

DIVISION OF HIGHWAYS

PLANS FOR PROPOSED FEDERAL AID HIGHWAY

Various Routes

D 2 OVD SIN STR REPL 2010-36
ROCK ISLAND & WINNEBAGO COUNTIES
C-60-038-10

INDEX OF SHEETS

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- 720021-02

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED 2/25 2010
PASSED

Arnon Weatherhead
ENGINEER OF OPERATIONS

March 19, 2010
Scott E. Stitt, P.E.
acting ENGINEER OF DESIGN AND ENVIRONMENT

APPROVED March 19, 2010
Christine M. Reed
DIRECTOR DIVISION OF HIGHWAYS

CONTRACT NO. 46101

JOINT UTILITY LOCATING INFORMATION FOR
EXCAVATIONS PHONE: 800-892-0123

FILE NAME * #FILE#	USER NAME * #USER#	DESIGNED -	REVISED -
		DRAWN -	REVISED -
		CHECKED -	REVISED -
		DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

Cover Sheet

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

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	D-2 OVD SIN STR REPL 2010-36	**	31	1
**	Rock Island & Winnebago			CONTRACT NO. 46101
*	Various	ILLINOIS FED. AID PROJECT		

CODE NUMBER	PAY ITEM	UNIT	Y002 - 1C 100% STATE TOTAL QUANTITY	URBAN ROCK ISLAND COUNTY	URBAN WINNEBAGO COUNTY
T9990710	REMOVE ^{AND} REINSTALL WALKWAY	FOOT	288.00	189.00	99.00
T9991300	REMOVE EXISTING SIGN PANEL	EACH	8.00	8.00	
T9992530	REPLACE ^{AND} TIGHTEN ^{SIGN MOUNTING} CLIPS PER SIGN	EACH	12.00	8.00	4.00
T9992700	REMOVE ^{AND} REINSTALL SIGN PANEL	SQ FT	1,989.00	1,374.00	615.00
X0325265	REMOVE ELECTRIC SERVICE	EACH	7.00	5.00	2.00
67100100	MOBILIZATION	L SUM	1.00	0.80	0.20
70101700	TRAFFIC CONTROL AND PROTECTION	L SUM	1.00	0.80	0.20
72000300	SIGN PANEL - TYPE 3	SQ FT	920.00	920.00	
72100100	SIGN PANEL OVERLAY	SQ FT	3,072.00	2,456.00	616.00
73300100	OVERHEAD SIGN STRUCTURE-SPAN, TYPE I-A (4'-0" X 4'-6")	FOOT	87.00		87.00
73300200	OVERHEAD SIGN STRUCTURE-SPAN, TYPE II-A (4'-6" X 5'-3")	FOOT	418.00	310.00	108.00
73302170	OVERHEAD SIGN STRUCTURE-CANTILEVER, TYPE II-C-A (36" X 5'-6")	FOOT	60.00	60.00	
73400200	DRILLED SHAFT CONCRETE FOUNDATIONS	CU YD	131.10	86.10	45.00
73600100	REMOVE OVERHEAD SIGN STRUCTURE-SPAN	EACH	5.00	3.00	2.00
73600200	REMOVE OVERHEAD SIGN STRUCTURE-CANTILEVER	EACH	2.00	2.00	
73700300	REMOVE CONCRETE FOUNDATION-OVERHEAD	EACH	16.00	10.00	6.00
73800100	STRUCTURAL STEEL SUPPORT FOR OVERHEAD SIGN STRUCTURE-SPAN	EACH	10.00	6.00	4.00
X0325702	NIGHTTIME WORK ZONE LIGHTING	L SUM	1.00	0.80	0.20

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PLOT SCALE * #SCALES

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PLOT DATE * #DATES

DATE -

REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

Summary and Schedule of Quantities

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

F.A.
RTE.

SECTION

COUNTY

TOTAL SHEETS

SHEET NO.

* D-2 DVD SIGN STR REPL 2000-36 * * * 31 2

* * * Rock Island & Winnebago CONTRACT NO. 4601

* Various [ILLINOIS] FED. AID PROJECT

Location No.:	2-01	State I.D. No.:	2S101U020R020.7				
County:	Winnebago	Route:	US-20	M.P.:	20.7	Direction:	EB
Description of Work	Unit	Quantity					
REMOVE OVERHEAD SIGN STRUCTURE-SPAN	EACH	1.00					
STRUCTURAL STEEL SUPPORT FOR OVERHEAD SIGN STRUCTURE	EACH	2.00					
OVERHEAD SIGN STRUCTURE-SPAN, TYPE II-A	FOOT	108.00					
REMOVE & REINSTALL SIGN PANEL	SQ FT	306.25					
REMOVE & REINSTALL WALKWAY	FOOT	53.00					
REPLACE / TIGHTEN CLIPS PER SIGN	EACH	2.00					
REMOVE ELECTRIC SERVICE	EACH	1.00					
SIGN PANEL OVERLAY	SQ FT	306.25					
DRILLED SHAFT CONCRETE FOUNDATIONS	CU YD	24.30					
REMOVE CONCRETE FOUNDATION-OVERHEAD	EACH	2.00					

Location No.:	2-02	State I.D. No.:	2S101U020R019.8				
County:	Winnebago	Route:	US-150	M.P.:	1.5	Direction:	WB
Description of Work	Unit	Quantity					
REMOVE OVERHEAD SIGN STRUCTURE-SPAN	EACH	1.00					
STRUCTURAL STEEL SUPPORT FOR OVERHEAD SIGN STRUCTURE	EACH	2.00					
OVERHEAD SIGN STRUCTURE-SPAN, TYPE I-A	FOOT	87.00					
REMOVE & REINSTALL SIGN PANEL	SQ FT	309.25					
REMOVE & REINSTALL WALKWAY	FOOT	46.00					
SIGN PANEL OVERLAY	SQ FT	309.50					
REMOVE ELECTRIC SERVICE	EACH	1.00					
DRILLED SHAFT CONCRETE FOUNDATIONS	CU YD	20.70					
REMOVE CONCRETE FOUNDATION-OVERHEAD	EACH	4.00					
REPLACE / TIGHTEN CLIPS PER SIGN	EACH	2.00					

Location No.:	2-03	State I.D. No.:	2S081074R003.4				
County:	Rock Island	Route:	I-74	M.P.:	3.4	Direction:	EB
Description of Work	Unit	Quantity					
REMOVE OVERHEAD SIGN STRUCTURE-SPAN	EACH	1.00					
STRUCTURAL STEEL SUPPORT FOR OVERHEAD SIGN STRUCTURE	EACH	2.00					
OVERHEAD SIGN STRUCTURE-SPAN, TYPE II-A	FOOT	94.00					
REMOVE & RE-INSTALL SIGN PANEL	SQ FT	662.50					
REMOVE & REINSTALL WALKWAY	FOOT	60.00					
REPLACE / TIGHTEN CLIPS PER SIGN	EACH	3.00					
REMOVE ELECTRIC SERVICE	EACH	1.00					
SIGN PANEL OVERLAY	SQ FT	662.75					
DRILLED SHAFT CONCRETE FOUNDATIONS	CU YD	22.00					
REMOVE CONCRETE FOUNDATION-OVERHEAD	EACH	4.00					

Location No.:	2-04	State I.D. No.:	2C0810JDL000.0				
County:	Rock Island	Route:	John Deere Rd	M.P.:	0	Direction:	WB
Description of Work	Unit	Quantity					
REMOVE OVERHEAD SIGN STRUCTURE-CANTILEVER	EACH	1.00					
OVERHEAD SIGN STRUCTURE-CANTILEVER, TYPE II-C-A	FOOT	30.00					
REMOVE & REINSTALL SIGN PANEL	SQ FT	152.00					
REMOVE & REINSTALL WALKWAY	FOOT	20.00					
REMOVE ELECTRIC SERVICE	EACH	1.00					
SIGN PANEL OVERLAY	SQ FT	152.00					
DRILLED SHAFT CONCRETE FOUNDATIONS	CU YD	8.80					
REMOVE CONCRETE FOUNDATION-OVERHEAD	EACH	1.00					
REPLACE / TIGHTEN CLIPS PER SIGN	EACH	1.00					

Location No.:	2-05	State I.D. No.:	2C081074R003.6				
County:	Rock Island	Route:	I-74	M.P.:	3.6	Direction:	EB
Description of Work	Unit	Quantity					
REMOVE OVERHEAD SIGN STRUCTURE-CANTILEVER	EACH	1.00					
OVERHEAD SIGN STRUCTURE-CANTILEVER, TYPE II-C-A	FOOT	30.00					
REMOVE & REINSTALL SIGN PANEL	SQ FT	223.50					
REMOVE & REINSTALL WALKWAY	FOOT	23.00					
REPLACE / TIGHTEN CLIPS PER SIGN	EACH	1.00					
REMOVE ELECTRIC SERVICE	EACH	1.00					
SIGN PANEL OVERLAY	SQ FT	223.75					
DRILLED SHAFT CONCRETE FOUNDATIONS	CU YD	8.80					
REMOVE CONCRETE FOUNDATION-OVERHEAD	EACH	1.00					

Location No.:	2-06	State I.D. No.:	2S081088R000.5				
County:	Rock Island	Route:	I-88	M.P.:	0.4	Direction:	EB
Description of Work	Unit	Quantity					
REMOVE OVERHEAD SIGN STRUCTURE-SPAN	EACH	1.00					
OVERHEAD SIGN STRUCTURE-SPAN, TYPE II-A	FOOT	116.00					
STRUCTURAL STEEL SUPPORT FOR OVERHEAD SIGN STRUCTURE	EACH	2.00					
REMOVE & REINSTALL SIGN PANEL	SQ FT	155.00					
REMOVE & REINSTALL WALKWAY	FOOT	47.00					
REPLACE / TIGHTEN CLIPS PER SIGN	EACH	1.00					
REMOVE ELECTRIC SERVICE	EACH	1.00					
SIGN PANEL OVERLAY	SQ FT	155.00					
DRILLED SHAFT CONCRETE FOUNDATIONS	CU YD	25.00					
REMOVE CONCRETE FOUNDATION-OVERHEAD	EACH	2.00					
REMOVE EXISTING SIGN PANEL	EACH	1.00					
SIGN PANEL, TYPE 3	SQ FT	97.50					

Location No.:	2-07	State I.D. No.:	2S081088L000.8				
County:	Rock Island	Route:	I-88	M.P.:	0.8	Direction:	WB
Description of Work	Unit	Quantity					
REMOVE OVERHEAD SIGN STRUCTURE-SPAN	EACH	1.00					
STRUCTURAL STEEL SUPPORT FOR OVERHEAD SIGN STRUCTURE	EACH	2.00					
OVERHEAD SIGN STRUCTURE-SPAN, TYPE II-A	FOOT	100.00					
REMOVE & REINSTALL SIGN PANEL	SQ FT	180.50					
REMOVE & REINSTALL WALKWAY	FOOT	39.00					
REPLACE / TIGHTEN CLIPS PER SIGN	EACH	2.00					
REMOVE ELECTRIC SERVICE	EACH	1.00					
SIGN PANEL OVERLAY	SQ FT	180.50					
DRILLED SHAFT CONCRETE FOUNDATIONS	CU YD	21.50					
REMOVE CONCRETE FOUNDATION-OVERHEAD	EACH	2.00					
REMOVE EXISTING SIGN PANEL	EACH	1.00					
SIGN PANEL, TYPE 3	SQ FT	195.50					

Location No.:	2-08	State I.D. No.:	2S081088L001.7				
County:	Rock Island	Route:	I-88	M.P.:	1.7	Direction:	WB
Description of Work	Unit	Quantity					
SIGN PANEL OVERLAY	SQ FT	225.00					
REMOVE EXISTING SIGN PANEL	EACH	1.00					
SIGN PANEL, TYPE 3	SQ FT	93.50					

Location No.:	2-09	State I.D. No.:	2S081088L001.0				
County:	Rock Island	Route:	I-88	M.P.:	1	Direction:	WB
Description of Work	Unit	Quantity					
SIGN PANEL OVERLAY	SQ FT	193.75					
REMOVE EXISTING SIGN PANEL	EACH	2.00					
SIGN PANEL, TYPE 3	SQ FT	252.50					

Location No.:	2-10	State I.D. No.:	GROUND MOUNTED				
County:	Rock Island	Route:	I-88	M.P.:	1.35	Direction:	WB
Description of Work	Unit	Quantity					
REMOVE EXISTING SIGN PANEL	EACH	1.00					
SIGN PANEL, TYPE 3	SQ FT	93.50					

Location No.:	2-11	State I.D. No.:	2S081S005R Sta 217+00				
County:	Rock Island	Route:	IL - 5	M.P.:		Direction:	EB
Description of Work	Unit	Quantity					
SIGN PANEL OVERLAY	SQ FT	382.75					
REMOVE EXISTING SIGN PANEL	EACH	1.00					
SIGN PANEL, TYPE 3	SQ FT	93.50					

Location No.:	2-12	State I.D. No.:	2S081S005R Sta 232+00				
County:	Rock Island	Route:	IL - 5	M.P.:		Direction:	EB
Description of Work	Unit	Quantity					
SIGN PANEL OVERLAY	SQ FT	281.00					
REMOVE EXISTING SIGN PANEL	EACH	1.00					
SIGN PANEL, TYPE 3	SQ FT	93.50					

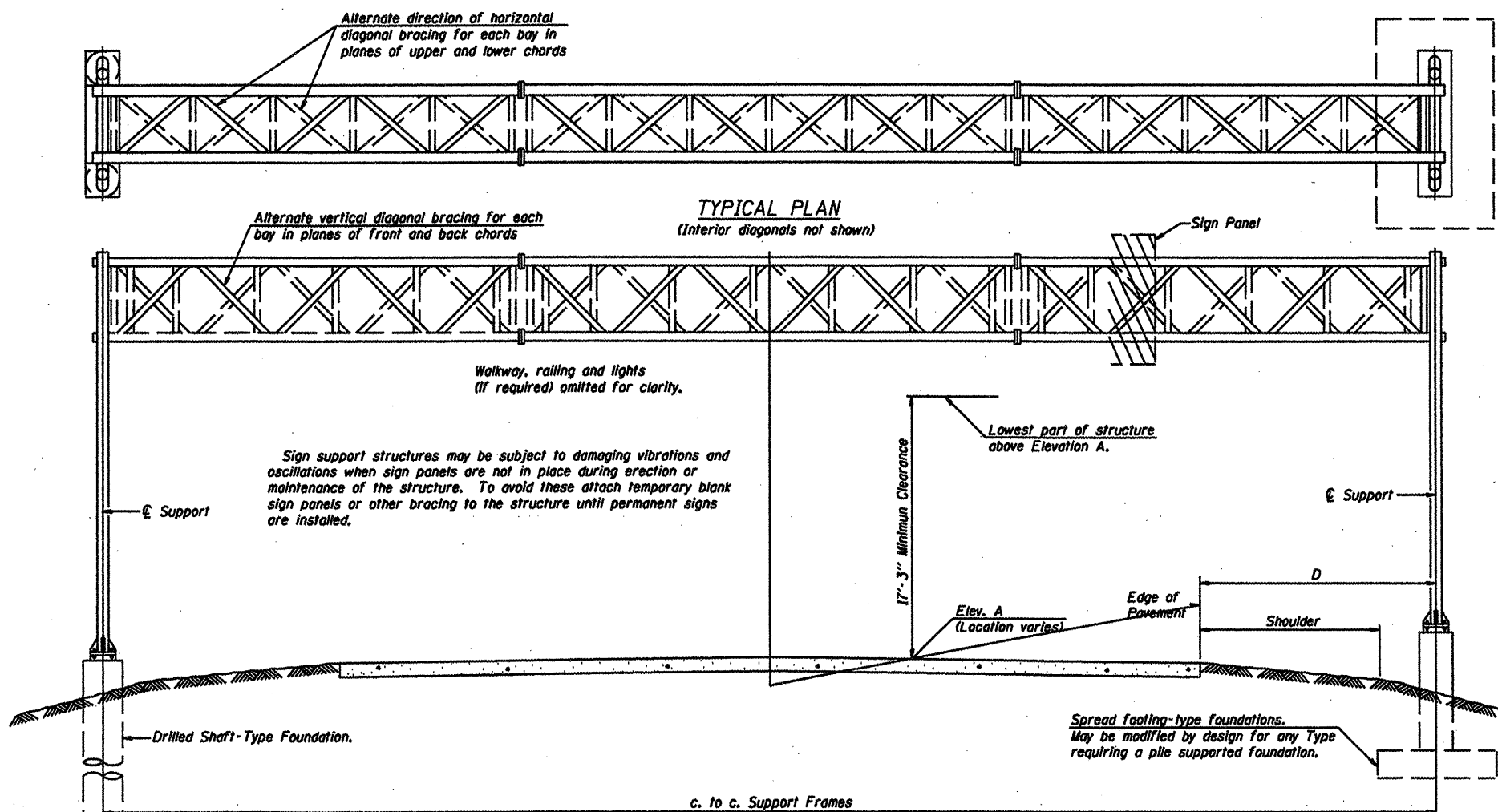
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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

*Schedule of Overhead
Sign Structure Replacement*

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

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
* I-2 OVD SIGN STR REPL 200-36		**	31	3
* Rock Island & Winnebago		CONTRACT NO.	46101	
* Various		(ILLINOIS) FED. AID PROJECT		



GENERAL NOTES

DESIGN: AASHTO Standard Specifications for Structural Supports for Highway Signs, Luminaires and Traffic Signals. ("AASHTO Specifications")

CONSTRUCTION: Current (at time of letting) Illinois Department of Transportation Standard Specifications for Road and Bridge Construction, Supplemental Specifications and Special Provisions. ("Standard Specifications")

LOADING: 90 M.P.H. WIND VELOCITY

WALKWAY LOADING: Dead load plus 500 lbs. concentrated live load.

DESIGN STRESSES:
Field Units
f_c = 3,500 p.s.i.
f_y = 60,000 p.s.i. (reinforcement)

WELDING: All welds to be continuous unless otherwise shown. All welding to be done in accordance with current AWS D1.1 and D1.2 Structural Welding Codes (Steel and Aluminum) and the Standard Specifications.

MATERIALS: Aluminum Alloys as shown throughout plans. All Structural Steel Pipe shall be ASTM A53 Grade B or A500 Grade B or C. If A500 pipe is substituted for A53, then the outside diameter shall be as detailed and wall thickness greater than or equal to A53. All Structural Steel Plates and Shapes shall conform to AASHTO M270 Gr. 36, Gr. 50 or Gr. 50W*. Stainless steel for shims, sleeves and handhole covers shall be ASTM A240, Type 302 or 304, or another alloy suitable for exterior exposure and acceptable to the Engineer. The steel pipe and stiffening ribs at the base plate for the column shall have a minimum longitudinal Charpy V-Notch (CVN) energy of 15 lb.-ft. at 40° F. (Zone 2) before galvanizing.

FASTENERS FOR ALUMINUM TRUSSES: All bolts noted as "high strength" must satisfy the requirements of AASHTO M164 (ASTM A325), or approved alternate, and must have matching lock nuts. Threaded studs for splices (if Members interfere) must satisfy the requirements of ASTM A449, ASTM A193, Grade B7, or approved alternate, and must have matching lock nuts. Bolts and lock nuts not required to be high strength must satisfy the requirements of ASTM A307. All bolts and lock nuts must be hot dip galvanized per AASHTO M232. The lock nuts must have nylon or steel inserts. A stainless steel flat washer conforming to ASTM A240 Type 302 or 304, is required under both head and nut or under both nuts where threaded studs are used. High strength bolt installation shall conform to Article 505.04 (f) (2)d of the IDOT Standard Specifications for Road and Bridge Construction. Rotational capacity ("RCAP") testing of bolts will not be required.

U-BOLTS AND EYEBOLTS: U-Bolts and Eyebolts must be produced from ASTM A276 Type 304, 304L, 316 or 316L, Condition A, cold finished stainless steel, or an equivalent material acceptable to the Engineer. All nuts for U-Bolts and Eyebolts must be lock nuts equivalent to ASTM A307 with nylon or steel inserts and hot dip galvanized per AASHTO M232. A stainless steel flat washer conforming to ASTM A240, Type 302 or 304, is required under each U-Bolt and Eyebolt lock nut.

GALVANIZING: All Steel Grating, Plates, Shapes and Pipe shall be Hot Dip Galvanized after fabrication in accordance with AASHTO M111. Painting is not permitted.

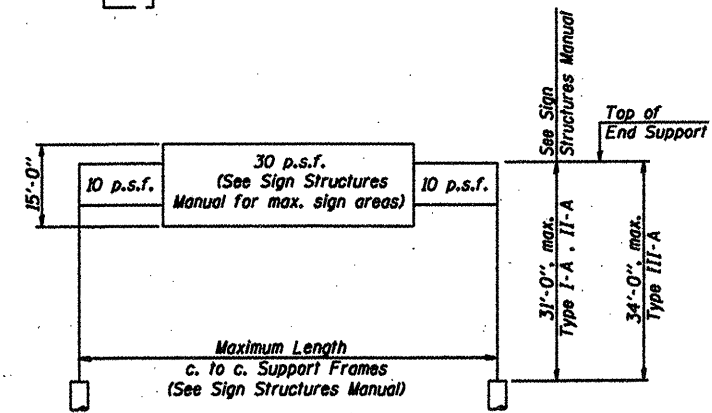
ANCHOR RODS: Shall conform to AASHTO M314 Gr. 36, 55 or 105 with a minimum Charpy V-Notch (CVN) energy of 15 lb.-ft. at 40° F.

CONCRETE SURFACES: All concrete surfaces above an elevation 6" below the lowest final ground line of each foundation shall be cleaned and coated with Bridge Seal Sealer in accordance with the Standard Specifications.

REINFORCEMENT BARS: Reinforcement Bars designated (E) shall be epoxy coated in accordance with the Standard Specifications.

FOUNDATIONS: The contract unit price for Concrete Foundations and Drilled Shaft Concrete Foundations shall include reinforcement bars complete in place.

* If M270 Gr. 50W (M222) steel is proposed, chemistry for plate to be used shall first be approved by the Engineer as suitable for galvanizing and welding.



DESIGN WIND LOADING DIAGRAM
Parameters shown are basis for I.D.O.T. Standards and Sign Manual Tables. Installations not within dimensional limits shown require special analysis for all components.

TYPICAL ELEVATION
(Looking at Face of Signs)**

Structure Number	Station	Design Truss Type	c. to c. Supports	Elev. A	Dim. D ***	Height of Tallest Sign	Total Sign Area
2S101U020R020.7	1094+86	II-A	108'-0"	639.00	64'-0"	12'-0"	306.25
2S101U020R019.8	1047+60	I-A	87'-0"	813.50	43'-0"	12'-6"	309.25
2S0811074R003.4	404+30	II-A	94'-0"	604.80	23'-0"	13'-6"	662.50
2S0811088R000.5	257+75	II-A	116'-0"	582.13	36'-0"	10'-0"	252.50
2S0811088L000.8	275+25	II-A	100'-0"	581.54	37'-0"	11'-6"	376.00

**Looking upstation for structures with signs both sides.
*** 70' RT OF CENTERLINE EASTBOUND LANE

TOTAL BILL OF MATERIAL

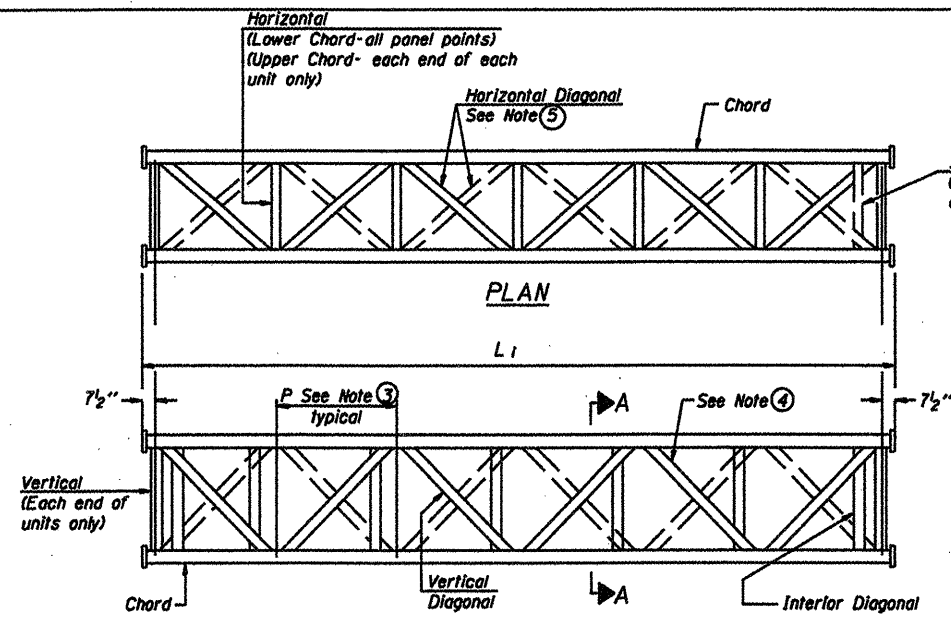
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OVERHEAD SIGN STRUCTURE SPAN TYPE I-A	Foot	
OVERHEAD SIGN STRUCTURE SPAN TYPE II-A	Foot	
OVERHEAD SIGN STRUCTURE SPAN TYPE III-A	Foot	
OVERHEAD SIGN STRUCTURE WALKWAY TYPE A	Foot	
CONCRETE FOUNDATIONS	Cu. Yds.	
DRILLED SHAFT CONCRETE FOUNDATIONS	Cu. Yds.	

