

WKE

MAY 2022  
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
<del>Section No. 4</del>	<del>Right of Way Plat</del>
Section No. 5	Plan and Profile
Section No. 6	Standard Detail Drawings
Section No. 7	Sign Plates
Section No. 8	Structure Plans
<del>Section No. 9</del>	<del>Computer Earthwork Data</del>
<del>Section No. 9</del>	<del>Cross Sections</del>

TOTAL SHEETS = 60

**STATE OF WISCONSIN**  
**DEPARTMENT OF TRANSPORTATION**  
PLAN OF PROPOSED IMPROVEMENT  
**C GLENDALE W HAMPTON AVENUE**  
**BRIDGE OVER MILWAUKEE RIVER**

**LOCAL STREET**  
**MILWAUKEE COUNTY**

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
2545-13-70		

STATE PROJECT NUMBER  
**2545-13-70**



16

**DESIGN DESIGNATION**

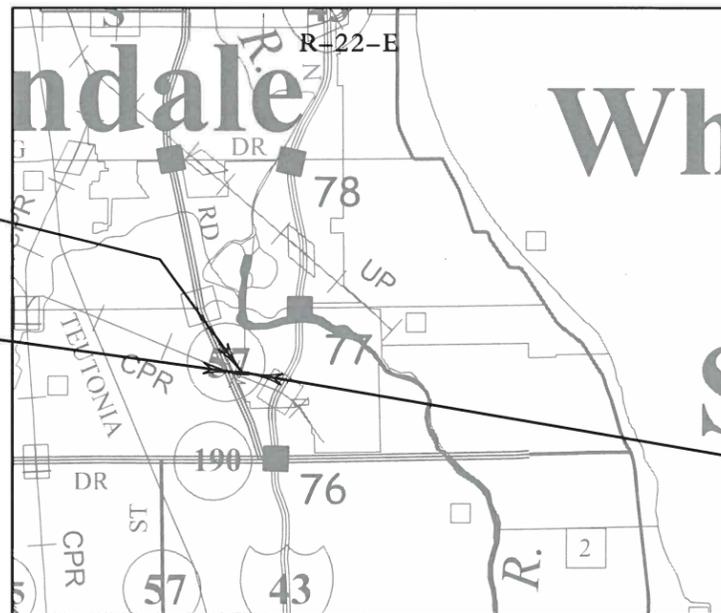
A.A.D.T.	=
A.A.D.T.	=
D.H.V.	=
D.D.	=
T.	=
DESIGN SPEED	=
ESALS	=

**CONVENTIONAL SYMBOLS**

<b>PLAN</b>	
CORPORATE LIMITS	
PROPERTY LINE	
LOT LINE	
LIMITED HIGHWAY EASEMENT	
EXISTING RIGHT OF WAY	
PROPOSED OR NEW R/W LINE	
SLOPE INTERCEPT	
REFERENCE LINE	
EXISTING CULVERT	
PROPOSED CULVERT (Box or Pipe)	
COMBUSTIBLE FLUIDS	
MARSH AREA	
WOODED OR SHRUB AREA	

<b>PROFILE</b>	
GRADE LINE	
ORIGINAL GROUND	
MARSH OR ROCK PROFILE (To be noted as such)	
SPECIAL DITCH	
GRADE ELEVATION	
CULVERT (Profile View)	
<b>UTILITIES</b>	
ELECTRIC	
FIBER OPTIC	
GAS	
SANITARY SEWER	
STORM SEWER	
TELEPHONE	
WATER	
UTILITY PEDESTAL	
POWER POLE	
TELEPHONE POLE	

BEGIN PROJECT 2545-13-70  
STA 108+17.42  
X=601490.470  
Y=323490.011



END PROJECT 2545-13-70  
STA 111+83.34

LAYOUT  
SCALE 0 1 MI.

TOTAL NET LENGTH OF CENTERLINE = 0.069 MI.

"COORDINATES ON THIS PLAN ARE REFERENCED TO THE WISCONSIN COUNTY COORDINATE SYSTEM (WCCS), MILWAUKEE COUNTY ZONE NAD 83 (07)"  
"ELEVATIONS SHOWN ON THIS PLAN ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM NAVD 88 (07)"

ACCEPTED FOR  
MILWAUKEE COUNTY  
DEPARTMENT OF TRANSPORTATION

1/21/2022 *[Signature]*  
(Date) Director of Transportation Engineering

1-25-2022 *[Signature]*  
(Date) Director of Milwaukee County Department of Transportation

ORIGINAL PLANS PREPARED BY  
**Kapur** 7711 N. Port Washington Road  
Milwaukee, Wisconsin 53217  
kapurinc.com



1/19/2022 *[Signature]*  
(Date) (Signature)

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor	KAPUR & ASSOCIATES
Designer	KAPUR & ASSOCIATES
Project Manager	MICHAEL BAIRD, PE
Regional Examiner	
Regional Supervisor	JEFFREY BOHEN, PE

APPROVED FOR THE DEPARTMENT  
DATE: 1/25/2022 *[Signature]*  
(Signature)

E

GENERAL NOTES

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

ALL PRIVATE EXISTING UTILITIES NOT INCLUDED IN THE PLAN ARE TO BE ADJUSTED BY THE UTILITIES CONCERNED. WATER VALVES WILL BE ADJUSTED AND PAID FOR AS A CONTRACT BID ITEM.

THE CONTRACTOR SHALL NOTIFY DIGGERS HOTLINE AND AFFECTED UTILITIES PRIOR TO THE START OF WORK. ANY LOCAL MUNICIPAL UTILITY WHICH IS NOT A MEMBER OF DIGGERS HOTLINE MUST BE CONTACTED SEPARATELY.

COORDINATE WITH DIGGERS HOTLINE TO FIELD LOCATE UTILITIES. ANY UTILITIES DAMAGED DUE TO CONTRACTOR ACTIVITIES SHALL BE REPAIRED AT CONTRACTOR'S EXPENSE TO THE COMPLETE SATISFACTION OF THE UTILITY FACILITY.

DISTURBED AREAS WITHIN RIGHT-OF-WAY SHALL BE RESTORED IN KIND BY DIRECTION OF THE ENGINEER WITH 4" TOPSOIL AND SEED. TOPSOIL SHALL BE APPLIED WITHIN 7 DAYS AFTER GRADING WORK IS COMPLETED. SEED SHALL BE APPLIED WITHIN 7 DAYS AFTER PLACEMENT OF TOPSOIL.

EROSION CONTROL DEVICES WILL BE PLACED IN SEQUENCE WITH CONSTRUCTION ACTIVITIES AS DETERMINED BY THE ENGINEER.

REMOVAL OF EROSION CONTROL DEVICES IS INCIDENTAL TO THE COST OF THEIR RESPECTIVE BID ITEMS.

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

ALL HOLES OR OPENINGS BELOW SUBGRADE RESULTING FROM ABANDONMENT OR REMOVAL OF EXISTING STRUCTURES WILL BE FILLED WITH COMPACTED GRANULAR BACKFILL UNLESS REGULATIONS REQUIRE OTHERWISE. BACKFILL GRANULAR IS INCIDENTAL TO THE REMOVAL ITEM.

UTILITY/AGENCY CONTACTS

MILWAUKEE COUNTY - UTILITY COORDINATION  
VERNON SINGLETON  
414-257-5947  
VERNON.SINGLETON@MILWAUKEECOUNTYWI.GOV  
10320 W. WATERTOWN PLANK RD, 2ND FLOOR  
WAUWATOSA, WI 53226

MILWAUKEE COUNTY  
HIGHWAY MAINTENANCE DIVISION  
EDUARDO SANTIAGO  
414-257-4563  
EDUARDO.SANTIAGO@MILWAUKEECOUNTYWI.GOV  
10190 W WATERTOWN PLANK RD  
WAUWATOSA, WI 53226

MILWAUKEE COUNTY PARKS DEPARTMENT  
SARAH TOOMSEN  
414-257-7389  
SARAH.TOOMSEN@MILWAUKEECOUNTYWI.GOV  
9480 WATERTOWN PLANK RD  
WAUWATOSA, WI 53226

MILWAUKEE COUNTY STREET LIGHTING  
BLAKE PRUSAK  
414-258-2322  
BLAKE.PRUSAK@MILWAUKEECOUNTYWI.GOV  
9480 WATERTOWN PLANK RD  
WAUWATOSA, WI 53226

CITY OF GLENDALE  
DIRECTOR OF PUBLIC WORKS  
CHARLIE IMIG  
414-228-1746  
C.IMIG@GLENDALE-WI.GOV  
5909 N MILWAUKEE RIVER PARKWAY  
GLENDALE, WI 53209

OTHER CONTACTS

MILWAUKEE COUNTY TRANSIT SYSTEM,  
BUS STOP PLANNER  
ANDY TILLMAN  
414-343-1728  
ATILLMAN@MCTS.COM  
1942 N. 17TH ST.  
MILWAUKEE, WI 53205

MILWAUKEE COUNTY TRANSIT SYSTEM,  
COORDINATOR OF STREET SUPERVISION  
MELANIE FLYNN  
414-343-1764  
MFLYNN@MCTS.COM  
1942 N. 17TH ST.  
MILWAUKEE, WI 53205

MILWAUKEE METROPOLITAN SEWERAGE DISTRICT  
MICKI KLAPPA-SULLIVAN  
414-225-2187  
MKLAPPA-SULLIVAN@MMSD.COM  
260 W. SEEBOTH ST.  
MILWAUKEE, WI 53204

MILWAUKEE METROPOLITAN SEWERAGE DISTRICT FIELD CONTACT  
LARRY ANDERSON  
414-225-2241  
260 W. SEEBOTH ST.  
MILWAUKEE, WI 53204

WISCONSIN DEPT. OF NATURAL RESOURCES  
KRISTINA BETZOLD  
414-263-8517  
KRISTINA.BETZOLD@WISCONSIN.GOV  
2300 N DR. MARTIN LUTHER KING DRIVE  
MILWAUKEE, WI 53212

KAPUR & ASSOCIATES  
KURT FARRENKOPF  
414-751-7226  
KFARRENKOPF@KAPUR-ASSOC.COM  
7711 N. PORT WASHINGTON ROAD  
MILWAUKEE, WI 53217

CITY OF MILWAUKEE  
JEFF POLENSKE  
414-286-2400  
JPOLENS@MILWAUKEE.GOV  
841 N. BROADWAY STREET, RM 701 MILWAUKEE, WI 53202

MILWAUKEE COUNTY  
TRANSPORTATION SERVICES DIVISION  
ANDREA WEDDLE-HENNING, P.E.  
414-257-5934  
ANDREA.WEDDLE-HENNING@MILWAUKEECOUNTYWI.GOV  
10320 W. WATERTOWN PLANK RD  
WAUWATOSA, WI 53226

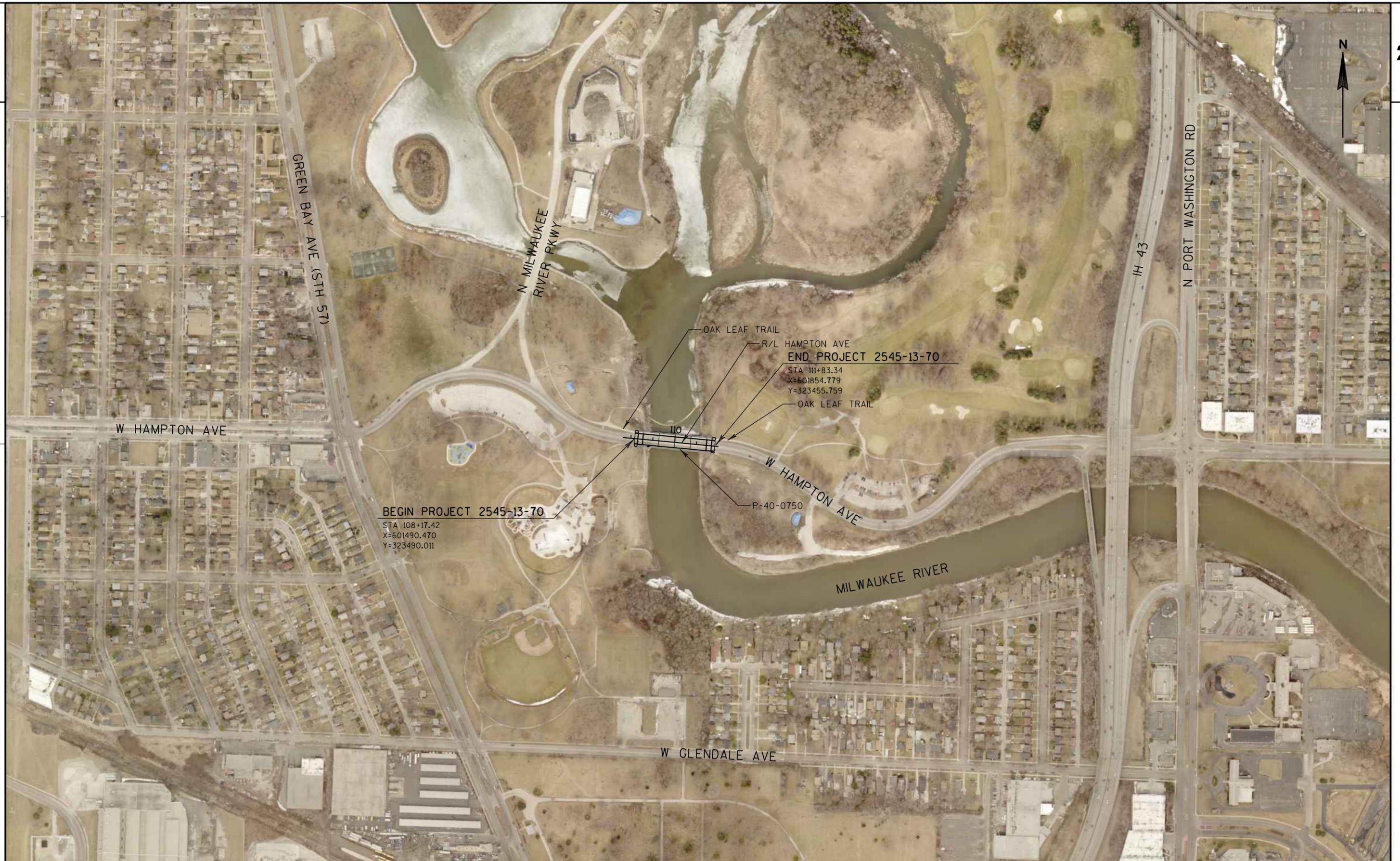
STANDARD ABBREVIATIONS

ADT	AVERAGE DAILY TRAFFIC
AVE	AVENUE
CWT	HUNDRED WEIGHT
DHV	DESIGN HOUR VOLUME
E	EAST
EA	EACH
EL	ELEVATION
ESALS	EQUIVALENT SINGLE AXEL LOADS
GAL	GALLONS
HMA	HOT MIX ASPHALT
IH	INTERSTATE HIGHWAY
LB	POUND
LF	LINEAR FOOT(FEET)
MGAL	1000 GALLONS
N	NORTH
PED	PEDESTRIAN
PI	POINT OF INTERSECTION
R/L	REFERENCE LINE
RD	ROAD
S	SOUTH
SF	SQUARE FOOT (FEET)
STA	STATION
STH	STATE TRUNK HIGHWAY
SY	SQUARE YARD
T	(TRUCKS) PERCENT OF
TYP	TYPICAL
W	WEST
X	EASTING OR EAST GRID COORDINATE
Y	NORTHING OR NORTH GRID COORDINATE

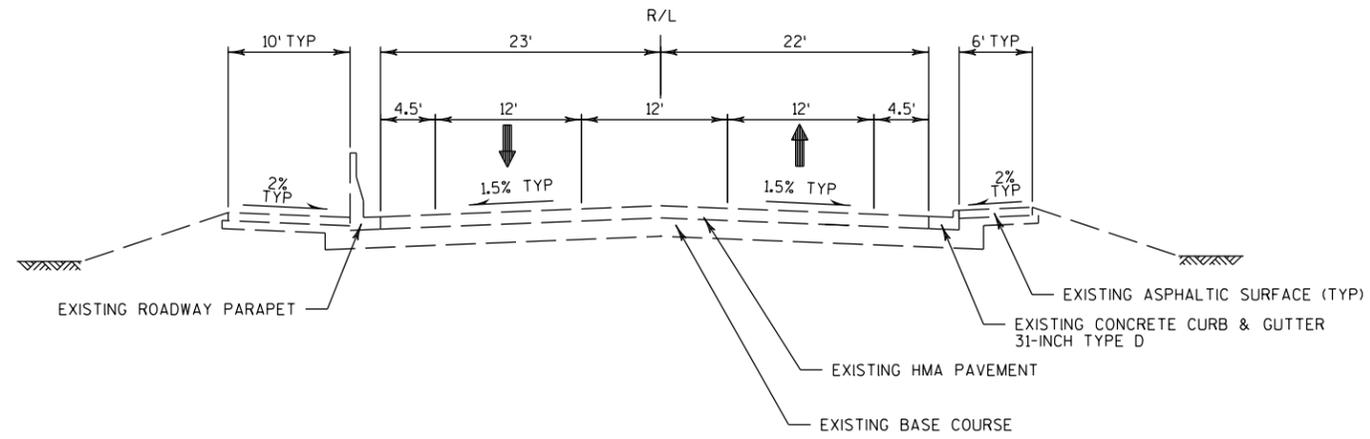
DESIGN INDEX

- GENERAL NOTES AND UTILITY CONTACTS
- PROJECT OVERVIEW
- TYPICAL SECTIONS
- CONSTRUCTION DETAILS
- PLAN DETAIL/EROSION CONTROL
- PAVEMENT MARKING
- CONSTRUCTION STAGING
- TRAFFIC CONTROL
- ALIGNMENT PLAN



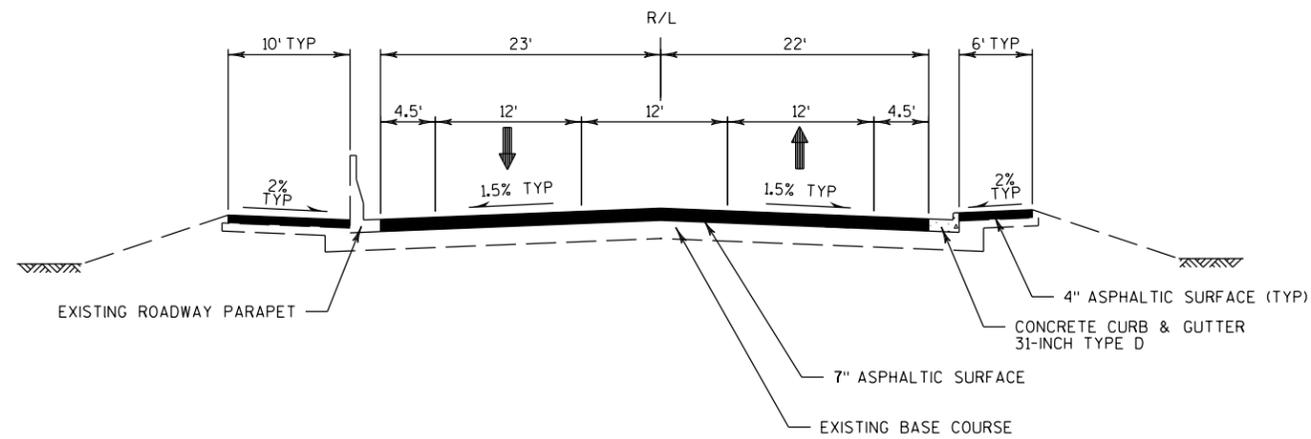


PROJECT NO: 2545-13-70	HWY: W HAMPTON AVE	COUNTY: MILWAUKEE	PROJECT OVERVIEW	SHEET	E
------------------------	--------------------	-------------------	------------------	-------	---



TYPICAL EXISTING SECTION

STA 108+17 TO STA 108+32  
STA 111+68 TO STA 111+83

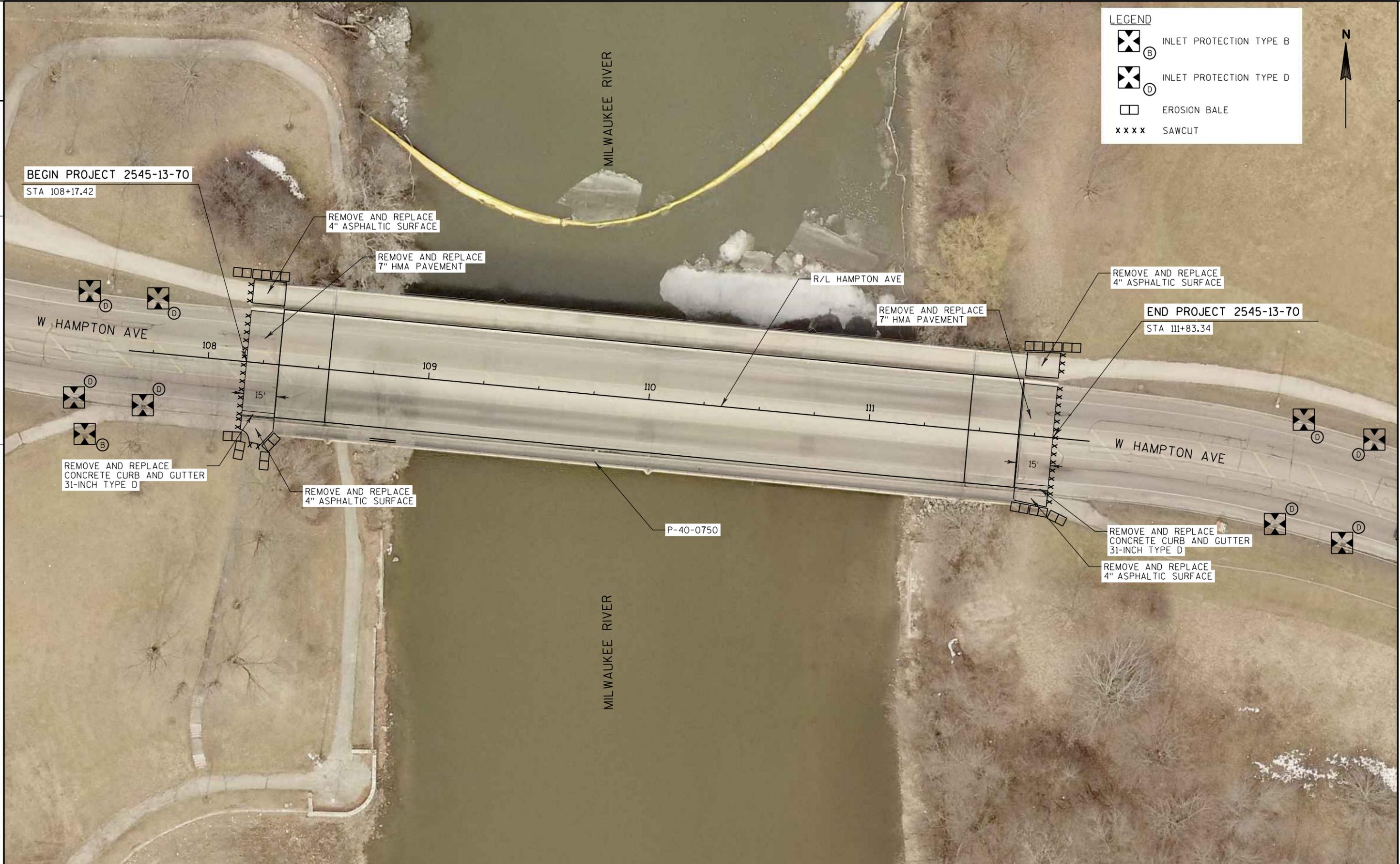


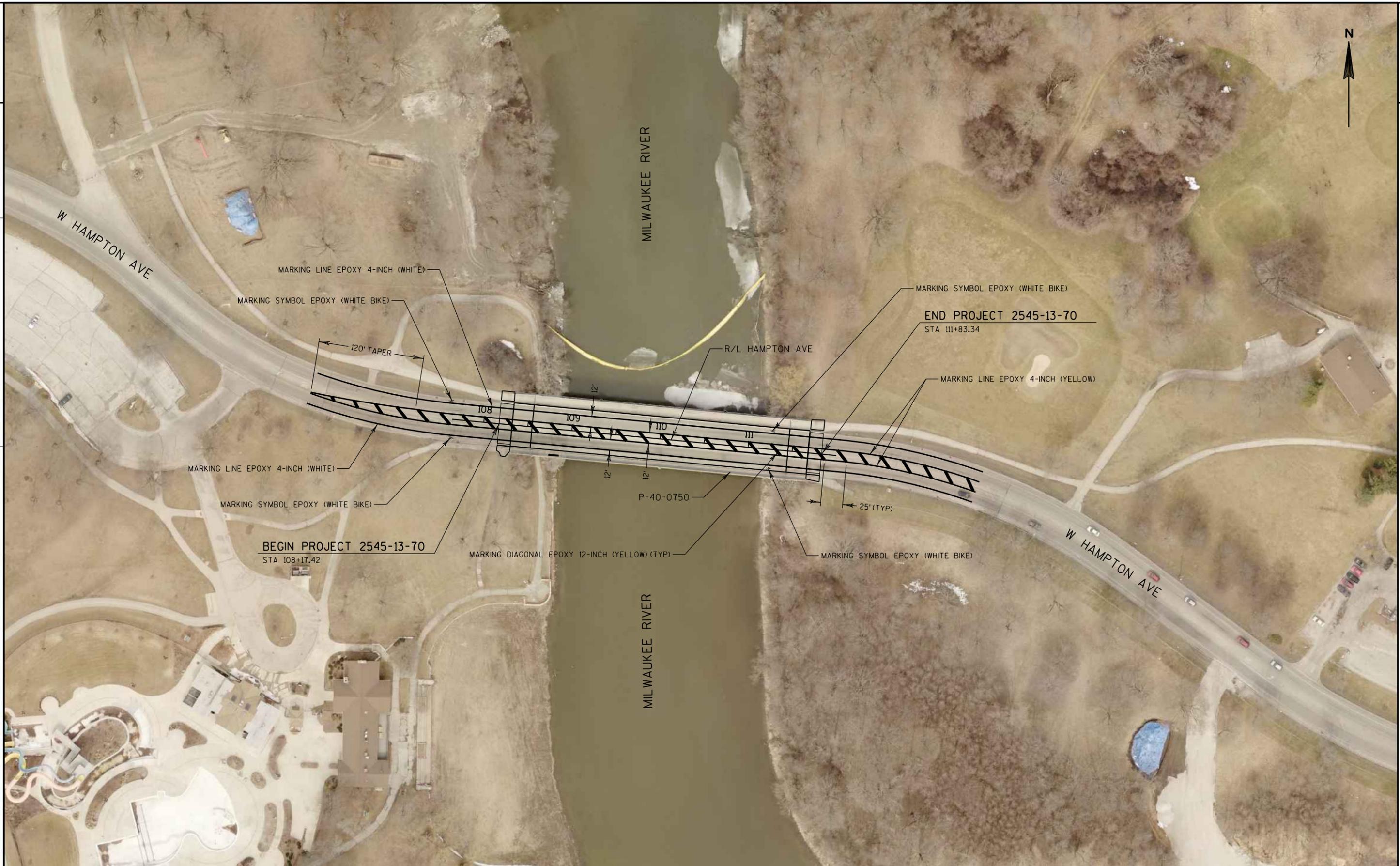
TYPICAL FINISHED SECTION

STA 108+17 TO STA 108+32  
STA 111+68 TO STA 111+83

**LEGEND**

-  INLET PROTECTION TYPE B
-  INLET PROTECTION TYPE D
-  EROSION BALE
-  SAWCUT





PROJECT NO: 2545-13-70	HWY: W HAMPTON AVE	COUNTY: MILWAUKEE	PAVEMENT MARKING PLAN	SHEET	<b>E</b>
------------------------	--------------------	-------------------	-----------------------	-------	----------



PROJECT NO: 2545-13-70	HWY: W HAMPTON AVE	COUNTY: MILWAUKEE	CONSTRUCTION STAGING PLAN - STAGE 1	SHEET	E
------------------------	--------------------	-------------------	-------------------------------------	-------	---

**LEGEND**

 WORKZONE

 TRAFFIC FLOW ARROW

**NOTE:**

1) ASPHALT PAVING AND BRIDGE DECK OVERLAY TO BE COMPLETED IN STAGE 3 UNDER OVERNIGHT CLOSURE.



**BEGIN PROJECT 2545-13-70**  
 STA 108+17.42  
 X=601490.470  
 Y=323490.011

PROVIDE TEMPORARY CURB  
 RAMPS AND CROSSWALK

**END PROJECT 2545-13-70**  
 STA 111+83.34  
 X=601854.779  
 Y=323455.759

P-40-0750

GENERAL NOTES FOR TRAFFIC CONTROL

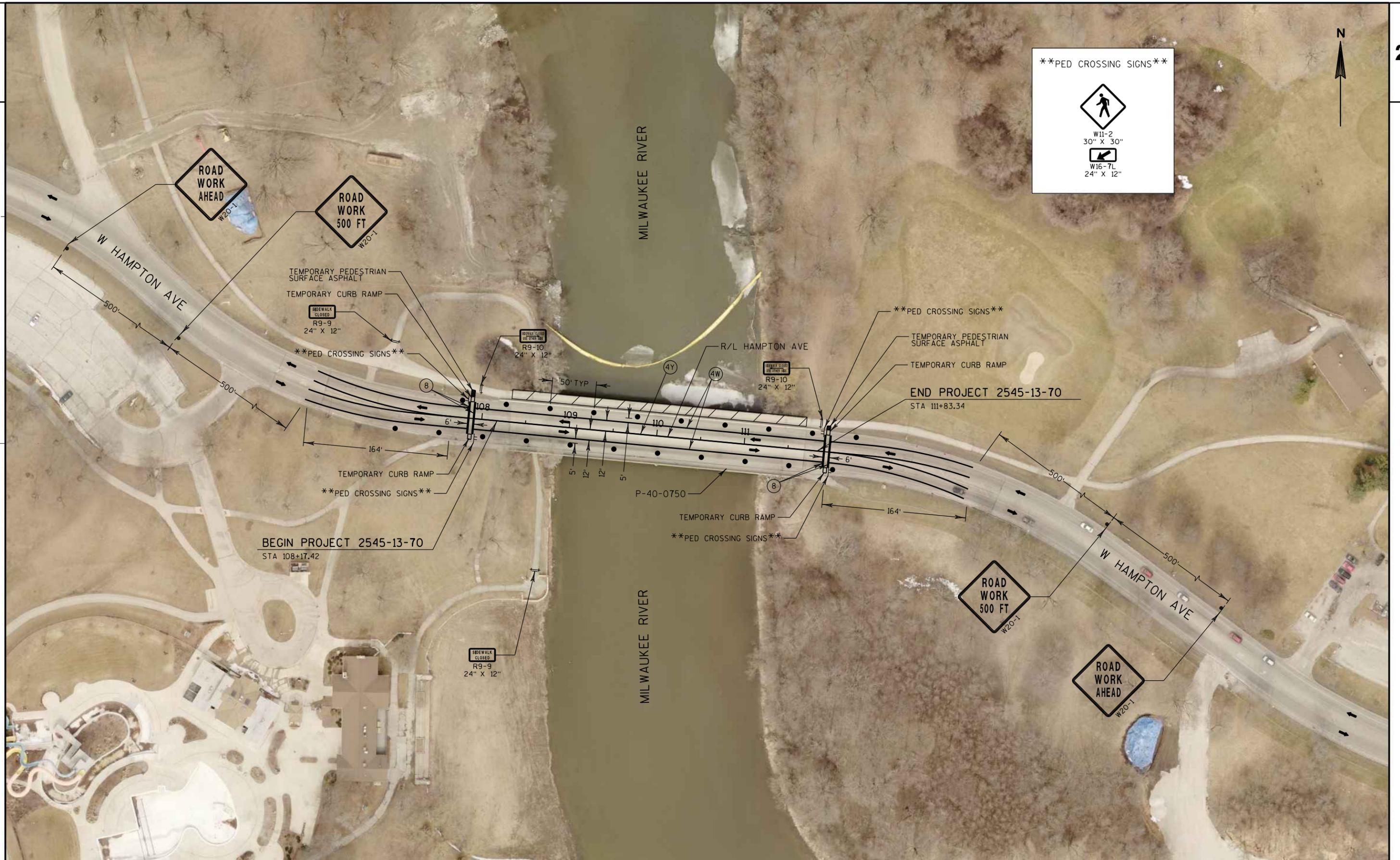
- 1) THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS DIRECTED BY THE ENGINEER.
- 2) "WO" SIGNS ARE THE SAME AS "W" SIGNS EXCEPT THE BACKGROUND IS ORANGE.
- 3) ALL TYPE III BARRICADES SHALL BE 8' WIDE, UNLESS OTHERWISE NOTED, AND EQUIPPED WITH TWO TYPE A (LOW INTENSITY FLASHING) LIGHTS.
- 4) REMOVE EXISTING PAVEMENT MARKINGS IN CONFLICT WITH TRAFFIC CONTROL. REMOVAL IS PAID FOR UNDER THE ITEMS: 'MARKING REMOVAL LINE WATER BLASTING'
- 5) ALL TRAFFIC CONTROL SIGNS SHALL BE 48" X 48" UNLESS OTHERWISE NOTED IN THE PLANS.
- 6) BARRICADE STRIPES ARE TO BE SLOPED DOWNWARD IN THE DIRECTION OF TRAFFIC FLOW.

