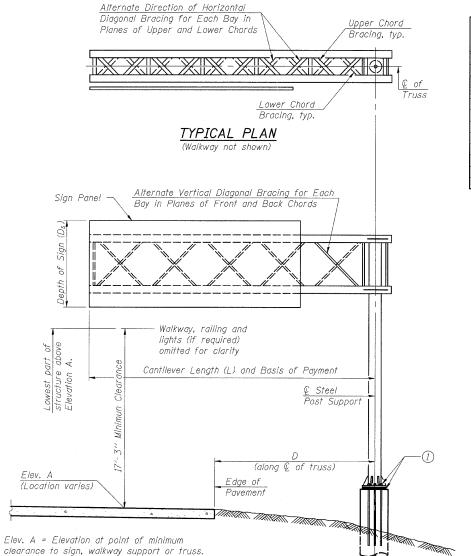


= 3/13/2 = V8.tbl : = TR-Xer LAST SAVED PEN TABLE PLOT DRIVER



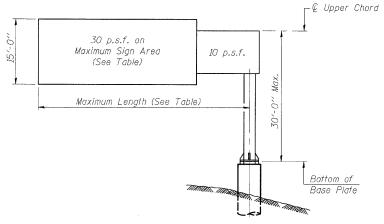
TYPICAL ELEVATION Looking in Direction of Traffic

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.

	\neg	UMBER	REVISIO	N	DATE
DESIGNED KLH					
CHECKED JJD					
DRAWN KLH	-				
CHECKED JJD				· · · · · · · · · · · · · · · · · · ·	
OSC - A - 1	-,, , ,, L				

Structure Number	Station	Design Truss Type	Cantilever Length (L)	Elev. A	Dim. D	D_s	Total Sign Area
8C060I270R002.7	235+35.00	III-C-A	35′-0′′	436.25	16'-0''	9′-6′′	152 sf

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 Sg. 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.

TOTAL BILL OF MATERIAL

ITEM	UNIT	TOTAL
OVERHEAD SIGN STRUCTURE CANTILEVER TYPE I-C-A	Foot	0
OVERHEAD SIGN STRUCTURE CANTILEVER TYPE II-C-A	Foot	0
OVERHEAD SIGN STRUCTURE CANTILEVER TYPE III-C-A	Foot	35
OVERHEAD SIGN STRUCTURE WALKWAY, TYPE A	Foot	23
DRILLED SHAFT CONCRETE FOUNDATIONS	Cu. Yds.	10.7

<u>GENERAL NOTES</u>

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'₆ = 3,500 p.s.i. fy = 60,000 p.s.i. (reinforcement)

ry - 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 Specificiations.

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 M3!4 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.

* 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.

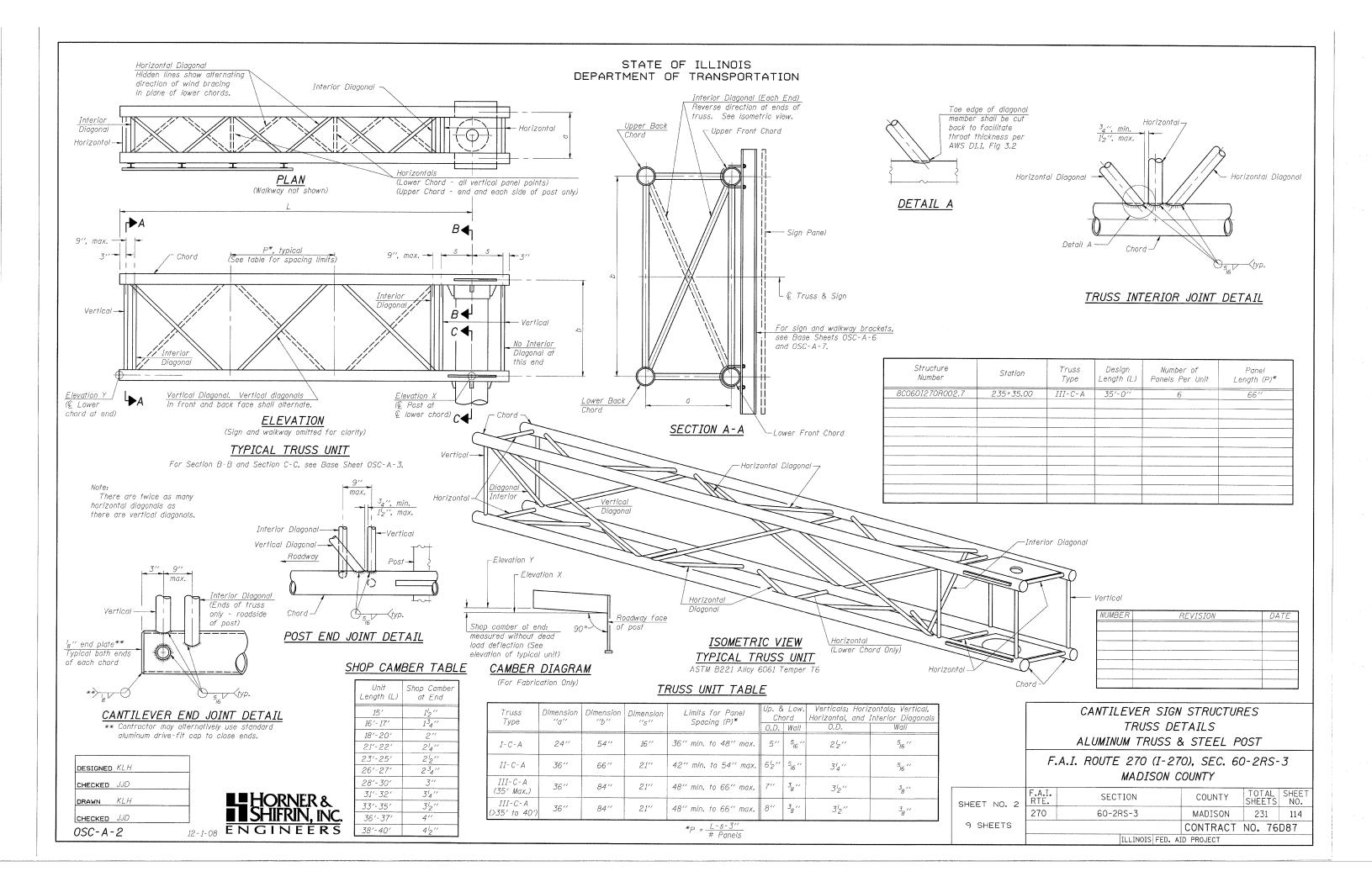
CANTILEVER SIGN STRUCTURES GENERAL PLAN & ELEVATION ALUMINUM TRUSS & STEEL POST

F.A.I. ROUTE 270 (I-270), SEC. 60-2RS-3
MADISON COUNTY



HE	ΕT	NO	•	1
9	SH	EET	S	

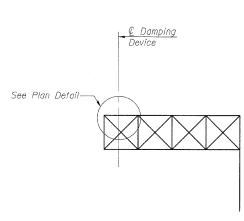
1	F.A.I. RTE.	F.A.I. SECTION		COUNTY	TOTAL SHEETS	SHEET NO.
-	270	60-2RS-3		MADISON	231	113
			С	ONTRACT	NO. 76	D87
		ILLINOIS	FED. AID	PROJECT		



STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION Device ⁵₁₆ " φ stainless steel U-bolt with hot dip galvanized locknut © Top Chord (See Table on Standard OSC-A-2) and two stainless steel washers, typ. $\frac{3}{8}$ " ϕ holes in $2\frac{1}{2}$ " ϕ -@ Cross Tubes Horizontal Diagonal -€ ³8″ ¢ hole 5₁₆'' ¢ stainless steel U-bolt with hot dip galvanized locknut x 4" Wall and two stainless steel washers, Horizontal— Aluminum typ. ${}^{3}_{8}$ " ϕ holes in mounting tube Tube <u>Interior</u> -Mounting Tube x 4'' Wall Diagonal <u>Cross</u> Tube Aluminum rube -Damping Device

DEVICE CONNECTION DETAIL

TRUSS DAMPING



ELEVATION

Aluminum Cantilever Sign Structure

GENERAL NOTES

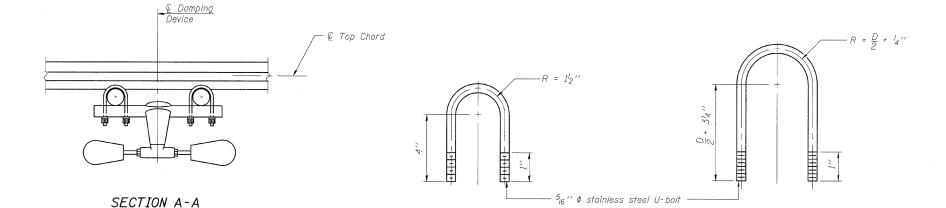
Damper:

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



- € Top Chord

CANTILEVER SIGN STRUCTURE DAMPING DEVICE

F.A.I. ROUTE 270 (I-270), SEC. 60-2RS-3 MADISON COUNTY

SHEET NO. 3 9 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
270	60-2RS-3	MADISON	231	115
		CONTRACT	NO. 76	D87
	ILLINOIS FED. A	ID PROJECT		

DAMPING DEVICE MOUNTING TUBE U-BOLT DETAIL (Typical)

TOP CHORD TO CROSS TUBE U-BOLT DETAIL

(Typical)

LHORNER & SHIFRIN, INC. ENGINEERS

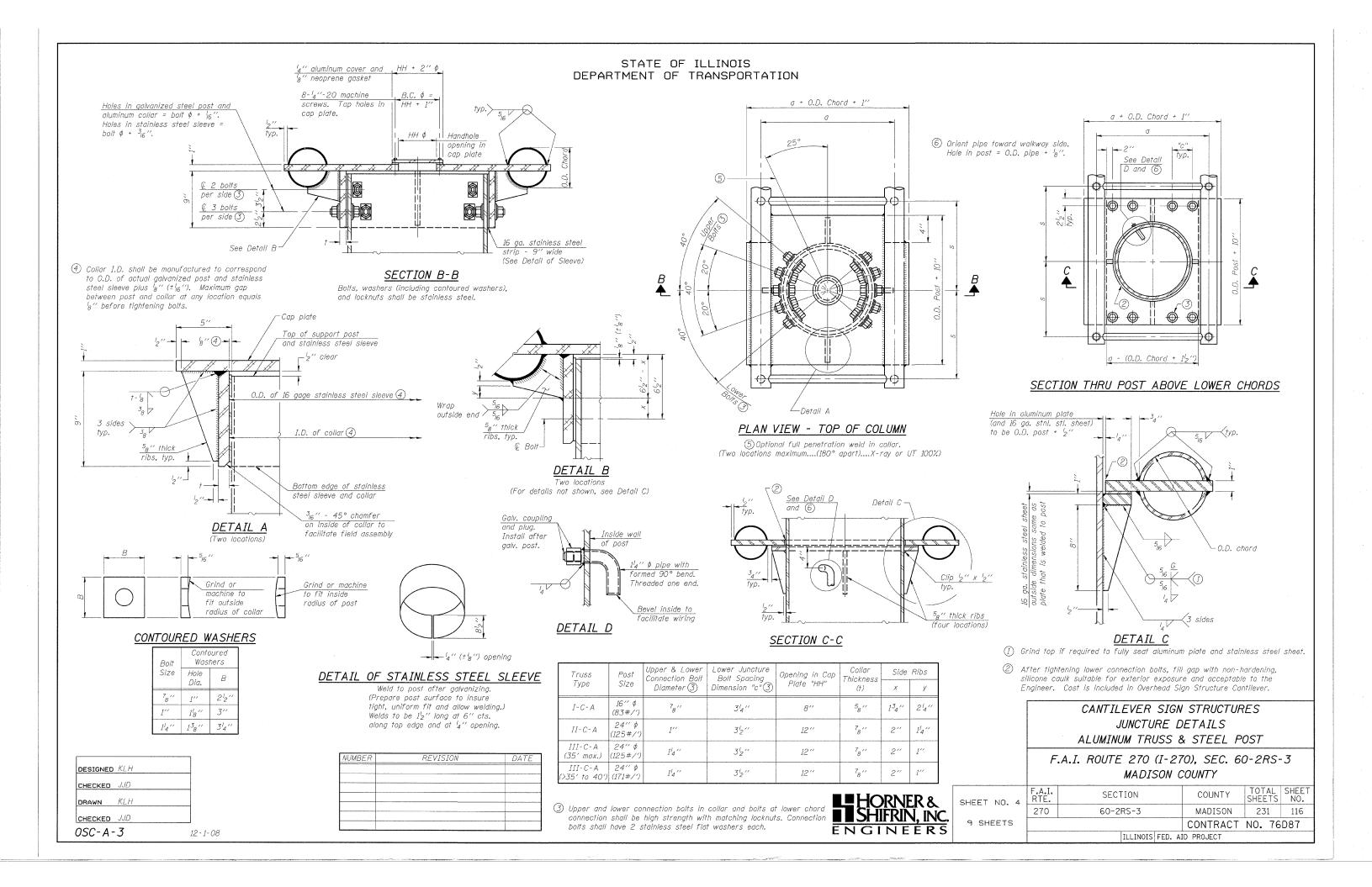
CHECKED JJD DRAWN KLH CHECKED JJD

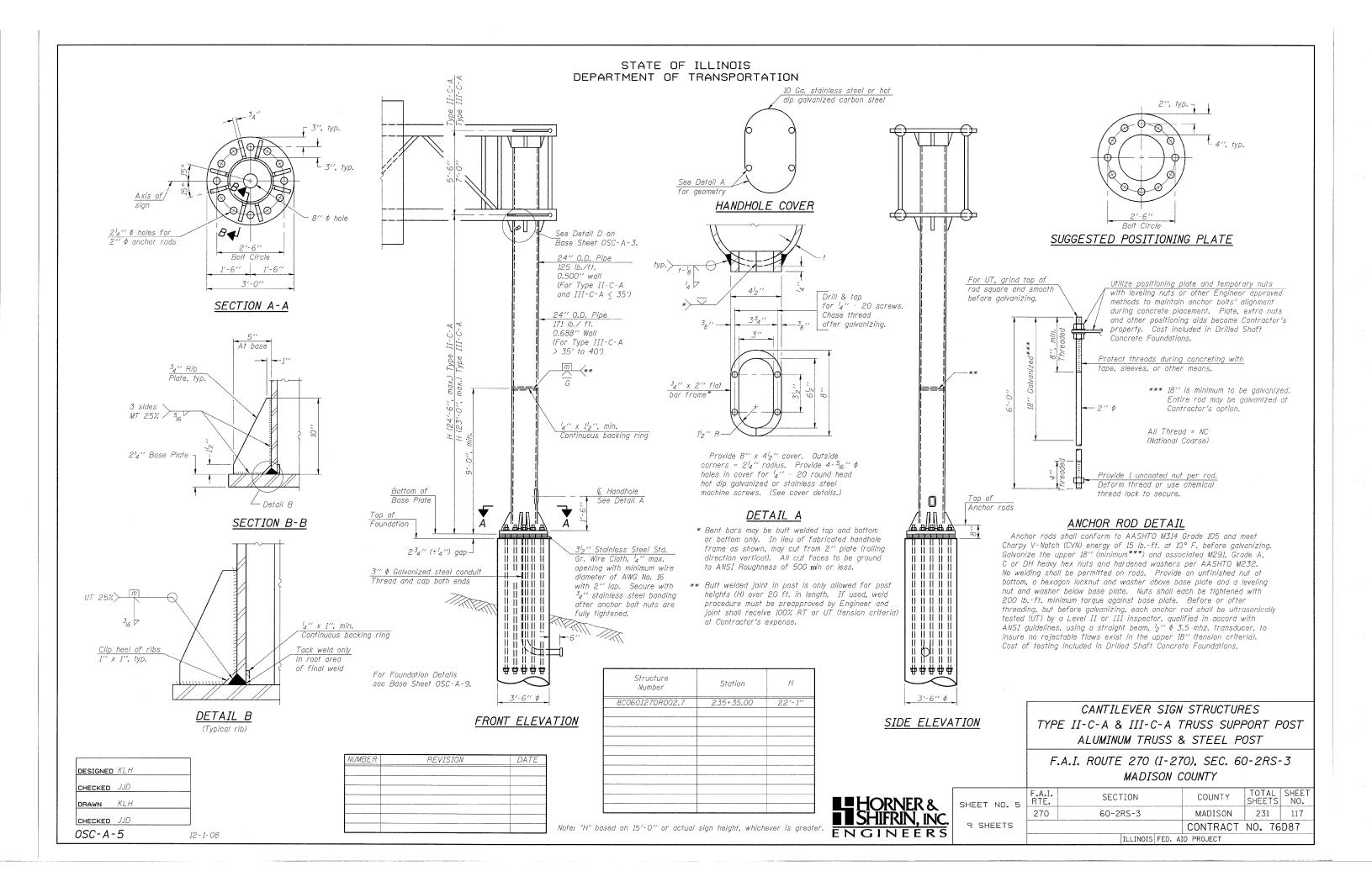
DESIGNED KLH

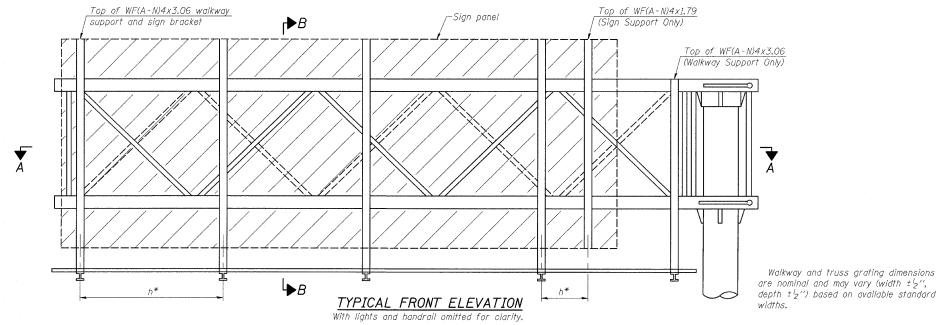
OSC-A-D 12-1-08

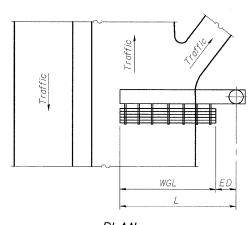
2'-0'' (±6'')

