

GRE

PROJECT ID:  
WITH:

1009-30-15

COUNTY:

BROWN

MAY 2019  
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 = 72



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	
EXISTING CULVERT	
PROPOSED CULVERT (Box or Pipe)	
COMBUSTIBLE FLUIDS	
MARSH AREA	
WOODED OR SHRUB AREA	

PROFILE

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

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

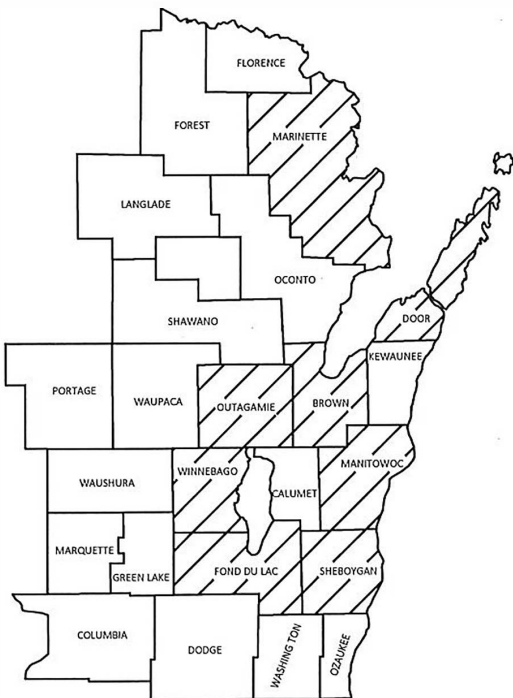
SIGN BRIDGE REPLACEMENT

REGIONWIDE VARIOUS ROUTES NE

VAR HWY

NORTHEAST REGION WIDE

STATE PROJECT NUMBER
1009-30-15



LAYOUT  
SCALE 0 0 MI

TOTAL NET LENGTH OF CENTERLINE = 0 MI

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
1009-30-15	WISC 2019291	1

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

PREPARED BY	
Surveyor	SURVEYOR
Designer	KYLE WITTE
Project Manager	KYLE TREML
Regional Examiner	REGIONAL EXAMINER
Regional Supervisor	ROB WAGNER

APPROVED FOR THE DEPARTMENT  
DATE: 1/24/19  
(Signature)

E



GENERAL NOTES  
THERE ARE UTILITY FACILITIES WITHIN THE PROJECT AREA THAT ARE NOT SHOWN ON THE PLANS. THE CONTRACTOR SHALL COORDINATE HIS CONSTRUCTION ACTIVITIES WITH A CALL TO DIGGERS HOTLINE AND/OR A DIRECT CALL TO THE UTILITIES THAT HAVE FACILITIES IN THE AREA. NOT ALL UTILITIES ARE MEMBERS OF DIGGERS HOTLINE.

STRUCTURE AS-BUILTS AND INSPECTION REPORTS CAN BE FOUND ON THE WISDOT HIGHWAY STRUCTURES INFORMATION (HSI) WEBSITE OR BY REQUEST THROUGH THE PROJECT MANAGER.

TRAFFIC CONTACTS:

JOSH FALK	920-366-8033	JOSHUA.FALK@DOT.WI.GOV
-----------	--------------	------------------------

STRUCTURE MAINTENANCE CONTACTS:

BRADY RADES	920-366-5684	BRADY.RADES@DOT.WI.GOV
-------------	--------------	------------------------

DNR LIASON:

JIM DOPERALSKI COUNTIES:	920-412-0165 BROWN, MARINETTE	JAMES.DOPERALSKI@WISCONSIN.GOV
MATT SCHAEVE COUNTIES:	920-366-1544 MANITOWOC, OUTAGAMIE	MATTHEW.SCHAEVE@WISCONSIN.GOV
JAY SCHIEFELBEIN COUNTIES:	920-360-3784 FOND DU LAC, OUTAGAMIE, SHEBOYGAN	JEREMIAH.SCHIEFELBEIN@WISCONSIN.GOV





BROWN

STRUCTURE NUMBER	HIGHWAY	DIRECTION	LOCATION
S-05-0108	IH 41	SB	IH 41 SB, 0.6 MILES SOUTH OF LINEVILLE RD
S-05-0176	IH 41	NB/SB	IH 41 MEDIAN, 0.55 MILES NORTH OF LOMBARDI AVE
S-05-0188	IH 41	NB/SB	IH 41 MEDIAN, 0.85 MILES NORTH OF STH 29
S-05-0212	LINEVILLE RD	EB/WB	LINEVILLE RD, 200 FT WEST OF 41 RAMPS
S-05-0252	STH 29	WB	IH 41 SB, 0.6 MILES SOUTH OF LINEVILLE RD
S-05-0253	IH 41	NB	IH 41 SB, 0.6 MILES SOUTH OF LINEVILLE RD
S-05-0270	CTH EB	NB/SB	IH 41 SB, 0.6 MILES SOUTH OF LINEVILLE RD
S-05-0285	LINEVILLE RD	EB/WB	IH 41 SB, 0.6 MILES SOUTH OF LINEVILLE RD

DOOR

STRUCTURE NUMBER	HIGHWAY	DIRECTION	LOCATION
S-15-0017	STH 42	NB	STH 42 NB, 0.12 MILES NORTH OF CTH TT
S-15-0018	STH 42	SB	STH 42 SB, 0.3 MILES NORTH OF CTH T

FOND DU LAC

STRUCTURE NUMBER	HIGHWAY	DIRECTION	LOCATION
S-20-0022	IH 41	NB	IH 41 NB, 0.33 MILES NORTH OF HICKORY ST
S-20-0023	IH 41	SB	IH 41 NB, 0.33 MILES SOUTH OF S MILITARY RD
S-20-0040	CTH D	WB	CTH D WB, 0.15 MILES EAST OF USH 151

MANITOWOC

STRUCTURE NUMBER	HIGHWAY	DIRECTION	LOCATION
S-36-0014-000A	STH 32	EB	STH 32 EB, ROUNDABOUT AT 32/67
S-36-0015	STH 32	WB	STH 32 EB, ROUNDABOUT AT 32/67
S-36-0023	CUSTER ST	SB	CUSTER ST SB/USH 151 INTERSECTION
S-36-0024	MARSHALL ST	NB	MARSHALL ST NB/USH 151 INTERSECTION

MARINETTE

STRUCTURE NUMBER	HIGHWAY	DIRECTION	LOCATION
S-38-0007	USH 141	NB	USH 141 NB, 0.25 MILES SOUTH OF STH 64
S-38-0008	USH 141	SB	USH 141 SB, 0.35 MILES NORTH OF STH 64
S-38-0011	USH 41	SB	USH 41/STH 64 INTERSECTION

OUTAGAMIE

STRUCTURE NUMBER	HIGHWAY	DIRECTION	LOCATION
S-44-0032	USH 41	SB	USH 41 SB, 0.32 MILES EAST OF STH 47
S-44-0106	STH 47	SB	STH 47/IH 41 INTERCHANGE

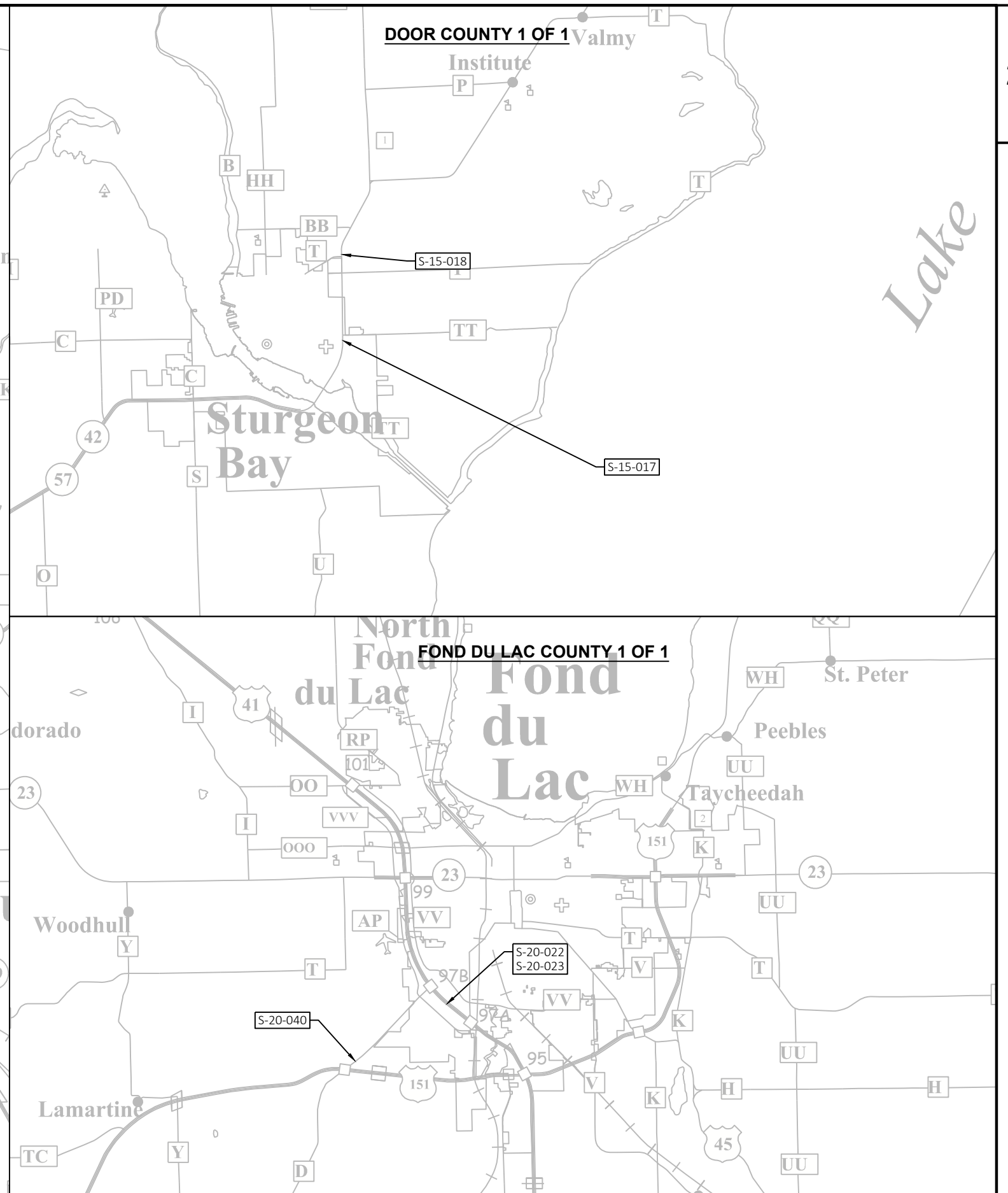
SHEBOYGAN

STRUCTURE NUMBER	HIGHWAY	DIRECTION	LOCATION
S-59-0033	STH 42	WB	STH 42 WB, ROUNDABOUT AT STH 42/CTH Y
S-59-0035	STH 42	WB	STH 42 WB, ROUNDABOUT 0.25 MILES WEST OF IH 43

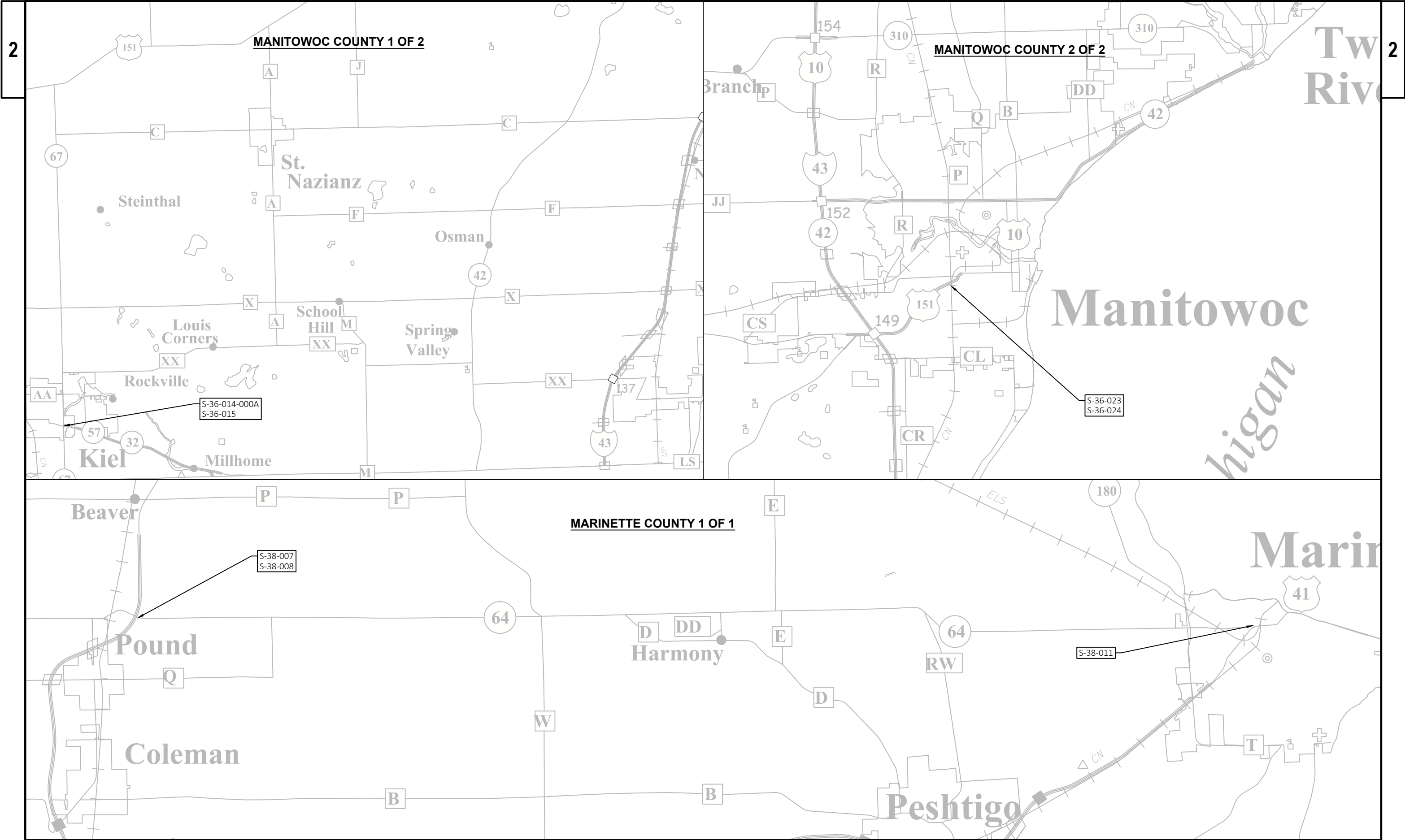
WINNEBAGO

STRUCTURE NUMBER	HIGHWAY	DIRECTION	LOCATION
S-70-0047	STH 21	EB	STH 21 EB OVER FOX RIVER
S-70-0048	STH 21	WB	STH 21 WB OVER FOX RIVER
S-70-0052	IH 41	SB	IH 41 SB, 0.5 MILES SOUTH OF STH 26
S-70-0053	IH 41	SB	IH 41 SB, 0.1 MILES SOUTH OF STH 26
S-70-0056	IH 41	SB	IH 41 SB, 0.28 MILES NORTH OF STH 44
S-70-0059	IH 41	SB	IH 41 SB, 0.17 MILES SOUTH OF WITZEL AVE
S-70-0068	IH 41	SB	IH 41 SB, 0.37 MILES NORTH OF USH 45
S-70-0111	USH 45	NB	USH 45 NB, 0.37 MILES SOUTH OF IH 41
S-70-0158	STH 76	NB	STH 76 NB/W SUNNYVIEW RD INTERSECTION
S-70-0180	STH 114	EB	STH 114 EB, AT E WINNECONNE AVE INTERSECTION



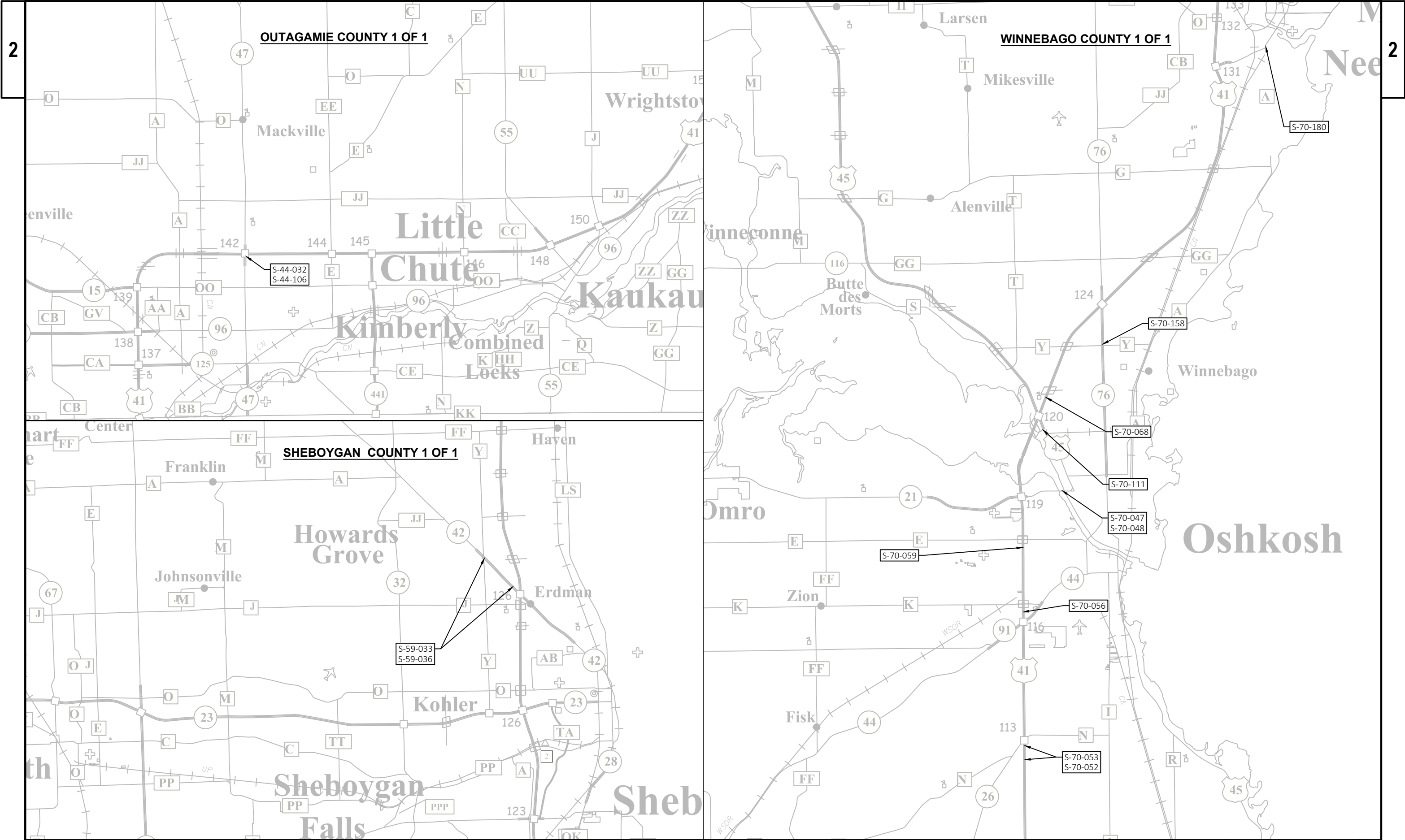






PROJECT NO: 1009-30-15	HWY: VARIOUS	COUNTY: BROWN	SIGN LOCATIONS	SHEET	E
------------------------	--------------	---------------	----------------	-------	---







COUNTY	STRUCTURE NUMBER	HIGHWAY	DIRECTION OF TRAVEL	LOCATION	TRAFFIC CONTROL	RESTRICTED HOURS	PCMS
Brown	S-05-0108	USH 41	SB	USH 41 NORTH OF LAKEVIEW DRIVE	Lane closure	M-F: 6am-8am	x
Brown	S-05-0176	IH 41	NB/SB	IH 41 SOUTH OF 9TH STREET	Shoulder closure	NONE	
Brown	S-05-0188	IH 41	NB/SB	IH 41 NORTH OF MEMORIAL DRIVE	Shoulder closure	NONE	
Brown	S-05-0212	CTH M	EB/WB	CTH M BETWEEN NB RAMPS AND E DEERFIELD AVE	Lane closure	WB: 7am-9am	
Brown	S-05-0252	STH 29	WB	STH 29 BETWEEN IH 41 NB RAMPS AND TAYLOR STREET	Shoulder closure	NONE	
Brown	S-05-0253	IH 41	NB	IH 41 NB EXIT RAMP TO SHAWANO AVENUE	Lane closure	NONE	
Brown	S-05-0270	CTH EB	NB/SB	CTH EB BETWEEN CTH RK AND STH 29 EB EXIT RAMP	Lane closure	M-F: 6am-9am, 3pm-6pm	
Brown	S-05-0285	CTH M	EB/WB	CTH M BETWEEN THE USH 41 ON/OFF RAMPS	Lane closure	WB: 3pm-6pm EB: 7am-9am	
Door	S-15-0017	STH 42	NB	STH 42 NORTH OF CTH TT	Lane closure	Friday: Noon-7pm	
Door	S-15-0018	STH 42	SB	STH 42 NORTH OF EGG HARBOR ROAD	Lane closure	Friday: Noon-7pm	
Fond du Lac	S-20-0022	IH 41	NB	IH 41 NORTH OF HICKORY STREET	Shoulder closure	NONE	
Fond du Lac	S-20-0023	IH 41	SB	IH 41 SOUTH OF MILITARY ROAD	Lane closure	M-F: 6am-6pm, Sat: 9am-6pm, Sun: 9am-8pm	x
Fond du Lac	S-20-0040	CTH D	WB	CTH D NORTH OF USH 151	Lane closure	NONE	
Manitowoc	S-36-0014-000A	STH 32	EB	STH 32 WEST OF STH 67	Lane closure	NONE	
Manitowoc	S-36-0015	STH 32	WB	STH 32 EAST OF STH 67	Lane closure	NONE	
Manitowoc	S-36-0023	LRD	EB	CUSTER STREET WEST OF USH 151	Lane closure	NONE	
Manitowoc	S-36-0024	LRD	WB	CUSTER STREET EAST OF USH 151	Lane closure	NONE	
Marinette	S-38-0007	USH 141	NB	USH 141 SOUTH OF STH 64	Shoulder closure	NONE	
Marinette	S-38-0008	USH 141	SB	USH 141 NORTH OF STH 64	Lane closure	NONE	
Marinette	S-38-0011	USH 41	WB	USH 41 BETWEEN HATTIE STREET AND STATE STREET	Lane closure	M-F: 3pm-6pm	
Outagamie	S-44-0032	IH 41	SB	IH 41 BETWEEN STH 47 AND MEADE STREET	Shoulder closure	NONE	
Outagamie	S-44-0106	STH 47	SB	STH 47 BETWEEN THE IH 41 ON/OFF RAMPS	Lane closure	M-F: 3pm-6pm	
Sheboygan	S-59-0033	STH 42	WB	STH 42 EAST OF CTH Y	Lane closure	NONE	
Sheboygan	S-59-0035	STH 42	WB	STH 42 BETWEEN VANGUARD DRIVE AND IH 43 SB ON/OFF RAMPS	Lane closure	NONE	
Winnebago	S-70-0047	USH 21	EB	USH 21 BETWEEN SAWYER STREET AND THE FOX RIVER	Lane closure	NONE	
Winnebago	S-70-0048	USH 21	WB	USH 21 BETWEEN SUMMIT AVENUE AND THE FOX RIVER	Lane closure	NONE	
Winnebago	S-70-0052	IH 41	SB	IH 41 BETWEEN NEKIMI AVENUE AND PICKETT ROAD	Shoulder closure	NONE	
Winnebago	S-70-0053	IH 41	SB	IH 41 SOUTH OF STH 26	Shoulder closure	NONE	
Winnebago	S-70-0056	IH 41	SB	IH 41 BETWEEN 20TH AVE AND STH 44	Shoulder closure	NONE	
Winnebago	S-70-0059	IH 41	SB	IH 41 BETWEEN WITZEL AVE AND 9TH AVE	Shoulder closure	NONE	
Winnebago	S-70-0068	IH 41	SB	IH 41 BETWEEN SNELL RD AND USH 45	Shoulder closure	NONE	
Winnebago	S-70-0011	USH 45	NB	USH 45 SOUTH OF LAKE BUTTE DES MORTS DR	Lane closure	M-F: 3pm-6pm	
Winnebago	S-70-0158	STH 76	NB	STH 76 NORTH OF CTH Y	Shoulder closure	NONE	
Winnebago	S-70-0180	STH 114	EB	STH 114 BETWEEN CHURCH ST AND COMMERCIAL ST	Lane closure	M-F: 6am-9am	

NOTES:

- RESTRICTED HOURS INDICATE THE TIME FRAMES WHEN LANE CLOSURES ARE NOT PERMITTED.
- A THREE DAY ADVANCE NOTICE NEEDED FOR PCMS PLACEMENT. PCMS NEEDED FOR ALL FULL CLOSURES (RAMP, DIRECTION OF TRAVEL, ETC)
- IF AN AUXILIARY LANE IS ADJACENT TO A RIGHT LANE CLOSURE CLOSE BOTH LANES.
- RAMPS SHOULD REMAIN OPEN WHENEVER POSSIBLE
- TRAFFIC CONTROL NEEDS ARE SUBJECT TO CHANGE. MODIFICATION TO THE TYPE OF CLOSURE SHALL BE APPROVED BY THE REGION TRAFFIC CONTROL ENGINEER.



Estimate Of Quantities

1009-30-15

Line	Item	Item Description	Unit	Total	Qty
0002	619.1000	Mobilization	EACH	1.000	1.000
0004	637.2220	Signs Type II Reflective SH	SF	35.000	35.000
0006	638.2602	Removing Signs Type II	EACH	1.000	1.000
0008	643.1050	Traffic Control Signs PCMS	DAY	6.000	6.000
0010	643.5000	Traffic Control	EACH	1.000	1.000
0012	SPV.0060	Special 01. Tension Anchor Rod	EACH	138.000	138.000
0014	SPV.0060	Special 02. Remove Debris and Regrade	EACH	1.000	1.000
0016	SPV.0060	Special 03. Replace Rodent Screen	EACH	6.000	6.000
0018	SPV.0060	Special 04. Replace Foundation	EACH	1.000	1.000
0020	SPV.0060	Special 05. Adjust Standoff	EACH	2.000	2.000
0022	SPV.0060	Special 06. Tension Structural Connection Bolt (Friction)	EACH	13.000	13.000
0024	SPV.0060	Special 07. Tighten Connection Bolt (Non-Friction)	EACH	2.000	2.000
0026	SPV.0060	Special 08. Secure/Replace Cap	EACH	9.000	9.000
0028	SPV.0060	Special 09. Replace Type II Sign Support Bracket	EACH	1.000	1.000
0030	SPV.0060	Special 10. Replace Sign Connection Hardware	EACH	9.000	9.000
0032	SPV.0060	Special 11. Replace Sign Connection Clamp	EACH	5.000	5.000
0034	SPV.0060	Special 12. Install Conduit Plug	EACH	1.000	1.000
0036	SPV.0060	Special 13. Install ID Plaque	EACH	1.000	1.000
0038	SPV.0060	Special 14. Install Sign Panel Connector	EACH	1.000	1.000
0040	SPV.0060	Special 15. Adjust Vertical Clearance	EACH	2.000	2.000
0042	SPV.0060	Special 16. Traffic Control - Single Lane Closure	EACH	32.000	32.000
0044	SPV.0060	Special 17. Traffic Control - Double Lane Closure	EACH	3.000	3.000



STRUCTURE NUMBER	COUNTY	SIGN CODE	W X H	637.2220 SIGNS TYPE II REFLECTIVE SH S.F.	638.2602 REMOVING SIGNS TYPE II EA
S-59-0035	SHEBOYGAN	R3-6X	42" X 48"	14	-
S-70-0068	WINNEBAGO	J3-1	36" X 84"	21	1
				35	1

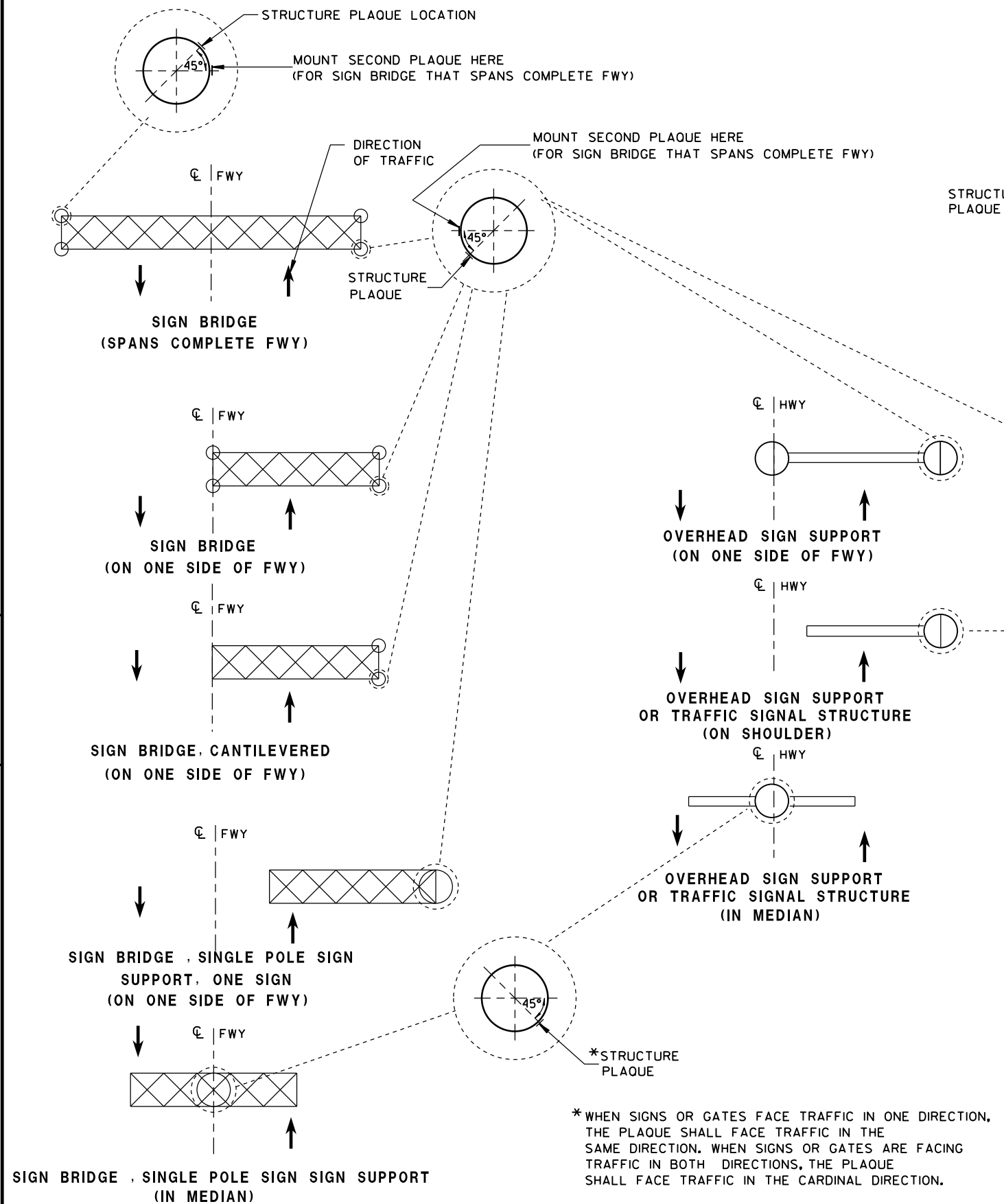
STRUCTURE NUMBER	COUNTY	643.1050	SPV.0060.01	SPV.0060.02	SPV.0060.03	SPV.0060.04	SPV.0060.05	SPV.0060.06	SPV.0060.07	SPV.0060.08	SPV.0060.09	SPV.0060.10	SPV.0060.11	SPV.0060.12	SPV.0060.13	SPV.0060.14	SPV.0060.15	SPV.0060.16	SPV.0060.17
		TRAFFIC CONTROL SIGNS PCMS	TENSION ANCHOR ROD	REMOVE DEBRIS AND REGRADE	REPLACE RODENT SCREEN	REPLACE FOUNDATION	ADJUST STANDOFF	TENSION STRUCTURAL CONNECTION BOLT (FRICTION)	TIGHTEN CONNECTION BOLT (NON- FRICTION)	SECURE / REPLACE CAP	REPLACE TYPE II SIGNS SUPPORT BRACKET	REPLACE SIGN CONNECTION HARDWARE	REPLACE SIGN CONNECTION CLAMP	INSTALL CONDUIT PLUG	INSTALL ID PLAQUE	INSTALL SIGN PANEL CONNECTOR	ADJUST VERTICAL CLEARANCE	TRAFFIC CONTROL - SINGLE LANE CLOSURE	TRAFFIC CONTROL - DOUBLE LANE CLOSURE
		DAY	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA
S-05-0108	BROWN	3			2					1		2		1					2
S-05-0176	BROWN						1												
S-05-0188	BROWN						1												
S-05-0212	BROWN								1									1	
S-05-0252	BROWN		12															2	
S-05-0253	BROWN		12															2	
S-05-0270	BROWN		12															2	
S-05-0285	BROWN								1									1	
S-15-0017	DOOR		6		1													1	
S-15-0018	DOOR		6															1	
S-20-0022	FOND DU LAC		8							1									
S-20-0023	FOND DU LAC	3								2								1	
S-20-0040	FOND DU LAC							4				1						1	
S-36-0140-00A	MANITOWOC		6												1			1	
S-36-0015	MANITOWOC		6															1	
S-36-0023	MANITOWOC		8									1	1					2	
S-36-0024	MANITOWOC		8									1	2					1	1
S-38-0007	MARINETTE		8																
S-38-0008	MARINETTE		8													1		1	
S-38-0011	MARINETTE												2					2	
S-44-0032	OUTAGAMIE							1											
S-44-0106	OUTAGAMIE									1								2	
S-59-0033	SHEBOYGAN			1				4				2						2	
S-59-0035	SHEBOYGAN							4			1	1						2	
S-70-0047	WINNEBAGO				1					2								2	
S-70-0048	WINNEBAGO				1					2							2	2	
S-70-0052	WINNEBAGO		8																
S-70-0053	WINNEBAGO		8																
S-70-0056	WINNEBAGO		8																
S-70-0059	WINNEBAGO		8																
S-70-0068	WINNEBAGO																		
S-70-0111	WINNEBAGO		6															1	
S-70-0158	WINNEBAGO				1														
S-70-0180	WINNEBAGO					1						1	5	1	1	1	2	1	3
TOTAL:		6	138	1	6	1	2	13	2	9	1	9	5	1	1	1	2	32	3



Standard Detail Drawing List

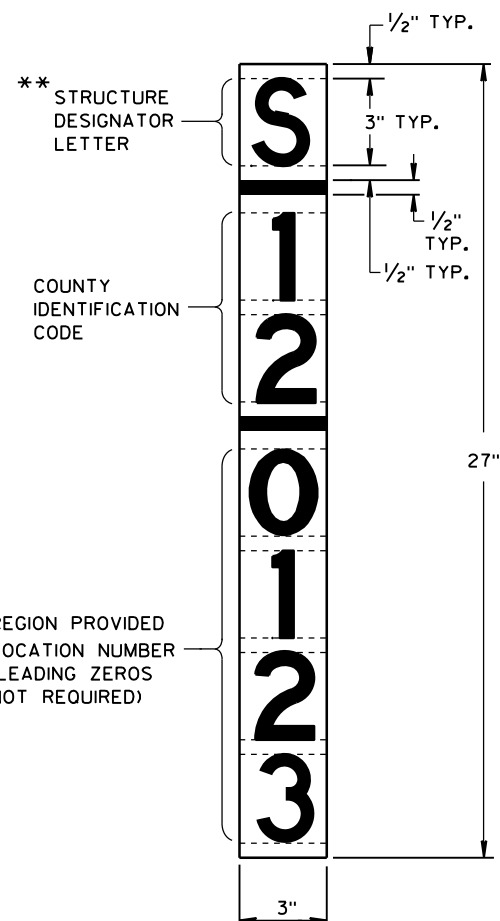
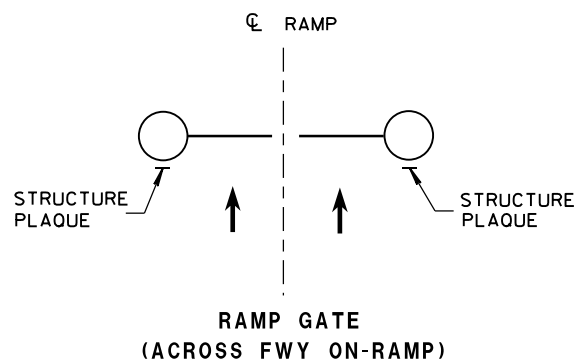
12A04-03	STRUCTURE IDENTIFICATION PLAQUES, RAMP GATES, SIGN BRIDGES & OVERHEAD	SIGN SUPPORTS & TRAFFIC SIGNALS
15C11-07B	CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS	
15C24-04	36" DIAMETER CANTILEVER OVERHEAD SIGN SUPPORT BASE	
15D12-07A	TRAFFIC CONTROL, LANE CLOSURE	
15D12-07B	TRAFFIC CONTROL, LANE CLOSURE, SPEED REDUCTION	
15D14-03	TRAFFIC CONTROL, TWO LANE CLOSURE ON FREEWAY OR EXPRESSWAY, SHORT-TERM (LESS THAN 24 HOURS)	
15D15-04A	TRAFFIC CONTROL, PARALLEL ENTRANCE RAMP WITHIN LANE CLOSURE	
15D15-04B	TRAFFIC CONTROL, ENTRANCE RAMP WITHIN LANE CLOSURE	
15D15-04C	TRAFFIC CONTROL, TAPERED ENTRANCE RAMP WITHIN LANE CLOSURE	
15D15-04D	TRAFFIC CONTROL, TAPERED ENTRANCE RAMP WITHIN LANE CLOSURE	
15D20-04	TRAFFIC CONTROL, SINGLE LANE CLOSURE, NON-FREEWAY/EXPRESSWAY	
15D21-06	TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE LANE CLOSURE	
15D27-03	TRAFFIC CONTROL, SHOULDER CLOSURE ON DIVIDED ROADWAY, SPEEDS GREATER THAN 40 MPH	
15D28-03	TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY	
15D38-02A	TEMPORARY TRAFFIC CONTROL SIGN MOUNTING	
15D38-02B	ATTACHMENT OF SIGNS TO POSTS	





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

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.

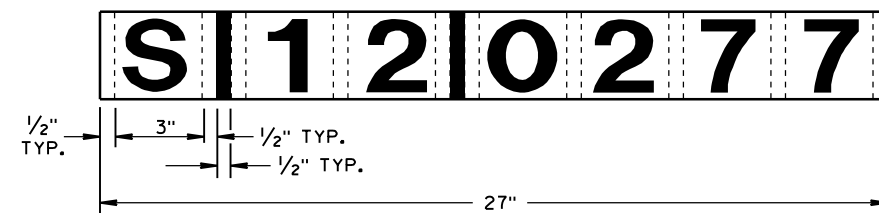
FACE - WHITE, SELF-ADHESIVE VINYL SHEETING, NON-RETROREFLECTIVE

LINES - BLACK, 1/2" 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

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

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

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED

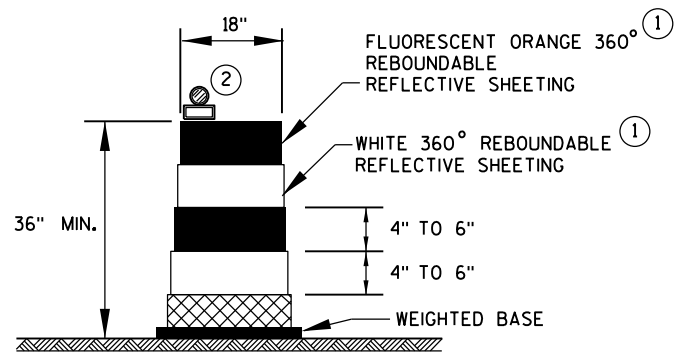
12/4/2012

DATE

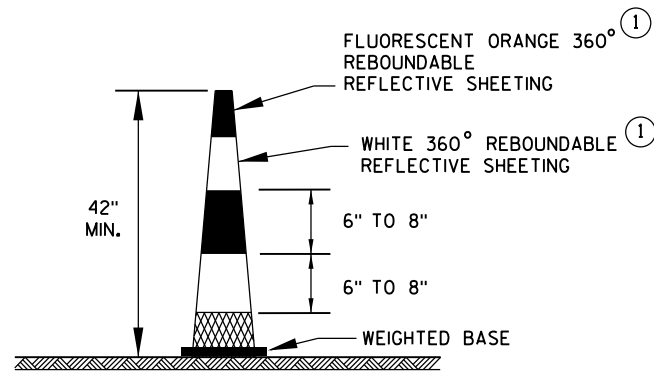
FHWA

/S/ Travis Feltes  
STATE TRAFFIC ENGINEER OF DESIGN





**DRUM**

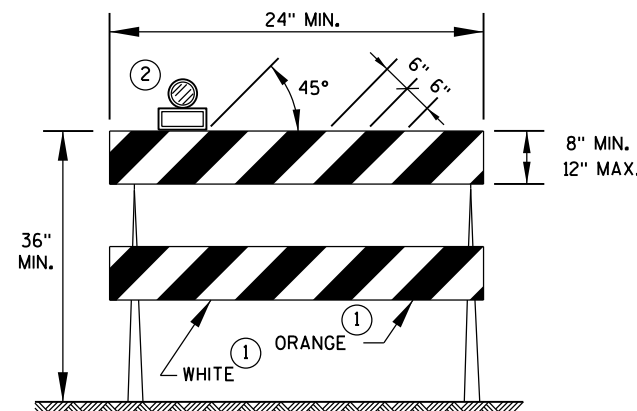


**42" CONE**

DO NOT USE IN TAPERS  
1/2 SPACING OF DRUMS

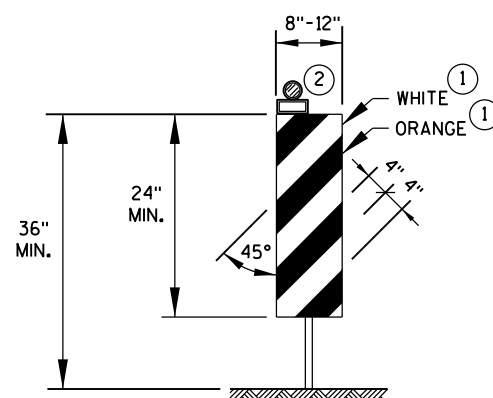
**GENERAL NOTES**

- 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.



