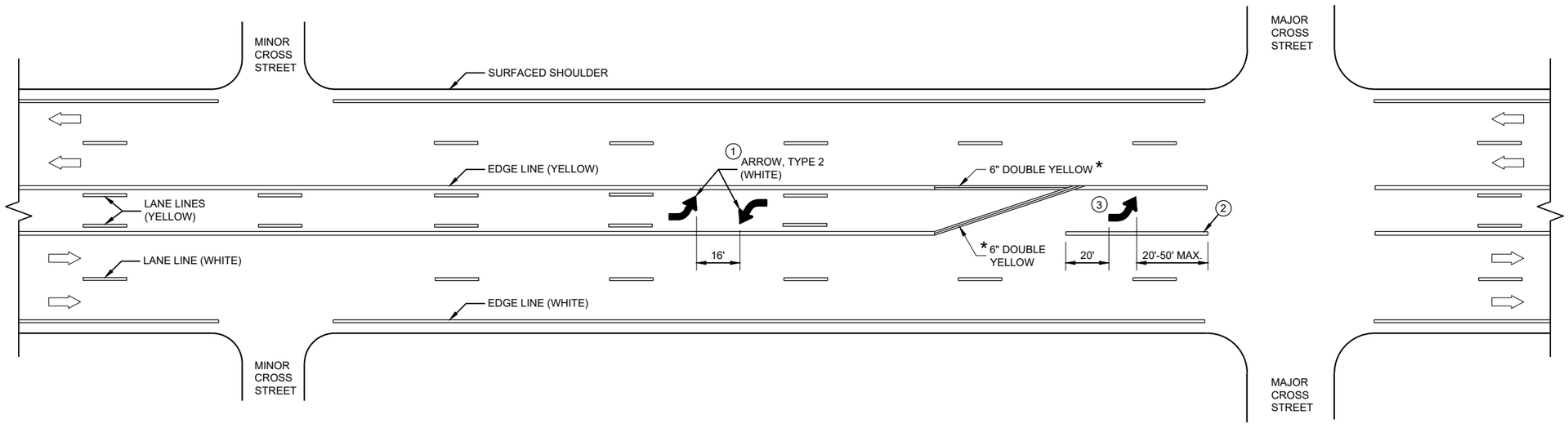
SDD 15C08-23b

GENERAL NOTES

1. A SET OF ARROWS IS REQUIRED EVERY 400 FEET OR NEAR INTERSECTIONS OR DRIVEWAYS WITH TURNING TRAFFIC.
2. 10" WHITE
3. TURN BAY LENGTH OF LESS THAN 48' DOES NOT REQUIRE PAVEMENT ARROWS OR TEXT.

DIRECTION OF TRAFFIC

* CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES



TWO WAY LEFT TURN LANE

PAVEMENT MARKING (TURN LANES)

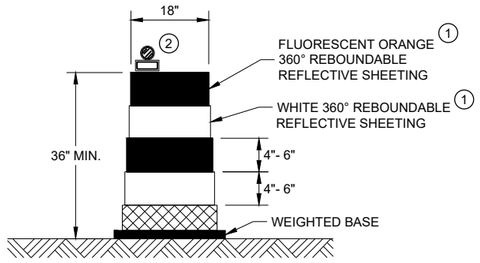
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTA· 138

SDD 15C08-23c

6

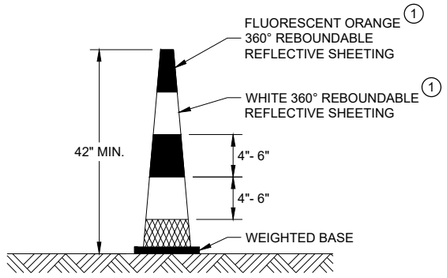
GENERAL NOTES

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

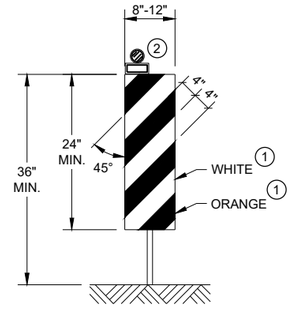
BALLAST WIDTHS
RANGE FROM 24"-36"



42" CONE

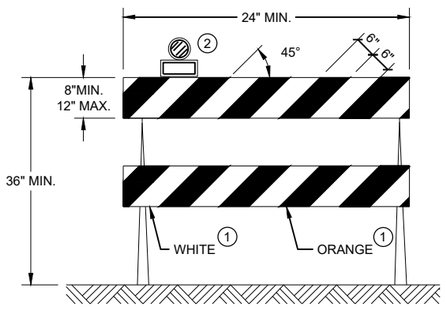
DO NOT USE IN TAPERS
½ SPACING OF DRUMS

BALLAST WIDTHS
RANGE FROM 14"-20"



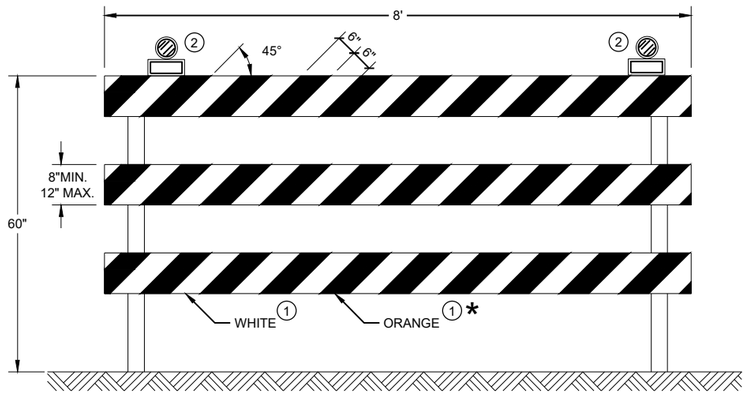
VERTICAL PANEL

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

6

SDD 15C11 - 10b

6

SDD 15C11 - 10b

LEGEND

SIGN ON PORTABLE OR PERMANENT SUPPORT

TEMPORARY PORTABLE RUMBLE STRIP ARRAY

DIRECTION OF TRAFFIC

WORK AREA

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

GENERAL NOTES

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

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

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

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

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

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

FLAGGING

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

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

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

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

TEMPORARY PORTABLE RUMBLE STRIPS

UTILIZE TEMPORARY PORTABLE RUMBLE STRIPS ON ALL FLAGGING OPERATIONS.

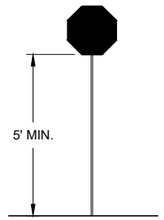
(3) EACH TEMPORARY PORTABLE RUMBLE STRIP ARRAY CONSISTS OF THREE RUMBLE STRIPS PLACED TRANSVERSE ACROSS THE LANE AT THE LOCATIONS SHOWN. WITHIN EACH ARRAY, SPACING BETWEEN RUMBLE STRIPS SHALL BE 15 FEET ON CENTER

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

INSTALL TEMPORARY RUMBLE STRIPS PER MANUFACTURER'S RECOMMENDATIONS.

PLACE ADVANCE SIGNING PRIOR TO INSTALLING TEMPORARY RUMBLE STRIPS.

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



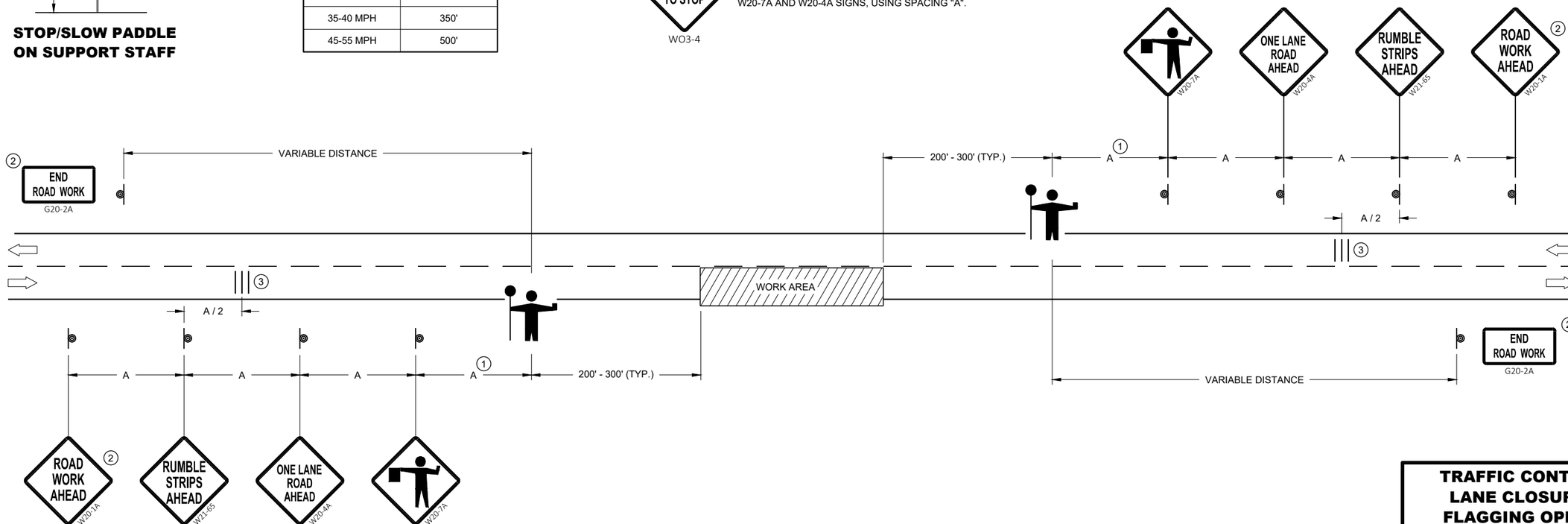
STOP/SLOW PADDLE ON SUPPORT STAFF

SIGN AND TEMPORARY RUMBLE STRIP ARRAY SPACING TABLE

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

WO3-4

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



TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2022
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

6

SDD 15C12 - 09a

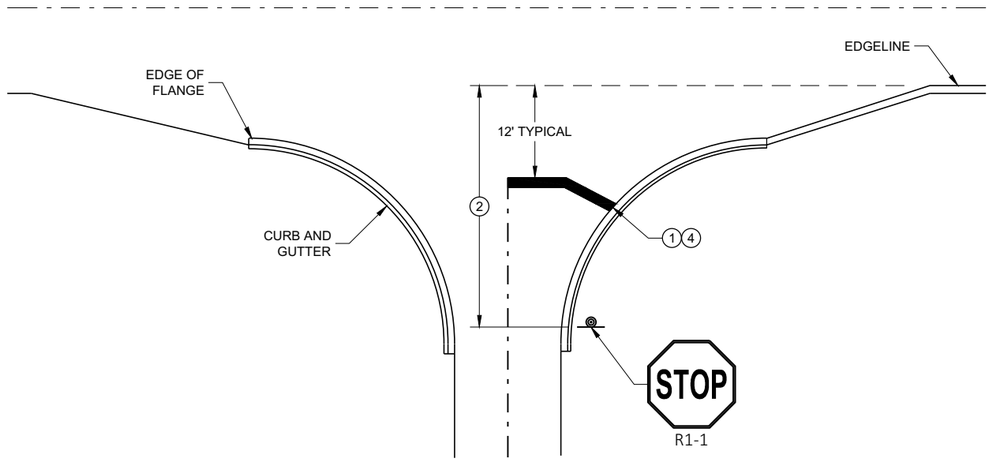
6

SDD 15C12 - 09a

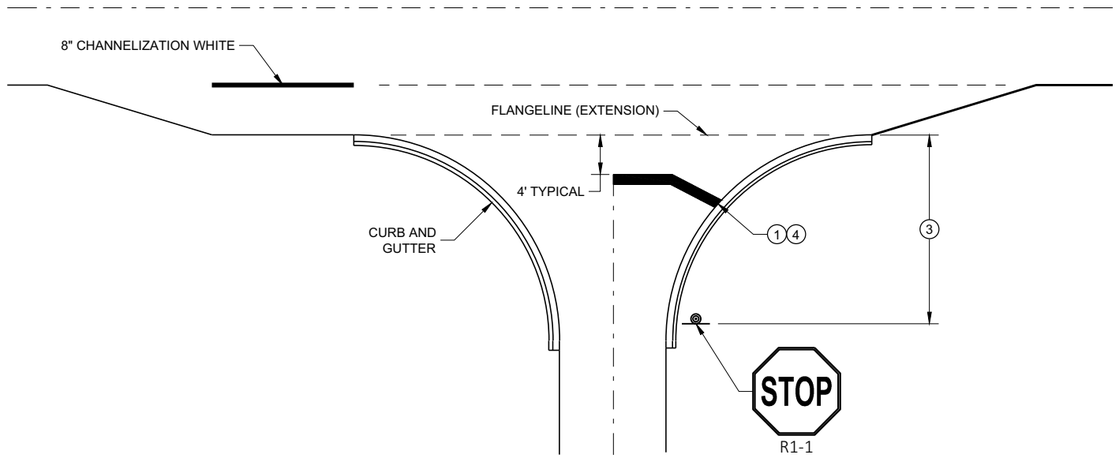
GENERAL NOTES

STOP SIGN SHALL BE PLACED A MINIMUM OF 6 FEET TO A MAXIMUM OF 50 FEET FROM THE EDGELINE LOCATION.

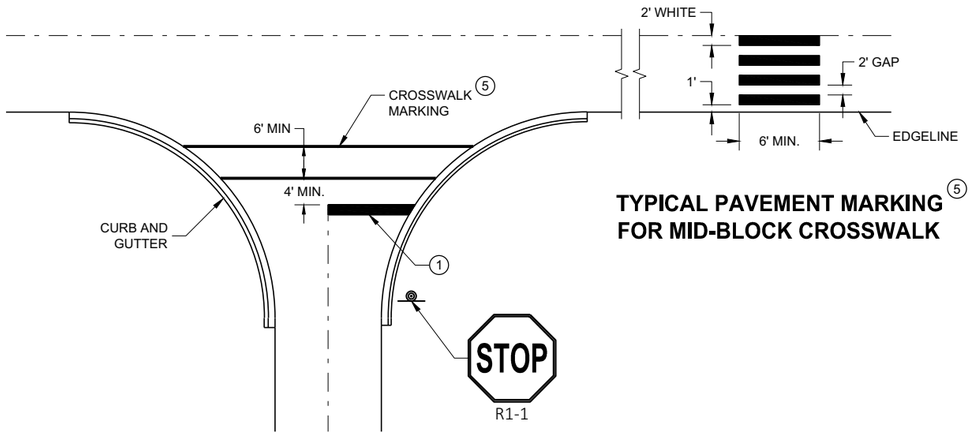
1. 18-INCH STOP LINES MAY BE DELETED OR ADDED BY THE REGION MARKING ENGINEER BASED ON VISIBILITY AND SIGHT LINES.
2. NO STOP LINE IS REQUIRED IF STOP SIGN IS LESS THAN OR EQUAL TO 40 FEET FROM THE EDGELINE.
3. NO STOP LINE IS REQUIRED IF STOP SIGN IS LESS THAN OR EQUAL TO 30 FEET FROM THE FLANGELINE EXTENSION.
4. MOVE CLOSER TO THE EDGE OF TRAVEL LINE AS NEEDED FOR VISIBILITY AND SIGHT LINES (NO CLOSER THAN 4 FEET).
5. LADDER BAR CROSSWALKS SHOULD ONLY BE USED FOR MID BLOCK CROSSINGS. USE 2 - 6" TRANSVERSE LINES INSTEAD.



TYPICAL STOP LINE PAVEMENT MARKING WITH CURB AND GUTTER

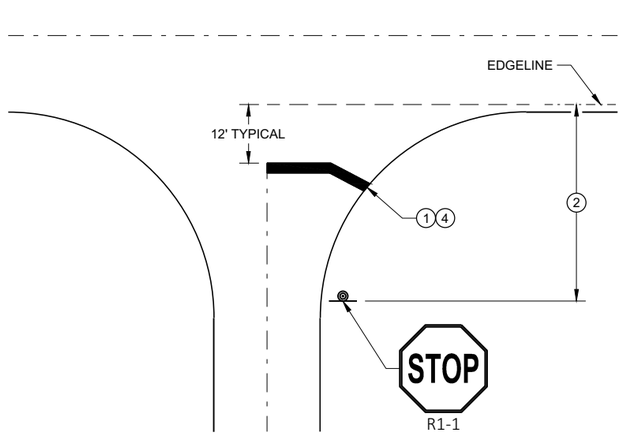


TYPICAL STOP LINE PAVEMENT MARKING FOR SIDEROADS WITH RIGHT TURN LANE



TYPICAL STOP LINE PAVEMENT MARKING FOR SIDEROADS WITH CROSSWALK MARKING

TYPICAL PAVEMENT MARKING 5 FOR MID-BLOCK CROSSWALK



TYPICAL STOP LINE PAVEMENT MARKING WITHOUT CURB AND GUTTER

STOP LINE AND CROSSWALK PAVEMENT MARKING

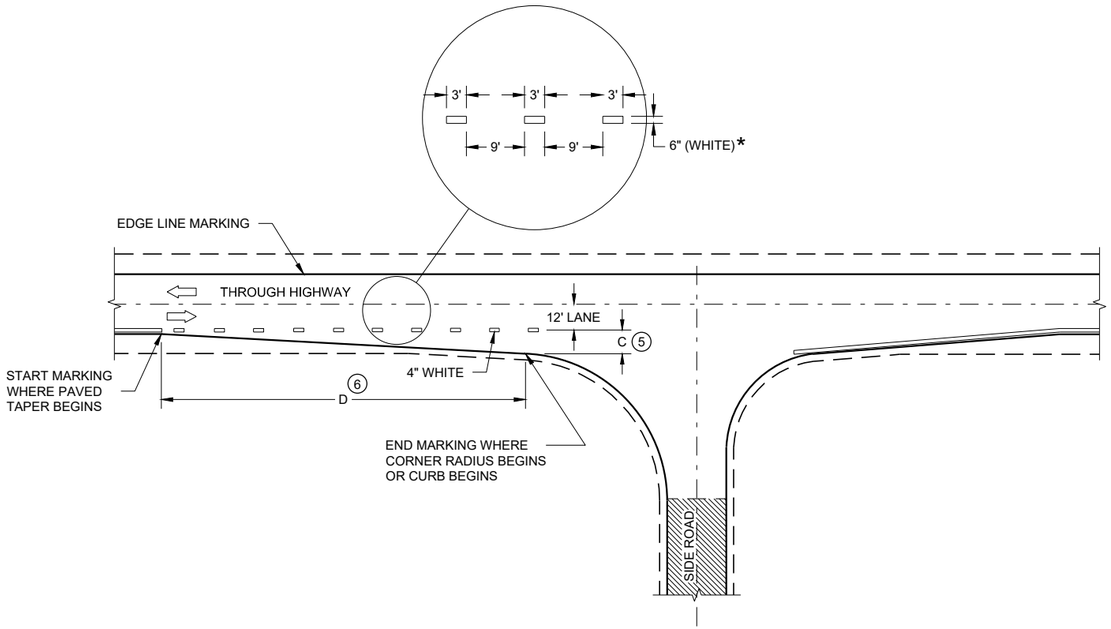
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2019 — DATE
/S/ Matthew Rauch — STATE SIGNING AND MARKING ENGINEER

FHWA

SDD 15C33 - 04

SDD 15C33 - 04



MINOR INTERSECTION

* CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES

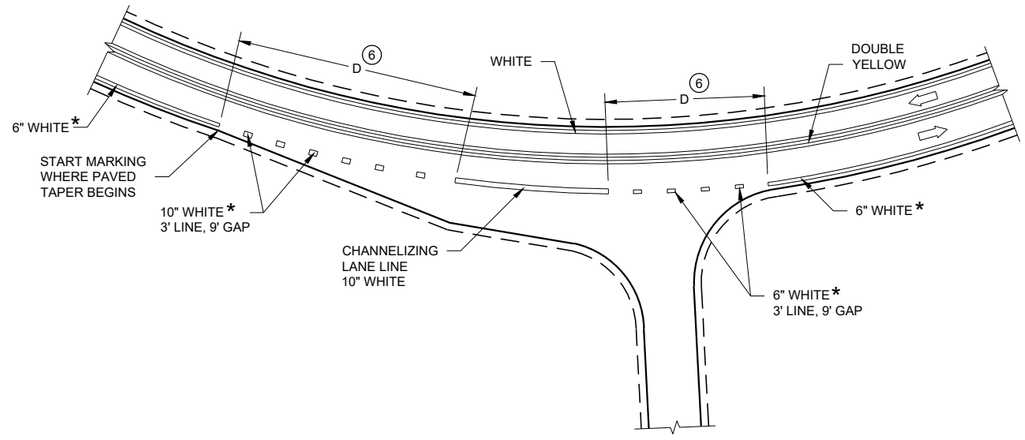
GENERAL NOTES

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

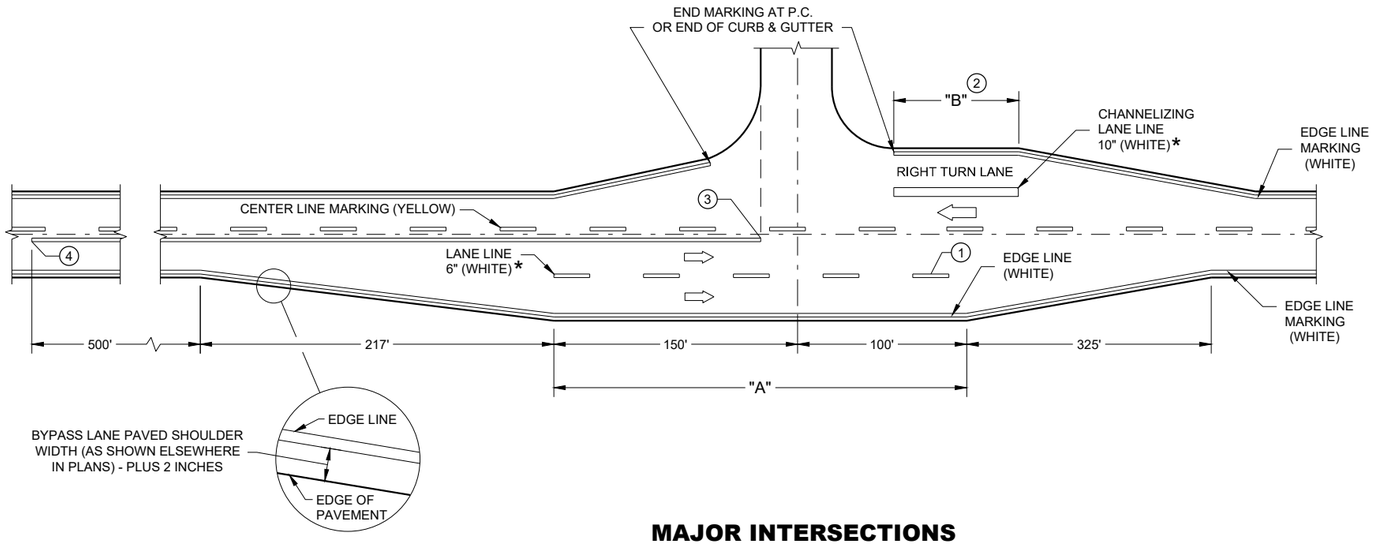
1. WHEN DISTANCE "A" IS LESS THAN 250 FEET, OMIT LANE LINE.
2. WHEN DISTANCE "B" IS LESS THAN 100 FEET, OMIT CHANNELIZING LANE LINE.
3. BARRIER LINE ENDS AT SIDE ROAD PAVEMENT / SURFACE EDGE EXTENSION.
4. BARRIER LINE STARTS 500 FEET PRIOR TO THE BYPASS TAPER.
5. WHEN DISTANCE "C" IS LESS THAN 4 FEET,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

SDD 15C35-06a

6

LEGEND

- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- TYPE III BARRICADE WITH ATTACHED SIGN
- TYPE "A" WARNING LIGHT (FLASHING)
- FLASHING ARROW BOARD
- DIRECTION OF TRAFFIC
- REMOVE PAVEMENT MARKING (SEE GENERAL NOTES)
- WORK AREA

GENERAL NOTES

FOR WORK ON ROADWAYS WITH SPEEDS GREATER THAN 45MPH, USE SDD 15D12.

THIS LANE CLOSURE DETAIL IS TYPICAL FOR CLOSING THE LEFT LANE. FOR A RIGHT LANE CLOSURE, REVERSE THE TRAFFIC CONTROL.

THIS DETAIL MAY BE USED FOR ROADWAYS WITH EITHER TWO OR THREE LANES IN EACH DIRECTION.

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

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

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH THE TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER. NO WARNING LIGHTS SHALL BE WORKING ON COVERED OR "DOWNED" SIGNS.

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS OR THAT WILL BE PLACED IN A CLOSED LANE MAY BE MOUNTED ON TEMPORARY SUPPORTS.

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' DESIRABLE) DISTANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE

W20-1A, G20-1 AND G20-2A SIGNS ARE NOT REQUIRED IF THE LANE CLOSURE IS WITHIN A LARGER WORK ZONE WHERE THESE SIGNS ARE ALREADY PRESENT.

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

CONSIDER GEOMETRICS WHEN LOCATING SIGNS AND ARROW BOARDS SO THE APPROACHING DRIVER HAS A CLEAR VIEW OF THE ARROW BOARDS AND LANE CLOSURE DRUMS FOR A MINIMUM 1500 FEET IN FRONT OF DRUMS.

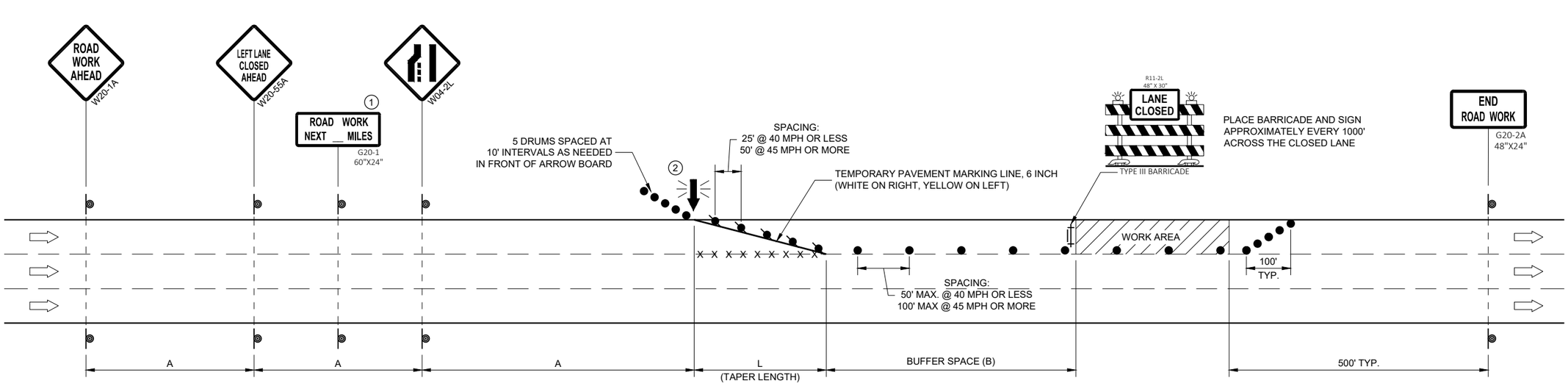
BARRICADES IN A CLOSED LANE THAT MUST BE MOVED FOR A WORK OPERATION SHALL BE IMMEDIATELY REESTABLISHED UPON COMPLETION OF THE OPERATION, OR FOR CONTINUING OPERATIONS, AT THE END OF EACH WORKING DAY.

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

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

(1) OMIT G20-1 SIGNS IF LENGTH OF WORK AREA IS 2 MILES OR LESS.

(2) WHERE THE SHOULDER OR TERRACE HAS INSUFFICIENT SPACE TO PLACE THE ARROW BOARD AS SHOWN, PLACE THE ARROW BOARD AT THE END OF THE TAPER.



POSTED SPEED LIMIT PRIOR TO WORK STARTING (MPH)	ADVANCE WARNING SIGN SPACING (A) FEET	TAPER LENGTH (12 FT. LANE) (L) FEET	BUFFER SPACE (B) FEET
25	200'	125'	55'
30	200'	180'	85'
35	350'	245'	120'
40	350'	320'	170'
45	500'	540'	220'

TRAFFIC CONTROL, SINGLE LANE CLOSURE, DIVIDED NON-FREEWAY/EXPRESSWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

FHWA

6
SDD 15D20-07a

LEGEND

- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- TYPE III BARRICADE WITH ATTACHED SIGN
- TYPE "A" WARNING LIGHT (FLASHING)
- FLASHING ARROW BOARD
- DIRECTION OF TRAFFIC
- REMOVE PAVEMENT MARKING (SEE GENERAL NOTES)
- WORK AREA

GENERAL NOTES

THIS DETAIL MAY BE USED FOR ROADWAYS WITH EITHER TWO OR THREE LANES IN EACH DIRECTION.

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

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

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH THE TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER. NO WARNING LIGHTS SHALL BE WORKING ON COVERED OR "DOWNED" SIGNS.

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS OR THAT WILL BE PLACED IN A CLOSED LANE MAY BE MOUNTED ON TEMPORARY SUPPORTS.

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' DESIRABLE) DISTANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE

W20-1A, G20-1 AND G20-2A SIGNS ARE NOT REQUIRED IF THE LANE CLOSURE IS WITHIN A LARGER WORK ZONE WHERE THESE SIGNS ARE ALREADY PRESENT.

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

CONSIDER GEOMETRICS WHEN LOCATING SIGNS AND ARROW BOARDS SO THE APPROACHING DRIVER HAS A CLEAR VIEW OF THE ARROW BOARDS AND LANE CLOSURE DRUMS FOR A MINIMUM 1500 FEET IN FRONT OF DRUMS.

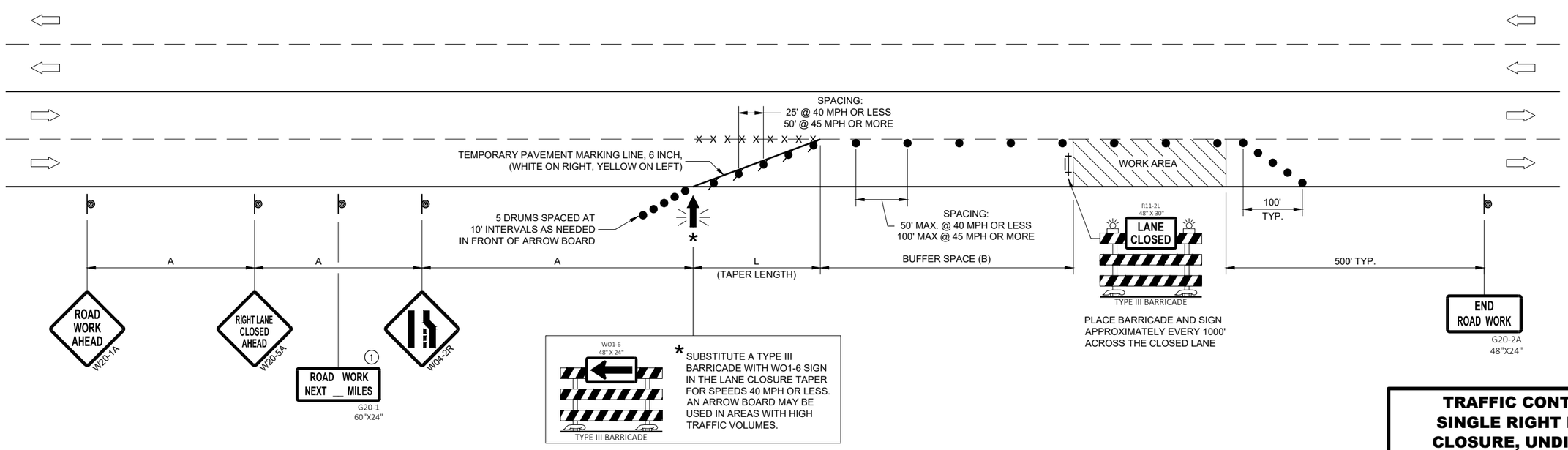
BARRICADES IN A CLOSED LANE THAT MUST BE MOVED FOR A WORK OPERATION SHALL BE IMMEDIATELY REESTABLISHED UPON COMPLETION OF THE OPERATION, OR FOR CONTINUING OPERATIONS, AT THE END OF EACH WORKING DAY.

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

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

(1) OMIT G20-1 SIGNS IF LENGTH OF WORK AREA IS 2 MILES OR LESS.

POSTED SPEED LIMIT PRIOR TO WORK STARTING (MPH)	ADVANCE WARNING SIGN SPACING (A) FEET	TAPER LENGTH (12 FT. LANE) (L) FEET	BUFFER SPACE (B) FEET
25	200'	125'	55'
30	200'	180'	85'
35	350'	245'	120'
40	350'	320'	170'
45	500'	540'	220'
50	500'	600'	280'
55	500'	660'	335'



TRAFFIC CONTROL, SINGLE RIGHT LANE CLOSURE, UNDIVIDED NON-FREEWAY/EXPRESSWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

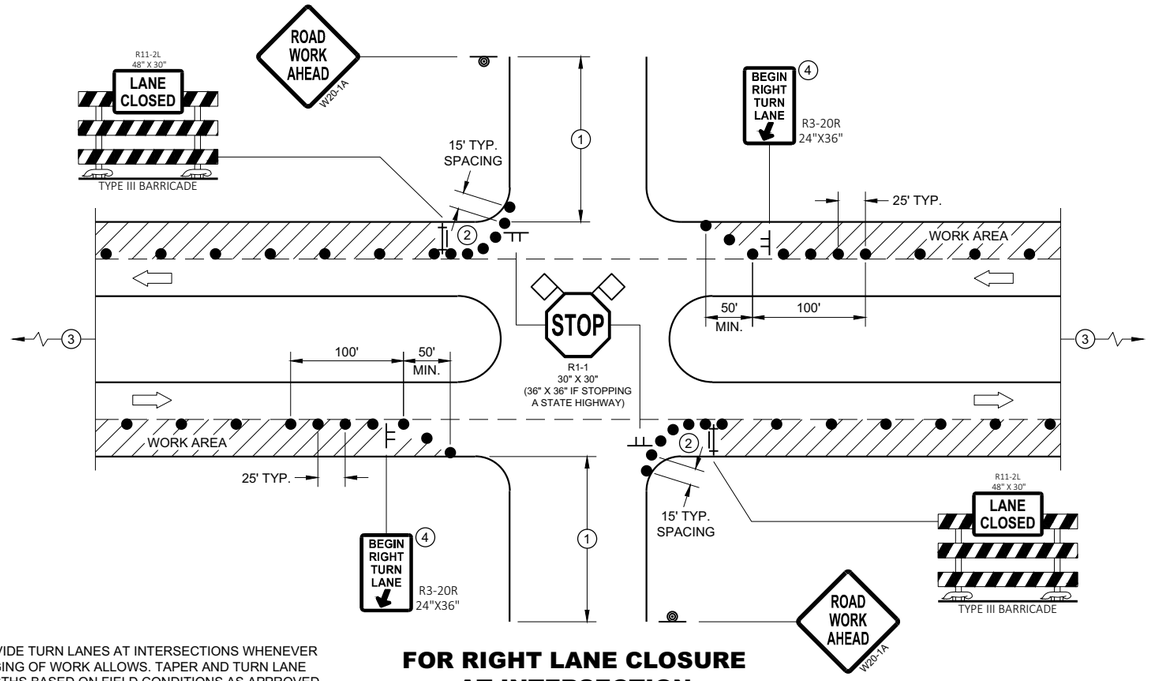
APPROVED
May 2023
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEER

FHWA

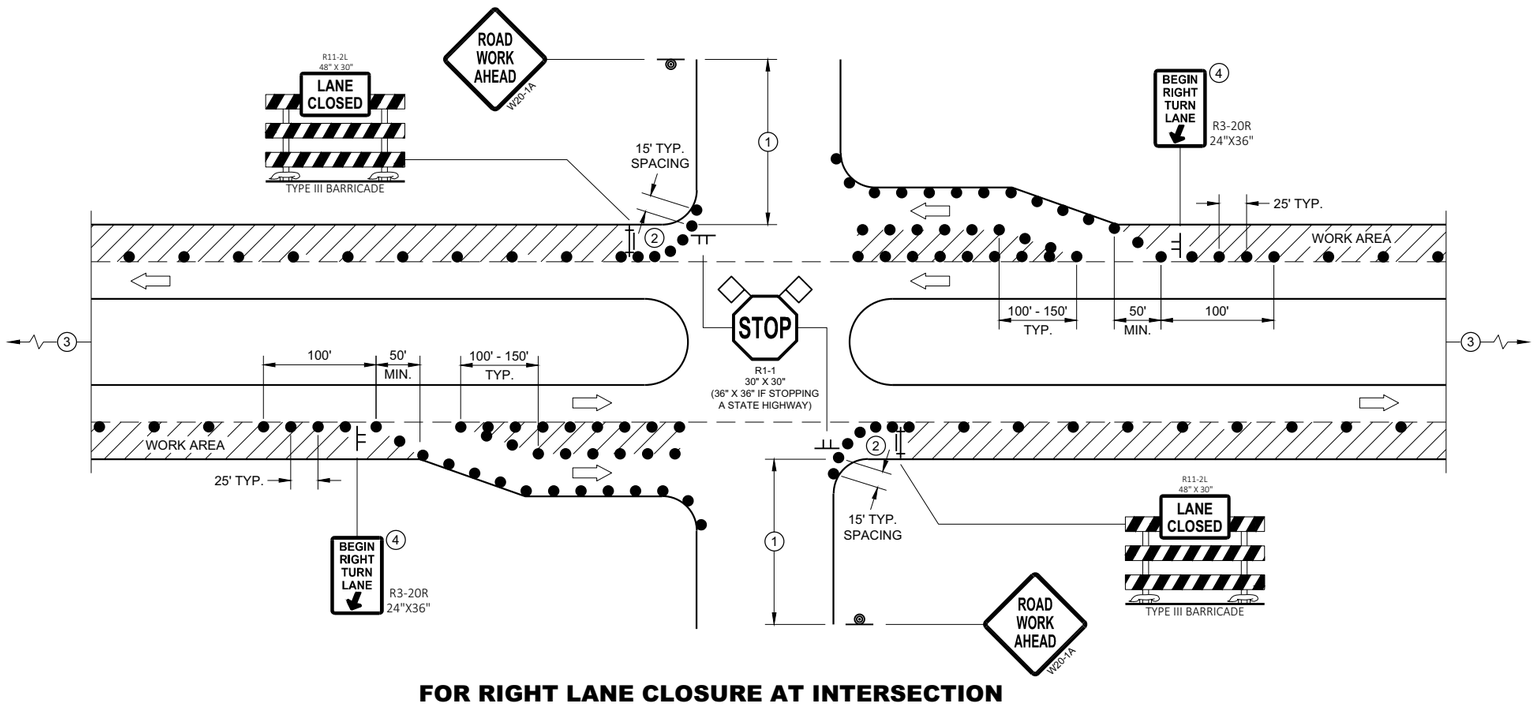
6

SDD 15D20-07b
SDD 15D20-07b



FOR RIGHT LANE CLOSURE AT INTERSECTION

PROVIDE TURN LANES AT INTERSECTIONS WHENEVER STAGING OF WORK ALLOWS. TAPER AND TURN LANE LENGTHS BASED ON FIELD CONDITIONS AS APPROVED BY THE ENGINEER.



FOR RIGHT LANE CLOSURE AT INTERSECTION (WITH RIGHT TURN BAY OPEN)

GENERAL NOTES

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

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

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH THE TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER. NO WARNING LIGHTS SHALL BE WORKING ON COVERED OR "DOWNED" SIGNS.

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' DESIRABLE) DISTANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE

SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE FHWA'S MANUAL OF STANDARD HIGHWAY SIGNS OR THE WISCONSIN STANDARD SIGN PLATES.

SIGNS THAT WILL REMAIN IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS OR THAT WILL BE PLACED IN A CLOSED LANE MAY BE MOUNTED ON PORTABLE SUPPORTS.

BARRICADES IN A CLOSED LANE 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.

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

(1) 500' TYPICAL OR AT LAST INTERSECTION, WHICHEVER IS CLOSER.
350' IF 35 - 40 MPH.
200' IF 25 - 30 MPH.

(2) ALSO USE BARRICADE AND 15 FOOT TYPICAL DRUM SPACING AT COMMERCIAL DRIVEWAYS

(3) SEE SEPARATE LANE CLOSURE DETAIL FOR ADDITIONAL TRAFFIC CONTROL.

(4) MINIMUM MOUNTING HEIGHT OF 5 FEET FROM EDGE OF PAVEMENT (AT EDGE LINE LOCATION) TO BOTTOM OF SIGN.

LEGEND

- SIGN ON TEMPORARY SUPPORT
- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM
- TYPE III BARRICADE WITH ATTACHED SIGN
- DIRECTION OF TRAFFIC
- FLAGS, 16" X 16" MIN., ORANGE
- WORK AREA

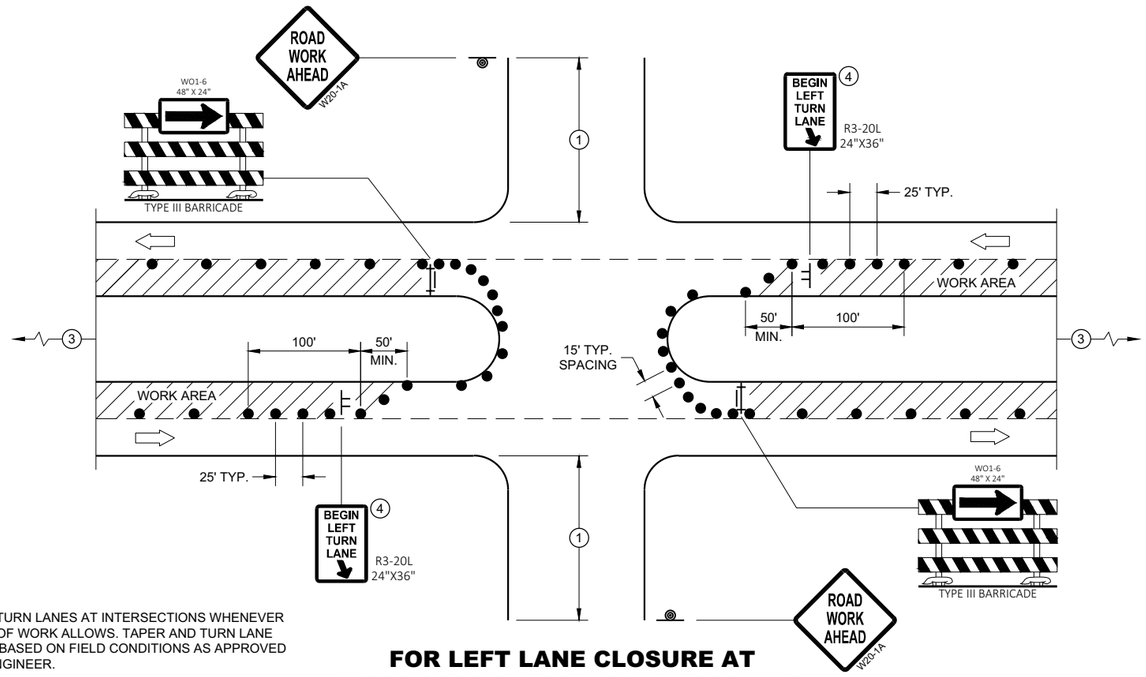
6

SDD 15D21 - 07a

6

SDD15D21 - 07a

TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE RIGHT LANE CLOSURE



PROVIDE TURN LANES AT INTERSECTIONS WHENEVER STAGING OF WORK ALLOWS. TAPER AND TURN LANE LENGTHS BASED ON FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

FOR LEFT LANE CLOSURE AT INTERSECTION OR MEDIAN OPENING

GENERAL NOTES

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

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

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH THE TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER. NO WARNING LIGHTS SHALL BE WORKING ON COVERED OR "DOWNED" SIGNS.

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' DESIRABLE) DISTANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE

SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE FHWA'S MANUAL OF STANDARD HIGHWAY SIGNS OR THE WISCONSIN STANDARD SIGN PLATES.

SIGNS THAT WILL REMAIN IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS OR THAT WILL BE PLACED IN A CLOSED LANE MAY BE MOUNTED ON PORTABLE SUPPORTS.

BARRICADES IN A CLOSED LANE 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.

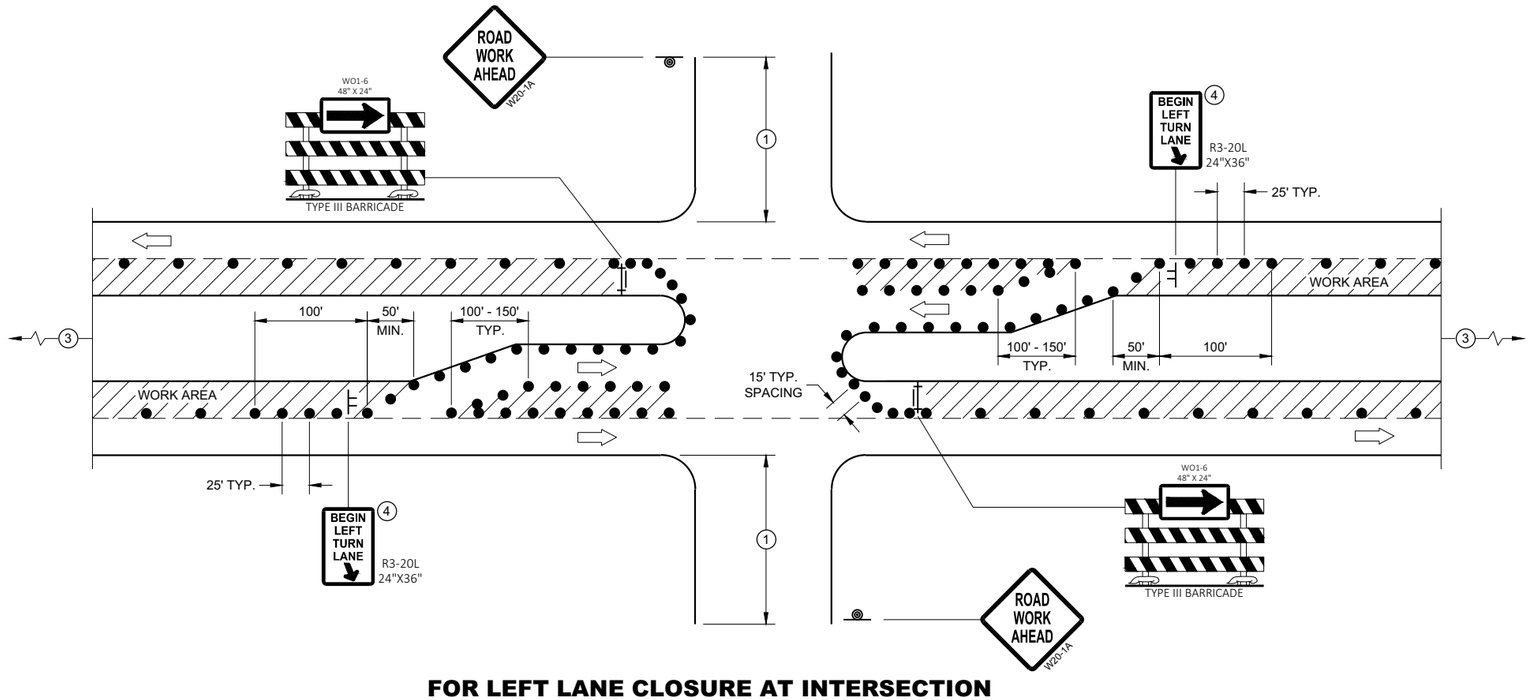
CHANNELIZING DEVICES PLACED ADJACENT TO WORK AREA SHALL BE PULLED BACK FROM THE TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

(1) 500' TYPICAL OR AT LAST INTERSECTION, WHICHEVER IS CLOSER.
350' IF 35 - 40 MPH.
200' IF 25 - 30 MPH.

(2) ALSO USE BARRICADE AND 15 FOOT TYPICAL DRUM SPACING AT COMMERCIAL DRIVEWAYS

(3) SEE SEPARATE LANE CLOSURE DETAIL FOR ADDITIONAL TRAFFIC CONTROL.

(4) MINIMUM MOUNTING HEIGHT OF 5 FEET FROM EDGE OF PAVEMENT (AT EDGE LINE LOCATION) TO BOTTOM OF SIGN.



FOR LEFT LANE CLOSURE AT INTERSECTION OR MEDIAN OPENING (WITH LEFT TURN BAY OPEN)

LEGEND

- SIGN ON TEMPORARY SUPPORT
- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM
- TYPE III BARRICADE WITH ATTACHED SIGN
- DIRECTION OF TRAFFIC
- FLAGS, 16" X 16" MIN., ORANGE
- WORK AREA

TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE LEFT LANE CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
August 2020 — DATE
/S/ Andrew Heidtke — WORK ZONE ENGINEER

FHWA

6

SDD 15D21 - 07b

6

SDD 15D21 - 07b

LEGEND

- TRAFFIC CONTROL DRUM
- SIGN ON PERMANENT SUPPORT
- DIRECTION OF TRAFFIC
- FLASHING ARROW BOARD
- WORK AREA

GENERAL NOTES

THIS DETAIL IS TYPICAL FOR CLOSING THE RIGHT SHOULDER. FOR CLOSING THE LEFT SHOULDER, REVERSE THE TRAFFIC CONTROL.

THIS DETAIL MAY BE USED FOR DIVIDED ROADWAYS WITH ANY NUMBER OF TRAVEL LANES.

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

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

SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE FHWA'S MANUAL OF STANDARD HIGHWAY SIGNS OR THE WISCONSIN STANDARD SIGN PLATES.

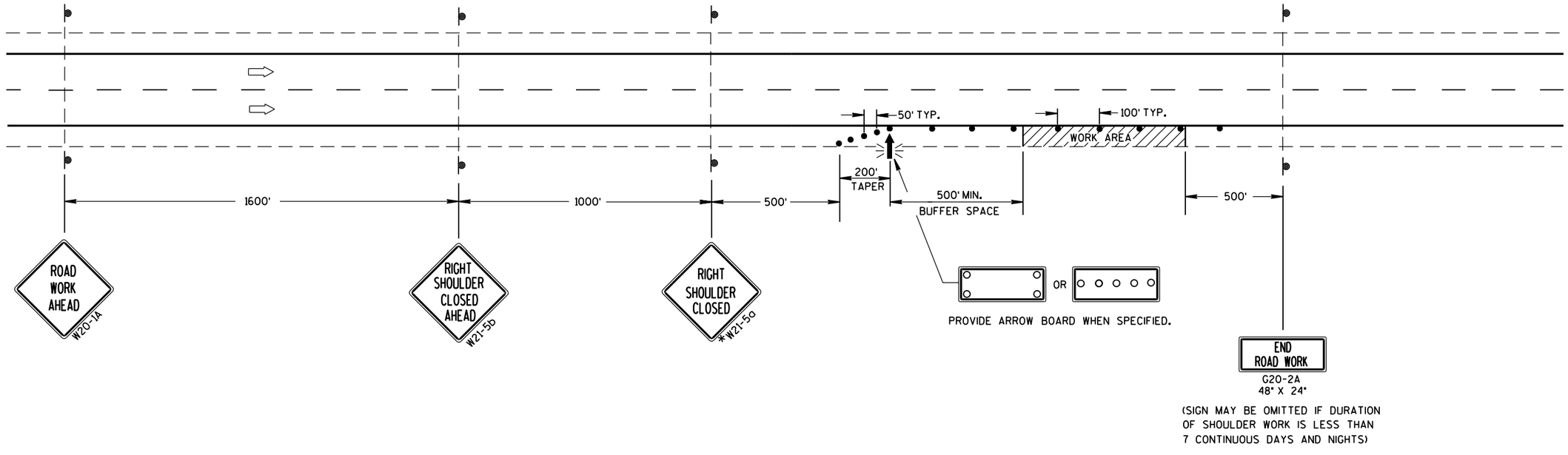
SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

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.

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

WHEN A 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.

*FOR SHORT DURATION SHOULDER WORK OF LESS THAN ONE HOUR, THE W21-5a SIGN MAY BE OMITTED.



TRAFFIC CONTROL SHOULDER CLOSURE ON DIVIDED ROADWAY, SPEEDS GREATER THAN 40 MPH

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

June 2016 — DATE

/S/ Peter Amakobe Atepe
STATEWIDE WORK ZO[illegible] SAFETY ENGI[illegible]

FHWA

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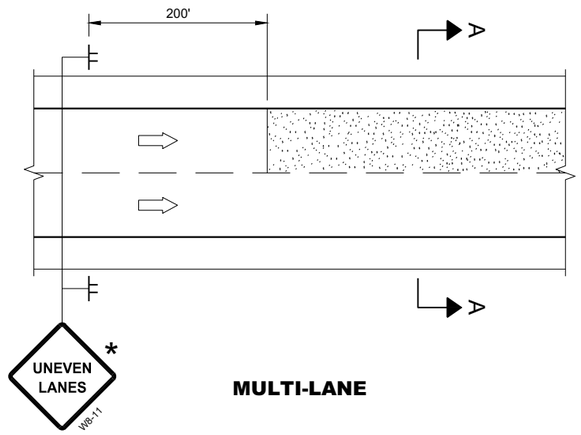
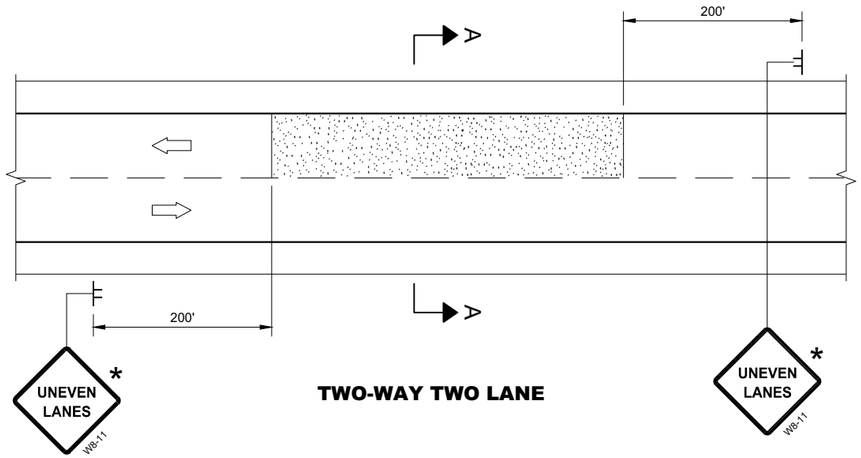
S.D.D. 15 D 27-3



MULTI-LANE



TWO-WAY TWO LANE

GENERAL NOTES

FOR SPOT LOCATIONS USE ENGINEERING JUDGEMENT WHEN PLACING ADDITIONAL SIGNS.

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

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

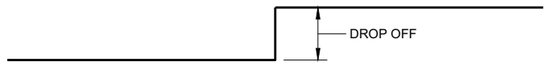
WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

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

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

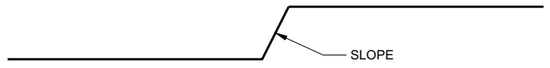
LEGEND

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

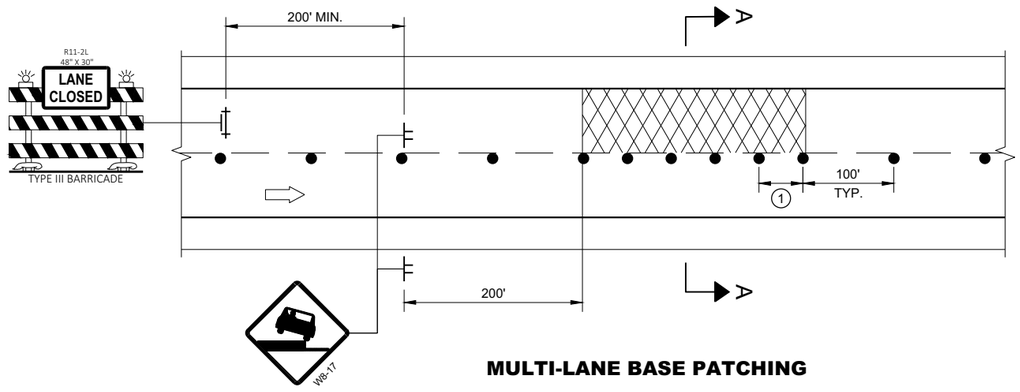


SECTION A - A

OR

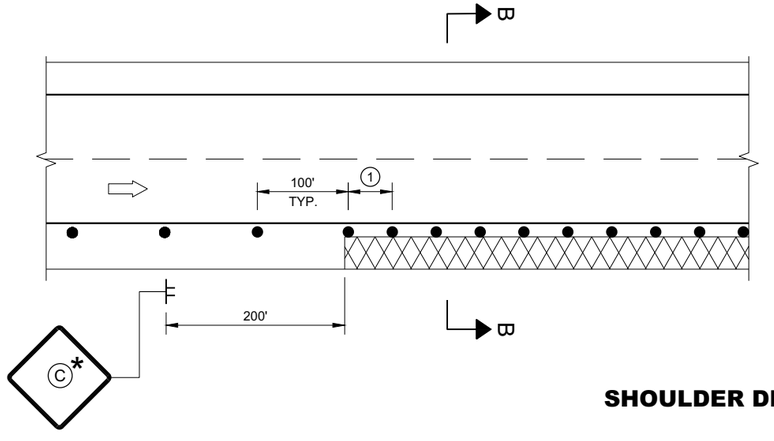


SECTION A - A

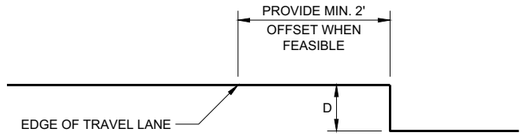


MULTI-LANE BASE PATCHING

ADJACENT LANE DROP-OFFS



SHOULDER DROP-OFFS



SECTION B - B

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

TRAFFIC CONTROL, DROP-OFF SIGNING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
March 2018
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

6

SDD 15D39 - 02

6

SDD 15D39 - 02

LEGEND

- TYPE III BARRICADE WITH ATTACHED SIGN
- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- TYPE "A" WARNING LIGHT (FLASHING)
- DIRECTION OF TRAFFIC
- WORK AREA
- REMOVING PAVEMENT MARKING (SEE GENERAL NOTES)
- CONCRETE BARRIER TEMPORARY PRECAST

POSTED SPEED LIMIT PRIOR TO WORK STARTING (MPH)	ADVANCE WARNING SIGN SPACING (A) FEET	SHIFTING TAPER L/2 W, LATERAL OFFSET (FT)					BUFFER SPACE (B) FEET
		10	11	12	13	14	
25	200	52	57	63	68	73	55
30	200	75	83	90	98	105	85
35	350	102	112	123	133	143	120
40	350	133	147	160	173	187	170
45	500	225	248	270	293	315	220

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 SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND TO PROVIDE A MINIMUM OF 200 FEET, (500 FEET DESIRABLE) DISTANCE TO EXISTING SIGNS.

THIS LANE CLOSURE IS TYPICAL FOR LANE SHIFT RIGHT - REVERSE FOR SHIFTING LEFT.

ALL SIGNS ARE 48"x48" 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 AND AS APPROVED BY THE ENGINEER. NO WARNING LIGHTS SHALL BE WORKING ON ANY "COVERED" OR "DOWNED" SIGNS.

CONSIDER GEOMETRICS WHEN LOCATING SIGNS AND ARROW BOARDS SO THE DRIVER HAS A CLEAR VIEW OF THE ARROW BOARD AND LANE CLOSURE DRUMS FOR A MINIMUM 1500 FEET IN FRONT OF DRUMS.

FOR A LANE CLOSURE THAT IS IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS, THE ADVANCED WARNING SIGNS MAY BE MOUNTED ON PORTABLE SUPPORTS.

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.

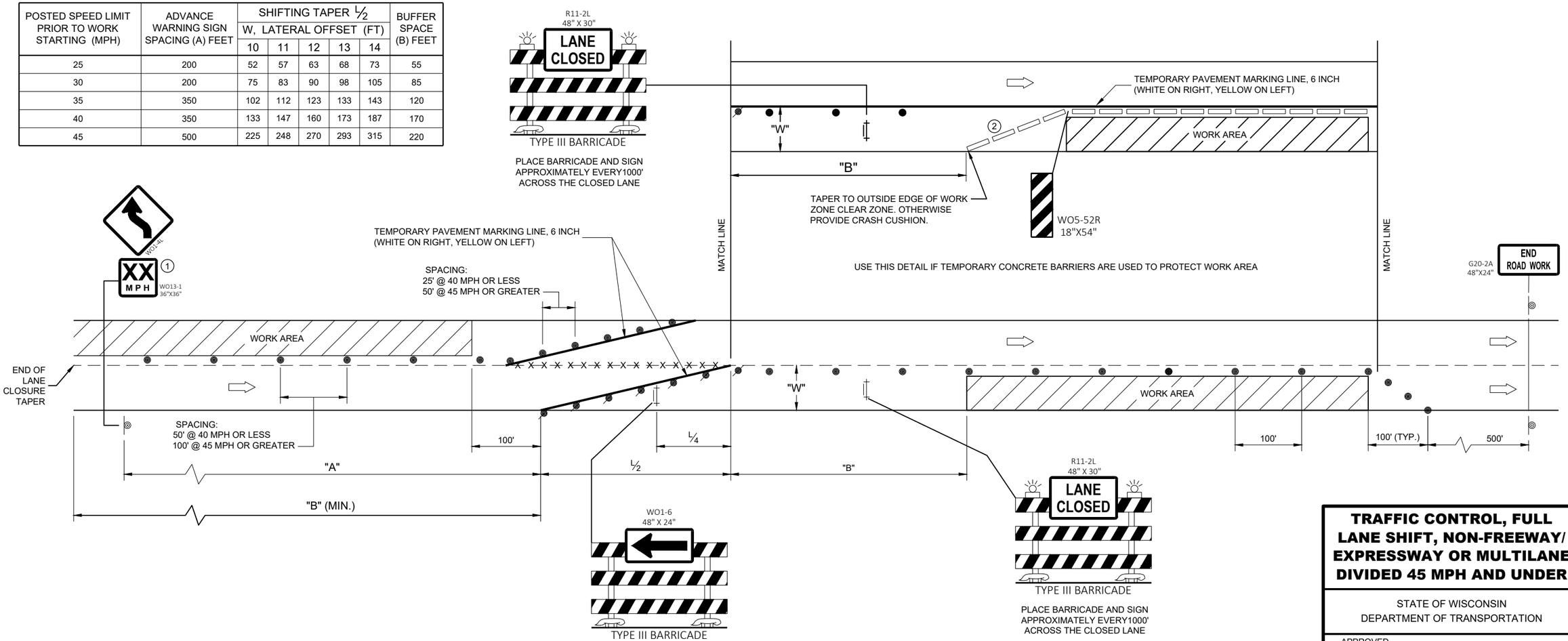
WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

IF THE HORIZONTAL ALIGNMENT IS SUCH THAT A CURVE MAY REQUIRE ADDITIONAL DELINEATION, THE DEVICE SPACING MAY BE DECREASED TO 50 FEET.

ADJUSTMENTS IN BUFFER SPACE NEED TO BE INCORPORATED WHEN THE LANE SHIFT OCCURS NEAR AN INTERCHANGE EXIT OR ENTRANCE RAMP. THE LANE SHIFT MUST TAKE PLACE FAR ENOUGH IN ADVANCE OF AN EXIT OR ENTRANCE RAMP TO STILL ALLOW FOR ADEQUATE BUFFER
SPACE. THE MINIMUM LENGTH OF THE BUFFER SPACE BEFORE AN EXIT RAMP SHOULD BE 1/2 THE LENGTH OF THE TRANSITION AREA. THE ENTRANCE RAMP SHOULD BE FOLLOWED BY THE ORIGINAL BUFFER SPACE LENGTH OF 800 FEET DESIRABLE PRIOR TO ANOTHER TRAFFIC CONTROL
CHANGE SUCH AS A CROSSOVER MANEUVER.

(1) USE ONLY IF DESIGN SPEED IS 10 MPH BELOW POSTED SPEED.

(2) BARRIER FLARE RATE: 6:1 @ 40 MPH OR LESS
8:1 @ 45 MPH OR GREATER



TRAFFIC CONTROL, FULL LANE SHIFT, NON-FREEWAY/ EXPRESSWAY OR MULTILANE DIVIDED 45 MPH AND UNDER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEER

FHWA

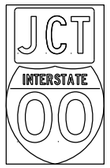
6

SDD 15D40-05a

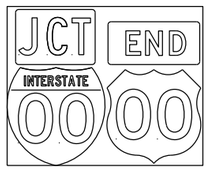
6

SDD 15D40-05a

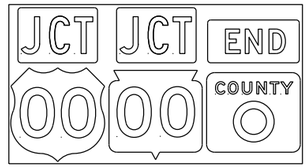
TYPICAL ASSEMBLIES



J1-1



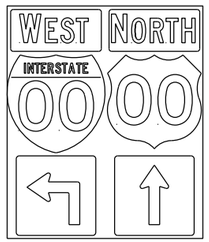
J1-2



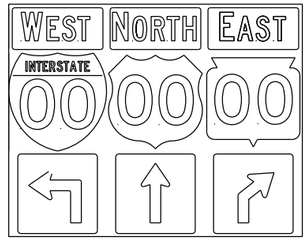
J1-3

JR1-1

J2-1

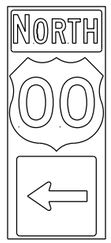


J2-2

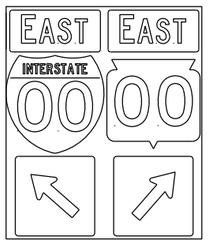


J2-3

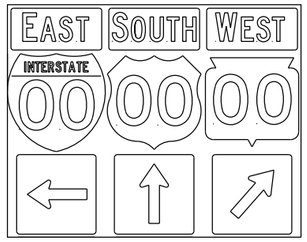
JV
(Typical Vertical J-Assembly
See Note 10 and 11)



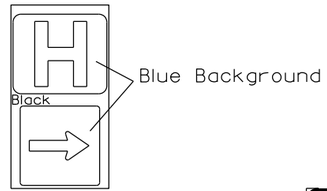
J3-1



J3-2

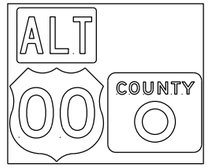


J3-3

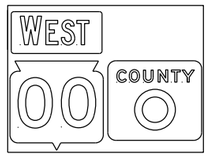


JH-1

J4-1

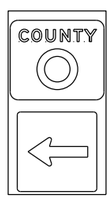


J4-2



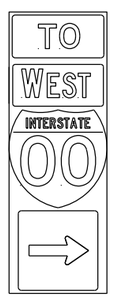
J4-2

J12-1



J13-1

J32-1



J33-1

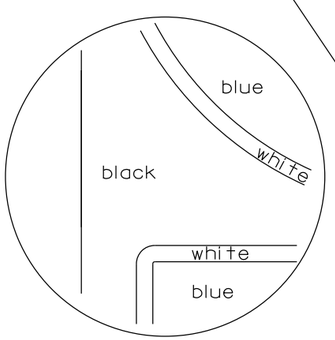
J22-1

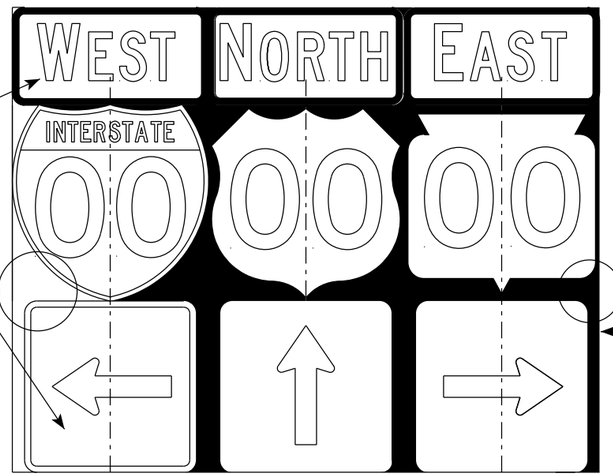
J23-1

JR13-1

JR23-1

JR99-1





NOTES

1. Signs are Type II - Type H Reflective
2. Color:
   Background - Black Non-reflective
   Message - see Note 5
3. Message Series - See Note 5
4. Corners shall be square or rounded if base material is plywood. If base material is metal the corners shall be rounded.
5. The colors and message spacing on each marker shall be according to the applicable route marker panel specifications.
6. Certain marker heads require the component pieces to be the same color. As an example, all the components used with an M1-1 Interstate marker shall be blue.
7. Single panel j-assemblies shall only be used with route marker shields that are same size. If the route marker shields are different size use multiple piece component.
8. Route assemblies that have 24 inch route shields and have dimensions greater than 48 inches (both vertical and horizontal) shall have one horizontal splice between the arrows and route shields. Vertical splices shall not be used on route assemblies with a horizontal dimension of 144 inches or less. The contractor shall not use more than one vertical joint per sign and the joint shall be between route shields.
9. Route assemblies that have 36 inch shields and have dimensions greater than 48 inchs (both vertical and horizontal) shall have two horizontal splices. One horizontal splice shall be between the cardinal direction and route shields and the other horizontal splice shall be between the arrows and route shields. Vertical splices shall not be used on route assemblies with a horizontal dimension of 144 or less. The contractor shall not use more than one vertical joint per sign and the joint shall be between route shields.
10. All Vertical J Assemblies are given a Sign Code of JV
11. For JV Assemblies that have a mixture of Interstate and non Interstate shields, arrows and cardinals shall be white on blue.

ROUTE MARKERS & COMPONENTS
IN TYPICAL ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/18/21 PLATE NO. A2-1S.9

PROJECT NO:

SHEET NO: 150 E

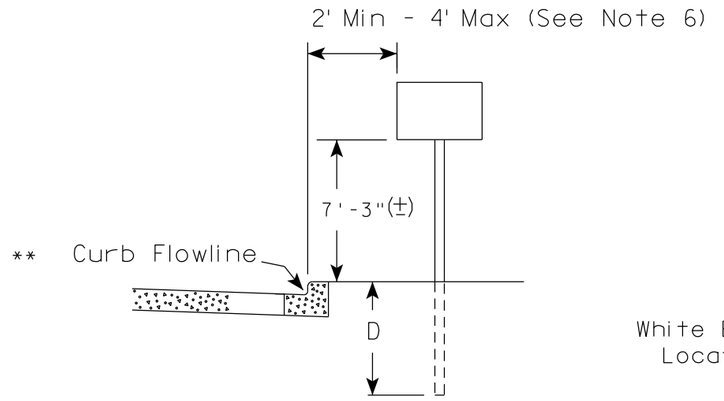
FILE NAME : C:\CAEfiles\Projects\tr_stdplate_A21S.dgn PLOT DATE : 18-MAR 2021 1:37 PLOT BY : mscj9h PLOT NAME :

WISDOT/CADDS SHEET 42

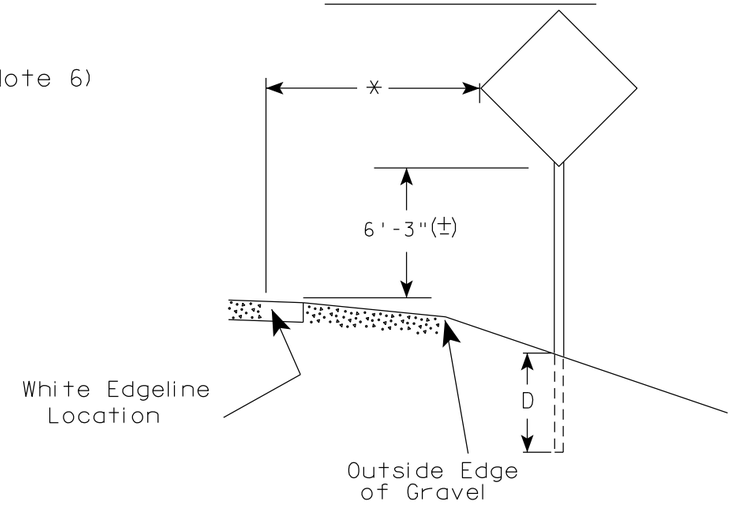
7

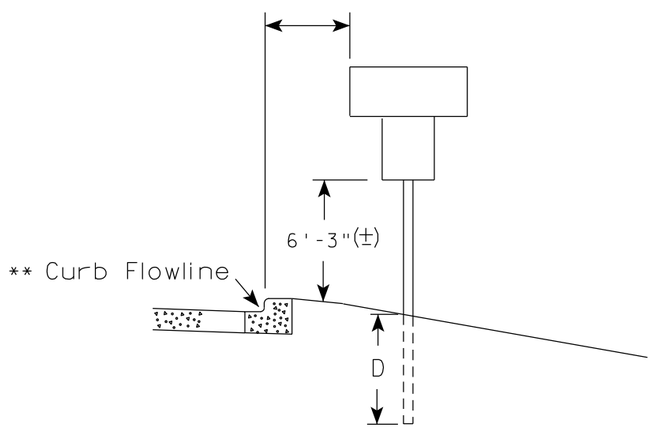
7

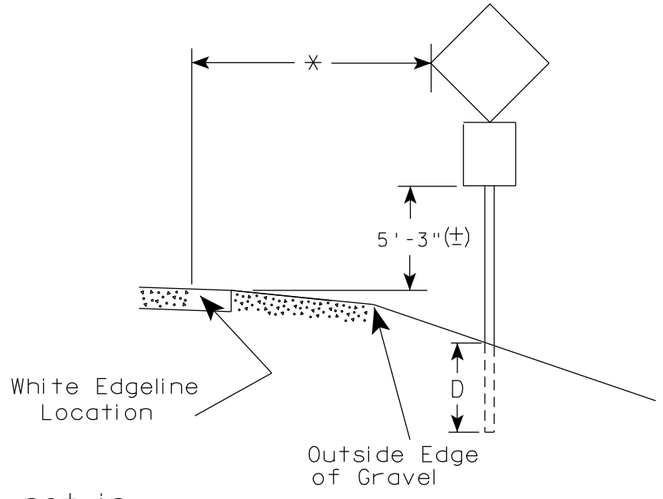
URBAN AREA



RURAL AREA (See Note 2)







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

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

POST EMBEDMENT DEPTH

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

GENERAL NOTES

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

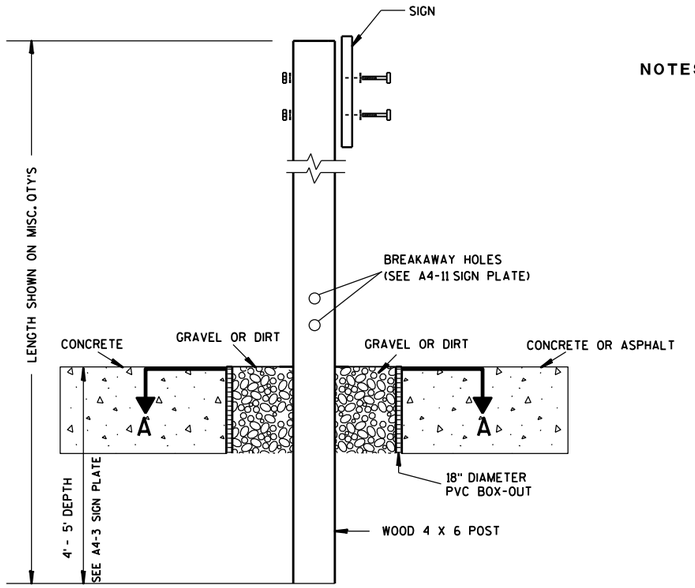
TYPICAL INSTALLATION OF PERMANENT TYPE II SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

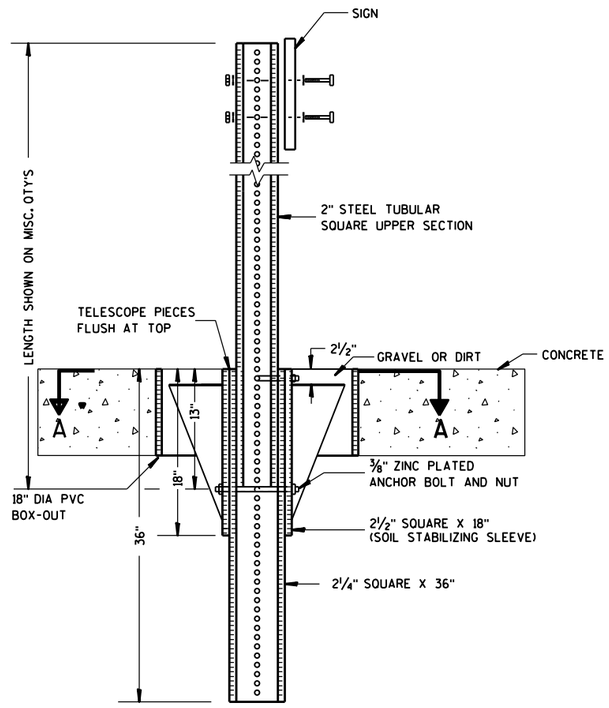
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 151	E



ELEVATION VIEW

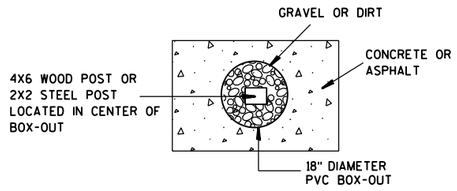
DETAIL OF WOOD 4 X 6 SIGN POST IN BOX-OUT

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



ELEVATION VIEW

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



PLAN VIEW

FOR NEW CONCRETE/ASPHALT INSTALLATIONS

SIGN POST BOX-OUTS A4-3B

WISCONSIN DEPT OF TRANSPORTATION

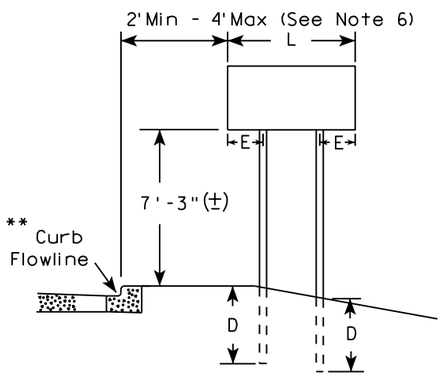
APPROVED Matthew R Rauch
for State Traffic Engineer

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

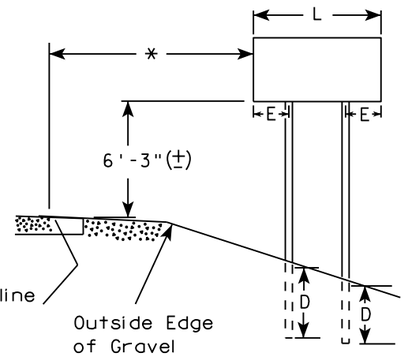
PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

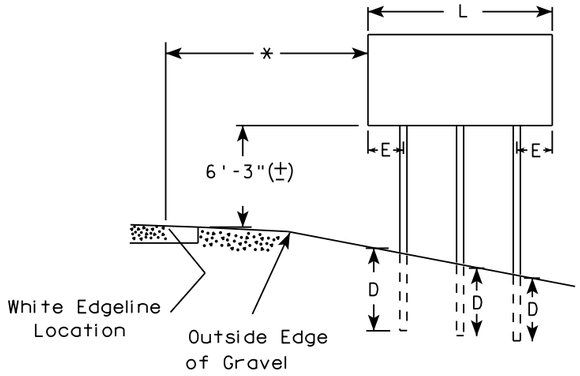
FILE NAME : C:\CAEFiles\Projects\tr_stdplate\A43B.DGN PLOT DATE : 27-JAN-2014 09:48 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 13.659812:1.000000 WISDOT/CADDS SHEET 42

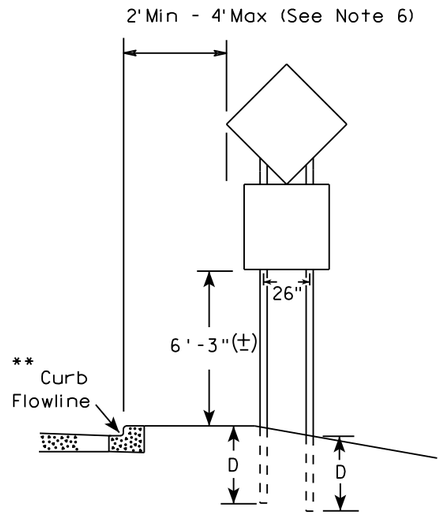
URBAN AREA



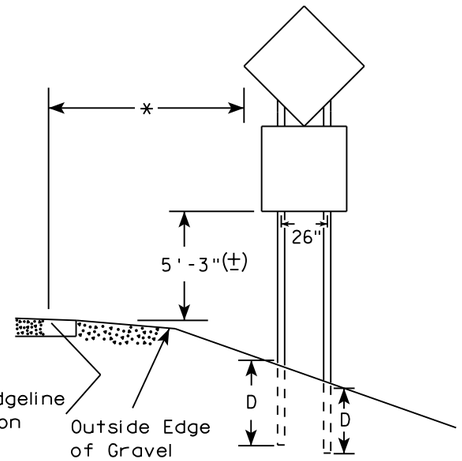
RURAL AREA (See Note 3)







48" DIAMOND WARNING SIGN



48" DIAMOND WARNING SIGN

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

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

GENERAL NOTES

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

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

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

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

POST EMBEDMENT DEPTH

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

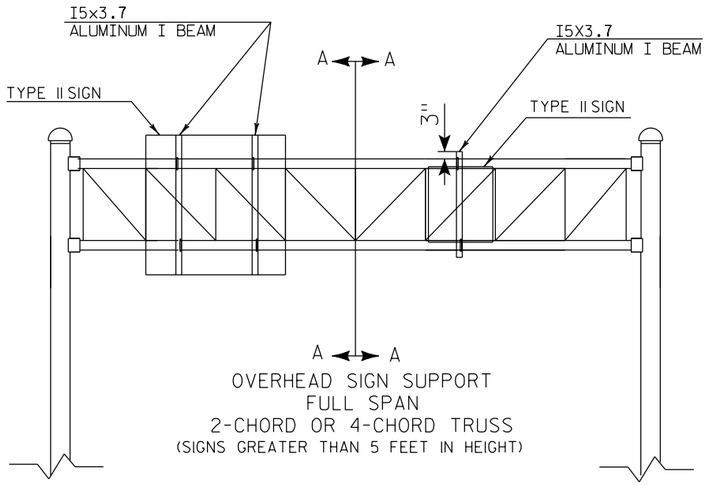
TYPICAL INSTALLATION OF TYPE II SIGNS ON MULTIPLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

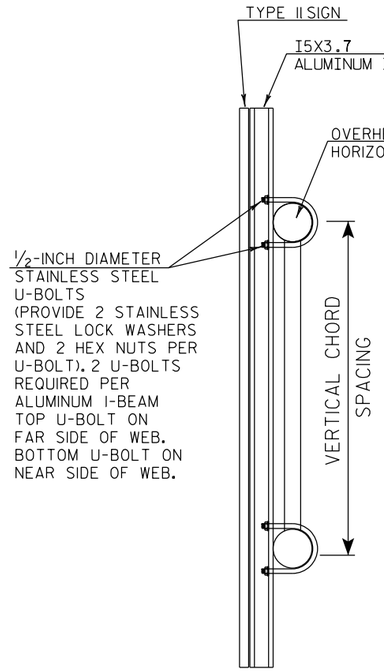
APPROVED Matthew R Rauch
For State Traffic Engineer

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

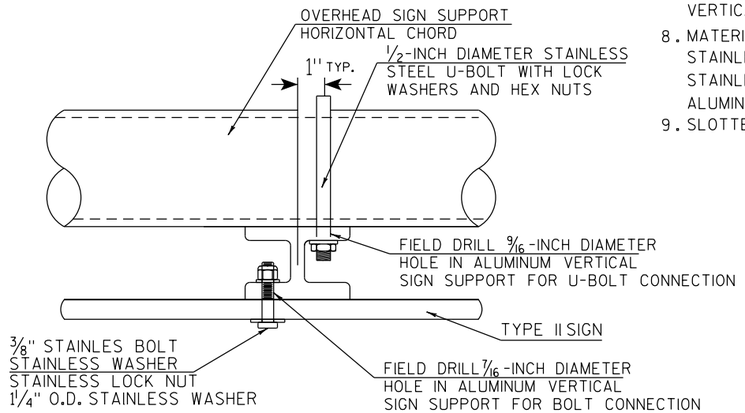
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 153	E



OVERHEAD SIGN SUPPORT
FULL SPAN
2-CHORD OR 4-CHORD TRUSS
(SIGNS GREATER THAN 5 FEET IN HEIGHT)



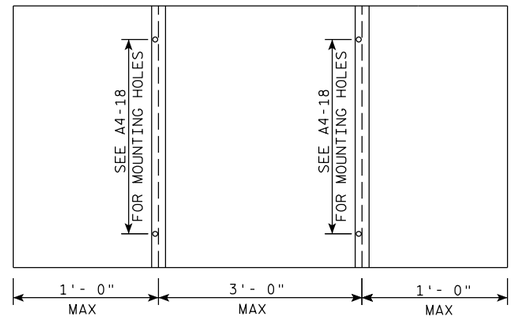
CUT SECTION A-A



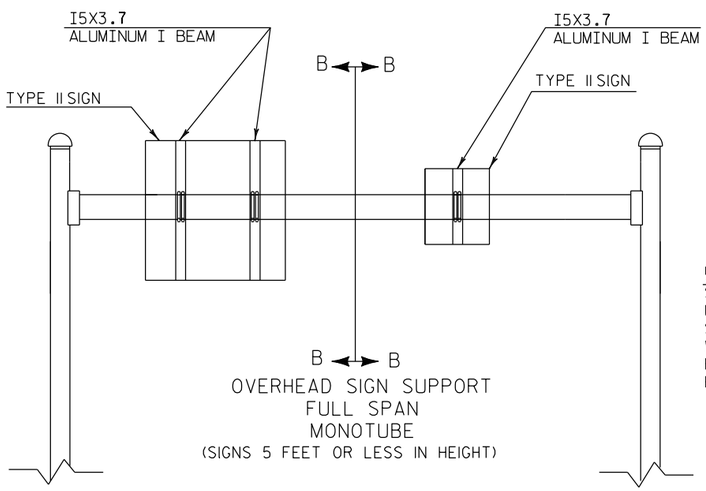
TYPICAL SIGN CONNECTION FOR
2-CHORD OR 4-CHORD TRUSS
PLAN VIEW

GENERAL NOTES

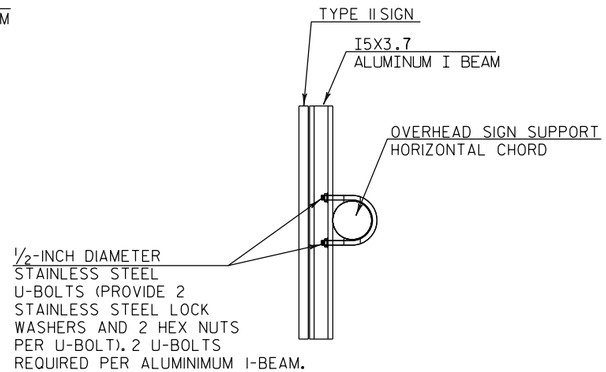
1. USE STAINLESS STEEL U-BOLTS, WASHERS, AND NUTS.
2. USE STAINLESS BOLTS AT BOLT HOLES IN SIGN PANEL PER SIGN PLATE A4-18.
3. USE ALUMINUM VERTICAL SIGN SUPPORT BEAMS HAVING A 5 INCH BEAM DEPTH AND WEIGHT OF 3.7 LBS PER FOOT.
4. U-BOLTS SHALL BE STAINLESS STEEL AND MANUFACTURED TO THE PROPER SIZE TO FIT THE CHORDS OF THE OVERHEAD SIGN STRUCTURE.
5. DIAMETER OF U-BOLTS SHALL BE AS SHOWN.
6. THE LENGTH OF THE ALUMINUM VERTICAL SIGN SUPPORT BEAMS SHALL BE THE SAME AS THE HEIGHT OF THE SIGN THEY ARE SUPPORTING. BEAM LENGTHS MAY BE LONGER FOR PROPER ATTACHMENT TO CHORDS.
7. SEE DETAIL BELOW FOR SPACING OF ALUMINUM VERTICAL SIGN SUPPORTS
8. MATERIAL NOTES:
   STAINLESS STEEL U-BOLTS, BOLTS, AND LOCKWASHERS ASTM 304.
   STAINLESS STEEL HEX NUTS ASTM A276.
   ALUMINUM I-BEAMS ARE 6061-T6.
9. SLOTTED HOLES IN I-BEAMS ARE NOT ALLOWED



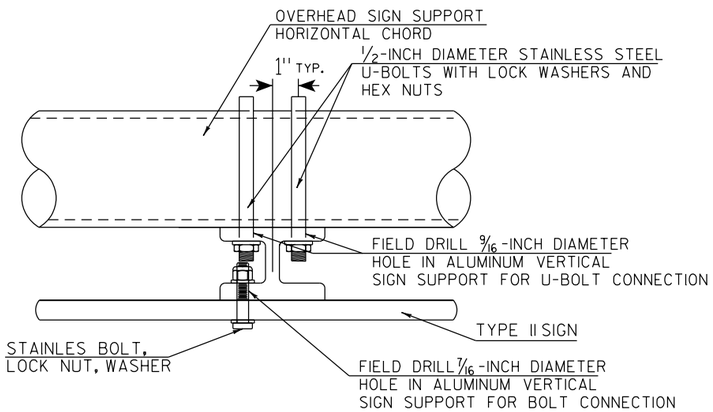
SPACING OF I5X3.7 ALUMINUM
MULTIPLE VERTICAL SIGN SUPPORTS



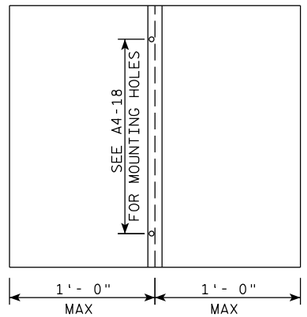
OVERHEAD SIGN SUPPORT
FULL SPAN
MONOTUBE
(SIGNS 5 FEET OR LESS IN HEIGHT)



CUT SECTION B-B



TYPICAL SIGN CONNECTION FOR
MONOTUBE
PLAN VIEW



SPACING OF I5X3.7 ALUMINUM
SINGLE VERTICAL SIGN SUPPORT

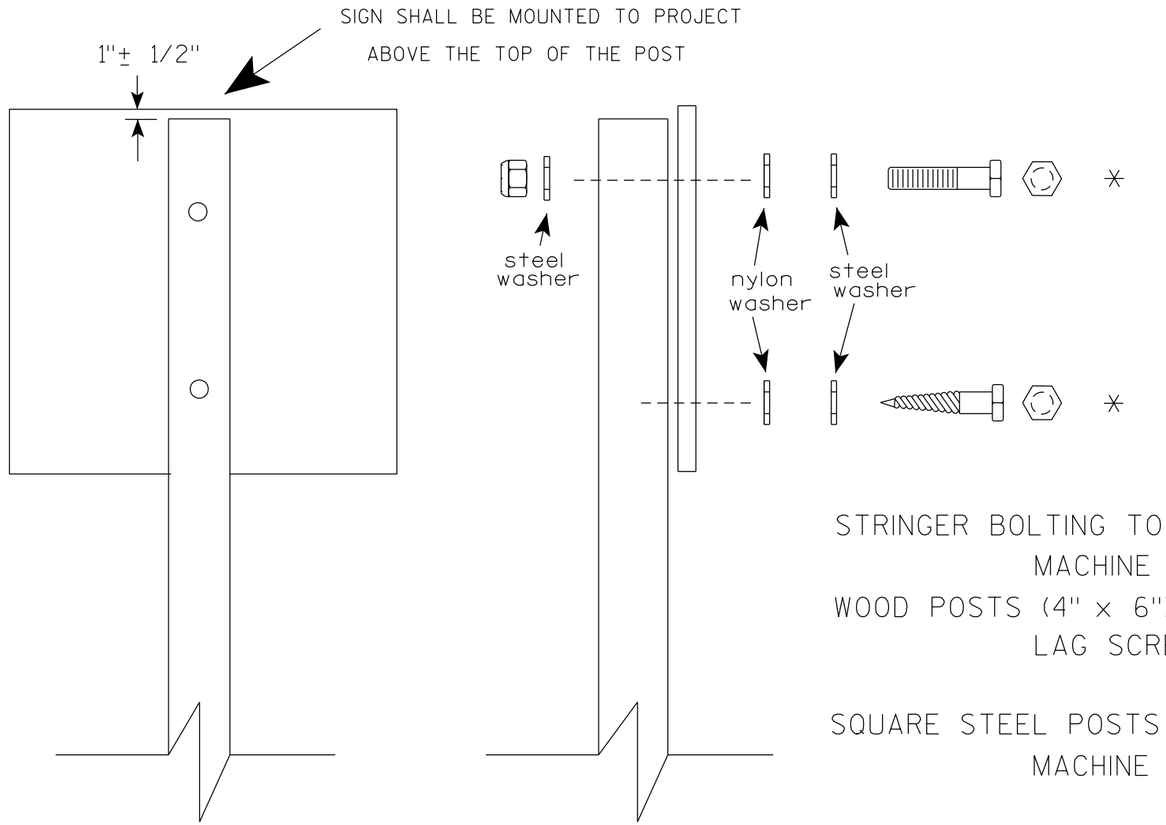
TYPE II SIGN CONNECTION
TO OVERHEAD SIGN SUPPORT

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 1/07/20 PLATE NO. A4-7B.1

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 154	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

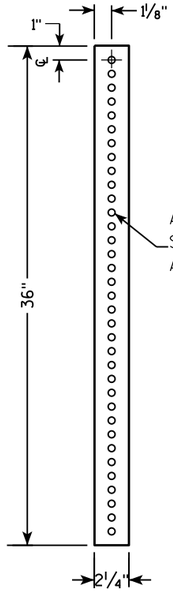
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

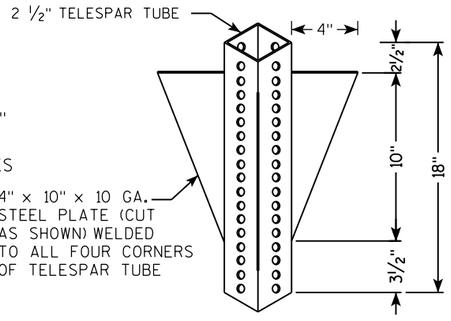
DATE 4/1/2020 PLATE NO. A4-8.9

TELESCOPIC TUBING ANCHORS
TWO PIECE SYSTEM

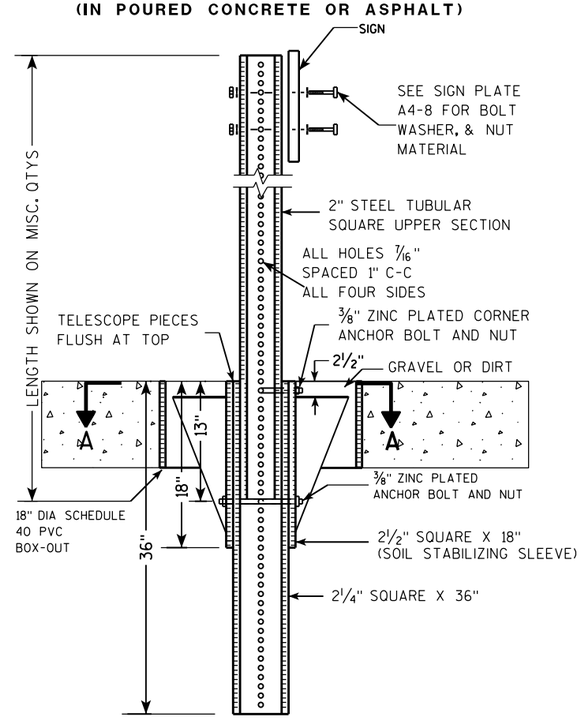
2 1/4 " SQUARE
12 GAUGE
PERFORATED
GALVANIZED FINISH



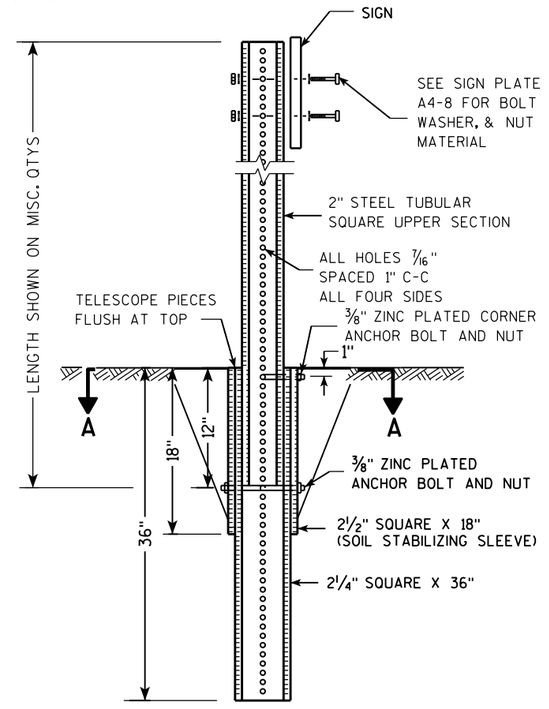
2 1/2 " SQUARE
12 GAUGE
OMNI-DIRECTIONAL
PERFORATED
SOIL STABILIZING SLEEVE
GALVANIZED FINISH

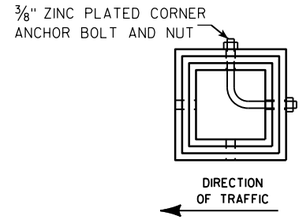


DETAIL OF TUBULAR STEEL SIGN POST
(IN POURED CONCRETE OR ASPHALT)



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).

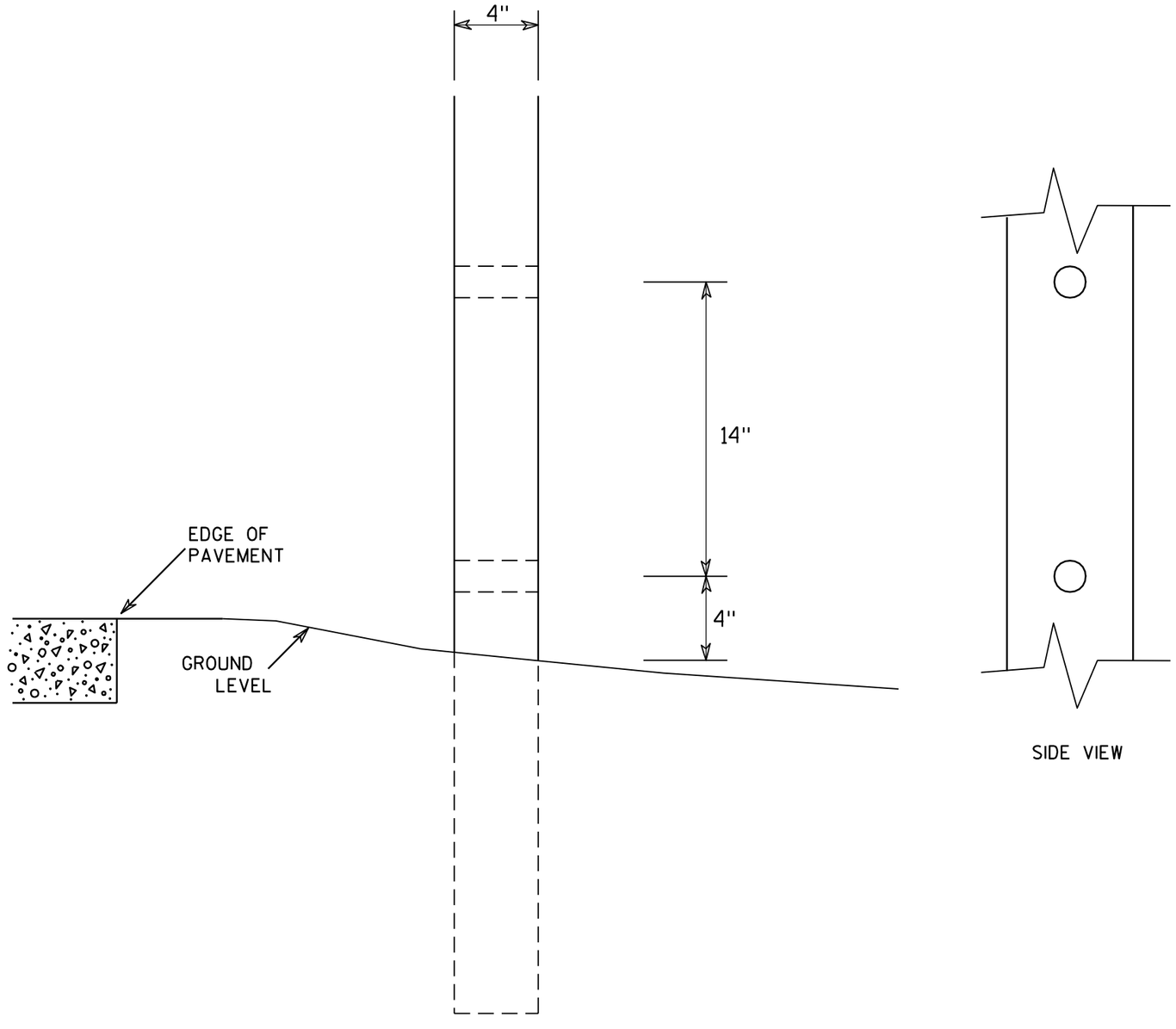
TUBULAR STEEL
SIGN POST
A4-9

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/05/15 PLATE 156 A4-9.9

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E



SIDE VIEW

GENERAL NOTES

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

7

7

4 X 6 WOOD POST MODIFICATIONS

WISCONSIN DEPT OF TRANSPORTATION

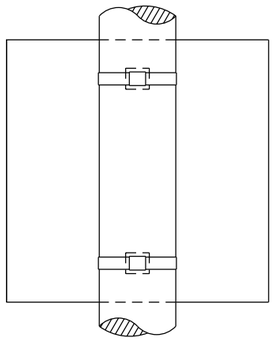
APPROVED Chester J Spang
for State Traffic Engineer

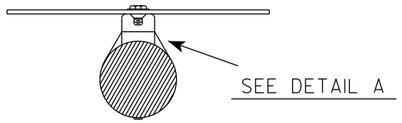
DATE 3/27/97 PLATE NO. A4-11.2

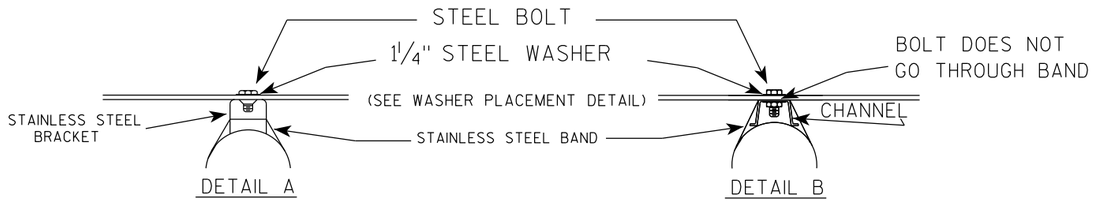
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 157	E

BANDING

SINGLE SIGN



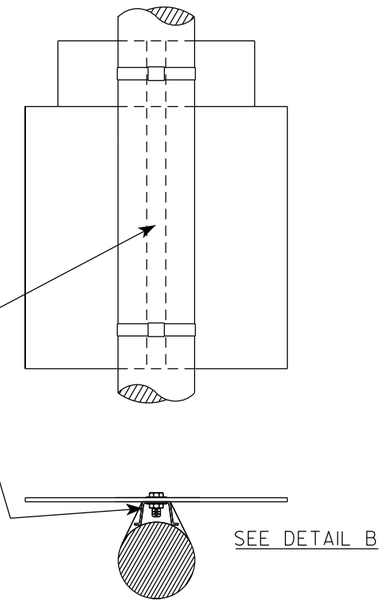




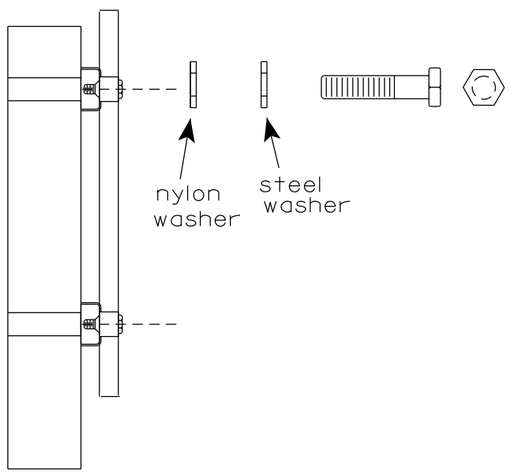
GENERAL NOTES

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

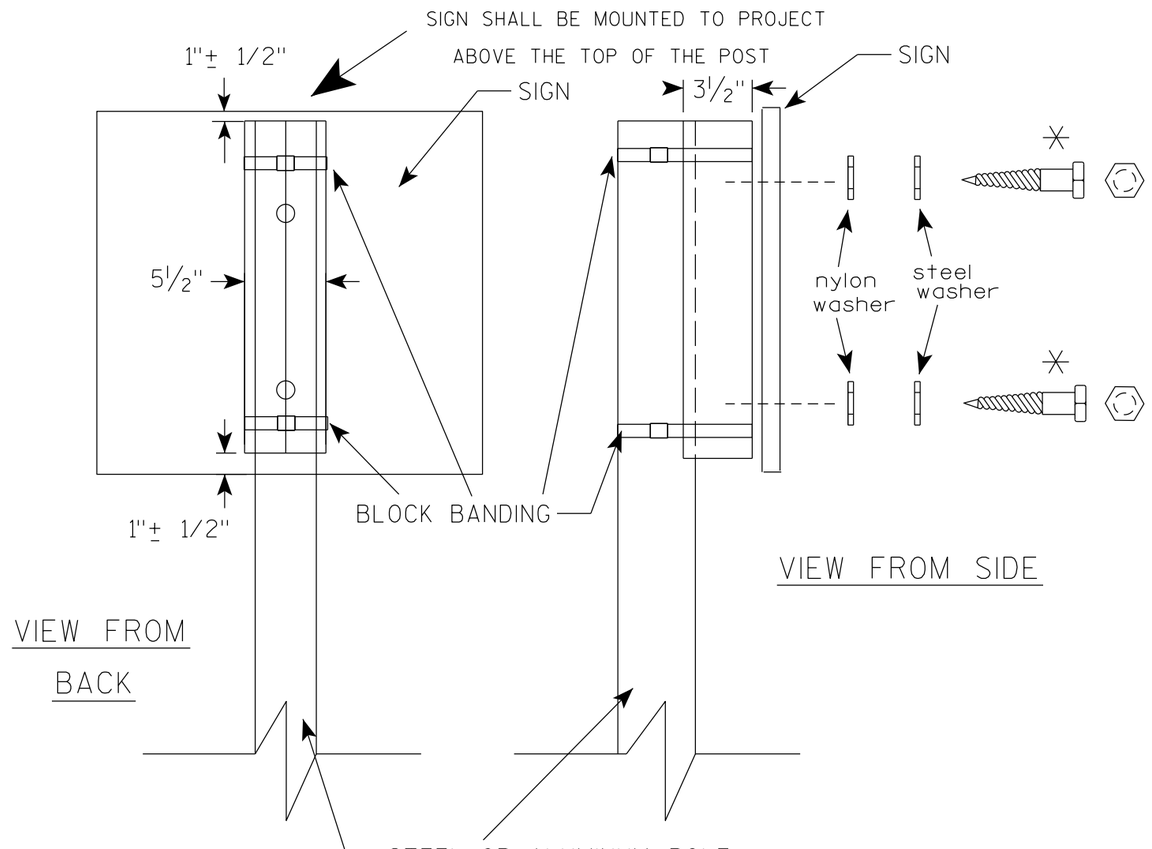
WISCONSIN DEPT OF TRANSPORTATION

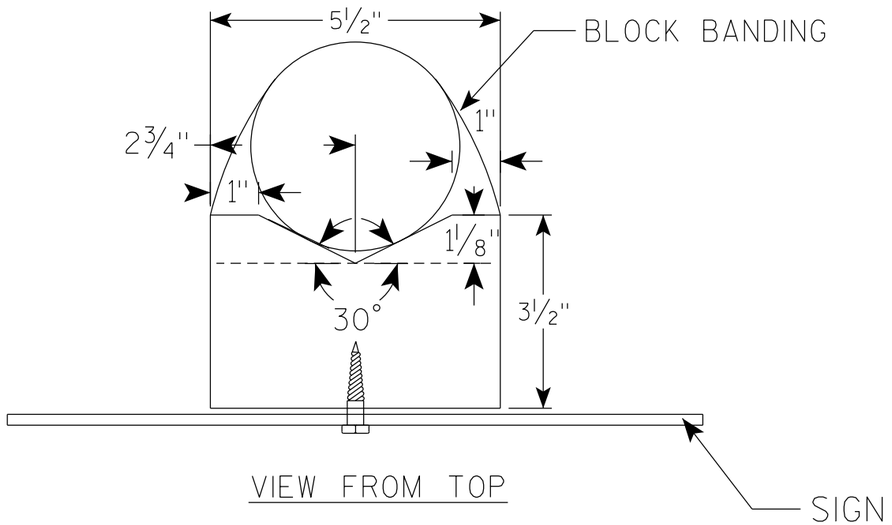
APPROVED Matthew R Rauch
for State Traffic Engineer

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

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 158	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)

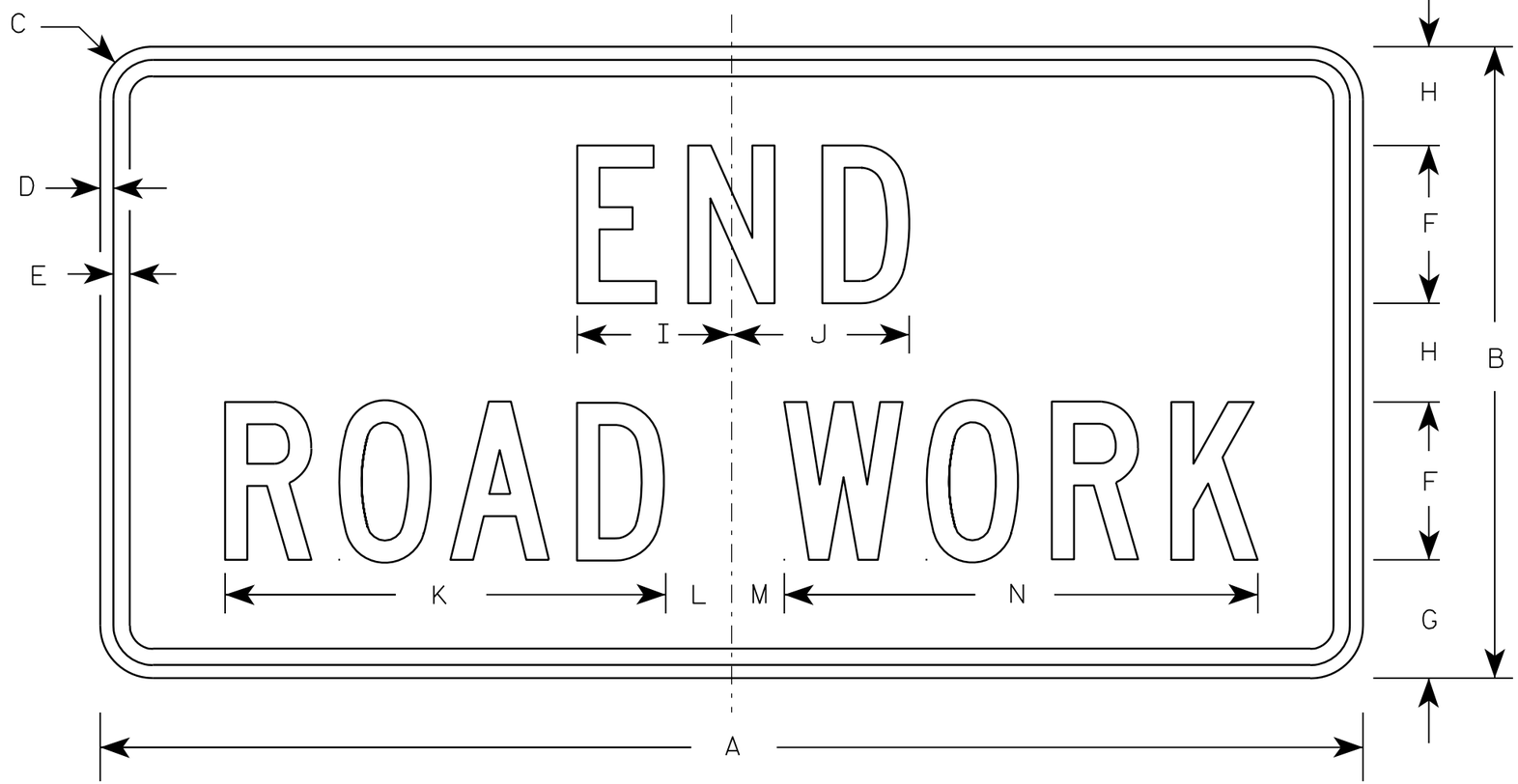
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

PROJECT NO:

SHEET NO: 159 E



G20-2A

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Message Series - 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.

Metric equivalent for this sign is:

SIZE	
1	900 mm X 450 mm
2	1200 mm X 600 mm
3	1200 mm X 600 mm
4	1200 mm X 600 mm
5	1200 mm X 600 mm

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.	Area m2
1	36	18	1 1/8	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	0.41
2	48	24	1 1/2	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	0.72
3	48	24	1 1/2	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	0.72
4	48	24	1 1/2	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	0.72
5	48	24	1 1/2	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	0.72

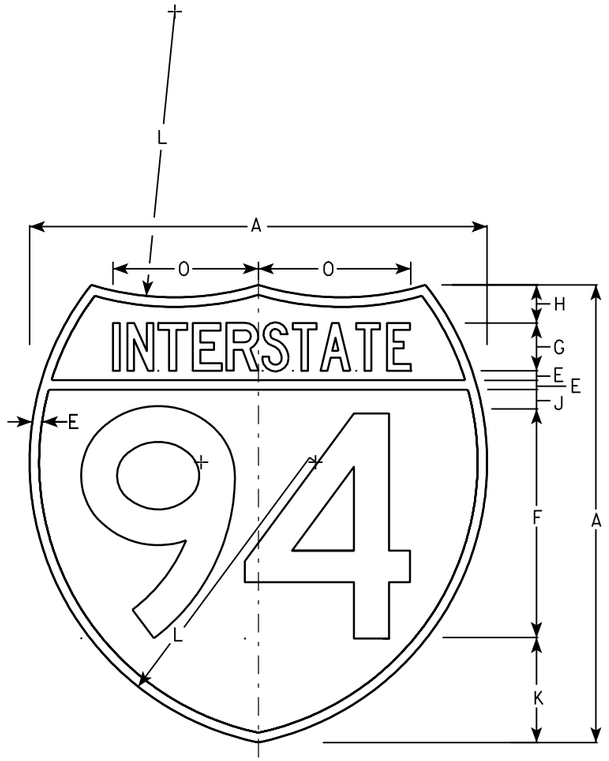
STANDARD SIGN
G20-2A

WISCONSIN DEPT OF TRANSPORTATION

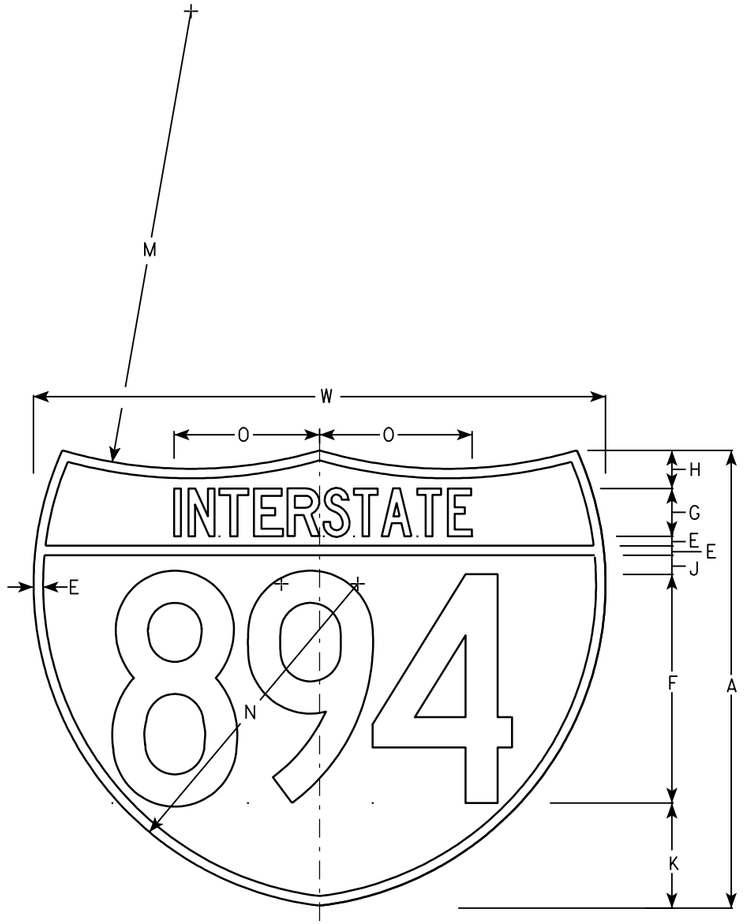
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 9/30/09 PLATE NO. G20-2A.8

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 160	E



M1-1



M1-1A

NOTES

1. Sign is Type II - See Note 6 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Top Red - Bottom Blue (See Note 6)
   Message - White - See Note 6
3. Message Series - See note 5
4. Substitute appropriate numerals & ajust spacing as per plate A10-1.
5. M1-1 - Numerals - D
   Interstate - C
   M1-1A - All copy - C
6. Permanent Signs
   Message - Type H Reflective
   Detour or other temporary signs
   Background - Reflective
   Message - Reflective

Metric equivalent for these signs are:

SIZE	M1-1	SIZE	M1-1A
1			
2	600 mm X 600 mm	2	600 mm X 750 mm
3	900 mm X 900 mm	3	900 mm X 1125 mm
4	900 mm X 900 mm	4	900 mm X 1125 mm
5	900 mm X 900 mm	5	900 mm X 1125 mm

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	M1-1 Area sq. ft.	M1-1A Area sq. ft.	M1-1 Area m2	M1-1A Area m2
1																													
2	24				1/2	12	2 1/2	2		1	5 1/2	15	24	17	7 7/8								30			3.13	3.91	.36	.46
3	36				3/4	18	3 3/4	3		1 1/2	8 1/4	22 1/2	36	25 1/2	11 3/4								45			7.03	8.79	.81	1.05
4	36				3/4	18	3 3/4	3		1 1/2	8 1/4	22 1/2	36	25 1/2	11 3/4								45			7.03	8.79	.81	1.05
5	36				3/4	18	3 3/4	3		1 1/2	8 1/4	22 1/2	36	25 1/2	11 3/4								45			7.03	8.79	.81	1.05

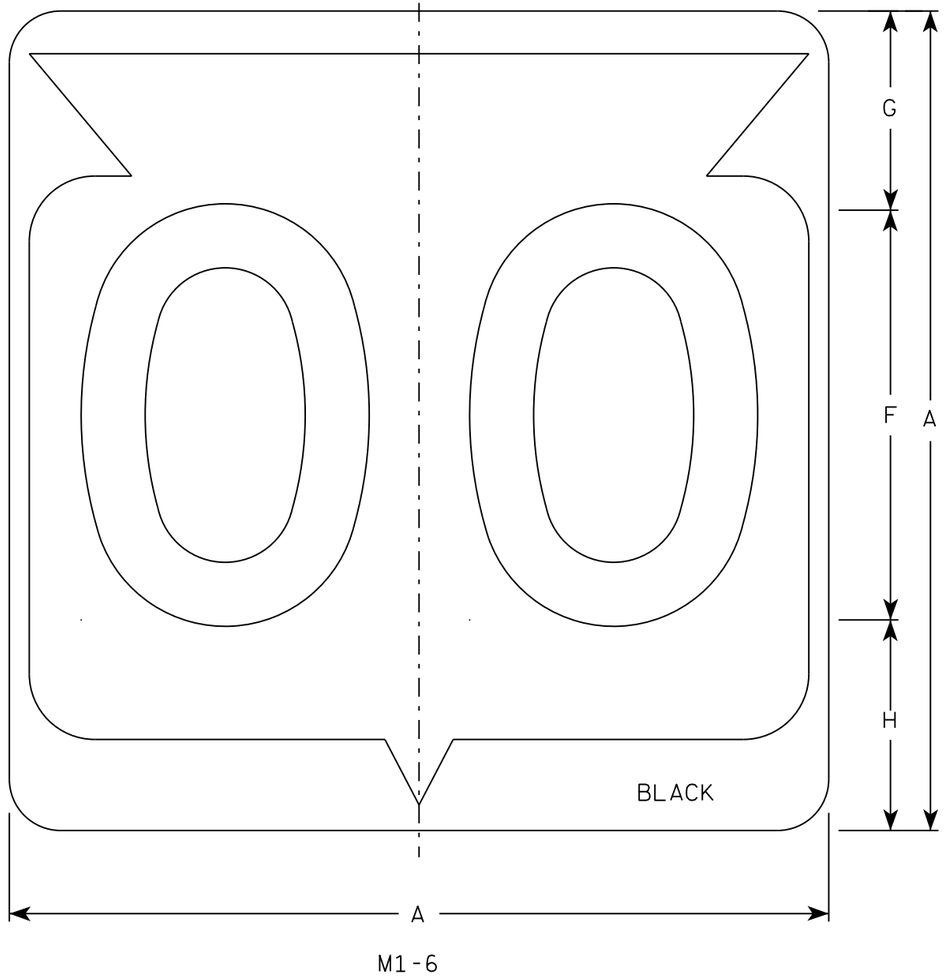
INTERSTATE ROUTE MARKER M1-1 FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 08/23/05 PLATE NO. M1-1.8

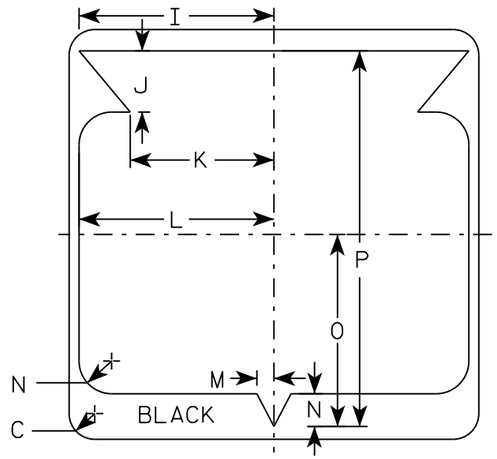
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 161	E



M1-6

NOTES

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



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

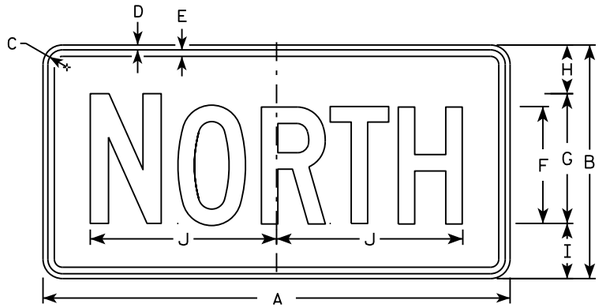
STATE ROUTE MARKER M1-6 FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

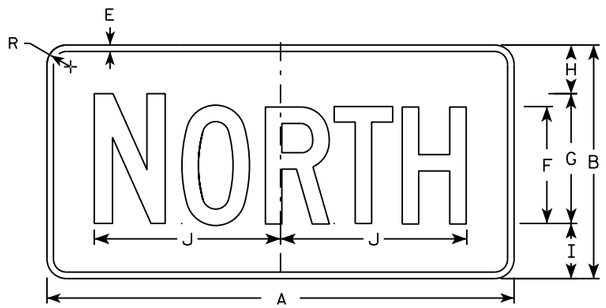
APPROVED Matthew R Rauch for State Traffic Engineer

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

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 162	E



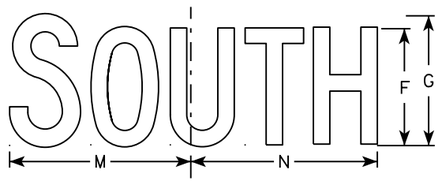
M3-1
MM3-1
MP3-1



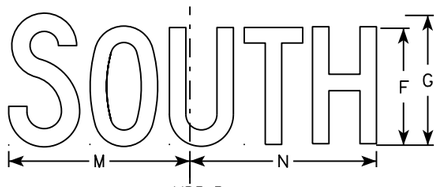
MB3-1
MK3-1
MN3-1

M3-2
MM3-2
MP3-2

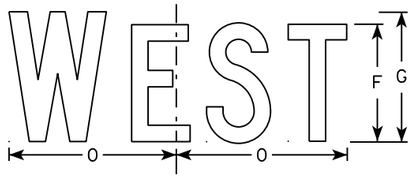
MB3-2
MK3-2
MN3-2



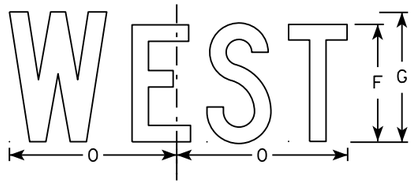
M3-3
MM3-3
MP3-3



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

STANDARD SIGNS
M3-1 thur M3-4
SERIES

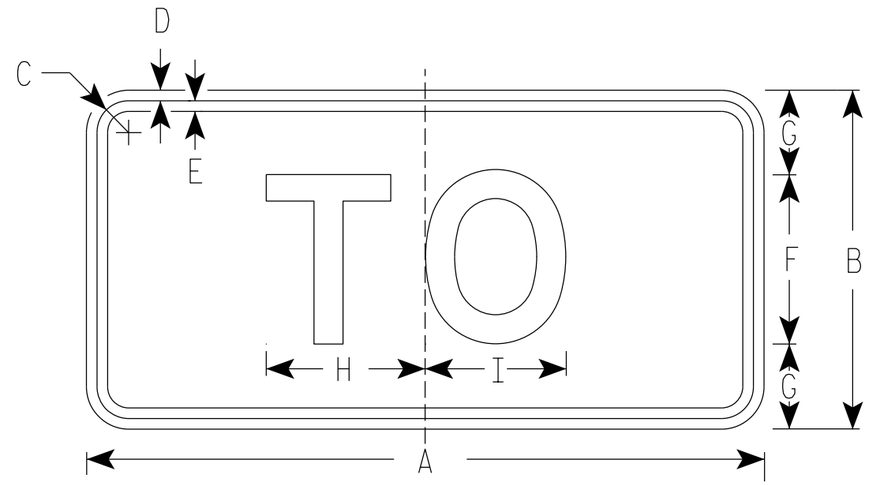
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew P Rauch for State Traffic Engineer

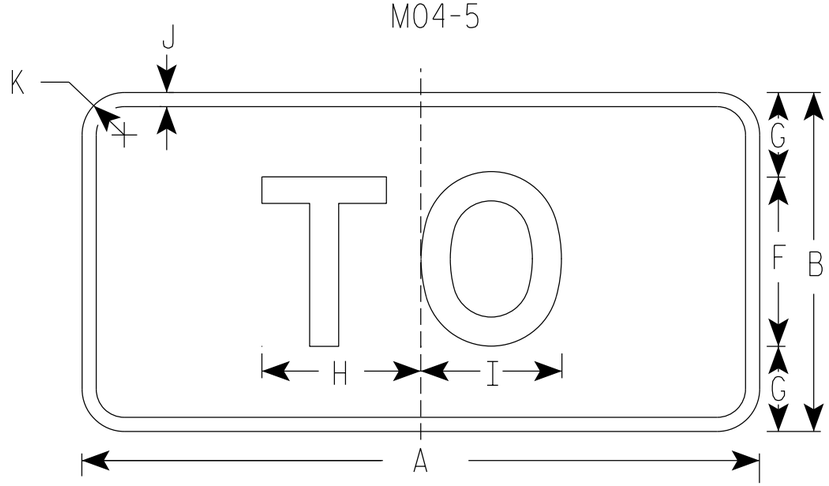
DATE 10/15/15 PLATE NO M3-1.14

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

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\M31.DGN PLOT DATE : 01-DEC-2015 17:54 PLOT BY : $$ plotuser $$ PLOT NAME : PLOT SCALE : 11.675051:1.000000



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



MB4-5
MK4-5
MN4-5

NOTES

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

   MB4-5 Background - Blue
   Message - White

   MK4-5 Background - Green
   Message - White

   MM4-5 Background - White
   Message - Green

   MN4-5 Background - Brown
   Message - White

   MP4-5 Background - White
   Message - Blue

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

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

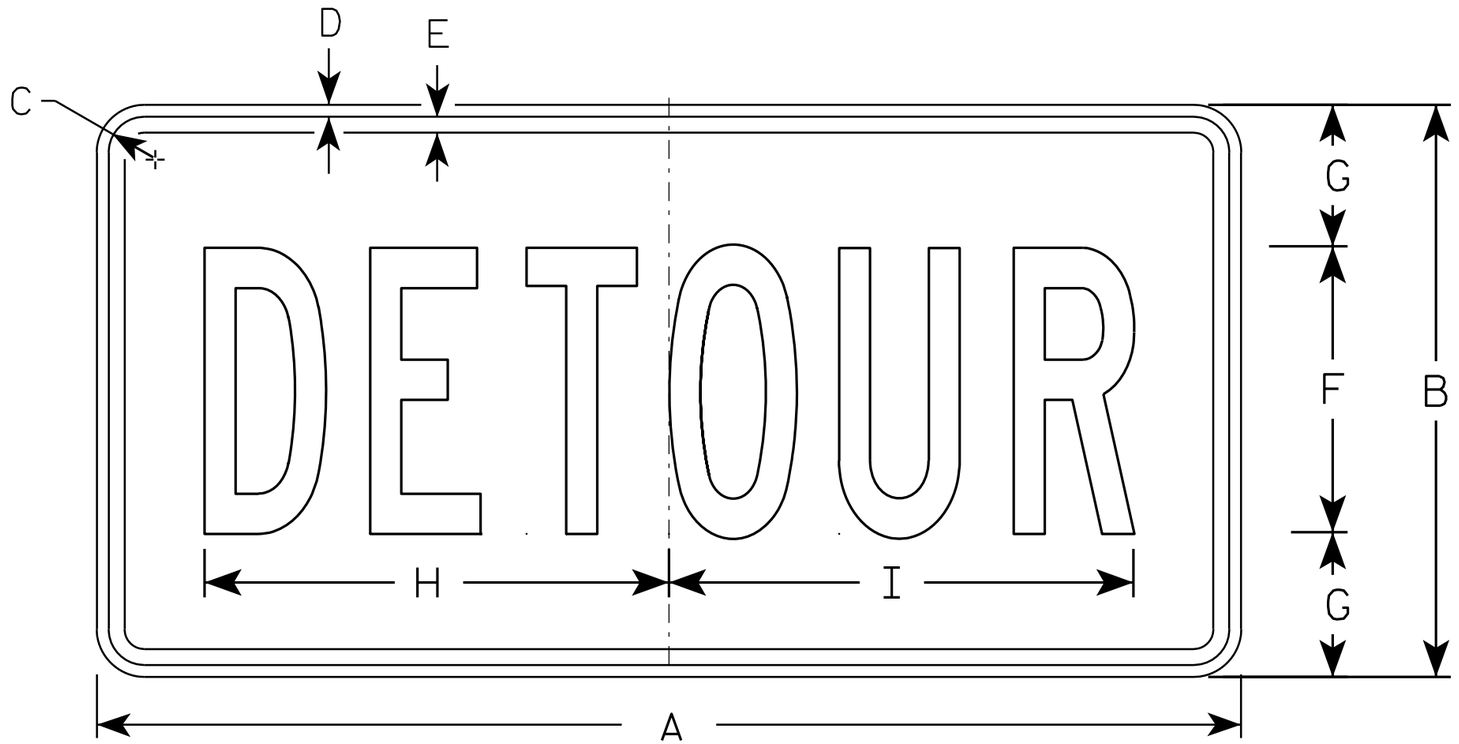
STANDARD SIGN
M4-5

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 164 | E



M4-8

NOTES

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

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

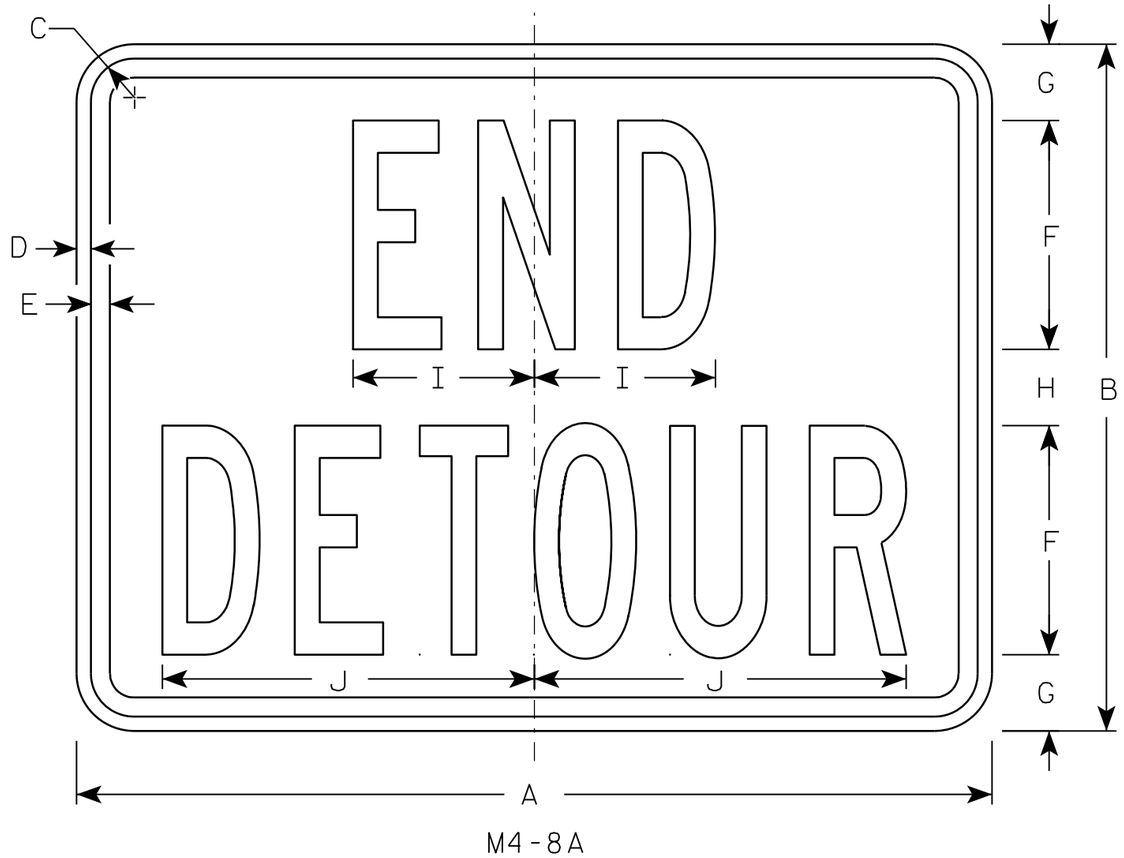
STANDARD SIGN
M4-8

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 165	E



M4-8A

NOTES

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

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

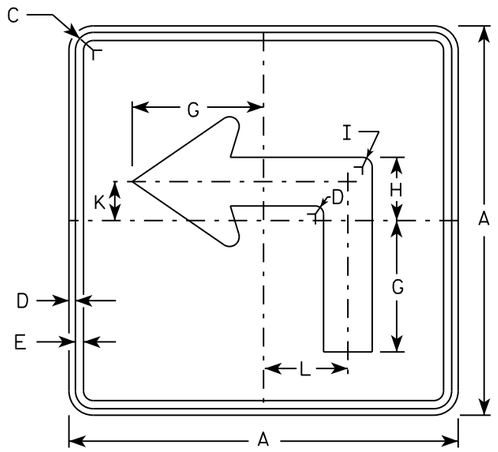
STANDARD SIGN
M4-8A

WISCONSIN DEPT OF TRANSPORTATION

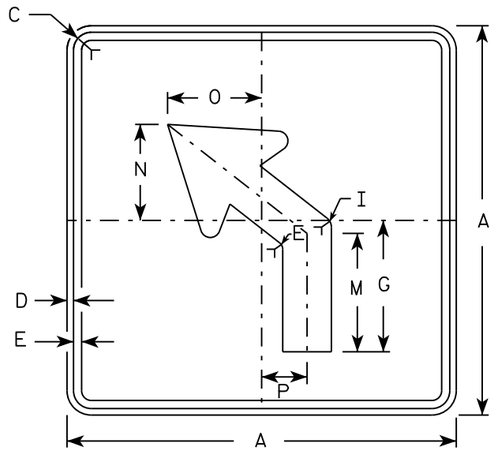
APPROVED Matthew R Rauch
for State Traffic Engineer

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

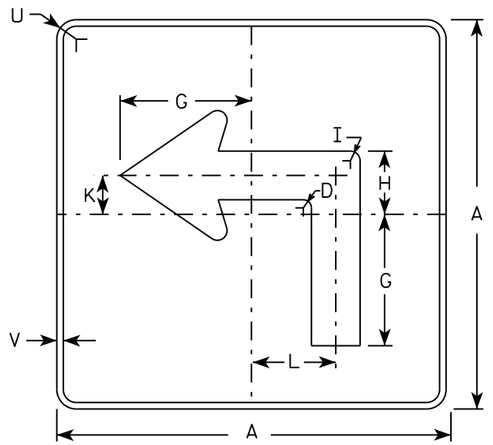
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 166	E



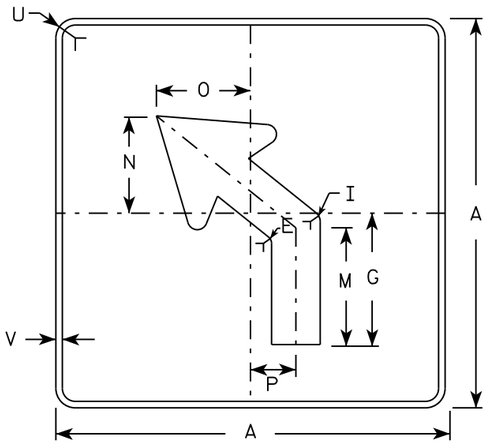
M5-1L
MM5-1L
MO5-1L
MP5-1L



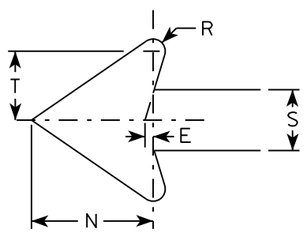
M5-2L
MM5-2L
MO5-2L
MP5-2L



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



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



NOTES

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

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

STANDARD SIGN
M5-1 & M5-2

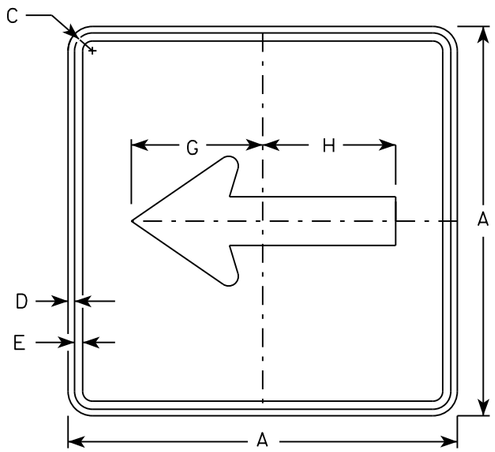
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

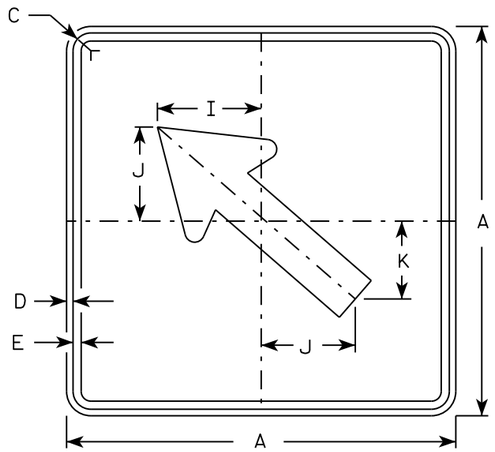
DATE 10/15/15 PLATE NO. M5-1.13

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

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



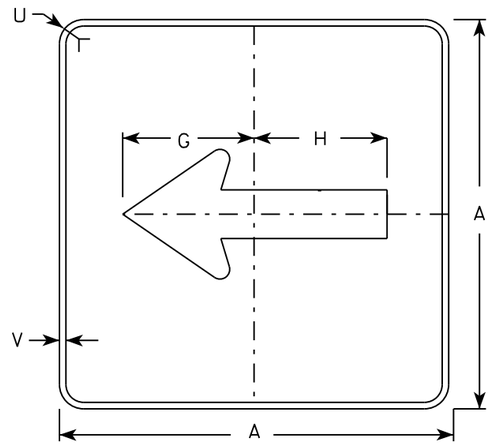
M6-1
MM6-1
MO6-1
MP6-1



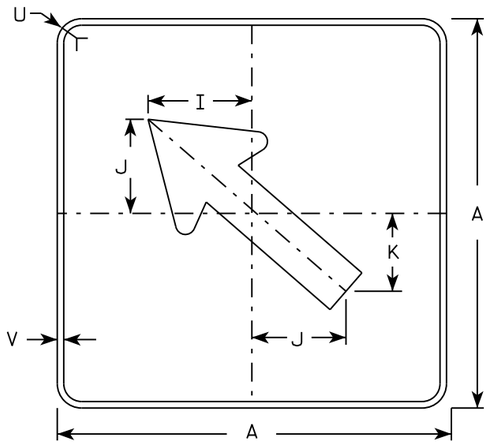
M6-2
MM6-2
MO6-2
MP6-2

NOTES

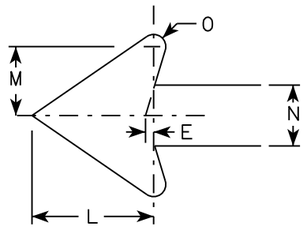
1. Signs are Type II - Type H except as Shown
2. Color:
   Background - See note 4
   Message - See note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. M6-1 and M6-2 Background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



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



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



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

STANDARD SIGN M6-1 & M6-2 SERIES

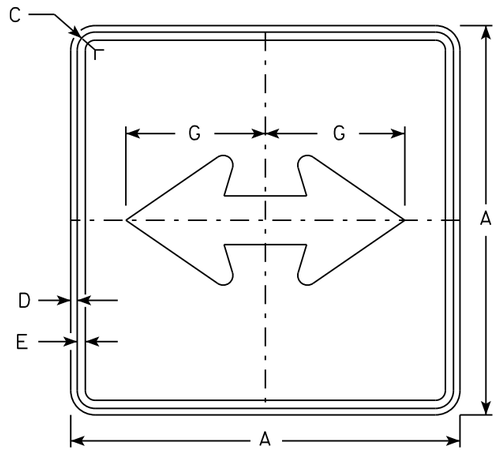
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

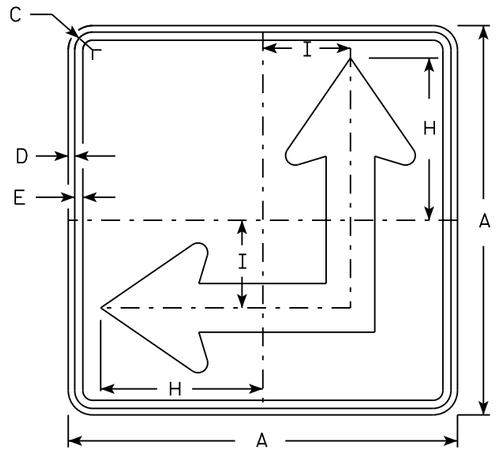
DATE 10/15/15 PLATE 168 M6-1.15

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\M61.DGN PLOT DATE : 01-DEC-2015 17:57 PLOT BY : $$ plotuser $$ PLOT NAME : PLOT SCALE : 11.675051:1.000000



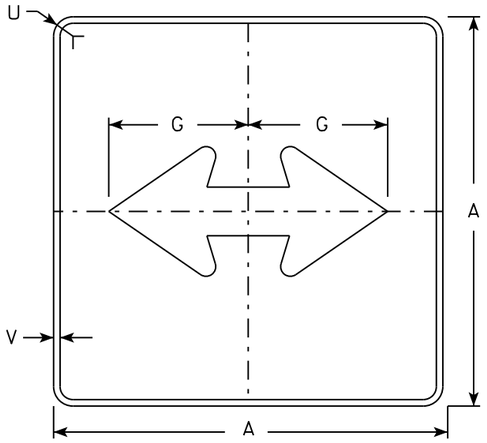
M6-4
MM6-4
MO6-4
MP6-4



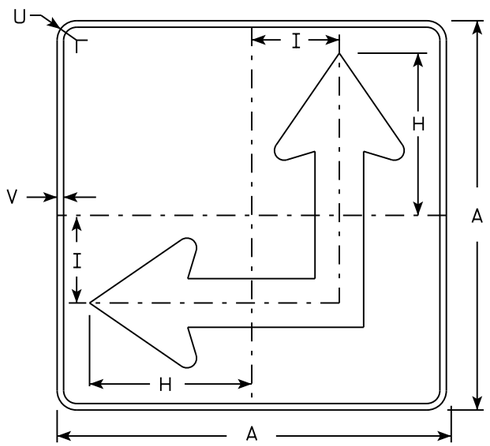
M6-6
MM6-6
MO6-6
MP6-6

NOTES

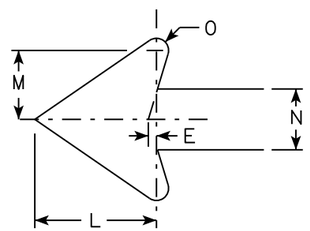
1. Signs are Type II - Type H except as Shown
2. Color:
   Background - See Note 4
   Message - See Note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. M6-4 and M6-6 Background - White
   Message - Black
   MB6-4 and MB6-6 Background - Blue
   Message - White
   MK6-4 and MK6-6 Background - Green
   Message - White
   MM6-4 and MM6-6 Background - White
   Message - Green
   MN6-4 and MN6-6 Background - Brown
   Message - White
   MO6-4 and MO6-6 Background - Orange - Type F Reflective
   Message - Black
   MP6-4 and MP6-6 Background - White
   Message - Blue
   MR6-4 and MR6-6 Background - Brown
   Message - Yellow
5. M6-6R same as M6-6L except arrow points ahead and right.



MB6-4
MK6-4
MN6-4
MR6-4



MB6-6
MK6-6
MN6-6
MR6-6



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	21		1 1/8	3/8	3/8		7 1/2	8 3/4	4 1/4			5 1/4	3	2 5/8	1/2						1 1/2	1/2					3.06
3	30		1 3/8	1/2	5/8		10 3/4	12 1/2	6 3/4			7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2					6.25
4	30		1 3/8	1/2	5/8		10 3/4	12 1/2	6 3/4			7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2					6.25
5	30		1 3/8	1/2	5/8		10 3/4	12 1/2	6 3/4			7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2					6.25

STANDARD SIGN
M6-4 & M6-6
SERIES

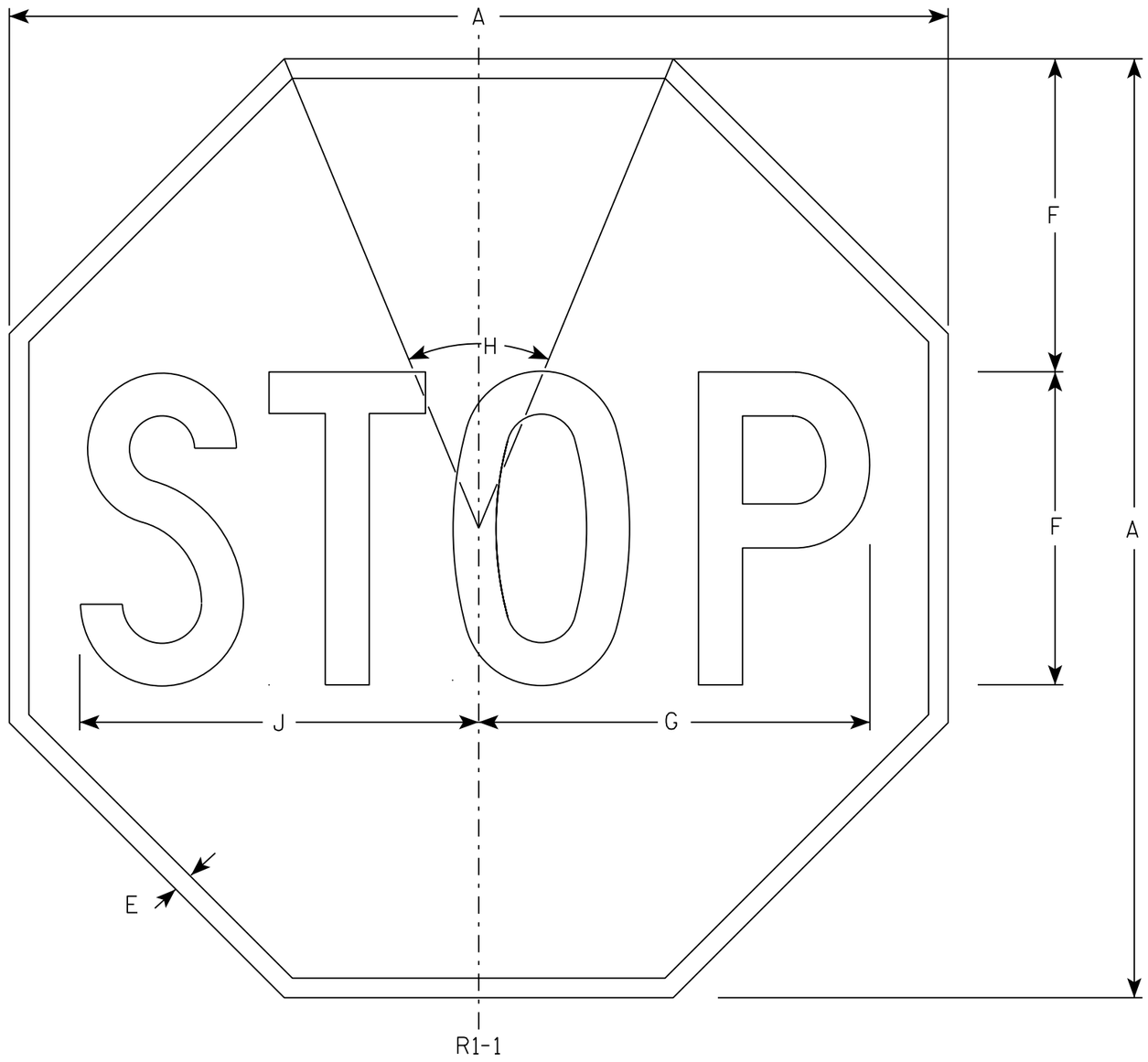
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 10/15/15 PLATE 169 M6-4.10

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

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\M64.DGN PLOT DATE : 01-DEC-2015 17:58 PLOT BY : $$ platuser $$ PLOT NAME : PLOT SCALE : 11.675051:1.000000



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

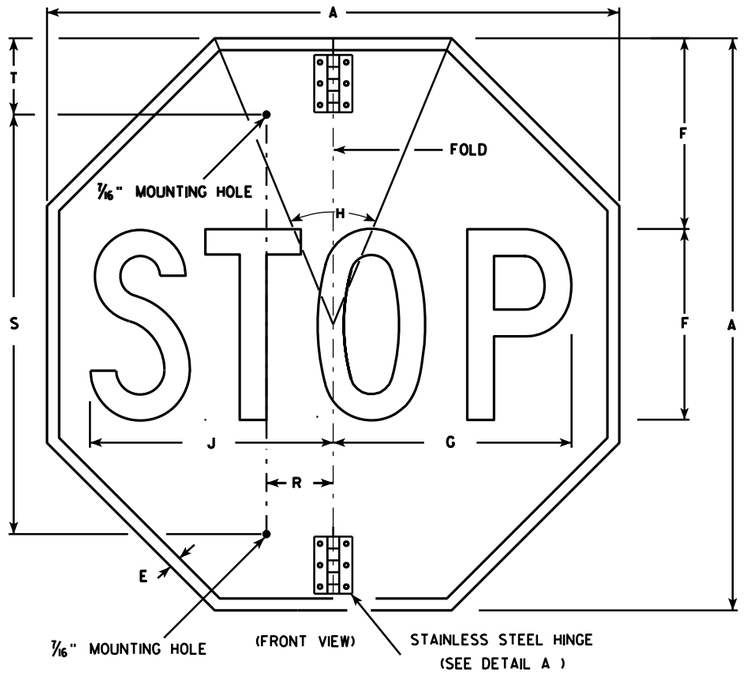
STANDARD SIGN
R1-1

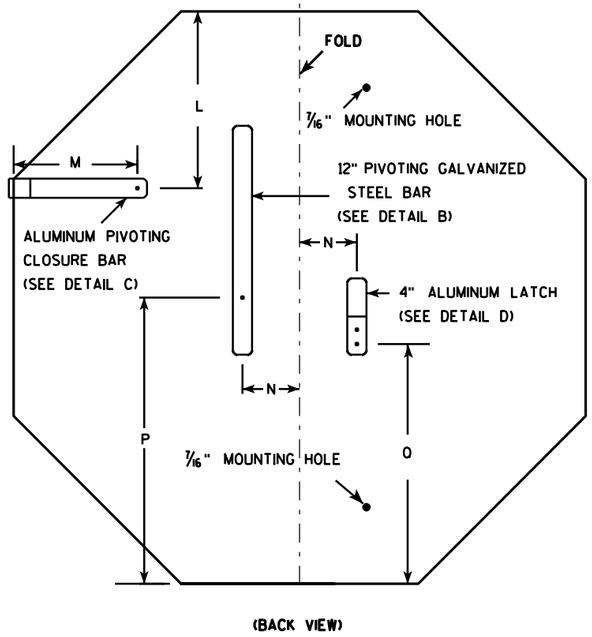
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

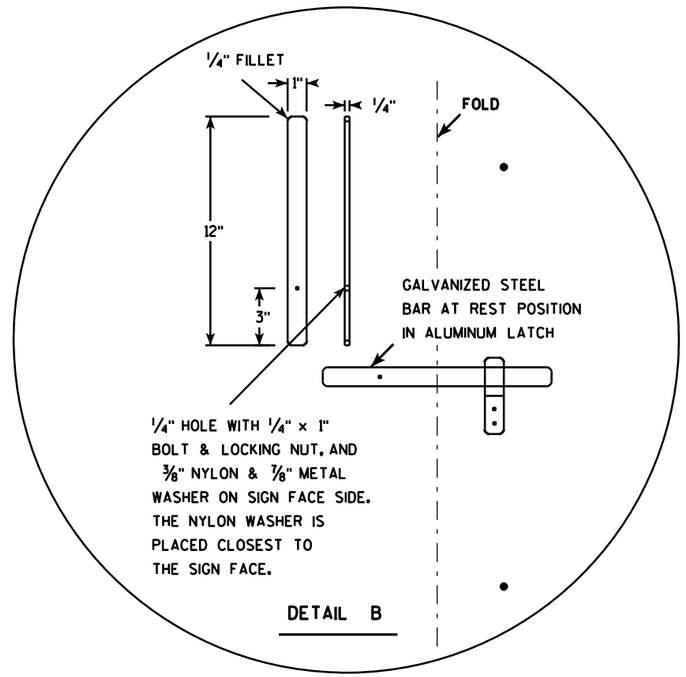
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 170	E

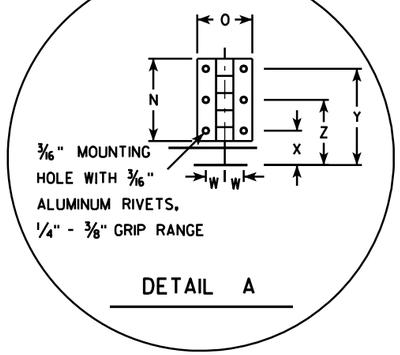


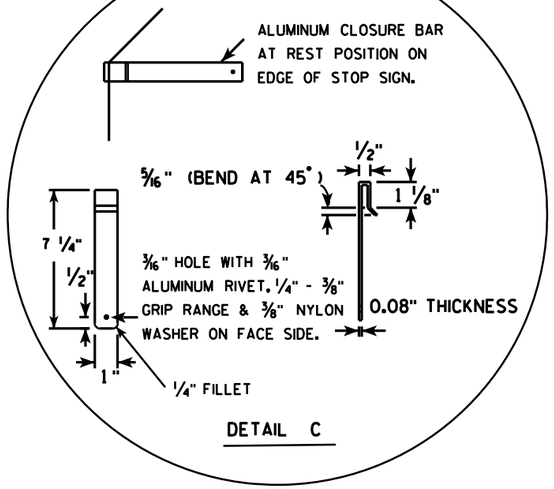


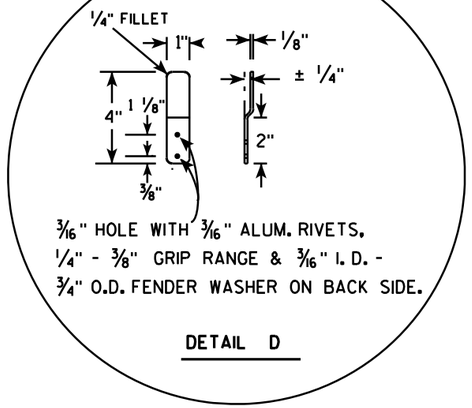
NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Red
   Message - White
3. Message Series - C
4. All hardware used on the folding STOP sign installation shall conform to 637.2.4 of the WIS DOT Standard Specification.









SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	O	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	30				5/8	10	12 1/2	45		12 3/4		9 1/4	6 1/2	3	2	15	12 3/8	2 1/2	22	5			11/16	1 1/4	3 1/2	2 3/8	5.18
2M	36				3/4	12	15	45		15 3/8		11	6 1/2	3	2	18	15 3/8	2 1/2	26	5			11/16	1 1/4	3 1/2	2 3/8	7.46
3	36				3/4	12	15	45		15 3/8		11	6 1/2	3	2	18	15 3/8	2 1/2	26	5			11/16	1 1/4	3 1/2	2 3/8	7.46
4																											
5																											

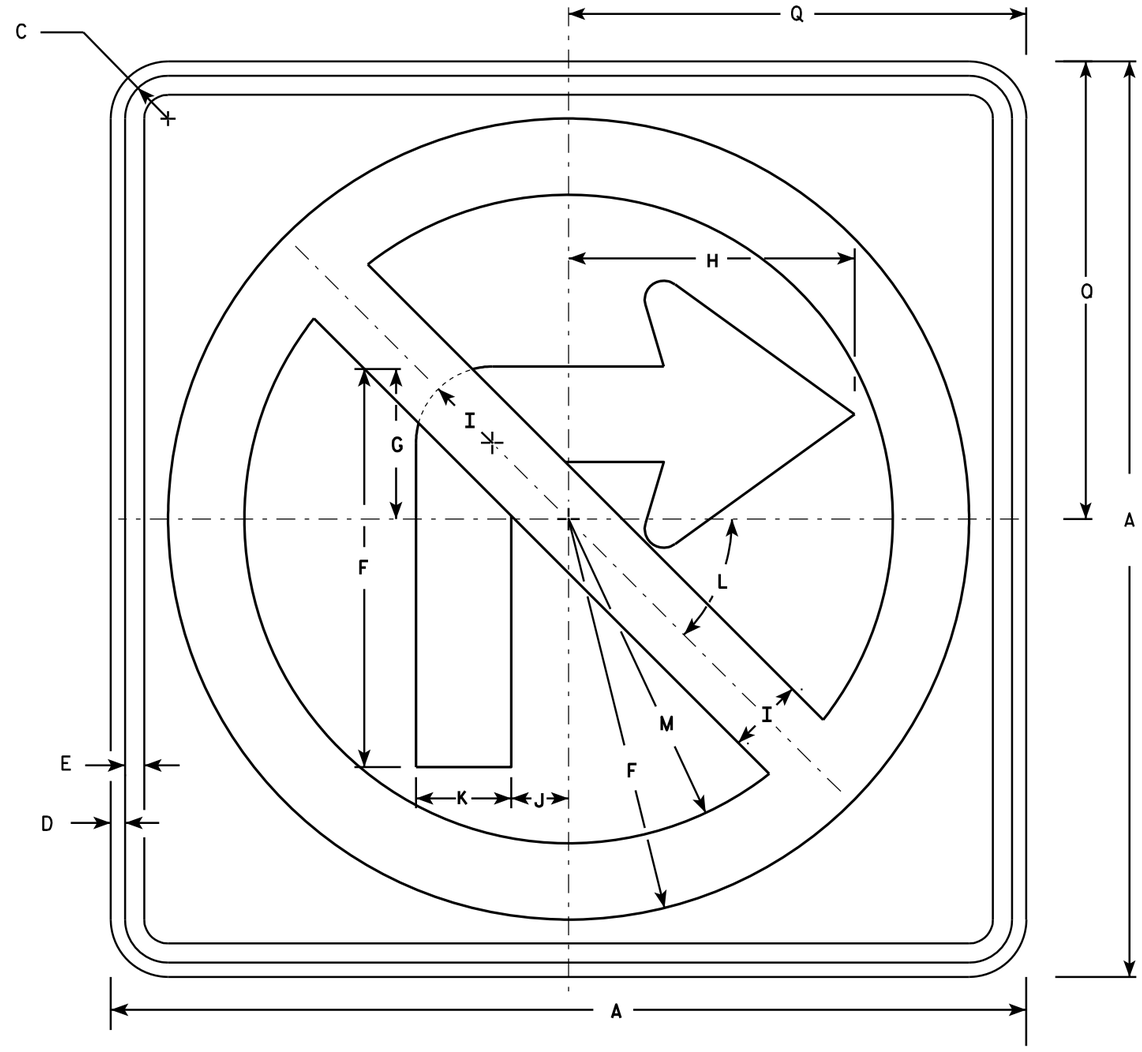
STANDARD SIGN
R1-1F

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/03/10 PLATE NO. R1-1F.3

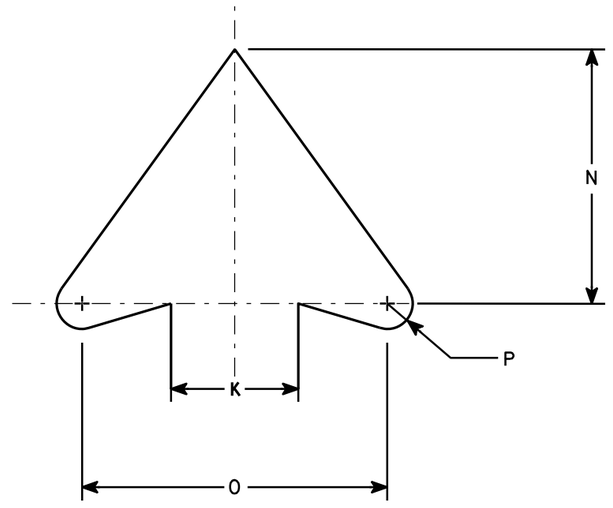
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 171	E



R3-1

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   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. Border & Arrow are non reflective black, the circle with diagonal bar is reflective red.



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	24		1 1/8	3/8	1/2	10 1/2	4	7 1/2	2	1 1/2	2 1/2	45	8 1/2	5	6	1/2	12										4.0
2S	24		1 1/8	3/8	1/2	10 1/2	4	7 1/2	2	1 1/2	2 1/2	45°	8 1/2	5	6	1/2	12										4.0
2M	36		1 5/8	5/8	3/4	15 3/4	6	11 1/4	3	2 1/4	3 3/4	45	12 3/4	7 1/2	9	3/4	18										9.0
3	36		1 5/8	5/8	3/4	15 3/4	6	11 1/4	3	2 1/4	3 3/4	45	12 3/4	7 1/2	9	3/4	18										9.0
4	36		1 5/8	5/8	3/4	15 3/4	6	11 1/4	3	2 1/4	3 3/4	45°	12 3/4	7 1/2	9	3/4	18										9.0
5	48		2 1/4	3/4	1	21	8	15	4	3	5	45°	17	10	12	1	24										16.0

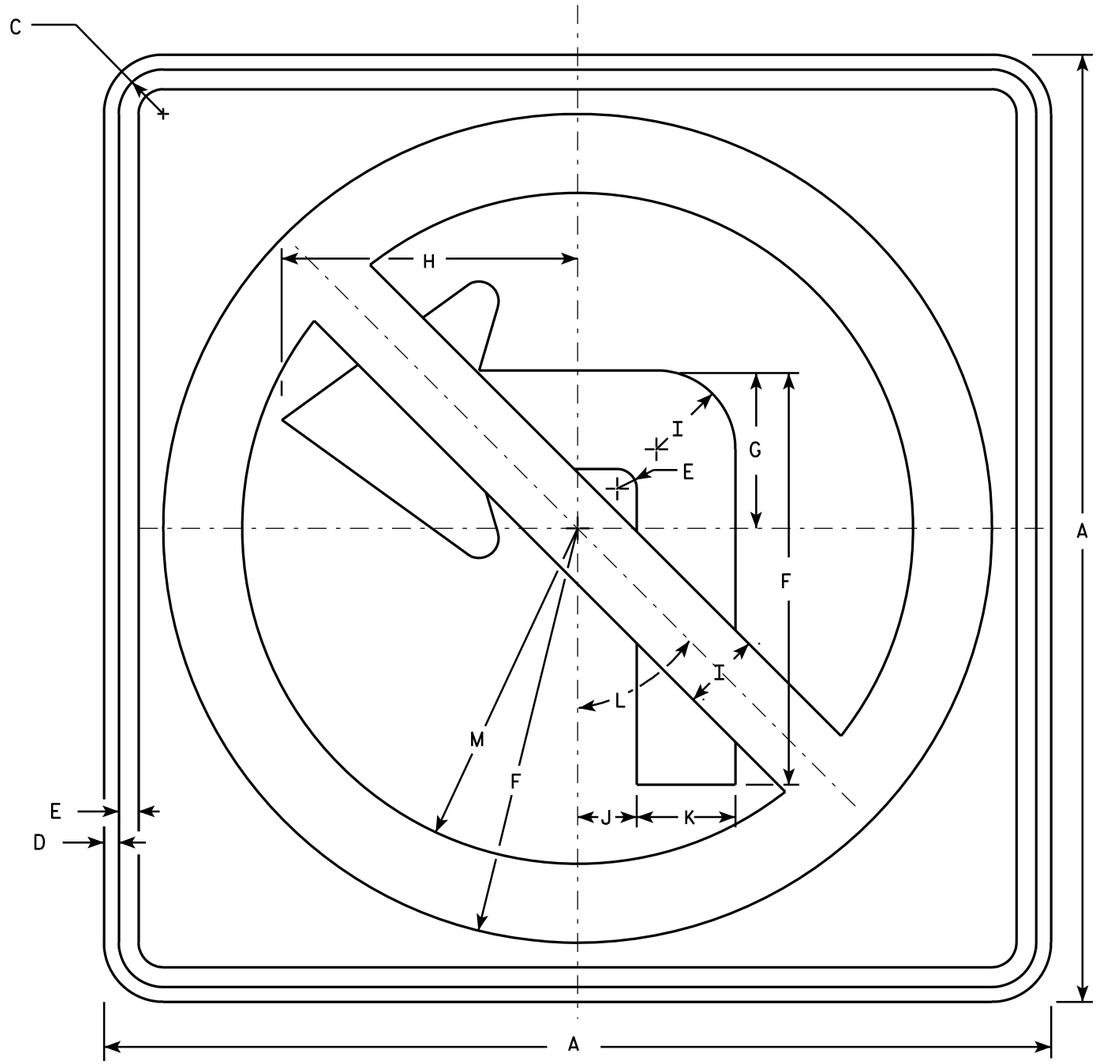
STANDARD SIGN
R3-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/08/10 PLATE NO. R3-1.5

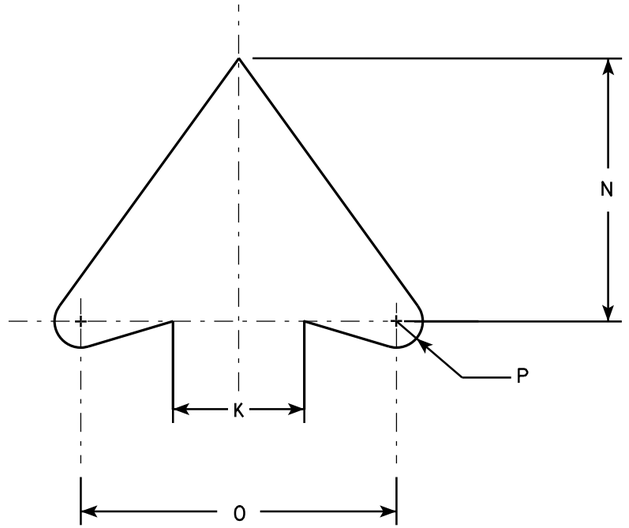
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 172	E



R3-2

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   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. Border & Arrow are non reflective black, the circle with diagonal bar is reflective red.



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	24		1 1/8	3/8	1/2	10 1/2	4	7 1/2	2	1 1/2	2 1/2	45°	8 1/2	5	6	1/2											4.0
2S	24		1 1/8	3/8	1/2	10 1/2	4	7 1/2	2	1 1/2	2 1/2	45°	8 1/2	5	6	1/2											4.0
2M	36		1 5/8	5/8	3/4	15 3/4	6	11 1/4	3	2 1/4	3 3/4	45°	12 3/4	7 1/2	9	3/4											9.0
3	36		1 5/8	5/8	3/4	15 3/4	6	11 1/4	3	2 1/4	3 3/4	45°	12 3/4	7 1/2	9	3/4											9.0
4	36		1 5/8	5/8	3/4	15 3/4	6	11 1/4	3	2 1/4	3 3/4	45°	12 3/4	7 1/2	9	3/4											9.0
5	48		2 1/4	3/4	1	21	8	15	4	3	5	45°	17	10	12	1											16.0

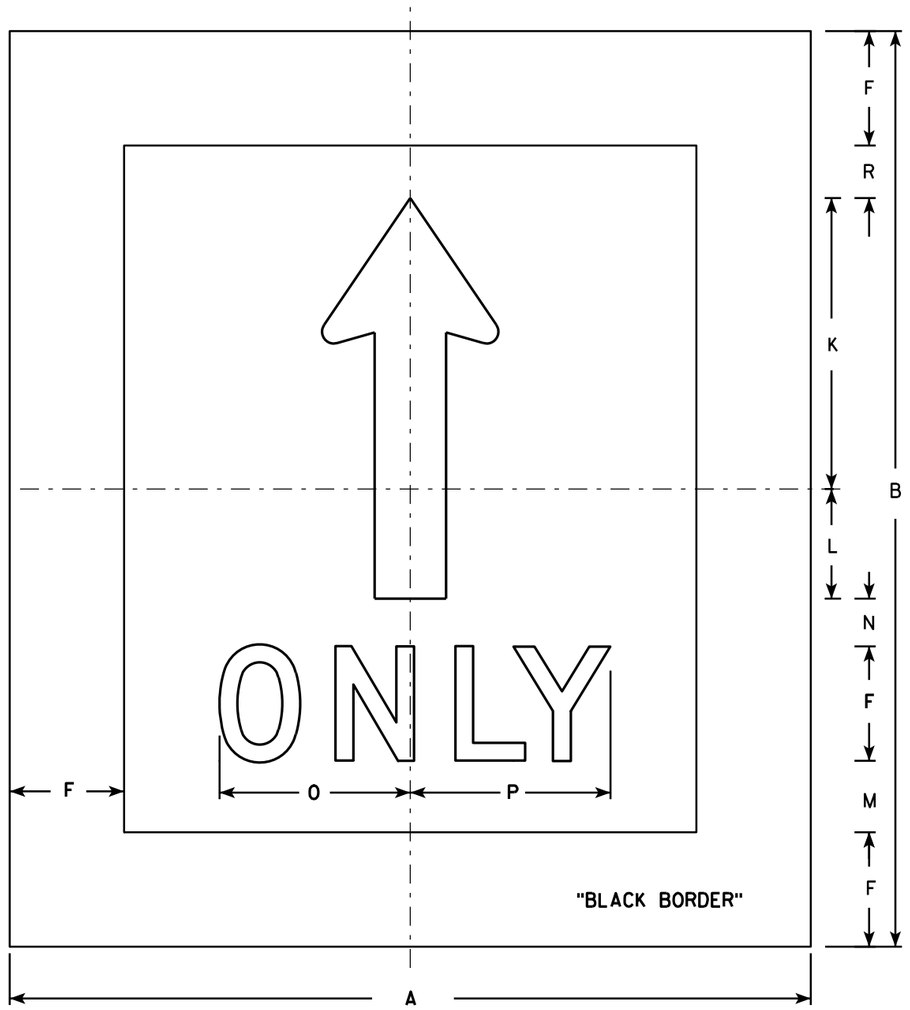
STANDARD SIGN
R3-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/08/10 PLATE NO. R3-2.10

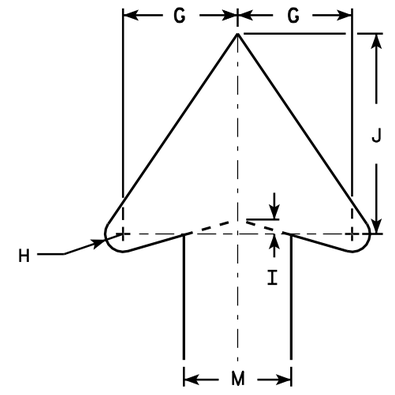
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 173	E



R3-5A

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - D
4. Corners may be square or rounded when base material is plywood. When base material is metal, the corners shall be rounded.
5. The 6" border is non-reflective black.



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	42	48				6	4	5/8	1/2	7	15 1/4	5 3/4	3 3/4	2 1/2	10	10 1/2		2 3/4									1.26
2M	42	48				6	4	5/8	1/2	7	15 1/4	5 3/4	3 3/4	2 1/2	10	10 1/2		2 3/4									1.26
3																											
4																											
5																											

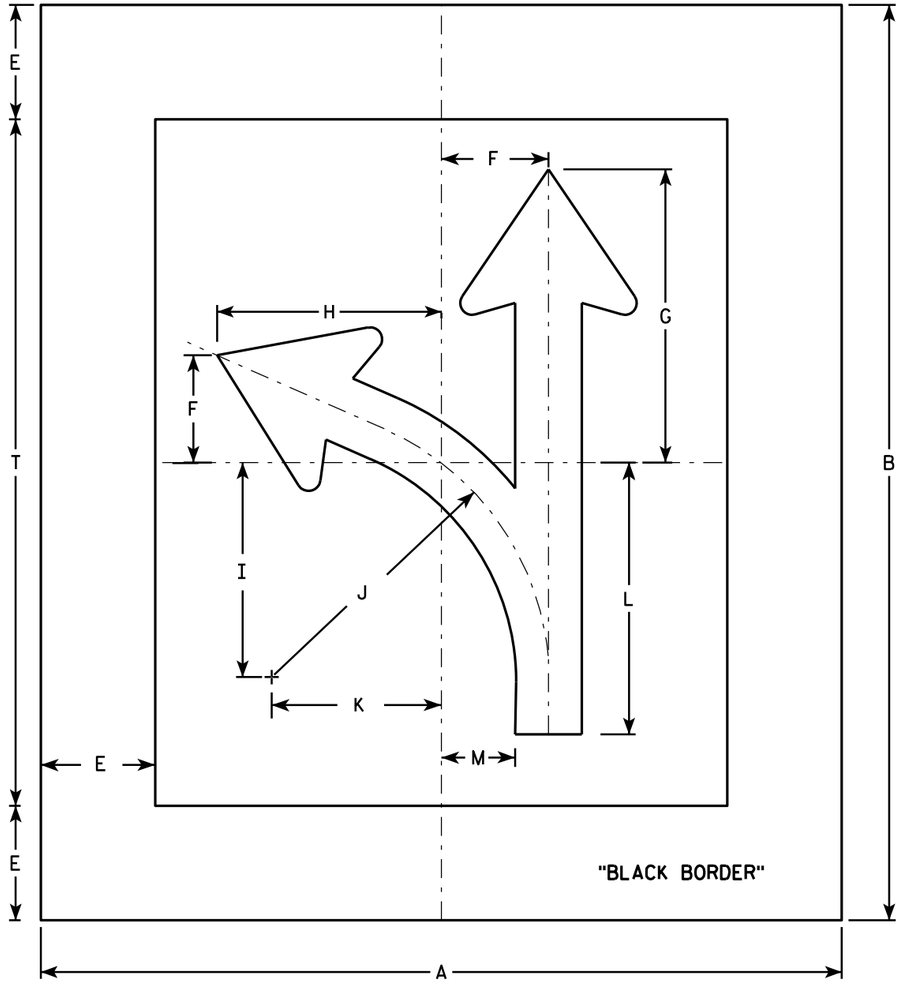
STANDARD SIGN
R3-5A

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/24/11 PLATE NO. R3-5A.5

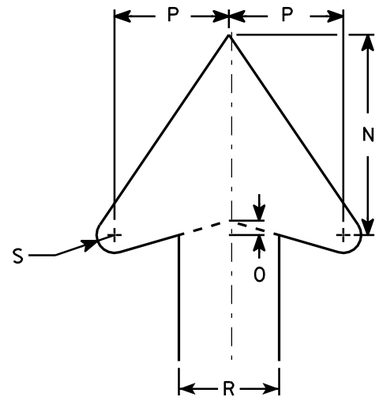
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 174	E



R3-6L

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Corners may be square or rounded when base material is plywood. When base material is metal, the corners shall be rounded.
4. R3-6R is the same as R3-6L except curved portion of arrow points right.
5. The 6" border is non-reflective black.



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	42	48			6	5 5/8	15 3/8	11 3/4	11 1/4	14 1/2	8 7/8	14 1/4	3 7/8	7	1/2	4		3 1/2	5/8	36							14.0
2M	42	48			6	5 5/8	15 3/8	11 3/4	11 1/4	14 1/2	8 7/8	14 1/4	3 7/8	7	1/2	4		3 1/2	5/8	36							14.0
3																											
4																											
5																											

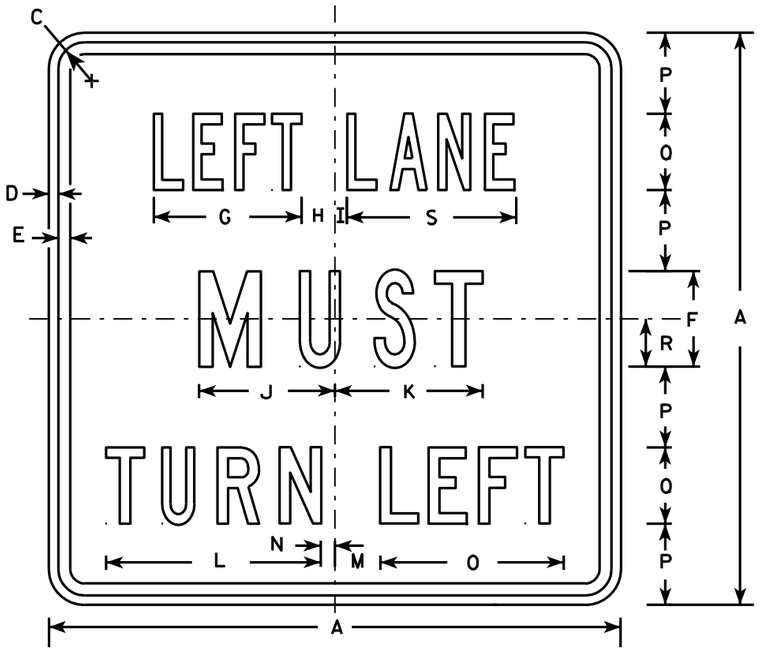
STANDARD SIGN
R3-6

WISCONSIN DEPT OF TRANSPORTATION

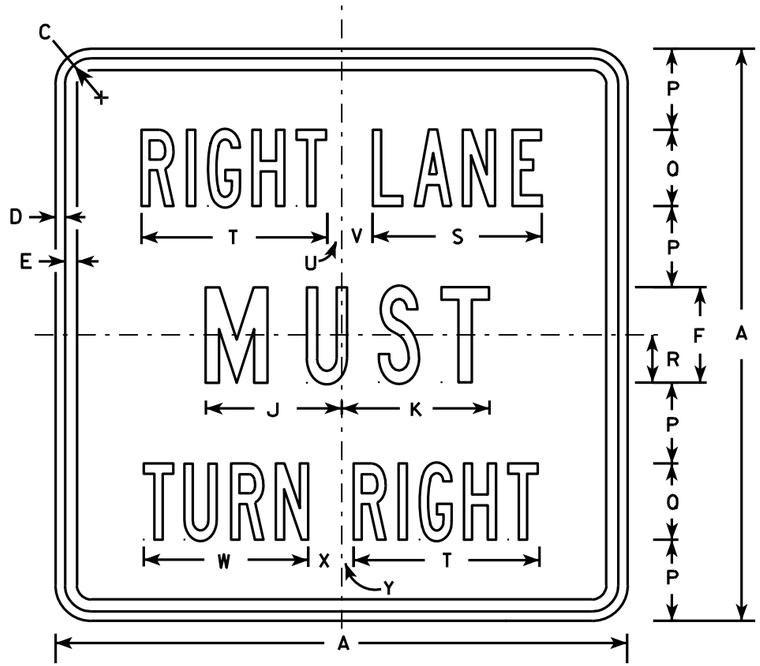
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/17/2011 PLATE NO. R3-6.5

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 175 | E



R3-7L



R3-7R

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - Line 1 is Series B.
   Line 2 is Series C.
   Line 3 on plate R3-7R is Series B and Series C on plate R3-7L.
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	30		1 3/8	1/2	5/8	5	7 3/4	1 3/4	5/8	7 1/8	7 3/4	11 1/4	2 3/8	3/4	9 5/8	4 1/4	4	2 1/2	8 7/8	9 3/4	3/4	1 5/8	8 5/8	1 5/8	5/8		6.25
2S	30		1 3/8	1/2	5/8	5	7 3/4	1 3/4	5/8	7 1/8	7 3/4	11 1/4	2 3/8	3/4	9 5/8	4 1/4	4	2 1/2	8 7/8	9 3/4	3/4	1 5/8	8 5/8	1 5/8	5/8		6.25
2M	30		1 3/8	1/2	5/8	5	7 3/4	1 3/4	5/8	7 1/8	7 3/4	11 1/4	2 3/8	3/4	9 5/8	4 1/4	4	2 1/2	8 7/8	9 3/4	3/4	1 5/8	8 5/8	1 5/8	5/8		6.25
3	36		1 5/8	5/8	3/4	6	9 5/8	2	1 1/8	8 3/4	9	13 1/2	3 7/8	1 1/2	12 1/2	5	5	3	10 5/8	12	7/8	2 1/4	10 5/8	2 1/8	1		9.00
4	48		2 1/4	3/4	1	8	13 1/2	2 3/8	1 1/2	11 1/2	11 7/8	17 3/4	3 5/8	2 1/2	16 3/8	6 1/2	7	4	14 3/8	16 7/8	5/8	3 1/4	15 1/8	2 3/4	1 1/8		16.00
5																											

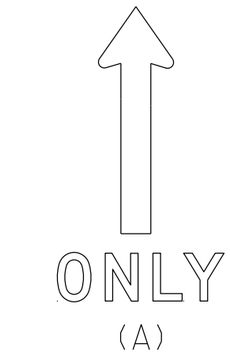
STANDARD SIGN
R3-7L & R3-7R

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

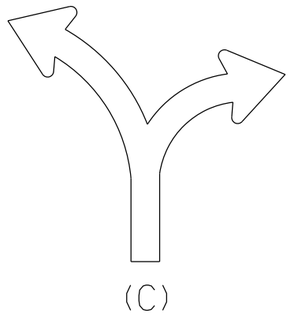
DATE 3/18/2011 PLATE NO. R3-7.3

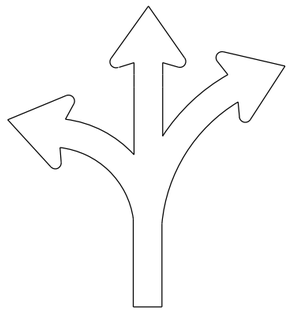
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 176 | E

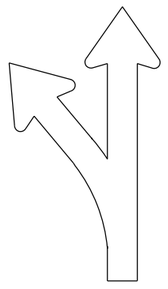


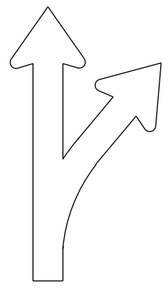
(A)

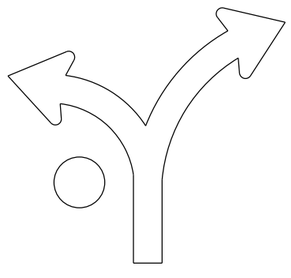
(B)

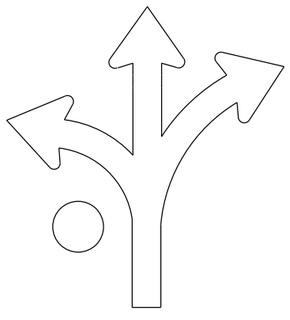

(C)

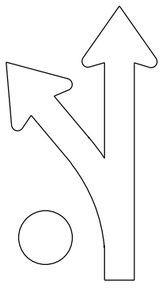

(D)

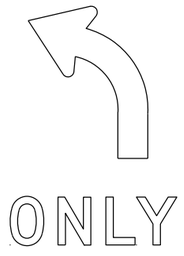

(E)


(F)

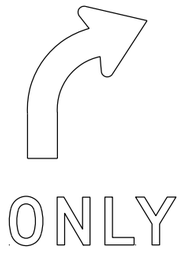

(G)


(H)

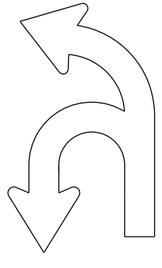

(I)



(L)



(R)


(U)

NOTES

1. Sigs are Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - D
4. Use appropriate Letter for Sign Code
   Each letter added makes sign wider. Example R3-8EAR
5. Square footage of sign varies by letters

1	Letter =	3.75 sq ft for Size 2
		6.0 sq ft for Size 3
		10.0 sq ft for Size 4 or 5
2	Letters =	7.5 sq ft for Size 2
		12.0 sq ft for Size 3
		20.0 sq ft for Size 4 or 5
3	Letters =	11.25 sq ft for Size 2
		18.0 sq ft for Size 3
		30.0 sq ft for Size 4 or 5
4	Letters =	15.0 sq ft for Size 2
		24.0 sq ft for Size 3
		40.0 sq ft for Size 4 or 5
5	Letters =	18.75 sq ft for Size 2
		30.0 sq ft for Size 3
		50.0 sq ft for Size 4 or 5
6	Letters =	22.5 sq ft for Size 2
		36.0 sq ft for Size 3
		60.0 sq ft for Size 4 or 5

6. When letters C,D,G,H are used on the Left or Right end of the sign the Sq. Ft. changes.
   Add the amounts when these letters are used:
   1.25 sq ft for Size 2
   1.5 sq ft for Size 3
   2.0 sq ft for Size 4 or 5

STANDARD SIGN
R3-8 Series

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
For State Traffic Engineer

DATE 5/21/19 PLATE NO. R3-8.1

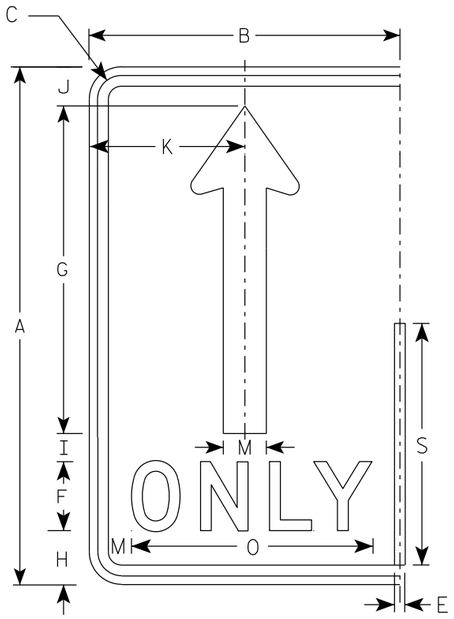
PROJECT NO:

SHEET NO: 177 E

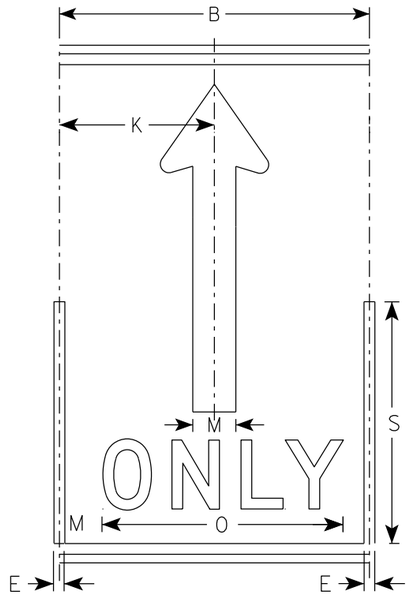
7

NOTES

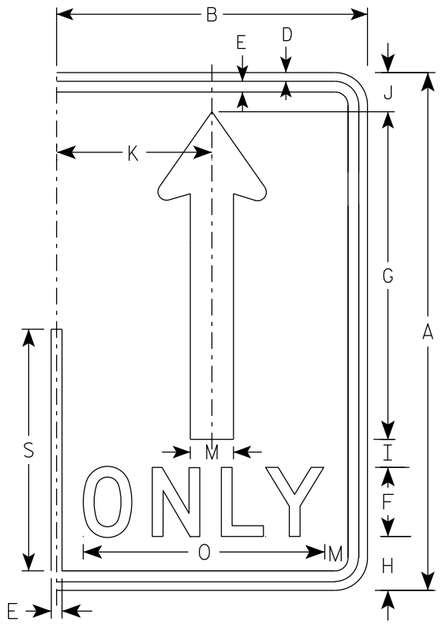
1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - D



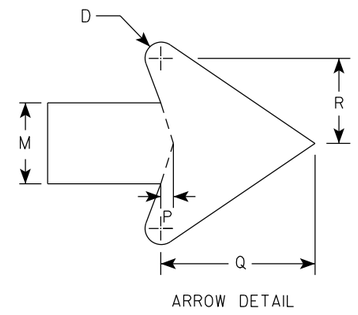
(A)



(A)



(A)



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	30	18	1 3/8	1/2	5/8	4	19	3 1/8	1 5/8	2 1/4	9		2 1/2		14	3/8	4 3/4	2 5/8	14								3.75
2M	30	18	1 3/8	1/2	5/8	4	19	3 1/8	1 5/8	2 1/4	9		2 1/2		14	3/8	4 3/4	2 5/8	14								3.75
3	36	24	1 3/8	1/2	5/8	5	22 3/4	3 3/4	1 3/4	2 3/4	12		3		17 5/8	1/2	5 3/4	3 1/8	16 3/4								6.0
4	48	30	2 1/4	3/4	1	6	30 3/8	5 1/8	2 7/8	3 5/8	15		4		21 3/4	5/8	7 5/8	4 1/4	22 3/8								10.0
5	48	30	2 1/4	3/4	1	6	30 3/8	5 1/8	2 7/8	3 5/8	15		4		21 3/4	5/8	7 5/8	4 1/4	22 3/8								10.0

STANDARD SIGN
R3-8 (A) Arrow

WISCONSIN DEPT OF TRANSPORTATION

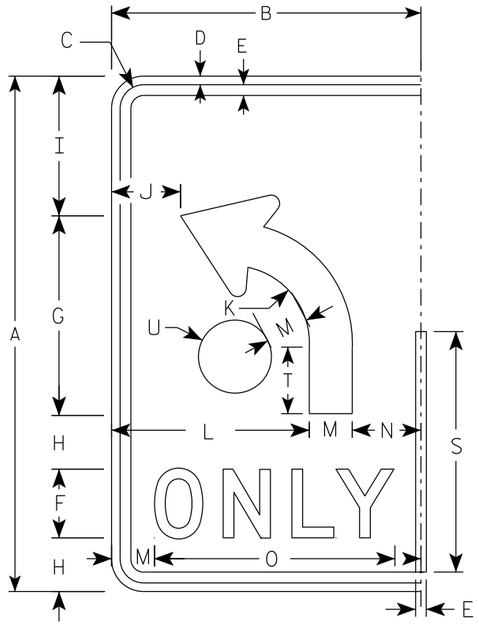
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/21/19 PLATE NO. R3-8.1

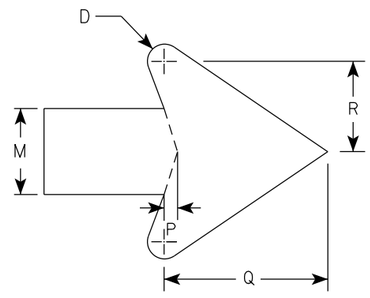
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 178 | E

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
   Message Series - D



(B)



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	30	18	1 3/8	1/2	5/8	4	11 5/8	3 1/8	8 1/8	4	4 1/2	11 1/2	2 1/2	4	14	3/8	4 3/4	2 5/8	14	3 7/8	2 1/8						3.75
2M	30	18	1 3/8	1/2	5/8	4	11 5/8	3 1/8	8 1/8	4	4 1/2	11 1/2	2 1/2	4	14	3/8	4 3/4	2 5/8	14	3 7/8	2 1/8						3.75
3	36	24	1 3/8	1/2	5/8	5	14	3 1/2	9 3/4	6	5 3/8	15	3	6	17 5/8	1/2	5 3/4	3 1/8	16 3/4	4 5/8	2 1/2						6.0
4	48	30	2 1/4	3/4	1	6	18 5/8	5 1/8	13 1/8	6 1/8	7 1/4	18	4	8	21 3/4	5/8	7 5/8	4 1/4	22 3/8	6 1/4	3 3/8						10.0
5	48	30	2 1/4	3/4	1	6	18 5/8	5 1/8	13 1/8	6 1/8	7 1/4	18	4	8	21 3/4	5/8	7 5/8	4 1/4	22 3/8	6 1/4	3 3/8						10.0

STANDARD SIGN

R3-8 (B) Arrow

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch

for State Traffic Engineer

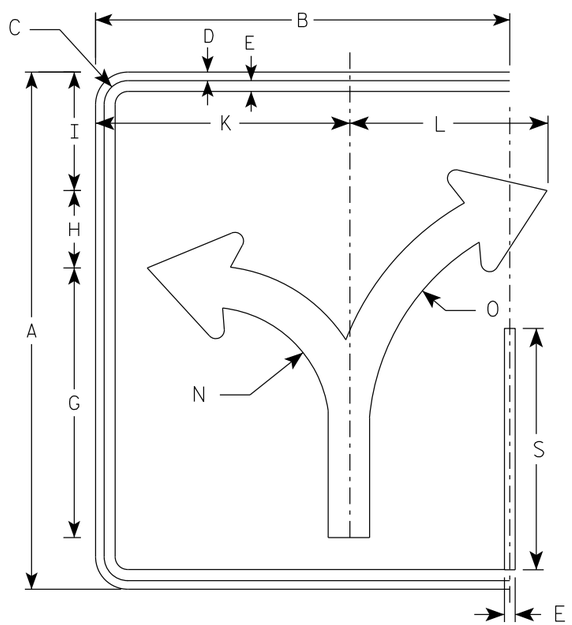
DATE 5/21/19 PLATE NO. R3-8.1

PROJECT NO:

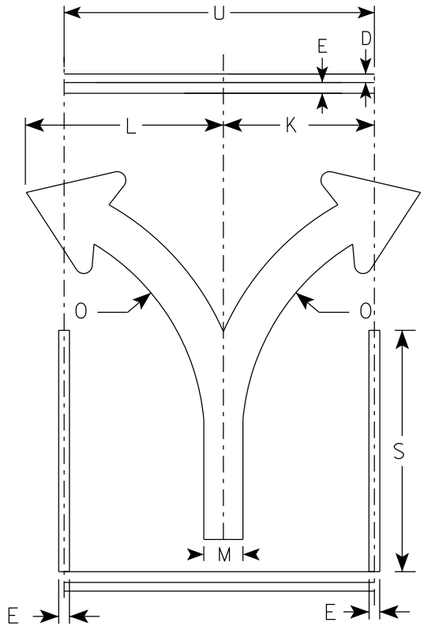
SHEET NO: 179 E

NOTES

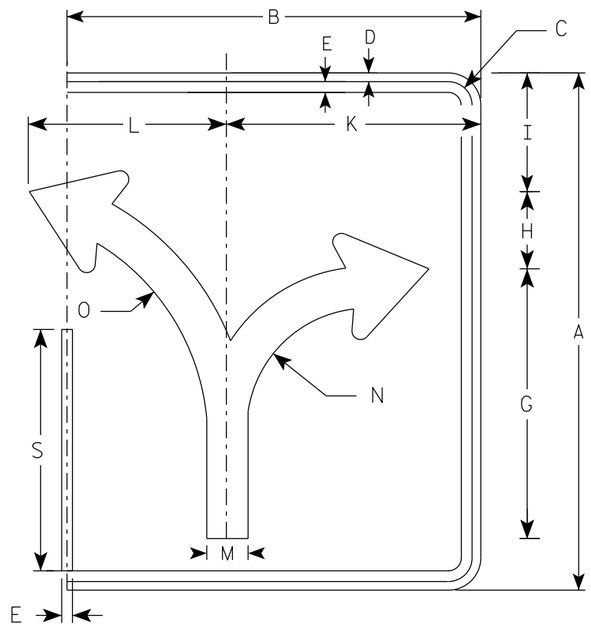
1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - None



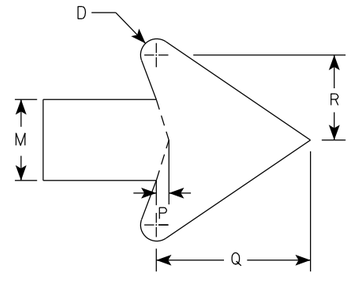
(C)



(C)



(C)



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	ENDS Area sq. ft.	MIDDLE Area sq. ft.
1																												
2S	30	24	1 3/8	1/2	5/8		15 5/8	4 1/2	6 7/8		14 3/4	11 1/2	2 3/8	7	13 1/4	3/8	4 1/2	2 1/2	14		18						5.0	3.75
2M	30	24	1 3/8	1/2	5/8		15 5/8	4 1/2	6 7/8		14 3/4	11 1/2	2 3/8	7	13 1/4	3/8	4 1/2	2 1/2	14		18						5.0	3.75
3	36	30	1 3/8	1/2	5/8		18 3/4	5 1/2	8 1/4		17 1/4	17 1/4	2 7/8	8 3/8	16	1/2	5 1/2	3	16 3/4		24						7.5	6.0
4	48	36	2 1/4	3/4	1		24 7/8	7 1/4	11		23 1/8	18	3 3/4	11 1/8	21 1/4	5/8	7 1/8	4	22 3/8		30						12.0	10.0
5	48	36	2 1/4	3/4	1		24 7/8	7 1/4	11		23 1/8	18	3 3/4	11 1/8	21 1/4	5/8	7 1/8	4	22 3/8		30						12.0	10.0

STANDARD SIGN
R3-8 (C) Arrow

WISCONSIN DEPT OF TRANSPORTATION

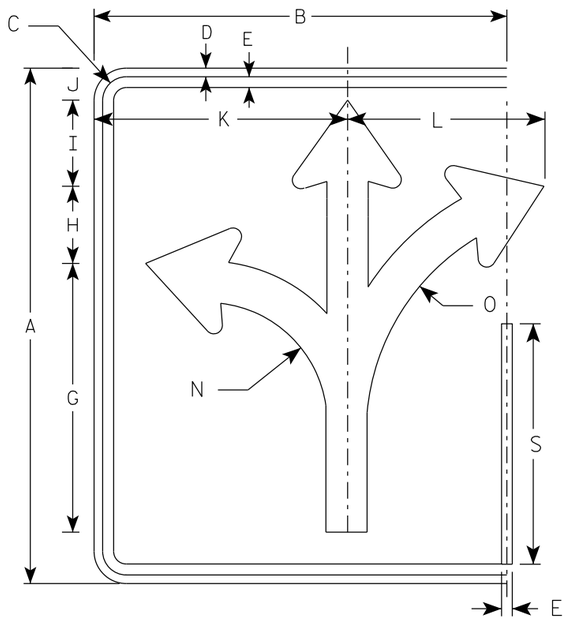
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/21/19 PLATE NO. R3-8.1

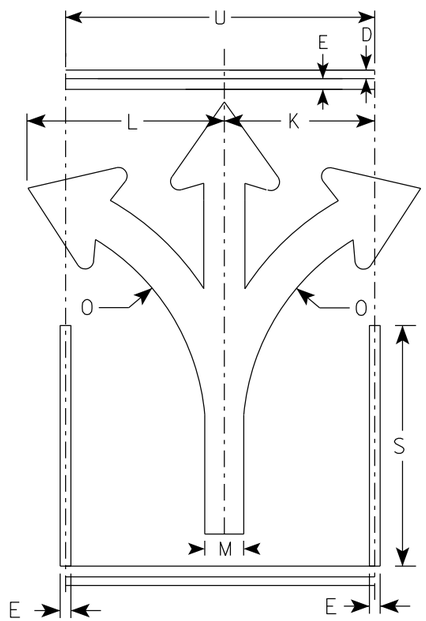
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 180 | E

NOTES

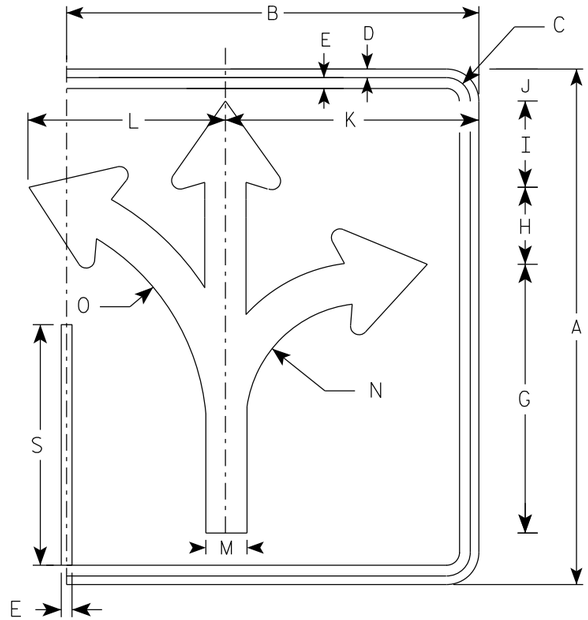
1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - None



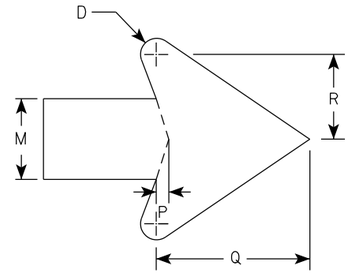
(D)



(D)



(D)



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	ENDS Area sq. ft.	MIDDLE Area sq. ft.
1																												
2S	30	24	1 3/8	1/2	5/8		15 5/8	4 1/2	5	1 7/8	14 3/4	11 1/2	2 3/8	7	13 1/4	3/8	4 1/2	2 1/2	14		18						5.0	3.75
2M	30	24	1 3/8	1/2	5/8		15 5/8	4 1/2	5	1 7/8	14 3/4	11 1/2	2 3/8	7	13 1/4	3/8	4 1/2	2 1/2	14		18						5.0	3.75
3	36	30	1 3/8	1/2	5/8		18 3/4	5 1/2	6	2 1/4	17 1/4	17 1/4	2 7/8	8 3/8	16	1/2	5 1/2	3	16 3/4		24						7.5	6.0
4	48	36	2 1/4	3/4	1		24 7/8	7 1/4	7 7/8	3 1/8	23 1/8	18	3 3/4	11 1/8	21 1/4	5/8	7 1/8	4	22 3/8		30						12.0	10.0
5	48	36	2 1/4	3/4	1		24 7/8	7 1/4	7 7/8	3 1/8	23 1/8	18	3 3/4	11 1/8	21 1/4	5/8	7 1/8	4	22 3/8		30						12.0	10.0

STANDARD SIGN
R3-8 (D) Arrow

WISCONSIN DEPT OF TRANSPORTATION

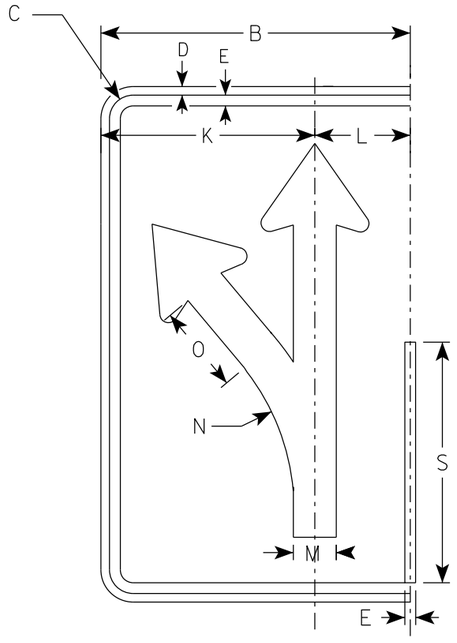
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/21/19 PLATE NO. R3-8.1

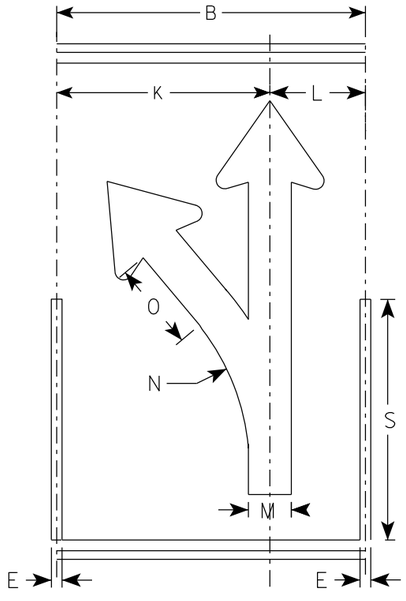
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 181 | E

NOTES

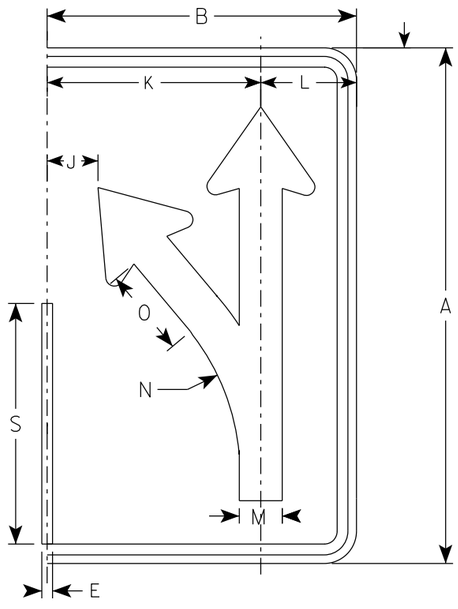
1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - None



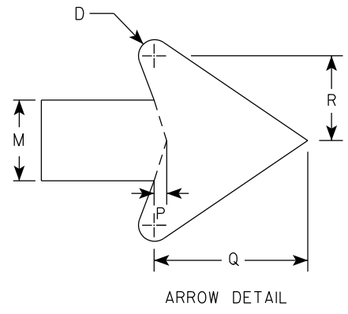
(E)



(E)



(E)



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	30	18	1 3/8	1/2	5/8		18 1/4	4 3/4	3 1/4	3	12 1/2	5 1/2	2 1/2	13 1/4	5 1/8	3/8	4 3/4	2 5/8	14								3.75
2M	30	18	1 3/8	1/2	5/8		18 1/4	4 3/4	3 1/4	3	12 1/2	5 1/2	2 1/2	13 1/4	5 1/8	3/8	4 3/4	2 5/8	14								3.75
3	36	24	1 3/8	1/2	5/8		21 7/8	5 5/8	4	4 7/8	16 1/8	7 3/4	3	15 7/8	6 1/8	1/2	5 3/4	3 1/8	16 3/4								6.0
4	48	30	2 1/4	3/4	1		29 1/8	7 1/2	5 1/4	5 3/8	20 1/2	9 1/2	4	21 1/4	8 1/4	5/8	7 5/8	4 1/4	22 3/8								10.0
5	48	30	2 1/4	3/4	1		29 1/8	7 1/2	5 1/4	5 3/8	20 1/2	9 1/2	4	21 1/4	8 1/4	5/8	7 5/8	4 1/4	22 3/8								10.0

STANDARD SIGN
R3-8 (E) Arrow

WISCONSIN DEPT OF TRANSPORTATION

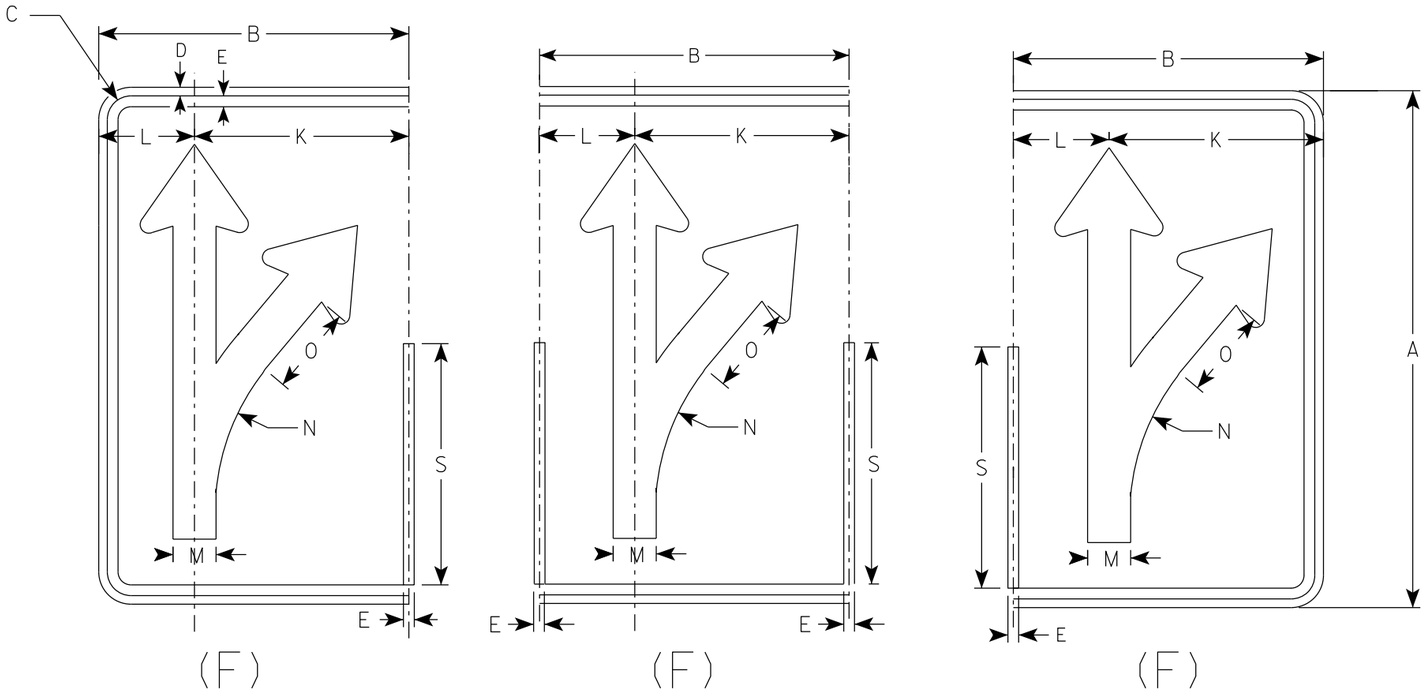
APPROVED Matthew R Rauch
For State Traffic Engineer

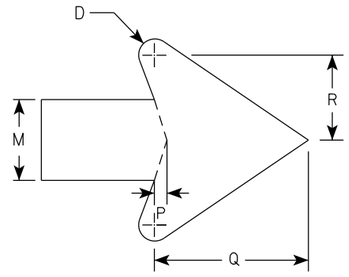
DATE 5/21/19 PLATE NO. R3-8.1

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 182 | E

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - None





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	30	18	1 3/8	1/2	5/8		18 1/4	4 3/4	3 1/4	3	12 1/2	5 1/2	2 1/2	13 1/4	5 1/8	3/8	4 3/4	2 5/8	14								3.75
2M	30	18	1 3/8	1/2	5/8		18 1/4	4 3/4	3 1/4	3	12 1/2	5 1/2	2 1/2	13 1/4	5 1/8	3/8	4 3/4	2 5/8	14								3.75
3	36	24	1 3/8	1/2	5/8		21 7/8	5 5/8	4	4 7/8	16 1/8	7 3/4	3	15 7/8	6 1/8	1/2	5 3/4	3 1/8	16 3/4								6.0
4	48	30	2 1/4	3/4	1		29 1/8	7 1/2	5 1/4	5 3/8	20 1/2	9 1/2	4	21 1/4	8 1/4	5/8	7 5/8	4 1/4	22 3/8								10.0
5	48	30	2 1/4	3/4	1		29 1/8	7 1/2	5 1/4	5 3/8	20 1/2	9 1/2	4	21 1/4	8 1/4	5/8	7 5/8	4 1/4	22 3/8								10.0

STANDARD SIGN
R3-8 (F) Arrow

WISCONSIN DEPT OF TRANSPORTATION

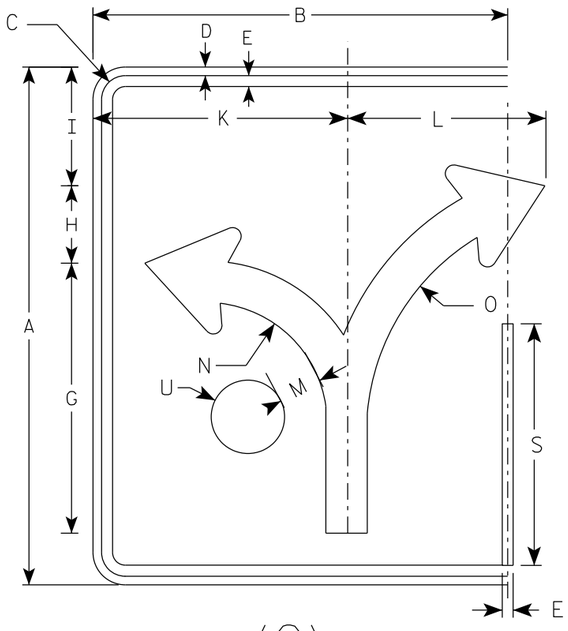
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/21/19 PLATE NO. R3-8.1

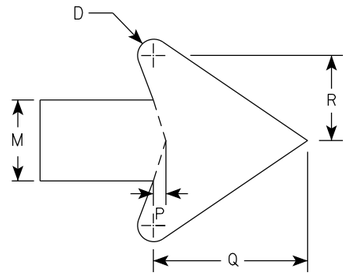
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 183 | E

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - None



(G)



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	30	24	1 3/8	1/2	5/8		15 5/8	4 1/2	6 7/8		14 3/4	11 1/2	2 3/8	7	13 1/4	3/8	4 1/2	2 1/2	14		2 1/8						5.0
2M	30	24	1 3/8	1/2	5/8		15 5/8	4 1/2	6 7/8		14 3/4	11 1/2	2 3/8	7	13 1/4	3/8	4 1/2	2 1/2	14		2 1/8						5.0
3	36	30	1 3/8	1/2	5/8		18 3/4	5 1/2	8 1/4		17 1/4	17 1/4	2 7/8	8 3/8	16	1/2	5 1/2	3	16 3/4		2 1/2						7.5
4	48	36	2 1/4	3/4	1		24 7/8	7 1/4	11		23 1/8	18	3 3/4	11 1/8	21 1/4	5/8	7 1/8	4	22 3/8		3 3/8						12.0
5	48	36	2 1/4	3/4	1		24 7/8	7 1/4	11		23 1/8	18	3 3/4	11 1/8	21 1/4	5/8	7 1/8	4	22 3/8		3 3/8						12.0

STANDARD SIGN
R3-8 (G) Arrow

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

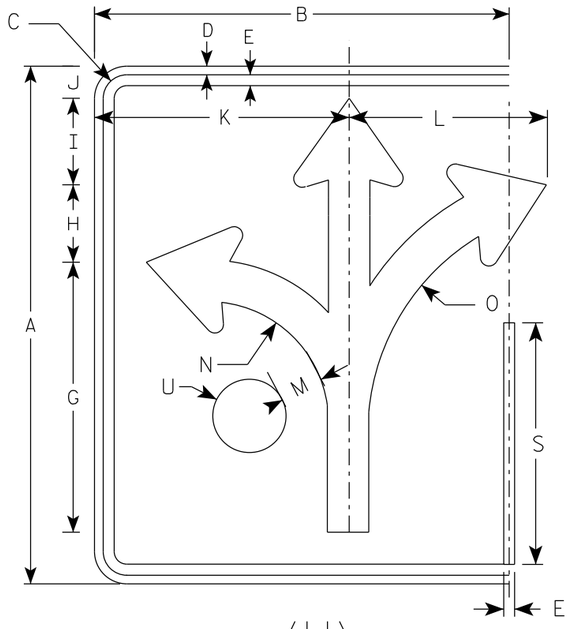
DATE 5/21/19 PLATE NO. R3-8.1

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 184	E

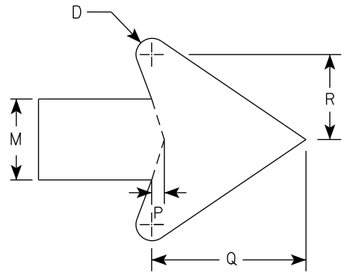
FILE NAME : C:\CAEfiles\Projects\stdplate_R38.dgn PLOT DATE : 21-MAY 2019 4:38 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 42

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - None



(H)



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	30	24	1 3/8	1/2	5/8		15 5/8	4 1/2	5	1 7/8	14 3/4	11 1/2	2 3/8	7	13 1/4	3/8	4 1/2	2 1/2	14		2 1/8						5.0
2M	30	24	1 3/8	1/2	5/8		15 5/8	4 1/2	5	1 7/8	14 3/4	11 1/2	2 3/8	7	13 1/4	3/8	4 1/2	2 1/2	14		2 1/8						5.0
3	36	30	1 3/8	1/2	5/8		18 3/4	5 1/2	6	3 1/8	17 1/4	17 1/4	2 7/8	8 3/8	16	1/2	5 1/2	3	16 3/4		2 1/2						7.5
4	48	36	2 1/4	3/4	1		24 7/8	7 1/4	7 7/8	3 1/8	23 1/8	18	3 3/4	11 1/8	21 1/4	5/8	7 1/8	4	22 3/8		3 3/8						12.0
5	48	36	2 1/4	3/4	1		24 7/8	7 1/4	7 7/8	3 1/8	23 1/8	18	3 3/4	11 1/8	21 1/4	5/8	7 1/8	4	22 3/8		3 3/8						12.0

STANDARD SIGN
R3-8 (H) Arrow

WISCONSIN DEPT OF TRANSPORTATION

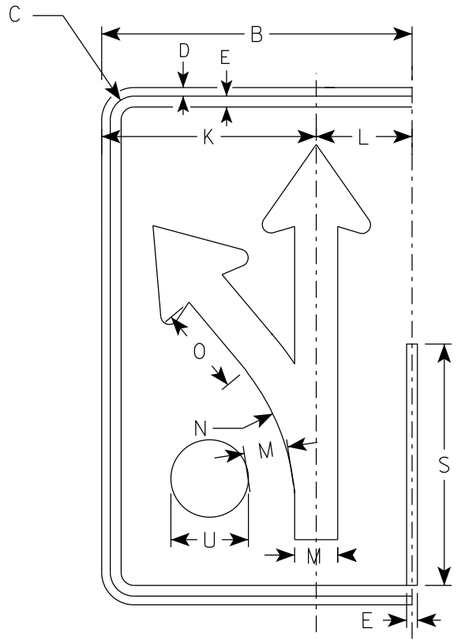
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/21/19 PLATE NO. R3-8.1

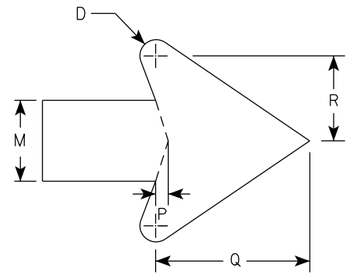
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 185	E

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - None



(I)



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	30	18	1 3/8	1/2	5/8		18 1/4	4 3/4	3 1/4	3	12 1/2	5 1/2	2 1/2	13 1/4	5 1/8	3/8	4 3/4	2 5/8	14		2 1/8						3.75
2M	30	18	1 3/8	1/2	5/8		18 1/4	4 3/4	3 1/4	3	12 1/2	5 1/2	2 1/2	13 1/4	5 1/8	3/8	4 3/4	2 5/8	14		2 1/8						3.75
3	36	24	1 3/8	1/2	5/8		21 7/8	5 5/8	4	4 7/8	16 1/8	7 3/4	3	15 7/8	6 1/8	1/2	5 3/4	3 1/8	16 3/4		2 1/2						6.0
4	48	30	2 1/4	3/4	1		29 1/8	7 1/2	5 1/4	5 3/8	20 1/2	9 1/2	4	21 1/4	8 1/4	5/8	7 5/8	4 1/4	22 3/8		3 3/8						10.0
5	48	30	2 1/4	3/4	1		29 1/8	7 1/2	5 1/4	5 3/8	20 1/2	9 1/2	4	21 1/4	8 1/4	5/8	7 5/8	4 1/4	22 3/8		3 3/8						10.0

STANDARD SIGN
R3-8 (I) Arrow

WISCONSIN DEPT OF TRANSPORTATION

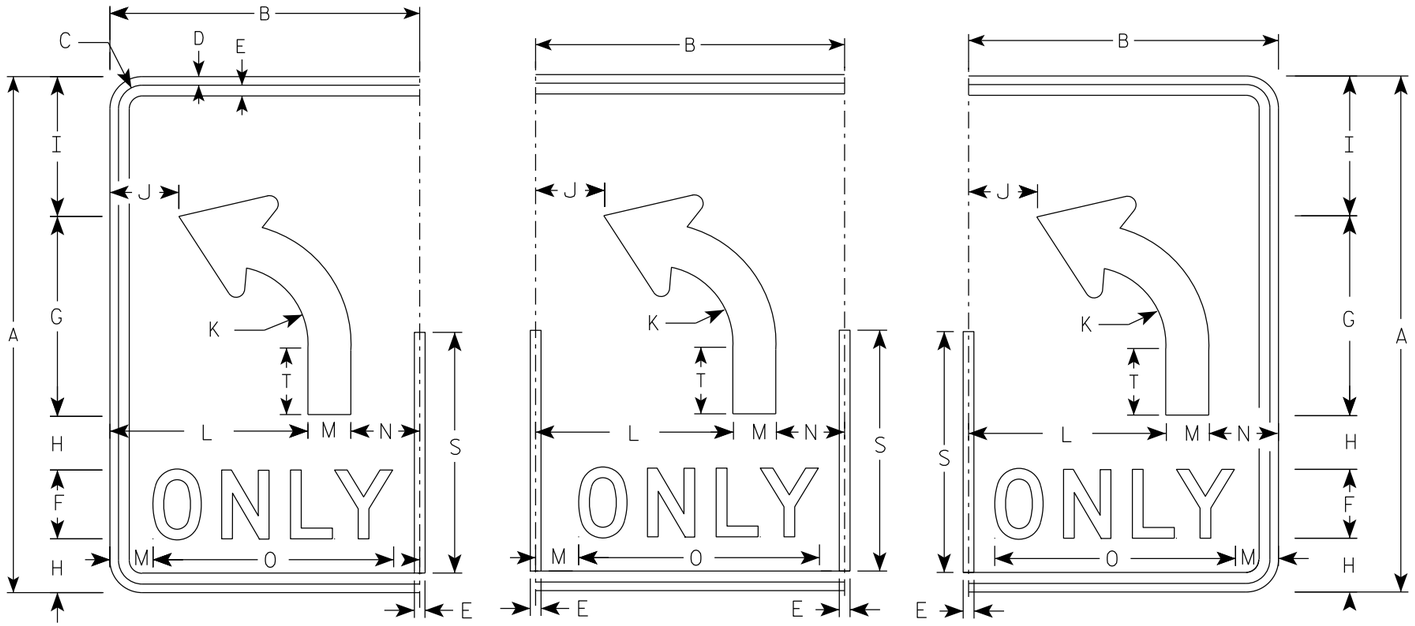
APPROVED Matthew R Rauch
For State Traffic Engineer

DATE 5/21/19 PLATE NO. R3-8.1

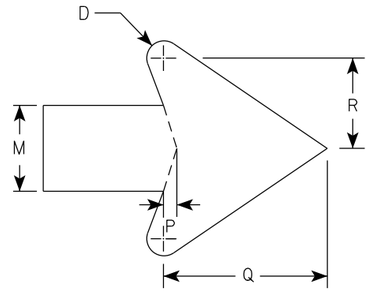
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 186 | E

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - D



(L) (L) (L)



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	30	18	1 3/8	1/2	5/8	4	11 5/8	3 1/8	8 1/8	4	4 1/2	11 1/2	2 1/2	4	14	3/8	4 3/4	2 5/8	14	3 7/8							3.75
2M	30	18	1 3/8	1/2	5/8	4	11 5/8	3 1/8	8 1/8	4	4 1/2	11 1/2	2 1/2	4	14	3/8	4 3/4	2 5/8	14	3 7/8							3.75
3	36	24	1 3/8	1/2	5/8	5	14	3 1/2	9 3/4		5 3/8	15	3	6	17 5/8	1/2	5 3/4	3 1/8	16 3/4	4 5/8							6.0
4	48	30	2 1/4	3/4	1	6	18 5/8	5 1/8	13 1/8	6 1/8	7 1/4	18	4	8	21 3/4	5/8	7 5/8	4 1/4	22 3/8	6 1/4							10.0
5	48	30	2 1/4	3/4	1	6	18 5/8	5 1/8	13 1/8	6 1/8	7 1/4	18	4	8	21 3/4	5/8	7 5/8	4 1/4	22 3/8	6 1/4							10.0

STANDARD SIGN

R3-8 (L) Arrow

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

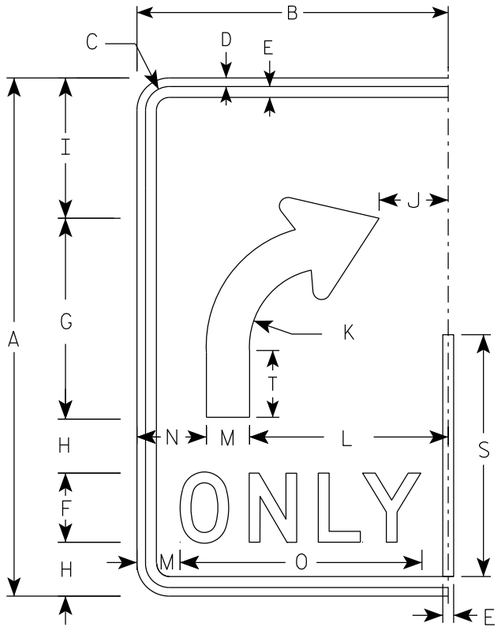
DATE 5/21/19 PLATE NO. R3-8.1

PROJECT NO:

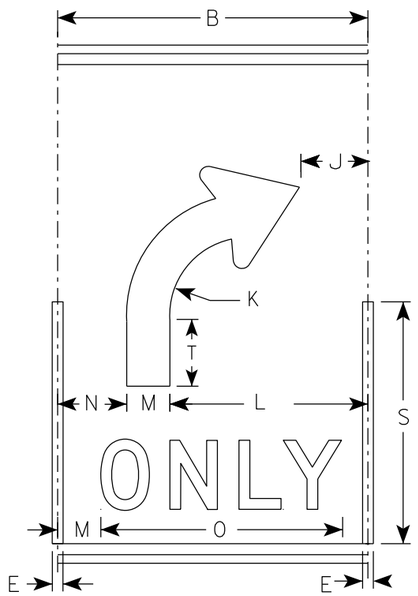
SHEET NO: 187 E

NOTES

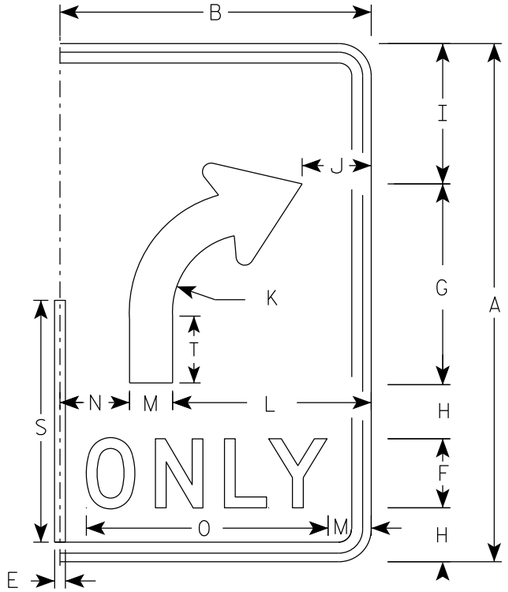
1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - D



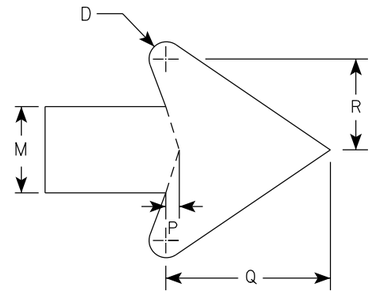
(R)



(R)



(R)



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	30	18	1 3/8	1/2	5/8	4	11 5/8	3 1/8	8 1/8	4	4 1/2	11 1/2	2 1/2	4	14	3/8	4 3/4	2 5/8	14	3 7/8							3.75
2M	30	18	1 3/8	1/2	5/8	4	11 5/8	3 1/8	8 1/8	4	4 1/2	11 1/2	2 1/2	4	14	3/8	4 3/4	2 5/8	14	3 7/8							3.75
3	36	24	1 3/8	1/2	5/8	5	14	3 1/2	9 3/4	6	5 3/8	15	3	6	17 5/8	1/2	5 3/4	3 1/8	16 3/4	4 5/8							6.0
4	48	30	2 1/4	3/4	1	6	18 5/8	5 1/8	13 1/8	6 1/8	7 1/4	18	4	8	21 3/4	5/8	7 5/8	4 1/4	22 3/8	6 1/4							10.0
5	48	30	2 1/4	3/4	1	6	18 5/8	5 1/8	13 1/8	6 1/8	7 1/4	18	4	8	21 3/4	5/8	7 5/8	4 1/4	22 3/8	6 1/4							10.0

STANDARD SIGN

R3-8 (R) Arrow

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

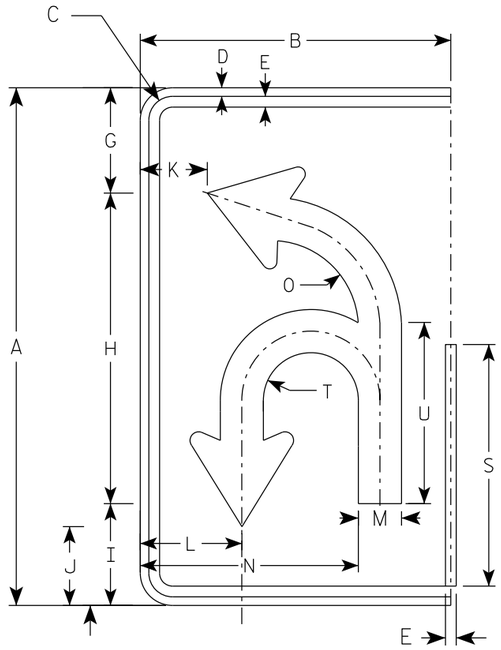
DATE 5/21/19 PLATE NO. R3-8.1

PROJECT NO:

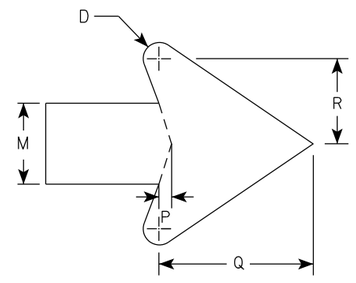
SHEET NO: 188 E

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - None



(U)



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	30	18	1 3/8	1/2	5/8		6 1/8	18	5 7/8	4 5/8	3 7/8	5 7/8	2 1/2	12 5/8	5 1/8	3/8	4 3/4	2 5/8	14	2 3/4	10 1/2						3.75
2M	30	18	1 3/8	1/2	5/8		6 1/8	18	5 7/8	4 5/8	3 7/8	5 7/8	2 1/2	12 5/8	5 1/8	3/8	4 3/4	2 5/8	14	2 3/4	10 1/2						3.75
3	36	24	1 3/8	1/2	5/8		21 7/8	21 5/8	7 1/8	5 1/2	5 7/8	8 1/4	3	16 3/8	6 1/8	1/2	5 3/4	3 1/8	16 3/4	3 1/4	12 5/8						6.0
4	48	30	2 1/4	3/4	1		29 1/8	28 3/4	9 3/8	7 1/4	6 7/8	10	4	20 7/8	8 1/8	5/8	7 5/8	4 1/4	22 3/8	4 3/8	16 3/4						10.0
5	48	30	2 1/4	3/4	1		29 1/8	28 3/4	9 3/8	7 1/4	6 7/8	10	4	20 7/8	8 1/8	5/8	7 5/8	4 1/4	22 3/8	4 3/8	16 3/4						10.0

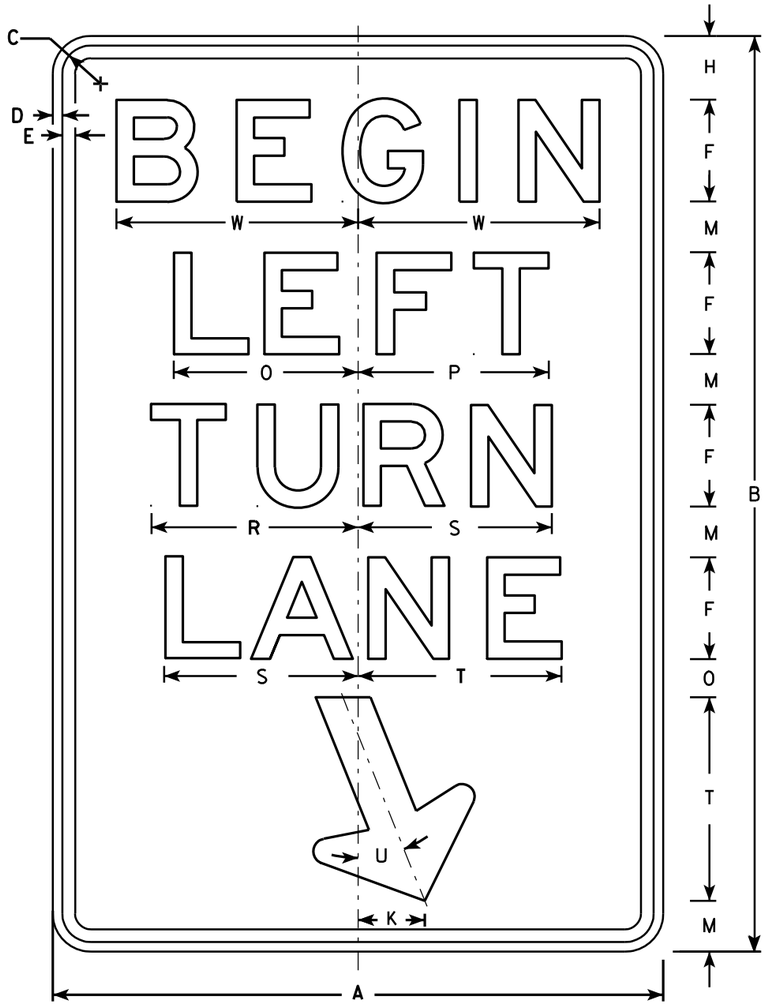
STANDARD SIGN
R3-8 (U) Arrow

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/21/19 PLATE NO. R3-8.1

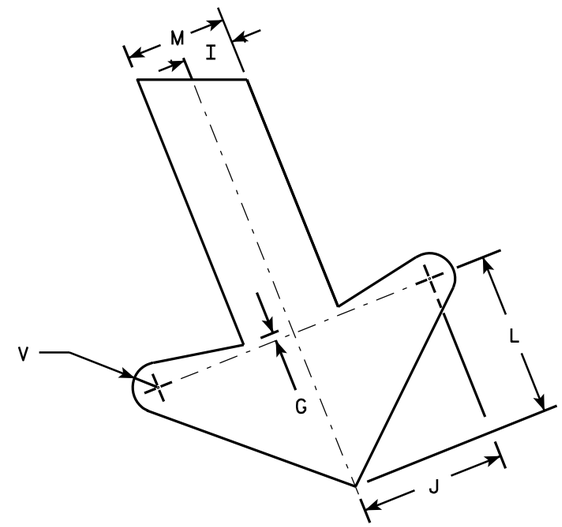
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 189 | E



R3-20L

NOTES

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



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	24	36	1 1/8	3/8	1/2	4	1/4	2 1/2	1	2 7/8	2 5/8	3 1/4	2	1 1/2	7 1/4	7 1/2		8 1/8	7 5/8	8	22°	1/2	9 1/2				6.0
2M	24	36	1 1/8	3/8	1/2	4	1/4	2 1/2	1	2 7/8	2 5/8	3 1/4	2	1 1/2	7 1/4	7 1/2		8 1/8	7 5/8	8	22°	1/2	9 1/2				6.0
3	36	54	1 3/4	1/2	5/8	6	3/8	3 3/4	1 1/2	4 1/4	4	4 7/8	3	2 1/4	10 7/8	11 1/4		12 1/4	11 1/2	12	22°	3/4	13 1/4				13.5
4																											
5																											

STANDARD SIGN
R3-20L

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

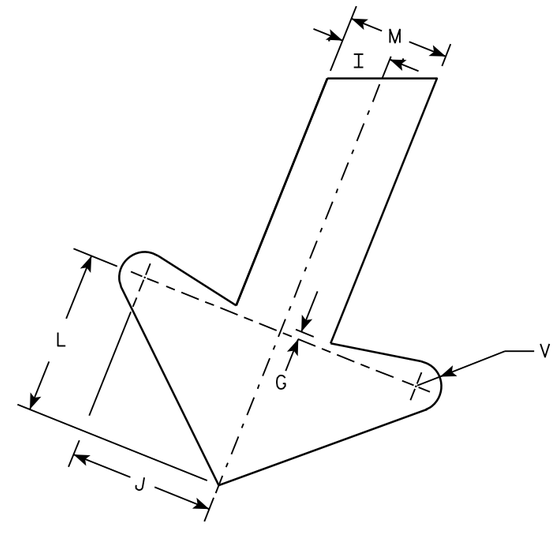
DATE 10/18/10 PLATE NO. R3-20L.7

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 190 | E

R3-20R

NOTES

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



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	24	36	1 1/8	3/8	1/2	4	1/4	2 1/2	1	2 7/8	2 5/8	3 1/4	2	1 1/2	8 1/2	8 1/4		8 1/8	7 5/8	8	22°	1/2	9 1/2				6.0
2M	24	36	1 1/8	3/8	1/2	4	1/4	2 1/2	1	2 7/8	2 5/8	3 1/4	2	1 1/2	8 1/2	8 1/4		8 1/8	7 5/8	8	22°	1/2	9 1/2				6.0
3	36	54	1 3/4	1/2	5/8	6	3/8	3 3/4	1 1/2	4 1/4	4	4 7/8	3	2 1/4	12 3/4	12 1/2		12 1/4	11 1/2	12	22°	3/4	13 1/4				13.5
4																											
5																											

STANDARD SIGN
R3-20R

WISCONSIN DEPT OF TRANSPORTATION

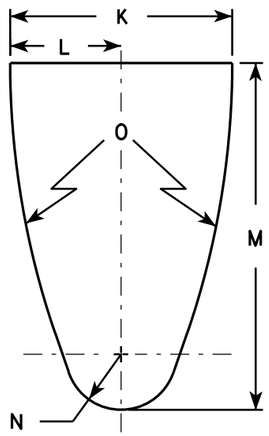
APPROVED Matthew R Rauch
for State Traffic Engineer

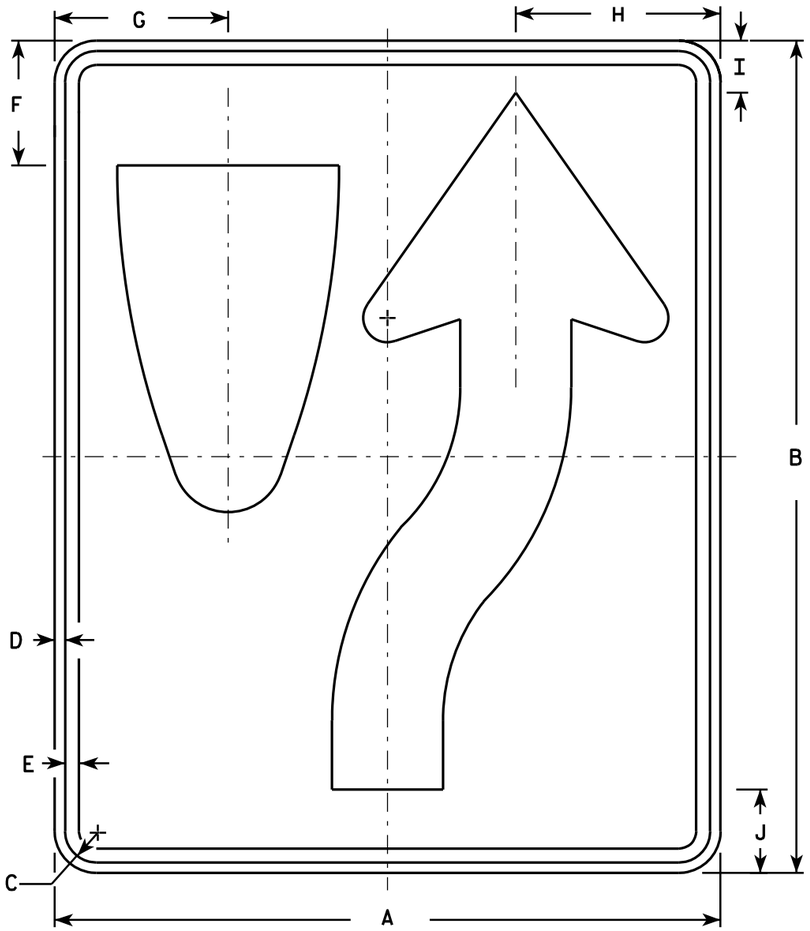
DATE 10/18/10 PLATE NO. R3-20R.6

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 191 | E

FILE NAME : C:\Users\PROJECTS\tr_stdplate\R320R.DGN PLOT DATE : 15-OCT-2010 14:59 PLOT BY : dotsja PLOT NAME : PLOT SCALE : 5.959043:1.000000

WISDOT/CADDS SHEET 42

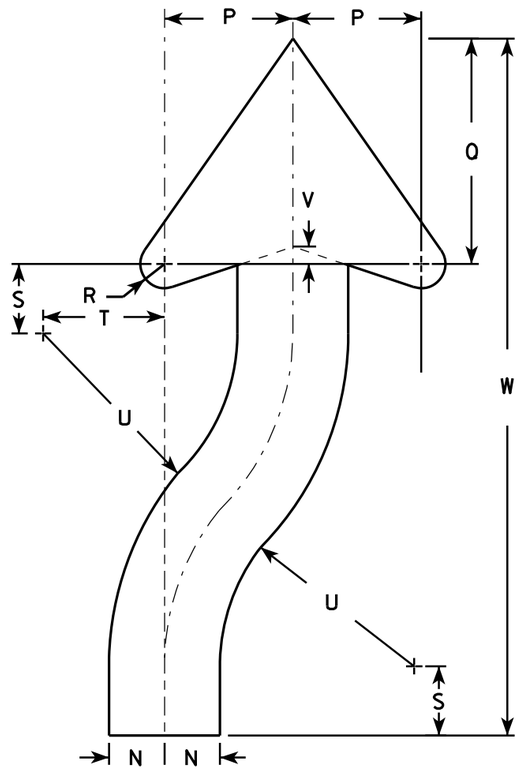




R4-7

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition. material is plywood but borders shall be rounded
2. Color:
   Background - White
   Message - Black
3. Corners may be square or rounded when base as shown. When base material is metal, the corners and borders shall be rounded.
4. R4-8 is the same as R4-7 except Legend is reversed.



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	18	24	1 1/8	3/8	1/2	3 3/8	4 3/4	5 1/2	1 3/8	2 1/4	6	3	9 3/8	1 1/2	22 1/2	3 1/2	6 1/8	5/8	1 7/8	3 1/4	6 3/4	1/2	20 3/8				3.0
2S	24	30	1 1/8	3/8	1/2	4 1/2	6 1/4	7 3/8	1 7/8	3	8	4	12 1/2	2	30	4 5/8	8 1/8	7/8	2 1/2	4 3/8	9	5/8	25 1/8				5.0
2M	24	30	1 1/8	3/8	1/2	4 1/2	6 1/4	7 3/8	1 7/8	3	8	4	12 1/2	2	30	4 5/8	8 1/8	7/8	2 1/2	4 3/8	9	5/8	25 1/8				5.0
3	36	48	1 3/4	1/2	5/8	6 3/4	9 3/8	11 1/8	2 7/8	4 1/2	12	6	18 3/4	3	45	6 7/8	12 1/4	1 1/4	3 3/4	6 5/8	13 1/2	1	40 3/4				12.0
4	36	48	1 3/4	1/2	5/8	6 3/4	9 3/8	11 1/8	2 7/8	4 1/2	12	6	18 3/4	3	45	6 7/8	12 1/4	1 1/4	3 3/4	6 5/8	13 1/2	1	40 3/4				12.0
5	48	60	2 1/4	3/4	1	9	12 1/2	14 3/4	3 3/4	6	16	8	25	4	60	9 1/4	16 1/4	1 5/8	5	8 3/4	18	1 1/4	50 1/4				20.0

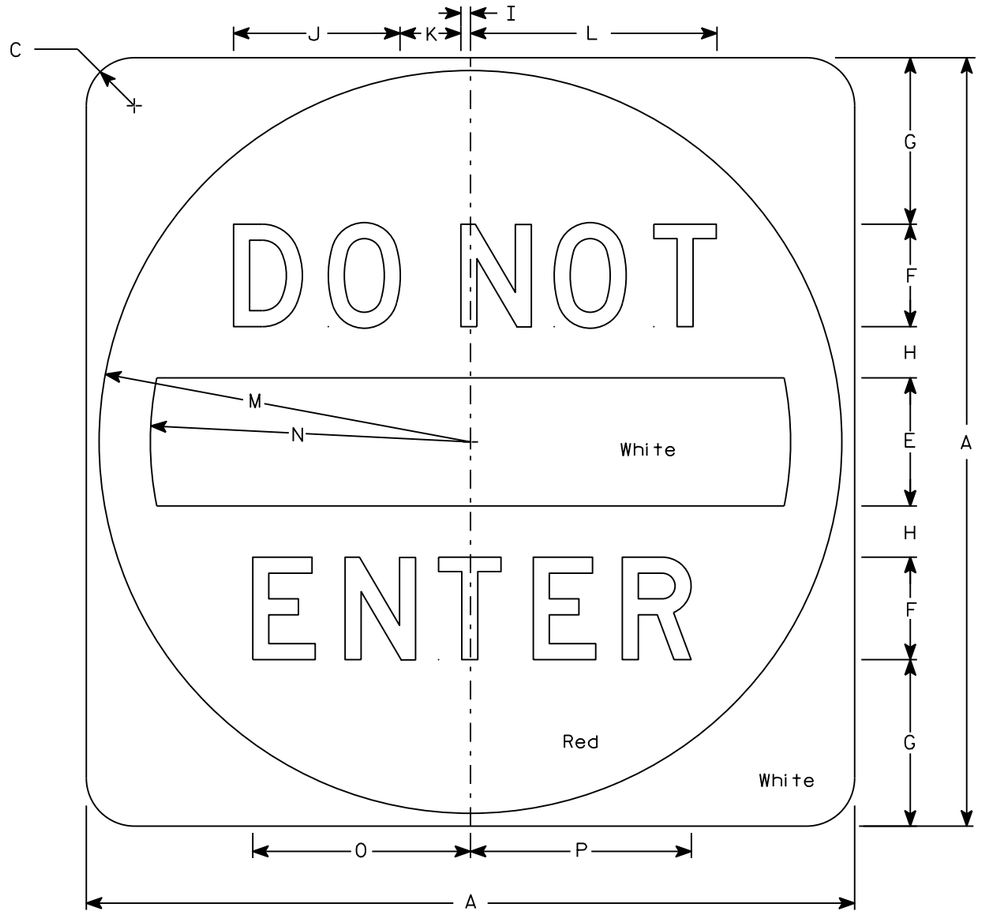
STANDARD SIGN
R4-7 & R4-8

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch for State Traffic Engineer

DATE 3/25/2011 PLATE NO. R4-7.8

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 192	E



R5-1

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - See detail
   Message - White
3. Message Series - D

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	30		1 7/8		5	4	6 1/2	2	3/8	6 1/2	2 3/8	9 5/8	14 1/2	12 1/2	8 1/2	8 5/8											6.25
2M	36		2 1/4		6	5	7 1/2	2 1/2	1/2	8 1/8	3	12 1/8	17 1/2	15	10 5/8	10 3/4											9.0
3	36		2 1/4		6	5	7 1/2	2 1/2	1/2	8 1/8	3	12 1/8	17 1/2	15	10 5/8	10 3/4											9.0
4	36		2 1/4		6	5	7 1/2	2 1/2	1/2	8 1/8	3	12 1/8	17 1/2	15	10 5/8	10 3/4											9.0
5	48		3		8	6	11	3	5/8	9 3/4	3 5/8	14 1/2	23 1/2	20	12 3/4	12 7/8											16.0

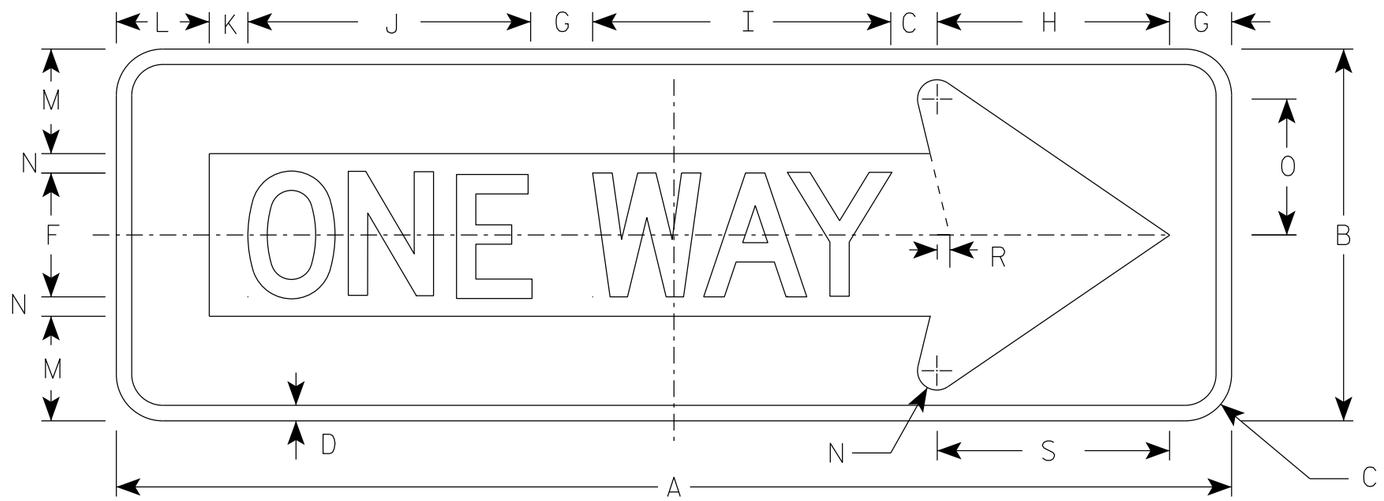
STANDARD SIGN
R5-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/15/18 PLATE NO. R5-1.16

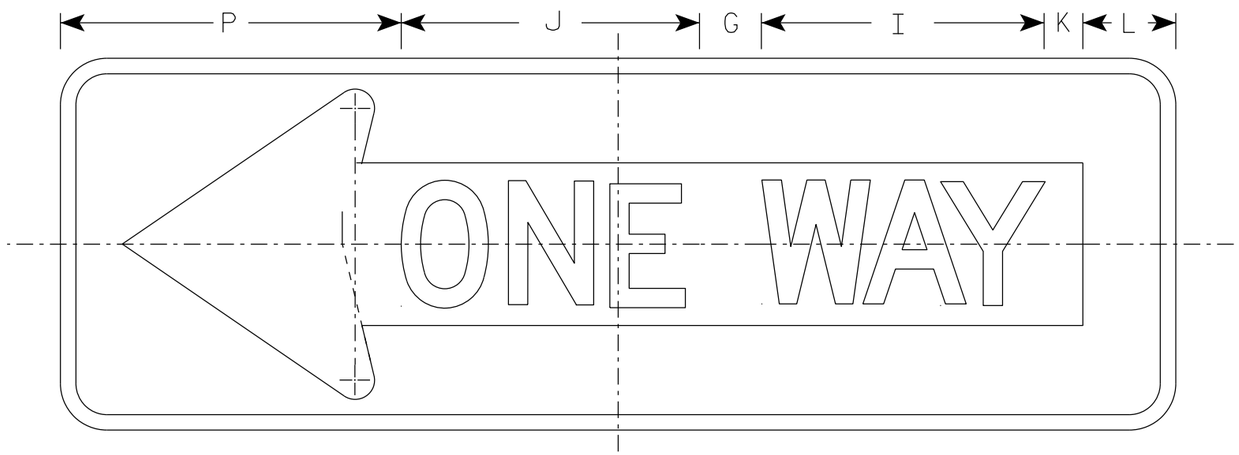
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 193 | E



R6-1R

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - BLACK
   Message - BLACK LEGEND & WHITE ARROW & BORDER
3. Message Series - D



R6-1L

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	36	12	1 1/2	1/2		4	2	7 1/2	9 5/8	9 1/8	1 1/4	3	3 3/8	5/8	4 3/8	11		3/8	7 1/2								3.0
2M	54	18	2 1/4	3/4		6	3	11 1/4	13 5/8	14 1/2	1 7/8	4 1/2	5	1	6 1/2	16 1/2		5/8	11 1/4								6.75
3	54	18	2 1/4	3/4		6	3	11 1/4	13 5/8	14 1/2	1 7/8	4 1/2	5	1	6 1/2	16 1/2		5/8	11 1/4								6.75
4	54	18	2 1/4	3/4		6	3	11 1/4	13 5/8	14 1/2	1 7/8	4 1/2	5	1	6 1/2	16 1/2		5/8	11 1/4								6.75
5																											

STANDARD SIGN
R6-1 L & R

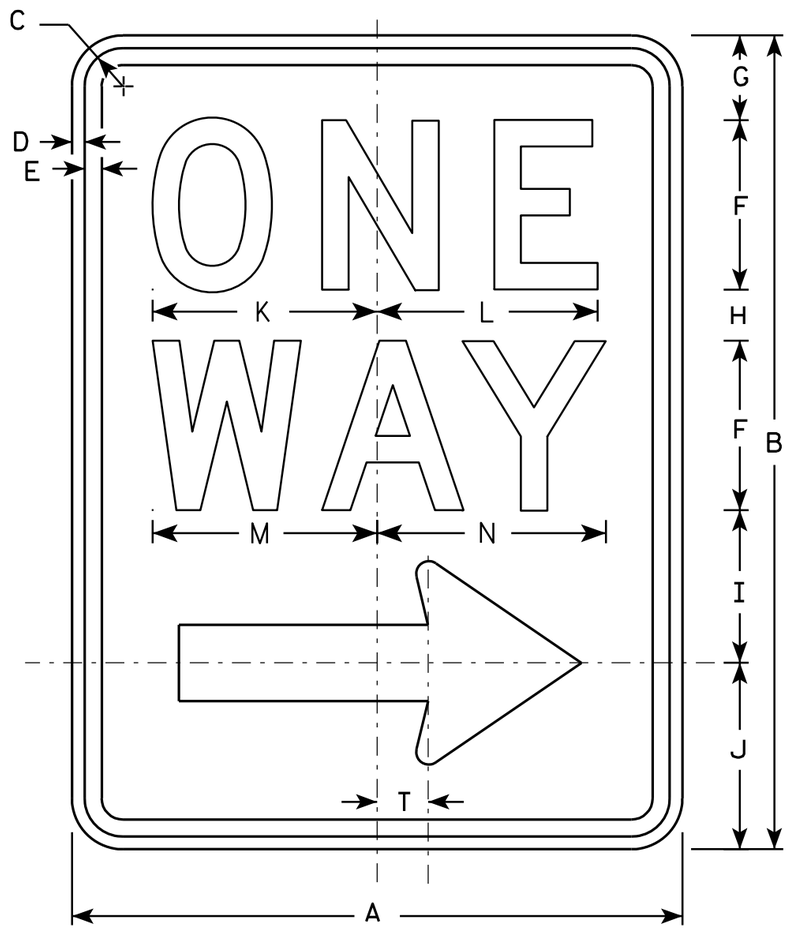
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 07/11/18 PLATE NO. R6-1.3

PROJECT NO:

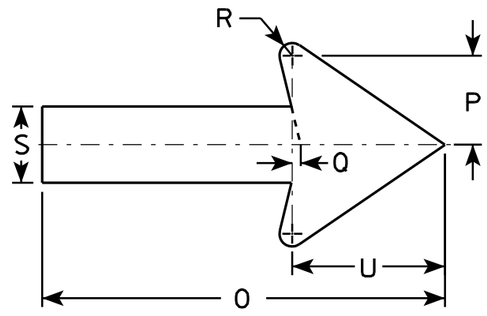
SHEET NO: 194 E



R6-2R

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
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.
5. R6-2L same as R6-2R except arrow points to the left.



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	O	R	S	T	U	V	W	X	Y	Z
1	18	24	1 1/8	3/8	1/2	5	2 1/2	1 1/2	4 1/2	5 1/2	6 5/8	6 1/2	6 5/8	6 3/4	11 7/8	2 5/8	1/4	3/8	2 1/4	1 1/2	4 1/2					
2S	24	30	1 1/8	3/8	1/2	6	3	2 1/2	5 1/2	7	8 1/8	8 1/8	8 1/2	8 5/8	16	3 1/2	3/8	1/2	3	2	6					
2M	30	36	1 3/8	1/2	5/8	8	2 1/2	2 5/8	6 7/8	8	10 1/2	10 1/2	11 1/4	11 1/4	20	4 3/8	1/2	5/8	3 3/4	2 1/2	7 1/2					
3	36	48	1 7/8	1/2	5/8	10	5 1/4	3 1/4	9	10 1/2	12 3/4	12 3/4	13 1/4	13 1/2	24	5 5/8	1/2	3/4	4 3/4	3	9					
4	36	48	1 7/8	1/2	5/8	10	5 1/4	3 1/4	9	10 1/2	12 3/4	12 3/4	13 1/4	13 1/2	24	5 5/8	1/2	3/4	4 3/4	3	9					
5																										

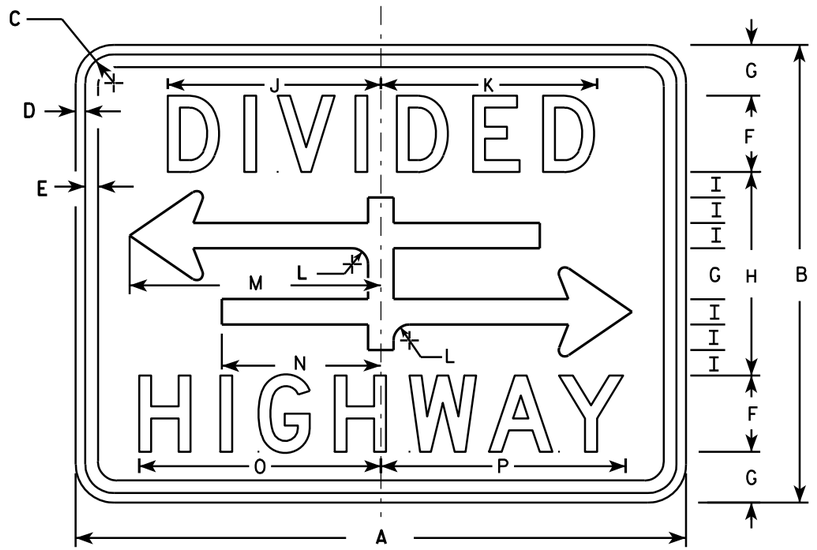
STANDARD SIGN
R6-2 R&L

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/2/10 PLATE NO. R6-2.8

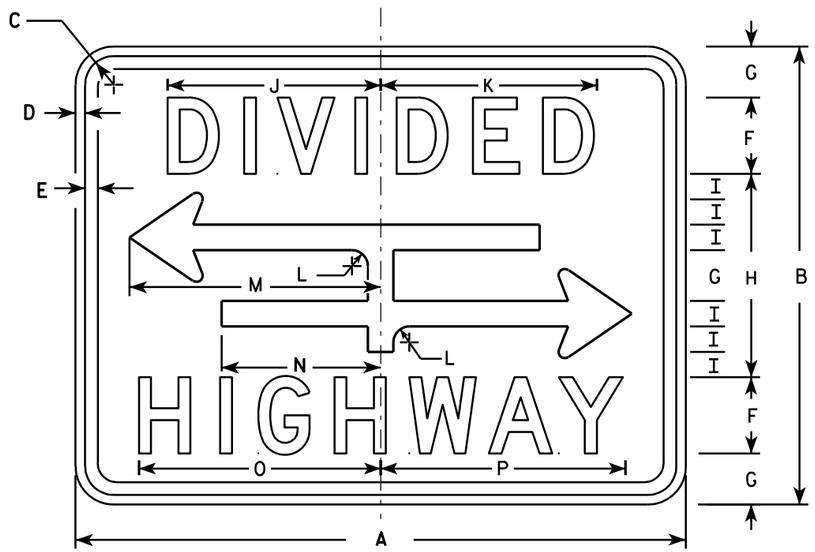
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 195	E



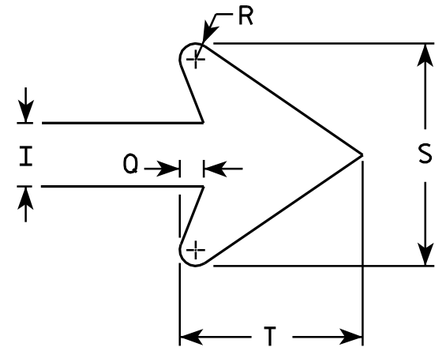
R6-3

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
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.



R6-3A



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	24	18	1 1/8	3/8	3/8	3	2	8	1	8 3/8	8 1/2	5/8	9 7/8	6 1/4	9 1/2	9 5/8	3/8	1/4	3 1/2	2 3/4							3.0
2S	30	24	1 1/8	3/8	1/2	4	2 5/8	10 3/4	1 3/8	10 1/2	10 5/8	7/8	12 1/2	7 7/8	12 1/4	12 3/8	1/2	3/8	4 5/8	3 5/8							5.0
2M	30	24	1 1/8	3/8	1/2	4	2 5/8	10 3/4	1 3/8	10 1/2	10 5/8	7/8	12 1/2	7 7/8	12 1/4	12 3/8	1/2	3/8	4 5/8	3 5/8							5.0
3																											
4																											
5																											

STANDARD SIGN
R6-3 & R6-3A

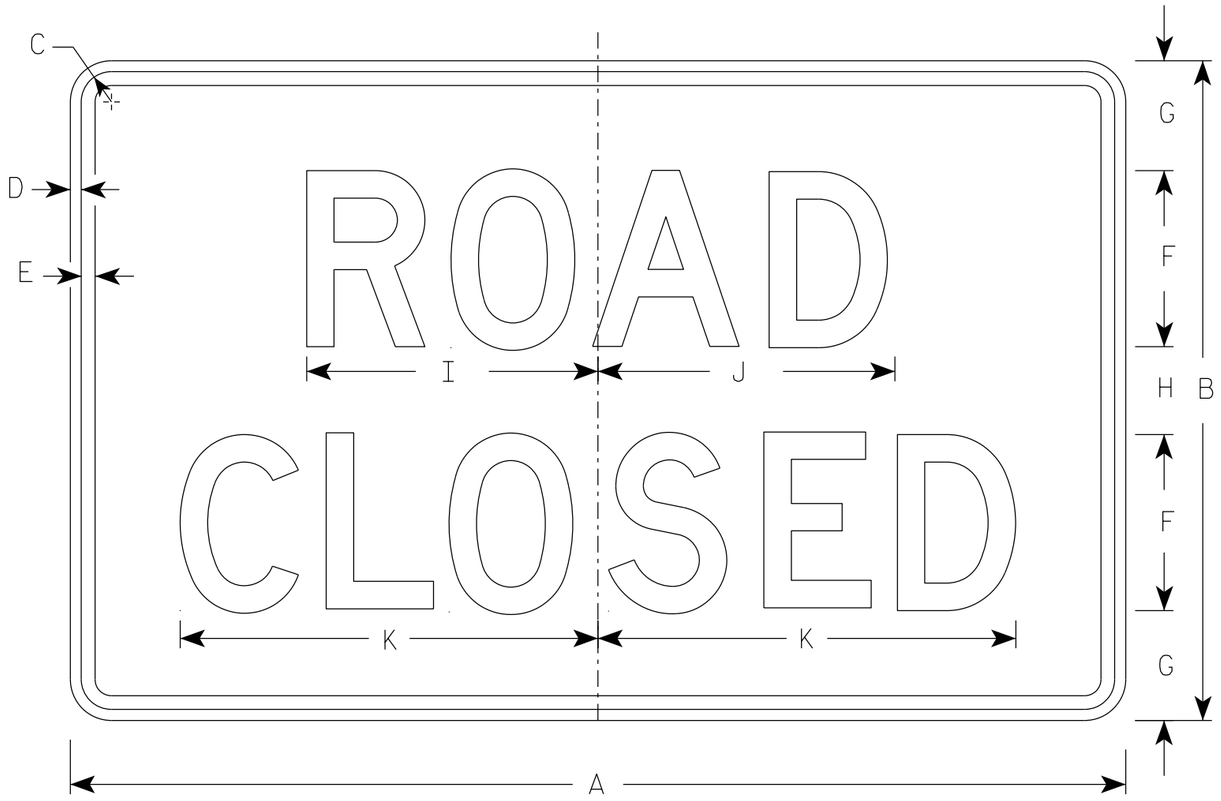
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/31/2011 PLATE NO. R6-3.5

PROJECT NO:

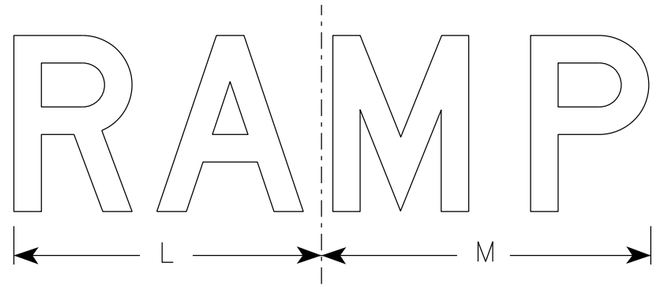
SHEET NO: 196 E



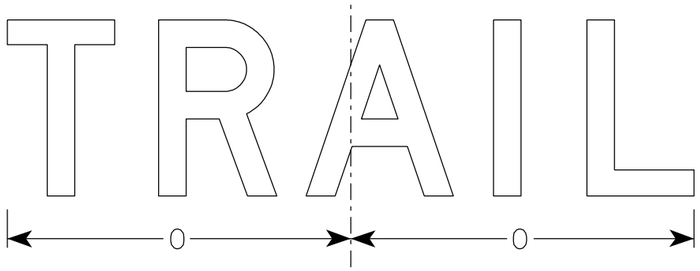
R11-2

NOTES

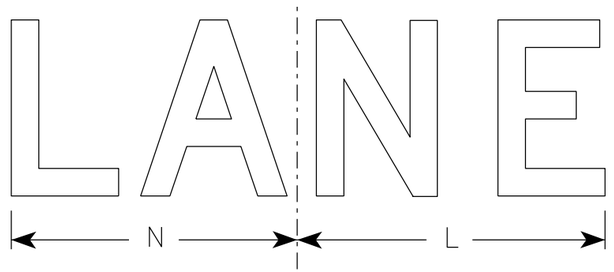
1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Modify the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



R11-2R



R11-2T



R11-2L

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 3/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13	15 5/8												10.0
2M	48	30	1 3/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13	15 5/8												10.0
3	48	30	1 3/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13	15 5/8												10.0
4	48	30	1 3/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13	15 5/8												10.0
5	48	30	1 3/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13	15 5/8												10.0

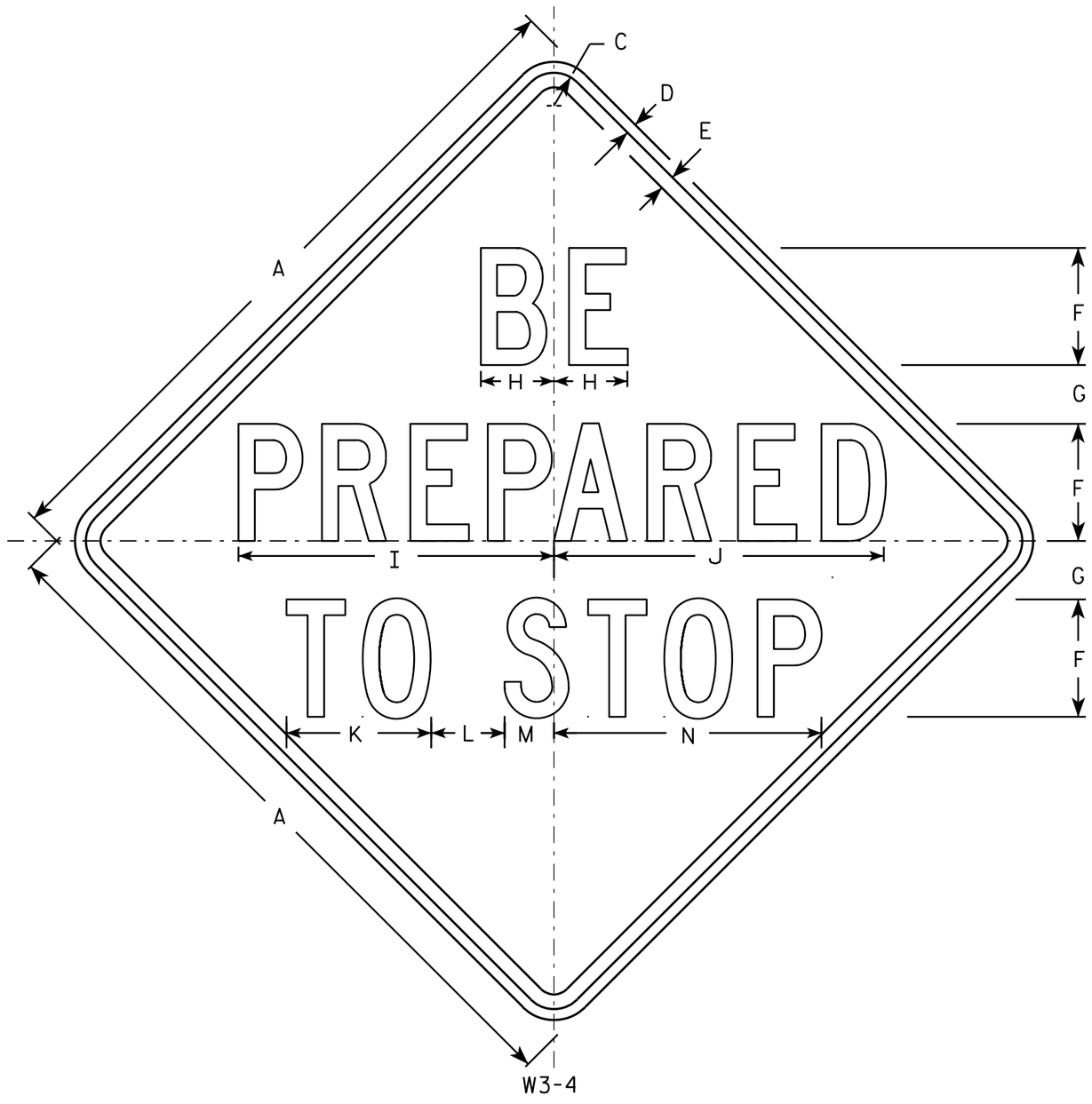
STANDARD SIGN
R11-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/29/2021 PLATE NO. R11-2.11

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 197	E



NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow
   Message - Black
3. Message Series - 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	30		1 1/8	3/8	1/2	5	2 1/8	3 1/8	13 1/4	14 1/8	6 1/8	3 3/8	2	11 1/2													6.25
2S	36		1 3/8	1/2	5/8	6	2 1/2	3 3/4	15 7/8	16 7/8	7 3/8	4	2 3/8	13 3/4													9.0
2M	36		1 3/8	1/2	5/8	6	2 1/2	3 3/4	15 7/8	16 7/8	7 3/8	4	2 3/8	13 3/4													9.0
3	36		1 3/8	1/2	5/8	6	2 1/2	3 3/4	15 7/8	16 7/8	7 3/8	4	2 3/8	13 3/4													9.0
4	48		2 1/4	3/4	1	8	4	5	21 1/2	22 1/2	9 7/8	5	3 3/8	18 1/4													16.0
5	48		2 1/4	3/4	1	8	4	5	21 1/2	22 1/2	9 7/8	5	3 3/8	18 1/4													16.0

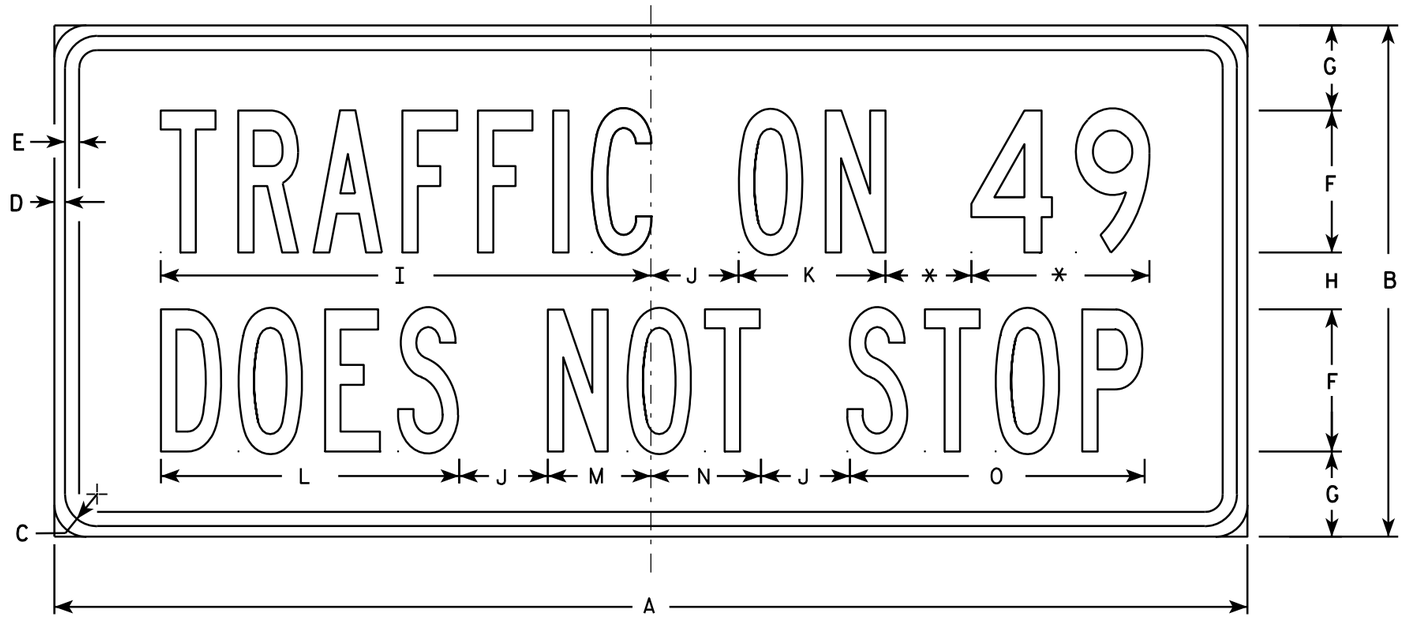
STANDARD SIGN
W3-4

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/21/11 PLATE NO. W3-4.4

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 198	E



W4-4C

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow
   Message - Black
3. Message Series - B (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. Highway Number usually Series D. Substitute appropriate numerals and optically adjust spacing to achieve proper balance.

* VARIES

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 1/8	3/8	3/8	3	2 1/4	1 1/2	10 3/8	1 1/2	3 1/8	6 1/4	2 1/4	2 1/4	6 1/4												2.0
2M	24	12	1 1/8	3/8	3/8	3	2 1/4	1 1/2	10 3/8	1 1/2	3 1/8	6 1/4	2 1/4	2 1/4	6 1/4												2.0
3	36	15	1 1/8	3/8	1/2	4	2 5/8	1 3/4	13 7/8	2 3/8	4 1/4	8 3/8	3 1/8	3 1/8	8 3/8												3.75
4	42	18	1 1/8	3/8	1/2	5	3	2	17 1/4	3 1/8	5 1/8	10 1/2	3 7/8	3 7/8	10 3/8												5.25
5																											

STANDARD SIGN
W4-4C

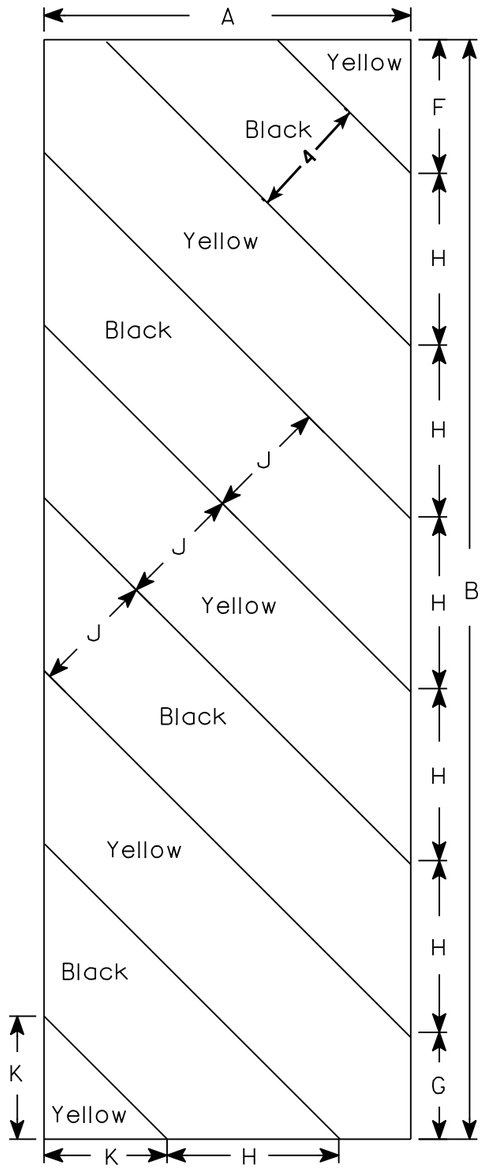
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

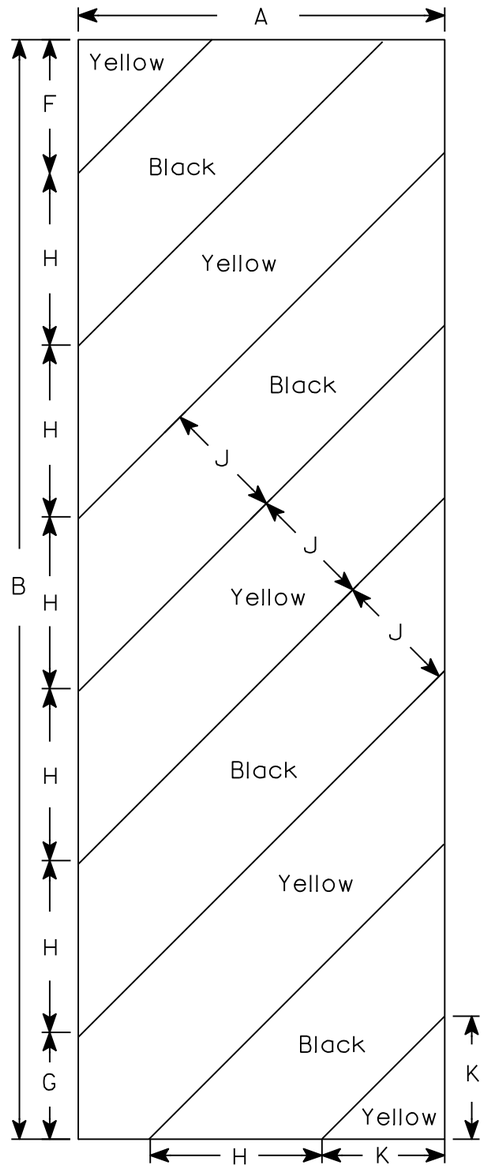
DATE 03/12/13 PLATE NO. W4-4.2

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 199 | E

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\W44C.DGN PLOT DATE : 12-MAR-2013 11:39 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 5.334037:1.000000
WISDOT/CADDS SHEET 42



W5-52L



W5-52R

NOTES

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

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

STANDARD SIGN

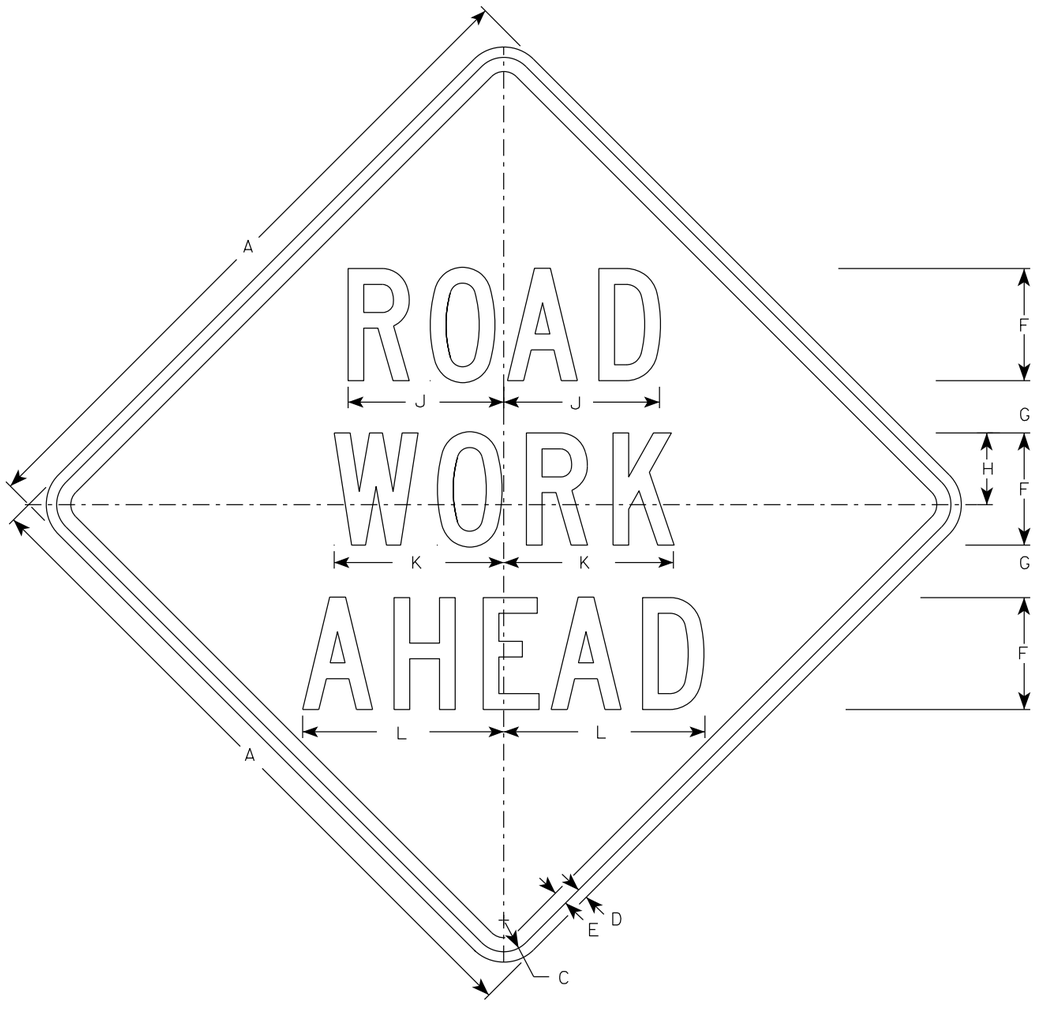
W5-52L & W5-52R

WISCONSIN DEPT OF TRANSPORTATION

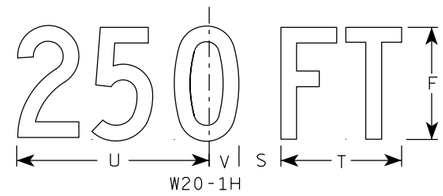
APPROVED Matthew R Rauch
for State Traffic Engineer

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

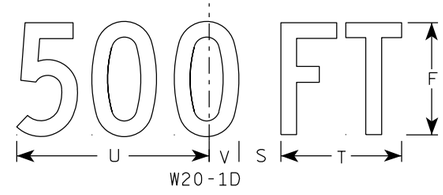
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 200	E



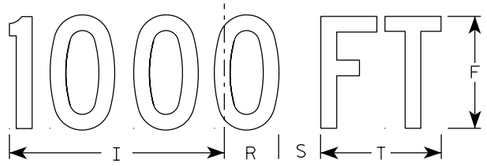
W20-1A



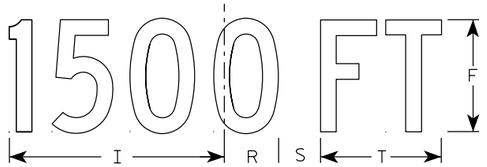
W20-1H



W20-1D



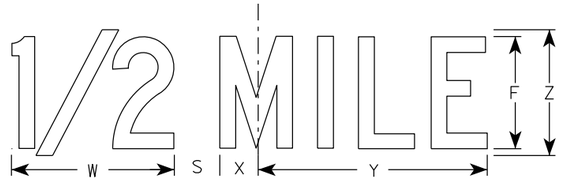
W20-1C



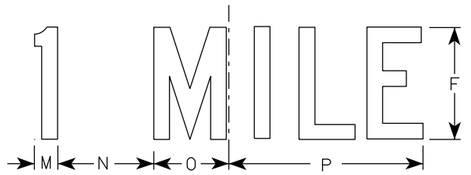
W20-1B

NOTES

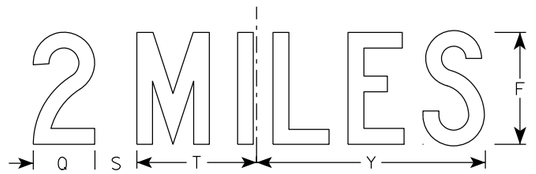
1. Sign is Type II - Type F Reflective
2. Color:
   Background - Orange
   Message - Black
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.



W20-1G



W20-1F



W20-1E

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

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

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

PROJECT NO:

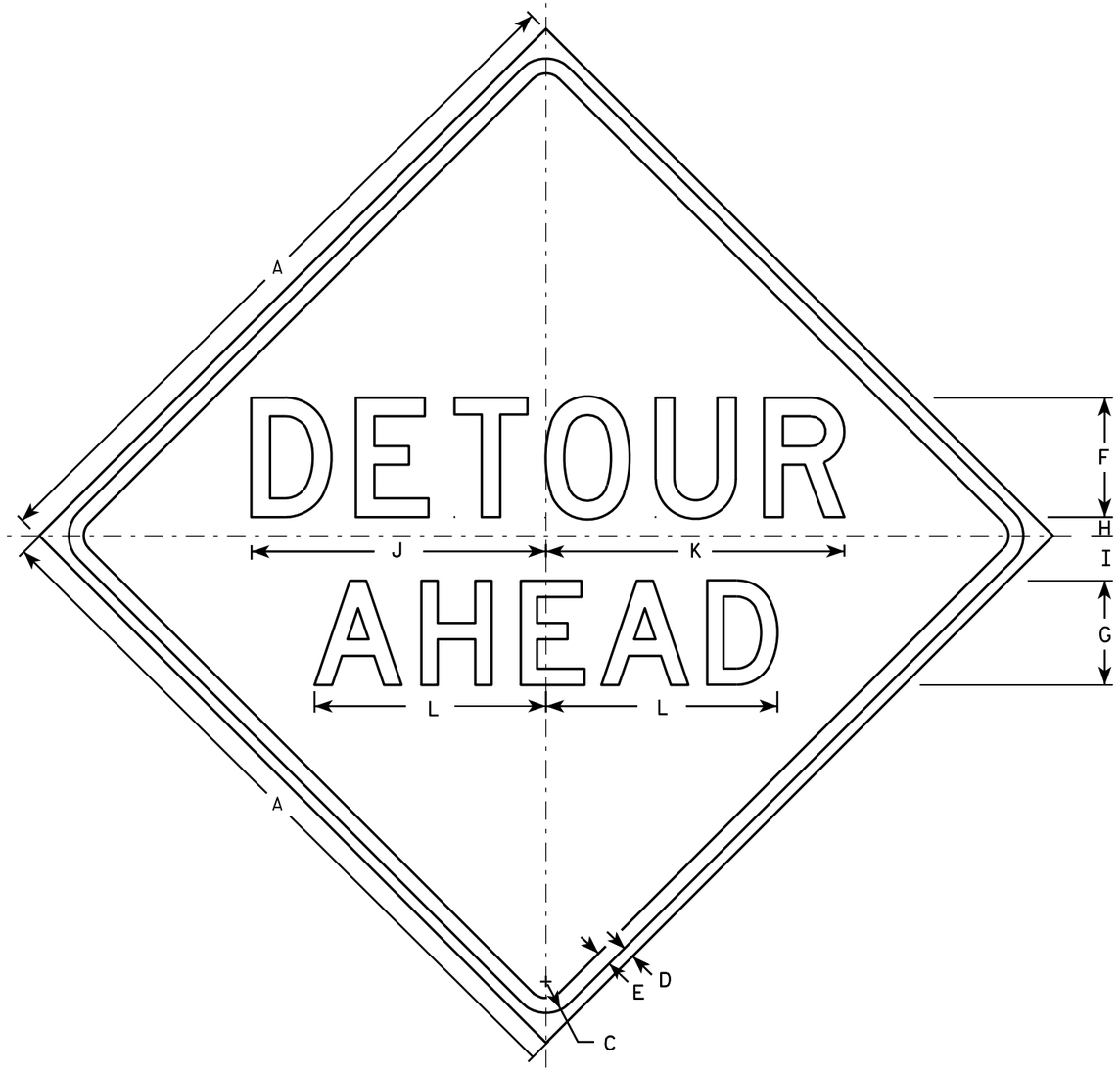
SHEET NO: E

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

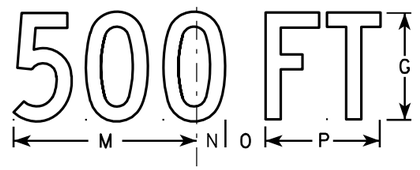
WISDOT/CADDS SHEET 42

7

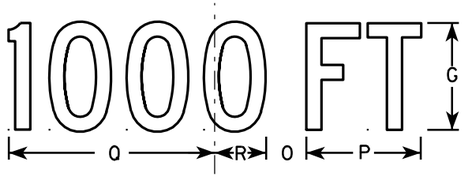
7



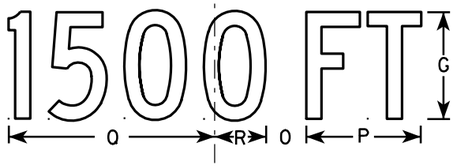
W20-2A



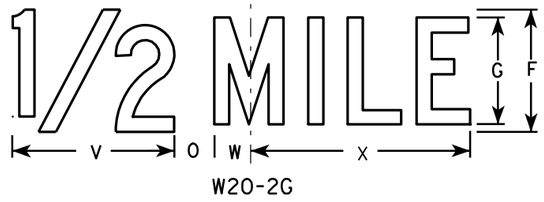
W20-2D



W20-2C



W20-2B



W20-2G

W20-2F

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Message Series - 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	O	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 5/8	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		2 1/4	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		2 1/4	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		2 1/4	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		2 1/4	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		2 1/4	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

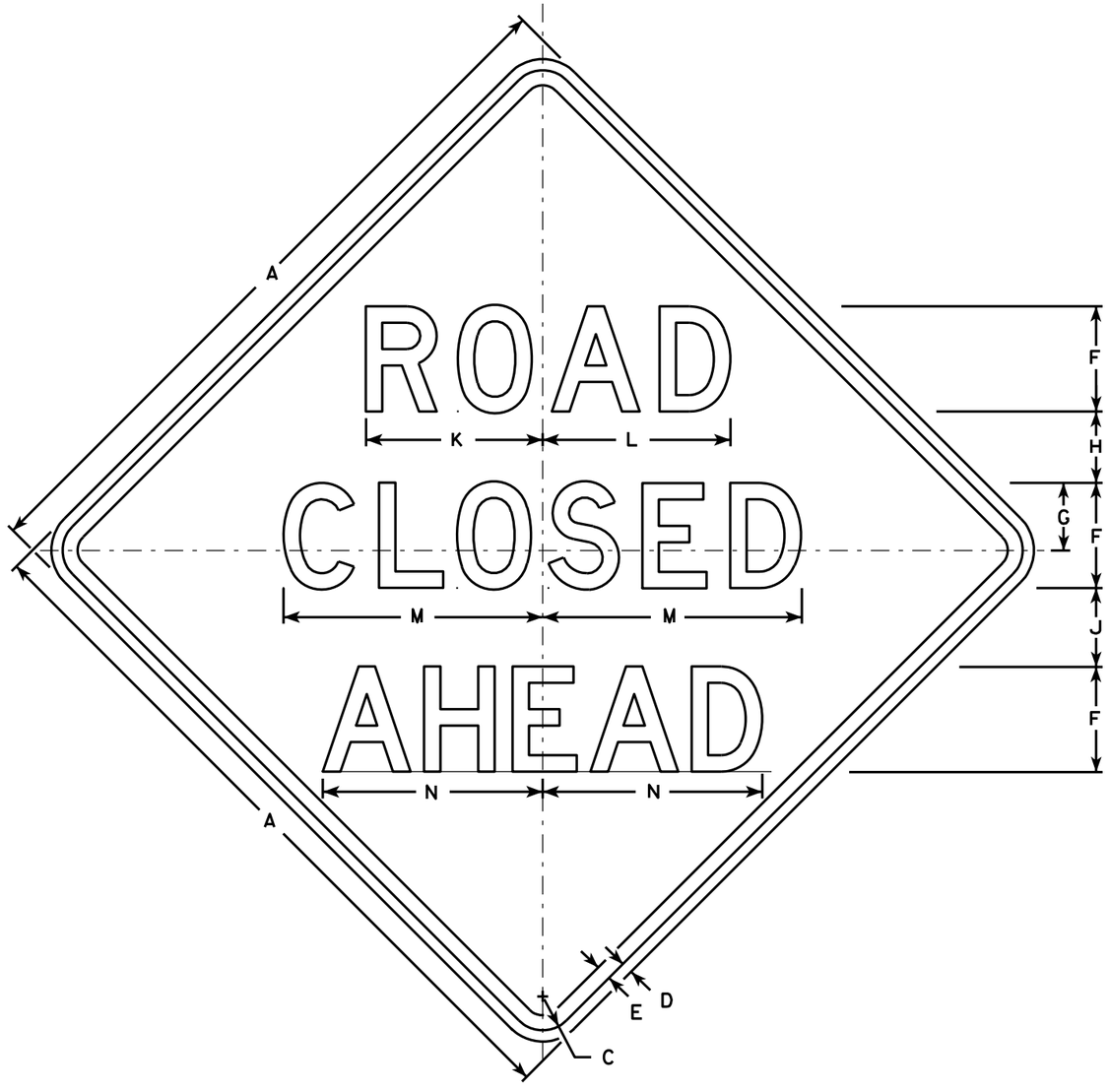
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/18/11 PLATE NO. W20-2.6

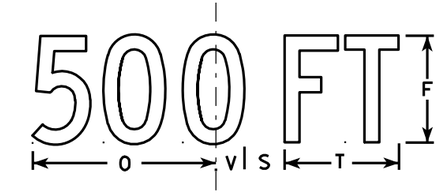
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 202 | E

7

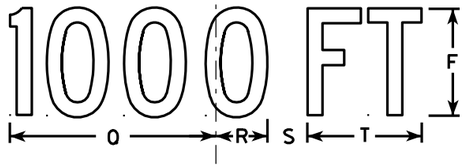
FILE NAME : C:\Users\PROJECTS\tr_stdplate\W202.DGN PLOT DATE : 18-MAR-2011 10:00 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 9.931739:1.000000
WISDOT/CADDS SHEET 42



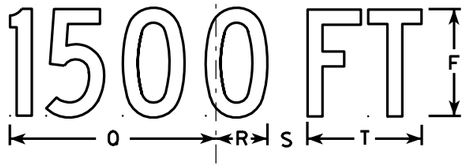
W20-3A



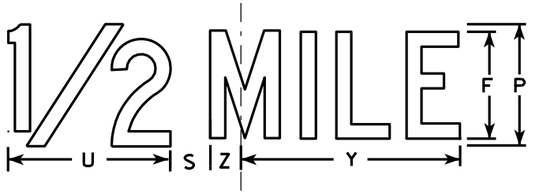
W20-3D



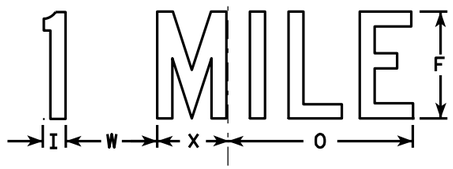
W20-3C



W20-3B



W20-3G



W20-3F

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
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		1 5/8	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		2 1/4	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		2 1/4	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		2 1/4	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		2 1/4	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		2 1/4	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

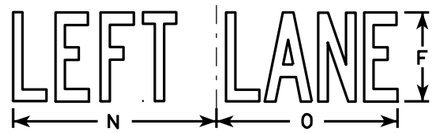
STANDARD SIGN
W20-3A, B, C, D, F & G

WISCONSIN DEPT OF TRANSPORTATION

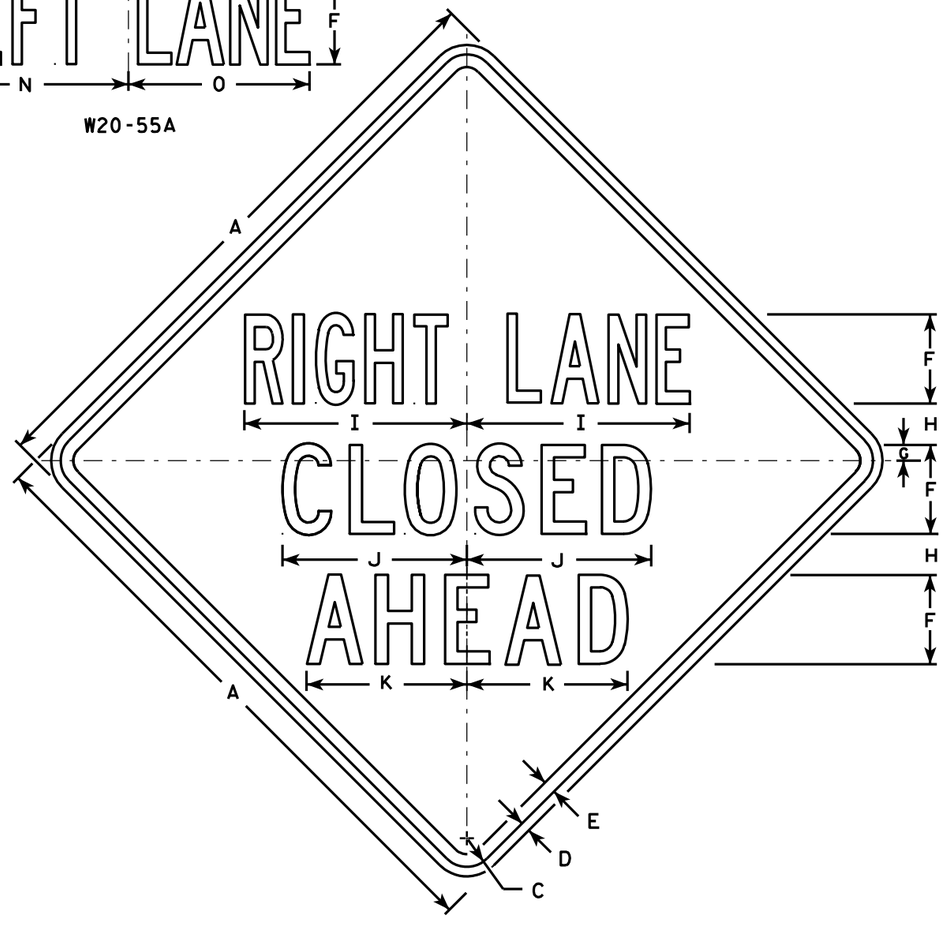
APPROVED Matthew R Rauch
for State Traffic Engineer
DATE 3/18/11 PLATE NO. W20-3.7

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 203 | E

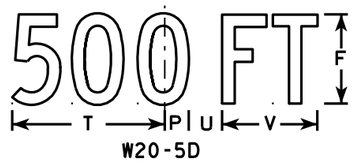
W20-56A



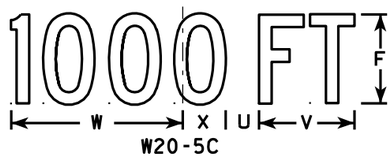
W20-55A



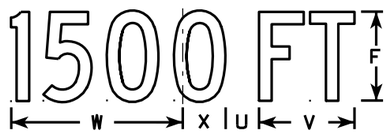
W20-5A



W20-5D



W20-5C



W20-5B

W20-5G

W20-5F

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Message Series - 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. " _____ LANE" is Series B.
   All other copy is 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	36	6	1 5/8	5/8	3/4	5	1/8	2 1/2	13 1/8	10 3/4	9 1/2	14 1/4	13 5/8	12	12	1 3/8	1 1/8	4 1/2	3 1/2	9	1 1/8	5 5/8	10 1/8	2 1/2	1 3/4	8	9.0
2S	48	8	2 1/4	3/4	1	7	1 1/4	3 1/4	17 1/2	14 3/8	12 5/8	19	18 3/8	16	14 1/4	1 7/8	1 1/2	6	4 5/8	12	2 5/8	7 1/2	13 1/2	3 3/8	2 3/8	10 5/8	16.0
2M	48	8	2 1/4	3/4	1	7	1 1/4	3 1/4	17 1/2	14 3/8	12 5/8	19	18 3/8	16	14 1/4	1 7/8	1 1/2	6	4 5/8	12	2 5/8	7 1/2	13 1/2	3 3/8	2 3/8	10 5/8	16.0
3	48	8	2 1/4	3/4	1	7	1 1/4	3 1/4	17 1/2	14 3/8	12 5/8	19	18 3/8	16	14 1/4	1 7/8	1 1/2	6	4 5/8	12	2 5/8	7 1/2	13 1/2	3 3/8	2 3/8	10 5/8	16.0
4	48	8	2 1/4	3/4	1	7	1 1/4	3 1/4	17 1/2	14 3/8	12 5/8	19	18 3/8	16	14 1/4	1 7/8	1 1/2	6	4 5/8	12	2 5/8	7 1/2	13 1/2	3 3/8	2 3/8	10 5/8	16.0
5	48	8	2 1/4	3/4	1	7	1 1/4	3 1/4	17 1/2	14 3/8	12 5/8	19	18 3/8	16	14 1/4	1 7/8	1 1/2	6	4 5/8	12	2 5/8	7 1/2	13 1/2	3 3/8	2 3/8	10 5/8	16.0

STANDARD SIGN
W20-5A, B, C, D, F & G

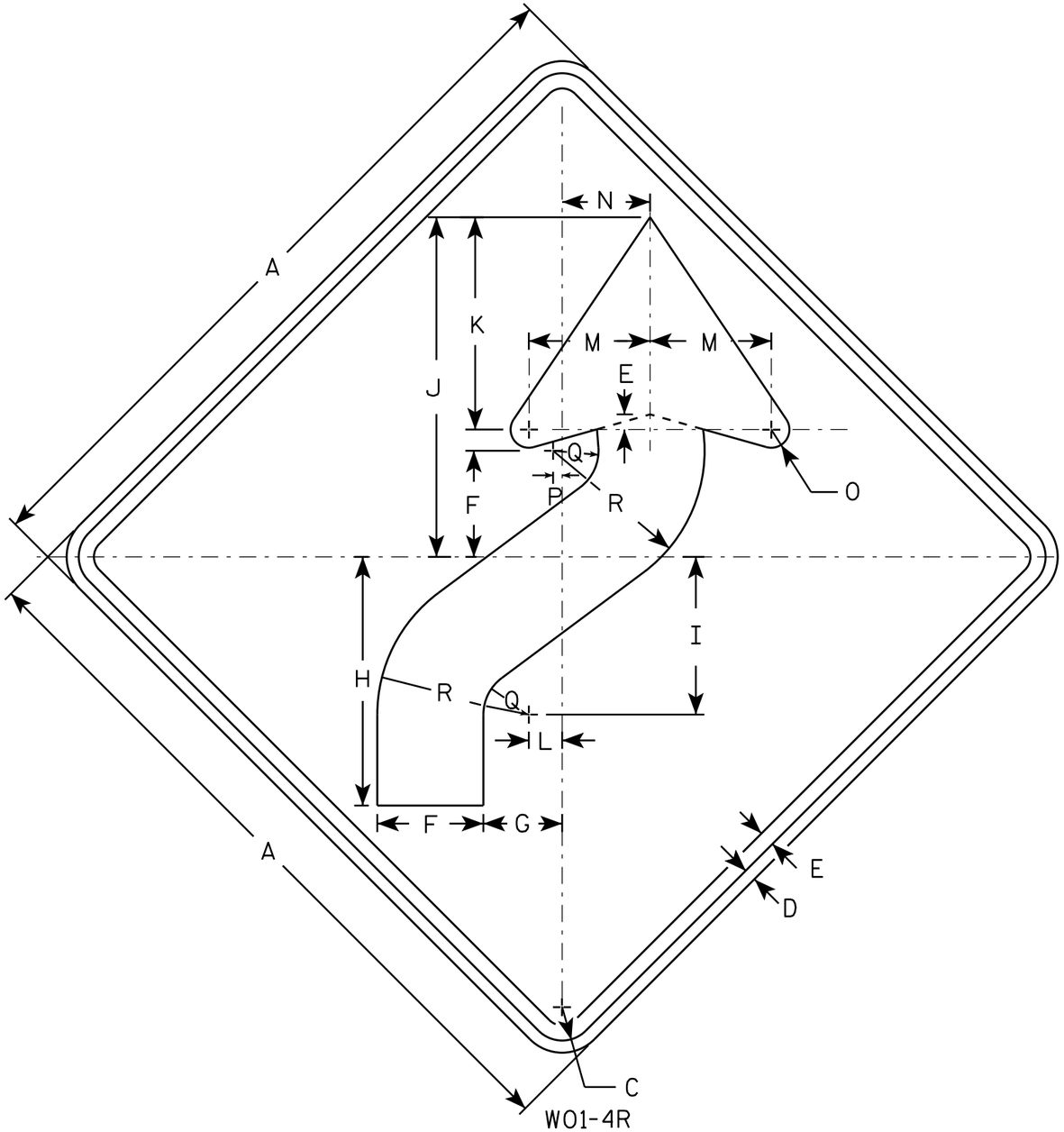
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/18/11 PLATE NO. W20-5.11

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 204	E

FILE NAME : C:\Users\PROJECTS\tr_stdplate\W205.DGN PLOT DATE : 18-MAR-2011 12:15 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 11.918087:1.000000
WISDOT/CADDS SHEET 42



W01-4R

NOTES

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

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

STANDARD SIGN
W01-4

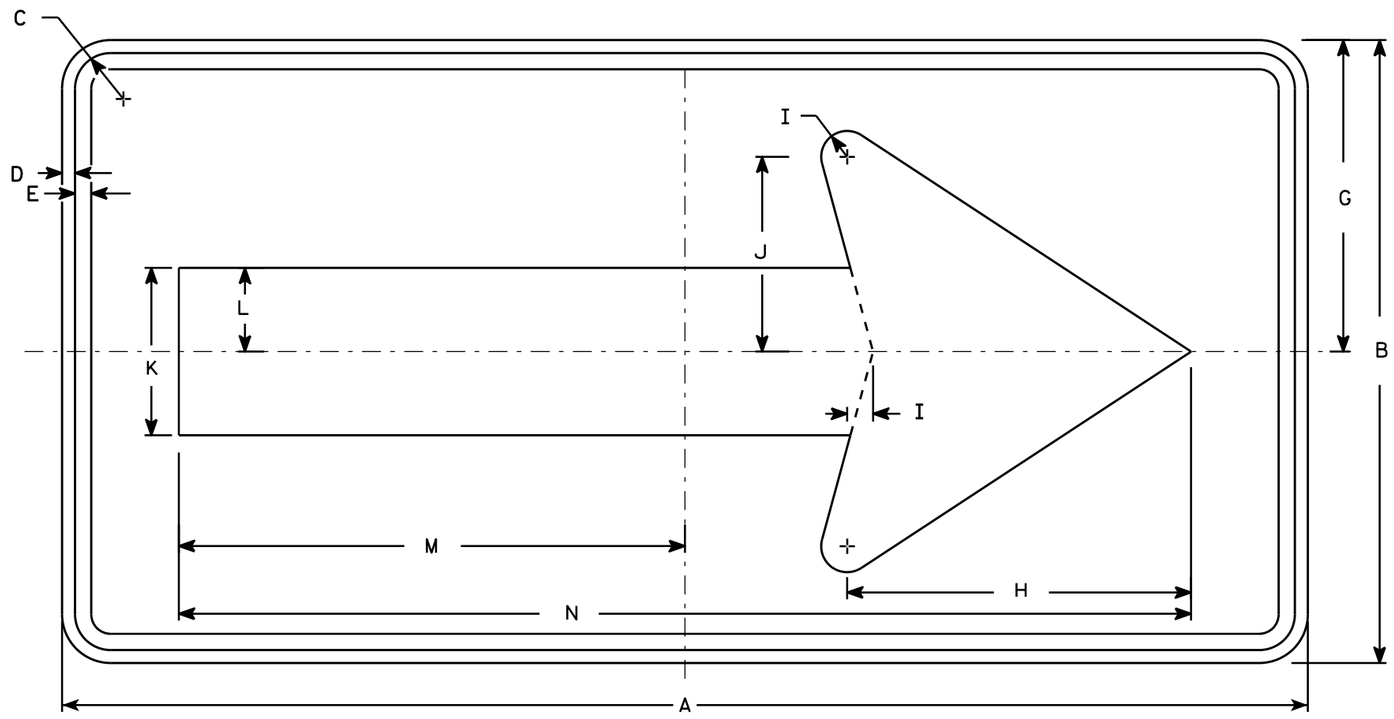
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/18/13 PLATE NO W01-4.1

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

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



W01-6

NOTES

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

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

STANDARD SIGN
W01-6

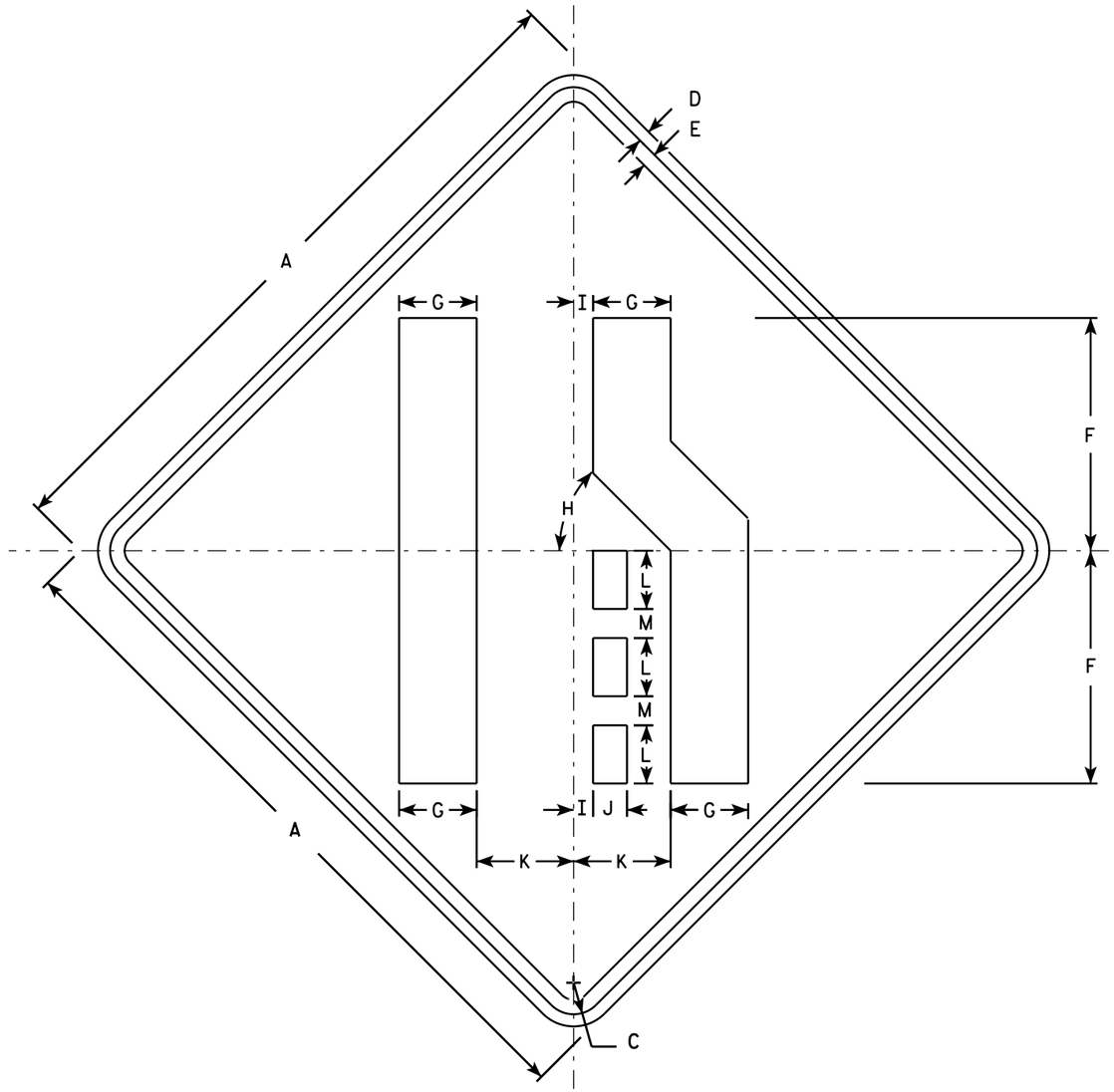
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/18/13 PLATE NO. W01-6.1

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

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



W04-2R

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. W04-2L is the same as W04-2R except the symbol is reversed along the vertical centerline.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 5/8	5/8	3/4	12	4	45°	1	1 3/4	5	3	1 1/2														9.0
2S	48		2 1/4	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0
2M	48		2 1/4	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0
3	48		2 1/4	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0
4	48		2 1/4	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0
5	48		2 1/4	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0

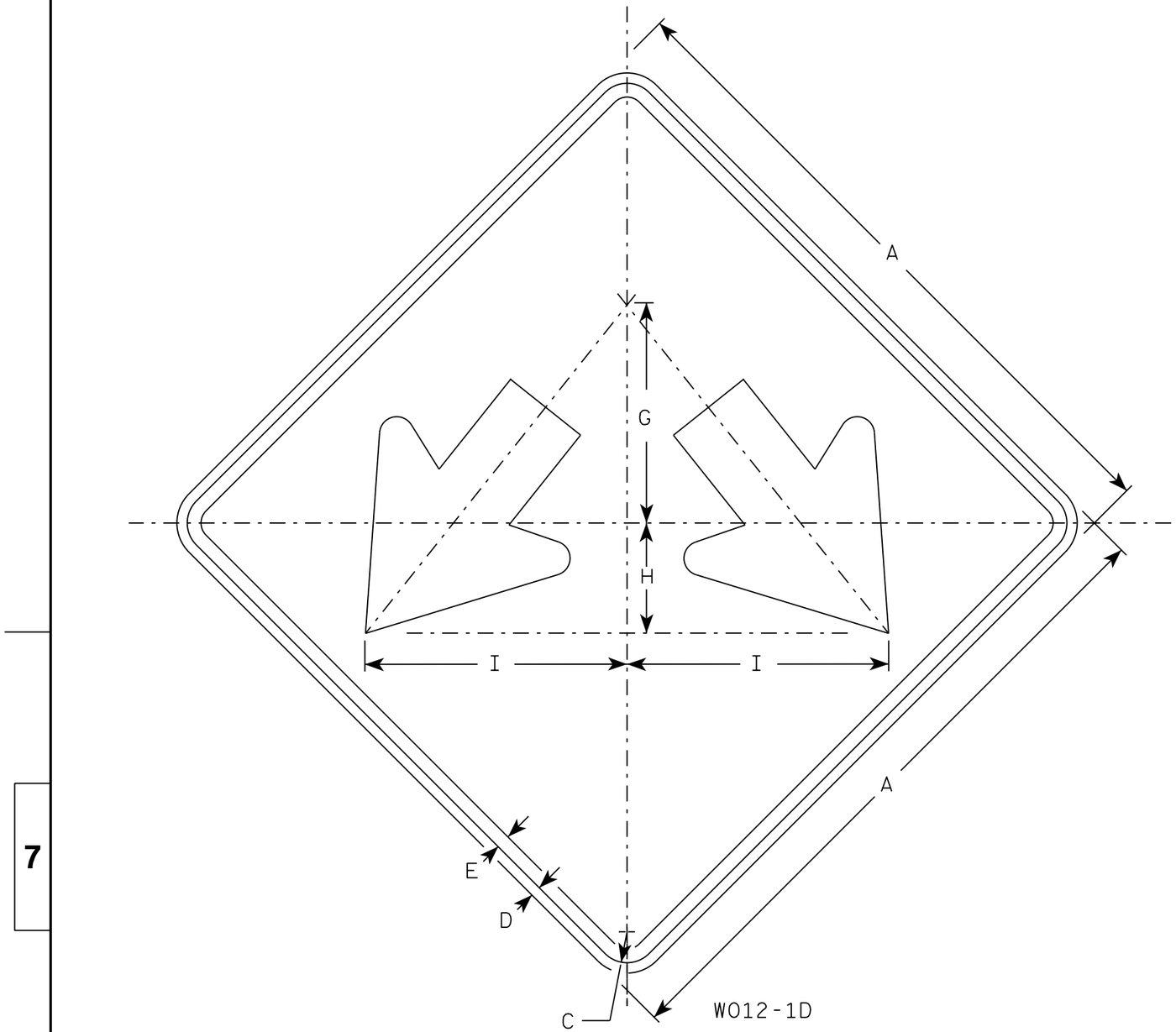
STANDARD SIGN
W04-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/20/13 PLATE 207 W04-2.1

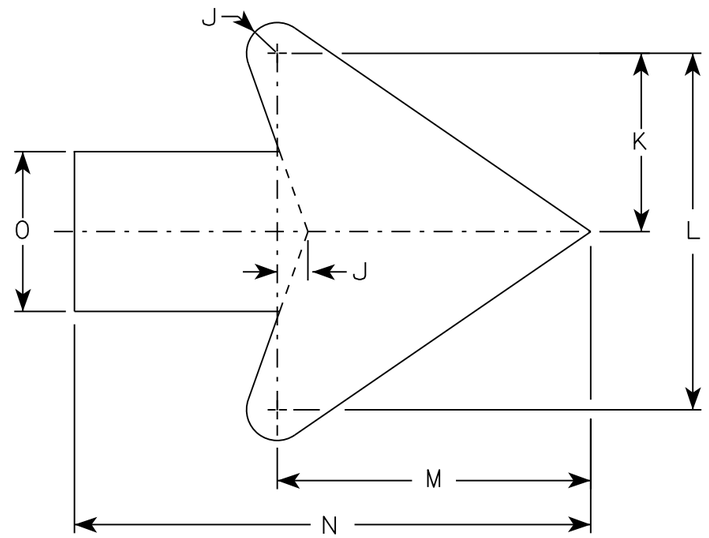
PROJECT NO: | SHEET NO: E



W012-1D

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.