NUMBER	REVISION	DATE

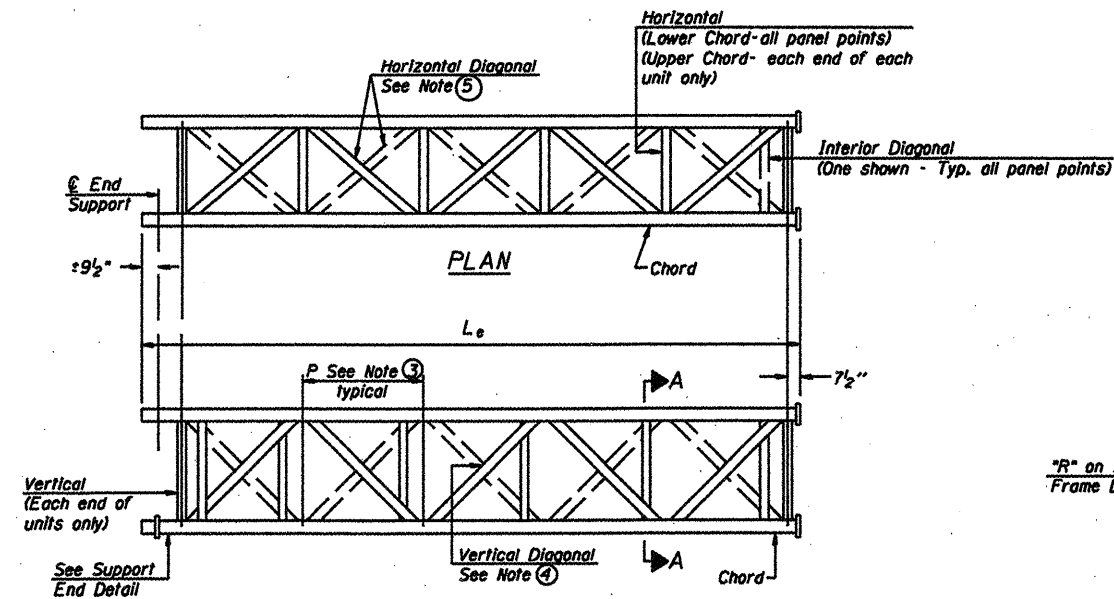
**OVERHEAD SIGN STRUCTURES
GENERAL PLAN & ELEVATION
ALUMINUM TRUSS & STEEL SUPPORTS**

OS-A-1 12-1-08

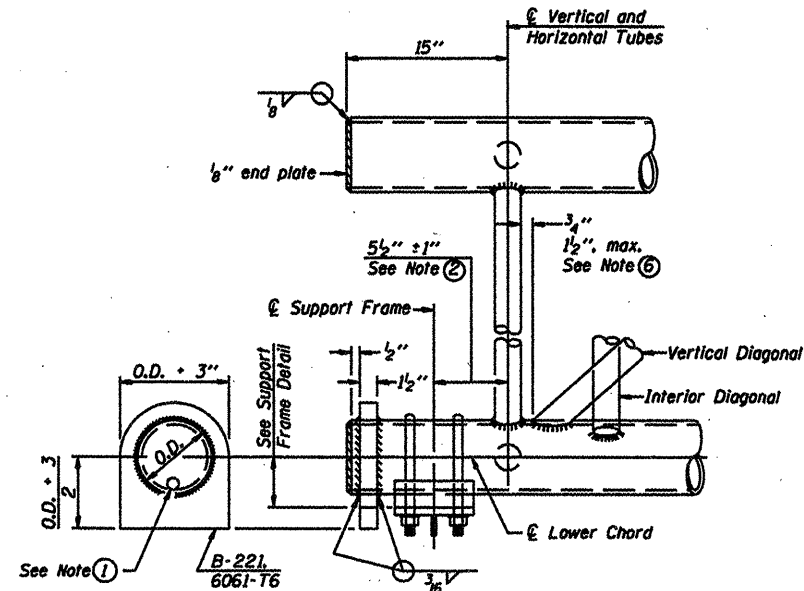
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DESIGNED: -	DRAWN: -	REVISED: -	REVISED: -		SCALE:	SHEET NO. OF SHEETS	STA.	TO STA.	# 10-2 CHD SIGN STR REPL 2010-36	***	31	4
PLotted SCALE: #SCALE	CHECKED: -	REVISED: -	REVISED: -					CONTRACT NO.	46101			
PLotted DATE: #DATE	DATE: -	REVISED: -	REVISED: -					CONTRACT NO.	46101			



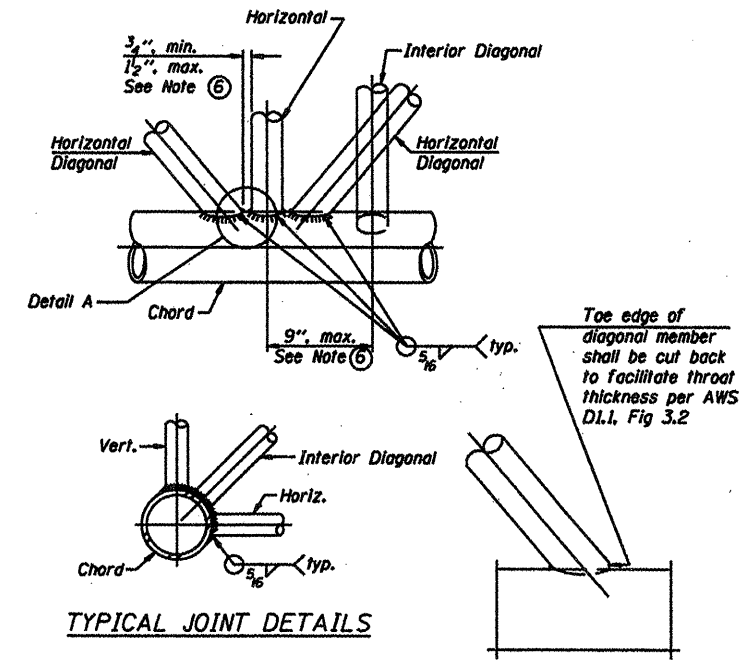
**ELEVATION
TYPICAL INTERIOR UNIT**
Even number of panels/interior unit required.



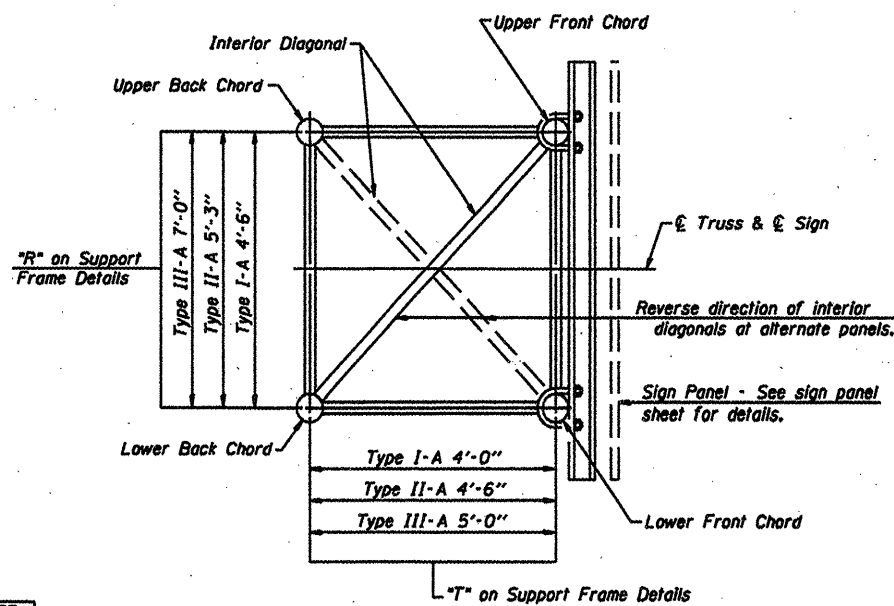
**ELEVATION
TYPICAL EXTERIOR UNIT**
Even or odd number of panels/exterior units allowed.



SUPPORT END DETAIL FOR EXTERIOR UNIT



TYPICAL JOINT DETAILS



SECTION A-A

- ① Contractor may alternatively use standard aluminum drive-fit cap to close end. 1/2" ϕ drain hole in end plate/drive-fit cap. (Typ. at ends of all chords)
- ② 5 1/2" end dimension may vary by ± 1 " to provide uniform panel spacing (P).
- ③ Panel spacing (P) shall be uniform for entire truss and between 4'-0" and 5'-0" for Type I-A or 4'-0" and 5'-6" for Types II-A and III-A.
- ④ Vertical Diagonals in front and back face shall alternate.
- ⑤ Hidden lines show wind bracing alternates direction between planes of top and bottom chords.
- ⑥ All diagonals shall be detailed for minimum offset from the panel point based on the following: Offset shall be such as to provide a 3/4" minimum to 1 1/2" maximum clearance between any diagonal and any horizontal or vertical member, and to provide clearance for U-bolt connections of signs or walkway brackets.

NUMBER	REVISION	DATE

**OVERHEAD SIGN STRUCTURES
ALUMINUM TRUSS DETAILS
FOR TRUSS TYPES I-A, II-A AND III-A**

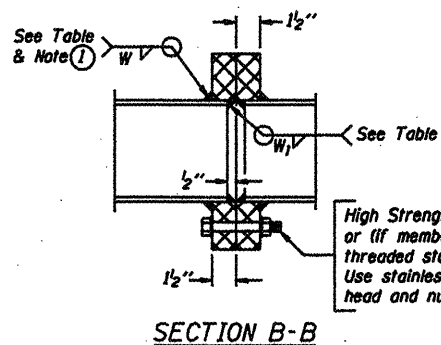
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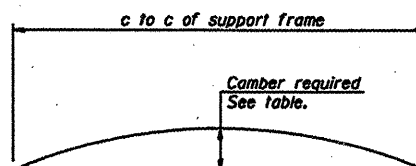
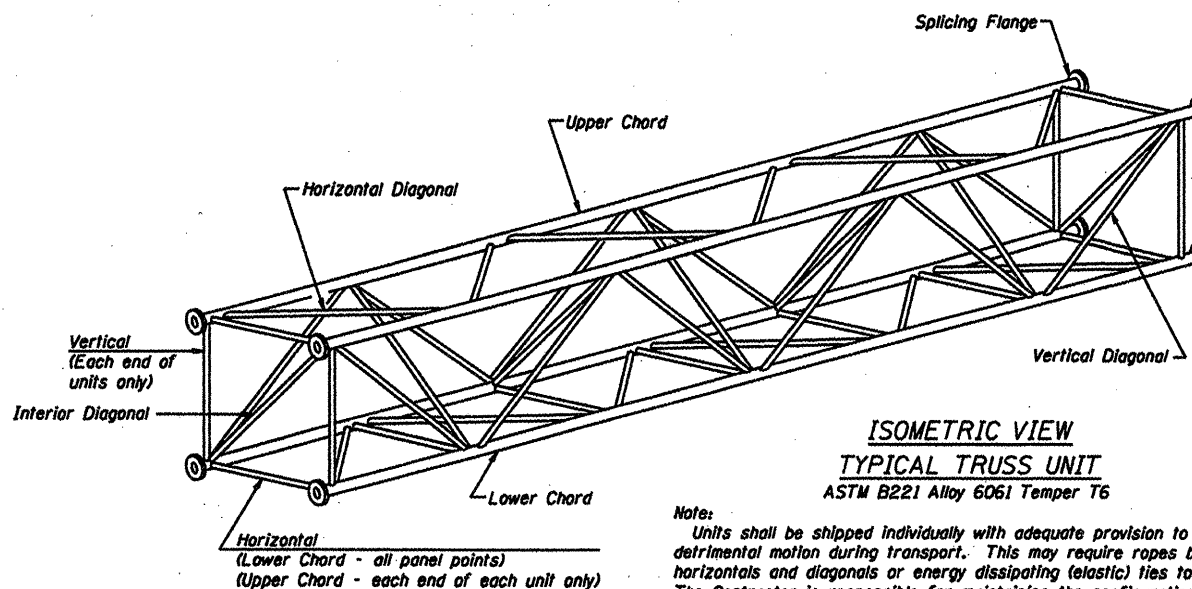
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	PLOT SCALE * #SCALE#	DRAWN -	REVISD -			* ID-2 OHD SIGN STR REPL 2010-36	* *	* *	31	5
	PLOT DATE * #DATE#	CHECKED -	REVISD -			* * Rock Island & Winnebago	* *	* *	CONTRACT NO.	46701
		DATE -	REVISD -	SCALE:	SHEET NO. OF SHEETS STA.	TO STA.	* VARIOUS ILLINOIS FED. AID PROJECT			

TRUSS UNIT TABLE

Structure Number	Station	Design Truss Type	Exterior Units (2)			Interior Unit			Upper & Lower Chord		Verticals, Horizontals, Vertical, Horizontal, and Interior Diagonals		Camber at Midspan	Splicing Flange						
			No. Panels per Unit	Unit Lgth.(L _u)	Panel Lgth.(P)	No. Req'd.	No. Panels per Unit	Unit Lgth.(L _i)	Panel Lgth.(P)	O.D.	Wall	O.D.		Wall	Bolts		Weld Sizes			
															No./Splice	Dia.	W	W ₁	A	B
2S101U020R020.7	1094+86	II-A	7	38'-5 3/4"	5'-2 3/4"	1	6	32'-7 1/2"	5'-2 3/4"	6 1/2"	5/16"	3"	5/16"	3 1/2"	6	1"	3/8"	1/4"	11"	14 1/2"
2S101U020R019.8	1047+60	I-A	6	29'-9"	4'-7 3/4"	1	6	29'-1 1/2"	4'-7 3/4"	5"	5/16"	2 1/2"	5/16"	2 5/8"	6	7/8"	5/16"	1/4"	8 3/4"	11 3/4"
2S0811074R003.4	404+30	II-A	6	32'-1 1/2"	5'-0 1/2"	1	6	31'-6"	5'-0 1/2"	6 1/2"	5/16"	3"	5/16"	2 3/4"	6	1"	3/8"	1/4"	11"	14 1/2"
2S0811088R000.5	257+75	II-A	8	39'-4 1/2"	4'-8 1/4"	1	8	38'-9"	4'-8 1/4"	7"	5/16"	3"	5/16"	4"	6	1"	3/8"	1/4"	11 1/2"	15"
2S0811088L000.8	275+25	II-A	6	34'-1 1/2"	5'-4 1/2"	1	6	33'-6"	5'-4 1/2"	6 1/2"	5/16"	3"	5/16"	3"	6	1"	3/8"	1/4"	11"	14 1/2"



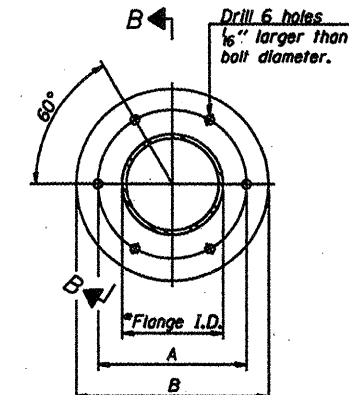
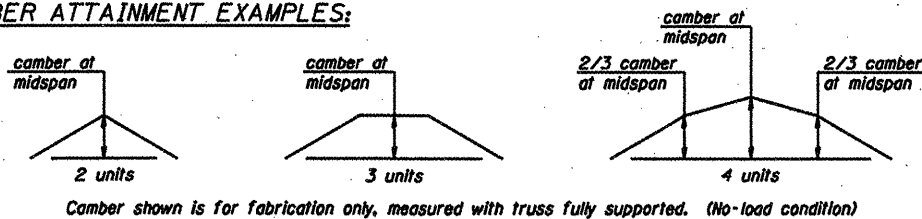
① Splicing Flanges shall be attached to each truss unit with the truss shop assembled to camber shown. Truss units shall be in proper alignment and flange surfaces shall be shop bolted into full contact before welding. Sufficient external welds or tacks shall be made to secure flanges until remaining welds are made after disassembly. Adjacent flanges shall be "match marked" to insure proper field assembly.



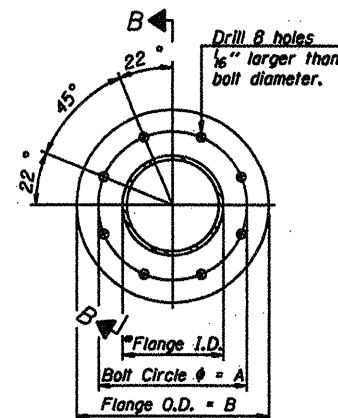
CAMBER DIAGRAM

Camber curve shown is theoretical. Actual camber attained by slope changes at splices between units.

CAMBER ATTAINMENT EXAMPLES:



TRUSS TYPES I-A, II-A, & III-A



TRUSS TYPES II-A & III-A

SPLICING FLANGES

ASTM B221, Alloy 6061-T6
or ASTM B209, Alloy 6061-T651
*To fit O.D. of Chord with maximum gap of 1/16".

NUMBER	REVISION	DATE

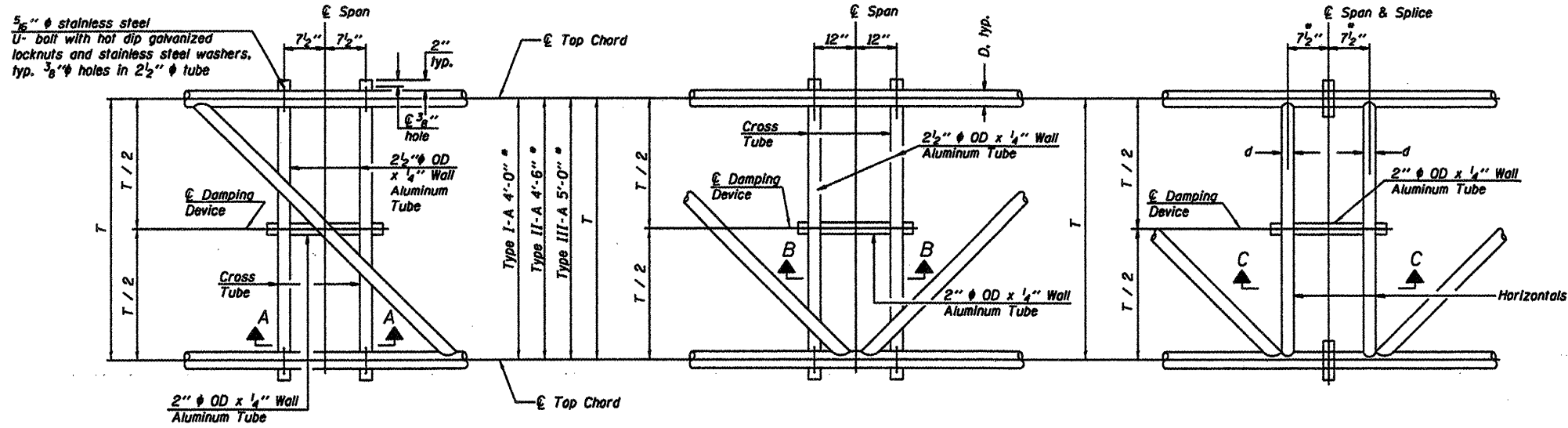
OS4-A-2

12-1-08

OVERHEAD SIGN STRUCTURES
ALUMINUM TRUSS DETAILS
FOR TRUSS TYPES I-A, II-A AND III-A

FILE NAME #	USER NAME #	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	District 2 Sign Structure Replacement	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
#FILE#		DRAWN -	REVISED -			**	D-2 OVD SIGN STR REPL 2010-35	**	31	6
		CHECKED -	REVISED -			**	Rock Island & Winnebago	**	CONTRACT NO. 4601	
		DATE -	REVISED -			**	Various	**	ILLINOIS FED. AID PROJECT	
SCALE: SHEET NO. OF SHEETS STA. TO STA.										

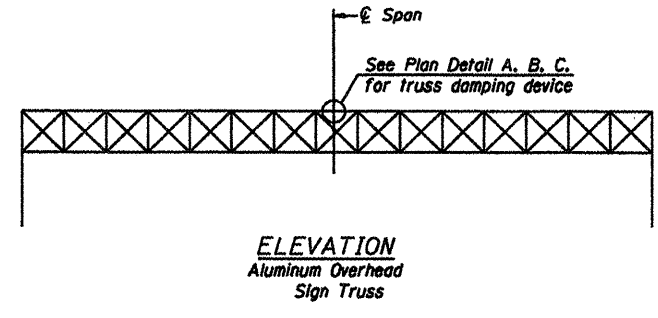
Center of horizontal to center of splice dimension may vary. Verify before drilling holes in mounting tube.



PLAN DETAIL "A"
Span between Panel Points

PLAN DETAIL "B"
Span at Panel Point

PLAN DETAIL "C"
Span at Chord Splice

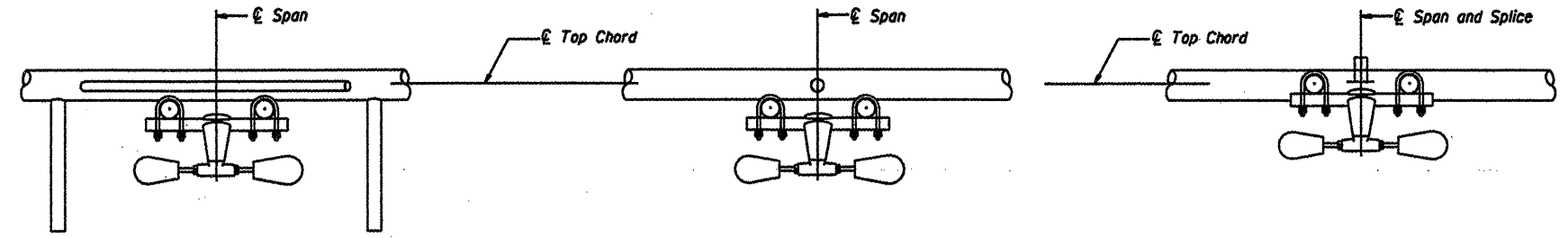


ELEVATION
Aluminum Overhead
Sign Truss

NOTES

Damper: One damper per truss. (31 lbs. minimum Stockbridge-Type Aluminum - 29" minimum between ends of weights) Cost included in Overhead Sign Structure...

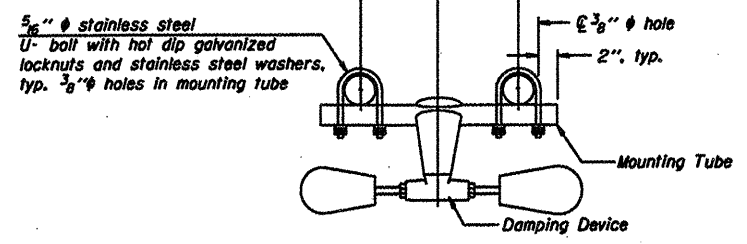
Materials: Materials: Aluminum tubes shall be ASTM B221 alloy 6061 temper T6. Cost included in Overhead Sign Structure...