TRAFFIC CONTROL LEGEND

- † TRAFFIC CONTROL BARRICADES TYPE 3 WITH TWO WARNING LIGHTS TYPE A
- † TRAFFIC CONTROL BARRICADES TYPE 3 WITH TWO WARNING LIGHTS TYPE A AND ATTACHED SIGN
- TRAFFIC CONTROL DRUMS
- ♣ SIGN ON PERMANENT SUPPORT
- ⊞ SIGN ON TEMPORARY SUPPORT
- ➔ TRAFFIC FLOW ARROW
- ▨ WORK ZONE THIS STAGE

TEMPORARY PAVEMENT MARKING LEGEND

- ④Y TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (DOUBLE YELLOW)
- ④W TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (WHITE)
- ⑧ TEMPORARY MARKING LINE REMOVABLE TAPE 8-INCH (WHITE)

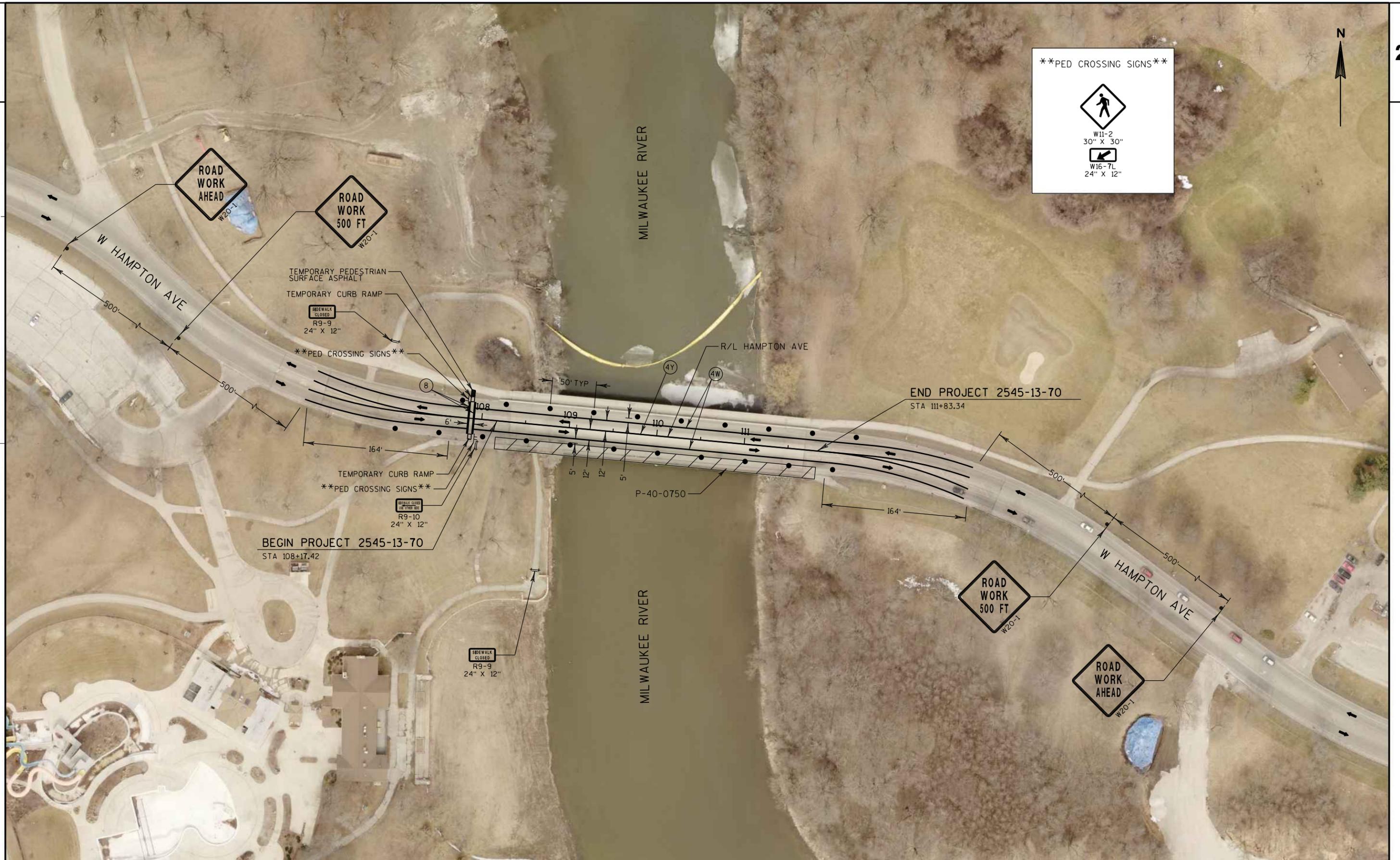


**\*\*PED CROSSING SIGNS\*\***

W11-2  
30" X 30"

W16-7L  
24" X 12"





**\*\*PED CROSSING SIGNS\*\***



SIDEWALK  
CLOSED  
R9-9  
24" X 12"



ROAD  
CLOSED  
500 FT  
W20-3

ROAD  
CLOSED  
1000 FT  
W20-3

ROAD CLOSED  
TO  
THRU TRAFFIC  
R11-4  
60" X 30"

ROAD  
CLOSED  
R11-2  
48" X 30"

ROAD  
CLOSED  
AHEAD  
W20-3

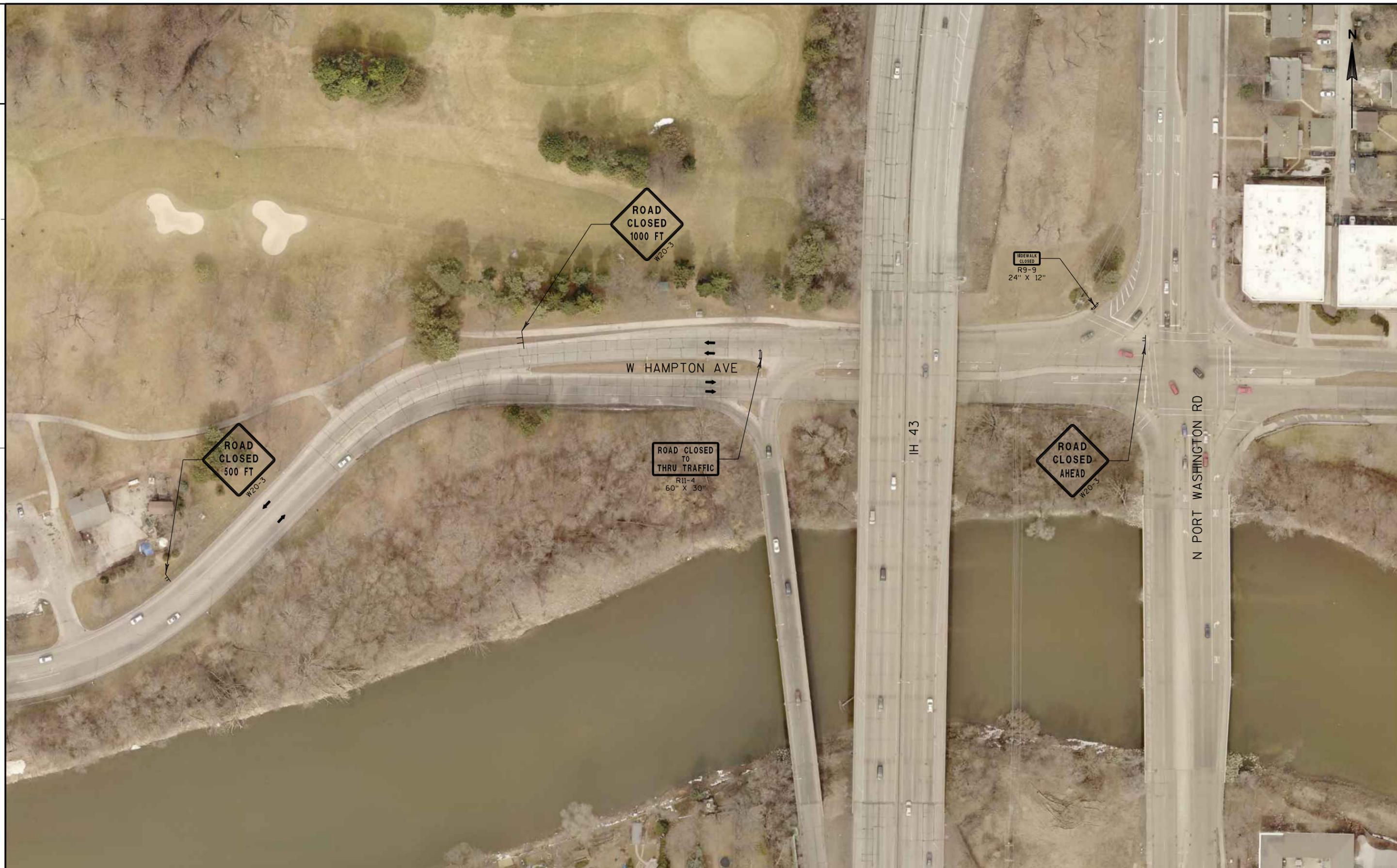
**NOTES:**  
 1. CLOSURE TO TAKE PLACE OVERNIGHT  
 2. INSTALL A PORTABLE CHANGEABLE MESSAGE SIGN IN EACH DIRECTION 2 DAYS IN ADVANCE OF CLOSURE.



BEGIN PROJECT 2545-13-70  
 STA 108+17.42

END PROJECT 2545-13-70  
 STA 111+83.34

**ROAD  
 CLOSED**  
 R11-2  
 48" X 30"



PROJECT NO: 2545-13-70	HWY: W HAMPTON AVE	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 3	SHEET	E
------------------------	--------------------	-------------------	-------------------------	-------	---



822159  
SECTION CORNER MONUMENT  
X=601370.322  
Y=323496.314  
EL=630.949



PI107+64.00  
X=601437.279  
Y=323495.013

BEGIN PROJECT 2545-13-70

STA 108+17.42  
X=601490.470  
Y=323490.011

PI112+00.00  
X=601871.364  
Y=323454.200

END PROJECT 2545-13-70

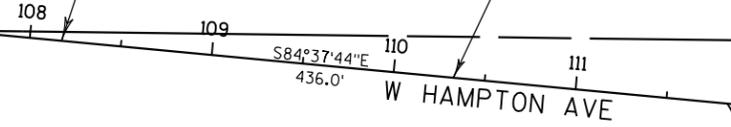
STA 111+83.34  
X=601854.779  
Y=323455.759



722003  
SECTION CORNER MONUMENT  
X=601398.238  
Y=323495.975  
EL=630.876

MILWAUKEE RIVER

MILWAUKEE RIVER



Estimate Of Quantities

2545-13-70

Line	Item	Item Description	Unit	Total	Qty
0002	204.0110	Removing Asphaltic Surface	SY	211.000	211.000
0004	204.0150	Removing Curb & Gutter	LF	30.000	30.000
0006	211.0100	Prepare Foundation for Asphaltic Paving (project) 01. 2545-13-70	LS	1.000	1.000
0008	213.0100	Finishing Roadway (project) 01. 2545-13-70	EACH	1.000	1.000
0010	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	19.000	19.000
0012	455.0605	Tack Coat	GAL	10.000	10.000
0014	465.0105	Asphaltic Surface	TON	77.000	77.000
0016	502.0100	Concrete Masonry Bridges	CY	1.000	1.000
0018	502.3205	Pigmented Surface Sealer Reseal	SY	490.000	490.000
0020	502.3215	Protective Surface Treatment Reseal	SY	588.000	588.000
0022	505.0600	Bar Steel Reinforcement HS Coated Structures	LB	20.000	20.000
0024	509.0301	Preparation Decks Type 1	SY	1.000	1.000
0026	509.0310.S	Sawing Pavement Deck Preparation Areas	LF	12.000	12.000
0028	509.1200	Curb Repair	LF	15.000	15.000
0030	509.1500	Concrete Surface Repair	SF	640.000	640.000
0032	509.5100.S	Polymer Overlay	SY	1,579.000	1,579.000
0034	601.0331	Concrete Curb & Gutter 31-Inch	LF	30.000	30.000
0036	619.1000	Mobilization	EACH	1.000	1.000
0038	625.0100	Topsoil	SY	58.000	58.000
0040	627.0200	Mulching	SY	58.000	58.000
0042	628.1104	Erosion Bales	EACH	56.000	56.000
0044	628.1905	Mobilizations Erosion Control	EACH	1.000	1.000
0046	628.1910	Mobilizations Emergency Erosion Control	EACH	2.000	2.000
0048	628.7010	Inlet Protection Type B	EACH	1.000	1.000
0050	628.7020	Inlet Protection Type D	EACH	8.000	8.000
0052	629.0210	Fertilizer Type B	CWT	0.100	0.100
0054	630.0140	Seeding Mixture No. 40	LB	1.000	1.000
0056	630.0500	Seed Water	MGAL	1.000	1.000
0058	634.0612	Posts Wood 4x6-Inch X 12-FT	EACH	4.000	4.000
0060	637.2230	Signs Type II Reflective F	SF	12.000	12.000
0062	642.5201	Field Office Type C	EACH	1.000	1.000
0064	643.0300	Traffic Control Drums	DAY	2,520.000	2,520.000
0066	643.0420	Traffic Control Barricades Type III	DAY	510.000	510.000
0068	643.0705	Traffic Control Warning Lights Type A	DAY	1,020.000	1,020.000
0070	643.0900	Traffic Control Signs	DAY	1,700.000	1,700.000
0072	643.1050	Traffic Control Signs PCMS	DAY	20.000	20.000
0074	643.5000	Traffic Control	EACH	1.000	1.000
0076	644.1410	Temporary Pedestrian Surface Asphalt	SF	46.000	46.000
0078	644.1601	Temporary Pedestrian Curb Ramp	DAY	360.000	360.000
0080	646.1020	Marking Line Epoxy 4-Inch	LF	3,050.000	3,050.000
0082	646.5220	Marking Symbol Epoxy	EACH	4.000	4.000
0084	646.7120	Marking Diagonal Epoxy 12-Inch	LF	488.000	488.000
0086	646.9010	Marking Removal Line Water Blasting 4-Inch	LF	3,050.000	3,050.000
0088	646.9210	Marking Removal Line Water Blasting Wide	LF	395.000	395.000
0090	649.0150	Temporary Marking Line Removable Tape 4-Inch	LF	4,454.000	4,454.000
0092	649.0250	Temporary Marking Line Removable Tape 8-Inch	LF	225.000	225.000
0094	690.0150	Sawing Asphalt	LF	130.000	130.000
0096	690.0250	Sawing Concrete	LF	6.000	6.000
0098	SPV.0035	Special 01. Rapid Set Deck Repair	CY	1.000	1.000

Estimate Of Quantities

2545-13-70

Line	Item	Item Description	Unit	Total	Qty
0100	SPV.0060	Special 01. Decorative Railing Repair	EACH	1.000	1.000
0102	SPV.0060	Special 02. Repainting Decorative Steel Railing	EACH	9.000	9.000
0104	SPV.0090	Special 01. Expansion Joint Seal System	LF	132.000	132.000
0106	SPV.0165	Special 01. Fiber Wrap Reinforcing Non-Structural	SF	316.000	316.000
0108	SPV.0165	Special 02. PPC Beam Surface Repair	SF	33.000	33.000

3

**REMOVALS**

LOCATION	204.0110	204.0150	REMARKS
	REMOVING ASPHALTIC SURFACE	REMOVING CURB & GUTTER	
SY	LF		
HAMPTON AVE	211	30	
<b>PROJECT TOTAL</b>	<b>211</b>	<b>30</b>	

**FINISHING ROADWAY**

LOCATION	213.0100.01
	FINISHING ROADWAY 2545-13-70
EACH	
PROJECT 2545-13-70	1
<b>PROJECT TOTAL</b>	<b>1</b>

3

**PREPARE FOUNDATION FOR ASPHALTIC PAVING**

LOCATION	211.0100.01
	PREPARE FOUNDATION FOR ASPHALTIC PAVING 2545-13-70
EACH	
PROJECT 2545-13-70	1
<b>PROJECT TOTAL</b>	<b>1</b>

**AGGREGATE ITEMS**

LOCATION	305.0120	REMARKS
	BASE AGGREGATE DENSE 1 1/4 INCH	
TON		
HAMPTON AVE	19	
<b>PROJECT TOTAL</b>	<b>19</b>	

NOTE:  
BASE AGGREGATE DENSE = 2 TON/CY

**ASPHALT**

LOCATION	455.0605	465.0105	REMARKS
	TACK COAT	ASPHALTIC SURFACE	
GAL	TON		
WEST APPROACH	5	31	
WEST PATHS	--	8	
EAST APPROACH	5	31	
EAST PATHS	--	7	
<b>PROJECT TOTAL</b>	<b>10</b>	<b>77</b>	

**CONCRETE CURB & GUTTER**

LOCATION	601.0331	REMARKS
	CONCRETE CURB & GUTTER 31-INCH	
LF		
WEST APPROACH	15	
EAST APPROACH	15	
<b>PROJECT TOTAL</b>	<b>30</b>	

ALL ITEMS ARE CATEGORY **0010** UNLESS OTHERWISE SPECIFIED.

3

**MOBILIZATION**

LOCATION	619.1000 MOBILIZATION EACH
PROJECT 2545-13-70	1
<b>PROJECT TOTAL</b>	<b>1</b>

**RESTORATION**

LOCATION	625.0100 TOPSOIL		627.0200 MULCHING		629.0210 FERTILIZER TYPE B		630.0140 SEEDING MIXTURE NO. 40		630.0500 SEED WATER	
	SY	SY	CWT	LB	MGAL					
UNDISTRIBUTED	58	58	0.1	1	1					
<b>PROJECT TOTAL</b>	<b>58</b>	<b>58</b>	<b>0.1</b>	<b>1</b>	<b>1</b>					

**EROSION CONTROL**

LOCATION	628.1104 EROSION BALES		628.1905 MOBILIZATIONS EROSION CONTROL		628.1910 MOBILIZATIONS EMERGENCY EROSION CONTROL		628.7010 INLET PROTECTION TYPE B		628.7020 INLET PROTECTION TYPE D	
	EACH	EACH	EACH	EACH	EACH	EACH				
UNDISTRIBUTED	56	1	2	1	8					
<b>PROJECT TOTAL</b>	<b>56</b>	<b>1</b>	<b>2</b>	<b>1</b>	<b>8</b>					

3

**SIGNING**

LOCATION	SIGN CODE	SIGN MESSAGE	SIGN SIZE			637.2230 SIGNS TYPE II REFLECTIVE F		634.0612 POSTS WOOD 4X6-INCH X 12-FT		REMARKS
			IN	X	IN	SF	EACH			
WEST APPROACH, SOUTH	W5-52R	BRIDGE HASH MARKS	12	X	36	3.0	1	4 FT MOUNTING HEIGHT		
WEST APPROACH, NORTH	W5-52L	BRIDGE HASH MARKS	12	X	36	3.0	1	4 FT MOUNTING HEIGHT		
EAST APPROACH, SOUTH	W5-52L	BRIDGE HASH MARKS	12	X	36	3.0	1	4 FT MOUNTING HEIGHT		
EAST APPROACH, NORTH	W5-52R	BRIDGE HASH MARKS	12	X	36	3.0	1	4 FT MOUNTING HEIGHT		
<b>PROJECT TOTAL</b>						<b>12.0</b>	<b>4</b>			

**FIELD OFFICE**

LOCATION	642.5201 FIELD OFFICE TYPE C EACH
PROJECT 2545-13-70	1
<b>PROJECT TOTAL</b>	<b>1</b>

**TRAFFIC CONTROL**

LOCATION	643.5000 TRAFFIC CONTROL EACH
PROJECT 2454-13-70	1
<b>PROJECT TOTAL</b>	<b>1</b>

ALL ITEMS ARE CATEGORY 0010 UNLESS OTHERWISE SPECIFIED.

**TRAFFIC CONTROL**

STAGE	DURATION DAYS	643.0300 TRAFFIC CONTROL DRUMS		643.0420 TRAFFIC CONTROL BARRICADES TYPE III		643.0705 TRAFFIC CONTROL WARNING LIGHTS TYPE A		643.0900 TRAFFIC CONTROL SIGNS		643.1050 TRAFFIC CONTROL SIGNS PCMS		644.1410 TEMPORARY PEDESTRIAN SURFACE ASPHALT	644.1601 TEMPORARY CURB RAMP		649.0150 TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH WHITE YELLOW		649.0250 TEMPORARY MARKING LINE REMOVABLE TAPE 8-INCH WHITE	NOTES
		EACH**	DAY	EACH**	DAY	EACH**	DAY	EACH**	DAY	EACH**	DAY	SF	EACH**	DAY	LF	LF	LF	
1	60	21	1,260	4	240	8	480	16	960	--	--	46	4	240	1,494	1,475	150	
2	60	21	1,260	3	180	6	360	11	660	--	--	--	2	120	--	--	--	MAINTAIN MARKINGS FROM STAGE 1
3	5	--	--	18	90	36	180	16	80	2	20	--	--	--	--	--	--	
<b>UNDISTRIBUTED</b>		--	--	--	--	--	--	--	--	--	--	--	--	--	747	738	75	
<b>PROJECT TOTAL</b>			2,520		510		1,020		1,700		20	46		360		4,454		225

\*\*FOR INFORMATION ONLY

**PAVEMENT MARKINGS**

LOCATION	646.1020 MARKING LINE EPOXY 4-INCH (WHITE) (YELLOW)		646.5220 MARKING SYMBOL EPOXY	646.7120 MARKING DIAGONAL EPOXY 12-INCH (YELLOW)	646.9010 MARKING LINE REMOVAL WATER BLASTING 4-INCH	646.9210 MARKING LINE REMOVAL WATER BLASTING WIDE
	LF	LF	EACH	LF	LF	LF
HAMPTON AVE	1,525	1,525	4	488	3,050	395
<b>PROJECT TOTAL</b>		3,050	4	488	3,050	395

**SAWING**

LOCATION	690.0150 SAWING ASPHALT	690.0250 SAWING CONCRETE
	LF	LF
WEST APPROACH, ROADWAY	45	3
WEST APPROACH, PATH	22	--
EAST APPROACH, ROADWAY	45	3
EAST APPROACH, PATH	18	--
<b>PROJECT TOTAL</b>	130	6

ALL ITEMS ARE CATEGORY 0010 UNLESS OTHERWISE SPECIFIED.



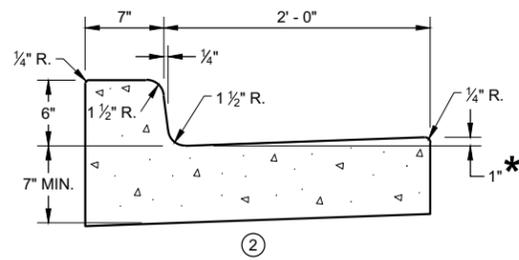
5

5

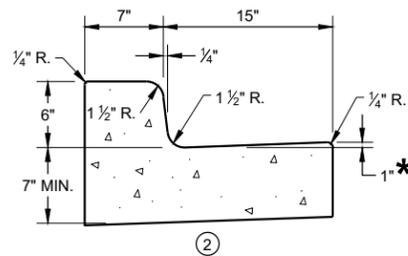
PROJECT NO: 2545-13-70	HWY: W HAMPTON AVE	COUNTY: MILWAUKEE	PLAN - W HAMPTON AVE	SHEET	<b>E</b>
------------------------	--------------------	-------------------	----------------------	-------	----------

## Standard Detail Drawing List

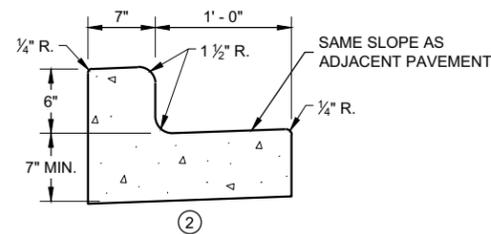
08D16-11	CONCRETE GUTTER, CURB AND GUTTER AND PAVEMENT TIES
08E08-03	TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS
08E10-02	INLET PROTECTION TYPE A, B, C AND D
15C02-08A	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-08B	BARRICADES AND SIGNS FOR VARIOUS CLOSURES
15C05-05	TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40 M.P.H. OR LESS
15C07-15E	PAVEMENT MARKING FOR BIKE LANES
15C08-20A	LONGITUDINAL MARKING (MAINLINE)
15C11-09B	CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS
15C18-05A	MEDIAN ISLAND MARKING PAVEMENT MARKINGS
15D30-06A	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D30-06B	TRAFFIC CONTROL, TEMPORARY ADA COMPLIANT PEDESTRIAN ACCOMMODATION
15D30-06C	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION



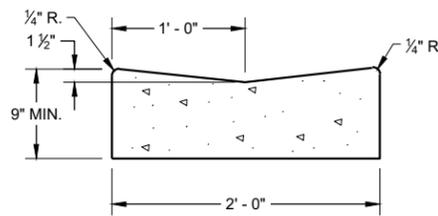
**CONCRETE CURB AND GUTTER 31"** ①



**CONCRETE CURB AND GUTTER 22"** ①

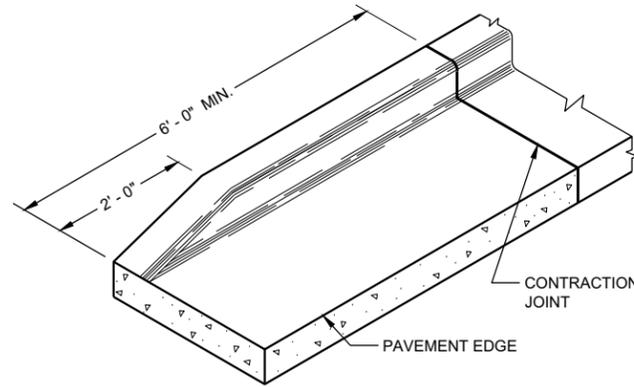


**CONCRETE CURB AND GUTTER 19"** ①

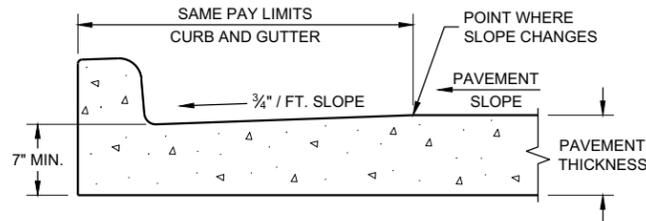


**CONCRETE GUTTER 24"** ①

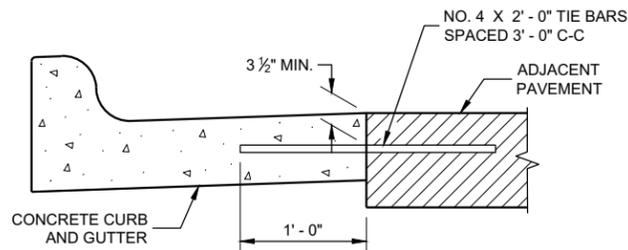
\* TO BE MEASURED TO A MAXIMUM OF 3" WHERE DRAINAGE PROBLEMS EXIST.



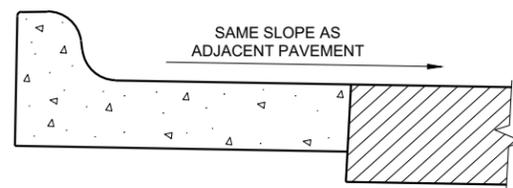
**END SECTION CURB AND GUTTER**



**PARTIAL SECTION OF PAVEMENT WITH INTEGRAL CURB AND GUTTER**



**TYPICAL TIE BAR LOCATION** ①



**HIGH SIDE SECTION** ③  
(TYPICAL FOR ALL CURB & GUTTER TYPES)

**GENERAL NOTES**

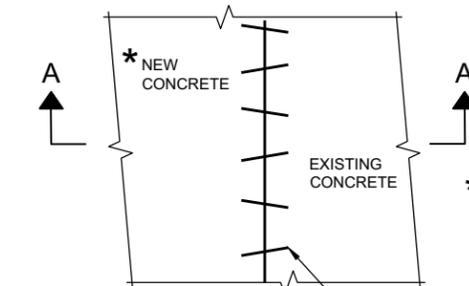
DETAILS OF CONSTRUCTION AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

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

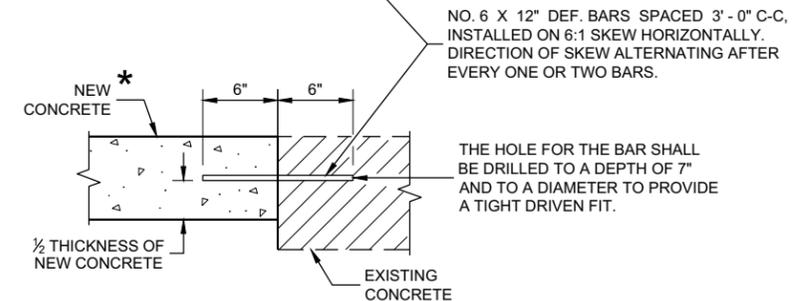
INTEGRAL CURB AND GUTTER SHALL CONFORM TO THE DETAILS SHOWN FOR CONCRETE CURB AND GUTTER INCLUDING THE TRANSVERSE GUTTER SLOPE. A LONGITUDINAL CONSTRUCTION JOINT IS NOT REQUIRED WITH INTEGRAL CURB AND GUTTER.

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

- ① WHEN PLACED ADJACENT TO NEW CONCRETE, TIE BARS ARE REQUIRED FOR CURB AND GUTTER 31", 22", 19" AND CONCRETE GUTTER 24".
- ② THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE COURSE PROVIDED A 7" MINIMUM GUTTER THICKNESS IS MAINTAINED.
- ③ WHEN HIGH SIDE CURB SECTION IS REQUIRED, THE LOCATION(S) WILL BE NOTED ON THE PLANS



**PLAN VIEW**



**SECTION A - A  
PAVEMENT TIES**

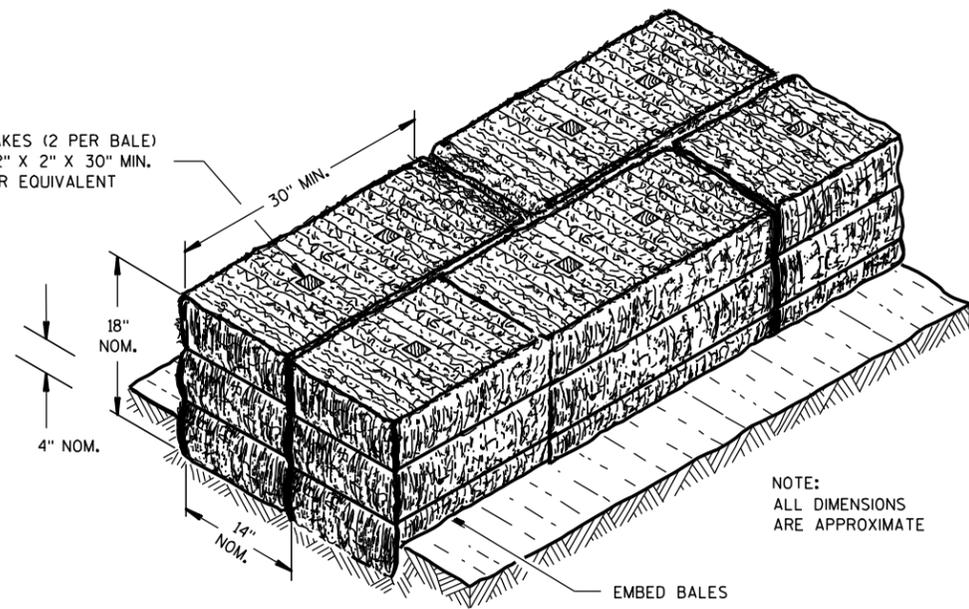
**CONCRETE GUTTER,  
CURB AND GUTTER AND  
PAVEMENT TIES**  
(For Optional use in Milwaukee Co. Only)

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED  
February 2020 /S/ Rodney Taylor  
DATE ROADWAY STANDARDS DEVELOPMENT  
ENGINEER

FHWA

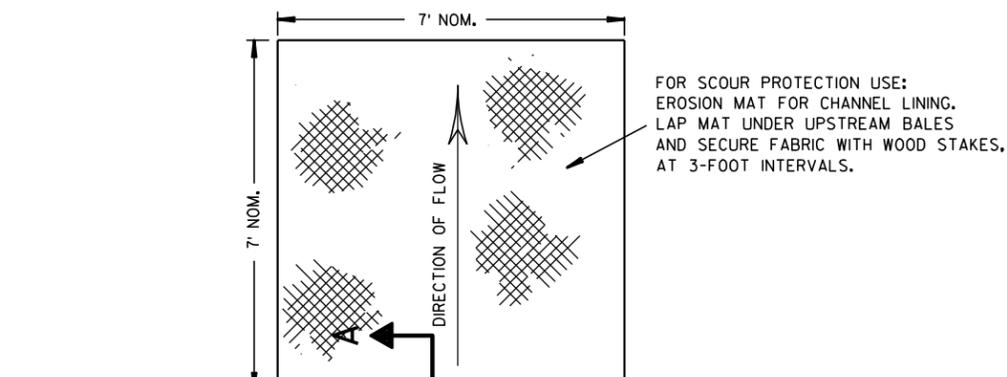
WOOD STAKES (2 PER BALE)  
NOMINAL 2" X 2" X 30" MIN.  
LENGTH OR EQUIVALENT



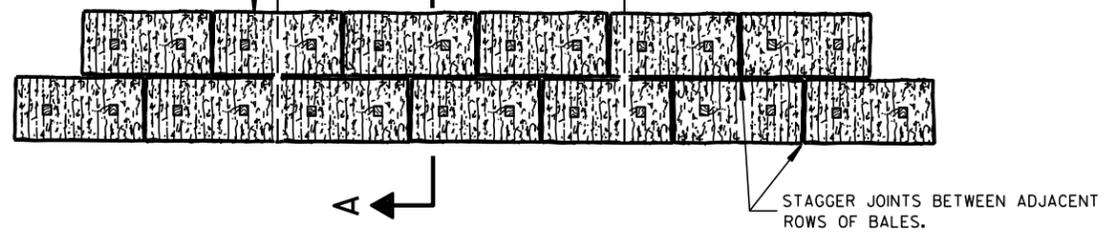
NOTE:  
ALL DIMENSIONS  
ARE APPROXIMATE

EMBED BALES

SECTION A-A



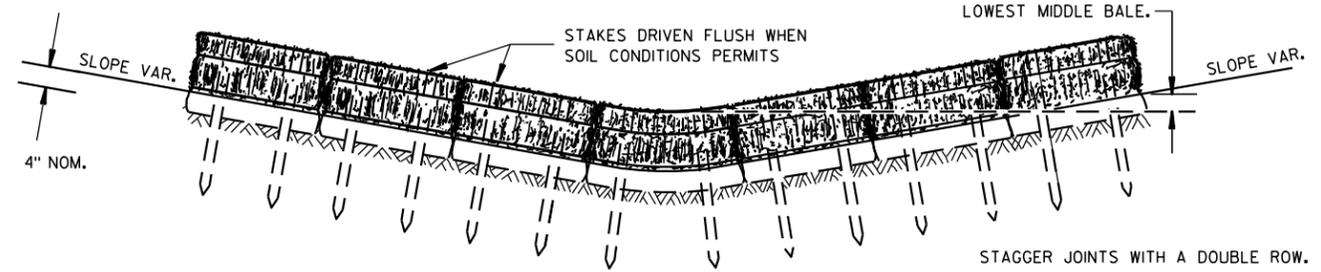
FOR SCOUR PROTECTION USE:  
EROSION MAT FOR CHANNEL LINING.  
LAP MAT UNDER UPSTREAM BALES  
AND SECURE FABRIC WITH WOOD STAKES,  
AT 3-FOOT INTERVALS.



STAGGER JOINTS BETWEEN ADJACENT  
ROWS OF BALES.

PLAN VIEW

BOTTOM ELEVATION OF END BALE SHALL  
BE EQUAL TO OR GREATER THAN TOP OF  
LOWEST MIDDLE BALE.