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	24		1 1/8	1/2	3/8		8	4	9 1/2	3/8	3 3/8	7 1/4	6 3/8	10 3/8	3 1/4												4.0
2S	24		1 1/8	1/2	3/8		8	4	9 1/2	3/8	3 3/8	7 1/4	6 3/8	10 3/8	3 1/4												4.0
2M	24		1 1/8	1/2	3/8		8	4	9 1/2	3/8	3 3/8	7 1/4	6 3/8	10 3/8	3 1/4												4.0
3	30		1 3/8	1/2	5/8		10	5	11 7/8	3/4	4 1/2	9	7 7/8	13	4												6.25
4	36		1 3/8	1/2	5/8		12	6	14 1/4	1	5 1/2	10 7/8	9 5/8	15 3/4	4 3/4												9.0
5	36		1 3/8	1/2	5/8		12	6	14 1/4	1	5 1/2	10 7/8	9 5/8	15 3/4	4 3/4												9.0

STANDARD SIGN
W012-1D

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

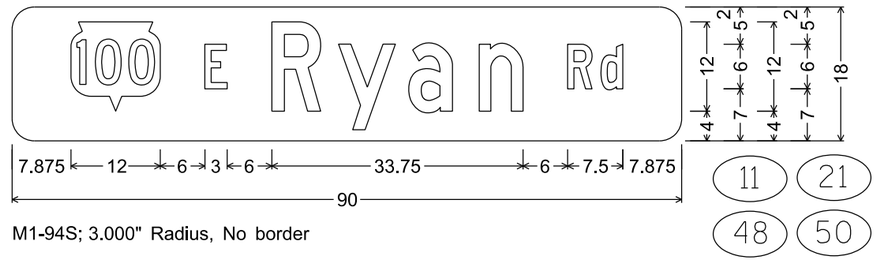
DATE 7/28/16 PLATE NO W012-1D.2

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

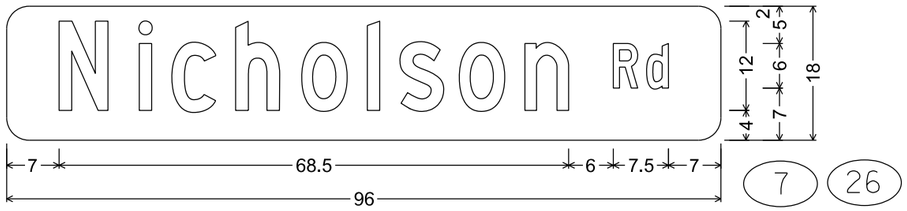
FILE NAME : C:\CADfiles\Projects\tr_stdplate\W0121D.DGN PLOT DATE : 11-AUG-2016 11:28 PLOT BY : $$ plotuser $$ PLOT NAME : PLOT SCALE : 4.621375:1.000000

NOTES

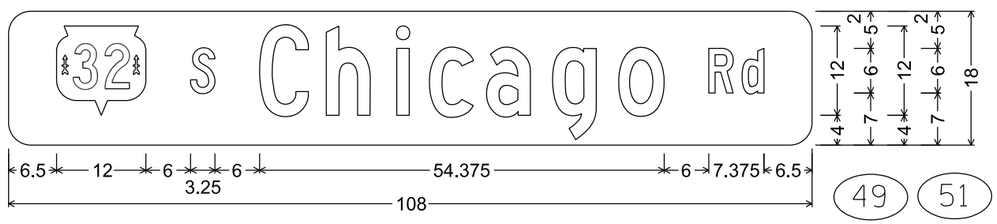
1. All Signs Type II - Type H Reflective
2. Color:
   Background - Green
   Message - White
3. Message Series - C



M1-94S; 3.000" Radius, No border



M1-94H; 3.000" Radius, No border

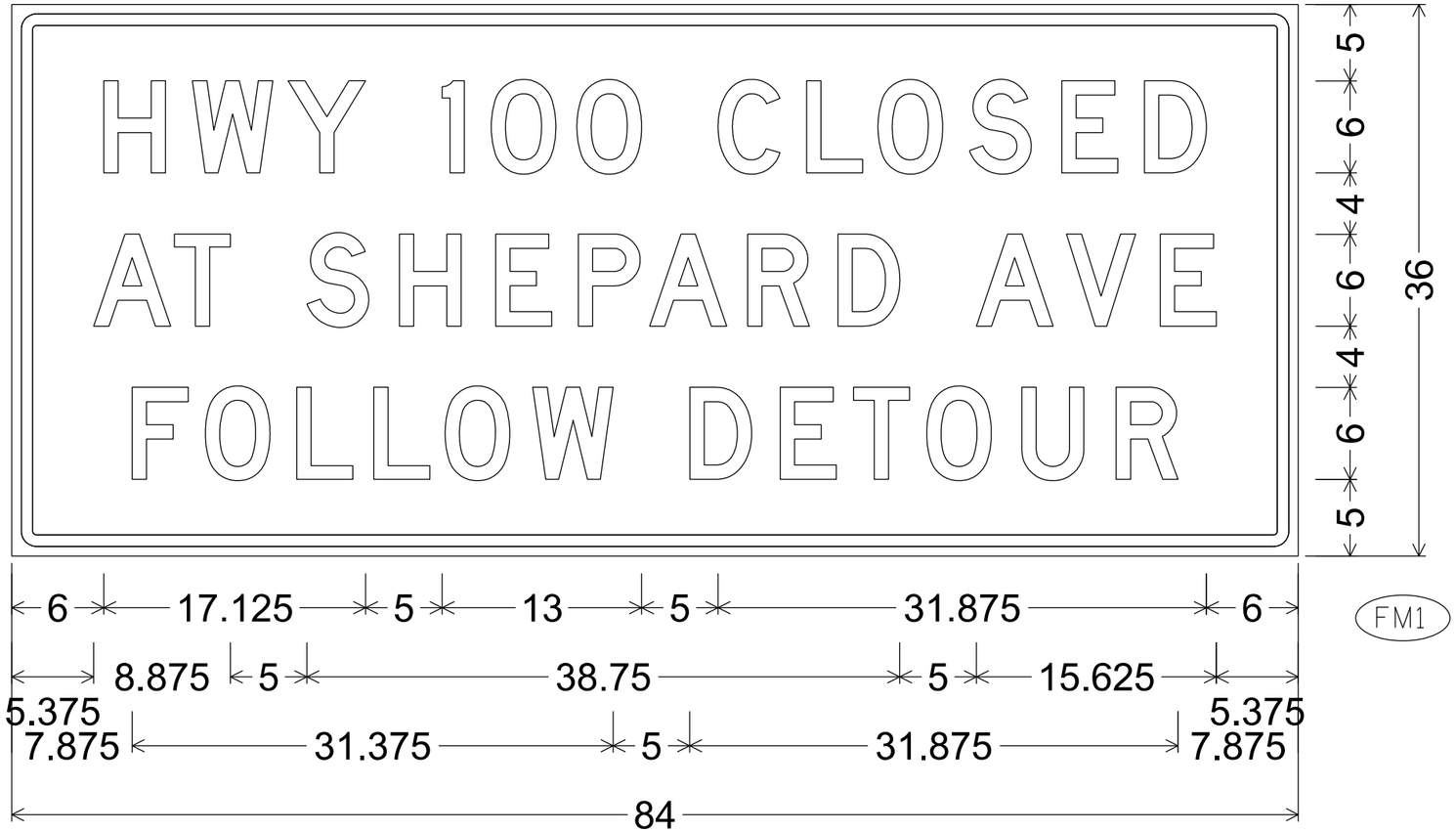


M1-94S; 3.000" Radius, No border

PROJECT NO: 2040-03-75	HWY: STH 100	COUNTY: MILWAUKEE	PERMANENT SIGNING	SHEET NO: 209	E

NOTES

1. Fixed Message Sign Type II - Type F Reflective
2. Color:
   Background - Orange
   Message - Black
3. Message Series - D



1.625" Radius, 0.750" Border, 0.625" Indent

7

7

Notes

Wisconsin Department of Transportation

Dedicated people creating transportation solutions
through innovation and exceptional service.

http://www.dot.wisconsin.gov

PROJECT ID: **2040-20-70**

WITH:

COUNTY: **MILWAUKEE**

FEB 13, 2024

ORDER OF SHEETS

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

TOTAL SHEETS = 176

N

DESIGN DESIGNATION

A.A.D.T.	2015	=	11,800
A.A.D.T.	2044	=	15,200
D.H.V.		=	1,505
D.D.		=	56/44
T.		=	5.0%
DESIGN SPEED		=	45 MPH
ESALS		=	N/A

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

RYAN ROAD, CITY OF OAK CREEK

BRIDGE OVER RR B-40-0530

STH 100

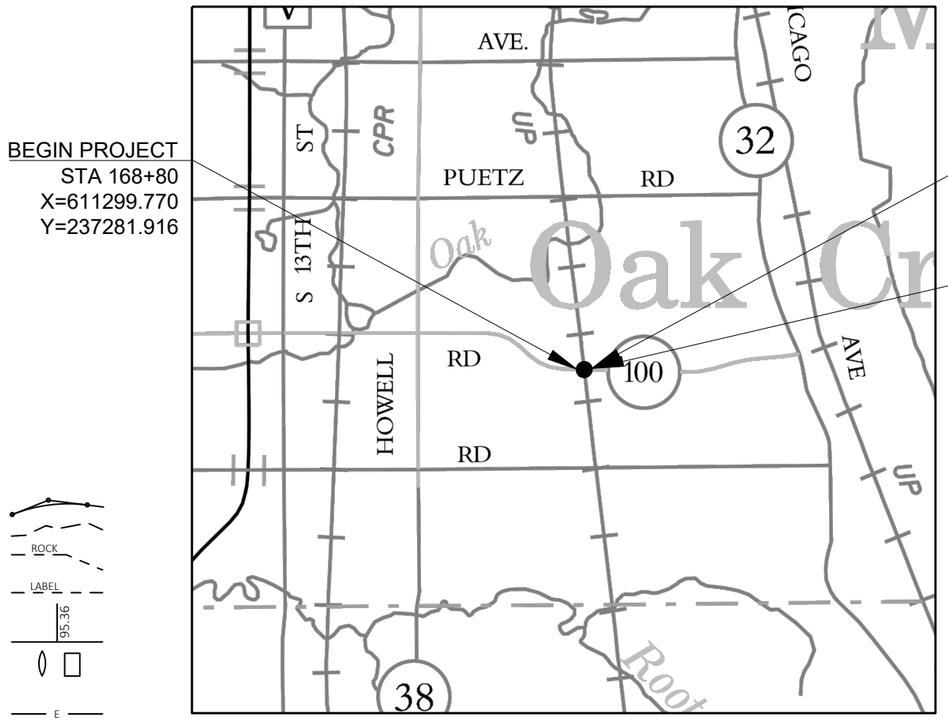
MILWAUKEE COUNTY

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
2040-20-70	WISC 2024222	1

STATE PROJECT NUMBER

2040-20-70

R-22-E



BEGIN PROJECT
STA 168+80
X=611299.770
Y=237281.916

PROJECT 2040-20-70
STRUCTURE B-40-530 (EB)
STRUCTURE B-40-633 (WB)

END PROJECT
STA 173+10
X=611729.184
Y=237259.493

T-5-N

LAYOUT

SCALE 0 — 1 MI

TOTAL NET LENGTH OF CENTERLINE = .092 MI

HORIZONTAL POSITIONS SHOWN ON THIS PLAN ARE WISCONSIN COORDINATE REFERENCE SYSTEM (WISCRS), MILWAUKEE COUNTY, NAD83 (2011), IN U.S. SURVEY FEET. POSITIONS SHOWN ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES ARE THE SAME AS GROUND DISTANCES.

ELEVATIONS ARE REFERENCED TO NAVD 88 (2012). GPS DERIVED ELEVATIONS ARE BASED ON GEOID 12A.

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor	WISDOT
Designer	WISDOT
Project Manager	NGUYEN LY
Regional Examiner	STEVE CHOJNACKI
Regional Supervisor	BENEDICT ERUCHALU

APPROVED FOR THE DEPARTMENT

DATE: 10/31/2023 (Signature)

E

FILE NAME : N:\PDS\C3D\20402000\SHEETSPLAN\010101_TI.DWG PLOT DATE : 11/21/2023 1:18 PM PLOT BY : STARK, GARY W PLOT NAME :

GENERAL NOTES

1) 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. COORDINATE CONSTRUCTION ACTIVITIES WITH A CALL TO DIGGERS HOTLINE AND/OR A DIRECT CALL TO THE UTILITIES THAT HAVE FACILITIES IN THE AREA. NOT ALL UTILITIES ARE MEMBERS OF DIGGERS HOTLINE.

2) D.O.T. BRIDGE BENCHMARK MONUMENT TO BE FURNISHED BY THE STATE AND PLACED BY THE CONTRACTOR AS DIRECTED BY THE ENGINEER.

3) CURB AND GUTTER GRADES ARE GIVEN TO THE FLANGE OF CURB AND GUTTER OR THEORETICAL FLANGE POINT OF INTEGRAL CURB AND GUTTER. CURB AND GUTTER RADII ARE MEASURED TO THE FLANGE OF CURB AND GUTTER OR THEORETICAL FLANGE POINT OF INTEGRAL CURB AND GUTTER.

4) FOR INLET AND CATCH BASIN STRUCTURES LOCATED IN THE CURB OR IN FRONT OF BARRIER, STATION, OFFSET, AND ELEVATIONS ARE GIVEN TO THE FLOW LINE. MH STATION, OFFSET, AND ELEVATIONS ARE GIVEN TO THE CENTER OF STRUCTURE.

5) CONTACT THE PROJECT ENGINEER, THE COUNTY SURVEYOR, AND SEWRPC AT LEAST TWO WEEKS BEFORE WORKING NEAR ANY SECTION CORNER MONUMENT.

6) VERIFY EXISTING PAVEMENT ELEVATIONS AT ALL TIE-INS TO EXISTING PAVEMENT PRIOR TO CONSTRUCTION. NOTIFY ENGINEER IF A DISCREPANCY IS FOUND BETWEEN PROPOSED PLAN ELEVATIONS AND EXISTING PAVEMENT ELEVATIONS.

7) SAWCUT EXISTING ASPHALT AND CONCRETE PAVEMENT AT THE MATCHLINE AS INDICATED ON THE PLAN OR AS DIRECTED BY THE ENGINEER.

8) RESHAPE, RESTORE AND FINISH ALL PREVIOUSLY GRASSED AREAS DISTURBED BY OPERATIONS OUTSIDE OF THE NORMAL CONSTRUCTION LIMITS AT NO EXPENSE TO THE DEPARTMENT

9) DISTURBED AREAS WITHIN THE RIGHT OF WAY ARE TO BE TOPSOILED, FERTILIZED, SEEDED, AND EROSION MAT WITHIN 5 DAYS AS DIRECTED BY THE ENGINEER.

10) PRIOR TO THE PLACEMENT OF STEEL PLATE BEAM GUARD OR MGS GUARDRAIL, THE SHOULDERS SHALL BE IN PLACE, SHAPED AND COMPACTED UNLESS SHOWN OTHERWISE.

11) ALL SIGN LOCATIONS SHALL BE REVIEWED BY THE ENGINEER PRIOR TO INSTALLATION.

12) CROSS SECTIONS SHOWN INCLUDE THE THICKNESS OF TOPSOIL WHERE REQUIRED. TOPSOIL SHALL BE REPLACED WITH 4-INCH TYPICAL DEPTH.

GENERAL DRAINAGE NOTES

1) INLET AND DISCHARGE ELEVATIONS FOR DRAINAGE STRUCTURES AND PIPES SHOWN ON THE PLANS MAY BE ADJUSTED BY THE ENGINEER TO FIT EXISTING FIELD CONDITIONS.

2) VERIFY THE EXISTING STORM SEWER SYSTEM CONNECTION LOCATIONS AND ELEVATIONS BEFORE ORDERING DRAINAGE STRUCTURES AND PIPES. NOTIFY THE ENGINEER OF ANY DEVIATIONS FROM THE INFORMATION SHOWN ON THE PLANS BEFORE INSTALLING THE PROPOSED STORM SEWER.

ORDER OF SECTION 2 DETAIL SHEETS

GENERAL NOTES

UTILITY AND OTHER CONTACTS

PROJECT OVERVIEW

TYPICAL SECTIONS

CONSTRUCTION DETAILS

PLAN DETAILS

EROSION CONTROL

PAVEMENT MARKING

DETOUR ROUTE

ALIGNMENT

HMA PAVING LAYER DEPTHS

PAVEMENT LOCATION	TOTAL PAVEMENT THICKNESS	LAYER	TYPE
STH 100			
STA 168+80 - 170+32 EB STA 172+10 - 173+10 EB	2"	UPPER	4 MT 58-28S

UTILITY CONTACTS

AT&T LEGACY - COMMUNICATION LINE
Kenneth Nine
110 N Main St
Culver, IN 46511
(574) 842-8830
knine@jmceainc.com

AT&T LOCAL NETWORK - COMMUNICATION LINE
Tim Lapointe
1301 Fannin St
Houston, TX 77002
(281) 352-3631
ti0695@att.com

CENTURYLINK COMMUNICATIONS, LLC - COMMUNICATION LINE
Brahim Gaddour
3235 Intertech Dr, Suite 600
Brookfield, WI 53045
(414) 908-1027
brahim.gaddour@lumen.com

ATC MANAGEMENT, INC. - ELECTRICITY-TRANSMISSION
Chris Dailey
P.O. Box 47
Waukesha, WI 53187
(262) 506-6884
cdailey@atcllc.com

City of Oak Creek - Street Lighting
Matt Sullivan
8640 S Howell Ave
Oak Creek, WI 53154
(414) 766-7002
msullivan@oakcreekwi.org

WE ENERGIES - GAS/PETROLEUM
Wesley Nunn
7815 Northwestern Ave
Racine, WI 53406
(414) 659-4933
wesley.nunn@we-energies.com

LEVEL 3 COMMUNICATIONS LLC - COMMUNICATION LINE
Brahim Gaddour
3235 Intertech Dr, Suite 600
Brookfield, WI 53045
(414) 908-1027
brahim.gaddour@lumen.com

WE ENERGIES - ELECTRIC
Dan Bandor
500 S 116th St
West Allis, WI 53214
(414) 254-1865
daniel.bandor@we-energies.com

SPRINT COMMUNICATIONS CO LP - COMMUNICATION LINE
Dan Hillard
849 Earl St
Saint Paul, MN 55106
(612) 217-3526
dan.j.hillard@t-mobile.com

OTHER CONTACTS

CITY OF OAK CREEK
Michael Simmons
8040 S 6th St
Oak Creek, WI 53154
(414) 766-7028
msimmons@oakcreekwi.org

WISDOT STREET LIGHTING
Eric Perea
141 NW Barstow Street
Waukesha, WI 53087-0798
(262) 574-5422
Eric.Perea@dot.wi.gov

OAK CREEK WATER AND SEWER UTILITY
Brian Johnston
170 West Drexel Ave
Oak Creek, WI 53154
(414) 570-8200 Ext. 24
bjohnston@water.oak-creek.wi.us

WISDOT SIGNALS
Jarrett Gates
141 NW Barstow Street
Waukesha, WI 53188
(262) 548-5894
jarrett.gates@dot.wi.gov

MILWAUKEE COUNTY DEPARTMENT OF TRANSPORTATION (MCDOT)
Transportation Services Division
Andrea Weddle-Henning
10320 W. Watertown Plank Rd.
Wauwatosa, WI 53226
(414) 257-5934
andrea.weddle-henning@milwaukeecountywi.gov

MILWAUKEE COUNTY DEPARTMENT OF TRANSPORTATION (MCDOT)
Highway Maintenance Division
Eduardo Santiago
10320 W. Watertown Plank Rd.
Wauwatosa, WI 53226
(414) 257-6569
eduardo.santiago@milwaukeecountywi.gov

MILWAUKEE COUNTY PARKS
Sarah Toomsen
9480 Watertown Plank Rd
Wauwatosa, WI 53226
(414) 257-7389
sarah.toomsen@milwaukeecountywi.gov

MILWAUKEE COUNTY PARKS
Blake Prusak
9480 Watertown Plank Rd
Wauwatosa, WI 53226
(414) 258-2322
blake.prusak@milwaukeecountywi.gov

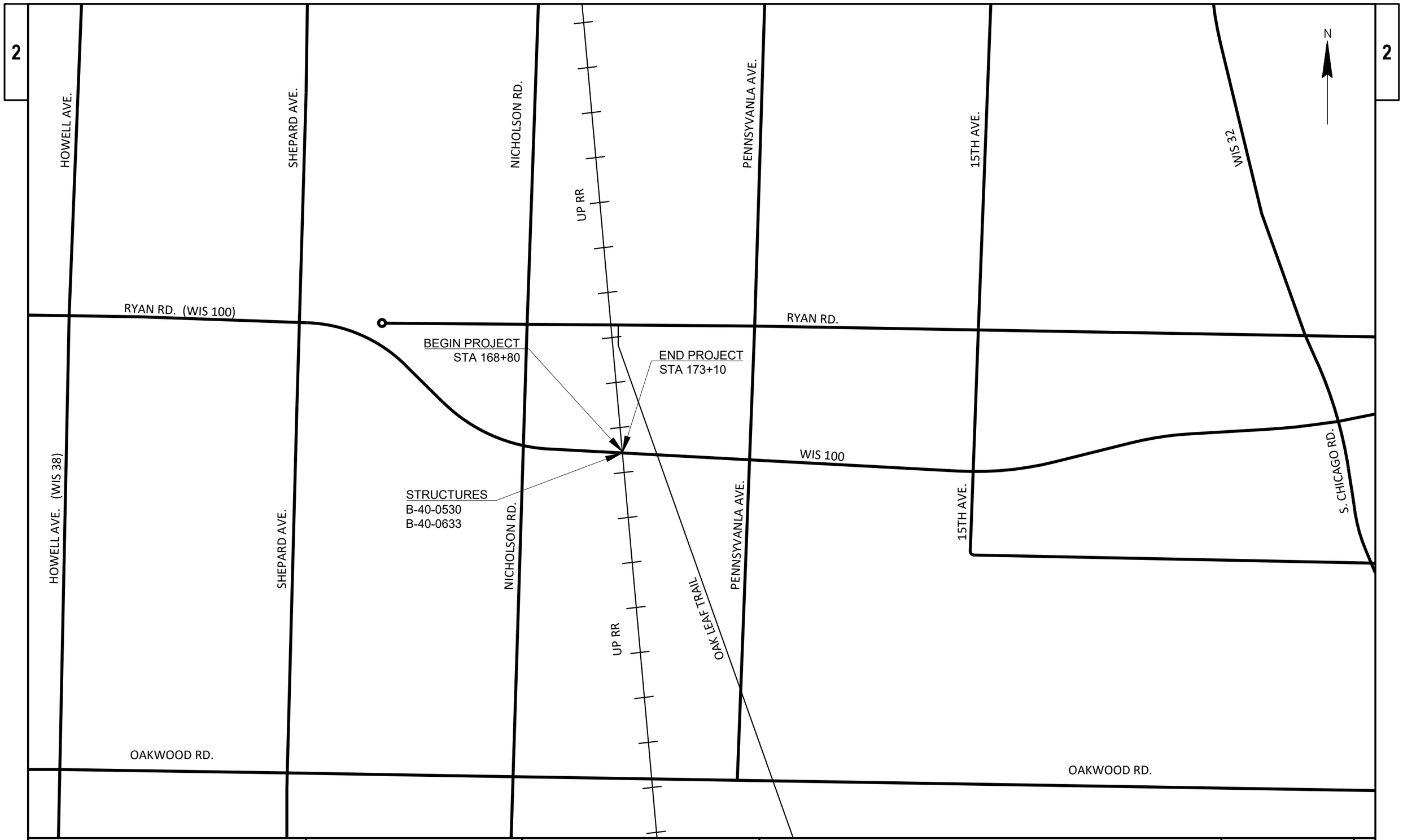
UNION PACIFIC RAILROAD
Chris T. Keckeisen
1400 Douglas, Ms 0910
Omaha, Ne 68179
(402) 544-5131
Ctkeckei@Up.Com

WISDNR
Ryan Pappas
2300 N. Dr. Martin Luther King Jr. Dr.
Milwaukee, Wi 53212
(414) 750-7495
Ryan.pappas@wisconsin.gov

WISDOT PROJECT MANAGER
Nguyen Ly
141 NW Barstow Street, PO Box 798
Waukesha, WI 53188
(262) 548-8739
nguyen.ly@dot.wi.gov

WISDOT RR COORDINATOR
JASON KAZMIERSKI
141 NW Barstow Street, PO Box 798
Waukesha, WI 53188
(262) 548-6700
JASON.KAZMIERSKI@DOT.WI.GOV

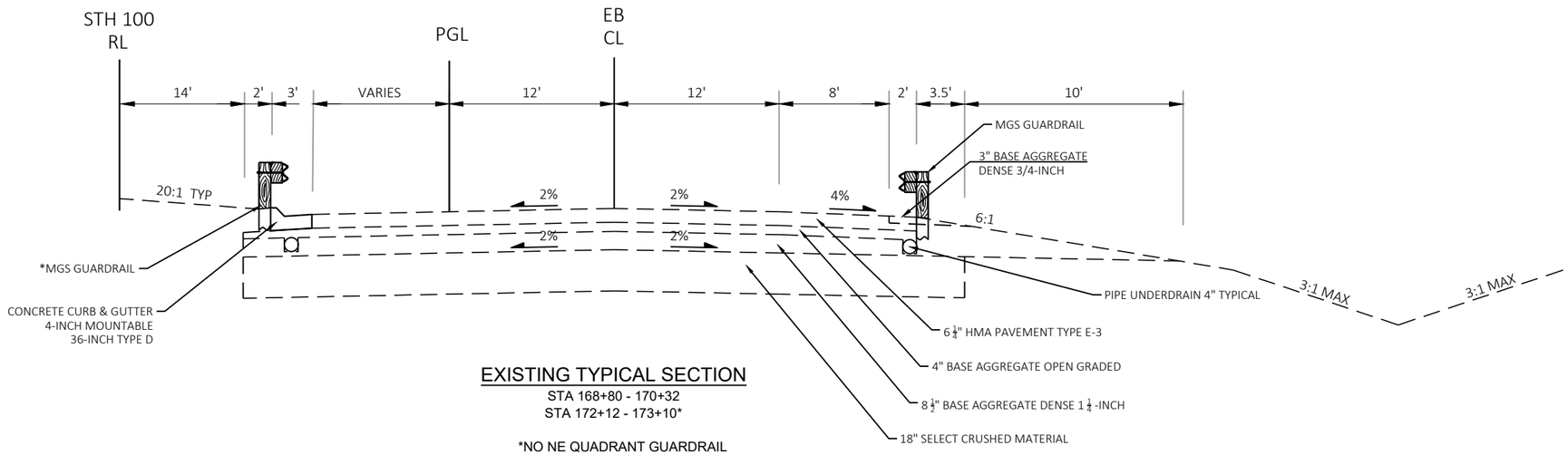
DIGGERS HOTLINE
Dial 811 or (800)242-8511
www.DiggersHotline.com



PROJECT NO: 2040-20-70	HWY: STH 100	COUNTY: MILWAUKEE	PROJECT OVERVIEW	SHEET 4	E

2

MEDIAN

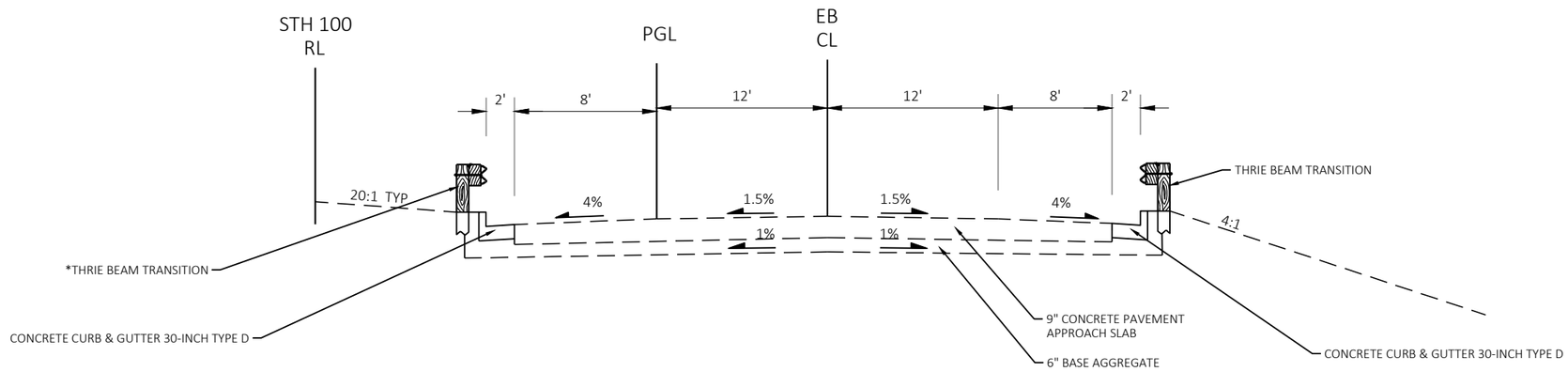


EXISTING TYPICAL SECTION

STA 168+80 - 170+32
STA 172+12 - 173+10*

*NO NE QUADRANT GUARDRAIL

MEDIAN



EXISTING TYPICAL SECTION - PAVEMENT APPROACH SLAB

STA 170+32 - 170+48
STA 171+92 - 172+12*

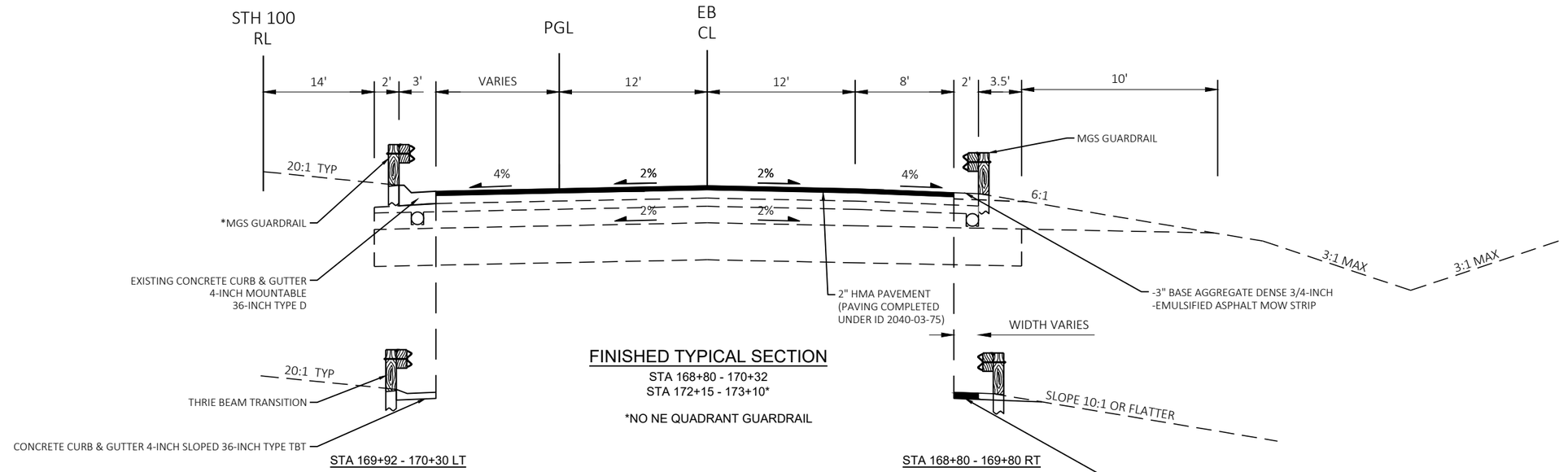
*NO NE QUADRANT GUARDRAIL

PROJECT NO: 2040-20-70	HWY: STH 100 EB	COUNTY: MILWAUKEE	EXISTING TYPICAL SECTION	SHEET 5	E

FILE NAME : N:\PDS\C3D\20402000\SHEETSPLAN\020301-TS.DWG
LAYOUT NAME - 020301-ts 1in-10ft
PLOT DATE : 4/27/2022 7:28 AM
PLOT BY : SMITH, CLAYTON L
PLOT NAME :
PLOT SCALE : 1 IN:10 FT
WISDOT/CADDS SHEET 42

2

MEDIAN

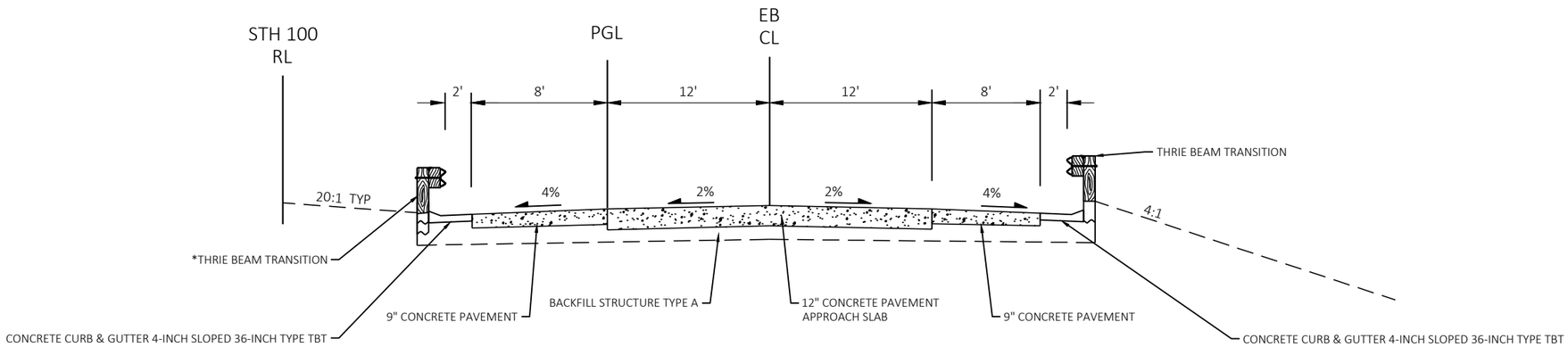


FINISHED TYPICAL SECTION

STA 168+80 - 170+32
STA 172+15 - 173+10*

*NO NE QUADRANT GUARDRAIL

MEDIAN



FINISHED TYPICAL SECTION - PAVEMENT APPROACH SLAB

STA 170+32 - 170+48
STA 171+92 - 172+12*

*NO NE QUADRANT GUARDRAIL

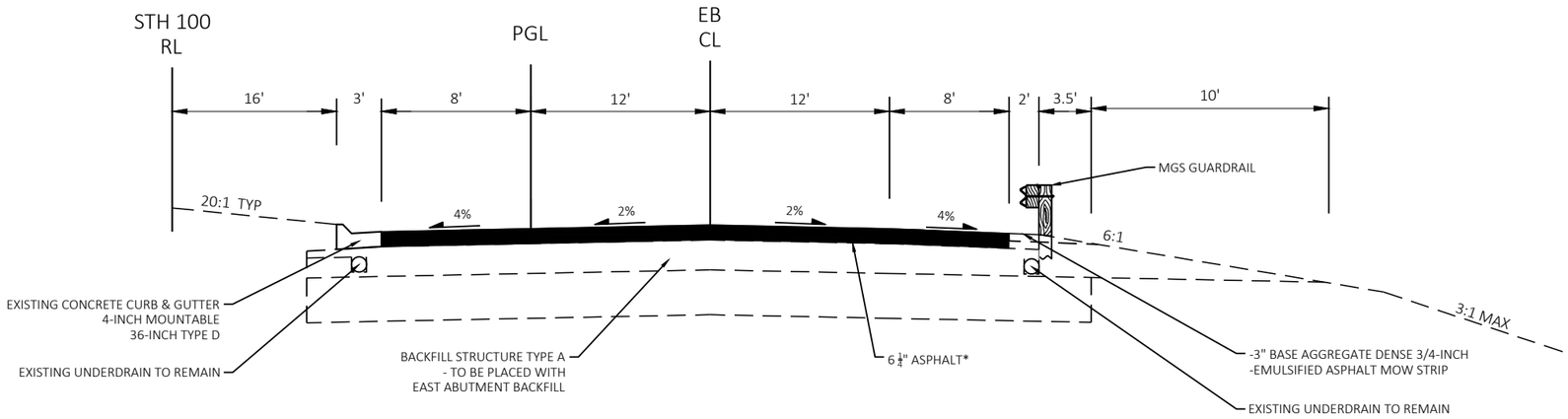
PROJECT NO: 2040-20-70	HWY: STH 100 EB	COUNTY: MILWAUKEE	PROPOSED TYPICAL SECTIONS	SHEET 6	E

FILE NAME : N:\PDS\C3D\20402000\SHEETSPLAN\020301-TS.DWG
LAYOUT NAME - 020302-ts 1in-10ft

PLOT DATE : 5/5/2022 8:55 AM PLOT BY : SMITH, CLAYTON L PLOT NAME : PLOT SCALE : 1 IN:10 FT

2

MEDIAN



FINISHED TYPICAL SECTION

STA 172+12 - 172+15

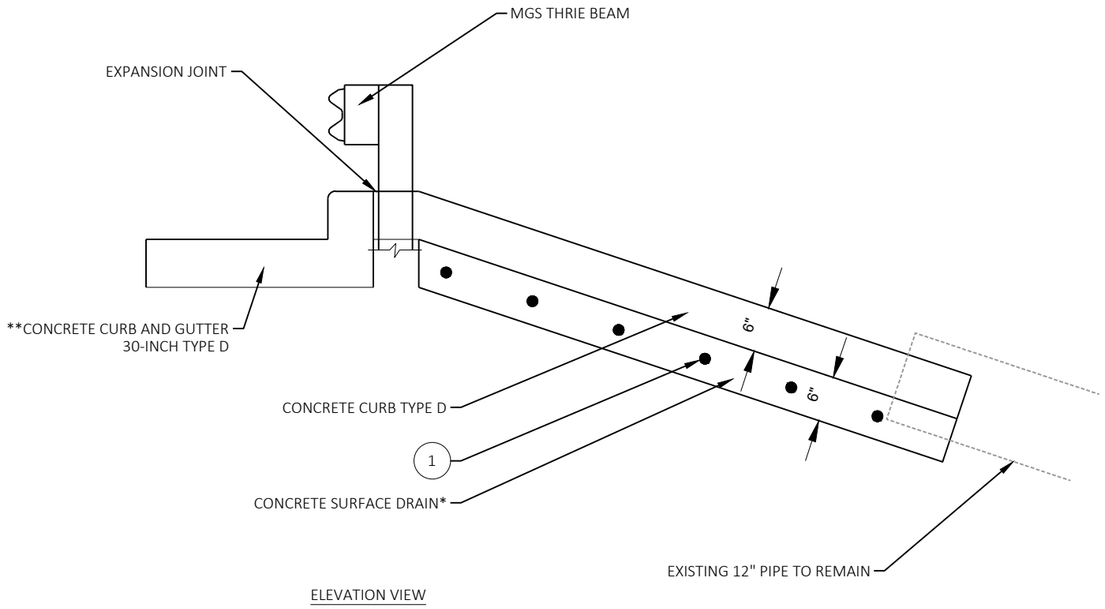
*6 1/4" ASPHALT TO CONSIST OF LAYERS LISTED BELOW
-UPPER LAYER: 2 1/4" HMA PAVEMENT
-LOWER LAYER: 4" ASPHALTIC SURFACE

PROJECT NO: 2040-20-70	HWY: STH 100 EB	COUNTY: MILWAUKEE	PROPOSED TYPICAL SECTION	SHEET 7	E

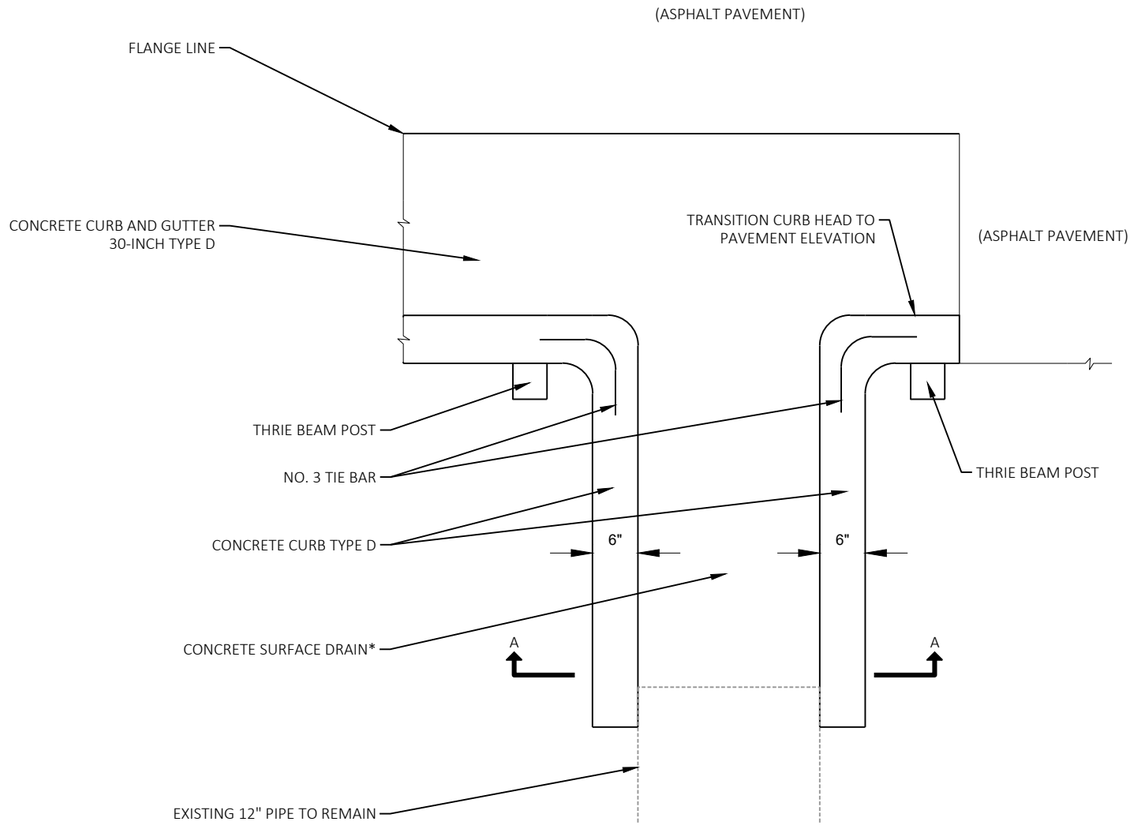
FILE NAME : N:\PDS\C3D\20402000\SHEETSPLAN\020301-TS.DWG
LAYOUT NAME - 020303-ts 1in-10ft

PLOT DATE : 4/27/2022 7:28 AM PLOT BY : SMITH, CLAYTON L PLOT NAME : PLOT SCALE : 1 IN:10 FT

2



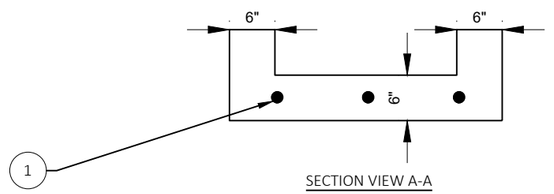
ELEVATION VIEW



PLAN VIEW

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

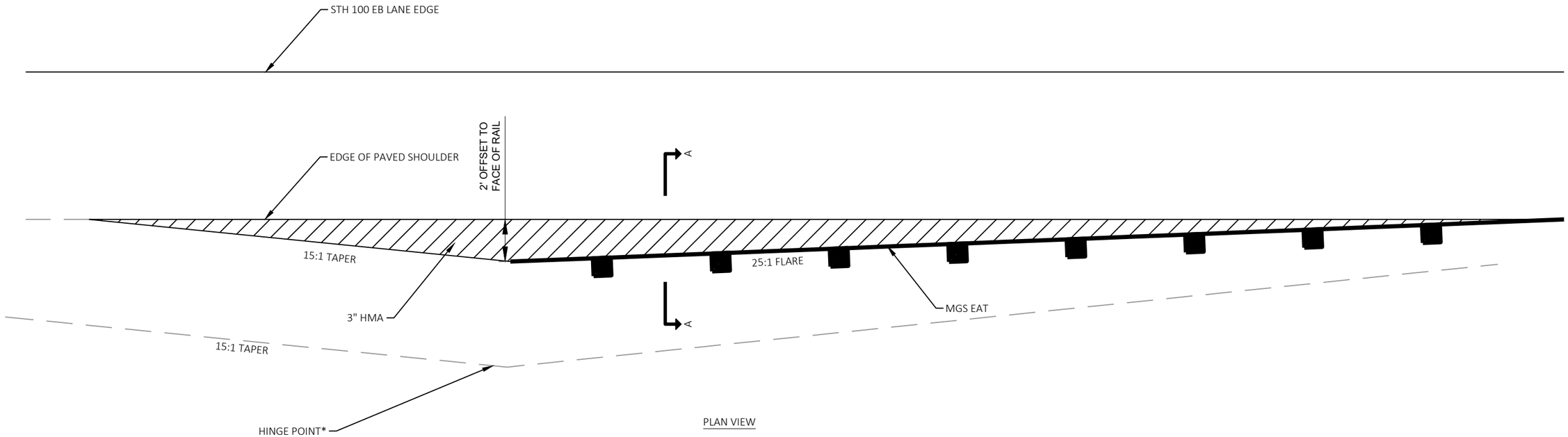
CONCRETE FLUME DETAIL
STA 172+14
-PERPENDICULAR FLUME CONSTRUCTION
-TIE FLUME INTO EXISTING 12" PIPE
*PAYMENT FOR CONCRETE BEHIND EXPANSION JOINT
TO BE PAID AS CONCRETE SURFACE DRAIN
**CONCRETE CURB AND GUTTER 30-INCH TYPE D IS INCIDENTAL TO CONCRETE FLUME WORK



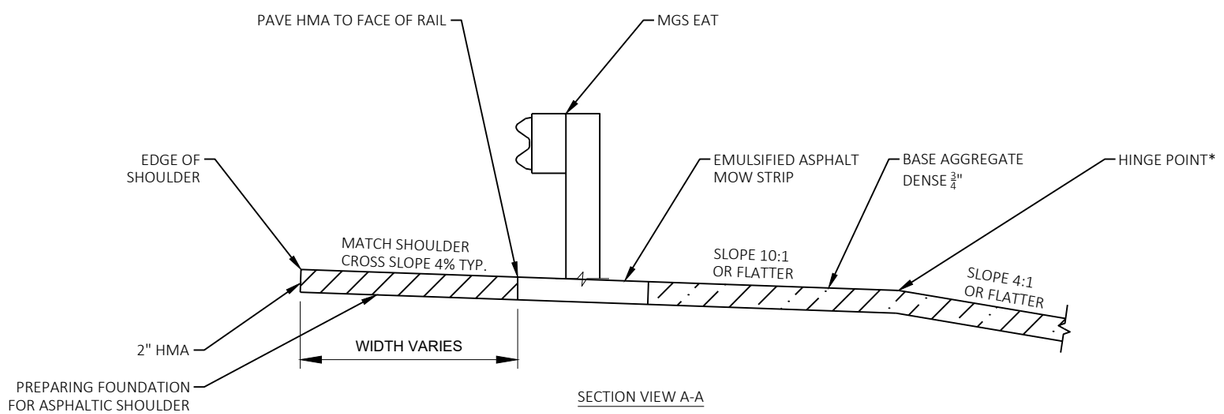
SECTION VIEW A-A

PROJECT NO: 2040-20-70	HWY: STH 100	COUNTY: MILWAUKEE	CONSTRUCTION DETAILS	SHEET 8	E

2



PLAN VIEW

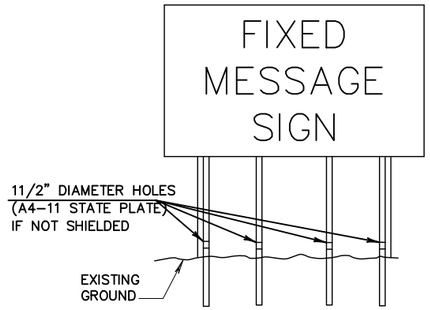


SECTION VIEW A-A

MGS EAT PAVING DETAIL
STA 168+80 - 169+80 RT

* SEE SDD MIDWEST GUARDRAIL SYSTEM (MGS) ENERGY ABSORBING TERMINAL FOR GUARDRAIL LAYOUT DETAILS

PROJECT NO: 2040-20-70	HWY: STH 100	COUNTY: MILWAUKEE	CONSTRUCTION DETAILS	SHEET 9	E



FRONT VIEW

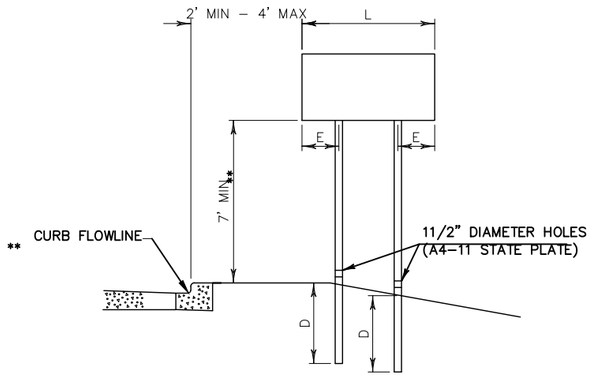
NOTES

1. SEE TRAFFIC CONTROL SHEETS FOR SIGN LOCATIONS.
2. SEE TABLES BELOW FOR REQUIRED NUMBER OF POSTS.

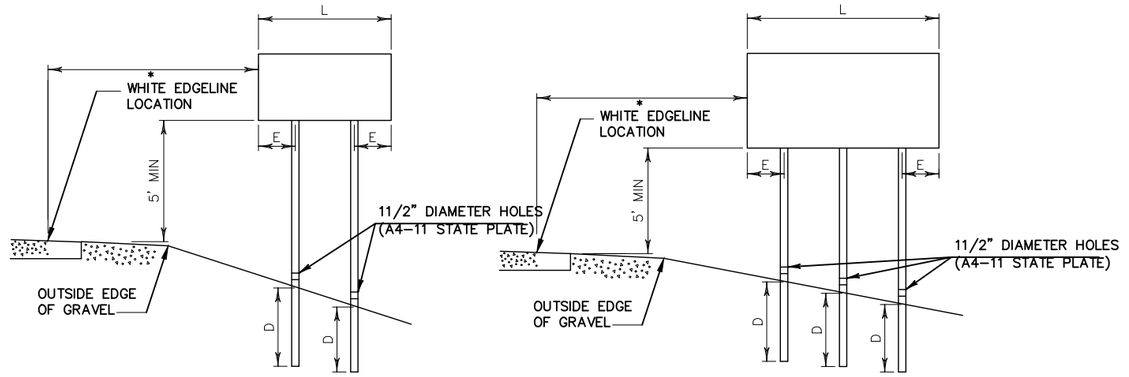
* 6' FROM EDGE OF A PAVED SHOULDER OR 12' FROM THE EDGE OF PAVEMENT (EDGE LINE LOCATION) OR 2' FROM OUTSIDE EDGE OF GRAVEL, WHICHEVER IS GREATER UNLESS DIRECTED BY PROJECT ENGINEER.

** 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. IF NO SIDEWALK AND NO PARKING, VERTICAL CLEARANCE MAY BE REDUCED TO 5' MINIMUM. OFFSET OF SIGNS IS MEASURED FROM THE CURB FLOWLINE.

3. 4X6 WOOD POSTS SHALL HAVE TWO HOLES PER STATE PLATE A4–11



URBAN AREA



RURAL AREA

SIGN SHAPE OTHER THAN DIAMOND (TWO POSTS REQUIRED)	
L	E
GREATER THAN 48" LESS THAN 60"	12"
60" TO 120"	L/5

SIGN SHAPE OTHER THAN DIAMOND (THREE POSTS REQUIRED)	
L	E
GREATER THAN 120" LESS THAN 168"	12"

SIGN SHAPE OTHER THAN DIAMOND (FOUR POSTS REQUIRED)	
L	E
168" AND GREATER	12"

POST EMBEDMENT DEPTH

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

POST MOUNTING DETAIL FOR TRAFFIC CONTROL FIXED MESSAGE SIGNS

2

N

RCCP INV 54IN RUNS SOUTH
661.20

B-40-0633
APPLY PROTECTIVE SURFACE
TREATMENT RESEAL TO
DECK SURFACE

-REMOVE 4-INCH SLOPED 36-INCH TYPE D
-PLACE 36" TBT CURB
-STA 169+92

-SALVAGE GUARDRAIL
-REPLACE POSTS

CONCRETE PAVEMENT
APPROACH SLAB
-SEE SDD 13B02-A

I SIGN

STH 100 WB/RYAN RD

MGS GUARDRAIL EAT*

MGS GUARDRAIL*

+80, 3' RT

165+00 166+00 167+00 168+00 169+00 170+00 171+00

STA 170+32
18' RT

CONCRETE PAVEMENT
9-INCH

24'

STA 170+32
42' RT

STH 100 EB/RYAN RD

+32, 55' RT

HINGE POINT
STA 168+13
52' RT

SLOPE INTERCEPT

BASE AGGREGATE DENSE
3/4-INCH

HMA PAVEMENT
-SEE MGS EAT PAVING
CONSTRUCTION DETAIL

MGS GUARDRAIL
EAT*

-MGS GUARDRAIL*
-EMULSIFIED ASPHALT MOW STRIP

CMCP INV 10IN RUNS WEST
685.46

RCCP
661.5

-SALVAGE INLET
-REPLACE INLET COVER WITH TYPE T

-REMOVE CURB AND GUTTER
-PLACE 36" TYPE TBT CURB

B-40-0530
BRIDGE DECK REPLACEMENT

*PLACE BACKFILL SLURRY IN POST HOLES
FOLLOWING REMOVAL. ITEM TO BE PAID AS
SPV.0035.01 BACKFILL SLURRY

PROJECT NO: 2040-20-70	HWY: STH 100	COUNTY: MILWAUKEE	PLAN DETAILS	SHEET 11	E

2

N

B-40-0633
APPLY PROTECTIVE SURFACE TREATMENT RESEAL TO DECK SURFACE

-SALVAGE GUARDRAIL
-REPLACE POSTS

PAVEMENT REMOVAL AND EXCAVATION INCIDENTAL TO EAST ABUTMENT DRAINAGE REPAIRS

REMOVE AND REPLACE 4-INCH SLOPED 36-INCH TYPE D AS NEEDED

CONCRETE PAVEMENT 9-INCH

STA 172+12
18' RT

SAWING ASPHALT
-STA 172+15

B-40-0530
BRIDGE DECK REPLACEMENT

24'

STA 172+12
42' RT

+22, 53' RT

CONCRETE PAVEMENT APPROACH SLAB
-SEE SDD 13B02-A

-MGS GUARDRAIL*
-TYPE W CONNECTION
-EMULSIFIED ASPHALT MOW STRIP

HINGE POINT

BASE AGGREGATE DENSE 3/4-INCH

REMOVING CURB AND GUTTER

172+11, 87' RT

CONCRETE FLUME REPLACEMENT
-PERPENDICULAR INSTALLATION
-STA 172+14

SLOPE INTERCEPT

172+18, 116' RT

UNDERDRAIN OUTFALL
-CONCRETE APRON ENDWALL

FLUME PIPE AND OUTFALL TO REMAIN

RIGHT OF WAY LINES FOR REFERENCE ONLY

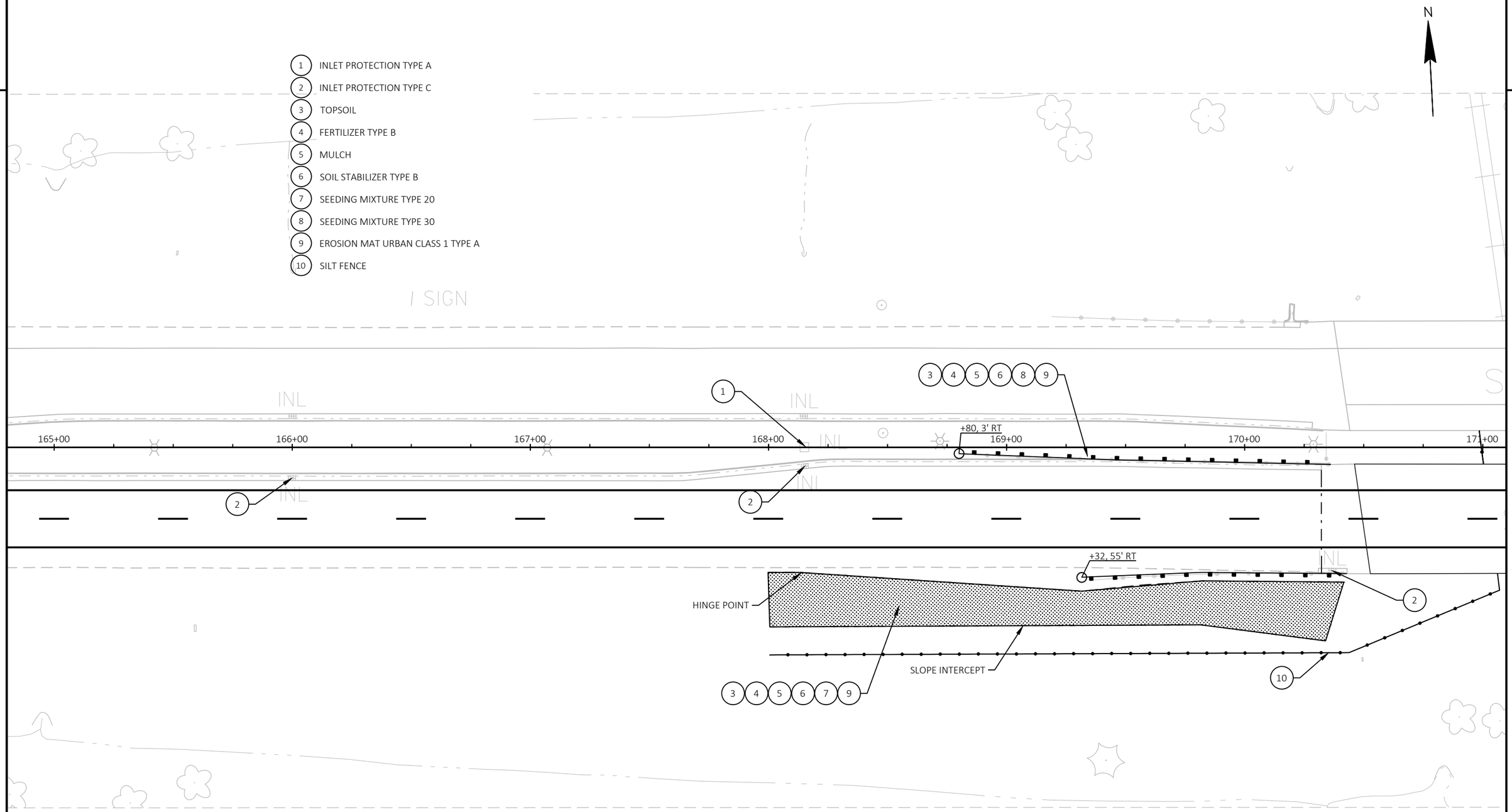
*PLACE BACKFILL SLURRY IN POST HOLES FOLLOWING REMOVAL. ITEM TO BE PAID AS SPV.0035.01 BACKFILL SLURRY

PROJECT NO: 2040-20-70	HWY: STH 100	COUNTY: MILWAUKEE	PLAN DETAILS	SHEET 12	E

FILE NAME : N:\PDS\C3D\20402000\SHEETSPLAN\021201-PD_TIED TO 20400305.DWG
LAYOUT NAME - (03)
PLOT DATE : 5/5/2022 8:23 AM
PLOT BY : SMITH, CLAYTON L
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

2

1. INLET PROTECTION TYPE A
2. INLET PROTECTION TYPE C
3. TOPSOIL
4. FERTILIZER TYPE B
5. MULCH
6. SOIL STABILIZER TYPE B
7. SEEDING MIXTURE TYPE 20
8. SEEDING MIXTURE TYPE 30
9. EROSION MAT URBAN CLASS 1 TYPE A
10. SILT FENCE



NOTE
- PLACE INLET PROTECTION AT ALL INLETS WITHIN THE PROJECT LIMITS. TYPE C TYPICAL. TYPE D AT LOW POINTS. TYPE A AT FIELD INLETS.

PROJECT NO: 2040-20-70	HWY: STH 100	COUNTY: MILWAUKEE	EROSION CONTROL	SHEET 13	E

2

1. INLET PROTECTION TYPE A
2. INLET PROTECTION TYPE C
3. TOPSOIL
4. FERTILIZER TYPE B
5. MULCH
6. SOIL STABILIZER TYPE B
7. SEEDING MIXTURE TYPE 20
8. SEEDING MIXTURE TYPE 30
9. EROSION MAT URBAN CLASS 1 TYPE A
10. SILT FENCE

N

UNION PACIFIC RR

POST

W

POST W W

RIPRA

POST

10 (END AT WB BRIDGE)

3 4 5 6 8 9

STH 100 / RYAN RD

1

INL

171+00 172+00 173+00 174+00 175+00 POST 176+00

POST

INL

INL

2

INL

INL

2

INL

STH 100 / RYAN RD

+22, 53' RT

HINGE POINT

172+11, 87' RT

UNDERDRAIN OUTFALL

SLOPE INTERCEPT

10 (CONTINUE ALONG RR TRACKS)

3 4 5 6 7 9

POST

MH

W W W

POST

NOTE

- PLACE INLET PROTECTION AT ALL INLETS WITHIN THE PROJECT LIMITS. TYPE C TYPICAL. TYPE D AT LOW POINTS. TYPE A AT FIELD INLETS.

PROJECT NO: 2040-20-70	HWY: STH 100	COUNTY: MILWAUKEE	EROSION CONTROL	SHEET 14	E

2

LEGEND

1 MARKING LINE EPOXY, 6-INCH, YELLOW

2 MARKING LINE EPOXY, 6-INCH, WHITE

3 MARKING LINE GROOVED WET REFLECTIVE EPOXY, 6-INCH, WHITE (12.5' LINE, 37.5' SKIP)

4 MARKING LINE CONTRAST EPOXY, 6-INCH, WHITE (12.5' LINE, 37.5' SKIP)

N

2

MH
MH
STH 100 / RYAN RD
PT: 162+37.07
160
MH INL
INL
INL
165
+30, 18' RT
STH 100 / RYAN RD
+30, 42' RT
12'
12'
1
2
3
MH
MH
MH
2_166

PROJECT NO: 2040-20-70	HWY: STH 100	COUNTY: MILWAUKEE	PAVEMENT MARKING	SHEET 15	E

FILE NAME : N:\PDS\C3D\20402000\SHEETSPLAN\024501-PM.DWG
LAYOUT NAME - 01

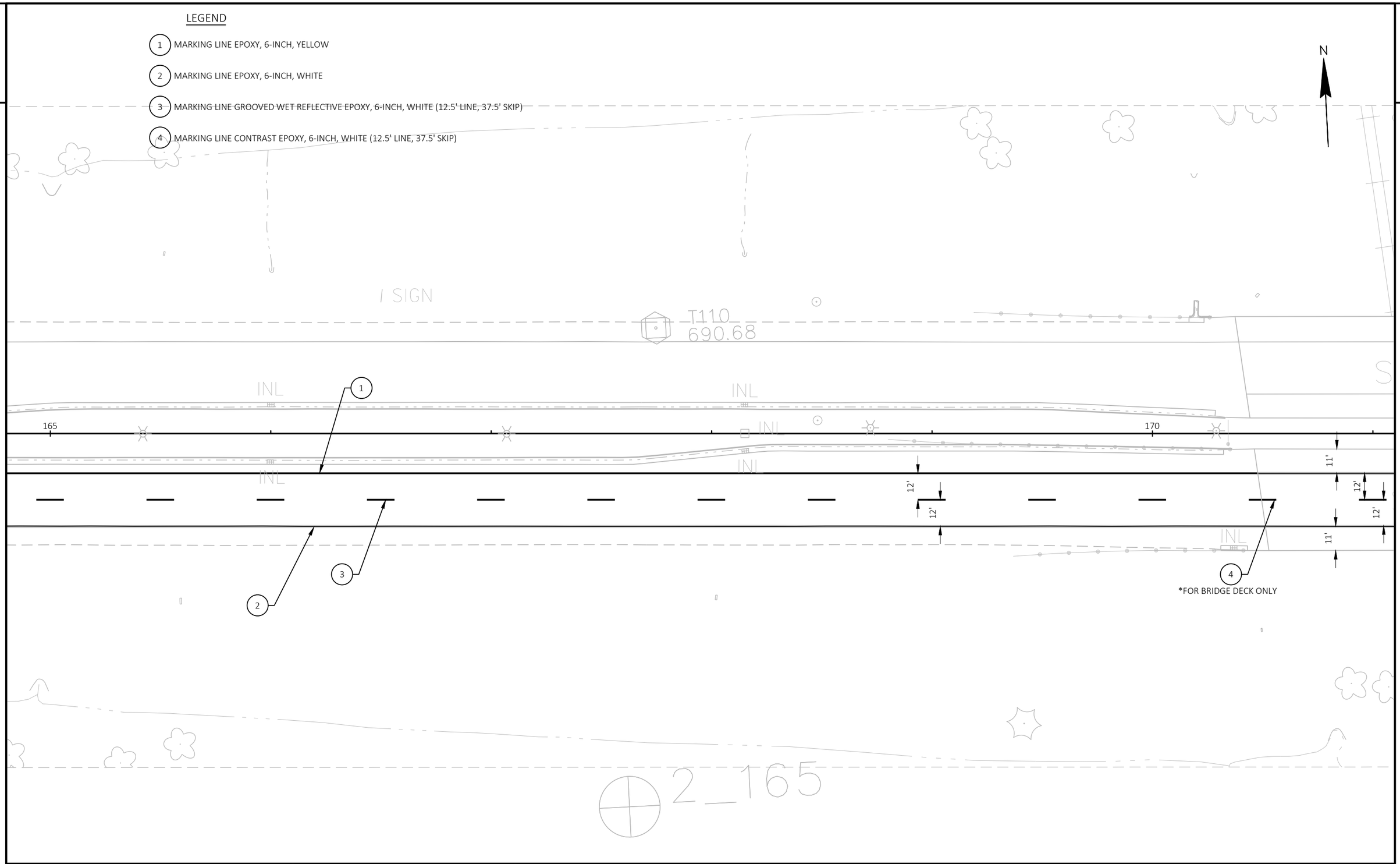
PLOT DATE : 8/17/2023 2:14 PM PLOT BY : STARK, GARY W PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

LEGEND

1. MARKING LINE EPOXY, 6-INCH, YELLOW
2. MARKING LINE EPOXY, 6-INCH, WHITE
3. MARKING LINE GROOVED WET REFLECTIVE EPOXY, 6-INCH, WHITE (12.5' LINE, 37.5' SKIP)
4. MARKING LINE CONTRAST EPOXY, 6-INCH, WHITE (12.5' LINE, 37.5' SKIP)



PROJECT NO: 2040-20-70	HWY: STH 100	COUNTY: MILWAUKEE	PAVEMENT MARKING	SHEET 16	E

FILE NAME : N:\PDS\C3D\20402000\SHEETSPLAN\024501-PM.DWG
LAYOUT NAME - 02
PLOT DATE : 8/17/2023 2:14 PM
PLOT BY : STARK, GARY W
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

2

2

LEGEND

1. MARKING LINE EPOXY, 6-INCH, YELLOW
2. MARKING LINE EPOXY, 6-INCH, WHITE
3. MARKING LINE GROOVED WET REFLECTIVE EPOXY, 6-INCH, WHITE (12.5' LINE, 37.5' SKIP)
4. MARKING LINE CONTRAST EPOXY, 6-INCH, WHITE (12.5' LINE, 37.5' SKIP)

N

UNION PACIFIC RR

STH 100 / RYAN RD

POST

W

POST

W

W

RIPRA

POST

INL

INL

175

POST

POST

INL

INL

INL

11'

12'

12'

11'

12'

12'

STH 100 / RYAN RD

INL

1

4

*FOR BRIDGE DECK ONLY

2

3

POST

MH

W

W

W

POST

2_164

PROJECT NO: 2040-20-70	HWY: STH 100	COUNTY: MILWAUKEE	PAVEMENT MARKING	SHEET 17	E

FILE NAME : N:\PDS\C3D\20402000\SHEETSPLAN\024501-PM.DWG
LAYOUT NAME - 03

PLOT DATE : 8/17/2023 2:14 PM

PLOT BY : STARK, GARY W

PLOT NAME :

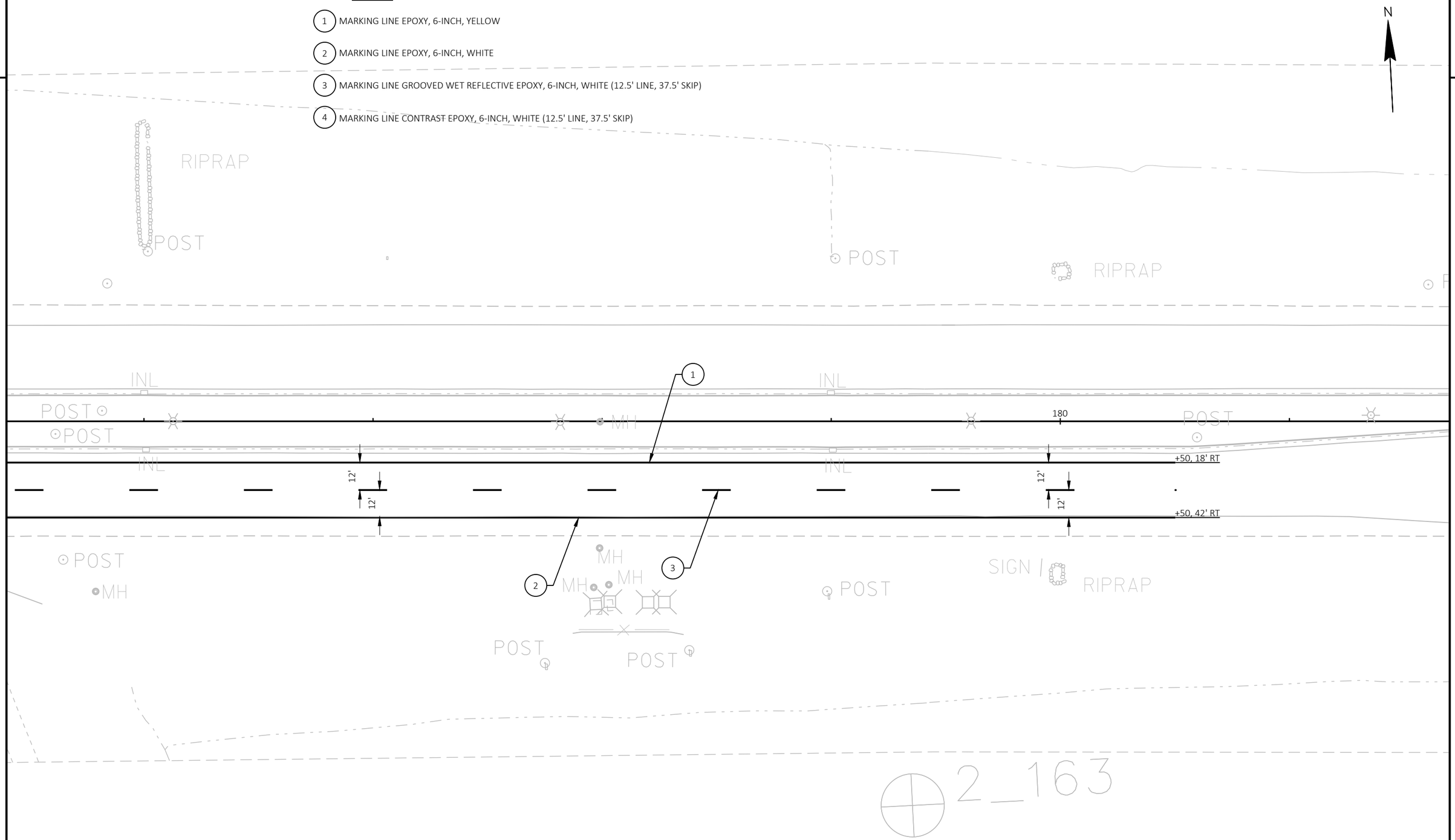
PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

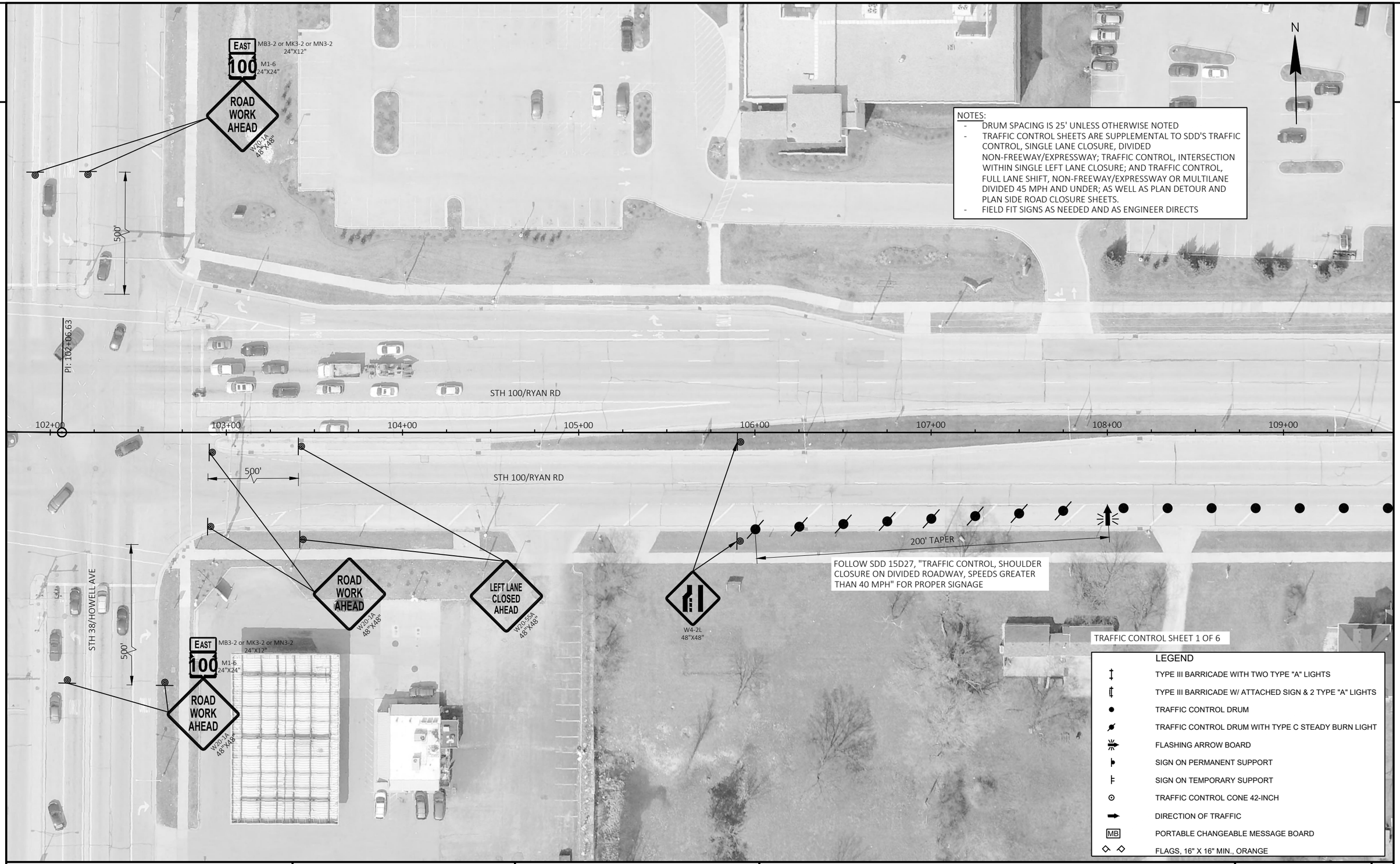
LEGEND

1. MARKING LINE EPOXY, 6-INCH, YELLOW
2. MARKING LINE EPOXY, 6-INCH, WHITE
3. MARKING LINE GROOVED WET REFLECTIVE EPOXY, 6-INCH, WHITE (12.5' LINE, 37.5' SKIP)
4. MARKING LINE CONTRAST EPOXY, 6-INCH, WHITE (12.5' LINE, 37.5' SKIP)



PROJECT NO: 2040-20-70	HWY: STH 100	COUNTY: MILWAUKEE	PAVEMENT MARKING	SHEET 18	E

2



PROJECT NO: 2040-20-70	HWY: STH 100	COUNTY: MILWAUKEE	TRAFFIC CONTROL - EASTBOUND CLOSURE	SHEET 19	E

FILE NAME : N:\PDS\C3D\20400305\SHEETSPLAN\025100-TC_EBCLOSURE.DWG
LAYOUT NAME - 01
PLOT DATE : 11/21/2023 1:55 PM
PLOT BY : STARK, GARY W
PLOT NAME :
PLOT SCALE : 1 IN:50 FT
WISDOT/CADDS SHEET 42

2

2

NOTES:
- DRUM SPACING IS 25' UNLESS OTHERWISE NOTED
- TRAFFIC CONTROL SHEETS ARE SUPPLEMENTAL TO SDD'S TRAFFIC CONTROL, SINGLE LANE CLOSURE, DIVIDED NON-FREEWAY/EXPRESSWAY; TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE LEFT LANE CLOSURE; AND TRAFFIC CONTROL, FULL LANE SHIFT, NON-FREEWAY/EXPRESSWAY OR MULTILANE DIVIDED 45 MPH AND UNDER; AS WELL AS PLAN DETOUR AND PLAN SIDE ROAD CLOSURE SHEETS.
- FIELD FIT SIGNS AS NEEDED AND AS ENGINEER DIRECTS

N

R11-2L
48" X 30"
LANE CLOSED
TYPE III BARRICADE

PI: 109+93.17

10+00 111+00 112+00 113+00 114+00 115+00 116+00 117

540' TAPER

48"X48"

TRAFFIC CONTROL SHEET 2 OF 6

LEGEND

- TYPE III BARRICADE WITH TWO TYPE "A" LIGHTS
- TYPE III BARRICADE W/ ATTACHED SIGN & 2 TYPE "A" LIGHTS
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- TRAFFIC CONTROL CONE 42-INCH
- DIRECTION OF TRAFFIC
- MB PORTABLE CHANGEABLE MESSAGE BOARD
- FLAGS, 16" X 16" MIN., ORANGE

PROJECT NO: 2040-20-70	HWY: STH 100	COUNTY: MILWAUKEE	TRAFFIC CONTROL - EASTBOUND CLOSURE	SHEET 20	E

FILE NAME : N:\PDS\C3D\20400305\SHEETSPLAN\025100-TC_EBCLOSURE.DWG
LAYOUT NAME - 02

PLOT DATE : 11/21/2023 1:55 PM PLOT BY : STARK, GARY W PLOT NAME : PLOT SCALE : 1 IN:50 FT

NOTES:
- DRUM SPACING IS 25' UNLESS OTHERWISE NOTED
- TRAFFIC CONTROL SHEETS ARE SUPPLEMENTAL TO SDD'S TRAFFIC CONTROL, SINGLE LANE CLOSURE, DIVIDED NON-FREEWAY/EXPRESSWAY; TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE LEFT LANE CLOSURE; AND TRAFFIC CONTROL, FULL LANE SHIFT, NON-FREEWAY/EXPRESSWAY OR MULTILANE DIVIDED 45 MPH AND UNDER; AS WELL AS PLAN DETOUR AND PLAN SIDE ROAD CLOSURE SHEETS.
- FIELD FIT SIGNS AS NEEDED AND AS ENGINEER DIRECTS

N

R11-2L
48" X 30"
LANE CLOSED
TYPE III BARRICADE

WO1-6
48" X 24"
TYPE III BARRICADE

BEGIN LEFT TURN LANE
R3-20L
24"X36"

BEGIN LEFT TURN LANE
R3-20L
24"X36"

15' DRUM SPACE

117+00 118+00 119+00 120+00 121+00 122+00 123+00 124+00

100' TAPER

W1-4R
48"X48"

TRAFFIC CONTROL SHEET 3 OF 6

LEGEND

- TYPE III BARRICADE WITH TWO TYPE "A" LIGHTS
- TYPE III BARRICADE W/ ATTACHED SIGN & 2 TYPE "A" LIGHTS
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- TRAFFIC CONTROL CONE 42-INCH
- DIRECTION OF TRAFFIC
- MB — PORTABLE CHANGEABLE MESSAGE BOARD
- FLAGS, 16" X 16" MIN., ORANGE

PROJECT NO: 2040-20-70	HWY: STH 100	COUNTY: MILWAUKEE	TRAFFIC CONTROL - EASTBOUND CLOSURE	SHEET 21	E

FILE NAME : N:\PDS\C3D\20400305\SHEETSPLAN\025100-TC_EBCLOSURE.DWG
LAYOUT NAME - 03

PLOT DATE : 11/21/2023 1:56 PM PLOT BY : STARK, GARY W PLOT NAME : PLOT SCALE : 1 IN:50 FT

WISDOT/CADDS SHEET 42

2

2

LEGEND

- TYPE III BARRICADE WITH TWO TYPE "A" LIGHTS
- TYPE III BARRICADE W/ ATTACHED SIGN & 2 TYPE "A" LIGHTS
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- TRAFFIC CONTROL CONE 42-INCH
- DIRECTION OF TRAFFIC
- MB — PORTABLE CHANGEABLE MESSAGE BOARD
- FLAGS, 16" X 16" MIN., ORANGE

N

ROAD WORK AHEAD
W20-1A
48"X48"

200'

ONLY
COVER

R3-6R
42"X48"

NOTE: LANE DESIGNATION SIGN LOCATED NORTH OF DRIVEWAY AT LANE TAPER

R3-2
24"X24"

END ROAD WORK
G20-2A
48"X24"

R11-2L
48" X 30"
LANE CLOSED
TYPE III BARRICADE

BEGIN PROJECT
STA 131+00

WO1-6
48" X 24"
TYPE III BARRICADE

WO12-1D
30"X30"

150' TAPER

124+00 125+00 126+00 127+00 128+00 129+00 130+00 131+00

PC: 129+56.59

STH 100/RYAN RD

270' TAPER

STH 100/RYAN RD

XXXXXX

MB

BEGIN RIGHT TURN LANE
R3-20R
24"X36"

1

R11-2L
48" X 30"
LANE CLOSED
TYPE III BARRICADE

R3-1
24"X24"

END ROAD WORK
G20-2A
48"X24"

SHEPARD AVE

R11-2
48" X 30"
ROAD CLOSED
TYPE III BARRICADE

TRAFFIC CONTROL SHEET 4 OF 6

NOTES:

- DRUM SPACING IS 25' UNLESS OTHERWISE NOTED
- TRAFFIC CONTROL SHEETS ARE SUPPLEMENTAL TO SDD'S TRAFFIC CONTROL, SINGLE LANE CLOSURE, DIVIDED NON-FREEWAY/EXPRESSWAY; TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE LEFT LANE CLOSURE; AND TRAFFIC CONTROL, FULL LANE SHIFT, NON-FREEWAY/EXPRESSWAY OR MULTILANE DIVIDED 45 MPH AND UNDER; AS WELL AS PLAN DETOUR AND PLAN SIDE ROAD CLOSURE SHEETS.
- FIELD FIT SIGNS AS NEEDED AND AS ENGINEER DIRECTS

ROAD WORK AHEAD
W20-1A
48"X48"

200'

ONLY ONLY
R3-8Xx
36"X30"

ONLY
COVER

NOTE: LANE DESIGNATION SIGN LOCATED AT TAPER BEGIN POINT

USE FOLLOWING PCMS TEXT

FRAME 1: ROAD
TO
CLOSE

FRAME 2: XXXDAY (DAY OF WEEK)
XX/XX (MONTH/DAY)

*DEPLOY 7 DAYS PRIOR TO LANE CLOSURES

PROJECT NO: 2040-20-70	HWY: STH 100	COUNTY: MILWAUKEE	TRAFFIC CONTROL - EASTBOUND CLOSURE	SHEET 22	E

FILE NAME : N:\PDS\C3D\20400305\SHEETSPLAN\025100-TC_EBCLOSURE.DWG
LAYOUT NAME - 04

PLOT DATE : 11/21/2023 1:56 PM PLOT BY : STARK, GARY W PLOT NAME : PLOT SCALE : 1 IN:50 FT

WISDOT/CADDS SHEET 42

2

2

N

NOTE: PLACE SIGNS ACROSS FROM EACH OTHER

END ROAD WORK
G20-2A
48"X24"

ROAD WORK AHEAD
W20-1A
48"X48"

NICHOLSON RD

34+00 33+00 32+00 31+00 30+00 29+00 28+00 27+00

161+00

160+00

159+00

158+00

157+00

STH 100/RYAN RD

500'

R3-2
24"X24"

R11-2
48" X 30"
ROAD CLOSED
TYPE III BARRICADE

R11-2L
48" X 30"
LANE CLOSED
TYPE III BARRICADE

350'

R3-1
24"X24"

ROAD WORK AHEAD
W20-1A
48"X48"

END ROAD WORK
G20-2A
48"X24"

NOTE: PLACE SIGNS ACROSS FROM EACH OTHER

TRAFFIC CONTROL SHEET 5 OF 6

LEGEND

- TYPE III BARRICADE WITH TWO TYPE "A" LIGHTS
- TYPE III BARRICADE W/ ATTACHED SIGN & 2 TYPE "A" LIGHTS
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- TRAFFIC CONTROL CONE 42-INCH
- DIRECTION OF TRAFFIC
- MB — PORTABLE CHANGEABLE MESSAGE BOARD
- FLAGS, 16" X 16" MIN., ORANGE

NOTES:
- DRUM SPACING IS 25' UNLESS OTHERWISE NOTED
- TRAFFIC CONTROL SHEETS ARE SUPPLEMENTAL TO SDD'S, PLAN DETOUR, AND PLAN SIDE ROAD CLOSURE SHEETS.
- FIELD FIT SIGNS AS NEEDED AND AS ENGINEER DIRECTS

PROJECT NO: 2040-20-70	HWY: STH 100	COUNTY: MILWAUKEE	TRAFFIC CONTROL - EASTBOUND CLOSURE - S. NICHOLSON RD INTERSECTION	SHEET 23	E

FILE NAME : N:\PDS\C3D\20400305\SHEETSPLAN\025100-TC_EBCLOSURE.DWG
LAYOUT NAME - 08

PLOT DATE : 10/31/2023 9:45 AM PLOT BY : BELLIN, ROBERT A PLOT NAME : PLOT SCALE : 1 IN:50 FT

WISDOT/CADDS SHEET 42

2

2

N

NOTE: PLACE SIGNS ACROSS FROM EACH OTHER

END ROAD WORK
G20-2A
48"X24"

ROAD WORK AHEAD
W20-1A
48"X48"

500'

PENNSYLVANIA AVE

43+00 42+00 41+00 40+00 39+00 38+00 37+00

188+00
187+00
186+00
185+00
184+00

STH 100/RYAN RD

STH 100/RYAN RD

NOTE: PLACE SIGNS ACROSS FROM EACH OTHER

END ROAD WORK
G20-2A
48"X24"

ROAD WORK AHEAD
W20-1A
48"X48"

500'

R11-2
48" X 30"

ROAD CLOSED

TYPE III BARRICADE

TRAFFIC CONTROL SHEET 6 OF 6

LEGEND

- TYPE III BARRICADE WITH TWO TYPE "A" LIGHTS
- TYPE III BARRICADE W/ ATTACHED SIGN & 2 TYPE "A" LIGHTS
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- TRAFFIC CONTROL CONE 42-INCH
- DIRECTION OF TRAFFIC
- MB — PORTABLE CHANGEABLE MESSAGE BOARD
- FLAGS, 16" X 16" MIN., ORANGE

NOTES:
- DRUM SPACING IS 25' UNLESS OTHERWISE NOTED
- TRAFFIC CONTROL SHEETS ARE SUPPLEMENTAL TO SDD'S, PLAN DETOUR, AND PLAN SIDE ROAD CLOSURE SHEETS.
- FIELD FIT SIGNS AS NEEDED AND AS ENGINEER DIRECTS

PROJECT NO: 2040-20-70	HWY: STH 100	COUNTY: MILWAUKEE	TRAFFIC CONTROL - EASTBOUND CLOSURE - PENNSYLVANIA AVE. INTERSECTION	SHEET 24	E

FILE NAME : N:\PDS\C3D\20400305\SHEETSPLAN\025100-TC_EBCLOSURE.DWG
LAYOUT NAME - 12
PLOT DATE : 10/31/2023 9:45 AM
PLOT BY : BELLIN, ROBERT A
PLOT NAME :
PLOT SCALE : 1 IN:50 FT
WISDOT/CADDS SHEET 42

SEE FMS SIGN CONSTRUCTION DETAIL FOR MESSAGE

EM10

OAK CREEK

N

STH 100

RYAN RD

LAKE MICHIGAN

IH 41/94

STH 38

SHEPARD AVE

NICHOLSON RD

MB

UP RR

PENNSYLVANIA AVE

15TH AVE

STH 32

FITZSIMMONS RD

OAKWOOD AVE

OAK LEAF TRAIL

ELM RD

ROOT RIVER

MILWAUKEE COUNTY
RACINE COUNTY

CADDY LN

COUNTY LINE RD

7 1/2 MILE RD

7 MILE RD

FOREST HILLS RD

5 1/2 MILE RD

RIVER RD

FOLEY RD

BOTTING RD

CTH G

CTH G/CTH H

STH 31

0 0.25 0.5 Miles

USE FOLLOWING PCMS TEXT

FRAME 1: WIS 100
CLOSURE

FRAME 2: BEGINS
XXX
(DAY OF WEEK)
*DEPLOY 5 DAYS PRIOR TO CLOSURE

M1-6 24"X24" | M3-2 24"X12" | M4-8 24"X12" | M4-8A 24"X18"

M06-1 21"X21" | M05-1L 21"X21" | M06-1 21"X21" | M06-1 21"X21" | M05-1R 21"X21"

BRIDGE OUT 1 MILES AHEAD
R11-3C 60"X24"

DETOUR AHEAD
W20-2A 48"X48"

ROAD CLOSED AHEAD
W20-3A 48"X48"

1 EAST 100 DETOUR AHEAD

2 EAST 100 ROAD CLOSED AHEAD

9 BRIDGE OUT 1 MILES AHEAD

3 DETOUR EAST 100

4 DETOUR EAST 100

5 DETOUR EAST 100

6 DETOUR EAST 100

7 DETOUR EAST 100

8 END DETOUR EAST 100

GENERAL NOTES FOR DETOUR SIGNING

THE EXACT LOCATION AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER. DO NOT PLACE TRAFFIC CONTROL DEVICES WITHIN 50 FEET OF RAILROAD RIGHT OF WAY.

ALL SIGNS APPROPRIATE TO THE STATUS OF THE TRAFFIC CONTROL ZONE, INCLUDING PRE-EXISTING SIGNING IN THE VICINITY, SHALL BE COVERED OR REMOVED AS SPECIFIED IN THE PLANS AND/OR AS DIRECTED BY THE ENGINEER.

THE ERECTION AND PLACEMENT OF SIGNS SHALL BE IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

DETOUR SIGNING SHALL BE PERFORMED BY THE CONTRACTOR.

EXISTING ROUTE MARKERS FOR CLOSURE SECTION SHALL BE COVERED IN CONJUNCTION WITH INSTALLATION OF DETOUR ROUTE SIGNING.

MESSAGE BOARDS TO BE DEPLOYED 5 DAYS PRIOR TO CLOSURE.

FOR DIVIDED ROADWAYS, PLACE TRAFFIC CONTROL SIGNS IN MEDIAN AND ON OUTSIDE SHOULDER.

LEGEND

- TYPE III BARRICADE WTH ATTACHED SIGN
- SIGN ON PERMANENT SUPPORT
- DIRECTION OF TRAFFIC
- MB — PORTABLE CHANGEABLE MESSAGE BOARD
- ROAD CLOSURE - EASTBOUND LANES ONLY

2

PROJECT NO: 2040-20-70	HWY: STH 100	COUNTY: MILWAUKEE	DETOUR ROUTE	SHEET 25	E

FILE NAME : N:\PDS\C3D\20402000\SHEETSPLAN\027001-DT.DWG
LAYOUT NAME - DETOUR_SOUTH
PLOT DATE : 4/27/2022 7:30 AM PLOT BY : SMITH, CLAYTON L PLOT NAME : PLOT SCALE : 1 IN:0.5 MI
WISDOT/CADDS SHEET 42

2

2

N

S NICHOLSON RD

155

160

30

PT: 162+37.07

STA 159+36.11 =
STA 30+23.68
Y=237,354.705
X=610,359.637

PI: 155+76.87

16813
CP CHSLD SQ W EDGE OF INLET
230' +/- W OF UP RR BRIDGE (2002)
691.007'

STH 100

165

S87° 00' 39"E
4793.69'

16450
CP
681.498'

170

UNION PACIFIC RR

17048
BM B-40-0530
UNION PACIFIC RAILROAD BRIDGE
698.649'

17070
CP
683.132'

17162
CP
680.608'

17142
BM ALUMINUM CAP ON WALL
AT NE CORNER OF B-40-633
699.315'

175

17472
BM ALUMINUM CAP ON WALL
AT SW CORNER OF C-40-79
691.408'

17501
BM CHSLD SQ ON CONCRETE BIKE TRAIL
BENCH SIDE RYAN RD AT BOX CULVERT C-40-79
681.793'

STH 100

17832
CP
684.479'

180

S87° 00' 39"E
4793.69'

185

S PENNSYLVANIA AVE

40

18642
CP CHSLD + W CULVERT NE QUAD
OF PENNSYLVANIA & RYAN
663.723'

185

STA 185+86.97 =
STA 40+00.00
Y=237,192.906
X=613,004.415

190

STH 100

195

S87° 00' 39"E
4793.69'

200

205

210

PC: 210+30.76

21030
CP PC MONUMENT
670.580'

55

15TH AVE

N

STA 212+04.80 =
STA 50+03.93
Y=237,060.360
X=615,618.836

PROJECT NO: 2040-20-70	HWY: STH 100	COUNTY: MILWAUKEE	ALIGNMENT	SHEET 26	E

2040-20-70

Line	Item	Item Description	Unit	Total	Qty
0002	203.0220	Removing Structure (structure) 02. B-40-0530	EACH	1.000	1.000
0004	203.0330	Debris Containment (structure) 02. B-40-0530	EACH	1.000	1.000
0006	204.0100	Removing Concrete Pavement	SY	180.000	180.000
0008	204.0115	Removing Asphaltic Surface Butt Joints	SY	100.000	100.000
0010	204.0120	Removing Asphaltic Surface Milling	SY	910.000	910.000
0014	204.0150	Removing Curb & Gutter	LF	65.000	65.000
0016	204.0165	Removing Guardrail	LF	410.000	410.000
0022	205.0100	Excavation Common	CY	100.000	100.000
0024	206.1001	Excavation for Structures Bridges (structure) 02. B-40-0530	EACH	1.000	1.000
0026	208.0100	Borrow	CY	160.000	160.000
0028	209.0200.S	Backfill Controlled Low Strength	CY	2.000	2.000
0030	210.1500	Backfill Structure Type A	TON	322.000	322.000
0034	211.0400	Prepare Foundation for Asphaltic Shoulders	STA	1.000	1.000
0038	213.0100	Finishing Roadway (project) 02. 2040-20-70	EACH	1.000	1.000
0040	305.0110	Base Aggregate Dense 3/4-Inch	TON	30.000	30.000
0042	415.0090	Concrete Pavement 9-Inch	SY	83.000	83.000
0044	415.0120	Concrete Pavement 12-Inch	SY	3.000	3.000
0046	415.0410	Concrete Pavement Approach Slab	SY	90.000	90.000
0048	455.0605	Tack Coat	GAL	90.000	90.000
0054	460.2000	Incentive Density HMA Pavement	DOL	90.000	90.000
0062	460.6224	HMA Pavement 4 MT 58-28 S	TON	140.000	140.000
0064	465.0105	Asphaltic Surface	TON	3.000	3.000
0070	502.0100	Concrete Masonry Bridges	CY	275.000	275.000
0072	502.3200	Protective Surface Treatment	SY	709.000	709.000
0074	502.3210	Pigmented Surface Sealer	SY	164.000	164.000
0076	502.3215	Protective Surface Treatment Reseal	SY	710.000	710.000
0078	502.4205	Adhesive Anchors No. 5 Bar	EACH	152.000	152.000
0080	505.0600	Bar Steel Reinforcement HS Coated Structures	LB	63,210.000	63,210.000
0082	506.2605	Bearing Pads Elastomeric Non-Laminated	EACH	10.000	10.000
0084	506.7050.S	Removing Bearings (structure) 02. B-40-0530	EACH	10.000	10.000
0086	509.1500	Concrete Surface Repair	SF	7.000	7.000
0088	516.0500	Rubberized Membrane Waterproofing	SY	26.000	26.000
0090	517.0901.S	Preparation and Coating of Top Flanges (structure) 02. B-40-0530	EACH	1.000	1.000
0092	517.1801.S	Structure Repainting Recycled Abrasive (structure) 02. B-40-0530	EACH	1.000	1.000
0094	517.4501.S	Negative Pressure Containment and Collection of Waste Materials (structure) 02. B-40-0530	EACH	1.000	1.000
0096	517.6001.S	Portable Decontamination Facility	EACH	1.000	1.000
0098	601.0411	Concrete Curb & Gutter 30-Inch Type D	LF	15.000	15.000
0100	601.0553	Concrete Curb & Gutter 4-Inch Sloped 36-Inch Type D	LF	20.000	20.000
0102	601.0588	Concrete Curb & Gutter 4-Inch Sloped 36-Inch Type TBT	LF	50.000	50.000
0104	602.3010	Concrete Surface Drains	CY	1.000	1.000
0106	604.9010.S	Slope Paving Repair Crushed Aggregate	CY	216.000	216.000
0108	604.9015.S	Reseal Crushed Aggregate Slope Paving	SY	616.000	616.000
0110	606.0200	Riprap Medium	CY	8.000	8.000
0112	611.0652	Inlet Covers Type T	EACH	1.000	1.000
0114	612.0406	Pipe Underdrain Wrapped 6-Inch	LF	87.000	87.000
0116	612.0806	Apron Endwalls for Underdrain Reinforced Concrete 6-Inch	EACH	1.000	1.000
0118	614.0010	Barrier System Grading Shaping Finishing	EACH	2.000	2.000
0120	614.0150	Anchor Assemblies for Steel Plate Beam Guard	EACH	3.000	3.000
0122	614.0397	Guardrail Mow Strip Emulsified Asphalt	SY	140.000	140.000

2040-20-70

Line	Item	Item Description	Unit	Total	Qty
0126	614.0920	Salvaged Rail	LF	20.000	20.000
0128	614.0950	Replacing Guardrail Posts and Blocks	EACH	4.000	4.000
0134	614.2300	MGS Guardrail 3	LF	210.000	210.000
0136	614.2500	MGS Thrie Beam Transition	LF	80.000	80.000
0138	614.2610	MGS Guardrail Terminal EAT	EACH	2.000	2.000
0140	614.2620	MGS Guardrail Terminal Type 2	EACH	1.000	1.000
0142	616.0206	Fence Chain Link 6-FT	LF	316.000	316.000
0144	616.0800.S	Fence Track Clearance 02. B-40-0530	LF	495.000	495.000
0148	618.0100	Maintenance and Repair of Haul Roads (project) 02. 2040-20-70	EACH	1.000	1.000
0150	619.1000	Mobilization	EACH	0.600	0.600
0154	625.0500	Salvaged Topsoil	SY	950.000	950.000
0156	627.0200	Mulching	SY	1,000.000	1,000.000
0158	628.1504	Silt Fence	LF	800.000	800.000
0160	628.1520	Silt Fence Maintenance	LF	400.000	400.000
0162	628.1905	Mobilizations Erosion Control	EACH	1.000	1.000
0164	628.1910	Mobilizations Emergency Erosion Control	EACH	1.000	1.000
0166	628.2006	Erosion Mat Urban Class I Type A	SY	950.000	950.000
0168	628.6510	Soil Stabilizer Type B	ACRE	0.300	0.300
0170	628.7005	Inlet Protection Type A	EACH	2.000	2.000
0172	628.7015	Inlet Protection Type C	EACH	10.000	10.000
0174	629.0210	Fertilizer Type B	CWT	0.800	0.800
0176	630.0120	Seeding Mixture No. 20	LB	35.000	35.000
0178	630.0130	Seeding Mixture No. 30	LB	5.000	5.000
0180	630.0200	Seeding Temporary	LB	35.000	35.000
0182	630.0500	Seed Water	MGAL	85.000	85.000
0202	643.0300	Traffic Control Drums	DAY	2,380.000	2,380.000
0204	643.0420	Traffic Control Barricades Type III	DAY	3,810.000	3,810.000
0206	643.0705	Traffic Control Warning Lights Type A	DAY	7,620.000	7,620.000
0208	643.0900	Traffic Control Signs	DAY	29,700.000	29,700.000
0210	643.0920	Traffic Control Covering Signs Type II	EACH	10.000	10.000
0212	643.1000	Traffic Control Signs Fixed Message	SF	60.000	60.000
0214	643.1050	Traffic Control Signs PCMS	DAY	5.000	5.000
0218	643.5000	Traffic Control	EACH	0.500	0.500
0220	645.0111	Geotextile Type DF Schedule A	SY	45.000	45.000
0222	645.0120	Geotextile Type HR	SY	44.000	44.000
0224	646.2020	Marking Line Epoxy 6-Inch	LF	4,000.000	4,000.000
0226	646.2040	Marking Line Grooved Wet Ref Epoxy 6-Inch	LF	500.000	500.000
0250	650.6501	Construction Staking Structure Layout (structure) 02. B-40-0530	EACH	1.000	1.000
0256	650.9911	Construction Staking Supplemental Control (project) 02. 2040-20-70	EACH	1.000	1.000
0258	650.9920	Construction Staking Slope Stakes	LF	400.000	400.000
0292	690.0150	Sawing Asphalt	LF	45.000	45.000
0296	715.0502	Incentive Strength Concrete Structures	DOL	1,650.000	1,650.000
0298	715.0720	Incentive Compressive Strength Concrete Pavement	DOL	176.000	176.000
0302	801.0117	Railroad Flagging Reimbursement	DOL	52,000.000	52,000.000
0304	999.2000.S	Installing and Maintaining Bird Deterrent System (station) 02. B-40-0530	EACH	1.000	1.000
0310	SPV.0035	Special 01. BACKFILL SLURRY	CY	5.000	5.000
0316	SPV.0090	Special 01. MARKING CONTRAST EPOXY 6-INCH	LF	50.000	50.000

3

REMOVING CONCRETE

	STATION	-	STATION	204.0100 REMOVING CONCRETE PAVEMENT SY
STH 100	170+30	-	170+50	90
	171+90	-	172+17	90
			TOTAL	180

REMOVING ASPHALTIC SURFACE

LOCATION				204.0115 REMOVING ASPHALTIC SURFACE BUTT JOINTS SY	204.0120 REMOVING ASPHALTIC SURFACE MILLING SY
STH 100 EB					
	168+80	-	170+30	50	580
	172+10	-	173+10	50	330
			TOTAL	100	910

REMOVING CURB & GUTTER

	STATION	-	STATION	204.0150 REMOVING CURB AND GUTTER LF
STH 100	169+92	-	170+50	50
	171+90	-	172+17	15
			TOTAL	65

EXCAVATION

LOCATION	205.0100 EXCAVATION COMMON CY	208.0110 BORROW CY
STA 168+00 to 172+10	2	152
UNDISTRIBUTED	98	8
TOTAL	100	160

SHOULDERS

LOCATION	211.0400 PREPARING FOUNDATION FOR ASPHALTIC SHOULDER STA
STA 168+80 - 169+80	1

FINISHING ROADWAY

LOCATION	213.0100 FINISHING ROADWAY (2040-20-70) EA
PROJECT	1
TOTAL	1

BASE AGGREGATE

LOCATION			305.0110 3/4-INCH DENSE TON
STH 100 EB SHOULDERS			
168+50	170+30		20
172+10	173+20		10
		TOTAL	30

CONCRETE ITEMS

ROADWAY	STATION	-	STATION	415.0090 CONCRETE PAVEMENT 9-INCH SY	415.0120 CONCRETE PAVEMENT 12-INCH SY	415.0410 CONCRETE PAVEMENT APPROACH SLAB SY	602.3010 CONCRETE SURFACE DRAIN CY	601.0411 CONCRETE CURB AND GUTTER 30-INCH TYPE D LF	601.0553 CONCRETE CURB AND GUTTER 4-INCH SLOPED 36-INCH TYPE D LF	601.0588 CONCRETE CURB AND GUTTER 4-INCH SLOPED 36-INCH TYPE TBT LF	611.0652 INLET COVERS TYPE T EACH
STH 100	169+92	-	170+30	0	0	0	0	0	0	40	--
	170+30	-	170+50	42	0	46	0	0	5	10	1
	171+90	-	172+17	41	3	44	1	15	15	0	--
TOTAL				83	3	90	1	15	20	50	1

ASPHALT ITEMS

STATION		STATION	460.6224 HMA PAVEMENT 4 MT 58-28 S TON	455.0605 TACK COAT GAL	465.0105 ASPHALTIC SURFACE TON
STH 100 EB					
168+80	to	170+30	80	55	0
172+10	to	173+20	60	35	3
		TOTAL	140	90	3

MOBILIZATION

LOCATION	619.1000 MOBILIZATION EA
PROJECT	0.6
TOTAL	0.6

CAT 0010

PROJECT NO: 2040-20-70	HWY: STH 100	COUNTY: MILWAUKEE	MISCELLANEOUS QUANTITIES	SHEET 30	E

3

3

GUARDRAIL

DESCRIPTION	STATION	-	STATION	204.0165 REMOVING GUARDRAIL LF	614.0010 BARRIER SYSTEM GRADING SHAPING FINISHING EA	614.0397 GUARDRAIL MOW STRIP EMULSIPHIED ASPHALT SY	614.0920 SALVAGED RAIL LF	614.0950 REPLACING GUARDRAIL POSTS AND BLOCKS EA	614.2300 MGS GUARDRAIL 3 LF	614.2500 MGS THRIE BEAM TRANSITION LF	614.2610 MGS ENERGY ABSORBING TERMINAL EA	614.2620 MGS GUARDRAIL TERMINAL TYPE 2 EA
STH 100 EB	168+80		170+40 LT	160	0	0	0	0	70	40	1	0
	170+35		170+35 LT	10	0	0	10	2	0	0	0	0
	169+30		170+40 RT	115	1	70	0	0	25	40	1	0
	172+00		172+00 LT	10	0	0	10	2	0	0	0	0
	172+10		173+20 RT	115	1	70	0	0	115	0	0	1
			TOTAL	410	2	140	20	4	210	80	2	1

BARRIER SYSTEM GRADING SHAPING FINISHING INCIDENTAL ITEMS

STATION	-	STATION	TOPSOIL CY	EROSION MAT URBAN CLASS 1 TYPE A SY	SEEDING MIXTURE TYPE 20 LB	SEED WATER MG
169+30		170+40 RT	60	535	24	8
172+10		173+20RT	40	118	16	6
		TOTAL	100	653	40	14

WATER

630.0500 SEED WATER

LOCATION		MGAL	REMARKS
PROJECT		85	SEEDED AREAS
	TOTAL	85	

RESTORATION

DESCRIPTION	STATION	-	STATION	625.0500 SALVAGED TOPSOIL SY	627.0200 MULCHING SY	628.2006 EROSION MAT URBAN CLASS 1 TYPE A SY	628.6510 SOIL STABILIZER TYPE B ACRE	629.0210 FERTILIZER TYPE B CWT	630.0120 SEEDING MIXTURE NO. 20 LB	630.0130 SEEDING MIXTURE NO. 30 LB	630.0200 SEEDING TEMPORARY LB
STH 100 EB											
RT	168+00		171+00	540	540	540	0.10	0.30	15	0	15
LT	168+00		171+00	0	50	0	0	0.10	0	3	0
RT	171+00		173+10	360	360	360	0.10	0.30	13	0	15
	UNDISTRIBUTED			50	50	50	0.10	0.10	7	2	5
			TOTAL	950	1,000	950	0.30	0.80	35	5	35

INLET PROTECTION

DESCRIPTION	STATION	-	STATION	628.7005 INLET PROTECTION TYPE A EA	628.7015 INLET PROTECTION TYPE C EA
STH 100 EB	160+22		171+00	1	4
	172+00		185+10	1	4
	UNDISTRIBUTED				2
			TOTAL	2	10

CAT 0010

PROJECT NO: 2040-20-70	HWY: STH 100	COUNTY: MILWAUKEE	MISCELLANEOUS QUANTITIES	SHEET 31	E

FILE NAME : N:\PDS\C3D\20402000\SHEETSPLAN\030201-MQ.DWG
LAYOUT NAME - 02

PLOT DATE : 11/27/2023 1:24 PM PLOT BY : STARK, GARY W PLOT NAME : PLOT SCALE : 1" = 1'

WISDOT/CADDS SHEET 42

TRAFFIC CONTROL

	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	643.0920 TRAFFIC CONTROL COVERING SIGNS TYPE II EA	COVERING SIGNS NUMBER OF CYCLES (COVER/UNCOVER)	643.1050 TRAFFIC CONTROL SIGNS PCMS DAY	643.5000 TRAFFIC CONTROL EA
STAGE 1	2,380	3,810	7,620	29,700	10	1	5	0.5
TOTAL	2,380	3,810	7,620	29,700	10	--	5	0.5

643.1000 TRAFFIC CONTROL FIXED MESSAGE SIGNS

SIGN	SF
FM10	60
TOTAL	60

PAVEMENT MARKING

LOCATION	EPOXY 6-INCH WHITE 646.2020 LF	EPOXY 6-INCH YELLOW 646.2020 LF	GROOVED WET REFLECTIVE EPOXY 6-INCH WHITE SKIPS 646.2040 LF	WHITE CONTRAST SKIPS SPV.0090.01 LF
STH 100 EB 161+30 - 180+50	2,000	2,000	500	
B-40-0530 BRIDGE DECK				50
SUBTOTAL	2,000	2,000	--	--
TOTAL	4,000		500	50

999.2000.S INSTALLING AND MAINTAINING BIRD DETERRENT SYSTEM B-40-0530

LOCATION	EA
STA 171+00	1
TOTAL	1

SAWING

LOCATION	690.0150 SAWING ASPHALT LF
STH 100 EB 172+15	45
TOTAL	45

CONSTRUCTION STAKING

PROJECT	650.6501 STRUCTURE LAYOUT B-40-0530 EA	650.9911 SUPPLEMENTAL CONTROL (ID 2040-20-70) EA	650.9920 SLOPE STAKES LF
STH 100	1	1	400
TOTAL	1	1	400

RAILROAD

LOCATION	817.0117 FLAGGING REIMBURSEMENT DOL
PROJECT	52,000
TOTAL	52,000

BACKFILL

DESCRIPTION	STATION	-	STATION	SPV.0035.01 BACKFILL SLURRY CY
STH 100 EB	168+80		170+40 LT	2
	169+30		170+40 RT	2
	172+10		173+20 RT	1
			TOTAL	5

MOBILIZATIONS EROSION CONTROL

	628.1905 MOBILIZATIONS EROSION CONTROL EA	628.1910 MOBILIZATIONS EMERGENCY EROSION CONTROL EA
STH 100 EB	1	1
TOTAL	1	1

EROSION CONTROL

DESCRIPTION	STATION	-	STATION	628.1504 SILT FENCE LF	628.1520 SILT FENCE MAINT. LF
STH 100 EB	168+30		171+10	400	200
	171+50		173+70	400	200
			TOTAL	800	400

CAT 0010

EARTHWORK SUMMARY

DIVISION	FROM/TO STATION	205.0100 COMMON EXCAVATION (1) CUT (2)	205.0100 COMMON EXCAVATION (1) EBS EXCAVATION (3)	AVAILABLE MATERIAL (5)	UNEXPANDED FILL	EXPANDED FILL (13) FACTOR 1.20	MASS ORDINATE +/- (14)	WASTE	208.0100 BORROW	COMMENT
DIVISION 1										
QR-100_GUARDRAIL_EAST	172+07/173+50	0	0	0	58	70	-70	0	70	
QR-100_GUARDRAIL_WEST	168+00/170+40	2	0	2	70	84	-82	0	82	
DIVISION 1 SUBTOTAL		2	0	2	128	154	-152	0	152	
GRAND TOTAL		2	0	2	128	154	-152	0	152	
TOTAL COMMON EXC		2								

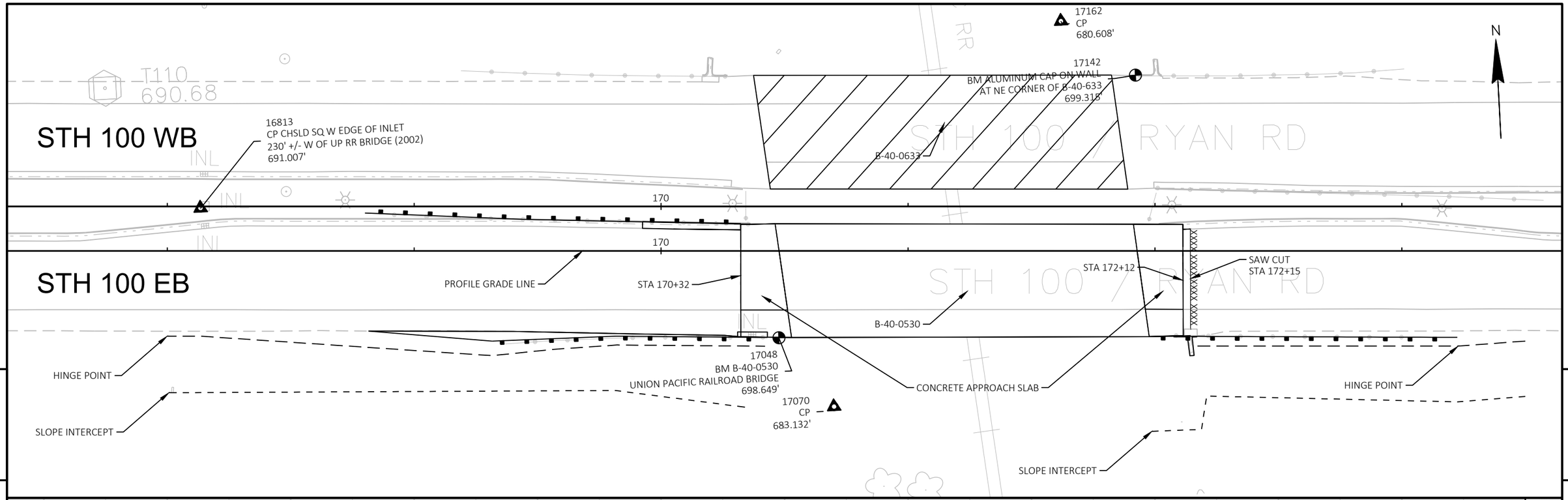
NOTES:
(1) COMMON EXCAVATION IS THE SUM OF THE CUT AND EBS EXCAVATION COLUMNS. ITEM NUMBER 205.0100
(2) SALVAGED/UNSUABLE PAVEMENT MATERIAL IS INCLUDED IN CUT.
(3) EBS EXCAVATION TO BE BACKFILLED WITH SELECT BORROW MATERIAL. NOTE: THIS IS DESIGNERS CHOICE, CAN BE BACKFILLED WITH BORROW, OR CUT AS WELL.
(4) SALVAGED/UNUSABLE PAVEMENT MATERIAL
5) AVAILABLE MATERIAL = CUT - SALVAGED/UNUSUABLE PAVEMENT MATERIAL
(6) MARSH EXCAVATION - TO BE BACKFILLED WITH SELECT BORROW MATERIAL. NOTE: THIS IS DESIGNERS CHOICE, CAN BE BACKFILLED WITH BORROW, OR CUT AS WELL. ITEM NUMBER 205.0500
(7) ROCK EXCAVATION ITEM NUMBER 205.0200
(8) REDUCED MARSH IN FILL - EXCAVATED MARSH MATERIAL IS USUABLE IN FILLS OUTSIDE THE 1:1 SLOPE. MARSH IN FILL REDUCTION FACTOR = X.1X
(9) REDUCED EBS IN FILL - EXCAVATED EBS MATERIAL IS USUABLE IN FILLS OUTSIDE THE 1:1 SLOPE. EBS IN FILL REDUCTION FACTOR = X.2X
(10) EXPANDED MARSH BACKFILL - THIS IS TO BE FILLED WITH SELECT BORROW MATERIAL. MARSH BACKFILL FACTOR = X.3X. ITEM NUMBER 208.1100
(11) EXPANDED EBS BACKFILL - THIS IS TO BE FILLED WITH SELECT BORROW MATERIAL. EBS BACKFILL FACTOR = X.4X. ITEM NUMBER 208.1100
(12) EXPANDED ROCK FACTOR = X.5X
(13) EXPANDED FILL FACTOR = X.6X
DEPENDING ON SELECTI(EXPANDED FILL = (UNEXPANDED FILL - EXPANDED ROCK - REDUCED MARSH - REDUCED EBS) * FILL FACTOR
EXPANDED FILL = (UNEXPANDED FILL - EXPANDED ROCK - REDUCED EBS) * FILL FACTOR
EXPANDED FILL = (UNEXPANDED FILL - EXPANDED ROCK - REDUCED MARSH) * FILL FACTOR
EXPANDED FILL = (UNEXPANDED FILL - EXPANDED ROCK) * FILL FACTOR
(14) THE MASS ORDINATE + OR - QTY CALCULATED FOR THE DIVISION. PLUS QUANTITY INDICATES AN EXCESS OF MATERIAL WITHIN THE DIVISION. MINUS INDICATES A SHORTAGE OF MATERIAL WITHIN THE DIVISION.
(15) FACTORS USED TO COMPUTE ANTICIPATED WASTE AND THE COMPUTED WASTE VOLUME IDENTIFIED ARE FOR GENERAL INFORMATION ONLY.

CAT 0010

DECK SEALING

LOCATION	502.3215 PROTECTIVE SURFACE TREATMENT RESEAL SY
B-40-0633	710
TOTAL	710

CAT 0030



PROJECT NO: 2040-20-70	HWY: STH 100	COUNTY: MILWAUKEE	PLAN AND PROFILE: STH 100 EB	SHEET 34	E

FILE NAME : N:\PDS\C3D\20402000\SHEETSPLAN\050101-PP_TIED TO 20400305.DWG
LAYOUT NAME - 01
PLOT DATE : 5/5/2022 8:50 AM
PLOT BY : SMITH, CLAYTON L
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 44

STH 100 WB

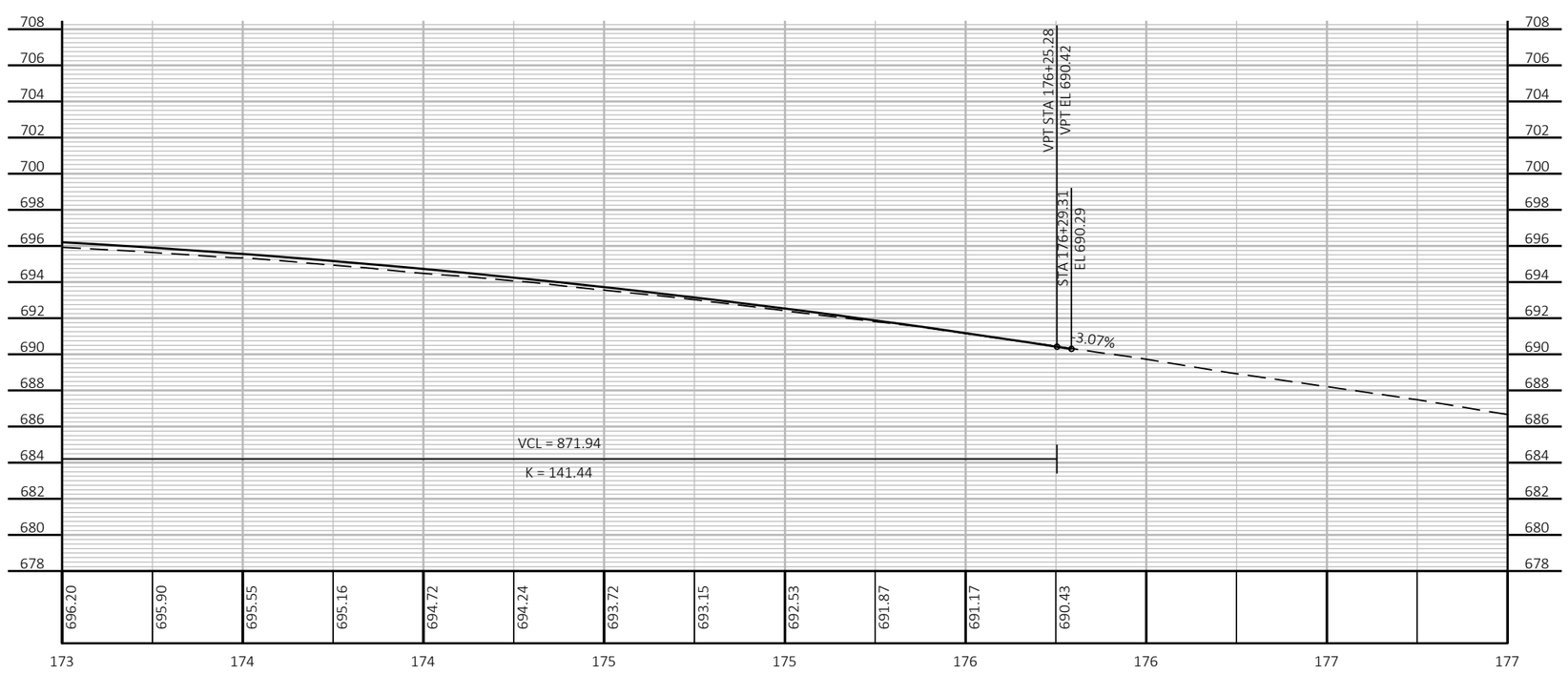
STH 100 EB

17832
CP
684.479'

17472
BM ALUMINUM CAP ON WALL
AT SW CORNER OF C-40-79
691.408'

17501
BM CHSLD SQ ON CONCRETE BIKE TRAIL
BENCH SIDE RYAN RD AT BOX CULVERT C-40-79
681.793'

PROFILE GRADE LINE



PROJECT NO: 2040-20-70	HWY: STH 100	COUNTY: MILWAUKEE	PLAN AND PROFILE: STH 100 EB	SHEET 35	E

FILE NAME : N:\PDS\C3D\20402000\SHEETSPLAN\050101-PP_TIED TO 20400305.DWG
LAYOUT NAME - 02

PLOT DATE : 5/5/2022 8:50 AM PLOT BY : SMITH, CLAYTON L PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 44

Standard Detail Drawing List

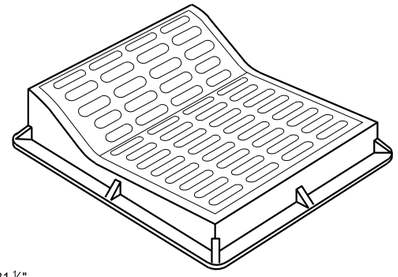
08A05-20C	INLET COVERS TYPE F, HM, HM-S, S, T, V, HM-GJ, & HM-GJ-S
08D01-23A	CONCRETE CURB & GUTTER
08D01-23B	CONCRETE CURB, TIES AND CURB AND GUTTER APPLICATIONS
08D02-08A	CONCRETE SURFACE DRAINS FLUME TYPE AT STRUCTURES
08D02-08B	CONCRETE SURFACE DRAINS FLUME TYPE AT STRUCTURES
08D02-08C	CONCRETE SURFACE DRAINS FLUME TYPE AT STRUCTURES
08D15-05A	EDGEDRAIN OUTLET AND OUTFALL MARKERS
08E09-06	SILT FENCE
08E10-02	INLET PROTECTION TYPE A, B, C AND D
08F06-04	REINFORCED CONCRETE APRON ENDWALL FOR PIPE UNDERDRAIN
12A03-10	NAME PLATE (STRUCTURES)
13B02-09A	CONCRETE PAVEMENT APPROACH SLAB
13C18-08A	CONCRETE PAVEMENT JOINTING
13C18-08B	CONCRETE PAVEMENT STEEL REINFORCEMENT
13C18-08C	CONCRETE PAVEMENT JOINT TYPES
13C18-08D	CONCRETE PAVEMENT JOINTING AT UTILITY FIXTURES
13C18-08F	CONCRETE PAVEMENT INTERSECTION BOXOUT FOR INTEGRAL CURB AND GUTTER
13C19-03	HMA LONGITUDINAL JOINTS
14B15-11A	STEEL PLATE BEAM GUARD, CLASS "A" INSTALLATION & ELEMENTS
14B15-11B	STEEL PLATE BEAM GUARD, CLASS "A" INSTALLATION & ELEMENTS
14B15-11C	STEEL PLATE BEAM GUARD, CLASS "A", INSTALLATION & ELEMENTS
14B16-04A	ANCHORAGE FOR STEEL PLATE BEAM GUARD TYPE 2
14B16-04B	ANCHORAGE FOR STEEL PLATE BEAM GUARD TYPE 2
14B18-06A	STEEL PLATE BEAM GUARD, CLASS "A" (AT BRIDGES, OBSTACLES AND SIDEROADS/DRIVEWAYS)
14B18-06B	STEEL PLATE BEAM GUARD, CLASS "A" AT MEDIAN APPROACH TO BRIDGES
14B20-12A	STEEL THRIE BEAM STRUCTURE APPROACH
14B20-12B	STEEL THRIE BEAM STRUCTURE APPROACH, CONNECTION TO SQUARE END PARAPETS
14B20-12C	STEEL THRIE BEAM STRUCTURE APPROACH, CONNECTION TO VERTICAL FACED PARAPETS
14B24-09A	STEEL PLATE BEAM GUARD ENERGY ABSORBING TERMINAL
14B24-09B	STEEL PLATE BEAM GUARD ENERGY ABSORBING TERMINAL
14B24-09C	STEEL PLATE BEAM GUARD ENERGY ABSORBING TERMINAL
14B28-04A	GUARDRAIL MOW STRIP
14B28-04B	GUARDRAIL MOW STRIP
14B29-01	SAFETY EDGE
14B42-07A	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-07B	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-07C	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-07D	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B44-04A	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B44-04B	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B44-04C	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B45-05A	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05B	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05C	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05D	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05I	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05J	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B47-05A	MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL
14B47-05B	MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL
14B47-05C	MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL
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
15C08-23A	PERMANENT LONGITUDINAL PAVEMENT MARKINGS
15C11-10B	CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS
15C12-09A	TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION
15D20-07A	TRAFFIC CONTROL, SINGLE LANE CLOSURE, DIVIDED NON-FREEWAY/EXPRESSWAY
15D20-07B	TRAFFIC CONTROL, SINGLE RIGHT LANE CLOSURE, UNDIVIDED NON-FREEWAY/EXPRESSWAY
15D21-07A	TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE LANE CLOSURE
15D21-07B	TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE LANE CLOSURE
15D27-03	TRAFFIC CONTROL, SHOULDER CLOSURE ON DIVIDED ROADWAY, SPEEDS GREATER THAN 40 MPH
15D39-02	TRAFFIC CONTROL, DROP-OFF SIGNING
15D40-05A	TRAFFIC CONTROL, FULL LANE SHIFT NON-FREEWAY OR MULTILANE DIVIDED 45 MPH AND UNDER

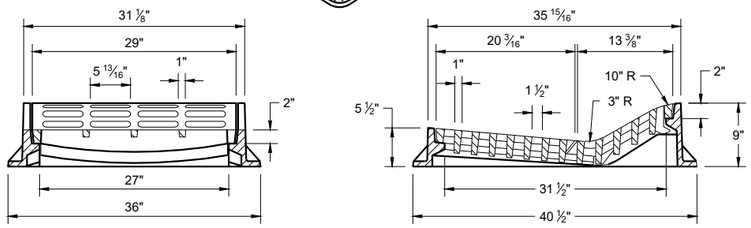
6

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.

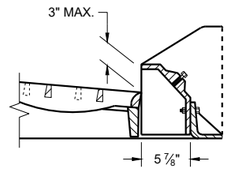
DETAIL DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR INLET COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.





TYPE "F"

USE WITH TYPES "A" AND "D" CONCRETE CURB AND GUTTER, 36"

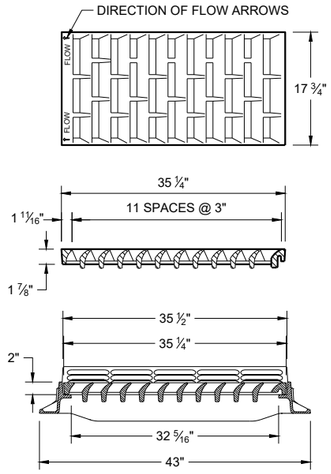


ALTERNATIVE CURB BOX FOR TYPE "HM" COVER

USE WITH TYPES "G" AND "J" CONCRETE CURB AND GUTTER, 30 INCH
NOTED AS TYP "HM-GJ" ON DRAINAGE TABLE

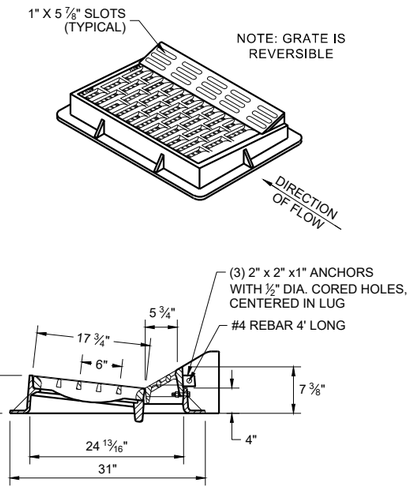
NOTE:
SPECIAL GRATE FOR THE TYPE "H" COVER MAY ALSO BE USED FOR THE TYPE "HM-GJ" COVER.

NOTED AS TYPE HM-GJ-S ON THE DRAINAGE TABLE.



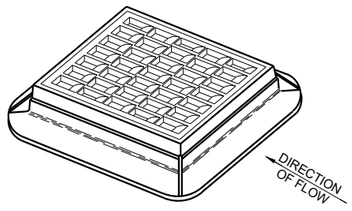
TYPE "HM"

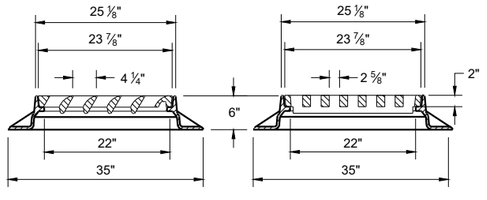
USE WITH TYPES "A" AND "D" CONCRETE CURB AND GUTTER, 36"



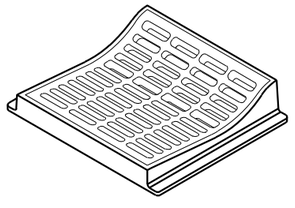
NOTE:
SPECIAL GRATE FOR THE TYPE "H" COVER MAY ALSO BE USED FOR THE TYPE "HM-GJ" COVER.

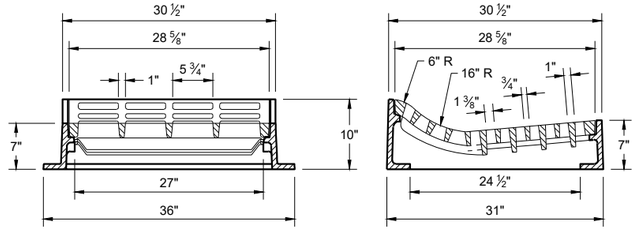
NOTED AS TYPE HM-GJ-S ON THE DRAINAGE TABLE.





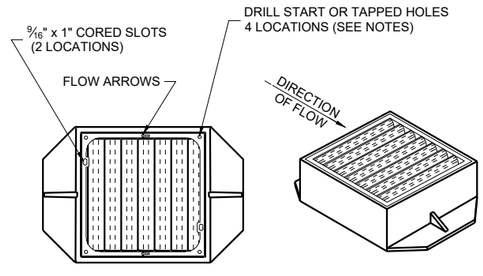
TYPE "S"

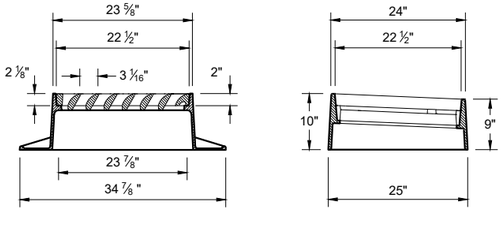




TYPE "T"

USE WITH TYPES "R" AND "T" CONCRETE CURB AND GUTTER, 36"

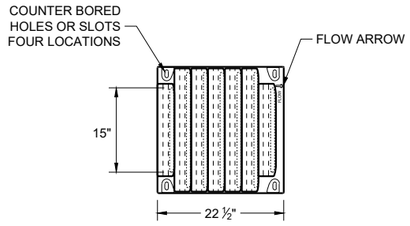




TYPE "V"

NOTES: ALL HARDWARE TO BE SUPPLIED BY CASTING MANUFACTURER ALL DRILLING AND TAPPING GRATES AND FRAMES BY CASTING MANUFACTURER

TYPE V
FRAME - CAST GRAY IRON ASTM A48 CLASS 40A
3/8" DIA. X 1/16" DRILL START IN 4 LOCATIONS
GRATE - CAST GRAY IRON ASTM A-48, CLASS 35B



BOLT DOWN GRATE FOR TYPE "V" COVER

NOTES: ALL HARDWARE TO BE SUPPLIED BY CASTING MANUFACTURER NOTED AS TYPE "V-B" ON DRAINAGE TABLE

TAP 1/2" -13 HOLES IN FOUR LOCATIONS IN FRAME TO BOLT GRATE
FRAME - CAST GRAY IRON ASTM A48 CLASS 40A

GRATE - CAST DUCTILE IRON ASTM A536, 55+KSI YIELD
BOLTS - 1/2" -13 STAINLESS STEEL BOLTS WITH WASHERS
TORQUE BOLTS TO MANUFACTURER SPECIFICATION DO NOT OVERTIGHTEN.

INLET COVERS TYPES F, HM, HM-S, S, T, V, HM-GJ AND HM-GJ-S

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

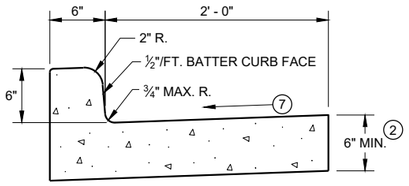
APPROVED
July 2023 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS DEVELOPMENT UNIT SUPERVISOR

FHWA

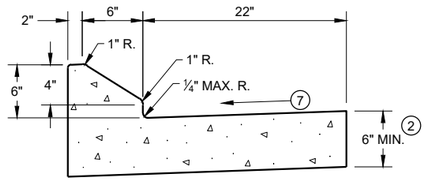
6

SDD 08A05-20c

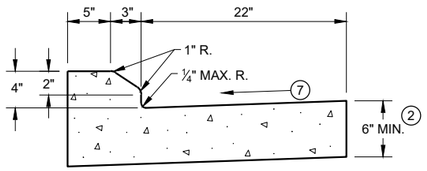
SDD 08A05-20c



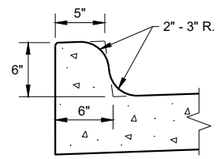
TYPES A (1) & D



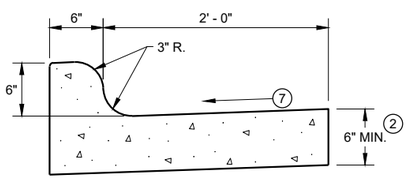
6" SLOPED CURB TYPES G (1) & J



4" SLOPED CURB TYPES G (1) & J

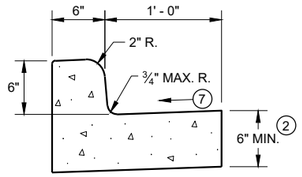


TYPES K (1) & L
(OPTIONAL CURB SHAPE)



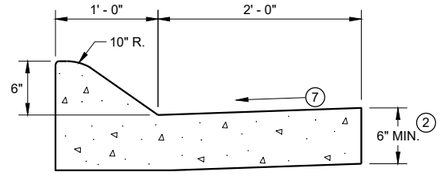
TYPES K (1) & L

CONCRETE CURB AND GUTTER 30"

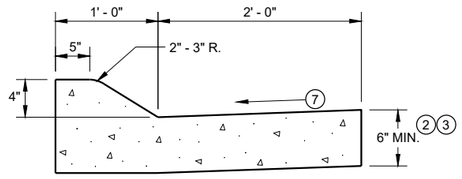


TYPES A (1) & D

CONCRETE CURB AND GUTTER 18"

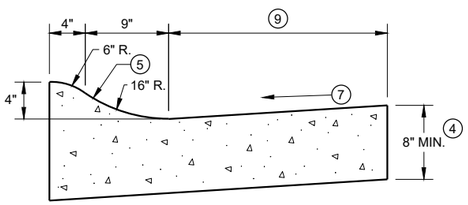


6" SLOPED CURB TYPES A (1) & D



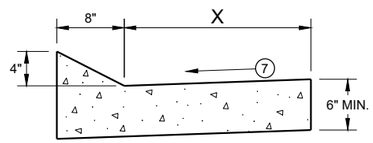
4" SLOPED CURB TYPES A (1) & D

CONCRETE CURB AND GUTTER 36"



4" SLOPED CURB TYPES R (1) & T

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

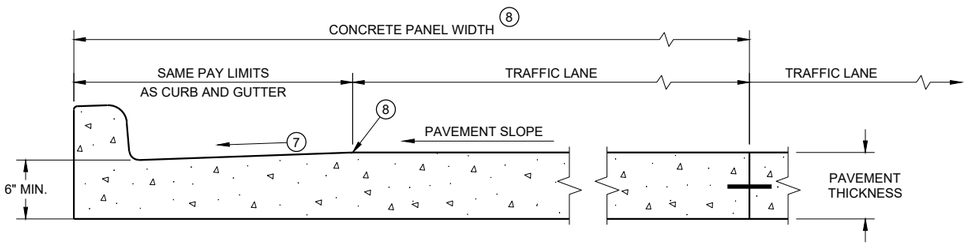


TYPES TBT & TBTT (1)

CONCRETE CURB AND GUTTER

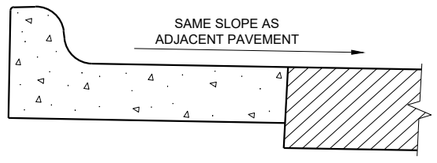
PAVEMENT THICKNESS AND MAXIMUM CONCRETE PANEL WIDTH TABLE

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



PARTIAL SECTION OF PAVEMENT * WITH INTEGRAL CURB AND GUTTER

* BIKE LANE IS NOT SHOWN



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

GENERAL NOTES

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

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

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

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

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

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

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

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

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

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

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

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

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

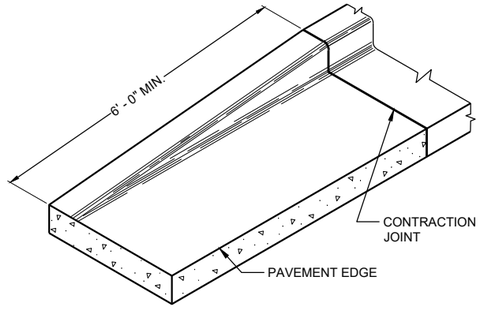
CONCRETE CURB AND GUTTER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

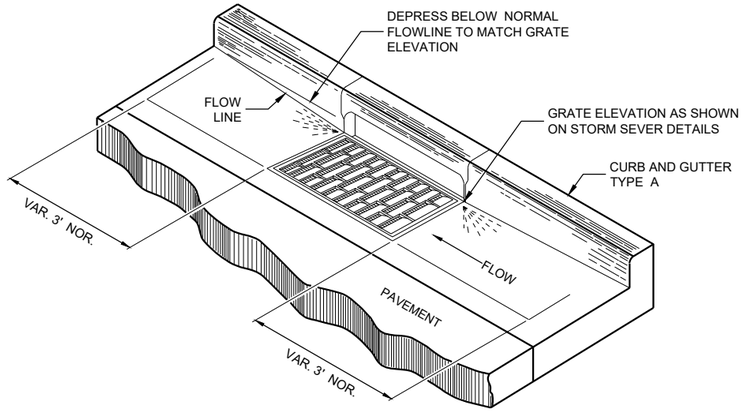
6

SDD 08D01 - 23a

SDD 08D01 - 23a



END SECTIONCURB AND GUTTER



DETAIL OF CURB AND GUTTER AT INLETS

(TYPICAL H INLET COVER SHOWN)

GENERAL NOTES

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

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

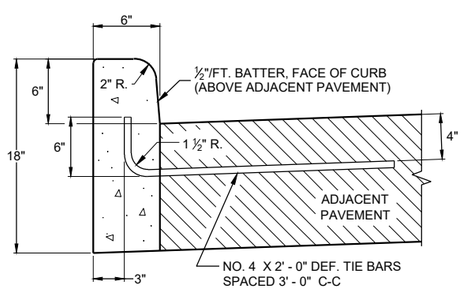
UNLESS OTHERWISE SHOWN ON THE TYPICAL CROSS SECTIONS, THE BASE AGGREGATE AND COMMON EXCAVATION LIMITS ARE 2' - 0" BEHIND THE BACK OF CURBS.