PLAN DETAIL



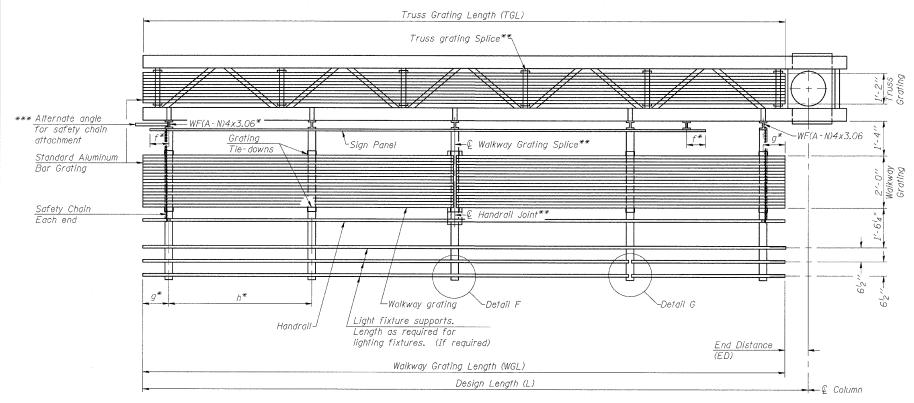






<u>PLAN</u> <u>WALKWAY AND HANDRAIL SKETCH</u>

(Road plan beneath truss varies)



Structure Number	Station	WGL	ED	TGL
8C0601270R002.7	235+35.00	23'-0''	12'-0''	33'-6''
	·			

Intes:

- 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 € of nearest bracket)
- g = 12" maximum, 4" minimum (End of walkway to € of nearest bracket)
- h = 6'-0" maximum (€ to € 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.

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

12 - 1 - 08

DESIGNED KLH

CHECKED JJD

DRAWN KLH

CHECKED JJD

0SC-A-6

<u>SECTION A-A</u>

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.

$$TGL = L - (\frac{Post \ O.D.}{2} + 6")$$

NUMBER	REVISION	DATE



BRACKET TABLE

 WF(A-N)4x3.06

 ASTM B308, Alloy 6061-T6

 Sign Width
 Number

 Greater Than
 Less Than or Equal To

 8'-0"
 2

 8'-0"
 3

 14'-0"
 3

 14'-0"
 4

 20'-0"
 5

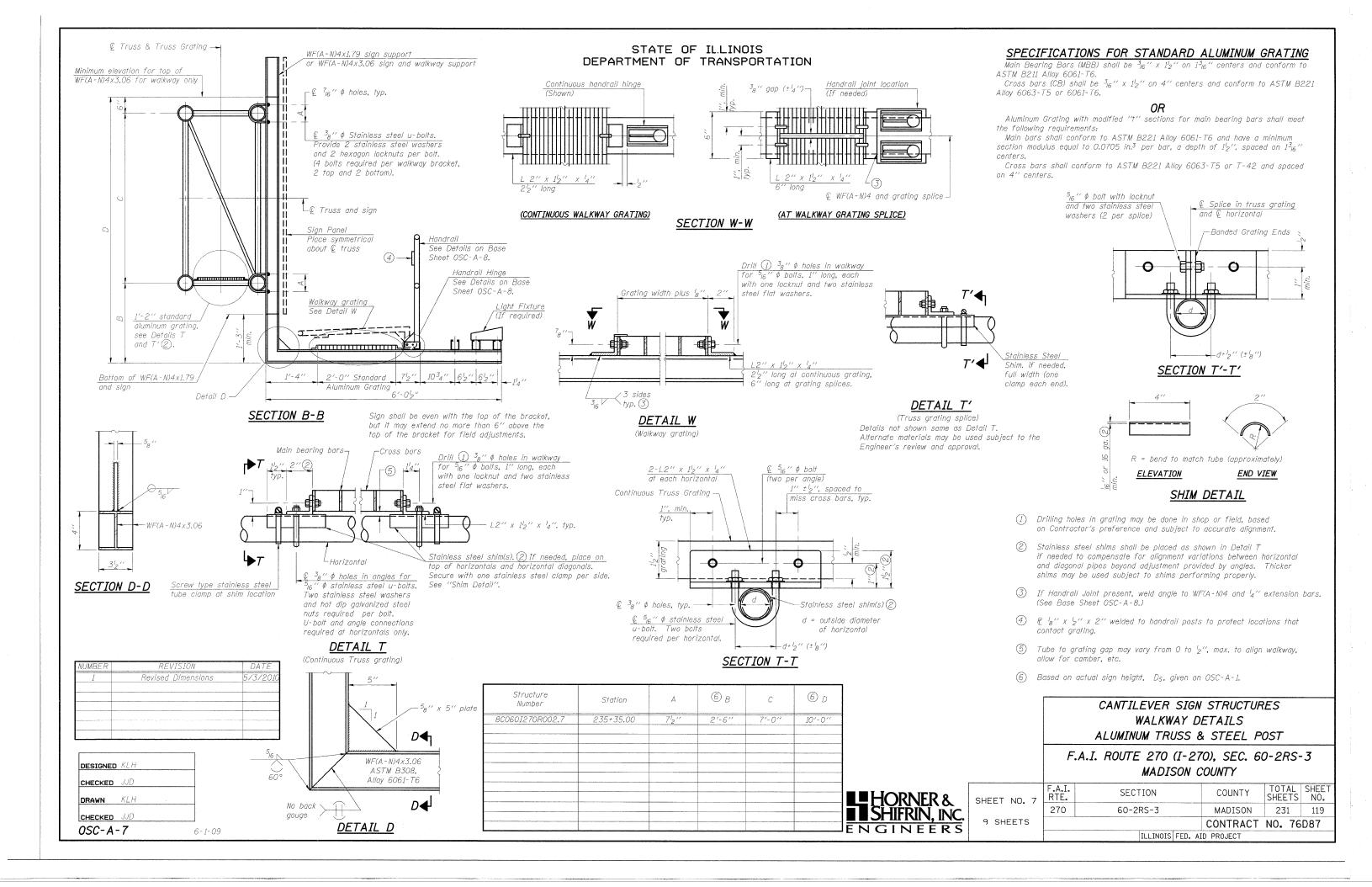
CANTILEVER SIGN STRUCTURES ALUMINUM WALKWAY DETAILS ALUMINUM TRUSS & STEEL POST

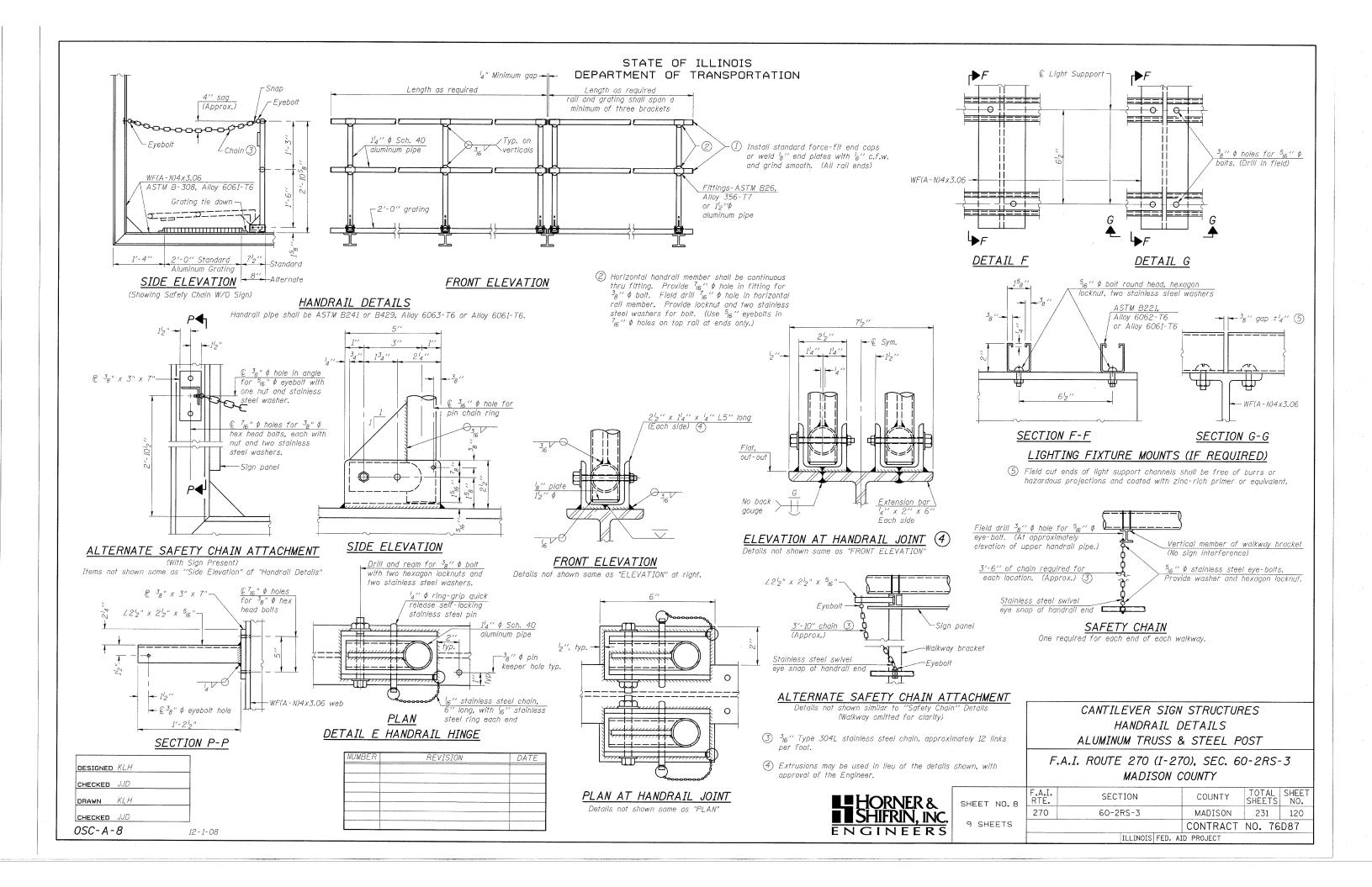
F.A.I. ROUTE 270 (I-270), SEC. 60-2RS-3 MADISON COUNTY

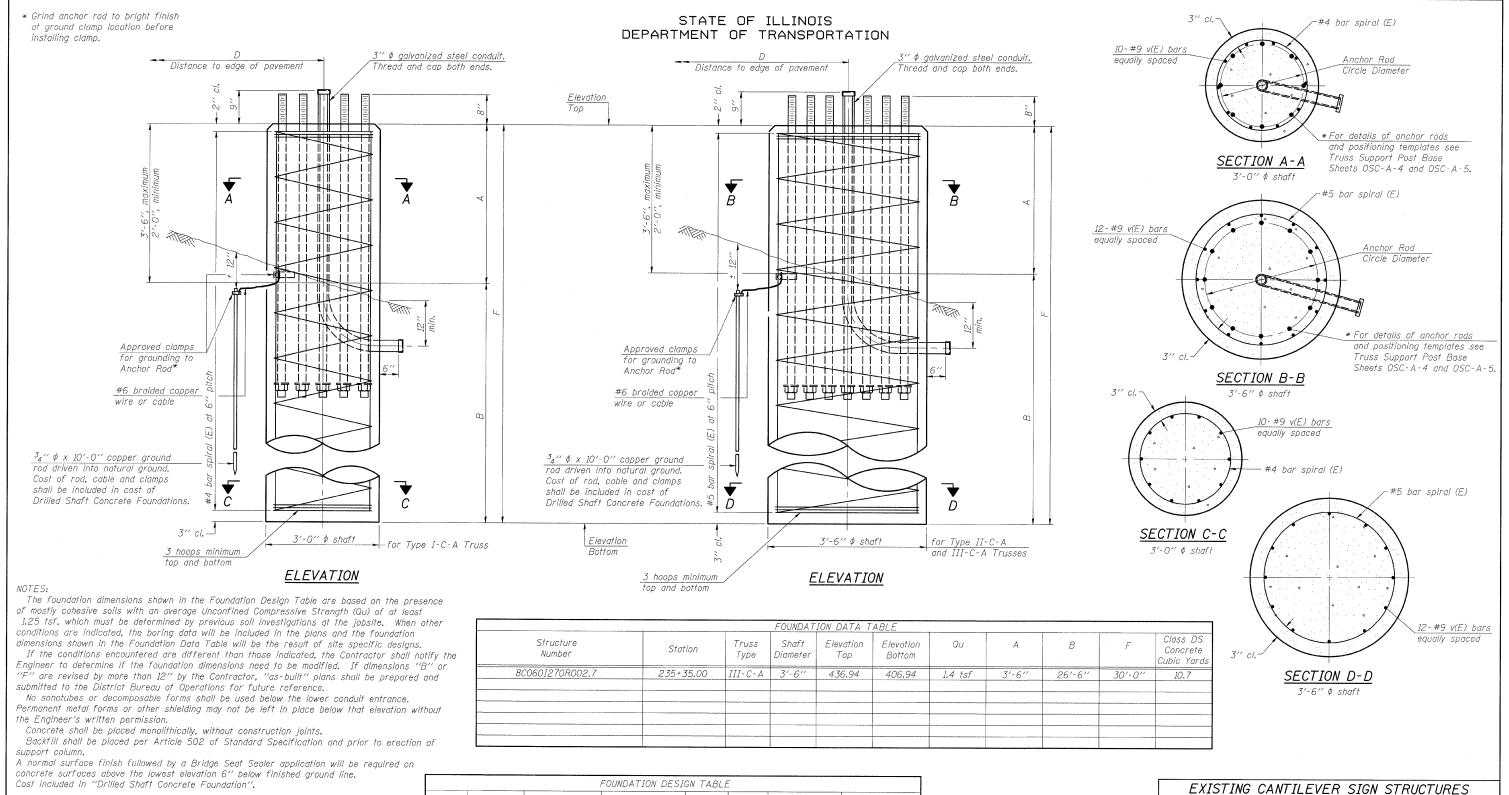
SHEET NO.6

9 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
270	60-2RS-3	MADISON	231	118
		CONTRACT	NO. 76	D87
	ILLINOIS FED.	AID PROJECT		







