

WKE

PROJECT ID: WITH:

1000-20-71

COUNTY:

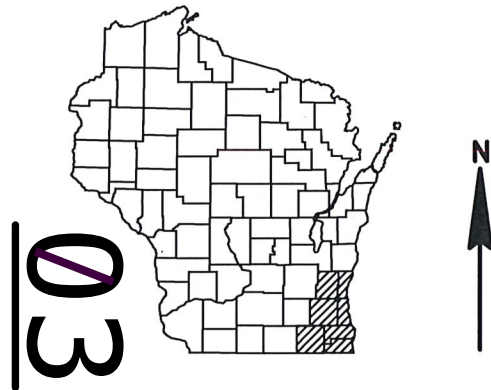
SE REGION WIDE

JUNE 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 = 90



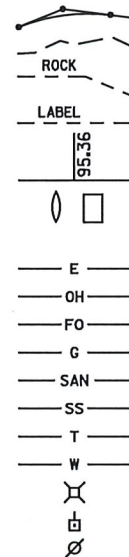
DESIGN DESIGNATION

- 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
OVERHEAD UTILITY
FIBER OPTIC
GAS
SANITARY SEWER
STORM SEWER
TELEPHONE
WATER
UTILITY PEDESTAL
POWER POLE
TELEPHONE POLE



STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

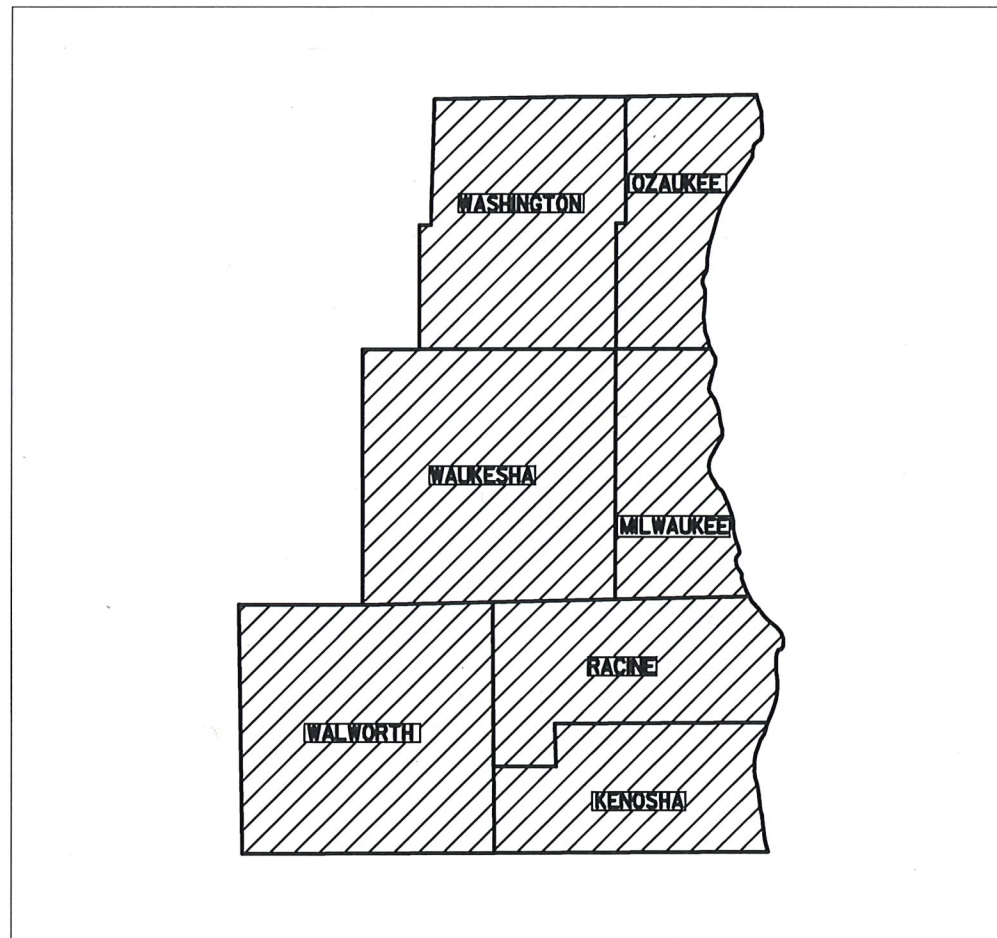
PLAN OF PROPOSED IMPROVEMENT

SIGN BRIDGE REPAIR & REPLACEMENT 2019
Locations on STN Per Annual Plan
VARIOUS HIGHWAYS

SE REGION - WIDE

STATE PROJECT NUMBER
1000-20-71

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
1000-20-71		



TOTAL NET LENGTH OF CENTERLINE = 0.000 MI.

HORIZONTAL POSITIONS SHOWN ON THIS PLAN ARE WISCONSIN COUNTY COORDINATES, COUNTY COUNTY, NAD83 (YEAR), IN U.S. SURVEY FEET. VALUES ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
PREPARED BY	
Surveyor	JACOB VARNES
Designer	FRANK PRITZLAFF
Project Manager	MANOJOY NAG
Regional Examiner	
Regional Supervisor	
APPROVED FOR THE DEPARTMENT	
DATE: 4-16-19	(Signature)
E	

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

GENERAL NOTES

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

DNR CONTACT LIST

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SIGN REPAIR LOCATIONS - KENOSHA COUNTY

STRUCTURE NUMBER	HIGHWAY	DIRECTION OF TRAVEL	LOCATION
S300216	120TH AVE. N	N	1/4M S OF CTH C
S300238	IH 94 E	E	ON EXIT RAMP TO STH 50
S300241	STH 50 E	E	AT ENTRANCE RAMP TO IH 94 EB
S300252	STH 50 E	E	E OF IH 94 AT LANE DROP
S300253	IH 94 E	E	ON EXIT RAMP TO STH 142

SIGN REPAIR LOCATIONS - MILWAUKEE COUNTY

STRUCTURE NUMBER	HIGHWAY	DIRECTION OF TRAVEL	LOCATION
S400032	STH 100 W	W	0.1M E OF IH 45
S400057	IH 41N	N	ON EXIT RAMP TO WATERTOWN PLANK RD
S400058	USH 45 S ENTRANCE RAMP	S	AT SPLIT TO USH 41NB/SB
S400060	IH 41N	N	ON ENTRANCE RAMP FROM WATERTOWN PLANK RD
S400063	USH 45 N	N	1/4MILE S OF MAYFAIR RD
S400066	IH 894 W	W	AT GORE TO IH 43 S
S400150	IH 94 W	W	ON EXIT RAMP TO STH 100
S400296	STH 38 N	N	JUST S OF STH 100
S400298	STH 32 S	S	1/8TH M N OF STH 100
S400409	IH 43 S	S	AT OKLAHOMA AVE
S400452	84TH ST	T	JUST NORTH OF I-94
S400453	84TH STREET	T	JUST S OF I-94
S400500	IH 43 N	N	25 FT S OF WELLS ST BRIDGE
S400505	IH 43 N	N	500'N OF WALNUT ST.
S400518	IH 94 W	W	ON RAMP TO IH 94 W
S400622	SILVER SPRING DR W	W	JUST E OF PORT WASHINGTON RD
S400702	IH 43 S	S	ON EXIT RAMP TO STH 145
S400706	IH 43 N	N	ON RAMP FROM KILBOURN AVE
S400708	IH 43	N	AT THE USH 145 ENTRANCE RAMP
S400716	IH 94 E	E	1/4M W OF ST. PAUL AVE
S400845	STH 145 S	S	JUST S OF 76TH STREET
S400901	STH 38 S	S	JUST NORTH OF STH 100
S400911	IH 43 N	N	ON SILVER SPRING/PORT WASHINGTON RD EXIT RAMP
S400920	PENNSYLVANIA AVE N	N	JUST S OF STH 794
S400924	BROWN DEER RD E	E	AT IH 43 NB ON-RAMP
S400930	STH 38 S	S	JUST N OF PUETZ RD
S400931	STH 38 N	N	JUST S OF DREXEL AVE
S400933	STH 38 N	N	JUST S OF RAWSON AVE
S400944	STH 100 S	S	JUST S OF MT. VERNON AVE
S400946	STH 100 S	S	JUST N OF BLUEMOUND RD
S400951	USH 18 E	E	JUST E OF STH 100
S400974	USH 41/45 S	S	ENTRANCE RAMP FROM GOOD HOPE RD
S400976	STH 100 N	N	JUST S OF IH 94 ENTRANCE RAMP
S400987	STH 24 E	E	JUST W OF STH 100

HML REPLACEMENT LOCATIONS - MILWAUKEE COUNTY

STRUCTURE NUMBER	HIGHWAY	DIRECTION OF TRAVEL	LOCATION
L400123	IH 41	W	HALE INTERCHANGE
L400124	IH 43 N TO IH 894 E	E	HALE INTERCHANGE
L400125	IH 43 N	N	HALE INTERCHANGE
L400126	IH 41N	N	HALE INTERCHANGE
L400127	IH 41	N	HALE INTERCHANGE
L400128	IH 43	N	HALE INTERCHANGE
L400129	IH 43 S	S	HALE INTERCHANGE

SIGN REPAIR LOCATIONS - OZAUKEE COUNTY

STRUCTURE NUMBER	HIGHWAY	DIRECTION OF TRAVEL	LOCATION
S450001	IH 43 S	S	AT EXIT TO STH 33
S450003	IH 43 S	S	1/2M N OF STH 33 EXIT
S450004	IH 43 N	N	JUST S OF STH-57/ I-43 SPLIT

SIGN REPAIR LOCATIONS - RACINE COUNTY

STRUCTURE NUMBER	HIGHWAY	DIRECTION OF TRAVEL	LOCATION
S510212	STH 31 S	S	JUST N OF STH 11
S510213	STH 11	E	JUST W OF STH 11

SIGN REPAIR LOCATIONS - WALWORTH COUNTY

STRUCTURE NUMBER	HIGHWAY	DIRECTION OF TRAVEL	LOCATION
S640209	STH 11	W	JUST S OF CHESTNUT ST (CTH DD)

SIGN REPAIR LOCATIONS - WASHINGTON COUNTY

STRUCTURE NUMBER	HIGHWAY	DIRECTION OF TRAVEL	LOCATION
S660006	IH 41N	N	0.3 M S OF USH 41/45 SPLIT

SIGN REPAIR LOCATIONS - WAUKESHA COUNTY

STRUCTURE NUMBER	HIGHWAY	DIRECTION OF TRAVEL	LOCATION
S670017	IH 94 E	E	EXIT TO USH 18
S670228	STH 83	SE	JUST S OF I-43
S670229	STH 83	SE	JUST N OF I-43
S670235	STH 59 E	E	JUST W OF CTH Y
S670267	STH 164	N	1/8MILE S OF GOOD HOPE ROAD
S670407	STH 145 SB	B	STH 145 SB, AT RAMP TO USH 41/45 NB
S670414	STH 59 E	E	1/4MILE W OF MOORLAND RD
S670933	STH 190 E	E	AT CALHOUN RD
S670934	STH 190	E	AT USH 45
S670935	STH 190	W	AT LISBON RD
S670936	STH 190 W	W	AT CALHOUN RD

Estimate Of Quantities

1000-20-71

Line	Item	Item Description	Unit	Total	Qty
0002	204.9060.S	Removing (item description) 01. High Mast Lighting Tower L-40-34	EACH	1.000	1.000
0004	204.9060.S	Removing (item description) 02. High Mast Lighting Tower L-40-35	EACH	1.000	1.000
0006	204.9060.S	Removing (item description) 03. High Mast Lighting Tower L-40-36	EACH	1.000	1.000
0008	204.9060.S	Removing (item description) 04. High Mast Lighting Tower L-40-37	EACH	1.000	1.000
0010	204.9060.S	Removing (item description) 05. High Mast Lighting Tower L-40-38	EACH	1.000	1.000
0012	204.9060.S	Removing (item description) 06. High Mast Lighting Tower L-40-39	EACH	1.000	1.000
0014	204.9060.S	Removing (item description) 07. High Mast Lighting Tower L-40-40	EACH	1.000	1.000
0016	509.1500	Concrete Surface Repair	SF	4.000	4.000
0018	619.1000	Mobilization	EACH	1.000	1.000
0020	625.0500	Salvaged Topsoil	SY	200.000	200.000
0022	628.1504	Silt Fence	LF	70.000	70.000
0024	628.1520	Silt Fence Maintenance	LF	70.000	70.000
0026	628.2002	Erosion Mat Class I Type A	SY	200.000	200.000
0028	628.7560	Tracking Pads	EACH	20.000	20.000
0030	630.0171	Seeding Mixture No. 70A	LB	5.000	5.000
0032	637.2220	Signs Type II Reflective SH	SF	188.000	188.000
0034	638.2602	Removing Signs Type II	EACH	3.000	3.000
0036	660.0100	High Mast Foundation (location) 01. L-40-123	LS	1.000	1.000
0038	660.0100	High Mast Foundation (location) 02. L-40-124	LS	1.000	1.000
0040	660.0100	High Mast Foundation (location) 03. L-40-125	LS	1.000	1.000
0042	660.0100	High Mast Foundation (location) 04. L-40-126	LS	1.000	1.000
0044	660.0100	High Mast Foundation (location) 05. L-40-127	LS	1.000	1.000
0046	660.0100	High Mast Foundation (location) 06. L-40-128	LS	1.000	1.000
0048	660.0100	High Mast Foundation (location) 07. L-40-129	LS	1.000	1.000
0050	660.0200	High Mast Lighting Tower (location) 01. L-40-123	LS	1.000	1.000
0052	660.0200	High Mast Lighting Tower (location) 02. L-40-124	LS	1.000	1.000
0054	660.0200	High Mast Lighting Tower (location) 03. L-40-125	LS	1.000	1.000
0056	660.0200	High Mast Lighting Tower (location) 04. L-40-126	LS	1.000	1.000
0058	660.0200	High Mast Lighting Tower (location) 05. L-40-127	LS	1.000	1.000
0060	660.0200	High Mast Lighting Tower (location) 06. L-40-128	LS	1.000	1.000
0062	660.0200	High Mast Lighting Tower (location) 07. L-40-129	LS	1.000	1.000
0064	SPV.0060	Special 01. Tension Anchor Rod	EACH	158.000	158.000
0066	SPV.0060	Special 02. Remove Grout Pad	EACH	4.000	4.000
0068	SPV.0060	Special 03. Remove Debris and Regrade	EACH	8.000	8.000

Estimate Of Quantities

1000-20-71

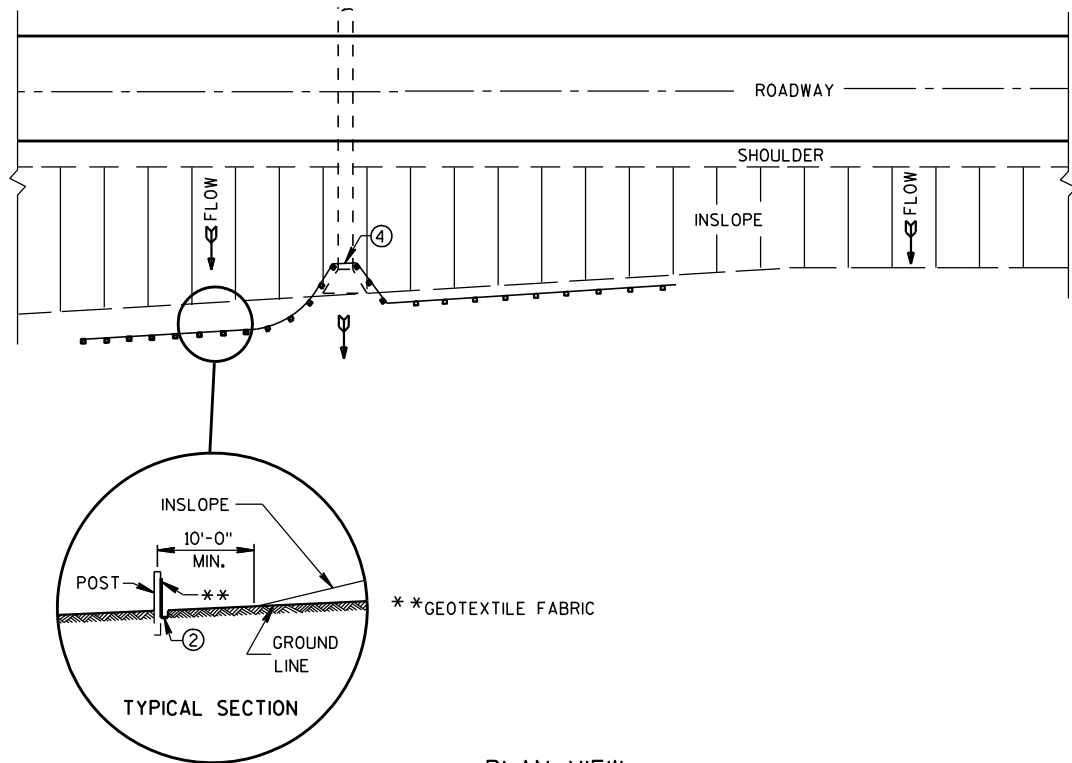
Line	Item	Item Description	Unit	Total	Qty
0070	SPV.0060	Special 04. Replace Rodent Screen	EACH	7.000	7.000
0072	SPV.0060	Special 06. Abandon High Mast Foundation	EACH	7.000	7.000
0074	SPV.0060	Special 07. Replace Truss Member	EACH	3.000	3.000
0076	SPV.0060	Special 08. Tension Structural Connection Bolt (Friction)	EACH	88.000	88.000
0078	SPV.0060	Special 09. Tighten Connection Bolt (Non-Friction)	EACH	4.000	4.000
0080	SPV.0060	Special 10. Secure/Replace Cap	EACH	2.000	2.000
0082	SPV.0060	Special 11. Replace U-Bolt	EACH	3.000	3.000
0084	SPV.0060	Special 12. Remove Nesting Debris	EACH	1.000	1.000
0086	SPV.0060	Special 13. Slotted Hole Repair On Sign Support Bracket	EACH	3.000	3.000
0088	SPV.0060	Special 14. Replace Type II Sign Support Bracket	EACH	17.000	17.000
0090	SPV.0060	Special 15. Install ID Plaque	EACH	2.000	2.000
0092	SPV.0060	Special 16. Install Sign Panel Connector	EACH	10.000	10.000
0094	SPV.0060	Special 17. Secure Sign Type II	EACH	2.000	2.000
0096	SPV.0060	Special 18. Secure Luminaire Cover	EACH	2.000	2.000
0098	SPV.0060	Special 19. Install Conduit Plug	EACH	1.000	1.000
0100	SPV.0060	Special 20. Secure/Replace Handhole Cover	EACH	1.000	1.000
0102	SPV.0105	Special 01. Traffic Control (1000-20-71)	LS	1.000	1.000
0104	SPV.0165	Special 01. Repair Galvanized Coating	SF	7.000	7.000

EROSION CONTROL							
CATEGORY	LOCATION	SALVAGED	SILT FENCE		EROSION MAT	TRACKING	SEEDING
		TOPSOIL	MAINTENANCE		CLASS I TYPE A	PADS	MIXTURE
		625.0500	628.1504	628.1520	628.2002	628.7560	NO. 70A
		SY	LF	LF	SY	EACH	LB
0010	HALE INTERCHANGE - UNDISTRIBUTED	200	70	70	200	20	5
TOTALS		200	70	70	200	20	5

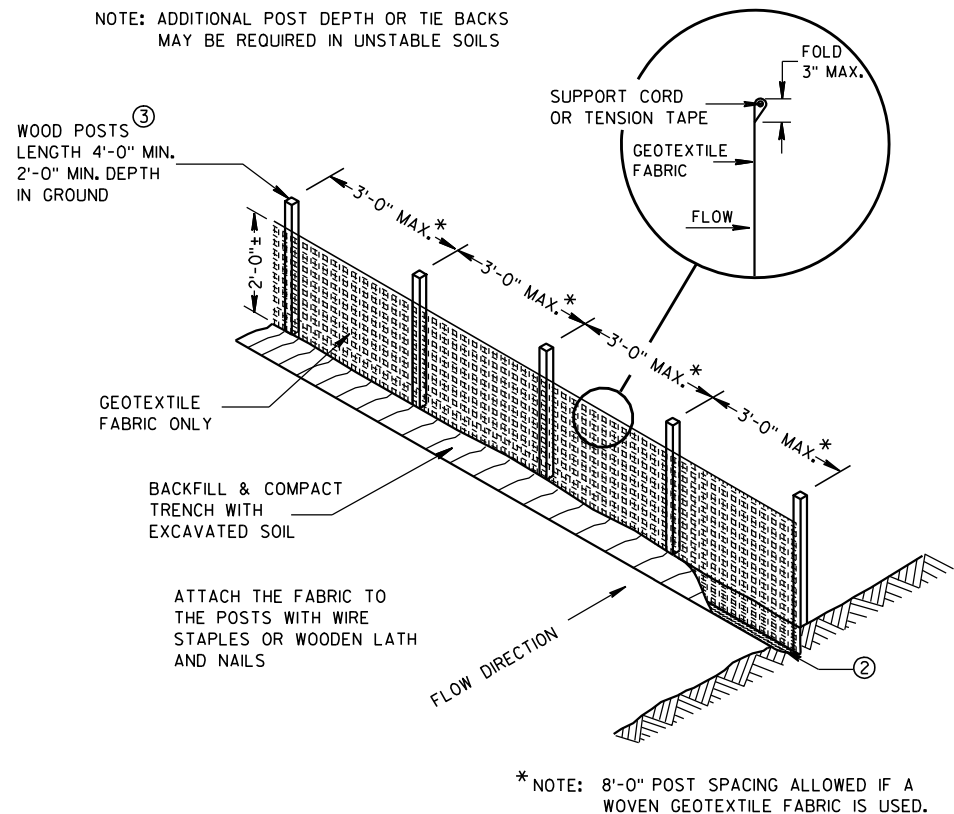
NOTE: ADDITIONAL QUANTITIES ON STRUCTURE PLANS

Standard Detail Drawing List

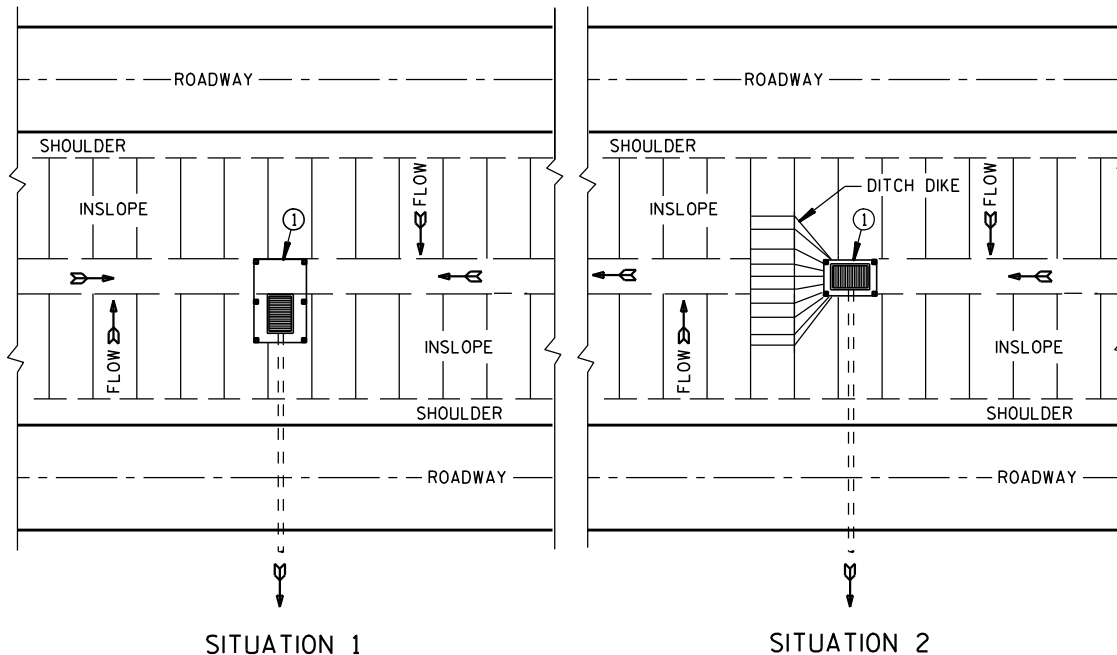
08E09-06	SILT FENCE
08E14-01	TRACKING PAD
12A03-10	NAME PLATE (STRUCTURES)
12A04-03	STRUCTURE IDENTIFICATION PLAQUES, RAMP GATES, SIGN BRIDGES & OVERHEAD SIGN SUPPORTS & TRAFFIC SIGNALS
15D12-07A	TRAFFIC CONTROL, LANE CLOSURE
15D14-03	TRAFFIC CONTROL, TWO LANE CLOSURE ON FREEWAY OR EXPRESSWAY, SHORT-TERM (LESS THAN 24 HOURS)
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



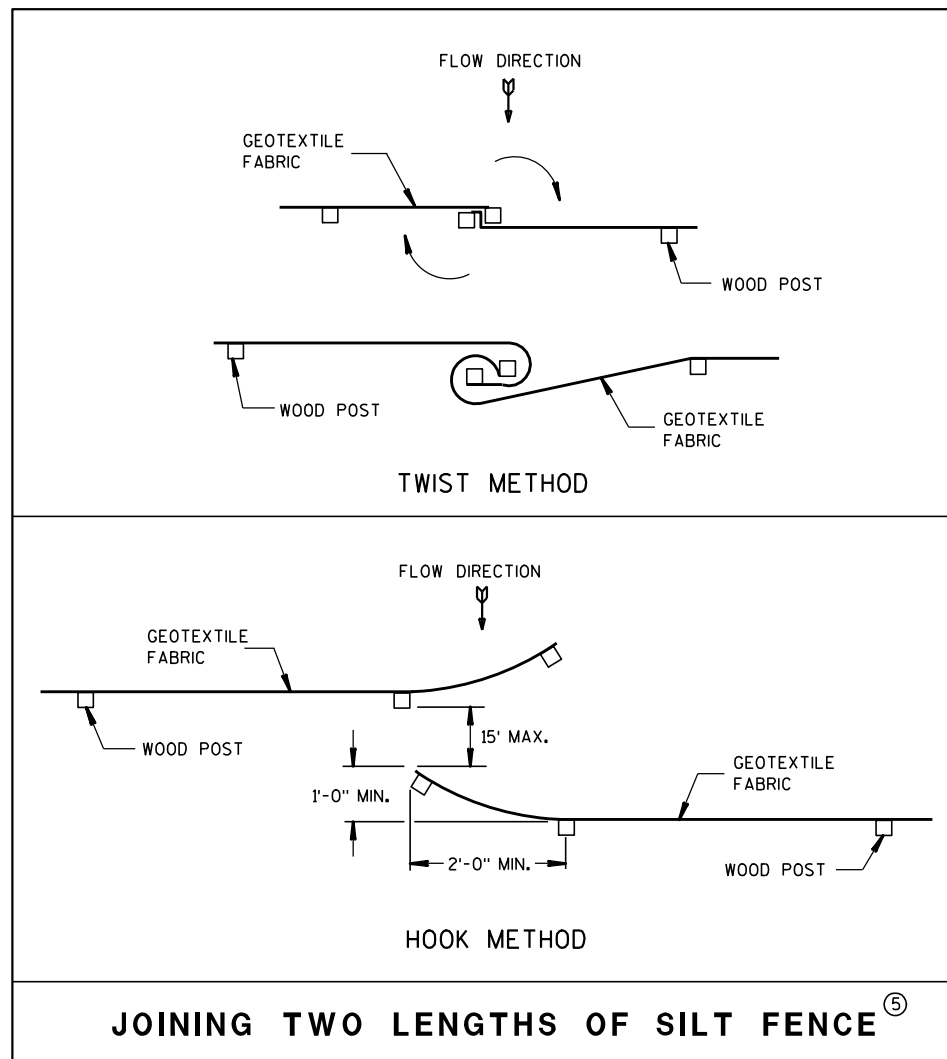
PLAN VIEW
TYPICAL APPLICATION OF SILT FENCE



SILT FENCE



PLAN VIEW
SILT FENCE AT MEDIAN SURFACE DRAINS

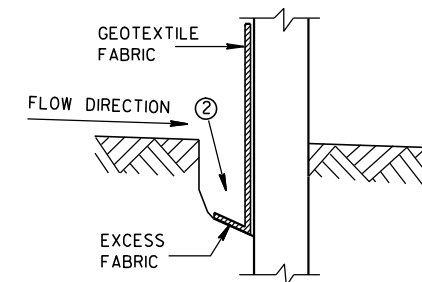


JOINING TWO LENGTHS OF SILT FENCE (5)

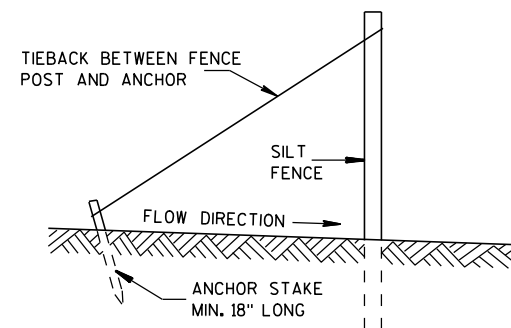
GENERAL NOTES

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

- ① HORIZONTAL BRACE REQUIRED WITH 2" X 4" WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS.
- ② FOR MANUAL INSTALLATIONS THE TRENCH SHALL BE A MINIMUM OF 4" WIDE & 6" DEEP TO BURY AND ANCHOR THE GEOTEXTILE FABRIC. FOLD MATERIAL TO FIT TRENCH AND BACKFILL & COMPACT TRENCH WITH EXCAVATED SOIL.
- ③ WOOD POSTS SHALL BE A MINIMUM SIZE OF 1 1/8" X 1 1/8" OF OAK OR HICKORY.
- ④ SILT FENCE TO EXTEND ACROSS THE TOP OF THE PIPE.
- ⑤ CONSTRUCT SILT FENCE FROM A CONTINUOUS ROLL IF POSSIBLE BY CUTTING LENGTHS TO AVOID JOINTS. IF A JOINT IS NECESSARY USE ONE OF THE FOLLOWING TWO METHODS; A) OVERLAP THE END POSTS AND TWIST, OR ROTATE, AT LEAST 180 DEGREES, B) HOOK THE END OF EACH SILT FENCE LENGTH.

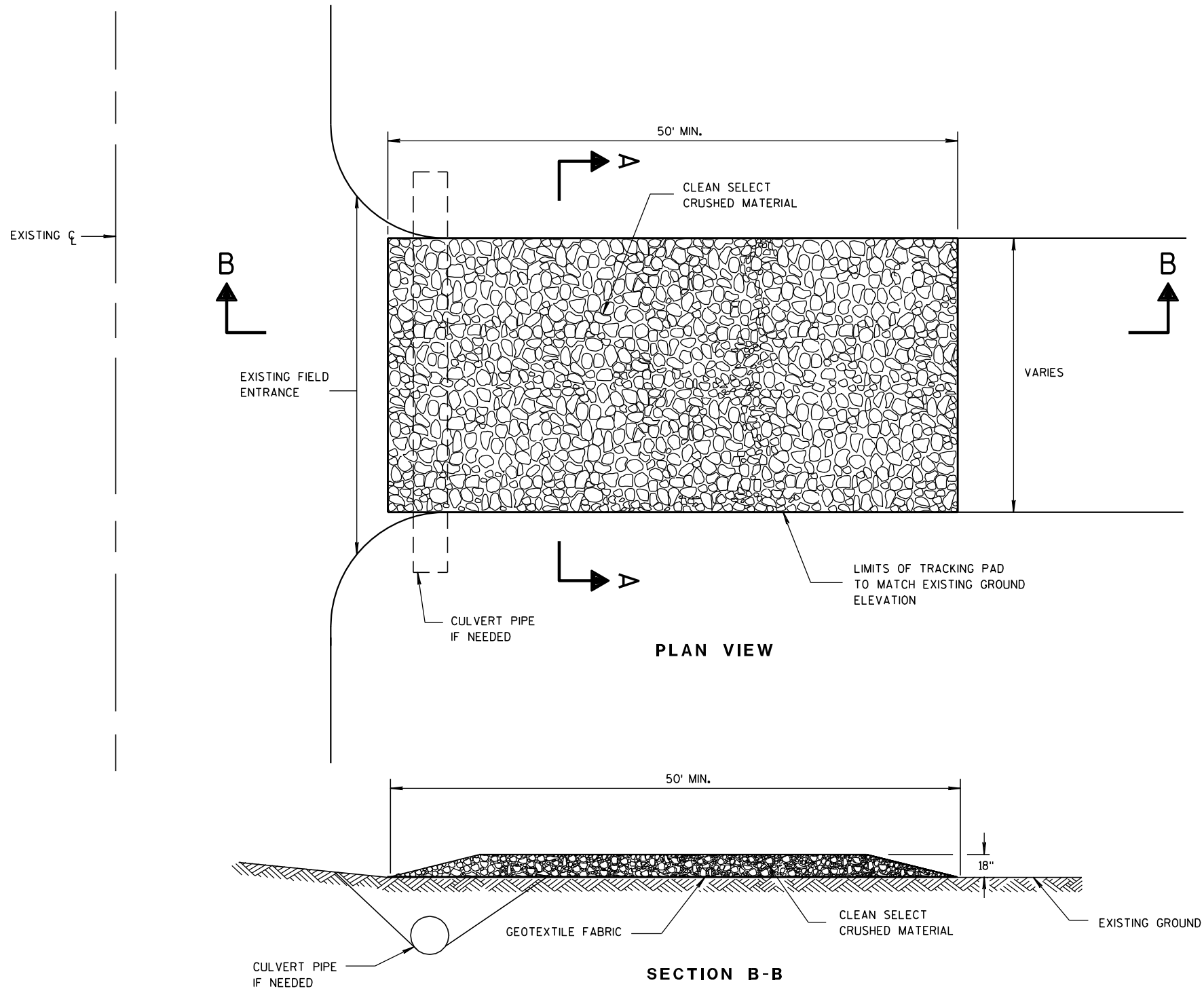


TRENCH DETAIL



SILT FENCE TIE BACK
(WHEN REQUIRED BY THE ENGINEER)

SILT FENCE	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 4-29-05 DATE	/S/ Beth Canestra CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA	



TRACKING PAD

GENERAL NOTES

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

TRACKING PAD SHALL BE INSPECTED DAILY. DEFICIENT AREAS SHALL BE REPAIRED OR REPLACED IMMEDIATELY.

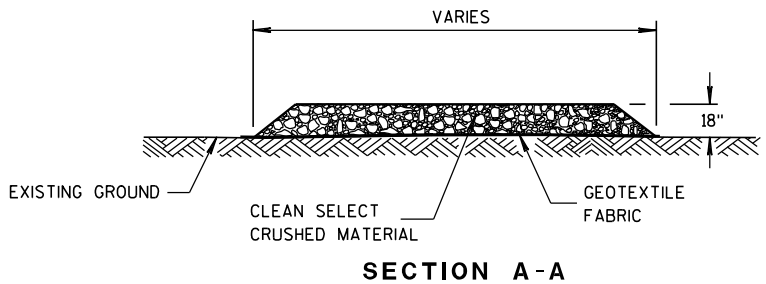
TRACKING PAD TO BE REMOVED AFTER CONSTRUCTION IS COMPLETED.

TRACKING PAD SHALL BE THE FULL WIDTH OF THE EGRESS POINT.

SURFACE WATER MUST BE PREVENTED FROM PASSING THROUGH THE TRACKING PAD. FLOWS SHALL BE DIVERTED AWAY, AROUND OR CONVEYED UNDER THE TRACKING PAD.

CULVERT PIPE OR OTHER BMP USED TO DIVERT WATER AWAY, AROUND OR UNDER THE TRACKING PAD SHALL BE DESIGNED TO CONVEY THE 2 YEAR - 24 HOUR EVENT.

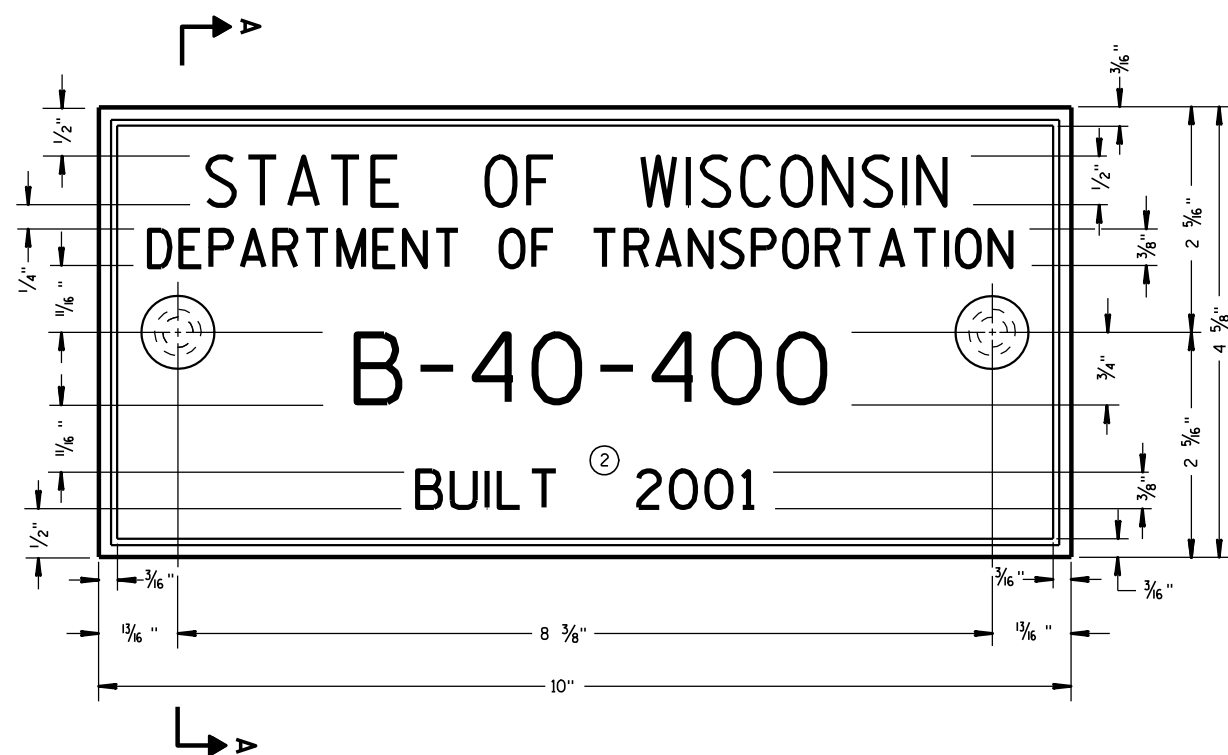
THE COST OF ADDITIONAL BMP TO DIVERT WATER ARE INCIDENTAL TO THE TRACKING PAD BID ITEM.



TRACKING PAD

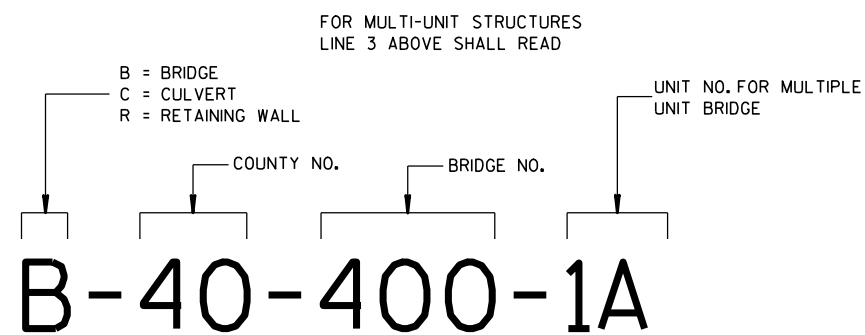
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
3/24/2011
DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT
ENGINEER
FHWA



TYPICAL NAME PLATE

(BRIDGES, CULVERTS, AND RETAINING WALLS)



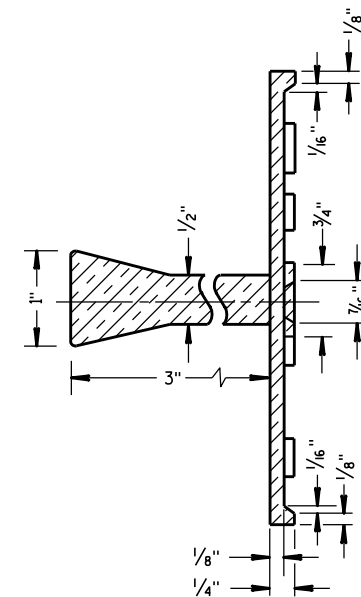
NUMBERING DESIGNATION
MULTI-UNIT STRUCTURES

GENERAL NOTES

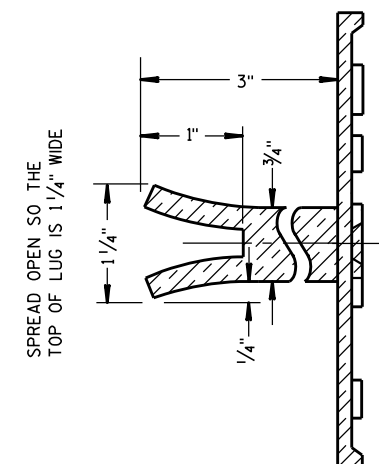
NAME PLATES TO BE INSTALLED ON BRIDGES, CULVERTS, AND RETAINING WALLS SHALL CONFORM TO THE REQUIREMENTS OF SECTION 502.3.11 OF THE STANDARD SPECIFICATIONS.

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

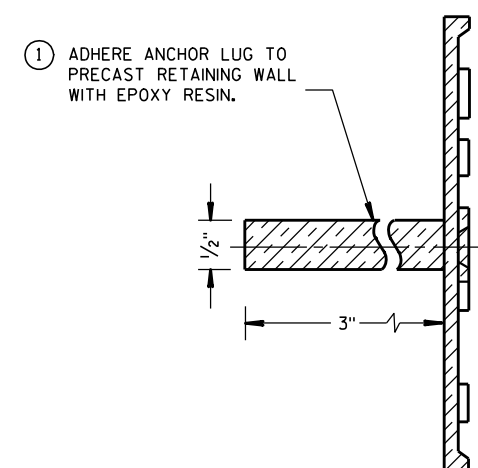
- ① EPOXY RESIN SHALL BE FROM AN APPROVED MANUFACTURER AND USED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
- ② REHABILITATION OF AN EXISTING STRUCTURE SHOULD USE THE DATE OF ORIGINAL STRUCTURE CONSTRUCTION.



SECTION A-A



ALTERNATE LUG



ALTERNATE LUG

(FOR ATTACHMENT TO PRECAST STRUCTURES)

NAME PLATE
(STRUCTURES)

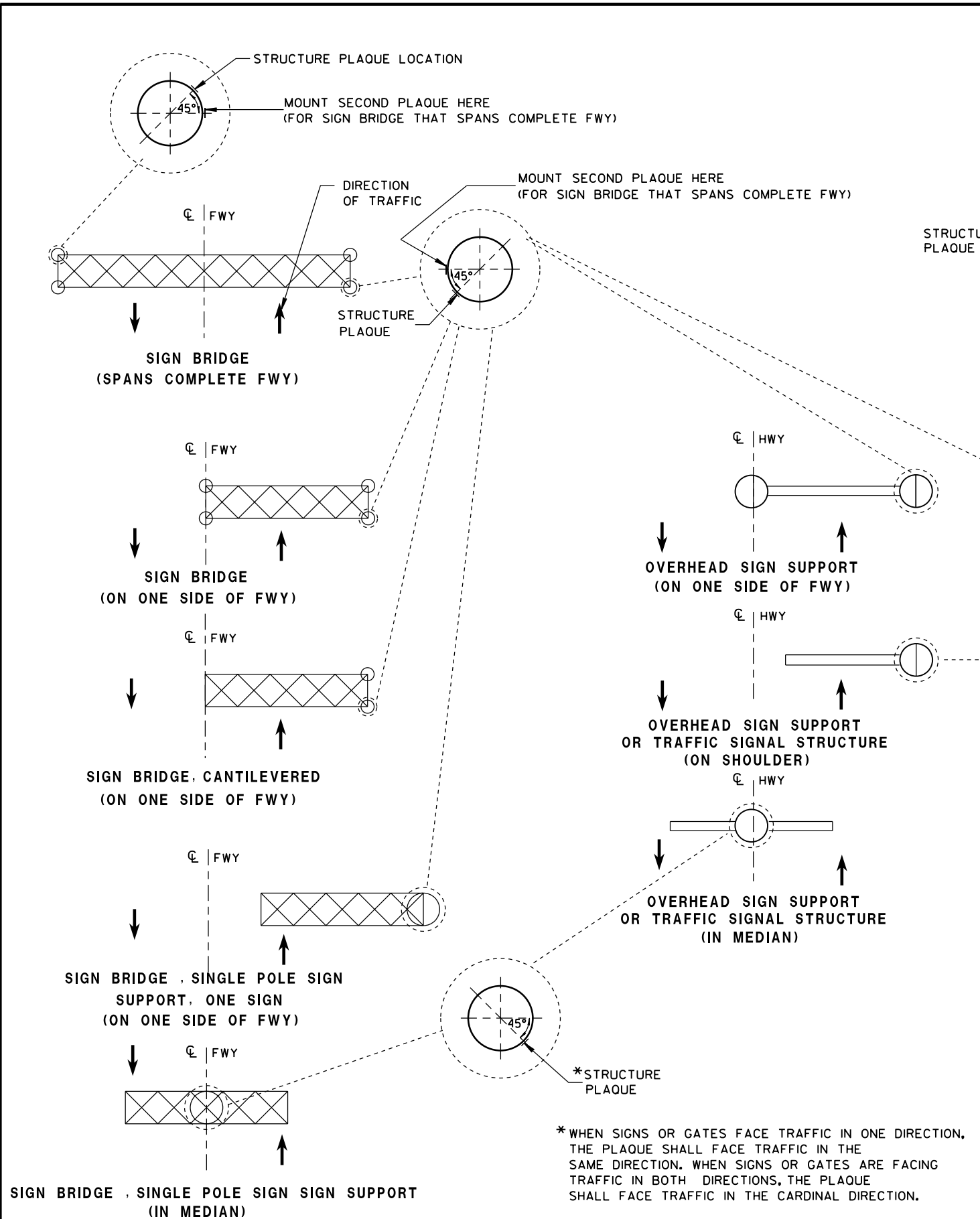
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

3/26/10
DATE

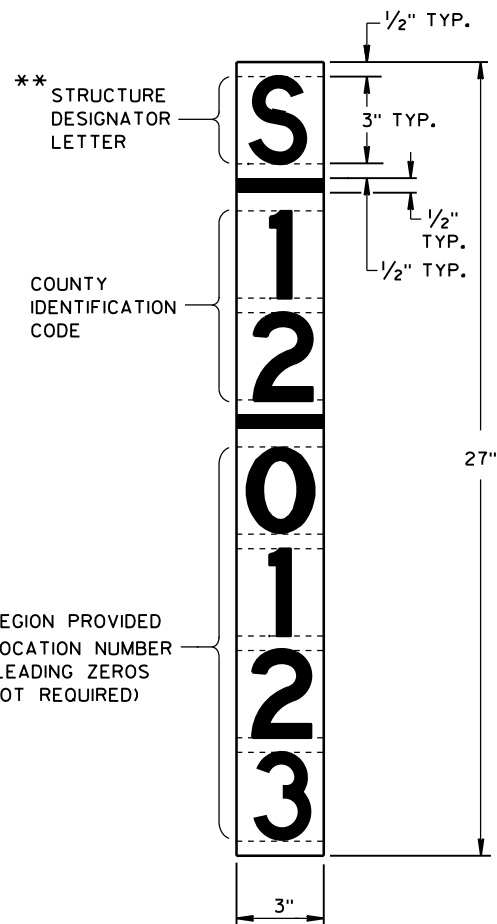
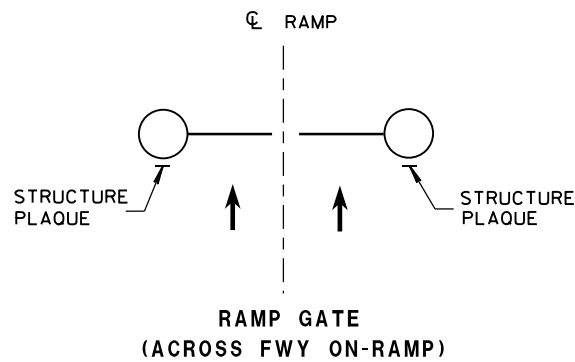
FHWA

/S/ Scot Becker
CHIEF STRUCTURAL DEVELOPMENT ENGINEER



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

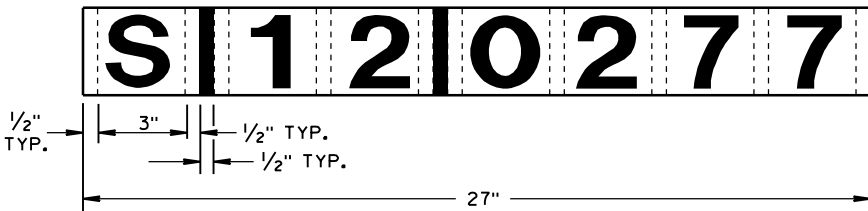
MOUNTING HEIGHT SHALL BE APPROXIMATELY 5.0' ABOVE CURB OR SHOULDER. ADJUST IF IT IS KNOWN THAT REQUIRED TRAFFIC SIGNS WILL OBSTRUCT.

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 /S/ Travis Feltes
DATE STATE TRAFFIC ENGINEER OF DESIGN
FHWA

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.

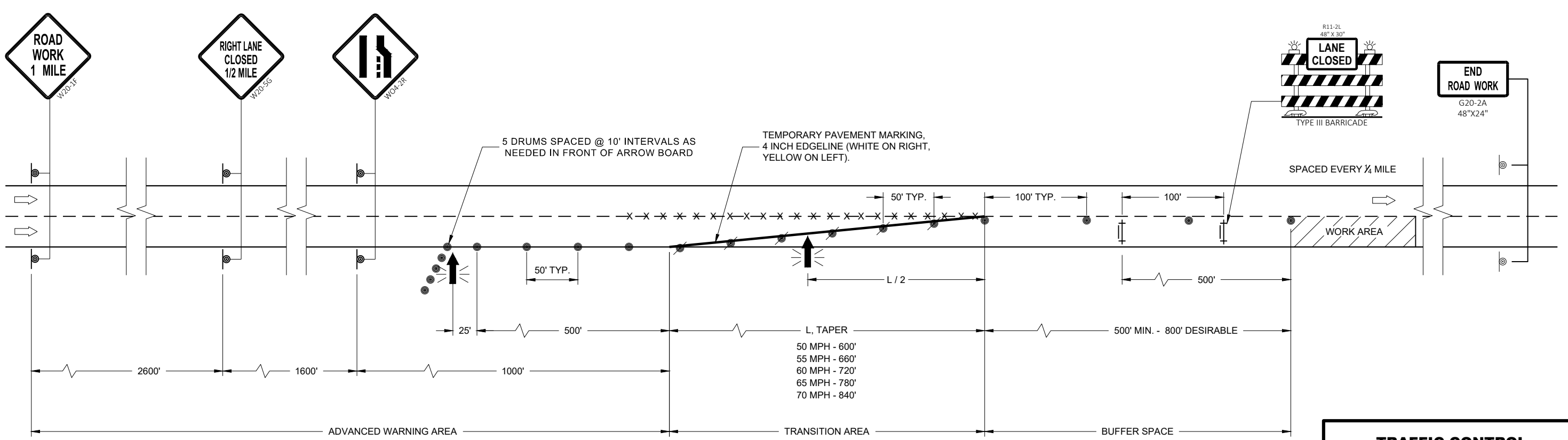
ADJUSTMENTS IN BUFFER SPACE NEED TO BE INCORPORATED WHEN THE LANE CLOSURE OCCURS

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

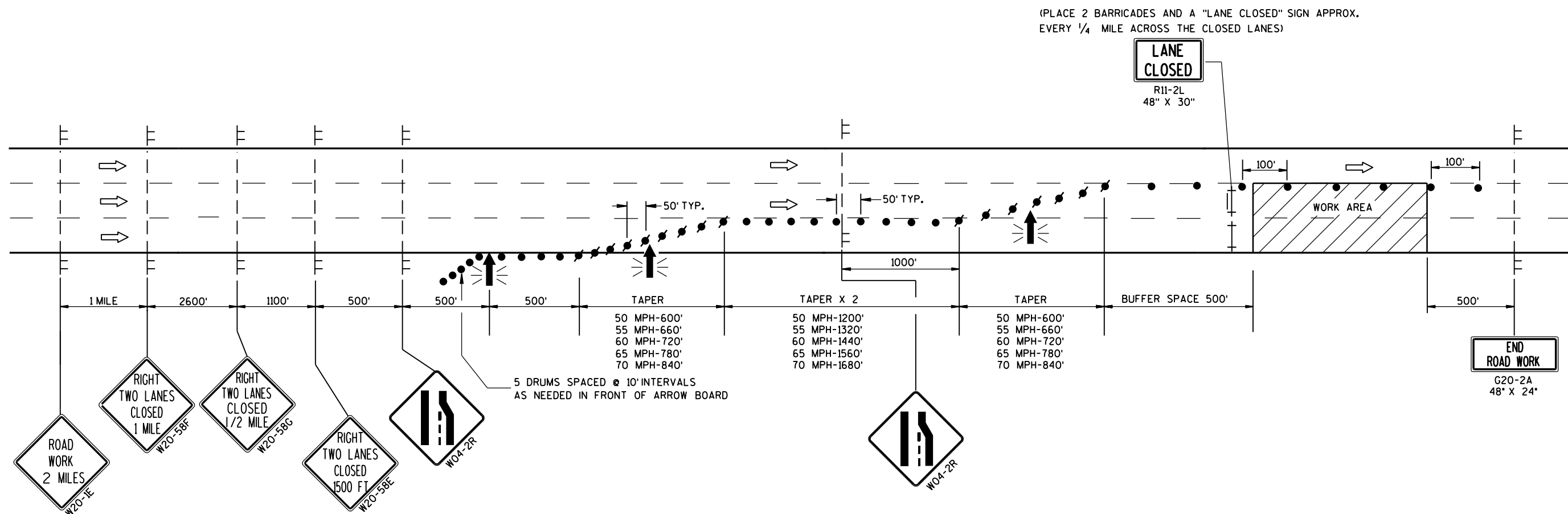
- TYPE III BARRICADE WITH ATTACHED SIGN
- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- TRAFFIC CONTROL DRUM
- TYPE "A" WARNING LIGHT (FLASHING)
- REMOVING PAVEMENT MARKING
- DIRECTION OF TRAFFIC
- WORK AREA
- FLASHING ARROW BOARD



TRAFFIC CONTROL LANE CLOSURE	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED November 2018 DATE	/S/ Andrew Heidtke 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	

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.