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

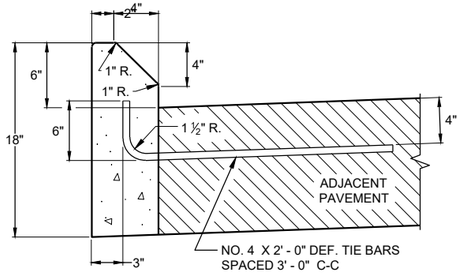
(2) THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 6" MINIMUM GUTTER THICKNESS IS MAINTAINED.

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

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

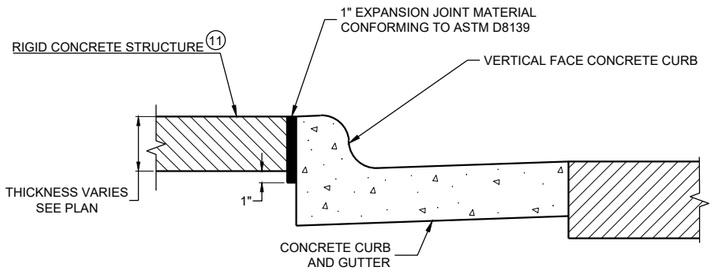


TYPES A(1) & D

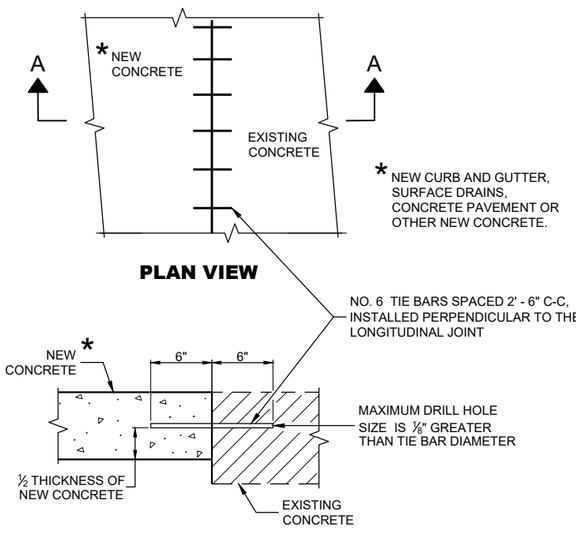


TYPES G(1) & J

CONCRETE CURB



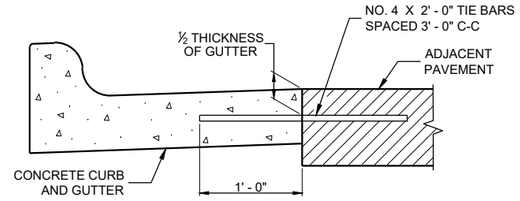
EXPANSION JOINT DETAIL FOR VERTICAL CURB ABUTTING A RIGID STRUCTURE(11)



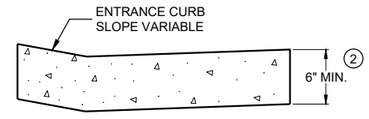
PLAN VIEW

SECTION A - A

TIE BARS DRILLED INTO EXISTING PAVEMENT



TYPICAL TIE BAR LOCATION(1)



DRIVEWAY ENTRANCE CURB(10)

(WHEN DIRECTED BY THE ENGINEER)

CONCRETE CURB, TIES AND CURB AND GUTTER APPLICATIONS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

FHWA

6

SDD08D01 - 23b

GENERAL NOTES

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

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

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

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

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

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

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

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

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

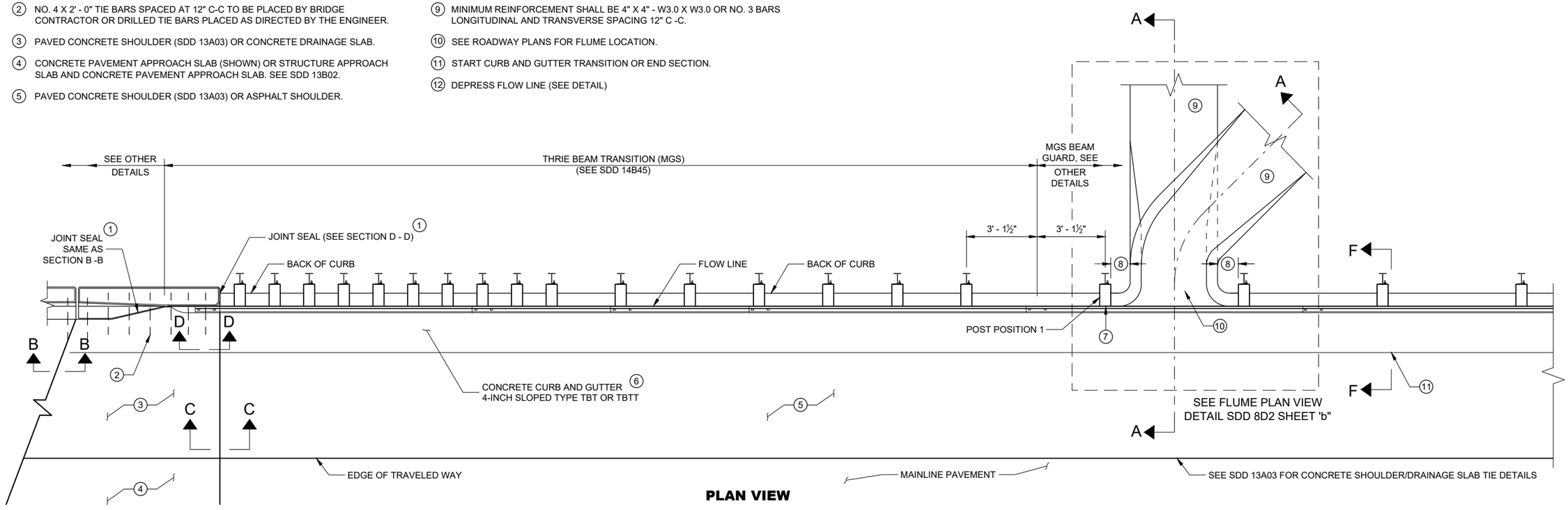
(8) CENTER FLUME BETWEEN POSTS. 6-INCH MINIMUM SEPARATION FROM OUTSIDE EDGE OF FLUME TO POSTS.

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

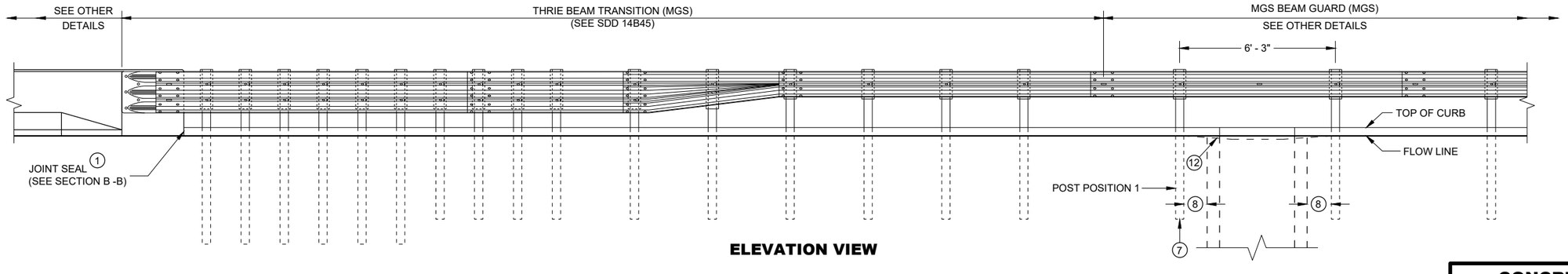
(10) SEE ROADWAY PLANS FOR FLUME LOCATION.

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

(12) DEPRESS FLOW LINE (SEE DETAIL)



PLAN VIEW



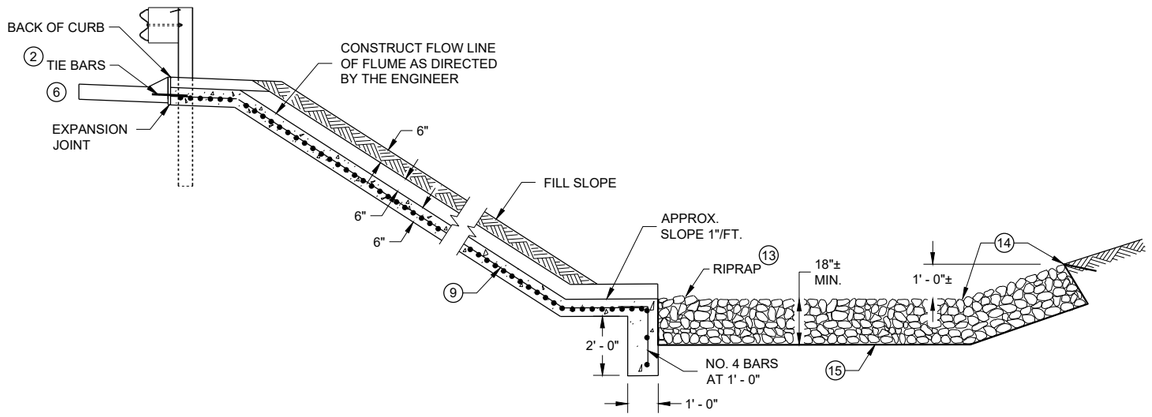
ELEVATION VIEW

CONCRETE SURFACE DRAINS FLUME TYPE AT STRUCTURES

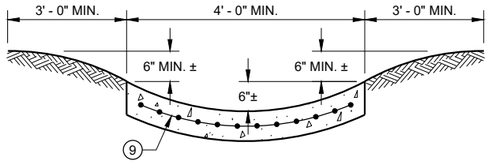
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

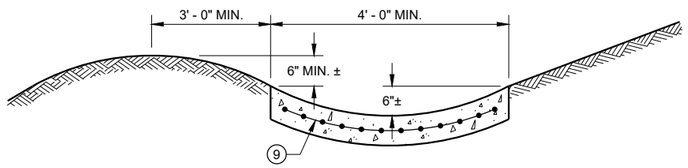
SDD 08D02 - 08a



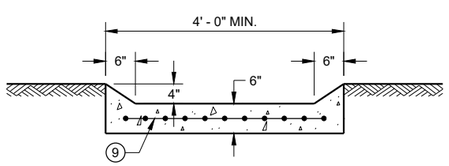
SECTION A - A



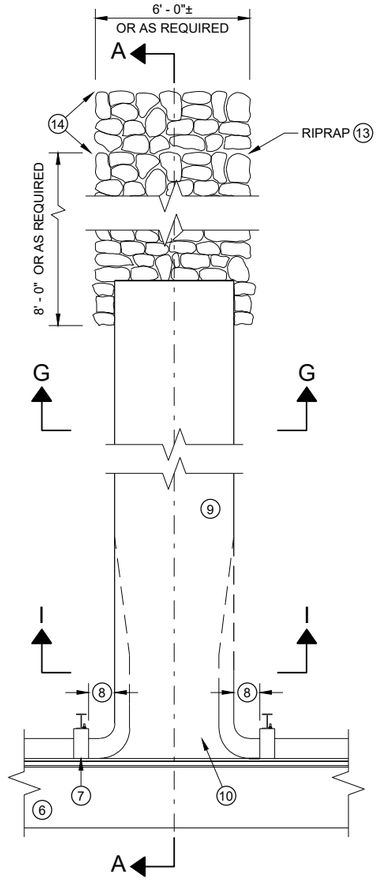
SECTION G - G



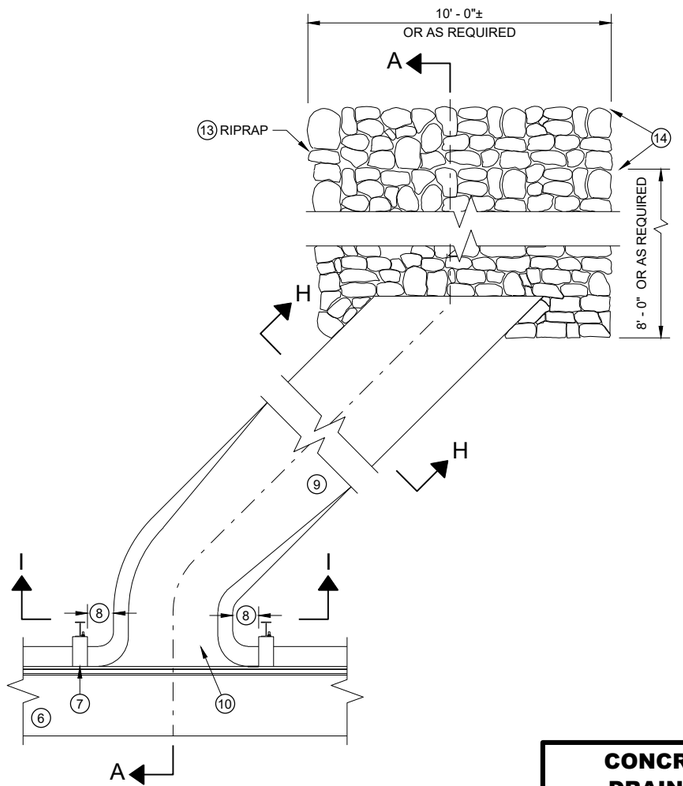
SECTION H - H



SECTION I - I



PLAN VIEW PERPENDICULAR FLUME



PLAN VIEW SKEWED FLUME

GENERAL NOTES

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

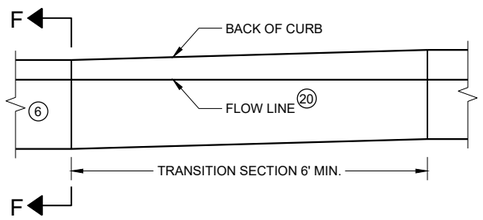
ALL STEEL REINFORCEMENT SHALL BE EMBEDDED 2 INCHES CLEAR UNLESS OTHERWISE SHOWN OR NOTED.

1. USE A JOINT SEALANT CONFORMING TO STANDARD SPECIFICATION 415.2.6.
2. NO. 4 X 2' - 0" TIE BARS SPACED AT 12" C-C TO BE PLACED BY BRIDGE CONTRACTOR OR DRILLED TIE BARS PLACED AS DIRECTED BY THE ENGINEER.
3. PAVED CONCRETE SHOULDER (SDD 13A03) OR CONCRETE DRAINAGE SLAB.
4. CONCRETE PAVEMENT APPROACH SLAB (SHOWN) OR STRUCTURE APPROACH SLAB AND CONCRETE PAVEMENT APPROACH SLAB. SEE SDD 13B02 AND STRUCTURE PLANS.
5. PAVED CONCRETE SHOULDER (SDD 13A03) OR ASPHALT SHOULDER.
6. CONCRETE CURB AND GUTTER 4-INCH SLOPED 36-INCH TYPE TBT OR TBTT. USE TYPE TBTT CURB WITH NO. 4 X 2' -0" TIE BARS SPACED AT 3' - 0" C-C ONLY WHEN ADJACENT TO CONCRETE PAVEMENTS.
7. PLACE FLUME BEFORE MSG THRIE BEAM TRANSITION POST 1 (SEE SDD 14B45)
8. CENTER FLUME BETWEEN POSTS. 6-INCH MINIMUM SEPARATION FROM OUTSIDE EDGE OF FLUME TO POSTS.
9. MINIMUM REINFORCEMENT SHALL BE 4" X 4" - W3.0 X W3.0 OR NO. 3 BARS LONGITUDINAL AND TRANSVERSE SPACING 12" C -C.
10. SEE ROADWAY PLANS FOR FLUME LOCATION.
11. START CURB AND GUTTER TRANSITION OR END SECTION.
12. DEPRESS FLOW LINE (SEE DETAIL)
13. MEDIUM RIPRAP UNLESS OTHERWISE SPECIFIED.
14. LIMITS OF ADDITIONAL RIPRAP WHEN SPECIAL DITCH AS REQUIRED.
15. GEOTEXTILE TYPE HR.

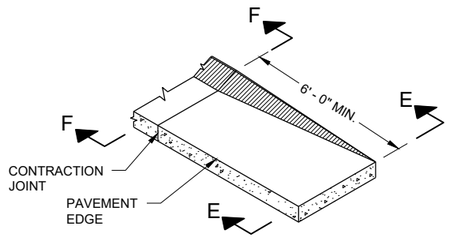
CONCRETE SURFACE DRAINS FLUME TYPE AT STRUCTURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

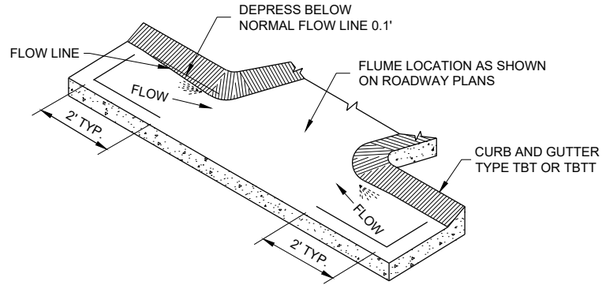
6
SDD 08D02 - 08b



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



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



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

GENERAL NOTES

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

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

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

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

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

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

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

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

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

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

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

(10) SEE ROADWAY PLANS FOR FLUME LOCATION.

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

(12) DEPRESS FLOW LINE (SEE DETAIL)

(13) MEDIUM RIPRAP UNLESS OTHERWISE SPECIFIED.

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

(15) GEOTEXTILE TYPE HR.

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

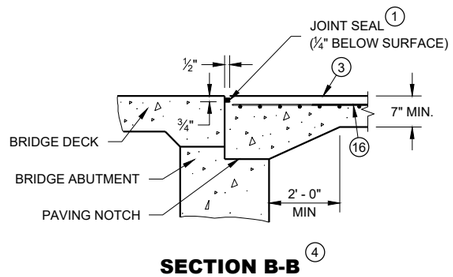
(17) MSG THRIE BEAM TRANSITION POST 1. SEE SDD 14B45 FOR ADDITIONAL CONSTRUCTION DETAILS AND ACCEPTABLE MATERIALS.

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

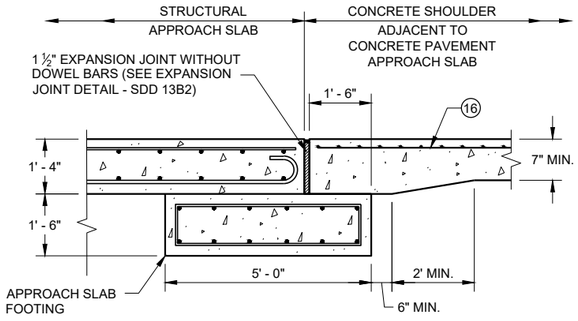
(19) ALIGN FACE OF POST BLOCK WITH FLOW LINE.

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

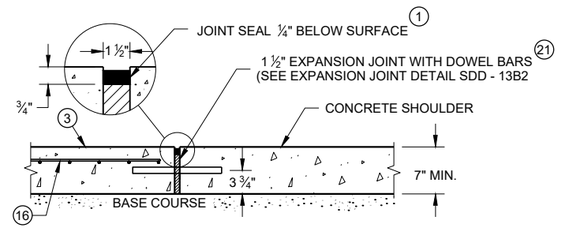
(21) DO NOT CONSTRUCT AN EXPANSION JOINT OR INSTALL DOWEL BARS WHEN ABUTTING HMA PAVEMENTS.



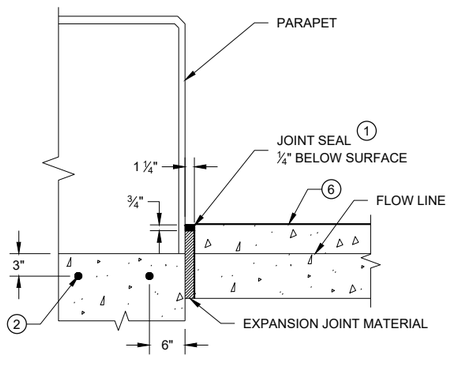
SECTION B-B (4)



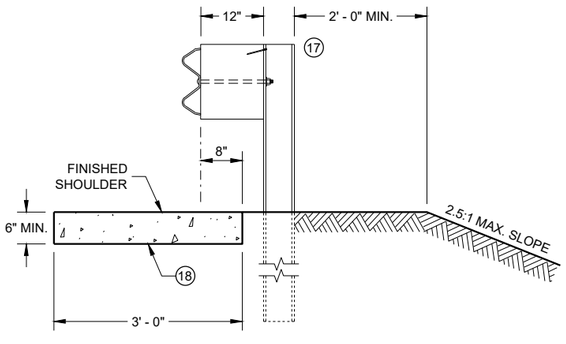
SECTION C - C
JOINT DETAIL FOR BRIDGE WITH STRUCTURAL APPROACH SLAB AND CONCRETE APPROACH SLAB



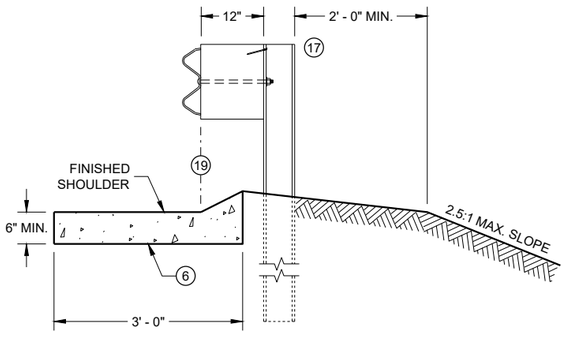
SECTION C - C
JOINT DETAIL FOR BRIDGE APPROACH WITH CONCRETE SHOULDERS



SECTION D - D



SECTION E - E



SECTION F - F

CONCRETE SURFACE DRAINS FLUME TYPE AT STRUCTURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

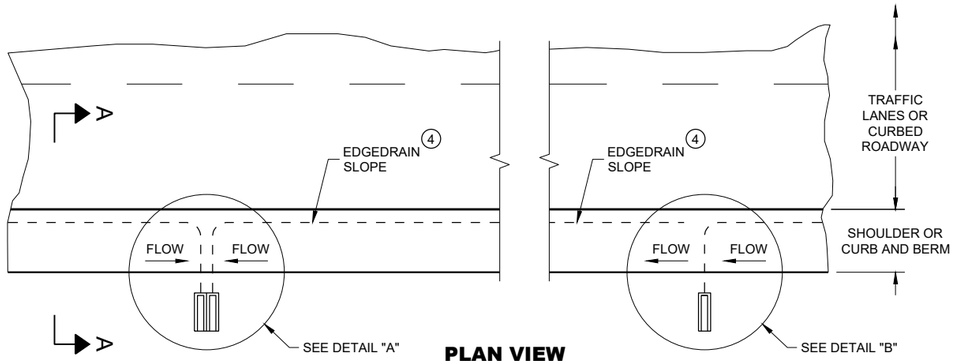
FHWA

6

SDD 08D02 - 08c

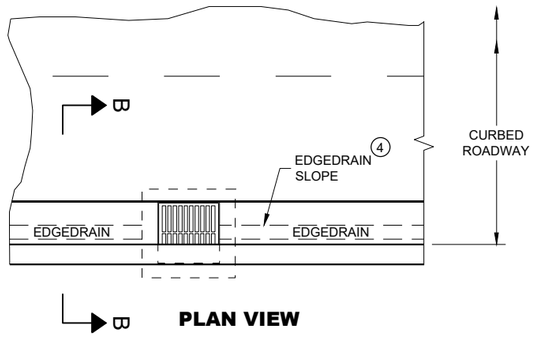
6

SDD 08D02 - 08c



PLAN VIEW

ROADWAY WITH SHOULDERS OR CURBS
(EDGEDRAIN CONNECTS TO ROADSIDE) (2)



PLAN VIEW

ROADWAY WITH CURBS
(EDGEDRAIN CONNECTS INTO INLET STRUCTURE)

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) UNPERFORATED PIPE UNDERDRAIN AND FITTINGS FURNISHED FOR OUTFALL PIPE SHALL MEET THE REQUIREMENTS OF ONE OF THE FOLLOWING SPECIFICATIONS:

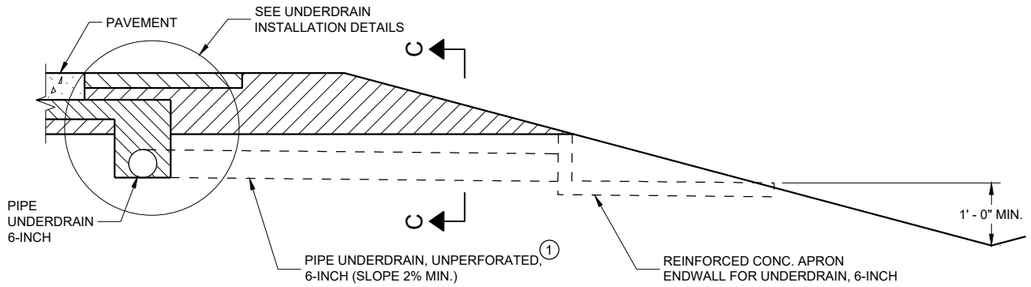
POLYVINYL CHLORIDE (PVC) PLASTIC DRAIN, WASTE, AND VENT PIPE AND FITTINGS, ASTM D 2665, SCHEDULE 40 PVC.

TYPE PSM POLYVINYL CHLORIDE (PVC) SEWER PIPE AND FITTINGS, ASTM D 3034, SDR 23.5 PVC SEWER PIPE.

(2) MAXIMUM SPACING OF EDGEDRAIN OUTLETS SHALL BE 250 FEET UNLESS OTHERWISE SPECIFIED IN THE CONTRACT OR DIRECTED BY THE ENGINEER.

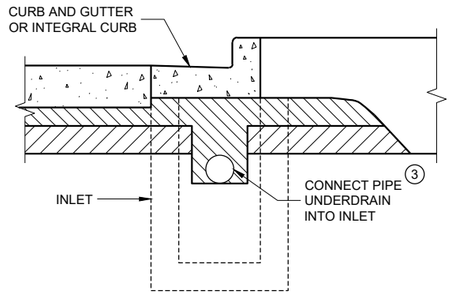
(3) EDGEDRAIN SHALL BE CONNECTED TO INLETS REGARDLESS OF FLOW DIRECTION FOR DRAINAGE AND MAINTENANCE ACCESS.

(4) EDGEDRAIN SHALL BE LAID PARALLEL TO THE GRADE OF ROADWAY.



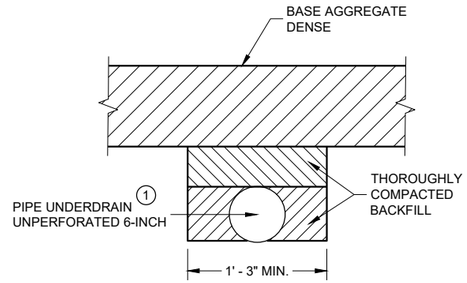
SECTION A - A

RURAL CROSS SECTION



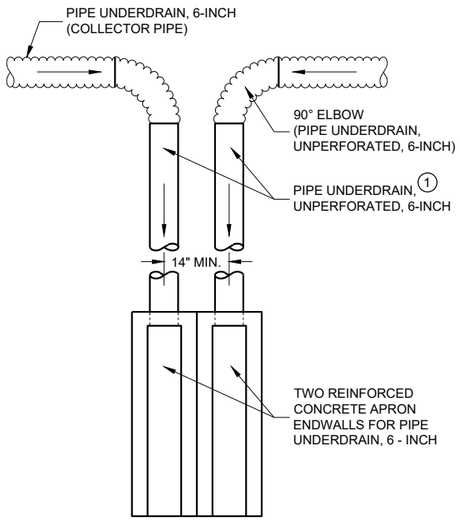
SECTION B - B

URBAN CROSS SECTION

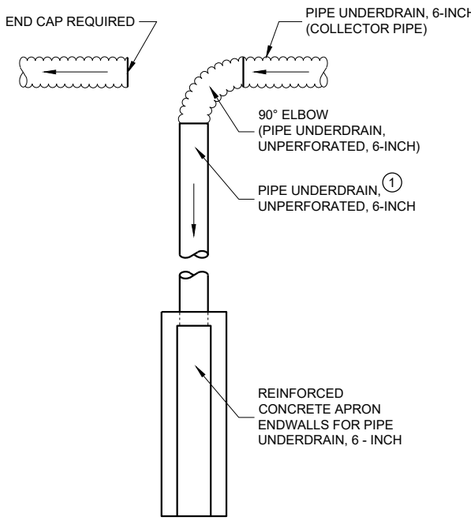


SECTION C - C

TRENCH FOR OUTFALL PIPE

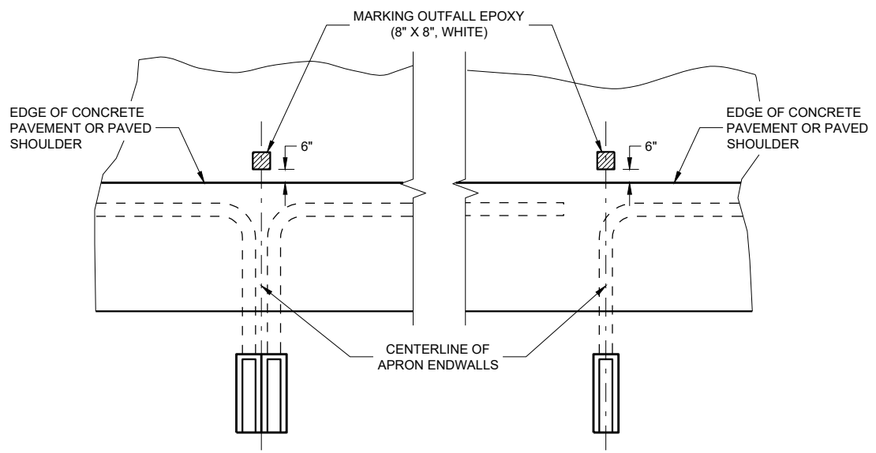


DETAIL "A"
TO BE USED AT LOW POINT LOCATIONS



DETAIL "B"
TO BE USED AT INTERMEDIATE LOCATIONS

TYPICAL DRAIN OUT DETAILS

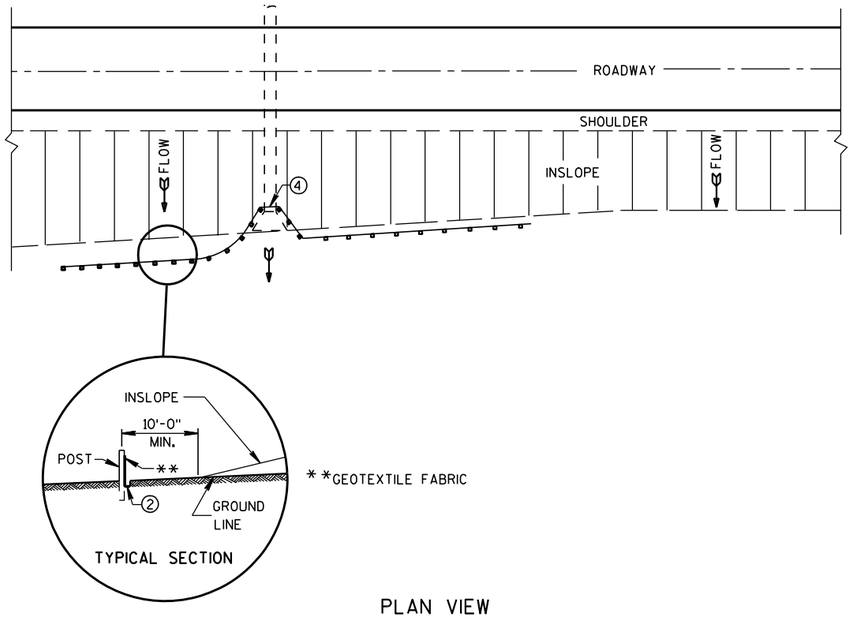


LOW POINT LOCATIONS — INTERMEDIATE LOCATIONS

PAVEMENT MARKINGS FOR OUTFALL MARKERS

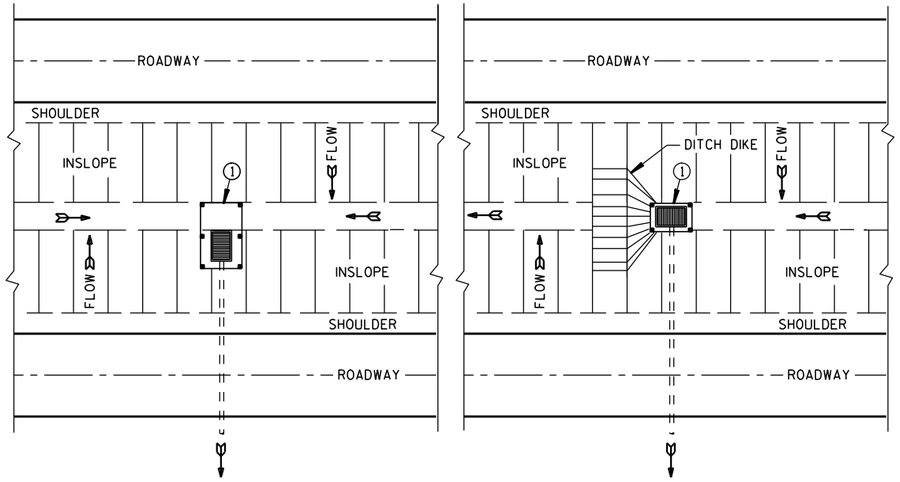
EDGEDRAIN OUTLET AND OUTFALL MARKERS

6
SDD08D15 - 05a



PLAN VIEW

TYPICAL APPLICATION OF SILT FENCE



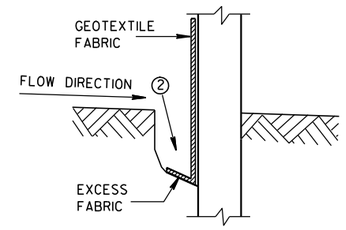
PLAN VIEW

SILT FENCE AT MEDIAN SURFACE DRAINS

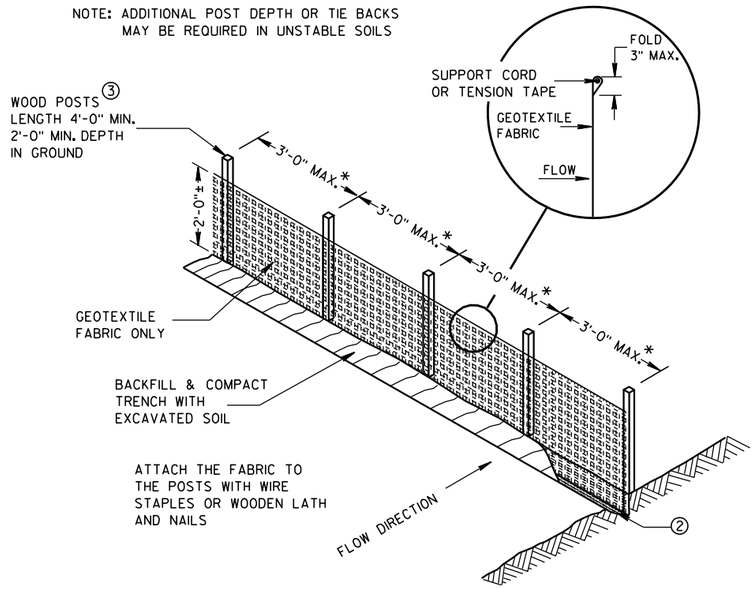
GENERAL NOTES

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.

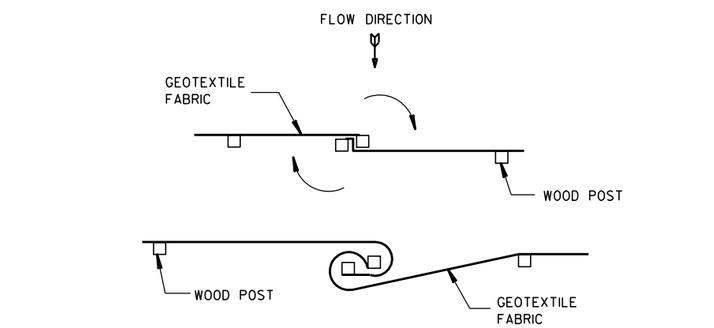


TRENCH DETAIL

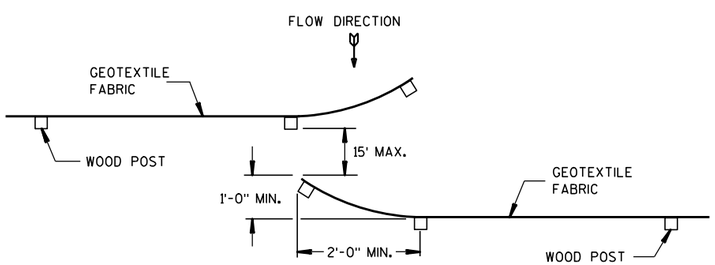


*NOTE: 8'-0" POST SPACING ALLOWED IF A WOVEN GEOTEXTILE FABRIC IS USED.

SILT FENCE

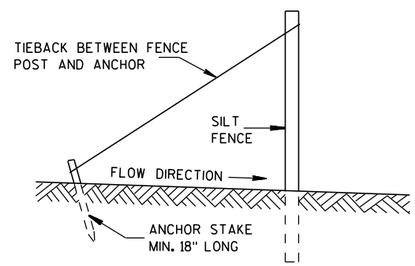


TWIST METHOD



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

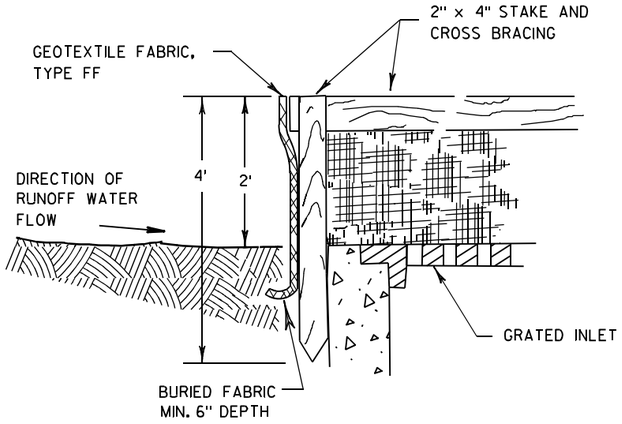
APPROVED
4-29-05 DATE
/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

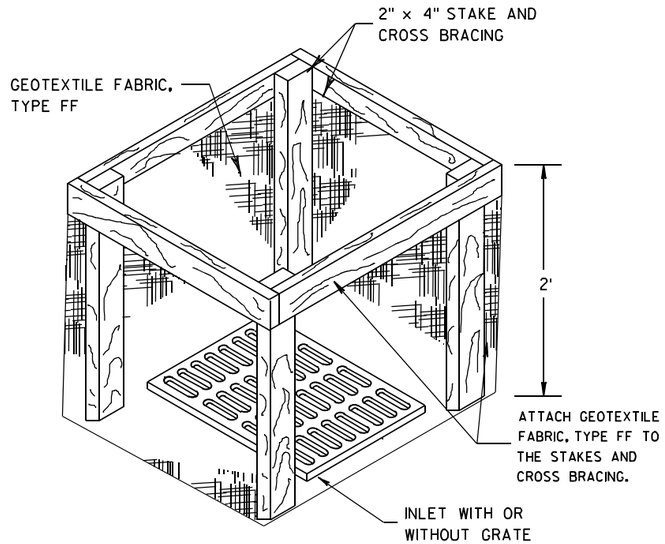
6

S.D.D. 8 E 9-6

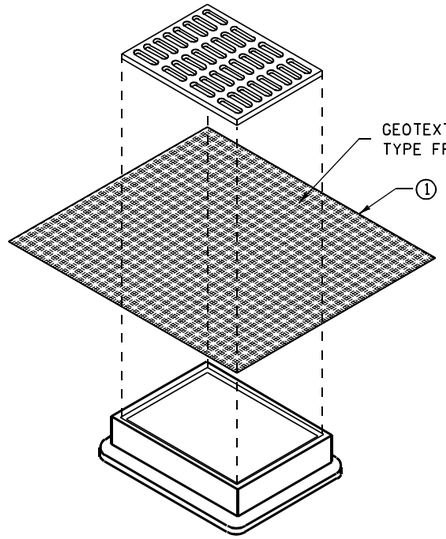
6

S.D.D. 8 E 9-6



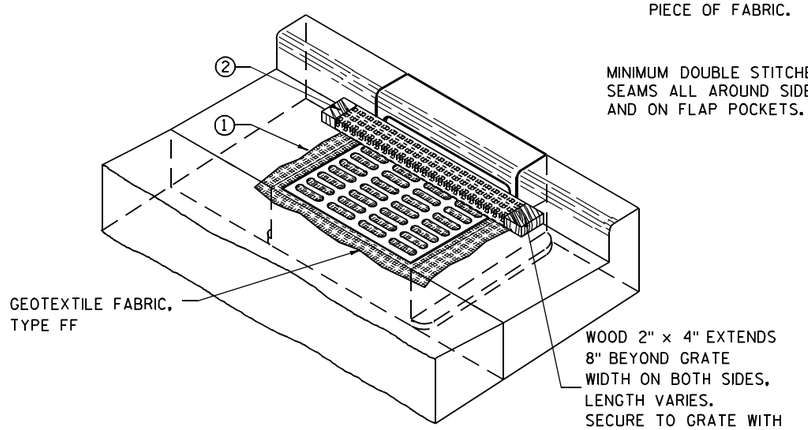


INLET PROTECTION, TYPE A

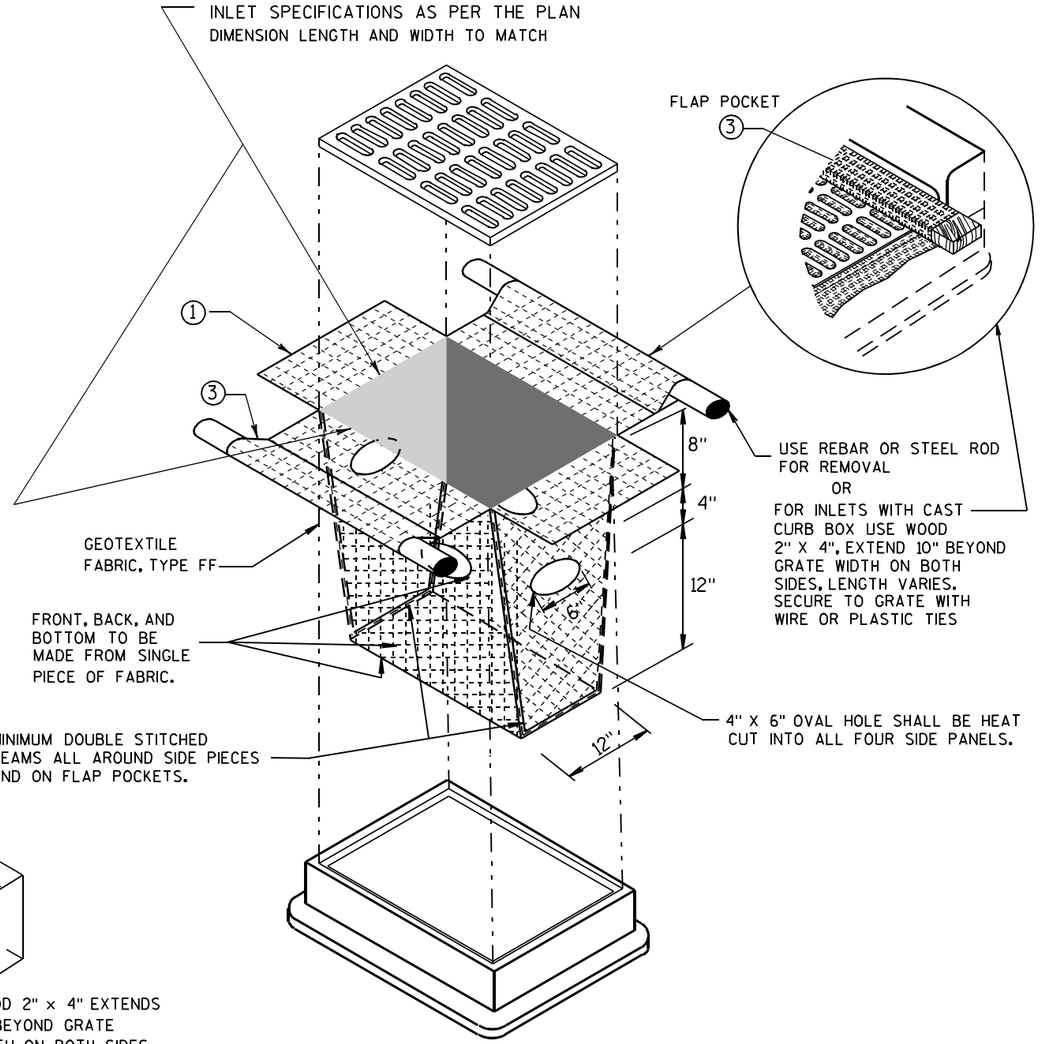


INLET PROTECTION, TYPE B
(WITHOUT CURB BOX)

(CAN BE INSTALLED IN ANY INLET WITHOUT A CURB BOX)



INLET PROTECTION, TYPE C (WITH CURB BOX)



INLET PROTECTION, TYPE D

(CAN BE INSTALLED IN ANY INLET TYPE WITH
OR WITHOUT A CURB BOX AS PER NOTE ②)

GENERAL NOTES

INLET PROTECTION DEVICES SHALL BE MAINTAINED OR REPLACED AT THE DIRECTION OF THE ENGINEER.

MANUFACTURED ALTERNATIVES APPROVED AND LISTED ON THE DEPARTMENT'S EROSION CONTROL PRODUCT ACCEPTABILITY LIST MAY BE SUBSTITUTED.

WHEN REMOVING OR MAINTAINING INLET PROTECTION, CARE SHALL BE TAKEN SO THAT THE SEDIMENT TRAPPED ON THE GEOTEXTILE FABRIC DOES NOT FALL INTO THE INLET. ANY MATERIAL FALLING INTO THE INLET SHALL BE REMOVED IMMEDIATELY.

① FINISHED SIZE, INCLUDING FLAP POCKETS WHERE REQUIRED, SHALL EXTEND A MINIMUM OF 10" AROUND THE PERIMETER TO FACILITATE MAINTENANCE OR REMOVAL.

② FOR INLET PROTECTION, TYPE C (WITH CURB BOX), AN ADDITIONAL 18" OF FABRIC IS WRAPPED AROUND THE WOOD AND SECURED WITH STAPLES. THE WOOD SHALL NOT BLOCK THE ENTIRE HEIGHT OF THE CURB BOX OPENING.

③ FLAP POCKETS SHALL BE LARGE ENOUGH TO ACCEPT WOOD 2X4.

INSTALLATION NOTES

TYPE B & C

TRIM EXCESS FABRIC IN THE FLOW LINE TO WITHIN 3" OF THE GRATE.

THE CONTRACTOR SHALL DEMONSTRATE A METHOD OF MAINTENANCE, USING A SEWN FLAP, HAND HOLDS OR OTHER METHOD TO PREVENT ACCUMULATED SEDIMENT FROM ENTERING THE INLET.

TYPE D

DO NOT INSTALL INLET PROTECTION TYPE D IN INLETS SHALLOWER THAN 30", MEASURED FROM THE BOTTOM OF THE INLET TO THE TOP OF THE GRATE.

TRIM EXCESS FABRIC IN THE FLOW LINE TO WITHIN 3" OF THE GRATE.

THE INSTALLED BAG SHALL HAVE A MINIMUM SIDE CLEARANCE, BETWEEN THE INLET WALLS AND THE BAG, MEASURED AT THE BOTTOM OF THE OVERFLOW HOLES, OF 3". WHERE NECESSARY THE CONTRACTOR SHALL CINCH THE BAG, USING PLASTIC ZIP TIES, TO ACHIEVE THE 3" CLEARANCE. THE TIES SHALL BE PLACED AT A MAXIMUM OF 4" FROM THE BOTTOM OF THE BAG.

INLET PROTECTION
TYPE A, B, C, AND D

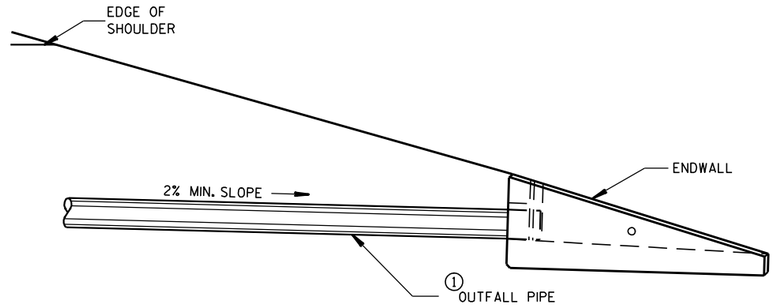
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
10/16/02
DATE
/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

6
S.D.D. 8 E 10-2

DIMENSIONS IN INCHES											
PIPE DIA.	A	B	C	D	E	F	G	H	J	L	Z
**4	6	12	5 1/4	9	8	32	36	11	2 3/8	6 1/2	4
6	8	14	7 1/4	11	10	42	44	13	3 5/8	8 1/2	6

**APRON ENDWALL FOR 6 INCH DIAMETER PIPE MAY BE SUBSTITUTED FOR THIS SIZE PROVIDED THE HOLE IN THE HEADWALL IS SIZED AND LOCATED TO CONFORM TO THE 4 INCH DIAMETER PIPE DIMENSIONS (C & J)



INSTALLATION DETAIL

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.

ALTERNATIVE DESIGNS WHICH PROVIDE EQUIVALENT CAPACITY AND STRENGTH MAY BE USED WHEN APPROVED BY THE ENGINEER. ENDWALL MAY BE EITHER PRECAST OR CAST-IN-PLACE CONCRETE.

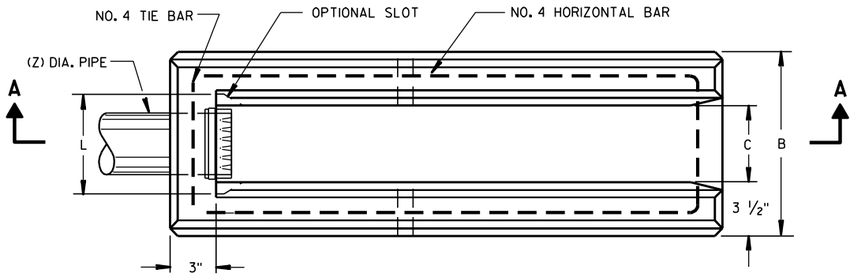
THE UNDERDRAIN PIPE SHALL BE FULLY INSERTED AND SEALED INTO THE ENDWALL WITH CEMENT MORTAR PRIOR TO BACKFILLING AROUND THE STRUCTURE.

THE UPPERMOST POINT OF THE ENDWALL SHALL BE PLACED FLUSH WITH THE ROADWAY SLOPE. ADJACENT EMBANKMENT SLOPES SHALL BE SHAPED TO FIT THE SIDES AND TOE OF THE ENDWALL. EXACT PLACEMENT OF THE OUTFALL PIPE AND ENDWALL SHALL BE DETERMINED BY THE ENGINEER TO MATCH THE ELEVATIONS AND FLOW DIRECTION OF THE ROADSIDE DITCH.

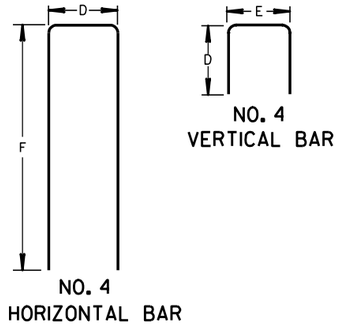
① THE OUTFALL PIPE UNDERDRAIN AND FITTINGS SHALL CONFORM TO THE REQUIREMENTS OF THE SPECIFICATION FOR POLY (VINYL CHORIDE) (PVC) PLASTIC DRAIN, WASTE AND VENT PIPE AND FITTINGS, ASTM DESIGNATION: D 2665, SCHEDULE 40 PVC OR THE STANDARD SPECIFICATION FOR TYPE PSM POLY (VINYL CHORIDE) (PVC) SEWER PIPE AND FITTINGS, ASTM DESIGNATION: D 3034, TYPE PSM SDR 23.5 PVC SEWER PIPE, ALL JOINTS SHALL BE SOLVENT WELDED.

THE OUTFALL PIPE INCLUDING ALL FITTINGS AND THE RODENT SHIELD SHALL BE MEASURED AND PAID FOR AS PIPE UNDERDRAIN UNPERFORATED.

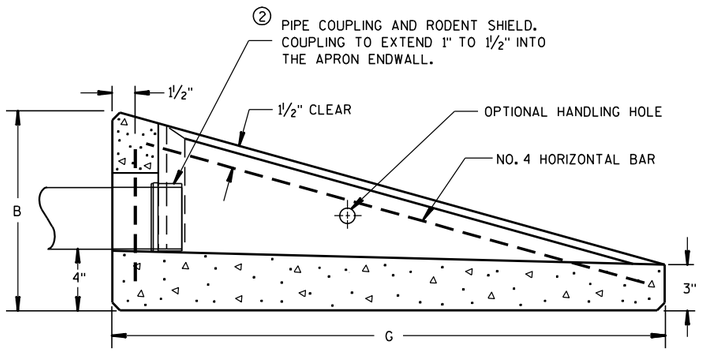
② THE RODENT SHIELD SHALL BE A PVC GRATE SIMILAR TO THIS DETAIL. THE GRATE IS COMMERCIALLY AVAILABLE AS A FLOOR STRAINER. A PIPE COUPLING IS REQUIRED FOR THE ATTACHMENT OF THIS SHIELD TO THE OUTFALL PIPE. THE SHIELD SHALL BE FASTENED TO THE PIPE COUPLING WITH TWO OR MORE NO. 10 X 1-INCH STAINLESS STEEL SHEET METAL SCREWS.



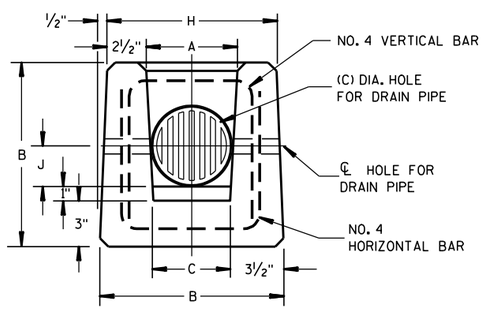
PLAN VIEW



BAR STEEL REINFORCEMENT DETAILS

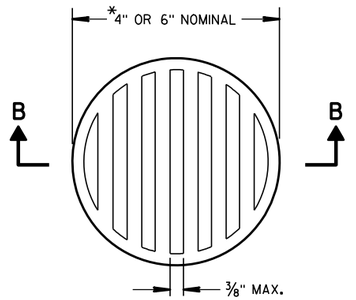


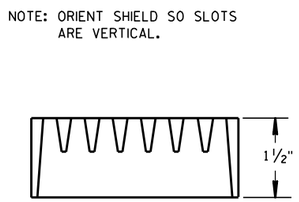
SECTION A-A



END VIEW

CONCRETE APRON ENDWALL FOR UNDERDRAIN





SECTION B-B

② RODENT SHIELD

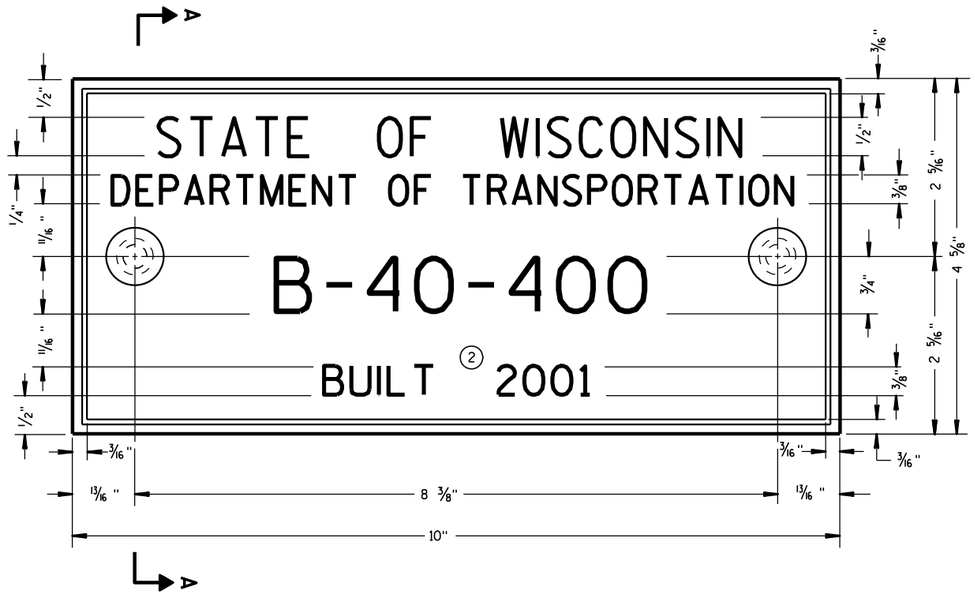
*NOTE: DIMENSIONS ARE APPROXIMATE. THE GRATE IS SIZED TO FIT INTO A PIPE COUPLING.

REINFORCED CONCRETE APRON ENDWALL FOR PIPE UNDERDRAIN

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
3/10/98 DATE
/S/ Rory L. Rhinesmith
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

6
S.D.D. 8 F 6-4



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

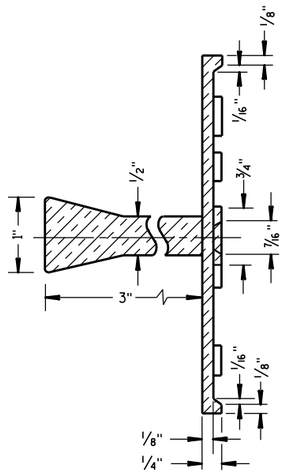
GENERAL NOTES

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

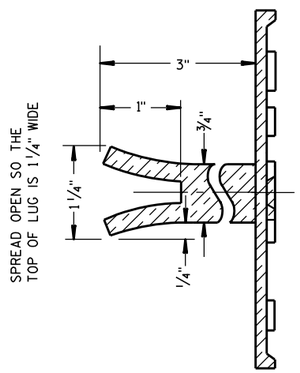
THE BRIDGE NUMBER AND YEAR BUILT SHOWN ON THIS DRAWING ARE EXAMPLES ONLY. SEE CONSTRUCTION PLANS FOR INDIVIDUAL NUMBERING AND YEAR BUILT.

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

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



SECTION A-A



ALTERNATE LUG

FOR MULTI-UNIT STRUCTURES
LINE 3 ABOVE SHALL READ

B = BRIDGE
C = CULVERT
R = RETAINING WALL

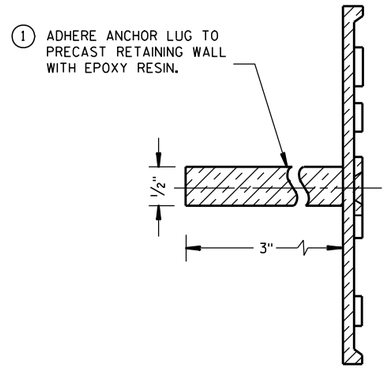
COUNTY NO.

BRIDGE NO.

UNIT NO. FOR MULTIPLE UNIT BRIDGE

B-40-400-1A

NUMBERING DESIGNATION
MULTI-UNIT STRUCTURES



ALTERNATE LUG
(FOR ATTACHMENT TO PRECAST STRUCTURES)

NAME PLATE (STRUCTURES)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

3/26/10 DATE

/S/ Scot Beck -- CHIEF STRUCTURAL DEVELOP ENGINEER

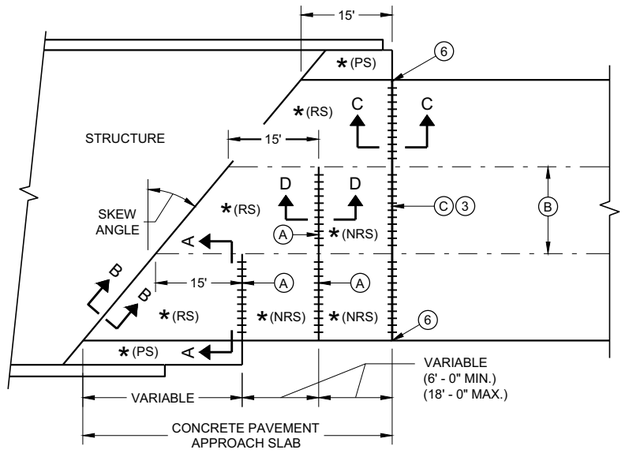
FHWA

6

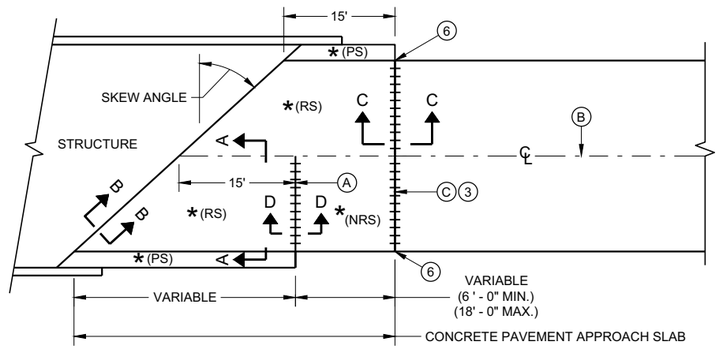
S.D.D. 12 A 3-10

6

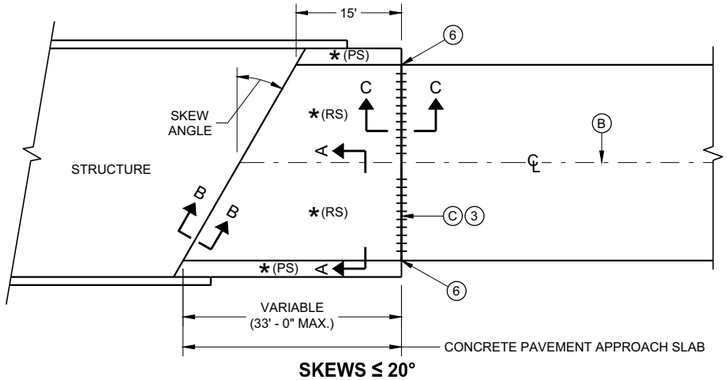
S.D.D. 12 A 3-10



SKEWED APPROACH
(PAVEMENT MORE THAN TWO LANES)



SKEWS > 20°
(PAVEMENT WIDTH ≤ 30')



SKEWS ≤ 20°
(PAVEMENT WIDTH ≤ 30')

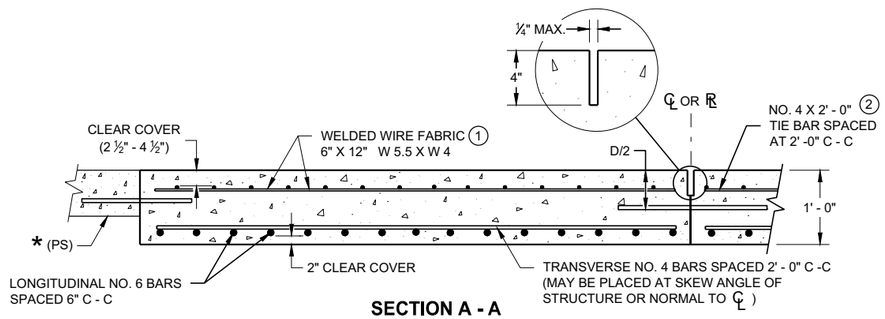
APPROACH SLAB AND ADJACENT PAVEMENT

* (RS) = REINFORCED CONCRETE SLAB

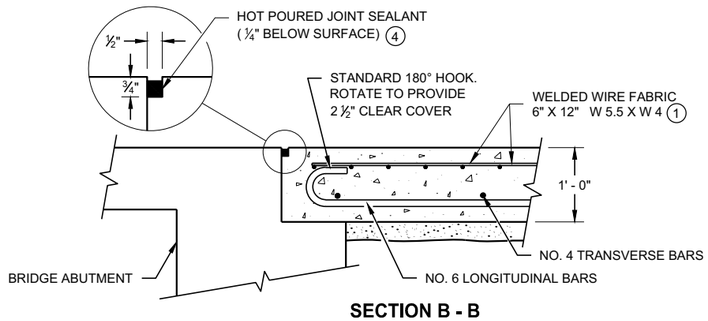
* (PS) = PAVED CONCRETE SHOULDER OR CONCRETE DRAINAGE SLAB

* (NRS) - NON - REINFORCED CONCRETE SLAB

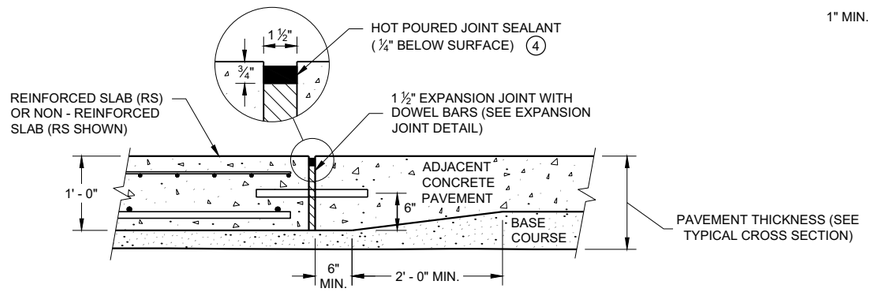
*** STANDARD DOWEL BAR DIAMETER (SEE SDD 13C11 AND SDD 13C13)



SECTION A - A
REINFORCEMENT POSITIONING DETAIL



SECTION B - B
BEND DETAIL
BOTTOM REINFORCEMENT



SECTION C - C
TRANSITION DETAIL
APPROACH SLAB TO ADJACENT PAVEMENT

GENERAL NOTES

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

TACK WELD DOWEL BARS TO THE BASKETS ON ALTERNATE ENDS.

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

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

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

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

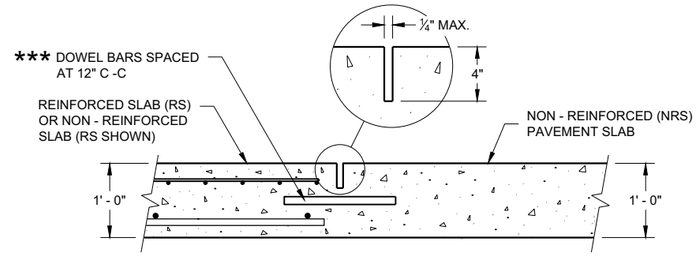
(5) PLACE EXPANSION CAP ON THE END OF THE DOWEL THAT IS NOT TACK WELDED TO THE BASKET. DO NOT FORCE DOWEL BAR PAST THE DOWEL STOP.

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

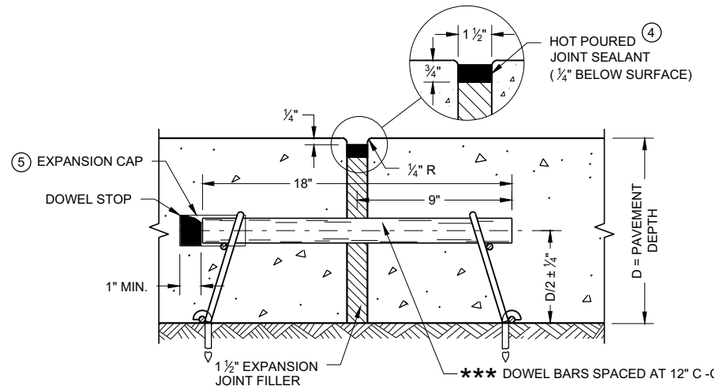
(A) STANDARD CONTRACTION JOINT NORMAL TO ℄ OR ℞.

(B) STANDARD LONGITUDINAL JOINT WITH TIE BARS.

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



SECTION D - D
CONTRACTION JOINT



EXPANSION JOINT DETAIL

CONCRETE PAVEMENT APPROACH SLAB

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2018
DATE

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

FHWA

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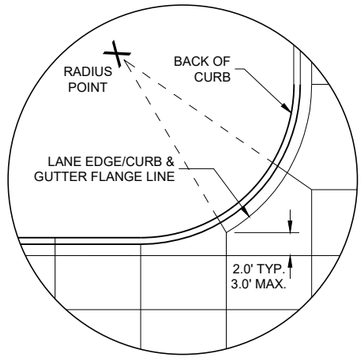
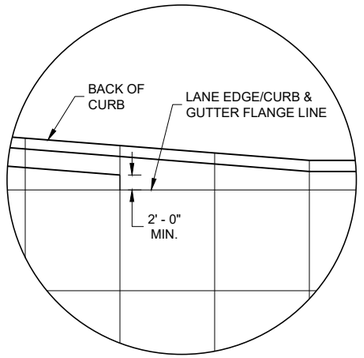
SDD 13B02 - 09a



DETAIL "A"



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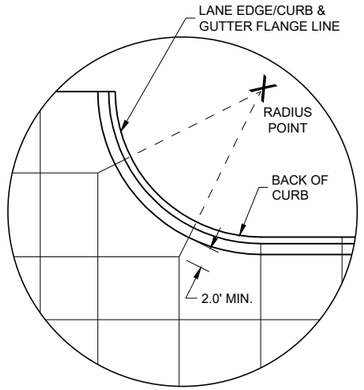
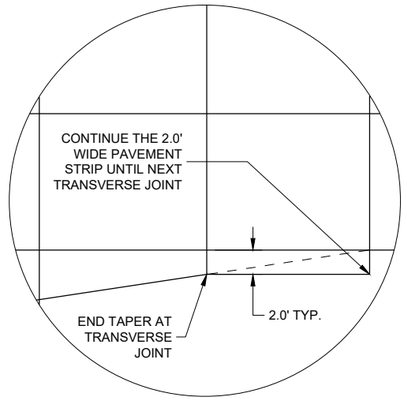


DETAIL "C"



DETAIL "D"

GENERAL NOTES

THE PRIMARY ROADWAY CONTROLS THE TRANSVERSE JOINT PATTERN.

ALIGN NEW JOINTS WITH EXISTING JOINTS OR CRACKS.

CONSTRUCT TRANSVERSE JOINTS PERPENDICULAR TO THE ROADWAY.

ADJUST TRANSVERSE JOINTS TO ALIGN WITH UTILITY FIXTURES (E.G MANHOLES AND INLETS) IN THE PAVEMENT STRUCTURE WHEN POSSIBLE. WATER VALVES DO NOT REQUIRE JOINT ADJUSTMENT.

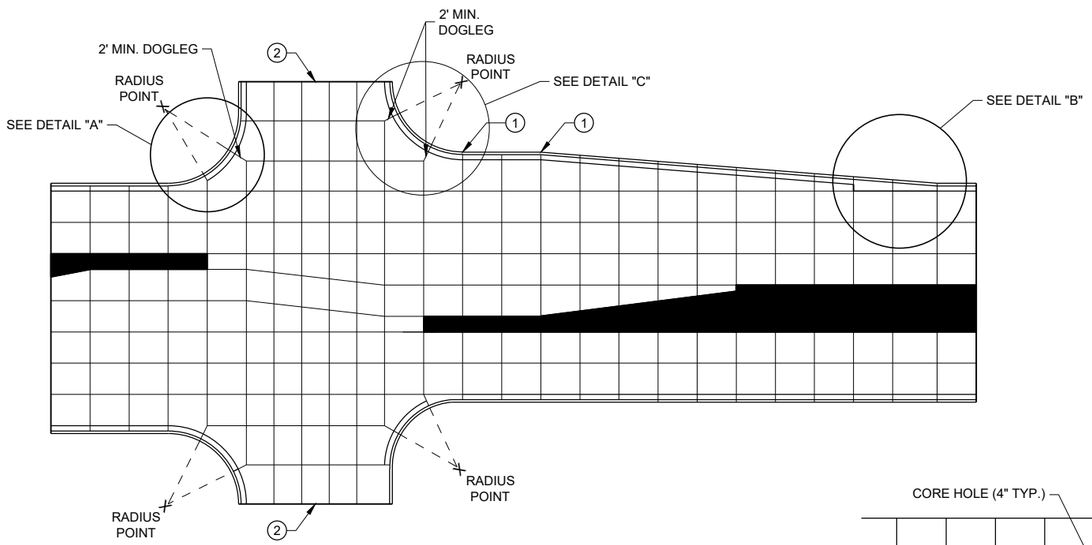
AVOID SLABS LESS THAN 2 FEET WIDE OR GREATER THAN 15 FEET WIDE.

SEE TABLE FOR TRANSVERSE JOINT SPACING. JOINT SPACING SPECIFIED IS MAXIMUM AND ACTUAL SPACING CAN BE ADJUSTED TO ACCOMMODATE INTERSECTIONS.

AVOID ANGLES LESS THAN 60° BY DOGLEGGING JOINTS THROUGH CURVE RADIUS POINTS. USE 90° ANGLES WHEN POSSIBLE.

CORRELATE LONGITUDINAL JOINTS WITH LANE LINES WHEN POSSIBLE.

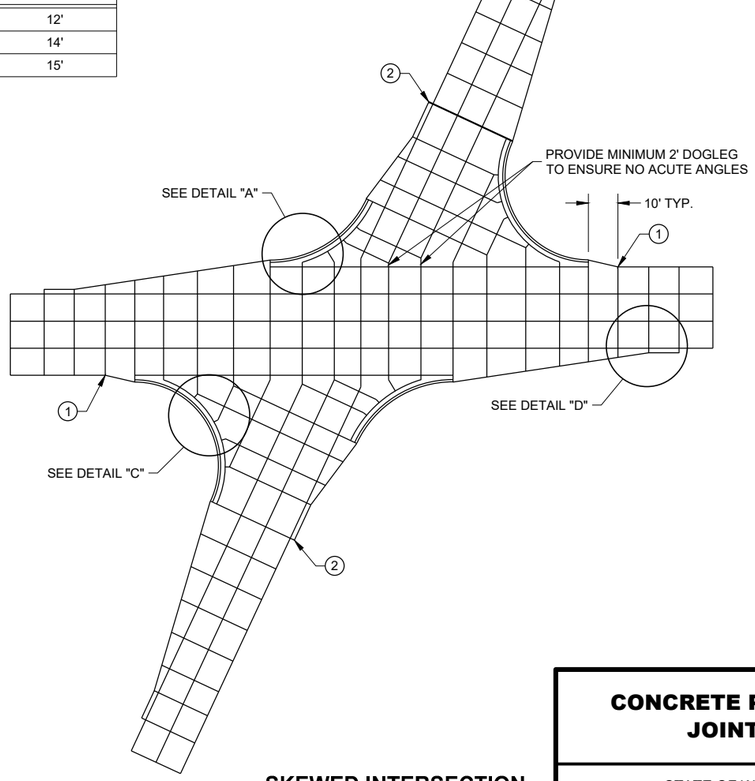
1. PROVIDE TRANSVERSE JOINTS AT ALL PAVEMENT WIDTH CHANGES.
2. CONSTRUCT DOWELED EXPANSION JOINT ON THE SIDE ROAD OF AN INTERSECTION IF THE SIDE ROAD IS CONCRETE PAVEMENT AND GREATER THAN 300 FEET IN LENGTH. ALIGN EXPANSION JOINT WITH EDGE OF RADIUS.
3. THE ENGINEER MAY APPROVE SLIGHT VARIATIONS FROM THESE JOINTING DETAILS.



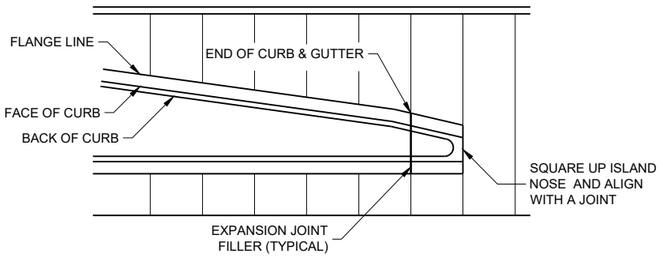
STANDARD INTERSECTION

PAVEMENT DEPTH AND JOINT SPACING TABLE

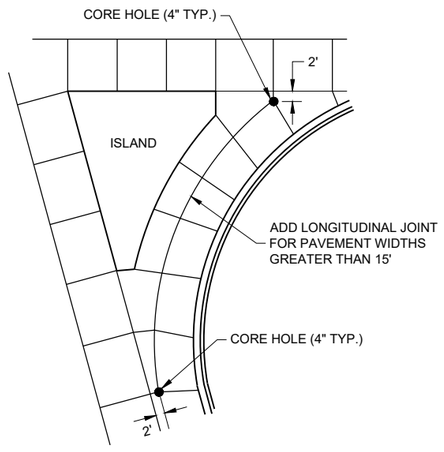
PAVEMENT DEPTH (D)	CONTRACTION JOINT SPACING
6", 6 ½"	12'
7", 7 ½"	14'
8" & ABOVE	15'



SKEWED INTERSECTION



APPROACH TO MEDIAN



LARGE RIGHT TURN

CONCRETE PAVEMENT JOINTING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 13C18 - 08a

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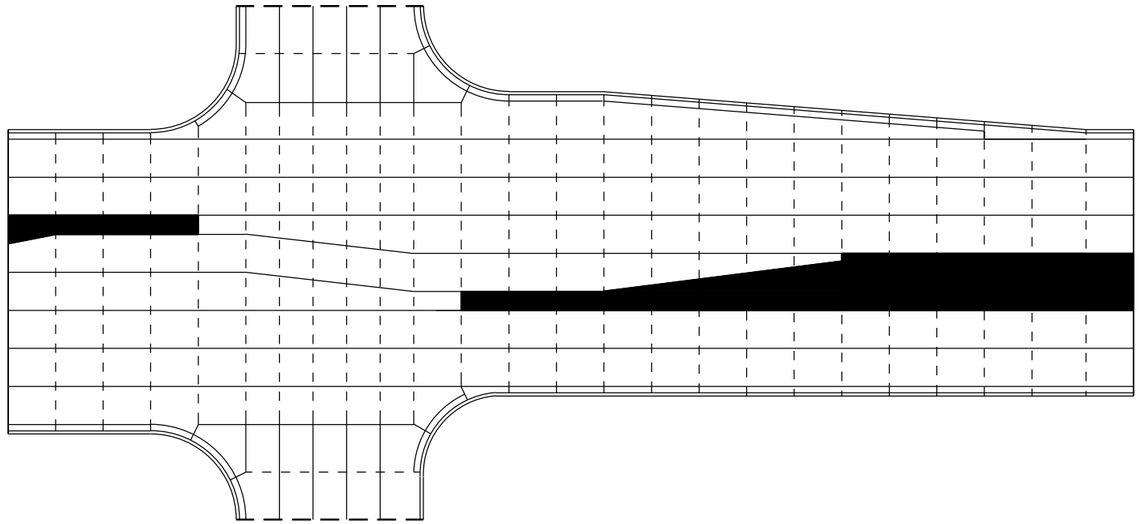
SDD 13C18 - 08a

LEGEND

POTENTIAL DOWELED EXPANSION JOINT

DOWELED JOINT

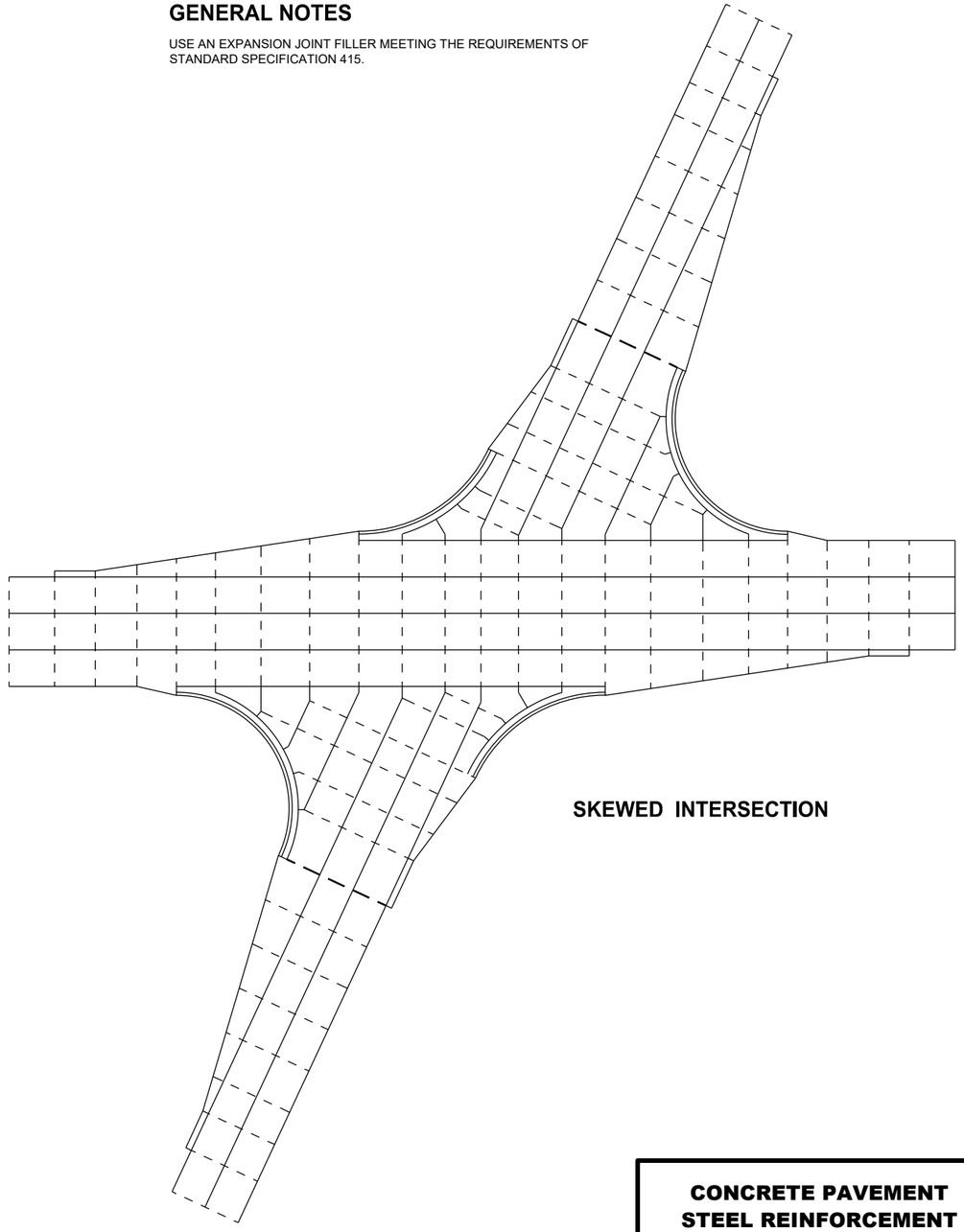
TIED JOINT



STANDARD INTERSECTION

GENERAL NOTES

USE AN EXPANSION JOINT FILLER MEETING THE REQUIREMENTS OF STANDARD SPECIFICATION 415.



SKEWED INTERSECTION

6

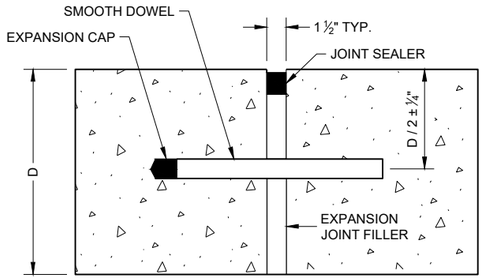
SDD 13C18 - 08b

CONCRETE PAVEMENT STEEL REINFORCEMENT

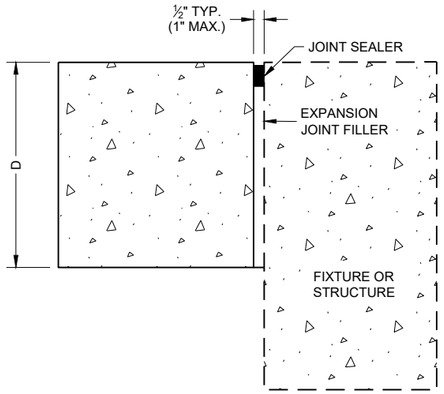
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTA

6

SDD 13C18 - 08b



DOWELED TRANSVERSE (1)



UNTIED - LONGITUDINAL

EXPANSION JOINTS

TIE BAR TABLE

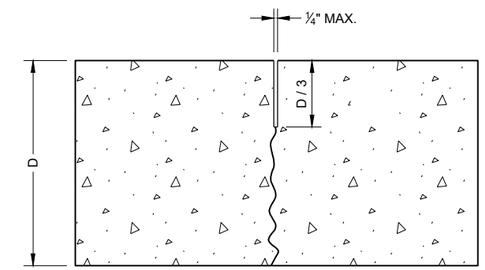
PAVEMENT DEPTH (D)	TIE BAR SIZE	TIE BAR LENGTH (L)	MAX. TIE BAR SPACING
< 10 ½"	NO. 4	30"	36"
≥ 10 ½"	NO. 5	36"	36"
	NO. 4 *	30"	24" **

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

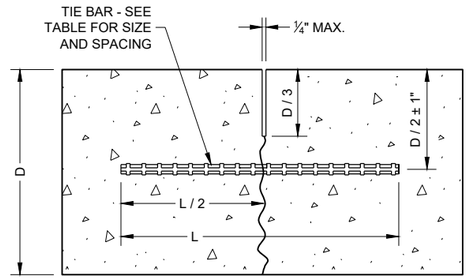
** CONFORM TO 15" MINIMUM SPACING FROM TRANSVERSE JOINTS; SPACING BETWEEN TIE BARS WILL BE 30" AT TRANSVERSE JOINTS.

GENERAL NOTES

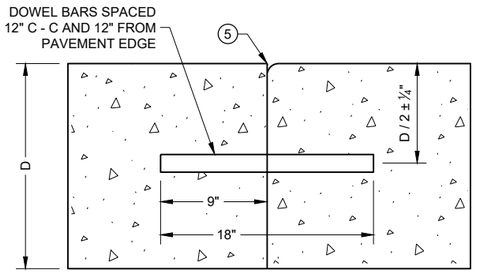
1. USE DOWELED EXPANSION JOINTS ON SIDE ROADS AT INTERSECTIONS (TO ISOLATETHE SIDE ROAD FROM THE THROUGH STREET) IF THE SIDE ROAD IS CONCRETE PAVEMENT AND GREATER THAN 300 FEET IN LENGTH.
2. SPACE CONTRACTION JOINTS IN ACCORDANCE WITH SDD 13C4, 13C11 OR 13C13.
3. LOCATE CONSTRUCTION JOINTS A MINIMUM OF 6 FEET FROM THE NEAREST CONTRACTION JOINT AND ALIGN PARALLEL TO CONTRACTION JOINTS.
4. CONSTRUCTION JOINTS CAN BE FORMED OR SAWED.
5. IF JOINT IS FORMED, PROVIDE A ¼" RADIUS.
6. ANCHOR TIE BARS INTO DRILLED HOLES WITH AN EPOXY.



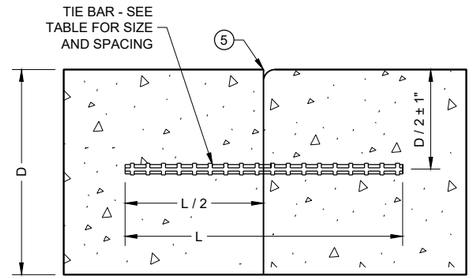
UNDOWELED TRANSVERSE



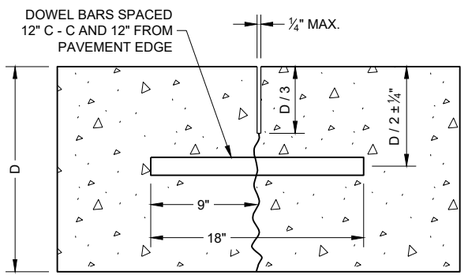
TIED LONGITUDINAL



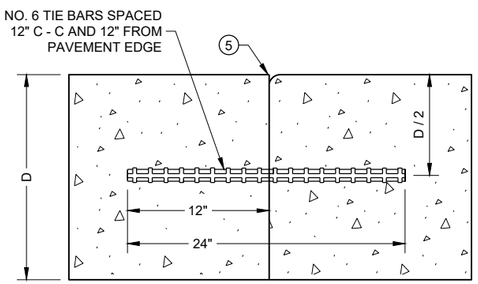
DOWELED TRANSVERSE (3)



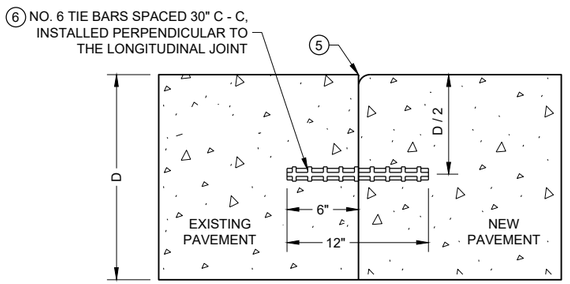
TIED LONGITUDINAL



DOWELED TRANSVERSE



TIED TRANSVERSE (3)
(FOR USE ON NON-DOWELED PAVEMENTS ONLY)

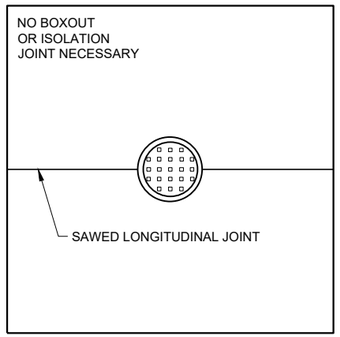


TIED LONGITUDINAL TO EXISTING

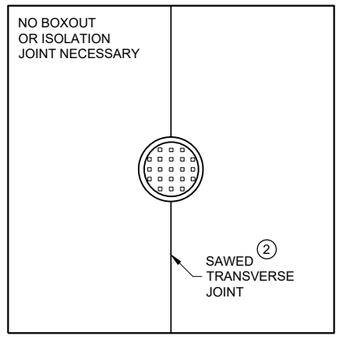
CONTRACTION JOINTS (2)

CONSTRUCTION JOINTS (4)

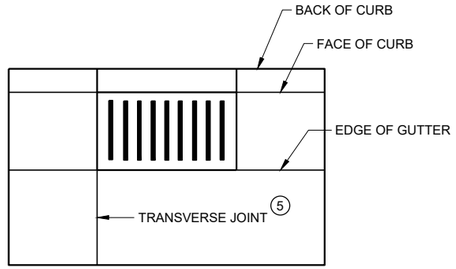
CONCRETE PAVEMENT JOINT TYPES



MANHOLE WITH LONGITUDINAL JOINT



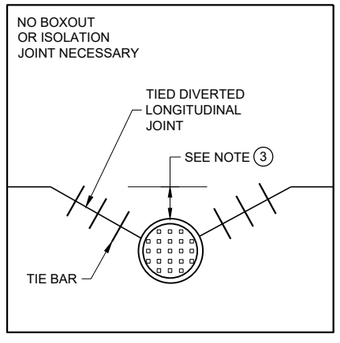
MANHOLE WITH TRANSVERSE JOINT



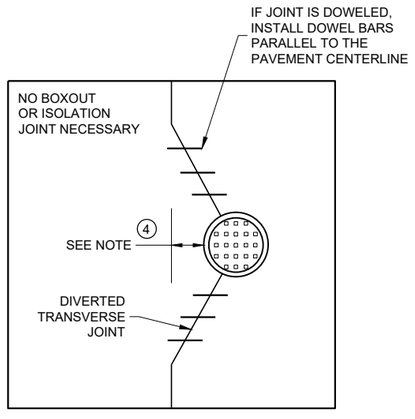
INLET WITH TRANSVERSE JOINT

GENERAL NOTES

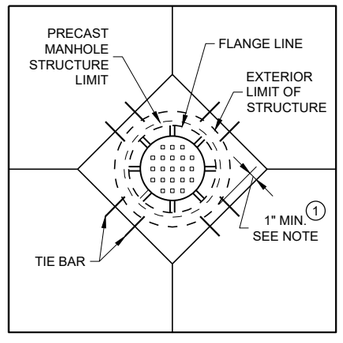
1. USE BOXOUTS WHEN UTILITY STRUCTURE IS IN THE PATH OF CONSTRUCTION JOINTS. PROVIDE A 1 FOOT MINIMUM CLEARANCE BETWEEN THE EXTERIOR LIMIT OF THE STRUCTURE TO THE DIAMOND BOXOUT.
2. ADJUST TRANSVERSE JOINT TO INTERSECT MANHOLE IF POSSIBLE.
3. IF DISTANCE BETWEEN THE LONGITUDINAL JOINT AND THE EDGE OF MANHOLE IS 2 FEET OR LESS, DIVERT THE LONGITUDINAL JOINT AT A 2:1 TAPER RATE TO THE CENTER OF THE MANHOLE. IF THE DISTANCE IS GREATER THAN 2 FEET, DO NOT DIVERT THE JOINT AND SAW AS NORMAL. PLACE REINFORCEMENT REBAR AROUND THE MANHOLE.
4. IF THE DISTANCE FROM THE EDGE OF THE MANHOLE TO THE NEAREST TRANSVERSE JOINT IS LESS 4 FEET OR LESS, REDIRECT JOINT TO INTERSECT THE CENTER OF THE MANHOLE. IF DISTANCE IS GREATER THAN 4 FEET, DO NOT DIVERT THE JOINT AND SAW AS NORMAL. PLACE REINFORCEMENT REBAR AROUND THE MANHOLE.
5. ALIGN TRANSVERSE JOINT WITH ONE EDGE OF INLET WHEN PRACTICAL.



MANHOLE WITH DIVERTED LONGITUDINAL CONTRACTION JOINT



MANHOLE WITH DIVERTED TRANSVERSE CONTRACTION JOINT



DIAGONAL MANHOLE BOXOUT FOR CONSTRUCTION JOINTS

CONCRETE PAVEMENT JOINTING AT UTILITY FIXTURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023
DATE

/S/ Peter Kemp P.E.
PAVEMENT SUPERVIS

FHWA

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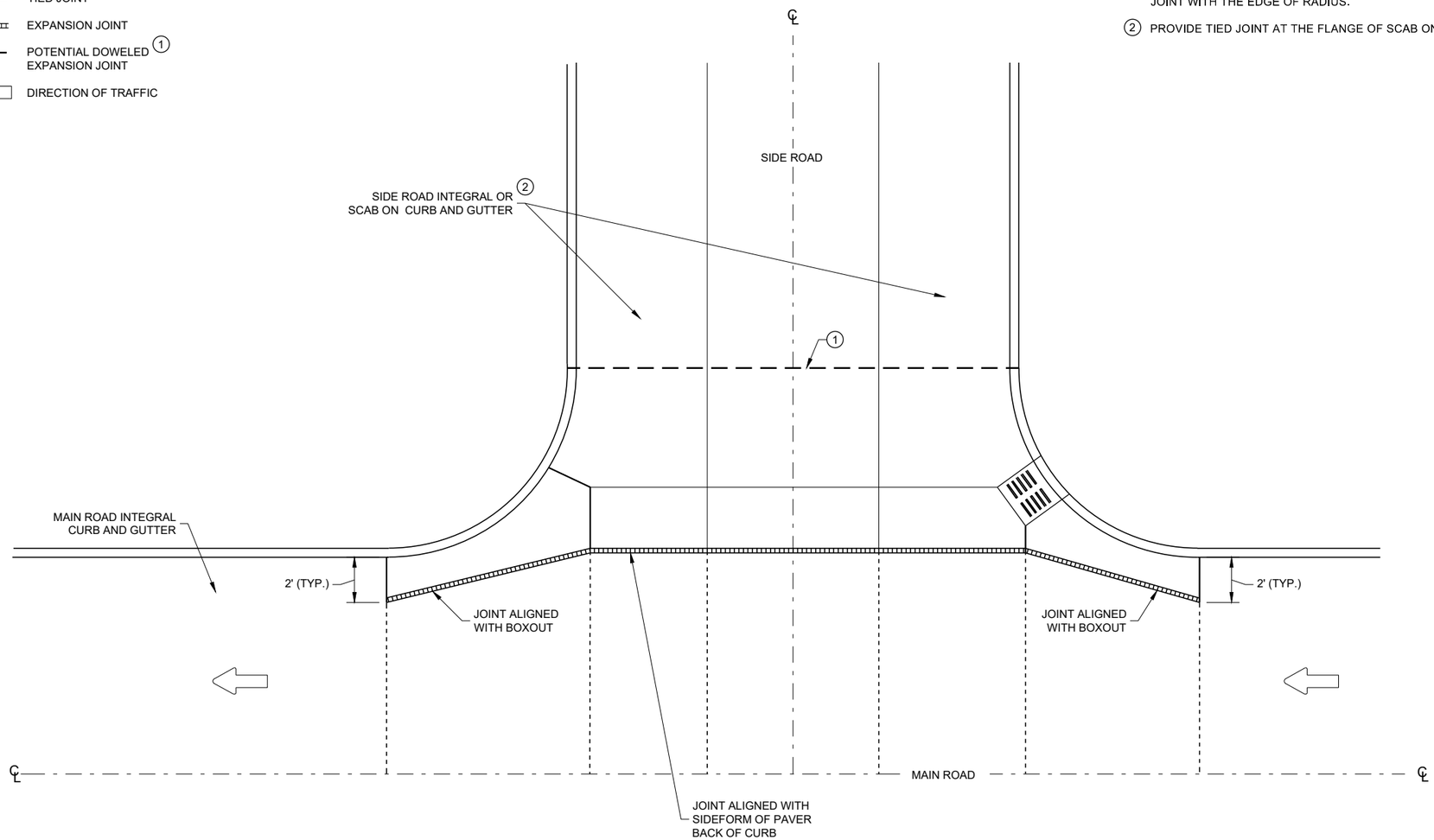
SDD13C18 - 08d

SDD13C18 - 08d

LEGEND

- DOWELED JOINT
- TIED JOINT
- EXPANSION JOINT
- POTENTIAL DOWELED EXPANSION JOINT (1)
- DIRECTION OF TRAFFIC



GENERAL NOTES

(1) CONSTRUCT DOWELED EXPANSION JOINT ON THE SIDE ROAD OF AN INTERSECTION IF THE SIDE ROAD IS CONCRETE PAVEMENT AND GREATER THAN 300 FEET IN LENGTH. ALIGN EXPANSION JOINT WITH THE EDGE OF RADIUS.

(2) PROVIDE TIED JOINT AT THE FLANGE OF SCAB ON CURB IF SCAB ON CURB AND GUTTER IS USE.

INTERSECTION BOXOUT FOR INTEGRAL CURB AND GUTTER

CONCRETE PAVEMENT INTERSECTION BOXOUT FOR INTEGRAL CURB AND GUTTER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023
DATE

/S/ Peter Kemp P.E.
PAVEMENT SUPERVIS

FHWA

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SDD 13C18 - 08f

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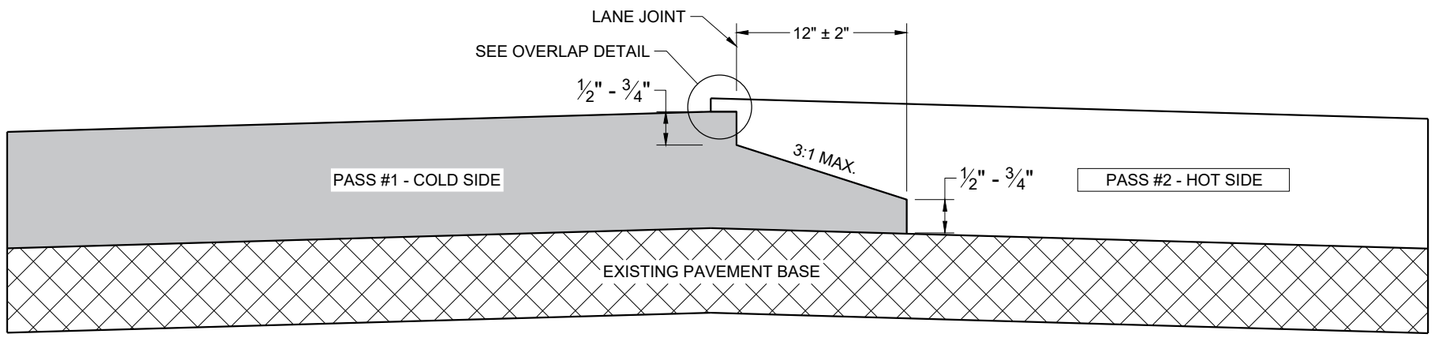
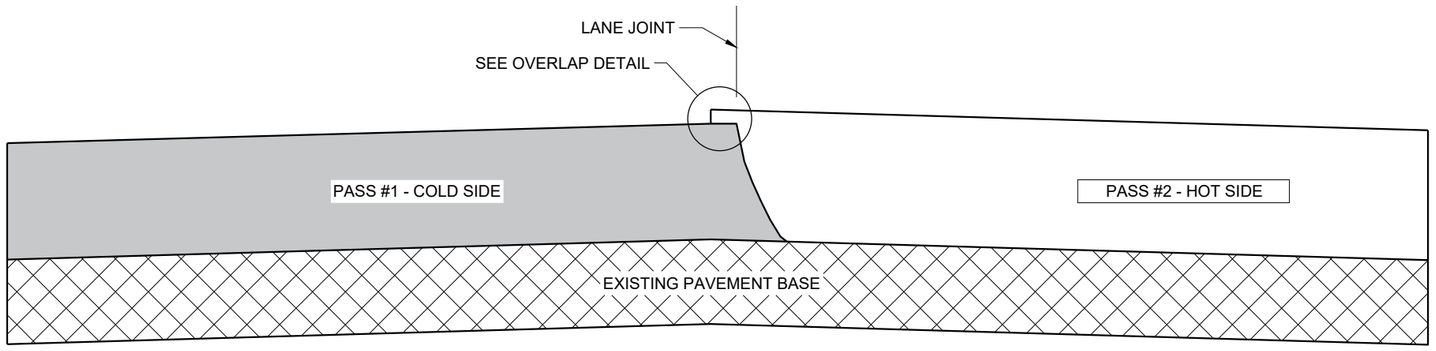
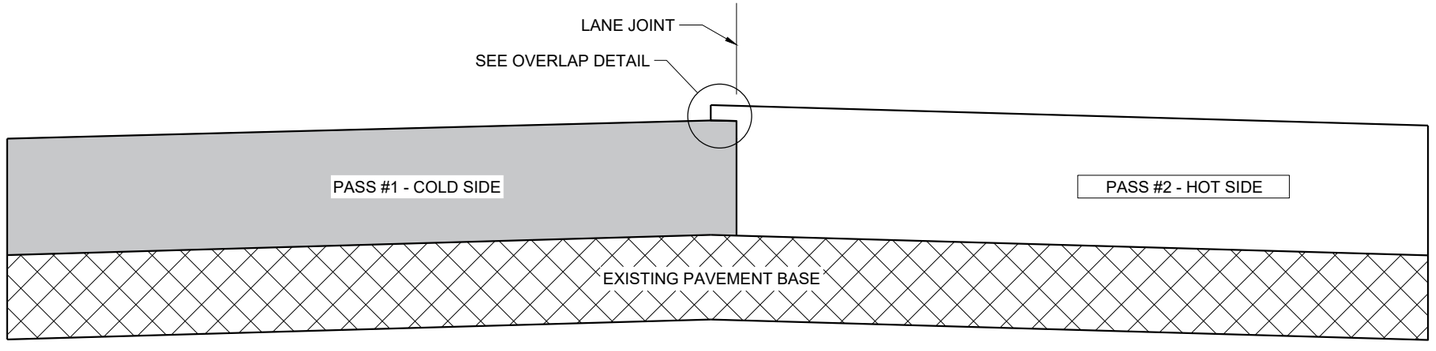


TYPICAL PAVEMENT CROSS SECTION
NOTCHED WEDGE JOINT



TYPICAL PAVEMENT CROSS SECTION
VERTICAL JOINT



TYPICAL PAVEMENT CROSS SECTION
VERTICAL JOINT (MILLED)

GENERAL NOTES

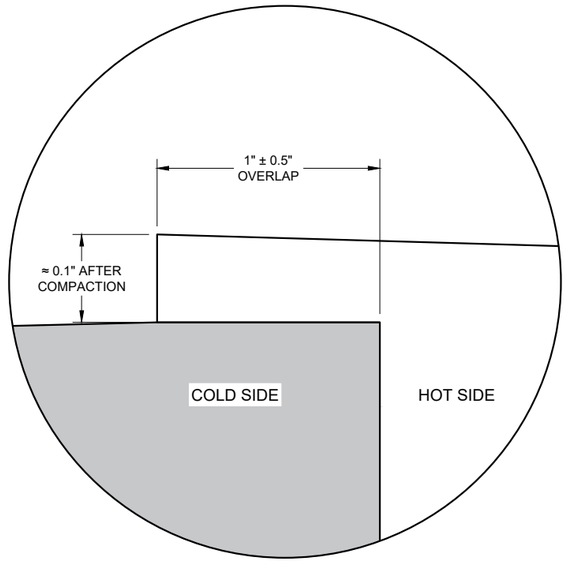
IN ADDITION TO THE DETAILS PROVIDED IN THIS DRAWING, CONFORM TO STANDARD SPECIFICATION 450.3.2.8 FOR WHEN A NOTCHED WEDGE JOINT IS REQUIRED AND FOR GENERAL JOINT CONSTRUCTION REQUIREMENTS.

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

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SDD 13C19 - 03

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SDD 13C19 - 03

GENERAL NOTES

(1) W6 X 9 OR W6 X 8.5 STEEL POSTS AND NOTCHED PLASTIC BLOCKOUTS ARE ACCEPTABLE ALTERNATIVES FOR 6" X 8" WOOD POSTS WITH WOOD OR PLASTIC BLOCKOUTS. USE APPROVED NOTCHED PLASTIC BLOCKOUTS WITH STEEL POSTS. APPROVED PLASTIC BLOCKOUT DESIGNS MAY VARY FROM THIS TYPICAL DETAIL WHEN USED IN CONJUNCTION WITH STEEL POSTS.

DO NOT MIX STEEL POSTS AND WOOD POSTS IN A SINGLE INSTALLATION.

(2) USE STRUCTURAL STEEL POSTS CONFORMING TO ASTM A 36. GALVANIZED POSTS ACCORDING TO AASHTO M 111. EITHER SET THE POSTS IN DRILLED HOLES OR DRIVE TO GRADE. REMOVE MUSHROOMING CAUSED BY DRIVING AND REPAIR DAMAGED SPELTER COATING ON GALVANIZED POSTS.

(3) INSTALL STEEL POSTS WITH HOLES ON APPROACHING TRAFFIC SIDE.

(4) USE EITHER WOOD OR APPROVED PLASTIC BLOCKOUTS ON WOOD POSTS.

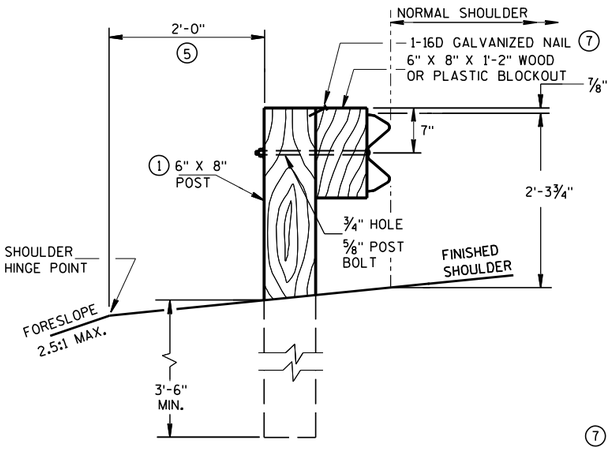
(5) IF THE DISTANCE FROM BACK OF POST TO SHOULDER HINGE POINT IS LESS THAN 2 FEET INSTALL LONGER POST AT HALF POST SPACING, W BEAM (LHW).

(6) IF ROCK IS ENCOUNTERED DURING EXCAVATION, THE ENGINEER MAY APPROVE USING A 12 INCH DIAMETER POST HOLE EXTENDING 20 INCHES DEEP INTO THE ROCK. PLACE GRANULAR MATERIAL IN THE BOTTOM OF THE HOLE APPROXIMATELY 2½ INCHES DEEP. CUT THE POSTS TO LENGTH AND PLACE IN YHE HOLE. BACKFILL WITH MATERIAL EXCAVATED FROM THE HOLE AND COMPACT ADEQUATEY.

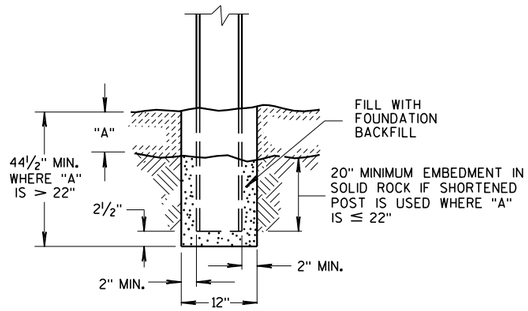
(7) WHEN USING STEEL POSTS AND WOOD BLOCKOUTS INSTALL FOUR 16D GALVANIZED NAILS. INSTALL NAILS AT THE BACK CORNERS OF THE BLOCK AND BEND THE NAILS OVER THE FLANGE OF THE STEEL POST.

INSTALL BEAM GUARD SECTIONS AND ALL NECESSARY HARDWARE ACCORDING TO THE APPLICABLE PLAN AND CURRENT STANDARD AND SUPPLEMENTAL SPECIFICATIONS.

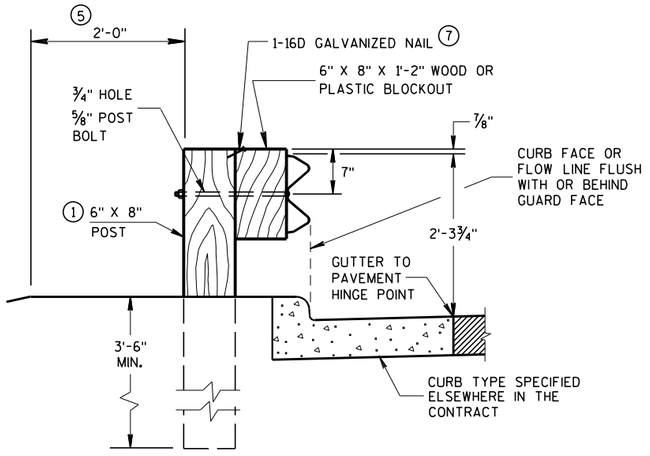
ALL DIMENSIONS ARE SUBJECT TO MANUFACTURER'S TOLERANCES EXCEPT WHERE ALLOWABLE TOLERANCES ARE SHOWN.



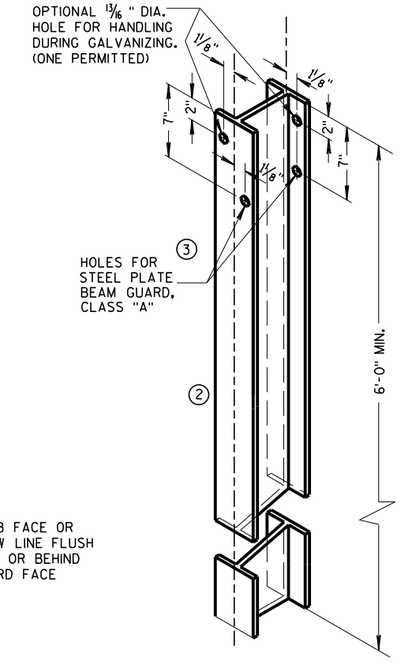
END VIEW
LOCATED ALONG A ROADWAY SHOULDER
STANDARD INSTALLATION



END VIEW
SETTING STEEL OR WOOD POST IN ROCK (6)

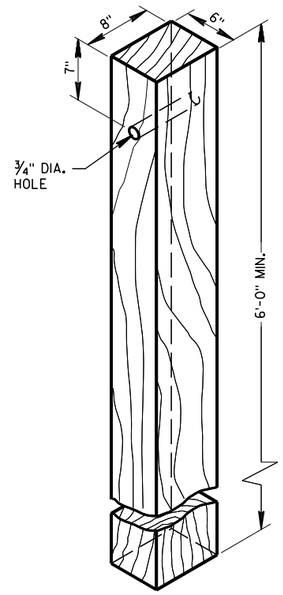


END VIEW
LOCATED ALONG A CURBED ROADWAY

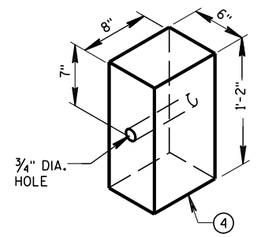


STEEL POST &
HOLE PUNCHING DETAIL
(W6 X 9) (1)

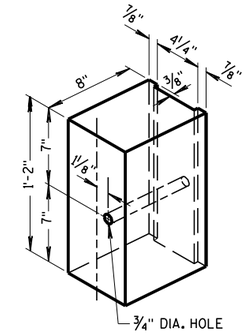
ALL HOLES 13/16" DIAMETER EXCEPT AS NOTED



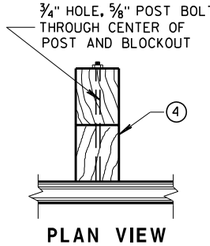
WOOD POST
(6"X8") NOMINAL



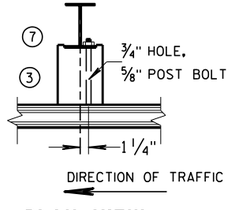
WOOD OR PLASTIC
BLOCKOUT FOR
WOOD POSTS



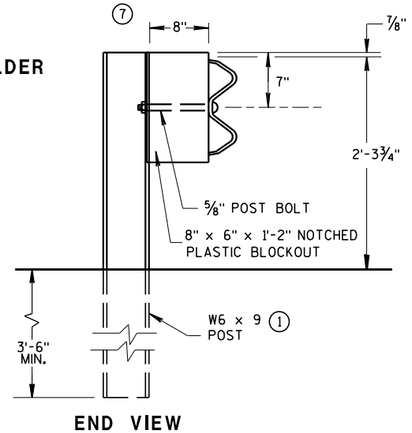
TYPICAL NOTCHED
PLASTIC BLOCKOUT
FOR STEEL POSTS (1)



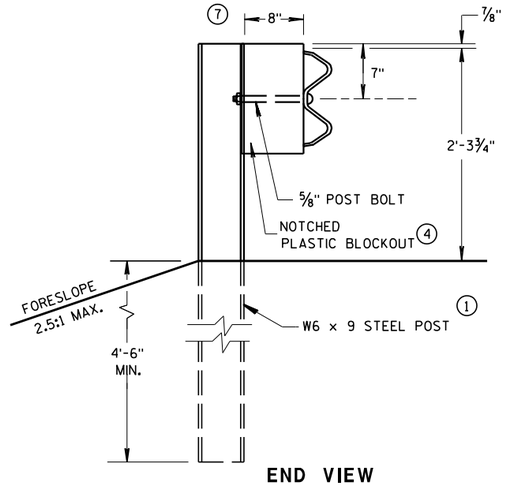
PLAN VIEW
WOOD POST, BLOCKOUT & BEAM



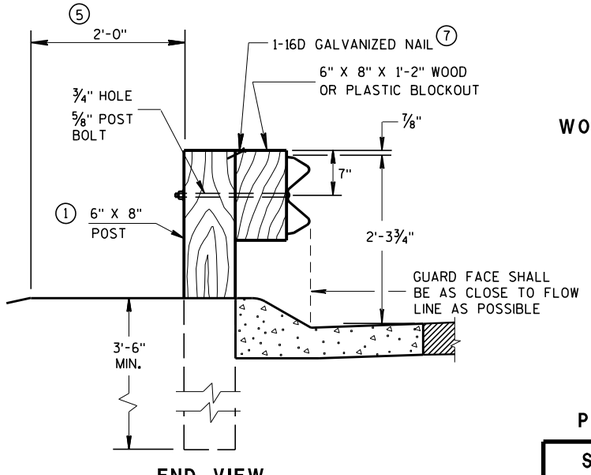
PLAN VIEW
STEEL POST, NOTCHED
PLASTIC BLOCKOUT & BEAM



END VIEW
STEEL POST & NOTCHED
PLASTIC BLOCKOUT ALTERNATIVE
STANDARD INSTALLATION



END VIEW
LONGER POST AT HALF
POST SPACING W BEAM
(LHW)



END VIEW
LOCATED ALONG A
MOUNTABLE CURBED ROADWAY

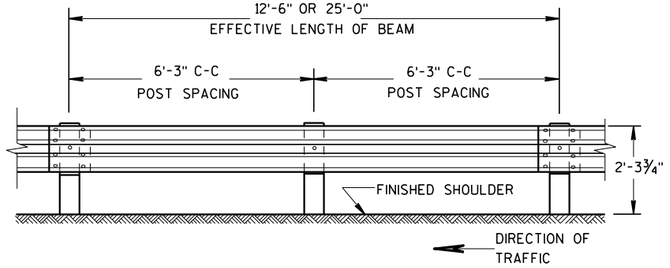
TYPICAL INSTALLATION OF STEEL PLATE BEAM GUARD

STEEL PLATE BEAM GUARD,
CLASS "A"
INSTALLATION & ELEMENTS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

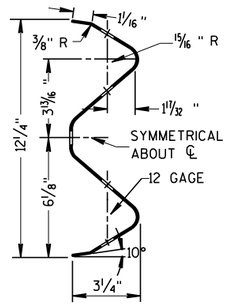
S.D.D. 14 B 15-11a

S.D.D. 14 B 15-11a

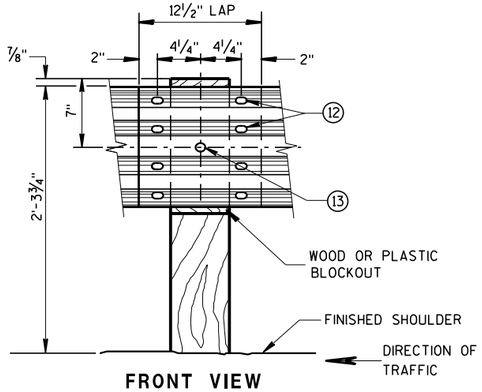


FRONT VIEW

POST SPACING STANDARD INSTALLATION



SECTION THRU W BEAM



FRONT VIEW

BEAM SPLICE AT WOOD POST AND POST MOUNTING DETAIL

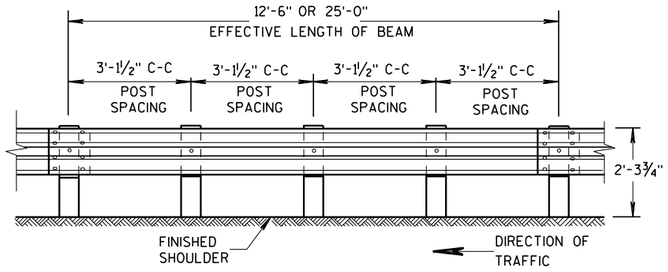
GENERAL NOTES

FURNISH GUARDRAIL DEFLECTORS FROM APPROVED PRODUCTS LIST.

(9) DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINA. START REFLECTORS AT POST #9 AND SPACE EVENLY EVERY 100 FEET (MAX.) TO THE END OF GUARDRAIL RUN, USING A MINIMUM OF 3 REFLECTORS.

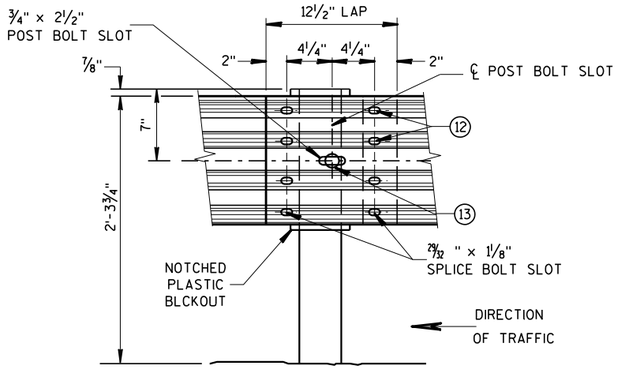
(12) 8 -⅝" ϕ X 2" BUTTON HEAD BOLTS WITH OVAL SHOULDERS & RECESS NUTS.

(13) ⅝" DIA. BUTTON HEAD BOLT AND RECESS NUT WITH ⅝" DIA. F844 FLAT WASHER UNDER NUT.



FRONT VIEW

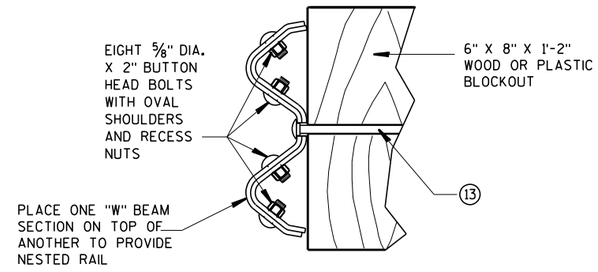
POST SPACING FOR LONGER POST AT HALF POST SPACING W BEAM (LHW)



FRONT VIEW

BEAM SPLICE AT STEEL POST

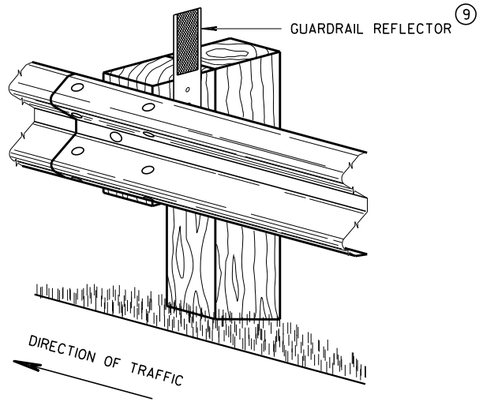
TYPICAL SPLICING DETAILS OF STEEL PLATE BEAM GUARD



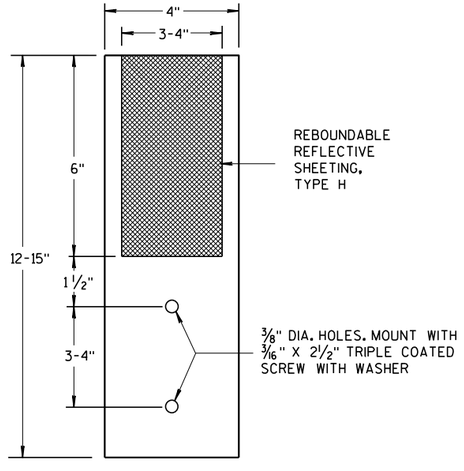
NESTED W BEAM (NW)

USE ALL OTHER STANDARD BEAM GUARD DETAILS FOR CONSTRUCTING NESTED W BEAM (NW)

* USE DOUBLE SIDED WHITE GUADRAIL REFLECTORS ON ROADWAYS WITH BI-DIRECTIONAL TRAFFIC (NO MEDIAN). USE SINGLE SIDED WHITE (RIGHT SIDE) AND SINGLE SIDED YELLOW (LEFT SIDE) ON ROADWAYS WITH MEDIAN SEPARATION.



4" X 12" GUARDRAIL REFLECTOR DETAIL AND TYPICAL INSTALLATION *



4"x 12" GUARDRAIL REFLECTOR

STEEL PLATE BEAM GUARD, CLASS "A", INSTALLATION & ELEMENTS

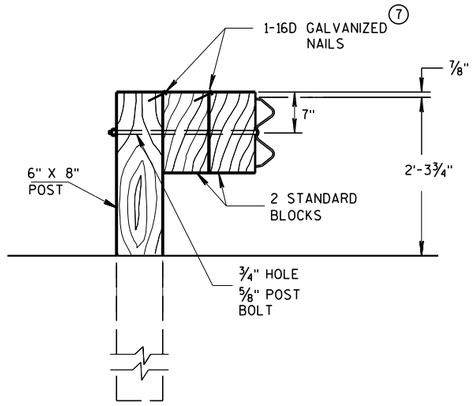
STATE OF WISCO 56
DEPARTMENT OF TRANSPORTATION

6

S.D.D. 14 B 15-11b

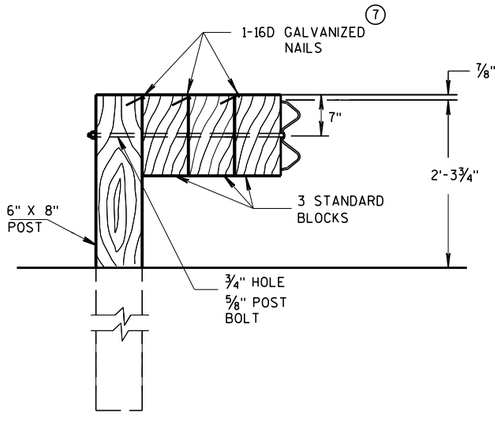
6

S.D.D. 14 B 15-11b



DETAIL FOR DOUBLE BLOCKS

THE NUMBER OF DOUBLE BLOCK POSTS WITHIN A BARRIER RUN IS UNLIMITED

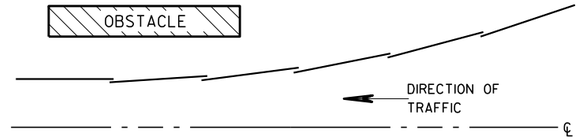


DETAIL FOR TRIPLE BLOCKS

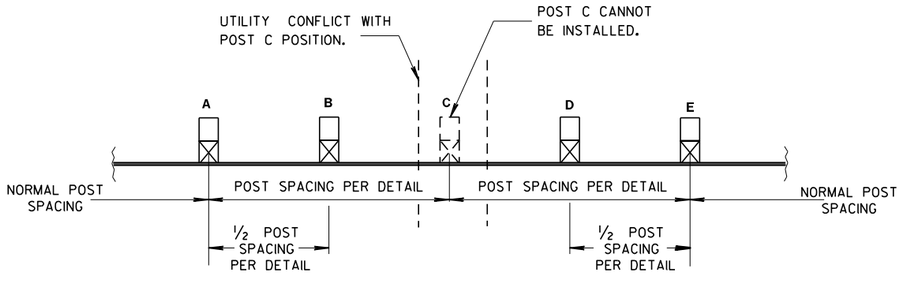
TRIPLE BLOCK DETAIL IS LIMITED TO ONE LOCATION WITHIN A BEAM GUARD RUN.

NOTES: USE DOUBLE OR TRIPLE BLOCKS WHEN UNDERGROUND OBSTACLES PREVENT THE POST FROM BEING INSTALLED.

DO NOT USE EXTRA 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.



PLAN VIEW
BEAM LAPPING DETAIL



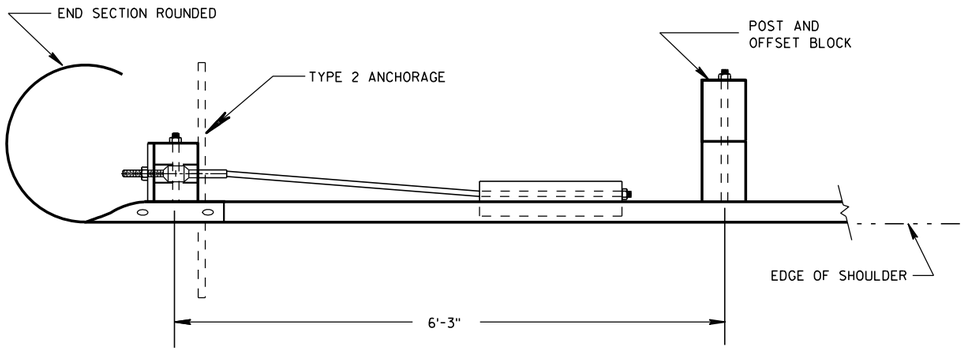
POST DRIVING FOR CONTINUOUS UNDERGROUND OBSTRUCTION

STEEL PLATE BEAM GUARD, CLASS "A", INSTALLATION & ELEMENTS

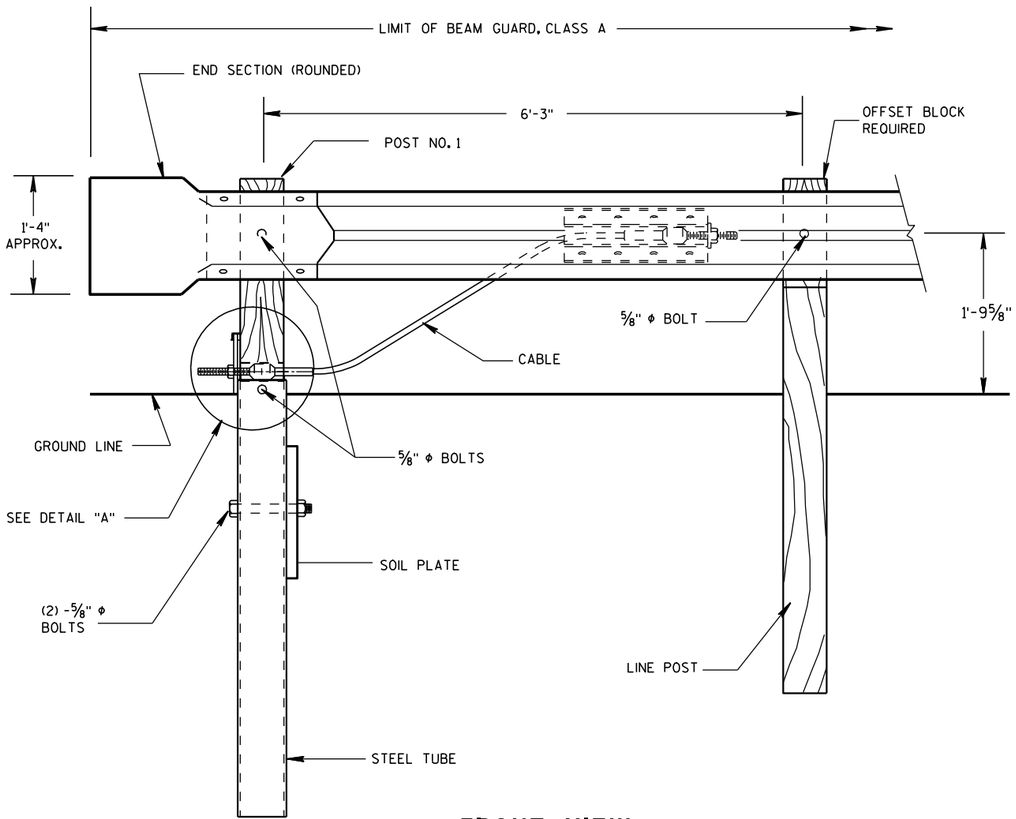
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2017 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS UNIT SUPERVISOR 57
FHWA

6
S.D.D. 14 B 15-11c



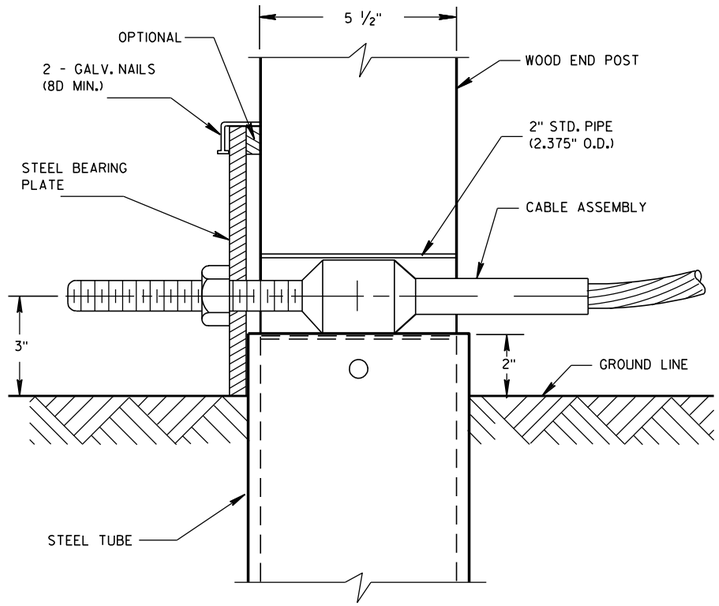
PLAN VIEW



FRONT VIEW

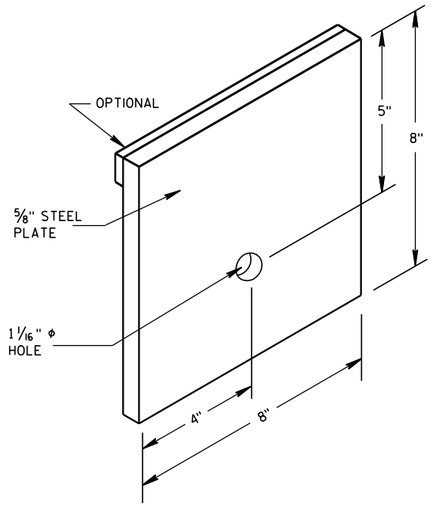
END TREATMENT WITH TYPE 2 ANCHORAGE

(USE ON ONE-WAY ROADWAYS ONLY - DEPARTING END)



DETAIL "A"

POST NO. 1



STEEL BEARING PLATE

ANCHORAGE FOR STEEL
PLATE BEAM GUARD
TYPE 2

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

S.D.D. 14 B 16-4a

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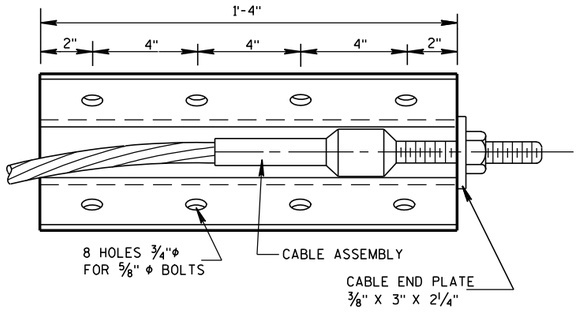
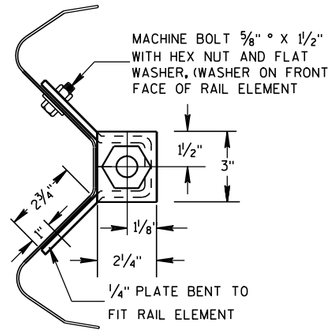
S.D.D. 14 B 16-4a

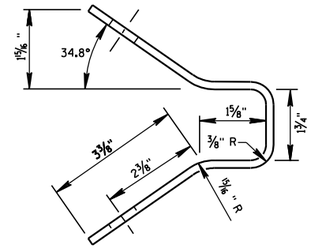


FRONT VIEW

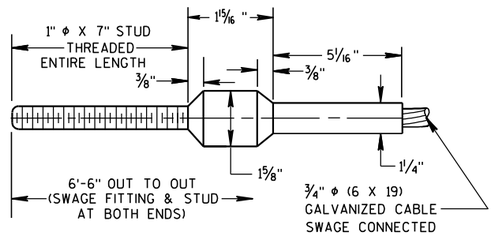


END VIEW

ANCHOR PLATE DETAIL



END VIEW OF BRACKET



CABLE ASSEMBLY

CABLE, SWAGE FITTING, STUD AND NUT SHALL DEVELOP
A MINIMUM BREAKING STRENGTH OF 40,000 LB
(TIGHTEN UNTIL TAUT)

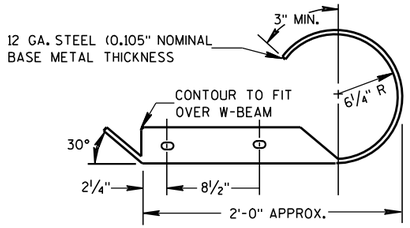
GENERAL NOTES

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

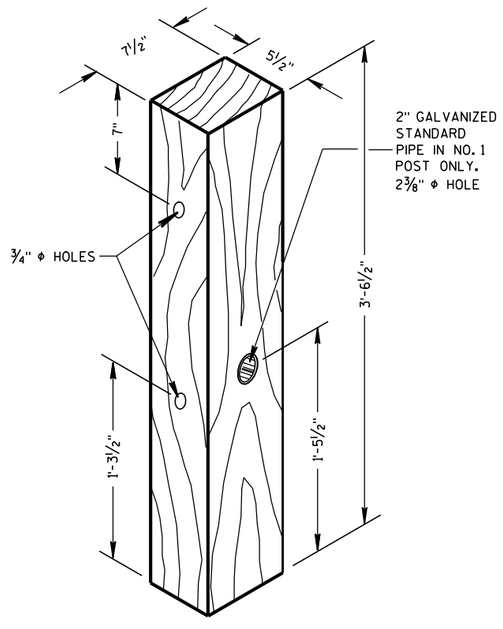
STRUCTURAL TUBING SHALL CONFORM TO THE REQUIREMENTS OF ASTM A-500 GRADE B OR ASTM A-501.

POST NO. 1 SHALL BE WOOD BREAKAWAY POST INSERTED AND BOLTED INTO STEEL TUBE.

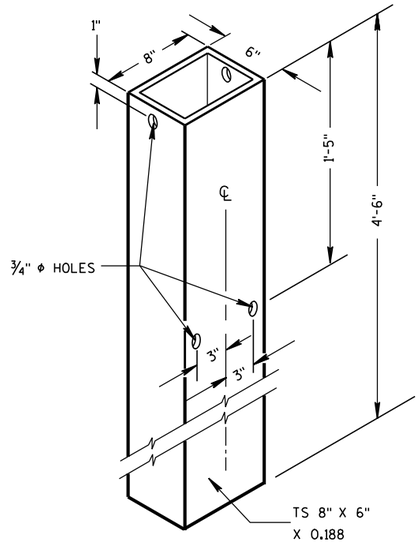
TYPE 2 ANCHORAGE SHALL CONSIST OF A STEEL TUBE, SOIL PLATE WOOD BREAKAWAY POST, BEARING PLATE, ANCHOR PLATE, CABLE ASSEMBLY AND ALL ASSOCIATED HARDWARE, ALL STEEL PARTS SHALL BE GALVANIZED.



PLAN VIEW

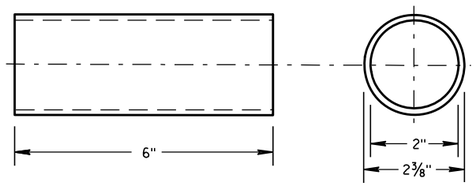


WOOD BREAKAWAY POST



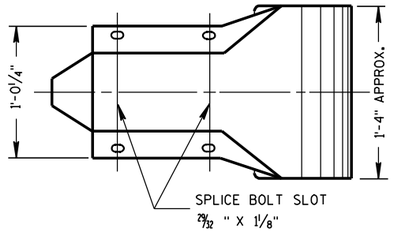
STEEL TUBE

STEEL TUBE SHALL CONFORM TO
REQUIREMENTS OF ASTM A500

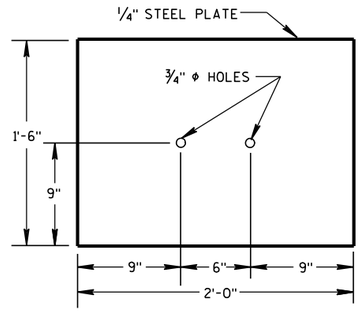


BREAKAWAY TERMINAL POST SLEEVE

GALVANIZED STANDARD STRENGTH STEEL PIPE, ASTM 53 GRADE "B"



FRONT VIEW
W BEAM END SECTION ROUNDED



SOIL PLATE

ANCHORAGE FOR STEEL PLATE BEAM GUARD TYPE 2

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

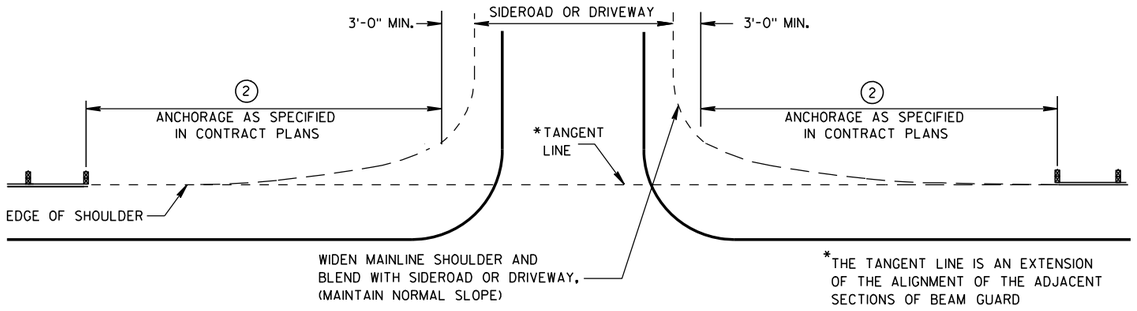
APPROVED
8/21/2007 DATE
/S/ Jerry H. [illegible]
ROADWAY STANDARDS ENGINEER
59
ENT
FHWA

6

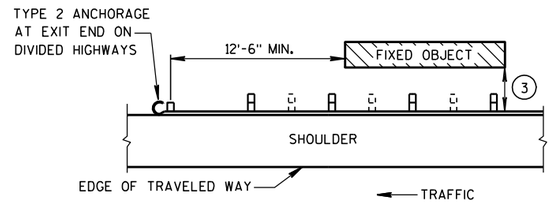
S.D.D. 14 B 16-4b

6

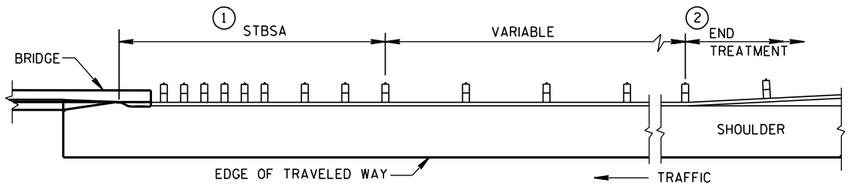
S.D.D. 14 B 16-4b



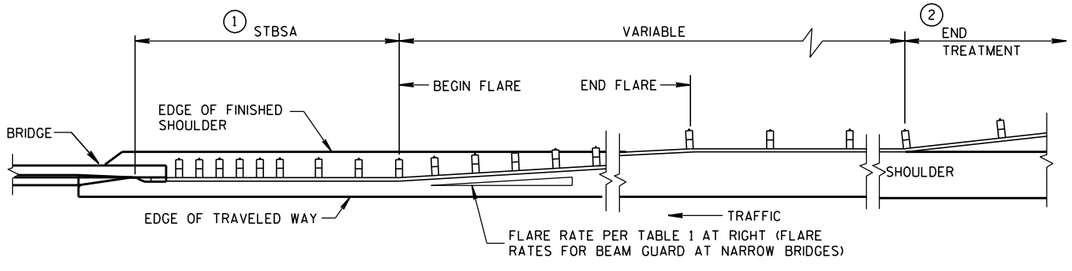
BEAM GUARD AT SIDEROADS OR DRIVEWAYS



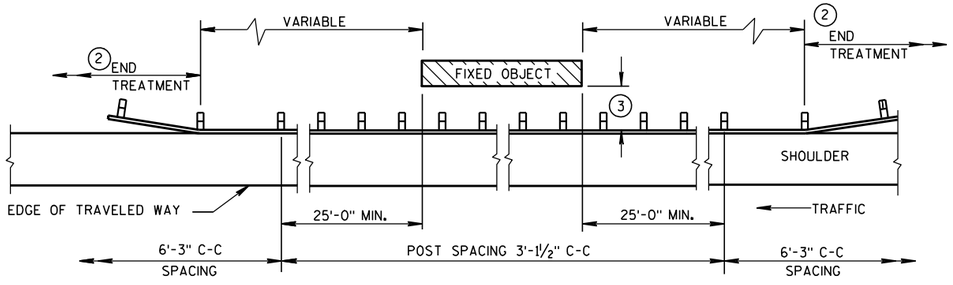
BEAM GUARD AT OBSTACLES EXIT END - ONE WAY TRAFFIC



BEAM GUARD AT FULL WIDTH BRIDGES



BEAM GUARD AT NARROW BRIDGES
(FLARED TO SHOULDER EDGE, THEN PARALLEL TO ROADWAY)



BEAM GUARD AT OBSTACLES - TWO WAY TRAFFIC
(RAIL TO OBSTACLE CLEARANCE 3'-6" TO 4'-6")

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP SHALL CONFORM TO THE PERTINENT STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

W6 X 9 OR W6 X 8.5 STEEL POSTS WITH NOTCHED PLASTIC BLOCKOUTS ARE ACCEPTABLE ALTERNATIVES FOR 6" X 8" WOOD POSTS WITH WOOD OR PLASTIC BLOCKOUTS. USE APPROVED NOTCHED PLASTIC BLOCKOUTS WITH STEEL POSTS.

THE LOCATIONS AND LENGTHS OF BEAM GUARD ARE SHOWN ELSEWHERE IN THE PLAN.

(1) STEEL THRIE BEAM STRUCTURAL APPROACH (STBSA) - SEE CURRENT SDD 14B20.

(2) USE AN APPROVED END TREATMENT FOR THE TRAFFIC APPROACH SIDE OF BRIDGE/OBSTACLES. USE TYPE 2 ANCHORAGE ONLY AT THE DOWNSTREAM ENDS OF BEAM GUARD LOCATED ALONG ROADWAYS WITH ONE WAY TRAFFIC.

(3)

MINIMUM LATERAL DISTANCE FROM FACE OF BEAM GUARD TO FIXED OBJECT	POST SPACING
3'-6"	3' - 1½"
4'-6"	6' - 3"

TABLE 1
FLARE RATES FOR BEAM GUARD AT NARROW BRIDGES

POSTED SPEED (MPH)	FLARE RATE
25	13:1
30	15:1
35	16:1
40	18:1
45	21:1
50	24:1
55	26:1
65	30:1

STEEL PLATE BEAM GUARD CLASS "A" AT BRIDGES, OBSTACLES AND SIDEROADS/DRIVEWAYS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
8-21-07 DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA

6

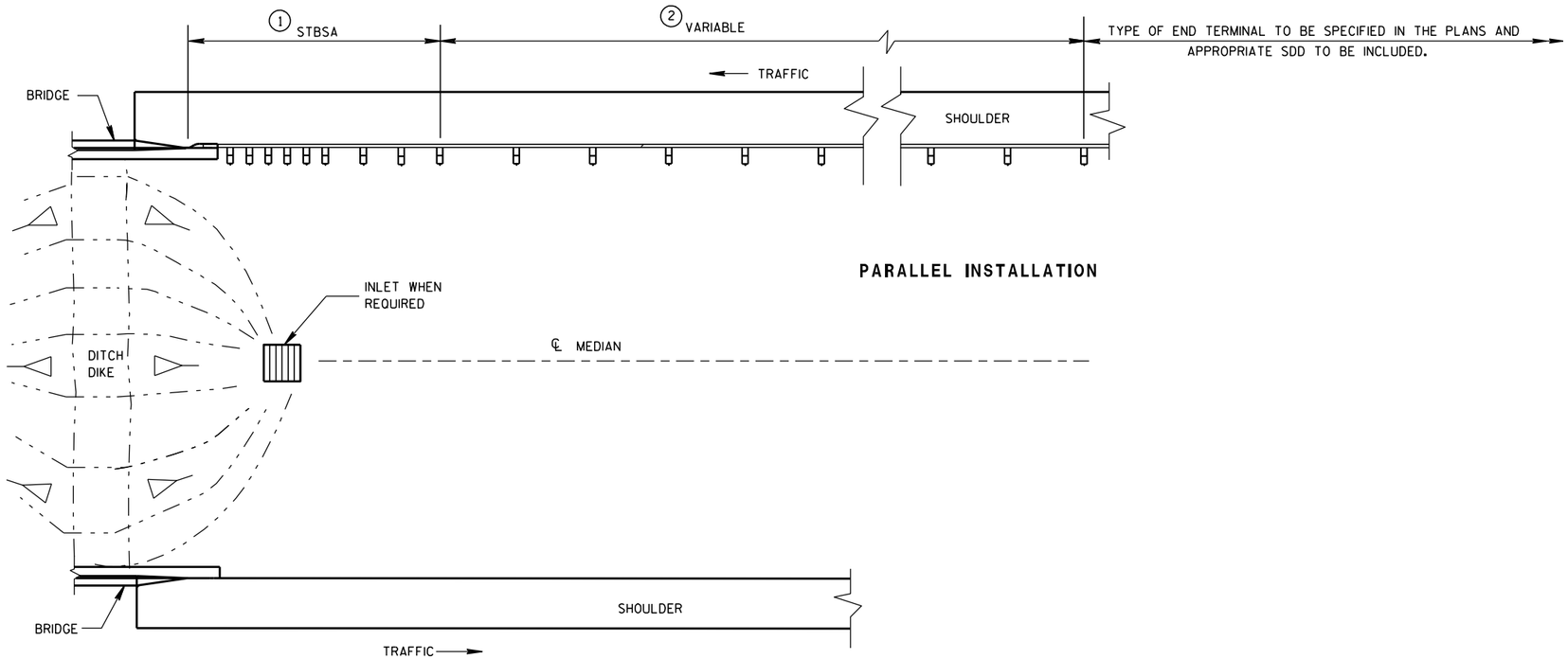
S.D.D. 14 B 18-6a

6

S.D.D. 14 B 18-6a

GENERAL NOTES

1. STEEL THRIE BEAM STRUCTURAL APPROACH (STBSA) - SEE CURRENT SDD 14B20.
2. LOCATIONS AND LENGTHS OF BEAM GUARD ARE SHOWN ELSEWHERE IN THE PLAN.



PARALLEL INSTALLATION

BEAM GUARD AT MEDIAN APPROACH TO BRIDGES

STEEL PLATE BEAM GUARD CLASS "A" AT MEDIAN APPROACH TO BRIDGES	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED	
8-21-07 DATE	/S/ Jerry H. Zogg ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA	

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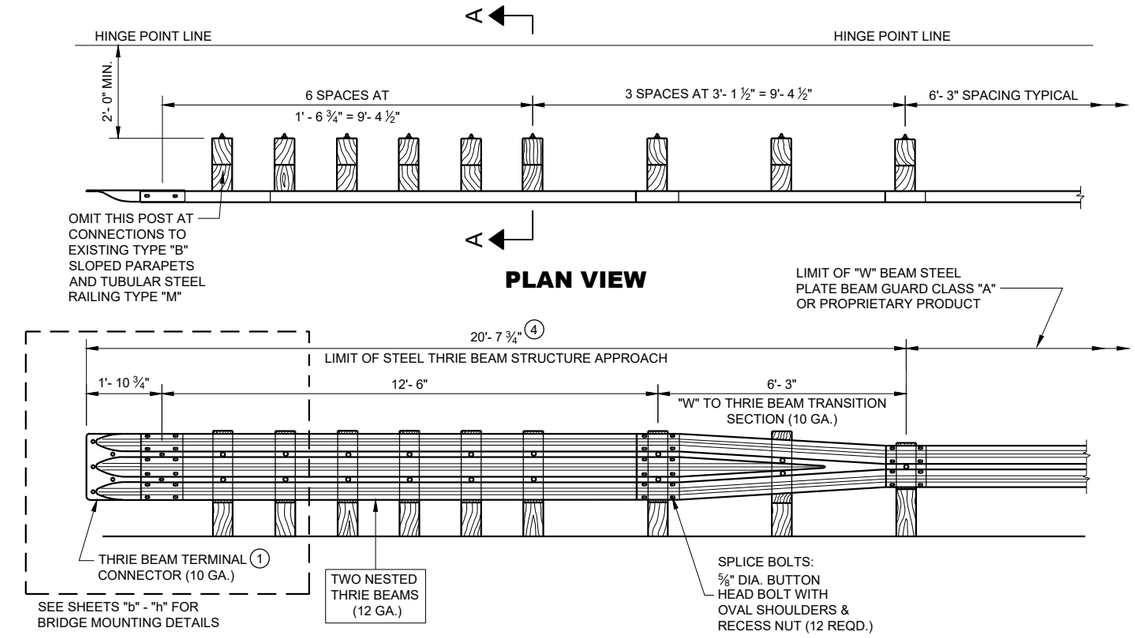
S.D.D. 14 B 18-6b



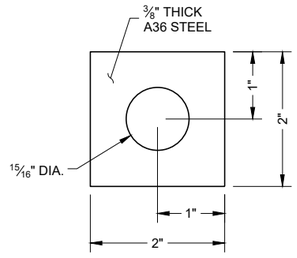


PLATE WASHER DETAIL

GENERAL NOTES

BOLT THE THRIE BEAM TO ALL POSTS AND BLOCKOUTS. DRILL OR PUNCH BOLT HOLES IN THE BEAM IF THE POST SPACING IS LESS THAN 6'-3".