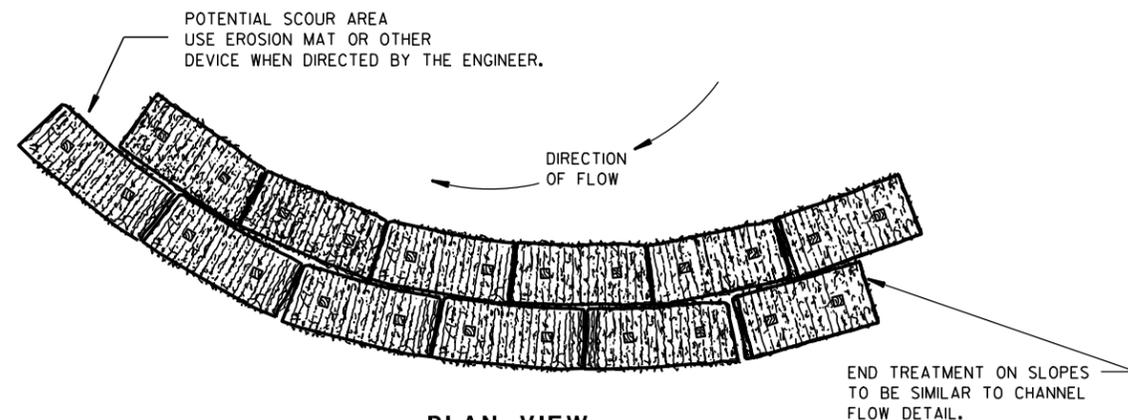
FRONT ELEVATION

TEMPORARY DITCH CHECK USING EROSION BALES ①

GENERAL NOTES

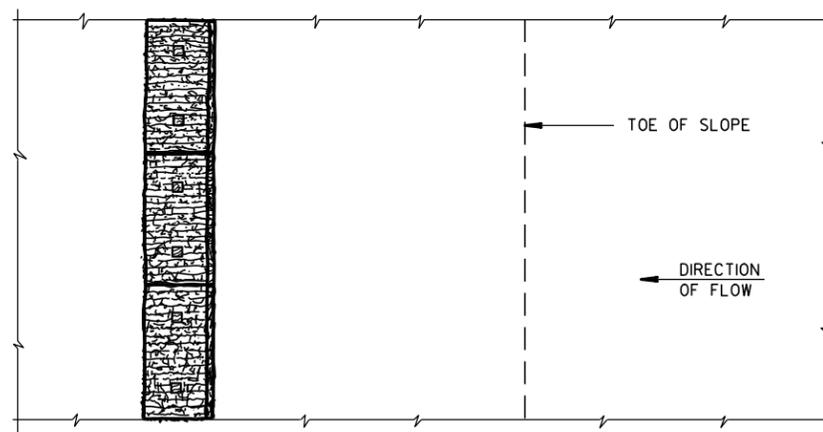
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

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

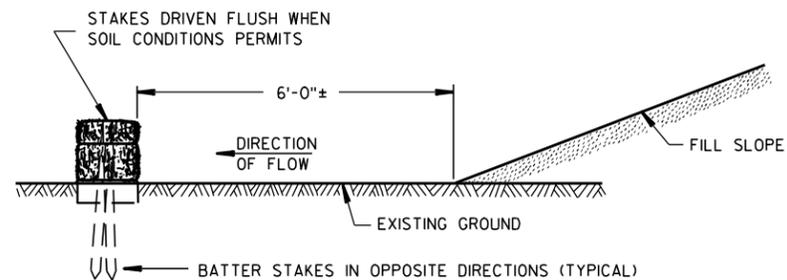


PLAN VIEW

WHEN ALTERING THE DIRECTION OF FLOW



PLAN VIEW



FRONT ELEVATION

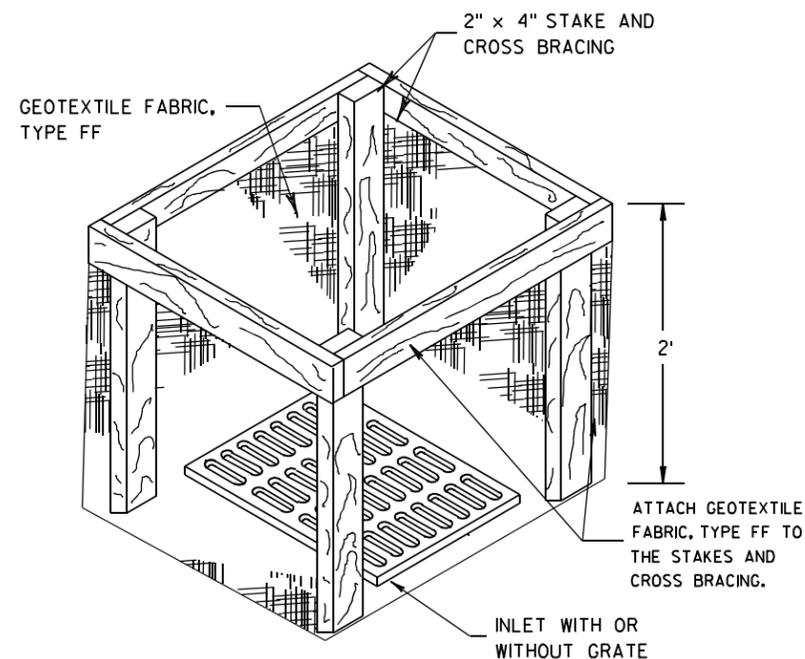
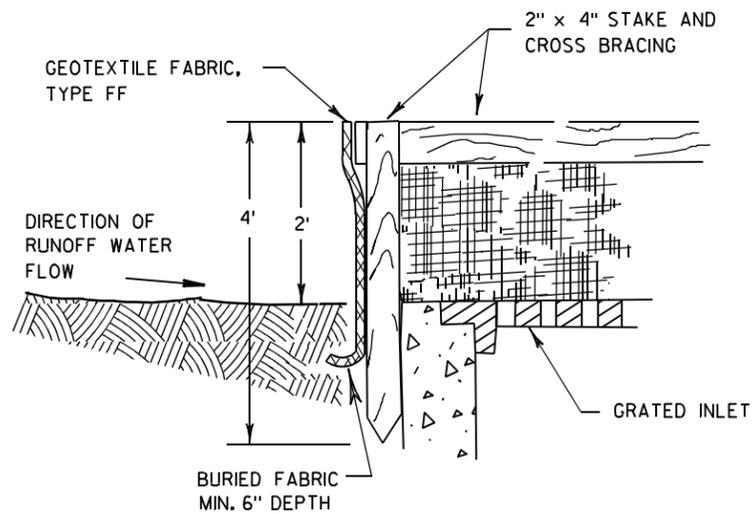
WHEN EXISTING GROUND SLOPES AWAY FROM FILL SLOPE

EROSION BALES FOR SHEET FLOW

TYPICAL INSTALLATIONS OF  
EROSION BALES / TEMPORARY  
DITCH CHECKS

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

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



**INLET PROTECTION, TYPE A**

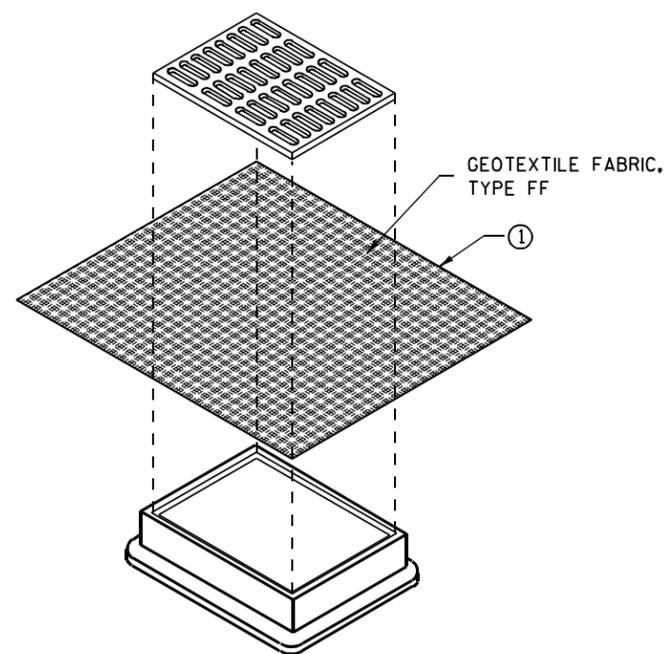
**GENERAL NOTES**

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.

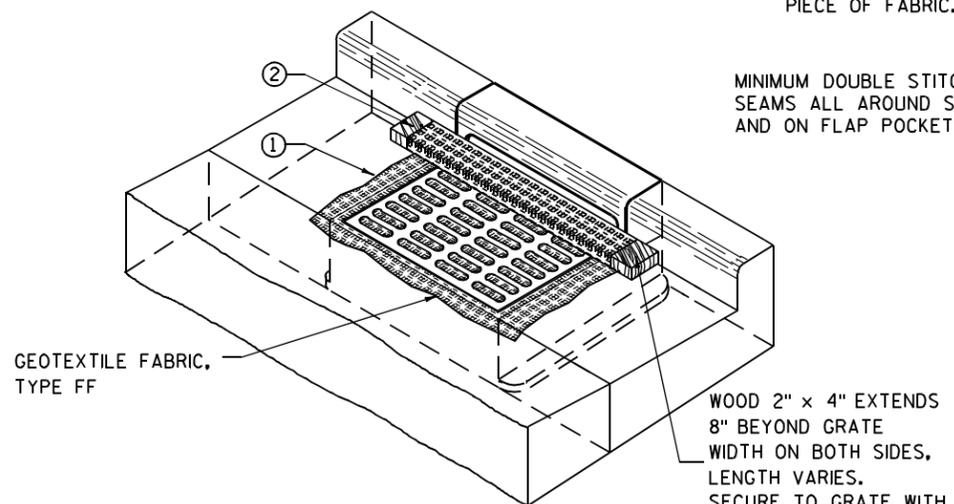
WHEN REMOVING OR MAINTAINING INLET PROTECTION, CARE SHALL BE TAKEN SO THAT THE SEDIMENT TRAPPED ON THE GEOTEXTILE FABRIC DOES NOT FALL INTO THE INLET. ANY MATERIAL FALLING INTO THE INLET SHALL BE REMOVED IMMEDIATELY.

- 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.



**INLET PROTECTION, TYPE B  
(WITHOUT CURB BOX)**

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



**INLET PROTECTION, TYPE C (WITH CURB BOX)**

**INSTALLATION NOTES**

**TYPE B & C**

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

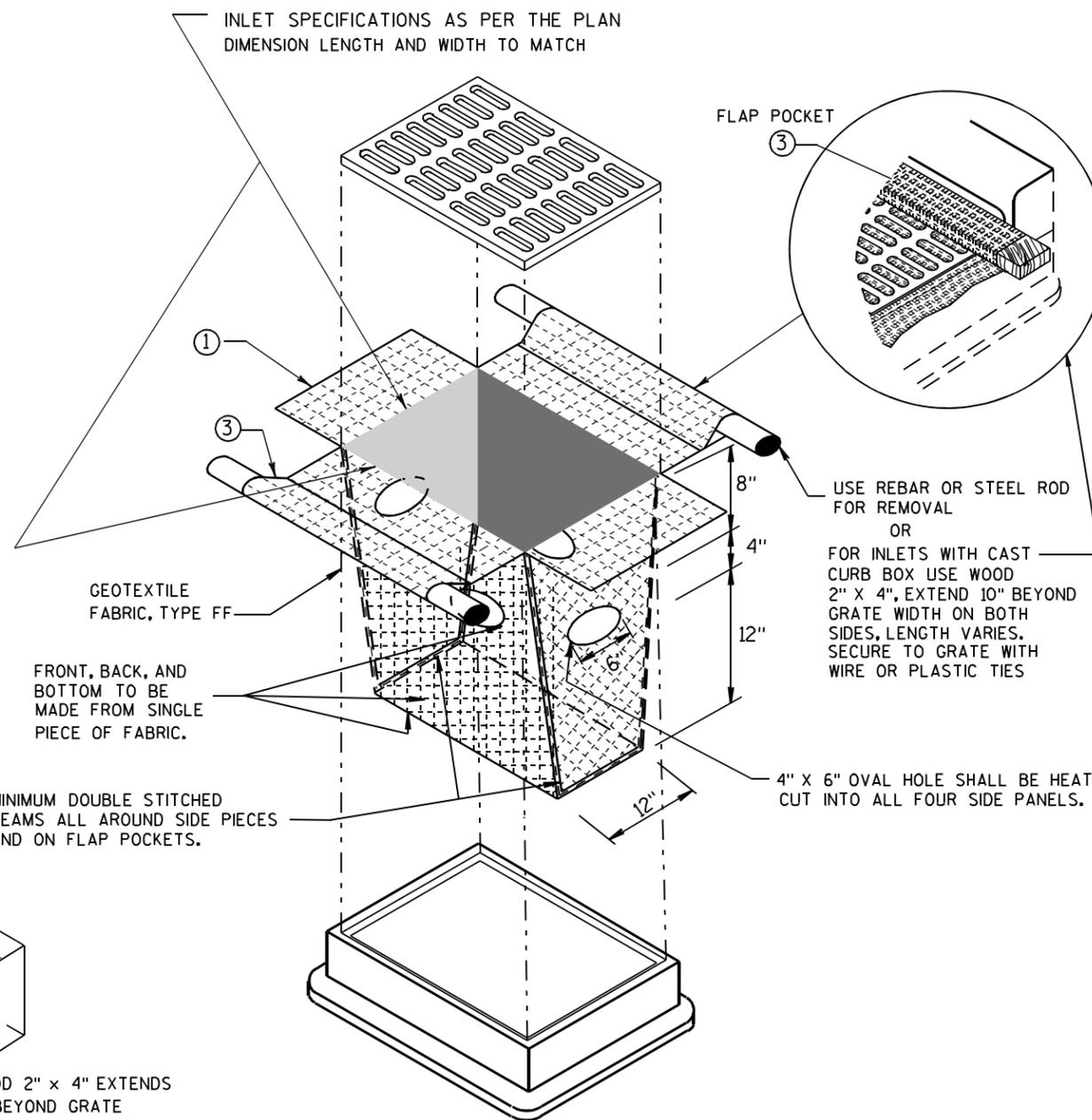
THE CONTRACTOR SHALL DEMONSTRATE A METHOD OF MAINTENANCE, USING A SEWN FLAP, HAND HOLDS OR OTHER METHOD TO PREVENT ACCUMULATED SEDIMENT FROM ENTERING THE INLET.

**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.

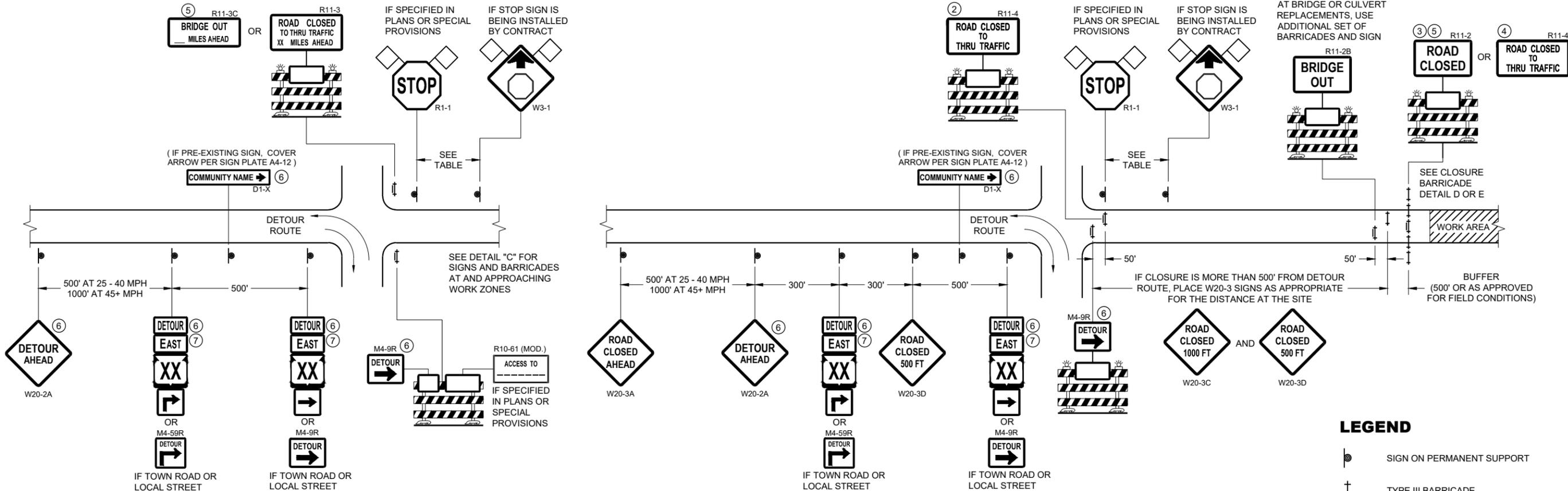
THE INSTALLED BAG SHALL HAVE A MINIMUM SIDE CLEARANCE, BETWEEN THE INLET WALLS AND THE BAG, MEASURED AT THE BOTTOM OF THE OVERFLOW HOLES, OF 3". WHERE NECESSARY THE CONTRACTOR SHALL CINCH THE BAG, USING PLASTIC ZIP TIES, TO ACHIEVE THE 3" CLEARANCE. THE TIES SHALL BE PLACED AT A MAXIMUM OF 4" FROM THE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



**INLET PROTECTION, TYPE D**

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

<b>INLET PROTECTION TYPE A, B, C, AND D</b>	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 10/16/02 DATE	/s/ Beth Connestra CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA	



**DETAIL A  
MAINLINE CLOSURE WITH POSTED DETOUR**

WORK ZONE GREATER THAN OR EQUAL TO 1/2 MILE FROM  
DETOUR ROUTE ( 1000 FEET IF URBAN )

**DETAIL B  
MAINLINE CLOSURE WITH POSTED DETOUR**

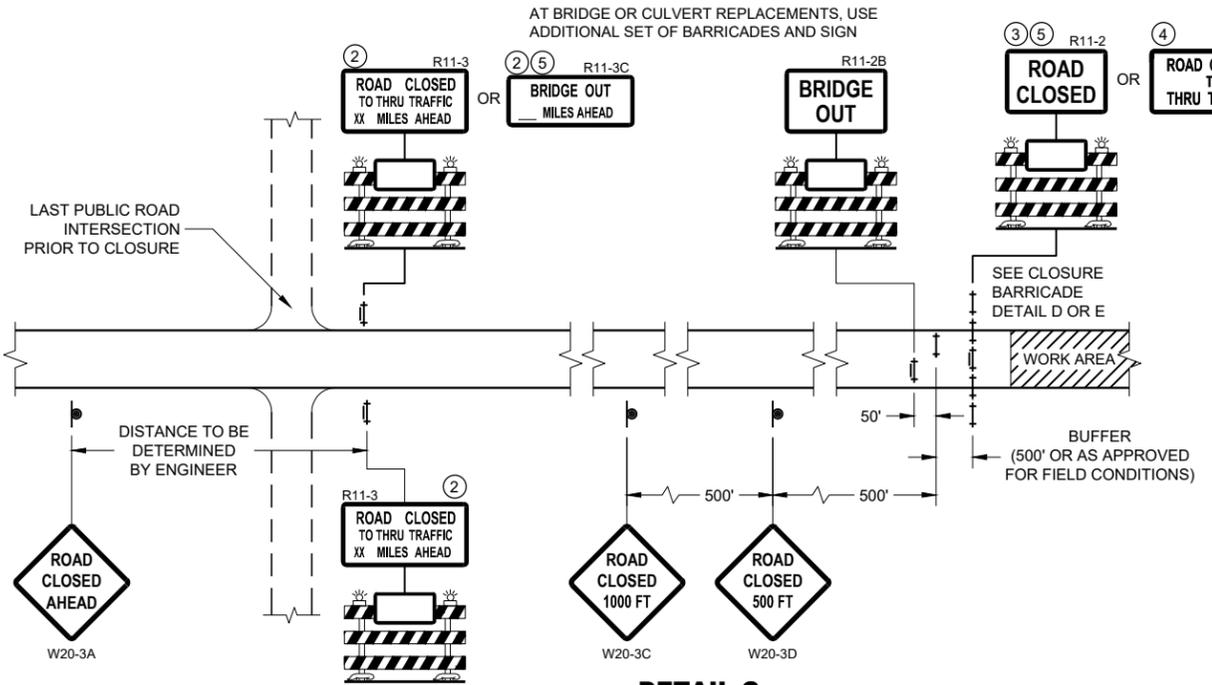
WORK ZONE LESS THAN 1/2 MILE FROM  
DETOUR ROUTE ( 1000 FEET IF URBAN )

**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)
- M4 - 8
- M3 - X
- M1 - 4 OR M1 - 6 OR M1 - 5A
- M05 - 1 OR M06 - 1

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

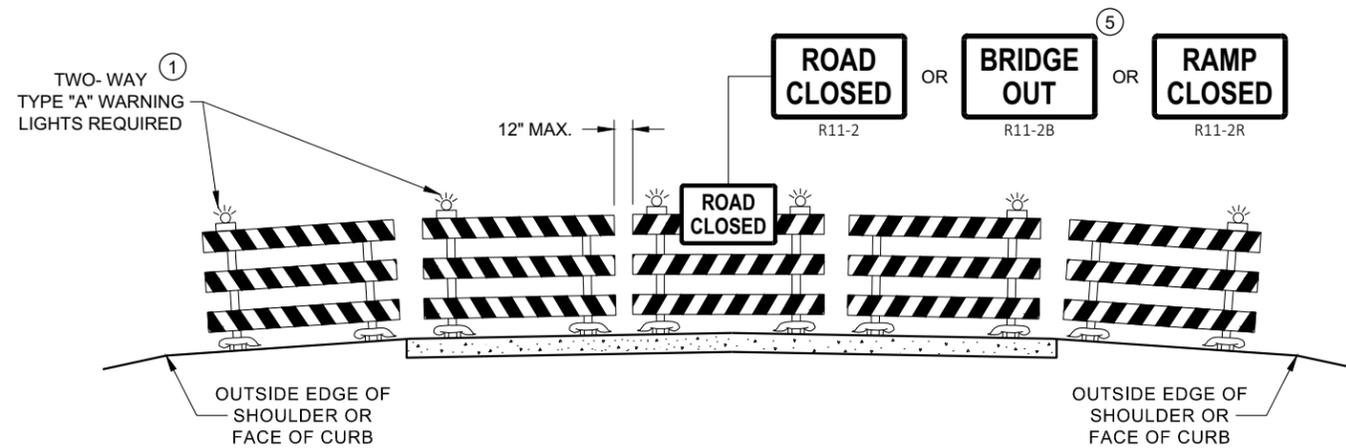


**DETAIL C  
MAINLINE CLOSURE, NO POSTED DETOUR**

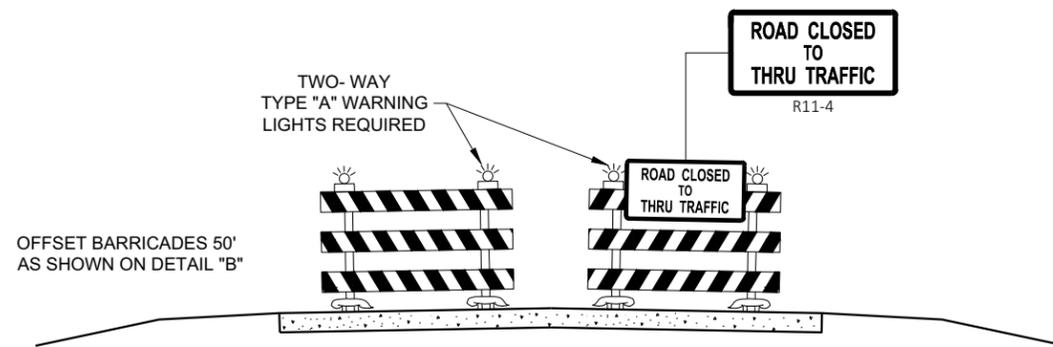
**BARRICADES AND SIGNS  
FOR MAINLINE CLOSURES**

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

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



**DETAIL D  
ROAD CLOSURE BARRICADE DETAIL  
APPROACH VIEW**



**DETAIL E  
LANE CLOSURE BARRICADE DETAIL  
APPROACH VIEW**

SEE SDD 15C2 - SHEET "a" FOR LEGEND

**GENERAL NOTES**

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

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

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

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

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

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

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

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

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

ALL SIGNS SHALL BE 48" X 48" UNLESS OTHERWISE NOTED BELOW:

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

- ① TWO WARNING LIGHTS SHALL BE PROVIDED ON THE CENTER BARRICADE AND A MINIMUM OF ONE WARNING LIGHT SHALL BE PROVIDED ON EACH OF THE OTHER BARRICADES WITHIN THE ROADWAY LIMITS. SPACING OF THE WARNING LIGHTS SHALL BE UNIFORM TO THE EDGE OF ROADWAY AS SHOWN (APPROX. 8 FOOT LIGHT SPACING).
- ② THESE SIGNS AND BARRICADES ARE NOT REQUIRED IF ROAD CLOSURE BEGINS AT AN INTERSECTION.
- ③ FOR ROAD CLOSURE WITHOUT LOCAL ACCESS TO PROJECT, SEE ROAD CLOSURE BARRICADE DETAIL "D".
- ④ FOR ROAD CLOSURE WITH LOCAL ACCESS TO PROJECT, SEE ROAD CLOSURE BARRICADE DETAIL "E".
- ⑤ FOR BRIDGE OR CULVERT REPLACEMENTS, SUBSTITUTE "BRIDGE OUT" INSTEAD OF "ROAD CLOSED" ON R11 - 2 AND R11 - 3 SIGNS.
- ⑥ INSTALL DETOUR AND COMMUNITY GUIDE SIGNS AND ARROWS ONLY IF SPECIFIED IN THE CONTRACT. IF THERE ARE EXISTING ROUTE MARKER ASSEMBLIES THAT WILL REMAIN IN PLACE, ADJUST THE LOCATION OF THE DETOUR ROUTE SIGNS TO CORRESPOND WITH THE EXISTING ASSEMBLIES. MODIFY EXISTING SIGNS WHERE POSSIBLE. SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS. IF DETOUR SIGNS ARE BEING INSTALLED BY OTHERS, PLACE THE CONTRACTED TRAFFIC CONTROL SIGNS TO ALLOW FOR PLACEMENT OF ALL WARNING, DETOUR AND GUIDE SIGNS AS SHOWN.
- ⑦ "EAST" CARDINAL DIRECTION MARKERS AND RIGHT TURN ARROWS ARE SHOWN. USE OTHER CARDINAL DIRECTIONS AND ARROWS AS APPROPRIATE.

**BARRICADES AND SIGNS  
FOR  
VARIOUS CLOSURES**

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

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

**GENERAL NOTES**

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

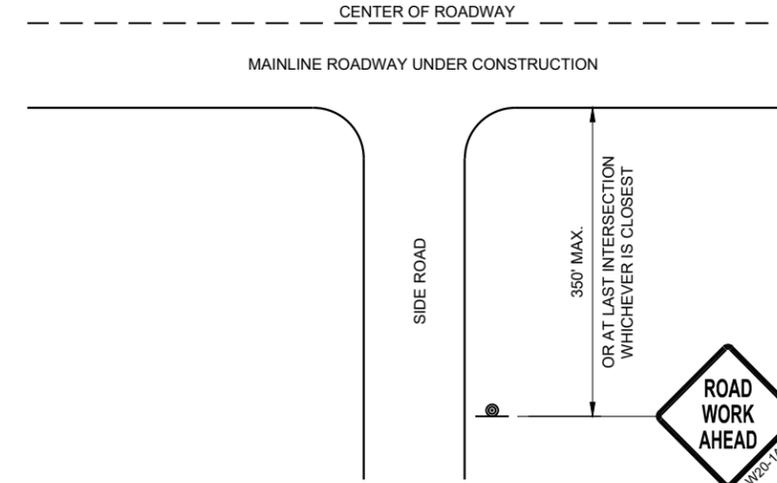
THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A MINIMUM OF 200 FEET (500 FEET DESIRABLE) CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

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

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

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

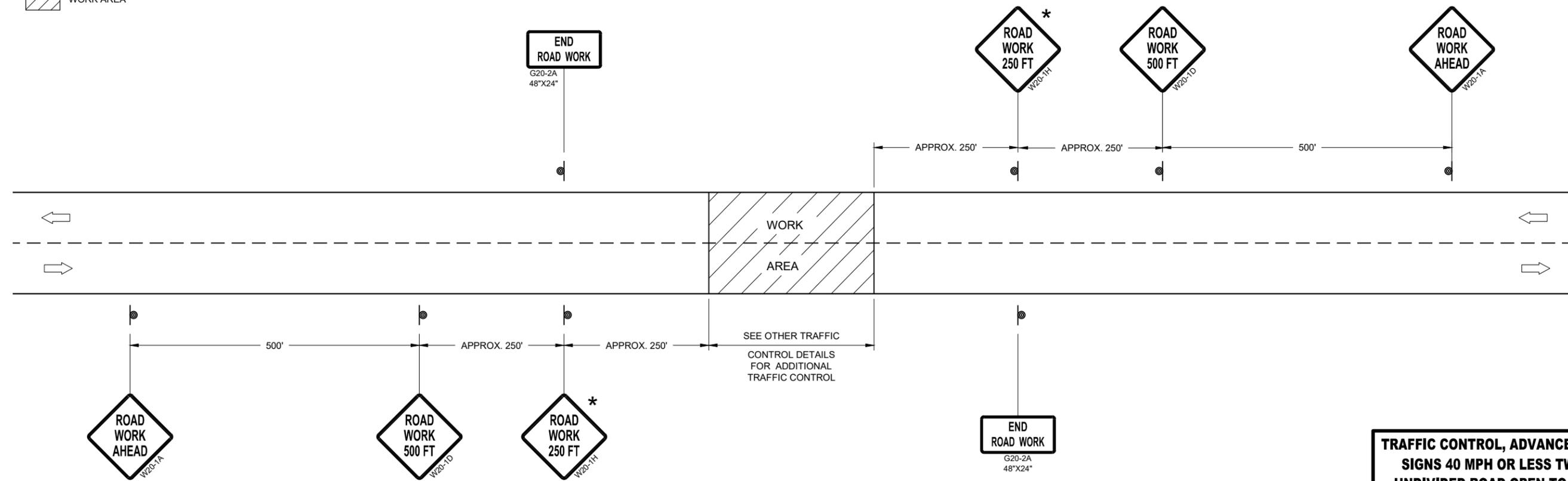
\* THE THIRD W20-1 SIGN IS REQUIRED ONLY IF THERE IS AN INTERSECTION BETWEEN THE "ROAD WORK 500 FEET" SIGN AND THE WORK ZONE. ADJUST THE PLACEMENT OF THIS SIGN BASED ON INTERSECTION LOCATION AND OTHER FIELD CONDITIONS.



**TYPICAL SIDE ROAD APPROACH  
WARNING SIGN DETAIL**

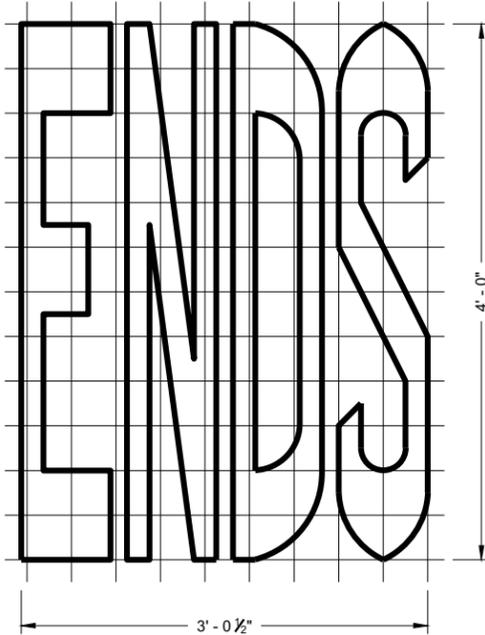
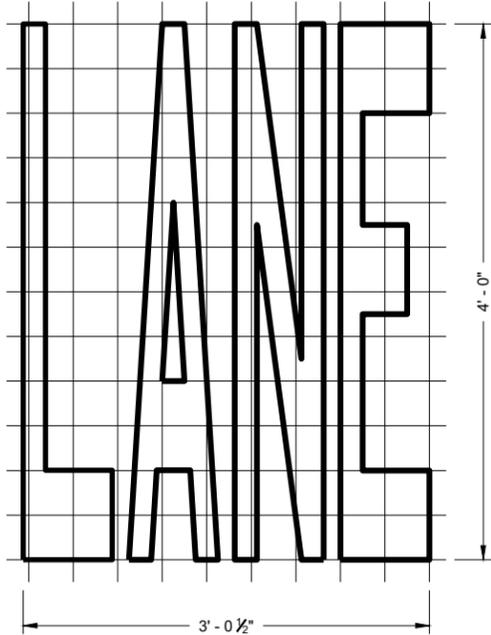
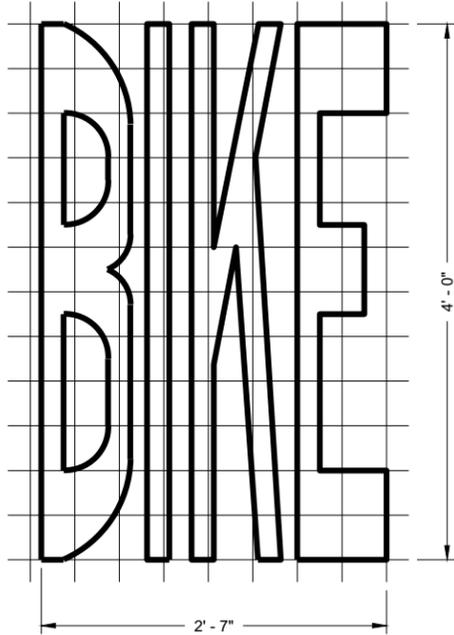
**LEGEND**

- SIGN ON PERMANENT SUPPORT
- DIRECTION OF TRAFFIC
- WORK AREA



**TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40MPH OR LESS**

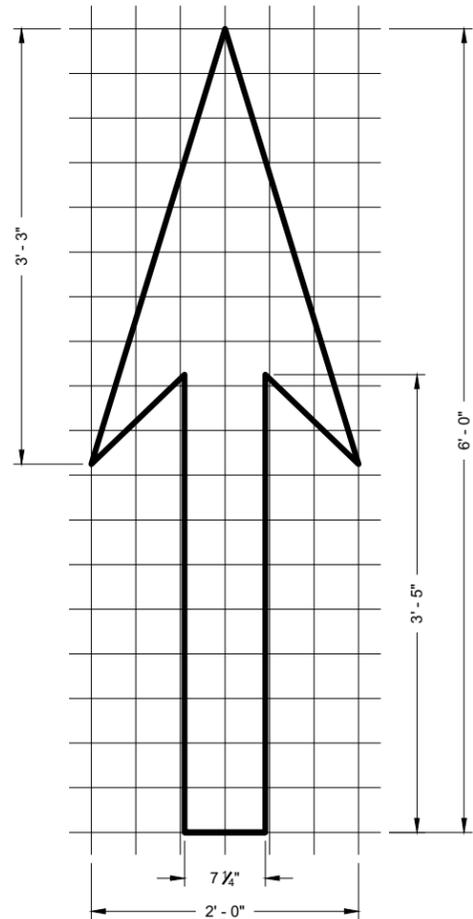
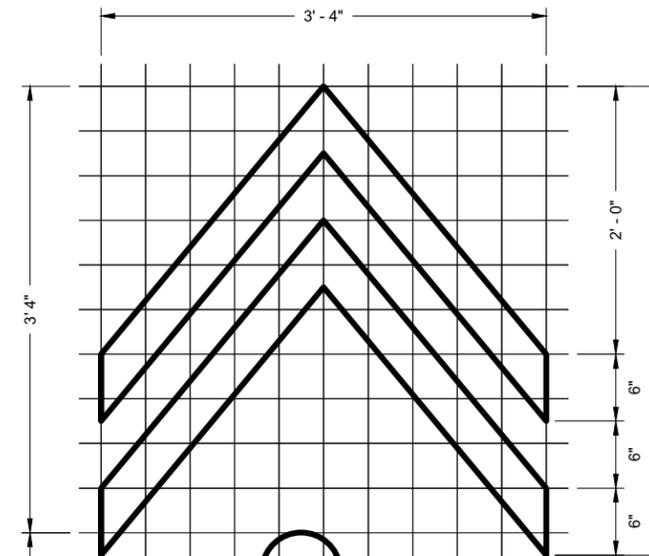
<b>TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40 MPH OR LESS TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC</b>	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED DATE July 2018	/S/ Andrew Heidtke WORK ZONE ENGINEER
FHWA	



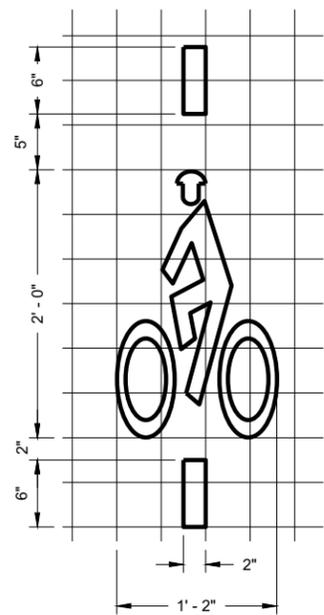
BIKE LANE WORDS

**GENERAL NOTES**

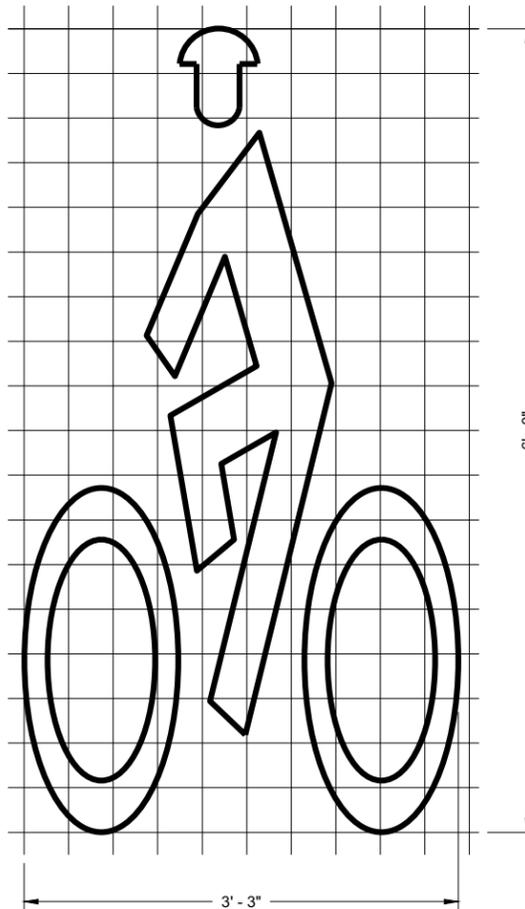
DETAILS OF INSTALLATION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.



