

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
I-80	D-3 OVD SIGN STR REPL 12-04	BUREAU	17	1
		ILLINOIS	CONTRACT NO. 46177	

INDEX OF SHEETS

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2. GENERAL NOTES
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6. TRAFFIC CONTROL
- 7 - 15. OVERHEAD SIGN TRUSS - CANTILEVER
16. SIGN PANEL DETAIL
17. SOIL BORING LOGS

STANDARDS

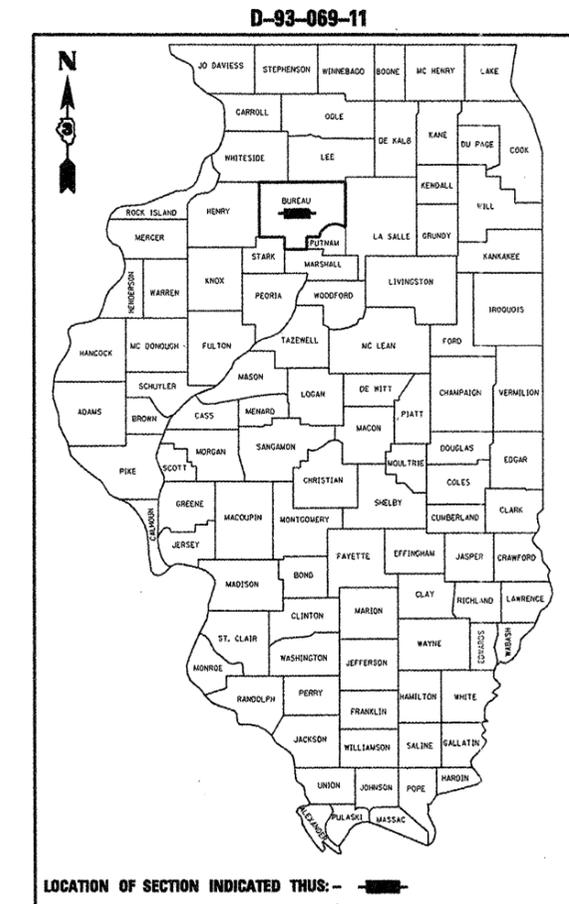
- | | |
|-----------|---|
| 000001-06 | STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS |
| 001001-02 | AREAS OF REINFORCEMENT BARS |
| 001006 | DECIMAL OF AN INCH AND OF A FOOT |
| 701101-02 | OFF-ROAD OPERATIONS MULTILANE, 15' (4.5 m) TO 24' (600 mm) FROM PAVEMENT EDGE |
| 701106-02 | OFF-ROAD OPERATIONS, MULTILANE, MORE THAN 15' (4.5 m) AWAY |
| 701411-07 | LANE CLOSURE, MULTILANE, AT ENTRANCE OR EXIT RAMP FOR SPEEDS ≥ 45 MPH |
| 701901-01 | TRAFFIC CONTROL DEVICES |

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
PROPOSED
HIGHWAY PLANS

F.A.I. 80 (I-80)
SECTION D-3 OVD SIGN STR REPL 12-04

CANTILEVER OVERHEAD SIGN TRUSSES REMOVAL AND REPLACEMENT
BUREAU COUNTY

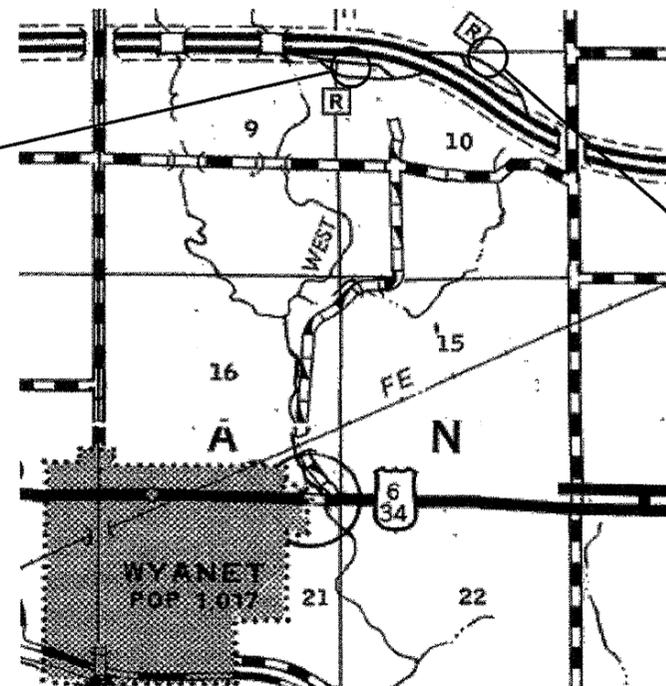
C-60-004-012



FUNCTIONAL CLASSIFICATION
RURAL - INTERSTATE
F.A.I. ROUTE 80
2009 ADT = 38500
P.V. = 75.71%
M.U. = 18.18%
S.U. = 6.10%

LOCATION 1 - FAI ROUTE 80

OVERHEAD SIGN STRUCTURE - CANTILEVER
S.N. #3C0061080R050.9
ENTRANCE TO EB GREAT SAUK TRAILS REST AREA
(EXISTING STA. 839+50 EBL)
(PROPOSED STA. 839+25 EBL)



LOCATION 2 - FAI ROUTE 80

OVERHEAD SIGN STRUCTURE - CANTILEVER
S.N. #3C0061080L051.7
ENTRANCE TO WB GREAT SAUK TRAILS REST AREA
(EXISTING STA. 886+20 WBL)
(PROPOSED STA. 886+45 WBL)

BUREAU COUNTY

J.U.L.I.E.
JOINT UTILITY LOCATION INFORMATION FOR EXCAVATION
1-800-892-0123
OR 811

PROJECT ENGINEER: JOE KANNEL, P.E.
UNIT CHIEF: RON WOODSHANK
TOWNSHIP: PRINCETON

CONTRACT NO. 46177

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED **MARCH 15, 2010**
PASSED *[Signature]* ENGINEER OF OPERATIONS

May 13, 2011
Scott E. Stitt P.E.
ENGINEER OF DESIGN AND ENVIRONMENT

APPROVED **May 13, 2011**
Christine M. Reesler
DIRECTOR DIVISION OF HIGHWAYS

PRINTED BY THE AUTHORITY
OF THE STATE OF ILLINOIS

GENERAL NOTES

PLAN DIMENSIONS AND DETAILS RELATIVE TO THE EXISTING PLANS ARE SUBJECT TO ROUTINE VARIATIONS. THE CONTRACTOR SHALL FIELD VERIFY EXISTING DIMENSIONS AND DETAILS AFFECTING NEW CONSTRUCTION AND MAKE NECESSARY APPROVED ADJUSTMENTS PRIOR TO CONSTRUCTION OR ORDERING OF MATERIALS. SUCH VARIATIONS SHALL NOT BE CAUSE FOR ADDITIONAL COMPENSATION FOR A CHANGE IN THE SCOPE OF THE WORK. HOWEVER, THE CONTRACTOR WILL BE PAID FOR THE QUANTITY FURNISHED BASED UPON THE UNIT BID PRICE FOR THE WORK.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING UTILITY PROPERTY FROM CONSTRUCTION OPERATIONS AS OUTLINED IN ARTICLE 107.31 OF THE STANDARD SPECIFICATIONS. THE "JULIE" NUMBER IS 1-800-892-0123. A MINIMUM OF FORTY-EIGHT (48) HOURS ADVANCE NOTICE IS REQUIRED.

THE COST OF ANY SAW CUTS MADE TO COMPLETE THE WORK AS DESCRIBED IN PLAN DETAILS, UNLESS OTHERWISE NOTED SHALL NOT BE PAID FOR SEPARATELY BUT SHALL BE INCLUDED WITH THE VARIOUS PAY REMOVAL PAY ITEMS INVOLVED.

REINFORCEMENT BARS SHALL CONFORM TO THE REQUIREMENTS OF ASTM A 706 GR 60. SEE SPECIAL PROVISIONS.

NEW REINFORCEMENT BARS SHALL BE EPOXY COATED.

ABANDONED UNDERGROUND UTILITIES THAT CONFLICT WITH CONSTRUCTION SHALL BE DISPOSED OF OUTSIDE THE LIMITS OF THE RIGHT OF WAY ACCORDING TO ARTICLE 202.03 OF THE STANDARD SPECIFICATIONS AND AS DIRECTED BY THE ENGINEER. THIS WORK WILL NOT BE PAID FOR SEPARATELY, BUT SHALL BE INCLUDED IN THE COST OF EARTH EXCAVATION.

ANY REFERENCE TO A STANDARD IN THESE PLANS SHALL BE INTERPRETED TO MEAN THE EDITION AS INDICATED BY THE SUBNUMBER SHOWN IN THE LIST OF STANDARDS OR THE COPY INCLUDED IN THESE PLANS.

THE CONTRACTOR'S ATTENTION IS DIRECTED TO THE PRESENCE OF DEPARTMENT-OWNED UNDERGROUND ELECTRICAL CABLE WITHIN THE LIMITS OF THE PROPOSED IMPROVEMENT. THE CONTRACTOR SHALL REQUEST THE ILLINOIS DEPARTMENT OF TRANSPORTATION IN OTTAWA (815-434-8417) TO LOCATE THE UNDERGROUND FACILITIES, PROVIDING A MINIMUM OF 72 HOURS NOTICE. THE DEPARTMENT IS NOT A MEMBER OF THE JOINT UTILITY LOCATING INFORMATION FOR EXCAVATORS (JULIE) SYSTEM.

ALL DAMAGE TO DEPARTMENT OWNED UNDERGROUND FACILITIES, CAUSED BY THE CONTRACTOR SHALL BE REPAIRED TO THE SATISFACTION OF THE DEPARTMENT AT THE CONTRACTOR'S EXPENSE. THIS SHALL INCLUDE ALL TEMPORARY REPAIRS REQUIRED TO KEEP THE FACILITY OPERATIONAL WHILE MATERIAL IS BEING OBTAINED TO MAKE PERMANENT REPAIRS. SPLICING OF ELECTRIC CABLE SHALL NOT BE ALLOWED. ELECTRIC CABLE SHALL BE REPLACED FROM POLE TO POLE OR CONTROLLER.

THE CONTRACTOR SHALL CONTACT JULIE AT LEAST 48 HOURS PRIOR TO EXCAVATION TO DETERMINE WHICH UTILITIES ARE IN THE AREA.

COMMITMENTS

ALL EXCAVATED MATERIAL SHALL REMAIN ON SITE AND BE DISPOSED OF AS DIRECTED BY THE ENGINEER.