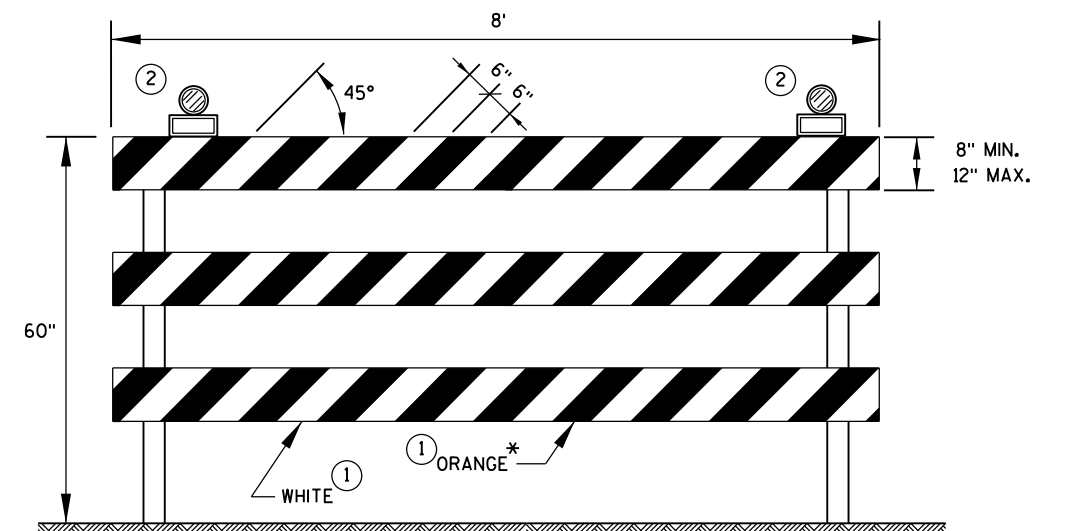
**TYPE 2 BARRICADE**

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



**VERTICAL PANEL**

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



**TYPE 3 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

June 2017  
DATE

FHWA

/S/ Andrew Heidtke  
WORK ZONE ENGINEER



GENERAL NOTES

ORIENT ANCHOR RODS IN FOOTING AND PROVIDE ANCHOR ROD STICK OUT ABOVE TOP OF CONCRETE FOOTING BASE PER FABRICATION DRAWING.

BENDING DIMENSIONS FOR REINFORCING BARS ARE OUT TO OUT.

USE 3" CLEAR FOR ALL REINFORCEMENT UNLESS NOTED OTHERWISE.

SIGN SUPPORTS SHALL BE LOCATED NORMAL TO ROADWAY.

THE CONTRACTOR IS RESPONSIBLE FOR MAKING HIS OWN DETERMINATION AS TO THE TYPE AND LOCATION OF UNDERGROUND UTILITIES AS MAY BE NECESSARY TO AVOID DAMAGE THERETO.

WELDING OF ANCHOR RODS TO THE CAGE IS UNACCEPTABLE. TEMPLATES SHALL BE USED.

BAR CAGE TO BE ASSEMBLED USING TIE WIRES ONLY, NO WELDING.

BASES (SHAFT) SHALL BE EXCAVATED BY THE USE OF A CIRCULAR AUGER. IF A BASE REQUIRES A DEEP FORM BECAUSE OF LOOSE SOIL, THE FORM SHALL BE REMOVED BEFORE BACK FILLING AROUND THE BASE. ANY REQUIRED BACKFILL SHALL BE WELL COMPACTED IN LAYERS OF 1 FOOT OR LESS. COMPACTION SHALL BE BY MECHANICAL MEANS. CARE SHALL BE TAKEN SO NO DAMAGE OCCURS TO THE CONCRETE BASE DURING COMPACTION.

EXCAVATION OF MATERIALS NOT OCCUPIED BY CONCRETE SHALL BE MINIMIZED TO REDUCE DISTURBANCE OF THE SURROUNDING SOILS.

THE BOTTOM OF THE DRILLED HOLE SHALL BE FIRM AND THOROUGHLY CLEANED SO NO LOOSE OR COMPRESSIBLE MATERIALS ARE PRESENT AT THE TIME OF THE CONCRETE PLACEMENT.

IF THE DRILLED HOLE CONTAINS STANDING WATER, THE CONCRETE SHALL BE PLACED USING A TREMIE TO DISPLACE THE WATER.

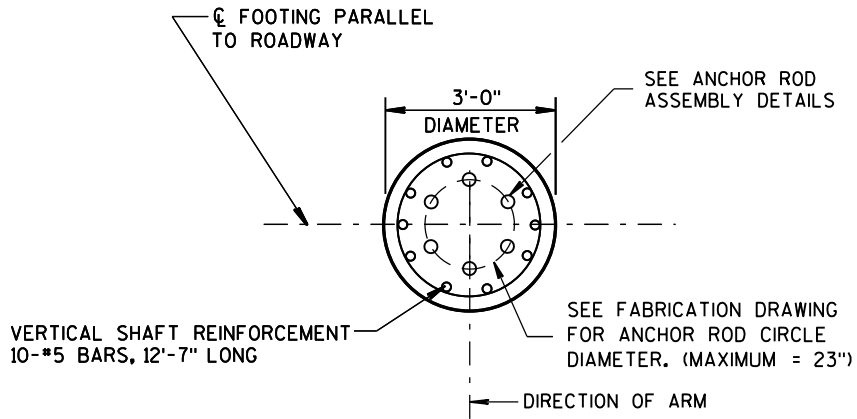
THE REINFORCEMENT AND ANCHOR RODS SHALL BE ADEQUATELY SUPPORTED IN THE PROPER POSITIONS SO NO MOVEMENT OCCURS DURING CONCRETE PLACEMENT.

FORM ALL EXPOSED CONCRETE CORNERS WITH 3/4" CHAMFER ALL AROUND. TOP OF THE CONCRETE BASE SHALL BE TROWEL FINISHED AND LEVEL.

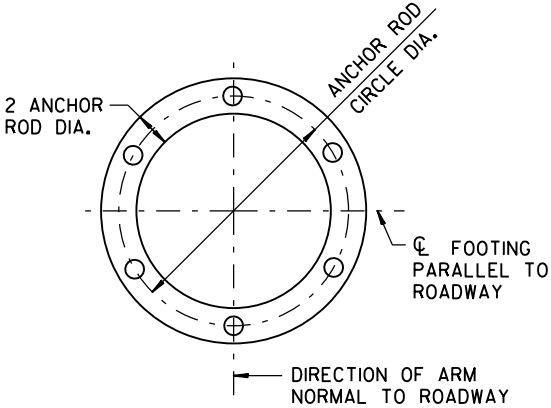
ANY DAMAGE TO THE CONCRETE BASE AND ANCHOR RODS DURING CONSTRUCTION OPERATIONS SHALL BE REPAIRED AT THE ENGINEER'S DIRECTION, AT THE EXPENSE OF THE CONTRACTOR.

CONCRETE MASONRY ----- fc=3,500 p.s.i.  
HIGH STRENGTH BAR STEEL REINFORCEMENT, GRADE 60 ----- fy=60,000 p.s.i.  
ANCHOR RODS, ASTM F1554, GRADE 55 ----- fy=55,000 p.s.i.  
ASTM A563A HEAVY HEX NUTS, AND ASTM F436 WASHERS.  
PLATES, ASTM A709, GRADE 36 ----- fy=36,000 p.s.i.

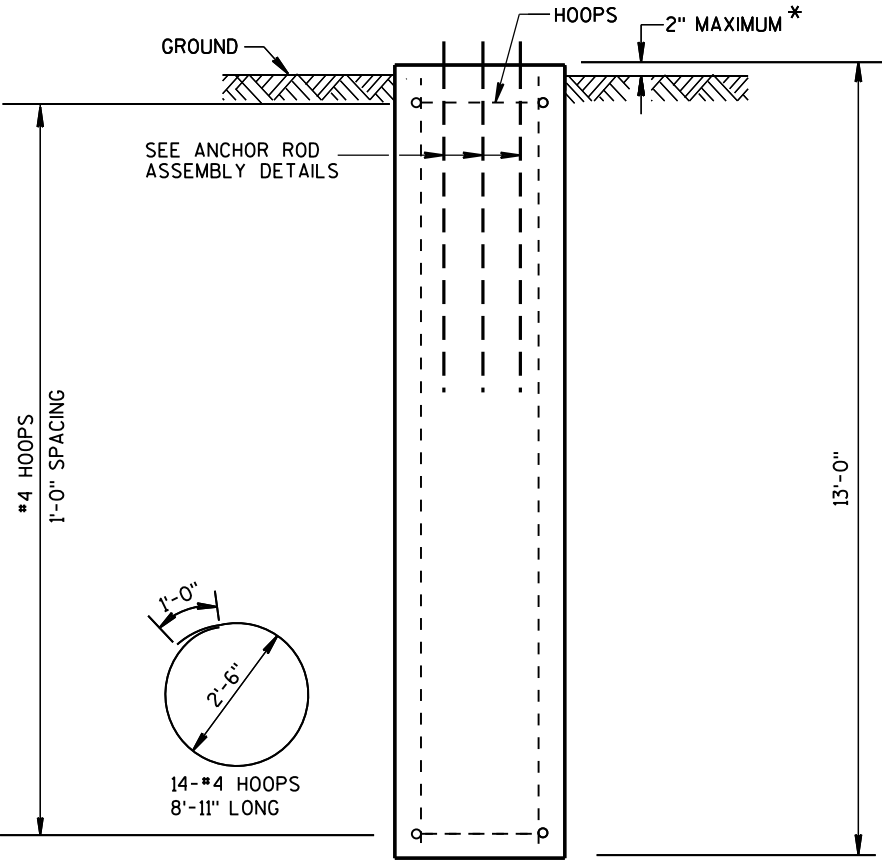
THIS FOOTING HAS BEEN DESIGNED FOR SITES WHERE SOILS EXHIBIT A PHI-ANGLE GREATER THAN OR EQUAL TO 20 DEGREES (GRANULAR SOILS), OR A COHESION VALUE GREATER THAN OR EQUAL TO 350 PSF (COHESIVE SOILS).



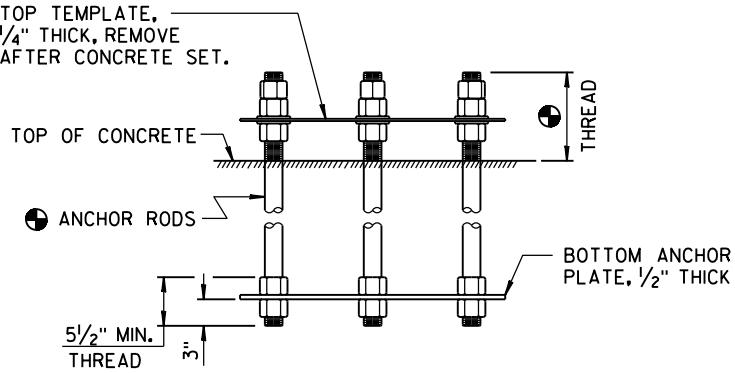
PLAN VIEW



TOP TEMPLATE AND  
BOTTOM ANCHOR PLATE



ELEVATION VIEW



MINIMUM OF 6 ANCHOR RODS,  
EXACT NUMBER, SIZE, DIMENSION  
AND ORIENTATION AS SHOWN ON  
FABRICATION DRAWING.

\* FOR OVERHEAD SIGN SUPPORTS THAT ARE INSTALLED ADJACENT TO SIDEWALKS, THE TOP OF THE BASE SHALL BE POURED FLUSH WITH THE GROUND.

CONCRETE - 3.4 C.Y. PER FOOTING  
H.S. REINFORCEMENT - 215 LBS. PER FOOTING

36" DIAMETER CANTILEVER  
OVERHEAD SIGN SUPPORT BASE

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED  
June 2016 /S/ Vu Thao  
DATE WIND LOADED STRUCTURES  
FHWA PROGRAM LEADER



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 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.

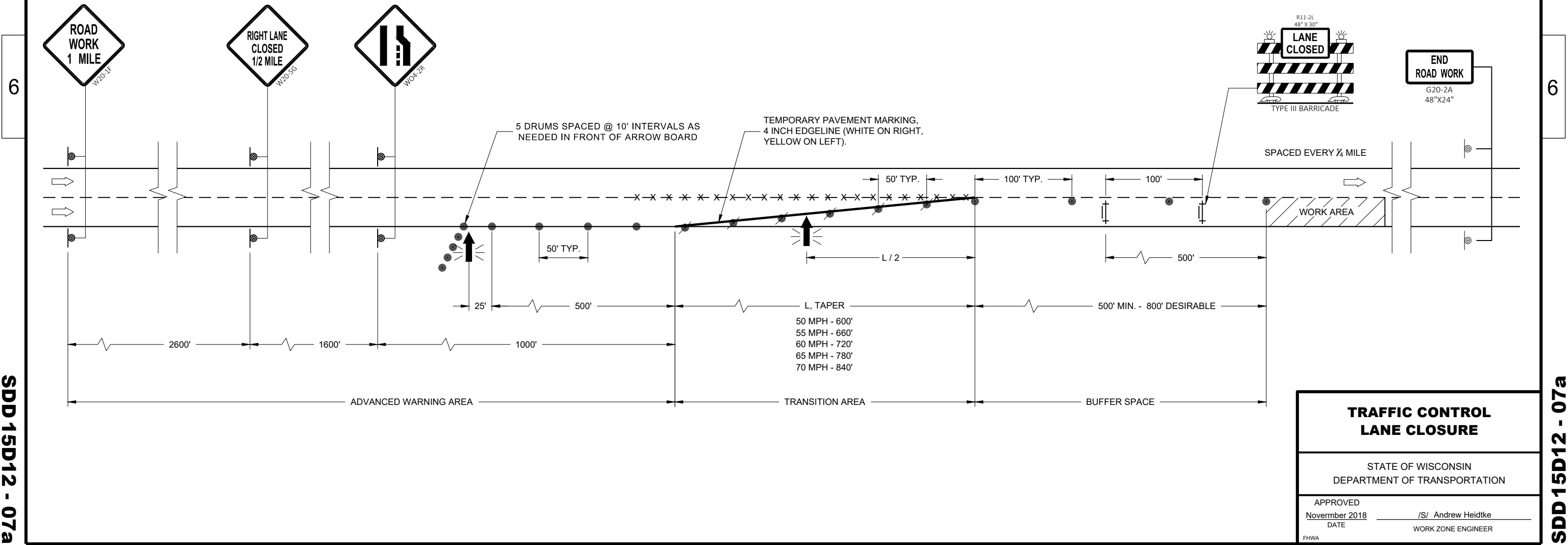
ADJUSTMENTS IN BUFFER SPACE NEED TO BE INCORPORATED WHEN THE LANE CLOSURE OCCURS

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

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





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.

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

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

REMOVE PAVEMENT MARKINGS 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.

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

ADJUSTMENTS IN BUFFER SPACE NEED TO BE INCORPORATED WHEN THE LANE 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.

\* A SPEED LIMIT SIGN SHALL BE LOCATED 1500 FEET BEYOND THE END OF THE ACCELERATION LANE OF EACH ENTRANCE RAMP. PLACE A SPEED LIMIT SIGN A MINIMUM OF EVERY 3 MILES. INCLUDE A RESUME SPEED LIMIT SIGN 200 FEET MINIMUM (500 FEET DESIRABLE) BEYOND THE "END OF ROADWORK" SIGN.

LEGEND

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

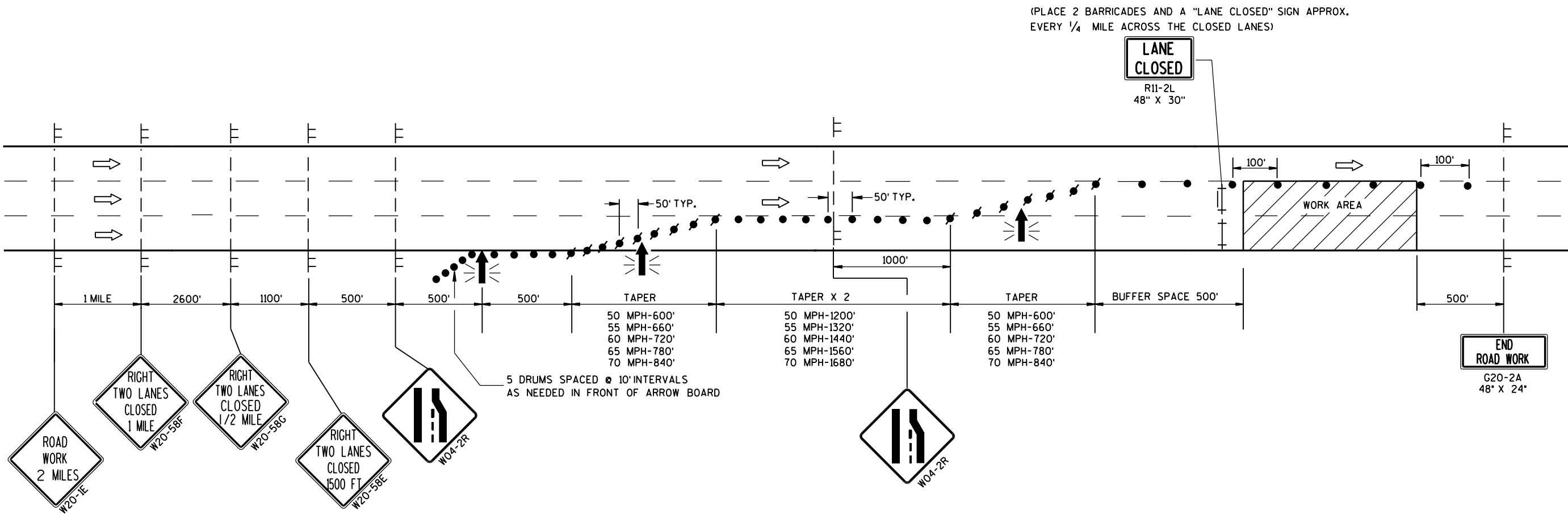
TRAFFIC CONTROL,  
LANE CLOSURE,  
SPEED REDUCTION

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED  
November 2018 /S/ Andrew Heidtke  
DATE WORK ZONE ENGINEER

FHWA





LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- SIGN ON TEMPORARY SUPPORT
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- TRAFFIC CONTROL DRUM
- 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.

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.

"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 AND AS APPROVED BY THE ENGINEER.

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 GEOMETRICS WHEN LOCATING SIGNS AND ARROWBOARDS SO THE APPROACHING DRIVER HAS A CLEAR VIEW OF THE ARROWBOARDS AND LANE CLOSURE DRUMS FOR A MINIMUM 1500 FEET IN FRONT OF 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 RE-ESTABLISHED UPON COMPLETION OF THE OPERATION OR, FOR CONTINUING OPERATIONS, AT THE END OF EACH WORKING DAY.

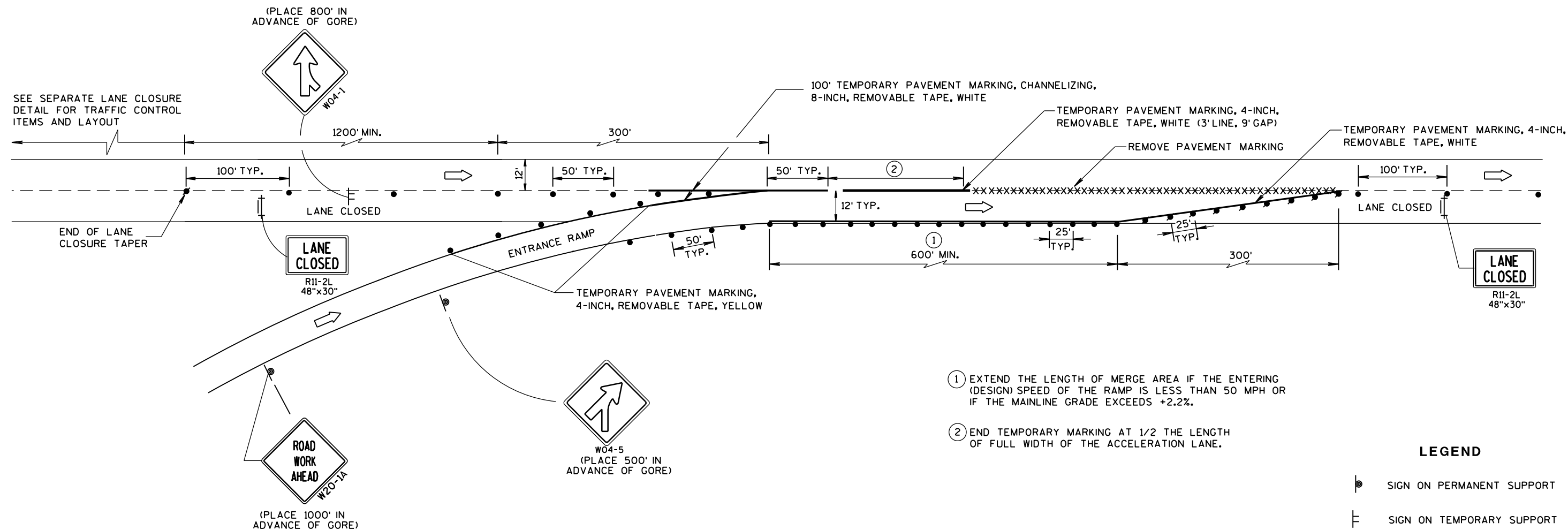
CHANNELIZING DEVICES PLACED ADJACENT TO WORK AREA SHALL BE PULLED BACK FROM THE TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

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 July 14, 2015 DATE	/S/ Peter Amakobe Atepe STATEWIDE WORK ZONE TRAFFIC SAFETY ENGINEER
FHWA	



TRAFFIC CONTROL, ENTRANCE RAMP WITHIN RIGHT LANE CLOSURE



PARALLEL ENTRANCE RAMP

GENERAL NOTES

THE INSTALLATIONS SHOWN ON THIS SHEET ARE TYPICAL EXAMPLES AND ARE NOT INTENDED TO REPRESENT ANY PARTICULAR RAMP. AT SPECIFIC FIELD LOCATIONS, SIMILAR INSTALLATIONS SHALL BE USED AND ADJUSTED TO THE GEOMETRICS OF THE RAMP AS COORDINATED WITH 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.

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"x48" UNLESS OTHERWISE NOTED.

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

SEE SEPARATE LANE CLOSURE DETAIL FOR TYPICAL SPACING OF TYPE III BARRICADES AND R11-2L "LANE CLOSED" 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 PORTABLE SUPPORTS. USE SUPPORTS THAT PROVIDE A MINIMUM OF 5 FEET FROM THE BOTTOM OF THE SIGN TO THE PAVEMENT.

IF INDICATED IN MISCELLANEOUS QUANTITIES, SUBSTITUTE FLEXIBLE TUBULAR MARKERS FOR DRUMS IN THE GORE BETWEEN THE ENTRANCE RAMP AND MAINLINE TRAFFIC.

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.

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

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

LEGEND

- SIGN ON PERMANENT SUPPORT
- ├ SIGN ON TEMPORARY SUPPORT
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- ├ TYPE III BARRICADE WITH ATTACHED SIGN
- XXXXX REMOVING PAVEMENT MARKING
- ➡ DIRECTION OF TRAFFIC

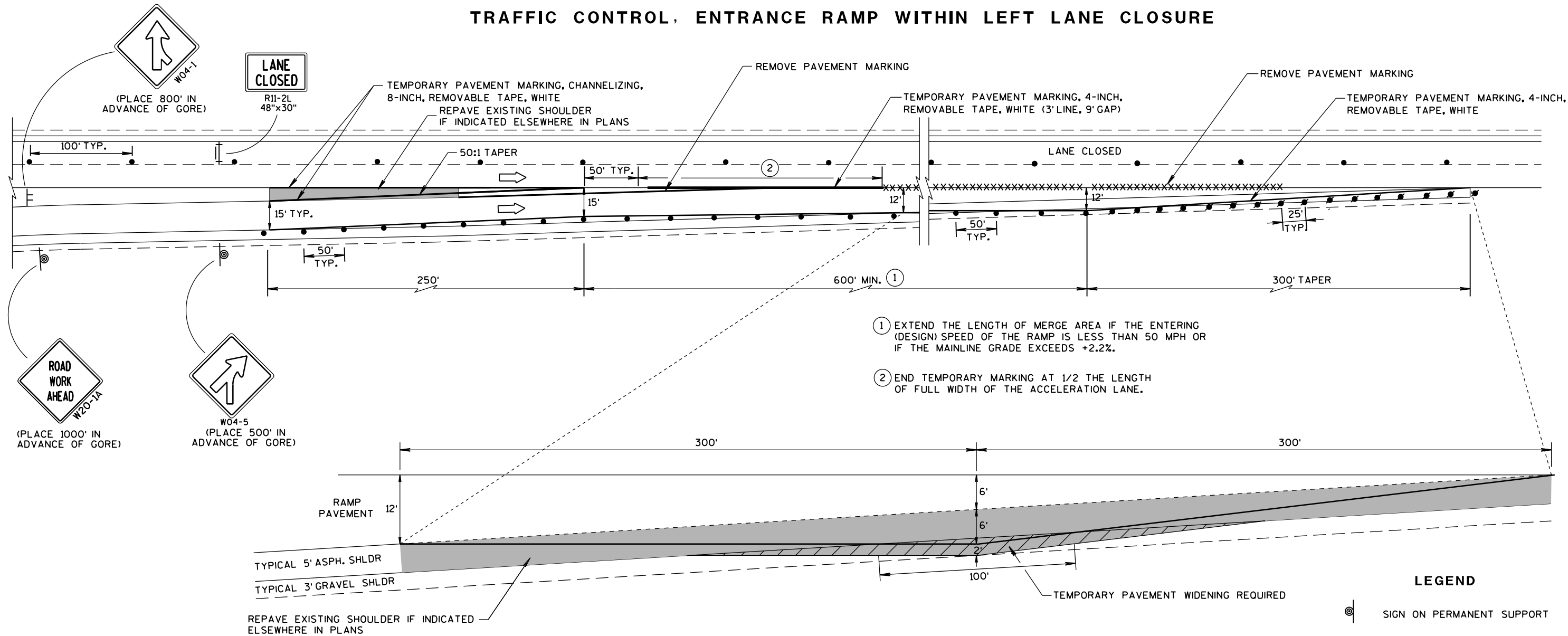
TRAFFIC CONTROL, PARALLEL ENTRANCE RAMP WITHIN LANE CLOSURE

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED  
Sept., 2017 /S/ Andrew Heidtke  
DATE WORK ZONE ENGINEER  
FHWA



TRAFFIC CONTROL, ENTRANCE RAMP WITHIN LEFT LANE CLOSURE



- ① EXTEND THE LENGTH OF MERGE AREA IF THE ENTERING (DESIGN) SPEED OF THE RAMP IS LESS THAN 50 MPH OR IF THE MAINLINE GRADE EXCEEDS +2.2%.
- ② END TEMPORARY MARKING AT 1/2 THE LENGTH OF FULL WIDTH OF THE ACCELERATION LANE.

TEMPORARY PAVEMENT DETAIL

(EXISTING RAMP DIMENSIONS MAY VARY. ADJUST TEMPORARY PAVEMENT ACCORDINGLY)

LEGEND

- ⊙ SIGN ON PERMANENT SUPPORT
- ⌄ SIGN ON TEMPORARY SUPPORT
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- ⌄ TYPE III BARRICADE WITH ATTACHED SIGN
- XXXXX REMOVING PAVEMENT MARKING
- ➡ DIRECTION OF TRAFFIC

GENERAL NOTES

THE INSTALLATIONS SHOWN ON THIS SHEET ARE TYPICAL EXAMPLES AND ARE NOT INTENDED TO REPRESENT ANY PARTICULAR RAMP. AT SPECIFIC FIELD LOCATIONS, SIMILAR INSTALLATIONS SHALL BE USED AND ADJUSTED TO THE GEOMETRICS OF THE RAMP AS COORDINATED WITH 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.

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"x48" UNLESS OTHERWISE NOTED.

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

SEE SEPARATE LANE CLOSURE DETAIL FOR TYPICAL SPACING OF TYPE III BARRICADES AND R11-2L "LANE CLOSED" 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 PORTABLE SUPPORTS. USE SUPPORTS THAT PROVIDE A MINIMUM OF 5 FEET FROM THE BOTTOM OF THE SIGN TO THE PAVEMENT.

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.

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

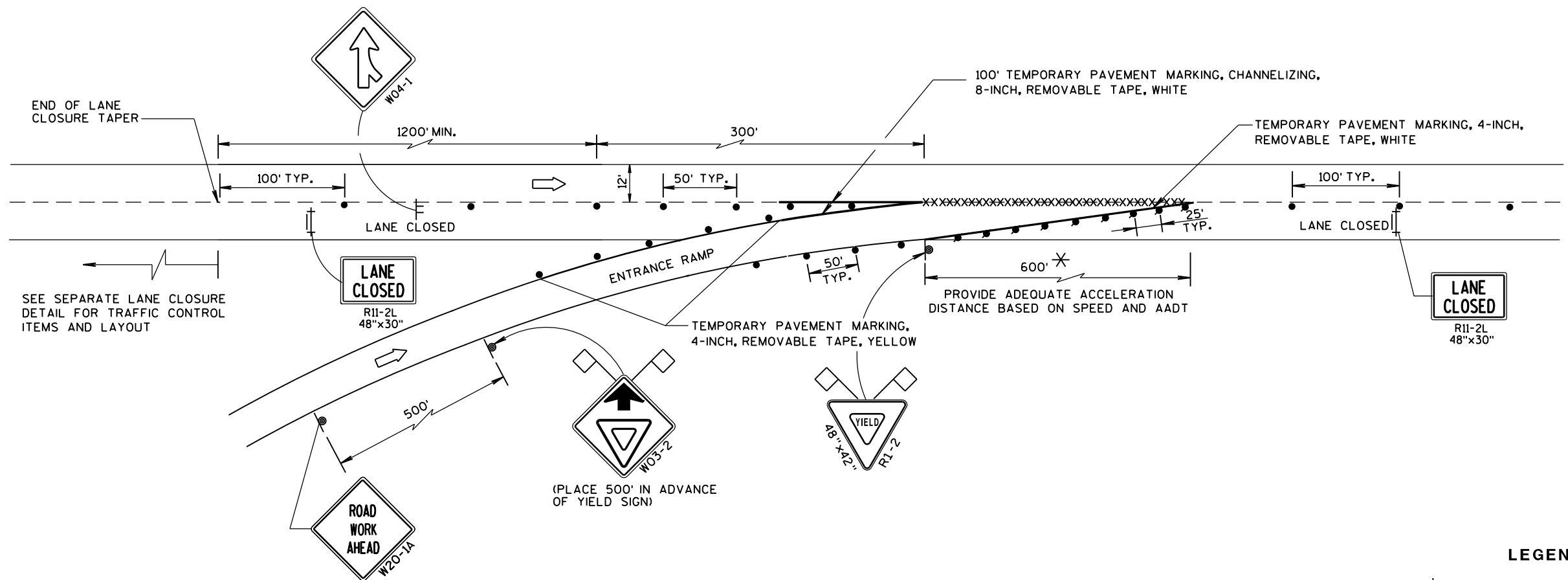
WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

TRAFFIC CONTROL, ENTRANCE RAMP WITHIN LANE CLOSURE

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED  
Sept., 2017 /S/ Andrew Heldtke  
DATE WORK ZONE ENGINEER  
FHWA





**TAPERED ENTRANCE RAMP  
WITHIN RIGHT LANE CLOSURE**

**GENERAL NOTES**

THE INSTALLATIONS SHOWN ON THIS SHEET ARE TYPICAL EXAMPLES AND ARE NOT INTENDED TO REPRESENT ANY PARTICULAR RAMP. AT SPECIFIC FIELD LOCATIONS, SIMILAR INSTALLATIONS SHALL BE USED AND ADJUSTED TO THE GEOMETRICS OF THE RAMP AS COORDINATED WITH 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.

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"x48" UNLESS OTHERWISE NOTED.

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

SEE SEPARATE LANE CLOSURE DETAIL FOR TYPICAL SPACING OF TYPE III BARRICADES AND R11-2L "LANE CLOSED" SIGNS.

YIELD SIGN AND WARNING SIGNS ON ENTRANCE RAMP ARE ALSO APPROPRIATE FOR CLOSURE OF THE MAINLINE LEFT LANE. OMIT THE YIELD SIGN IF MORE THAN ONE LANE REMAINS OPEN ON THE MAINLINE AND THE RAMP TAPER IS AT LEAST AS LONG AS THE NORMAL ENTRANCE RAMP TAPER AT THE SITE.

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 PORTABLE SUPPORTS.

IF INDICATED IN MISCELLANEOUS QUANTITIES, SUBSTITUTE FLEXIBLE TUBULAR MARKERS FOR DRUMS IN THE GORE BETWEEN THE ENTRANCE RAMP AND MAINLINE TRAFFIC.

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.

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

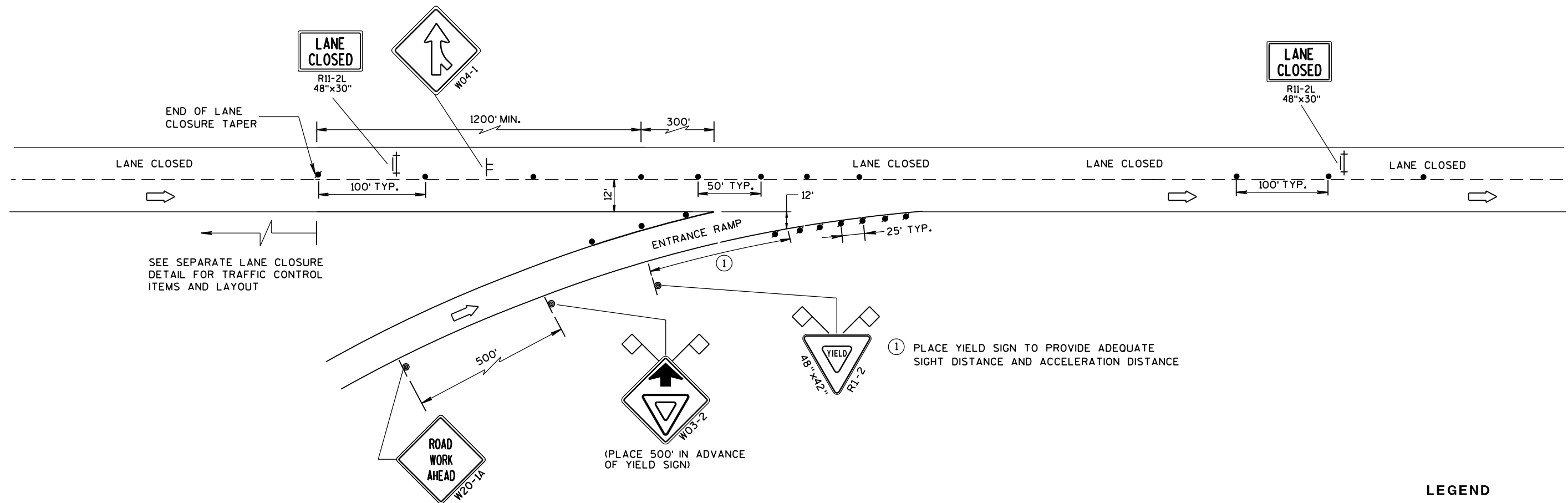
WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

✱ CONSULT WITH REGIONAL WORK ZONE ENGINEER IF NEED TO REDUCE LENGTH EXISTS.

LEGEND	
	SIGN ON PERMANENT SUPPORT
	SIGN ON TEMPORARY SUPPORT
	TRAFFIC CONTROL DRUM
	TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
	REMOVING PAVEMENT MARKING (SEE GENERAL NOTES)
	TYPE III BARRICADE WITH ATTACHED SIGN
	FLAGS, 16" x 16" MIN., (ORANGE)
	DIRECTION OF TRAFFIC

<b>TRAFFIC CONTROL, TAPERED ENTRANCE RAMP WITHIN LANE CLOSURE</b>	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED Sept., 2017 DATE	/S/ Andrew Heidtke WORK ZONE ENGINEER
FHWA	





## TAPERED ENTRANCE RAMP WITHIN LEFT LANE CLOSURE

### GENERAL NOTES

THE INSTALLATIONS SHOWN ON THIS SHEET ARE TYPICAL EXAMPLES AND ARE NOT INTENDED TO REPRESENT ANY PARTICULAR RAMP. AT SPECIFIC FIELD LOCATIONS, SIMILAR INSTALLATIONS SHALL BE USED AND ADJUSTED TO THE GEOMETRICS OF THE RAMP AS COORDINATED WITH 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.

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"x48" UNLESS OTHERWISE NOTED.

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

SEE SEPARATE LANE CLOSURE DETAIL FOR TYPICAL SPACING OF TYPE III BARRICADES AND R11-2L "LANE CLOSED" SIGNS.

YIELD SIGN AND WARNING SIGNS ON ENTRANCE RAMP ARE ALSO APPROPRIATE FOR CLOSURE OF THE MAINLINE LEFT LANE. OMIT THE YIELD SIGN IF MORE THAN ONE LANE REMAINS OPEN ON THE MAINLINE AND THE RAMP TAPER IS AT LEAST AS LONG AS THE NORMAL ENTRANCE RAMP TAPER AT THE SITE.

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 PORTABLE SUPPORTS.

IF INDICATED IN MISCELLANEOUS QUANTITIES, SUBSTITUTE FLEXIBLE TUBULAR MARKERS FOR DRUMS IN THE GORE BETWEEN THE ENTRANCE RAMP AND MAINLINE TRAFFIC.

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.

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

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

### LEGEND

- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- REMOVING PAVEMENT MARKING (SEE GENERAL NOTES)
- TYPE III BARRICADE WITH ATTACHED SIGN
- FLAGS, 16" x 16" MIN., (ORANGE)
- DIRECTION OF TRAFFIC

### TRAFFIC CONTROL, TAPERED ENTRANCE RAMP WITHIN LANE CLOSURE

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED

Sept., 2017

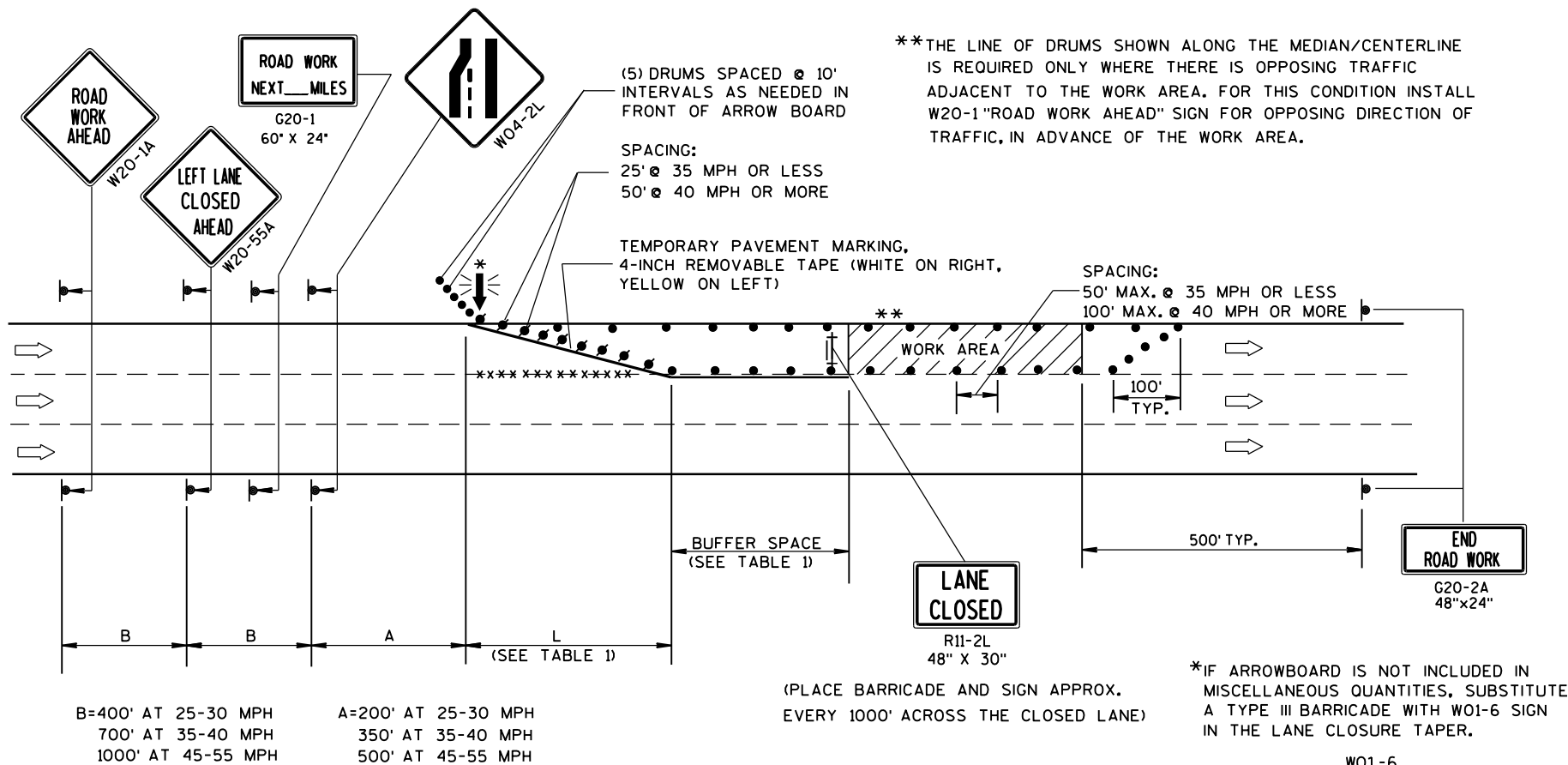
DATE

FHWA

/S/ Andrew Heidtke

WORK ZONE ENGINEER





GENERAL NOTES

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.