DO NOT USE STEEL POSTS AND NOTCHED PLASTIC BLOCKOUTS IN THE STEEL THRIE BEAM STRUCTURAL APPROACH AND THE TRANSITION SECTION OF STEEL PLATE BEAM GUARD, CLASS "A" INSTALLATIONS.

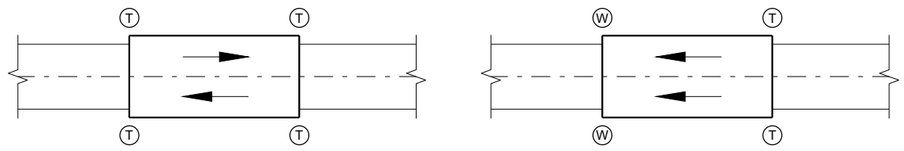
IF ROCK IS ENCOUNTERED, REMOVE ROCK TO FULL DEPTH OF POST PLUS 2 ½" , AND 12" DIAMETER AROUND POST. SEE 14B15 FOR MORE DETAILS.

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

(2) MINIMUM EMBEDMENT SHALL BE 4'- 0".

(3) POST BOLTS ARE ⅝" DIAMETER ASTM A307 BUTTON HEAD BOLT. A POST BOLT REQUIRES A ⅝" DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX AND A ⅝" DIAMETER F844 FLAT WASHER. LENGTH OF POST BOLT MAY VARY.

(4) ALL WOOD POSTS MUST BE 6" X 8" AND AT LEAST 7'-0" LONG.



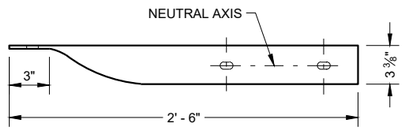
TWO WAY TRAFFIC

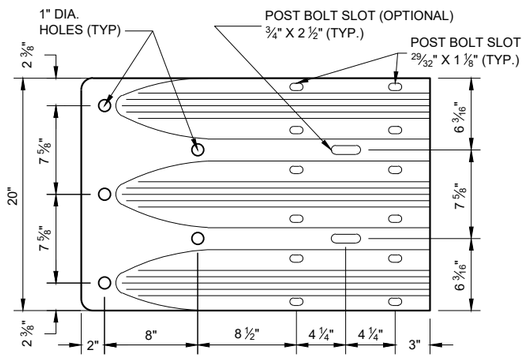
ONE WAY TRAFFIC

(T) THRIE BEAM CONNECTION

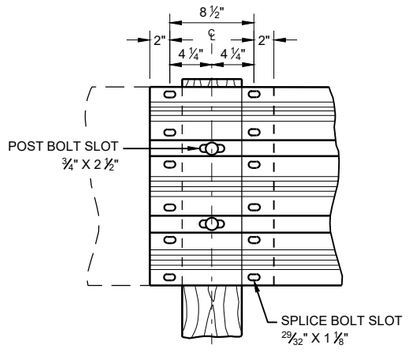
(W) W-BEAM CONNECTION WHEN REQUIRED

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

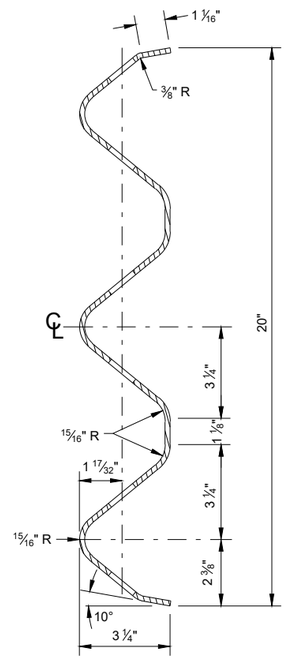




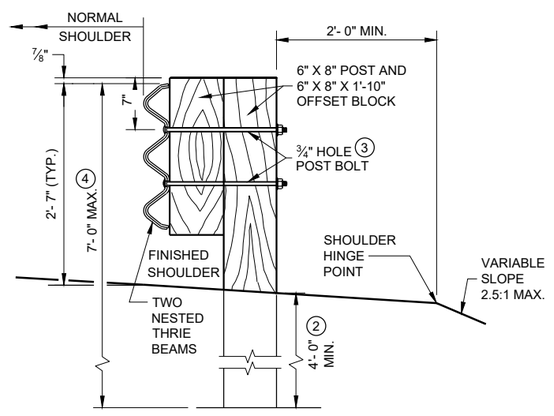
THRIE BEAM TERMINAL CONNECTOR



THRIE BEAM SPLICE



SECTION THRU BEAM RAIL ELEMENT



SECTION A-A

STEEL THRIE BEAM STRUCTURE APPROACH

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
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/S/ Rodney Taylor — ROADWAY STANDARDS DEVE ENGINEER

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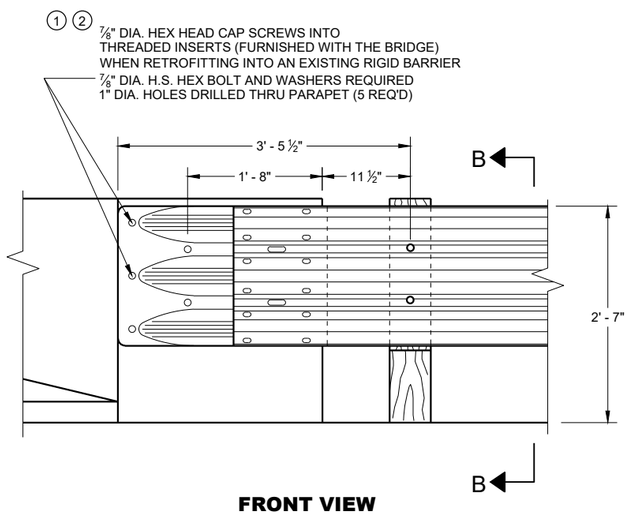
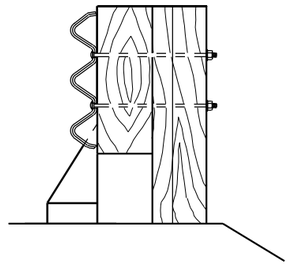


FRONT VIEW



SECTION B - B

THRIE BEAM CONNECTION TO BRIDGE PARAPET WITH SQUARE ENDS

GENERAL NOTES

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

BOLTS, NUTS AND WASHERS SHALL CONFORM TO ASTM A325, A449 AND GALVANIZED PER STANDARD SPECIFICATIONS 614.

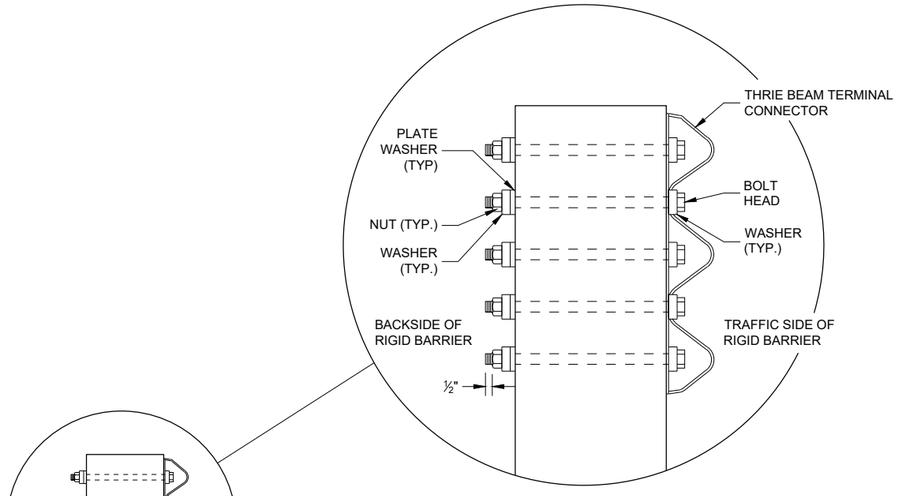
① DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

② BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM TERMINAL CONNECTOR. BOLTS THAT EXTEND THROUGH THE PARAPET AND OUT THE BACK FACE REQUIRE A HARDENED ROUND STEEL WASHER THAT IS 2" O.D. X 5/8" THICK AND ONE PLATE WASHER. REPAIR ANY DAMAGED CONCRETE FROM BOLT INSTALLATION.

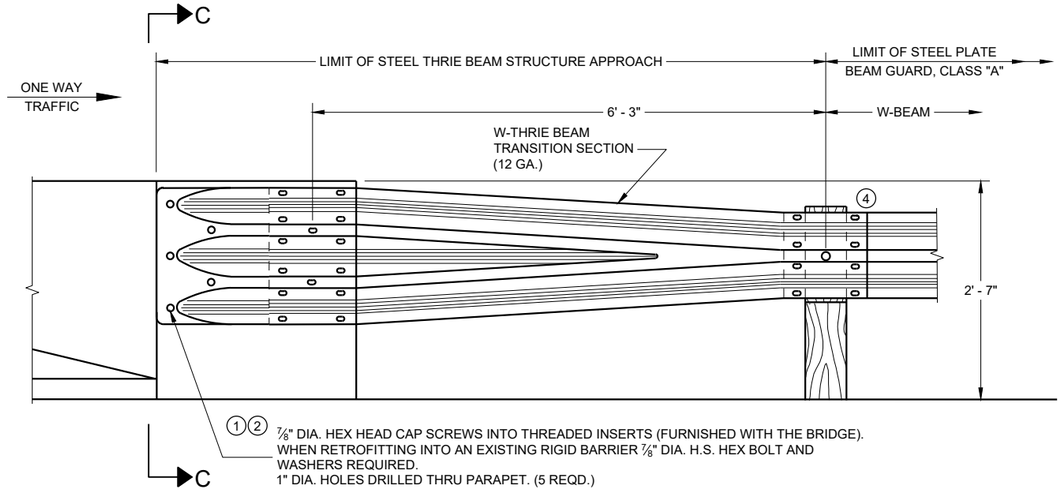
③ THE RECESS FOR A W-BEAM CONNECTION, WHICH EXISTS ON SOME PARAPETS OF THIS TYPE, SHALL BE FILLED WITH A TREATED TIMBER BLOCKOUT. BLOCKOUT SIZE IS 1'-6" X 2'-0" X 3 ½".

④ W6 X 9 OR W6 X 8.5 STEEL POSTS AND NOTCHED PLASTIC BLOCKOUTS ARE ACCEPTABLE ALTERNATIVES FOR 6" X 8" WOOD POST WITH WOOD OR PLASTIC BLOCKOUTS. USE APPROVED NOTCHED PLASTIC BLOCKOUTS WITH STEEL POSTS.

DO NOT USE STEEL POSTS AND NOTCHED PLASTIC BLOCKOUTS IN THE STEEL THRIE BEAM STRUCTURAL APPROACH AND THE TRANSITION SECTION OF STEEL PLATE BEAM GUARD, CLASS "A" INSTALLATIONS.



SECTION C - C



① ② ⅞" DIA. HEX HEAD CAP SCREWS INTO THREADED INSERTS (FURNISHED WITH THE BRIDGE). WHEN RETROFITTING INTO AN EXISTING RIGID BARRIER ⅞" DIA. H.S. HEX BOLT AND WASHERS REQUIRED.
1" DIA. HOLES DRILLED THRU PARAPET. (5 REQD.)

FRONT VIEW

W BEAM TRANSITION AND CONNECTION TO BRIDGE PARAPETS WITH SQUARE ENDS

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

STEEL THRIE BEAM STRUCTURE APPROACH, CONNECTION TO SQUARE END PARAPETS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2022 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS DEVE ENGINEER

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GENERAL NOTES

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

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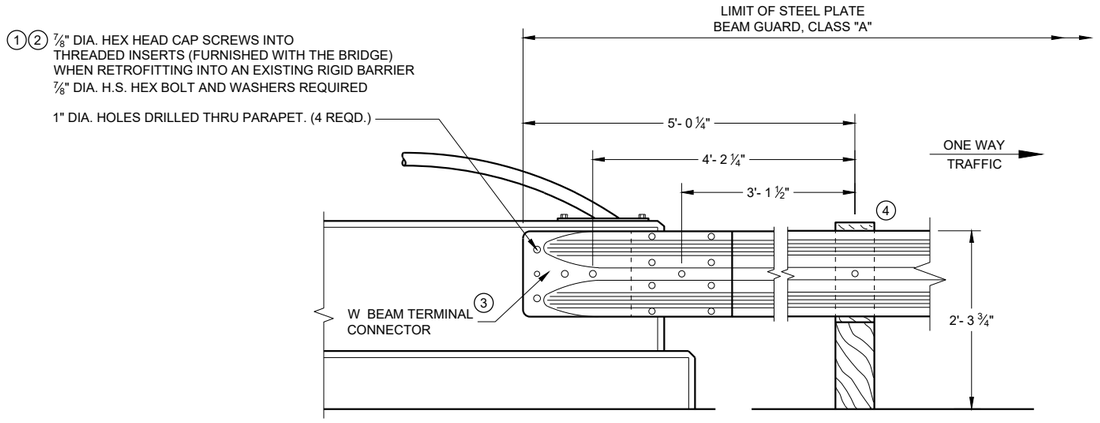
(3) THE RECESS FOR A W-BEAM CONNECTION, WHICH EXISTS ON SOME PARAPETS OF THIS TYPE, SHALL BE FILLED WITH A TREATED TIMBER BLOCKOUT. BLOCKOUT SIZE IS 1'-6" X 2'-0" X 3 ½".

(4) W6 X 9 OR W6 X 8.5 STEEL POSTS AND NOTCHED PLASTIC BLOCKOUTS ARE ACCEPTABLE ALTERNATIVES FOR 6" X 8" WOOD POST WITH WOOD OR PLASTIC BLOCKOUTS. USE APPROVED NOTCHED PLASTIC BLOCKOUTS WITH STEEL POSTS.

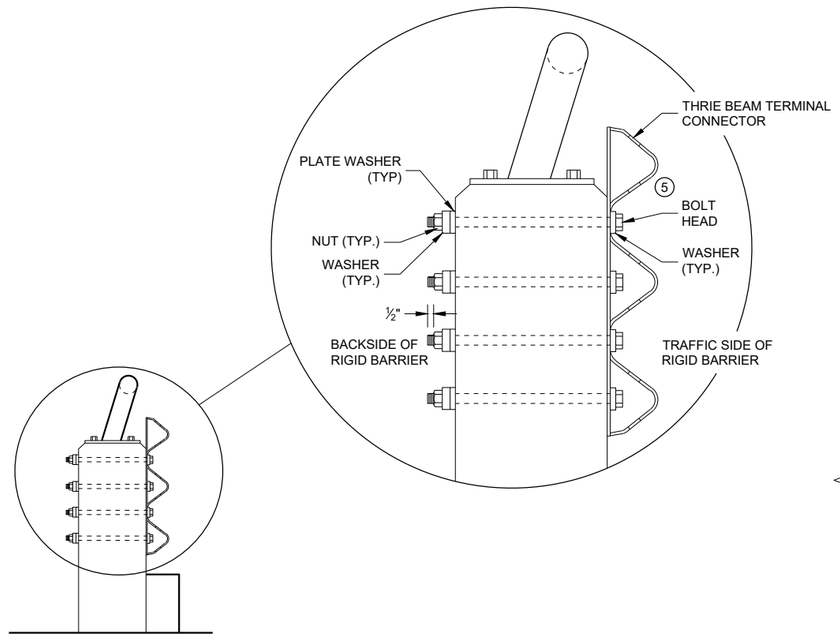
(5) BOLT, NUT AND WASHERS NO REQUIRED FOR THIS LOCATION WHEN RETROFITTING AN EXISTING PARAPET AND THE HOLE IS EITHER ABOVE PARAPET OR WITHIN 4 INCHES OF THE THE EDGE OF PARAPET.

DO NOT USE STEEL POSTS AND NOTCHED PLASTIC BLOCKOUTS IN THE STEEL THRIE BEAM STRUCTURAL APPROACH AND THE TRANSITION SECTION OF STEEL PLATE BEAM GUARD, CLASS "A" INSTALLATIONS.

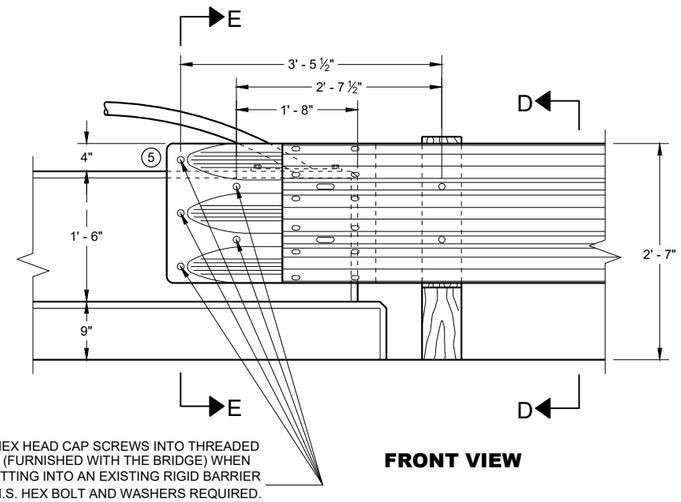


FRONT VIEW

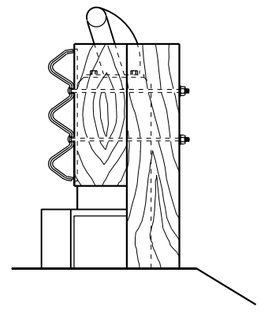
W BEAM CONNECTION TO VERTICAL FACE PARAPET
(USE ONLY ON THE TRAFFIC EXIT END OF ONE WAY BRIDGES)



SECTION E - E



FRONT VIEW



SECTION D - D

THRIE BEAM CONNECTION TO VERTICAL FACED PARAPETS

STEEL THRIE BEAM STRUCTURE APPROACH, CONNECTION TO VERTICAL FACED PARAPETS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2022 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS DEVE ENGINEER

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6

SDD 14B20 - 12c

BILL OF MATERIALS

NOTE NO.	DESCRIPTION
①	WOOD BREAKAWAY TERMINAL POST: 5½" X 7½" X 3'-9"
②	STEEL TUBE TS 8" X 6" X 0.188", 6'-0"
④	WOOD BREAKAWAY CRT POST: 6" X 8" X 6'-0"
⑤	WOOD OFFSET BLOCKS: 6' X 8" X 1'-2"
⑥	PIPE SLEEVE: 2" X 5 ½" STANDARD PIPE
⑦	BEARING PLATE
⑧	BCT CABLE ASSEMBLY
⑨	CABLE ANCHOR BOX
⑩	STRUT & YOKE
⑪	STEEL PLATE BEAM, END PANEL 12 GA.
⑫	STEEL PLATE BEAM: 12 GA. 13'-6½"
⑬	IMPACT HEAD
⑭	0.040" ALUMINUM SHEET WITH REFLECTIVE SHEETING TYPE F PER SECTION 637 OF THE STANDARD SPECIFICATIONS

GENERAL NOTES

FOLLOW MANUFACTURE'S BOLTING RECOMMENDATIONS.

(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.

(D) THE TOP OF THE STEEL TUBE ON POSTS 1 AND 2 SHALL NOT BE MORE THAN 3" ABOVE THE FINISH GROUND ELEVATION.

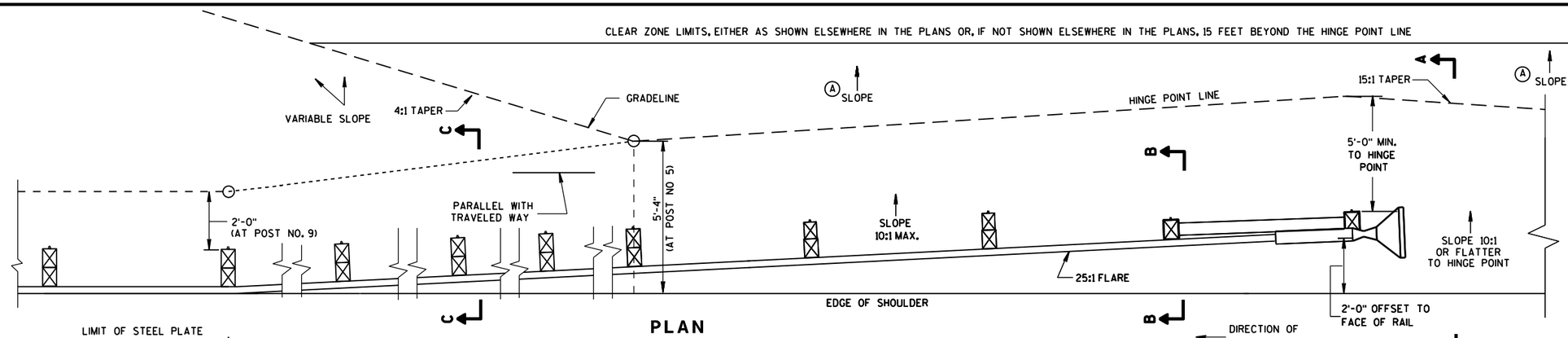
(E) THE CENTER OF THE UPPER 3½" DIAMETER HOLE ON POST 3 THROUGH 8 SHALL BE ¾" ABOVE THE FINISHED GROUND LINE.

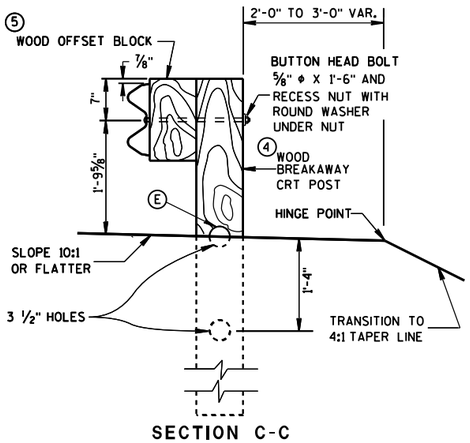
(F) ATTACH ALUMINUM SHEET TO E.A.T. HEAD USING 4 STAINLESS STEEL SELF-TAPPING SCREWS. ONE SCREW PER CORNER.

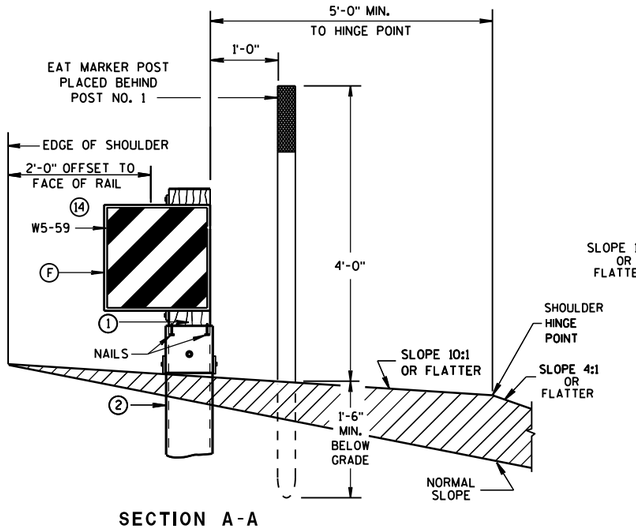
STEEL POSTS SHALL NOT BE ALLOWED FOR USE WITH ENERGY ABSORBING TERMINALS.

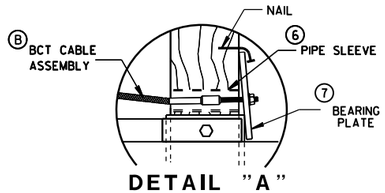
DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL.

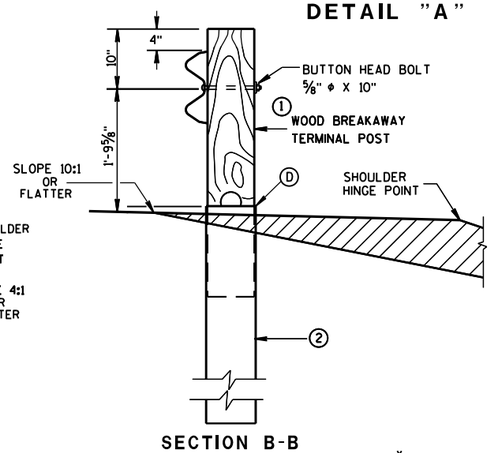
* DO NOT ATTACH BLOCKOUTS TO POSTS 1 AND 2.

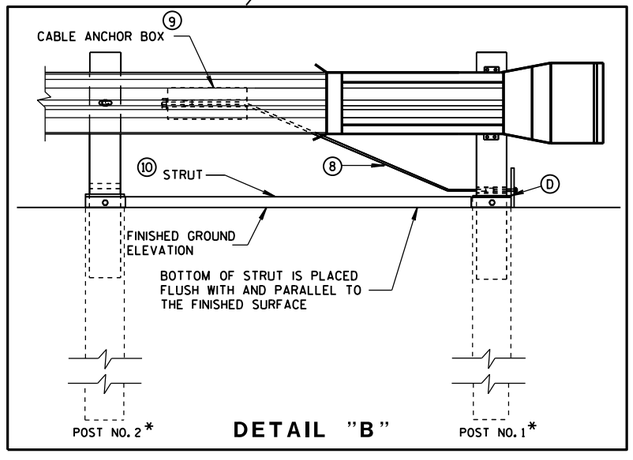










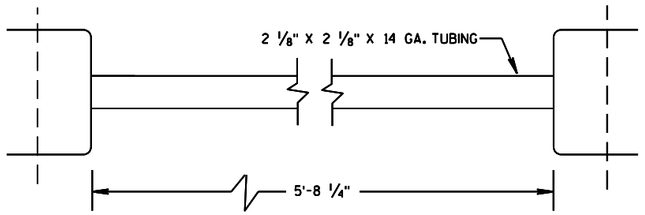


STEEL PLATE BEAM GUARD ENERGY ABSORBING TERMINAL

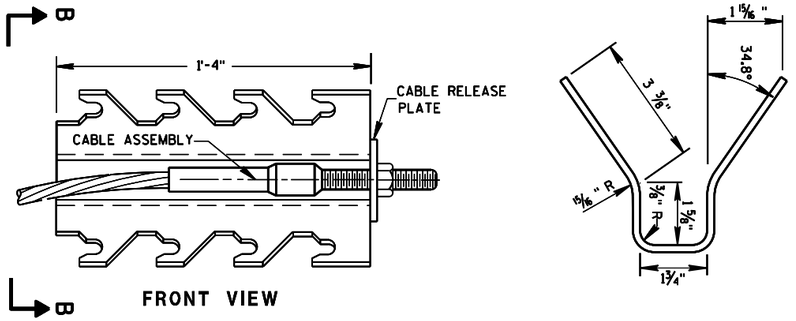
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

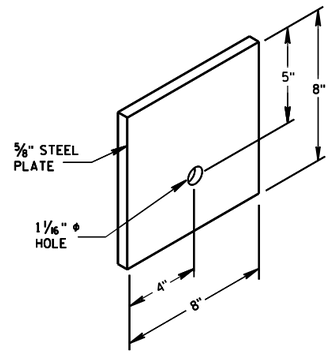
S.D.D. 14 B 24-9a



⑩ STRUT DETAIL



⑨ CABLE ANCHOR BOX



⑦ STEEL BEARING PLATE

6

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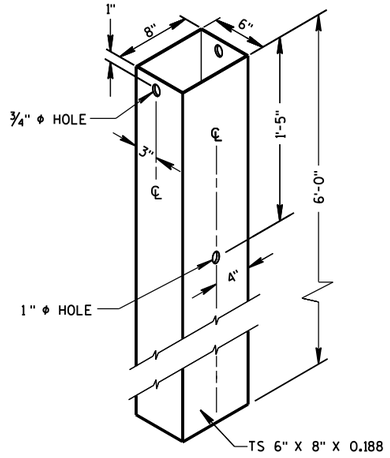
S.D.D. 14 B 24-9b

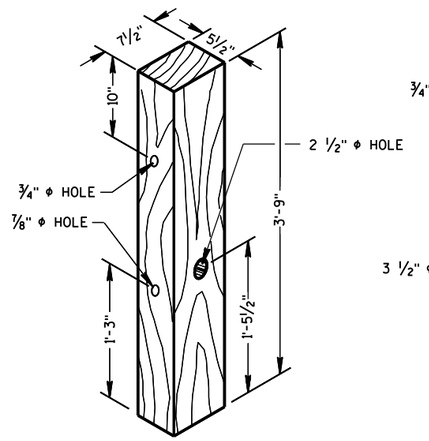
S.D.D. 14 B 24-9b

STEEL PLATE BEAM GUARD
ENERGY ABSORBING TERMINAL

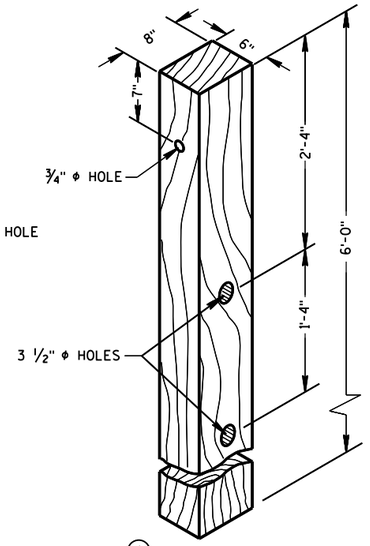
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI



② 72" STEEL TUBE
(POSTS NO. 1-2



① TERMINAL POST

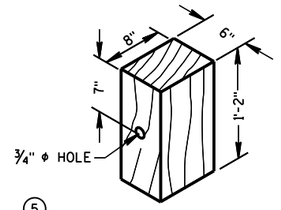


④ CRT POST
(POSTS NO'S 5-8

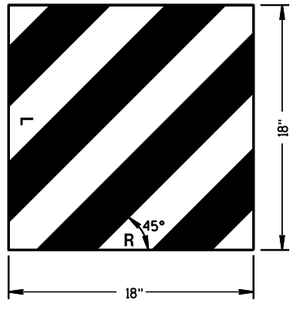
WOOD BREAKAWAY POSTS

GENERAL NOTES

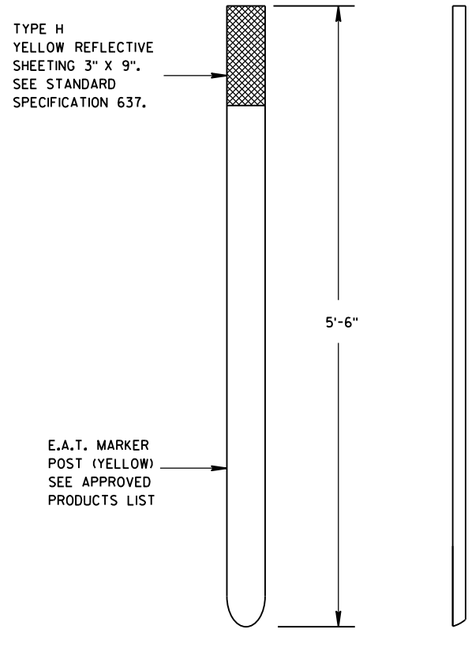
WHEN ROCK IS ENCOUNTERED DURING EXCAVATION, A 12 INCH DIA. POST HOLE EXTENDING 20 INCHES DEEP INTO THE ROCK MAY BE USED IF APPROVED BY THE ENGINEER. GRANULAR MATERIAL SHALL BE PLACED IN THE BOTTOM OF THE HOLE APPROXIMATELY 2 ½" INCHES DEEP TO PROVIDE DRAINAGE. THE SOIL TUBES SHALL BE FIELD CUT TO LENGTH, PLACED IN THE HOLE AND BACKFILLED WITH ADEQUATELY COMPACTED MATERIAL EXCAVATED FROM THE HOLE.



⑤ WOOD OFFSET BLOCK
REQ'D. AT ALL POSTS EXCEPT POST NO'S 1 & 2



⑭ REFLECTIVE SHEETING DETAILS



E.A.T. MARKER POST

STEEL PLATE BEAM GUARD
ENERGY ABSORBING TERMINAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2017
DATE
FHWA

/S/ Rodney Taylor
ROADWAY STANDARDS UNIT SUPERV...

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S.D.D. 14 B 24-9c

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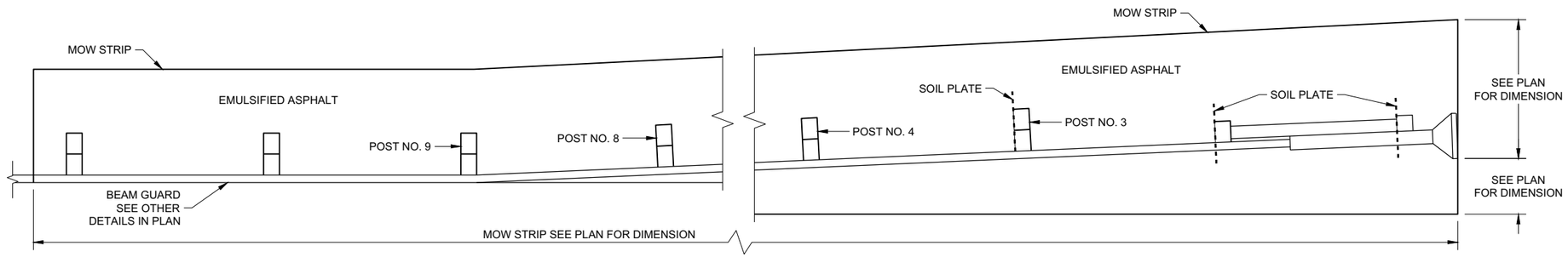
S.D.D. 14 B 24-9c



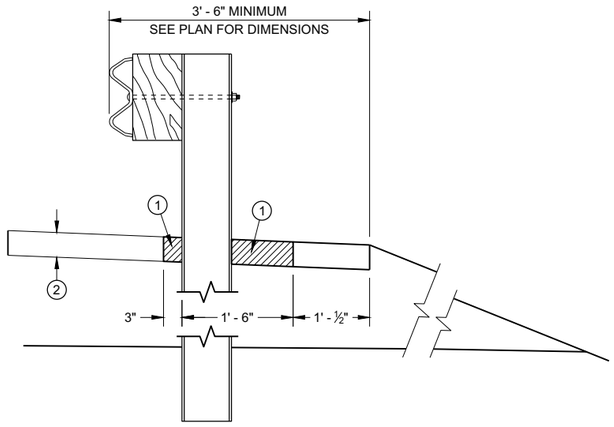
PLAN VIEW

MOW STRIP LAYOUT FOR ENERGY ABSORBING TERMINAL

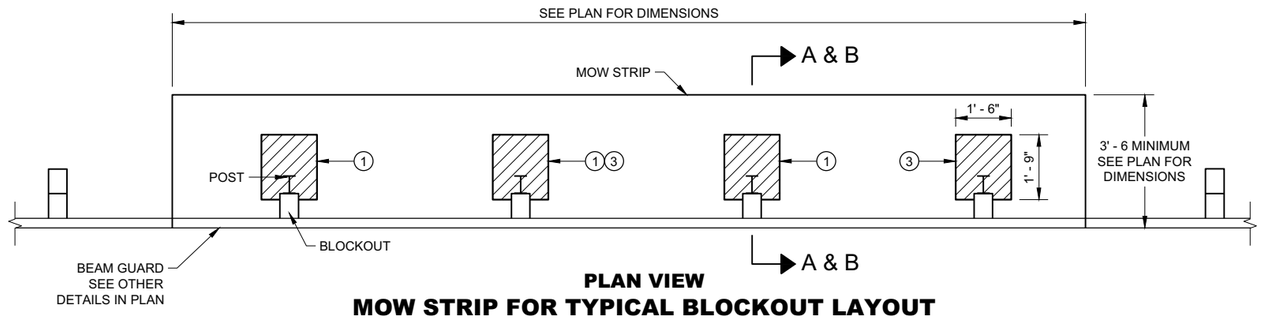
GENERAL NOTES

ONLY USE STEEL POSTS IN CONCRETE AND ASPHALT MOW STRIPS.

1. CONTROLLED LOW-STRENGTH BACKFILL OR EMULSIFIED ASPHALT.
2. DEPTH OF MOW STRIP:
   ASPHALT - 4"
   CONCRETE - 4"
   EMULSIFIED ASPHALT - 1" OR LESS
3. FOR EMULSIFIED ASPHALT, MOW STRIP STRIP LEAVE OUTS NOT REQUIRED. (TYPICAL FOR ALL POSTS)

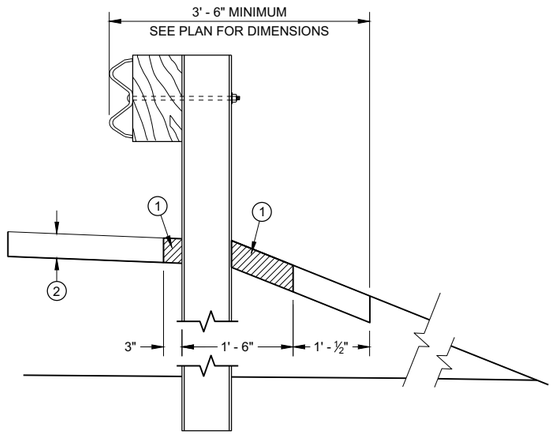


SECTION A - A

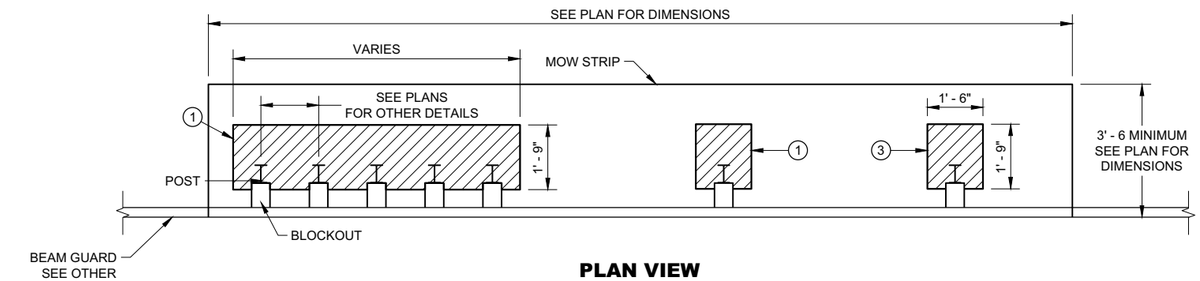


PLAN VIEW

MOW STRIP FOR TYPICAL BLOCKOUT LAYOUT

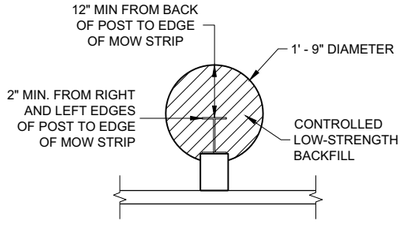


SECTION B - B

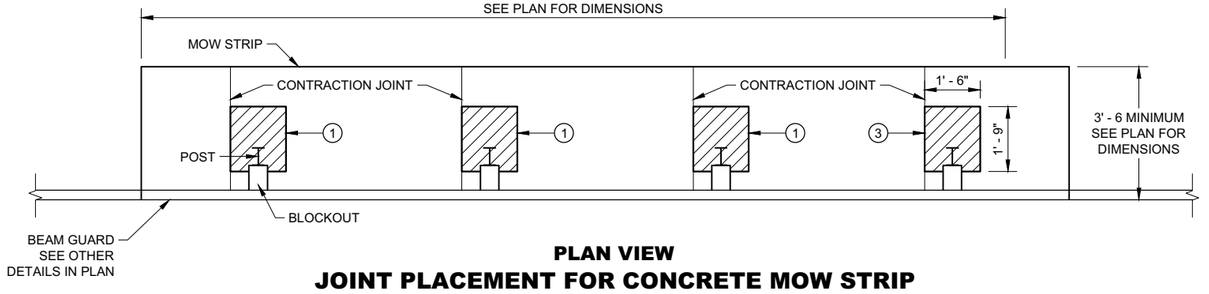


PLAN VIEW

MOW STRIP FOR TIGHT SPACING LAYOUT



ALTERNATIVE HMA MOW STRIP DESIGN



PLAN VIEW

JOINT PLACEMENT FOR CONCRETE MOW STRIP

GUARDRAIL MOW STRIP

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 14B28 - 04a

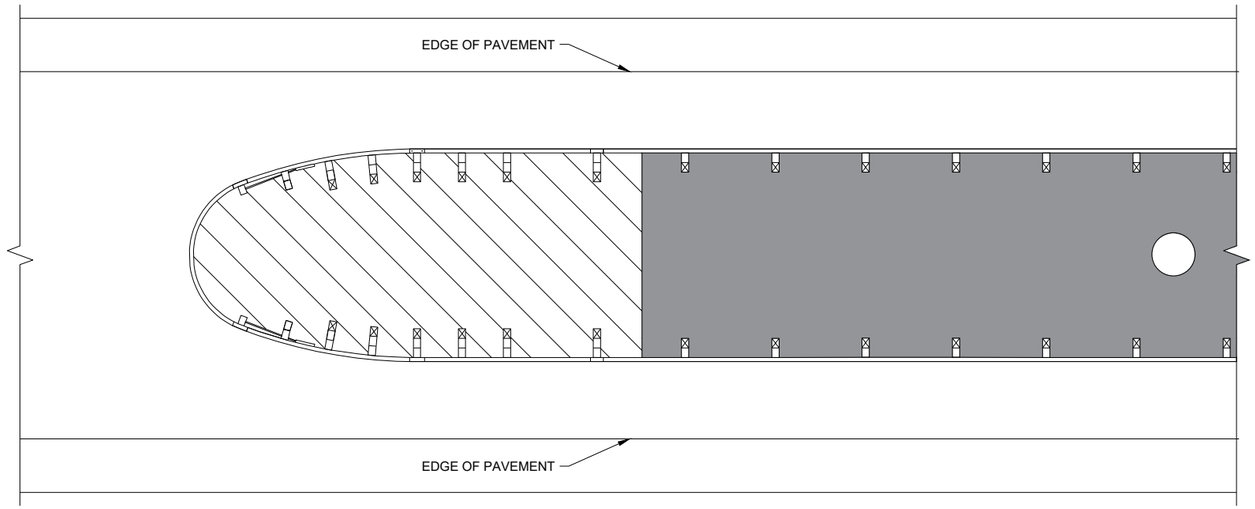
LEGEND

CONCRETE, ASPHALT, OR EMULSIFIED ASPHALT MOW STRIP (SEE OTHER DETAILS)

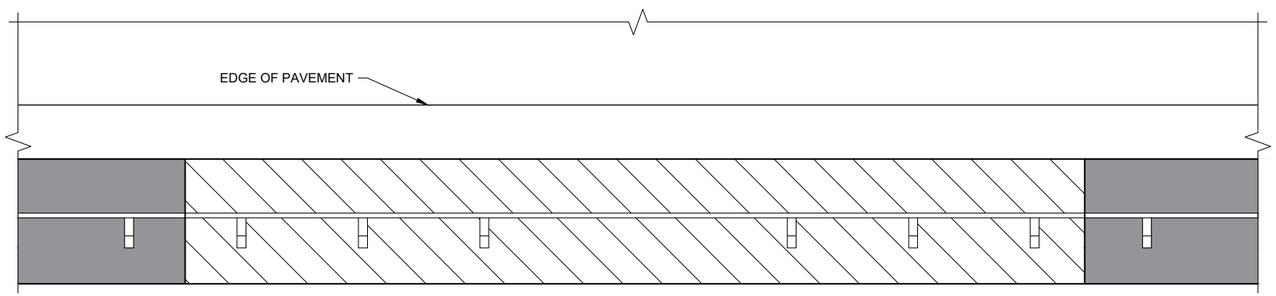
EMULSIFIED ASPHALT MOW STRIP (SEE OTHER DETAILS)

GENERAL NOTES

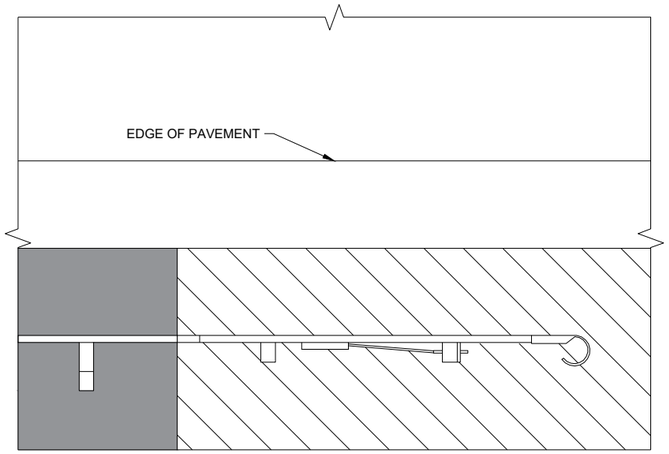
EXISTING THRIE BEAM BULLNOSES MAY HAVE WOOD POSTS. NEW THRIE BEAM BULLNOSE WILL HAVE STEEL POSTS.



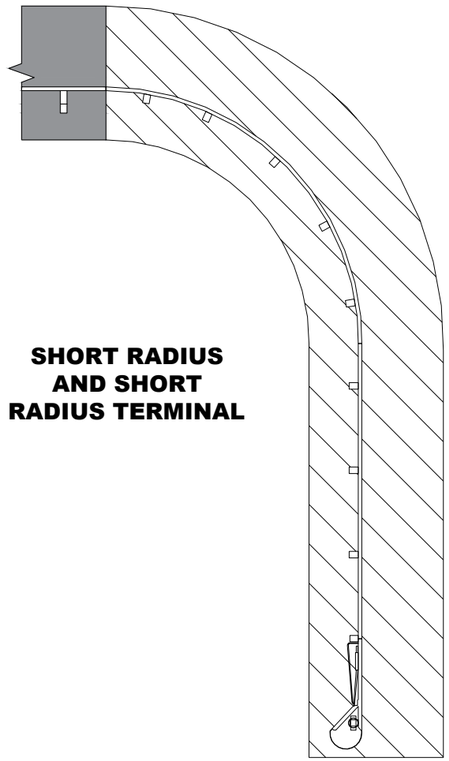
THRIE BEAM BULLNOSE



LONG - SPAN



TYPE 2 TERMINAL



SHORT RADIUS AND SHORT RADIUS TERMINAL

GUARDRAIL MOW STRIP

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
August 2020
DATE

/S/ Rodney Taylor
ROADWAY STANDARDS DEVE ENGINEER

FHWA

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SDD 14B28 - 04b

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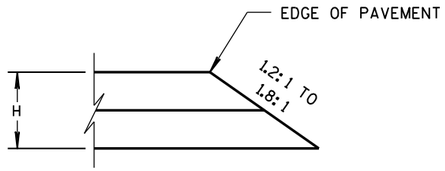
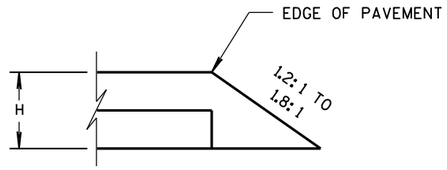


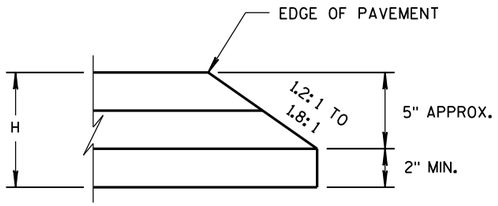
CONSTRUCTED WITH FINAL TWO LAYERS

FOR H 5" OR LESS



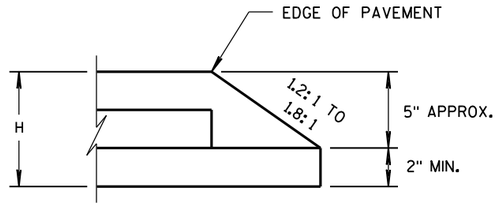
CONSTRUCTED WITH FINAL LAYER

FOR H 5" OR LESS



CONSTRUCTED WITH FINAL TWO LAYERS

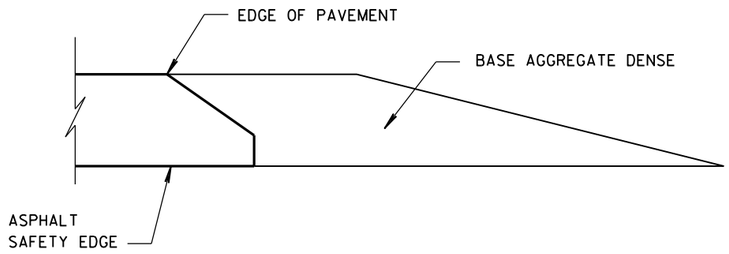
FOR H GREATER THAN 5"



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.

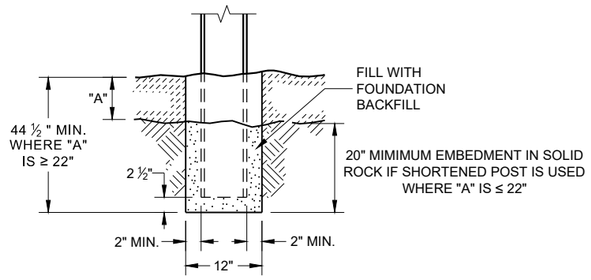
(3) IF ROCK IS ENCOUNTERED DURING EXCAVATION, PROVIDE A HOLE 12 INCHES IN DIAMETER EXTENDING 20 INCHES DEEP INTO THE ROCK. PLACE APPROXIMATELY 2 1/2" INCHES OF GRANULAR MATERIAL IN THE BOTTOM OF THE HOLE. CUT THE POSTS THE TO LENGTH AMD INSTALL. BACKFILL WITH EXCAVATED MATERIAL AND COMPACT. BACKFILL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

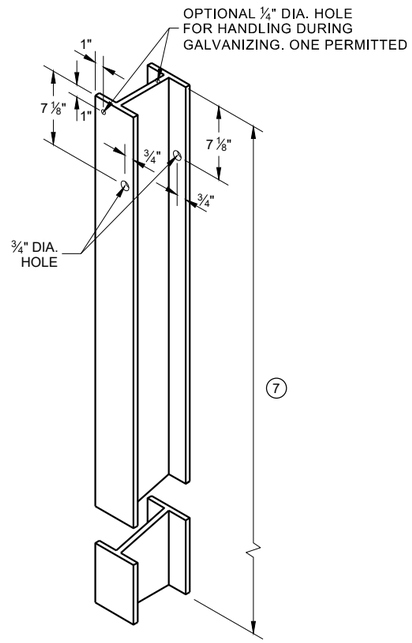
(5) FOR NEW MGS INSTALLATION TOP OF W-BEAM RAIL TOLERANCE IS ±1". FOR EXISTING MGS INSTALLATION TOP OF W-BEAM IS BETWEEN 27 ¾" TO 32".

(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.

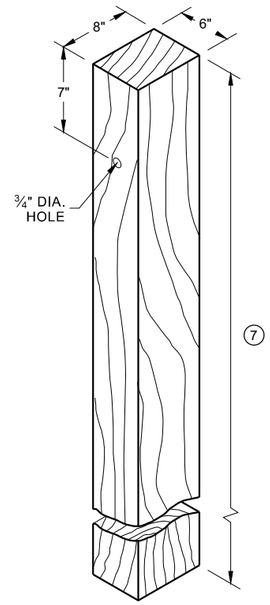
(7) TOTAL POST LENGTH FOR TYPE K IS 7' - 0".
TOTAL POST LENGTH FOR OTHER MGS TYPES IS 6' - 0".



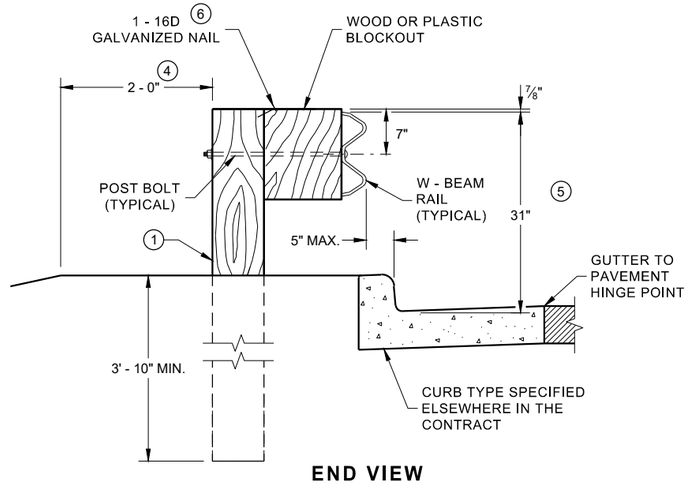
END VIEW
SETTING STEEL OR WOOD POST IN ROCK (3)



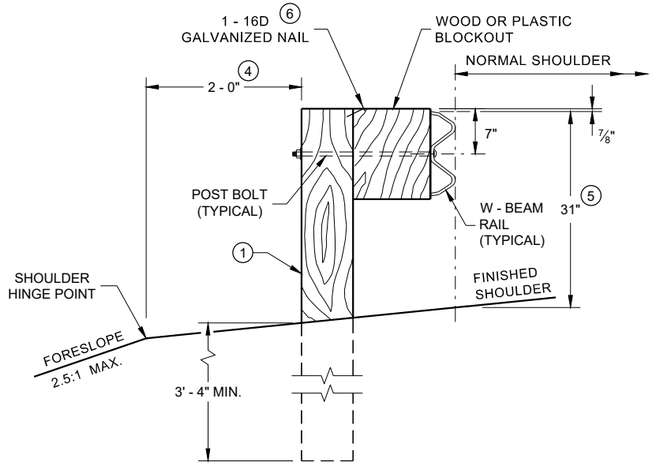
STEEL POST & HOLE PUNCHING DETAIL (W 6 X 9) (1)



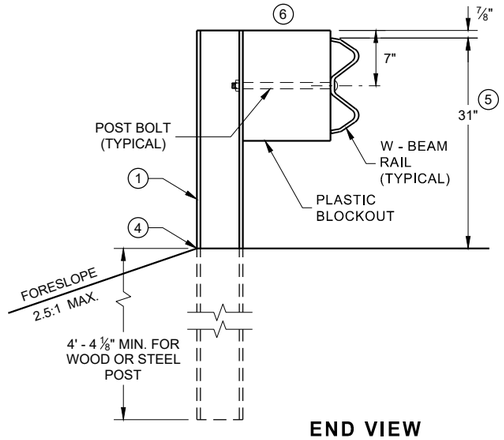
WOOD POST (6" X 8") NOMINAL (1)



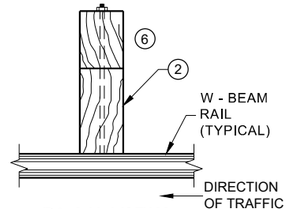
END VIEW
LOCATED ALONG A CURBED ROADWAY



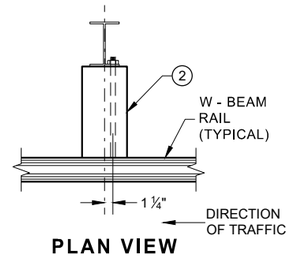
END VIEW
LOCATED ALONG A ROADWAY SHOULDER STANDARD INSTALLATION



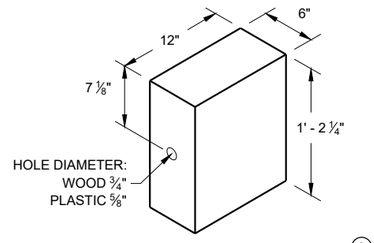
END VIEW
MGS LONGER POST AT HALFPOST SPACING W BEAM (K)



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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SDD 14B42 - 07a

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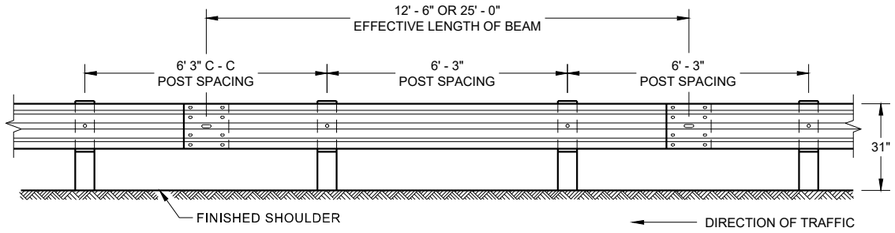
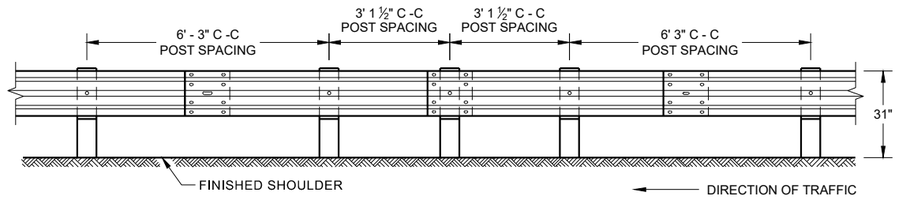
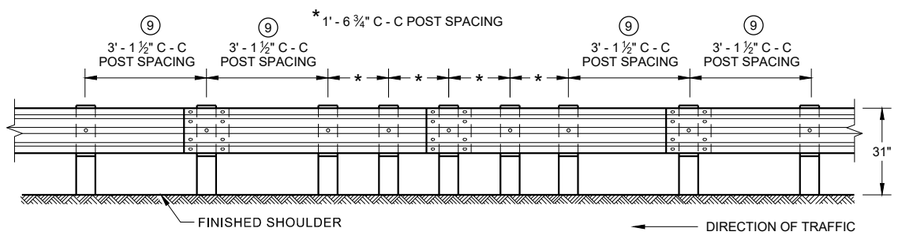
SDD 14B42 - 07a



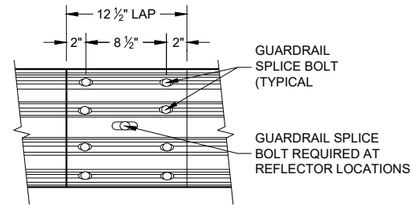
FRONT VIEW
POST SPACING STANDARD INSTALLATION



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



FRONT VIEW
QUARTER POST SPACING (QS)



FRONT VIEW
MID-SPAN BEAM SPLICE

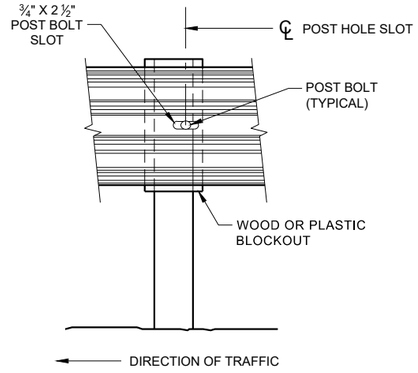
GENERAL NOTES

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

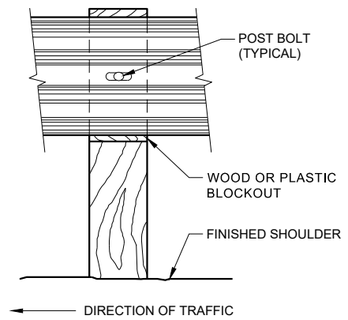
⑨ 25 FEET OF HALF POST SPACING IS REQUIRED ON APPROACH AND DEPARTURE ENDS OF QUARTER POST SPACING.

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

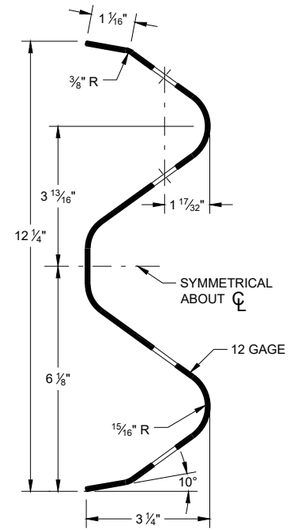
GUARD RAIL SPLICE BOLTS ARE A ⅝" DIAMETER ASTM A307 GUARDRAIL HEAD BOLT. A GUARDRAIL SPLICE BOLT REQUIRES ⅝" DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX NUT.



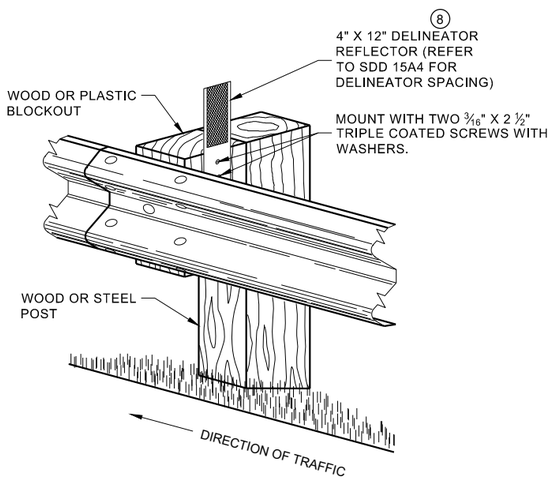
FRONT VIEW AT STEEL POST



FRONT VIEW AT WOOD POST



SECTION THRU W-BEAM RAIL

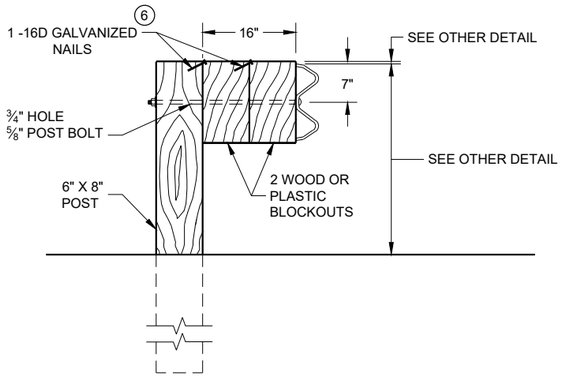


ONE SIDED REFLECTOR DETAIL AND TYPICAL INSTALLATION

MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6
SDD 14B42 - 07b

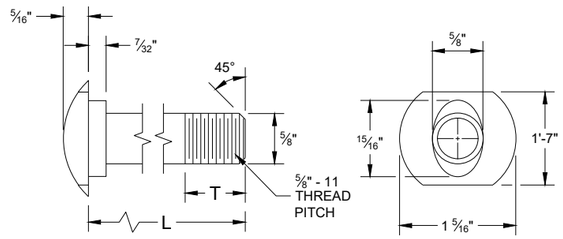


DETAIL FOR 16" BLOCKOUT DEPTH

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

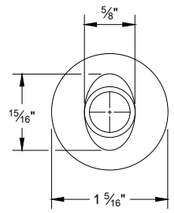
NOTE:

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

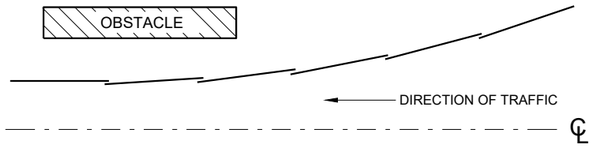


POST BOLT TABLE

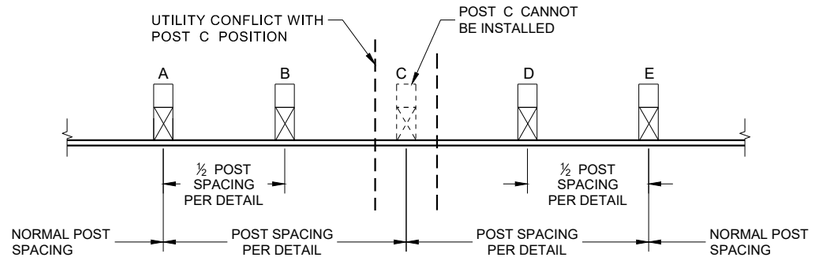
L	T (MIN.)
1 ¼"	1 ⅛"
2"	1 ¾"
10"	4"
14"	4 1⁄16"
18"	4"
21"	4 1⁄16"
25"	4"



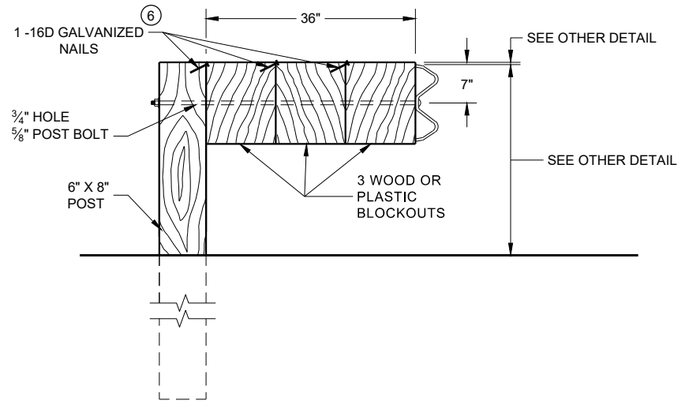
ALTERNATE BOLT HEAD



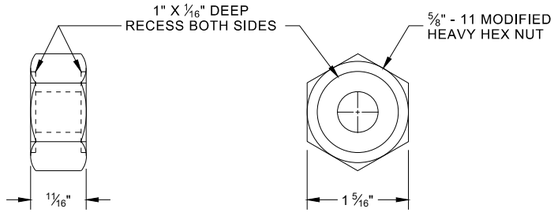
PLAN VIEW
BEAM LAPPING DETAIL



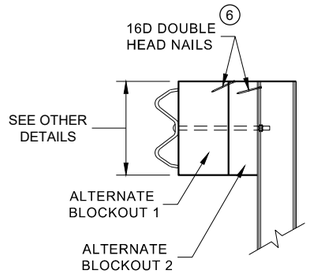
POST DRIVING FOR CONTINUOUS UNDERGROUND OBSTRUCTION



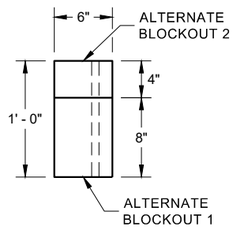
DETAIL FOR 36" BLOCKOUT DEPTH



POST BOLT, SPLICE BOLT AND RECESS NUT



SIDE VIEW



PLAN VIEW

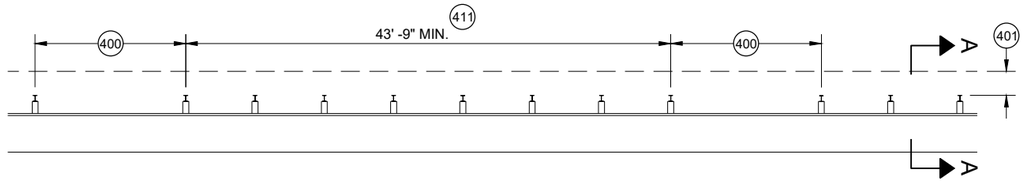
ALTERNATE WOOD BLOCKOUT DETAIL

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.

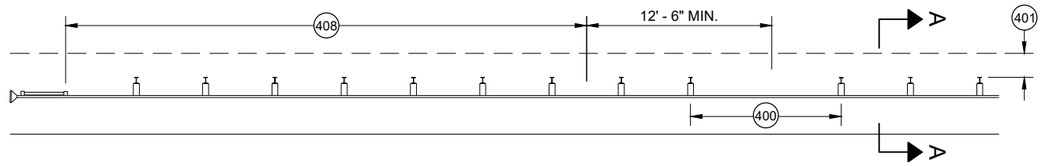
DO NOT USE 16" OR 36" BLOCKOUTS IF IT CAUSES THE POST TO BE DRIVEN BEYOND SHOULDER HINGE POINT OR CAUSES A FIXED OBJECT TO BE WITHIN THE DEFLECTION DISTANCE OF THE BARRIER.

(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.

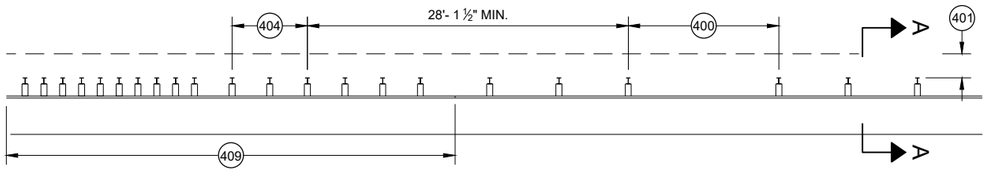
MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL



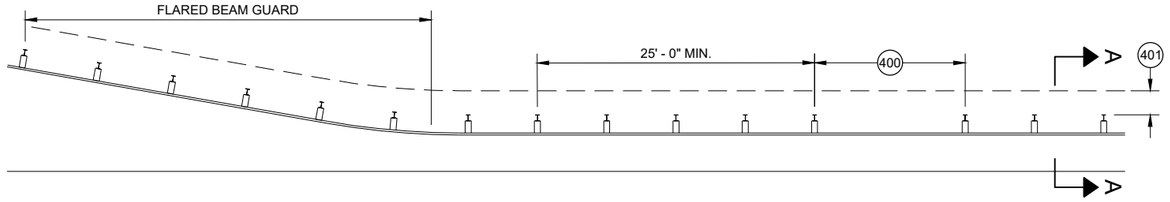
MISSING POST IN MGS GUARDRAIL



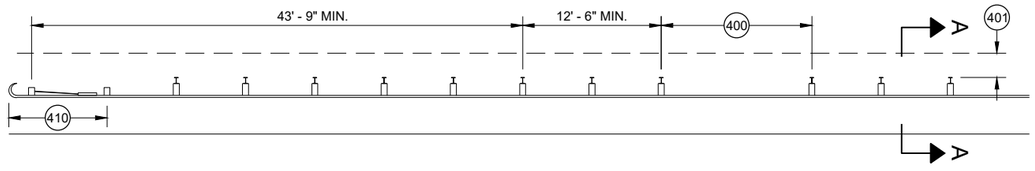
MISSING POST IN MGS GUARDRAIL NEAR EAT



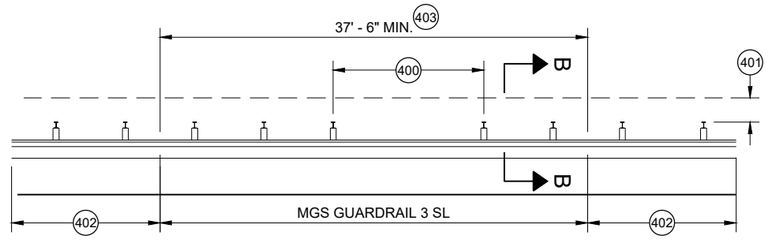
MISSING POST IN MGS GUARDRAIL NEAR AN APPROACH TRANSITION



MISSING POST IN MGS GUARDRAIL NEAR FLARED BEAM GUARD

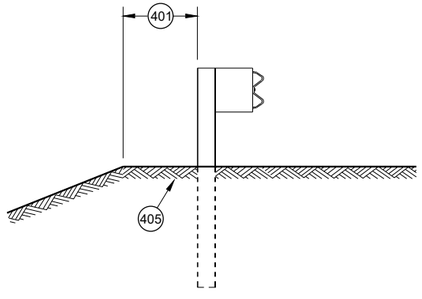


MISSING POST IN MGS GUARDRAIL NEAR A TYPE 2 END TERMINAL

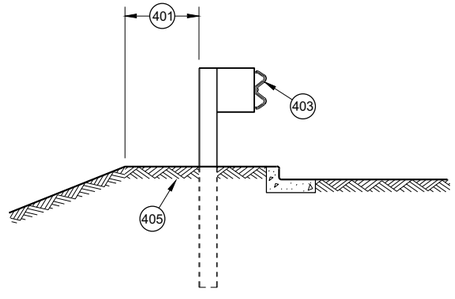


MISSING POST IN SHORT SPAN MGS GUARDRAIL NEAR CURB (SL) 407

(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

SDD 14B42 - 07d

GENERAL NOTES

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

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

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

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

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

DIMENSIONS MAY VARY, MANUFACTURER'S INFORMATION.

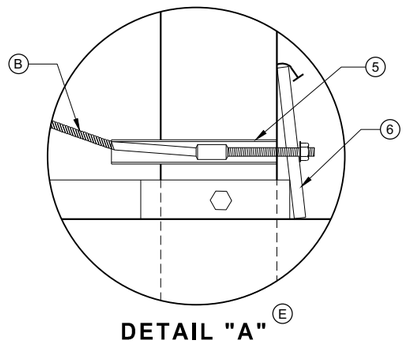
SEE SDD 14B42 FOR MORE INFORMATION.

* DO NOT ATTACH BLOCKOUTS TO POST 1 AND 2.

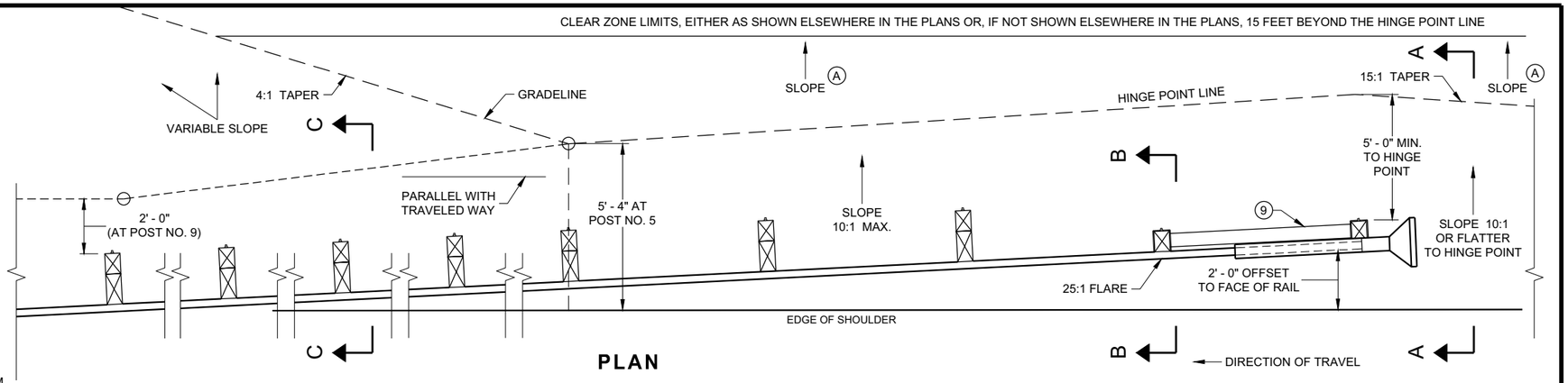
DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL.

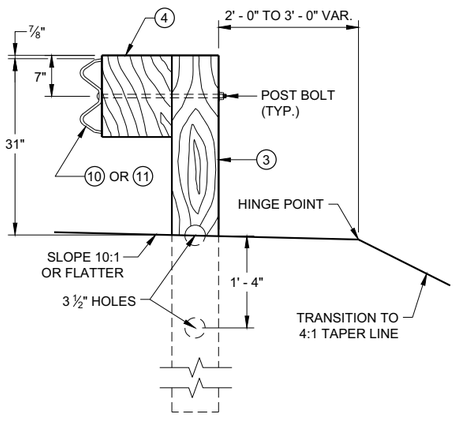
SEE MANUFACTURER'S DRAWING FOR SPLICE LOCATION, HARDWARE DIMENSIONS AND INSTALLATION INSTRUCTIONS.

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

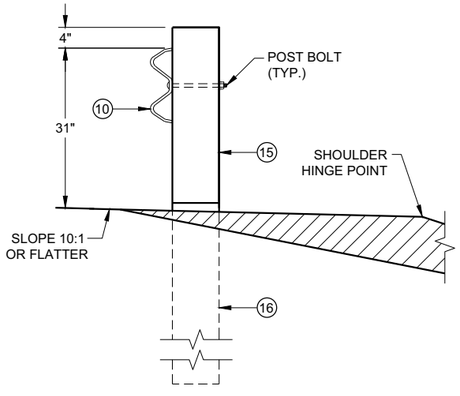


DETAIL "A" (E)

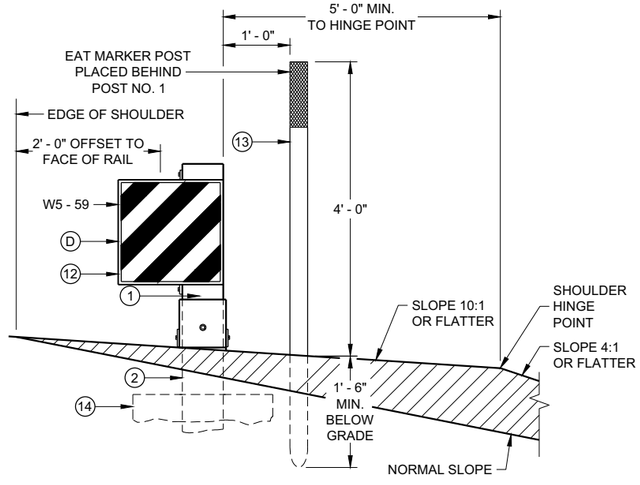




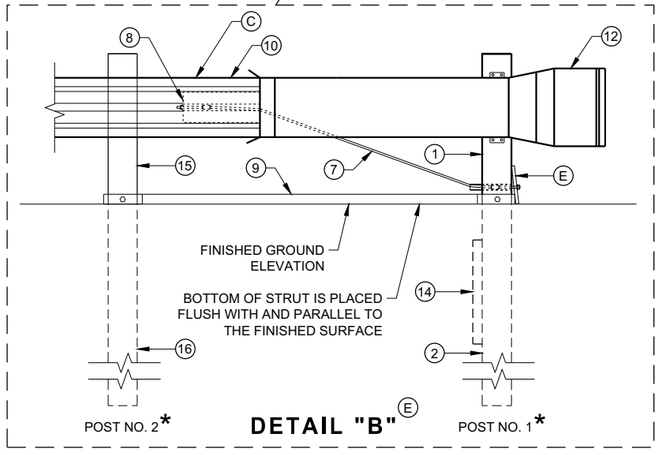
SECTION C - C
TYPICAL AT POST NOS. 3 - 9



SECTION B - B
TYPICAL AT POST NO. 2*



SECTION A - A
TYPICAL AT POST NO. 1*



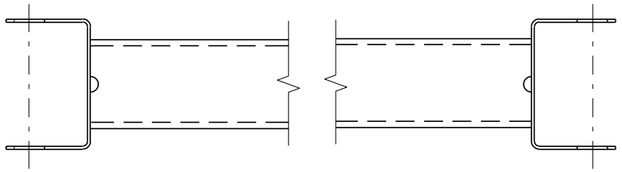
DETAIL "B" (E)

MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

SDD 14B44 - 04a

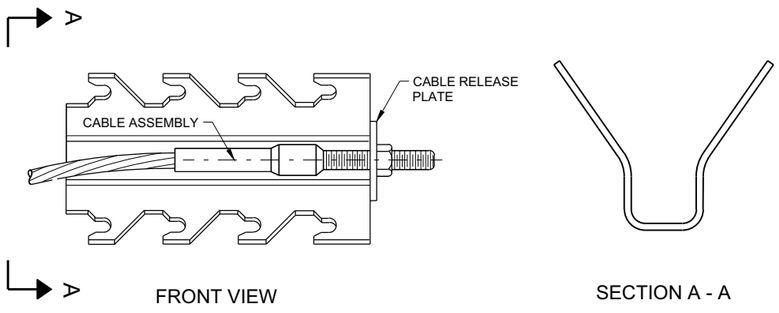
SDD 14B44 - 04a



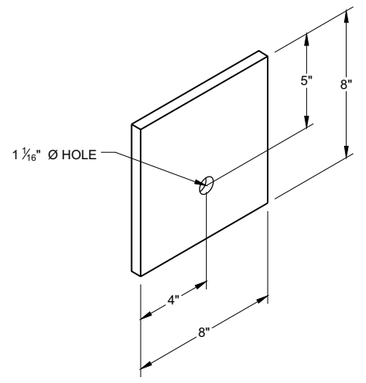
GENERIC GROUND STRUT ⑨ Ⓔ

BILL OF MATERIALS

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



GENERIC ANCHOR CABLE BOX ⑨ Ⓔ



BEARING PLATE ⑥ Ⓔ

6

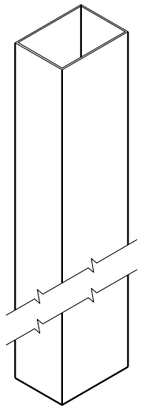
6

SDD 14B44 - 04b

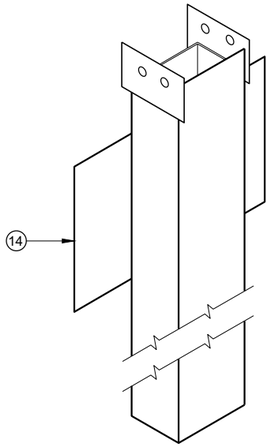
SDD 14B44 - 04b

MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL
(MGS)

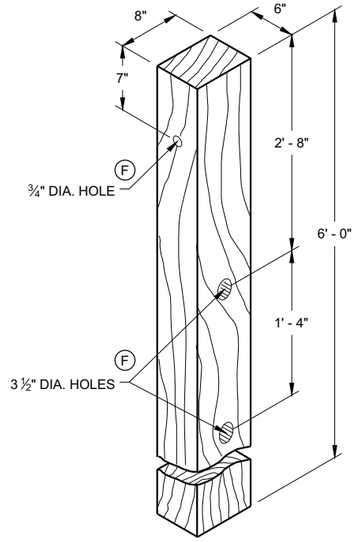
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



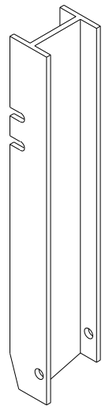
UPPER POST NO. 1 (1) (E)



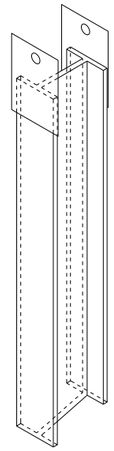
LOWER POST NO. 1 (2) (E)



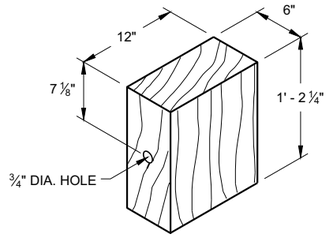
WOOD CRT POST (3) (E)
POSTS NUMBER 3-9



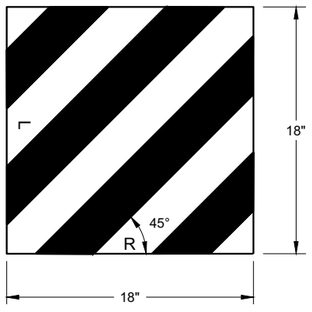
UPPER POST NO. 2 (15) (E)



LOWER POST NO. 2 (16) (E)

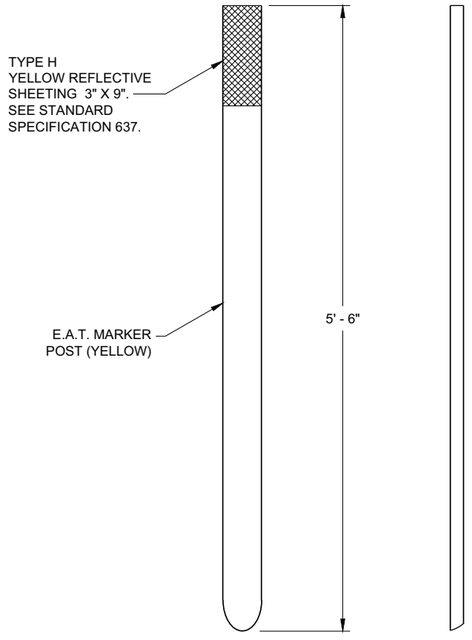


WOOD BLOCKOUT (4)
REQ'D. AT ALL POSTS EXCEPT POST NO'S 1 & 2



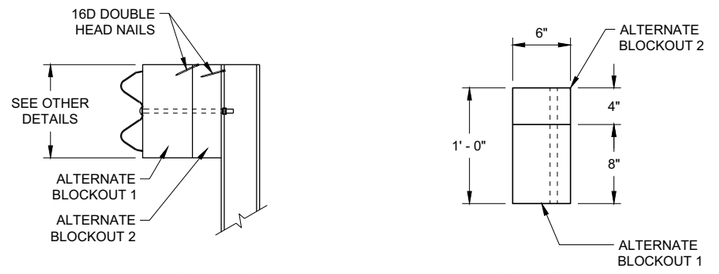
W5 - 59

REFLECTIVE SHEETING DETAIL (E)



FRONT VIEW SIDE VIEW

E.A.T. MARKER POST (13)



SIDE VIEW TOP VIEW

ALTERNATE WOOD BLOCKOUT DETAIL

MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)

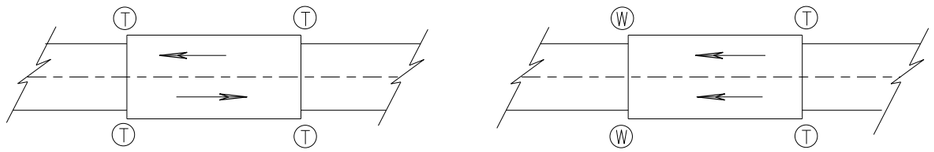
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

FHWA

6

SDD 14B44 - 04c



TWO WAY TRAFFIC

ONE WAY TRAFFIC

(T) THRIE BEAM CONNECTION

(W) W-BEAM CONNECTION WHEN REQUIRED

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

GENERAL NOTES

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

TRANSITION USES STEEL POSTS ONLY.

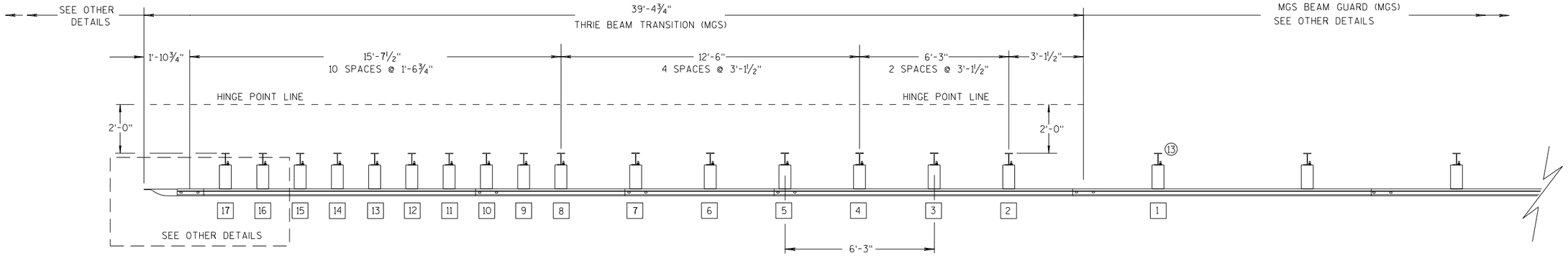
SEE STANDARD DETAIL DRAWING 14 B 42 FOR MORE INFORMATION.

POST 2 THROUGH 17 USES STEEL POST ONLY

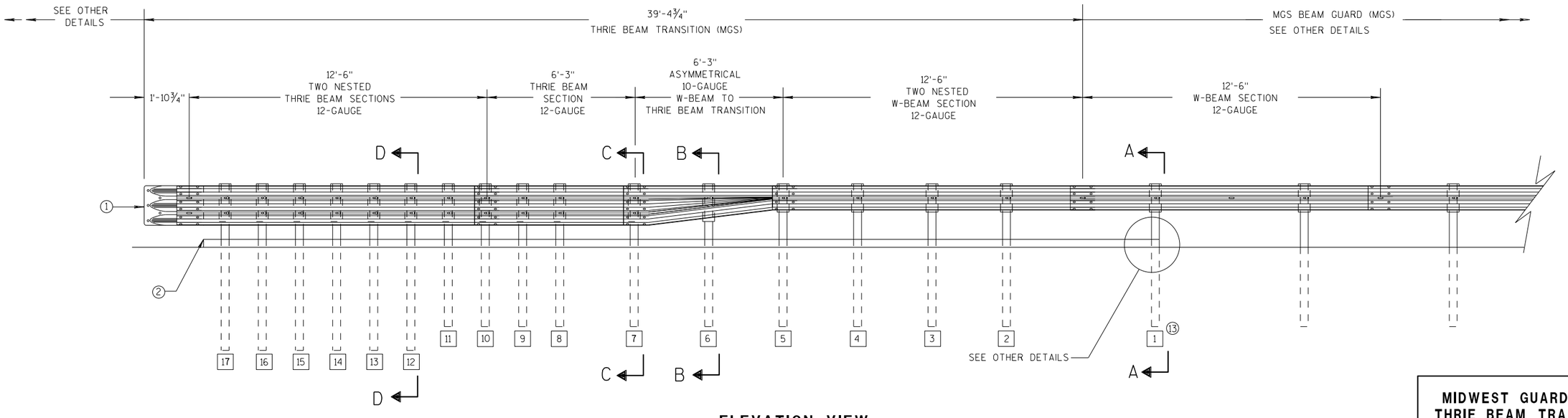
(1) BRIDGE RAILING TYPE "W" DOES NOT REQUIRE A TERMINAL CONNECTOR.

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

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



PLAN VIEW



ELEVATION VIEW

MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

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

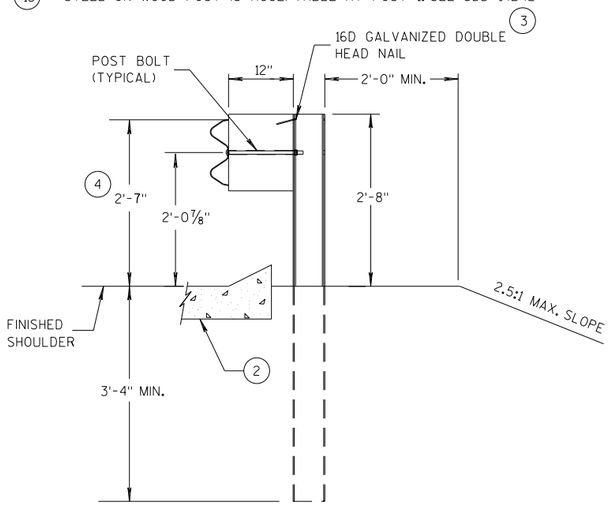
GENERAL NOTES

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

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

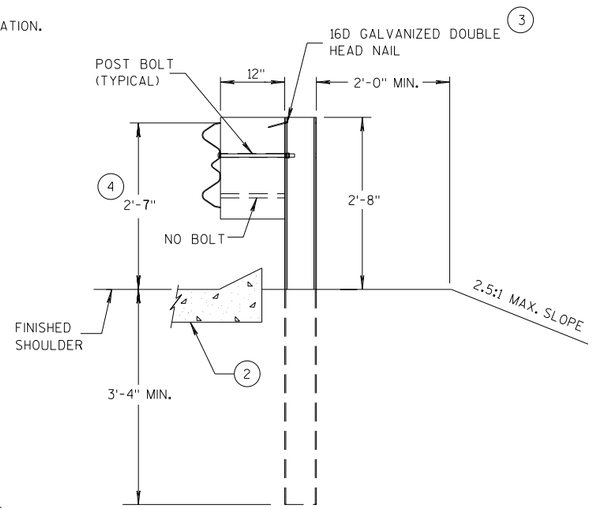
(4) TOLERANCE FOR TOP OF W-BEAM RAIL IS ± 1".

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



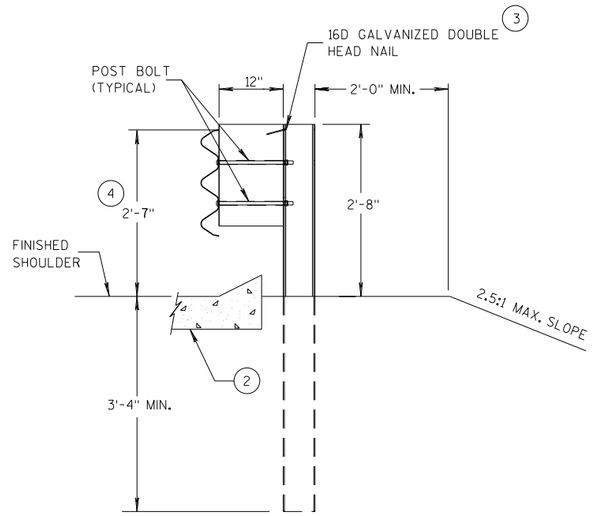
SECTION A-A (13)

POSTS 1-5



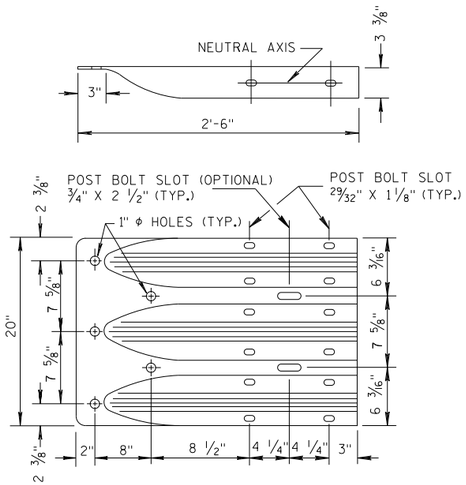
SECTION B-B

POST 6

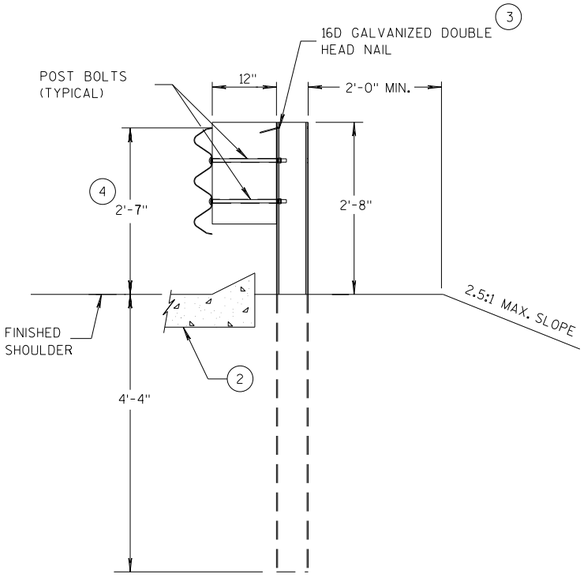


SECTION C-C

POSTS 7-11

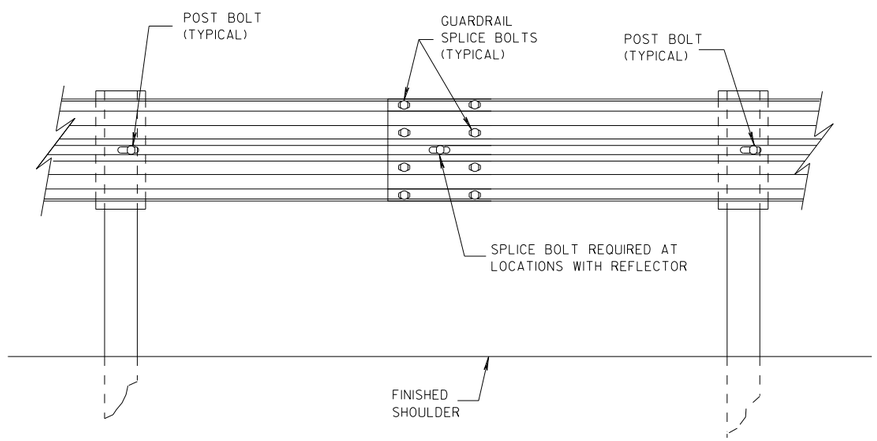


THRIE BEAM TERMINAL CONNECTOR



SECTION D-D

POSTS 12-17



SPLICE DETAIL

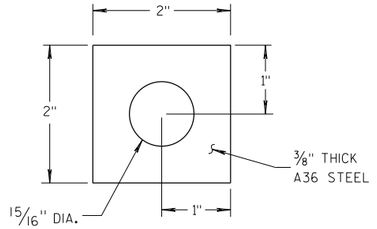
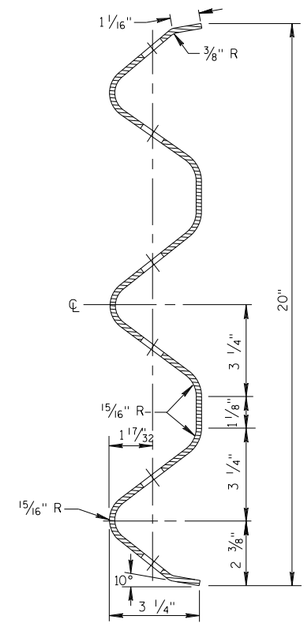


PLATE WASHER DETAIL



SECTION THRU THRIE BEAM RAIL ELEMENT

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

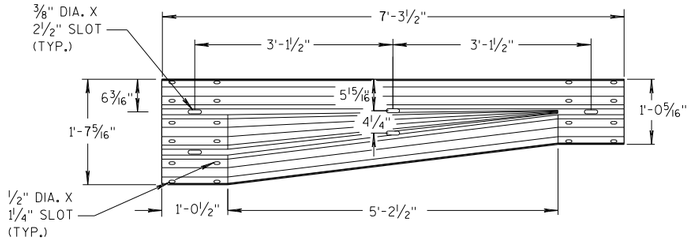
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR 79

6

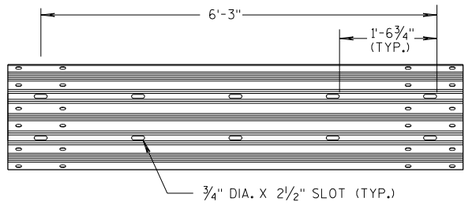
S.D.D. 14 B 45-5b

6

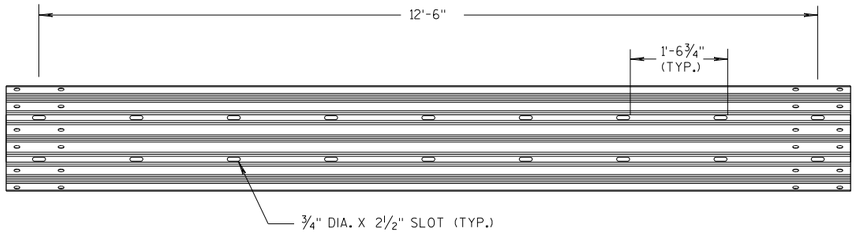
S.D.D. 14 B 45-5b



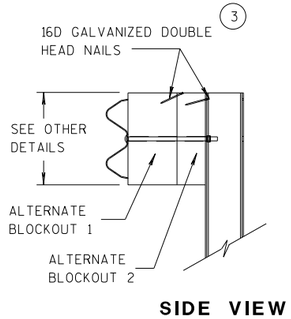
W-BEAM TO THRIE BEAM TRANSITION SECTION



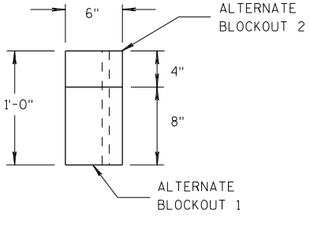
6'-3" THRIE BEAM SECTION



12'-6" THRIE BEAM SECTION

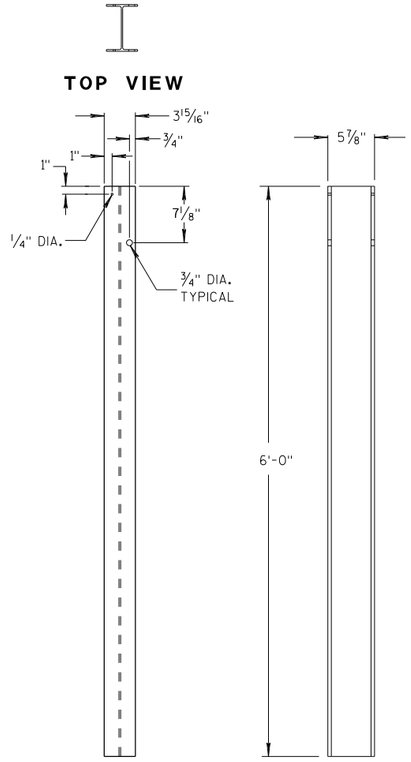


SIDE VIEW



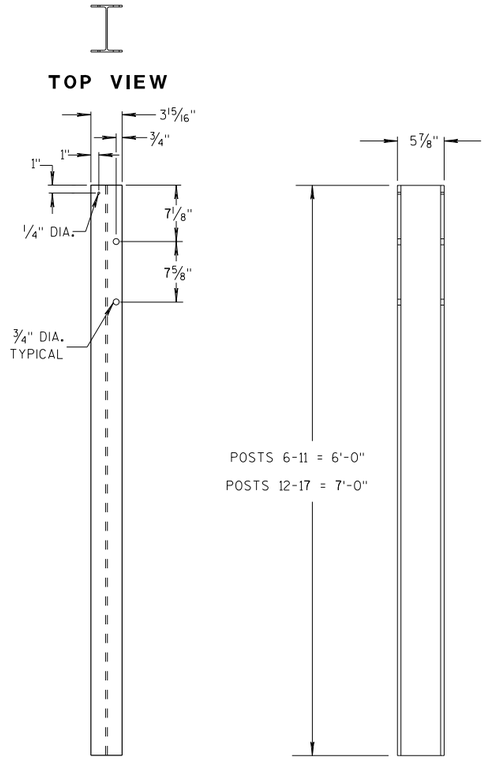
TOP VIEW

ALTERNATE WOOD BLOCKOUT DETAIL



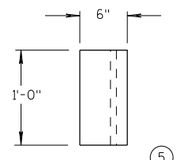
FRONT VIEW SIDE VIEW

STEEL POSTS 1-5 (13)

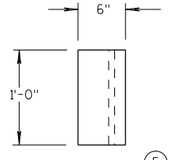


FRONT VIEW SIDE VIEW

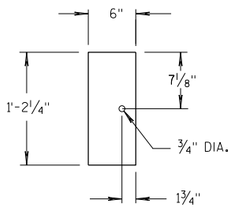
STEEL POSTS 6-17



TOP VIEW (5)

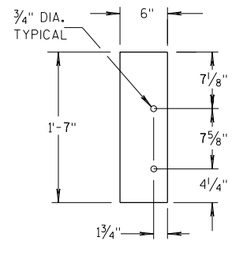


TOP VIEW (5)



FRONT VIEW

BLOCKOUT POSTS 1-5



FRONT VIEW

BLOCKOUT POSTS 6-17

GENERAL NOTES

STEEL POSTS ARE W6X9 OR W6X8.5.

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

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

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

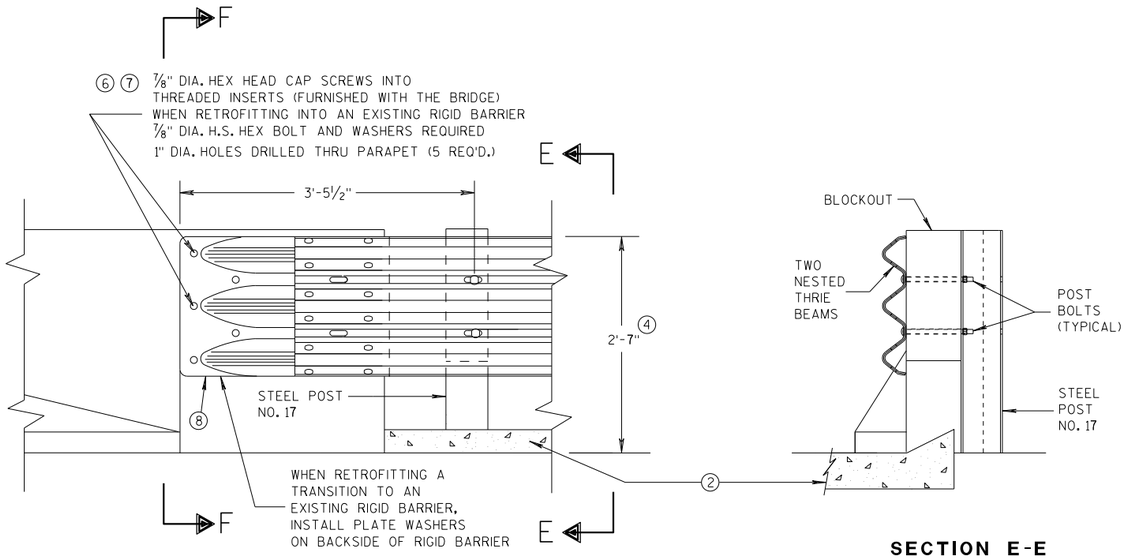
(13) STEEL OR WOOD POST IS ACCEPTABLE AT POST 1. SEE SDD 14B42.

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOF

6

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



FRONT VIEW

SECTION E-E

THRIE BEAM CONNECTION TO BRIDGE PARAPET WITH SQUARE ENDS

GENERAL NOTES

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

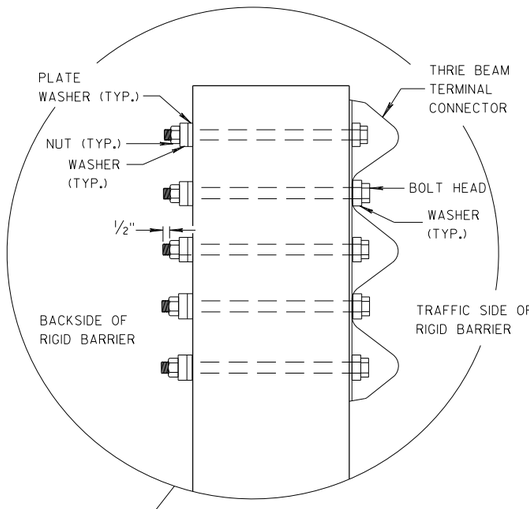
② OPTIONAL CURB AND GUTTER OR DRAINAGE FEATURE SEE PLAN FOR INFORMATION.

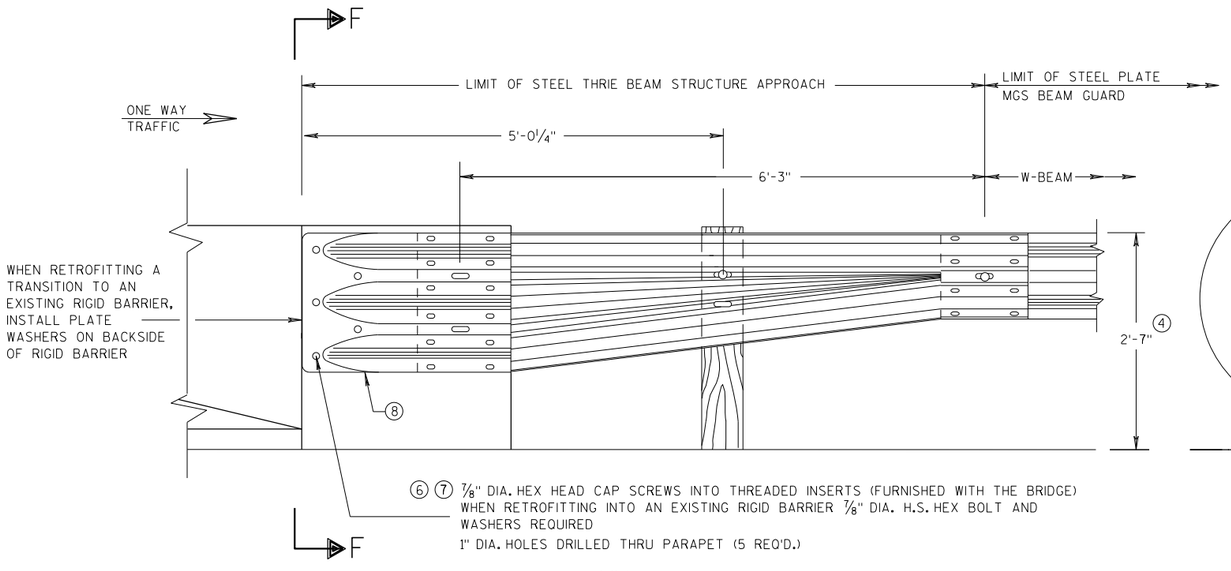
④ TOLERANCE FOR TOP OF BEAM IS ± 1".

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

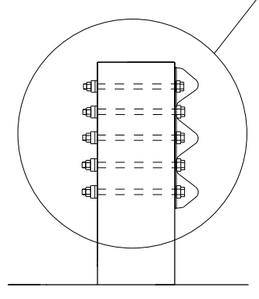
⑦ BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE.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

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

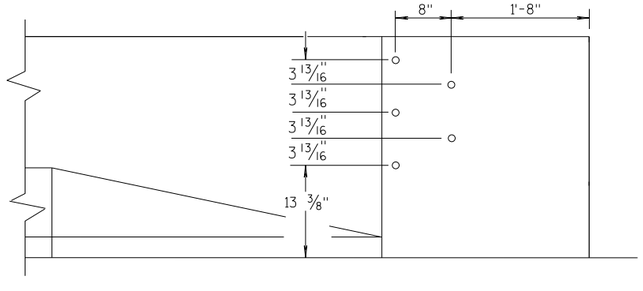




FRONT VIEW



SECTION F-F



DRILL HOLE LOCATION

W BEAM TRANSITION AND CONNECTION TO BRIDGE PARAPETS WITH SQUARE ENDS

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

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

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

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

GENERAL NOTES

COVER PLATE PANELS ARE 3/16" THICK.

ALL STIFFENERS ARE 1/4" THICK.

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

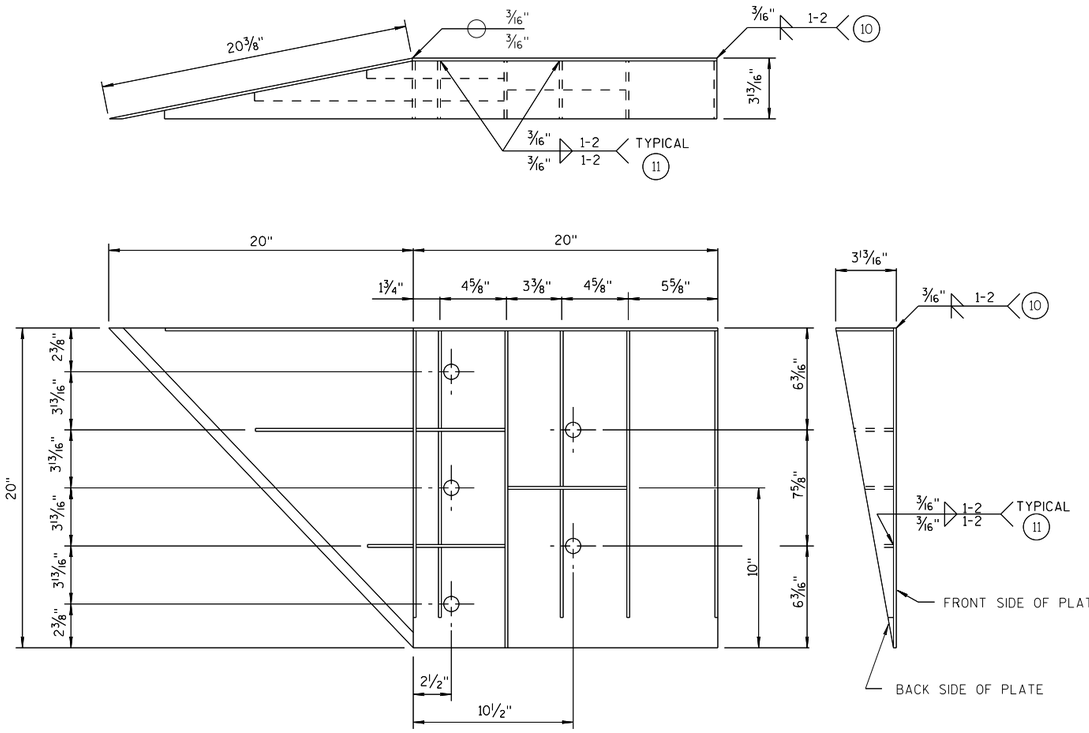
FOR GALVANIZED REQUIREMENTS, SEE SECTION 614 OF THE STANDARD SPECIFICATIONS.

ALL HOLE DIAMETERS SHALL BE 1".

FOR OPPOSITE SIDE INSTALLATION MIRROR DRAWINGS.

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

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



WELDING INSTRUCTION

(VIEWED FROM BACK SIDE OF PLATE)

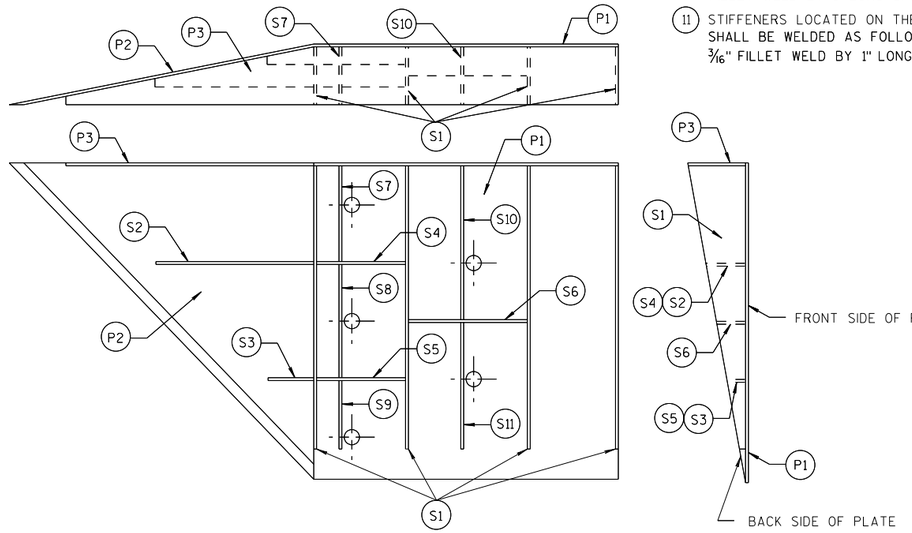


PLATE AND STIFFENER IDENTIFICATION

(VIEWED FROM BACK SIDE OF PLATE)

CONNECTOR PLATE DIMENSION (PER ASSEMBLY)

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

SINGLE SLOPE CONNECTION PLATE

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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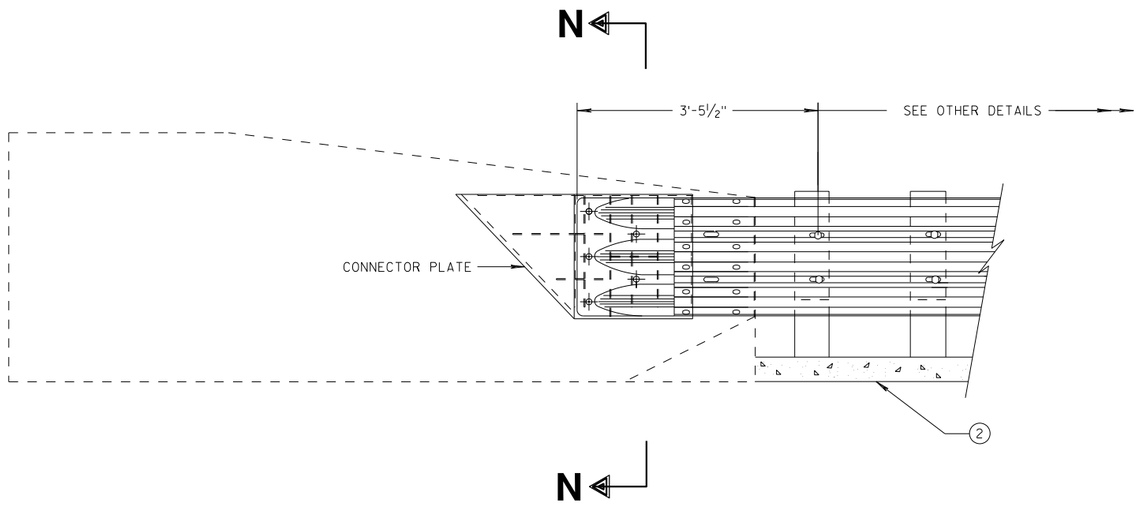
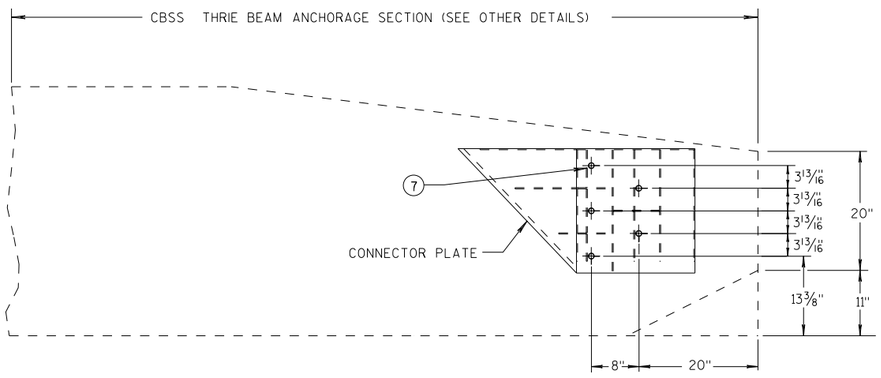


THRIE BEAM CONNECTION TO SINGLE SLOPE BARRIER



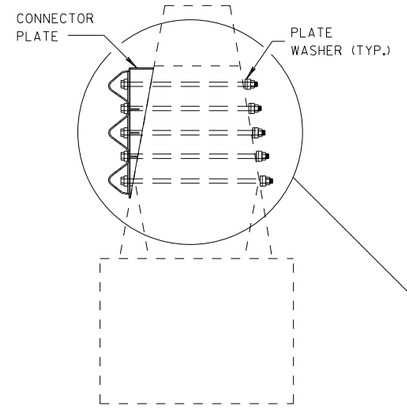
SINGLE SLOPE CONNECTION PLATE PLACEMENT

GENERAL NOTES

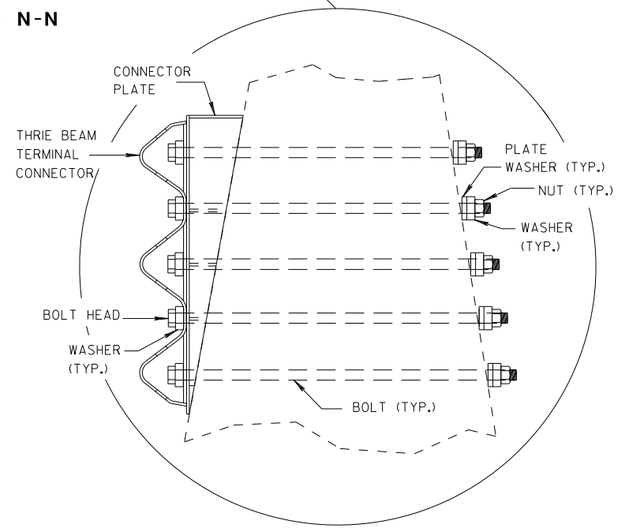
CONNECTOR PLATE, DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

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

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



SECTION N-N



MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
7/2018
DATE
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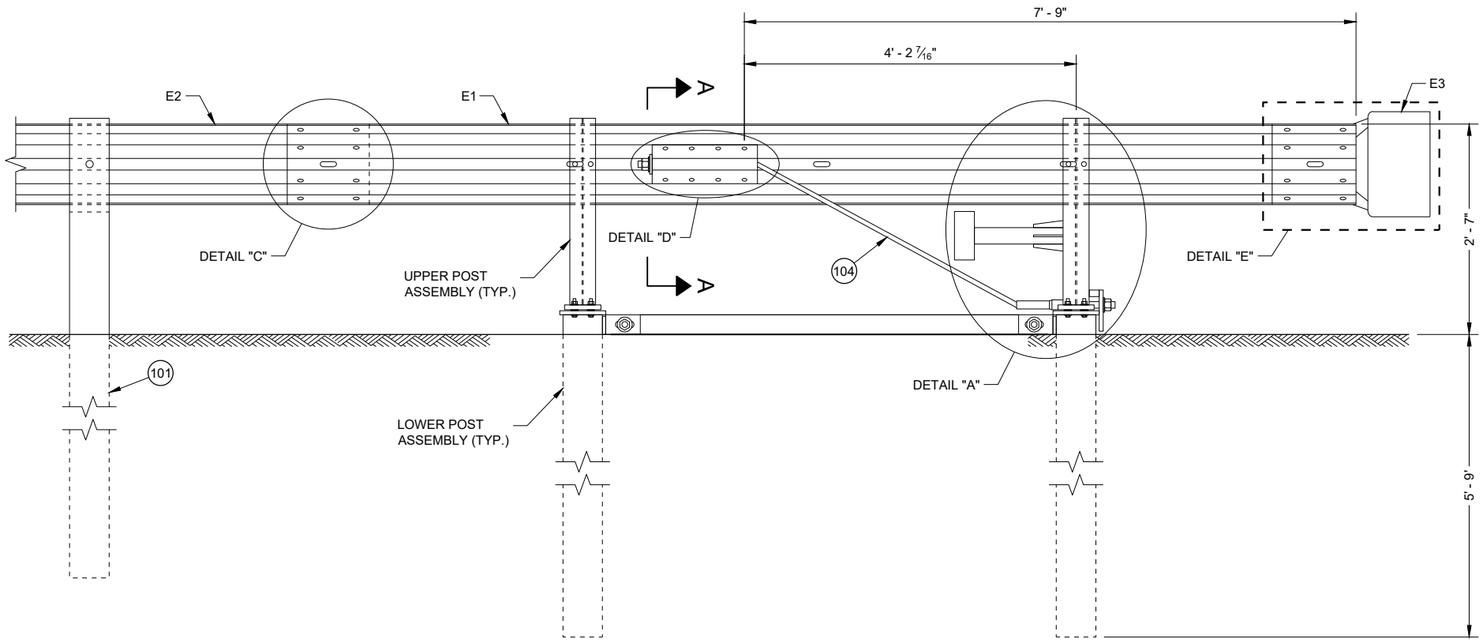
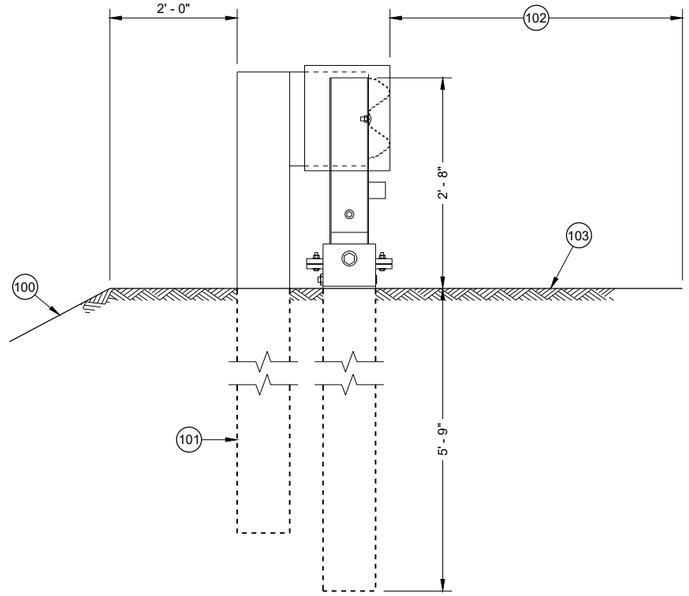
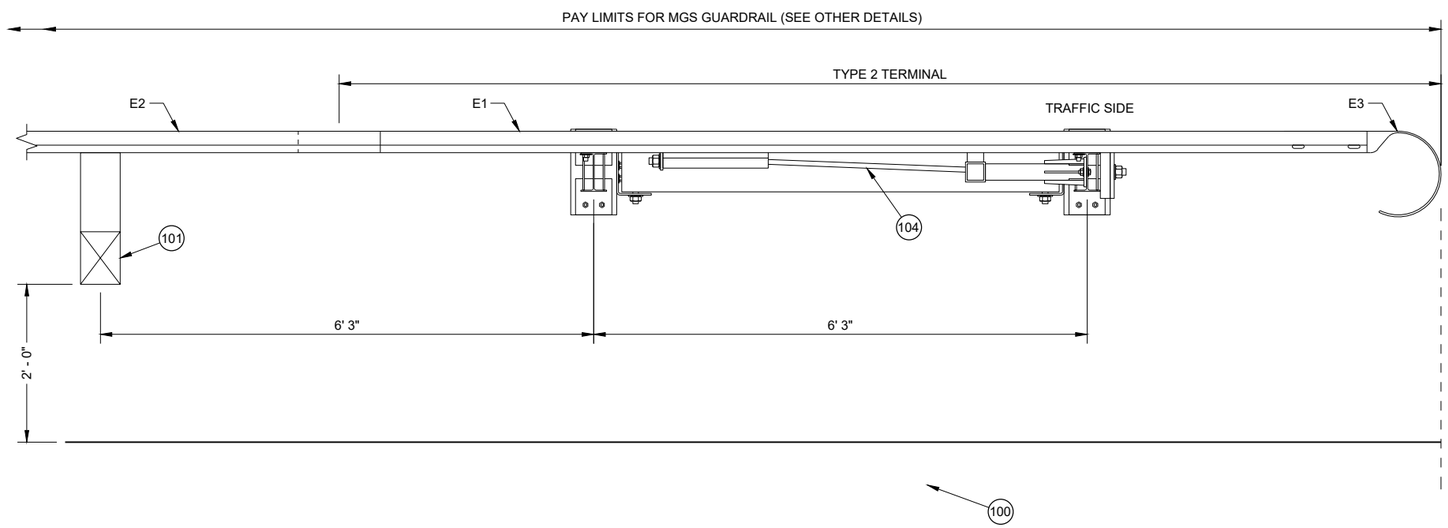
S.D.D. 14 B 45-5j



BACK VIEW
TYPE 2 TERMINAL



SIDE VIEW
TYPE 2 TERMINAL



TOP VIEW
TYPE 2 TERMINAL

GENERAL NOTES

(100) MAXIMUM SLOPE IS 2.5:1.

(101) SEE SDD 14B42 FOR MORE INFORMATION.

(102) SHOULDER

(103) MAXIMUM SLOPE IS 10:1.

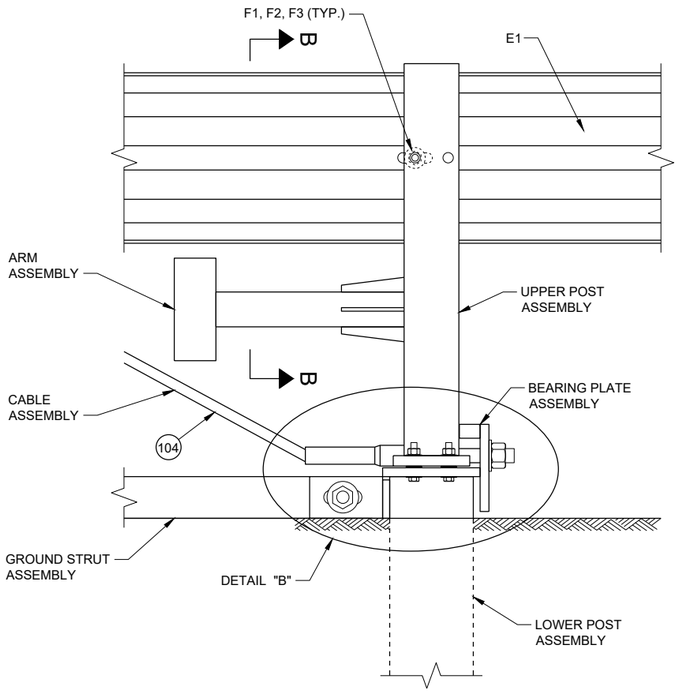
(104) AFTER ASSEMBLY, CABLE IS TO BE TIGHTENED WITHOUT TWISTING THE CABLE.

MIDWEST GUARDRAIL SYSTEM (MGS)
TYPE 2 TERMINAL

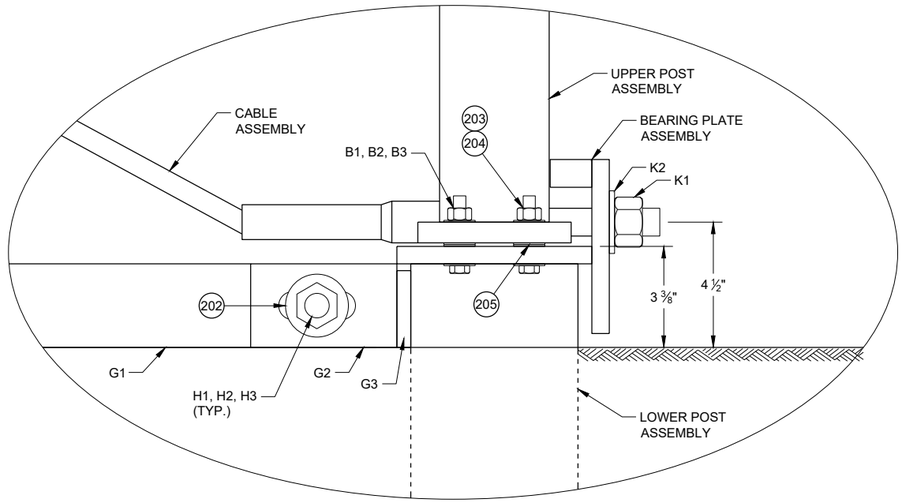
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 14B47 - 05a



DETAIL "A"



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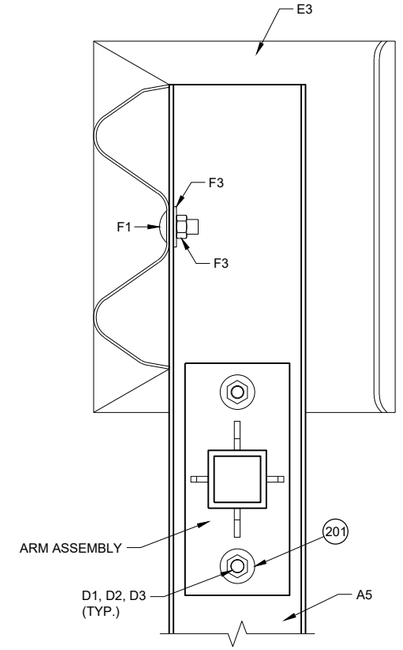
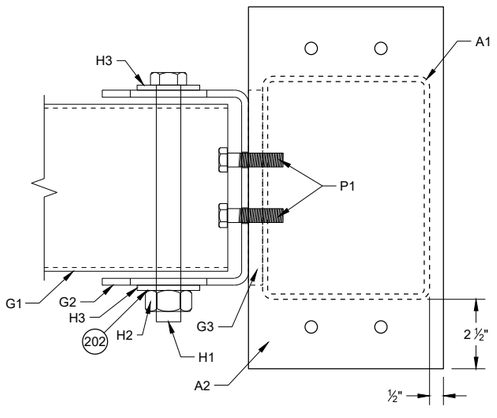
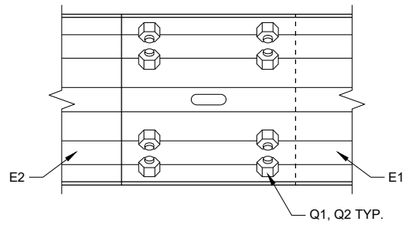


SECTION B - B



TOP VIEW

GROUND STRUT CONNECTION DETAIL



DETAIL "C"

GENERAL NOTES

200 INSTALL ONE WASHER UNDER BOLT HEAD AND RAIL AND ON WASHER BETWEEN NUT AND ANCHOR BRACKET ASSEMBLY.

201 INSTALL ONE WASHER UNDER BOLT HEAD AND UPPER POST ASSEMBLY AND ONE WASHER BETWEEN NUT AND ARM PLATE.

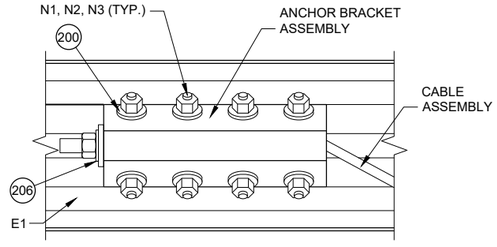
202 INSTALL ONE WASHER UNDER BOLT HEAD AND GROUND STRUT CONNECTOR AND ONE WASHER BETWEEN NUT AND GROUND STRUT CONNECTOR.

203 INSTALL ONE WASHER UNDER BOLT HEAD AND LOWER POST ASSEMBLY AND ONE WASHER BETWEEN NUT AND UPPER POST ASSEMBLY.

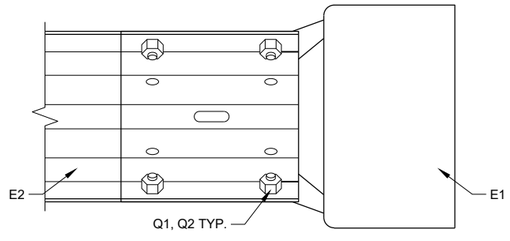
204 TORQUE VALUE IS BETWEEN 60 - 75 FT-LB.

205 TWO WASHERS BETWEEN UPPER AND LOWER POST ASSEMBLY.

206 INSTALL ONE WASHER BETWEEN NUT AND ANCHOR BRACKET ASSEMBLY.



DETAIL "D"



DETAIL "E"

MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL

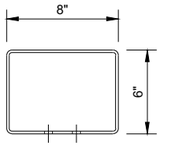
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

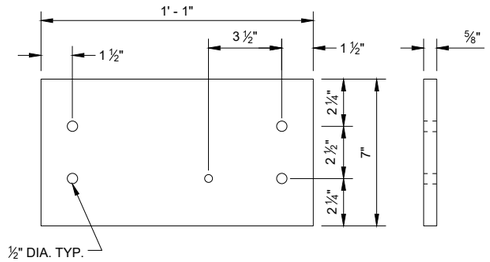
SDD 14B47 - 05b

GENERAL NOTES

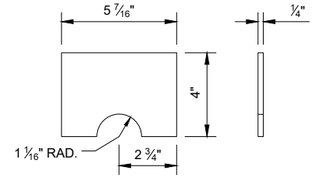
(300) TAP FOR 1/2" AFTER GALVANIZATION



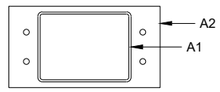
TOP VIEW



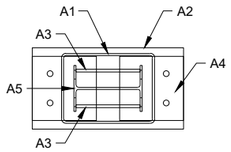
LOWER PLATE (A2)

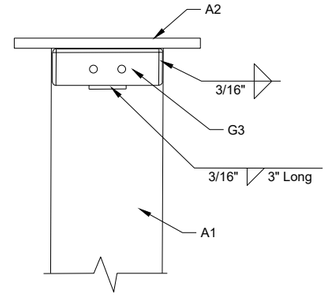


POST GUSSET (A3)

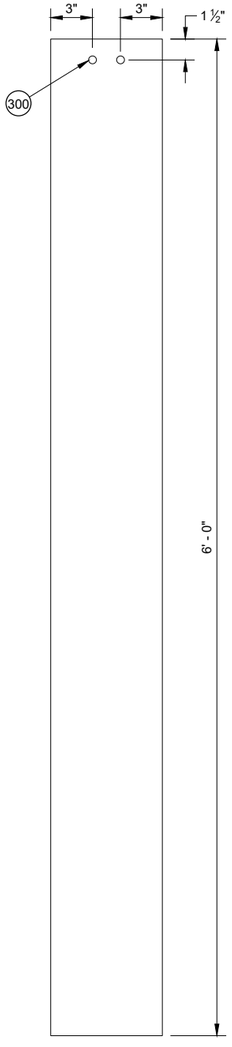


PLAN VIEW



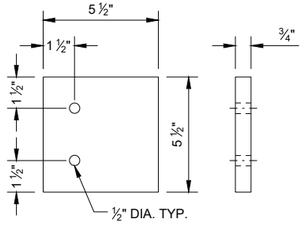


WELDING DETAIL
G3 AND A1

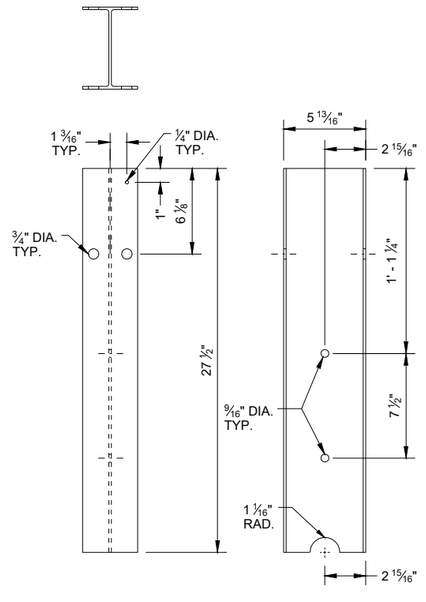


SIDE VIEW

FOUNDATION TUBE (A1)

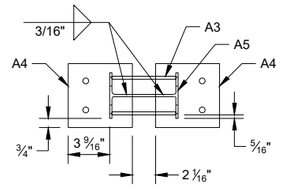


UPPER PLATE (A4)

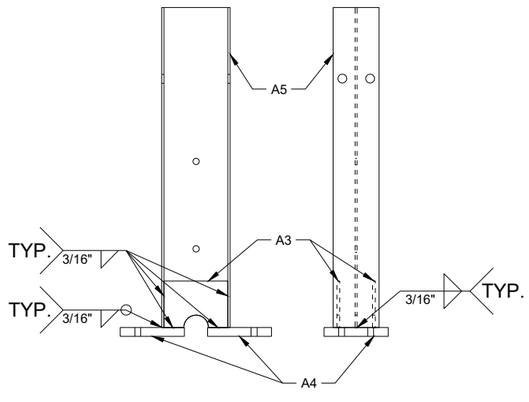


FRONT VIEW SIDE VIEW

TYPE 2 POST (A5)

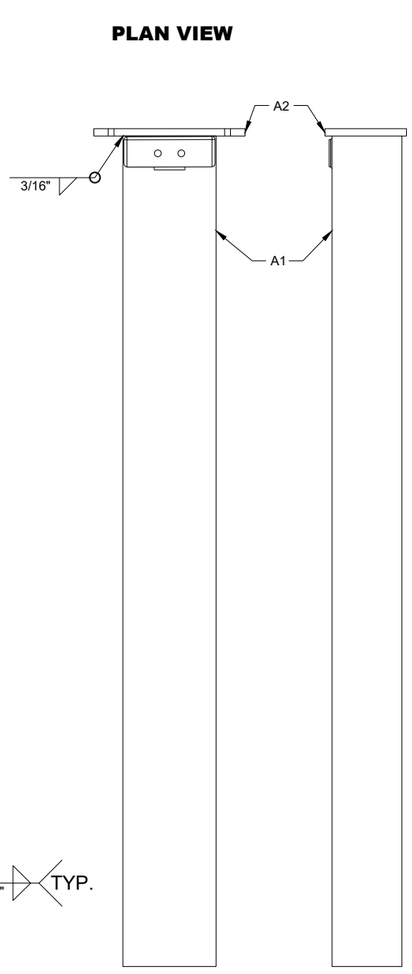


PLAN VIEW



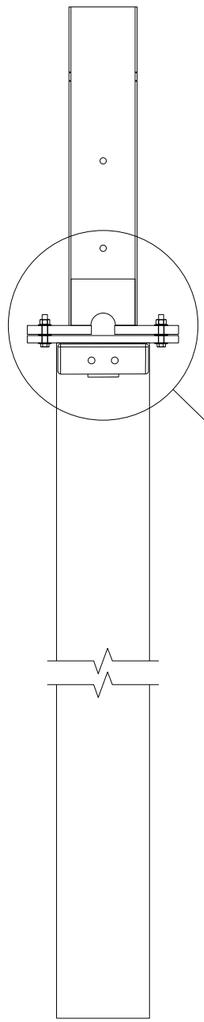
SIDE VIEW FRONT VIEW

UPPER POST ASSEMBLY

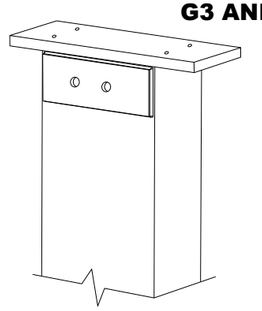


FRONT VIEW SIDE VIEW

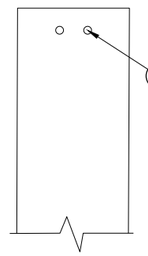
LOWER POST ASSEMBLY



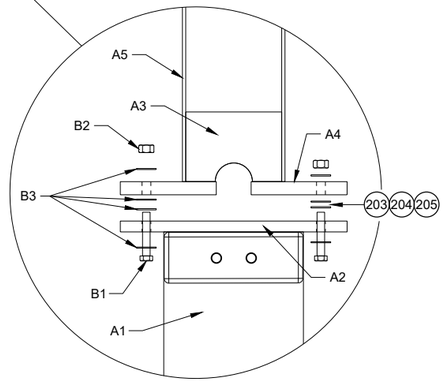
ASSEMBLED POST



ASSEMBLY DETAIL
ISOMETRIC



A1



POST CONNECTION DETAIL

MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL

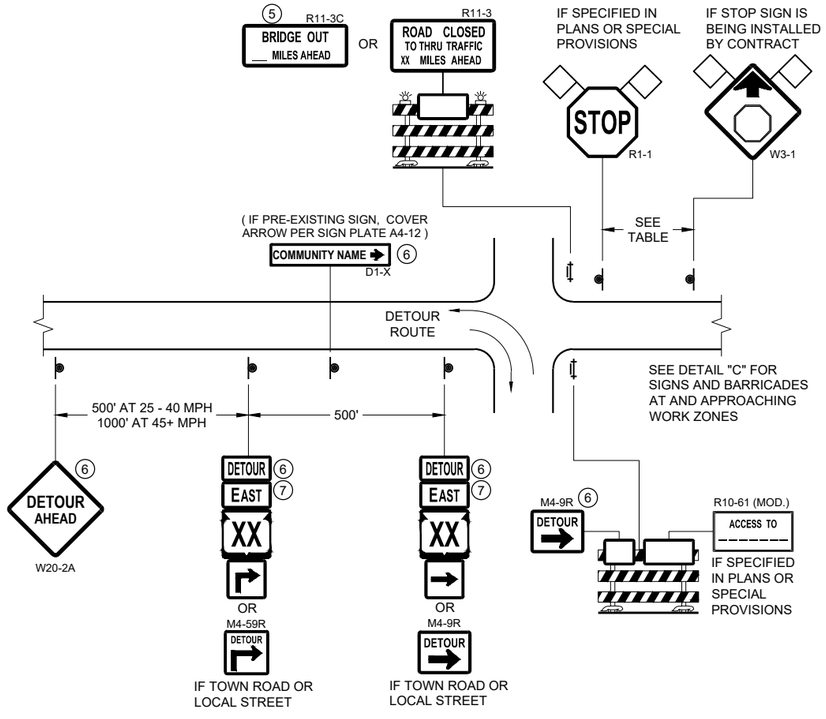
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD14B47 - 05c

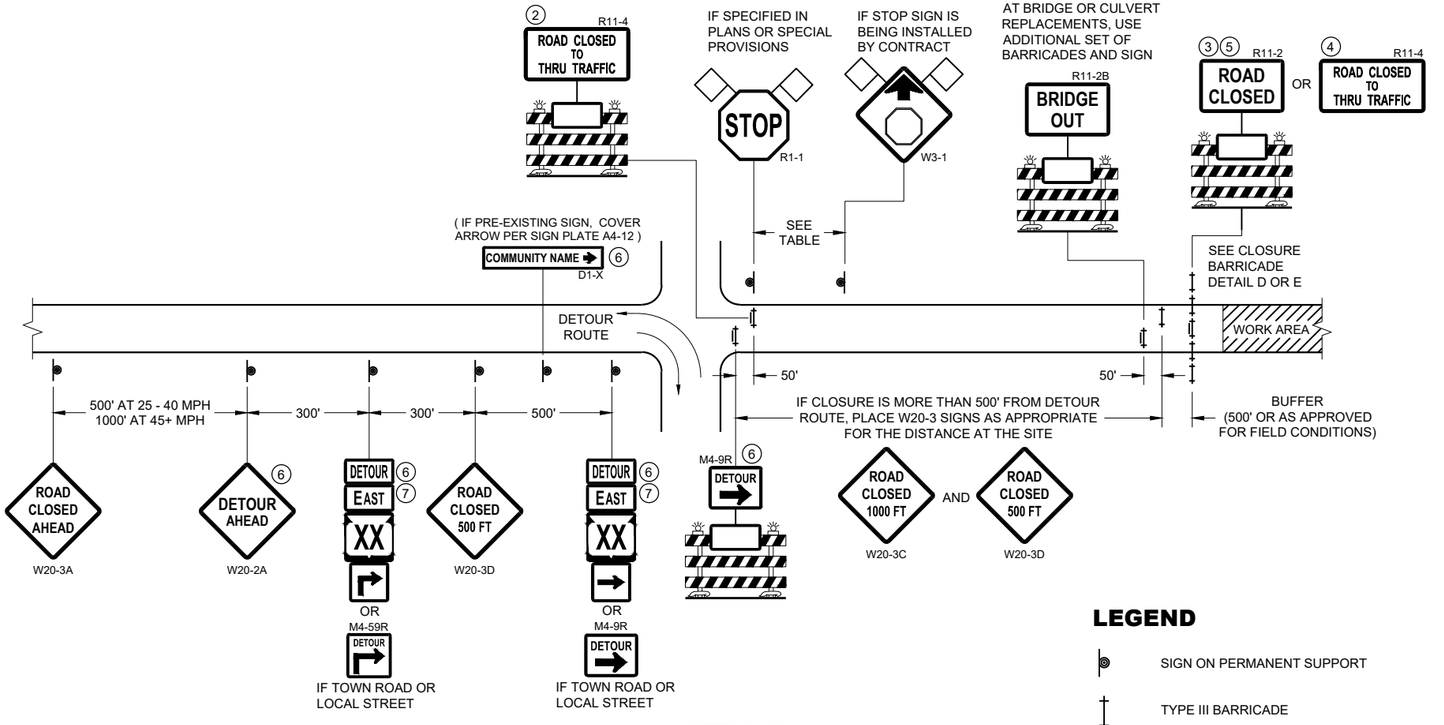
6

SDD14B47 - 05c



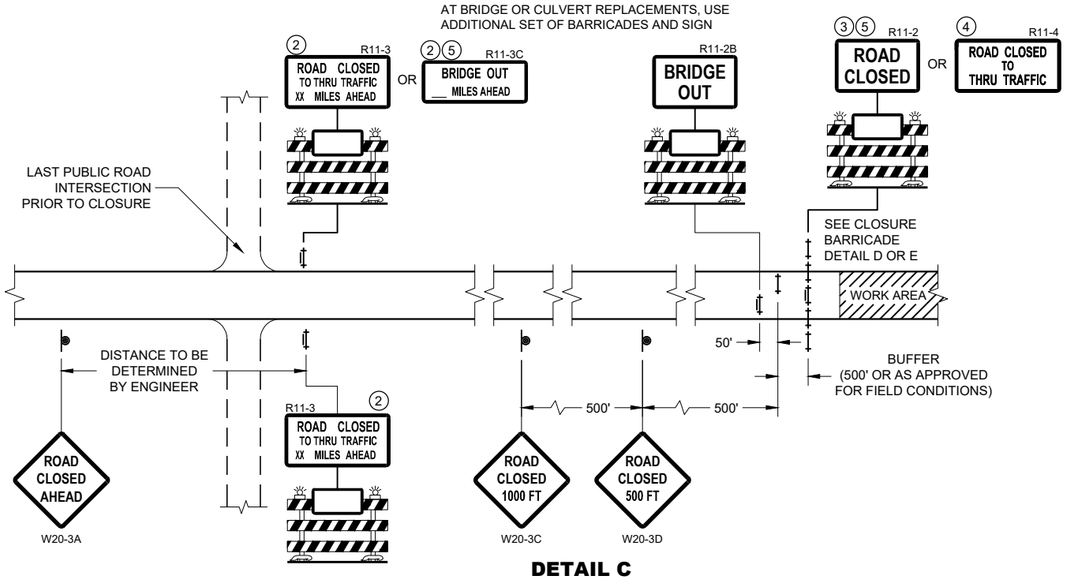
DETAIL A
MAINLINE CLOSURE WITH POSTED DETOUR

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

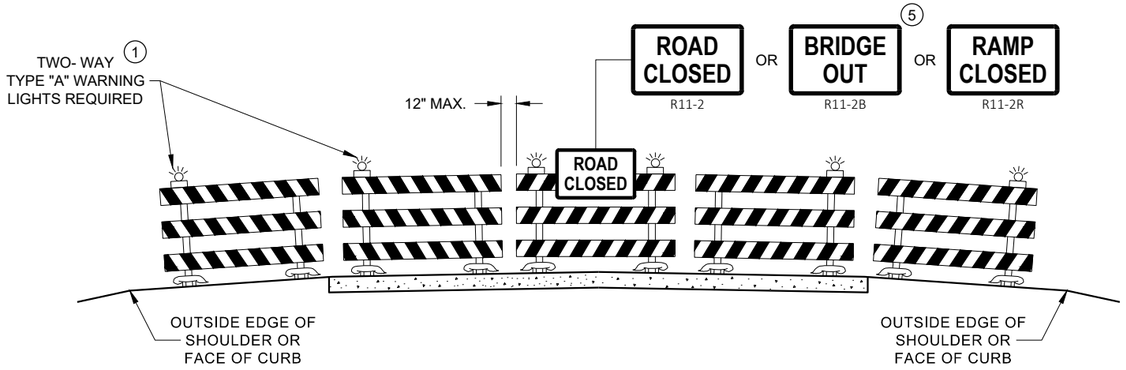
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

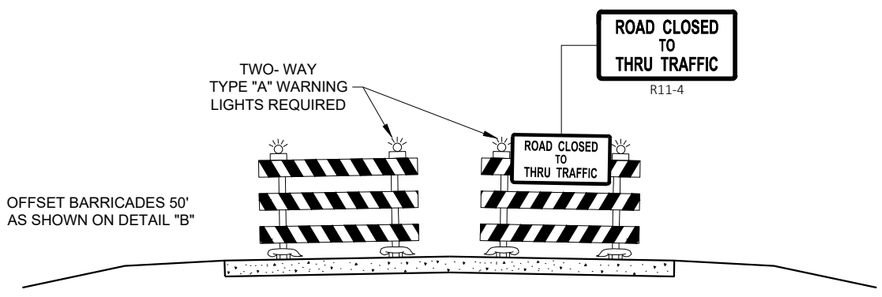
FHWA

6

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

6

SDD 15C02 - 09b

6

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; 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.

