

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION  
 DIVISION OF HIGHWAYS

PLANS FOR PROPOSED  
 FEDERAL AID HIGHWAY

VARIOUS ROUTES  
 D-6 OVD SIN STR REPL 11-11  
 LOGAN & SANGAMON COUNTIES  
 C-60-011-11

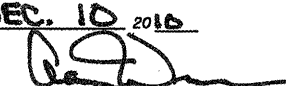
INDEX OF SHEETS

<u>NO.</u>	<u>DESCRIPTION</u>
1	COVER SHEET
2-3	SUMMARY OF QUANTITIES
4-29	SCHEDULE OF LOCATIONS FOR DISTRICT 6

STANDARDS

- 701006-03
- 701101-02
- 701106-02
- 701201-04
- 701301-04
- 701400-05
- 701401-06
- 701406-06
- 701411-07
- 701446-02
- 701901-01
- 720021-02

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION  
 DIVISION OF HIGHWAYS

SUBMITTED DEC. 10 2010  
 PASSED   
 ENGINEER OF OPERATIONS

Feb 4 2011  
 Scott E. Stitt, PE  
 Acting ENGINEER OF DESIGN AND ENVIRONMENT

APPROVED Feb 4 2011  
 Christine M. Reed  
 DIRECTOR DIVISION OF HIGHWAYS

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

CONTRACT NO. 46134

FILE NAME *	USER NAME *	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	F.A. RTE-	SECTION	COUNTY	TOTAL SHEET SHEETS
		CHECKED -	REVISED -		Various	D-6 OVD SIN STR REPL 11-11 Logan & Sangamon		24
		DRAWN -	REVISED -					1
		PLOT DATE *	REVISED -					CONTRACT NO. 46134
								ILLINOIS FED. AID PROJECT

0040

CODE NUMBER	PAY ITEM	UNIT	100% STATE TOTAL QUANTITY	Logan	Sangamon
44000300	CURB REMOVAL	FOOT	105.00		105.00
60601105	CONCRETE CURB, TYPE M	FOOT	105.00		105.00
60618300	CONCRETE MEDIAN SURFACE, 4 INCH	SQ FT	885.00		885.00
* 63000001	STEEL PLATE BEAM GUARD RAIL, TYPE A, 6 FOOT POSTS	FOOT	462.50	150.00	312.50
* 63100045	TRAFFIC BARRIER TERMINAL, TYPE 2	EACH	2.00		2.00
* 63100167	TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT	EACH	1.00		1.00
* 63302000	REMOVE AND REERECT TRAFFIC BARRIER TERMINALS, TYPE 2	EACH	3.00	2.00	1.00
63304395	TRAFFIC BARRIER TERMINAL REMOVAL, TYPE 2	EACH	1.00		1.00
67100100	MOBILIZATION	LSUM	1.00		1.00
X7010216	TRAFFIC CONTROL AND PROTECTION, (SPECIAL)	L SUM	1.00	0.28	0.72
<b>T9990205</b>	<b>FURNISH AND ERECT SIGN PANEL</b>	SQ FT	1,697.00	945.00	752.00
<b>72400330</b>	<b>REMOVE SIGN PANEL-TYPE 3</b>	SQ FT	1,722.00	1,011.00	711.00
73300100	OVERHEAD SIGN STRUCTURE - SPAN, TYPE I-A (4'-0" X 4'-6")	FOOT	72.00		72.00
73300200	OVERHEAD SIGN STRUCTURE - SPAN, TYPE II-A (4'-6" X 5'-3")	FOOT	227.00		227.00
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	135.70	52.40	83.30
73500100	RELOCATE OVERHEAD SIGN STRUCTURE - SPAN	EACH	2.00	2.00	
73600100	REMOVE OVERHEAD SIGN STRUCTURE - SPAN	EACH	3.00		3.00
73600200	REMOVE OVERHEAD SIGN STRUCTURE - CANTILEVER	EACH	2.00	2.00	
73700300	REMOVE CONCRETE FOUNDATION - OVERHEAD	EACH	12.00	4.00	8.00
73800100	STRUCTURAL STEEL SUPPORT FOR OVERHEAD SIGN STRUCTURE - SPAN	EACH	10.00	4.00	6.00
<b>78200410</b>	<b>GUARDRAIL MARKERS, TYPE A</b>	EACH	14.00	4.00	10.00
T9990710	REMOVE AND REINSTALL WALKWAY	FOOT	260.00	68.00	192.00

\*SPECIALTY ITEM

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

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

Summary of Quantities

F.S. SITE:	SECTION	COUNTY	TOTAL SHEETS
0-6 DVD SW STR REPL. II-II	Logan/Sangamon		2
			CONTRACT NO. 46134
ILLINOIS FED. AID PROJECT			

CODE NUMBER	PAY ITEM ←EACH	UNIT	0021 100% STATE TOTAL QUANTITY	Logan	Sangamon
T9992530	REPLACE AND TIGHTEN SIGN MOUNTING CLIPS PER SIGN	EACH	2.00		2.00
T9992700	REMOVE AND REINSTALL SIGN PANEL	SQ FT	364.00		364.00
T9997700	FURNISH AND INSTALL SAFETY CHAIN	EACH	14.00	4.00	10.00
T9998815	REPAIR HANDRAIL LOCKING PIN CONNECTION	EACH	59.00	17.00	42.00
* T9998995	DISCONNECT AND RECONNECT ELECTRIC SERVICE	EACH	7.00	2.00	5.00
* X0324397	RELOCATE ELECTRIC SERVICE	EACH	7.00	2.00	5.00
X4402020	CONCRETE MEDIAN SURFACE REMOVAL	SQ FT	885.00		885.00
* X6330103	REMOVE AND RE-ERECT TRAFFIC BARRIER TERMINAL, TYPE 1 SPECIAL, TANGENT	EACH	4.00	2.00	2.00
* X6331007	REMOVAL AND REPLACEMENT OF STEEL PLATE, BEAM GUARDRAIL, RAIL ELEMENT	FOOT	100.00		100.00
Z0013798	CONSTRUCTION LAYOUT	L SUM	1.00	0.28	0.72
Z0026346	NIGHTTIME WORK ZONE LIGHTING	L SUM	1.00	0.28	0.72
Z0029999	IMPACT ATTENUATOR REMOVAL	EACH	1.00		1.00

\*SPECIALTY ITEM

FILE NAME *	USER NAME *	DESIGNED -	REVISIONS -				
		CHECKED -	REVISIONS -				
		DRAWN -	REVISIONS -				
		CHECKED -	REVISIONS -				
		STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION				SECTION	TOTAL SHEET
				SHEET NO. 25 OF 25 SHEETS		11-11 Lopez/Sangamon	13
						CONTRACT NO. 46134	1

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

District 6  
Schedule of Overhead Sign Structure Repair & Replacement

Location No.: 1		State I.D. No.: 6S084I055L082.1	
County:	Route:	M.P.:	Direction:
SANGAMON	I-55	82.1	SB
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-SPAN	EACH	2.00	
REMOVE SIGN PANEL - TYPE 3	SQ FT	372.00	
REMOVE & REINSTALL WALKWAY	FOOT	57.00	
REPAIR HANDRAIL LOCKING PIN CONNECTION	EACH	12.00	
DRILLED SHAFT CONCRETE FOUNDATIONS	CU YD	24.60	
REMOVE CONCRETE FOUNDATION-OVERHEAD	EACH	2.00	
FURNISH & INSTALL SAFETY CHAIN	EACH	2.00	
IMPACT ATTENUATOR REMOVAL	EACH	1.00	
SIGN PANEL - TYPE 3	SQ YD	402.00	
STEEL PLATE BEAM GUARD RAIL, TYPE A 6 FT POSTS	FOOT	137.50	
TRAFFIC BARRIER TERMINAL, TYPE 2	EACH	1.00	
TRAFFIC BARRIER TERMINAL, TYPE 1 SPL (TANGENT)	EACH	1.00	
REMOVE REERECT TRAFFIC BARRIER TERMINAL, TYPE 1 SPECIAL, (TANGENT)	EACH	1.00	
DISCONNECT/RECONNECT ELECTRIC SERVICE	EACH	1.00	
CONSTRUCTION LAYOUT	L SUM	0.14	
NIGHTTIME WORK ZONE LIGHTING	L SUM	0.14	
MONODIRECTIONAL GUARD RAIL REFLECTORS	EACH	3.00	
RELOCATE ELECTRIC SERVICE	EACH	1.00	
This structure is being completely replaced.			

Location No.: 2		State I.D. No.: 6S054I155L001.9	
County:	Route:	M.P.:	Direction:
LOGAN	I-155	1.9	SB
Description of Work	Unit	Quantity	
RELOCATE OVERHEAD SIGN STRUCTURE-SPAN	EACH	1.00	
STRUCTURAL STEEL SUPPORT FOR OVERHEAD SIGN STRUCTURE-SPAN	EACH	2.00	
REMOVE SIGN PANEL - TYPE 3	SQ FT	542.00	
REMOVE & REINSTALL WALKWAY	FOOT	34.00	
REPAIR HANDRAIL LOCKING PIN CONNECTION	EACH	8.00	
DRILLED SHAFT CONCRETE FOUNDATIONS	CU YD	21.20	
REMOVE CONCRETE FOUNDATION-OVERHEAD	EACH	2.00	
FURNISH & INSTALL SAFETY CHAIN	EACH	2.00	
STEEL PLATE BEAM GUARDRAIL, TYPE A	FOOT	75.00	
SIGN PANEL - TYPE 3	SQ YD	540.00	
REMOVE REERECT TRAFFIC BARRIER TERMINAL, T 2	EACH	1.00	
REMOVE REERECT TRAFFIC BARRIER TERMINAL, TYPE 1 SPECIAL, (TANGENT)	EACH	1.00	
DISCONNECT/RECONNECT ELECTRIC SERVICE	EACH	1.00	
CONSTRUCTION LAYOUT	L SUM	0.14	
NIGHTTIME WORK ZONE LIGHTING	L SUM	0.14	
MONODIRECTIONAL GUARD RAIL REFLECTORS	EACH	2.00	
RELOCATE ELECTRIC SERVICE	EACH	1.00	
The end supports and foundations are being replaced.			

Location No.: 3		State I.D. No.: 6S054I055L128.2	
County:	Route:	M.P.:	Direction:
LOGAN	I-55	128.2	SB
Description of Work	Unit	Quantity	
RELOCATE OVERHEAD SIGN STRUCTURE-SPAN	EACH	1.00	
STRUCTURAL STEEL SUPPORT FOR OVERHEAD SIGN STRUCTURE-SPAN	EACH	2.00	
REMOVE SIGN PANEL - TYPE 3	SQ FT	469.00	
REMOVE & REINSTALL WALKWAY	FOOT	34.00	
REPAIR HANDRAIL LOCKING PIN CONNECTION	EACH	9.00	
DRILLED SHAFT CONCRETE FOUNDATIONS	CU YD	31.20	
REMOVE CONCRETE FOUNDATION-OVERHEAD	EACH	2.00	
FURNISH & INSTALL SAFETY CHAIN	EACH	2.00	
STEEL PLATE BEAM GUARDRAIL, TYPE A	FOOT	75.00	
SIGN PANEL - TYPE 3	SQ YD	405.00	
REMOVE REERECT TRAFFIC BARRIER TERMINAL, T 2	EACH	1.00	
REMOVE REERECT TRAFFIC BARRIER TERMINAL, TYPE 1 SPECIAL, (TANGENT)	EACH	1.00	
DISCONNECT/RECONNECT ELECTRIC SERVICE	EACH	1.00	
CONSTRUCTION LAYOUT	L SUM	0.14	
NIGHTTIME WORK ZONE LIGHTING	L SUM	0.14	
MONODIRECTIONAL GUARD RAIL REFLECTORS	EACH	2.00	
RELOCATE ELECTRIC SERVICE	EACH	1.00	
The end supports and foundations are being replaced.			

Location No.: 4		State I.D. No.: 6C084I072R103.0	
County:	Route:	M.P.:	Direction:
SANGAMON	I-72	103	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	
STRUCTURAL STEEL SUPPORT FOR OVERHEAD SIGN STRUCTURE-CANT	EACH	1.00	
REMOVE SIGN PANEL - TYPE 3	SQ FT	84.00	
REMOVE & REINSTALL WALKWAY	FOOT	17.00	
REPAIR HANDRAIL LOCKING PIN CONNECTION	EACH	4.00	
DRILLED SHAFT CONCRETE FOUNDATIONS	CU YD	7.30	
REMOVE CONCRETE FOUNDATION-OVERHEAD	EACH	1.00	
FURNISH & INSTALL SAFETY CHAIN	EACH	2.00	
SIGN PANEL - TYPE 3	SQ YD	102.00	
STEEL PLATE BEAM GUARDRAIL, TYPE A	FOOT	112.50	
REMOVE REERECT TRAFFIC BARRIER TERMINAL, T 2	EACH	1.00	
DISCONNECT/RECONNECT ELECTRIC SERVICE	EACH	1.00	
CONSTRUCTION LAYOUT	L SUM	0.14	
NIGHTTIME WORK ZONE LIGHTING	L SUM	0.14	
MONODIRECTIONAL GUARD RAIL REFLECTORS	EACH	3.00	
RELOCATE ELECTRIC SERVICE	EACH	1.00	
This structure is being completely replaced.			

Location No.: 5		State I.D. No.: 6C084I055R101.8	
County:	Route:	M.P.:	Direction:
SANGAMON	I-55	101.8	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	
STRUCTURAL STEEL SUPPORT FOR OVERHEAD SIGN STRUCTURE-CANT	EACH	1.00	
REMOVE SIGN PANEL - TYPE 3	SQ FT	84.00	
REMOVE & REINSTALL WALKWAY	FOOT	17.00	
REPAIR HANDRAIL LOCKING PIN CONNECTION	EACH	4.00	
DRILLED SHAFT CONCRETE FOUNDATIONS	CU YD	7.10	
REMOVE CONCRETE FOUNDATION-OVERHEAD	EACH	1.00	
FURNISH & INSTALL SAFETY CHAIN	EACH	2.00	
STEEL PLATE BEAM GUARDRAIL, TYPE A	FOOT	25.00	
TRAFFIC BARRIER TERMINAL, TYPE 2	EACH	1.00	
SIGN PANEL - TYPE 3	SQ YD	84.00	
TRAFFIC BARRIER TERMINAL REMOVAL, TYPE 2	EACH	1.00	
REMOVAL AND REPLACEMENT OF STEEL PLATE BEAM GUARDRAIL, RAIL ELEMENT	FOOT	100.00	
DISCONNECT/RECONNECT ELECTRIC SERVICE	EACH	1.00	
CONSTRUCTION LAYOUT	L SUM	0.14	
NIGHTTIME WORK ZONE LIGHTING	L SUM	0.14	
MONODIRECTIONAL GUARD RAIL REFLECTORS	EACH	3.00	
RELOCATE ELECTRIC SERVICE	EACH	1.00	
This structure is being completely replaced.			

Location No.: 6		State I.D. No.: 6S084I055L094.7	
County:	Route:	M.P.:	Direction:
SANGAMON	I-55	94.7	SB
Description of Work	Unit	Quantity	
REMOVE OVERHEAD SIGN STRUCTURE-SPAN	EACH	1.00	
OVERHEAD SIGN STRUCTURE-SPAN, TYPE II-A	FOOT	111.00	
STRUCTURAL STEEL SUPPORT FOR OVERHEAD SIGN STRUCTURE-SPAN	EACH	2.00	
REMOVE & REINSTALL SIGN PANEL	SQ FT	364.00	
REMOVE & REINSTALL WALKWAY	FOOT	54.00	
REPLACE / TIGHTEN CLIPS PER SIGN	EACH	2.00	
REPAIR HANDRAIL LOCKING PIN CONNECTION	EACH	12.00	
DRILLED SHAFT CONCRETE FOUNDATIONS	CU YD	24.10	
REMOVE CONCRETE FOUNDATION-OVERHEAD	EACH	2.00	
FURNISH & INSTALL SAFETY CHAIN	EACH	2.00	
STEEL PLATE BEAM GUARDRAIL, TYPE A	FOOT	37.50	
REMOVE REERECT TRAFFIC BARRIER TERMINAL, TYPE 1 SPECIAL, (TANGENT)	EACH	1.00	
DISCONNECT/RECONNECT ELECTRIC SERVICE	EACH	1.00	
CONSTRUCTION LAYOUT	L SUM	0.14	
NIGHTTIME WORK ZONE LIGHTING	L SUM	0.14	
MONODIRECTIONAL GUARD RAIL REFLECTORS	EACH	1.00	
RELOCATE ELECTRIC SERVICE	EACH	1.00	
This structure is being completely replaced.			

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

District 6  
Schedule of Overhead Sign Structure Repair & Replacement

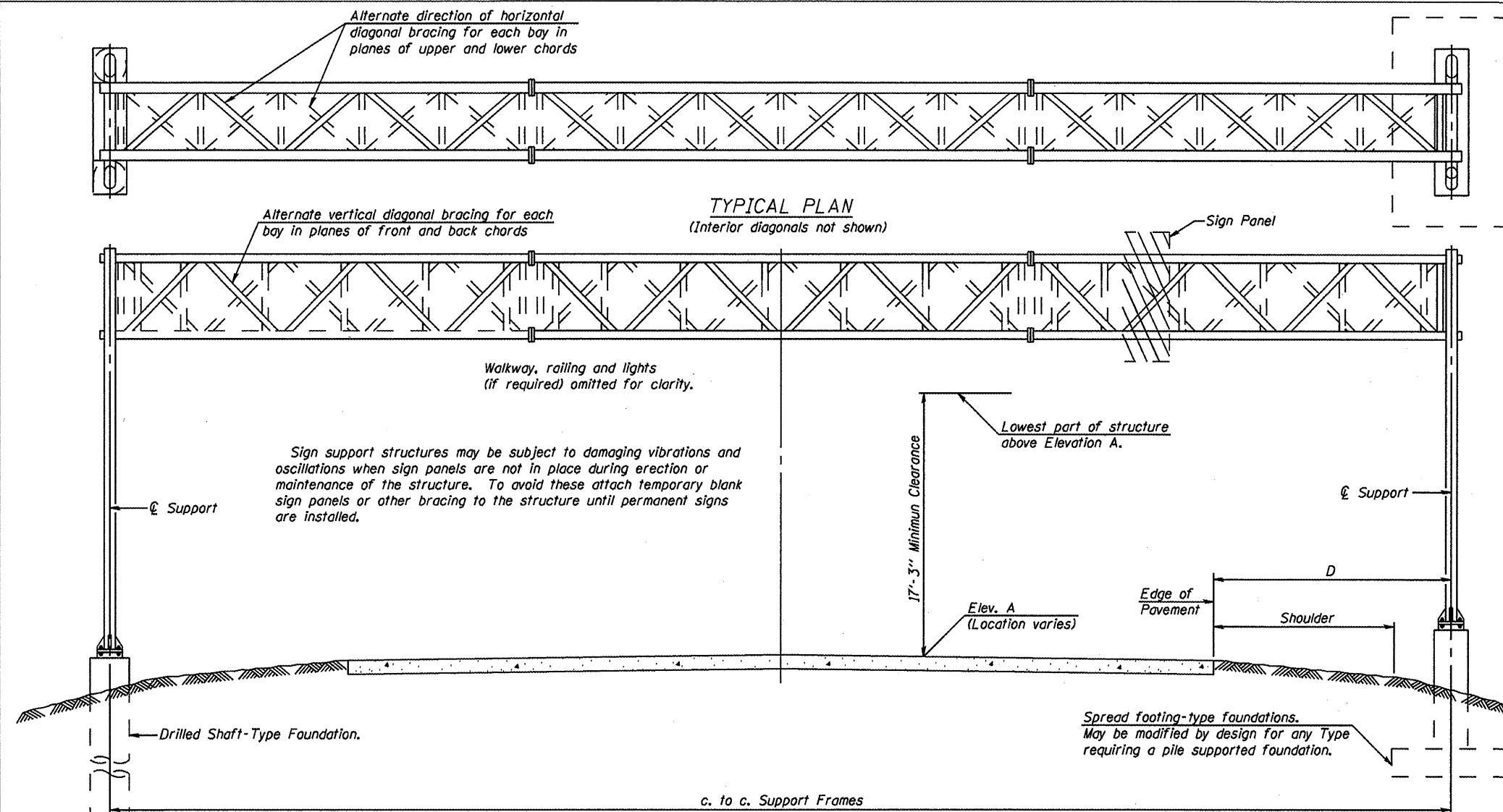
Location No.:	7	State I.D. No.:	6S084S029L11.8		
County:	SANGAMON	Route:	IL 29	M.P.:	11.8
Direction:	SB				
Description of Work	Unit	Quantity			
REMOVE OVERHEAD SIGN STRUCTURE-SPAN	EACH	1.00			
OVERHEAD SIGN STRUCTURE-SPAN, TYPE I-A	FOOT	72.00			
STRUCTURAL STEEL SUPPORT FOR OVERHEAD SIGN STRUCTURE-SPAN	EACH	2.00			
REMOVE SIGN PANEL - TYPE 3	SQ FT	171.00			
REMOVE & REINSTALL WALKWAY	FOOT	47.00			
REPAIR HANDRAIL LOCKING PIN CONNECTION	EACH	10.00			
DRILLED SHAFT CONCRETE FOUNDATIONS	CU YD	20.20			
REMOVE CONCRETE FOUNDATION-OVERHEAD	EACH	2.00			
FURNISH & INSTALL SAFETY CHAIN	EACH	2.00			
SIGN PANEL - TYPE 3	SQ YD	164.00			
CONCRETE MEDIAN SURFACE REMOVAL	SQ FT	885.00			
CONCRETE MEDIAN SURFACE, 4 INCH	SQ FT	885.00			
CURB REMOVAL	FOOT	105.00			
CONCRETE CURB, TYPE M	FOOT	105.00			
DISCONNECT/RECONNECT ELECTRIC SERVICE	EACH	1.00			
CONSTRUCTION LAYOUT	L SUM	0.14			
NIGHTTIME WORK ZONE LIGHTING	L SUM	0.14			
RELOCATE ELECTRIC SERVICE	EACH	1.00			
This structure is being completely replaced.					

FILE NAME *	USER NAME *	DESIGNED -	REVISD -
		CHECKED -	REVISD -
		DRAWN -	REVISD -
		CHECKED -	REVISD -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

SHEET NO. 3 OF 25 SHEETS

F.A. - RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
Various	D-6 OVD SIN STR REPL 11-11	Logan&Sangamon	29	5
CONTRACT NO. 46134				
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 ("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, 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 at each foundation shall be cleaned and coated with Bridge Seat 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.

**TOTAL BILL OF MATERIAL**

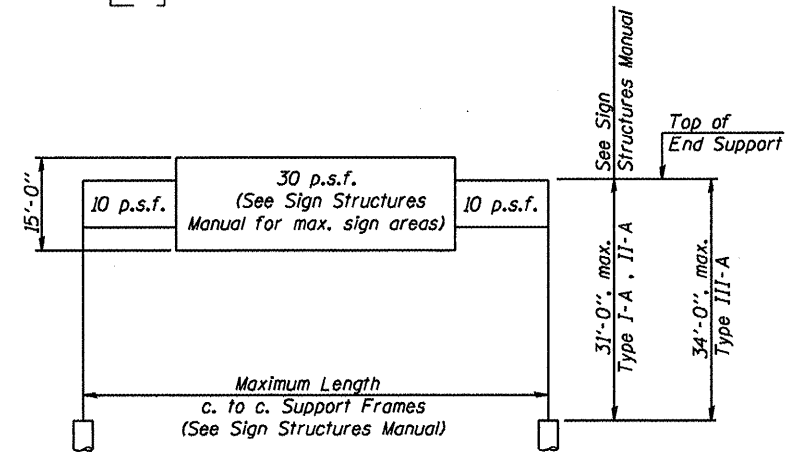
ITEM	UNIT	TOTAL
OVERHEAD SIGN STRUCTURE SPAN TYPE I-A	Foot	
OVERHEAD SIGN STRUCTURE SPAN TYPE II-A	Foot	
OVERHEAD SIGN STRUCTURE SPAN TYPE III-A	Foot	
OVERHEAD SIGN STRUCTURE WALKWAY TYPE A	Foot	
CONCRETE FOUNDATIONS	Cu. Yds.	
DRILLED SHAFT CONCRETE FOUNDATIONS	Cu. Yds.	

**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
6S0841055L082.1	494 + 50	II-A	116'-0"	602.9	32'-0"	11'-6"	389.0
6S0541155L001.9	52 + 00	II-A	80'-0"	570.1	13'-6"	16'-0"	563.0
6S0541055L128.2	490 + 00	II-A	107'-0"	588.9	41'-6"	16'-0"	469.0
6S0841055L094.7	184 + 00	II-A	111'-0"	568.5	32'-0"	14'-0"	364.0
6S0845029L011.8	27 + 00	I-A	72'-0"	100.0	23'-6"	9'-0"	171.0

\*\*Looking upstation for structures with signs both sides.

\* 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.