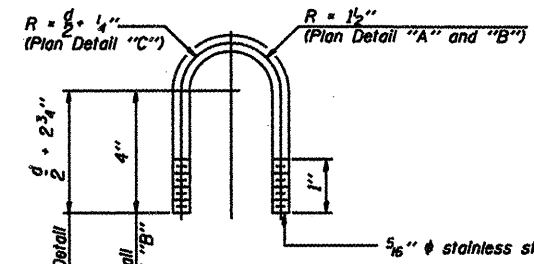
SECTION A-A

SECTION B-B

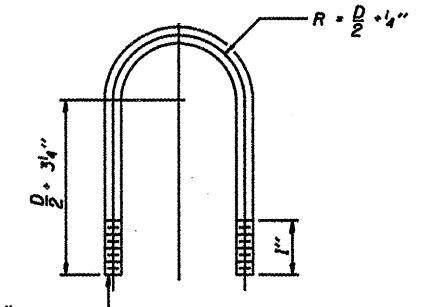
SECTION C-C



TRUSS DAMPING
DEVICE CONNECTION DETAIL
(Typical)



DAMPING DEVICE MOUNTING
TUBE U-BOLT DETAIL
(Typical)



TOP CHORD TO CROSS TUBE
U-BOLT DETAIL
(Typical - Detail "A" and "B")

OVERHEAD SIGN STRUCTURE
DAMPING DEVICE

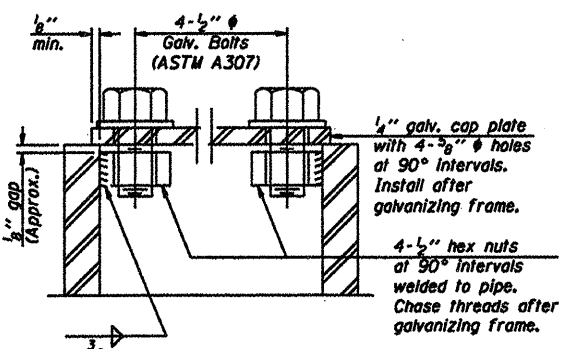
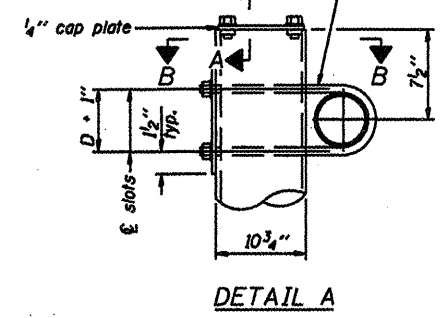
FILE NAME: OS-A-D	USER NAME: USER	DESIGNED: -	REVISED: -
SCALE: -	DATE: -	DRAWN: -	REVISED: -
DATE: -	DATE: -	CHECKED: -	REVISED: -
		DATE: -	REVISED: -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

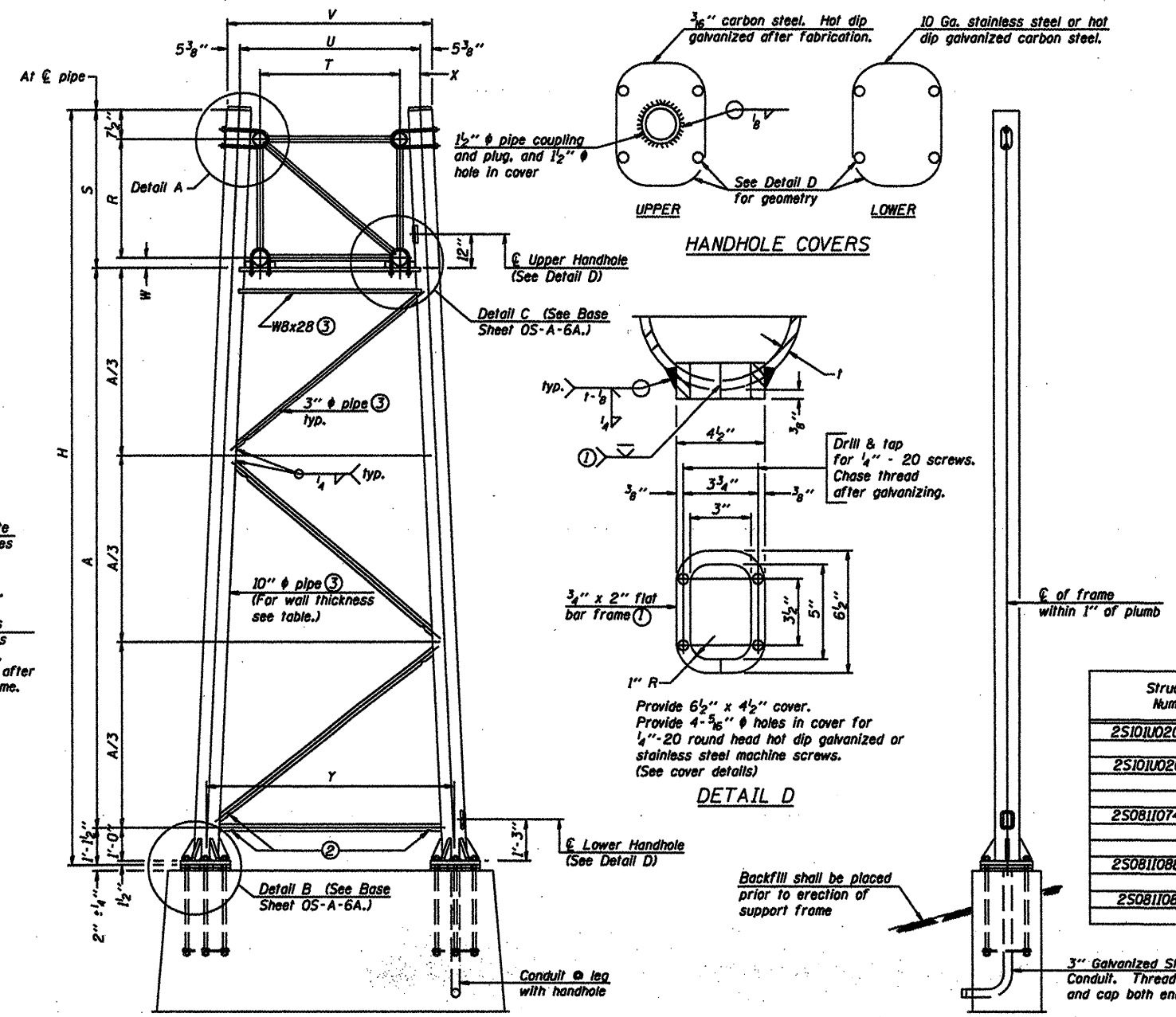
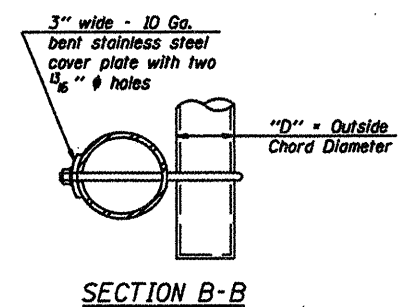
District 2 Sign Structure Replacement			
SCALE:	SHEET NO.	OF SHEETS	STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	D-2 OVD SIGN STR REPL 2010-36	**	31	7
**	Rock Island & Winnebago	CONTRACT NO.	46101	
**	Various	ILLINOIS FED. AID PROJECT		

3/4" # stainless steel U-bolt.
Provide two washers and two hexagon locknuts. (4)
1/2" x 2" slots on 10" # pipe.
(4 slots required per pipe)



SECTION A-A
As an alternate to bolts, may use galvanized drive-fit caps installed after galvanizing frame.



Support Design Loads: See Base Sheet OS-A-1 for design and loading criteria.
Load combinations checked include deadload plus:
a) 100% wind normal to sign, 20% parallel to sign
b) 60% wind normal to sign, 30% parallel to sign

- ① 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 µin or less.
- ② Galvanizing vent holes of adequate size shall be provided on underside at each end of bracing pipes. Alternately, holes may be provided in wall of pipe column. All vent holes shall be drilled and de-burred, typ.
- ③ Steel pipe, plate, carbon steel handhole covers and rolled sections shall be hot dip galvanized after fabrication. Painting is not permitted. See Base Sheet OS-A-1.
- ④ See General Notes for fasteners.
- ⑤ Dimensions shown are based on selection criteria in the Sign Structures Manual. Nonstandard applications must have dimensions verified or amended as appropriate.
- ⑥ "H" based on 15'-0" or actual sign height, whichever is greater.

Structure Number	Station	Support		Truss Type	Pipe Wall Thickness	H (6)	A
		Left	Right				
2S101U020R020.7	1094+86	X	X	II-A	0.365(Std)	29'-7"	22'-2 1/4"
2S101U020R019.8	1047+60	X		I-A	0.279	28'-9"	22'-2"
			X		0.279	24'-3"	17'-8"
2S081I074R003.4	404+30	X		II-A	0.365(Std)	28'-7 1/4"	22'-4"
			X		0.365(Std)	31'-4 1/2"	25'-1 1/4"
2S081I088R000.5	257+75	X	X	II-A	0.365(Std)	30'-9"	23'-4 1/4"
2S081I088L000.8	275+25	X	X	II-A	0.365(Std)	30'-7 1/2"	23'-2 1/4"

For Foundation Details, see base sheet OS-F3 (Spread Footing) or OS4-F3 (Drilled Shaft).
SIDE ELEVATION

END ELEVATION

10" # PIPE TRUSS SUPPORT FRAME

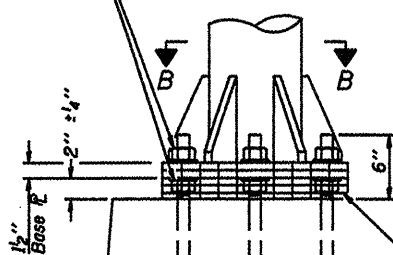
NUMBER	REVISION	DATE

Truss Type	Dimensions							
	R	S	T	U	V	W	X	Y
I-A	4'-6"	5'-5 1/2"	4'-0"	5'-6"	6'-4 3/4"	4"	9"	8'-3"
II-A (6)	5'-3"	6'-3 1/4"	4'-6"	6'-1"	6'-11 3/4"	4 3/4"	9 1/2"	8'-3"

OVERHEAD SIGN STRUCTURES
SUPPORT FRAME FOR ALUMINUM TRUSS

OS-A-6 12-1-08

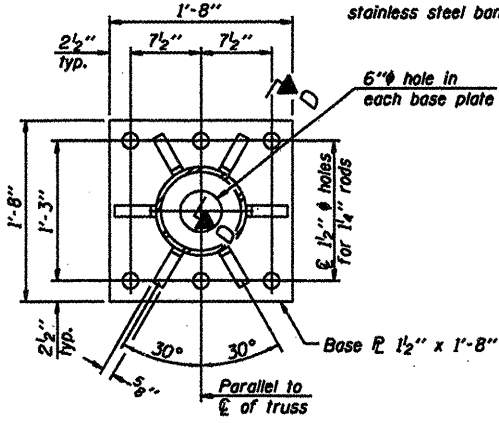
Hexagon locknut and washer (top), leveling nut and washer (bottom). Galvanize per AASHTO M232. Nuts shall each be tightened against base plate with 200 lb.-ft. minimum torque.



DETAIL B

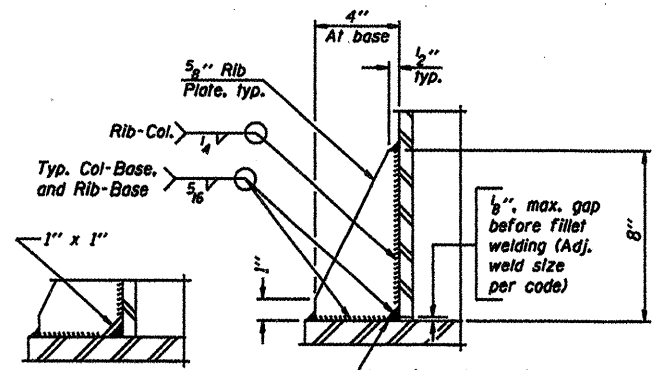
Ribs shall be cut to fit slope of pipe.

Stainless Steel Standard Grade Wire Cloth, 3" wide, 1/4" maximum opening with a minimum wire diameter of AWG. No. 16 with a minimum 2" lap. Secure to base plate after erection with 3/4" stainless steel banding.



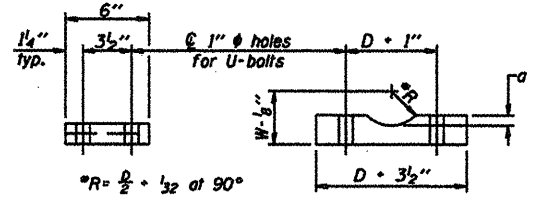
SECTION B-B

NUMBER	REVISION	DATE



SECTION D-D

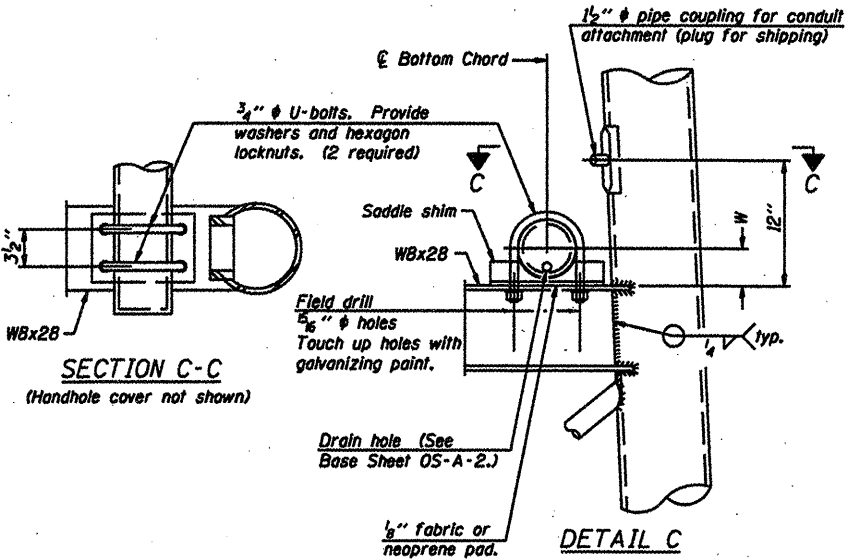
Alternate detail if welding col. to base plate first, then snip inside corner of ribs. Terminate weld on rib 1/4" from snip.



SADDLE SHIM DETAIL

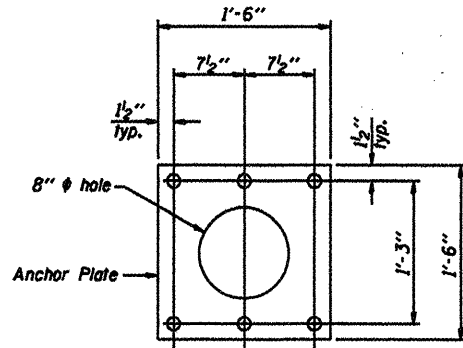
ASTM B26 Alloy 356-F or ASTM B209 Alloy 6061-T651 (4 required per sign truss)

Truss Chord Nominal Dia.	a
5"	3 1/4"
5 1/2"	4 1/8"
6"	5 1/8"
6 1/2"	6 1/8"
7"	7 1/8"

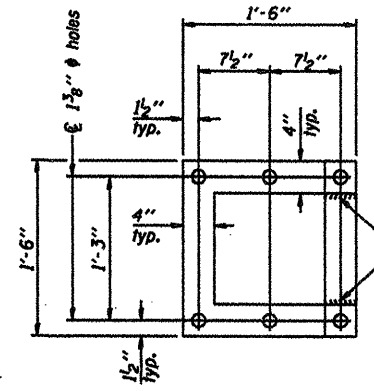


SECTION C-C

DETAIL C

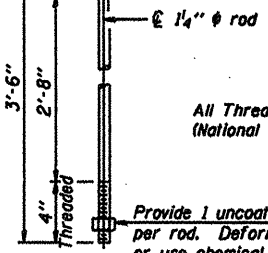


ANCHOR ROD DETAIL
Spread Footing Foundation

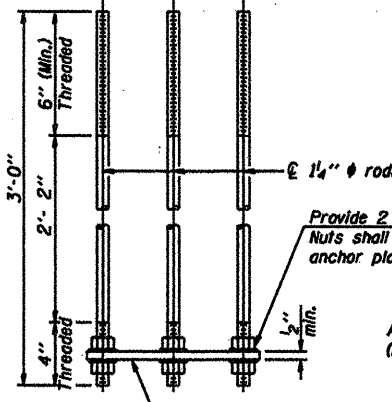


POSITIONING PLATE(S)

At each location, provide 1/4" thick positioning plate(s) and six (6) additional nuts to be used with leveling nuts to maintain anchor bolts position during concrete placement.



ANCHOR ROD DETAIL
Drilled Shaft Foundation



ANCHOR ROD DETAIL
Spread Footing Foundation

Anchor rods shall conform to AASHTO M314 Grade 36 or 50 and meet Charpy V-Notch (CVN) energy of 15 lb.-ft. at 40° F. Galvanize upper 12" per AASHTO M232. No welding shall be permitted on rods.

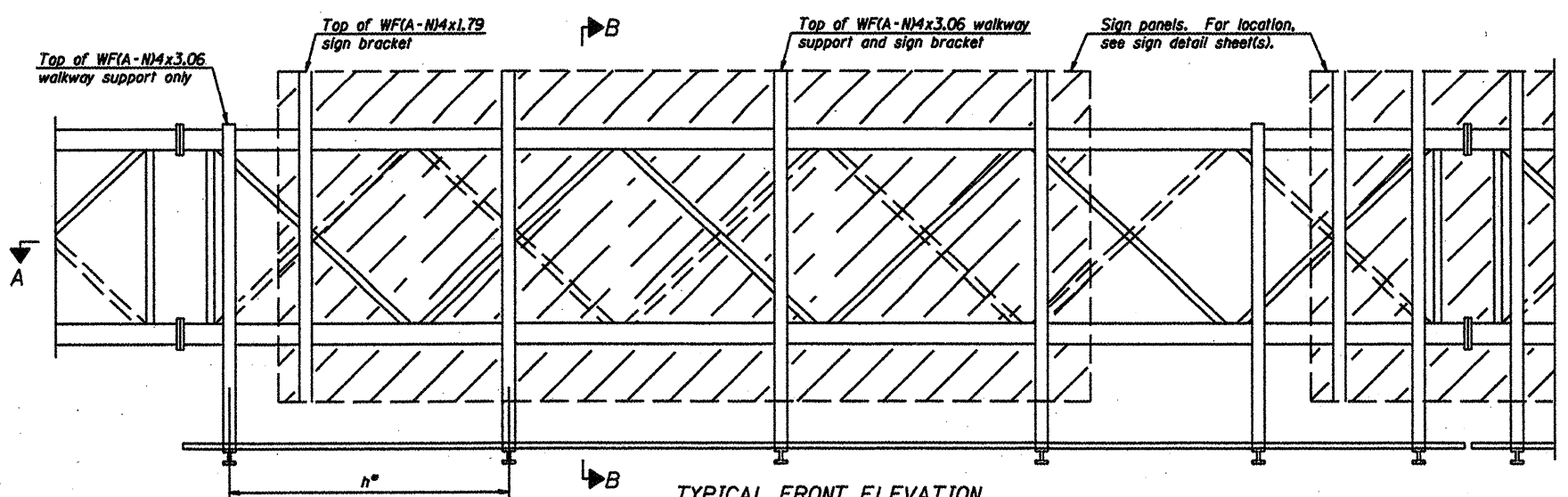
10" Ø PIPE SUPPORT FRAME DETAILS

**OVERHEAD SIGN STRUCTURES
SUPPORT FRAME DETAILS ALUMINUM TRUSS**

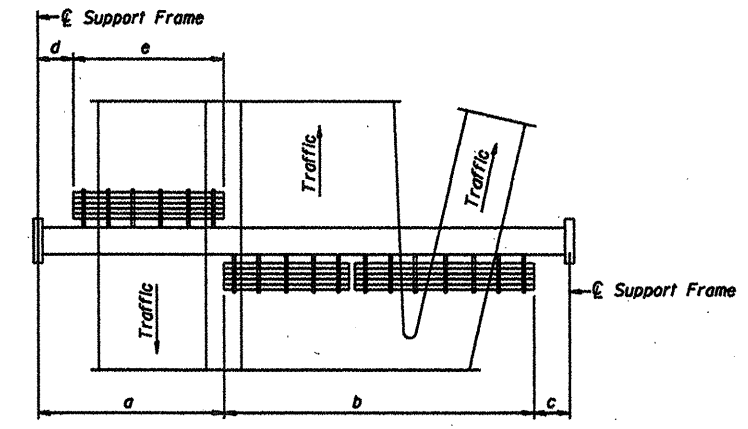
OS-A-6A

12-1-08

FILE NAME	USER NAME	DESIGNED	REVISED	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	District 2 Sign Structure Replacement	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
#FILES	DESIGNED	REVISED	DESIGNED			REVISED	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
PLOT SCALE	CHECKED	REVISED	CHECKED			REVISED	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
PLOT DATE	DATE	REVISED	DATE	REVISED	SCALE	SHEET NO.	OF SHEETS	STA.	TO STA.	CONTRACT NO.



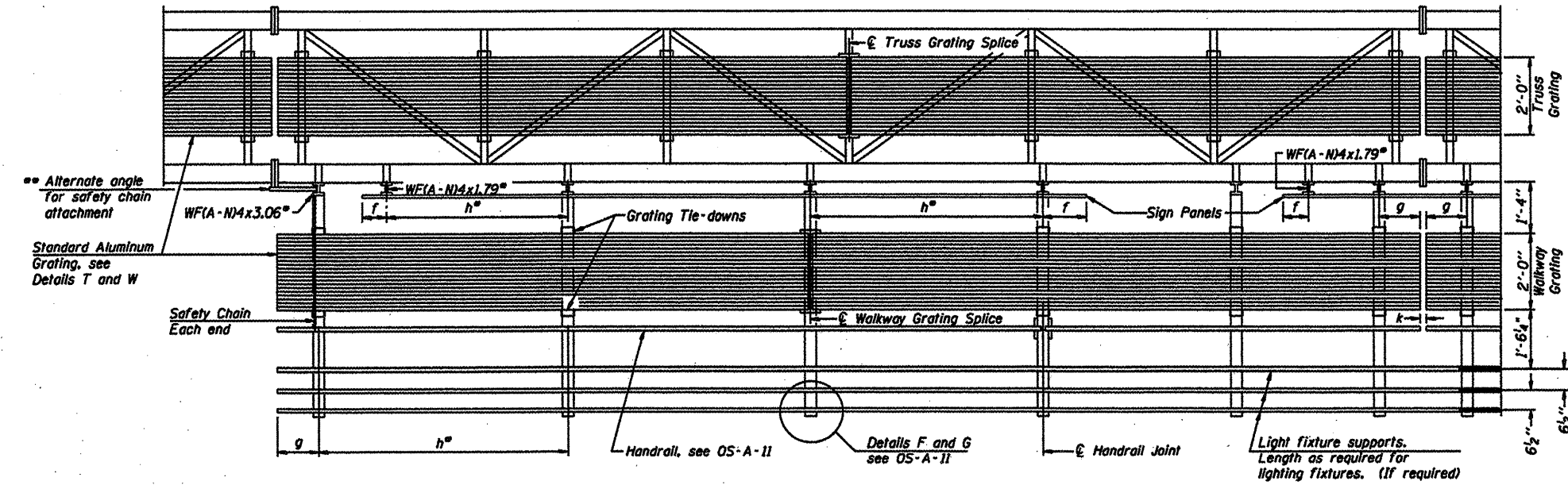
TYPICAL FRONT ELEVATION
With lights and handrail omitted for clarity.
For Section B-B, see Base Sheet OS-A-10.



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

BRACKET TABLE

WF(A-N)4x1.79 or WF(A-N)4x3.06 ASTM B308, Alloy 6061-T6		
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 A-A

Handrail and walkway shall span a minimum of three brackets between splices and/or gap joints.
Place all sign and walkway brackets as close to panel points as practical.
Handrail joints, grating, and light support splices placed as needed.

Truss grating to facilitate inspection shall run full length
(center to center of support frames) ±12" on overhead trusses.
Cost of truss grating is included in "Overhead Sign Structure".

- 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 grating to center of nearest support bracket)
 - h = 6'-0" maximum (center to center of sign and/or walkway support brackets, WF(A-N)4x1.79 or WF(A-N)4x3.06)
 - k = 2" maximum gap between adjacent walkway grating sections and handrail ends
 - If walkway bracket at safety chain location is behind sign, add angle to bracket, see Alternate Safety Chain Attachment on Base Sheet OS-A-11.
 - For Details T and W, Section B-B and Grating Splice Details see Base Sheet OS-A-10.
 - For Handrail Details see Base Sheet OS-A-11.

NUMBER	REVISION	DATE

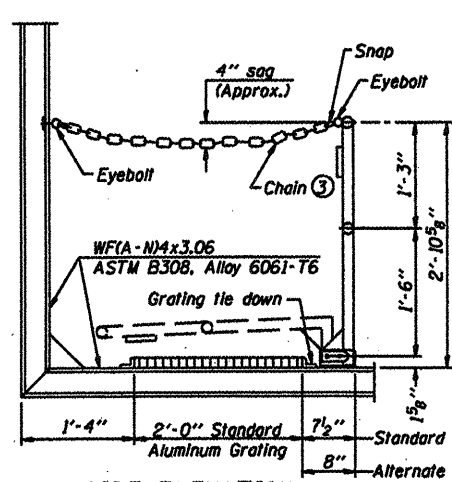
Structure Number	Station	a	b	c	d	e	Walkway Grating and Handrail Lengths
2S101U020R020.7	1094+86	N/A	N/A	N/A	N/A	N/A	109'-0" *
2S101U020R019.8	1047+60	N/A	N/A	N/A	N/A	N/A	89'-0"
2S0811074R003.4	404+30	N/A	N/A	N/A	N/A	N/A	96'-0"
2S0811088R000.5	257+75	N/A	N/A	N/A	N/A	N/A	118'-0"
2S0061088L000.8	275+25	N/A	N/A	N/A	N/A	N/A	102'-0"

* Length shown is for internal truss grating to be installed.