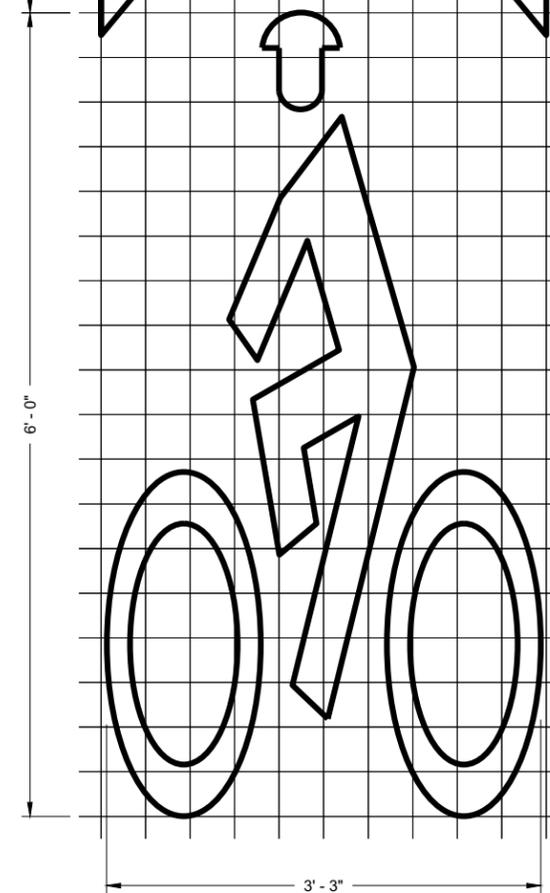
BIKE LANE ARROW



BIKE DETECTOR PAVEMENT MARKING



BIKE LANE SYMBOL

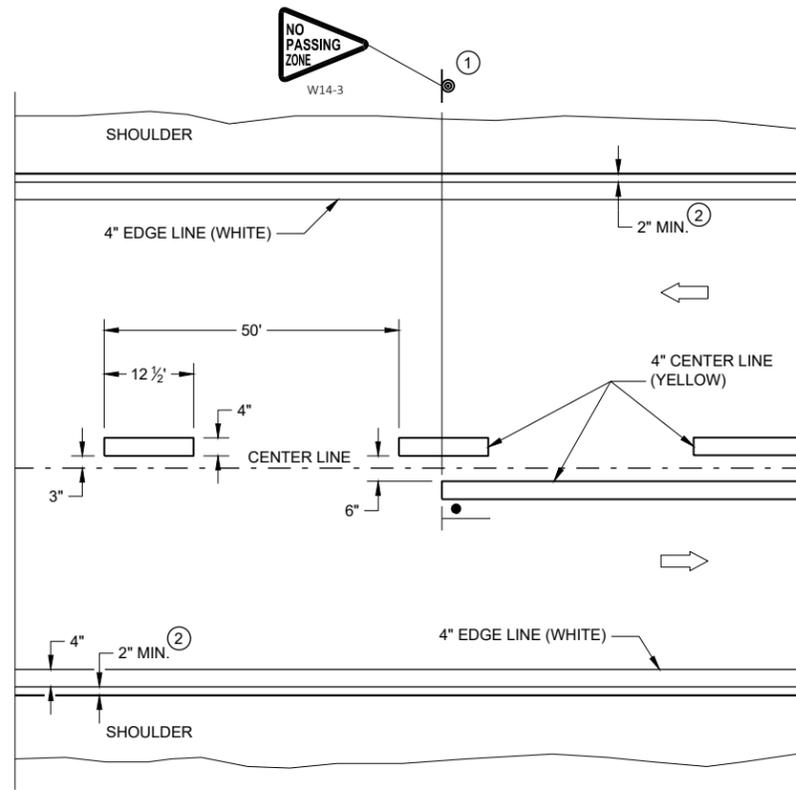


BIKE LANE SYMBOL FOR SHARED LANE

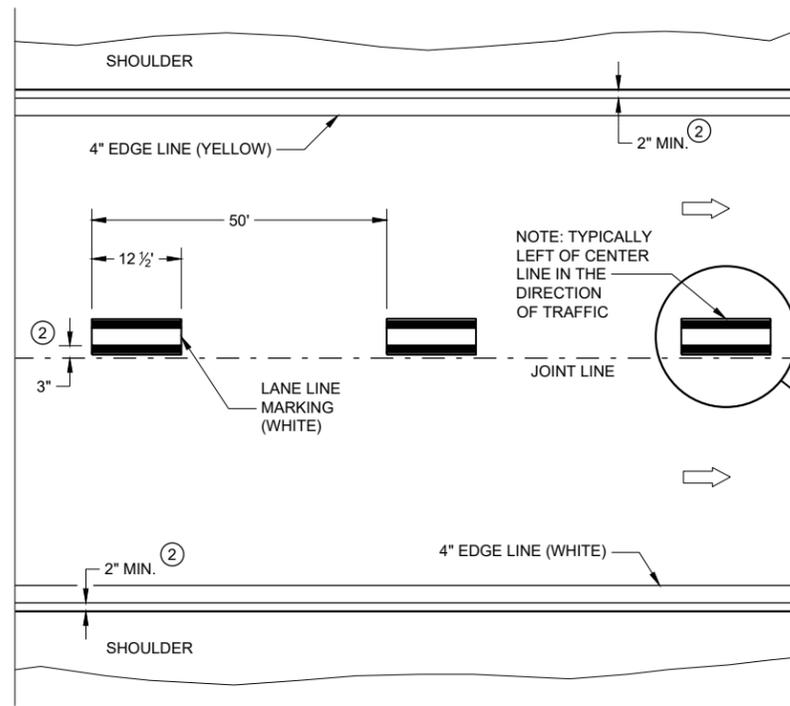
**PAVEMENT MARKING FOR BIKE LANES**

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED  
November 2019 /S/ Matthew Rauch  
DATE STATE SIGNING AND MARKING  
ENGINEER

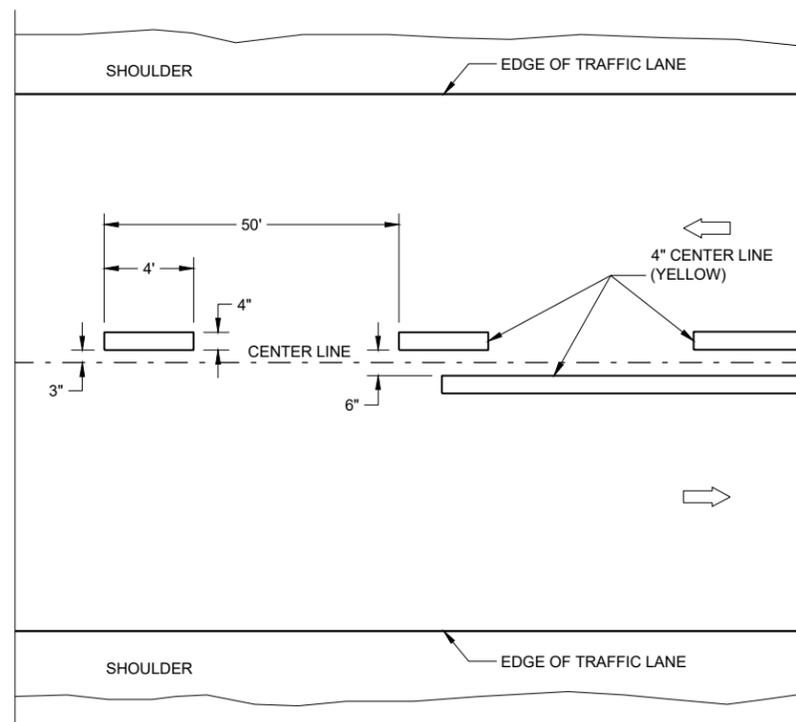


**TWO WAY TRAFFIC**

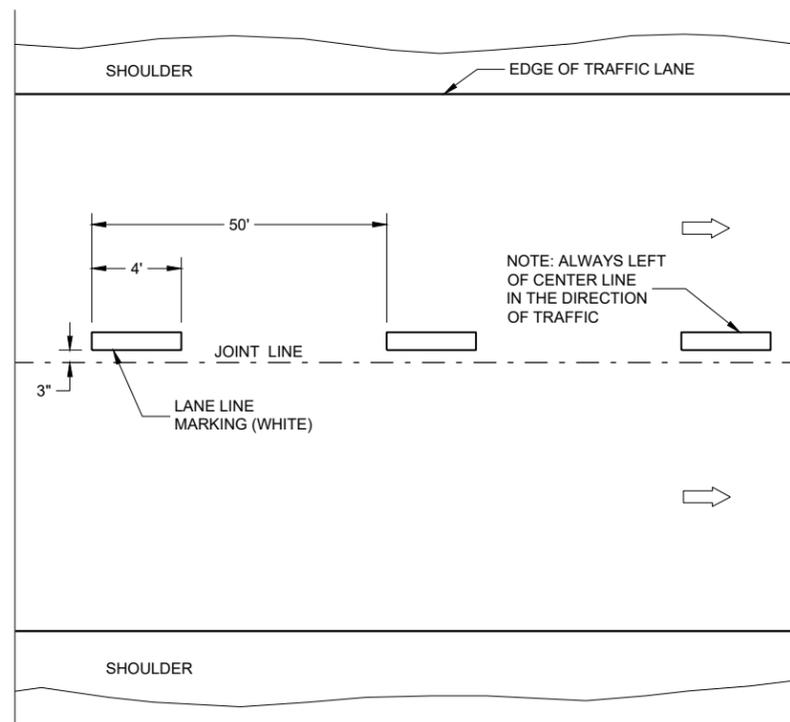


**ONE WAY TRAFFIC**

**PERMANENT PAVEMENT MARKING**



**TWO WAY TRAFFIC**



**ONE WAY TRAFFIC**

**TEMPORARY PAVEMENT MARKING**

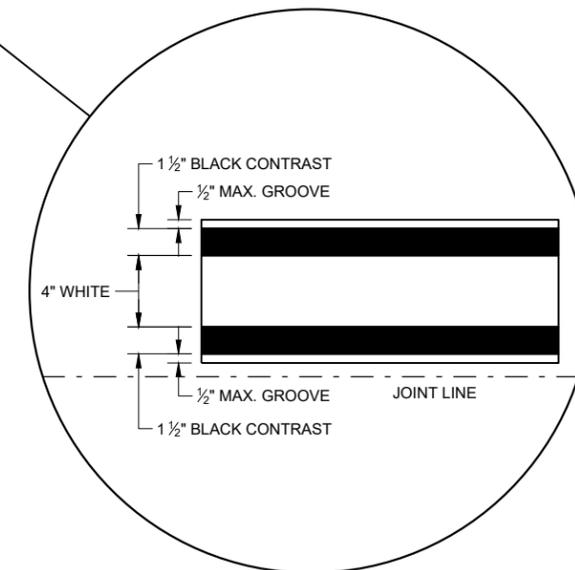
**GENERAL NOTES**

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

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

**LEGEND**

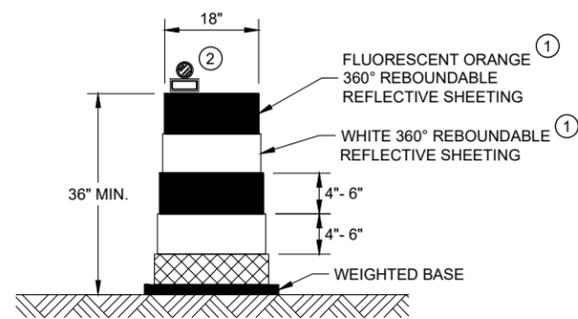
- |• "T" MARKING
- |⊙ SIGN ON PERMANENT SUPPORT
- DIRECTION OF TRAFFIC



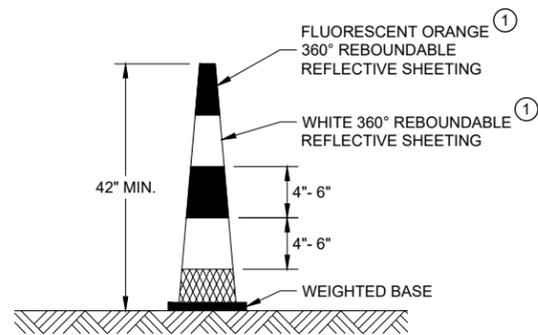
**LONGITUDINAL MARKING (MAINLINE)**

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

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

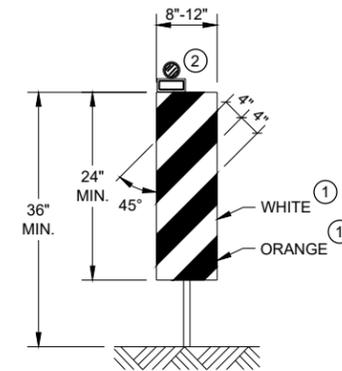


**DRUM**



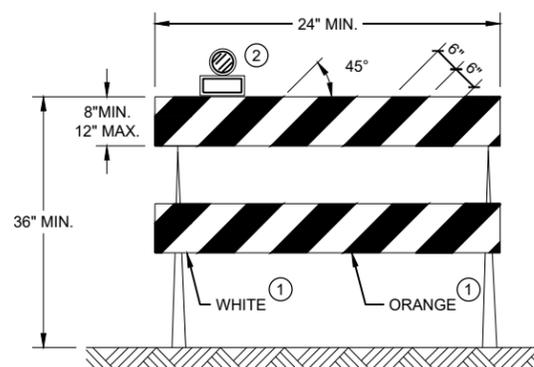
**42" CONE**

DO NOT USE IN TAPERS  
1/2 SPACING OF DRUMS



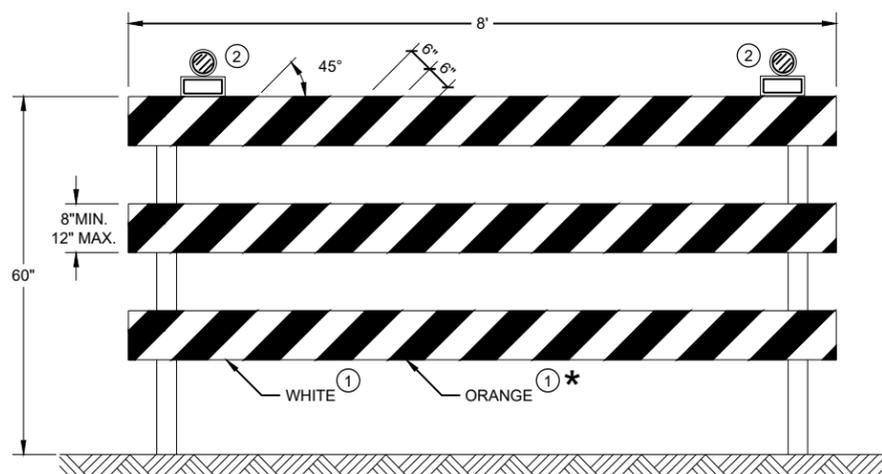
**VERTICAL PANEL**

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



**TYPE II BARRICADE**

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



**TYPE III BARRICADE**

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

\* IF USED FOR A PERMANENT APPLICATION USE RED SHEETING.

**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.

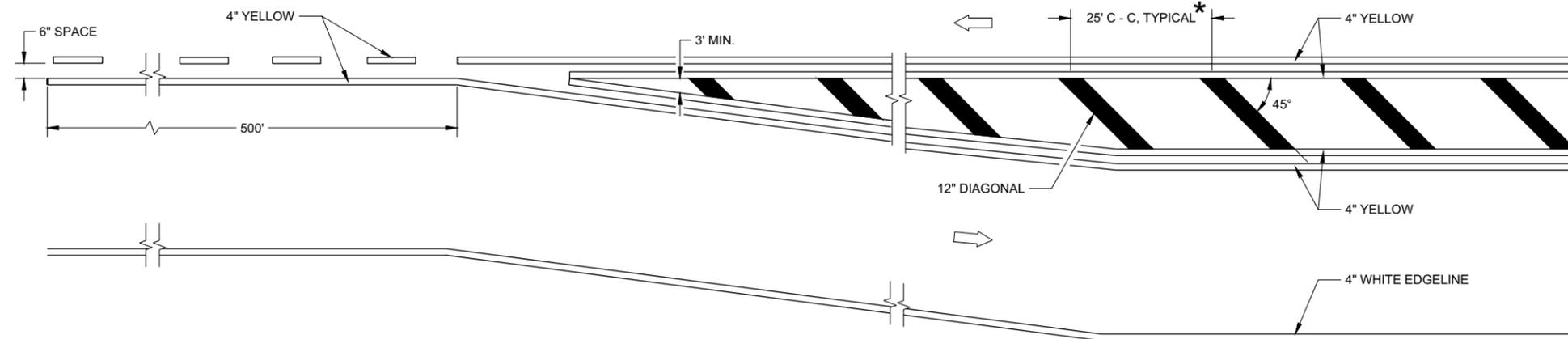
<b>CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS</b>	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED May 2021 DATE	/S/ Andrew Heidtke WORK ZONE ENGINEER
FHWA	

**GENERAL NOTES**

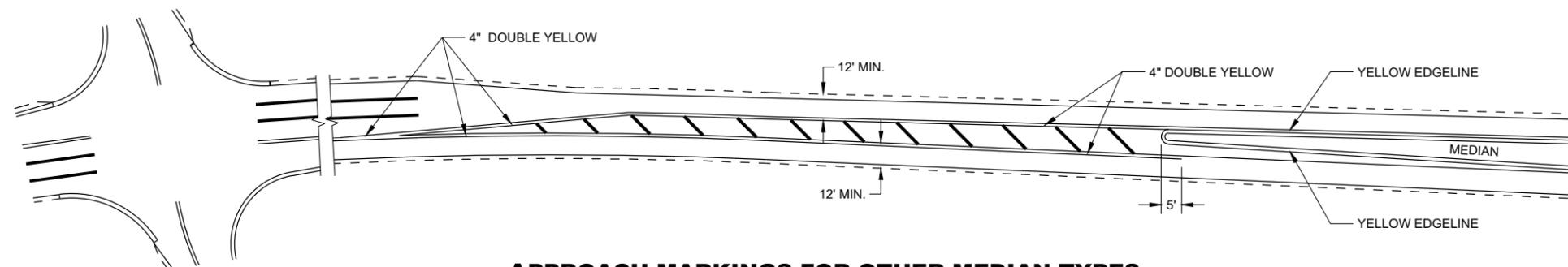
DIAGONALS ARE OPTIONAL WHEN PAINED ISLAND IS LESS THAN 6 FEET AT WIDEST POINT.

➡ DIRECTION OF TRAVEL

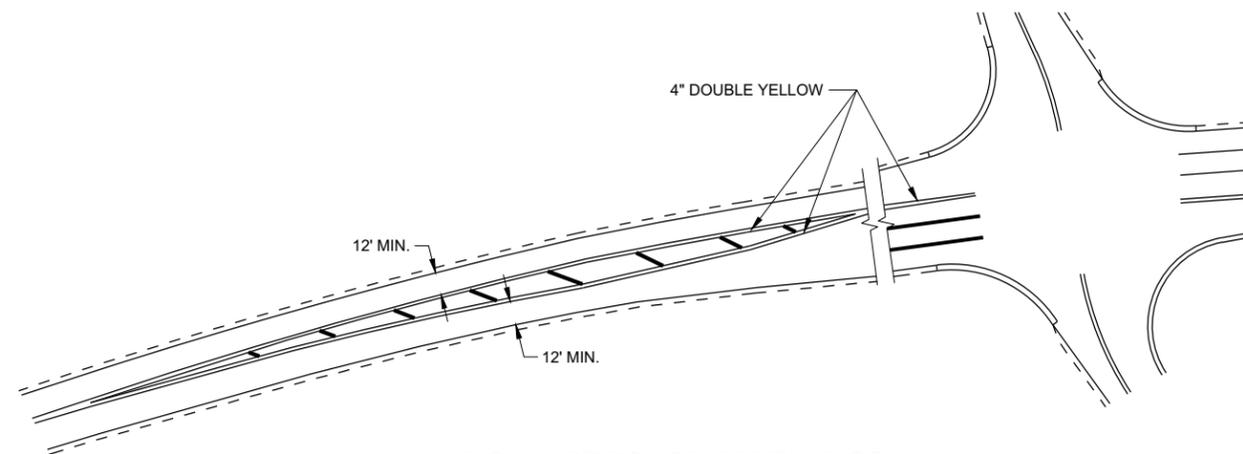
\* WHEN THE PAINTED MEDIAN LENGTH IS LESS THAN 50 FEET THE SPACING IS 10'.



**MEDIAN ISLAND DETAIL**



**APPROACH MARKINGS FOR OTHER MEDIAN TYPES**



**NON-APPROACH MARKINGS**

6

6

SDD 15C18 - 05a

SDD 15C18 - 05a

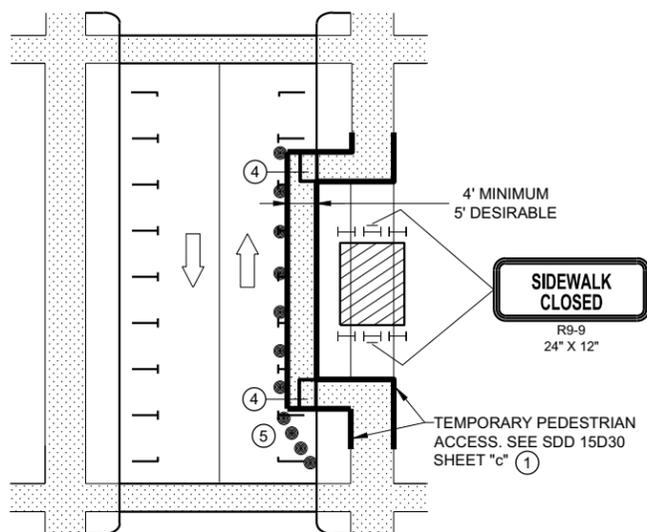
**MEDIAN ISLAND  
PAVEMENT MARKINGS**

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

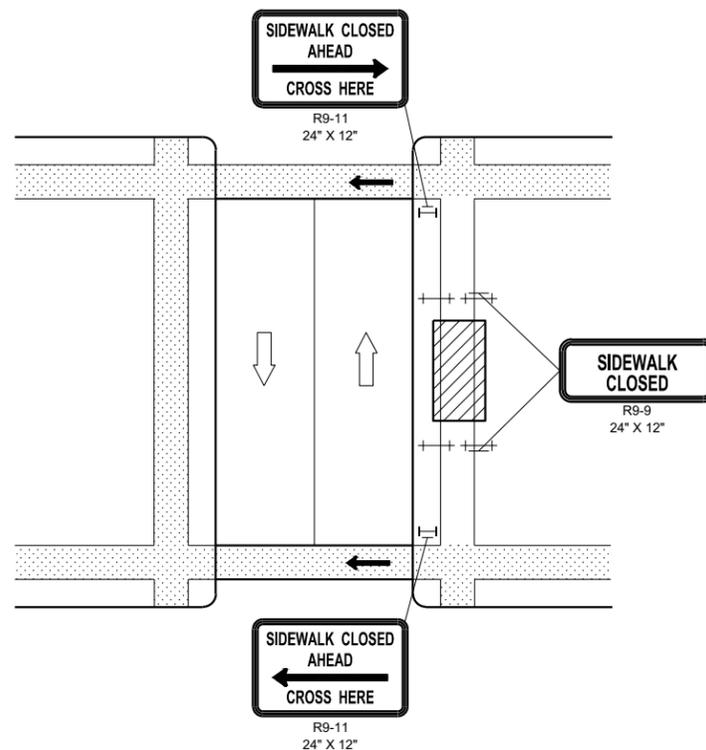
APPROVED  
February 2021 /S/ Matthew R. Rauch  
DATE STATE SIGNING AND MARKING  
ENGINEER

FHWA

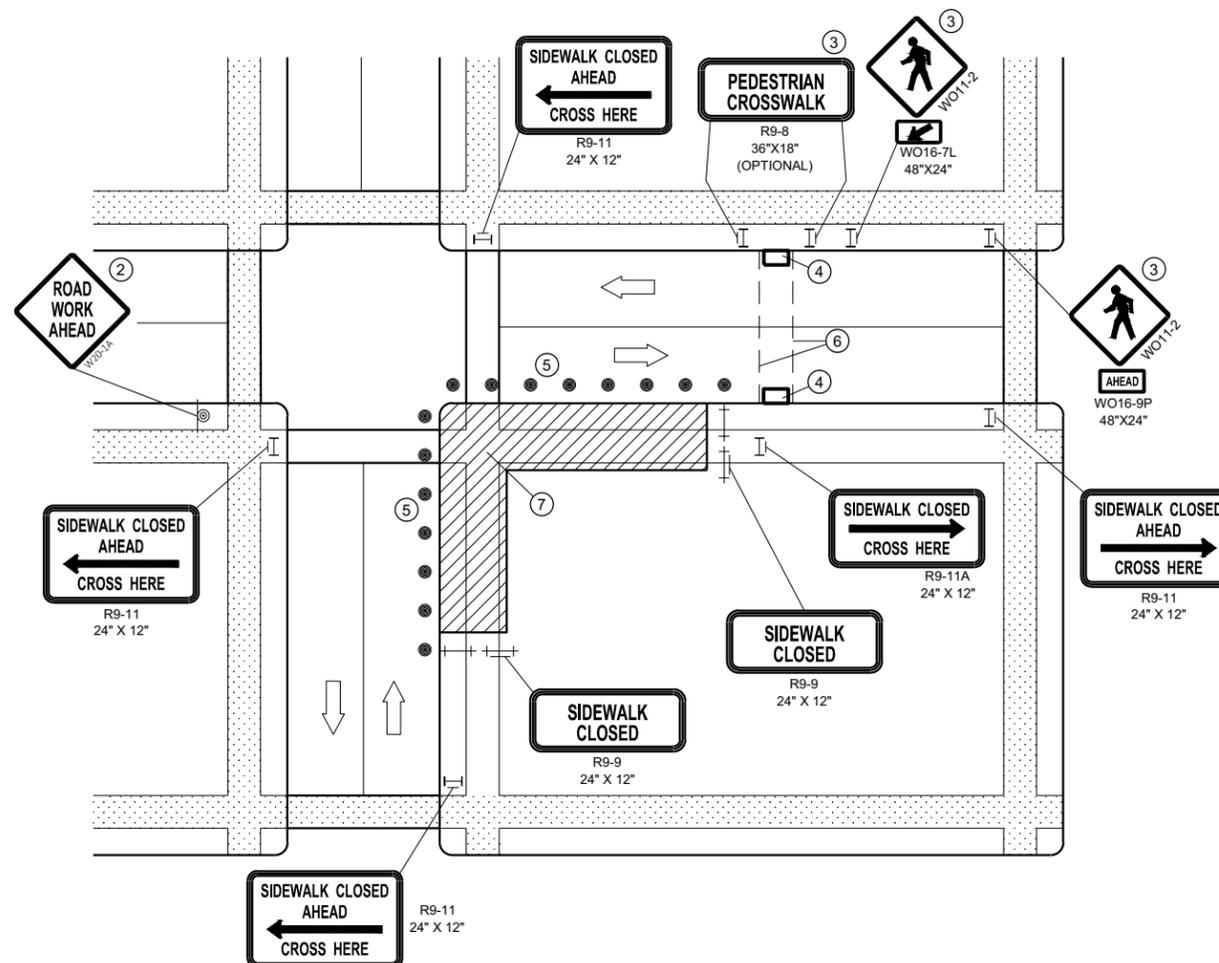
NOTE: MAY BE USED ON ROADWAY WITH POSTED SPEED OF LESS THAN 40 MPH.



**MID-BLOCK SIDEWALK CLOSURE IN PARKING LANE**

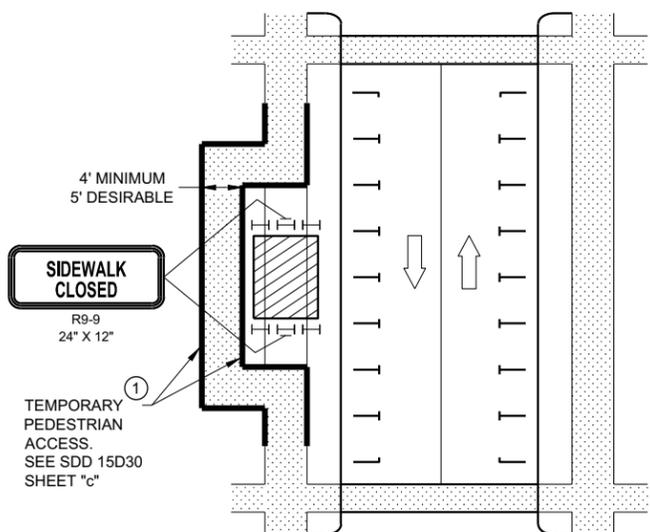


**MID-BLOCK SIDEWALK CLOSURE**



**CORNER SIDEWALK CLOSURE WITH TEMPORARY CROSSWALK**

NOTE: LAYOUT SAME AS ABOVE.



**SIDEWALK DIVERSION**

**GENERAL NOTES**

WHEN CLOSING OR RELOCATING CROSSWALKS OR SIDEWALKS, PROVIDE DETECABLE TEMPORARY FACILITIES AND INCLUDE ACCESSIBILITY FEATURES CONSISTENT WITH EXISTING PEDESTRIAN FACILITIES.

TEMPORARY TRAFFIC CONTROL DEVICES FOR PEDESTRIANS ARE SHOWN. OTHER DEVICES MAY BE NECESSARY TO CONTROL VEHICULAR TRAFFIC. STAGE WORK AS NECESSARY, TO PROVIDE A TEMPORARY PEDESTRIAN ACCESS ROUTE AT ALL TIMES. FOR ROADWAYS WITH NO AVAILABLE DETOURS, MAINTAIN ONE OPEN SIDEWALK AT ALL TIMES.

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

FOR NIGHTTIME CLOSURE, USE TYPE "A" FLASHING WARNING LIGHTS ON BARRICADES, SUPPORTING SIGNS AND CLOSING SIDEWALK. USE TYPE "C" STEADY BURN LIGHTS ON CHANNELIZING DEVICES SEPARATING THE WORK AREA FROM VEHICULAR TRAFFIC.

PEDESTRIAN TRAFFIC SIGNAL DISPLAY CONTROLLING CLOSED CROSSWALK SHALL BE COVERED OR DEACTIVATED.

POST MOUNTED SIGNS LOCATED ADJACENT TO A SIDEWALK SHALL HAVE A 7 FOOT MINIMUM CLEARANCE FROM THE BOTTOM OF THE SIGN TO THE SIDEWALK SURFACE.

ALTERNATE SIDEWALK WORK BETWEEN LEFT AND RIGHT SIDE OF ROADWAY TO MAINTAIN PEDESTRIAN ACCESS.

- ① IF SIDEWALK CLOSURE AFFECTS AN ACCESSIBLE AND DETECTABLE FACILITY, MAINTAIN ACCESSIBILITY AND DETECTABILITY ALONG THE ALTERNATE PEDESTRIAN ROUTE
- ② "ROAD WORK AHEAD" SIGNS ARE NOT REQUIRED IF THE SIDEWALK CLOSURE OCCURS WITHIN A LARGER WORK ZONE WHERE ADVANCE WARNING SIGNS ARE ALREADY PRESENT, OR IF THE WORK AREA AND EQUIPMENT ARE MORE THAN 2 FEET BEHIND THE CURB.
- ③ IF TEMPORARY PEDESTRIAN CROSSWALK IS NOT PROVIDED, OMIT R9-8 AND WO11-2 SIGN ASSEMBLIES. IF PROVIDED INCLUDE ON BOTH SIDES OF THE CROSSWALK.
- ④ TEMPORARY CURB RAMPS. SEE SDD 15D30 SHEET "b".
- ⑤ DRUMS OR BARRICADES AT 25 FOOT SPACING. STREET PARKING SHALL BE PROHIBITED FOR AT LEAST 50 FEET IN ADVANCE OF THE MID-BLOCK CROSSWALK.
- ⑥ TEMPORARY PAVEMENT MARKING FOR CROSSWALK LINES.
- ⑦ LIMIT WORK TO ONE QUADRANT AT A TIME TO MINIMIZE PEDESTRIAN DISRUPTION.

**LEGEND**

- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM
- TYPE II BARRICADE WITH/WITHOUT SIGN (ALL WITH ONE WARNING LIGHT, TYPE A, LOW INTENSITY FLASHING)
- TYPE III BARRICADE WITH/WITHOUT SIGN (ALL WITH ONE WARNING LIGHT, TYPE A, LOW INTENSITY FLASHING)
- UNDER PEDESTRIAN TRAFFIC
- WORK AREA
- PEDESTRIAN CHANNELIZATION DEVICE
- DIRECTION OF TRAFFIC

**TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION**

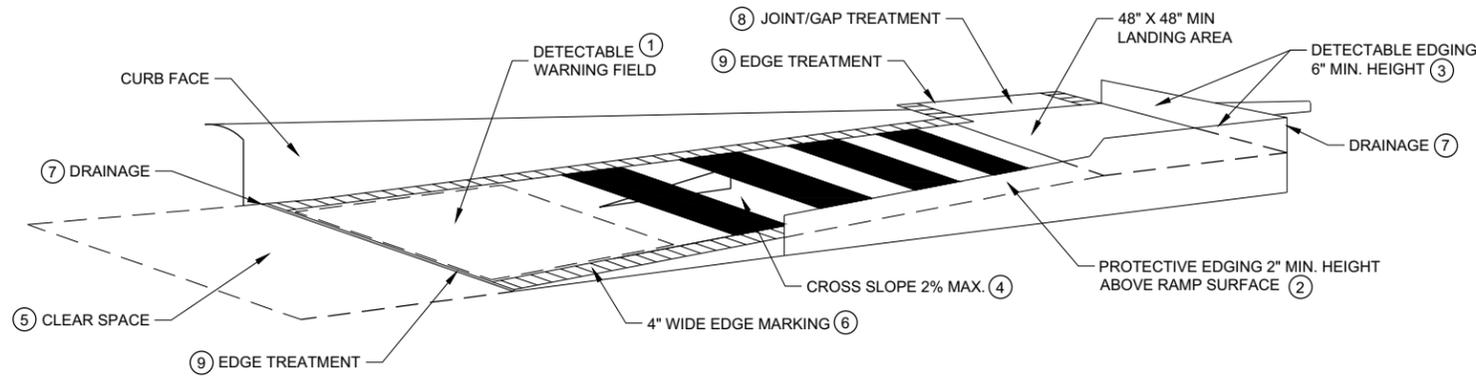
STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

**GENERAL NOTES**

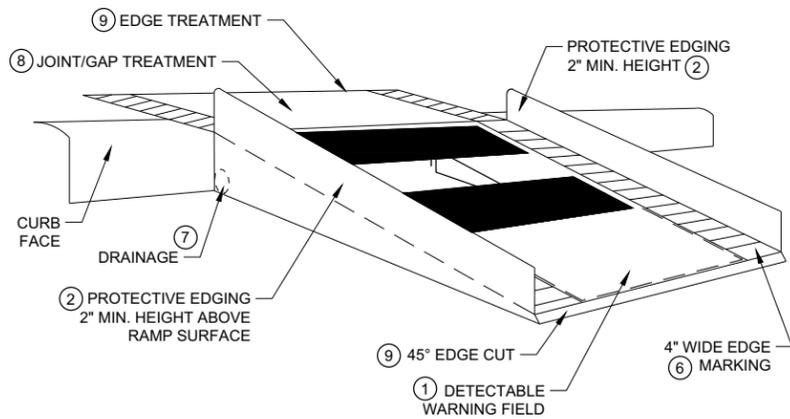
NOTIFY THE BUS COMPANY 7 DAYS IN ADVANCE OF THE BUS STOP RELOCATION.

ALTERNATE SIDEWALK WORK BETWEEN LEFT AND RIGHT SIDE OF ROADWAY TO MAINTAIN PEDESTRIAN ACCESS.