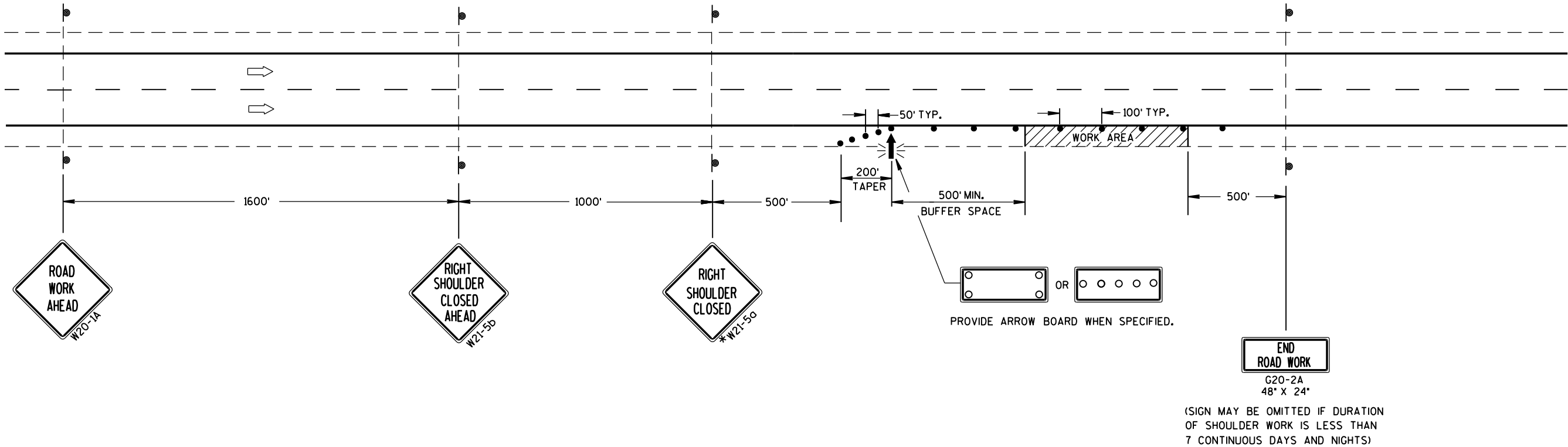
SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

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

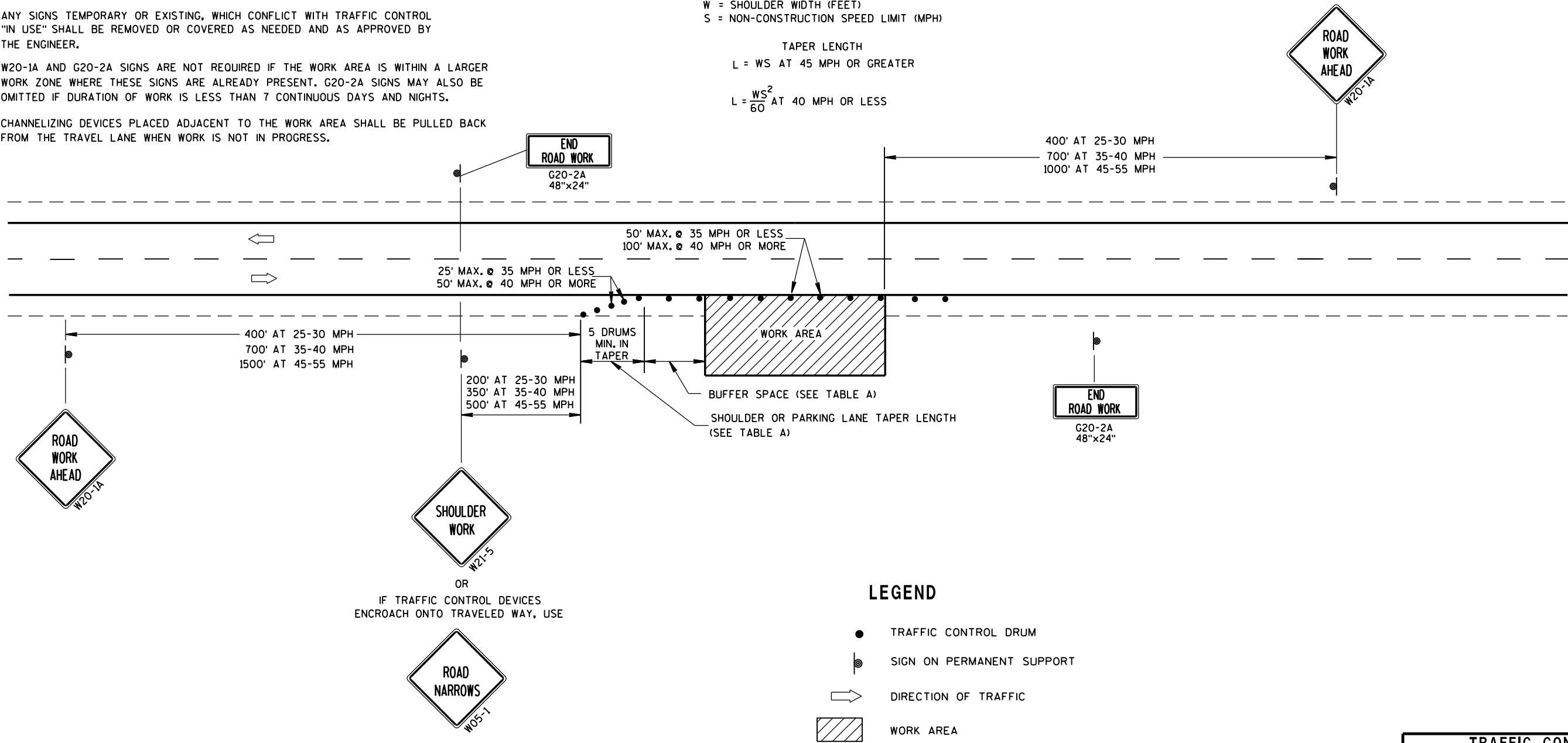
SHOULDER TAPER LENGTH (FEET)					BUFFER SPACE (FEET)
S \ W	4	6	8	10	
30	20	30	40	50	200
35	30	45	55	70	250
40	40	55	75	90	305
45	60	90	120	150	360
50	70	100	135	170	425
55	75	110	150	185	495

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

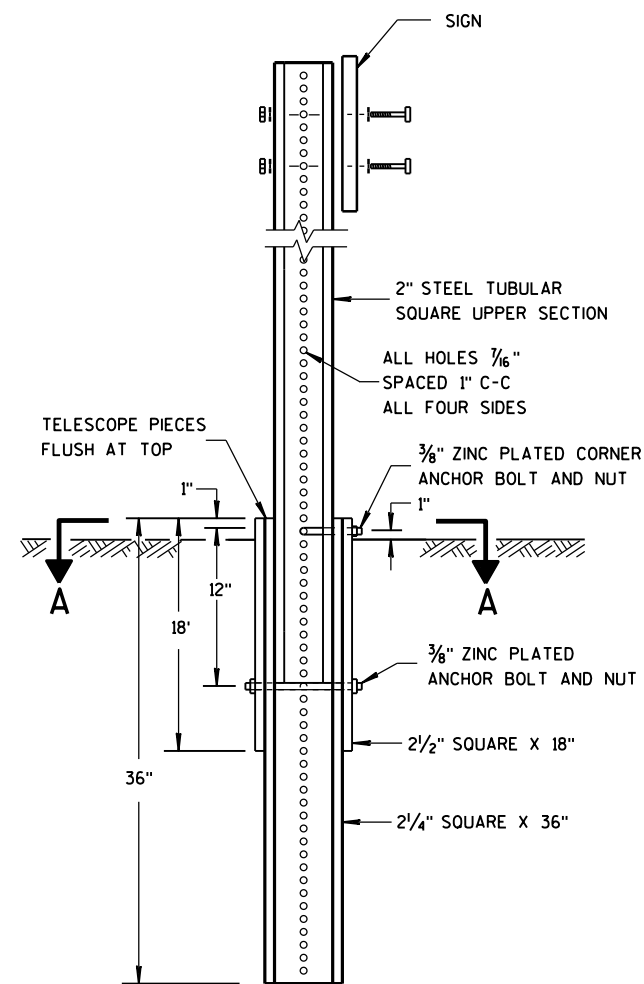
SHOULDER TAPER LENGTH = $\frac{1}{3}L$



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	



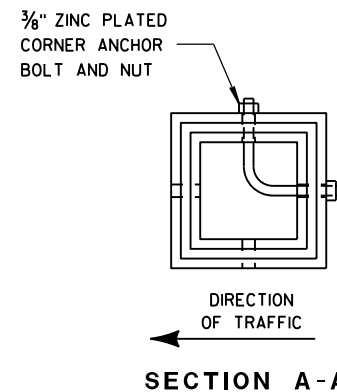
DETAIL OF TUBULAR
STEEL SIGN POST

TUBULAR STEEL POSTS

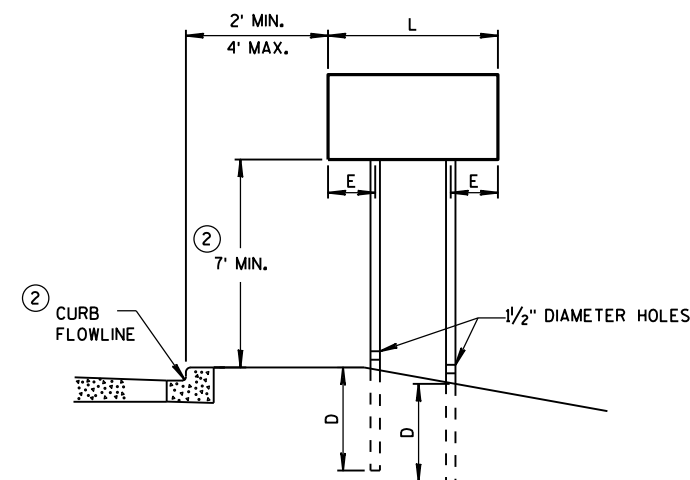
AREA OF SIGN INSTALLATION (SQ. FT.)	NUMBER OF REQUIRED TUBULAR STEEL POSTS
9 OR LESS	1
GREATER THAN 9 LESS THAN OR EQUAL TO 18	2
GREATER THAN 18 LESS THAN OR EQUAL TO 27	3

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

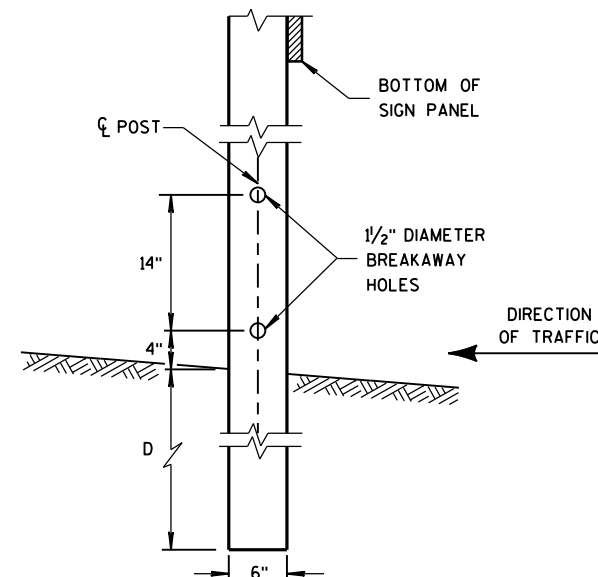


URBAN AREA

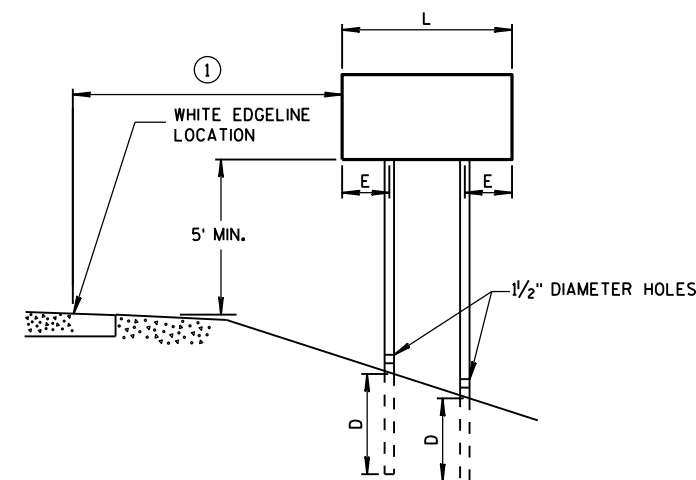
POST MOUNTING DETAIL FOR TEMPORARY TRAFFIC CONTROL FIXED MESSAGE SIGNS

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.

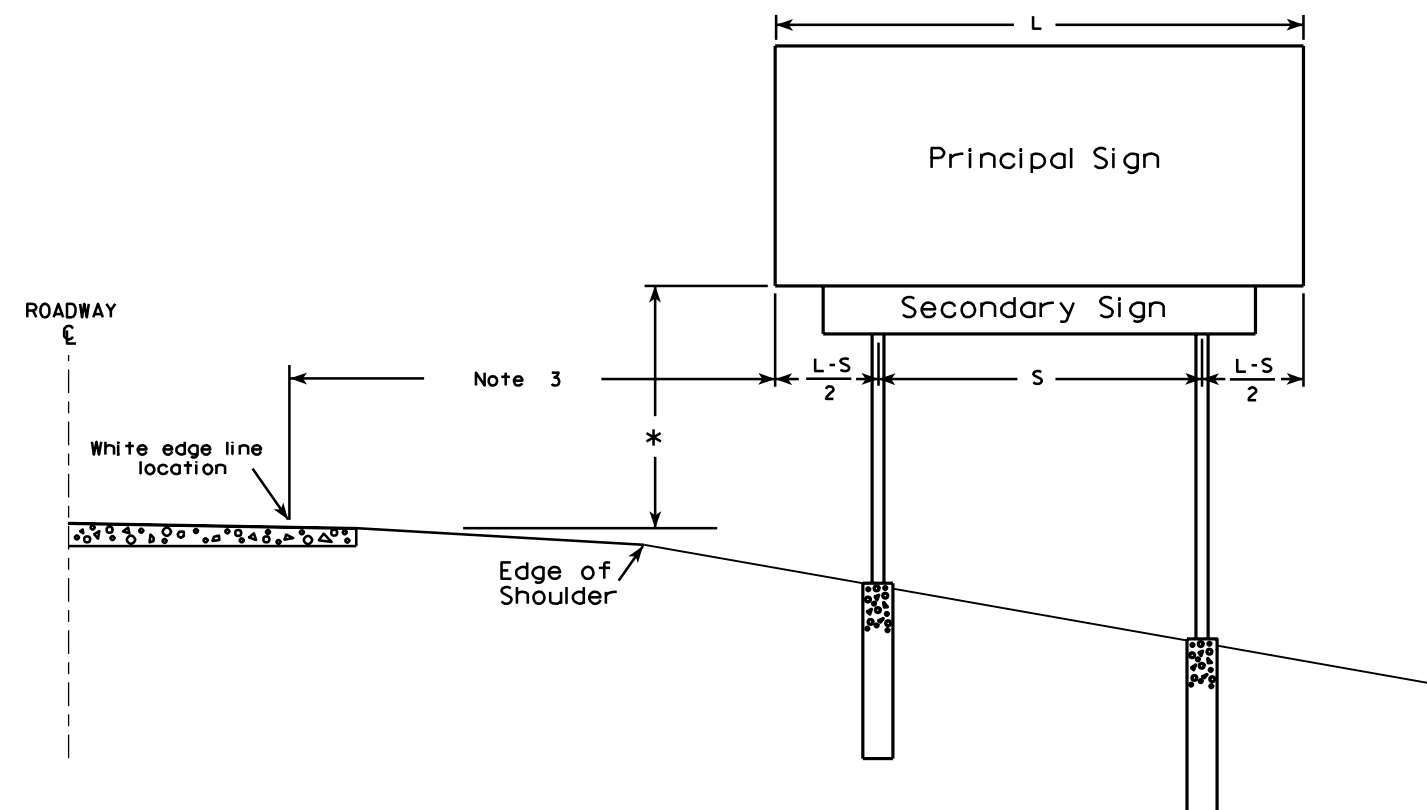
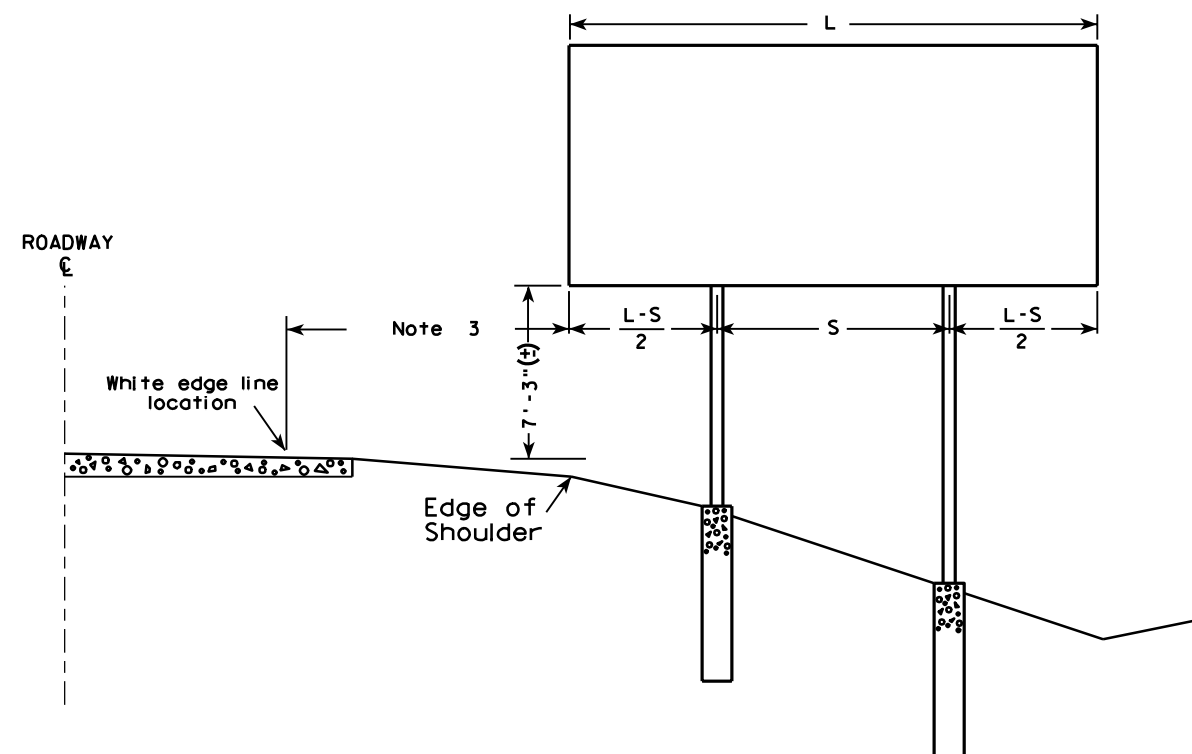
- WOOD POSTS (4" x 4" or 4" x 6")
- LAG SCREWS - 3/8" x 3"
 - MACHINE BOLTS - 5/16" x 6-1/2" OR 7" LENGTH W/ NUTS

- 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 Heldtke WORK ZONE ENGINEER
FHWA	



GENERAL NOTES

1. For a 2 post installation, S equals $3L/5$, but shall not be less than 9 ft.
2. For a 3 post installation, S equals $5L/7$, but shall not be less than 18 ft., and the space between any two posts shall not be less than 9 ft.
3. Unless noted in the plan, the sign offset distance shall be a minimum of 17'-6", desirable 30'-0".
4. The (±) tolerance shown on this sheet is 3 in.
5. The vertical sign height clearance detailed is measured from the bottom of the sign to the near edge of pavement.
6. Post lengths shown in the miscellaneous quantities are estimated lengths. The contractor shall verify post lengths at the time of final grading.
7. Refer to the Traffic Guidelines Manual for further guidance on minimum vertical clearance requirements.

* Clearance is 8'-3" (±) when the secondary sign is 3 ft. or less in height. For secondary signs larger than 3 ft., the clearance to the bottom of the secondary sign shall be 5'-3" (±).

TYPICAL INSTALLATION OF TYPE I SIGNS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

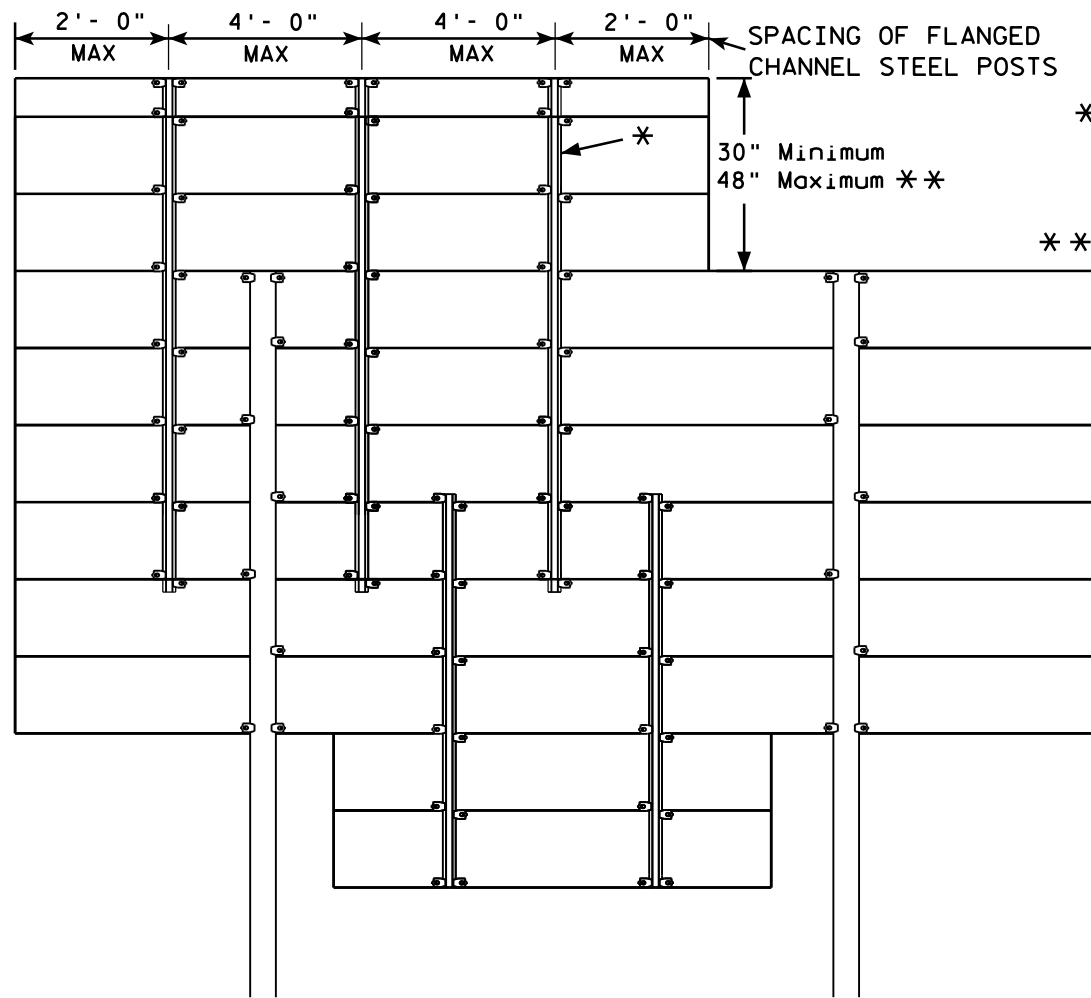
DATE 4/02/08 PLATE NO. A4-1.9

PROJECT NO:

SHEET NO:

E

GROUND MOUNTED SIGN

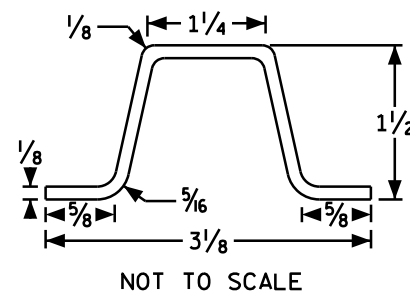


* = 2.00 lb/ft FLANGED CHANNEL, MIN. YIELD STRENGTH = 60,000 PSI (GRADE 60) GALVANIZED

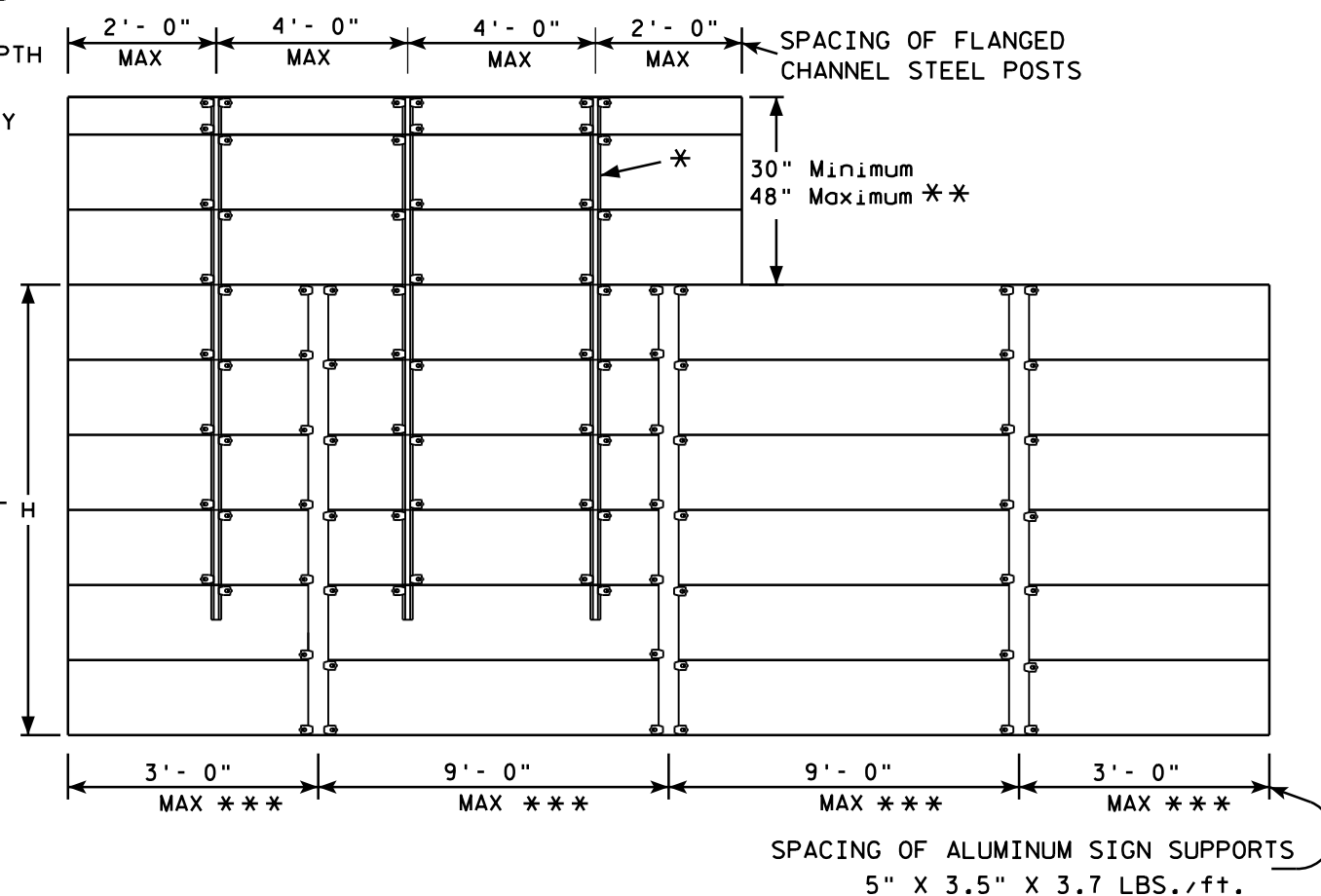
** = FOR 48" HEIGHT PANELS ON OVERHEAD STRUCTURES, ENTIRE SIGN SHALL BE CENTERED VERTICALLY ABOUT THE DEPTH OF THE TRUSS.

*** THESE SPACING DISTANCES SHALL ONLY BE USED WHEN THE MAIN SIGN HAS A MAXIMUM HEIGHT (DIMENSION H) OF 16 FT OR LESS. FOR SIGNS WITH A HEIGHT OF GREATER THAN 16 FT, STRUCTURAL CALCULATIONS SHALL BE PERFORMED.

FLANGE CHANNEL DETAIL



SIGN BRIDGE MOUNTED SIGN



GENERAL NOTES

1. Flanged channel steel posts shall conform to size and material above, and shall be considered as incidental to other items in the contract.
2. Number of Flanged channel steel supports varies with length of panel and shall be spaced as shown:
PANEL LENGTH 8'-0" OR LESS = 2 CHANNELS
PANEL LENGTH 9'-0" - 12'-0" = 3 CHANNELS
PANEL LENGTH 13'-0" OR MORE = 4 CHANNELS
If the flanged channel steel posts can not be horizontally spaced as shown, they can be moved so as to securely hold the sign.

3. The EXIT NUMBER PANEL shall normally be positioned above the guide sign aligned with the right edge of the guide sign. If the guide sign indicates a left exit, the EXIT NUMBER PANEL shall be aligned with the left edge of the guide sign.
4. If the bolt holes in the top panel (EXIT NUMBER), or sub panel (NEXT EXIT) line up with holes in main sign panel, stitch bolts shall be used in addition to the channels.
5. Provide post clips for each sign as shown. (Please note the differences between a ground mounted versus Sign bridge mounted sign as far as number of clips required on the main supports or beams)
6. Structural steel sign supports shall extend to the top of the main signs, as shown on the above details.

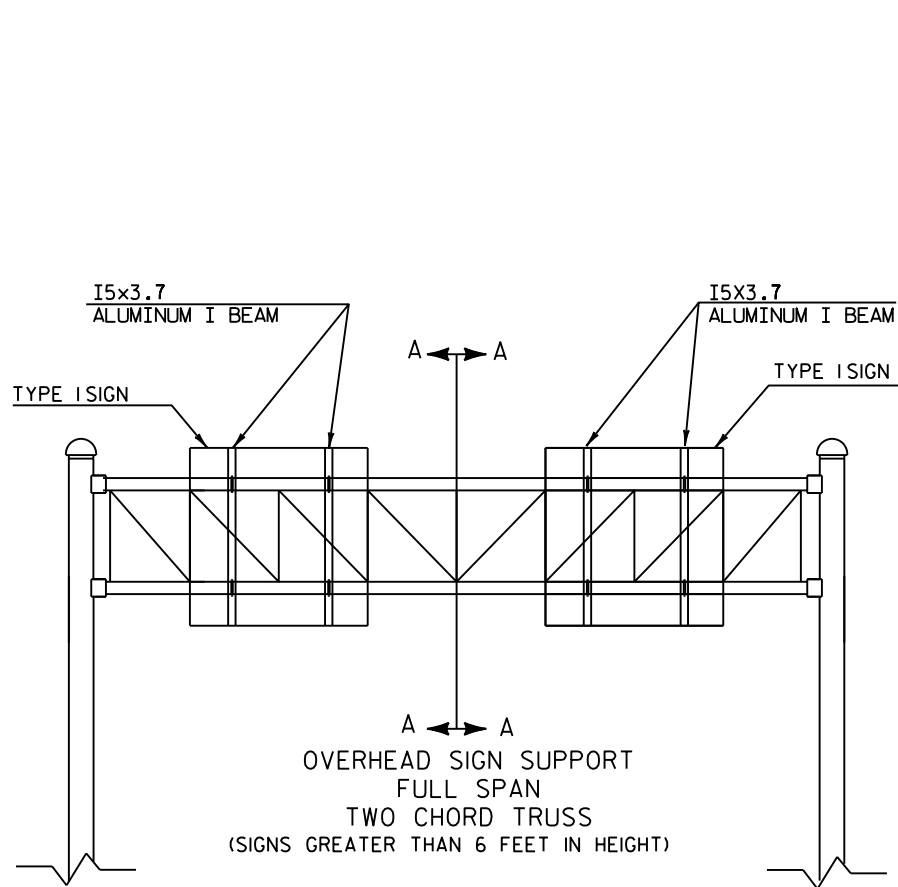
ATTACHMENT OF GUIDE SIGNS TO SUPPORTS

WISCONSIN DEPT OF TRANSPORTATION

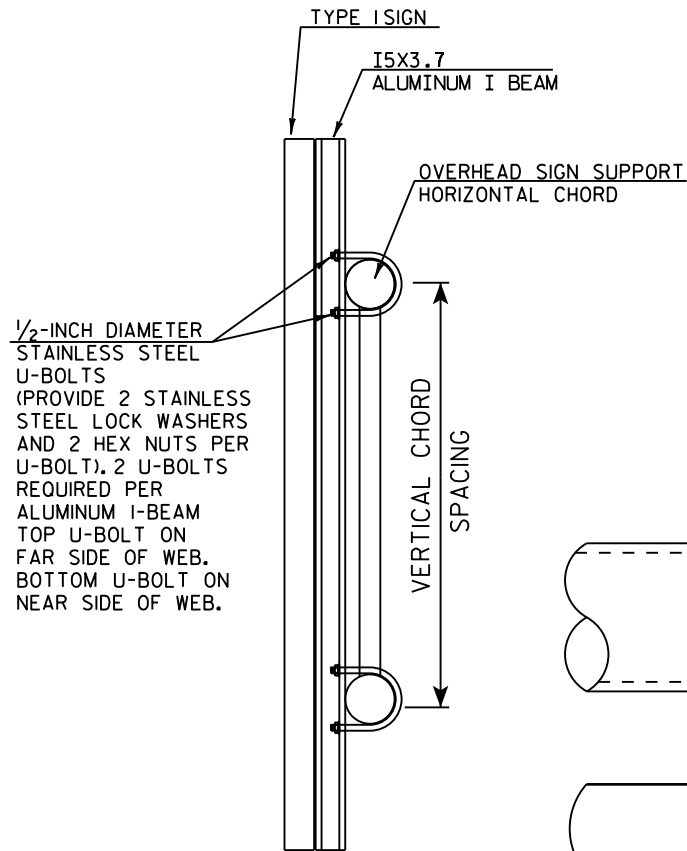
APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 12/05/13 PLATE NO. A4-6.12

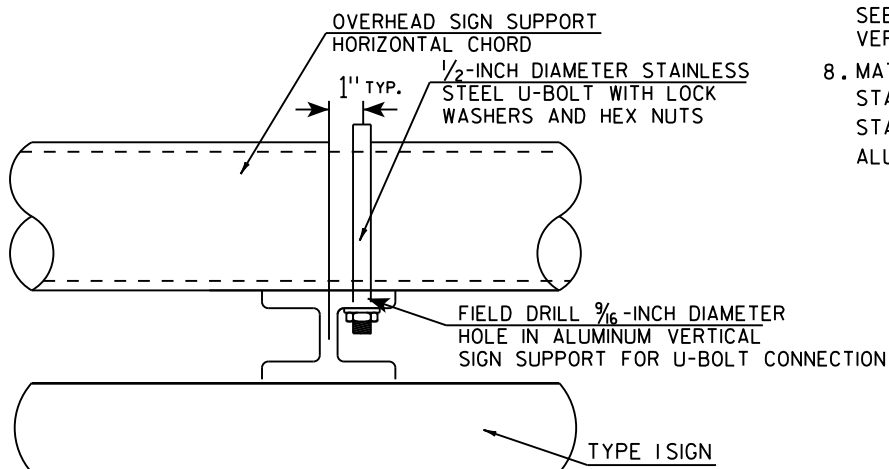
7



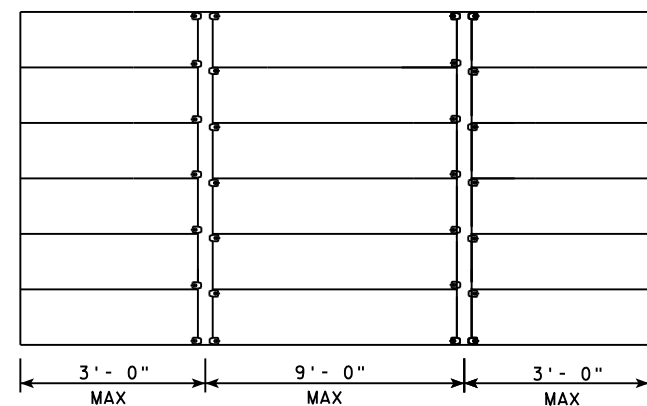
OVERHEAD SIGN SUPPORT
FULL SPAN
TWO CHORD TRUSS
(SIGNS GREATER THAN 6 FEET IN HEIGHT)



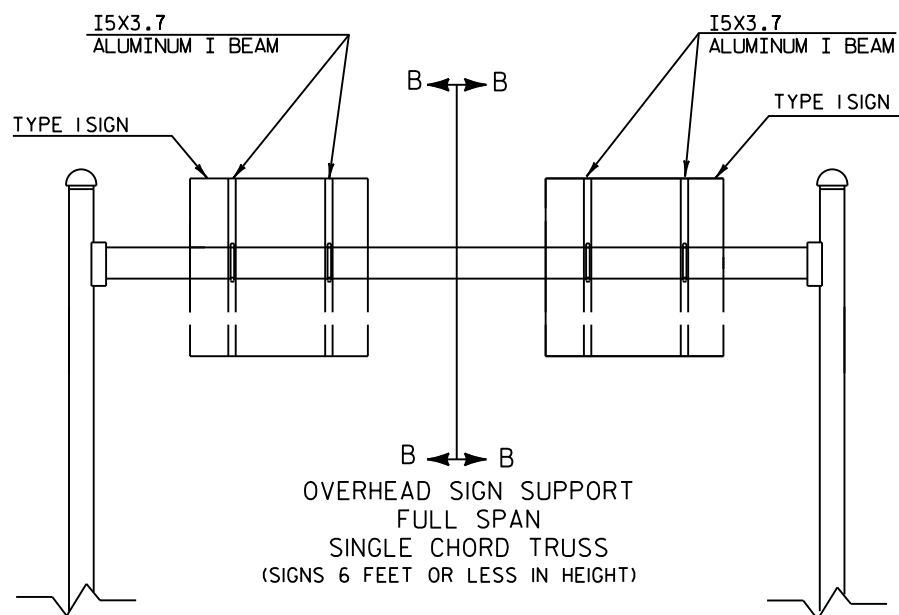
CUT SECTION A-A



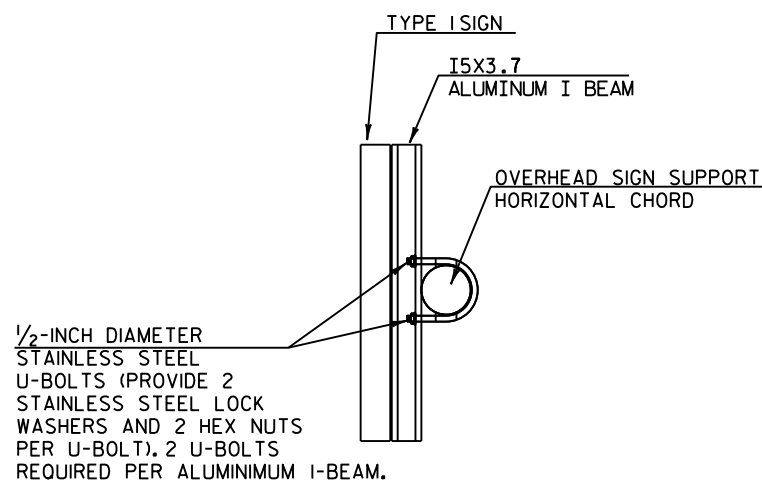
TYPICAL SIGN CONNECTION FOR
TWO CHORD TRUSS
PLAN VIEW



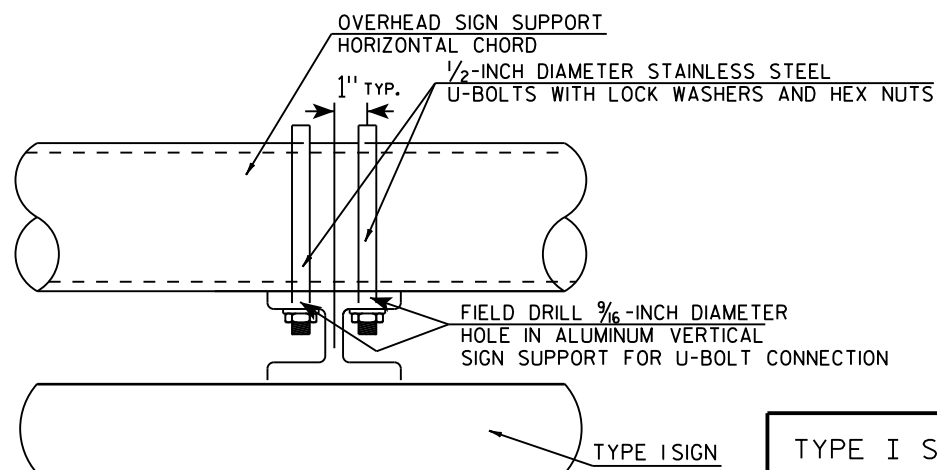
SPACING OF I5X3.7 ALUMINUM
VERTICAL SIGN SUPPORT



OVERHEAD SIGN SUPPORT
FULL SPAN
SINGLE CHORD TRUSS
(SIGNS 6 FEET OR LESS IN HEIGHT)



CUT SECTION B-B



TYPICAL SIGN CONNECTION FOR
SINGLE CHORD TRUSS
PLAN VIEW

GENERAL NOTES

1. USE STAINLESS STEEL U-BOLTS, WASHERS, AND NUTS.
2. USE CLIPS ON EVERY EXTRUDED PANEL JOINT PER SIGN PLATE A4-6.
3. USE ALUMINUM VERTICAL SIGN SUPPORT BEAMS HAVING A 5 INCH BEAM DEPTH AND WEIGHT OF 3.7 LBS PER FOOT.
4. U-BOLTS SHALL BE STAINLESS STEEL AND MANUFACTURED TO THE PROPER SIZE TO FIT THE CHORDS OF THE OVERHEAD SIGN STRUCTURE.
5. DIAMETER OF U-BOLTS SHALL BE AS SHOWN.
6. THE LENGTH OF THE ALUMINUM VERTICAL SIGN SUPPORT BEAMS SHALL BE THE SAME AS THE HEIGHT OF THE SIGN THEY ARE SUPPORTING. BEAM LENGTHS MAY BE LONGER FOR PROPER ATTACHMENT TO CHORDS.
7. MINIMUM NUMBER OF BRACKETS PER SIGN IS TWO. SEE DETAIL BELOW FOR SPACING OF ALUMINUM VERTICAL SIGN SUPPORTS
8. MATERIAL NOTES:
STAINLESS STEEL U-BOLTS AND LOCKWASHERS ASTM 304.
STAINLESS STEEL HEX NUTS ASTM A276.
ALUMINUM I-BEAMS ARE 6061-T6.

TYPE I SIGN CONNECTION
TO OVERHEAD SIGN SUPPORT

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 11/10/15 PLATE NO. A4-7.4

PROJECT NO:

HWY:

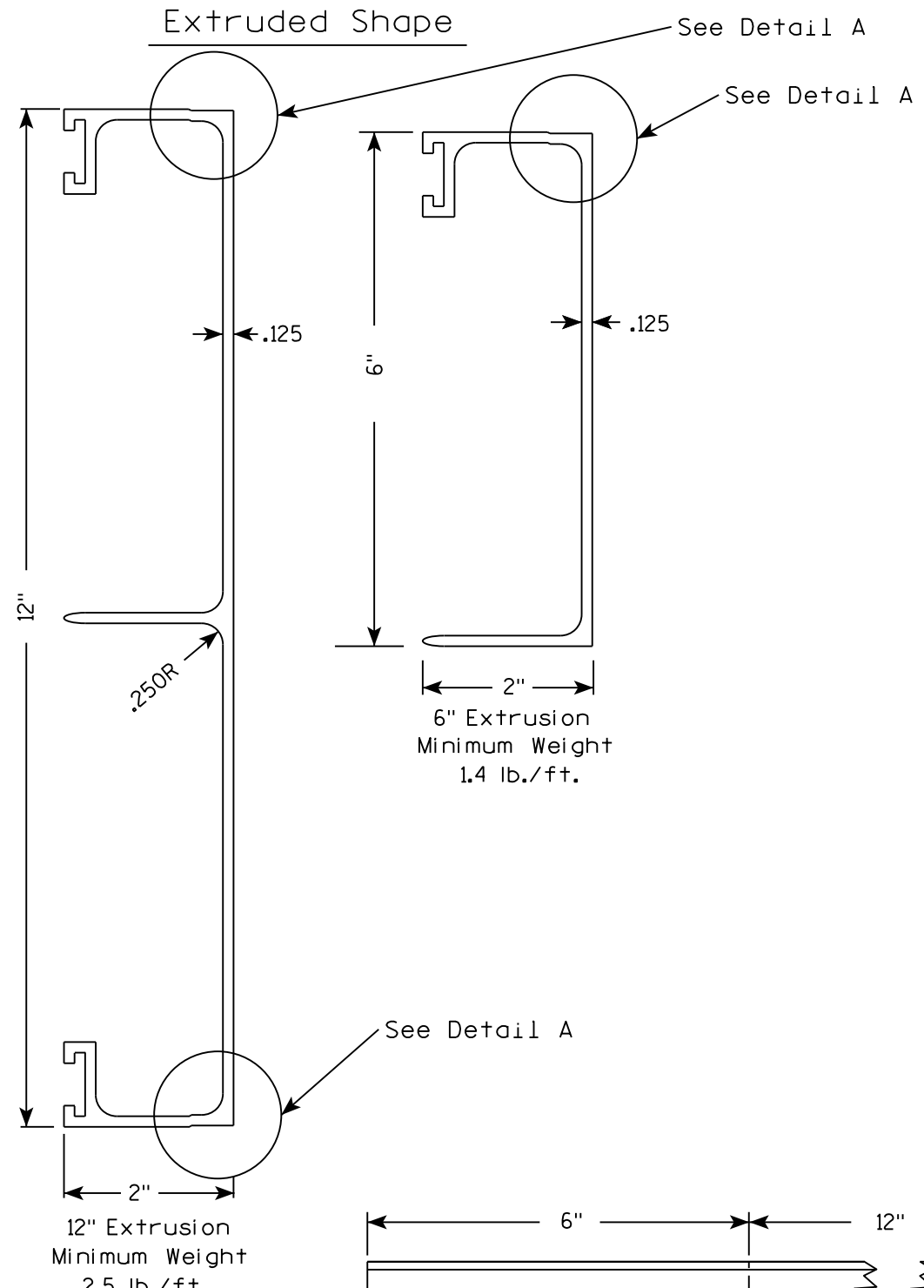
COUNTY:

SHEET NO:

E

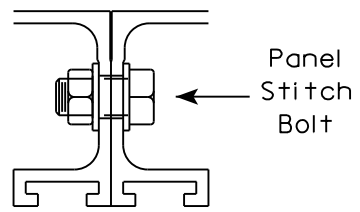
Extruded Shape

Hardware



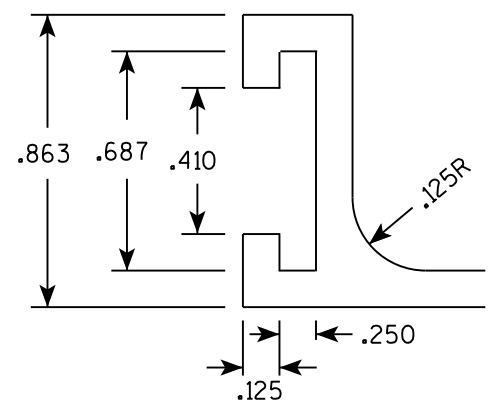
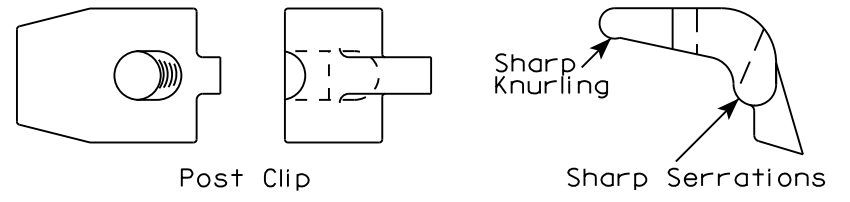
STITCH BOLT, WASHER & NUT

The hardware includes:
3/8 " - 16 X 3/4 " Economy Bolt 2024-T4 alloy
3/8 " - Stainless steel stop nut
3/8" X .064 Flat Washers, Alclad 2024-T4 alloy



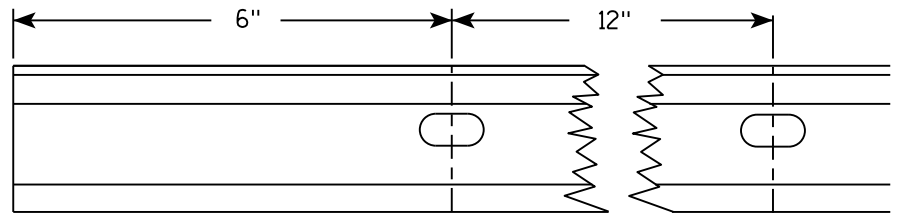
POST CLIP, POST CLIP BOLT, WASHER & NUT

Post Clip shall be Alum. Alloy 356-T6
Post Clip Bolt shall be Stainless Steel.
Flat washer shall be 3/8" X .091, Stainless Steel.
Stop nut shall be stainless steel.

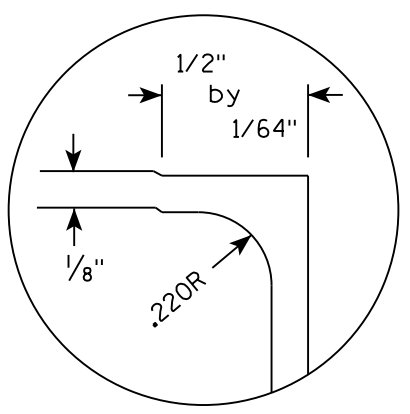


NOTES

1. The contractor may select any brand of extrusion that conforms to the illustrations or meets with the approval of the engineer, but all extrusions used on this contract shall be of the same brand.
2. Panel Stitch Bolts shall be used to assemble adjacent panels. Maximum stitch bolt spacing shall be 24" C-C, and a minimum of 4 bolts shall be used to connect any two extrusions.
3. Post Clips shall be used to attach the sign panel to the sign support.
4. Edge wrapping of sign sheeting required on all extrusions joints shown in Detail A.



Punch 7/16" x 7/8" oval holes beginning 6" in from end of extrusion 12" CC on both edges of 6" and 12" panels.