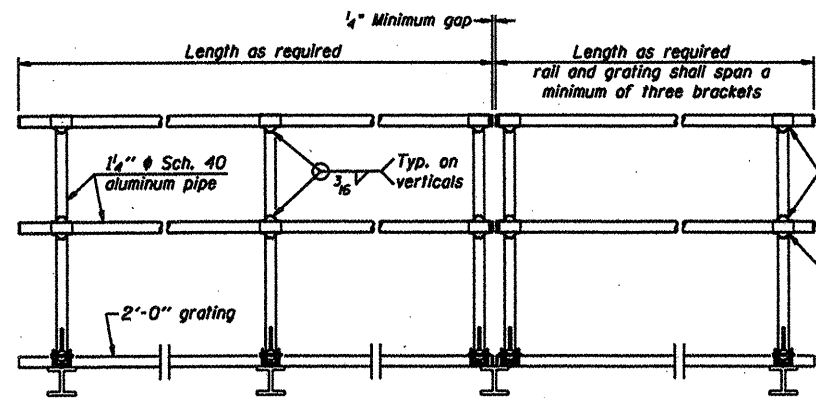
Walkway and Truss Grating width dimensions are nominal and may vary ±1/2" based on available standard widths.

**OVERHEAD SIGN STRUCTURES
ALUMINUM WALKWAY DETAILS**

OS-A-9 12-1-08



SIDE ELEVATION
(Showing safety chain w/o sign)

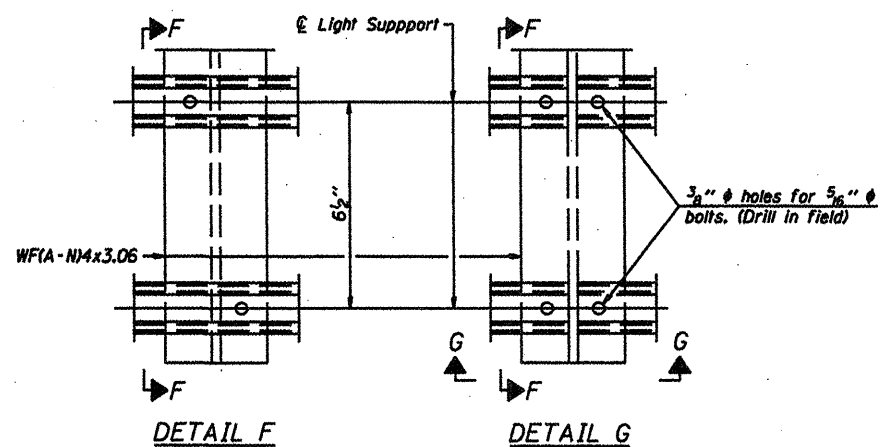


FRONT ELEVATION

HANDRAIL DETAILS

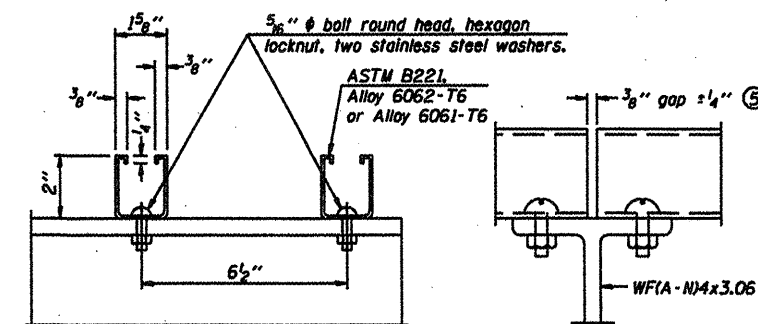
Handrail pipe shall be ASTM B241 or B429, Alloy 6063-T6 or Alloy 6061-T6.

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



DETAIL F

DETAIL G

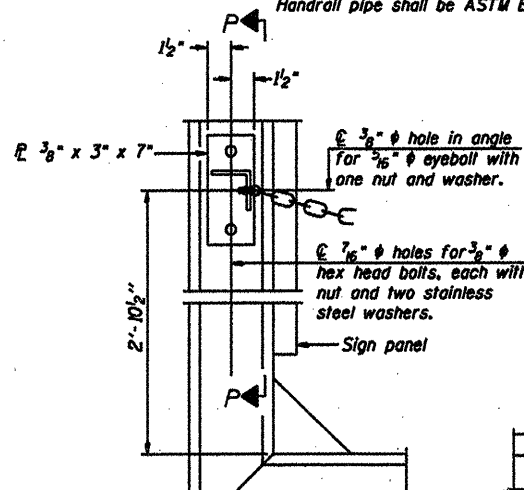


SECTION F-F

SECTION G-G

LIGHTING FIXTURE MOUNTS (IF REQUIRED)

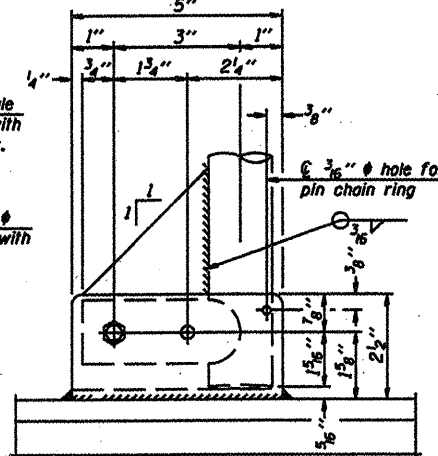
- ⑤ Field cut ends of light support channels shall be free of burrs or hazardous projections and coated with zinc-rich primer or equivalent.



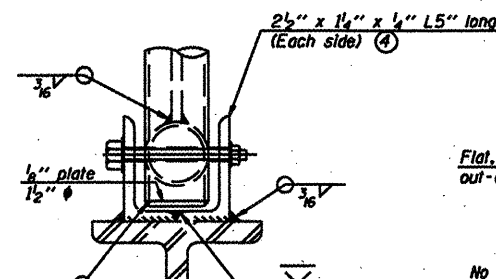
ALTERNATE SAFETY CHAIN ATTACHMENT

(With Sign Present)

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

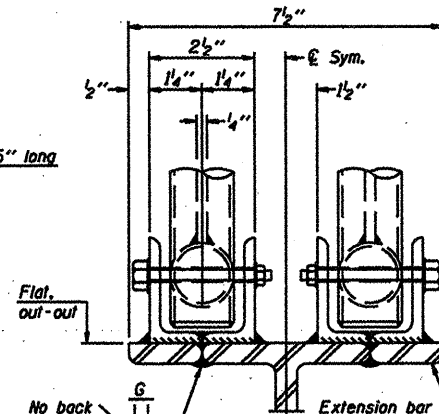


SIDE ELEVATION

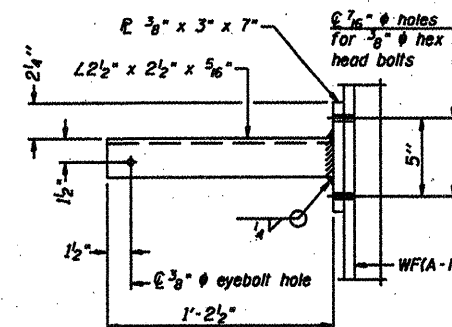


FRONT ELEVATION

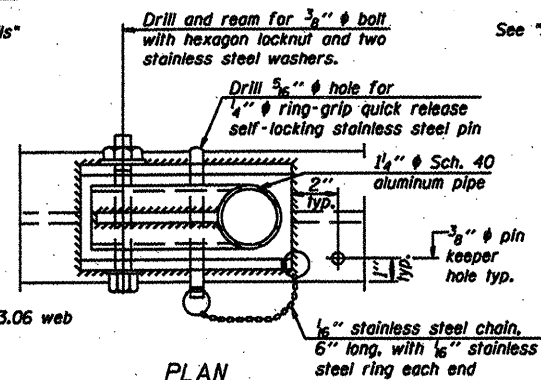
See "Elevation" at right for dimensions.



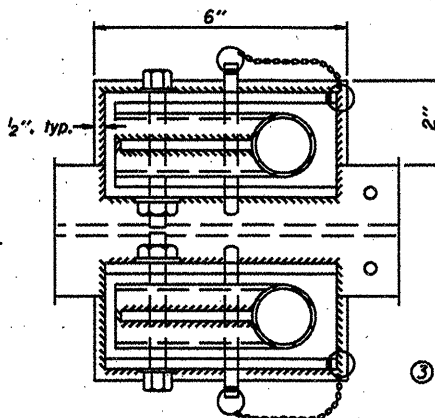
ELEVATION AT HANDRAIL JOINT



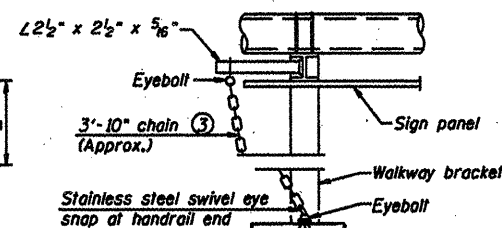
SECTION P-P



DETAIL E HANDRAIL HINGE

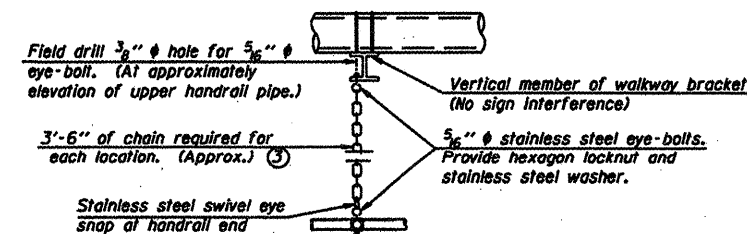


PLAN AT HANDRAIL JOINT
Details not shown same as "PLAN"



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.

NUMBER	REVISION	DATE

OVERHEAD SIGN STRUCTURES ALUMINUM HANDRAIL DETAILS

This sheet is for information only.

FILE NAME	USER NAME	DESIGNED	REVISED	STATE OF ILLINOIS	District 2 Sign	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
#FILE#	#USER#	DRAWN	REVISED	DEPARTMENT OF TRANSPORTATION	Structure Replacement	*	10-2 DVD SIGN STR REPL 2010-36	**	31	12
		CHECKED	REVISED			**	Rock Island & Winnebago	CONTRACT NO.	46101	
		DATE	REVISED			*	Various	ILLINOIS FED. AID PROJECT		

OS-A-11

12-1-08

FILE NAME	USER NAME	DESIGNED	REVISED
#FILE#	#USER#	DRAWN	REVISED
		CHECKED	REVISED
		DATE	REVISED

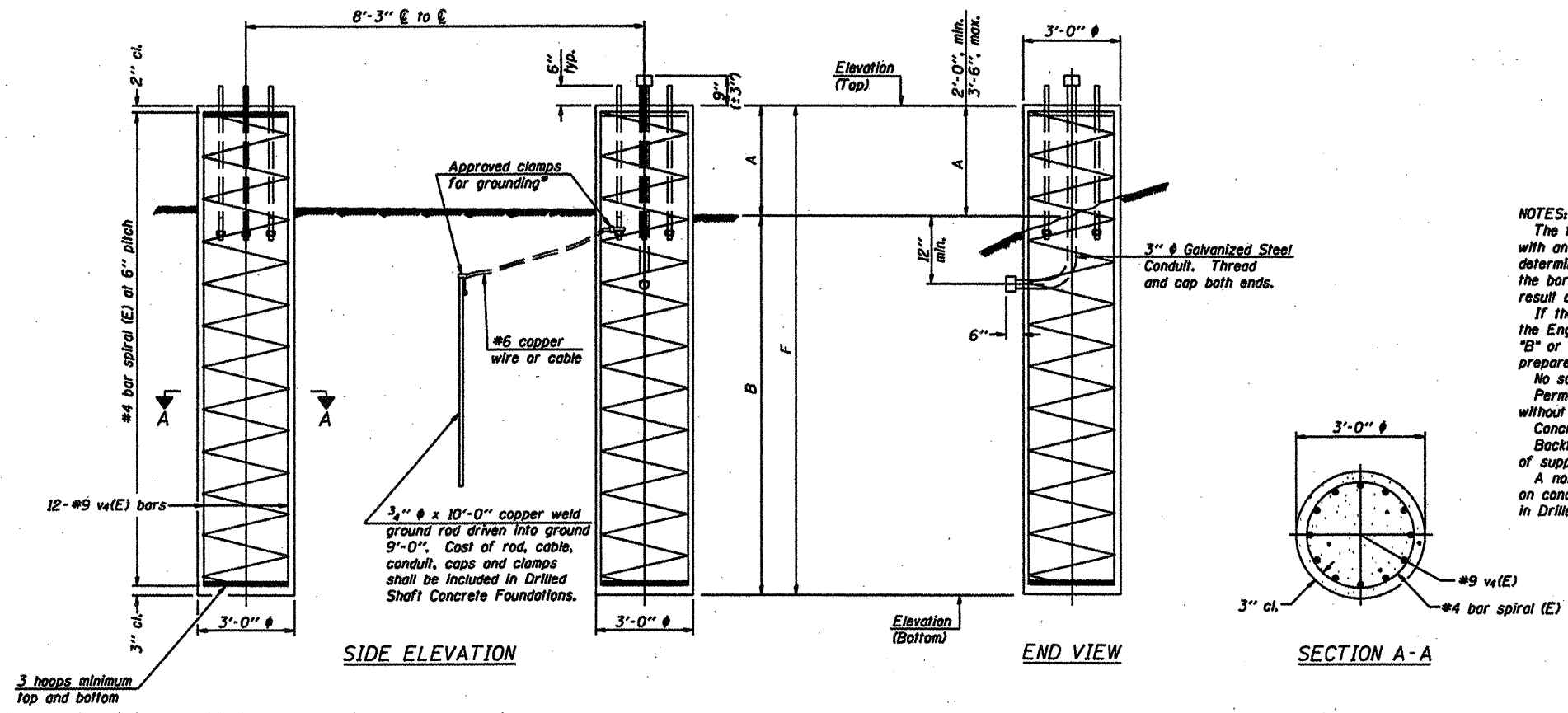
STATE OF ILLINOIS	District 2 Sign
DEPARTMENT OF TRANSPORTATION	Structure Replacement

SCALE	SHEET NO.	OF SHEETS	STA.	TO STA.
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F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	10-2 DVD SIGN STR REPL 2010-36	**	31	12
**	Rock Island & Winnebago	CONTRACT NO.	46101	
*	Various	ILLINOIS FED. AID PROJECT		

For anchor rod size and placement, see Support Frame Detail Sheet.

* Anchor rod shall be ground or filed to bright metal at clamp and cable connection location.



BAR LIST - EACH FOUNDATION

Bar	Number	Size	Length	Shape
w(E)	24	#9	F less 5"	—
#4 bar spiral (E) - see Side Elevation				

NOTES:

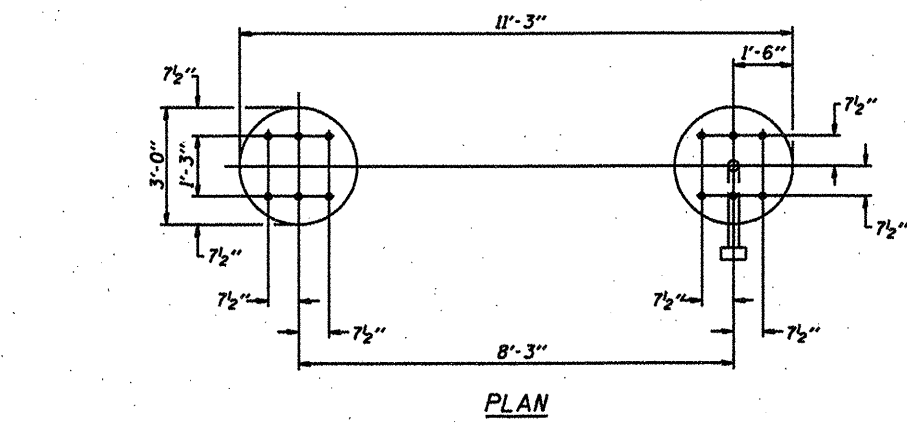
The foundation dimensions shown are based on the presence of mostly cohesive soils with an average Unconfined Compressive Strength (Qu) of at least 1.25 tsf, which must be determined by previous soil investigations at the jobsite. When other conditions are indicated, the boring data will be included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



Structure Number	Station	Left Foundation			Right Foundation			Class DS Concrete (Cu. Yds.)				
		Elevation Top	Elevation Bottom	A	B	F	Elevation Top		Elevation Bottom	A	B	F
2S101U020R020.7	1094+86	639.00	615.58	2'-11"	20'-6"	23'-5"	639.00	616.00	2'-6"	20'-6"	23'-0"	24.30
2S101U020R019.8	1047+60	814.00	794.50	3'-0"	16'-6"	19'-6"	818.50	798.50	3'-6"	16'-6"	20'-0"	20.70
2S0811074R003.4	404+30	605.27	585.27	2'-0"	18'-0"	20'-0"	602.50	581.00	3'-6"	18'-0"	21'-6"	22.00
2S0811088R000.5	257+75	581.00	558.00	2'-6"	20'-6"	23'-0"	581.00	557.00	3'-6"	20'-6"	24'-0"	25.00
2S0811088L000.8	275+25	580.05	561.00	2'-0"	17'-6"	19'-6"	580.50	559.50	3'-6"	17'-6"	21'-0"	21.50

NUMBER	REVISION	DATE

DETAILS FOR 10" Ø SUPPORT FRAME
TYPE I-A or II-A TRUSS

OVERHEAD SIGN STRUCTURES
DRILLED SHAFT DETAILS

OS4-F3 12-1-08

FILE NAME	USER NAME	DESIGNED	REVISION	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	District 2 Sign Structure Replacement	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
#FILES	DESIGNED	REVISION	* 10-2 OVD SIGN REPL 200-36			**	31	13		
PLOT SCALE	CHECKED	REVISION	** Rock Island & Winnebago			CONTRACT NO.	46701			
PLOT DATE	DATE	REVISION	* Various			ILLINOIS FED. AID PROJECT				

NOTE: PROPOSED FOUNDATION ELEVATIONS ARE REFERENCED TO TOP OF THE EXISTING FOOTING WHICH WAS ASSUMED TO BE 595.96

NOTE: PROPOSED FOUNDATION ELEVATIONS ARE REFERENCED TO TOP OF THE EXISTING FOOTING WHICH WAS ASSUMED TO BE 578.90

GENERAL NOTES

DESIGN: AASHTO Standard Specifications for Structural Supports for Highway Signs, Luminaires and Traffic Signals. ("AASHTO Specifications")

CONSTRUCTION: Current (at time of letting) Illinois Department of Transportation Standard Specifications for Road and Bridge Construction, Supplemental Specifications and Special Provisions. ("Standard Specifications")

LOADING: 90 M.P.H. WIND VELOCITY

WALKWAY LOADING: Dead load plus 500 lbs. concentrated live load.

DESIGN STRESSES:

Field Units
 $f'_c = 3,500$ p.s.i.
 $f_y = 60,000$ p.s.i. (reinforcement)

WELDING: All welds to be continuous unless otherwise shown. All welding to be done in accordance with current AWS D1.1 and D1.2 Structural Welding Codes (Steel and Aluminum) and the Standard Specifications.

MATERIALS: Aluminum Alloys as shown throughout plans. All Structural Steel Pipe shall be ASTM A53 Grade B or A500 Grade B or C. If A500 pipe is substituted for A53, then the outside diameter shall be as detailed and wall thickness greater than or equal to A53.

All Structural Steel Plates and Shapes shall conform to AASHTO M270 Gr. 36, Gr. 50 or Gr. 50W. Stainless steel for shims, sleeves and handhole covers shall be ASTM A240, Type 302 or 304, or another alloy suitable for exterior exposure and acceptable to the Engineer. The steel pipe and stiffening ribs at the base plate for the column shall have a minimum longitudinal Charpy V-Notch (CVN) energy of 15 lb.-ft. at 40° F. (Zone 2) before galvanizing.

FASTENERS FOR ALUMINUM TRUSSES: All bolts noted as "high strength" must satisfy the requirements of AASHTO M164 (ASTM A325), or approved alternate, and must have matching lock nuts. Threaded studs for splices (if Members interfere) must satisfy the requirements of ASTM A449, ASTM A193, Grade B7, or approved alternate, and must have matching lock nuts. Bolts and lock nuts not required to be high strength must satisfy the requirements of ASTM A307. All bolts and lock nuts must be hot dip galvanized per AASHTO M232. The lock nuts must have nylon or steel inserts. A stainless steel flat washer conforming to ASTM A240 Type 302 or 304, is required under both head and nut or under both nuts where threaded studs are used. High strength bolt installation shall conform to Article 505.04 (f) (2)d of the IDOT Standard Specifications for Road and Bridge Construction. Rotational capacity ("ROCAP") testing of bolts will not be required.

U-BOLTS AND EYEBOLTS: U-Bolts and Eyebolts must be produced from ASTM A276 Type 304, 304L, 316 or 316L, Condillon A, cold finished stainless steel, or an equivalent material acceptable to the Engineer. All nuts for U-Bolts and Eyebolts must be lock nuts equivalent to ASTM A307 with nylon or steel inserts and hot dip galvanized per AASHTO M232. A stainless steel flat washer conforming to ASTM A240, Type 302 or 304, is required under each U-Bolt and Eyebolt lock nut.

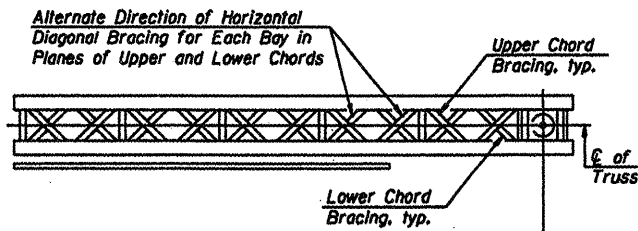
GALVANIZING: All Steel Grating, Plates, Shapes and Pipe shall be Hot Dip Galvanized after fabrication in accordance with AASHTO M111. Painting is not permitted.

ANCHOR RODS: Shall conform to AASHTO M314 Gr. 105 with a minimum Charpy V-Notch (CVN) energy of 15 lb.-ft. at 10° F.

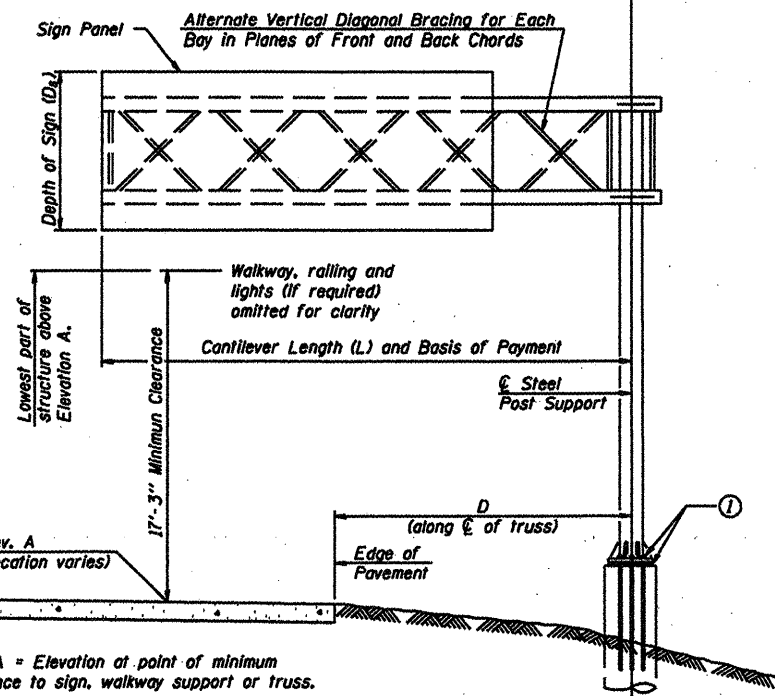
CONCRETE SURFACES: All concrete surfaces above an elevation 6" below the lowest final ground line at each foundation shall be cleaned and coated with Bridge Seal Sealer in accordance with the Standard Specifications.

REINFORCEMENT BARS: Reinforcement Bars designated (E) shall be epoxy coated in accordance with the Standard Specifications.

FOUNDATIONS: The contract unit price for Drilled Shaft Concrete Foundations shall include reinforcement bars complete in place.