		NUMBER	REVISION	DATE
DESIGNED	KLH			
CHECKED	JJD			
DRAWN	KLH			
CHECKED	JJD			

12 - 1 - 08

OSC-A-9

Truss Post Base		Maximum	Maximum	Shaft	"B"	Anchor Rods		Anchor Rod
Туре	Sheet	CantileverLength (ft)	Total Sign Area (sq ft)	Diameter (in)	Depth (ft)	No.	Diameter (in)	Circle Diamete (in)
I-C-A	0SC-A-4	25	170	3.0	16.0	8	2	22
II-C-A	0SC-A-5	30	170	3.5	17.0	12	2	30
II-C-A	0SC-A-5	30	340	3.5	21.5	12	2	30
III-C-A	OSC-A-5	<i>3</i> 5	170	3.5	19.0	12	2	30
III-C-A	0SC-A-5	35	250	3.5	22.5	12	2	30
III-C-A	0SC-A-5	<i>3</i> 5	400	3.5	26.5	12	2	30
III-C-A	0SC-A-5	40	400	3.5	32.0	12	2	30

EXISTING CANTILEVER SIGN STRUCTURES

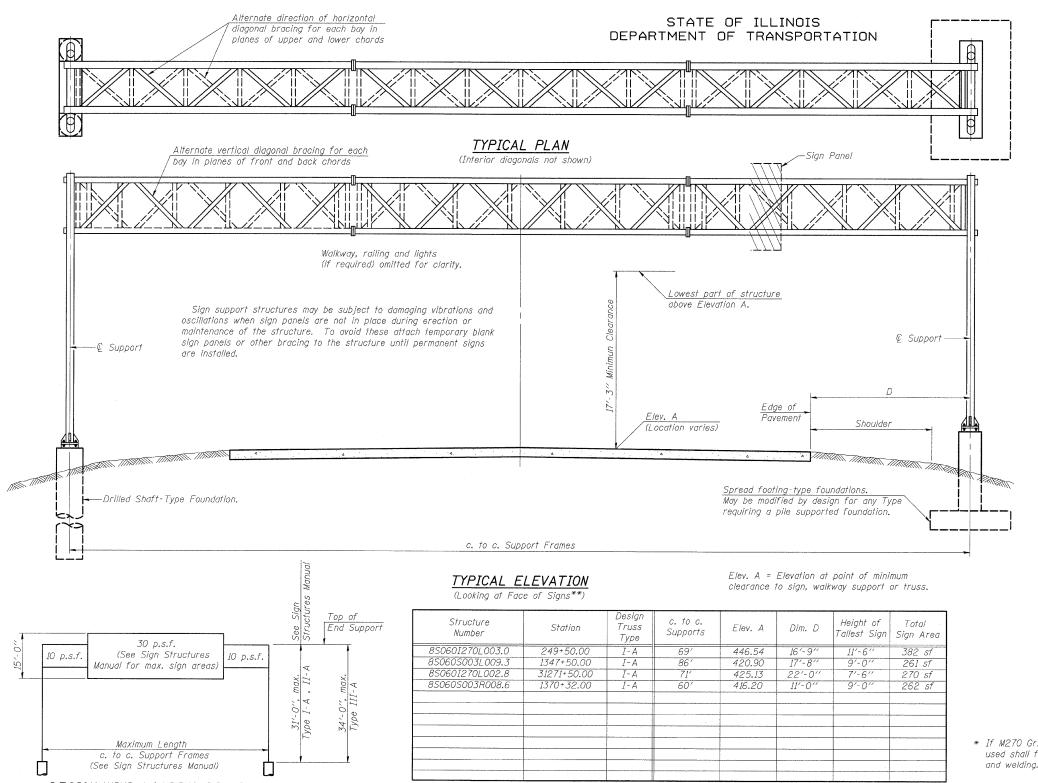
DRILLED SHAFT

ALUMINUM TRUSS & STEEL POST

F.A.I. ROUTE 270 (I-270), SEC. 60-2RS-3
MADISON COUNTY

SHEET NO. 9
NC. 9 SHEETS

3	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	270	60-2RS-3	MADISON	231	121
			CONTRACT	NO. 76	D87
		ILLINOIS FED. A	ID PROJECT		



**Looking upstation for structures with signs both sides.

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.

DESIGNED	KLH	
CHECKED	JJD	
DRAWN	KLH	
CHECKED	JJD	
OS-A-1		12 - 1 - 08

NUMBER	REVISION	DATE
		~

TOTAL BILL OF MATERIAL

ITEM	UNIT	TOTAL
OVERHEAD SIGN STRUCTURE SPAN TYPE I-A	Foot	286
OVERHEAD SIGN STRUCTURE SPAN TYPE II-A	Foot	0
OVERHEAD SIGN STRUCTURE SPAN TYPE III-A	Foot	0
OVERHEAD SIGN STRUCTURE WALKWAY TYPE A	Foot	<i>1</i> 65
CONCRETE FOUNDATIONS	Cu. Yds.	100.0
DRILLED SHAFT CONCRETE FOUNDATIONS	Cu. Yds.	20.9

14 SHEETS

SHEET NO. 1

F.A.I. RTE. TOTAL SHEET SHEETS NO. SECTION COUNTY 270 60-2RS-3 MADISON 231 122 CONTRACT NO. 76D87 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.

Field Units

f'c = 3.500 p.s.i.

fy = 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 Specificiations.

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.

* 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

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

F.A.I. ROUTE 270 (I-270), SEC. 60-2RS-3 MADISON COUNTY

Horizontal (Lower Chord-all panel points) (Upper Chord- each end of each unit only) - Chord See Note(5) Interior Diagonal (One shown - Typ. all panel points) PLAN Li P See Note ③ 7/2"-See Note 4 typical <u>Vertical</u> (Each end of units only) Interior Diagonal ELEVATION TYPICAL INTERIOR UNIT

Even number of panels/interior unit required.

** end plate ** See Note (2) ** See Note (3) ** See Note (6) ** See Note (7) ** See Note (7) ** See Note (8) ** See Note (9) ** See Note (1) *

STATE OF ILLINOIS

DEPARTMENT OF TRANSPORTATION

Detail A Chord

9'', max.
See Note 6 5₁₆ typ.

Toe edge of diagonal member shall be cut back to facilitate throat thickness per AWS D1.1, Fig 3.2

Vert.

Interior Diagonal

Chord

Toe edge of diagonal member shall be cut back to facilitate throat thickness per AWS D1.1, Fig 3.2

TYPICAL JOINT DETAILS

DETAIL A

Horizontal --

1½", max.

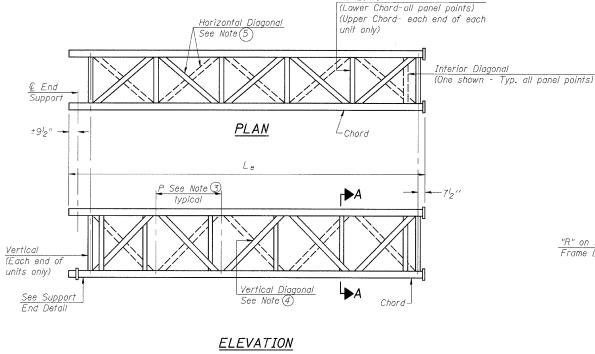
Horizontal

See Note (6)

—Interior Diagonal

Horizontal Diaaonal

SUPPORT END DETAIL FOR EXTERIOR UNIT



<u>ELEVATION</u> <u>TYPICAL EXTERIOR UNIT</u> Even or odd number of panels/exterior units allowed.

DESIGNED KLH

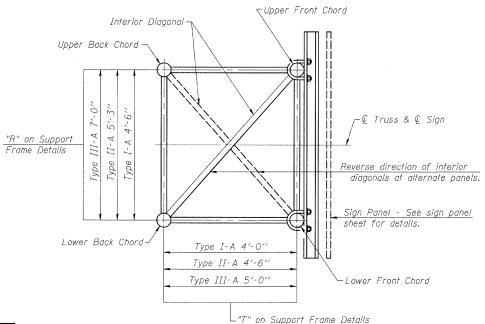
CHECKED JJD

DRAWN KLH

CHECKED JJD

OS-A-2 12-1-08

NUMBER REVISION DATE



SECTION A-A

HORNER & SHIFRIN, INC.

- Contractor may alternatively use standard aluminum drive-fit cap to close end. $l_2^{\prime\prime}$ ϕ drain hole in end plate/drive-fit cap. (Typ. at ends of all chords)
- \bigcirc 5 $^{\prime}2^{\prime\prime}$ end dimension may vary by $\pm 1^{\prime\prime}$ to provide uniform panel spacing (P).
- $\begin{tabular}{ll} \hline \end{tabular}$ Panel spacing (P) shall be uniform for entire truss and between 4'-0" and 5'-0" for Type I-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.
-) All diagonals shall be detailed for minimum offset from the panel point based on the following: Offset shall be such as to provide a ³₄" minimum to 1½" maximum clearance between any diagonal and any horizontal or vertical member, and to provide clearance for U-bolt connections of signs or walkway brackets.

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

F.A.I. ROUTE 270 (I-270), SEC. 60-2RS-3
MADISON COUNTY

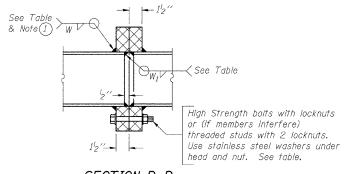
SHEET NO. 2 14 SHEETS

F.A.I. RTE. SECTION COUNTY SHEETS NO. 270 60-2RS-3 MADISON 231 123

CONTRACT NO. 76D87

TRUSS UNIT TABLE

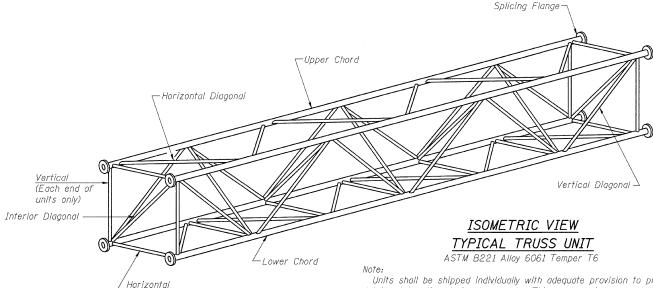
Structure		Design	Exte	rior Units	(2)		Interio	r Unit			& Lower ord		zontals; Vertical, Interior Diagonals	Camber			Splicing	Flange	;	
Number	Station	Truss Type	No. Panels per Unit	Unit Lgth.(Le ,	Panel Lgth.(P)	No. Req'd.	No. Panels per Unit	Unit Lgth.(L;)	Panel Lgth.(P)		Wall	0.D.	Wall	at Midspan	Bolt. No./Splice		Weld W	Sizes W ₁	A	В
8S060I270L003.0	249+50.00	I-A	7	35'-34"	4'-914"		w	-	-	5′′	5 ₁₆ ′′	2/2"	5,6′′	134''	6	78′′	516''	4"	834''	1134"
8S060S003L009.3	1347+50.00	I-A	6	29'-412"	4'-7"	1	6	28'-9"	4'-7"	5′′	516 ′′	21/2"	5/6 ′′	212"	6	78′′	516"	4"	834''	1134''
8S060I270L002.8	31271+50,00	I- A	7	36'-312"	4'-11''	-	-	-	-	5′′	516 ′′	21/2"	5/6 ′′	134''	6	78''	5/6	4"	834''	1134''
8S060S003R008.6	1370+32.00	<i>I-A</i>	6	30'-1012'	4'-10''	-	_	-	-	5′′	4"	2/2"	14"	14"	6	78′′	5/6 ′′	4''	834''	1134''
				<u> </u>																



SECTION B-B

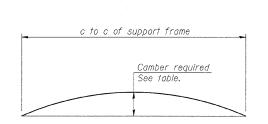
 Splicing Flanges shall be attached to each truss unit with the truss shop assembled to camber shown. Truss units shall be in proper alignment and flange surfaces shall be shop bolted into full contact before welding. Sufficient external welds or tacks shall be made to secure flanges until remaining welds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

DATE



Units 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 units.

ENGINEERS



(Lower Chord - all panel points)

(Upper Chord - each end of each unit only)

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

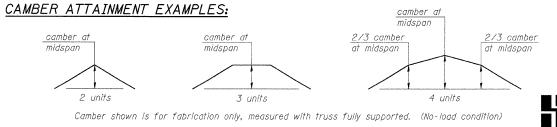
	1
	1

REVISION

DESIGNED	KLH
CHECKED	JJD
DRAWN	KLH
CHECKED	JJD

NUMBER

0S4-A-2 12-1-08





Drill 6 holes 16" larger than bolt diameter.

*Flange I.D.

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

*Flange I.D.

Flange O.D. = B

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 16".

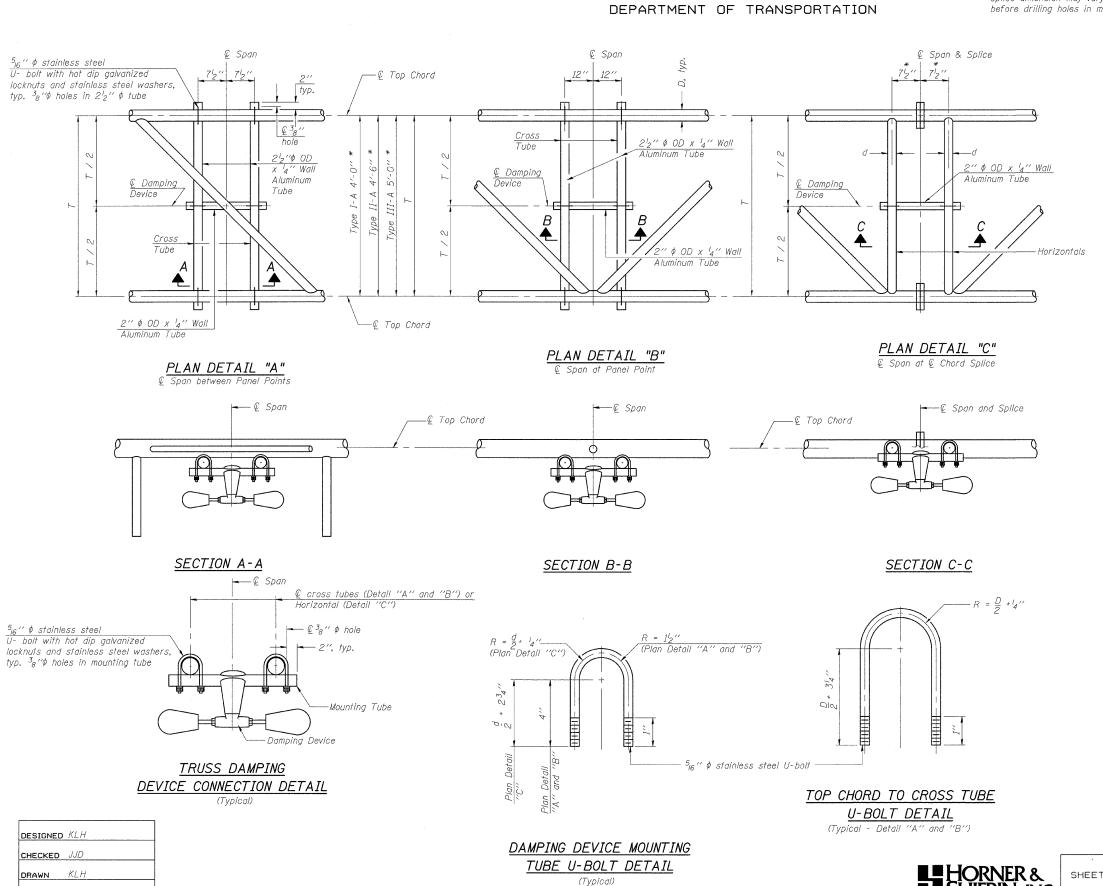
Bolt Circle ϕ =

Drill 8 holes l_{l6}'' larger than bolt diameter.

