WKE Feb 14, 2023

PROJECT ID: 1000-20-64
WITH: N/A

COUNTY: SOUTHEAST REGION

ORDER OF SHEETS

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

TOTAL SHEETS = 60

13

N

DESIGN DESIGNATION

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

CONVENTIONAL SYMBOLS

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

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

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

ANCILLIARY STRUCT REHAB/REPLACE 2022

LOCATIONS ON STN PER ANNUAL PLAN

VARIOUS HIGHWAYS
STATEWIDE

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
1000-20-64		

STATE PROJECT NUMBER
1000-20-64

LAYOUT

SCALE 0 0 MI

TOTAL NET LENGTH OF CENTERLINE = 0.00 MI

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

ELEVATIONS ARE REFERENCED TO NAVD 88 (YEAR). GPS DERIVED ELEVATIONS ARE BASED ON GEOID XX.

ORIGINAL PLANS PREPARED BY:
COLLINS ENGINEERS
DATE: 10/27/22 (Signature)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor	N/A
Designer	COLLINS ENGINEERS
Project Manager	DIEGO SILVA
Regional Examiner	
Regional Supervisor	MANOJOY NAG

APPROVED FOR THE DEPARTMENT
DATE: 10/27/2022 Diego Silva (Signature)

E

FILE NAME : G:\14050.01 - WISDOT SIGN REPAIR DESIGN WO1\CAD\SHEET DRAWINGS\TITLE SHEET.DWG PLOT DATE : 10/28/2022 1:57 PM PLOT BY : MORGAN GRUBER PLOT NAME :

HIGHWAY COMMISSIONER/UTILITIES CONTACT LIST
(NOT ALL INCLUSIVE. CONTRACTOR RESPONSIBLE FOR ALL UTILITY COORDINATION AND LOCATING)

RACINE COUNTY
ROLEY BEHM
HIGHWAYS & PARKS SUPERINTENDENT
14200 WASHINGTON AVE
STURTEVANT, WI 53177
262-886-8440
ROLAND.BEHM@RACINECOUNTY.COM

WALWORTH COUNTY
BARRY PIERCE
ASSISTANT DIRECTOR - HIGHWAY
W4097 COUNTY ROAD NN
ELKHORN, WI 53121
262-741-3799
BPIERCE@CO.WALWORTH.WI.US

KENOSHA COUNTY
CLEMENT ABONGWA
DIRECTOR - KENOSHA COUNTY HIGHWAYS
19600 75TH ST
SUITE 122-1
BRISTOL, WI 53104
262-857-1872
CLEMENT.ABONGWA@KENOSHACOUNTY.ORG

MILWAUKEE COUNTY
DONNA BROWN MARTIN
10320 W. WATERTOWN PLANK RD
WAUWATOSA, WI 53226
414-257-5992
DONNA.BROWNMARTIN@MILWAUKEECOUNTYWI.GOV

WASHINGTON COUNTY
SCOTT SCHMIDT
900 LANG ST
WEST BEND, WI 53090
262-335-6881
SCOTT.SCHMIDT@CO.WASHINGTON.WI.US

OZAUKEE COUNTY
JON EDGREN
410 S. SPRING ST
PORT WASHINGTON, WI 53074
262-284-8331
JEDGREN@CO.OZAUKEE.WI.US

WAUKESHA COUNTY
ALLISON BUSSLER
515 W. MORELAND BLVD
ROOM 220
WAUKESHA, WI 53188
262-548-7740
ABUSSLER@WAUKESHACOUNTY.GOV

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

GENERAL NOTES
THE LOCATION OF EXISTING OR PROPOSED UTILITIES AS NOTED ON THE PLANS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT AREA THAT ARE NOT SHOWN. UTILITY SERVICES ARE NOT SHOWN.

STATE AGENCIES

WISCONSIN DEPARTMENT OF TRANSPORTATION - COMMUNICATION LINE
JEFF MADISON
STE. 300
433 W. ST. PAUL AVE
MILWAUKEE, WI 53203
416-225-3723
JEFFREY.MADISON@DOT.WI.GOV

WISCONSIN DEPARTMENT OF TRANSPORTATION - STREET LIGHTING
ERIC PEREA
935 S 60TH ST
WEST ALLIS, WI 53214
262-574-5422
ERIC.PEREA@DOT.WI.GOV

WISCONSIN DEPARTMENT OF TRANSPORTATION - WISCONSIN SIGNAL
JARRETT GATES
141 NW BARSTOW ST
WAUKESHA, WI 53187
262-548-5894
JARRETT.GATES@DOT.WI.GOV

WISCONSIN DEPARTMENT OF TRANSPORTATION - COMMMUNICATION TOWER
MIKE ADAMS
RM 501
PO BOX 7586
MADISON, WI 53707
608-266-5004
MICHAEL.ADAMS@DOT.WI.GOV

WISCONSIN DEPARTMENT OF TRANSPORTATION
PROJECT MANAGER
DIEGO SILVA
141 NW BARSTOW ST
WAUKESHA, WI 53188
262-548-6433
DIEGO.SILVA@DOT.WI.GOV

WISCONSIN DEPARTMENT OF TRANSPORTATION
UTILITY ENGINEER
MICHAEL BIRSCHBACH
141 NW BARSTOW ST
WAUKESHA, WI 53188
262-548-5935
MICHAEL.BIRSCHBACH@DOT.WI.GOV

WISCONSIN DEPARTMENT OF NATURAL RESOURCES - KENOSHA & RACINE COUNTY
BENTON STELZEL
141 NW BARSTOW ST
WAUKESHE, WI 53188-3789
262-623-0194
BENTON.STELZEL@WISCONSIN.GOV

WISCONSIN DEPARTMENT OF NATURAL RESOURCES - MILWAUKE, OZAUKEE, & WASHINGTON COUNTY
KRISTINA BETZOLD
1027 W. ST. PAUL AVE
MILWAUKEE, WI 53233
KRISTINA.BETZOLD@WISCONSIN.GOV

WISCONSIN DEPARTMENT OF NATURAL RESOURCES - WALWORTH & WAUKESHA COUNTY
CRAIG WEBSTER
141 NW BARSTOW ST
WAUKESHA, WI 53188-3789
262-574-2141
414-303-3011
CRAIG.WEBSTER@WISCONSIN.GOV

DESIGN CONTACT
COLLINS ENGINEERS, INC.
2033 W. HOWARD AVE.
MILWAUKEE, WI 53221
ATTN: MARK MUTZIGER
(414) 930-4534

LEGEND

- TYPE II / III BARRICADE
- TYPE II / III BARRICADE WTH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- DELINEATOR FLEXIBLE/TUBULAR MARKER
- TRAFFIC CONTROL 42-INCH CONE
- TYPE A WARNING LIGHT (FLASHING)
- TYPE B WARNING LIGHT (HIGH INTENSITY FLASHING)
- TYPE C WARNING LIGHT (STEADY BURN)
- WORK AREA
- DIRECTION OF TRAFFIC
- MB — PORTABLE CHANGEABLE MESSAGE BOARD

NOTES:
1. INSTALL PCMB IN ADVANCE OF CLOSURE PER SPECIFICATION REQUIREMENTS.
2. THROUGH TRAFFIC ALLOWED ON W LISBON AVE DURING CLOSURE.

TRAFFIC CONTROL PCMS MESSAGE	
PHASE	MESSAGE
1	ROAD TO CLOSE
2	DAY/TIME

PROJECT NO: 1000-20-64	HWY: VARIOUS	COUNTY: SOUTHEAST REGION	DETOUR PLAN	SHEET 3	E

FILE NAME : G:\14050.01 - WISDOT SIGN REPAIR DESIGN WO1\CAD\SHEET DRAWINGS\DETOUR S-40-0401.DWG
LAYOUT NAME - DETOUR ROUTE

PLOT DATE : 12/15/2022 9:25 AM PLOT BY : MORGAN GRUBER PLOT NAME : PLOT SCALE : 1 IN: 600 FT

1000-20-64

Line	Item	Item Description	Unit	Total	Qty
0002	509.1500	Concrete Surface Repair	SF	30.000	30.000
0004	517.0601	Painting Epoxy System (structure) 01. S-51-0233	EACH	1.000	1.000
0006	614.0950	Replacing Guardrail Posts and Blocks	EACH	1.000	1.000
0008	614.0951	Replacing Guardrail Rail and Hardware	LF	15.000	15.000
0010	619.1000	Mobilization	EACH	1.000	1.000
0012	638.2101	Moving Signs Type I	EACH	1.000	1.000
0014	643.1050	Traffic Control Signs PCMS	DAY	30.000	30.000
0016	SPV.0060	Special 01. Rodent Screen	EACH	13.000	13.000
0018	SPV.0060	Special 02. Remove Grout Pad	EACH	11.000	11.000
0020	SPV.0060	Special 03.Tension Anchor Rod	EACH	628.000	628.000
0022	SPV.0060	Special 04. Catwalk Hardware	EACH	1.000	1.000
0024	SPV.0060	Special 05. Snug Tight Bolt	EACH	61.000	61.000
0026	SPV.0060	Special 06. Tension Structural Bolt	EACH	179.000	179.000
0028	SPV.0060	Special 07. Replace U-Bolt	EACH	20.000	20.000
0030	SPV.0060	Special 08. Remove Catwalk and L Brackets	EACH	1.000	1.000
0032	SPV.0060	Special 09. Install Pole, Truss, Signs, Sign Bridge S-30-0609	EACH	1.000	1.000
0034	SPV.0060	Special 10. Adjust Sign	EACH	16.000	16.000
0036	SPV.0060	Special 11. Sign Panel Connector	EACH	55.000	55.000
0038	SPV.0060	Special 12. Vertical Sign Support	EACH	56.000	56.000
0040	SPV.0060	Special 13. Luminaire Items	EACH	29.000	29.000
0042	SPV.0060	Special 14. Conduit Plug	EACH	6.000	6.000
0044	SPV.0060	Special 15. Replace Dished Washer	EACH	2.000	2.000
0046	SPV.0060	Special 16. Replace Signal Shroud	EACH	5.000	5.000
0048	SPV.0060	Special 17. Signal Mounting Hardware Modified	EACH	6.000	6.000
0050	SPV.0060	Special 18. ID Plaque	EACH	14.000	14.000
0052	SPV.0060	Special 19. Handhole Cover	EACH	9.000	9.000
0054	SPV.0060	Special 20. Post/End Cap	EACH	5.000	5.000
0056	SPV.0060	Special 21. Remove Debris	EACH	1.000	1.000
0058	SPV.0060	Special 22. Traffic Control - Shoulder Closure	EACH	47.000	47.000
0060	SPV.0060	Special 23. Traffic Control - Single-Lane Closure	EACH	74.000	74.000
0062	SPV.0060	Special 24. Traffic Control - Double-Lane Closure	EACH	23.000	23.000
0064	SPV.0060	Special 25. Traffic Control - Ramp Closure	EACH	15.000	15.000
0066	SPV.0060	Special 26. Traffic Control - Rolling Full Freeway/Roadway Closure	EACH	8.000	8.000
0068	SPV.0060	Special 27. Traffic Control Full Freeway/Road Closure	EACH	1.000	1.000
0070	SPV.0090	Special 01. Catwalk Repair	LF	5.000	5.000
0072	SPV.0165	Special 01. Repair Galvanized Coating	SF	60.000	60.000

STRUCTURE	MOBILIZATION	TRAFFIC CONTROL SIGNS PCMS	TRAFFIC CONTROL - SHOULDER CLOSURE	TRAFFIC CONTROL - SINGLE LANE CLOSURE	TRAFFIC CONTROL - DOUBLE-LANE CLOSURE	TRAFFIC CONTROL - RAMP CLOSURE	TRAFFIC CONTROL - ROLLING FULL FREEWAY/ROADWAY CLOSURE	TRAFFIC CONTROL - FULL FREEWAY/ROAD CLOSURE
BID ITEM	619.1000	643.1050	SPV.0060.22	SPV.0060.23	SPV.0060.24	SPV.0060.25	SPV.0060.26	SPV.0060.27
UNIT	EA	DAY	EA	EA	EA	EA	EA	EA
L400031								
L400062								
L400063								
S300009			1					
S300023								
S300024			1					
S300217					1			
S300229			1					
S300231				1				
S300238				1				
S300248					1			
S300609							1	
S300612				1				
S301168								
S301185				1				
S301187				1				
S301188								
S301192				1				
S301193			1					
S301194								
S400001						2		
S400006			1					
S400019							1	
S400030			1					
S400031			1					
S400046			1					
S400056				2				
S400072								
S400074			1					
S400091				1				
S400097			1					
S400102			1					
S400105				1		1		
S400110			1					
S400114			1					
S400115			1					
S400118			1					
S400124				1				
S400131			1					
S400185					1			
S400193					1			
S400221			2					
S400225			1					

STRUCTURE	MOBILIZATION	TRAFFIC CONTROL SIGNS PCMS	TRAFFIC CONTROL - SHOULDER CLOSURE	TRAFFIC CONTROL - SINGLE LANE CLOSURE	TRAFFIC CONTROL - DOUBLE-LANE CLOSURE	TRAFFIC CONTROL - RAMP CLOSURE	TRAFFIC CONTROL - ROLLING FULL FREEWAY/ROADWAY CLOSURE	TRAFFIC CONTROL - FULL FREEWAY/ROAD CLOSURE
BID ITEM	619.1000	643.1050	SPV.0060.22	SPV.0060.23	SPV.0060.24	SPV.0060.25	SPV.0060.26	SPV.0060.27
UNIT	EA	DAY	EA	EA	EA	EA	EA	EA
S400226			1					
S400242			1					
S400267				1				
S400282				1				
S400315				1				
S400317				1	1	1		
S400319				1	1			
S400320				2				
S400328			1			1		
S400339						1		
S400392				2				
S400393			1					
S400401								1
S400438								
S400454			1					
S400458			1	1				
S400501					2			
S400503				1				
S400505					1			
S400509						1	1	
S400512					2			
S400514			1					
S400516				1				
S400533			1	1				
S400536				1		1		
S400573			1	1				
S400579			2					
S400580			1	1				
S400583			1					
S400710				1				
S400713			1					
S400746				2				
S400753					1			
S400761				1				
S400812						1		
S400813					1			
S400815						1		
S400817				2				
S400818								
S400820					2			
S400838			2					
S400841				1			1	
S400843			1	1				

STRUCTURE	MOBILIZATION	TRAFFIC CONTROL SIGNS PCMS	TRAFFIC CONTROL - SHOULDER CLOSURE	TRAFFIC CONTROL - SINGLE LANE CLOSURE	TRAFFIC CONTROL - DOUBLE-LANE CLOSURE	TRAFFIC CONTROL - RAMP CLOSURE	TRAFFIC CONTROL - ROLLING FULL FREEWAY/ROADWAY CLOSURE	TRAFFIC CONTROL - FULL FREEWAY/ROAD CLOSURE
BID ITEM	619.1000	643.1050	SPV.0060.22	SPV.0060.23	SPV.0060.24	SPV.0060.25	SPV.0060.26	SPV.0060.27
UNIT	EA	DAY	EA	EA	EA	EA	EA	EA
S400865			1					
S400868			1					
S400949				1				
S400990					1			
S401159				1				
S401343								
S401348				2				
S401350				1				
S401362				1				
S401379				1				
S401455				1				
S401458				1				
S401476				1				
S401482				1				
S401538			1					
S450002					1			
S450206				2				
S450212				1				
S451102				1	1			
S510009				2				
S510010				1				
S510011			1	1				
S510233				2				
S510236				1				
S511168				2				
S511188				1				
S640204					1			
S640209				1				
S660006				1	1			
S660200			1					
S660211				1				
S660213						1		
S660217							1	
S660218							1	
S670001						1		
S670031								
S670038				1				
S670039				1				
S670040				1				
S670200			2					
S670248					1			
S670254							1	
S670262					1			

STRUCTURE	MOBILIZATION	TRAFFIC CONTROL SIGNS PCMS	TRAFFIC CONTROL - SHOULDER CLOSURE	TRAFFIC CONTROL - SINGLE LANE CLOSURE	TRAFFIC CONTROL - DOUBLE-LANE CLOSURE	TRAFFIC CONTROL - RAMP CLOSURE	TRAFFIC CONTROL - ROLLING FULL FREEWAY/ROADWAY CLOSURE	TRAFFIC CONTROL - FULL FREEWAY/ROAD CLOSURE
BID ITEM	619.1000	643.1050	SPV.0060.22	SPV.0060.23	SPV.0060.24	SPV.0060.25	SPV.0060.26	SPV.0060.27
UNIT	EA	DAY	EA	EA	EA	EA	EA	EA
S670266				1				
S670275			1					
S670308				1				
S670310				1				
S670314						1		
S670408				1				
S670409			2					
S670419			1					
S670912							1	
S670916						1		
S670917						1		
S671263				1	1			
S671371				1				
S671385				1				
S671386				1				
TOTAL	**1**	**30**	**47**	**74**	**23**	**15**	**8**	**1**

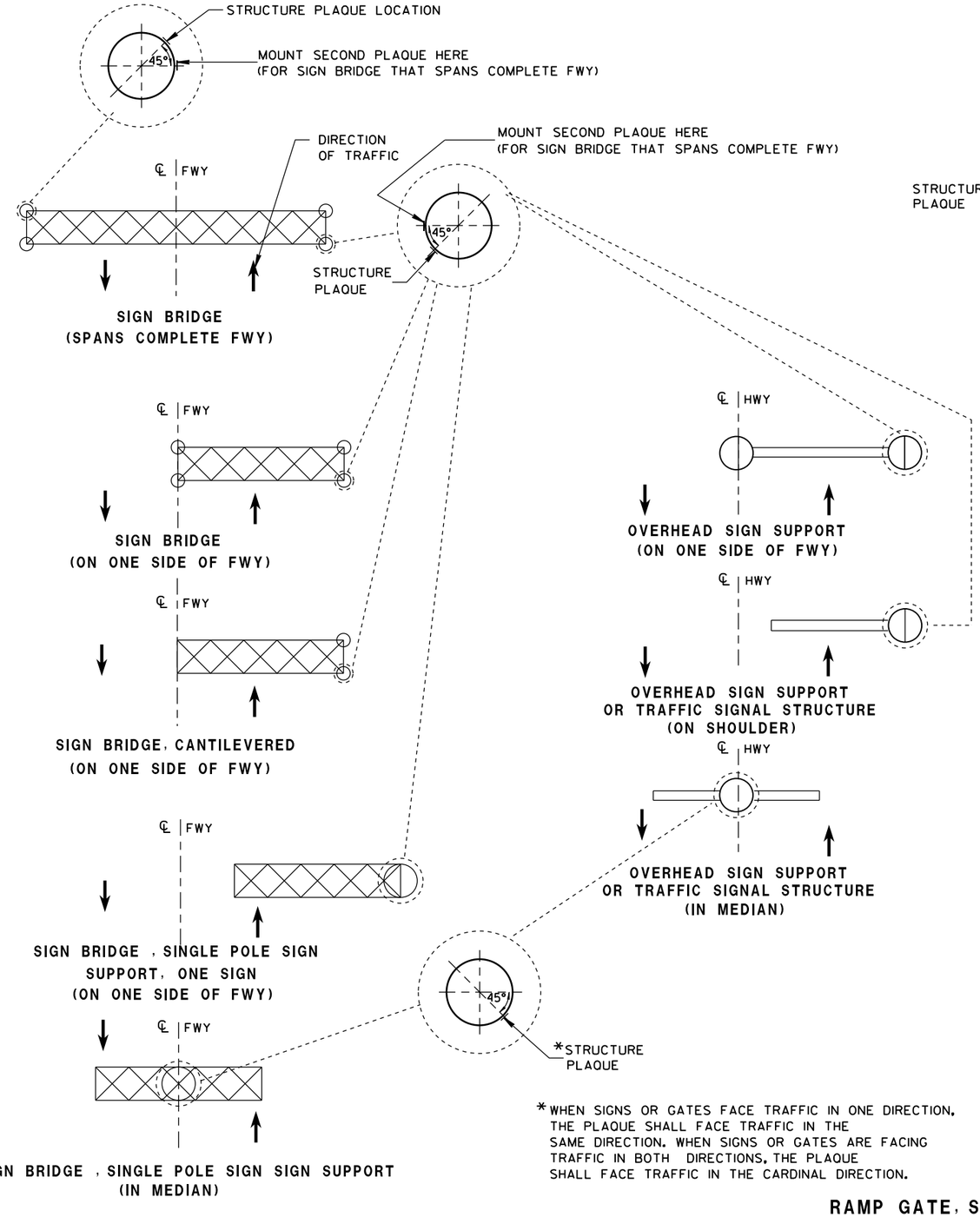
3

PROJECT NO: 1000-20-64 | HWY: VARIOUS | COUNTY: SOUTHEAST REGION | MISCELLANEOUS QUANTITIES | SHEET 5 | E

Standard Detail Drawing List

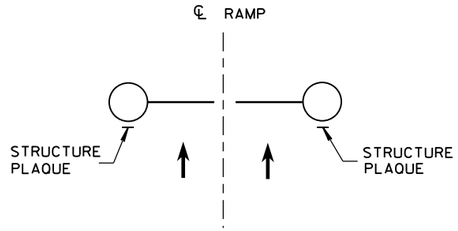
12A04-03	STRUCTURE IDENTIFICATION PLAQUES, RAMP GATES, SIGN BRIDGES & OVERHEAD SIGN SUPPORTS & TRAFFIC SIGNALS
15C02-08A	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-08B	BARRICADES AND SIGNS FOR VARIOUS CLOSURES
15C02-08C	DETOUR SIGNING FOR MAINLINE CLOSURES
15C02-08D	ON RAMP LANE CLOSURE
15C02-08E	OFF RAMP LANE CLOSURE
15C04-05	TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45 M.P.H. OR GREATER TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC
15C05-05	TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40 M.P.H. OR LESS
15C11-09B	CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS
15C12-09A	TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION
15D12-10A	TRAFFIC CONTROL, LANE CLOSURE
15D14-04	TRAFFIC CONTROL, TWO LANE CLOSURE ON FREEWAY OR EXPRESSWAY, SHORT-TERM (LESS THAN 24 HOURS)
15D16-05	TRAFFIC CONTROL, EXIT RAMP CLOSURE
15D20-06A	TRAFFIC CONTROL, SINGLE LANE CLOSURE, NON-FREEWAY/EXPRESSWAY
15D20-06B	TRAFFIC CONTROL, SINGLE RIGHT LANE CLOSURE, UNDIVIDED NON-FREEWAY/EXPRESSWAY
15D20-06C	TRAFFIC CONTROL, SINGLE LEFT LANE CLOSURE, UNDIVIDED NON-FREEWAY/EXPRESSWAY
15D21-07A	TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE LANE CLOSURE
15D21-07B	TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE LANE CLOSURE
15D27-03	TRAFFIC CONTROL, SHOULDER CLOSURE ON DIVIDED ROADWAY, SPEEDS GREATER THAN 40 MPH
15D28-04	TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY
15D42-01	TRAFFIC CONTROL, TWO LANE FULL FREEWAY CLOSURE
15D43-02	TRAFFIC CONTROL, SHORT DURATION MOBILE OPERATIONS
15D49-01	TRAFFIC CONTROL, SYSTEM RAMP CLOSURE

6

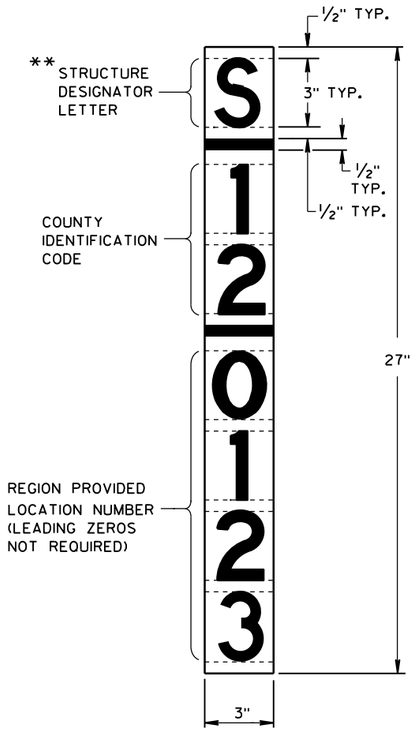


*WHEN SIGNS OR GATES FACE TRAFFIC IN ONE DIRECTION, THE PLAQUE SHALL FACE TRAFFIC IN THE SAME DIRECTION. WHEN SIGNS OR GATES ARE FACING TRAFFIC IN BOTH DIRECTIONS, THE PLAQUE SHALL FACE TRAFFIC IN THE CARDINAL DIRECTION.

LOCATION OF RAMP GATE, SIGN BRIDGE, OVERHEAD SIGN SUPPORT & TRAFFIC SIGNAL STRUCTURE PLAQUES



**RAMP GATE
(ACROSS FWY ON-RAMP)**



** LETTER "G" UTILIZED FOR RAMP GATES. LETTER "S" UTILIZED FOR SIGN BRIDGES, OVERHEAD SIGN SUPPORTS, AND TRAFFIC SIGNALS.

RAMP GATE, SIGN BRIDGE, OVERHEAD SIGN SUPPORT AND TRAFFIC SIGNAL STRUCTURE PLAQUE FOR SIGN BRIDGES AND OVERHEAD SIGN SUPPORT WHICH ARE NOT STRUCTURE MOUNTED

GENERAL NOTES

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

PLAQUES SHALL BE INCIDENTAL TO ALL NEW INSTALLATIONS.

IF THE PROPOSED SIGN BRIDGE OR OVERHEAD SIGN SUPPORT IS REPLACING AN EXISTING SIGN BRIDGE OR OVERHEAD SIGN SUPPORT, A NEW IDENTIFICATION PLAQUE WILL BE REQUIRED.

FASTEN TOP, CENTER AND BOTTOM OF PLAQUE TO POLE OR OTHER LOCATION AS FOLLOWS:

GALVANIZED STEEL SHAFT - 3 STAINLESS STEEL POP RIVETS

A588 STEEL SHAFT - SHIM FOR DRAINAGE WITH STAINLESS WASHERS; FASTEN WITH STAINLESS SELF-TAPPING SCREWS

ALUMINUM SHAFTS - 3 ALUMINUM POP RIVETS

MOUNTING HEIGHT SHALL BE APPROXIMATELY 5.0' ABOVE CURB OR SHOULDER. ADJUST IF IT IS KNOWN THAT REQUIRED TRAFFIC SIGNS WILL OBSTRUCT.

PLAQUE MATERIALS:

BASE - SHEET ALUMINUM, 0.060" THICK.

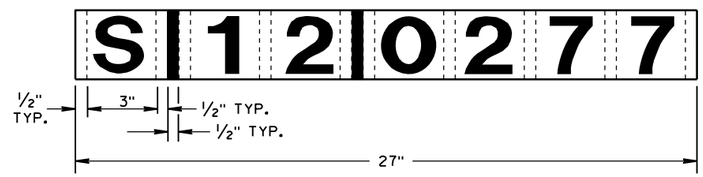
FACE - WHITE, SELF-ADHESIVE VINYL SHEETING, NON-RETROREFLECTIVE

LINES - BLACK, ½" WIDE, SELF-ADHESIVE

CHARACTERS:- BLACK, SELF ADHESIVE, SERIES "D", SIZE AS SHOWN.

FOR SIGN BRIDGES, STRUCTURE MOUNTED, THE STRUCTURE PLAQUE SHALL BE MOUNTED HORIZONTALLY AS SHOWN ON THE DRAWING. THE STRUCTURE PLAQUE SHALL BE MOUNTED HORIZONTALLY TO THE BACK OF THE SIGN, BETWEEN THE ALUMINUM EXTRUSIONS, NEAR THE TOP LEFT HAND CORNER OF THE SIGN. THE BASE MATERIAL SHALL BE OMITTED AND THE FACE ADHERED DIRECTLY TO THE ALUMINUM SURFACE. PRIOR TO ADHERING THE MATERIAL, THE ALUMINUM SURFACE SHALL BE SMOOTH, CLEAN AND DRY.

WHERE SIGN BRIDGE ILLUMINATION IS PROVIDED, THE STRUCTURE MUST ALSO HAVE A SIGN BRIDGE CIRCUIT PLAQUE AS SHOWN IN THE ELECTRICAL DETAILS.

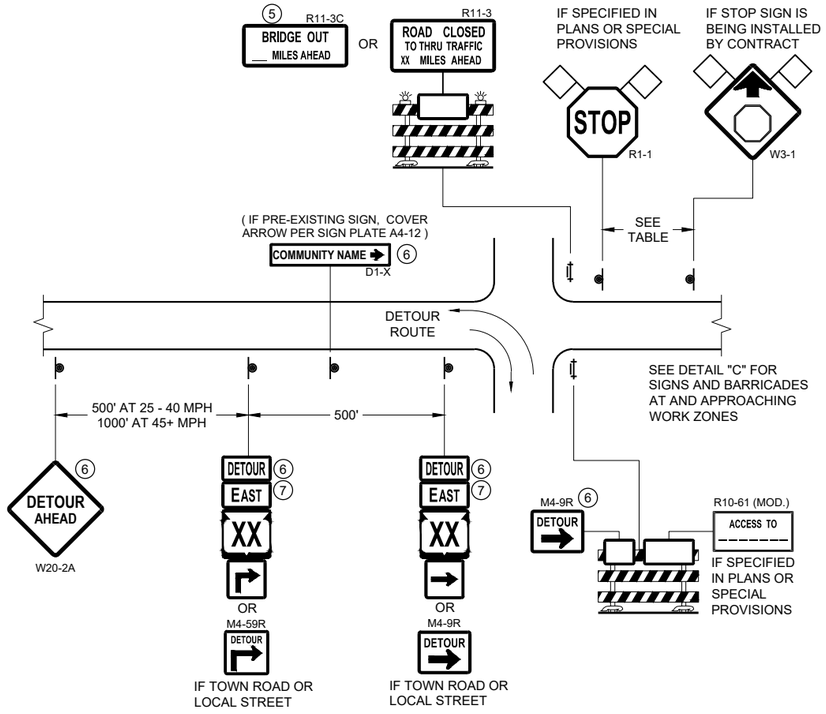


IDENTIFICATION PLAQUE FOR SIGN BRIDGE, STRUCTURE MOUNTED

STRUCTURE IDENTIFICATION PLAQUES, RAMP GATES, SIGN BRIDGES, OVERHEAD SIGN SUPPORTS, & TRAFFIC SIGNALS

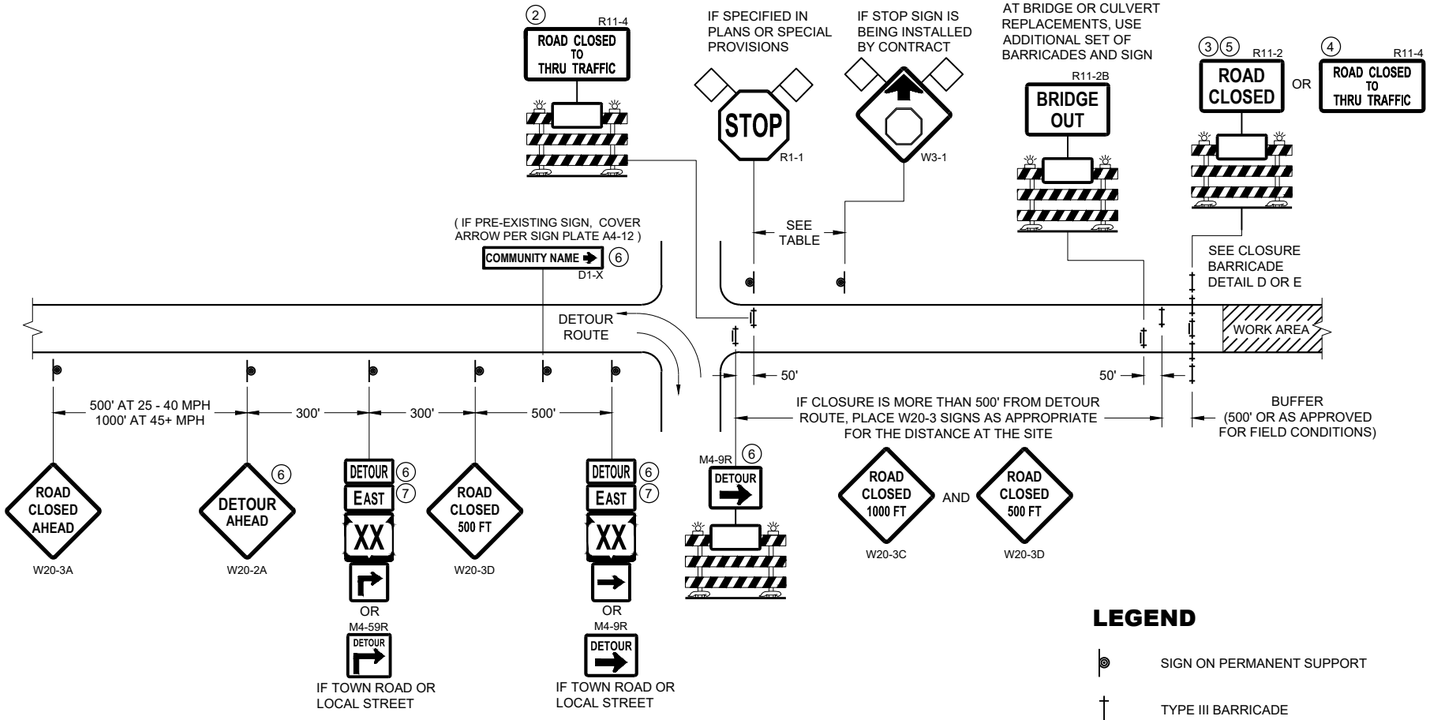
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
12/4/2012 — DATE
/S/ Travis Feltes — STATE TRAFFIC ENGINEER
FHWA



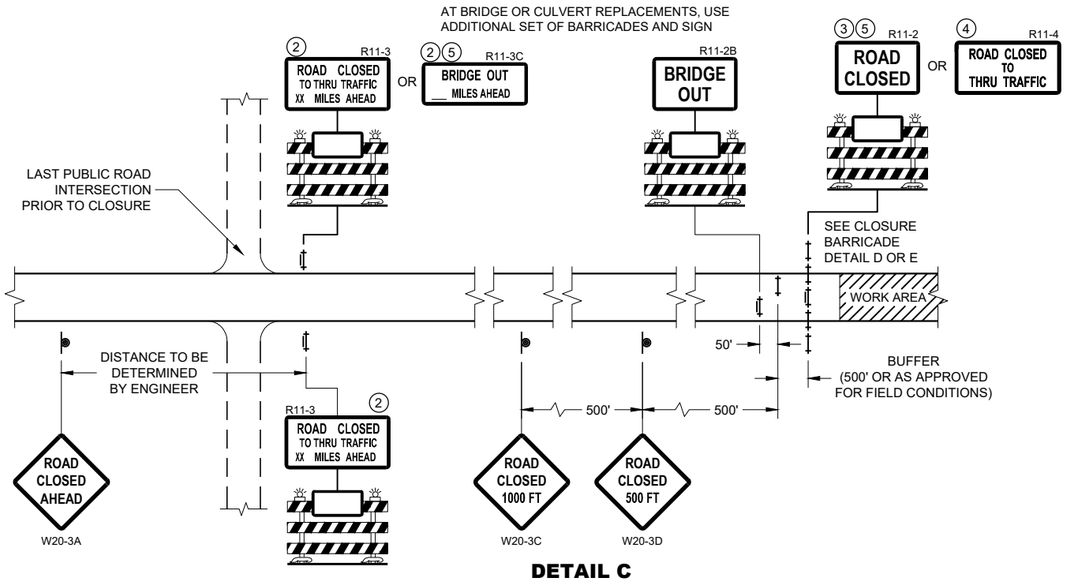
DETAIL A
MAINLINE CLOSURE WITH POSTED DETOUR

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



DETAIL B
MAINLINE CLOSURE WITH POSTED DETOUR

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



DETAIL C
MAINLINE CLOSURE, NO POSTED DETOUR

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

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

LEGEND

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

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

BARRICADES AND SIGNS FOR MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

FHWA

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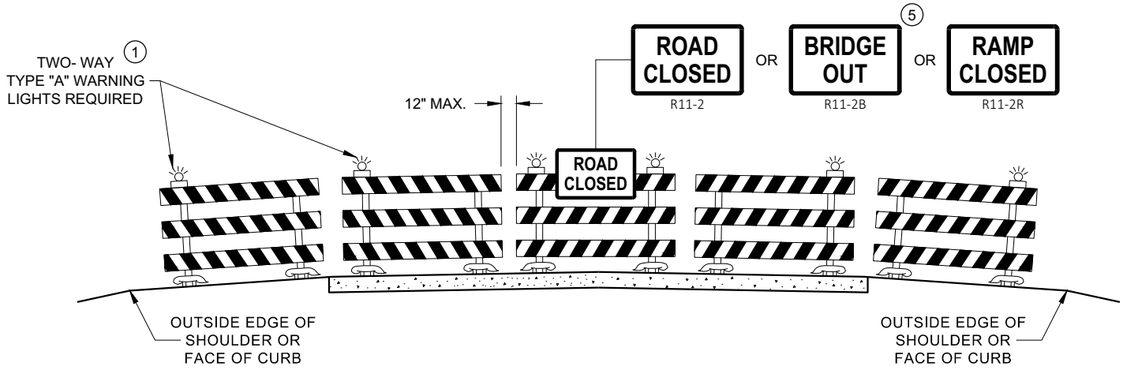
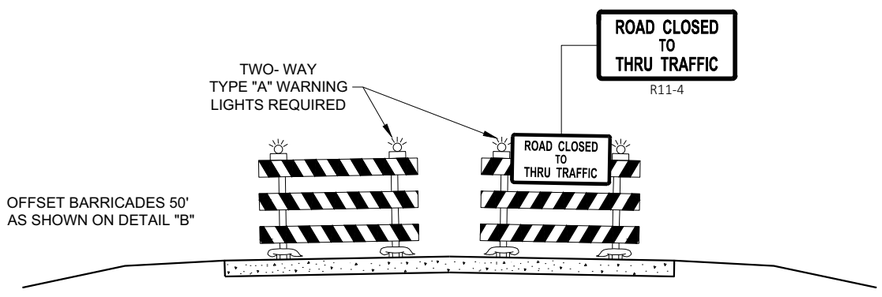
SDD 15C02 - 08a

SDD 15C02 - 08a



DETAIL D
ROAD CLOSURE BARRICADE DETAIL
APPROACH VIEW



DETAIL E
LANE CLOSURE BARRICADE DETAIL
APPROACH VIEW

SEE SDD 15C2 - SHEET "a" FOR LEGEND

GENERAL NOTES

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

BARRICADES AND SIGNS FOR VARIOUS CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