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PLOT SCALE = 100.0129' / IN.	CHECKED - _____	REVISED - _____	SCALE: _____			SHEET NO. 1 OF 1 SHEETS	STA. _____ TO STA. _____	ILLINOIS		CONTRACT NO. 46177	
PLOT DATE = Mar 14, 2011 - 01:49:35 PM	DATE - _____	REVISED - _____									

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE	
				STATE FUNDS 100% STATE STRUCTURE 0040 RURAL	
67100100	MOBILIZATION	L SUM	1		1
70100820	TRAFFIC CONTROL AND PROTECTION, STANDARD, 701451	L SUM	1		1
X7015005	CHANGEABLE MESSAGE SIGN	CAL DA	20		20
X0325265	REMOVE ELECTRIC SERVICE	EACH	2		2
81900200	TRENCH AND BACKFILL FOR ELECTRICAL WORK	FOOT	500		500
X8040115	ELECTRICAL CONNECTION TO SIGN STRUCTURE (TRUSS TYPE)	EACH	2		2
X7240195	REMOVE EXISTING SIGN PANEL	EACH	2		2
73600200	REMOVE OVERHEAD SIGN STRUCTURE - CANTILEVER	FOOT	64		64
73700300	REMOVE CONCRETE FOUNDATION - OVERHEAD	EACH	2		2
73400200	DRILLED SHAFT CONCRETE FOUNDATIONS	CU YD	12.2		12.2
73302170	OVERHEAD SIGN STRUCTURE - CANTILEVER, TYPE II-C-A (36" X 5'-6")	FOOT	60		60
73301840	OVERHEAD SIGN STRUCTURE WALKWAY, CANTILEVER, TYPE A	FOOT	28		28
X7330085	FURNISH AND INSTALL SAFETY CHAIN	EACH	4		4
X5090100	FURNISH AND INSTALL HANDRAIL	FOOT	28		28
X7200095	FURNISH AND ERECT SIGN PANEL	SQ FT	168		168
X0321984	SIGN LIGHTING UNIT COMPLETE	EACH	2		2

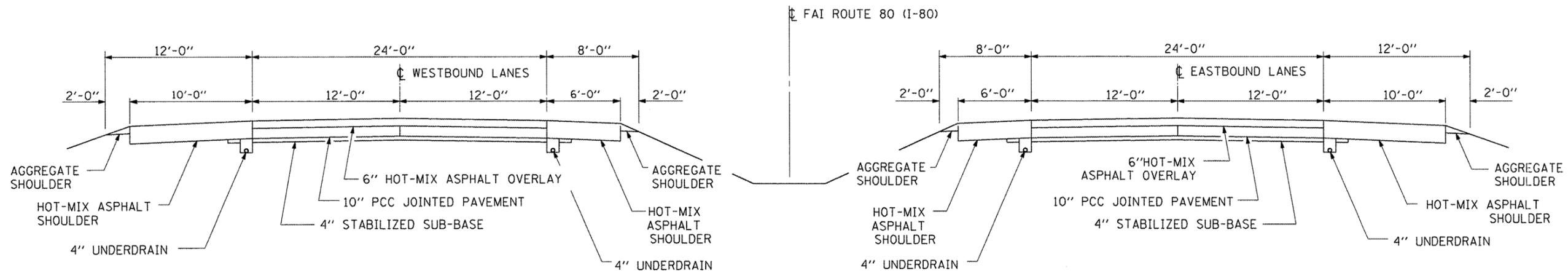
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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

SUMMARY OF QUANTITIES

SCALE: _____ SHEET NO. 1 OF 1 SHEETS STA. _____ TO STA. _____

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
I-80	D-3 OVD SIGN STR REPL 12-04	BUREAU	17	3
ILLINOIS			CONTRACT NO. 46177	



TYPICAL SECTION
BUREAU COUNTY - FAI ROUTE 80
LOCATION 1 AND 2

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

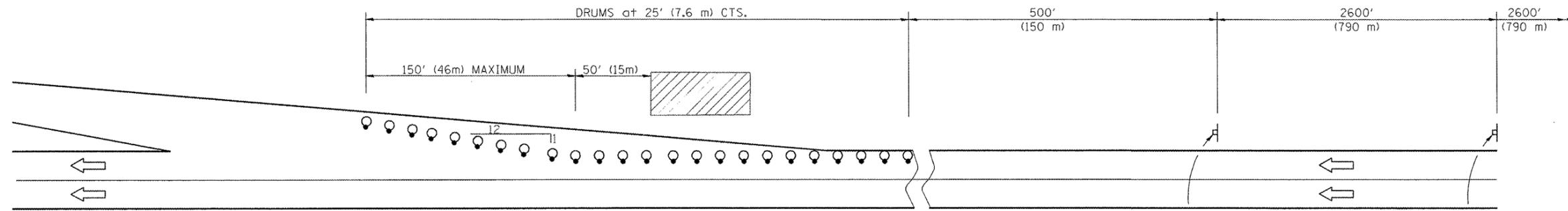
TYPICAL SECTIONS

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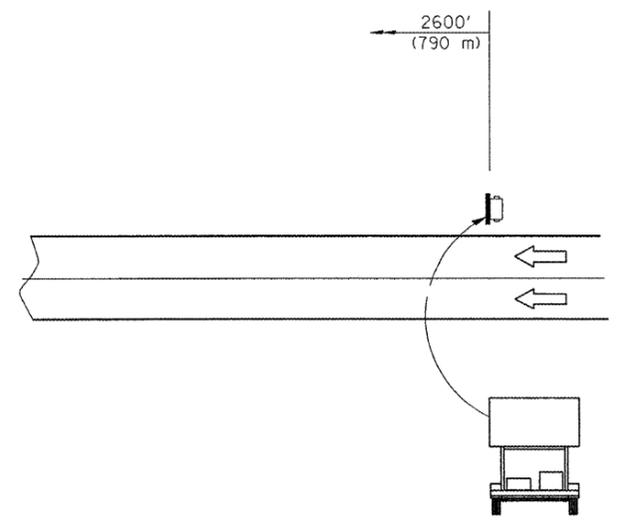
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1-80	D-3 OVD SIGN STR REPL 12-04	BUREAU	17	4
ILLINOIS			CONTRACT NO. 46177	

LOCATION NO.	1	STATE I.D. NO.	3C006I080R050.9				
COUNTY	BUREAU	ROUTE	FAI 80	M.P.	50.9	DIRECTION	EB
DESCRIPTION OF WORK				UNIT	QUANTITY		
REMOVE ELECTRIC SERVICE				EACH	1		
ELECTRICAL CONNECTION TO SIGN STRUCTURE (TRUSS TYPE)				EACH	1		
REMOVE EXISTING SIGN PANEL				EACH	1		
REMOVE OVERHEAD SIGN STRUCTURE - CANTILEVER				FOOT	32		
REMOVE CONCRETE FOUNDATION - OVERHEAD				EACH	1		
DRILLED SHAFT CONCRETE FOUNDATION				CU. YD.	6.1		
OVERHEAD SIGN STRUCTURE - CANTILEVER, TYPE II-C-A (36" X 5'-6")				FOOT	30		
TRENCH AND BACKFILL FOR ELECTRICAL WORK				FOOT	250		
OVERHEAD SIGN STRUCTURE WALKWAY				FOOT	14		
FURNISH AND INSTALL SAFETY CHAIN				EACH	2		
FURNISH AND INSTALL HANDRAIL				FOOT	14		
FURNISH AND ERECT SIGN PANEL				SQ. FT.	84		
FURNISH AND INSTALL TRUSS DAMPER				EACH	1		
SIGN LIGHTING UNIT COMPLETE				EACH	1		

LOCATION NO.	2	STATE I.D. NO.	3C006I080L051.7				
COUNTY	BUREAU	ROUTE	FAI 80	M.P.	51.7	DIRECTION	WB
DESCRIPTION OF WORK				UNIT	QUANTITY		
REMOVE ELECTRIC SERVICE				EACH	1		
ELECTRICAL CONNECTION TO SIGN STRUCTURE (TRUSS TYPE)				EACH	1		
REMOVE EXISTING SIGN PANEL				EACH	1		
REMOVE OVERHEAD SIGN STRUCTURE - CANTILEVER				FOOT	32		
REMOVE CONCRETE FOUNDATION - OVERHEAD				EACH	1		
DRILLED SHAFT CONCRETE FOUNDATION				CU. YD.	6.1		
OVERHEAD SIGN STRUCTURE - CANTILEVER, TYPE II-C-A (36" X 5'-6")				FOOT	30		
TRENCH AND BACKFILL FOR ELECTRICAL WORK				FOOT	250		
OVERHEAD SIGN STRUCTURE WALKWAY				FOOT	14		
FURNISH AND INSTALL SAFETY CHAIN				EACH	2		
FURNISH AND INSTALL HANDRAIL				FOOT	14		
FURNISH AND ERECT SIGN PANEL				SQ. FT.	84		
FURNISH AND INSTALL TRUSS DAMPER				EACH	1		
SIGN LIGHTING UNIT COMPLETE				EACH	1		



EXIT RAMP CLOSURE



MESSAGE BOARD

ROAD CONSTRUCTION
AHEAD ON RAMP
USE CAUTION

SYMBOLS

-  WORK AREA
-  SIGN
-  TYPE III BARRICADE
-  DRUM WITH STEADY BURNING LIGHT
-  PORTABLE CHANGEABLE MESSAGE SIGN

* NOTE: THIS DETAIL TO BE USED IN CONJUNCTION WITH TRAFFIC CONTROL AND PROTECTION, STANDARD, 701451

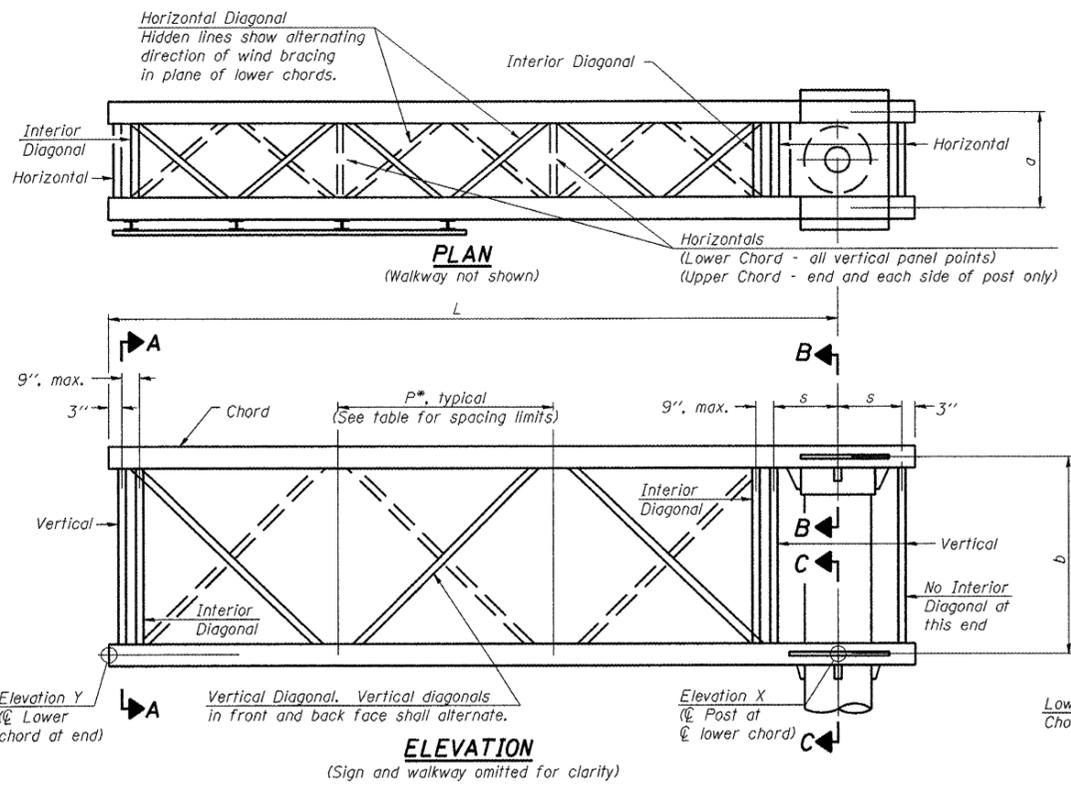
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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

TRAFFIC CONTROL

SCALE: _____ SHEET NO. 1 OF 1 SHEETS STA. _____ TO STA. _____

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
I-80	D-3 OVD SIGN STR REPL 12-04	BUREAU	17	6
ILLINOIS			CONTRACT NO. 46177	



TYPICAL TRUSS UNIT
(Sign and walkway omitted for clarity)

Note: For Section B-B and Section C-C, see Base Sheet OSC-A-3.