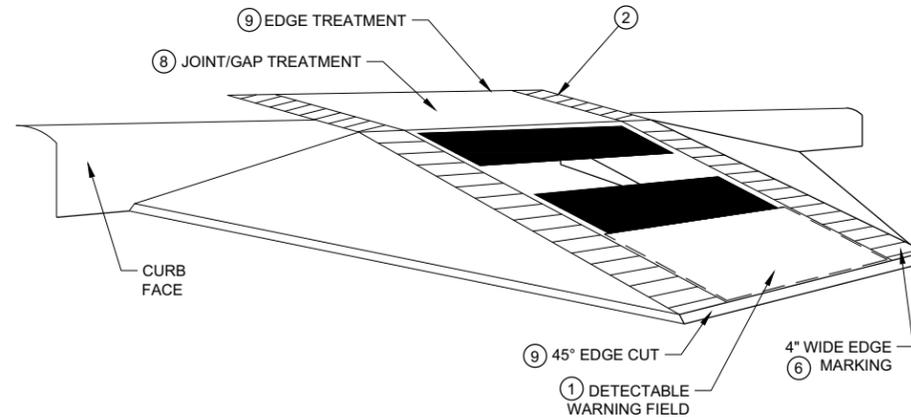
- ① CURB RAMPS SHALL BE 48" MIN. WIDTH WITH A FIRM, STABLE AND SLIP RESISTANT SURFACE. INSTALL CONTRASTING DETECTABLE WARNING FIELD AT PEDESTRIAN STREET CROSSINGS. REFER TO SDD 08D05, SHEET "e".
- ② PROTECTIVE EDGING WITH A 2" MIN. HEIGHT SHALL BE INSTALLED WHEN A CURB RAMP OR LANDING PLATFORM HAS A VERTICAL DROP OF 6" OR GREATER OR HAS A SIDE APRON SLOPE STEEPER THAN 1:3 (33%). PROTECTIVE EDGING SHOULD BE CONSIDERED WHEN CURB RAMPS OR LANDING PLATFORMS HAVE A VERTICAL DROP OF 3" OR MORE.
- ③ DETECTABLE EDGING WITH 6" MIN. HEIGHT AND CONTRASTING COLOR SHALL BE INSTALLED ON ALL CURB RAMP LANDINGS WHERE THE WALKWAY CHANGES DIRECTION (TURNS).
- ④ CURB RAMPS AND LANDINGS SHALL HAVE A 1:50 (2%) MAX. CROSS-SLOPE.
- ⑤ CLEAR SPACE OF 48" X 48" SHALL BE PROVIDED ABOVE AND BELOW THE CURB RAMP.
- ⑥ THE CURB RAMP WALKWAY EDGE SHALL BE MARKED WITH A YELLOW COLOR, 4" WIDE MARKING, UNLESS A CONTRASTING DETECTABLE WARNING FIELD IS PROVIDED.
- ⑦ DO NOT RESTRICT WATER FLOW IN THE GUTTER SYSTEM.
- ⑧ LATERAL JOINTS OR GAPS BETWEEN SURFACES SHALL BE LESS THAN 1/2" WIDTH.
- ⑨ CHANGES BETWEEN SURFACE HEIGHTS SHALL NOT EXCEED 1/2". LATERAL EDGES SHALL BE VERTICAL UP TO 1/4" HIGH AND BEVELED AT 1:2 BETWEEN 1/4" AND 1/2".
- ⑩ 5" WIDE MIN. WITH PEDESTRIAN SAFETY BARRICADE, 10' WIDE MIN. WITHOUT PEDESTRIAN SAFETY BARRICADE.



**TEMPORARY CURB RAMP PARALLEL TO CURB**

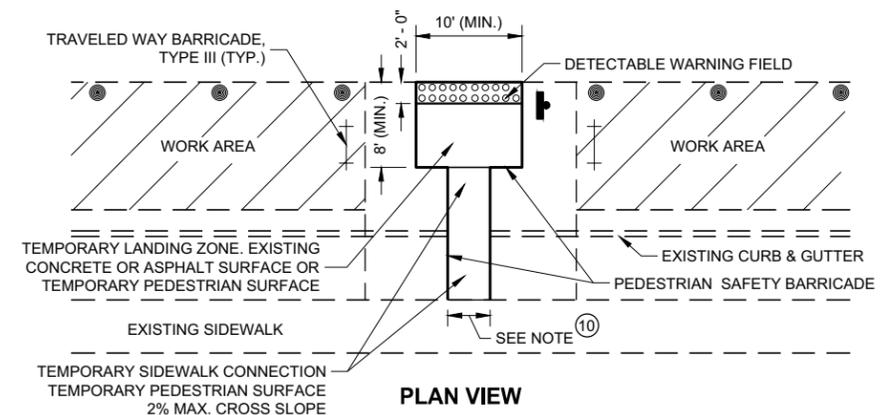


**WITH PROTECTIVE EDGE**

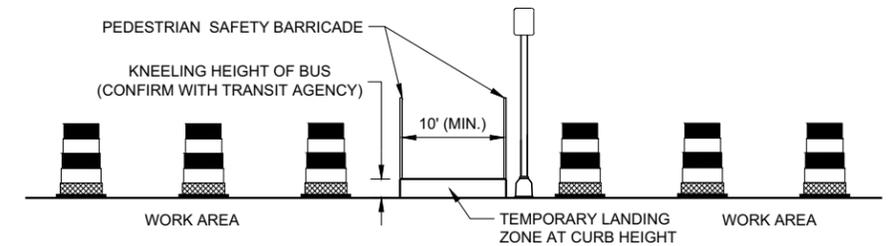


**WITH SIDE APRON**

**TEMPORARY CURB RAMP PERPENDICULAR TO CURB**



**PLAN VIEW**



**PROFILE VIEW**

**TEMPORARY BUS STOP PAD**

**LEGEND**

- TRAFFIC CONTROL DRUM
- ⊥ TYPE III BARRICADE
- ▨ WORK AREA

**TRAFFIC CONTROL,  
PEDESTRIAN ACCOMMODATION**

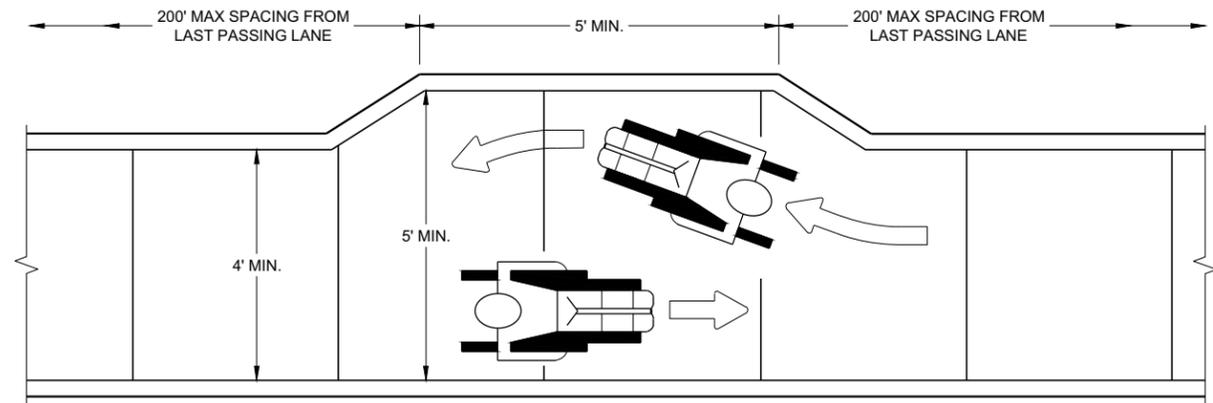
STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

6

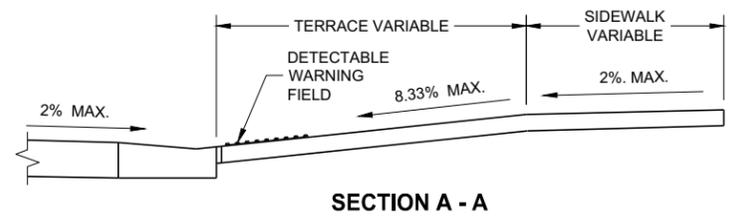
6

SDD 15D30 - 06b

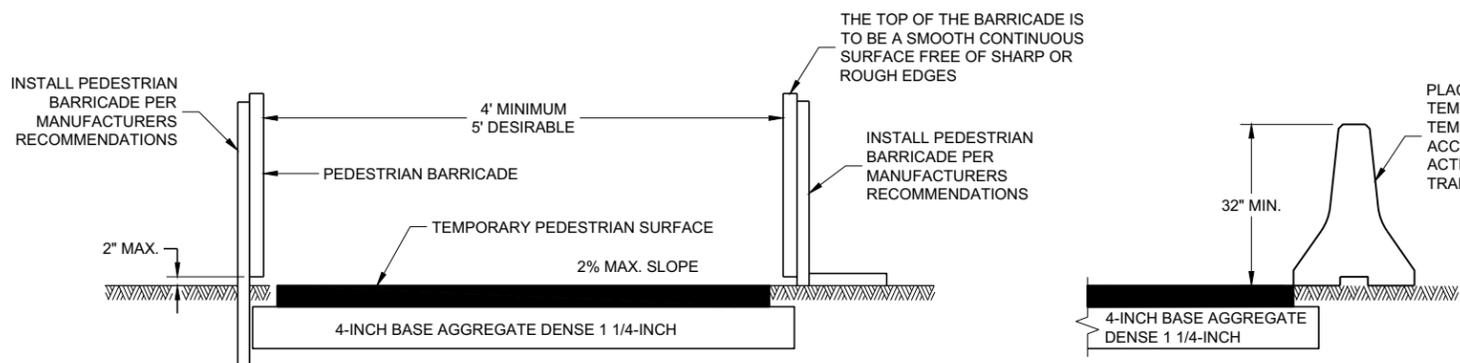
SDD 15D30 - 06b



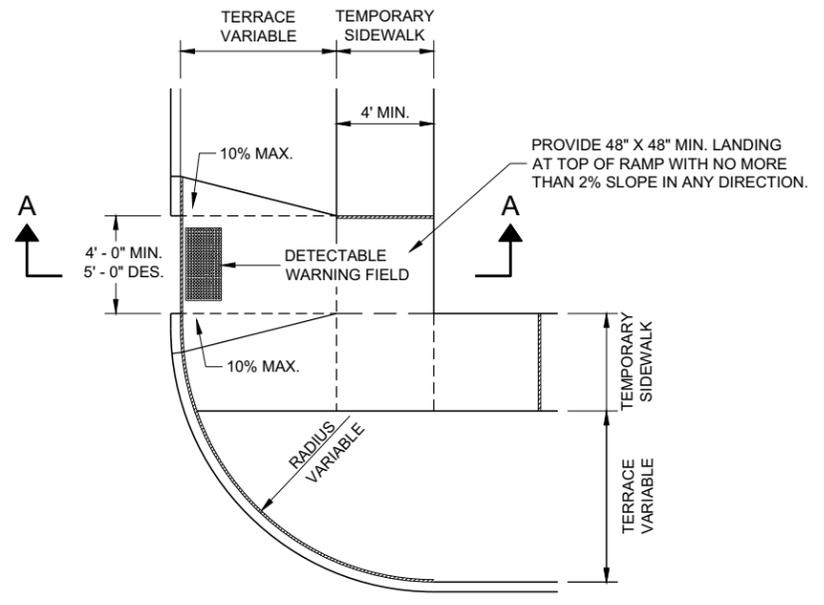
**NARROW SIDEWALK PASSING DETAIL**



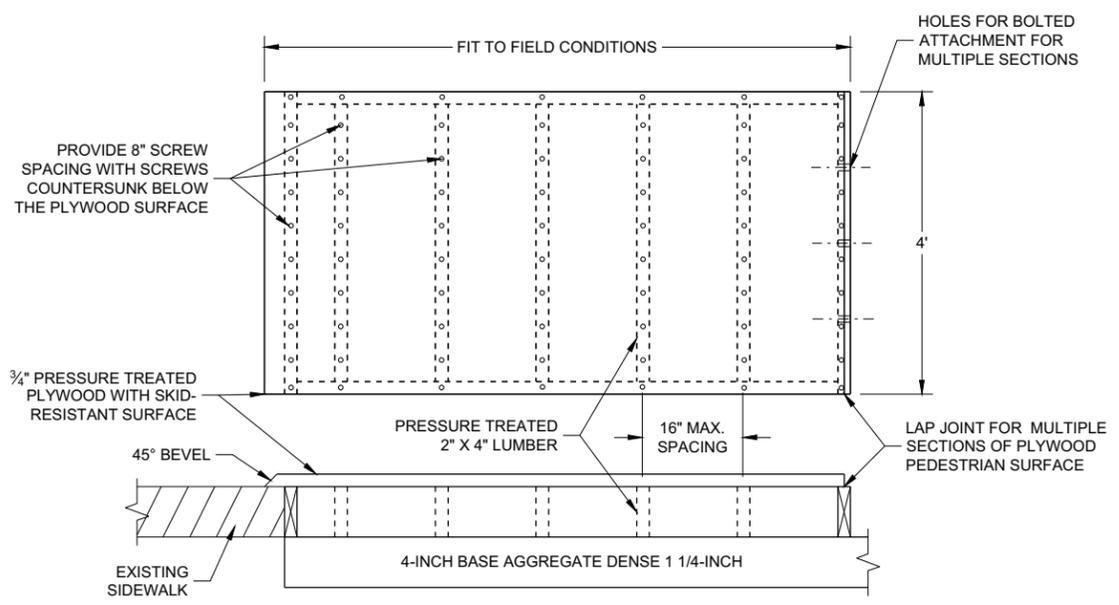
**SECTION A - A**



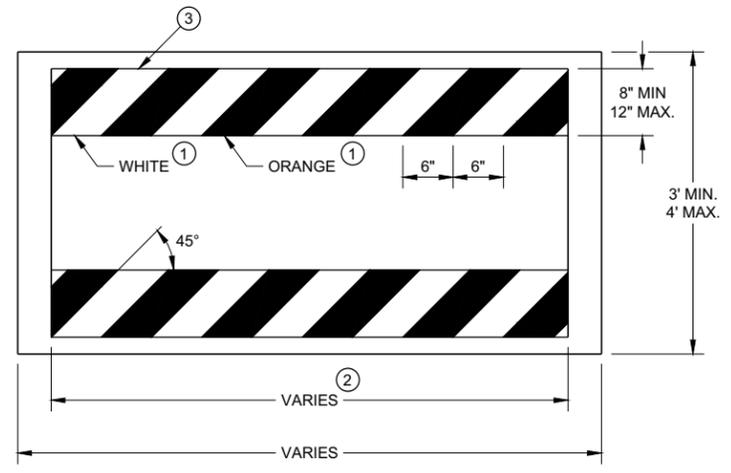
**TEMPORARY PEDESTRIAN ACCESS**



**PLAN VIEW  
TEMPORARY TYPE 3 RAMP  
(OUTSIDE OF CROSSWALK AREA)**



**TEMPORARY PEDESTRIAN SURFACE PLYWOOD**



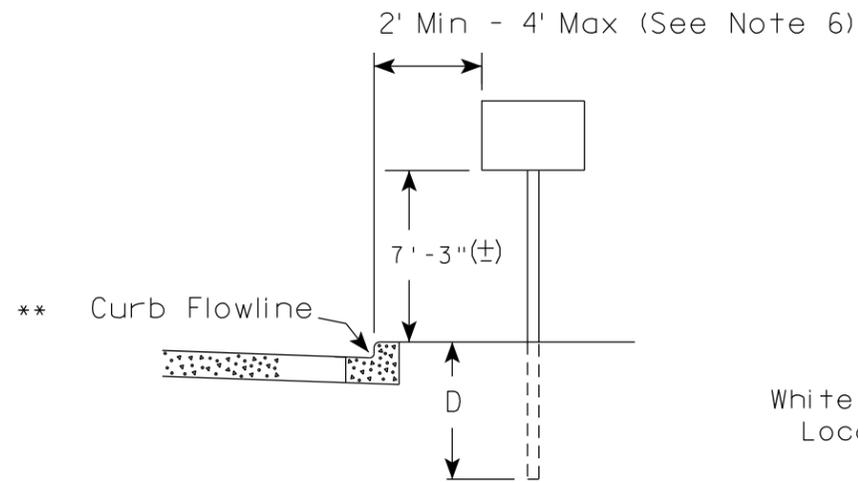
**TEMPORARY PEDESTRIAN BARRICADE \***

**GENERAL NOTES**

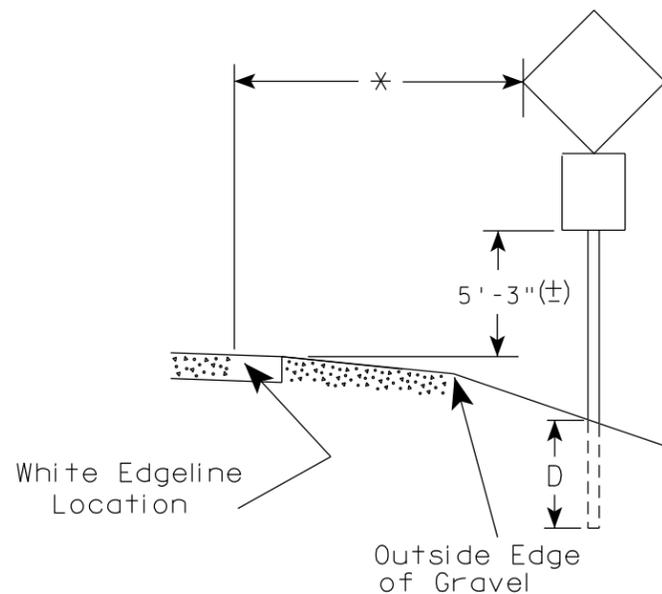
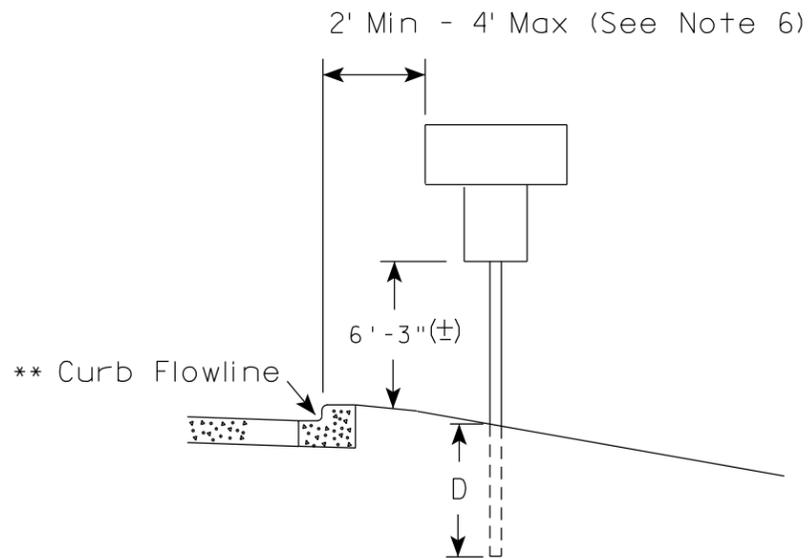
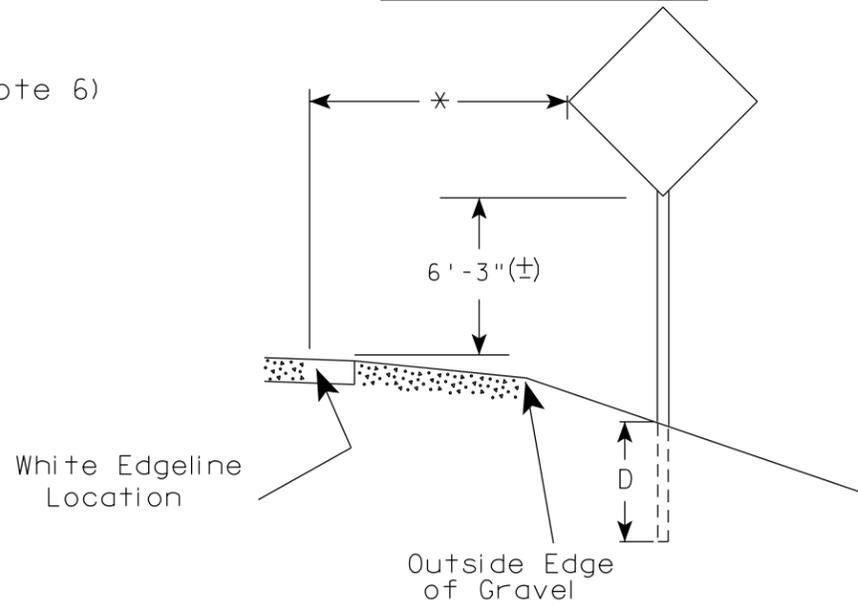
- BARRICADE DEVICE SELECTED FROM APPROVED PRODUCT LIST
- ① REFLECTIVE SHEETING SHALL FOLLOW THE REQUIREMENTS IN THE APPROVED PRODUCTS LISTING FOR SIGN SHEETING.
- ② SHEETING REQUIRED ON MORE THAN 50% OF BARRICADE WIDTH.
- ③ PLACE SHEETING ON BOTH SIDES OF THE BARRICADE.
- \* USE THIS DETAIL FOR SHEETING PLACEMENT REFERENCE.

<b>TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION</b>	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED November 2019 DATE	/S/ Andrew Heidtke WORK ZONE ENGINEER
FHWA	

URBAN AREA



RURAL AREA (See Note 2)



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 directed by the Engineer.

POST EMBEDMENT DEPTH

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

\* \* 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.

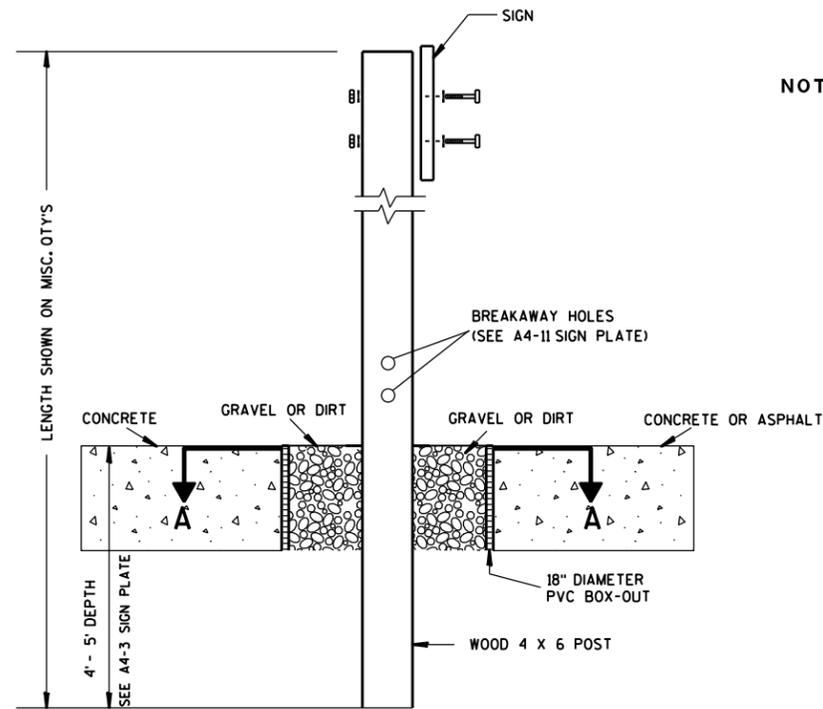
\* 6 feet from edge of a paved shoulder or 12 feet from the edge of pavement (edge line location) or 2 feet from outside edge of gravel, whichever is greater unless directed by project engineer.

TYPICAL INSTALLATION OF PERMANENT TYPE II SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*  
for State Traffic Engineer

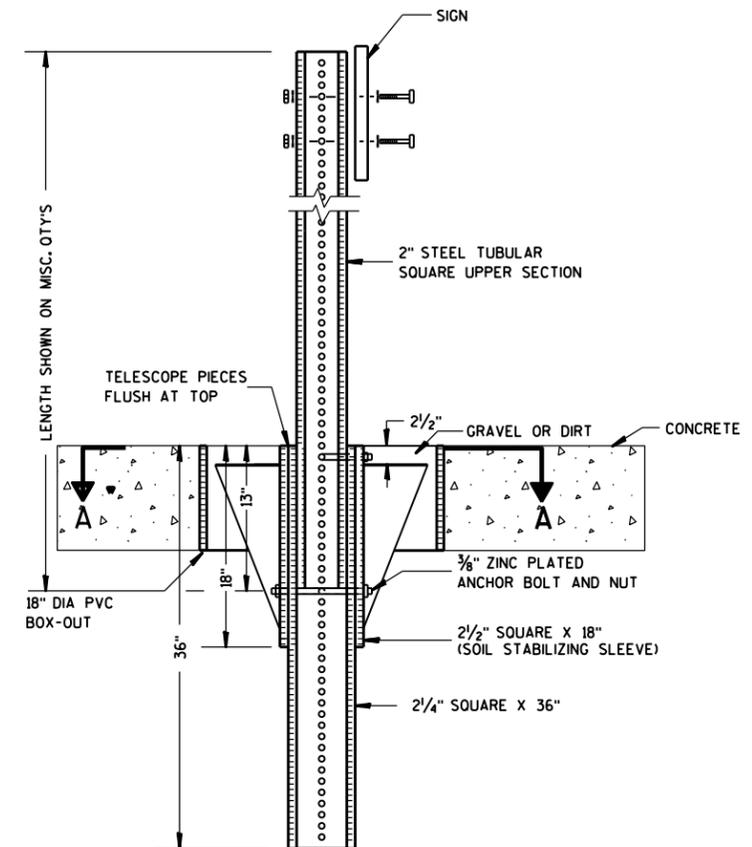
DATE 5/13/2020 PLATE NO. A4-3.22



**ELEVATION VIEW**

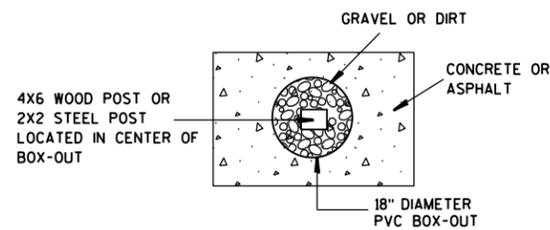
**DETAIL OF WOOD 4 X 6 SIGN POST IN BOX-OUT**

- 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

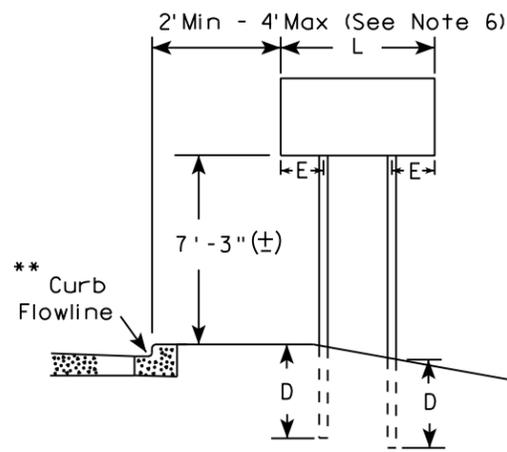
7

7

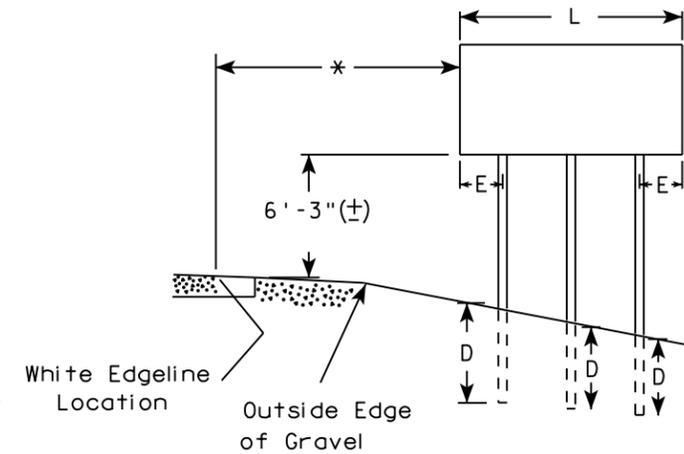
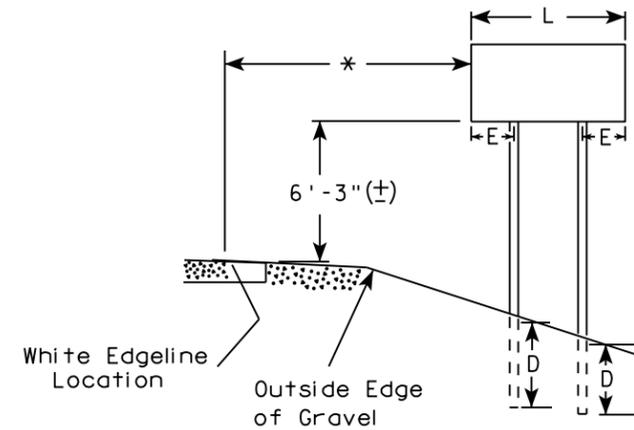
GENERAL NOTES

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" (±).

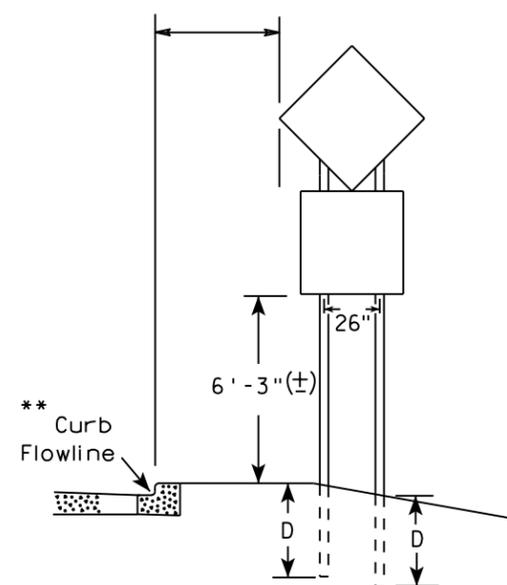
URBAN AREA



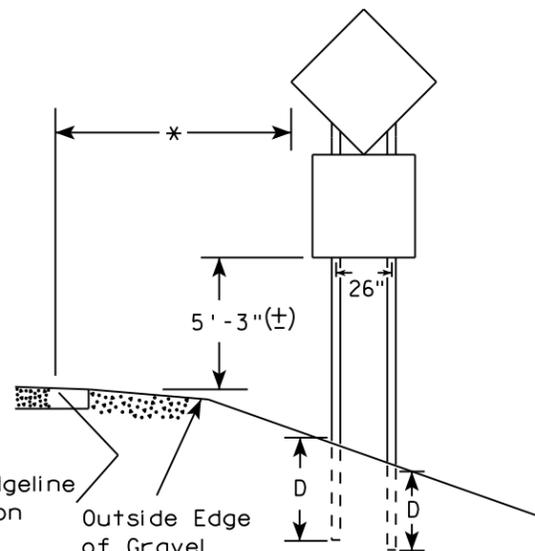
RURAL AREA (See Note 3)



2' Min - 4' Max (See Note 6)



48" DIAMOND WARNING SIGN



48" DIAMOND WARNING SIGN

\* 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.

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

\*\*\*

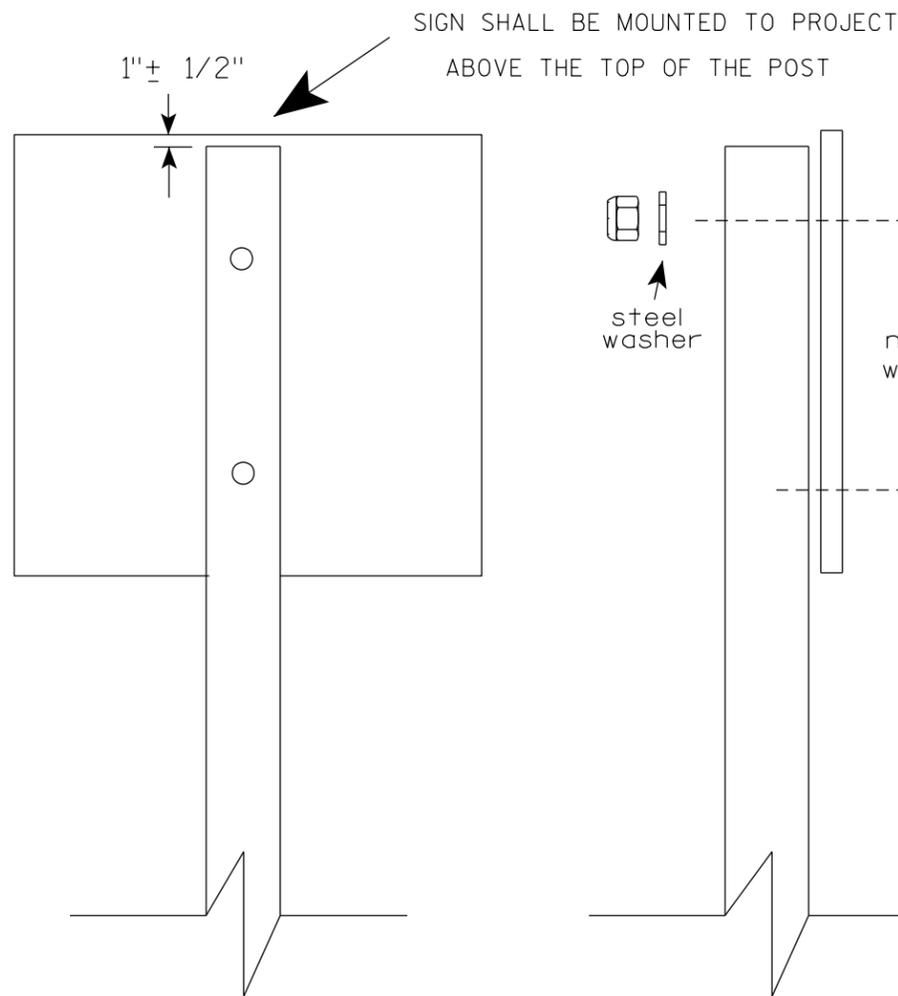
SIGN SHAPE OTHER THAN DIAMOND (THREE POSTS REQUIRED)	
L	E
Greater than 108" to 144"	12"

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



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

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

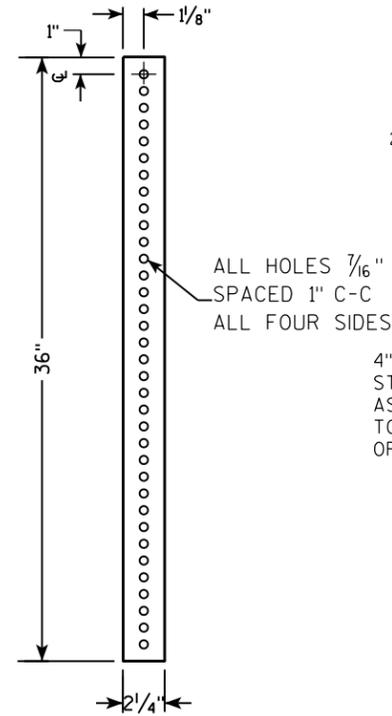
- STRINGER BOLTING TO ALUMINUM SIGNS (SEE SIGN PLATE A4-18)
- MACHINE BOLTS -  $\frac{5}{16}$ " X 1-3/4" Length w/ lock nuts
- WOOD POSTS (4" x 6")
- LAG SCREWS -  $\frac{3}{8}$ " X 3" (NO STRINGERS ON BACK OF SIGN)
  - $\frac{3}{8}$ " X 4" (STRINGERS ON BACK OF SIGN)
- SQUARE STEEL POSTS (2" x 2")
- MACHINE BOLTS -  $\frac{3}{8}$ " X 3-1/4" Length w/ nuts (NO STRINGER ON BACK OF SIGN)
  - $\frac{3}{8}$ " X 5" Length w/ nuts (STRINGERS ON BACK OF SIGN)
- RIVETS -  $\frac{9}{32}$ " (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  $\frac{3}{8}$ " I.D. X  $\frac{1}{16}$ " STEEL
  - 1-1/4" O.D. X  $\frac{3}{8}$ " 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.