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SDD 15C02 - 08b

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

LEGEND

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

GENERAL NOTES

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

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

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

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

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

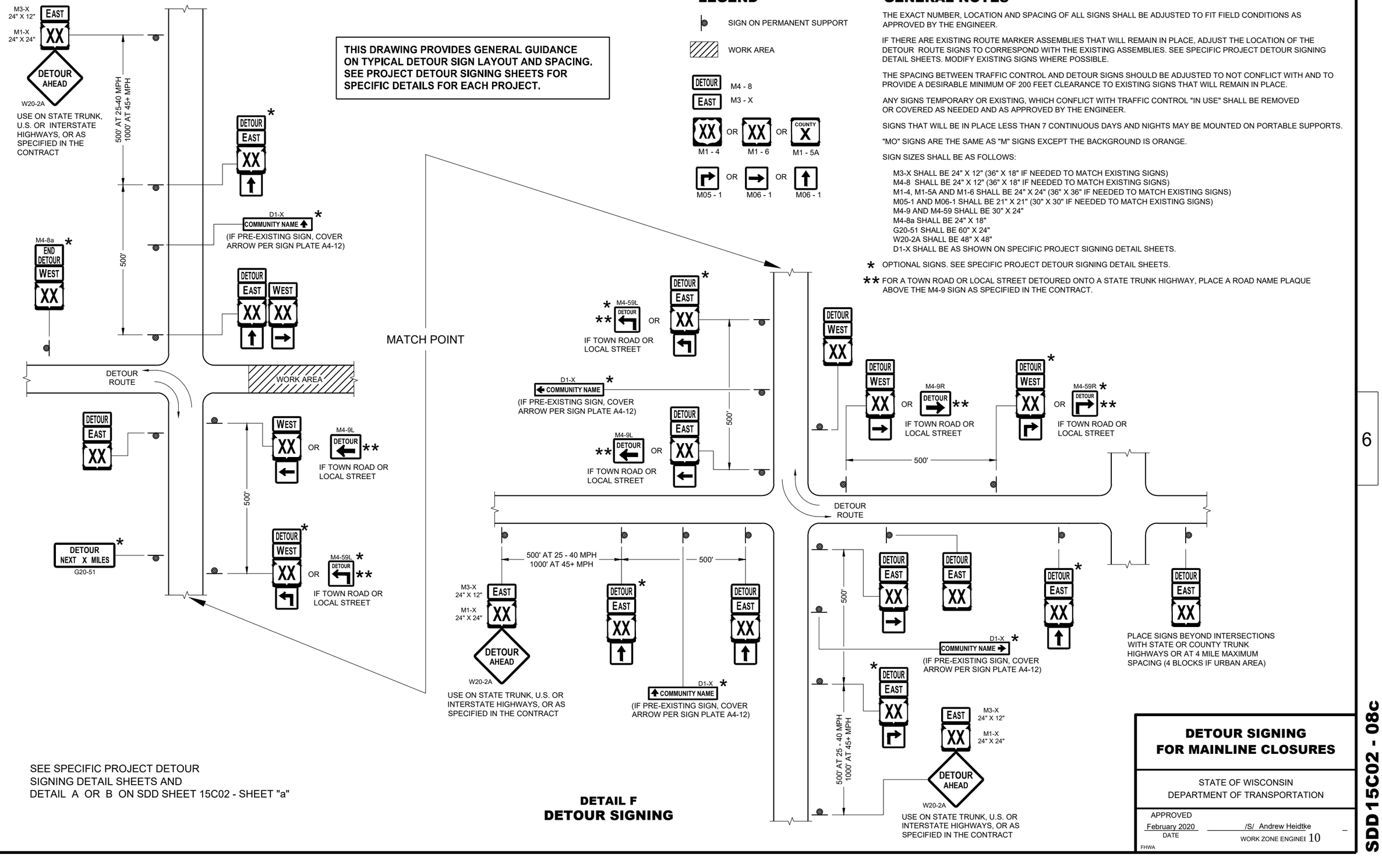
"MO" SIGNS ARE THE SAME AS "M" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

SIGN SIZES SHALL BE AS FOLLOWS:

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

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

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



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

DETAIL F
DETOUR SIGNING

DETOUR SIGNING FOR MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2020
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEER

FHWA

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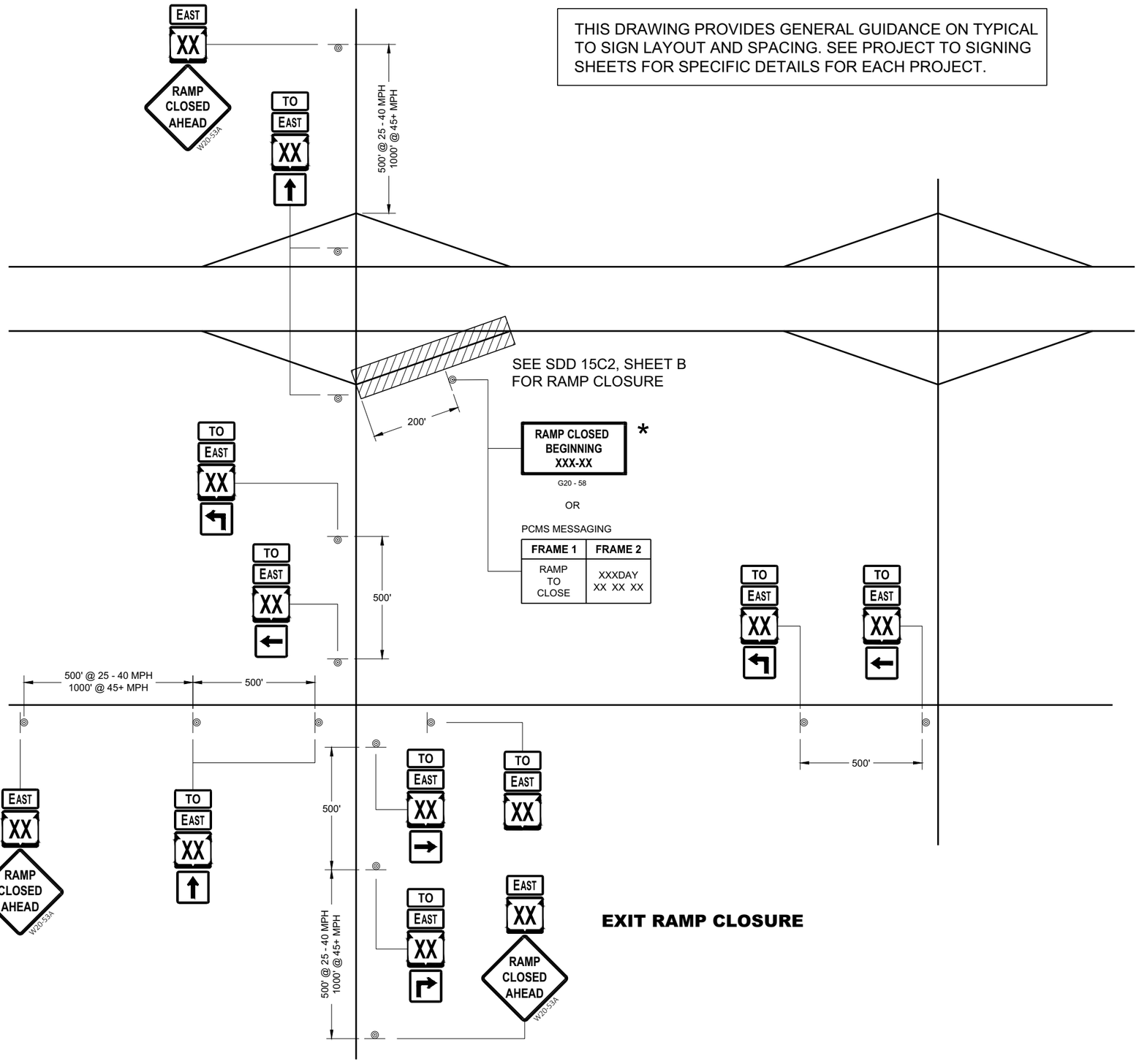
SDD 15C02 - 08c



EXIT RAMP CLOSURE

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

LEGEND

SIGN ON PERMANENT SUPPORT

TO EAST — MO4 - 5, M3 - X

XX M1 - 6 OR XX M1 - 4 OR INTERSTATE XX M1 - 1

M05 - 1 OR M06 - 1 OR M06 - 1

GENERAL NOTES

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

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

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

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

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

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

SIGN SIZES SHALL BE AS FOLLOW:
- M3 - X SHALL BE 24" X 12". (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS).
- MO4 - 5 SHALL BE 24" X 12". (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS).
- M1 - 1, M1 - 4, AND M1 - 6 SHALL BE 24" X 24" (36" X 36" IF NEEDED TO MATCH EXISTING SIGNS).
- MO5 - 1, MO5 - 2, AND MO6 - 1, SHALL BE 21" X 21". (30" X 30" IF NEEDED TO MATCH EXISTING SIGNS).
- W20 - 53A SHALL BE 48" X 48"

* PLACE "RAMP CLOSED BEGINNING" SIGN 7 CALENDAR DAYS PRIOR TO CLOSURE OR AS DIRECTED BY THE ENGINEER. SEE WISCONSIN STANDARD SIGN PLATES FOR LAYOUT.

ON RAMP LANE CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

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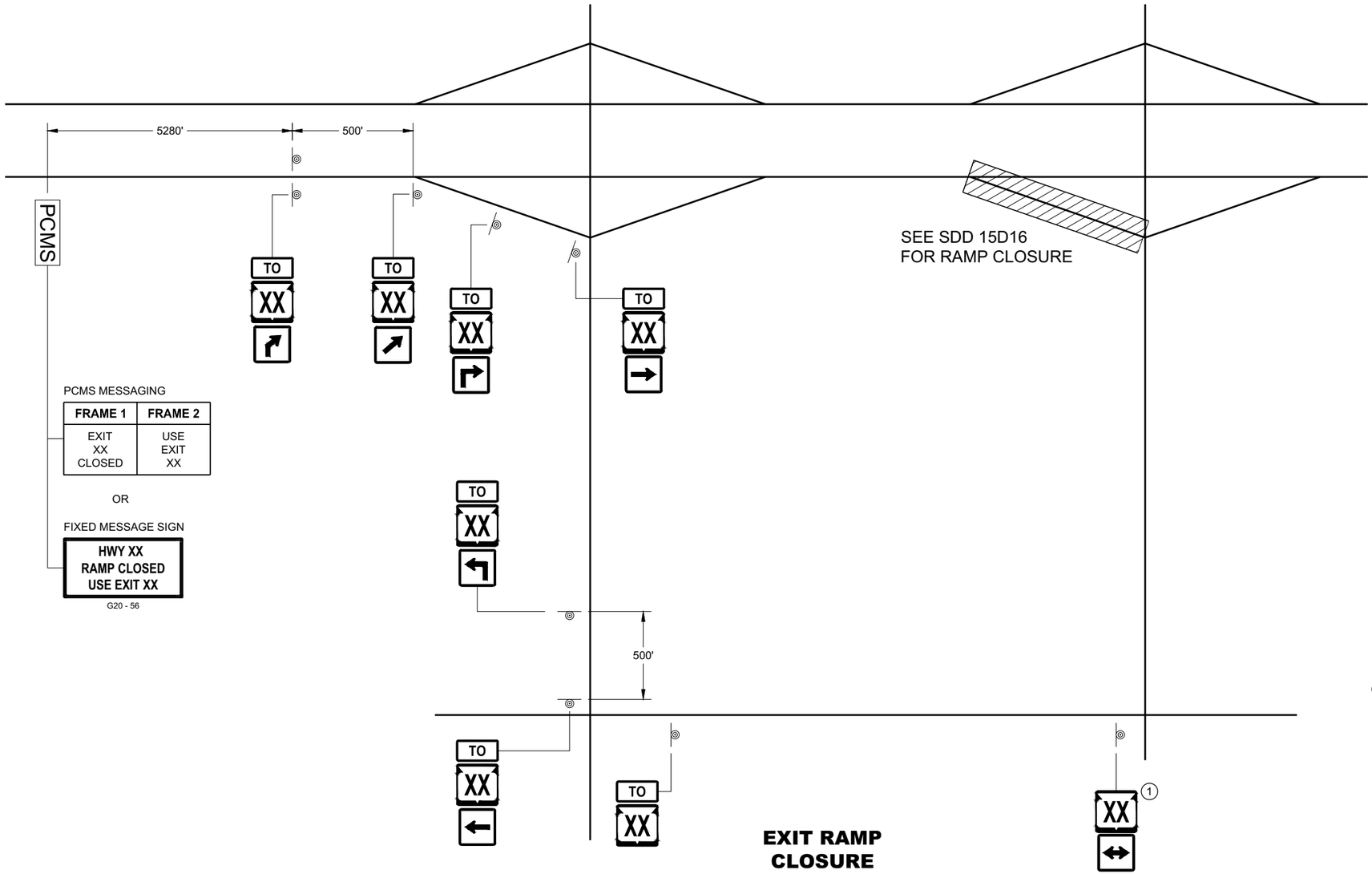
SDD 15C02 - 08d

THIS DRAWING PROVIDES GENERAL GUIDANCE ON TYPICAL "TO" MO-4 SIGN LAYOUT AND SPACING. SEE PROJECT TO SIGNING SHEETS FOR SPECIFIC DETAILS FOR EACH PROJECT.



PCMS MESSAGING

FRAME 1	FRAME 2
EXIT XX CLOSED	USE EXIT XX

OR

FIXED MESSAGE SIGN

HWY XX
RAMP CLOSED
USE EXIT XX

G20 - 56

EXIT RAMP CLOSURE

LEGEND

SIGN ON PERMANENT SUPPORT

PCMS PORTABLE CHANGEABLE MESSAGE SIGN

TO MO4 - 5

XX M1 - 4 OR XX M1 - 6 OR COUNTY X M1 - 5A

M05 - 1 OR M05 - 2 OR M06 - 1 OR M06 - 2 OR M06 - 4

GENERAL NOTES

SEE SDD 15D16 "TRAFFIC CONTROL, EXIT RAMP CLOSURE" DETAIL FOR TRAFFIC CONTROL AT EXIT RAMP CLOSURE.

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

IF THERE ARE ANY ROUTE MARKER ASSEMBLIES THAT WILL REMAIN IN PLACE, ADJUST THE LOCATION OF THE "TO" MO-4 ROUTE SIGNS TO CORRESPOND WITH THE EXISTING ASSEMBLIES. SEE SPECIFIC PROJECT TO SIGNING DETAIL SHEETS. MODIFY EXISTING SIGNS WHERE POSSIBLE.

THE SPACING BETWEEN TRAFFIC CONTROL AND "TO" MO-4 SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND TO PROVIDE A DESIRABLE MINIMUM OF 200 FEET CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

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

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

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

SIGN SIZES SHALL BE AS FOLLOW:
- MO4 - 5 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, MO5 - 2, AND MO6 - 1, SHALL BE 21" X 21". (30" X 30" IF NEEDED TO MATCH EXISTING SIGNS).

(1) ONLY ADD IF THERE ARE NO EXISTING ROUTE MARKERS FOR THE INTERSECTING ROADWAY.

OFF RAMP LANE CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

SDD 15C02 - 08e

SDD 15C02 - 08e

GENERAL NOTES

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

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

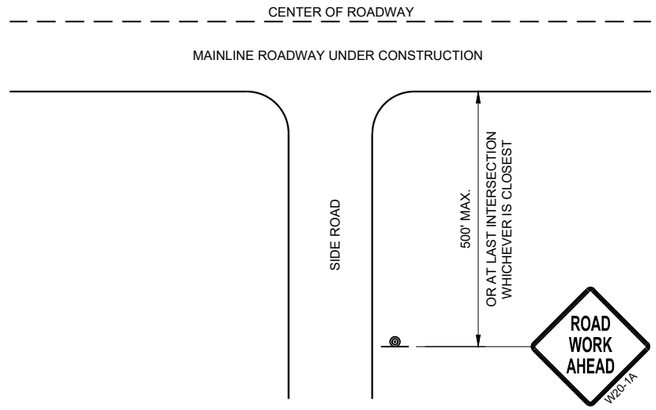
ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.

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

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

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

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



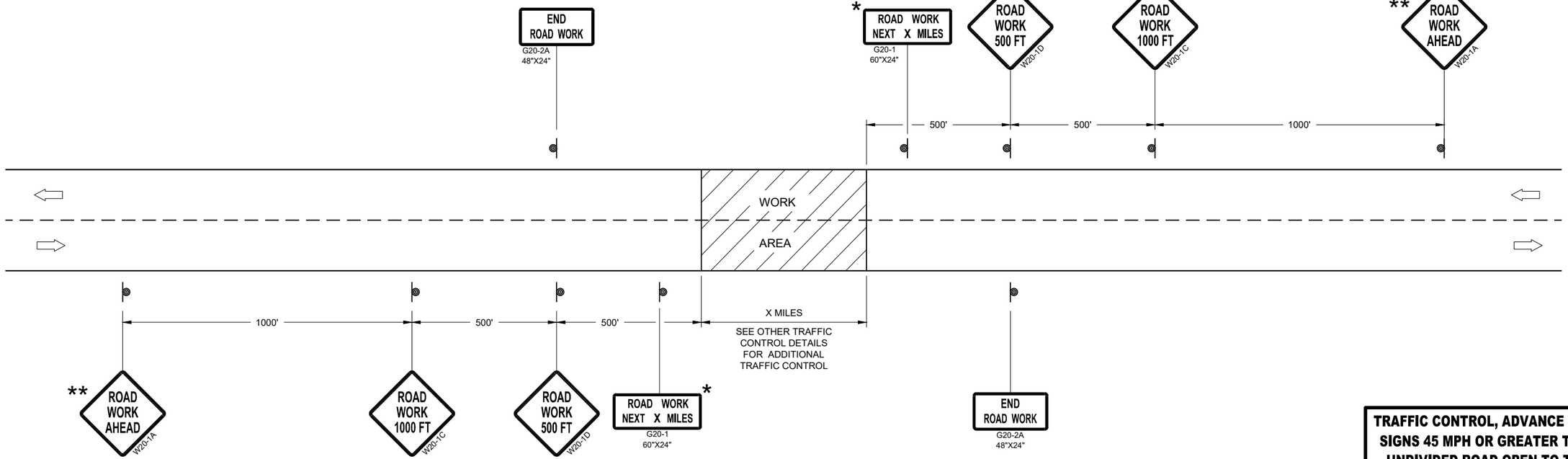
TYPICAL SIDE ROAD APPROACH WARNING SIGN DETAIL

LEGEND

SIGN ON PERMANENT SUPPORT

DIRECTION OF TRAFFIC

WORK AREA



TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45MPH OR GREATER

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
July 2018
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

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SDD 15C04 - 05

GENERAL NOTES

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

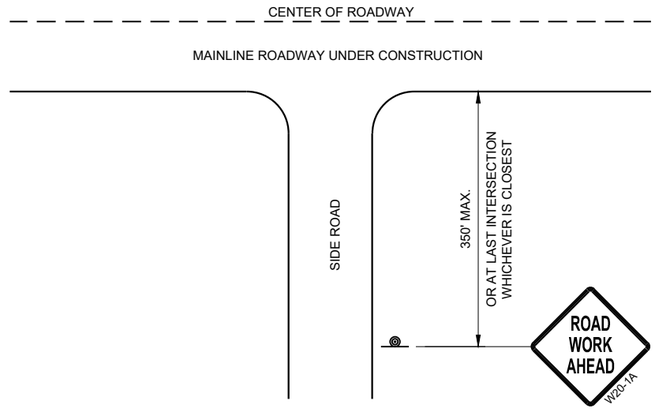
THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A MINIMUM OF 200 FEET (500 FEET DESIRABLE) CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

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

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

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

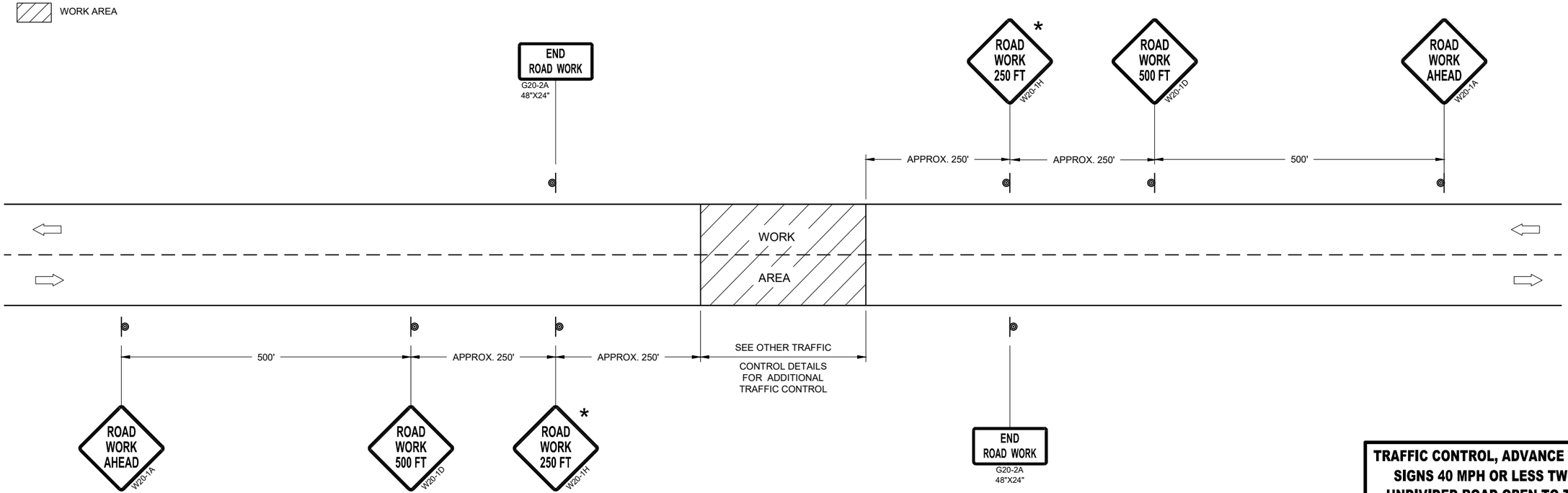
* THE THIRD W20-1 SIGN IS REQUIRED ONLY IF THERE IS AN INTERSECTION BETWEEN THE "ROAD WORK 500 FEET" SIGN AND THE WORK ZONE. ADJUST THE PLACEMENT OF THIS SIGN BASED ON INTERSECTION LOCATION AND OTHER FIELD CONDITIONS.



TYPICAL SIDE ROAD APPROACH WARNING SIGN DETAIL

LEGEND

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



TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40MPH OR LESS

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
July 2018
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

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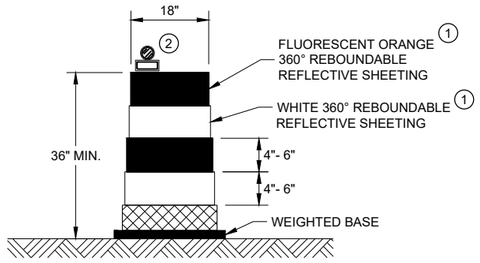
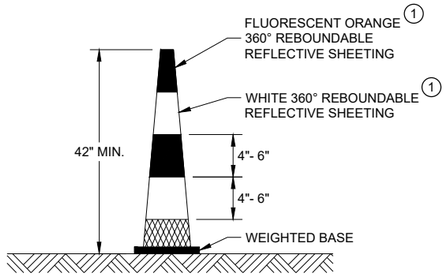
SDD 15C05 - 05

GENERAL NOTES

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

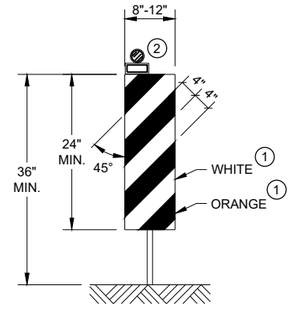


DRUM



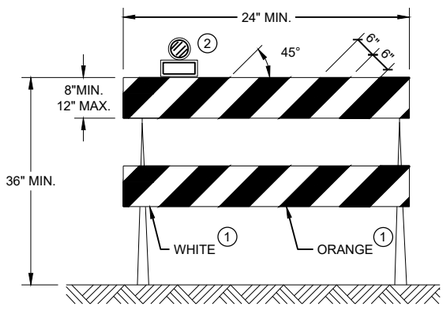
42" CONE

DO NOT USE IN TAPERS
½ SPACING OF DRUMS



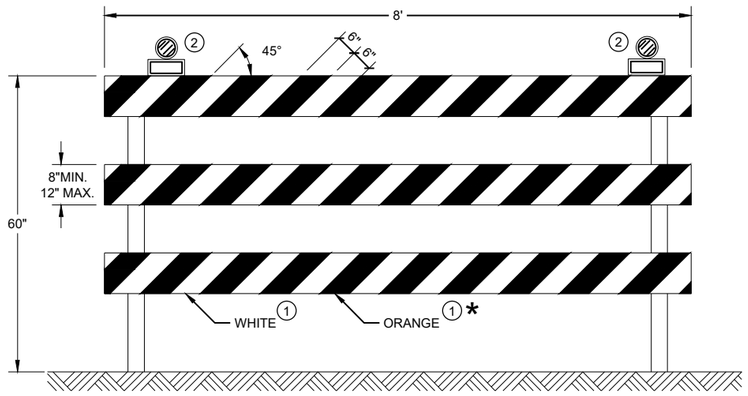
VERTICAL PANEL

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.

CHANNELIZING DEVICES
DRUMS, CONES, BARRICADES
AND VERTICAL PANELS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2021
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

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SDD15C11 - 09b

6

SDD15C11 - 09b

LEGEND

SIGN ON PORTABLE OR PERMANENT SUPPORT

TEMPORARY PORTABLE RUMBLE STRIP ARRAY

DIRECTION OF TRAFFIC

WORK AREA

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

GENERAL NOTES

DETAILS OF TRAFFIC CONTROL DEVICES AND INSTALLATION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS, THE SPECIAL PROVISIONS, AND THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

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

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

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

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

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

FLAGGING

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

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

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

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

TEMPORARY PORTABLE RUMBLE STRIPS

UTILIZE TEMPORARY PORTABLE RUMBLE STRIPS ON ALL FLAGGING OPERATIONS.

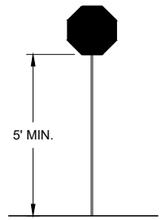
(3) EACH TEMPORARY PORTABLE RUMBLE STRIP ARRAY CONSISTS OF THREE RUMBLE STRIPS PLACED TRANSVERSE ACROSS THE LANE AT THE LOCATIONS SHOWN. WITHIN EACH ARRAY, SPACING BETWEEN RUMBLE STRIPS SHALL BE 15 FEET ON CENTER

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

INSTALL TEMPORARY RUMBLE STRIPS PER MANUFACTURER'S RECOMMENDATIONS.

PLACE ADVANCE SIGNING PRIOR TO INSTALLING TEMPORARY RUMBLE STRIPS.

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



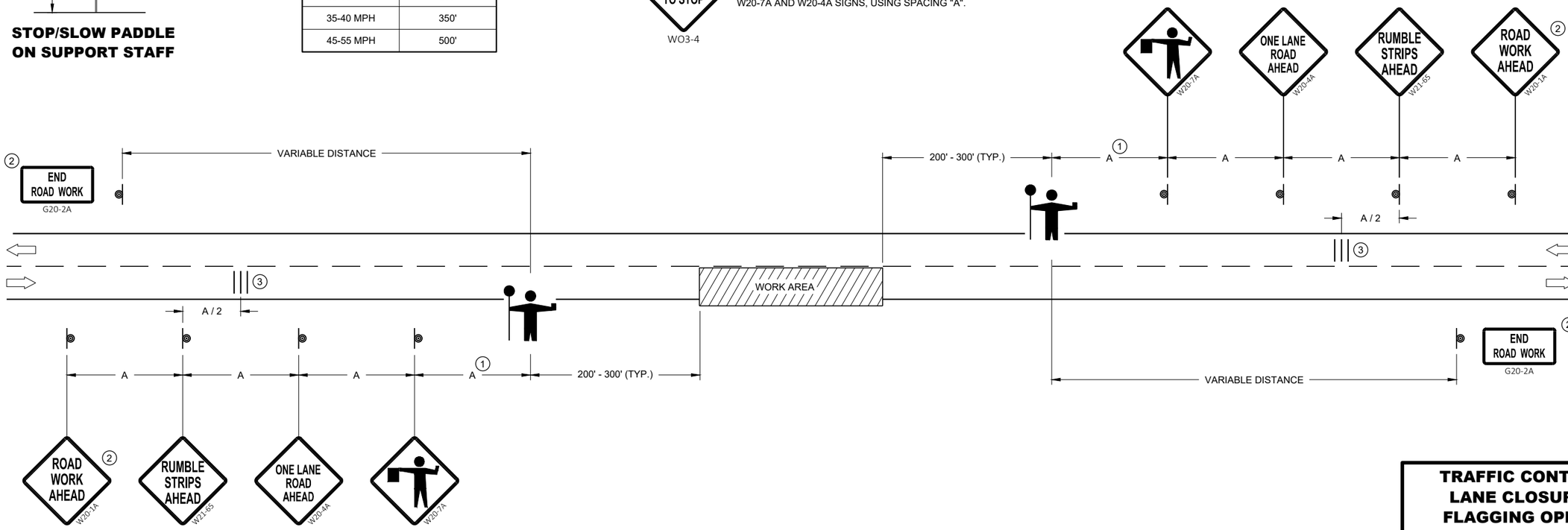
STOP/SLOW PADDLE ON SUPPORT STAFF

SIGN AND TEMPORARY RUMBLE STRIP ARRAY SPACING TABLE

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

WO3-4

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



TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2022
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

6

SDD 15C12 - 09a
SDD 15C12 - 09a

GENERAL NOTES

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

THE SPACING BETWEEN SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND TO PROVIDE A MINIMUM OF 200 FEET (500 FEET DESIRABLE) CLEARANCE TO EXISTING SIGNS.

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

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

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

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

FOR A LANE CLOSURE THAT IS IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS, THE ADVANCED WARNING SIGNS MAY BE MOUNTED ON PORTABLE SUPPORTS.

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

IF THE HORIZONTAL ALIGNMENT IS SUCH THAT A CURVE MAY REQUIRE ADDITIONAL DELINEATION, THE DEVICE SPACING MAY BE DECREASED TO 50 FEET.

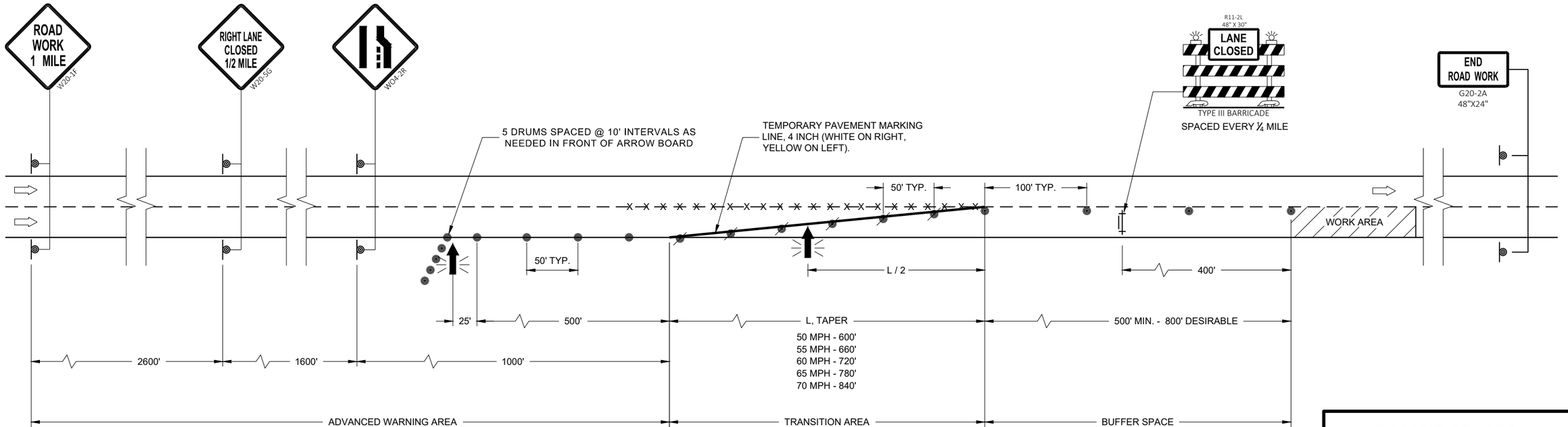
WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

ADJUSTMENTS IN BUFFER SPACE NEED TO BE INCORPORATED WHEN THE LANE CLOSURE OCCURS NEAR AN INTERCHANGE EXIT OR ENTRANCE RAMP OR INTERSECTION. THE LANE CLOSURE MUST TAKE PLACE FAR ENOUGH IN ADVANCE OF AN EXIT OR ENTRANCE RAMP TO STILL ALLOW FOR ADEQUATE BUFFER SPACE. THE MINIMUM LENGTH OF THE BUFFER SPACE BEFORE AN EXIT RAMP SHOULD BE ONE HALF THE LENGTH OF THE TRANSITION AREA. THE ENTRANCE RAMP SHOULD BE FOLLOWED BY THE ORIGINAL BUFFER SPACE LENGTH OF 800 FEET DESIRABLE PRIOR TO ANOTHER TRAFFIC CONTROL CHANGE SUCH AS A CROSSOVER MANEUVER.

CONSIDER ROADWAY GEOMETRICS WHEN LOCATING SIGNS AND ARROW BOARD SO THE DRIVER HAS A CLEAR VIEW OF THE ARROW BOARD AND LANE CLOSURE DRUMS.

LEGEND

- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- TYPE III BARRICADE WITH ATTACHED SIGN
- TYPE "A" WARNING LIGHT (FLASHING)
- REMOVING PAVEMENT MARKINGS
- DIRECTION OF TRAFFIC
- WORK AREA
- FLASHING ARROW BOARD



TRAFFIC CONTROL LANE CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2022
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

6

SDD 15D12 - 10a

6

SDD15D12 - 10a

LEGEND

- SIGN ON TEMPORARY SUPPORT
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TYPE "A" WARNING LIGHT (FLASHING)
- FLASHING ARROW BOARD
- DIRECTION OF TRAFFIC
- WORK AREA

GENERAL NOTES

THIS DETAIL IS TYPICAL FOR CLOSING THE RIGHT TWO LANES. FOR CLOSING THE LEFT TWO LANES, REVERSE THE TRAFFIC CONTROL.

ALL SIGNS ARE 48"X48" UNLESS OTHERWISE NOTED.

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

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH THE TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER. NO WARNING LIGHTS SHALL BE WORKING ON COVERED OR "DOWNED" SIGNS.

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

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

W20-1E AND G20-2A SIGNS ARE NOT REQUIRED IF THE LANE CLOSURE IS WITHIN A LARGER WORK ZONE WHERE THESE SIGNS ARE ALREADY PRESENT.

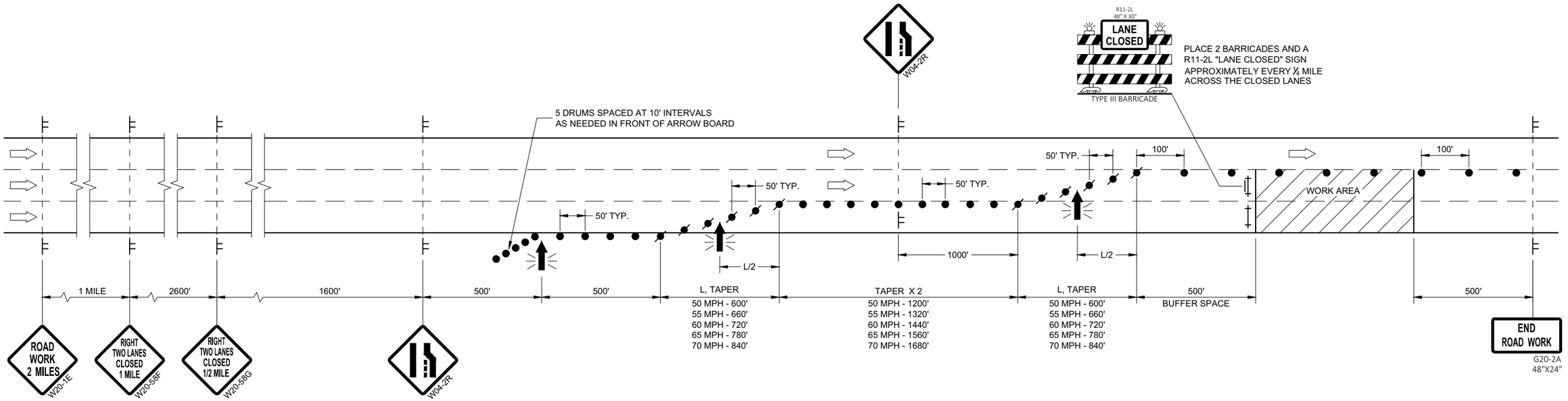
CONSIDER ROADWAY GEOMETRICS WHEN LOCATING SIGNS AND ARROW BOARDS SO THE APPROACHING DRIVER HAS A CLEAR VIEW OF THE ARROW BOARDS AND LANE CLOSURE DRUMS.

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

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

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

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



TRAFFIC CONTROL, TWO LANE CLOSURE ON FREEWAY OR EXPRESSWAY, SHORT TERM (LESS THAN 24 HOURS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

May 2020
DATE

/S/ Andrew Heidtke
STATEWIDE WORK ZONE T SAFETY ENGINEER

FHWA

SDD 15D14 - 04

SDD 15D14 - 04

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- SIGN ON PERMANENT SUPPORT
- TYPE "A" WARNING LIGHT (FLASHING)
- DIRECTION OF TRAFFIC

GENERAL NOTES

THIS RAMP CLOSURE DETAIL IS TYPICAL FOR CLOSING A RIGHT SIDE EXIT RAMP. FOR A LEFT SIDE EXIT RAMP, REVERSE THE TRAFFIC CONTROL.

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

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

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

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

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

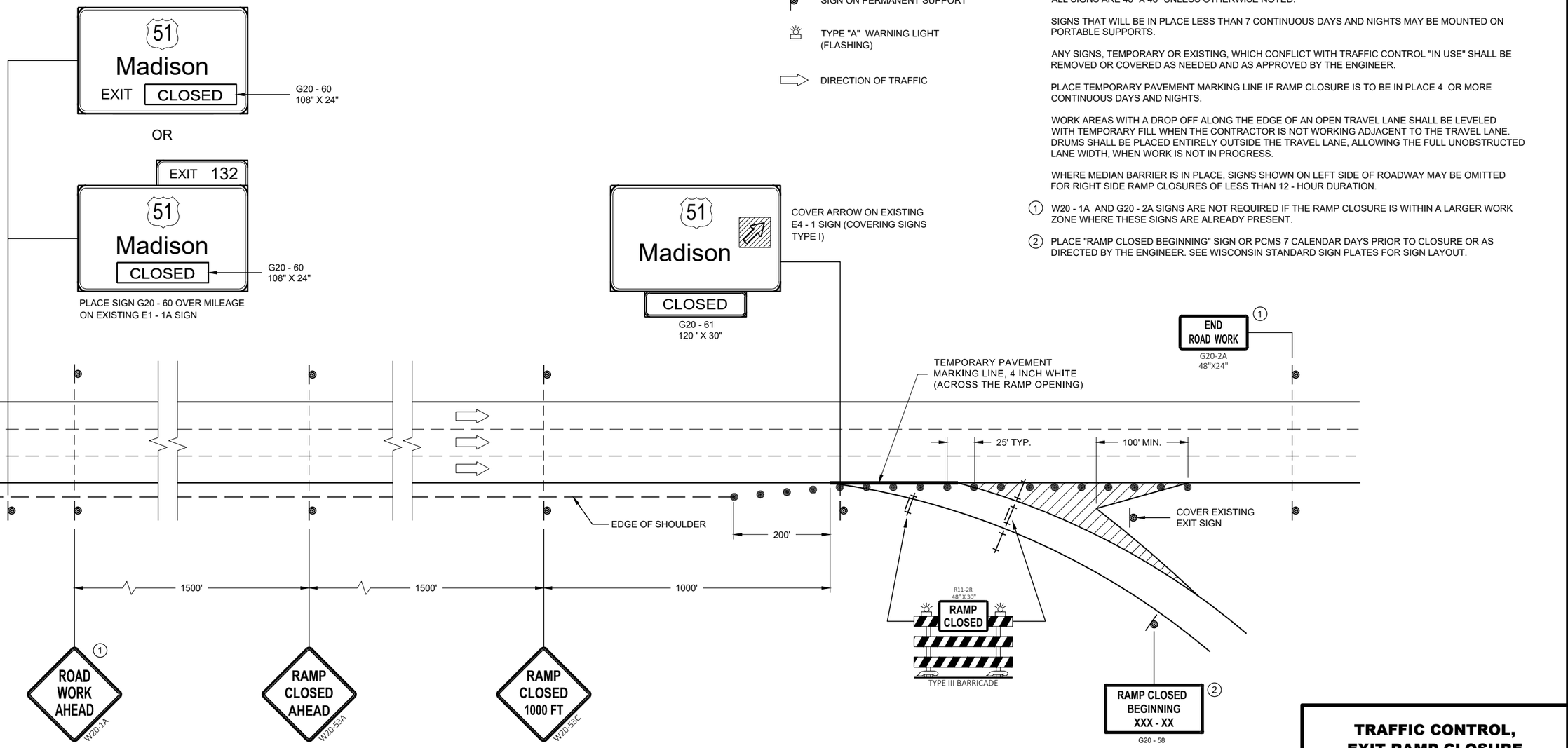
PLACE TEMPORARY PAVEMENT MARKING LINE IF RAMP CLOSURE IS TO BE IN PLACE 4 OR MORE CONTINUOUS DAYS AND NIGHTS.