F.A.I. ROUTE 270 (I-270), SEC. 60-2RS-3 MADISON COUNTY

SHEET NO. 3 14 SHEETS

٦	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
_	270	60-2RS-3	MADISON	231	124
			CONTRACT	NO. 76	D87
		ILLINOIS FED. A	ID PROJECT		
		······································			



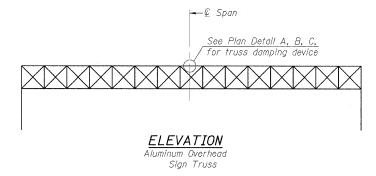
CHECKED JJD

12 - 1 - 08

OS-A-D

STATE OF ILLINOIS

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



<u>NOTES</u>

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...

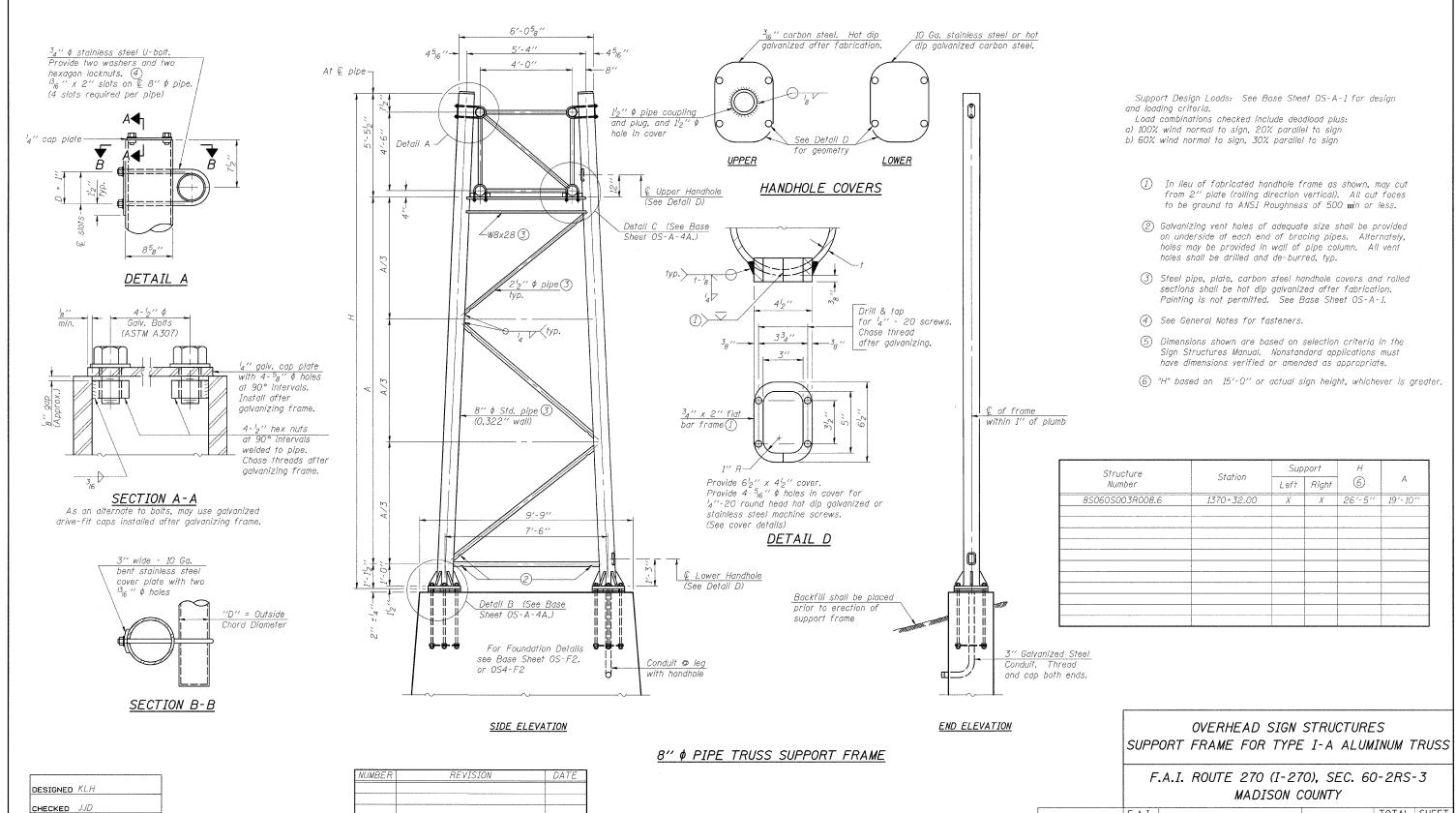
OVERHEAD SIGN STRUCTURE DAMPING DEVICE

F.A.I. ROUTE 270 (I-270), SEC. 60-2RS-3 MADISON COUNTY

SHEET NO. 4	F
	:
14 SHEETS	

ENGINEERS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
270	60-2RS-3	MADISON	231	125
		CONTRACT	NO. 76	D87
	ILLINOIS FED. A	ID PROJECT		



DRAWN KLH

CHECKED JJD

12 - 1 - 08

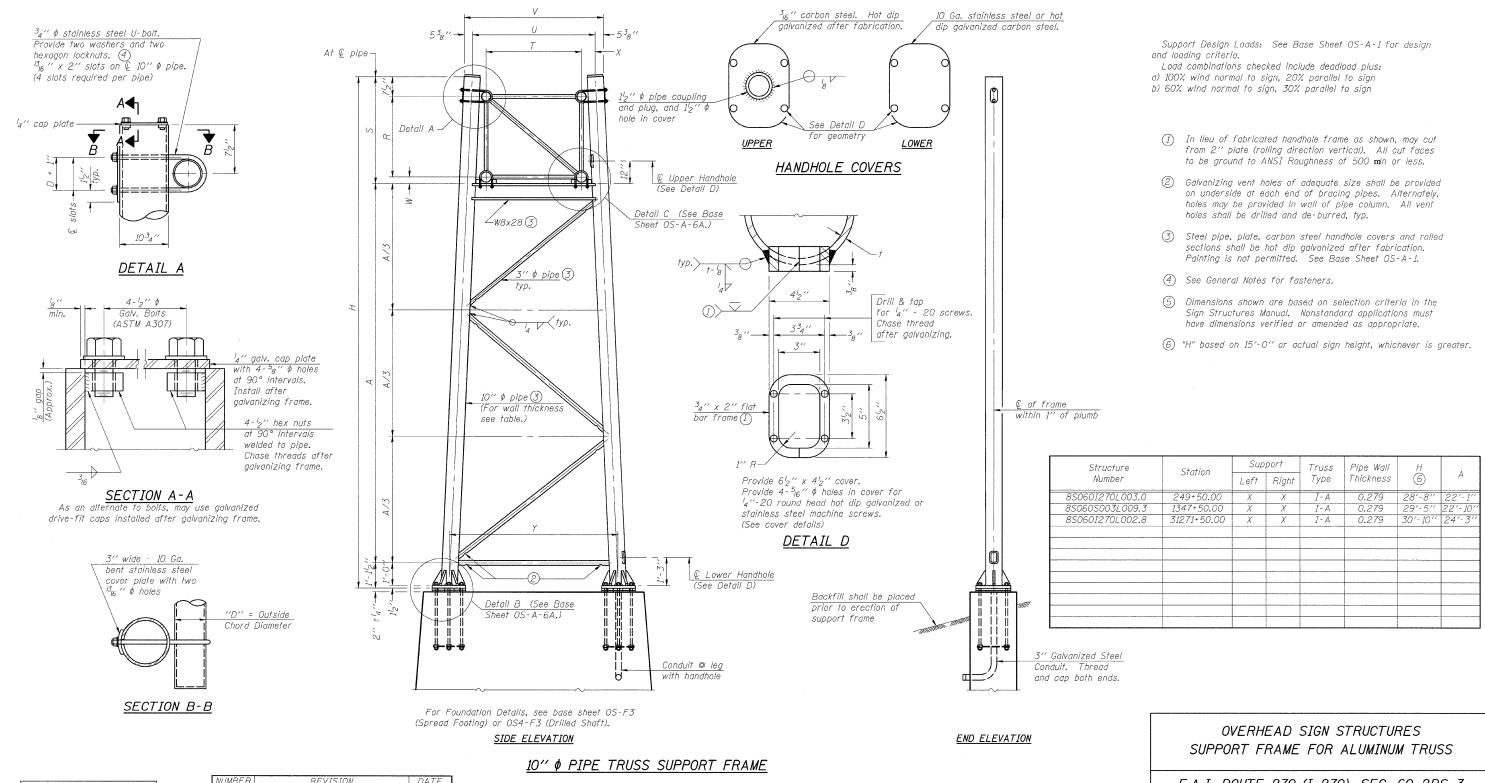
0S-A-4

HORNER & SHIFRIN, INC.

SHEET NO. 5

F.A.I. SECTION COUNTY TOTAL SHEET NO.
270 60-2RS-3 MADISON 231 126

CONTRACT NO. 76D87



DESIGNED	KLH	
CHECKED	JJD .	
DRAWN	KLH	
CHECKED	JJD	
0S-A-6		12 - 1 - 08

NUMBER	REVISION	DATE

Truss	Dimensions									
Туре	R	S	T	U	V	W	Χ	Υ		
I-A	4'-6''	5'-5'2''	4'-0''	5′-6″	6'-434"	4''	9"	8'-3"		
II-A ⑤	5'-3''	6'-34"	4'-6''	6'-1''	6'-11 ³ 4''	434''	912"	8'-3''		

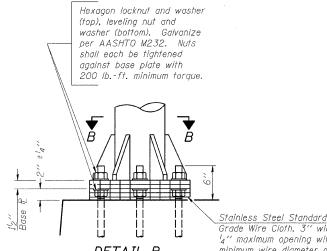
F.A.I. ROUTE 270 (I-270), SEC. 60-2RS-3

MADISON COUNTY

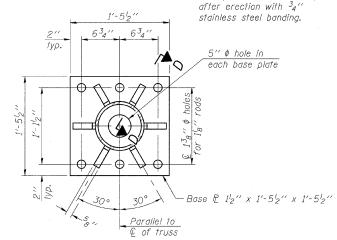


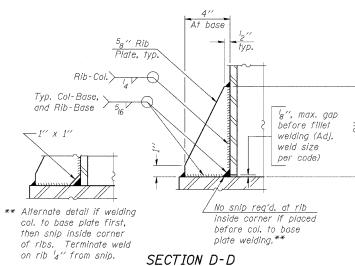
SHEET	NO.6						
14 SHEETS							

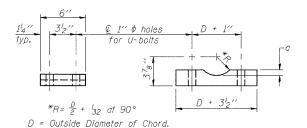
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.						
270	60-2RS-3	MADISON	231	127						
CONTRACT NO. 76D87										
ILLINOIS FED. AID PROJECT										



Grade Wire Cloth, 3" wide, I_{4} " maximum opening with a minimum wire diameter of DETAIL B AWG. No. 16 with a minimum Ribs shall be cut to fit slope of pipe. 2" lap. Secure to base plate







SADDLE SHIM DETAIL Alloy 356-F

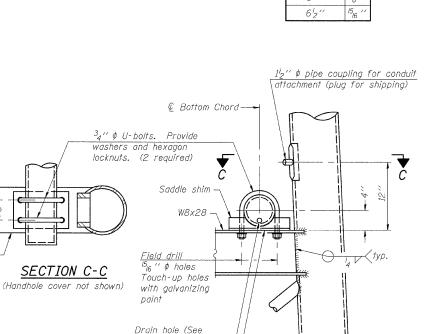
ASTM B209 Alloy 6061-T651 (4 required per sign truss)

Base Sheet OS-A-2.)

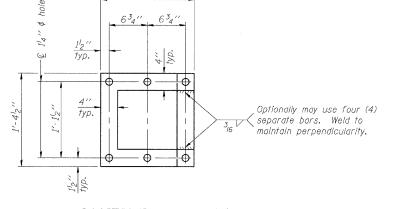
l₈" fabric or

neoprene pad.

Truss Chord Nominal Dia.	а
5′′	34"
5/2"	1316 ′′
6"	78′′
6½''	15 ₁₆ ′′

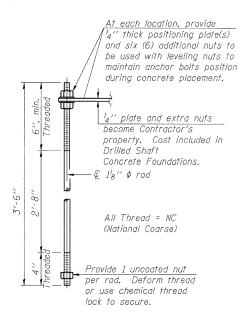


DETAIL C



POSITIONING PLATE(S)

1'-412"



ANCHOR ROD DETAIL Drilled Shaft Foundation

Anchor rods shall conform to AASHTO M314 Grade 36 or 55 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.

Provide 2 uncoated nuts per rod.

Nuts shall be "snug tight" against

All Thread = NC

(National Coarse)

anchor plate.

TYPE I-A TRUSS 8" | PIPE SUPPORT FRAME DETAILS

ANCHOR ROD DETAIL

Spread Footing Foundation

1'-42"

ΙΦ-

8" \$ hole-

Anchor Plate

€ 1'4" \$ holes ---

OVERHEAD SIGN STRUCTURES SUPPORT FRAME DETAILS ALUMINUM TRUSS

F.A.I. ROUTE 270 (I-270), SEC. 60-2RS-3 MADISON COUNTY



SHEET NO. 7 14 SHEETS

TOTAL SHEET SHEETS NO. F.A.I. RTE. SECTION COUNTY 270 60-2RS-3 MADISON 231 128 CONTRACT NO. 76D87 ILLINOIS FED. AID PROJECT