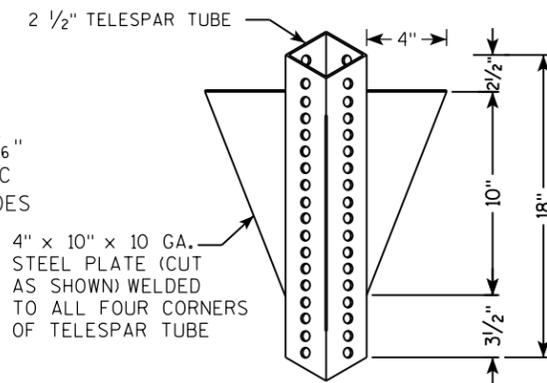
ATTACHMENT OF SIGNS TO POSTS	
WISCONSIN DEPT OF TRANSPORTATION	
APPROVED	<i>Matthew R Rauch</i> For State Traffic Engineer
DATE 4/1/2020	PLATE NO. A4-8.9

**TELESCOPIC TUBING ANCHORS  
TWO PIECE SYSTEM**

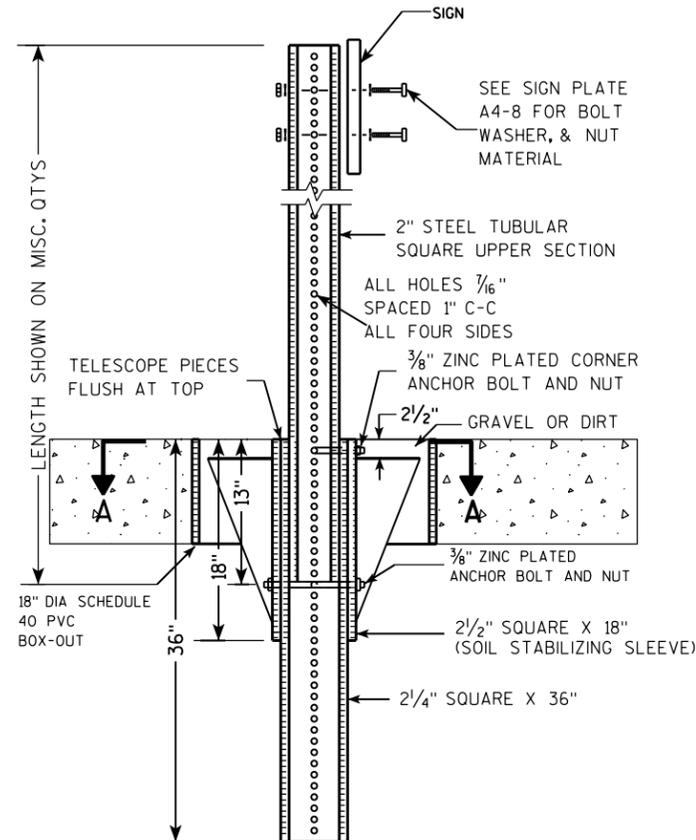
2 1/4" SQUARE  
12 GAUGE  
PERFORATED  
GALVANIZED FINISH



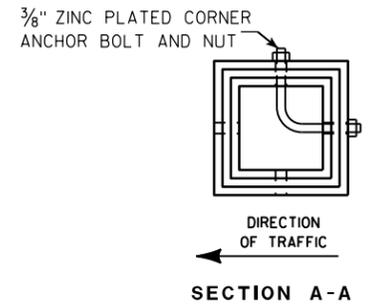
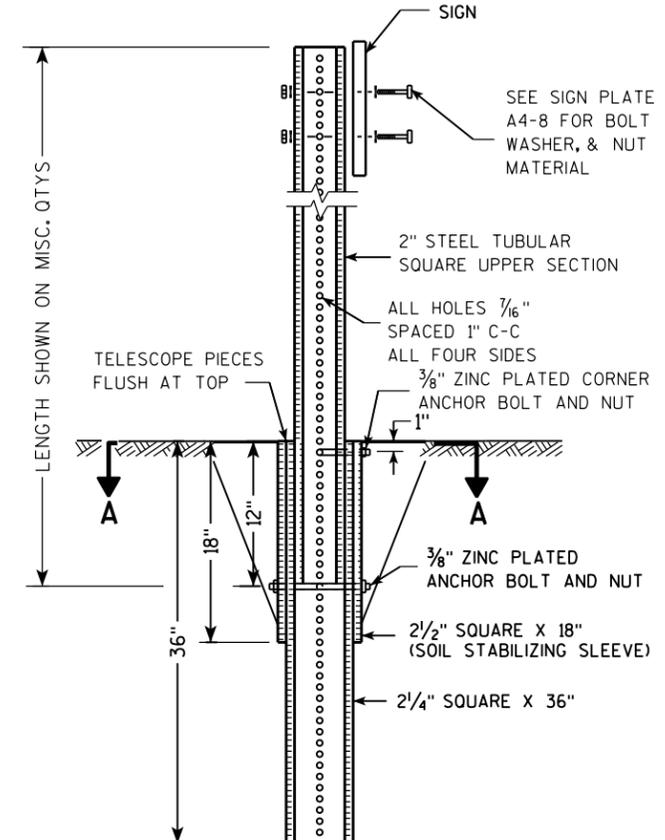
2 1/2" SQUARE  
12 GAUGE  
OMNI-DIRECTIONAL  
PERFORATED  
SOIL STABILIZING SLEEVE  
GALVANIZED FINISH



**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)**



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

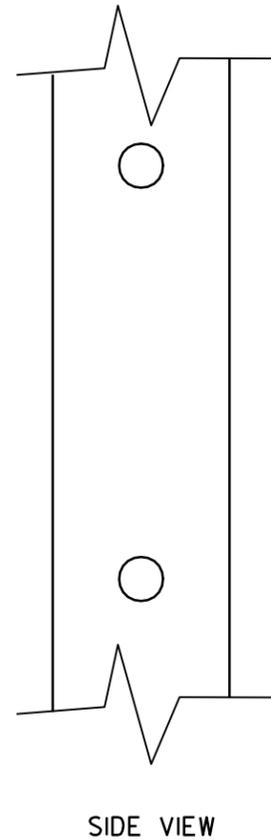
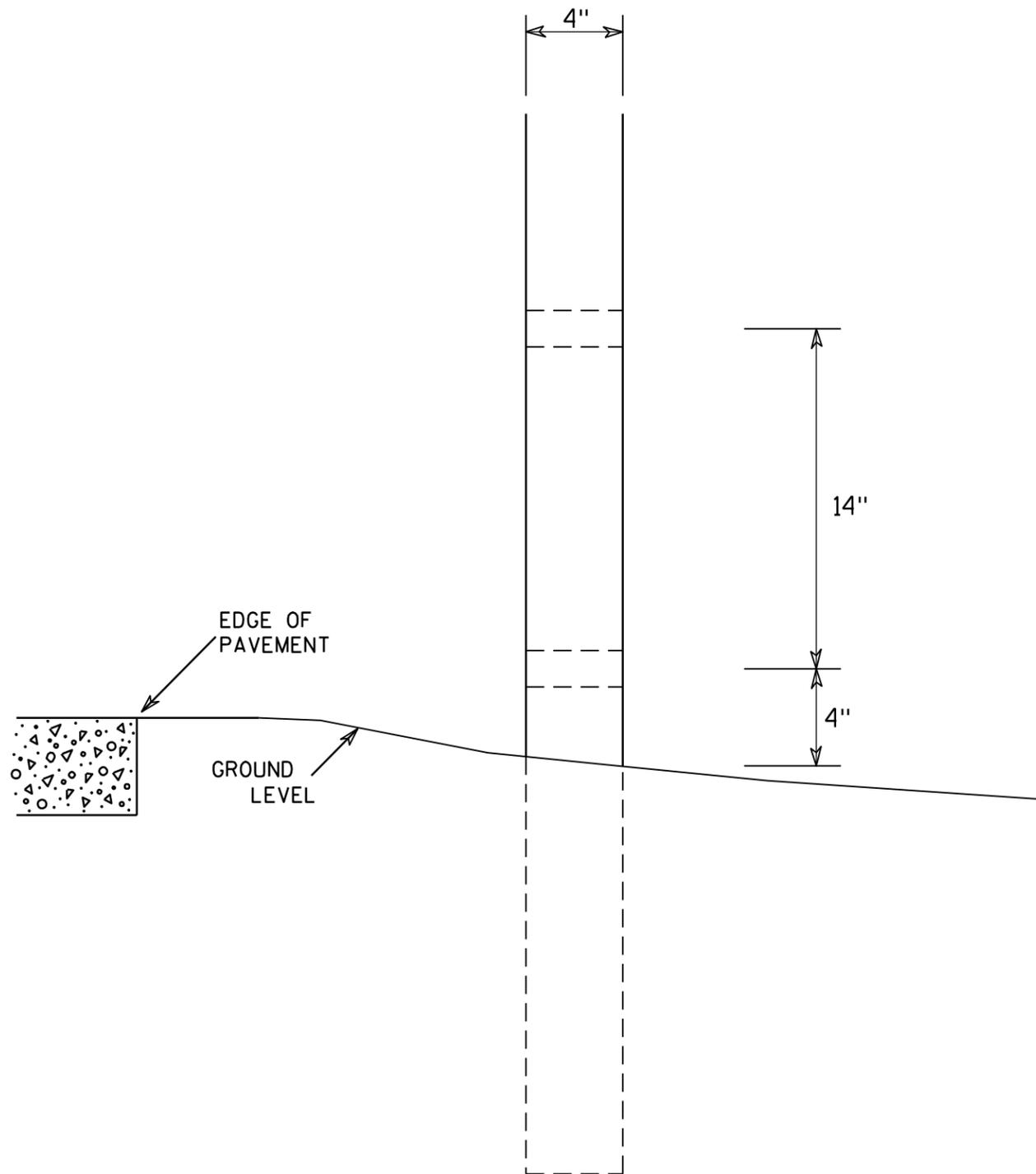
Signs wider than 3 feet or larger than 9 sq. ft shall be mounted on multiple posts (see above table).

**TUBULAR STEEL  
SIGN POST  
A4-9**

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*  
for State Traffic Engineer

DATE 2/05/15 PLATE NO. A4-9.9



GENERAL NOTES

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

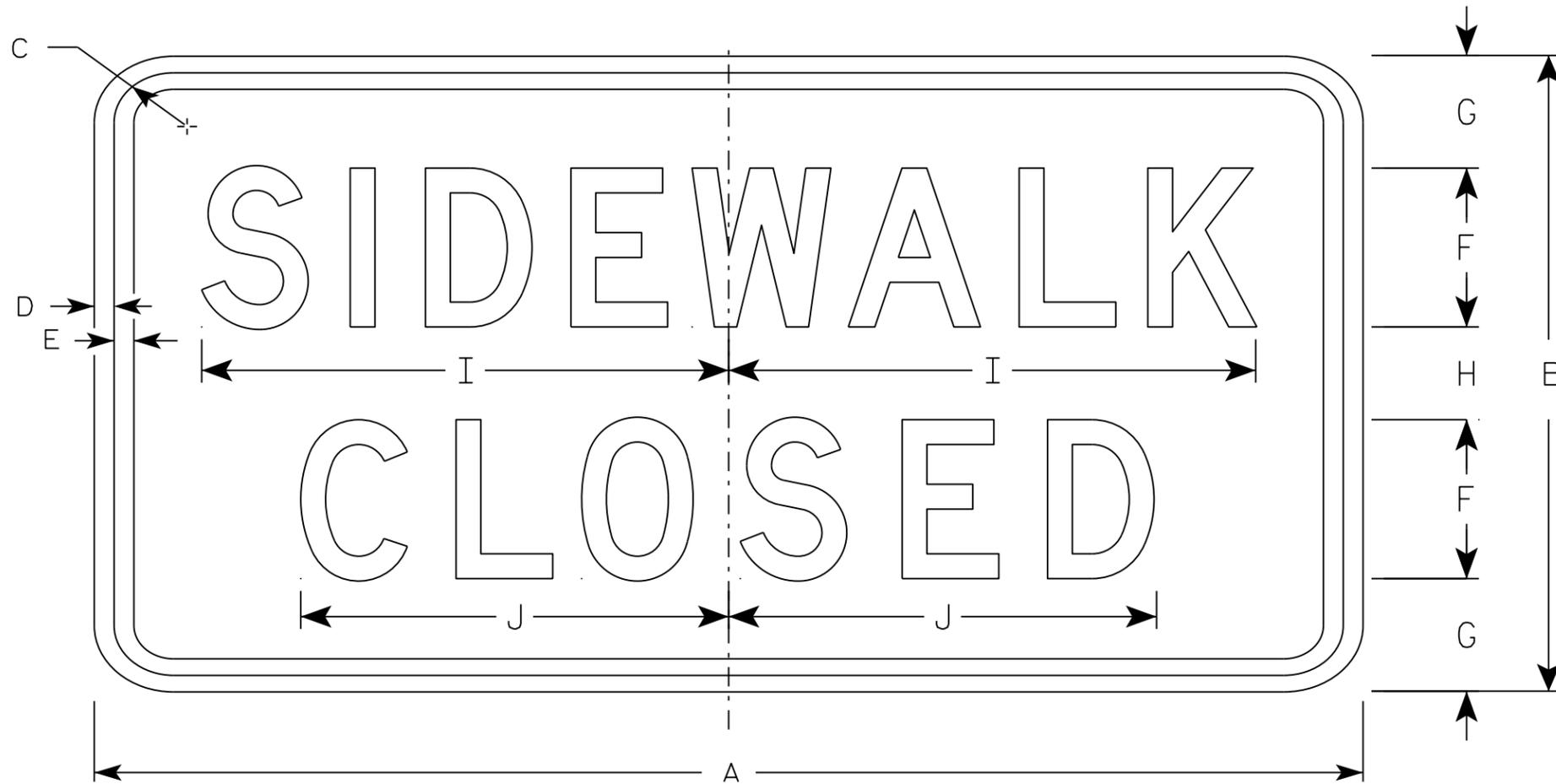
7

7

4 X 6 WOOD POST MODIFICATIONS	
WISCONSIN DEPT OF TRANSPORTATION	
APPROVED	<i>Chester J. Spang</i> for State Traffic Engineer
DATE 3/27/97	PLATE NO. A4-11.2

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 - 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. Use Size 2 for Sidewalks. Use Size 3 for Paths and Trails.



R9-9

7

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 3/4	1/2	1/2	3	2 1/8	1 3/4	10	8 1/8																	2.0
2M	24	12	1 3/4	1/2	1/2	3	2 1/8	1 3/4	10	8 1/8																	2.0
3	30	18	1 3/4	1/2	1/2	4	3 1/2	3	12 1/2	10 1/4																	3.75
4																											
5																											

STANDARD SIGN  
R9-9

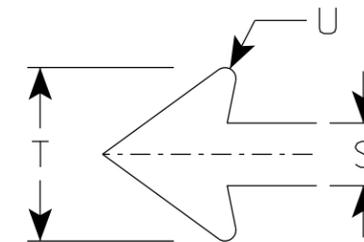
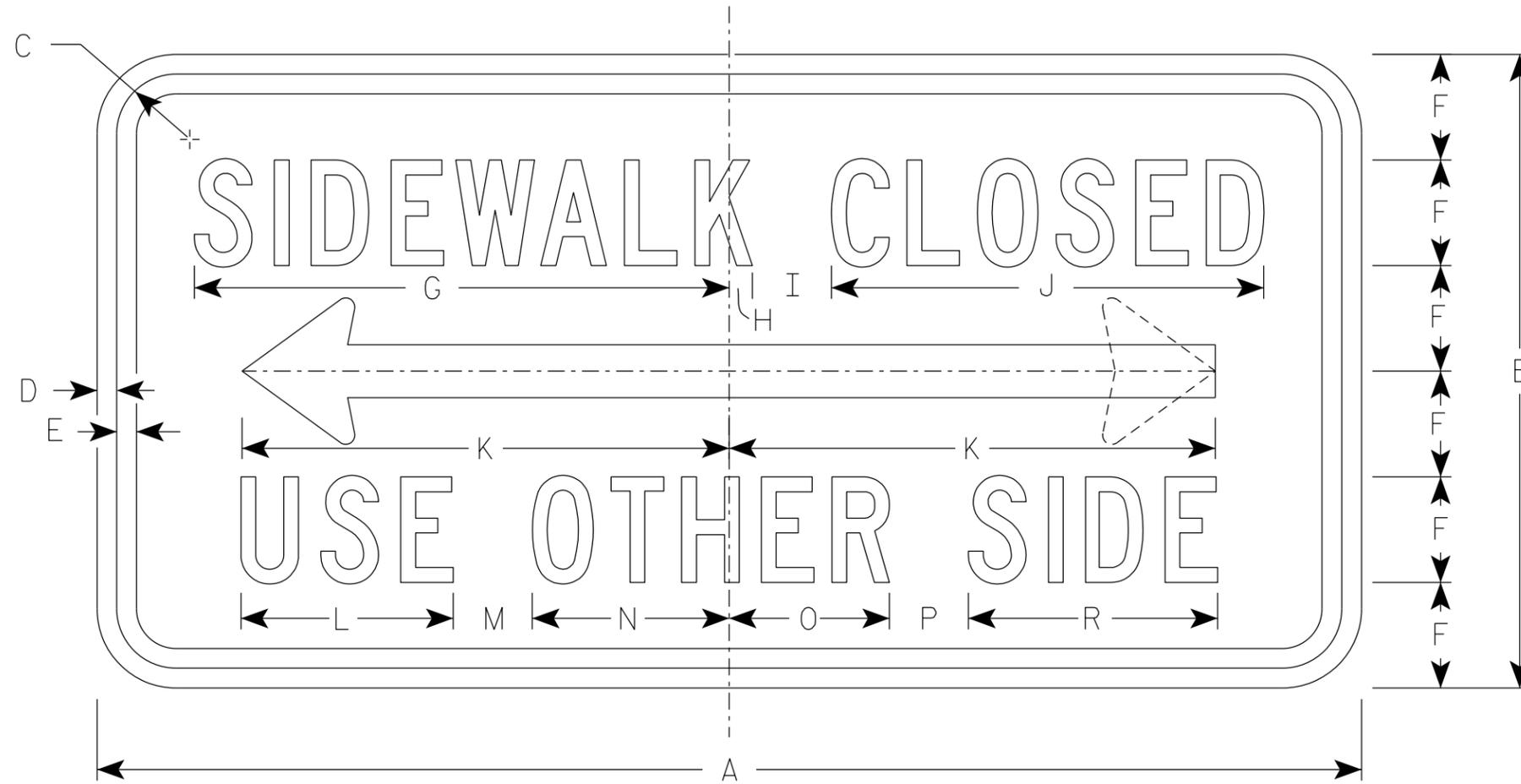
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*  
For State Traffic Engineer

DATE 8/11/16 PLATE NO. R9-9.6

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. Use Size 2 for sidewalks. Use Size 3 for paths and trails.



R9-10

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	2	10 1/8	1/2	1 1/2	8 1/4	9 1/4	4	1 1/2	3 3/4	3	1 1/2		4 3/4	1	2 3/4	1/8						2.0
2M	24	12	1 1/8	3/8	3/8	2	10 1/8	1/2	1 1/2	8 1/4	9 1/4	4	1 1/2	3 3/4	3	1 1/2		4 3/4	1	2 3/4	1/8						2.0
3	30	15	1 1/8	3/8	1/2	2 1/2	12 3/4	1/2	2	10 1/4	12 3/8	5	2	4 5/8	3 3/4	2		5 7/8	1 1/4	3 5/8	1/4						3.125
4																											
5																											

STANDARD SIGN  
R9-10

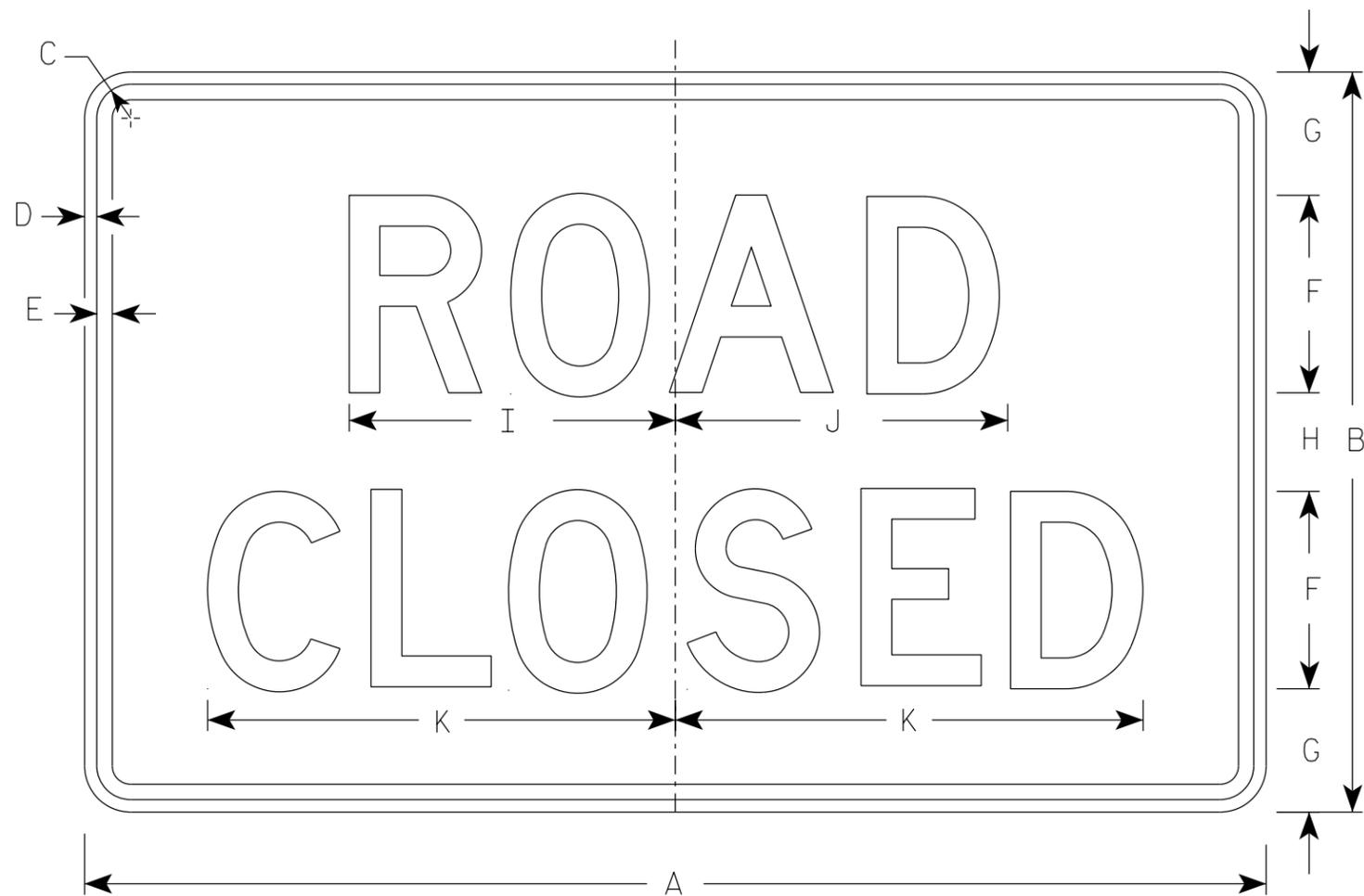
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*  
State Traffic Engineer

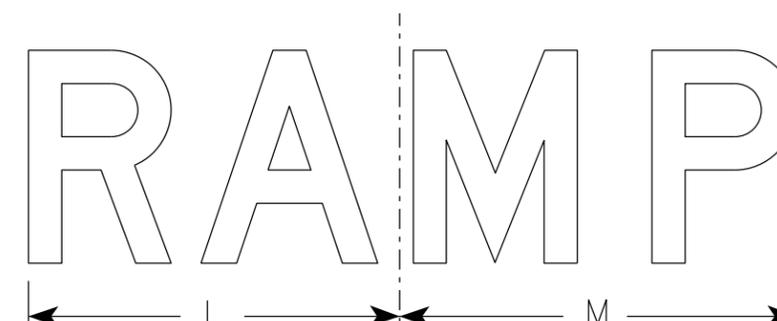
DATE 4/7/2020 PLATE NO. R9-10.7

PROJECT NO: \_\_\_\_\_ HWY: \_\_\_\_\_ COUNTY: \_\_\_\_\_ SHEET NO: **E**

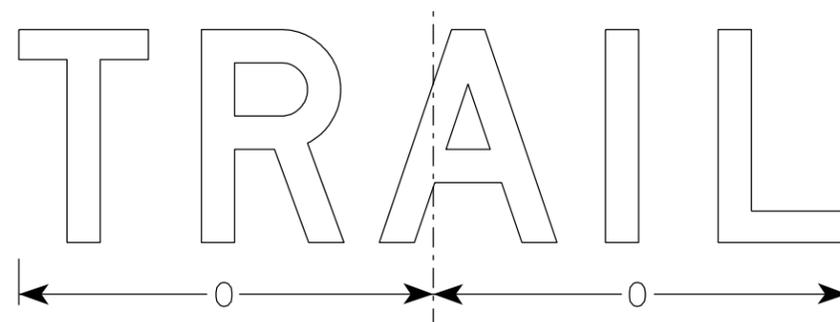
FILE NAME : C:\CAEFiles\Projects\tr\_stdplote\R910.dgn PLOT DATE : 07-APRIL-2020 PLOT BY : dotc4c PLOT NAME : \_\_\_\_\_ PLOT SCALE : \_\_\_\_\_ WISDOT/CADDS SHEET 42



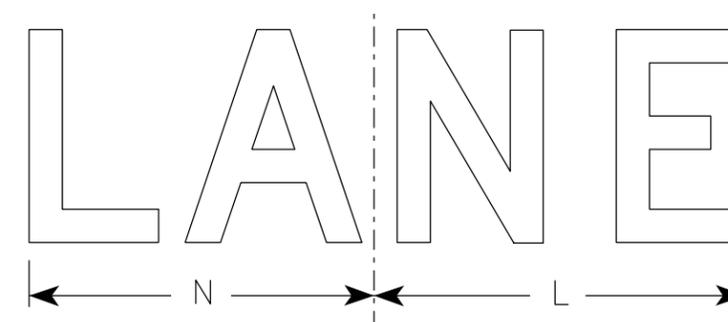
R11-2



R11-2R



R11-2T



R11-2L

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.

7

7

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

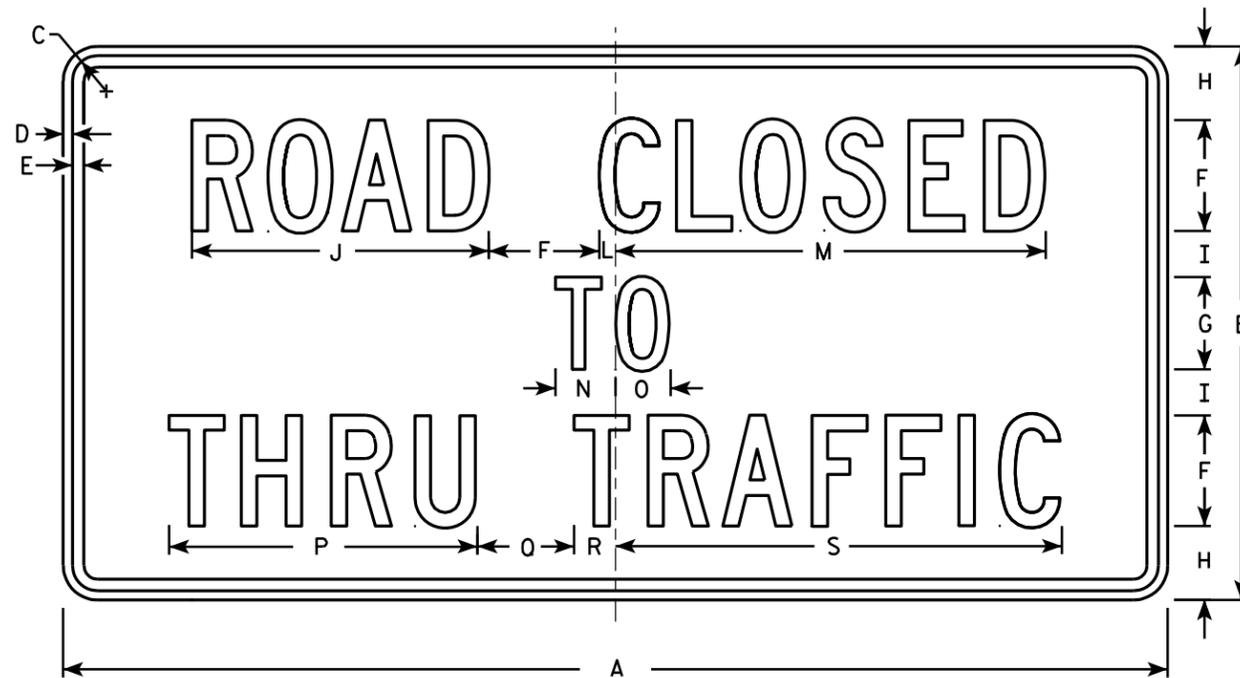
APPROVED *Matthew R Rauch*  
For State Traffic Engineer

DATE 3/29/2021 PLATE NO. R11-2.11

PROJECT NO: \_\_\_\_\_ HWY: \_\_\_\_\_ COUNTY: \_\_\_\_\_ SHEET NO: **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 - 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.



R11-4

7

7

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	60	30	1 3/8	1/2	5/8	6	5	4	2 1/2	16 1/8		7/8	23 3/8	3 1/4	3	16 3/4	5 1/4	2 1/4	24 1/4								12.5
2M	60	30	1 3/8	1/2	5/8	6	5	4	2 1/2	16 1/8		7/8	23 3/8	3 1/4	3	16 3/4	5 1/4	2 1/4	24 1/4								12.5
3																											
4																											
5																											

**STANDARD SIGN**  
R11 - 4

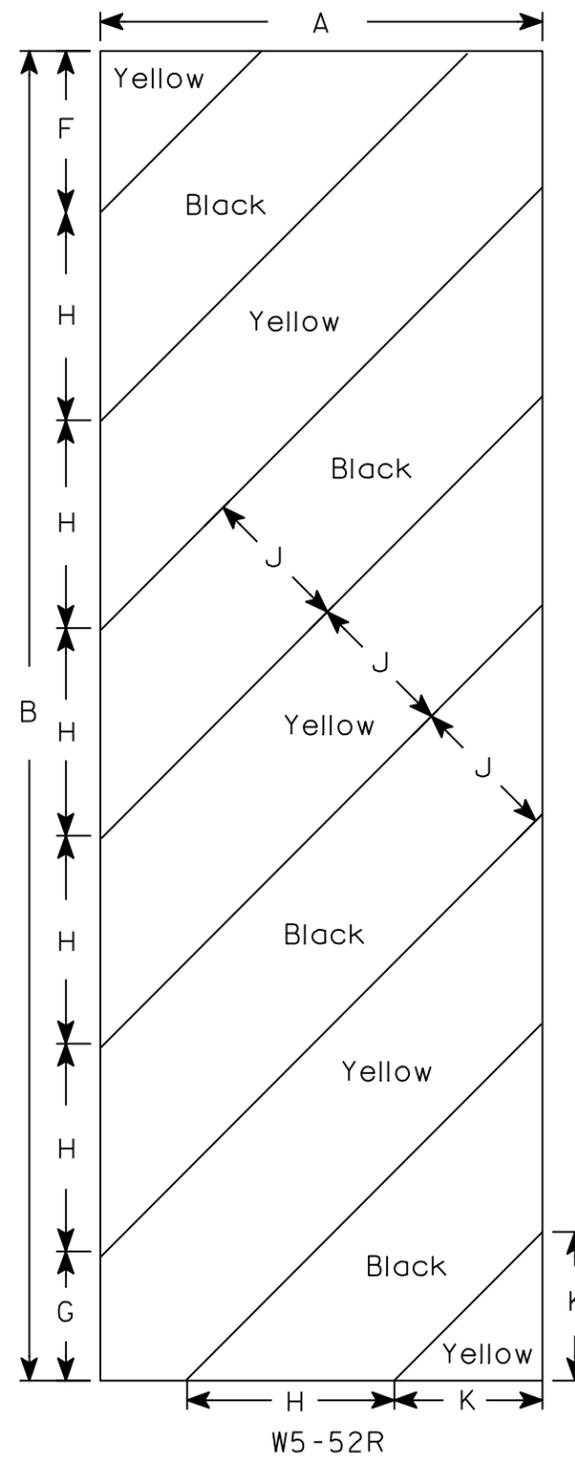
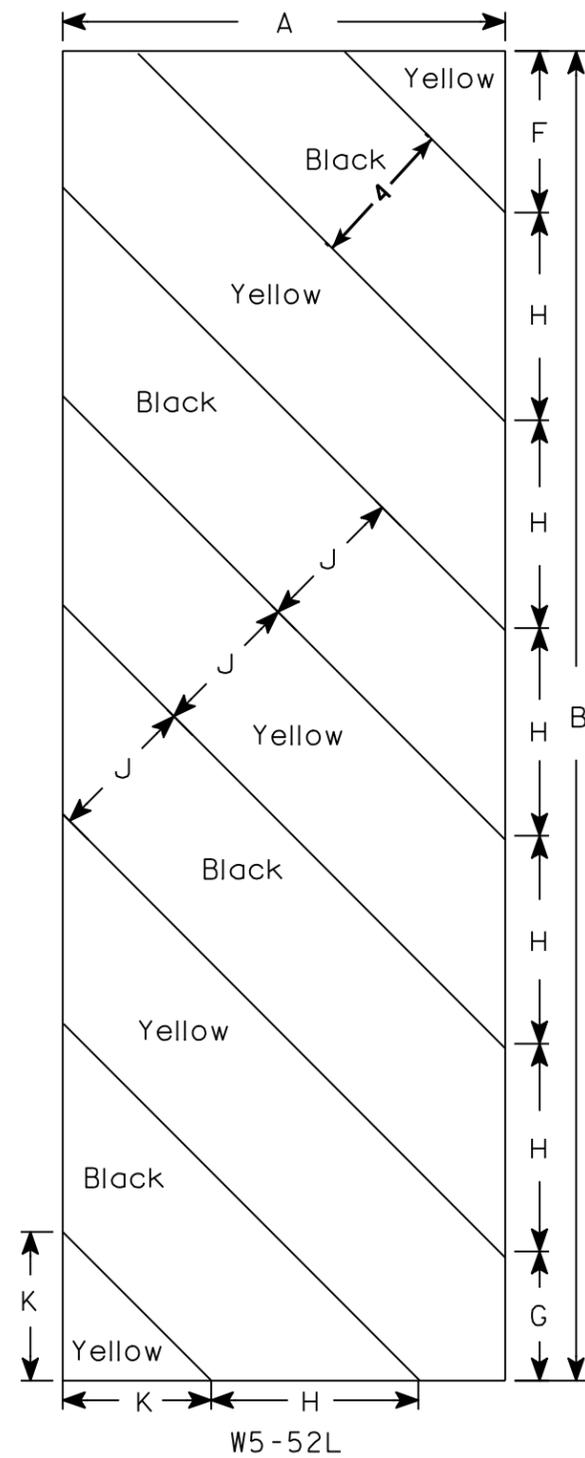
---

*WISCONSIN DEPT OF TRANSPORTATION*

APPROVED *Matthew R. Raush*  
for State Traffic Engineer

DATE 4/1/11 PLATE NO. R11-4.3

PROJECT NO: \_\_\_\_\_ HWY: \_\_\_\_\_ COUNTY: \_\_\_\_\_ SHEET NO: \_\_\_\_\_ 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. 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.