WORK AREAS WITH A DROP OFF ALONG THE EDGE OF AN OPEN TRAVEL LANE SHALL BE LEVELED WITH TEMPORARY FILL WHEN THE CONTRACTOR IS NOT WORKING ADJACENT TO THE TRAVEL LANE. DRUMS SHALL BE PLACED ENTIRELY OUTSIDE THE TRAVEL LANE, ALLOWING THE FULL UNOBSTRUCTED LANE WIDTH, WHEN WORK IS NOT IN PROGRESS.

WHERE MEDIAN BARRIER IS IN PLACE, SIGNS SHOWN ON LEFT SIDE OF ROADWAY MAY BE OMITTED FOR RIGHT SIDE RAMP CLOSURES OF LESS THAN 12 - HOUR DURATION.

(1) W20 - 1A AND G20 - 2A SIGNS ARE NOT REQUIRED IF THE RAMP CLOSURE IS WITHIN A LARGER WORK ZONE WHERE THESE SIGNS ARE ALREADY PRESENT.

(2) PLACE "RAMP CLOSED BEGINNING" SIGN OR PCMS 7 CALENDAR DAYS PRIOR TO CLOSURE OR AS DIRECTED BY THE ENGINEER. SEE WISCONSIN STANDARD SIGN PLATES FOR SIGN LAYOUT.



OR

PCMS MESSAGING

FRAME 1	FRAME 2
RAMP TO CLOSE	XXXDAY XX XX XX

TRAFFIC CONTROL, EXIT RAMP CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2022
DATE

/S/ Andrew Heidtke
ROADWAY STANDARDS DEVE ENGINEER

FHWA

SDD 15D16 - 05

6
SDD 15D16 - 05

LEGEND

- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- TYPE III BARRICADE WITH ATTACHED SIGN
- TYPE "A" WARNING LIGHT (FLASHING)
- FLASHING ARROW BOARD
- DIRECTION OF TRAFFIC
- REMOVE PAVEMENT MARKING (SEE GENERAL NOTES)
- WORK AREA

GENERAL NOTES

FOR WORK ON ROADWAYS WITH SPEEDS GREATER THAN 45MPH, USE SDD 15D12.

THIS LANE CLOSURE DETAIL IS TYPICAL FOR CLOSING THE LEFT LANE. FOR A RIGHT LANE CLOSURE, REVERSE THE TRAFFIC CONTROL.

THIS DETAIL MAY BE USED FOR ROADWAYS WITH EITHER TWO OR THREE LANES IN EACH DIRECTION.

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

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

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH THE TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER. NO WARNING LIGHTS SHALL BE WORKING ON COVERED OR "DOWNED" SIGNS.

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS OR THAT WILL BE PLACED IN A CLOSED LANE MAY BE MOUNTED ON TEMPORARY SUPPORTS.

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

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

W20-1A, G20-1 AND G20-2A SIGNS ARE NOT REQUIRED IF THE LANE CLOSURE IS WITHIN A LARGER WORK ZONE WHERE THESE SIGNS ARE ALREADY PRESENT.

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

CONSIDER GEOMETRICS WHEN LOCATING SIGNS AND ARROW BOARDS SO THE APPROACHING DRIVER HAS A CLEAR VIEW OF THE ARROW BOARDS AND LANE CLOSURE DRUMS FOR A MINIMUM 1500 FEET IN FRONT OF DRUMS.

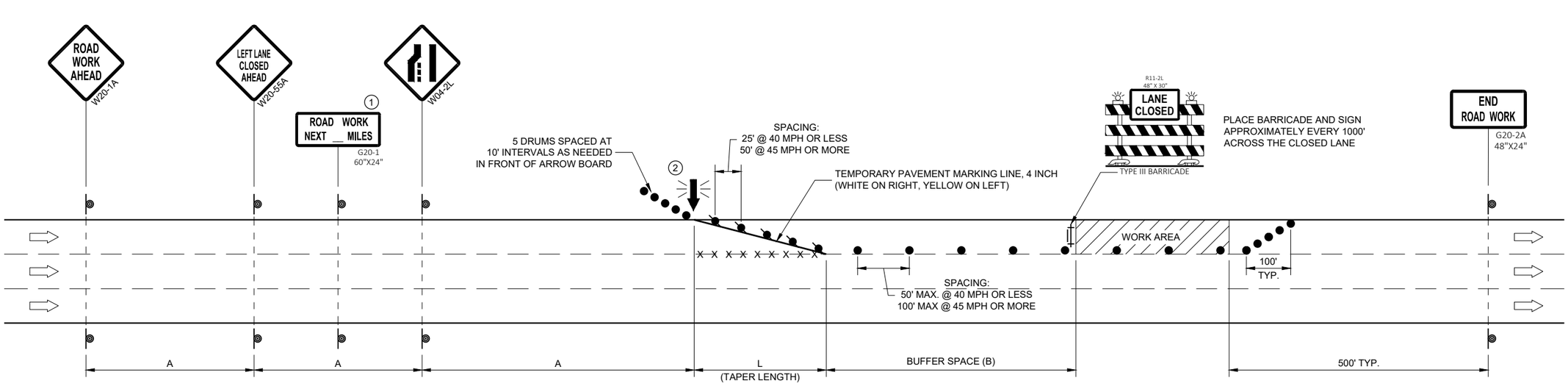
BARRICADES IN A CLOSED LANE THAT MUST BE MOVED FOR A WORK OPERATION SHALL BE IMMEDIATELY REESTABLISHED UPON COMPLETION OF THE OPERATION, OR FOR CONTINUING OPERATIONS, AT THE END OF EACH WORKING DAY.

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

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

(1) OMIT G20-1 SIGNS IF LENGTH OF WORK AREA IS 2 MILES OR LESS.

(2) WHERE THE SHOULDER OR TERRACE HAS INSUFFICIENT SPACE TO PLACE THE ARROW BOARD AS SHOWN, PLACE THE ARROW BOARD AT THE END OF THE TAPER.



POSTED SPEED LIMIT PRIOR TO WORK STARTING (MPH)	ADVANCE WARNING SIGN SPACING (A) FEET	TAPER LENGTH (12 FT. LANE) (L) FEET	BUFFER SPACE (B) FEET
25	200'	125'	55'
30	200'	180'	85'
35	350'	245'	120'
40	350'	320'	170'
45	500'	540'	220'

TRAFFIC CONTROL, SINGLE LANE CLOSURE, DIVIDED NON-FREEWAY/EXPRESSWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2022
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

6

SDD 15D20 - 06a

LEGEND

- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- TYPE III BARRICADE WITH ATTACHED SIGN
- TYPE "A" WARNING LIGHT (FLASHING)
- FLASHING ARROW BOARD
- DIRECTION OF TRAFFIC
- REMOVE PAVEMENT MARKING (SEE GENERAL NOTES)
- WORK AREA

GENERAL NOTES

THIS DETAIL MAY BE USED FOR ROADWAYS WITH EITHER TWO OR THREE LANES IN EACH DIRECTION.

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

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

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH THE TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER. NO WARNING LIGHTS SHALL BE WORKING ON COVERED OR "DOWNED" SIGNS.

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS OR THAT WILL BE PLACED IN A CLOSED LANE MAY BE MOUNTED ON TEMPORARY SUPPORTS.

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

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

W20-1A, G20-1 AND G20-2A SIGNS ARE NOT REQUIRED IF THE LANE CLOSURE IS WITHIN A LARGER WORK ZONE WHERE THESE SIGNS ARE ALREADY PRESENT.

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

CONSIDER GEOMETRICS WHEN LOCATING SIGNS AND ARROW BOARDS SO THE APPROACHING DRIVER HAS A CLEAR VIEW OF THE ARROW BOARDS AND LANE CLOSURE DRUMS FOR A MINIMUM 1500 FEET IN FRONT OF DRUMS.

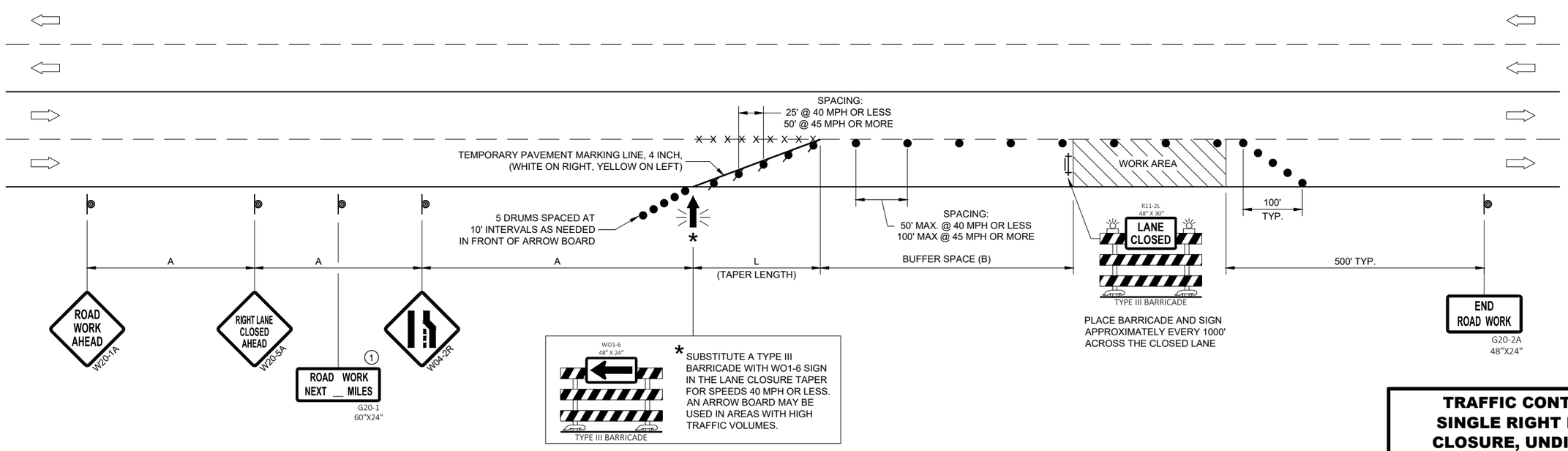
BARRICADES IN A CLOSED LANE THAT MUST BE MOVED FOR A WORK OPERATION SHALL BE IMMEDIATELY REESTABLISHED UPON COMPLETION OF THE OPERATION, OR FOR CONTINUING OPERATIONS, AT THE END OF EACH WORKING DAY.

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

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

(1) OMIT G20-1 SIGNS IF LENGTH OF WORK AREA IS 2 MILES OR LESS.

POSTED SPEED LIMIT PRIOR TO WORK STARTING (MPH)	ADVANCE WARNING SIGN SPACING (A) FEET	TAPER LENGTH (12 FT. LANE) (L) FEET	BUFFER SPACE (B) FEET
25	200'	125'	55'
30	200'	180'	85'
35	350'	245'	120'
40	350'	320'	170'
45	500'	540'	220'
50	500'	600'	280'
55	500'	660'	335'



TRAFFIC CONTROL, SINGLE RIGHT LANE CLOSURE, UNDIVIDED NON-FREEWAY/EXPRESSWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2022
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEER

FHWA

SDD 15D20 - 06b

SDD 15D20 - 06b

LEGEND

- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- TYPE III BARRICADE WITH ATTACHED SIGN
- TYPE "A" WARNING LIGHT (FLASHING)
- FLASHING ARROW BOARD
- DIRECTION OF TRAFFIC
- REMOVE PAVEMENT MARKING (SEE GENERAL NOTES)
- WORK AREA

GENERAL NOTES

THIS DETAIL MAY BE USED FOR ROADWAYS WITH EITHER TWO OR THREE LANES IN EACH DIRECTION.

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

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

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH THE TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER. NO WARNING LIGHTS SHALL BE WORKING ON COVERED OR "DOWNED" SIGNS.

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS OR THAT WILL BE PLACED IN A CLOSED LANE MAY BE MOUNTED ON TEMPORARY SUPPORTS.

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

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

W20-1A, G20-1 AND G20-2A SIGNS ARE NOT REQUIRED IF THE LANE CLOSURE IS WITHIN A LARGER WORK ZONE WHERE THESE SIGNS ARE ALREADY PRESENT.

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

CONSIDER GEOMETRICS WHEN LOCATING SIGNS AND ARROW BOARDS SO THE APPROACHING DRIVER HAS A CLEAR VIEW OF THE ARROW BOARDS AND LANE CLOSURE DRUMS FOR A MINIMUM 1500 FEET IN FRONT OF DRUMS.

DUE TO LACK OF SHOULDER/MEDIAN, ARROW BOARD IS PLACED AT THE THE END OF THE TAPER.

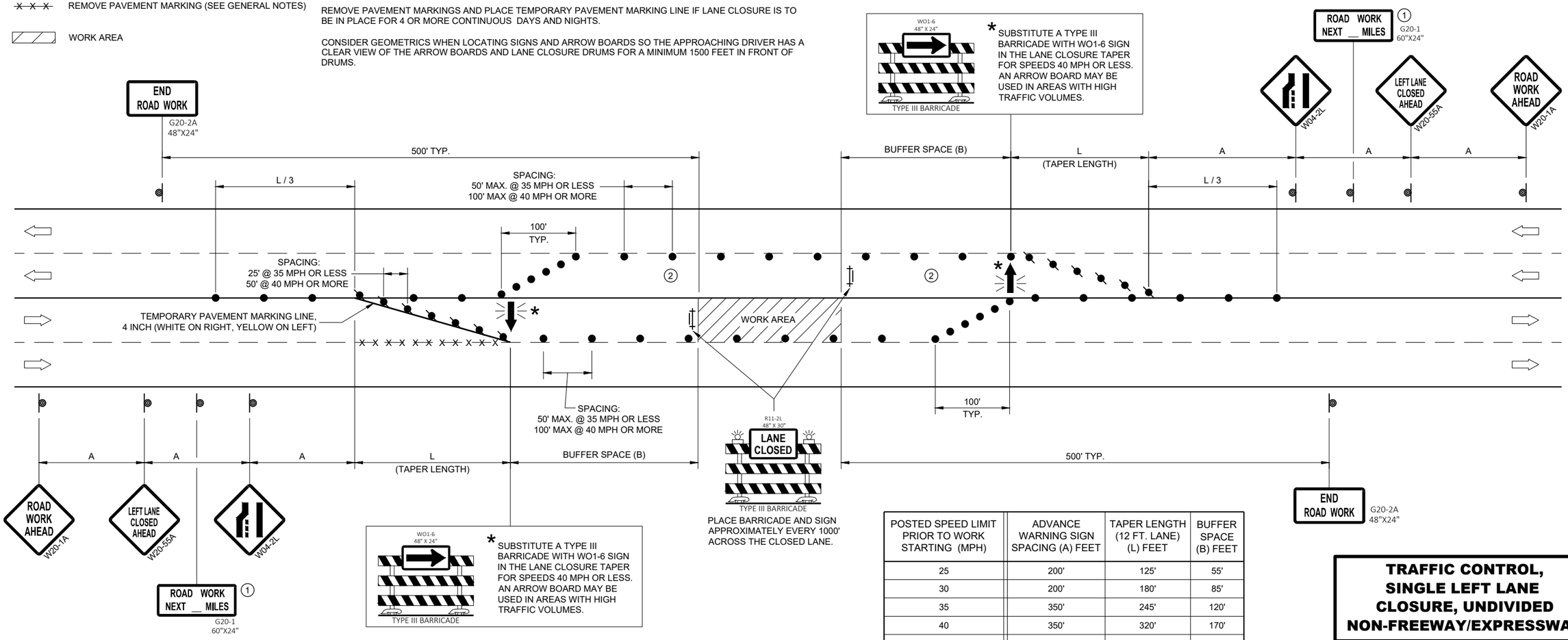
BARRICADES IN A CLOSED LANE THAT MUST BE MOVED FOR A WORK OPERATION SHALL BE IMMEDIATELY REESTABLISHED UPON COMPLETION OF THE OPERATION, OR FOR CONTINUING OPERATIONS, AT THE END OF EACH WORKING DAY.

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

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

(1) OMIT G20-1 SIGNS IF LENGTH OF WORK AREA IS 2 MILES OR LESS.

(2) LANE MAY BE OPENED WHEN WORKERS ARE NOT PRESENT IN THE WORK AREA.



* SUBSTITUTE A TYPE III BARRICADE WITH WO1-6 SIGN IN THE LANE CLOSURE TAPER FOR SPEEDS 40 MPH OR LESS. AN ARROW BOARD MAY BE USED IN AREAS WITH HIGH TRAFFIC VOLUMES.

* SUBSTITUTE A TYPE III BARRICADE WITH WO1-6 SIGN IN THE LANE CLOSURE TAPER FOR SPEEDS 40 MPH OR LESS. AN ARROW BOARD MAY BE USED IN AREAS WITH HIGH TRAFFIC VOLUMES.

POSTED SPEED LIMIT PRIOR TO WORK STARTING (MPH)	ADVANCE WARNING SIGN SPACING (A) FEET	TAPER LENGTH (12 FT. LANE) (L) FEET	BUFFER SPACE (B) FEET
25	200'	125'	55'
30	200'	180'	85'
35	350'	245'	120'
40	350'	320'	170'
45	500'	540'	220'
50	500'	600'	280'
55	500'	660'	335'

TRAFFIC CONTROL, SINGLE LEFT LANE CLOSURE, UNDIVIDED NON-FREEWAY/EXPRESSWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2022
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

6

SDD 15D20 - 06c

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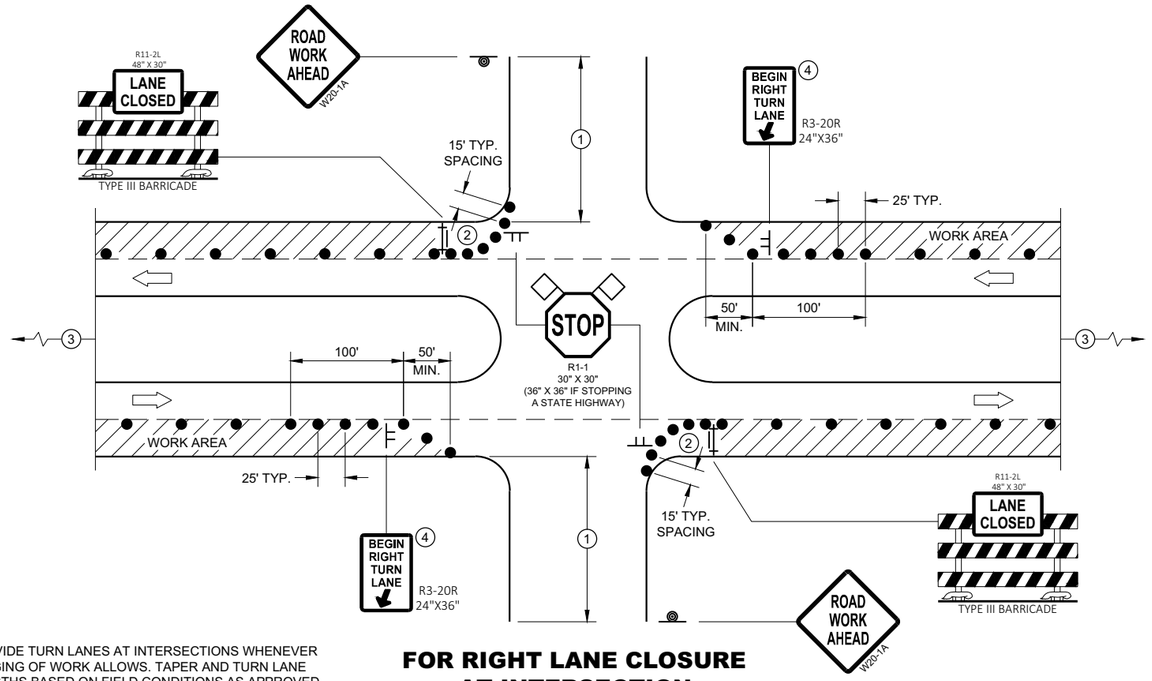
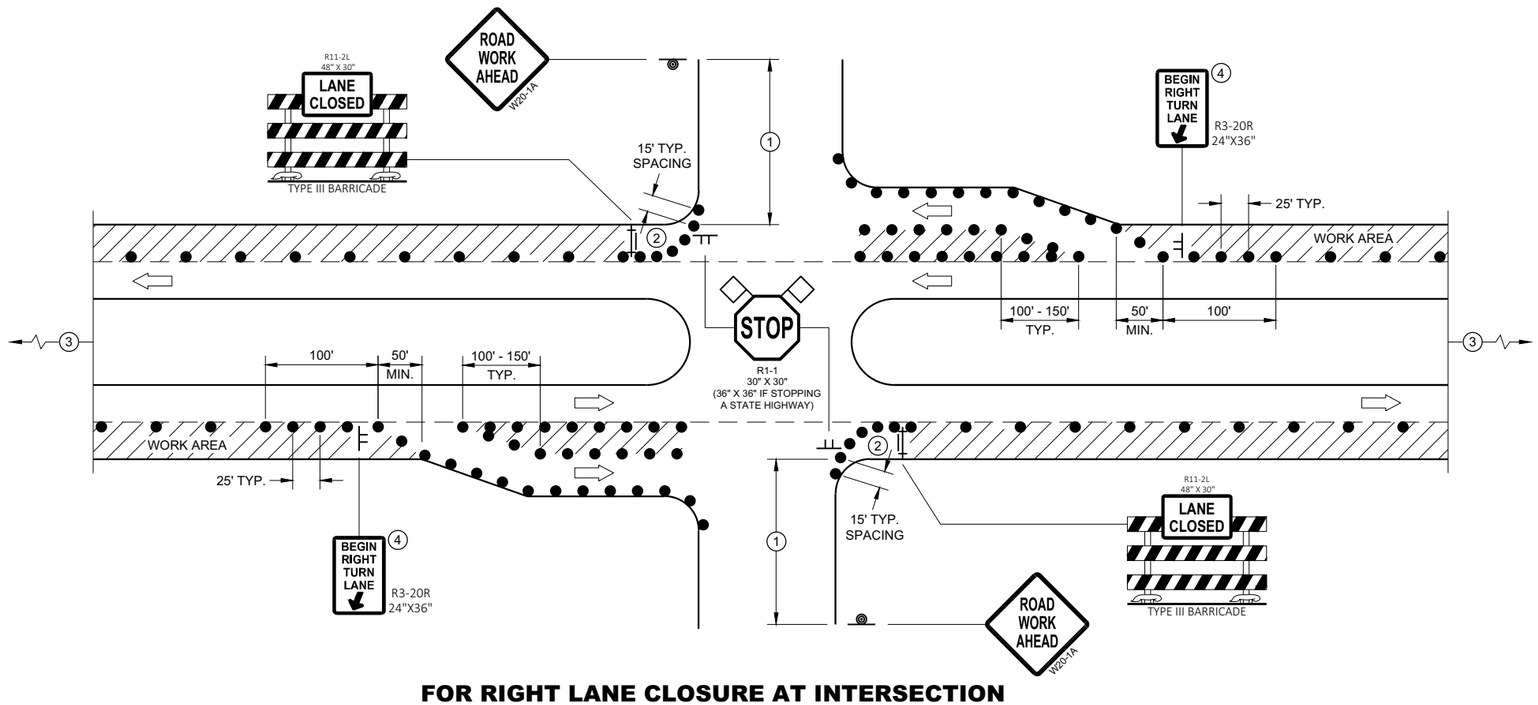
SDD 15D20 - 06c



FOR RIGHT LANE CLOSURE AT INTERSECTION

PROVIDE TURN LANES AT INTERSECTIONS WHENEVER STAGING OF WORK ALLOWS. TAPER AND TURN LANE LENGTHS BASED ON FIELD CONDITIONS AS APPROVED BY THE ENGINEER.



FOR RIGHT LANE CLOSURE AT INTERSECTION (WITH RIGHT TURN BAY OPEN)

GENERAL NOTES

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

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

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH THE TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER. NO WARNING LIGHTS SHALL BE WORKING ON COVERED OR "DOWNED" SIGNS.

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

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

SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE FHWA'S MANUAL OF STANDARD HIGHWAY SIGNS OR THE WISCONSIN STANDARD SIGN PLATES.

SIGNS THAT WILL REMAIN IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS OR THAT WILL BE PLACED IN A CLOSED LANE MAY BE MOUNTED ON PORTABLE SUPPORTS.

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

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

(1) 500' TYPICAL OR AT LAST INTERSECTION, WHICHEVER IS CLOSER.
350' IF 35 - 40 MPH.
200' IF 25 - 30 MPH.

(2) ALSO USE BARRICADE AND 15 FOOT TYPICAL DRUM SPACING AT COMMERCIAL DRIVEWAYS

(3) SEE SEPARATE LANE CLOSURE DETAIL FOR ADDITIONAL TRAFFIC CONTROL.

(4) MINIMUM MOUNTING HEIGHT OF 5 FEET FROM EDGE OF PAVEMENT (AT EDGE LINE LOCATION) TO BOTTOM OF SIGN.

LEGEND

- SIGN ON TEMPORARY SUPPORT
- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM
- TYPE III BARRICADE WITH ATTACHED SIGN
- DIRECTION OF TRAFFIC
- FLAGS, 16" X 16" MIN., ORANGE
- WORK AREA

TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE RIGHT LANE CLOSURE

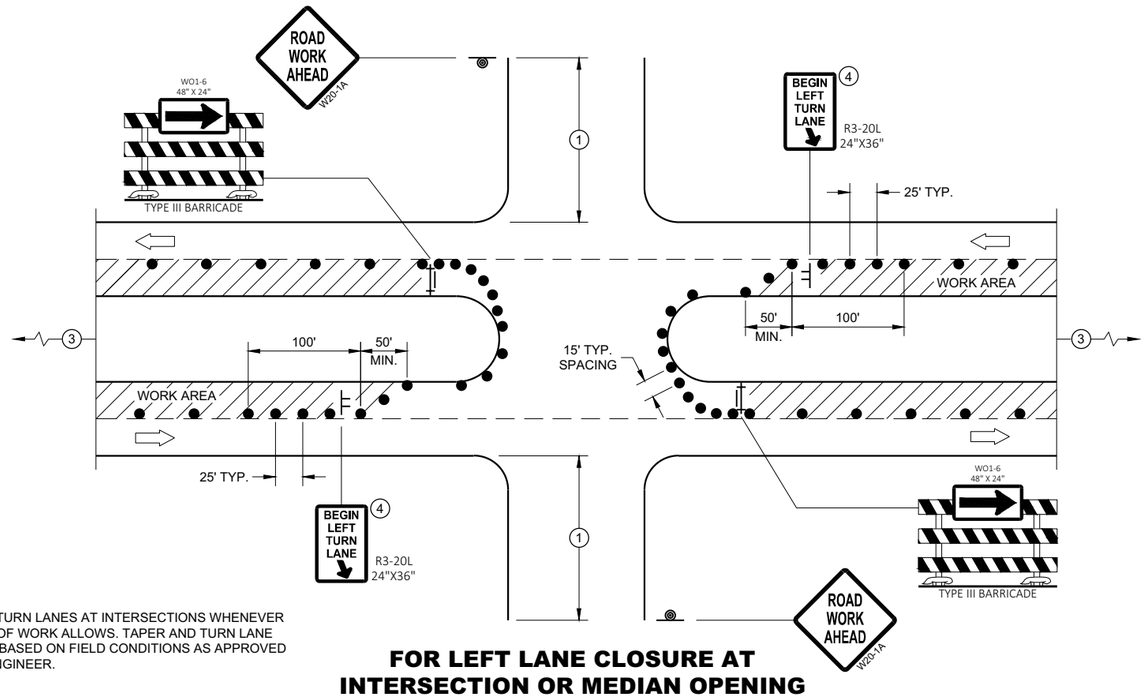
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 15D21 - 07a

6

SDD 15D21 - 07a



PROVIDE TURN LANES AT INTERSECTIONS WHENEVER STAGING OF WORK ALLOWS. TAPER AND TURN LANE LENGTHS BASED ON FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

FOR LEFT LANE CLOSURE AT INTERSECTION OR MEDIAN OPENING

GENERAL NOTES

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

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

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH THE TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER. NO WARNING LIGHTS SHALL BE WORKING ON COVERED OR "DOWNED" SIGNS.

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

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

SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE FHWA'S MANUAL OF STANDARD HIGHWAY SIGNS OR THE WISCONSIN STANDARD SIGN PLATES.

SIGNS THAT WILL REMAIN IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS OR THAT WILL BE PLACED IN A CLOSED LANE MAY BE MOUNTED ON PORTABLE SUPPORTS.

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

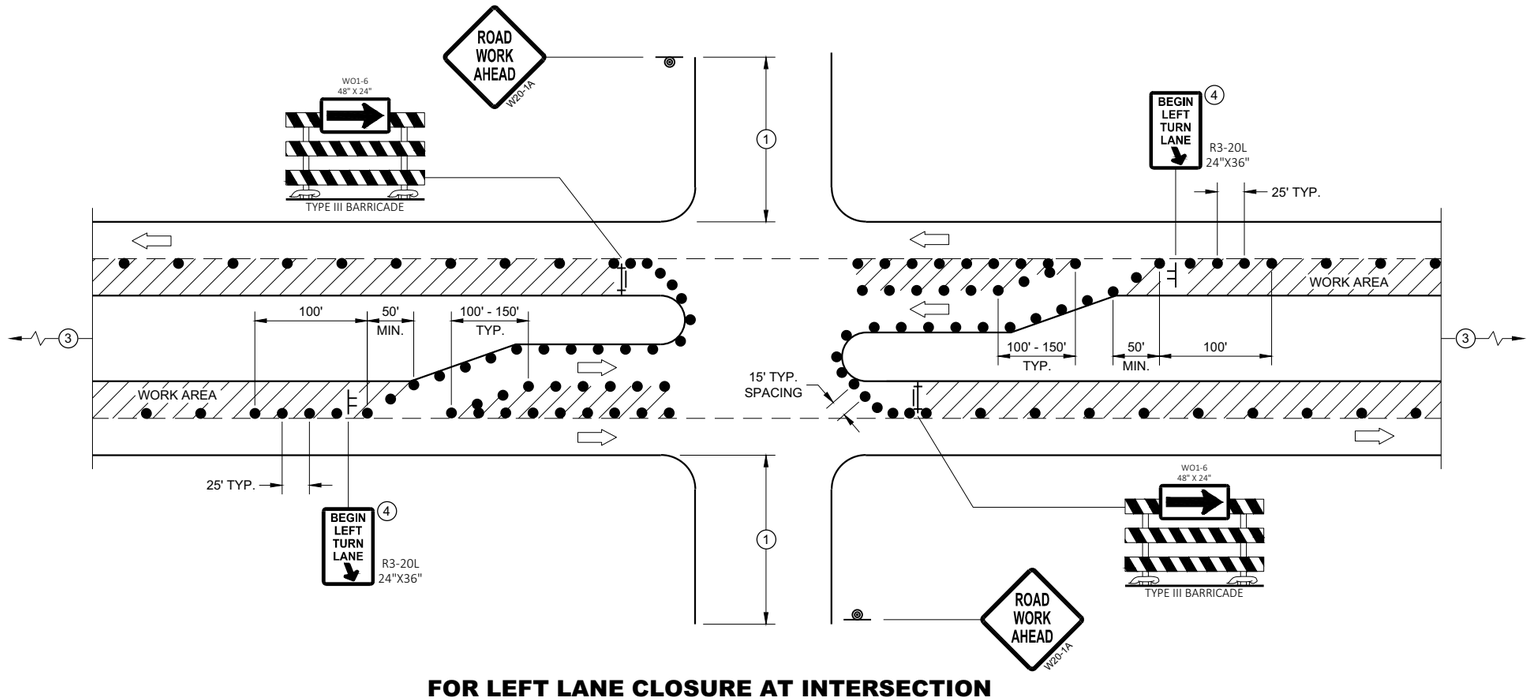
CHANNELIZING DEVICES PLACED ADJACENT TO WORK AREA SHALL BE PULLED BACK FROM THE TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

(1) 500' TYPICAL OR AT LAST INTERSECTION, WHICHEVER IS CLOSER.
350' IF 35 - 40 MPH.
200' IF 25 - 30 MPH.

(2) ALSO USE BARRICADE AND 15 FOOT TYPICAL DRUM SPACING AT COMMERCIAL DRIVEWAYS

(3) SEE SEPARATE LANE CLOSURE DETAIL FOR ADDITIONAL TRAFFIC CONTROL.

(4) MINIMUM MOUNTING HEIGHT OF 5 FEET FROM EDGE OF PAVEMENT (AT EDGE LINE LOCATION) TO BOTTOM OF SIGN.



FOR LEFT LANE CLOSURE AT INTERSECTION OR MEDIAN OPENING (WITH LEFT TURN BAY OPEN)

LEGEND

- SIGN ON TEMPORARY SUPPORT
- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM
- TYPE III BARRICADE WITH ATTACHED SIGN
- DIRECTION OF TRAFFIC
- FLAGS, 16" X 16" MIN., ORANGE
- WORK AREA

TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE LEFT LANE CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
August 2020 — DATE
/S/ Andrew Heidtke — WORK ZONE ENGINEER
FHWA

6

SDD 15D21 - 07b

6

SDD 15D21 - 07b

LEGEND

- TRAFFIC CONTROL DRUM
- SIGN ON PERMANENT SUPPORT
- DIRECTION OF TRAFFIC
- FLASHING ARROW BOARD
- WORK AREA

GENERAL NOTES

THIS DETAIL IS TYPICAL FOR CLOSING THE RIGHT SHOULDER. FOR CLOSING THE LEFT SHOULDER, REVERSE THE TRAFFIC CONTROL.

THIS DETAIL MAY BE USED FOR DIVIDED ROADWAYS WITH ANY NUMBER OF TRAVEL LANES.

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

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

SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE FHWA'S MANUAL OF STANDARD HIGHWAY SIGNS OR THE WISCONSIN STANDARD SIGN PLATES.

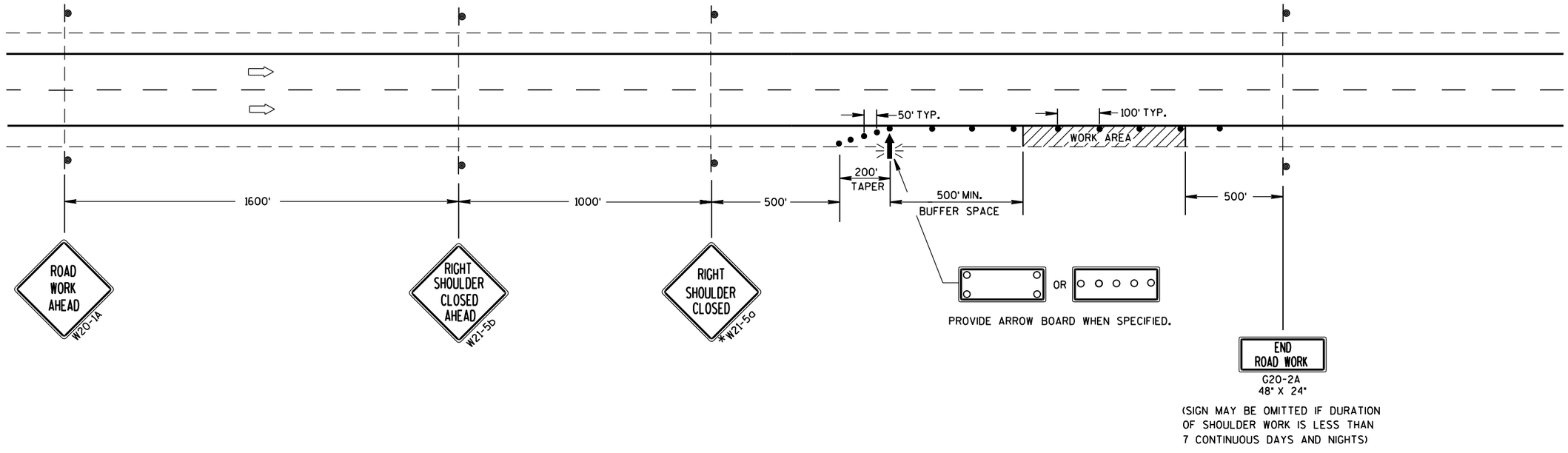
SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

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

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

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

*FOR SHORT DURATION SHOULDER WORK OF LESS THAN ONE HOUR, THE W21-5a SIGN MAY BE OMITTED.



TRAFFIC CONTROL SHOULDER CLOSURE ON DIVIDED ROADWAY, SPEEDS GREATER THAN 40 MPH

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

June 2016 — DATE

/S/ Peter Amakobe Atepe
STATEWIDE WORK ZO[illegible] SAFETY ENGI[illegible]

FHWA

6

S.D.D. 15 D 27-3

LEGEND

SIGN ON PERMANENT SUPPORT

TRAFFIC CONTROL DRUM

DIRECTION OF TRAFFIC

WORK ZONE

GENERAL NOTES

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

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

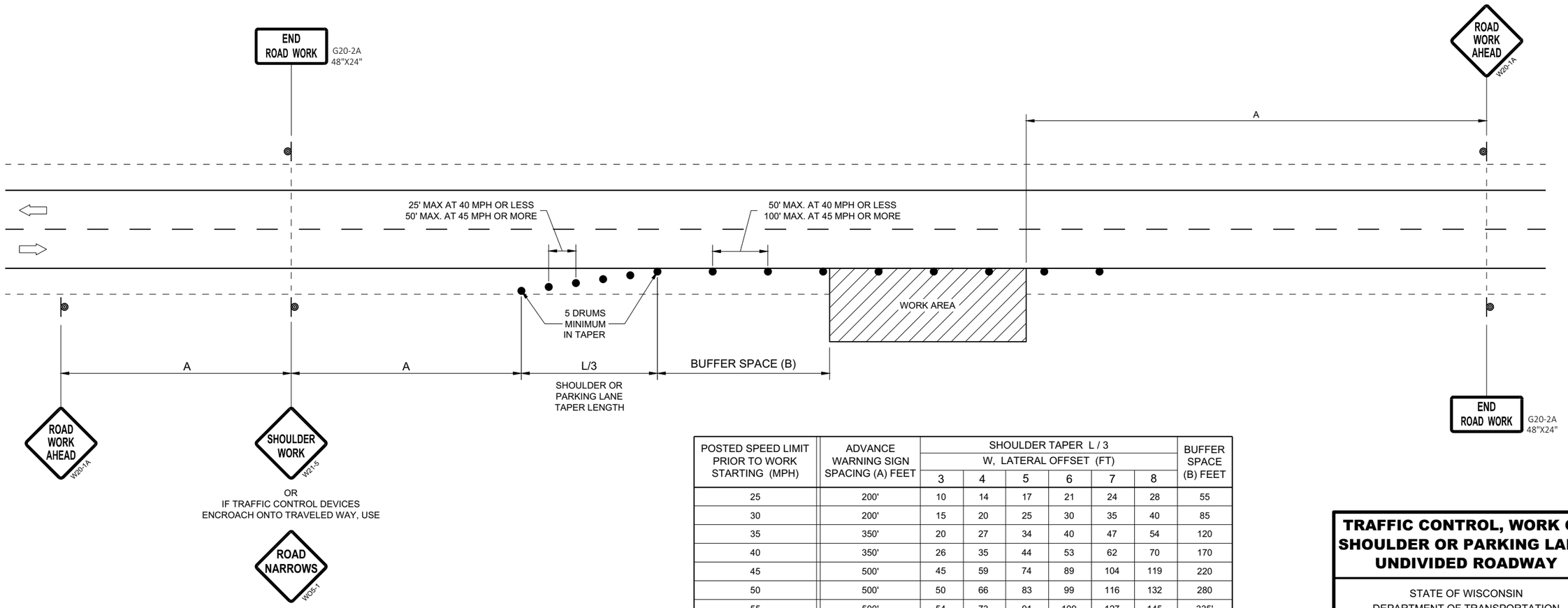
ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH THE TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

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

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

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

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



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

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2020
DATE

/S/ Andrew Heidtke
STATEWIDE WORK ZONE T SAFETY ENGINEER

FHWA

6

SDD 15D28 - 04

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- SIGN ON TEMPORARY SUPPORT
- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- TRAFFIC CONTROL DRUM
- TYPE "A" WARNING LIGHT (FLASHING)
- DIRECTION OF TRAFFIC
- WORK AREA
- FLASHING ARROW BOARD
- PCMS — PORTABLE CHANGEABLE MESSAGE SIGN

GENERAL NOTES

RIGHT CLOSURE SHOWN (LEFT LANE CLOSURE SIMILAR)

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

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

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

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

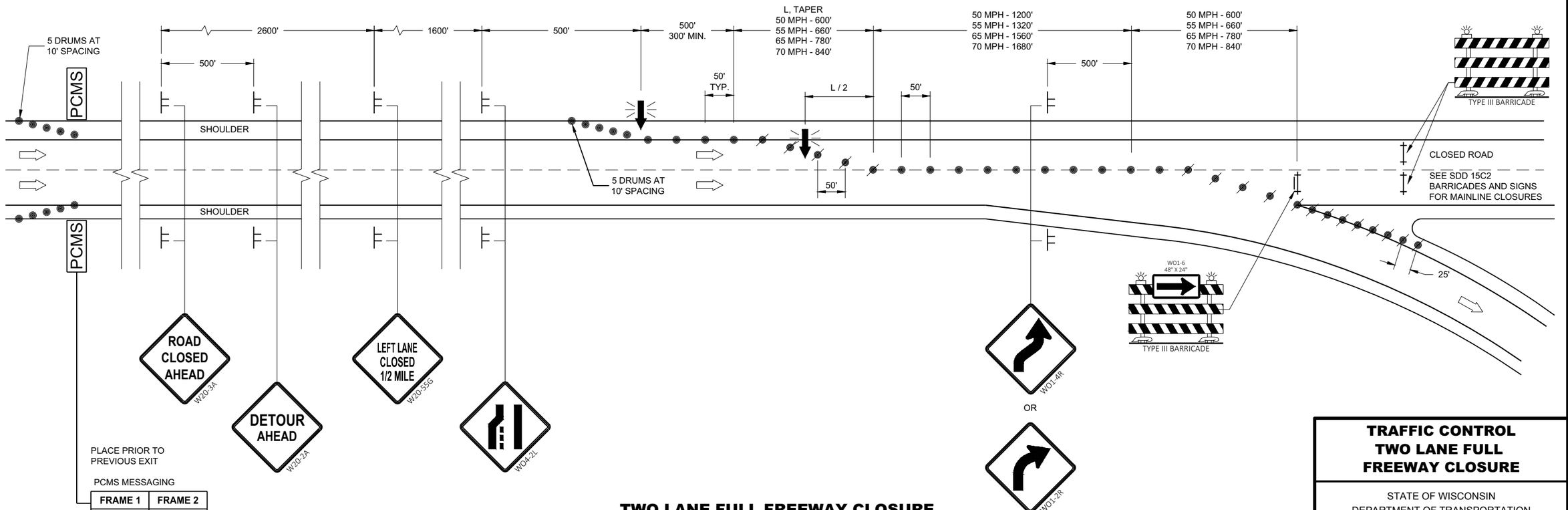
WHEN A RAMP INTERSECTS THE FACILITY ON WHICH THE WORK IS BEING PERFORMED, ADDITIONAL TRAFFIC CONTROL SHALL BE PROVIDED AS SPECIFIED IN THE PLANS AND / OR THE SPECIAL PROVISIONS OR AS DIRECTED BY THE ENGINEER.