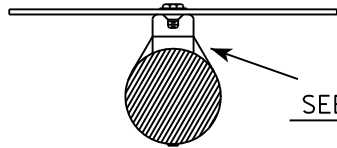
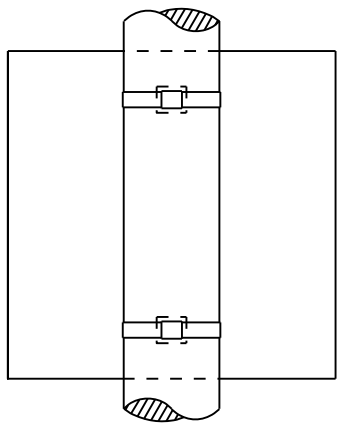


DETAIL A (EDGE WRAP JOINT)

ALUMINUM EXTRUSIONS FOR TYPE I SIGNS	
WISCONSIN DEPT OF TRANSPORTATION	
APPROVED	<i>Matthew R. Rauch</i> for State Traffic Engineer
DATE 11/30/16	PLATE NO. A5-2.10

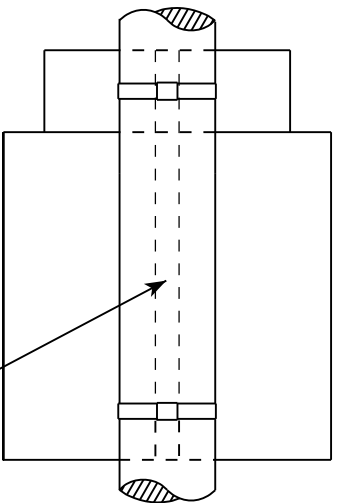
BANDING

SINGLE SIGN

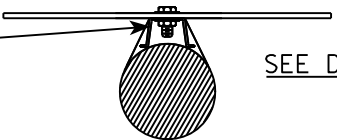


SEE DETAIL A

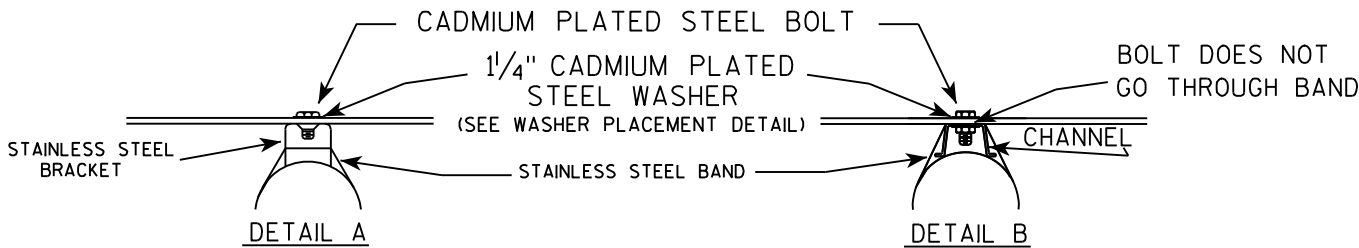
"J" ASSEMBLY



CHANNEL
SEE TYPICAL PANEL
INSTALLATION SHEET



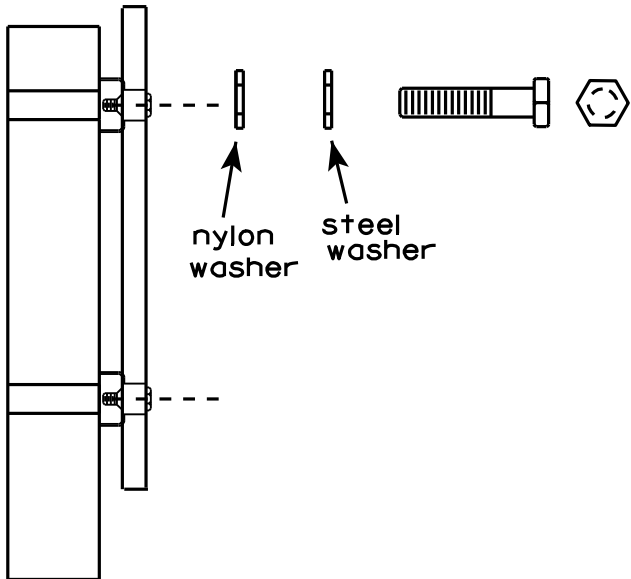
SEE DETAIL B



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

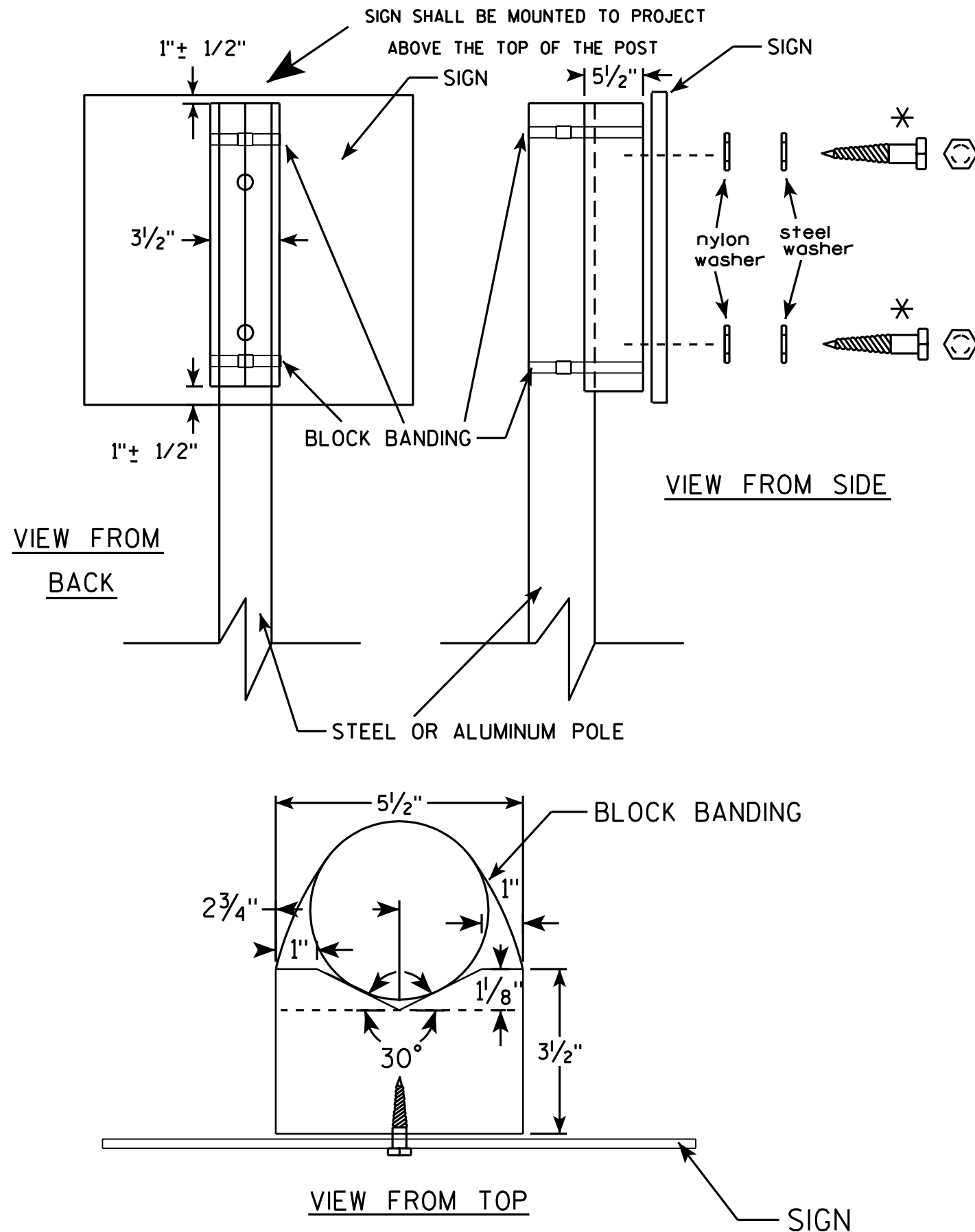
PROJECT NO:

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

SIGN REPAIR LOCATIONS - KENOSHA COUNTY

STRUCTURE NUMBER	HIGHWAY	DIRECTION OF TRAVEL	LOCATION
S300216	120TH AVE. N	N	1/4M S OF CTH C
S300238	IH 94 E	E	ON EXIT RAMP TO STH 50
S300241	STH 50 E	E	AT ENTRANCE RAMP TO IH 94 EB
S300252	STH 50 E	E	E OF IH 94 AT LANE DROP
S300253	IH 94 E	E	ON EXIT RAMP TO STH 142

SIGN REPAIR LOCATIONS - MILWAUKEE COUNTY

STRUCTURE NUMBER	HIGHWAY	DIRECTION OF TRAVEL	LOCATION
S400032	STH 100 W	W	0.1M E OF IH 45
S400057	IH 41N	N	ON EXIT RAMP TO WATERTOWN PLANK RD
S400058	USH 45 S ENTRANCE RAMP	S	AT SPLIT TO USH 41NB/SB
S400060	IH 41N	N	ON ENTRANCE RAMP FROM WATERTOWN PLANK RD
S400063	USH 45 N	N	1/4MILE S OF MAYFAIR RD
S400066	IH 894 W	W	AT GORE TO IH 43 S
S400150	IH 94 W	W	ON EXIT RAMP TO STH 100
S400296	STH 38 N	N	JUST S OF STH 100
S400298	STH 32 S	S	1/8TH M N OF STH 100
S400409	IH 43 S	S	AT OKLAHOMA AVE
S400452	84TH ST	T	JUST NORTH OF I-94
S400453	84TH STREET	T	JUST S OF I-94
S400500	IH 43 N	N	25 FT S OF WELLS ST BRIDGE
S400505	IH 43 N	N	500'N OF WALNUT ST.
S400518	IH 94 W	W	ON RAMP TO IH 94 W
S400622	SILVER SPRING DR W	W	JUST E OF PORT WASHINGTON RD
S400702	IH 43 S	S	ON EXIT RAMP TO STH 145
S400706	IH 43 N	N	ON RAMP FROM KILBOURN AVE
S400708	IH 43	N	AT THE USH 145 ENTRANCE RAMP
S400716	IH 94 E	E	1/4M W OF ST. PAUL AVE
S400845	STH 145 S	S	JUST S OF 76TH STREET
S400901	STH 38 S	S	JUST NORTH OF STH 100
S400911	IH 43 N	N	ON SILVER SPRING/PORT WASHINGTON RD EXIT RAMP
S400920	PENNSYLVANIA AVE N	N	JUST S OF STH 794
S400924	BROWN DEER RD E	E	AT IH 43 NB ON-RAMP
S400930	STH 38 S	S	JUST N OF PUETZ RD
S400931	STH 38 N	N	JUST S OF DREXEL AVE
S400933	STH 38 N	N	JUST S OF RAWSON AVE
S400944	STH 100 S	S	JUST S OF MT. VERNON AVE
S400946	STH 100 S	S	JUST N OF BLUEMOUND RD
S400951	USH 18 E	E	JUST E OF STH 100
S400974	USH 41/45 S	S	ENTRANCE RAMP FROM GOOD HOPE RD
S400976	STH 100 N	N	JUST S OF IH 94 ENTRANCE RAMP
S400987	STH 24 E	E	JUST W OF STH 100

HML REPLACEMENT LOCATIONS - MILWAUKEE COUNTY

STRUCTURE NUMBER	HIGHWAY	DIRECTION OF TRAVEL	LOCATION
L400123	IH 41	W	HALE INTERCHANGE
L400124	IH 43 N TO IH 894 E	E	HALE INTERCHANGE
L400125	IH 43 N	N	HALE INTERCHANGE
L400126	IH 41N	N	HALE INTERCHANGE
L400127	IH 41	N	HALE INTERCHANGE
L400128	IH 43	N	HALE INTERCHANGE
L400129	IH 43 S	S	HALE INTERCHANGE

SIGN REPAIR LOCATIONS - OZAUKEE COUNTY

STRUCTURE NUMBER	HIGHWAY	DIRECTION OF TRAVEL	LOCATION
S450001	IH 43 S	S	AT EXIT TO STH 33
S450003	IH 43 S	S	1/2M N OF STH 33 EXIT
S450004	IH 43 N	N	JUST S OF STH-57/ I-43 SPLIT

SIGN REPAIR LOCATIONS - RACINE COUNTY

STRUCTURE NUMBER	HIGHWAY	DIRECTION OF TRAVEL	LOCATION
S510212	STH 31 S	S	JUST N OF STH 11
S510213	STH 11	E	JUST W OF STH 11

SIGN REPAIR LOCATIONS - WALWORTH COUNTY

STRUCTURE NUMBER	HIGHWAY	DIRECTION OF TRAVEL	LOCATION
S640209	STH 11	W	JUST S OF CHESTNUT ST (CTH DD)

SIGN REPAIR LOCATIONS - WASHINGTON COUNTY

STRUCTURE NUMBER	HIGHWAY	DIRECTION OF TRAVEL	LOCATION
S660006	IH 41N	N	0.3 M S OF USH 41/45 SPLIT

SIGN REPAIR LOCATIONS - WAUKESHA COUNTY

STRUCTURE NUMBER	HIGHWAY	DIRECTION OF TRAVEL	LOCATION
S670017	IH 94 E	E	EXIT TO USH 18
S670228	STH 83	SE	JUST S OF I-43
S670229	STH 83	SE	JUST N OF I-43
S670235	STH 59 E	E	JUST W OF CTH Y
S670267	STH 164	N	1/8MILE S OF GOOD HOPE ROAD
S670407	STH 145 SB	B	STH 145 SB, AT RAMP TO USH 41/45 NB
S670414	STH 59 E	E	1/4MILE W OF MOORLAND RD
S670933	STH 190 E	E	AT CALHOUN RD
S670934	STH 190	E	AT USH 45
S670935	STH 190	W	AT LISBON RD
S670936	STH 190 W	W	AT CALHOUN RD

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.

STATE PROJECT NUMBER

1000-20-71

LIST OF DRAWINGS

1. 2019 SE REGION SIGN REPAIR

2. FOUNDATION DETAILS

3. TRUSS DETAILS

4. TRUSS DETAILS

5. SIGN PANEL DETAILS 1

6. SIGN PANEL DETAILS 2

7. ELECTRICAL DETAILS

8. S-30-216

9. S-30-238

10. S-30-241

11. S-30-252

12. S-30-253

13. S-40-32

14. S-40-57

15. S-40-58

16. S-40-60

17. S-40-63

18. S-40-66

19. S-40-150

20. S-40-296

21. S-40-298

22. S-40-409

23. S-40-452

24. S-40-453

25. S-40-500

26. S-40-505

27. S-40-518

28. S-40-622

29. S-40-702

30. S-40-706

31. S-40-708

32. S-40-716

33. S-40-845

34. S-40-901

35. S-40-911
36. S-40-920

37. S-40-924

38. S-40-930

39. S-40-931

40. S-40-933

41. S-40-944

42. S-40-946

43. S-40-951

44. S-40-974

45. S-40-976

46. S-40-987

47. S-45-001

48. S-45-003

49. S-45-004

50. S-51-212

51. S-51-213

52. S-64-209

53. S-66-006

54. S-67-017

55. S-67-228

56. S-67-229

57. S-67-235

58. S-67-267

59. S-67-407

60. S-67-414

61. S-67-933

62. S-67-934

63. S-67-935


64. S-67-936

65. HML FOUNDATIONS

66. HML FOUNDATION LOCATIONS

STRUCTURE DESIGN CONTACTS:

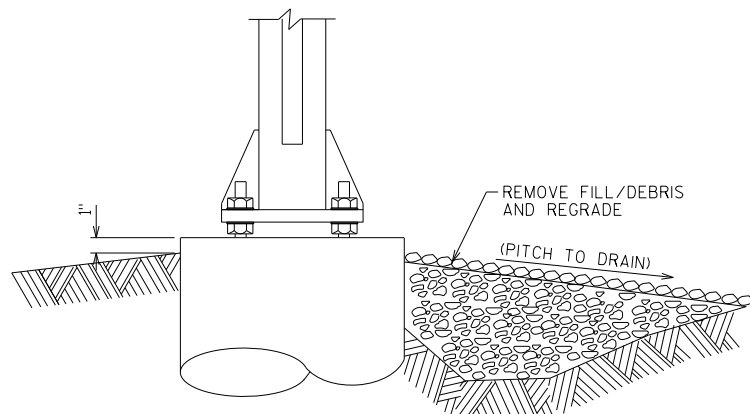
STEVEN DOOCY (608) 261-6063
AARON BONK (608) 261-0261

NO.	DATE	REVISION	BY
		BUREAU OF STRUCTURES	
ACCEPTED <i>William C. Dickerson</i>		4/16/19	
CHIEF STRUCTURES DESIGN ENGINEER		DATE	
STRUCTURE SE SIGN REPAIRS			
2019 SE SIGN REPAIR & HML REPLACEMENT			
COUNTY VARIES		VARIES	
DESIGN SPEC. REHABILITATION N/A			
DESIGNED BY	SAD	DESIGNED CK'D.	MJK
DRAWN BY	DDS	PLANS CK'D.	SAD
2019 SE REGION SIGN REPAIR		SHEET 1 OF 66	

**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.

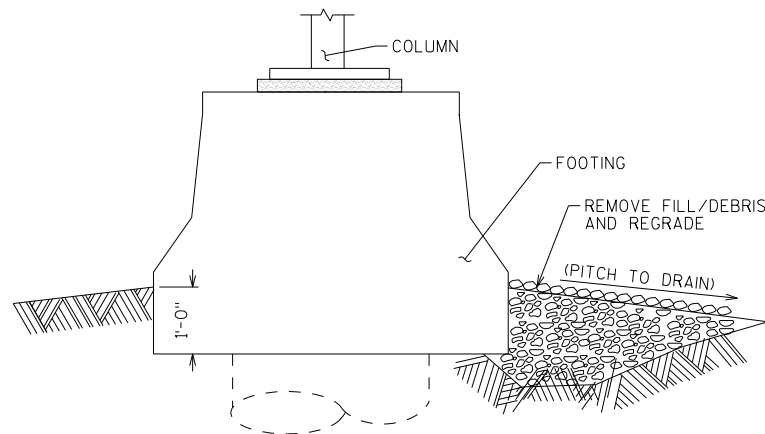
TABLE OF ESTIMATED QUANTITIES FOR FOUNDATIONS **

STRUCTURE NUMBER	CONCRETE SURFACE REPAIR	HIGH MAST FOUNDATIONS	REMOVE HIGH MAST LIGHTING TOWER	TENSION ANCHOR ROD	REMOVE GROUT PAD	REMOVE DEBRIS AND REGRADE	REPLACE RODENT SCREEN	HIGH MAST LIGHTING TOWER	ABANDON HIGH MAST FOUNDATION	REPAIR GALVANIZED COATING
	509.1500	660.0100	204.9060.S	SPV.0060.01	SPV.0060.02	SPV.0060.03	SPV.0060.04	660.0200	SPV.0060.06	SPV.0165.01
	SF	LS	EACH	EACH	EACH	EACH	EACH	EACH	EACH	SF
S300238						1				
S400032				16						
S400057				16						
S400058				16						
S400060				16						
S400063				16						
S400066				12			2			2
S400150						1				
S400409							2			2
S400452				6						
S400453							1			1
S400518							1			1
S400702				4						
S400706				4						
S400708						1				
S400716				8						
S400924				6						
S400946				6						
S400987						1				
S510212				4						
S510213				4						
S660006				16		1				
S670017	4				4					
S670235				8		1				
S670267						1				
S670407						1				
S670414							1			1
L40123		1	1					1	1	
L40124		1	1					1	1	
L40125		1	1					1	1	
L40126		1	1					1	1	
L40127		1	1					1	1	
L40128		1	1					1	1	
L40129		1	1					1	1	
TOTAL	4	7	7	158	4	8	7	7	7	7

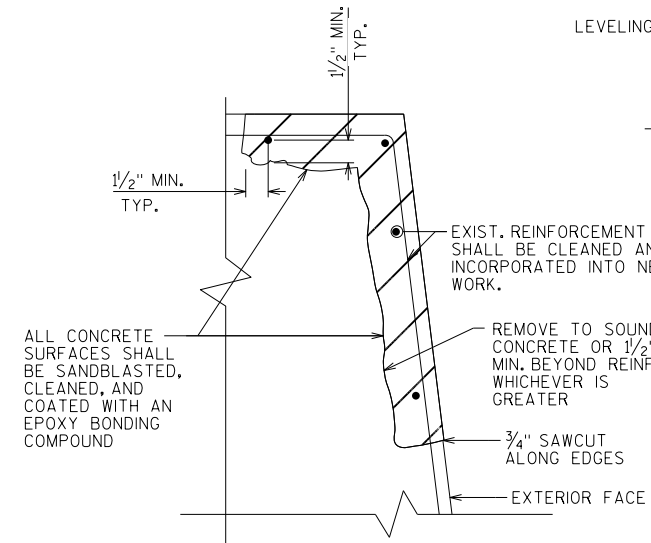


REMOVE DEBRIS AND REGRADE
SINGLE SHAFT FOUNDATION

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



REMOVE DEBRIS AND REGRADE
FOOTING FOUNDATION

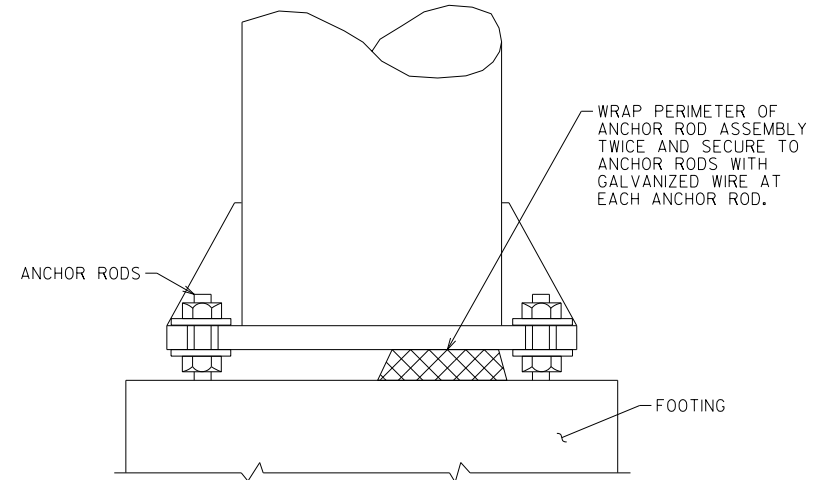


CONCRETE SURFACE REPAIR

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

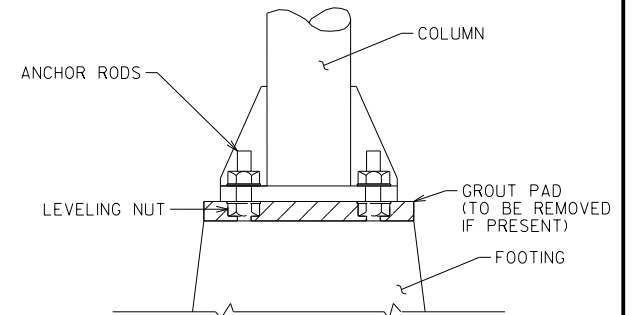
FOUNDATION NOTES

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.



REPLACE RODENT SCREEN

REQUIRED ON ALL STRUCTURES WITH ELECTRICAL EQUIPMENT.



TENSION ANCHOR RODS

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE SE 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 **

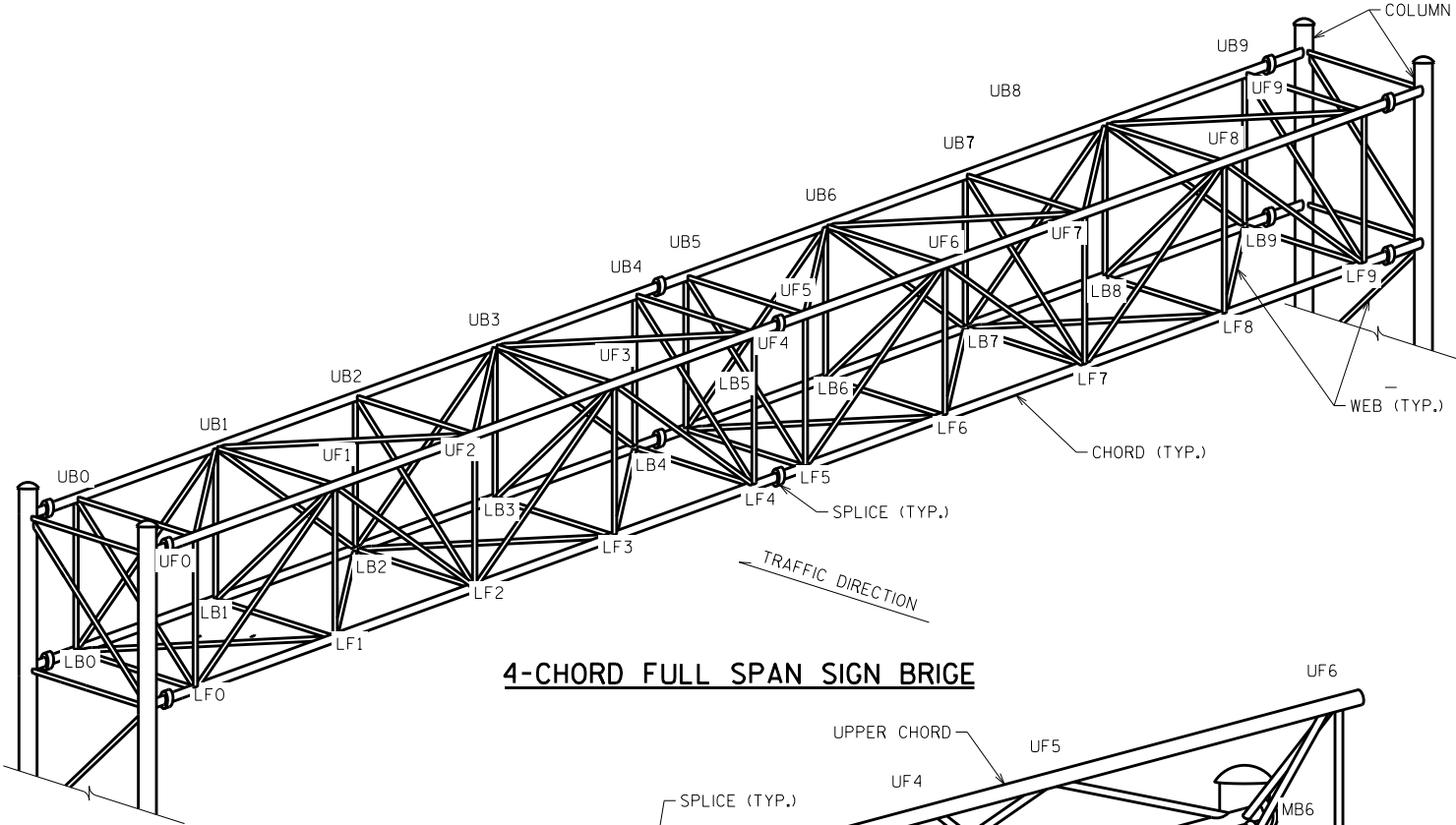
STRUCTURE NUMBER	REPLACE TRUSS MEMBER	TENSION STRUCTURAL CONNECTION BOLT (FRICTION)	TIGHTEN CONNECTION BOLT (NON-FRICTION)	SECURE/ REPLACE CAP	REPLACE U-BOLT	REMOVE NESTING DEBRIS
	SPV.0060.07 EACH	SPV.0060.08 EACH	SPV.0060.09 EACH	SPV.0060.10 EACH	SPV.0060.11 EACH	SPV.0060.12 EACH
S300216		4		1		
S300238			4			
S300241		8				
S300252		8		1		
S400063						1
S400409	3					
S400518					1	
S400845		6				
S400911		6				
S400944		4				
S400946		8				
S400951		4				
S400974		4				
S400976		8				
S450001					1	
S450004					1	
S640209		8				
S670933		4				
S670934		8				
S670935		4				
S670936		4				
TOTAL	3	88	4	2	3	1

STATE PROJECT NUMBER

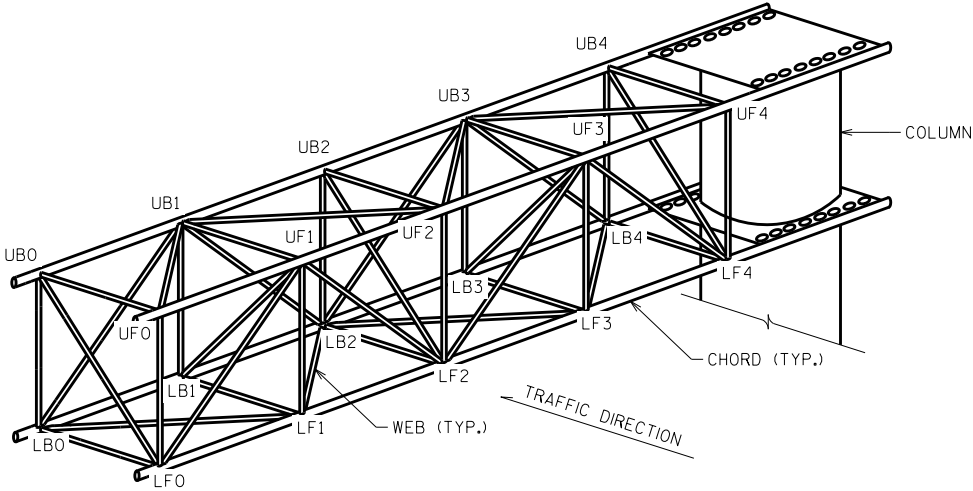
1000-20-71

TRUSS NOTES:

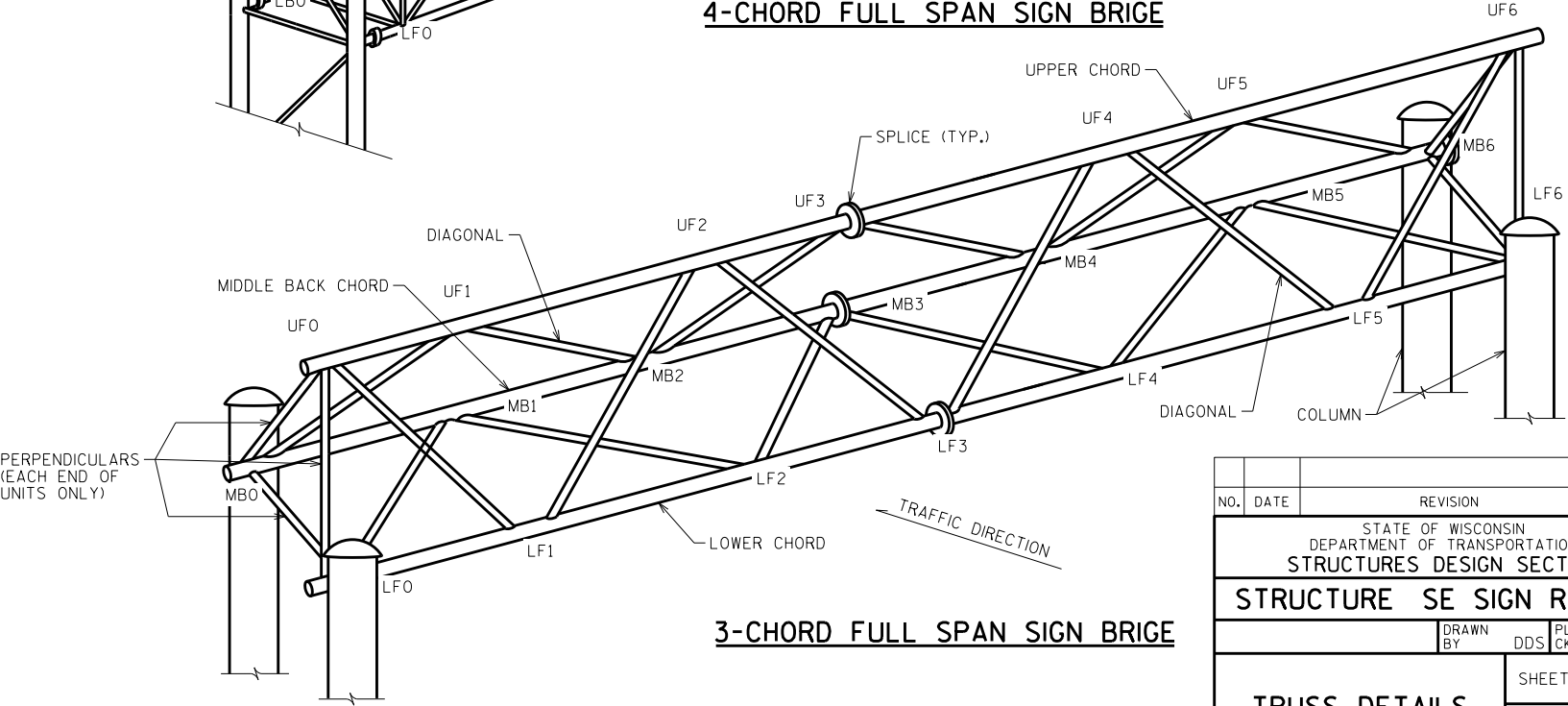
1. WHEN A FULL SPAN SIGN BRIDGE IS OVER BOTH DIRECTIONS AND SIGNS ARE ON STRUCTURE FOR BOTH DIRECTIONS, THEN NORTHBOUND AND EASTBOUND GOVERN THE NUMBERING SYSTEM.
2. THE CANTILEVER SIGN BRIDGE NUMBERING SYSTEM ALWAYS COUNTS UP FROM LEFT TO RIGHT REGARDLESS OF COLUMN LOCATION.
3. TYPICAL SIGN BRIDGE CONFIGURATION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



4-CHORD FULL SPAN SIGN BRIGE



CANTILEVER SIGN BRIDGE



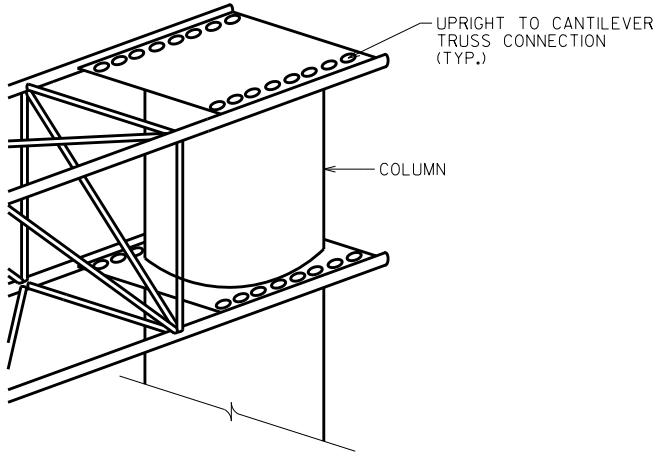
3-CHORD FULL SPAN SIGN BRIGE

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

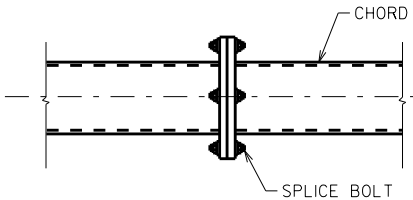
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TRUSS NOTES:

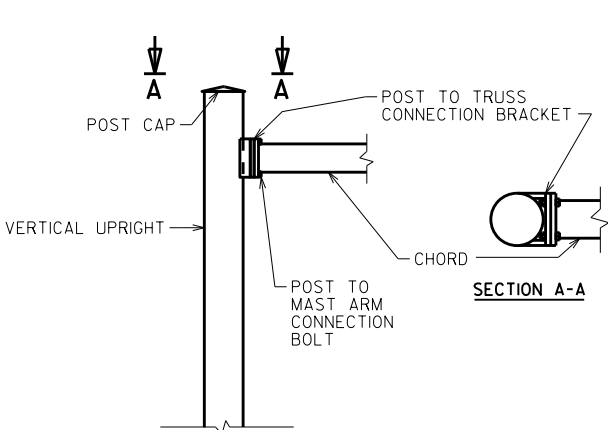
- 1. THE CONTRACTOR SHALL VERIFY EXACT LOCATION OF ALL REPAIRS.
- 2. THE CONTRACTOR SHALL FIELD VERIFY THE DIMENSIONS OF THE ITEM REQUIRED. DISCREPANCIES SHALL BE SUBMITTED TO THE ENGINEER FOR CLARIFICATION PRIOR TO BEGINNING WORK.
- 3. ALL STAINLESS STEEL BOLTS, LOCK WASHERS, AND NUTS SHALL CONFORM 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" DIA. AND 12% FOR 3/4" DIA. AND SMALLER.
- 4. REPLACE MISSING BOLTS ON TOWER CAPS WITH A STAINLESS STEEL BOLT.



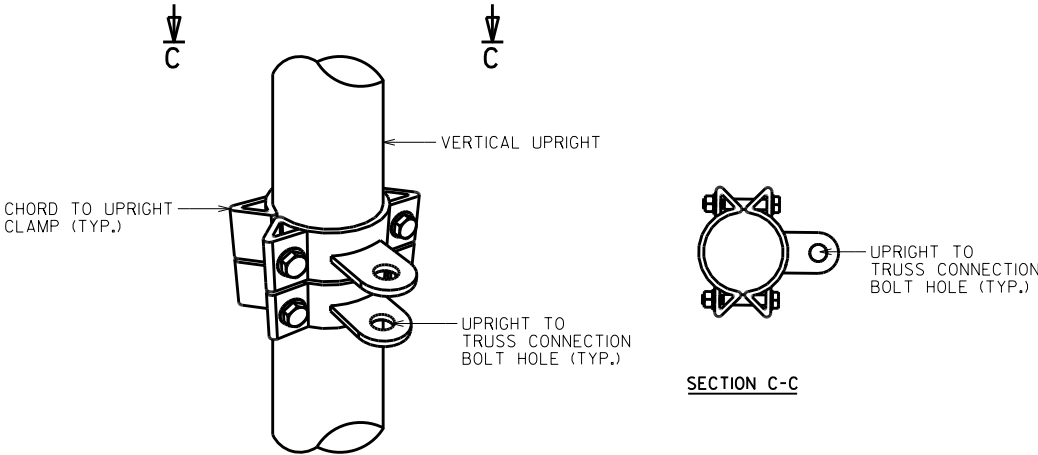
CANTIEVER SIGN BRIDGE
POST TO TRUSS CONNECTION DETAIL



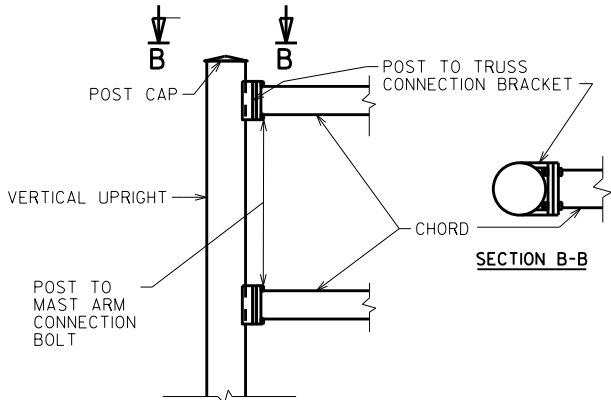
SPLICE CONNECTION BOLT DETAIL



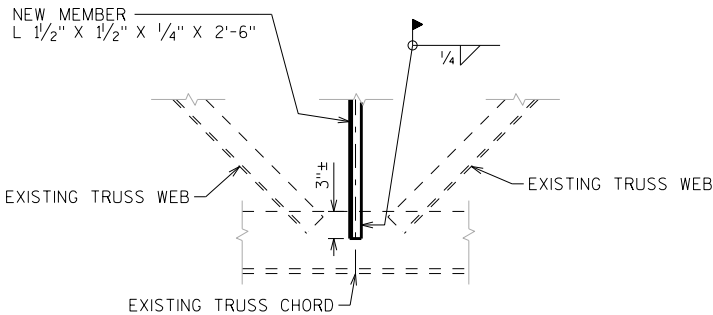
POST TO MAST ARM DETAIL



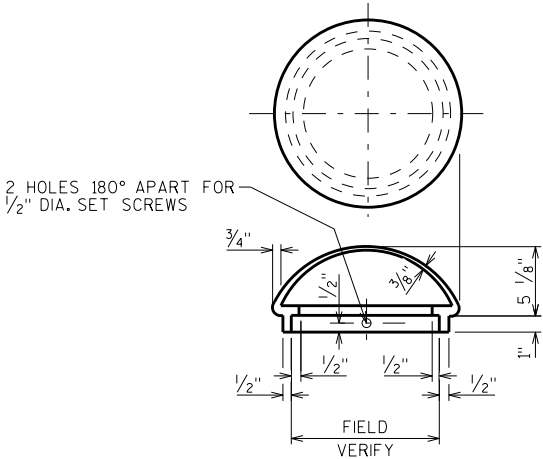
OVERHEAD POST TO TRUSS CONNECTION DETAIL I



OVERHEAD POST TO TRUSS CONNECTION DETAIL II



TRUSS MEMBER REPLACEMENT DETAIL
CAREFULLY REMOVE AND REPLACE EXISTING MEMBER (IF PRESENT)



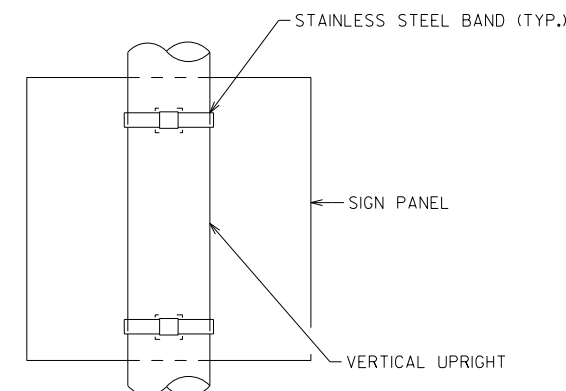
POST/CHORD CAP DETAIL

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

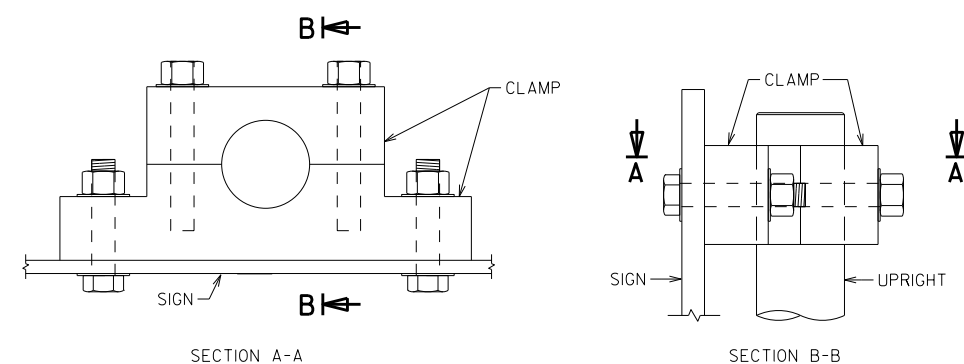
TABLE OF ESTIMATED QUANTITIES FOR SIGNS **

STRUCTURE NUMBER	SIGNS TYPE II REFLECTIVE SH	REMOVING SIGNS TYPE II	SLOTTED HOLE REPAIR ON SIGN SUPPORT BRACKET	REPLACE TYPE II SIGN SUPPORT BRACKET	INSTALL ID PLAQUE	INSTALL SIGN PANEL CONNECTOR	SECURE SIGN TYPE II
	637.2220	638.2602	SPV.0060.13	SPV.0060.14	SPV.0060.15	SPV.0060.16	SPV.0060.17
	SF	EACH	EACH	EACH	EACH	EACH	EACH
S300253	14			3			
S400150				1			
S400296				2			
S400298	14			1			
S400500	56	1					
S400622				1			
S400901				1			
S400920				1			
S400930				1			
S400931	14			1			
S400933				1			
S400944							1
S450001	45	1					
S450003	45	1					
S640209			3				
S660006						10	
S670228				2			
S670229				1			
S670267				1			
S670414					1		
S670934							1
S670935					1		
TOTAL	188	3	3	17	2	10	2

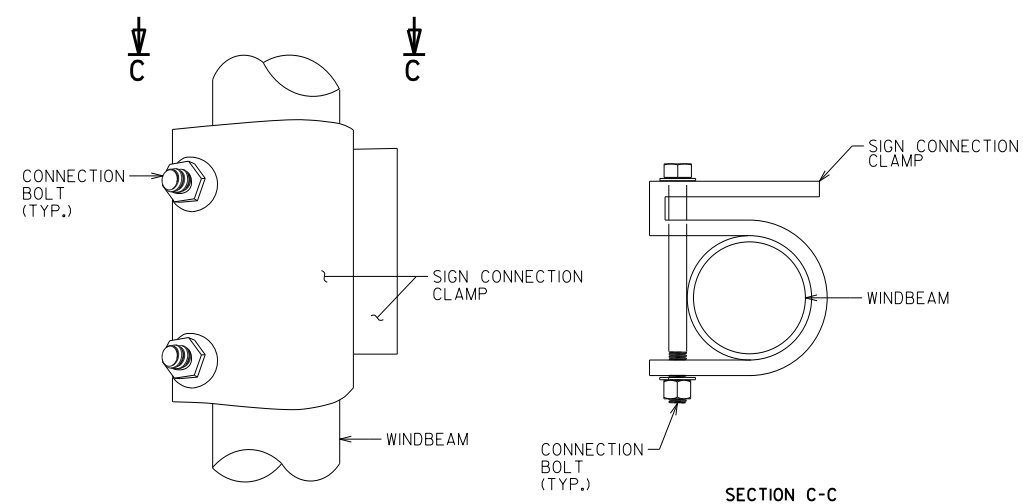


TYPE-II SIGN TO VERTICAL UPRIGHT DETAIL

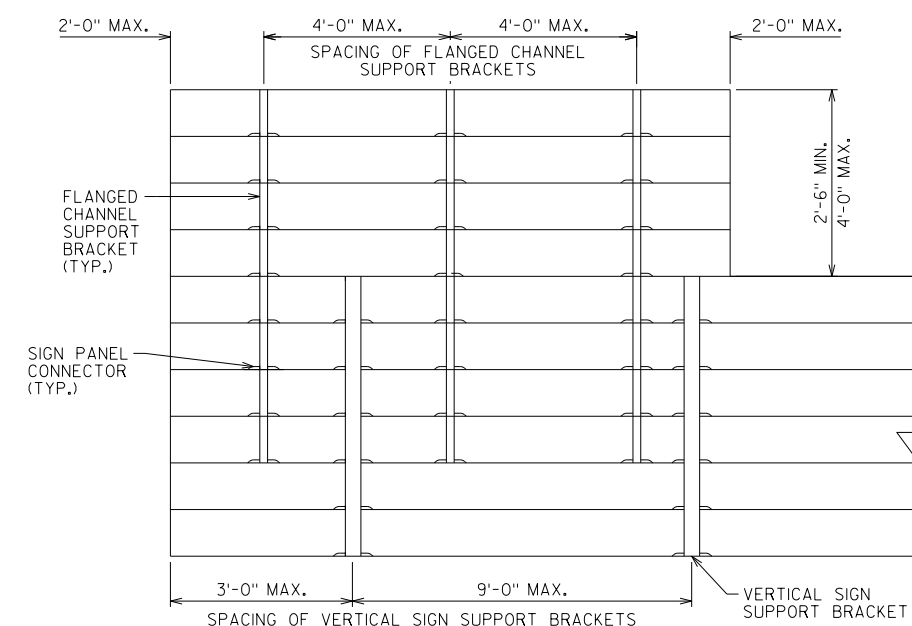
REFER TO SIGN PLATE MANUAL FOR DETAILS
(SIGN BANDING DETAILS)



CLAMP DETAILS



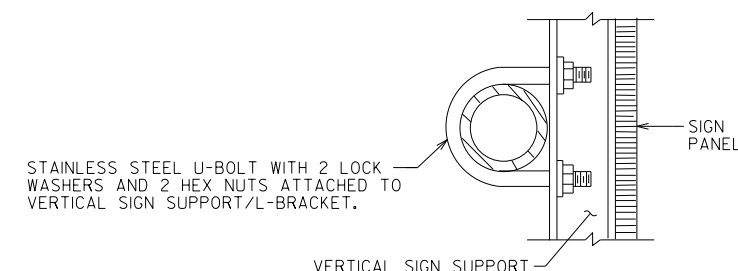
SIGN CONNECTION CLAMP DETAIL (TYPE 2)



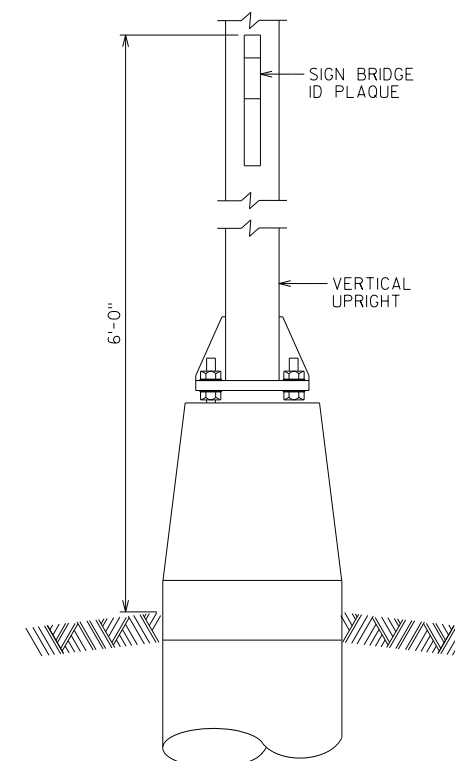
FLANGED CHANNEL SUPPORT/VERTICAL SIGN SUPPORT BRACKET DETAILS



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" ϕ AND SMALLER.

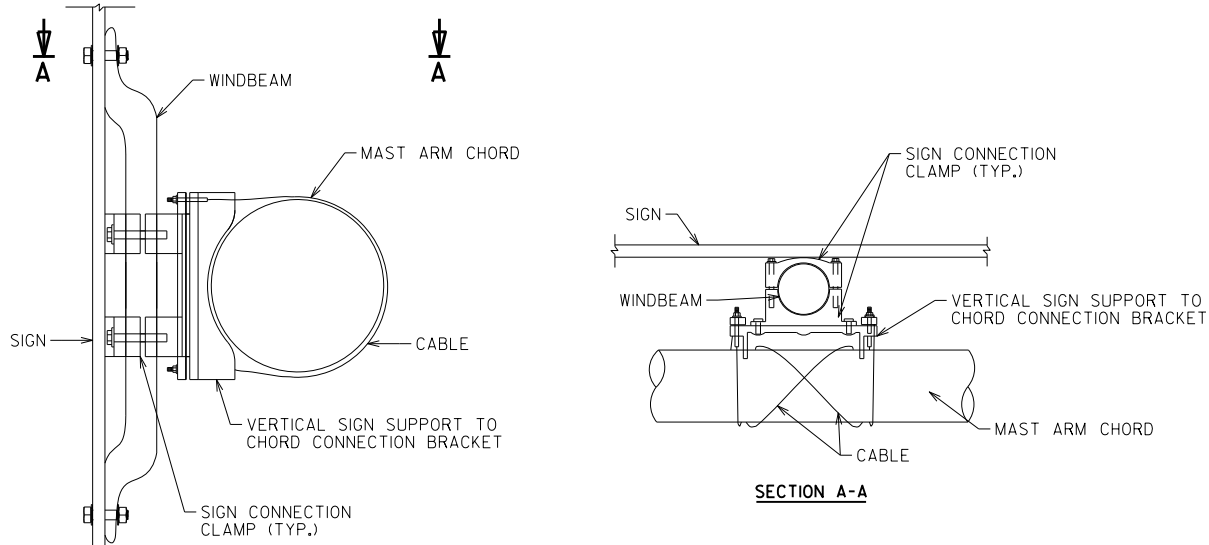


INSTALL U-BOLT & TIGHTEN
LOOSE U-BOLT DETAIL

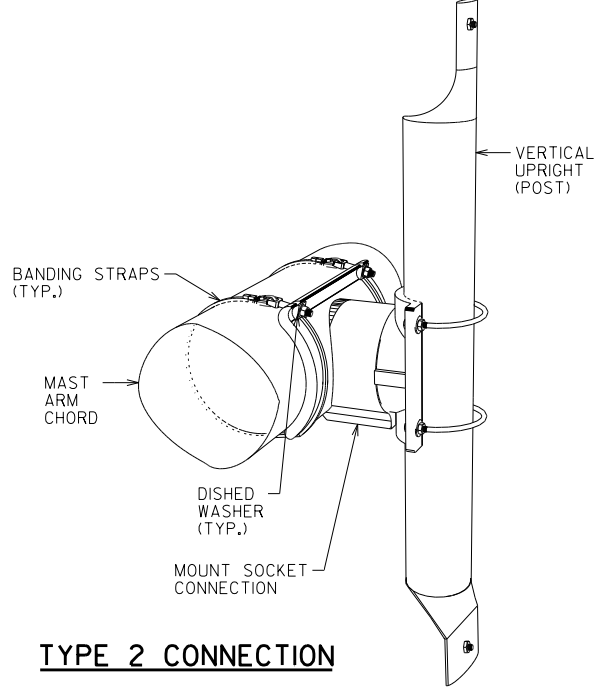


SIGN BRIDGE ID PLAQUE

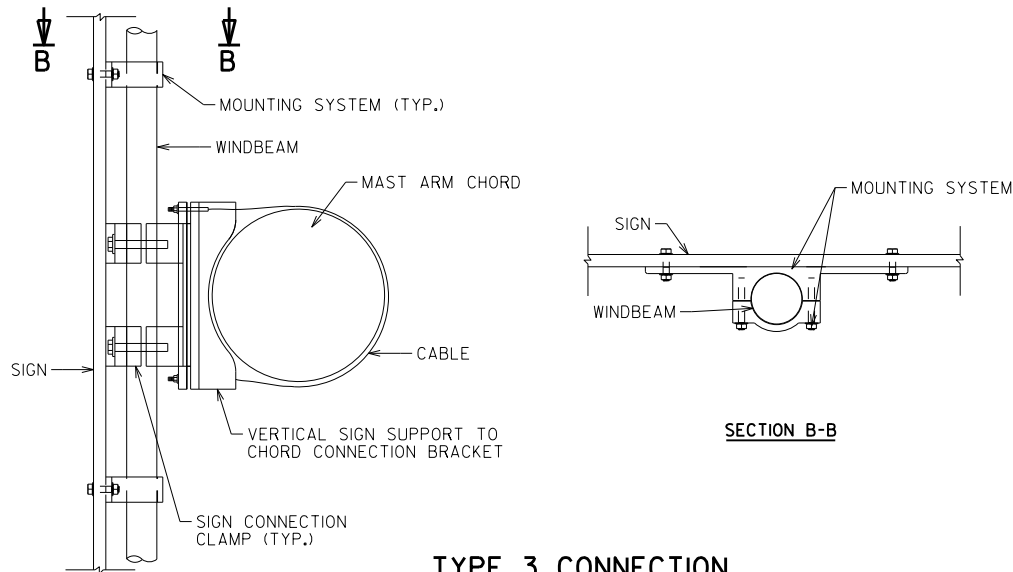
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE SE SIGN REPAIRS			
DRAWN BY		DDS	PLANS CK'D. SAD
SIGN PANEL DETAILS 1		SHEET 5	



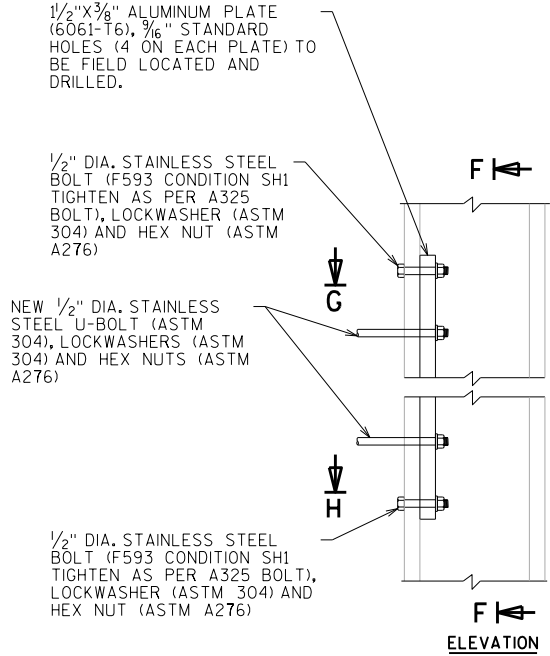
TYPE 1 CONNECTION



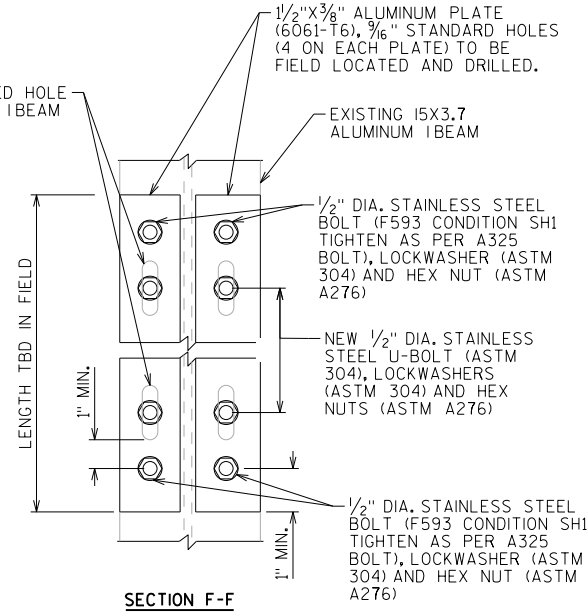
TYPE 2 CONNECTION



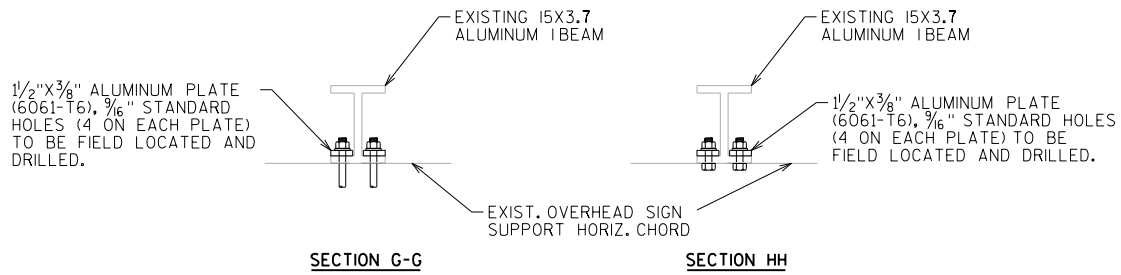
TYPE 3 CONNECTION



ELEVATION



SECTION F-F



SECTION G-G

SECTION H-H

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)".