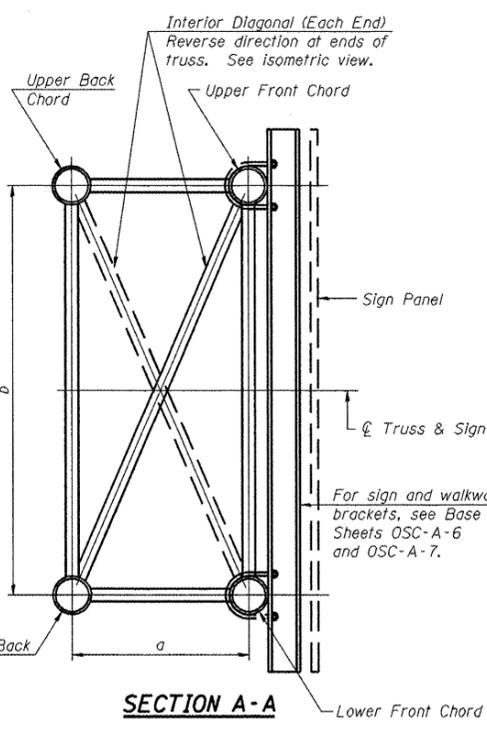
Note: There are twice as many horizontal diagonals as there are vertical diagonals.

TRUSS UNIT TABLE

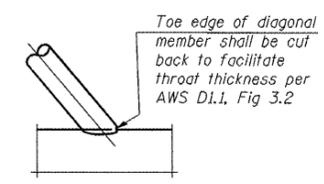
Truss Type	Dimension "a"	Dimension "b"	Dimension "s"	Limits for Panel Spacing (P)*	Up. & Low. Chord			Verticals: Horizontals; Vertical, Horizontal, and Interior Diagonals		
					O.D.	Wall	O.D.	O.D.	Wall	O.D.
I-C-A	24"	54"	16"	36" min. to 48" max.	5"	5/16"	2 1/2"	5/16"	5/16"	
II-C-A	36"	66"	21"	42" min. to 54" max.	6 1/2"	5/16"	3 1/4"	5/16"	5/16"	
III-C-A (35' Max.)	36"	84"	21"	48" min. to 66" max.	7"	3/8"	3 1/2"	3/8"	3/8"	
III-C-A (>35' to 40')	36"	84"	21"	48" min. to 66" max.	8"	3/8"	3 1/2"	3/8"	3/8"	

*P = $\frac{L-s-3"}{\# \text{ Panels}}$

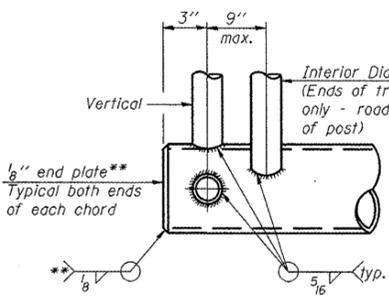
Structure Number	Station	Truss Type	Design Length (L)	Number of Panels Per Unit	Panel Length (P)*
3C0061080R050.9	839+25 EB	II-C-A	30.0'	7.0	4.0'
3C0061080L051.7	886+45 WB	II-C-A	30.0'	7.0	4.0'



SECTION A-A

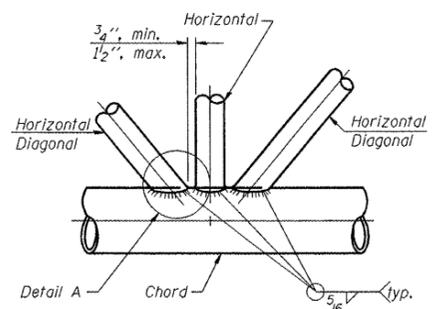


DETAIL A

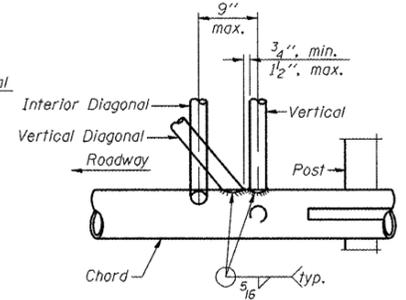


CANTILEVER END JOINT DETAIL

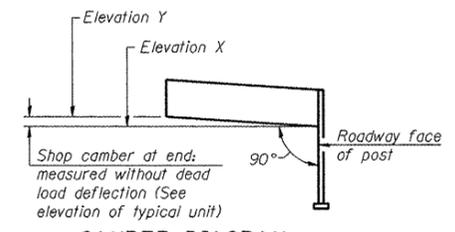
** Contractor may alternatively use standard aluminum drive-fit cap to close ends.



TRUSS INTERIOR JOINT DETAIL

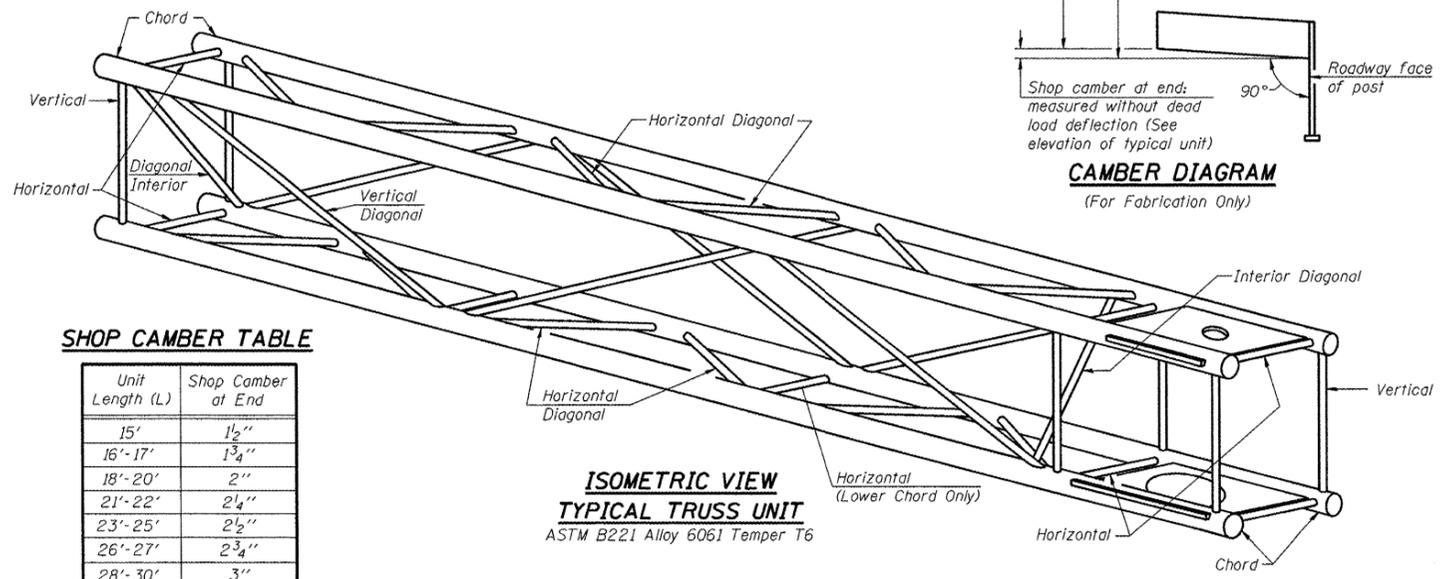


POST END JOINT DETAIL



CAMBER DIAGRAM

(For Fabrication Only)



ISOMETRIC VIEW TYPICAL TRUSS UNIT

ASTM B221 Alloy 6061 Temper T6

SHOP CAMBER TABLE

Unit Length (L)	Shop Camber at End
15'	1 1/2"
16'-17'	1 3/4"
18'-20'	2"
21'-22'	2 1/4"
23'-25'	2 1/2"
26'-27'	2 3/4"
28'-30'	3"
31'-32'	3 1/4"
33'-35'	3 1/2"
36'-37'	4"
38'-40'	4 1/2"

OSC-A-2

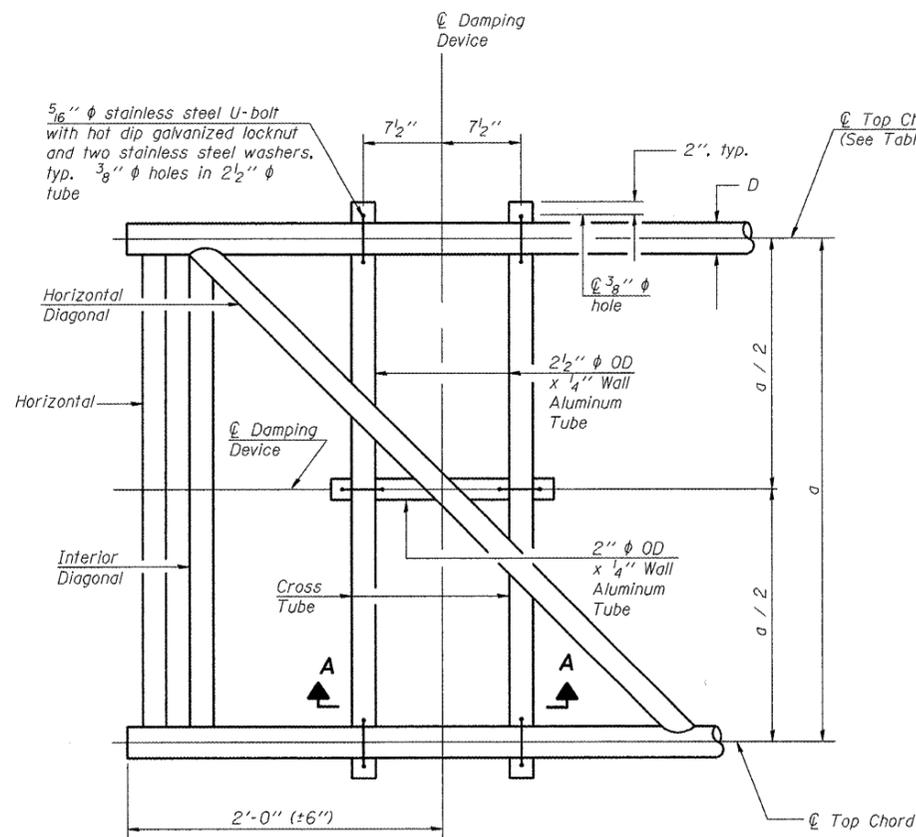
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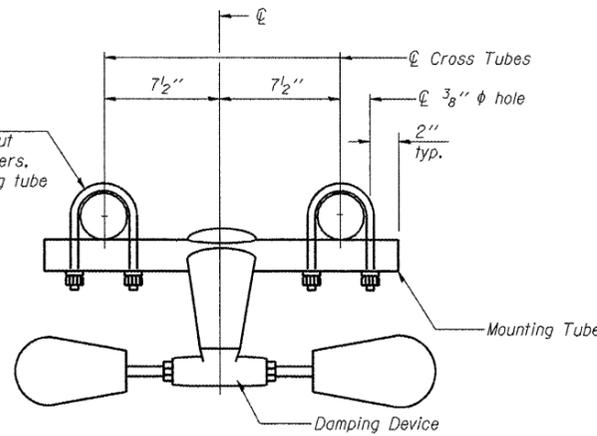
STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