PLACE A TYPE III BARRICADE APPROXIMATELY EVERY 1000' ACROSS EACH CLOSED LANE TO HELP REINFORCE THE DRUM LINE.

CONSIDER ROADWAY GEOMETRICS WHEN LOCATING SIGNS AND ARROW BOARD SO THE DRIVER HAS A CLEAR VIEW OF THE ARROW BOARD AND LANE CLOSURE DRUMS.

REFER TO DETOUR ROUTES FOR TRAFFIC GUIDANCE SIGNING.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED OR AS APPROVED BY THE ENGINEER. NO WARNING LIGHTS SHALL BE WORKING ON "COVERED" OR "DOWNED" SIGNS.



PLACE PRIOR TO PREVIOUS EXIT

PCMS MESSAGING

FRAME 1	FRAME 2
FREEWAY CLOSED	EXIT AHEAD

TWO LANE FULL FREEWAY CLOSURE

TRAFFIC CONTROL TWO LANE FULL FREEWAY CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
August 2019
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEER

FHWA

6

SDD 15D42 - 01

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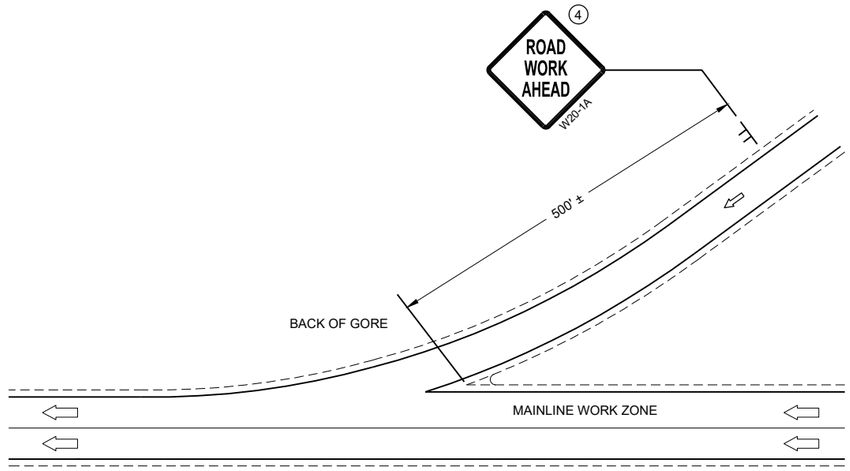
SDD 15D42 - 01

LEGEND

- V1 SHADOW VEHICLE 1
- V2 SHADOW VEHICLE 2
- V3 ADVANCE WARNING TRUCK
- ● TRAFFIC CONTROL DRUM
- TRUCK MOUNTED ATTENUATOR (TMA)
- SIGN ON TEMPORARY SUPPORT
- DIRECTION OF TRAFFIC
- FLASHING ARROW PANEL (MERGE)
- FLASHING ARROW PANEL (CAUTION)
- PCMS PORTABLE CHANGEABLE MESSAGE SIGN
- WORK AREA



GENERAL NOTES

SHORT DURATION IS WORK THAT OCCUPIES A LOCATION UP TO 1 HOUR.

MOBILE IS WORK THAT MOVES INTERMITTENTLY OR CONTINUOUSLY.

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

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

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

WHEN WORK ACTIVITY BLOCKS THE RIGHT LANE, REVERSE TRAFFIC CONTROL.

WHEN A RAMP INTERSECTS THE FACILITY ON WHICH THE WORK IS BEING PERFORMED, PROVIDE ADDITIONAL TRAFFIC CONTROLS AS SPECIFIED IN THE CONTRACT OR AS APPROVED BY THE ENGINEER.

USE DOUBLE ARROWS WHEN CONVOY IS IN CENTER LANE ONLY.

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

(1) DISTANCE BETWEEN VEHICLES MAY VARY ACCORDING TO TERRAIN, SIGHT DISTANCE AND OTHER FACTORS. WHENEVER ADEQUATE STOPPING SIGHT DISTANCE EXISTS TO THE REAR, SHADOW VEHICLES SHOULD MAINTAIN THE MINIMUM DISTANCE FROM THE WORK VEHICLE AND PROCEED AT THE SAME SPEED AS THE WORK VEHICLE. SHADOW VEHICLES SHOULD SLOW DOWN IN ADVANCE OF VERTICAL AND HORIZONTAL CURVES THAT RESTRICT SIGHT DISTANCE.

(2) DRUMS ARE TO BE USED FOR BRIDGE DECK SEALING AND OTHER PROJECTS THAT REQUIRE DELINEATION.

(3) WITHIN 5 MILES, RELOCATE SIGNS AS WORK PROGRESSES AND NECESSARY OR AS DIRECTED BY THE ENGINEER.

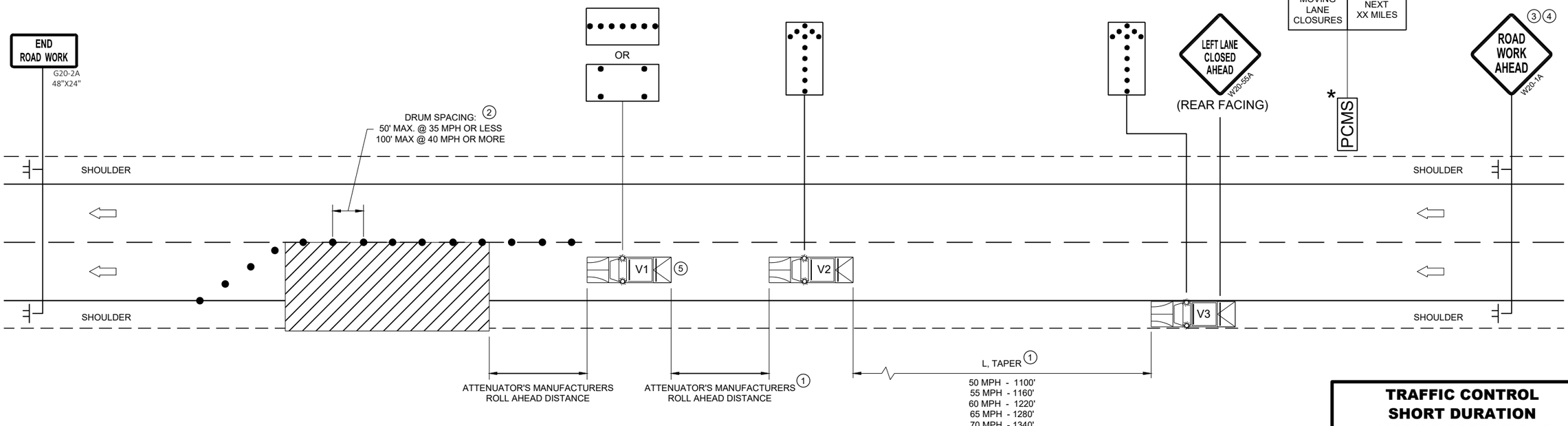
(4) SIGN NOT REQUIRED IF MOVING OPERATION OCCURS WITHIN A SIGNED ROAD WORK ZONE AREA.

(5) SHADOW VEHICLE 1 (V1) IS OPTIONAL

* PCMS OPTIONAL

PCMS MESSAGING

FRAME 1	FRAME 2
MOVING LANE CLOSURES	NEXT XX MILES



TRAFFIC CONTROL SHORT DURATION MOBILE OPERATIONS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
August 2021
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

6

SDD 15D43 - 02

6

SDD 15D43 - 02

LEGEND

- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TYPE "A" WARNING LIGHT (FLASHING)
- DIRECTION OF TRAFFIC
- FLASHING ARROW BOARD
- PCMS — PORTABLE CHANGEABLE MESSAGE BOARD

GENERAL NOTES

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

THE SPACING BETWEEN SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND TO PROVIDE A MINIMUM OF 200 FEET (500 FEET DESIRABLE) CLEARANCE TO EXISTING SIGNS.

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

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

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

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED OR AS APPROVED BY THE ENGINEER. NO WARNING LIGHTS SHALL BE WORKING ON "COVERED" OR "DOWNED SIGNS.

FOR A LANE CLOSURE THAT IS IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS, THE ADVANCED WARNING SIGNS MAY BE MOUNTED ON PORTABLE SUPPORTS.

REMOVE PAVEMENT MARKINGS IF LANE CLOSURE IS TO BE IN PLACE 4 OR MORE CONTINUOUS DAYS AND NIGHTS.

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

CONSIDER ROADWAY GEOMETRICS WHEN LOCATING SIGNS AND ARROW BOARD SO THE DRIVER HAS A CLEAR VIEW OF THE ARROW BOARD AND LANE CLOSURE DRUMS.

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

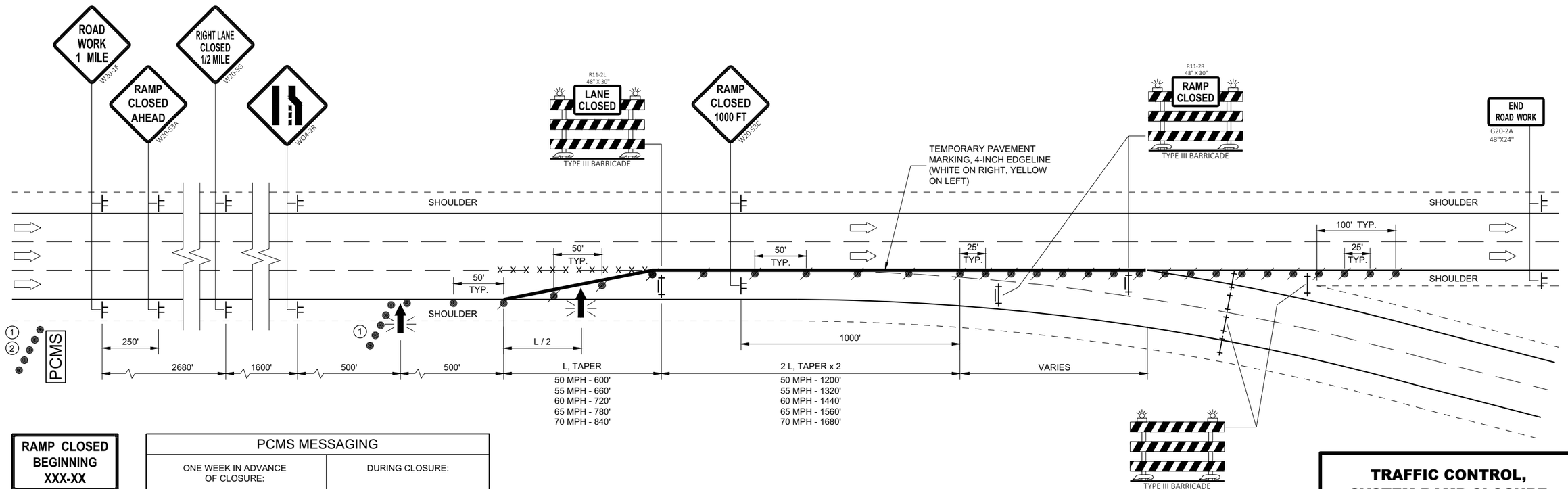
REMOVE ALL ARROW BOARDS AND DEVICES BEYOND THE SHOULDER WHEN THE WORK IS NOT IN PROGRESS.

REFER TO SDD 15C2 FOR SETTING DETOUR SIGNAGE.

ADD FREEWAY SHIELD AND DIRECTION IF APPLICABLE. COVER EXISTING RAMP AND LANE SIGNS IF APPLICABLE.

(1) 5 DRUMS SPACED AT 10 FOOT INTERVALS.

(2) DURING THE PRE-WARNING PERIOD, PLACE THE PCMS AT THE SYSTEM RAMP THAT IS TO BE CLOSED. DURING CLOSURE PERIOD, PLACE PCMS OR FMS AT LAST AVAILABLE EXIT IN ADVANCE OF SYSTEM RAMP CLOSURE. IF DYNAMIC MESSAGE SIGNS (DMS) ARE AVAILABLE, COORDINATE POTENTIAL SIGN MESSAGES WITH THE TRAFFIC MANAGEMENT CENTER (TMC).



SEE SDD 15C2 (SHEET "b"), DETAIL "D" "BARRICADES AND SIGNS FOR MAINLINE CLOSURES" PLACE BARRICADES TO FULLY SEAL OFF ROAD

RAMP CLOSED BEGINNING XXX-XX
G20-58

PCMS MESSAGING

ONE WEEK IN ADVANCE OF CLOSURE:

FRAME 1	FRAME 2
RAMP TO CLOSE	XXXDAY XX XX XX

DURING CLOSURE:

FRAME 1	FRAME 2
HWY XX RAMP CLOSED	USE ALT ROUTE

TRAFFIC CONTROL, SYSTEM RAMP CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2021
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEER

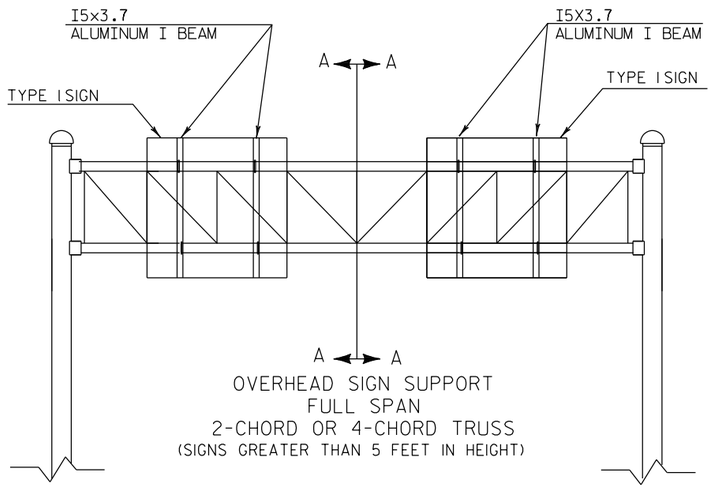
FHWA

6

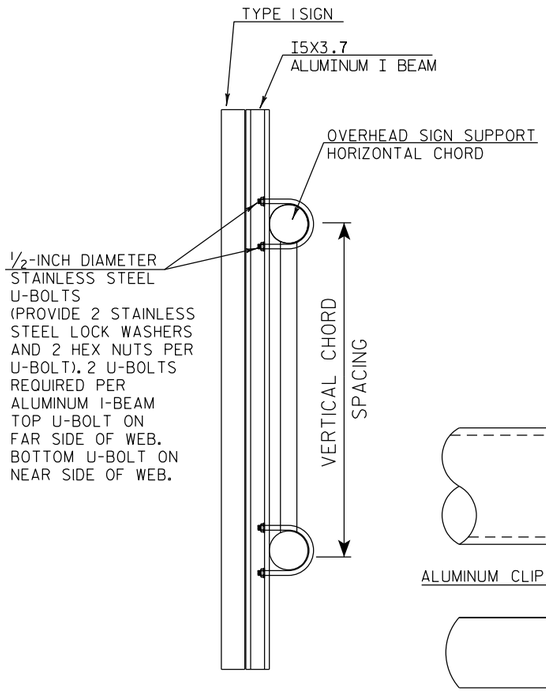
SDD 15D49 - 01

6

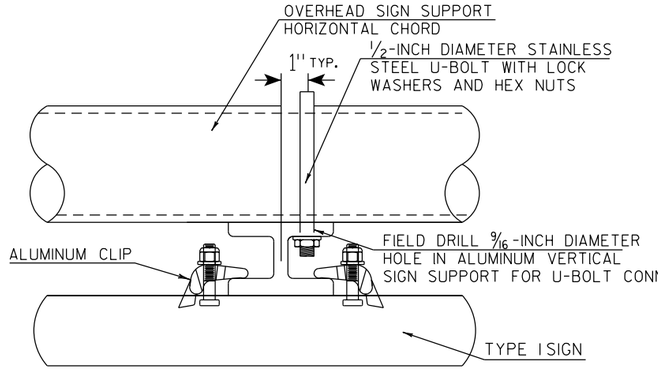
SDD 15D49 - 01



OVERHEAD SIGN SUPPORT
FULL SPAN
2-CHORD OR 4-CHORD TRUSS
(SIGNS GREATER THAN 5 FEET IN HEIGHT)



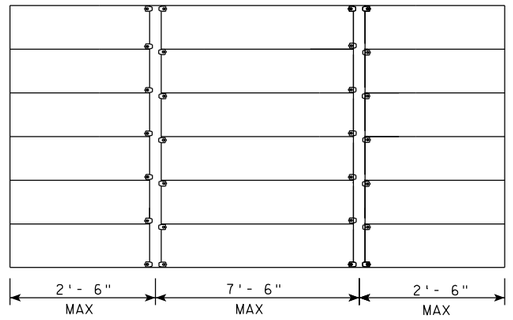
CUT SECTION A-A



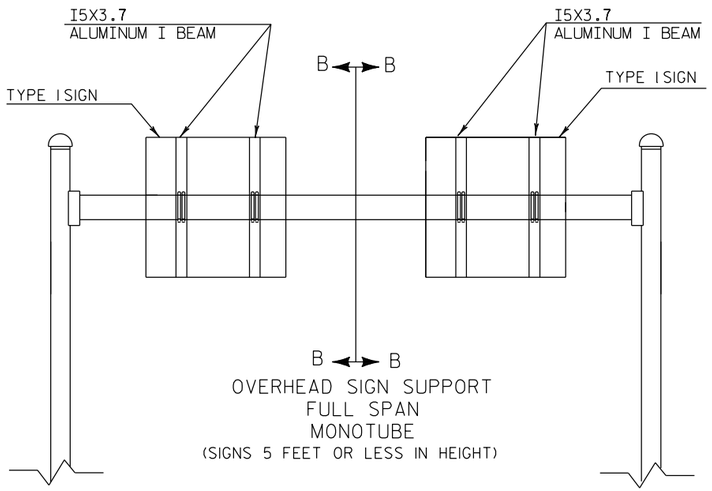
TYPICAL SIGN CONNECTION FOR
2-CHORD OR 4-CHORD TRUSS
PLAN VIEW

GENERAL NOTES

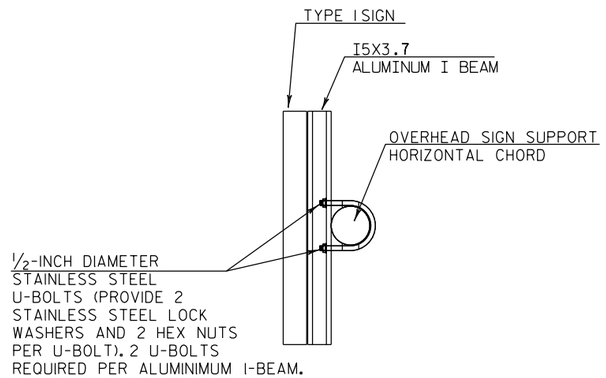
1. USE STAINLESS STEEL U-BOLTS, WASHERS, AND NUTS.
2. USE CLIPS ON EVERY EXTRUDED PANEL JOINT PER SIGN PLATE A4-6.
3. USE ALUMINUM VERTICAL SIGN SUPPORT BEAMS HAVING A 5 INCH BEAM DEPTH AND WEIGHT OF 3.7 LBS PER FOOT.
4. U-BOLTS SHALL BE STAINLESS STEEL AND MANUFACTURED TO THE PROPER SIZE TO FIT THE CHORDS OF THE OVERHEAD SIGN STRUCTURE.
5. DIAMETER OF U-BOLTS SHALL BE AS SHOWN.
6. THE LENGTH OF THE ALUMINUM VERTICAL SIGN SUPPORT BEAMS SHALL BE THE SAME AS THE HEIGHT OF THE SIGN THEY ARE SUPPORTING. BEAM LENGTHS MAY BE LONGER FOR PROPER ATTACHMENT TO CHORDS.
7. MINIMUM NUMBER OF BRACKETS PER SIGN IS TWO. SEE DETAIL BELOW FOR SPACING OF ALUMINUM VERTICAL SIGN SUPPORTS
8. MATERIAL NOTES:
   STAINLESS STEEL U-BOLTS AND LOCKWASHERS ASTM 304.
   STAINLESS STEEL HEX NUTS ASTM A276.
   ALUMINUM I-BEAMS ARE 6061-T6.
9. SLOTTED HOLES IN I-BEAMS ARE NOT ALLOWED



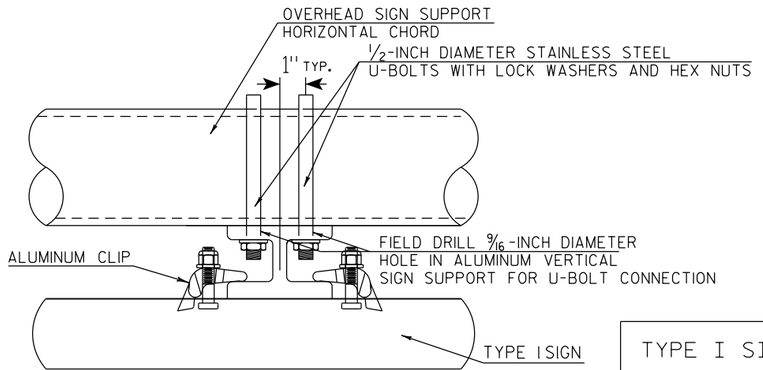
SPACING OF I5X3.7 ALUMINUM
VERTICAL SIGN SUPPORT



OVERHEAD SIGN SUPPORT
FULL SPAN
MONOTUBE
(SIGNS 5 FEET OR LESS IN HEIGHT)



CUT SECTION B-B



TYPICAL SIGN CONNECTION FOR
MONOTUBE
PLAN VIEW

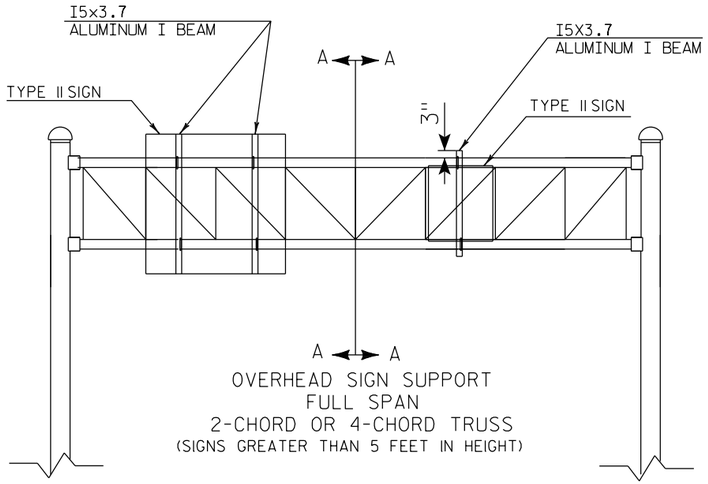
TYPE I SIGN CONNECTION
TO OVERHEAD SIGN SUPPORT

WISCONSIN DEPT OF TRANSPORTATION

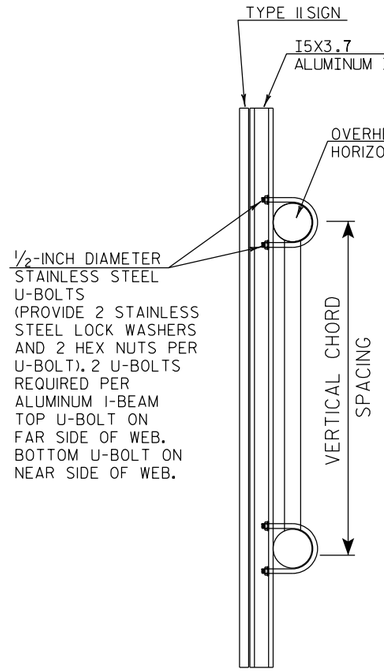
APPROVED Matthew R Rauch
State Traffic Engineer

DATE 1/07/20 PLATE NO. A4-7A.1

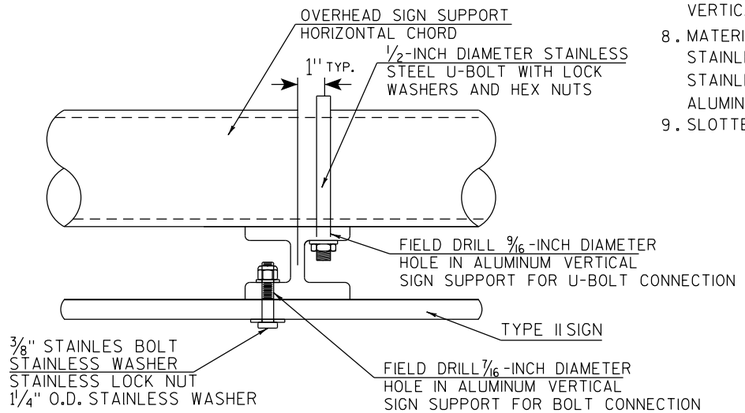
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 30	E



OVERHEAD SIGN SUPPORT
FULL SPAN
2-CHORD OR 4-CHORD TRUSS
(SIGNS GREATER THAN 5 FEET IN HEIGHT)



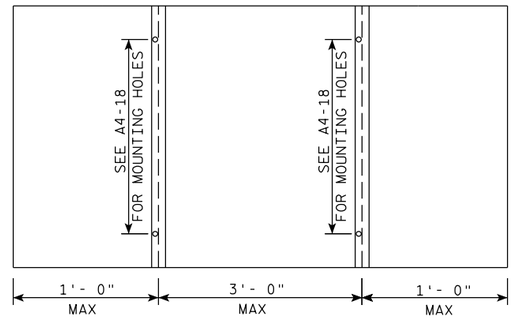
CUT SECTION A-A



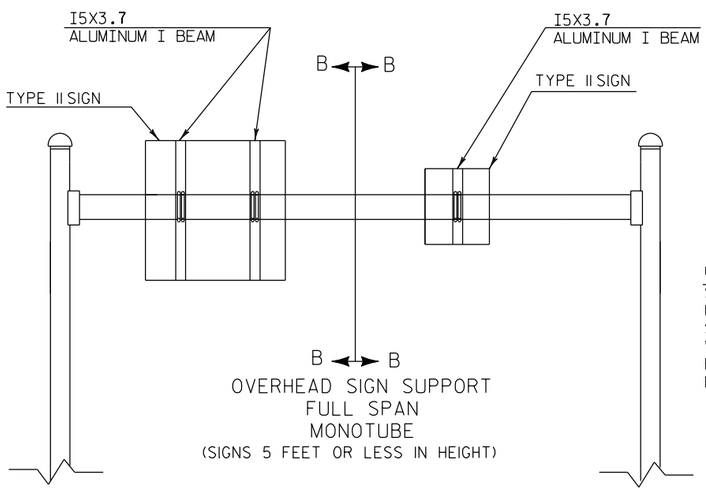
TYPICAL SIGN CONNECTION FOR
2-CHORD OR 4-CHORD TRUSS
PLAN VIEW

GENERAL NOTES

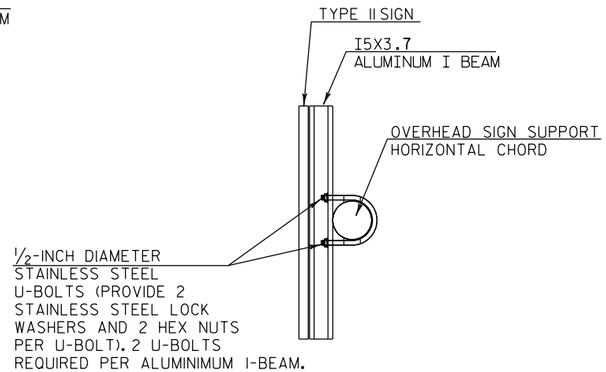
1. USE STAINLESS STEEL U-BOLTS, WASHERS, AND NUTS.
2. USE STAINLESS BOLTS AT BOLT HOLES IN SIGN PANEL PER SIGN PLATE A4-18.
3. USE ALUMINUM VERTICAL SIGN SUPPORT BEAMS HAVING A 5 INCH BEAM DEPTH AND WEIGHT OF 3.7 LBS PER FOOT.
4. U-BOLTS SHALL BE STAINLESS STEEL AND MANUFACTURED TO THE PROPER SIZE TO FIT THE CHORDS OF THE OVERHEAD SIGN STRUCTURE.
5. DIAMETER OF U-BOLTS SHALL BE AS SHOWN.
6. THE LENGTH OF THE ALUMINUM VERTICAL SIGN SUPPORT BEAMS SHALL BE THE SAME AS THE HEIGHT OF THE SIGN THEY ARE SUPPORTING. BEAM LENGTHS MAY BE LONGER FOR PROPER ATTACHMENT TO CHORDS.
7. SEE DETAIL BELOW FOR SPACING OF ALUMINUM VERTICAL SIGN SUPPORTS
8. MATERIAL NOTES:
   STAINLESS STEEL U-BOLTS, BOLTS, AND LOCKWASHERS ASTM 304.
   STAINLESS STEEL HEX NUTS ASTM A276.
   ALUMINUM I-BEAMS ARE 6061-T6.
9. SLOTTED HOLES IN I-BEAMS ARE NOT ALLOWED



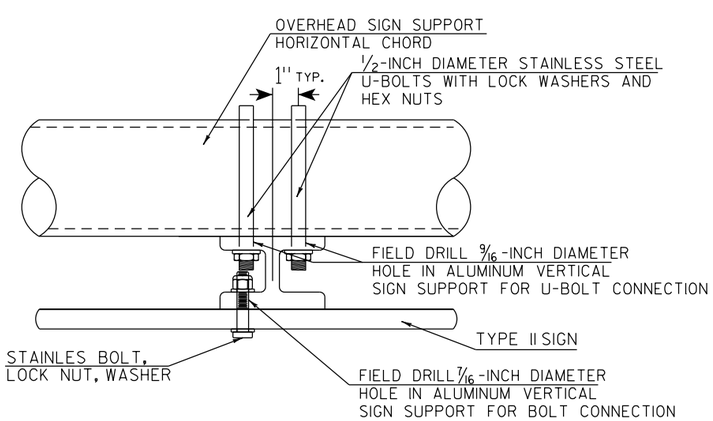
SPACING OF I5X3.7 ALUMINUM
MULTIPLE VERTICAL SIGN SUPPORTS



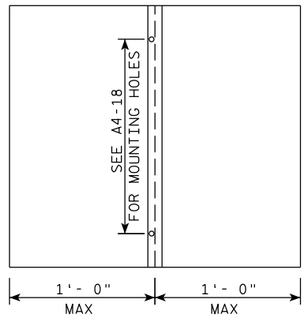
OVERHEAD SIGN SUPPORT
FULL SPAN
MONOTUBE
(SIGNS 5 FEET OR LESS IN HEIGHT)



CUT SECTION B-B



TYPICAL SIGN CONNECTION FOR
MONOTUBE
PLAN VIEW



SPACING OF I5X3.7 ALUMINUM
SINGLE VERTICAL SIGN SUPPORT

TYPE II SIGN CONNECTION
TO OVERHEAD SIGN SUPPORT

WISCONSIN DEPT OF TRANSPORTATION

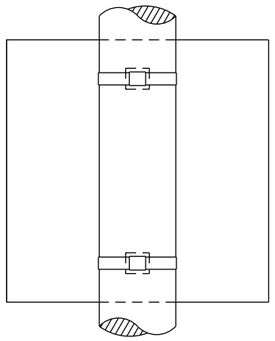
APPROVED Matthew R Rauch
for State Traffic Engineer

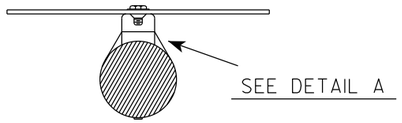
DATE 1/07/20 PLATE NO. A4-7B.1

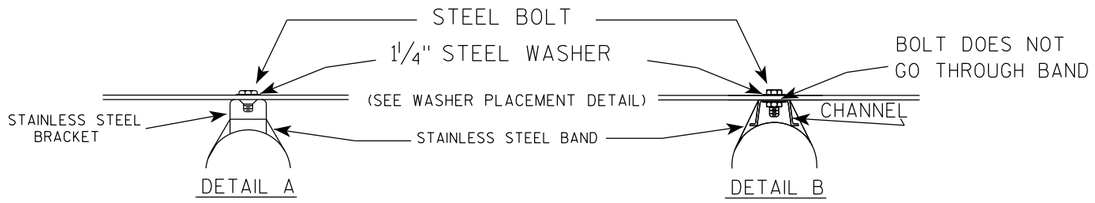
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 31	E

BANDING

SINGLE SIGN



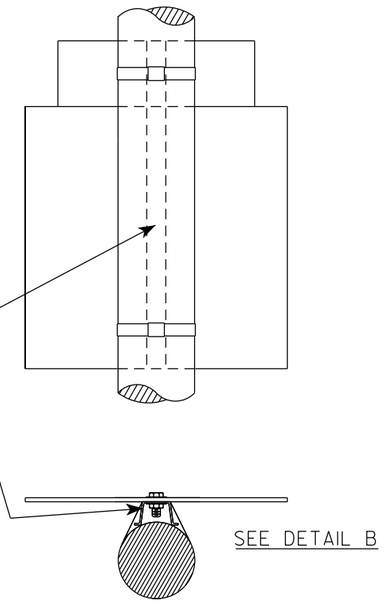




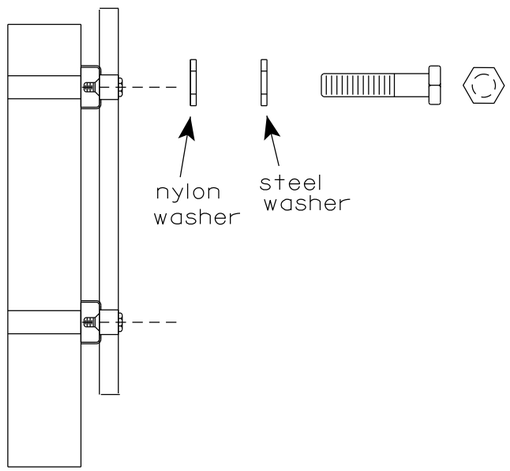
GENERAL NOTES

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

"J" ASSEMBLY



WASHER PLACEMENT



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

STANDARD SIGN
SIGN BANDING DETAILS

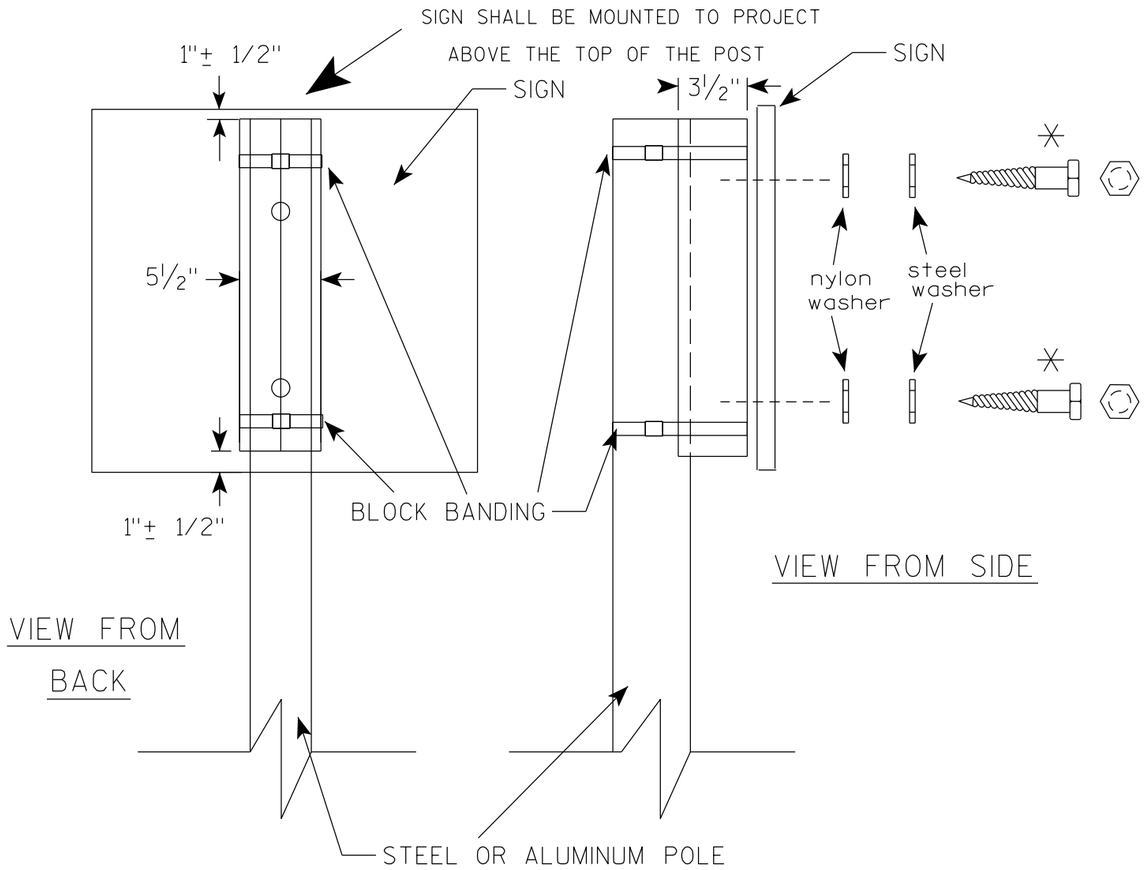
WISCONSIN DEPT OF TRANSPORTATION

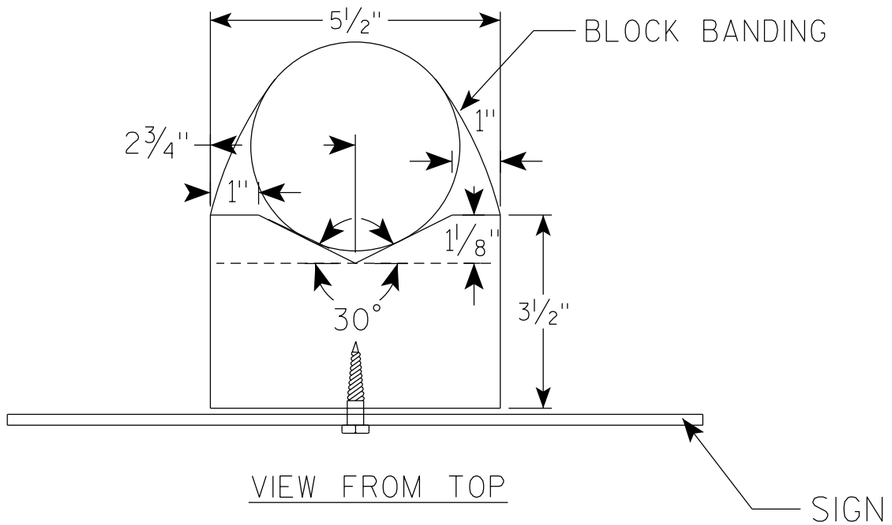
APPROVED Matthew R Rauch
for State Traffic Engineer