OS-A-1

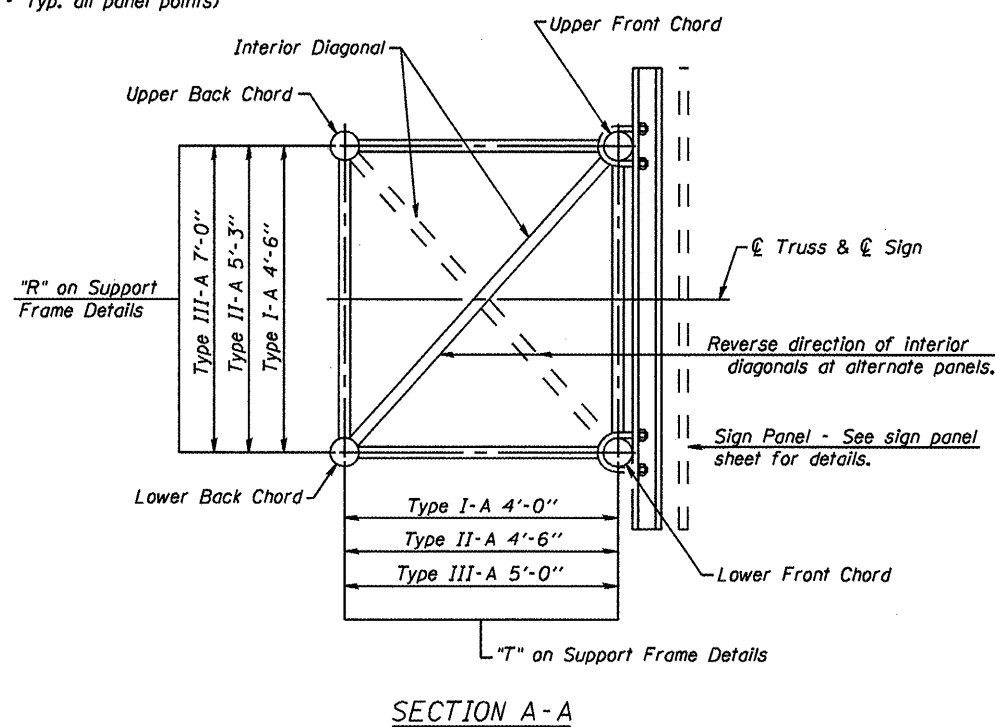
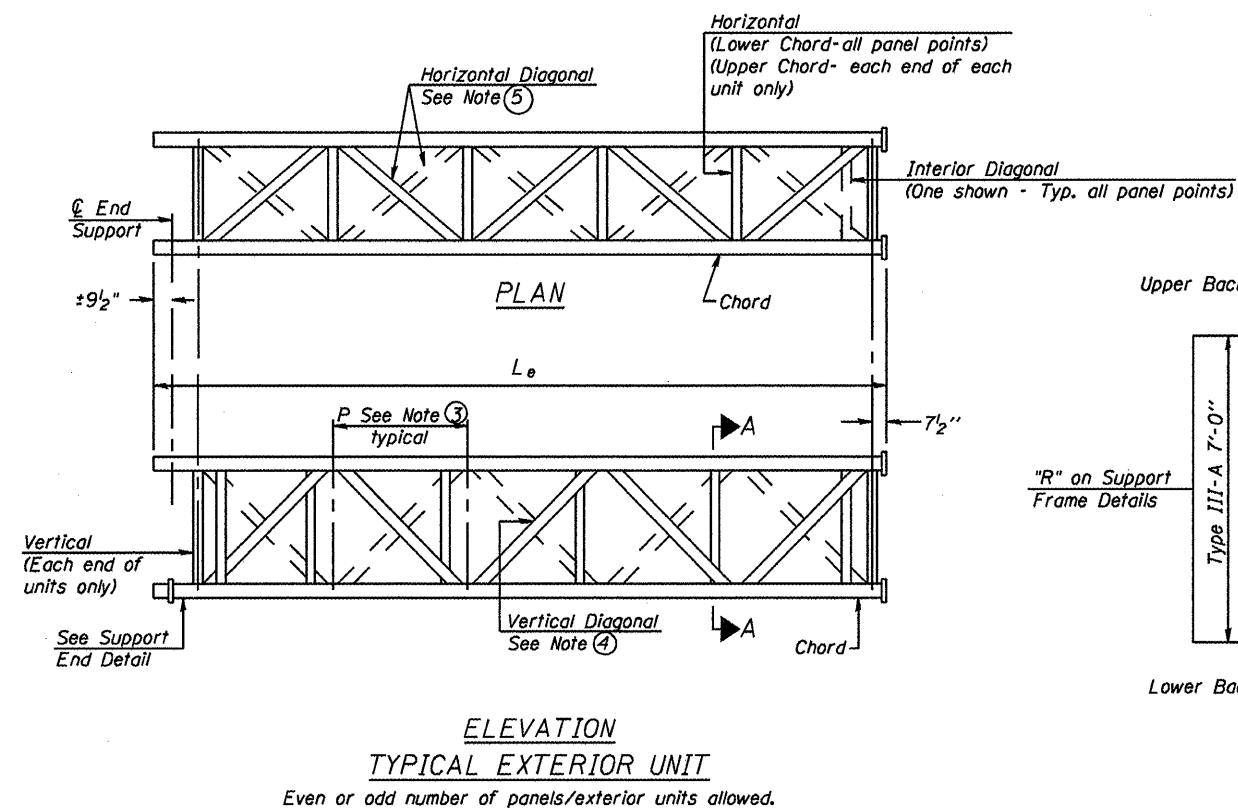
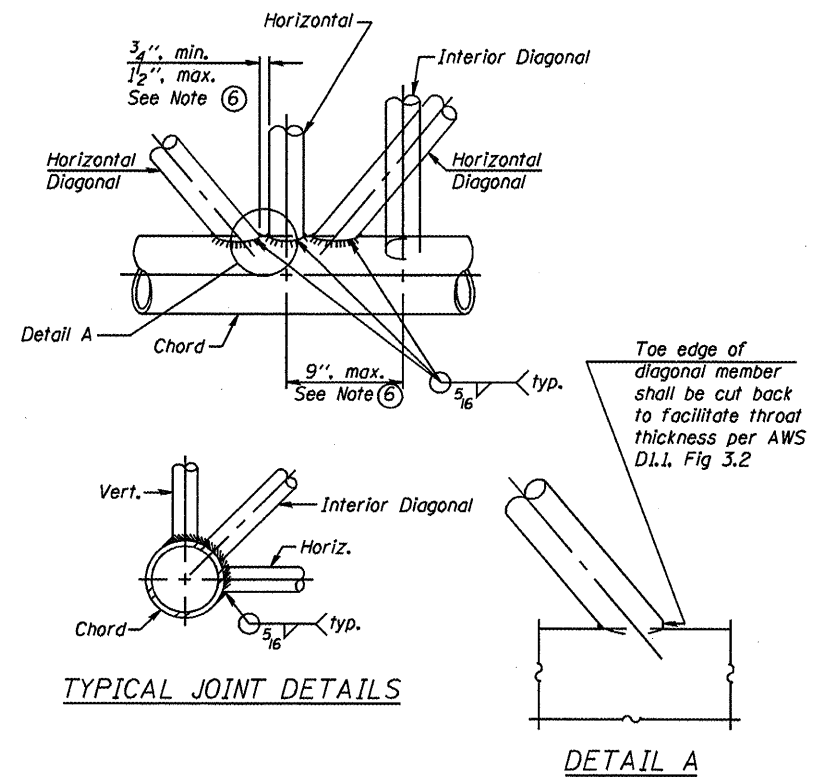
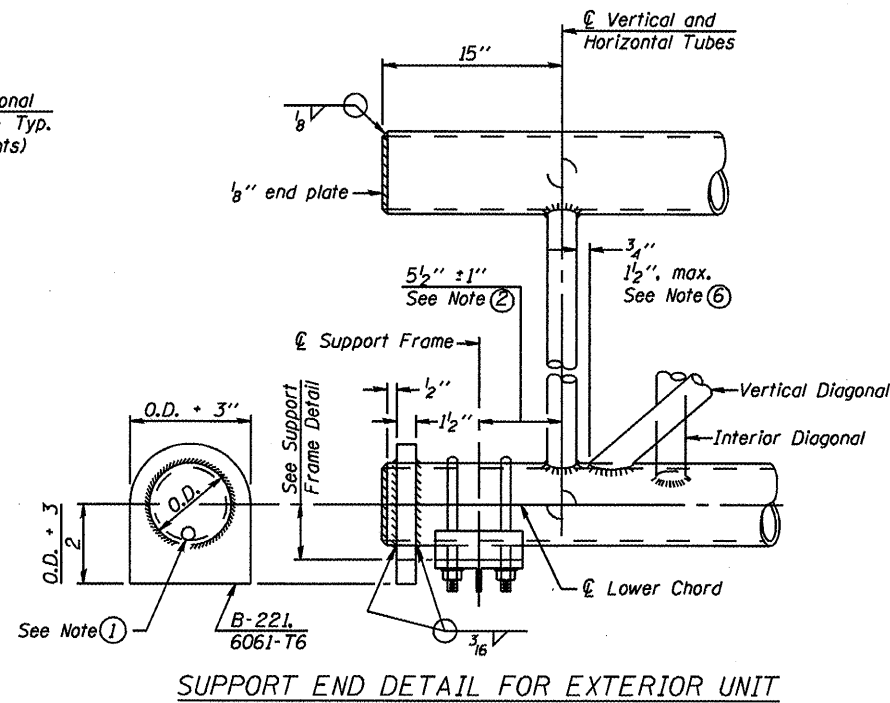
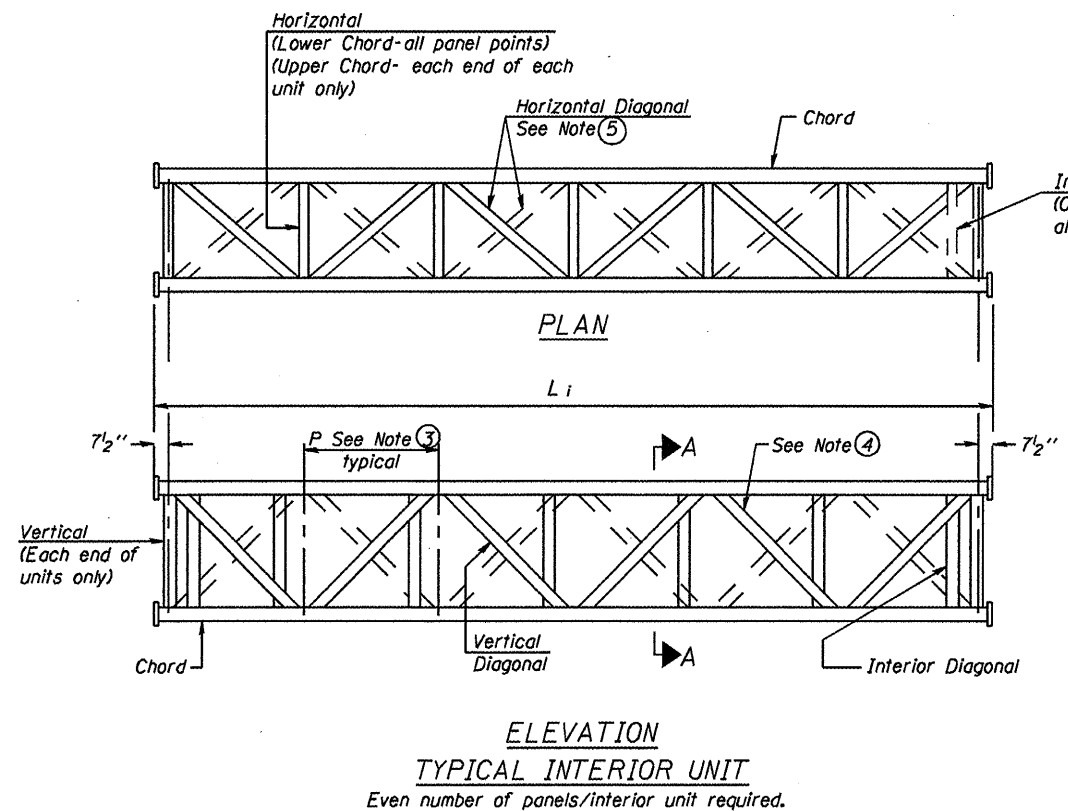
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FILE NAME *	USER NAME *	DESIGNED -	REVISED -
		CHECKED -	REVISED -
PLOT SCALE *	DRAWN -	REVISED -	REVISED -
PLOT DATE *	CHECKED -	REVISED -	REVISED -

**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

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

F.A. RTG.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
Various	D-6 OVD SIN STR REPL 11-11	Logan/Sangamon	29	6
			CONTRACT NO. 46134	
ILLINOIS FED. AID PROJECT				



- ① Contractor may alternatively use standard aluminum drive-fit cap to close end.  $\frac{1}{2}''$   $\phi$  drain hole in end plate/drive-fit cap. (Typ. at ends of all chords)
- ②  $5\frac{1}{2}''$  end dimension may vary by  $\pm 1''$  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  $\frac{3}{4}''$  minimum to  $1\frac{1}{2}''$  maximum clearance between any diagonal and any horizontal or vertical member, and to provide clearance for U-bolt connections of signs or walkway brackets.

OS-A-2

7-1-10

FILE NAME *	USER NAME *	DESIGNED -	REVISD -
		CHECKED -	REVISD -
PLOT SCALE *		DRAWN -	REVISD -
PLOT DATE *		CHECKED -	REVISD -

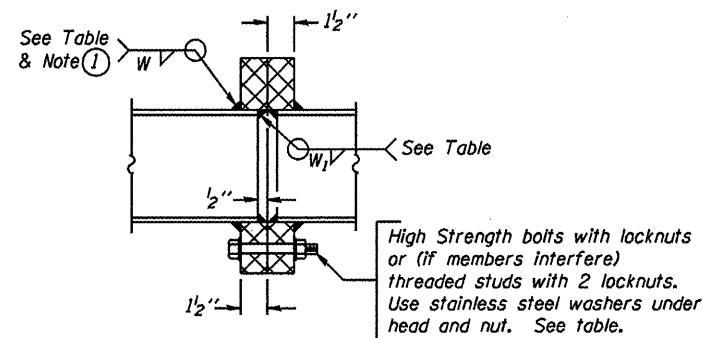
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

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

F.A. - RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
Various	D-6 OVD SIN STR REPL II-11	Logan/Sangamon	29	7
CONTRACT NO. 46134			ILLINOIS FED. AID PROJECT	

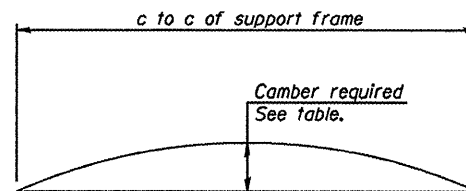
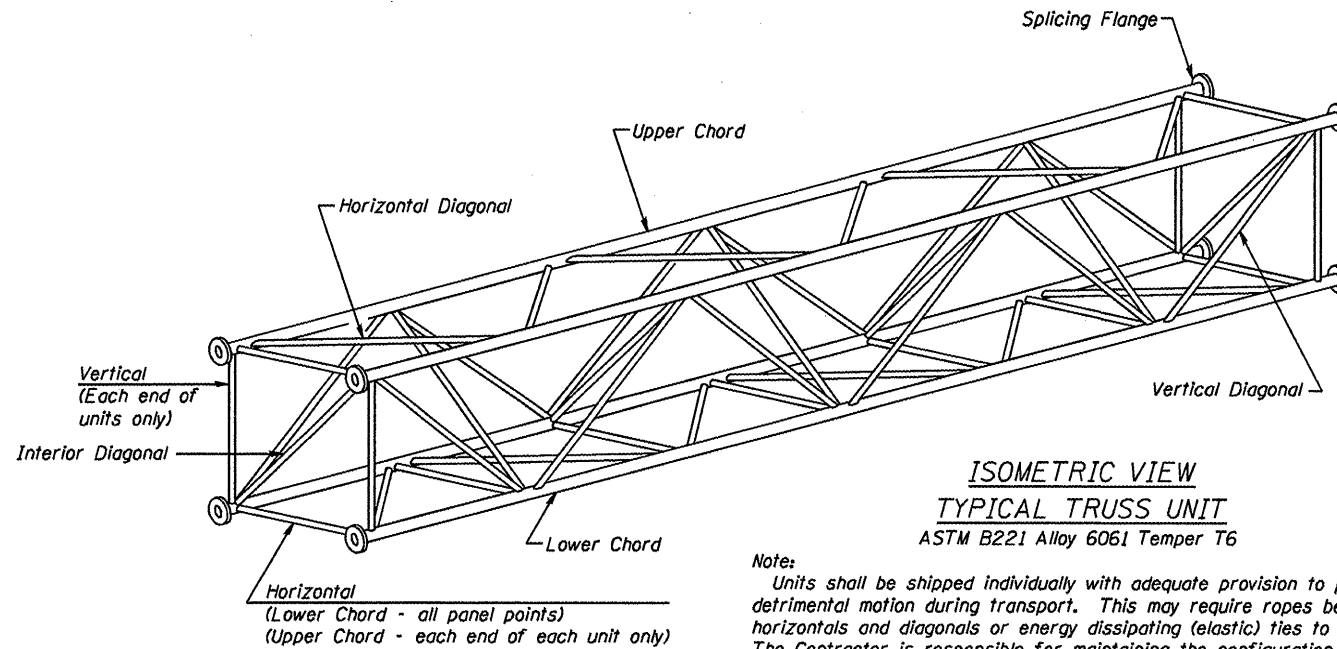
TRUSS UNIT TABLE

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 <sub>e</sub> )	Panel Lgth.(P)	No. Req'd.	No. Panels per Unit	Unit Lgth.(L <sub>i</sub> )	Panel Lgth.(P)	O.D.	Wall	O.D.	Wall		Bolts		Weld Sizes		A	B
															No./Splice	Di.	W	W <sub>1</sub>		
6S0841055L082.1	494 + 50	II-A	8	39'-4 1/2"	4'-8 1/4"	1	8	38'-5"	4'-7 3/4"	7"	5/16"	3"	5/16"	3.95"	6	1"	3/8"	1/4"	11 1/2"	15"
6S0841055L094.7	184 + 00	II-A	7	39'-11 1/4"	5'-5 1/4"	1	6	33'-10 1/2"	5'-5 1/4"	7"	5/16"	3"	5/16"	3.75"	6	1"	3/8"	1/4"	11 1/2"	15"
6S084S029L011.8	27 + 00	I-A	7	36'-10 1/2"	5'-0"	0				5"	5/16"	2 1/2"	5/16"	1.8"	6	7/8"	5/16"	1/4"	8 3/4"	11 3/4"



SECTION B-B

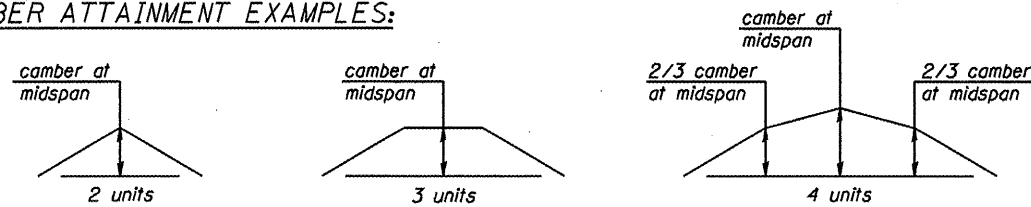
(1) Splicing Flanges shall be attached to each truss unit with the truss shop assembled to camber shown. Truss units shall be in proper alignment and flange surfaces shall be shop bolted into full contact before welding. Sufficient external welds or tacks shall be made to secure flanges until remaining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



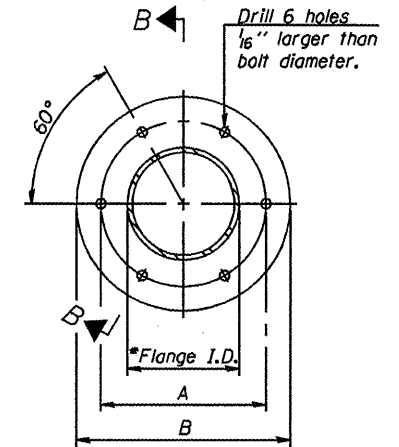
CAMBER DIAGRAM

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

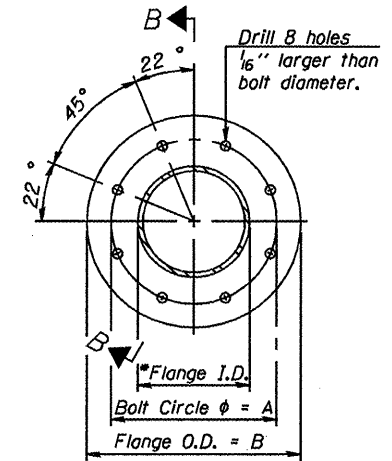
CAMBER ATTAINMENT EXAMPLES:



Camber shown is for fabrication only, measured with truss fully supported. (No-load condition)



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".

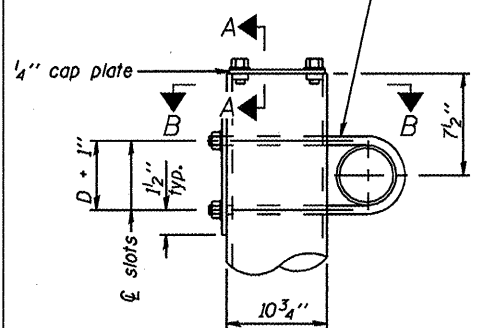
OS4-A-2

7-1-10

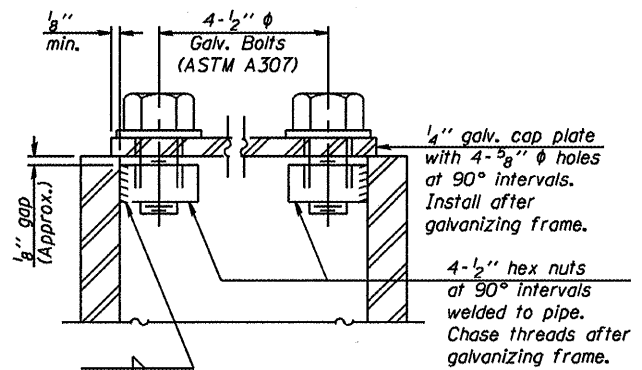
FILE NAME *	USER NAME *	DESIGNED -	REVISOR -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	OVERHEAD SIGN STRUCTURES - ALUMINUM TRUSS DETAILS FOR TRUSS TYPES I-A, II-A AND III-A	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
		CHECKED -	REVISOR -			Various	D-6 OVD SIN STR REPL. II-II	Logan/Sangamon	29	8	
		PLOT SCALE *	REVISOR -			CONTRACT NO. 46134					
		PLOT DATE *	REVISOR -			ILLINOIS FED. AID PROJECT					



3/4" φ stainless steel U-bolt.  
Provide two washers and two hexagon locknuts. (4)  
13/16" x 2" slots on 10" φ pipe.  
(4 slots required per pipe)

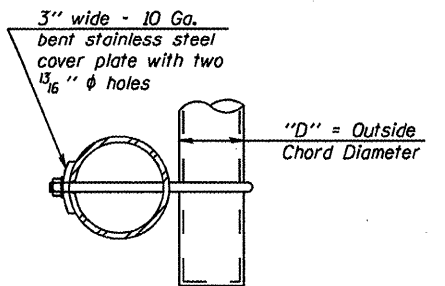


DETAIL A

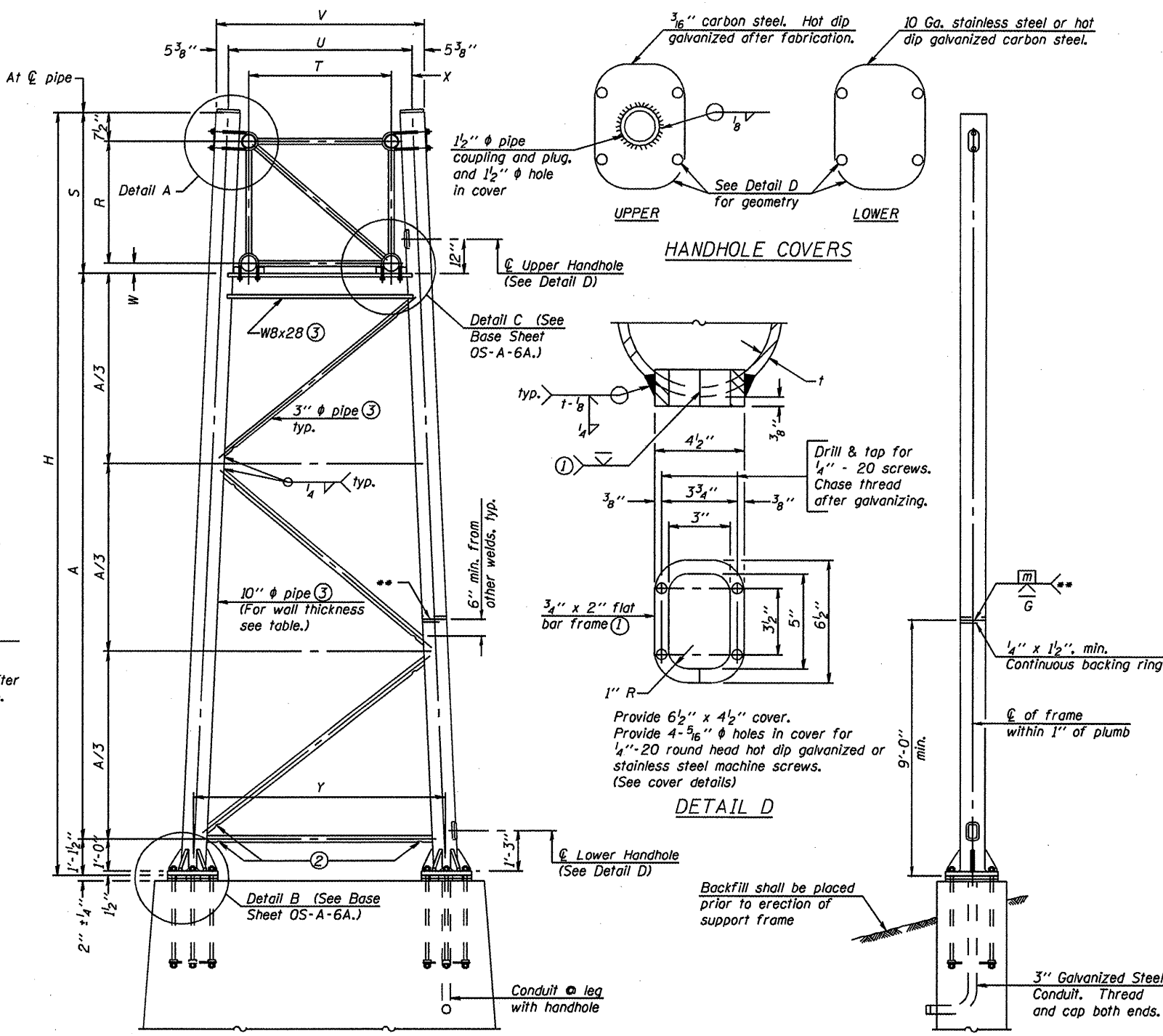


SECTION A-A

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



SECTION B-B



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

**10" φ PIPE TRUSS SUPPORT FRAME**  
\*\* One butt welded joint is allowed only on one post per support frame. If used, weld procedure must be pre-approved by Engineer and joint shall receive 100% RT or UT (tension criteria) at Contractor's expense.