CANTILEVER SIGN STRUCTURES - TRUSS DETAILS ALUMINUM TRUSS & STEEL POST

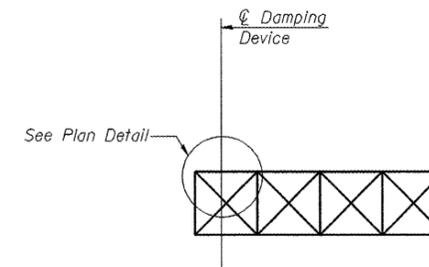
F.A.I. RTE. 1-80	SECTION D-3 OVD SIGN STR REPL 12-04	COUNTY BUREAU	TOTAL SHEETS 17	SHEET NO. 8
SCALE: _____	SHEET NO. 1 OF 1 SHEETS	STA. _____ TO STA. _____	ILLINOIS CONTRACT NO. 46177	



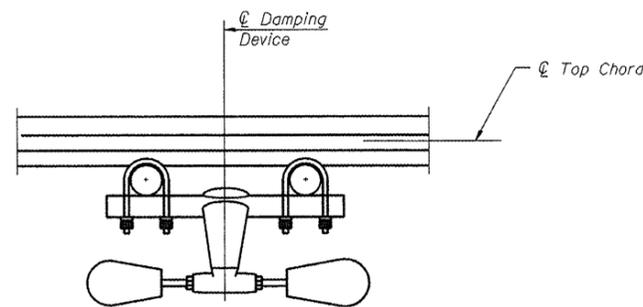
PLAN DETAIL



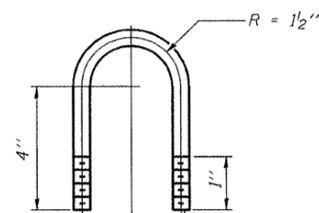
TRUSS DAMPING DEVICE CONNECTION DETAIL



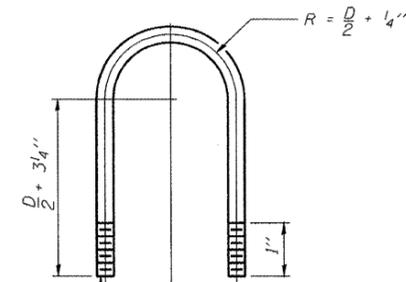
ELEVATION
Aluminum Cantilever Sign Structure



SECTION A-A



DAMPING DEVICE MOUNTING TUBE U-BOLT DETAIL
(Typical)



TOP CHORD TO CROSS TUBE U-BOLT DETAIL
(Typical)

GENERAL NOTES

- Damper: One damper per truss. (31 lbs. Stockbridge-Type Aluminum-29" minimum between ends of weights)
- Materials: Aluminum tubes shall be ASTM B221 alloy 6061 temper T6

OSC-A-D

7-1-10

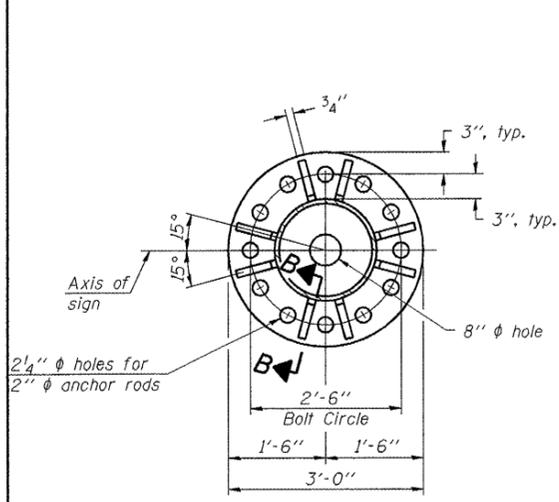
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

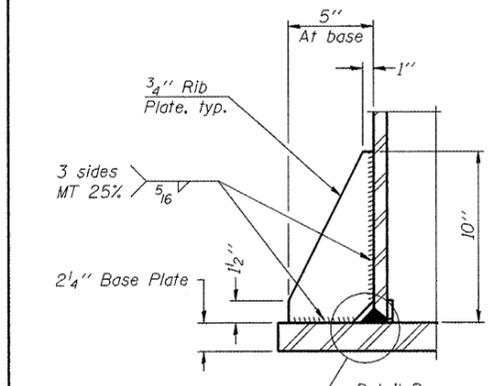
CANTILEVER SIGN STRUCTURE
DAMPING DEVICE

SCALE: SHEET NO. 1 OF 1 SHEETS STA. TO STA.

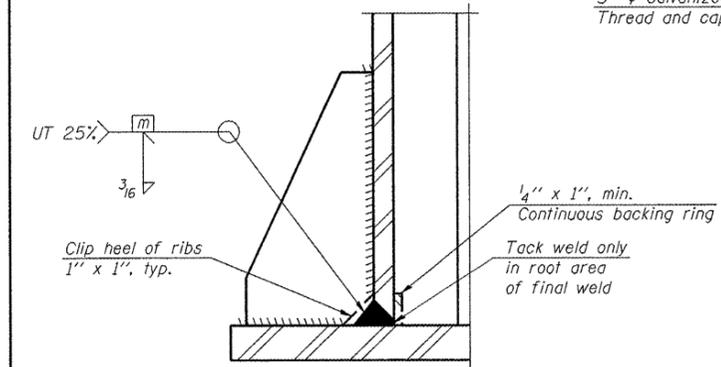
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1-80	D-3 OVD SIGN STR REPL 12-04	BUREAU	17	9
ILLINOIS			CONTRACT NO. 46177	



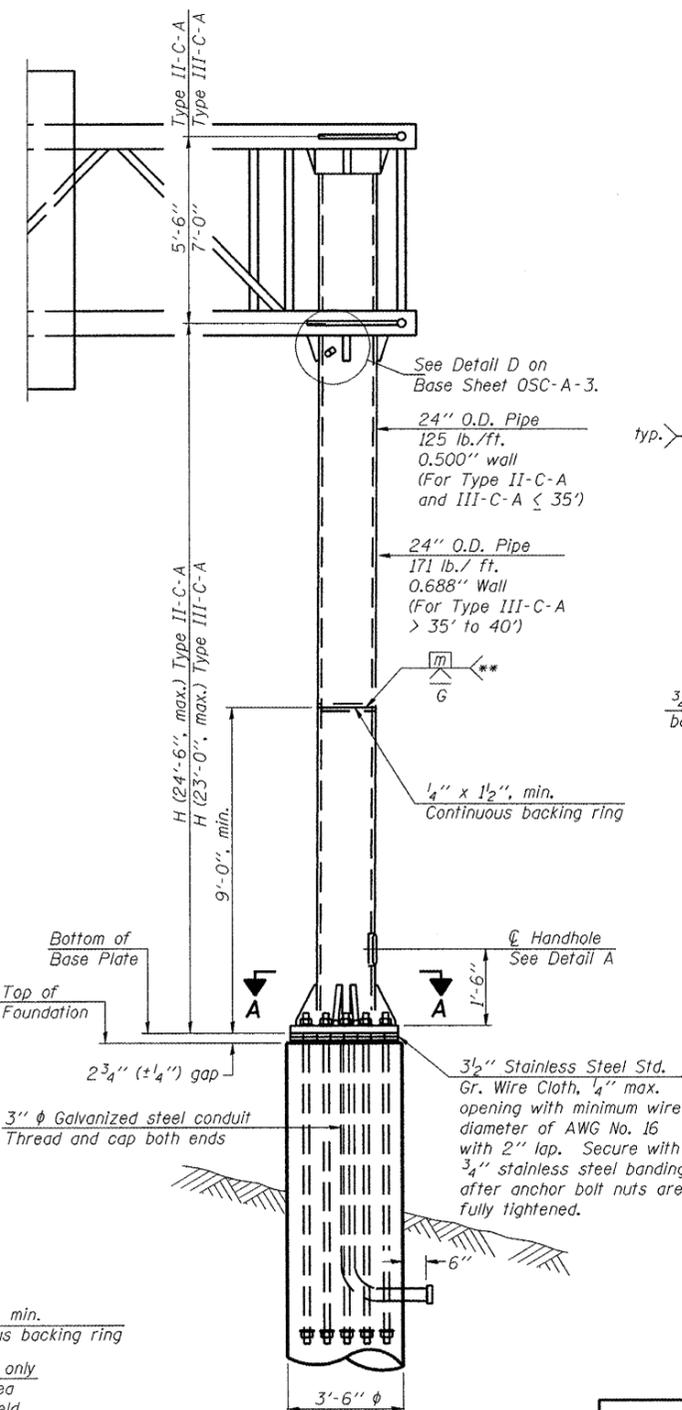
SECTION A-A



SECTION B-B

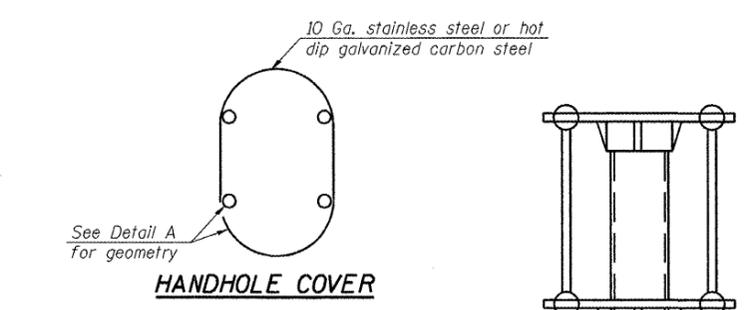


DETAIL B
(Typical rib)

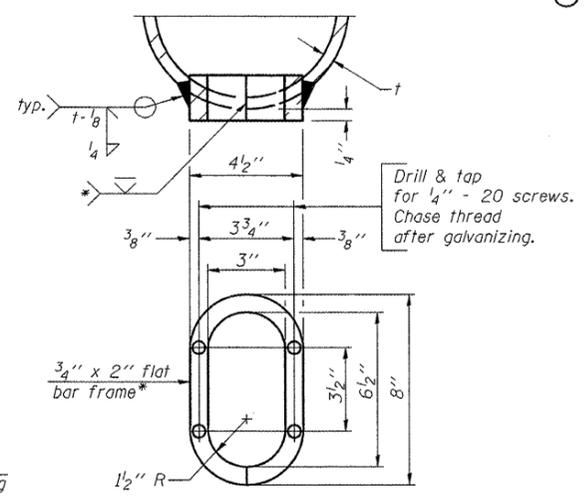


FRONT ELEVATION

For Foundation Details see Base Sheet OSC-A-9.



HANDHOLE COVER



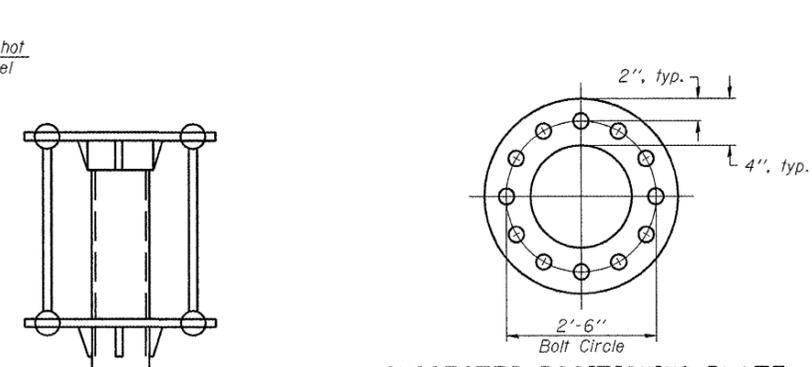
DETAIL A

* Bent bars may be butt welded top and bottom or bottom only. In lieu of fabricated handhole frame as shown, may cut from 2" plate (rolling direction vertical). All cut faces to be ground to ANSI Roughness of 500 min or less.