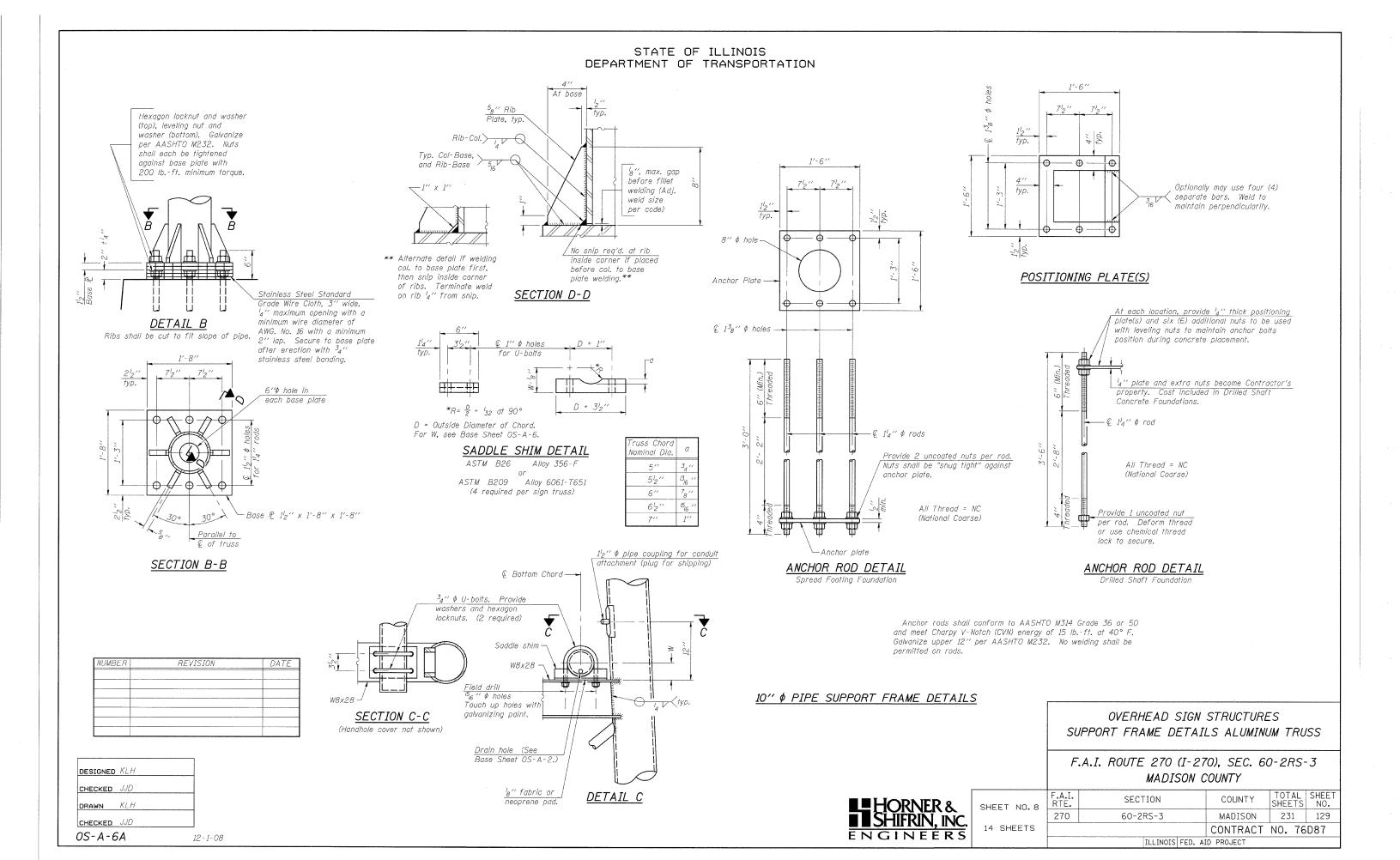
_

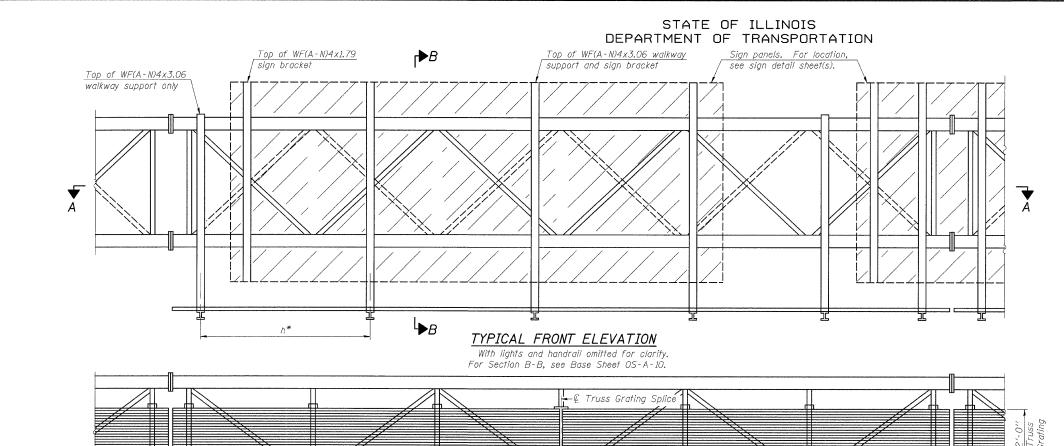
SECTION B-B

DESIGNED KLH CHECKED JJD DRAWN KLH CHECKED JJD

0S-A-4A

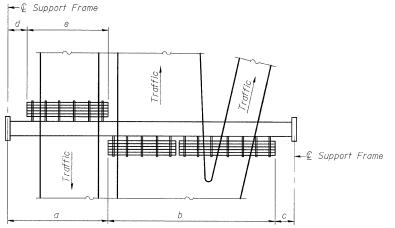
12-1-08





-Grating Tie-downs

– Handrail, see OS-A-11



<u>PLAN</u> 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 V	Sign Width							
Greater Than	Less Than or Equal To	Brackets Required						
	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 Q of nearest bracket)
- g = 12" maximum, 4" minimum (End of walkway grating to ${\mathbb Q}$ of nearest support bracket)
- h = 6'-0'' maximum ($\[@ \]$ to $\[@ \]$ 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 DS-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
	8S060I270L003.0	249+50.00
	8S060S003L009.3	1347+50.00
	8S060I270L002.8	31271+50.00
	8S060S003R008.6	1370+32.00
	V-74074400000000000000000000000000000000	
12 - 1 - 08	<u> </u>	

DATE

** Alternate angle for safety chain attachment

Standard Aluminum Grating, see

Details T and W

NUMBER

DESIGNED KLH

CHECKED JJD

DRAWN KLH

CHECKED JJD

0S-A-9

WF(A-N)4x3.06*

Safety Chain

REVISION

Structure Number	Station	a	b	c	d	е	Walkway Grating and Handrail Lengths
8S060I270L003 . 0	249+50.00	18′	41'	10'	-	-	41'
8S060S003L009.3	1347+50.00	17'	46′	23'	-	-	46'
8S060I270L002.8	31271+50.00	18′	40'	13'	-		40'
8S060S003R008.6	1370+32.00	12'	38′	10'	-	-	38'

₩ Walkway Grating Splice

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 $\pm l_2^{\prime\prime}$ based on available standard widths.

OVERHEAD SIGN STRUCTURES ALUMINUM WALKWAY DETAILS

F.A.I. ROUTE 270 (I-270), SEC. 60-2RS-3 MADISON COUNTY



- WF(A-N)4x1.79*

Light fixture supports.

Length as required for lighting fixtures. (If required)

11 /

← Ç Handrail Joint

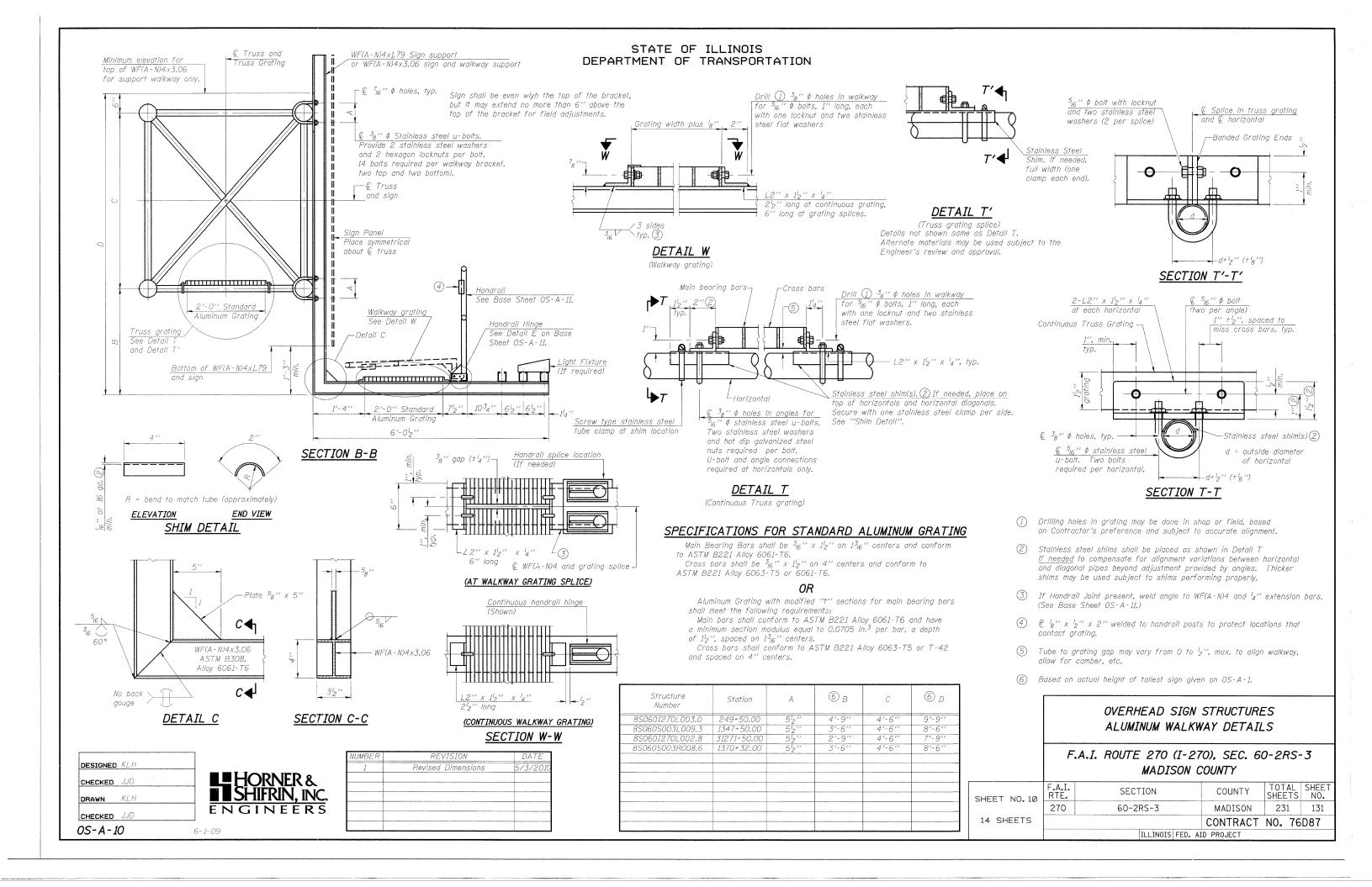
H k = H

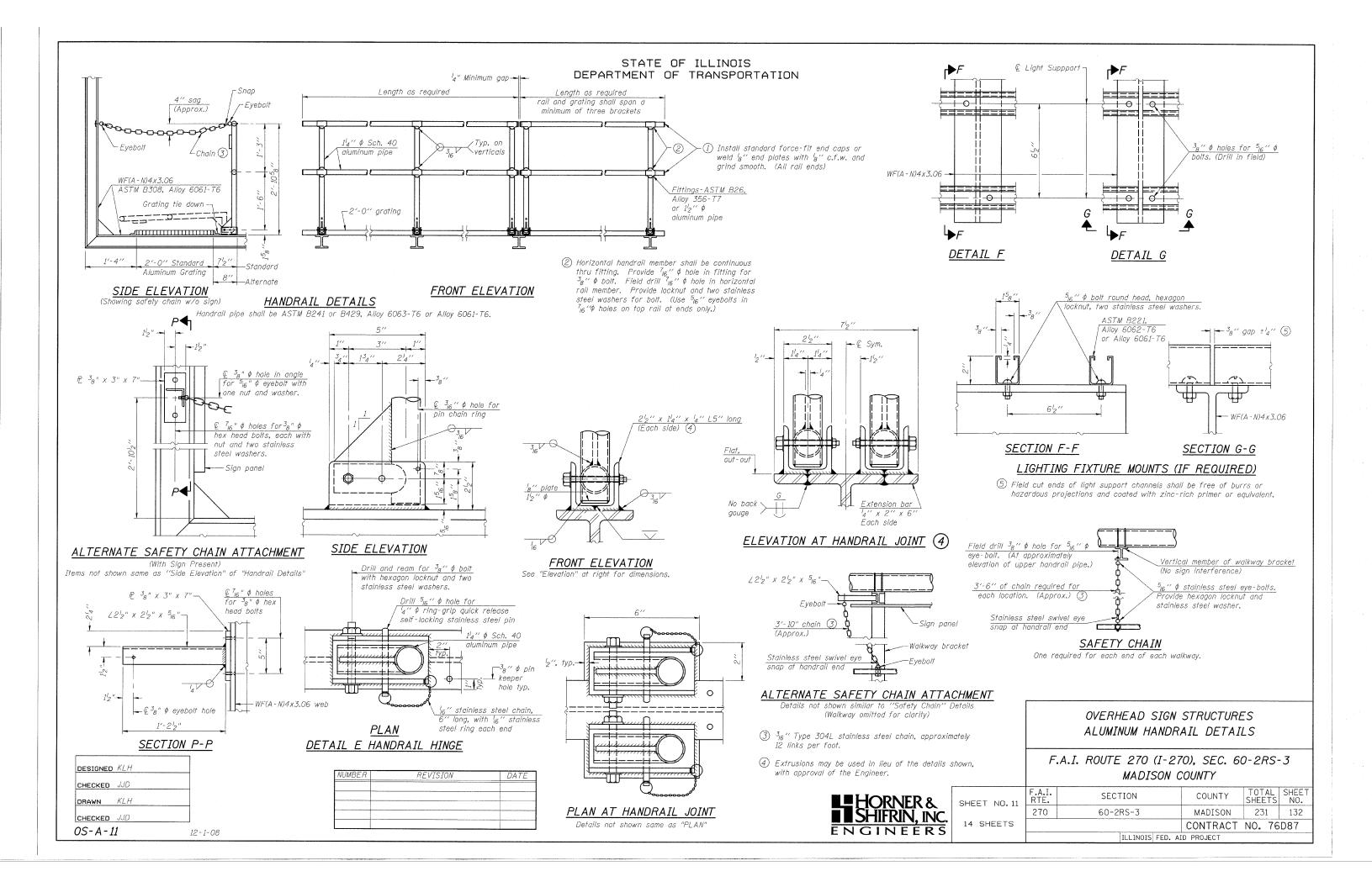
TT

SHEET NO. 9

14 SHEETS

_										
	RTE. SECTION			COUNTY	TOTAL SHEETS	SHEET NO.				
	270	60-2RS-3	MADISON	231	130					
				CONTRACT	NO. 76	D87				
ILLINOIS FED. AID PROJECT										



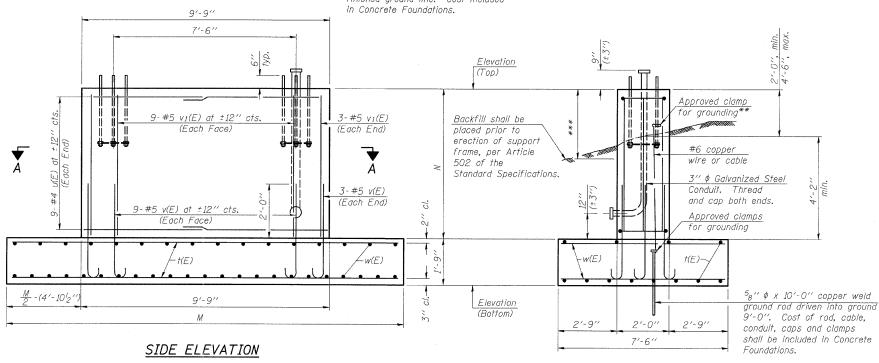


For anchor rod size and placement, see Support Frame Detail Sheet,

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

*** 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 Concrete Foundations.

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION





BAR V(E)

BAR u(E)

BAR LIST - EACH FOUNDATION

Bar	Number	Size	Length	Shape
†(E)	12	#5	*	
u(E)	18	#4	13'-0''	
v(E)	24	#5	4'-1"	
<i>v</i> ₁ (E)	24	#5	*	
w(E)	32	#5	7'-3''	

*Length of t(E) bar = (Dim. M) - 6" $v_1(E)$ bar = (Dim. N) - 3"

END ELEVATION

1/2" cl.— v(E) or v ₁ (E)	4-#5 t(E) at ±2'-0" cts. (Top) 8-#5 t(E) at ±12" cts. (Bottom) 7'-6"
13-#5 w(E) at ±1'-6" cts. (Top) 19-#5 w(E) at ±12" cts. (Bottom) M	

-5	Ł	С	1	1	0	۱	Ι,	A	-	А	į

Structure Number			Left	Foundation			Class SI			
	Station	Elevation Top	Elevation Bottom	N	М	Elevation Top	Elevation Bottom	N	М	Concrete (Cu. Yds.)
8S060S003R008.6	1370+32.00	419.03	409.82	7′-5″	21'-6''	419.03	408.61	8′-8′′	21'-6''	32.7
										1

The foundation dimensions shown are based on the presence of mostly cohesive soils with an average Unconfined Compressive Strength (Qu) of at least 1.0 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.

During construction, if footing length or width or wall height change by more than 12", or if reinforcement is changed, "as-built" plans shall be prepared and submitted to the District Bureau of Operations for future reference.