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 DESIRABLE MINIMUM OF 200 FEET CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

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 DISTRICT TRAFFIC UNIT.

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

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 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.

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

ON UNDIVIDED ROADWAYS, OMIT THE SIGNS SHOWN ON LEFT SIDE OF ROAD.

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.

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

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

PLACE THE ARROWBOARD AS CLOSE AS POSSIBLE TO THE BEGINNING OF THE LANE CLOSURE TAPER, PREFERABLY ON THE SHOULDER OR TERRACE.

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

BARRICADES IN A CLOSED LANE 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.

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

TABLE 1  
TAPER AND BUFFER SPACE  
FOR 12' LANE WIDTH

S	L	BUFFER SPACE
25	125'	55'
30	180'	85'
35	245'	120'
40	320'	170'
45	540'	220'
50	600'	280'
55	660'	335'

FOR LANE WIDTH OTHER THAN 12':

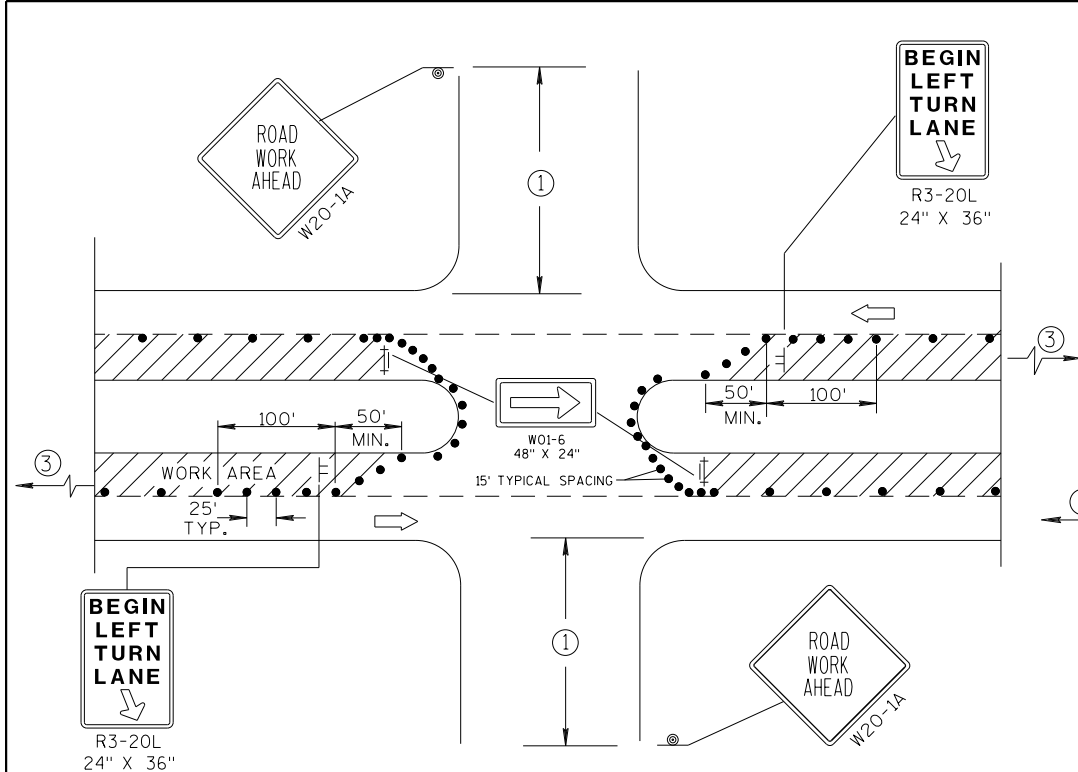
L = WS AT 45 MPH OR GREATER  
L =  $\frac{WS^2}{60}$  AT 40 MPH OR LESS  
L = TAPER LENGTH IN FEET  
S = NON-CONSTRUCTION SPEED LIMIT (MPH)  
W = WIDTH OF LANE CLOSURE

LEGEND

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

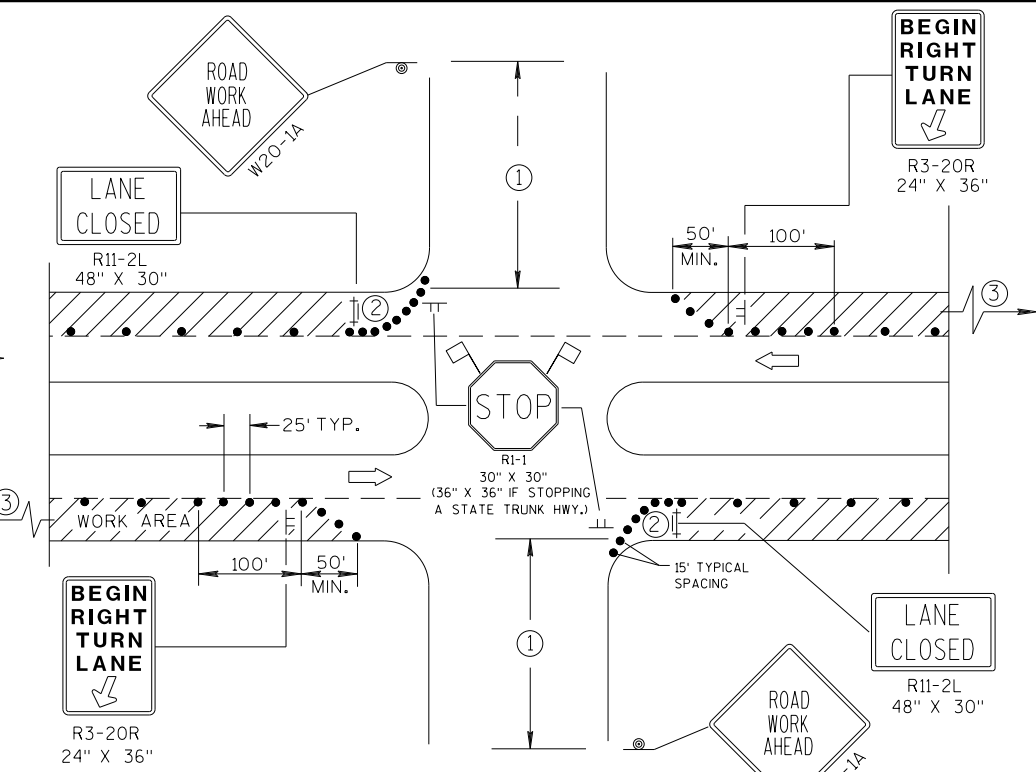
TRAFFIC CONTROL, SINGLE LANE CLOSURE, NON-FREEWAY/EXPRESSWAY	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED June 2016 DATE	/S/ Peter Amakobe Atepe STATEWIDE WORK ZONE TRAFFIC SAFETY ENGINEER
FHWA	





DETAIL A  
FOR LEFT LANE CLOSURE AT  
INTERSECTION OR MEDIAN OPENING

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



DETAIL B  
FOR RIGHT LANE CLOSURE  
AT INTERSECTION

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 SHOULD PROVIDE A DESIRABLE MINIMUM OF 200 FEET CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

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 DISTRICT TRAFFIC UNIT.

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

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

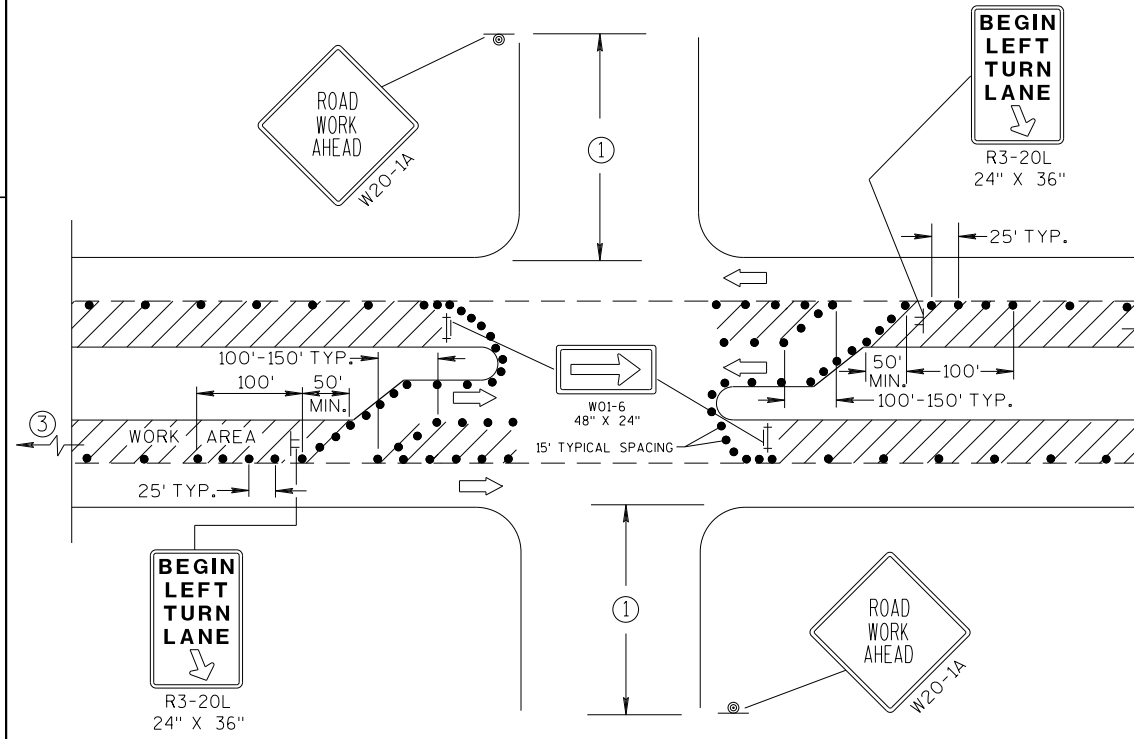
SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS, OR THAT WILL BE PLACED IN A CLOSED LANE, MAY BE MOUNTED ON PORTABLE SUPPORTS.

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.

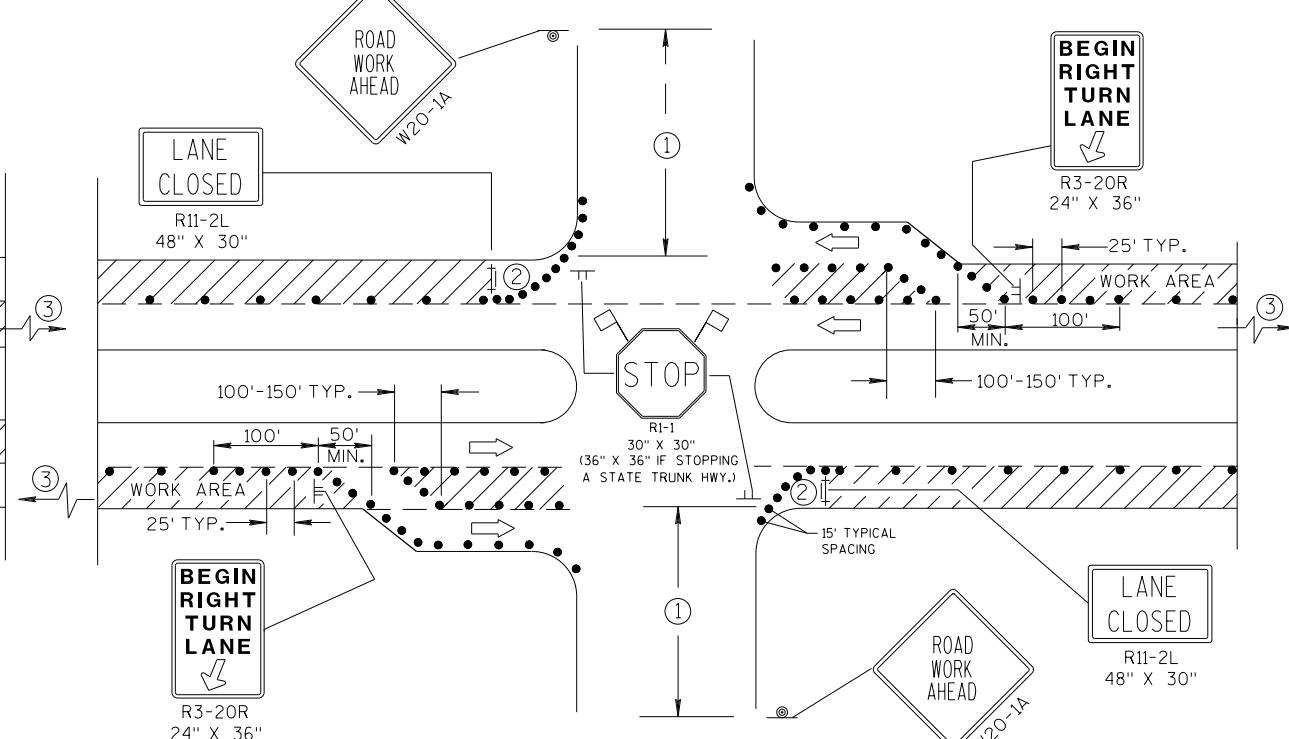
CHANNELIZING DEVICES PLACED ADJACENT TO WORK AREA SHALL BE PULLED BACK FROM THE TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

BARRICADES IN A CLOSED LANE 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.

- 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.



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



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

LEGEND

- TRAFFIC CONTROL DRUM
- ⊙ SIGN ON PERMANENT SUPPORT
- ⊢ SIGN ON TEMPORARY SUPPORT (5' MIN. MOUNTING HEIGHT)
- ⊢ TYPE III BARRICADE WITH ATTACHED SIGN AND TYPE "A" WARNING LIGHT (FLASHING)
- ➡ DIRECTION OF TRAFFIC
- 🚩 FLAGS, 16" X 16" MIN., (ORANGE)
- ▨ WORK AREA

TRAFFIC CONTROL,  
INTERSECTION WITHIN  
SINGLE LANE CLOSURE

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED  
7/2018 /S/ Andrew Heidtke  
DATE WORK ZONE ENGINEER  
FHWA



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.

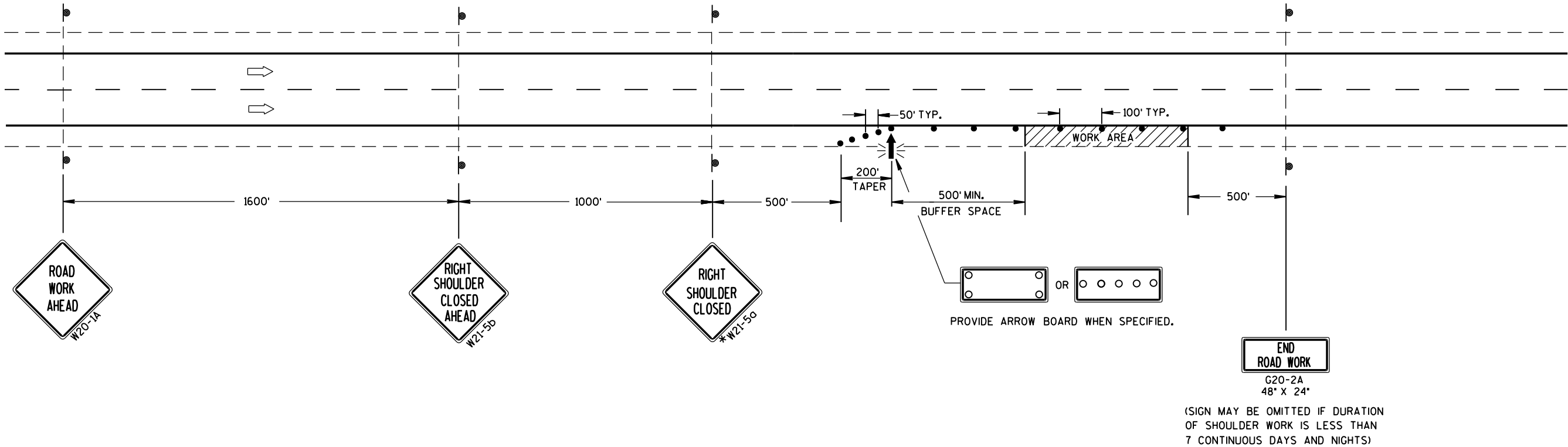
SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

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 /S/ Peter Amakobe Atepe  
DATE STATEWIDE WORK ZONE TRAFFIC  
FHWA SAFETY ENGINEER



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.

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

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

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.

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.

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

TABLE A

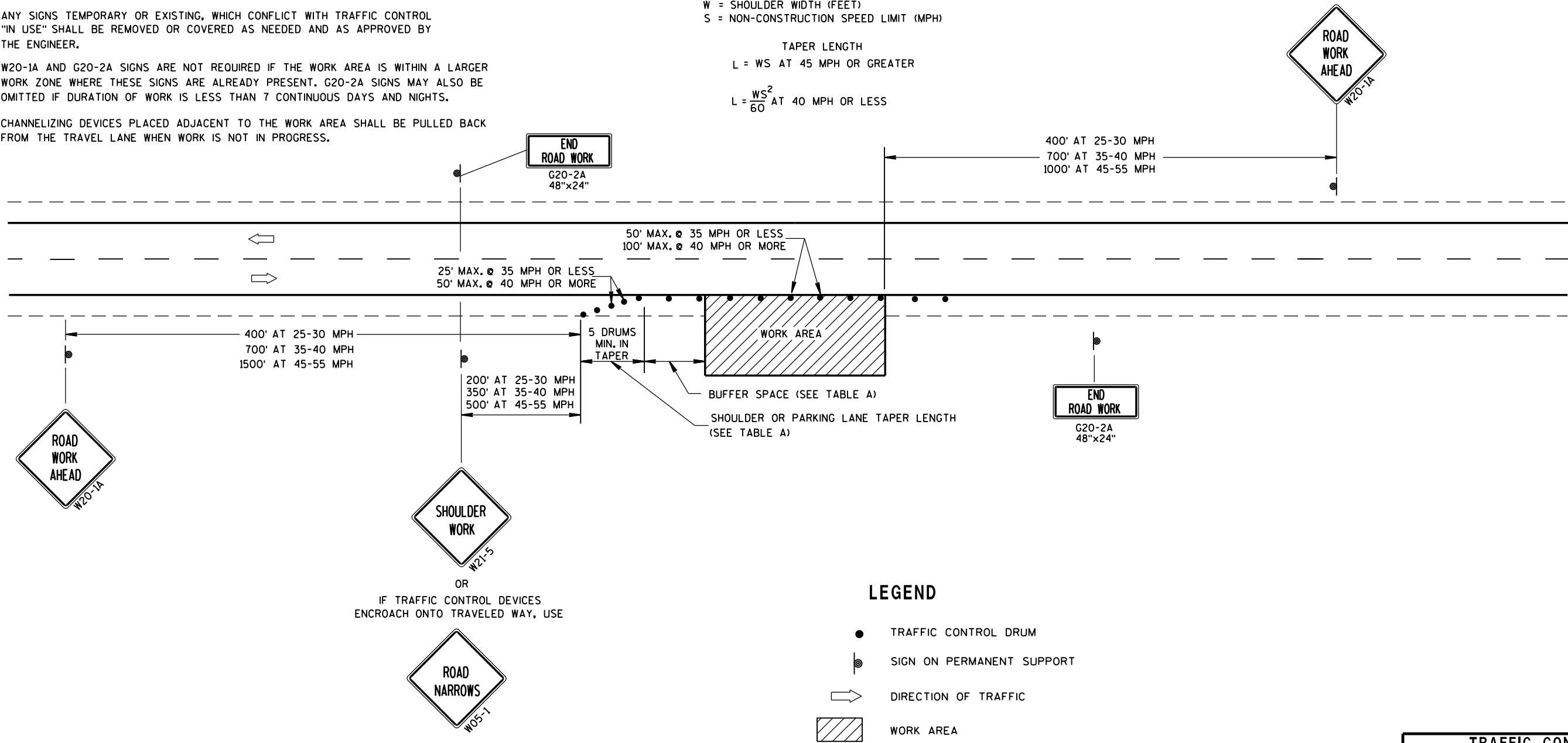
SHOULDER TAPER LENGTH (FEET)					BUFFER SPACE (FEET)
S \ W	4	6	8	10	
30	20	30	40	50	200
35	30	45	55	70	250
40	40	55	75	90	305
45	60	90	120	150	360
50	70	100	135	170	425
55	75	110	150	185	495

W = SHOULDER WIDTH (FEET)  
S = NON-CONSTRUCTION SPEED LIMIT (MPH)

TAPER LENGTH  
L = WS AT 45 MPH OR GREATER

$L = \frac{WS^2}{60}$  AT 40 MPH OR LESS

SHOULDER TAPER LENGTH =  $\frac{1}{3}L$



LEGEND

- TRAFFIC CONTROL DRUM
- ⦿ SIGN ON PERMANENT SUPPORT
- ➡ DIRECTION OF TRAFFIC
- ▨ WORK AREA

TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED July 14, 2015 DATE	/S/ Peter Amakobe Atepe STATEWIDE WORK ZONE TRAFFIC SAFETY ENGINEER
FHWA	





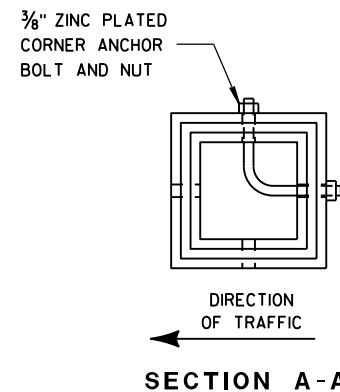
DETAIL OF TUBULAR  
STEEL SIGN POST

TUBULAR STEEL POSTS

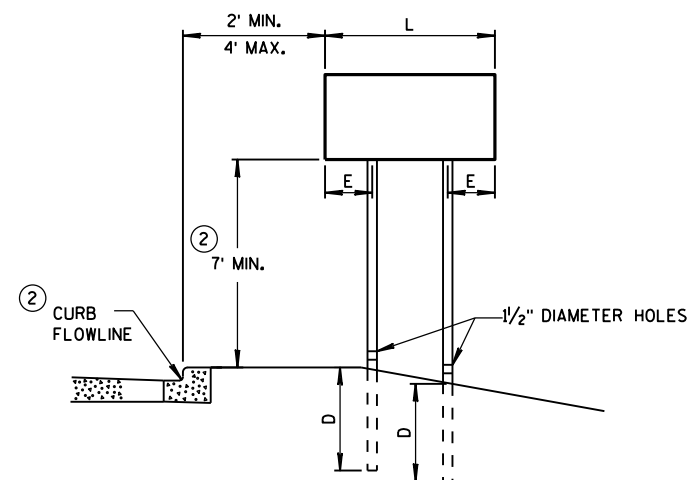
AREA OF SIGN INSTALLATION (SQ. FT.)	NUMBER OF REQUIRED TUBULAR STEEL POSTS
9 OR LESS	1
GREATER THAN 9 LESS THAN OR EQUAL TO 18	2
GREATER THAN 18 LESS THAN OR EQUAL TO 27	3

SIGNS WIDER THAN 3 FEET OR LARGER THAN 9 SQ. FT. SHALL  
BE MOUNTED ON MULTIPLE POSTS (SEE ABOVE TABLE).

SIGNS LARGER THAN 27 SQ. FT. SHALL NOT BE MOUNTED  
ON TUBULAR STEEL POSTS.



SECTION A-A

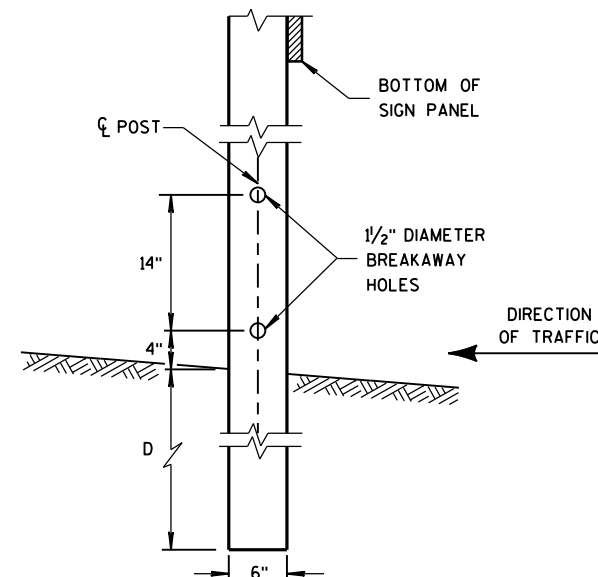


URBAN AREA

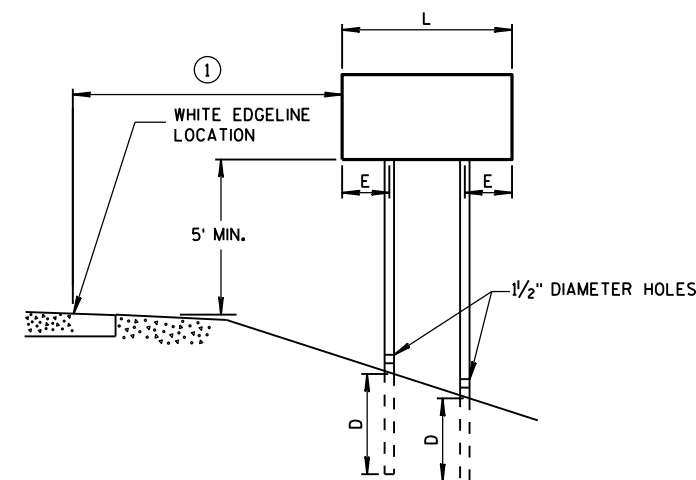
POST MOUNTING DETAIL FOR TEMPORARY TRAFFIC CONTROL FIXED MESSAGE SIGNS

WOOD POST  
EMBEDMENT DEPTH

AREA OF SIGN INSTALLATION (SQ. FT.)	D (MIN)
20 OR LESS	4'
GREATER THAN 20	5'



4"X6" WOOD POST  
MODIFICATION



RURAL AREA

4" X 6" WOOD POST

POST SPACING REQUIREMENTS		NUMBER OF WOOD POSTS REQUIRED
L	E	
48" OR LESS AND LESS THAN 20 SQ. FT.	-	1
LESS THAN 60"	12"	2
60" TO 120"	L/5	2
GREATER THAN 120" LESS THAN 168"	12"	3
168" AND GREATER	12"	4

SEE NOTE ③

GENERAL NOTES

- ① 6 FEET FROM THE EDGE OF PAVEMENT (EDGE LINE LOCATION) UNLESS OTHERWISE DIRECTED BY THE PROJECT ENGINEER. LATERAL OFFSET SHOULD BE ADJUSTED TO AVOID THE DITCH FLOWLINE.
- ② THE EXISTENCE OF CURB AND GUTTER DOES NOT IN ITSELF MANDATE THE VERTICAL CLEARANCE ILLUSTRATED. THAT HEIGHT IS TYPICALLY MEASURED WHERE THERE IS SIDEWALK ADJACENT TO THE ROADWAY OR PARKING IS PERMITTED. IN THE ABSENCE OF SIDEWALK, VERTICAL CLEARANCE IS MEASURED FROM THE TOP OF THE CURB. IF NO SIDEWALK AND NO PARKING, VERTICAL CLEARANCE MAY BE REDUCED TO 5 FOOT MINIMUM. OFFSET OF SIGNS IS MEASURED FROM THE CURB FLOWLINE.
- ③ FOR SIGNS REQUIRING 4 POSTS, SPACE INTERMEDIATE POSTS EVENLY.

TEMPORARY TRAFFIC CONTROL  
SIGN MOUNTING

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION





NUTS, BOLTS AND LAGS USED FOR MOUNTING SIGNS SHALL HAVE HEXAGONAL HEADS AND SHALL BE EITHER:

- A. HOT DIP GALVANIZED IN ACCORDANCE WITH ASTM DESIGNATION: A 153, CLASS D, OR SC 3
- B. ELECTRO-GALVANIZED IN ACCORDANCE WITH ASTM DESIGNATION: B 633, TYPE III, SC 3

THREADS ON BOLTS AND NUTS SHALL BE MANUFACTURED WITH SUFFICIENT ALLOWANCE FOR THE CADMIUM PLATE OR GALVANIZED COATING TO PERMIT THE NUTS TO RUN FREELY ON THE BOLTS.

- WOOD POSTS (4" x 4" or 4" x 6")
- LAG SCREWS - 3/8" x 3"
  - MACHINE BOLTS - 5/16" x 6-1/2" OR 7" LENGTH W/ NUTS

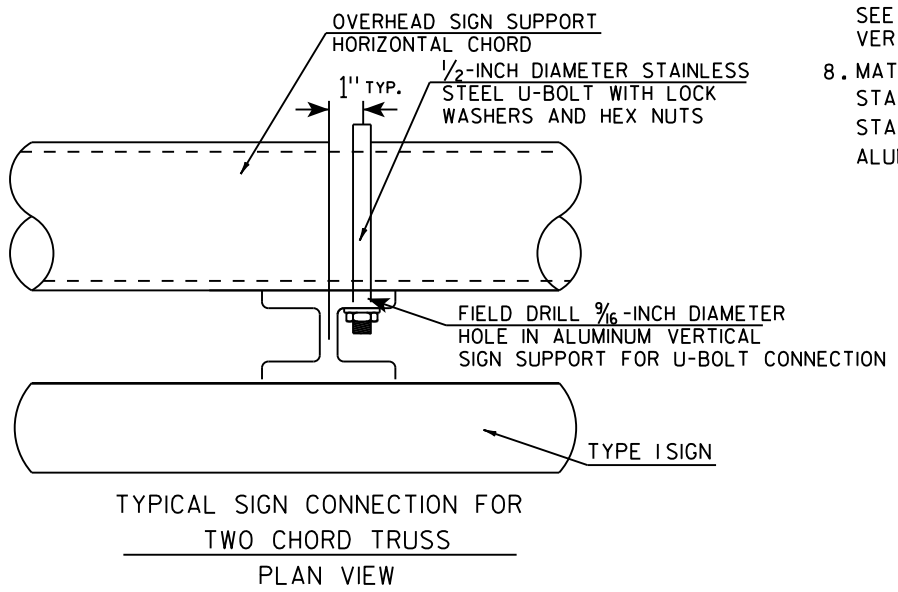
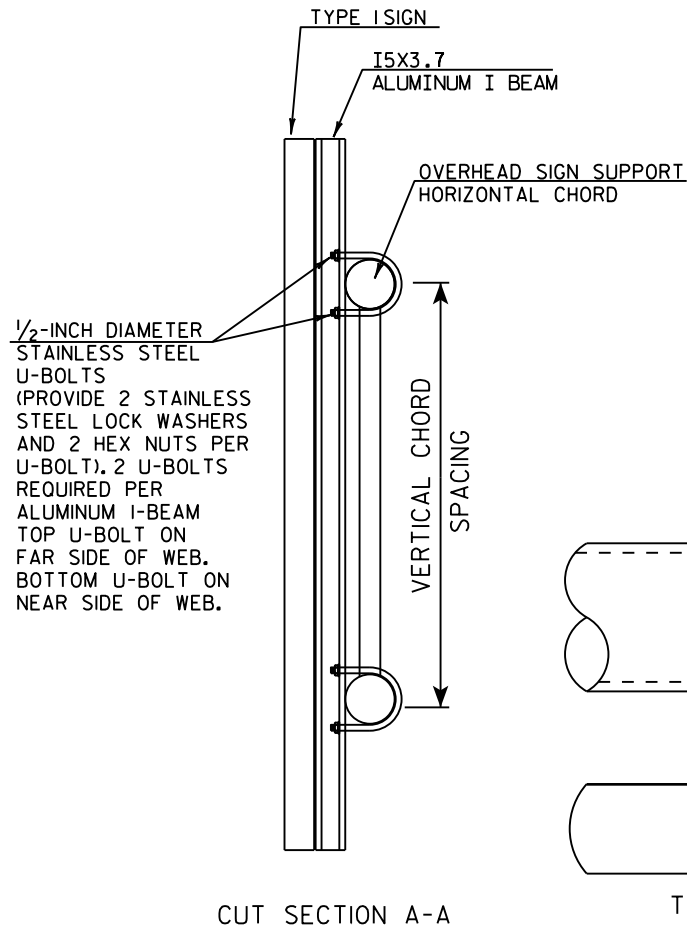
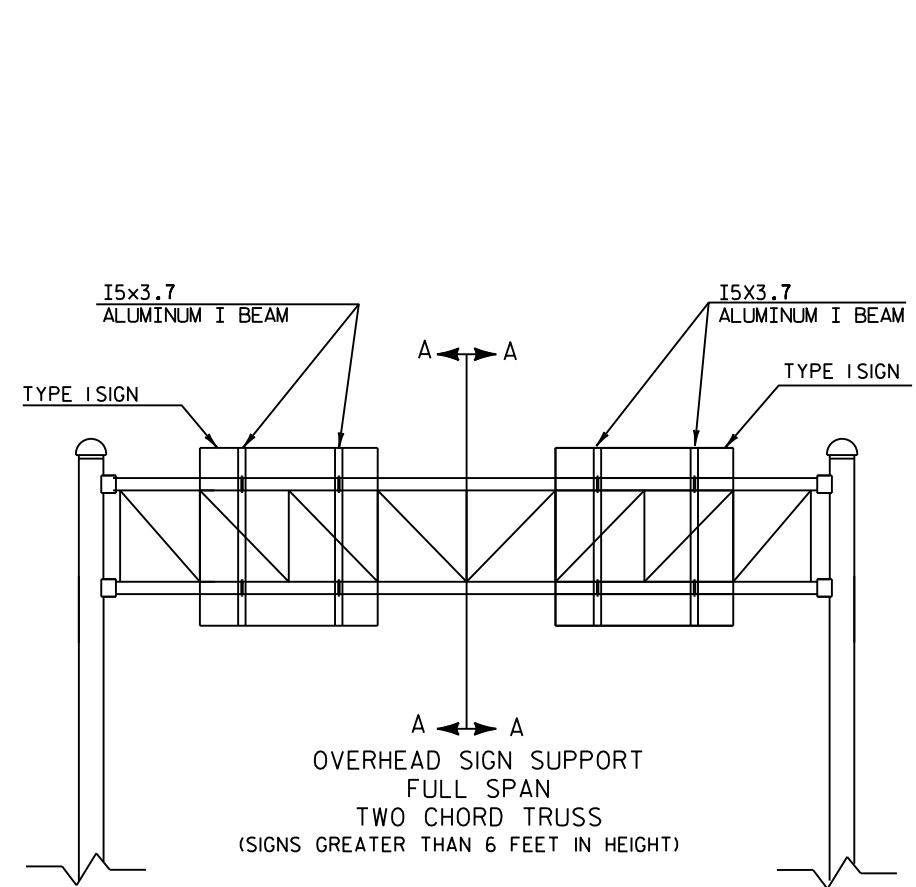
- SQUARE STEEL POSTS (2" x 2")
- MACHINE BOLTS - 3/8" x 3-1/4" LENGTH W/ NUTS
  - RIVETS - 9/32" (6605-9-6) BULB-TITE, TRI-FOLD, ALUMINUM BODY/MANDREL O.D. FLANGE .720-.765 INCH, GRIP RANGE .042-.375 INCH

- WASHERS (ALL POSTS) -
- 1-1/4" O.D. x 3/8" I.D. x 1/16" STEEL
  - 1-1/4" O.D. x 3/8" I.D. x .080 NYLON FOR ALL TYPE H SIGNS

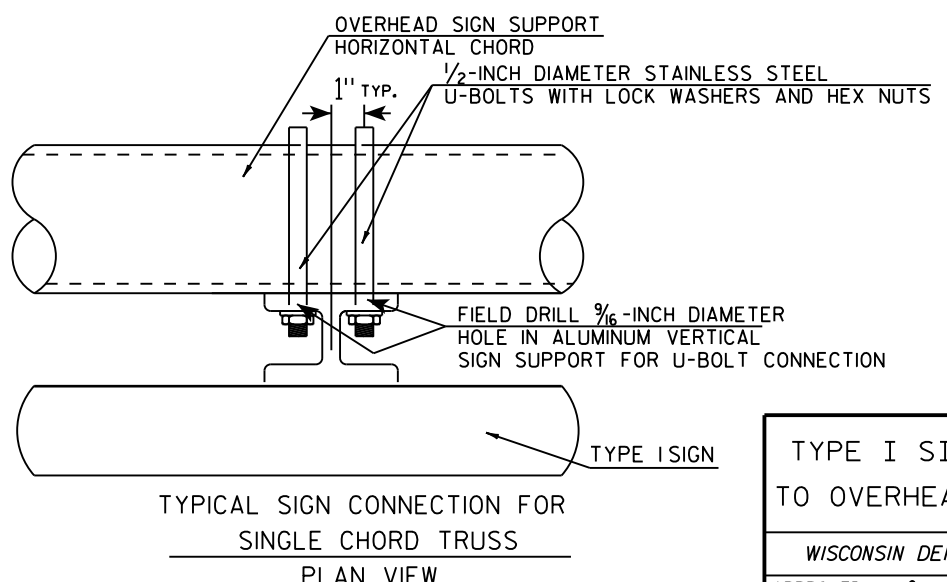
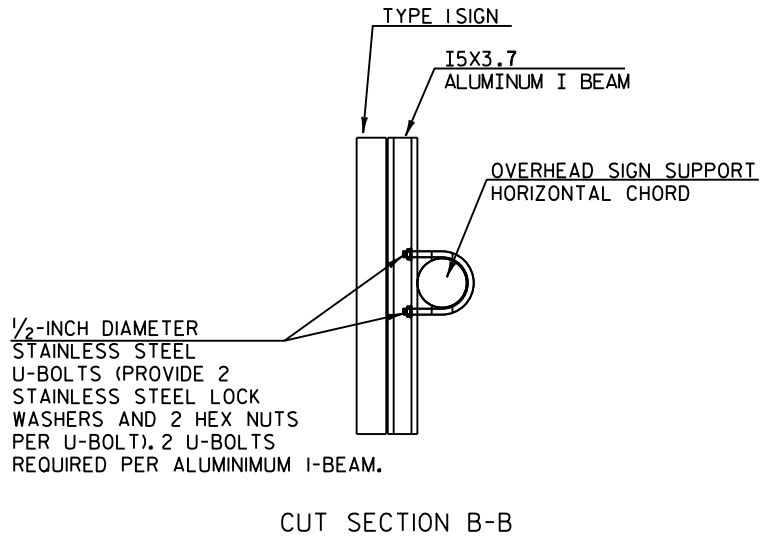
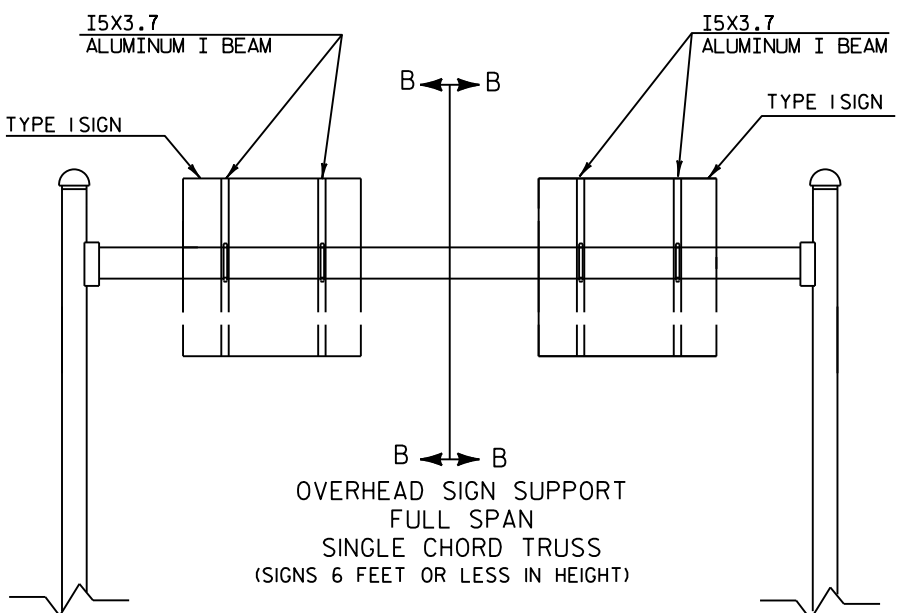
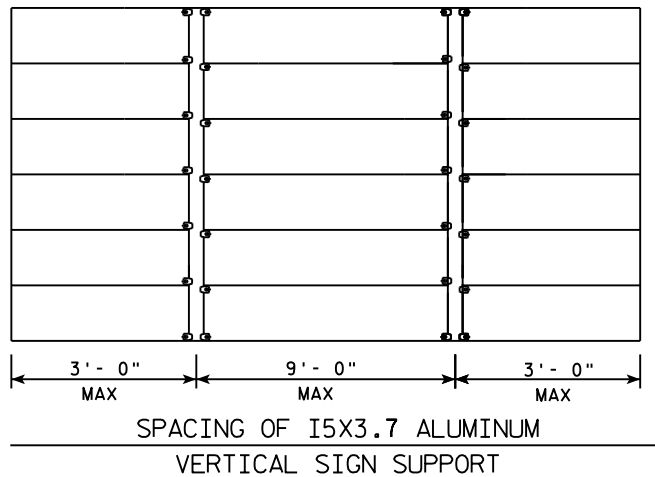
\* TWO DIFFERENT FASTENING SYSTEMS ARE SHOWN FOR ILLUSTRATION PURPOSES. ON ANY INDIVIDUAL SIGN, EITHER ONE OR THE OTHER SYSTEM SHALL BE USED. ACTUAL NUMBER OF FASTENERS PER SIGN VARIES WITH THE SIGN AREA. FOR A SINGLE POST INSTALLATION, ALL SIGNS GREATER THAN 9 SQ. FT. REQUIRE THE USE OF 3 FASTENERS.