TYPICAL PLAN
(Walkway not shown)



TYPICAL ELEVATION
Looking in Direction of Traffic

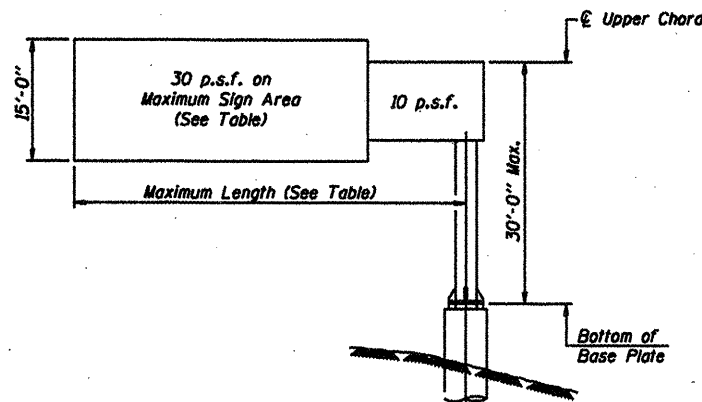
Sign support structures may be subject to damaging vibrations and oscillations when sign panels are not in place during erection or maintenance of the structure. To avoid these vibrations and oscillations, consideration should be given to attaching temporary blank sign panels to the structure.

NOTE: PROPOSED FOOTING ELEVATIONS ARE BASED ON A SURVEY USING THE TOP OF THE EXISTING FOOTING AS A BENCH MARK WITH AN ASSUMED ELEVATION OF 595.96.

Structure Number	Station	Design Truss Type	Cantilever Length (L)	Elev. A	Dim. D	D _s	Total Sign Area
2C08110JDL000.0	83+60	II-C-A	30' 0"	599.15	18' 0"	8' 0"	152.00
2C0811074L003.6	415 + 25	II-C-A	30' 0"	579.12	18' 0"	9' 6"	223.25

** 44' RIGHT OF CENTERLINE WESTBOUND LANES

Truss Type	Maximum Sign Area	Maximum Length
I-C-A	170 Sq. Ft.	25 Ft.
II-C-A	340 Sq. Ft.	30 Ft.
III-C-A	400 Sq. Ft.	40 Ft.



DESIGN WIND LOADING DIAGRAM

Parameters shown are basis for I.D.O.T. Standards. Installations not within dimensional limits shown require special analysis for all components.

① After adjustments to level truss and insure adequate vertical clearance, all top and leveling nuts shall be tightened against the base plate with a minimum torque of 200 lb.-ft. Stainless steel mesh shall then be placed around the perimeter of the base plate. Secure to base plate with stainless steel banding.

Note: Trusses shall be shipped individually with adequate provision to prevent detrimental motion during transport. This may require ropes between horizontals and diagonals or energy dissipating (elastic) ties to the vehicle. The contractor is responsible for maintaining the configuration and protection of the trusses.

* If M270 Gr. 50W (M222) steel is proposed, chemistry for plate to be used shall first be approved by the Engineer as suitable for galvanizing and welding.

TOTAL BILL OF MATERIAL

NUMBER	REVISION	DATE

ITEM	UNIT	TOTAL
OVERHEAD SIGN STRUCTURE CANTILEVER TYPE I-C-A	Foot	
OVERHEAD SIGN STRUCTURE CANTILEVER TYPE II-C-A	Foot	
OVERHEAD SIGN STRUCTURE CANTILEVER TYPE III-C-A	Foot	
OVERHEAD SIGN STRUCTURE WALKWAY, TYPE A	Foot	
DRILLED SHAFT CONCRETE FOUNDATIONS	Cu. Yds.	

**CANTILEVER SIGN STRUCTURES
GENERAL PLAN & ELEVATION
ALUMINUM TRUSS & STEEL POST**

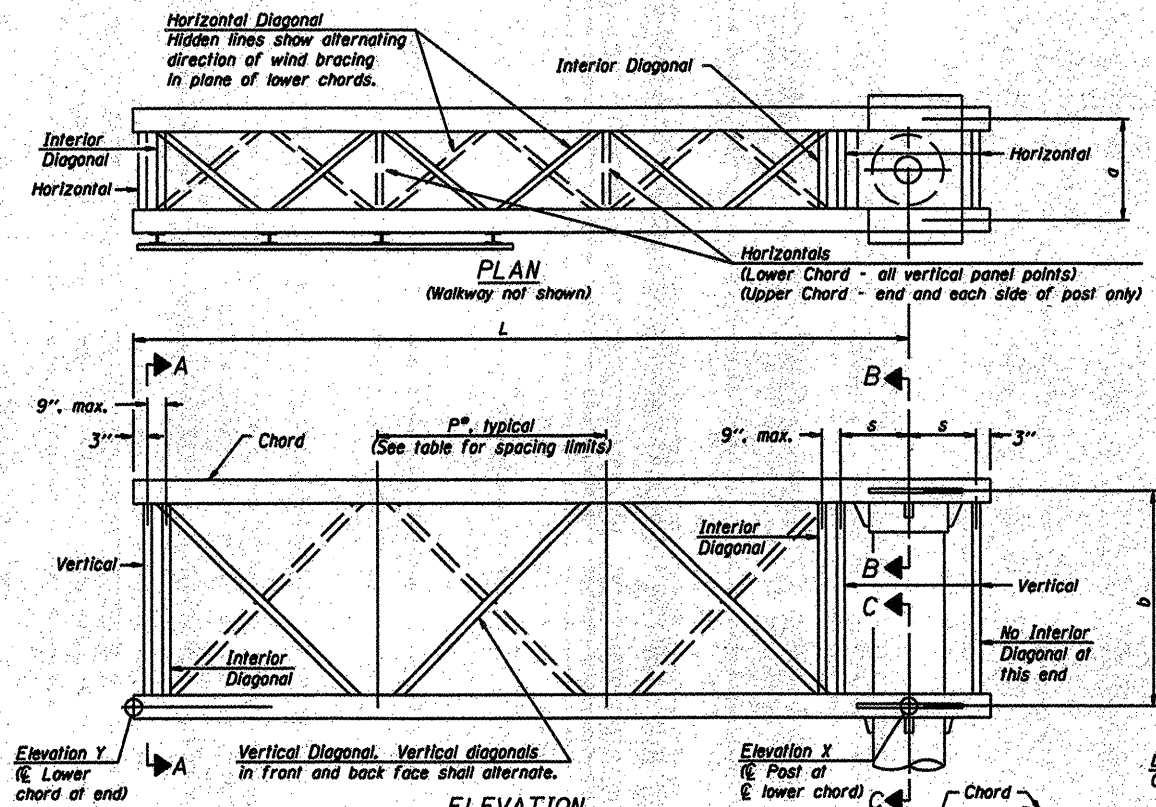
OSC-A-1 12-1-08

FILE NAME	USER NAME	DESIGNED	REVISION
#FILE#	#USERS#		

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

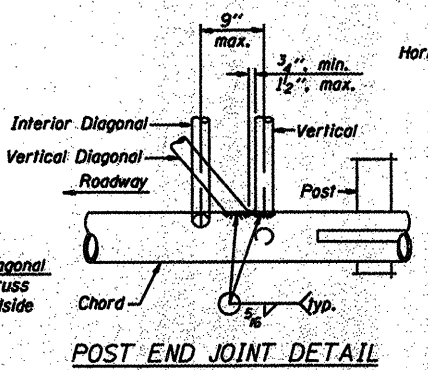
SCALE	SHEET NO.	OF SHEETS	STA.	TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.



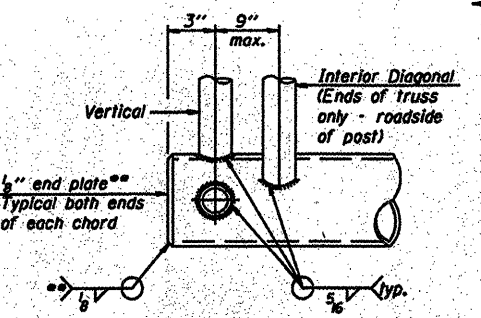
TYPICAL TRUSS UNIT
 For Section B-B and Section C-C, see Base Sheet OSC-A-3.

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

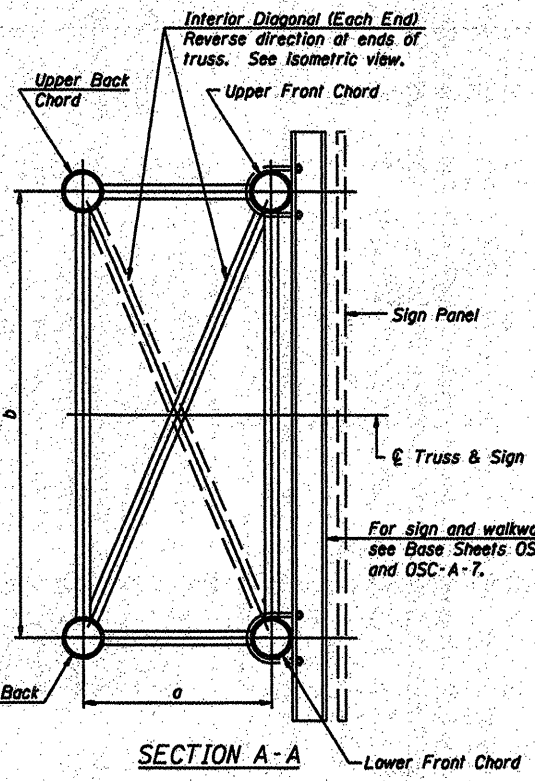


SHOP CAMBER TABLE

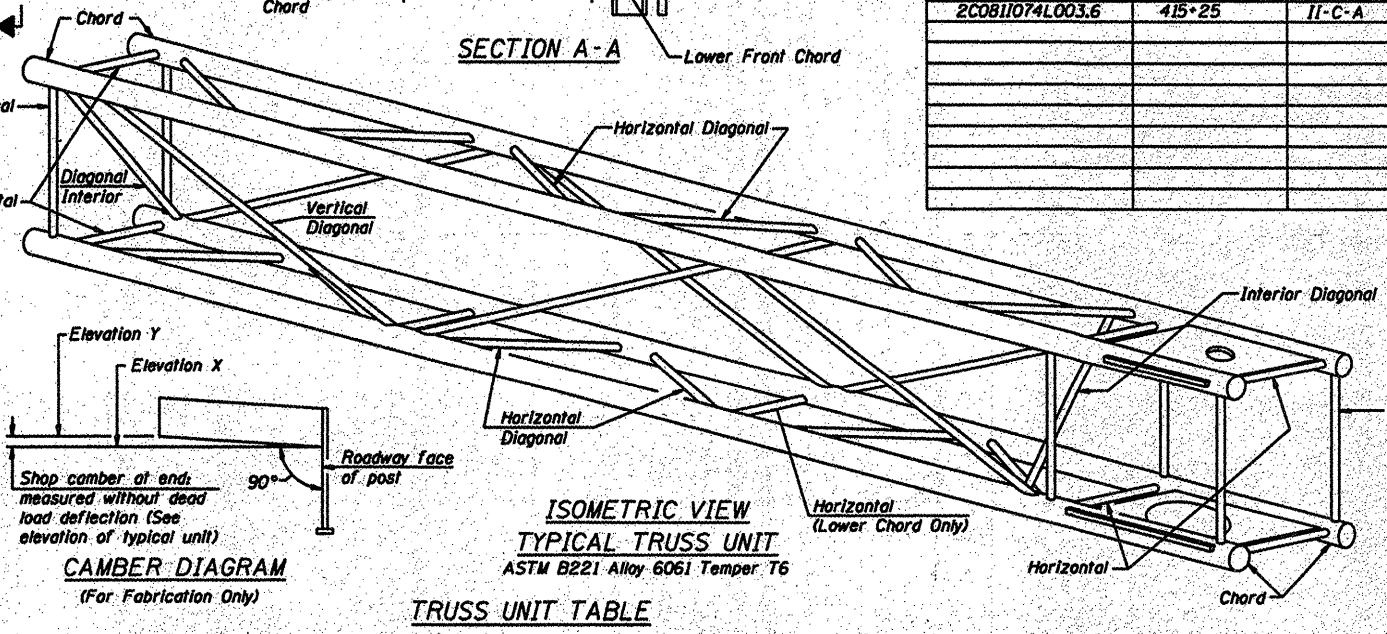
Unit Length (L)	Shop Camber at End
15'	1 1/2"
16'-17'	1 3/4"
18'-20'	2"
21'-22'	2 1/4"
23'-25'	2 1/2"
26'-27'	2 3/4"
28'-30'	3"
31'-32'	3 1/4"
33'-35'	3 1/2"
36'-37'	4"
38'-40'	4 1/2"



CANTILEVER END JOINT DETAIL
 ** Contractor may alternatively use standard aluminum drive-fit cap to close ends.



SECTION A-A

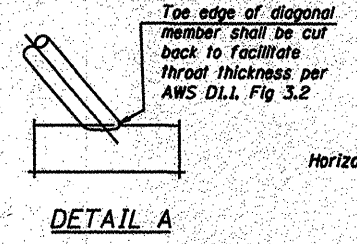


TYPICAL TRUSS UNIT
 ASTM B221 Alloy 6061 Temper T6

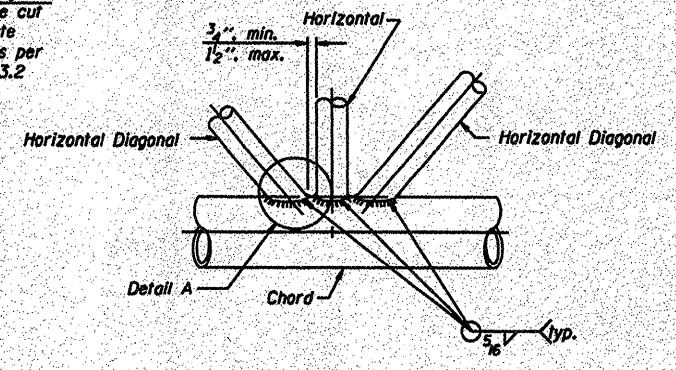
CAMBER DIAGRAM
 (For Fabrication Only)

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

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



DETAIL A



TRUSS INTERIOR JOINT DETAIL

Structure Number	Station	Truss Type	Design Length (L)	Number of Panels Per Unit	Panel Length (P)*
2C0B110JDL000.0	83+60	II-C-A	30' 0"	7	4' 0"
2C0B11074L003.6	415+25	II-C-A	30' 0"	7	4' 0"

NUMBER	REVISION	DATE

CANTILEVER SIGN STRUCTURES TRUSS DETAILS ALUMINUM TRUSS & STEEL POST

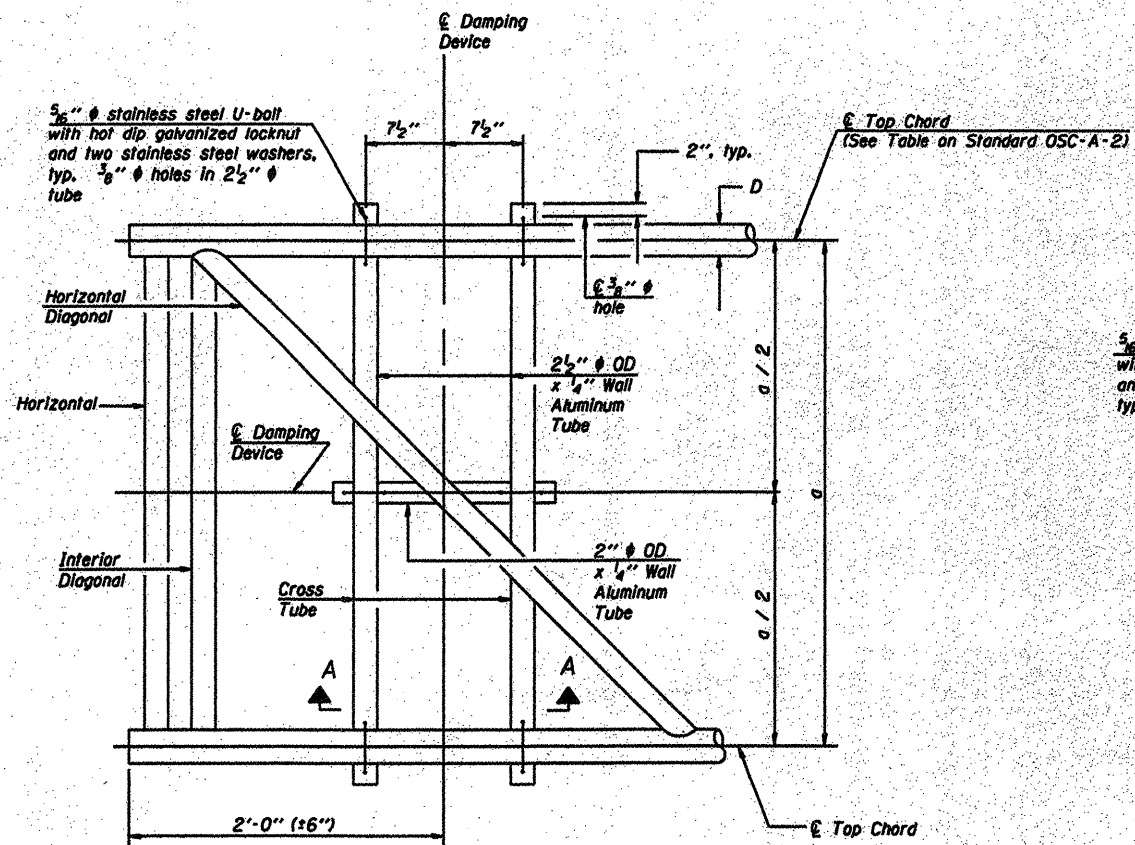
OSC-A-2 12-1-08

FILE NAME	USER NAME	DESIGNED	REVISED

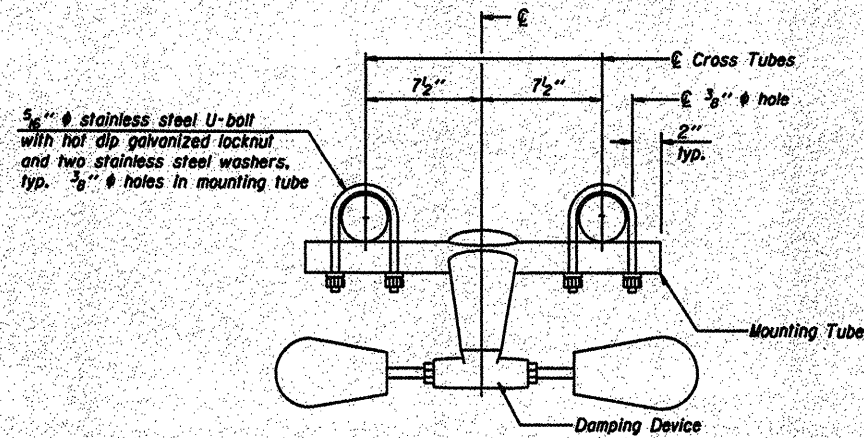
STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

SCALE	SHEET NO.	OF	SHEETS	STA.	TO STA.

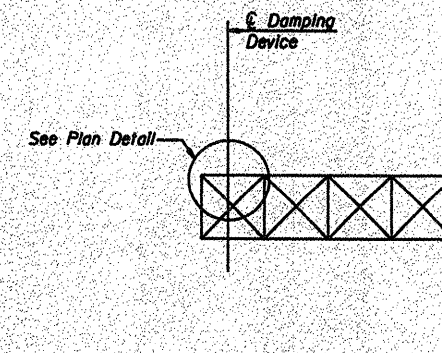
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.



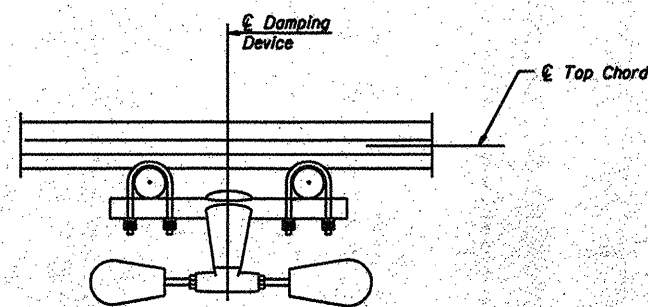
PLAN DETAIL



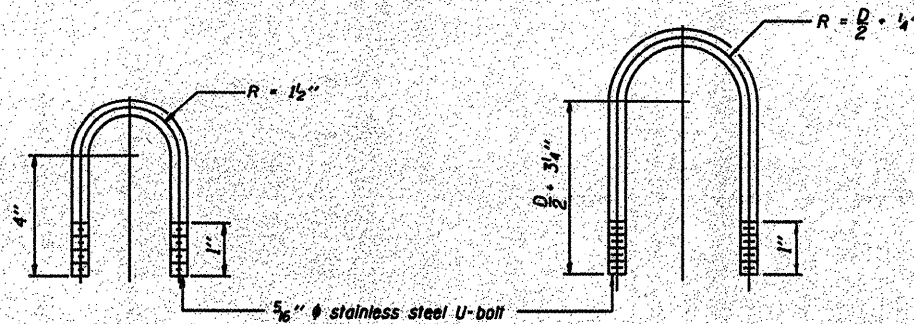
TRUSS DAMPING DEVICE CONNECTION DETAIL



ELEVATION
Aluminum Cantilever
Sign Structure



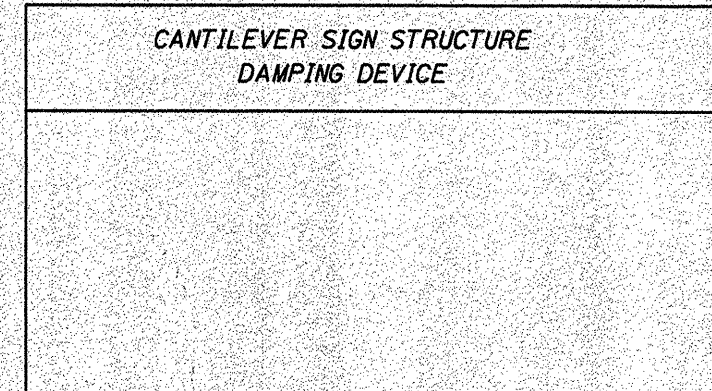
SECTION A-A



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 12-1-08

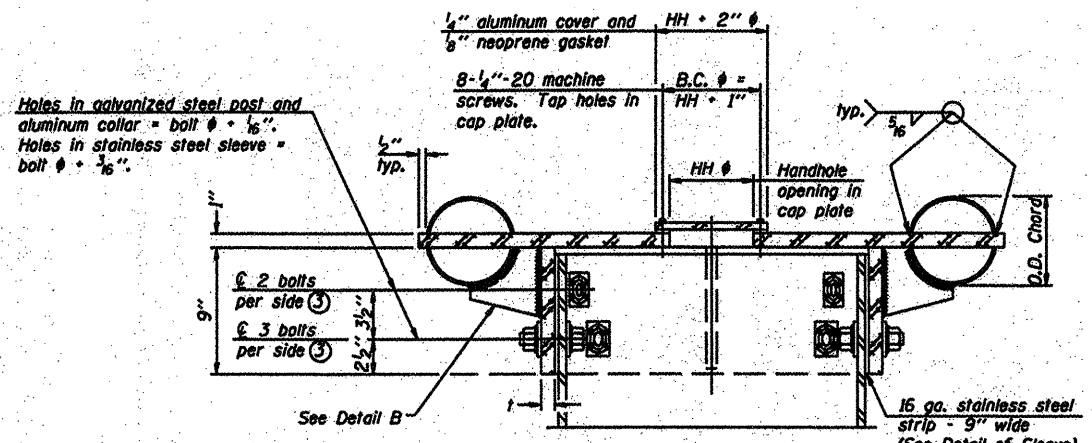
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#FILE#	#USER#	DRAWN	REVISED
		CHECKED	REVISED
		DATE	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

District 2 Sign
Structure Replacement

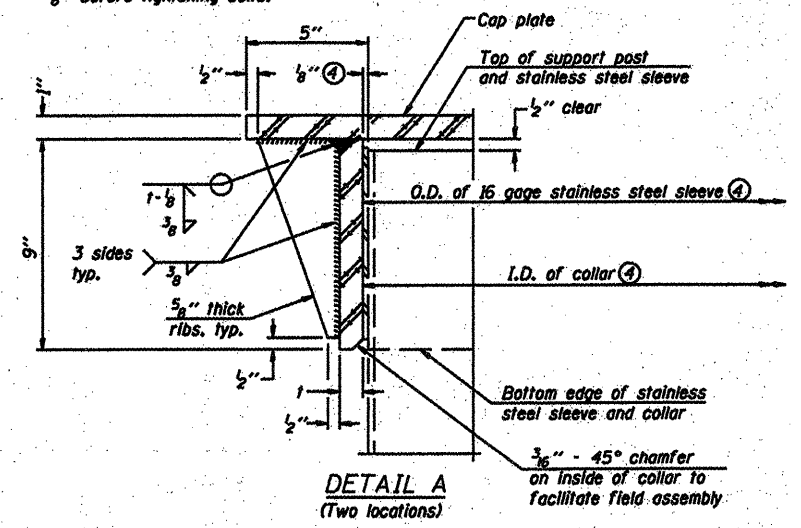
SCALE: SHEET NO. OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	D-2 DVD SIGN STR. REPL. 2010-36	**	31	16
**	Rock Island & Winnebago	CONTRACT NO.	4601	
**	Various	ILLINOIS FED. AID PROJECT		

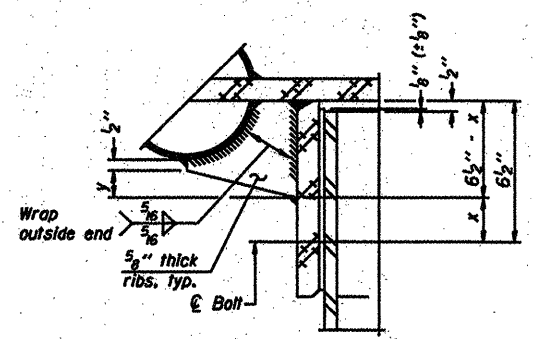


④ Collar I.D. shall be manufactured to correspond to O.D. of actual galvanized post and stainless steel sleeve plus 1/8" (±1/16"). Maximum gap between post and collar at any location equals 1/8" before tightening bolts.