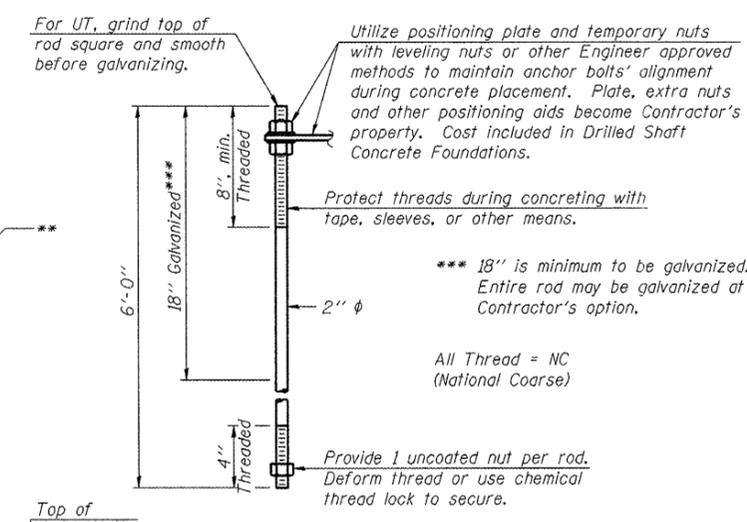
** Butt welded joint in post is only allowed for post heights (H) over 20 ft. in length. If used, weld procedure must be preapproved by Engineer and joint shall receive 100% RT or UT (tension criteria) at Contractor's expense.

Structure Number	Station	H
3C0061080R050.9	839+25 EB	23'-3"
3C0061080L051.7	886+45 WB	23'-5"

Note: "H" based on 15'-0" or actual sign height, whichever is greater.



SUGGESTED POSITIONING PLATE



ANCHOR ROD DETAIL

Anchor rods shall conform to AASHTO M314 Grade 105 and meet Charpy V-Notch (CVN) energy of 15 lb.-ft. at 10° F. before galvanizing. Galvanize the upper 18" (minimum) and associated M291, Grade A, C or DH heavy hex nuts and hardened washers per AASHTO M232. No welding shall be permitted on rods. Provide an unfinished nut at bottom, a hexagon locknut and washer above base plate and a leveling nut and washer below base plate. Nuts shall each be tightened with 200 lb.-ft. minimum torque against base plate. Before or after threading, but before galvanizing, each anchor rod shall be ultrasonically tested (UT) by a Level II or III inspector, qualified in accord with ANSI guidelines, using a straight beam, 1/2" φ 3.5 mhz. transducer, to insure no rejectable flaws exist in the upper 18" (tension criteria). Cost of testing included in Drilled Shaft Concrete Foundations.

SIDE ELEVATION

OSC-A-5

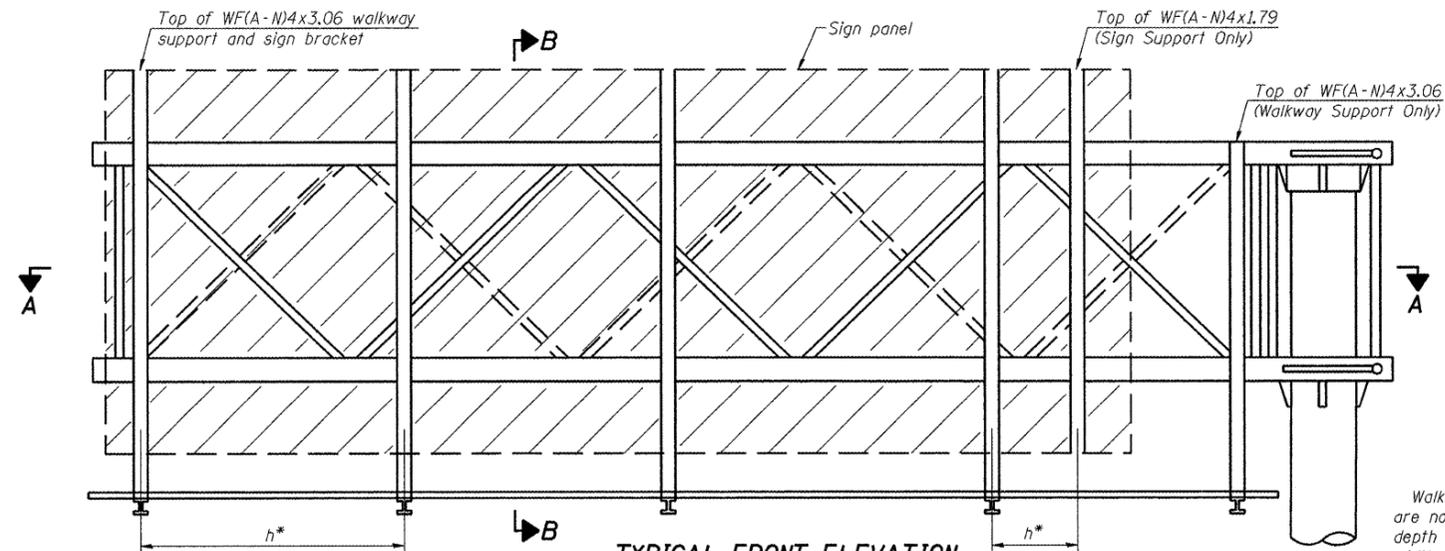
7-1-10

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

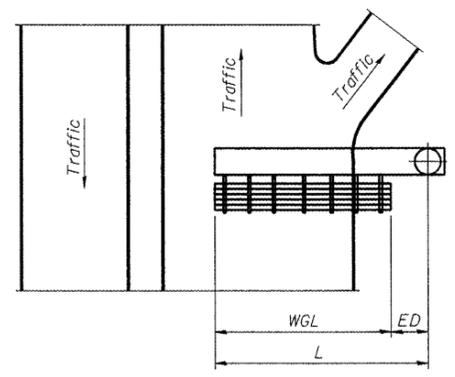
CANTILEVER SIGN STRUCTURES - TYPE II-C-A & III-C-A
TRUSS SUPPORT POST - ALUMINUM TRUSS & STEEL POST

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1-80	D-3 OVD SIGN STR REPL 12-04	BUREAU	17	11
			CONTRACT NO. 46177	
		ILLINOIS		

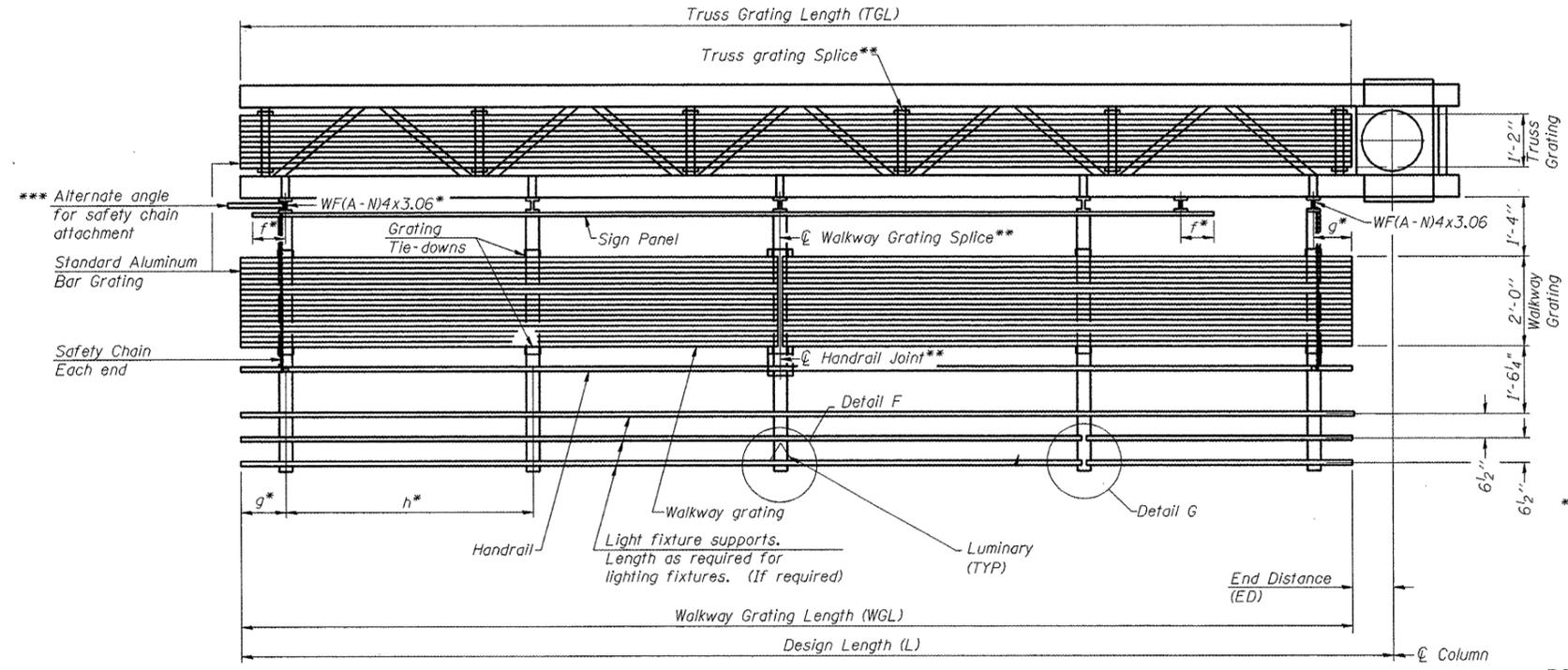


TYPICAL FRONT ELEVATION
With lights and handrail omitted for clarity.

Walkway and truss grating dimensions are nominal and may vary (width ± 1/2", depth ± 1/2") based on available standard widths.



PLAN WALKWAY AND HANDRAIL SKETCH
(Road plan beneath truss varies)



SECTION A-A

Truss grating to facilitate inspection shall run full length of cantilevers. Cost of truss grating is included in Overhead Sign Structure Cantilever.

Handrail and walkway grating shall span a minimum of three brackets between splices. ** Use and location of handrail joints or grating splices are optional, based on lengths needed and material availability.

$$TGL = L - \left(\frac{\text{Post O.D.}}{2} + 6'' \right)$$

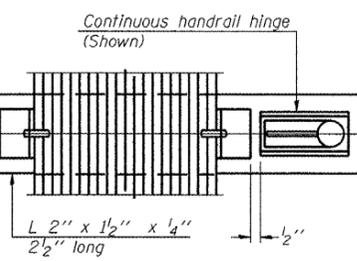
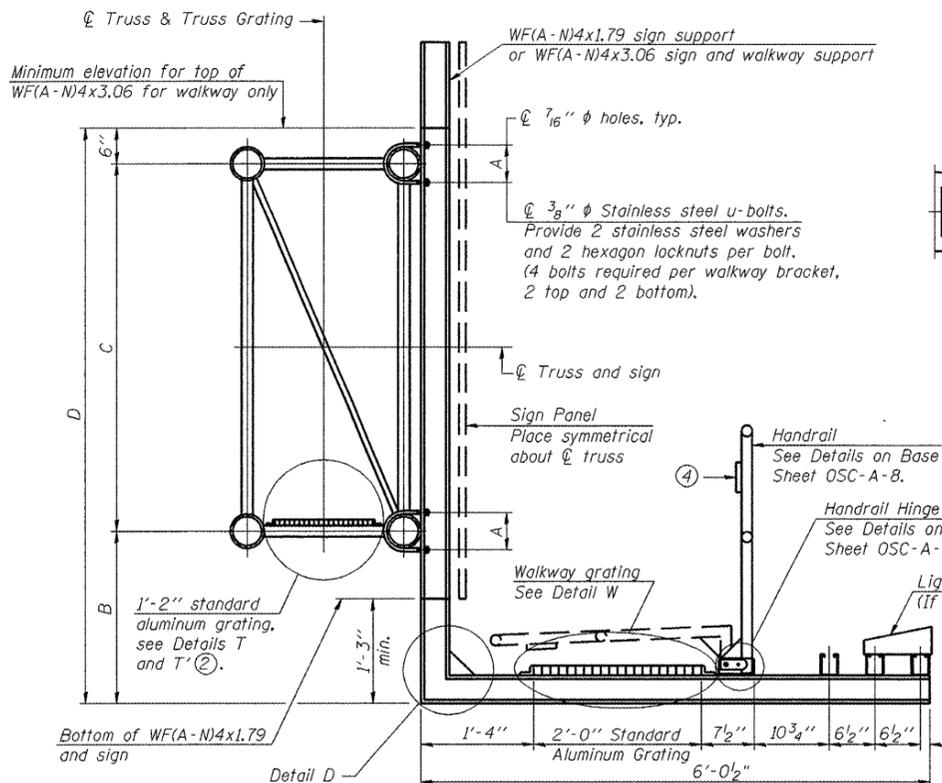
△ Luminary - One, placed at center of walkway.