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

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 32	E

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





GENERAL NOTES

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

✳ LAG BOLTS SHALL BE ⅜" X 2½"

BLOCK BANDING DETAIL (V-BLOCK OPTION)

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

PROJECT NO:

SHEET NO: 33 E

SIGN REPAIR LOCATIONS

ID	COUNTY	HIGHWAY	LOCATION	STRUCTURE TYPE
S300009	KENOSHA	STH 165 W	AT RAMP TO IH 41 S	4 CHORD CANTILEVER TRUSS
S300023	KENOSHA	IH 41 S	AT EXIT TO STH 158	4 CHORD CANTILEVER TRUSS
S300024	KENOSHA	IH 41 S	1/2 M N OF STH 50	4 CHORD CANTILEVER TRUSS
S300217	KENOSHA	118TH AVE S	JUST N OF STH 50	MONOTUBE FULL SPAN
S300229	KENOSHA	IH 41	IH 41, 0.75 M SOUTH OF CTH KR	BUTTERFLY
S300231	KENOSHA	IH 94 W	ON EXIT RAMP TO STH 165	2 CHORD FULL SPAN
S300238	KENOSHA	IH 41 S	ON EXIT RAMP TO STH 50	2 CHORD FULL SPAN
S300248	KENOSHA	IH 94 W	EXIT RAMP TO STH 165	2 CHORD FULL SPAN
S300609	KENOSHA	CTH ML SB	CTH ML SB AT STH 165 RAB	2 CHORD FULL SPAN
S300612	KENOSHA	W FRONTAGE RD S	JUST N OF 71ST ST	CANTILEVER MAST ARM
S400001	MILWAUKEE	IH 43	JUST NORTH OF NATIONAL AVE	4 CHORD FULL SPAN
S400006	MILWAUKEE	STH 175 N	0.25 M S OF LLOYD ST	4 CHORD FULL SPAN
S400019	MILWAUKEE	IH 41 N	JUST S OF GREENFIELD AVE.	4 CHORD FULL SPAN
S400030	MILWAUKEE	IH 41 S	1 M N OF GREENFIELD AVE EXIT	4 CHORD CANTILEVER TRUSS
S400031	MILWAUKEE	IH 41 S	ON E-S ZOO INTERCHANGE SYSTEM RAMP	4 CHORD CANTILEVER TRUSS
S400046	MILWAUKEE	IH 41 N	JUST S OF WISCONSIN AVE	4 CHORD CANTILEVER TRUSS
S400056	MILWAUKEE	IH 43 N	ON EXIT RAMP TO SILVER SPRING DR	3 CHORD FULL SPAN
S400072	MILWAUKEE	IH 43 SB RAMP	EXIT RAMP TO SILVER SPRING	CANTILEVER MAST ARM
S400074	MILWAUKEE	IH 41 S	AT EXIT RAMP TO LINCOLN AVE	4 CHORD CANTILEVER TRUSS
S400091	MILWAUKEE	IH 94 E C-D RAMP	JUST W STH 100	4 CHORD FULL SPAN
S400097	MILWAUKEE	IH 94 E	0.4 M W OF IH 41	4 CHORD FULL SPAN
S400102	MILWAUKEE	IH 94 E	AT USH 45	4 CHORD CANTILEVER TRUSS
S400105	MILWAUKEE	IH 94 E	0.25 M W OF 84TH ST	4 CHORD FULL SPAN
S400110	MILWAUKEE	IH 94 E	ON SYSTEM RAMP TO IH 41 S	BRIDGE MOUNTED
S400114	MILWAUKEE	IH 94 E	JUST W OF S 92ND ST BRIDGE	4 CHORD CANTILEVER TRUSS
S400115	MILWAUKEE	IH 94 E	JUST W OF EXIT RAMP TO 84TH ST	4 CHORD CANTILEVER TRUSS
S400118	MILWAUKEE	IH 94 E	AT 84TH ST EXIT RAMP	4 CHORD CANTILEVER TRUSS
S400124	MILWAUKEE	IH 94 E	JUST E OF 84TH ST	4 CHORD CANTILEVER TRUSS
S400131	MILWAUKEE	IH 94 E	JUST W OF 84TH ST	4 CHORD CANTILEVER TRUSS
S400185	MILWAUKEE	STH 145 S	JUST W OF W WALNUT ST	4 CHORD FULL SPAN
S400193	MILWAUKEE	LINCOLN MEMORIAL DR S	JUST N OF MICHIGAN ST	MONOTUBE FULL SPAN
S400221	MILWAUKEE	IH 43 S	JUST E OF 68TH ST	BUTTERFLY
S400225	MILWAUKEE	IH 43 S	1/4 M N OF NORTH AVE	BUTTERFLY
S400226	MILWAUKEE	IH 43 N	1/4 M S OF KEEFE AVE	BUTTERFLY
S400241	MILWAUKEE	STH 175 S	1/4 M N OF WELLS ST	BUTTERFLY
S400242	MILWAUKEE	IH 41 N	1/4 M S OF WASHINGTON BLVD	BUTTERFLY
S400267	MILWAUKEE	CTH Y W	JUST E OF STH 794	CANTILEVER MAST ARM
S400315	MILWAUKEE	STH 175 N	JUST S OF CANAL ST EXIT	3 CHORD FULL SPAN
S400317	MILWAUKEE	STH 175 N	AT GORE TO IH 94 EB/WB RAMPS	3 CHORD FULL SPAN
S400319	MILWAUKEE	STH 175 S	AT EXIT TO MILLER PARK	3 CHORD FULL SPAN
S400320	MILWAUKEE	STH 175 S	JUST NORTH OF NATIONAL AVE	3 CHORD FULL SPAN
S400328	MILWAUKEE	STH 145 N	AT EXIT TO PARK PLACE	3 CHORD FULL SPAN
S400339	MILWAUKEE	STH 175 N	AT EXIT RAMP TO STATE ST	4 CHORD CANTILEVER TRUSS
S400392	MILWAUKEE	GOOD HOPE RD E	JUST W OF USH 145	4 CHORD FULL SPAN
S400393	MILWAUKEE	IH 43 S	AT EXIT TO LAPHAM/MITCHELL	4 CHORD FULL SPAN
S400401	MILWAUKEE	STH 175 S	500' NORTH OF VLIET ST	4 CHORD FULL SPAN
S400438	MILWAUKEE	IH 41 N	JUST SOUTH OF EDGERTON AVE	2 CHORD FULL SPAN
S400454	MILWAUKEE	W WATERTOWN PLANK RD W	1/4 M E OF USH 45 RAMP	2 CHORD CANTILEVER TRUSS
S400458	MILWAUKEE	IH 43 S	JUST N OF LOCUST ST.	4 CHORD FULL SPAN
S400501	MILWAUKEE	IH 43 N	0.75 M S OF MCKINLEY AVE	4 CHORD FULL SPAN
S400503	MILWAUKEE	IH 43 N	AT EXIT RAMP TO FOND DU LAC AVE	4 CHORD CANTILEVER TRUSS
S400505	MILWAUKEE	IH 43 N	500' N OF WALNUT ST.	4 CHORD CANTILEVER TRUSS
S400509	MILWAUKEE	IH 43 S	1/4 M N OF HIGHLAND AVE	4 CHORD FULL SPAN
S400512	MILWAUKEE	IH 43 S	1/4 M N OF I-94	4 CHORD FULL SPAN
S400514	MILWAUKEE	IH 94 W	0.1 MILE E OF 25TH ST	4 CHORD CANTILEVER TRUSS
S400516	MILWAUKEE	IH 94 W	0.5 M E OF CLYBOURN ST	4 CHORD CANTILEVER TRUSS
S400533	MILWAUKEE	IH 794 E	PLANKINTON EXIT RAMP AT 6TH STREET	4 CHORD FULL SPAN
S400536	MILWAUKEE	IH 794 E	AT EXIT TO PLANKINTON AVE	4 CHORD FULL SPAN
S400573	MILWAUKEE	IH 41 S	AT EXIT TO LAYTON AVE	4 CHORD FULL SPAN
S400579	MILWAUKEE	IH 43 S	JUST S OF ENTRANCE RAMP FROM HOWARD AVE	4 CHORD FULL SPAN
S400580	MILWAUKEE	IH 43 E	JUST E OF EXIT RAMP TO S 27TH ST	4 CHORD FULL SPAN

STATE PROJECT NUMBER

1000-20-64

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

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

BEVEL EXPOSED EDGES OF CONCRETE ¾" UNLESS OTHERWISE NOTED.

DIMENSIONS SHOWN ARE BASED ON THE ORIGINAL STRUCTURE PLANS AND AS-BUILT CONDITIONS. CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND LOCATIONS FOR PROPOSED REPAIRS. PLANS AND SHOP DRAWINGS CAN BE FOUND IN THE HIGHWAY STRUCTURES INFORMATION SYSTEM (HSIS) DATABASE.

ALL FIELD CONNECTIONS SHALL BE MADE WITH ¾" DIAMETER A325 HIGH-TENSILE STRENGTH BOLTS UNLESS OTHERWISE SHOWN OR NOTED.

LIST OF DRAWINGS

STRUCTURE DESIGN CONTACTS:
AARON BONK (608) 261-0261

CONSULTANT CONTACT:
MARK MUTZIGER (414) 282-6905

NO.	DATE	REVISION	BY

COLLINS ENGINEERS INC

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

ACCEPTED SDR 12/19/22
CHIEF STRUCTURES DESIGN ENGINEER — DATE

ANCILLARY STRUCT REHAB/REPLACE 2022

SOUTHEAST REGION WIDE

COUNTY	~~TOWN~~/CITY/~~VILLAGE~~
VARIES	VARIES

DESIGN SPEC.
REHABILITATION N/A

DESIGNED BY	DESIGN CK'D.	DRAWN BY	PLANS CK'D.
MJM	MJM	MDG	MJM

2022 SE REGION REPAIRS-1

SHEET 1 OF 26
34

8

8

FILE NAME : G:\14050.01 - WISDOT SIGN REPAIR DESIGN WO1\CAD\SHEET DRAWINGS\REPAIR LOCATIONS.DWG
PLOT DATE : 10/31/2022 1:34 PM PLOT BY : MORGAN GRUBER

STATE PROJECT NUMBER

1000-20-64

SIGN REPAIR LOCATIONS (CONT.)

ID	COUNTY	HIGHWAY	LOCATION	STRUCTURE TYPE
S400583	MILWAUKEE	IH 94 E	AT THE SPLIT TO IH 94 NB/SB	4 CHORD FULL SPAN
S400710	MILWAUKEE	IH 94 W	ON EXIT RAMP TO 25TH ST.	2 CHORD CANTILEVER MAST ARM
S400713	MILWAUKEE	IH 43	0.5 M S OF THE MARQUETTE INTERCHANGE ON HIGHRISE BRIDGE	BUTTERFLY
S400746	MILWAUKEE	IH 43 S	ON EXIT RAMP TO STH 241	2 CHORD CANTILEVER TRUSS
S400753	MILWAUKEE	STH 241 N	200 FT SOUTH OF CTH Y	CANTILEVER MAST ARM
S400812	MILWAUKEE	IH 894 E	AT EXIT TO LOOMIS RD	4 CHORD CANTILEVER TRUSS
S400813	MILWAUKEE	IH 43 N	S OF IH 894	4 CHORD FULL SPAN
S400815	MILWAUKEE	IH 43 N	ON C-D RAMP TO HOLT AVE	4 CHORD FULL SPAN
S400817	MILWAUKEE	IH 43 S	ON EXIT TO NATIONAL AVE/6TH	4 CHORD FULL SPAN
S400818	MILWAUKEE	IH 43 N	AT EXIT RAMP TO KEEFE AVE	4 CHORD CANTILEVER TRUSS
S400820	MILWAUKEE	IH 41 N	JUST N OF STH 119	4 CHORD FULL SPAN
S400838	MILWAUKEE	STH 119	100' W OF 13TH ST	4 CHORD FULL SPAN
S400841	MILWAUKEE	STH 119 W	0.5 M E OF EXIT RAMP TO IH 94 W	4 CHORD FULL SPAN
S400843	MILWAUKEE	STH 145 S	AT EXIT TO W SILVER SPRING DR	4 CHORD FULL SPAN
S400865	MILWAUKEE	W WATERTOWN PLANK RD E	0.25 M W OF IH 41	4 CHORD CANTILEVER TRUSS
S400868	MILWAUKEE	WATERTOWN PLANK RD W	AT RAMP TO IH 41	4 CHORD CANTILEVER TRUSS
S400949	MILWAUKEE	USH 18 E	JUST W OF STH 100	2 CHORD FULL SPAN
S400990	MILWAUKEE	STH 100 N	1/8 M S OF CAPITOL DR	CANTILEVER MAST ARM
S450002	OZAUKEE	IH 43 N	1/2 M S OF STH 57	4 CHORD FULL SPAN
S450206	OZAUKEE	STH 33 E	JUST W OF MARKET ST	2 CHORD FULL SPAN
S450212	OZAUKEE	STH 33 E	JUST E OF IH 43 N RAMPS	CANTILEVER MAST ARM
S510009	RACINE	STH 38 N	JUST E OF RAPIDS DR	MONOTUBE FULL SPAN
S510010	RACINE	STH 38 S	JUST E OF RAPIDS DR	MONOTUBE FULL SPAN
S510011	RACINE	STH 38 S	1/4 M W OF CTH MM	MONOTUBE FULL SPAN
S510016	RACINE	S MILWAUKEE AVE E	1/2 M W OF STH 36	4 CHORD CANTILEVER TRUSS
S510233	RACINE	STH 20 W	JUST EAST OF CENTER ST	2 CHORD FULL SPAN
S510236	RACINE	STH 11 E	NEAR SCHOOL AT 86TH STREET	CANTILEVER MAST ARM
S640204	WALWORTH	STH 50 E	JUST W OF CTH H	CANTILEVER MAST ARM
S640209	WALWORTH	STH 11 W	JUST SOUTH OF CTH DD	2 CHORD CANTILEVER MAST ARM
S660006	WASHINGTON	IH 41 N	0.3 M S OF USH 41/45 SPLIT	4 CHORD FULL SPAN
S660200	WASHINGTON	USH 41 N/S	1/2 M N OF CTH Q	BUTTERFLY
S660211	WASHINGTON	STH 145 W	JUST EAST OF IH 41 BRIDGE	2 CHORD FULL SPAN
S660213	WASHINGTON	IH 41 N	AT EXIT RAMP TO STH 145	2 CHORD FULL SPAN
S660217	WASHINGTON	STH 164 S	0.1 M N OF CTH Q	2 CHORD FULL SPAN
S660218	WASHINGTON	CTH Q W	JUST E OF STH 164	2 CHORD FULL SPAN
S670001	WAUKESHA	IH 41 S	JUST N OF STH 100 (MAIN ST)	4 CHORD CANTILEVER TRUSS
S670031	WAUKESHA	IH 94 E	JUST W OF BLUEMOUND RD	4 CHORD CANTILEVER TRUSS
S670038	WAUKESHA	CTH Y N	0.1 M S OF I-94	3 CHORD FULL SPAN
S670039	WAUKESHA	IH 94 W	1/4 M E OF CTH G	4 CHORD CANTILEVER TRUSS
S670040	WAUKESHA	IH 94 W	1/8 M E OF CTH G	4 CHORD CANTILEVER TRUSS
S670200	WAUKESHA	IH 94	JUST E OF ELM GROVE RD	BUTTERFLY
S670248	WAUKESHA	STH 190 W	JUST E OF BROOKFIELD RD	CANTILEVER MAST ARM
S670254	WAUKESHA	CTH Q E	JUST W OF STH 164	2 CHORD FULL SPAN
S670262	WAUKESHA	STH 59 W	0.1 M E OF STH 164	CANTILEVER MAST ARM
S670266	WAUKESHA	CTH JJ E	JUST W OF STH 16	CANTILEVER MAST ARM
S670275	WAUKESHA	IH 43 N	ON EXIT RAMP TO MOORLAND RD	MONOTUBE FULL SPAN
S670308	WAUKESHA	IH 94 W	AT GORE FOR EXIT RAMP TO CTH SS	4 CHORD CANTILEVER TRUSS
S670310	WAUKESHA	IH 43 S	JUST N OF EXIT RAMP TO S MOORLAND RD	4 CHORD CANTILEVER TRUSS
S670314	WAUKESHA	IH 94 W	EXIT TO MOORLAND ROAD S	4 CHORD CANTILEVER TRUSS
S670408	WAUKESHA	IH 43 N	1/8 M N OF SUNNYSLOPE RD	4 CHORD CANTILEVER TRUSS
S670409	WAUKESHA	IH 94 W	1/8 M E OF CALHOUN RD	4 CHORD FULL SPAN
S670419	WAUKESHA	IH 94 E	0.25 MILES E OF CTH F	4 CHORD FULL SPAN
S670912	WAUKESHA	CTH Y N	JUST S OF IH 43 N ENTRANCE RAMP	2 CHORD FULL SPAN
S670916	WAUKESHA	IH 43 S	ON EXIT RAMP TO CTH Y	2 CHORD FULL SPAN
S670917	WAUKESHA	IH 43 N	ON EXIT RAMP TO CTH Y	2 CHORD FULL SPAN

SIGNAL REPAIR LOCATIONS

ID	COUNTY	HIGHWAY	LOCATION	STRUCTURE TYPE
S301168	KENOSHA	CTH S W	JUST W OF E FRONTAGE RD	CANTILEVER MAST ARM
S301185	KENOSHA	STH 165 E	JUST E OF STH 31	CANTILEVER MAST ARM
S301187	KENOSHA	STH 165 W	JUST W OF STH 31	CANTILEVER MAST ARM
S301188	KENOSHA	68TH AVENUE S	JUST S OF STH 158	CANTILEVER MAST ARM
S301192	KENOSHA	STH 142 W	JUST W OF IH 41 N ENTRANCE RAMP	CANTILEVER MAST ARM
S301193	KENOSHA	IH 41 N ENTRANCE RAMP	JUST N OF STH 142	CANTILEVER MAST ARM
S301194	KENOSHA	STH 142 E	JUST E OF IH 41 N ENTRANCE RAMP	CANTILEVER MAST ARM
S400282	MILWAUKEE	IH 41 N	BURLEIGH ST ENTRANCE RAMP	CANTILEVER MAST ARM
S400761	MILWAUKEE	IH 41 N	ON RAMP FROM COLLEGE AVE	CANTILEVER MAST ARM
S401159	MILWAUKEE	STH 241 N	JUST N OF CTH ZZ (COLLEGE AVE)	CANTILEVER MAST ARM
S401343	MILWAUKEE	DANA CT W	JUST W OF STH 181	CANTILEVER MAST ARM
S401348	MILWAUKEE	USH 18 W	JUST W OF STH 181	CANTILEVER MAST ARM
S401350	MILWAUKEE	STH 100 N	JUST E OF EXIT RAMP FROM IH 94 E	CANTILEVER MAST ARM
S401362	MILWAUKEE	N 92 ST N	JUST N OF USH 18	CANTILEVER MAST ARM
S401379	MILWAUKEE	STH 241 S	JUST S OF STH 100	CANTILEVER MAST ARM
S401455	MILWAUKEE	STH 100 S	JUST S OF LAPHAM ST	CANTILEVER MAST ARM
S401458	MILWAUKEE	STH 100 N	JUST N OF THEODORE TRECKER WAY	CANTILEVER MAST ARM
S401476	MILWAUKEE	LINCOLN AVE W	JUST W OF IH 894	CANTILEVER MAST ARM
S401482	MILWAUKEE	DREXEL AVE W	JUST W OF STH 241	CANTILEVER MAST ARM
S401538	MILWAUKEE	STH 181 S	JUST N OF CTH E WB RAMPS	CANTILEVER MAST ARM
S451102	OZAUKEE	STH 33 W	JUST W OF IH 43 N RAMPS	CANTILEVER MAST ARM
S511168	RACINE	STH 31 SB	STH 31 SB JUST SOUTH OF STH 38	CANTILEVER MAST ARM
S511188	RACINE	STH 31 S	AT INTERSECTION WITH CTH MM	CANTILEVER MAST ARM
S671263	WAUKESHA	USH 18 W	JUST W OF MOORLAND RD	CANTILEVER MAST ARM
S671371	WAUKESHA	STH 318 N	JUST N OF USH 18	CANTILEVER MAST ARM
S671385	WAUKESHA	POPLAR CREEK PKWY N	JUST N OF USH 18	CANTILEVER MAST ARM
S671386	WAUKESHA	USH 18 E	JUST E OF POPLAR CREEK PKWY	CANTILEVER MAST ARM

LIGHTING REPAIR LOCATIONS

ID	COUNTY	HIGHWAY	LOCATION	STRUCTURE TYPE
L400031	MILWAUKEE	HOLT AVE EXIT RAMP	SOUTH SIDE OF HOLT AVE PARK AND RIDE	HML
L400062	MILWAUKEE	IH 43 N	EXIT RAMP TO MINERAL ST	HML
L400063	MILWAUKEE	IH 43 S	IN MEDIAN OF IH 43 AT NATIONAL AVE	HML

8

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NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

ANCILLARY STRUCT REHAB/REPLACE 2022

DRAWN BY MDG | PLANS CK'D. MJM

2022 SE REGION REPAIRS-2

SHEET 2 OF 26
35

FILE NAME : G:\14050.01 - WISDOT SIGN REPAIR DESIGN WO1\CAD\SHEET DRAWINGS\REPAIR LOCATIONS.DWG
PLOT DATE : 12/15/2022 9:31 AM PLOT BY : MORGAN GRUBER

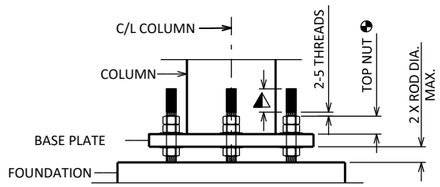
STATE PROJECT NUMBER

1000-20-64

TABLE OF ESTIMATED QUANTITIES FOR FOUNDATIONS*

STRUCTURE	CONCRETE SURFACE REPAIR	REPLACING GUARDRAIL POSTS AND BLOCKS	REPLACING GUARDRAIL AND HARDWARE	RODENT SCREEN	REMOVE GROUT PAD	REPAIR NOTES
BID ITEM	509.1500	614.0950	614.0951	SPV.0060.01	SPV.0060.02	
UNIT	SF	EA	LF	EA	EA	
L400031	3			1		
S300009	1					
S400001	20					WEST FOUNDATION. SIGN BRIDGE IS MOUNTED TO BRIDGE. DEBRIS CONTAINMENT REQUIRED.
S400056					2	
S400282		1				
S400328				1		
S400393				2		
S400401					4	
S400458				2		
S400514				1		
S400516				1		
S400573				1		POST TO LUMINAIRE
S451102				1		
S510009					2	
S510011	1				2	NORTH FOUNDATION
S511188				1		
S660200					1	
S670031	4					
S670262	1					
S670419			15			
S671385				1		
S671386				1		
TOTAL	**30**	**1**	**15**	**13**	**11**	

* THE INFORMATION PROVIDED IN THIS TABLE IS FOR INFORMATIONAL PURPOSES ONLY AND NOT TO BE COUNTED AS ADDITIONAL QUANTITIES.

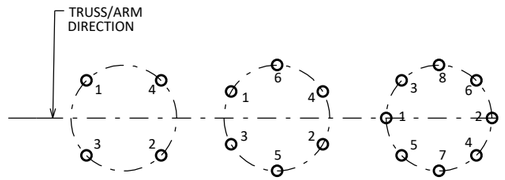


ANCHOR ROD TENSIONING DETAIL

REMOVE AND DISPOSE OF EXISTING LOCK WASHERS (IF PRESENT) BEFORE RE-TENSIONING ANCHORS.

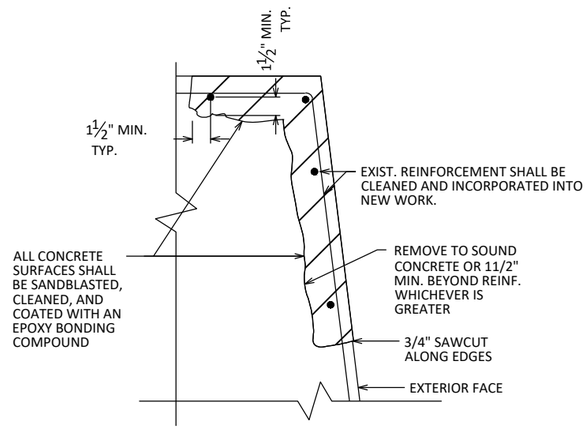
JAM NUT REQUIRED UNLESS EXISTING STICKOUT IS INADEQUATE TO MEET REQUIREMENTS SHOWN.

USE A CUT OFF WHEEL TO REMOVE EXCESS ROD STICKOUT TO THE DIMENSION SHOWN. CUT ANCHOR SHOULD BE FLAT AND SMOOTH, THREADS SHOULD BE DEBURRED SO THE NUT CAN RUN SMOOTHLY ON AND OFF THE END OF THE ROD. APPLY GALVANIZING TO CUT ENDS OF RODS PER SPECIAL PROVISIONS.



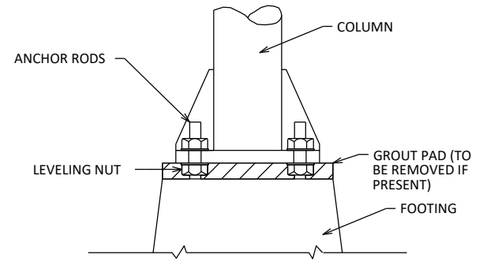
TYPICAL ANCHOR PATTERNS

ROD #1 LOCATED C/L OF STRUCTURE UNDER ARM/TRUSS

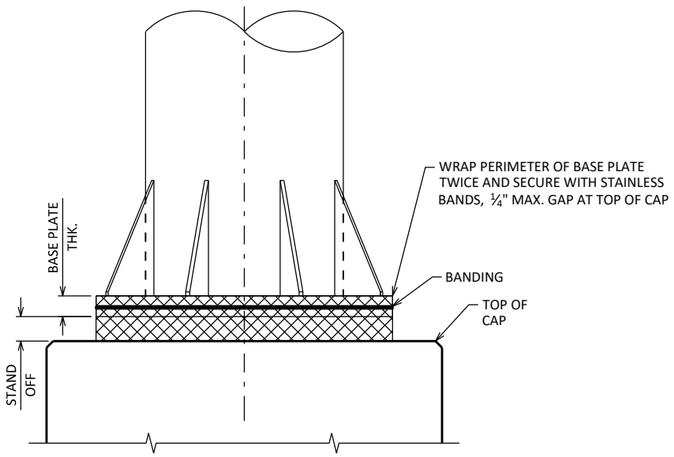


CONCRETE SURFACE REPAIR

TYPICAL DETAILS, ACTUAL LOCATIONS AS DIRECTED BY FIELD ENGINEER AND AS NOTED ON PLANS.

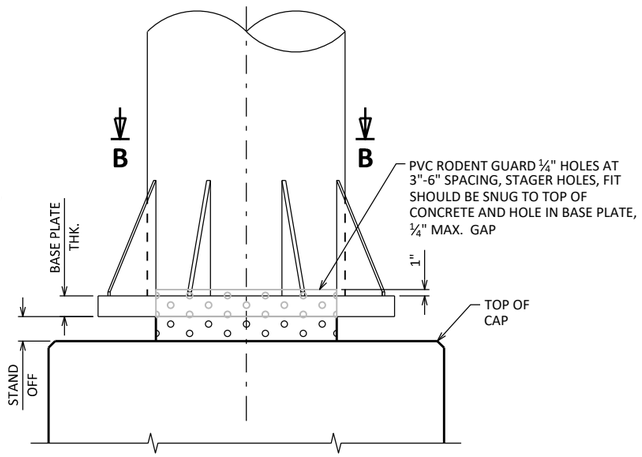


GROUT PAD REMOVAL



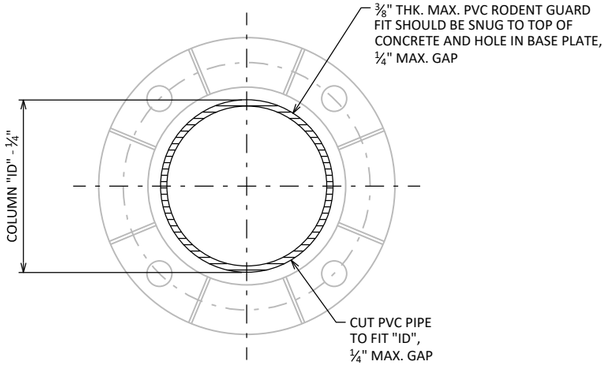
RODENT SCREEN

ONLY REQ'D WHEN ELECTRICAL DEVICES ARE PRESENT
ANCHOR RODS NOT SHOWN



RODENT SCREEN - ALTERNATE

ONLY REQ'D WHEN ELECTRICAL DEVICES ARE PRESENT
ANCHOR RODS NOT SHOWN



SECTION B-B

FOUNDATION NOTES

THE CONTRACTOR SHALL VERIFY EXACT LOCATION OF ALL REPAIRS.

THE CONTRACTOR SHALL FIELD VERIFY DIMENSION OF THE ITEM REQUIRED. DISCREPANCIES SHALL BE SUBMITTED TO THE ENGINEER FOR CLARIFICATION PRIOR TO BEGINNING WORK.

EXISTING GEOMETRY BASED OFF FIELD OBSERVATIONS AND INSPECTIONS. CONTRACTOR TO FIELD VERIFY PRIOR TO FABRICATION AND/OR ORDERING MATERIALS FOR ANCHOR BOLT REPAIR.

THE ANCHOR BOLTS, NUTS, AND WASHERS SHALL BE COLD GALVANIZED WITH ZINC RICH PAINT IN ACCORDANCE TO THE SPECIFICATIONS.

MATERIAL PROPERTIES

CONCRETE f'c = 3,500 P.S.I.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

ANCILLARY STRUCT REHAB/REPLACE 2022

DRAWN BY MDG | PLANS CK'D. MJM

FOUNDATION DETAILS

SHEET 3 OF 26
36

8

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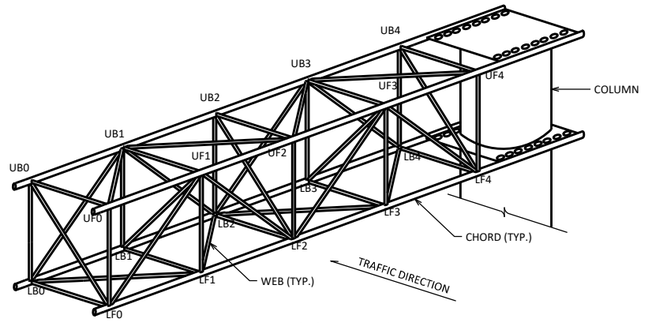
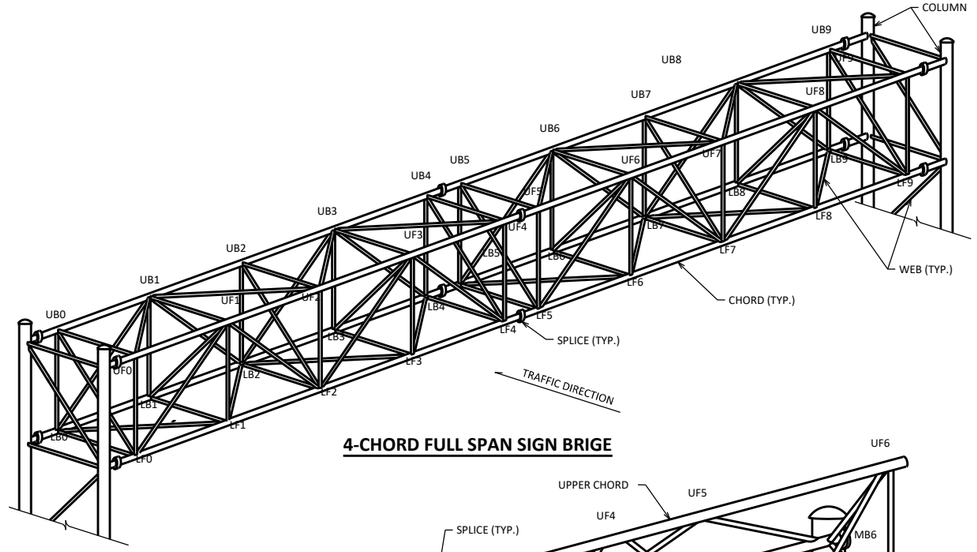
FILE NAME : G:\14050.01 - WISDOT SIGN REPAIR DESIGN WO1\CAD\SHEET DRAWINGS\GENERAL REPAIR DETAILS.DWG
PLOT DATE : 12/15/2022 9:32 AM PLOT BY : MORGAN GRUBER

STATE PROJECT NUMBER

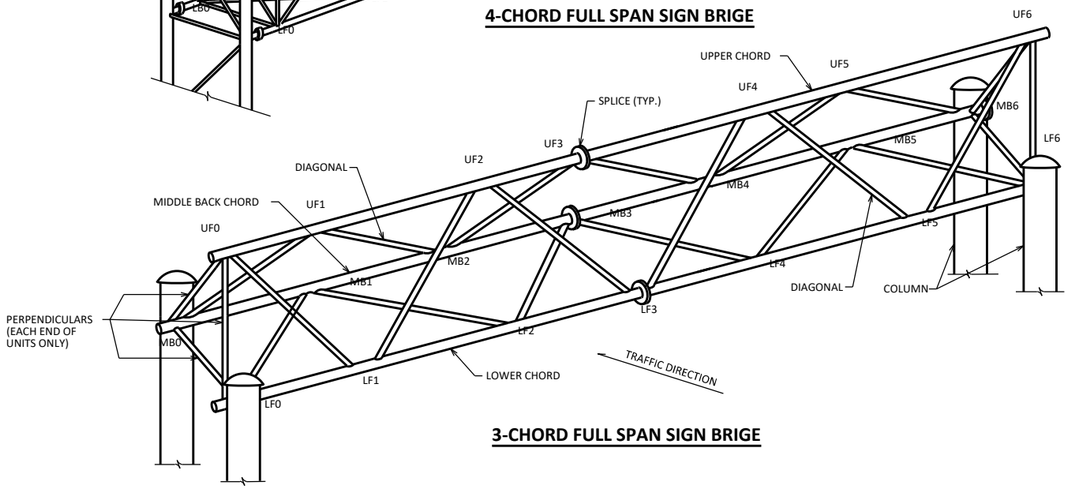
1000-20-64



CANTILEVER SIGN BRIDGE



4-CHORD FULL SPAN SIGN BRIGE



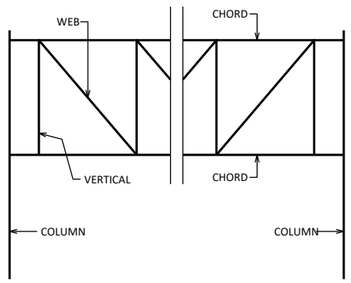
3-CHORD FULL SPAN SIGN BRIGE

TRUSS NOTES

WHEN A FULL SPAN SIGN BRIDGE IS OVER BOTH DIRECTIONS AND SIGNS ARE ON STRUCTURE FOR BOTH DIRECTIONS, THEN NORTHBOUND AND EASTBOUND GOVERN THE NUMBERING SYSTEM.

THE CANTILEVER SIGN BRIDGE NUMBERING SYSTEM ALWAYS COUNTS UP FROM LEFT TO RIGHT REGARDLESS OF COLUMN LOCATION.

TYPICAL SIGN BRIDGE CONFIGURATION FOR INFORMATION ONLY.



TWO CHORD TRUSS ORIENTATION

8

8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

ANCILLARY STRUCT REHAB/REPLACE 2022

DRAWN BY	MDG	PLANS CK'D.	MJM

TRUSS DETAILS

SHEET 37 OF 26 4

FILE NAME : G:\14050.01 - WISDOT SIGN REPAIR DESIGN WO1\CAD\SHEET DRAWINGS\GENERAL REPAIR DETAILS.DWG
PLOT DATE : 12/15/2022 9:32 AM PLOT BY : MORGAN GRUBER

STATE PROJECT NUMBER

1000-20-64

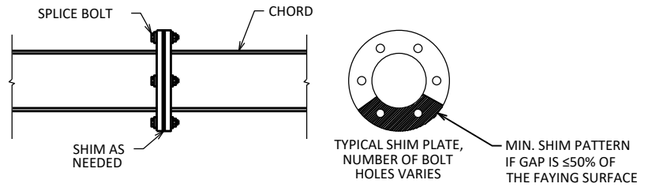
TABLE OF ESTIMATED QUANTITIES FOR STRUCTURES*

STRUCTURE	TENSION ANCHOR ROD	CATWALK HARDWARE	SNUG TIGHT BOLT	TENSION STRUCTURAL BOLT	REPLACE U-BOLT	REMOVE CATWALK AND L-BRACKETS	INSTALL POLE, TRUSS, SIGNS, SIGN BRIDGE S-30-0609	CATWALK REPAIR	REPAIR NOTES
BID ITEM	SPV.0060.03	SPV.0060.04	SPV.0060.05	SPV.0060.06	SPV.0060.07	SPV.0060.08	SPV.0060.09	SPV.0090.01	
UNIT	EA	EA	EA	EA	EA	EA	EA	LF	
L400031	6								ANCHOR ROD DIA. 2.0"
L400062	6								ANCHOR ROD DIA. 2.25"
L400063	6								ANCHOR ROD DIA. 2.25"
S300009	8								ANCHOR ROD DIA. 1.25"
S300023	8								ANCHOR ROD DIA. 2.0"
S300024				8					LOWER SOUTH POST TO HORIZONTAL CONNECTION BOLT. 0.75" DIA. X 2" LONG
S300229					1				UPPER EAST VERTICAL SOUTH SIGN. CHORD SIZE 4.5" x 0.375"
S300238			2						WEST POST UPPER AND LOWER CONNECTION
S300609							1		
S301168	6								ANCHOR ROD DIA. 1.75"
S301185	6								ANCHOR ROD DIA. 1.75"
S301187	6								ANCHOR ROD DIA. 1.75"
S301188	6								ANCHOR ROD DIA. 1.75"
S301192	6								ANCHOR ROD DIA. 1.75"
S301193	6								ANCHOR ROD DIA. 1.5"
S301194	6								ANCHOR ROD DIA. 1.75"
S400006					1				LOWER WEST L BRACKET TO WEST SIGN. CHORD SIZE 4" x 0.226"
S400019			8	8	3				SPLICE BOLTS. 0.75" DIA x 4.25" LONG. 4 CHORD FULL SPAN, U BOLT EAST SIGN 2ND VERTICAL FROM EAST- LOWER, WEST SIGN 2ND VERTICAL FROM EAST- LOWER, WEST SIGN WEST VERTICAL. CHORD SIZE 5.563" x 0.375"
S400030	8								BASE IS ON A CONCRETE SUPPORT COLUMN. ANCHOR ROD DIA. 2.0"
S400031	8								BASE IS ON A CONCRETE SUPPORT COLUMN. ANCHOR ROD DIA. 2.0"
S400046	8								BASE IS ON A CONCRETE SUPPORT COLUMN. ANCHOR ROD DIA. 2.0"
S400074	8								BASE IS ON A CONCRETE SUPPORT COLUMN. ANCHOR ROD DIA. 2.0"
S400097			1						LOWER FRONT SOUTH POST TO CHORD SADDLE CONNECTION BOLT. 0.75" X 2"
S400102	8								BASE IS ON A CONCRETE SUPPORT COLUMN. ANCHOR ROD DIA. 2.0"
S400110				3					POST TO HORIZONTAL CONNECTION BOLT LOWER BACK. BOLT 3/4" DIA. X 2" LONG
S400114	8								BASE IS ON A CONCRETE SUPPORT COLUMN. ANCHOR ROD DIA. 2.0"
S400115	8								BASE IS ON A CONCRETE SUPPORT COLUMN. ANCHOR ROD DIA. 2.0"
S400118	8								BASE IS ON A CONCRETE SUPPORT COLUMN. ANCHOR ROD DIA. 2.0"
S400124	8								BASE IS ON A CONCRETE SUPPORT COLUMN. ANCHOR ROD DIA. 2.0"
S400131	8								BASE IS ON A CONCRETE SUPPORT COLUMN. ANCHOR ROD DIA. 2.0"
S400193					4				TYPE I SIGN, CHORD DIA. UNKNOWN
S400221	4								ANCHOR ROD DIA. 2.0"
S400242					6				L BRACKET TO CHORD U BOLT LACK OF ENGAGEMENT. CHORD SIZE 6" x 0.432"
S400315	12								ANCHOR ROD DIA. 2.25"

* THE INFORMATION PROVIDED IN THIS TABLE IS FOR INFORMATIONAL PURPOSES ONLY AND NOT TO BE COUNTED AS ADDITIONAL QUANTITIES.