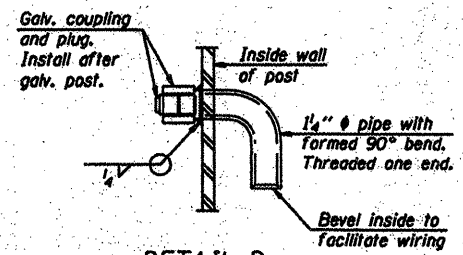
SECTION B-B
Bolts, washers (including contoured washers), and locknuts shall be stainless steel.



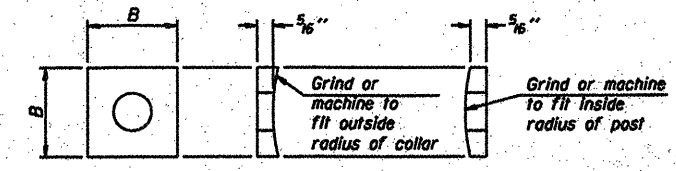
DETAIL A
(Two locations)



DETAIL B
Two locations
(For details not shown, see Detail C)



DETAIL D



CONTOURED WASHERS

Bolt Size	Contoured Washers	
	Hole Dia.	B
7/8"	1"	2 1/2"
1"	1 1/8"	3"
1 1/4"	1 3/8"	3 1/4"

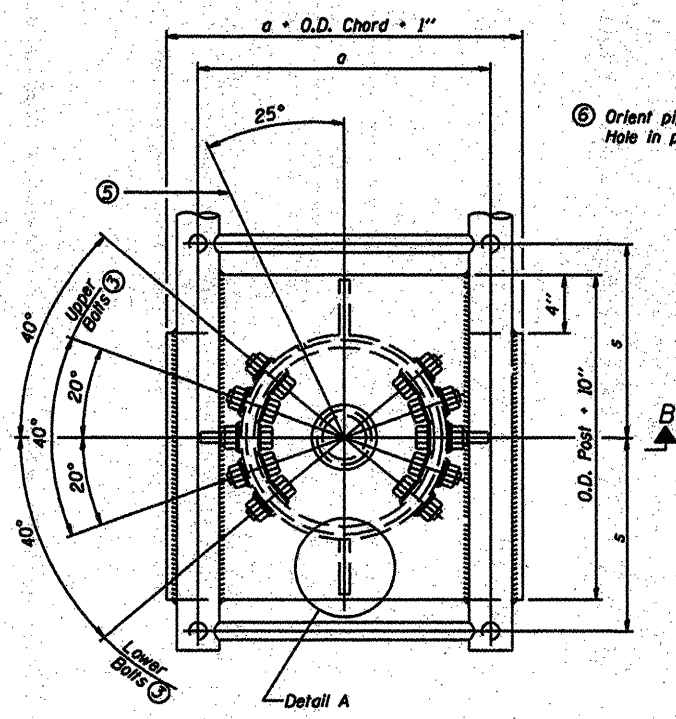
DETAIL OF STAINLESS STEEL SLEEVE

Weld to post after galvanizing. (Prepare post surface to insure tight, uniform fit and allow welding.) Welds to be 1/2" long at 6" cts. along top edge and at 1/4" opening.

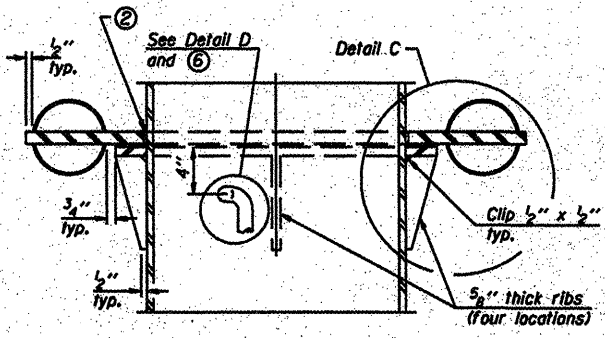
NUMBER	REVISION	DATE

Truss Type	Post Size	Upper & Lower Connection Bolt Diameter ③	Lower Juncture Bolt Spacing Dimension "c" ③	Opening in Cap Plate "HH"	Collar Thickness (t)	Side Ribs
						x y
I-C-A	16" # (83#/1)	7/8"	3 1/4"	8"	5/8"	1 3/4" 2 1/4"
II-C-A	24" # (125#/1)	1"	3 1/2"	12"	7/8"	2" 1 1/4"
III-C-A (35' max.)	24" # (125#/1)	1 1/4"	3 1/2"	12"	7/8"	2" 1"
III-C-A (>35' to 40')	24" # (171#/1)	1 1/4"	3 1/2"	12"	7/8"	2" 1"

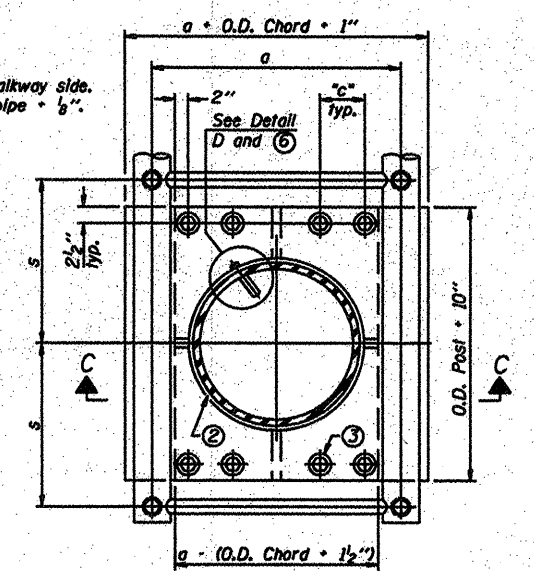
③ Upper and lower connection bolts in collar and bolts at lower chord connection shall be high strength with matching locknuts. Connection bolts shall have 2 stainless steel flat washers each.



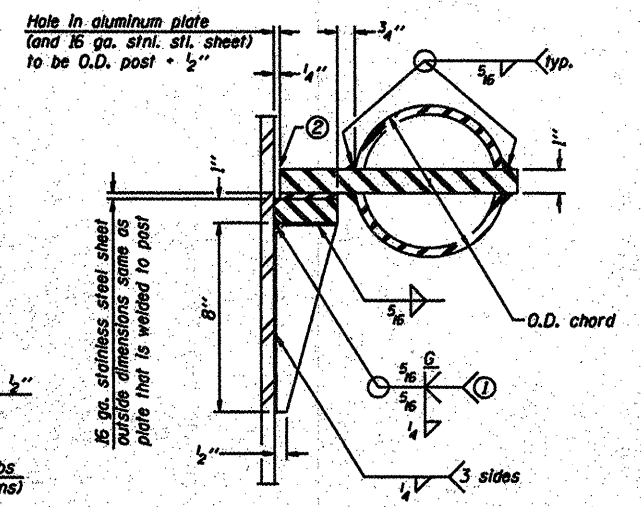
PLAN VIEW - TOP OF COLUMN
⑤ Optional full penetration weld in collar. (Two locations maximum...180° apart)...X-ray or UT 100%



SECTION C-C



SECTION THRU POST ABOVE LOWER CHORDS

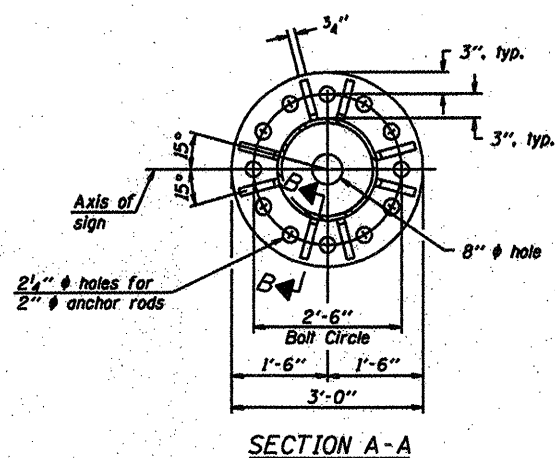


DETAIL C

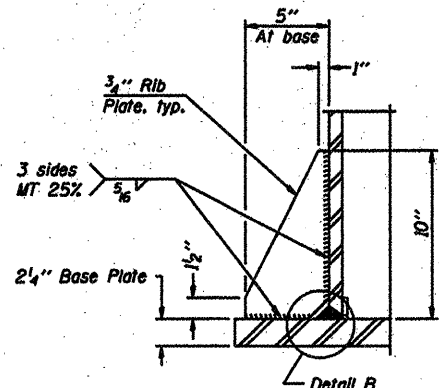
- ① Grind top if required to fully seat aluminum plate and stainless steel sheet.
- ② After tightening lower connection bolts, fill gap with non-hardening, silicone caulk suitable for exterior exposure and acceptable to the Engineer. Cost is included in Overhead Sign Structure Cantilever.

**CANTILEVER SIGN STRUCTURES
JUNCTURE DETAILS
ALUMINUM TRUSS & STEEL POST**

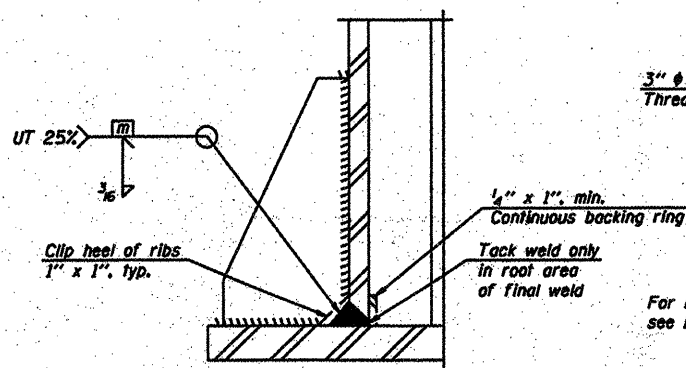
OSC-A-3 12-1-08



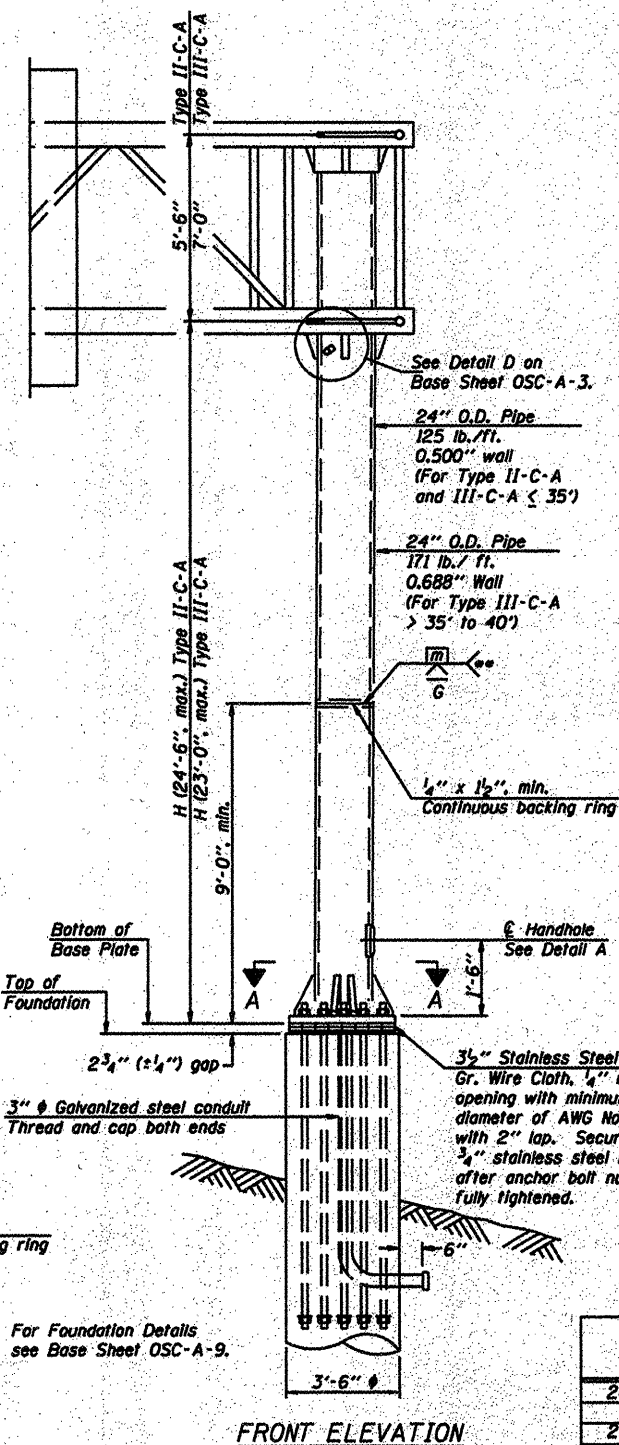
SECTION A-A



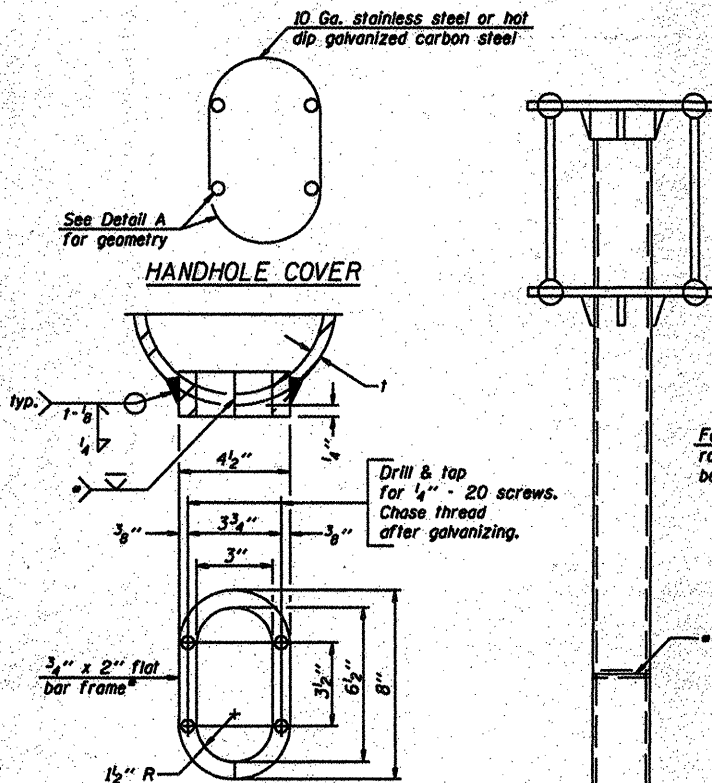
SECTION B-B



DETAIL B
(Typical rib)



FRONT ELEVATION

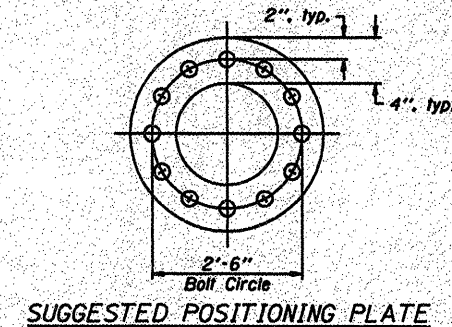


DETAIL A

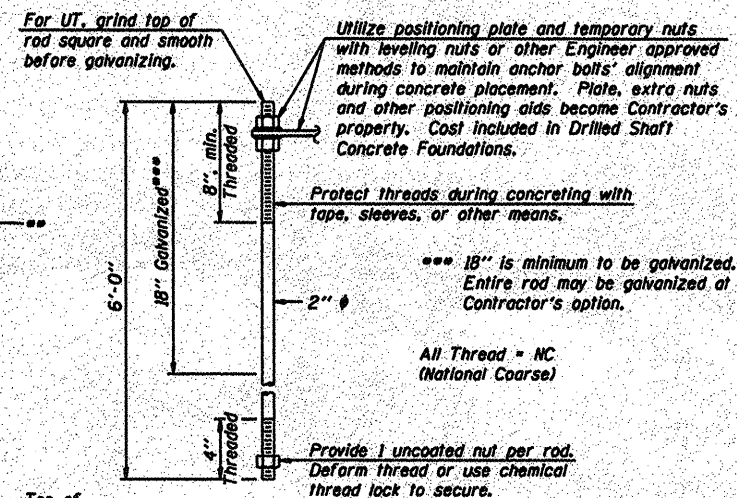
- * Bent bars may be butt welded top and bottom or bottom only. In lieu of fabricated handhole frame as shown, may cut from 2" plate (rolling direction vertical). All cut faces to be ground to ANSI Roughness of 500 μin or less.
- ** Butt welded joint in post is only allowed for post heights (H) over 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
2C08110JDL000.0	83+60	23'-6"
2C0811074L003.6	415+25	22'-4 1/2"

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

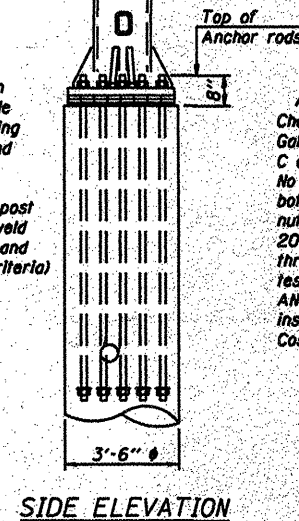


SUGGESTED POSITIONING PLATE



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, 5" 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

NUMBER	REVISION	DATE

OSC-A-5 12-1-08

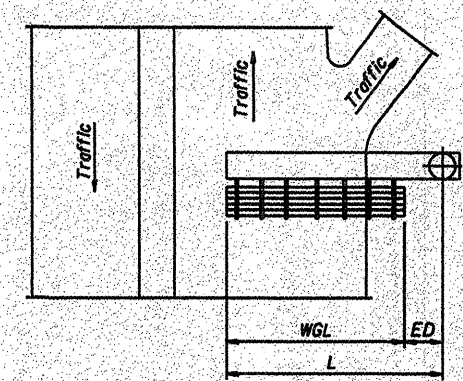
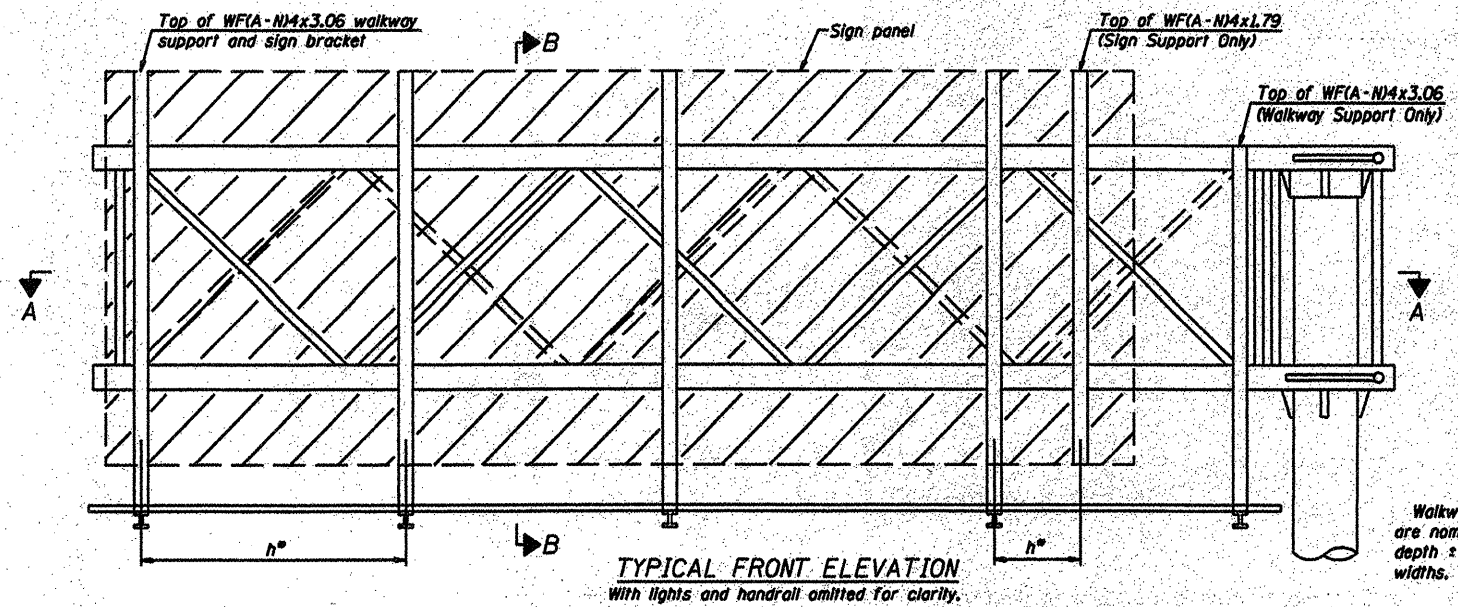
FILE NAME	USER NAME	DESIGNED	REVISION
#FILE#	#USER#	DRAWN	REVISION
		CHECKED	REVISION
		DATE	REVISION

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

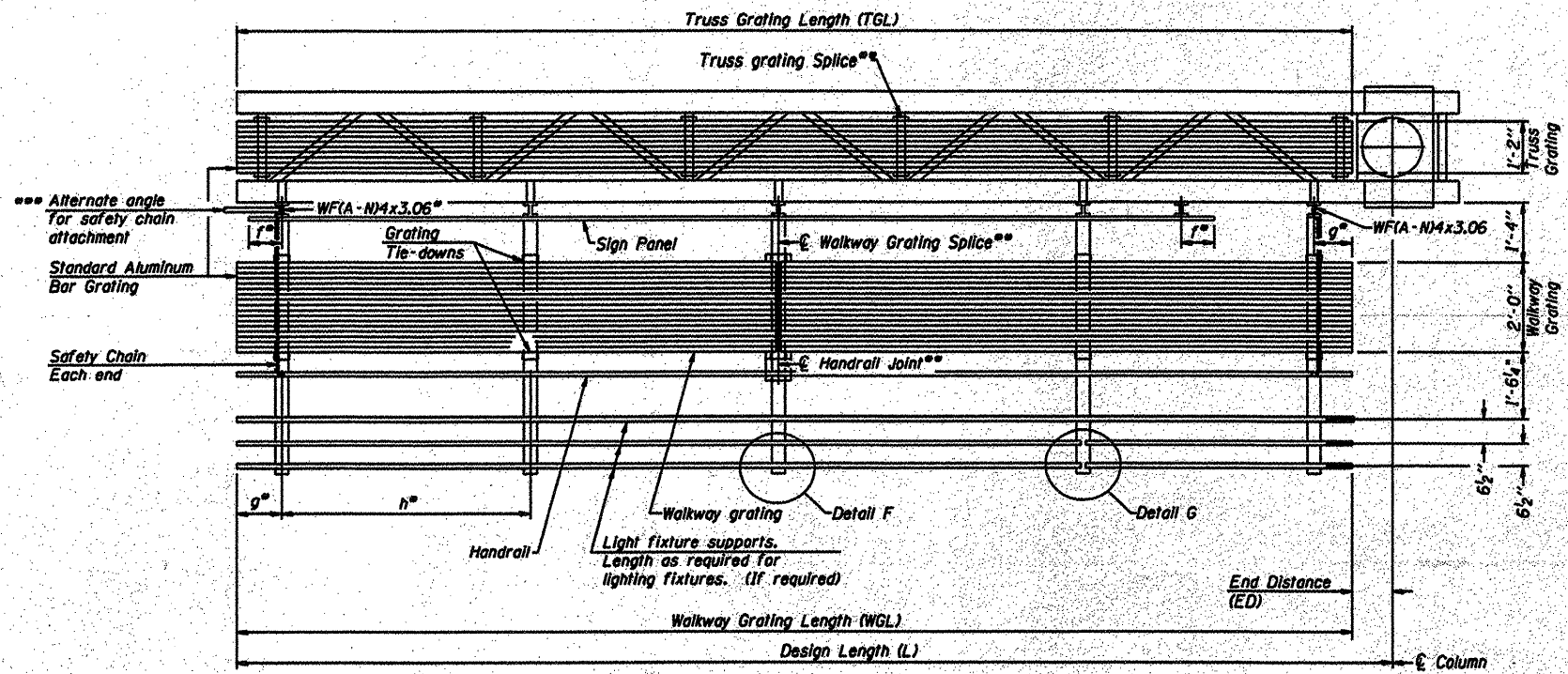
District 2 Sign
Structure Replacement

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

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	D-2 QVD SIGN STR REPL 2010-36	**	31	8
**	Rock Island & Winnebago		CONTRACT NO. 4610	
**	Various		ILLINOIS FED. AID PROJECT	



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



Structure Number	Station	WGL	ED	TGL
2C08110JL000.0	83+60	N/A	N/A	28'-6" *
2C0811074L003.6	415+25	N/A	N/A	28'-6" *

* Length shown is for internal truss grating to be installed.