SLOTTED VERTICAL SIGN SUPPORT REPAIR DETAIL

EACH REPAIR INCLUDES ALL BOLT CONNECTIONS PER I-BEAM

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

**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.

STATE PROJECT NUMBER

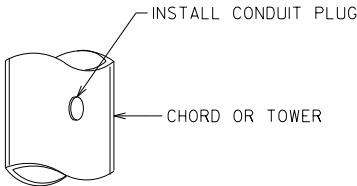
1000-20-71

TABLE OF ESTIMATED QUANTITIES FOR CATWALKS AND ELECTRICAL **

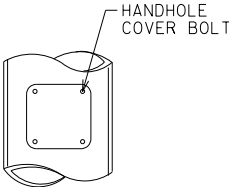
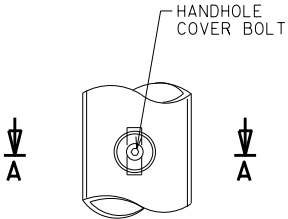
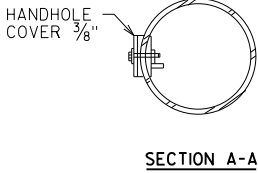
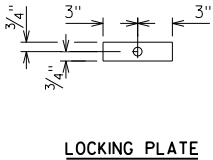
STRUCTURE NUMBER	SECURE LUMINAIRE COVER	INSTALL CONDUIT PLUG	SECURE / REPLACE HANDHOLE COVER
	SPV.0060.18 EACH	SPV.0060.19 EACH	SPV.0060.20 EACH
S400066	1		
S400505	1		
S450001			1
S670017		1	
TOTAL	2	1	1

ELECTRICAL NOTES:

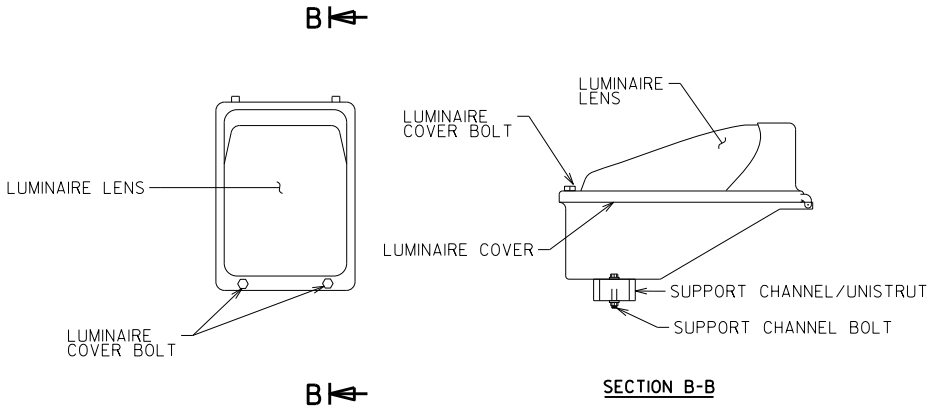
1. THE CONTRACTOR SHALL VERIFY EXACT LOCATION OF ALL REPAIRS.
2. THE CONTRACTOR SHALL FIELD VERIFY THE SIZE OF THE ITEM REQUIRED.
3. ALL STAINLESS STEEL BOLTS, LOCK WASHERS, AND NUTS SHALL CONFORM TO:
-HEX BOLTS ASTM F593 ANY ALLOY GROUP 1, 2, OR 3
-HEX NUTS ASTM F594
-WASHERS ASTM A240
ANY OF THE 300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



CONDUIT PLUG DETAIL



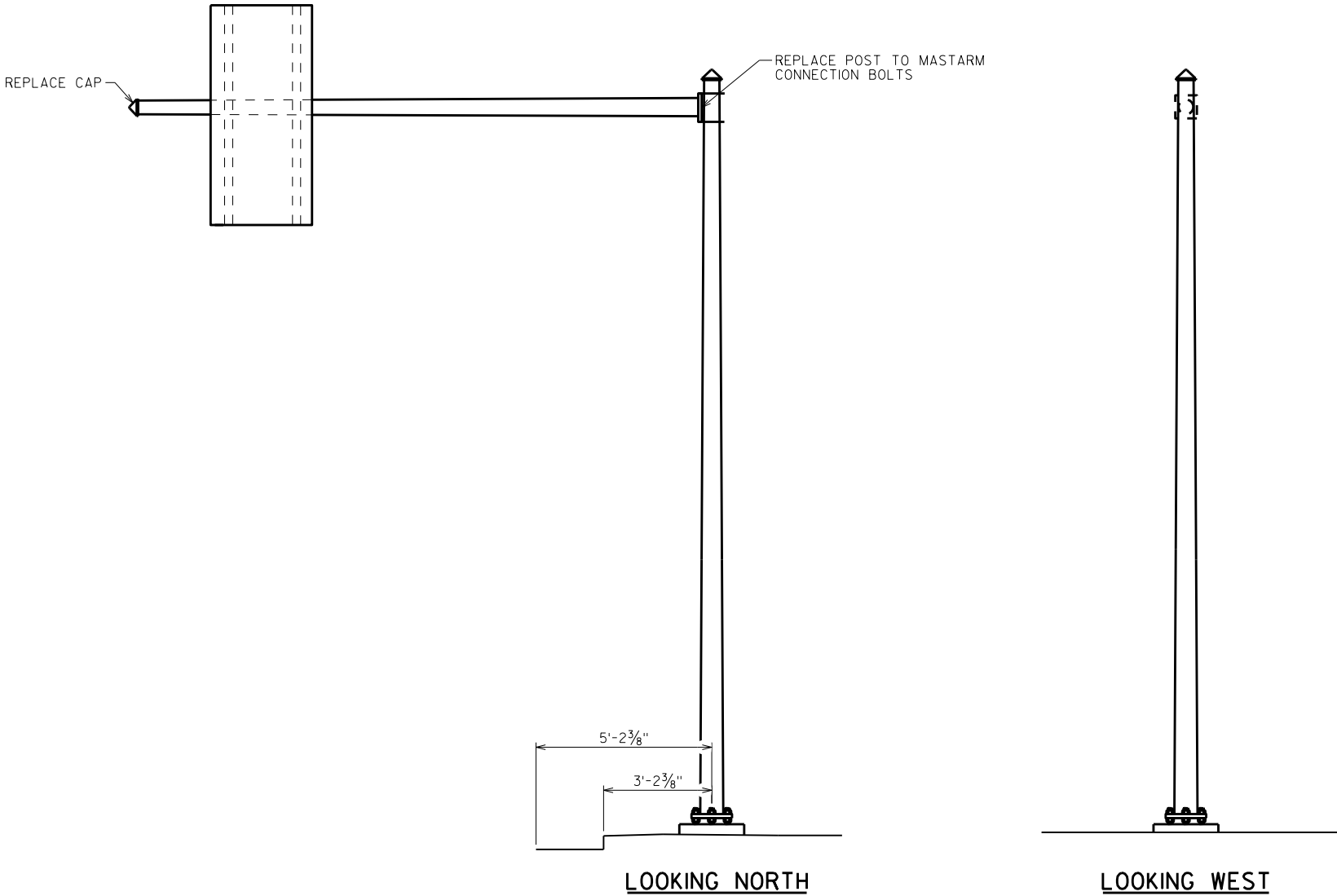
HANDHOLE DETAILS



TYPICAL LUMINAIRE DETAILS

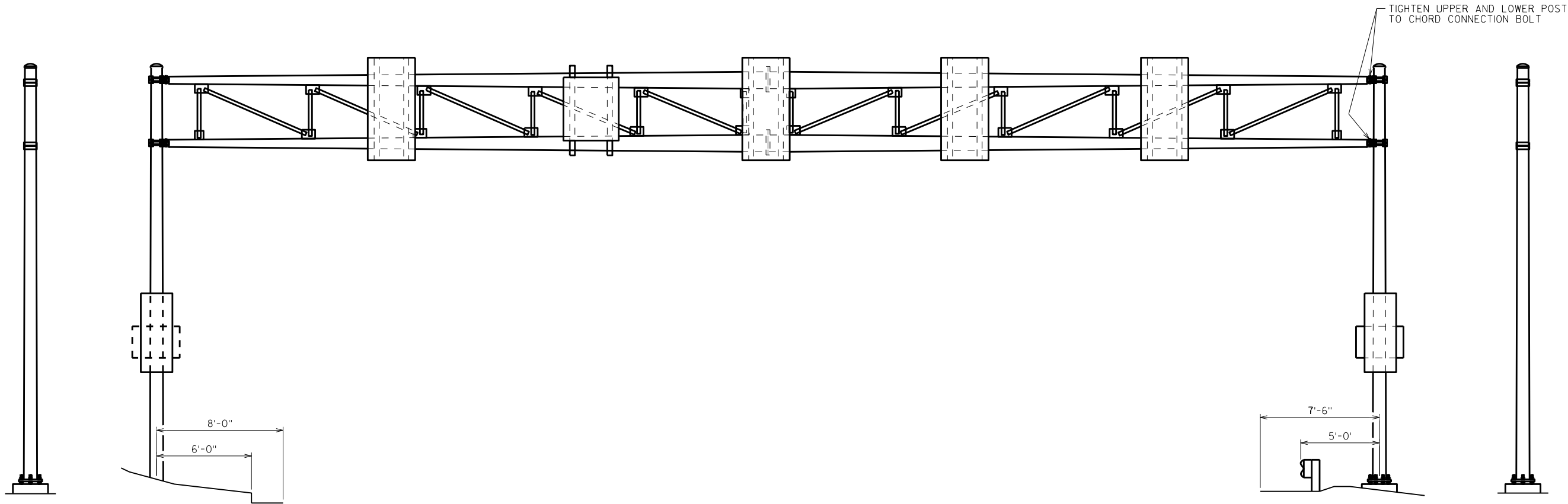
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE SE SIGN REPAIRS			
		DRAWN BY DDS	PLANS CK'D. SAD
ELECTRICAL DETAILS		SHEET 7	

SCALE = 1:00



ITEM NUMBER	BID ITEMS	QUANTITY	REPAIR DETAIL SHEET NO.
SPV.0060.08	TENSION STRUCTURAL CONNECTION BOLT (FRICTION)	4 EACH	3
SPV.0060.10	SECURE/REPLACE CAP	1 EACH	3

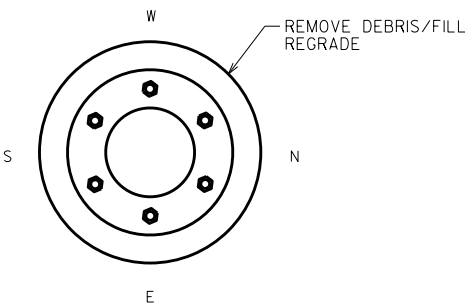
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE		SE SIGN REPAIRS	
		DRAWN BY	PLANS CK'D. SAD
		DDS	
S-30-216			SHEET 8



LOOKING WEST

LOOKING SOUTH

LOOKING EAST



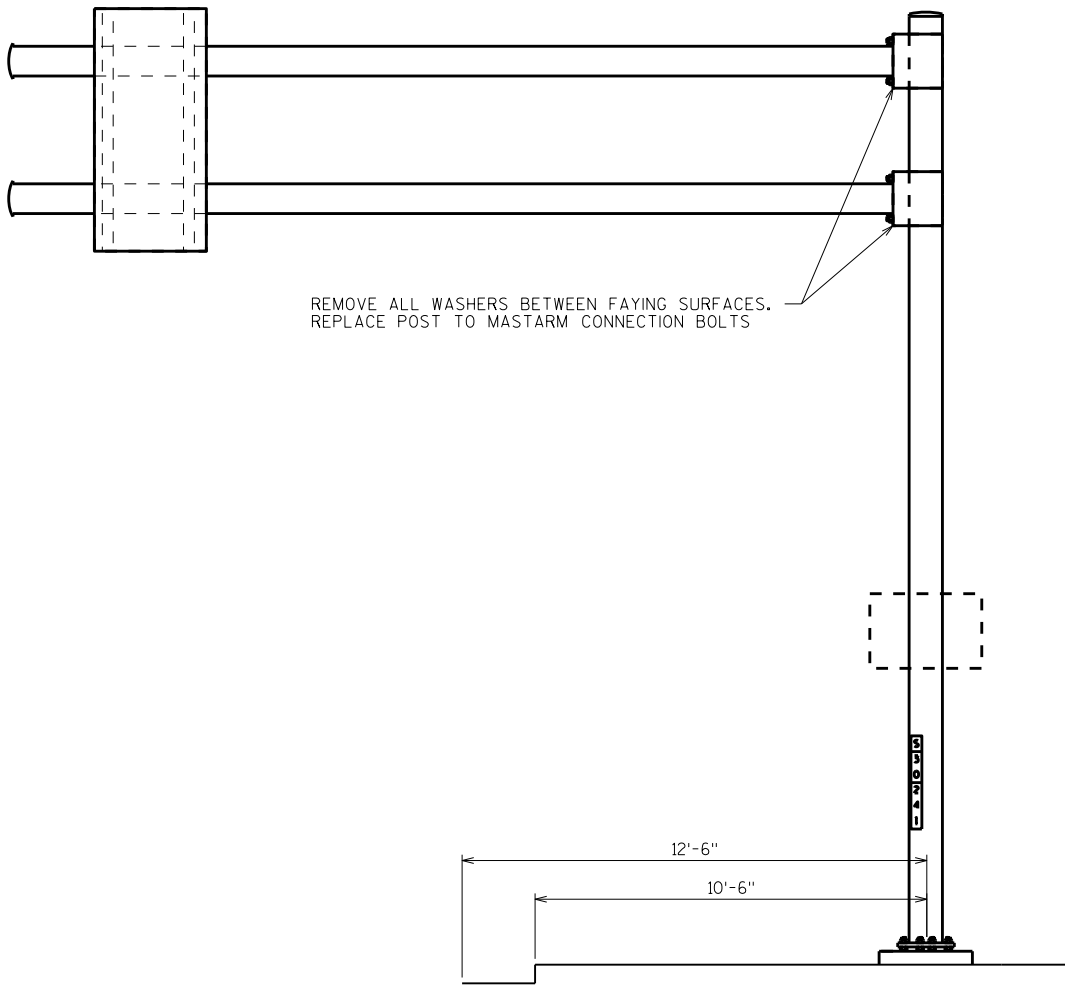
WEST FOUNDATION DETAIL

8

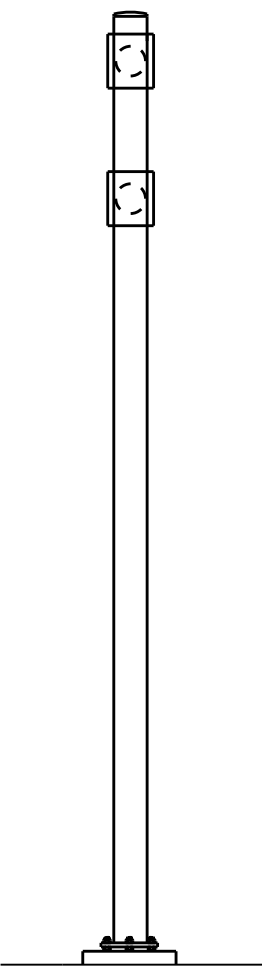
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ITEM NUMBER	BID ITEMS	QUANTITY	REPAIR DETAIL SHEET NO.
SPV.0060.03	REMOVE DEBRIS AND REGRADE	1 EACH	2
SPV.0060.09	TIGHTEN CONNECTION BOLT (NON-FRICTION)	4 EACH	3

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE SE SIGN REPAIRS			
		DRAWN BY	PLANS CK'D.
		DDS	SAD
S-30-238		SHEET 9	



LOOKING EAST



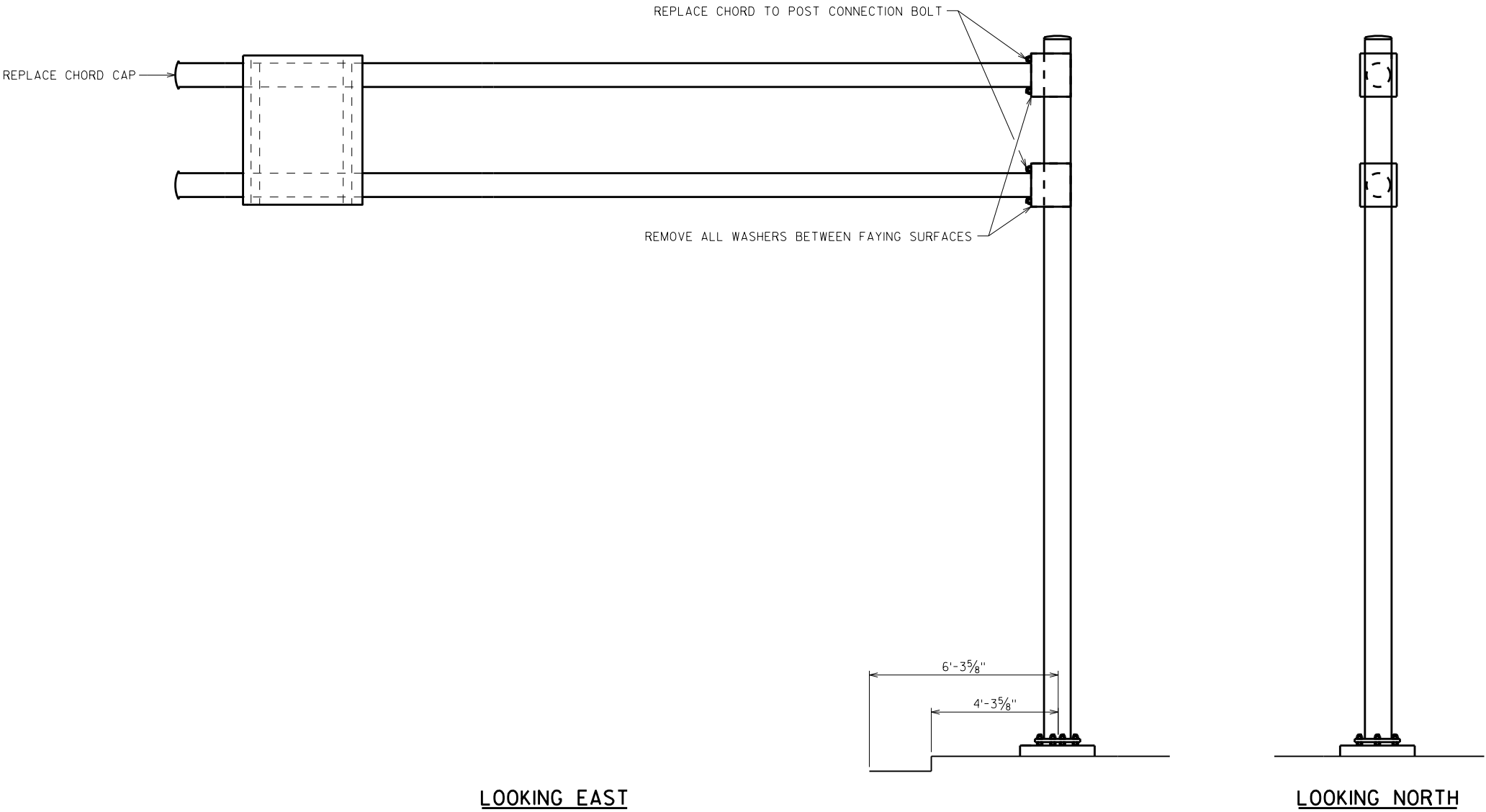
LOOKING NORTH

8

8

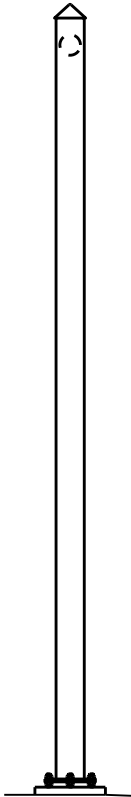
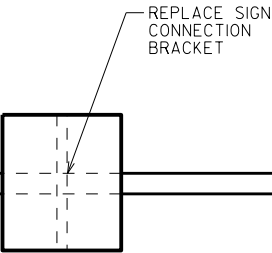
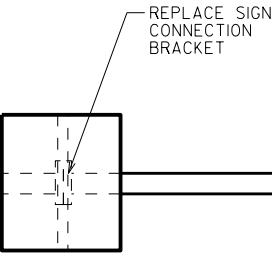
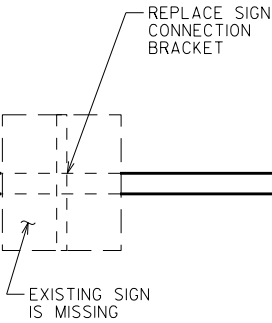
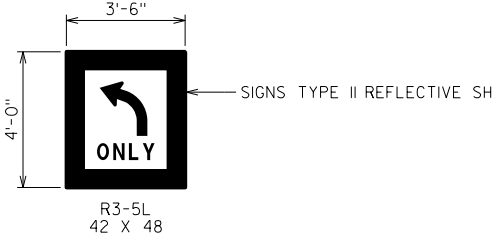
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE SE SIGN REPAIRS			
		DRAWN BY	PLANS CK'D. SAD
S-30-241		SHEET 10	

ITEM NUMBER	BID ITEMS	QUANTITY	REPAIR DETAIL SHEET NO.
SPV.0060.08	TENSION STRUCTURAL CONNECTION BOLT (FRICTION)	8 EACH	3

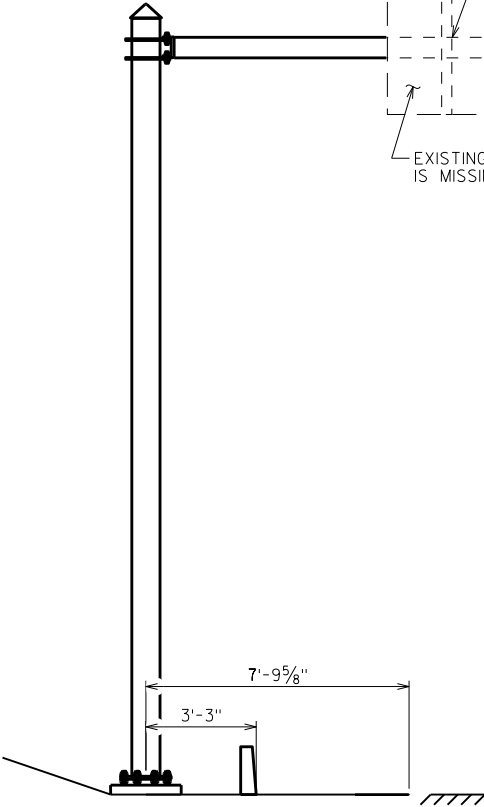


NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE		SE SIGN REPAIRS	
		DRAWN BY	PLANS CK'D. SAD
		DDS	
S-30-252			SHEET 11

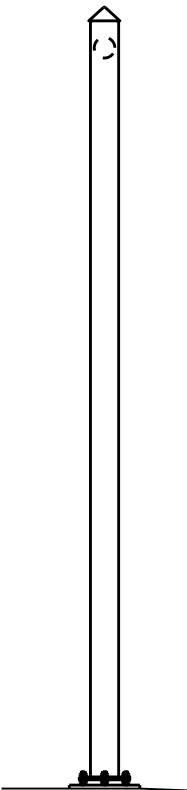
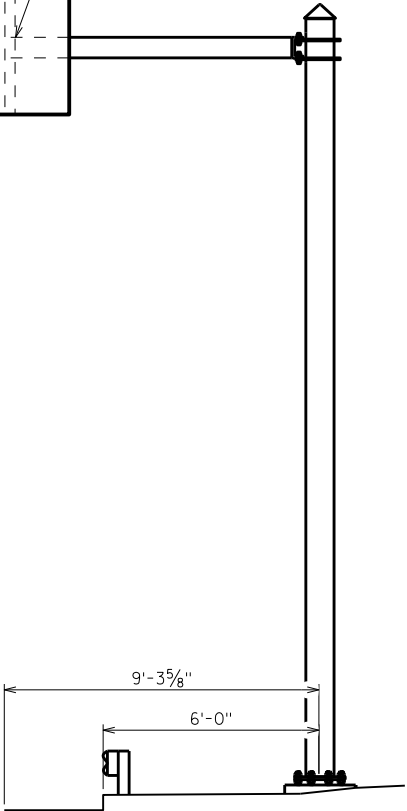
ITEM NUMBER	BID ITEMS	QUANTITY	REPAIR DETAIL SHEET NO.
SPV.0060.08	TENSION STRUCTURAL CONNECTION BOLT (FRICTION)	8 EACH	3
SPV.0060.10	SECURE/REPLACE CAP	1 EACH	3



LOOKING WEST



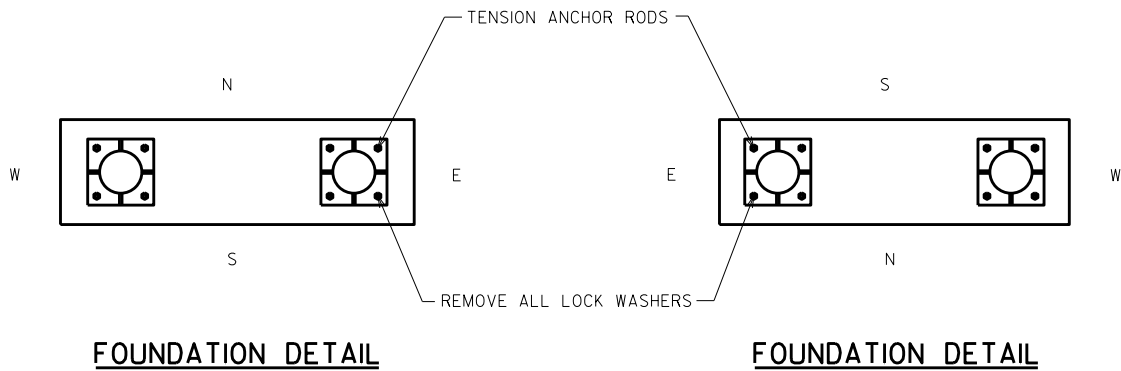
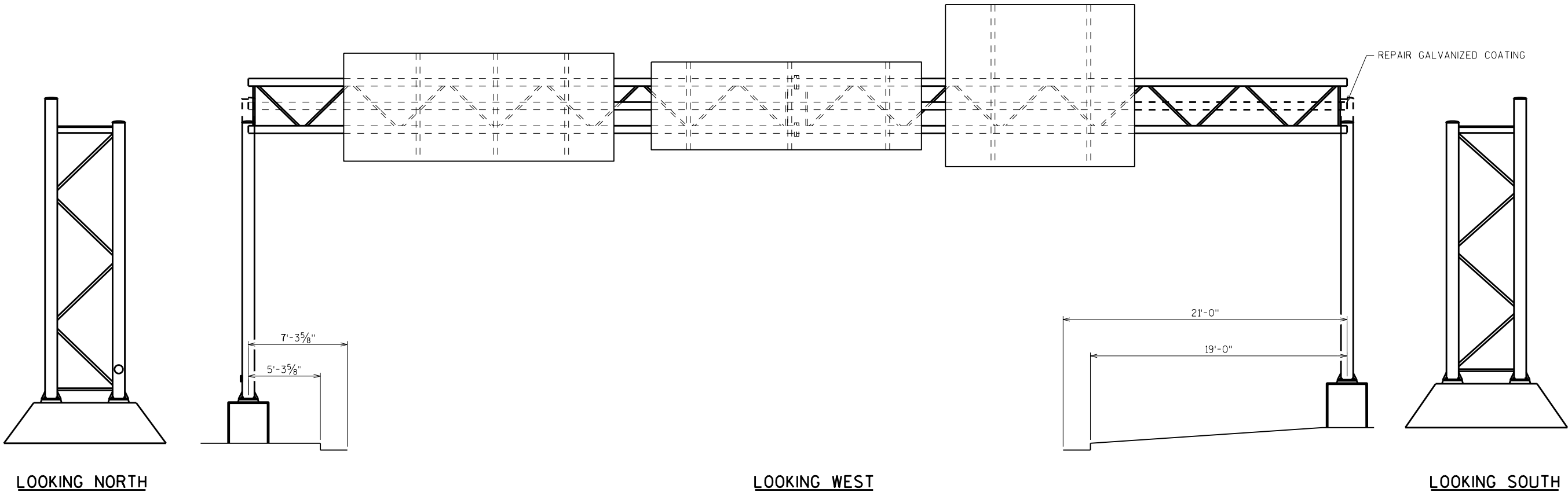
LOOKING SOUTH



LOOKING EAST

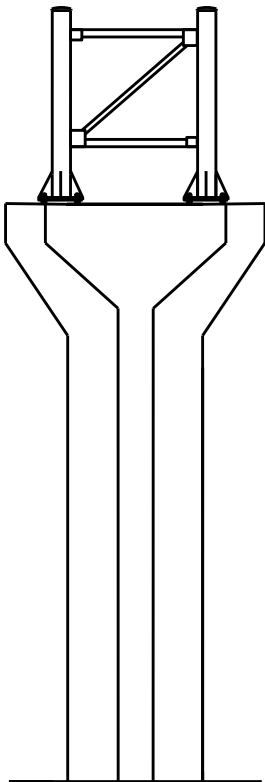
ITEM NUMBER	BID ITEMS	QUANTITY	REPAIR DETAIL SHEET NO.
637.2220	SIGNS TYPE II REFLECTIVE SH	14 SF	5
SPV.00600.14	REPLACE TYPE II SIGN SUPPORT BRACKET	3 EACH	5

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE SE SIGN REPAIRS			
		DRAWN BY	PLANS CK'D. SAD
		DDS	
S-30-253		SHEET 12	

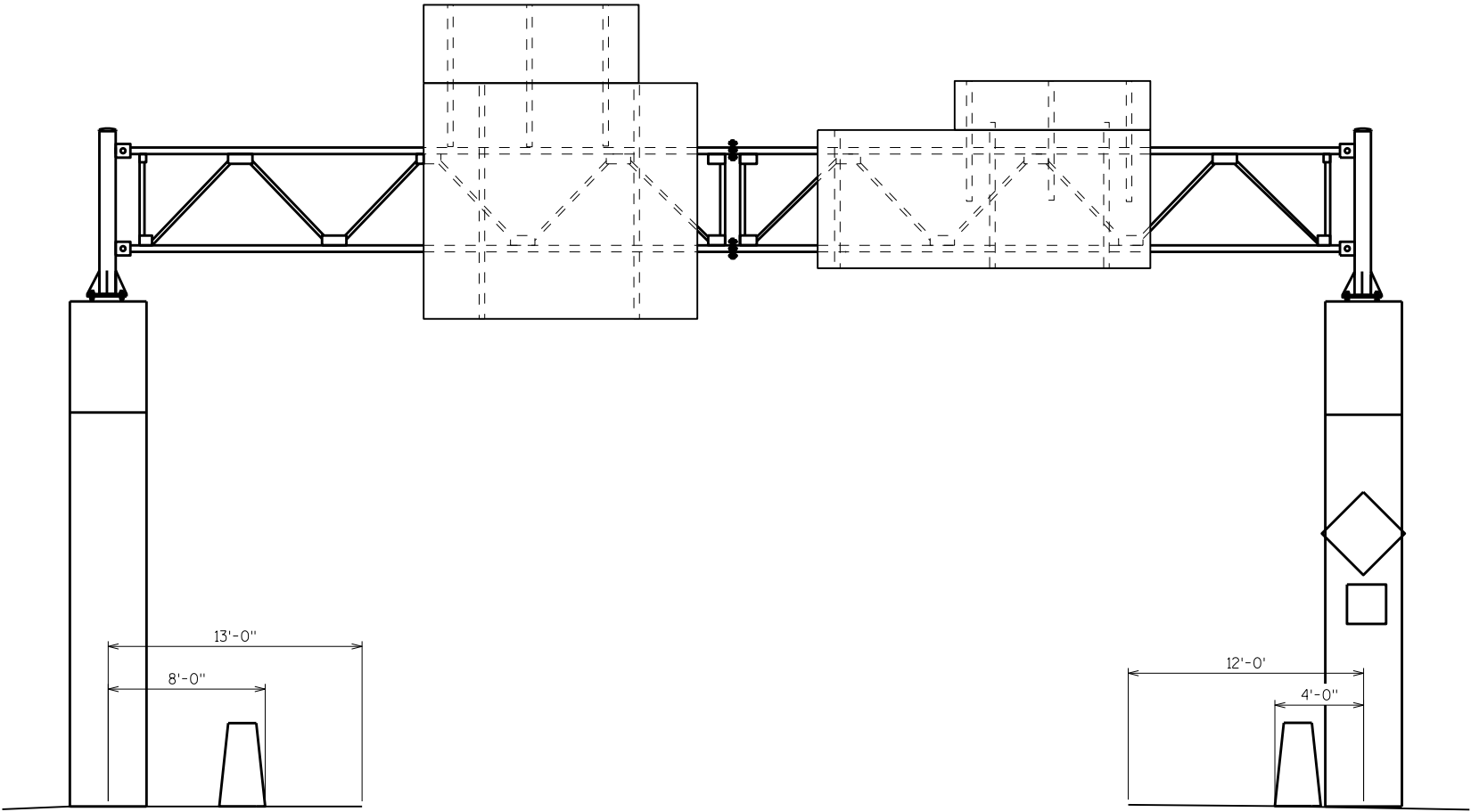


ITEM NUMBER	BID ITEMS	QUANTITY	REPAIR DETAIL SHEET NO.
SPV.0060.01	TENSION ANCHOR ROD	16 EACH	2
SPV.0165.01	REPAIR GALVANIZED COATING	1 SF	2

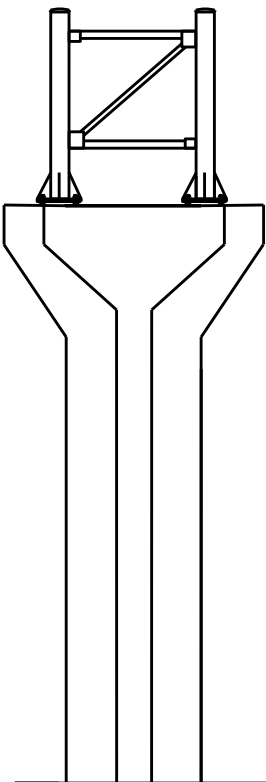
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE SE SIGN REPAIRS			
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S-40-32		SHEET 13	



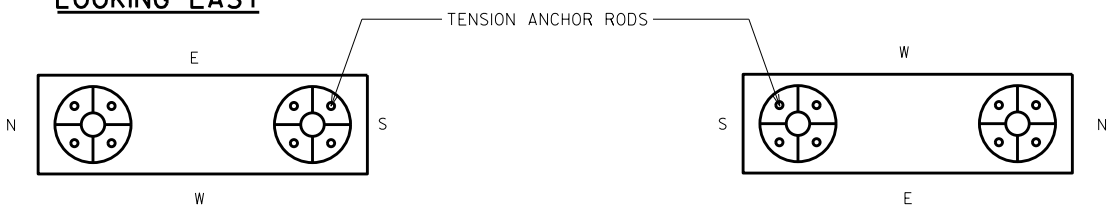
LOOKING EAST



LOOKING NORTH



LOOKING WEST



FOUNDATION DETAIL

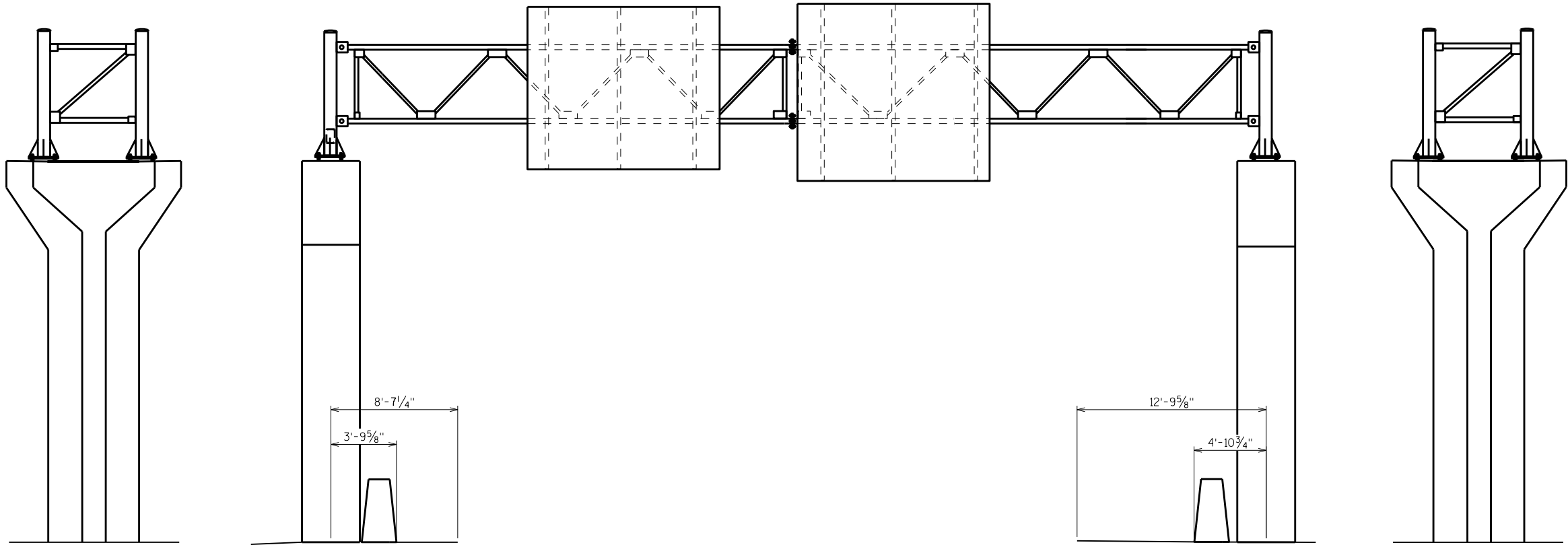
FOUNDATION DETAIL

8

8

ITEM NUMBER	BID ITEMS	QUANTITY	REPAIR DETAIL SHEET NO.
SPV.0060.01	TENSION ANCHOR ROD	16 EACH	2

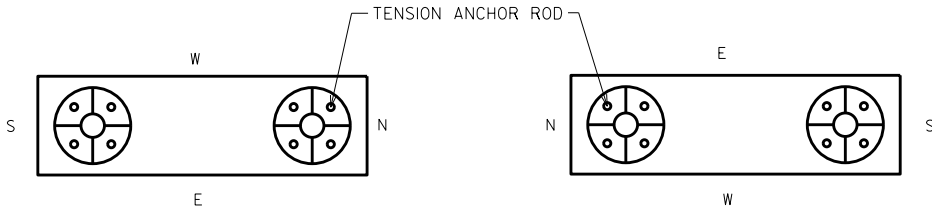
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE SE SIGN REPAIRS			
		DRAWN BY	PLANS CK'D. SAD
		DDS	
S-40-57		SHEET 14	



LOOKING WEST

LOOKING SOUTH

LOOKING EAST

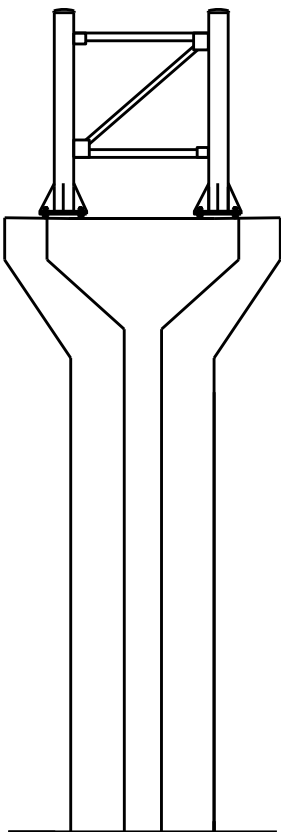


FOUNDATION DETAIL

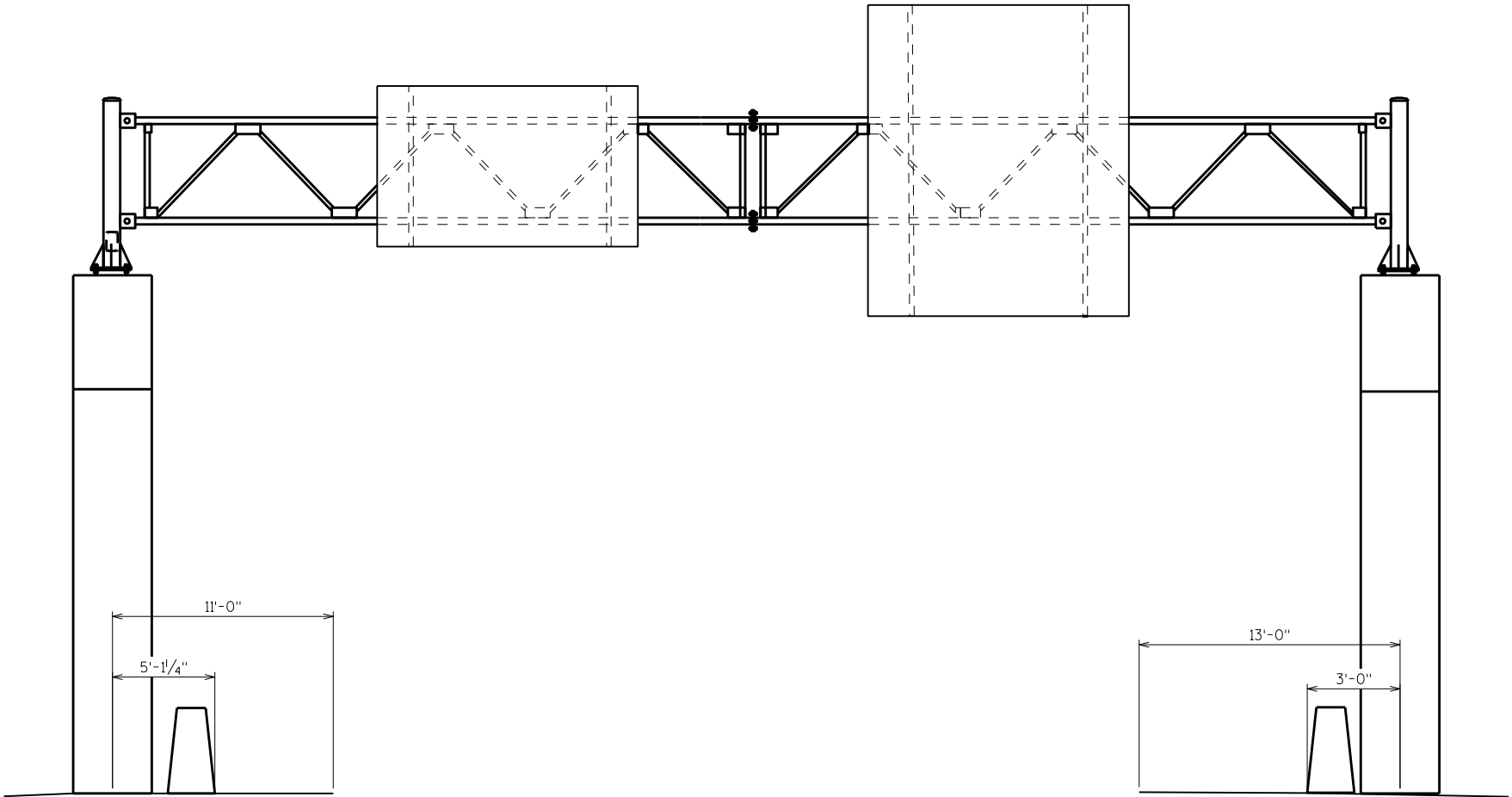
FOUNDATION DETAIL

ITEM NUMBER	BID ITEMS	QUANTITY	REPAIR DETAIL SHEET NO.
SPV.0060.01	TENSION ANCHOR ROD	16 EACH	2

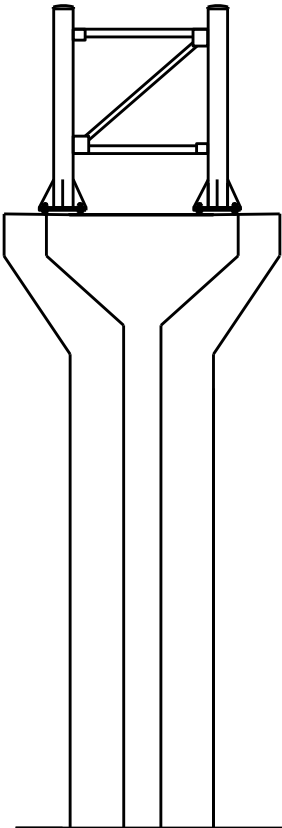
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE SE SIGN REPAIRS			
		DRAWN BY	PLANS CK'D. SAD
		DDS	
S-40-58		SHEET 15	



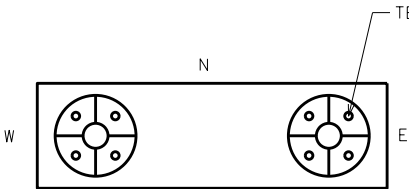
LOOKING NORTH



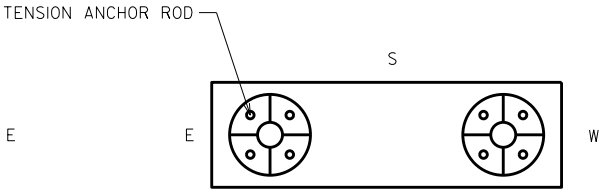
LOOKING WEST



LOOKING SOUTH



FOUNDATION DETAIL

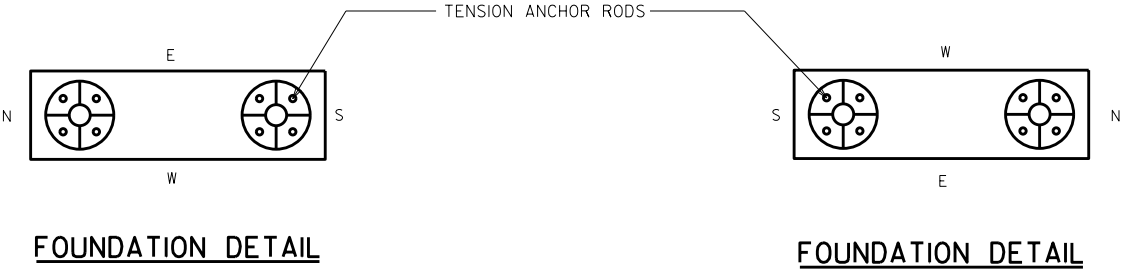
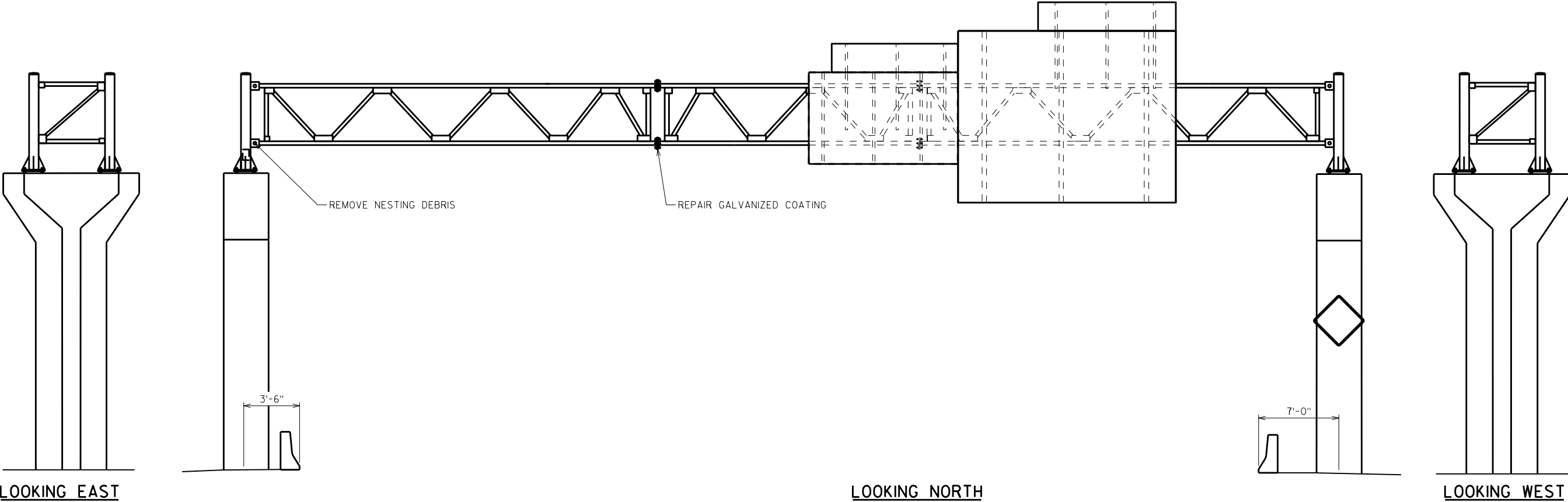


FOUNDATION DETAIL

TENSION ANCHOR ROD

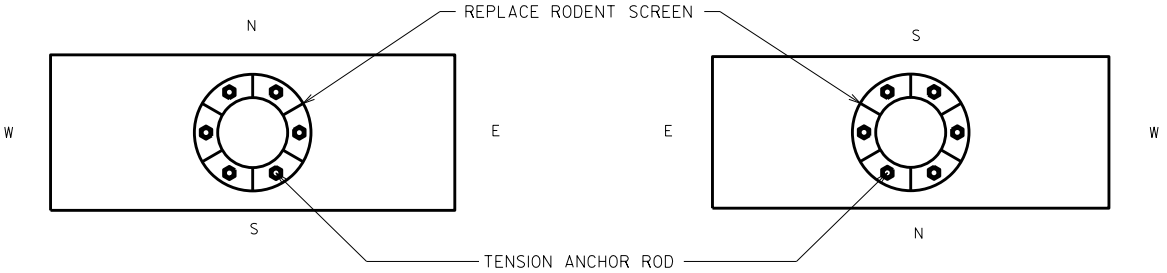
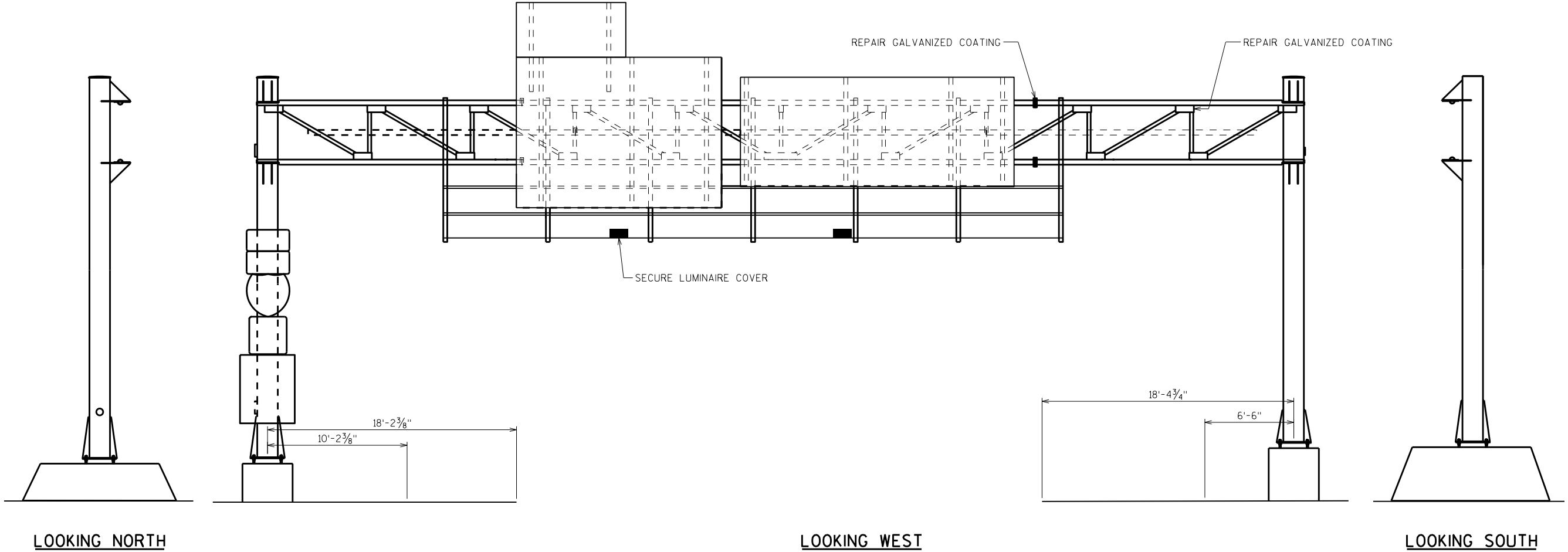
ITEM NUMBER	BID ITEMS	QUANTITY	REPAIR DETAIL SHEET NO.
SPV.0060.01	TENSION ANCHOR ROD	16 EACH	2

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE SE SIGN REPAIRS			
		DRAWN BY	PLANS CK'D.
		DDS	SAD
S-40-60		SHEET 16	