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 (5)	5'-3"	6'-3 1/4"	4'-6"	6'-1"	6'-11 3/4"	4 3/4"	9 1/2"	8'-3"

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

- 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.
- 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.
- 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.
- See General Notes for fasteners.
- Dimensions shown are based on selection criteria in the Sign Structures Manual. Nonstandard applications must have dimensions verified or amended as appropriate.
- "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				
6S0841055L082.1	494 + 50	X	X	II-A	0.365(Std)	30'-8"	23'-3 1/4"
6S0541155L001.9	52 + 00	X		II-A	0.500	33'-0"	25'-7 1/4"
			X	II-A	0.500	30'-2 1/2"	22'-9 3/4"
6S0541055L128.2	490 + 00	X		II-A	0.500	31'-6"	24'-1 1/4"
			X	II-A	0.500	29'-9 3/4"	22'-5"
6S0841055L094.7	184 + 00	X		II-A	0.365(Std)	30'-4"	22'-11 1/4"
			X	II-A	0.365(Std)	30'-11"	23'-6 1/4"
6S084S029L011.8	27 + 00	X		I-A	0.279	26'-10"	20'-3"
			X	I-A	0.279	30'-4"	23'-9"

OS-A-6

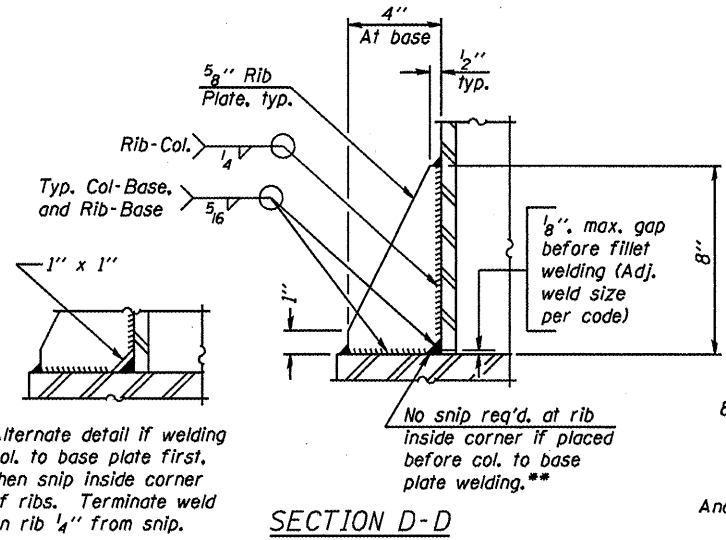
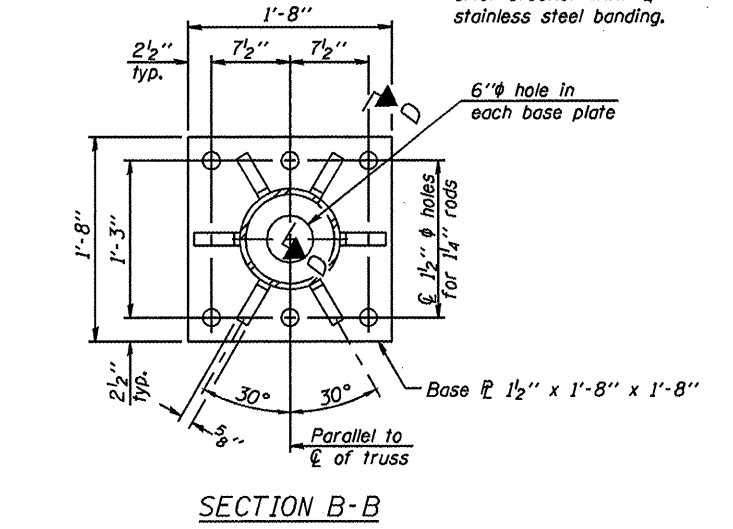
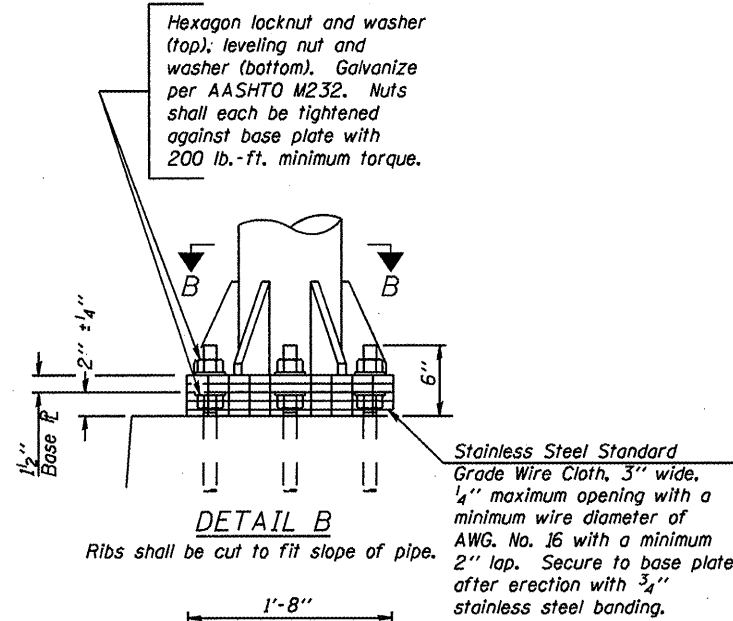
7-1-10

FILE NAME *	USER NAME *	DESIGNED -	REVISED -
		CHECKED -	REVISED -
PLOT SCALE *		DRAWN -	REVISED -
PLOT DATE *		CHECKED -	REVISED -

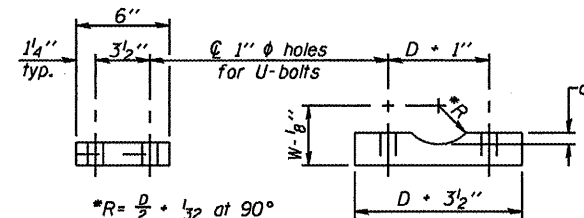
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

OVERHEAD SIGN STRUCTURES  
SUPPORT FRAME FOR ALUMINUM TRUSS

F.A. -	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
RTS:	D-6 OVD SIN STR REPL II-II	Logan/Sangamon	29	9
CONTRACT NO. 46134				
[ILLINOIS] FED. AID PROJECT				

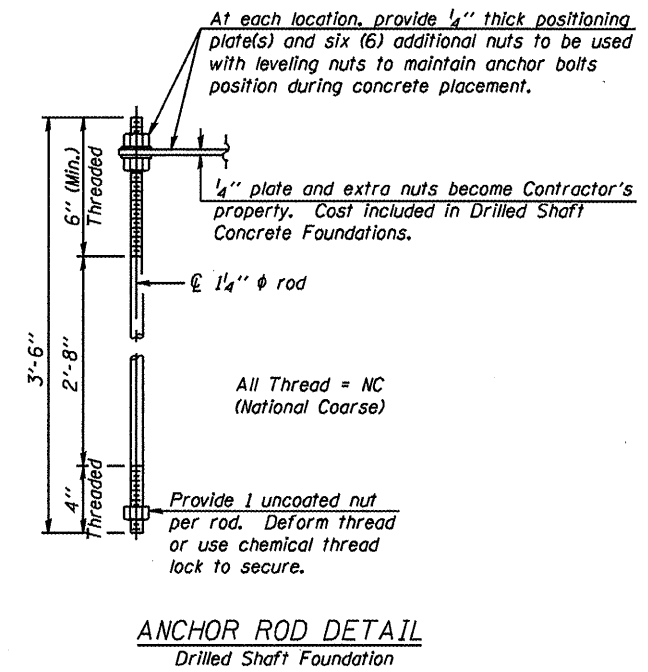
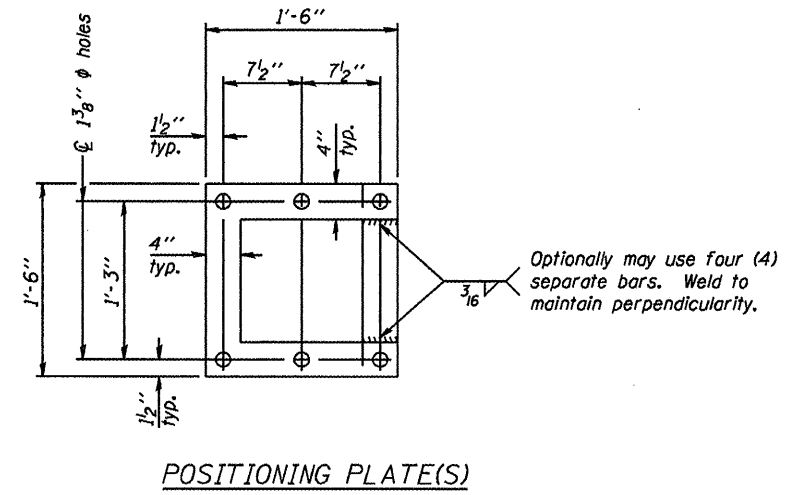
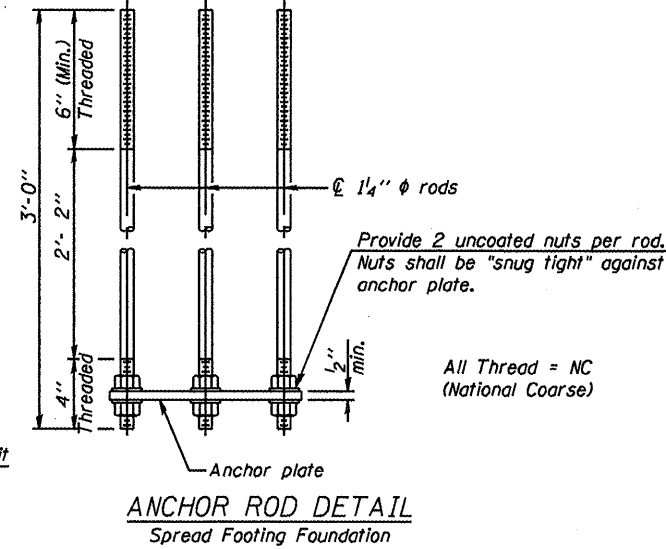
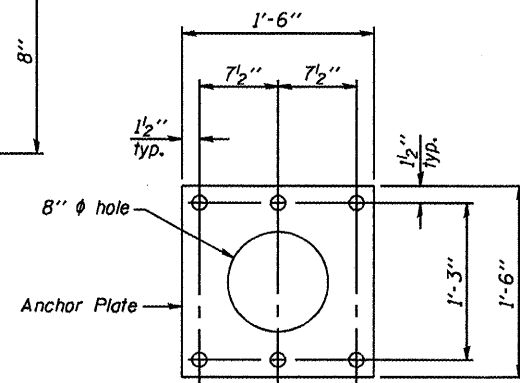


\*\* Alternate detail if welding col. to base plate first, then snip inside corner of ribs. Terminate weld on rib 1/4" from snip.

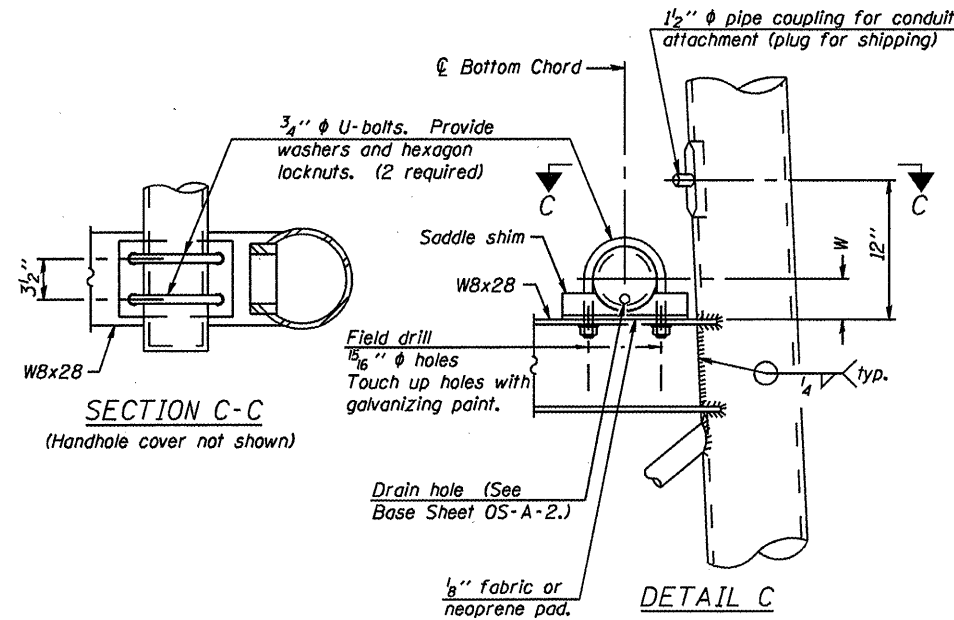


**SADDLE SHIM DETAIL**  
 ASTM B26 Alloy 356-F  
 or  
 ASTM B209 Alloy 6061-T651 (4 required per sign truss)

Truss Chord Nominal Dia.	a
5"	3/4"
5 1/2"	1 1/8"
6"	7/8"
6 1/2"	1 5/16"
7"	1"



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"  $\phi$  PIPE SUPPORT FRAME DETAILS

OS-A-6A

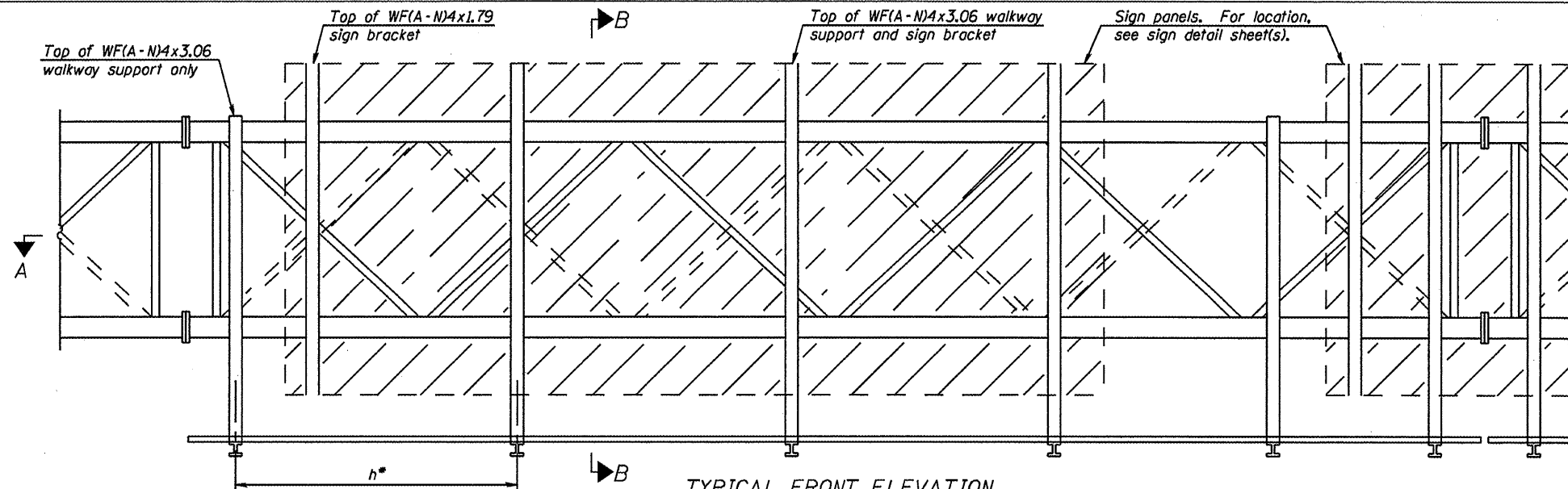
7-1-10

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

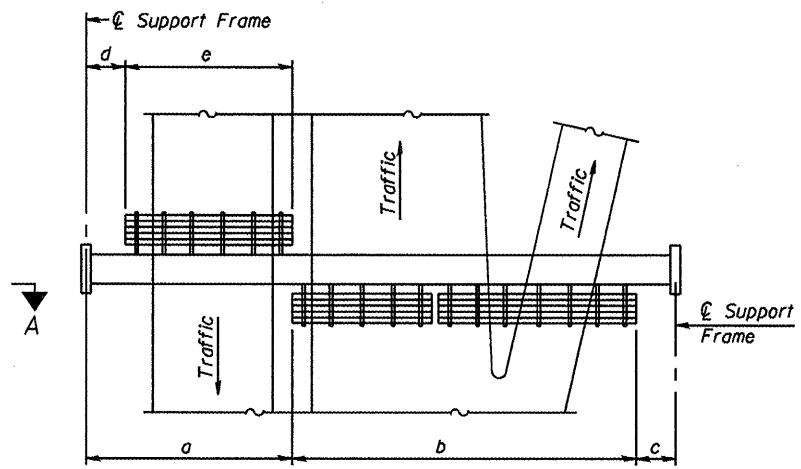
STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

OVERHEAD SIGN STRUCTURES  
 SUPPORT FRAME DETAILS - ALUMINUM TRUSS

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
Various	D-6 OVD SIN STR REPL 11-11	Logan/Sangamon	29	10
				CONTRACT NO. 46134
ILLINOIS FED. AID PROJECT				



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



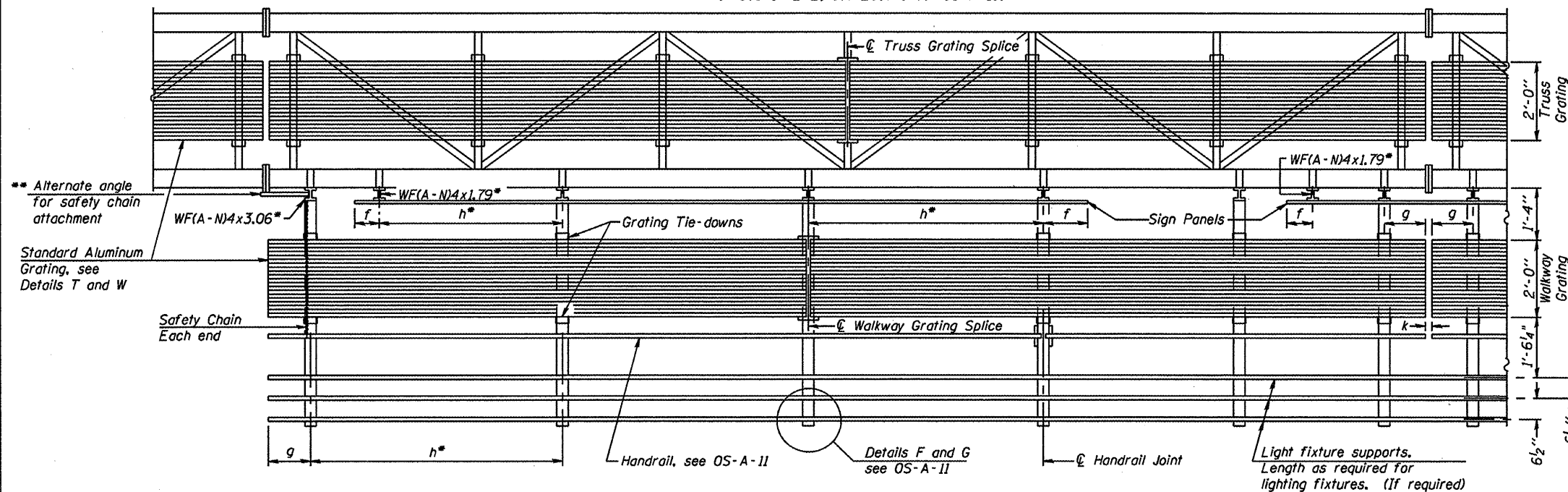
**PLAN**  
**WALKWAY AND HANDRAIL SKETCH**  
 (Road plan beneath truss varies)

**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

- 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.



**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.

Structure Number	Station	a	b	c	d	e	Walkway Grating and Handrail Lengths
6S084I055L082.1	494 + 50	N/A	N/A	N/A	N/A	N/A	57' - 0"
6S084I055L094.7	184 + 00	N/A	N/A	N/A	N/A	N/A	54' - 0"
6S084S029L011.8	27 + 00	N/A	N/A	N/A	N/A	N/A	47' - 0"

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".

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

OS-A-9

7-1-10

FILE NAME *	USER NAME *	DESIGNED -	REVISD -
		CHECKED -	REVISD -
		DRAWN -	REVISD -
		CHECKED -	REVISD -

**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

**OVERHEAD SIGN STRUCTURES**  
**ALUMINUM WALKWAY DETAILS**

F.A. -	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
RTE.	Various D-6 OVD SIN STR REPL 11-11	Logan & Sangamon	29	11
CONTRACT NO. 46134			ILLINOIS FED. AID PROJECT	

**BAR LIST - EACH FOUNDATION**

Bar	Number	Size	Length	Shape
v4(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.

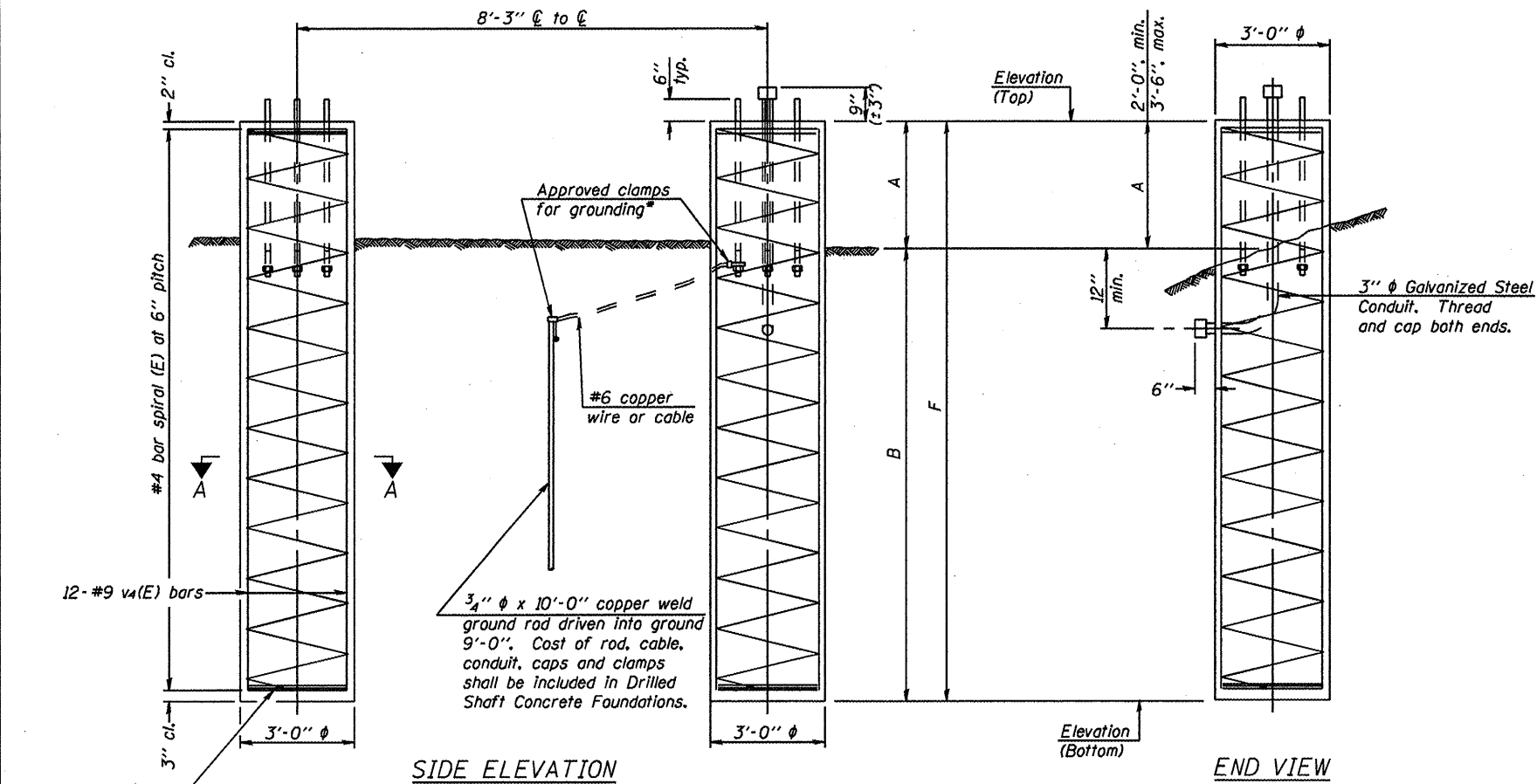
If the conditions encountered are different than those indicated, the Contractor shall notify the Engineer to determine if the foundation dimensions need to be modified. If dimensions "B" or "F" are revised by more than 12" by the Contractor, "as-built" plans shall be prepared and submitted to the District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

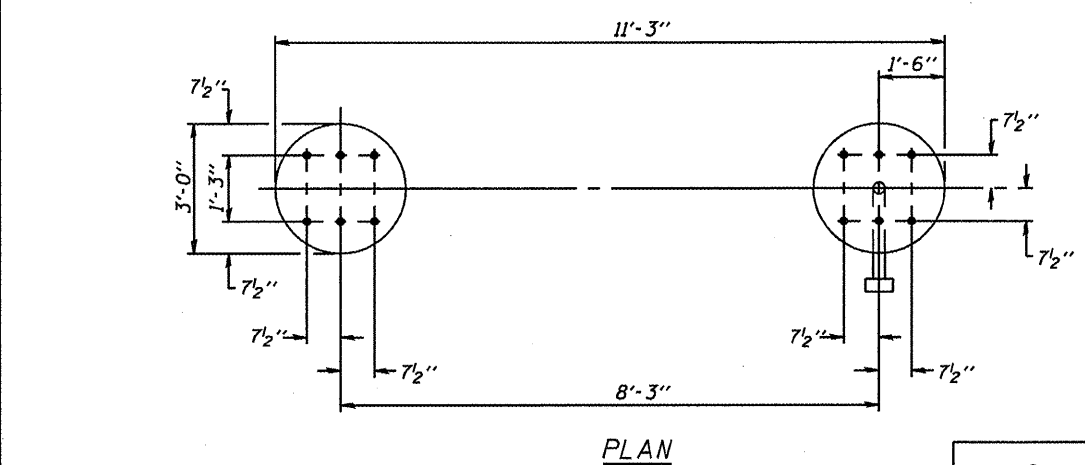
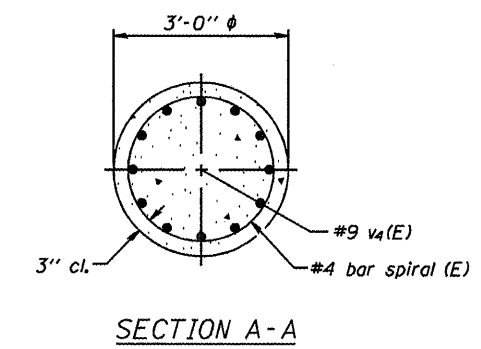
Concrete shall be placed monolithically, without construction joints.