Notes:
 Space walkway brackets WF(A-N4x3.06 and sign brackets WF(A-N4x1.79 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-N4x1.79 or WF(A-N4x3.06)
 *** 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.

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.

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

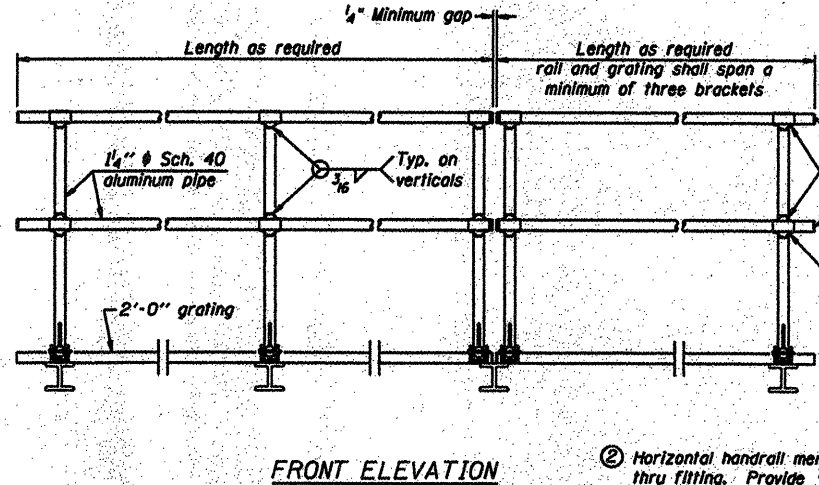
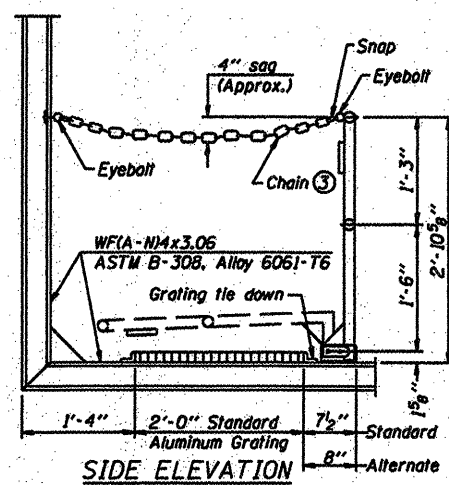
NUMBER	REVISION	DATE

BRACKET TABLE

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

CANTILEVER SIGN STRUCTURES
ALUMINUM WALKWAY DETAILS
ALUMINUM TRUSS & STEEL POST

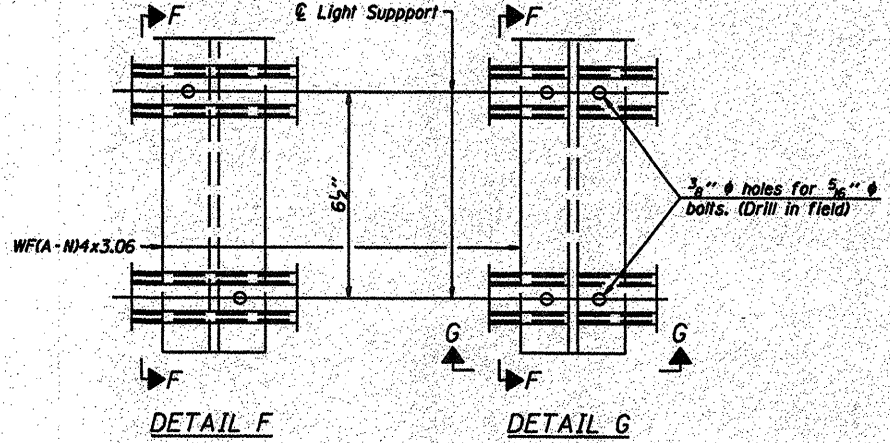
OSC-A-6 12-1-08



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

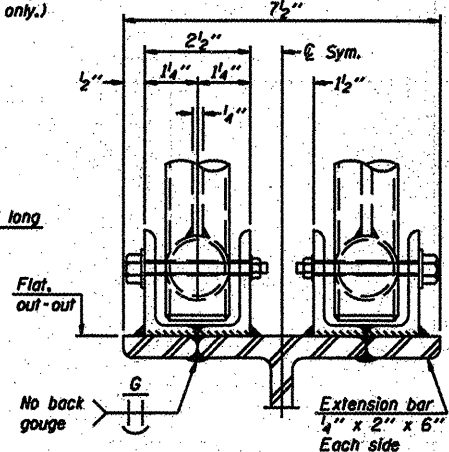
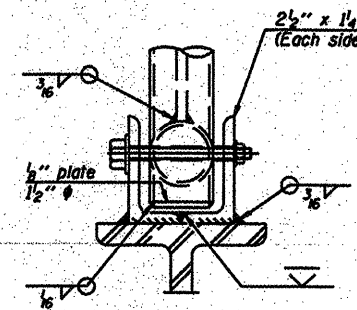
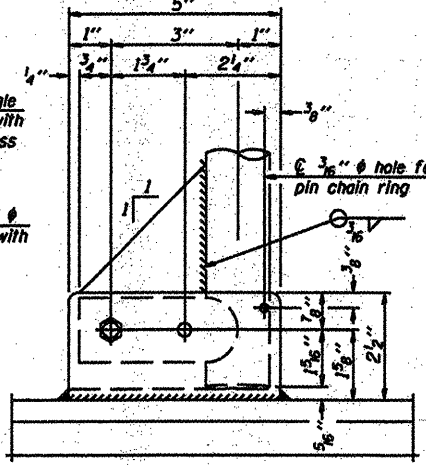
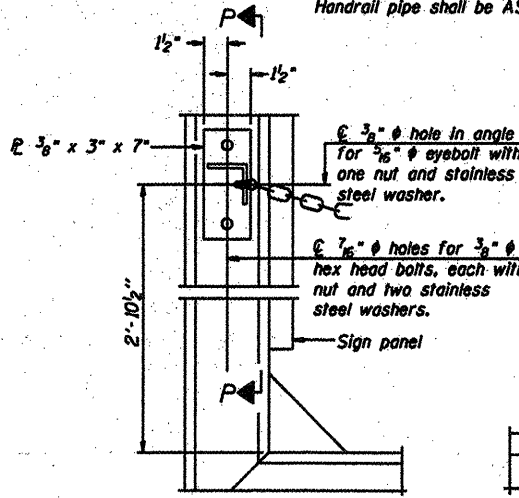


SECTION F-F

SECTION G-G

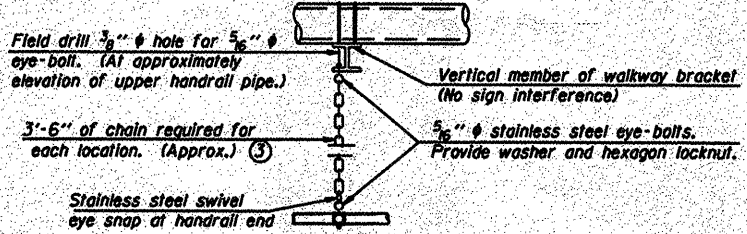
LIGHTING FIXTURE MOUNTS (IF REQUIRED)

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



ELEVATION AT HANDRAIL JOINT

Details not shown same as "FRONT ELEVATION"

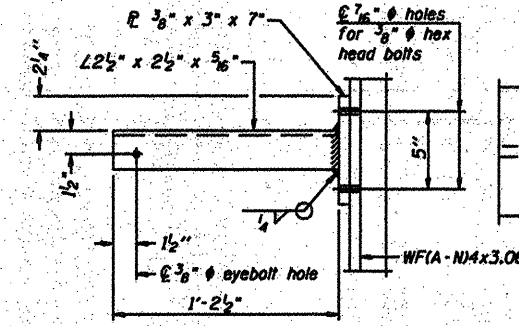


SAFETY CHAIN

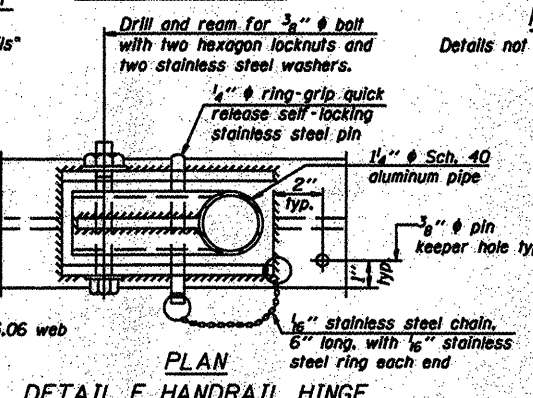
One required for each end of each walkway.

ALTERNATE SAFETY CHAIN ATTACHMENT

(With Sign Present)
Items not shown same as "Side Elevation" of "Handrail Details"



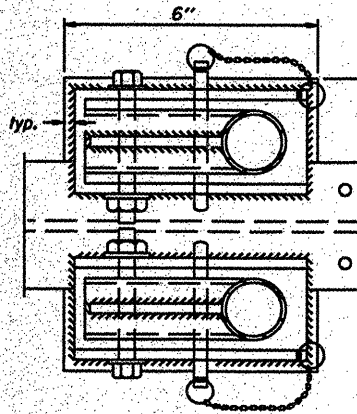
SIDE ELEVATION



DETAIL E HANDRAIL HINGE

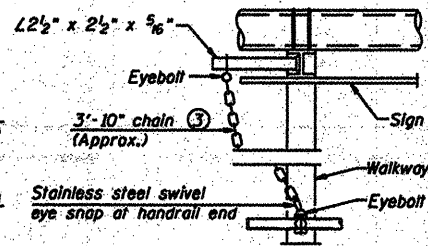
FRONT ELEVATION

Details not shown same as "ELEVATION" at right.



PLAN AT HANDRAIL JOINT

Details not shown same as "PLAN"



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.

**CANTILEVER SIGN STRUCTURES
HANDRAIL DETAILS
ALUMINUM TRUSS & STEEL POST**

NUMBER	REVISION	DATE

OSC-A-8

12-1-08

FILE NAME	USER NAME	DESIGNED	REVISION
#FILE#	#USER#	-	-
		DRAWN	REVISION
		CHECKED	REVISION
		DATE	REVISION

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION


District 2 Sign
Structure Replacement

SCALE	SHEET NO.	OF SHEETS	STA.	TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	D-2 OVD SIGN REPL 2010-36	*	31	21
*	Rack Island & Winthrop	*		
*	Various			

CONTRACT NO. 4501
ILLINOIS FED. AID PROJECT

BORING LOGS


Illinois Department of Transportation
Division of Highways
Illinois Department of Transportation-D-2

Page 1 of 1

SOIL BORING LOG

Date 10/21/09

ROUTE Bypass 20 DESCRIPTION P92-STW-09 Sign Truss at US 20 Bypass EB, .1 m. W. of Alhine road LOGGED BY W. Garza


SECTION _____ LOCATION Cherry Valley - 7NW SEC. TWP. 43N. RNG. 2E

COUNTY Winnebago DRILLING METHOD Hollow Stem Auger HAMMER TYPE CME-45 Automatic

STRUCT. NO. Station	D P T H	B L O S	U C S Q _n	M O S T	Surface Water Elev. Stream Bed Elev.	ft	D P T H	B L O S	U C S Q _n	M O S T	ft	Groundwater Elev. First Encounter Upon Completion After	ft	ft	Hrs.
2S101U020R019.8															
B-2a												None	None		
1047470												None	None		
31.00R L4 EB CL												None	None		
Ground Surface Elev.															
SOFT tan SANDY LOAM			0.4	11.0	VERY DENSE tan SANDY LOAM TILL (continued)										
			P												
MEDIUM tan clean medium coarse SAND			9		VERY DENSE tan SANDY LOAM TILL, moist										
			10												
			14												
VERY DENSE tan SANDY LOAM TILL, crumbly			19		VERY DENSE tan SANDY LOAM TILL										
			20												
			32												
DENSE tan SANDY LOAM TILL, as above			32		End of Boring										
			21	8.0											
			24												
VERY DENSE tan SANDY LOAM TILL, as above			21												
			22												
			34												
DENSE tan SANDY LOAM TILL, as above			9												
			17	8.0											
			23												
VERY DENSE tan SANDY LOAM TILL, as above			20												
			30												
			30												
DENSE tan SANDY LOAM TILL, as above			11												
			19	8.0											
			21												
			17												

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
 The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, from 137 (Rev. 8-99)


Illinois Department of Transportation
Division of Highways
Illinois Department of Transportation-D-2

Page 1 of 1

SOIL BORING LOG

Date 11/4/09

ROUTE Bypass 20 DESCRIPTION P92-STW-09 Sign Truss at US 20 Bypass, .1 m. W. of Alhine Road LOGGED BY W. Garza

SECTION _____ LOCATION Cherry Valley Twp. - 8NW SEC. TWP. 43N. RNG. 2E

COUNTY Winnebago DRILLING METHOD Hollow Stem Auger HAMMER TYPE CME-45 Automatic

STRUCT. NO. Station	D P T H	B L O S	U C S Q _n	M O S T	Surface Water Elev. Stream Bed Elev.	ft	D P T H	B L O S	U C S Q _n	M O S T	ft	Groundwater Elev. First Encounter Upon Completion After	ft	ft	Hrs.
2S101U020R020.7															
B-2b												None	None		
1024773												None	None		
65.00R R4 OF EB CL												None	None		
Ground Surface Elev.															
MEDIUM brown LOAM			0.6	17.0											
			P												
MEDIUM brown CLAY LOAM with bottom 6" weathered LIMESTONE			95.80												
			2												
			3	0.6	22.0										
			15	P											
			93.80												
VERY DENSE tan weathered LIMESTONE			1004"												
			91.80												
End of Boring															

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
 The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, from 137 (Rev. 8-99)

FILE NAME	USER NAME	DESIGNED	REVISED	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	District 2 Sign Structure Replacement	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FILE#		DRAWN	REVISED			* D-2 OVD SIGN REPL 2010-36	**	31	24	
		CHECKED	REVISED			** Rock Island & Winnebago	CONTRACT NO.	4501		
		DATE	REVISED			* Various	ILLINOIS FED. AID PROJECT			
				SCALE:	SHEET NO. OF SHEETS	STA. TO STA.				

BORING LOGS

Page 1 of 1

SOIL BORING LOG

Date 10/1/09

ROUTE US BR 20 DESCRIPTION P92-1000-09 US BR 20 @ Bismarck Tr. in Rockford, 2 m. E. of Mulford Road LOGGED BY W. Garza

SECTION _____ LOCATION Rockford Twp. - 22SW, SEC. 7, TWP. 44N, RNG. 2E

COUNTY Winnebago DRILLING METHOD Hollow Stem Auger HAMMER TYPE CME-45 Automatic

STRUCT. NO. Station	D E P T H	B L O W S	U C S Qu	M O S T	Surface Water Elev. Stream Bed Elev.	ft	D E P T H	B L O W S	U C S Qu	M O S T	ft
BORING NO. <u>B-1a</u> Station <u>163+40</u> Offset <u>6.00B BAC</u> Ground Surface Elev. <u>100.50</u> ft					Groundwater Elev.: First Encounter _____ ft Upon Completion _____ ft After _____ Hrs. _____ ft						
MEDIUM brown LOAM			0.5	13.0	VERY DENSE tan SANDY LOAM TILL (continued)	79.50	18				
			P				33				
VERY STIFF gray SILTY CLAY LOAM	98.50	5			VERY DENSE tan SANDY LOAM TILL		8				
		3	2.5	19.0			22				
	97.00	4	P			77.00	41				
MEDIUM brown SANDY LOAM		4			VERY DENSE tan SANDY LOAM TILL		22				
		5	0.8	14.0			31				
	94.50	7	P		End of Boring	74.50	50				
LOOSE brown dirty SAND		0									
		4	0.4	15.0							
		4	P								
	91.50										
VERY STIFF tan SANDY LOAM TILL		5									
		9	3.2	10.0							
	89.50	12	P								
STIFF tan SANDY LOAM TILL		10									
		14	1.4	8.0							
	87.00	21	S								
Hard Drilling DENSE tan SANDY LOAM TILL		15									
		20	4.5	7.0							
	84.50	26	P								
VERY DENSE tan SANDY LOAM TILL		9									
		22		7.0							
	82.00	32									
		15									

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, from 137 (Rev. 8-99)

Page 1 of 1

SOIL BORING LOG

Date 10/6/09

ROUTE US BR 20 DESCRIPTION P92-1000-09 US BR 20 @ Bismarck Tr. in Rockford, 2 m. E. of Mulford Road LOGGED BY W. Garza

SECTION _____ LOCATION Rockford Twp. - 22SW, SEC. 7, TWP. 44N, RNG. 2E

COUNTY Winnebago DRILLING METHOD Hollow Stem Auger HAMMER TYPE CME-45 Automatic

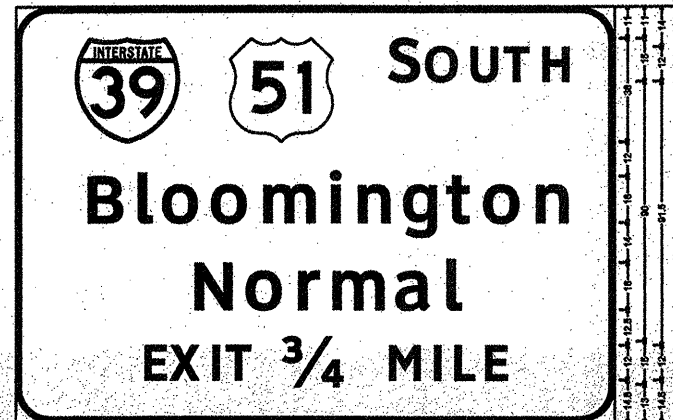
STRUCT. NO. Station	D E P T H	B L O W S	U C S Qu	M O S T	Surface Water Elev. Stream Bed Elev.	ft	D E P T H	B L O W S	U C S Qu	M O S T	ft
BORING NO. <u>B-2a</u> Station <u>165+32</u> Offset <u>0.00B Edge of Shoulder - Rt.</u> Ground Surface Elev. <u>100.00</u> ft					Groundwater Elev.: First Encounter _____ ft Upon Completion _____ ft After _____ Hrs. _____ ft						
MEDIUM dark gray SILTY CLAY LOAM			0.5	18.0	VERY DENSE tan SANDY LOAM TILL with SAND lens with GRAVEL (continued)	79.00	29				
			P				29				
HARD tan SANDY LOAM	98.00	2			DENSE tan SANDY LOAM TILL with GRAVEL		20				
		5	4.5	10.0			23				
	96.50	5	P			76.50	21				
MEDIUM light brown SILTY CLAY LOAM		2			DENSE tan SANDY LOAM TILL with GRAVEL		11				
		3	0.6	26.0			14				
	94.00	4	B		End of Boring	74.00	17				
STIFF light brown SANDY LOAM		0									
		2	1.3	11.0							
		3	B								
	91.00										
STIFF tan SANDY LOAM TILL with SAND lens		3									
		4	1.8	9.0							
	89.00	8	P								
STIFF tan SANDY LOAM TILL with GRAVEL		1									
		4	2.1	9.0							
	86.50	7	P								
DENSE tan SANDY LOAM TILL with GRAVEL		12									
		13		8.0							
	84.00	20									
DENSE tan SANDY LOAM TILL with GRAVEL		7									
		17		9.0							
	81.50	22									
		31									

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

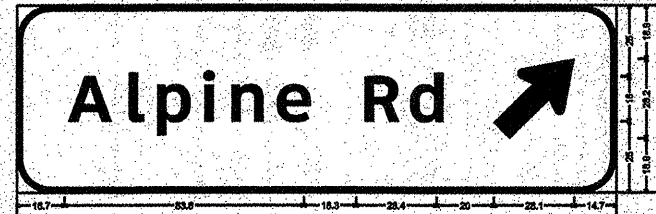
BBS, from 137 (Rev. 8-99)

FILE NAME	USER NAME	DESIGNED	REVISIONS	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	<i>District 2 Sign Structure Replacement</i>	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
#FILE#		DRAWN	REVISIONS			* D-2 DIV STR REPL 200-36	**	31	25	
PLOT SCALE	#SCALE#	CHECKED	REVISIONS			** Rock Island & Winnebago	CONTRACT NO.	4601		
PLOT DATE	#DATE#	DATE	REVISIONS			** Various	[ILLINOIS] FED. AID PROJECT			

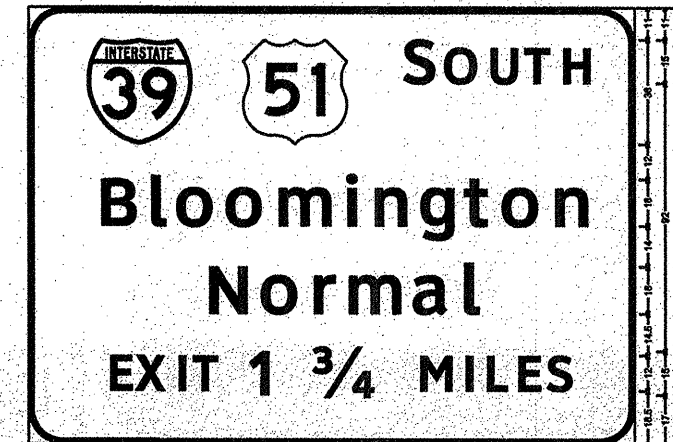
SCALE: SHEET NO. OF SHEETS STA. TO STA.



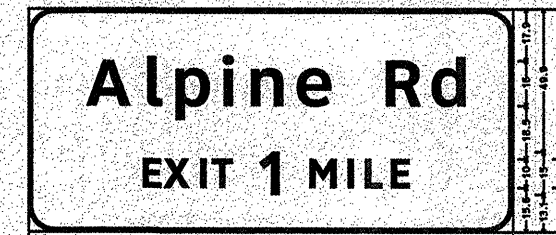
Use type xx sheeting; 12.0" Radius, 2.0" Border, White on Green;
 [SOUTH] ClearviewHwy-S-W; [Bloomington] ClearviewHwy-S-W; [Normal] ClearviewHwy-S-W; [EXIT 3/4 MILE] ClearviewHwy-S-W;



Use type xx sheeting; 12.0" Radius, 2.0" Border, White on Green;
 [Alpine Rd] ClearviewHwy-S-W; Standard Arrow Custom 35.8" X 21.6" 40";



Use type xx sheeting; 12.0" Radius, 2.0" Border, White on Green;
 [SOUTH] ClearviewHwy-S-W; [Bloomington] ClearviewHwy-S-W; [Normal] ClearviewHwy-S-W;
 [EXIT 1 3/4 MILES] ClearviewHwy-S-W;

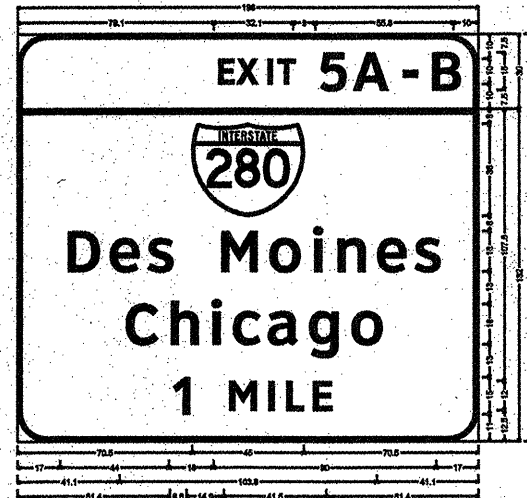


Use type xx sheeting; 9.0" Radius, 1.0" Border, White on Green;
 [Alpine Rd] ClearviewHwy-S-W; [EXIT 1 MILE] ClearviewHwy-S-W;

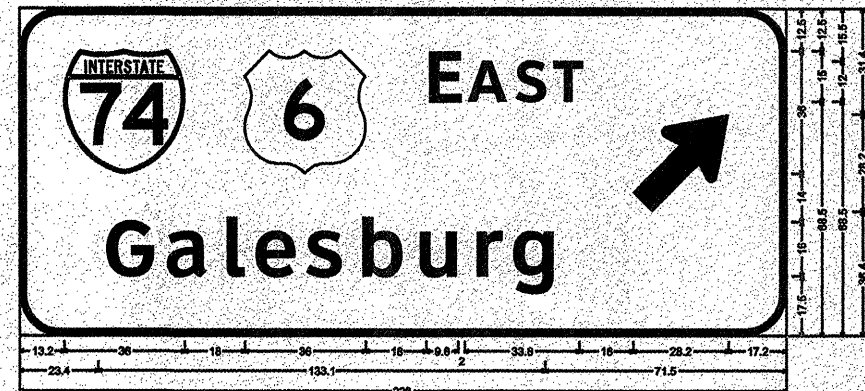
FILE NAME * #FILE#	USER NAME * #USER#	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	<i>District 2 Sign Structure Replacement</i>	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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	PLOT DATE * #DATE#	CHECKED -	REVISED -			CONTRACT NO.	4601	ILLINOIS FED. AID PROJECT		
					SCALE:	SHEET NO.	OF	SHEETS	STA.	TO STA.