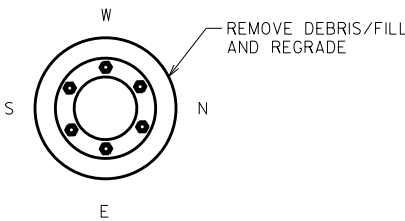
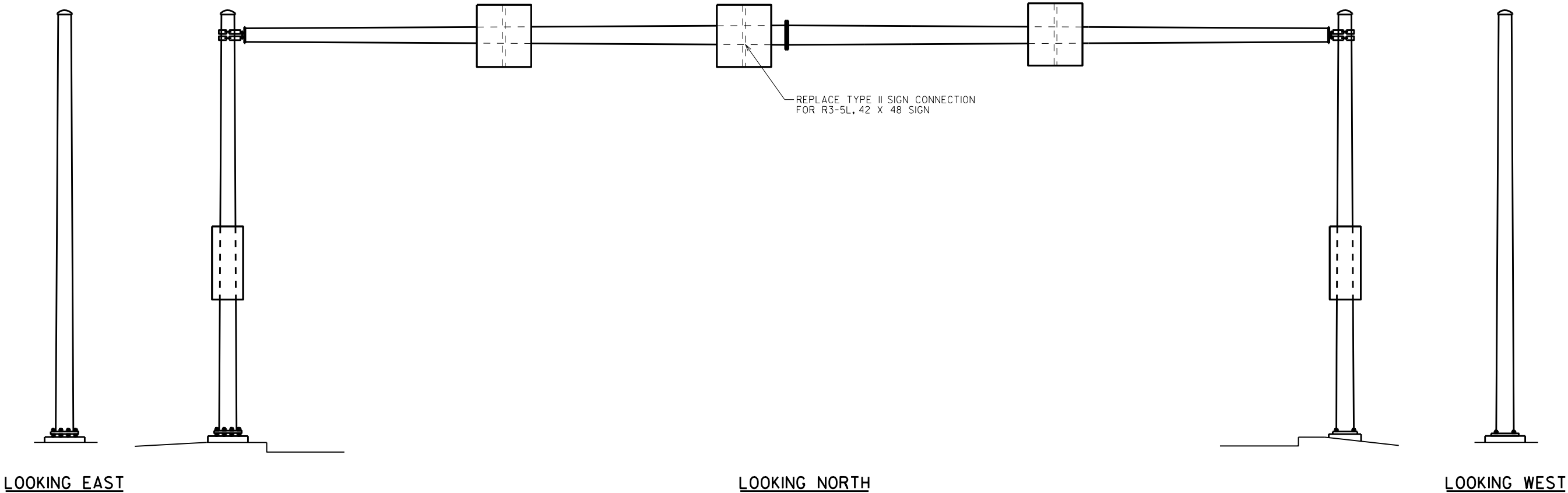
ITEM NUMBER	BID ITEMS	QUANTITY	REPAIR DETAIL SHEET NO.
SPV.0060.01	TENSION ANCHOR ROD	16 EACH	2
SPV.0060.12	REMOVING NESTING DEBRIS	1 EACH	3
SPV.0165.01	REPAIR GALVANIZED COATING	1 SF	2

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE SE SIGN REPAIRS			
DRAWN BY		DDS	PLANS CK'D. SAD
S-40-63		SHEET 17	



ITEM NUMBER	BID ITEMS	QUANTITY	REPAIR DETAIL SHEET NO.
SPV.0060.01	TENSION ANCHOR ROD	12 EACH	2
SPV.0060.04	REPLACE RODENT SCREEN	2 EACH	2
SPV.0060.18	SECURE LUMINAIRE COVER	1 EACH	7
SPV.0165.01	REPAIR GALVANIZED COATING	1 SF	2

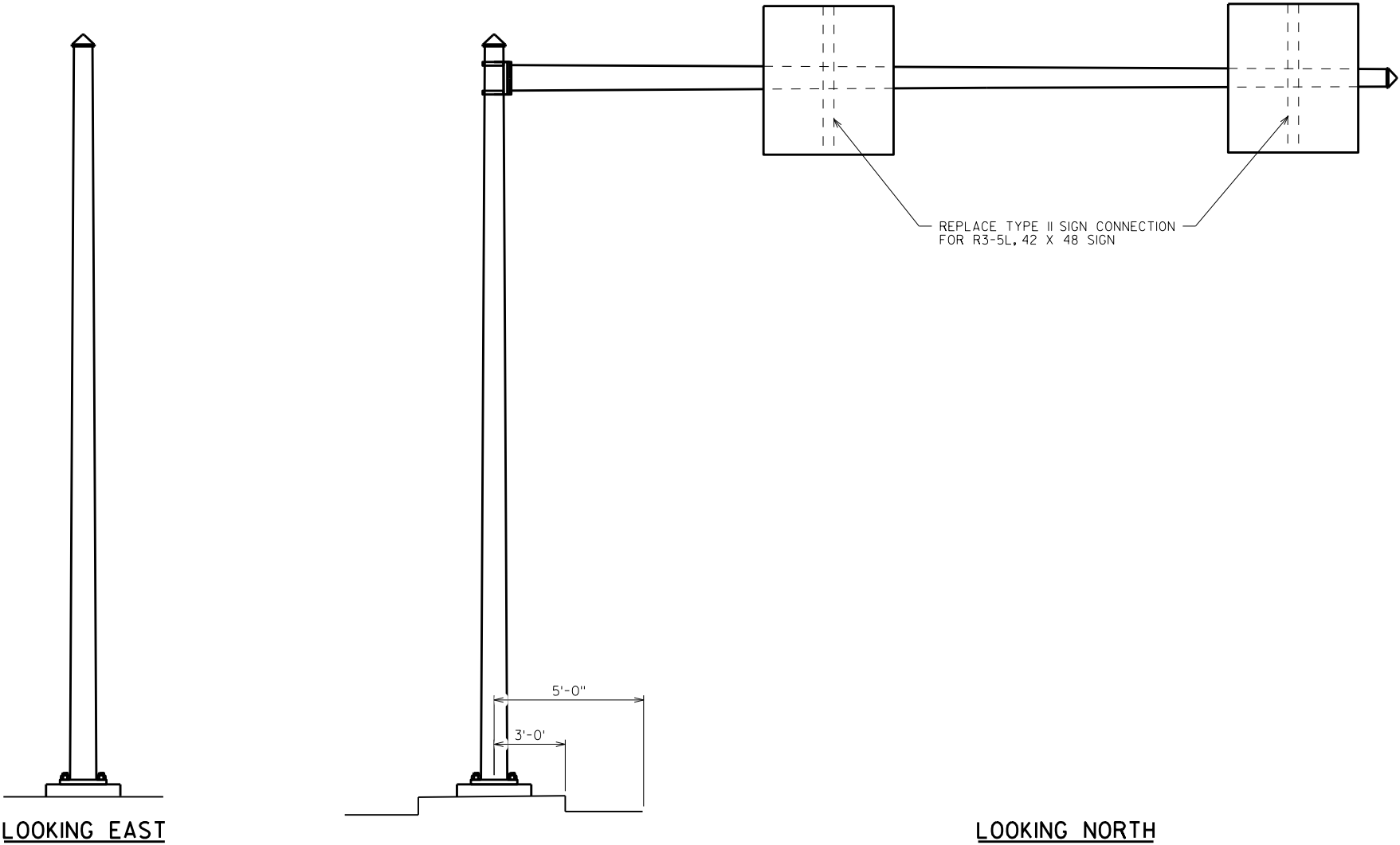
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE SE SIGN REPAIRS			
		DRAWN BY DDS	PLANS CK'D. SAD
S-40-66		SHEET 18	



WEST FOUNDATION DETAIL

ITEM NUMBER	BID ITEMS	QUANTITY	REPAIR DETAIL SHEET NO.
SPV.0060.03	REMOVE DEBRIS AND REGRADE	1 EACH	2
SPV.0060.14	REPLACE TYPE II SIGN SUPPORT BRACKET	1 EACH	5

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE SE SIGN REPAIRS			
		DRAWN BY	PLANS CK'D. SAD
		DDS	
S-40-150		SHEET 19	

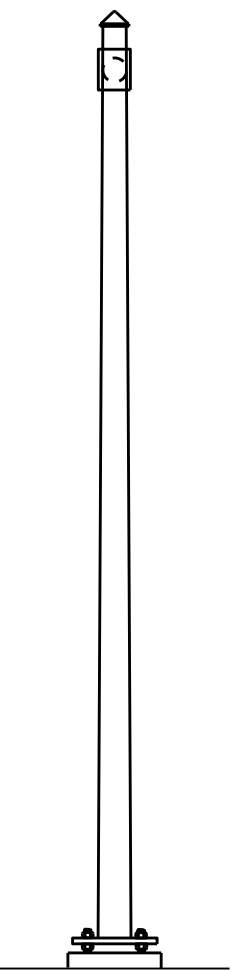
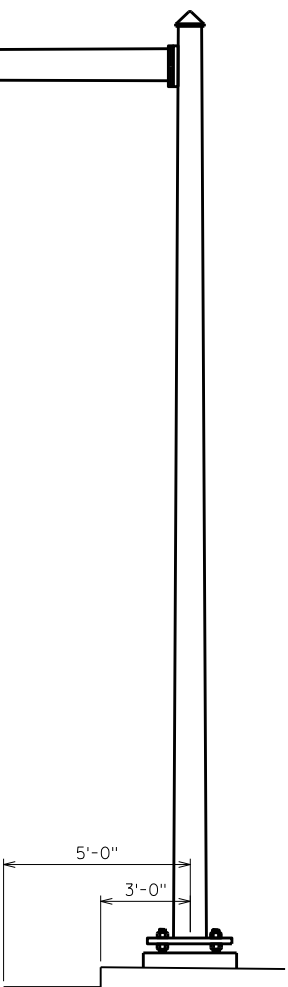
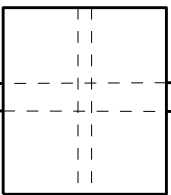
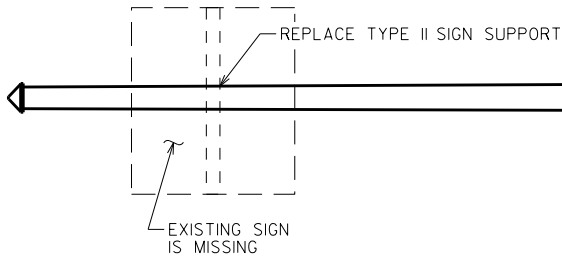
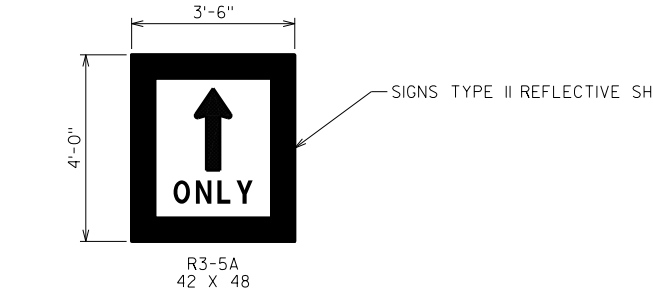


8

8

ITEM NUMBER	BID ITEMS	QUANTITY	REPAIR DETAIL SHEET NO.
SPV.0060.14	REPLACE TYPE II SIGN SUPPORT BRACKET	2 EACH	5

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE SE SIGN REPAIRS			
		DRAWN BY	PLANS CK'D. SAD
S-40-296		SHEET 20	



LOOKING SOUTH

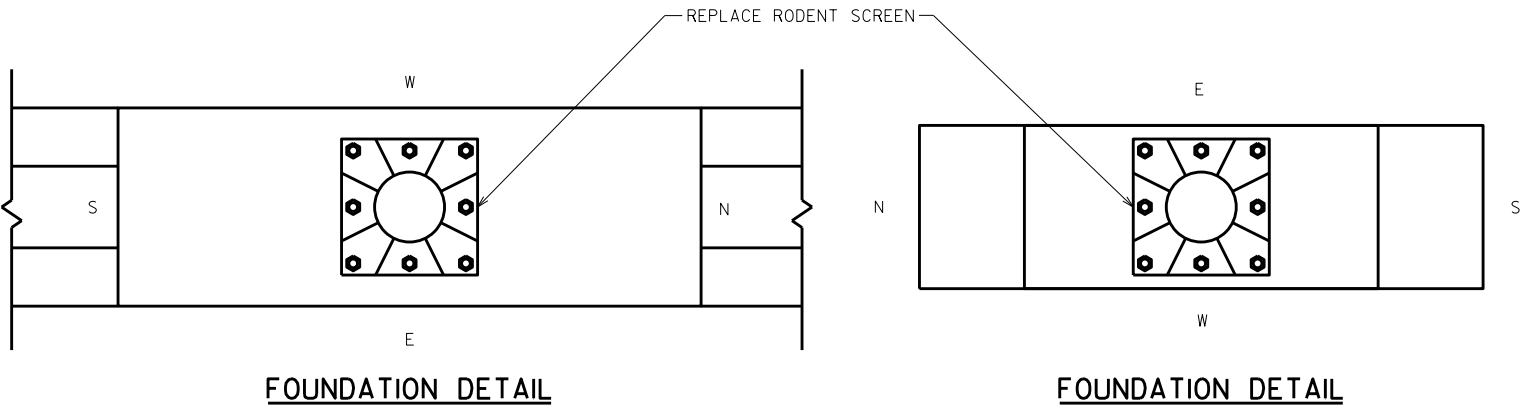
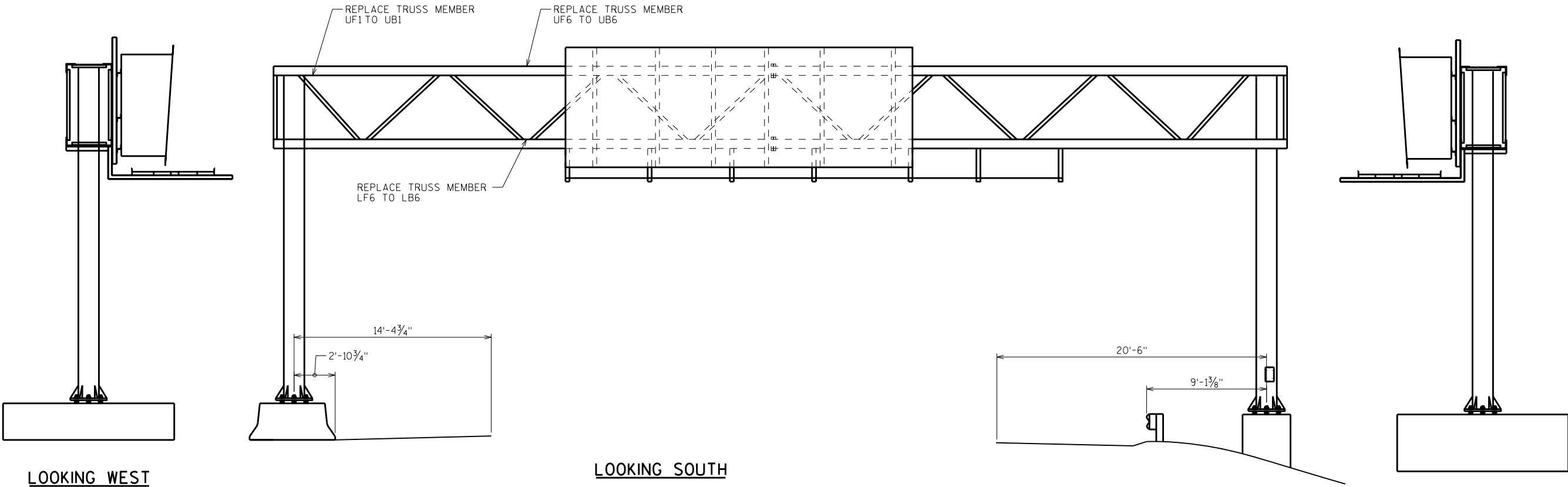
LOOKING EAST

8

8

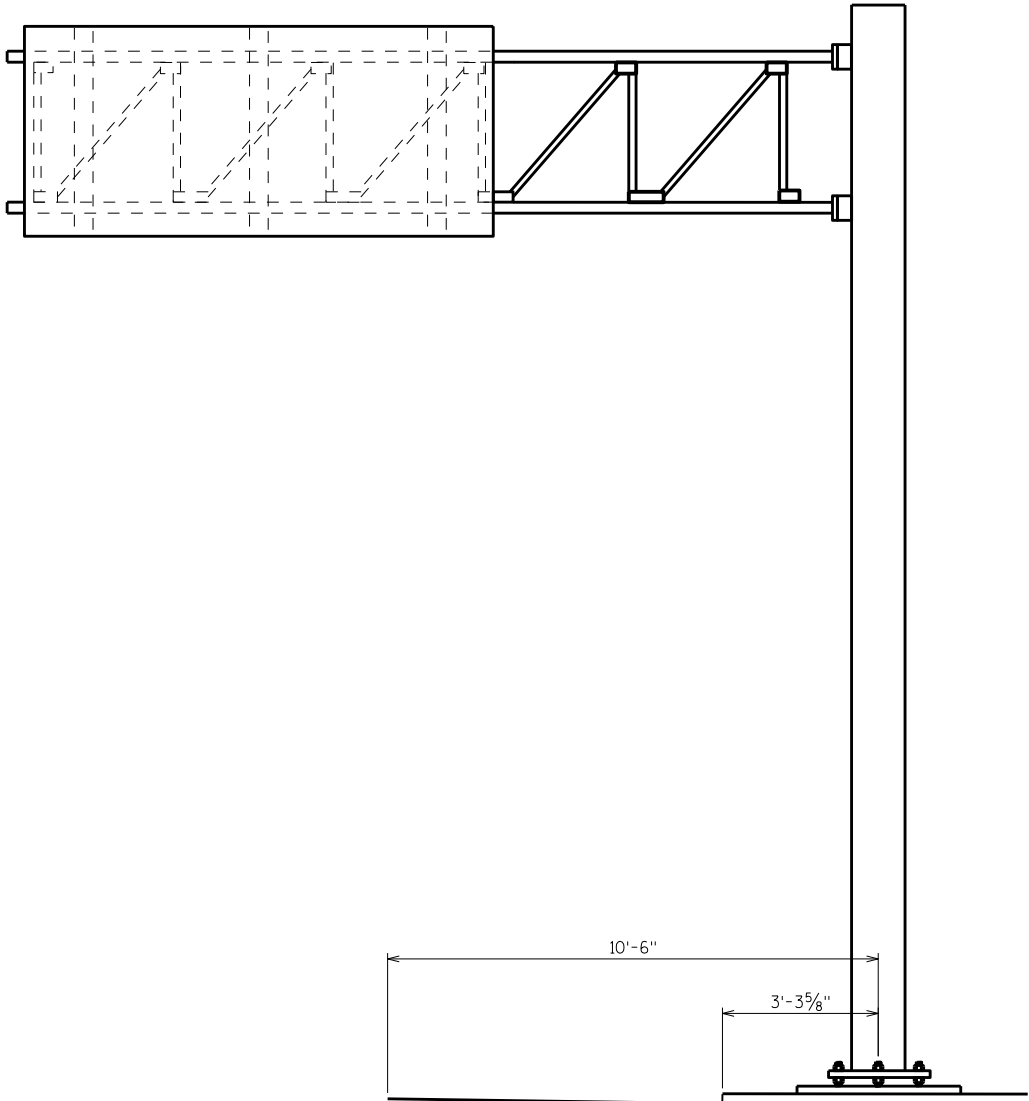
ITEM NUMBER	BID ITEMS	QUANTITY	REPAIR DETAIL SHEET NO.
637.2220	SIGNS TYPE II REFLECTIVE SH	14 SF	5
SPV.0060.14	REPLACE TYPE II SIGN SUPPORT BRACKET	1 EACH	5

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE SE SIGN REPAIRS			
		DRAWN BY	PLANS CK'D. SAD
		DDS	
S-40-298			SHEET 21

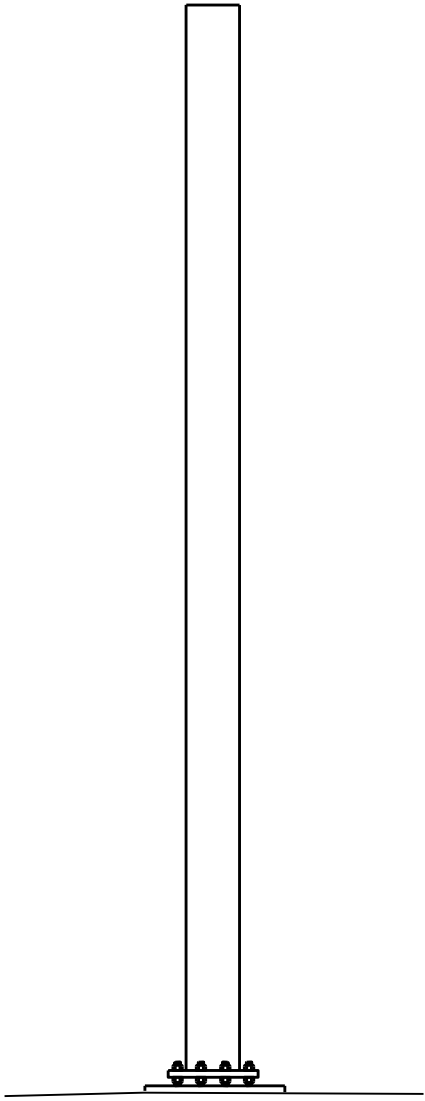


ITEM NUMBER	BID ITEMS	QUANTITY	REPAIR DETAIL SHEET NO.
SPV.0060.04	REPLACE RODENT SCREEN	2 EACH	2
SPV.0060.07	REPLACE TRUSS MEMBER	3 EACH	3

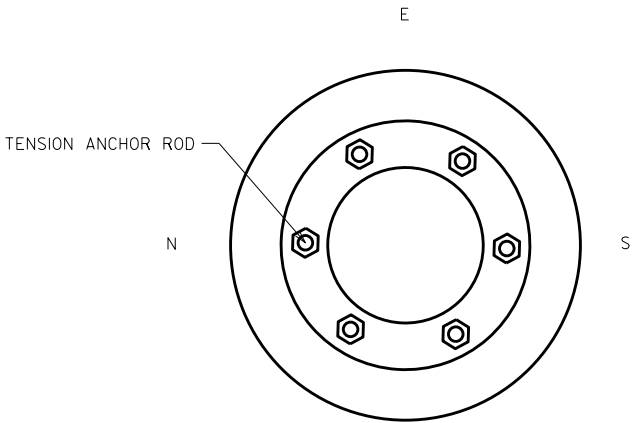
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE SE SIGN REPAIRS			
		DRAWN BY	PLANS CK'D. SAD
		DDS	
S-40-409		SHEET 22	



LOOKING SOUTH



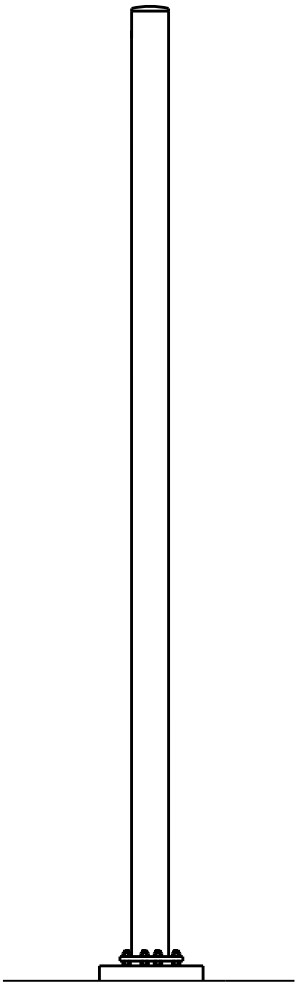
LOOKING EAST



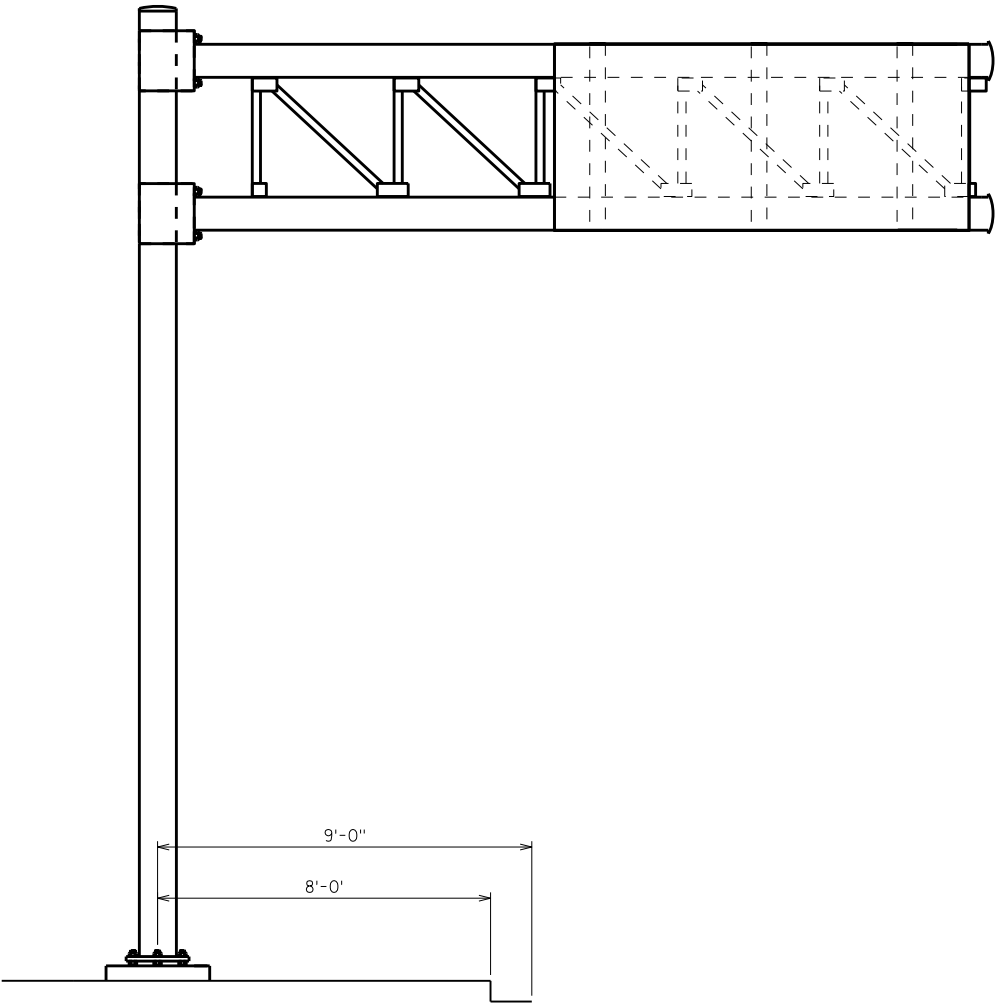
FOUNDATION DETAIL

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

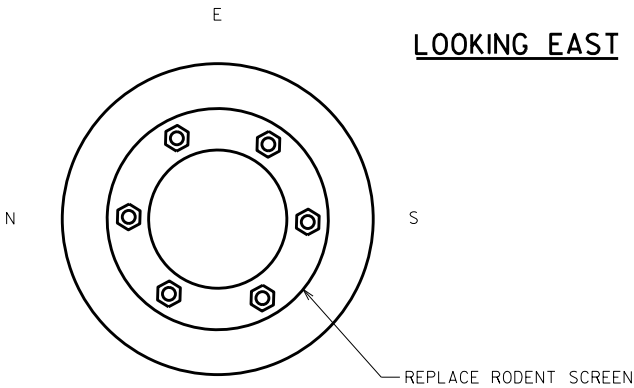
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE SE SIGN REPAIRS			
		DRAWN BY	PLANS CK'D. SAD
S-40-452		SHEET 23	



LOOKING EAST



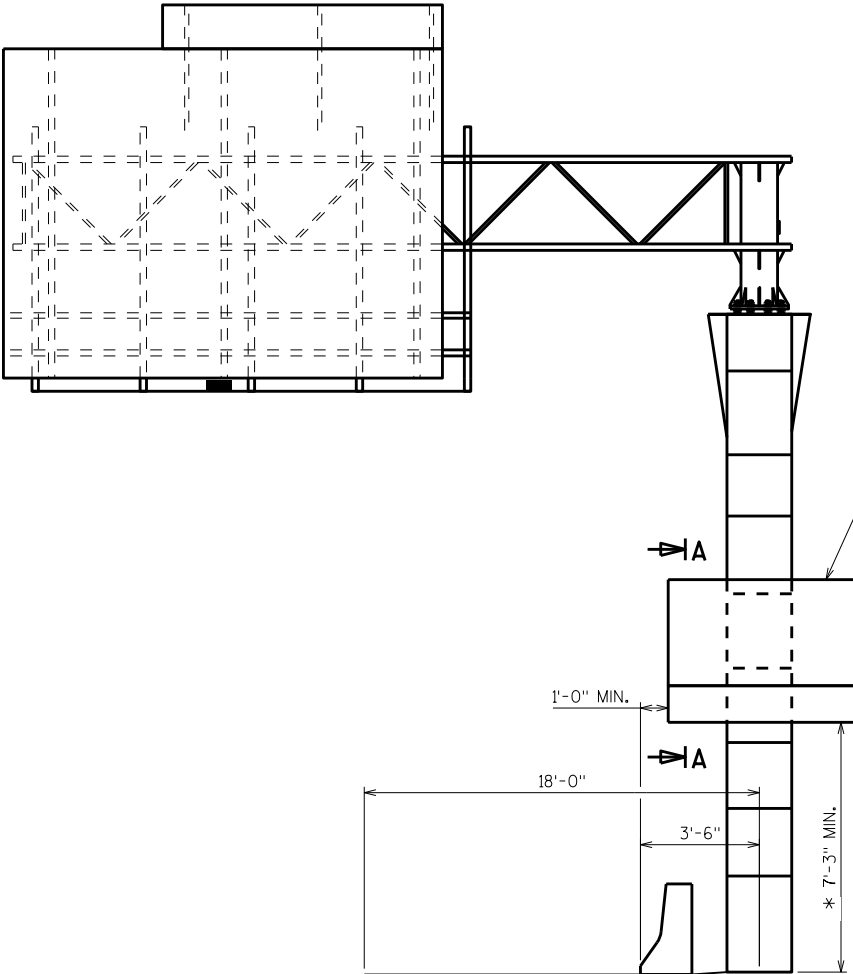
LOOKING NORTH



FOUNDATION DETAIL

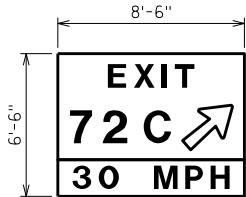
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE SE SIGN REPAIRS			
		DRAWN BY	PLANS CK'D. SAD
S-40-453		SHEET 24	

ITEM NUMBER	BID ITEMS	QUANTITY	REPAIR DETAIL SHEET NO.
SPV.0060.04	REPLACE RODENT SCREEN	1 EACH	2



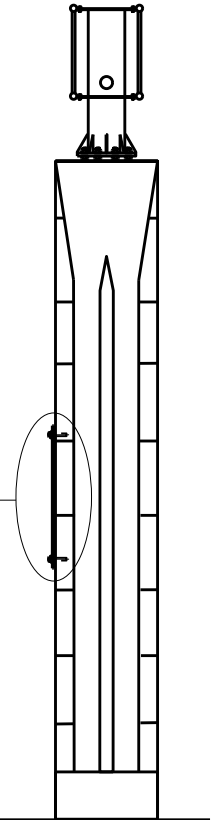
LOOKING NORTH

REMOVE EXISTING TYPE II SIGN



SIGNS TYPE II REFLECTIVE SH
SEE SIGN PLATES E5-1B AND E13-1P

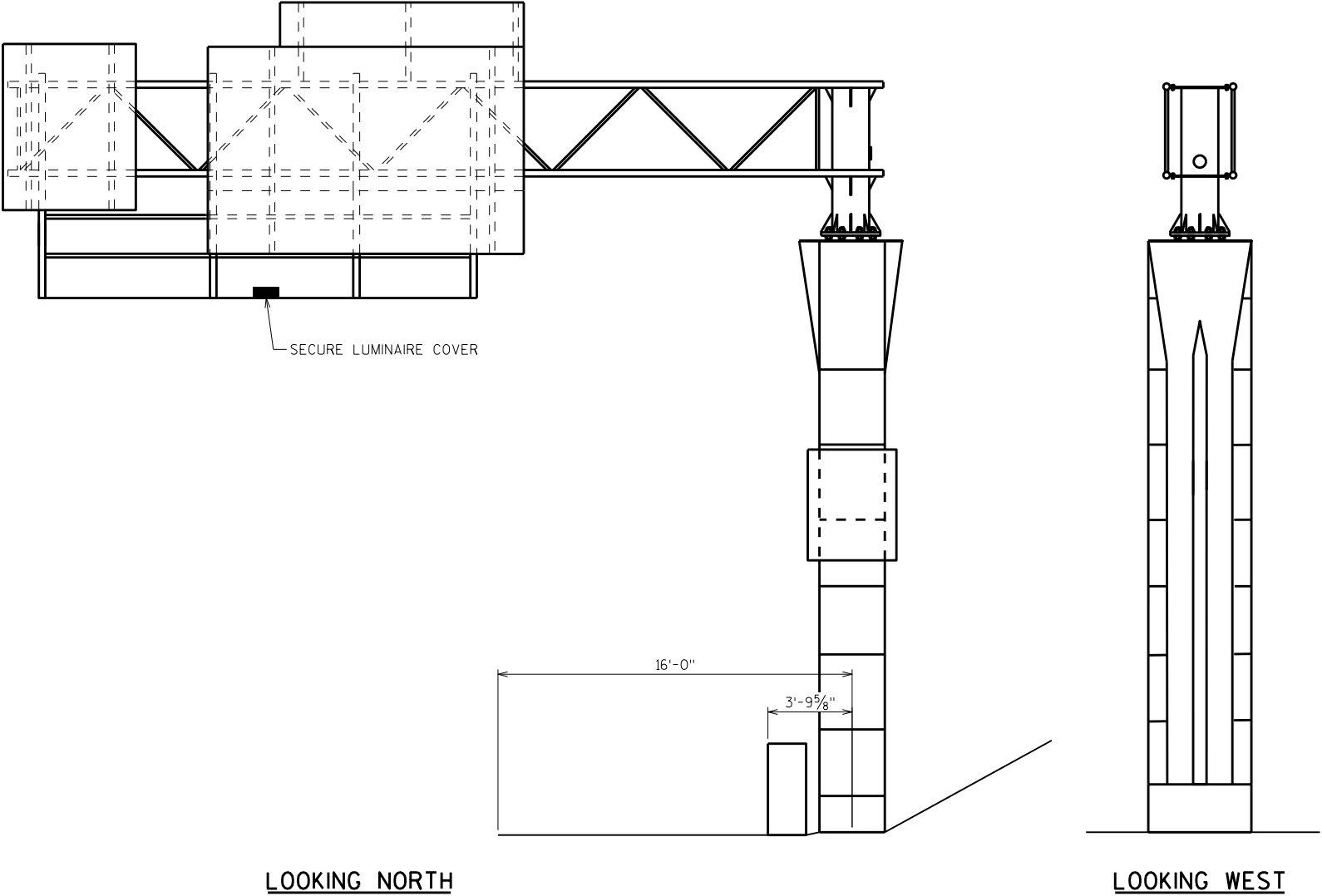
SEE CONSTRUCTION
DETAIL "TYPE II SIGNS
ON SIGN BRIDGE
COLUMN" FOR DETAILS.



LOOKING WEST

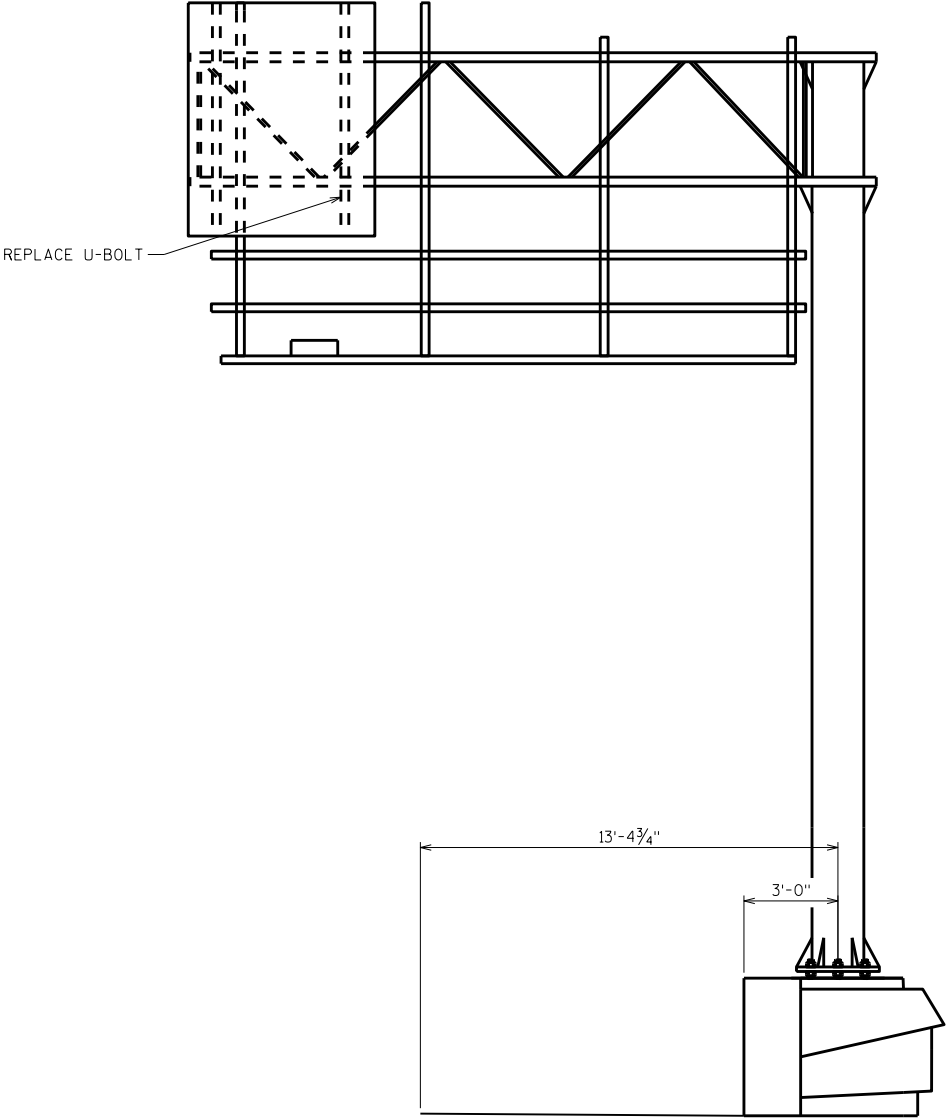
NO.		DATE	REVISION		BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION					
STRUCTURE SE SIGN REPAIRS					
			DRAWN BY	DDS	PLANS CK'D. SAD
S-40-500				SHEET 25	

ITEM NUMBER	BID ITEMS	QUANTITY	REPAIR DETAIL SHEET NO.
637.2220	SIGNS TYPE II REFLECTIVE SH	56 SF	5
638.2602	REMOVING SIGNS TYPE II	1 EACH	5

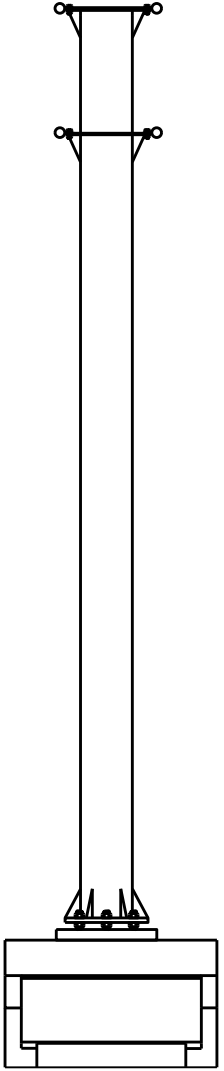


NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE SE SIGN REPAIRS			
		DRAWN BY	PLANS CK'D. SAD
		DDS	
S-40-505			SHEET 26

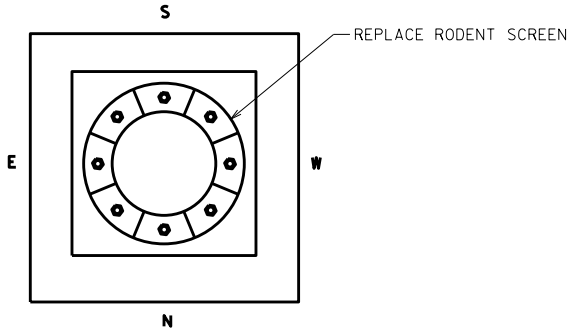
ITEM NUMBER	BID ITEMS	QUANTITY	REPAIR DETAIL SHEET NO.
SPV.0060.18	SECURE LUMINAIRE COVER	1 EACH	7



LOOKING WEST

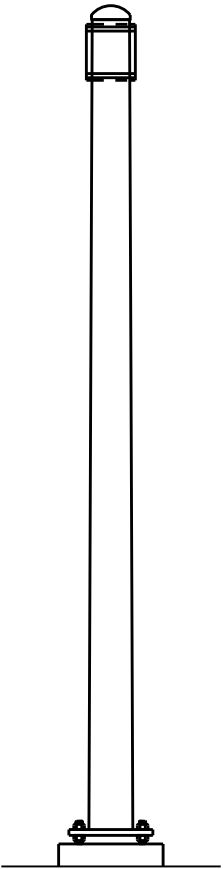


LOOKING SOUTH

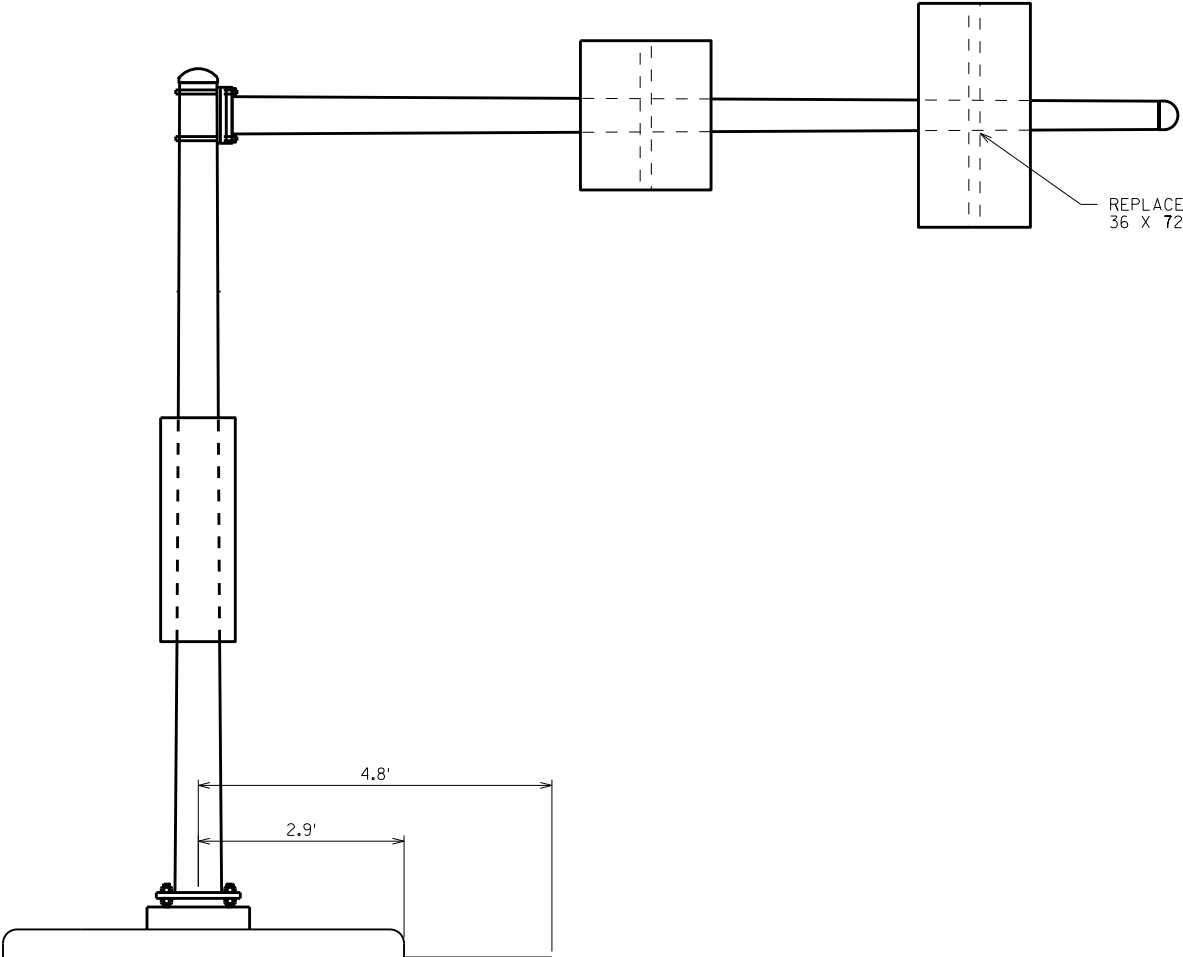


ITEM NUMBER	BID ITEMS	QUANTITY	REPAIR DETAIL SHEET NO.
SPV.0060.11	REPLACE U-BOLT	1 EACH	3
SPV.0060.04	REPLACE RODENT SCREEN	2 EACH	2

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE SE SIGN REPAIRS			
		DRAWN BY	PLANS CK'D. SAD
		DDS	
S-40-518		SHEET 27	



LOOKING NORTH



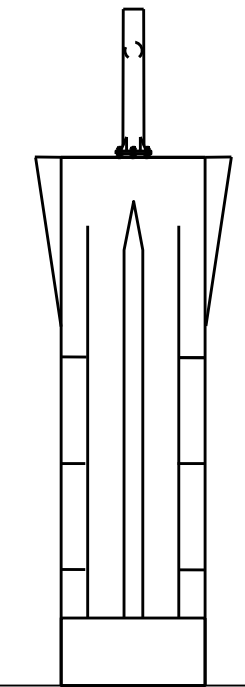
LOOKING WEST

8

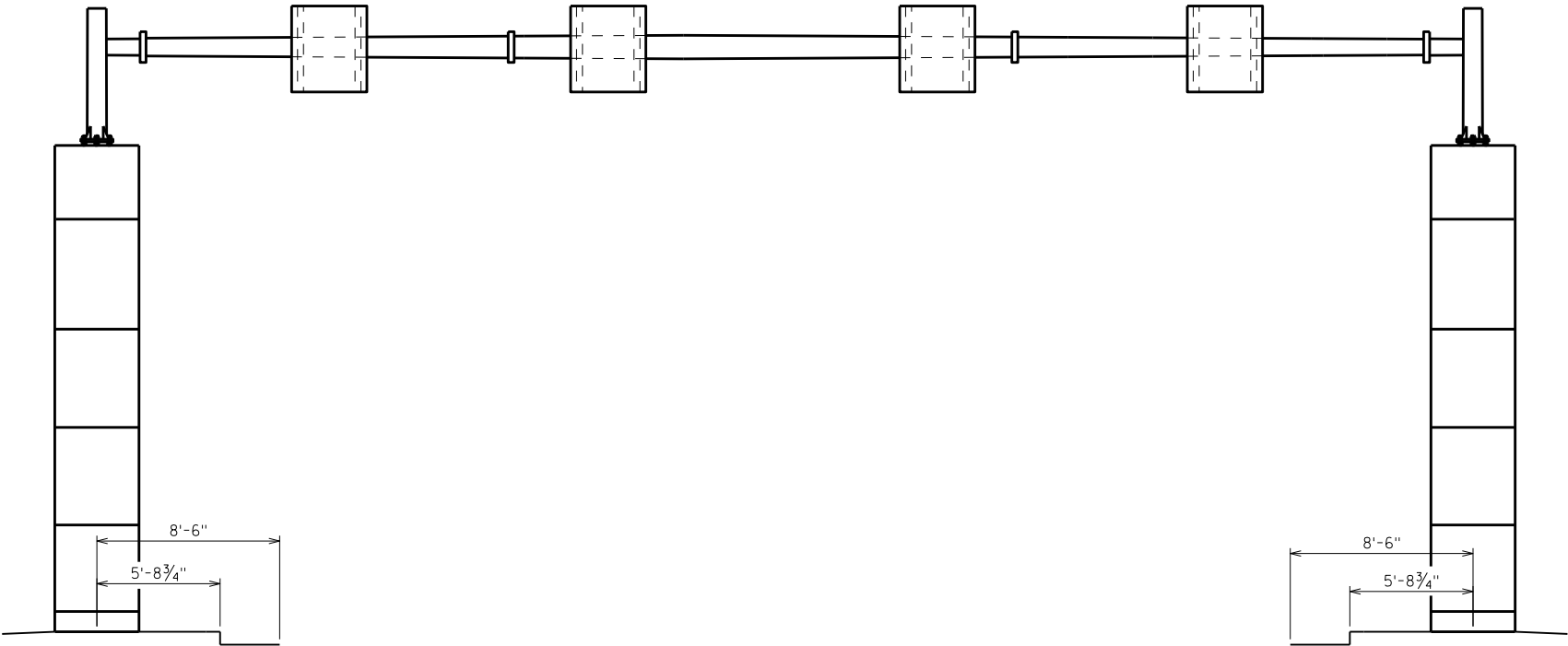
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ITEM NUMBER	BID ITEMS	QUANTITY	REPAIR DETAIL SHEET NO.
SPV.0060.14	REPLACE TYPE II SIGN SUPPORT BRACKET	1 EACH	5

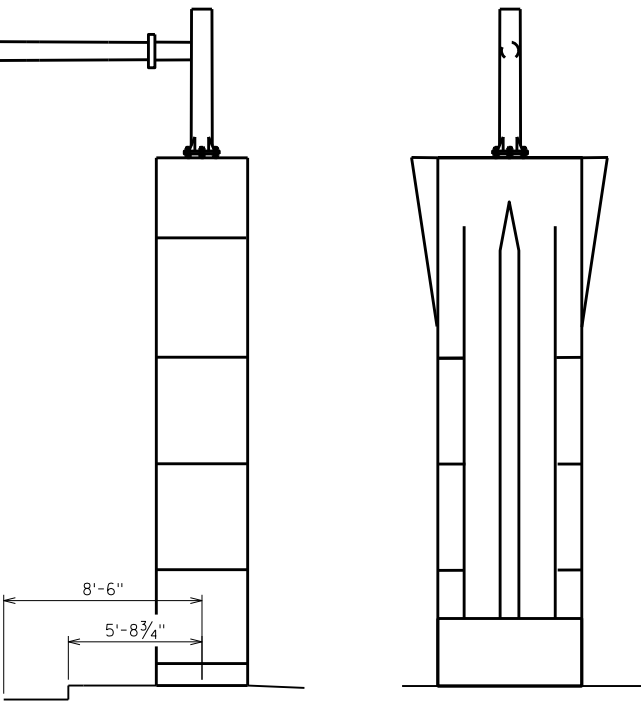
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE SE SIGN REPAIRS			
		DRAWN BY	PLANS CK'D. SAD
S-40-622		SHEET 28	



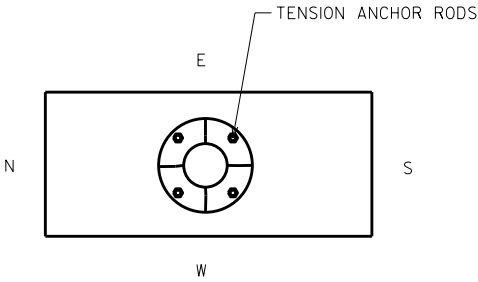
LOOKING WEST



LOOKING SOUTH



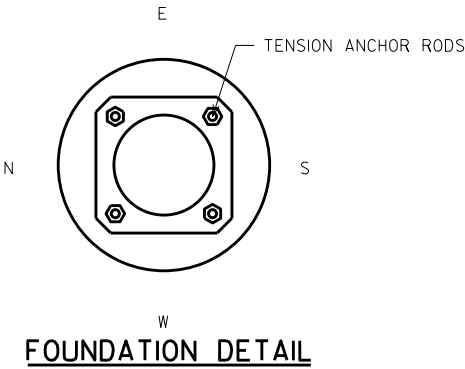
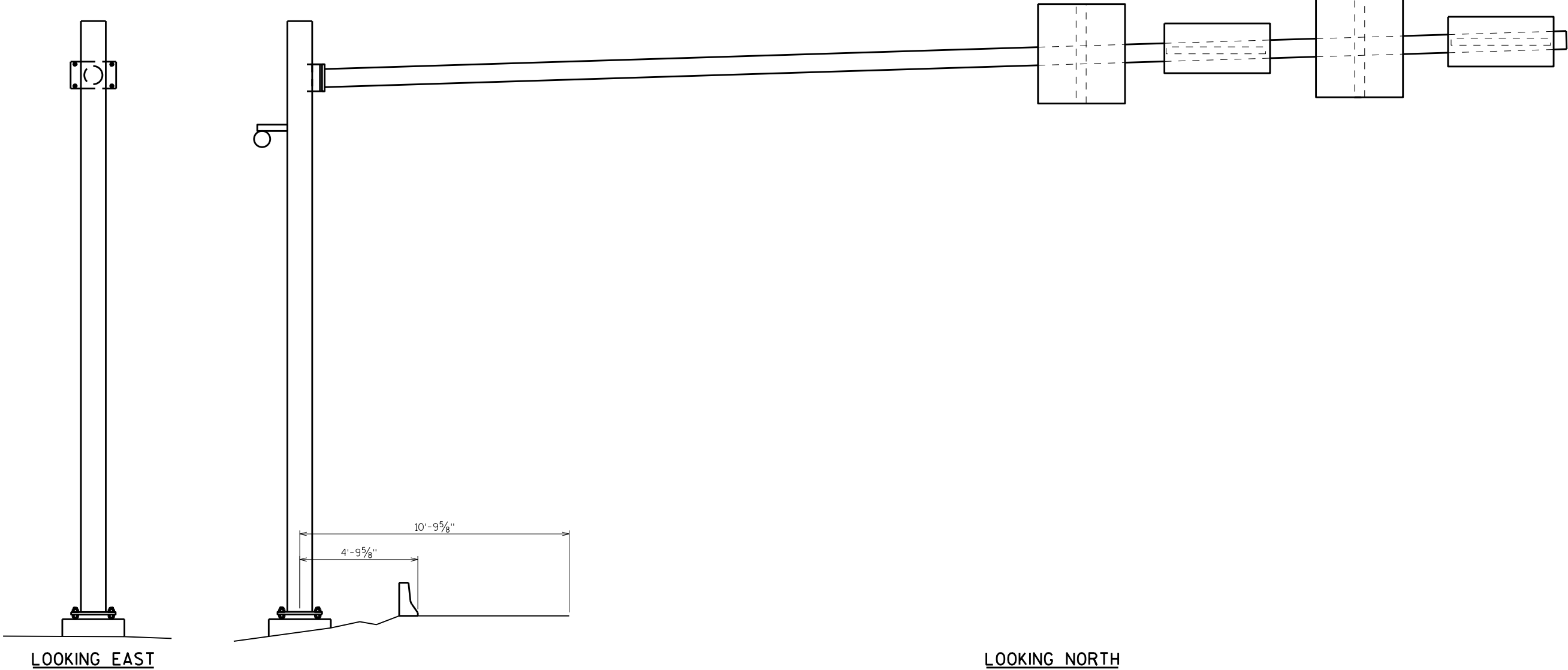
LOOKING EAST