DETAILS FOR 8" \$ SUPPORT FRAME

OVERHEAD SIGN STRUCTURES SPREAD FOOTING DETAILS

F.A.I. ROUTE 270 (I-270), SEC. 60-2RS-3 MADISON COUNTY

ENGINEERS

SHEET	NO. 12
14 SI	HEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEE NO.
270	60-2RS-3	MADISON	231	133
		CONTRACT	NO. 76	D87
	ILLINOIS FED. A	ID PROJECT		

DESIGNED KLH CHECKED JJD DRAWN KLH CHECKED JJD 0S-F2 12 - 1 - 08

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

DESIGNED KLH

CHECKED JJD DRAWN KLH

CHECKED JJD

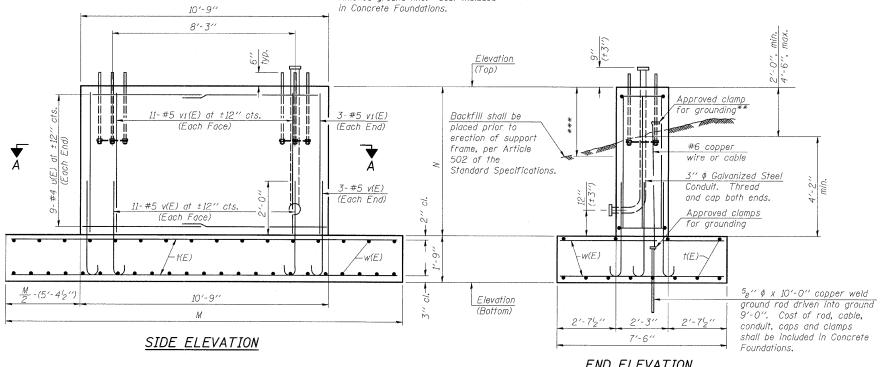
12 - 1 - 08

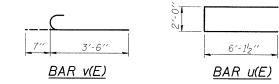
0S-F3

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

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

*** 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





BAR LIST - EACH FOUNDATION

Bar	Number	Size	Length	Shape
†(E)	12	#5	*	
u(E)	18	#4	14'-3''	
v(E)	28	#5	4'-1"	
$v_I(E)$	28	#5	*	
w(F)	.39	#5	7'-3"	

*Length of t(E) bar = (Dim. M) - 6" $v_1(E) \ bar = (Dim, \ N) - 3''$

END ELEVATION

1/2" cl. V(E) or v ₁ (E)	4-#5 t(E) at ±2'-0" cts. (Top) 8-#5 t(E) at ±12" cts. (Bottom) 7'-6"
16-#5 w(E) at ±1'-6'' cts. (Top) 23-#5 w(E) at ±12'' cts. (Bottom) M	

SECTION A-A

Structure Number			Left	Foundation			Class SI			
	Station	Elevation Top	Elevation Bottom	N	М	Elevation Top	Elevation Bottom	N	М	Concrete (Cu. Yds.)
8S060S003L009.3 8S060I270L002.8	1347+50.00 31271+50.00	420.69 423.50	411.27 415.33	7′-8′′ 6′-5′′	21'-6'' 21'-6''	420.69 423.50	412.48 414.17	6'-5 ¹ 2'' 7'-7''	21'-6''	33.7
0500012102002.0	51277 50.00	423,30	413.33	0 - 3	21-0	423.50	414,17	/ / / /	21'-6"	33,6
								~~~		
									f.	

The foundation dimensions shown are based on the presence of mostly cohesive soils with an average Unconfined Compressive Strength (Qu) of at least 1.0 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.

During construction, if footing length or width or wall height change by more than 12", or if reinforcement is changed, "as-built" plans shall be prepared and submitted to the District Bureau of Operations for future reference.

# DETAILS FOR 10" \$ SUPPORT FRAME

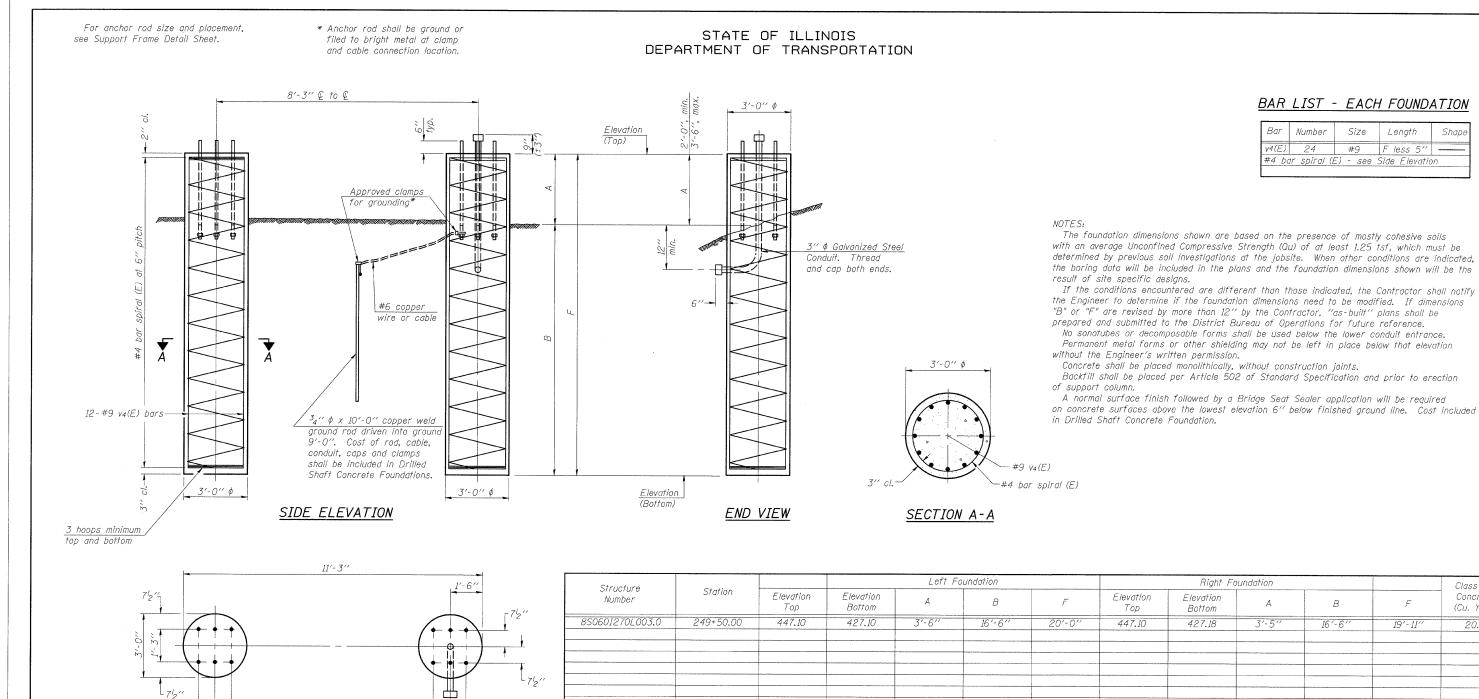
# OVERHEAD SIGN STRUCTURES SPREAD FOOTING DETAILS

# F.A.I. ROUTE 270 (I-270), SEC. 60-2RS-3 MADISON COUNTY

HORNER & SHIFRIN, INC.	S
ENGINEERS	

SHEET NO.13 14 SHEETS

L					
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
270	60-2RS-3		MADISON	231	134
			CONTRACT	NO. 76	D87
	ILLINOIS	FED. A	AID PROJECT		



7/2"-

VUMBER

REVISION

DATE

8'-3"

PLAN

DESIGNED KLH

CHECKED JJD DRAWN KLH CHECKED JJD 0S4-F3

12-1-08

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

# OVERHEAD SIGN STRUCTURES DRILLED SHAFT DETAILS

В

16'-6''

Class DS

Concrete

(Cu. Yds.)

20.9

19'-11''

Right Foundation

3'-5"

Elevation

Bottom

427.18

BAR LIST - EACH FOUNDATION

v4(E) 24 #9 F less 5" #4 bar spiral (E) - see Side Elevation

Size Length

Number

# F.A.I. ROUTE 270 (I-270), SEC. 60-2RS-3 MADISON COUNTY



SHEET	NO. 14
14 SH	HEETS

F.A	۱.I. Έ.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
27	70	60-2RS-3	MADISON	231	135	
				CONTRACT	NO. 76	D87
		ILLINOIS	FED. A	ID PROJECT		



**SOIL BORING LOG** 

Page <u>1</u> of <u>1</u>

ROUTE	18/10
COUNTY         Madison         DRILLING METHOD         CME 75 w/HSA         HAMMER TYPE         Automatic           STRUCT. NO.	/BCR
STRUCT. NO. Station         D E L C O Station         D E L C O S I T W Stream Bed Elev.         fit E L C Stream Bed Elev.         D E L C Stream Bed Elev.         fit E L C S Stream Bed Elev.         D E L C S Stream Bed Elev.         fit E L C S Stream Bed Elev.         D E L C S Stream Bed Elev.         fit E L C S STream Bed Elev.         fit E L C S STream Bed Elev.         Mot observed fit M S Qu ST STRING         Mot observed fit (ft) (/6") (tsf)         Mot observed fit (ft) (/6") (tsf)         Not observed fit (A-3) (continued)         Not observed fit (A-3) (continued)         Mot observed fit (A-3) (continued)         ASPHALT - 22 inches         SAND: Brown, fine (A-3) (continued)         SAND: Brown, fine (A-3) (continued)         SAND: Brown, fine (A-3) (continued)         ASPHALT - 22 inches         ASPHALT - 22 inches <th< td=""><td></td></th<>	
Station         E P O S I T W Station         Stream Bed Elev.         Stream Bed Elev.         It	
Offset Ground Surface Elev.         65.0 ft R Ground Surface Elev.         (ft)         (ft)         (fe)         (tsf)         (%)         Upon Completion After Hrs.         Not observed ft After ft         (ft)         (fe)         (tsf)           ASPHALT - 22 inches        418.1        5         3.0         17	M O I S T
ASPHALT - 22 inches	
FILL: Gray, silty clay 9 3.0 17 5 P 7	(%)
FILL: Gray, silty clay (A-6)  10  11  11  15  17  17  18  7  17  18  7  18  7  18  7  19  10  11  11  12  13  14  15  15  17  18  17  18  18  18  18  18  18  18	
CLAY: Brown (A-7)  3	
(A-7)	
SILTY CLAY: Brown, some sand 413.2. 2 3 1.9 28 4 B 9	
SILT: Brown SAND: Gray, fine to medium	
(A-4)	
- WH	
SAND: Brown, fine 2 <0.25 31 P	
(A-3) <u>—</u>	
333333	
5 6	
2 4 12	

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
AASHTO Classifications are based on visual classifications unless otherwise noted BBS, form 137 (Rev. 8-99)

Boring terminated at 40.0 ft.



# **SOIL BORING LOG**

Page <u>1</u> of <u>1</u>

Date 01/20/10

ROUTE	FAI 270 / I	L Rte 3	DE	SCRI	PTION			Overhead Sign Found	ation I	LOGGI	D BY	SCI	/BCR
SECTION	60	0-2RS-3		l	.OCAT	ION _	Granit	e City, S1/2, <b>SEC.</b> 29, <b>T</b>	<b>NP.</b> 4N, <b>RNG.</b> 9W				
COUNTY	Madisor	DF	RILLING	MET	THOD	***************************************	С	ME 75 w/HSA	HAMMER TYPE		Auto	matic	
STRUCT. NO. Station			-	D E P T	B L O	U C S	M O I	Surface Water Elev. Stream Bed Elev.	ft	D E P T	B L O	U C S	M O I
BORING NO. Station Offset Ground Surfa	13- 5.	47+50 0 ft R		Н	W S (/6")	Qu (tsf)	S T (%)	Groundwater Elev.: First Encounter Upon Completion After Hrs.	- ft		W S (/6")	Qu (tsf)	S T (%)
FILL: Brown, s		421.7			(-,	(,	(70)	SAND: Brown, fine (A-3) (continued)		103	( - /	(00.)	(/-/
FILL: Brown, o (A-7)					3 5 6	3.8 B	26	Trace coal			4 6 11		
CLAY: Brown (A-7)			418.7		1	4.0	24				2		
CLAYEY SILT: (A-4)	Brown		416.9	-5	4 4	1.8 B	34			-25	3 7		
					WH 1 3	0.5 P	32	Gray			2 4 9		
					WH 1	<0.25	39	Fine to medium		-	5 8		
SAND: Brown	, fine		411.2	-10 <b>Y</b>	2	Р				-30	18		
(A-3)					2 3 4								
					2						1 2		
				-15	3					-35	3		
					5 8								
			-		4 9						4 7		
				-20	10			Boring terminated at 4		7 -40	15		

Boring terminated at 40.0 ft.

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
AASHTO Classifications are based on visual classifications unless otherwise noted
BBS, form 137 (Rev. 8-99)

78.t				
H H	FILE NAME =	USER NAME = sdonahue	DESIGNED -	REVISED -
štve:	1:\0906600\0906601\cad\t_plans\085_D87	D87-Sht-OSS-BLog.dgn	DRAWN -	REVISED -
_		PLOT SCALE = 50.0023 '/ IN.	CHECKED -	REVISED -
LOT TOT		PLOT DATE = 3/16/2010 11:42:00 PM	DATE -	REVISED -

SCALE: NONE SHEET NO. 1 OF 6 SHEETS STA.

SIGN STRUCTURE PLANS BORING LOGS

F.A.I. RTE. 270 COUNTY TOTAL SHEET NO. MADISON 231 136 SECTION 60-2RS-3 CONTRACT NO. 76D87 ILLINOIS FED. AID PROJECT

(P)	Illinois Department of Transportation
	Division of Highways
	SCI Engineering

# **SOIL BORING LOG**

Page <u>1</u> of <u>1</u>

SCI Engine	ering							Date	01/	15/10
FAI 270 / IL Rte 3	DESC	RIPTION	١		Overhead Sign Found	dation LC	OGGE	D BY	SCI	BCR_
SECTION 60-2RS-3		LOCA	TION .	Granit	e City, S1/2, <b>SEC.</b> 29, 1	TWP. 4N, RNG. 9W				
COUNTY Madison DRILL	JNG ME	THOD		C	CME 75 w/HSA	HAMMER TYPE		Auto	matic	
STRUCT. NO.           Station           BORING NO.         B-SP8           Station         31272+42           Offset         34.0 ft L	P T H	U W S	U C S Qu (tsf)	M O I S T	Upon Completion	ftft	DEPTH (ft)	B L O W %	U C S Qu (tsf)	M O I S T
Ground Surface Elev. 423.5  CRUSHED ROCK - 12 inches	π ("	, (10)	(131)	(70)	After Hrs. SANDY SILT: Brown		(14)	(,0 )	(131)	(70)
FILL: Brown, clay (A-7)	22.5	2 2 3	1.9 B	37	(A-4) (continued)  SAND: Brown, fine s (A-3)	402.3 eand		2 1 2		
		3 4 5 6	2.8 B	30	Some clay SANDY SILT: Gray (A-4)		-25	1 2 3	0.5 P	31
		2 4 5	2.5 B	40	SAND: Gray, fine (A-3)	398.0		8 10 10		
CLAY: Gray		2 3 0 5	2.1 B	33			-30	4 8 8		
CLAY: Gray (A-7) Brown		2 4 5	2.2 B	33						
Gray and brown	-1	1 2 5 3	0.5 B	33			-35	10 8 7		
SILTY SAND: Brown	06.0	1 2 3	1.2 B	35						
(A-2) Atterberg Limits (18.5-20.0 ft): Liquid Limit = 29, Plastic Limit = 28, Plasticity Index = 1	)4.8	WH 1 1	<0.25 P	33	Fine to medium	383.5	-40	4 7 8		

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
AASHTO Classifications are based on visual classifications unless otherwise noted BBS, form 137 (Rev. 8-99)



# **SOIL BORING LOG**

Page  $\underline{1}$  of  $\underline{2}$ 

Date 01/14/10

ROUTE	FAI 270 / IL Rte 3	DE	SCRI	PTION			Overhead Sign Foundation L	.OGGI	ED BY	SCI	/BCR
SECTION _	60-2RS-3		ι	LOCAT	TION _	Granit	e City, S1/2, SEC. 29, TWP. 4N, RNG. 9W				
COUNTY	Madison	DRILLING	MET	THOD		C	ME 75 w/HSA HAMMER TYPE		Auto	omatic	
Station BORING NO.	B-SP9	<del></del>	D E P T	B L O W	UCS	M O I S	Surface Water Elev. ft Stream Bed Elev. ft Groundwater Elev.:	D E P T	B L O	U C S	M O - S
Station Offset	31272+40 0.0 ft R face Elev. 417.8		(ft)	S (/6")	Qu (tsf)	(%)	First Encounter 403.3 ft V Upon Completion ft After Hrs ft	(ft)	(/6")	Qu (tsf)	(%)
	lay, some sand, som	ne		( - /	(1)	(,,,	SAND: Brown, fine (A-3) (continued)			,	(/-/
(A-7) FILL: Brown,	sandy silt	416.8		4 4 5	3.1 B	22	CLAYEY SILT: Gray, some sand (A-4)	<u> </u>	WR 1 2	<0.25 P	32
(A-7)	•			1			SAND: Brown, fine (A-3)	<u> </u>	WH		
			-5	3	1.9 B	30	(40)	-25	3	-	
				2			SAND: Gray, fine, some silt (A-2)	3	1		
				3 4	1.3 S/15	38			3 5		
CLAY: Gray	er verter retter server segere delikke somer skaler skaler.	409.8									
(A-7)			-10	1 3 4	2.3 B	32	Brown	-30	6 6 7		
							Gray	and the second			
Brown				2 3 4	2.1 B	34					
Some claye	ey silt			1			Coarser grade of fine sand		9		
			<b>▼</b> -15	3 2	0.5 B	34		-35	11 17		
SAND: Brown (A-3)	n, fine	402.3		1							
	: Brown and gray,	401.3			<0.25 P	28	380. SAND: Gray, fine to medium, trace coarse sand	B			
Hydrometer ar	nd sieve analysis sample from 16.5 to	399.8		WR			(A-3)		4		
SAND: Brown (A-3)	n, fine		-20	3				-40	8 12		

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
AASHTO Classifications are based on visual classifications unless otherwise noted
BBS, form 137 (Rev. 8-99)

DESIGNED -REVISED :\0906600\0906601\cad\t_plans\085_D87-Sht-OSS-BLog.dgn REVISED CHECKED REVISED PLOT SCALE = 50.0023 '/ IN. PLOT DATE = 3/16/2010 11:42:01 PM DATE REVISED

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION SCALE: NONE SHEET NO. 2 OF 6 SHEETS STA.