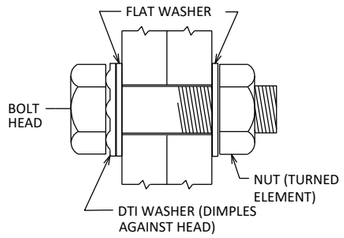
STRUCTURE NOTES

1. THE CONTRACTOR SHALL VERIFY EXACT LOCATION OF ALL REPAIRS.
2. THE CONTRACTOR SHALL FIELD VERIFY THE DIMENSIONS OF THE ITEM REQUIRED. DISCREPANCIES SHALL BE SUBMITTED TO THE ENGINEER FOR CLARIFICATION PRIOR TO BEGINNING WORK.
3. ALL STAINLESS STEEL BOLTS, LOCK WASHERS, AND NUTS SHALL CONFORM TO:
   -ANCHOR BOLTS/HEX BOLTS ASTM F593 ANY ALLOY GROUP 1, 2, OR 3
   -HEX NUTS ASTM F594
   -WASHERS ASTM A240 ANY OF THE 300 SERIES WHICH HAVE A MINIMUM YIELD OF 40,000 PSI AND ELONGATION OF 15% FOR OVER 3/4" DIA. AND 12% FOR 3/4" DIA. AND SMALLER.
4. REPLACE MISSING BOLTS ON TOWER CAPS WITH A STAINLESS STEEL BOLT.

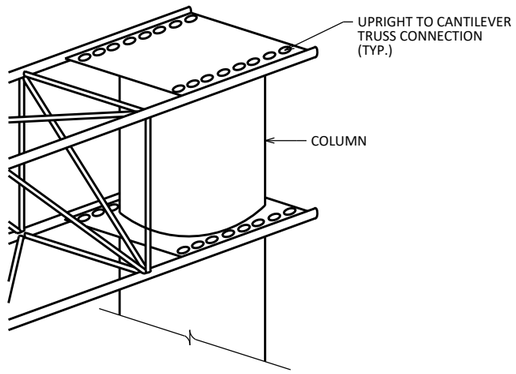


SPLICE CONNECTION BOLT DETAIL

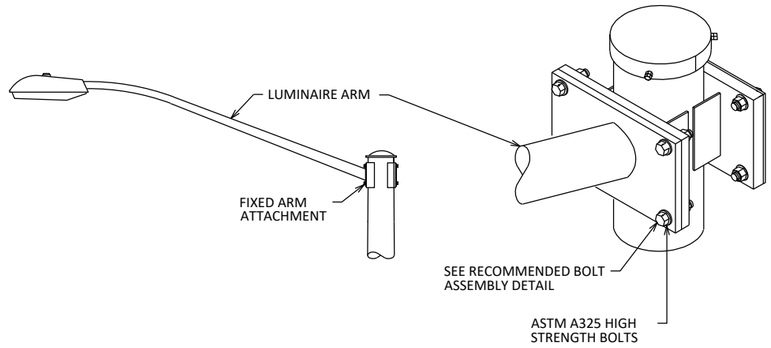
IF GAP IS PRESENT PRIOR TO TENSIONING CONNECTION, SHIM USING 1/16TH GALVANIZED PLATES CUT TO MATCH OUTER DIAMETER OF SPLICE PLATES. IF PARTIAL SHIMS ARE USED, A MINIMUM OF 2 BOLTS MUST PASS THROUGH THE SHIM. NO "U" SHAPED SHIMS ALLOWED.



RECOMMENDED STRUCTURAL BOLT ASSEMBLY DETAIL



CANTIEVER SIGN BRIDGE POST TO TRUSS CONNECTION DETAIL



POST TO LUMINAIRE ARM CONNECTION

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

ANCILLARY STRUCT REHAB/REPLACE 2022

DRAWN BY: MDG | PLANS CK'D.: MJM

SUPERSTRUCTURE DETAILS-1

SHEET 5 OF 26
38

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FILE NAME : G:\14050.01 - WISDOT SIGN REPAIR DESIGN WO1\CAD\SHEET DRAWINGS\GENERAL REPAIR DETAILS.DWG
PLOT DATE : 12/15/2022 9:33 AM PLOT BY : MORGAN GRUBER

STATE PROJECT NUMBER

1000-20-64

TABLE OF ESTIMATED QUANTITIES FOR STRUCTURES (CONT.)*

STRUCTURE	TENSION ANCHOR ROD	CATWALK HARDWARE	SNUG TIGHT BOLT	TENSION STRUCTURAL BOLT	REPLACE U-BOLT	REMOVE CATWALK AND L-BRACKETS	INSTALL POLE, TRUSS, SIGNS, SIGN BRIDGE S-30-0609	CATWALK REPAIR	REPAIR NOTES
BID ITEM	SPV.0060.03	SPV.0060.04	SPV.0060.05	SPV.0060.06	SPV.0060.07	SPV.0060.08	SPV.0060.09	SPV.0090.01	
UNIT	EA	EA	EA	EA	EA	EA	EA	LF	
S400317	12								ANCHOR ROD DIA. 2.25"
S400319	12							1	ANCHOR ROD DIA. 2.25", WEST CATWALK HANDRAIL UPPER EAST MITER REPAIR
S400328	12								BOTH COLUMNS, ANCHOR ROD DIA. 2.25"
S400339	8								ANCHOR ROD DIA. 2.0"
S400393	4								SOUTHEAST POST, ANCHOR ROD DIA. 1.5"
S400401				6					SPLICE BOLTS. 0.75" DIA. X 3.5" LONG
S400438	8								ANCHOR ROD DIA. 2.0"
S400454	6								ANCHOR ROD DIA. 1.5"
S400458		1							CATWALK CONNECTION CLIP SOUTHEAST CORNER
S400503	8								BASE IS ON A CONCRETE SUPPORT COLUMN. ANCHOR ROD DIA. 1.75"
S400509			8	18					WEST CONNECTION SPLICE BOLTS. 3/4" DIA. X 3.5" LONG.
S400514	8								SIGN MOUNTED TO RETAINING WALL. ANCHOR ROD DIA. 2.0"
S400516				8	1				POST TO HORIZONTAL CONNECTION BOLTS .75" DIA. X 2" LONG. U BOLT CENTER VERTICAL SIGN SUPPORT. CHORD SIZE 4.5" x 0.237"
S400533	20								ANCHOR ROD DIA. 2.5"
S400536	20								ANCHOR ROD DIA. 2.5"
S400573	16								BASE IS ON A CONCRETE SUPPORT COLUMN. ANCHOR ROD DIA. 1.5"
S400579	16								BASE IS ON A CONCRETE SUPPORT COLUMN. ANCHOR ROD DIA. 1.5"
S400580	16								BASE IS ON A CONCRETE SUPPORT COLUMN. ANCHOR ROD DIA. 1.5"
S400583	6								BASE IS ON A CONCRETE SUPPORT COLUMN. ANCHOR ROD DIA. 1.5"
S400817						1			
S400818	8			8					ANCHOR ROD DIA. 2.0", POST TO HORIZONTAL CONNECTION BOLTS UPPER BACK. CHORD SIZE 4.5" x 0.237"
S400838	16								BASE IS ON A CONCRETE SUPPORT COLUMN. ANCHOR ROD DIA. 1.75"
S400841	16		8	6					BASE IS ON A CONCRETE SUPPORT COLUMN. ANCHOR ROD DIA. 1.25", SPLICE BOLTS 3/4" DIA. X 3.5" LONG
S400843	16								ANCHOR ROD DIA. 1.25"
S400865	8								BASE IS ON A CONCRETE SUPPORT COLUMN. ANCHOR ROD DIA. 2.0"
S400868	8								BASE IS ON A CONCRETE SUPPORT COLUMN. ANCHOR ROD DIA. 2.0"
S400949	16								ANCHOR ROD DIA. 1.5"
S401159				4					POST TO HORIZONTAL CONNECTION BOLT EAST LUMINAIRE ARM. 0.75" DIA X 1.75" LONG
S401343	6								ANCHOR ROD DIA. 1.5"
S401350	6			8					ANCHOR ROD DIA. 1.75", POST TO HORIZONTAL CONNECTION BOLTS 1.5" DIA x 7" LONG
S401362	6								ANCHOR ROD DIA. 1.5"
S401379	6								ANCHOR ROD DIA. 1.75"
S401455	6								ANCHOR ROD DIA. 1.75"
S401458	6								ANCHOR ROD DIA. 1.75"
S401476				8					POST TO HORIZONTAL CONNECTION BOLTS. 1.5" DIA X 7" LONG
S450002					2				1 ON BOTH EAST AND WEST SIGN. CHORD SIZE 5" x 0.375
S450206	12								ANCHOR ROD DIA. 1.5"
S451102			1						CHORD SPLICE CONNECTION
S510009	8								ANCHOR ROD DIA. 1.5"
S510010	8								ANCHOR ROD DIA. 1.5"
S510011	8								ANCHOR ROD DIA. 1.5"
S510233	12		4						ANCHOR ROD DIA. 1.0", CHORD TO POST CONNECTION BOLTS
S511168	6								ANCHOR ROD DIA. 1.5"
S660006	16								ANCHOR ROD DIA. 1.5"
S660200					1				NB SIGN LOWER WEST
S660213	12		4	6					ANCHOR ROD DIA. 1.5", SPLICE BOLT 1.25" DIA. X 5.0" LONG
S660217			5	12					REPLACE WEST POST TO CHORD SADDLE CONNECTION BOLT 1.0" DIA. X 8.5" LONG, SPLICE BOLTS 1.25" DIA. X 5.0" LONG
S660218			4	12					SPLICE BOLT 1.5" DIA X 5.0" LONG
S670031	8								ANCHOR ROD DIA. 1.75"
S670038	12								ANCHOR ROD DIA. 2.0"
S670039	8							4	ANCHOR ROD DIA. 2.0", REPLACE SOUTH END CATWALK SAFETY CHAIN

* THE INFORMATION PROVIDED IN THIS TABLE IS FOR INFORMATIONAL PURPOSES ONLY AND NOT TO BE COUNTED AS ADDITIONAL QUANTITIES.

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NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

ANCILLARY STRUCT REHAB/REPLACE 2022

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SUPERSTRUCTURE DETAILS-2

SHEET 6 OF 26
39

FILE NAME : G:\14050.01 - WISDOT SIGN REPAIR DESIGN WO1\CAD\SHEET DRAWINGS\GENERAL REPAIR DETAILS.DWG
PLOT DATE : 12/15/2022 9:33 AM PLOT BY : MORGAN GRUBER

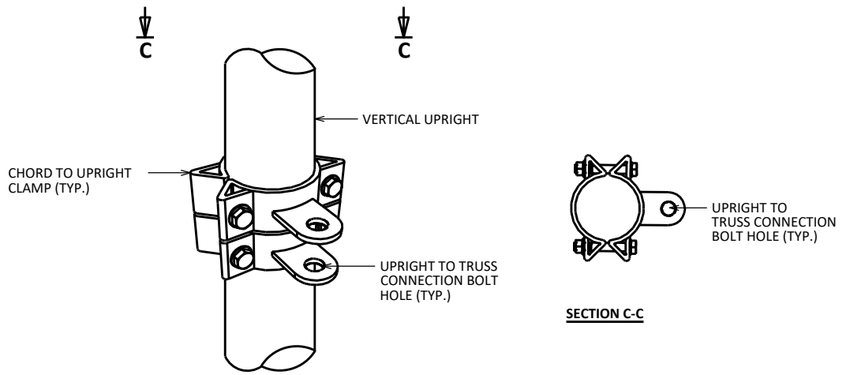
STATE PROJECT NUMBER

1000-20-64

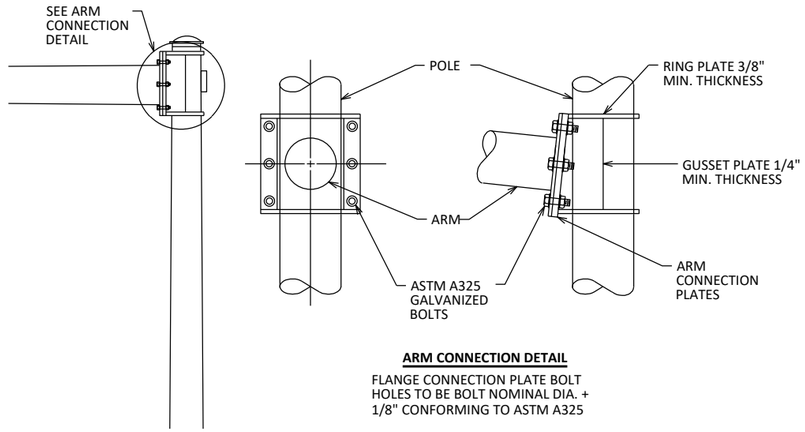
TABLE OF ESTIMATED QUANTITIES FOR STRUCTURES (CONT.)*

STRUCTURE	TENSION ANCHOR ROD	CATWALK HARDWARE	SNUG TIGHT BOLT	TENSION STRUCTURAL BOLT	REPLACE U-BOLT	REMOVE CATWALK AND L-BRACKETS	INSTALL POLE, TRUSS, SIGNS, SIGN BRIDGE S-30-0609	CATWALK REPAIR	REPAIR NOTES
BID ITEM	SPV.0060.03	SPV.0060.04	SPV.0060.05	SPV.0060.06	SPV.0060.07	SPV.0060.08	SPV.0060.09	SPV.0090.01	
UNIT	EA	EA	EA	EA	EA	EA	EA	LF	
S670040	8								ANCHOR ROD DIA. 2.0"
S670254			4	12					SPLICE BOLTS
S670266					1				NORTH SIGN
S670310	8			16					ANCHOR ROD DIA. 2.0",POST TO HORIZONTAL CONNECTION BOLTS UPPER AND LOWER BACK. 3/4" DIA. X 2" LONG
S670314	6								ANCHOR ROD DIA. 2.0"
S670409	16								ANCHOR ROD DIA. 2.25"
S670912			4	12					SPLICE BOLTS 1.25" DIA X 5" LONG
S670916			4	12					SPLICE BOLTS 1.25" DIA X 5" LONG
S670917			4	12					SPLICE BOLTS 1.25" DIA X 5" LONG
S671385	6								ANCHOR ROD DIA. 1.75"
S671386	6								ANCHOR ROD DIA. 1.5"
TOTAL	**628**	**1**	**61**	**179**	**20**	**1**	**1**	**5**	

* THE INFORMATION PROVIDED IN THIS TABLE IS FOR INFORMATIONAL PURPOSES ONLY AND NOT TO BE COUNTED AS ADDITIONAL QUANTITIES.



OVERHEAD POST TO TRUSS CONNECTION DETAIL I

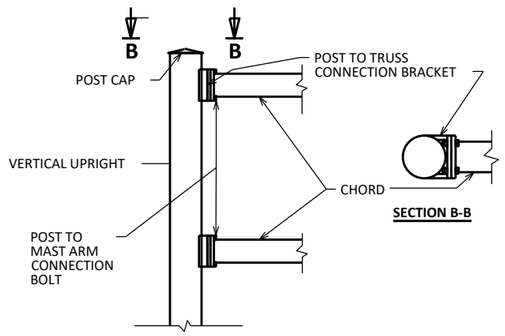


ARM CONNECTION DETAIL

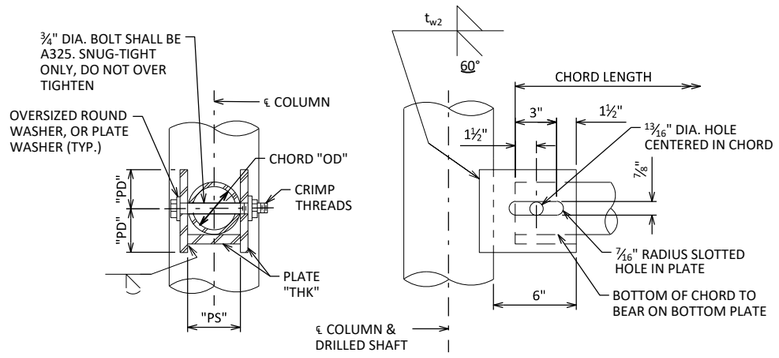
FLANGE CONNECTION PLATE BOLT HOLES TO BE BOLT NOMINAL DIA. + 1/8" CONFORMING TO ASTM A325

POST TO MAST ARM CONNECTION

6 BOLT ARRANGEMENT SHOWN
OTHER BOLT ARRANGEMENTS SIMILAR



OVERHEAD POST TO TRUSS CONNECTION DETAIL II



TOWER SADDLE CONNECTION DETAILS

BOLT AND HOLE DIMENSIONS SHOWN ARE MINIMUM

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ANCILLARY STRUCT REHAB/REPLACE 2022

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SUPERSTRUCTURE DETAILS-3

SHEET 7 OF 26
40

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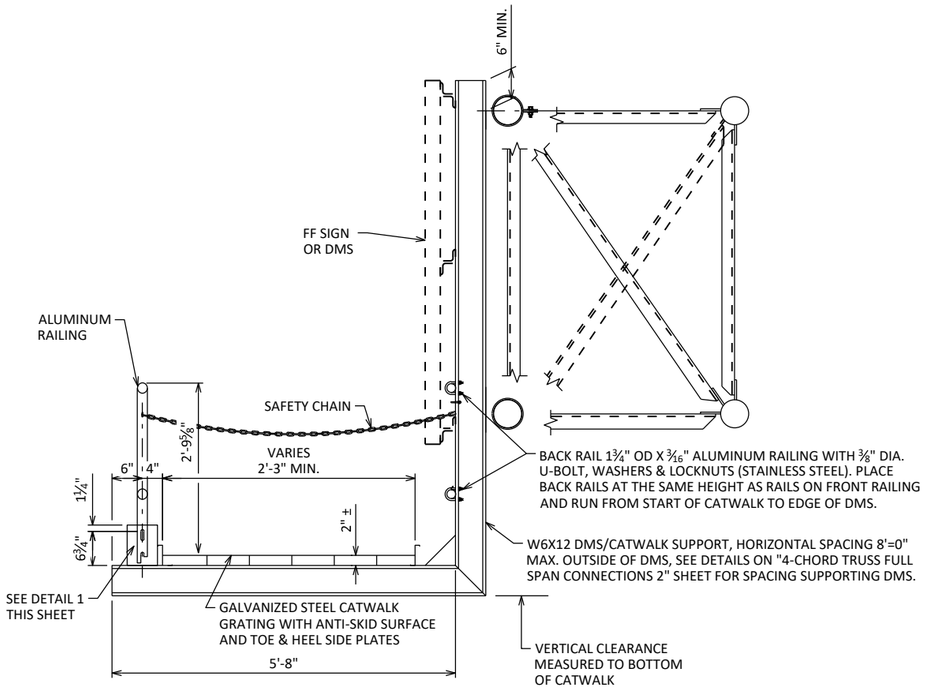
FILE NAME : G:\14050.01 - WISDOT SIGN REPAIR DESIGN WO1\CAD\SHEET DRAWINGS\GENERAL REPAIR DETAILS.DWG
PLOT DATE : 12/15/2022 9:33 AM PLOT BY : MORGAN GRUBER

STATE PROJECT NUMBER

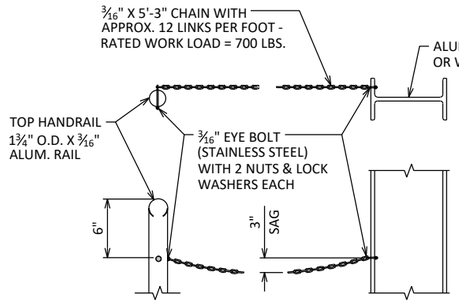
1000-20-64



SECTION THRU WALKWAY

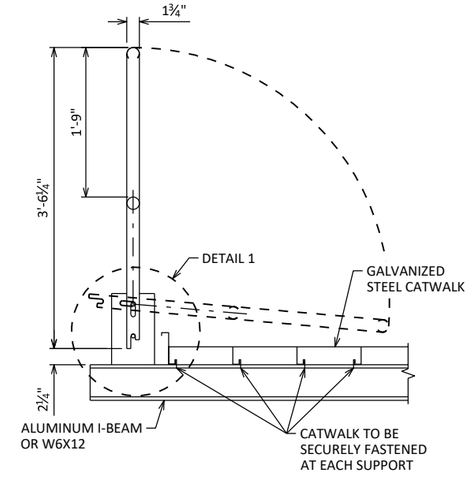
BACKRAIL SPLICE

ONE SPLICE ALLOWED FOR LENGTHS OVER 30'-0"

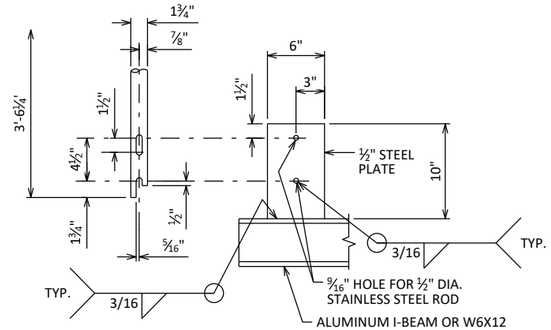


SAFETY CHAIN DETAIL

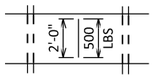
PROVIDE SAFETY CHAIN AT EACH END OF CATWALK



RAIL POST DETAIL

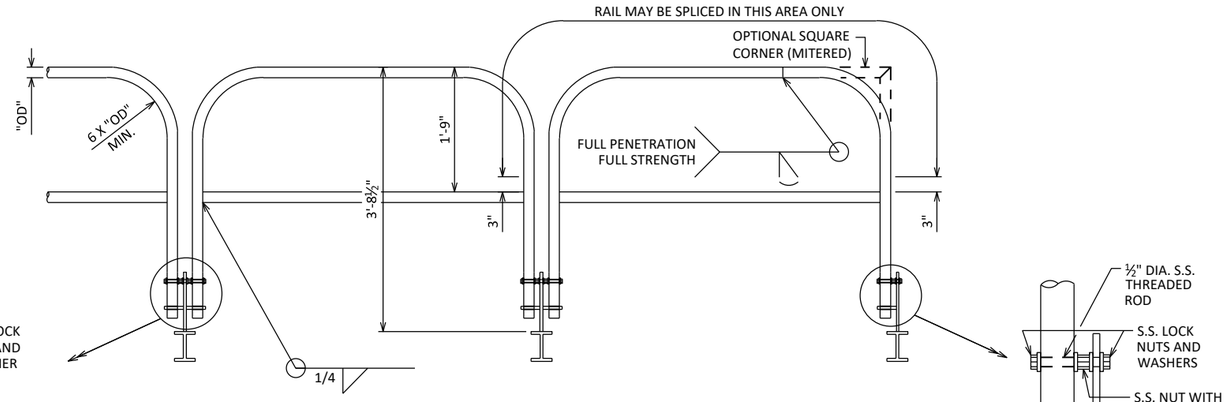


DETAIL 1



CATWALK LOADING DIAGRAM

NOTE:
CATWALK GRATING SHALL MEET THE CURRENT AASHTO "LRFD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES, AND TRAFFIC SIGNALS" WITH 500 LB LIVE LOAD DISTRIBUTED OVER 2'-0" TRANSVERSELY - MAX. SPAN IS 8'-0". CATWALK SHALL ALSO MEET CURRENT OSHA STD'S FOR WALKING-WORKING SURFACES.



TYPICAL FRONT RAILING DETAILS

8

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CATWALK DETAILS

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FILE NAME : G:\14050.01 - WISDOT SIGN REPAIR DESIGN WO1\CAD\SHEET DRAWINGS\GENERAL REPAIR DETAILS.DWG
PLOT DATE : 12/15/2022 9:33 AM PLOT BY : MORGAN GRUBER

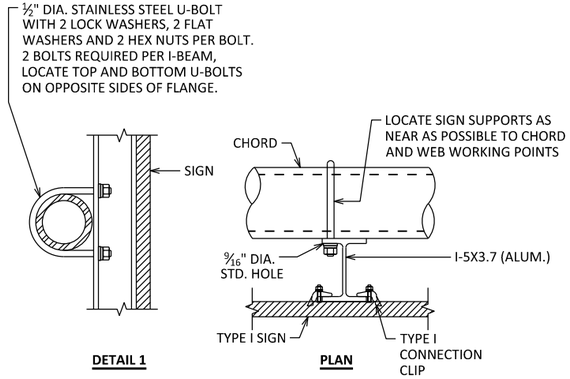
STATE PROJECT NUMBER

1000-20-64

TABLE OF ESTIMATED QUANTITIES FOR SIGNS*

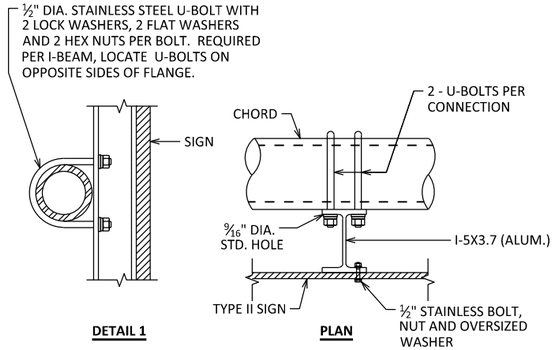
STRUCTURE	MOVING SIGNS TYPE I	ADJUST SIGN	SIGN PANEL CONNECTOR	VERTICAL SIGN SUPPORT	REPAIR NOTES
BID ITEM	638.2101	SPV.0060.10	SPV.0060.11	SPV.0060.12	
UNIT	EA	EA	EA	EA	
S300217		1			2ND SIGN FROM WEST LOOSE
S300231				4	VERTICAL SIGN SUPPORTS HAVE SLOTTED HOLES
S300248				6	VERTICAL SIGN SUPPORTS HAVE SLOTTED HOLES
S300612		1			VERTICAL SIGN SUPPORT LOOSE
S400105			5		SOUTH SIGN
S400185	1		4		RAISE TYPE I SIGN TO MEET VERTICAL CLEARANCE, WEST SIGN SUPPORT LOOSE
S400221				3	VERTICAL SIGN SUPPORTS TOO SHORT. EXISTING SIGN 7.5' HIGH
S400225				2	VERTICAL SIGN SUPPORTS 4' FROM SIGN EDGE
S400267				2	VERTICAL SIGN SUPPORTS 3.5' FROM SIGN EDGE
S400317			2		WEST VERTICAL SIGN SUPPORT WEST SIGN AND EAST VERTICAL SIGN SUPPORT OF MIDDLE SIGN
S400319				2	VERTICAL SIGN SUPPORTS 4.5' AND 3.5' FROM SIGN EDGE
S400328				1	VERTICAL SIGN SUPPORT EAST SIGN SPACING 10'. EXISTING SIGN 6.0' HIGH
S400392				1	VERTICAL SIGN SUPPORT EXCESSIVE SPACING. EXISTING SIGN 8.0' HIGH
S400512				7	U-BOLTS ON SAME SIDE OF VERTICAL SUPPORTS. WEST AND EAST SIGN SUPPORTS 4.0' FROM SIGN EDGE
S400536			1		SOUTH VERTICAL SUPPORT NORTH SIGN
S400710				1	VERTICAL SIGN SUPPORTS ON NORTH SIGN HAVE SLOTTED HOLES
S400746				4	VERTICAL SIGN SUPPORTS TOO SHORT. EXISTING SIGN 8.5' HIGH
S400753				2	REMOVE AND REPLACE EXISTING SIGN SUPPORT. EXISTING SIGNS 5.0' HIGH
S400813			1		U-BOLTS ON SAME SIDE OF VERTICAL SUPPORTS
S400820			11		EAST AND MIDDLE VERTICAL SUPPORTS ON BOTH EAST AND WEST SIGNS
S400990				2	REMOVE AND REPLACE EXISTING SIGN SUPPORT. EXISTING SIGNS 5.5' HIGH
S401159		1			POST MOUNTED TYPE II SIGN LOOSE
S401348		1			POST MOUNTED TYPE II SIGN CONNECTION BROKEN
S401455		1			CHORD MOUNTED TYPE II SIGN TILTED
S401482		1			POST MOUNTED TYPE II SIGN UPPER LOOSE
S401538		1			CHORD MOUNTED TYPE 2 SIGN TILTED DOWN
S450206				4	VERTICAL SIGN SUPPORTS HAVE SLOTTED HOLES
S450212		1			POST MOUNTED SIGN LOWER CONNECTION BROKEN
S510009		1			WEST SIGN LOOSE CONNECTION ASSEMBLY
S510236		1			LOOSE OVERHEAD SIGN CONNECTION STRAP
S640204		1			NORTH SIGN CONNECTION CLAMP BROKEN
S640209				3	VERTICAL SIGN SUPPORTS HAVE SLOTTED HOLES
S660006			2		ONE EACH SIGN
S660200				6	REMOVE AND REPLACE EXISTING SIGN SUPPORT. EXISTING SIGNS 7.5' AND 8.0' HIGH BY 17' WIDE
S660211		1			POST MOUNTED TYPE II SIGN
S670001				1	VERTICAL SIGN SUPPORT EAST SIGN SPACING 10'. EXISTING SIGN 10.5' HIGH
S670200				2	VERTICAL SIGN SUPPORTS 4.0' FROM SIGN EDGE
S670248				2	REMOVE AND REPLACE EXISTING SIGN SUPPORT ON TWO TYPE II SIGNS. EXISTING SIGNS 4.0' HIGH
S670262		1			REPLACE UPPER CONNECTION BOLT MIDDLE TURN ARROW TYPE II SIGN
S670275		1			POST MOUNTED TYPE II SIGN UPPER STRAP MISSING
S670308			28		
S670310			1		
S670408				1	CONNECT MIDDLE VERTICAL SUPPORT TO SIGN.
S671263		1			CHORD MOUNTED TYPE II SIGN
S671371		1			CHORD MOUNTED TYPE II SIGN EAST CONNECTION LOOSE
TOTAL	**1**	**16**	**55**	**56**	

* THE INFORMATION PROVIDED IN THIS TABLE IS FOR INFORMATIONAL PURPOSES ONLY AND NOT TO BE COUNTED AS ADDITIONAL QUANTITIES.



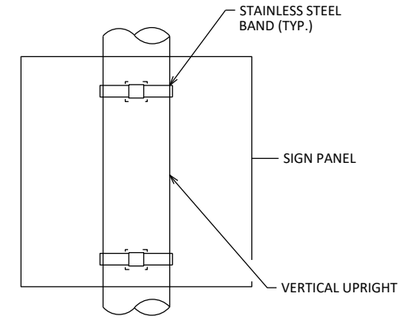
2-CHORD TRUSS SIGN CONNECTION

TYPE I SIGN PANEL SHOWN.
SEE SIGN PLATE MANUAL A4-7A AND A4-7BFOR DETAILS.
PANEL, HARDWARE TO BE SUPPLIED BY THE CONTRACTOR.



MONOTUBE SIGN CONNECTION

TYPE II SIGN PANEL SHOWN.
SEE SIGN PLATE MANUAL A4-7A AND A4-7B FOR DETAILS.
PANEL, HARDWARE TO BE SUPPLIED BY THE CONTRACTOR.



TYPE-II SIGN TO VERTICAL UPRIGHT DETAIL

REFER TO SIGN PLATE MANUAL FOR DETAILS
(SIGN BANDING DETAILS)

SIGN PANEL NOTES:

1. THE CONTRACTOR SHALL VERIFY EXACT LOCATION OF ALL REPAIRS.
2. THE CONTRACTOR SHALL FIELD VERIFY THE DIMENSIONS OF THE ITEM REQUIRED. DISCREPANCIES SHALL BE SUBMITTED TO THE ENGINEER FOR CLARIFICATION PRIOR TO BEGINNING WORK.
3. ALL STAINLESS STEEL BOLTS, LOCK WASHERS, AND NUTS SHALL CONFORM TO:
   -ANCHOR BOLTS/HEX BOLTS ASTM F593 ANY ALLOY GROUP 1, 2, OR 3
   -HEX NUTS ASTM 594
   -WASHERS ASTM A240
   ANY OF THE 300 SERIES WHICH HAVE A MINIMUM YIELD OF 40,000 PSI AND ELONGATION OF 15% FOR OVER 3/4" DIA. AND 12% FOR 3/4" DIA. AND SMALLER.

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NO.	DATE	REVISION	BY

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STRUCTURES DESIGN SECTION

ANCILLARY STRUCT REHAB/REPLACE 2022

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SIGN PANEL DETAILS-1

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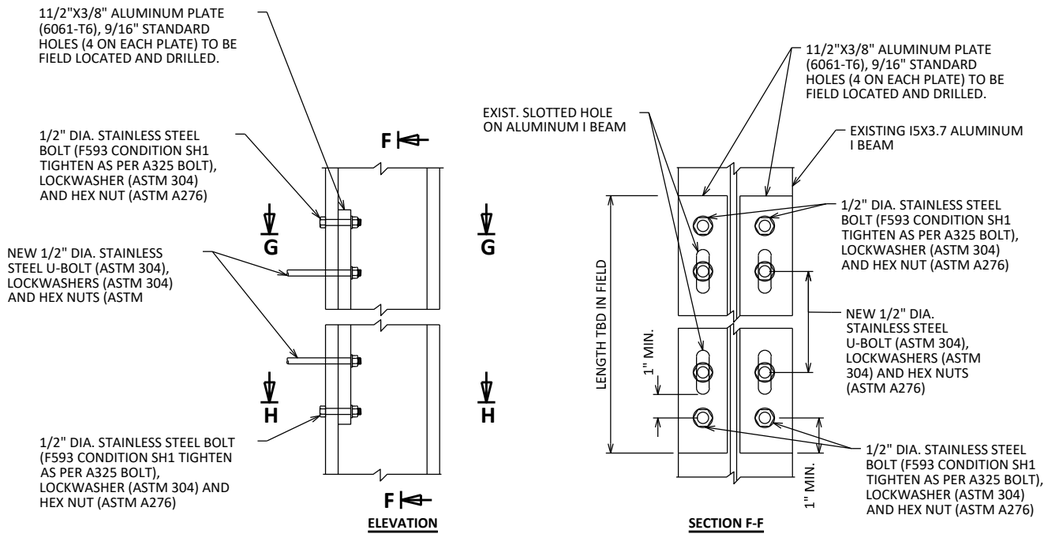
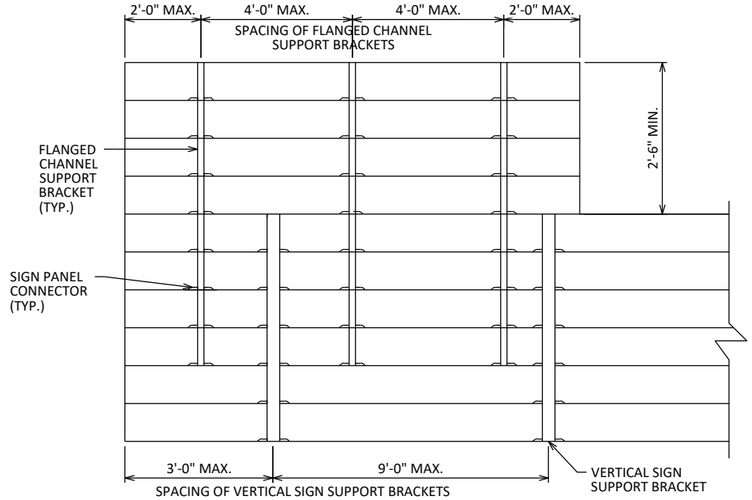
FILE NAME : G:\14050.01 - WISDOT SIGN REPAIR DESIGN WO1\CAD\SHEET DRAWINGS\GENERAL REPAIR DETAILS.DWG
PLOT DATE : 12/15/2022 9:33 AM PLOT BY : MORGAN GRUBER

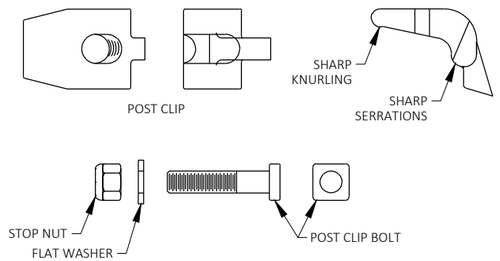


SLOTTED VERTICAL SIGN SUPPORT REPAIR DETAIL

EACH REPAIR INCLUDES ALL BOLT CONNECTIONS PER I-BEAM



FLANGED CHANNEL SUPPORT/VERTICAL SIGN SUPPORT BRACKET DETAILS



POST CLIP, POST CLIP BOLT, WASHER & NUT

POST CLIP SHALL BE ALUM. ALLOY 356-T6
POST CLIP BOLT SHALL BE STAINLESS STEEL
FLAT WASHER SHALL BE ⅜" X .091, STAINLESS STEEL
STOP NUST SHALL BE STAINLESS STEEL

NOTES:
1. CONTRACTOR MAY SELECT ANY BRAND OF EXTRUSION THAT CONFORMS TO THE ILLUSTRATIONS OR MEETS WITH THE APPROVAL OF THE ENGINEER, BUT ALL EXTRUSIONS USED ON THE CONTRACT SHALL BE OF THE SAME BRAND.
2. PANEL STITCH BOLTS SHALL BE USED TO ASSEMBLE ADJACENT PANELS. MAXIMUM STITCH BOLT SPACING SHALL BE 24" C-C, AND A MINIMUM OF 4 BOLTS SHALL BE USED TO CONNECT ANY TWO EXTRUSIONS.
3. POST CLIPS SHALL BE USED TO ATTACH THE SIGN PANEL TO THE SIGN SUPPORT.
4. EDGE WRAPPING OF SIGN SHEETING REQUIRED ON ALL EXTRUSIONS JOINTS SHOWN IN DETAIL A.