WEST FOUNDATION DETAIL

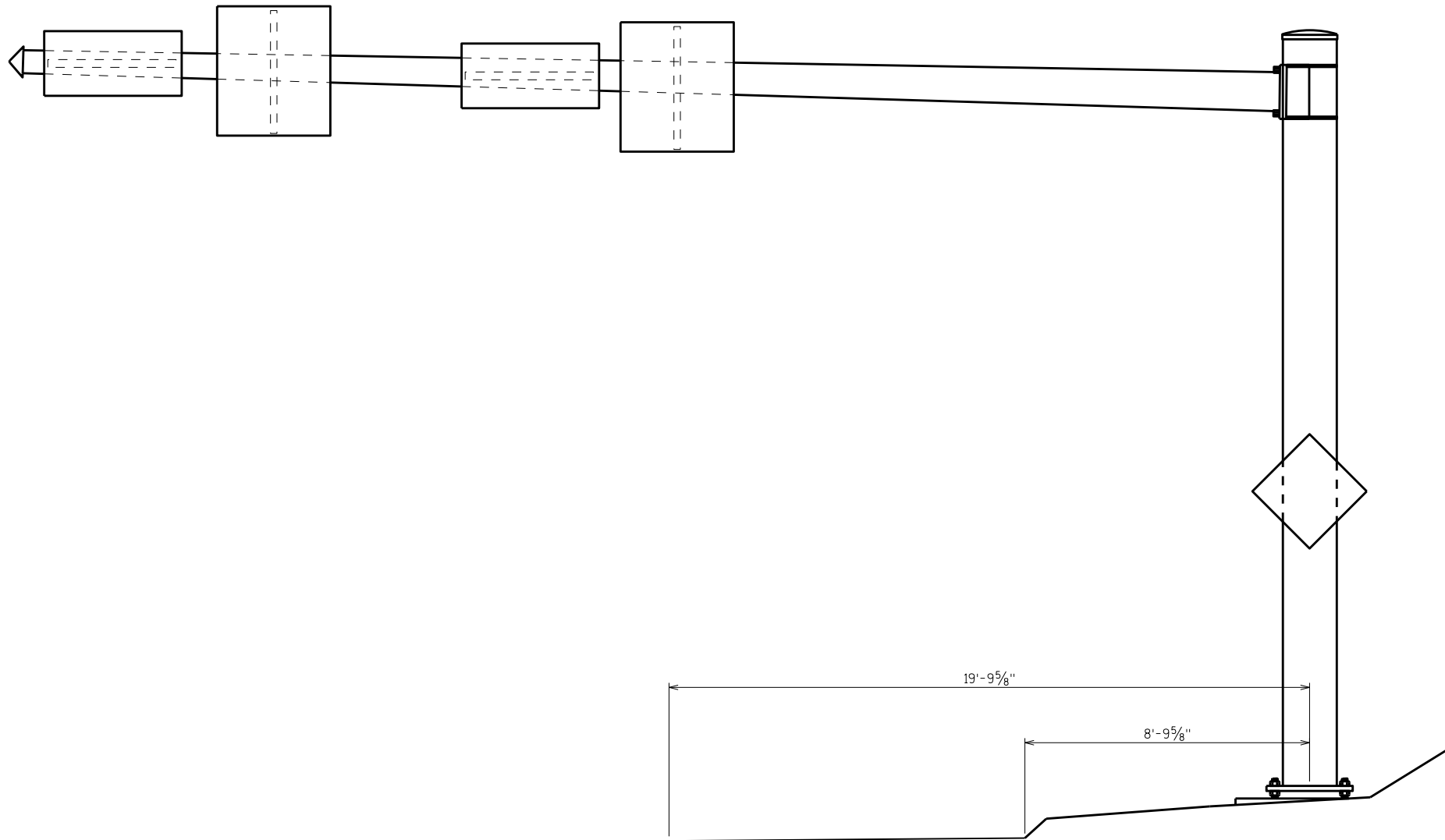
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE SE SIGN REPAIRS			
		DRAWN BY	PLANS CK'D. SAD
S-40-702		SHEET 29	

ITEM NUMBER	BID ITEMS	QUANTITY	REPAIR DETAIL SHEET NO.
SPV.0060.01	TENSION ANCHOR ROD	4 EACH	2

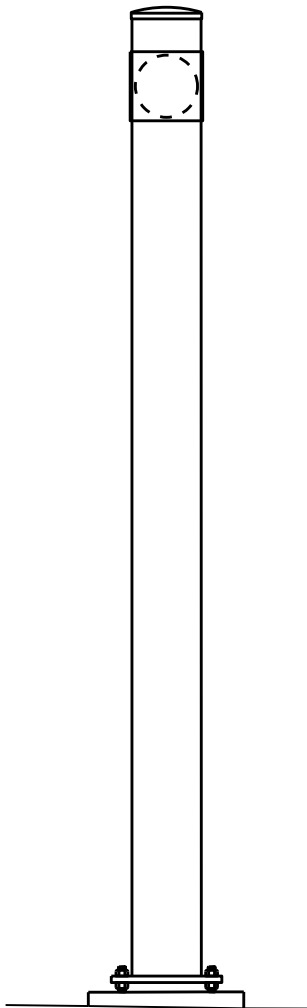


NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE SE SIGN REPAIRS			
		DRAWN BY	PLANS CK'D.
		DDS	SAD
S-40-706		SHEET 30	

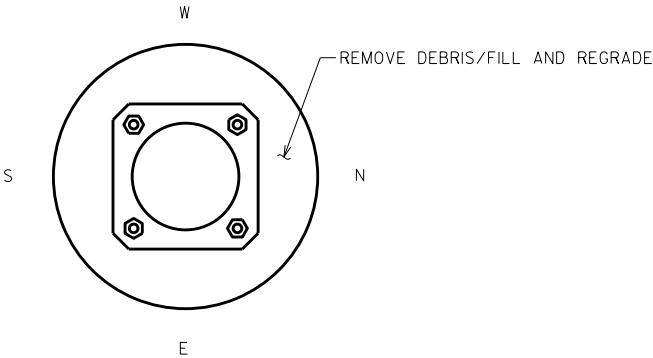
ITEM NUMBER	BID ITEMS	QUANTITY	REPAIR DETAIL SHEET NO.
SPV.0060.01	TENSION ANCHOR ROD	4 EACH	2



LOOKING NORTH



LOOKING WEST



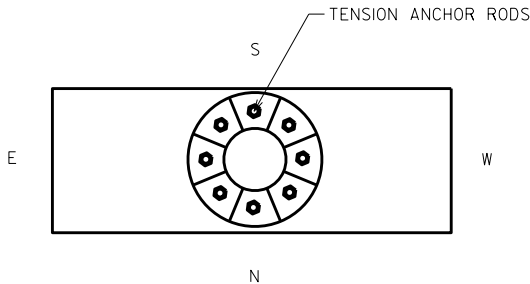
FOUNDATION DETAIL

8

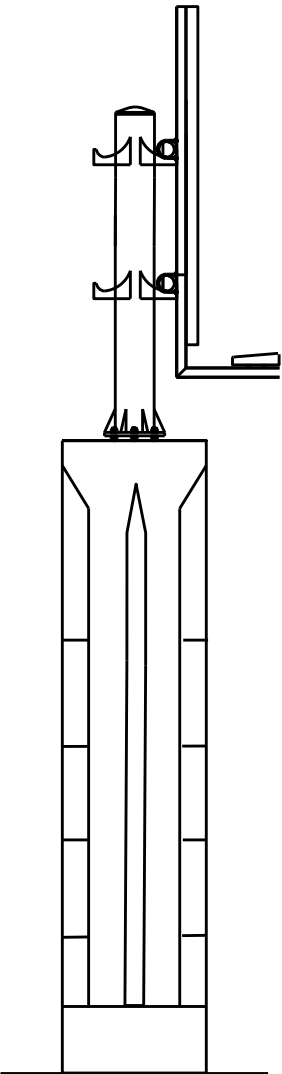
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ITEM NUMBER	BID ITEMS	QUANTITY	REPAIR DETAIL SHEET NO.
SPV.0060.03	REMOVE DEBRIS AND REGRADE	1 EACH	2

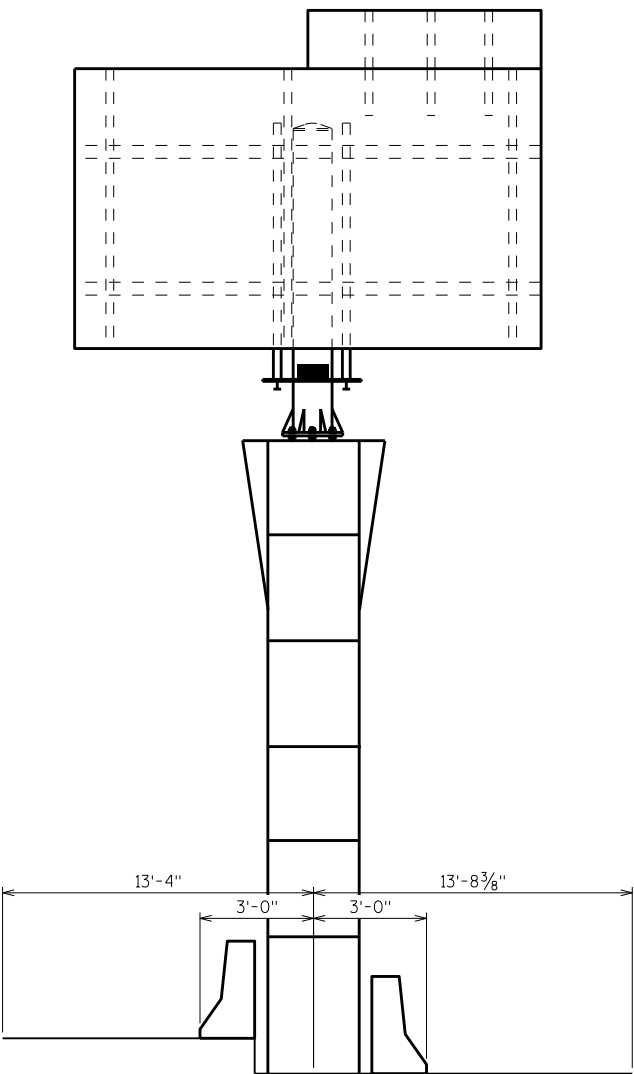
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE SE SIGN REPAIRS			
		DRAWN BY	PLANS CK'D. SAD
S-40-708		DDS	SHEET 31



FOUNDATION DETAIL



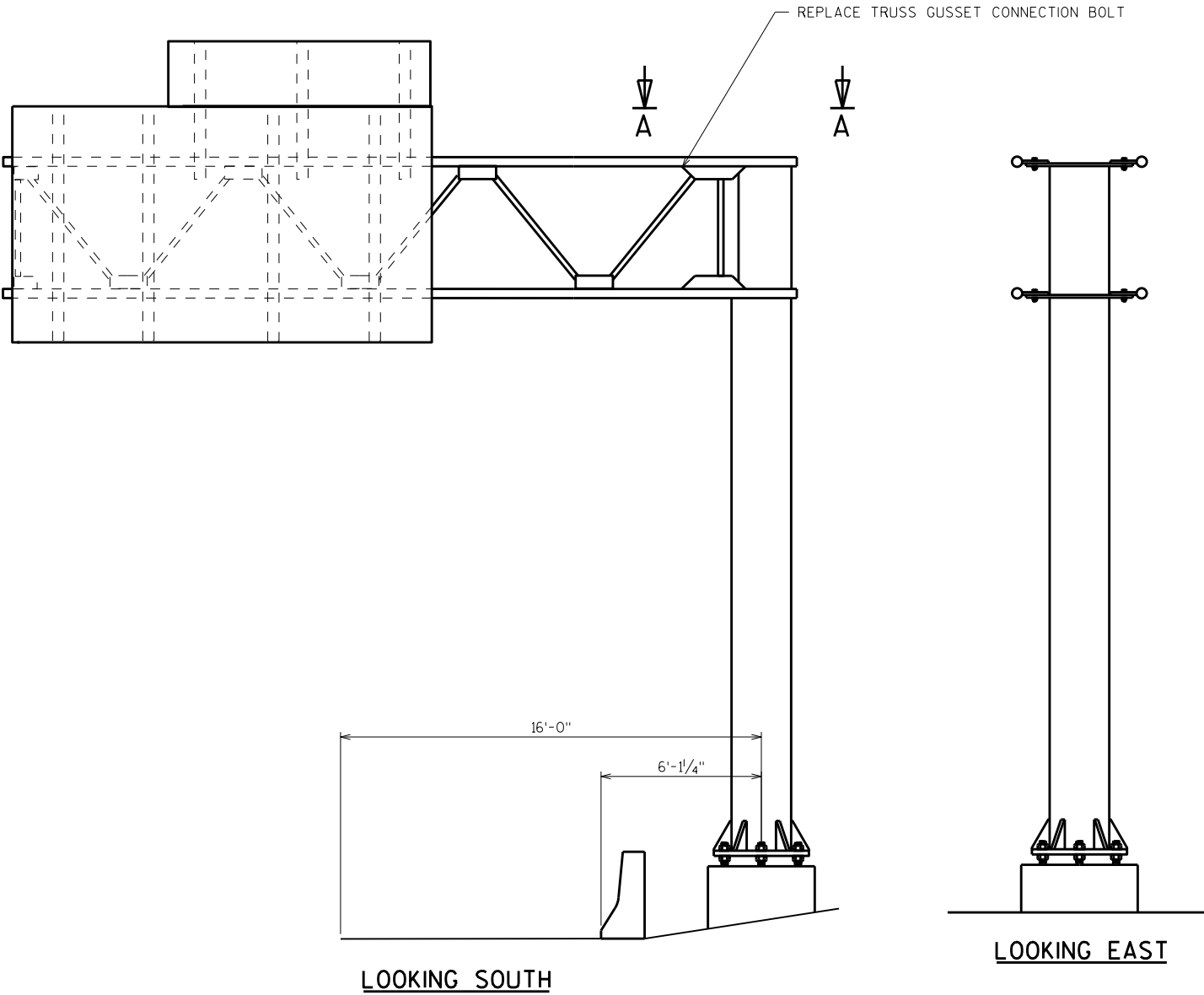
LOOKING SOUTH



LOOKING EAST

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE SE SIGN REPAIRS			
		DRAWN BY	PLANS CK'D.
		DDS	SAD
S-40-716		SHEET 32	

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

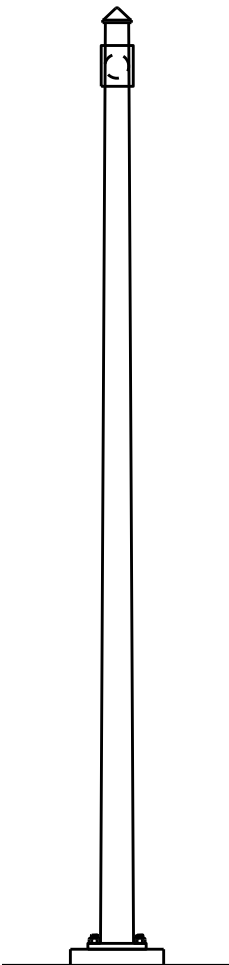


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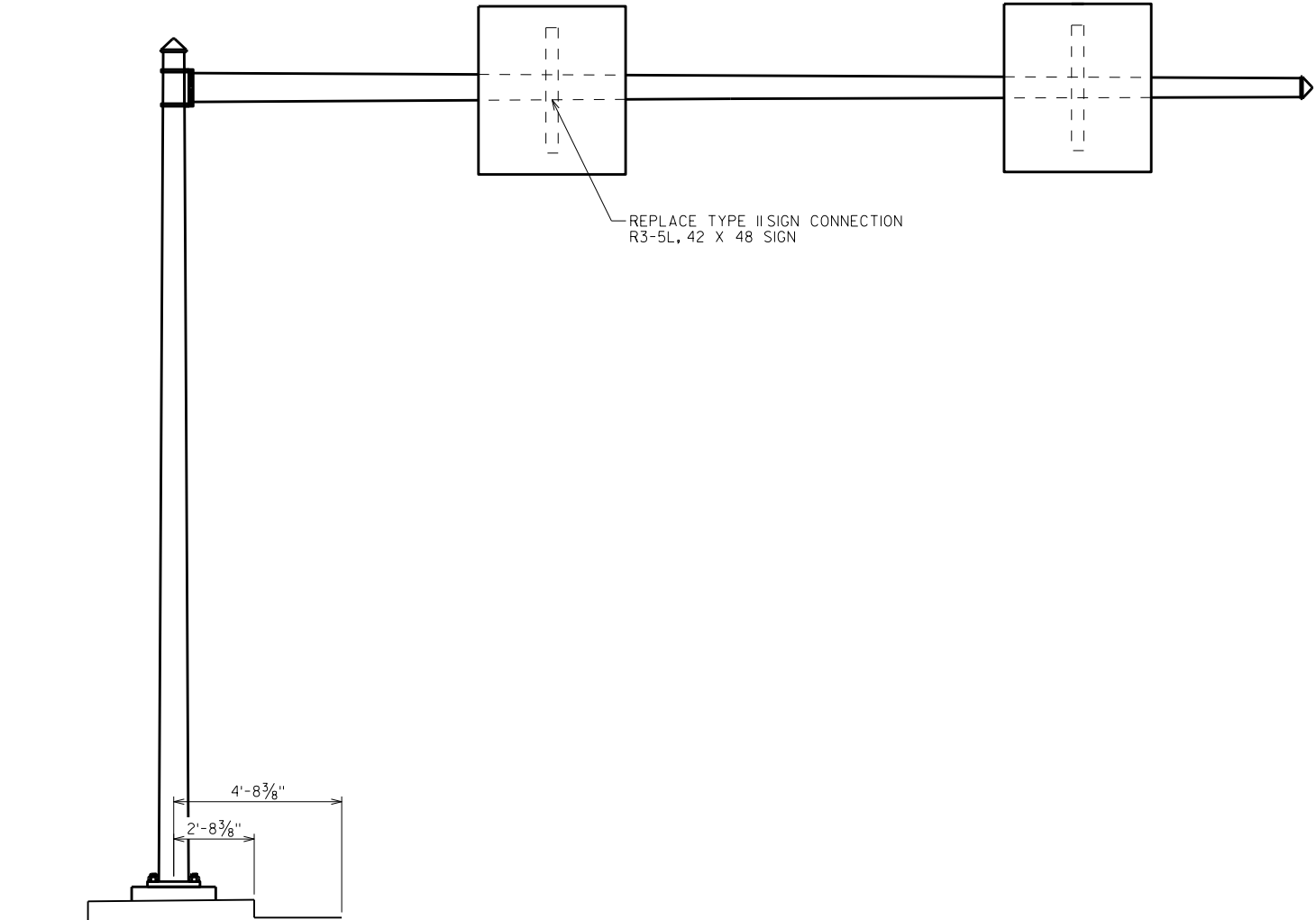
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ITEM NUMBER	BID ITEMS	QUANTITY	REPAIR DETAIL SHEET NO.
SPV.0060.08	TENSION STRUCTURAL CONNECTION BOLT (FRICTION)	6 EACH	3

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE SE SIGN REPAIRS			
DRAWN BY		DDS	PLANS CK'D. SAD
S-40-845		SHEET 33	



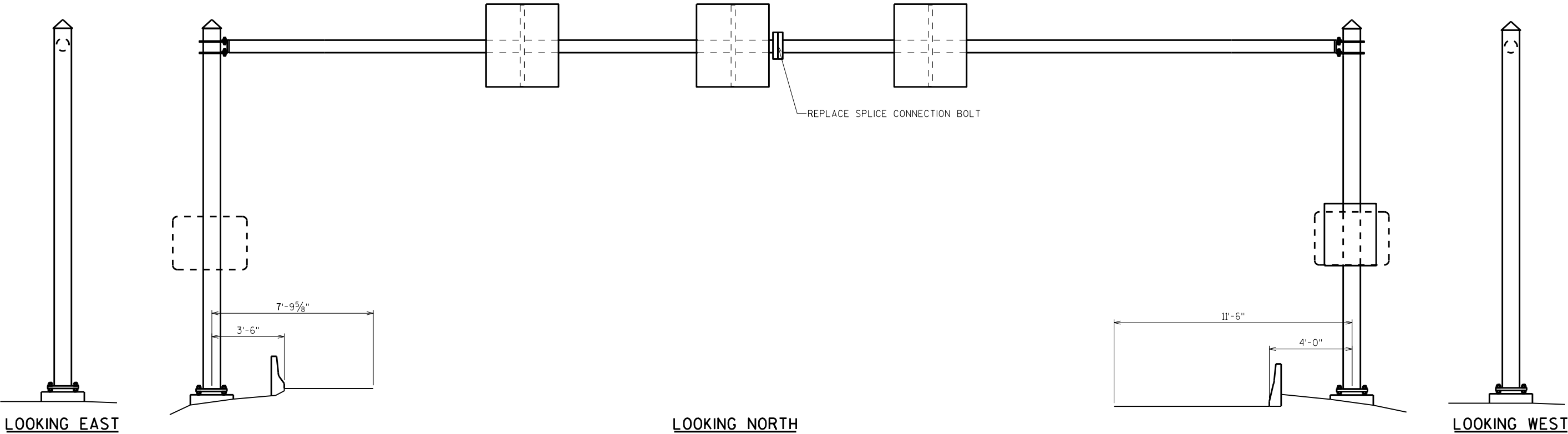
LOOKING WEST



LOOKING SOUTH

ITEM NUMBER	BID ITEMS	QUANTITY	REPAIR DETAIL SHEET NO.
SPV.0060.14	REPLACE TYPE IISIGN SUPPORT BRACKET	1 EACH	5

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE SE SIGN REPAIRS		DRAWN BY	PLANS CK'D. SAD
S-40-901		DDS	SHEET 34

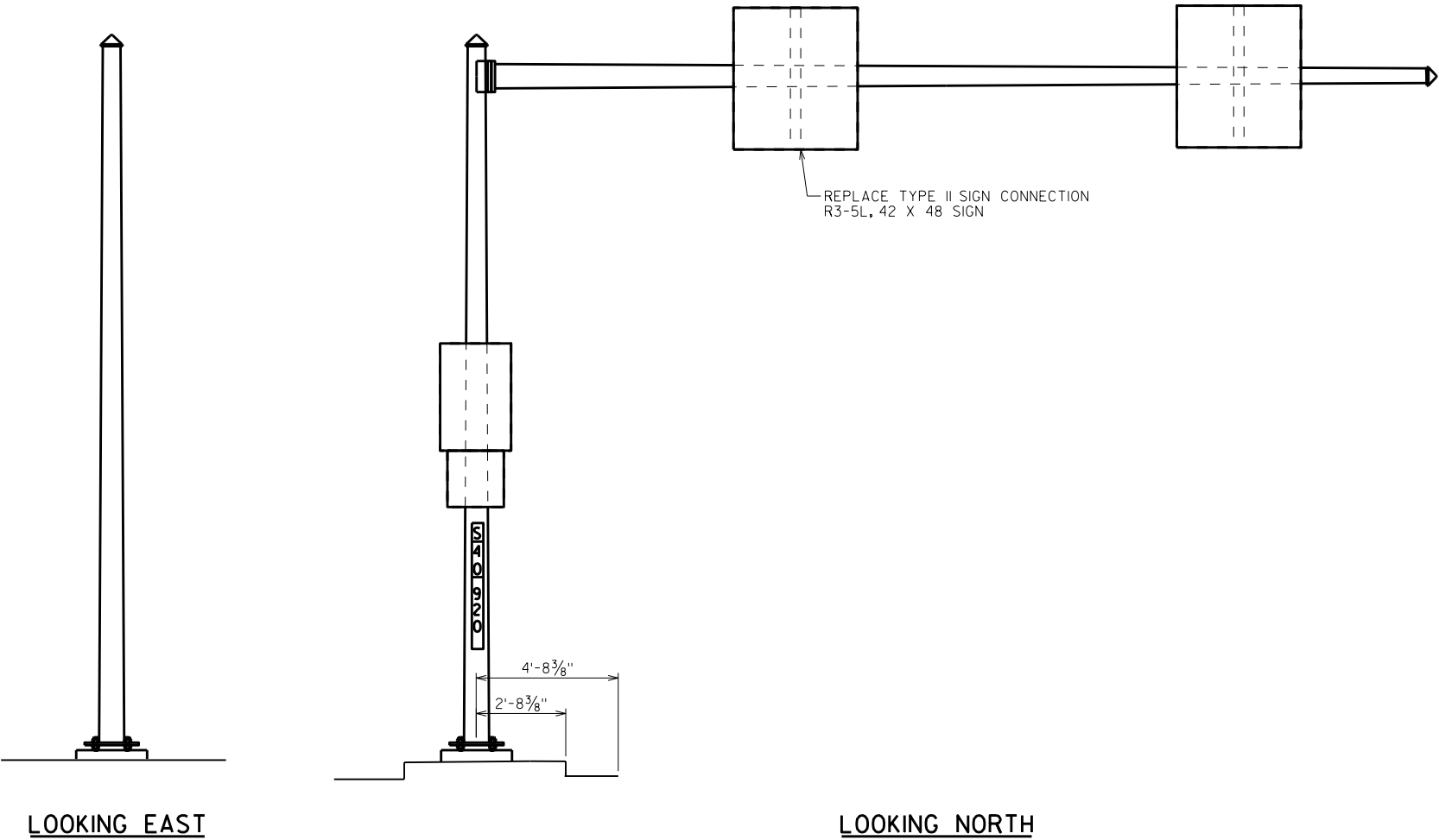


8

8

ITEM NUMBER	BID ITEMS	QUANTITY	REPAIR DETAIL SHEET NO.
SPV.0060.08	TENSION STRUCTURAL CONNECTION BOLT (FRICTION)	6 EACH	3

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE SE SIGN REPAIRS			
		DRAWN BY	PLANS CK'D.
		DDS	SAD
S-40-911		SHEET 35	

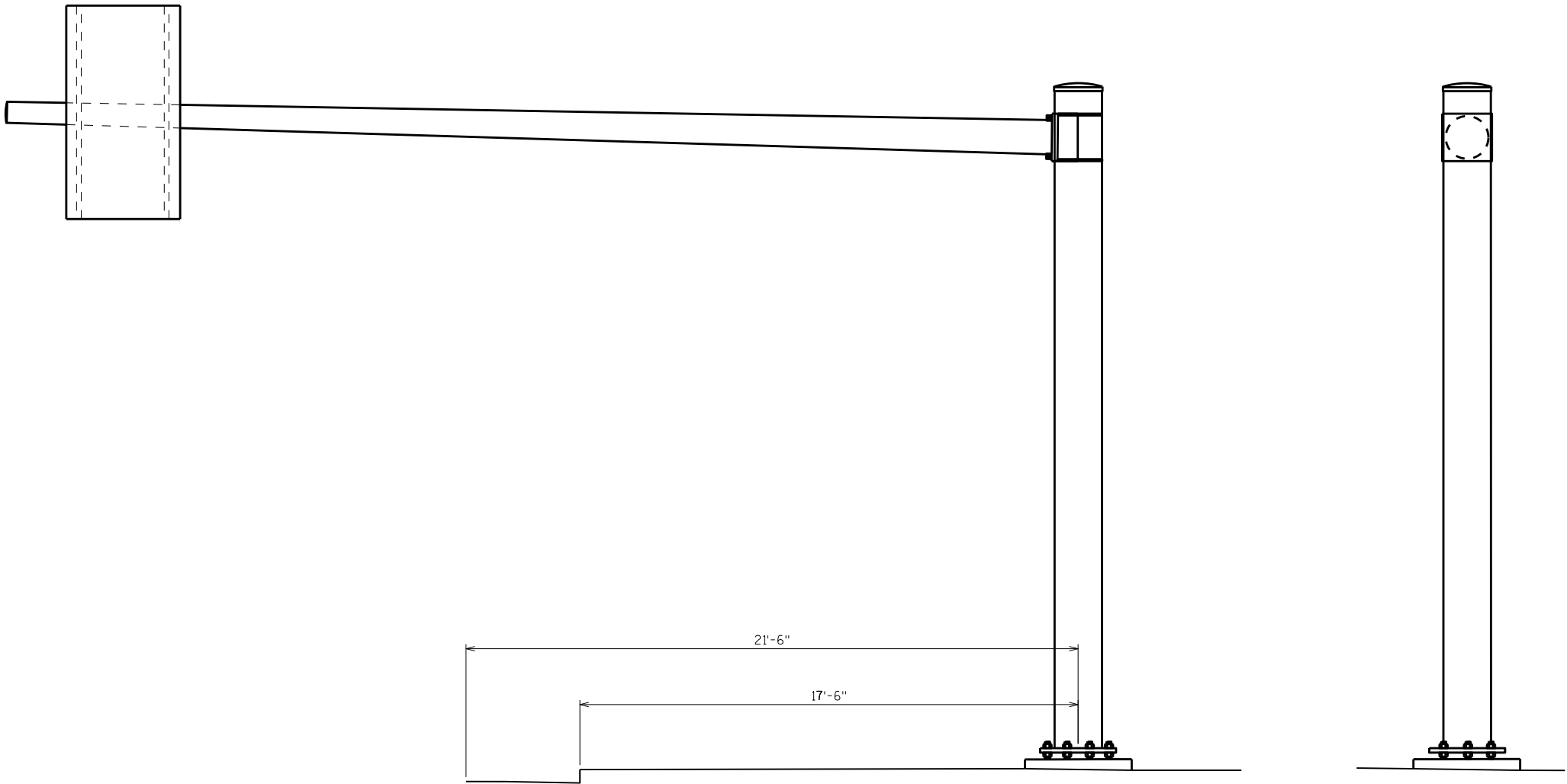


8

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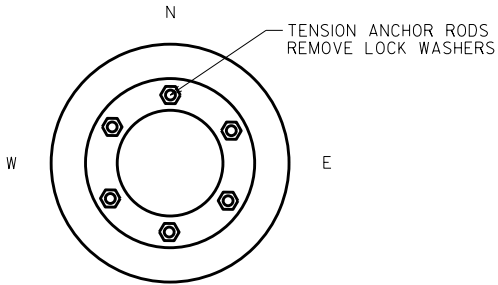
ITEM NUMBER	BID ITEMS	QUANTITY	REPAIR DETAIL SHEET NO.
SPV.0060.14	REPLACE TYPE II SIGN SUPPORT BRACKET	1 EACH	5

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE SE SIGN REPAIRS			
		DRAWN BY	PLANS CK'D.
		DDS	SAD
S-40-920			SHEET 36



LOOKING EAST

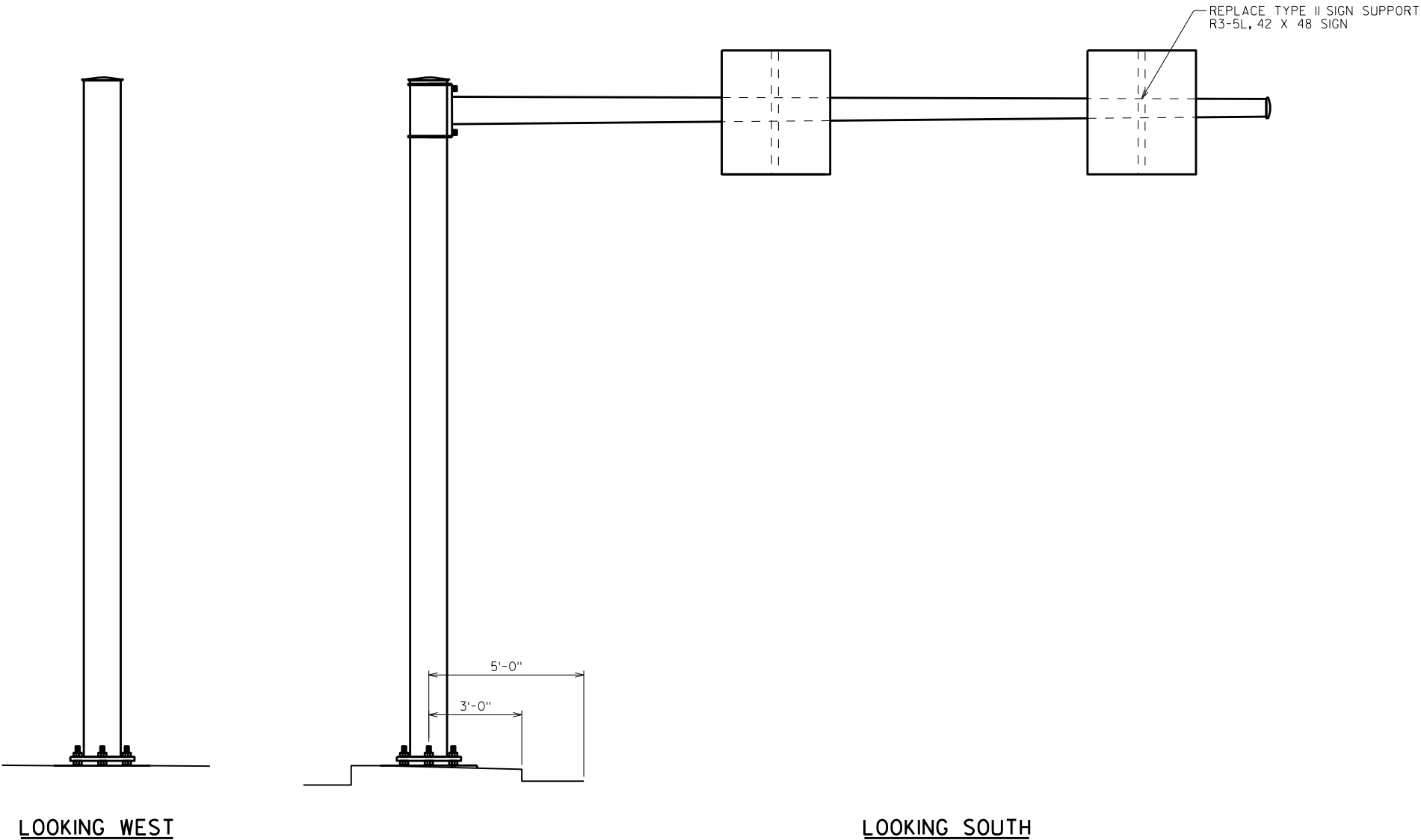
LOOKING NORTH



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 SE SIGN REPAIRS			
		DRAWN BY	PLANS CK'D. SAD
S-40-924		DDS	SHEET 37

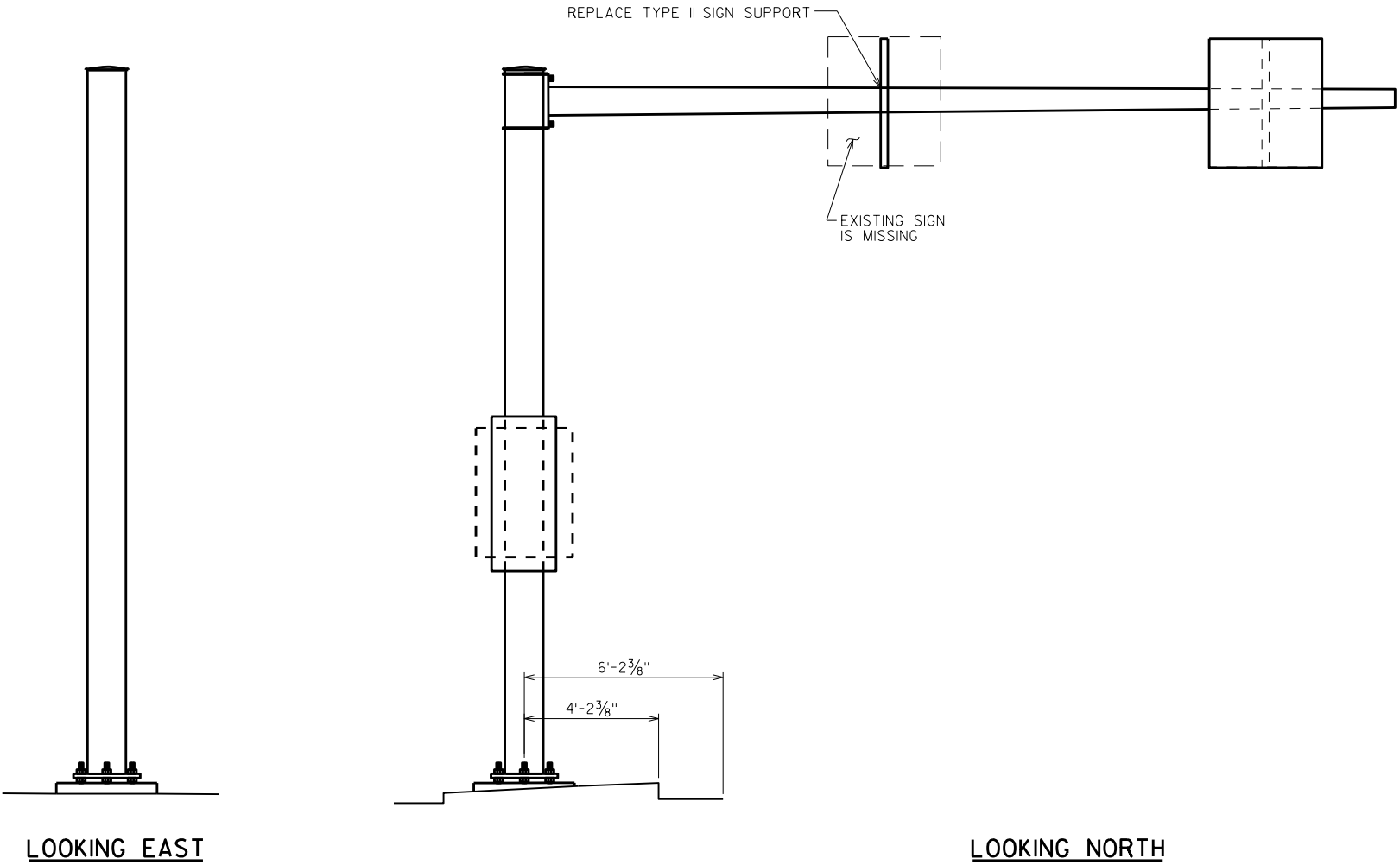
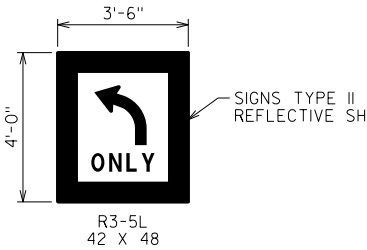


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8

ITEM NUMBER	BID ITEMS	QUANTITY	REPAIR DETAIL SHEET NO.
SPV.0060.14	REPLACE TYPE II SIGN SUPPORT BRACKET	1 EACH	5

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE SE SIGN REPAIRS			
		DRAWN BY	PLANS CK'D.
		DDS	SAD
S-40-930			SHEET 38



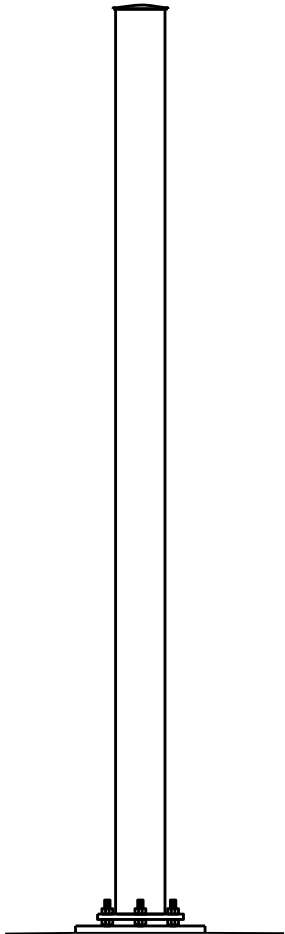
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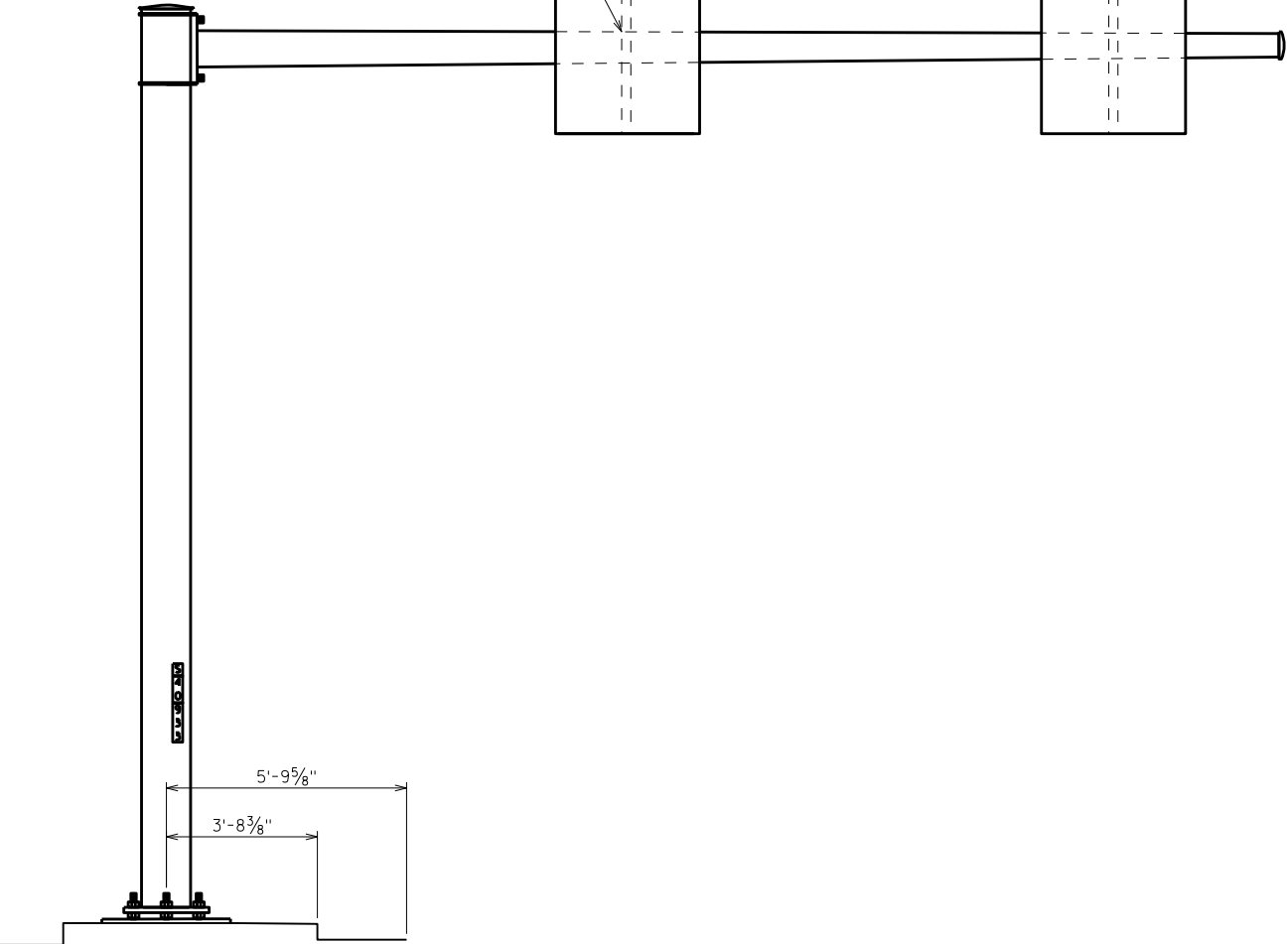
ITEM NUMBER	BID ITEMS	QUANTITY	REPAIR DETAIL SHEET NO.
637.2220	SIGNS TYPE II REFLECTIVE SH	14 SF	5
SPV.0060.14	REPLACE TYPE II SIGN SUPPORT BRACKET	1 EACH	5

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE SE SIGN REPAIRS			
DRAWN BY		DDS	PLANS CK'D. SAD
S-40-931		SHEET 39	

REPLACE TYPE II SIGN SUPPORT
R3-5L, 42 X 48 SIGN



LOOKING EAST



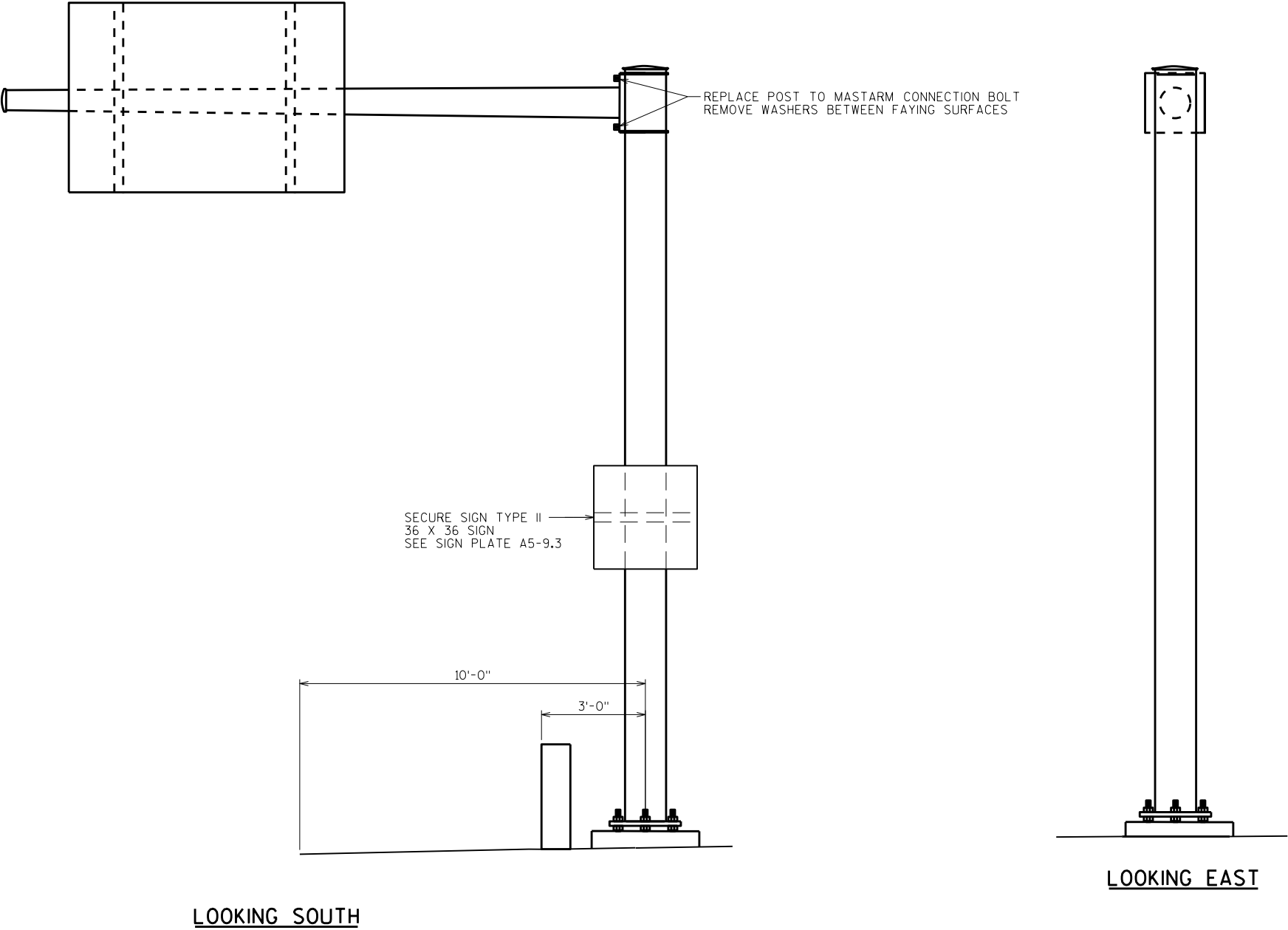
LOOKING NORTH

8

8

ITEM NUMBER	BID ITEMS	QUANTITY	REPAIR DETAIL SHEET NO.
SPV.0060.14	REPLACE TYPE II SIGN SUPPORT BRACKET	1 EACH	5

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE SE SIGN REPAIRS			
		DRAWN BY DDS	PLANS CK'D. SAD
S-40-933		SHEET 40	

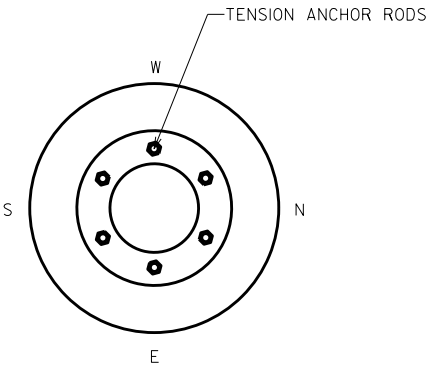
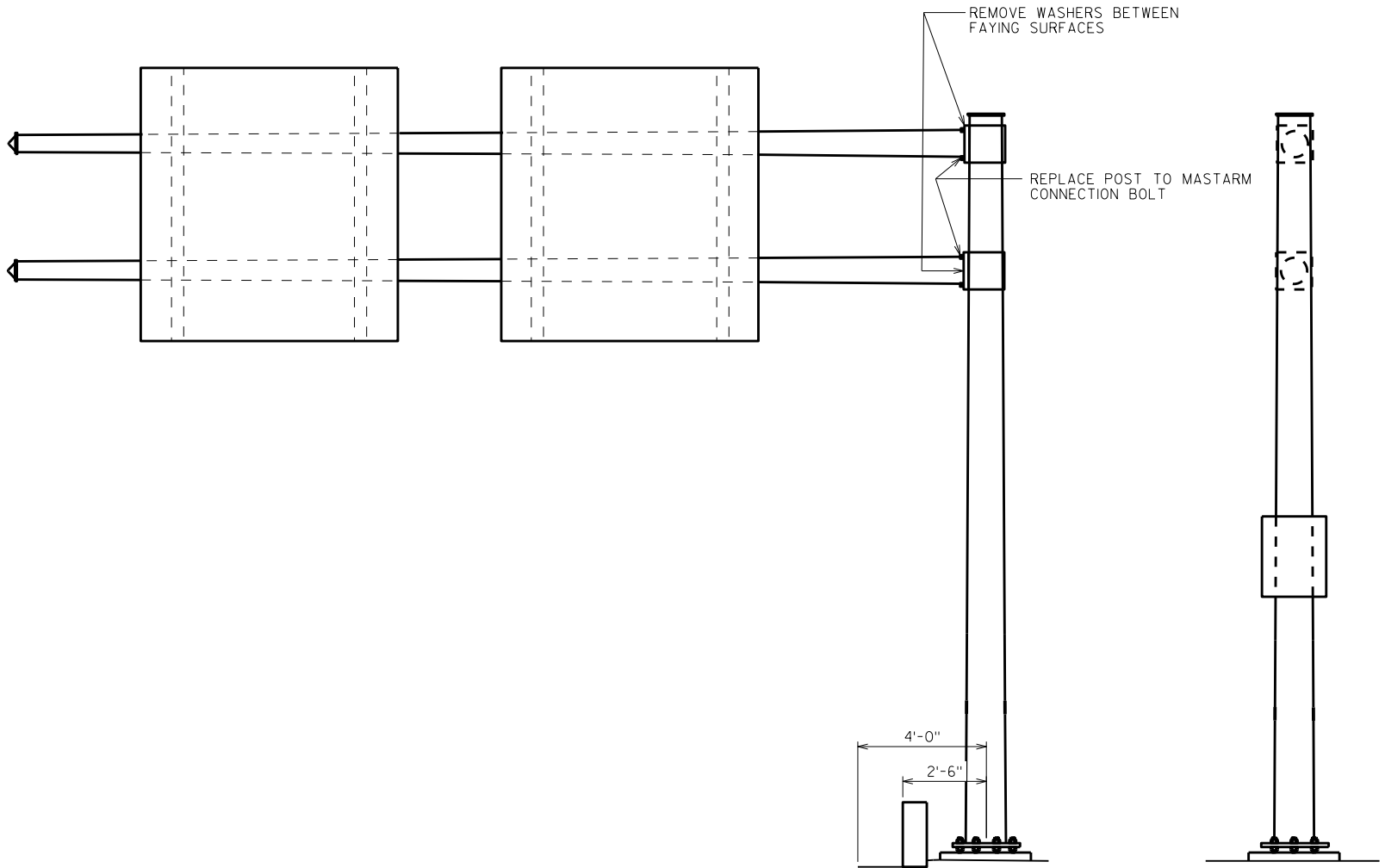


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ITEM NUMBER	BID ITEMS	QUANTITY	REPAIR DETAIL SHEET NO.
SPV.0060.08	TENSION STRUCTURAL CONNECTION BOLT (FRICTION)	4 EACH	3
SPV.0060.17	SECURE SIGN TYPE II	1 EACH	5