7

7

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

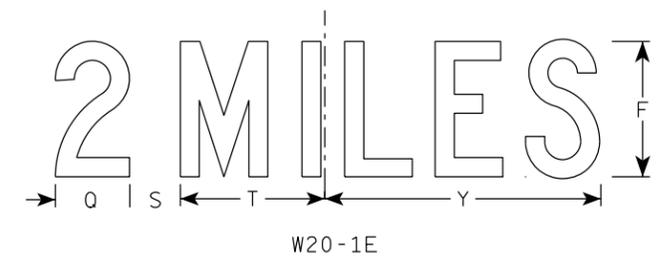
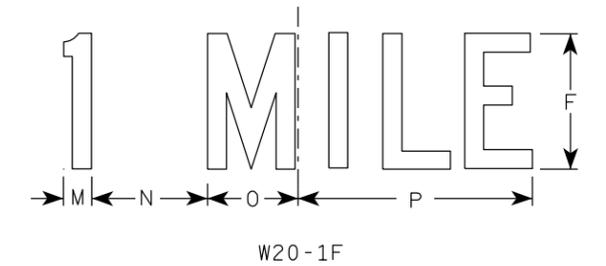
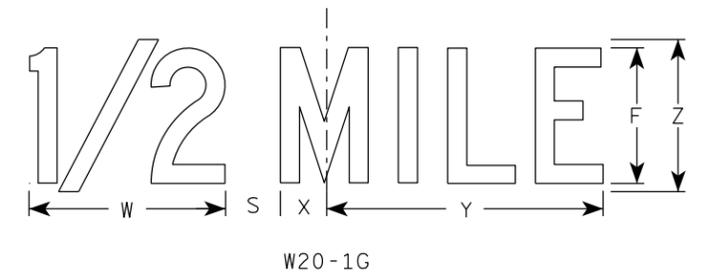
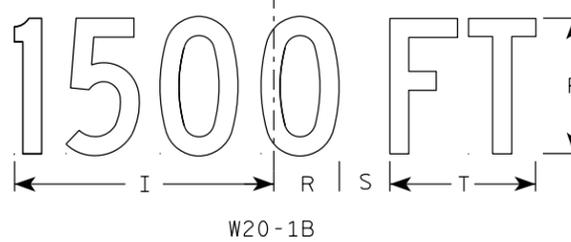
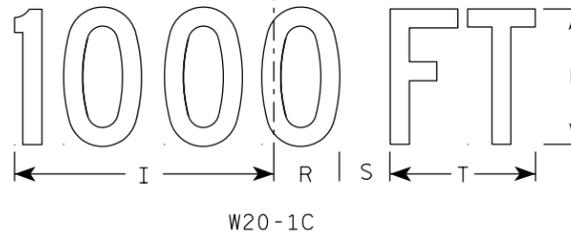
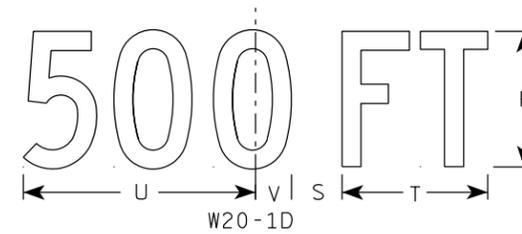
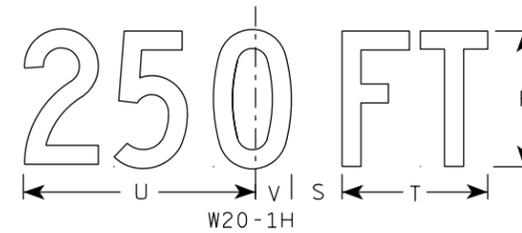
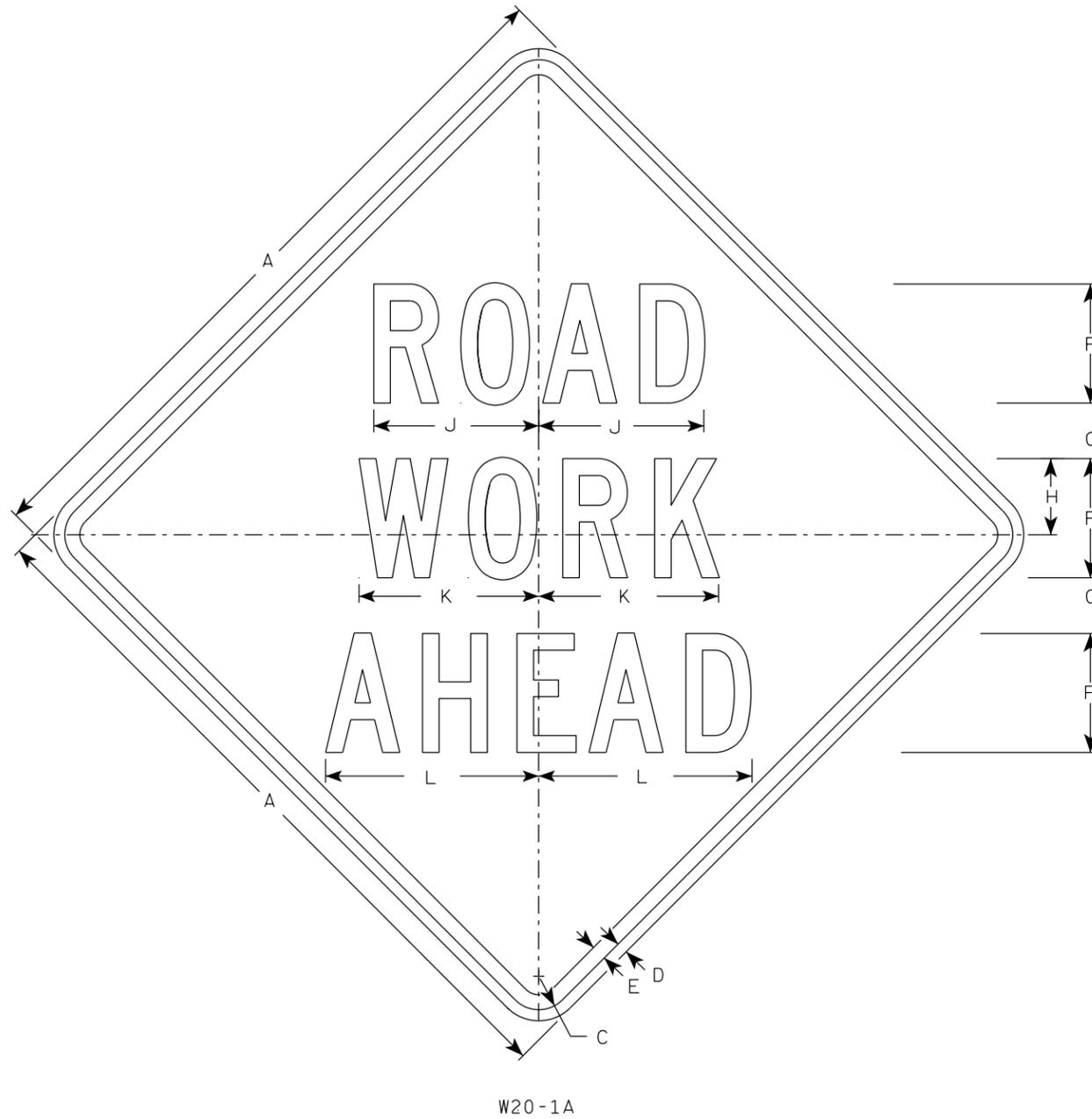
APPROVED *Matthew R. Rauch*  
for State Traffic Engineer

DATE 5/29/12 PLATE NO. W5-52.9

PROJECT NO: \_\_\_\_\_ HWY: \_\_\_\_\_ COUNTY: \_\_\_\_\_ SHEET NO: \_\_\_\_\_ E

**NOTES**

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



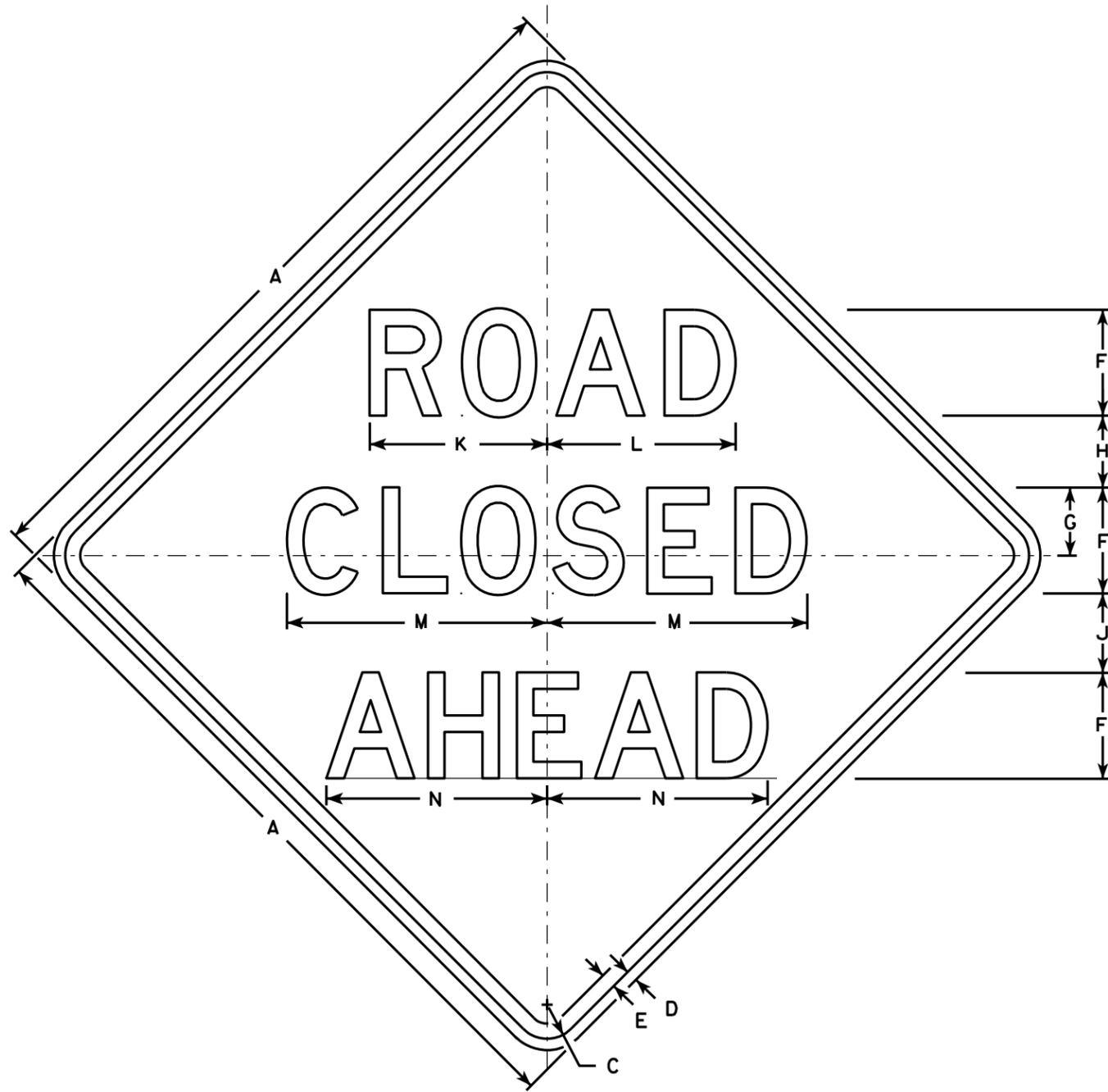
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 5/8	5/8	3/4	5	2 5/8	3 1/4	10 1/8	7	7 5/8	8 7/8	1 1/8	4 1/2	3 1/2	9	3 1/4	2 1/2	2 1/4	5 5/8	9	1 3/8	8	1 3/4	10 3/4	6	9.0
2S	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8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

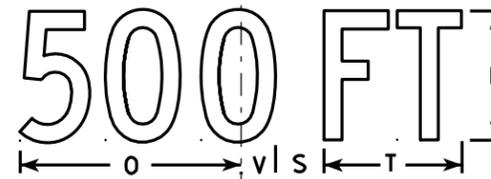
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*  
For State Traffic Engineer

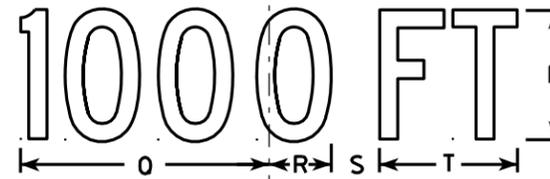
DATE 3/25/2020 PLATE NO. W20-1.11



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.

7

7

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

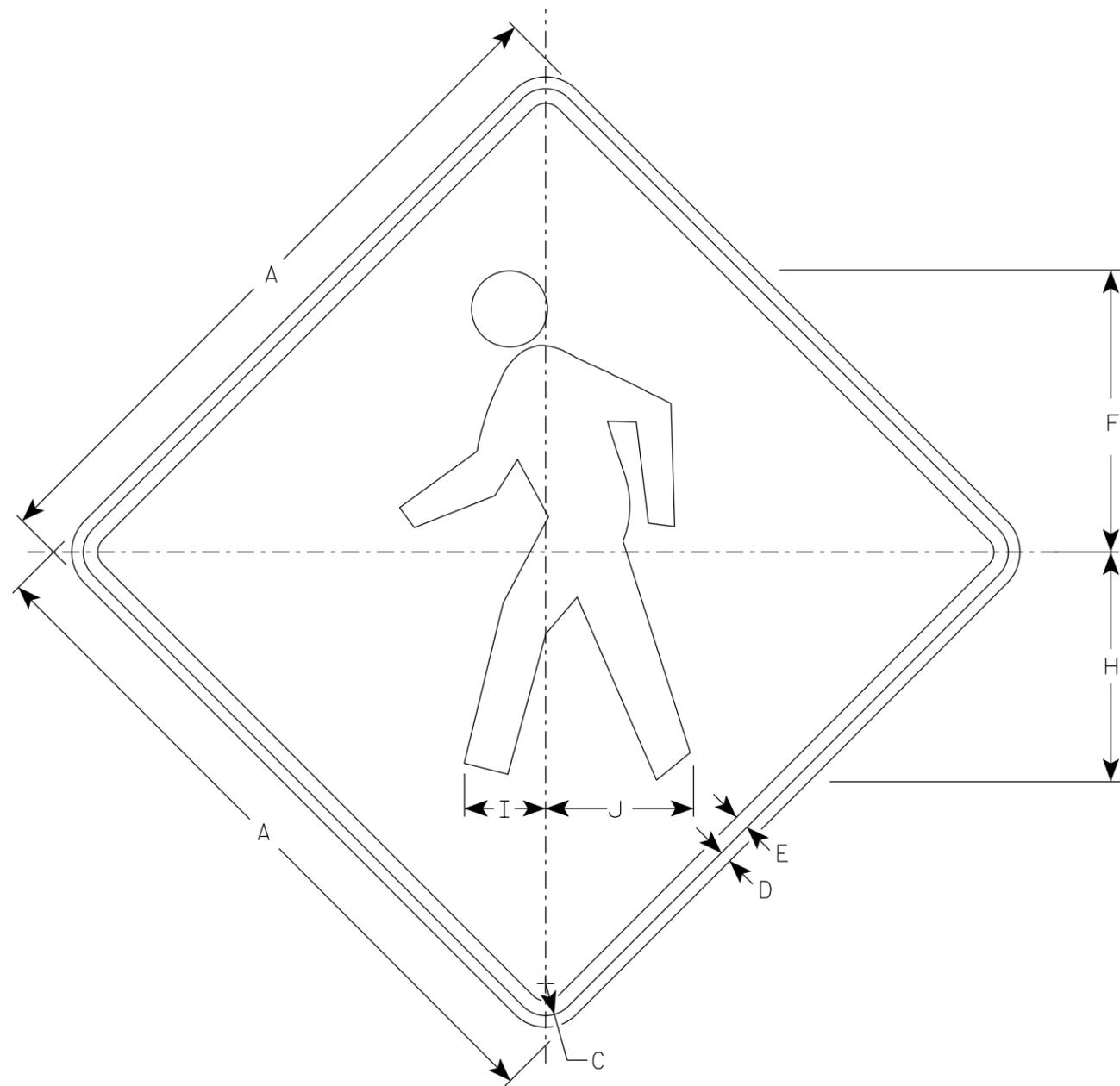
APPROVED *Matthew R. Rauch*  
For State Traffic Engineer

DATE 3/18/11 PLATE NO. W20-3.7

PROJECT NO: \_\_\_\_\_ HWY: \_\_\_\_\_ COUNTY: \_\_\_\_\_ SHEET NO: \_\_\_\_\_ E

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.



W011-2

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	36		1 5/8	5/8	3/4	14 1/2		11 7/8	4 1/4	7 5/8																	9.0
2S	48		2 1/4	3/4	1	19 3/8		15 3/4	5 5/8	10 1/4																	16.0
2M	48		2 1/4	3/4	1	19 3/8		15 3/4	5 5/8	10 1/4																	16.0
3	48		2 1/4	3/4	1	19 3/8		15 3/4	5 5/8	10 1/4																	16.0
4	48		2 1/4	3/4	1	19 3/8		15 3/4	5 5/8	10 1/4																	16.0
5																											

STANDARD SIGN  
W011-2

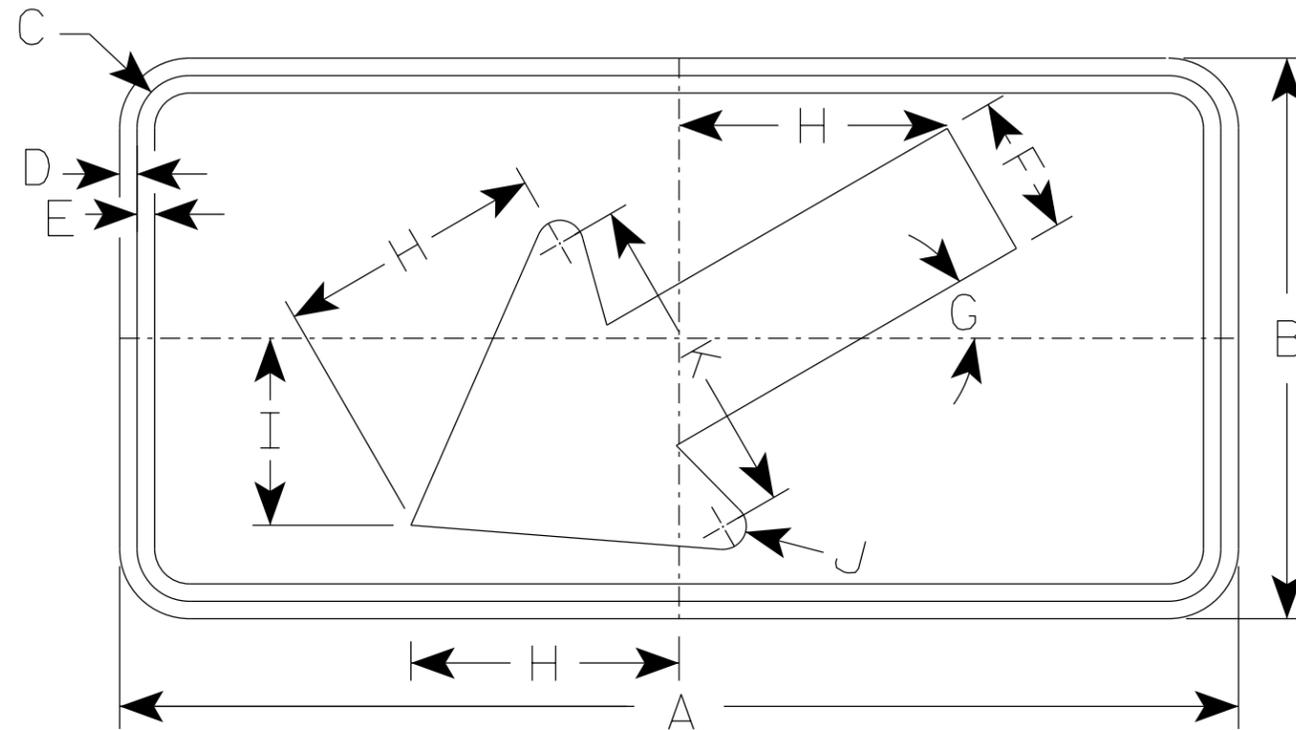
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*  
for State Traffic Engineer

DATE 4/8/2020 PLATE NO. W011-2.1

NOTES

1. Sign is Type II - Type F Reflective
2. Color:  
Background - Orange  
Message - Black
3. Corners may be square or rounded but corners shall be rounded when base material is metal.
4. W016-7R is the same as W016-L except the arrow is reversed along the vertical centerline.



W016-7L

7

7

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	18	1 1/8	3/8	1/2	4 1/2	30°	8 1/2	6	5/8	10 1/4																3.75
2S	48	24	1 3/8	1/2	5/8	6	30°	11 1/2	8	1	14																8.0
2M	48	24	1 3/8	1/2	5/8	6	30°	11 1/2	8	1	14																8.0
3	48	24	1 3/8	1/2	5/8	6	30°	11 1/2	8	1	14																8.0
4	48	24	1 3/8	1/2	5/8	6	30°	11 1/2	8	1	14																8.0
5	48	24	1 3/8	1/2	5/8	6	30°	11 1/2	8	1	14																8.0

STANDARD SIGN  
W016-7

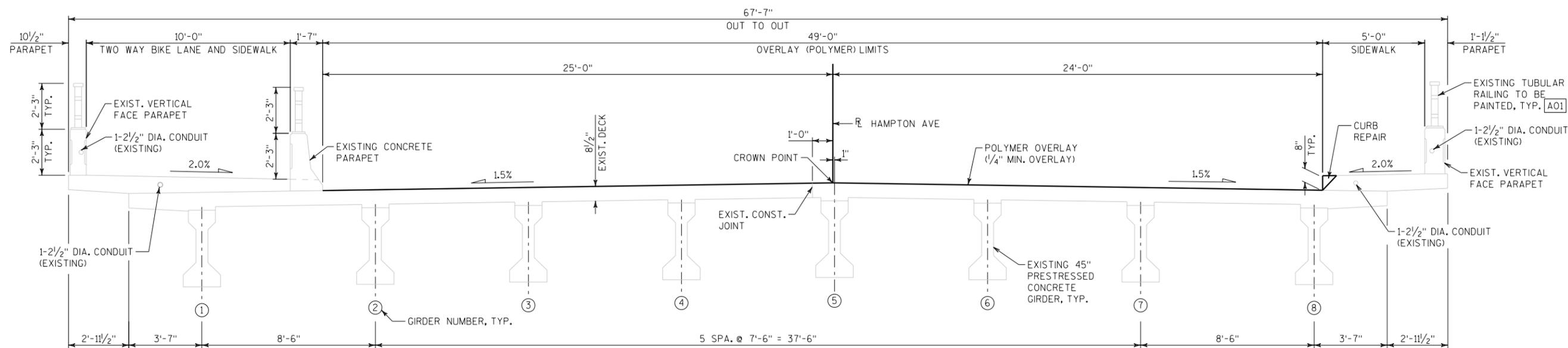
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R Rauch*  
for State Traffic Engineer

DATE 3/16/2021 PLATE NO. W016-7.2

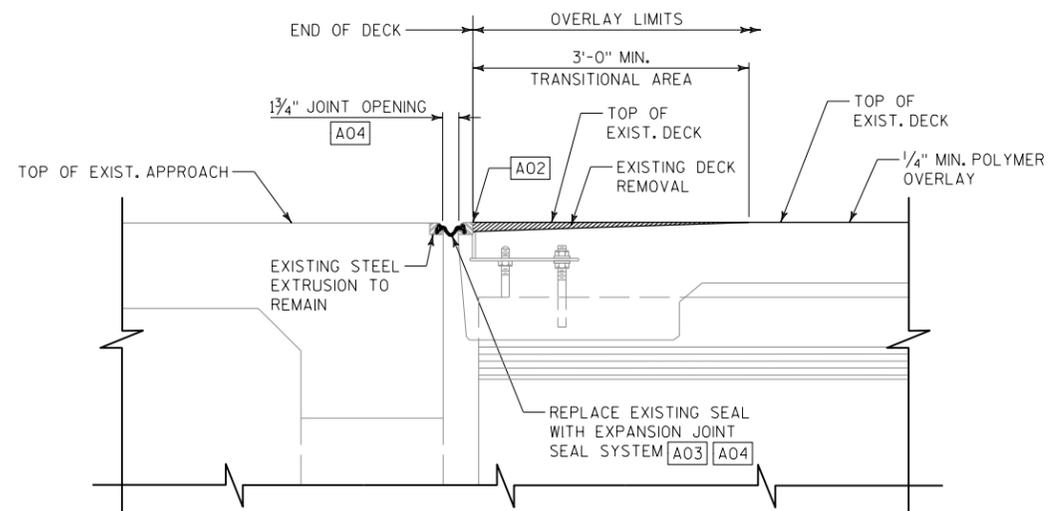
PROJECT NO: \_\_\_\_\_ HWY: \_\_\_\_\_ COUNTY: \_\_\_\_\_ SHEET NO: \_\_\_\_\_ **E**





**TYPICAL SECTION**

(LOOKING EAST)  
(DIMENSIONS & CROSS SLOPES BASED ON ORIGINAL STRUCTURE PLANS)



**SECTION THRU ABUTMENT  
TRANSITIONAL AREA ON DECK  
AT EXPANSION JOINT**

(REMOVAL AND OVERLAY THICKNESS NOT TO SCALE)

**TEMPERATURE TABLE**

TEMP. (°F)	JOINT OPENING
5	2 1/2"
15	2 3/8"
25	2 1/4"
35	2 1/8"
45	2"
55	2"
65	1 7/8"
75	1 3/4"
85	1 5/8"

**LEGEND:**

- [A01] DAMAGED TUBULAR RAILING TO BE REPAIRED PER BID ITEM "DECORATIVE RAILING REPAIR". SEE GENERAL PLAN & ELEVATION SHEET FOR LOCATION.
- [A02] 1/4" MIN. REMOVAL OF EXIST. DECK AT END OF TRANSITION.
- [A03] CONTRACTOR TO SELECT APPROPRIATELY SIZED EXPANSION JOINT SEAL SYSTEM BASED ON THE SELECTED PRODUCTS SPECIFICATIONS. JOINT MATERIAL SIZE SHALL BE APPROVED BY THE ENGINEER.
- [A04] JOINT OPENING DIMENSION OF 1 3/4" WAS TAKEN FROM THE EXISTING DECK REPLACEMENT PLAN DATED JANUARY 3, 1997. CONTRACTOR TO CONFIRM JOINT OPENING SIZE IN THE FIELD BEFORE SELECTING AND INSTALLING EXPANSION JOINT SEAL SYSTEM.

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
<b>STRUCTURE P-40-750</b>			
DRAWN BY		AJA	PLANS CK'D. MHZ
<b>TYPICAL SECTION</b>			SHEET 2 OF 9

8

8

**GENERAL NOTES**

DRAWINGS SHALL NOT BE SCALED.

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

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

UTILIZE EXISTING BAR STEEL REINFORCEMENT WHERE SHOWN AND EXTEND 24 BAR DIAMETERS INTO NEW WORK, UNLESS SPECIFIED OTHERWISE.

DIMENSIONS SHOWN ARE BASED ON THE DECK REPLACEMENT PLANS DATED JANUARY 3, 1997.

ALL DIMENSIONS ARE IN FEET AND INCHES UNLESS OTHERWISE NOTED.

ALL STATIONS AND ELEVATIONS ARE IN FEET. ELEVATIONS ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM NAVD 88 (2007).

COORDINATES ON THIS PLAN ARE REFERENCED TO THE WISCONSIN COUNTY COORDINATE SYSTEM (WCCS), MILWAUKEE COUNTY ZONE NAD 83 (2007).

AT "CURB REPAIR" EXPOSE EXISTING REINFORCEMENT A MINIMUM OF 1/2" CLEAR.

SURFACE PREPARATION IS INCLUDED IN THE BID ITEMS "PIGMENTED SURFACE SEALER RESEAL" & "PROTECTIVE SURFACE TREATMENT RESEAL".

"PROTECTIVE SURFACE TREATMENT RESEAL" SHALL BE APPLIED TO THE EXPOSED HORIZONTAL AND VERTICAL SURFACES OF THE SIDEWALKS ON THE BRIDGE AND APPROACH SLABS.

APPLY "PIGMENTED SURFACE SEALER RESEAL" TO ALL EXPOSED HORIZONTAL AND VERTICAL FACES OF THE INTERIOR PARAPET ON THE BRIDGE AND APPROACH SLABS. APPLY "PIGMENTED SURFACE SEALER RESEAL" TO THE TOP AND INSIDE FACES OF THE EXTERIOR PARAPETS ON THE BRIDGE AND WINGWALLS.

REMOVING, CLEANING, PAINTING AND REINSTALLING THE EXISTING TUBULAR RAILING IS TO BE PAID FOR UNDER BID ITEM "REPAINTING DECORATIVE STEEL RAILING".

BEVEL EXPOSED EDGES OF CONCRETE TO MATCH EXISTING BEVELS UNLESS OTHERWISE NOTED.

REPLACE THE EXISTING STRIP SEAL GLANDS AS PER BID ITEM "EXPANSION JOINT SEAL SYSTEM" AFTER THE "POLYMER OVERLAY" IS COMPLETE.

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

ANY DAMAGE TO THE EXISTING STRIP SEAL EXPANSION JOINT STEEL EXTRUSION DURING DECK PREPARATION SHALL BE REPAIRED AT THE DIRECTION OF THE ENGINEER AND SHALL BE CONSIDERED INCIDENTAL TO THE BID ITEM "EXPANSION JOINT SEAL SYSTEM".

EXISTING STEEL RAILING SHALL BE PAINTED TO MATCH THE EXISTING LIGHT POLE, PAINT COLOR SHALL BE SHERWIN WILLIAMS F78XXG27314387 PARK GREEN. CONTRACTOR TO OBTAIN APPROVAL FROM THE ENGINEER PRIOR TO APPLICATION.

CONCRETE SURFACE REPAIRS SHALL BE DEFINED BY A 1/2" SAWCUT. REMOVE ANY/ALL LOOSE CONCRETE UNDER BID ITEM "CONCRETE SURFACE REPAIR". SURFACES SHALL BE BLAST CLEANED AND ANY EXPOSED STEEL SHALL BE BRUSHED CLEANED PRIOR TO THE CONCRETE SURFACE REPAIRS BEING COMPLETED. REPAIR AREAS SHALL BE VERIFIED AND APPROVED BY THE FIELD ENGINEER.

PARTIAL REPAIR OF THE PEDESTRIAN RAILING IS TO BE PAID FOR UNDER BID ITEM "DECORATIVE RAILING REPAIR".

AREAS OF "PREPARATION DECKS TYPE 1" SHALL BE DEFINED BY A SAW CUT.

PREPARATION DECKS TYPE 1 AREAS ARE BASED ON THE PLANS AND AS DETERMINED BY THE ENGINEER. DECK PREPARATION REPAIRS SHALL BE FILLED WITH "RAPID SET DECK REPAIR".

SHOT BLASTING, DECK SURFACE PREPARATIONS, AND TRANSITIONAL AREAS ARE INCLUDED IN THE BID ITEM "POLYMER OVERLAY".

THE POLYMER OVERLAY AND OTHER PROPOSED WORK ITEMS SHALL CONFORM TO TRAFFIC CONTROL RESTRICTIONS NOTED ELSEWHERE IN THE CONTRACT DOCUMENTS. THE ENTIRE POLYMER OVERLAY AND DECK REPAIRS ARE TO BE COMPLETED DURING NIGHT TIME CLOSURES.

REPLACING THE EXISTING MILWAUKEE COUNTY CONDUIT AND TUBULAR RAILING ANCHOR ASSEMBLY AT THE PARAPET REPAIR LOCATION SHALL BE INCIDENTAL TO BID ITEM "CONCRETE MASONRY BRIDGES".

CRACK REPAIRS ARE INCLUDED IN THE BID ITEM "CONCRETE SURFACE REPAIR".

LOCATIONS OF THE FOLLOWING BID ITEMS SHALL BE DETERMINED IN THE FIELD BY THE PROJECT ENGINEER, QUANTITIES SHOWN FOR THESE BID ITEMS ARE APPROXIMATE:

- CURB REPAIR
- CONCRETE SURFACE REPAIR
- RAPID SET DECK REPAIR
- FIBER WRAP REINFORCING NON-STRUCTURAL
- PPC BEAM SURFACE REPAIR

**TOTAL ESTIMATED QUANTITIES**

ITEM NO.	BID ITEMS	UNIT	WEST ABUTMENT	PIER 1	PIER 2	PIER 3	EAST ABUTMENT	SUPER.	TOTAL
502.0100	CONCRETE MASONRY BRIDGES	CY	-	-	-	-	1	-	1
502.3205	PIGMENTED SURFACE SEALER RESEAL	SY	31	-	-	-	31	428	490
502.3215	PROTECTIVE SURFACE TREATMENT RESEAL	SY	41	-	-	-	41	506	588
505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB	-	-	-	-	20	-	20
509.0301	PREPARATION DECKS TYPE 1	SY	-	-	-	-	-	1	1
509.0310.S	SAWING PAVEMENT DECK PREPARATION AREAS	LF	-	-	-	-	-	12	12
509.1200	CURB REPAIR	LF	-	-	-	-	-	15	15
509.1500	CONCRETE SURFACE REPAIR	SF	180	70	70	120	180	20	640
509.5100.S	POLYMER OVERLAY	SY	-	-	-	-	-	1,579	1,579
SPV.0035.01	RAPID SET DECK REPAIR	CY	-	-	-	-	-	1	1
SPV.0060.01	DECORATIVE RAILING REPAIR	EACH	-	-	-	-	-	1	1
SPV.0060.02	REPAINTING DECORATIVE STEEL RAILING	EACH	3	-	-	-	3	3	9
SPV.0090.01	EXPANSION JOINT SEAL SYSTEM	LF	-	-	-	-	-	132	132
SPV.0165.01	FIBER WRAP REINFORCING NON-STRUCTURAL	SF	-	-	-	-	-	316	316
SPV.0165.02	PPC BEAM SURFACE REPAIR	SF	-	-	-	-	-	33	33

ALL ITEMS ARE CATEGORY 0020

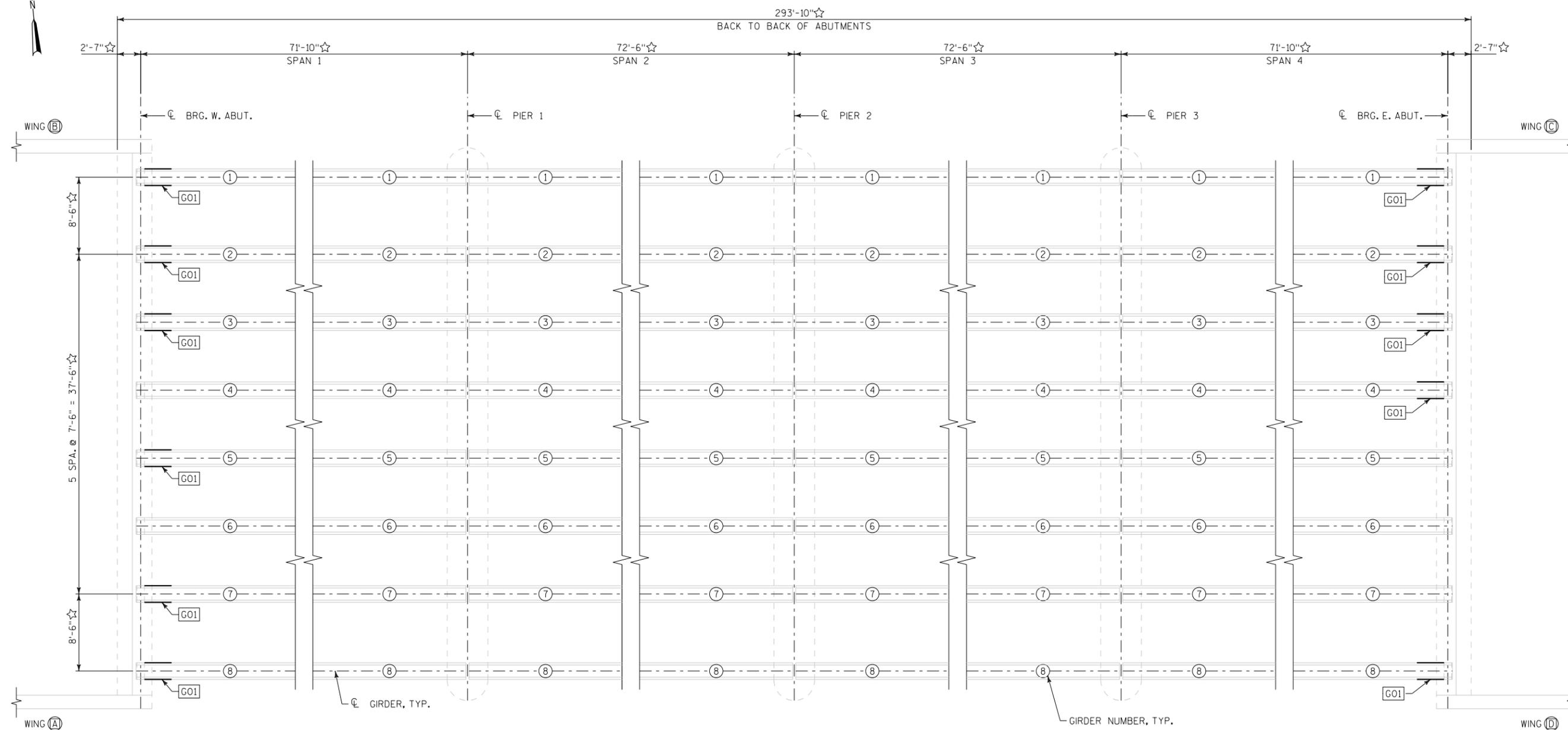
**BENCH MARK DATA**

NO.	DESCRIPTION	NORTHING	EASTING	ELEVATION
SEC NO. 822159	SECTION CORNER ON HAMPTON AVENUE WEST OF THE BRIDGE	323496.31	601370.32	630.95
SEC NO. 722003	SECTION CORNER ON HAMPTON AVENUE WEST OF THE BRIDGE	323495.98	601398.24	630.88
BM 301	BENCH MARK EAST OF HAMPTON AVENUE BRIDGE. CHISELED SQUARE ON CURB HEAD N. SIDE OF HAMPTON	323387.47	602154.17	631.57

8

8

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
<b>STRUCTURE P-40-750</b>			
DRAWN BY		SK	PLANS CK'D. MHZ
<b>QUANTITIES &amp; GENERAL NOTES</b>			SHEET 3 OF 9