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.



3 hoops minimum top and bottom



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.

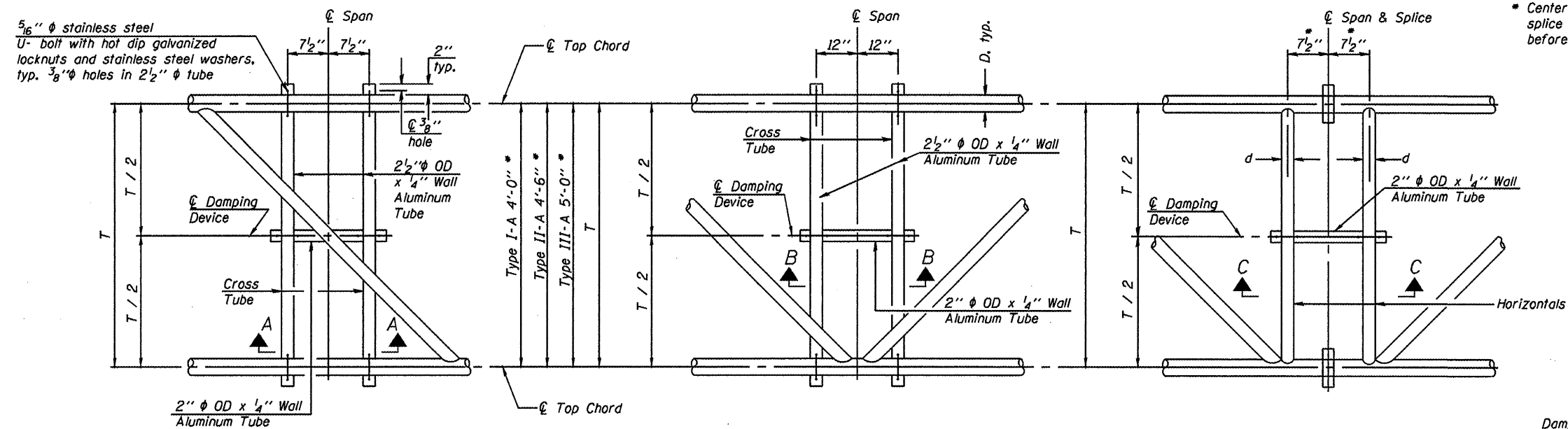
**DETAILS FOR 10" Ø SUPPORT FRAME  
TYPE I-A or II-A TRUSS**

Hard drilling in soil will be encountered within the anticipated shaft length at SN 6S0841055L082.1 and 6S0841055L94.7.

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
6S0841055L082.1	494 + 50	601.6	N/A	3'-0"	20'-6"	23'-6"	601.6	N/A	3'-0"	20'-6"	23'-6"	24.6
6S0541155L001.9	52 + 00	567.1	N/A	3'-6"	17'-6"	21'-0"	569.9	N/A	2'-0"	17'-6"	19'-6"	21.2
6S0541055L128.2	490 + 00	587.2	N/A	3'-6"	27'-0"	30'-6"	588.9	N/A	2'-0"	27'-0"	29'-0"	31.2
6S0841055L094.7	184 + 00	568.0	N/A	2'-0"	16'-0"	18'-0"	567.4	N/A	3'-1"	16'-0"	19'-1"	19.4
6S084S029L011.8	27 + 00	102.5	N/A	2'-0"	16'-6"	18'-6"	99.5	N/A	3'-0"	16'-6"	19'-6"	20.2
Elevations were taken from existing sign structure details.												

OS4-F3 7-1-10

FILE NAME *	USER NAME *	DESIGNED -	REVISD -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	OVERHEAD SIGN STRUCTURES DRILLED SHAFT DETAILS	F.A. RTE.:	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
	CHECKED -	REVISD -				Various	D-6 OVD SIN STR REPL II-II	Logan/Sangamon	29	12	
PLOT SCALE *	DRAWN -	REVISD -				CONTRACT NO. 46134					
PLOT DATE *	CHECKED -	REVISD -				ILLINOIS FED. AID PROJECT					



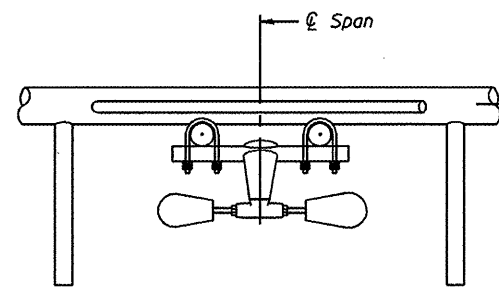
PLAN DETAIL "A"  
Span between Panel Points

PLAN DETAIL "B"  
Span at Panel Point

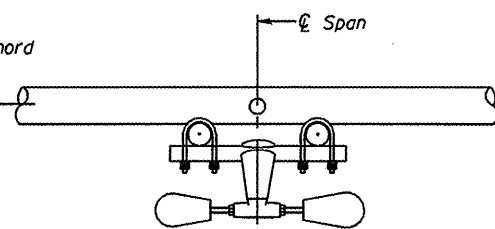
PLAN DETAIL "C"  
Span at Chord Splice

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

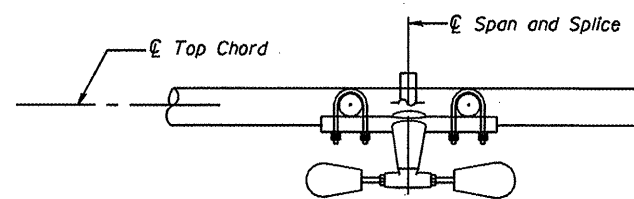
**NOTES**  
 Damper: One damper per truss. (31 lbs. minimum Stockbridge-Type Aluminum - 29" minimum between ends of weights) Cost included in Overhead Sign Structure...  
 Materials: Materials: Aluminum tubes shall be ASTM B221 alloy 6061 temper T6. Cost included in Overhead Sign Structure...



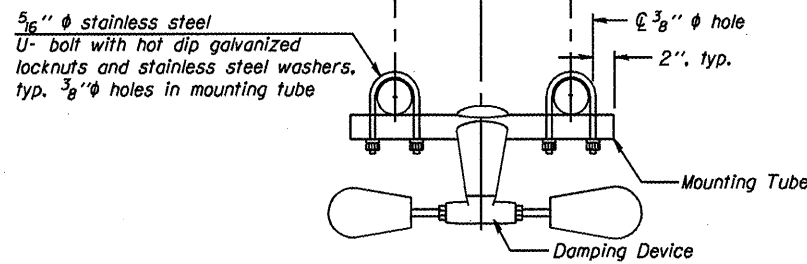
SECTION A-A



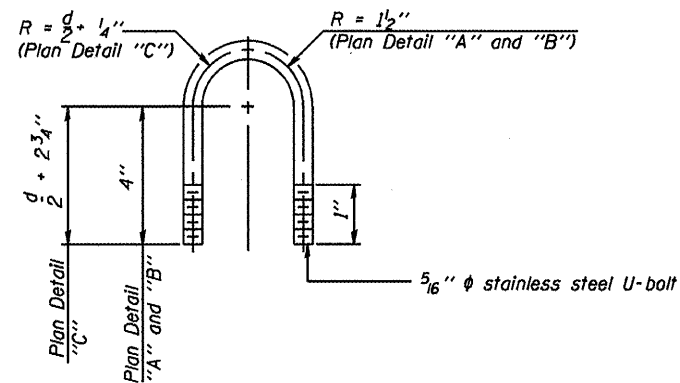
SECTION B-B



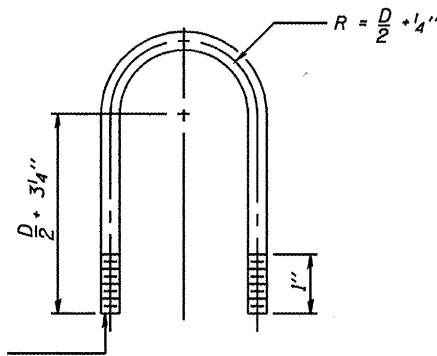
SECTION C-C



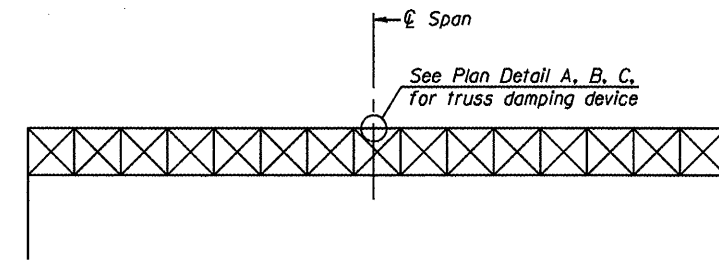
TRUSS DAMPING  
DEVICE CONNECTION DETAIL  
(Typical)



DAMPING DEVICE MOUNTING  
TUBE U-BOLT DETAIL  
(Typical)



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



ELEVATION  
Aluminum Overhead  
Sign Truss

OS-A-D

7-1-10

USER NAME *	DESIGNED -	REVISED -
PLOT SCALE *	CHECKED -	REVISED -
PLOT DATE *	DRAWN -	REVISED -
	CHECKED -	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

OVERHEAD SIGN STRUCTURE  
DAMPING DEVICE

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
Various	D-6 OVD SIN STR REPL 11-11	Logan/Sangamon	29	13
				CONTRACT NO. 46134
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 ("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, 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. 105 with a minimum Charpy V-Notch (CVN) energy of 15 lb.-ft. at 10° F.

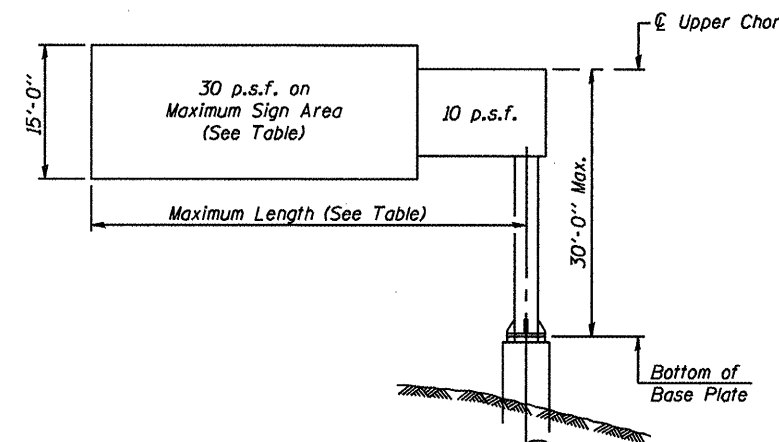
CONCRETE SURFACES: All concrete surfaces above an elevation 6" below the lowest final ground line at each foundation shall be cleaned and coated with Bridge Seat Sealer in accordance with the Standard Specifications.

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.

Structure Number	Station	Design Truss Type	Cantilever Length (L)	Elev. A	Dim. D	D <sub>s</sub>	Total Sign Area
6C0841072R103.0	52 + 50	II-C-A	30'-0"	100-0	23'-0"	7'-0"	84.0
6C0841055R101.8	498 + 00	II-C-A	30'-0"	100-0	23'-0"	7'-0"	84.0

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**

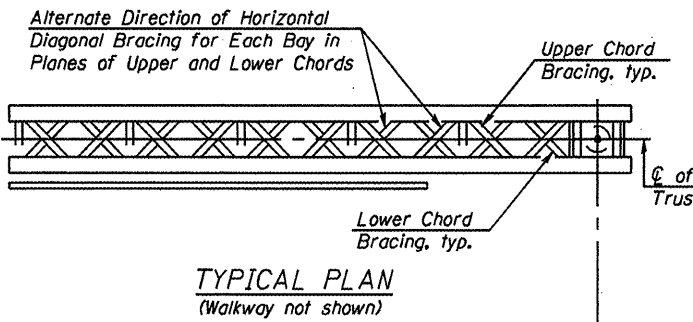
Parameters shown are basis for I.D.O.T. Standards. Installations not within dimensional limits shown require special analysis for all components.

Note:

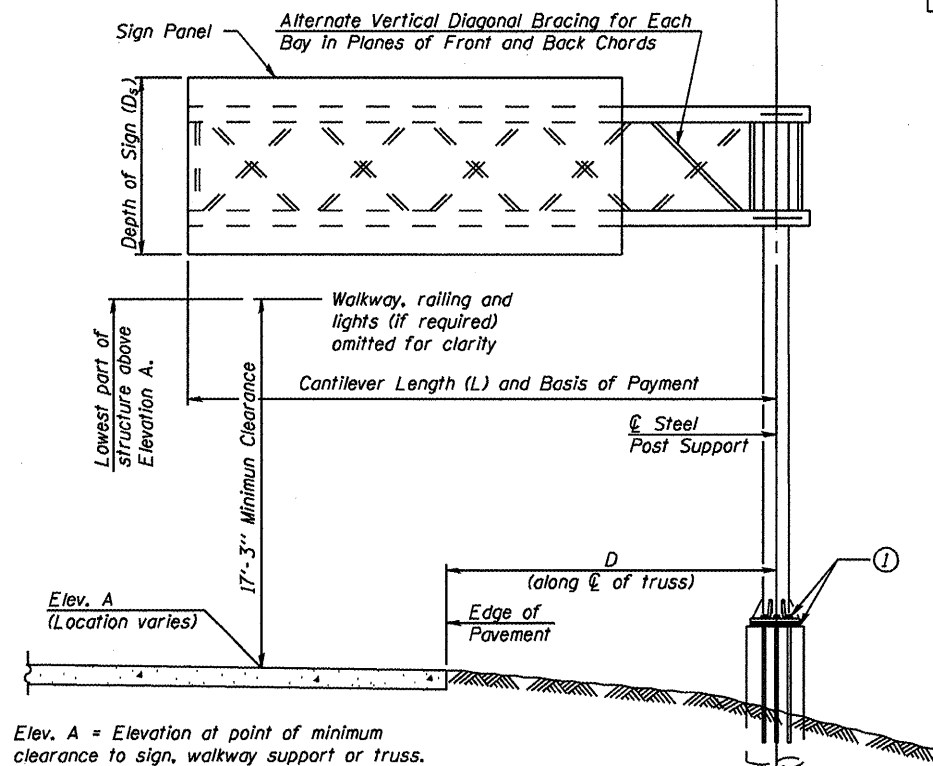
Trusses shall be shipped individually with adequate provision to prevent detrimental motion during transport. This may require ropes between horizontals and diagonals or energy dissipating (elastic) ties to the vehicle. The contractor is responsible for maintaining the configuration and protection of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

- 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.

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.



**TYPICAL PLAN**  
(Walkway not shown)



**TYPICAL ELEVATION**  
Looking in Direction of Traffic

Elev. A = Elevation at point of minimum clearance to sign, walkway support or truss.

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.

**TOTAL BILL OF MATERIAL**

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.	

OSC-A-1

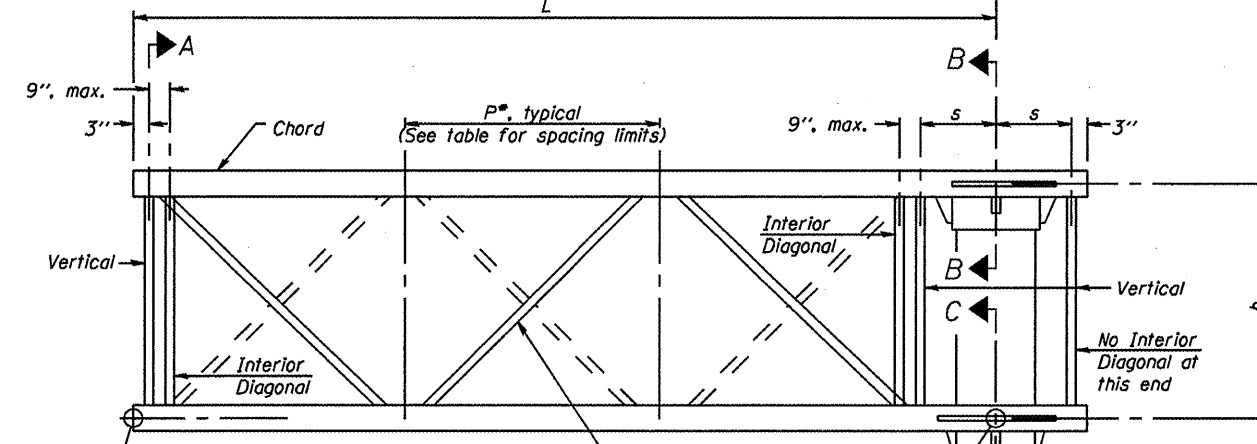
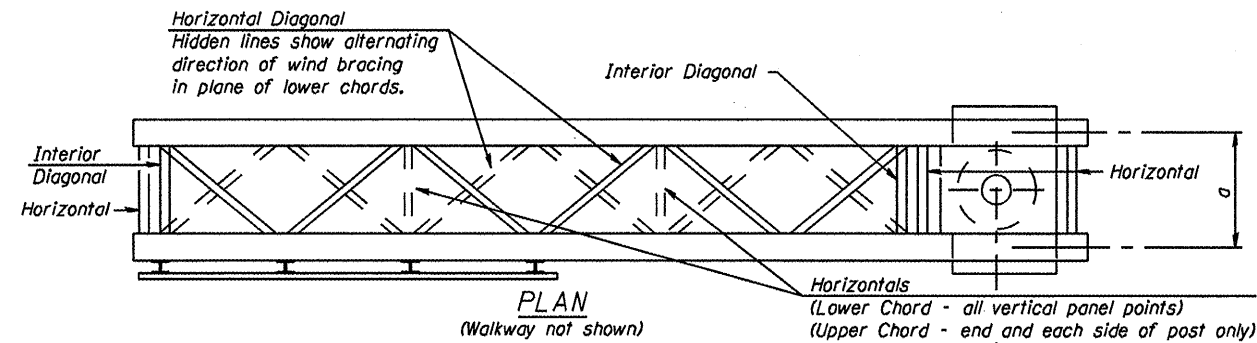
7-1-10

FILE NAME *	USER NAME *	DESIGNED -	REvised -

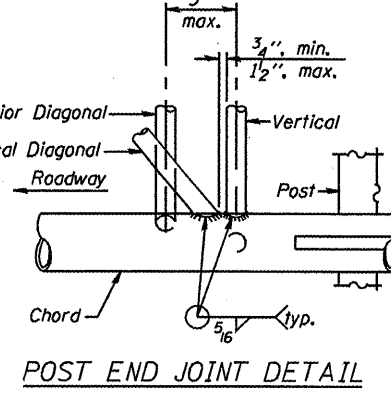
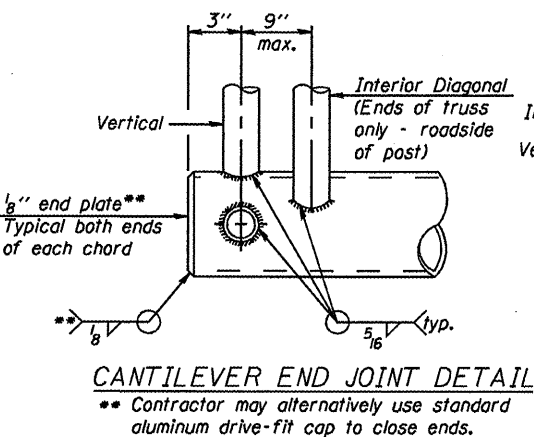
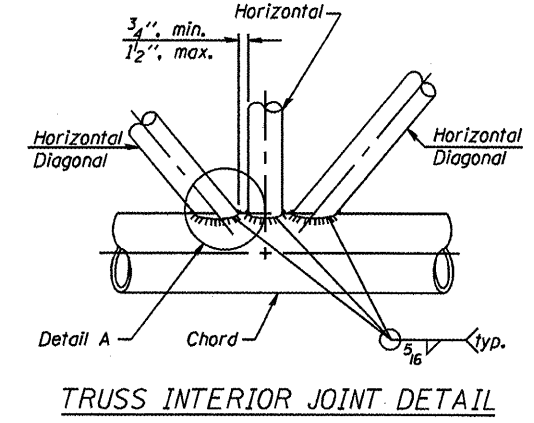
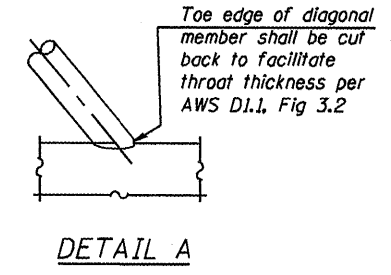
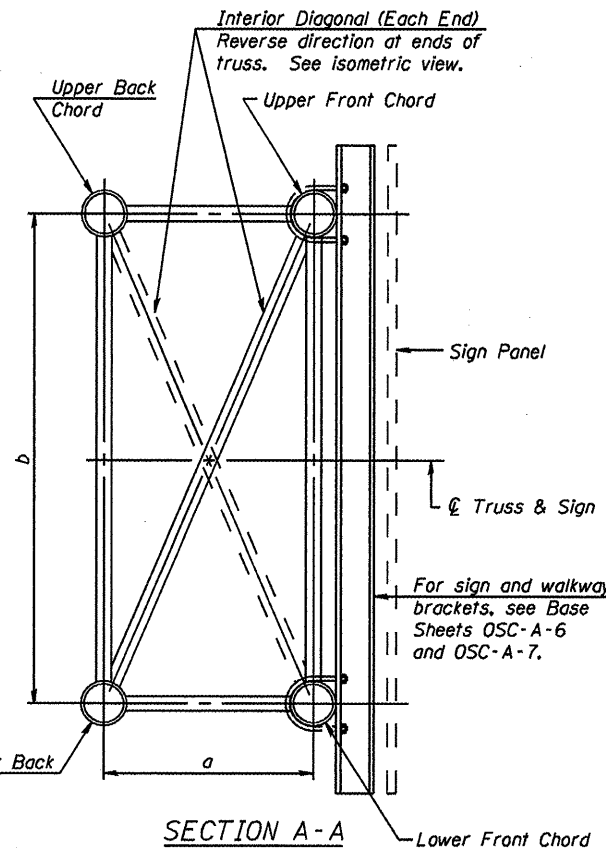
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

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

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
Various	D-6 OVD SIN STR REPL II-II	Logan/Sangamon	29	14
CONTRACT NO. 46134				
ILLINOIS FED. AID PROJECT				



**TYPICAL TRUSS UNIT**  
(Sign and walkway omitted for clarity)



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

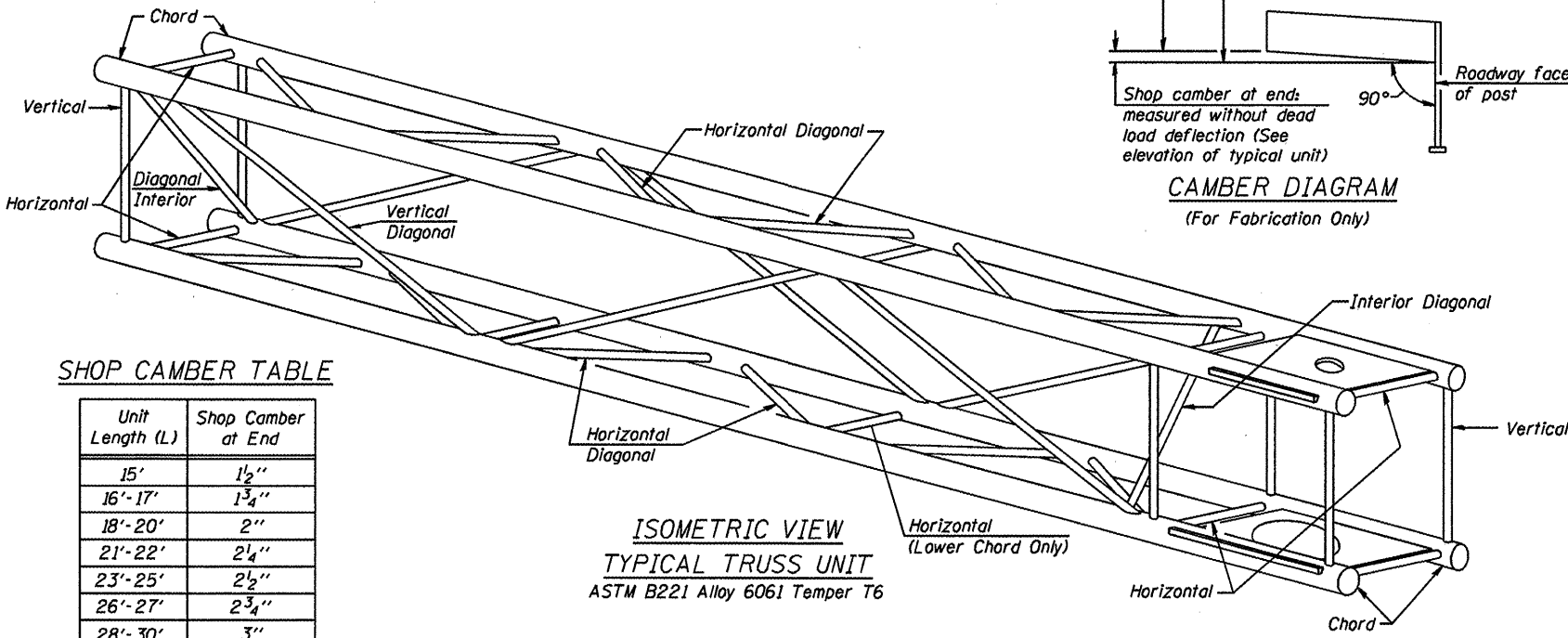
For Section B-B and Section C-C, see Base Sheet OSC-A-3.