2S081I074R003.4 - Location # 2-03

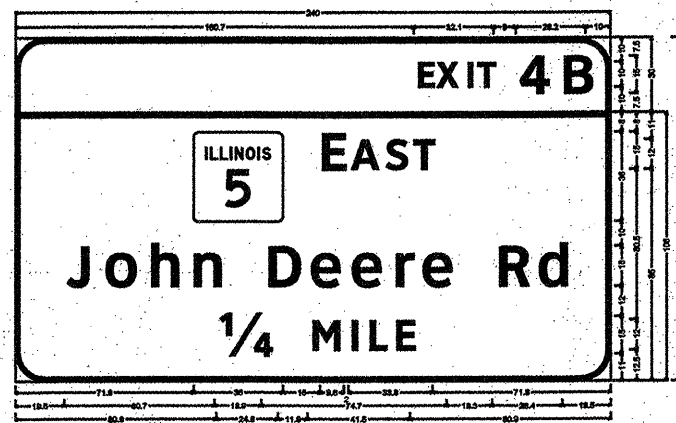
2C081I0JDL000.0 - Location # 2-04



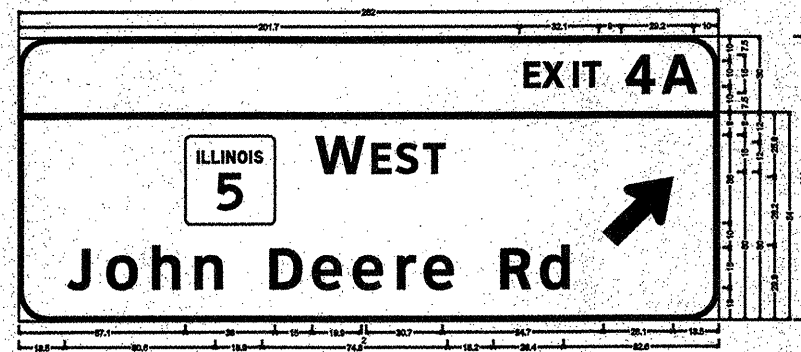
Use type xx sheeting:
 12.0" Radius, 2.0" Border, White on Green;
 [EXIT 5A-B] ClearViewHwy-S-W;
 12.0" Radius, 2.0" Border, White on Green;
 Interstate 280 18.0" D; Des Moines ClearViewHwy-S-W; Chicago ClearViewHwy-S-W;
 [1 MILE] ClearViewHwy-S-W;



Use type xx sheeting: 12.0" Radius, 2.0" Border, White on Green;
 [EAST] ClearViewHwy-S-W; [Galesburg] ClearViewHwy-S-W; Standard Arrow Custom 35.6" X 21.6" 45°;



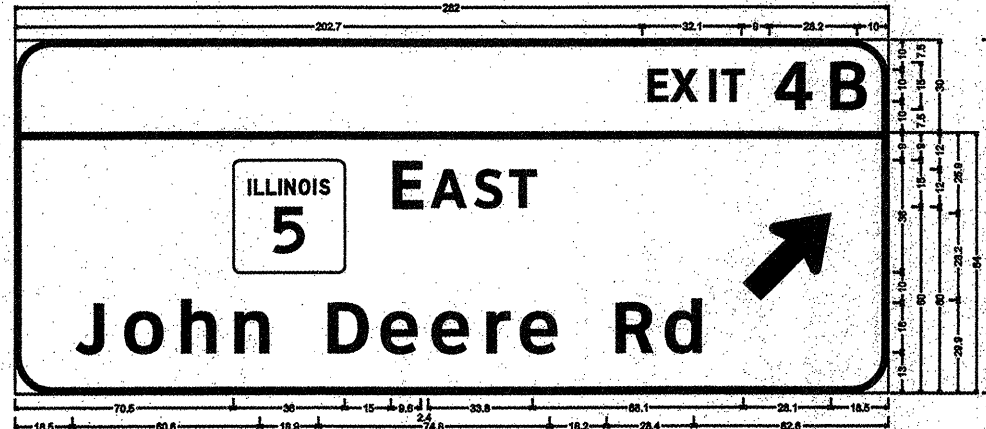
Use type xx sheeting:
 12.0" Radius, 2.0" Border, White on Green;
 [EXIT 4B] ClearViewHwy-S-W;
 12.0" Radius, 2.0" Border, White on Green;
 [EAST] ClearViewHwy-S-W; [John Deere Rd] ClearViewHwy-S-W; [1/4 MILE] ClearViewHwy-S-W;



Use type xx sheeting:
 12.0" Radius, 2.0" Border, White on Green;
 [EXIT 4A] ClearViewHwy-S-W;
 12.0" Radius, 2.0" Border, White on Green;
 [WEST] ClearViewHwy-S-W; [John Deere Rd] ClearViewHwy-S-W; Standard Arrow Custom 35.6" X 21.6" 45°;

FILE NAME * #FILE#	USER NAME * #USERS	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	District 2 Sign Structure Replacement	F.R.T.E.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	PLOT SCALE * #SCALE#	DRAWN -	REVISED -			**	D-2 DVD SIGN STR REPL 2010-36	**	SI	27
	PLOT DATE * #DATE#	CHECKED -	REVISED -			**	Rock Island & Winnebago	**	CONTRACT NO. 4601	
		DATE	REVISED -		SCALE: SHEET NO. OF SHEETS STA. TO STA.	**	Various	ILLINOIS FED. AID PROJECT		

2C081I074R003.6 - Location # 2-05

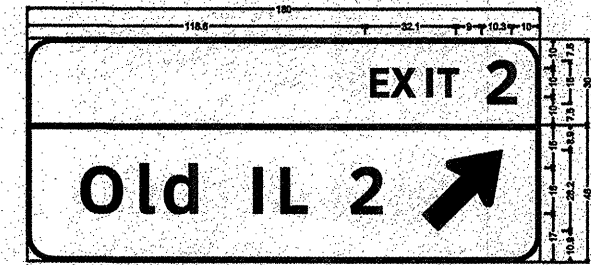


IL 5 sign has no border and use type xx sheeling;
 12.0' Radius, 2.0" Border, White on Green;
 [DOT 48] ClearviewHwy-5-W;
 IL 5 sign has no border and use type xx sheeling; 12.0' Radius, 2.0" Border, White on Green;
 [E AST] ClearviewHwy-6-W; [John Deere Rd] ClearviewHwy-5-W; Standard Arrow Custom 35.0" X 21.0" 40";

2S081I088R000.5 - Location # 2-06



There should be no border on the IL 92 sign. Use type xx sheeling; 12.0' Radius, 2.0" Border, White on Green;
 [E AST] ClearviewHwy-5-W; [Sterling] ClearviewHwy-6-W; [Rock Falls] ClearviewHwy-6-W;



Use type xx sheeling;
 9.0' Radius, 1.5" Border, White on Green;
 [DOT 2] ClearviewHwy-5-W;
 9.0' Radius, 1.5" Border, White on Green;
 [Old IL 2] ClearviewHwy-5-W; Standard Arrow Custom 35.0" X 21.0" 40";

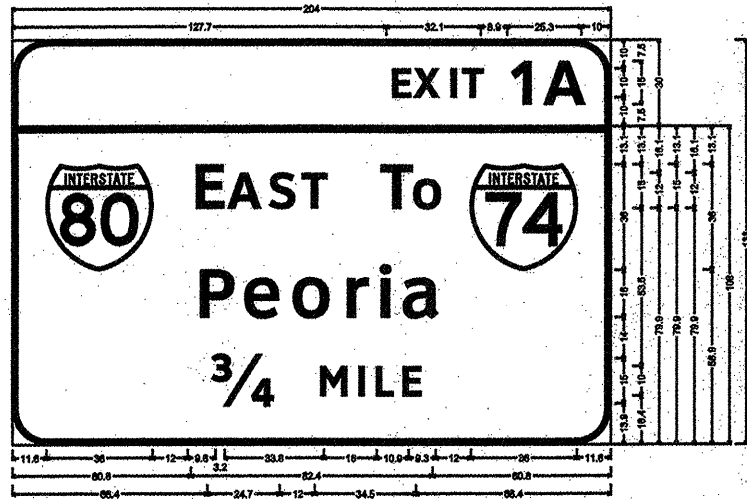
FILE NAME * #FILE#	USER NAME * #USER#	DESIGNED -	REVISED -
		DRAWN -	REVISED -
		CHECKED -	REVISED -
		DATE -	REVISED -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

District 2 Sign
 Structure Replacement

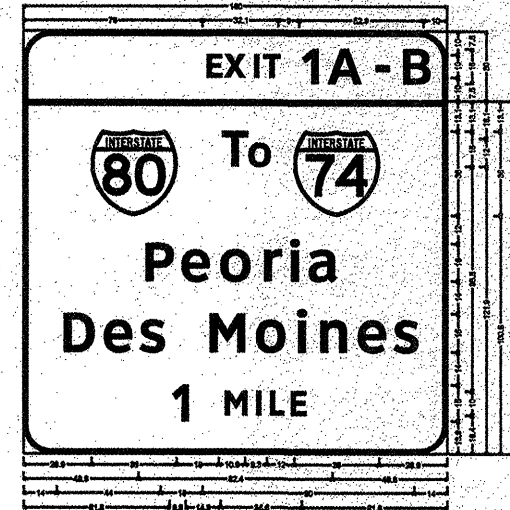
SCALE:	SHEET NO.	OF	SHEETS	STA.	TO STA.	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
						*	D-2 OLD SIGN STR REPL 2010-36	**	31	28
						*	Rock Island & Winnebago	**	CONTRACT NO. 46101	
						*	Various	**	ILLINOIS FED. AID PROJECT	

2S081I088R000.8 - Location # 2-07

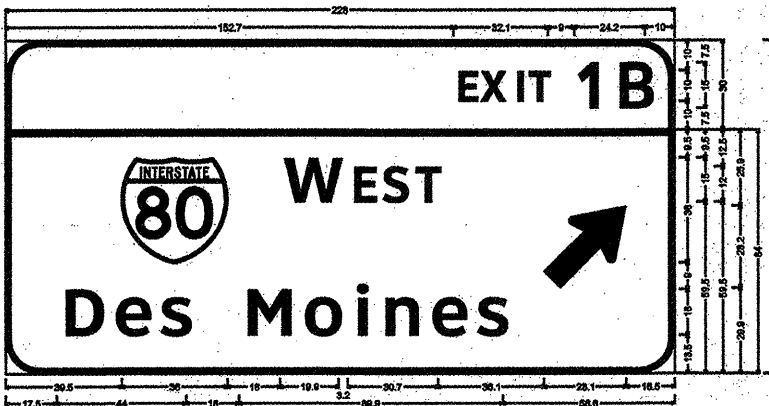


Use type as shown:
 12.0" Radius, 2.0" Border, White on Green;
 [EXIT 1A] Clearview-Hy-G-W;
 12.0" Radius, 2.0" Border, White on Green;
 [E 80] Clearview-Hy-G-W; [To] Clearview-Hy-G-W; [Peoria] Clearview-Hy-G-W; [3/4 MILE] Clearview-Hy-G-W;

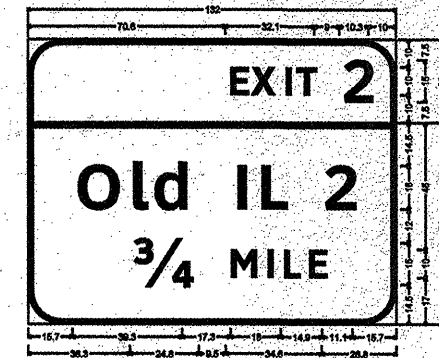
2S081I088L001.7 - Location # 2-08



Use type as shown:
 12.0" Radius, 2.0" Border, White on Green;
 [EXIT 1A-B] Clearview-Hy-G-W;
 12.0" Radius, 2.0" Border, White on Green;
 [To] Clearview-Hy-G-W; [Peoria] Clearview-Hy-G-W; [Des Moines] Clearview-Hy-G-W;
 [1 MILE] Clearview-Hy-G-W;



Use type as shown:
 12.0" Radius, 2.0" Border, White on Green;
 [EXIT 1B] Clearview-Hy-G-W;
 12.0" Radius, 2.0" Border, White on Green;
 [W 80] Clearview-Hy-G-W; [Des Moines] Clearview-Hy-G-W; Standard Arrow Custom 36.0" X 21.0" 45°;



Use type as shown:
 12.0" Radius, 2.0" Border, White on Green;
 [EXIT 2] Clearview-Hy-G-W;
 12.0" Radius, 2.0" Border, White on Green;
 [Old IL 2] Clearview-Hy-G-W; [3/4 MILE] Clearview-Hy-G-W;

FILE NAME *	USER NAME * @USER@	DESIGNED -	REVISED -
@FILE@		DRAWN -	REVISED -
		CHECKED -	REVISED -
		DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

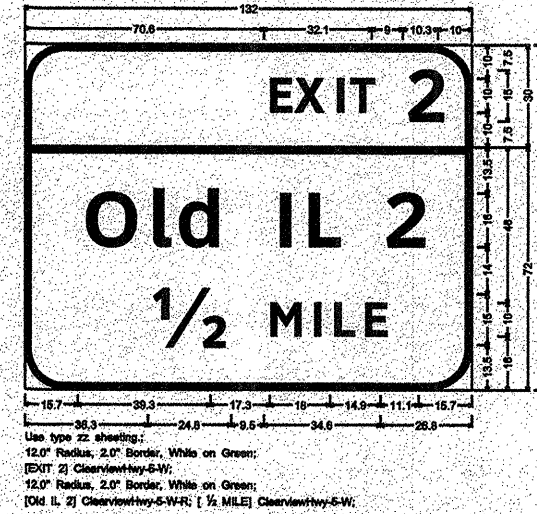
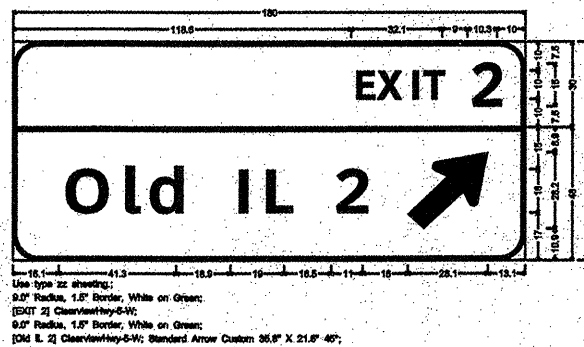
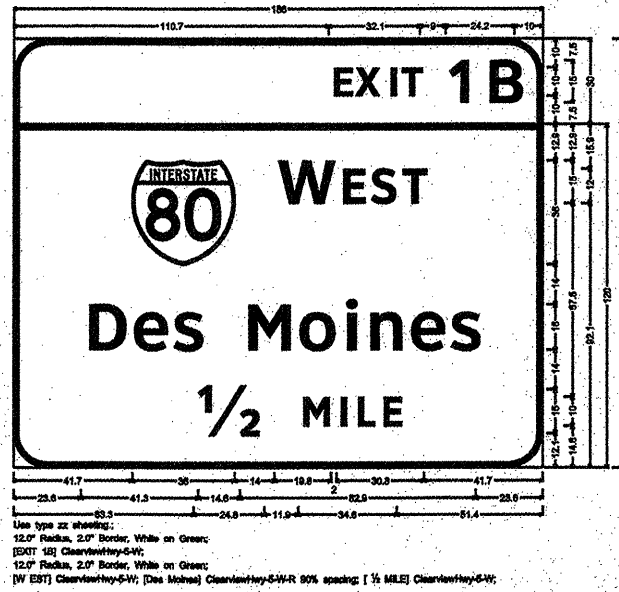
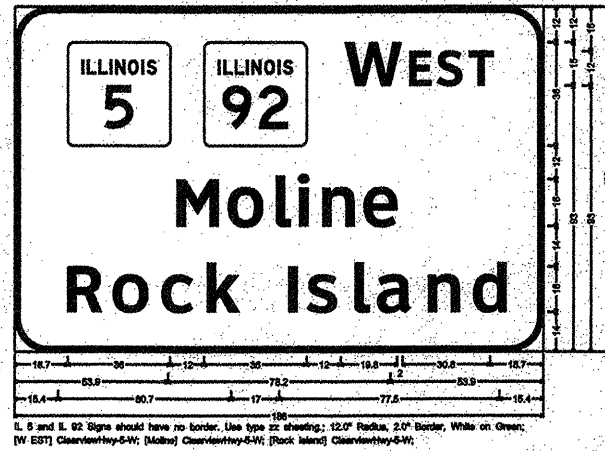
*District 2 Sign
 Structure Replacement*

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

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
**	D-2 OLD SIGN STR REPL 2010-36	**	31	29
**	Rock Island & Winnebago	CONTRACT NO. 46101		
**	Various	ILLINOIS FED. AID PROJECT		

2S0811088L001.0 - Location # 2-09

Ground Mounted Sign - Location # 2-10



FILE NAME	USER NAME	DESIGNED	REVISED
#FILE#	#USER#	DRAWN	REVISED
	PLOT SCALE	CHECKED	REVISED
	PLOT DATE	DATE	REVISED

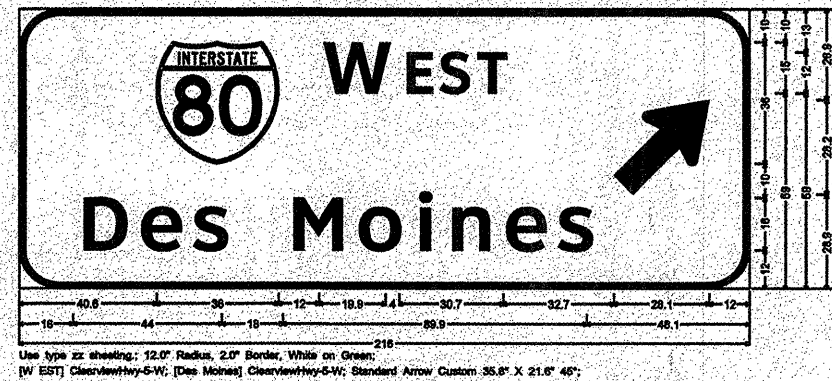
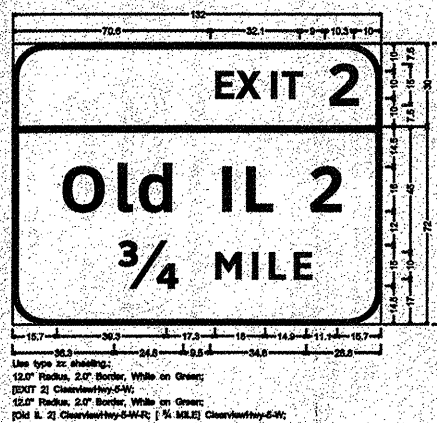
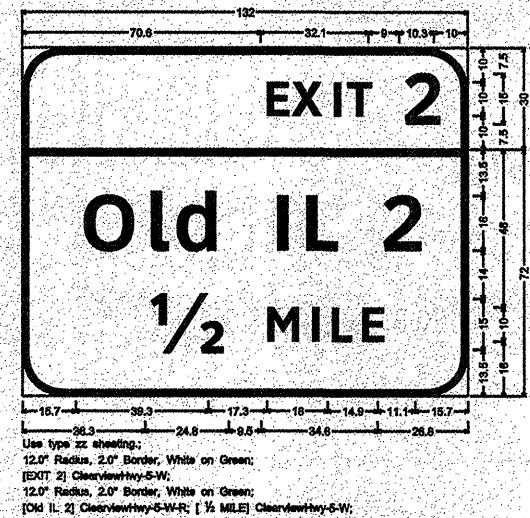
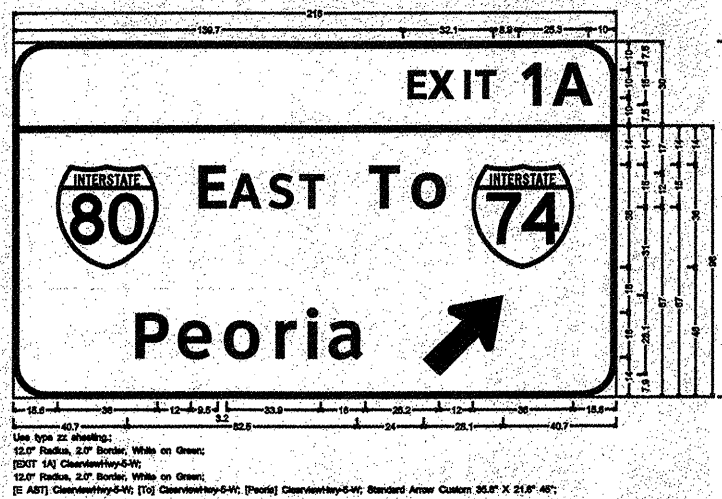
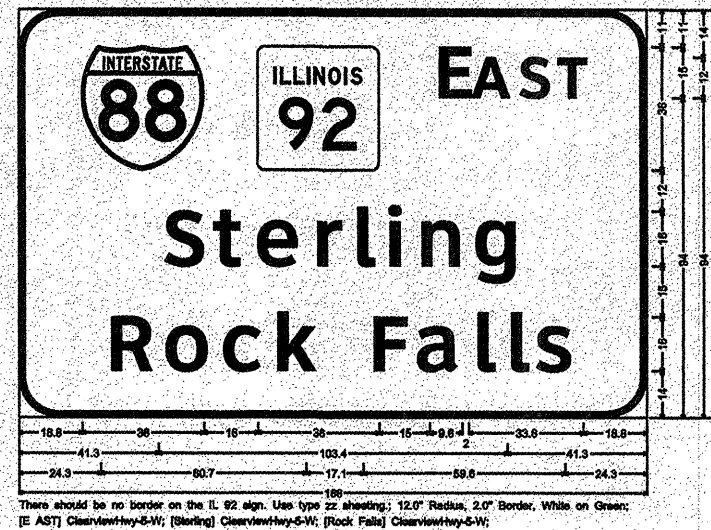
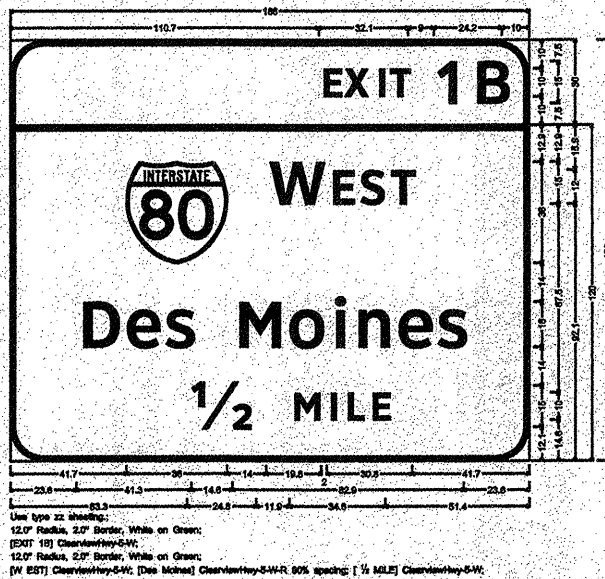
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

District 2 Sign
Structure Replacement

SCALE:	SHEET NO.	OF	SHEETS	STA.	TO STA.	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
						** D-2 OLD SIGN STR REPL 200-35	** Rock Island & Winnebago	** CONTRACT NO. 4601	** 31	** 30
						** Various	[ILLINOIS] FED. AID PROJECT			

2S081S005R - Sta. No. 217+00 - Location # 2-11

2S081S005R - Sta. No. 232+00 - Location # 2-12



FILE NAME * #FILE#	USER NAME * #USER#	DESIGNED -	REVISED -
		DRAWN -	REVISED -
		CHECKED -	REVISED -
		DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SCALE:	SHEET NO. OF SHEETS	STA. TO STA.
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F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
** D-2 OVD STR REPL 200-36		**	31	31
** Rock Island & Winnebago			CONTRACT NO. 4601	
** Various	[ILLINOIS] FED. AID PROJECT			