ATTACHMENT OF SIGNS TO POSTS	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED June 2017 DATE	/S/ Andrew Heidtke WORK ZONE ENGINEER
FHWA	





- 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.

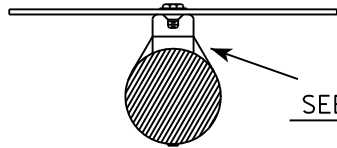
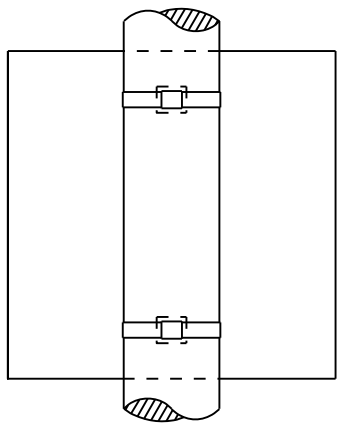


TYPE I SIGN CONNECTION TO OVERHEAD SIGN SUPPORT	
WISCONSIN DEPT OF TRANSPORTATION	
APPROVED	<i>Matthew R. Rauch</i> State Traffic Engineer
DATE 11/10/15	PLATE NO. A4-7.4



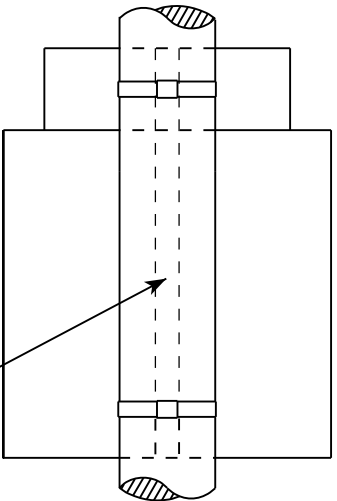
BANDING

SINGLE SIGN

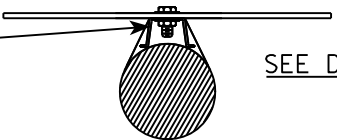


SEE DETAIL A

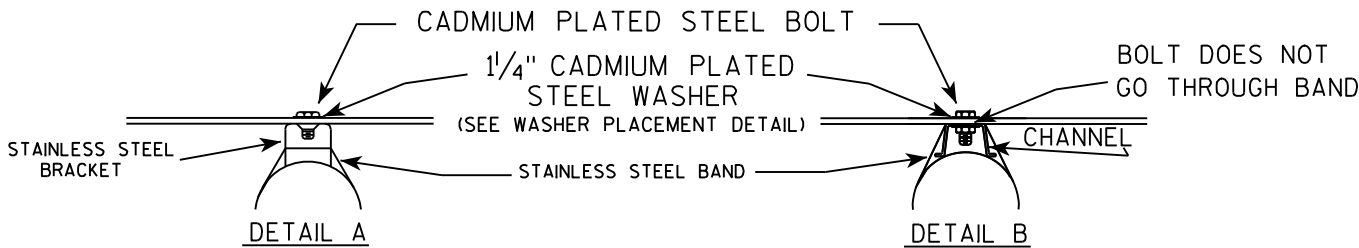
"J" ASSEMBLY



CHANNEL  
SEE TYPICAL PANEL  
INSTALLATION SHEET



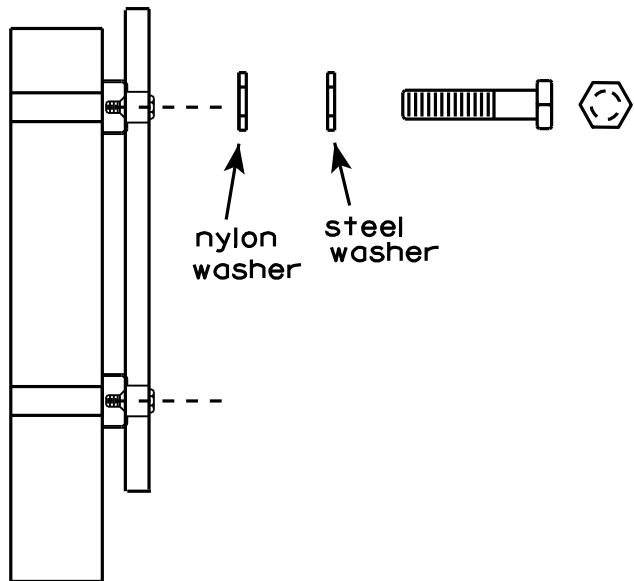
SEE DETAIL B



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  $\frac{3}{4}$ " in width and 0.025" thickness.

WASHER PLACEMENT



WASHERS (ALL POSTS) -  
1-1/4" O.D. X  $\frac{3}{8}$ " I.D. X  $\frac{1}{16}$ " STEEL  
1-1/4" O.D. X  $\frac{3}{8}$ " I.D. X .080 NYLON  
FOR ALL TYPE H SIGNS

STANDARD SIGN  
SIGN BANDING DETAILS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED

*Matthew R. Rauch*  
for State Traffic Engineer

DATE 8/16/13

PLATE NO. A5-9.3

PROJECT NO:

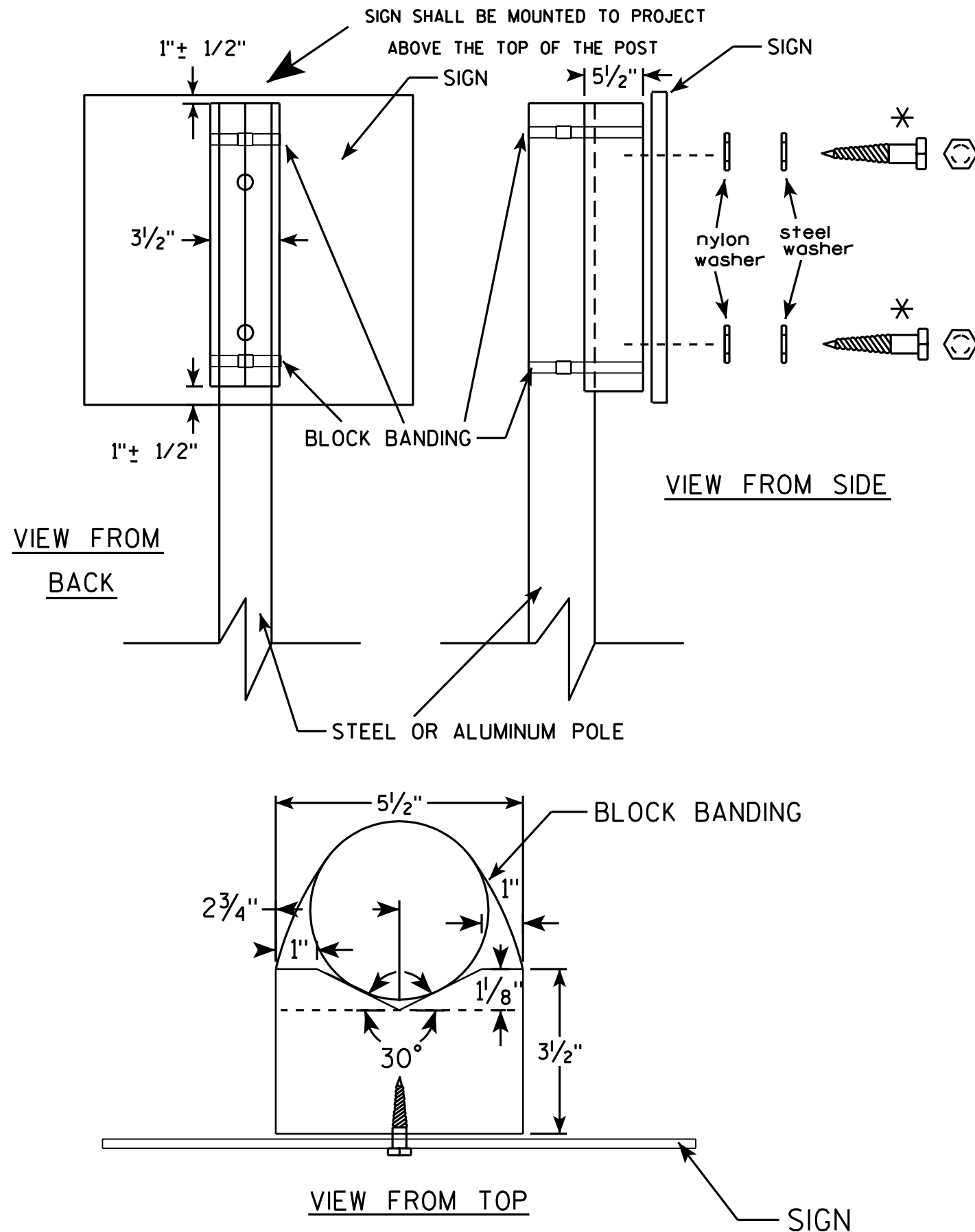
HWY:

COUNTY:

SHEET NO:

E





## 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, 3/4" 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 NORMALLY 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, or
  - b. Cadmium plated in accordance with ASTM Designation : B 766 TYPE 3, Class 12, or
  - c. 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 1 1/4" O.D. X 3/8" I.D. X 1/16"
8. NYLON WASHERS SHALL BE 1 1/4" O.D. X 3/8" I.D. X .080 FOR TYPE H OR TYPE F FACE SIGN

✱ LAG BOLTS SHALL BE 3/8" X 2 1/2"

BLOCK BANDING DETAIL  
( V-BLOCK OPTION )

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*  
for State Traffic Engineer

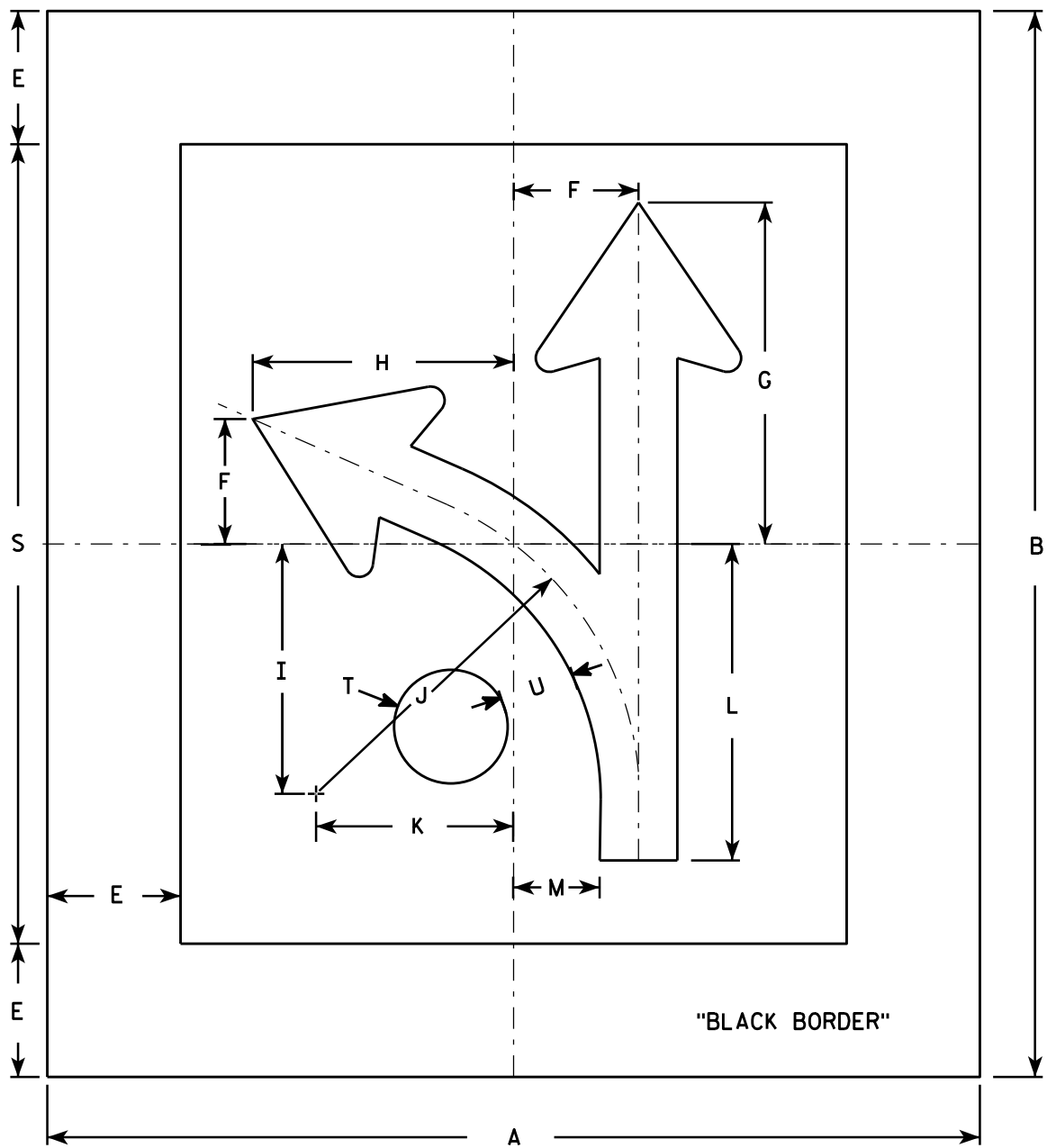
DATE 7/12/07 PLATE NO. A5-10.1

PROJECT NO:

SHEET NO:

E

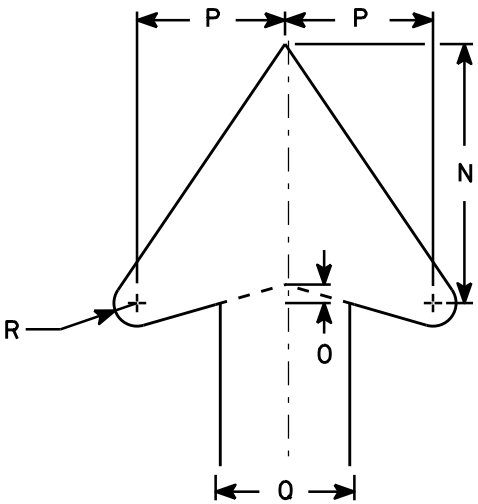




R3-6X

NOTES

- 1. Sign is Type II - Type H Reflective
- 2. Color:  
Background - White  
Message - Black
- 3. Corners may be square or rounded when base material is plywood. When base material is metal, the corners shall be rounded.
- 4. The 6" border is non-reflective black.



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	42	48			6	5 5/8	15 3/8	11 3/4	11 1/4	14 1/2	8 7/8	14 1/4	3 7/8	7	1/2	4	3 1/2	5/8	36	5	3 1/2						14.0
2M	42	48			6	5 5/8	15 3/8	11 3/4	11 1/4	14 1/2	8 7/8	14 1/4	3 7/8	7	1/2	4	3 1/2	5/8	36	5	3 1/2						14.0
3																											
4																											
5																											

PROJECT NO:

HWY:

COUNTY:

SHEET NO:

E



SIGN REPAIR LOCATIONS - BROWN COUNTY

COUNTY	STRUCTURE NUMBER	HIGHWAY	DIRECTION OF TRAVEL	LOCATION
BROWN	S050108	USH 41 SB	S	USH 41 SB, 0.6 MILES SOUTH OF LINEVILLE RD
	S050176	US 41 N/S		1/4M N OF LOMBARDIAVE
	S050188	USH 41 NB/SB		JUST N OF MEMORIAL DR BRIDGE
	S050212	LINEVILLE RD		LINEVILLE RD JUST EAST OF USH 141
	S050252	STH 29 WB	W	STH 29 WB JUST EAST OF I-41NB RAMP
	S050253	USH 41 N	N	EXIT RAMP TO STH 29
	S050270	CTH EB		CTH EB JUST SOUTH OF STH 29 ROUNDABOUT
	S050285	LINEVILLE RD.		LINEVILLE RD. ON USH 41 OVERPASS

SIGN REPAIR LOCATIONS - DOOR COUNTY

COUNTY	STRUCTURE NUMBER	HIGHWAY	DIRECTION OF TRAVEL	LOCATION
DOOR	S150017	STH 42 N	N	JUST S OF EGG HARBOR RD
	S150018	STH 42 S	S	JUST N OF EGG HARBOR RD

SIGN REPAIR LOCATIONS - FON DU LAC COUNTY

COUNTY	STRUCTURE NUMBER	HIGHWAY	DIRECTION OF TRAVEL	LOCATION
FOND DU LAC	S200022	I-41 NB	N	I-41 NB, 1/4 MILE TO CTH D EXIT
	S200023	I-41 SB	S	I-41 SB, 1/4 MILE FROM CTH VVV RAMP
	S200040	CTH D WB	W	CTH D WB JUST NORTH OF USH 51 SB RAMP

SIGN REPAIR LOCATIONS - MANITOWOC COUNTY

COUNTY	STRUCTURE NUMBER	HIGHWAY	DIRECTION OF TRAVEL	LOCATION
MANITOWOC	S36014000A	STH 32 EB	E	STH 32 WB JUST WEST OF STH 67
	S360015	STH 32 WB	W	STH 32 WB JUST WEST OF STH 67
	S360023	CUSTER ST		JUST N OF USH 151
	S360024	MARSHALL ST		JUST E OF STH 151

SIGN REPAIR LOCATIONS - MARINETTE COUNTY

COUNTY	STRUCTURE NUMBER	HIGHWAY	DIRECTION OF TRAVEL	LOCATION
MARINETTE	S380007	USH 141 NB	N	USH 141 NB AT EXIT TO STH 64
	S380008	USH 141 SB	S	USH 141 SB AT EXIT TO STH 64
	S380011	USH 41		AT STH 64 W

SIGN REPAIR LOCATIONS - OUTAGAMIE COUNTY

COUNTY	STRUCTURE NUMBER	HIGHWAY	DIRECTION OF TRAVEL	LOCATION
OUTAGAMIE	S440032	I-41 SB	S	I-41 SB AT OFF RAMP TO RICHMOND ST (STH 47)
	S440106	STH 47 S	S	STH 47 JUST S OF USH 41 SB RAMP

SIGN REPAIR LOCATIONS - SHEBOYGAN COUNTY

COUNTY	STRUCTURE NUMBER	HIGHWAY	DIRECTION OF TRAVEL	LOCATION
SHEBOYGAN	S590033	STH 42 WB	W	STH 42 WB JUST EAST OF CTH Y
	S590035	STH 42 WB	W	STH 42 WB, 1/4 MILE EAST OF I-43

SIGN REPAIR LOCATIONS - WINNEBAGO COUNTY

COUNTY	STRUCTURE NUMBER	HIGHWAY	DIRECTION OF TRAVEL	LOCATION
WINNEBAGO	S700047	US 21 EB	E	USH 21 EB, LIFT BRIDGE SIGNAL OVER THE FOX RIVER
	S700048	STH 21 WB	W	STH 21 WB, LIFT BRIDGE SIGNAL OVER THE FOX RIVER
	S700052	I-41 SB	S	I-41 SB, 1/2 MILE SOUTH OF STH 26
	S700053	I-41 SB	S	I-41 SB JUST SOUTH OF STH 26 BRIDGE
	S700056	I-41 SB	S	I-41 SB AT EXIT TO STH 44
	S700059	I-41 SB	S	I-41 SB AT EXIT TO 9TH AVE
	S700068	I-41 SB	S	I-41 SB AT EXIT TO USH 45
	S700111	USH 45		S OF BUTTE DES MORTS DR RAB
	S700158	STH 76 NB	N	STH 76 NB JUST NORTH OF CTH Y
	S700180	STH 114		AT CHURCH ST

STATE PROJECT NUMBER


1009-30-15

LIST OF DRAWINGS

1. 2019 NE REGION SIGN REPAIR
2. FOUNDATION DETAILS
3. TRUSS DETAILS 1
4. TRUSS DETAILS 2
5. SIGN PANEL DETAILS 1
6. SIGN PANEL DETAILS 2
7. S-05-108
8. S-05-176
9. S-05-188
10. S-05-212
11. S-05-252
12. S-05-253
13. S-05-270
14. S-05-285
15. S-15-17
16. S-15-18
17. S-20-22
18. S-20-23
19. S-20-40
20. S-36-14-A
21. S-36-15
22. S-36-23
23. S-36-24
24. S-38-07
25. S-38-08
26. S-38-11
27. S-44-32
28. S-44-106
29. S-59-33
30. S-59-35
31. S-70-47
32. S-70-48
33. S-70-52
34. S-70-53
35. S-70-56
36. S-70-59
37. S-70-68
38. S-70-111
39. S-70-158
40. S-70-180
41. S-70-180 FOUNDATION DETAILS

STRUCTURE DESIGN CONTACTS:

STEVEN DOOCY (608) 261-6063  
AARON BONK (608) 261-0261

NO.	DATE	REVISION	BY
<div><div><div><div>BUREAU OF</div><div>STRUCTURES</div></div></div><div>ACCEPTED <i>William C. Diehl</i> 1/30/19 CHIEF STRUCTURES DESIGN ENGINEER DATE</div></div>			
STRUCTURE NE SIGN REPAIRS			
2019 NE SIGN REPAIR			
COUNTY VARIES		VARIES	
DESIGN SPEC. REHABILITATION N/A			
DESIGNED BY SAD	DESIGNED CK'D. MJK	DRAWN BY DDS	PLANS CK'D. SAD
2019 NE REGION SIGN REPAIR			SHEET 1 OF 41

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

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

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

BEVEL EXPOSED EDGES OF CONCRETE 3/4" 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.

ALL FIELD CONNECTIONS SHALL BE MADE WITH 3/4" DIAMETER A325 HIGH-TENSILE STRENGTH BOLTS UNLESS OTHERWISE SHOWN OR NOTED.



\*\*QUANTITIES LISTED IN THIS TABLE ARE FOR INFORMATION ONLY, AND ARE NOT TO BE COUNTED AS ADDITIONAL QUANTITIES TO THOSE LISTED ON THE STRUCTURE ELEVATION SHEETS.

TABLE OF ESTIMATED QUANTITIES FOR FOUNDATIONS \*\*

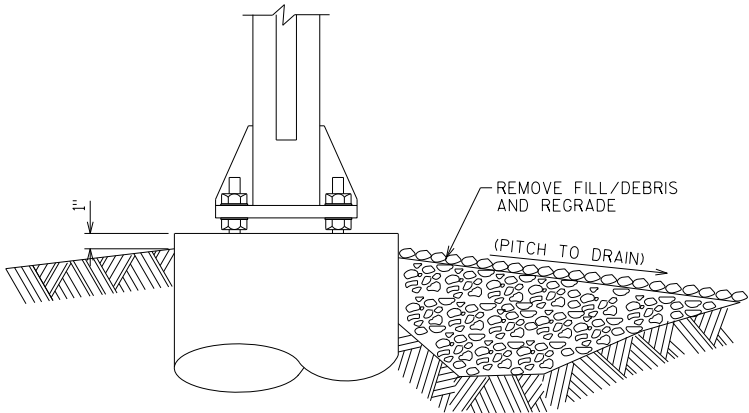
STRUCTURE NUMBER	TENSION ANCHOR ROD	REMOVE DEBRIS AND REGRADE	REPLACE RODENT SCREEN	REPLACE FOUNDATION	ADJUST STANDOFF
	SPV.0060.01	SPV.0060.02	SPV.0060.03	SPV.0060.04	SPV.0060.05
	EA	EA	EA	EA	EA
S050108			2		
S050176					1
S050188					1
S050252	12				
S050253	12				
S050270	12				
S150017	6		1		
S150018	6				
S200022	8				
S36014000A	6				
S360015	6				
S360023	8				
S360024	8				
S380007	8				
S380008	8				
S590033		1			
S700047			1		
S700048			1		
S700052	8				
S700053	8				
S700056	8				
S700059	8				
S700111	6				
S700158			1		
S700180				1	
TOTAL	138	1	6	1	2

FOUNDATION NOTES

STATE PROJECT NUMBER

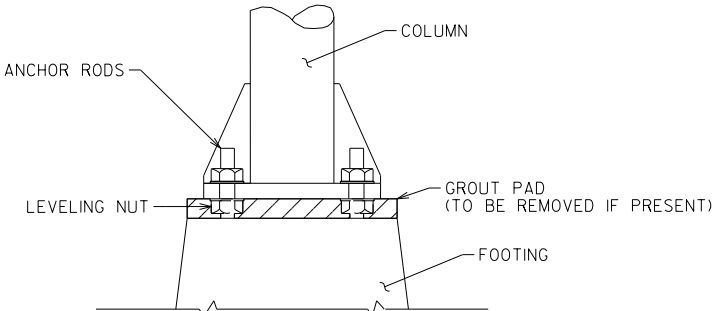
1009-30-15

1. CONCRETE -  $f_c' = 3,500$  P.S.I.
2. BAR STEEL REINF.- GRADE 60  $f_y = 60,000$  P.S.I.
3. THE CONTRACTOR SHALL VERIFY EXACT LOCATION OF ALL REPAIRS.
4. THE CONTRACTOR SHALL FIELD VERIFY DIMENSION OF THE ITEM REQUIRED. DISCREPANCIES SHALL BE SUBMITTED TO THE ENGINEER FOR CLARIFICATION PRIOR TO BEGINNING WORK.
5. APPLY ZINC-RICH PAINT TO THE ANCHOR RODS, NUTS, WASHERS, AND LEVELING NUTS IN ACCORDANCE WITH SPECIFICATIONS AFTER REMOVING THE GROUT PAD OR TENSIONING THE ANCHOR ROD. THIS WORK SHALL BE CONSIDERED INCIDENTAL TO THE BID ITEM "TENSION ANCHOR ROD"
6. STEEL ANCHOR ROD NUTS AND WASHERS ASTM A563A HEAVY HEX NUTS AND ASTM F436 WASHERS.
7. THE TOP OF THE FOOTING SURFACE SHALL BE SMOOTHED AND SLOPED TO DRAIN.

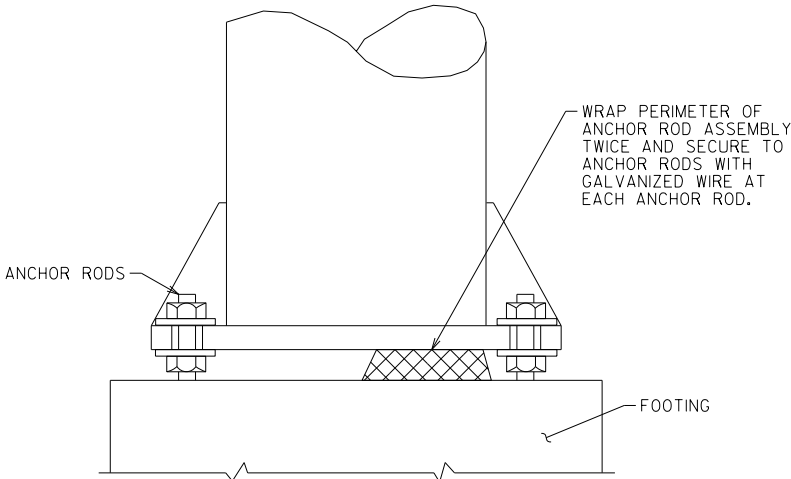


REMOVE DEBRIS AND REGRADE  
SINGLE SHAFT FOUNDATION

ENSURE TOP OF CONCRETE IS FREE OF DEBRIS AND WATER WILL NOT COLLECT ON OR NEAR FOUNDATION.



TENSION ANCHOR RODS



REPLACE RODENT SCREEN

REQUIRED ON ALL STRUCTURES WITH ELECTRICAL EQUIPMENT.

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE NE SIGN REPAIRS			
DRAWN BY		DDS	PLANS CK'D. SAD
FOUNDATION DETAILS		SHEET 2	

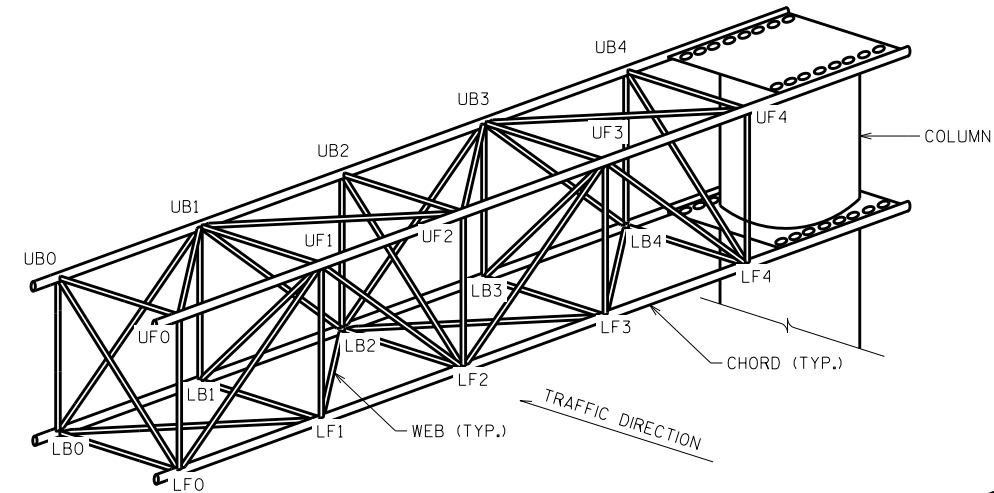
SCALE = 1:00



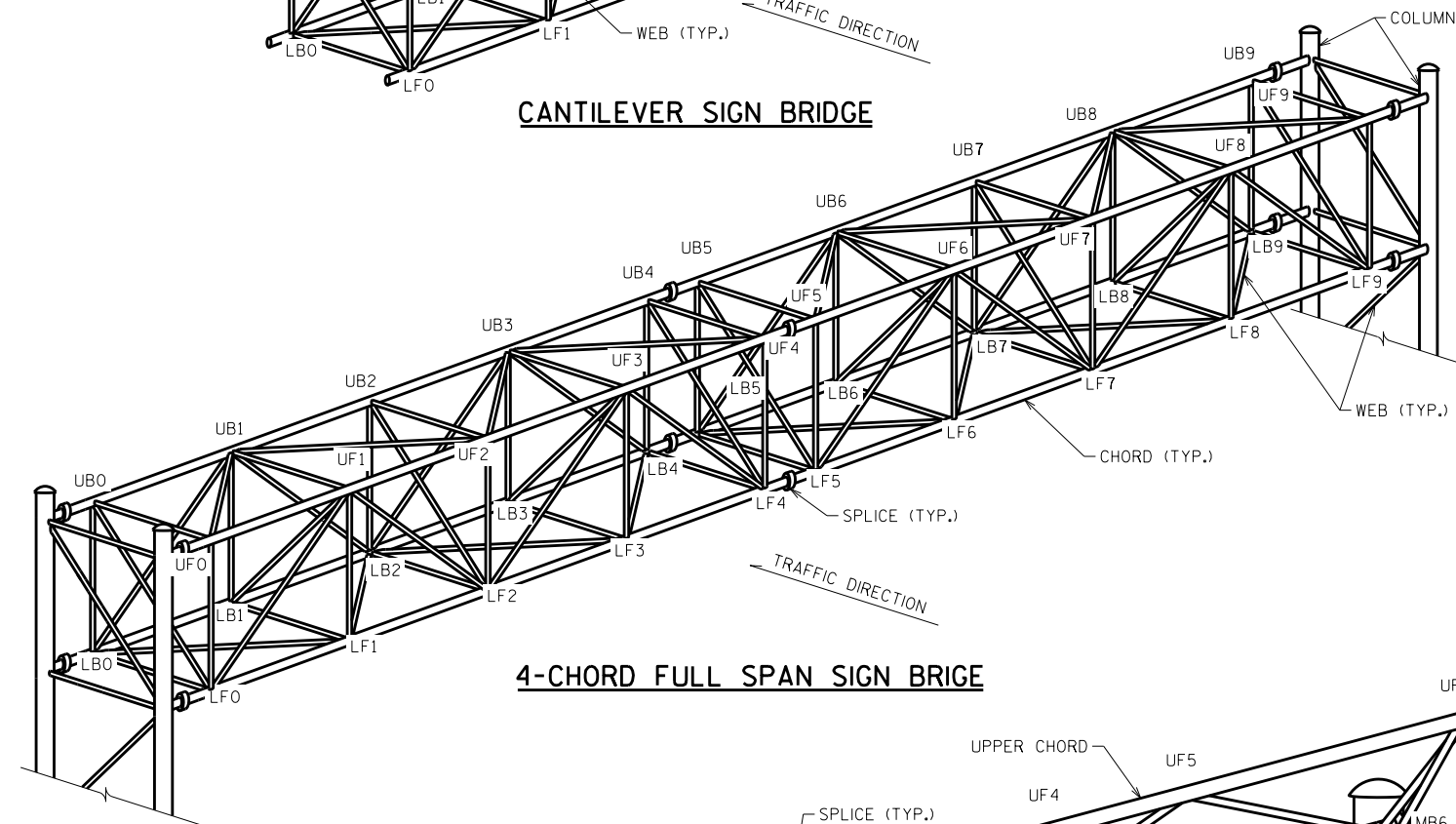
\*\*QUANTITIES LISTED IN THIS TABLE ARE FOR INFORMATION ONLY, AND ARE NOT TO BE COUNTED AS ADDITIONAL QUANTITIES TO THOSE LISTED ON THE STRUCTURE ELEVATION SHEETS.

TABLE OF ESTIMATED QUANTITIES FOR TRUSSES \*\*

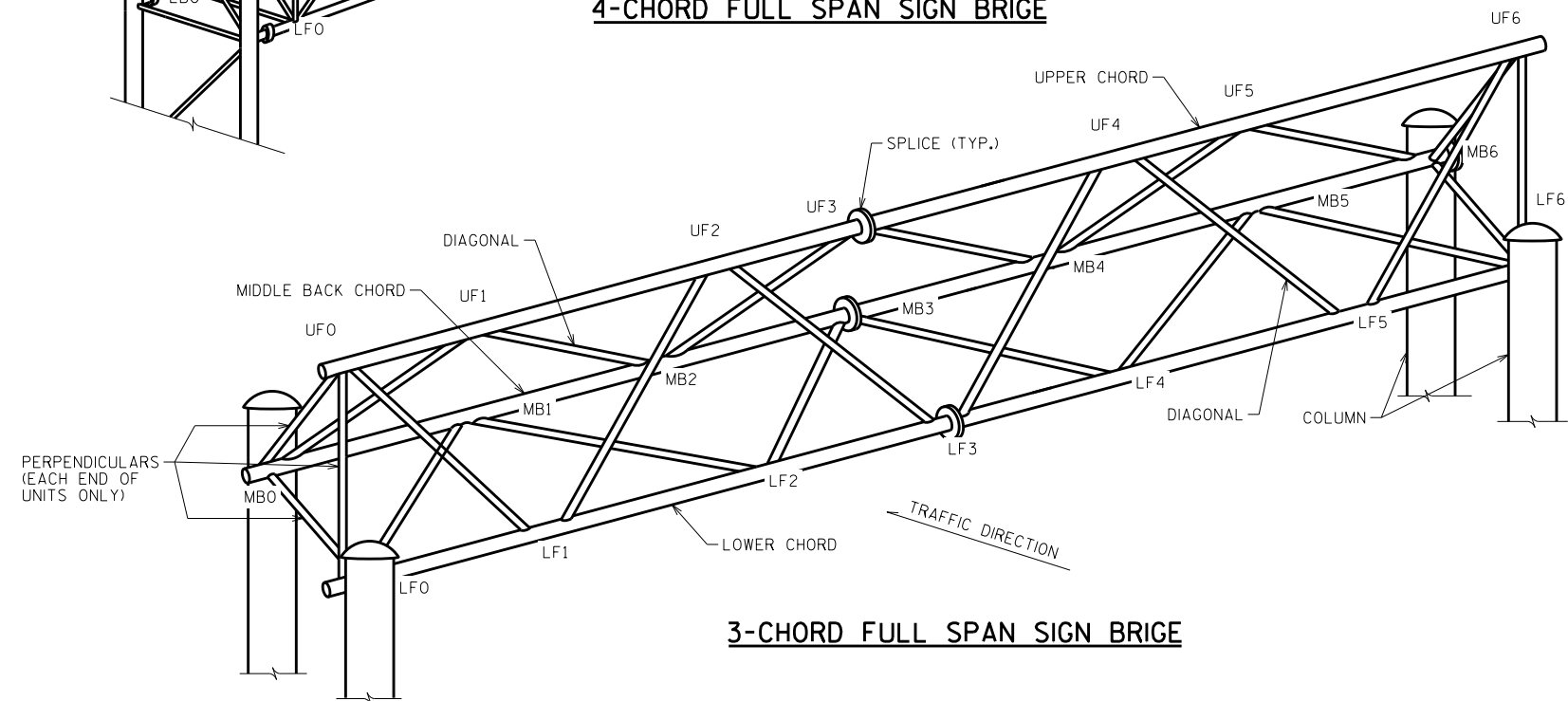
STRUCTURE NUMBER	TENSION STRUCTURAL CONNECTION BOLT (FRICTION)	TIGHTEN CONNECTION BOLT (NON- FRICTION)	SECURE/ REPLACE CAP
	SPV.0060.06 EA	SPV.0060.07 EA	SPV.0060.08 EA
S050108			1
S050212		1	
S050285		1	
S200022			1
S200023			2
S200040	4		
S440032	1		
S440106			1
S590033	4		
S590035	4		
S700047			2
S700048			2
TOTAL	13	2	9



CANTILEVER SIGN BRIDGE



4-CHORD FULL SPAN SIGN BRIDGE



3-CHORD FULL SPAN SIGN BRIDGE

STATE PROJECT NUMBER

1009-30-15

TRUSS NOTES:

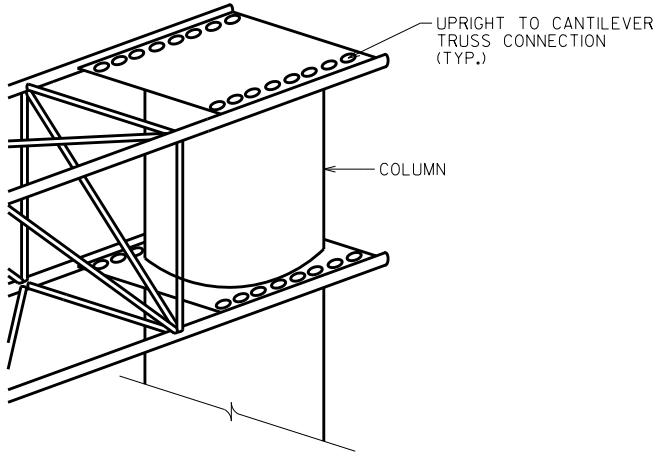
1. WHEN A FULL SPAN SIGN BRIDGE IS OVER BOTH DIRECTIONS AND SIGNS ARE ON STRUCTURE FOR BOTH DIRECTIONS, THEN NORTHBOUND AND EASTBOUND GOVERN THE NUMBERING SYSTEM.
2. THE CANTILEVER SIGN BRIDGE NUMBERING SYSTEM ALWAYS COUNTS UP FROM LEFT TO RIGHT REGARDLESS OF COLUMN LOCATION.
3. TYPICAL SIGN BRIDGE CONFIGURATION FOR INFORMATION ONLY.

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE NE SIGN REPAIRS			
DRAWN BY		DDS	PLANS CK'D. SAD
TRUSS DETAILS 1		SHEET 3	

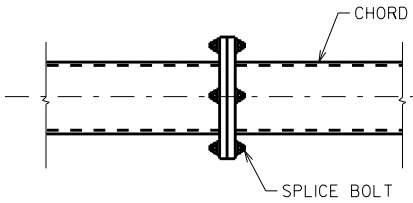


TRUSS NOTES:

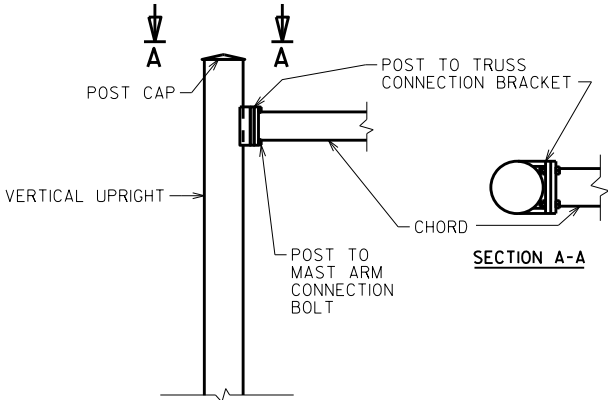
- 1. THE CONTRACTOR SHALL VERIFY EXACT LOCATION OF ALL REPAIRS.
- 2. THE CONTRACTOR SHALL FIELD VERIFY THE DIMENSIONS OF THE ITEM REQUIRED. DISCREPANCIES SHALL BE SUBMITTED TO THE ENGINEER FOR CLARIFICATION PRIOR TO BEGINNING WORK.
- 3. ALL STAINLESS STEEL BOLTS, LOCK WASHERS, AND NUTS SHALL CONFORM TO:
  - ANCHOR BOLTS/HEX BOLTS ASTM F593 ANY ALLOY GROUP 1, 2, OR 3
  - HEX NUTS ASTM F594
  - WASHERS ASTM A240ANY OF THE 300 SERIES WHICH HAVE A MINIMUM YIELD OF 40,000 PSI AND ELONGATION OF 15% FOR OVER 3/4"  $\phi$  AND 12% FOR 3/4"  $\phi$  AND SMALLER.
- 4. REPLACE MISSING BOLTS ON TOWER CAPS WITH A STAINLESS STEEL BOLT.