SIGN STRUCTURE PLANS BORING LOGS

COUNTY TOTAL SHEET NO.

MADISON 231 137 F.A.I. RTE. 270 SECTION 60-2RS-3 CONTRACT NO. 76D87 ILLINOIS FED. AID PROJECT

(P)	Illinois Department of Transportation
/ (v /	Division of Highways
	SCI Engineering

of Trans	porta n of Highway gineering			SC	OIL BORIN	G LOG	Page <u>2</u> of <u>2</u>
	gineering						Date <u>01/14/10</u>
FAI 270 / IL Rte 3	_ DESC	CRIPTION			Overhead Sign Founda	ation L	OGGED BY SCI/BCR
SECTION 60-2RS-3		LOCAT	ION _	Granite	e City, S1/2, <b>SEC.</b> 29, <b>T</b>	<b>NP.</b> 4N, <b>RNG</b> . 9W	
COUNTY Madison DR	ILLING N	METHOD		C	ME 75 w/HSA	_ HAMMER TYPE	Automatic
STRUCT. NO		D B E L P O	U C S	M O I	Surface Water Elev. Stream Bed Elev.	ft ft	
BORING NO.         B-SP9           Station         31272+40           Offset         0.0 ft R		T W H S	Qu	S T	Upon Completion	403.3 ft ▼ - ft	
Ground Surface Elev. 417.8  SAND: Gray, fine to medium, trace coarse sand (A-3) (continued)  SAND: Gray, fine to coarse (A-1)	ft (	(ft) (/6")	(tsf)	(%)	After Hrs.		
	 372.8	6 11 -45 14					
Boring terminated at 45.0 ft.	-						

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
AASHTO Classifications are based on visual classifications unless otherwise noted BBS, form 137 (Rev. 8-99)



ROUTE

**SOIL BORING LOG** 

Page <u>1</u> of <u>2</u>

Date 01/13/10

FAI 270 / IL Rte 3 DESCRIPTION Overhead Sign Foundation LOGGED BY SCI/BCR

SECTION 60-2RS-3		۱	LOCAT	ION _	Granit	e City, S1/2, <b>SEC.</b> 29, <b>TV</b>	VP. 4N, RNG. 9W				
COUNTY Madison	RILLING	MET	THOD	***************************************		CME 75 w/HSA	HAMMER TYPE		Auto	omatic	
STRUCT. NO.   Station   B-SP10   Station   31261+49   Offset   8.0 ft L   Ground Surface Elev.   443.6		D E P T H	B L O W S	U C S Qu (tsf)	M O I S T (%)	Surface Water Elev. Stream Bed Elev.  Groundwater Elev.: First Encounter Upon Completion After Hrs.	ft 406.6 ft ▼ - ft	D E P T H	B L O W S	U C S Qu (tsf)	M O I S T
ASPHALT - 12 inches						FILL: Gray, clay (A-7) (continued)					
FILL: Gray, clay, some sand (A-7)	442.6		7 4 5	2.1 B	24	Some sand			2 5 6	1.5 S/15	30
FILL: Gray, sandy silt, some clay	440.6					FILL: Gray and brown,	420.6				
(A-4)		-5	2 5 6	1.9 S/15	22	(A-7)	olay	-25	2 4 6	1.8 S/15	34
FILL: Gray, sandy silt	438.1					Trace to some sand					
(A-4)  FILL: Gray, clay	436.9		3 6	3.0	20	Prace to some dance			2 5	1.9	23
(A-7)			6	В					7	В	**********
FILL. Gray, silty clay, some sand (A-6)	435.6		1			CLAY: Gray (A-7)	415.6		3		
		-10	2 6	1.4 B	23			-30	4 7	3.0 B	30
Some sandy silt FILL: Gray, sandy clay (A-6) FILL: Brown, sand fine	432.4 431.6		3 9 10	1.3 B	17	CLAYEY SILT: Gray a	4 <u>11.6</u> nd brown				
(A_3)	430.6					(A-4)					
FILL: Gray, silty clay, some sand (A-6)	429 <u>.1</u>		3	2.1	22		409.1		1	0.5	32
FILL: Gray, clay (A-7)		-15	6	В		SANDY SILT: Gray an (A-4)	d brown	<u>-35</u>	3	В	
Some silty clay, some sand, some sandy silt	-		2 5 7	2.8 S/15	21	SILTY SAND: Brown, f	4 <u>06.6</u> fine	Ā			
	-		2			V ( -)			1		
		-20	3	1.0 S/10	28			-40	3		32

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
AASHTO Classifications are based on visual classifications unless otherwise noted BBS, form 137 (Rev. 8-99)

FILE NAME =	USER NAME = sdonahue	DESIGNED -	REVISED -
1:\0906600\0906601\cad\t_plans\085_D87	087-Sht-OSS-BLog.dgn	DRAWN -	REVISED -
	PLOT SCALE = 50.0023 '/ IN.	CHECKED -	REVISED -
	PLOT DATE = 3/16/2010 11:42:02 PM	DATE -	REVISED -

SIGN STRUCTURE PLANS BORING LOGS SCALE: NONE SHEET NO. 3 OF 6 SHEETS STA. TO STA.

COUNTY TOTAL SHEET NO.
MADISON 231 138 F.A.I. RTE. 270 SECTION 60-2RS-3 CONTRACT NO. 76D87 ILLINOIS FED. AID PROJECT



# **SOIL BORING LOG**

Page  $\underline{2}$  of  $\underline{2}$ 

Date	01/13/10

FAI 270 / IL Rte 3	DESC	RIPTION	l		Overhead Sign Found	ation LC	OGGED BY SCI/BCR
SECTION 60-2RS-3	3	LOCAT	TION _	Granit	e City, S1/2, <b>SEC.</b> 29, <b>T</b>	<b>WP</b> . 4N, <b>RNG</b> . 9W	
COUNTY Madison	DRILLING M	ETHOD			CME 75 w/HSA	HAMMER TYPE	Automatic
STRUCT. NO.   Station   B-SP10   Station   31261+49   Offset   8.0 ft L	F	E L O	U C S Qu	M O I S T	Surface Water Elev. Stream Bed Elev.  Groundwater Elev.: First Encounter	ft	
Ground Surface Elev. 443		t) (/6")	(tsf)	(%)	After Hrs.	ft	
SILTY SAND: Brown, fine (A-2) (continued)  SAND: Gray, fine (A-3)	401.6		The state of the s				
Approximately 1 inch of blow-in a sampling depth.		1 3 45 4					
Slightly coarser Approximately 1 inch of blow-in a		4					
sampling depth.  Boring terminated at 50.0 ft.	393.6	4					
	-						
		55					
	-	60					

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
AASHTO Classifications are based on visual classifications unless otherwise noted BBS, form 137 (Rev. 8-99)



**SOIL BORING LOG** 

Page <u>1</u> of <u>2</u>

Date 01/14/10

ROUTE FAI 270 / IL Rte 3	DES	CRI	PTION			Overhead Sign Foundation	LOGGI	ED BY	SCI	BCR
SECTION 60-2RS-3		_ L	.OCAT	ION _	Granit	e City, S1/2, <b>SEC</b> . 29, <b>TWP</b> . 4N, <b>RNG</b> . 9W				
COUNTY Madison DRIL	LING I	MET	HOD	mindroden account oppos	C	ME 75 w/HSA HAMMER TYPE		Auto	matic	
STRUCT. NO		D E P T H	B L O W S	U C S	M O I S T	Surface Water Elev. ft Stream Bed Elev. ft  Groundwater Elev.: First Encounter 405.1 ft	D E P T H	B L O W S	U C S Qu	M O I S T
Offset 52.0 ft L Ground Surface Elev. 442.1	ft	(ft)	(/6")	(tsf)	(%)	Upon Completion ft After Hrs ft	(ft)	(/6")	(tsf)	(%)
FILL: Brown, silty clay, some	441.1					FILL: Gray, clay (A-7) (continued)				
FILL: Gray and brown, clay (A-7)	<u>441.1</u> _		2 1 3	0.8 S/15	34	Brown and gray		2 4 7	1.0 S/10	26
Gray		-5	2 5 6	2.4 B	28	No sand	-25	1 4 6	2.3 S/15	35
FILL: Brown, sandy silt, some clay (A-4)	4 <u>35.6</u> -		2 3 5	0.9 S/10	19			3 5 6	2.5 B	28
FILL: Gray, clay (A-7)	4 <u>34.1</u> _		1 4 6	3.0 B	27	CLAY: Gray (A-7)		2 5 8	3.6 B	29
FILL: Brown, silty clay, some sand,	 4 <u>30.1</u>	-10	2 4 5	3.1 S/15	28	SILTY CLAY: Gray, some sand (A-6)	30			
FILL: Gray, clay, some sand (A-7)	4 <u>29.1</u>	-15	4 6 9	3.5 B	18	SILT: Gray (A-4)	1	WH 2 4	0.4 B	32
FILL: Gray, clay (A-7)	1 <u>26.6</u> –		2 4 6	1.5 B	20		<u>*</u>			
Brown, trace to some sand		-20	2 4 6	1.4 S/15	32	Grayish brown, trace clay	-40	2 3 3	1.0 P	30

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
AASHTO Classifications are based on visual classifications unless otherwise noted BBS, form 137 (Rev. 8-99)

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II CC	FILE NAME = 1:\0906600\0906601\0ad\t_plans\085_D87	USER NAME = sdonahue	DESIGNED ~	REVISED -
IVE	1:\0906600\0906601\cad\t_plans\085_D87	SD87-Sht-OSS-BLog.dgn	DRAWN -	REVISED -
ö	·	PLOT SCALE = 50.0023 '/ IN.	CHECKED -	REVISED -
LOT		PLOT DATE = 3/16/2010 11:42:03 PM	DATE -	REVISED -

SCALE: NONE SHEET NO. 4 OF 6 SHEETS STA.

SIGN STRUCTURE PLANS
BORING LOGS

F.A.I. RTE. 270 COUNTY TOTAL SHEET NO. MADISON 231 139 SECTION 60-2RS-3 CONTRACT NO. 76D87 ILLINOIS FED. AID PROJECT



# **SOIL BORING LOG**

Page  $\underline{2}$  of  $\underline{2}$ 

Date	01/14/10

ROUTE	N 270 / IL Rte 3	DESCR	RIPTION	·		Overhead Sign Found	ation LC	GGED BY SCI/BC
SECTION	60-2RS-3	1	LOCAT	ION _	Granit	e City, S1/2, <b>SEC.</b> 29, <b>T</b>	<b>WP.</b> 4N, <b>RNG.</b> 9W	
COUNTY	Madison	DRILLING ME	THOD		C	CME 75 w/HSA	HAMMER TYPE	Automatic
STRUCT. NO		E	L O	U C S	M 0 1	Surface Water Elev. Stream Bed Elev.	ft ft	
BORING NO Station Offset	31261+45 52.0 ft L	^H		Qu (tcf)	S T	Upon Completion	405.1 ft ▼	
Ground Surface SILT: Gray	Elev. 442.	1 ft (n	(10)	(tsf)	(%)	After Hrs.		
(A-4) (continued) SAND: Brown, fil (A-3)		400.1						
Sand blow-in at 4 Gray	4 feet.	 397.1 -4	1 4 5 6					
Boring terminated	1 at 45.0 π.		-		٠			
		-5						
				,				
		-5:						
			1					
		-60						

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer) AASHTO Classifications are based on visual classifications unless otherwise noted BBS, form 137 (Rev. 8-99)



**SOIL BORING LOG** 

Page  $\underline{1}$  of  $\underline{1}$ 

Date 02/17/10 FAI 270 / IL Rte 3 DESCRIPTION Overhead Sign Foundation LOGGED BY SCI/BCR 60-2RS-3 LOCATION Granite City, S1/2, SEC. 29, TWP. 4N, RNG. 9W CME 45 w/HSA COUNTY DRILLING METHOD HAMMER TYPE D E P В M O STRUCT. NO. C S C S L O 0 L 1370+15 Station Stream Bed Elev. 0 W BORING NO. Groundwater Elev.: S Qu ·S Qu Station 1370+05 First Encounter Offset 72.0 ft L **Upon Completion** Ground Surface Elev. 414.9 (ft) (/6") (tsf) (ft) (/6") (tsf) (%) After - Hrs. ASPHALT - 12 inches SAND: Gray, fine (A-3) (continued) FILL: Gray, clay Becomes fine to medium 3 2.3 34 4 Ρ 411.9 CLAY: Brown and gray 1.0 В -25 Becomes fine 0.7 36 2 4 SILT: Brown (A-4) Becomes gray and brown <0.25 33 13 Becomes gray, some sand <0.25 32 Ρ With clay deposits 1 <0.25 32 3 SAND: Gray, fine (A-3)

Boring terminated at 40.0 ft.

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
AASHTO Classifications are based on visual classifications unless otherwise noted BBS, form 137 (Rev. 8-99)

WH

WH 4 7

0.5 55

DESIGNED REVISED :\0906600\0906601\cad\t_plans\085_D87 087-Sht-OSS-BLog.dgn DRAWN REVISED PLOT SCALE = 50.0023 '/ IN. CHECKED REVISED PLOT DATE = 3/16/2010 11:42:04 PM DATE REVISED

STATE OF ILLINOIS **DEPARTMENT OF TRANSPORTATION**  SHEET NO. 5 OF 6 SHEETS STA.