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SIGN PANEL DETAILS-2

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FILE NAME : G:\14050.01 - WISDOT SIGN REPAIR DESIGN WO1\CAD\SHEET DRAWINGS\GENERAL REPAIR DETAILS.DWG
PLOT DATE : 12/15/2022 9:34 AM PLOT BY : MORGAN GRUBER

STATE PROJECT NUMBER
1000-20-64

TABLE OF ESTIMATED QUANTITIES FOR ELECTRICAL*

STRUCTURE	LUMINAIRE ITEMS	CONDUIT PLUG	REPAIR NOTES
BID ITEM	SPV.0060.13	SPV.0060.14	
UNIT	EA	EA	
L400062	4		INSTALL HML LUMINAIRE BULB SAFETY CHAINS
L400063	4		INSTALL HML LUMINAIRE BULB SAFETY CHAINS
S300023		1	
S400225	2		REPLACE LUMINAIRE SUPPORT UNISTRUT, SECURE/REPLACE LUMINAIRE COVER
S400226	2		REPLACE LUMINAIRE SUPPORT UNISTRUT, SECURE/REPLACE LUMINAIRE COVER
S400319	1	1	SECURE/REPLACE EAST LUMINAIRE COVER
S400320	2		SECURE/REPLACE EAST AND WEST LUMINAIRE COVERS
S400339		1	
S400501	2		SECURE/REPLACE MIDDLE AND EST LUMINAIRE COVERS
S400505	1		SECURE/REPLACE LUMINAIRE COVER
S400512	2		SECURE/REPLACE MIDDLE AND WEST LUMINAIRE COVERS
S400516	2		SECURE/REPLACE LUMINAIRE COVER, CONNECT UNISTRUT TO L BRACKET
S400713	1		SECURE/REPLACE LUMINAIRE COVER
S400812	1		SECURE/REPLACE LUMINAIRE COVER
S400815	2		SECURE/REPLACE LUMINAIRE COVERS
S400817	2		REMOVE LUMINAIRES AS PART OF CATWALK REMOVAL
S400818	1		SECURE/REPLACE LUMINAIRE COVER
S400865		1	
S400868		1	
S670314		1	
TOTAL	**29**	**6**	

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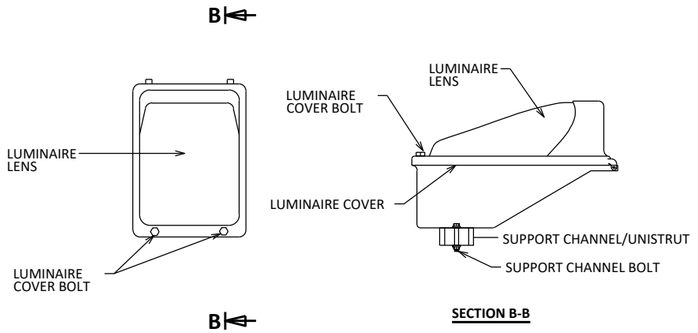
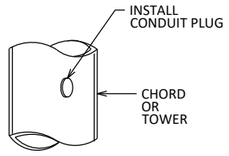


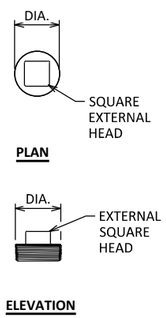
SECTION B-B

TYPICAL LUMINAIRE DETAILS



CONDUIT PLUG DETAIL

THREAD HOLE TO ACCEPT PLUG



CONDUIT PLUG DETAILS

ELECTRICAL NOTES:

1. THE CONTRACTOR SHALL VERIFY EXACT LOCATION OF ALL REPAIRS.
2. THE CONTRACTOR SHALL FIELD VERIFY THE SIZE OF THE ITEM REQUIRED.
3. ALL STAINLESS STEEL BOLTS, LOCK WASHERS, AND NUTS SHALL CONFORM TO:
   -HEX BOLTS ASTM F593 ANY ALLOY GROUP 1, 2, OR 3
   -HEX NUTS ASTM F594 -WASHERS ASTM A240
   ANY OF THE 300 SERIES WHICH HAVE A MINIMUM YIELD OF 40,000 PSI AND ELONGATION OF 15% FOR OVER 3/4" | AND 12% FOR 3/4" | AND SMALLER.
4. THE CONTRACTOR SHALL USE ANTI-SIEZE COMPOUND ON ELECTRICAL HANDHOLE COVER BOLTS, JUNCTION BOX BOLTS, LUMINAIRE COVER BOLTS, AND CONDUIT PLUGS PER SECTION 651.3.1 (5) OF THE WISDOT STANDARD SPECIFICATION.
5. CAP ALL EXPOSED WIRES AND CLOSE THE JUNCTION BOX.
6. REPLACE THE JUNCTION BOX BOLT WITH A STAINLESS STEEL BOLT.

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ELECTRICAL DETAILS

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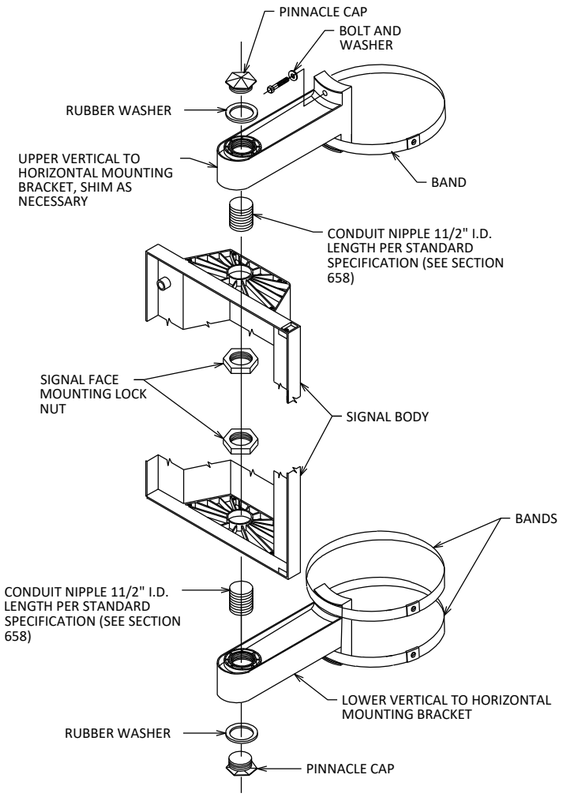
FILE NAME : G:\140S0.01 - WISDOT SIGN REPAIR DESIGN WO1\CAD\SHEET DRAWINGS\GENERAL REPAIR DETAILS.DWG
PLOT DATE : 12/15/2022 9:34 AM PLOT BY : MORGAN GRUBER

STATE PROJECT NUMBER
1000-20-64

TABLE OF ESTIMATED QUANTITIES FOR SIGNALS*

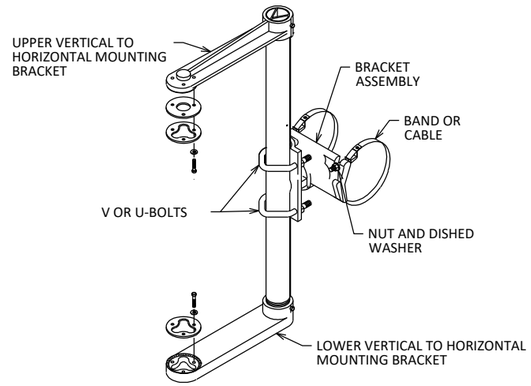
STRUCTURE	REPLACE DISHED WASHER	REPLACE SIGNAL SHROUD	SIGNAL MOUNTING HARDWARE MODIFIED	REPAIR NOTES
BID ITEM	SPV.0060.15	SPV.0060.16	SPV.0060.17	
UNIT	EA	EA	EA	
S400072			1	POST MOUNTED SIGNAL CONNECTION BRACKET
S400761			1	WEST SIGNAL CONNECTION BRACKET
S401348		1		NORTH SIGNAL
S401362			1	EAST SIGNAL CONNECTION BRACKET
S401482	1		1	NORTH SIGNAL SET SCREW
S451102	1	3		SOUTH SIGNAL DISHED WASHER
S511168		1		EAST SIGNAL
S671263			2	NORTH AND MIDDLE SIGNALS CONNECTION BRACKET
TOTAL	**2**	**5**	**6**	

* THE INFORMATION PROVIDED IN THIS TABLE IS FOR INFORMATIONAL PURPOSES ONLY AND NOT TO BE COUNTED AS ADDITIONAL QUANTITIES.



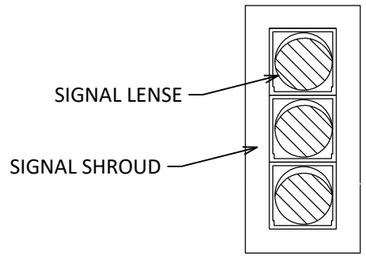
SIGNAL FACE VERTICAL MOUNTING DETAIL FOR POST

BRACKET ASSEMBLY SHOWN TYPICAL, ACTUAL BRACKET TYPE MAY VARY. CONTRACTOR TO VERIFY TYPE AND INSTALL PER MANUFACTURER'S SPECIFICATIONS.



SIGNAL FACE MOUNTING BRACKET DETAIL FOR MONOTUBE ARM

BRACKET ASSEMBLY SHOWN TYPICAL, ACTUAL BRACKET TYPE MAY VARY. CONTRACTOR TO VERIFY TYPE AND INSTALL PER MANUFACTURER'S SPECIFICATIONS.



SIGNAL HEAD DETAILS

3 HEAD SIGNAL SHOWN, OTHERS SIMILAR

8

8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

ANCILLARY STRUCT REHAB/REPLACE 2022

DRAWN BY MDG | PLANS CK'D. MJM

SIGNAL DETAILS

SHEET 45 12 OF 26

FILE NAME : G:\14050.01 - WISDOT SIGN REPAIR DESIGN WO1\CAD\SHEET DRAWINGS\GENERAL REPAIR DETAILS.DWG
PLOT DATE : 12/15/2022 9:34 AM PLOT BY : MORGAN GRUBER

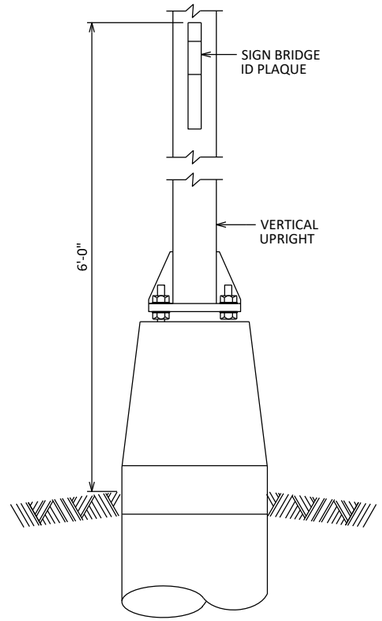
STATE PROJECT NUMBER
1000-20-64

TABLE OF ESTIMATED QUANTITIES FOR MISC. REPAIRS*

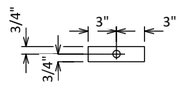
STRUCTURE	PAINTING EPOXY SYSTEM	ID PLAQUE	HANDHOLE COVER	POST/END CAP	REMOVE DEBRIS	REPAIR GALVANIZED COATING	REPAIR NOTES
BID ITEM	517.0601	SPV.0060.18	SPV.0060.19	SPV.0060.20	SPV.0060.21	SPV.0165.01	
UNIT	EA	EA	EA	EA	EA	SF	
L400031			1				REPLACE 7/16" HANDHOLD BOLT
L400062			1				REPLACE 7/16" HANDHOLD BOLT
S300024			1				HANDHOLE COVER MISSING
S301185		1					
S301187		1	1				HANDHOLE COVER PRESENT, BOLT MISSING
S301188		1					
S301192		1					
S301193		1					
S301194		1					
S400001			1				SOUTHEAST POST UPPER HANDHOLE COVER PRESENT, LOOSE
S400091						30	UPPER HORIZONTAL BRACE
S400102						5	GUSSET PLATE NEAR SUPPORT
S400328					1		EAST FOUNDATION
S400392				1			NORTHEAST POST CAP MISSING. COLUMN IS 10.75" X 0.365"
S400393				1			NORTHEAST POST CAP PRESENT BUT NOT SECURE. COLUMN IS 10.75" X 0.365"
S400438				1			EAST POST CAP PRESENT BUT NOT SECURE. 5/16" X 3/4" SET SCREWS
S400458		1	1				LOWER HANDHOLE COVER MISSING
S400573						8	POST NEAR BASEPLATE, BASEPLATE, AND POST TO BASE PLATE STIFFENERS
S400817						1	
S400843		1					
S400990				2			NEED POLE AND END CAP. 7.85" X 7 GA (TOP OF POLE) 4.78" X 7 GA. (END OF ARM)
S401159		1					
S401350		1					
S401379			1				UPPER HANDHOLE COVER PRESENT, BOLT MISSING
S401455			1				UPPER HANDHOLE COVER PRESENT, BOLT MISSING
S401458		1	1				UPPER HANDHOLE COVER PRESENT, BOLT MISSING
S401482		1					
S510233	1						
S670039						8	POST NEAR BASEPLATE, BASEPLATE, AND POST TO BASE PLATE STIFFENERS
S670040						8	POST NEAR BASEPLATE, BASEPLATE, AND POST TO BASE PLATE STIFFENERS
S671263		1					
S671386		1					
TOTAL	**1**	**14**	**9**	**5**	**1**	**60**	

* THE INFORMATION PROVIDED IN THIS TABLE IS FOR INFORMATIONAL PURPOSES ONLY AND NOT TO BE COUNTED AS ADDITIONAL QUANTITIES.

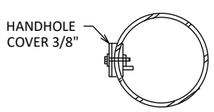
PAINTING EPOXY SYSTEM NOTES:
ALL REFERENCES TO THE COLOR OF THE EXTERIOR SURFACES OF ALL OVERHEAD SIGN BRIDGE EQUIPMENT, ASSOCIATED MOUNTING HARDWARE TO REQUIRE A FLAT FINISH, DULL BLACK, LUSTERLESS COLOR FOR ALL NEW EQUIPMENT. NEW PAINT TO BE FLAT BLACK COLOR. ALL STEEL SHALL BE CLEANED AND PAINTED WITH A PRIMER AND TWO FINISH COATS OF THE BEST RUST RESISTANT SYNTHETIC RESIN ENAMEL IN FLAT BLACK. SUBMIT A SAMPLE OF THE COLOR FOR APPROVAL BY THE ENGINEER PRIOR TO CONSTRUCTION.



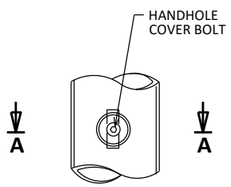
SIGN BRIDGE ID PLAQUE

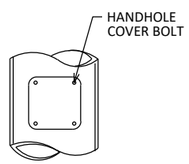


LOCKING PLATE

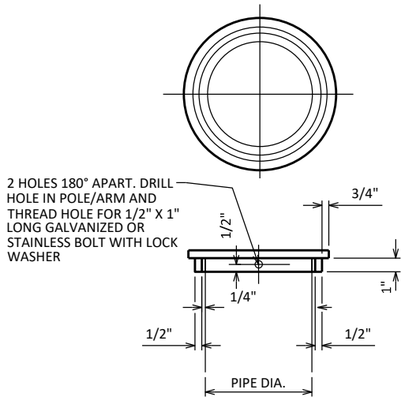


SECTION A-A

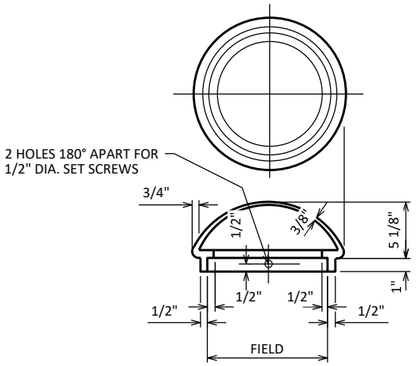




HANDHOLE DETAILS



POST/END CAP DETAIL



POST/CHORD CAP DETAIL

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

ANCILLARY STRUCT REHAB/REPLACE 2022

DRAWN BY: MDG | PLANS CK'D.: MJM

MISCELLANEOUS DETAILS

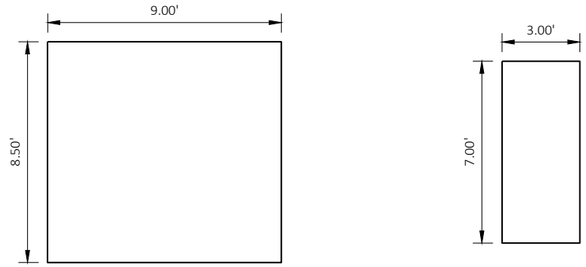
SHEET 46 OF 26

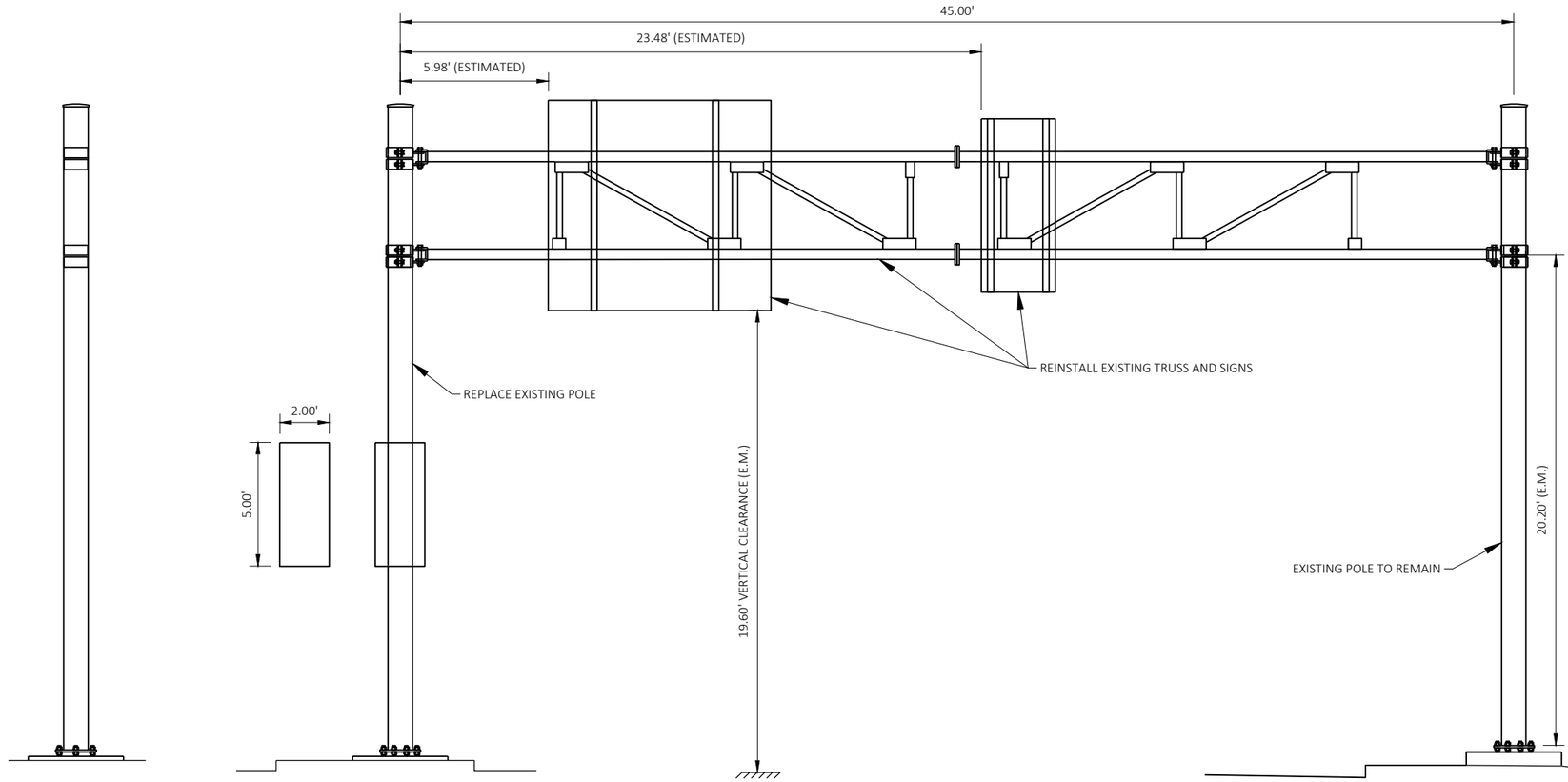
8

8

STATE PROJECT NUMBER
1000-20-64

NOTES
INSTALL NEW POLE SUPPLIED BY WISDOT.
INSTALL SALVAGED TRUSS AND ALL SIGNS.

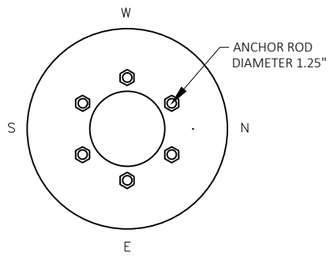




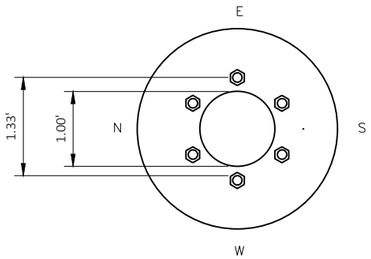
LOOKING WEST

LOOKING SOUTH

LOOKING EAST



EAST FOUNDATION



WEST FOUNDATION

ITEM NUMBER	BID ITEMS	QTY	UNITS	REPAIR DETAIL SHEET NO.
SPV.0060.09	INSTALL POLE, TRUSS, SIGNS, SIGN BRIDGE S-30-0609	1	EA	7

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

ANCILLARY STRUCT REHAB/REPLACE 2022

DRAWN BY MDG | PLANS CK'D. MJM

S-30-0609

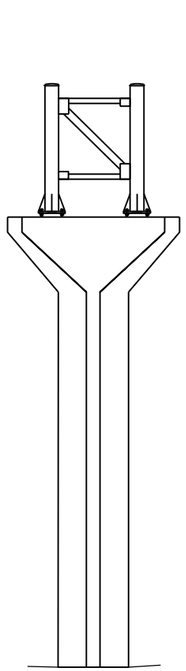
SHEET 14 OF 26
47

8

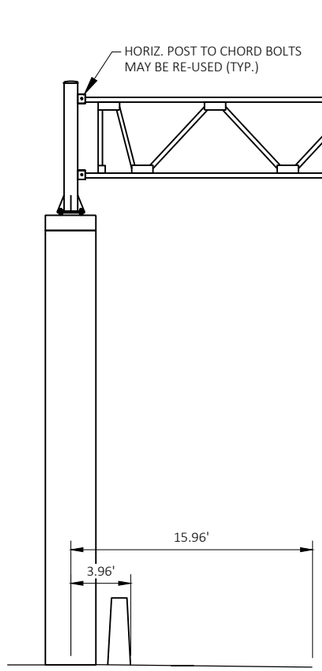
FILE NAME : G:\14050.01 - WISDOT SIGN REPAIR DESIGN WO1\CAD\SHEET DRAWINGS\S-30-0609.DWG
PLOT DATE : 12/15/2022 9:35 AM PLOT BY : MORGAN GRUBER

STATE PROJECT NUMBER
1000-20-64

NOTE:
STRUCTURE TRUSS TO BE REMOVED DURING ROLLING CLOSURE SO THAT IT CAN BE SUPPORTED DURING SPLICE BOLT REPLACEMENT AND REINSTALLED DURING ANOTHER ROLLING CLOSURE.
TRUSS TO BE SUPPORTED DURING WORK. MEASURE GAPS IN ALL SPLICES PRIOR TO START AND ENSURE GAPS ARE CLOSED AFTER TENSIONING. USE SHIMS AS NEEDED.

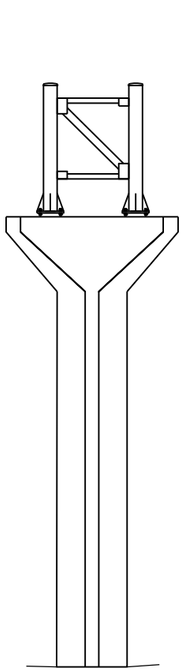


LOOKING EAST



LOOKING NORTH

LOOKING WEST



LOOKING WEST

ITEM NUMBER	BID ITEMS	QTY	UNITS	REPAIR DETAIL SHEET NO.
SPV.0060.05	SNUG TIGHT BOLT	8	EA	7
SPV.0060.06	TENSION STRUCTURAL BOLT	8	EA	5
SPV.0060.07	REPLACE U-BOLT	3	EA	9

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

ANCILLARY STRUCT REHAB/REPLACE 2022

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S-40-0019

SHEET 48 OF 26

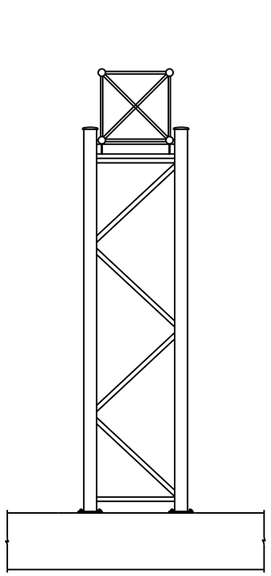
8

FILE NAME : G:\14050.01 - WISDOT SIGN REPAIR DESIGN WO1\CAD\SHEET DRAWINGS\S-40-0019.DWG
PLOT DATE : 12/15/2022 9:36 AM PLOT BY : MORGAN GRUBER

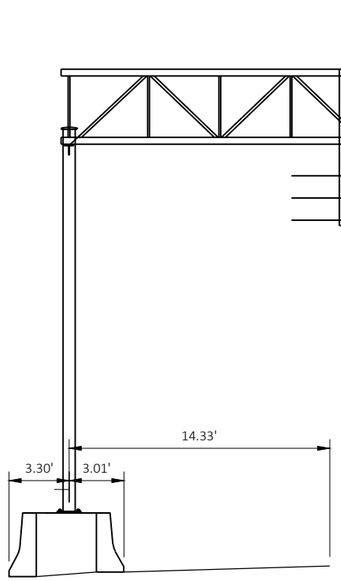
STATE PROJECT NUMBER

1000-20-64

NOTE:
SPLICE BOLT REPLACEMENT TO BE DONE UNDER FULL FREEWAY CLOSURE.
TRUSS TO BE SUPPORTED DURING WORK.
MEASURE GAPS IN ALL SPLICES PRIOR TO START AND ENSURE GAPS ARE CLOSED AFTER TENSIONING. USE SHIMS AS NEEDED.
CHECK ALL SPLICE CONNECTIONS FOR WASHERS. IF WASHERS ARE MISSING, REPLACE BOLTS.

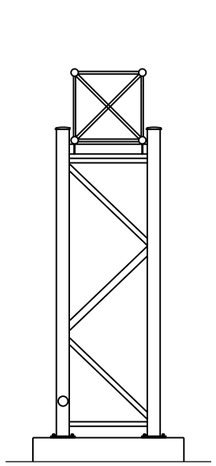


LOOKING WEST

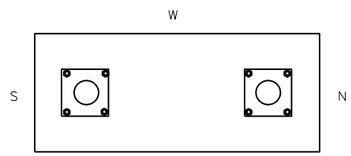


LOOKING SOUTH

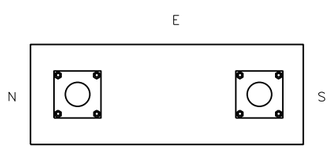
LOOKING EAST



LOOKING EAST



EAST FOUNDATION



WEST FOUNDATION

ITEM NUMBER	BID ITEMS	QTY	UNITS	REPAIR DETAIL SHEET NO.
SPV.0060.02	REMOVE GROUT PAD	4	EA	3
SPV.0060.06	TENSION STRUCTURAL BOLT	6	EA	5

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

ANCILLARY STRUCT REHAB/REPLACE 2022

DRAWN BY: MDG | PLANS CK'D.: MJM

S-40-0401

SHEET 16 OF 26
49

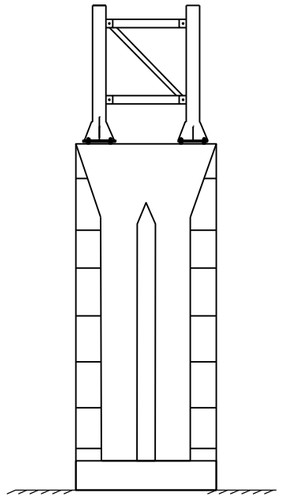
8

8

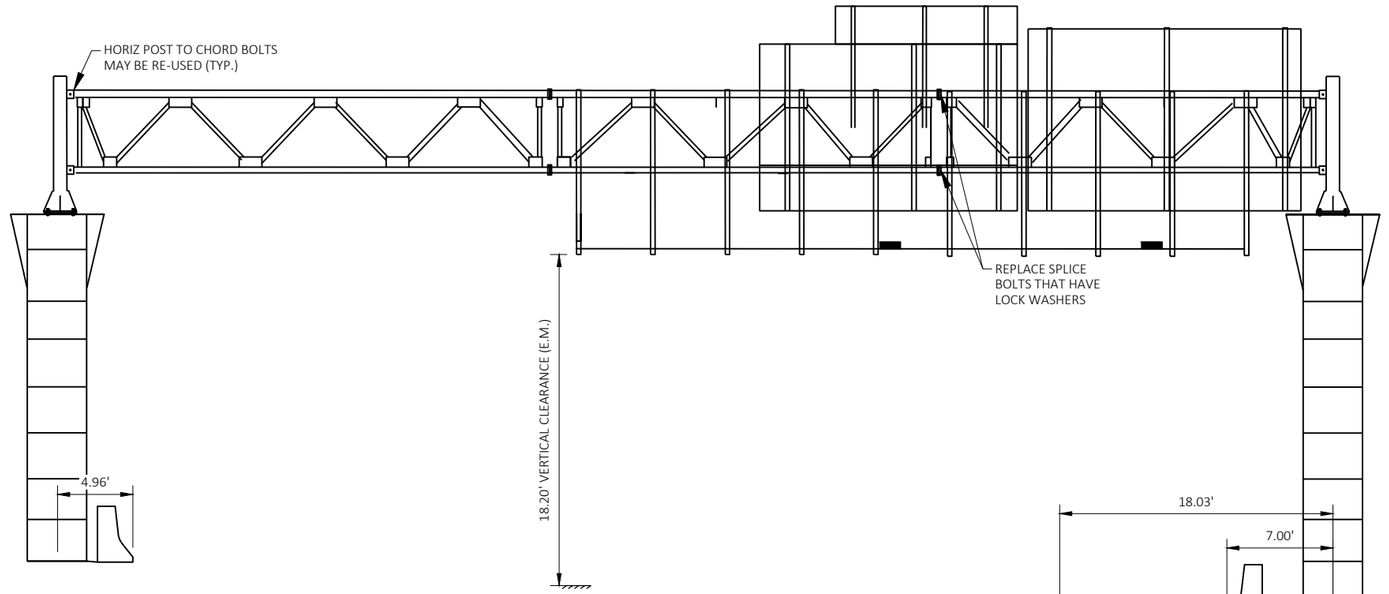
FILE NAME : G:\14050.01 - WISDOT SIGN REPAIR DESIGN WO1\CAD\SHEET DRAWINGS\S-40-0401.DWG
PLOT DATE : 12/15/2022 9:36 AM PLOT BY : MORGAN GRUBER

STATE PROJECT NUMBER
1000-20-64

NOTE:
STRUCTURE TRUSS TO BE REMOVED DURING ROLLING CLOSURE SO THAT IT CAN BE SUPPORTED DURING SPLICE BOLT REPLACEMENT AND REINSTALLED DURING ANOTHER ROLLING CLOSURE.
TRUSS TO BE SUPPORTED DURING WORK. MEASURE GAPS IN ALL SPLICES PRIOR TO START AND ENSURE GAPS ARE CLOSED AFTER TENSIONING. USE SHIMS AS NEEDED.



LOOKING WEST



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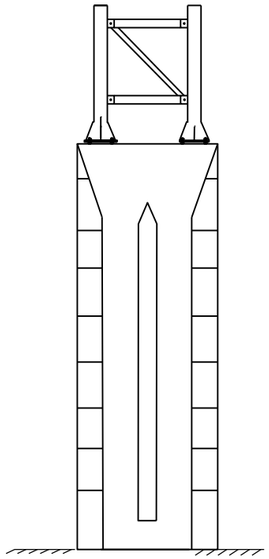

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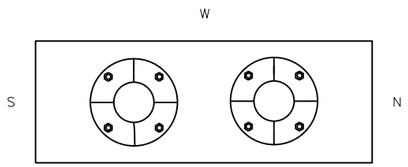
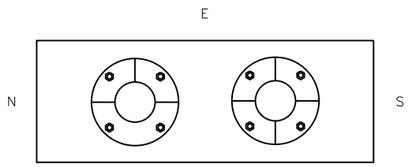


EAST FOUNDATION



WEST FOUNDATION

ITEM NUMBER	BID ITEMS	QTY	UNITS	REPAIR DETAIL SHEET NO.
SPV.0060.05	SNUG TIGHT BOLT	8	EA	5
SPV.0060.06	TENSION STRUCTURAL BOLT	18	EA	5

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

ANCILLARY STRUCT REHAB/REPLACE 2022

DRAWN BY MDG | PLANS CK'D. MJM

S-40-0509

SHEET 50 OF 26

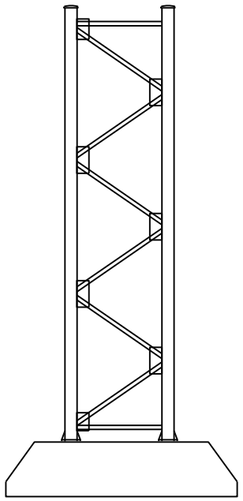
FILE NAME : G:\14050.01 - WISDOT SIGN REPAIR DESIGN WO1\CAD\SHEET DRAWINGS\S-40-0509.DWG
PLOT DATE : 12/15/2022 9:37 AM PLOT BY : MORGAN GRUBER

8

8

STATE PROJECT NUMBER

1000-20-64



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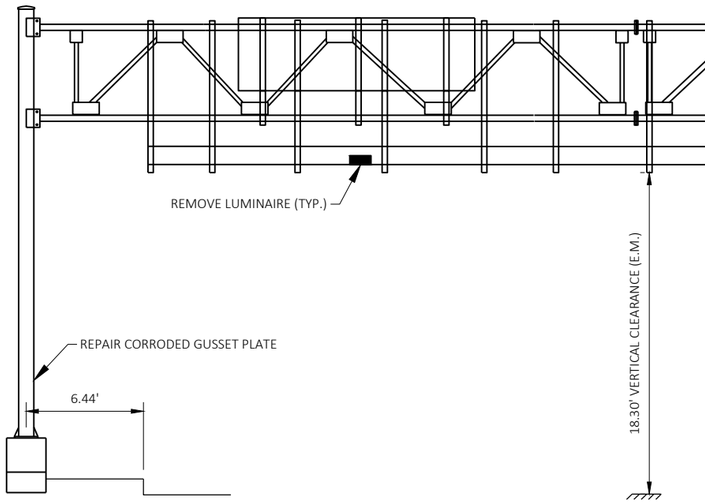

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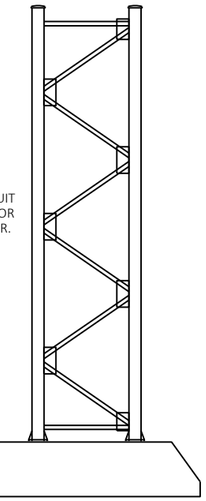

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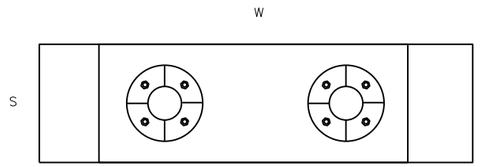
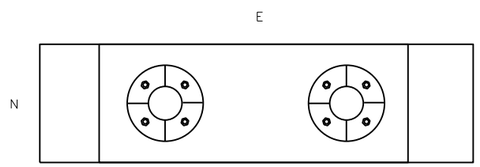


EAST FOUNDATION



WEST FOUNDATION

ITEM NUMBER	BID ITEMS	QTY	UNITS	REPAIR DETAIL SHEET NO.
SPV.0060.08	REMOVE CATWALK AND L-BRACKETS	1	EA	8
SPV.0060.13	LUMINAIRE ITEMS	2	EA	11
SPV.0165.01	REPAIR GALVANIZED COATING	1	SF	

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

ANCILLARY STRUCT REHAB/REPLACE 2022

DRAWN BY: MDG | PLANS CK'D.: MJM

S-40-0817

SHEET 51 OF 26

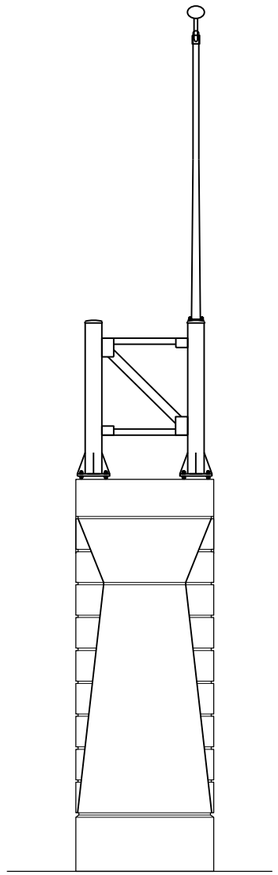
8

8

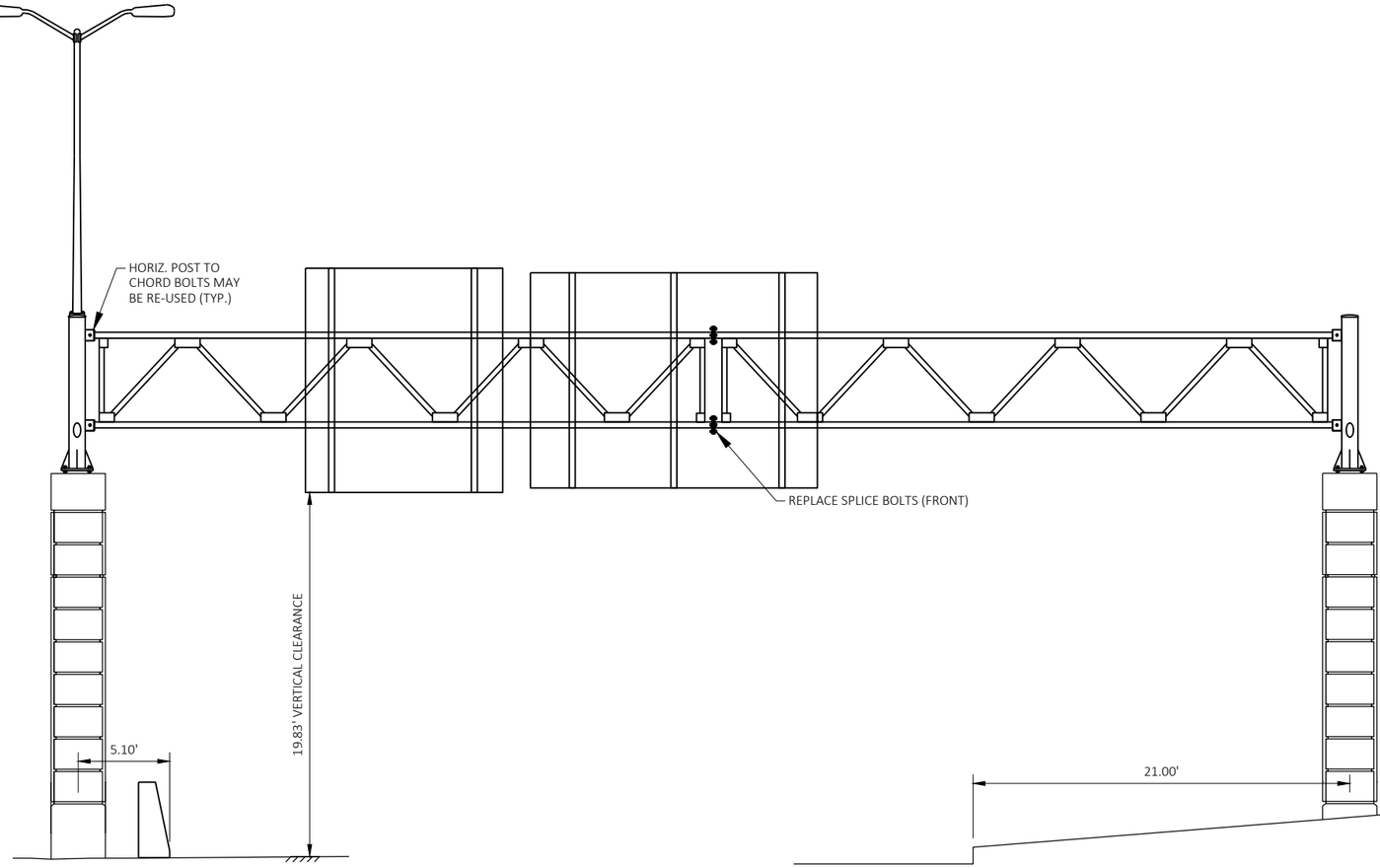
FILE NAME : G:\14050.01 - WISDOT SIGN REPAIR DESIGN WO1\CAD\SHEET DRAWINGS\S-40-0817.DWG
PLOT DATE : 12/15/2022 9:38 AM PLOT BY : MORGAN GRUBER

STATE PROJECT NUMBER
1000-20-64

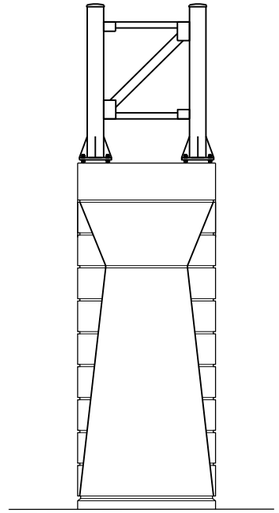
NOTE:
STRUCTURE TRUSS TO BE REMOVED DURING ROLLINGS CLOSURE SO THAT IT CAN BE SUPPORTED DURING SPLICE BOLT REPLACEMENT AND REINSTALLED DURING ANOTHER ROLLING CLOSURE.
TRUSS TO BE SUPPORTED DURING WORK. MEASURE GAPS IN ALL SPLICES PRIOR TO START AND ENSURE GAPS ARE CLOSED AFTER TENSIONING. USE SHIMS AS NEEDED.
ANCHOR RODS TO BE TENSIONED PRIOR TO RE-INSTALLING TRUSS.