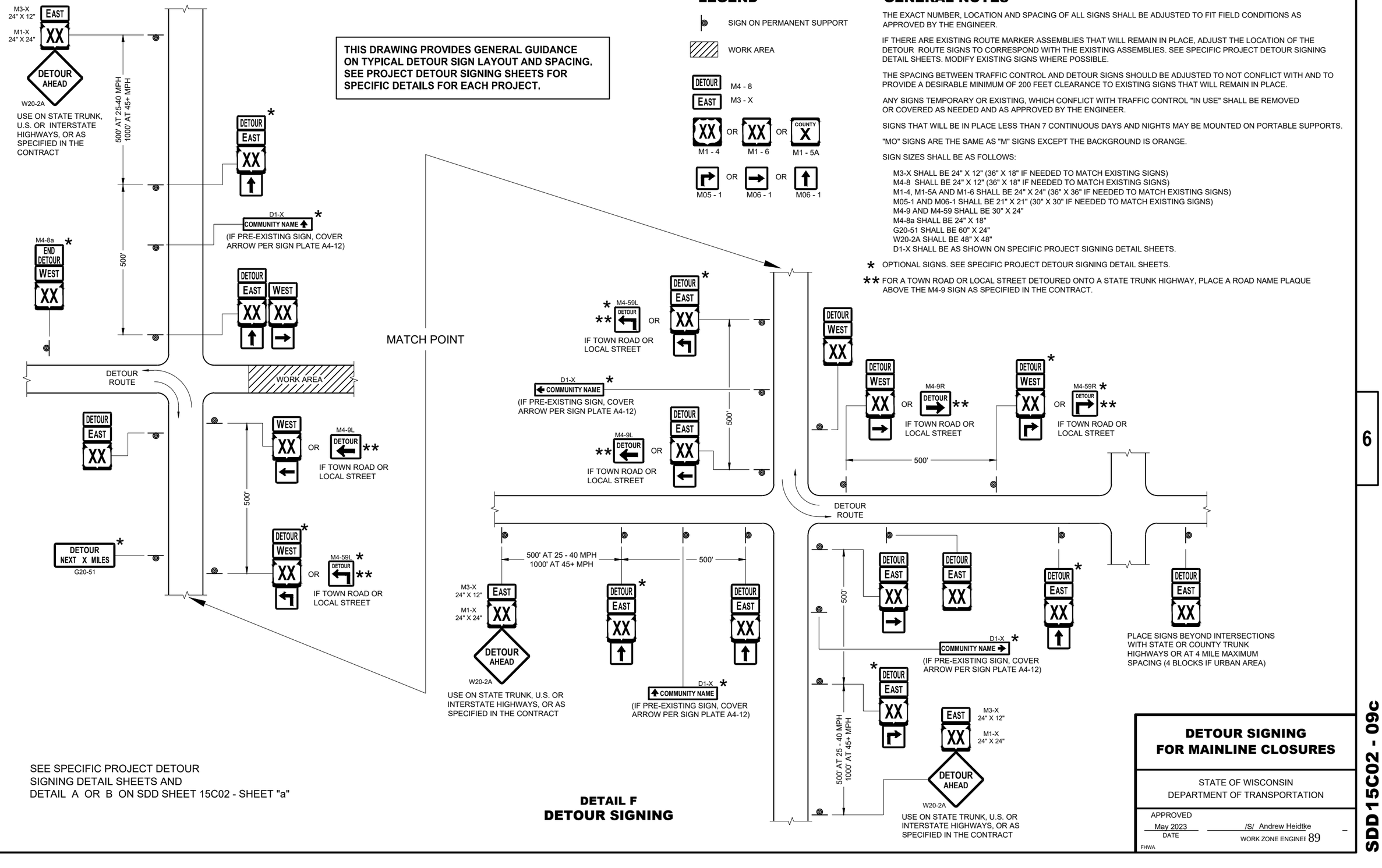
"MO" SIGNS ARE THE SAME AS "M" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

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

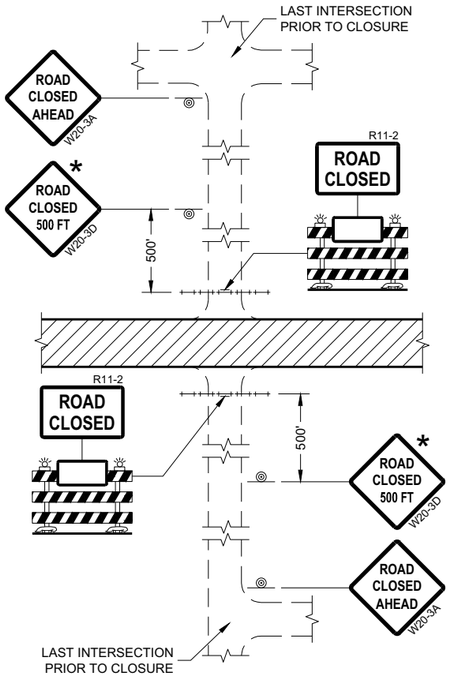
APPROVED
May 2023
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEER

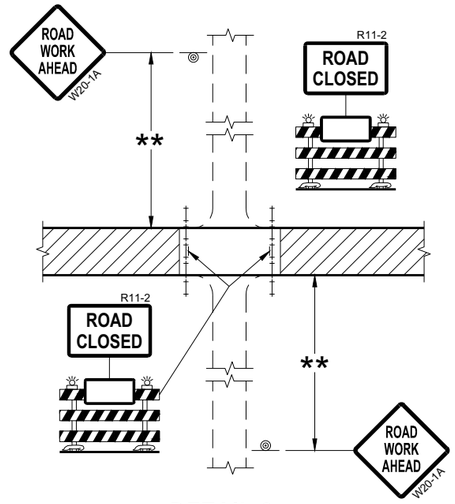
FHWA

6

SDD 15C02 - 09c



DETAIL 1
(NO ACCESS TO PROJECT)



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

GENERAL NOTES

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

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

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

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

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

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

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

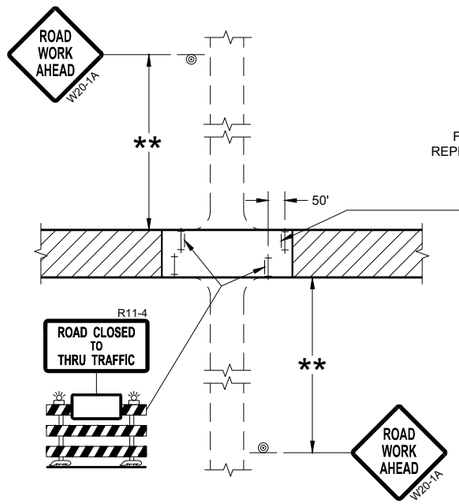
TYPE "A" LOW-INTENSITY FLASHING WARNING LIGHTS SHALL BE VISIBLE ON BOTH SIDES OF THE BARRICADE.

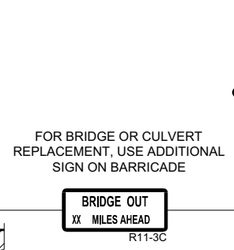
THE R11-2, R11-3, AND R11-4 SIGNS PLACED ON BARRICADES SHALL COVER NO MORE THAN THE TOP RAIL. THE SIGNS SHALL NOT COVER ANY PORTION OF THE MIDDLE OR BOTTOM RAILS.

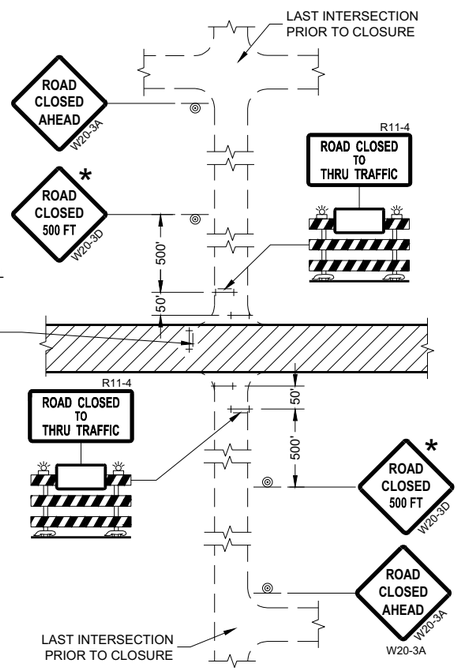
ALL SIGNS SHALL BE 48" X 48" UNLESS OTHERWISE NOTED BELOW:
R11-2 SHALL BE 48" X 30".
R11-4 AND R11-3 SHALL BE 60" X 30".

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

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







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

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

LEGEND

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

BARRICADES AND SIGNS FOR SIDEROAD CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

FHWA

6
SDD 15C03 - 05

GENERAL NOTES

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.

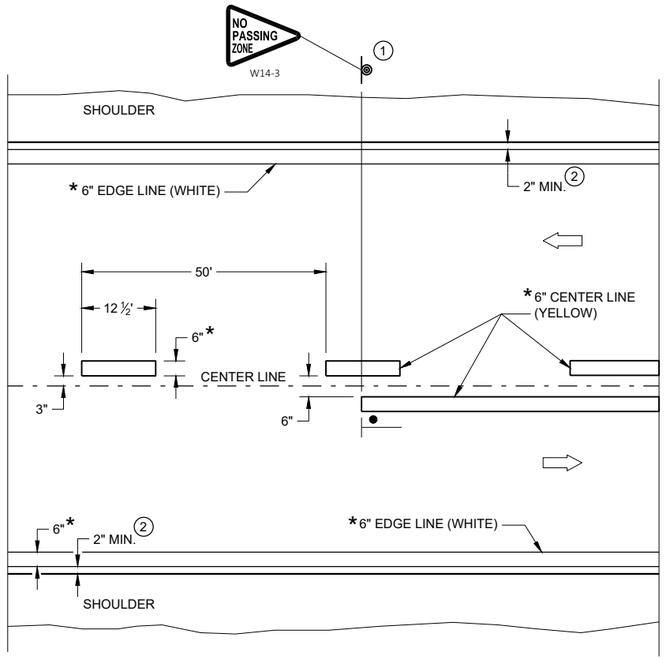
* CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES

LEGEND

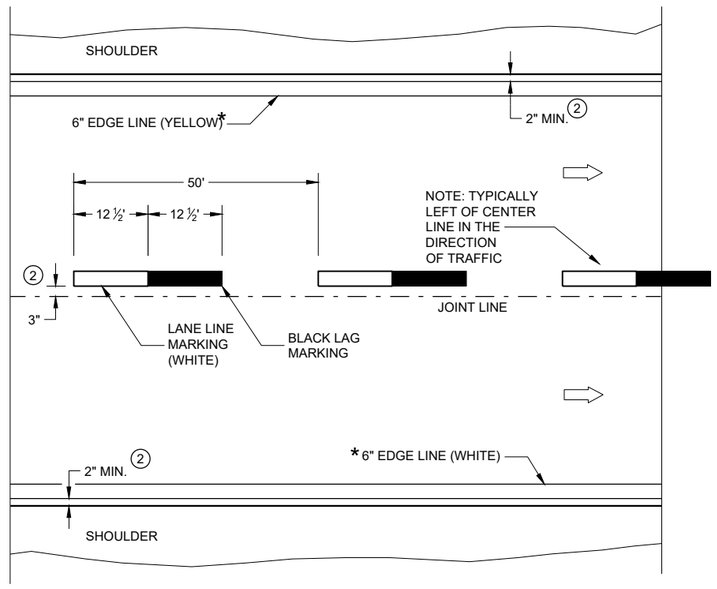
"T" MARKING

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

6

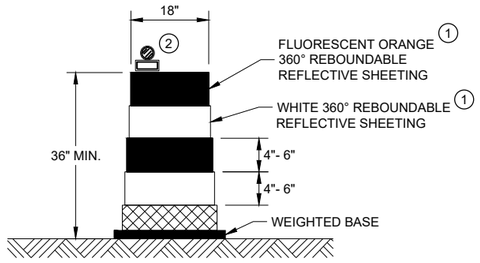
SDD 15C08-23a

6

SDD 15C08-23a

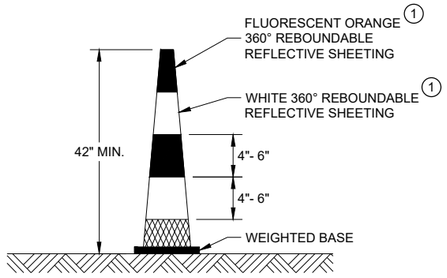
GENERAL NOTES

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

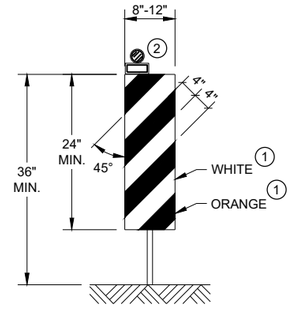
BALLAST WIDTHS
RANGE FROM 24"-36"



42" CONE

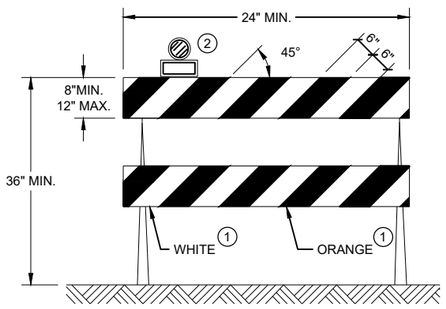
DO NOT USE IN TAPERS
½ SPACING OF DRUMS

BALLAST WIDTHS
RANGE FROM 14"-20"



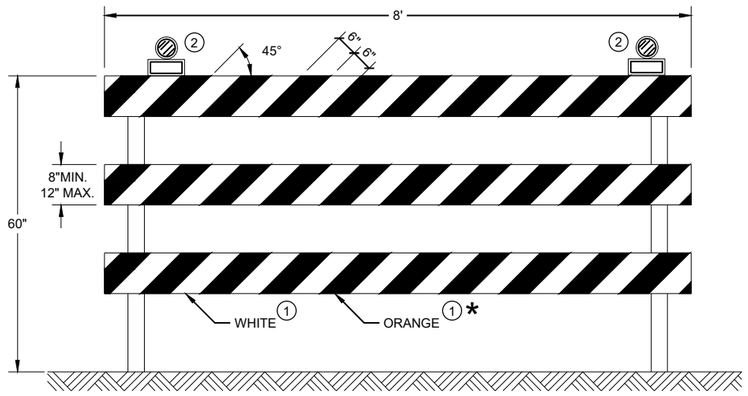
VERTICAL PANEL

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

6

SDD 15C11 - 10b
SDD 15C11 - 10b

LEGEND

SIGN ON PORTABLE OR PERMANENT SUPPORT

TEMPORARY PORTABLE RUMBLE STRIP ARRAY

DIRECTION OF TRAFFIC

WORK AREA

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

GENERAL NOTES

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

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

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

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

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

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

FLAGGING

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

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

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

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

TEMPORARY PORTABLE RUMBLE STRIPS

UTILIZE TEMPORARY PORTABLE RUMBLE STRIPS ON ALL FLAGGING OPERATIONS.

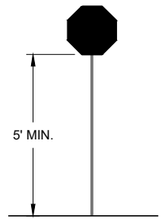
(3) EACH TEMPORARY PORTABLE RUMBLE STRIP ARRAY CONSISTS OF THREE RUMBLE STRIPS PLACED TRANSVERSE ACROSS THE LANE AT THE LOCATIONS SHOWN. WITHIN EACH ARRAY, SPACING BETWEEN RUMBLE STRIPS SHALL BE 15 FEET ON CENTER

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

INSTALL TEMPORARY RUMBLE STRIPS PER MANUFACTURER'S RECOMMENDATIONS.

PLACE ADVANCE SIGNING PRIOR TO INSTALLING TEMPORARY RUMBLE STRIPS.

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



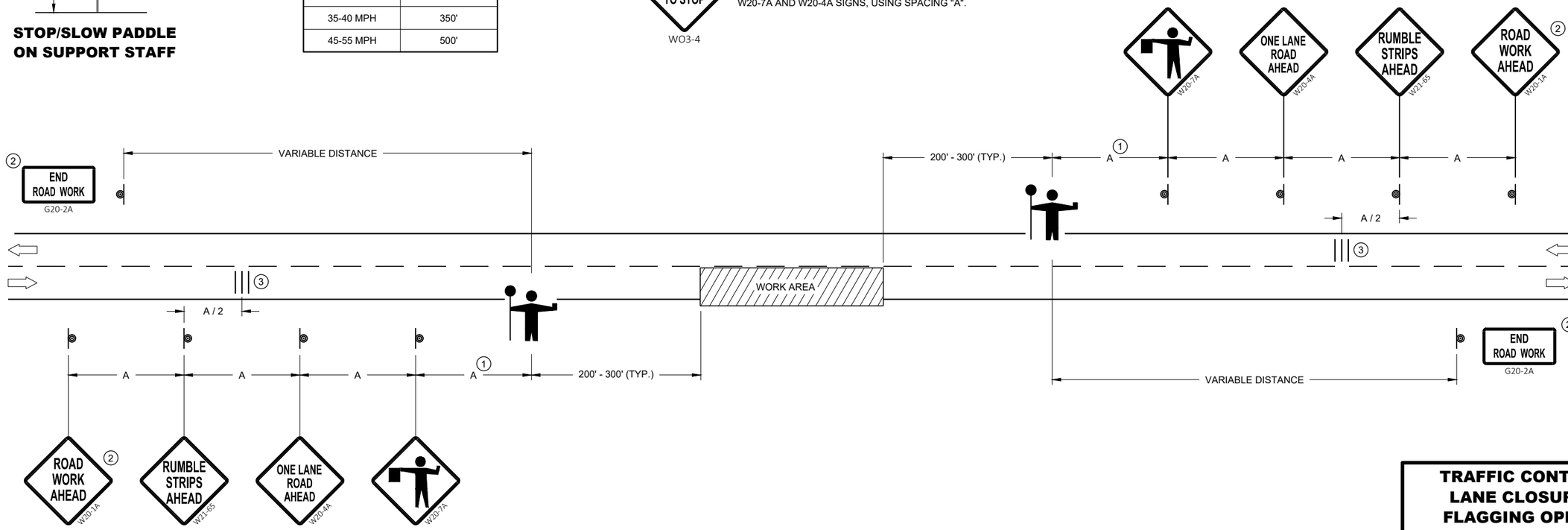
STOP/SLOW PADDLE ON SUPPORT STAFF

SIGN AND TEMPORARY RUMBLE STRIP ARRAY SPACING TABLE

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

WO3-4

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



TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2022
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

6

SDD 15C12 - 09a

6

SDD 15C12 - 09a

LEGEND

- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- TYPE III BARRICADE WITH ATTACHED SIGN
- TYPE "A" WARNING LIGHT (FLASHING)
- FLASHING ARROW BOARD
- DIRECTION OF TRAFFIC
- REMOVE PAVEMENT MARKING (SEE GENERAL NOTES)
- WORK AREA

GENERAL NOTES

FOR WORK ON ROADWAYS WITH SPEEDS GREATER THAN 45MPH, USE SDD 15D12.

THIS LANE CLOSURE DETAIL IS TYPICAL FOR CLOSING THE LEFT LANE. FOR A RIGHT LANE CLOSURE, REVERSE THE TRAFFIC CONTROL.

THIS DETAIL MAY BE USED FOR ROADWAYS WITH EITHER TWO OR THREE LANES IN EACH DIRECTION.

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

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

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH THE TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER. NO WARNING LIGHTS SHALL BE WORKING ON COVERED OR "DOWNED" SIGNS.

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS OR THAT WILL BE PLACED IN A CLOSED LANE MAY BE MOUNTED ON TEMPORARY SUPPORTS.

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' DESIRABLE) DISTANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE

W20-1A, G20-1 AND G20-2A SIGNS ARE NOT REQUIRED IF THE LANE CLOSURE IS WITHIN A LARGER WORK ZONE WHERE THESE SIGNS ARE ALREADY PRESENT.

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

CONSIDER GEOMETRICS WHEN LOCATING SIGNS AND ARROW BOARDS SO THE APPROACHING DRIVER HAS A CLEAR VIEW OF THE ARROW BOARDS AND LANE CLOSURE DRUMS FOR A MINIMUM 1500 FEET IN FRONT OF DRUMS.

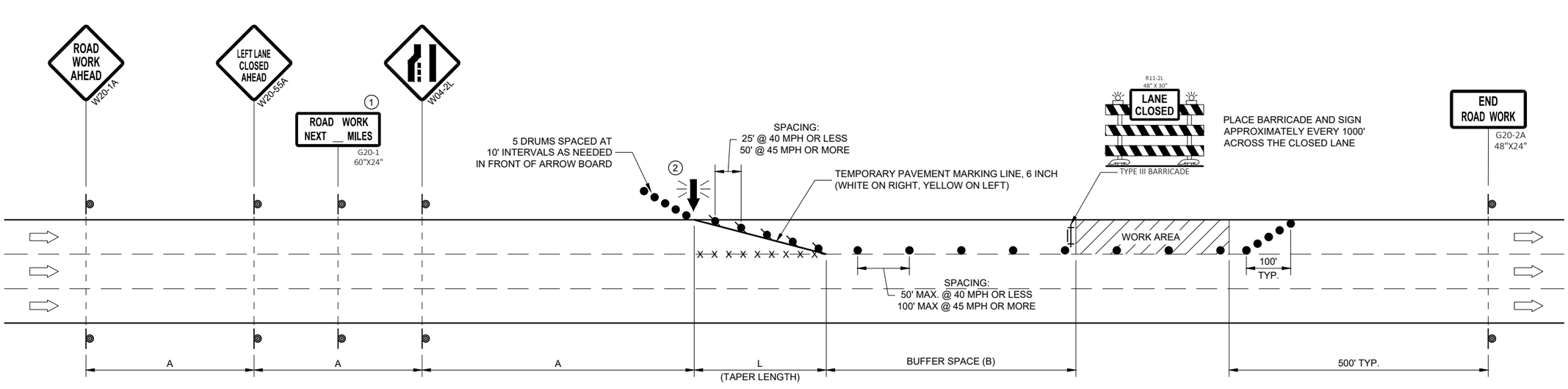
BARRICADES IN A CLOSED LANE THAT MUST BE MOVED FOR A WORK OPERATION SHALL BE IMMEDIATELY REESTABLISHED UPON COMPLETION OF THE OPERATION, OR FOR CONTINUING OPERATIONS, AT THE END OF EACH WORKING DAY.

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

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

(1) OMIT G20-1 SIGNS IF LENGTH OF WORK AREA IS 2 MILES OR LESS.

(2) WHERE THE SHOULDER OR TERRACE HAS INSUFFICIENT SPACE TO PLACE THE ARROW BOARD AS SHOWN, PLACE THE ARROW BOARD AT THE END OF THE TAPER.



POSTED SPEED LIMIT PRIOR TO WORK STARTING (MPH)	ADVANCE WARNING SIGN SPACING (A) FEET	TAPER LENGTH (12 FT. LANE) (L) FEET	BUFFER SPACE (B) FEET
25	200'	125'	55'
30	200'	180'	85'
35	350'	245'	120'
40	350'	320'	170'
45	500'	540'	220'

TRAFFIC CONTROL, SINGLE LANE CLOSURE, DIVIDED NON-FREEWAY/EXPRESSWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEER

FHWA

6

SDD 15D20-07a

LEGEND

- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- TYPE III BARRICADE WITH ATTACHED SIGN
- TYPE "A" WARNING LIGHT (FLASHING)
- FLASHING ARROW BOARD
- DIRECTION OF TRAFFIC
- REMOVE PAVEMENT MARKING (SEE GENERAL NOTES)
- WORK AREA

GENERAL NOTES

THIS DETAIL MAY BE USED FOR ROADWAYS WITH EITHER TWO OR THREE LANES IN EACH DIRECTION.

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

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

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH THE TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER. NO WARNING LIGHTS SHALL BE WORKING ON COVERED OR "DOWNED" SIGNS.

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS OR THAT WILL BE PLACED IN A CLOSED LANE MAY BE MOUNTED ON TEMPORARY SUPPORTS.

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' DESIRABLE) DISTANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE

W20-1A, G20-1 AND G20-2A SIGNS ARE NOT REQUIRED IF THE LANE CLOSURE IS WITHIN A LARGER WORK ZONE WHERE THESE SIGNS ARE ALREADY PRESENT.

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

CONSIDER GEOMETRICS WHEN LOCATING SIGNS AND ARROW BOARDS SO THE APPROACHING DRIVER HAS A CLEAR VIEW OF THE ARROW BOARDS AND LANE CLOSURE DRUMS FOR A MINIMUM 1500 FEET IN FRONT OF DRUMS.

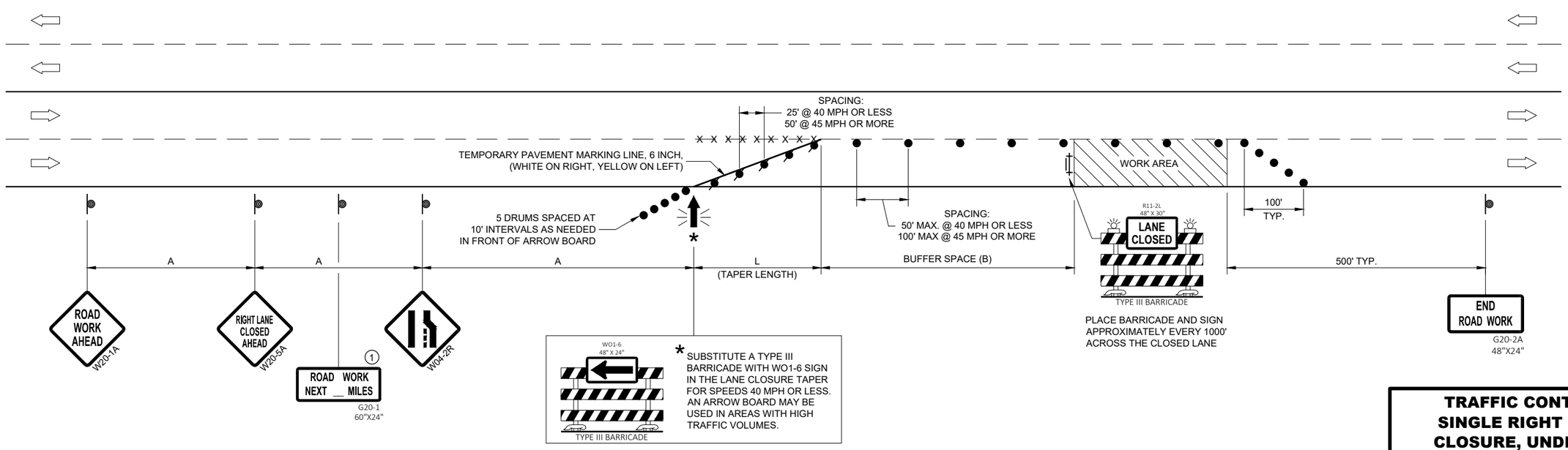
BARRICADES IN A CLOSED LANE THAT MUST BE MOVED FOR A WORK OPERATION SHALL BE IMMEDIATELY REESTABLISHED UPON COMPLETION OF THE OPERATION, OR FOR CONTINUING OPERATIONS, AT THE END OF EACH WORKING DAY.

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

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

(1) OMIT G20-1 SIGNS IF LENGTH OF WORK AREA IS 2 MILES OR LESS.

POSTED SPEED LIMIT PRIOR TO WORK STARTING (MPH)	ADVANCE WARNING SIGN SPACING (A) FEET	TAPER LENGTH (12 FT. LANE) (L) FEET	BUFFER SPACE (B) FEET
25	200'	125'	55'
30	200'	180'	85'
35	350'	245'	120'
40	350'	320'	170'
45	500'	540'	220'
50	500'	600'	280'
55	500'	660'	335'



TRAFFIC CONTROL, SINGLE RIGHT LANE CLOSURE, UNDIVIDED NON-FREEWAY/EXPRESSWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEER

FHWA

6

SDD 15D20-07b

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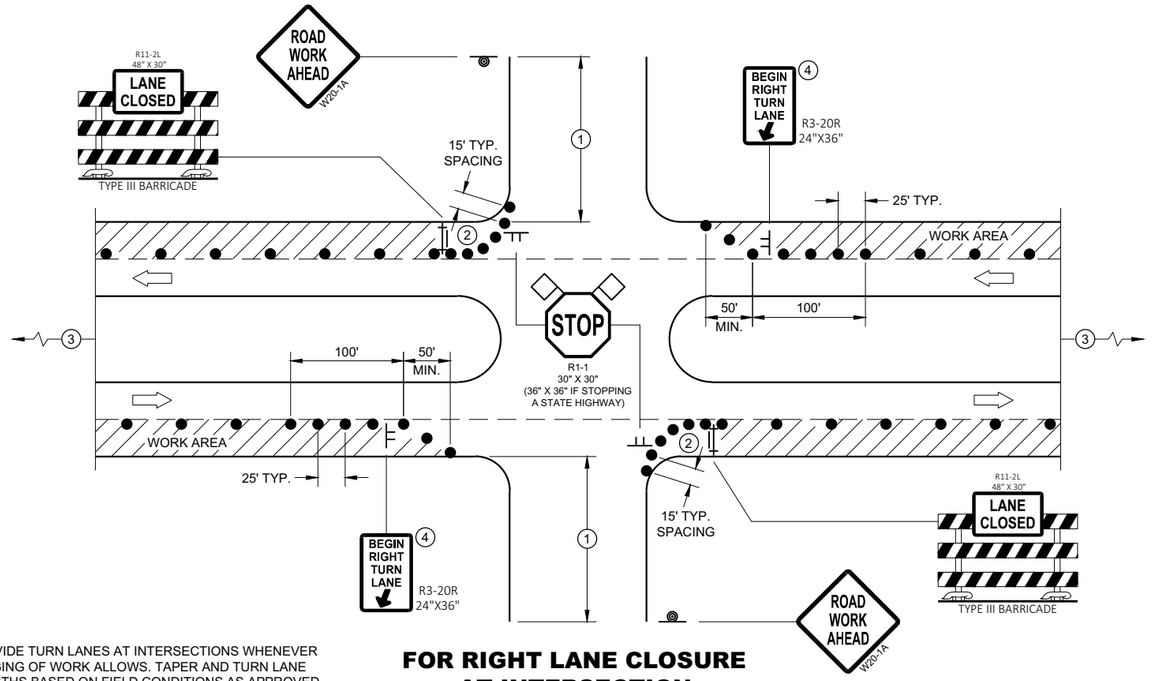
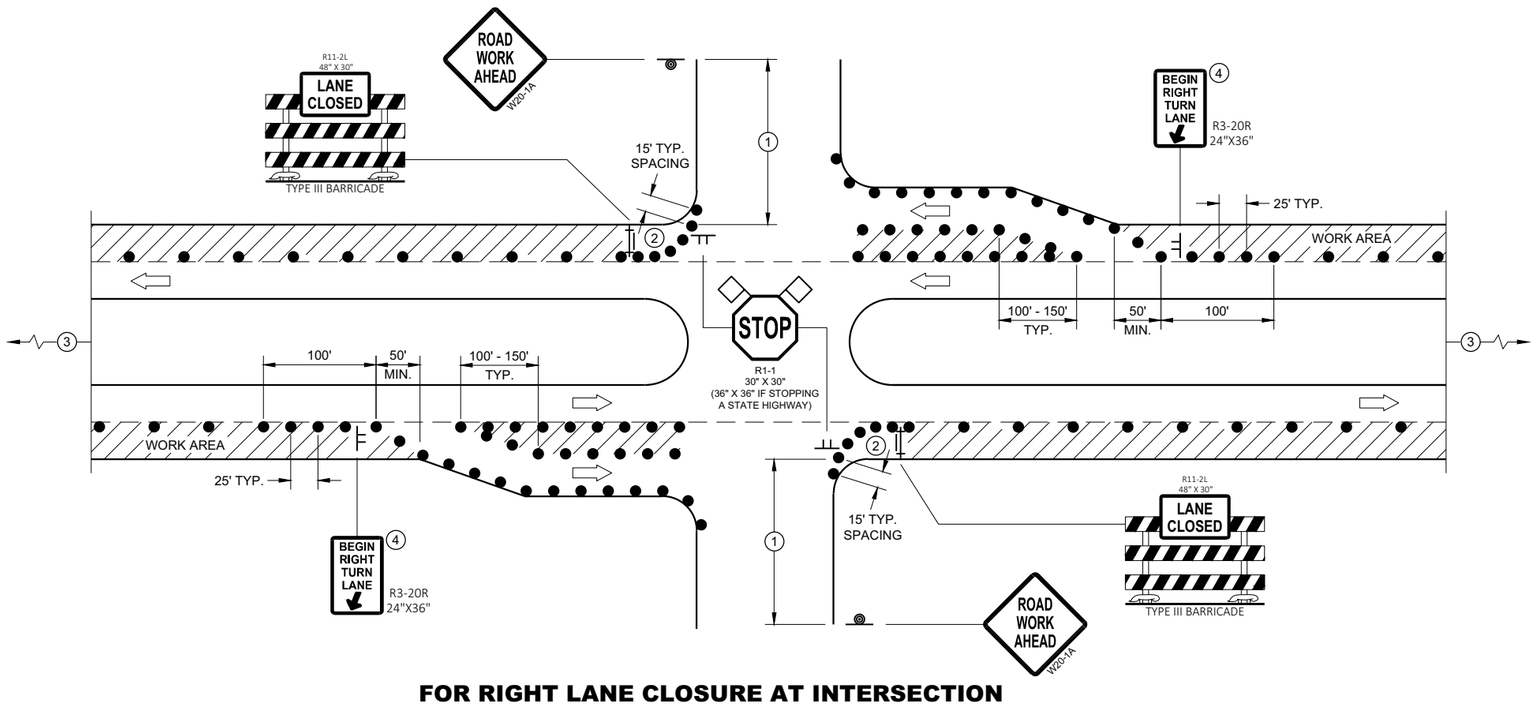
SDD 15D20-07b



PROVIDE TURN LANES AT INTERSECTIONS WHENEVER STAGING OF WORK ALLOWS. TAPER AND TURN LANE LENGTHS BASED ON FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

FOR RIGHT LANE CLOSURE AT INTERSECTION



FOR RIGHT LANE CLOSURE AT INTERSECTION (WITH RIGHT TURN BAY OPEN)

GENERAL NOTES

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

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

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH THE TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER. NO WARNING LIGHTS SHALL BE WORKING ON COVERED OR "DOWNED" SIGNS.

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' DESIRABLE) DISTANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE

SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE FHWA'S MANUAL OF STANDARD HIGHWAY SIGNS OR THE WISCONSIN STANDARD SIGN PLATES.

SIGNS THAT WILL REMAIN IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS OR THAT WILL BE PLACED IN A CLOSED LANE MAY BE MOUNTED ON PORTABLE SUPPORTS.

BARRICADES IN A CLOSED LANE 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.

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

(1) 500' TYPICAL OR AT LAST INTERSECTION, WHICHEVER IS CLOSER.
350' IF 35 - 40 MPH.
200' IF 25 - 30 MPH.

(2) ALSO USE BARRICADE AND 15 FOOT TYPICAL DRUM SPACING AT COMMERCIAL DRIVEWAYS

(3) SEE SEPARATE LANE CLOSURE DETAIL FOR ADDITIONAL TRAFFIC CONTROL.

(4) MINIMUM MOUNTING HEIGHT OF 5 FEET FROM EDGE OF PAVEMENT (AT EDGE LINE LOCATION) TO BOTTOM OF SIGN.

LEGEND

- SIGN ON TEMPORARY SUPPORT
- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM
- TYPE III BARRICADE WITH ATTACHED SIGN
- DIRECTION OF TRAFFIC
- FLAGS, 16" X 16" MIN., ORANGE
- WORK AREA

TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE RIGHT LANE CLOSURE

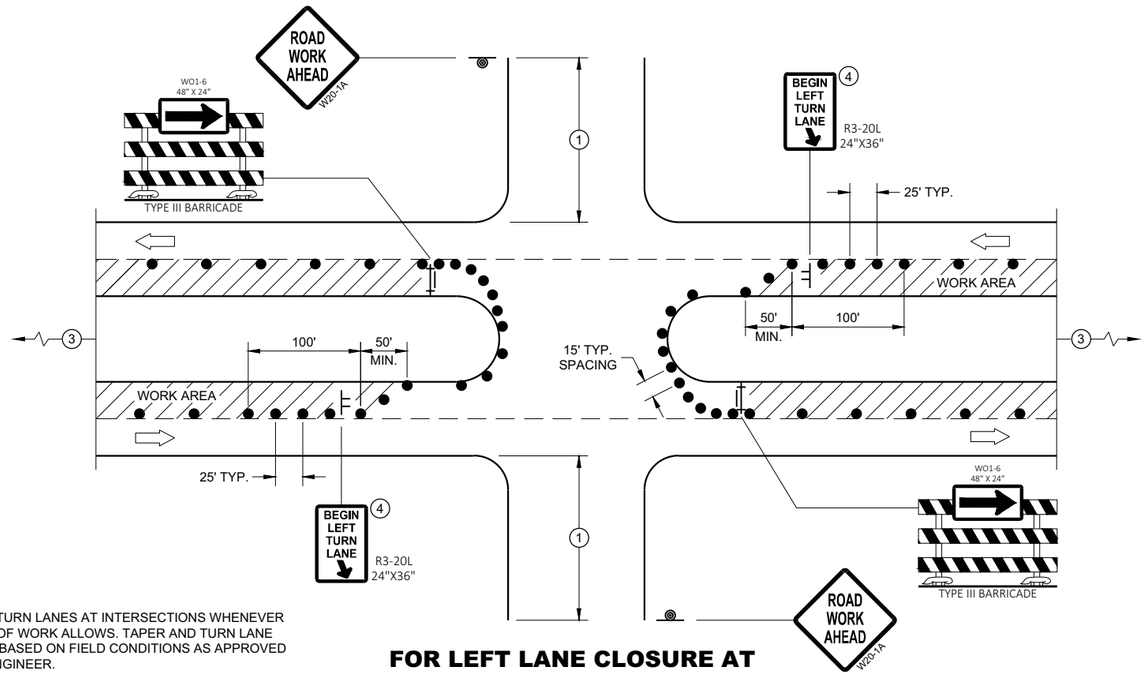
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 15D21 - 07a

6

SDD 15D21 - 07a



PROVIDE TURN LANES AT INTERSECTIONS WHENEVER STAGING OF WORK ALLOWS. TAPER AND TURN LANE LENGTHS BASED ON FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

FOR LEFT LANE CLOSURE AT INTERSECTION OR MEDIAN OPENING

GENERAL NOTES

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

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

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH THE TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER. NO WARNING LIGHTS SHALL BE WORKING ON COVERED OR "DOWNED" SIGNS.

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' DESIRABLE) DISTANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE

SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE FHWA'S MANUAL OF STANDARD HIGHWAY SIGNS OR THE WISCONSIN STANDARD SIGN PLATES.

SIGNS THAT WILL REMAIN IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS OR THAT WILL BE PLACED IN A CLOSED LANE MAY BE MOUNTED ON PORTABLE SUPPORTS.

BARRICADES IN A CLOSED LANE 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.

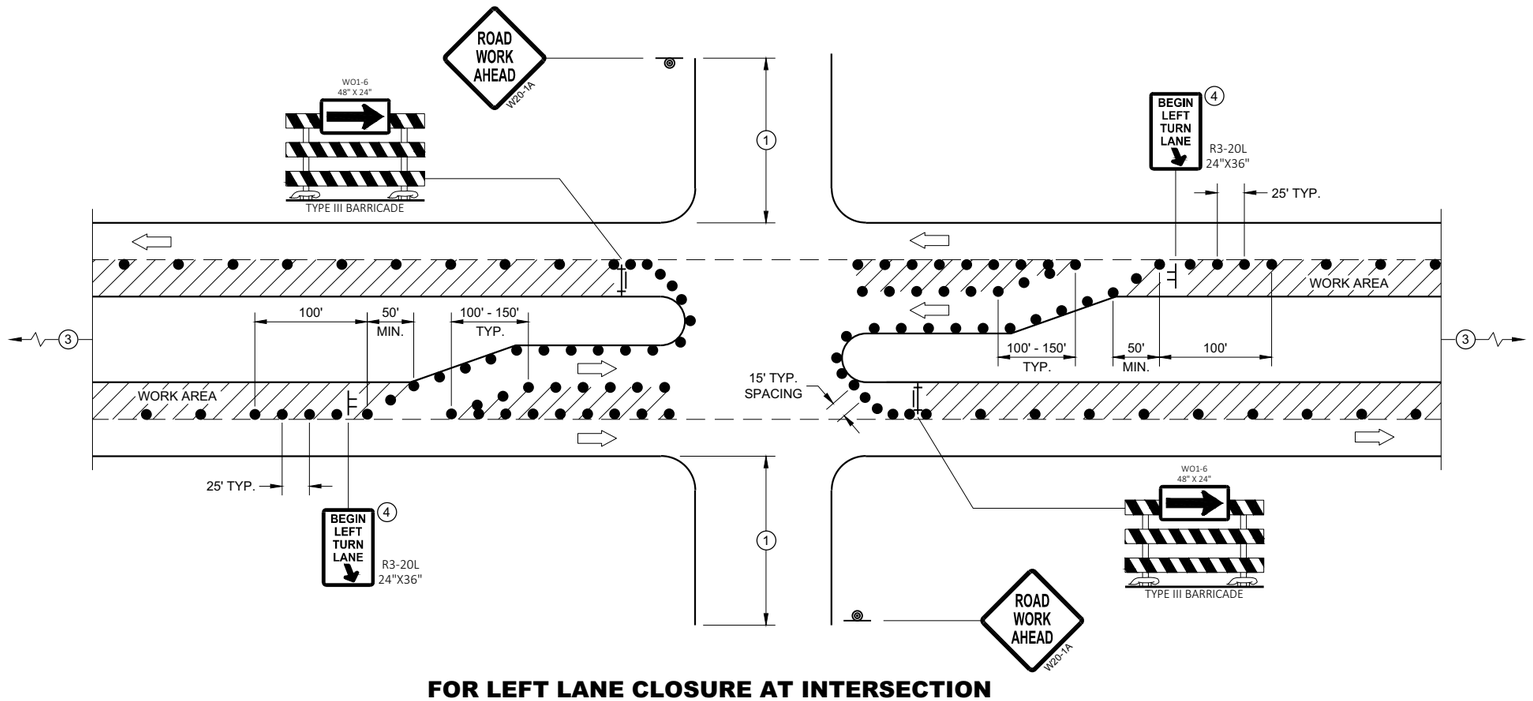
CHANNELIZING DEVICES PLACED ADJACENT TO WORK AREA SHALL BE PULLED BACK FROM THE TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

(1) 500' TYPICAL OR AT LAST INTERSECTION, WHICHEVER IS CLOSER.
350' IF 35 - 40 MPH.
200' IF 25 - 30 MPH.

(2) ALSO USE BARRICADE AND 15 FOOT TYPICAL DRUM SPACING AT COMMERCIAL DRIVEWAYS

(3) SEE SEPARATE LANE CLOSURE DETAIL FOR ADDITIONAL TRAFFIC CONTROL.

(4) MINIMUM MOUNTING HEIGHT OF 5 FEET FROM EDGE OF PAVEMENT (AT EDGE LINE LOCATION) TO BOTTOM OF SIGN.



FOR LEFT LANE CLOSURE AT INTERSECTION OR MEDIAN OPENING (WITH LEFT TURN BAY OPEN)

LEGEND

- SIGN ON TEMPORARY SUPPORT
- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM
- TYPE III BARRICADE WITH ATTACHED SIGN
- DIRECTION OF TRAFFIC
- FLAGS, 16" X 16" MIN., ORANGE
- WORK AREA

TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE LEFT LANE CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
August 2020 — DATE
/S/ Andrew Heidtke — WORK ZONE ENGINEER
FHWA

6

SDD 15D21 - 07b

6

SDD 15D21 - 07b

LEGEND

- TRAFFIC CONTROL DRUM
- SIGN ON PERMANENT SUPPORT
- DIRECTION OF TRAFFIC
- FLASHING ARROW BOARD
- WORK AREA

GENERAL NOTES

THIS DETAIL IS TYPICAL FOR CLOSING THE RIGHT SHOULDER. FOR CLOSING THE LEFT SHOULDER, REVERSE THE TRAFFIC CONTROL.

THIS DETAIL MAY BE USED FOR DIVIDED ROADWAYS WITH ANY NUMBER OF TRAVEL LANES.

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

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

SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE FHWA'S MANUAL OF STANDARD HIGHWAY SIGNS OR THE WISCONSIN STANDARD SIGN PLATES.

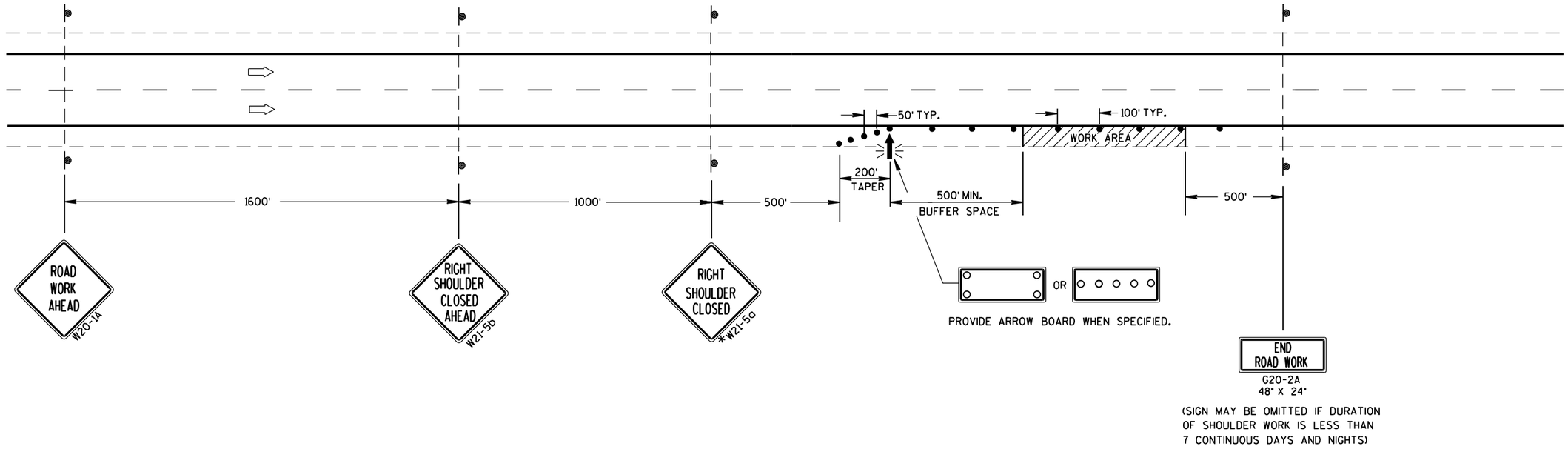
SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

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.

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

WHEN A 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.

*FOR SHORT DURATION SHOULDER WORK OF LESS THAN ONE HOUR, THE W21-5a SIGN MAY BE OMITTED.



TRAFFIC CONTROL SHOULDER CLOSURE ON DIVIDED ROADWAY, SPEEDS GREATER THAN 40 MPH

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

June 2016 — DATE

/S/ Peter Amakobe Atepe
STATEWIDE WORK ZO[illegible] SAFETY ENGI[illegible]

FHWA

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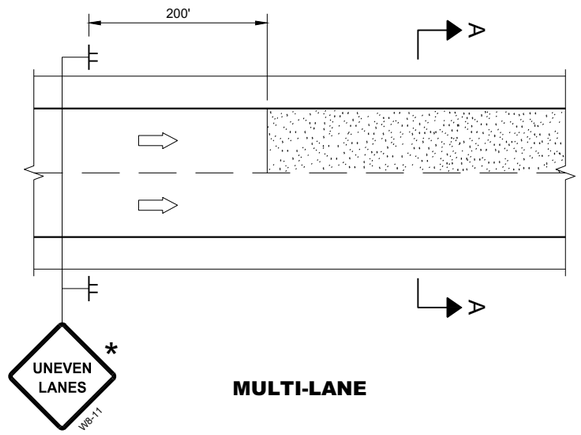
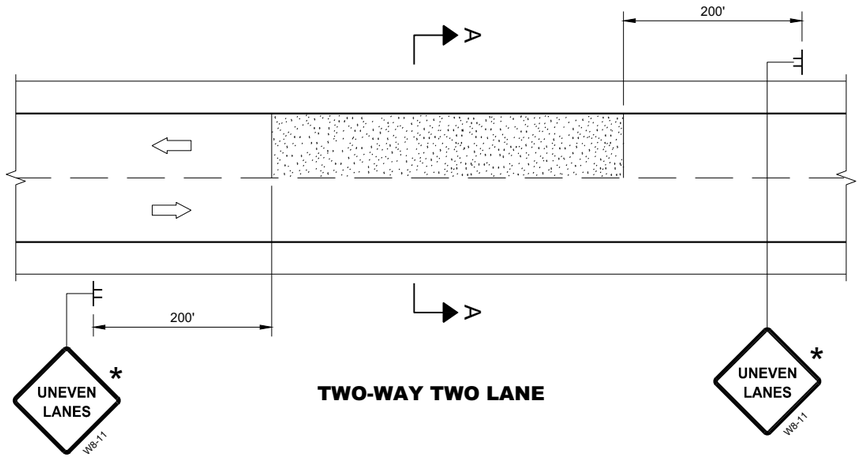
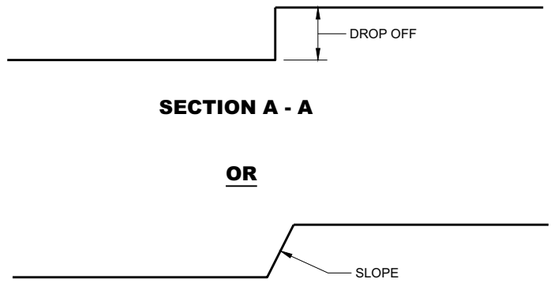
S.D.D. 15 D 27-3



MULTI-LANE

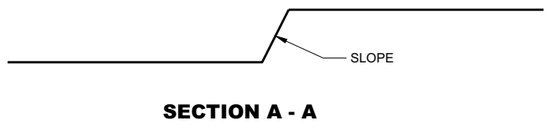


TWO-WAY TWO LANE

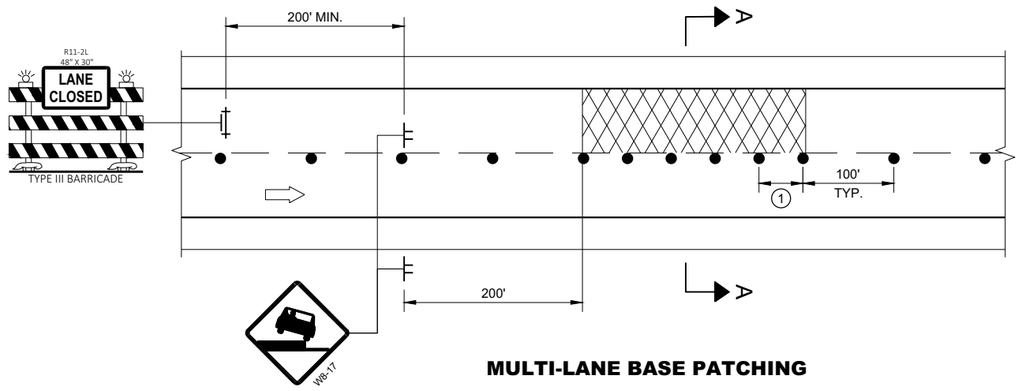


SECTION A - A

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.

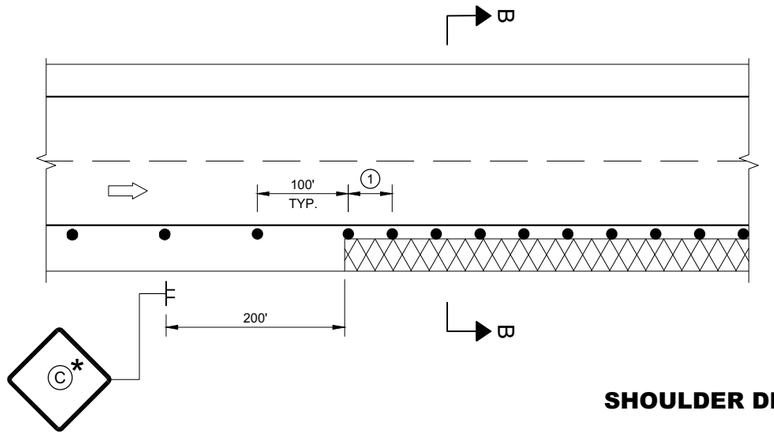
WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

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

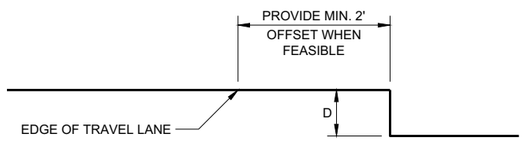
(1) USE CLOSER SPACING WHEN DELINEATING DROP-OFF.

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
March 2018
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

6

SDD 15D39 - 02

6

SDD 15D39 - 02

LEGEND

- TYPE III BARRICADE WITH ATTACHED SIGN
- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- TYPE "A" WARNING LIGHT (FLASHING)
- DIRECTION OF TRAFFIC
- WORK AREA
- REMOVING PAVEMENT MARKING (SEE GENERAL NOTES)
- CONCRETE BARRIER TEMPORARY PRECAST

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 SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND TO PROVIDE A MINIMUM OF 200 FEET, (500 FEET DESIRABLE) DISTANCE TO EXISTING SIGNS.

THIS LANE CLOSURE IS TYPICAL FOR LANE SHIFT RIGHT - REVERSE FOR SHIFTING LEFT.

ALL SIGNS ARE 48"x48" 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 AND AS APPROVED BY THE ENGINEER. NO WARNING LIGHTS SHALL BE WORKING ON ANY "COVERED" OR "DOWNED" SIGNS.

CONSIDER GEOMETRICS WHEN LOCATING SIGNS AND ARROW BOARDS SO THE DRIVER HAS A CLEAR VIEW OF THE ARROW BOARD AND LANE CLOSURE DRUMS FOR A MINIMUM 1500 FEET IN FRONT OF DRUMS.

FOR A LANE CLOSURE THAT IS IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS, THE ADVANCED WARNING SIGNS MAY BE MOUNTED ON PORTABLE SUPPORTS.

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.

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

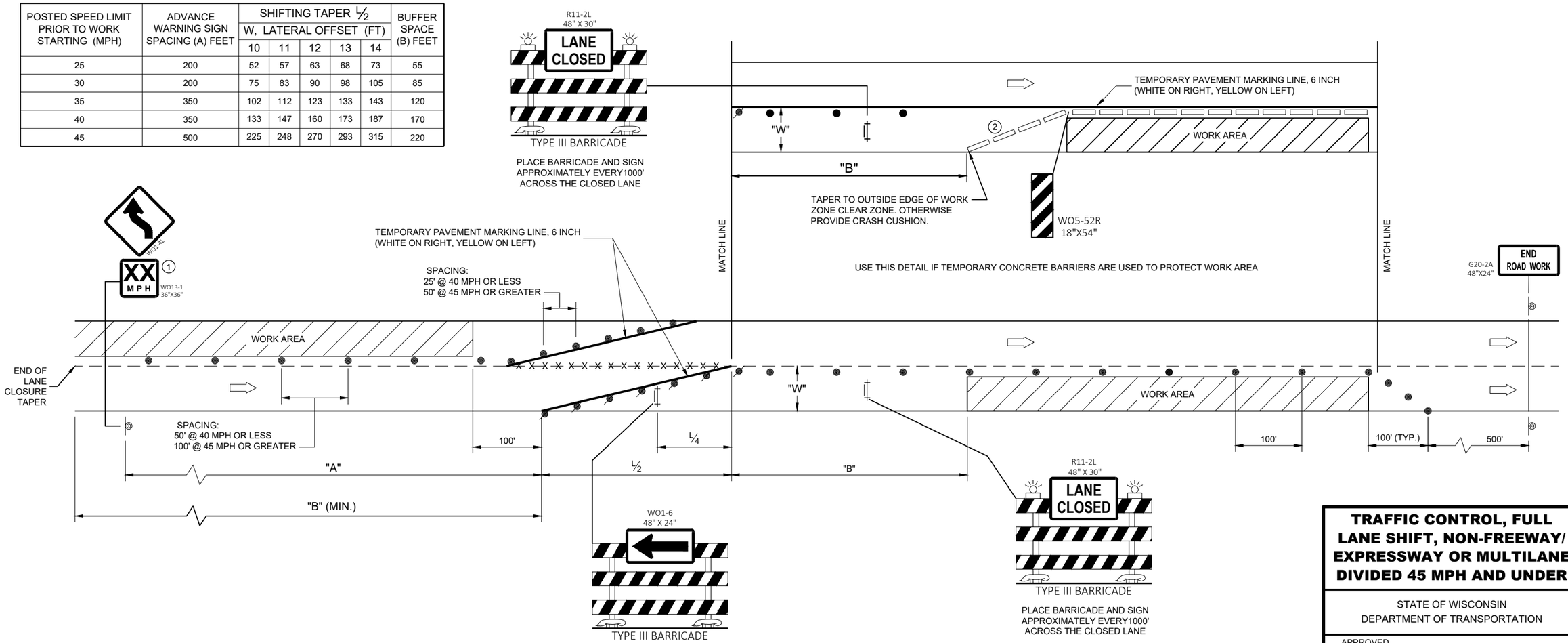
IF THE HORIZONTAL ALIGNMENT IS SUCH THAT A CURVE MAY REQUIRE ADDITIONAL DELINEATION, THE DEVICE SPACING MAY BE DECREASED TO 50 FEET.

ADJUSTMENTS IN BUFFER SPACE NEED TO BE INCORPORATED WHEN THE LANE SHIFT OCCURS NEAR AN INTERCHANGE EXIT OR ENTRANCE RAMP. THE LANE SHIFT MUST TAKE PLACE FAR ENOUGH IN ADVANCE OF AN EXIT OR ENTRANCE RAMP TO STILL ALLOW FOR ADEQUATE BUFFER
SPACE. THE MINIMUM LENGTH OF THE BUFFER SPACE BEFORE AN EXIT RAMP SHOULD BE 1/2 THE LENGTH OF THE TRANSITION AREA. THE ENTRANCE RAMP SHOULD BE FOLLOWED BY THE ORIGINAL BUFFER SPACE LENGTH OF 800 FEET DESIRABLE PRIOR TO ANOTHER TRAFFIC CONTROL
CHANGE SUCH AS A CROSSOVER MANEUVER.

(1) USE ONLY IF DESIGN SPEED IS 10 MPH BELOW POSTED SPEED.

(2) BARRIER FLARE RATE: 6:1 @ 40 MPH OR LESS
8:1 @ 45 MPH OR GREATER

POSTED SPEED LIMIT PRIOR TO WORK STARTING (MPH)	ADVANCE WARNING SIGN SPACING (A) FEET	SHIFTING TAPER L/2 W, LATERAL OFFSET (FT)					BUFFER SPACE (B) FEET
		10	11	12	13	14	
25	200	52	57	63	68	73	55
30	200	75	83	90	98	105	85
35	350	102	112	123	133	143	120
40	350	133	147	160	173	187	170
45	500	225	248	270	293	315	220



TRAFFIC CONTROL, FULL LANE SHIFT, NON-FREEWAY/ EXPRESSWAY OR MULTILANE DIVIDED 45 MPH AND UNDER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023
DATE

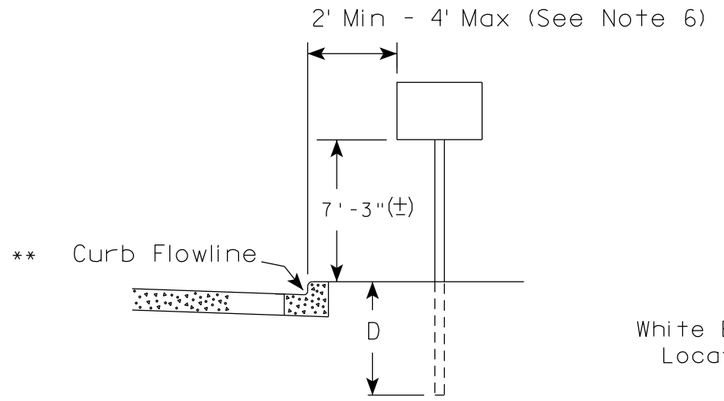
/S/ Andrew Heidtke
WORK ZONE ENGINEER

FHWA

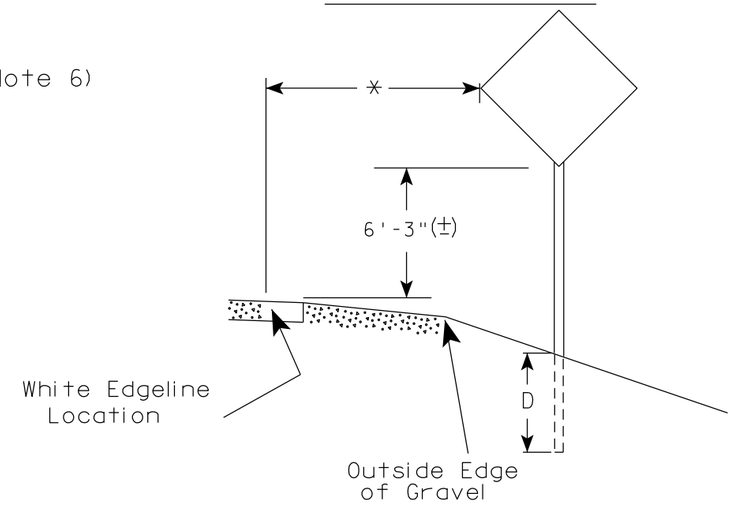
SDD 15D40-05a

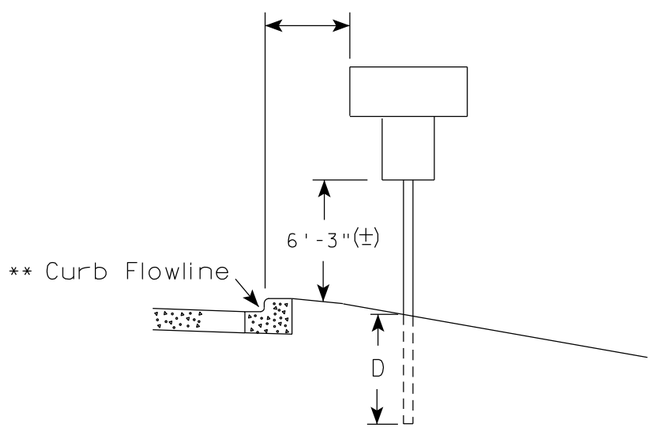
SDD 15D40-05a

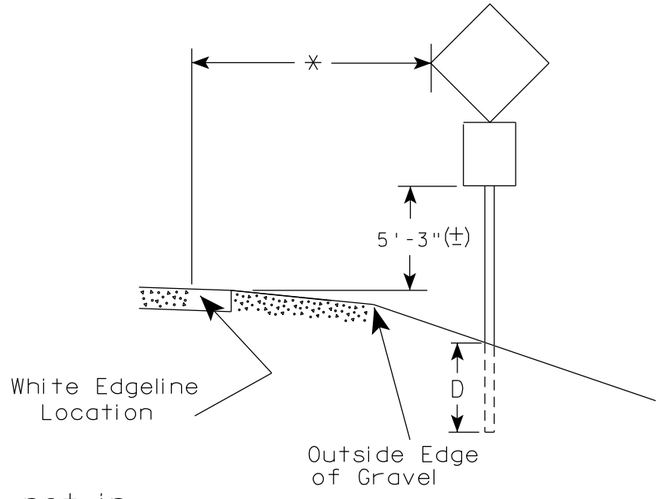
URBAN AREA



RURAL AREA (See Note 2)







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

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

POST EMBEDMENT DEPTH

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

GENERAL NOTES

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

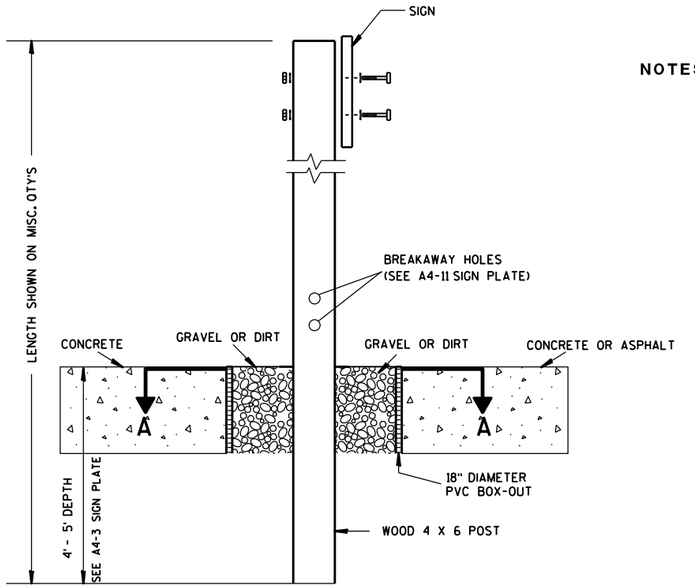
TYPICAL INSTALLATION OF PERMANENT TYPE II SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

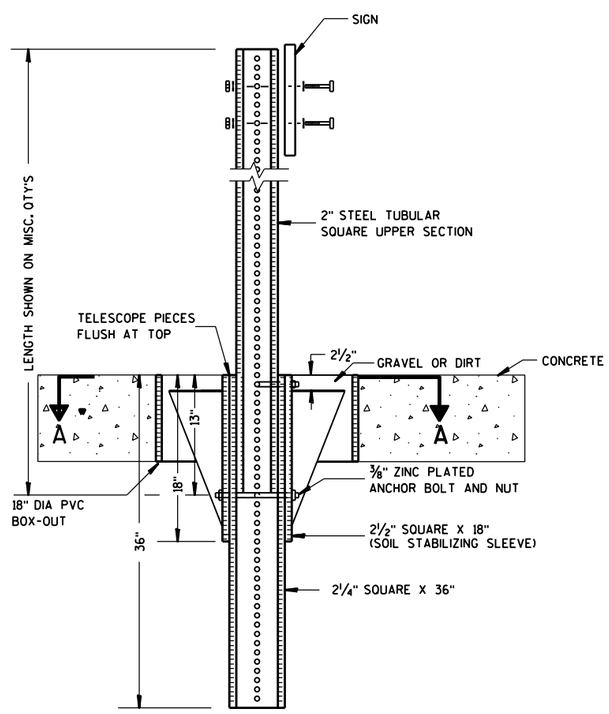
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 101	E



ELEVATION VIEW

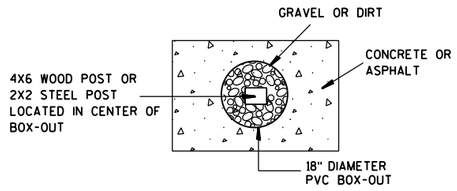
DETAIL OF WOOD 4 X 6 SIGN POST IN BOX-OUT

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



ELEVATION VIEW

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



PLAN VIEW

FOR NEW CONCRETE/ASPHALT INSTALLATIONS

SIGN POST BOX-OUTS A4-3B

WISCONSIN DEPT OF TRANSPORTATION

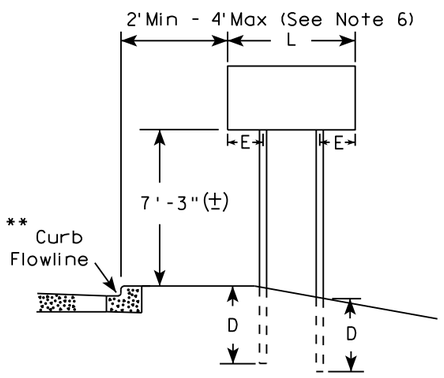
APPROVED Matthew R Rauch
for State Traffic Engineer

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

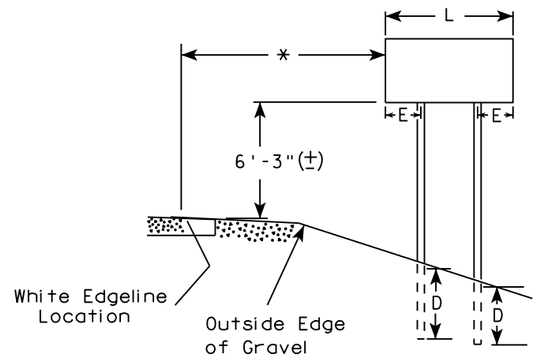
PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

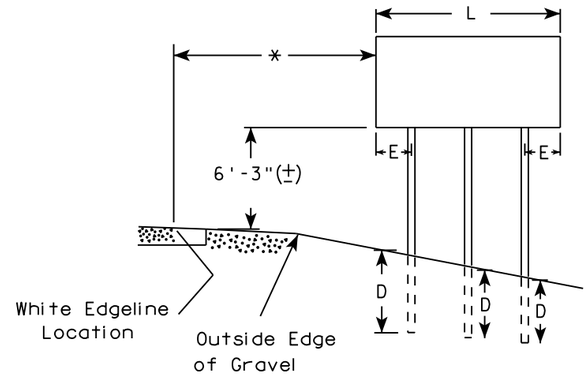
FILE NAME : C:\CAEFiles\Projects\tr_stdplate\A43B.DGN PLOT DATE : 27-JAN-2014 09:48 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 13.659812:1.000000 WISDOT/CADDS SHEET 42

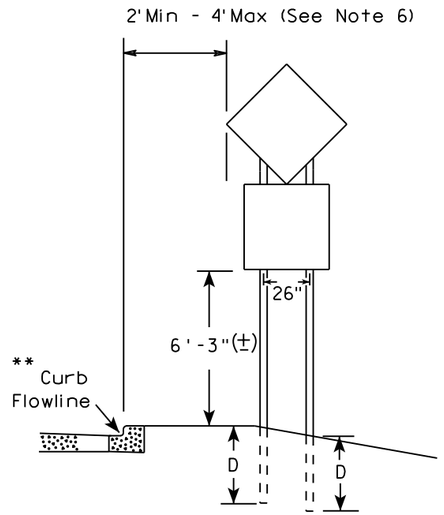
URBAN AREA



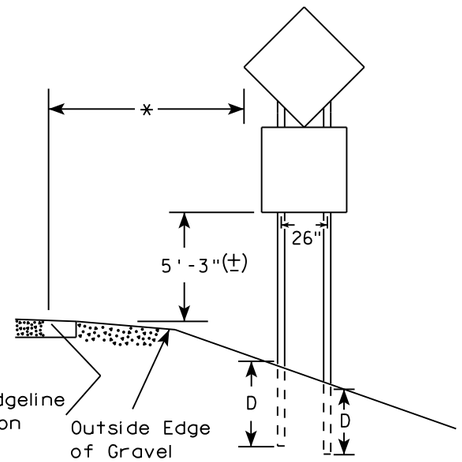
RURAL AREA (See Note 3)







48" DIAMOND WARNING SIGN



48" DIAMOND WARNING SIGN

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

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

GENERAL NOTES

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

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

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

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

POST EMBEDMENT DEPTH

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

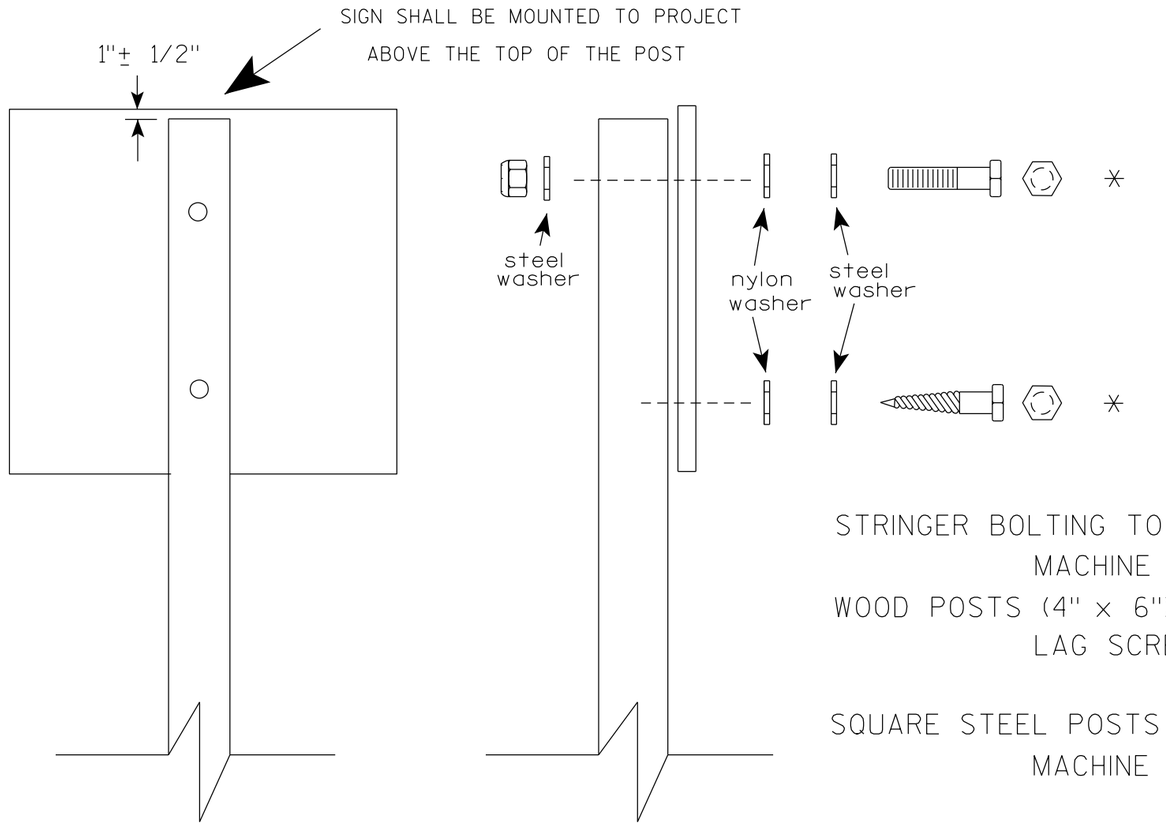
TYPICAL INSTALLATION OF TYPE II SIGNS ON MULTIPLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
For State Traffic Engineer

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

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 103	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

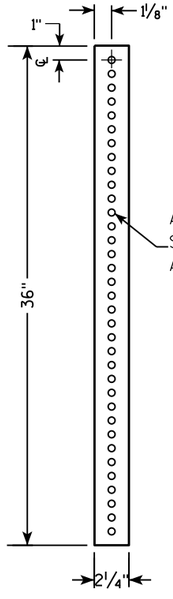
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

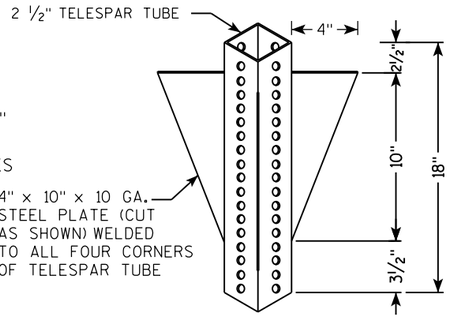
DATE 4/1/2020 PLATE NO. A4-8.9

TELESCOPIC TUBING ANCHORS
TWO PIECE SYSTEM

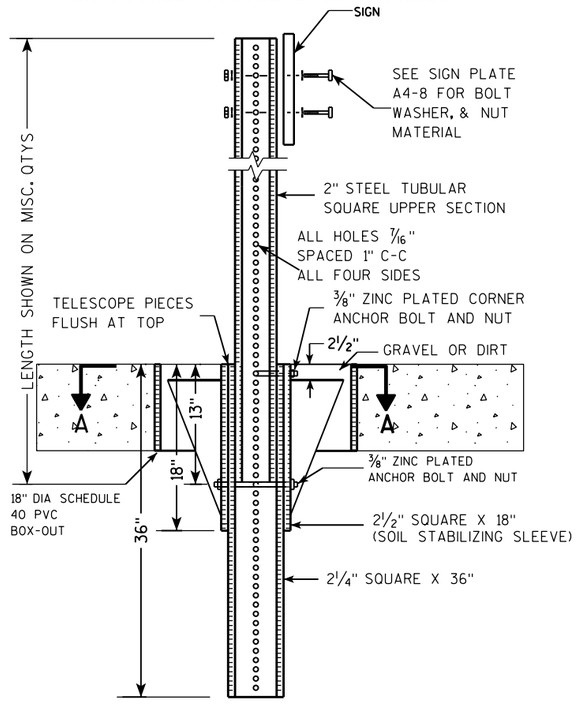
2 1/4 " SQUARE
12 GAUGE
PERFORATED
GALVANIZED FINISH



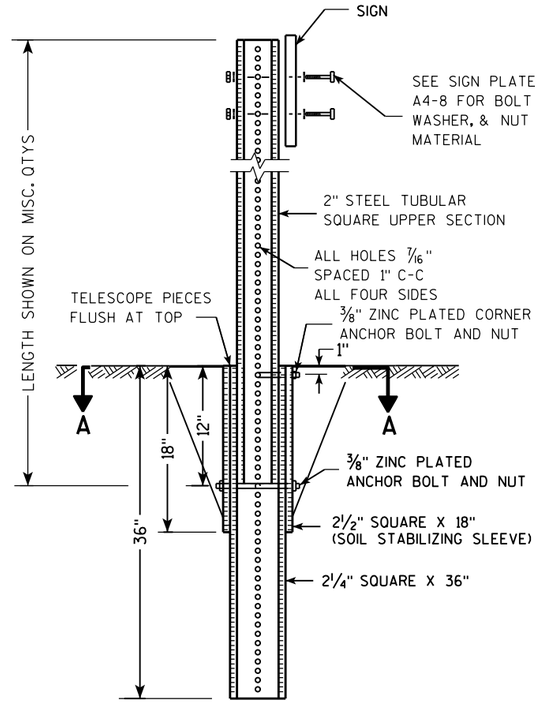
2 1/2 " SQUARE
12 GAUGE
OMNI-DIRECTIONAL
PERFORATED
SOIL STABILIZING SLEEVE
GALVANIZED FINISH

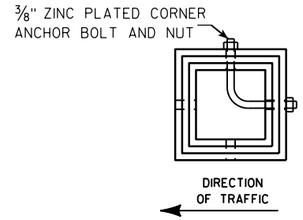


DETAIL OF TUBULAR STEEL SIGN POST
(IN POURED CONCRETE OR ASPHALT)



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

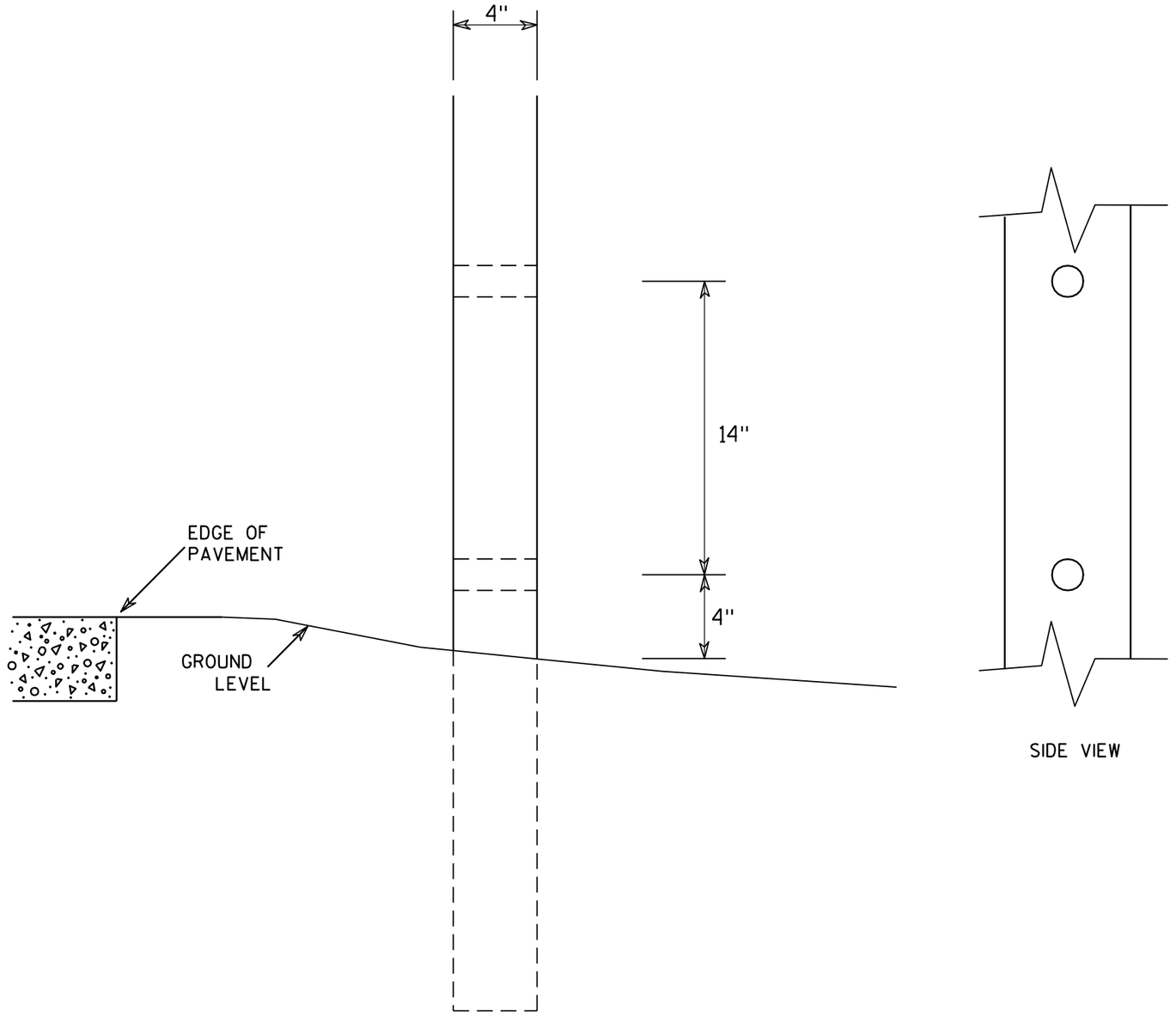
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/05/15 PLATE 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.

7

7

4 X 6 WOOD POST MODIFICATIONS

WISCONSIN DEPT OF TRANSPORTATION

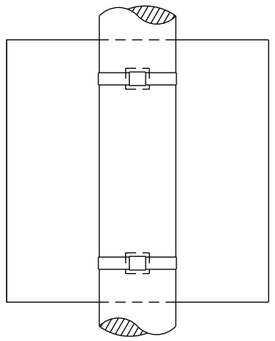
APPROVED Chester J Spang
for State Traffic Engineer

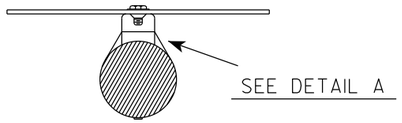
DATE 3/27/97 PLATE NO. A4-11.2

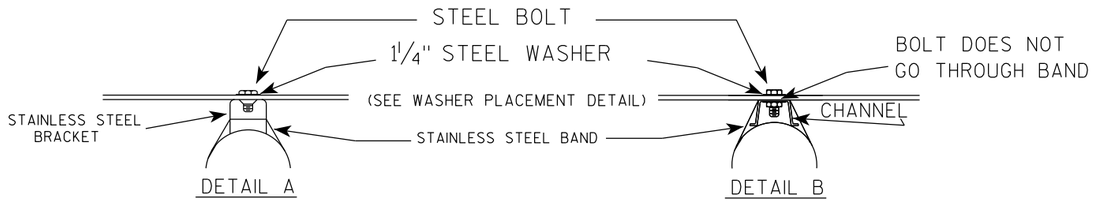
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 106	E

BANDING

SINGLE SIGN



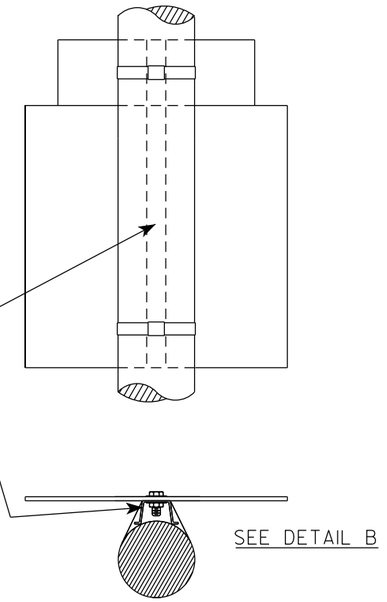




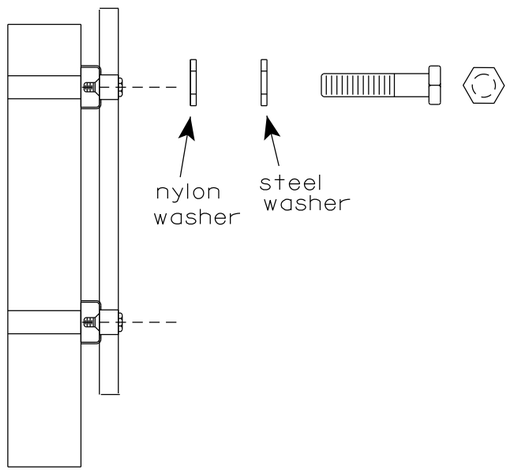
GENERAL NOTES

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

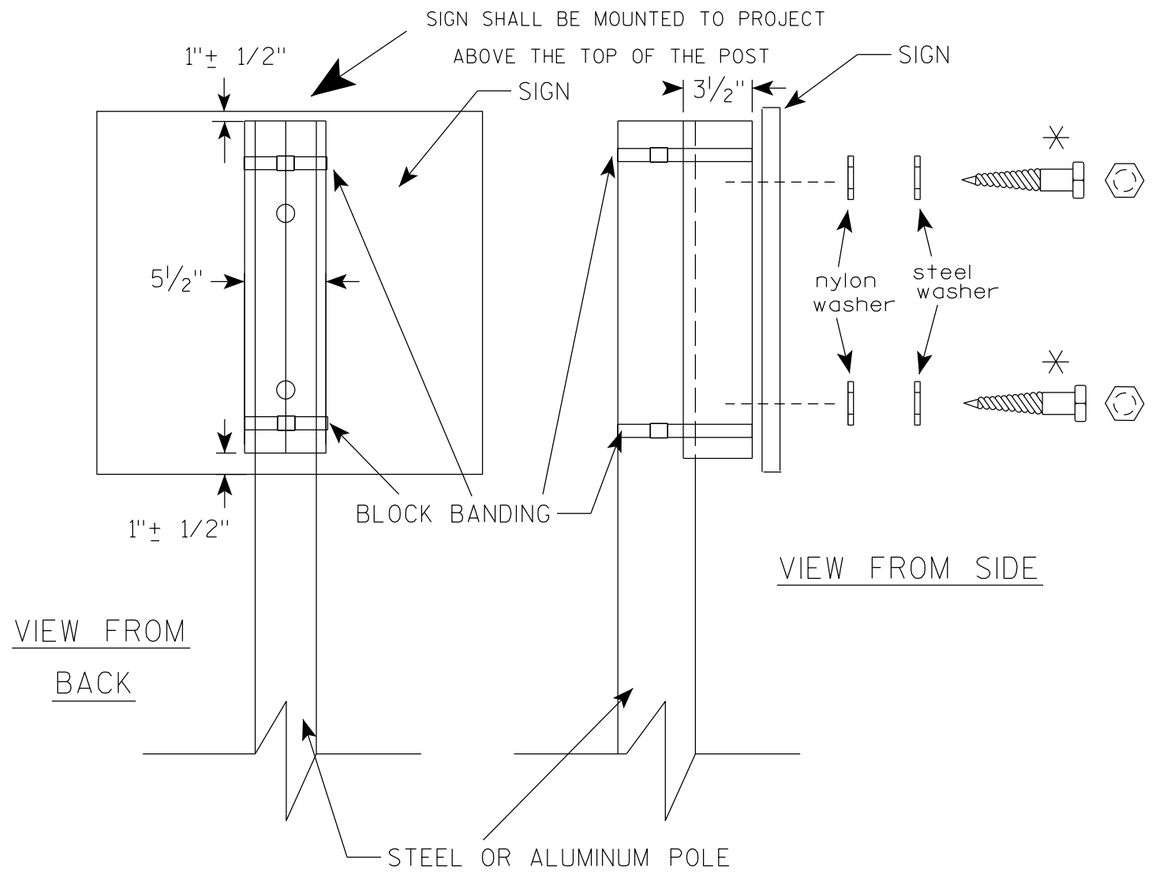
DATE 6/10/19 PLATE NO. A5-9.4

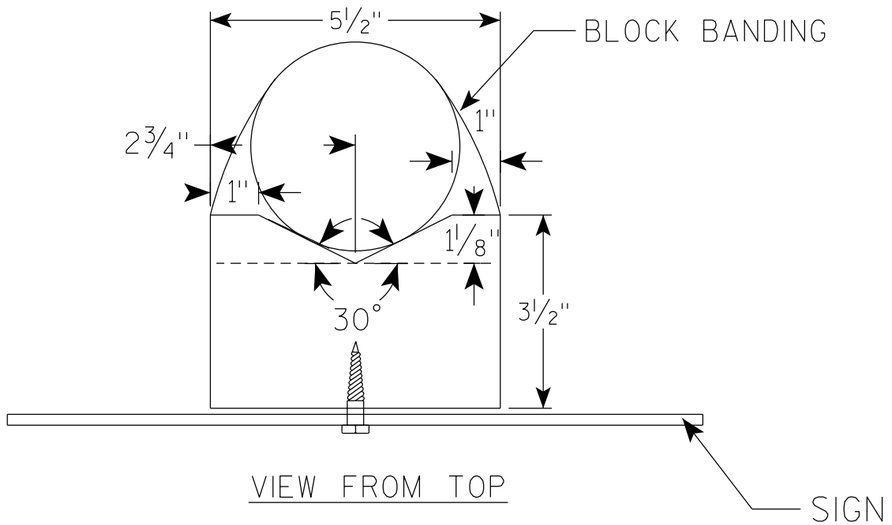
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 107	E

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)

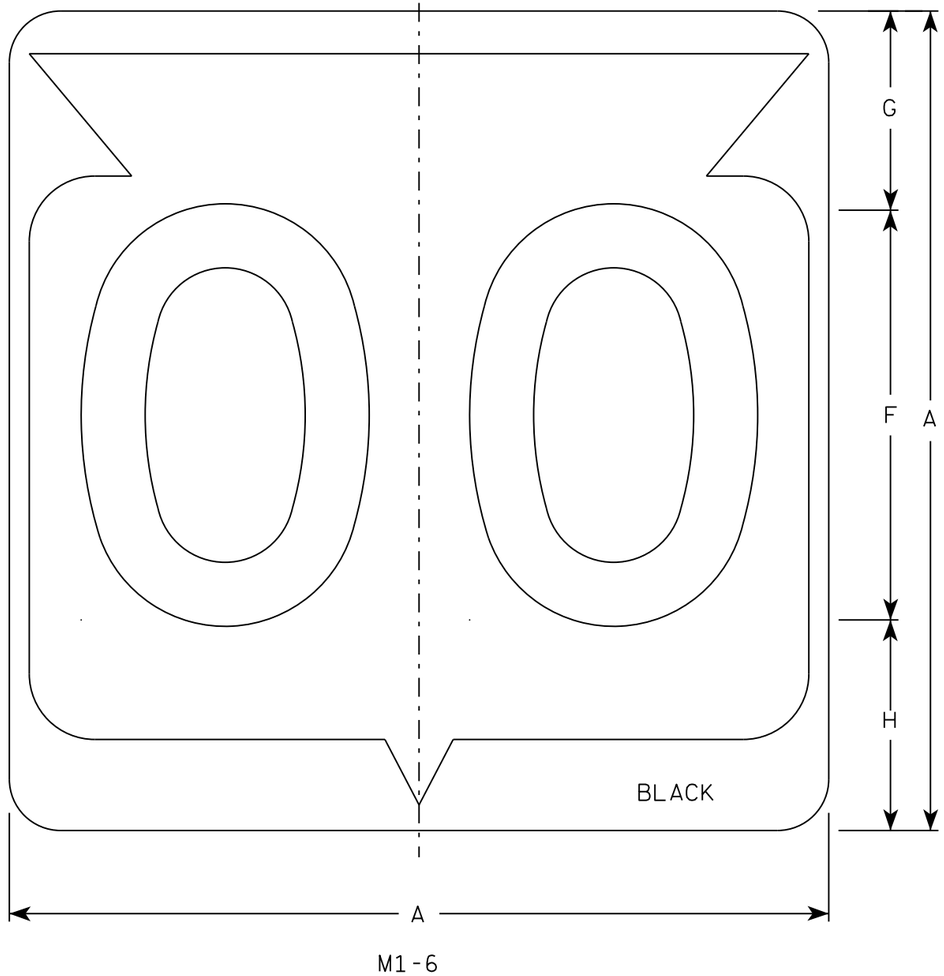
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

PROJECT NO:

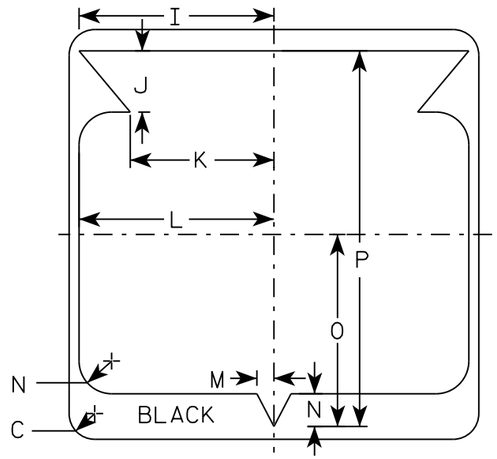
SHEET NO: 108 E



M1-6

NOTES

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



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

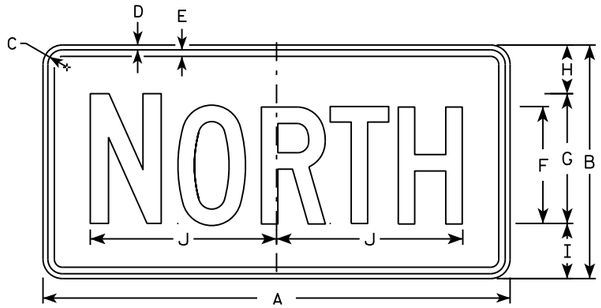
STATE ROUTE MARKER M1-6 FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

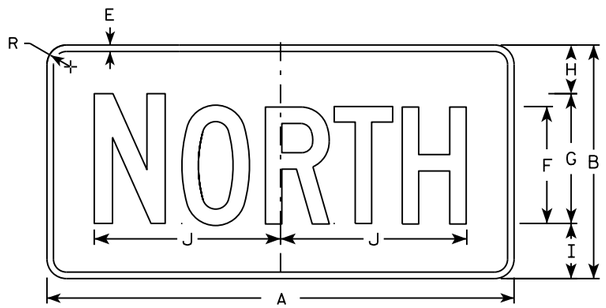
APPROVED Matthew R Rauch for State Traffic Engineer

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

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 109 E



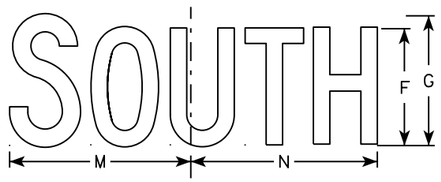
M3-1
MM3-1
MP3-1



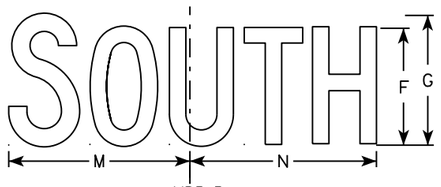
MB3-1
MK3-1
MN3-1

M3-2
MM3-2
MP3-2

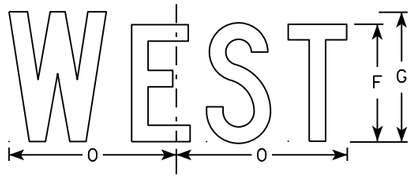
MB3-2
MK3-2
MN3-2



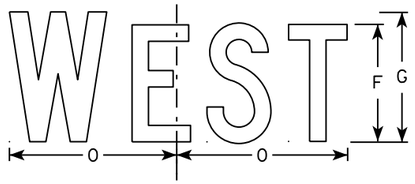
M3-3
MM3-3
MP3-3



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

STANDARD SIGNS
M3-1 thur M3-4
SERIES

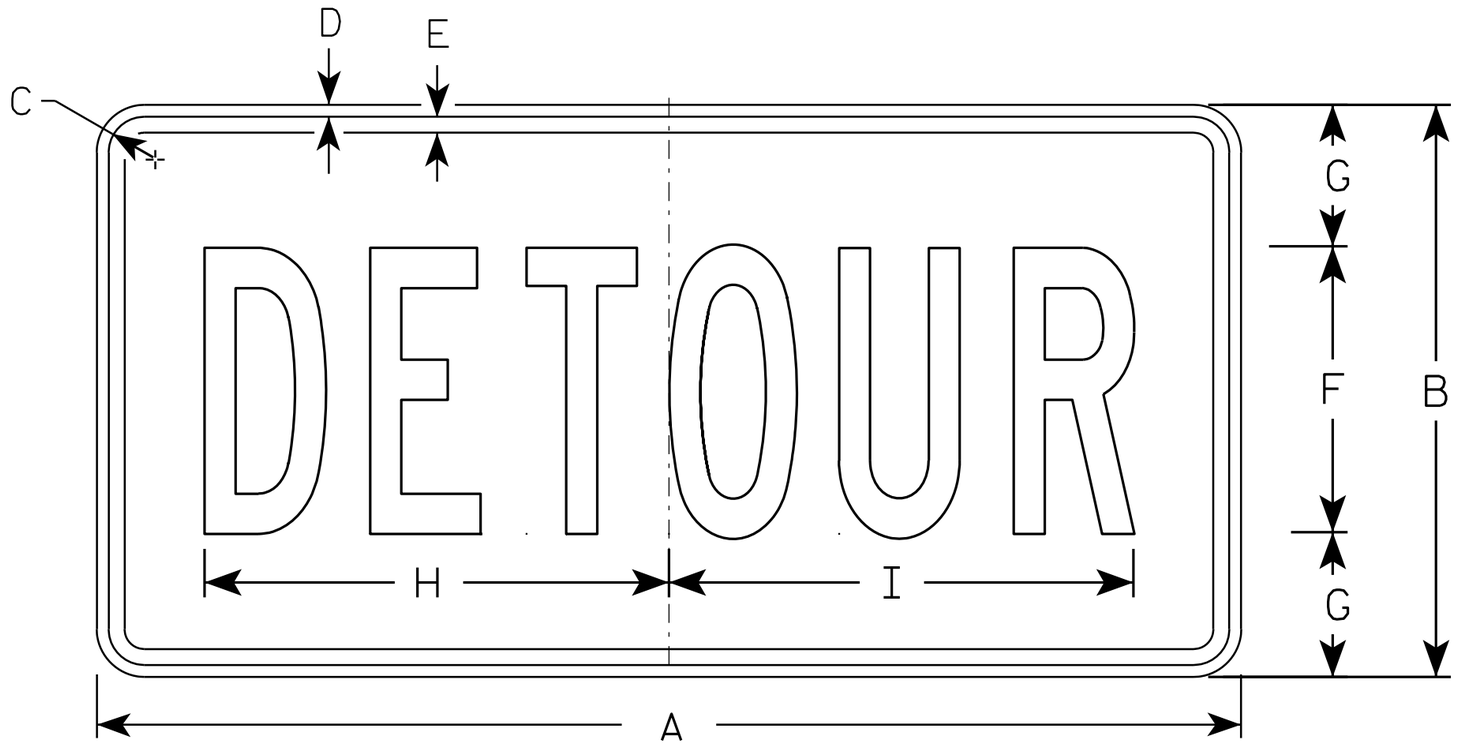
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew P Rauch for State Traffic Engineer

DATE 10/15/15 PLATE NO M3-1.14

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

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\M31.DGN PLOT DATE : 01-DEC-2015 17:54 PLOT BY : $$ plotuser $$ PLOT NAME : PLOT SCALE : 11.675051:1.000000



M4-8

NOTES

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

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

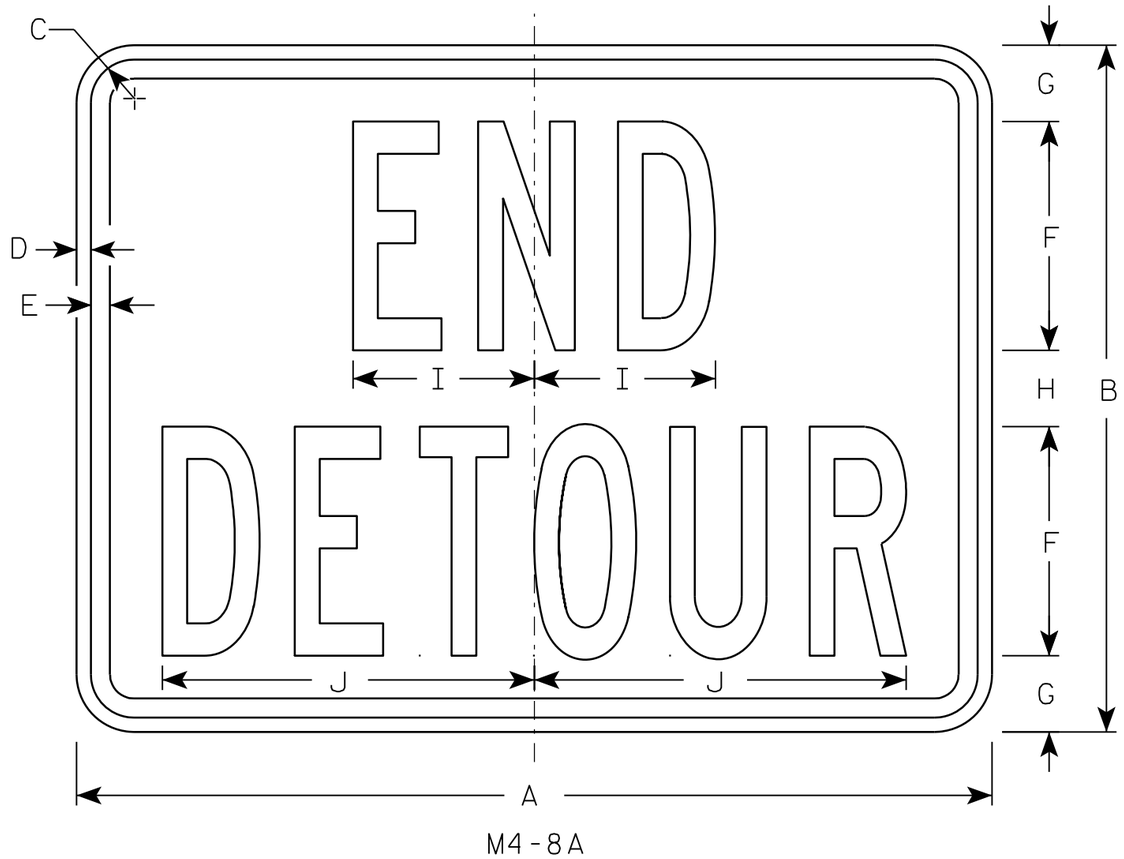
STANDARD SIGN
M4-8

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 111	E



M4-8A

NOTES

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

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

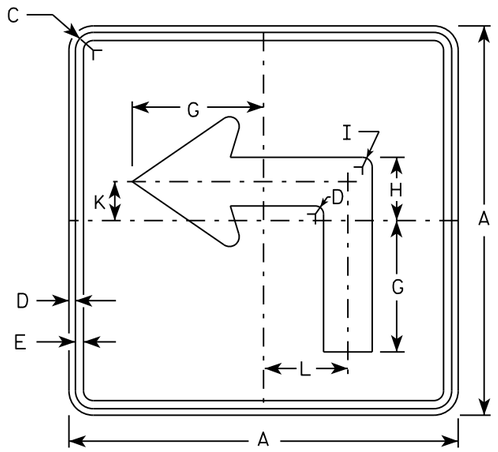
STANDARD SIGN
M4-8A

WISCONSIN DEPT OF TRANSPORTATION

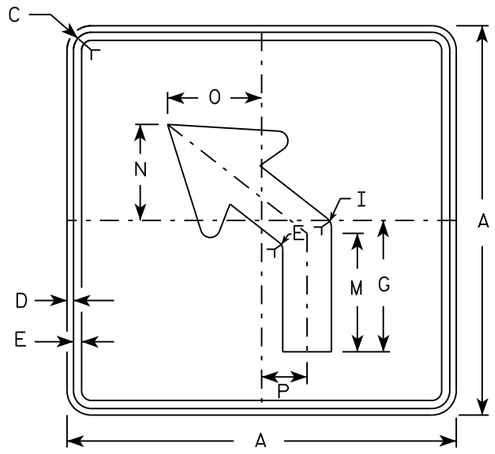
APPROVED Matthew R Rauch
for State Traffic Engineer

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

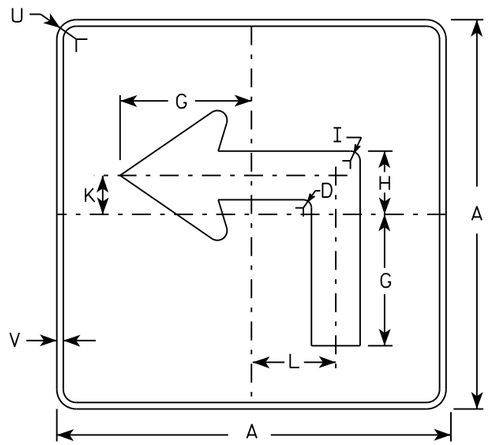
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 112	E



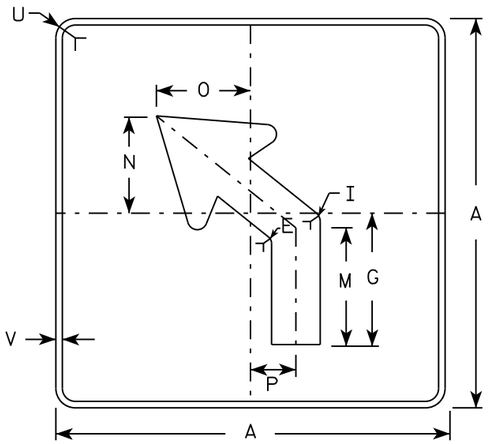
M5-1L
MM5-1L
MO5-1L
MP5-1L



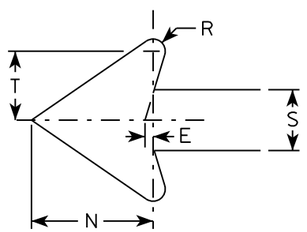
M5-2L
MM5-2L
MO5-2L
MP5-2L



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



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



NOTES

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

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

STANDARD SIGN
M5-1 & M5-2

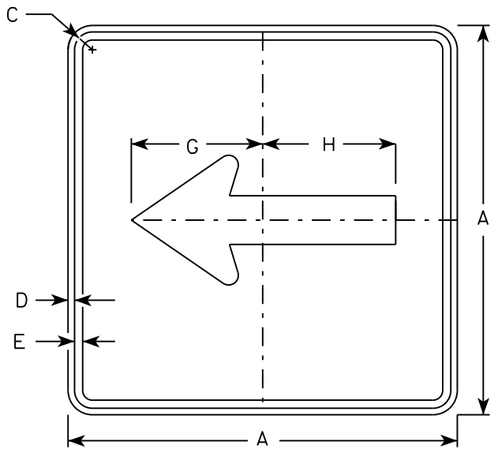
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

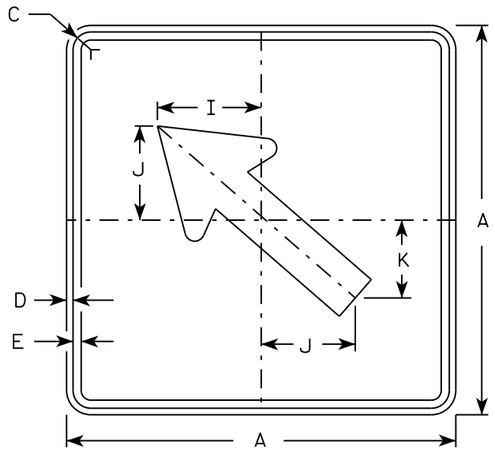
DATE 10/15/15 PLATE NO. M5-1.13

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

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



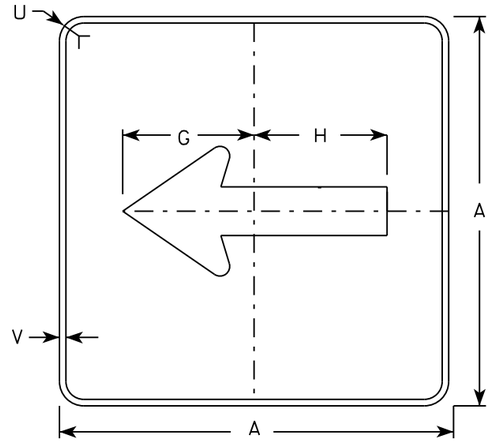
M6-1
MM6-1
MO6-1
MP6-1



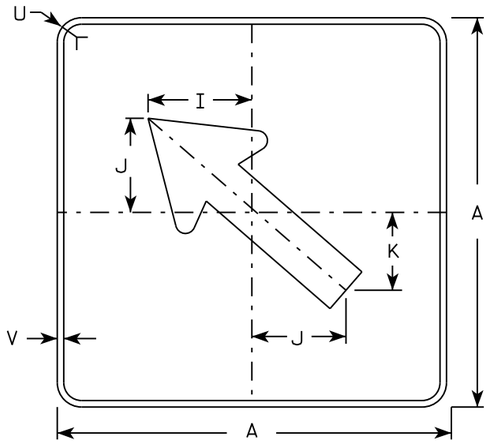
M6-2
MM6-2
MO6-2
MP6-2

NOTES

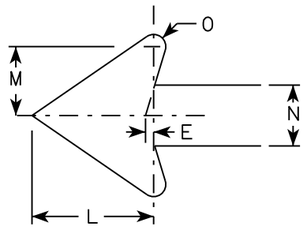
1. Signs are Type II - Type H except as Shown
2. Color:
   Background - See note 4
   Message - See note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. M6-1 and M6-2 Background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



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



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



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

STANDARD SIGN M6-1 & M6-2 SERIES

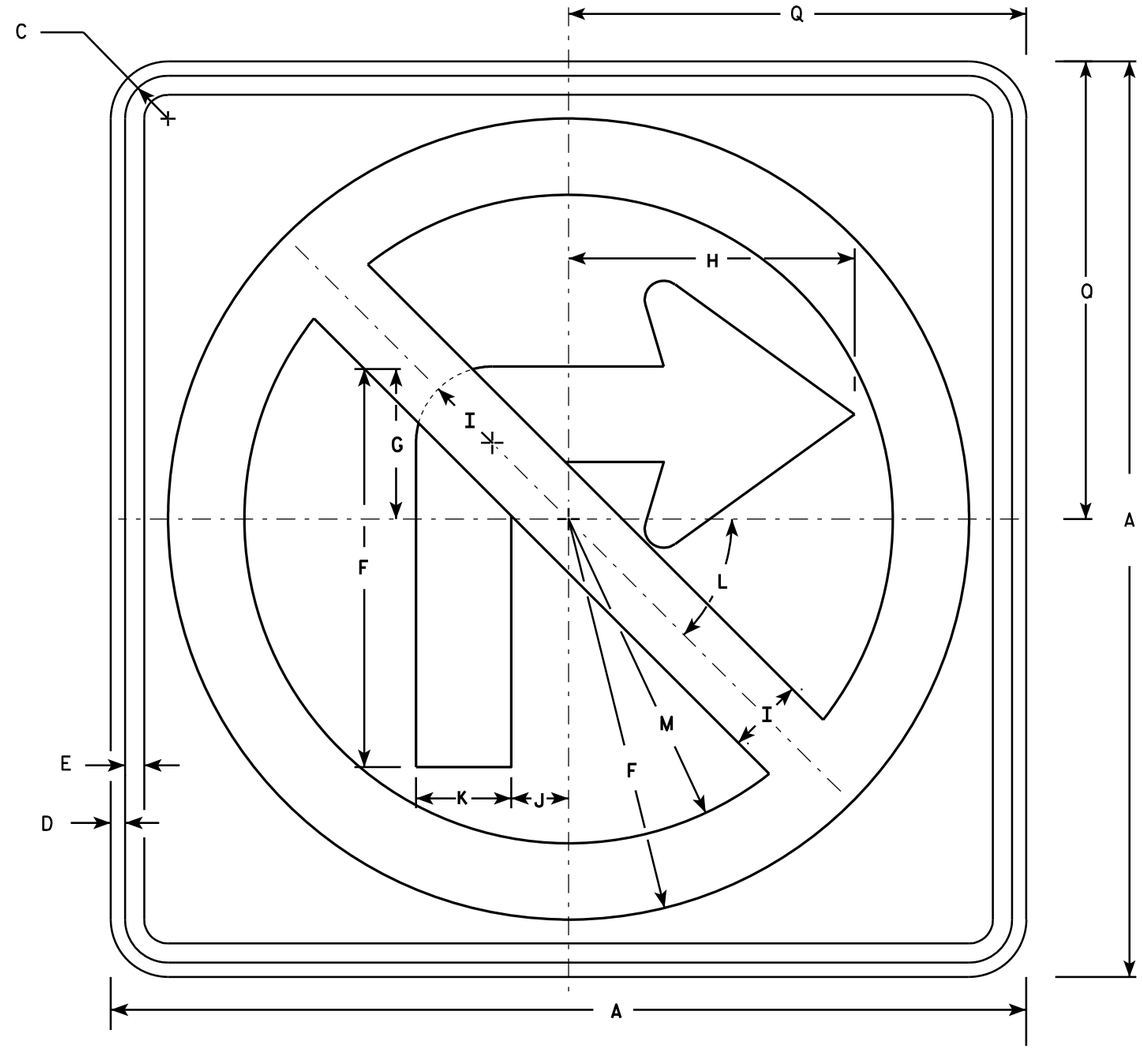
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 10/15/15 PLATE 114 M6-1.15

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

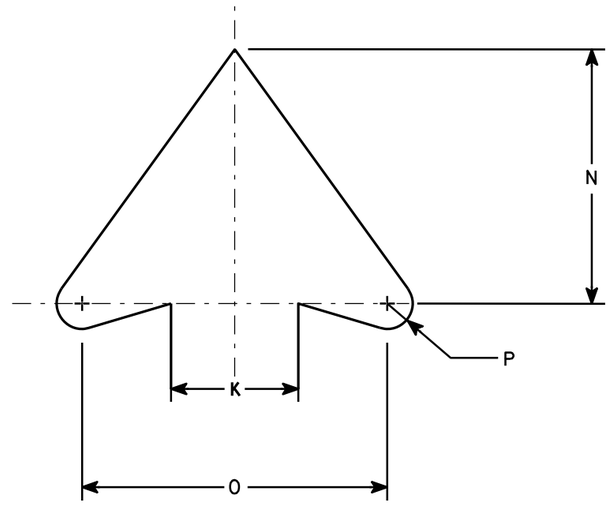
FILE NAME : C:\CAEfiles\Projects\tr_stdplate\M61.DGN PLOT DATE : 01-DEC-2015 17:57 PLOT BY : $$ plotuser $$ PLOT NAME : PLOT SCALE : 11.675051:1.000000



R3-1

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   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. Border & Arrow are non reflective black, the circle with diagonal bar is reflective red.



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	24		1 1/8	3/8	1/2	10 1/2	4	7 1/2	2	1 1/2	2 1/2	45	8 1/2	5	6	1/2	12										4.0
2S	24		1 1/8	3/8	1/2	10 1/2	4	7 1/2	2	1 1/2	2 1/2	45°	8 1/2	5	6	1/2	12										4.0
2M	36		1 5/8	5/8	3/4	15 3/4	6	11 1/4	3	2 1/4	3 3/4	45	12 3/4	7 1/2	9	3/4	18										9.0
3	36		1 5/8	5/8	3/4	15 3/4	6	11 1/4	3	2 1/4	3 3/4	45	12 3/4	7 1/2	9	3/4	18										9.0
4	36		1 5/8	5/8	3/4	15 3/4	6	11 1/4	3	2 1/4	3 3/4	45°	12 3/4	7 1/2	9	3/4	18										9.0
5	48		2 1/4	3/4	1	21	8	15	4	3	5	45°	17	10	12	1	24										16.0

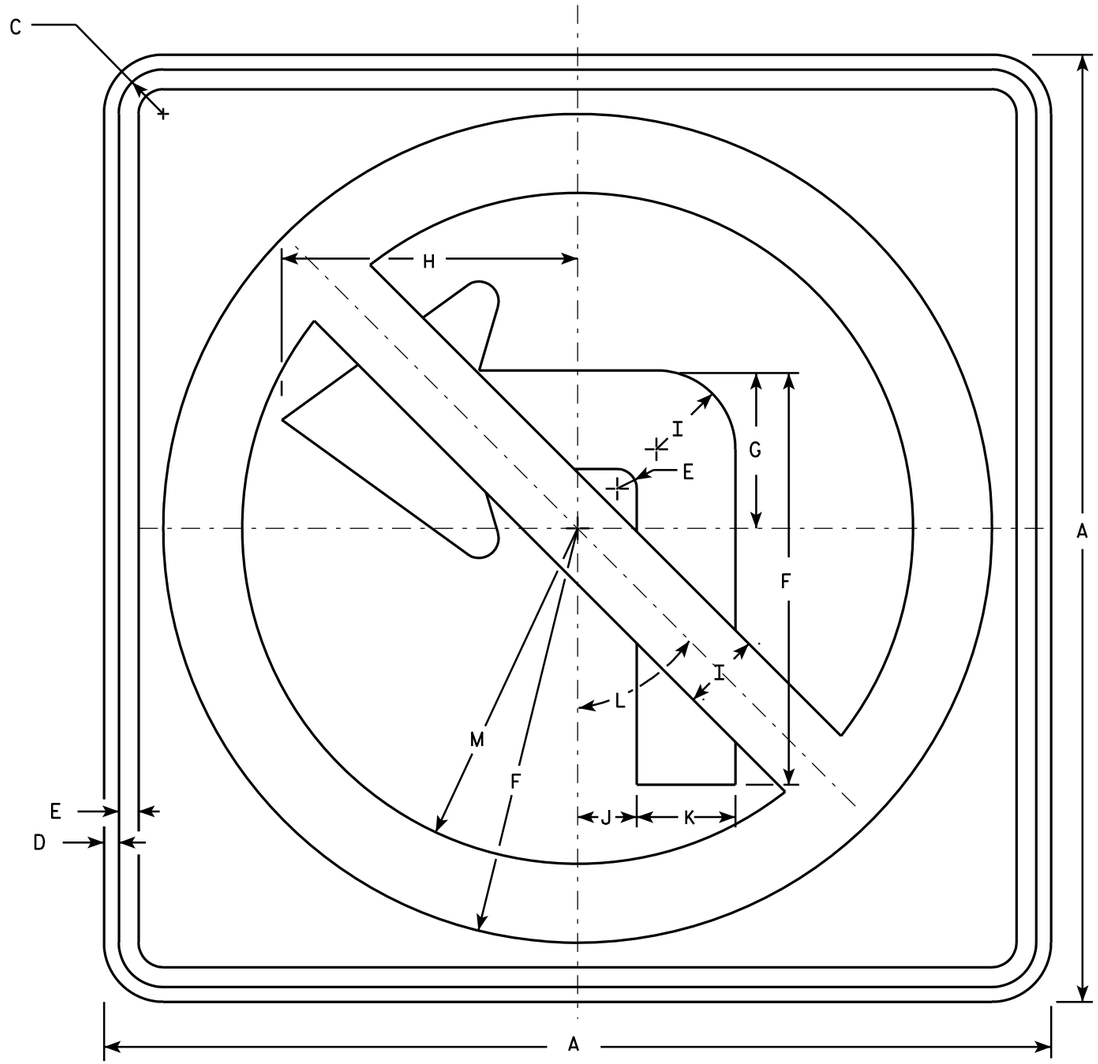
STANDARD SIGN
R3-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/08/10 PLATE NO. R3-1.5

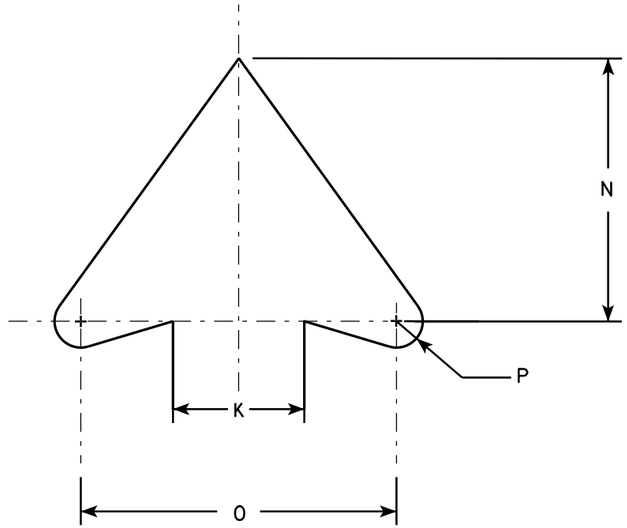
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 115	E



R3-2

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   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. Border & Arrow are non reflective black, the circle with diagonal bar is reflective red.



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	24		1 1/8	3/8	1/2	10 1/2	4	7 1/2	2	1 1/2	2 1/2	45°	8 1/2	5	6	1/2											4.0
2S	24		1 1/8	3/8	1/2	10 1/2	4	7 1/2	2	1 1/2	2 1/2	45°	8 1/2	5	6	1/2											4.0
2M	36		1 5/8	5/8	3/4	15 3/4	6	11 1/4	3	2 1/4	3 3/4	45°	12 3/4	7 1/2	9	3/4											9.0
3	36		1 5/8	5/8	3/4	15 3/4	6	11 1/4	3	2 1/4	3 3/4	45°	12 3/4	7 1/2	9	3/4											9.0
4	36		1 5/8	5/8	3/4	15 3/4	6	11 1/4	3	2 1/4	3 3/4	45°	12 3/4	7 1/2	9	3/4											9.0
5	48		2 1/4	3/4	1	21	8	15	4	3	5	45°	17	10	12	1											16.0

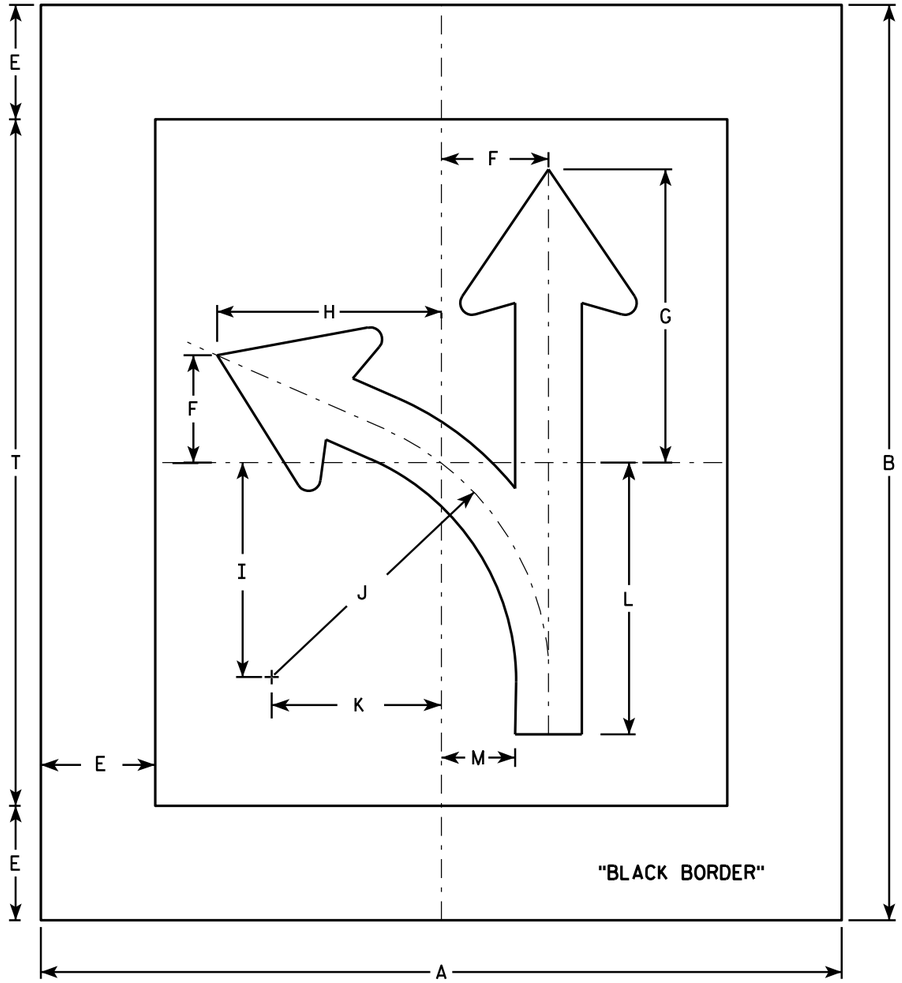
STANDARD SIGN
R3-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/08/10 PLATE NO. R3-2.10

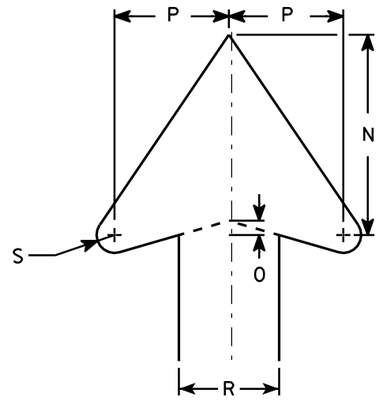
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 116	E



R3-6L

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Corners may be square or rounded when base material is plywood. When base material is metal, the corners shall be rounded.
4. R3-6R is the same as R3-6L except curved portion of arrow points right.
5. The 6" border is non-reflective black.



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	42	48			6	5 5/8	15 3/8	11 3/4	11 1/4	14 1/2	8 7/8	14 1/4	3 7/8	7	1/2	4		3 1/2	5/8	36							14.0
2M	42	48			6	5 5/8	15 3/8	11 3/4	11 1/4	14 1/2	8 7/8	14 1/4	3 7/8	7	1/2	4		3 1/2	5/8	36							14.0
3																											
4																											
5																											

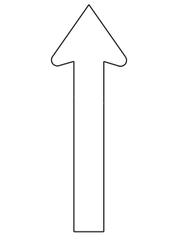
STANDARD SIGN
R3-6

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

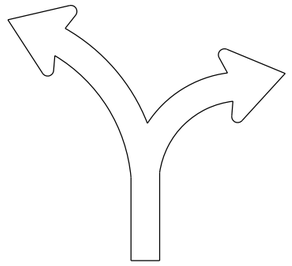
DATE 3/17/2011 PLATE NO. R3-6.5

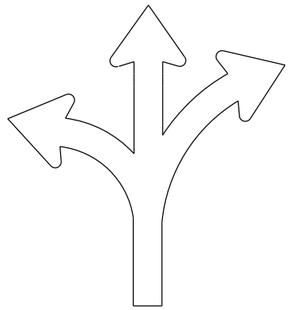
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 117 | E

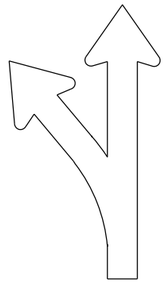


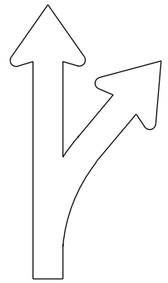
(A)

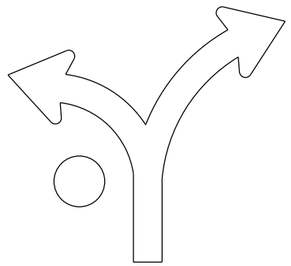
(B)

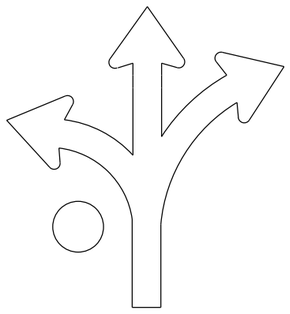

(C)

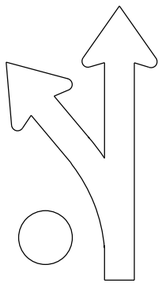

(D)


(E)

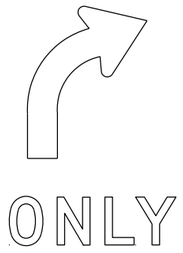

(F)


(G)

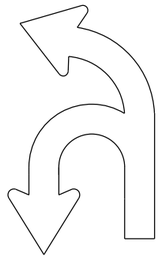

(H)


(I)

(L)



(R)


(U)

NOTES

1. Sigs are Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - D
4. Use appropriate Letter for Sign Code
   Each letter added makes sign wider. Example R3-8EAR
5. Square footage of sign varies by letters

1	Letter =	3.75 sq ft for Size 2
		6.0 sq ft for Size 3
		10.0 sq ft for Size 4 or 5
2	Letters =	7.5 sq ft for Size 2
		12.0 sq ft for Size 3
		20.0 sq ft for Size 4 or 5
3	Letters =	11.25 sq ft for Size 2
		18.0 sq ft for Size 3
		30.0 sq ft for Size 4 or 5
4	Letters =	15.0 sq ft for Size 2
		24.0 sq ft for Size 3
		40.0 sq ft for Size 4 or 5
5	Letters =	18.75 sq ft for Size 2
		30.0 sq ft for Size 3
		50.0 sq ft for Size 4 or 5
6	Letters =	22.5 sq ft for Size 2
		36.0 sq ft for Size 3
		60.0 sq ft for Size 4 or 5

6. When letters C,D,G,H are used on the Left or Right end of the sign the Sq. Ft. changes.
   Add the amounts when these letters are used:
   1.25 sq ft for Size 2
   1.5 sq ft for Size 3
   2.0 sq ft for Size 4 or 5

STANDARD SIGN
R3-8 Series

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
For State Traffic Engineer

DATE 5/21/19 PLATE NO. R3-8.1

7

7

PROJECT NO:

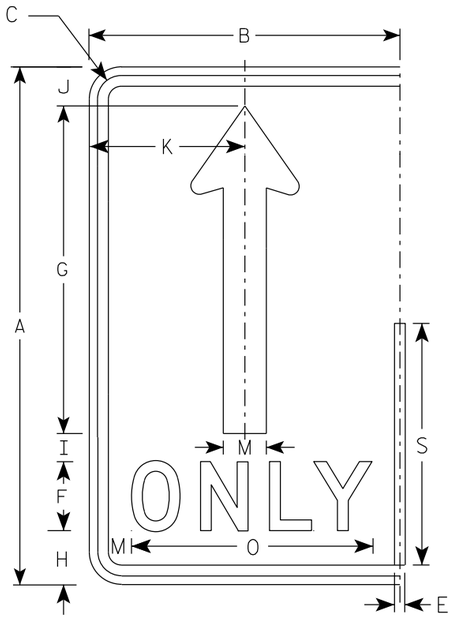
SHEET NO: 118 E

FILE NAME : C:\CAEfiles\Projects\stdplate_R38.dgn PLOT DATE : 21-MAY 2019 4:37 PLOT BY : mscj9h PLOT NAME :

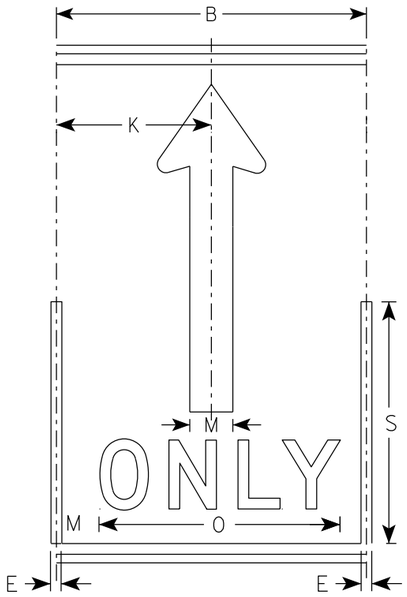
WISDOT/CADDS SHEET 42

NOTES

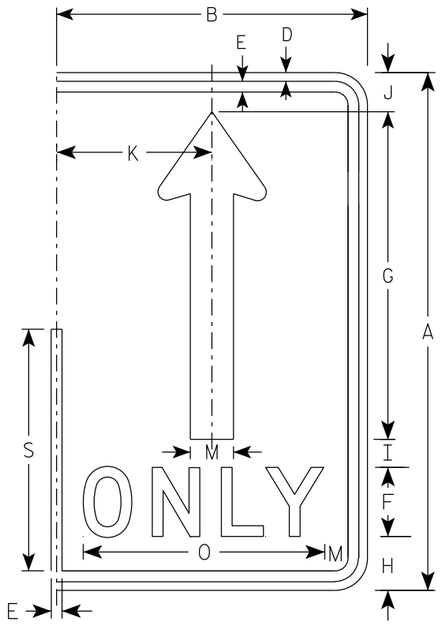
1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - D



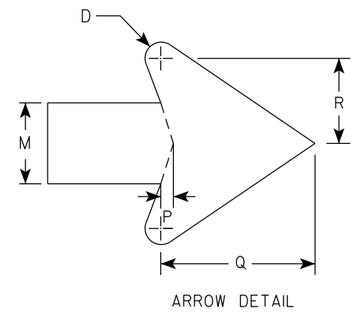
(A)



(A)



(A)



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	30	18	1 3/8	1/2	5/8	4	19	3 1/8	1 5/8	2 1/4	9		2 1/2		14	3/8	4 3/4	2 5/8	14								3.75
2M	30	18	1 3/8	1/2	5/8	4	19	3 1/8	1 5/8	2 1/4	9		2 1/2		14	3/8	4 3/4	2 5/8	14								3.75
3	36	24	1 3/8	1/2	5/8	5	22 3/4	3 3/4	1 3/4	2 3/4	12		3		17 5/8	1/2	5 3/4	3 1/8	16 3/4								6.0
4	48	30	2 1/4	3/4	1	6	30 3/8	5 1/8	2 7/8	3 5/8	15		4		21 3/4	5/8	7 5/8	4 1/4	22 3/8								10.0
5	48	30	2 1/4	3/4	1	6	30 3/8	5 1/8	2 7/8	3 5/8	15		4		21 3/4	5/8	7 5/8	4 1/4	22 3/8								10.0

STANDARD SIGN
R3-8 (A) Arrow

WISCONSIN DEPT OF TRANSPORTATION

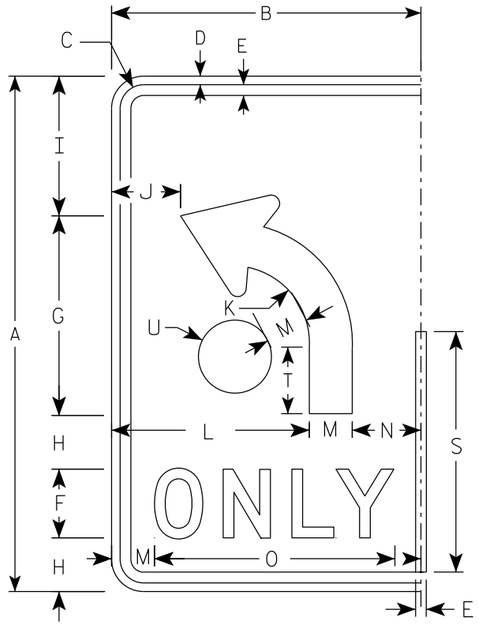
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/21/19 PLATE NO. R3-8.1

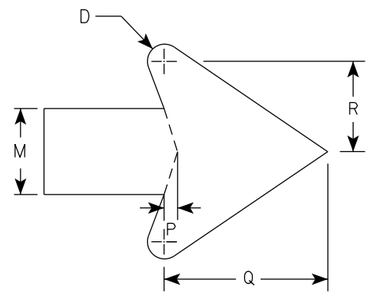
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 119 | E

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
   Message Series - D



(B)



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	30	18	1 3/8	1/2	5/8	4	11 5/8	3 1/8	8 1/8	4	4 1/2	11 1/2	2 1/2	4	14	3/8	4 3/4	2 5/8	14	3 7/8	2 1/8						3.75
2M	30	18	1 3/8	1/2	5/8	4	11 5/8	3 1/8	8 1/8	4	4 1/2	11 1/2	2 1/2	4	14	3/8	4 3/4	2 5/8	14	3 7/8	2 1/8						3.75
3	36	24	1 3/8	1/2	5/8	5	14	3 1/2	9 3/4	6	5 3/8	15	3	6	17 5/8	1/2	5 3/4	3 1/8	16 3/4	4 5/8	2 1/2						6.0
4	48	30	2 1/4	3/4	1	6	18 5/8	5 1/8	13 1/8	6 1/8	7 1/4	18	4	8	21 3/4	5/8	7 5/8	4 1/4	22 3/8	6 1/4	3 3/8						10.0
5	48	30	2 1/4	3/4	1	6	18 5/8	5 1/8	13 1/8	6 1/8	7 1/4	18	4	8	21 3/4	5/8	7 5/8	4 1/4	22 3/8	6 1/4	3 3/8						10.0

STANDARD SIGN

R3-8 (B) Arrow

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch

for State Traffic Engineer

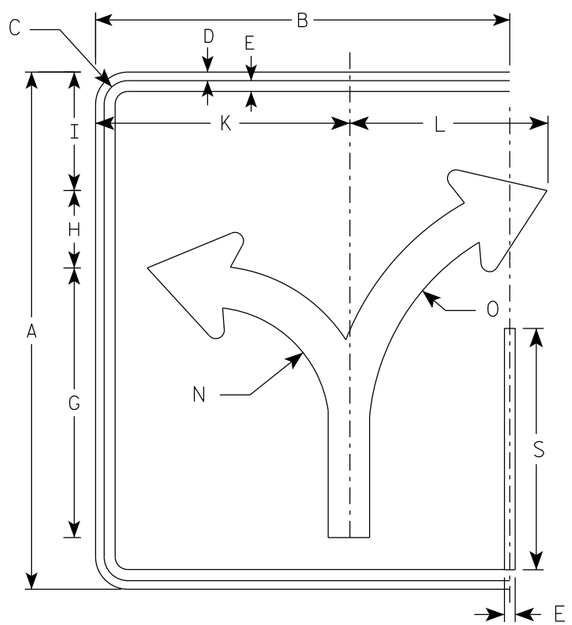
DATE 5/21/19 PLATE NO. R3-8.1

PROJECT NO:

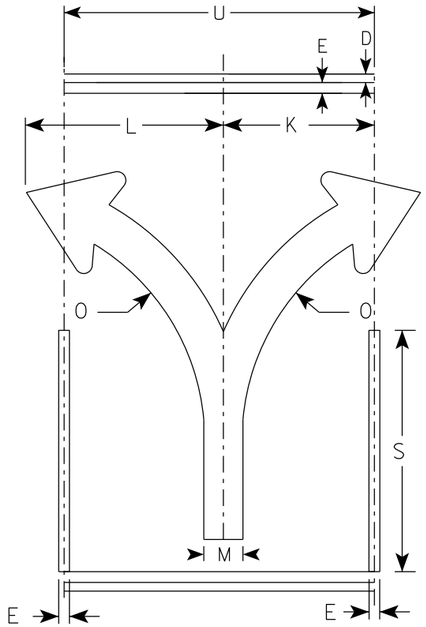
SHEET NO: 120 E

NOTES

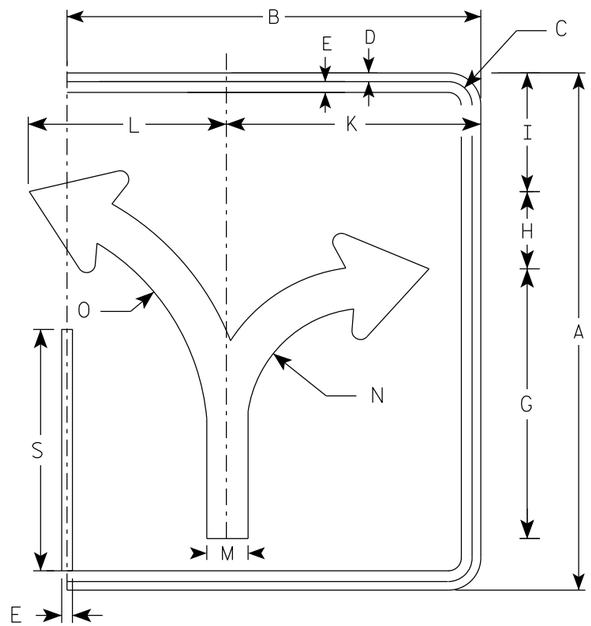
1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - None



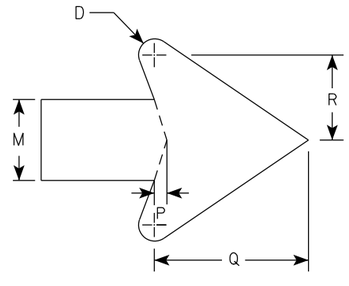
(C)



(C)



(C)



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	ENDS Area sq. ft.	MIDDLE Area sq. ft.
1																												
2S	30	24	1 3/8	1/2	5/8		15 5/8	4 1/2	6 7/8		14 3/4	11 1/2	2 3/8	7	13 1/4	3/8	4 1/2	2 1/2	14		18						5.0	3.75
2M	30	24	1 3/8	1/2	5/8		15 5/8	4 1/2	6 7/8		14 3/4	11 1/2	2 3/8	7	13 1/4	3/8	4 1/2	2 1/2	14		18						5.0	3.75
3	36	30	1 3/8	1/2	5/8		18 3/4	5 1/2	8 1/4		17 1/4	17 1/4	2 7/8	8 3/8	16	1/2	5 1/2	3	16 3/4		24						7.5	6.0
4	48	36	2 1/4	3/4	1		24 7/8	7 1/4	11		23 1/8	18	3 3/4	11 1/8	21 1/4	5/8	7 1/8	4	22 3/8		30						12.0	10.0
5	48	36	2 1/4	3/4	1		24 7/8	7 1/4	11		23 1/8	18	3 3/4	11 1/8	21 1/4	5/8	7 1/8	4	22 3/8		30						12.0	10.0

STANDARD SIGN
R3-8 (C) Arrow

WISCONSIN DEPT OF TRANSPORTATION

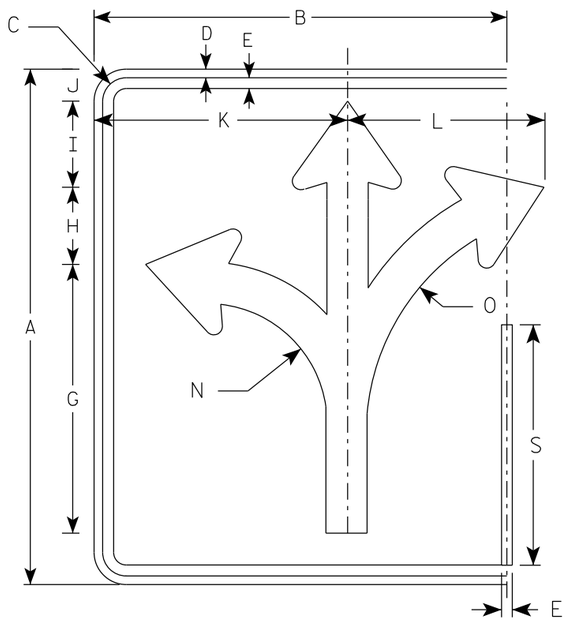
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/21/19 PLATE NO. R3-8.1

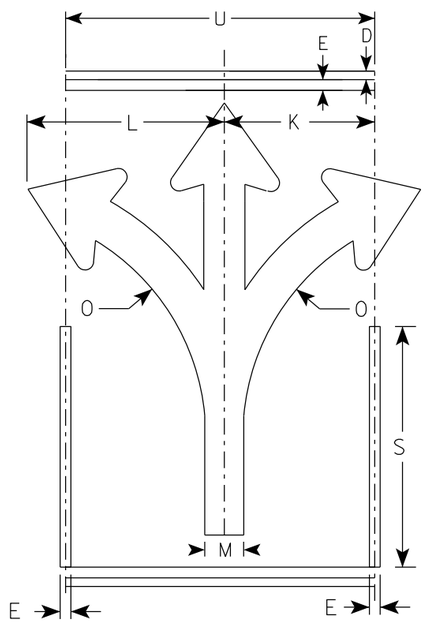
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 121 | E

NOTES

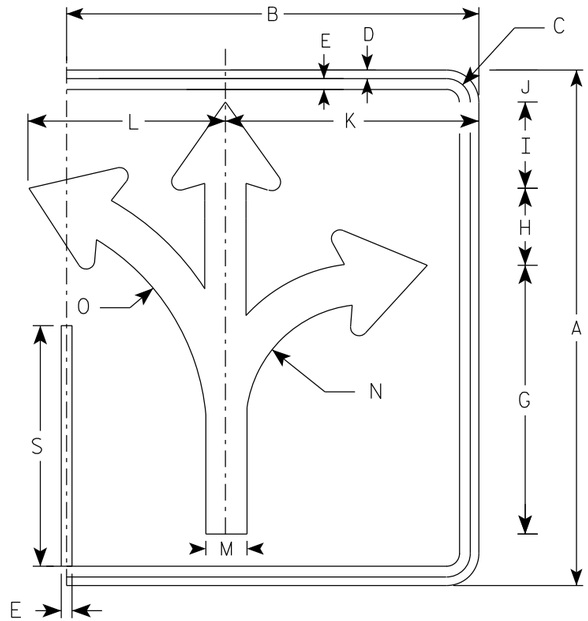
1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - None



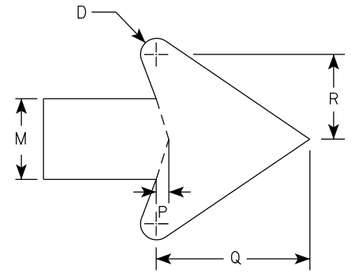
(D)



(D)



(D)



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	ENDS Area sq. ft.	MIDDLE Area sq. ft.
1																												
2S	30	24	1 3/8	1/2	5/8		15 5/8	4 1/2	5	1 7/8	14 3/4	11 1/2	2 3/8	7	13 1/4	3/8	4 1/2	2 1/2	14		18						5.0	3.75
2M	30	24	1 3/8	1/2	5/8		15 5/8	4 1/2	5	1 7/8	14 3/4	11 1/2	2 3/8	7	13 1/4	3/8	4 1/2	2 1/2	14		18						5.0	3.75
3	36	30	1 3/8	1/2	5/8		18 3/4	5 1/2	6	2 1/4	17 1/4	17 1/4	2 7/8	8 3/8	16	1/2	5 1/2	3	16 3/4		24						7.5	6.0
4	48	36	2 1/4	3/4	1		24 7/8	7 1/4	7 7/8	3 1/8	23 1/8	18	3 3/4	11 1/8	21 1/4	5/8	7 1/8	4	22 3/8		30						12.0	10.0
5	48	36	2 1/4	3/4	1		24 7/8	7 1/4	7 7/8	3 1/8	23 1/8	18	3 3/4	11 1/8	21 1/4	5/8	7 1/8	4	22 3/8		30						12.0	10.0

STANDARD SIGN
R3-8 (D) Arrow

WISCONSIN DEPT OF TRANSPORTATION

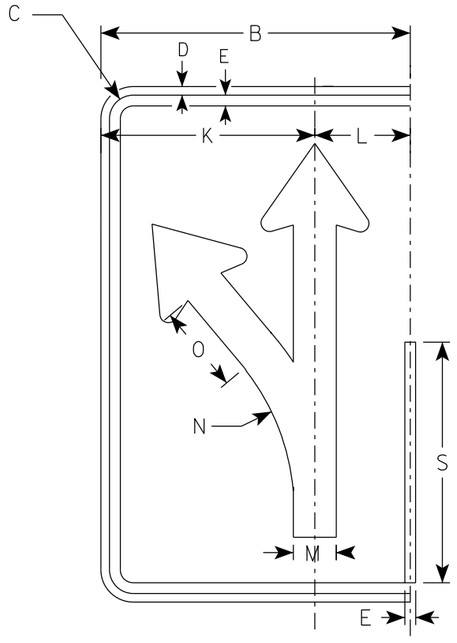
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/21/19 PLATE NO. R3-8.1

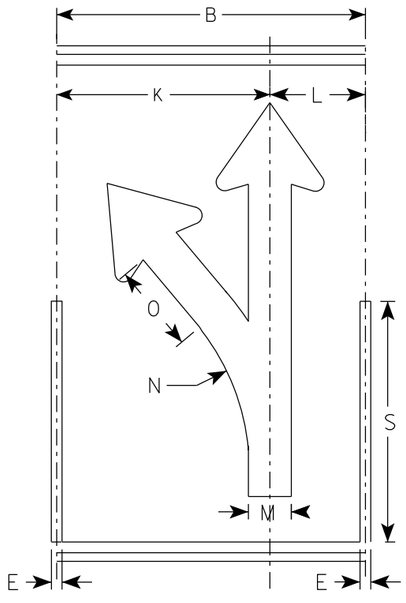
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 122 | E

NOTES

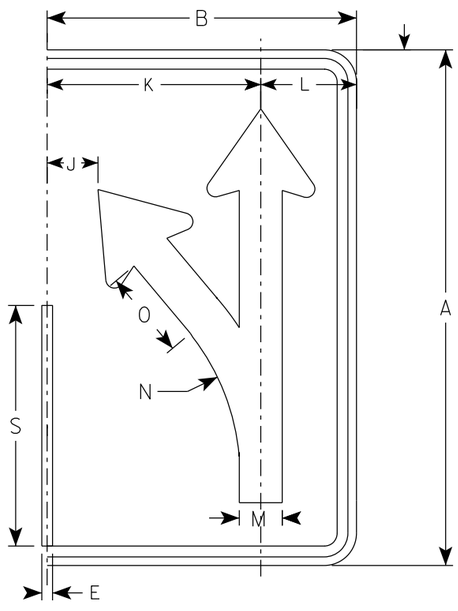
1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - None



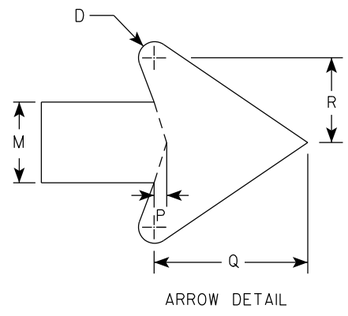
(E)



(E)



(E)



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	30	18	1 3/8	1/2	5/8		18 1/4	4 3/4	3 1/4	3	12 1/2	5 1/2	2 1/2	13 1/4	5 1/8	3/8	4 3/4	2 5/8	14								3.75
2M	30	18	1 3/8	1/2	5/8		18 1/4	4 3/4	3 1/4	3	12 1/2	5 1/2	2 1/2	13 1/4	5 1/8	3/8	4 3/4	2 5/8	14								3.75
3	36	24	1 3/8	1/2	5/8		21 7/8	5 5/8	4	4 7/8	16 1/8	7 3/4	3	15 7/8	6 1/8	1/2	5 3/4	3 1/8	16 3/4								6.0
4	48	30	2 1/4	3/4	1		29 1/8	7 1/2	5 1/4	5 3/8	20 1/2	9 1/2	4	21 1/4	8 1/4	5/8	7 5/8	4 1/4	22 3/8								10.0
5	48	30	2 1/4	3/4	1		29 1/8	7 1/2	5 1/4	5 3/8	20 1/2	9 1/2	4	21 1/4	8 1/4	5/8	7 5/8	4 1/4	22 3/8								10.0

STANDARD SIGN
R3-8 (E) Arrow

WISCONSIN DEPT OF TRANSPORTATION

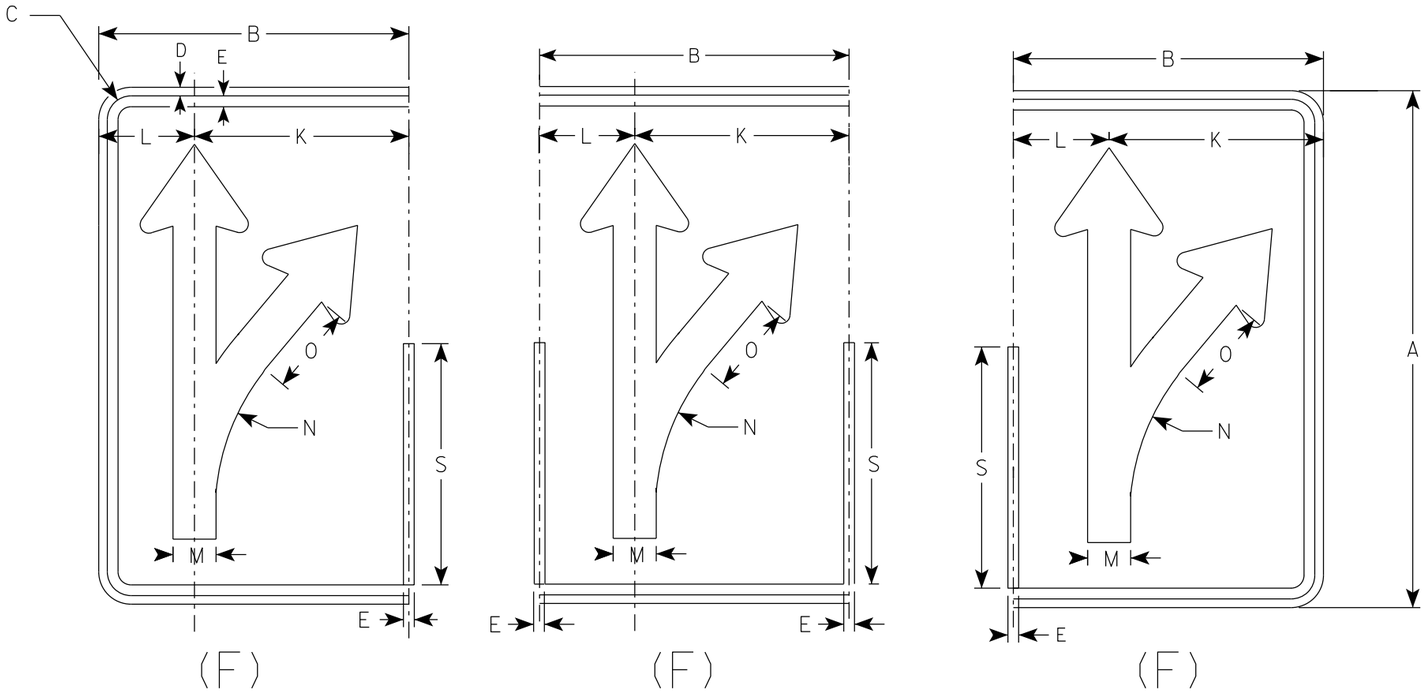
APPROVED Matthew R Rauch
For State Traffic Engineer

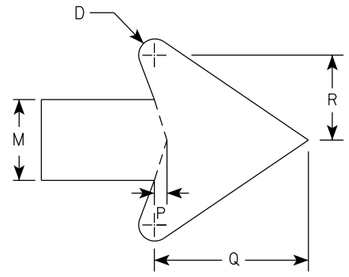
DATE 5/21/19 PLATE NO. R3-8.1

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 123 | E

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - None





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	30	18	1 3/8	1/2	5/8		18 1/4	4 3/4	3 1/4	3	12 1/2	5 1/2	2 1/2	13 1/4	5 1/8	3/8	4 3/4	2 5/8	14								3.75
2M	30	18	1 3/8	1/2	5/8		18 1/4	4 3/4	3 1/4	3	12 1/2	5 1/2	2 1/2	13 1/4	5 1/8	3/8	4 3/4	2 5/8	14								3.75
3	36	24	1 3/8	1/2	5/8		21 7/8	5 5/8	4	4 7/8	16 1/8	7 3/4	3	15 7/8	6 1/8	1/2	5 3/4	3 1/8	16 3/4								6.0
4	48	30	2 1/4	3/4	1		29 1/8	7 1/2	5 1/4	5 3/8	20 1/2	9 1/2	4	21 1/4	8 1/4	5/8	7 5/8	4 1/4	22 3/8								10.0
5	48	30	2 1/4	3/4	1		29 1/8	7 1/2	5 1/4	5 3/8	20 1/2	9 1/2	4	21 1/4	8 1/4	5/8	7 5/8	4 1/4	22 3/8								10.0