SIGN STRUCTURE PLANS BORING LOGS

F.A.I. RTE. 270 SECTION TOTAL SHEETS NO. COUNTY MADISON 231 140 60-2RS-3 CONTRACT NO. 76D87 ILLINOIS FED. AID PROJECT

15



# SOIL BODING LOG

Page  $\underline{1}$  of  $\underline{1}$ 

17.	Divisio SCI En	n of Highway gineering	/s		31	JIL DUKIN	G LOG				
									Date	02/1	7/10
ROUTE	FAI 270 / IL Rte 3	DESC	CRIPTIC	ON		Overhead Sign Found	ation LC	OGGE	D BY	SCI	BCR
SECTION	60-2RS-3		LOC	ATION	Granit	e City, S1/2, <b>SEC.</b> 29, <b>T</b>	WP. 4N, RNG. 9W				
COUNTY	Madison DR	RILLING N	METHO	D	C	CME 45 w/HSA	_ HAMMER TYPE		Auto	matic	
Station _	Ex. 8S0605003R008.6 1370+15	_	D E L L P C T W	C	M O I S	Surface Water Elev. Stream Bed Elev.		D E P T	B L O W	U C S	M O I S
Station	O. B-SP13 1370+24 5.0 ft L		H S		1	11	403.3 ft <u>▼</u> ft	н	S	Qu	Ť
	urface Elev. 415.3	ft	(ft) (/6	") (tsf)	(%)	After Hrs.		(ft)	(/6'')	(tsf)	(%)
FILL: Brow (A-4)	n, silt, trace rock					CLAY: Gray (A-7) (continued)					
			- 2 14		21	SAND: Gray, fine (A-3)			7 10		
performed Boring drille	value of SPT test not - concrete obstruction. ed directly east of storm	412.3	-	P					8		
sewer. FILL: Brow (A-7)	n and gray, clay	******	1 2	1.6	33			-25	1 4 8		
CLAY: Gra	y and brown	_4 <u>09.8</u> _	-5 -					-25	7		
()		James	1 2	1.0	46	A management of the second of			11 17		
SILT: Brow (A-4)	vn and gray	_4 <u>07.3</u> _	1 1		5 30				3 5		
		source	-10 2	P				-30	14		
		<u> </u>	, 1 , 1 3	0.3	30						
Become	s gray		1 1 1	<0.25	5 39			-35	1 1 4		
SAND: Gra	ay, fine	399.8	1								
CLAY: Gra	y	398.3	1 1	0.4	64						
(A-7) SAND: Gra (A-2)	iy, fine	397.3	$\prod_{\lambda}$						5		
		3 <u>95.8</u>	1 1 -20 4	0.4	56		375.3	-40	5 16 24		

Boring terminated at 40.0 ft.

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
AASHTO Classifications are based on visual classifications unless otherwise noted BBS, form 137 (Rev. 8-99)



**SOIL BORING LOG** 

Page <u>1</u> of <u>1</u>

Date 02/18/10

							Overhead Sign Found			:UBY	SUL	BUR
SECTION	60-2RS-3	3	_	OCAT	ION _	Granit	e City, S1/2, <b>SEC.</b> 29, <b>T</b>	<b>WP.</b> 4N, <b>RNG.</b> 9W				
COUNTY	Madison	DRILLING	MET	THOD			ME 45 w/HSA	HAMMER TYPE		Auto	omatic	- Carter Control
STRUCT. NO	Ex. 8C06l270R0 235+25	002.7	D E P	B L O	U C S	M O I	Surface Water Elev. Stream Bed Elev.	ft	D E P	B L O	U C S	М О І
Station	B-SP14 235+55		T H	w	Qu	S	Groundwater Elev.: First Encounter	403.0 ft <b>⊻</b>	H	w s	Qu	S T
	70.0 ft R se Elev. 435		(ft)	(/6")	(tsf)	(%)	Upon Completion After Hrs.	Not observed π - ft	(ft)	(/6")	(tsf)	(%)
FILL: Dark brov ock	vn, sandy silt, sor	ne					FILL: Gray, sandy sil	414.	5			
A-4)				1			(A-4)			4	<b> </b>	
Becomes bro	own, no rock			3	1.0	24				11	1.0	18
				3	Р		Some clay	440		12	S/10	
							CLAY: Gray, some s	and 412.	⊻			
		431.0		1			(A-7)			2	4.0	
FILL: Brown, sil (A-6)	•	430.3		2	1.0 B	30				4 5	1.0 B	31
FILL: Brown, sa	andy silt		5		-				25			
(A-4)										<u> </u>		
				4 5	1.1	19	No sand			1 2	1.4	31
				6	S/10	'				4	В	.
		427.0										
FILL: Brown an (A-7)	d gray, clay			1		-			_	2		
(14.1)				3	1.2	37				3	1.4	49
			-10	3	S/15				-30	3	S/15	
				1			SAND: Brown, fine,	404.	0	1		
				3	1.3	30	(A-2)	Joine on	▼			
				3	S/15					]		
										-		
Becomes gra	av and brown		_	1		<u> </u>				2		
	,			3	1.4	37				2		
			-15	5	S/15	ļ			-35	6		
				-						1		
				2			1			1		
				4	2.1	26		398.	0			
				6	В		SAND: Brown, fine (A-3)					
FILL: Gray, silty		417.0					(,, 0)			1		
(A-2)	Garia		_	4						1		
				8						6		
			-20	6	L		Boring terminated at		0 -40	9		<u></u>

Boring terminated at 40.0 ft.

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)

AASHTO Classifications are based on visual classifications unless otherwise noted

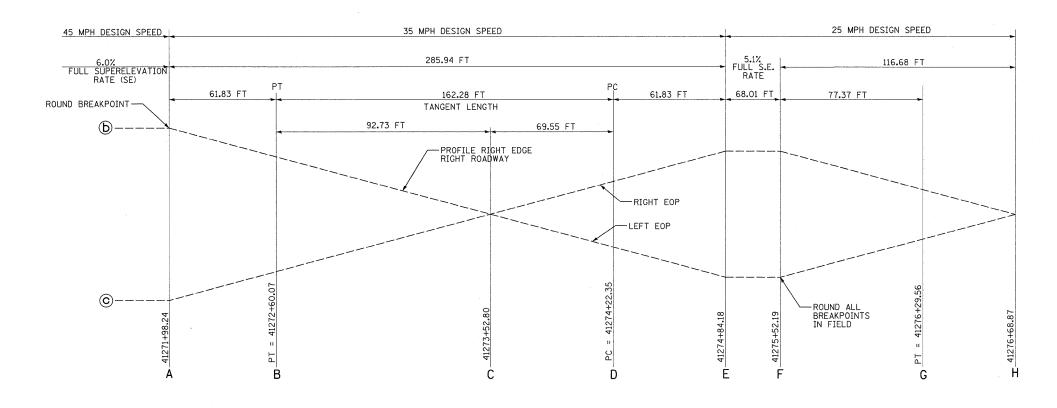
BBS, form 137 (Rev. 8-99)

DESIGNED -REVISED FILE NAME = USER NAME = sdonahue ı:\0906600\0906601\cad\t_plans\085_D87<mark>-D87-Sht-OSS-BLog.dg</mark>n DRAWN REVISED CHECKED REVISED PLOT DATE = 3/16/2010 11:42:05 PM DATE REVISED

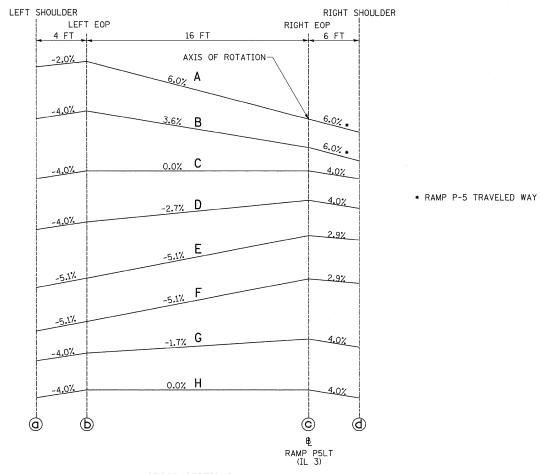
STATE OF ILLINOIS **DEPARTMENT OF TRANSPORTATION**  SCALE: NONE SHEET NO. 6 OF 6 SHEETS STA.

SIGN STRUCTURE PLANS BORING LOGS

COUNTY TOTAL SHEET NO. MADISON 231 141 F.A.I. RTE. 270 SECTION 60-2RS-3 CONTRACT NO. 76D87 ILLINOIS FED. AID PROJECT



#### **ELEVATION**



### SUPERELEVATION DETAILS

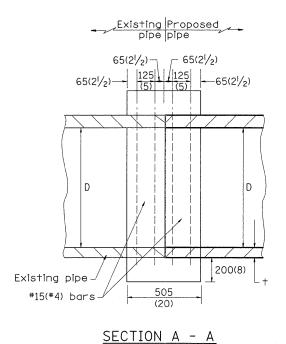
		ELEVATIONS										
	a	Ь	С	d								
Α	424.19	424.27	424.31	423.95								
В	422.58	422.74	422.16	421.80								
С	420.28	420.44	420.44	420.20								
D	418.56	418.72	419.15	418.91								
Ε	417.07	417.27	418.08	417.91								
F	416.59	416.79	417.61	417.44								
G	417.64	417.80	418.07	417.83								
Н	418.32	418.48	418.48	418.24								

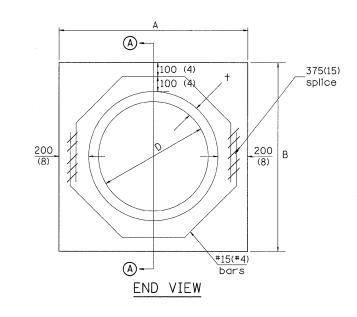
CROSS SECTIONS

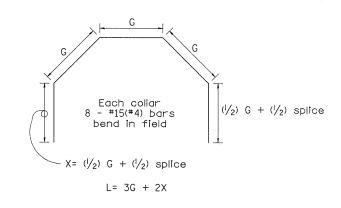
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

HORNER & SHIFRIN, INC.
ENGINEERS
SCALE: NONE

SPECIAL DETAILS
RAMP P5LT SPECIAL SUPERELEVATION TRANSITION
SHEET NO. 1 OF 4 SHEETS STA. TO STA.







				Each Collar							
pro-	W-14-10-10-10-10-10-10-10-10-10-10-10-10-10-					Reinforce	ment Bars				
D	+	А	В	CL. SI CONC.	G	X	L	Weight			
m (in)	m (in)	m (ft)	m (ft)	m ³ (cu. yd)	m (in)	m (in)	m (ft)	kg (lb)			
300 (12)	51 (2.00)	0.814 (2.67)	0.814 (2.67)	0.270 (0.4)	253 (9 ¹⁵ / ₁₆ )	317 (12 7/6)	1.393 (4.57)	11 (24)			
375 (15)	57 (2.25)	0.902 (2.96)	0.902 (2.96)	0.315 (0.4)	290 (11 ³ / ₈ )	335 (13 3/6)	1.541 (5.05)	12 (27)			
450 (18)	64 (2.50)	0.991 (3.25)	0.991 (3.25)	0.362 (0.5)	327 (12 ¹³ / ₁₆ )	354 (13 7/8)	1.689 (5.54)	14 (30)			
525 (21)	70 (2.75)	1.079 (3.54)	1.079 (3.54)	0.411 (0.5)	364 (14 1/4)	372 (14 5/8)	1.836 (6.02)	15 (32)			
600 (24)	76 (3.00)	1.167 (3.83)	1.167 (3.84)	0.460 (0.6)	401 (15 11/16)	391 (15 1/6)	1.984 (6.51)	16 (35)			
675 (27)	83 (3.25)	1.259 (4.13)	1.259 (4.13)	0.516 (0.7)	438 (17 1/4)	409 (16 1/16)	2.131 (6.99)	17 (37)			
750 (30)	89 (3.50)	1.347 (4.42)	1.347 (4.42)	0.570 (0.7)	475 (18 1/16)	428 (16 3/4)	2.279 (7.48)	18 (40)			
825 (33)	95 (3.75)	1.436 (4.71)	1.436 (4.71)	0.624 (0.8)	512 (20 1/8)	446 (17 1/2)	2.426 (7.96)	19 (43)			
900 (36)	102 (4.00)	1.524 (5.00)	1.524 (5.00)	0.682 (0.9)	549 (21 %)	465 (18 3/16)	2.574 (8.44)	20 (45)			
1050 (42)	114 (4.50)	1.701 (5.58)	1.701 (5.58)	0.800 (1.0)	622 (24 1/16)	501 (19 3/4)	2.869 (9.41)	23 (50)			
1200 (48)	127 (5.00)	1.881 (6.17)	1.881 (6.17)	0.930 (1.2)	696 (27 <del>%</del> 6)	538 (21 3/6)	3.164(10.38)	25 (55)			

#### GENERAL NOTES

1. THE COLLAR SHALL BE CONSTRUCTED ENTIRELY OF CLASS SI CONCRETE IN ACCORDANCE WITH THE APPLICABLE PORTIONS OF SECTION 503 OF THE STANDARD SPECIFICATIONS. REINFORCEMENT BARS SHALL CONFORM TO SECTION 508.

3/13/2010		T-NECSV-GT
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AVED	BLE	gazza

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	PLOT SCALE = 50.0023 '/ IN.	CHECKED -	REVISED -	
	PLOT DATE = 3/16/2010 4:44:02 PM	DATE -	REVISED -	

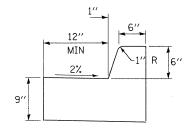
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DEPARTMENT (	OF 1	<b>TRANSPORTATION</b>

HORNER & SHIFRIN, INC.	
SCALE: NONE	5

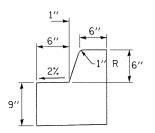
					SPEC CONCRETE	IAL DET COLLAR		S	
SHEET	NO.	2	OF	4	SHEETS	STA.	-	то	STA.

Ľ	RTE. SECTION						COUNTY SHEETS			
	270 60-2RS-3							MADISON	231	14
							T	CONTRACT	NO. 7	6D8
	FED.	ROAD	DIST.	NO.	ILLINOIS	FED.	AID	PROJECT		

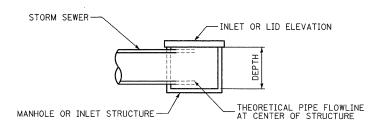
GUTTER FLAG WIDTH VARIES THROUGHOUT THE SPLITTER ISLAND. SEE INTERSECTION DETAILS FOR FURTHER INFORMATION.



### COMBINATION CONCRETE CURB & GUTTER, TYPE B (SPECIAL)

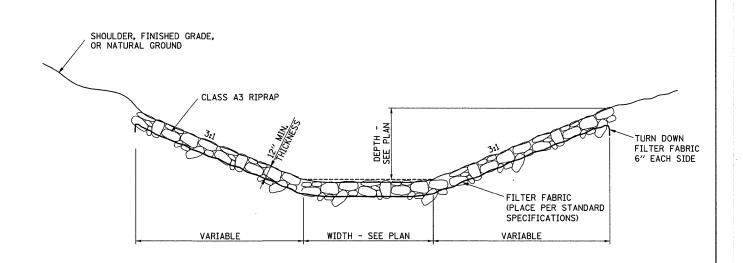


### COMBINATION CONCRETE CURB & GUTTER, TYPE B-6.06 (SPECIAL)



NOTE: CONTRACTOR TO TAKE CARE TO ACCOUNT FOR PIPE THICKNESS WHEN CONSTRUCTING BOTTOM OF MANHOLE / INLET.

# INLET STRUCTURE DETAIL



AGGREGATE DITCH

FILE NAME =	USER NAME = sdonahue	DESIGNED -	REVISED -
1:\0906600\0906601\cad\t_plans\086_D87	087-Sht-Details.dgn	DRAWN -	REVISED -
	PLOT SCALE = 50.0023 '/ IN.	CHECKED -	REVISED -
	PLOT DATE = 3/16/2010 4:44:03 PM	DATE -	REVISED -

STATE OF ILLINOIS

 HORNER & SHIFRIN, INC.	
SCALE: NONE	S

 SPECIAL DETAILS CURB AND GUTTER, INLET STRUCTURES, AND AGGREGATE DITCH								
AND AGGREGATE BITCH								
SHEET NO.	3 OF	4	SHEETS	STA.	TO STA.			

F.A.I. SECTION							COUNTY	TOTAL SHEETS	SHEE NO.
270			60-2	RS-3		MADISON	231	144	
							CONTRACT	NO. T	76D87
FED.	ROAD	DIST.	NO.	ILLINOIS	FED.	AID	PROJECT		

**DEPARTMENT OF TRANSPORTATION** 