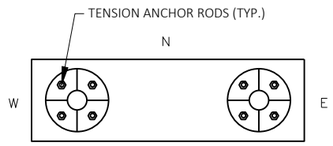
LOOKING NORTH



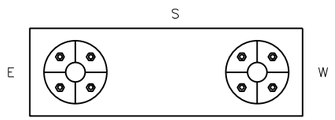
LOOKING WEST



LOOKING SOUTH



SOUTH FOUNDATION



NORTH FOUNDATION

ITEM NUMBER	BID ITEMS	QTY	UNITS	REPAIR DETAIL SHEET NO.
SPV.0060.03	TENSION ANCHOR ROD	16	EA	3
SPV.0060.05	SNUG TIGHT BOLT	8	EA	7
SPV.0060.06	TENSION STRUCTURAL BOLT	6	EA	5

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

ANCILLARY STRUCT REHAB/REPLACE 2022

DRAWN BY MDG | PLANS CK'D. MJM

S-40-0841

SHEET 52 OF 26

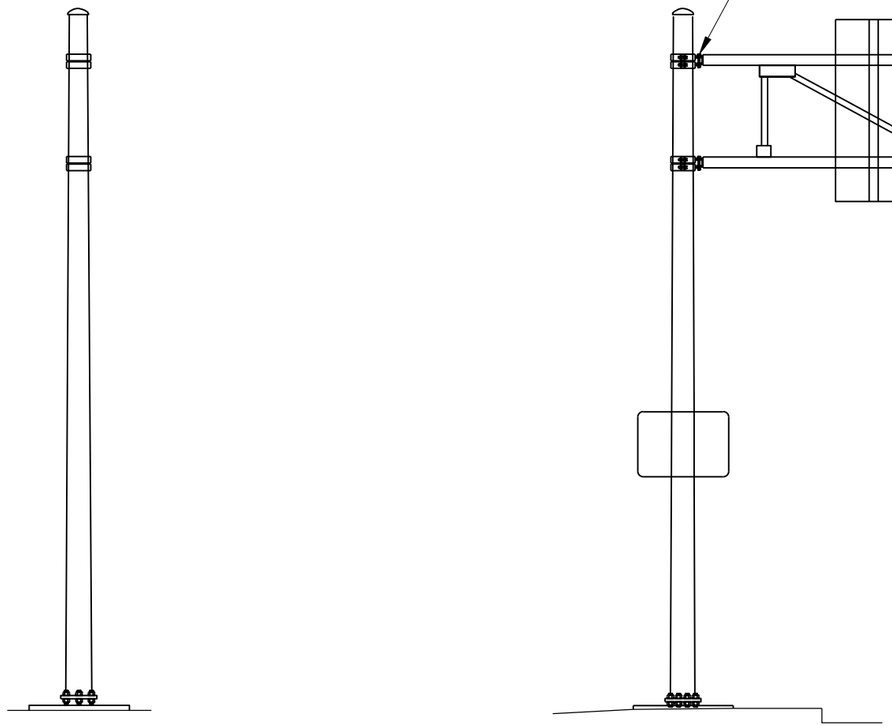
8

8

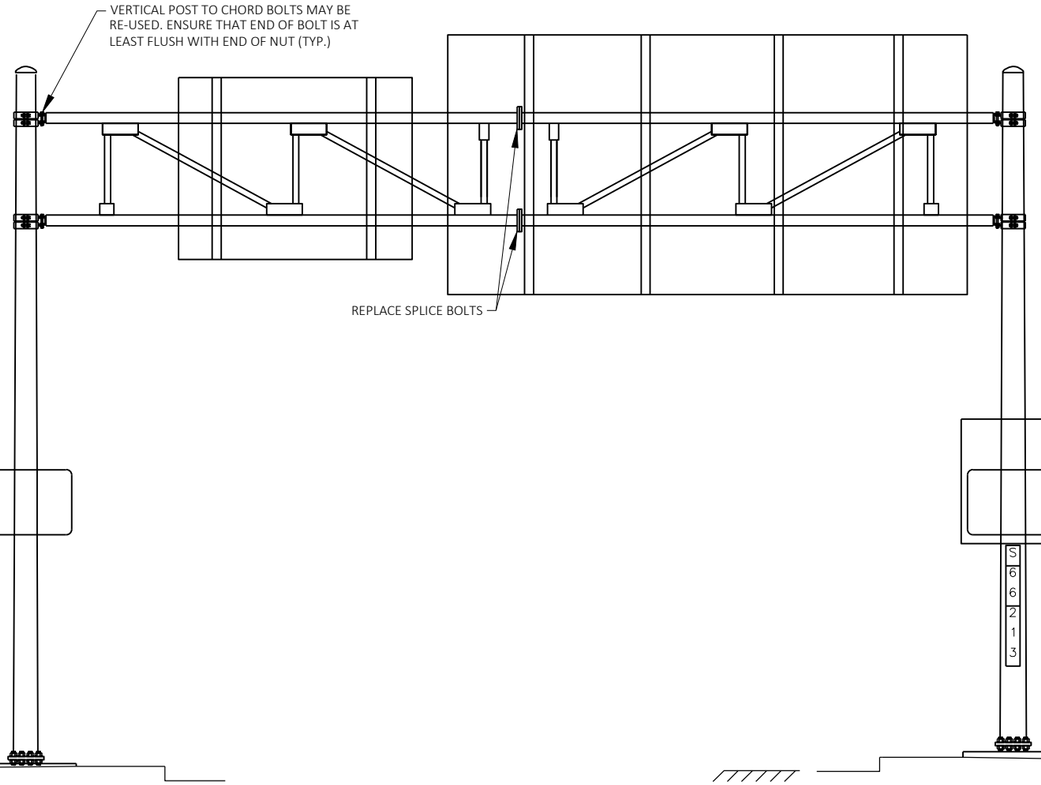
FILE NAME : G:\140S0.01 - WISDOT SIGN REPAIR DESIGN WO1\CAD\SHEET DRAWINGS\S-40-0841.DWG
PLOT DATE : 12/15/2022 9:39 AM PLOT BY : MORGAN GRUBER

STATE PROJECT NUMBER
1000-20-64

NOTE:
STRUCTURE TRUSS TO BE REMOVED DURING ROLLING CLOSURE SO THAT IT CAN BE SUPPORTED DURING SPLICE BOLT REPLACEMENT AND REINSTALLED DURING ANOTHER ROLLING CLOSURE.
TRUSS TO BE SUPPORTED DURING WORK. MEASURE GAPS IN ALL SPLICES PRIOR TO START AND ENSURE GAPS ARE CLOSED AFTER TENSIONING. USE SHIMS AS NEEDED.
ANCHOR RODS TO BE TENSIONED PRIOR TO RE-INSTALLING TRUSS.

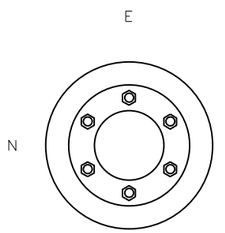


LOOKING EAST

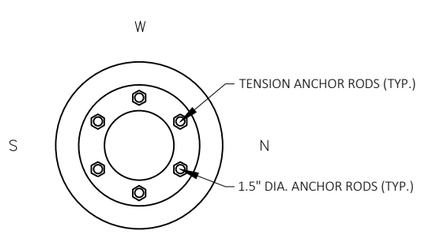


LOOKING NORTH

LOOKING WEST



WEST FOUNDATION



EAST FOUNDATION

ITEM NUMBER	BID ITEMS	QTY	UNITS	REPAIR DETAIL SHEET NO.
SPV.0060.03	TENSION ANCHOR ROD	12	EA	3
SPV.0060.05	SNUG TIGHT BOLT	4	EA	5
SPV.0060.06	TENSION STRUCTURAL BOLT	6	EA	5

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

ANCILLARY STRUCT REHAB/REPLACE 2022

DRAWN BY: MDG | PLANS CK'D.: MJM

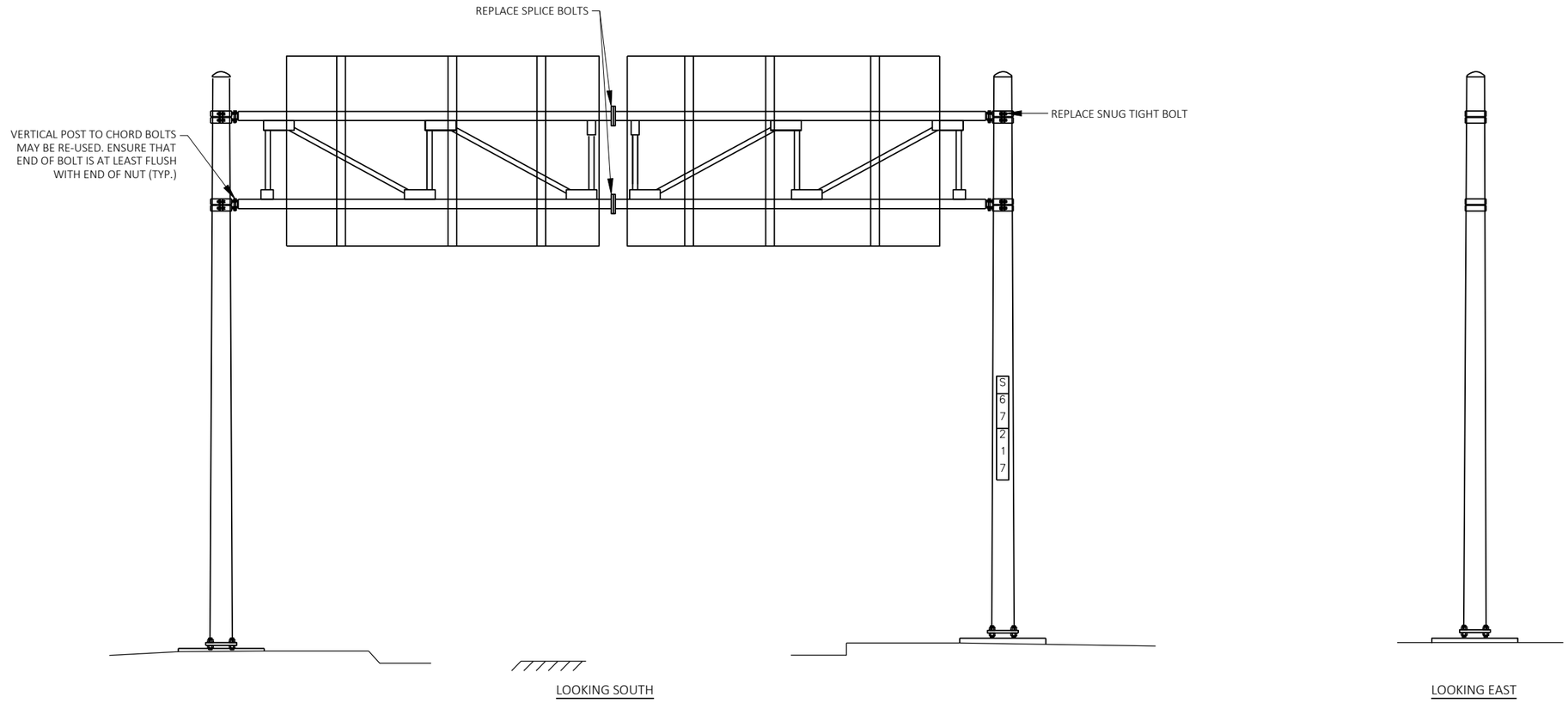
S-66-0213

SHEET 53 OF 26

FILE NAME : G:\14050.01 - WISDOT SIGN REPAIR DESIGN WO1\CAD\SHEET DRAWINGS\S-66-0213.DWG
PLOT DATE : 12/15/2022 9:39 AM PLOT BY : MORGAN GRUBER

STATE PROJECT NUMBER
1000-20-64

NOTE:
STRUCTURE TRUSS TO BE REMOVED DURING ROLLING CLOSURE SO THAT IT CAN BE SUPPORTED DURING SPLICE BOLT REPLACEMENT AND REINSTALLED DURING ANOTHER ROLLING CLOSURE.
TRUSS TO BE SUPPORTED DURING WORK. MEASURE GAPS IN ALL SPLICES PRIOR TO START AND ENSURE GAPS ARE CLOSED AFTER TENSIONING. USE SHIMS AS NEEDED.



ITEM NUMBER	BID ITEMS	QTY	UNITS	REPAIR DETAIL SHEET NO.
SPV.0060.05	SNUG TIGHT BOLT	5	EA	5
SPV.0060.06	TENSION STRUCTURAL BOLT	12	EA	5

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

ANCILLARY STRUCT REHAB/REPLACE 2022

DRAWN BY MDG | PLANS CK'D. MJM

S-66-0217

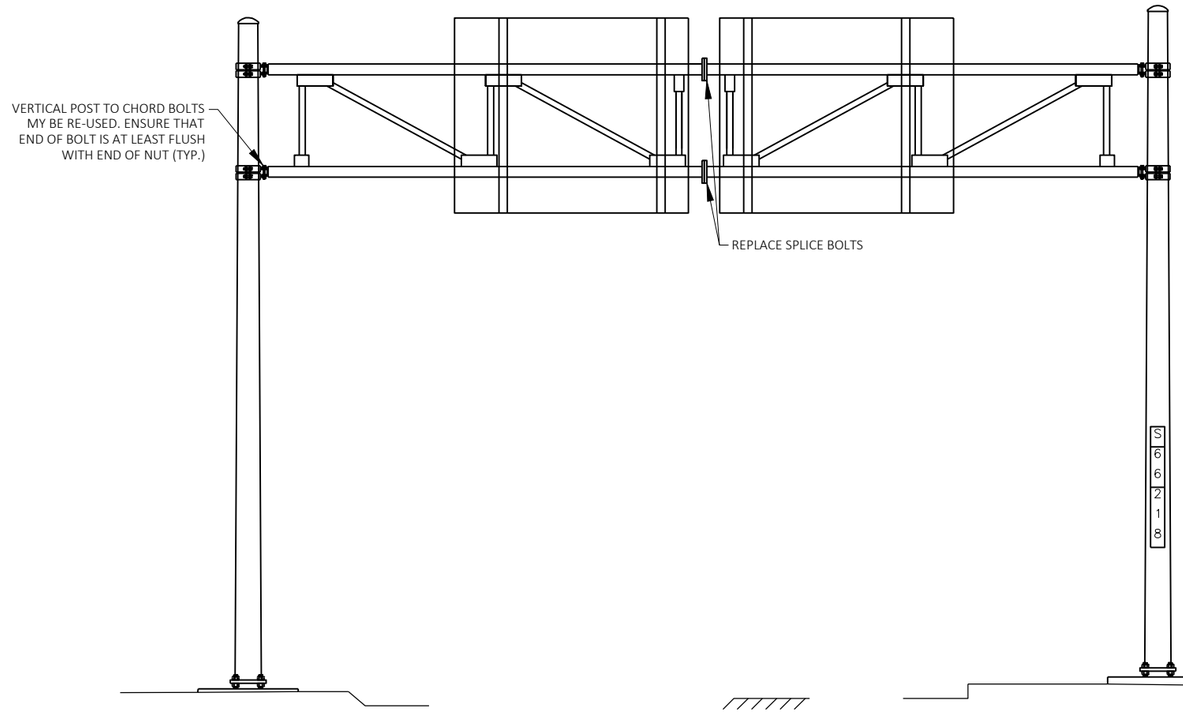
SHEET 54 OF 26

8

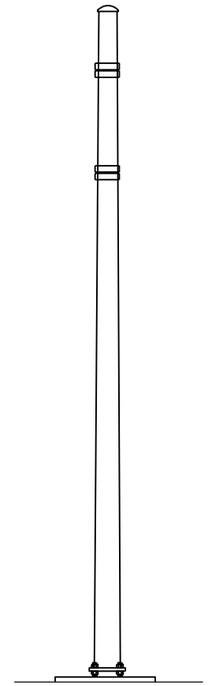
FILE NAME : G:\140500.01 - WISDOT SIGN REPAIR DESIGN WO1\CAD\SHEET DRAWINGS\S-66-0217.DWG
PLOT DATE : 12/15/2022 9:40 AM PLOT BY : MORGAN GRUBER

STATE PROJECT NUMBER
1000-20-64

NOTE:
STRUCTURE TRUSS TO BE REMOVED DURING ROLLING CLOSURE SO THAT IT CAN BE SUPPORTED DURING SPLICE BOLT REPLACEMENT AND REINSTALLED DURING ANOTHER ROLLING CLOSURE.
TRUSS TO BE SUPPORTED DURING WORK. MEASURE GAPS IN ALL SPLICES PRIOR TO START AND ENSURE GAPS ARE CLOSED AFTER TENSIONING. USE SHIMS AS NEEDED.



LOOKING WEST



LOOKING SOUTH

8

8

ITEM NUMBER	BID ITEMS	QTY	UNITS	REPAIR DETAIL SHEET NO.
SPV.0060.05	SNUG TIGHT BOLT	4	EA	5
SPV.0060.06	TENSION STRUCTURAL BOLT	12	EA	5

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

ANCILLARY STRUCT REHAB/REPLACE 2022

DRAWN BY MDG | PLANS CK'D. MJM

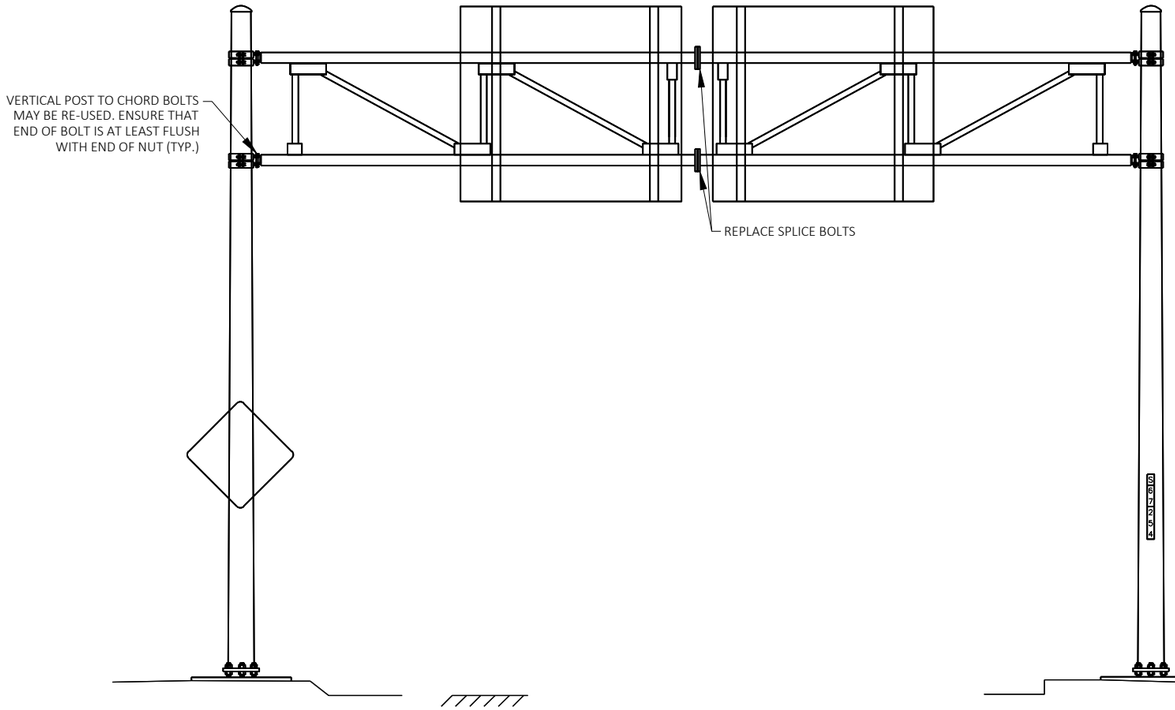
S-66-0218

SHEET 55 22 OF 26

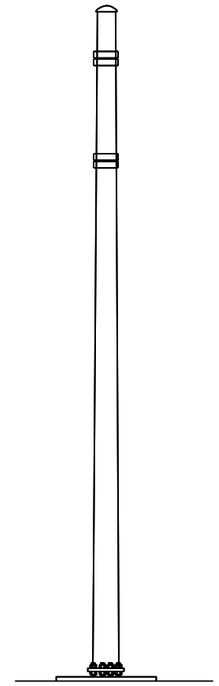
FILE NAME : G:\14050.01 - WISDOT SIGN REPAIR DESIGN WO1\CAD\SHEET DRAWINGS\S-66-0218.DWG
PLOT DATE : 12/15/2022 9:41 AM PLOT BY : MORGAN GRUBER

STATE PROJECT NUMBER
1000-20-64

NOTE:
STRUCTURE TRUSS TO BE REMOVED DURING ROLLING CLOSURE SO THAT IT CAN BE SUPPORTED DURING SPLICE BOLT REPLACEMENT AND REINSTALLED DURING ANOTHER ROLLING CLOSURE.
TRUSS TO BE SUPPORTED DURING WORK. MEASURE GAPS IN ALL SPLICES PRIOR TO START AND ENSURE GAPS ARE CLOSED AFTER TENSIONING. USE SHIMS AS NEEDED.



LOOKING EAST



LOOKING NORTH

8

8

ITEM NUMBER	BID ITEMS	QTY	UNITS	REPAIR DETAIL SHEET NO.
SPV.0060.05	SNUG TIGHT BOLT	4	EA	5
SPV.0060.06	TENSION STRUCTURAL BOLT	12	EA	5

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

ANCILLARY STRUCT REHAB/REPLACE 2022

DRAWN BY: MDG | PLANS CK'D.: MJM

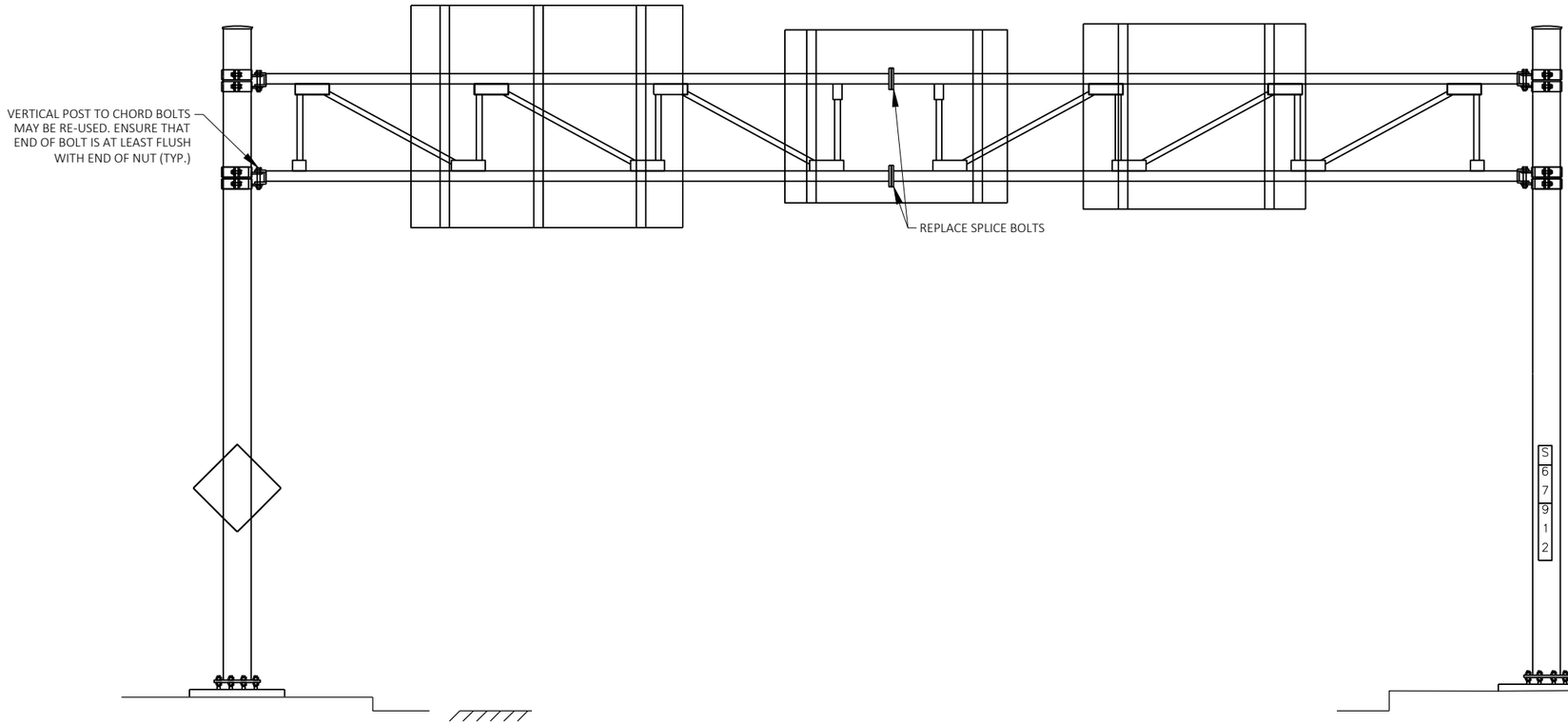
S-67-0254

SHEET 23 OF 26
56

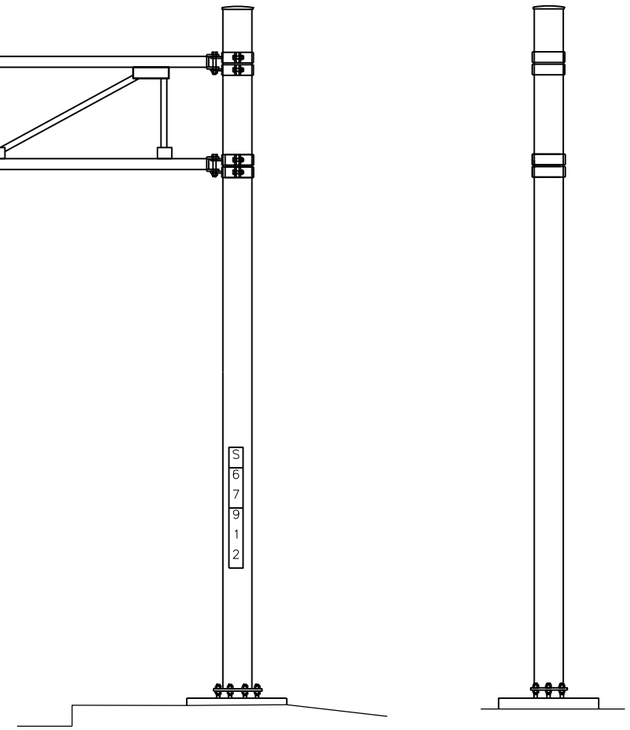
FILE NAME : G:\14050.01 - WISDOT SIGN REPAIR DESIGN WO1\CAD\SHEET DRAWINGS\S-67-0254.DWG
PLOT DATE : 12/15/2022 9:41 AM PLOT BY : MORGAN GRUBER

STATE PROJECT NUMBER
1000-20-64

NOTE:
STRUCTURE TRUSS TO BE REMOVED DURING ROLLING CLOSURE SO THAT IT CAN BE SUPPORTED DURING SPLICE BOLT REPLACEMENT AND REINSTALLED DURING ANOTHER ROLLING CLOSURE.
TRUSS TO BE SUPPORTED DURING WORK. MEASURE GAPS IN ALL SPLICES PRIOR TO START AND ENSURE GAPS ARE CLOSED AFTER TENSIONING. USE SHIMS AS NEEDED.



LOOKING NORTH



LOOKING WEST

8

8

ITEM NUMBER	BID ITEMS	QTY	UNITS	REPAIR DETAIL SHEET NO.
SPV.0060.05	SNUG TIGHT BOLT	4	EA	5
SPV.0060.06	TENSION STRUCTURAL BOLT	12	EA	5

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

ANCILLARY STRUCT REHAB/REPLACE 2022

DRAWN BY: MDG | PLANS CK'D.: MJM

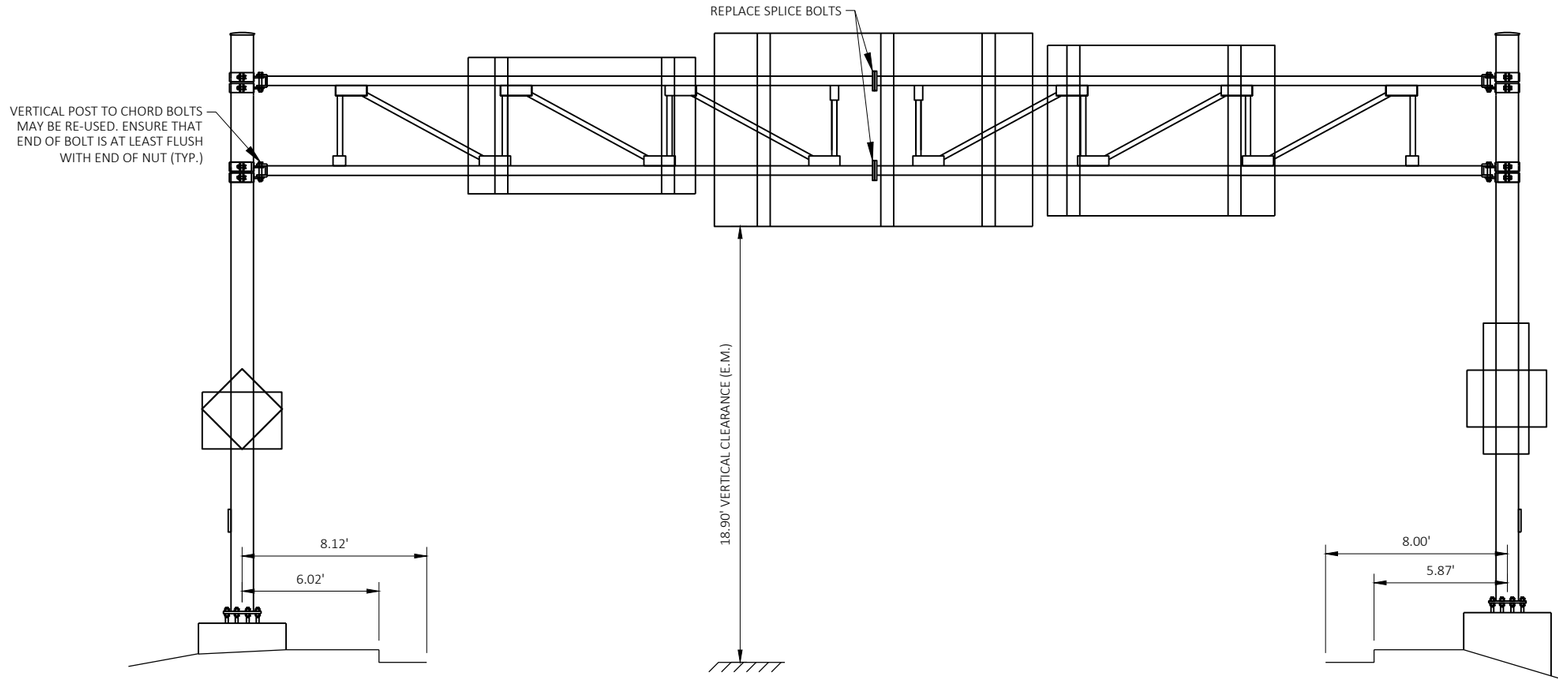
S-67-0912

SHEET 57 OF 26

FILE NAME : G:\14050.01 - WISDOT SIGN REPAIR DESIGN WO1\CAD\SHEET DRAWINGS\S-67-0912.DWG
PLOT DATE : 12/15/2022 9:42 AM PLOT BY : MORGAN GRUBER

STATE PROJECT NUMBER
1000-20-64

NOTE:
STRUCTURE TRUSS TO BE REMOVED DURING RAMP CLOSURE SO THAT IT CAN BE SUPPORTED DURING SPLICE BOLT REPLACEMENT AND REINSTALLED.
TRUSS TO BE SUPPORTED DURING WORK. MEASURE GAPS IN ALL SPLICES PRIOR TO START AND ENSURE GAPS ARE CLOSED AFTER TENSIONING. USE SHIMS AS NEEDED.



LOOKING WEST

LOOKING SOUTH

ITEM NUMBER	BID ITEMS	QTY	UNITS	REPAIR DETAIL SHEET NO.
SPV.0060.05	SNUG TIGHT BOLT	4	EA	5
SPV.0060.06	TENSION STRUCTURAL BOLT	12	EA	5

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

ANCILLARY STRUCT REHAB/REPLACE 2022

DRAWN BY MDG | PLANS CK'D. MJM

S-67-0916

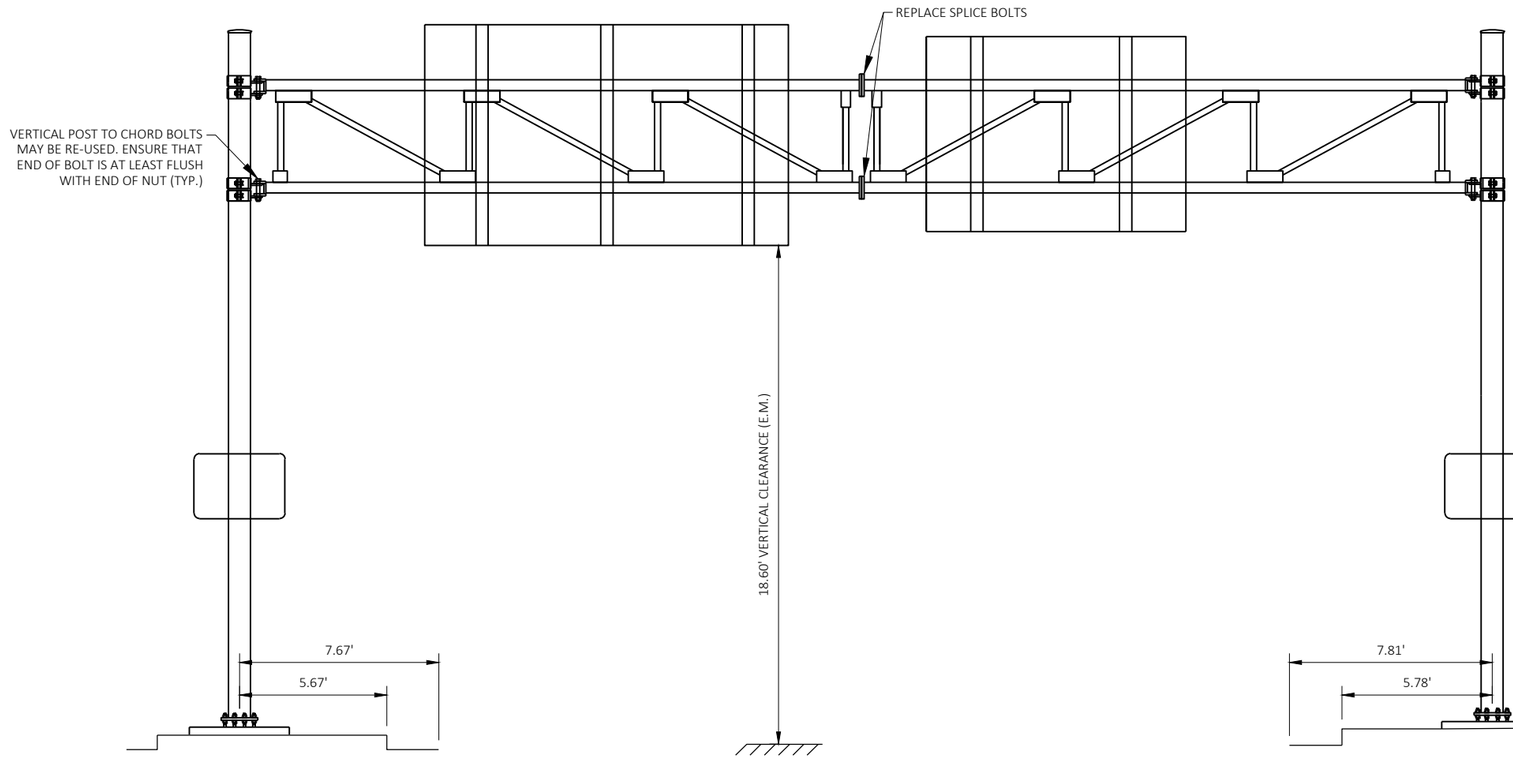
SHEET 58 25 OF 26

8

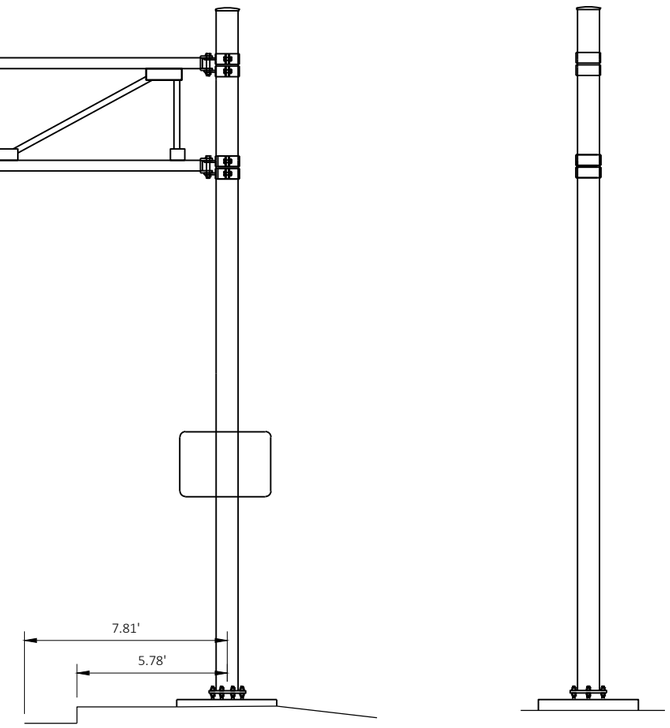
FILE NAME : G:\14050.01 - WISDOT SIGN REPAIR DESIGN WO1\CAD\SHEET DRAWINGS\S-67-0916.DWG
PLOT DATE : 12/15/2022 9:43 AM PLOT BY : MORGAN GRUBER

STATE PROJECT NUMBER
1000-20-64

NOTE:
STRUCTURE TRUSS TO BE REMOVED DURING RAMP CLOSURE SO THAT IT CAN BE SUPPORTED DURING SPLICE BOLT REPLACEMENT AND REINSTALLED.
TRUSS TO BE SUPPORTED DURING WORK. MEASURE GAPS IN ALL SPLICES PRIOR TO START AND ENSURE GAPS ARE CLOSED AFTER TENSIONING. USE SHIMS AS NEEDED.



LOOKING EAST



LOOKING NORTH

ITEM NUMBER	BID ITEMS	QTY	UNITS	REPAIR DETAIL SHEET NO.
SPV.0060.05	SNUG TIGHT BOLT	4	EA	5
SPV.0060.06	TENSION STRUCTURAL BOLT	12	EA	5

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

ANCILLARY STRUCT REHAB/REPLACE 2022

DRAWN BY: MDG | PLANS CK'D.: MJM

S-67-0917

SHEET 59 OF 26

8

8

Wisconsin Department of Transportation

Dedicated people creating transportation solutions
through innovation and exceptional service.

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