Structure Number	Station	WGL	ED	TGL
3C0061080R050.9	839+25 EB	14.0'	16.0'	28'-6"
3C0061080L051.7	886+45 WB	14.0'	16.0'	28'-6"

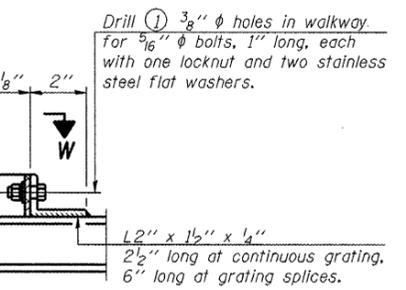
Notes:
Space walkway brackets WF(A-N)4x3.06 and sign brackets WF(A-N)4x1.79 for efficiency and within limits shown:
f = 12" maximum, 4" minimum (End of sign to center of nearest bracket)
g = 12" maximum, 4" minimum (End of walkway to center of nearest bracket)
h = 6'-0" maximum (center to center sign and/or walkway support brackets, WF(A-N)4x1.79 or WF(A-N)4x3.06)
*** If walkway bracket at safety chain location is behind sign, add angle to bracket. See alternate safety chain attachment on base sheet OSC-A-8.
For details of sign placement, sign/walkway brackets, truss and walkway gratings, grating splices and Section B-B, see Base Sheet OSC-A-7.
For details of handrail, handrail joint, safety chain and Details F and G, see Base Sheet OSC-A-8.

BRACKET TABLE

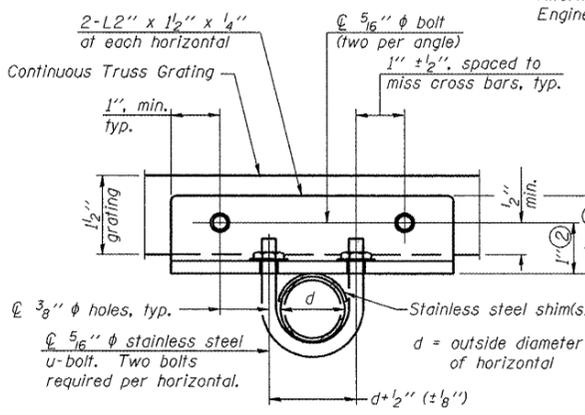
Sign Width		Number Brackets Required
Greater Than	Less Than or Equal To	
	8'-0"	2
8'-0"	14'-0"	3
14'-0"	20'-0"	4
20'-0"	26'-0"	5
26'-0"	32'-0"	6



SECTION W-W
(CONTINUOUS WALKWAY GRATING)



DETAIL W
(Walkway grating)



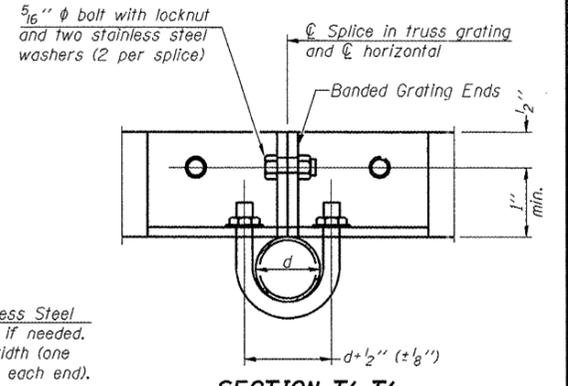
SECTION T-T

SPECIFICATIONS FOR STANDARD ALUMINUM GRATING

Main Bearing Bars (MBB) shall be 3/16'' x 1 1/2'' on 1 3/16'' centers and conform to ASTM B221 Alloy 6061-T6.
Cross bars (CB) shall be 3/16'' x 1 1/2'' on 4'' centers and conform to ASTM B221 Alloy 6063-T5 or 6061-T6.

OR

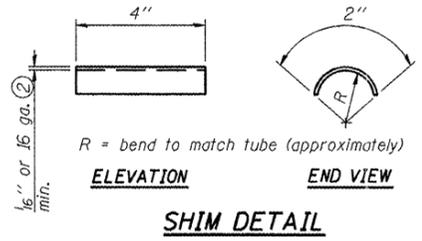
Aluminum Grating with modified 'T' sections for main bearing bars shall meet the following requirements:
Main bars shall conform to ASTM B221 Alloy 6061-T6 and have a minimum section modulus equal to 0.0705 in.³ per bar, a depth of 1 1/2'', spaced on 1 3/16'' centers.
Cross bars shall conform to ASTM B221 Alloy 6063-T5 or T-42 and spaced on 4'' centers.



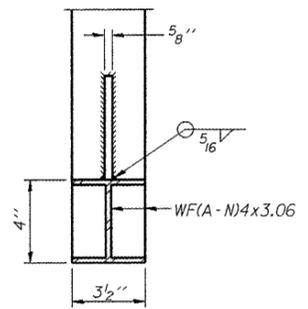
SECTION T'-T'

DETAIL T'

(Truss grating splice)
Details not shown same as Detail T.
Alternate materials may be used subject to the Engineer's review and approval.

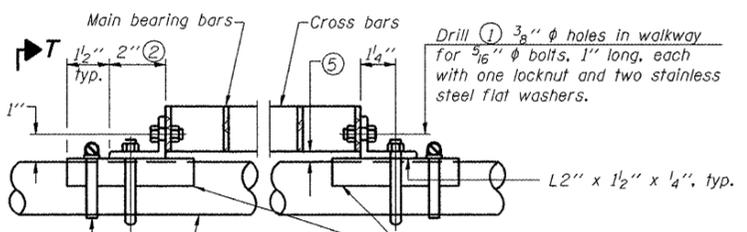


SHIM DETAIL



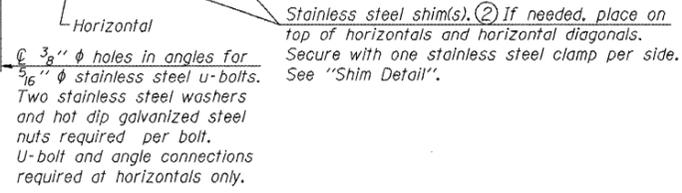
SECTION B-B

Sign shall be even with the top of the bracket, but it may extend no more than 6'' above the top of the bracket for field adjustments.

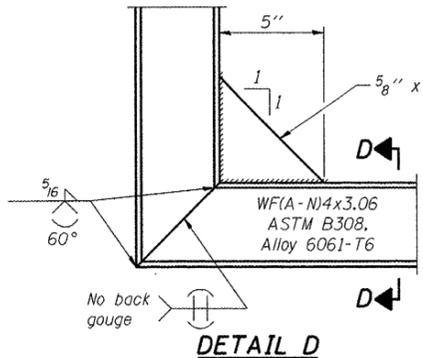


SECTION D-D

Screw type stainless steel tube clamp at shim location



DETAIL T
(Continuous Truss grating)



DETAIL D

- Drilling holes in grating may be done in shop or field, based on Contractor's preference and subject to accurate alignment.
- Stainless steel shims shall be placed as shown in Detail T if needed to compensate for alignment variations between horizontal and diagonal pipes beyond adjustment provided by angles. Thicker shims may be used subject to shims performing properly.
- If Handrail Joint present, weld angle to WF(A-N)4 and 1/4'' extension bars. (See Base Sheet OSC-A-8.)
- 1/8'' x 1/2'' x 2'' welded to handrail posts to protect locations that contact grating.
- Tube to grating gap may vary from 0 to 1/2'', max. to align walkway, allow for camber, etc.
- Based on actual sign height. D_s, given on OSC-A-1.

Structure Number	Station	A	⑥ B	C	⑥ D
3C0061080R050.9	839+25 EB	7"	1'-6"	5'-6"	7'-6"
3C0061080L051.7	886+45 WB	7"	1'-6"	5'-6"	7'-6"

OSC-A-7

7-1-10

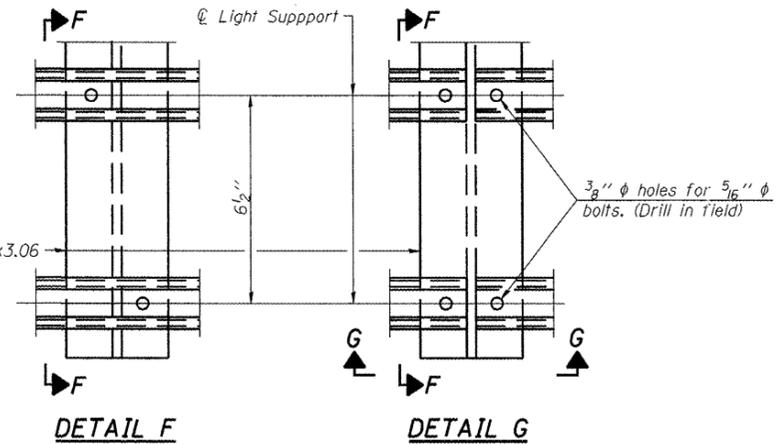
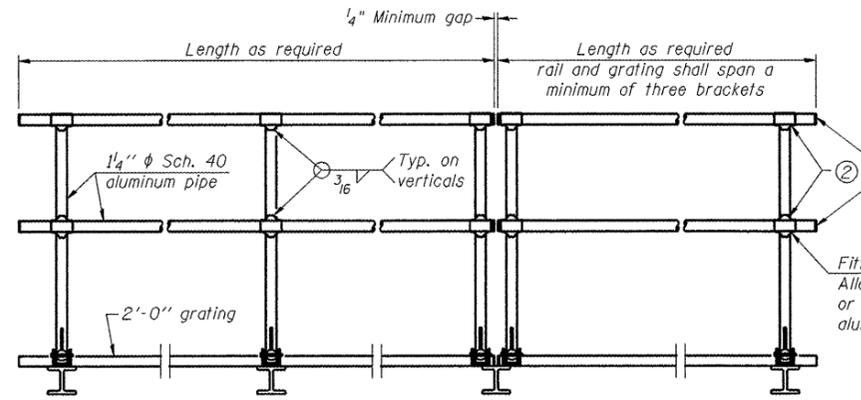
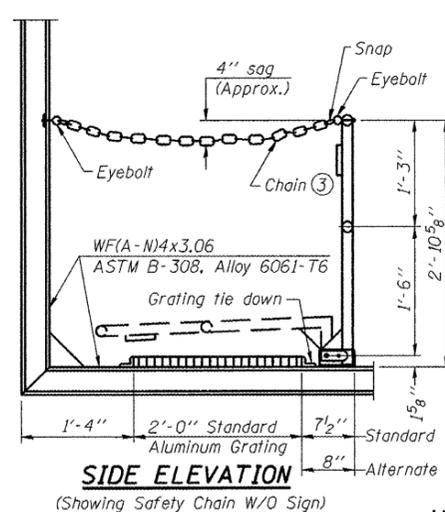
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CANTILEVER SIGN STRUCTURES - WALKWAY DETAILS
ALUMINUM TRUSS & STEEL POST