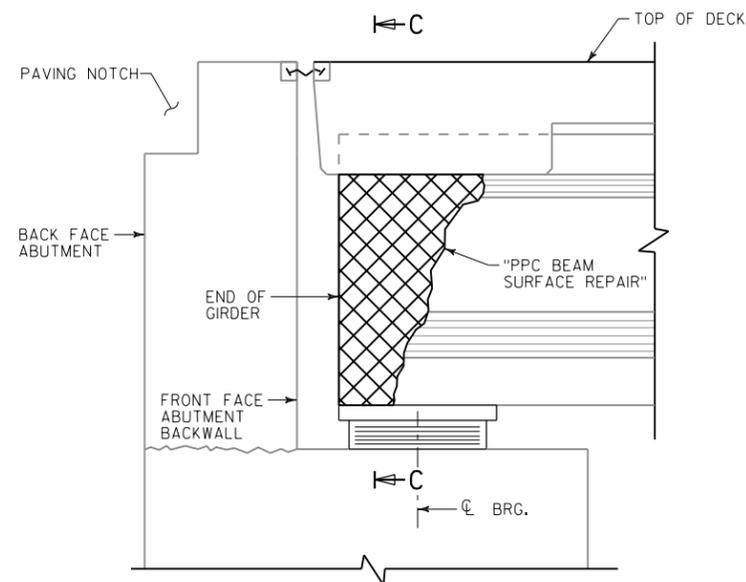


**GIRDER REPAIR PLAN**  
(DIAPHRAGMS NOT SHOWN FOR CLARITY)

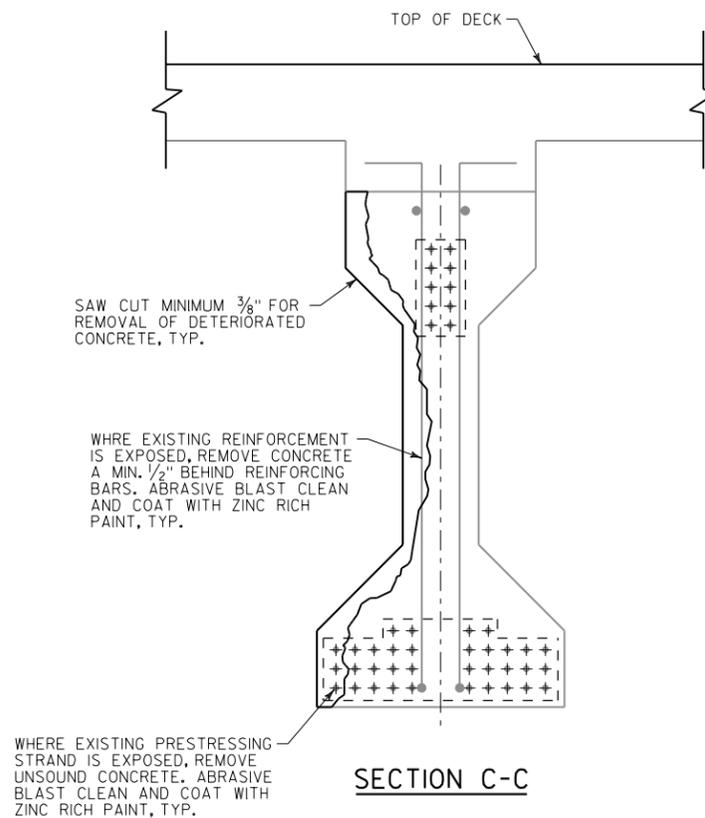
**LEGEND**

- G01 "PPC BEAM SURFACE REPAIR" & "FIBER WRAP REINFORCING NON-STRUCTURAL"
- ☆ PER THE EXISTING DECK REPLACEMENT STRUCTURE PLAN DATED JANUARY 3, 1997.
- (X) EXISTING WINGWALL NOTATION
- (X) GIRDER NUMBER

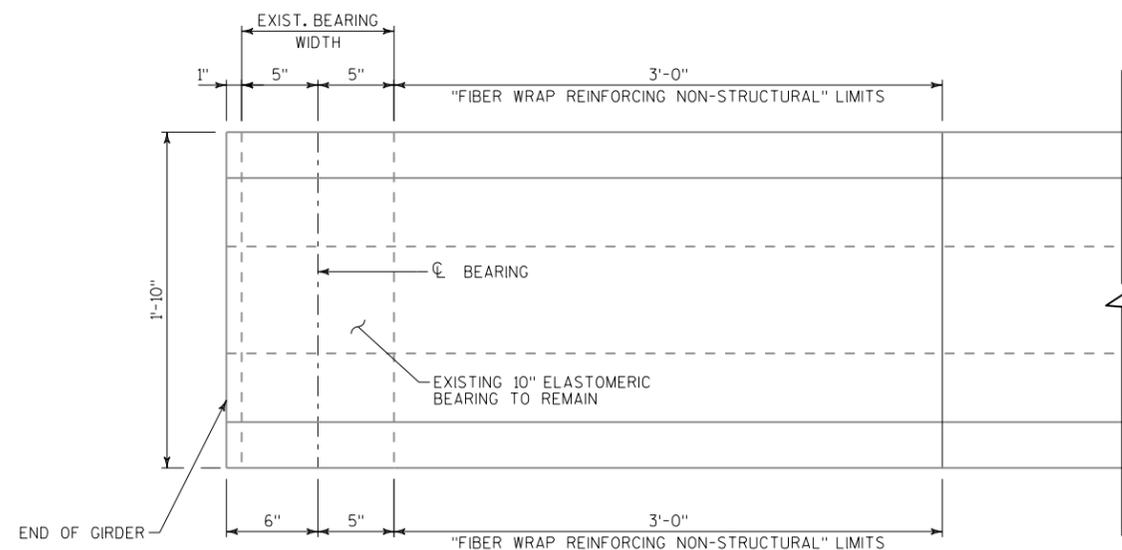
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE P-40-750			
DRAWN BY AJA		PLANS CK'D. MHZ	
GIRDER REPAIR PLAN			SHEET 4 OF 9



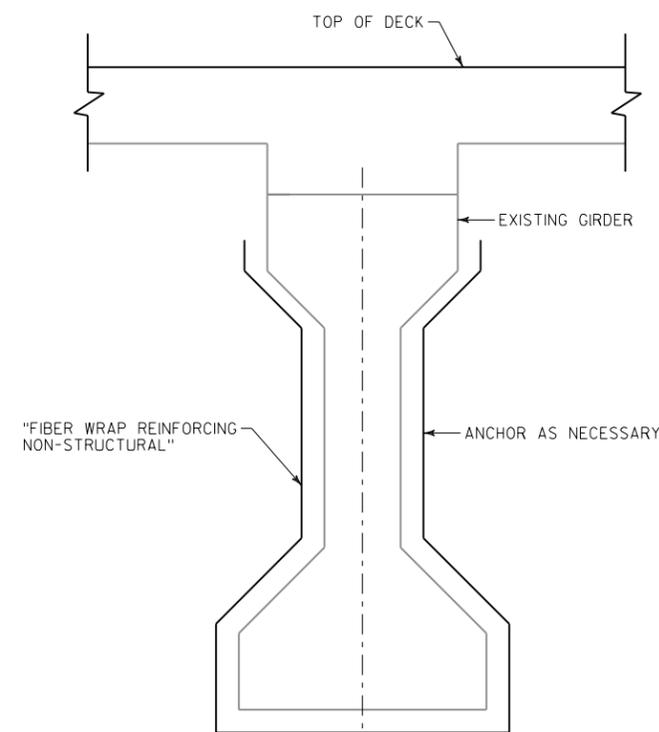
PPC BEAM SURFACE REPAIR



SECTION C-C



GIRDER REPAIR LIMITS DETAIL



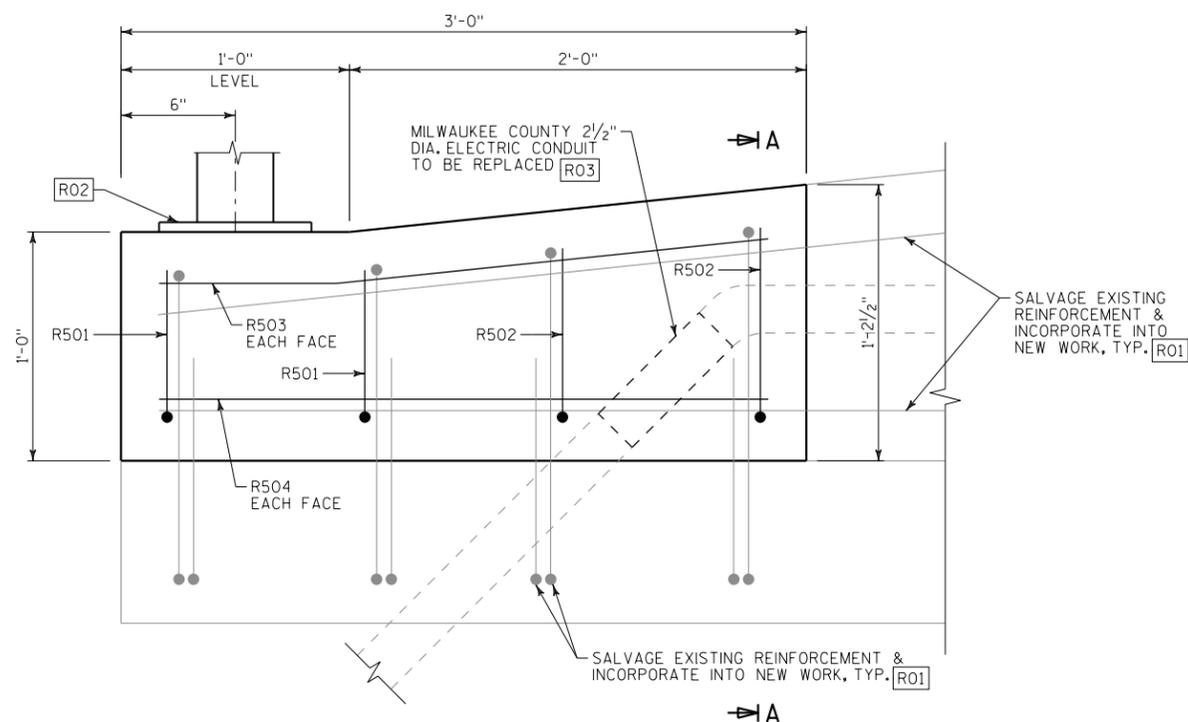
FIBER WRAP REINFORCEMENT

**NOTE**  
 FOR "PPC BEAM SURFACE REPAIR" & "FIBER WRAP REINFORCING NON-STRUCTURAL" LOCATIONS, SEE SHEET 4.

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE P-40-750			
DRAWN BY		AJA	PLANS CK'D. MHZ
GIRDER REPAIR DETAILS			SHEET 5 OF 9

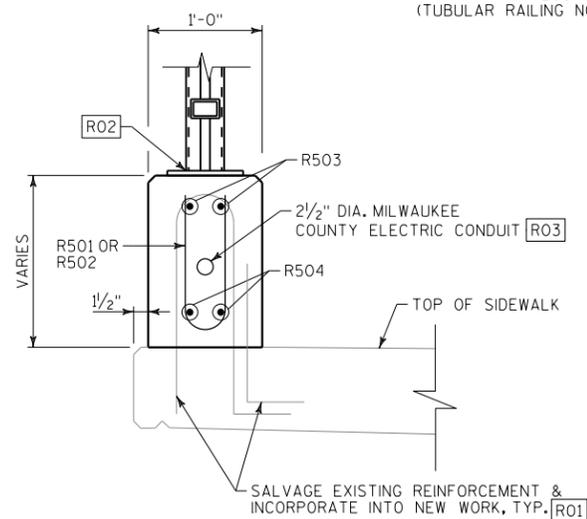
8

8



**PARTIAL PARAPET INSIDE ELEVATION**

(LOOKING SOUTH)  
(TUBULAR RAILING NOT SHOWN FOR CLARITY)

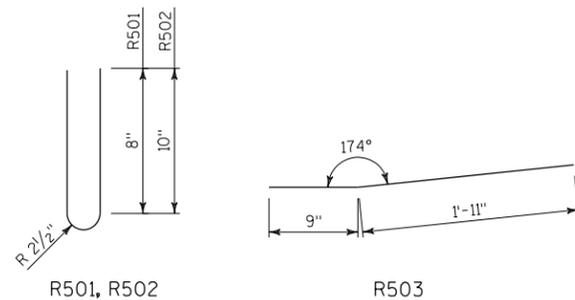


**SECTION THRU PARAPET**

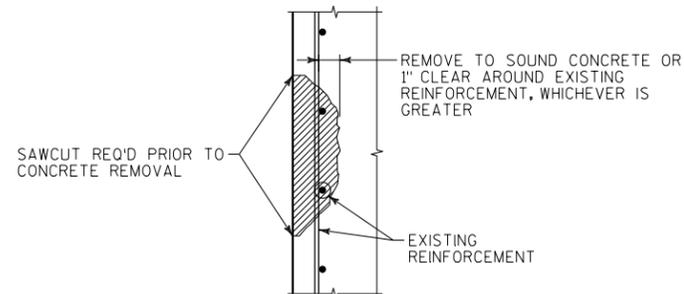
(LOOKING WEST)

**BILL OF BARS**

BAR MARK	COAT	NO REQ'D	LENGTH	BENT	BAR SERIES	LOCATION
R501	X	2	2'-0"	X	-	PARAPET - VERT.
R502	X	2	2'-4"	X	-	PARAPET - VERT.
R503	X	2	2'-8"	X	-	PARAPET - LONG.
R504	X	2	2'-8"	-	-	PARAPET - LONG.



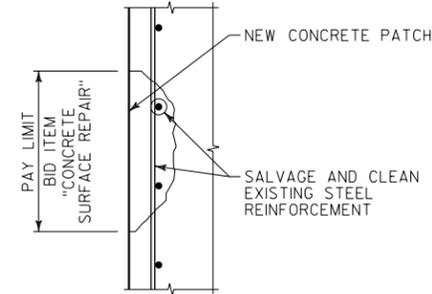
**BENDING DIAGRAMS**



**TYPICAL CONCRETE SURFACE**

**REMOVAL DETAIL**

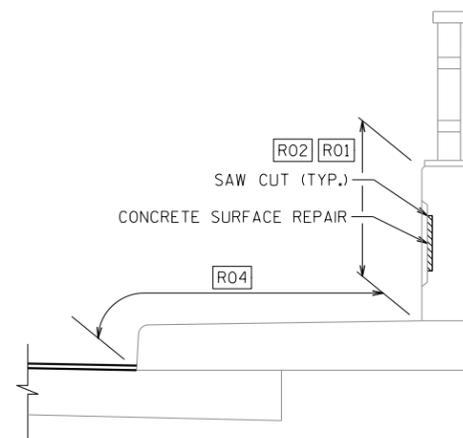
(FOR ABUTMENTS AND PIER)



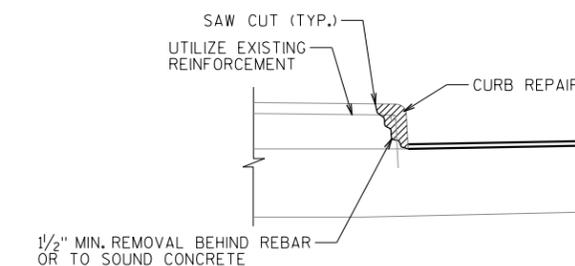
**TYPICAL CONCRETE SURFACE**

**REPAIR DETAIL**

(FOR ABUTMENTS AND PIER)



**PARAPET REPAIR DETAIL**



**CURB REPAIR DETAIL**

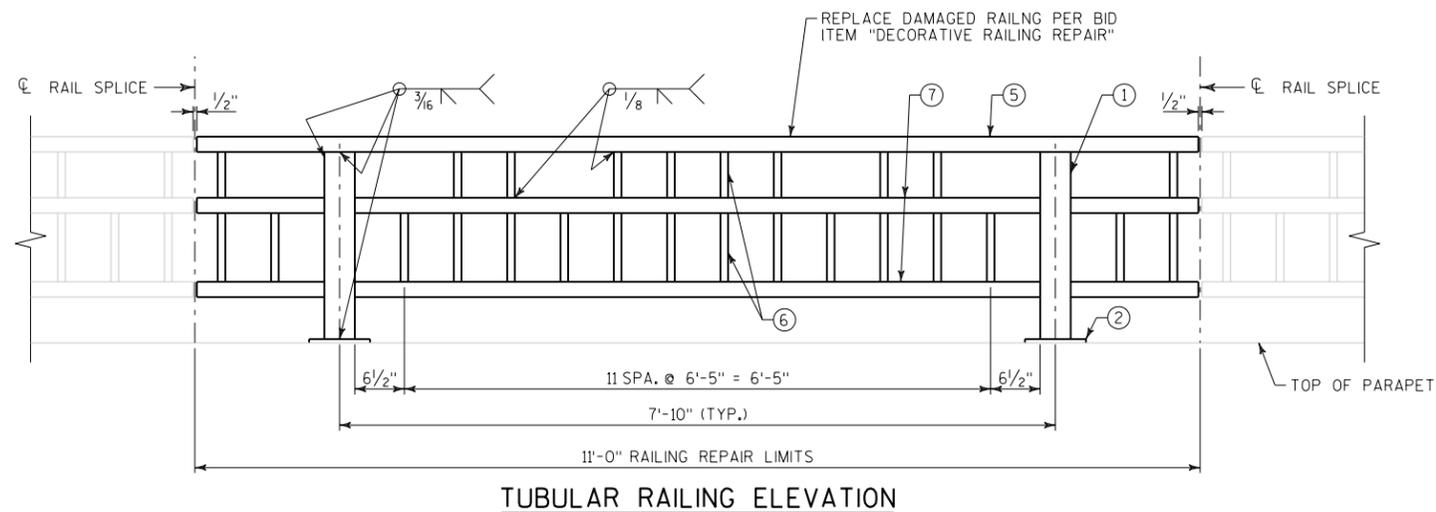
**NOTES**

FOR TUBULAR RAILING DETAILS, SEE SHEET 7.  
SEE GENERAL PLAN & ELEVATION SHEET FOR PARTIAL PARAPET REPLACEMENT LOCATION.  
PARAPET DIMENSIONS ARE TAKEN FROM THE EXISTING DECK REPLACEMENT PLANS DATED JANUARY 3, 1997.

**LEGEND**

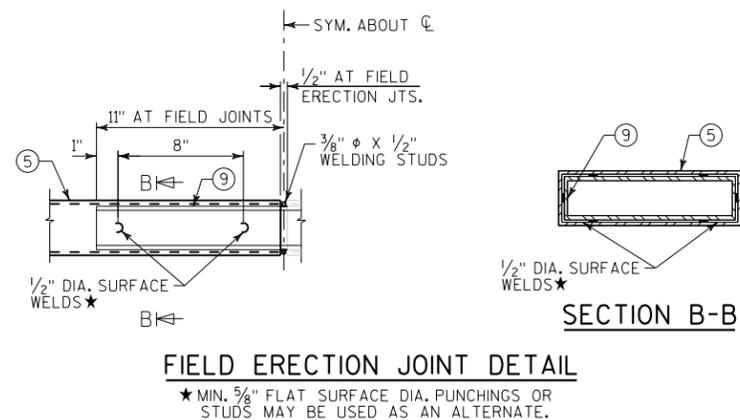
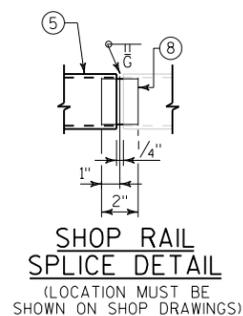
- [R01] CARE IS TO BE USED IN REMOVING THE EXISTING CONCRETE PARAPET TO SALVAGE THE EXISTING REINFORCEMENT.
- [R02] NEW TUBULAR RAILING ANCHOR ASSEMBLY REQUIRED AT PARAPET REPAIR LOCATION. SEE SHEET 7 FOR ANCHOR DETAILS. ANCHOR ASSEMBLY SHALL BE INCIDENTAL TO BID ITEM "CONCRETE MASONRY BRIDGES".
- [R03] REPLACE THE EXISTING 2 1/2" DIA. MILWAUKEE COUNTY ELECTRIC CONDUIT IN THE REPAIRED SECTION OF THE PARAPET. COST IS INCIDENTAL TO BID ITEM "CONCRETE MASONRY BRIDGES".
- [R04] "PROTECTIVE SURFACE TREATMENT RESEAL" LIMITS

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
<b>STRUCTURE P-40-750</b>			
DRAWN BY MM		PLANS CK'D. MHZ	
<b>REHABILITATION DETAILS</b>			SHEET 6 OF 9

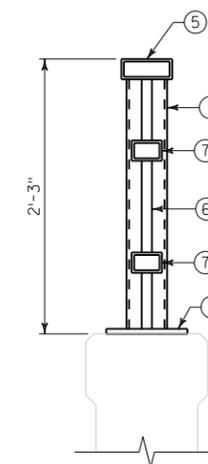


**LEGEND**

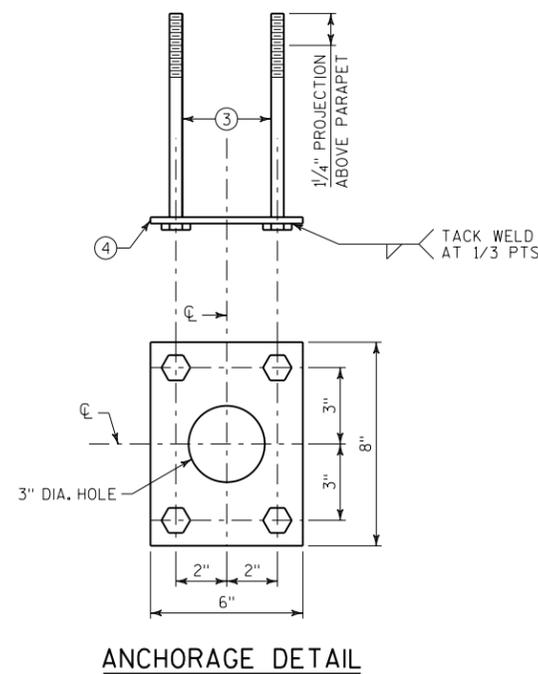
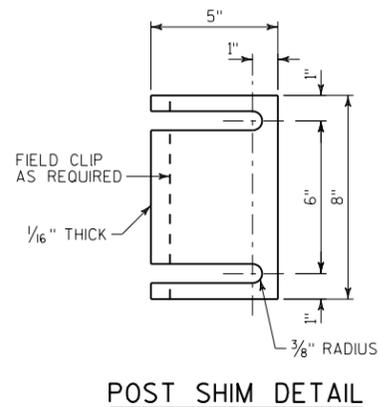
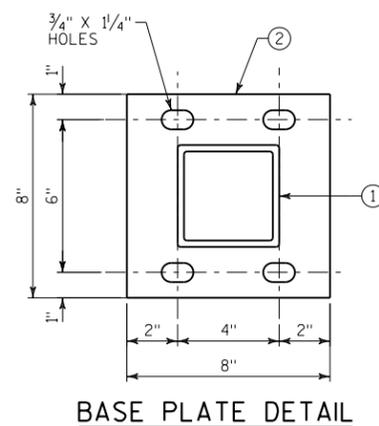
- ① TS 4" X 4" X 1/4" STRUCTURAL TUBING. PLACE POST NORMAL TO GRADE LINE.
- ② PLATE 1/2" X 8" X 8" WITH 3/4" X 1/4" SLOTTED HOLES FOR ANCHOR BOLTS NO. 3. WELD NO. 1 TO NO. 2 AS SHOWN. FINISH ALL TOP EDGES WITH A 3/16" RADIUS.
- ③ A325 HEX BOLTS (STAINLESS STEEL) 1/2" DIA. X 8" LONG WITH A325 NUT AND WASHER. 4 REQUIRED PER POST. THREAD 3" AND PLACE NORMAL TO PLATE NO. 2 CHAMFER TOP OF BOLTS BEFORE THREADING.
- ④ 1/4" X 6" X 8" FLAT BAR WITH 3/16" DIA. HOLES FOR ANCHOR BOLTS NO. 3.
- ⑤ TS 5" X 2" X 1/4" STRUCTURAL TUBING AS SHOWN ON DETAILS, CONFORMING TO ASTM DESIGNATION A501 OR A500 GRADE B.
- ⑥ 1" DIA. X 1/8" THICK SEAMLESS STEEL TUBING.
- ⑦ TS 3" X 2" X 1/4" STRUCTURAL TUBING AS SHOWN ON THE DETAILS, CONFORMING TO ASTM DESIGNATION A501 OR A500 GRADE B.
- ⑧ SLEEVE FABRICATED FROM 1/4" PLATE, PROVIDE "SLIDING FIT".
- ⑨ 1/4" PLATE OR MODIFIED STRUCTURAL SHAPE TO FIT FREE INTO I.D. OF NO. 5 PROVIDE 1/2" DIA. SURFACE WELDS ON ALL SIDES AS SHOWN. GRIND WELDS, PROVIDE 3/16" DIA. X 1/2" WELDING STUDS ON TOP AND BOTTOM SURFACES AT CENTERLINE.



**SECTION B-B**



**SECTION THRU RAILING**

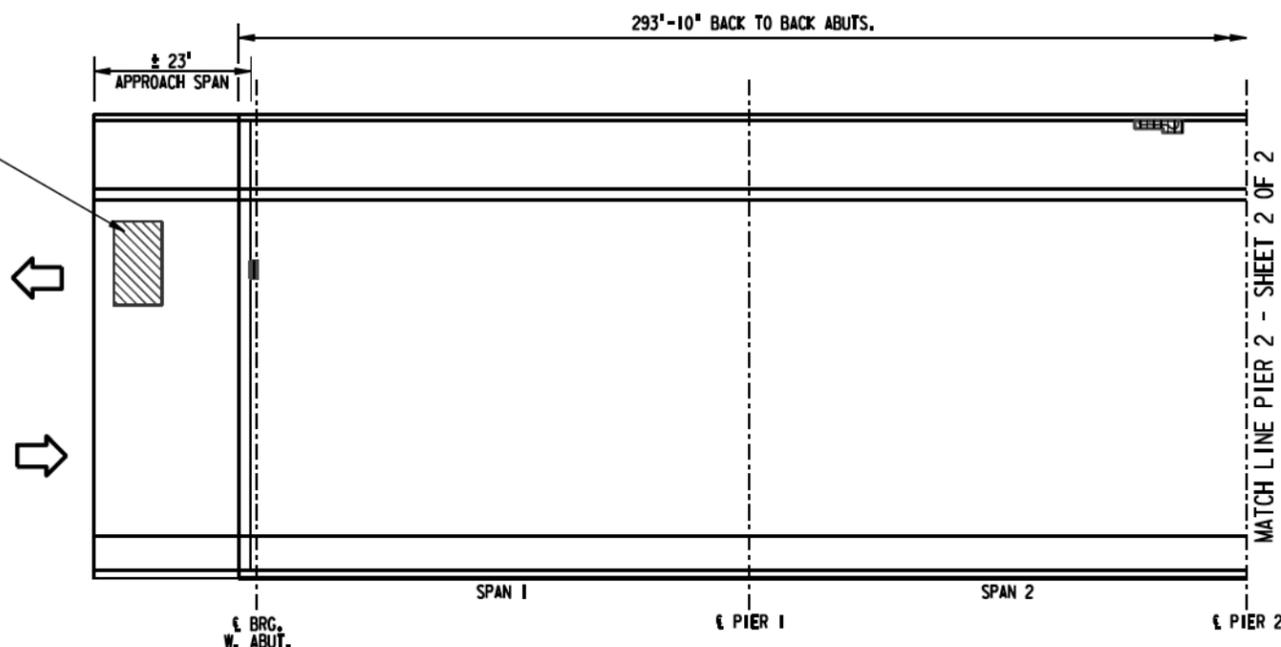


**NOTES**

TUBULAR RAILING MATERIAL, ANCHORS, SIZING, WELDING AND DIMENSIONS ARE TAKEN FROM THE EXISTING DECK REPLACEMENT PLANS DATED JANUARY 3, 1997.

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
<b>STRUCTURE P-40-750</b>			
DRAWN BY		AJA	PLANS CK'D. MHZ
<b>TUBURAL RAILING DETAILS</b>			SHEET 7 OF 9

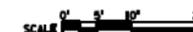
NOTE: DELAMINATIONS OBSERVED IN THIS AREA OF APPROACH SPAN (REHAB AREA IS NOT INCLUDED IN REHAB QUANTITIES).



PLAN  
PROPOSED REHABILITATION AREAS

STRUCTURE NO.  
P-40-750

REHABILITATION AREA SUMMARY	UNIT	ROADWAY		SIDEWALKS		LEGEND	
		QUANT.	%	QUANT.	%		
TOTAL AREA	yd <sup>2</sup>	1580.6		483.7		DECK PREPARATION AREA	DELAMINATION
SHADE/DEBRIS	yd <sup>2</sup>	0		0		SHADE/DEBRIS	SPALL
PREPARATION, DECKS, TYPE 1	yd <sup>2</sup>	1.1	0.1	1.1	0.2		DEBOND
PREPARATION, DECKS, TYPE 2	yd <sup>2</sup>	0	0	0	0		PCC PATCH
FULL DEPTH DECK REPAIR	yd <sup>2</sup>	0	0	0	0		SUBSURFACE PATCH



SURFACE TYPE: CONCRETE - NO OVERLAY  
INFRARED INSPECTION DATE: 2/23/21 & 3/9/21

**AECOM**

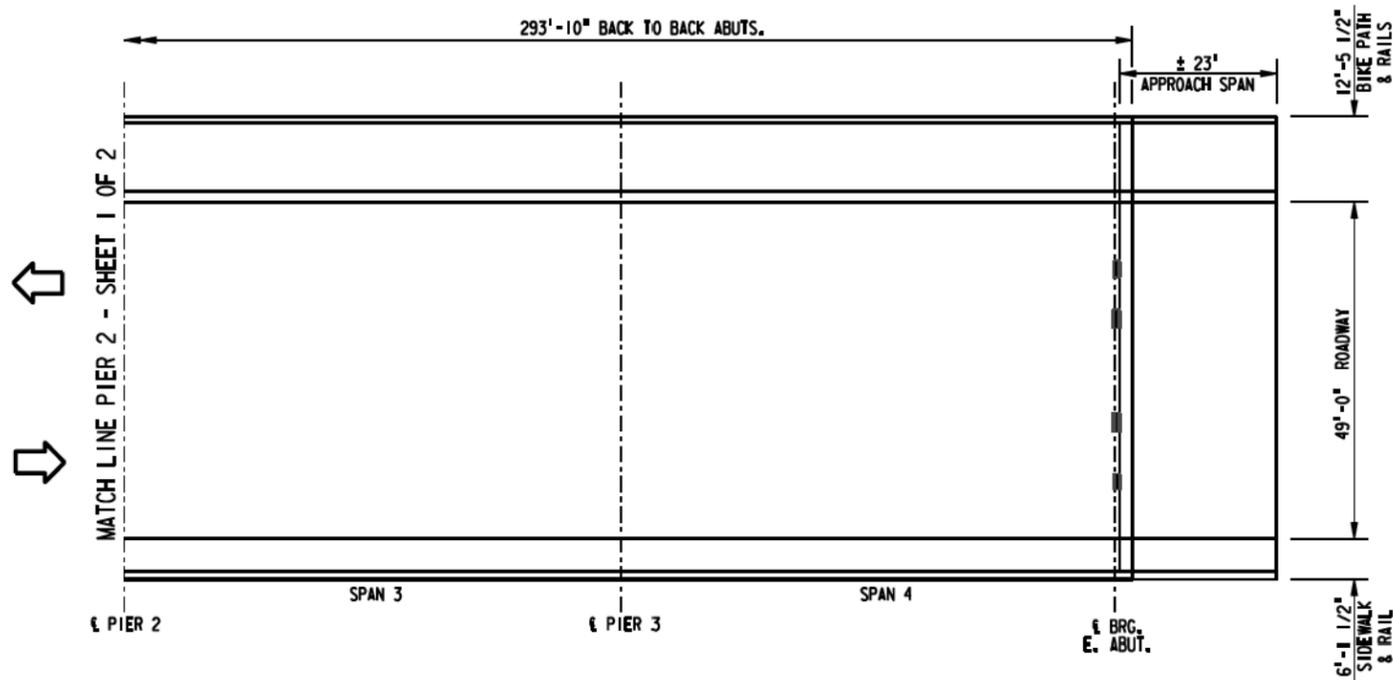
PROPOSED REHABILITATION AREAS FOR  
W. HAMPTON AVE. OVER MILWAUKEE RIVER  
STRUCTURE NO. P-40-750  
PREPARED FOR  
WISCONSIN DEPARTMENT OF TRANSPORTATION  
BUREAU OF STRUCTURES

DATE	3/11/21
PROJECT NO.	60650160
FILENAME	P-40-750-REHAB-1.DGN
SHEET NO.	1 OF 2
DRAWING NO.	

NOTE

REHABILITATION AREAS SHOWN ON THIS SHEET ARE FOR INFORMATION ONLY. THE FIELD ENGINEER WILL SOUND THE DECK AND MARK AREAS IN THE FIELD. THE ESTIMATED QUANTITIES FOR THE DECK PREPARATION AND DECK REPAIR BID ITEMS ARE ADAPTED FROM THE ABOVE INFRARED THERMOGRAPHY SURVEY RESULTS.

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE P-40-750			
DRAWN BY		AJA	PLANS CK'D. MHZ
DECK REHABILITATION AREAS (1 OF 2)			SHEET 8 OF 9



**PLAN**

**PROPOSED REHABILITATION AREAS**

NOTE: SEE SHEET 1 OF 2 FOR REHAB QUANTITIES



STRUCTURE NO.  
P-40-750

LEGEND	
DECK PREPARATION AREA	
SHADE/DEBRIS	
DELAMINATION	
SPALL	
DEBOND	
PCC PATCH	
SUBSURFACE PATCH	



SURFACE TYPE: CONCRETE - NO OVERLAY  
INFRARED INSPECTION DATE: 2/23/21 & 3/9/21

AECOM

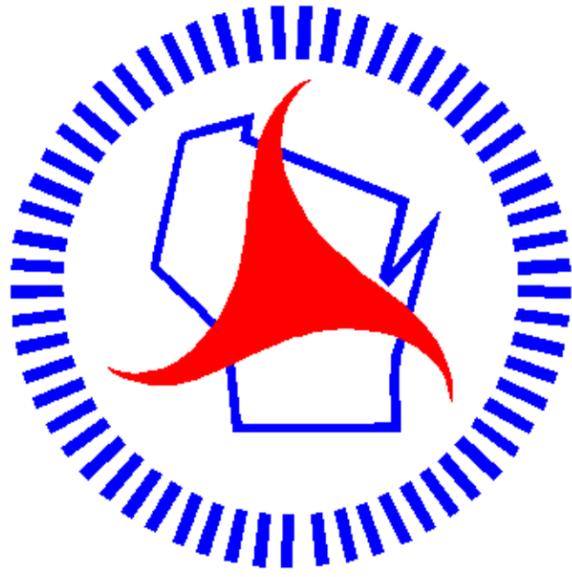
PROPOSED REHABILITATION AREAS FOR  
W. HAMPTON AVE. OVER MILWAUKEE RIVER  
STRUCTURE NO. P-40-750  
PREPARED FOR  
WISCONSIN DEPARTMENT OF TRANSPORTATION  
BUREAU OF STRUCTURES

DATE	3/11/21
PROJECT NO.	60650160
FILENAME	P-40-750-REHAB-2.DWG
SHEET NO.	2 OF 2
DRAWING NO.	

**NOTE**

REHABILITATION AREAS SHOWN ON THIS SHEET ARE FOR INFORMATION ONLY. THE FIELD ENGINEER WILL SOUND THE DECK AND MARK AREAS IN THE FIELD. THE ESTIMATED QUANTITIES FOR THE DECK PREPARATION AND DECK REPAIR BID ITEMS ARE ADAPTED FROM THE ABOVE INFRARED THERMOGRAPHY SURVEY RESULTS.

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE P-40-750			
DRAWN BY		AJA	PLANS CK'D. MHZ
DECK REHABILITATION AREAS (2 OF 2)			SHEET 9 OF 9



## ***Wisconsin Department of Transportation***

Dedicated people creating transportation solutions through innovation and exceptional service.

<http://www.dot.wisconsin.gov>