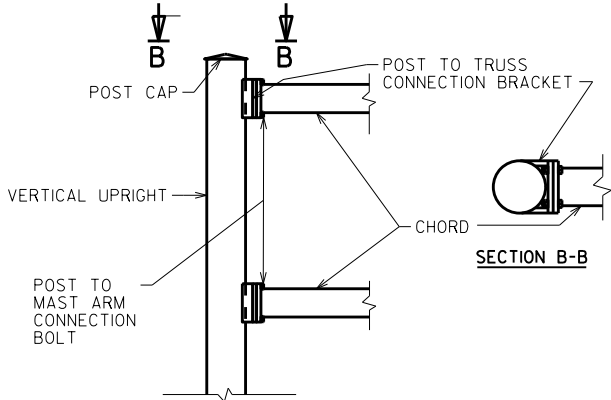
CANTIEVER SIGN BRIDGE  
POST TO TRUSS CONNECTION DETAIL



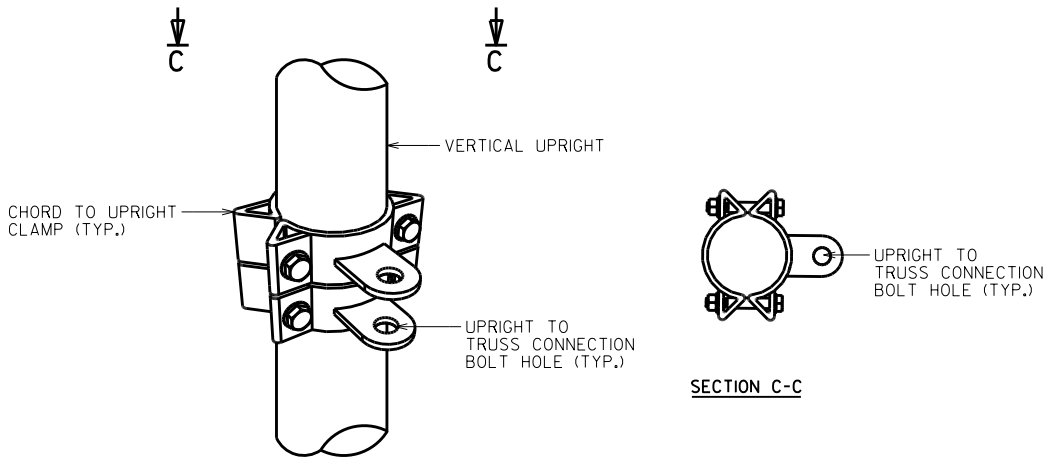
SPLICE CONNECTION BOLT DETAIL



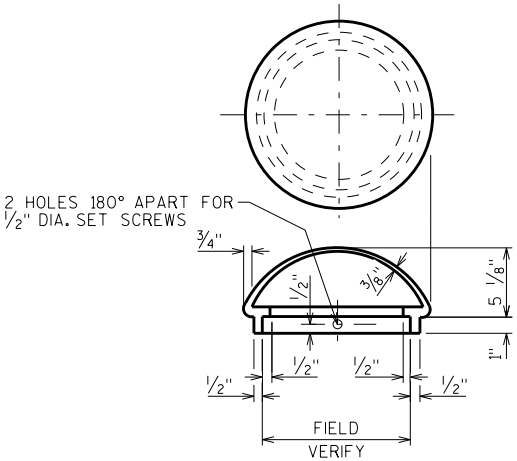
POST TO MAST ARM DETAIL



OVERHEAD POST TO TRUSS CONNECTION DETAIL II



OVERHEAD POST TO TRUSS CONNECTION DETAIL I



POST CAP DETAIL

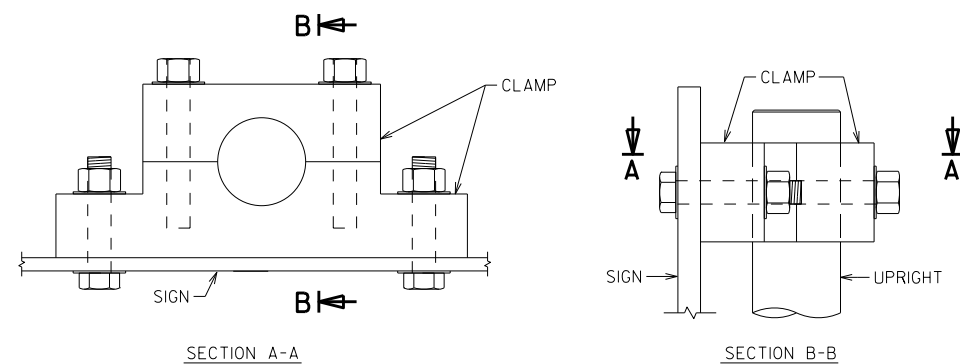
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE NE SIGN REPAIRS			
DRAWN BY		DDS	PLANS CK'D. SAD
TRUSS DETAILS 2		SHEET 4	



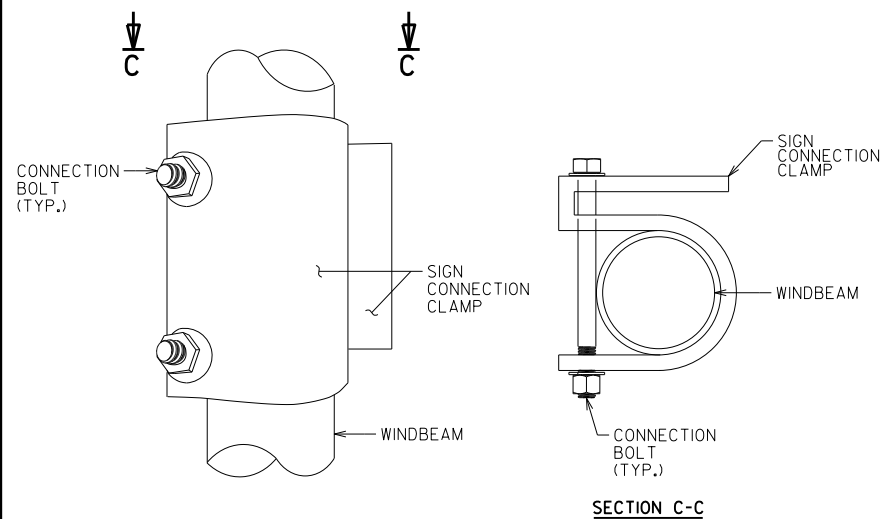
\*\*QUANTITIES LISTED IN THIS TABLE ARE FOR INFORMATION ONLY, AND ARE NOT TO BE COUNTED AS ADDITIONAL QUANTITIES TO THOSE LISTED ON THE STRUCTURE ELEVATION SHEETS.

TABLE OF ESTIMATED QUANTITIES FOR SIGNS \*\*

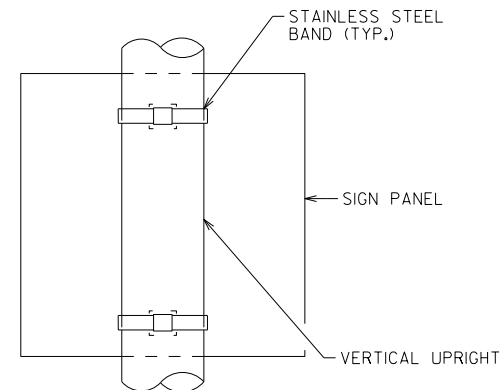
STRUCTURE NUMBER	SIGNS TYPE II REFLECTIVE SH	REMOVING SIGNS TYPE II	REPLACE TYPE II SIGN SUPPORT BRACKET	REPLACE SIGN CONNECTION HARDWARE	REPLACE SIGN CONNECTION CLAMP	INSTALL CONDUIT PLUG	INSTALL ID PLAQUE	INSTALL SIGN PANEL CONNECTOR	ADJUST VERTICAL CLEARANCE
	637.2220	638.2602	SPV.0060.09	SPV.0060.10	SPV.0060.11	SPV.0060.12	SPV.0060.13	SPV.0060.14	SPV.0060.15
	SF	EA	EA	EA	EA	EA	EA	EA	EA
S050108				2		1			
S200040				1					
S36014000A							1		
S360023				1	1				
S360024				1	2				
S380008								1	
S380011					2				
S590033				2					
S590035	14		1	1					
S700048									2
S700068	21	1							
S700180				1					
TOTAL	35	1	1	9	5	1	1	1	2



CLAMP DETAILS

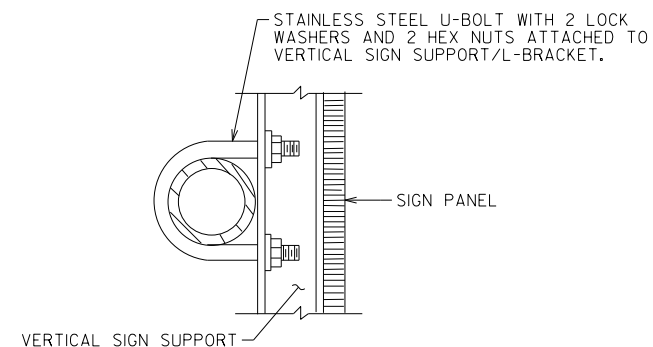


SIGN CONNECTION CLAMP DETAIL (TYPE 2)

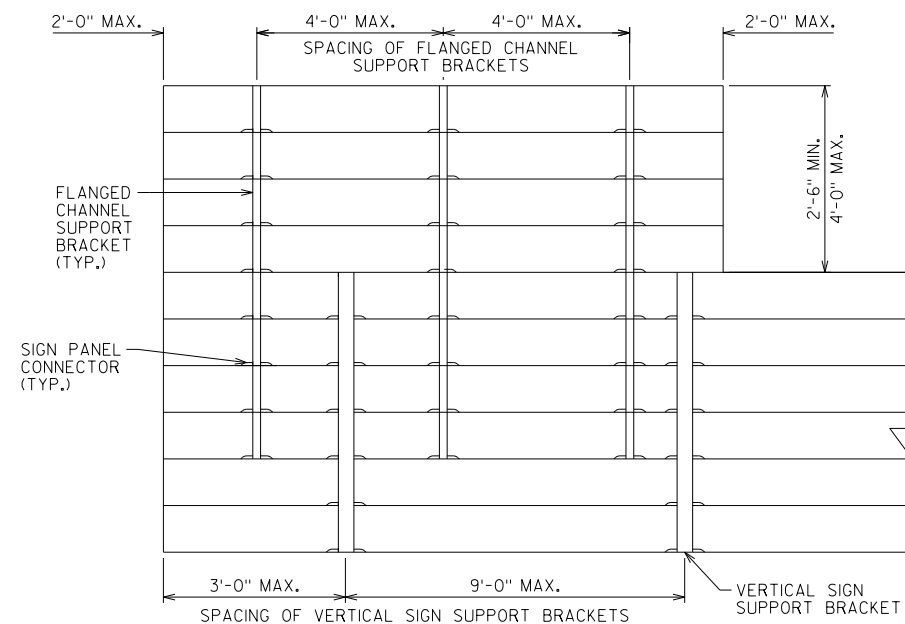


TYPE-II SIGN TO VERTICAL UPRIGHT DETAIL

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



INSTALL U-BOLT & TIGHTEN LOOSE U-BOLT DETAIL



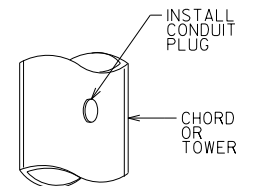
FLANGED CHANNEL SUPPORT/VERTICAL SIGN SUPPORT BRACKET DETAILS

STATE PROJECT NUMBER

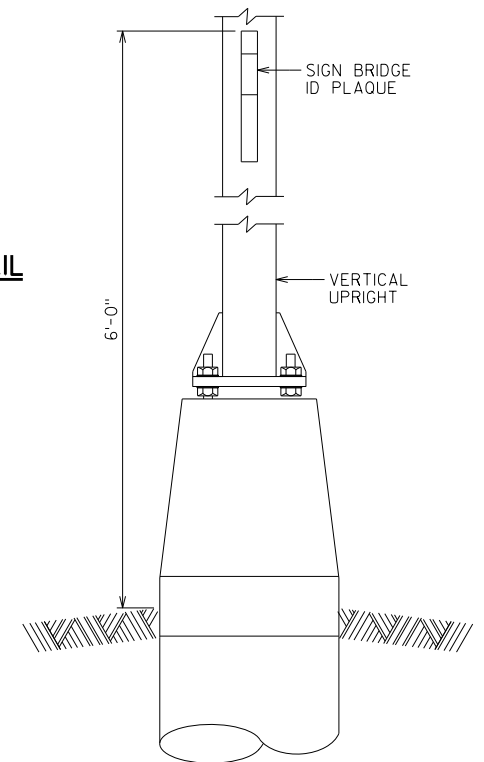
1009-30-15

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 A240ANY 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.



CONDUIT PLUG DETAIL

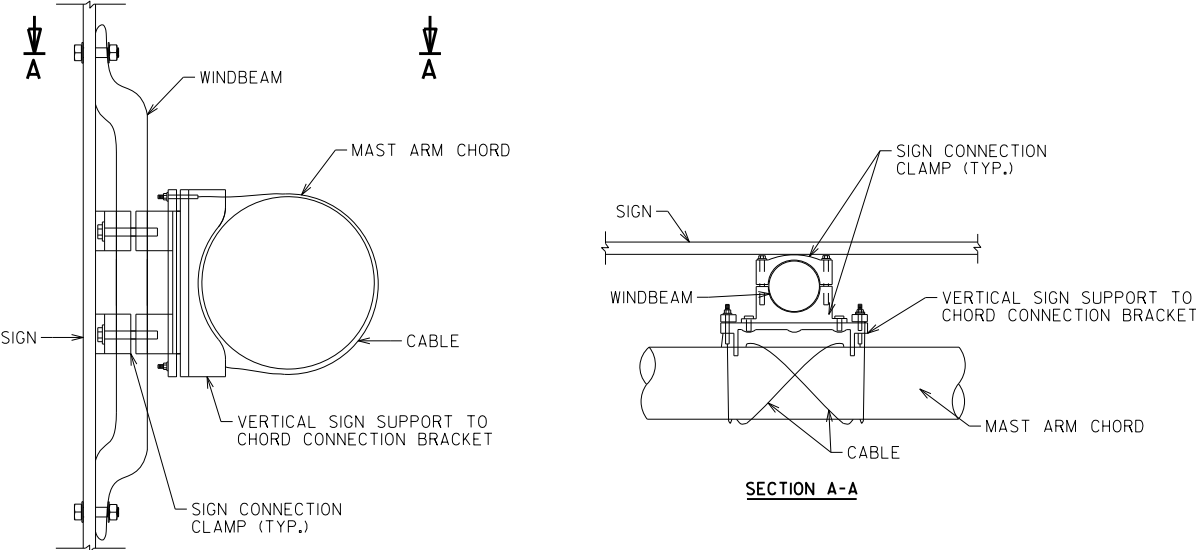


SIGN BRIDGE ID PLAQUE

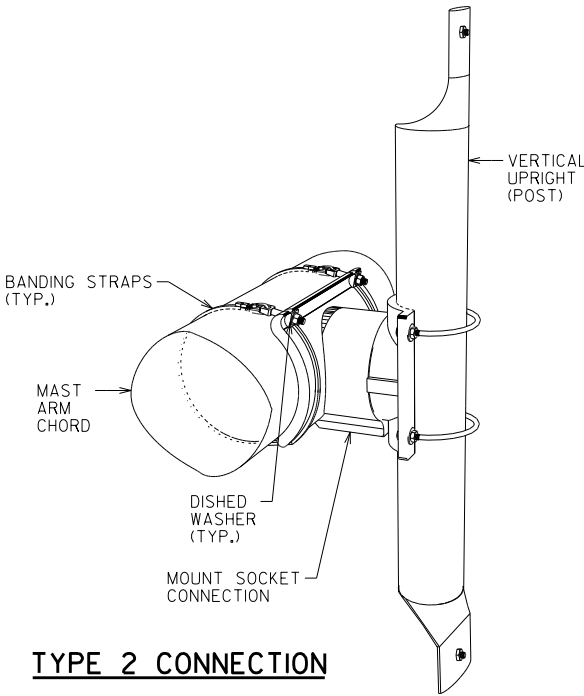
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE NE SIGN REPAIRS			
		DRAWN BY	PLANS CK'D.
		DDS	SAD
SIGN PANEL DETAILS 1		SHEET 5	

SCALE = 1:00

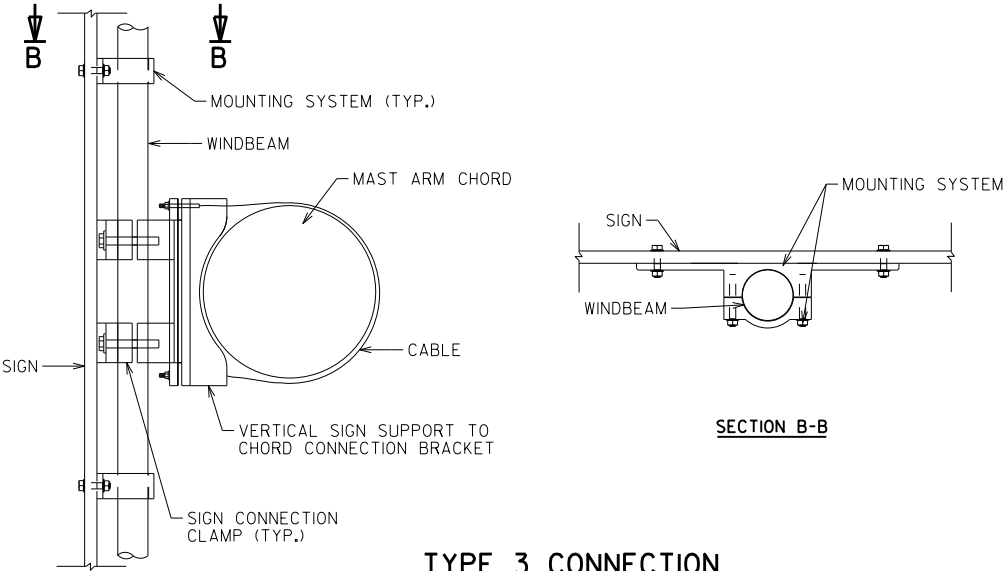




TYPE 1 CONNECTION



TYPE 2 CONNECTION



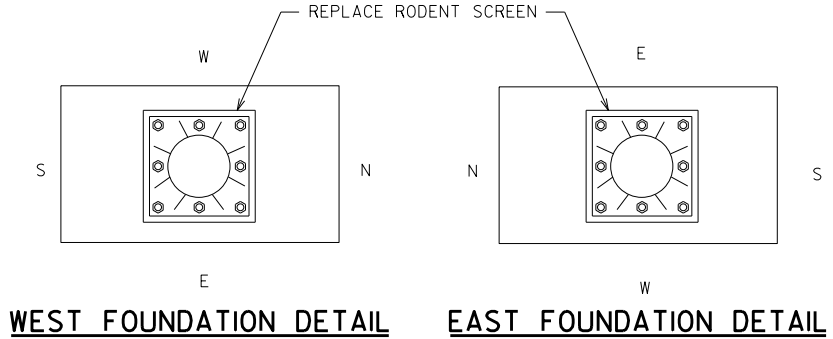
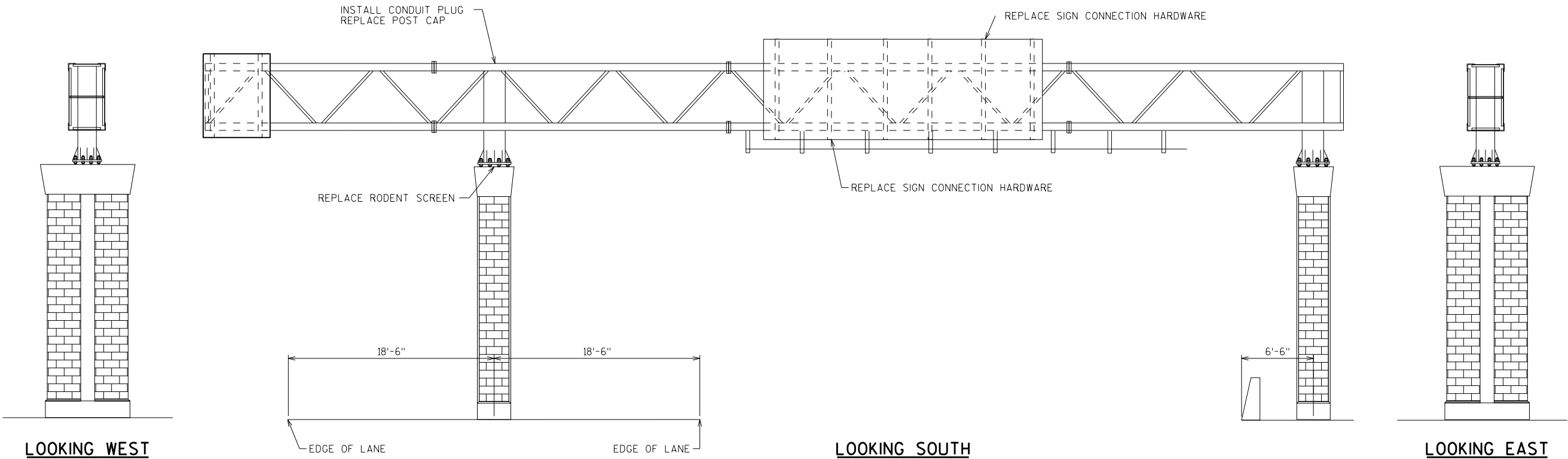
TYPE 3 CONNECTION

SIGN PANEL CONNECTION DETAIL (TYPE II SIGN)

NOTE: SOME TYPE II SIGN PANELS MAY HAVE SIGN TYPE I CONNECTION.  
REFER TO SHEET "SIGN PANEL DETAILS (1 OF 2)".

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE NE SIGN REPAIRS			
DRAWN BY		DDS	PLANS CK'D. SAD
SIGN PANEL DETAILS 2		SHEET 6	

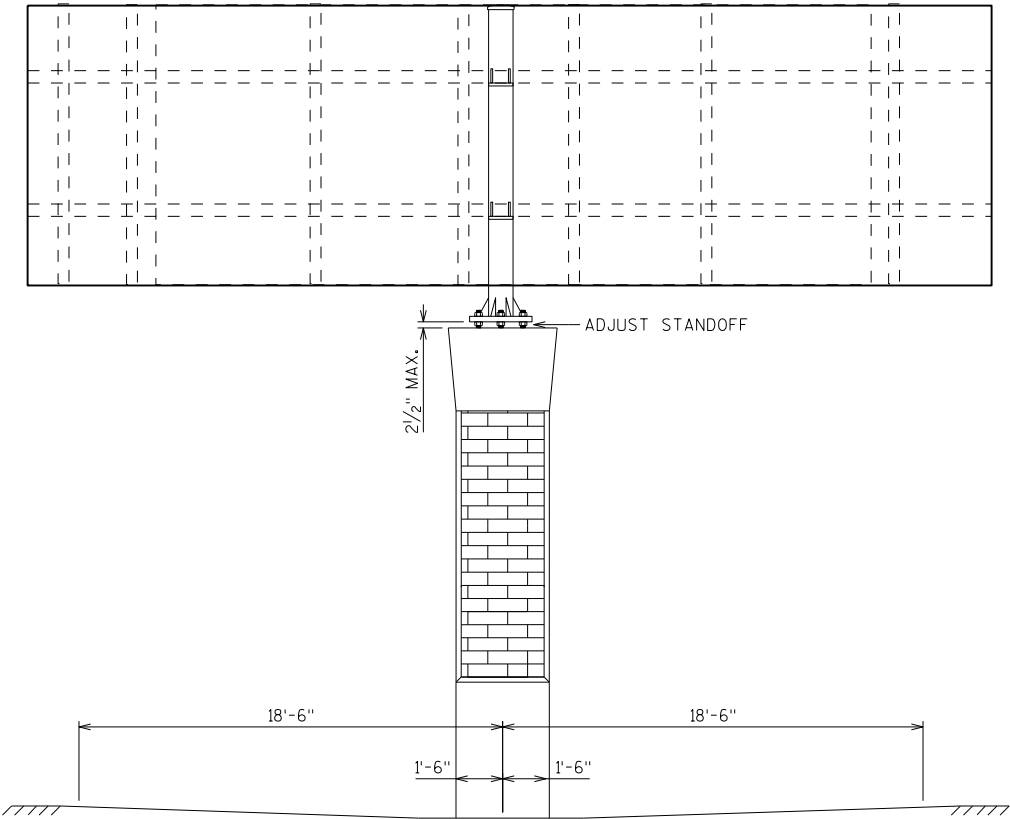




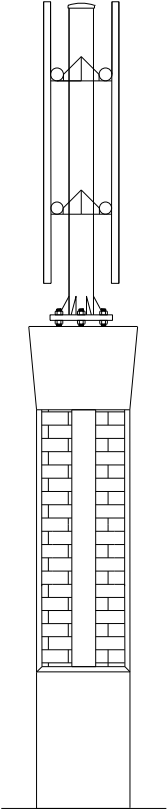
ITEM NUMBER	BID ITEMS	QUANTITY	REPAIR DETAIL SHEET NO.
SPV.0060.03	REPLACE RODENT SCREEN	2 EACH	2
SPV.0060.08	SECURE/REPLACE CAP	1 EACH	3
SPV.0060.10	REPLACE SIGN CONNECTION HARDWARE	2 EACH	5
SPV.0060.12	INSTALL CONDUIT PLUG	1 EACH	5

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE NE SIGN REPAIRS			
DRAWN BY		DDS	PLANS CK'D. SAD
S-05-108		SHEET 7	





LOOKING NORTH

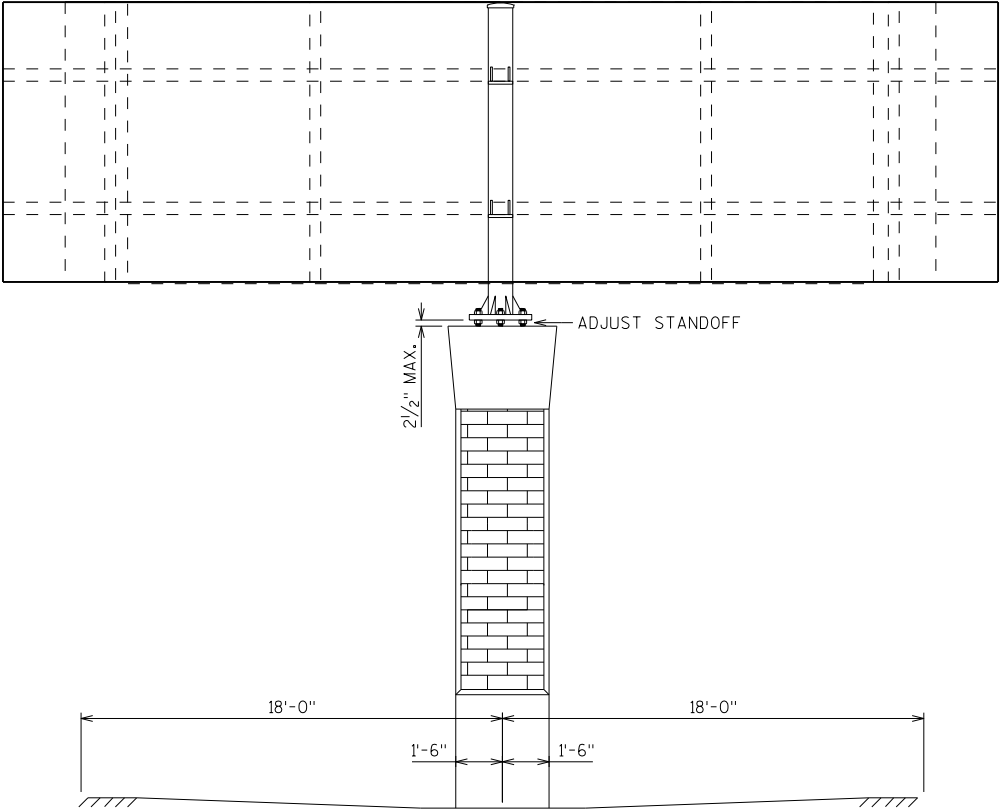


LOOKING WEST

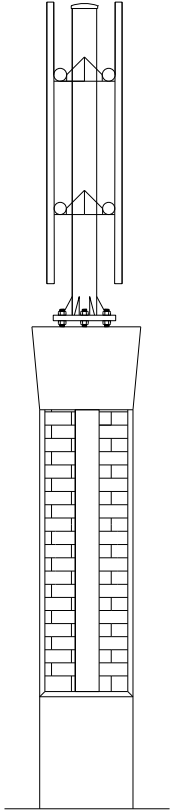
ITEM NUMBER	BID ITEMS	QUANTITY	REPAIR DETAIL SHEET NO.
SPV.0060.05	ADJUST STANDOFF	1 EACH	2

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE NE SIGN REPAIRS			
		DRAWN BY	PLANS CK'D. <b>SAD</b>
		DDS	
S-05-176			SHEET 8





LOOKING SOUTH

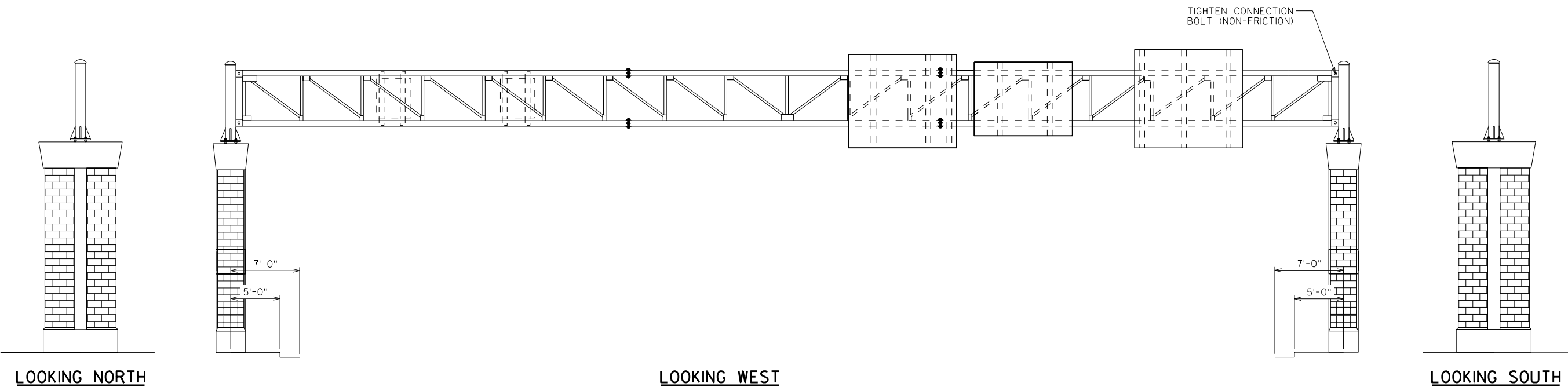


LOOKING EAST

ITEM NUMBER	BID ITEMS	QUANTITY	REPAIR DETAIL SHEET NO.
SPV.0060.05	ADJUST STANDOFF	1 EACH	2

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE NE SIGN REPAIRS			
DRAWN BY		DDS	PLANS CK'D. SAD
S-05-188		SHEET 9	

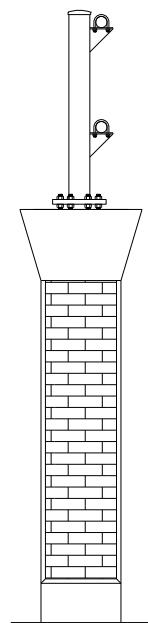




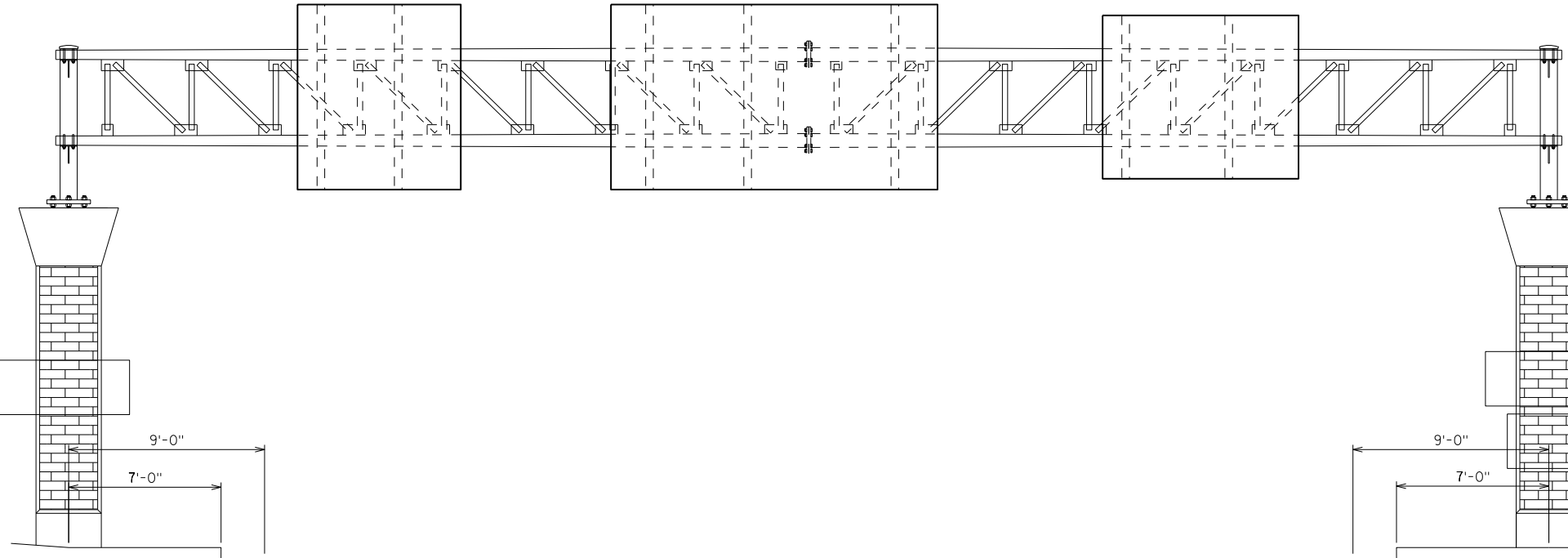
ITEM NUMBER	BID ITEMS	QUANTITY	REPAIR DETAIL SHEET NO.
SPV.0060.07	TIGHTEN CONNECTION BOLT (NON-FRICTION)	1 EACH	3

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE NE SIGN REPAIRS			
		DRAWN BY	PLANS CK'D. <b>SAD</b>
		DDS	
S-05-212		SHEET 10	

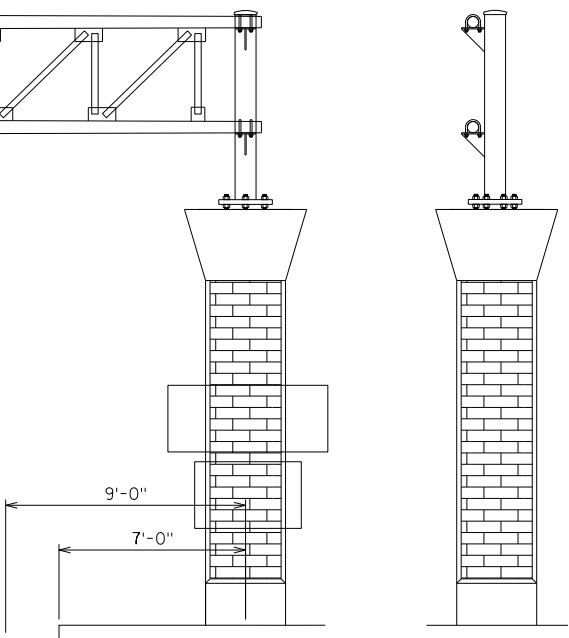




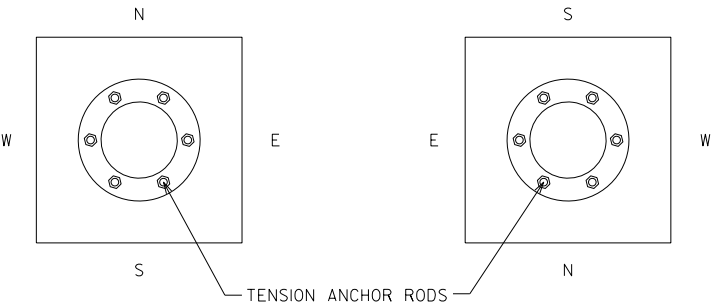
LOOKING NORTH



LOOKING WEST



LOOKING SOUTH

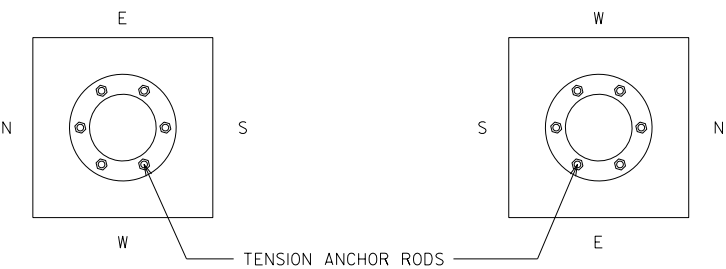
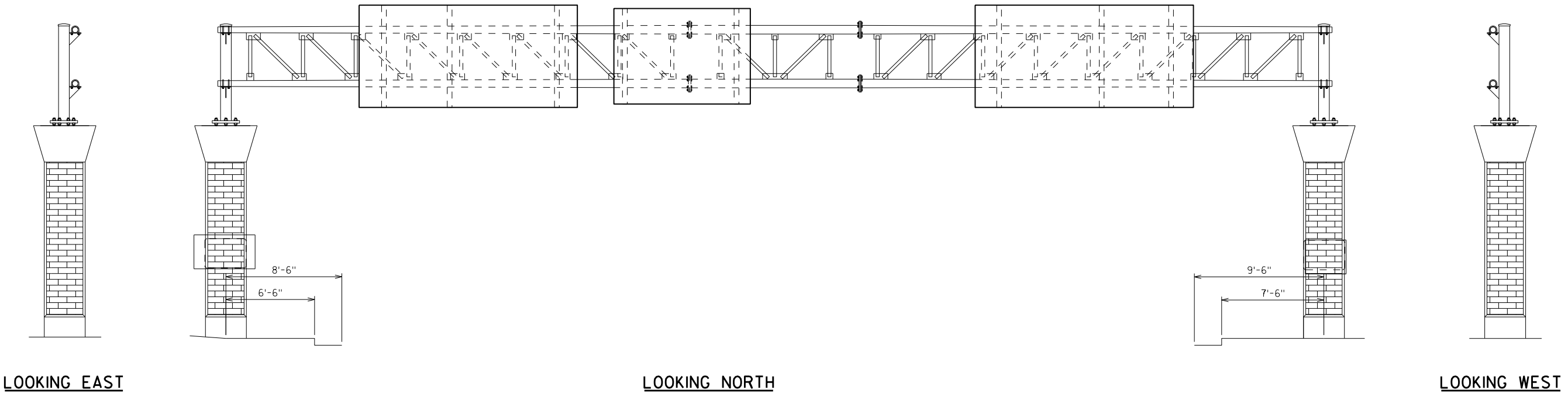


SOUTH FOUNDATION DETAIL NORTH FOUNDATION DETAIL

ITEM NUMBER	BID ITEMS	QUANTITY	REPAIR DETAIL SHEET NO.
SPV.0060.01	TENSION ANCHOR ROD	12 EACH	2

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE NE SIGN REPAIRS			
		DRAWN BY	PLANS CK'D. <b>SAD</b>
		DDS	
S-05-252		SHEET 11	