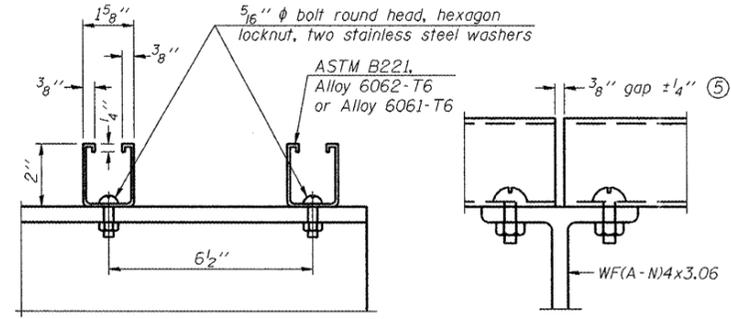
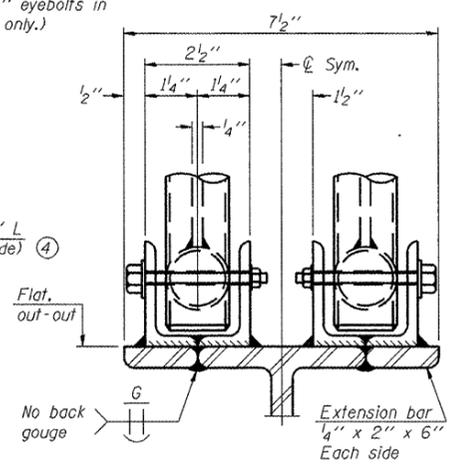
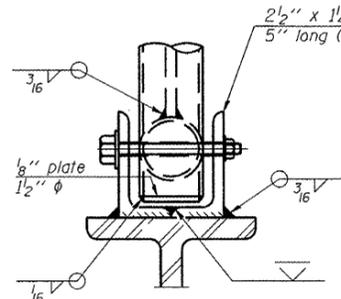
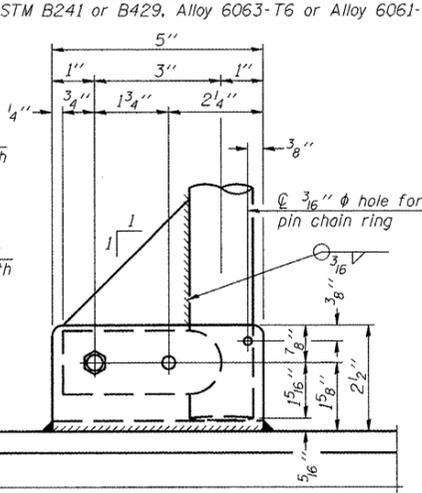
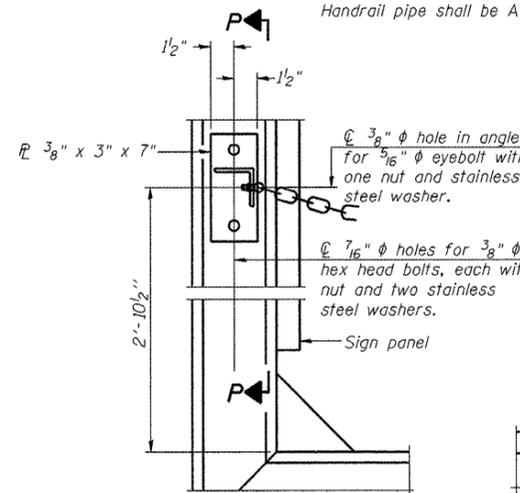
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F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
I-80	D-3 OVD SIGN STR REFL 12-04	BUREAU	17	13
		ILLINOIS	CONTRACT NO. 46177	



HANDRAIL DETAILS
Handrail pipe shall be ASTM B241 or B429, Alloy 6063-T6 or Alloy 6061-T6.

① Install standard force-fit end caps or weld 1/8" end plates with 1/8" c.f.w. and grind smooth. (All rail ends)
② Horizontal handrail member shall be continuous thru fitting. Provide 7/16" φ hole in fitting for 3/8" φ bolt. Field drill 7/16" φ hole in horizontal rail member. Provide locknut and two stainless steel washers for bolt. (Use 5/16" eyebolts in 7/16" φ holes on top rail at ends only.)

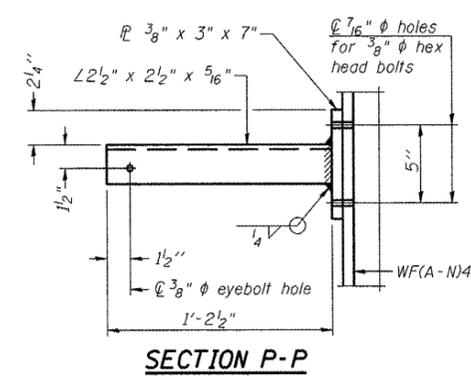


SECTION F-F and SECTION G-G
LIGHTING FIXTURE MOUNTS (IF REQUIRED)

⑤ Field cut ends of light support channels shall be free of burrs or hazardous projections and coated with zinc-rich primer or equivalent.

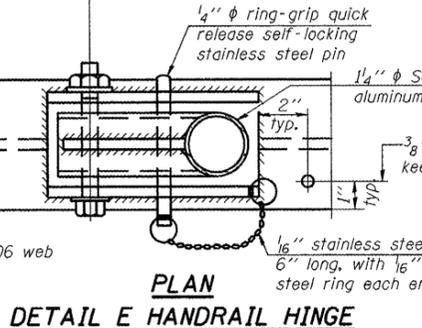
ALTERNATE SAFETY CHAIN ATTACHMENT (With Sign Present)

Items not shown same as "Side Elevation" of "Handrail Details"

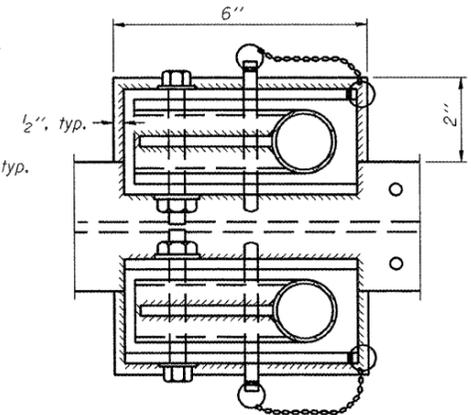


SIDE ELEVATION

Drill and ream for 3/8" φ bolt with two hexagon locknuts and two stainless steel washers.

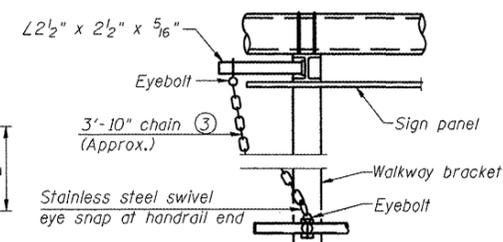


FRONT ELEVATION
Details not shown same as "ELEVATION" at right.



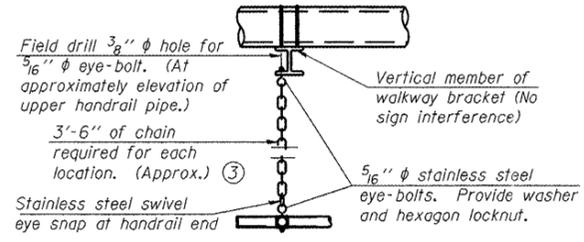
PLAN AT HANDRAIL JOINT
Details not shown same as "PLAN"

ELEVATION AT HANDRAIL JOINT ④
Details not shown same as "FRONT ELEVATION"



ALTERNATE SAFETY CHAIN ATTACHMENT
Details not shown similar to "Safety Chain" Details (Walkway omitted for clarity)

③ 3/16" Type 304L stainless steel chain, approximately 12 links per foot.
④ Extrusions may be used in lieu of the details shown, with approval of the Engineer.



SAFETY CHAIN
One required for each end of each walkway.

OSC-A-8

7-1-10

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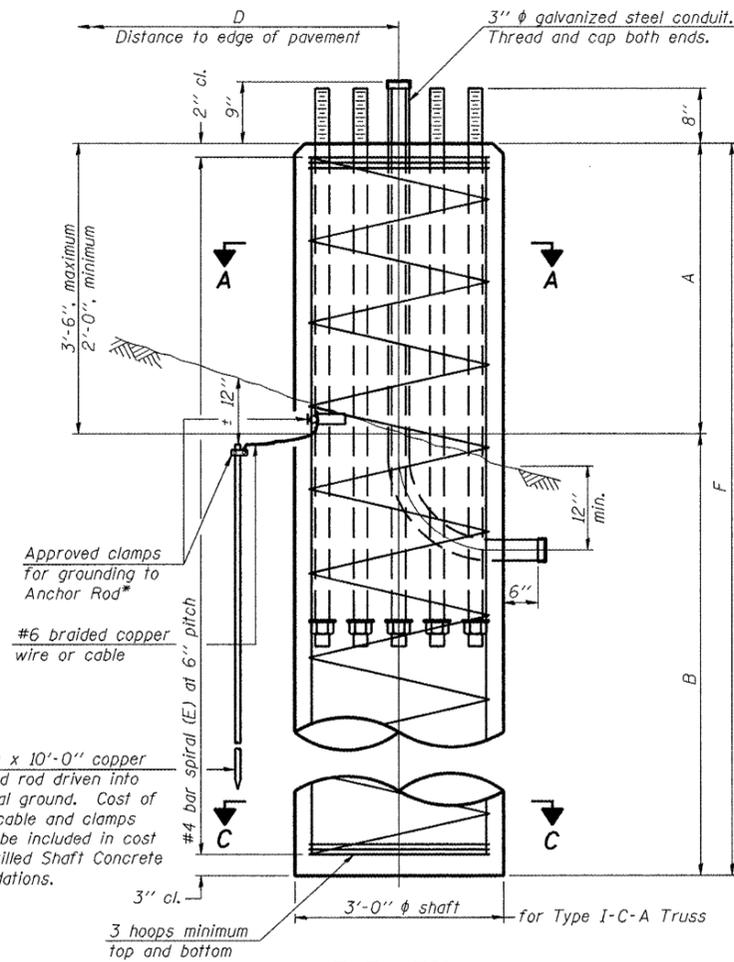
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CANTILEVER SIGN STRUCTURES - HANDRAIL DETAILS
ALUMINUM TRUSS & STEEL POST