**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"		
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"		

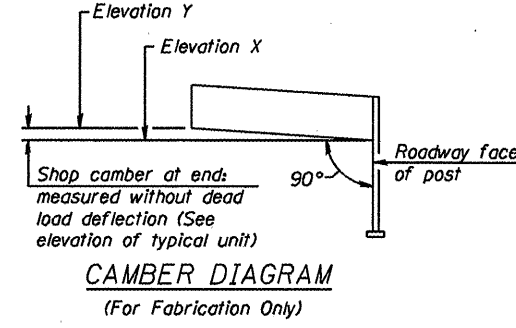
\*P =  $\frac{L-s-3''}{\# \text{ Panels}}$

Structure Number	Station	Truss Type	Design Length (L)	Number of Panels Per Unit	Panel Length (P)*
6C0841072R103.0	52 + 50	II-C-A	30'-0"	7	4'-0"
6C0841055R101.8	498 + 00	II-C-A	30'-0"	7	4'-0"



**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"



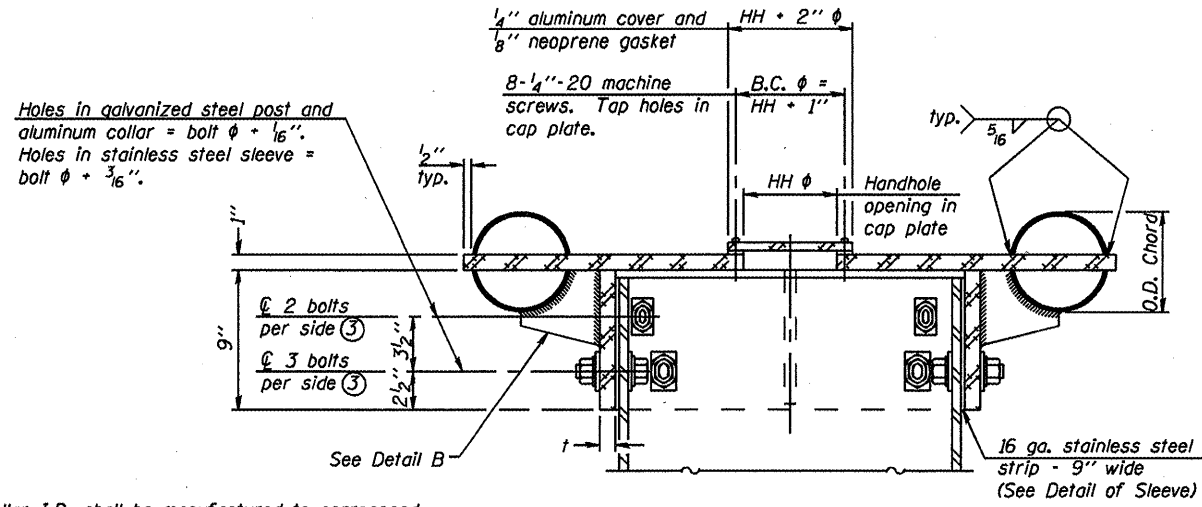
OSC-A-2 7-1-10

FILE NAME *	USER NAME *	DESIGNED - ---	REVISED - ---
		CHECKED - ---	REVISED - ---
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PLOT DATE *		CHECKED - ---	REVISED - ---

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

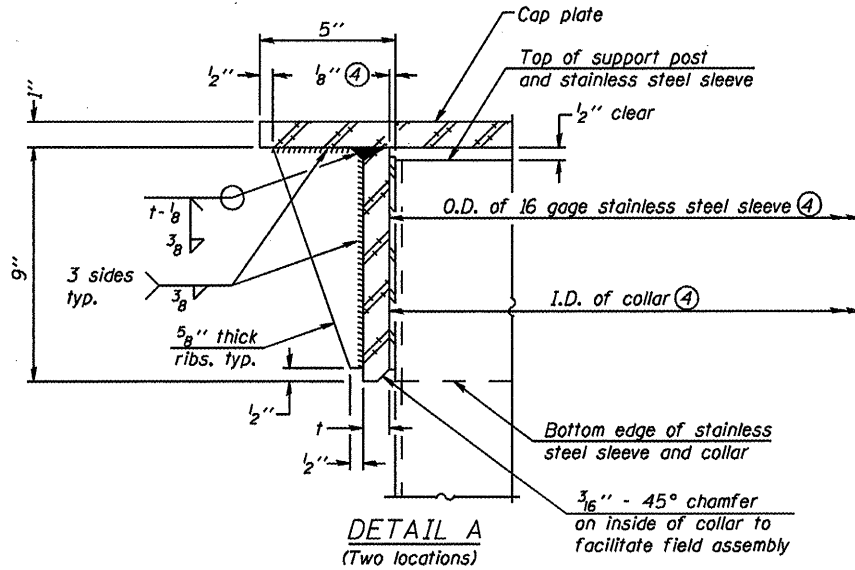
CANTILEVER SIGN STRUCTURES - TRUSS DETAILS  
ALUMINUM TRUSS & STEEL POST

F.A. RTE.:	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
Various	D-6 OVD SIN STR REPL 11-11	Logan/Sangamon	29	15
			CONTRACT NO. 46134	
ILLINOIS FED. AID PROJECT				

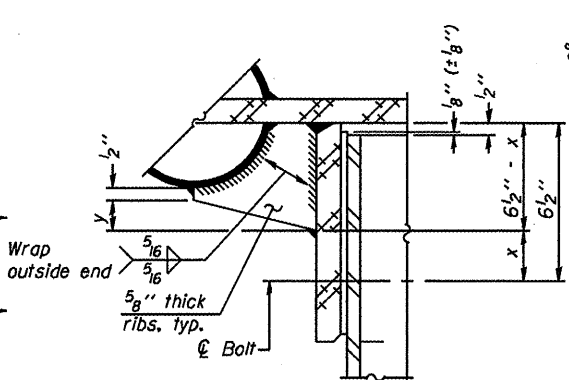


④ Collar I.D. shall be manufactured to correspond to O.D. of actual galvanized post and stainless steel sleeve plus 1/8" (± 1/16"). Maximum gap between post and collar at any location equals 1/8" before tightening bolts.

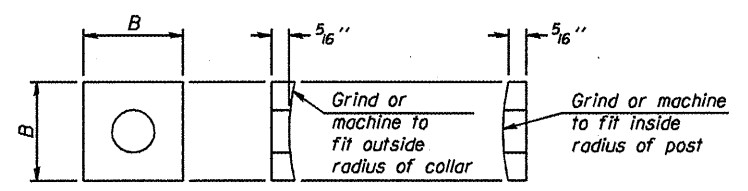
**SECTION B-B**  
Bolts, washers (including contoured washers), and locknuts shall be stainless steel.



**DETAIL A**  
(Two locations)



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

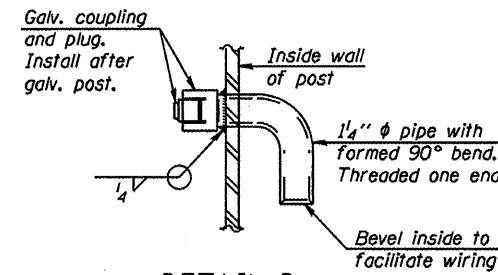


**CONTOURED WASHERS**

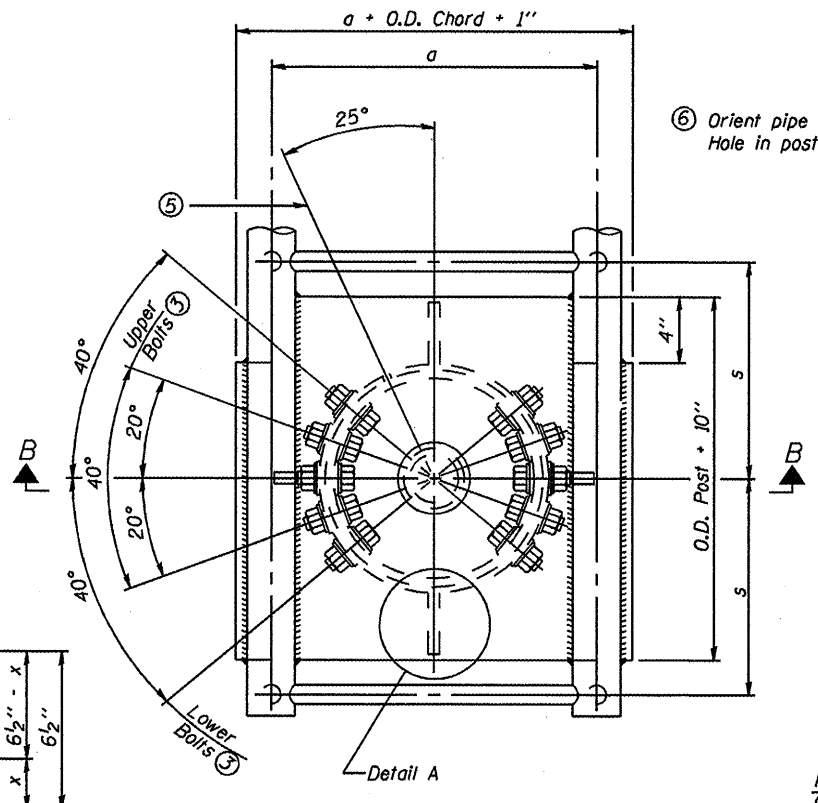
Bolt Size	Contoured Washers	
	Hole Dia.	B
7/8"	1"	2 1/2"
1"	1 1/8"	3"
1 1/4"	1 3/8"	3 1/4"

**DETAIL OF STAINLESS STEEL SLEEVE**

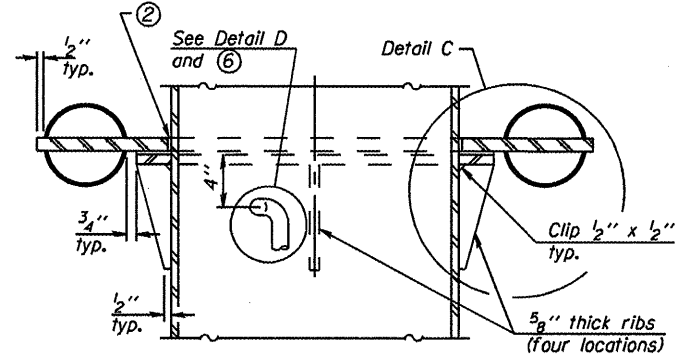
Weld to post after galvanizing. (Prepare post surface to insure tight, uniform fit and allow welding.) Welds to be 1/2" long at 6" cts. along top edge and at 1/4" opening.



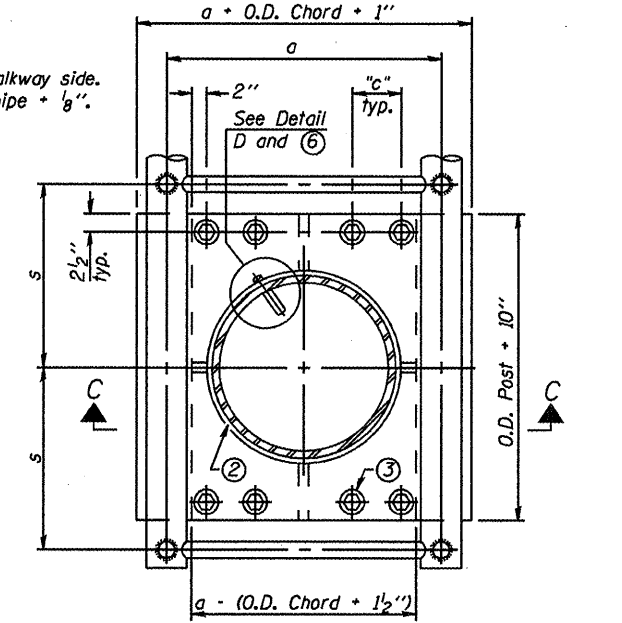
**DETAIL D**



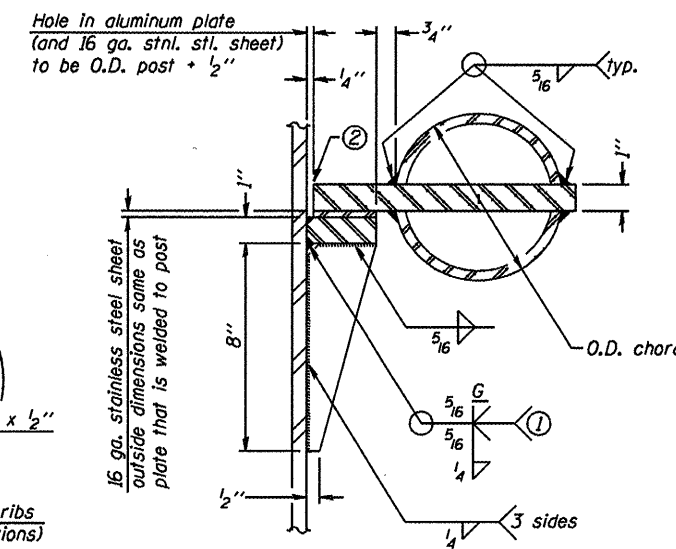
**PLAN VIEW - TOP OF COLUMN**  
⑤ Optional full penetration weld in collar. (Two locations maximum....(180° apart)....X-ray or UT 100%)



**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.
- 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.

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" φ (83#/1)	7/8"	3 1/4"	8"	5/8"	1 3/4"	2 1/4"
II-C-A	24" φ (125#/1)	1"	3 1/2"	12"	7/8"	2"	1 1/4"
III-C-A (35' max.)	24" φ (125#/1)	1 1/4"	3 1/2"	12"	7/8"	2"	1"
III-C-A (>35' to 40')	24" φ (171#/1)	1 1/4"	3 1/2"	12"	7/8"	2"	1"

OSC-A-3

7-1-10

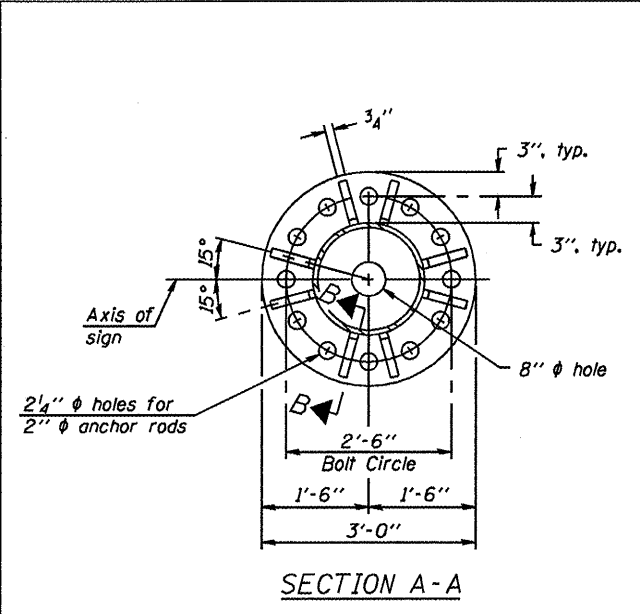
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STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

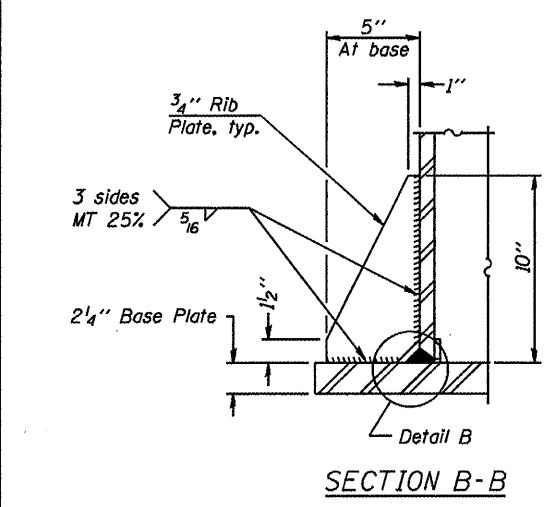
CANTILEVER SIGN STRUCTURES - JUNCTURE DETAILS  
ALUMINUM TRUSS & STEEL POST

F.A. RTE.:	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
Various	D-6 OVD SIN STR REPL II-II	Logan/Sangamon	29	16
CONTRACT NO. 46134			ILLINOIS FED. AID PROJECT	

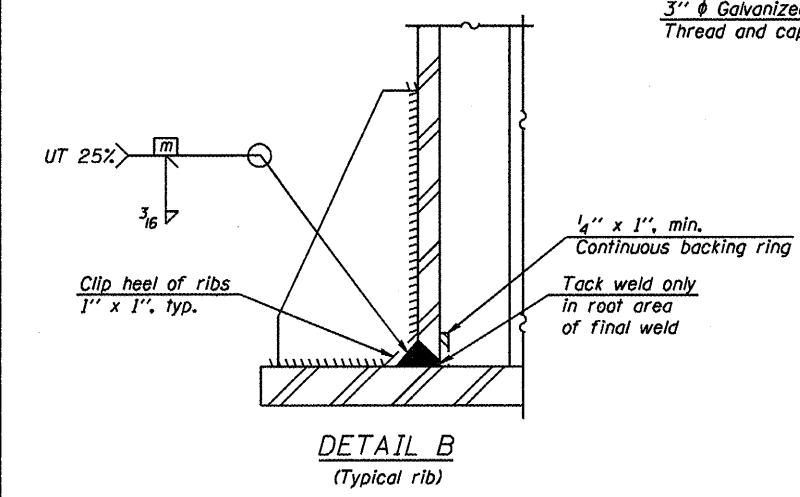




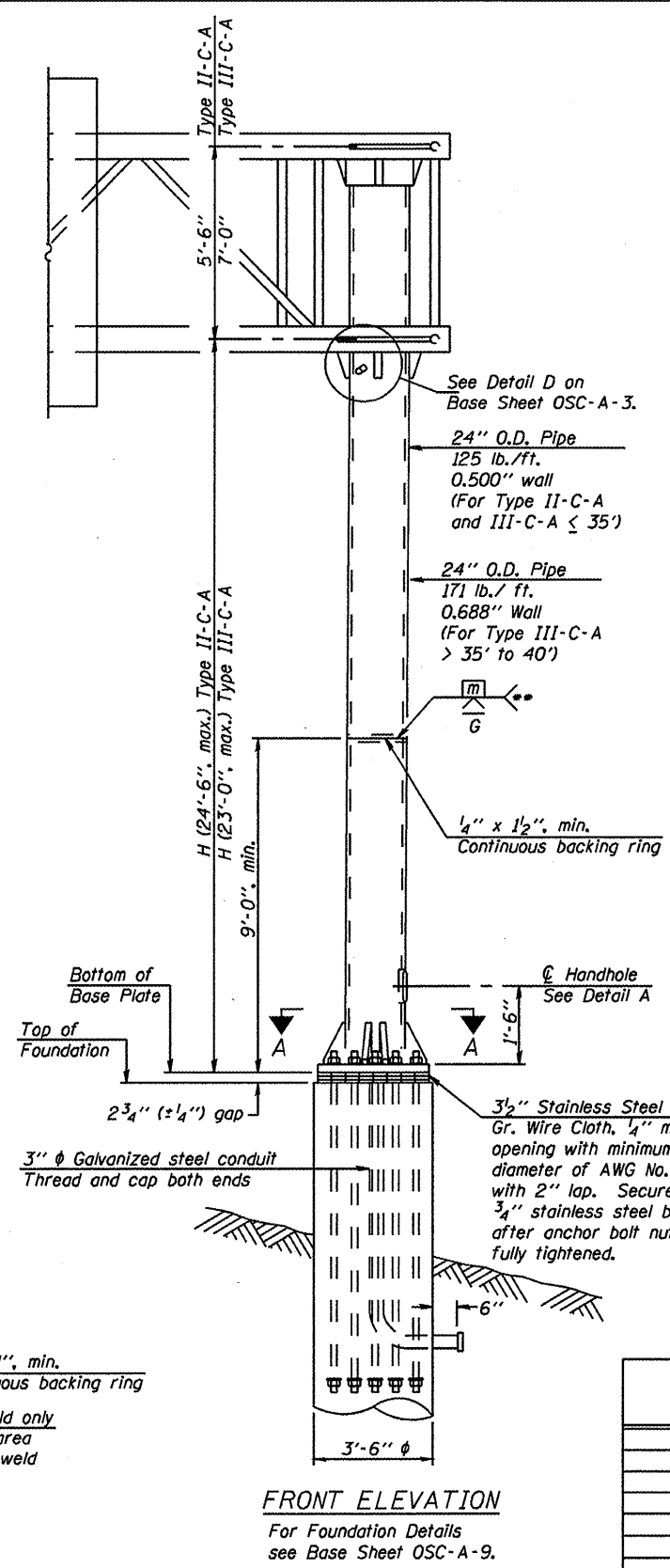
SECTION A-A



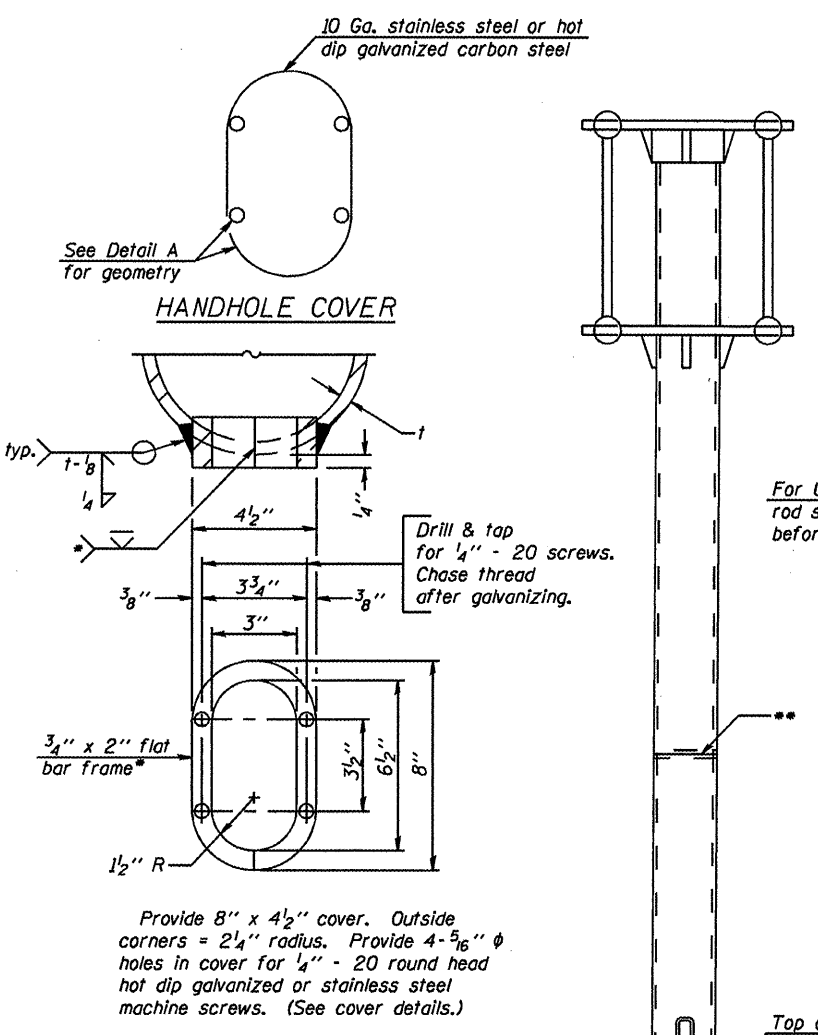
SECTION B-B



DETAIL B  
(Typical rib)