STANDARD SIGN
R3-8 (F) Arrow

WISCONSIN DEPT OF TRANSPORTATION

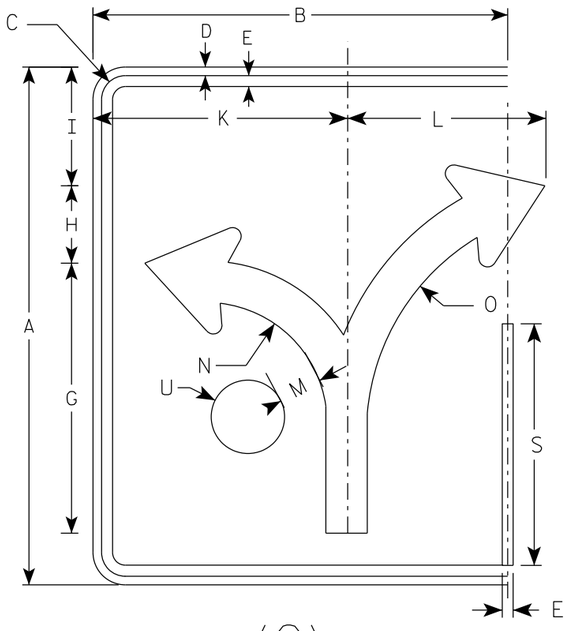
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/21/19 PLATE NO. R3-8.1

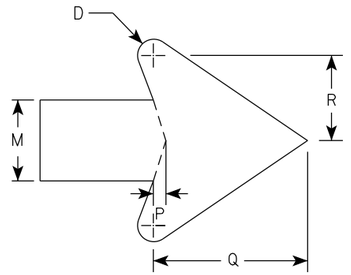
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 124 | E

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - None



(G)



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	30	24	1 3/8	1/2	5/8		15 5/8	4 1/2	6 7/8		14 3/4	11 1/2	2 3/8	7	13 1/4	3/8	4 1/2	2 1/2	14		2 1/8						5.0
2M	30	24	1 3/8	1/2	5/8		15 5/8	4 1/2	6 7/8		14 3/4	11 1/2	2 3/8	7	13 1/4	3/8	4 1/2	2 1/2	14		2 1/8						5.0
3	36	30	1 3/8	1/2	5/8		18 3/4	5 1/2	8 1/4		17 1/4	17 1/4	2 7/8	8 3/8	16	1/2	5 1/2	3	16 3/4		2 1/2						7.5
4	48	36	2 1/4	3/4	1		24 7/8	7 1/4	11		23 1/8	18	3 3/4	11 1/8	21 1/4	5/8	7 1/8	4	22 3/8		3 3/8						12.0
5	48	36	2 1/4	3/4	1		24 7/8	7 1/4	11		23 1/8	18	3 3/4	11 1/8	21 1/4	5/8	7 1/8	4	22 3/8		3 3/8						12.0

STANDARD SIGN
R3-8 (G) Arrow

WISCONSIN DEPT OF TRANSPORTATION

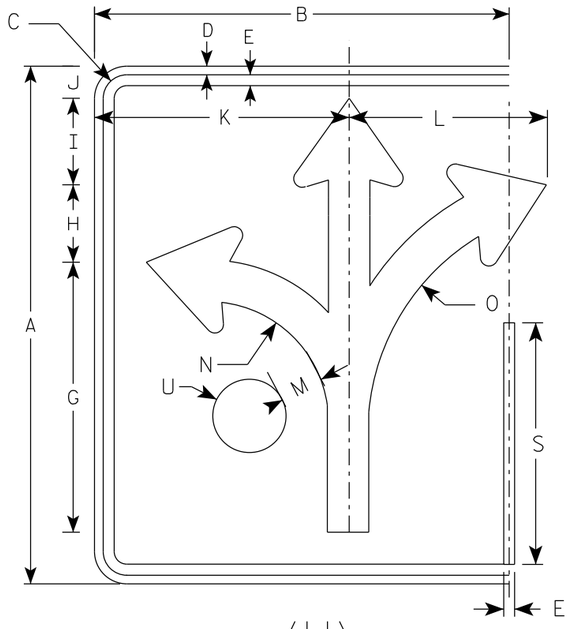
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/21/19 PLATE NO. R3-8.1

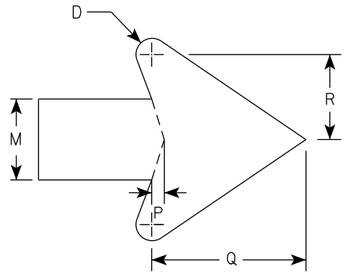
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 125 | E

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - None



(H)



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	30	24	1 3/8	1/2	5/8		15 5/8	4 1/2	5	1 7/8	14 3/4	11 1/2	2 3/8	7	13 1/4	3/8	4 1/2	2 1/2	14		2 1/8						5.0
2M	30	24	1 3/8	1/2	5/8		15 5/8	4 1/2	5	1 7/8	14 3/4	11 1/2	2 3/8	7	13 1/4	3/8	4 1/2	2 1/2	14		2 1/8						5.0
3	36	30	1 3/8	1/2	5/8		18 3/4	5 1/2	6	3 1/8	17 1/4	17 1/4	2 7/8	8 3/8	16	1/2	5 1/2	3	16 3/4		2 1/2						7.5
4	48	36	2 1/4	3/4	1		24 7/8	7 1/4	7 7/8	3 1/8	23 1/8	18	3 3/4	11 1/8	21 1/4	5/8	7 1/8	4	22 3/8		3 3/8						12.0
5	48	36	2 1/4	3/4	1		24 7/8	7 1/4	7 7/8	3 1/8	23 1/8	18	3 3/4	11 1/8	21 1/4	5/8	7 1/8	4	22 3/8		3 3/8						12.0

STANDARD SIGN
R3-8 (H) Arrow

WISCONSIN DEPT OF TRANSPORTATION

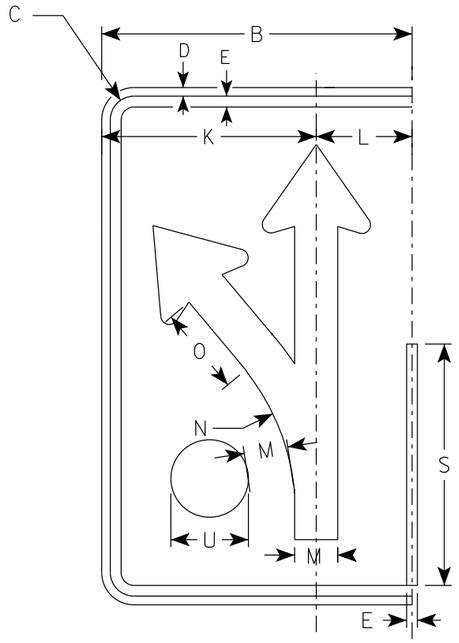
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/21/19 PLATE NO. R3-8.1

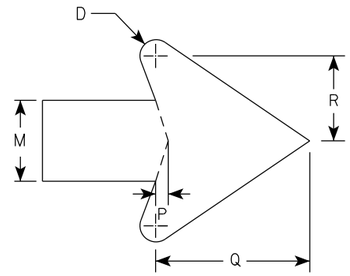
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 126	E

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - None



(I)



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	30	18	1 3/8	1/2	5/8		18 1/4	4 3/4	3 1/4	3	12 1/2	5 1/2	2 1/2	13 1/4	5 1/8	3/8	4 3/4	2 5/8	14		2 1/8						3.75
2M	30	18	1 3/8	1/2	5/8		18 1/4	4 3/4	3 1/4	3	12 1/2	5 1/2	2 1/2	13 1/4	5 1/8	3/8	4 3/4	2 5/8	14		2 1/8						3.75
3	36	24	1 3/8	1/2	5/8		21 7/8	5 5/8	4	4 7/8	16 1/8	7 3/4	3	15 7/8	6 1/8	1/2	5 3/4	3 1/8	16 3/4		2 1/2						6.0
4	48	30	2 1/4	3/4	1		29 1/8	7 1/2	5 1/4	5 3/8	20 1/2	9 1/2	4	21 1/4	8 1/4	5/8	7 5/8	4 1/4	22 3/8		3 3/8						10.0
5	48	30	2 1/4	3/4	1		29 1/8	7 1/2	5 1/4	5 3/8	20 1/2	9 1/2	4	21 1/4	8 1/4	5/8	7 5/8	4 1/4	22 3/8		3 3/8						10.0

STANDARD SIGN
R3-8 (I) Arrow

WISCONSIN DEPT OF TRANSPORTATION

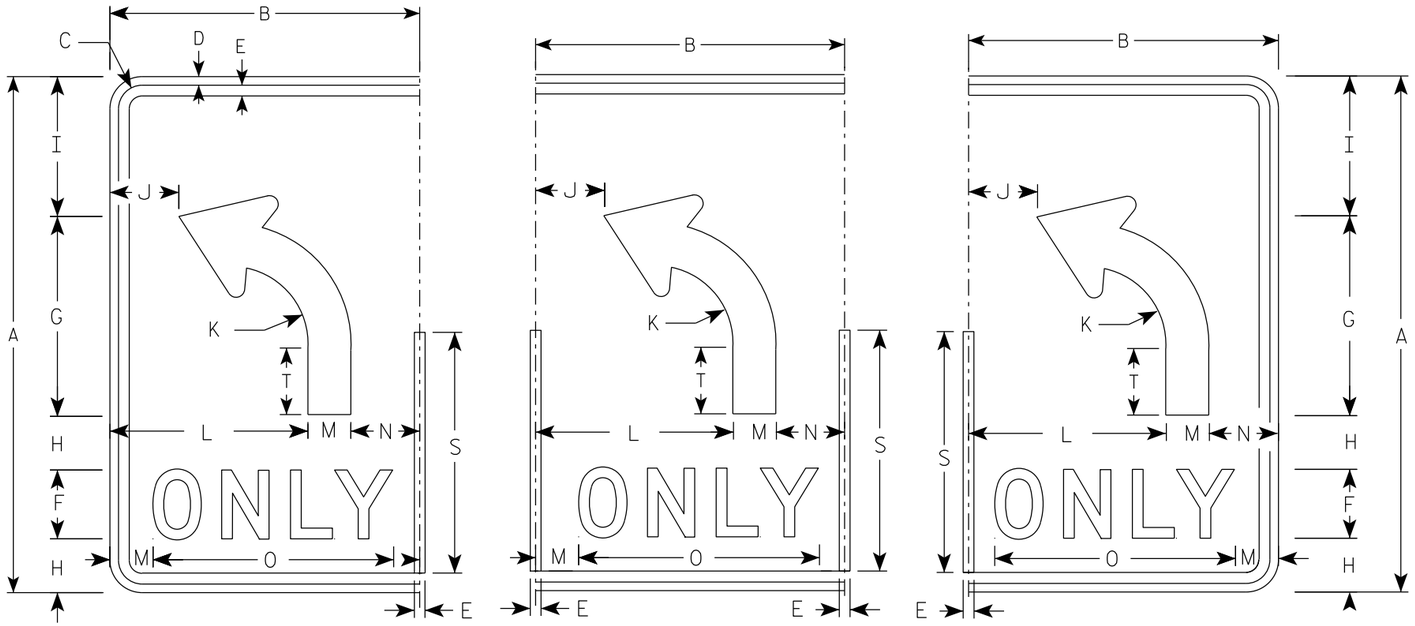
APPROVED Matthew R Rauch
For State Traffic Engineer

DATE 5/21/19 PLATE NO. R3-8.1

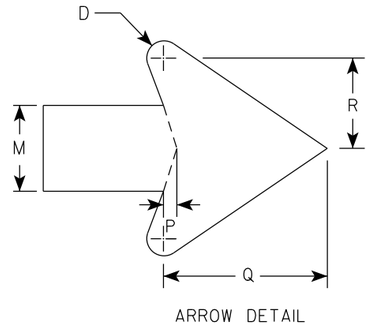
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 127 | E

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - D



(L) (L) (L)



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	30	18	1 3/8	1/2	5/8	4	11 5/8	3 1/8	8 1/8	4	4 1/2	11 1/2	2 1/2	4	14	3/8	4 3/4	2 5/8	14	3 7/8							3.75
2M	30	18	1 3/8	1/2	5/8	4	11 5/8	3 1/8	8 1/8	4	4 1/2	11 1/2	2 1/2	4	14	3/8	4 3/4	2 5/8	14	3 7/8							3.75
3	36	24	1 3/8	1/2	5/8	5	14	3 1/2	9 3/4		5 3/8	15	3	6	17 5/8	1/2	5 3/4	3 1/8	16 3/4	4 5/8							6.0
4	48	30	2 1/4	3/4	1	6	18 5/8	5 1/8	13 1/8	6 1/8	7 1/4	18	4	8	21 3/4	5/8	7 5/8	4 1/4	22 3/8	6 1/4							10.0
5	48	30	2 1/4	3/4	1	6	18 5/8	5 1/8	13 1/8	6 1/8	7 1/4	18	4	8	21 3/4	5/8	7 5/8	4 1/4	22 3/8	6 1/4							10.0

STANDARD SIGN

R3-8 (L) Arrow

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

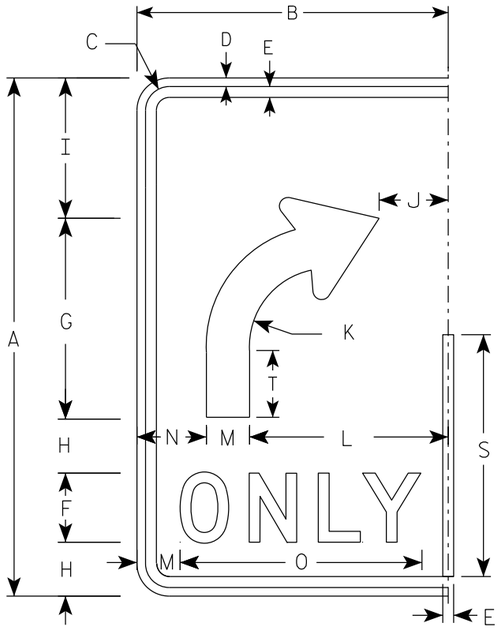
DATE 5/21/19 PLATE NO. R3-8.1

PROJECT NO:

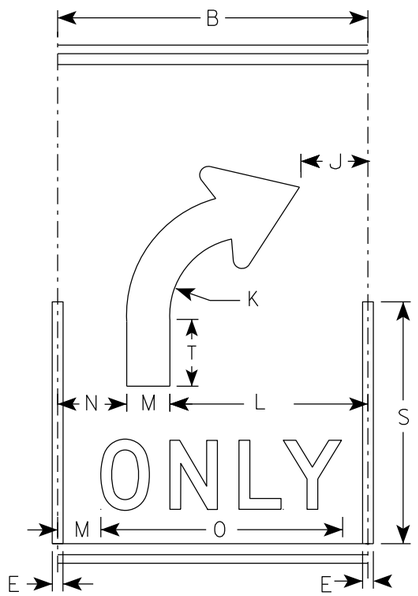
SHEET NO: 128 E

NOTES

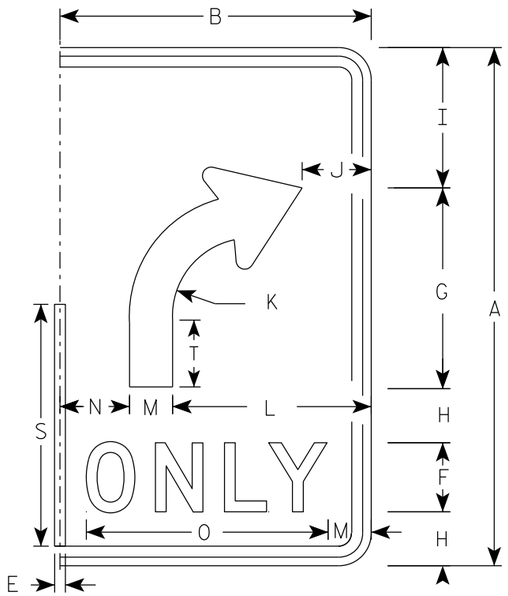
1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - D



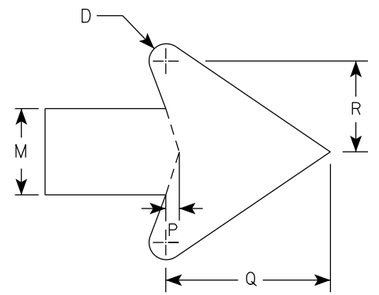
(R)



(R)



(R)



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	30	18	1 3/8	1/2	5/8	4	11 5/8	3 1/8	8 1/8	4	4 1/2	11 1/2	2 1/2	4	14	3/8	4 3/4	2 5/8	14	3 7/8							3.75
2M	30	18	1 3/8	1/2	5/8	4	11 5/8	3 1/8	8 1/8	4	4 1/2	11 1/2	2 1/2	4	14	3/8	4 3/4	2 5/8	14	3 7/8							3.75
3	36	24	1 3/8	1/2	5/8	5	14	3 1/2	9 3/4	6	5 3/8	15	3	6	17 5/8	1/2	5 3/4	3 1/8	16 3/4	4 5/8							6.0
4	48	30	2 1/4	3/4	1	6	18 5/8	5 1/8	13 1/8	6 1/8	7 1/4	18	4	8	21 3/4	5/8	7 5/8	4 1/4	22 3/8	6 1/4							10.0
5	48	30	2 1/4	3/4	1	6	18 5/8	5 1/8	13 1/8	6 1/8	7 1/4	18	4	8	21 3/4	5/8	7 5/8	4 1/4	22 3/8	6 1/4							10.0

STANDARD SIGN

R3-8 (R) Arrow

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

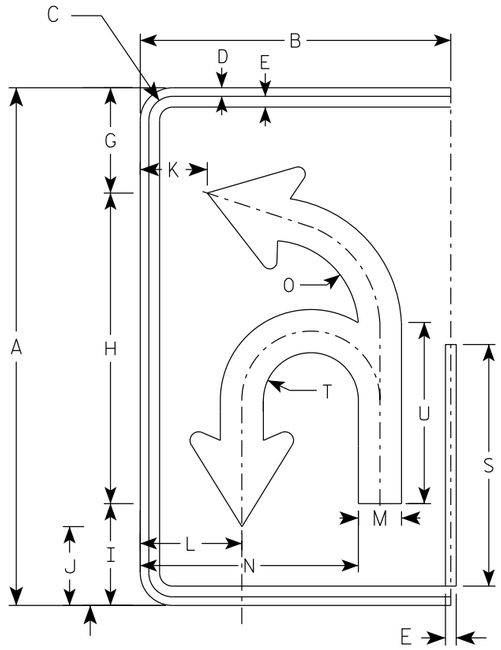
DATE 5/21/19 PLATE NO. R3-8.1

PROJECT NO:

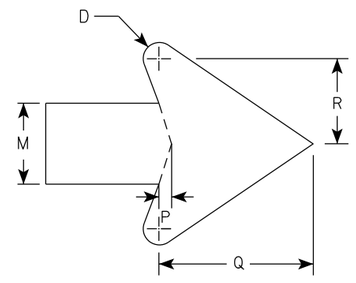
SHEET NO: 129 **E**

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - None



(U)



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	30	18	1 3/8	1/2	5/8		6 1/8	18	5 7/8	4 5/8	3 7/8	5 7/8	2 1/2	12 5/8	5 1/8	3/8	4 3/4	2 5/8	14	2 3/4	10 1/2						3.75
2M	30	18	1 3/8	1/2	5/8		6 1/8	18	5 7/8	4 5/8	3 7/8	5 7/8	2 1/2	12 5/8	5 1/8	3/8	4 3/4	2 5/8	14	2 3/4	10 1/2						3.75
3	36	24	1 3/8	1/2	5/8		21 7/8	21 5/8	7 1/8	5 1/2	5 7/8	8 1/4	3	16 3/8	6 1/8	1/2	5 3/4	3 1/8	16 3/4	3 1/4	12 5/8						6.0
4	48	30	2 1/4	3/4	1		29 1/8	28 3/4	9 3/8	7 1/4	6 7/8	10	4	20 7/8	8 1/8	5/8	7 5/8	4 1/4	22 3/8	4 3/8	16 3/4						10.0
5	48	30	2 1/4	3/4	1		29 1/8	28 3/4	9 3/8	7 1/4	6 7/8	10	4	20 7/8	8 1/8	5/8	7 5/8	4 1/4	22 3/8	4 3/8	16 3/4						10.0

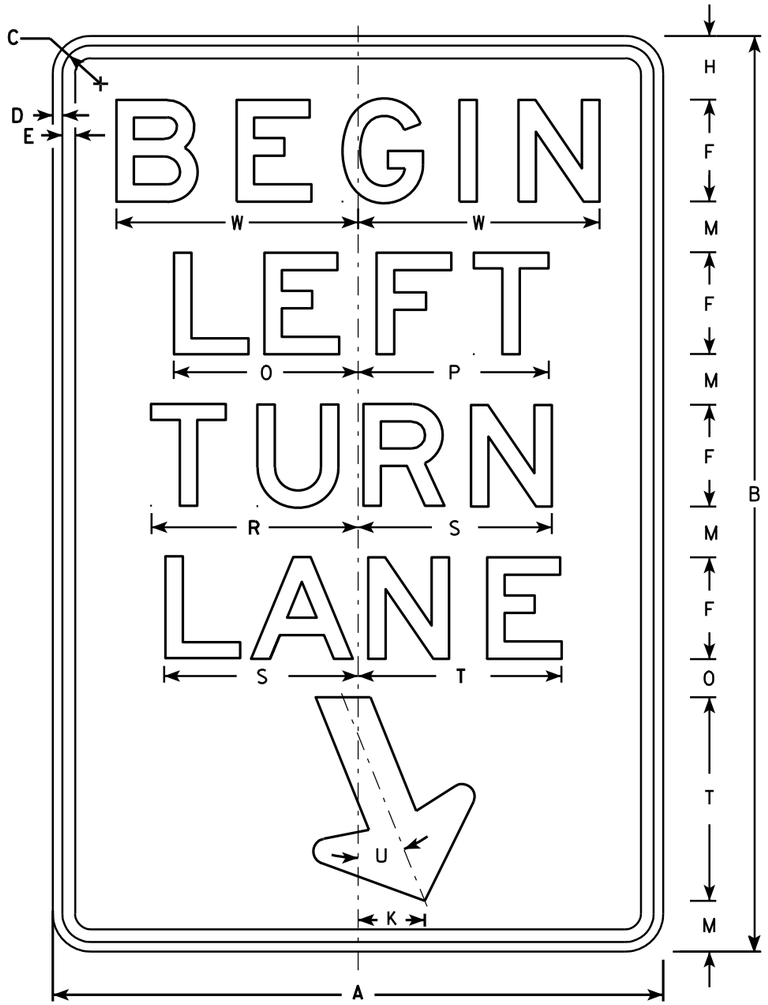
STANDARD SIGN
R3-8 (U) Arrow

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/21/19 PLATE NO. R3-8.1

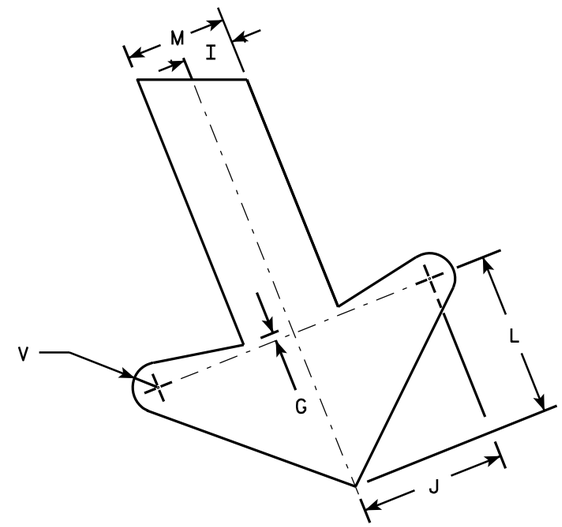
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 130 | E



R3-20L

NOTES

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



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	24	36	1 1/8	3/8	1/2	4	1/4	2 1/2	1	2 7/8	2 5/8	3 1/4	2	1 1/2	7 1/4	7 1/2		8 1/8	7 5/8	8	22°	1/2	9 1/2				6.0
2M	24	36	1 1/8	3/8	1/2	4	1/4	2 1/2	1	2 7/8	2 5/8	3 1/4	2	1 1/2	7 1/4	7 1/2		8 1/8	7 5/8	8	22°	1/2	9 1/2				6.0
3	36	54	1 3/4	1/2	5/8	6	3/8	3 3/4	1 1/2	4 1/4	4	4 7/8	3	2 1/4	10 7/8	11 1/4		12 1/4	11 1/2	12	22°	3/4	13 1/4				13.5
4																											
5																											

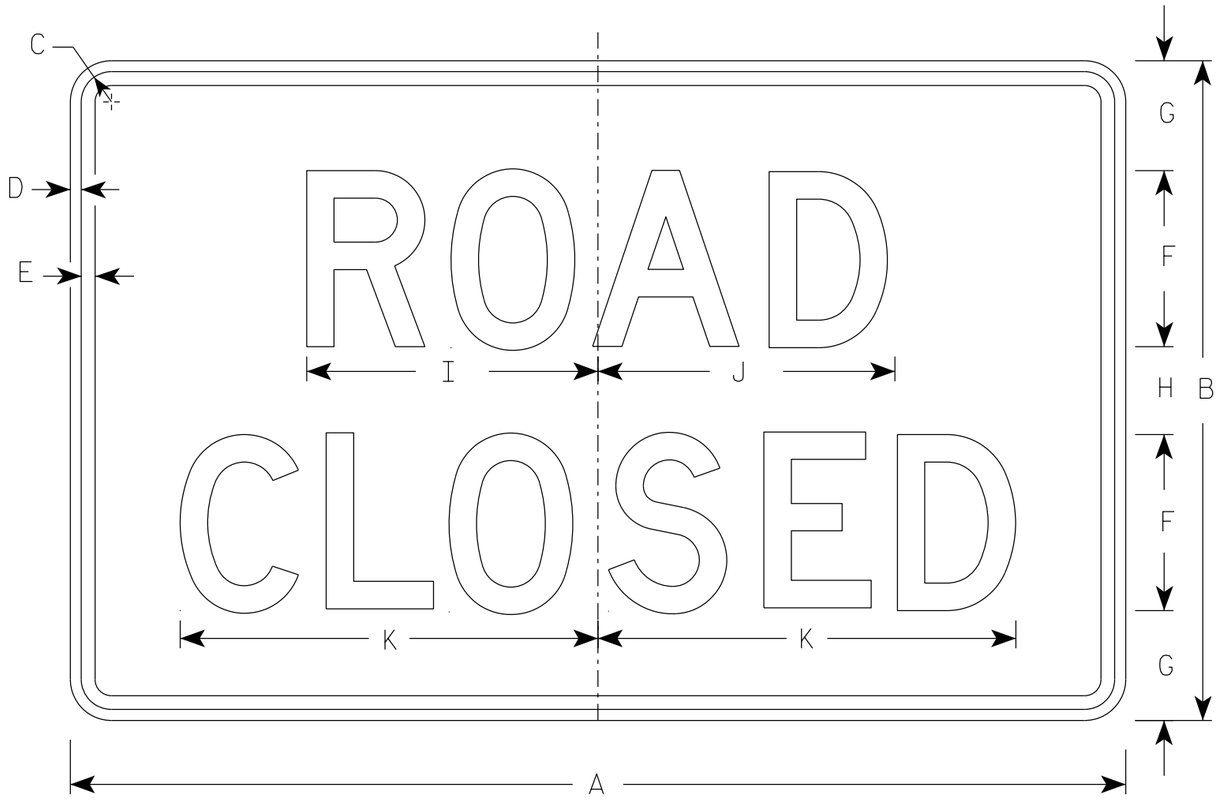
STANDARD SIGN
R3-20L

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 10/18/10 PLATE NO. R3-20L.7

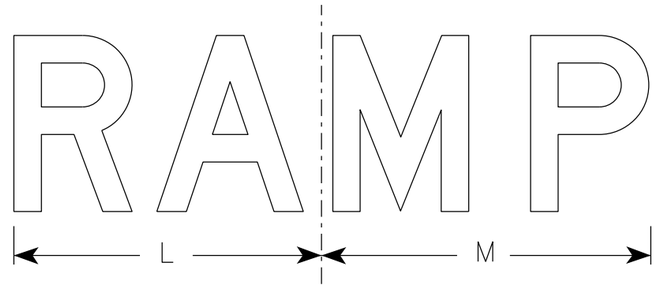
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 131 | E



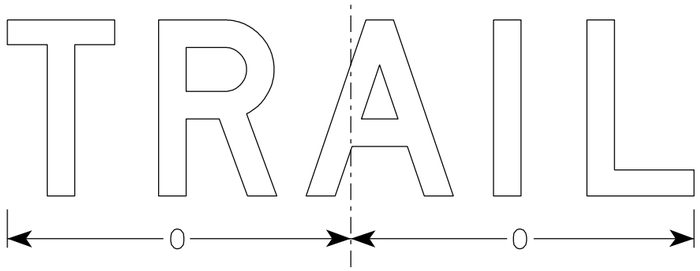
R11-2

NOTES

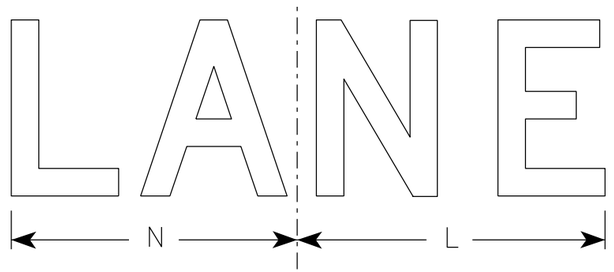
1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Modify the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



R11-2R



R11-2T



R11-2L

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 3/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13	15 5/8												10.0
2M	48	30	1 3/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13	15 5/8												10.0
3	48	30	1 3/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13	15 5/8												10.0
4	48	30	1 3/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13	15 5/8												10.0
5	48	30	1 3/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13	15 5/8												10.0

STANDARD SIGN
R11-2

WISCONSIN DEPT OF TRANSPORTATION

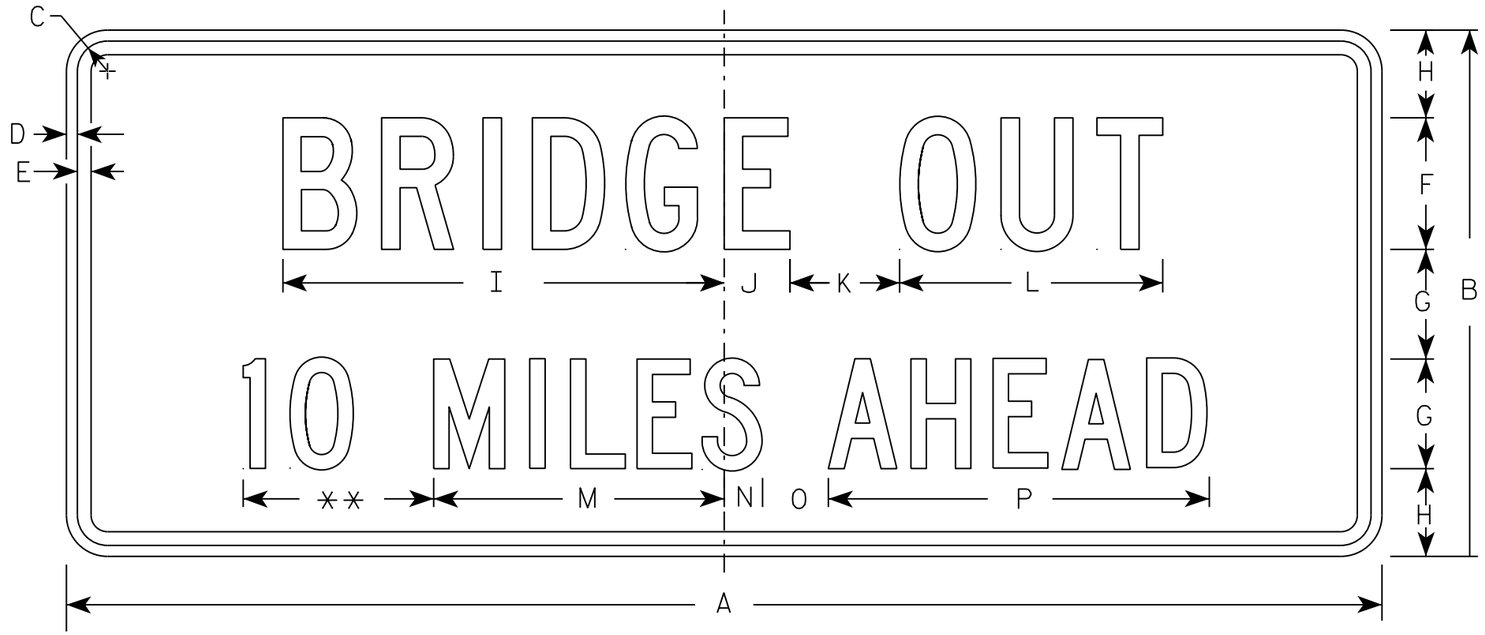
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/29/2021 PLATE NO. R11-2.11

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

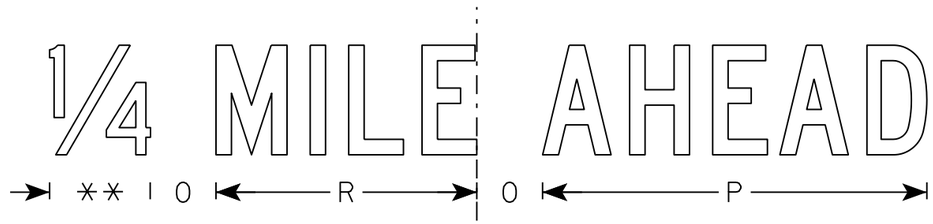
NOTES

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 3/8	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 3/8	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 3/8	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

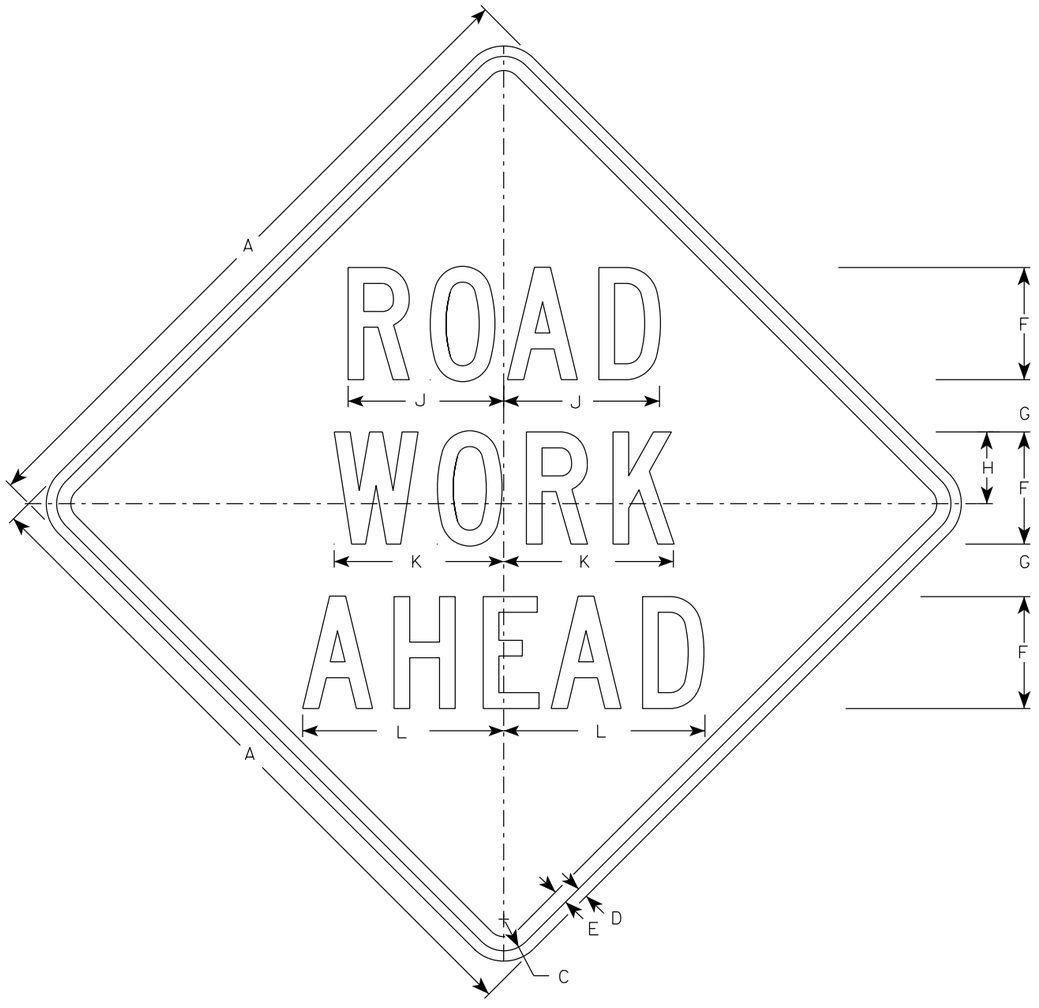
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

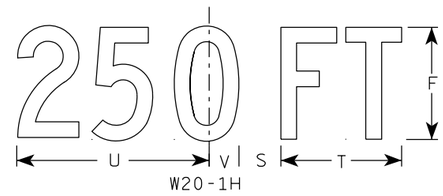
DATE 7/28/16 PLATE NO. R11-3C.3

PROJECT NO:

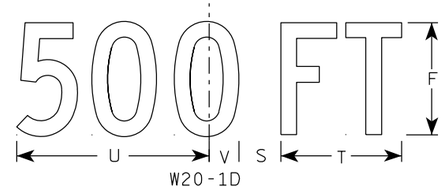
SHEET NO: 133 E



W20-1A

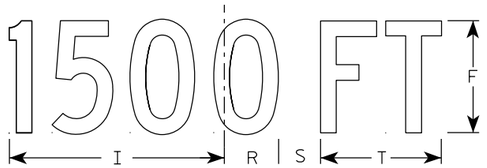


W20-1H



W20-1D

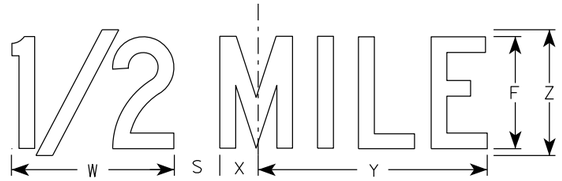
W20-1C



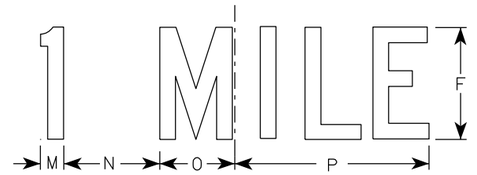
W20-1B

NOTES

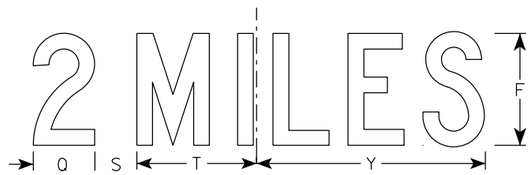
1. Sign is Type II - Type F Reflective
2. Color:
   Background - Orange
   Message - Black
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.



W20-1G



W20-1F



W20-1E

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

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

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

PROJECT NO:

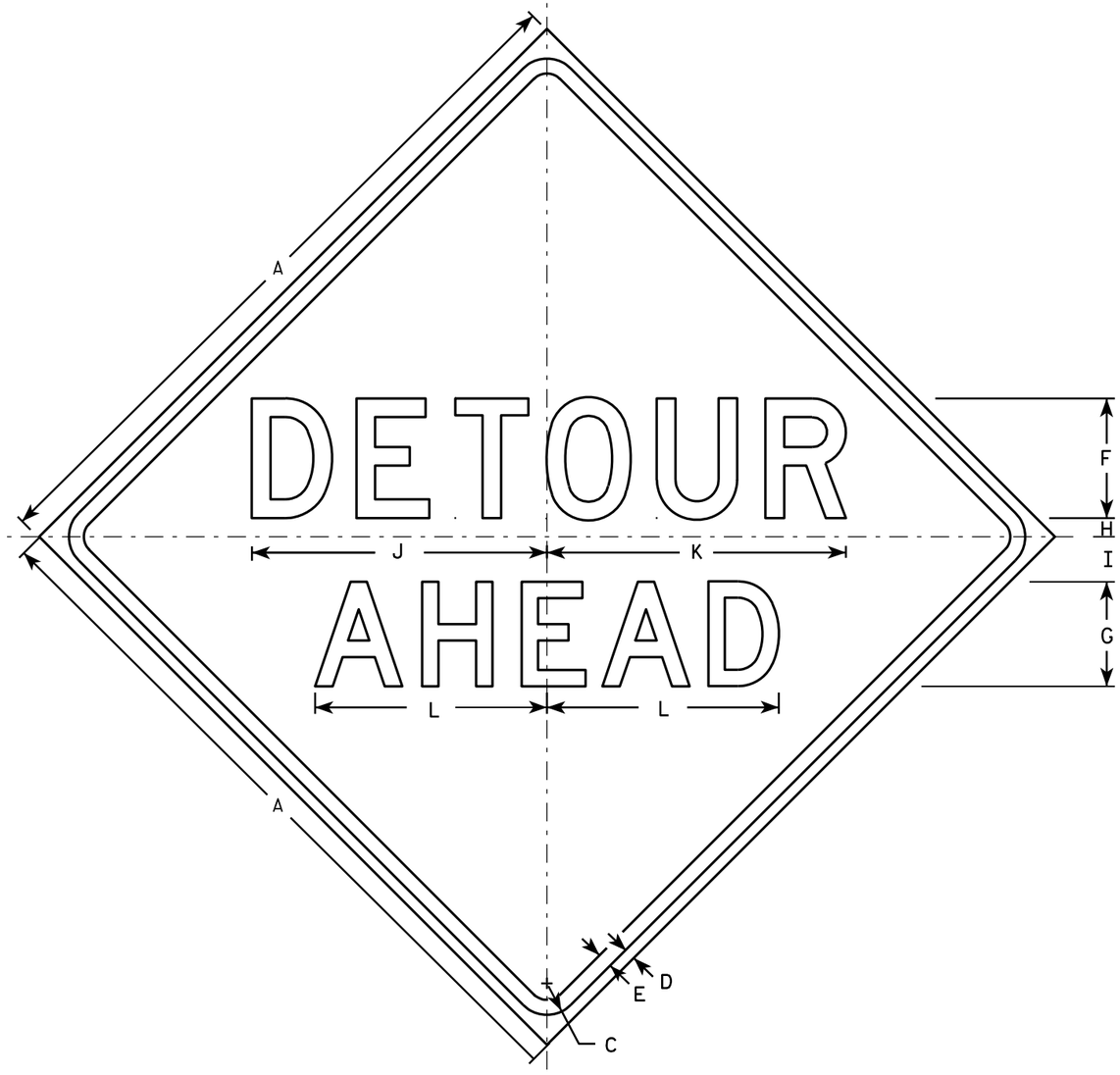
SHEET NO: E

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

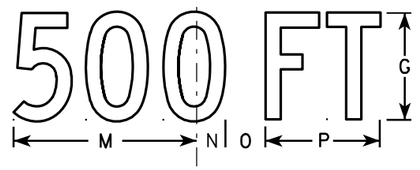
WISDOT/CADDS SHEET 42

7

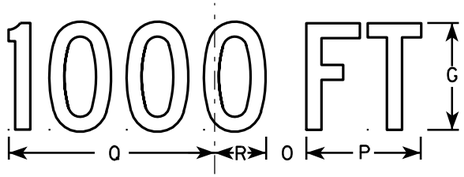
7



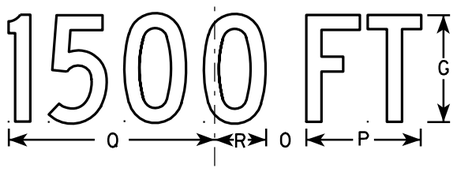
W20-2A



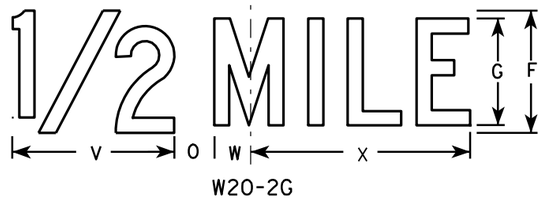
W20-2D



W20-2C



W20-2B



W20-2G

W20-2F

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Message Series - 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	O	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 5/8	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		2 1/4	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		2 1/4	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		2 1/4	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		2 1/4	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		2 1/4	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

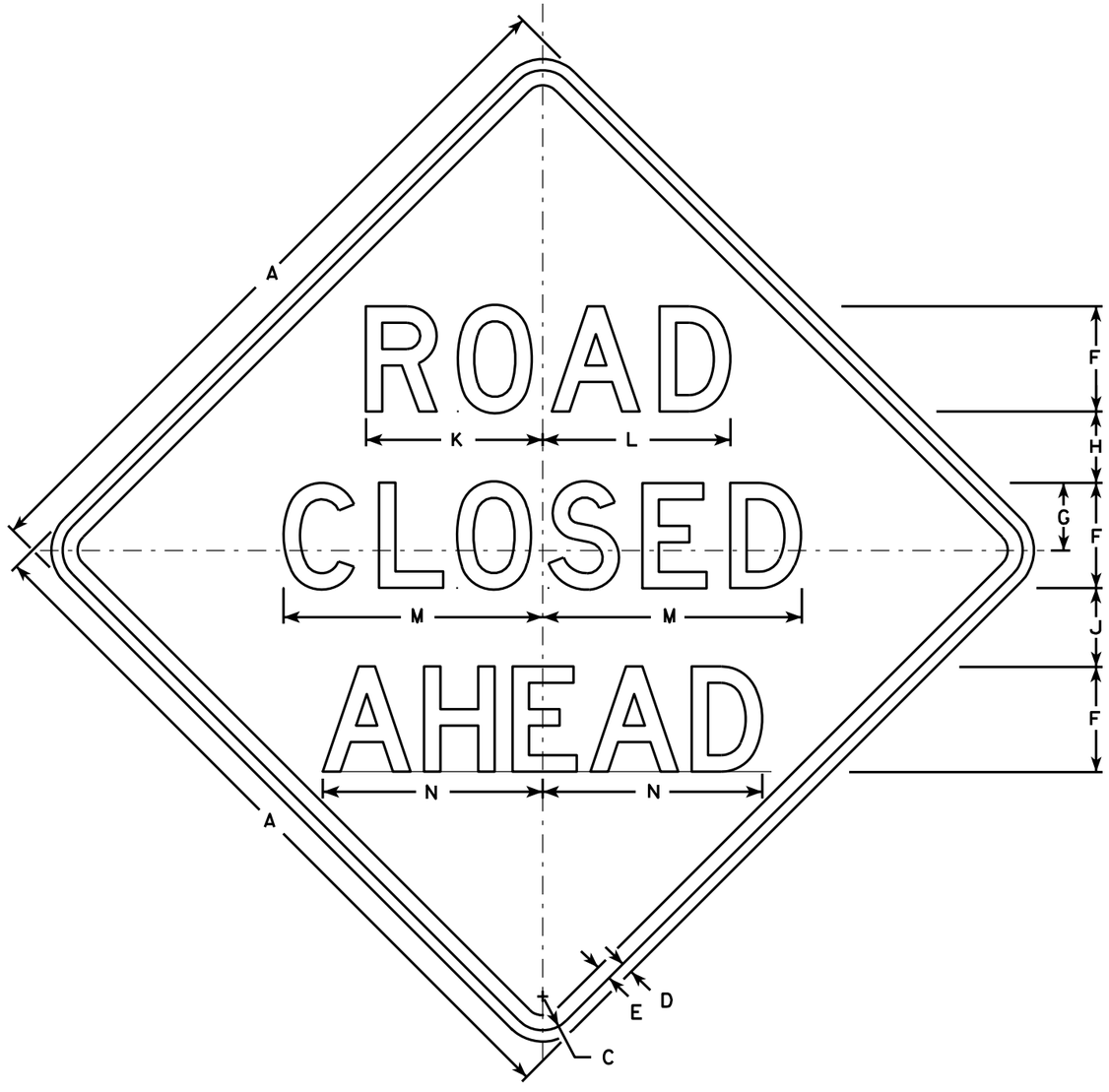
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

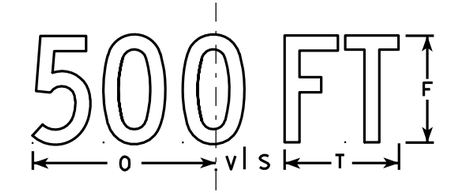
DATE 3/18/11 PLATE NO. W20-2.6

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

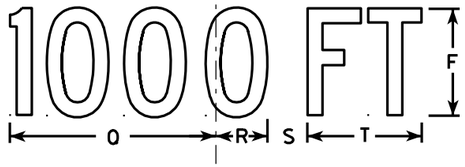
FILE NAME : C:\Users\PROJECTS\tr_stdplate\W202.DGN PLOT DATE : 18-MAR-2011 10:00 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 9.931739:1.000000
WISDOT/CADDS SHEET 42



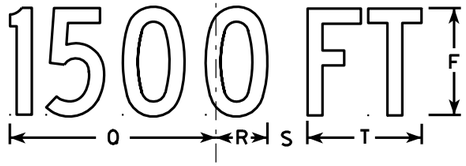
W20-3A



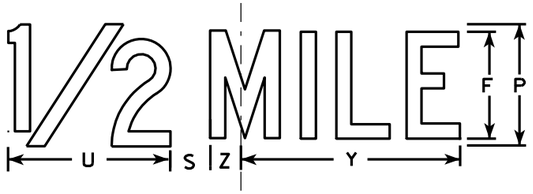
W20-3D



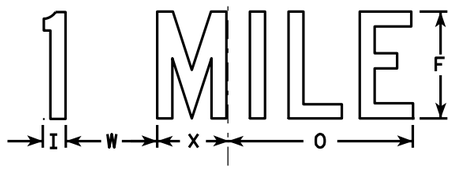
W20-3C



W20-3B



W20-3G



W20-3F

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
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		1 5/8	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		2 1/4	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		2 1/4	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		2 1/4	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		2 1/4	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		2 1/4	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

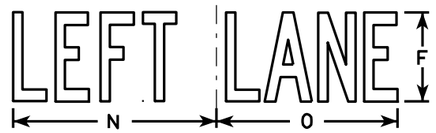
DATE 3/18/11 PLATE NO. W20-3.7

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 136 | E

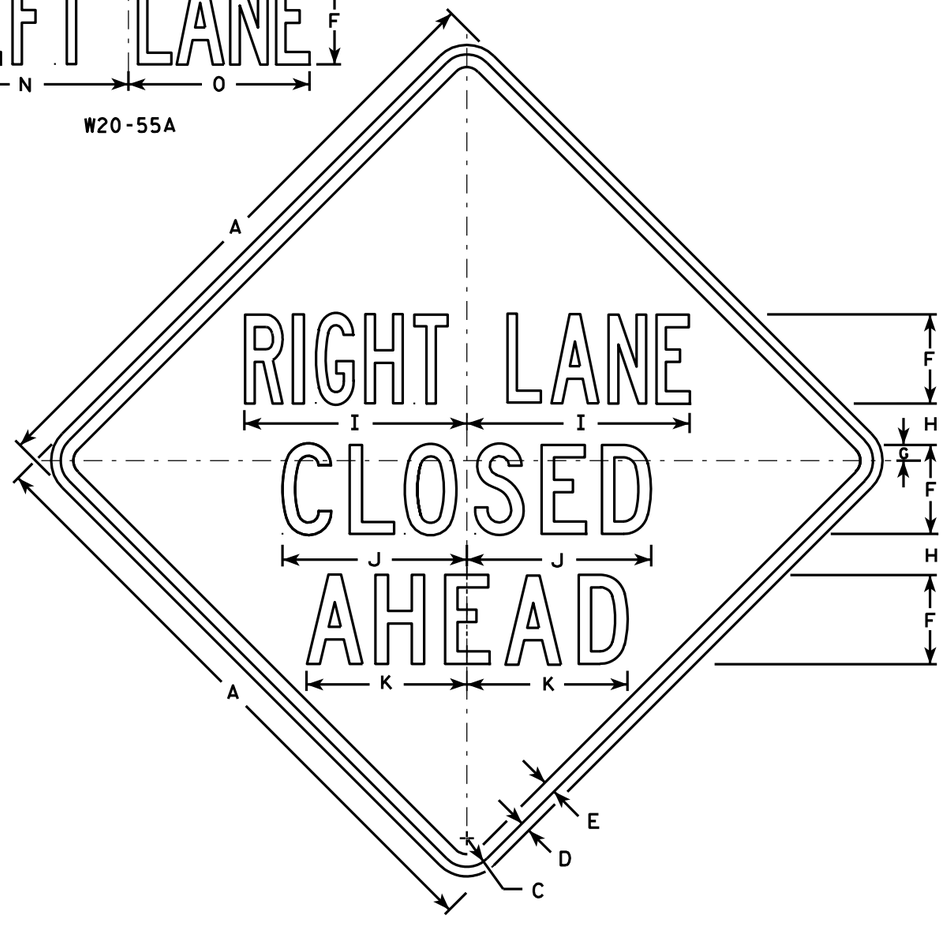
7

FILE NAME : C:\Users\PROJECTS\tr_stdplate\W203.DGN PLOT DATE : 18-MAR-2011 12:08 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 9.931739:1.000000
WISDOT/CADDS SHEET 42

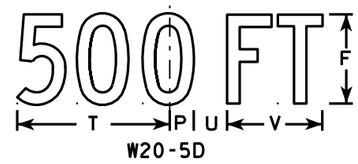
W20-56A



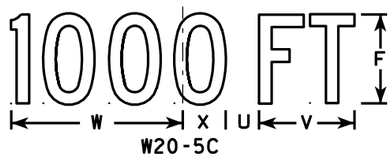
W20-55A



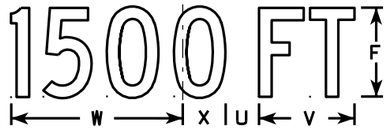
W20-5A



W20-5D



W20-5C



W20-5B

W20-5G

W20-5F

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Message Series - 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. " _____ LANE" is Series B.
   All other copy is 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	36	6	1 5/8	5/8	3/4	5	1/8	2 1/2	13 1/8	10 3/4	9 1/2	14 1/4	13 5/8	12	12	1 3/8	1 1/8	4 1/2	3 1/2	9	1 1/8	5 5/8	10 1/8	2 1/2	1 3/4	8	9.0
2S	48	8	2 1/4	3/4	1	7	1 1/4	3 1/4	17 1/2	14 3/8	12 5/8	19	18 3/8	16	14 1/4	1 7/8	1 1/2	6	4 5/8	12	2 5/8	7 1/2	13 1/2	3 3/8	2 3/8	10 5/8	16.0
2M	48	8	2 1/4	3/4	1	7	1 1/4	3 1/4	17 1/2	14 3/8	12 5/8	19	18 3/8	16	14 1/4	1 7/8	1 1/2	6	4 5/8	12	2 5/8	7 1/2	13 1/2	3 3/8	2 3/8	10 5/8	16.0
3	48	8	2 1/4	3/4	1	7	1 1/4	3 1/4	17 1/2	14 3/8	12 5/8	19	18 3/8	16	14 1/4	1 7/8	1 1/2	6	4 5/8	12	2 5/8	7 1/2	13 1/2	3 3/8	2 3/8	10 5/8	16.0
4	48	8	2 1/4	3/4	1	7	1 1/4	3 1/4	17 1/2	14 3/8	12 5/8	19	18 3/8	16	14 1/4	1 7/8	1 1/2	6	4 5/8	12	2 5/8	7 1/2	13 1/2	3 3/8	2 3/8	10 5/8	16.0
5	48	8	2 1/4	3/4	1	7	1 1/4	3 1/4	17 1/2	14 3/8	12 5/8	19	18 3/8	16	14 1/4	1 7/8	1 1/2	6	4 5/8	12	2 5/8	7 1/2	13 1/2	3 3/8	2 3/8	10 5/8	16.0

STANDARD SIGN
W20-5A, B, C, D, F & G

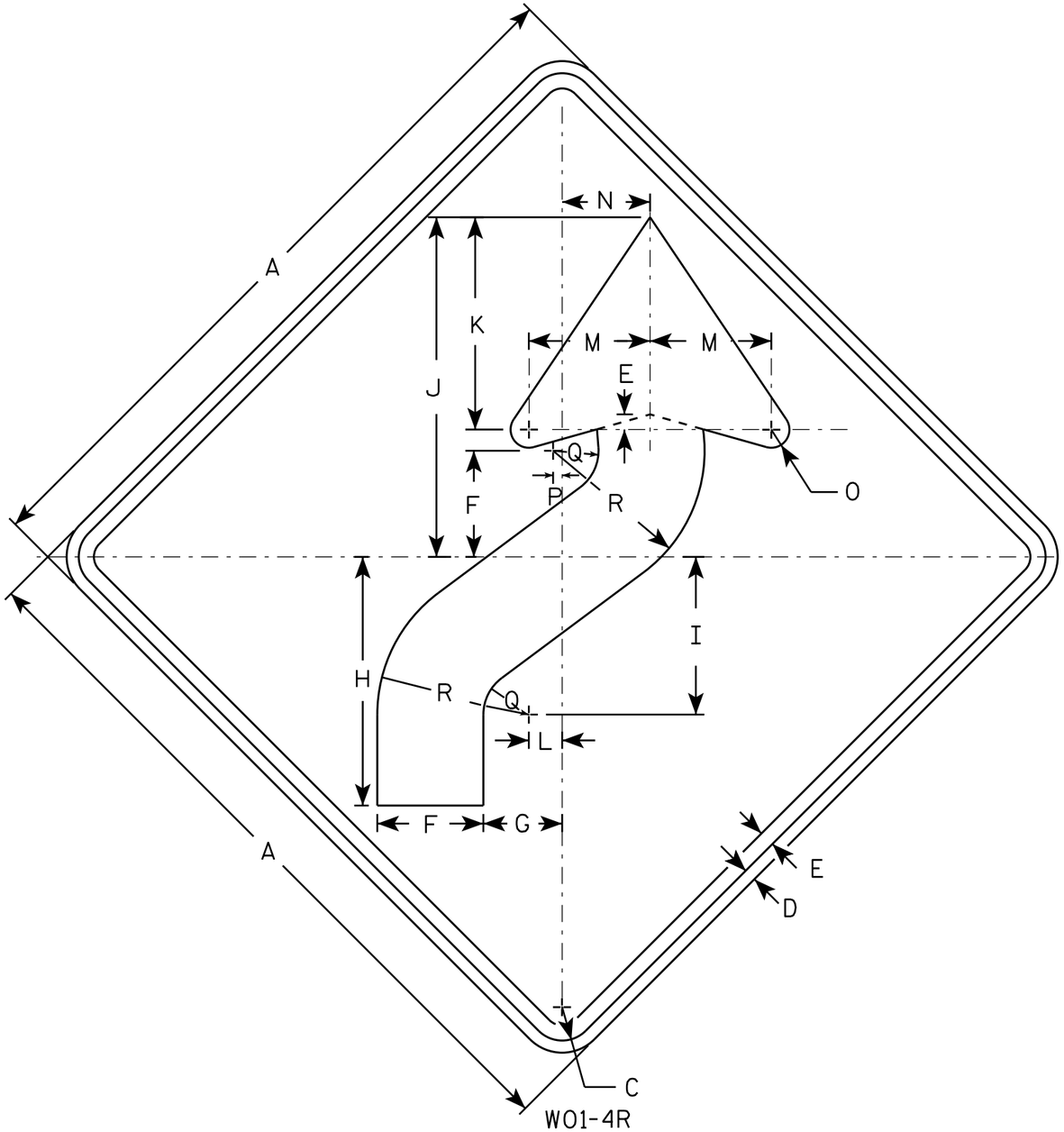
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/18/11 PLATE NO. W20-5.11

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 137 | E

FILE NAME : C:\Users\PROJECTS\tr_stdplate\W205.DGN PLOT DATE : 18-MAR-2011 12:15 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 11.918087:1.000000
WISDOT/CADDS SHEET 42



W01-4R

NOTES

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

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

STANDARD SIGN
W01-4

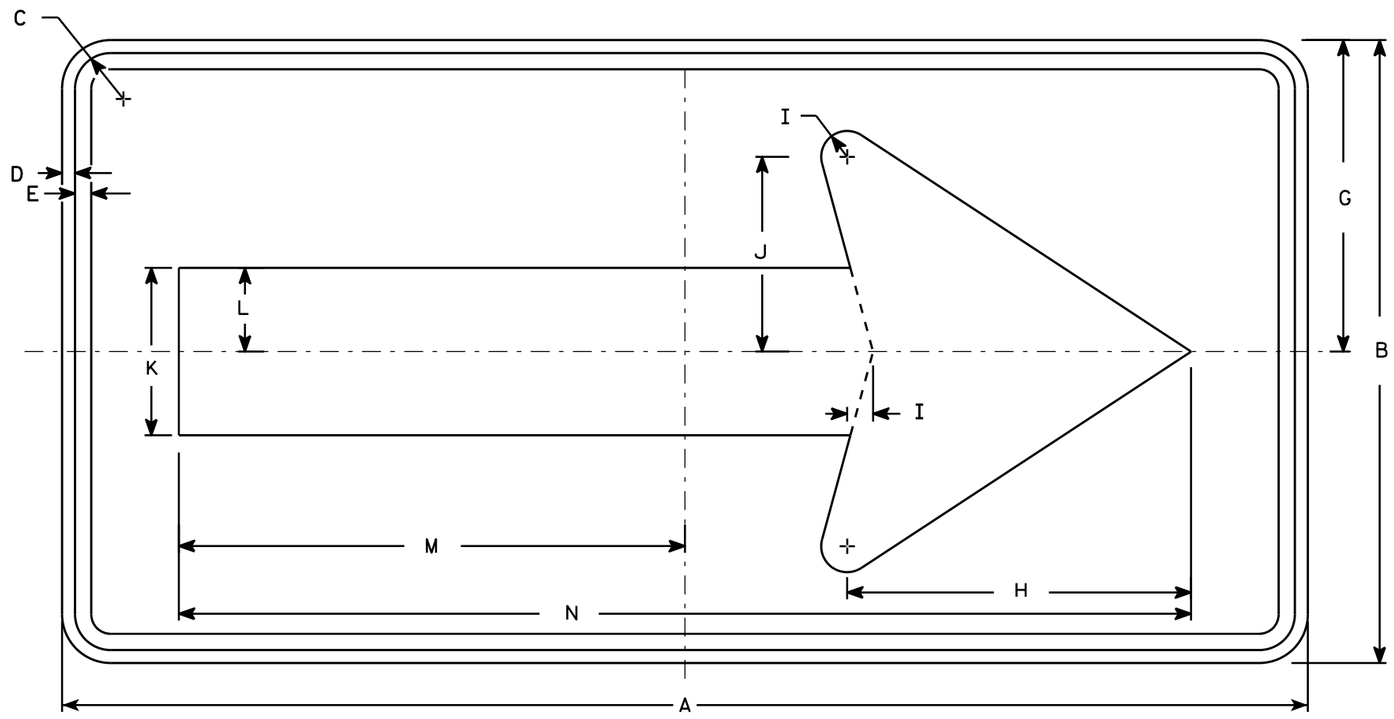
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/18/13 PLATE NO W01-4.1

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

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



W01-6

NOTES

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

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

STANDARD SIGN
W01-6

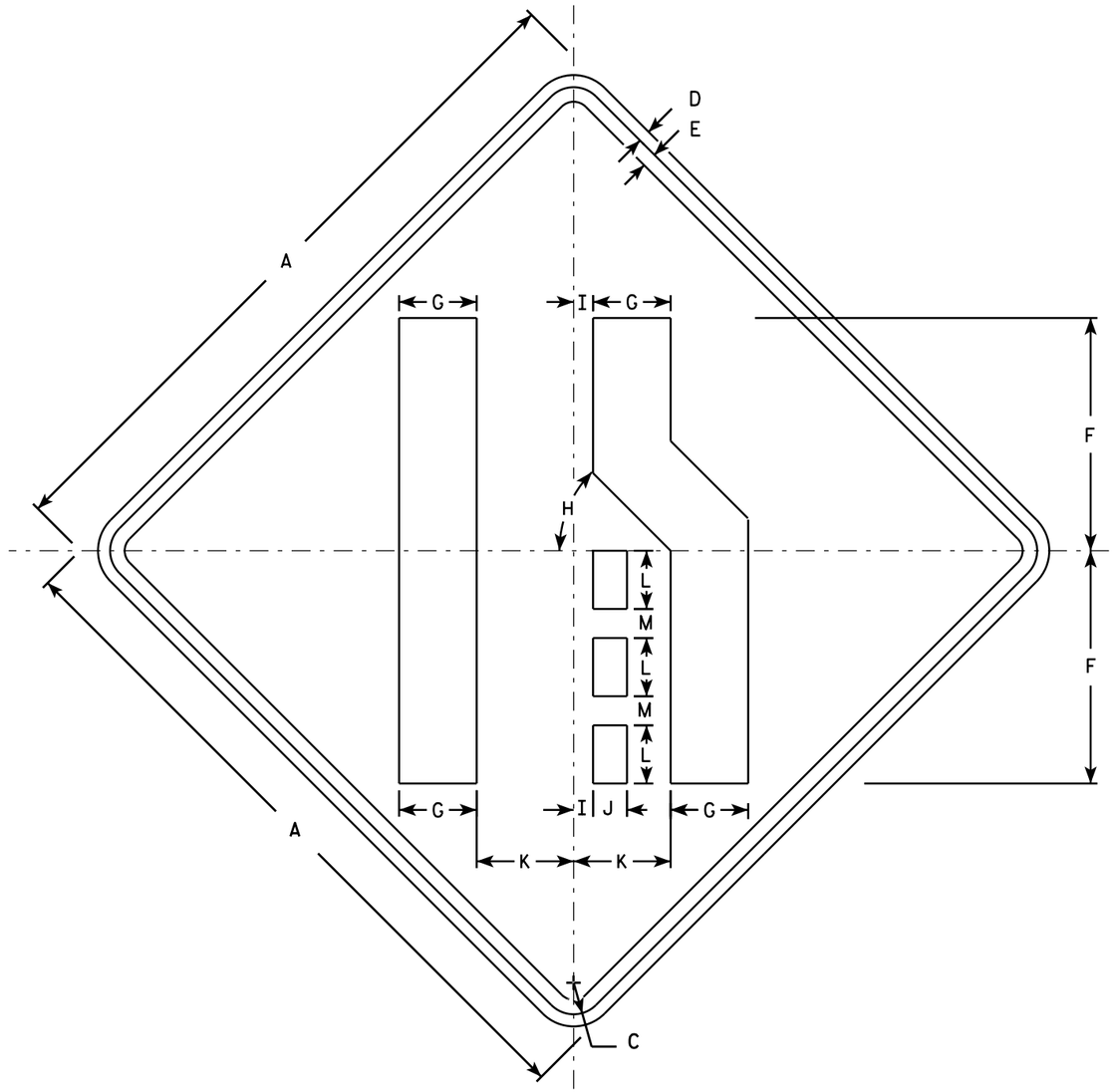
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/18/13 PLATE W01-6.1

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

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



W04-2R

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. W04-2L is the same as W04-2R except the symbol is reversed along the vertical centerline.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 5/8	5/8	3/4	12	4	45°	1	1 3/4	5	3	1 1/2														9.0
2S	48		2 1/4	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0
2M	48		2 1/4	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0
3	48		2 1/4	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0
4	48		2 1/4	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0
5	48		2 1/4	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0

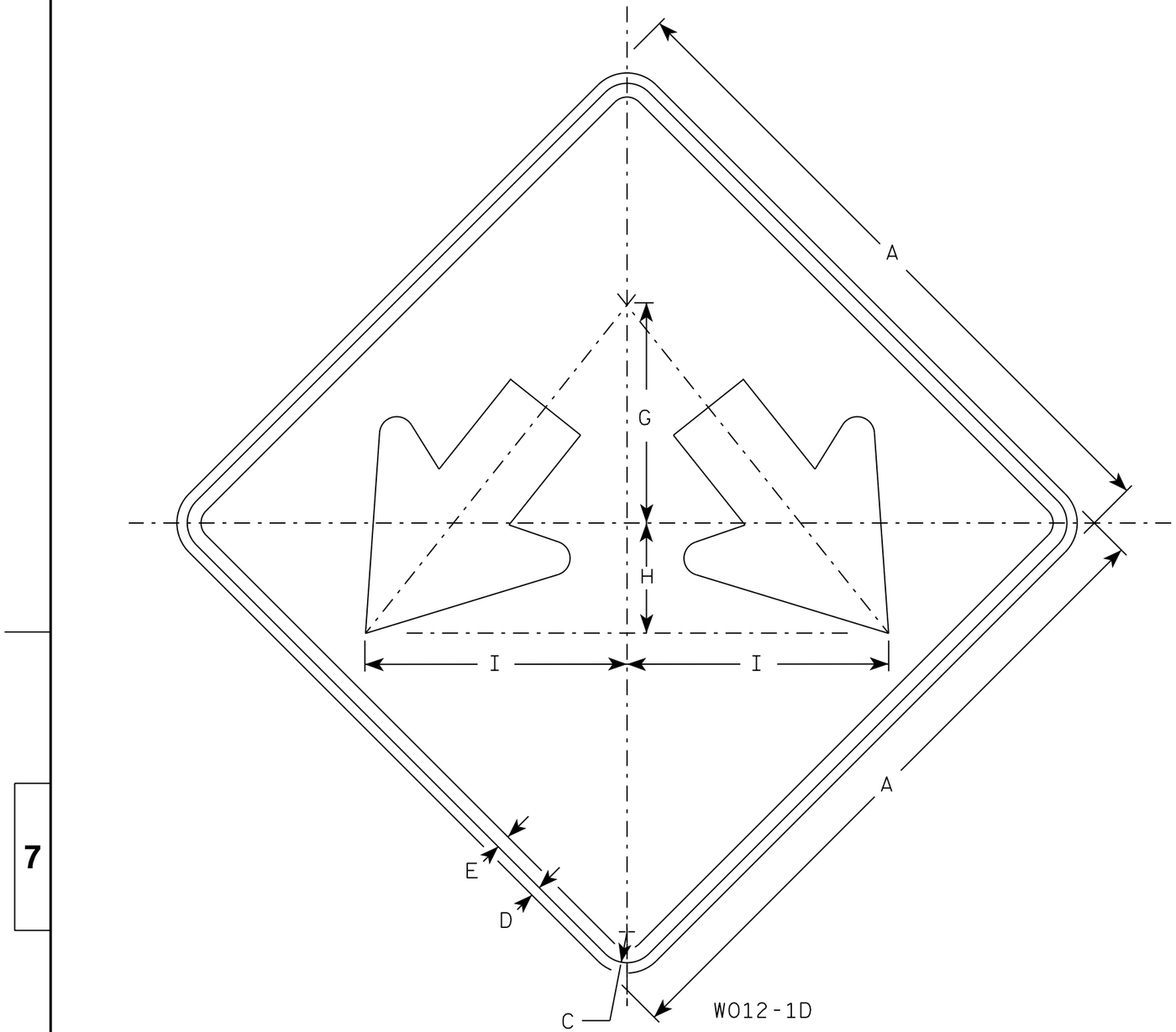
STANDARD SIGN
W04-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/20/13 PLATE 140 W04-2.1

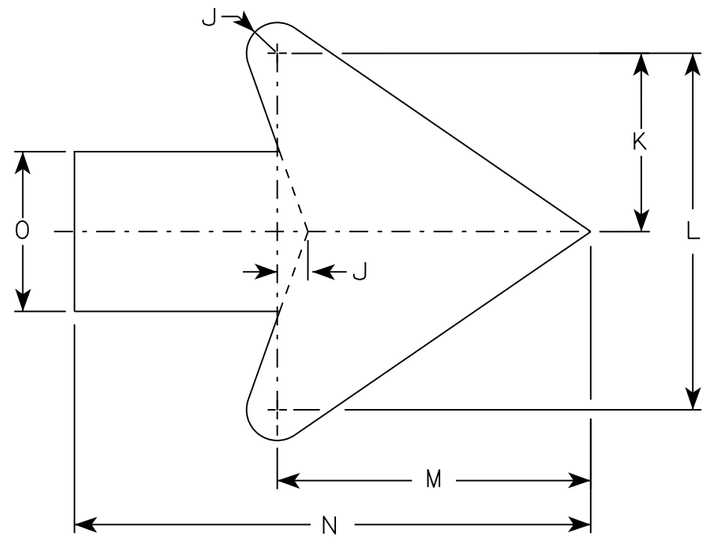
PROJECT NO: | SHEET NO: E



W012-1D

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.



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	24		1 1/8	1/2	3/8		8	4	9 1/2	3/8	3 3/8	7 1/4	6 3/8	10 3/8	3 1/4												4.0
2S	24		1 1/8	1/2	3/8		8	4	9 1/2	3/8	3 3/8	7 1/4	6 3/8	10 3/8	3 1/4												4.0
2M	24		1 1/8	1/2	3/8		8	4	9 1/2	3/8	3 3/8	7 1/4	6 3/8	10 3/8	3 1/4												4.0
3	30		1 3/8	1/2	5/8		10	5	11 7/8	3/4	4 1/2	9	7 7/8	13	4												6.25
4	36		1 3/8	1/2	5/8		12	6	14 1/4	1	5 1/2	10 7/8	9 5/8	15 3/4	4 3/4												9.0
5	36		1 3/8	1/2	5/8		12	6	14 1/4	1	5 1/2	10 7/8	9 5/8	15 3/4	4 3/4												9.0

STANDARD SIGN
W012-1D

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

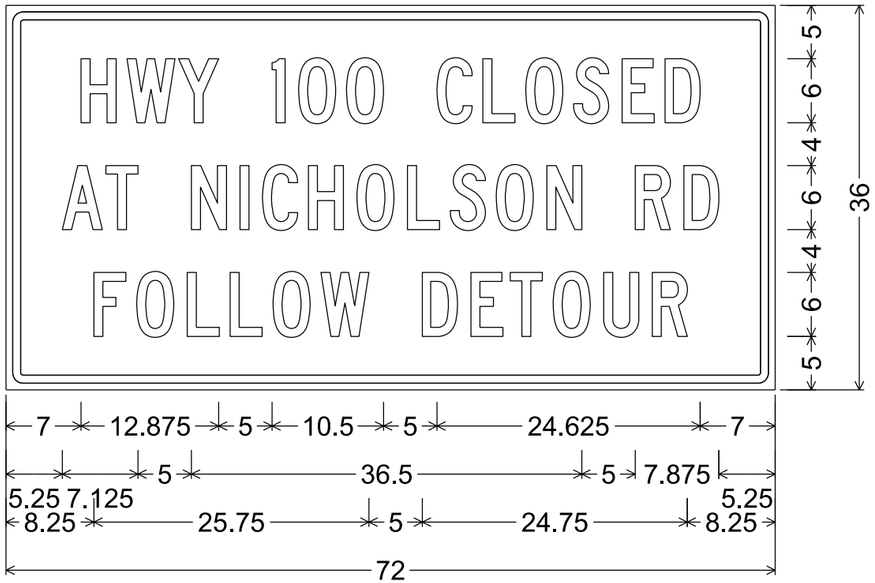
DATE 7/28/16 PLATE NO W012-1D.2

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

FILE NAME : C:\CADfiles\Projects\tr_stdplate\W0121D.DGN PLOT DATE : 11-AUG-2016 11:28 PLOT BY : $$ plotuser $$ PLOT NAME : PLOT SCALE : 4.621375:1.000000

NOTES

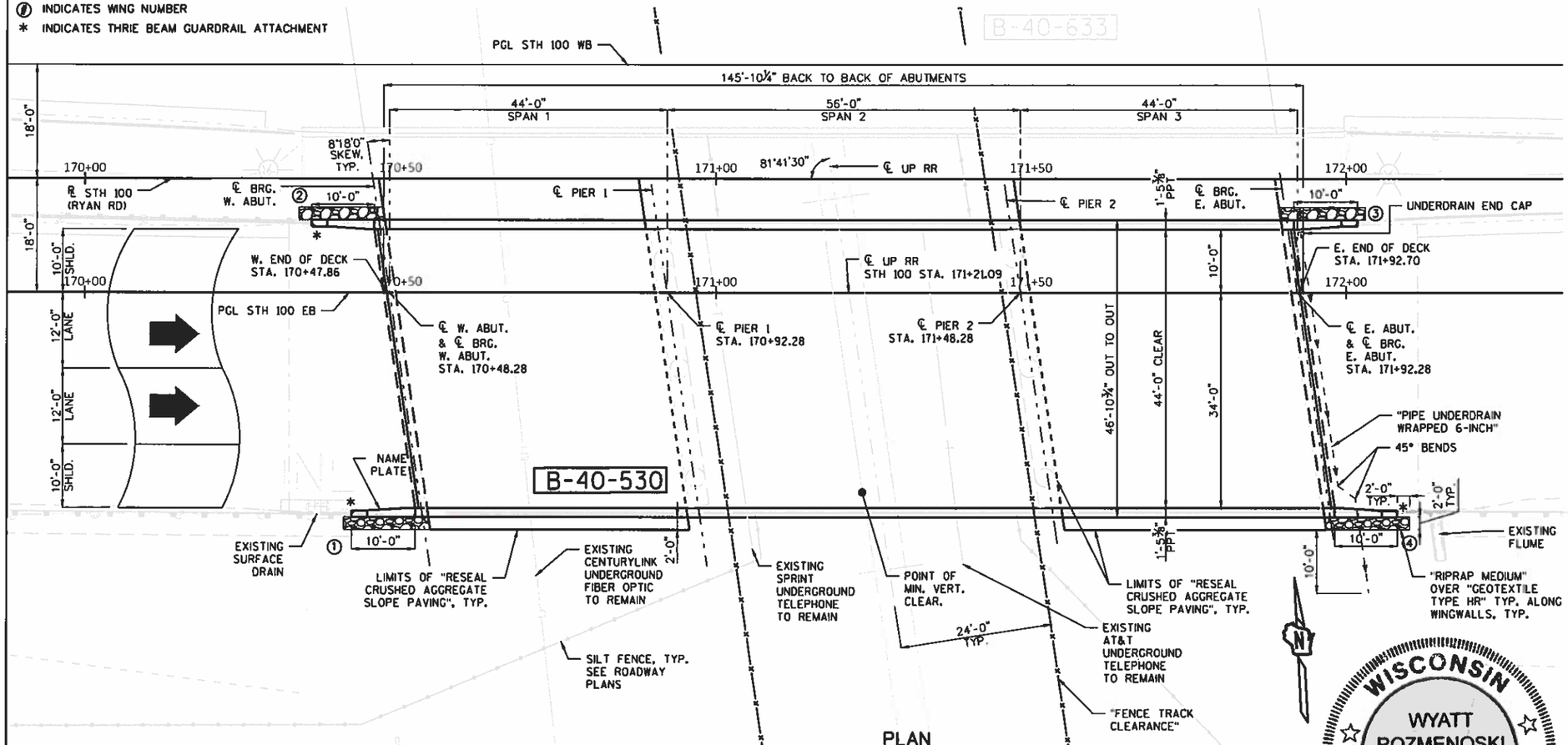
1. Fixed Message Sign -Type II Type F Reflective
2. Color:
   Background - Orange
   Message - Black
3. Message Series - C



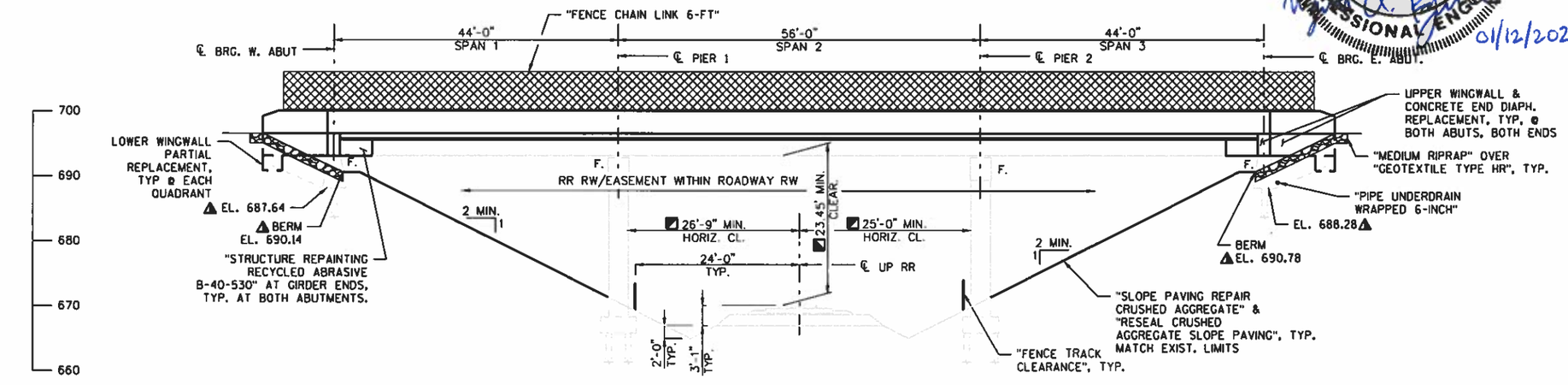
1.625" Radius, 0.750" Border, 0.625" Indent

STATE PROJECT NUMBER
2040-20-70

Ⓝ INDICATES WING NUMBER
* INDICATES THRIE BEAM GUARDRAIL ATTACHMENT



PLAN
DECK REPLACEMENT - 3 SPAN STEEL WIDE FLANGE GIRDER



ELEVATION
LOOKING NORMAL TO UP RR

LEGEND
▲ PER 1985 ORIGINAL STRUCTURE PLANS ELEVATIONS PLUS 580.60
◪ PER LIDAR SURVEY JUNE 2019

DESIGN DATA

LIVE LOAD:
DESIGN LOADING: HS20
INVENTORY RATING: HS23
OPERATING RATING: HS38
WIS. STD. PERMIT VEHICLE (Wis-SPV): 220 KIPS

MATERIAL PROPERTIES
CONCRETE MASONRY SUPERSTRUCTURE _ f'c = 4,000 PSI
ALL OTHERS _____ f'c = 3,500 PSI
HIGH STRENGTH BAR STEEL
REINFORCEMENT GRADE 60 _____ fy = 60,000 PSI

SCOPE OF WORK: B-40-530
1. REPAINT GIRDER ENDS
2. CONCRETE END DIAPHRAGM & WINGWALL REPLACEMENT
3. DECK REPLACEMENT
4. CONCRETE SURFACE REPAIRS
5. PIPE UNDERDRAIN REPLACEMENT @ EAST ABUTMENT
6. SLOPE PAVING REPAIR

TRAFFIC DATA
STH 100/RYAN ROAD EB
AADT = 5,900 (2015)
7,600 (2044)
RDS = 45 MPH

UNION PACIFIC RR (CROSSING #178770R)
TRAINS PER DAY = 7
TRAIN SPEED = ≤50 MPH

LIST OF DRAWINGS

1. GENERAL PLAN & ELEVATION
2. CROSS SECTION & QUANTITIES
3. REMOVAL DETAILS
4. WEST ABUTMENT WINGWALLS
5. EAST ABUTMENT WINGWALLS
6. ABUTMENT DETAILS & BILL OF BARS
7. SUPERSTRUCTURE PLAN
8. SUPERSTRUCTURE CROSS-SECTION
9. TOP OF DECK ELEVATIONS
10. SINGLE SLOPE PARAPET 42SS
11. SLOPE PAVING REPAIR & MISC. DETAILS
12. FENCING DETAILS

WISCONSIN
WYATT ROZMENOSKI
47659
MILWAUKEE, WI
PROFESSIONAL ENGINEER
01/12/2023

BUREAU OF STRUCTURES CONTACT:
AARON BONK (608) 261-0261
CONSULTANT CONTACT
WYATT ROZMENOSKI (414) 259-1500

NO.	DATE	REVISION	BY

GRAEF
375 W Wisconsin Avenue
Suite 800
Milwaukee, WI 53203
414 /259 1500
414 /259 8007 fax
www.graef-usa.com

ACCEPTED SDR 11/14/23
CHIEF STRUCTURES DESIGN ENGINEER DATE

STRUCTURE B-40-530

STH 100/RYAN ROAD EB OVER UP RR

COUNTY	~~TOWN/CITY/VILLAGE~~
MILWAUKEE	OAK CREEK

DESIGN SPEC: REHABILITATION N/A

DESIGNED BY	DESIGN CK'D.	DRAWN BY.	PLANS CK'D.
WAR	KGW	WAR	KGW

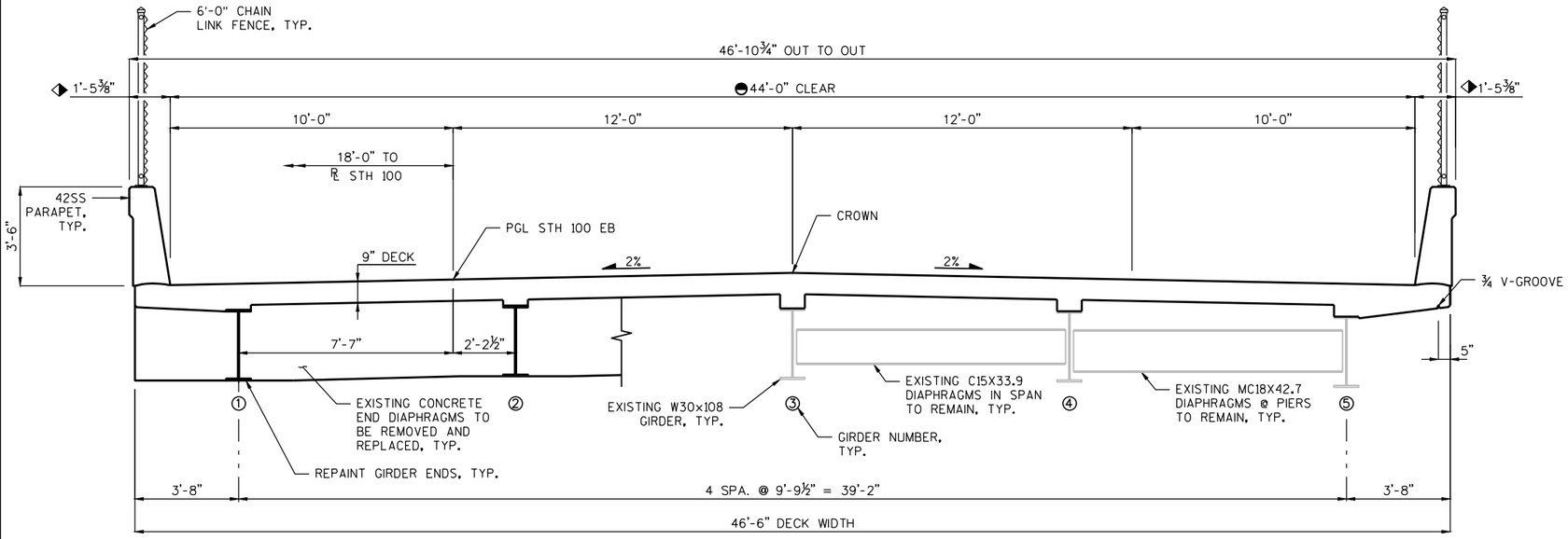
GENERAL PLAN & ELEVATION

SHEET 1 OF 12
143

I.D. 2040-20-00 DATE: JANUARY 2022

SCALE = 1:20

STATE PROJECT NUMBER
2040-20-70



PROPOSED TYPICAL SECTION
(LOOKING EAST)

BENCH MARKS

STATION	DESCRIPTION	ELEVATION
168+13	CP CHSLD SQ W EDGE OF MEDIAN INLET 230'± W. OF UP RR BRIDGE	691.007
170+48	BM ALUM CAP TOP OF WALL SW CORNER B-40-530	698.649
175+01	BM CHSLD SQ ON CONC. BIKE TRAIL BENCH S. SIDE RYAN RD AT BOX CULVERT C-40-79	681.793

TOTAL ESTIMATED QUANTITIES

	ITEM	DESCRIPTION	UNIT	W. ABUT.	PIER 1	PIER 2	E. ABUT.	SUPER.	TOTAL
	203.0220	REMOVING STRUCTURE B-40-530	EACH	-	-	-	-	-	1
	203.0330	DEBRIS CONTAINMENT B-40-530	EACH	-	-	-	-	-	1
	206.1001	EXCAVATION FOR STRUCTURES BRIDGES B-40-530	EACH	-	-	-	-	-	1
	209.0200.S	BACKFILL CONTROLLED LOW STRENGTH	CY	-	-	-	2	-	2
	210.1500	BACKFILL STRUCTURE TYPE A	TON	79	-	-	243	-	322
	502.0100	CONCRETE MASONRY BRIDGES	CY	7.5	-	-	7.6	259.6	275
	502.3200	PROTECTIVE SURFACE TREATMENT	SY	-	-	-	-	709	709
	502.3210	PIGMENTED SURFACE SEALER	SY	10	-	-	10	144	164
	502.4205	ADHESIVE ANCHORS NO. 5 BAR	EACH	48	-	-	48	56	152
	505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB	1,240	-	-	1,250	60,720	63,210
	506.2605	BEARING PADS ELASTOMERIC NON-LAMINATED	EACH	-	-	-	-	10	10
	506.7050.S	REMOVING BEARINGS, B-40-530	EACH	-	-	-	-	10	10
	509.1500	CONCRETE SURFACE REPAIR	SF	6	-	-	1	-	7
	516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	13	-	-	13	-	26
	517.0901.S	PREPARATION AND COATING OF TOP FLANGES B-40-530	EACH	-	-	-	-	-	1
*	517.1801.S	STRUCTURE REPAINTING RECYCLED ABRASIVE B-40-530	EACH	-	-	-	-	-	1
	517.4501.S	NEGATIVE PRESSURE CONTAINMENT AND COLLECTION OF WASTE MATERIALS B-40-530	EACH	-	-	-	-	-	1
	517.6001.S	PORTABLE DECONTAMINATION FACILITY	EACH	-	-	-	-	-	1
	604.9010.S	SLOPE PAVING REPAIR CRUSHED AGGREGATE	CY	81	-	-	135	-	216
	604.9015.S	RESEAL CRUSHED AGGREGATE SLOPE PAVING	SY	308	-	-	308	-	616
	606.0200	RIPRAP MEDIUM	CY	4	-	-	4	-	8
	612.0406	PIPE UNDERDRAIN WRAPPED 6-INCH	LF	-	-	-	87	-	87
	612.0806	APRON ENDWALLS FOR UNDERDRAIN REINFORCED CONCRETE 6-INCH	EACH	-	-	-	1	-	1
	614.0150	ANCHOR ASSEMBLIES FOR STEEL PLATE BEAM GUARD	EACH	2	-	-	1	-	3
	616.0206	FENCE CHAIN LINK 6-FT.	LF	12			12	292	316
	616.0800.S	FENCE TRACK CLEARANCE	LF	-	-	-	-	-	495
	645.0111	GEOTEXTILE TYPE DF SCHEDULE A	SY	-	-	-	45	-	45
	645.0120	GEOTEXTILE TYPE HR	SY	22	-	-	22	-	44
		NON-BID ITEMS							
		NAME PLATE	EACH						1
		FILLER	SIZE						1/2"

* FOR INFORMATIONAL PURPOSES ONLY: APPROXIMATELY 593 SF OF STRUCTURAL STEEL REPAINTING, SEE GENERAL NOTES.

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

THE FIRST DIGIT OF A THREE DIGIT AND THE FIRST TWO DIGITS OF A FOUR DIGIT BAR MARK SIGNIFIES THE BAR SIZE.

BEVEL ALL EXPOSED EDGES OF CONCRETE ¾" UNLESS OTHERWISE NOTED.

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

THE TOP LAYER OF BAR STEEL REINFORCEMENT IN THE DECK SHALL BE PLACED WITH 2½" OF CLEAR COVER.

UTILIZE EXISTING BAR STEEL REINFORCEMENT WHERE SHOWN AND EXTEND 24 BAR DIAMETERS INTO NEW WORK, UNLESS SPECIFIED OTHERWISE.

ALL STATIONS AND ELEVATIONS ARE IN FEET. ELEVATIONS ARE REFERENCE TO THE NAVD 88 2012.

ROADWAY ALIGNMENT PROVIDED BY WISDOT SE REGION. STRUCTURE STATIONING PROPOSED BASED ON ORIGINAL STRUCTURE PLAN DIMENSIONS AND SURVEY DATA.

DIMENSIONS SHOWN ARE BASED ON THE ORIGINAL STRUCTURE PLANS.

EXISTING STRUCTURE B-40-530 IS A 3 SPAN CONTINUOUS STEEL WIDE FLANGE GIRDER BRIDGE WITH AN EXISTING OUT-TO-OUT WIDTH OF 47'-0" AND A BACK-TO-BACK OF ABUTMENT LENGTH OF 145'-10¼". SEE SHEET 1 FOR "SCOPE OF WORK".

THE SUPERSTRUCTURE CONCRETE QUANTITY INCLUDES VOLUME FOR THE AVERAGE ESTIMATED HAUNCH AND OVERHANG TRIANGULAR AREA.

BRIDGE IS TO BE CLOSED TO TRAFFIC DURING CONSTRUCTION.

VARIATIONS OF THE NEW GRADE LINE OVER 1/4" MUST BE SUBMITTED BY THE FIELD ENGINEER TO THE STRUCTURES DESIGN SECTION FOR REVIEW.

CONCRETE SURFACE REPAIR AS DIRECTED BY THE FIELD ENGINEER. QUANTITIES SHOWN ON PLANS ARE APPROXIMATE.

SLOPE PAVING REPAIRS SHALL BE MADE ONLY AS DIRECTED BY THE ENGINEER.

ALL CONCRETE REMOVAL SHALL BE DEFINED BY A 1 INCH DEEP SAW CUT, UNLESS SPECIFIED OTHERWISE.

THE UPPER LIMITS OF "EXCAVATION FOR STRUCTURES BRIDGES B-40-530" SHALL BE THE EXISTING GROUNDLINE.

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

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

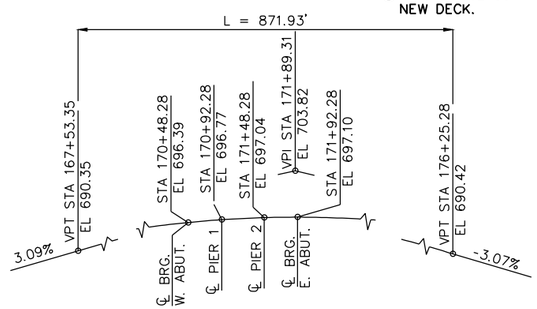
STRUCTURAL STEEL SURFACES WITHIN 8'-0" OF GIRDER ENDS ARE TO BE CLEANED AND PAINTED PRIOR TO PLACEMENT OF CONCRETE END DIAPHRAGMS. PAINT COLOR TO BE AMS STANDARD COLOR NO. 26293 (LIGHT GRAY).

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 SHOW ORIGINAL CONSTRUCTION YEAR OF 1985.

LEGEND

◆ "PIGMENTED SURFACE SEALER" TO BE APPLIED TO THE TOP AND INSIDE FACES OF PARAPETS INCLUDING PARAPETS ON ABUTMENT WINGS.

◓ "PROTECTIVE SURFACE TREATMENT" SHALL BE APPLIED TO THE TOP SURFACE OF THE NEW DECK.



PROFILE GRADE LINE

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-530

DRAWN BY WAR | PLANS CK'D. KGW

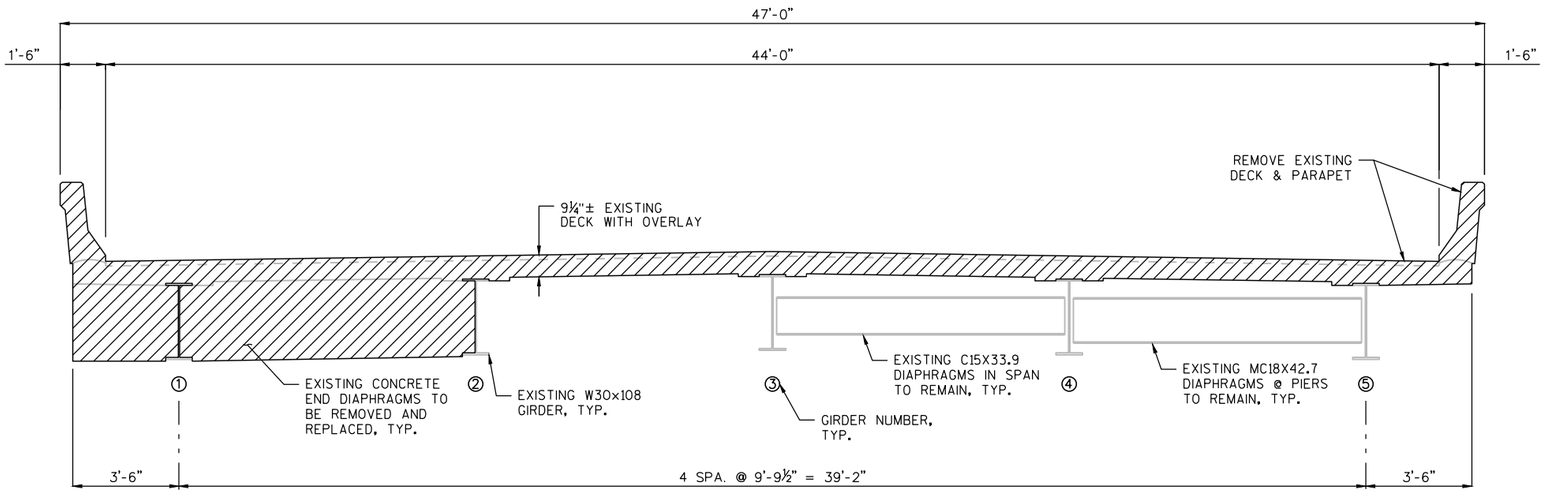
CROSS SECTION & QUANTITIES

SHEET 2 OF 12

144

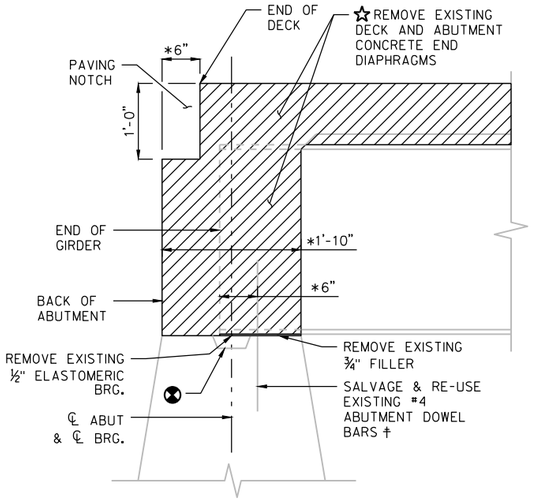
SCALE = ###

STATE PROJECT NUMBER
2040-20-70

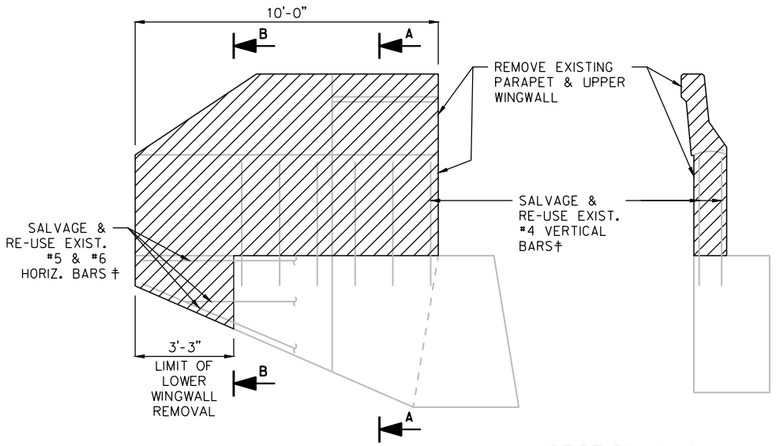


EXISTING TYPICAL SECTION

(LOOKING EAST)

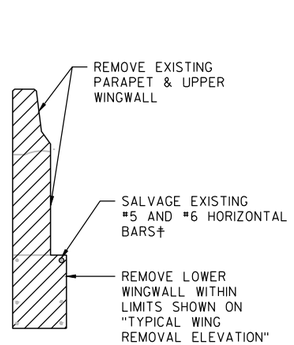


REMOVAL OVER ABUTMENTS



TYPICAL WING REMOVAL ELEVATION

SECTION A-A



SECTION B-B

LEGEND

▨ REMOVAL LIMITS

* DIMENSIONS GIVEN ARE NORMAL TO ℄ OF SUBSTRUCTURE UNIT

☆ STABILITY OF GIRDERS DURING CONSTRUCTION SHALL BE INCIDENTAL TO "REMOVING STRUCTURE B-40-530".

⊗ CLEAN EXISTING CONCRETE DIAPHRAGM REMNANTS OUT OF EXISTING KEYED CONST. JT. FORMED BY SURF. BEVELED 2" X 6".

† EXISTING BARS ARE LIKELY TO BE CORRODED AND/OR DAMAGED DURING CONCRETE REMOVAL. PRESERVE AND INCORPORATE AS MUCH REBAR AS PRACTICAL.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-530

DRAWN BY WAR | PLANS CK'D. KGW

REMOVAL DETAILS

SHEET 3 OF 12

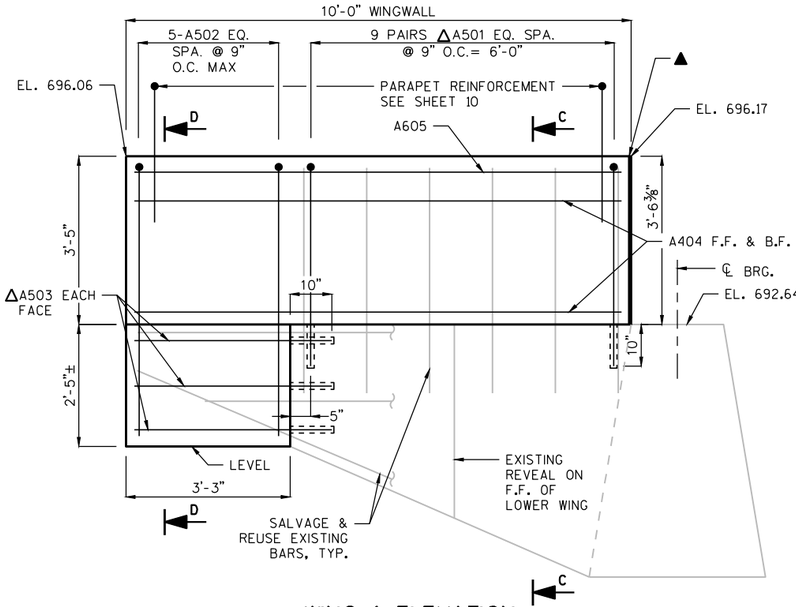
145

SCALE = ###

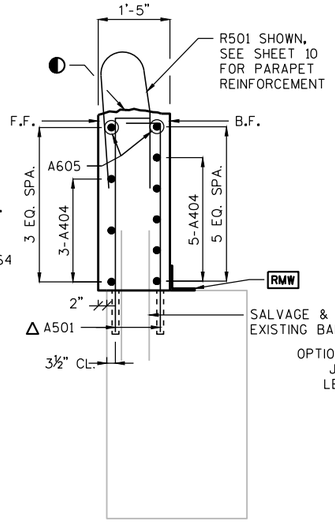
8

8

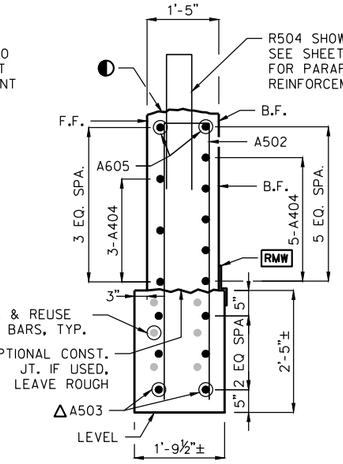
STATE PROJECT NUMBER
2040-20-70



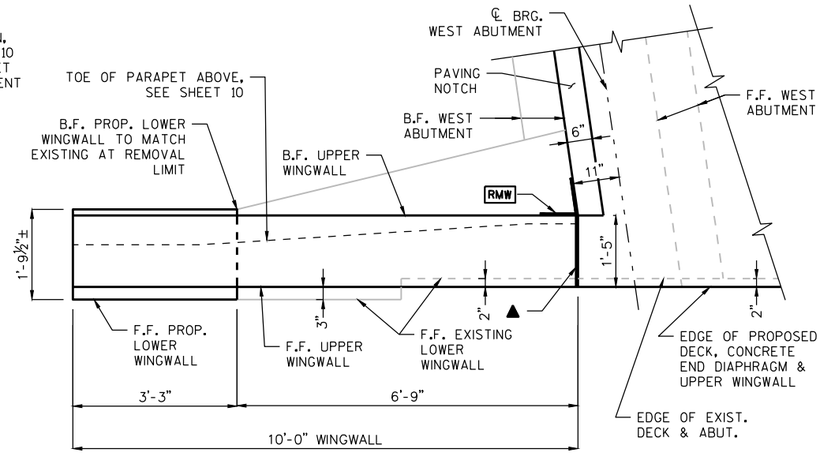
WING 1 ELEVATION



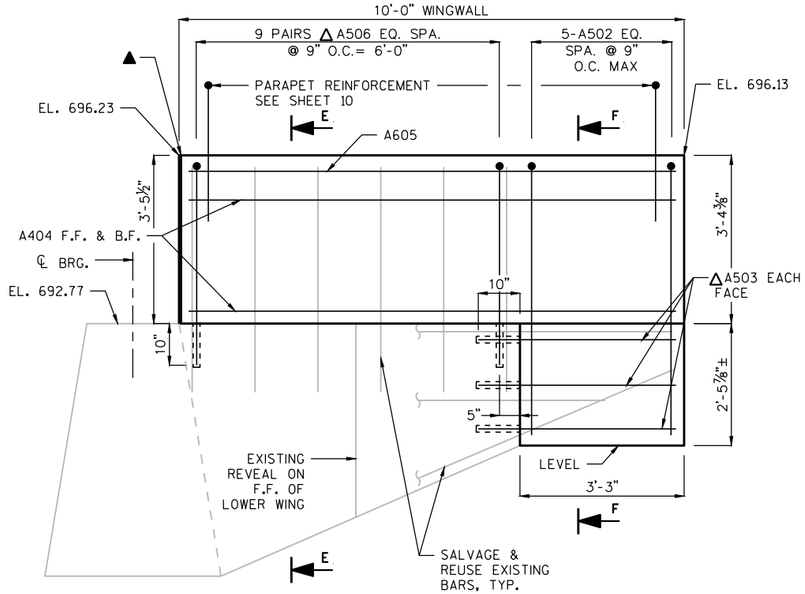
SECTION C-C



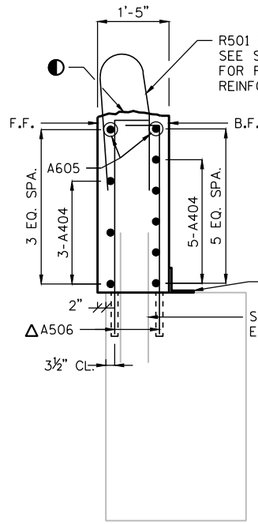
SECTION D-D



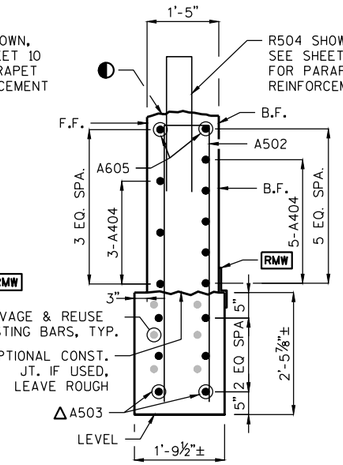
WING 1 PLAN



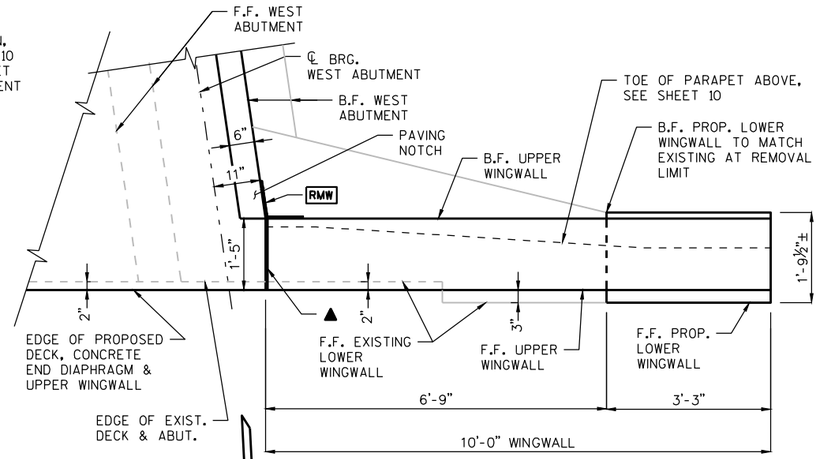
WING 2 ELEVATION



SECTION E-E



SECTION F-F



WING 2 PLAN

LEGEND

▲ ½" FILLER - TO EXTEND FROM BRIDGE SEAT TO TOP OF CONCRETE PARAPET. FILLER INCLUDED IN WING LENGTH.

△ ADHESIVE ANCHORS NO. 5 BAR. EMBED 10" IN CONCRETE.

RMW 18" RUBBERIZED MEMBRANE WATERPROOFING. SEAL ALL HORIZONTAL AND VERTICAL JOINTS OF NEW WORK ON BACKFACE.

◐ CONSTRUCTION JOINT - STRIKE OFF AS SHOWN. FINISH HORIZONTAL SURFACES NOT COVERED BY PARAPET.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-530

DRAWN BY WAR | PLANS CK'D. KGW

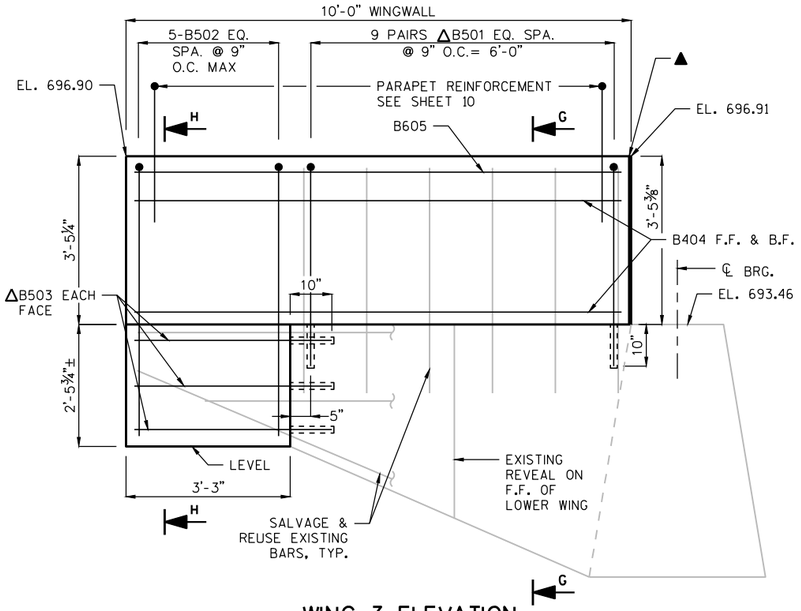
WEST ABUTMENT WINGWALLS

SHEET 4 OF 12

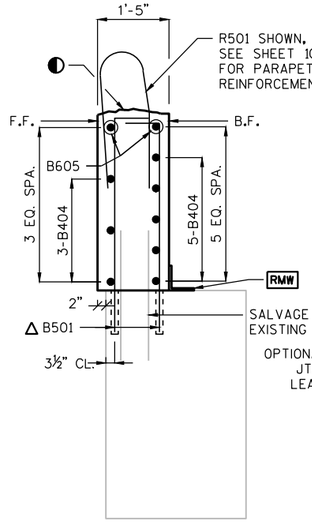
146

SCALE = ###

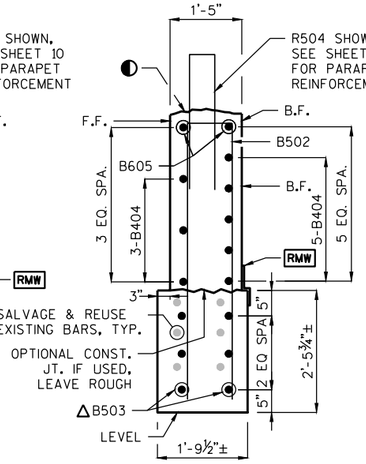
STATE PROJECT NUMBER
2040-20-70



WING 3 ELEVATION



SECTION G-G



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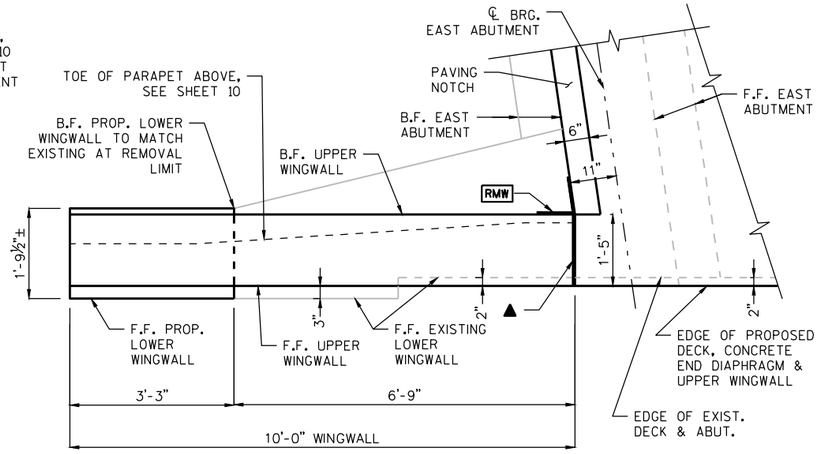
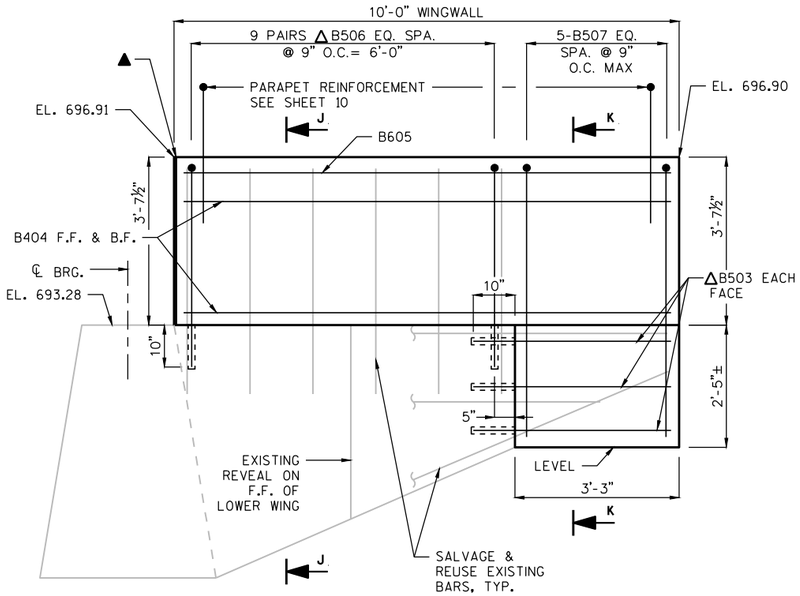
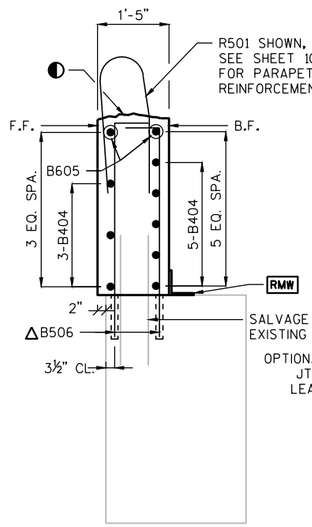


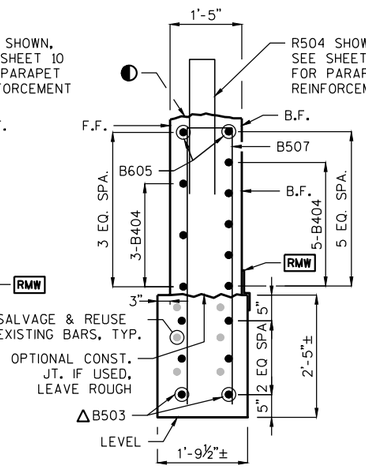
WING 3 PLAN



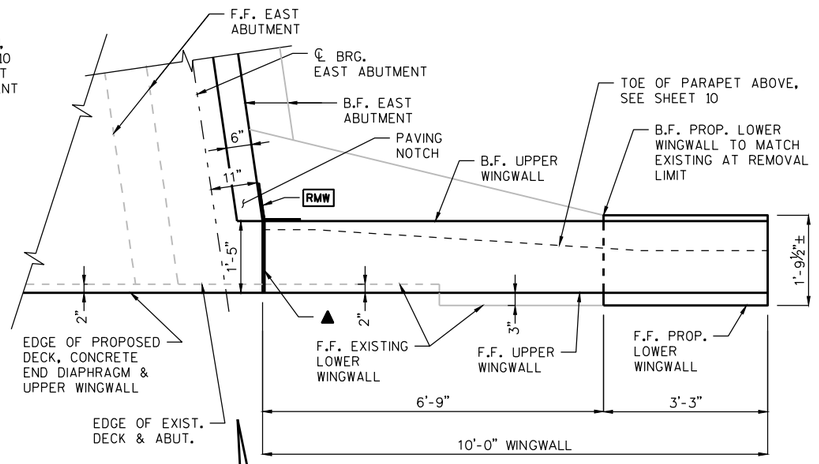
WING 4 ELEVATION



SECTION J-J



SECTION K-K



WING 4 PLAN

LEGEND

▲ ½" FILLER - TO EXTEND FROM BRIDGE SEAT TO TOP OF CONCRETE PARAPET. FILLER INCLUDED IN WING LENGTH.

△ ADHESIVE ANCHORS NO. 5 BAR. EMBED 10" IN CONCRETE.

RMW 18" RUBBERIZED MEMBRANE WATERPROOFING. SEAL ALL HORIZONTAL AND VERTICAL JOINTS OF NEW WORK ON BACKFACE.

◐ CONSTRUCTION JOINT - STRIKE OFF AS SHOWN. FINISH HORIZONTAL SURFACES NOT COVERED BY PARAPET.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-530

DRAWN BY WAR | PLANS CK'D. KGW

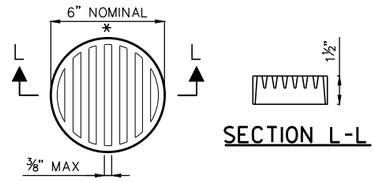
EAST ABUTMENT WINGWALLS

SHEET 5 OF 12

147

SCALE = ###

STATE PROJECT NUMBER
2040-20-70



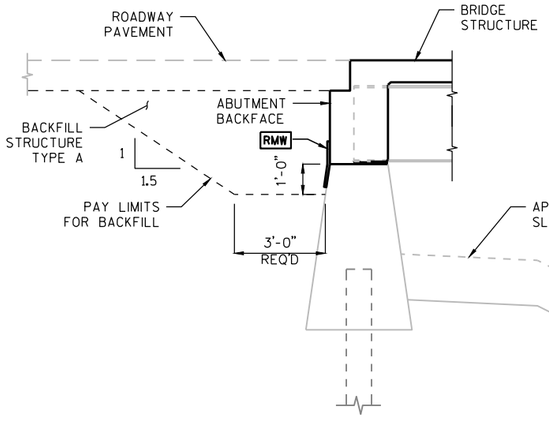
SECTION L-L

RODENT SHIELD DETAIL

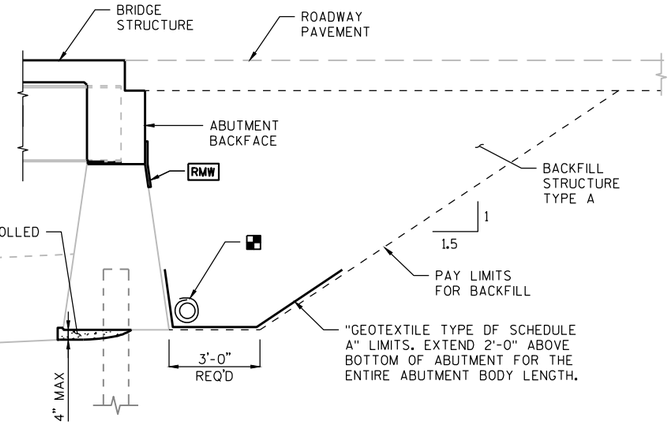
* DIMENSIONS ARE APPROXIMATE. THE GRATE IS SIZED TO FIT INTO A PIPE COUPLING. ORIENT SO SLOTS ARE VERTICAL.

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.



WEST ABUTMENT BACKFILL DIAGRAM



EAST ABUTMENT BACKFILL DIAGRAM

WEST ABUTMENT - BILL OF BARS

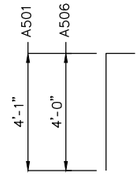
	MARK	COATED	NO. REQ'D	LENGTH	BAR SERIES	BENT	LOCATION
Δ	A501	X	18	4'-10"		X	WINGWALL 1 VERT. ADHESIVE ANCHORS
	A502	X	10	11'-7"		X	WINGWALL VERT.
Δ	A503	X	12	3'-11"			WINGWALL HORIZ. ADHESIVE ANCHORS
	A404	X	16	9'-7"			WINGWALL LONG. F.F. & B.F.
	A605	X	4	9'-7"			WINGWALL LONG. TOP
Δ	A506	X	18	4'-9"		X	WINGWALL 2 VERT. ADHESIVE ANCHORS

ALL BAR BENDS ARE OUT TO OUT

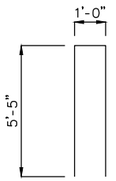
EAST ABUTMENT - BILL OF BARS

	MARK	COATED	NO. REQ'D	LENGTH	BAR SERIES	BENT	LOCATION
Δ	B501	X	18	4'-10"		X	WINGWALL 3 VERT. ADHESIVE ANCHORS
	B502	X	5	11'-9"		X	WINGWALL 3 VERT.
Δ	B503	X	12	3'-11"			WINGWALL HORIZ. ADHESIVE ANCHORS
	B404	X	16	9'-7"			WINGWALL LONG. F.F. & B.F.
	B605	X	4	9'-7"			WINGWALL LONG. TOP
Δ	B506	X	18	5'-0"		X	WINGWALL 4 VERT. ADHESIVE ANCHORS
	B507	X	5	11'-11"		X	WINGWALL 4 VERT.

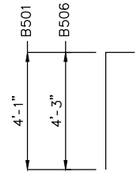
ALL BAR BENDS ARE OUT TO OUT



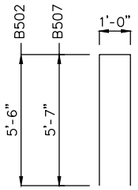
A501/A506



A502



B501/B506



B502/B507

LEGEND

▪ PIPE UNDERDRAIN WRAPPED (6-INCH). SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. ATTACH RODENT SHIELD TO ENDS OF PIPE UNDERDRAIN.

Δ ADHESIVE ANCHORS NO. 5 BAR. EMBED 10" IN CONCRETE.

RMW 18" RUBBERIZED MEMBRANE WATERPROOFING. SEAL ALL HORIZONTAL AND VERTICAL JOINTS OF NEW WORK ON BACKFACE.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-530

DRAWN BY WAR | PLANS CK'D. KGW

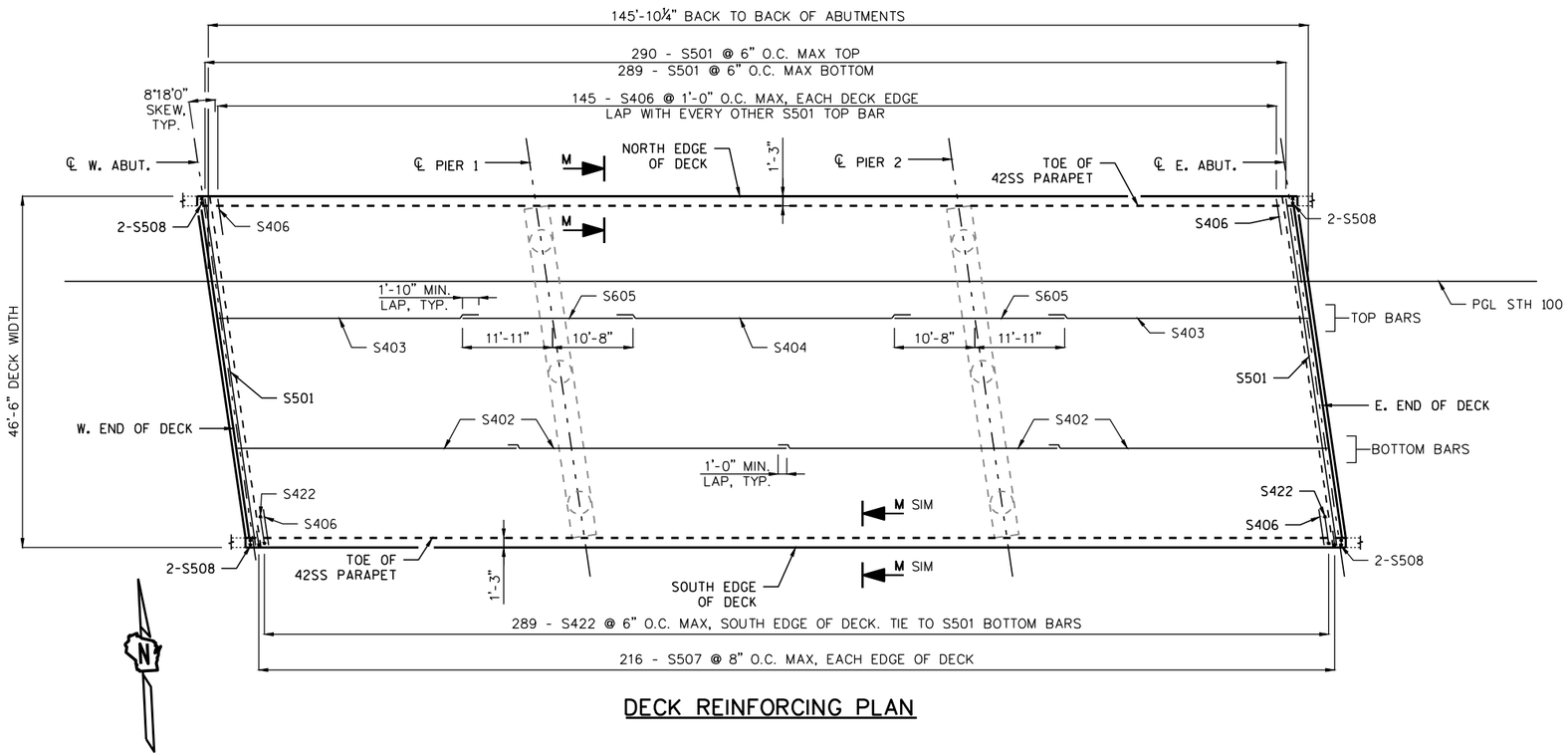
ABUTMENT DETAILS & BILL OF BARS

SHEET 6 OF 12

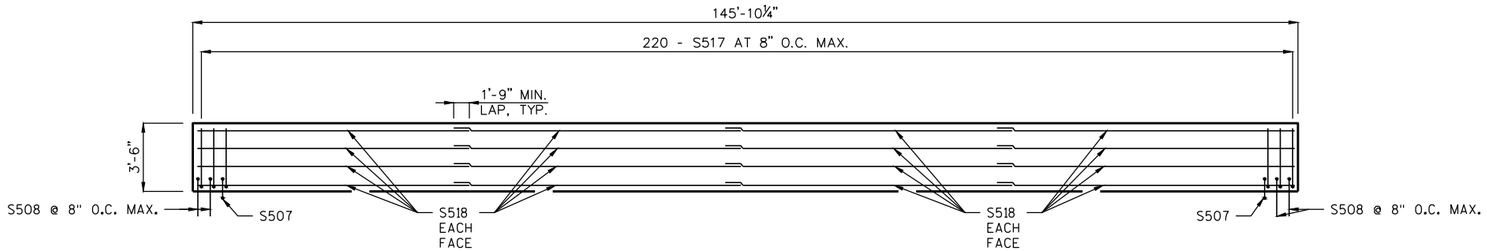
148

SCALE = ###

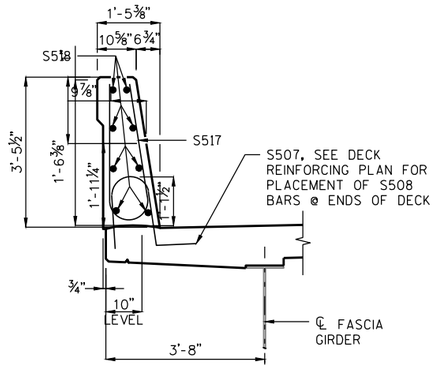
STATE PROJECT NUMBER
2040-20-70



DECK REINFORCING PLAN

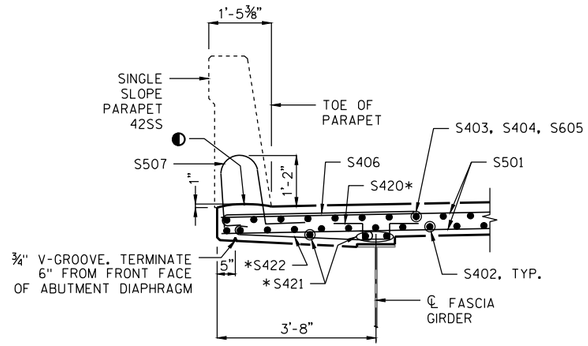


SINGLE SLOPE PARAPET 42SS REINFORCING ELEVATION



SECTION THRU '42SS' PARAPET ON BRIDGE

DECK REINFORCEMENT NOT SHOWN FOR CLARITY
FENCE NOT SHOWN FOR CLARITY

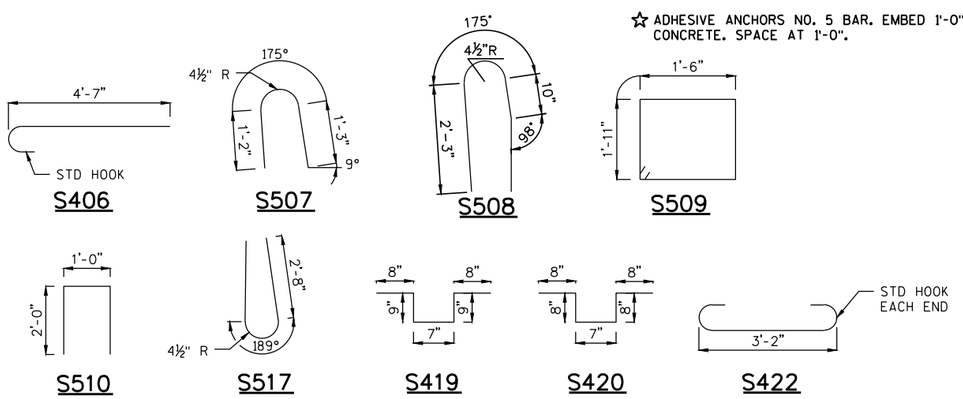


SECTION M-M THRU EDGE OF DECK

* = AT SIM ONLY

SUPERSTRUCTURE - BILL OF BARS

	MARK	COATED	NO. REQ'D	LENGTH	BAR SERIES	BENT	LOCATION
	S501	X	579	46'-8"			DECK TRANSV. (ALONG SKEW)
	S402	X	304	37'-0"			DECK LONGIT. BOTTOM
	S403	X	150	34'-8"			DECK LONGIT. TOP SPAN 1 & 3
	S404	X	75	39'-0"			DECK LONGIT. TOP SPAN 2
	S605	X	150	22'-7"			DECK LONGIT. TOP OVER PIERS
	S406	X	290	5'-1"			DECK TRANSV. OVERHANG
	S507	X	432	4'-5"		X	DECK PARAPET DOWEL
	S508	X	8	5'-10"		X	DECK PARAPET DOWEL @ ENDS
	S509	X	136	7'-6"		X	END DIAPHRAGM VERTICAL
	S510	X	136	4'-9"		X	END DIAPHRAGM VERTICAL - TOP
	S611	X	16	25'-3"			END DIAPHRAGM HORIZ. B.F.
	S612	X	16	3'-4"			END DIAPHRAGM HORIZ. F.F.
	S613	X	32	9'-5"			END DIAPHRAGM HORIZ. F.F.
	S714	X	20	4'-0"			END DIAPHRAGM HORIZ. THRU WEBS
☆	S515	X	56	2'-0"			END DIAPH. ADHESIVE DOWELS SUPPLEMENTAL
	S616	X	4	46'-7"			DECK END TRANSV. (ALONG SKEW)
	S517	X	440	6'-8"		X	DECK PARAPET VERTICAL
	S518	X	64	37'-10"			DECK PARAPET HORIZONTAL
	S419	X	320	3'-1"		X	HAUNCH VERTICAL GIRDER 3 & 4
	S420	X	160	2'-11"		X	HAUNCH VERTICAL GIRDER 5
	S421	X	28	36'-11"			HAUNCH LONGITUDINAL GIRDERS 3-5
	S422	X	289	4'-2"		X	DECK TRANSV. BOTT., SOUTH OVERHANG



LEGEND

◐ CONSTRUCTION JOINT - STRIKE OFF AS SHOWN

☆ ADHESIVE ANCHORS NO. 5 BAR. EMBED 1'-0" IN CONCRETE. SPACE AT 1'-0".

NOTES

THE RATE OF PLACING CONCRETE SHALL EQUAL OR EXCEED ½ SPAN LENGTH PER HOUR BUT NEED NOT EXCEED 100 CU. YDS. PER HOUR.

DECK POUR SHALL BE WITHIN 2 WEEKS OF POURING ABUTMENT CONCRETE END DIAPHRAGMS.

OPTIONAL CONSTRUCTION JOINTS IN PARAPETS MAY BE USED. RUN BAR REINF. THRU JOINT. LAP LONGIT. BARS A MIN. OF 1'-9". MIN. JOINT SPACING OF 80'-0". DEFINE CONST. JOINT WITH A ¾" - 'V' GROOVE.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-530

DRAWN BY WAR | PLANS CK'D. KGW

SUPERSTRUCTURE PLAN

SHEET 7 OF 12

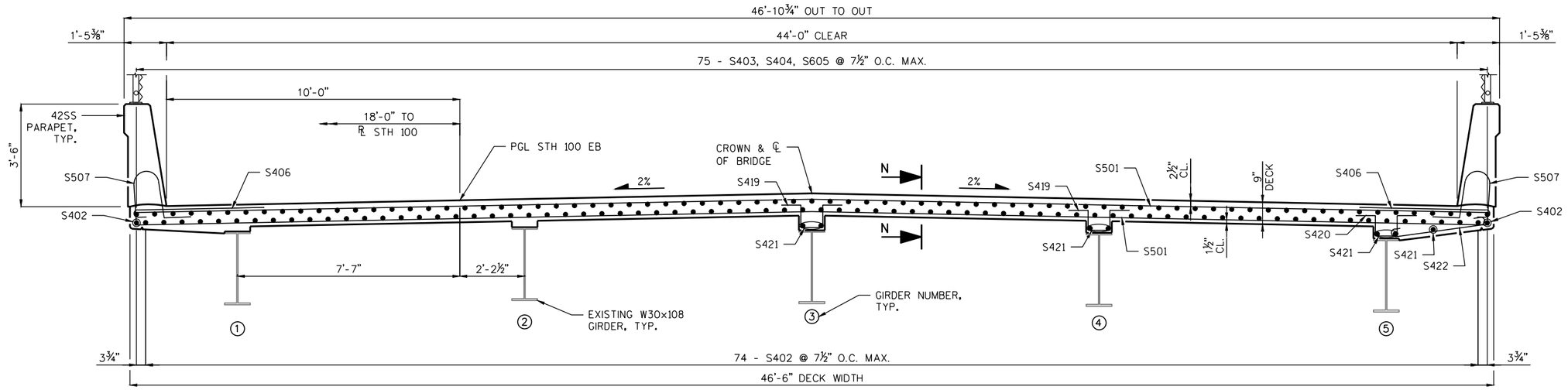
149

8

8

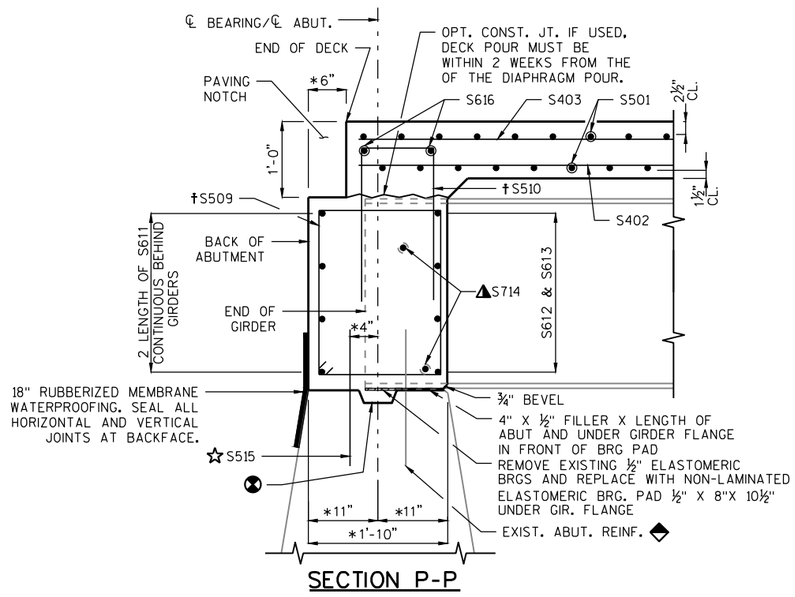
SCALE = ###

STATE PROJECT NUMBER
2040-20-70

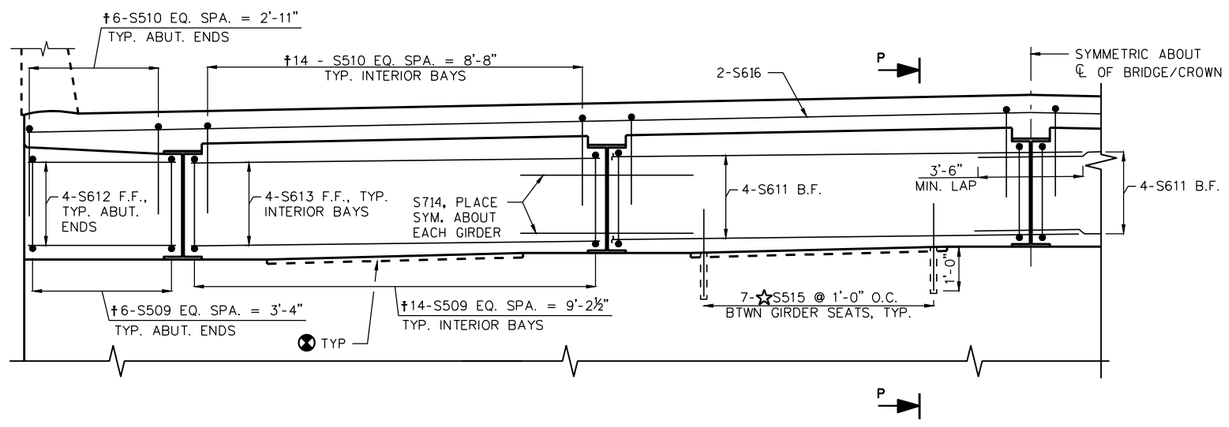


DECK REINFORCING CROSS SECTION

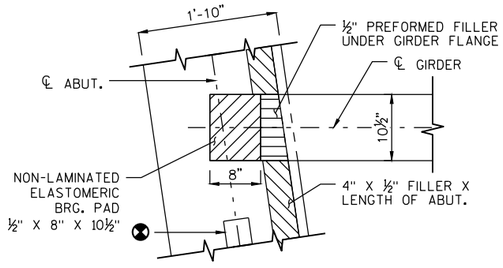
(LOOKING EAST)



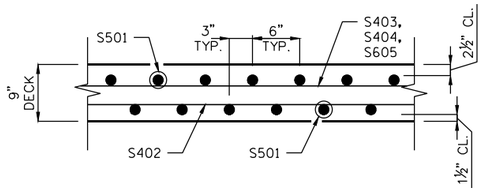
SECTION P-P



PART SECTION THRU ABUTMENT CONCRETE END DIAPHRAGM



BEARING PAD DETAIL



SECTION N-N

LEGEND

◆ EXISTING BARS ARE LIKELY TO BE CORRODED AND/OR DAMAGED DURING CONCRETE REMOVAL. SALVAGE AND INCORPORATE AS MUCH REBAR AS PRACTICAL. SUPPLEMENT WITH BARS INDICATED BY ☆.

* DIMENSIONS GIVEN ARE NORMAL TO ℄ OF SUBSTRUCTURE UNIT.

☆ ADHESIVE ANCHORS NO. 5 BAR. EMBED 1'-0" IN CONCRETE. SPACE AT 1'-0".

† BARS PLACED PARALLEL TO GIRDERS. SPACING PERPENDICULAR TO ℄ OF GIRDERS.

▲ PLACE BARS SYM. ABOUT ℄ OF GIRDER IN EXISTING 15/16" DIA HOLES.

⊠ CLEAN EXISTING CONCRETE DIAPHRAGM REMNANTS OUT OF EXISTING KEYED CONST. JT. FORMED BY SURF. BEVELED 2" X 6".

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-530

DRAWN BY WAR | PLANS CK'D. KGW

SUPERSTRUCTURE CROSS-SECTION

SHEET 8 OF 12

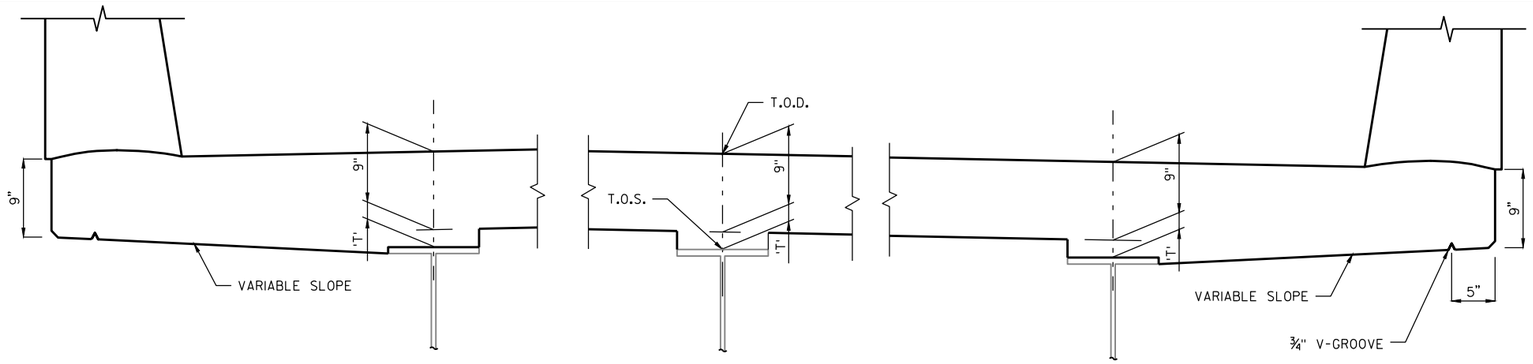
150

8

8

SCALE = ###

STATE PROJECT NUMBER
2040-20-70



SECTION THRU DECK

NOTES

'T' = HAUNCH HEIGHT AT CENTERLINE OF GIRDER

TO DETERMINE 'T':
ELEVATIONS AT THE TOP FLANGES SHALL BE TAKEN AT CENTERLINE OF BEARINGS AND AT 0.1 POINTS.

TOP OF DECK ELEVATION AT FINAL GRADE

\- TOP OF STEEL ELEVATION AS ERECTED

\+ CONC. ONLY DEFLECTION; DOWNWARD DEFLECTION IS ADDED, UPWARD DEFLECTION IS SUBTRACTED

\- DECK THICKNESS

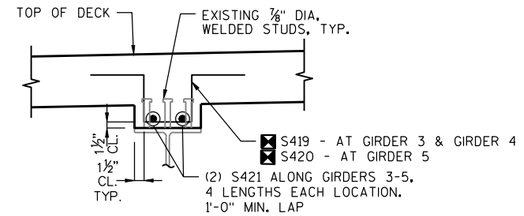
= 'T' VALUE FOR SETTING HAUNCH

DEFLECTION TABLE (INCHES)

	C/L BRG	SPAN 1									C/L BRG	SPAN 2										C/L BRG
LOCATION	WEST ABUT.	0.1 SPAN	0.2 SPAN	0.3 SPAN	0.4 SPAN	0.5 SPAN	0.6 SPAN	0.7 SPAN	0.8 SPAN	0.9 SPAN	PIER 1	0.1 SPAN	0.2 SPAN	0.3 SPAN	0.4 SPAN	0.5 SPAN	0.6 SPAN	0.7 SPAN	F.S.	0.8 SPAN	0.9 SPAN	PIER 2
CONCRETE DEFLECTION	0.0	0.1	0.2	0.3	0.3	0.3	0.3	0.2	0.1	0.0	0.0	0.1	0.2	0.3	0.4	0.5	0.4	0.3	0.2	0.2	0.1	0.0

	C/L BRG	SPAN 3									C/L BRG
LOCATION	PIER 2	0.1 SPAN	0.2 SPAN	0.3 SPAN	0.4 SPAN	0.5 SPAN	0.6 SPAN	0.7 SPAN	0.8 SPAN	0.9 SPAN	EAST ABUT.
CONCRETE DEFLECTION	0.0	0.0	0.1	0.2	0.3	0.3	0.3	0.3	0.2	0.1	0.0

DEFLECTIONS ARE DUE TO WEIGHT OF CONCRETE DECK, SIDEWALK, PARAPETS AND RAILINGS.
DEFLECTIONS ARE THEORETICAL AND MAY VARY IN THE FIELD.
NEGATIVE VALUES ARE UPWARD DEFLECTIONS.



GIRDER HAUNCH REINFORCEMENT DETAIL

ELEVATIONS AT TOP OF DECK (T.O.D) & TOP OF STEEL (T.O.S)

		C/L BRG	SPAN 1									C/L BRG	SPAN 2										C/L BRG
LOCATION		WEST ABUT.	0.1 SPAN	0.2 SPAN	0.3 SPAN	0.4 SPAN	0.5 SPAN	0.6 SPAN	0.7 SPAN	0.8 SPAN	0.9 SPAN	PIER 1	0.1 SPAN	0.2 SPAN	0.3 SPAN	0.4 SPAN	0.5 SPAN	0.6 SPAN	0.7 SPAN	F.S.	0.8 SPAN	0.9 SPAN	PIER 2
NORTH DECK EDGE	T.O.D.	696.17	696.22	696.26	696.30	696.34	696.38	696.42	696.45	696.49	696.52	696.55	696.59	696.63	696.66	696.69	696.72	696.75	696.77	696.80	696.80	696.82	696.84
GIRDER 1	T.O.D.	696.23	696.27	696.31	696.35	696.39	696.43	696.47	696.50	696.54	696.57	696.60	696.64	696.68	696.71	696.74	696.77	696.80	696.82	696.85	696.85	696.87	696.89
	T.O.S.	695.35										695.57											695.97
PGL	T.O.D.	696.39	696.43	696.4747	696.5155	696.55	696.593	696.63	696.665	696.699	696.7316	696.76	696.8005	696.84	696.87	696.90	696.93	696.96	696.98	697.00	697.00	697.02	697.04
GIRDER 2	T.O.D.	696.44	696.48	696.52	696.56	696.60	696.64	696.68	696.71	696.75	696.78	696.81	696.85	696.88	696.92	696.95	696.98	697.00	697.03	697.05	697.05	697.07	697.09
	T.O.S.	695.50										695.80											696.07
GIRDER 3	T.O.D.	696.65	696.69	696.73	696.77	696.81	696.85	696.88	696.92	696.95	696.98	697.01	697.05	697.09	697.12	697.15	697.18	697.20	697.23	697.25	697.25	697.27	697.29
	T.O.S.	695.45										695.76											696.05
GIRDER 4	T.O.D.	696.46	696.51	696.55	696.59	696.63	696.66	696.70	696.73	696.77	696.80	696.83	696.87	696.90	696.93	696.96	696.99	697.01	697.04	697.06	697.06	697.08	697.09
	T.O.S.	695.30										695.65											695.88
GIRDER 5	T.O.D.	696.28	696.32	696.37	696.41	696.44	696.48	696.51	696.55	696.58	696.61	696.64	696.68	696.71	696.74	696.77	696.80	696.82	696.85	696.87	696.87	696.89	696.90
	T.O.S.	695.19										695.53											695.79
SOUTH DECK EDGE	T.O.D.	696.24	696.28	696.32	696.36	696.40	696.43	696.47	696.50	696.54	696.57	696.60	696.63	696.67	696.70	696.73	696.75	696.78	696.80	696.82	696.82	696.84	696.85

		C/L BRG	SPAN 3									C/L BRG
LOCATION		PIER 2	0.1 SPAN	0.2 SPAN	0.3 SPAN	0.4 SPAN	0.5 SPAN	0.6 SPAN	0.7 SPAN	0.8 SPAN	0.9 SPAN	EAST ABUT.
NORTH DECK EDGE	T.O.D.	696.84	696.85	696.86	696.87	696.88	696.89	696.89	696.90	696.90	696.90	696.90
GIRDER 1	T.O.D.	696.89	696.90	696.91	696.92	696.93	696.94	696.94	696.95	696.95	696.95	696.95
	T.O.S.	695.97										696.03
PGL	T.O.D.	697.04	697.05	697.06	697.07	697.08	697.09	697.09	697.10	697.10	697.10	697.10
GIRDER 2	T.O.D.	697.09	697.10	697.11	697.12	697.13	697.13	697.14	697.14	697.15	697.15	697.15
	T.O.S.	696.07										696.17
GIRDER 3	T.O.D.	697.29	697.30	697.31	697.32	697.33	697.33	697.34	697.34	697.34	697.34	697.34
	T.O.S.	696.05										696.08
GIRDER 4	T.O.D.	697.09	697.11	697.12	697.12	697.13	697.14	697.14	697.15	697.15	697.15	697.15
	T.O.S.	695.88										695.95
GIRDER 5	T.O.D.	696.90	696.91	696.92	696.93	696.94	696.94	696.95	696.95	696.95	696.95	696.95
	T.O.S.	695.79										695.80
SOUTH DECK EDGE	T.O.D.	696.85	696.87	696.88	696.88	696.89	696.90	696.90	696.90	696.90	696.90	696.90

LEGEND

☒ WHERE SPACING OF EXISTING SHEAR STUDS IS EQUAL TO OR LESS THAN 1'-0", SPACE BARS TO MATCH. WHERE SPACING OF EXISTING SHEAR STUDS EXCEEDS 1'-0", SPACING SHALL BE 1'-0" MAX.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-530

DRAWN BY WAR | PLANS CK'D. KGW

TOP OF DECK ELEVATIONS

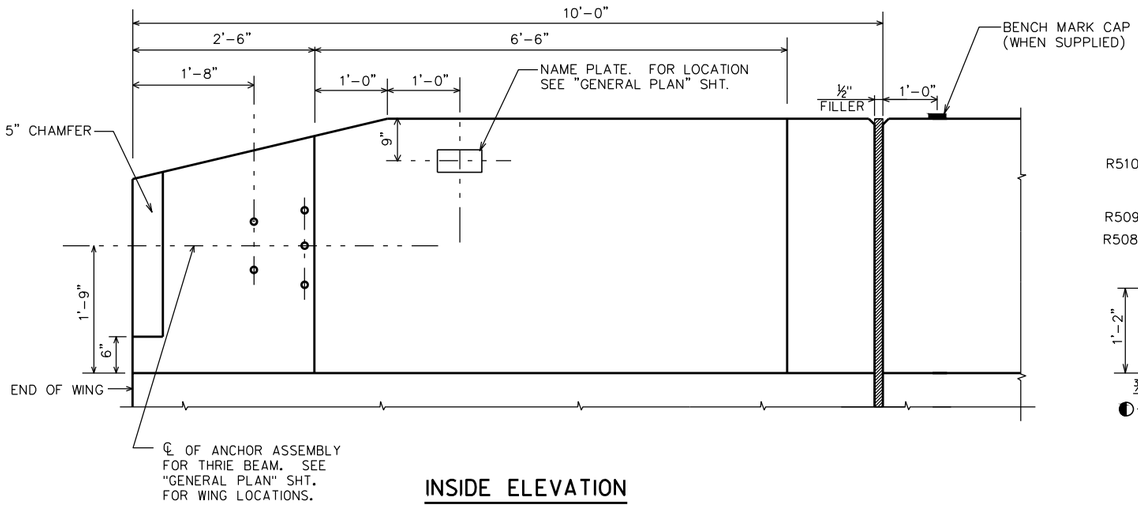
SHEET 9 OF 12

151

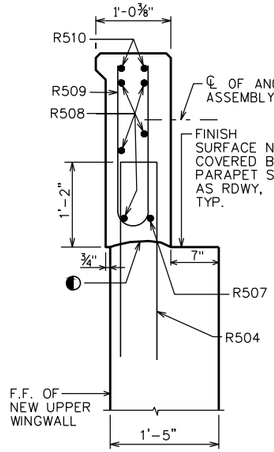
SCALE = ###

STATE PROJECT NUMBER

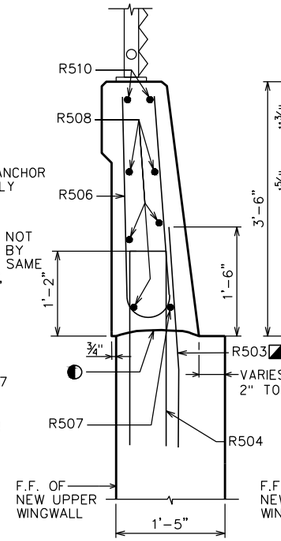
2040-20-70



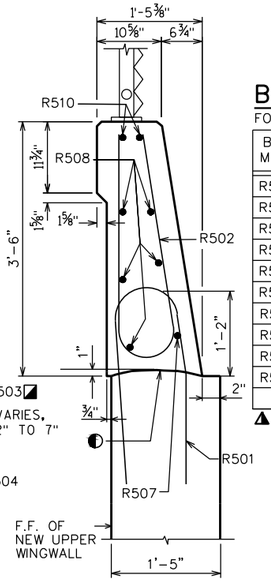
INSIDE ELEVATION



SECTION A-A *



SECTION B-B *



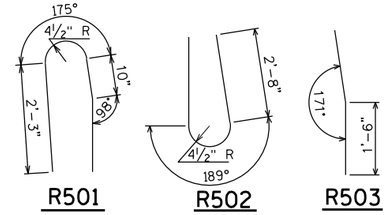
SECTION C-C *

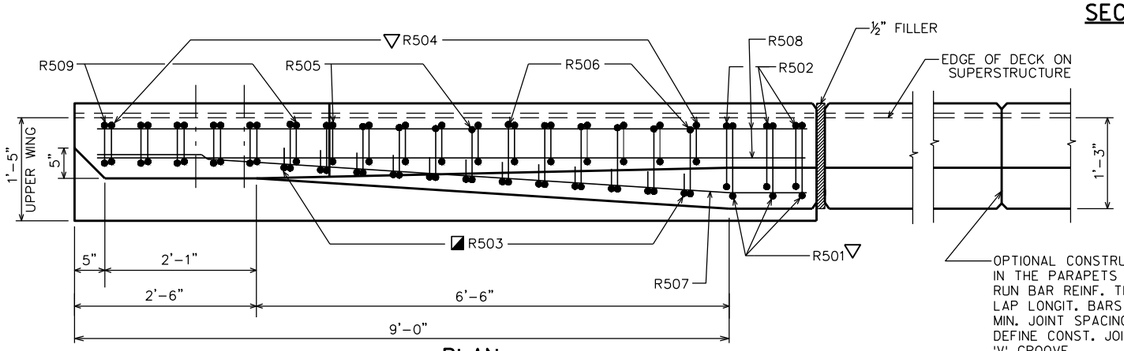
BILL OF BARS

FOR ABUTMENT PARAPETS

BAR MARK	COAT	WEST ABUT.	EAST ABUT.	LENGTH	BENT	BAR SERIES	LOCATION
R501	X	6	6	5'-10"	X		PARAPET VERT.
R502	X	6	6	6'-8"	X		PARAPET VERT.
R503	X	24	24	3'-0"	X		PARAPET VERT.
R504	X	34	34	5'-7"	X		PARAPET VERT.
R505	X	10	10	6'-5"	X		PARAPET VERT.
R506	X	12	12	6'-6"	X		PARAPET VERT.
R507	X	2	2	9'-8"	X		PARAPET HORIZ.
R508	X	10	10	9'-7"			PARAPET HORIZ.
R509	X	12	12	5'-5"	X	▲	PARAPET VERT.
R510	X	4	4	9'-8"	X		PARAPET HORIZ.