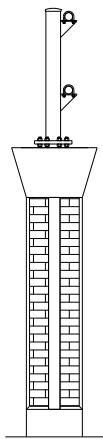
EAST FOUNDATION DETAIL

WEST FOUNDATION DETAIL

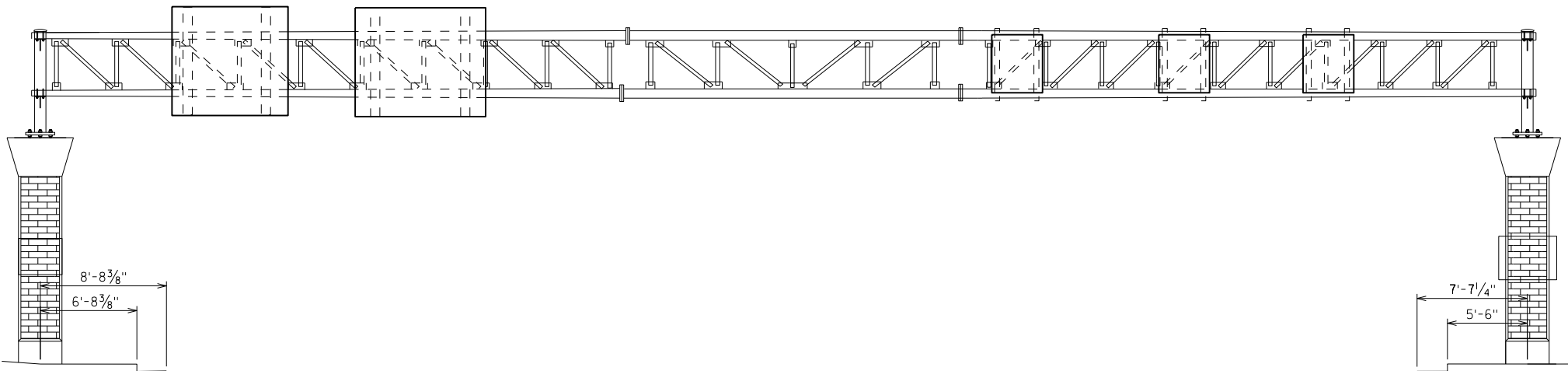
ITEM NUMBER	BID ITEMS	QUANTITY	REPAIR DETAIL SHEET NO.
SPV.0060.01	TENSION ANCHOR ROD	12 EACH	2

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE NE SIGN REPAIRS			
		DRAWN BY	PLANS CK'D.
		DDS	SAD
S-05-253		SHEET 12	

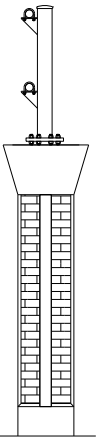




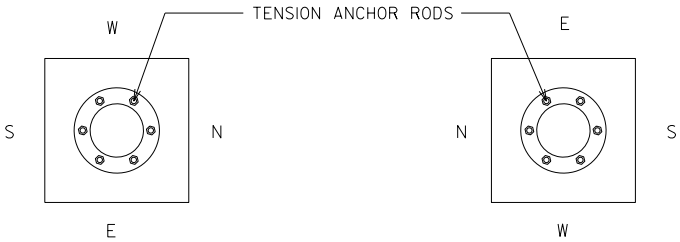
LOOKING WEST



LOOKING SOUTH



LOOKING EAST



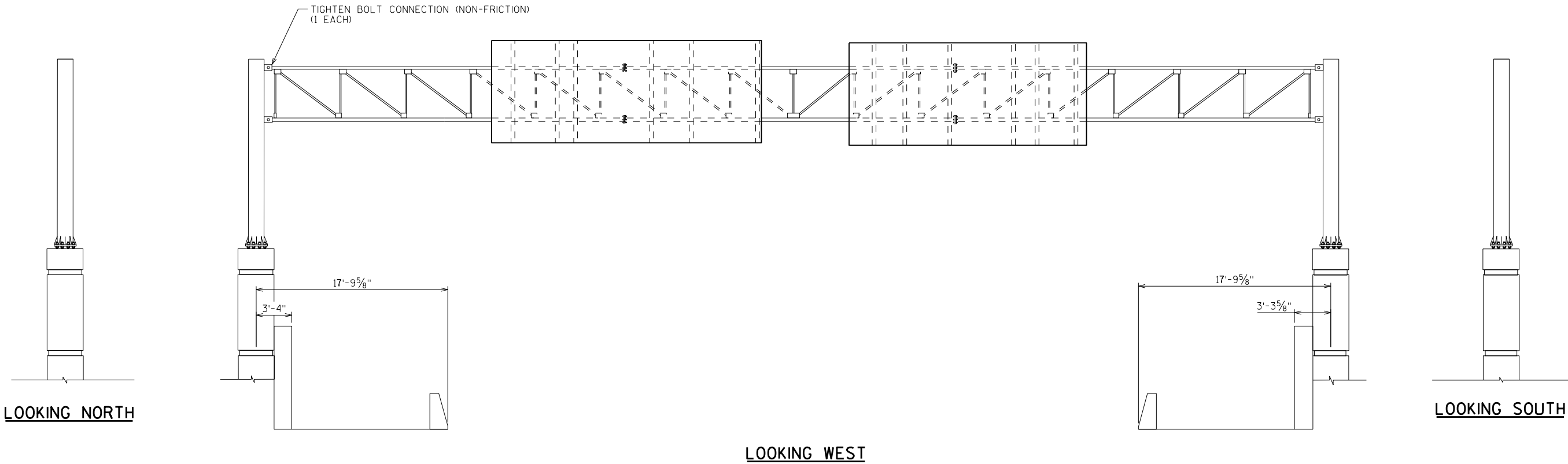
WEST FOUNDATION DETAIL

EAST FOUNDATION DETAIL

ITEM NUMBER	BID ITEMS	QUANTITY	REPAIR DETAIL SHEET NO.
SPV.0060.01	TENSION ANCHOR ROD	12 EACH	2

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE NE SIGN REPAIRS			
		DRAWN BY	PLANS CK'D. <b>SAD</b>
		DDS	
S-05-270			SHEET 13





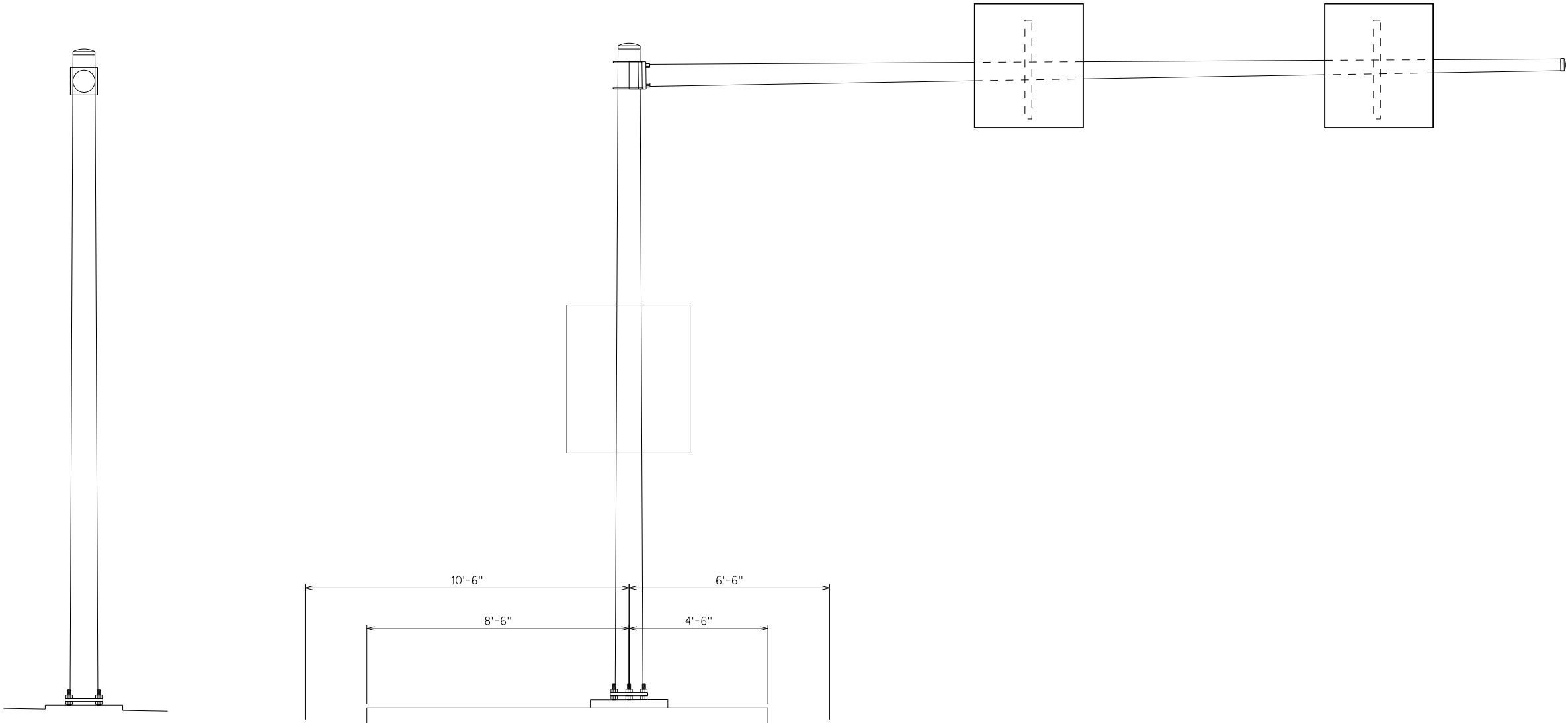
8

8

ITEM NUMBER	BID ITEMS	QUANTITY	REPAIR DETAIL SHEET NO.
SPV.0060.07	TIGHTEN BOLT CONNECTION (NON-FRICTION)	1 EACH	3

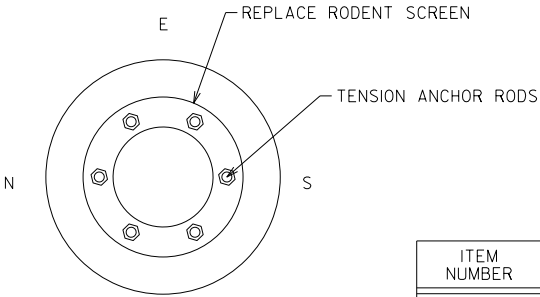
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE NE SIGN REPAIRS			
		DRAWN BY	PLANS CK'D. <b>SAD</b>
S-05-285		SHEET 14	





LOOKING EAST

LOOKING NORTH

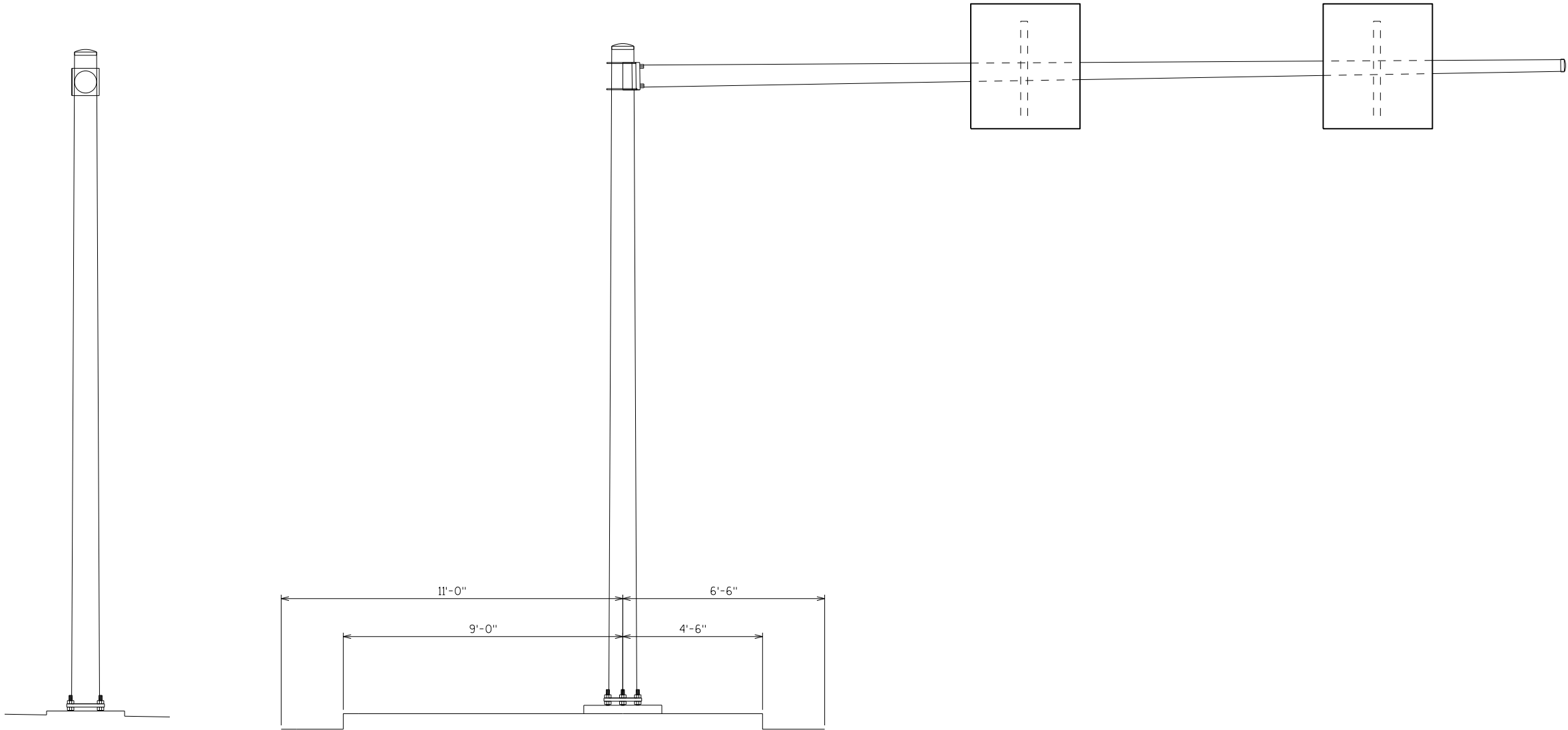


FOUNDATION DETAIL

ITEM NUMBER	BID ITEMS	QUANTITY	REPAIR DETAIL SHEET NO.
SPV.0060.01	TENSION ANCHOR ROD	6 EACH	2
SPV.0060.03	REPLACE RODENT SCREEN	1 EACH	2

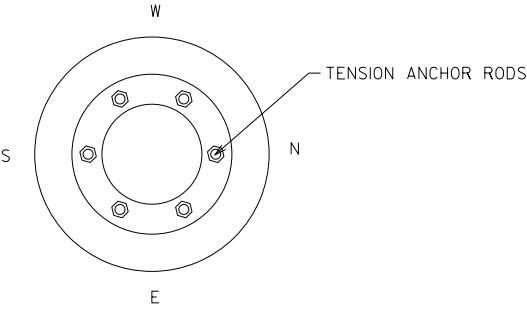
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE NE SIGN REPAIRS			
		DRAWN BY	PLANS CK'D. <b>SAD</b>
		DDS	
S-15-17			SHEET 15





LOOKING WEST

LOOKING SOUTH

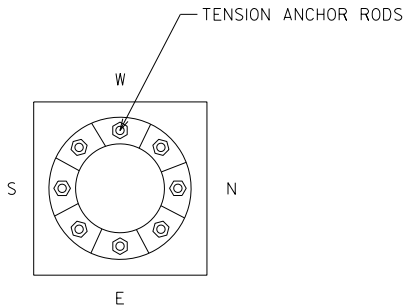
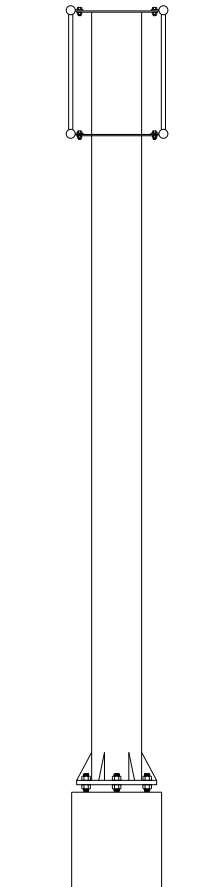
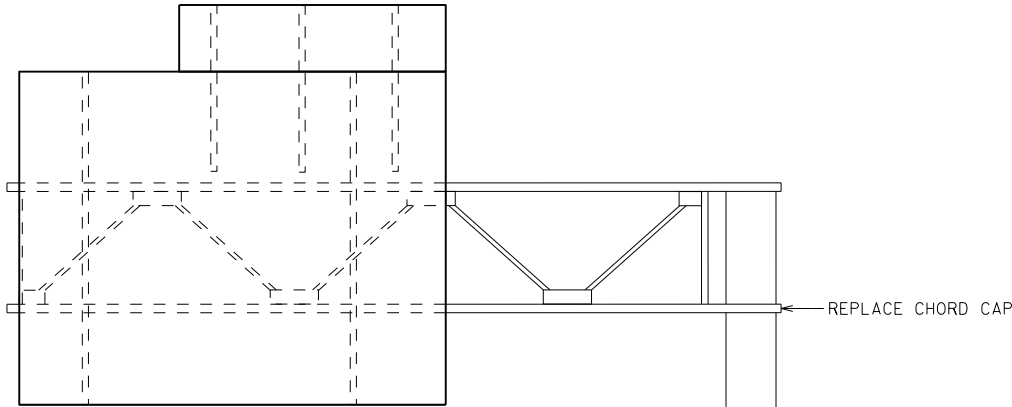


FOUNDATION DETAIL

ITEM NUMBER	BID ITEMS	QUANTITY	REPAIR DETAIL SHEET NO.
SPV.0060.01	TENSION ANCHOR ROD	6 EACH	2

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE NE SIGN REPAIRS			
		DRAWN BY	PLANS CK'D. <b>SAD</b>
		DDS	
S-15-18			SHEET 16





LOOKING NORTH

LOOKING WEST

FOUNDATION DETAIL

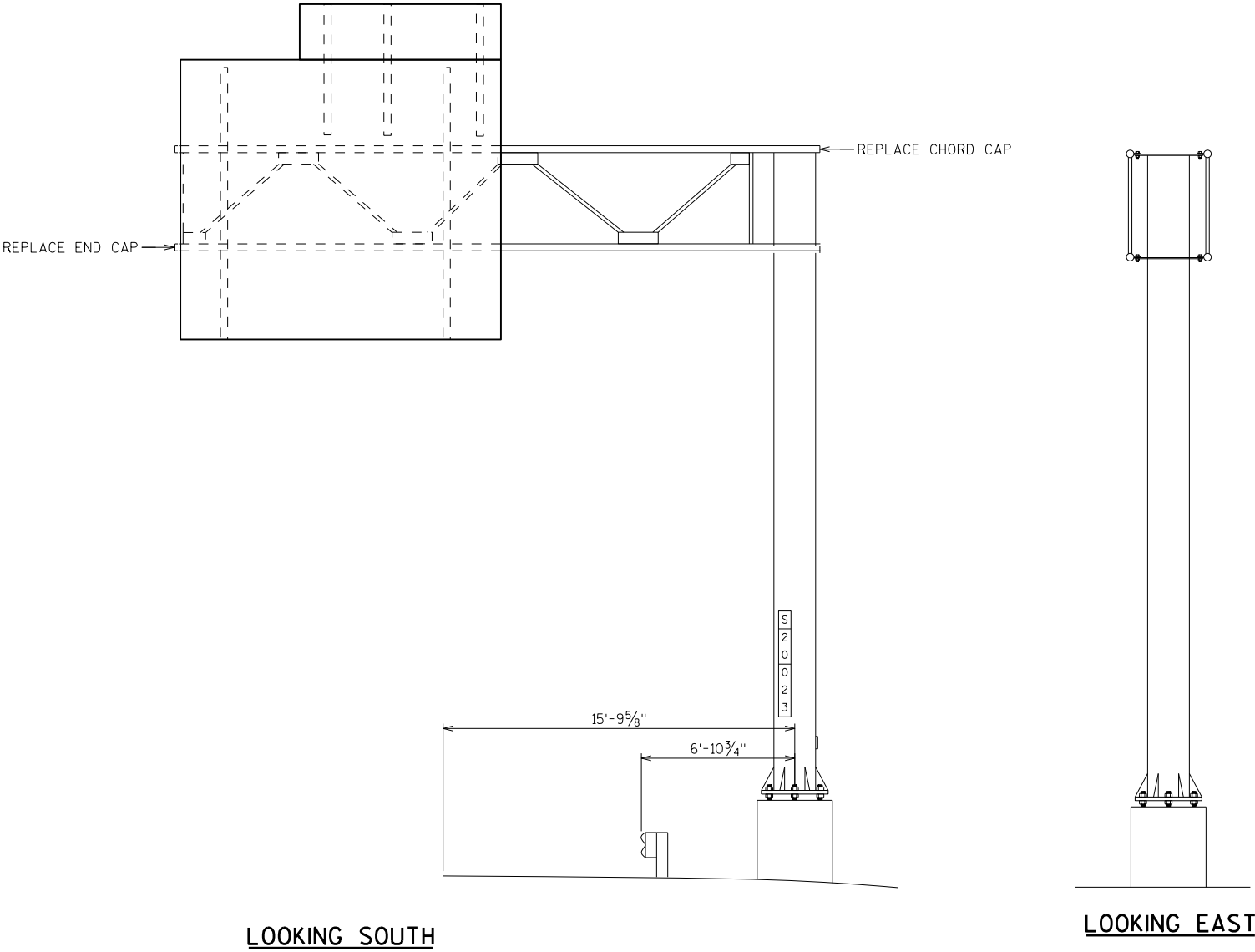
8

8

ITEM NUMBER	BID ITEMS	QUANTITY	REPAIR DETAIL SHEET NO.
SPV.0060.01	TENSION ANCHOR ROD	8 EACH	2
SPV.0060.08	SECURE/REPLACE CAP	1 EACH	3

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE NE SIGN REPAIRS		DRAWN BY DDS	PLANS CK'D. SAD
S-20-22		SHEET 17	

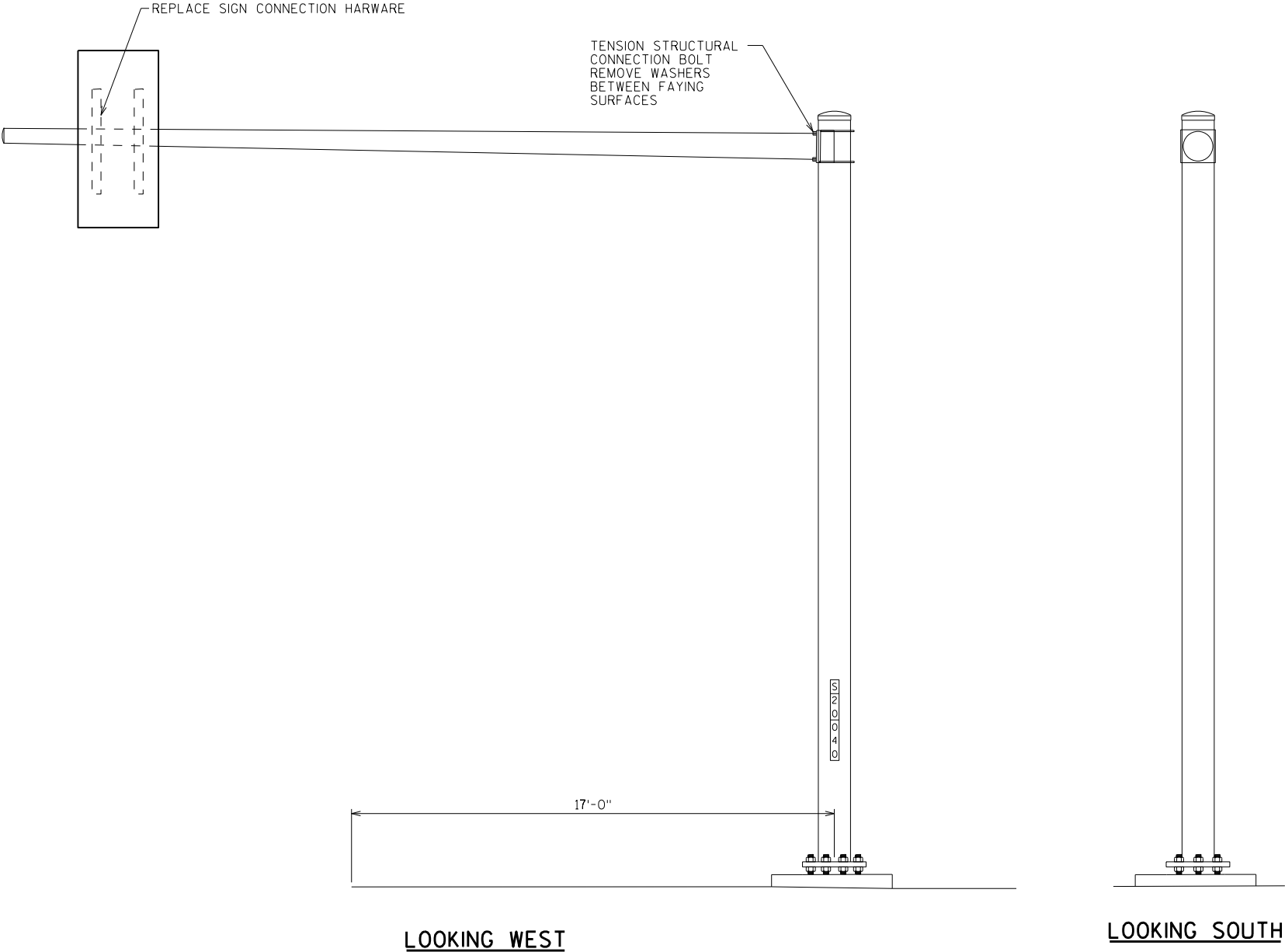




ITEM NUMBER	BID ITEMS	QUANTITY	REPAIR DETAIL SHEET NO.
SPV.0060.08	SECURE/REPLACE CAP	2 EACH	3

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE NE SIGN REPAIRS			
		DRAWN BY	PLANS CK'D. <b>SAD</b>
		DDS	
S-20-23			SHEET 18





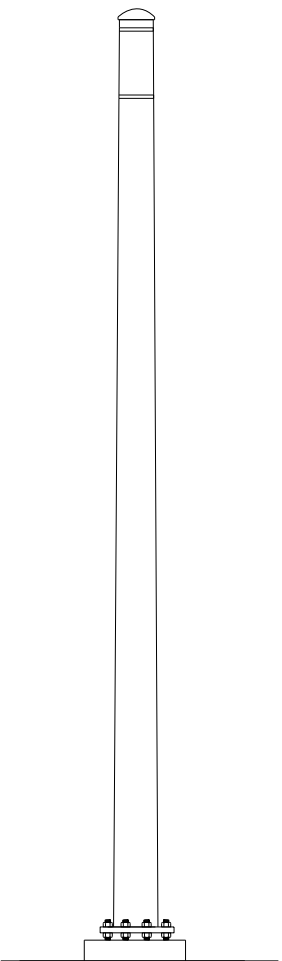
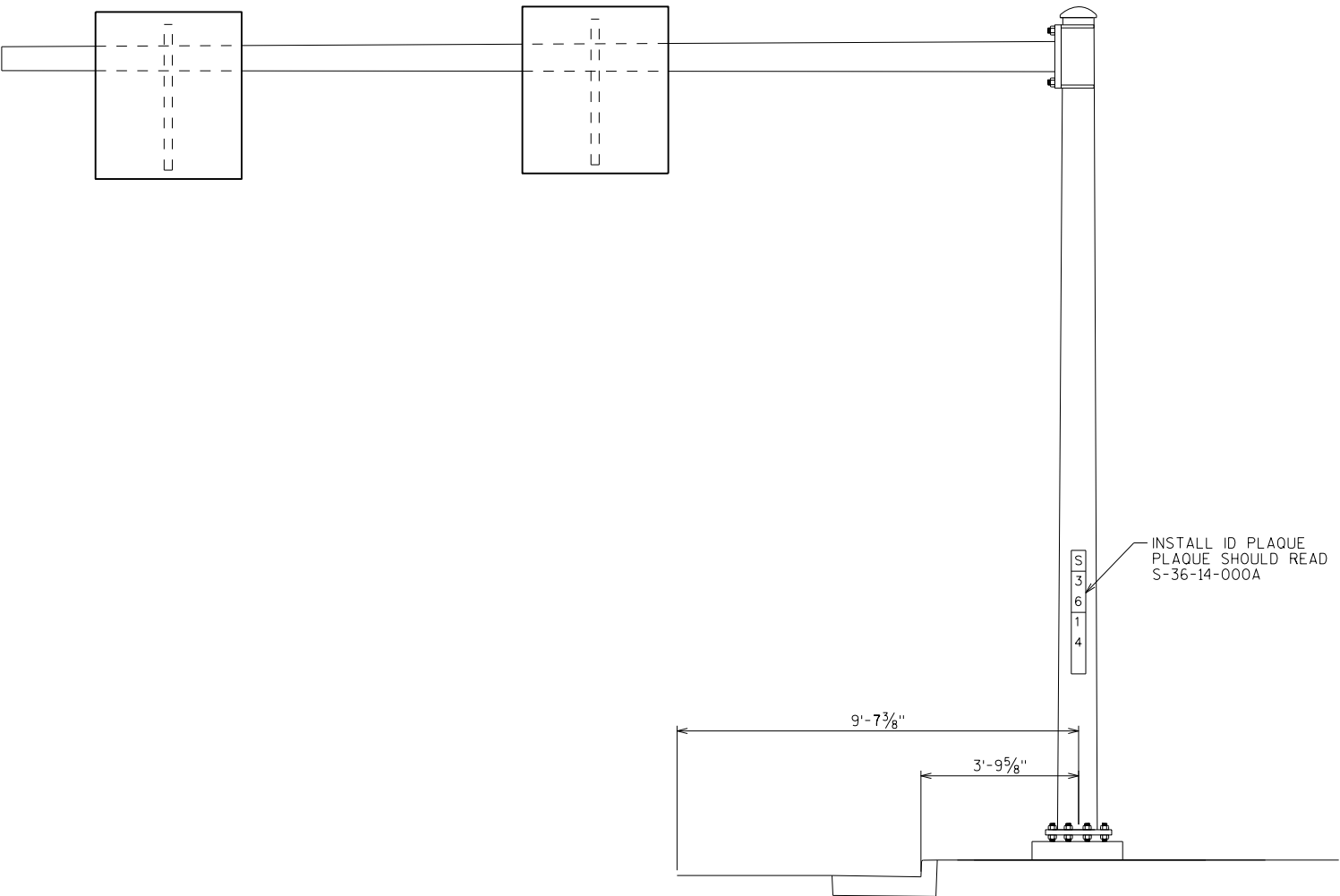
LOOKING WEST

LOOKING SOUTH

ITEM NUMBER	BID ITEMS	QUANTITY	REPAIR DETAIL SHEET NO.
SPV.0060.06	TENSION STRUCTURAL CONNECTION BOLT (FRICTION)	4 EACH	3
SPV.0060.10	REPLACE SIGN CONNECTION HARDWARE	1 EACH	5

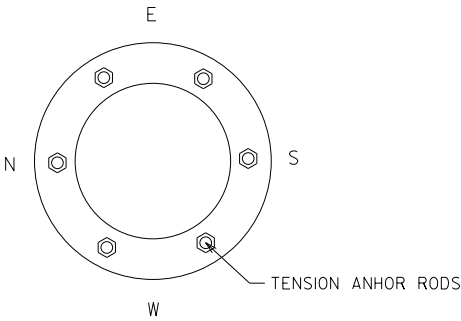
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE NE SIGN REPAIRS			
		DRAWN BY	PLANS CK'D. <b>SAD</b>
		DDS	
S-20-40			SHEET 19





LOOKING EAST

LOOKING NORTH

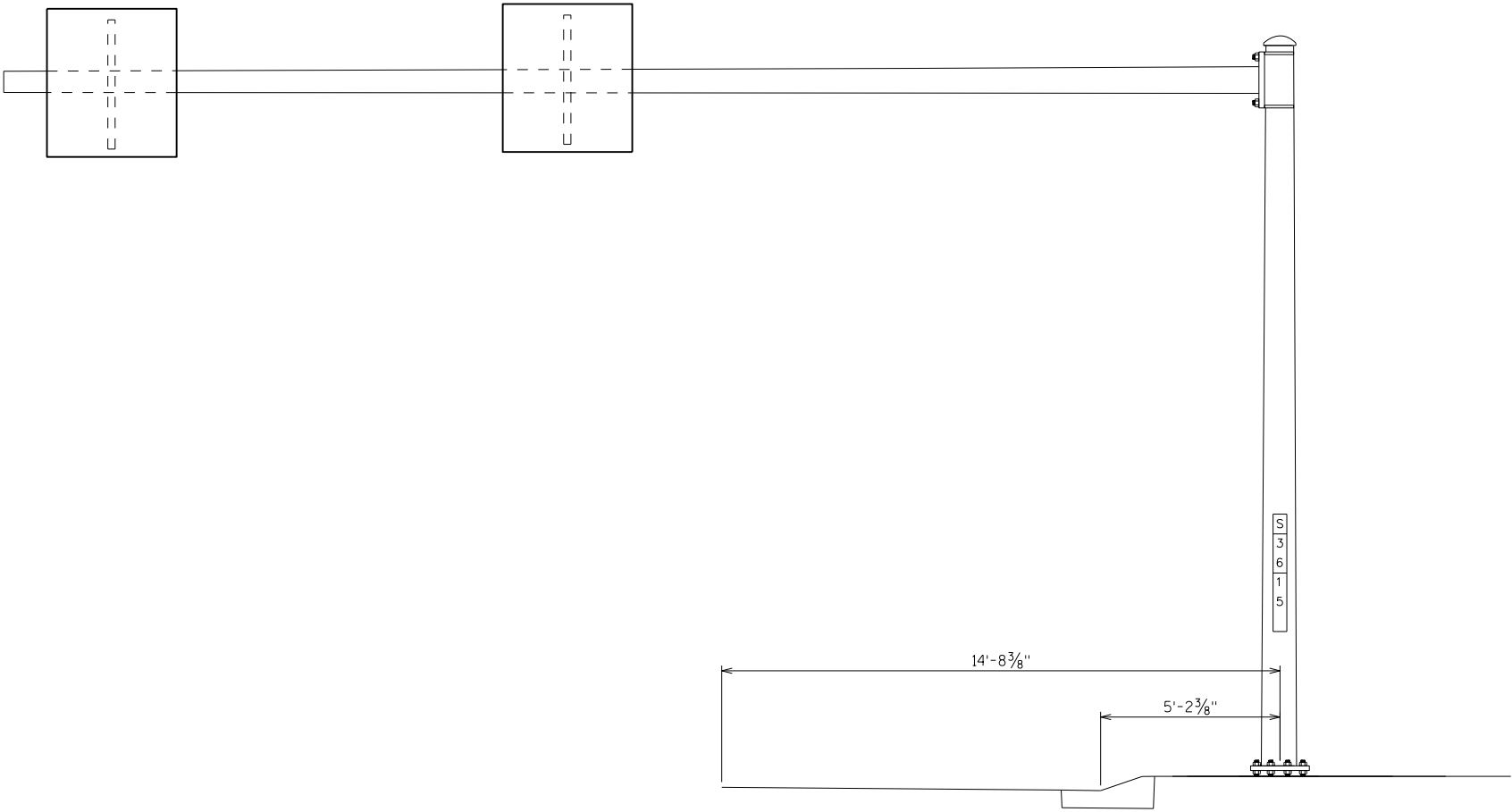


FOUNDATION DETAIL

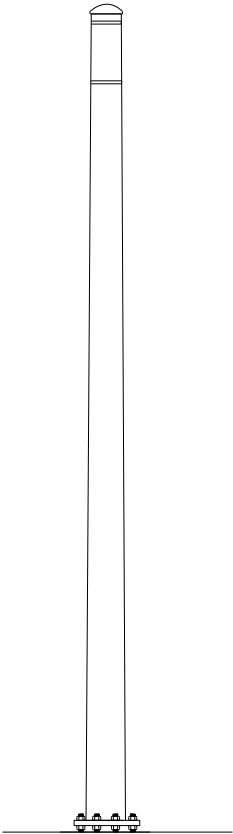
ITEM NUMBER	BID ITEMS	QUANTITY	REPAIR DETAIL SHEET NO.
SPV.0060.01	TENSION ANCHOR ROD	6 EACH	2
SPV.0060.13	INSTALL ID PLAQUE	1 EACH	5

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE NE SIGN REPAIRS			
		DRAWN BY DDS	PLANS CK'D. SAD
S-36-14-A		SHEET 20	

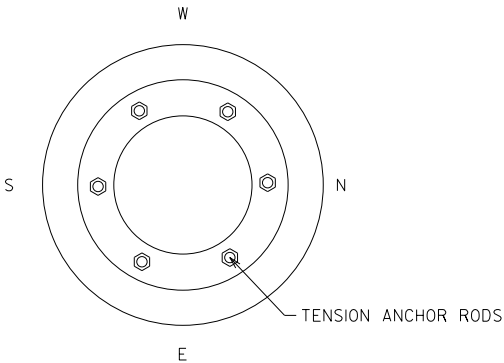




LOOKING WEST



LOOKING SOUTH

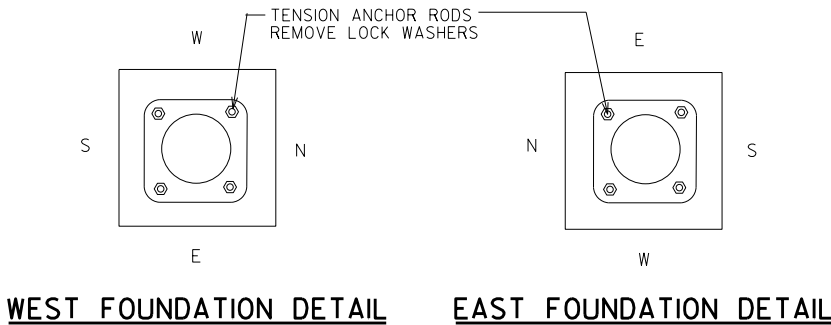
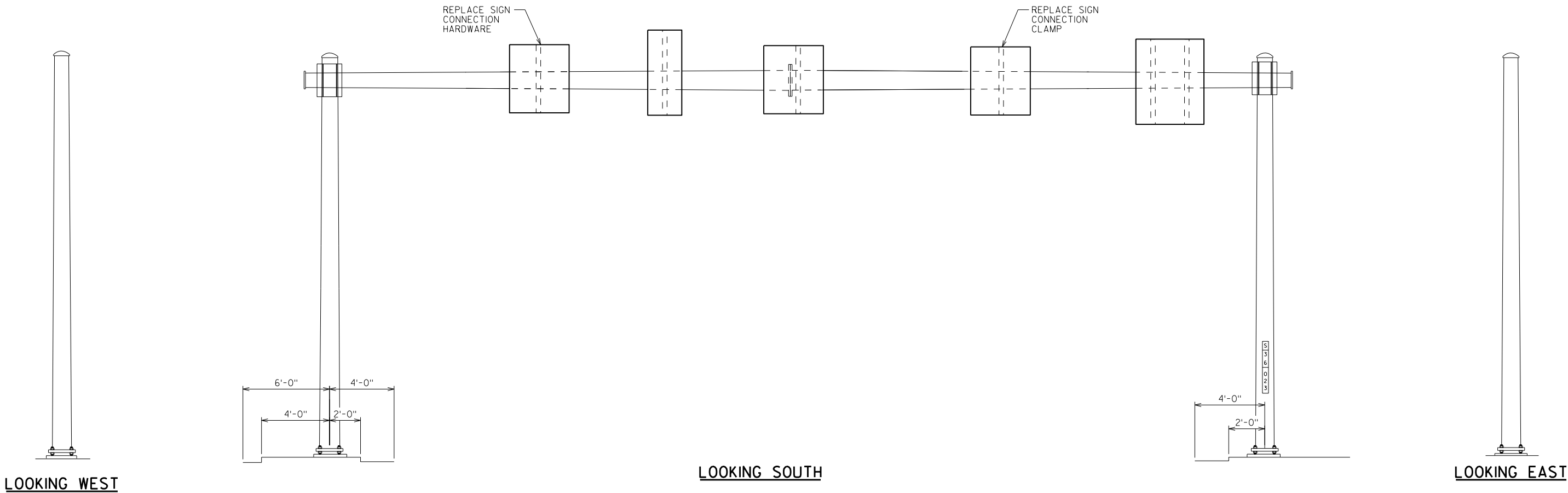


FOUNDATION DETAIL

ITEM NUMBER	BID ITEMS	QUANTITY	REPAIR DETAIL SHEET NO.
SPV.0060.01	TENSION ANCHOR ROD	6 EACH	2

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE NE SIGN REPAIRS			
		DRAWN BY	PLANS CK'D.
		DDS	SAD
S-36-15			SHEET 21

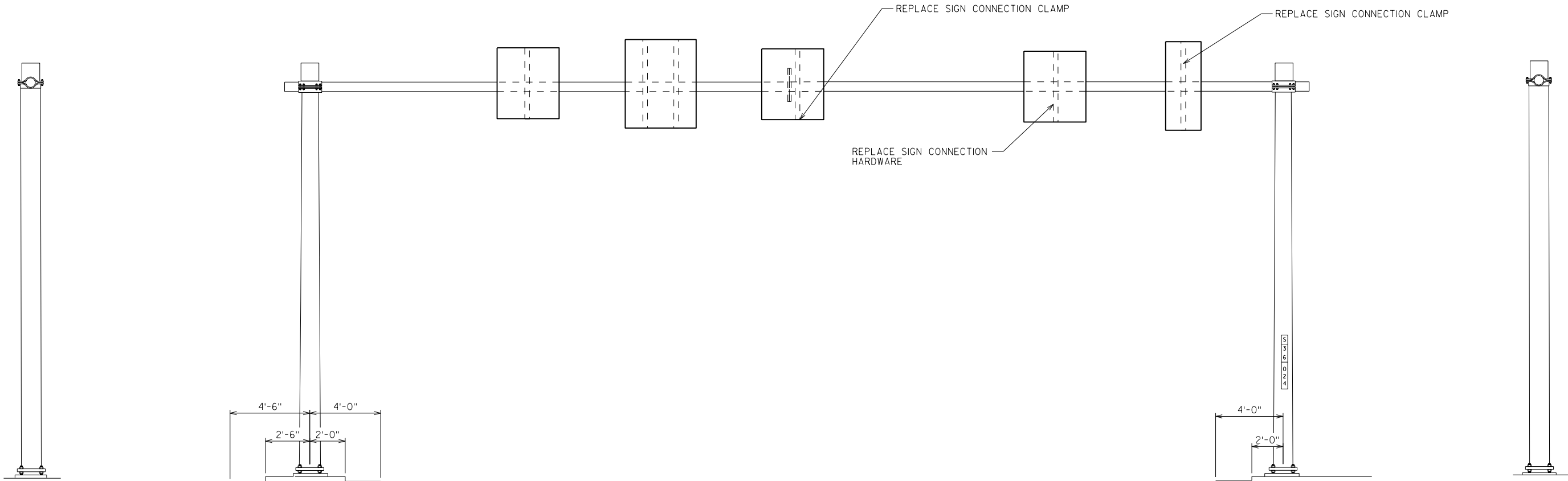




ITEM NUMBER	BID ITEMS	QUANTITY	REPAIR DETAIL SHEET NO.
SPV.0060.01	TENSION ANCHOR ROD	8 EACH	2
SPV.0060.10	REPLACE SIGN CONNECTION HARDWARE	1 EACH	5
SPV.0060.11	REPLACE SIGN CONNECTION CLAMP	1 EACH	5