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

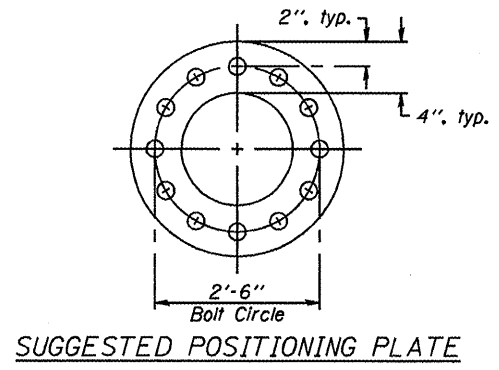


DETAIL A

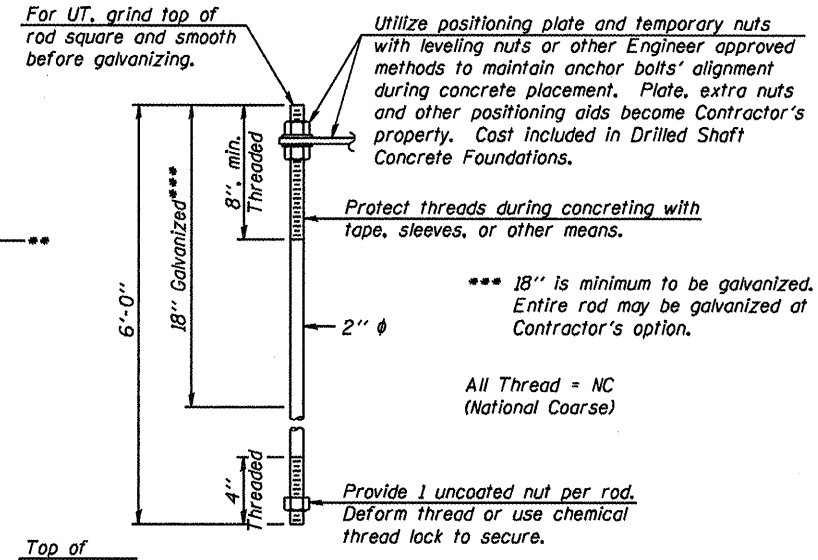
- \* Bent bars may be butt welded top and bottom or bottom only. In lieu of fabricated handhole frame as shown, may cut from 2" plate (rolling direction vertical). All cut faces to be ground to ANSI Roughness of 500 μin or less.
- \*\* Butt welded joint in post is only allowed for post heights (H) over 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
6C0841072R103.0	52 + 50	24'-6"
6C0841055R101.8	498 + 00	23'-6"

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

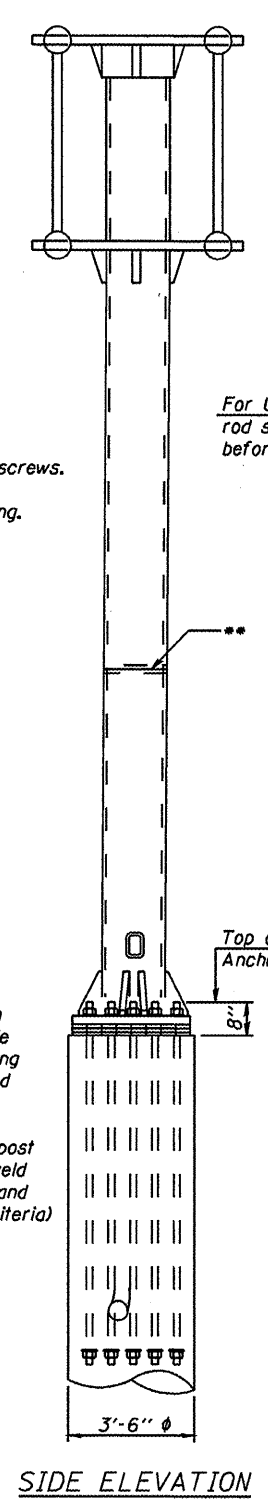


SUGGESTED POSITIONING PLATE



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

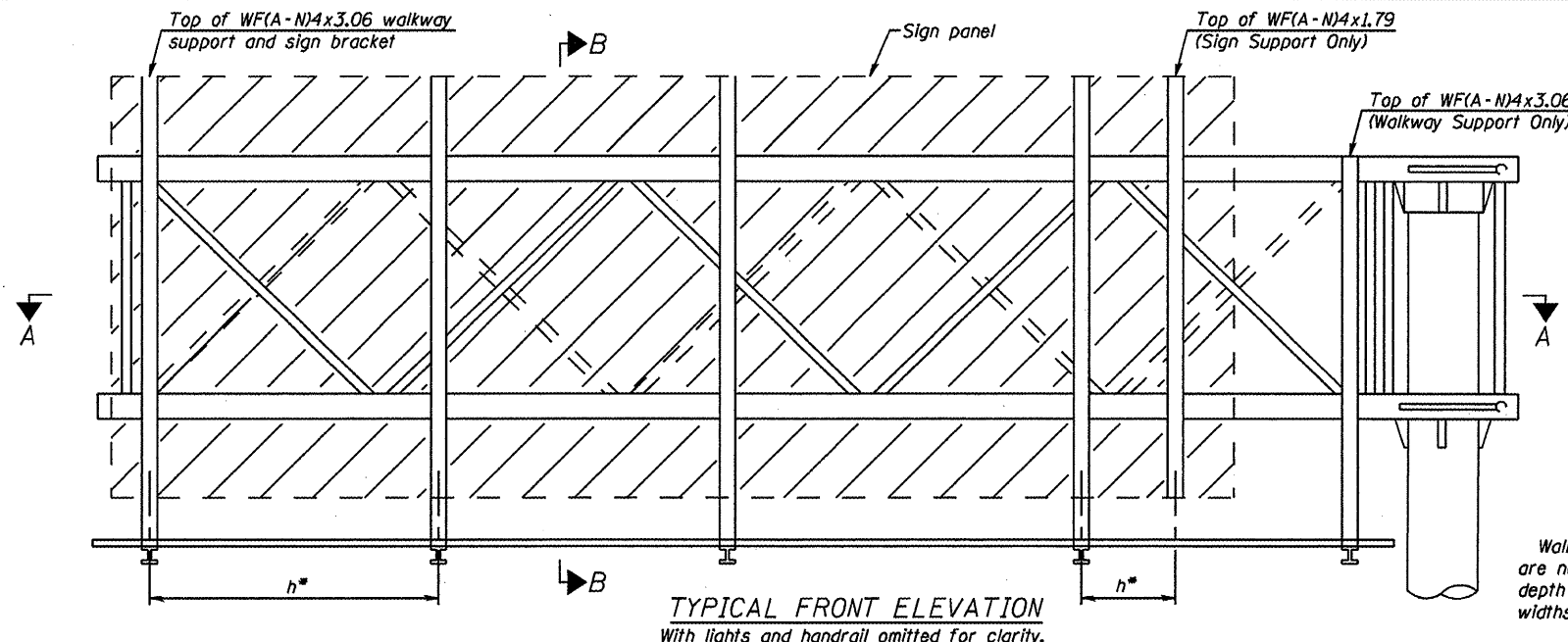
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FILE NAME	USER NAME	DESIGNED	REVISED

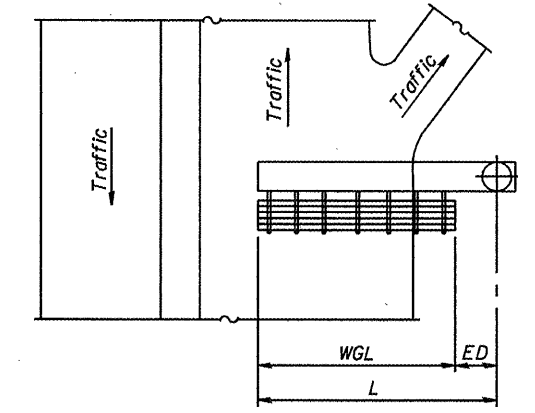
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

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

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
Various	D-6 OVD SIN STR REPL II-II	Logan/Sangamon	29	17
				CONTRACT NO. 46134
ILLINOIS FED. AID PROJECT				

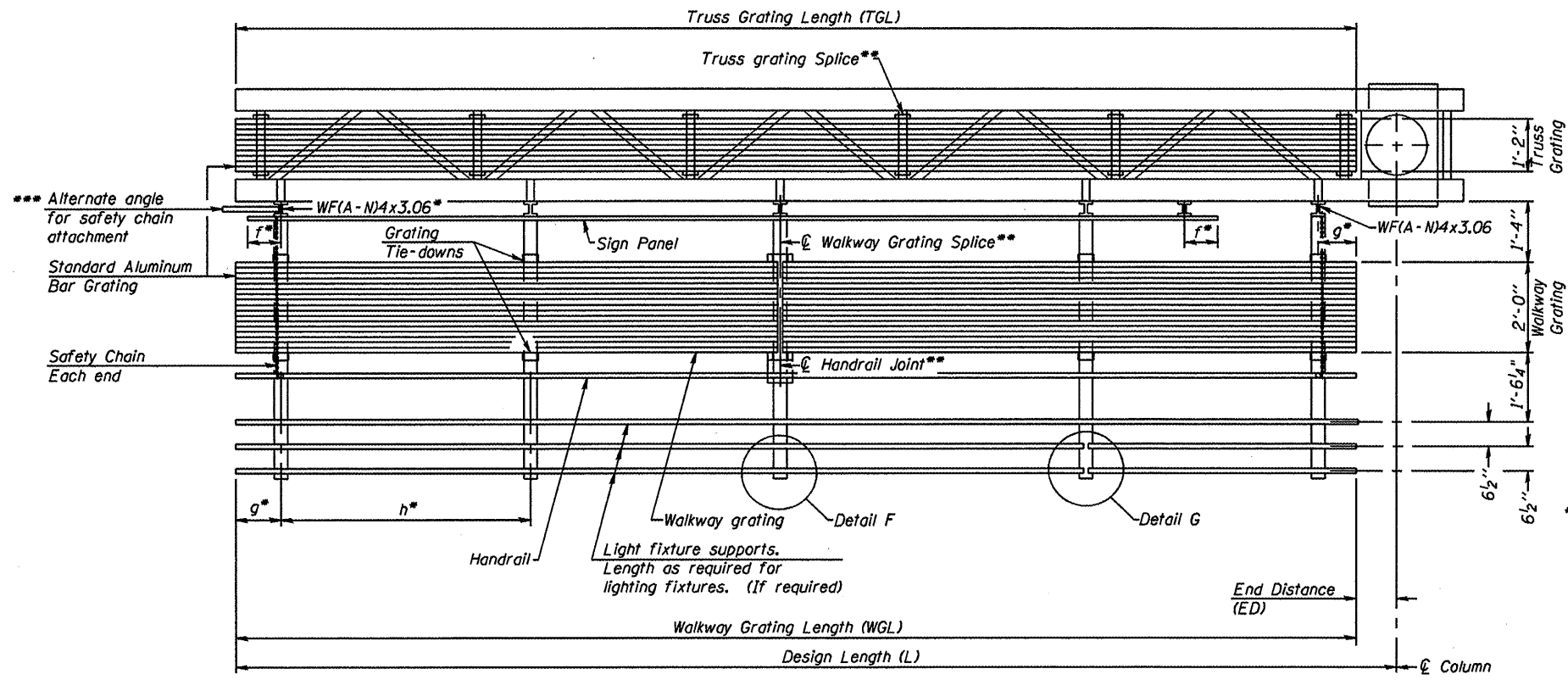


**TYPICAL FRONT ELEVATION**  
With lights and handrail omitted for clarity.



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

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



**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.

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

Structure Number	Station	WGL	ED	TGL
6C0841072R103.0	52 + 50	17'-0"		17'-0"
6C0841055R101.8	498 + 00	17'-0"		17'-0"

**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**

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

OSC-A-6

7-1-10

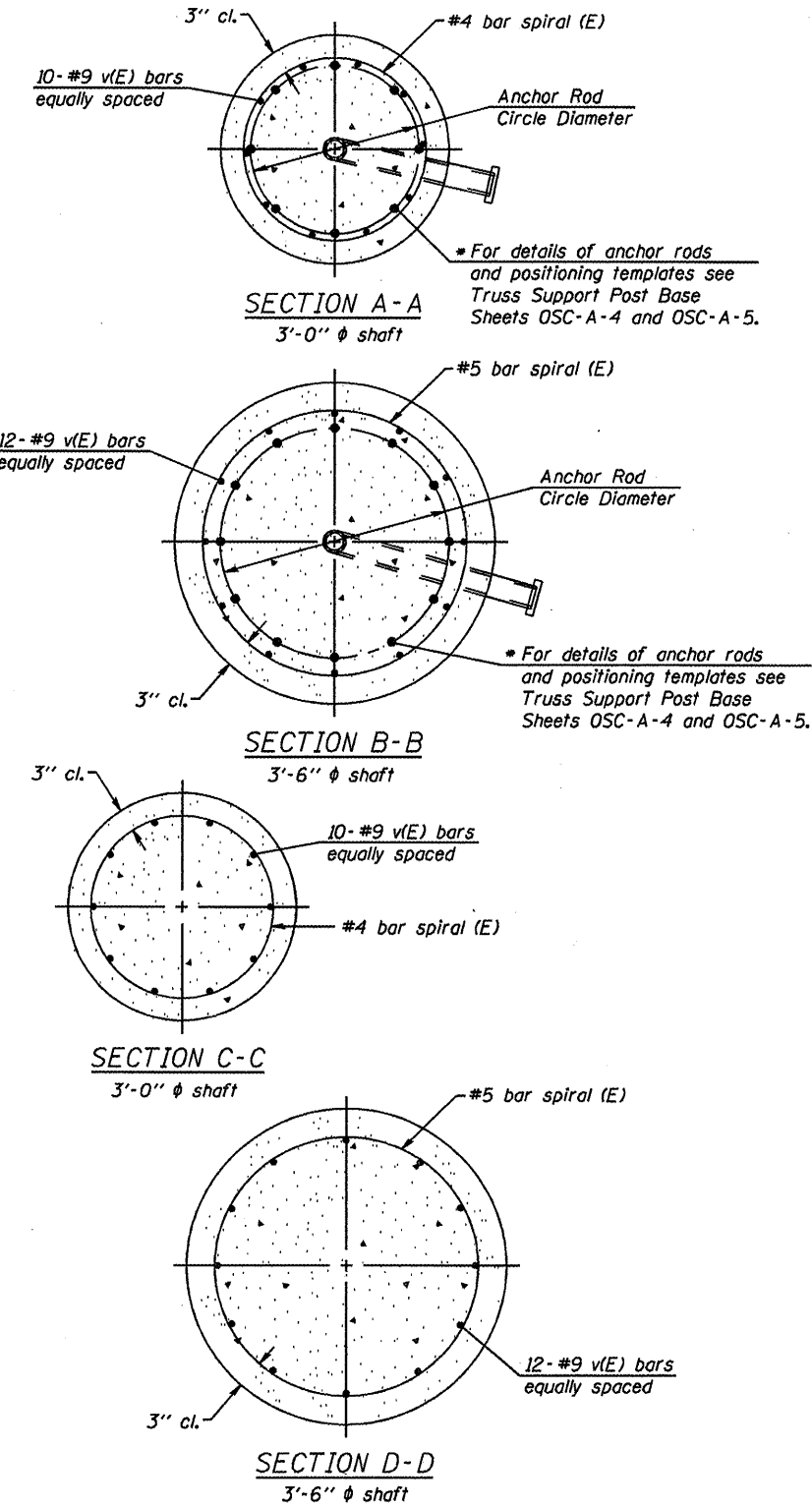
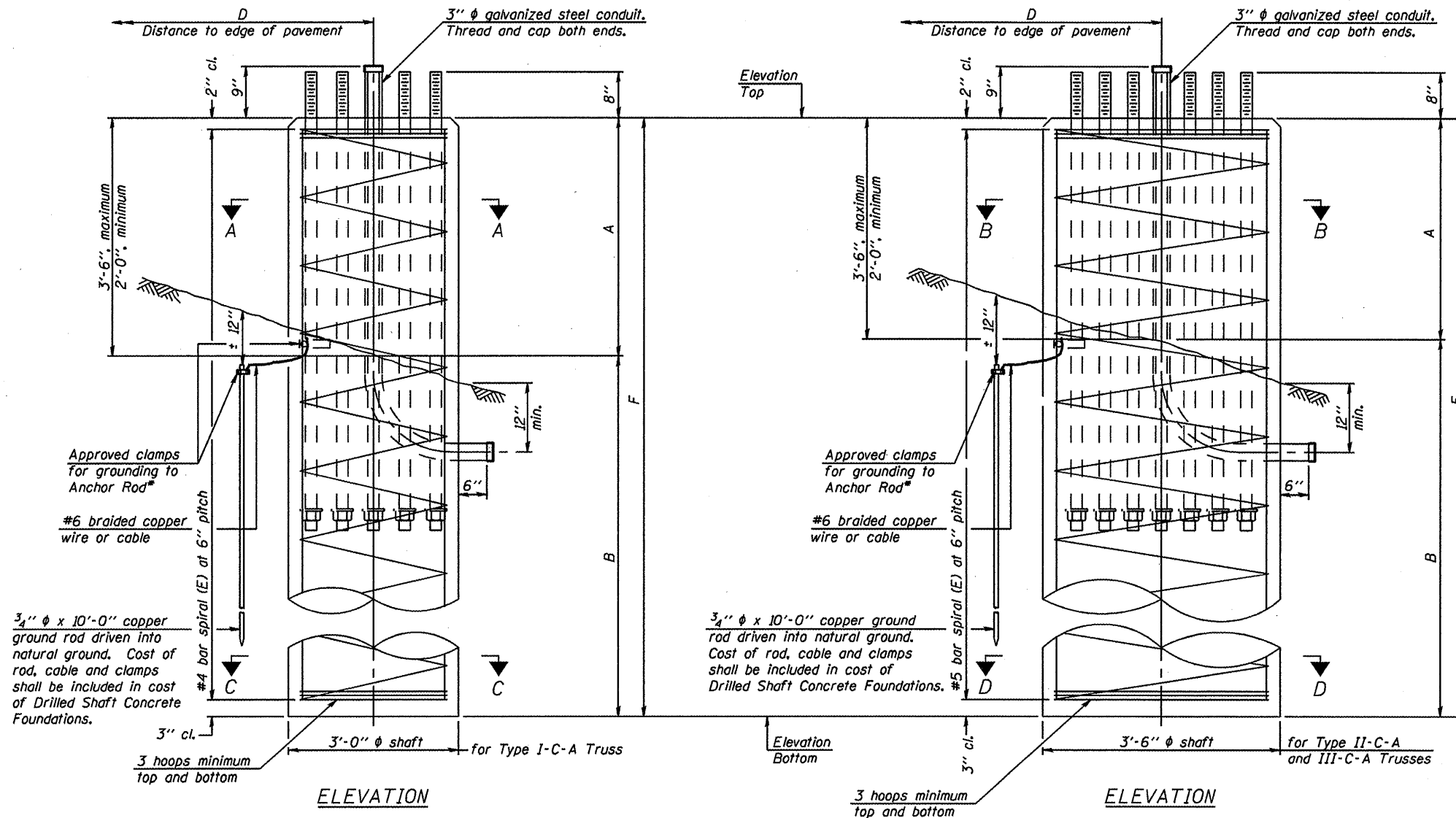
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		DRAWN -	REVISD -
		CHECKED -	REVISD -

**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

**CANTILEVER SIGN STRUCTURES - ALUMINUM WALKWAY**  
**DETAILS - ALUMINUM TRUSS & STEEL POST**

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
Various	D-6 OVD SIN STR REPL 11-11	Logan & Sangamon	29	18
CONTRACT NO. 46134				
ILLINOIS FED. AID PROJECT				

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



**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 ( $Q_u$ ) 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	$Q_u$	A	B	F	Class DS Concrete Cubic Yards
6C0841072R103.0	52 + 50	II-C-A	3'-6"	98.5	N/A		3'-6"	17'-0"	20'-6"	7.3
6C0841055R101.8	498 + 00	II-C-A	3'-6"	99.5	N/A		3'-0"	19'-0"	22'-0"	7.8
Elevations were taken from existing sign structure details.										

OSC-A-9

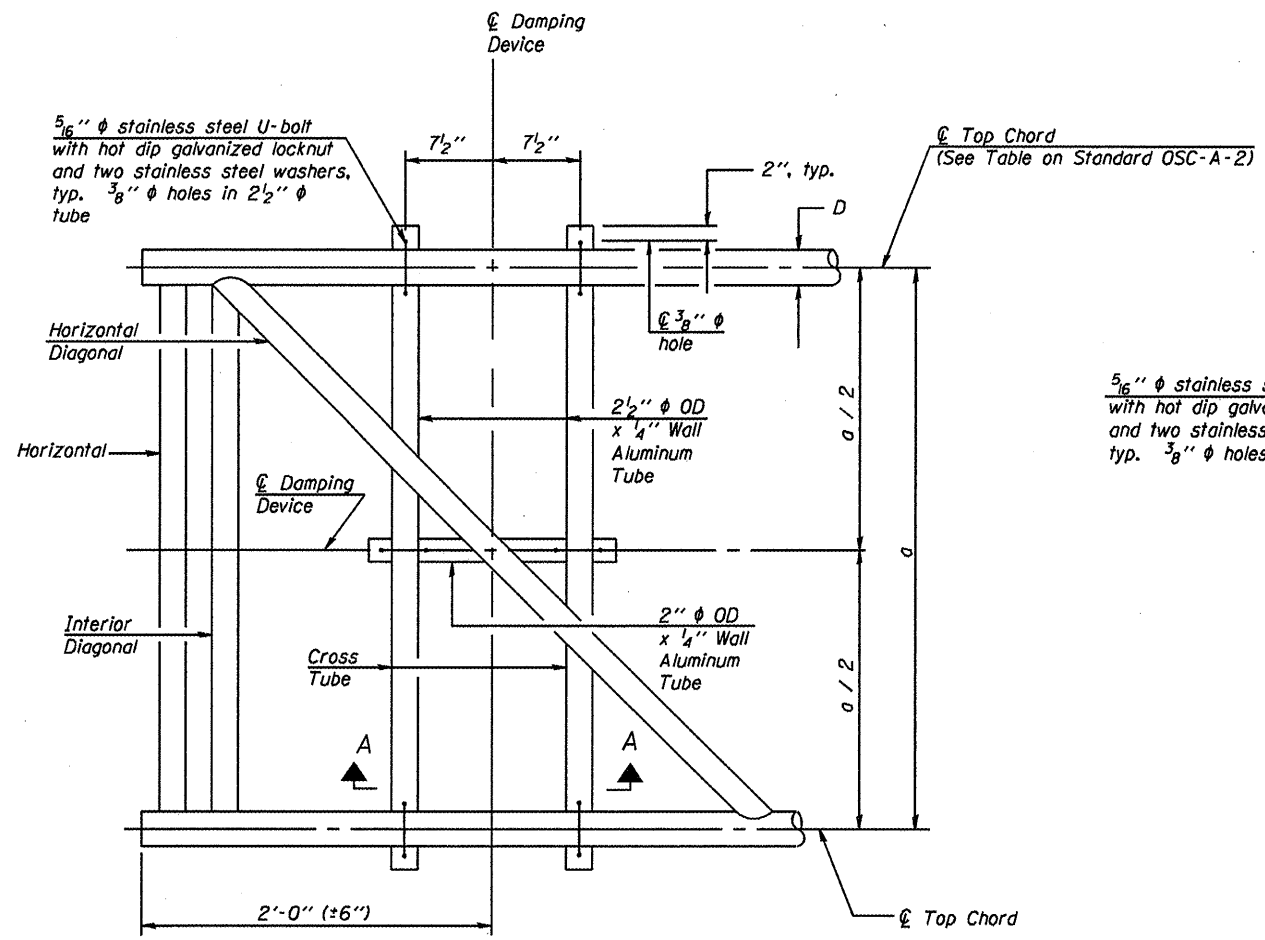
7-1-10

FILE NAME	USER NAME	DESIGNED	REVISIONS
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		---	---
		---	---
		---	---

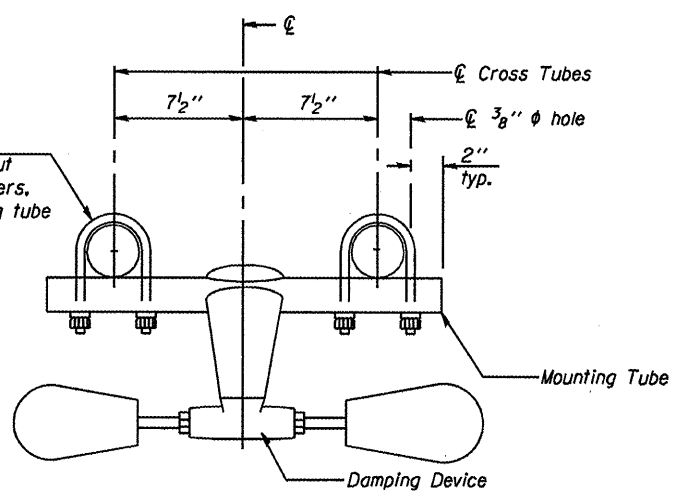
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

CANTILEVER SIGN STRUCTURES - DRILLED SHAFT  
ALUMINUM TRUSS & STEEL POST

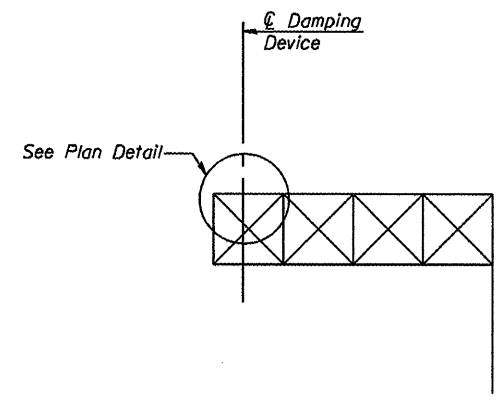
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
Various D-6 OVD SIN STR REPL II-II	Logans/Sangamon		29	19
CONTRACT NO. 46134				
ILLINOIS FED. AID PROJECT				