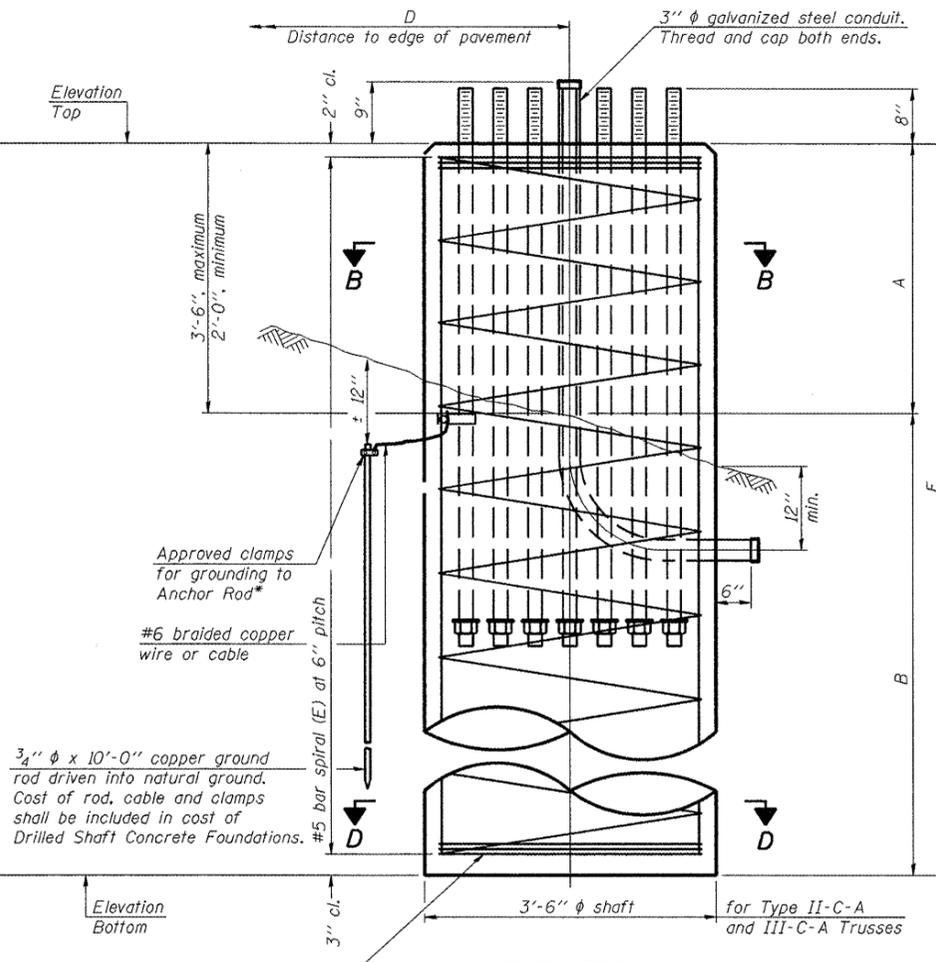
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			CONTRACT NO. 46177	
		ILLINOIS		

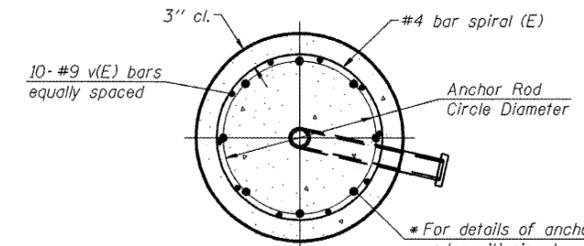
* Grind anchor rod to bright finish at ground clamp location before installing clamp.



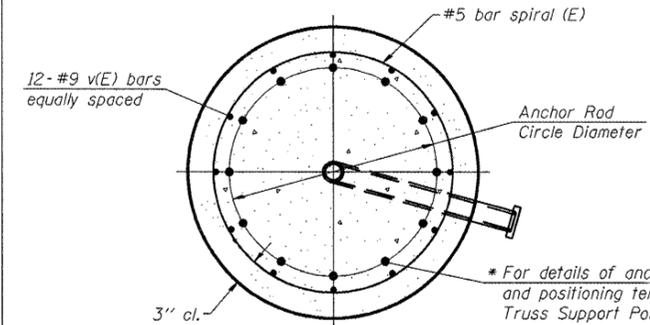
ELEVATION



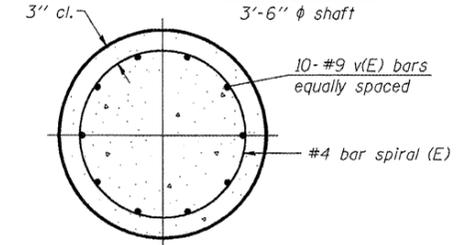
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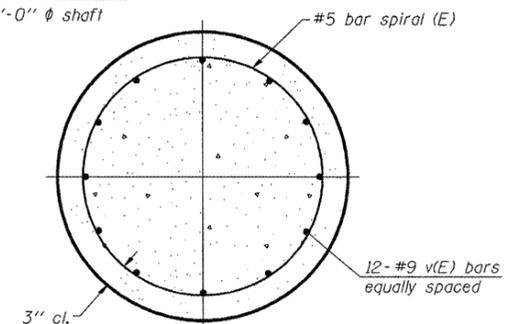
SECTION A-A



SECTION B-B



SECTION C-C



SECTION D-D

NOTES:

The foundation dimensions shown in the Foundation Design Table are based on the presence of mostly cohesive soils with an average Unconfined Compressive Strength (Qu) of at least 1.25 tsf, which must be determined by previous soil investigations at the jobsite. When other conditions are indicated, the boring data will be included in the plans and the foundation dimensions shown in the Foundation Data Table will be the result of site specific designs.

If the conditions encountered are different than those indicated, the Contractor shall notify the Engineer to determine if the foundation dimensions need to be modified. If dimensions "B" or "F" are revised by more than 12" by the Contractor, "as-built" plans shall be prepared and submitted to the District Bureau of Operations for future reference.

No sonotubes or decomposable forms shall be used below the lower conduit entrance. Permanent metal forms or other shielding may not be left in place below that elevation without the Engineer's written permission.

Concrete shall be placed monolithically, without construction joints.

Backfill shall be placed per Article 502 of Standard Specification and prior to erection of support column.

A normal surface finish followed by a Bridge Seat Sealer application will be required on concrete surfaces above the lowest elevation 6" below finished ground line. Cost included in "Drilled Shaft Concrete Foundation".

Truss Type	Post Base Sheet	Maximum Cantilever Length (ft)	Maximum Total Sign Area (sq ft)	Shaft Diameter (in)	"B" Depth (ft)	Anchor Rods		Anchor Rod Circle Diameter (in)
						No.	Diameter (in)	
I-C-A	OSC-A-4	25	170	3.0	16.0	8	2	22
II-C-A	OSC-A-5	30	170	3.5	17.0	12	2	30
II-C-A	OSC-A-5	30	340	3.5	21.5	12	2	30
III-C-A	OSC-A-5	35	170	3.5	19.0	12	2	30
III-C-A	OSC-A-5	35	250	3.5	22.5	12	2	30
III-C-A	OSC-A-5	35	400	3.5	26.5	12	2	30
III-C-A	OSC-A-5	40	400	3.5	32.0	12	2	30

Structure Number	Station	Truss Type	Shaft Diameter	Elevation Top	Elevation Bottom	Qu	A	B	F	Class DS Concrete	Cubic Yards
3C0061080L051.7	886+45 WB	II-C-A	3'-6"	101.23	82.23	2.0 tsf	2'-0"	17'-0"	19'-0"	6.1	

OSC-A-9

7-1-10

FILE NAME =	USER NAME = potelyj	DESIGNED - YOGESH PATEL	REVISED -
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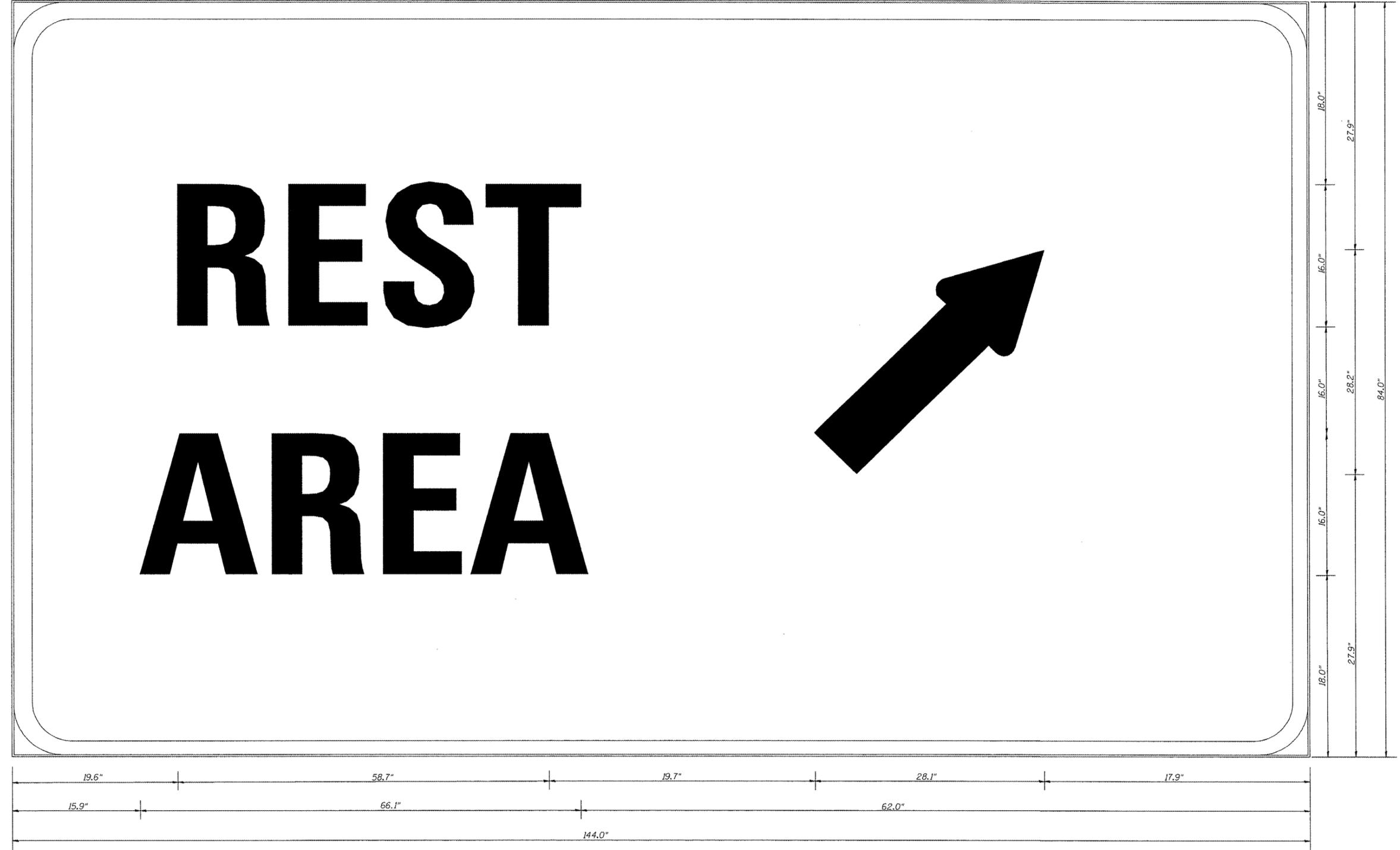
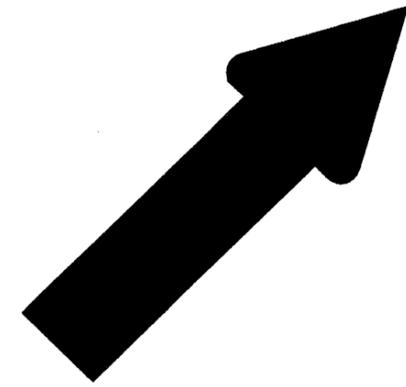
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CANTILEVER SIGN STRUCTURES - DRILLED SHAFT
ALUMINUM TRUSS & STEEL POST

SCALE: SHEET NO. 1 OF 1 SHEETS STA. TO STA.

F.A.I. RTE. I-80	SECTION D-3 OVD SIGN STR REPL 12-04	COUNTY	TOTAL SHEETS 17	SHEET NO. 15
		BUREAU	CONTRACT NO. 46177	
ILLINOIS				

REST AREA



* 6.0 Radius, 2.0" Border, White on Blue;
 "REST" ClearviewHwy-5-W; "AREA" ClearviewHwy-5-W; Standard Arrow Custom 35.8" X 21.6" 45°;

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