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE SE SIGN REPAIRS		DRAWN BY	PLANS CK'D. SAD
S-40-944		SHEET 41	



LOOKING SOUTH

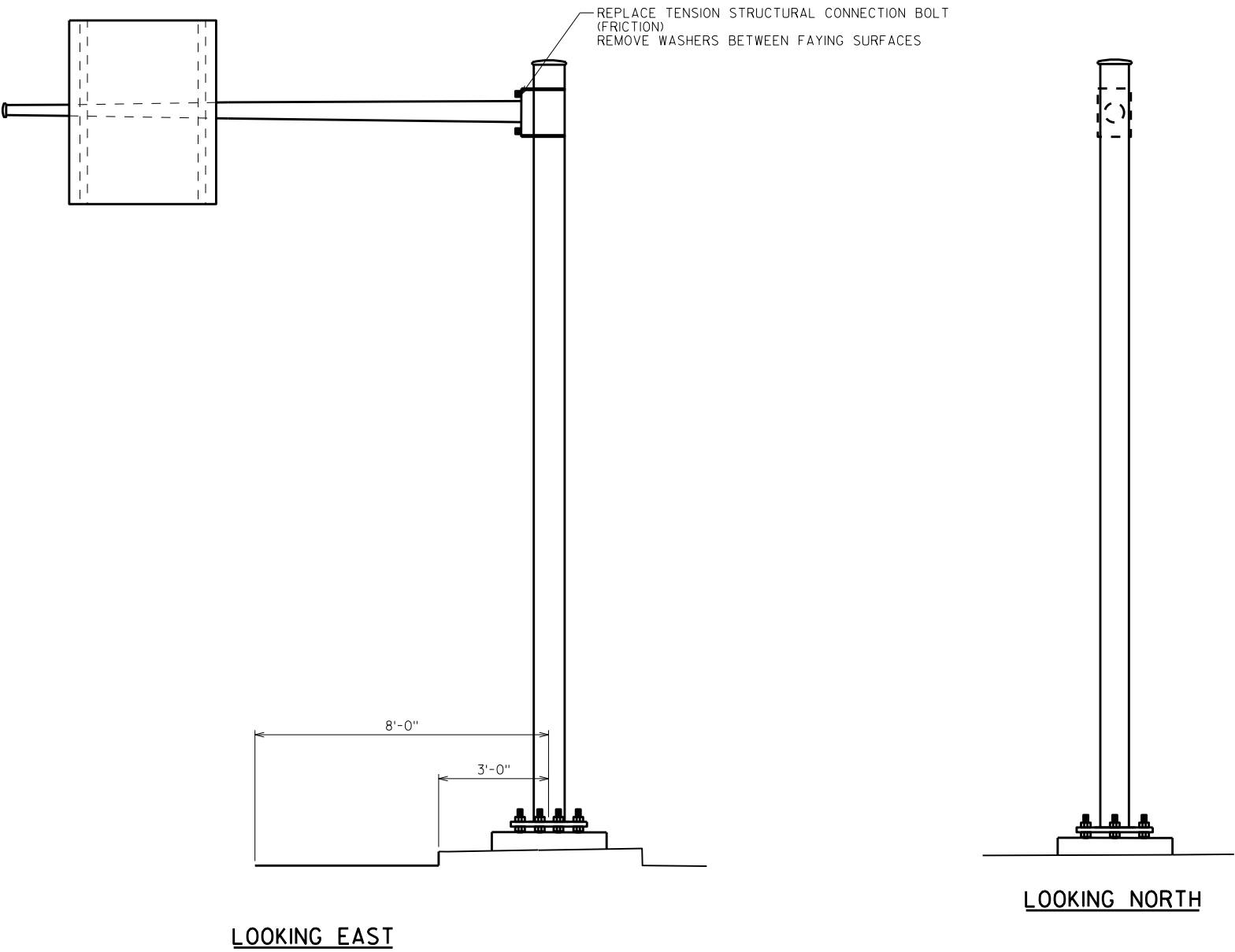
LOOKING WEST

8

8

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE SE SIGN REPAIRS			
		DRAWN BY	PLANS CK'D.
		DDS	SAD
S-40-946		SHEET 42	

ITEM NUMBER	BID ITEMS	QUANTITY	REPAIR DETAIL SHEET NO.
SPV.0060.01	TENSION ANCHOR ROD	6 EACH	2
SPV.0060.08	TENSION STRUCTURAL CONNECTION BOLT (FRICTION)	8 EACH	3

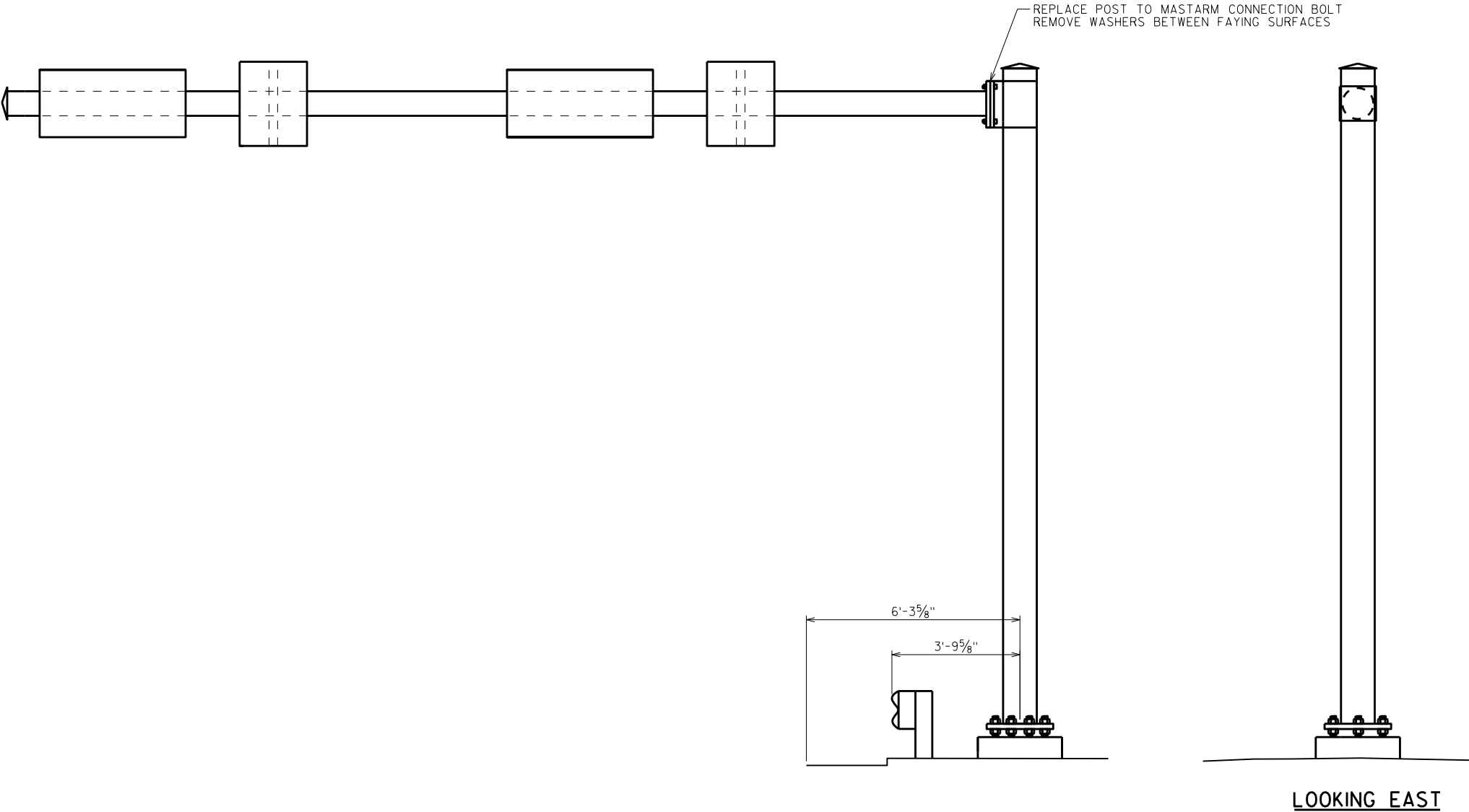


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ITEM NUMBER	BID ITEMS	QUANTITY	REPAIR DETAIL SHEET NO.
SPV.0060.08	TENSION STRUCTURAL CONNECTION BOLT (FRICTION)	4 EACH	3

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE SE SIGN REPAIRS			
		DRAWN BY	PLANS CK'D. SAD
S-40-951		SHEET 43	

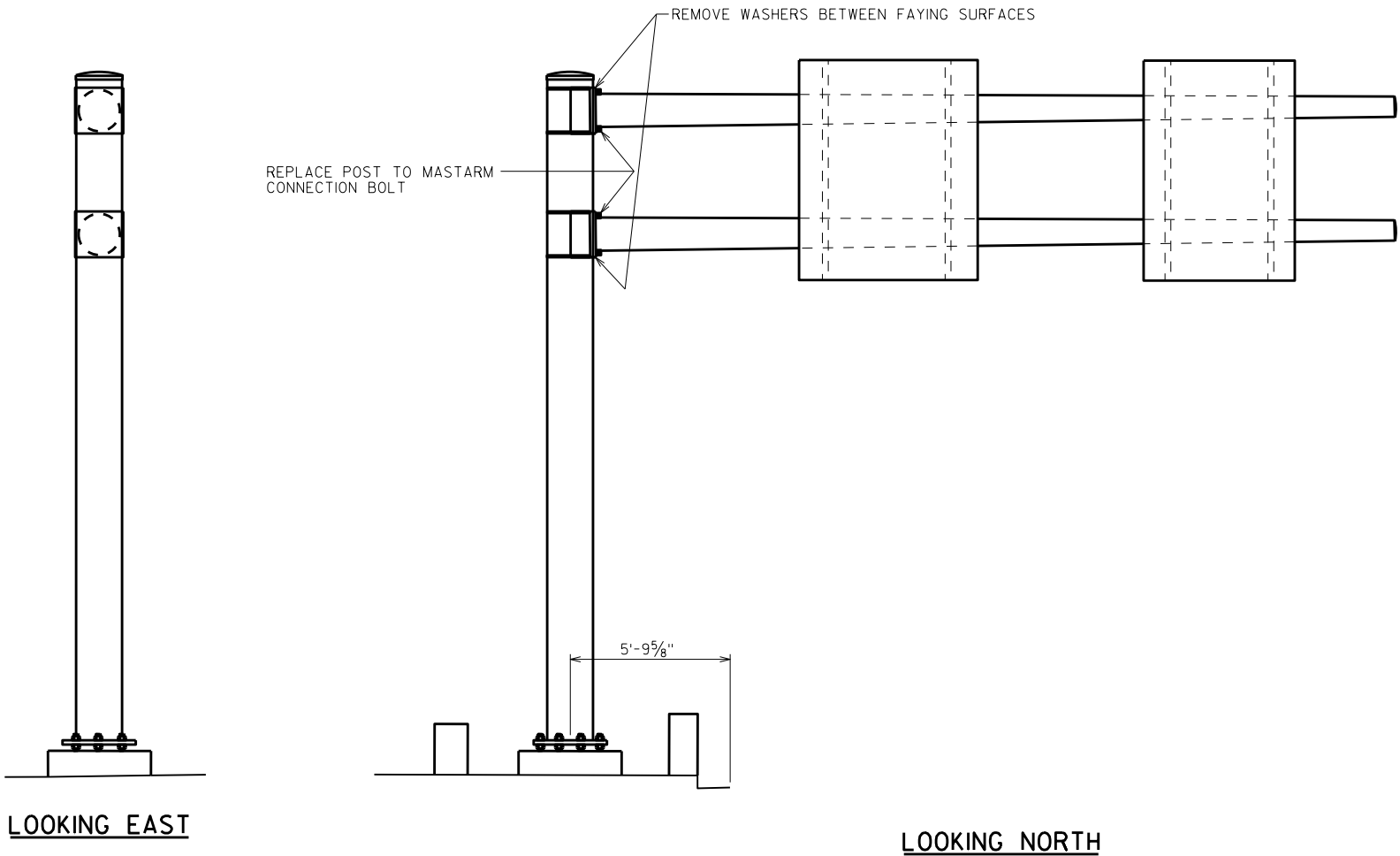


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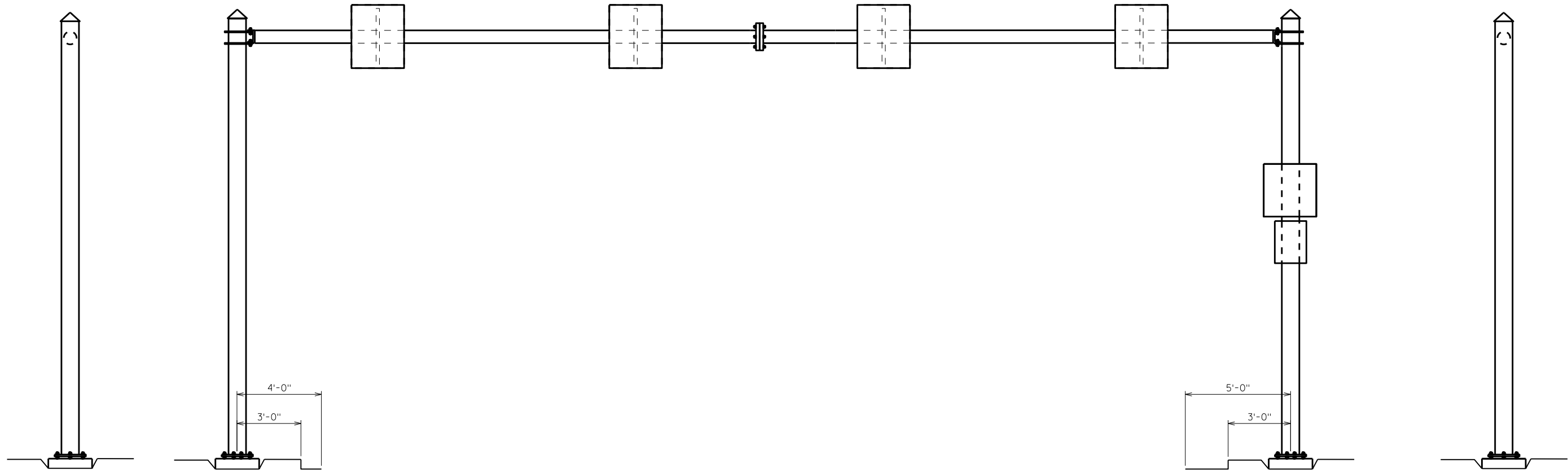
ITEM NUMBER	BID ITEMS	QUANTITY	REPAIR DETAIL SHEET NO.
SPV.0060.08	TENSION STRUCTURAL CONNECTION BOLT (FRICTION)	4 EACH	3

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE SE SIGN REPAIRS			
		DRAWN BY DDS	PLANS CK'D. SAD
S-40-974		SHEET 44	



ITEM NUMBER	BID ITEMS	QUANTITY	REPAIR DETAIL SHEET NO.
SPV.0060.08	TENSION STRUCTURAL CONNECTION BOLT (FRICTION)	8 EACH	3

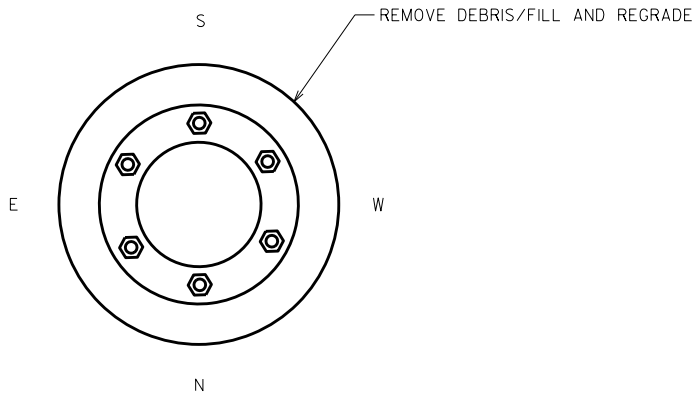
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE SE SIGN REPAIRS			
		DRAWN BY DDS	PLANS CK'D. SAD
S-40-976		SHEET 45	



LOOKING SOUTH

LOOKING EAST

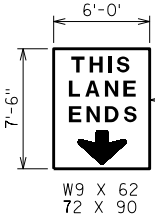
LOOKING NORTH



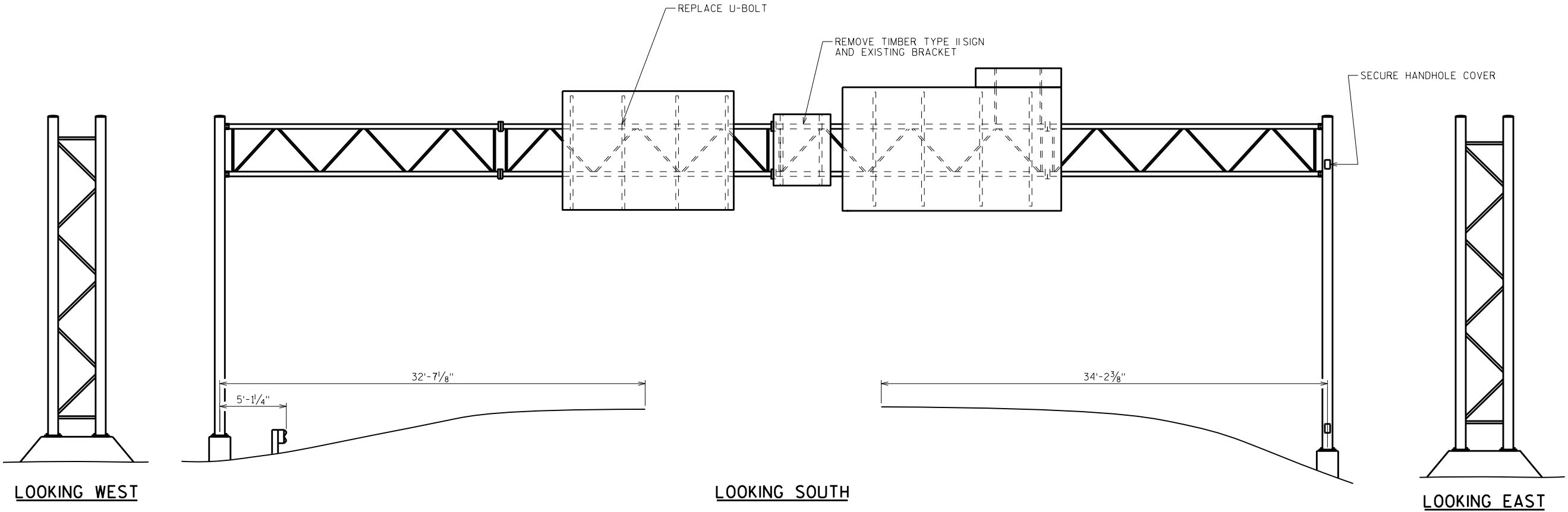
NORTH FOUNDATION DETAIL

ITEM NUMBER	BID ITEMS	QUANTITY	REPAIR DETAIL SHEET NO.
SPV.0060.03	REMOVE DEBRIS AND REGRADE	1 EACH	2

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE SE SIGN REPAIRS			
		DRAWN BY	PLANS CK'D. SAD
		DDS	
S-40-987		SHEET 46	

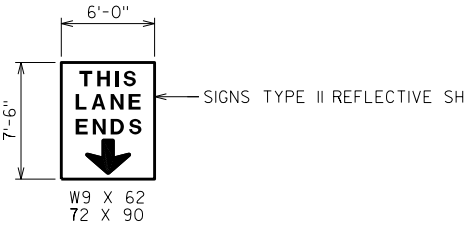


SIGNS TYPE II REFLECTIVE SH
REPLACE BRACKET WITH 2 ALUMINUM I-BEAMS
SEE SIGN PLATE A4-7 FOR DETAILS
HARDWARE AND SUPPORTS SHALL
BE INCIDENTAL TO SIGN

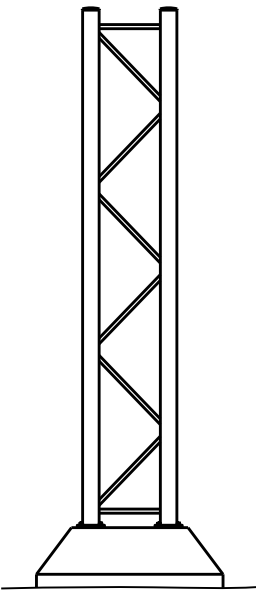


ITEM NUMBER	BID ITEMS	QUANTITY	REPAIR DETAIL SHEET NO.
637.2220	SIGNS TYPE II REFLECTION SH	45 SF	5
638.2602	REMOVING SIGNS TYPE II	1 EACH	5
SPV.0060.11	REPLACE U-BOLT	1 EACH	3
SPV.0060.20	SECURE/REPLACE HANDHOLE COVER	1 EACH	7

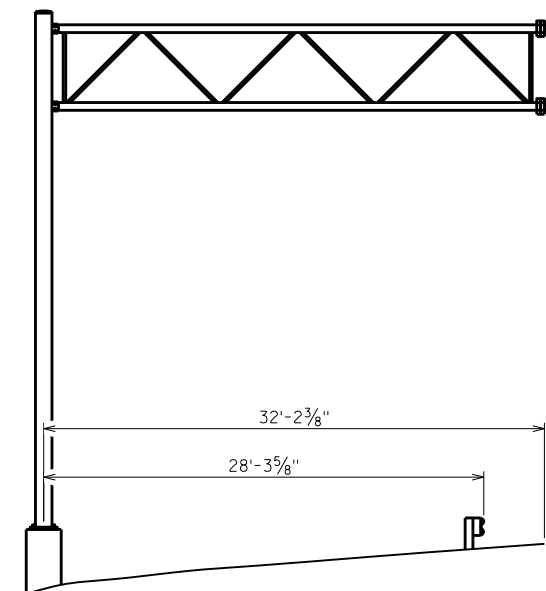
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE SE SIGN REPAIRS			
DRAWN BY		DDS	PLANS CK'D. SAD
S-45-001		SHEET 47	



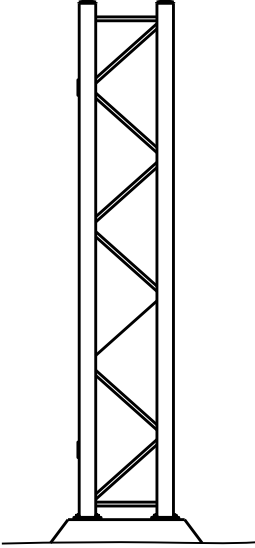
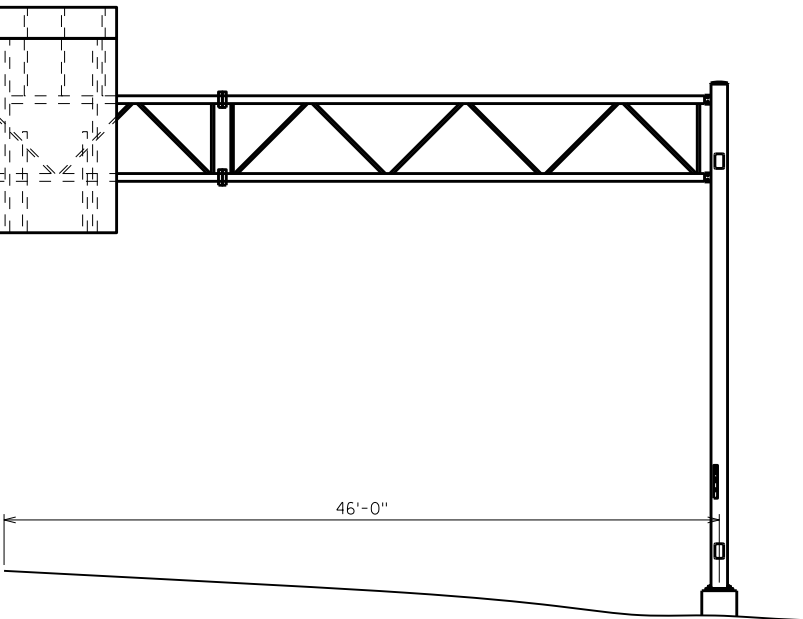
REMOVING SIGNS TYPE II
I-BEAM SUPPORT TO BE REUSED.



LOOKING WEST



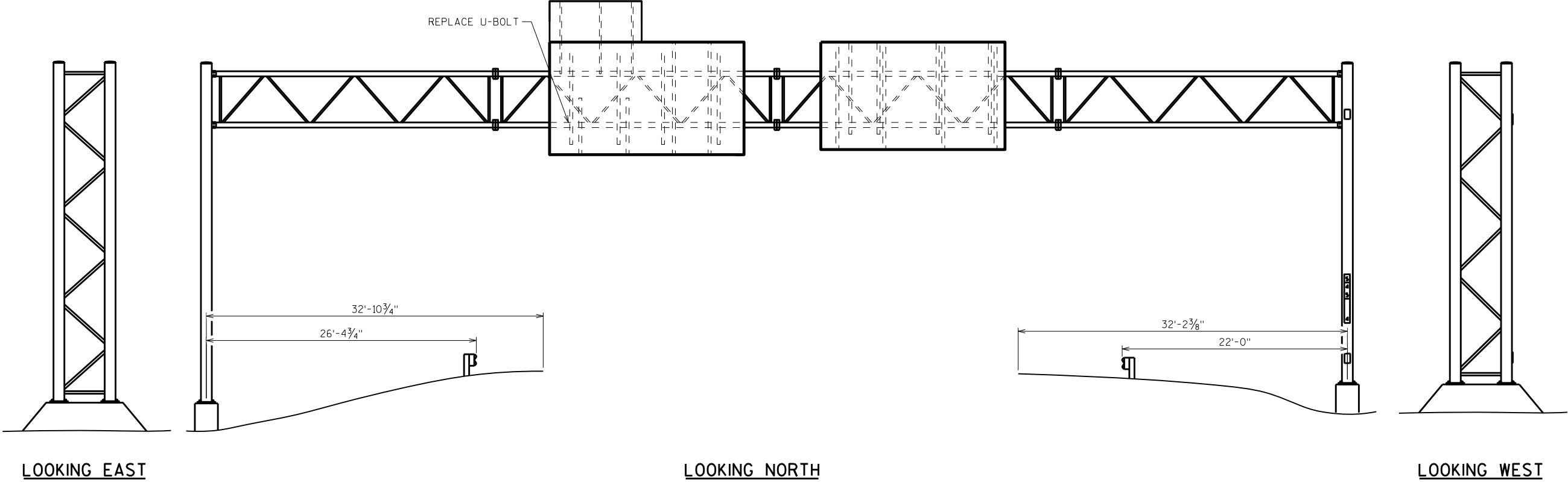
LOOKING SOUTH



LOOKING EAST

ITEM NUMBER	BID ITEMS	QUANTITY	REPAIR DETAIL SHEET NO.
637.2220	SIGNS TYPE II REFLECTIVE SH	45 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 SE SIGN REPAIRS			
		DRAWN BY	PLANS CK'D.
		DDS	SAD
S-45-003		SHEET 48	

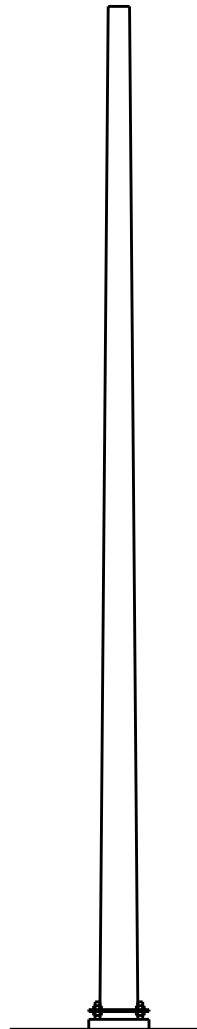


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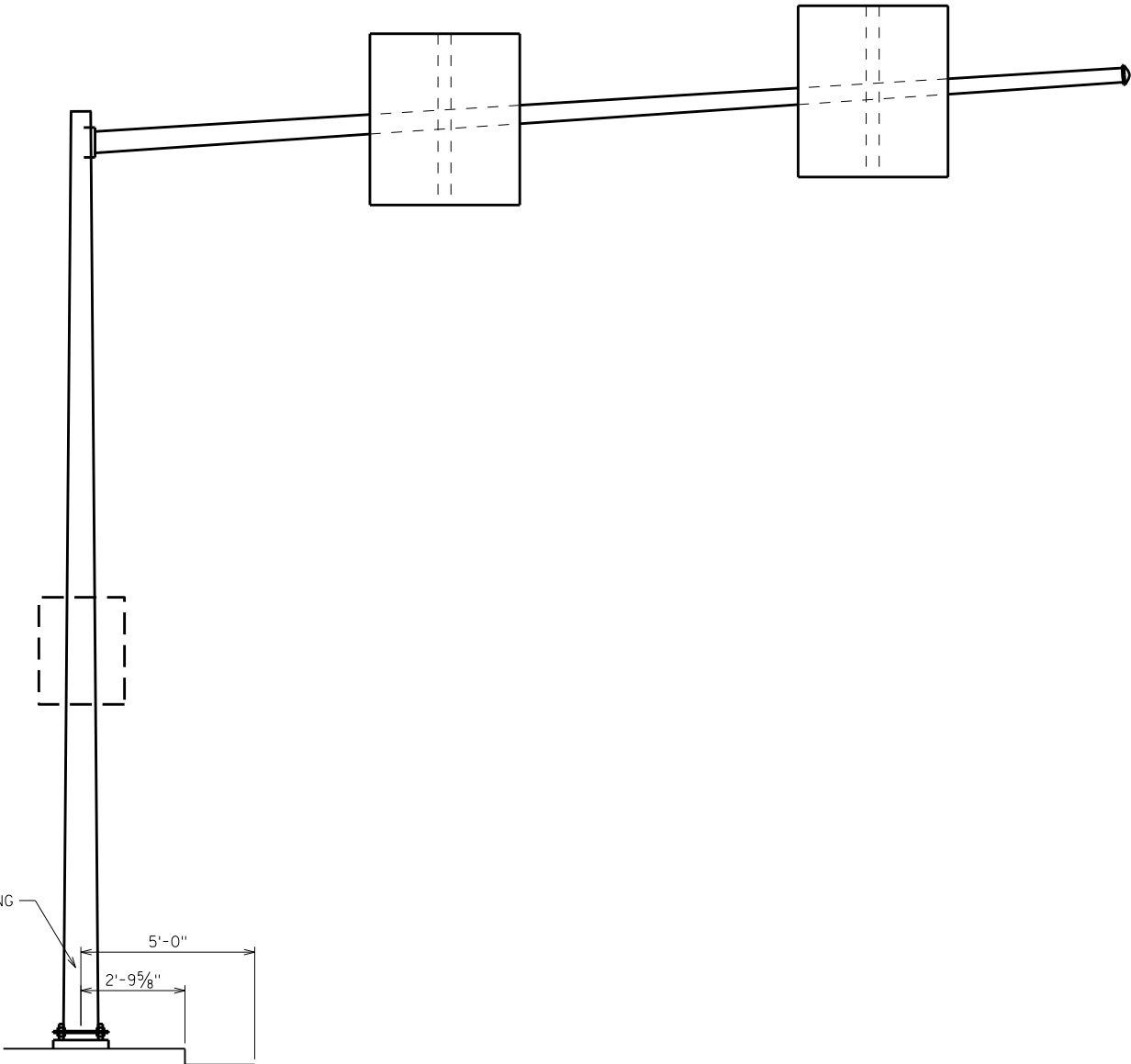
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ITEM NUMBER	BID ITEMS	QUANTITY	REPAIR DETAIL SHEET NO.
SPV.0060.11	REPLACE U-BOLT	1 EACH	3

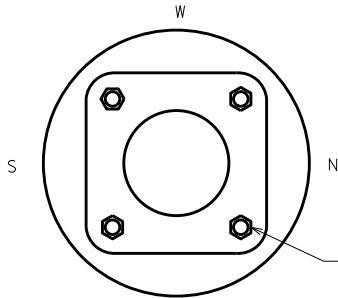
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE SE SIGN REPAIRS			
		DRAWN BY	PLANS CK'D.
		DDS	SAD
S-45-004		SHEET 49	



LOOKING WEST



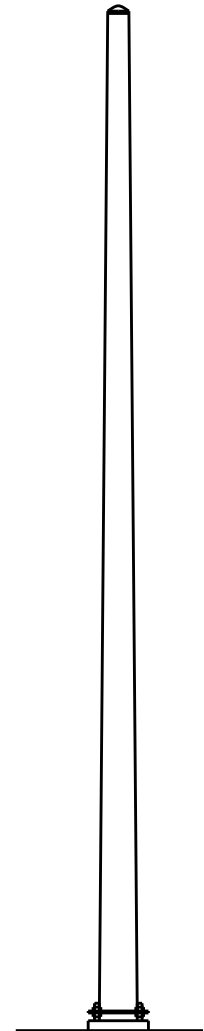
LOOKING SOUTH



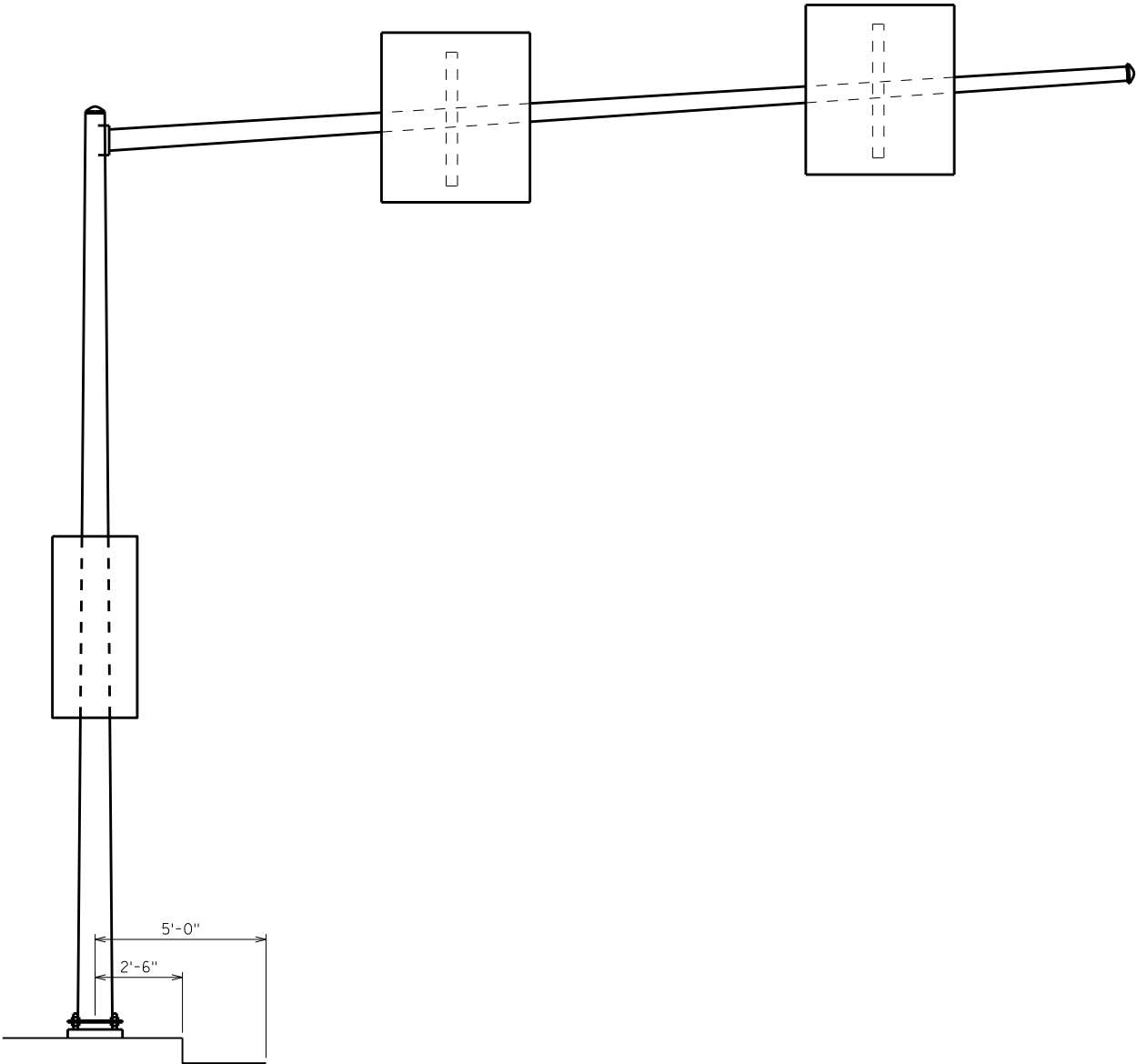
FOUNDATION DETAIL

ITEM NUMBER	BID ITEMS	QUANTITY	REPAIR DETAIL SHEET NO.
SPV.0060.01	TENSION ANCHOR ROD	4 EACH	2
SPV.0165.01	REPAIR GALVANIZED COATING	1 SF	2

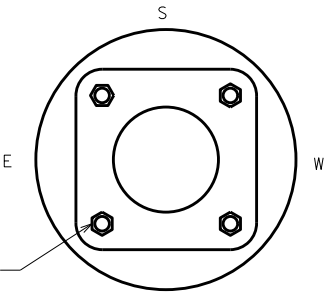
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE SE SIGN REPAIRS			
		DRAWN BY	PLANS CK'D.
		DDS	SAD
S-51-212			SHEET 50



LOOKING SOUTH



LOOKING EAST

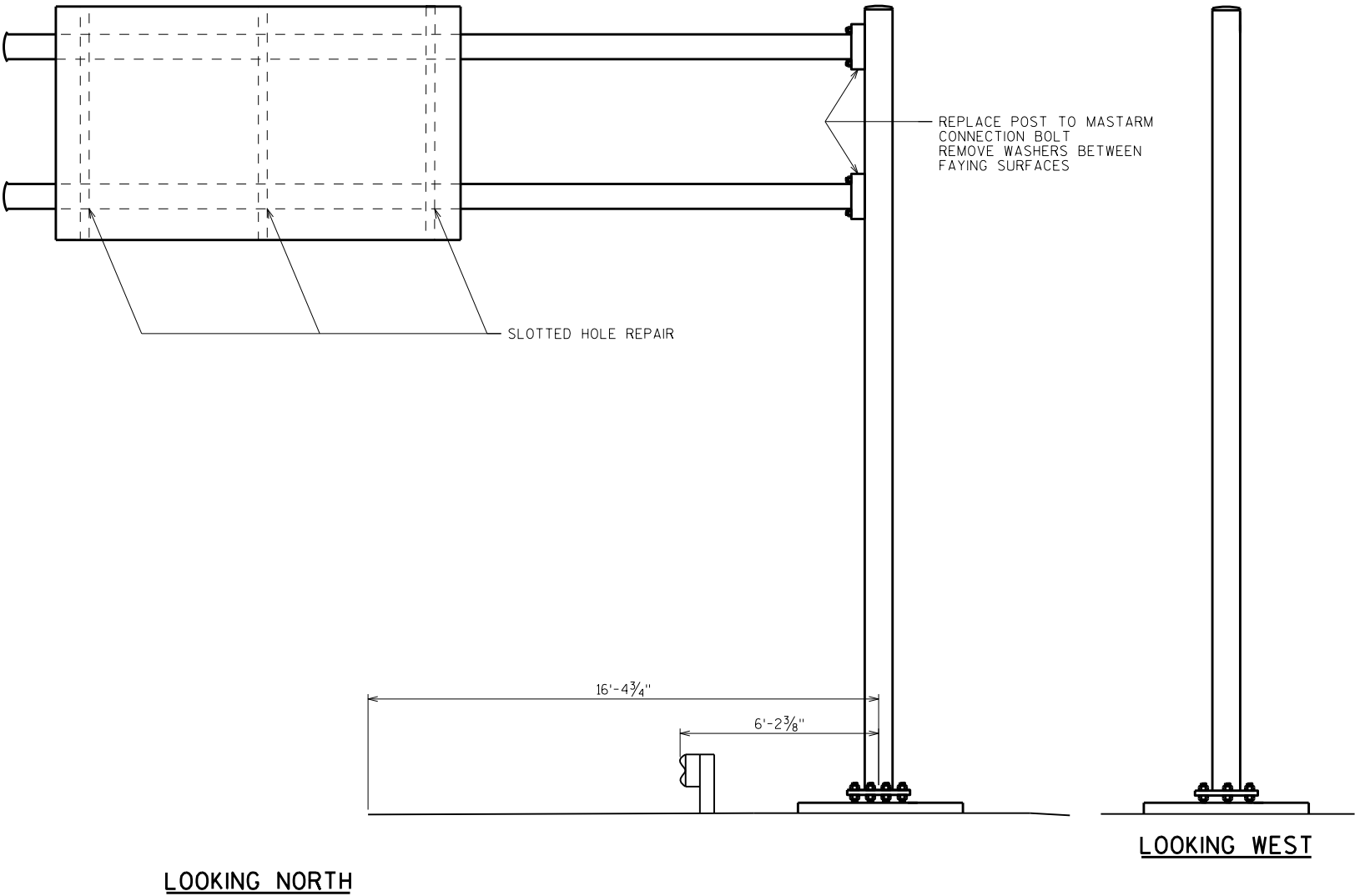


TENSION ANCHOR RODS
REMOVE LOCK WASHERS

FOUNDATION DETAIL

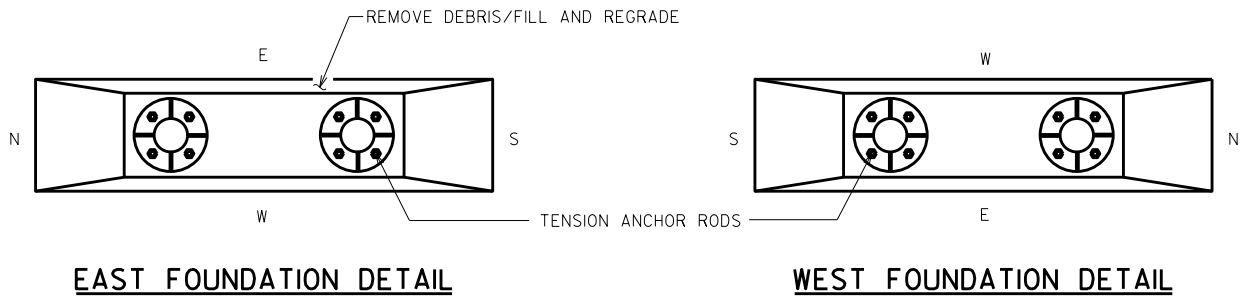
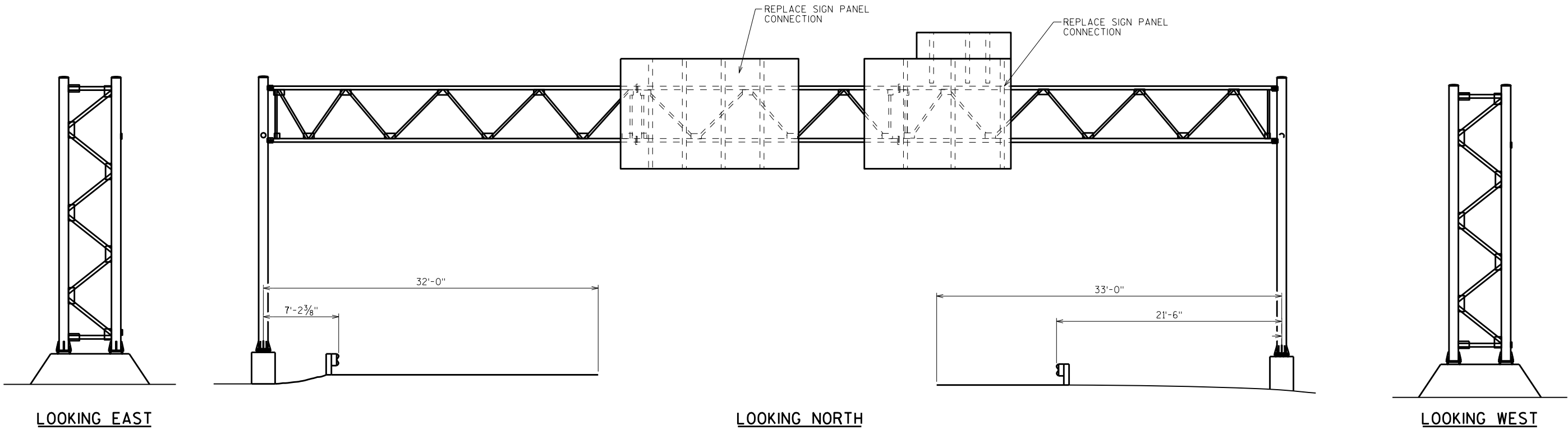
ITEM NUMBER	BID ITEMS	QUANTITY	REPAIR DETAIL SHEET NO.
SPV.0060.01	TENSION ANCHOR ROD	4 EACH	2

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE SE SIGN REPAIRS			
		DRAWN BY	PLANS CK'D.
		DDS	SAD
S-51-213			SHEET 51



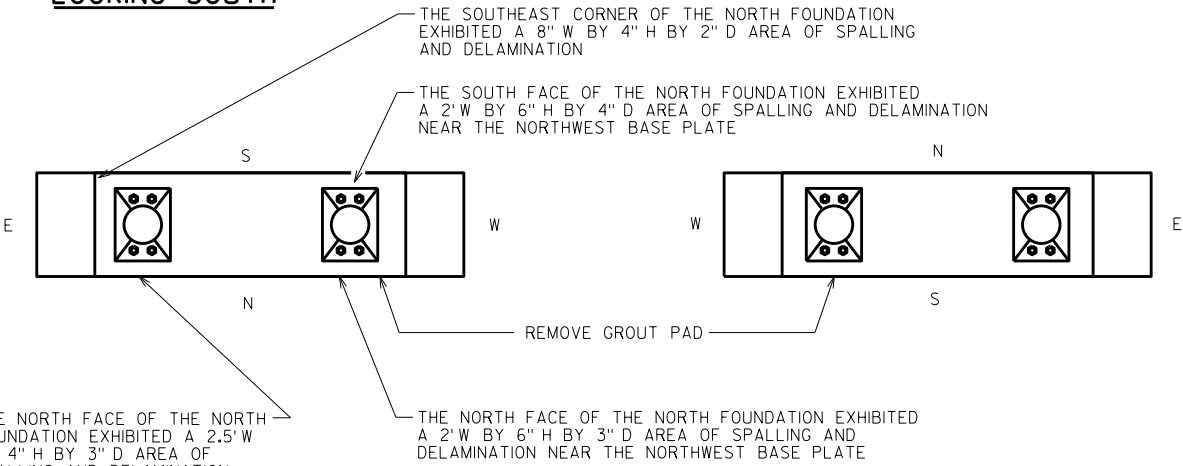
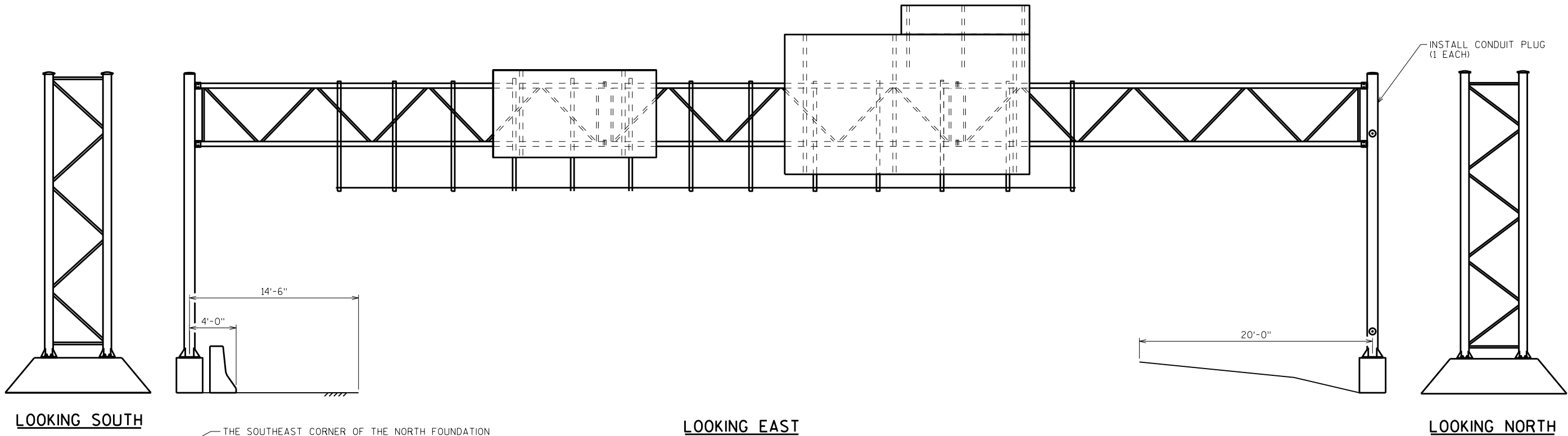
ITEM NUMBER	BID ITEMS	QUANTITY	REPAIR DETAIL SHEET NO.
SPV.0060.08	TENSION STRUCTURAL CONNECTION BOLT (FRICTION)	8 EACH	3
SPV.0060.13	SLOTTED HOLE REPAIR ON SIGN SUPPORT BRACKET	3 EACH	5

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE SE SIGN REPAIRS			
		DRAWN BY DDS	PLANS CK'D. SAD
S-64-209		SHEET 52	



ITEM NUMBER	BID ITEMS	QUANTITY	REPAIR DETAIL SHEET NO.
SPV.0060.01	TENSION ANCHOR ROD	16 EACH	2
SPV.0060.03	REMOVE DEBRIS AND REGRADE	1 EACH	2
SPV.0060.16	INSTALL SIGN PANEL CONNECTOR	10 EACH	5

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE SE SIGN REPAIRS			
		DRAWN BY	PLANS CK'D. SAD
		DDS	
S-66-006		SHEET 53	

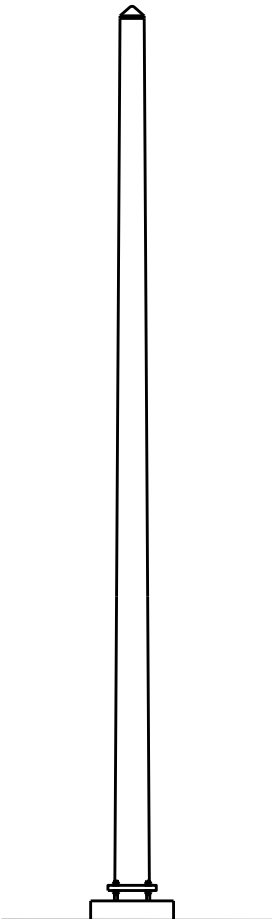


FOUNDATION DETAIL

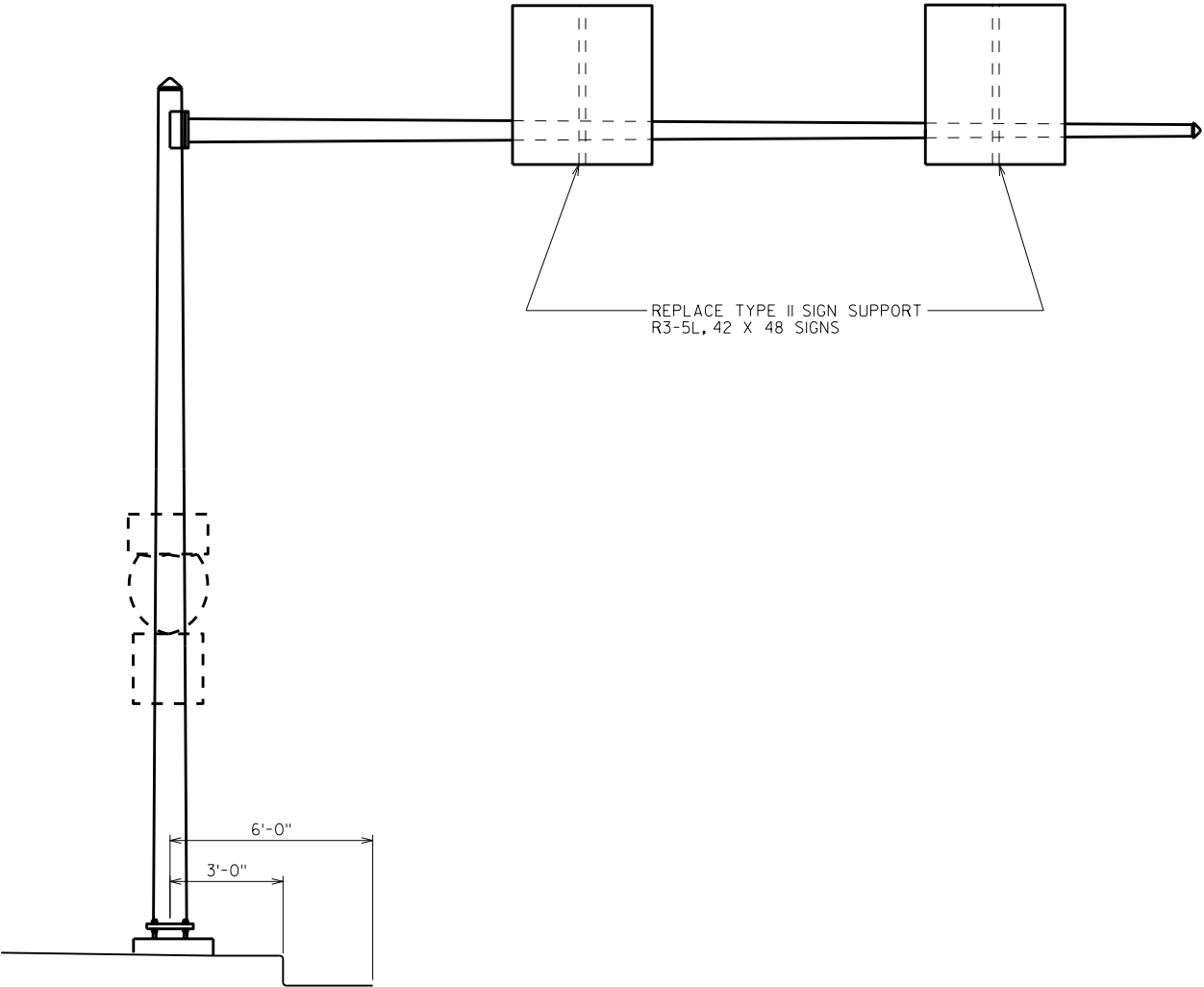
FOUNDATION DETAIL

ITEM NUMBER	BID ITEMS	QUANTITY	REPAIR DETAIL SHEET NO.
509.1500	CONCRETE SURFACE REPAIR	4 SF	2
SPV.0060.02	REMOVE GROUT PAD	4 EACH	2
SPV.0060.19	INSTALL CONDUIT PLUG	1 EACH	7

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE SE SIGN REPAIRS			
DRAWN BY		DDS	PLANS CK'D. SAD
S-67-017		SHEET 54	