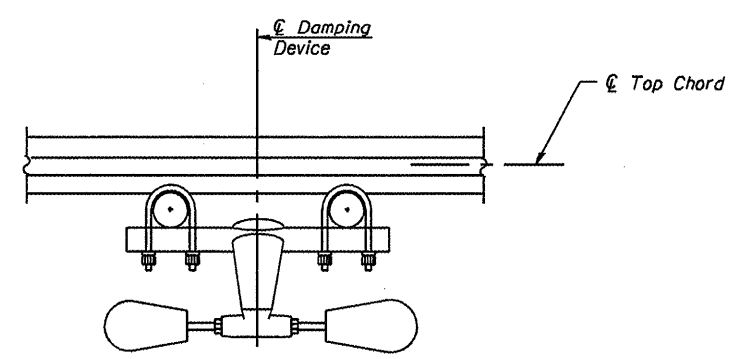
PLAN DETAIL



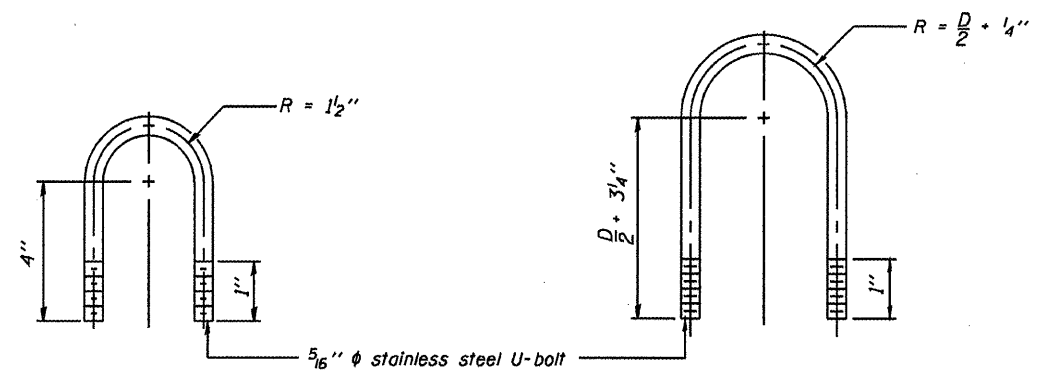
TRUSS DAMPING DEVICE CONNECTION DETAIL



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

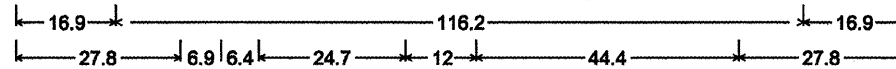
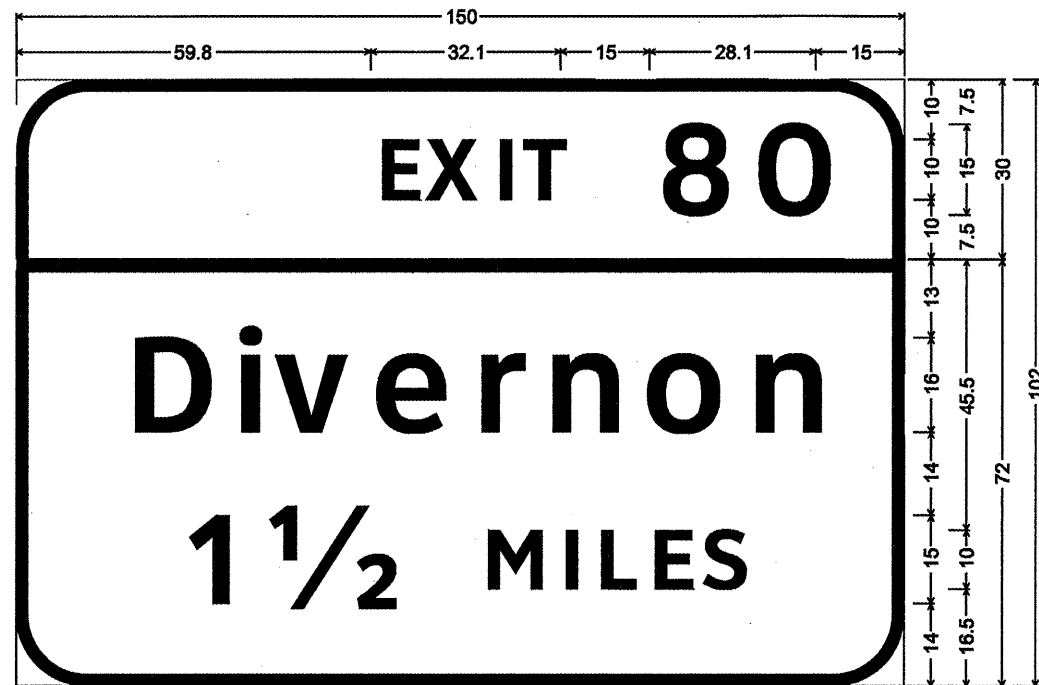
7-1-10

FILE NAME *	USER NAME *	DESIGNED -	REVISD -
		CHECKED -	REVISD -
PLOT SCALE *		DRAWN -	REVISD -
PLOT DATE *		CHECKED -	REVISD -

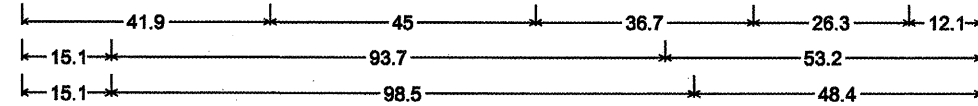
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

CANTILEVER SIGN STRUCTURE  
DAMPING DEVICE

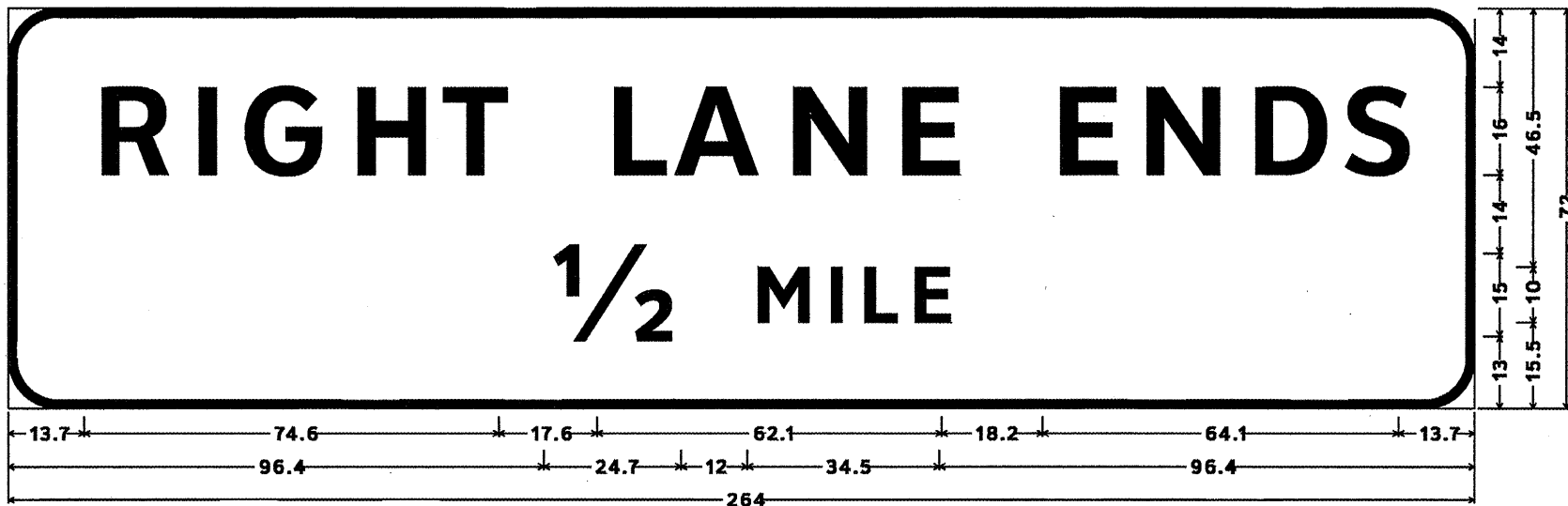
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
Various	D-6 OVD SIN STR REPL II-II	Logan/Sangamon	29	20
CONTRACT NO. 46134				
ILLINOIS FED. AID PROJECT				



12.0" Radius, 2.0" Border, White on Green;  
 [EXIT 80] ClearviewHwy-5-W;  
 12.0" Radius, 2.0" Border, White on Green;  
 [Divernon] ClearviewHwy-5-W; [1 1/2 MILES] ClearviewHwy-5-W;



Use type ZZ Sheeting;  
 12.0" Radius, 2.0" Border, White on Green;  
 [EXIT 82] ClearviewHwy-5-W;  
 12.0" Radius, 2.0" Border, White on Green;  
 [Auburn] ClearviewHwy-5-W; [Pawnee] ClearviewHwy-5-W;  
 Standard Arrow Custom 33.4" X 20.3" 45°;



9.0" Radius, 1.5" Border, Black on Yellow;  
 [RIGHT LANE ENDS] ClearviewHwy-5-W; [1/2 MILE] ClearviewHwy-5-W;

STRUCTURE # 6S084I055L082.1

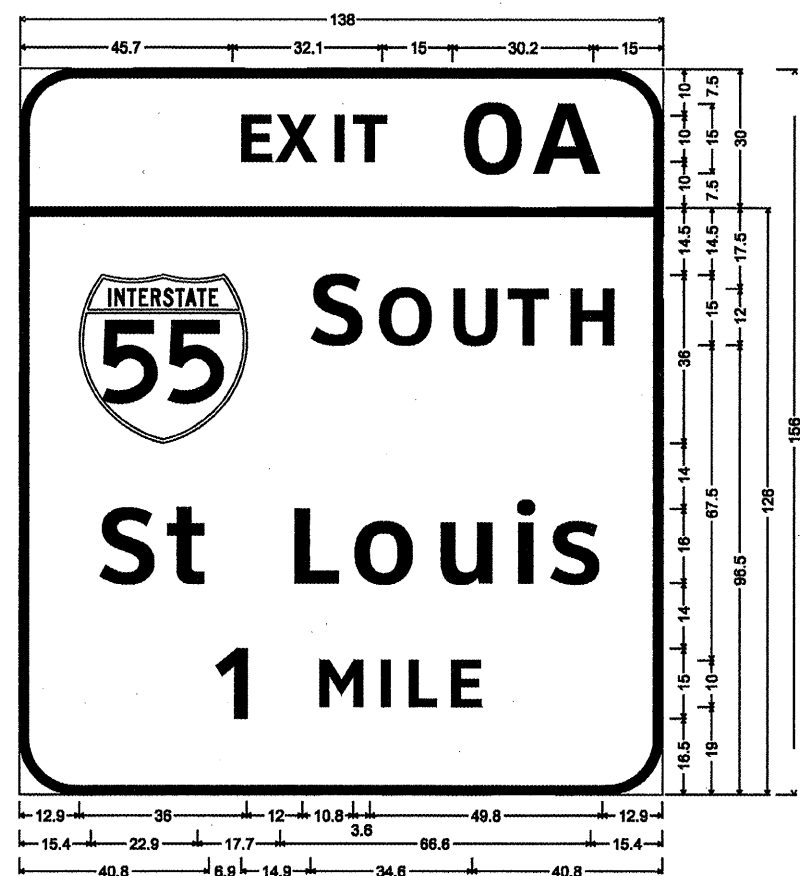
FILE NAME *	USER NAME *	DESIGNED -	REVISED -
		CHECKED -	REVISED -
		DRAWN -	REVISED -
		CHECKED -	REVISED -

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

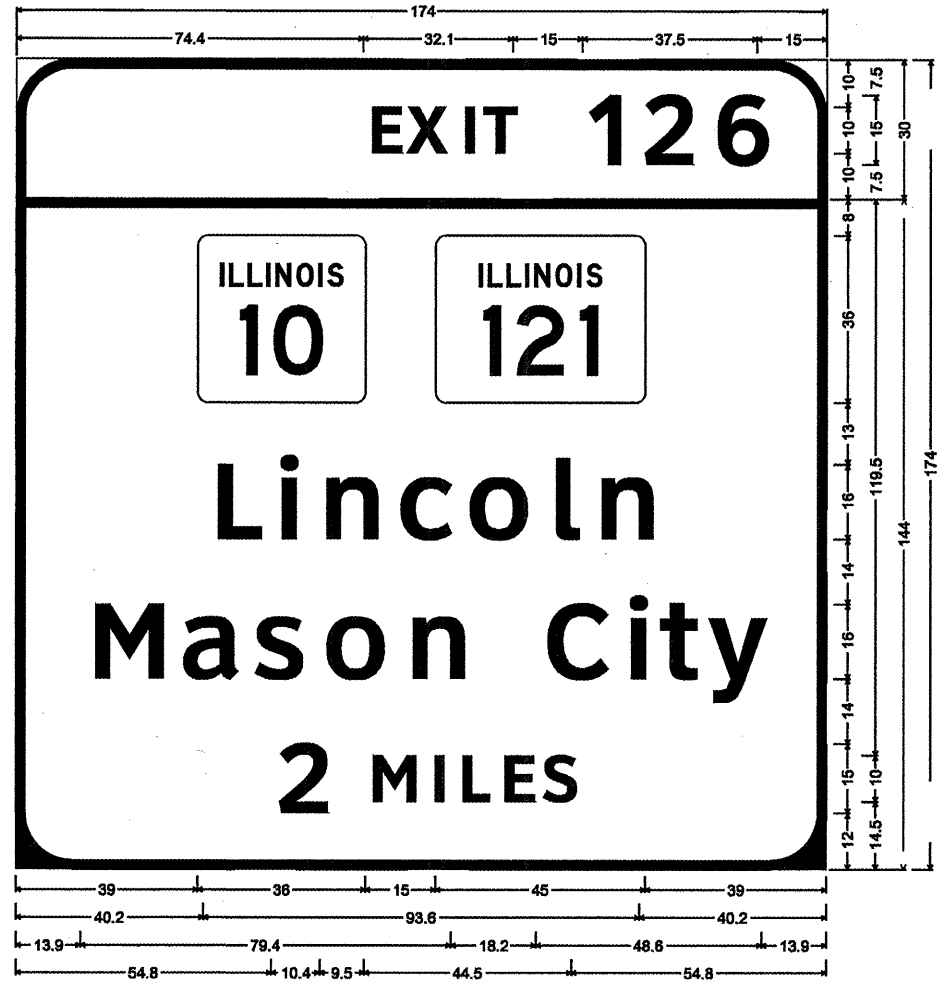
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
Various	D-6 OVD SIN STR REPL II-II	Logan&Sangamon	29	21
				CONTRACT NO. 46134
ILLINOIS FED. AID PROJECT				



12.0" Radius, 2.0" Border, White on Green;  
 Rectangle Yellow, With [LEFT] 12.0" ClearviewHwy-5-W  
 [EXIT] ClearviewHwy-5-W;  
 12.0" Radius, 2.0" Border, White on Green;  
 [0B] ClearviewHwy-5-W;  
 12.0" Radius, 2.0" Border, White on Green;  
 [N ORTH] ClearviewHwy-5-W; [Chicago] ClearviewHwy-5-W;  
 [1 MILE] ClearviewHwy-5-W;



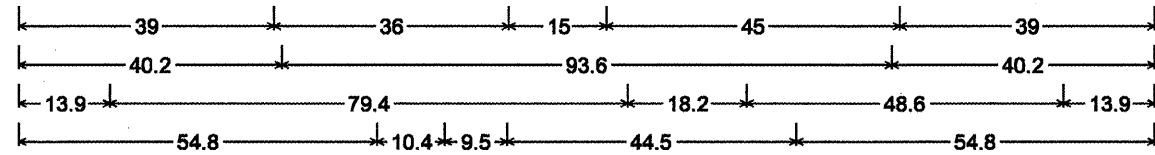
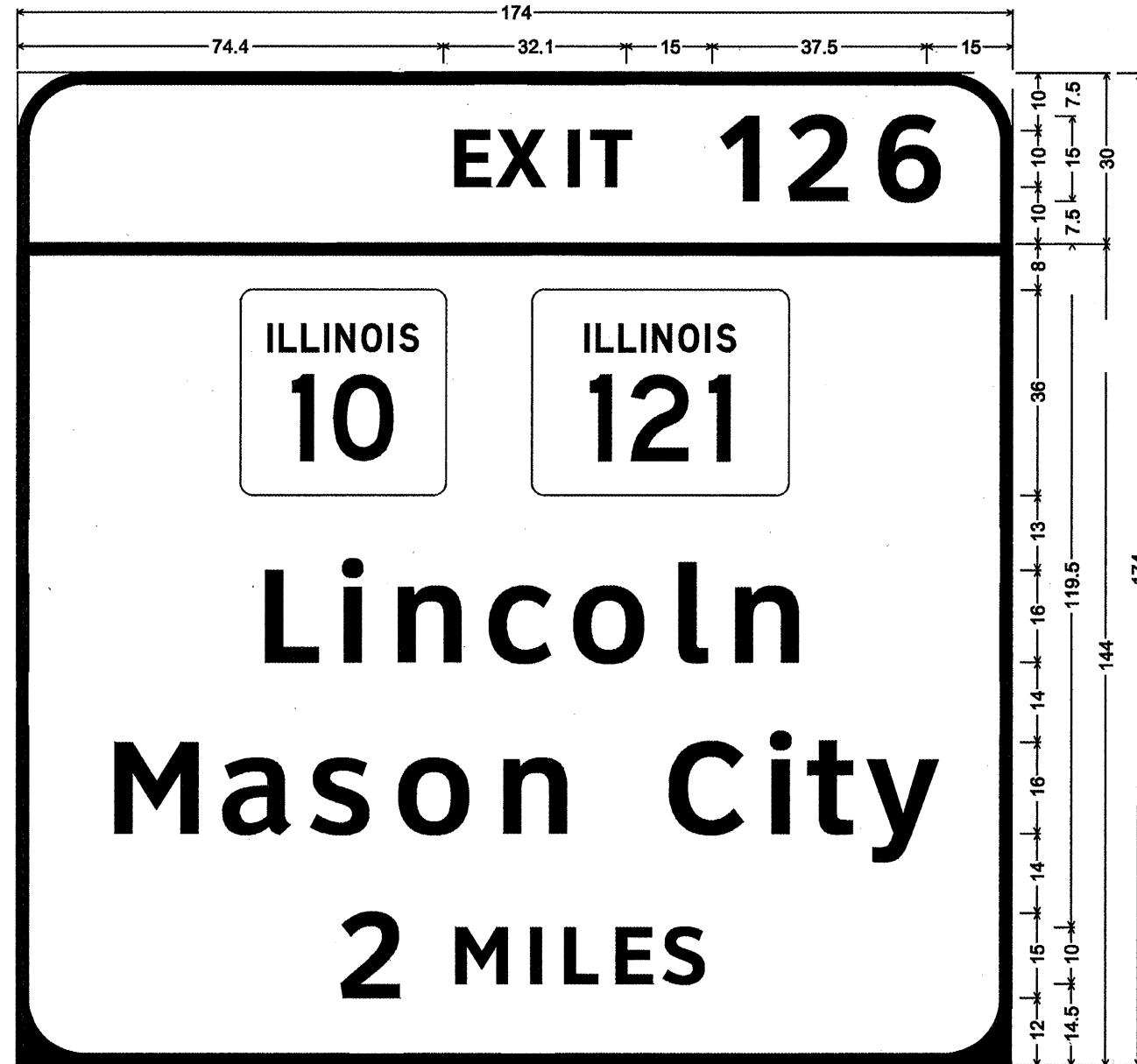
Use type ZZ Sheetling;  
 12.0" Radius, 2.0" Border, White on Green;  
 [EXIT 0A] ClearviewHwy-5-W;  
 12.0" Radius, 2.0" Border, White on Green;  
 [SOUTH] ClearviewHwy-5-W; [St Louis] ClearviewHwy-5-W;  
 [1 MILE] ClearviewHwy-5-W;



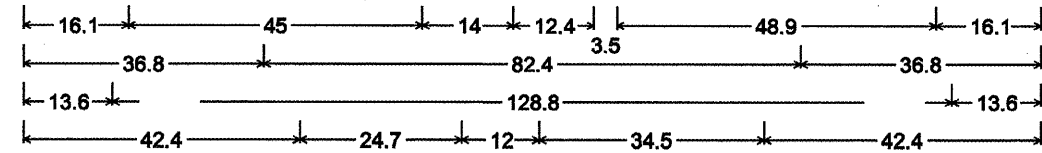
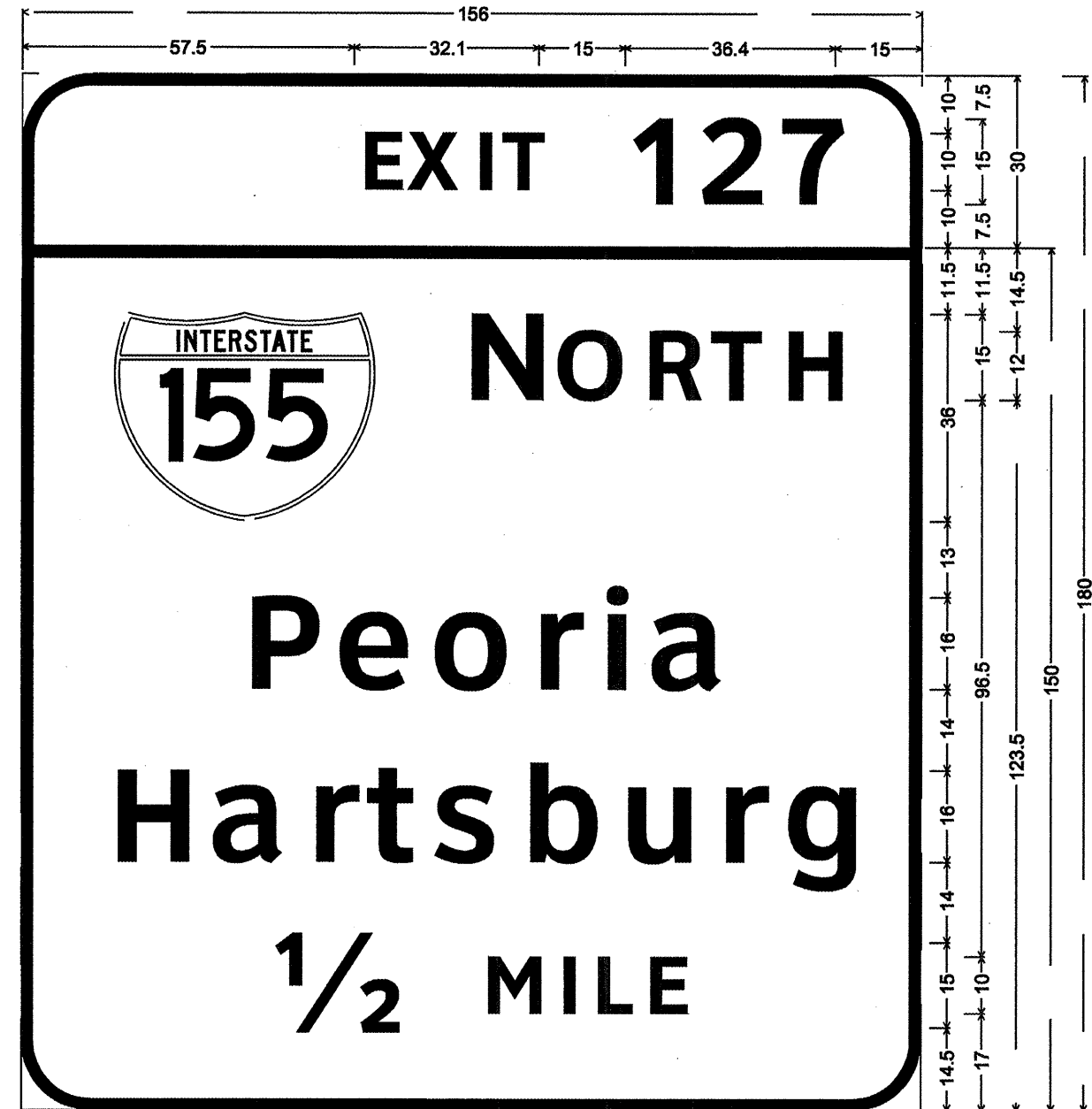
IL 10 and IL 121 signs shall have no border;  
 12.0" Radius, 2.0" Border, White on Green;  
 [EXIT 126] ClearviewHwy-5-W;  
 12.0" Radius, 2.0" Border, White on Green;  
 [Lincoln] ClearviewHwy-5-W; [Mason City] ClearviewHwy-5-W; [2 MILES] ClearviewHwy-5-W;

STRUCTURE # 6S 054I155L001.9

FILE NAME *	USER NAME *	DESIGNED - ---	REVISED - ---	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	PLOT SCALE *	CHECKED - ---	REVISED - ---			Various D-6 OVD SIN STR REPL [1-1]	Logan/Sangamon	29	22
PLOT DATE *	DRAWN - ---	REVISED - ---			CONTRACT NO. 46134				
	CHECKED - ---	REVISED - ---			ILLINOIS FED. AID PROJECT				