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE NE SIGN REPAIRS			
DRAWN BY		DDS	PLANS CK'D. SAD
S-36-23		SHEET 22	

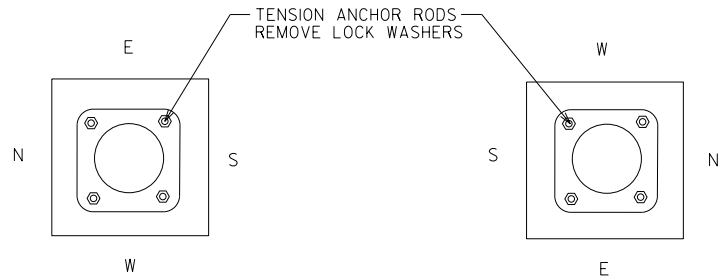




LOOKING EAST

LOOKING NORTH

LOOKING WEST



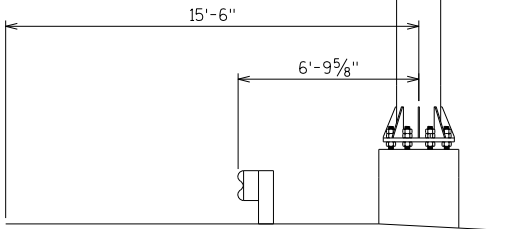
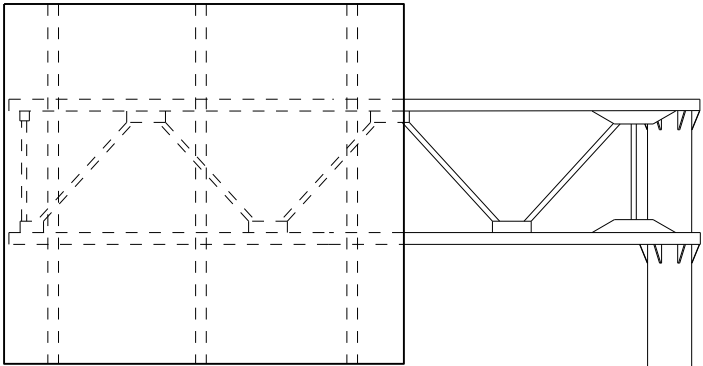
WES FOUNDATION DETAIL

EAST FOUNDATION DETAIL

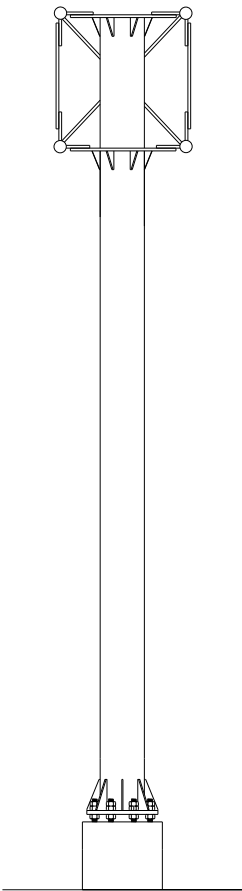
ITEM NUMBER	BID ITEMS	QUANTITY	REPAIR DETAIL SHEET NO.
SPV.0060.01	TENSION ANCHOR ROD	8 EACH	2
SPV.0060.10	REPLACE SIGN CONNECTION HARDWARE	1 EACH	5
SPV.0060.11	REPLACE SIGN CONNECTION CLAMP	2 EACH	5

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE NE SIGN REPAIRS			
DRAWN BY		DDS	PLANS CK'D. SAD
S-36-24		SHEET 23	

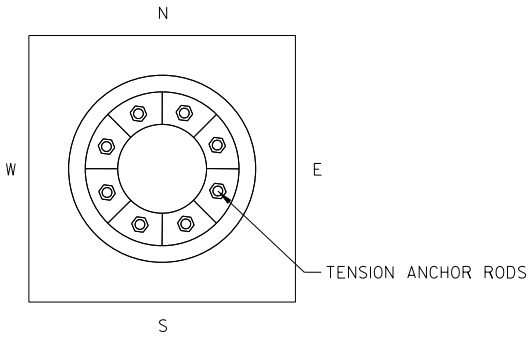




LOOKING NORTH



LOOKING WEST

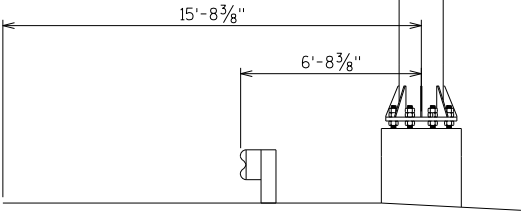
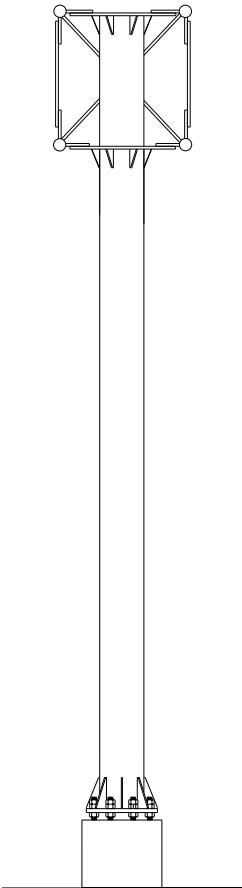
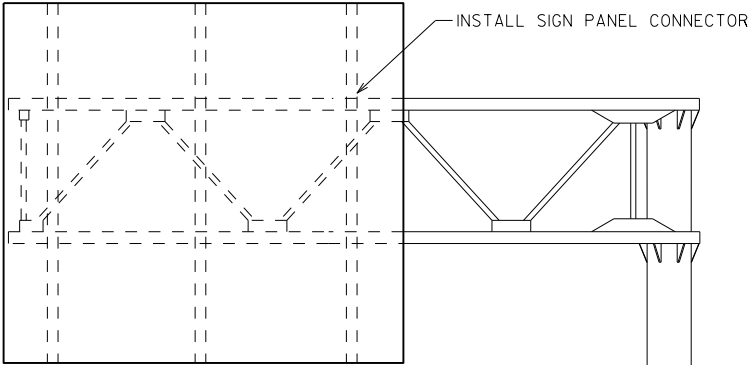


FOUNDATION DETAIL

ITEM NUMBER	BID ITEMS	QUANTITY	REPAIR DETAIL SHEET NO.
SPV.0060.01	TENSION ANCHOR ROD	8 EACH	2

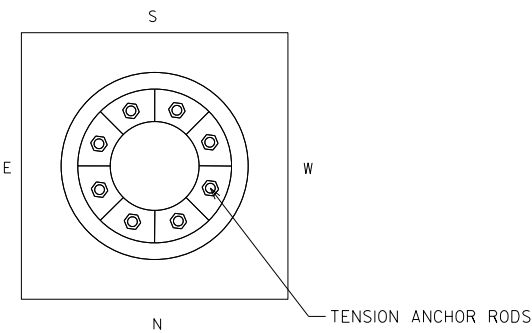
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE NE SIGN REPAIRS			
		DRAWN BY	PLANS CK'D. <b>SAD</b>
		DDS	
S-38-07			SHEET 24





LOOKING SOUTH

LOOKING EAST

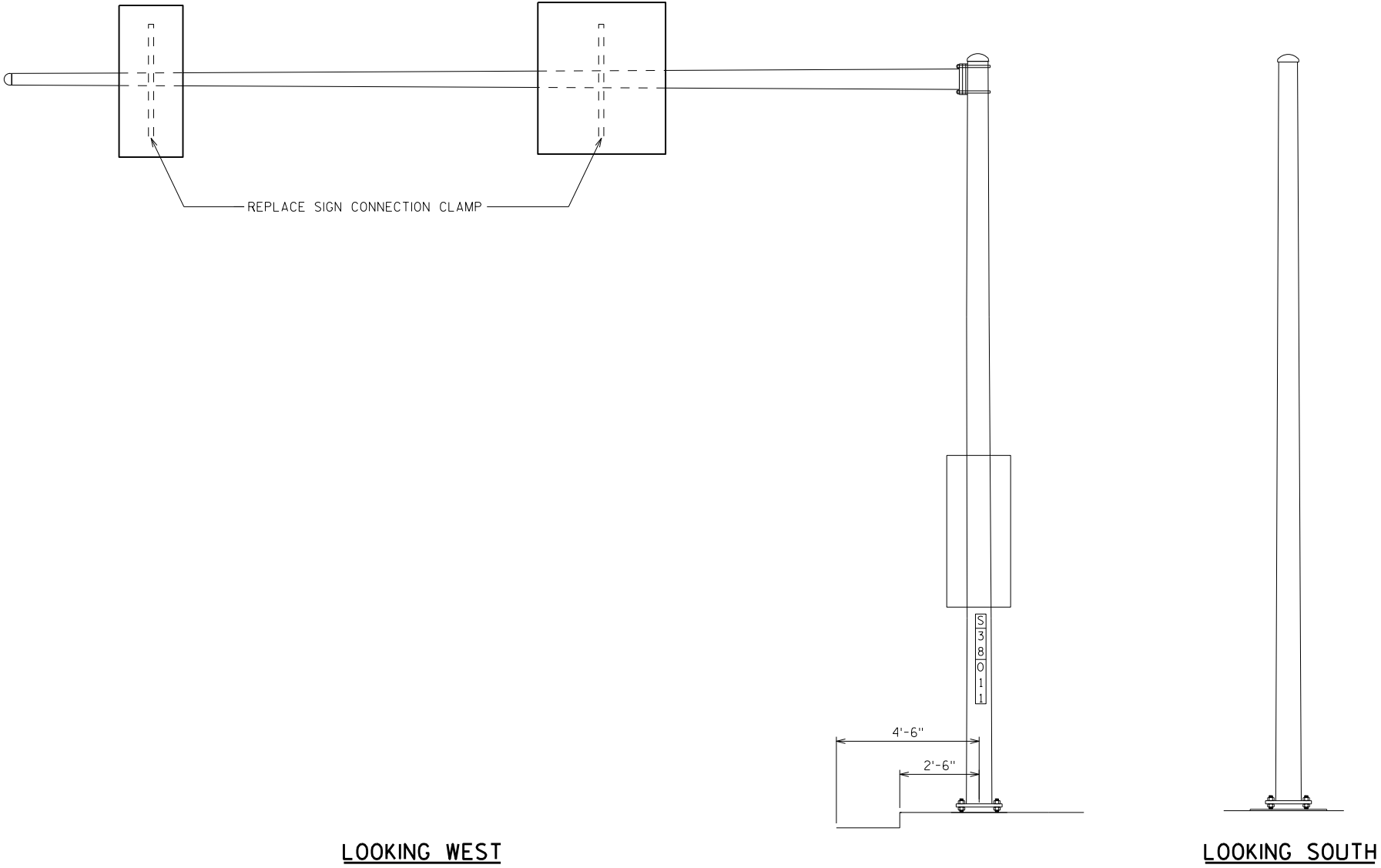


FOUNDATION DETAIL

ITEM NUMBER	BID ITEMS	QUANTITY	REPAIR DETAIL SHEET NO.
SPV.0060.01	TENSION ANCHOR ROD	8 EACH	2
SPV.0060.14	INSTALL SIGN PANEL CONNECTOR	1 EACH	5

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE NE SIGN REPAIRS			
		DRAWN BY DDS	PLANS CK'D. SAD
S-38-08		SHEET 25	





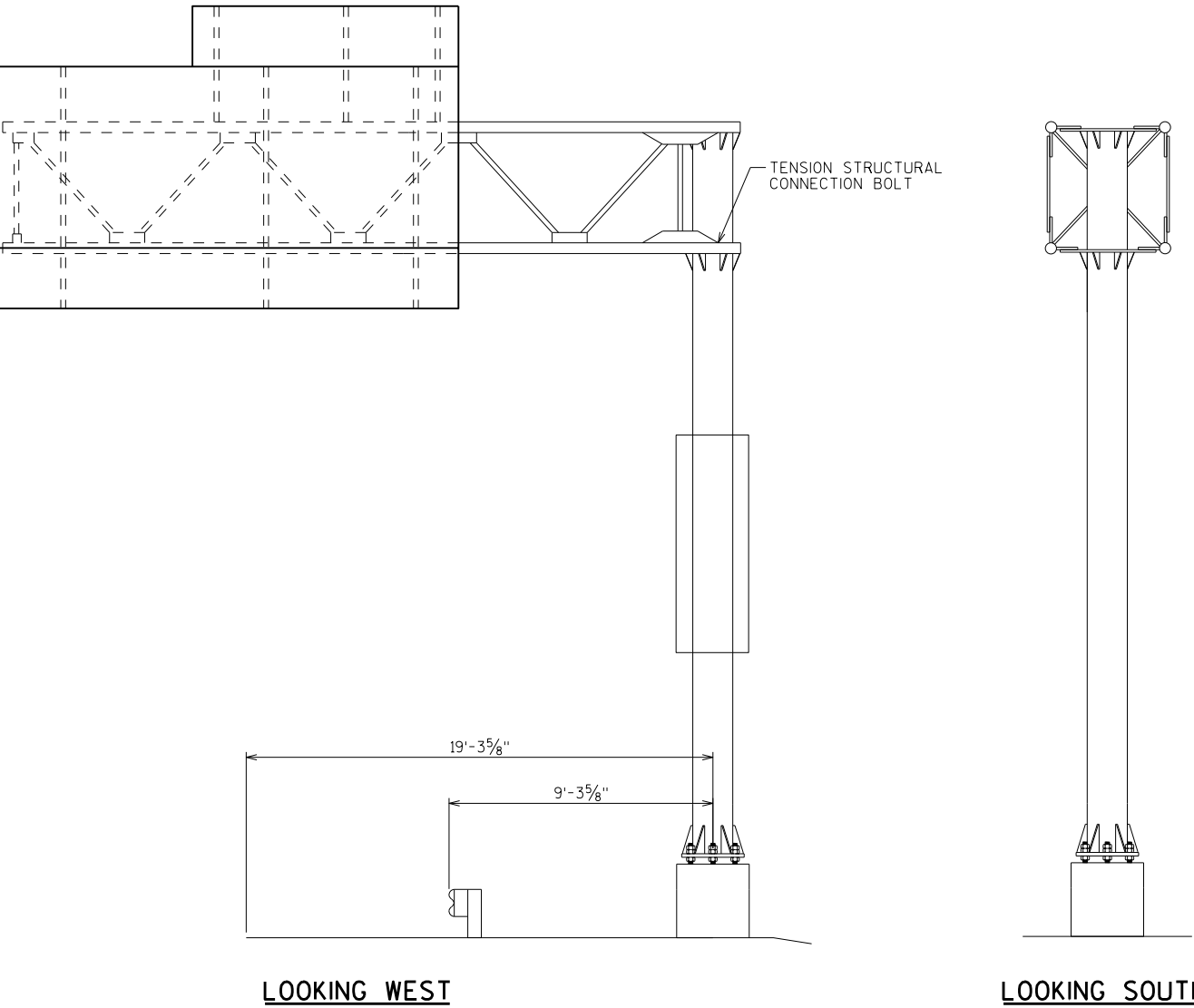
8

8

ITEM NUMBER	BID ITEMS	QUANTITY	REPAIR DETAIL SHEET NO.
SPV.0060.11	REPLACE SIGN CONNECTION CLAMP	2 EACH	5

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE NE SIGN REPAIRS			
	DRAWN BY	DDS	PLANS CK'D. SAD
S-38-11			SHEET 26

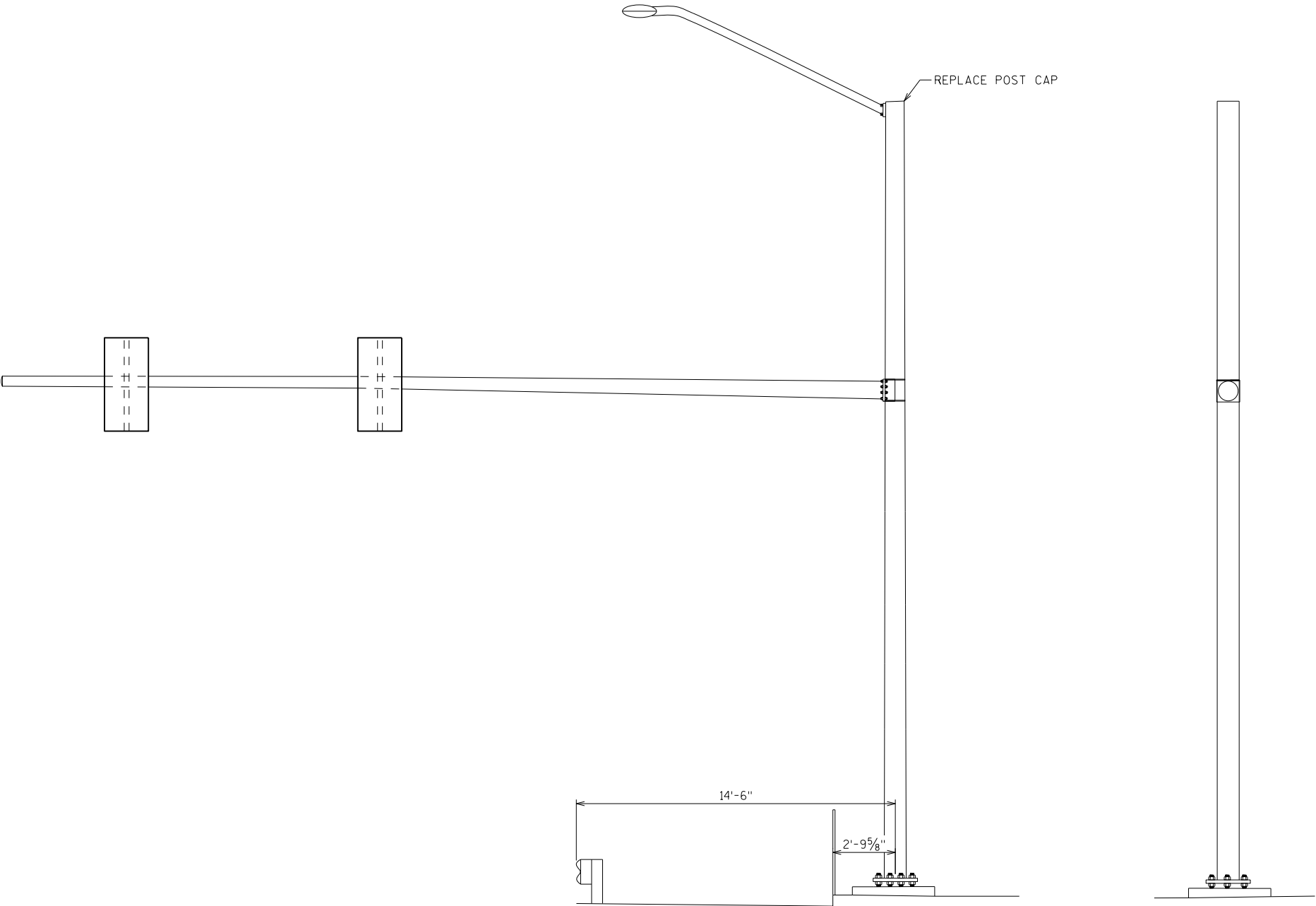




ITEM NUMBER	BID ITEMS	QUANTITY	REPAIR DETAIL SHEET NO.
SPV.0060.06	TENSION STRUCTURAL CONNECTION BOLT (FRICTION)	1 EACH	3

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE NE SIGN REPAIRS			
		DRAWN BY	PLANS CK'D. <b>SAD</b>
<b>S-44-32</b>		SHEET 27	





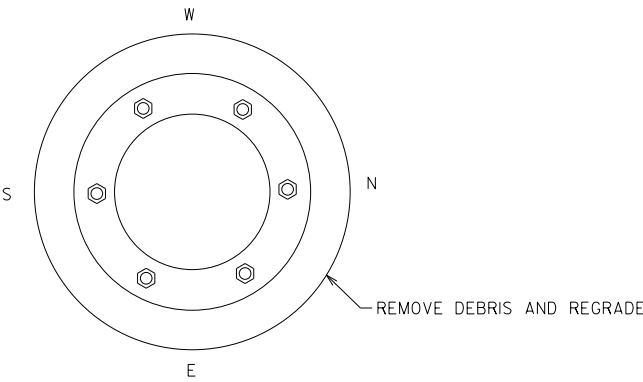
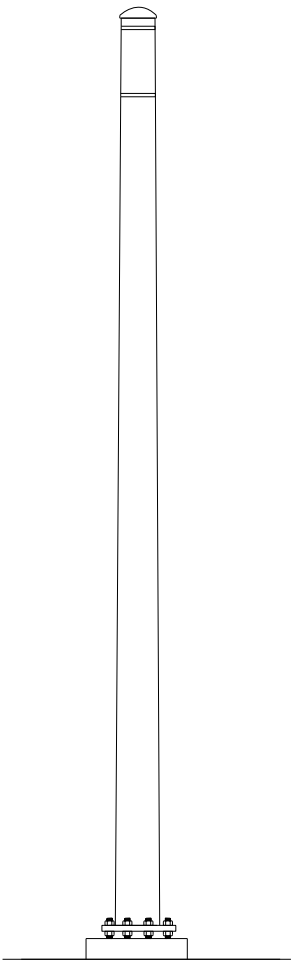
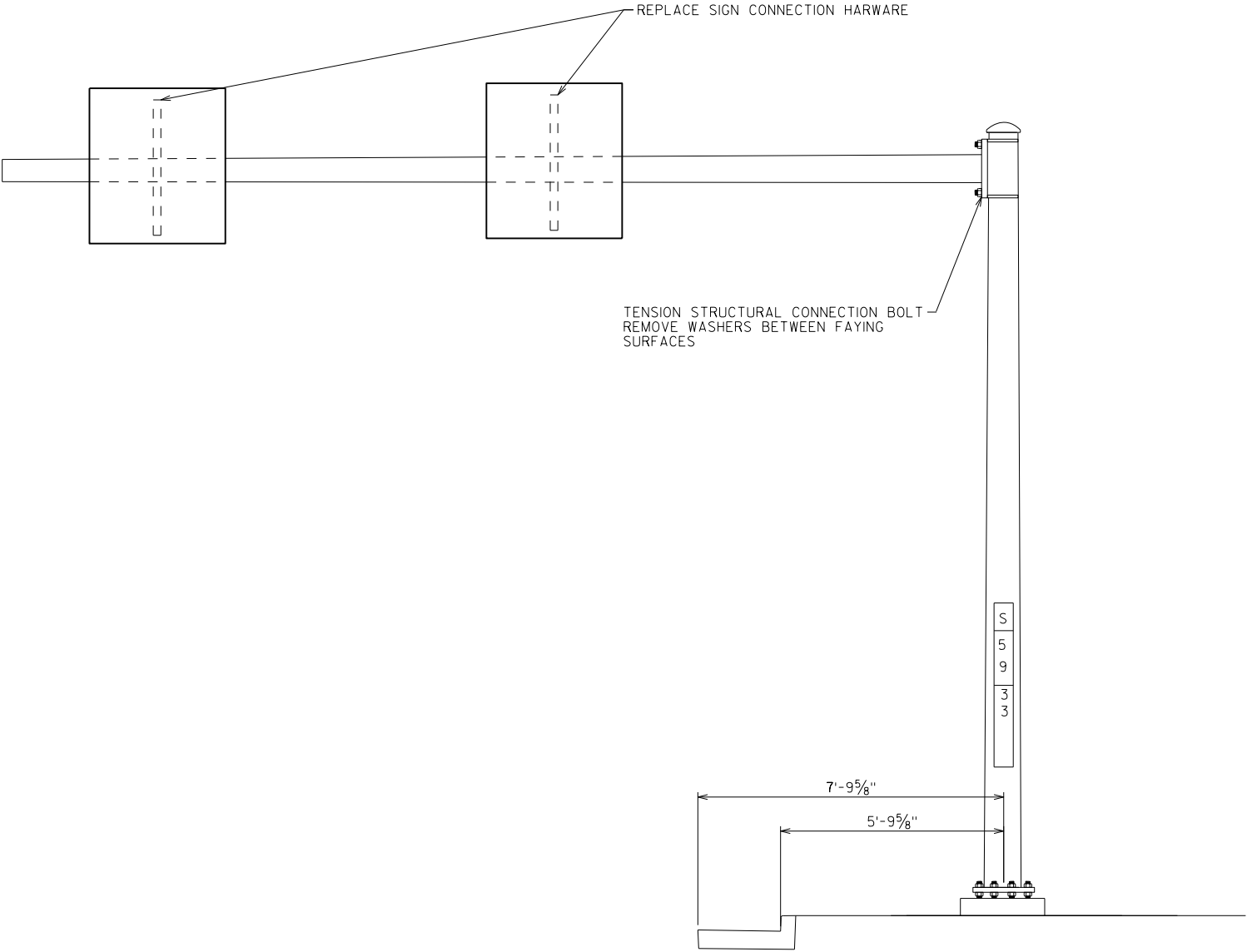
LOOKING SOUTH

LOOKING EAST

ITEM NUMBER	BID ITEMS	QUANTITY	REPAIR DETAIL SHEET NO.
SPV.0060.08	SECURE/REPLACE CAP	1 EACH	3

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE NE SIGN REPAIRS			
		DRAWN BY	PLANS CK'D. <b>SAD</b>
S-44-106		SHEET 28	





LOOKING WEST

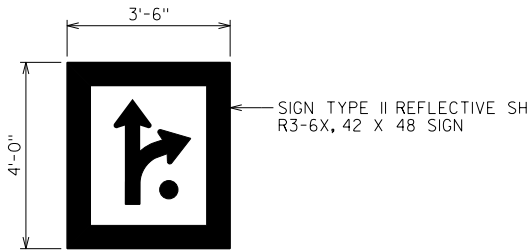
LOOKING SOUTH

FOUNDATION DETAIL

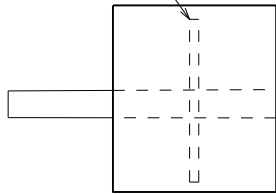
ITEM NUMBER	BID ITEMS	QUANTITY	REPAIR DETAIL SHEET NO.
SPV.0060.02	REMOVE DEBRIS AND REGRADE	1 EACH	2
SPV.0060.06	TENSION STRUCTURAL CONNECTION BOLT (FRICTION)	4 EACH	3
SPV.0060.10	REPLACE SIGN CONNECTION HARDWARE	2 EACH	5

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE NE SIGN REPAIRS		DRAWN BY DDS	PLANS CK'D. SAD
S-59-33		SHEET 29	





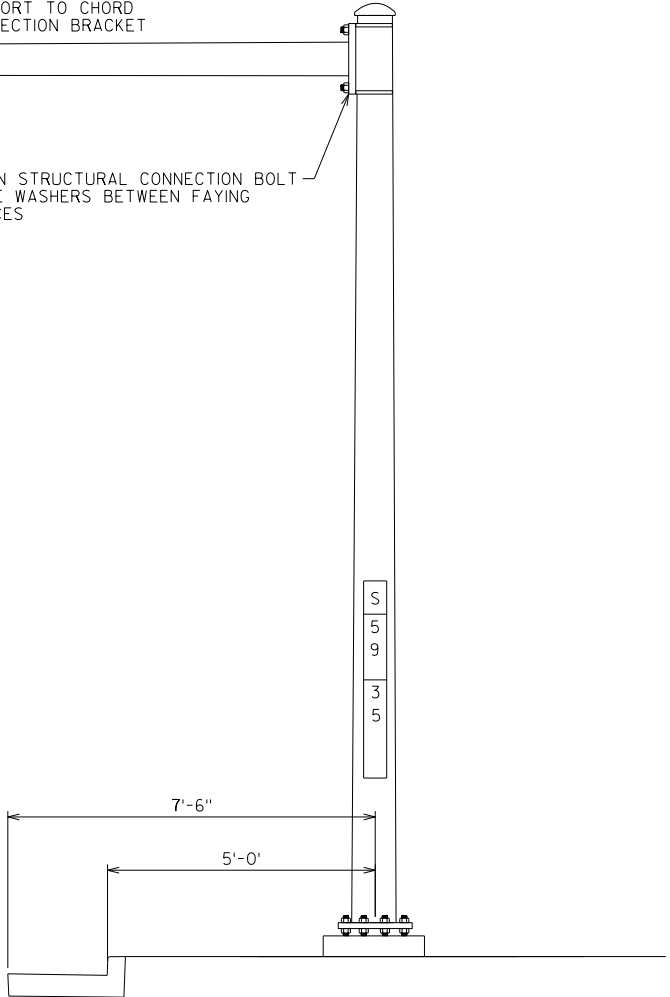
REPLACE SIGN CONNECTION  
HARDWARE



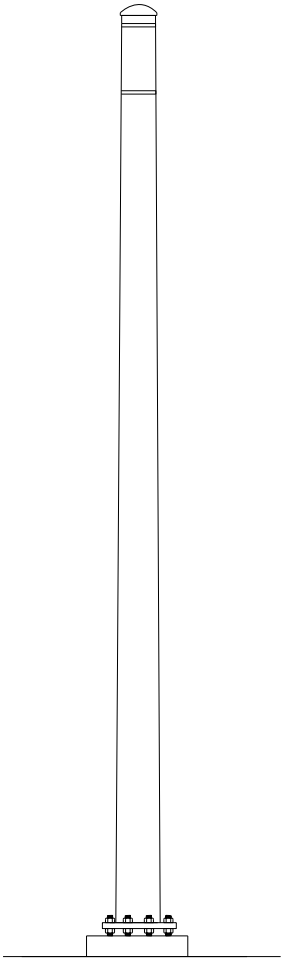
REPLACE VERTICAL SIGN  
SUPPORT TO CHORD  
CONNECTION BRACKET

EXISTING SIGN  
MISSING

TENSION STRUCTURAL CONNECTION BOLT  
REMOVE WASHERS BETWEEN FAYING  
SURFACES



LOOKING WEST



LOOKING SOUTH

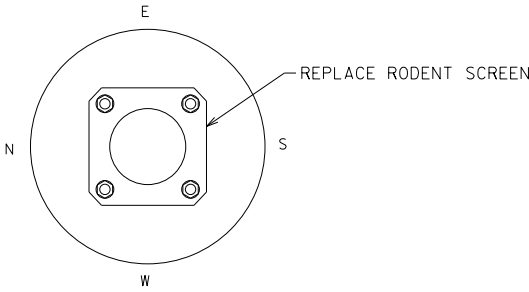
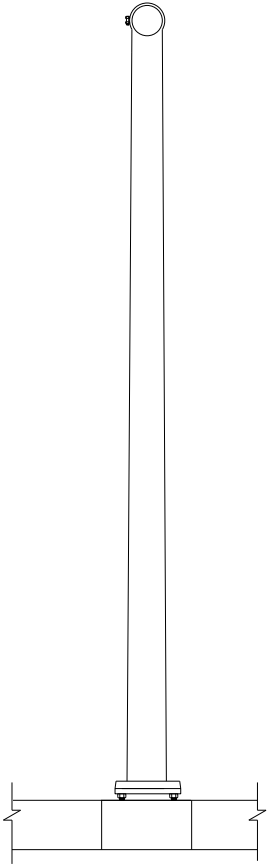
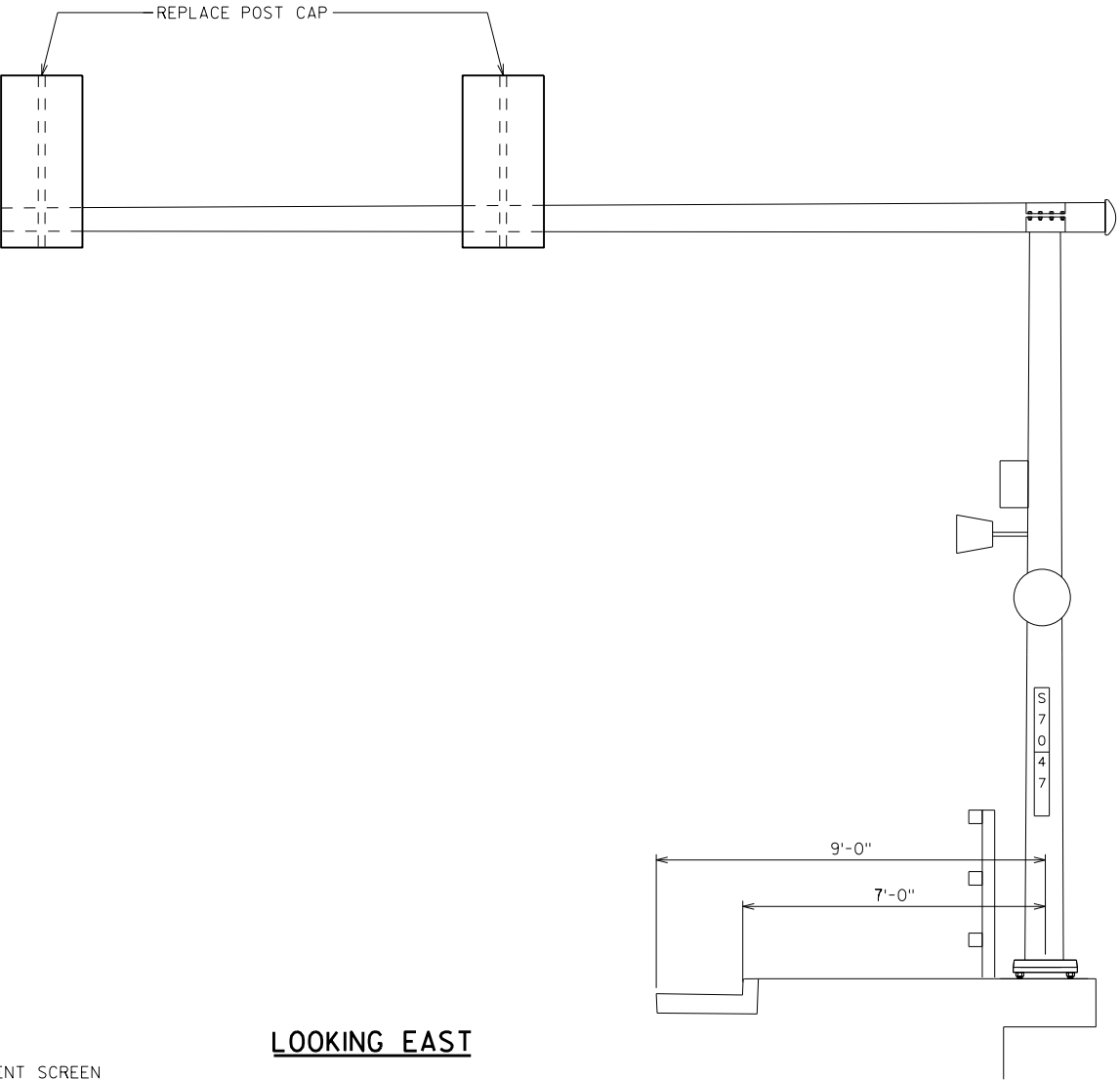
8

8

ITEM NUMBER	BID ITEMS	QUANTITY	REPAIR DETAIL SHEET NO.
637.2220	SIGN TYPE II REFLECTIVE SH	14 SF	5
SPV.0060.06	TENSION STRUCTURAL CONNECTION BOLT (FRICTION)	4 EACH	3
SPV.0060.09	REPLACE TYPE II SUPPORT BRACKET	1 EACH	5
SPV.0060.10	REPLACE SIGN CONNECTION HARDWARE	1 EACH	5

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE NE SIGN REPAIRS			
		DRAWN BY	PLANS CK'D.
		DDS	SAD
S-59-35		SHEET 30	





LOOKING EAST

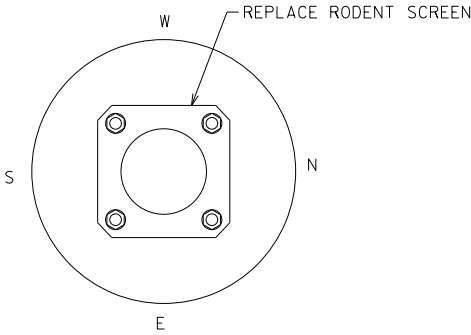
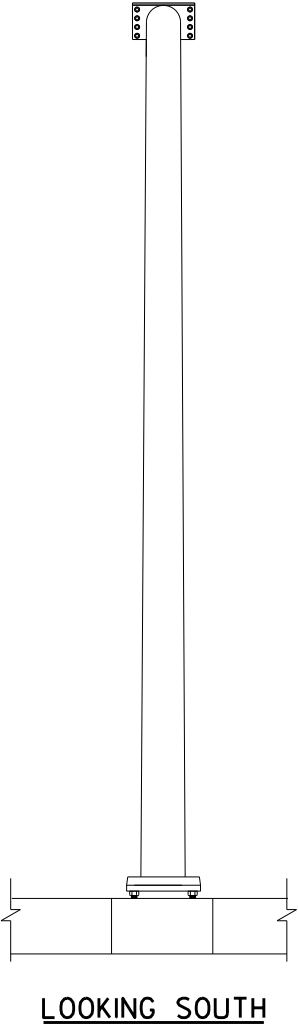
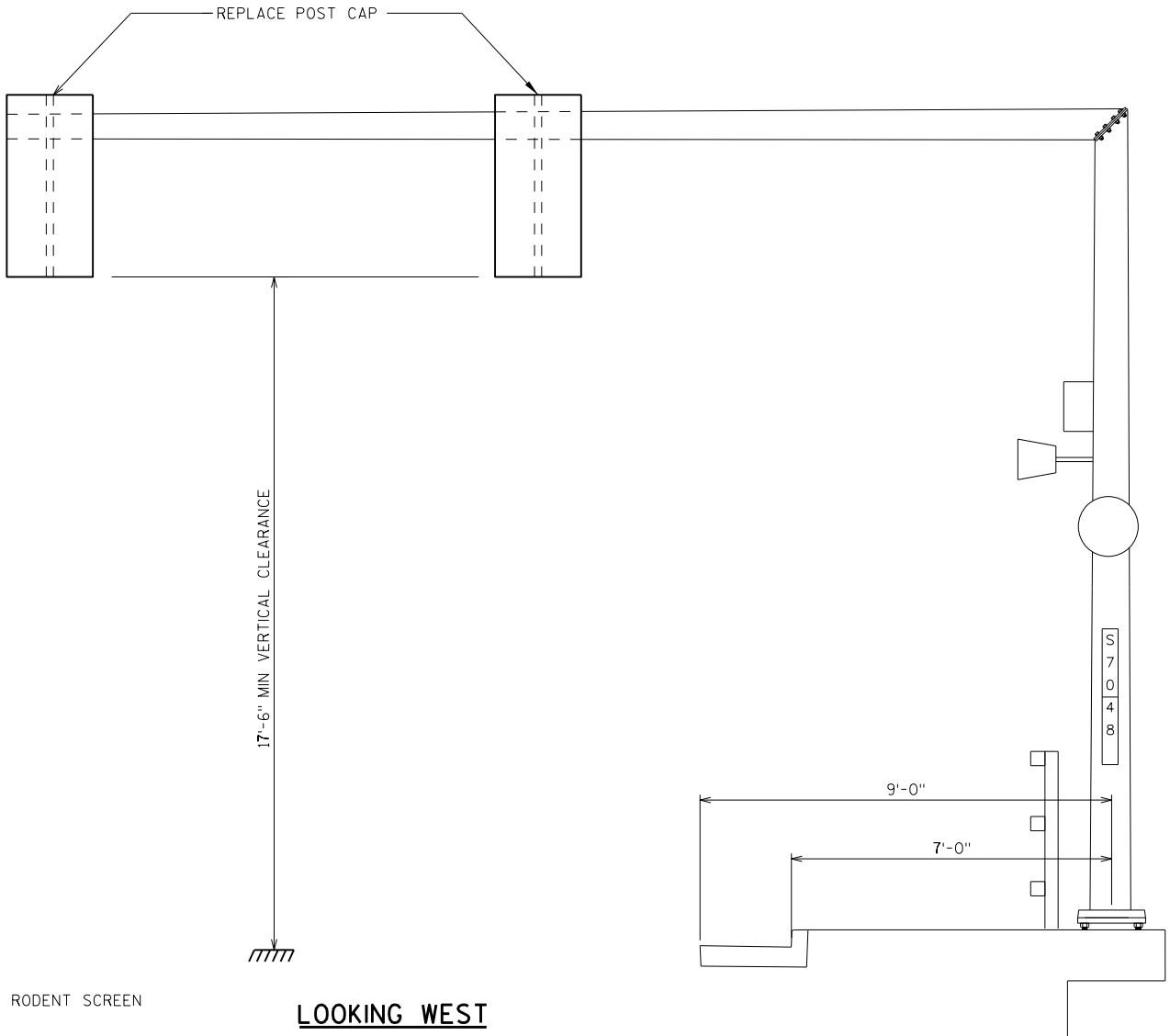
LOOKING NORTH