LOOKING WEST



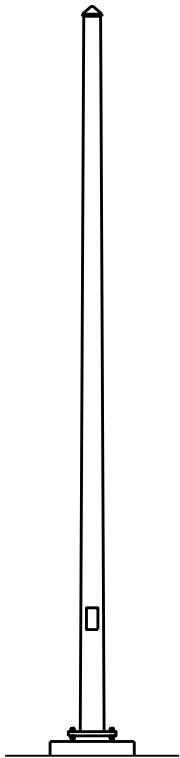
LOOKING SOUTH

8

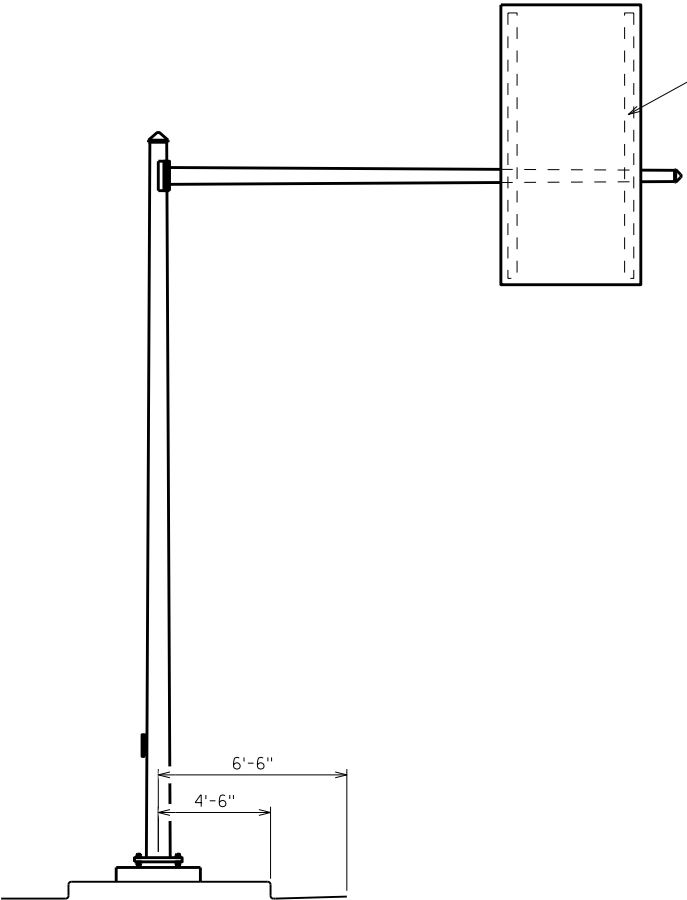
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ITEM NUMBER	BID ITEMS	QUANTITY	REPAIR DETAIL SHEET NO.
SPV.0060.14	REPLACE TYPE II SIGN SUPPORT BRACKET	2 EACH	5

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE SE SIGN REPAIRS			
DRAWN BY		DDS	PLANS CK'D. SAD
S-67-228		SHEET 55	



LOOKING WEST



REPLACE TYPE II SIGN SUPPORT
36 X 72 SIGN. REPLACE BRACKET
WITH 2 ALUMINUM I-BEAMS, SEE
SIGN PLATE A4-7 FOR DETAILS

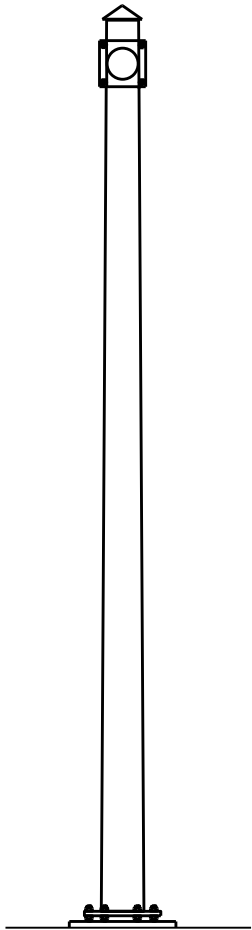
LOOKING SOUTH

8

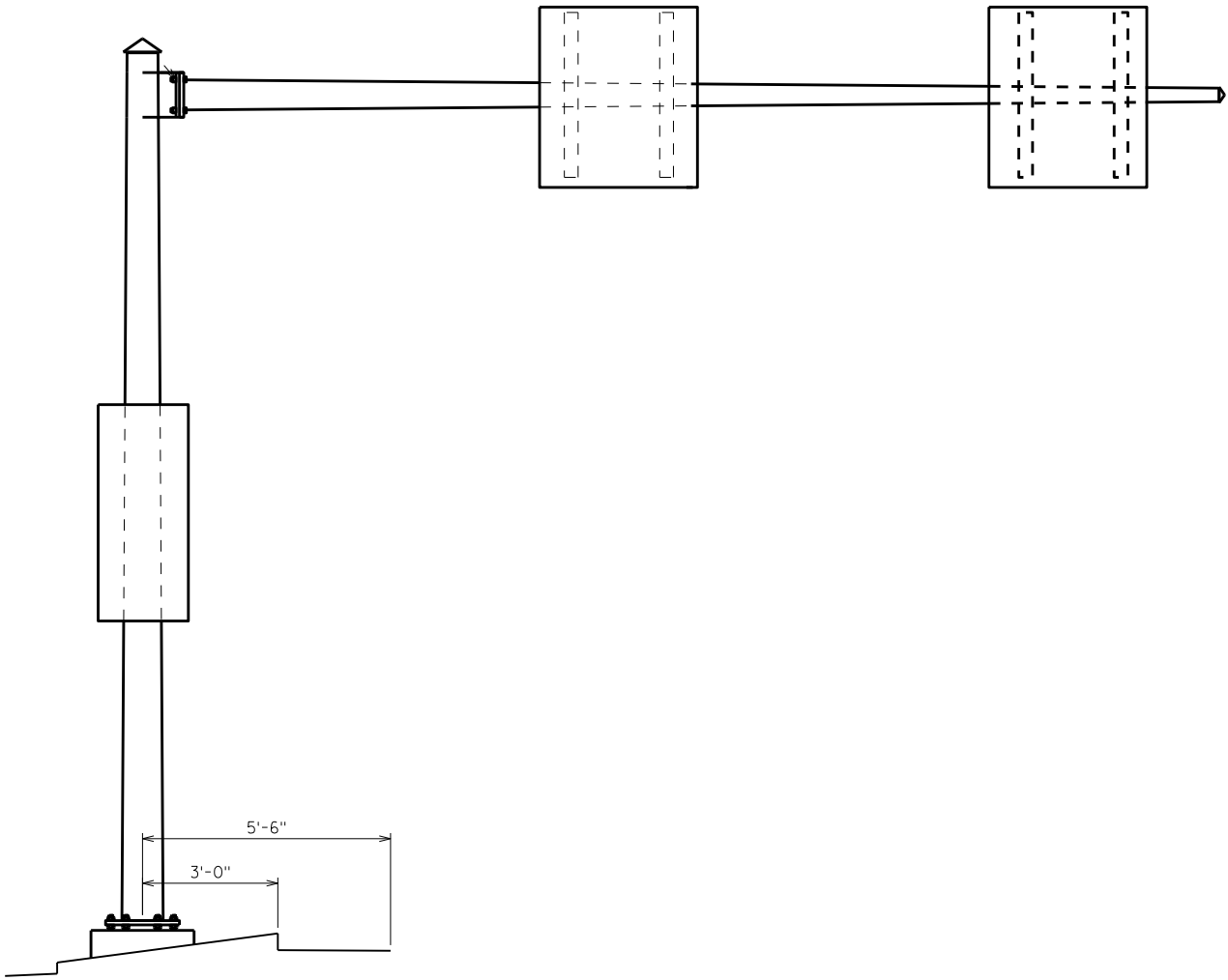
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ITEM NUMBER	BID ITEMS	QUANTITY	REPAIR DETAIL SHEET NO.
SPV.0060.14	REPLACE TYPE II SIGN SUPPORT BRACKET	1 EACH	5

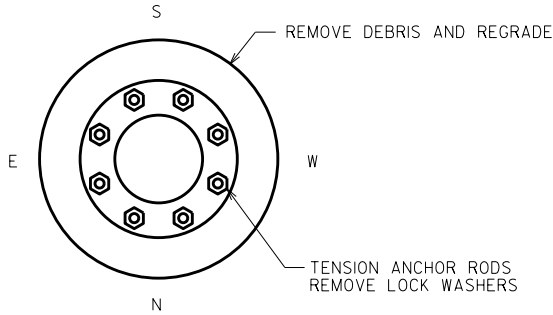
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE SE SIGN REPAIRS			
		DRAWN BY	PLANS CK'D. SAD
S-67-229		SHEET 56	



LOOKING SOUTH



LOOKING EAST

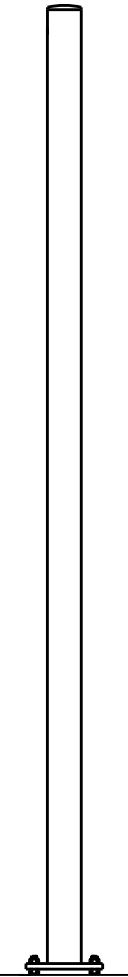
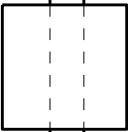
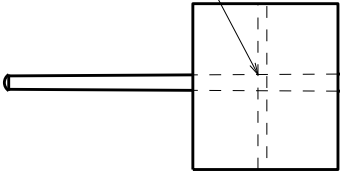


FOUNDATION DETAIL

ITEM NUMBER	BID ITEMS	QUANTITY	REPAIR DETAIL SHEET NO.
SPV.0060.01	TENSION ANCHOR ROD	8 EACH	2
SPV.0060.03	REMOVE DEBRIS AND REGRADE	1 EACH	2

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE SE SIGN REPAIRS			
		DRAWN BY	PLANS CK'D.
		DDS	SAD
S-67-235			SHEET 57

REPLACE TYPE II SIGN SUPPORT
R3-5L, 36 X 48 SIGN



13'-3⁵/₈"

3'-0"

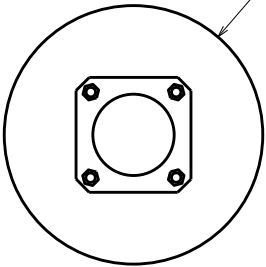
LOOKING NORTH

LOOKING WEST

W

REMOVE DEBRIS/FILL AND REGRADE

S



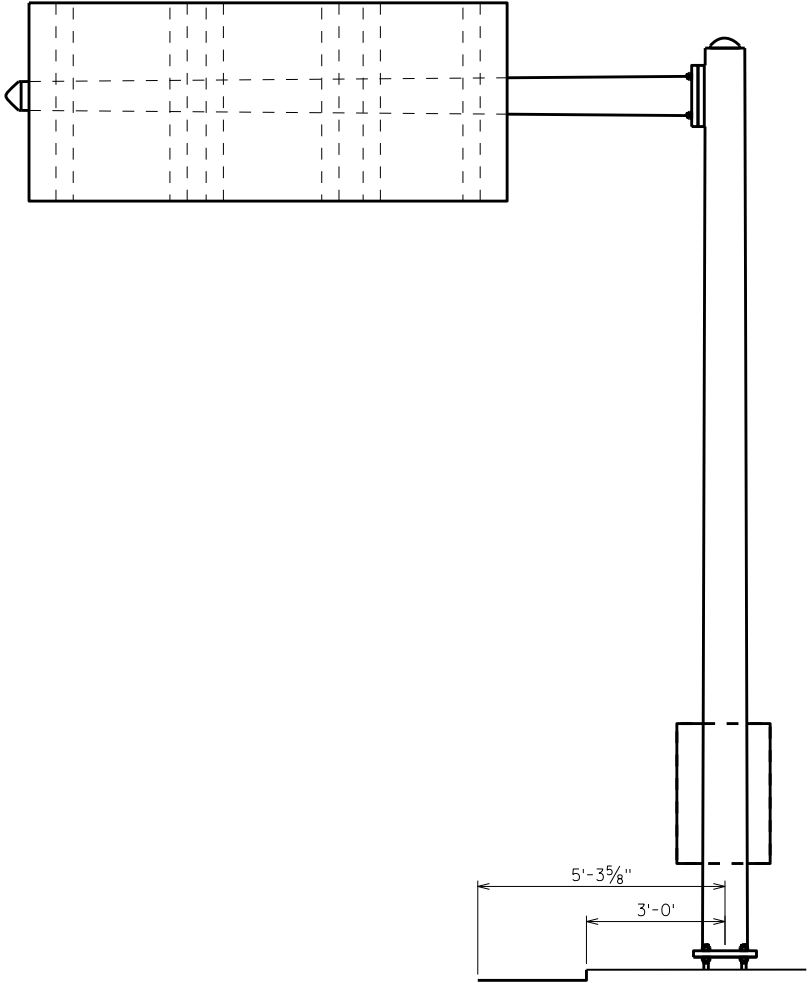
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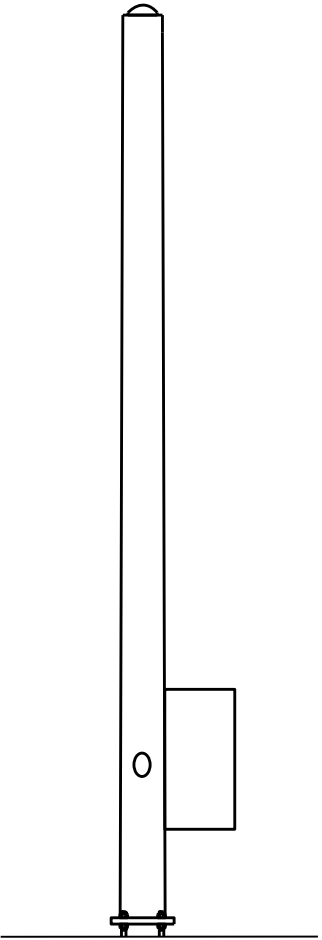
FOUNDATION DETAIL

ITEM NUMBER	BID ITEMS	QUANTITY	REPAIR DETAIL SHEET NO.
SPV.0060.03	REMOVE DEBRIS AND REGRADE	1 EACH	2
SPV.0060.14	REPLACE TYPE II SIGN SUPPORT BRACKET	1 EACH	5

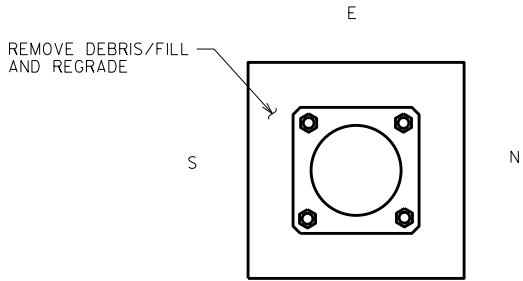
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE SE SIGN REPAIRS			
		DRAWN BY	PLANS CK'D. SAD
		DDS	
S-67-267			SHEET 58



LOOKING SOUTH



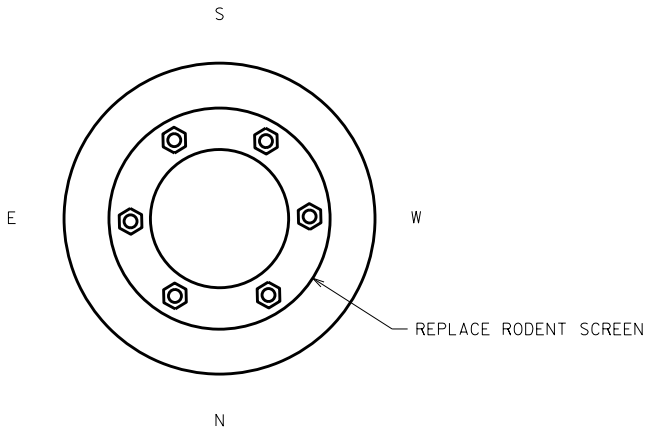
LOOKING EAST



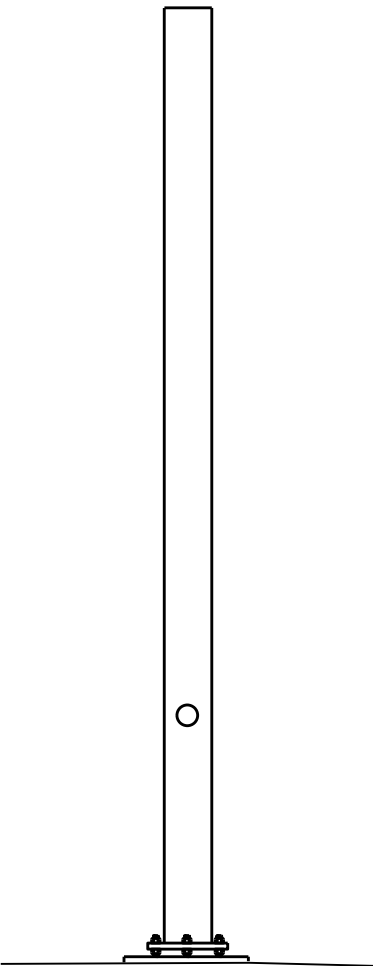
FOUNDATION DETAIL

ITEM NUMBER	BID ITEMS	QUANTITY	REPAIR DETAIL SHEET NO.
SPV.0060.03	REMOVE DEBRIS AND REGRADE	1 EACH	2

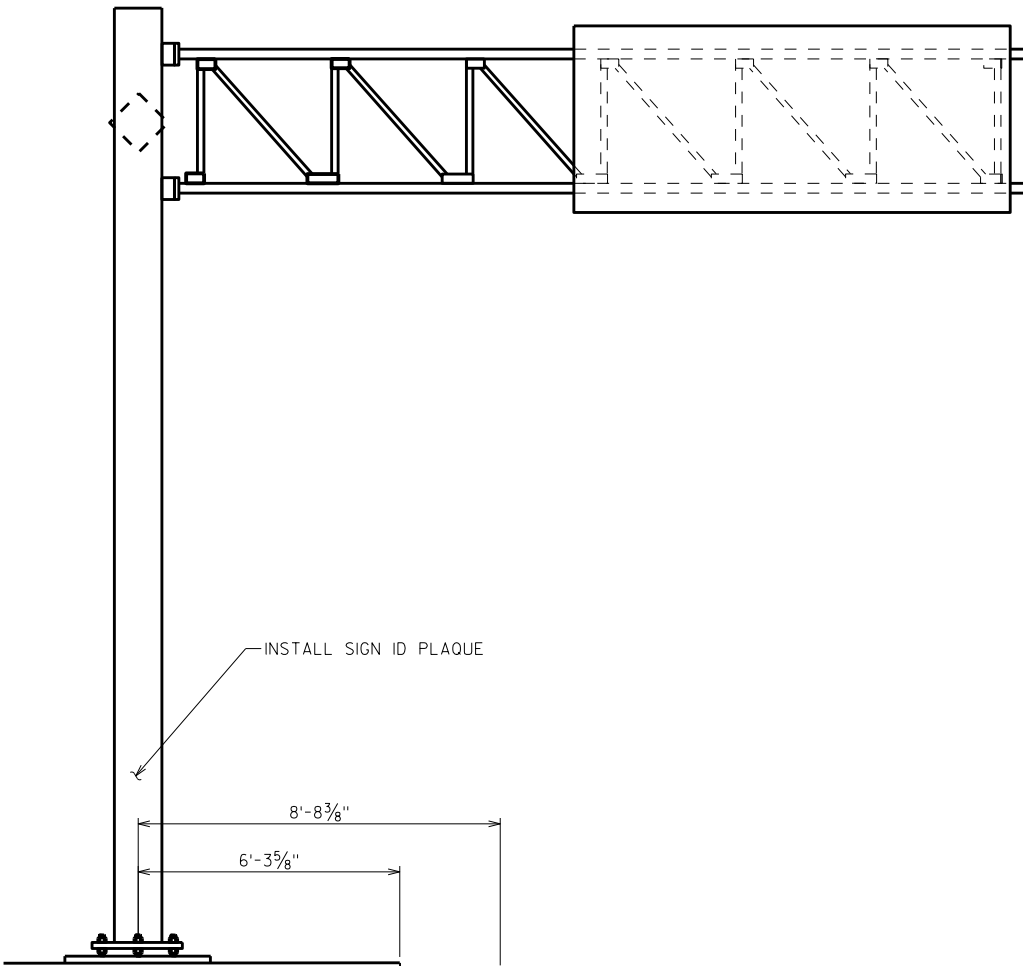
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE SE SIGN REPAIRS			
		DRAWN BY	PLANS CK'D. SAD
		DDS	
S-67-407			SHEET 59



FOUNDATION DETAIL



LOOKING SOUTH

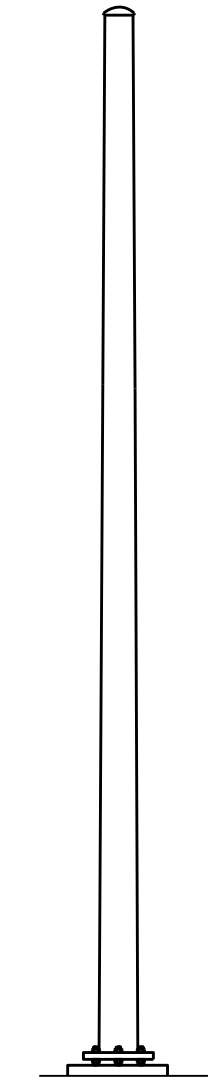


LOOKING EAST

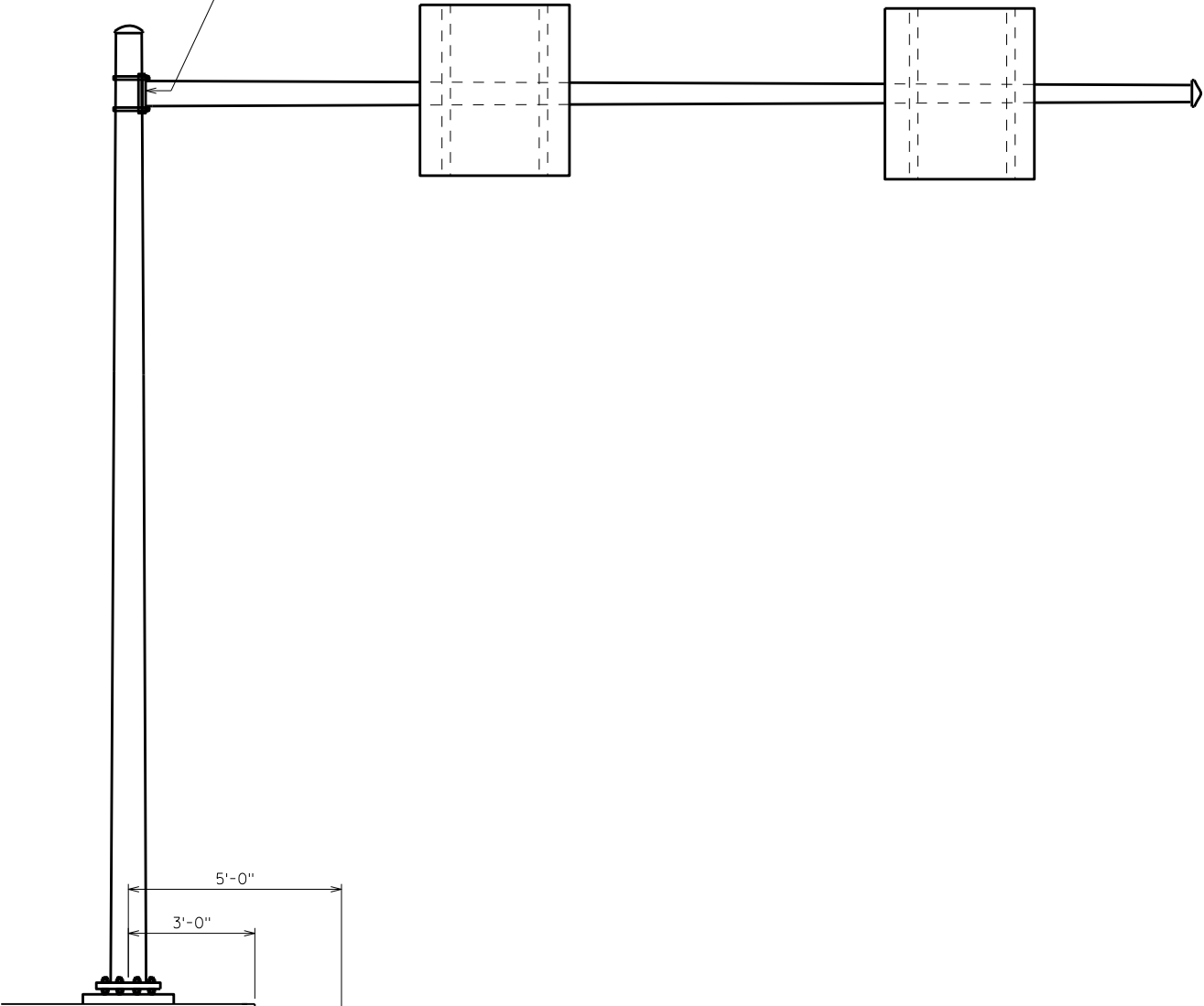
ITEM NUMBER	BID ITEMS	QUANTITY	REPAIR DETAIL SHEET NO.
SPV.0060.04	REPLACE RODENT SCREEN	1 EACH	2
SPV.0060.15	INSTALL ID PLAQUE	1 EACH	5

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE		SE	SIGN REPAIRS
		DRAWN BY	PLANS CK'D. SAD
		DDS	
S-67-414		SHEET 60	

REPLACE POST TO MASTARM CONNECTION BOLT
REMOVE WASHERS BETWEEN FAYING SURFACES



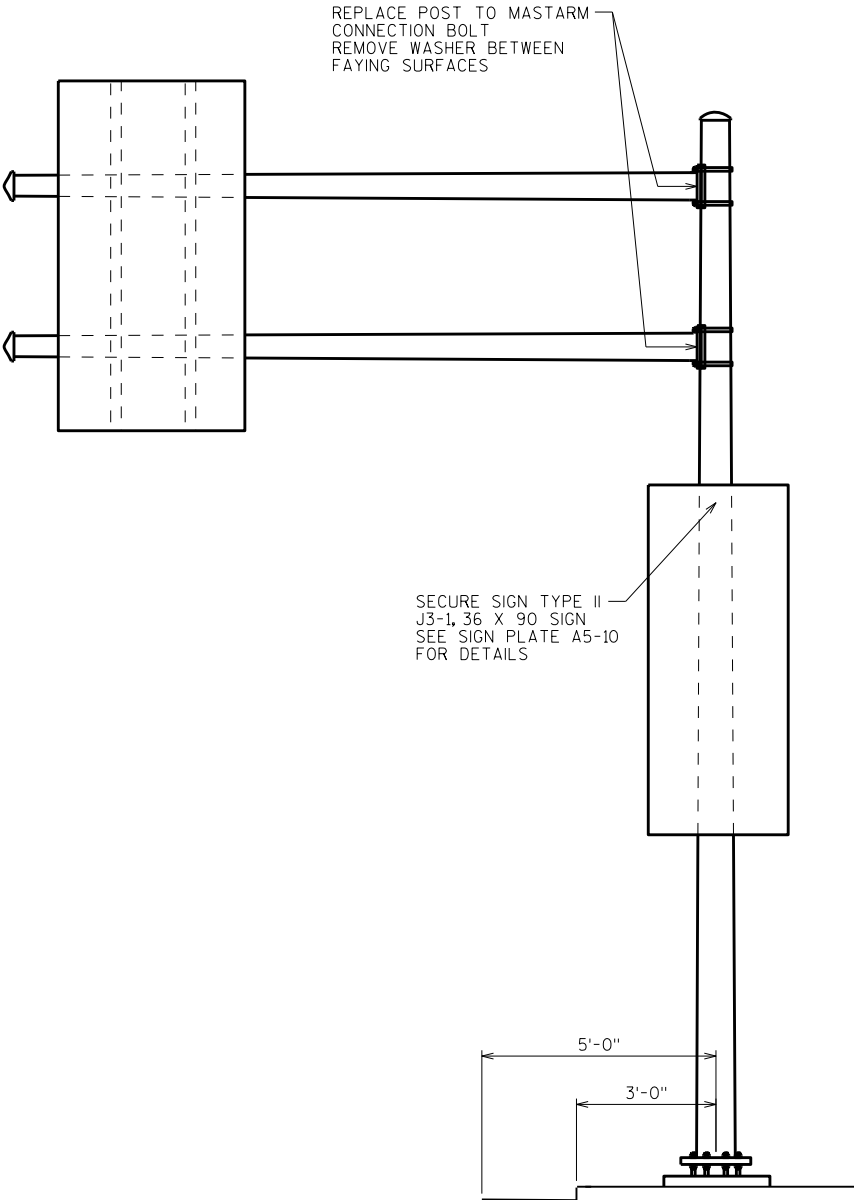
LOOKING SOUTH



LOOKING EAST

ITEM NUMBER	BID ITEMS	QUANTITY	REPAIR DETAIL SHEET NO.
SPV.0060.08	TENSION STRUCTURAL CONNECTION BOLT (FRICTION)	4 EACH	3

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE SE SIGN REPAIRS			
		DRAWN BY	PLANS CK'D. SAD
		DDS	
S-67-933			SHEET 61



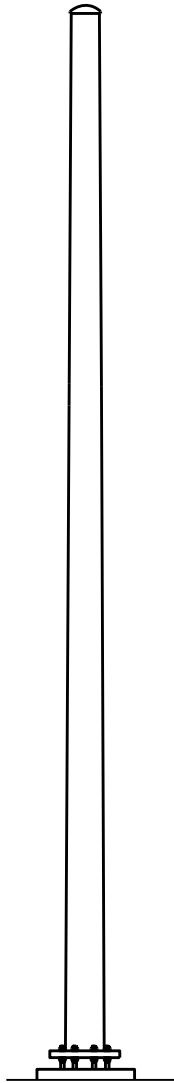
LOOKING EAST

LOOKING NORTH

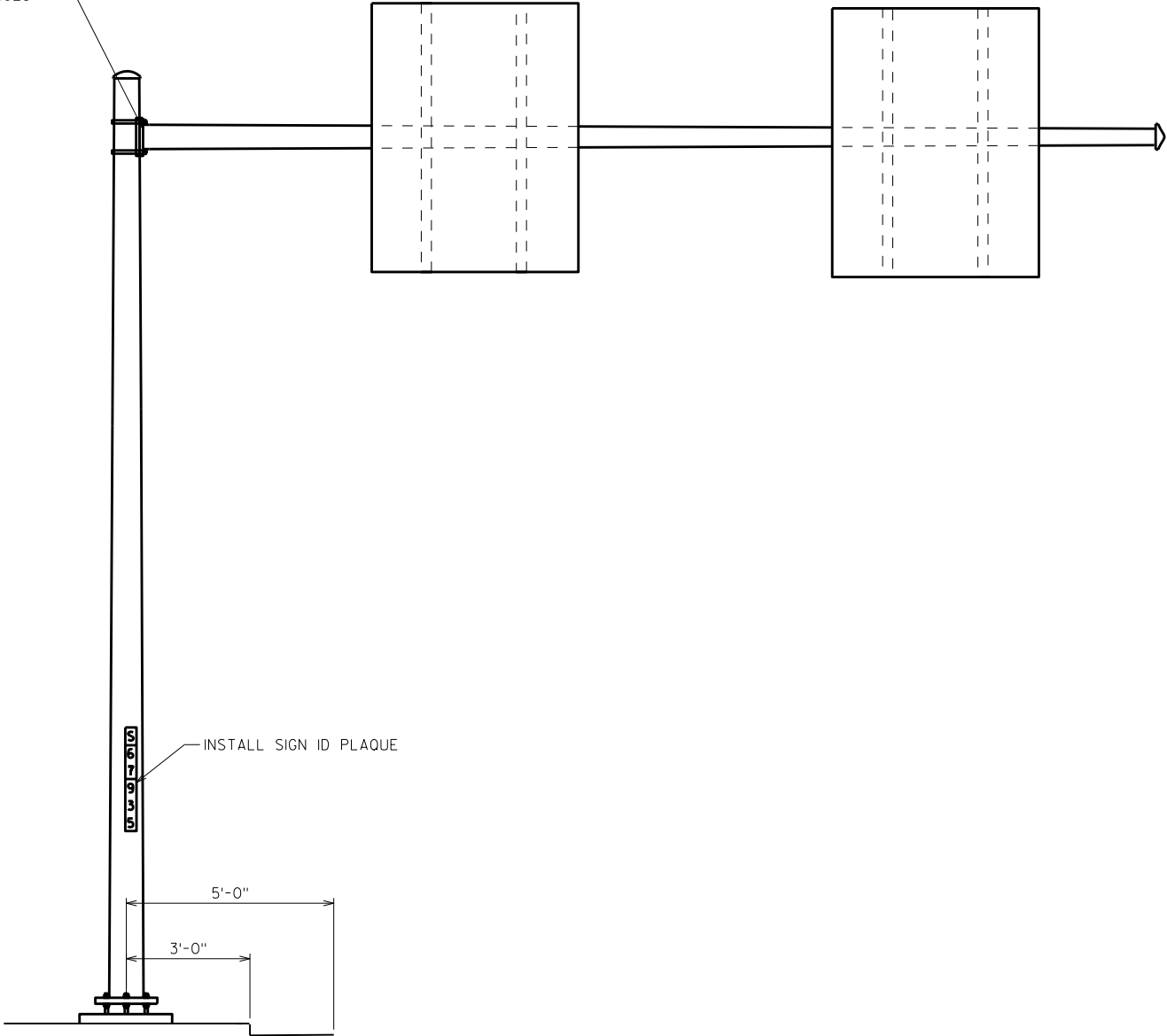
ITEM NUMBER	BID ITEMS	QUANTITY	REPAIR DETAIL SHEET NO.
SPV.0060.08	TENSION STRUCTURAL CONNECTION BOLT (FRICTION)	8 EACH	3
SPV.0060.17	SECURE SIGN TYPE II	1 EACH	5

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE SE SIGN REPAIRS			
		DRAWN BY	PLANS CK'D. SAD
		DDS	
S-67-934			SHEET 62

REPLACE POST TO MASTARM CONNECTION BOLT
REMOVE WASHERS BETWEEN FAYING SURFACES



LOOKING NORTH



LOOKING WEST

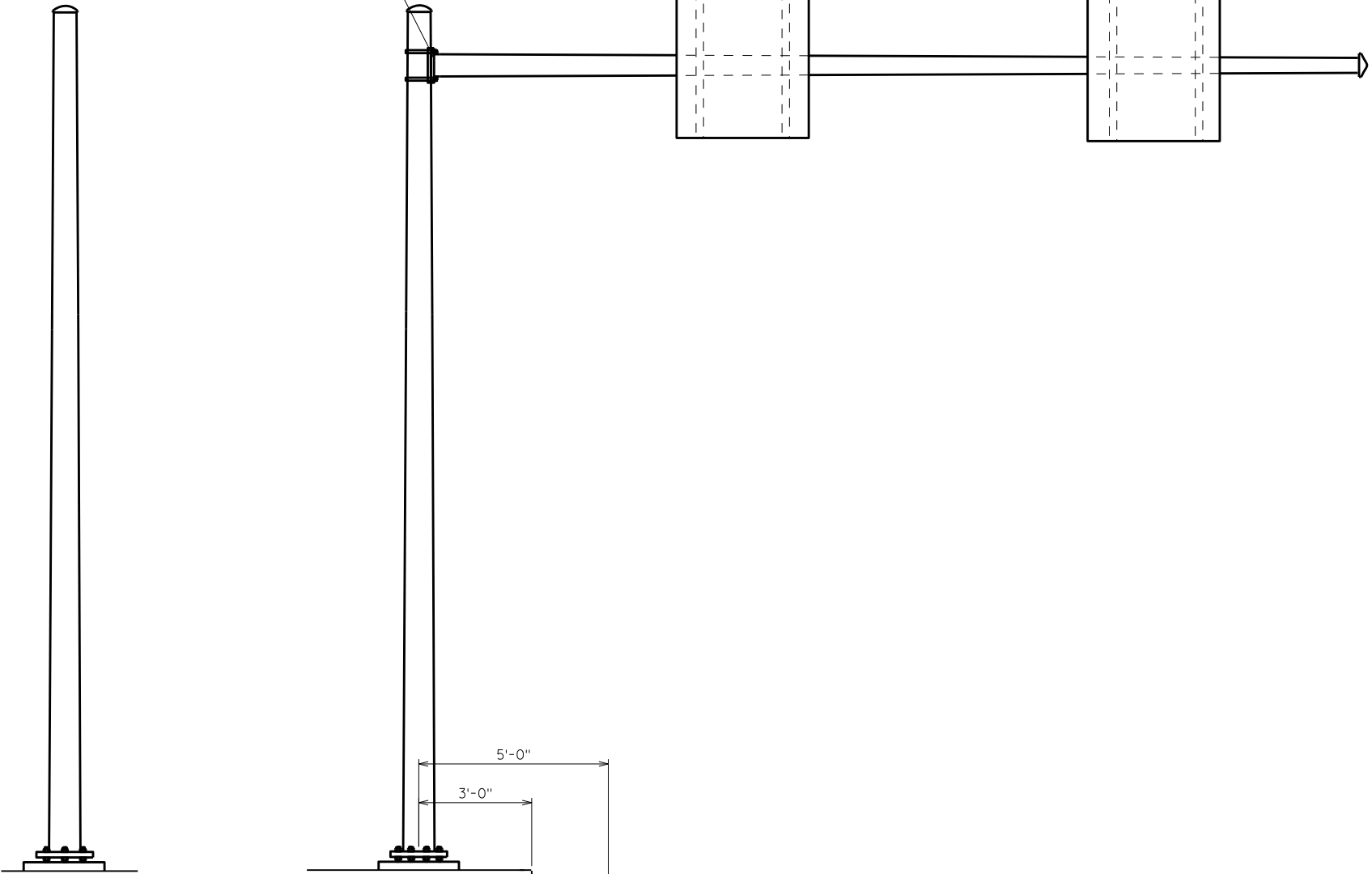
8

8

ITEM NUMBER	BID ITEMS	QUANTITY	REPAIR DETAIL SHEET NO.
SPV.0060.08	TENSION STRUCTURAL CONNECTION BOLT (FRICTION)	4 EACH	3
SPV.0060.15	INSTALL ID PLAQUE	1 EACH	5

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE SE SIGN REPAIRS			
		DRAWN BY	PLANS CK'D. SAD
		DDS	
S-67-935			SHEET 63

REPLACE POST TO MASTARM CONNECTION BOLT
REMOVE WASHERS BETWEEN FAYING SURFACES



LOOKING NORTH

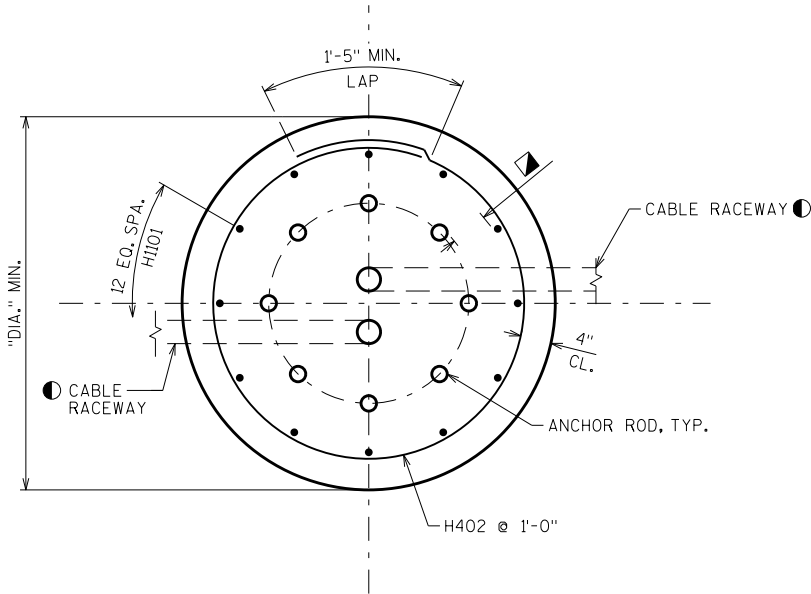
LOOKING WEST

ITEM NUMBER	BID ITEMS	QUANTITY	REPAIR DETAIL SHEET NO.
SPV.0060.08	TENSION STRUCTURAL CONNECTION BOLT (FRICTION)	4 EACH	3

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE SE SIGN REPAIRS			
		DRAWN BY	PLANS CK'D. SAD
		DDS	
S-67-936			SHEET 64

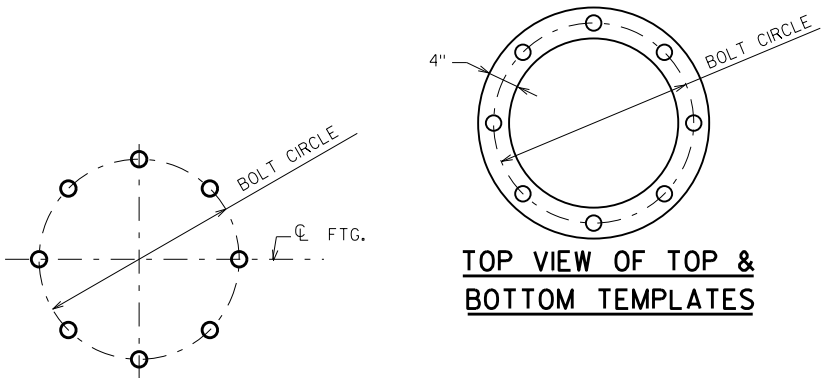
GENERAL NOTES

- 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 660 OF THE WISDOT STANDARD SPECIFICATIONS.
- CONTRACTOR SHALL VERIFY DIMENSIONS PRIOR TO FABRICATION OF STRUCTURE.
- WELD TEST AS PER AWS D1.1.
- EXACT LOCATION OF HIGH MAST LIGHT BASE SHALL BE DETERMINED BY THE REGION LIGHTING ENGINEER.
- CONTRACTOR SHALL VERIFY UTILITY CONFLICTS PRIOR TO CONSTRUCTION OF FOOTINGS.
- POLE AND ANCHOR RODS TO BE DESIGNED TO AASHTO STANDARD SPECS. FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES AND TRAFFIC SIGNALS, 6TH ED WITH 2015 INTERIMS.
- POLE FABRICATOR TO DESIGN AND SUPPLY POLE AND ANCHOR RODS IN ACCORDANCE WITH THE PLANS AND STANDARD SPECIFICATIONS.
- OUTSIDE DIA. OF DRILLED SHAFT AT TOP IS DEPENDENT ON ANCHOR BOLT CIRCLE REQUIRED FOR POLE. MAINTAIN 4" MIN. COVER OF REINFORCEMENT.
- INSTALL STRUCTURE ID PLAQUE PER S.D.D. 10 A 4-3
- SEE HIGH MAST LIGTH ELECTRICAL SHEETS FOR LUMINAIRE AND HARDWARE INFORMATION.
- CONTRACTOR TO COORDINATE OREINTATION OF ANCHOR BOLTS WITH THE POLE FABRICATOR.
- SOIL BORING DATA USED FOR THE FOUNDATIONS CAN BE FOUND WITH THE EXISTING HIGH MAST LIGHT PLANS IN WISDOT'S HIGHWAY STRUCTURES INFORMATION SYSTEM (HSIS) DATABASE.

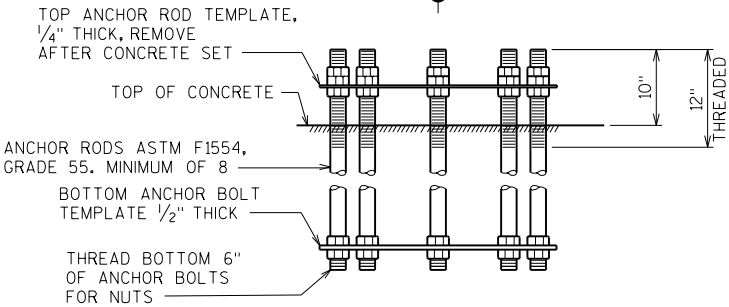


DRILLED SHAFT PLAN

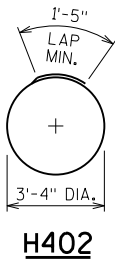
REINFORCEMENT TO CLEAR ANCHOR BOLTS BY 1/2" MIN.



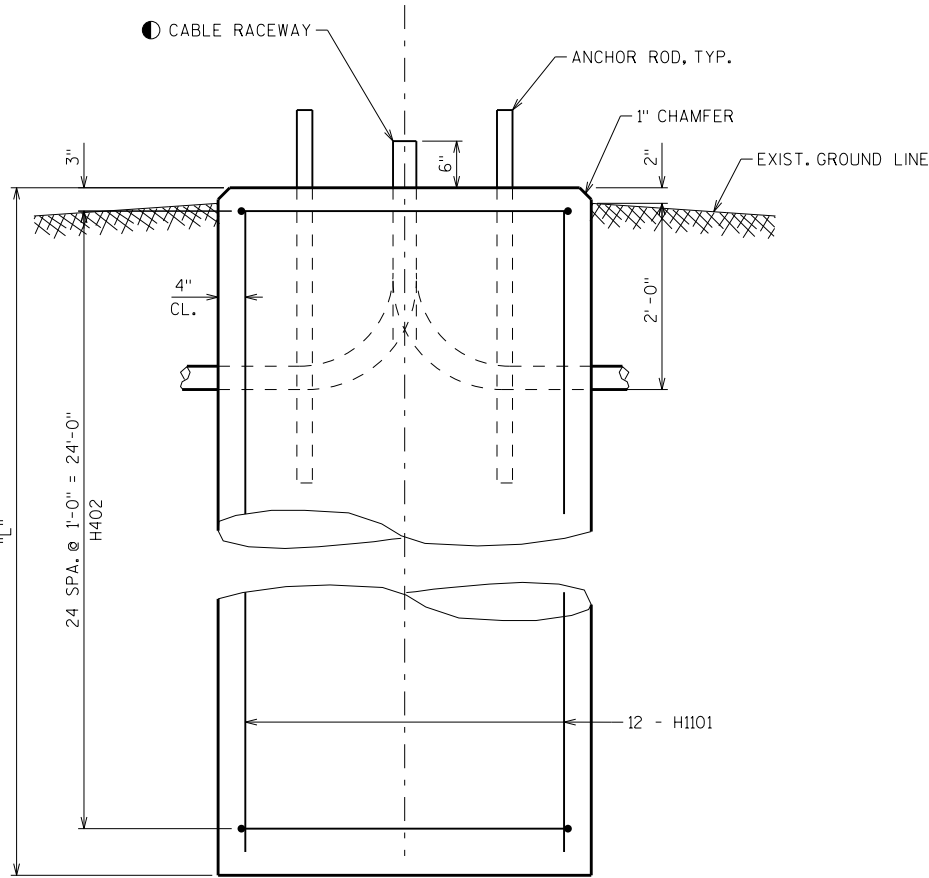
TOP VIEW OF TOP & BOTTOM TEMPLATES



ANCHOR ROD DETAILS



H402



DRILLED SHAFT ELEVATION

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

SEE HIGHMAST LIGHTING AND ELECTRICAL SHEETS FOR SIZE AND ORIENTATION OF CABLE RACEWAY.

- MATERIAL PROPERTIES:**
- CONCRETE MASONRY _____ f'c = 3,500 P.S.I.
- BAR STEEL REINFORCEMENT: _____ fy = 60,000 P.S.I.
- GRADE 60
- STRUCTURAL CARBON STEEL: _____ fy = 36,000 P.S.I.
- ASTM A709, GRADE 50
- ANCHOR RODS, ASTM F1554, GRADE 55 - _____ fy = 55,000 P.S.I.
- ASTM A563A HEAVY HEX NUTS, AND ASTM F436 WASHERS.

HIGH MAST LIGHT QUANTITIES

TOWER NUMBER	POLE HEIGHT	"L"	"DIA."	H1101	H402	CONCRETE MASONRY *	HIGH STRENGTH BAR STEEL REINFORCEMENT *	HIGH MAST FOUNDATIONS	HIGH MAST LIGHTING TOWER	ABANDON HIGH MAST FOUNDATION	REMOVE HIGH MAST LIGHTING TOWER
	FEET	FEET	FEET	LENGTH	LENGTH	C.Y.	LB.	660.0100	660.0200	SPV.0060	204.9060.S
L-40-123	150	25'-0"	4'-0"	24'-6"	12'-0"	12	1770	1	1	1	1
L-40-124	150	25'-0"	4'-0"	24'-6"	12'-0"	12	1770	1	1	1	1
L-40-125	150	25'-0"	4'-0"	24'-6"	12'-0"	12	1770	1	1	1	1
L-40-126	150	25'-0"	4'-0"	24'-6"	12'-0"	12	1770	1	1	1	1
L-40-127	150	25'-0"	4'-0"	24'-6"	12'-0"	12	1770	1	1	1	1
L-40-128	150	25'-0"	4'-0"	24'-6"	12'-0"	12	1770	1	1	1	1
L-40-129	150	25'-0"	4'-0"	24'-6"	12'-0"	12	1770	1	1	1	1
TOTAL						84	12390	7	7	7	7

* FOR INFORMATION ONLY

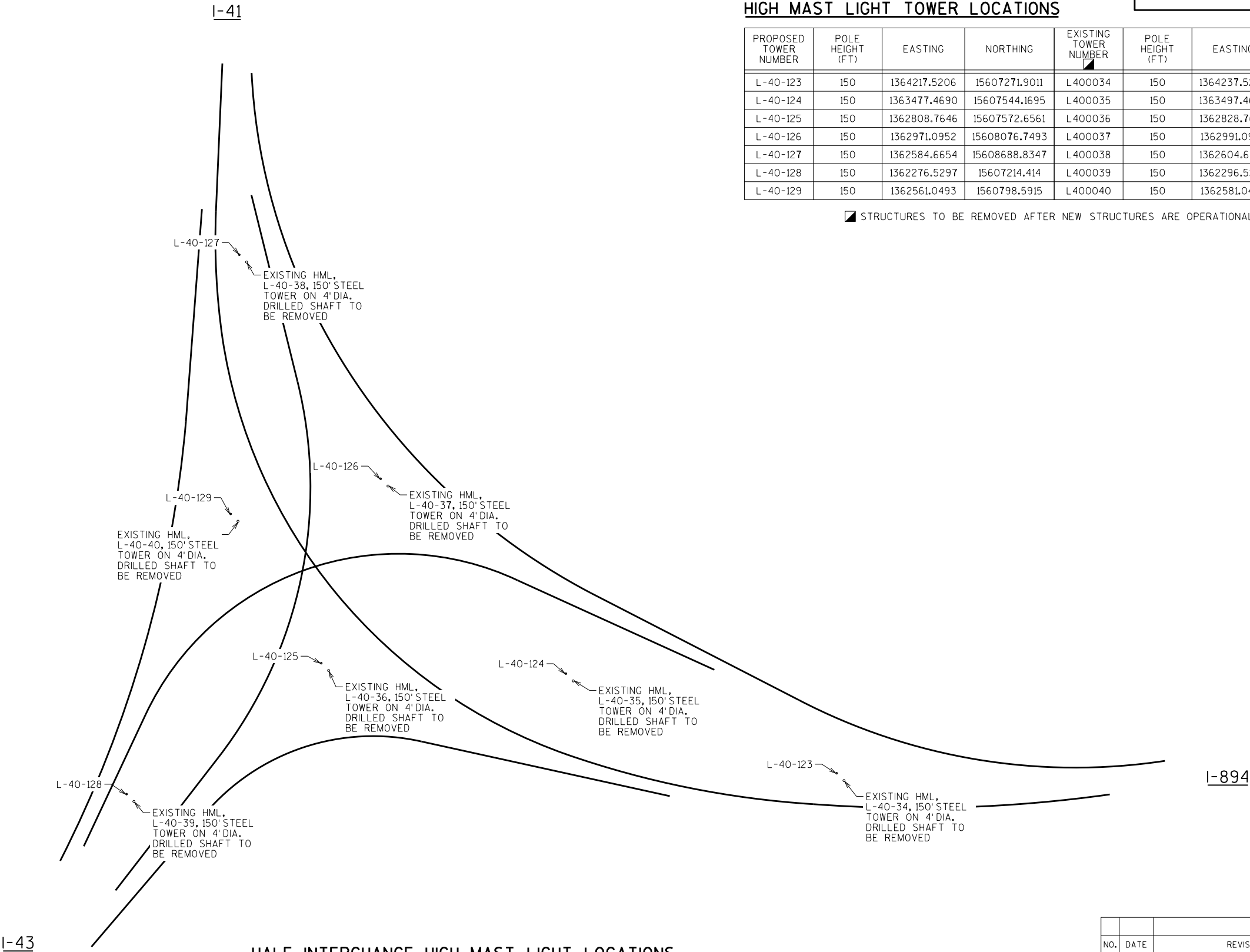
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE SE SIGN REPAIRS			
DRAWN BY		SAD	PLANS CK'D. SAD
HML FOUNDATIONS		SHEET 65	

SCALE = 1/8" = 1'-0"

HIGH MAST LIGHT TOWER LOCATIONS

PROPOSED TOWER NUMBER	POLE HEIGHT (FT)	EASTING	NORTHING	EXISTING TOWER NUMBER	POLE HEIGHT (FT)	EASTING	NORTHING
L-40-123	150	1364217.5206	15607271.9011	L400034	150	1364237.5206	15607251.9011
L-40-124	150	1363477.4690	15607544.1695	L400035	150	1363497.4690	15607524.1695
L-40-125	150	1362808.7646	15607572.6561	L400036	150	1362828.7646	15607552.6561
L-40-126	150	1362971.0952	15608076.7493	L400037	150	1362991.0952	15608056.7493
L-40-127	150	1362584.6654	15608688.8347	L400038	150	1362604.6654	15608668.8347
L-40-128	150	1362276.5297	15607214.414	L400039	150	1362296.5297	15607194.8414
L-40-129	150	1362561.0493	1560798.5915	L400040	150	1362581.0493	15607960.5915

▣ STRUCTURES TO BE REMOVED AFTER NEW STRUCTURES ARE OPERATIONAL.



HALE INTERCHANGE HIGH MAST LIGHT LOCATIONS

NOTE:
ALL NEW HIGH MAST LIGHT POLES ARE APPROXIMATE
20 FT WEST AND 20 NORTH OF EXISTING
STRUCTURES. EXACT LOCATION OF HIGH MAST LIGHT
AND BASE SHALL BE DETERMINED BY THE REGION
LIGHTING ENGINEER.

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE SE SIGN REPAIRS			
DRAWN BY		SAD	PLANS CK'D. SAD
HML FOUNDATION LOCATIONS		SHEET 66	

SCALE = 150.00



Wisconsin Department of Transportation

Dedicated people creating transportation solutions
through innovation and exceptional service.

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