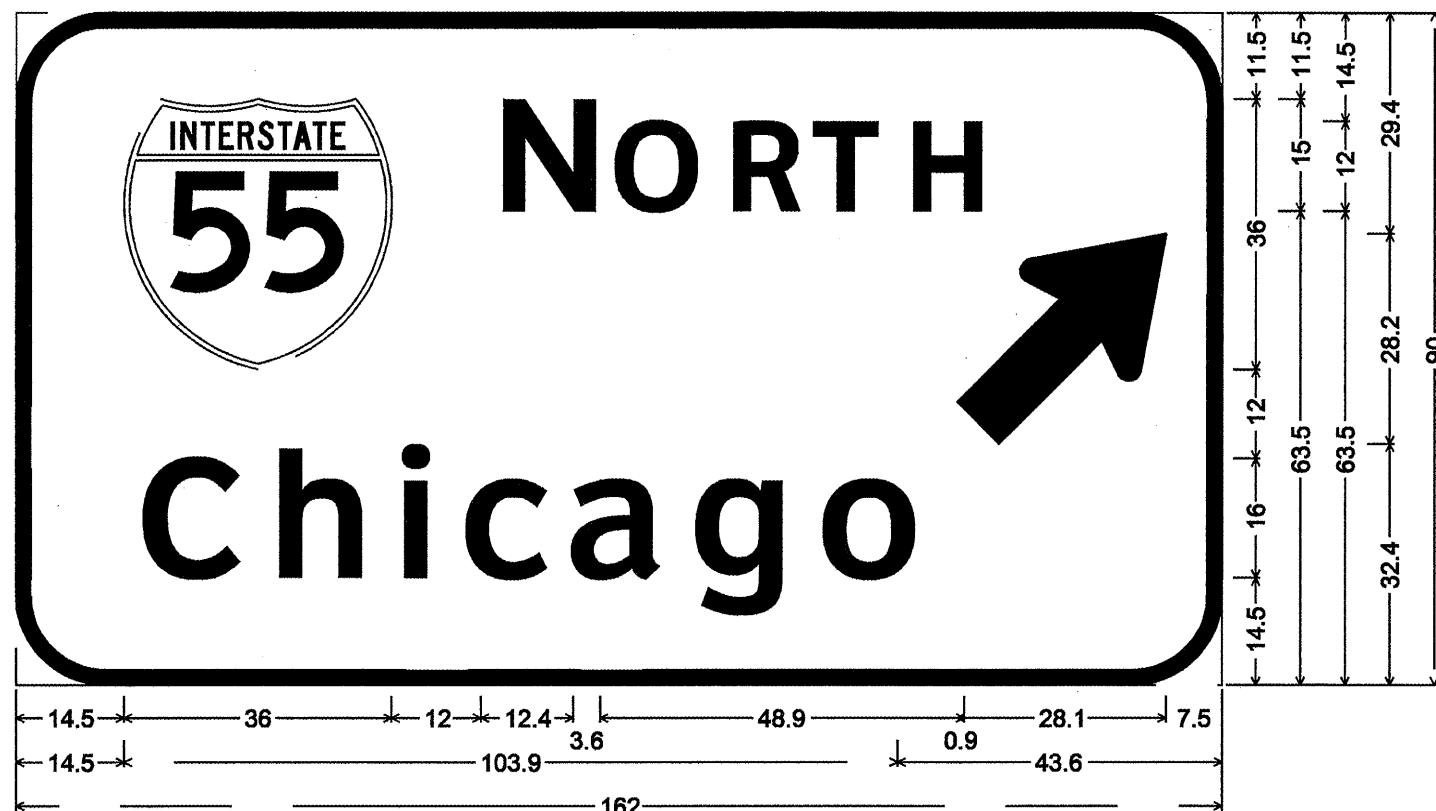
12.0" Radius, 2.0" Border, White on Green;  
 [EXIT 126] ClearviewHwy-5-W;  
 12.0" Radius, 2.0" Border, White on Green;  
 [Lincoln] ClearviewHwy-5-W; [Mason City] ClearviewHwy-5-W; [2 MILES] ClearviewHwy-5-W;



Use type ZZ Sheeting;  
 12.0" Radius, 2.0" Border, White on Green;  
 [EXIT 127] ClearviewHwy-5-W;  
 12.0" Radius, 2.0" Border, White on Green;  
 Interstate 155 16.0" D; [N ORTH] ClearviewHwy-5-W; [Peoria] ClearviewHwy-5-W;  
 [Hartsburg] ClearviewHwy-5-W; [1/2 MILE] ClearviewHwy-5-W;

STRUCTURE # 6S054I055L128.2

FILE NAME *	USER NAME *	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	F.A. RTE--	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		CHECKED -	REVISED -					29	23
	PLOT SCALE *	DRAWN -	REVISED -					Logan/Sangamon	
	PLOT DATE *	CHECKED -	REVISED -					CONTRACT NO. 46134	
					ILLINOIS FED. AID PROJECT				



Use type ZZ Sheeting.;  
 12.0" Radius, 2.0" Border, White on Green;  
 Interstate 55 16.0" D; [N ORTH] ClearviewHwy-5-W; [Chicago] ClearviewHwy-5-W;  
 Standard Arrow Custom 35.8" X 21.6" 45°;

STRUCTURE # 6C084I072R103.0

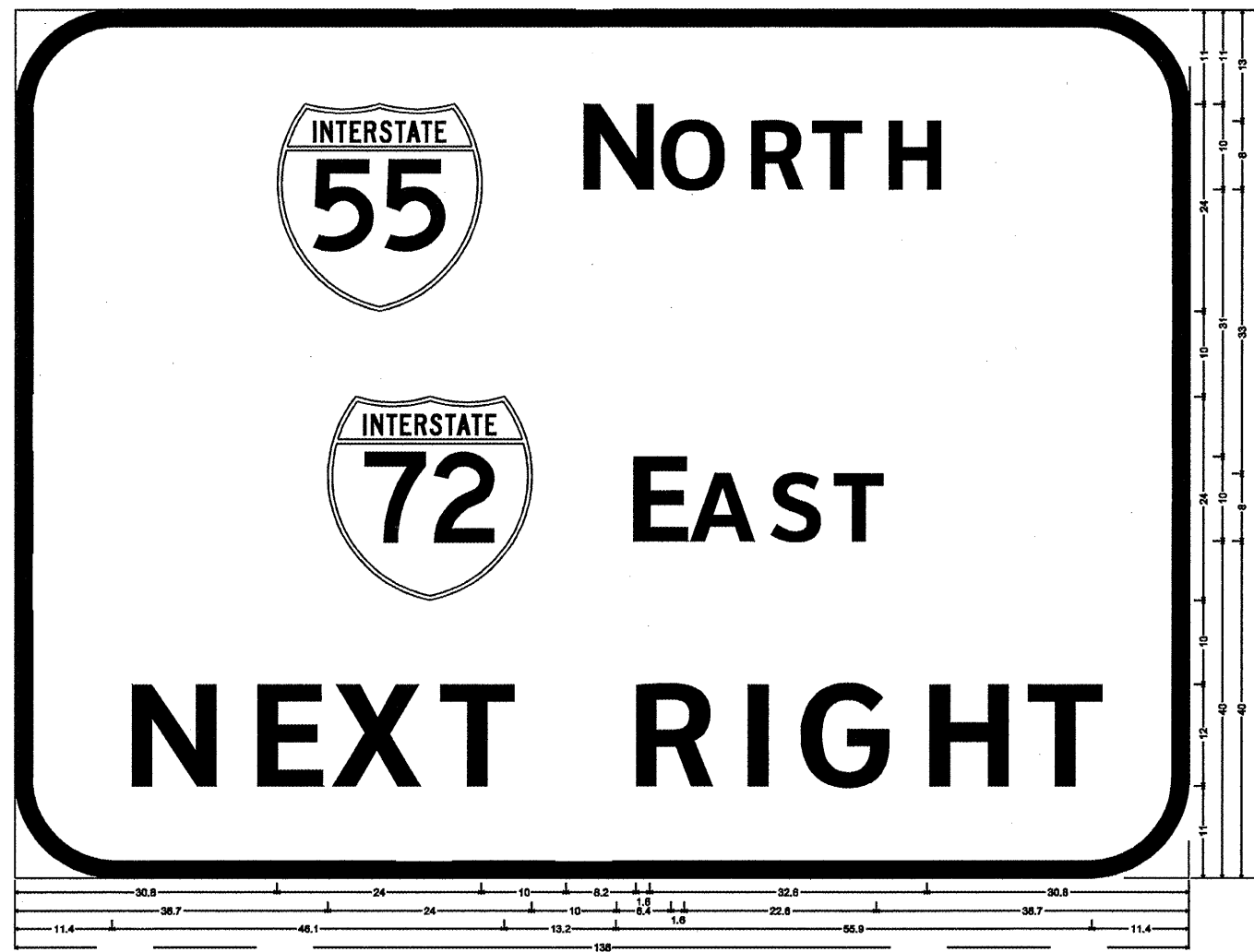


6.0" Radius, 2.0" Border, White on Blue;  
 [REST] ClearviewHwy-5-W; [AREA] ClearviewHwy-5-W; Standard Arrow Custom 35.8" X 21.6" 45°;

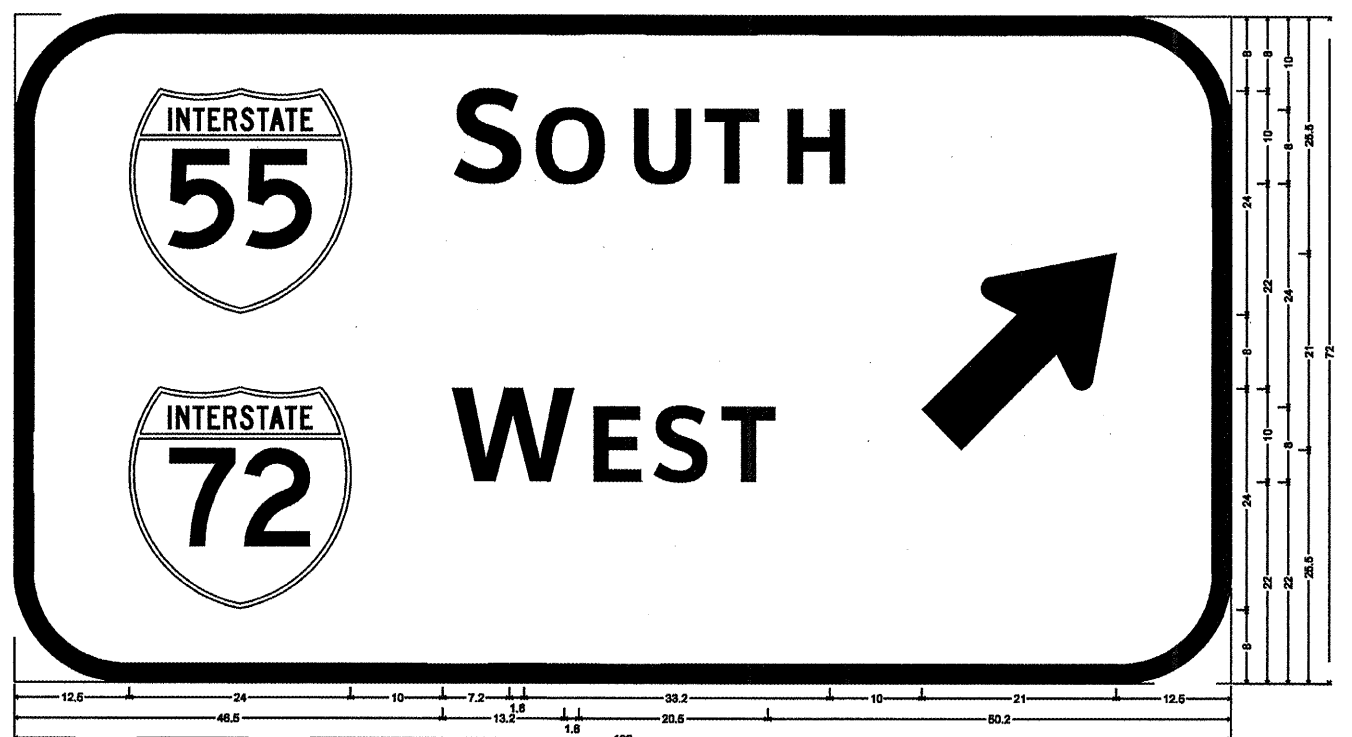
STRUCTURE # 6C084I055R101.8

FILE NAME *	USER NAME *	DESIGNED -	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		CHECKED -	REVISED -		Various	D-6 OVD SIN STR REPL II-II	Logan&Sangamon	29	24
PLOT SCALE *		DRAWN -	REVISED -		CONTRACT NO. 46134				
PLOT DATE *		CHECKED -	REVISED -		[ILLINOIS] FED. AID PROJECT				





12.0" Radius, 2.0" Border, White on Green;  
 Interstate 55 10.7" D; [N ORTH] Clearview Hwy-5-W; Interstate 72 10.7" D; [E EAST] Clearview Hwy-5-W; [NEXT RIGHT] Clearview Hwy-5-W;



12.0" Radius, 2.0" Border, White on Green;  
 Interstate 55 10.7" D; [S OUTH] Clearview Hwy-5-W; Interstate 72 10.7" D; [W EST] Clearview Hwy-5-W; Standard Arrow Custom 28.8" X 18.1" 45°;

STRUCTURE # 6S084S029L011.8

FILE NAME *	USER NAME *	DESIGNED -	REVISD -
		CHECKED -	REVISD -
		DRAWN -	REVISD -
		CHECKED -	REVISD -

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
Various	D-6 OVD SIN STR REPL II-II	Logan/Sangamon	29	25
				CONTRACT NO. 46134
ILLINOIS FED. AID PROJECT				



SOIL BORING LOG

Date 10/13/10

ROUTE FAI 55 DESCRIPTION SB I-55 at Exit 94 (Stevenson Drive) LOGGED BY BJS  
SECTION D6 Overhead Sign Replacement LOCATION SEC. TWP. , RNG. , PM  
COUNTY Sangamon DRILLING METHOD \_\_\_\_\_ HAMMER TYPE \_\_\_\_\_

STRUCT. NO.	DEPT	BULGE	UCS	M O I S T	Surface Water Elev.	ft
STATION	T W S	H S	Qu	T	Stream Bed Elev.	ft
BORING NO.					Groundwater Elev.:	ft
STATION					First Encounter	ft
OFFSET					Upon Completion	ft
GROUND SURFACE ELEV.					After	Hrs. ft
6S0841055L094.7						
183+89						
21.0ft RT						
565.61						

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer, E-Estimated) Abbreviations W.O.H - Sampler Advanced By Weight of Hammer, W.O.P - Advanced by Weight of Pipe, B.S. - Before Seating 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: S:\SOIL\SIGBIT FILES\SIGBIT\ACCT\TRUSS 050541155L001 10 G.P.J. Data Template D6TEMP1.DOT Date Plotted 12/10/10  
Latitude Longitude Datum 114283 Job Number



SOIL BORING LOG

Date 6/21/04

ROUTE I-155 DESCRIPTION I-155 SB Sign Truss LOGGED BY M. Metcalf  
SECTION \_\_\_\_\_ LOCATION W 1/2, SEC. 15, TWP. 20 N, RNG. 3 W, 3 PM  
COUNTY Sangamon DRILLING METHOD HSA HAMMER TYPE 140 # Auto

STRUCT. NO.	DEPT	BULGE	UCS	M O I S T	Surface Water Elev.	ft
STATION	T W S	H S	Qu	T	Stream Bed Elev.	ft
BORING NO.					Groundwater Elev.:	ft
STATION					First Encounter	No Encounter ft
OFFSET					Upon Completion	Dry ft
GROUND SURFACE ELEV.					After	96 Hrs. ft
6S0541155L001.9					N/A	
2 West Side					N/A	
572.8						
569.8						
548.30						
559.80						

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer, E-Estimated) Abbreviations W.O.H - Sampler Advanced By Weight of Hammer, W.O.P - Advanced by Weight of Pipe, B.S. - Before Seating 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: S:\SOIL\SIGBIT FILES\SIGBIT\ACCT\TRUSS 050541155L001 10 G.P.J. Data Template D6TEMP1.DOT Date Plotted 12/10/10  
Latitude 40 Deg 11 S RT 11 Longitude 89 Deg 25 803 W Datum 114283 Job Number



# SOIL BORING LOG

Page 1 of 1  
Date 6/21/04

ROUTE I-155 DESCRIPTION I-155 SB Sign Truss LOGGED BY M. Metcalf

SECTION LOCATION W 1/2, SEC. 15, TWP. 20 N, RNG. 3 W, 3 PM

COUNTY Sangamon DRILLING METHOD HSA HAMMER TYPE 140 # Auto

STRUCT. NO. 6S0541155L001.9  
Station  
BORING NO. 1 East Side  
Station  
Offset  
Ground Surface Elev. 571.4 ft

DEPTH (ft)	BULGE	SHEAR	PENETROMETER	ESTIMATED	DEPTH (ft)	BULGE	SHEAR	PENETROMETER	ESTIMATED
0					0				
1					0				
2					2	3.3			12
3					6		B		
4		2.1			1				
5		B	26		4	5.0			11
6					9		B		
7									
8		0.4	24						
9		B							
10									
11		1.6	23						
12		B							
13									
14		1.3	23						
15		B							
16									
17		1.3	20						
18		B							
19									
20		0.5	21						
21		B							

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer, E-Estimated)  
Abbreviations W.O.H - Sampler Advanced By Weight of Hammer, W.O.P - Advanced by Weight of Pipe, B.S. - Before Seating  
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)



# SOIL BORING LOG

Page 1 of 1  
Date 10-12-2010

ROUTE FAI 55 DESCRIPTION Overhead Sign Structure LOGGED BY BJS

SECTION D6 Overhead Sign Repl LOCATION NB I-55 Rest Area Entrance Ramp at Mile 102+

COUNTY Sangamon STRUCTURE NO. 6C0841055R101.8 (Exist) (Prop.)

BORING NO. 6C0841055R101.8 DRILLING METHOD HSA HAMMER TYPE 140 lb Automatic

Station 498+00  
Offset 34 ft RT of EOP  
Ground Surface Elev. 574.32 (ft.)

Surface Water Elev. n/a (ft.)  
Groundwater Elev. 570.82 (ft.)  
First Encounter 570.82 (ft.)  
Upon Completion 569.82 (ft.)  
After 48 Hrs. 570.82 (ft.)

DEPTH (ft)	BULGE	SHEAR	PENETROMETER	ESTIMATED	DEPTH (ft)	BULGE	SHEAR	PENETROMETER	ESTIMATED
0					0				
1					17.5		1		
2					2				0.86
3					3		B		26.6
4									
5									
6									
7									
8					20		1		
9					0				0.55
10					1		B		23.1
11									
12									
13									
14									
15									
16									
17									
18									
19									
20									
21									

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer).  
The Standard Penetration Test (SPT) N Value is per (AASHTO T206)

BBS 137 (9/05)

FILE NAME *	USER NAME *	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	F.A.R.T.E.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		CHECKED -	REVISED -		Various	D-6 OVD SIN STR REPL II-II	Logan/Sangamon	29	27
PLOT SCALE *		DRAWN -	REVISED -		CONTRACT NO. 46134				
PLOT DATE *		CHECKED -	REVISED -		ILLINOIS FED. AID PROJECT				



# SOIL BORING LOG

ROUTE FAI 72 DESCRIPTION Overhead Sign Structure LOGGED BY BJS

SECTION D6 Overhead Sign Repl LOCATION At Beginning of Ramp Carrying EB Clearlake Ave. to NB I-55

COUNTY Sangamon STRUCTURE NO. 6C0841072R103.0 (Exist) (Prop.)

BORING NO. 6C0841072R103.0 DRILLING METHOD HSA HAMMER TYPE 140 lb Automatic

Station 52+44  
Offset 10 ft RT of EOP  
Ground Surface Elev. 586.76 (ft.)

SOIL DESCRIPTION	(ft.)	(ft.)	/6"	(tsf)	(%)	SOIL DESCRIPTION	(ft.)	(ft.)	/6"	(tsf)	(%)	M O I S T								
												E	D	B	U	M	V	T	L	O
Gravel (2")						Yellow Brown, with Sandy Seams	17.5		1											
Fill: Gray and Yellow Brown, Moist, Silty Clay, with Sand and Gravel									3	1.76	17.5									
		2.5					567.26													
Fill: Yellow Brown mottled Gray, with Seam of Clay, Silty			2			Yellow Brown, Moist Grading to Dry, Silty Loam, with Sand Grading more Sandy with Depth	20		3		15.6									
			3	2.48	21.9				7											
Fill: Yellow Brown mottled Gray and Light Gray, Moist, Clay, Silty, Grading to Silty Clay to Silty Loam			4	2.39	22.6	Seams of Yellow Brown and Reddish Brown, Dry, Silty Loam, Silty Sand, and Silty Clay Loam	22.5		17		14.1									
			5						16											
Fill: Yellow Brown, Moist, Fine Sand, Silty, Trace Gravel		7.5	5			Light Brown/Yellow Brown mottled Brown, Dry, Silty Loam, Sandy	25		8		13.3									
			4		13.9				33											
			5						100/5											
Fill: Gray and Yellow Brown, Dry and Moist, Fine Gravel, Silty over Silty Clay, Trace Brick		10	10			Gray, Dry, Silty Loam, Trace Sand	27.5		100/5		8.4									
			9		10.2	End of Boring @ 27.5 Ft.	559.26													
			3																	
Fill: Reddish Brown, Moist, Wood, with Silty Clay		12.5	1		58.6															
			0						30											
Reddish Brown, Moist, Silty Clay Loam, Trace Sand		15	2		21.2															
			4	1.08					32.5											

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer). The Standard Penetration Test (SPT) N Value is per (AASHTO T206)



# SOIL BORING LOG

ROUTE FAI 55 DESCRIPTION Overhead Sign Structure LOGGED BY BJS

SECTION D6 Overhead Sign Repl LOCATION SB I-55 At Exit 82 (IL 104)

COUNTY Sangamon STRUCTURE NO. 6S0841055L082.1 (Exist) (Prop.)

BORING NO. 6S0841055L082.1 DRILLING METHOD HSA HAMMER TYPE 140 lb Automatic

Station 494+65  
Offset 37 ft RT of EOP  
Ground Surface Elev. 597.93 (ft.)

SOIL DESCRIPTION	(ft.)	(ft.)	/6"	(tsf)	(%)	SOIL DESCRIPTION	(ft.)	(ft.)	/6"	(tsf)	(%)	M O I S T								
												E	D	B	U	M	V	T	L	O
Topsoil (2")						Mottled Light Gray, Trace Gravel														
Yellow Brown, Moist, Silty Clay, Trace Sand																				
Light Gray mottled Yellow Brown, Moist, Clay, with Sand and Thin Clayey Sand Seam			2			Yellow Brown mottled Light Gray, Trace Gravel, with 1" Sand Seam														
			3	1.89	20.3															
			3																	
Sandy, Trace Gravel, Silty			2																	
			6	1.48	25.1	Yellow Brown mottled Light Brown, Moist, Clay Loam, Trace Gravel														
			3																	
Yellow Brown, Sandy, Silty			1																	
			8	1.39	20.7	Mottled Greenish Brown, Trace Gravel, with Very Thin Sand Seam														
			3																	
Yellow Brown, Dry, Clay Loam, Trace Gravel			10	10		End of Boring @ 23.5 Ft.														
			30	4.5+	8.3															
			46																	
Yellow Brown mottled Brown, Dry, Loam, Trace Gravel			12																	
			14																	
			27	4.5+	8.7															
			28																	

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer). The Standard Penetration Test (SPT) N Value is per (AASHTO T206)

FILE NAME *	USER NAME *	DESIGNED - ---	REVISED - ---	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
		CHECKED - ---	REVISED - ---		Various	D-6 OVD SIN STR REPL II-II	Logans/Sangamon	29	28	
		DRAWN - ---	REVISED - ---		CONTRACT NO. 46134					
		CHECKED - ---	REVISED - ---		ILLINOIS FED. AID PROJECT					



# SOIL BORING LOG

Date 10-13-2010

ROUTE IL 29 DESCRIPTION Overhead Sign Structure LOGGED BY BJS

SECTION D6 Overhead Sign Repl LOCATION At Beginning of Ramp Carrying SB IL 29 (South Grand Ave.) to SB I-55

COUNTY Sangamon STRUCTURE NO. 6S084S029L011.8 (Exist) (Prop.)

BORING NO. 6S084S029L011.8 DRILLING METHOD HSA HAMMER TYPE 140 lb Automatic

Station 27+00  
 Offset 42.5 ft RT of EOP  
 Ground Surface Elev. 585.15 (ft.)

Surface Water Elev. n/a (ft.)  
 Groundwater Elev. dry (ft.)  
 First Encounter dry (ft.)  
 Upon Completion dry (ft.)  
 After 30 Hrs. 583.15 (ft.)

SOIL DESCRIPTION	(ft.)	(ft.)	/ft <sup>3</sup>	(tsf)	(%)	SOIL DESCRIPTION	(ft.)	(ft.)	/ft <sup>3</sup>	(tsf)	(%)
Topsoil (6")							14				
Brown, Moist, Silty Clay						With Seam of Clay, Silty Dry at Bottom of Spoon		2			
	2						7	2.69 B		20.3	
							16	13			
											568.15
Yellow Brown mottled Light Gray, Moist, Silty Clay.	4	2				Light Brown, Dry, Silty Clay Loam		15			
		3	1.0 P	26.2			18	34		13.4	
		3						67			
Light Gray mottled Yellow Brown		2									
	6	3	1.29 B	24.6							565.65
		3				Light Brown, Dry, Silty Loam over Light Gray, Dry, Silty Loam, (Shaly)	20	31			
								50/6*		10.6	564.65
Trace Sand		1				End of Boring @ 20.5 Ft.					
		8	3	1.83 B	23.6						
		3					22				
		3									
Trace Sand	10	2									
		3	1.98 B	24.6			24				
		5									
	12										
Yellow Brown mottled Light Gray, with Seams of Clay and Silty Clay Loam. Very Soft 6" Seam		2					26				
		2	1.03 B	26.6							
		4									

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer).  
 The Standard Penetration Test (SPT) N Value is per (AASHTO T206)

BBS 137 (9/05)

FILE NAME *	USER NAME *	DESIGNED -	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		CHECKED -	REVISED -		Various	D-6 OVD SIN STR REPL II-11	Logan/Sangamon	29	29
		PLOT SCALE *	REVISED -		CONTRACT NO. 46134				
		PLOT DATE *	REVISED -		ILLINOIS FED. AID PROJECT				