FOUNDATION DETAIL

ITEM NUMBER	BID ITEMS	QUANTITY	REPAIR DETAIL SHEET NO.
SPV.0060.03	REPLACE RODENT SCREEN	1 EACH	2
SPV.0060.08	SECURE/REPLACE CAP	2 EACH	3

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE NE SIGN REPAIRS			
		DRAWN BY	PLANS CK'D. <b>SAD</b>
		DDS	
S-70-47			SHEET 31





FOUNDATION DETAIL

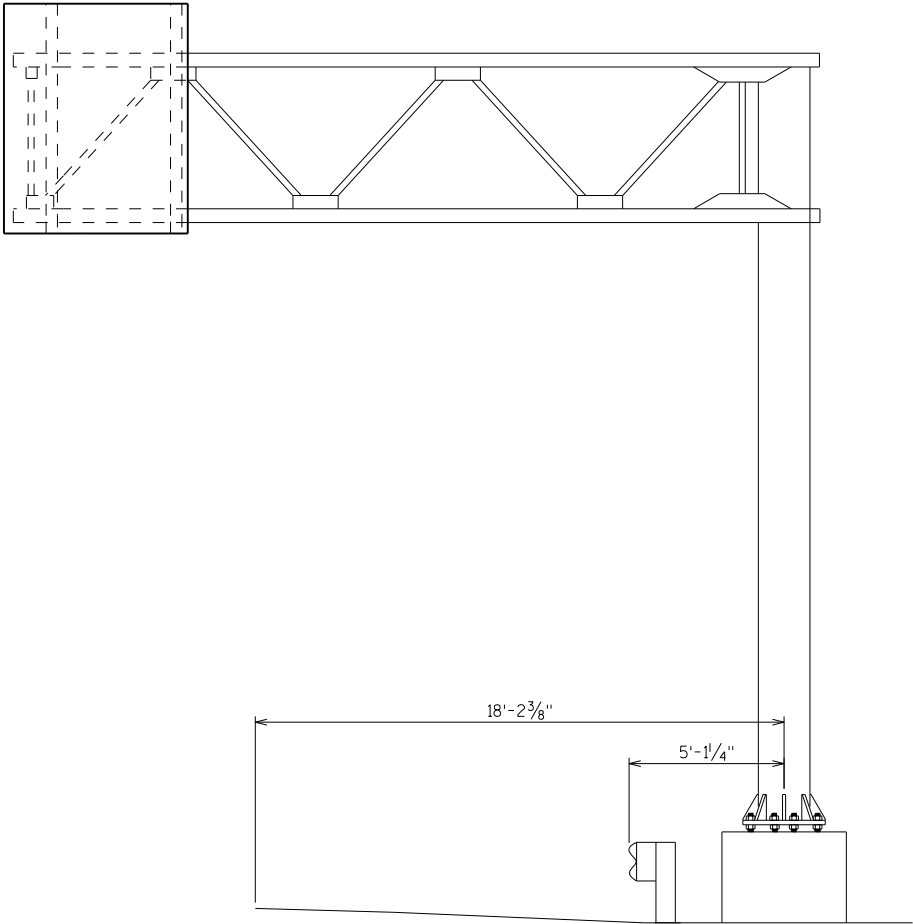
LOOKING WEST

LOOKING SOUTH

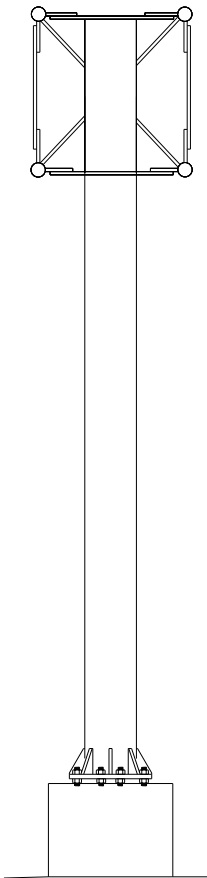
ITEM NUMBER	BID ITEMS	QUANTITY	REPAIR DETAIL SHEET NO.
SPV.0060.03	REPLACE RODENT SCREEN	1 EACH	2
SPV.0060.08	SECURE/REPLACE CAP	2 EACH	3
SPV.0060.15	ADJUST VERTICAL CLEARANCE	2 EACH	5

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE NE SIGN REPAIRS			
		DRAWN BY	PLANS CK'D.
		DDS	SAD
S-70-48		SHEET 32	

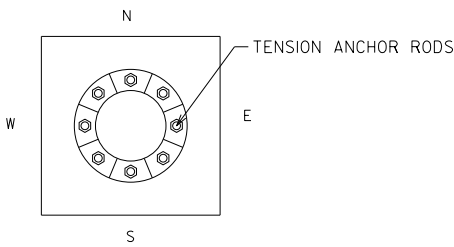




LOOKING SOUTH



LOOKING EAST

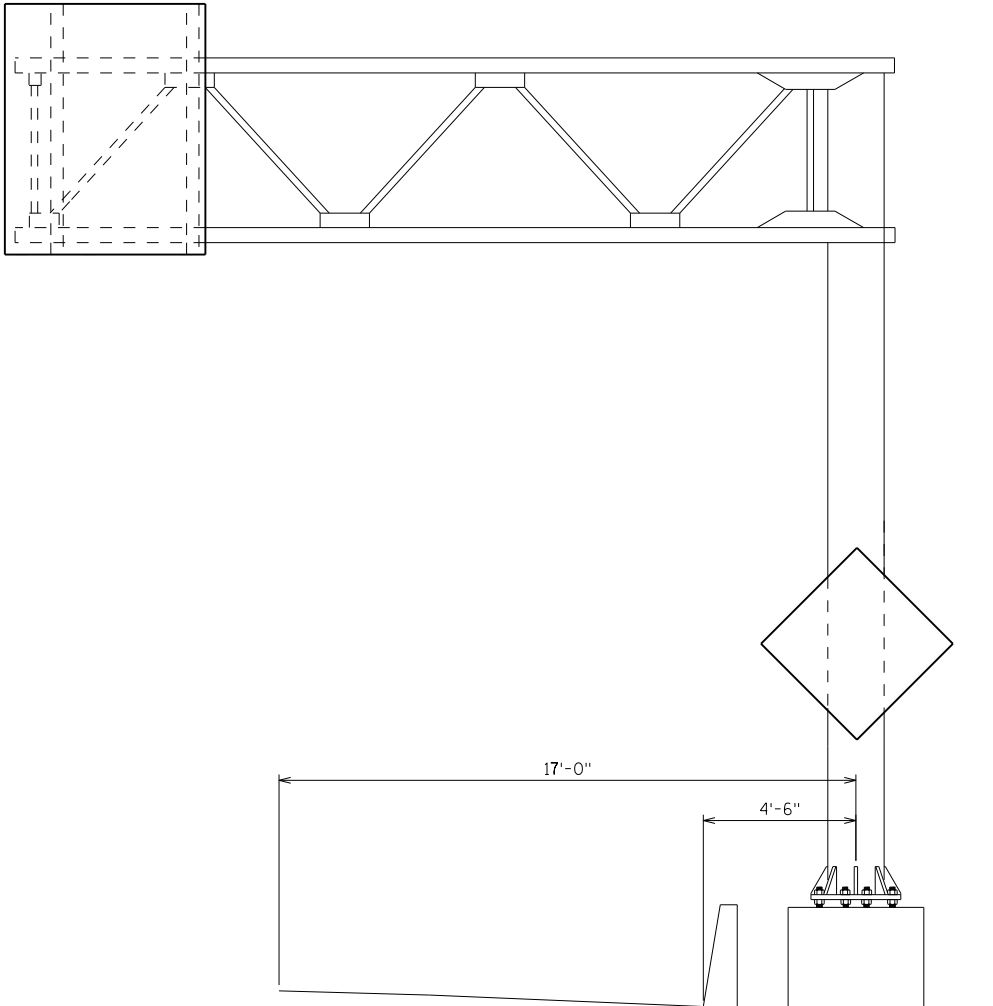


FOUNDATION DETAIL

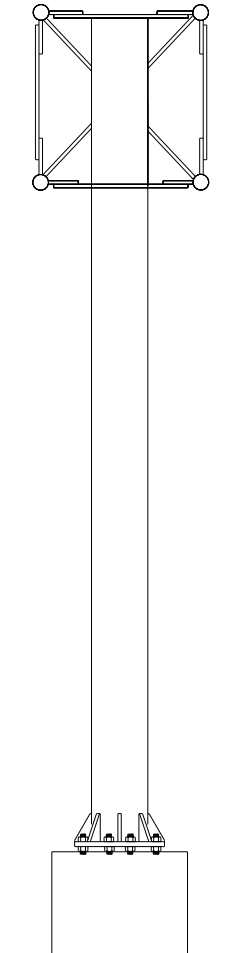
ITEM NUMBER	BID ITEMS	QUANTITY	REPAIR DETAIL SHEET NO.
SPV.0060.01	TENSION ANCHOR ROD	8 EACH	2

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE NE SIGN REPAIRS			
		DRAWN BY	PLANS CK'D. <b>SAD</b>
		DDS	
S-70-52			SHEET 33

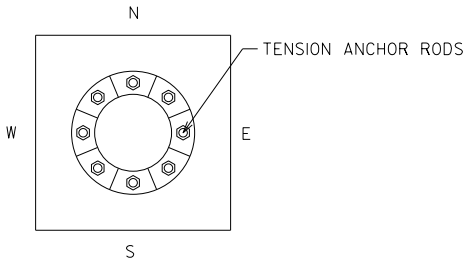




LOOKING SOUTH



LOOKING EAST

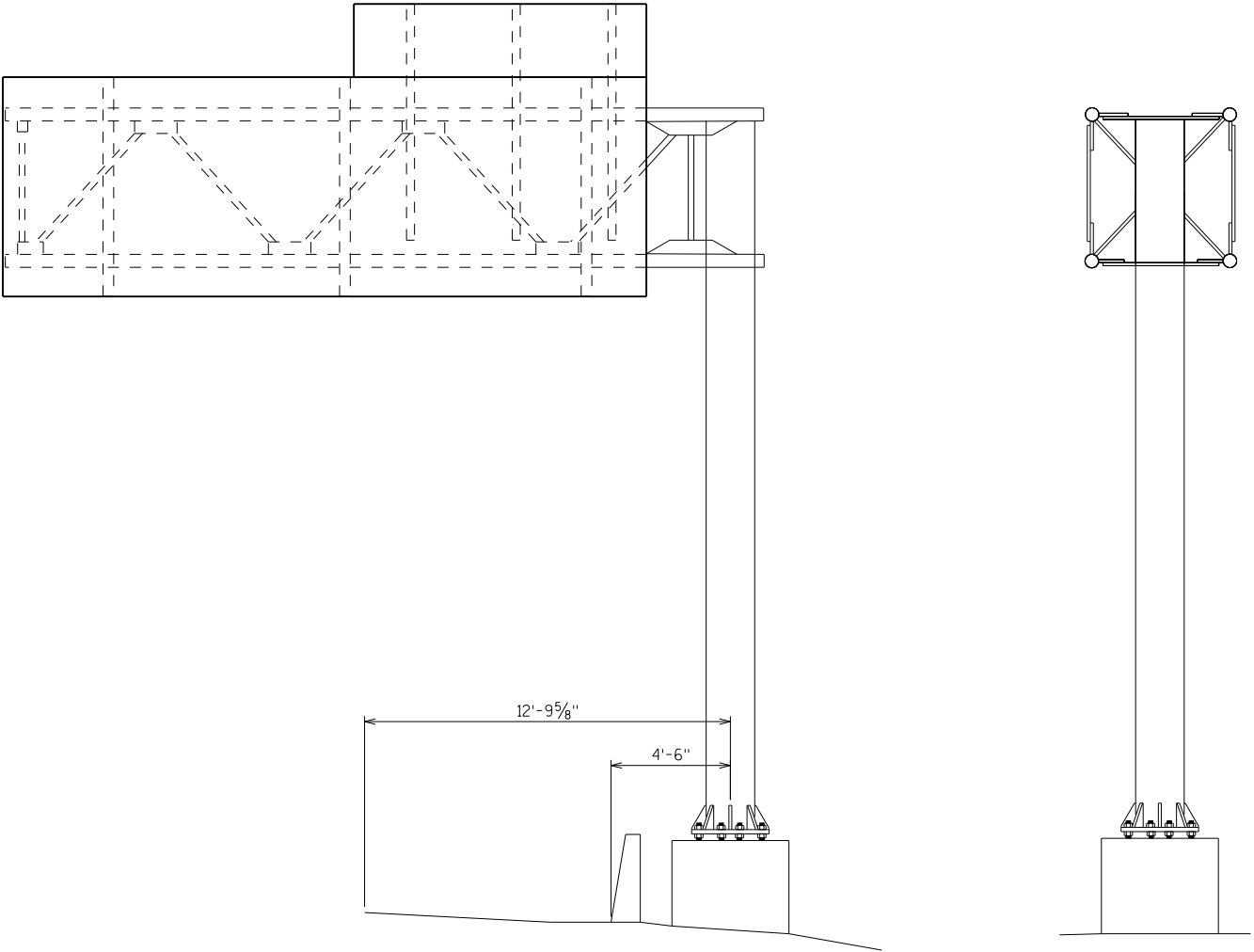


FOUNDATION DETAIL

ITEM NUMBER	BID ITEMS	QUANTITY	REPAIR DETAIL SHEET NO.
SPV.0060.01	TENSION ANCHOR ROD	8 EACH	2

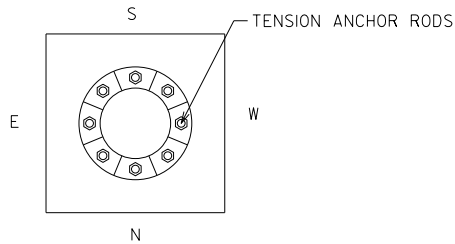
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE NE SIGN REPAIRS			
		DRAWN BY	PLANS CK'D.
		DDS	SAD
S-70-53		SHEET 34	





LOOKING SOUTH

LOOKING EAST

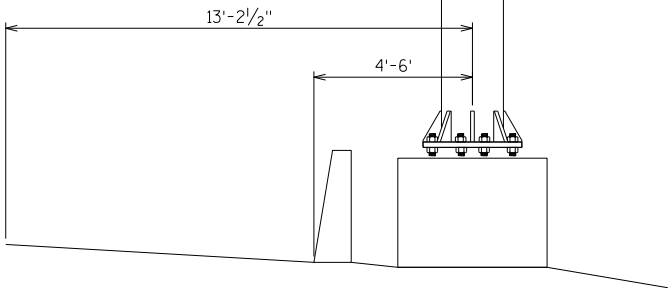
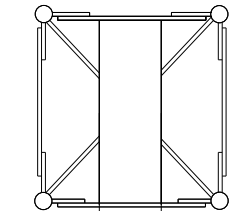
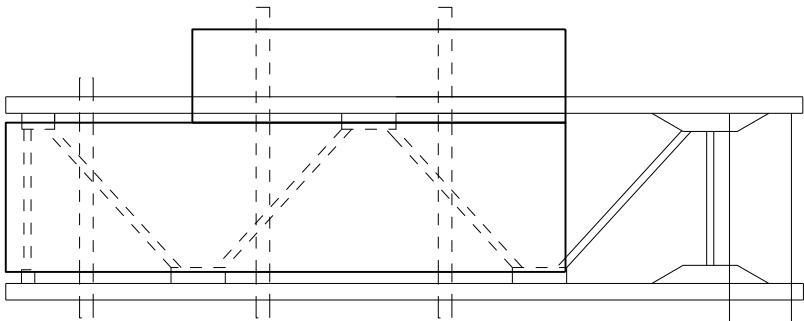


FOUNDATION DETAIL

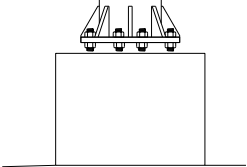
ITEM NUMBER	BID ITEMS	QUANTITY	REPAIR DETAIL SHEET NO.
SPV.0060.01	TENSION ANCHOR ROD	8 EACH	2

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE NE SIGN REPAIRS			
		DRAWN BY	PLANS CK'D. <b>SAD</b>
		DDS	
S-70-56		SHEET 35	

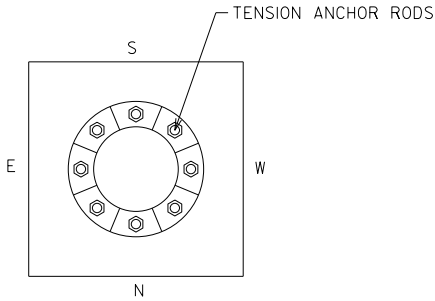




LOOKING SOUTH



LOOKING EAST

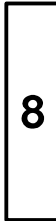


FOUNDATION DETAIL

ITEM NUMBER	BID ITEMS	QUANTITY	REPAIR DETAIL SHEET NO.
SPV.0060.01	TENSION ANCHOR ROD	8 EACH	2

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE NE SIGN REPAIRS			
		DRAWN BY	PLANS CK'D. <b>SAD</b>
		DDS	
S-70-59		SHEET 36	

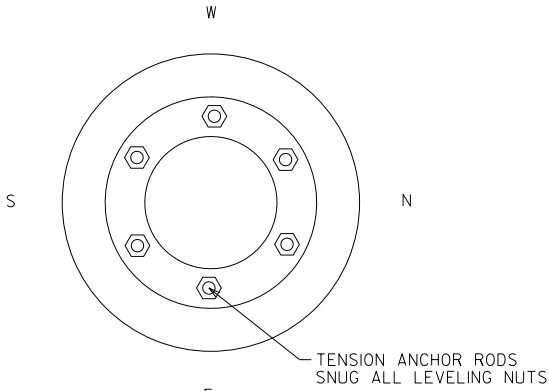
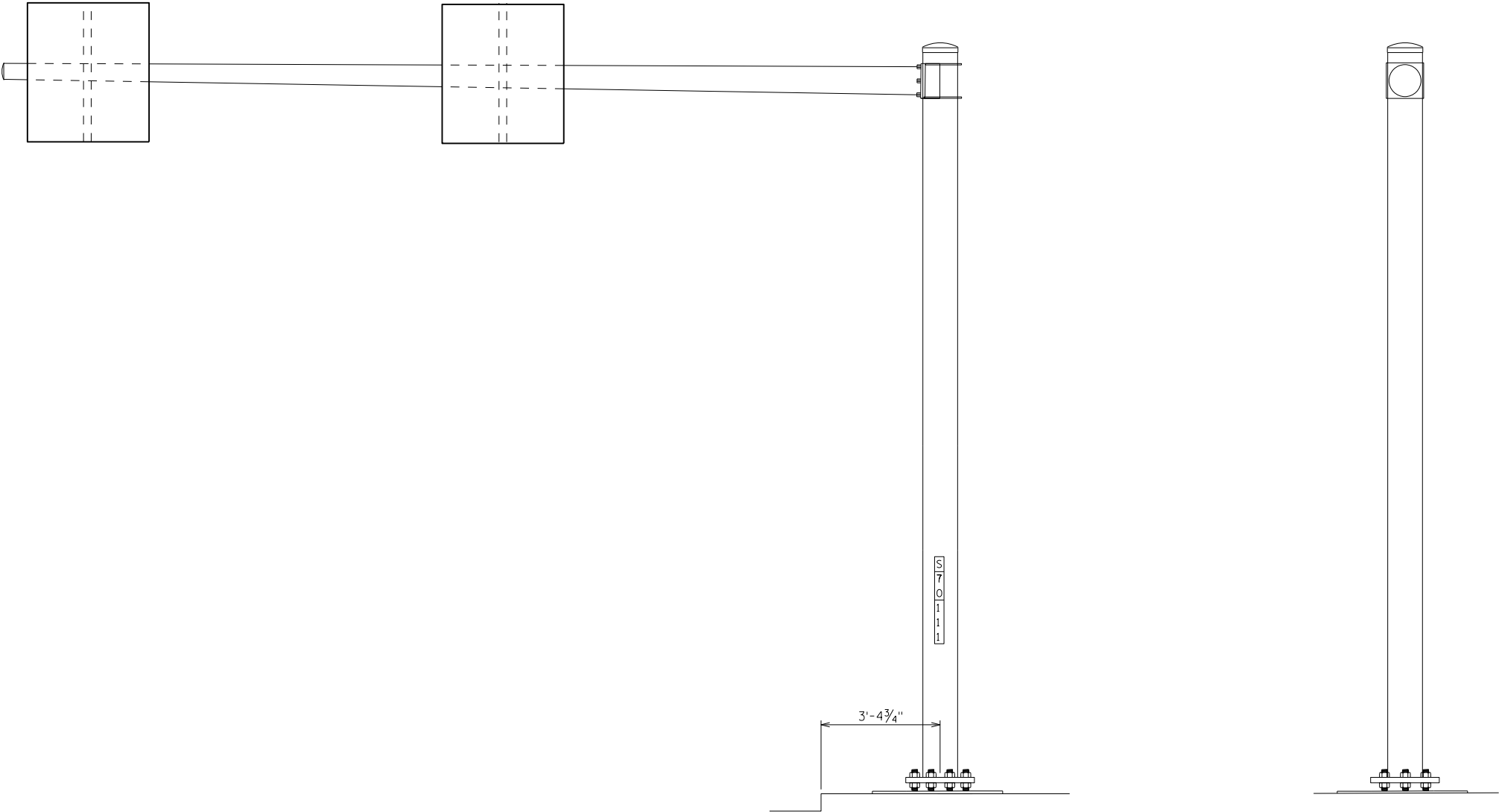




ITEM NUMBER	BID ITEMS	QUANTITY	REPAIR DETAIL SHEET NO.
637.2220	SIGNS TYPE II REFLECTIVE SH	21 SF	5
638.2602	REMOVING SIGNS TYPE II	1 EACH	5

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE NE SIGN REPAIRS			
		DRAWN BY	DDS CK'D. <b>SAD</b>
S-70-68		SHEET 37	





FOUNDATION DETAIL

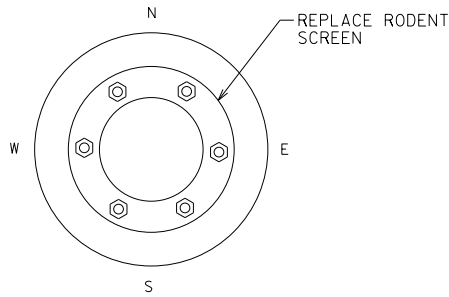
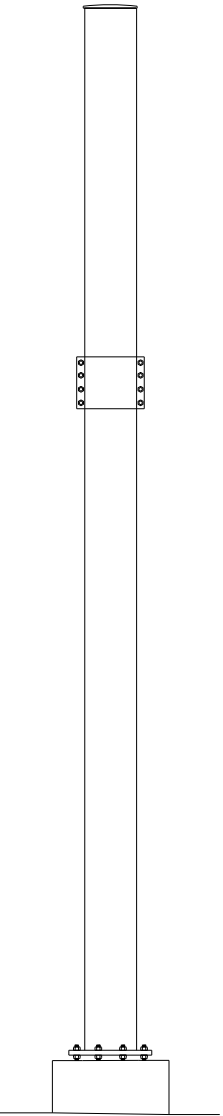
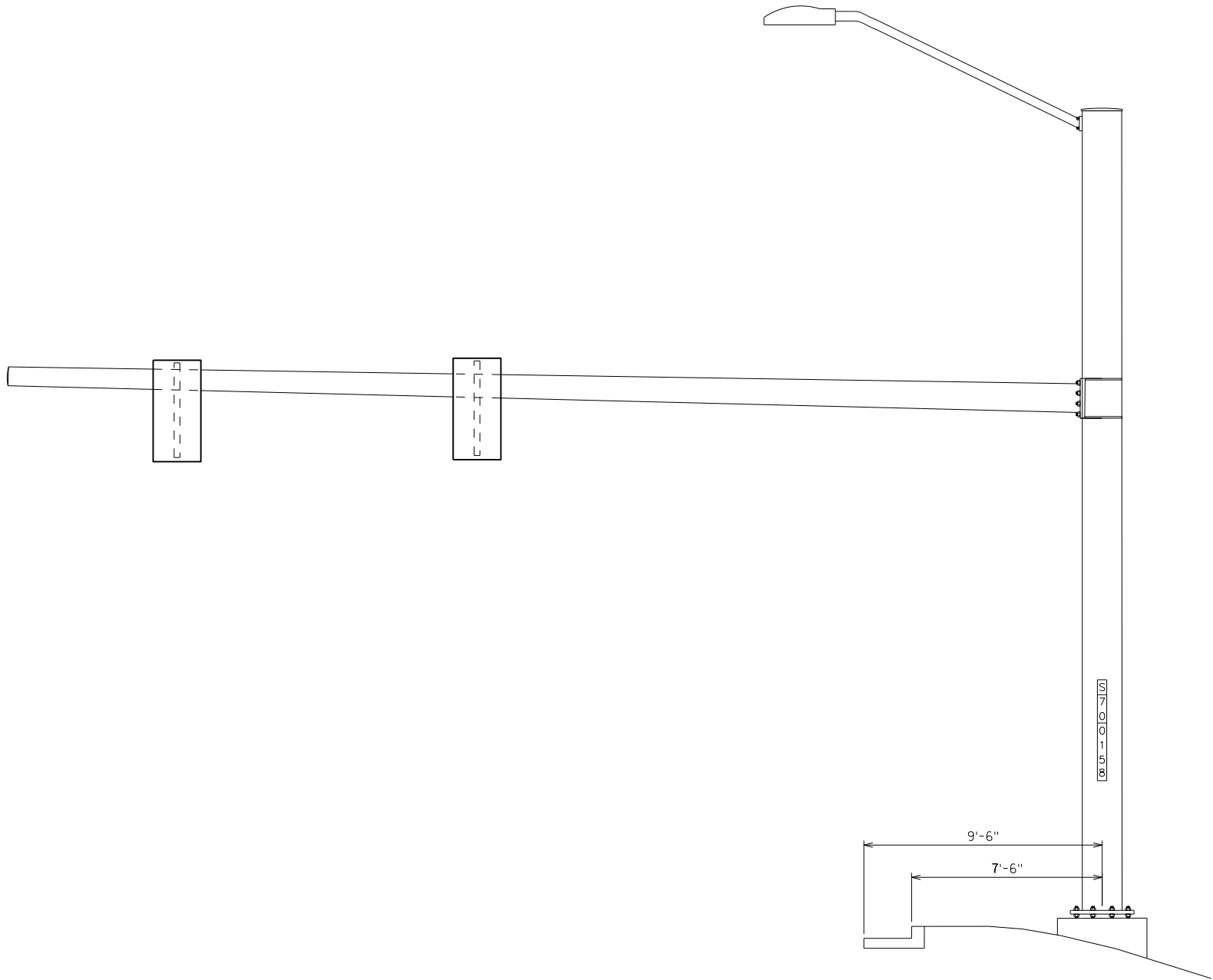
LOOKING NORTH

LOOKING WEST

ITEM NUMBER	BID ITEMS	QUANTITY	REPAIR DETAIL SHEET NO.
SPV.0060.01	TENSION ANCHOR ROD	6 EACH	2

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE NE SIGN REPAIRS			
		DRAWN BY	PLANS CK'D.
		DDS	SAD
S-70-111		SHEET 38	





FOUNDATION DETAIL

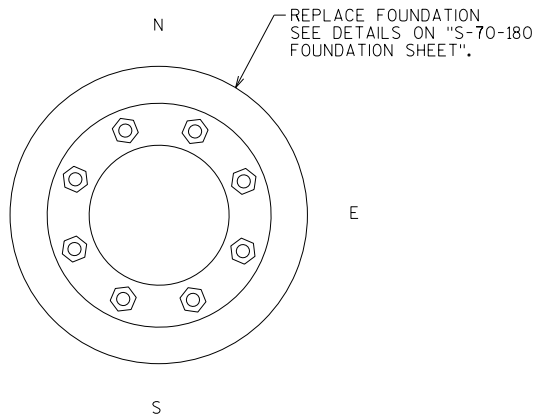
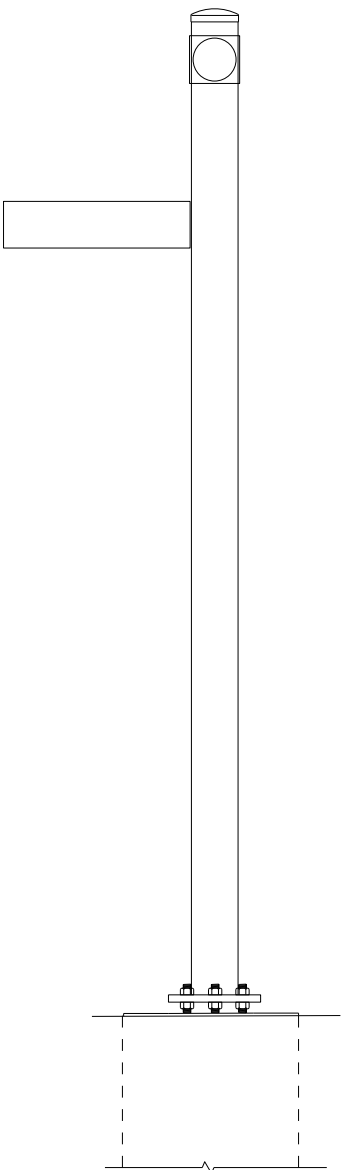
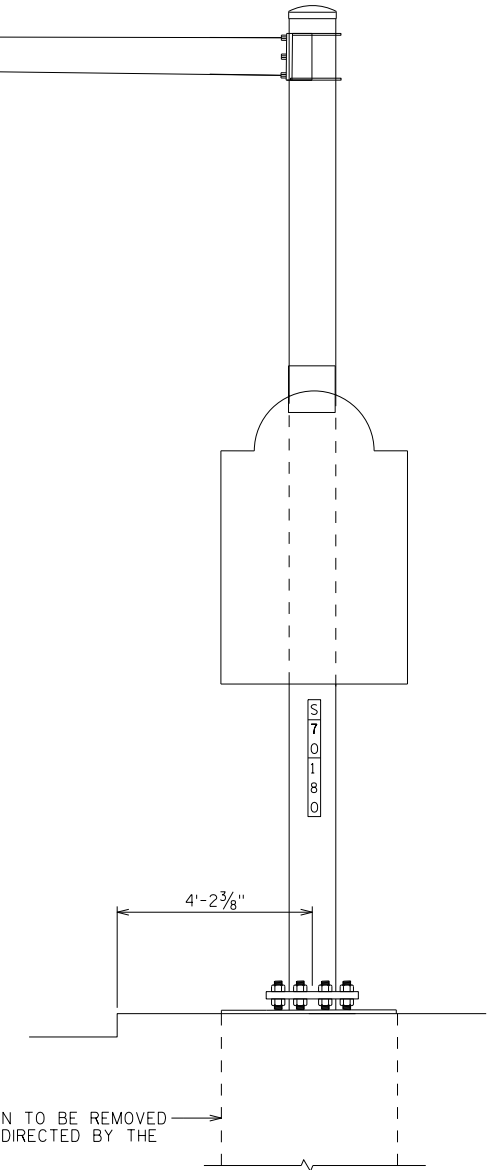
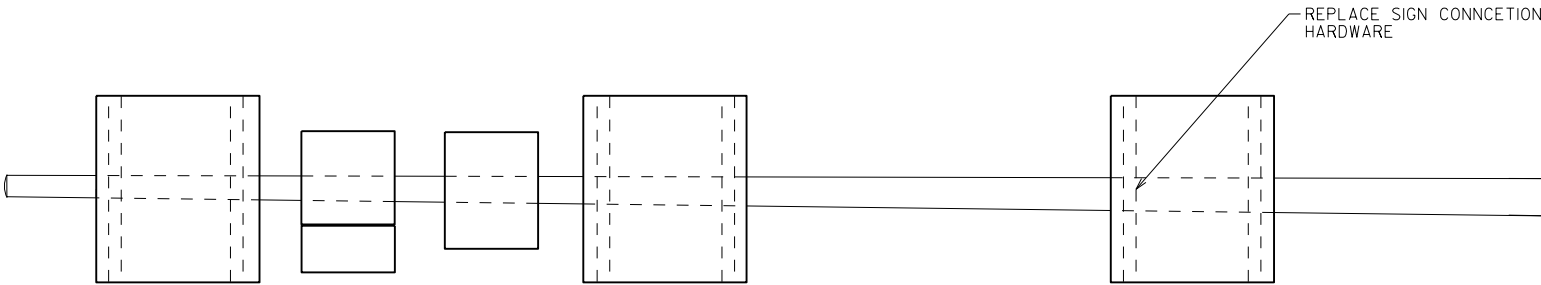
LOOKING NORTH

LOOKING WEST

ITEM NUMBER	BID ITEMS	QUANTITY	REPAIR DETAIL SHEET NO.
SPV.0060.03	REPLACE RODENT SCREEN	1 EACH	2

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE NE SIGN REPAIRS			
		DRAWN BY	PLANS CK'D.
		DDS	SAD
S-70-158		SHEET 39	





LOOKING EAST

EXISTING FOUNDATION TO BE REMOVED OR ABANDONED AS DIRECTED BY THE ENGINEER.

LOOKING NORTH

FOUNDATION DETAIL

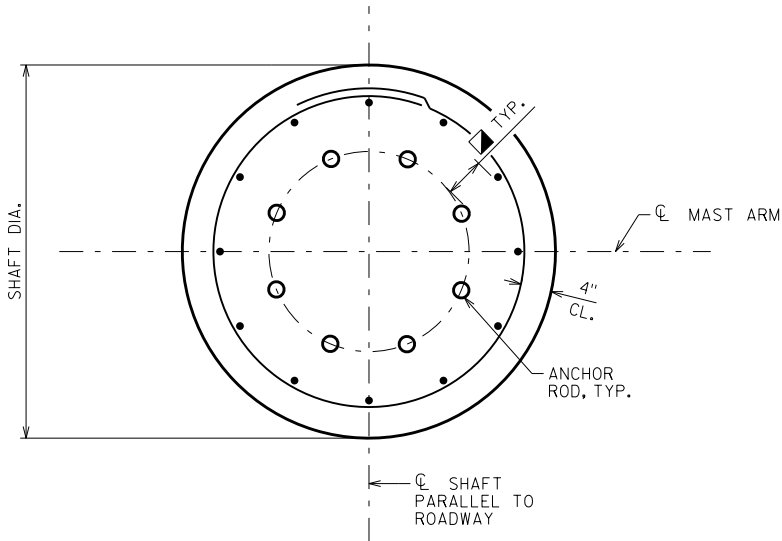
ITEM NUMBER	BID ITEMS	QUANTITY	REPAIR DETAIL SHEET NO.
SPV.0060.04	REPLACE FOUNDATION	1 EACH	2
SPV.0060.10	REPLACE SIGN CONNECTION HARDWARE	1 EACH	5

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE NE SIGN REPAIRS			
		DRAWN BY	PLANS CK'D.
		DDS	SAD
S-70-180		SHEET 40	



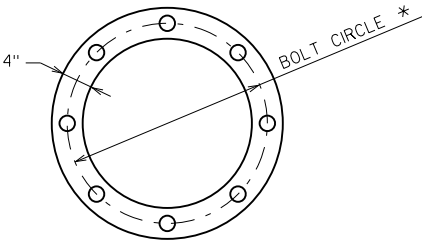
GENERAL NOTES

- DRAWINGS SHALL NOT BE SCALED.
- ALTERNATE FOUNDATION DESIGNS ARE NOT ALLOWED.
- ALL STRUCTURAL STEEL MEMBERS, PLATES, ANCHOR RODS, H.S. BOLTS, NUTS AND WASHERS SHALL BE GALVANIZED PER SECTION 641 OF THE WISDOT STANDARD SPECIFICATIONS.
- \* CONTRACTOR SHALL VERIFY DIMENSIONS PRIOR TO FABRICATION OF TEMPLATES AND ANCHOR RODS. MATCH EXISTING ANCHOR DIAMETER, BOLT CIRCLE AND ORIENTATION OF ANCHOR RODS OF THE EXISTING BASE PLATE. ANCHOR RODS MUST BE INSTALLED PLUMB AND CENTERED IN NEW SHAFT.
- EXACT LOCATION OF THE SIGN BASE SHALL BE DETERMINED BY THE ENGINEER.
- CONTRACTOR SHALL VERIFY UTILITY CONFLICTS PRIOR TO CONSTRUCTION OF FOOTINGS.
- CONTRACTOR TO USE S.D.D. 15C24, AS MODIFIED BY DETAILS ON THIS SHEET AND IN THE SPECIAL PROVISIONS.
- ANCHOR RODS, NUTS, WASHERS, TEMPLATES, CONCRETE MASONRY AND REINFORCEMENT TO BE INCLUDED IN THE BID ITEM "SPV.0060.04 - REPLACE FOUNDATION".
- EXISTING 3'-0" DIA. CONCRETE FOUNDATION TO BE REMOVED OR ABANDONED AS DIRECTED BY THE ENGINEER.

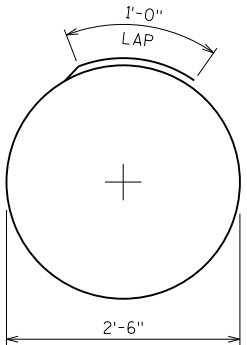


DRILLED SHAFT PLAN

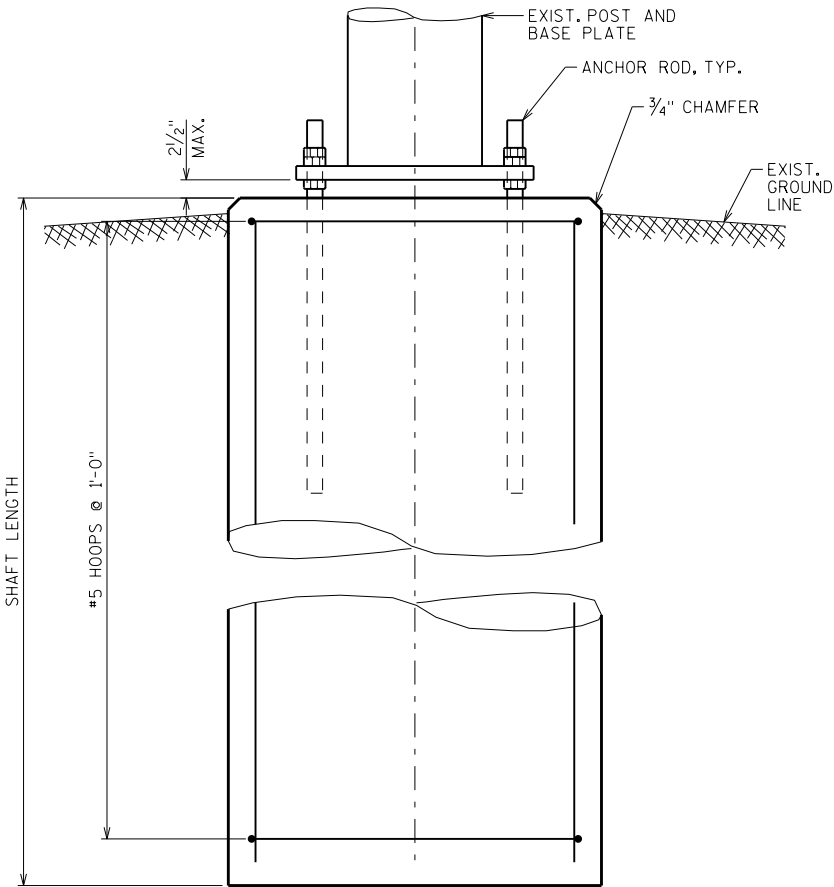
REINFORCEMENT TO CLEAR ANCHOR BOLTS BY 1/2" MIN.



TOP VIEW OF TOP & BOTTOM TEMPLATES

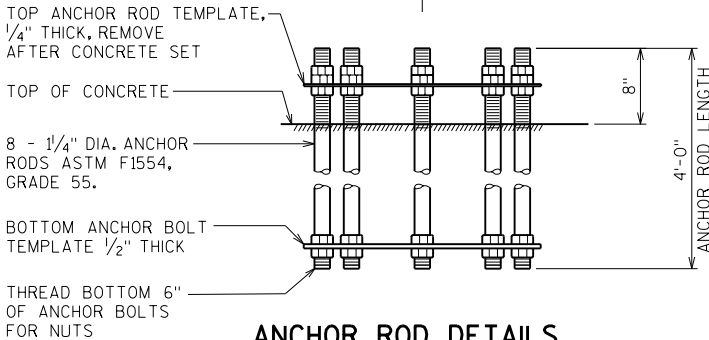
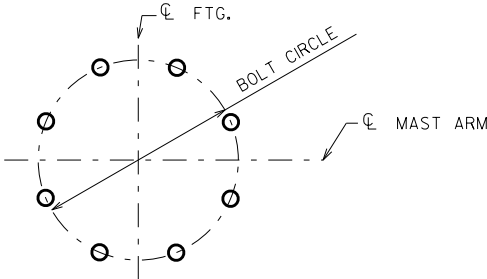


14 - #5 HOOPS  
9 - 4' LONG  
HS REINFORCEMENT = 270 LB



DRILLED SHAFT ELEVATION

SHAFT CASINGS, IF USED, SHALL BE REMOVED CONCURRENTLY WITH PLACING OF CONCRETE.



ANCHOR ROD DETAILS  
CENTER TEMPLATES IN SHAFT

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE NE SIGN REPAIRS			
DRAWN BY		DDS	PLANS CK'D. SAD
S-70-180 FOUNDATION DETAILS		SHEET 41	





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

Dedicated people creating transportation solutions  
through innovation and exceptional service.

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