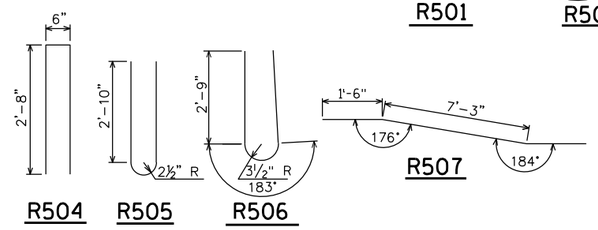
▲ LENGTH SHOWN FOR BAR IS AN AVERAGE LENGTH AND SHOULD BE ONLY USED FOR BAR WEIGHT CALCULATIONS. SEE BAR SERIES TABLE FOR ACTUAL LENGTHS.

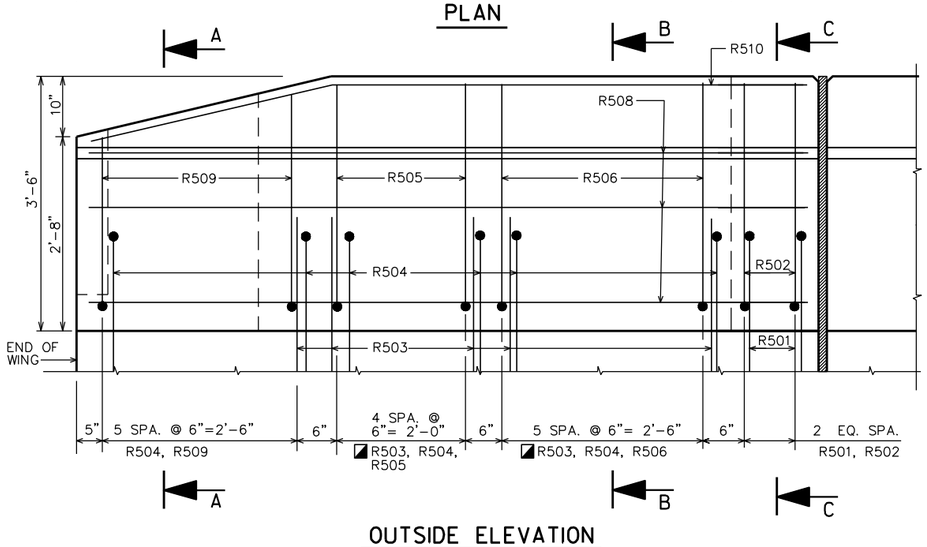




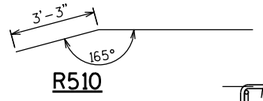
PLAN

OPTIONAL CONSTRUCTION JOINTS IN THE PARAPETS MAY BE USED. RUN BAR REINF. THRU THE JOINT. LAP LONGIT. BARS A MIN. OF 1'-9". MIN. JOINT SPACING OF 80'-0". DEFINE CONST. JOINT WITH A ¾" - 'V' GROOVE.



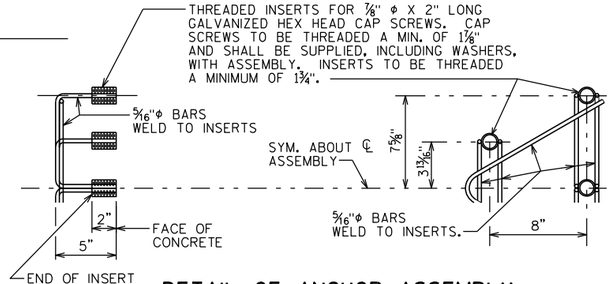


OUTSIDE ELEVATION



BAR SERIES TABLE

MARK	NO. REQ'D.	LENGTH
R509	4 SERIES OF 6	4'-9" TO 6'-1"



DETAIL OF ANCHOR ASSEMBLY

NOTE: HEX HEAD CAP SCREWS & WASHERS TO BE GALVANIZED IN ACCORDANCE WITH AASHTO M232 CLASS C.

ASSEMBLY SHALL BE BID ITEM "ANCHOR ASSEMBLIES FOR STEEL PLATE BEAM GUARD", EACH.

* WINGWALL REINFORCEMENT NOT SHOWN FOR CLARITY, SEE SHEETS 4 AND 5.

◐ CONST. JOINT – STRIKE OFF AS SHOWN.

◪ R503 BARS MAY BE PLACED AFTER CONCRETE IS POURED BUT BEFORE INITIAL SET HAS TAKEN PLACE. USE CARE TO PLACE R503 BARS CORRECTLY ALONG TRANSITION OF PARAPET.

▽ R501 AND R504 BARS TO BE TIED TO WING STEEL BEFORE WING IS POURED.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-530

DRAWN BY WAR | PLANS CK'D. KGW

SINGLE SLOPE PARAPET 42SS

SHEET 10 OF 12

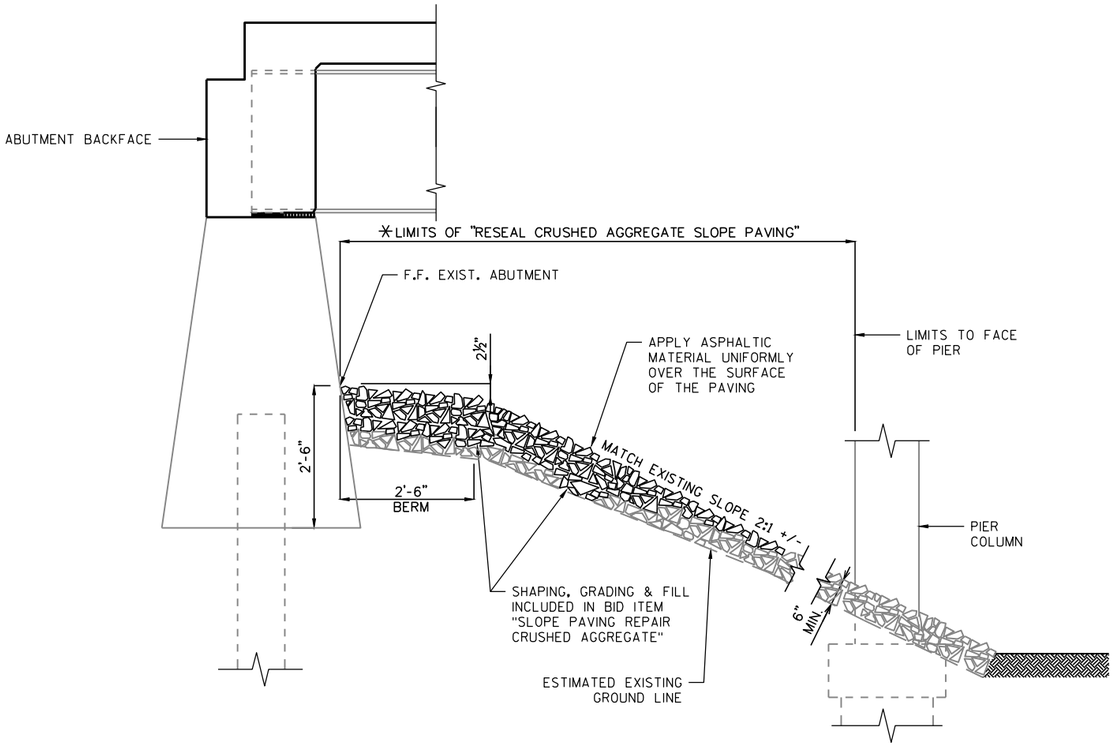
152

8

8

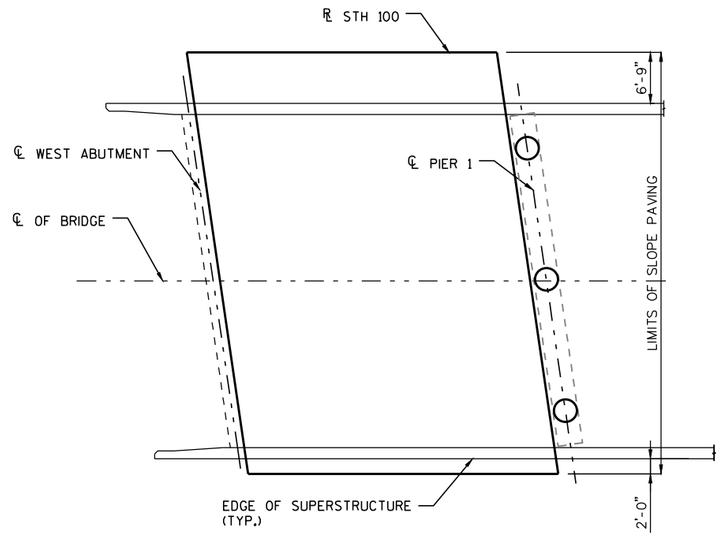
SCALE = ###

STATE PROJECT NUMBER
2040-20-70



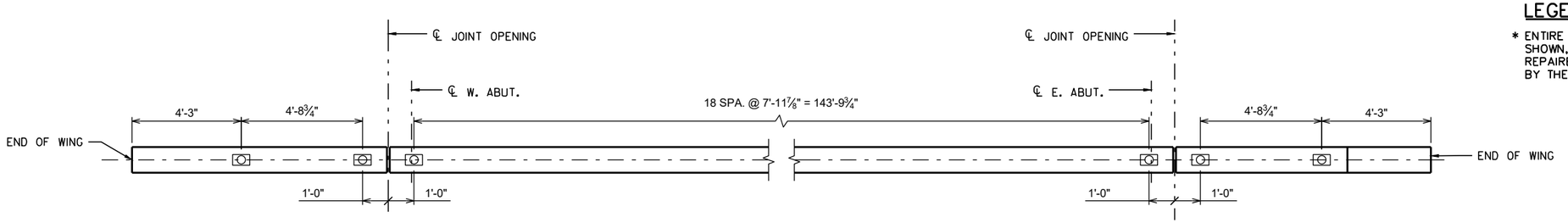
CROSS SECTION THRU CRUSHED AGGREGATE SLOPE PAVING

ROUND STONE WILL NOT BE ACCEPTED



SLOPE PAVING REPAIR PLAN

WEST ABUTMENT SHOWN, EAST ABUTMENT SIMILAR



FENCE POST SPACING PLAN

NOTES

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

LEGEND

* ENTIRE LIMITS OF EXISTING SLOPE PAVING CRUSHED AGGREGATE SHOWN, EXISTING SETTLED AND DETERIORATED AREAS TO BE REPAIRED. REPAIR LIMITS SHALL BE DETERMINED IN THE FIELD BY THE ENGINEER.

NO.	DATE	REVISION	BY

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DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-530

DRAWN BY WAR | PLANS CK'D. KGW

SLOPE PAVING REPAIR & MISC. DETAILS

SHEET 11 OF 12

153

SCALE = ###

8

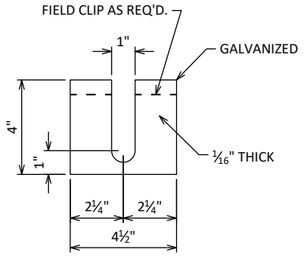
8

STATE PROJECT NUMBER

2040-20-70

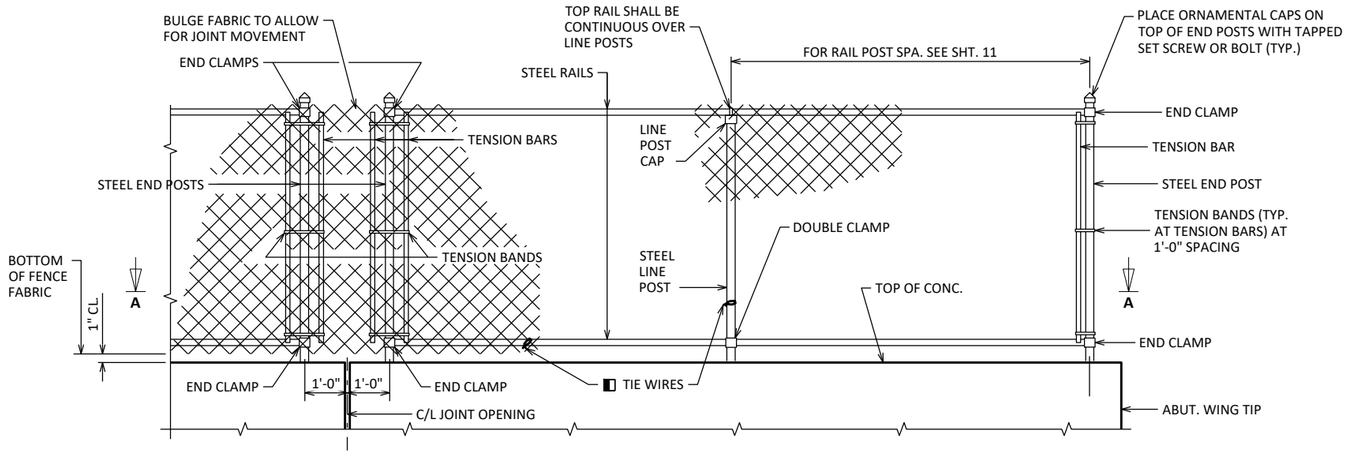
FENCE MEMBER SIZE & WEIGHT

STEEL FENCE MEMBER	OUTSIDE DIAMETER (INCHES)	WEIGHT (LB/FT)
RAILS	1.660	2.27
END POST	2.875	5.80
OVERHANG POST	2.875	5.80
LINE POST	2.375	3.65
POST SLEEVE	4.000	9.12

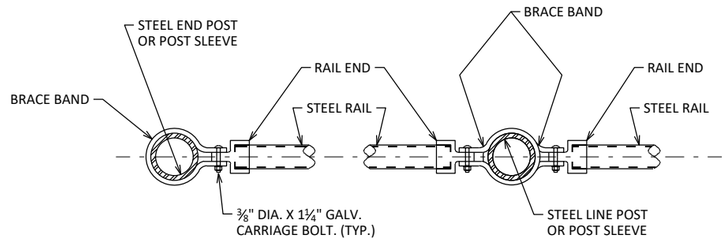


POST SHIM DETAILS

SHIMS REQUIRED ONLY WHEN END POSTS AND LINE POSTS ARE WELDED TO BASE PLATES. PROVIDE 4 SHIMS PER POST. USE WHERE REQUIRED FOR ALIGNMENT.



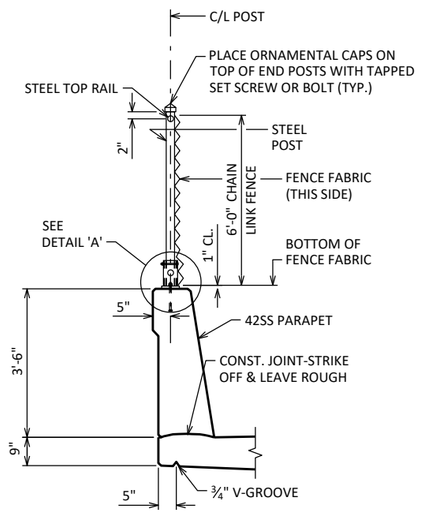
FENCE PART ELEVATION



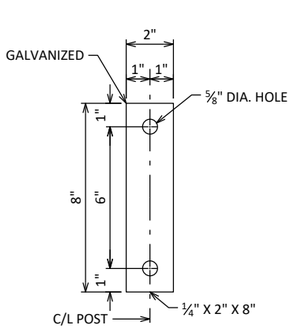
END CLAMP **⚹ DOUBLE CLAMP**

SECTION A-A

NOTE: PLACE ALL BOLT HEADS ON SIDE OF FENCE ADJACENT TO PEDESTRIANS

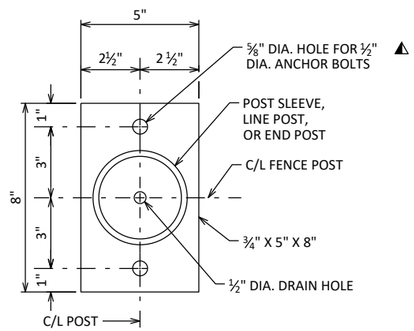


SECTION THRU FENCE



ANCHOR PLATE

☆ NOTE: ANCHOR PLATE NOT REQUIRED WHEN ADHESIVE ANCHORS ARE USED.

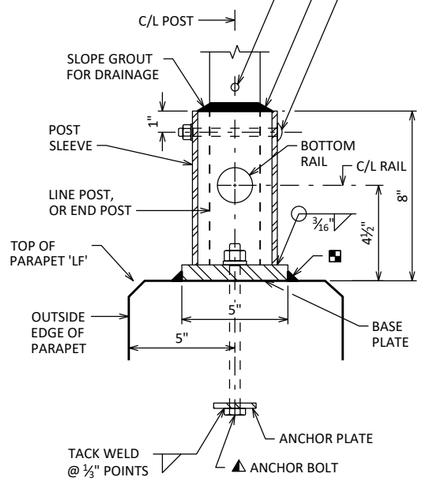


BASE PLATE

⅜" DIA. GALV. CARRIAGE BOLT WITH LOCKING NUT. (TO BE SUPPLIED WITH ASSEMBLY)

FILL SLEEVE AND BEVEL AWAY FROM POST WITH NON-SHRINK GROUT AFTER SETTING POST. (LEAVE NO VOIDS)

DRILL 3/16" DIA. DRAIN HOLE PARALLEL TO ROADWAY IMMEDIATELY ABOVE GROUT IN POST. SLEEVE LOCATIONS ONLY.



DETAIL 'A'

UNIT SHALL BE GALVANIZED AFTER FABRICATION

NOTE: IN LIEU OF USING THE POST SLEEVE, THE FENCE POST MAY BE WELDED TO THE BASE PLATE.

NOTES

POSTS ARE TO BE SET VERTICAL.

ALL FENCE COMPONENTS SHALL BE GALVANIZED STEEL, EXCEPT THE FENCE FABRIC WHICH MAY BE ALUMINUM-COATED STEEL OR GALVANIZED STEEL.

FABRIC SHALL CONFORM TO ASTM A491 OR A392, CLASS 2. STEEL RAILS, POSTS AND POST SLEEVES SHALL CONFORM TO ASTM F1083, STANDARD WEIGHT PIPE (SCHEDULE 40). FITTINGS SHALL CONFORM TO ASTM F626.

THE BID ITEM SHALL BE "FENCE CHAIN LINK 6-FT".

COMPLETE ANY REQUIRED WELDING OF COMPONENTS BEFORE GALVANIZING.

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

BASE PLATES, ANCHOR PLATES AND SHIMS SHALL BE ASTM A709, GRADE 36.

ALL POST SPACINGS ARE MEASURED HORIZONTALLY ALONG THE C/L OF THE POST.

◪ CAULK AROUND PERIMETER OF BASE PLATE AND FILL PORTION OF SLOTTED HOLE AROUND ANCHOR BOLT IN SHIM WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER.

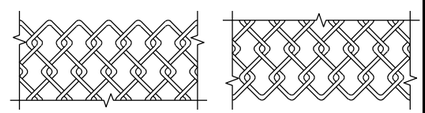
⚹ ALTERNATE TO DOUBLE CLAMP: USE LINE RAIL CLAMP (BOULEVARD) OR 180° BRACE BAND, WHICH MAY BE USED WHEN THE POSTS ARE EITHER BOLTED TO THE POST SLEEVES OR DIRECTLY WELDED TO THE BASE PLATE.

◭ ½" DIA. X 6⅞" LONG GALVANIZED HEX BOLT WITH NUT & WASHER. ☆

☆ ALTERNATIVE ANCHORAGE: CONCRETE ADHESIVE ANCHORS ½-INCH. EMBED 7" IN CONCRETE. ADHESIVE ANCHORS SHALL CONFORM TO SECTIONS 502.2.12 AND 502.3.14 OF THE STANDARD SPECIFICATIONS.

◧ ATTACH FABRIC TO RAILS, AND TO POSTS WITHOUT TENSION BANDS, WITH TIE WIRES (ROUND, 9-GAGE) SPACED AT 1'-0".

MINIMUM LENGTH OF TOP RAIL BETWEEN SPLICES SHALL BE 20'-0". LOCATE SPLICES NEAR ¼ POINT OF POST SPACING.



TOP DETAIL **BOTTOM DETAIL**

FENCE FABRIC

FENCE FABRIC WOVEN OF 9-GAGE WIRE IN 2" DIAMOND PATTERN MESH WITH BOTH THE TOP AND BOTTOM SELVAGES KNUCKLED.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-530

DRAWN BY WAR | PLANS CK'D KGW

FENCING DETAILS

SHEET 12 OF 12

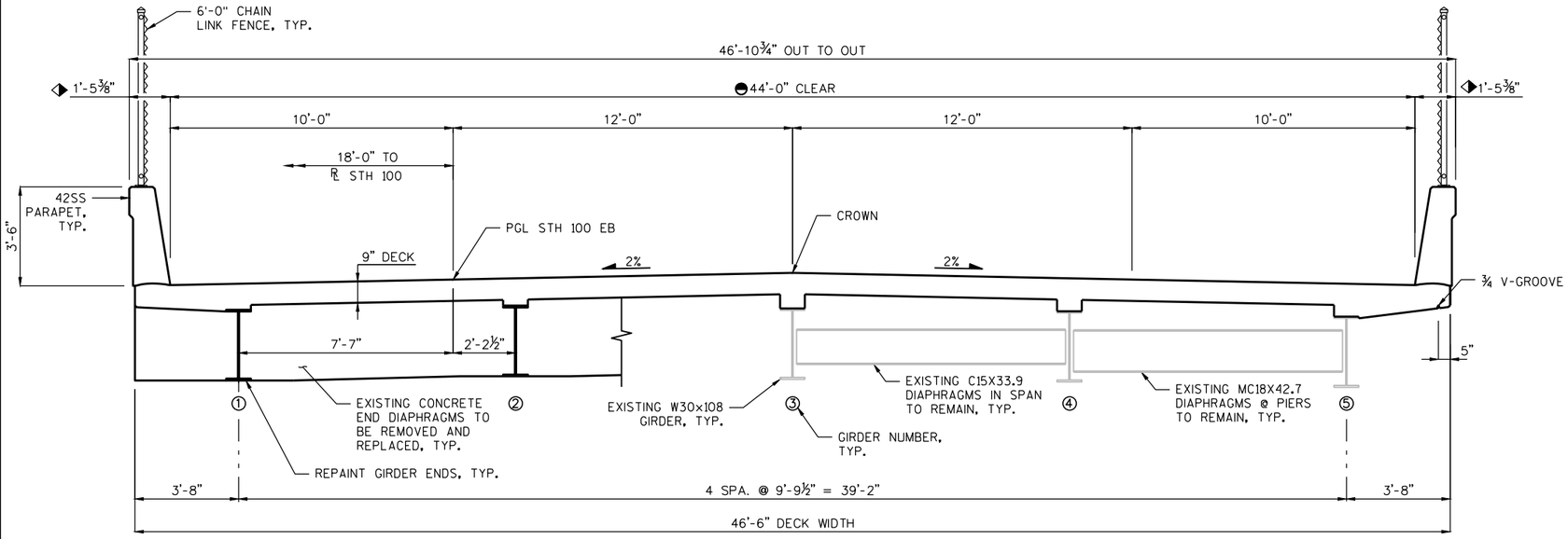
154

SCALE =

8

8

STATE PROJECT NUMBER
2040-20-70



PROPOSED TYPICAL SECTION
(LOOKING EAST)

BENCH MARKS

STATION	DESCRIPTION	ELEVATION
168+13	CP CHSLD SQ W EDGE OF MEDIAN INLET 230'± W. OF UP RR BRIDGE	691.007
170+48	BM ALUM CAP TOP OF WALL SW CORNER B-40-530	698.649
175+01	BM CHSLD SQ ON CONC. BIKE TRAIL BENCH S. SIDE RYAN RD AT BOX CULVERT C-40-79	681.793

TOTAL ESTIMATED QUANTITIES

	ITEM	DESCRIPTION	UNIT	W. ABUT.	PIER 1	PIER 2	E. ABUT.	SUPER.	TOTAL
	203.0220	REMOVING STRUCTURE B-40-530	EACH	-	-	-	-	-	1
	203.0330	DEBRIS CONTAINMENT B-40-530	EACH	-	-	-	-	-	1
	206.1001	EXCAVATION FOR STRUCTURES BRIDGES B-40-530	EACH	-	-	-	-	-	1
	209.0200.S	BACKFILL CONTROLLED LOW STRENGTH	CY	-	-	-	2	-	2
	210.1500	BACKFILL STRUCTURE TYPE A	TON	79	-	-	243	-	322
	502.0100	CONCRETE MASONRY BRIDGES	CY	7.5	-	-	7.6	259.6	275
	502.3200	PROTECTIVE SURFACE TREATMENT	SY	-	-	-	-	709	709
	502.3210	PIGMENTED SURFACE SEALER	SY	10	-	-	10	144	164
	502.4205	ADHESIVE ANCHORS NO. 5 BAR	EACH	48	-	-	48	56	152
	505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB	1,240	-	-	1,250	60,720	63,210
	506.2605	BEARING PADS ELASTOMERIC NON-LAMINATED	EACH	-	-	-	-	10	10
	506.7050.S	REMOVING BEARINGS, B-40-530	EACH	-	-	-	-	10	10
	509.1500	CONCRETE SURFACE REPAIR	SF	6	-	-	1	-	7
	516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	13	-	-	13	-	26
	517.0901.S	PREPARATION AND COATING OF TOP FLANGES B-40-530	EACH	-	-	-	-	-	1
*	517.1801.S	STRUCTURE REPAINTING RECYCLED ABRASIVE B-40-530	EACH	-	-	-	-	-	1
	517.4501.S	NEGATIVE PRESSURE CONTAINMENT AND COLLECTION OF WASTE MATERIALS B-40-530	EACH	-	-	-	-	-	1
	517.6001.S	PORTABLE DECONTAMINATION FACILITY	EACH	-	-	-	-	-	1
	604.9010.S	SLOPE PAVING REPAIR CRUSHED AGGREGATE	CY	81	-	-	135	-	216
	604.9015.S	RESEAL CRUSHED AGGREGATE SLOPE PAVING	SY	308	-	-	308	-	616
	606.0200	RIPRAP MEDIUM	CY	4	-	-	4	-	8
	612.0406	PIPE UNDERDRAIN WRAPPED 6-INCH	LF	-	-	-	87	-	87
	612.0806	APRON ENDWALLS FOR UNDERDRAIN REINFORCED CONCRETE 6-INCH	EACH	-	-	-	1	-	1
	614.0150	ANCHOR ASSEMBLIES FOR STEEL PLATE BEAM GUARD	EACH	2	-	-	1	-	3
	616.0206	FENCE CHAIN LINK 6-FT.	LF	12			12	292	316
	616.0800.S	FENCE TRACK CLEARANCE	LF	-	-	-	-	-	495
	645.0111	GEOTEXTILE TYPE DF SCHEDULE A	SY	-	-	-	45	-	45
	645.0120	GEOTEXTILE TYPE HR	SY	22	-	-	22	-	44
		NON-BID ITEMS							
		NAME PLATE	EACH						1
		FILLER	SIZE						1/2"

* FOR INFORMATIONAL PURPOSES ONLY: APPROXIMATELY 593 SF OF STRUCTURAL STEEL REPAINTING, SEE GENERAL NOTES.

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

THE FIRST DIGIT OF A THREE DIGIT AND THE FIRST TWO DIGITS OF A FOUR DIGIT BAR MARK SIGNIFIES THE BAR SIZE.

BEVEL ALL EXPOSED EDGES OF CONCRETE ¾" UNLESS OTHERWISE NOTED.

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

THE TOP LAYER OF BAR STEEL REINFORCEMENT IN THE DECK SHALL BE PLACED WITH 2½" OF CLEAR COVER.

UTILIZE EXISTING BAR STEEL REINFORCEMENT WHERE SHOWN AND EXTEND 24 BAR DIAMETERS INTO NEW WORK, UNLESS SPECIFIED OTHERWISE.

ALL STATIONS AND ELEVATIONS ARE IN FEET. ELEVATIONS ARE REFERENCE TO THE NAVD 88 2012.

ROADWAY ALIGNMENT PROVIDED BY WISDOT SE REGION. STRUCTURE STATIONING PROPOSED BASED ON ORIGINAL STRUCTURE PLAN DIMENSIONS AND SURVEY DATA.

DIMENSIONS SHOWN ARE BASED ON THE ORIGINAL STRUCTURE PLANS.

EXISTING STRUCTURE B-40-530 IS A 3 SPAN CONTINUOUS STEEL WIDE FLANGE GIRDER BRIDGE WITH AN EXISTING OUT-TO-OUT WIDTH OF 47'-0" AND A BACK-TO-BACK OF ABUTMENT LENGTH OF 145'-10¼". SEE SHEET 1 FOR "SCOPE OF WORK".

THE SUPERSTRUCTURE CONCRETE QUANTITY INCLUDES VOLUME FOR THE AVERAGE ESTIMATED HAUNCH AND OVERHANG TRIANGULAR AREA.

BRIDGE IS TO BE CLOSED TO TRAFFIC DURING CONSTRUCTION.

VARIATIONS OF THE NEW GRADE LINE OVER 1/4" MUST BE SUBMITTED BY THE FIELD ENGINEER TO THE STRUCTURES DESIGN SECTION FOR REVIEW.

CONCRETE SURFACE REPAIR AS DIRECTED BY THE FIELD ENGINEER. QUANTITIES SHOWN ON PLANS ARE APPROXIMATE.

SLOPE PAVING REPAIRS SHALL BE MADE ONLY AS DIRECTED BY THE ENGINEER.

ALL CONCRETE REMOVAL SHALL BE DEFINED BY A 1 INCH DEEP SAW CUT, UNLESS SPECIFIED OTHERWISE.

THE UPPER LIMITS OF "EXCAVATION FOR STRUCTURES BRIDGES B-40-530" SHALL BE THE EXISTING GROUNDLINE.

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

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

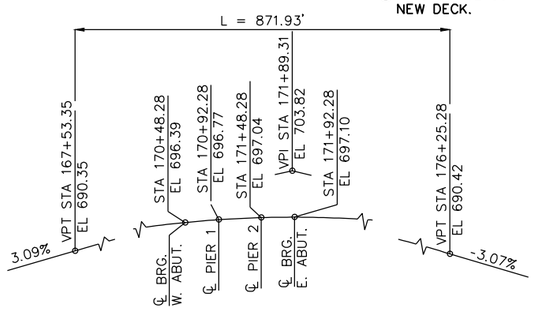
STRUCTURAL STEEL SURFACES WITHIN 8'-0" OF GIRDER ENDS ARE TO BE CLEANED AND PAINTED PRIOR TO PLACEMENT OF CONCRETE END DIAPHRAGMS. PAINT COLOR TO BE AMS STANDARD COLOR NO. 26293 (LIGHT GRAY).

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 SHOW ORIGINAL CONSTRUCTION YEAR OF 1985.

LEGEND

◆▶ "PIGMENTED SURFACE SEALER" TO BE APPLIED TO THE TOP AND INSIDE FACES OF PARAPETS INCLUDING PARAPETS ON ABUTMENT WINGS.

◓ "PROTECTIVE SURFACE TREATMENT" SHALL BE APPLIED TO THE TOP SURFACE OF THE NEW DECK.



PROFILE GRADE LINE

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-530

DRAWN BY WAR | PLANS CK'D. KGW

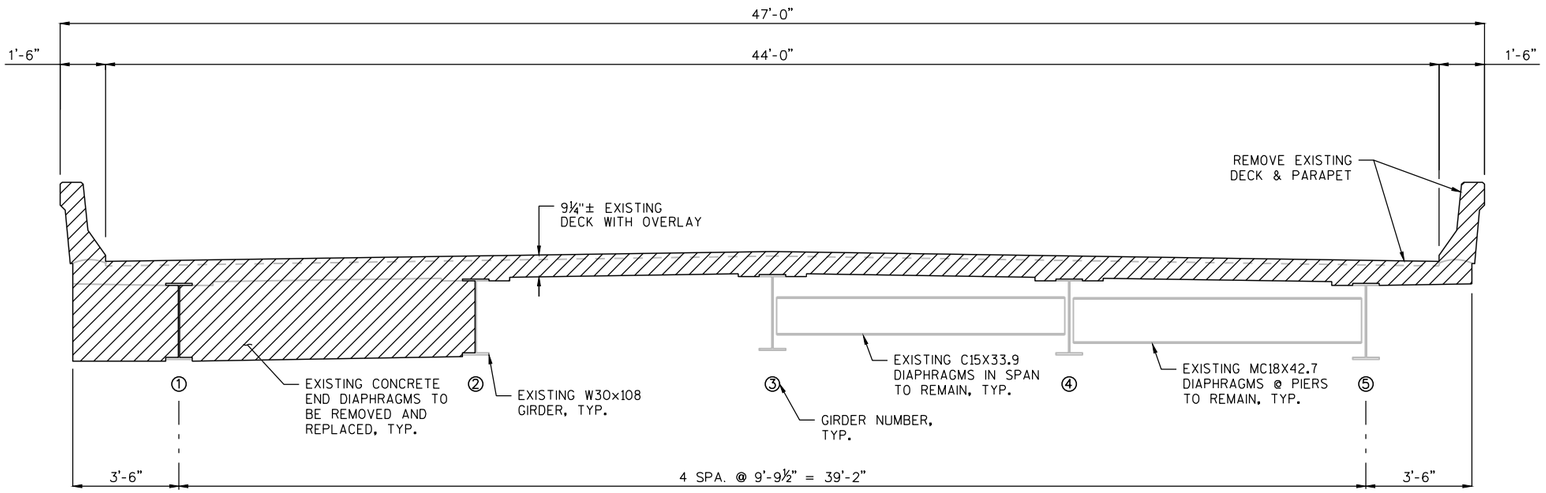
CROSS SECTION & QUANTITIES

SHEET 2 OF 12

155

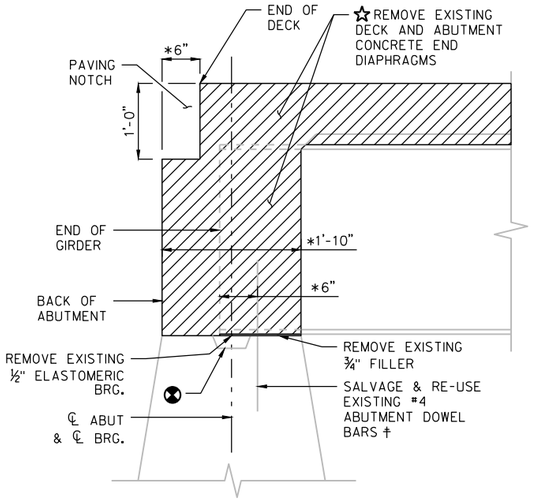
SCALE = ###

STATE PROJECT NUMBER
2040-20-70

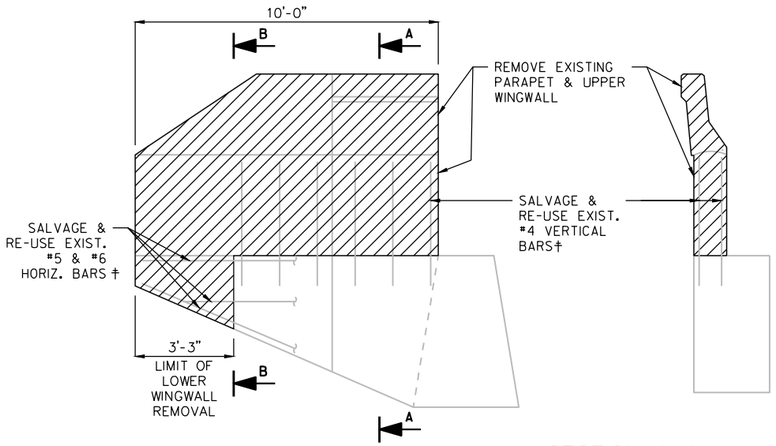


EXISTING TYPICAL SECTION

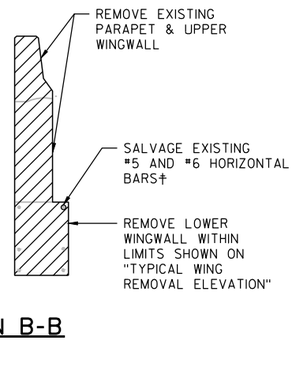
(LOOKING EAST)



REMOVAL OVER ABUTMENTS



TYPICAL WING REMOVAL ELEVATION



SECTION B-B

LEGEND

▨ REMOVAL LIMITS

* DIMENSIONS GIVEN ARE NORMAL TO ℄ OF SUBSTRUCTURE UNIT

☆ STABILITY OF GIRDERS DURING CONSTRUCTION SHALL BE INCIDENTAL TO "REMOVING STRUCTURE B-40-530".

⊗ CLEAN EXISTING CONCRETE DIAPHRAGM REMNANTS OUT OF EXISTING KEYED CONST. JT. FORMED BY SURF. BEVELED 2" X 6".

† EXISTING BARS ARE LIKELY TO BE CORRODED AND/OR DAMAGED DURING CONCRETE REMOVAL. PRESERVE AND INCORPORATE AS MUCH REBAR AS PRACTICAL.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-530

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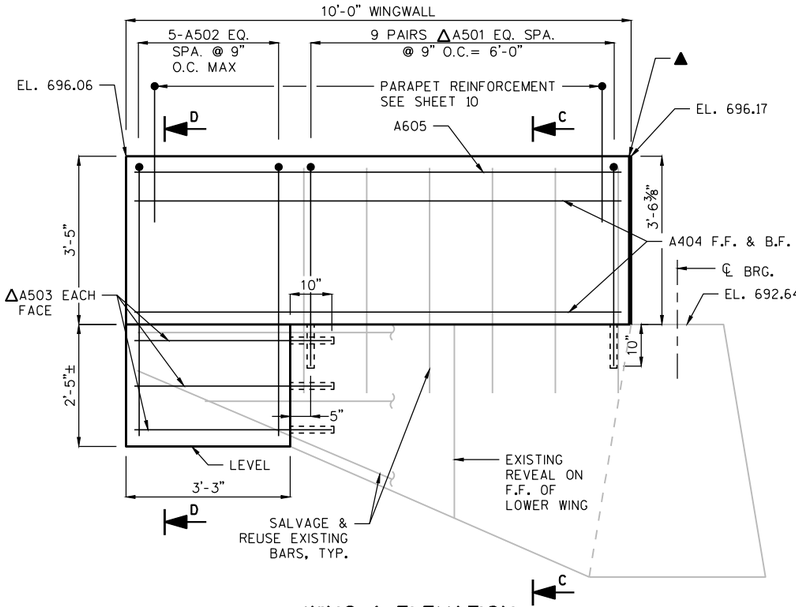
REMOVAL DETAILS

SHEET 3 OF 12

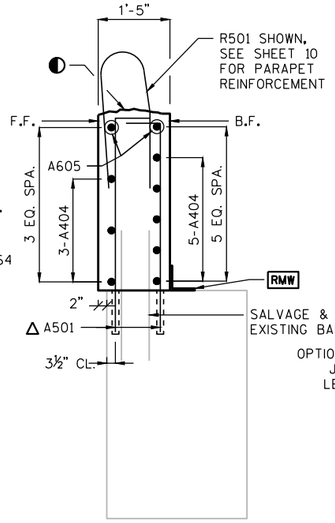
156

SCALE = ###

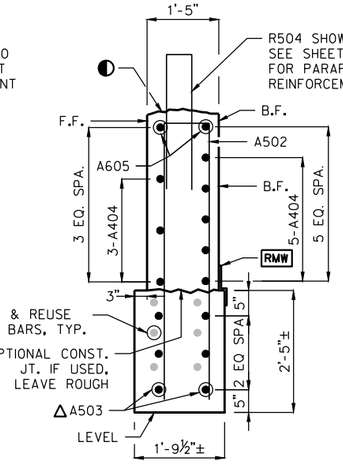
STATE PROJECT NUMBER
2040-20-70



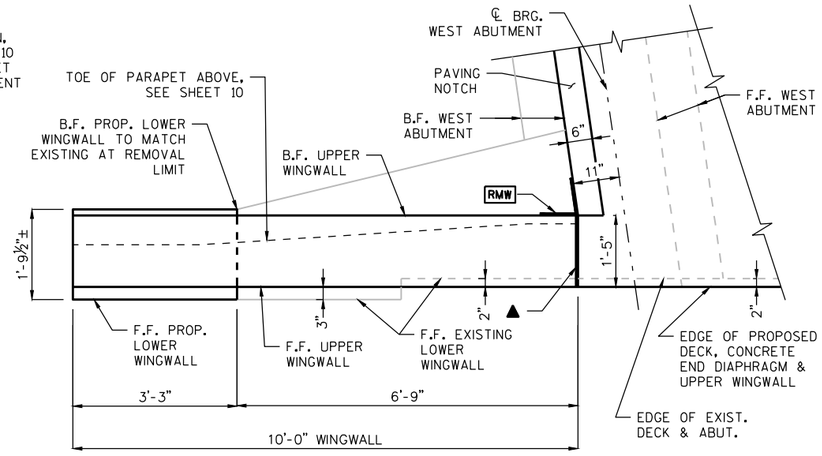
WING 1 ELEVATION



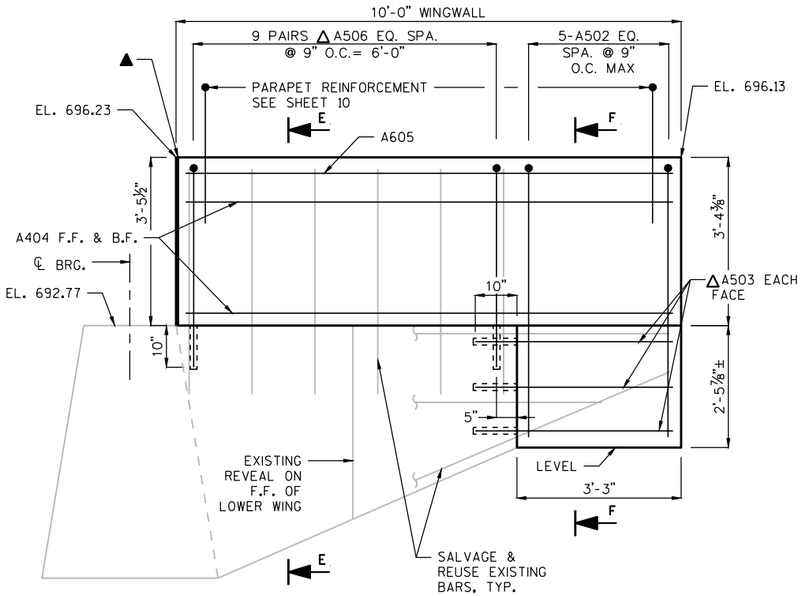
SECTION C-C



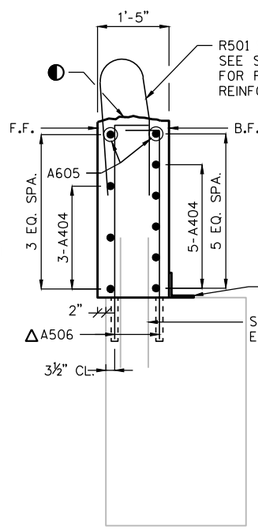
SECTION D-D



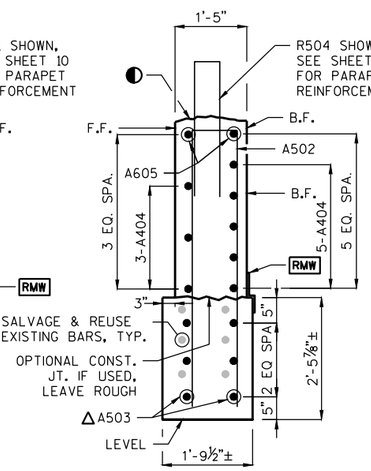
WING 1 PLAN



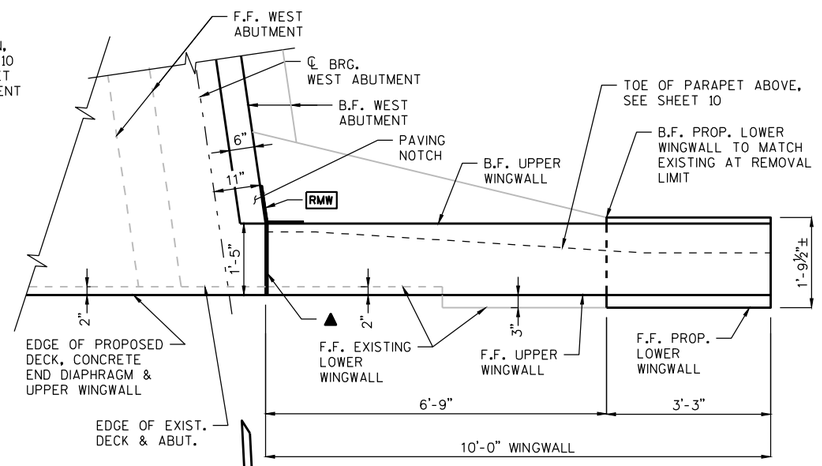
WING 2 ELEVATION



SECTION E-E



SECTION F-F



WING 2 PLAN

LEGEND

▲ ½" FILLER - TO EXTEND FROM BRIDGE SEAT TO TOP OF CONCRETE PARAPET. FILLER INCLUDED IN WING LENGTH.

△ ADHESIVE ANCHORS NO. 5 BAR. EMBED 10" IN CONCRETE.

RMW 18" RUBBERIZED MEMBRANE WATERPROOFING. SEAL ALL HORIZONTAL AND VERTICAL JOINTS OF NEW WORK ON BACKFACE.

◐ CONSTRUCTION JOINT - STRIKE OFF AS SHOWN. FINISH HORIZONTAL SURFACES NOT COVERED BY PARAPET.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-530

DRAWN BY WAR | PLANS CK'D. KGW

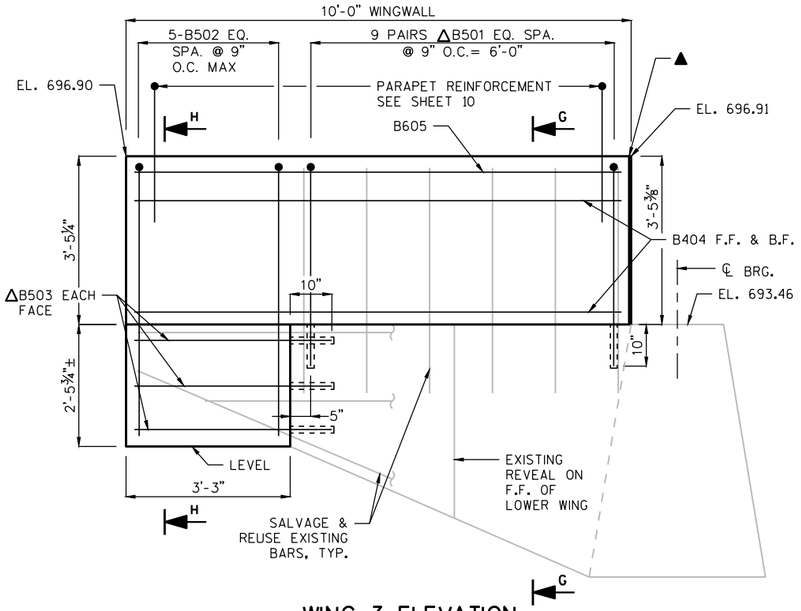
WEST ABUTMENT WINGWALLS

SHEET 4 OF 12

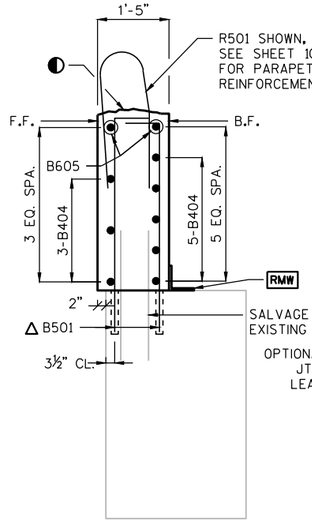
157

SCALE = ###

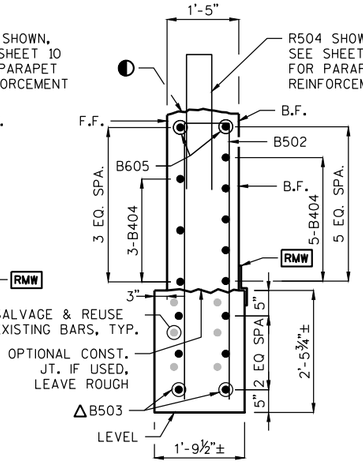
STATE PROJECT NUMBER
2040-20-70



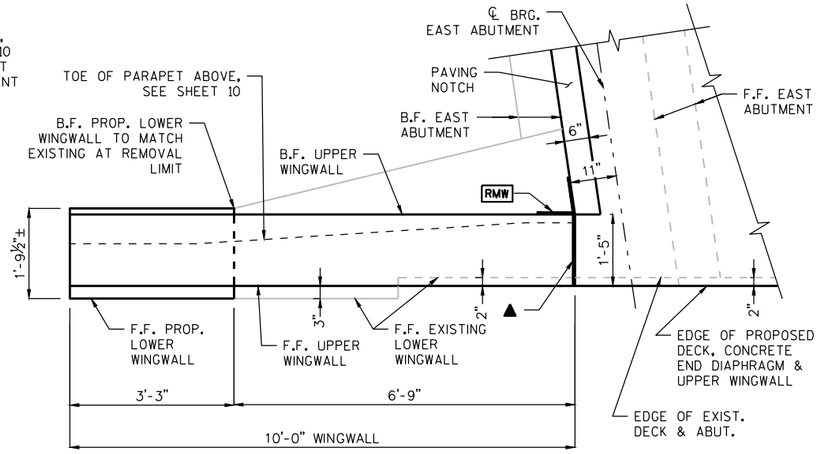
WING 3 ELEVATION



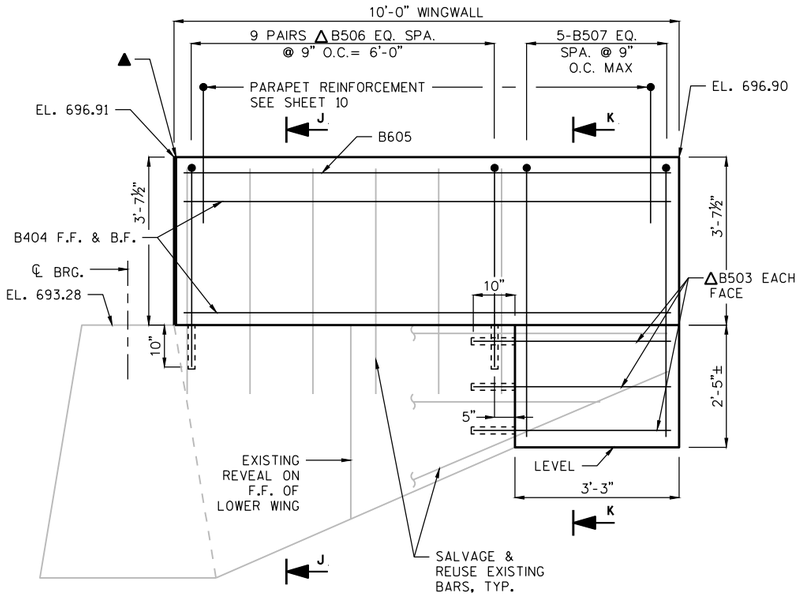
SECTION G-G



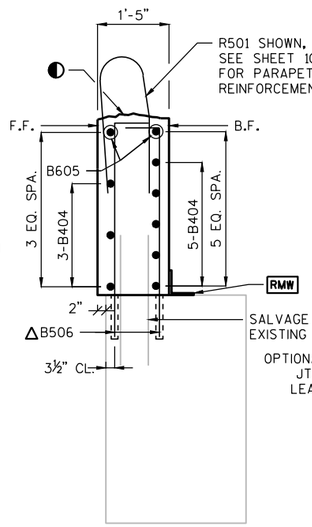
SECTION H-H



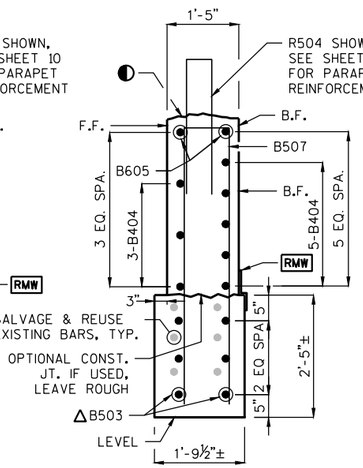
WING 3 PLAN



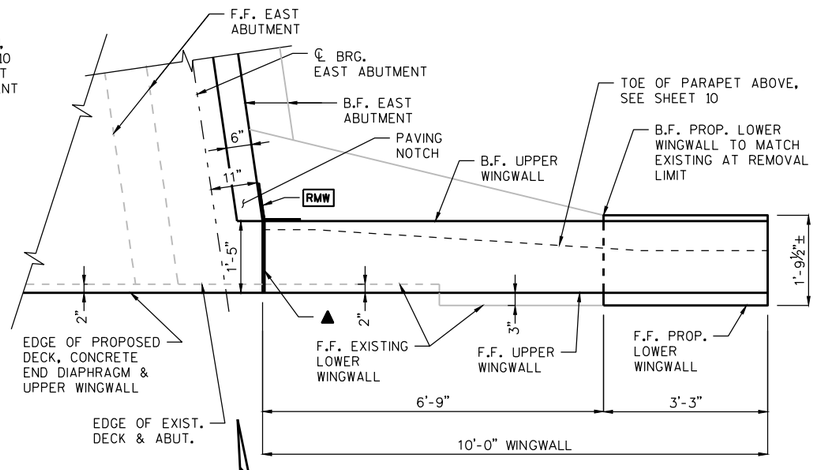
WING 4 ELEVATION



SECTION J-J



SECTION K-K



WING 4 PLAN

LEGEND

▲ ½" FILLER - TO EXTEND FROM BRIDGE SEAT TO TOP OF CONCRETE PARAPET. FILLER INCLUDED IN WING LENGTH.

△ ADHESIVE ANCHORS NO. 5 BAR. EMBED 10" IN CONCRETE.

RMW 18" RUBBERIZED MEMBRANE WATERPROOFING. SEAL ALL HORIZONTAL AND VERTICAL JOINTS OF NEW WORK ON BACKFACE.

◐ CONSTRUCTION JOINT - STRIKE OFF AS SHOWN. FINISH HORIZONTAL SURFACES NOT COVERED BY PARAPET.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-530

DRAWN BY WAR | PLANS CK'D. KGW

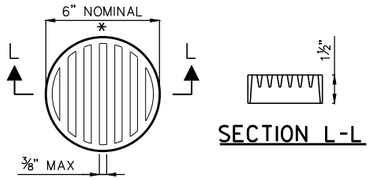
EAST ABUTMENT WINGWALLS

SHEET 5 OF 12

158

SCALE = ###

STATE PROJECT NUMBER
2040-20-70



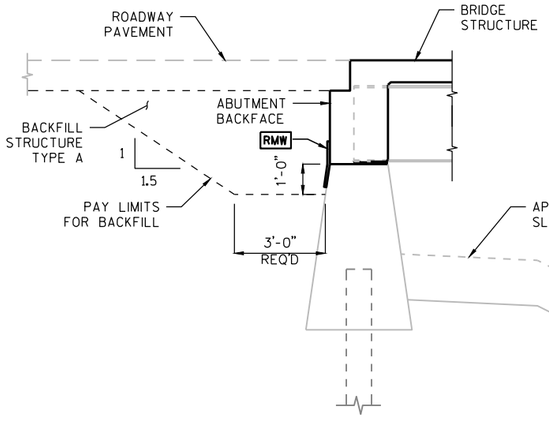
SECTION L-L

RODENT SHIELD DETAIL

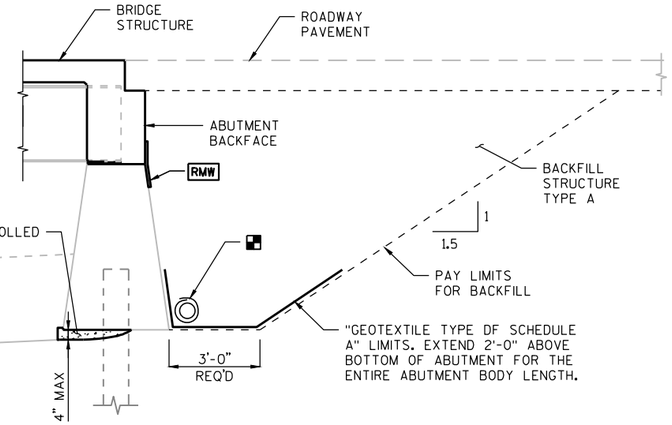
* DIMENSIONS ARE APPROXIMATE. THE GRATE IS SIZED TO FIT INTO A PIPE COUPLING. ORIENT SO SLOTS ARE VERTICAL.

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.



WEST ABUTMENT BACKFILL DIAGRAM



EAST ABUTMENT BACKFILL DIAGRAM

WEST ABUTMENT - BILL OF BARS

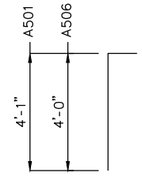
	MARK	COATED	NO. REQ'D	LENGTH	BAR SERIES	BENT	LOCATION
Δ	A501	X	18	4'-10"		X	WINGWALL 1 VERT. ADHESIVE ANCHORS
	A502	X	10	11'-7"		X	WINGWALL VERT.
Δ	A503	X	12	3'-11"			WINGWALL HORIZ. ADHESIVE ANCHORS
	A404	X	16	9'-7"			WINGWALL LONG. F.F. & B.F.
	A605	X	4	9'-7"			WINGWALL LONG. TOP
Δ	A506	X	18	4'-9"		X	WINGWALL 2 VERT. ADHESIVE ANCHORS

ALL BAR BENDS ARE OUT TO OUT

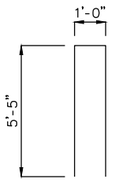
EAST ABUTMENT - BILL OF BARS

	MARK	COATED	NO. REQ'D	LENGTH	BAR SERIES	BENT	LOCATION
Δ	B501	X	18	4'-10"		X	WINGWALL 3 VERT. ADHESIVE ANCHORS
	B502	X	5	11'-9"		X	WINGWALL 3 VERT.
Δ	B503	X	12	3'-11"			WINGWALL HORIZ. ADHESIVE ANCHORS
	B404	X	16	9'-7"			WINGWALL LONG. F.F. & B.F.
	B605	X	4	9'-7"			WINGWALL LONG. TOP
Δ	B506	X	18	5'-0"		X	WINGWALL 4 VERT. ADHESIVE ANCHORS
	B507	X	5	11'-11"		X	WINGWALL 4 VERT.

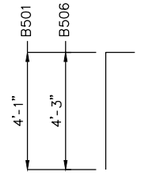
ALL BAR BENDS ARE OUT TO OUT



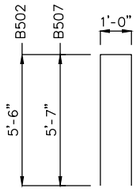
A501/A506



A502



B501/B506



B502/B507

LEGEND

▪ PIPE UNDERDRAIN WRAPPED (6-INCH). SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. ATTACH RODENT SHIELD TO ENDS OF PIPE UNDERDRAIN.

Δ ADHESIVE ANCHORS NO. 5 BAR. EMBED 10" IN CONCRETE.

RMW 18" RUBBERIZED MEMBRANE WATERPROOFING. SEAL ALL HORIZONTAL AND VERTICAL JOINTS OF NEW WORK ON BACKFACE.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-530

DRAWN BY WAR | PLANS CK'D. KGW

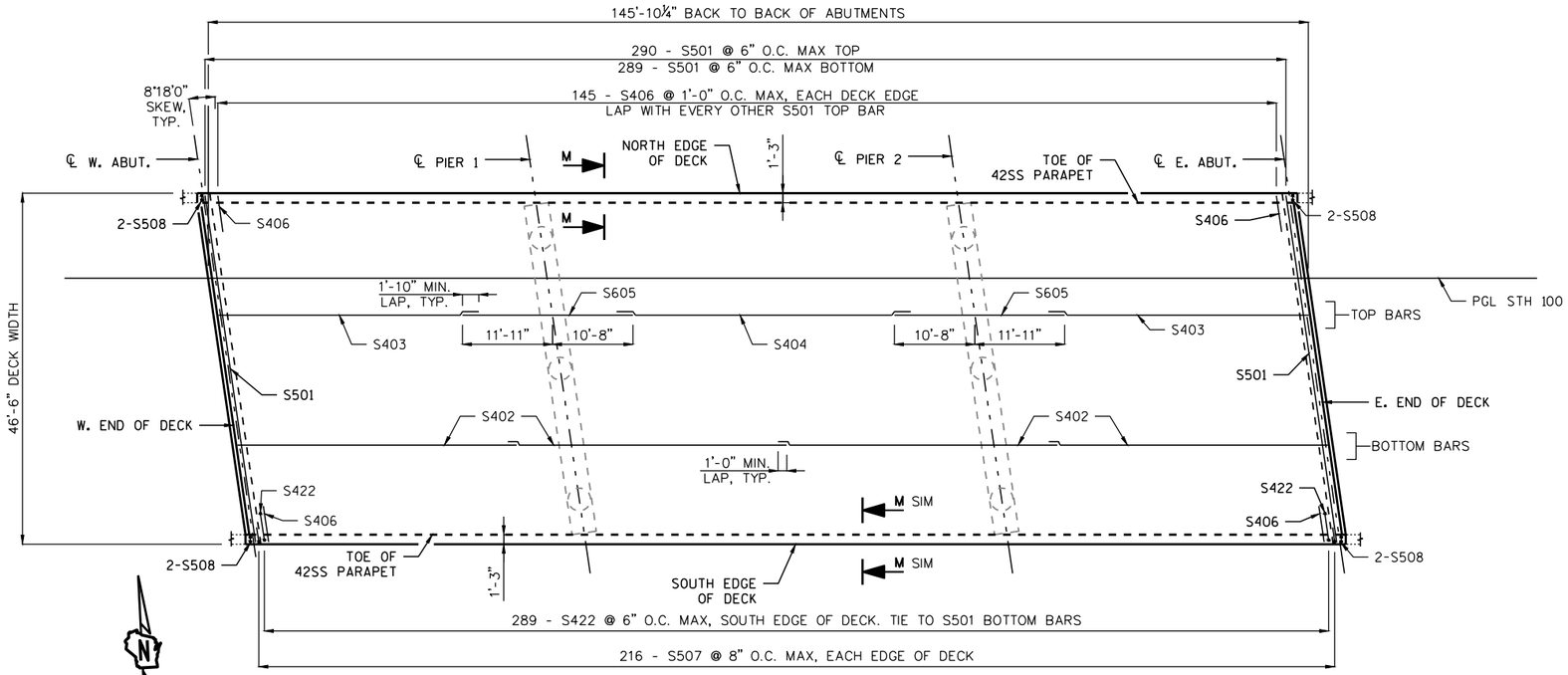
ABUTMENT DETAILS & BILL OF BARS

SHEET 6 OF 12

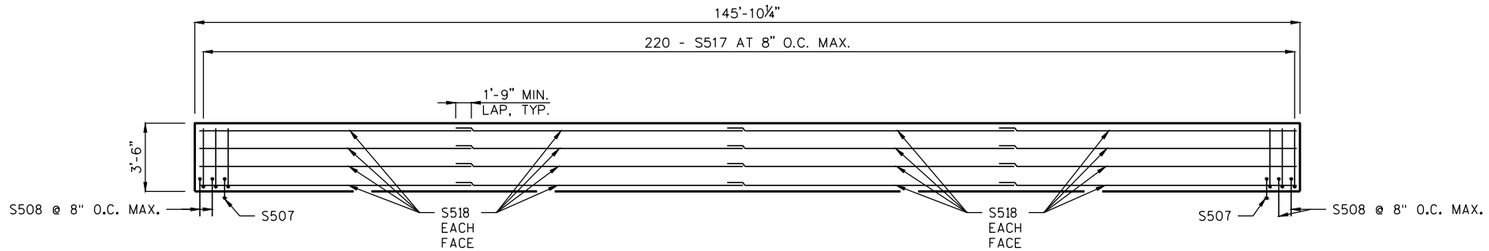
159

SCALE = ###

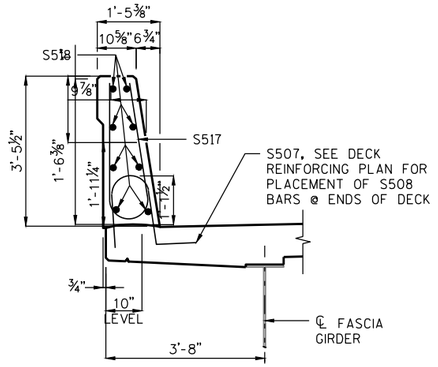
STATE PROJECT NUMBER
2040-20-70



DECK REINFORCING PLAN

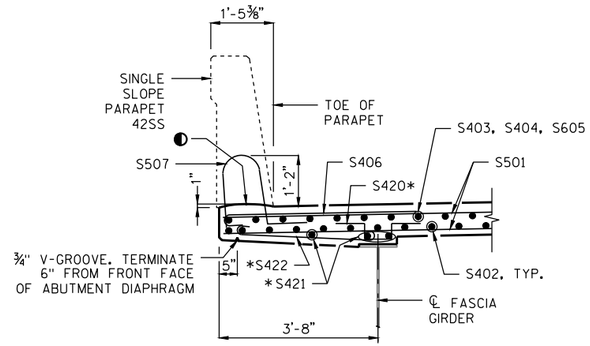


SINGLE SLOPE PARAPET 42SS REINFORCING ELEVATION



SECTION THRU '42SS' PARAPET ON BRIDGE

DECK REINFORCEMENT NOT SHOWN FOR CLARITY
FENCE NOT SHOWN FOR CLARITY



SECTION M-M THRU EDGE OF DECK

* = AT SIM ONLY

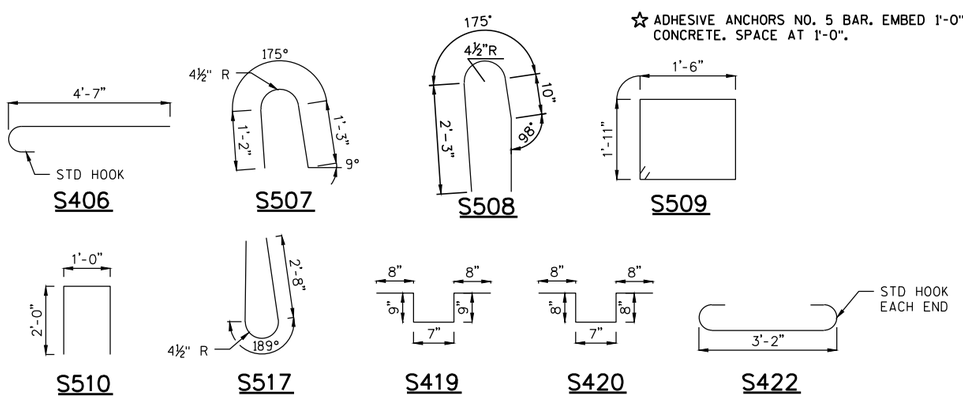
SUPERSTRUCTURE - BILL OF BARS

MARK	COATED	NO. REQ'D	LENGTH	BAR SERIES	BENT	LOCATION
S501	X	579	46'-8"			DECK TRANSV. (ALONG SKEW)
S402	X	304	37'-0"			DECK LONGIT. BOTTOM
S403	X	150	34'-8"			DECK LONGIT. TOP SPAN 1 & 3
S404	X	75	39'-0"			DECK LONGIT. TOP SPAN 2
S605	X	150	22'-7"			DECK LONGIT. TOP OVER PIERS
S406	X	290	5'-1"			DECK TRANSV. OVERHANG
S507	X	432	4'-5"		X	DECK PARAPET DOWEL
S508	X	8	5'-10"		X	DECK PARAPET DOWEL @ ENDS
S509	X	136	7'-6"		X	END DIAPHRAGM VERTICAL
S510	X	136	4'-9"		X	END DIAPHRAGM VERTICAL - TOP
S611	X	16	25'-3"			END DIAPHRAGM HORIZ. B.F.
S612	X	16	3'-4"			END DIAPHRAGM HORIZ. F.F.
S613	X	32	9'-5"			END DIAPHRAGM HORIZ. F.F.
S714	X	20	4'-0"			END DIAPHRAGM HORIZ. THRU WEBS
☆ S515	X	56	2'-0"			END DIAPH. ADHESIVE DOWELS SUPPLEMENTAL
S616	X	4	46'-7"			DECK END TRANSV. (ALONG SKEW)
S517	X	440	6'-8"		X	DECK PARAPET VERTICAL
S518	X	64	37'-10"			DECK PARAPET HORIZONTAL
S419	X	320	3'-1"		X	HAUNCH VERTICAL GIRDER 3 & 4
S420	X	160	2'-11"		X	HAUNCH VERTICAL GIRDER 5
S421	X	28	36'-11"			HAUNCH LONGITUDINAL GIRDERS 3-5
S422	X	289	4'-2"		X	DECK TRANSV. BOTT., SOUTH OVERHANG

LEGEND

◐ CONSTRUCTION JOINT - STRIKE OFF AS SHOWN

☆ ADHESIVE ANCHORS NO. 5 BAR. EMBED 1'-0" IN CONCRETE. SPACE AT 1'-0".



NOTES

THE RATE OF PLACING CONCRETE SHALL EQUAL OR EXCEED ½ SPAN LENGTH PER HOUR BUT NEED NOT EXCEED 100 CU. YDS. PER HOUR.

DECK POUR SHALL BE WITHIN 2 WEEKS OF POURING ABUTMENT CONCRETE END DIAPHRAGMS.

OPTIONAL CONSTRUCTION JOINTS IN PARAPETS MAY BE USED. RUN BAR REINF. THRU JOINT. LAP LONGIT. BARS A MIN. OF 1'-9". MIN. JOINT SPACING OF 80'-0". DEFINE CONST. JOINT WITH A ¾" - 'V' GROOVE.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-530

DRAWN BY WAR | PLANS CK'D. KGW

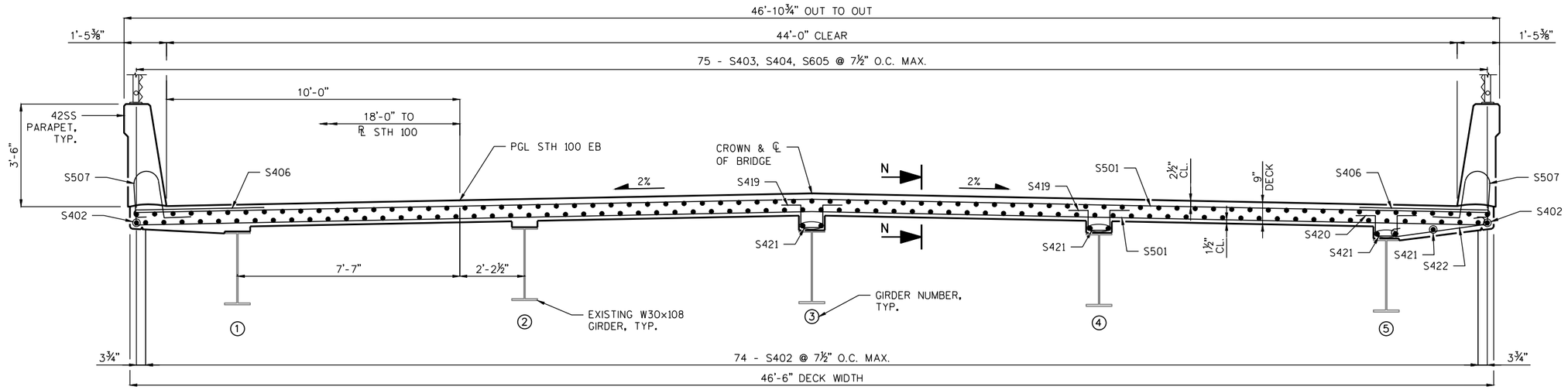
SUPERSTRUCTURE PLAN

SHEET 7 OF 12

160

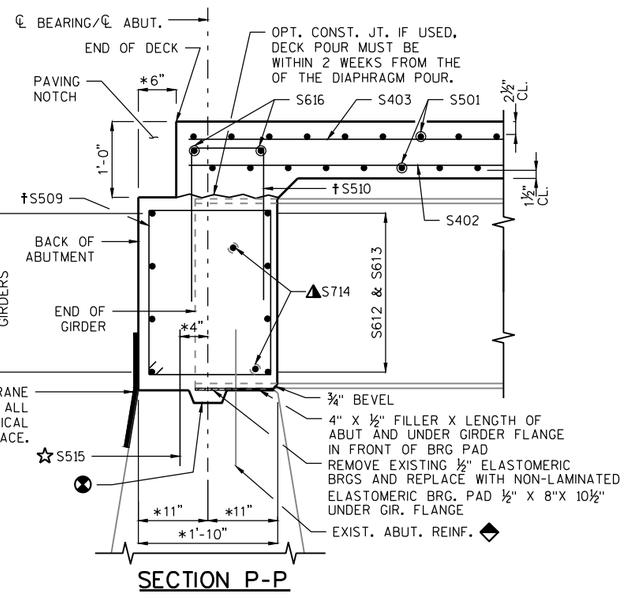
SCALE = ###

STATE PROJECT NUMBER
2040-20-70

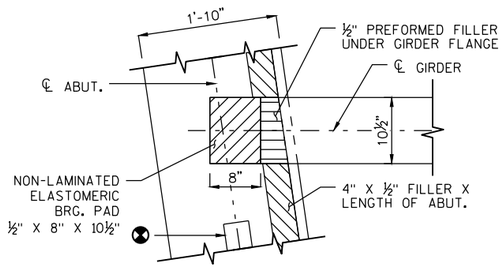


DECK REINFORCING CROSS SECTION

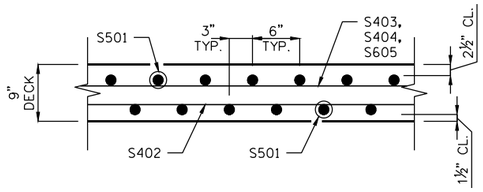
(LOOKING EAST)



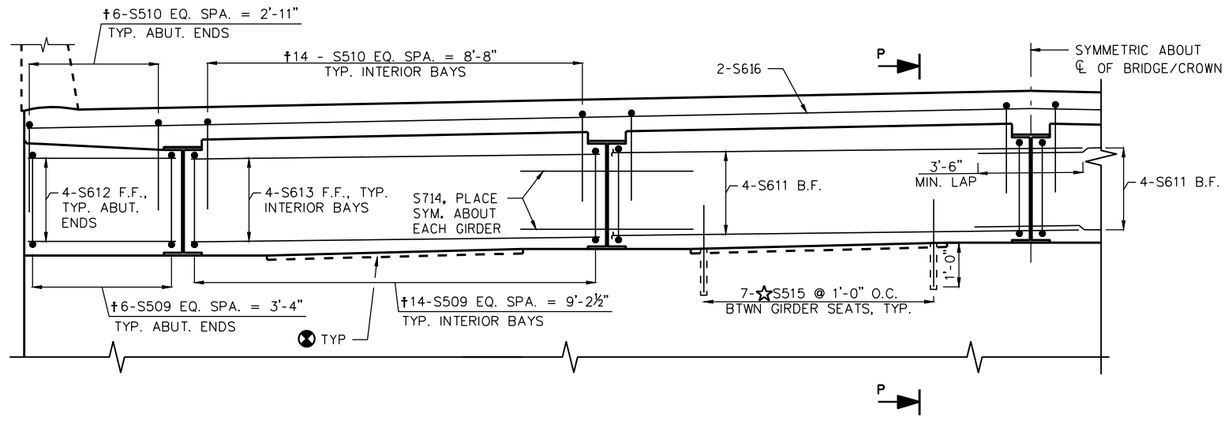
SECTION P-P



BEARING PAD DETAIL



SECTION N-N



PART SECTION THRU ABUTMENT CONCRETE END DIAPHRAGM

LEGEND

◆ EXISTING BARS ARE LIKELY TO BE CORRODED AND/OR DAMAGED DURING CONCRETE REMOVAL. SALVAGE AND INCORPORATE AS MUCH REBAR AS PRACTICAL. SUPPLEMENT WITH BARS INDICATED BY ☆.

* DIMENSIONS GIVEN ARE NORMAL TO ℄ OF SUBSTRUCTURE UNIT.

☆ ADHESIVE ANCHORS NO. 5 BAR. EMBED 1'-0" IN CONCRETE. SPACE AT 1'-0".

† BARS PLACED PARALLEL TO GIRDERS. SPACING PERPENDICULAR TO ℄ OF GIRDERS.

▲ PLACE BARS SYM. ABOUT ℄ OF GIRDER IN EXISTING 15/16" DIA HOLES.

⊗ CLEAN EXISTING CONCRETE DIAPHRAGM REMNANTS OUT OF EXISTING KEYED CONST. JT. FORMED BY SURF. BEVELED 2" X 6".

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STRUCTURE B-40-530

DRAWN BY WAR | PLANS CK'D. KGW

SUPERSTRUCTURE CROSS-SECTION

SHEET 8 OF 12

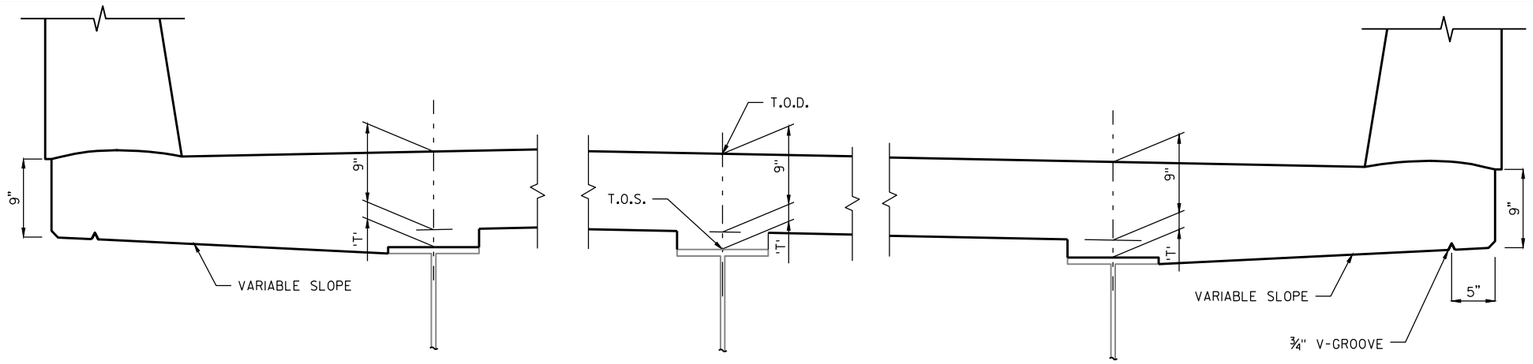
161

8

8

SCALE = ###

STATE PROJECT NUMBER
2040-20-70



SECTION THRU DECK

NOTES

'T' = HAUNCH HEIGHT AT CENTERLINE OF GIRDER

TO DETERMINE 'T':
ELEVATIONS AT THE TOP FLANGES SHALL BE TAKEN AT CENTERLINE OF BEARINGS AND AT 0.1 POINTS.

TOP OF DECK ELEVATION AT FINAL GRADE

\- TOP OF STEEL ELEVATION AS ERECTED

\+ CONC. ONLY DEFLECTION; DOWNWARD DEFLECTION IS ADDED, UPWARD DEFLECTION IS SUBTRACTED

\- DECK THICKNESS

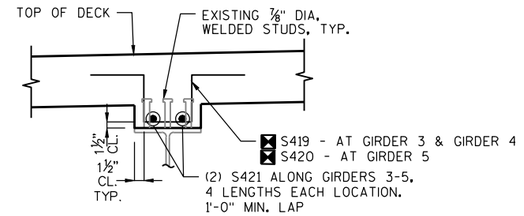
= 'T' VALUE FOR SETTING HAUNCH

DEFLECTION TABLE (INCHES)

	C/L BRG	SPAN 1									C/L BRG	SPAN 2										C/L BRG
LOCATION	WEST ABUT.	0.1 SPAN	0.2 SPAN	0.3 SPAN	0.4 SPAN	0.5 SPAN	0.6 SPAN	0.7 SPAN	0.8 SPAN	0.9 SPAN	PIER 1	0.1 SPAN	0.2 SPAN	0.3 SPAN	0.4 SPAN	0.5 SPAN	0.6 SPAN	0.7 SPAN	F.S.	0.8 SPAN	0.9 SPAN	PIER 2
CONCRETE DEFLECTION	0.0	0.1	0.2	0.3	0.3	0.3	0.3	0.2	0.1	0.0	0.0	0.1	0.2	0.3	0.4	0.5	0.4	0.3	0.2	0.2	0.1	0.0

	C/L BRG	SPAN 3									C/L BRG
LOCATION	PIER 2	0.1 SPAN	0.2 SPAN	0.3 SPAN	0.4 SPAN	0.5 SPAN	0.6 SPAN	0.7 SPAN	0.8 SPAN	0.9 SPAN	EAST ABUT.
CONCRETE DEFLECTION	0.0	0.0	0.1	0.2	0.3	0.3	0.3	0.3	0.2	0.1	0.0

DEFLECTIONS ARE DUE TO WEIGHT OF CONCRETE DECK, SIDEWALK, PARAPETS AND RAILINGS.
DEFLECTIONS ARE THEORETICAL AND MAY VARY IN THE FIELD.
NEGATIVE VALUES ARE UPWARD DEFLECTIONS.



GIRDER HAUNCH REINFORCEMENT DETAIL

ELEVATIONS AT TOP OF DECK (T.O.D) & TOP OF STEEL (T.O.S)

		C/L BRG	SPAN 1									C/L BRG	SPAN 2										C/L BRG
LOCATION		WEST ABUT.	0.1 SPAN	0.2 SPAN	0.3 SPAN	0.4 SPAN	0.5 SPAN	0.6 SPAN	0.7 SPAN	0.8 SPAN	0.9 SPAN	PIER 1	0.1 SPAN	0.2 SPAN	0.3 SPAN	0.4 SPAN	0.5 SPAN	0.6 SPAN	0.7 SPAN	F.S.	0.8 SPAN	0.9 SPAN	PIER 2
NORTH DECK EDGE	T.O.D.	696.17	696.22	696.26	696.30	696.34	696.38	696.42	696.45	696.49	696.52	696.55	696.59	696.63	696.66	696.69	696.72	696.75	696.77	696.80	696.80	696.82	696.84
GIRDER 1	T.O.D.	696.23	696.27	696.31	696.35	696.39	696.43	696.47	696.50	696.54	696.57	696.60	696.64	696.68	696.71	696.74	696.77	696.80	696.82	696.85	696.85	696.87	696.89
	T.O.S.	695.35										695.57											695.97
PGL	T.O.D.	696.39	696.43	696.4747	696.5155	696.55	696.593	696.63	696.665	696.699	696.7316	696.76	696.8005	696.84	696.87	696.90	696.93	696.96	696.98	697.00	697.00	697.02	697.04
GIRDER 2	T.O.D.	696.44	696.48	696.52	696.56	696.60	696.64	696.68	696.71	696.75	696.78	696.81	696.85	696.88	696.92	696.95	696.98	697.00	697.03	697.05	697.05	697.07	697.09
	T.O.S.	695.50										695.80											696.07
GIRDER 3	T.O.D.	696.65	696.69	696.73	696.77	696.81	696.85	696.88	696.92	696.95	696.98	697.01	697.05	697.09	697.12	697.15	697.18	697.20	697.23	697.25	697.25	697.27	697.29
	T.O.S.	695.45										695.76											696.05
GIRDER 4	T.O.D.	696.46	696.51	696.55	696.59	696.63	696.66	696.70	696.73	696.77	696.80	696.83	696.87	696.90	696.93	696.96	696.99	697.01	697.04	697.06	697.06	697.08	697.09
	T.O.S.	695.30										695.65											695.88
GIRDER 5	T.O.D.	696.28	696.32	696.37	696.41	696.44	696.48	696.51	696.55	696.58	696.61	696.64	696.68	696.71	696.74	696.77	696.80	696.82	696.85	696.87	696.87	696.89	696.90
	T.O.S.	695.19										695.53											695.79
SOUTH DECK EDGE	T.O.D.	696.24	696.28	696.32	696.36	696.40	696.43	696.47	696.50	696.54	696.57	696.60	696.63	696.67	696.70	696.73	696.75	696.78	696.80	696.82	696.82	696.84	696.85

		C/L BRG	SPAN 3									C/L BRG
LOCATION		PIER 2	0.1 SPAN	0.2 SPAN	0.3 SPAN	0.4 SPAN	0.5 SPAN	0.6 SPAN	0.7 SPAN	0.8 SPAN	0.9 SPAN	EAST ABUT.
NORTH DECK EDGE	T.O.D.	696.84	696.85	696.86	696.87	696.88	696.89	696.89	696.90	696.90	696.90	696.90
GIRDER 1	T.O.D.	696.89	696.90	696.91	696.92	696.93	696.94	696.94	696.95	696.95	696.95	696.95
	T.O.S.	695.97										696.03
PGL	T.O.D.	697.04	697.05	697.06	697.07	697.08	697.09	697.09	697.10	697.10	697.10	697.10
GIRDER 2	T.O.D.	697.09	697.10	697.11	697.12	697.13	697.13	697.14	697.14	697.15	697.15	697.15
	T.O.S.	696.07										696.17
GIRDER 3	T.O.D.	697.29	697.30	697.31	697.32	697.33	697.33	697.34	697.34	697.34	697.34	697.34
	T.O.S.	696.05										696.08
GIRDER 4	T.O.D.	697.09	697.11	697.12	697.12	697.13	697.14	697.14	697.15	697.15	697.15	697.15
	T.O.S.	695.88										695.95
GIRDER 5	T.O.D.	696.90	696.91	696.92	696.93	696.94	696.94	696.95	696.95	696.95	696.95	696.95
	T.O.S.	695.79										695.80
SOUTH DECK EDGE	T.O.D.	696.85	696.87	696.88	696.88	696.89	696.90	696.90	696.90	696.90	696.90	696.90

LEGEND

☒ WHERE SPACING OF EXISTING SHEAR STUDS IS EQUAL TO OR LESS THAN 1'-0", SPACE BARS TO MATCH. WHERE SPACING OF EXISTING SHEAR STUDS EXCEEDS 1'-0", SPACING SHALL BE 1'-0" MAX.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-530

DRAWN BY WAR | PLANS CK'D. KGW

TOP OF DECK ELEVATIONS

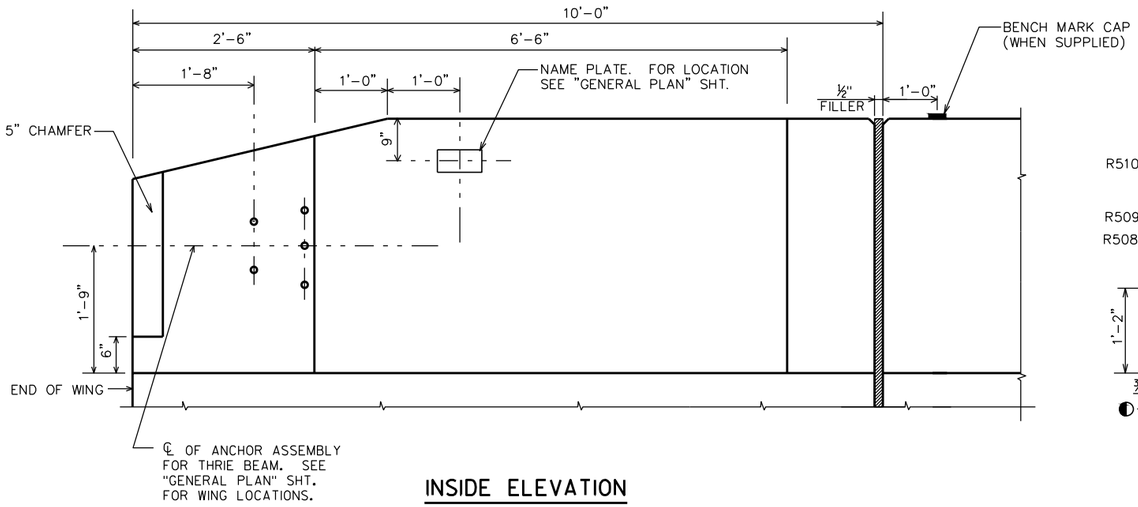
SHEET 9 OF 12

162

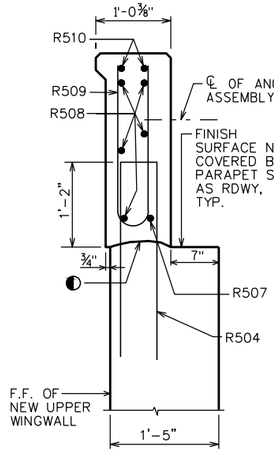
SCALE = ###

STATE PROJECT NUMBER

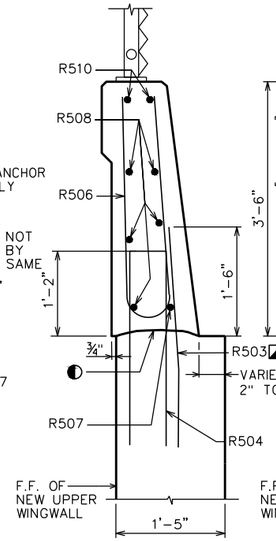
2040-20-70



INSIDE ELEVATION



SECTION A-A *



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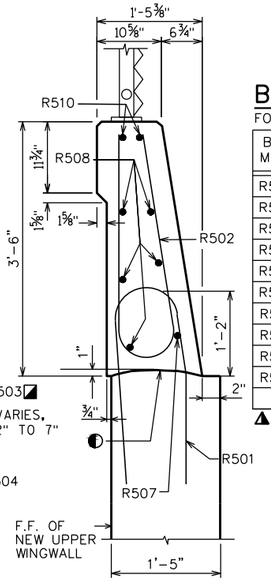


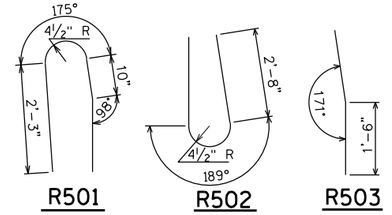
SECTION C-C *

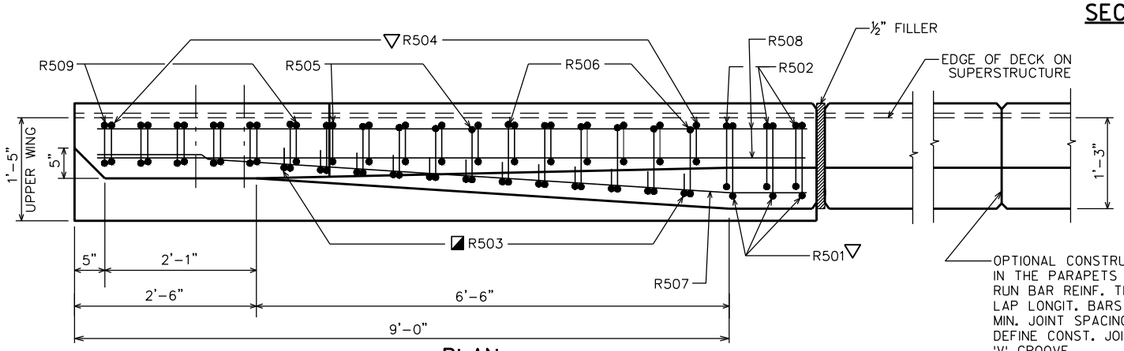
BILL OF BARS

FOR ABUTMENT PARAPETS

BAR MARK	COAT	WEST ABUT.	EAST ABUT.	LENGTH	BENT	BAR SERIES	LOCATION
R501	X	6	6	5'-10"	X		PARAPET VERT.
R502	X	6	6	6'-8"	X		PARAPET VERT.
R503	X	24	24	3'-0"	X		PARAPET VERT.
R504	X	34	34	5'-7"	X		PARAPET VERT.
R505	X	10	10	6'-5"	X		PARAPET VERT.
R506	X	12	12	6'-6"	X		PARAPET VERT.
R507	X	2	2	9'-8"	X		PARAPET HORIZ.
R508	X	10	10	9'-7"			PARAPET HORIZ.
R509	X	12	12	5'-5"	X	▲	PARAPET VERT.
R510	X	4	4	9'-8"	X		PARAPET HORIZ.

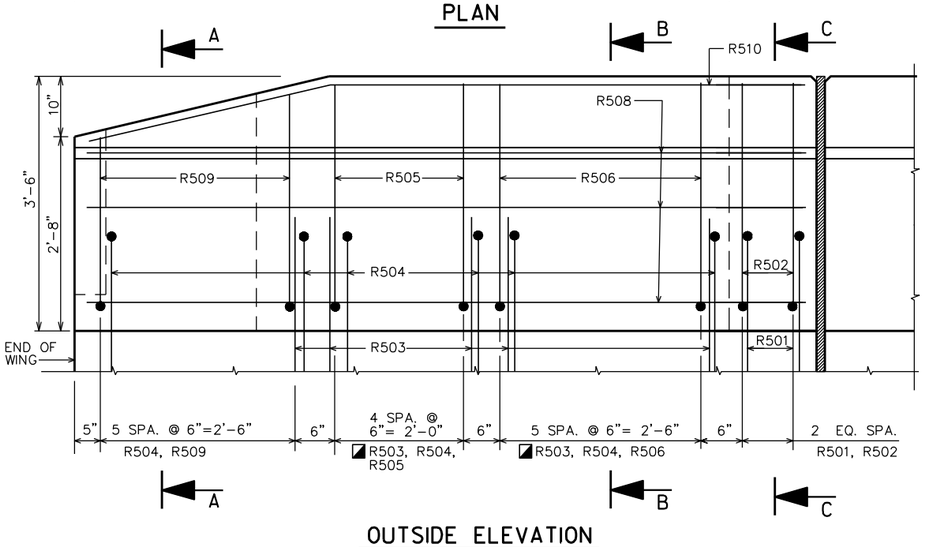
▲ LENGTH SHOWN FOR BAR IS AN AVERAGE LENGTH AND SHOULD BE ONLY USED FOR BAR WEIGHT CALCULATIONS. SEE BAR SERIES TABLE FOR ACTUAL LENGTHS.





PLAN

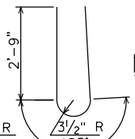
OPTIONAL CONSTRUCTION JOINTS IN THE PARAPETS MAY BE USED. RUN BAR REINF. THRU THE JOINT. LAP LONGIT. BARS A MIN. OF 1'-9". MIN. JOINT SPACING OF 80'-0". DEFINE CONST. JOINT WITH A ¾" - 'V' GROOVE.



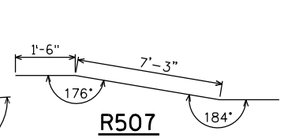
OUTSIDE ELEVATION

R504

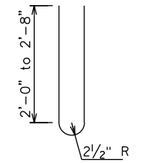
R505



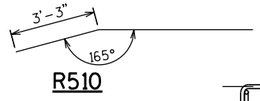
R506



R507



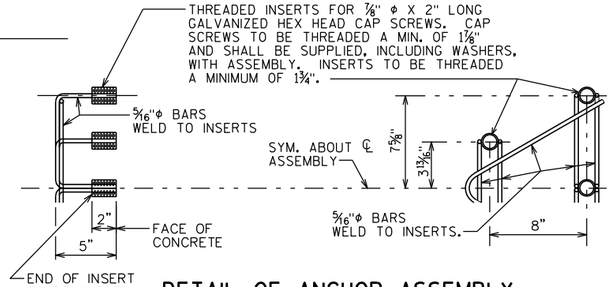
R509



R510

BAR SERIES TABLE

MARK	NO. REQ'D.	LENGTH
R509	4 SERIES OF 6	4'-9" TO 6'-1"



DETAIL OF ANCHOR ASSEMBLY

NOTE: HEX HEAD CAP SCREWS & WASHERS TO BE GALVANIZED IN ACCORDANCE WITH AASHTO M232 CLASS C.

ASSEMBLY SHALL BE BID ITEM "ANCHOR ASSEMBLIES FOR STEEL PLATE BEAM GUARD", EACH.

* WINGWALL REINFORCEMENT NOT SHOWN FOR CLARITY, SEE SHEETS 4 AND 5.

◐ CONST. JOINT – STRIKE OFF AS SHOWN.

◪ R503 BARS MAY BE PLACED AFTER CONCRETE IS POURED BUT BEFORE INITIAL SET HAS TAKEN PLACE. USE CARE TO PLACE R503 BARS CORRECTLY ALONG TRANSITION OF PARAPET.

▽ R501 AND R504 BARS TO BE TIED TO WING STEEL BEFORE WING IS POURED.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-530

DRAWN BY WAR | PLANS CK'D. KGW

SINGLE SLOPE PARAPET 42SS

SHEET 10 OF 12

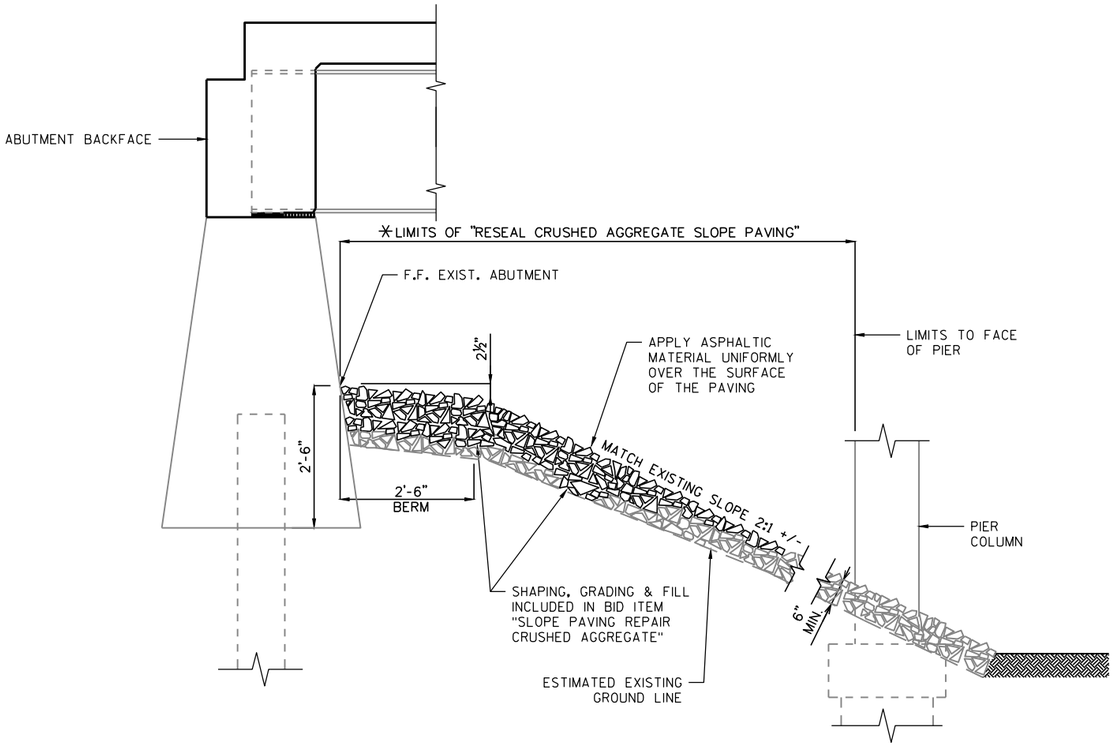
163

SCALE = ###

8

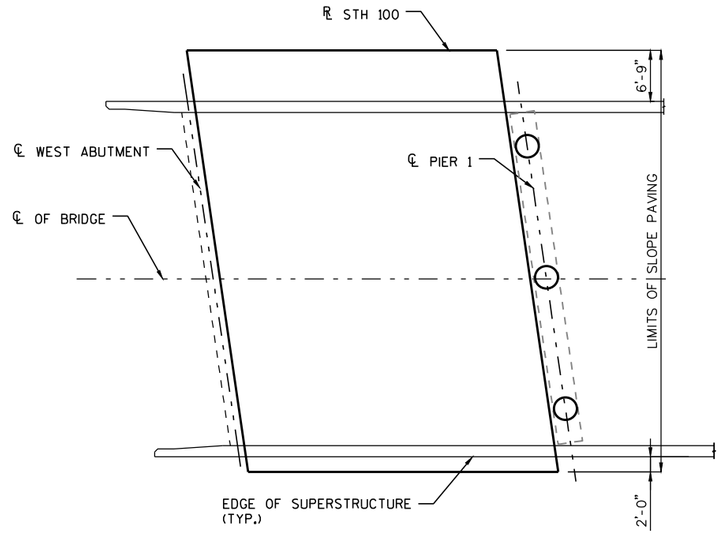
8

STATE PROJECT NUMBER
2040-20-70



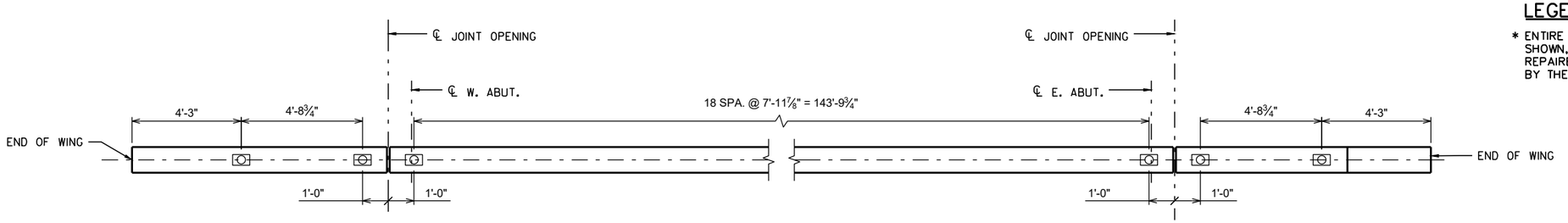
CROSS SECTION THRU CRUSHED AGGREGATE SLOPE PAVING

ROUND STONE WILL NOT BE ACCEPTED



SLOPE PAVING REPAIR PLAN

WEST ABUTMENT SHOWN, EAST ABUTMENT SIMILAR



FENCE POST SPACING PLAN

NOTES

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

LEGEND

* ENTIRE LIMITS OF EXISTING SLOPE PAVING CRUSHED AGGREGATE SHOWN, EXISTING SETTLED AND DETERIORATED AREAS TO BE REPAIRED. REPAIR LIMITS SHALL BE DETERMINED IN THE FIELD BY THE ENGINEER.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-530

DRAWN BY WAR | PLANS CK'D. KGW

SLOPE PAVING REPAIR & MISC. DETAILS

SHEET 11 OF 12

164

SCALE = ###

8

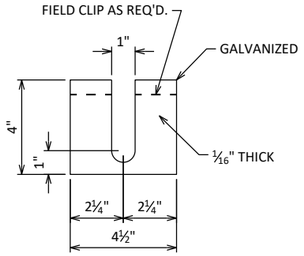
8

STATE PROJECT NUMBER

2040-20-70

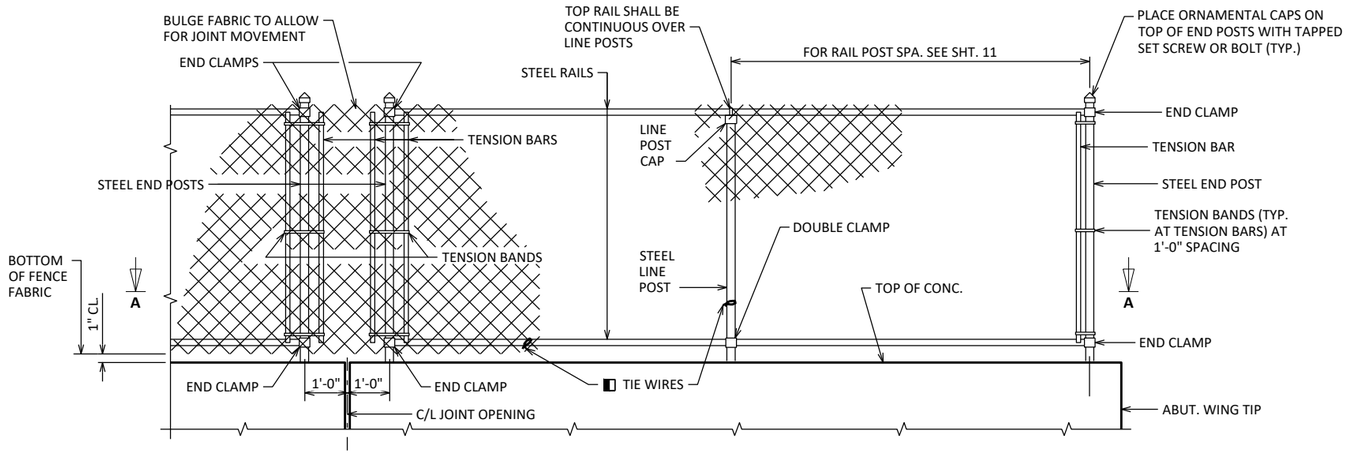
FENCE MEMBER SIZE & WEIGHT

STEEL FENCE MEMBER	OUTSIDE DIAMETER (INCHES)	WEIGHT (LB/FT)
RAILS	1.660	2.27
END POST	2.875	5.80
OVERHANG POST	2.875	5.80
LINE POST	2.375	3.65
POST SLEEVE	4.000	9.12

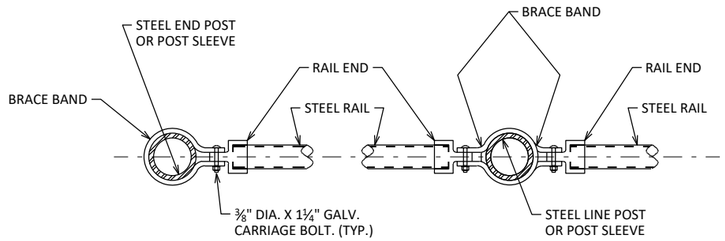


POST SHIM DETAILS

SHIMS REQUIRED ONLY WHEN END POSTS AND LINE POSTS ARE WELDED TO BASE PLATES. PROVIDE 4 SHIMS PER POST. USE WHERE REQUIRED FOR ALIGNMENT.



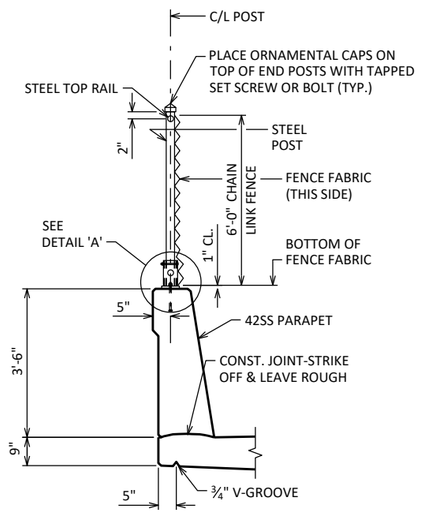
FENCE PART ELEVATION



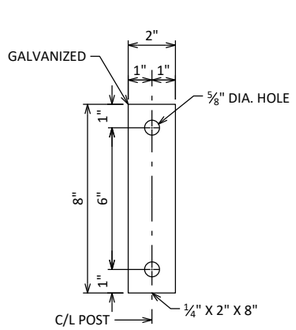
END CLAMP **⚹ DOUBLE CLAMP**

SECTION A-A

NOTE: PLACE ALL BOLT HEADS ON SIDE OF FENCE ADJACENT TO PEDESTRIANS

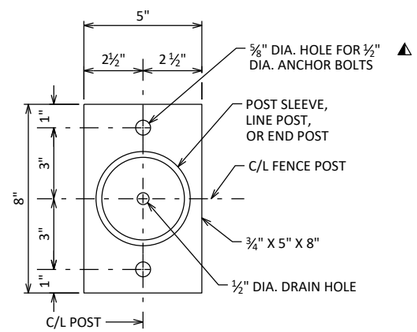


SECTION THRU FENCE



ANCHOR PLATE

☆ NOTE: ANCHOR PLATE NOT REQUIRED WHEN ADHESIVE ANCHORS ARE USED.

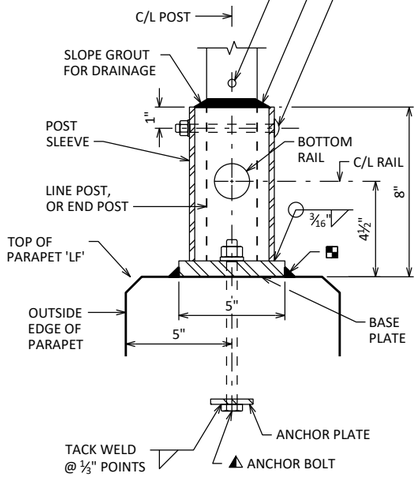


BASE PLATE

⅜" DIA. GALV. CARRIAGE BOLT WITH LOCKING NUT. (TO BE SUPPLIED WITH ASSEMBLY)

FILL SLEEVE AND BEVEL AWAY FROM POST WITH NON-SHRINK GROUT AFTER SETTING POST. (LEAVE NO VOIDS)

DRILL 3/16" DIA. DRAIN HOLE PARALLEL TO ROADWAY IMMEDIATELY ABOVE GROUT IN POST. SLEEVE LOCATIONS ONLY.



DETAIL 'A'

UNIT SHALL BE GALVANIZED AFTER FABRICATION

NOTE: IN LIEU OF USING THE POST SLEEVE, THE FENCE POST MAY BE WELDED TO THE BASE PLATE.

NOTES

POSTS ARE TO BE SET VERTICAL.

ALL FENCE COMPONENTS SHALL BE GALVANIZED STEEL, EXCEPT THE FENCE FABRIC WHICH MAY BE ALUMINUM-COATED STEEL OR GALVANIZED STEEL.

FABRIC SHALL CONFORM TO ASTM A491 OR A392, CLASS 2. STEEL RAILS, POSTS AND POST SLEEVES SHALL CONFORM TO ASTM F1083, STANDARD WEIGHT PIPE (SCHEDULE 40). FITTINGS SHALL CONFORM TO ASTM F626.

THE BID ITEM SHALL BE "FENCE CHAIN LINK 6-FT".

COMPLETE ANY REQUIRED WELDING OF COMPONENTS BEFORE GALVANIZING.

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

BASE PLATES, ANCHOR PLATES AND SHIMS SHALL BE ASTM A709, GRADE 36.

ALL POST SPACINGS ARE MEASURED HORIZONTALLY ALONG THE C/L OF THE POST.

◪ CAULK AROUND PERIMETER OF BASE PLATE AND FILL PORTION OF SLOTTED HOLE AROUND ANCHOR BOLT IN SHIM WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER.

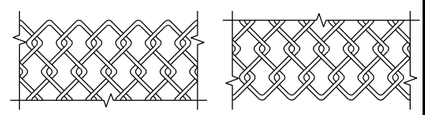
⚹ ALTERNATE TO DOUBLE CLAMP: USE LINE RAIL CLAMP (BOULEVARD) OR 180° BRACE BAND, WHICH MAY BE USED WHEN THE POSTS ARE EITHER BOLTED TO THE POST SLEEVES OR DIRECTLY WELDED TO THE BASE PLATE.

◭ ½" DIA. X 6⅞" LONG GALVANIZED HEX BOLT WITH NUT & WASHER. ☆

☆ ALTERNATIVE ANCHORAGE: CONCRETE ADHESIVE ANCHORS ½-INCH. EMBED 7" IN CONCRETE. ADHESIVE ANCHORS SHALL CONFORM TO SECTIONS 502.2.12 AND 502.3.14 OF THE STANDARD SPECIFICATIONS.

◧ ATTACH FABRIC TO RAILS, AND TO POSTS WITHOUT TENSION BANDS, WITH TIE WIRES (ROUND, 9-GAGE) SPACED AT 1'-0".

MINIMUM LENGTH OF TOP RAIL BETWEEN SPLICES SHALL BE 20'-0". LOCATE SPLICES NEAR ¼ POINT OF POST SPACING.



TOP DETAIL **BOTTOM DETAIL**

FENCE FABRIC

FENCE FABRIC WOVEN OF 9-GAGE WIRE IN 2" DIAMOND PATTERN MESH WITH BOTH THE TOP AND BOTTOM SELVAGES KNUCKLED.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-530

DRAWN BY WAR | PLANS CK'D KGW

FENCING DETAILS

SHEET 12 OF 12

SCALE =

8

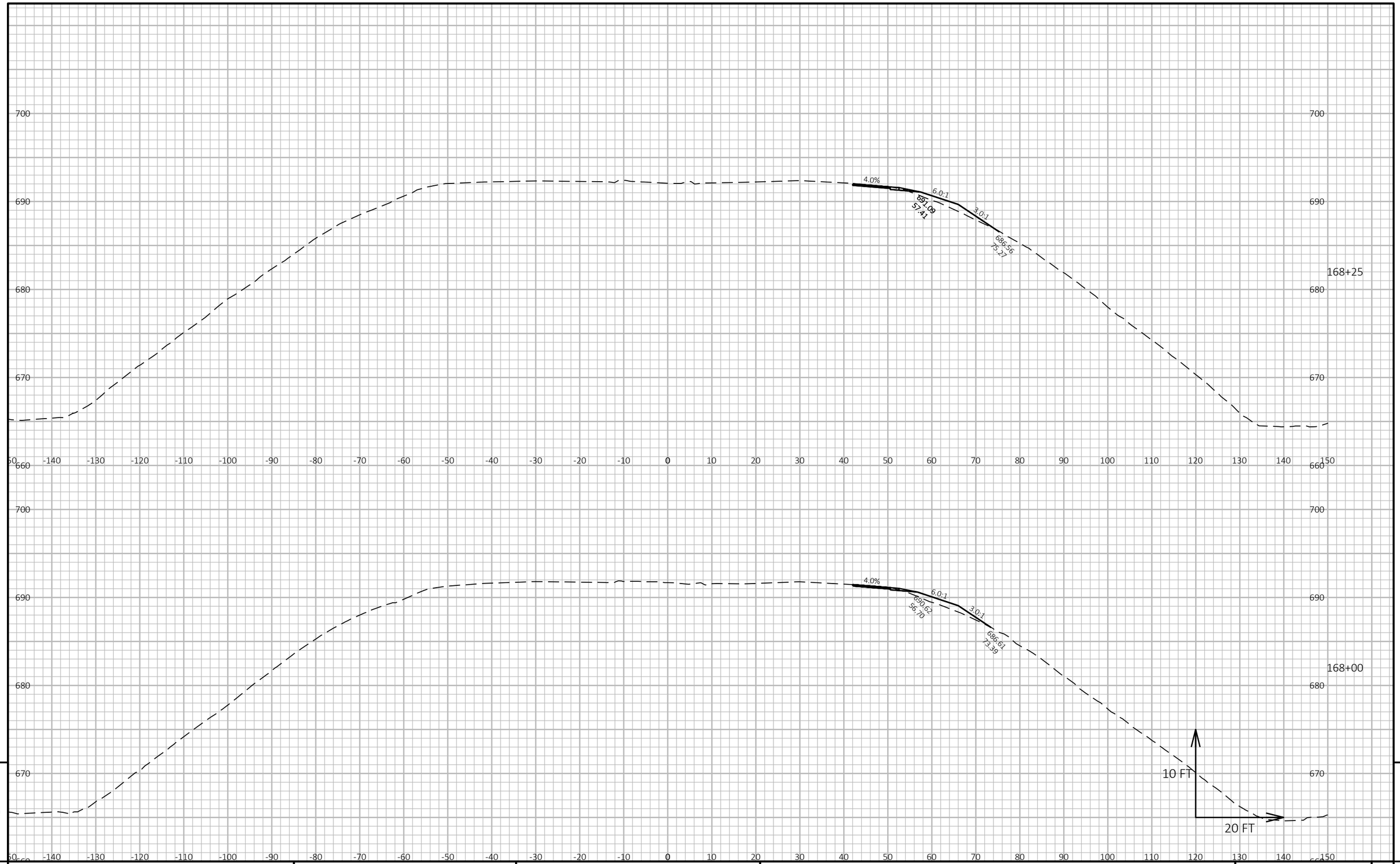
8

STATION	REAL STATION	DISTANCE	AREA (SF)						INCREMENTAL VOL (CY) (UNADJUSTED)						CUMULATIVE VOL (CY)		
			CUT	SALVAGED/UNUSABLE PAVEMENT MATERIAL	FILL	MARSH EXC	ROCK EXC	EBS	CUT	SALVAGED/UNUSABLE PAVEMENT MATERIAL	FILL	MARSH EXC	ROCK EXC	EBS	CUT 1.00	EXPANDED FILL 1.20	MASS ORDINATE
									NOTE 1	NOTE 2	NOTE 3				NOTE 1		NOTE 8
168+00	16800.00	0.00	0.00	0.00	9.73	0.00	0.00	0.00	0	0	0	0	0	0	0	0	0
169+31.545	16931.55	131.55	0.06	0.00	7.33	0.00	0.00	0.00	0	0	42	0	0	0	0	50	-50
169+81.547	16981.55	50.00	0.54	0.00	6.20	0.00	0.00	0.00	1	0	13	0	0	0	1	66	-65
170+25	17025.00	43.45	0.82	0.00	6.39	0.00	0.00	0.00	1	0	10	0	0	0	2	78	-76
170+34	17034.00	9.00	0.24	0.00	9.50	0.00	0.00	0.00	0	0	3	0	0	0	2	82	-80
170+37.344	17037.34	3.34	0.02	0.00	7.84	0.00	0.00	0.00	0	0	1	0	0	0	2	83	-81
170+40	17040.00	2.66	0.04	0.00	9.55	0.00	0.00	0.00	0	0	1	0	0	0	2	84	-82

STATION	REAL STATION	DISTANCE	AREA (SF)						INCREMENTAL VOL (CY) (UNADJUSTED)						CUMULATIVE VOL (CY)		
			CUT	SALVAGED/UNUSABLE PAVEMENT MATERIAL	FILL	MARSH EXC	ROCK EXC	EBS	CUT	SALVAGED/UNUSABLE PAVEMENT MATERIAL	FILL	MARSH EXC	ROCK EXC	EBS	CUT 1.00	EXPANDED FILL 1.20	MASS ORDINATE
									NOTE 1	NOTE 2	NOTE 3				NOTE 1		NOTE 8
172+07	17207.00	0.00	0.03	0.00	21.97	0.00	0.00	0.00	0	0	0	0	0	0	0	0	0
172+08.586	17208.59	1.59	0.06	0.00	17.05	0.00	0.00	0.00	0	0	1	0	0	0	0	1	-1
172+12	17212.00	3.41	1.56	0.00	9.76	0.00	0.00	0.00	0	0	2	0	0	0	0	4	-4
172+20.995	17221.00	9.00	0.00	0.00	11.78	0.00	0.00	0.00	0	0	4	0	0	0	0	8	-8
173+22.497	17322.50	101.50	0.00	0.00	10.16	0.00	0.00	0.00	0	0	41	0	0	0	0	58	-58
173+50	17350.00	27.50	0.02	0.00	9.73	0.00	0.00	0.00	0	0	10	0	0	0	0	70	-70

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
4 - EXPANDED MARSH BACKFILL	WILL BE BACKFILLED WITH GRANULAR BACKFILL (OR CUT, OR BORROW)
5 - EXPANDED EBS	WILL BE BACKFILLED WITH GRANULAR BACKFILL (OR CUT, OR BORROW)
6 - REDUCED MARSH IN FILL	REDUCED MARSH EXCAVATION THAT CAN BE USED IN FILL
7 - REDUCED EBS IN FILL	REDUCED EBS EXCAVATION THAT CAN BE USED IN FILL
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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9

PROJECT NO: 2040-20-70	HWY: STH 100	COUNTY: MILWAUKEE	CROSS SECTIONS: BEAM GUARD CROSS SECTIONS	SHEET 167	E

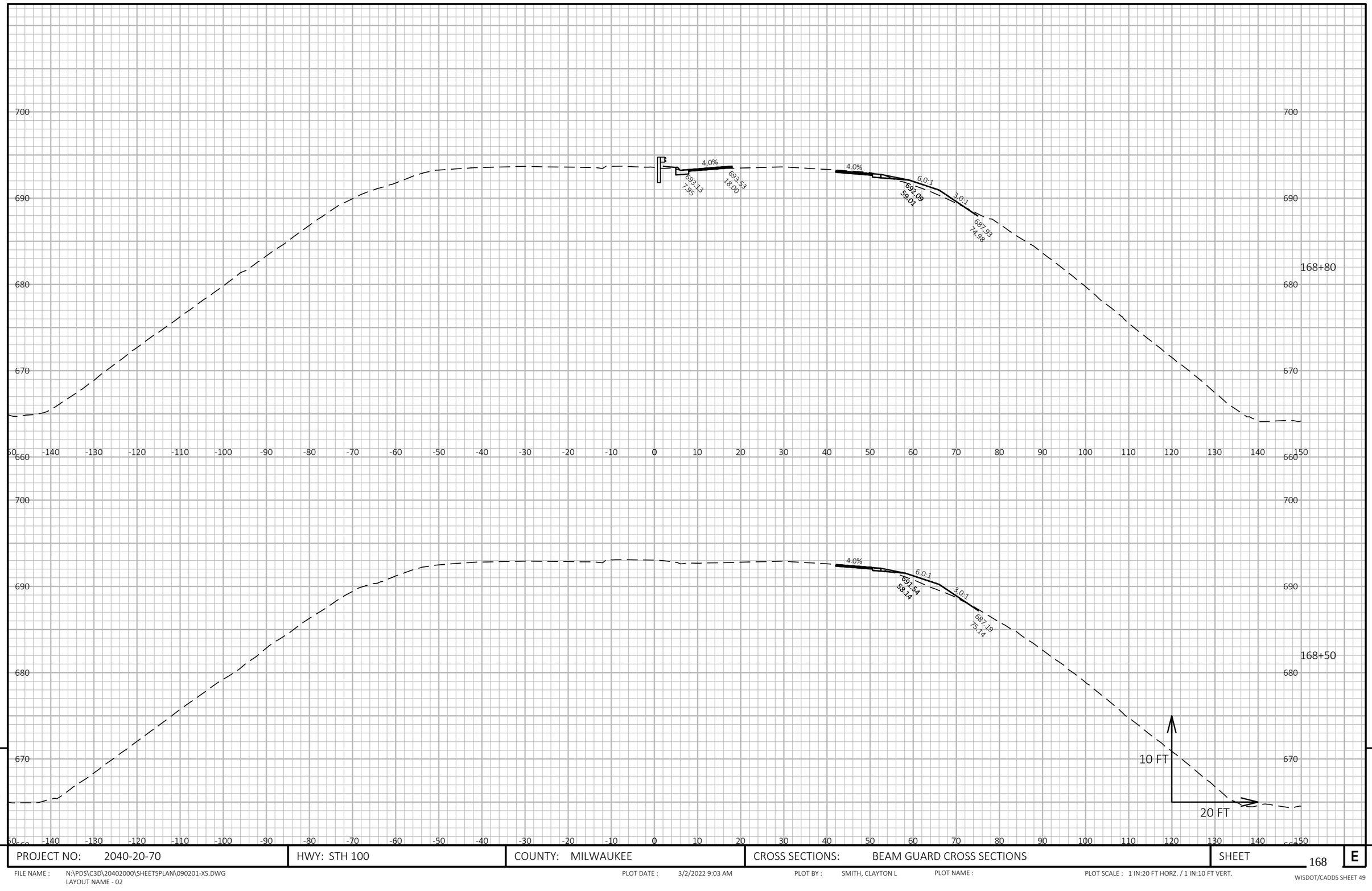
FILE NAME : N:\PDS\C3D\20402000\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 01

PLOT DATE : 3/2/2022 9:03 AM

PLOT BY : SMITH, CLAYTON L

PLOT NAME :

PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.



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9

PROJECT NO: 2040-20-70	HWY: STH 100	COUNTY: MILWAUKEE	CROSS SECTIONS: BEAM GUARD CROSS SECTIONS	SHEET 168	E

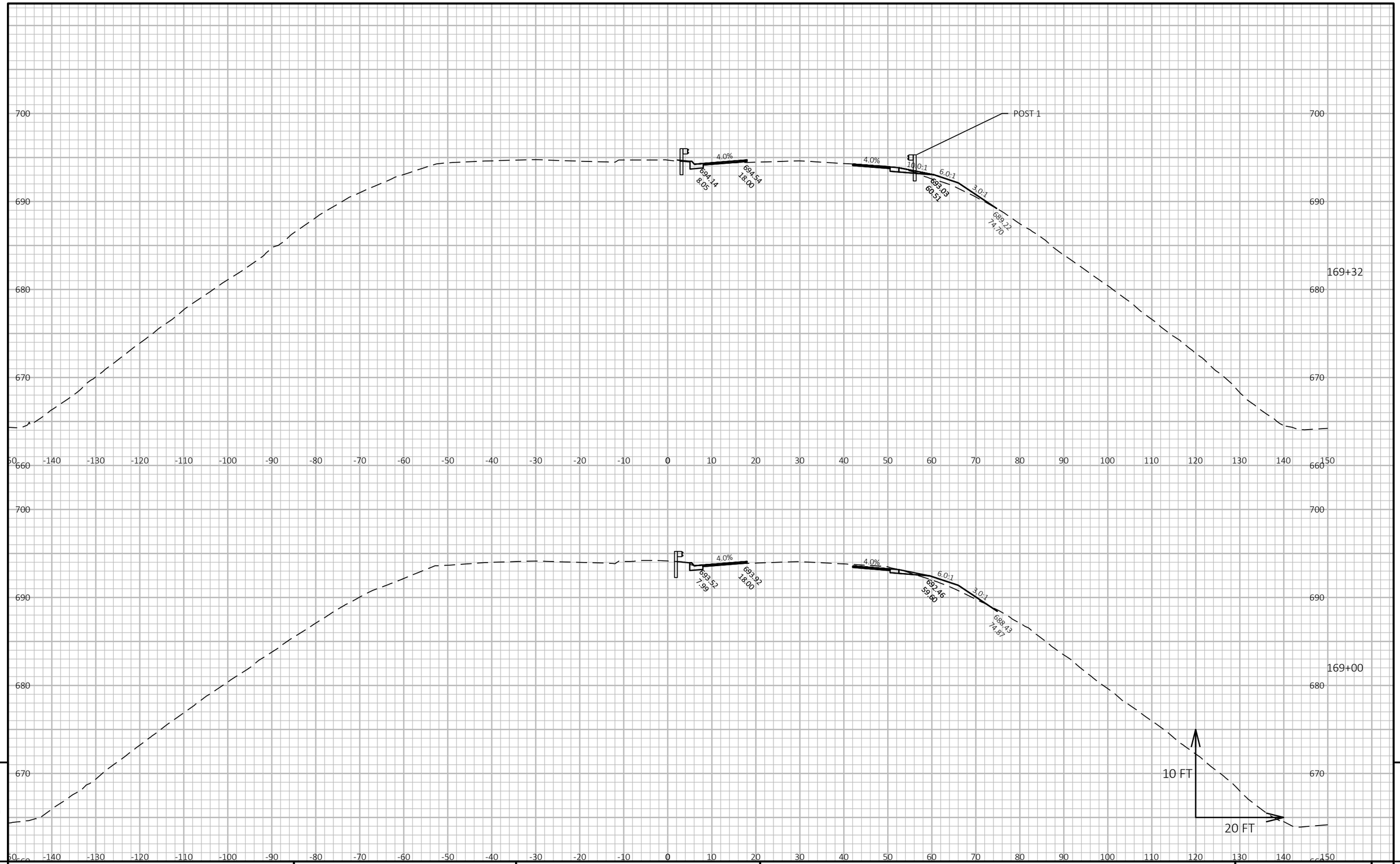
FILE NAME : N:\PDS\C3D\20402000\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 02

PLOT DATE : 3/2/2022 9:03 AM

PLOT BY : SMITH, CLAYTON L

PLOT NAME :

PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.



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9

PROJECT NO: 2040-20-70	HWY: STH 100	COUNTY: MILWAUKEE	CROSS SECTIONS: BEAM GUARD CROSS SECTIONS	SHEET 169	E

FILE NAME : N:\PDS\C3D\20402000\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 03

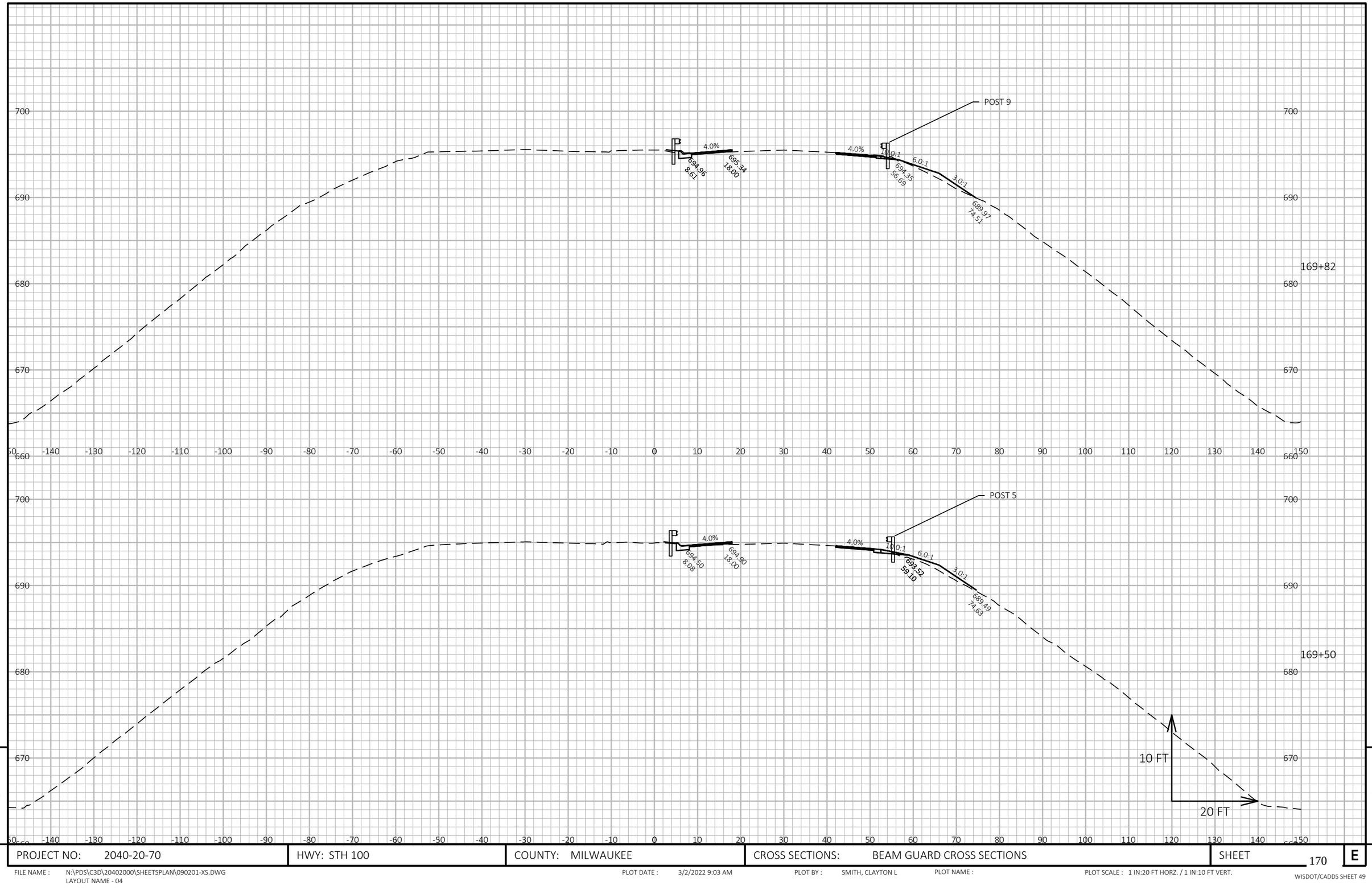
PLOT DATE : 3/2/2022 9:03 AM

PLOT BY : SMITH, CLAYTON L

PLOT NAME :

PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



9

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PROJECT NO: 2040-20-70	HWY: STH 100	COUNTY: MILWAUKEE	CROSS SECTIONS: BEAM GUARD CROSS SECTIONS	SHEET 170	E

FILE NAME : N:\PDS\C3D\20402000\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 04

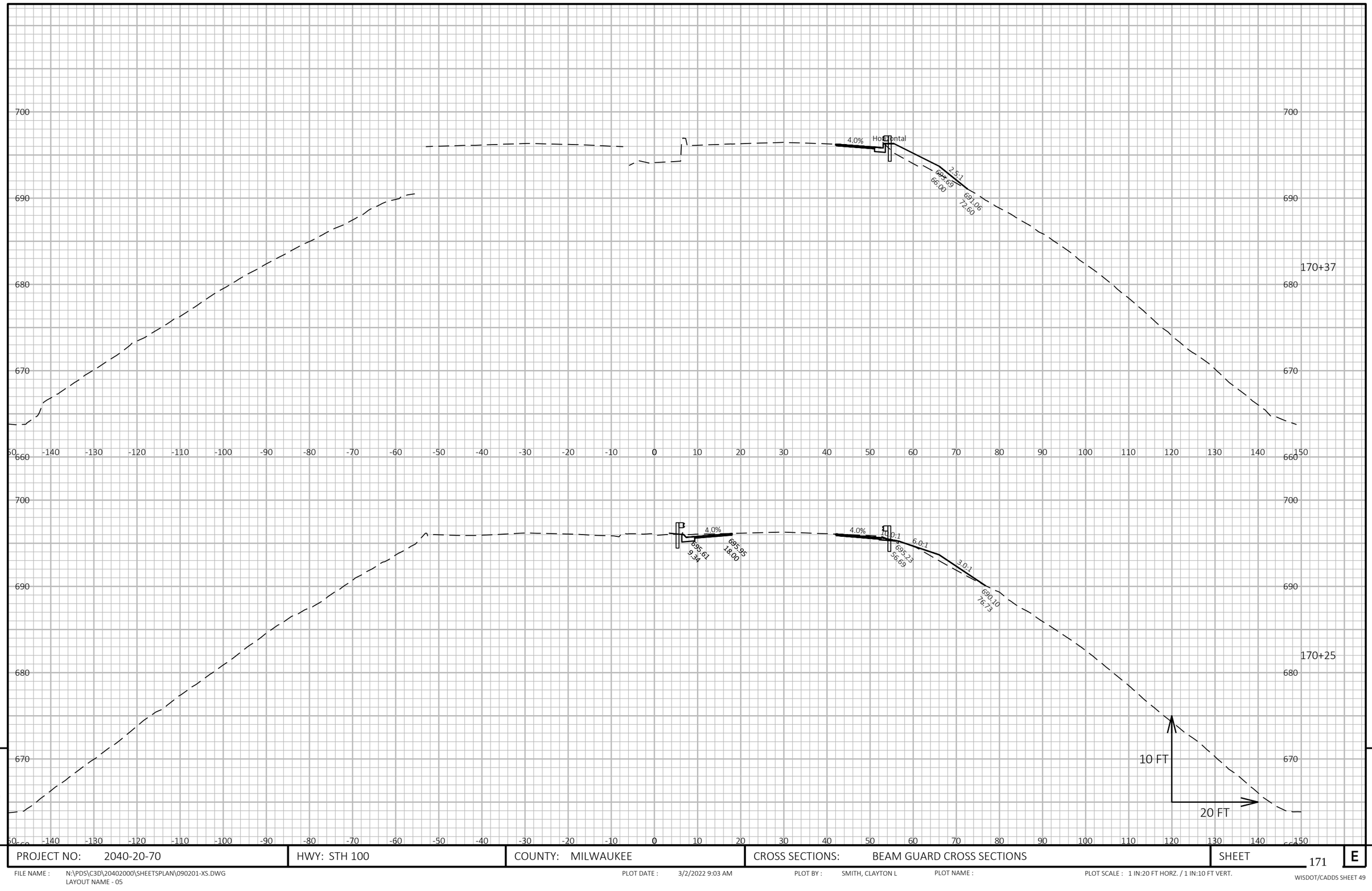
PLOT DATE : 3/2/2022 9:03 AM

PLOT BY : SMITH, CLAYTON L

PLOT NAME :

PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



9

9

PROJECT NO: 2040-20-70	HWY: STH 100	COUNTY: MILWAUKEE	CROSS SECTIONS: BEAM GUARD CROSS SECTIONS	SHEET 171	E

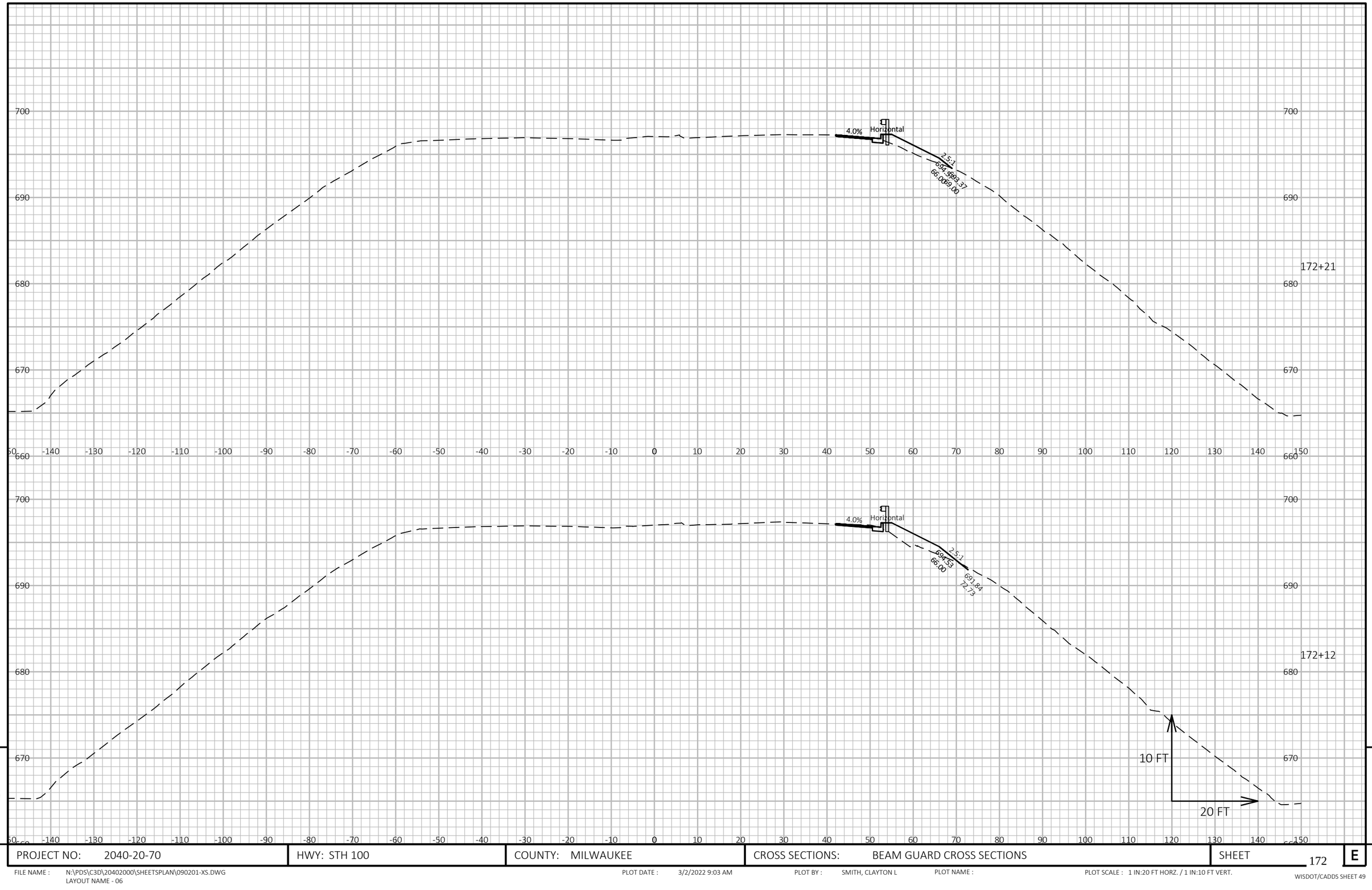
FILE NAME : N:\PDS\C3D\20402000\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 05

PLOT DATE : 3/2/2022 9:03 AM

PLOT BY : SMITH, CLAYTON L

PLOT NAME :

PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.



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PROJECT NO: 2040-20-70	HWY: STH 100	COUNTY: MILWAUKEE	CROSS SECTIONS: BEAM GUARD CROSS SECTIONS	SHEET 172	E

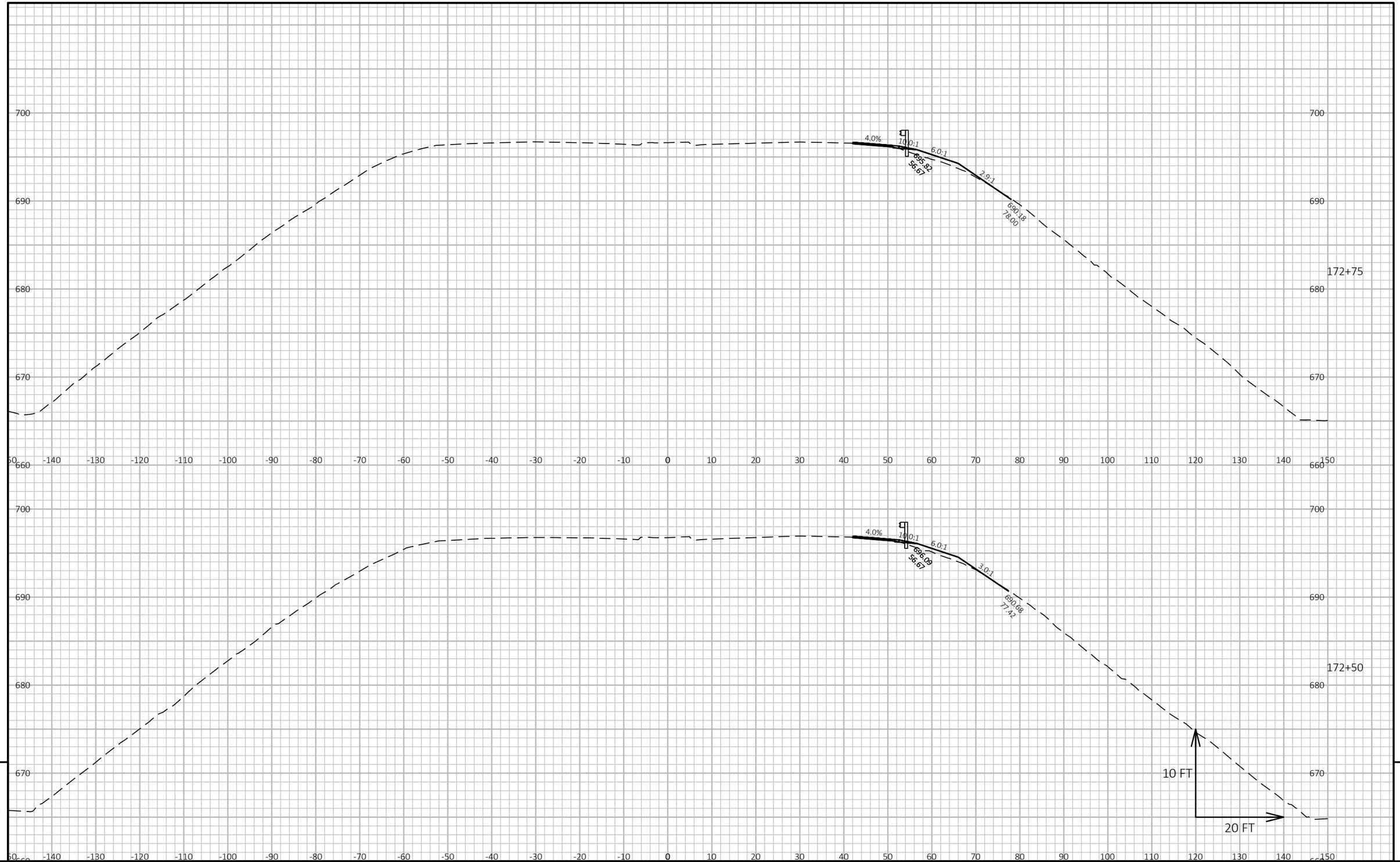
FILE NAME : N:\PDS\C3D\20402000\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 06

PLOT DATE : 3/2/2022 9:03 AM

PLOT BY : SMITH, CLAYTON L

PLOT NAME :

PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.



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PROJECT NO: 2040-20-70	HWY: STH 100	COUNTY: MILWAUKEE	CROSS SECTIONS: BEAM GUARD CROSS SECTIONS	SHEET 173	E

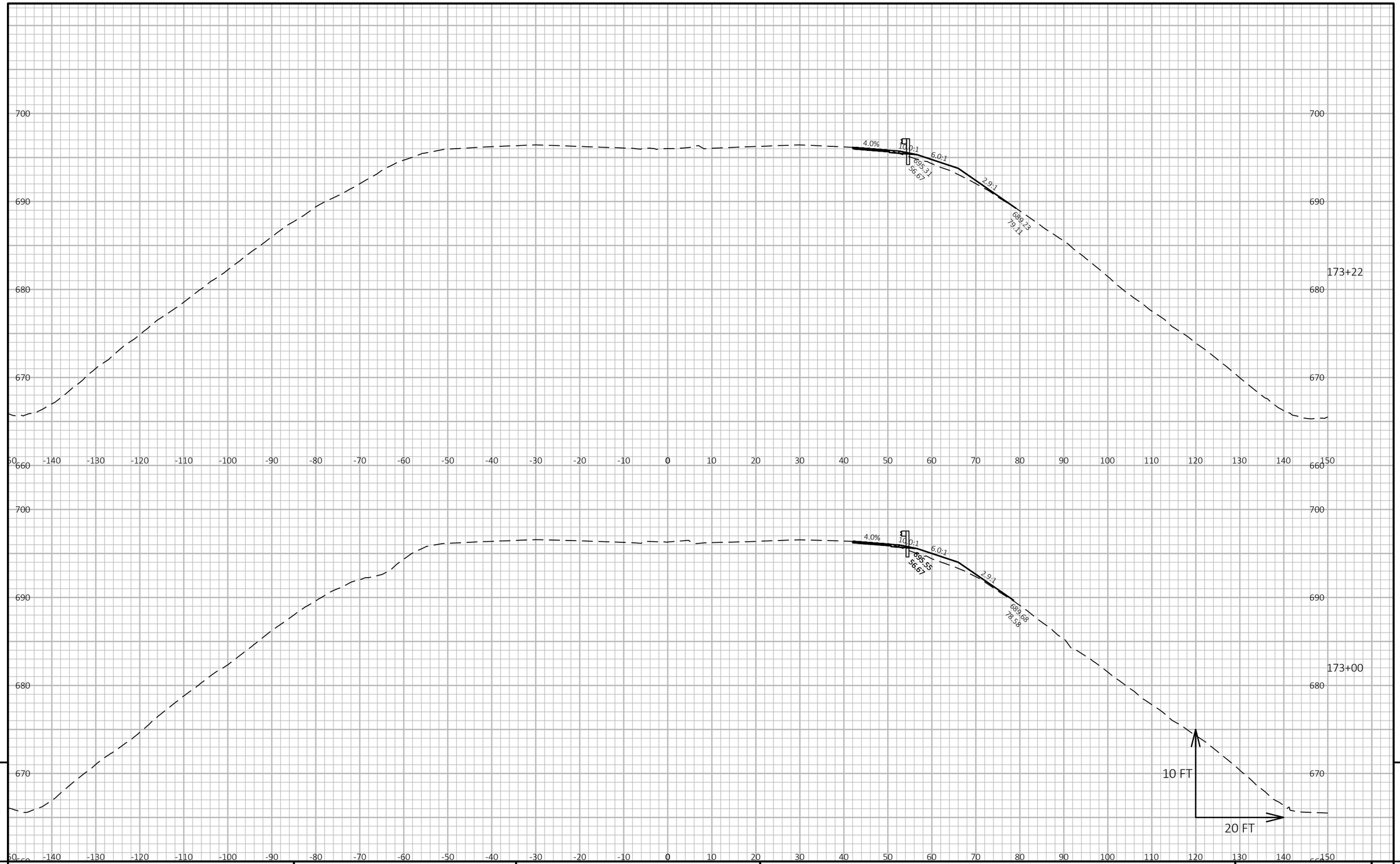
FILE NAME : N:\PDS\C3D\20402000\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 07

PLOT DATE : 3/2/2022 9:03 AM

PLOT BY : SMITH, CLAYTON L

PLOT NAME :

PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.



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PROJECT NO: 2040-20-70	HWY: STH 100	COUNTY: MILWAUKEE	CROSS SECTIONS: BEAM GUARD CROSS SECTIONS	SHEET 174	E

FILE NAME : N:\PDS\C3D\20402000\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 08

PLOT DATE : 3/2/2022 9:03 AM PLOT BY : SMITH, CLAYTON L PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

Notes

Wisconsin Department of Transportation

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